

- **Specifications & Contract Documents**
- **Safety Paths 2026 Repair Program**
-



Charter Township of Oakland

Safety Path & Trails Committee

Andrew Zale, Chairperson
Teresa Mulawa, Vice Chairperson & PC Rep.
Evan Agnello, Secretary
Marisa Kallie, Member
Shane Smith, Member
Emily Campbell, BOT Representative
Jim Quesenberry, Parks & Rec. Representative

Township Manager

Joseph Merucci
4393 Collins Road
Rochester, Michigan 48306
Phone: (248) 651-4440

PEA Group - Project No. 99-0015

Matthew J. Hocking, PE
1849 Pond Run
Auburn Hills, Michigan 48326
Phone: (248) 689-9090



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END OF SECTION

INVITATION FOR BIDS

**CHARTER TOWNSHIP OF OAKLAND
OAKLAND COUNTY, MICHIGAN**

**SAFETY PATHS 2026 REPAIR PROGRAM
JOB NO. 99-0015**

Sealed proposals will be received by the Charter Township of Oakland at the office of the Township Clerk, 4393 Collins Road, Rochester, Michigan 48306 until **2:00 P.M.** local time (EST), on **Tuesday, April 14, 2026** for construction of this project. Proposals are to be delivered to the Township Clerk's Office in a sealed envelope marked on the outside as described in the Instruction to Bidders. The submission of electronic proposals will not be accepted.

Project Description:

The project consists of crack repair and patch repair and removal of vegetation overgrowth for existing asphalt and concrete safety paths for various locations within the Township. The existing asphalt paths will also have placement of a fog sealcoating.

The specification and contract documents under which the work is to be performed are on file and may be examined at the following locations:

Charter Township of Oakland
4393 Collins Road
Rochester, Michigan 48306

Or

PEA Group
1849 Pond Run
Auburn Hills, MI 48326

Digital copies of the bid package (specification and contract documents) are accompanied with this invitation. Hard copies may be obtained from **PEA Group, 1849 Pond Run, Auburn Hills, Michigan 48326** at no cost to the bidder. An in-person **mandatory** pre-bid meeting will be held at the Township Hall on **Monday, March 23, 2026 at 10:00 a.m.** Site visits to the various path locations may occur during this meeting, if requested by the bidders.

Each proposal shall be accompanied by a certified check or acceptable bid bond for a sum not less than five percent (5%) of the proposal amount. All questions regarding clarification or interpretation of the bidding/contract documents shall be directed to Matthew J. Hocking, PE of PEA Group by the following means: Office: (248) 689-9090 and e-mail: mhocking@peagroup.com.

The right is reserved by the Owner to accept any proposal, to reject any proposal, and to waive irregularities in proposals. No bid may be withdrawn after the above date and time for receiving bids for a period of one-hundred-twenty (120) days.

Charter Township of Oakland
Karen Reilly, Township Clerk

NOTICE TO BIDDERS

TO ALL PROSPECTIVE BIDDERS

**PLEASE COMPLETE ALL PARTS
OF YOUR BIDDING DOCUMENTS
INCLUDING ACKNOWLEDGMENT OF
RECEIPT OF ANY ISSUED ADDENDA**

**IMPROPERLY SIGNED BIDS
OR FAILURE TO COMPLETE ALL SECTIONS
OF THE DOCUMENT
MAY RESULT IN THE REJECTION OF YOUR BID**

INSTRUCTIONS TO BIDDERS

1. SCOPE OF WORK

The work under this Contract shall consist of the items contained in the Proposal, including all incidentals necessary to fully complete the project in accordance with the Contract Documents.

This project is located in Oakland Township.

Please note the following requirements:

- A. State or federal funds are not being used to assist in construction and relevant State or federal requirements will not apply.
- B. Communities must comply with all requirements of 1976 PA 453 (Elliott-Larsen Civil Rights Act) and 1976 PA 220 (Persons with Disabilities Civil Rights Act), as amended. In accordance with these laws, all contracts must contain a covenant that “The contractor and any subcontractors shall not discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, marital status or a disability that is unrelated to the individual’s ability to perform the duties of a particular job or position.”

2. RECEIPT OF OPENING OF BID PROPOSALS

- A. Sealed bid proposals will be received as indicated in the Invitation for Bids.
- B. The Proposal shall be submitted only on forms provided by the Owner. All blank spaces for bid prices must be filled in, in ink or typewritten, and the bid form must be fully executed when submitted.
- C. Proposals shall be enclosed in a sealed envelope marked:

Office of the Township Clerk
Charter Township of Oakland
4393 Collins Road
Rochester, Michigan 48306
Project: Safety Paths 2026 Repair Program
Proposal Deadline: 2:00 pm on **Tuesday, April 14, 2026**
Attention: Township Clerk

and shall be delivered to the Office of the Township Clerk on or before the time specified in the Invitation for Bids.

Each sealed envelope shall bear on the outside the Bidder’s name and address.

- D. Proposals shall be made in full conformity with the instruction, requirements and conditions set forth in the Instructions to Bidders and in the Drawings, Specifications and other Contract Documents. Bids are firm and no bid may be withdrawn for a period of 120 days after opening of bids.
- E. Any bid received at the office designated in the solicitation after the exact time specified for receipt will not be considered and will be returned to the bidder unopened. This material requirement is not subject to waiver by Owner.
- F. Bidders are strongly encouraged to hand-deliver their bids to the Office of the Township Clerk. Telegraphic and facsimile bids shall not be considered. Bids delivered by certified, registered or express mail will be accepted, however, subject to the following conditions:
- 1) If by express mail, a bid must be postmarked not later than 5:00 pm at the place of mailing two working days prior to the date specified for receipt of bids. The term working days excludes weekends and holidays.
 - 2) If by certified or registered mail, a bid must be postmarked not later than five (5) calendar days before the date specified for receipt of bids.
 - 3) Before 2:00 pm local time, on the date specified for receipt of bids, bidders who did not hand deliver their bids must confirm via telephone with the Township Clerk, or her designee, that their bids have been received by the Office of the Township Clerk.
- G. If a dispute later arises regarding the timeliness of a late bid which is sent either by registered or certified mail, the only acceptable evidence to establish the date of mailing of a late bid is a postmark both on the bid envelope or wrapper and on the original receipt from the U.S. Postal Service. Both postmarks must show a legible date, or the bid shall be deemed to have been mailed late. The term postmark means a printed, stamped, or otherwise placed impression (exclusive of a postage meter machine impression) that is readily identifiable without further action as having been supplied and affixed on the date of mailing by employees of the U.S Postal Service. Therefore, Bidders should request that the postal clerk place a legible hand cancellation bull's-eye postmark on both the receipt and the envelope.
- H. The only acceptable evidence to establish the date of mailing of a late bid sent by express mail is the date entered by the express mail receiving clerk on the express mail label and the postmark on the envelope or wrapper and on the original receipt from the express mail service. Postmark has the same meaning as set forth above. Therefore, bidders should request that the express mail clerk place a legible hand cancellation bull's-eye postmark on both the receipt and the envelope.

3. MANDATORY PRE-BID MEETING

A mandatory in-person pre-bid meeting will be held on **Monday, March 23, 2026 10:00 am** at the Charter Township of Oakland Hall Building, 4393 Collins Road, Rochester, Michigan, 48093 to discuss the project with a possible site visits to the various path locations, if requested.

4. **PROJECT TIMELINE**

It is agreed that the Contractor shall, upon execution of this contract, begin work within ten (10) consecutive calendar days from the date of the notice to proceed, and shall prosecute the work in such a manner so as to complete the installation of all proposed improvements by **Tuesday, June 30, 2026**.

5. **CONSTRUCTION CONDITIONS**

It is required that each bidder will examine the drawings and specifications for this work and make a personal examination of the site of the proposed work and its surroundings. It is also expected that he will obtain first-hand information concerning the available facilities for receiving, transporting, handling and storing construction equipment and materials and concerning other local conditions that may affect this work.

6. **QUALIFICATIONS OF BIDDERS**

Any bidder being considered for award of this contract shall be subject to the following:

- A. The Bidder declares that he has had prior experience in the type of work required by the Contract Documents and that he has the necessary finances, personnel and working organization and equipment available to execute the proposed work in accordance with the requirements of the Contract Documents. The Bidder further declares that he will furnish proof of these qualifications and work performance references. The Bidder shall provide a resume and references to the Owner demonstrating the Bidder's ability to satisfy the requirements as set forth in these Contract Documents.
- B. All bidders must sign the proposal section titled "Progress Schedule" indicating the calendar days within which the work must be completed. Also, within ten (10) days after the contract is awarded by the Owner, the Contractor who shall submit to the Engineer four (4) copies of a Construction Progress Schedule. Such Schedule shall comply with the requirements set forth in Item 15 PROGRESS SCHEDULE of the GENERAL SPECIFICATIONS.
- C. Upon request, the Owner may require the submission of any additional information necessary and the Contractor shall attend a pre-award conference to satisfy the Owner that the bidder is adequately prepared to fulfill the Contract.

7. **NAME, ADDRESS AND LEGAL STATUS OF BIDDER**

The name and legal status of the bidder, that is, as a corporation, limited liability company, partnership, sole proprietor, or an individual shall be stated in the proposal. A corporation bidder shall name the state in which its Articles of Incorporation are held, and must give the title of the official having authority, under the by-laws, to sign contracts; a partnership bidder shall give the full names and addresses of all partners. Anyone signing a proposal as an agent of another or others must submit with his proposal legal evidence of his authority to do so. The place of residence of the bidder, or the office of others in the case of a firm or company with county and state, must be given after his signature.

8. BID DEPOSIT

Each proposal must be accompanied by a bid deposit in the form of an acceptable bid bond or a certified check or cashier's check drawn upon a US bank for a sum of not less than five percent (5%) of the amount of the proposal as a guarantee on the part of the bidder that he will, if called upon to do so, enter into contract in the attached form, to do the work covered by such proposal and at the prices stated therein and to furnish acceptable surety for its faithful and entire fulfillment. Such bid bond, certified check or cashier's check shall be made out to the Owner, and shall be subject to the conditions specified in the contract documents.

ANY PROPOSAL NOT ACCOMPANIED BY THE SPECIFIED BID DEPOSIT WILL BE CONSIDERED NON-RESPONSIVE AND WILL NEITHER BE READ NOR CONSIDERED.

- A. The bid deposit checks (or bid bonds if applicable) of all except the three lowest bidders may be obtained at the office of the Engineer (PEA Group) between the hours of 9:00 A.M. and 4:00 P.M. on the normal working day, the day after the opening of bids after which time said checks or bid bonds will be mailed.
- B. Any bid deposit checks of the three lowest bidders may be obtained at the office of the Engineer during regular hours of any working day after 9:00 A.M. of the day following the opening of bids upon written request and the submission of a Bid Bond in the amount of at least five percent (5%) of the amount of the proposal, and approved by the Owner or Municipality.
- C. The bid deposit checks (or Bid Bond if applicable) of the three lowest bidders will be returned within three (3) working days after the Owner and the accepted bidder have entered into contract or, if the contract has not been executed within the time limits as specified in paragraph #12, IB-5, after the opening of bids, upon demand of the bidder at any time thereafter, so long as he has not been notified of the acceptance of his bid.

9. FORM OF PROPOSAL

All proposals must be made and signed by the bidder in the form attached hereto and without removal from the bound specifications. Additional copies of the Proposal Form may be obtained from the Township Engineer or Owner upon request.

All prices stated in the proposal must be plainly written in ink in legible figures or typed. Illegibility of any figure in the proposal may be sufficient cause for rejection of the proposal by the Owner.

10. BASIS OF PROPOSAL

Proposals are solicited on the basis of lump sum base bid for all of the work as set forth in the form of Proposal. Proposals will be compared on the basis of the quantities stated therein and the prices offered for each item. The written price in words shall be used to determine the amount of the lump sum base bid.

11. EXPLANATION TO BIDDERS BY ADDENDUM

- A. Neither the Owner nor the Township Engineer will give verbal answer to inquiries regarding the meaning of the drawings or specifications, or give verbal instructions previous to the award of the contract. Any verbal statements regarding same by any person, previous to the award, shall be unauthoritative.
- B. Explanations desired by bidders shall be requested of the Owner or Engineer in writing and if explanations are necessary, a reply will be made in the form of an addendum, a copy of which will be forwarded to each bidder.
- C. Addenda issued to bidders shall become a part of the specifications and contract documents, and all proposals shall include the work described in the addenda. The bidders are hereby instructed to acknowledge receipt of all addenda on page P-1 of the Proposal.
- D. No inquiry received within three (3) days of the date fixed for the deadline of bids will be given consideration.
- E. Failure of the Owner to send, or of the bidder to receive, any such interpretations shall not relieve the bidder from obligation under his bid as submitted.
- F. It is the Contractor's responsibility to track addendums. Addendums will be posted at the same locations as the original bid notification including MITN and the Township Website.

12. AWARD AND EXECUTION OF CONTRACT

The Contract shall be deemed as having been awarded when formal notice of award shall have been duly served by the Owner upon the bidder.

The bidder to whom the contract shall have been awarded will be required to execute the Agreement in the form attached hereto and to furnish Surety and Insurance Certificates, all as required. In case of his refusal or failure to do so within ten (10) calendar days after award, he will be considered to have abandoned all his rights and interests in the award, and his bid deposit may be declared forfeited to the Owner as liquidated damages and the work may be awarded to another bidder.

13. GUARANTY BONDS

In addition to the bid bond or bid deposit, the contractor shall furnish the Owner the following bonds (templates provided at end of these contract documents) prior to the contract being executed:

- A. The Contractor shall furnish a surety bond in an amount at least equal to 100 percent of the contract price as security for faithful performance of this contract.
- B. The Contractor shall also furnish a separate surety bond in an amount at least equal to 100 percent of the contract price as security for payment of all persons performing labor, furnishing materials and/or renting equipment in connection with this contract.

- C. The Contractor shall furnish a two (2) -year Maintenance and Guarantee Bond in an amount at least equal to 100 percent (100%) of the contract price.
- D. Premium for the three bonds heretofore described shall be paid by the Contractor.
- E. The form of the bonds shall be as appended herewith.
- F. The Contractor shall provide liability insurance and bond in an amount specified by the Owner (Township) pursuant to and in accordance with MCL Section 129.201 et seq., MSA Section 5.2321 (1) et seq. The Contractor shall provide satisfactory evidence that the corporate surety and the insurer are licensed and/or approved to conduct business in the state of Michigan. Such evidence shall include a certified copy of the certificate of authority issued by the Insurance Licensing Division of the Insurance Bureau.

14. INSURANCE

Proof of all required insurances, as stated in Section 47 of the General Conditions shall be provided with the bid proposal. For all contracts over \$600, also include a completed W9. All sole proprietors must submit a completed and notarized Sole Proprietor Form.

15. RIGHT TO ACCEPT, TO REJECT AND TO WAIVE DEFECTS

The Owner reserves the right to accept any proposal, to reject any or all proposals, and to waive defects or irregularities in any proposal. In particular, any alteration, erasure or interlineation of the Contract Documents and of the Form of Proposal shall render the accompanying proposal irregular and subject to rejection by the Owner.

16. WITHDRAWAL OF BIDS

Any bidder who has submitted a proposal to the Owner may withdraw his bid in writing received by the Township Clerk at any time prior to the scheduled time for the receipt of bids. Unless otherwise stated in the Supplemental Specifications contained herein, no bidder may withdraw his bid after the time stated in the advertisement for opening bids for a period of one-hundred-twenty (120) days thereafter.

17. TAXES

The Contractor shall include and be deemed to have included in his bid and contract price all Michigan sales and use taxes currently imposed by legislative enactment and as administered by the Michigan Department of Revenue on the bid date.

If the Contractor is not required to pay or bear the burden, or obtains a refund or drawback, in whole or in part, of any Michigan sales or use tax, interest or penalty thereon, which was required to be and was deemed to have been included in the bid and contract price, the contract price shall be reduced by the amount thereof and the amount of such reduction, whether as a refund or otherwise, shall inure solely to the benefit of the Charter Township of Oakland.

18. DRAWINGS AND CONTRACT DOCUMENTS

The construction documents and exhibits upon which the proposal shall be based consist of the following:

- *Appendix A – Pathway Exhibits*
- *Appendix B – Construction Repair Details & Specifications*

19. CONSTRUCTION PERMITS, ROAD PERMITS, MISCELLANEOUS PERMITS

The project requires construction work within the following jurisdictions:

Charter Township of Oakland
Oakland County Water Resources Commissioner (OCWRC)
Road Commission for Oakland County

The Contractor shall conform to the various requirements of the jurisdictional agency within which work is being performed and shall obtain, at his own expense, all permits required.

The Oakland County Water Resources Commissioner has jurisdiction over work at the following locations: All Erosion Control.

The Road Commission for Oakland County has jurisdiction over any work performed within public road rights-of-way.

**PROPOSAL
FOR THE CONSTRUCTION OF THE
Safety Paths 2026 Repair Program**

**CHARTER TOWNSHIP OF OAKLAND
OAKLAND COUNTY, MICHIGAN**

**TO: Charter Township of Oakland
4393 Collins Road
Rochester, Michigan 48306**

The undersigned, having familiarized themselves with the local conditions affecting the cost of the work and with the Contract Documents, including the Invitation to Bid, Instructions to Bidders, Proposal, Specifications, General Conditions, The Agreement, Bonds and Drawings on file in the office of the Charter Township of Oakland, 4393 Collins Road, Rochester, Michigan 48306, and the Consulting Engineers, hereby proposes to perform all work required to be performed and provide and furnish all labor, materials, necessary tools and equipment, and all utility and transportation services necessary to perform and complete in a workmanlike manner all work required for construction of the following:

Safety Paths 2026 Repair Program, in Oakland Township, all in accordance with the drawings and specifications as prepared by:

**PEA Group
1849 Pond Run
Auburn Hills, Michigan 48326**

Including Addendum Nos. (if applicable):

Addendum No. 1 _____, Dated _____

Addendum No. 2 _____, Dated _____

**PROPOSAL SHEET
SAFETY PATHS 2026 REPAIR PROGRAM
CHARTER TOWNSHIP OF OAKLAND, OAKLAND COUNTY, MICHIGAN**

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>ESTIMATED QUANTITY</u>		<u>UNIT PRICE</u>	<u>AMOUNT</u>
1.	HMA Crack Treatment, Less than ¼-inches wide	2,775	LF. @	\$ _____	\$ _____
2.	HMA Crack Treatment, ¼-inches or greater	425	LF. @	\$ _____	\$ _____
3.	Asphalt Pavement, Cut & Patch (Tree Root Heaving Locations)	500	SF. @	\$ _____	\$ _____
4.	Concrete Joints & Cracks, Clean & Patch Spalled	50	LF. @	\$ _____	\$ _____
5.	Fog, Seal	8,875	SY. @	\$ _____	\$ _____
6.	Clearing & Grubbing	1	EA. @	LUMP SUM	\$ _____
7.	Traffic Control	1	EA. @	LUMP SUM	\$ _____
8.	Mobilization	1	EA. @	LUMP SUM	\$ _____
OVERALL TOTAL AMOUNT FOR ALL ITEMS					\$ _____

**OVERALL TOTAL AMOUNT OF ALL ITEMS WRITTEN IN WORDS
FOR SAFETY PATHS 2026 REPAIR PROGRAM IMPROVEMENTS**

ADDITIONAL REQUIREMENTS

The undersigned affirms that in making such proposal neither he nor any company that he may represent nor anyone in behalf of him or company directly or indirectly has entered into any combination or collusion, understaking or agreement with any bidder or bidders to maintain the prices of said work, or any compact to prevent any other bidder or bidders from bidding on said contract or work, and further affirms that such proposal is made without regard or reference to any other bidder or proposal and without any agreement or understanding or combination either directly or indirectly with any other person or persons with reference to such bidding in any way or manner whatsoever.

The undersigned hereby agrees that if the foregoing proposal shall be accepted by the Owner, he will, within ten (10) consecutive calendar days after receiving formal notice of award, enter into contract, in the appropriate form, to furnish the labor, materials, equipment, tools and construction equipment necessary for the full and complete execution of the work at and for the price named in his proposal, and he will furnish to the said Owner and to the State of Michigan, such surety for the faithful performance of such contract and for all labor expended thereon as shall be approved and accepted by the said Owner.

The undersigned agrees to complete all of the work items, necessary items and incidental items whether noted on the plan or required in the specifications in a workmanlike manner and does include in the proposal bid items compensation covering all cost to perform the work.

Further the undersigned agrees on the basis of this unit price proposal to accept as final payment the actual measurement or counts of the schedule of prices for all work necessary to complete the project.

Extra work not covered by the schedule ordered by the Engineer or required to complete the project will be agreed upon in writing by the Contractor and Engineer in accordance with the General Conditions which the Contractor agrees to accept as full compensation as written.

The undersigned bidder does hereby represent and warrant that the total price bid in this proposal is a complete and correct statement of the price bid for the work included in said Proposal, and further that all other information given in or furnished with this said Proposal is complete, correct, and submitted as intended by him. He does hereby waive any right or claim he may now have or what may hereafter accrue to him by reason of errors, mistakes, or omissions made by him in said Proposal, to refuse to execute the Contract if awarded to him, or to demand the return of the bid deposit, or to be relieved from any of his obligations required by said Proposal.

The undersigned attaches hereto, as a bid deposit, a (certified check) or (cashier's check) or (bid bond) in the sum of \$ _____ Dollars (\$ _____) as required in the Instruction to Bidders and the undersigned agrees that in case he shall fail to fulfill his obligations under the foregoing proposal and agreement, the said Owner may determine that the undersigned has abandoned his rights and interests in such proposal and that the bid deposit accompanying his proposal has been forfeited to the said Owner; but otherwise, the said bid deposit shall be returned to the undersigned upon the execution of such contract and the acceptance of his bonds and insurance coverage, or upon the

rejection of his proposal.

In the interest of expediting the award of this contract, the undersigned shall comply with Item 5. **Qualifications of Bidders** of the **INSTRUCTIONS TO BIDDER** within the time limits specified therein to show that he is qualified and is adequately prepared to perform the work under the Proposed Contract for which this proposal is offered.

In submitting this bid, it is understood and accepted that the Owner expressly reserves and has the right to, in its sole and exclusive discretion, reject any and all bids, withdraw its request for proposals and/or not award the contract to any of the bidders.

Dated and signed at _____,

State of _____, this _____ day of

_____, 2026.

Name of Bidder: _____

Signature: _____

Title of Signer: _____

Business Address
of Bidder: _____

Telephone No.: _____

**PROPOSAL SUPPLEMENTAL
FOR THE CONSTRUCTION OF THE**

Safety Paths 2026 Repair Program

**CHARTER TOWNSHIP OF OAKLAND
OAKLAND COUNTY, MICHIGAN**

**TO: Charter Township of Oakland
4393 Collins Road
Rochester, Michigan 48306**

In accordance with the Instruction to Bidders and Proposal/Bid Form, we include the Appendices to Bid Form Supplements listed below. The information provided shall be considered an integral part of the Bid Form.

The following Appendices are attached to this document:

Appendix A - List of Subcontractors: Include names of major Subcontractors and portions of the Work each Subcontractor will perform.

Appendix B - List of Alternates: Include cost variation to Bid Price applicable to the Work described on the construction plans.

Appendix C – Time Alternate: If the bidder takes exception to the time stipulated in the proposal, it is requested to stipulate its proposed time for performance of work.

BID FORM SUPPLEMENTS SIGNATURES

The Corporate Seal of

.....
(Bidder - print the full name of your firm)

was hereunto affixed in the presence of:

.....
(Authorized signing officer Title)

(Seal)

.....
(Authorized signing officer Title)

(Seal)

APPENDIX A - LIST OF MAJOR SUBCONTRACTORS

For purposes of this contract, a Major Subcontractor is anyone (other than the Contractor) who performs work (other than or in addition to the furnishing of materials, plans or equipment) at or about the construction site, directly or indirectly for or on behalf of the Contractor (and whether or not in privity of contract with the Contractor), but shall not include any individual who furnishes merely the individual's own personal labor or services. Major subcontractors shall be listed if the work planned to be subcontracted is 15% or more of the bid sum or over \$50,000, whichever is less. The Bidder shall identify the work to be subcontracted to each major subcontractor.

For the work outlined in these documents the Bidder expects to engage the following major subcontractors to perform the work identified:

<u>Subcontractor (Name and Address)</u>	<u>Work</u>	<u>Amount</u>
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If the Bidder does not expect to engage any major subcontractor, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT expect to engage any major subcontractor to perform work under the contract.

Signature of Authorized Representative of Bidder

APPENDIX B – MATERIAL AND EQUIPMENT ALTERNATES

The Base Bid proposal price shall include materials and equipment selected from the designated items and manufacturers listed in the bidding documents. This is done to establish uniformity in bidding and to establish standards of quality for the items named.

If the Contractor wishes to quote alternate items for consideration by the Charter Township of Oakland, it may do so under this Section. A complete description of the item and the proposed price differential must be provided. Unless approved at the time of award, substitutions where items are specifically named will be considered only as a negotiated change in Contract Sum.

<u>Item Number</u>	<u>Description</u>	<u>Add/Deduct Amount</u>
--------------------	--------------------	--------------------------

If the Bidder does not suggest any material or equipment alternate, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT propose any material or equipment alternate under the contract.

Signature of Authorized Representative of Bidder

APPENDIX C – TIME ALTERNATIVE

If the Bidder takes exception to the time stipulated in the proposal, Time of Completion, it is requested to stipulate below its proposed time for performance of the work. Consideration will be given to time in evaluating bids.

If the Bidder does not suggest any time alternate, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT propose any time alternate under the contract.

Signature of Authorized Representative of Bidder

THE AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of _____, 2026, by and between the Charter Township of Oakland, 4393 Collins Road, Rochester, Michigan, 48093, Party of the First Part, hereinafter called the Owner, and _____, Party of the Second Part, hereinafter called the Contractor.

WITNESSETH, that the Contractor and the Owner, for the considerations hereinafter named, agree as follows:

ARTICLE I - THE WORK

It is agreed that the Contractor shall furnish all labor, materials, and equipment, and perform all of the work described, shown and called for on the Construction Drawings for the **Safety Paths 2026 Repair Program** (also referred to as the “Drawings” and “Contract Drawings”), in the Specifications entitled -

Specifications & Contract Documents
Safety Paths 2026 Repair Program

(both of which Drawings and Specifications have been prepared by PEA Group, which is hereinafter called the “Engineer”), and in the other Contract Documents. Contractor agrees to and shall do everything required by the Contract Documents. The Contract Documents being hereby defined to include the Invitation to Bid, Instruction to Bidders, Proposal/Bid Form, Proposal/Bid Form Supplemental, the Agreement, Bonds, Drawings, General Conditions, General Specifications, Specifications, Supplemental Specifications, and any attachments, supplements and addendums thereto. The Contract Documents are hereby incorporated herein as part of this Agreement.

ARTICLE II - THE TIME

It is agreed that the Contractor shall, upon execution of this Agreement, begin work within ten (10) consecutive calendar days from the date of the notice to proceed, and shall prosecute the work in such a manner so as to complete the installation of all proposed improvements and all related or required under the Contract Documents by **Tuesday, June 30, 2026**. It is agreed that if the Contractor shall be unavoidably delayed in beginning or fulfilling this Contract by reason of excessive storms or floods, or by Acts of Providence, or by general strikes, or by court injunction, or by stopping of the work by the Owner because of any emergency or public necessity, or by any preference, priority or allocation order duly issued by the government, or by reason of alterations ordered by the Owner, the Contractor shall have no valid claim for damages on account of any cause or delay; but Contractor shall in such case be entitled to such an extension of the above time limits herein, as the Engineer shall adjudge and agree, in writing, to be just and reasonable; provided, however, that formal claim for such extension shall be made in writing by the Contractor within one (1) week after the date upon which such alleged cause or delay shall have occurred.

ARTICLE III – LIQUIDATED DAMAGES

It is expressly covenanted and agreed that time is and shall be considered of the essence in the Contractor's performance of the work under this Agreement. In the event that the Contractor shall fail to perform the entire work agreed to by or at the times referred to in the Contract Documents, or within some other certain date subsequent which may have been advanced under the provisions of Article II, the Contractor shall pay unto the Owner as and for liquidated damages and not as a penalty, the sum of One Hundred Dollars (\$100.00) for each and every calendar day that the Contractor shall be in default. Said sum of One hundred dollars (\$100.00) per day, in view of the difficulty of estimating such damages with exactness is hereby expressly fixed and agreed upon as the damages which will be suffered by the Owner for reason of such defaults. It is also understood and agreed that the liquidated damages hereinbefore mentioned are in lieu of the actual damages arising from such breaches of this Contract, which said sums the Owner shall have the right to deduct from any moneys in its hand otherwise due or to become due to the Contractor or to sue for and recover compensation for damages for nonperformance of this Agreement at the time stipulated herein and provided.

ARTICLE IV - OWNER'S RIGHT TO COMPLETE

It is agreed that if at any time the Contractor should abandon his work; or if he should be adjudged as bankrupt, or if his performance of this Contract is unnecessarily or unreasonably delayed; or if he should make a general assignment for the benefit of his creditors; or if a receiver should be appointed on account of his insolvency; or if he should persistently or repeatedly fail to supply enough properly skilled workmen or sufficient materials for the work; or if he should habitually fail to make prompt payment to sub-contractors or to pay promptly for materials and labor; or if he should persistently disregard laws or ordinances or the directions of the Engineer; or if he should willfully and repeatedly violate any of the substantial provisions of this Agreement, then in such case the Owner, after giving the Contractor and his sureties written notice thereof, may order him to discontinue all work under this Contract, or any part thereof. Thereupon, the Contractor shall at once discontinue such work or such part thereof, and shall cease to have any right to access the property. The Owner shall have the right to finish the work, or part thereof, by contract or otherwise as Owner may elect, and for that purpose to take possession and make use of such materials, tools, building appliances and equipment as may be found upon the property, and to charge the cost and expense of such completion to the Contractor. The Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the Contract price shall exceed the expense of finishing the work, including compensation for additional managerial and administrative services, the amount of such excess shall be paid to the Contractor; and if such expense shall exceed such unpaid balance, the Contractor or his sureties shall pay to the Owner the amount of such excess.

It is expressly stipulated and agreed that from and after the date of the order to discontinue work, and until such work shall have been finally completed by the Owner, neither the Contractor nor any of his agents or employees shall remove, or make any effort directly or indirectly to remove any of the above-mentioned materials, tools, building appliances or equipment from the points at which they were located on the property on the date of said order, except upon the written consent of the Owner to do so.

It is further understood and agreed that the foregoing provisions of these articles are optional at owner's discretion, nonexclusive remedies, and without prejudice to any other right or remedy which the Owner may have under this Agreement, at law, or in equity.

ARTICLE V - ASSIGNMENT OF CONTRACT

It is agreed that the Contractor shall not assign or transfer this Contract or sublet any part of the work embraced in it, except with written consent of the Owner to do so.

It is further agreed that all parts of the work which may be performed by a subcontractor shall be done in conformity with and be subject to all the provisions of the Contract Documents exactly as if performed by the Contractor and his immediate employees and workmen. No subletting of the work shall in any way diminish or weaken the responsibility of the Contractor for all parts of the work or lessen his obligations and liabilities under this Agreement.

It is likewise agreed that the Contractor shall not assign, either legally or equitably, any of the monies payable to him under this Agreement, or his claim thereto, except with the written consent of the Owner.

ARTICLE VI - THE CONTRACT SUM

It is agreed that, in consideration of the faithful and entire performance by the Contractor of his obligations under this Agreement, the Owner shall pay to him, at the time and in the manner hereinafter stipulated, an amount as determined by the measured quantities and the respective unit prices herein named on the proposal form.

On or about the fifteenth (15th) of each month during which satisfactory progress has been made toward the final completion of the work, the Engineer will make an estimate of the amount and value of the work which has been completed under this Contract during that month, or since the date of the last preceding estimate. Such estimate shall not be required to be made by strict measurement or with exactness, but may be made either wholly or in part by appraisalment or estimation or by a consideration of accounts for labor and materials, and it shall be sufficient if it is approximate only. Any error or inaccuracy which may occur in any such progress estimate may be allowed for or corrected in any subsequent estimate.

It is agreed that the Contractor shall submit to the Owner a written request for each partial or final estimate of payment. It is further agreed that the Contractor shall submit sworn statements or other satisfactory evidence, as requested by the Owner, that all persons who have supplied labor, materials, or equipment for the work embraced under this Contract as well as persons who have claimed damages arising out of the performance of this Contract have been fully paid for the same.

Payments based on progress estimates will be made within thirty (30) days of receipt by the Township of the progress estimates for work completed during the preceding month or since the date of the last preceding progress payment. Payments will be in accordance with the provisions of Act 524 of the Michigan Public Acts of 1980 and in accordance with the terms of this Agreement. No allowance will be made for materials furnished which are not incorporated in the finish work, unless otherwise stated.

Pursuant to Act No. 524, Michigan Public Acts of 1980, the Owner hereby designates PEA Group as the person representing it to whom written requests for payments are to be submitted. The Contractor hereby designates PEA Group as the person who will submit written requests for payments to the Owner.

It is agreed that in the event a dispute arises over an avoidable or unacceptable delay in the performance of the work as described in Section 4 (3) of Act 524 of the Michigan Public Acts of 1980 (MCLA 125.1564 (3)) the dispute may, at the option of the Owner, be submitted for resolution in accordance with the provisions of Section 4 (2) of said Act. The dispute resolution process herein described shall be used only for the purpose of determining the rights of the parties to retained funds and interest earned on retained funds. Nothing herein shall impair the right of the Owner to bring an action in any court of jurisdiction to determine the rights of the parties.

The progress estimates and payments will include all alterations which may be done under the provisions of Section 45 of the General Conditions on the same basis as other work is included. All such work is regarded herein as essentially a part of the Contract and not merely an addition to it.

No progress estimate made or certified by the Engineer and no partial payment made to the Contractor by the Owner shall be deemed or construed as an acceptance of any part of the work under this Contract or any portion thereof prior to the final completion of the work and payment of the final estimate.

Within thirty (30) days after satisfactory completion of the work covered by this Agreement, the Engineer will make a final inspection of the work as a whole and will make up a final estimate of the total amount due the Contractor under the terms of the Agreement. Upon the acceptance of the completed work, the Owner will pay to the Contractor the entire amount of such final estimate less the sums previously paid. The Contractor shall file with the Owner the Contractor's Affidavit included in the Contract Documents.

ARTICLE VII - ANTICIPATED CONDITIONS AND WORK BY OTHERS

The Contractor further acknowledges that he is not entitled to any additional compensation by reason of conditions being different from those anticipated or by reason of his failing to fully acquaint himself with the site, the conditions, and the work now in place or on account of interference by the Owner or by any other contractor's activities which affect the work of this Agreement.

ARTICLE VIII - MISCELLANEOUS

The Contractor acknowledges that he has not received or relied upon any representations or warranties of any nature whatsoever from **Oakland Township**, its agents or employees, and that this Agreement is entered into solely upon the Contractor's own independent business judgment.

ARTICLE IX - BONDS

The Contractor shall provide liability insurance and bonds in an amount specified by the Owner (Township) pursuant to and in accordance with this Agreement, the Contract Documents and MCL 129.201 et seq. The Contractor shall provide satisfactory evidence that the corporate surety and the insurer are licensed and/or approved to conduct business in the state of Michigan. Such evidence shall include a certified copy of the Certificate of Authority issued by the Insurer Licensing Division of the Insurance Bureau.

ARTICLE X - INDEPENDENT CONTRACTOR RELATIONSHIP

In the performance of this Agreement, the relationship of Owner to the Township shall be that of an independent contractor and not that of an employee or agent of the Owner. Contractor is and shall perform under this Agreement as an independent contractor, and no liability or responsibility with respect to benefits of any kind, including without limitation, medical benefits, worker's compensation, pension rights, or other rights or liabilities arising out of or related to a contract for hire or employer/employee relationship shall arise or accrue to either party as a result of the performance of this Agreement.

Contractor, as an independent contractor, is not authorized to enter into or sign any agreements on behalf of the Owner or to make any representations to third parties that are binding upon the Owner. Although Contractor may be required under this Agreement to advise, make recommendations to and to a limited extent represent the Owner, all plans, studies, applications, submittals, surveys, reports and any other information relating to the work must be submitted to and approved by the Owner or the Owner's authorized official prior to being disseminated to any third party and shall only be so disseminated if such dissemination is approved in advance by the Owner or an authorized official of the Owner.

Contractor represents that it will dedicate sufficient resources and provide all necessary personnel, labor, materials and equipment required to perform the work described in this Agreement in accordance with the terms and conditions of this Agreement.

ARTICLE XI - LIABILITY AND INSURANCE.

Contractor agrees to indemnify and hold harmless the Owner, its elected and appointed officials and employees and attorneys, and all Additional Named Insureds from and against any and all claims, demands, suits, losses and settlements, including actual attorney fees incurred and all costs connected therewith, for any damages which may be asserted, claimed or recovered against the Owner and/or any Additional Named Insured by reason of: (i) personal injury, death and/or property damages which arises out of or is in any way connected or associated with the actions or inactions of Contractor in performing or failing to perform the work; (ii) civil damages which arise out of any dispute between Contractor and its subcontractors, affiliates, employees or other private third parties in connection with this Agreement; or (iii) civil damages and penalties, including without limitation damages and penalties resulting from claims of discrimination, civil rights violations, statutory violations or constitutional violations, which arise out of any or are in any way connected or associated with the actions or inactions of Contractor. Contractor also agrees to indemnify and hold harmless the Owner, its elected and appointed officials and employees and attorneys, and all

Additional Named Insureds from and against any and all claims, demands for payment, suits, losses and settlements, including actual attorney fees incurred and all costs connected therewith, for or relating to any patented or copyrighted material, process, or device that may be used in the course of performing the work or form a part of the work.

Contractor shall provide evidence of adequate insurance coverage in the types and amounts required under the Contract Documents. Such insurance shall be maintained at the specified level of coverage throughout the term of this Agreement, including any extension of such term, and will cover all work, acts and omissions by and on behalf of Contractor in connection with this Agreement with such coverage being primary and non-contributory. Contractor shall provide evidence of insurance coverage as set forth herein at any time requested by the Owner.

ARTICLE XII - GENERAL PROVISIONS.

A. Entire Agreement. This instrument, together with the Contract Documents, contains the entire Agreement between the Owner and Contractor. No verbal agreement, conversation, or representation by or between any officer, agent, or employee of the parties hereto, either before or after the execution of this Agreement, shall affect or modify any of the terms or obligations herein contained.

B. Compliance with Laws. This Agreement and all of Contractor's work and practices shall be subject to all applicable state, federal and local laws, ordinances, rules or regulations, including without limitation, those which apply because the Owner is a public governmental agency or body. Contractor represents that it is in compliance with all such laws and eligible and qualified to enter into this Agreement.

C. Governing Law. This Agreement shall be governed by the laws of the State of Michigan.

D. Assignment. Contractor shall not assign this Agreement or any part thereof without the written consent of the Owner. This Agreement shall be binding on the parties, their successors, assigns and legal representatives.

E. Notices. Written notices under this Agreement shall be given to the parties at their addresses contained in this Agreement by personal or registered mail delivery to the attention of the following persons:

Engineer: Matthew J. Hocking, PE of PEA Group
Owner: Joseph Merucci, Township Manager
Karen Reilly, Township Clerk

Contractor: _____

F. Changes. Any changes in the provisions of this Agreement must be in writing and signed by the Owner and Contractor.

G. Waivers. No waiver of any term or condition of this Agreement shall be binding and effective unless in writing and signed by all parties, with any such waiver being limited to that circumstance only and not applicable to subsequent actions or events.

H. Jurisdiction and Venue of Contract. This Agreement shall be considered for all purposes, including the establishment of jurisdiction and venue in any court action between the parties, as having been entered into and consummated in the Charter Township of Oakland, Oakland County, Michigan.

If any section, paragraph, sentence, clause or phrase of this Agreement or the Contract Documents shall be held invalid, the same shall not affect any other part of this Agreement or the Contract Documents.

WITNESSES:

CHARTER TOWNSHIP OF OAKLAND

By _____
Robin Buxar, Its Supervisor

By _____
Karen Reilly, Its Clerk

CONTRACTOR: (insert Contractor name below)

By _____
_____, Its _____
(print name) (print title)

INSTRUCTIONS FOR EXECUTING AGREEMENT

If the Contractor be a Corporation, the following certificate should be executed:

I, _____, certify that I am the Secretary of the Corporation named as Contractor hereinabove; that _____ who signed the foregoing Agreement on behalf of the Contractor, was then _____ of said Corporation; that said Agreement was duly signed for and on behalf of said Corporation by authority of its governing body, and is within the scope of its corporate powers.

(Corporate Seal)

If the Agreement be signed by the Secretary of the corporation, the above certificate should be executed by some other officer of the Corporation, under the Corporate Seal. In lieu of the foregoing certificate, there may be attached to the Agreement copies of so much of the records of the Corporation as will show the official character and authority of the officers signing, duly certified by the Secretary or Assistant Secretary under the Corporate Seal to be true copies.

The full name and business address of the Contractor should be inserted and the Agreement must be signed by a duly authorized officer of the Corporation. Please have the name and title of the signing party or parties typewritten or printed under all signatures to the Agreement.

If the Contractor should be operating as a partnership, each partner should sign the Agreement. If the Agreement be not signed by each partner, there shall be attached to the Agreement a duly authenticated Power of Attorney evidencing the signer's (signers') authority to sign such Agreement for and in behalf of the partnership.

If the Contractor is a limited liability company, the Agreement must be signed by a duly authorized member of the company and copies of the records of the company shall be attached to the Agreement showing, to the satisfaction of the Owner in its discretion, the authority of the member to sign the Agreement on behalf of the company and bind the company at the time of signing, and also an affidavit certifying such authority and that the records attached are true copies shall be attached.

If the Contractor be an individual, the trade name (if the Contractor be operating under a trade name) should be indicated in the Agreement and the Agreement should be signed by such individual. If signed by one other than the Contractor, there should be attached to the Agreement a duly authenticated Power of Attorney evidencing the signer's authority to execute such Agreement for and in behalf of the Contractor.

COMMITMENT TO PROTECTION OF LAKES, STREAMS AND WETLANDS

The Charter Township of Oakland has a strong and long-standing commitment to the protection of the environment. This commitment includes protecting lakes, streams and wetlands from erosion, sedimentation and unnecessary filling. In order for the Charter Township of Oakland to meet this commitment it is necessary that those who work for us as contractors or subcontractors understand and share this commitment to the natural resources of this State and of Oakland County.

We ask and require that contractors working with us agree to share this commitment by signing this agreement to protect lakes, streams and wetlands.

Meeting this commitment includes installing and maintaining soil erosion and sedimentation control measures as required in construction plans. At times, it may be necessary to go beyond the minimum requirements of the plans to ensure that lakes and streams are protected.

Further, excess earth, concrete, asphalt, used oil and other debris must be disposed of in a manner consistent with local or state requirements. Filling of wetlands, lakes or streams with the soil or debris that results from a project without the express permission of the local community or the Michigan Department of Environmental Quality is not an acceptable disposal practice.

We insist that all appropriate state or local permit requirements be satisfied before materials are placed in or adjacent to wetlands, lakes or streams. We cannot ensure that others share this commitment to the environment, therefore it is necessary for our contractors to confirm that permits have been issued before materials are placed. Further, many communities have rules and regulations on any filling operation. We ask that you comply.

We expect that your employees and subcontractors will share in this commitment. Take note and instruct your employees and subcontractors that intentional damage to lakes, streams and wetlands outside of the project limits by those associated with our projects will not be tolerated by the Charter Township of Oakland and will influence future contracts and agreements with you.

Work within the project limits is to be conducted with care and concern for protecting the natural environment. Adverse impacts to lakes, streams and wetlands have been carefully considered and are proposed only in order to provide for a reasonable safe roadway that serves to protect the health and welfare of the traveling public. We ask that you not extend, increase or create adverse impacts, as a result of the work that we are doing, which have not been considered as part of the project.

If you believe that the adverse impacts of our projects can be reduced, or if additional impacts must be evaluated in order to improve the overall quality of the project that we, together, are building then we urge you to propose these changes to our engineering and environmental staff. They are committed to achieving high quality construction projects that protect, preserve and enhance the environment and believe that neither can be sacrificed for the sake of expediency.

We believe that you, as a contractor working in the Charter Township of Oakland, understand that our mutual success is dependent upon providing quality services to the citizens of the Charter Township of Oakland. Our signatures on this letter are evidence of our promise to protect the environment in the work we do together.

CONTRACTOR

SIGNATURE

MAINTENANCE AND GUARANTEE BOND

KNOW ALL MEN BY THESE PRESENTS, That _____,
as principal, and _____,
as surety, are held and firmly bound unto the Charter Township of Oakland, County of Oakland,
State of Michigan, in the sum of _____
(\$ _____) good and lawful money of the United States of America, to be paid to said
Charter Township of Oakland, its legal representatives and assigns, for which payment well and
truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, and
each and every one of them jointly and severally, firmly by these presents.

Sealed with our seals and dated this _____ day of _____, A.D., 20____.

WHEREAS, the above named principal has entered into a certain written contract with the
Charter Township of Oakland, dated this _____ day of _____, A.D. 20____, wherein
the said principal covenanted and agreed as follows, to-wit:

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS
SUCH, that by and under said contract, the above named principal has agreed with the Charter
Township of Oakland that for a period of two (2) years from the date of final acceptance, to keep in
good order and repair any defect in all the work done under said contract either by the principal or
his sub-contractors, or his material suppliers, that may develop during said period due to improper
materials, defective equipment, workmanship or arrangements, and any other work affected in
making good such imperfections shall also be made good all without expense to the Owner,
excepting only such part or parts of said work as may have been disturbed without the consent or
approval of the principal after the final acceptance of the work, and that whenever directed so to do
by the Charter Township of Oakland by notice served in writing, either personally or by mail, on the
principal at _____ OR _____ legal representatives, or successors, or on
the surety at _____ WILL PROCEED at once to make such repairs as directed
by said Charter Township of Oakland and in case of failure so to do within one (1) week from the
date of service of such notice, then the Charter Township of Oakland shall have the right to purchase
such materials and employ such labor and equipment as may be necessary for the purpose, and to
undertake, do and make such repairs, and charge the expense thereof to, and receive same from said
principal or surety.

If any repair is necessary to be made at once to protect life and property, then and in that case, the

Charter Township of Oakland may take immediate steps to repair or barricade such defects without notice to the contractor. In such accounting, the Charter Township of Oakland shall not be held to obtain the lowest figures for the doing of the work, or any part thereof, but all sums actually paid therefor shall be charged to the principal or surety. In this connection, the judgement of the Charter Township of Oakland is final and conclusive. If the said principal, for a period of two (2) years from the date of final acceptance, shall keep said work so constructed under said contract in good order and repair, excepting only such part or parts of said work which may have been disturbed without the consent or approval of said principal after the final acceptance of the same, and shall whenever notice is given as hereinbefore specified, at once proceed to make repair as in said notice directed, or shall reimburse said Charter Township of Oakland for any expense incurred by making such repairs, should the principal or surety fail to do as hereinbefore specified, and shall fully indemnify, defend and save harmless the Charter Township of Oakland, and PEA Group from all suits and actions for damages of every name and description brought or claimed against it for or on account of any injury or damage to person or property received or sustained by any party or parties, by or from any of the acts or omissions or through the negligence of said principal, servants, agents, or employees, in the prosecution of the work included in said contract, and from any and all claims arising under the Workman's Compensation Act, so-called of the State of Michigan, then the above obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their respective authorized officers this _____ day of _____, A.D., 20 ____.

Signed, Sealed and Delivered _____ (L.S.)
in the Presence of:

Principal (L.S.)

(L.S.)

Surety (L.S.)

Mailing Address



Stop ..check here before sealing envelope

DID YOU REMEMBER TO . . .

Sign the proposal book

*Submit entire proposal book
(no modifications or pages removed)*

*Enclose bid deposit (money order,
certified or cashier's check only)*

*Make bid deposit payable to:
Charter Township of Oakland*

**Failure to comply with
above requirements
may result in:**

**Bid Proposal
Rejection**

GENERAL CONDITIONS

1. DEFINITION OF TERMS

The following definition of terms shall be applied to the Contract Documents:

- | | | |
|----|---------------------|-----------------------------|
| A. | Owner/Township | Charter Township of Oakland |
| B. | Engineer | PEA Group |
| C. | Landscape Architect | PEA Group |

The terms “Contract” and “Agreement” are used interchangeably in the Contract Documents and both such terms mean and refer to “The Agreement” signed by Contractor and Owner to which these General Conditions are attached, inclusive of the Contract Documents.

The terms “Owner” and “Township” are used interchangeably in the Contract Documents and both such terms mean and refer to the Charter Township of Oakland.

2. CONTRACT DOCUMENTS

The original and three (3) counter prints of the Contract shall be signed by the Owner and the Contractor.

The work under this Contract shall consist of the items listed in the Proposal, including all incidentals necessary to fully complete the project in accordance with the Contract Documents. The Contract Documents shall consist of this complete book of documents as listed in the index and the Contract Drawings titled “PCT Northern Trailhead”.

3. CONTRACT DRAWINGS AND SPECIFICATIONS

The work to be done is shown on the accompanying set of original drawings and are hereby made a part of this Contract, it being mutually understood and agreed that when taken together, the plans and Contract Documents, including the Specifications and the General Conditions, are complementary, and what is called for by any one shall be binding as if called for by all. The intent of the Contract Documents is to include in the contract price the cost of all labor and materials, water, fuel, tools, plant, equipment, light, transportation, and all other expenses as may be necessary for the proper execution and completion of the work.

These original drawings may be supplemented by other drawings furnished by the Contractor and approved by the Engineer or supplied to the Contractor by the Engineer during the progress of the work as the Engineer may deem to be necessary or expedient. All such supplementary contract drawings or instructions are intended to be consistent with the Contract Documents, true developments thereof and reasonably inferable therefrom.

Therefore, no additional charge will be allowed on a claim that particular supplemental contract drawings or instructions differed from the Contract Documents incurring extra work, unless the Contractor has first brought the matter, in writing, to the Engineer's attention for proper adjustment before starting on the work covered by such and has received from the Engineer an order in writing to so proceed.

These original and supplementary drawings constitute the drawings according to which the work is to be done. The Contractor shall keep at the site of the work an approved or confirmed copy of all drawings and specifications and shall at all times give the Engineer or Owner access thereto.

In case any inconsistency, omission, or conflict shall be discovered in either specifications or drawings, or if in any place the meaning of either or both shall be obscure, or uncertain, or in dispute, the Engineer shall decide as to the true intent of the documents.

4. ENGINEER'S STATUS DURING CONSTRUCTION

Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth herein and shall not be extended without written consent of Owner and Engineer.

The Engineer will coordinate review and approve construction sequencing. Engineer will make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed Work and to determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform to the Contract Documents. On the basis of such visits and on-site observations as an experienced and qualified design professional, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defects and deficiencies in the Work. If Owner and Engineer agree, Engineer will furnish an Inspector to assist Engineer in observing the performance of the Work. The duties, responsibilities and limitations of authority of any such Inspector and assistants will be provided as follows:

The Owner may appoint on-the-job inspectors who shall be under the direction of the Engineer.

(1) The inspector on the work will inform the Engineer as to the progress of the work, the manner in which it is being done, and the quality of the materials being used. (2) The inspector will call to the attention of the Contractor any failure to follow the plans and specifications that he may observe. (3) The inspector shall have the authority to reject materials that do not conform to plans and specifications. (4) The inspector shall have no authority to direct the Contractor's work or workmen, to supervise the Contractor's operations or to change the contract plans or specifications. (5) In no instance shall any action or omission on the part of the inspector release the Contractor of the responsibility of completing the work in accordance with the plans and specifications.

Engineer will have authority to disapprove or reject Work which Engineer believes to be defective, and will also have authority to require special inspection or testing of the Work.

5. LIMITATIONS ON ENGINEER'S RESPONSIBILITIES

Neither Engineer's authority to act under this Article or elsewhere in the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of Engineer to Contractor, any Subcontractor, any Supplier, or any other person or organization performing any of the Work, or to any surety for any of them.

Whenever in the Contract Documents the terms "as ordered," "as directed," "as required," "as allowed," "as approved" or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper" or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of Engineer as to the Work, it is intended that such requirement, direction, review or judgment of Engineer as to the Work, will be solely to evaluate the Work for compliance with the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to Engineer any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of the following:

- A. The Engineer will not be responsible for Contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, and Engineer will not be responsible for Contractor's failure to perform or furnish the Work in accordance with the Contract Documents.
- B. The Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

6. CONTRACTOR'S RESPONSIBILITY

The Contractor shall assume full responsibility for the work and take all precautions for preventing injuries to persons and property on or about the work; shall bear all losses resulting to him on account of the amount or character of the work or because the conditions under which the work is done are different, or because the nature of the ground in which the work is done is different from what was estimated or expected, or on account of the weather, floods, elements, or other causes, and he shall assume the defense and save harmless the Owner, PEA Group, and its individual officers and agents, and all additional named assured, from all claims relating to labor provided and materials furnished for the work; to inventions, patents, and patent rights used in doing the work; to injuries to any persons or property received or sustained by or from the Contractor, his agents or employees in doing the work or arising out of the work performed or to be performed; and to any act, or neglect of the Contractor, his agents or employees.

The mention of any specific duty or liability of the Contractor - in this or in any part of the Contract Documents shall not be construed as a limitation or restriction upon any general liability or duty imposed on the Contractor by the Contract Documents.

7. PERMITS AND REGULATIONS

The Contractor shall secure, at no cost to the Owner, all permits and licenses necessary for the prosecution of the work. The Contractor shall keep himself fully informed of all laws, ordinances and regulations in any manner affecting those engaged or employed in the work, or the materials used in the work, or in any way affecting the conduct of the work, and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over the same.

He shall at all times observe and comply with, and shall cause all his agents and employees to observe and comply with all existing laws, ordinances, regulations, orders and decrees. Provided, that if the drawings and specifications are at variance therewith, the Contractor shall promptly notify the Engineer in writing and any necessary changes shall be adjusted as provided in the Contract Documents.

The Contractor shall assume the responsibility of performing his work in compliance with all provisions of the permits and/or applications and conditions.

8. SUBCONTRACTS

The Contractor shall not sublet, assign, or transfer this Contract or any portion thereof or any payments due him thereunder, without the written consent of the Owner.

Assignment or subletting any portion of this Contract shall not operate to release the Contractor or his bondsmen hereunder from any of the Contract obligations.

Any subcontractor performing work under this contract may be requested by the Owner to submit a resume and references as proof of their qualifications and demonstrating their ability to satisfy the requirements as set forth in these Contract Documents. The Owner may also require the submission of any additional information necessary to satisfy the Owner that the subcontractor is adequately prepared to fulfill the subcontract in accordance with these Contract Documents.

The Contractor shall, as soon as practicable after the signing of the Contract, notify the Engineer and Owner in writing of the names of subcontractors proposed for the work and shall not employ any that the Engineer or Owner may object to as incompetent or unfit.

If the Contractor shall cause any part of the work under this Contract to be performed by a subcontractor, the provisions of this Contract shall apply to such subcontractor and his officers and employees in all respects as if he and they were employees of the Contractor, and the Contractor shall not be in any manner thereby relieved from his obligation and liabilities; and the work and materials furnished by the subcontractor shall be subject to the same provisions as if furnished by the Contractor.

9. INFORMATION BY THE CONTRACTOR

The Contractor shall submit to the Engineer full information as to the materials, equipment, and arrangements which the Contractor proposes to furnish. This information shall be complete to the extent that the Engineer may intelligently judge if the proposed materials, equipment, and arrangements will meet the Contract requirements.

Prior to the approval of materials, equipment, and arrangements by the Engineer based on the information submitted by the Contractor, any work done by the Contractor shall be at his own risk.

The approval of information covering materials, equipment, and arrangements by the Engineer shall in no way release the Contractor from his responsibility for the proper design, installation, and performance of any material, equipment, or arrangement, or from his liability to replace same should it prove defective.

10. GENERAL REQUIREMENTS FOR MATERIALS AND WORKMANSHIP

In the specifications where a particular material or piece of equipment is specified by reference to some particular make or type, or equal, it is not the intent to limit competition but to set up by such reference a standard of quality most easily understood and defined. If materials or equipment of other make or type than that specified by name are offered by the Contractor, they will be given full consideration by the Engineer and the Engineer's decision will be final as to whether the materials or equipment offered are equal to those specified.

Unless otherwise stipulated in the specifications, all equipment, materials, and articles incorporated in the work covered by this contract are to be new and of the best grade of their respective kinds for the purpose. The Contractor shall, if required, furnish such evidence as to kinds and quality of materials as the Engineer may require.

The Contractor shall furnish suitable tools and building appliances and employ competent labor to perform the work to be done, and any labor or tools or appliances that shall not in the judgment of the Engineer, be suitable or competent to produce this result may be ordered from the work by him, and such labor or tools or appliances shall be substituted therefor by the Contractor as will meet with the approval of the Engineer.

If not otherwise provided, material or work called for in this Contract shall be furnished and performed in accordance with well-known established practice and standards recognized by architects, engineers and the trade.

If any type of machinery, equipment, or tools are specifically needed to prosecute the work in an orderly, workmanlike manner, the Engineer may so direct the Contractor to procure same, before work is continued.

The Owner reserves the right to reject any material at the job site even though having been previously tested. All materials rejected by the Owner or his representative shall be removed from the site of work immediately.

The Contractor shall obtain, from his supplier, certificate of compliance to manufacturing and specifications for which the materials are to be used or incorporated in the project.

11. TESTING AND SAMPLES

Where called for in the specifications, samples of materials in the quantity named shall be submitted to the Engineer for approval. Where tests are required they shall be made at the expense of the Contractor, except as otherwise called for in the specifications. For materials covered by ASTM or Federal Specifications, unless otherwise stipulated, the required tests are to be made by the manufacturer and his certificate therefor submitted to the Engineer.

12. LINES AND GRADES

Principal reference lines or points and bench marks shall be given by the Engineer at such time as he may deem necessary; or if the Contractor shall be in need of such reference lines or bench marks, he shall notify the Engineer twenty-four (24) hours in advance.

The contractor will employ a surveyor to set suitable stakes and marks showing the locations and elevations of the various parts of the work and will furnish the Contractor with "cut sheets" referred to the reference points. No work shall be undertaken until such stakes and marks shall have been set a surveyor. The Contractor shall take due and proper precautions for the preservation of these stakes and marks, and shall see to it that the work at all times proceeds in accordance therewith and shall provide all labor and material to set required batter boards or laser and locate the work accurately with reference to the above points.

Good judgment will be exercised in placing construction stakes in positions most useful and at positions requested by the Contractor. However, an excessive amount of re-staking shall be at the expense of the Contractor and no work shall proceed without re-establishment of reference stakes and "cut sheets" in those areas wherein re-staking is necessary.

13. PROTECTION OF WORK AND PROPERTY

The Contractor shall continuously maintain adequate protection of all his work from damage and shall protect all public property and private property, within and/or abutting the work area, from injury or loss arising in connection with this Contract.

He shall, without delay, make good any such damage, injury or loss, and shall defend and save the Owner, and PEA Group, and all additional named assured, harmless from all such damages or injuries occurring because of his work.

He shall furnish and maintain all passageways, barricades, guard fences, lights, and danger signals, provide watchmen and other facilities for protection required by public authority or by local conditions or as directed by the Engineer, all at no additional cost to the Owner. In an emergency affecting the safety of life or of the work or of adjoining property, the Contractor, without special instruction or authorization from the owner, shall take such action as may be necessary to prevent such threatened damage, injury or loss.

The Contractor shall assume full responsibility of loss or damage to the work during the entire construction period resulting from caving earth and from storms, floods, frosts, and other adverse weather conditions, and from all other causes whatsoever not directly due to the acts or neglect of the Owner, including fire, vandalism and malicious mischief, and shall turn the finished work over to the Owner in good condition and repair, at the time of the final pay estimate. For the purpose of this section the decision of the Engineer, with respect to existing conditions and for the need for corrective action by the Contractor, shall be final.

14. RESPONSIBILITY FOR ADJOINING STRUCTURES AND TREES

The Contractor shall assume full responsibilities for the protection of all pavements, curbs, bridges, railroads, poles, and any other surface structures and all water mains, sewers, telephone, gas mains, and other underground services and structures along and near the work which may be affected by his operations, and shall indemnify, defend and save harmless the Owner, and PEA Group, against all damages or alleged damages to any such structure arising out of his work. The Contractor shall bear the cost of repair or replacement of any such structure damaged as a result of his operations.

No trees or shrubbery of any kind shall be removed or destroyed by the Contractor without the written permission of the Owner, and the Contractor will be held fully responsible for any damages caused by his work to adjoining trees and shrubs. Ample precautions shall be taken by the Contractor to protect such trees and shrubs as are to remain in place by surrounding them with fences or other protection before construction work begins. Shrubbery that has to be removed shall be preserved and replaced in a manner acceptable to the Owner.

15. MAINTENANCE OF SERVICE

Drainage through existing sewers and drains shall be maintained at all times during construction and all nearby gutters shall be kept open for drainage.

Where existing sewers are encountered in the line of the work which interfere with the construction, the flow in the sewers, including both dry weather flow and storm flow, shall be maintained by constructing a satisfactory flume or any other means approved by the Engineer.

All detours shown on the Drawings or required because of the Contractor's operation shall be built and maintained at the Contractor's expense.

Safety precautions shall be followed at all street openings; substantial barricades shall be erected as deemed necessary to prevent accidents to vehicular or pedestrian traffic and red flags by day and red lights by night shall be diligently posted by the Contractor at all points of possible danger. In case detours or other traffic instructions are necessary, suitable warning or direction signs shall be erected and maintained by the Contractor. In all cases the detour roadways shall be maintained so as to keep free from undue dust conditions and reasonably graded.

During the progress of the work, the Contractor shall accommodate both vehicular and foot traffic and shall provide free access to fire hydrants, water and gas valves. Except as otherwise specified herein or as noted on the drawings, street intersections may be blocked but one-half at a time, and the Contractor shall lay and maintain temporary driveways, bridges and crossings, such as in the opinion of the Engineer are necessary to reasonably accommodate the public.

In the event of the Contractor's failure to comply with these provisions, the Owner may with or without notice, cause the same to be done, and will deduct the cost of such work from any money due or to become due the Contractor under this Contract, but the performance of such work by the Owner, or at his insistence, shall serve in no way to release the Contractor from his general or particular liability for the safety of the public or the work.

16. STORAGE OF MATERIALS

Materials and equipment distributed, stored, and placed upon or near the site of the work shall at all times be so disposed as not to interfere with work being prosecuted by other contractors in the employ of the Owner, or with street drainage, or with fire hydrants or with access thereto, and not to unreasonably inconvenience the public from access to or use of their property. When construction staging areas are provided per easement, the Contractor shall place and store all materials for the work within the limits of the construction staging area. The Contractor shall access the construction staging area as designated on the construction and easement documents.

17. RELATION TO OTHER CONTRACTORS

The Contractor shall so conduct his operations as not to interfere with or injure the work of other contractors or workmen employed on adjoining or related work and he shall promptly make good any injury or damage which may be done to such work by him or his employees or agent. Should a contract for adjoining work be awarded to another contractor, and should the work of one of these contracts interfere with that of the other, the Owner shall decide which contractor shall cease work for the time being and which shall continue or whether the work in both contracts shall continue at the same time and in what manner.

18. CONTRACTOR'S SUPERVISION AND ORGANIZATION

The work under this Contract shall be under the direct charge and direction of the Contractor. The Contractor shall give effective superintendence to the work, using his best skill and attention. The Contractor shall at all times keep on the site of the work, during its progress, a competent superintendent and any and all necessary foremen and assistants. The superintendent shall represent and have full authority to act for the Contractor in the latter's absence, and all directions given to him shall be as binding as if given to the Contractor. On written request in each case, all such directions will be confirmed in writing to the Contractor.

The Contractor shall employ only competent, effective workmen and shall not use on the work any unfit person or one not skilled in the work assigned to him, and he shall at all times enforce strict discipline and good order among his employees. Whenever the Engineer shall notify the Contractor, in writing, that any man on the work is, in the opinion of the Engineer, careless, incompetent, disorderly, or otherwise unsatisfactory, such man shall be discharged from work and shall not again be employed on it except with the written consent of the Engineer.

The Contractor shall establish and maintain an office on the site of the work, or at some convenient point adjacent thereto, during the continuance of this contract and shall have at all times during working hours, a representative authorized to act on behalf of the Contractor. Any communication given to and received by said representative shall be deemed to have been given to and received by the Contractor. Copies of the drawings and specifications shall at all times be kept on file by the Contractor at readily accessible points near the work.

19. FACILITIES FOR INSPECTION

The Owner, the Engineer, and their employees shall at all times have the right to enter upon the premises upon which work is being done, or upon which material is stored for the work under this Contract, and to inspect the work and materials, and to ascertain whether or not the construction is carried out in accordance with this Contract, and the Contractor shall furnish all reasonable facilities, and give ample time for such inspection. All materials shall be subject to mill and shop inspection, as provided in the specifications.

The Contractor shall promptly remove from the premises all materials rejected by the Engineer as failing to meet Contract requirements, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute his own work in accordance with the Contract and without expense to the Owner and shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement.

If the Contractor does not remove such rejected work and materials promptly, after written notice, the Owner may remove them and store the material at the expense of the Contractor.

The Engineer has the right to have removed by the Contractor such portion of the work as he may deem necessary for the discovery of improper work or material, and the Contractor must restore such work at his own expense if improperly done and at the expense of the party of the first part if found to be in proper condition. Any work which during its progress and before its final acceptance may become damaged from any cause, shall be removed and replaced by good, satisfactory work at the Contractor's expense.

20. SHOP DRAWINGS

Where called for in the specifications, the Contractor shall submit to the Engineer for approval in not less than five (5) copies, details, specifications, cuts and drawings of such equipment and structural work as may be required. The Contractor shall make any changes or alterations required by the Engineer and re-submit same without delay. The approval of the Engineer shall not relieve the Contractor of responsibility for errors in the drawings, as the Engineer's checking is intended to cover compliance with the drawings, and specifications and not to enter into every detail of the shop work. No work shall be undertaken until the Engineer has approved the shop drawings.

21. ERRORS, CORRECTIONS AND CHANGES IN DRAWINGS AND SPECIFICATIONS

The Contractor shall examine and check all drawings and specifications furnished by the Owner for dimensions, quantities, types of materials, and coordination with other parts of the work on this or related contracts. No structure, sewer pipe, water main or fixtures thereto shall be placed or constructed under conditions which may be expected to result in defective work. If the soil is not sufficiently stable to properly support structure, or if the Contractor wishes to question the materials prescribed, the Contractor shall stop work and immediately notify the Owner and Engineer. The Engineer shall review these conditions, and if he may deem it necessary, he shall make changes in design or accept suggested contractor changes in construction procedure before work is to continue. The Contractor shall not be allowed to take advantage of any such error, omission or discrepancy, as full instructions will be furnished by the Engineer, and the Contractor shall carry out such instructions as if originally specified. In no case shall the Contractor proceed with the work in uncertainty, and any work done by the Contractor after the discovery of any error, omission or discrepancy, until authorized, will be at the Contractor's risk and responsibility. The work is to be made complete and to the satisfaction of the Owner and Engineer, notwithstanding any minor omissions in the specifications or plans.

22. CHANGES IN THE WORK

The Owner shall have the right to require, by written order, changes in, additions to, or deductions from the work required by the contract Documents; provided that if changes, additions or deductions are made, the general character of the work as a whole is not changed thereby.

Adjustments in the Contract price, if any, because of any change, addition, or deduction in the work shall be determined as hereinafter provided, and any claim for extension of time for completion shall be adjusted at the time of ordering the change, addition, or deduction. No claim for change, addition, or deduction, or adjustment of price, or extension of time for completion thereof, shall be made or allowed unless done in pursuance of written order from the Owner specifically authorized such change, addition, or deduction. Drawings without a written order shall not be considered such authority. Written notice of such claims shall be made to the Engineer before the commencement of the work. Where the written order diminishes the quantity of work to be done, this shall not constitute a basis for a claim for damages or anticipated profits on the work that may be dispensed with.

Under circumstances which, in the judgment of the Engineer, so necessitate, the Engineer shall have authority to require, by written order, changes in, additions to, or deductions from the work. Such written order by the Engineer shall be subject to later confirmation by the Owner when the extent and costs have been established.

It is understood and agreed that in case any change in, addition to, or deduction from the work is required, said change shall in no way invalidate the Contract and shall not affect or discharge the bonds furnished by the Contractor.

The Contractor, without extra charge, shall make such slight alternations as may be necessary to make adjustable parts fit to fixed parts, leaving all complete and in proper shape when done.

23. BASIS FOR DETERMINING COST OF CHANGES IN THE WORK

Adjustments, if any, in the Contract price by reason of change in the work shall be limited to the amount specified in the written order authorizing the change in the work. Adjustments shall be determined by one or more of the following methods, the Owner reserving the right to select the method or methods at the time the written order is issued:

- A. An acceptable lump sum proposal: To facilitate checking and acceptance, the proposal shall be itemized with quantities and prices given for the various items. In determining the acceptability of such proposals, the Owner will use as a general guideline the various items contained in paragraph 23 (c) below.
- B. Unit price: The unit prices may be the "Unit Price" set in the Agreement, or fixed by subsequent agreement between the Owner and the Contractor.
- C. On a cost-plus-limited-basis, not to exceed a specified maximum limit of cost:

"COST" as herein used shall be the actual and necessary cost incurred by the Contractor by reasons of the change in the work for:

- 1) labor
- 2) materials
- 3) equipment rental
- 4) insurance premiums

- a) Labor costs shall be the amount shown on the Contractor's payroll taxes added when such taxes can be shown to have been incurred. In no case shall the rates charged for labor exceed the rates paid by the Contractor for the same class of labor employed by him to perform work under the regular items of the Contract.
- b) Materials costs shall be the net price paid for material delivered to the site of the work. If any material previously required is omitted by the written order of the Owner after it has been delivered to or partially worked on by the Contractor and consequently will remain its full value for other uses, the Contractor shall be allowed the actual cost of the omitted material less a fair market value of the material as determined by the Owner.
- c) Equipment rental shall be the actual additional costs incurred for necessary equipment. Costs shall not be allowed in excess of usual rentals charged in the area for similar equipment of like size and condition; including the costs of necessary supplies and repairs for operating the equipment. No costs, however, shall be allowed for the use of equipment on the site in connection with other work unless its use incurs actual and additional cost to the Contractor. If equipment not on the site is required for the change in the work only, the cost of transporting such equipment to and from the site shall be allowed.
- d) Insurance premiums shall be limited to those based on labor payroll and to the types of insurance required by the Contract. The amount allowed shall be limited to the net costs incurred as determined from the labor payroll covering the work. The Contractor shall, upon request of the Owner, submit verification of the applicable insurance rates and premium computations.

"PLUS" as herein used is defined as a percentage to be added to the items of "Cost" to cover superintendence, use of ordinary tools, bonds, overhead expense and profit. The percentage shall not exceed 15 percent on work done entirely by the Contractor and shall not exceed an aggregate total of 20 percent on work done by a subcontractor.

"SPECIFIED MAXIMUM LIMIT OF COST" is the amount stated in the written order of the Owner authorizing the change in the work. The amount to be allowed the Contractor shall be the "cost," "plus" the percentage or the specified maximum, whichever is the lesser amount.

The Contractor shall keep complete, accurate, daily record of the net actual cost of changes in the work and shall present such information in such form and at such times as the Owner may direct.

24. PATENTS

The Contractor shall pay all royalties and license fees and shall hold and save the Owner, PEA Group, and his agents harmless from all liability of any nature or kind, including cost and expenses, for, or account of, any patented or unpatented invention, process, article, or appliance manufactured or used in the performance of the Contract, including its use by the Owner, unless otherwise specifically stipulated in the Contract Documents. In this respect the Contractor shall defend all suits or claims for infringement of any patent or license right.

In the event that any claim, suit, or action at law or in equity of any kind, whatsoever is brought against the Owner, involving any such patents or license rights, then the Owner shall have the right to, and may, retain from any money due or to become due to the Contractor, such sufficient sum as is considered necessary to protect said Owner against loss, and such sum may be retained by the Owner until such claim or suit shall have been settled and satisfactory evidence to that effect shall have been furnished the Owner.

25. "OR EQUAL CLAUSE"

Whenever in any of the Contractor Documents an article, material or equipment is defined by describing a proprietary product, or by using the name of a manufacturer or vender, the term "or equivalent" if not inserted, shall be implied. The specific article, material or equipment mentioned shall be understood as indicating the type, function, minimum standard or design, effectiveness and quality desired and shall not be construed in such a manner as to exclude manufacturer's products of comparable quality, design and effectiveness. The Contractor shall comply with the requirements of the Contract Documents relative to an Owner's approval of materials and equipment before they are incorporated in the work.

26. CLEANING UP

The Contractor shall, as directed by the Engineer, remove at his own expense from the Owner's property and from all public and private property all temporary structures, rubbish and waste materials resulting from his operations. Unless otherwise stated on the plans or in supplemental specifications, the Contractor shall restore the job site to substantially the same condition as existed prior to beginning of work.

27. USE OF COMPLETED PORTIONS OF THE WORK

The Owner may, at any time during progress of the work, after written notice to the Contractor, take over and place in service any completed portions of the work which are ready for service, although the entire work of the Contract is not fully completed, and notwithstanding the time for completion of the entire work or such portions may not have expired. In such event, the Contractor will be relieved of maintenance of said portion, except as covered by his guarantee of same. The use of any portion of the work by the Owner under the provisions of this section, shall not constitute final acceptance of the work and shall not be construed to be a final pay estimate for such work. The date of final pay estimate shall be the date of final pay estimate for the entire project covered under this Contract.

28. PAYMENTS WITHHELD

The Owner may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any certificate for progress payment to such extent as may be necessary to protect the Owner from loss on account of:

- A. Defective work not remedied;
- B. Claims filed or reasonable evidence indicating probable filing of claims;
- C. Failure of the Contractor to make payments properly to subcontractors or for material or labor;

- D. A reasonable doubt that the Contract cannot be completed for the balance then unpaid;
- E. Damage to another contractor.

When the above grounds are removed, payment shall be made for amounts withheld because of them.

29. CONTRACTOR'S RIGHT TO STOP WORK

If the work should be stopped under an order of any court, or other public authority for a period of three (3) months, through no act or fault of the Contractor or of anyone employed by him, or if the Owner should fail to pay to the Contractor within sixty (60) days of its maturity and presentation any sum certified by the Engineer, provided no appeal is taken, the Contractor may, upon fourteen (14) days' written notice to the Owner and the Engineer, stop work or terminate this Contract, and shall receive from the Owner payment in full for all work executed, as determined from the prices contained in the approved detailed estimate as computed by the Engineer, but no claim for extra compensation or damages shall be made or allowed because of such termination of the Contract.

30. FAIR EMPLOYMENT PRACTICES ACT

“The contractor and any subcontractors shall not discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, marital status or a disability that is unrelated to the individual’s ability to perform the duties of a particular job or position.” Breach of these covenants may be regarded as a material breach of this Contract.

31. AUTHORITY

No agent of the Owner shall have power to revoke, alter, enlarge, or relax the stipulations or requirements of these specifications, except insofar as such authority may be specifically conferred by the specifications themselves, without the formal authorization to do so, conferred by the Contract or which the specifications are a part, or by ordinance, resolution, or other usual official action by the Owner.

32. STARTING WORK

Material shall be ordered and work shall begin on the ground within ten (10) days after the notice to proceed has been given, unless otherwise stated.

33. SANITARY REGULATIONS

Necessary sanitary conveniences for the use of laborers on the work, properly secluded from public observation, shall be constructed and maintained in sanitary condition by the Contractor, and their use shall be strictly enforced.

34. WEEKEND, HOLIDAY AND NIGHT WORK

The Contractor is required to prosecute work done under this Contract during the hours of daylight, and no work will be permitted at night or on Weekends (i.e. Saturdays and Sundays) or Holidays, except to save property or life or as specifically authorized or directed by the Engineer.

35. PROGRESS OF WORK

The work shall be prosecuted regularly and uninterruptedly, unless the Engineer shall otherwise specifically direct, with such force and at such points as to insure its full completion within the time herein stated.

If, in the opinion of the Engineer, it is necessary or advisable that certain portions of the work be done immediately, the Contractor, upon written order, shall proceed with such work without delay. Should he fail to so proceed, the Engineer may do or cause to be done, such work, and the cost of the same will be deducted from any money due or to become due the Contractor under this Contract.

36. TIME OF COMPLETION

The time allowed for completion of the work contemplated in this Contract shall be as stated in the Agreement or specifications.

37. DELAYS AND EXTENSION OF TIME

Should the Contractor be unavoidably delayed in the commencement, prosecution or completion of the work under this Contract by:

- A. Any act or omission of the Owner, or his agents;
- B. Injunctions, or acts of omissions of public authorities in consequence of acts of omissions of the Owner, or his agent;
- C. Reason of any cause or circumstances, weather conditions being specifically excepted, which the Owner shall decide is absolutely and clearly beyond the control of the Contract and not covered or contemplated by the Contract Documents; then the time for completion of said work shall be extended by the Owner, in writing, for a period equivalent to the time lost by reason of any of the aforesaid causes mentioned above. No such extensions shall be made unless the Contractor shall have presented to the Owner a written notice of the claim therefor within 48 hours of the occurrence of such delay; or in case of extra work or modification of the plans and specifications, unless he extension of time has been mutually agreed to by the Contractor and the Owner at the time the extra work or modification is ordered. It shall be the sole responsibility of the Contractor to present such pertinent facts and data as will satisfy the Owner that the delays as claimed are unavoidable and substantial, and could not be reasonable anticipated or adequately guarded against.

If, in the opinion of the Owner, it becomes necessary for maintaining the progress required to complete the Contract within the specified time or to the time extended, to work after regular hours, on Sundays or Holidays, the Contractor must immediately do so upon request without additional cost to Owner.

Permitting the Contractor to continue and finish the work, or any part of it, after the time fixed for its completion, or after the date in which the time for completion may have been extended shall in no way operate as a waiver on the part of the Owner of any of its rights under this Contract.

All days in which work is suspended by order of the Engineer, or in accordance with these specifications, shall automatically extend the time for completion an equal number of days.

38. LIQUIDATED DAMAGES

In the event of delay in the completion of the entire work required hereunder beyond the period here prescribed or beyond the period to which such time may be extended by authority of the Owner for good cause shown, the Owner shall be paid damages for such delay. In as much as the amount of such damage will be extremely difficult to ascertain, the Contractor agrees to compensate the Owner in the sum of One Hundred Dollars (\$100.00) for each and every calendar day that the time consumed in said performance and completion exceeds the time herein allowed for that purpose, which said sum is hereby agreed upon, fixed and determined by the parties hereto as the liquidated damages that the Owner will suffer by reason of said delay and default and not as penalty; and the Owner shall have the right to deduct and retain the amount of such liquidated damages from any moneys due or which may become due under this Contract. It is further agreed that permitting the Contractor to complete the work after the time fixed for its completion shall in no way operate as a waiver on the part of the Owner of any of his rights under this Contract.

39. TIME IS ESSENCE OF CONTRACT

It is distinctly understood and agreed to by the parties hereto that the time specified for the completion of the work is the essence of this Contract, and the Contractor shall not be entitled to claim performance of this agreement unless the work is satisfactorily completed in every respect, within the time herein specified.

40. ESTIMATED QUANTITIES

The quantities of the various classes of work to be done and materials to be furnished under this Contract, which have been estimated as stated elsewhere herein, are approximate and only for the purpose of comparing, on a uniform basis, the bids offered for the work under this Contract; and neither the Owner nor his agents is to be held responsible should any of the said estimated quantities be found incorrect during the construction of the work; and the Contractor shall make no claim for anticipated profit, nor for loss of profit, because of a difference between the quantities of the various classes of work actually done or materials actually delivered and the estimated quantities as herein stated.

41. FORFEITURE OF CONTRACT

If the work to be done under the Contract shall be abandoned by the Contractor, or if at any time in the judgment of the Owner, the Contractor shall fail to prosecute the work at a reasonable rate of progress, or to comply with all or any part of the terms and requirements herein set forth, then the Owner shall have the right to take possession of the work, including Contractor's plant, supplies, and materials, at any time after having notified the Contractor in writing to discontinue the work under this Contract for said cause or causes, and such action shall not affect the right of the Owner to recover damages resulting from such failure. Upon receiving such notice, the Contractor shall and will, upon demand, immediately give the Owner safe and peaceable possession of the work, including the plant, and shall then cease to have control over any portion thereof or the men employed thereon.

The Owner may then proceed to complete the work herein specified by Contract or otherwise; and the entire cost of same shall be charged to the Contractor and deducted from any sum or sums due or to become due under the Contract; the excess cost, if any, to be paid by the Contractor or his sureties, to said Owner.

42. NO WAIVER OF CONTRACT

Neither the acceptance of the whole or any part of the work by the Owner or his Engineer, or any of its agents, nor any order, measurements, or certificate by the Engineer, nor any order by the Owner for the payment of money, nor any payment for the whole or any part of the work by the Owner, nor any extension of time, nor any possession taken by the Owner or its agents, shall operate as a waiver for any portion of the Contract or any power therein reserved to the Owner, or any right to damages therein provided; nor shall any waiver of any breach of the Contract be held to be a waiver of any other or subsequent breach.

43. PAYMENT NOT TO BE STOPPED

The Owner shall not, nor shall any office thereof, be precluded or stopped by any return or certificate made or given by the Engineer or other office, agent or appointee, under the provisions of this agreement, at any time (either before or after the final completion and acceptance of the work and payment made therefor pursuant to any such return or certificates showing the true and correct amount of money due therefore notwithstanding any such return or certificate, or any payment made in accordance therewith) from demanding and receiving from the Contractor or his sureties, separately or collectively, such sums as may have been improperly paid said Contractor by reason of any return or certificate which has been untruly or incorrectly compiled.

44. GUARANTEE

The Contractor shall guarantee to the Owner for a period of two (2) years from the date of final payment to keep in good order and repair any defect in all the work done under this Contract, either by the Contractor or his subcontractors, or the material suppliers, that may develop during said period due to improper materials, defective equipment, workmanship, or arrangements, and any other work affected in making good such imperfections shall also be made good, all without expense to the Owner, and the Contractor shall execute, in favor of the Owner, a Maintenance and Guarantee Bond, which is a part of these Contract Documents.

45. ESTIMATES AND PAYMENTS

The Owner shall pay and the Contractor receive the prices bid in the proposal, or agreed upon, less any deduction for any uncompleted portion, based upon measurements made by the Engineer or as otherwise herein stipulated, and such measurements shall be final and conclusive.

As an aid to the Owner in preparing estimates for progress payments, the Contractor may be required to submit to the Owner for approval, a breakdown of some or all Contract unit prices into their essential component parts. The sum of the component parts shall not exceed the total Contract price per unit and the breakdown shall not overrule the Contract price per unit.

The Contractor shall submit to the Owner a written request for each payment and a Contractor's Declaration declaring that he has not performed any work, furnished any material, sustained any loss, damage or delay, for any reasons, including soil conditions encountered or created, or otherwise done anything for which he will ask, demand, sue for, or claim compensation from the Owner other than as indicated on the Contractor's Declaration. When requested by the Owner, the Contractor shall submit receipts or other vouchers showing his payments for materials and labor, including payments to subcontractors.

Payments based on progress estimates will be made within thirty (30) days of receipt by the Township of the progress estimates for work completed during the preceding month or since the date of the last preceding progress payment. Payments will be in accordance with the provisions of Act 524 of the Michigan Public Acts of 1980 and in accordance with the terms of this Contract. No allowance will be made for materials furnished which are not incorporated in the finish work, unless otherwise stated.

Pursuant to Act 524, Michigan Public Acts of 1980, the Owner shall designate a person representing it to whom written requests for payments shall be submitted. The Contractor shall designate a person who shall submit written requests for payment to the Owner.

In the event a dispute arises over an avoidable or unacceptable delay in the performance of the work as described in Section 4 (3) of Act 524 of Michigan Public Acts of 1980 (MCLA 125.1564 (3) the dispute may, at the option of the Owner, be submitted for resolution in accordance with the provisions of Section 4 of Act 524 of Michigan Public Acts of 1980 to an agent designated pursuant to Section 4 (2) of the Act. The dispute resolution process described above shall be used only for the purpose of determining the rights of the parties to retained funds and interest earned on retained funds. Nothing herein shall impair the right of the Owner to bring an action in any court of jurisdiction to determine the rights of the parties.

The Owner may withhold payment of any estimates or portion of estimate until the Contractor shall have furnished satisfactory evidence that he has paid all claims of every nature.

No payment shall be considered as acceptance of the work or any portion thereof prior to the final completion of the work and payment of the final estimate.

Within thirty (30) days after the completion of the work under this Contract to the satisfaction of the Owner and the Engineer, in accordance with all and singular terms and stipulations herein contained, the Owner shall make final payment, from a final estimate made by the Engineer.

Before final payment is made, the Contractor shall, as directed by the Owner, make Contractors Affidavit that he has paid or satisfactorily secured all claims of every nature; and shall furnish releases from the surety or sureties and permit agencies, as applicable, approving payment of final estimate by the Owner.

The acceptance by the Contractor of the final payment aforesaid shall operate as, and shall be, a release to the Owner and his Agents, from all claim and liability to the Contractor for anything done or furnished for, relating to the work, or for any act or neglect of the Owner or of any person relating to or affecting the work.

46. WAIVERS OF LIENS

Before receiving final payment, the Contractor shall furnish the Engineer with two (2) copies of waivers of lien from all supplies of labor and material for the project.

Neither the final payment nor any part of the retained percentage shall become due until the Contractor shall deliver to the Owner a complete release of any or all claims or liens arising out of this Contract, or receipts in full in lien thereof, and in either case, an affidavit that so far as he has knowledge or information, the releases and/or receipts include all the labor and material for which a claim or lien could be filed. However, if any person, firm, or corporation which has filed a claim or lien refuses to furnish a release or a receipt in full therefor, any payment which would otherwise become due will be made, provided, the Surety on the Contractor's Labor and Material Bond consents in writing to such payment to the Owner and further furnishes the Owner an affidavit that said Surety will indemnify the Owner against such claim or lien.

If any claim or lien remains unsatisfied the Owner reserves the right to use monies earned by the Contractor to discharge said claim or lien including all associated costs.

47. INSURANCE

The Contractor, and any and all of their subcontractors, shall not commence work under this contract until they have obtained the insurance required under this paragraph, and shall keep such insurance in force during the entire life of this contract. All coverage shall be with insurance companies licensed and admitted to do business in the State of Michigan and acceptable to Charter Township of Oakland and Charter Township of Oakland Parks and Recreation Commission. The requirements below should not be interpreted to limit the liability of the Contractor. All deductibles and SIRs are the responsibility of the Contractor.

The Contractor shall procure and maintain the following insurance coverage:

- A. Workers' Compensation Insurance, including Employers' Liability Coverage, in accordance with all applicable statutes of the State of Michigan.
- B. Commercial General Liability Insurance on an "Occurrence Basis" with limits of liability not less than \$1,000,000 per occurrence and aggregate. Coverage shall include, but not limited to, the following: (A) Contractual Liability; (B) Products and Completed Operations; (C) Independent Contractors Coverage; (D) Broad Form General Liability Extensions or equivalent; (E) Explosion, Collapse, and Underground, if applicable.
- C. Automobile Liability, including Michigan No-Fault Coverages, with limits of liability not less than \$1,000,000 per occurrence combined single limit for Bodily Injury, and

Property Damage. Coverage shall include all owned vehicles, all non-owned vehicles, and all hired vehicles.

- D. Additional Insured: Policy(ies) and coverages as described above, excluding Workers' Compensation Insurance, shall include an endorsement stating the following shall be *Additional Insureds*: The Charter Township of Oakland, The Charter Township of Oakland Parks and Recreation Commission, Paint Creek Trailways Commission, all elected and appointed officials, all employees and volunteers, agents, all boards, commissions, and/or authorities and board members, including employees and volunteers thereof. It is understood and agreed by naming the Charter Township of Oakland, Charter Township of Oakland Parks and Recreation Commission, Paint Creek Trailways Commission as additional insureds, coverage afforded is considered to be primary and any other insurance the Charter Township of Oakland, Charter Township of Oakland Parks and Recreation Commission, Paint Creek Trailways Commission may have in effect shall be considered secondary and/or excess.
- E. Owners' and Contractors' Protective Liability: A separate Owners' and Contractors' Protective Liability Policy with limits of liability not less than \$1,000,000 per occurrence and aggregate. The Charter Township of Oakland, Charter Township of Oakland Parks and Recreation Commission, Paint Creek Trailways Commission shall be "Named Insured" on said coverage.
- F. Cancellation Notice: Policy(ies), as described above, shall be endorsed to state the following: It is understood and agreed Thirty (30) days, Ten (10) days for non-payment of premium, Advance Written Notice of Cancellation, Non-Renewal, Reduction, and/or Material Change shall be sent to: (Charter Township of Oakland and Charter Township of Oakland Parks and Recreation Commission, 4393 Collins Road, Rochester, Michigan 48306).
- G. Proof of Insurance Coverage: The Contractor shall provide Charter Township of Oakland, Charter Township of Oakland Parks and Recreation Commission at the time the contracts are returned for execution a Certificate of Insurance as well as the required endorsements. In lieu of required endorsements, a copy of the policy sections, where coverage is provided for additional insured and cancellation notice, may be acceptable. Copies of all policies mentioned above shall be furnished, if so requested.

Required liability limits may be obtained by using an Excess/Umbrella Liability policy in addition to the primary liability policy(ies). If coverage limits are satisfied by an Excess and/or Umbrella policy, coverage must follow form of the primary liability policy(ies), including but not limited to additional insured and primary/non-contributory coverage.

If any of the above coverages expire during the term of this contract, the Contractor shall deliver renewal certificates, endorsements, and/or policies to Charter Township of Oakland, Charter Township of Oakland Parks and Recreation Commission at least ten (10) days prior to the expiration date.

CONTRACTOR'S DECLARATION

I hereby declare that I have not, during the period _____ to _____, A.D., 2026, performed any work, furnished any material, sustained any loss, damage or delay for any reason, including soil conditions encountered or created, or otherwise done anything for which I shall ask, demand, sue for, or claim compensation from _____ the Owner, or his agents, in addition to the regular items set forth in the contract numbered _____ and dated _____, A.D., 2026, for _____
_____ executed between myself and the Owner, and in the Change Orders for work issued by the Owner in writing as provided thereunder, except as I hereby claim for additional compensation and/or extension of time, as set forth on the itemized statement attached hereto.

Date: _____

(Contractor)

By _____

Title _____

GENERAL SPECIFICATIONS

1. INTENT

It is the intention of these General Specifications to describe work which may be performed or required on the safety path project.

2. DISPOSAL OF EXCAVATED MATERIAL

With the exception of an amount of excavated materials sufficient for backfilling and construction of fills as called for on the plans, all broken concrete, stone and excess excavated materials shall be disposed of by the Contractor. The Contractor will be required to obtain his own disposal ground, and will receive no additional compensation for disposing of any of the excess materials.

3. SOIL CONDITIONS

Soil borings have not been obtained by the Owner for this project. The Contractor shall assume all risk and responsibility and shall complete the work in whatever materials, and under whatever conditions he may encounter or create without additional cost to the Owner.

4. TREES

The Contractor shall preserve and protect all trees along the line of his work except where specified herein to be removed and not replaced, and shall assume all risk and responsibility for any damage to trees which he may cause or create as the result of his/her operations under this Contract.

The Contractor will receive no additional compensation for preservation or protection of trees; for removal, disposal, replacement, trimming, or repair of damaged trees; or for other treatment specified herein except where noted.

All work affecting all trees shall be done using the best nursery practice of the industry. Any trees, roots, trimmings and stumps which are removed during performance of the contract work shall be disposed of in a manner acceptable to the Engineer. Burial of trees or tree related refuse in the backfill of any excavation for contract work shall be expressly prohibited. All diseased trees or diseased tree related refuse, and all Elm trees or Elm tree related refuse shall be disposed of by burning or by other methods approved by the Michigan Department of Agriculture. Open burning shall not be done where prohibited by ordinance.

Trees along the line of the work affected by the Contractor's operations which die shall be removed completely by the Contractor and replaced as specified by paragraph D (3) below entitled, "REMOVE - REPLACE". Trees planted by the Contractor shall be guaranteed for two (2) years from the date when the tree removal and replacement has been completed and accepted by the Owner.

To prevent the spread of Oak Wilt Disease, any oak trees to remain on site shall be protected from injury during construction. If pruning is required for on-site oak trees, it must be done during the dormant season. If an oak tree is injured during construction, the wounded area of the tree shall be immediately treated with commercial tree paint or wound dressing. If oak trees are removed during construction during the growing season, stumps shall be treated with tree paint if the stumps are to remain.

Contract work affecting trees located within the public right-of-way (dedicated or assumed) under the jurisdiction of the Road Commission for Oakland County (R.C.O.C.) or of the Michigan Department of Transportation (M.D.O.T.) shall be governed by the requirements of the permits issued by these respective agencies.

In some instances it may be the policy of other governmental agencies to issue permits which specify requirements of contract work affecting trees. Requirements of such permits shall govern within the geographic boundaries established by the permit.

The Contractor shall conduct and control his operations in accordance with the following specific requirements where trees are encountered in the performance of all contract work. Where such requirements differ from those specified by permits issued by the Road Commission for Oakland County (R.C.O.C.), by the Michigan Department of Transportation (M.D.O.T.) or other governmental agency, permit requirements shall govern.

- A. PERMANENT EASEMENT - Trees may not be removed unless otherwise indicated on the Contract Drawings or in the Supplemental Specifications.
- B. TEMPORARY CONSTRUCTION EASEMENT - Trees shall not be clear cut. Trees three (3) inches in diameter and smaller may be removed unless otherwise indicated on the Contract Drawings, or in the Supplemental Specifications. Trees larger than three (3) inches in diameter may not be removed unless otherwise indicated on the Contract Drawings or in the Supplemental Specifications, and only with prior approval of the Engineer.
- C. PRIVATE OR PUBLIC ROAD RIGHT-OF-WAY - Trees located at a distance six (6) feet or less from the centerline of construction may not be removed unless otherwise indicated on the Contract Drawings, in the Supplemental Specifications, or by governing permit.

Trees located more than six (6) feet from the centerline of construction shall not be clear cut. Trees three (3) inches in diameter and smaller may be removed unless otherwise indicated on the Contract Drawings, in the Supplemental Specifications, or by governing permit. Trees larger than three (3) inches in diameter may not be removed unless otherwise indicated on the Contract Drawings, in the Supplemental Specifications, or by governing permit, and only with prior approval of the Engineer.

- D. DEFINITION AND APPLICATION OF TERMS
 - 1) Where the term "REMOVE" is indicated to apply to a specific tree, the Contractor shall remove the tree completely.
 - 2) Where the term "CONDITIONAL - REMOVE" is indicated to apply to a specific tree, the Contractor may work around such tree and preserve and protect it from

damage; or may remove such tree completely. If such tree is removed, the Contractor shall pay to the Owner the dollar amount set forth on the Contract Drawings or in the Supplemental Specifications. Such dollar amount will be deducted from any monies due the Contractor on a subsequent regular construction estimate.

- 3) Where the term "REMOVE - REPLACE" is indicated to apply to a specific tree, the Contractor shall remove the tree completely and plant a replacement tree. The selection of the replacement tree shall be governed by the following, appropriate conditions:
 - a) The type and size tree noted on the plans or in the Supplemental Specifications.
 - b) A comparable quality tree at least two (2) inches in diameter from nursery stock acceptable to the Engineer.
 - c) The specific tree removed, if proper precautions are taken to prevent damage or permanent injury to the tree.
- 4) Where the term "PROTECT" is indicated to apply to a specific tree, the Contractor shall work around such tree and shall preserve and protect it from damage. Earth Bore under this term is permissible under proper soil conditions which condition shall be determined at the time of construction by the Contractor.
- 5) Where the term "PROTECT - TUNNEL" is indicated to apply to a specific tree, the Contractor shall tunnel or bore such tree.

E. OPEN CUT EXCAVATION OF TREES

- 1) Trees three (3) inches in diameter and smaller may be removed and re-planted if proper precautions are taken to prevent damage or permanent injury to the tree.
- 2) Trees eight (8) inches in diameter and smaller should not be open cut closer than four (4) feet as measured from the center of the tree to the nearest point of open cut or excavation. Undermining of the root structure or disturbance to the soil closer than four (4) feet from the total depth of open cut or excavation should be avoided.
- 3) Trees larger than eight (8) inches in diameter and smaller than twenty-four (24) inches in diameter should not be open cut closer than the radius of the main trunk in inches multiplied by one (1) foot. For example, a twelve (12) inch diameter tree should not be open cut closer than six (6) feet. The controlling distance shall be measured from the center of the main trunk to the nearest point of open cut or excavation. Undermining of the root structure or disturbance to the soil closer than the controlling distance for the total depth of open cut or excavation should be avoided.
- 4) Trees twenty-four (24) inches in diameter thru thirty-six (36) inches in diameter should not be open cut closer than twelve (12) feet. The controlling distance shall be measured from the center of the main trunk to the nearest point of open cut or excavation. Undermining of the root structure or disturbance to the soil closer than the controlling distance for the total depth of open cut or excavation, should be avoided.
- 5) Trees larger than thirty-six (36) inches in diameter should not be open cut closer than one-third (1/3) the diameter of the main trunk in inches multiplied by one (1) foot. For example, a forty-two (42) inch diameter tree should not be open cut

closer than fourteen (14) feet. The controlling distance shall be measured from the center of the main trunk to the nearest point of open cut or excavation. Undermining of the root structure or disturbance to the soil closer than the controlling distance for the total depth of open cut or excavation should be avoided.

F. FILLING UNDER AND AROUND TREES

Permanent placement of earth fill above existing ground level, under or around any existing tree, without the prior consent of the Engineer, should be avoided. Damage to trees may result from permanent placement of fill materials on the existing ground surface, and over the root system.

5. WORKING SPACE

In his operations, the Contractor shall interfere as little as possible with traffic, and in all cases shall confine his operations to the minimum space possible.

Stockpiling of construction material and equipment will be permitted as necessary; but in no case shall traveled ways, driveways, or entrances be obstructed, without the approval of the Engineer.

Should the Contractor desire space on private property, he may obtain such space on privately owned property at his own expense, by agreement with the Owner thereof. For the purpose of this section, the decision of the Engineer with respect to existing conditions and the need for corrective measures thereof, shall be final. When construction staging areas are provided per easement, the Contractor shall place and store all materials for the work within the limits of the construction staging area. The Contractor shall access the construction staging area as designated on the construction and easement documents.

6. FINAL CLEANUP-GRADING-LANDSCAPING-TOP SOIL AND SEEDING

Upon completion of construction and before final payment is made, the Contractor shall restore his working area to as clean a condition as existed before his operations were started. He shall go over the entire line and refill any places that may have settled. He shall then regrade and put in shape all backfilled trenches, all fills he may have made from excess excavated materials, and all other areas that may have been disturbed through his operations.

The Contractor shall restore the job site to substantially the same condition as existed prior to beginning of work. All topsoil in the area of the excavation or in any area which will be disturbed by construction, shall be excavated and stockpiled. After backfilling is completed and settlement has taken place, the topsoil shall be replaced. No topsoil is to be replaced while the ground is in a wet and muddy condition. Topsoil removal, stockpiling, replacement and seeding as necessary, shall be as directed by the Engineer. Minimum seeding requirement shall be M.D.O.T., in accordance with, 2003 Specification 816.03 Turf Establishment Construction Method for Roadside or Class A Seeding and modified as follows:

Where the Contractor has disturbed lawn area, he shall provide not less than three (3) inches of topsoil approved by the Engineer, grade, seed and fertilize the area with not less than 5-lbs. of seed and 10-lbs. of fertilizer per 1000-sq. ft. of area. Seed shall be M.D.O.T. Mixture Class "A" or approved equal, or of a special mixture, such as bent or Merion Blue, if required, to match or equal existing lawn. Fertilizer shall be 10-6-4 commercial type. If a safety path or trail traverses

a “natural area”, the special seed mixture shall be a native seed mix, similar to the vegetation disturbed, and as approved by the Owner.

Seeding shall be done in an approved manner. The seed shall be covered by light raking or dragging. Methods of application and covering must have prior approval of the Owner and Engineer.

All seeded areas shall be immediately covered with a mulch. Mulch shall be loose enough to allow sunlight to penetrate and air to circulate slowly, but thick enough to shade the ground, reduce the rate of evaporation and reduce wind or water erosion. The Contractor shall maintain the mulch until a root system is established.

Mulch shall be straw or other organic material approved by the Engineer. The mulch shall be held in place by an asphalt emulsion or other adhesive material approved by the Engineer. Asphalt emulsion shall conform to M.D.O.T. SS-1S or AE-1M and shall be applied uniformly at the rate of 4 - 5/gal. per 1000-sq.-ft. of area.

The contractor may restore areas disturbed by his operations with sod instead of seed, with the approval of the Engineer. In addition, sod shall be placed where called for on the drawings or in the supplemental specifications. Sod shall be placed on a prepared bed of suitable soil. On slopes steeper than 1-vertical to 3-horizontal, the sod shall be pegged with wooded pegs driven flush with the surface of the sod. Sod placed by the Contractor shall match existing lawn.

If any special landscaped area is disturbed, because of the operations of the Contractor, it shall be reasonably restored to its original condition by the Contractor.

Seedings, as may be required by Road Permits, shall be done in accordance with requirements of governing body issuing said Road Permits. The Contractor shall re-work any areas where the sod or seed does not produce a satisfactory growth.

Final cleanup, grading, landscaping, topsoil and seeding work shall be commenced and completed immediately upon completion of construction, unless otherwise authorized by the Engineer.

If, in the opinion of the Engineer, work has not progressed in a reasonable manner, he shall have the right to direct the Contractor to proceed with the work or any portion thereof immediately. In the event that the Contractor does not proceed with the work immediately, as directed by the Engineer, the Engineer may order any or all other operations of the Contractor, under this Contract, to cease until the final cleanup, grading, landscaping, topsoil and seeding and restoration work is proceeding in an acceptable manner.

7. EXISTING STRUCTURES AND UTILITIES

The location of existing public and/or private underground structures and utilities shown on the plans is in accordance with the information found.

No guarantee is given or implied that the locations are absolutely accurate or that underground structures or utilities other than those shown are not present. The Contractor shall uncover such structures and/or utilities for a reasonable distance ahead of his construction operations to permit accurate location of such facilities, and to permit field corrections in grade and/or alignment to be made where necessary.

8. PUBLIC AND PRIVATE UTILITIES - ROAD PERMITS

- A. Utilities - Where any utilities, water, sewer, gas, telephone or any other either public or private, are encountered, the Contractor must provide adequate protection for them and he will be held responsible for any damages to such utilities arising from his operations.

When it is apparent that construction operations may endanger the foundation of any utility conduit, or the support of any structure, the Contractor shall notify the utility owner of this possibility and he shall take such steps as may be required to provide temporary bracing or support of conduits or structures.

In all cases where permits or inspection fees are required by utilities in connection with changes to or temporary support of their conduits, the Contractor shall secure such permits and pay all inspection fees.

When it is necessary in order to carry out the work, that a pole, electric or telephone, be moved to a new location, or moved and replaced after construction, the Contractor shall arrange for the moving of such pole or poles, and the lines thereof, and shall pay any charges therefor.

Where it is the policy of any utility owner to make his own repairs to damaged conduit or other structures, the Contractor shall cooperate to the fullest extent with the utility owner and he shall see that his operations interfere as little as possible with those operations.

- B. Existing Sewer Facilities - In instances, existing sewers or drains may be encountered along the line of work. In all such cases, the Contractor shall perform his operations in such a manner that sewer service will not be interrupted; and shall, at his own expense, make all temporary provisions to maintain sewer service.

Unless otherwise indicated on the plans, the Contractor shall replace any disturbed sewer or drain, or re-lay same at a new grade to be established by the Engineer such that sufficient clearance for the sewer will be provided.

The Contractor will receive no additional compensation for replacement of sewers or drains encountered, or for re-laying at a new grade.

- C. Existing Water Facilities - Where existing water mains are encountered in the work; they shall be maintained in operation. If necessary, they shall be re-laid, using ductile iron pipe conforming to current Owner specifications with offsets, bends and sleeves. The Contractor will receive no additional compensation for the relaying and/or lowering or raising of water mains.

- D. Existing Gas Facilities - Where existing gas mains are encountered, the Contractor shall arrange with the gas company for any necessary relaying, and shall pay for the cost of such work.

- E. Roads and Road Permits - The Contractor shall obtain any necessary construction permits for work within public streets, highways, roads or alleys. He shall pay for same at his own expense as well as for any inspection fees that may be required in connection with such permits, and in addition to all other requirements of these contract documents, shall

conduct his entire operation in accordance with provisions of such permits including tunneling of pavements where required. He shall also furnish any required bonds and/or cash deposits and pay the cost of same. In the event that the Contractor fails to furnish the owner with proof of payment within ten (10) days after receipt of billing for the above mentioned charges, the owner will assume that the charges are equitable and unpaid and the Owner will pay such bills and deduct that sum plus 10 percent for handling costs from any money due or to become due the Contractor under the terms of this contract. Improved roadways or walkways damaged by the Contractor shall be repaired to substantially the same condition as existed prior to beginning of work unless otherwise stated on plans or in Supplemental Specifications.

9. DANGEROUS GASES

If gas is present in existing sewers or open excavations in which the Contractor must work, the sewer or open excavation shall be cleared of gas before entering. If the gas cannot be removed by natural ventilation, or by the removal of manhole covers on existing sewer appurtenances, the Contractor shall maintain forced draft or such other gas control or removal process as may be necessary to render the sewers or open excavation safe as determined by gas detection instruments and shall pay all associated costs.

10. MAINTENANCE AND RESTORATION OF ROAD SURFACES, STRUCTURES, AND TRENCH BACKFILL

All structures, including curbing, walks, paving, gravel and all street road surfaces that may be damaged or destroyed by the Contractor's operations, shall be maintained, repaired and replaced by him at his own expense.

In order to ensure proper maintenance of service, the Contractor shall follow immediately behind the construction operation with the restoration of all drainage facilities including driveway and road culverts, catch basins, manholes, ditches, sewers, and any other structure as deemed necessary by the Engineer. Mailboxes where removed or disturbed shall be reset immediately. Fences where removed or disturbed shall be replaced as soon as is practicable.

The trench backfill may be neatly mounded over the centerline of the excavation to provide sufficient material to establish the original grade after settlement has taken place. All construction debris, equipment, and excess dirt shall be removed from the site. Stockpiling of excess excavated materials in large piles will not be allowed without permission of the Engineer.

All haul roads, detour roads, gravel roads, and driveways must be maintained in a dust-free condition during the life of this contract.

The control of the dust shall be accomplished by the application of dust control materials and methods of application which are in accordance with the requirements of the agency having jurisdiction over the roadway. Such dust control materials shall be applied as often as is necessary to control the dust. The use of road oils and waste oils to control dust is prohibited.

Cost of providing dust control shall be considered incidental to the project.

Should the Contractor be negligent of his duties in providing dust control, the Owner may, with or without notice, cause the same to be done and deduct the cost of such work from any monies due or to become due the Contractor under the contract, but the performance of such work by the

Owner, or at his insistence, shall serve in no way to release the Contractor from his liability for dust control.

Where concrete or Asphalt areas are disturbed, temporary cold patching will be required as elsewhere in these contract documents.

Maintenance and restoration of road surfaces, structures and trench backfill shall be commenced and completed within a reasonable length of time after construction. If in the opinion of the Engineer work has not progressed in a reasonable manner, he shall have the right to direct the Contractor to proceed with the work or any portion thereof immediately. In the event that the Contractor does not proceed with the work immediately, as directed by the Engineer, the Engineer may order any or all other operations of the Contractor, under this contract, to cease until the maintenance and restoration of road surfaces, structures and trench backfill is proceeding in an acceptable manner.

11. REPLACEMENT OF SHRUBBERY

The Contractor shall protect and/or replace all shrubbery damaged or destroyed by operations under this contract.

12. EASEMENTS

This Contract may require work to be performed within easements provided by the Owner. All easements provided by the Owner are on file in the office of the Owner, and are available for inspection. The Contract Documents show the location and limits of all such easements.

Easements provided by the Owner may also include specific written conditions or restrictions. Either the Contract Drawings, the Supplemental Specifications, or both, disclose such conditions or restrictions. The Contractor shall compare and verify conditions or restrictions of all easements whether or not shown on the plan or in the Supplemental Specifications or contained in the office of the Owner.

The Contractor shall conduct his operations in easements to comply with all requirements contained in easement agreements including those directed specifically to the "Contractor," to the "Owner," or the "Grantee." All costs necessary to comply with such easement agreements shall be included in the Contract bid prices.

Additional agreements obtained by the Contractor from any property owner that alter or extend the rights granted under an easement agreement provided by the Owner, or any additional easement agreements obtained by the Contractor from any property owner, shall be obtained by the Contractor at his own expense. Such additional agreements or easement agreements shall not be binding upon the Owner. The Contractor shall defend and hold the Owner harmless from any action that may arise from activities related to such additional agreements or easement agreements. In the event the easement obtained by the Contractor is to change the plan and permanent location of the utility, the easement shall run to the owner, all without cost or obligations to the Owner.

13. MONUMENTS

Monuments or other recognized property boundary markers at street intersections, section corners, acreage or lot corners, and right-of-way lines shall be preserved and protected. Where such monuments or markers must be removed during construction, the Engineer shall be notified and the Contractor shall make all necessary arrangements, at his own expense, with a Land Surveyor registered in the State of Michigan to have these monuments or markers properly witnessed prior to disturbance or removal and later reset by the Registered Land Surveyor.

14. MAINTENANCE OF TRAFFIC

During the progress of the work, the Contractor shall accommodate both vehicular and pedestrian traffic in both the road rights-of-way and the project area as provided in these specifications. Access to fire hydrants, water and gas valves shall always be maintained. All of the Contractor's operations on public streets shall be governed by requirements and standards of the *Road Commission for Oakland County*, and all local traffic ordinances and regulations of the local Fire and Police Departments.

Working sites at manholes, alignment holes, and other minor openings in streets need not be fenced but they shall not be larger than necessary and shall be well protected by barricades and lights and shall be covered with strong steel plates anchored in place, when they are not required to be open for construction purposes.

Detouring of traffic shall be done in accordance with the requirements of the governmental agency having jurisdiction therefor.

Where streets are partially obstructed, the Contractor shall place and maintain temporary driveways, ramps, bridges and crossings which, in the opinion of the Engineer, are necessary to accommodate the public. In the event of the Contractor's failure to comply with the foregoing provisions, the Owner may, with or without notice, cause the same to be done and deduct the cost of such work from any monies due or to become due the Contractor under this Contract, but the performance of such work by the Owner, or at his insistence, shall not release the Contractor from his liability for the safety of the traveling public.

The Contractor shall provide flagmen, warning lights, signs and barricades necessary to direct and protect vehicular and pedestrian traffic.

The Contractor shall inform the local Police, Fire and Public Services Departments in advance of his program of street obstructions and detours, so that those Departments have ample time to develop plans for servicing the area in case of an emergency. He shall also notify the Owner at least one (1) week prior to obstructing any street.

15. PROGRESS SCHEDULE

The Progress Schedule as called for in INSTRUCTIONS TO BIDDERS, Item 6., entitled QUALIFICATIONS OF BIDDERS shall show in a clear, graphical manner the proposed dates for the commencement and completion of each of the various subdivisions of the work. The schedule shall be predicated on starting the work within ten (10) days after the notice to proceed, and on the completion, dates outlined in the AGREEMENT, Article II, entitled THE TIME. The

schedule shall indicate the number of crews, including sub-contractors if any are to be employed on the project, and the manner and times in which they will be utilized.

Should the Contractor elect to change the progress schedule by the addition of one or more crews, he shall notify the Engineer in writing along with revised progress schedule one (1) week prior to the addition of any crew(s).

Should the Contractor elect to change his location of work or move to a different area, he shall notify the Engineer 72-hours in advance (excluding weekends and holidays) of his intended move.

If during the course of the work, the time of completion of the Contract is extended, or if in the opinion of the Owner the progress is behind schedule so as to affect its completion, the Progress Schedule may be corrected to show the revised commencement and completion dates of those parts of the work which are affected.

Time of completion may be critical and the Contractor shall increase his work force, extend hours of operation or take other appropriate actions to assure timely completion. Should conditions warrant an extension of the Contract time, the Contractor shall immediately request said extension and shall justify, in writing to the Engineer, the reasons. No additional compensation will be allowed due to extension of the date of completion. The Engineer shall make a recommendation on the request with the final decision by the Owner.

16. SOIL EROSION AND SEDIMENTATION CONTROL (SESC)

The Contractor shall make every effort to minimize: (1) the area of disturbed land exposed and unprotected against the erosive action of wind, ice, precipitation and/or the flow of water; and (2) the duration of such exposure.

The Contractor shall control erosion and intercept sediment as set forth by the provisions of the Soil Erosion and Sedimentation Control Act of 1972, Act 347 and shall conform with all the requirements of the Oakland County Water Resources Commissioner enforcing said act.

All sedimentation control facilities shall be maintained in an operating condition satisfactory to the designated agency, for the period of time which that agency deems necessary. This provision applies to all facilities that directly receive waters from the earth-change area, whether such facilities are a part of the proposed construction or existed prior to proposed construction. Temporary stabilization measures shall be repeated when, and as often as, required by the aforementioned agency.

Any facility constructed for the conveyance of water around, through or from the earth-change area shall limit the water flow to a non-erosive velocity.

"Temporary" sedimentation control devices and facilities shall be removed upon completion of the primary construction. The land surface area formerly occupied by such facilities shall then be graded and restored in accordance with the plans and specifications.

END OF SECTION

SUPPLEMENTAL SPECIFICATIONS

Note: The following articles form an integral part of these bidding/contract documents. The Bidder/Contractor shall be responsible for inclusion of all detailed information described herein when deriving unit prices/contract price.

Conflicts arising between these supplemental specifications and the remainder of the bid/contract package (plans and bid/contract book) shall defer to the supplemental specifications.

1. It shall be the Contractor's responsibility to secure all permits and pay all permit fees associated with the permits. Actual cost of the permits will be reimbursed by the owner. All permits must be obtained by the Contractor prior to commencing any construction work.
2. Contractor will still be required to contact Miss Dig for field location of private utility lines prior to commencing construction work.
3. The Bidder/Contractor shall be responsible for all traffic control as required to provide a safe work environment as well as for safe passage of traffic. It shall be incumbent upon the Contractor to supply all required light boards, barricades, signs, flaggers or other resources as necessary to ensure safe traffic conditions.

SUPPLEMENTAL SPECIFICATIONS

TRAFFIC CONTROL

1. TRAFFIC CONTROL

- A. This work shall consist of maintaining traffic as specified herein for the Charter Township of Oakland, Safety Paths 2026 Repair Program project. Traffic shall be maintained according to Sections 104.11, 812 and 922 of the MDOT *2020 Standard Specifications for Construction*, including any Supplemental Specifications, except as modified herein.

2. COORDINATION

- A. The Contractor shall notify the Engineer and the Road Commission for Oakland County (R.C.O.C.) a minimum of 72 business hours prior to the implementation of any lane closures and/or major traffic shifts.
- B. The Contractor shall coordinate his operations with R.C.O.C. and any other Contractors performing work on other projects within or adjacent to the Construction Influence Area (CIA) as described below. No additional compensation will be paid to the Contractor for delays and/or inefficiencies resulting from any other projects.
- C. R.C.O.C. maintenance crews may perform maintenance work within or adjacent to the Construction Influence Area (C.I.A.). The R.C.O.C. will coordinate their operations with the Engineer to minimize the interference to the Contractor. No additional payment will be made to the Contractor for the joint use of the traffic control items specified for this project, or for delays and/or inefficiencies resulting from maintenance activities.
- D. Traffic is to be maintained at all times. The Contractor will provide necessary flaggers, temporary signage, arrow boards, traffic barrels, traffic cones, etc. to maintain traffic. Traffic may be limited to two-way traffic on one (1) lane during construction activities, with the appropriate flaggers and signage, but is to be re-opened for two-way traffic on all lanes after the completion of each day's construction activities. Placement of signage and other traffic control devices are to comply with the current Michigan Department of Transportation (M.D.O.T.) and Road Commission for Oakland County (R.C.O.C.) standards as well as the Michigan Manual for Uniform Traffic Control Devices (M.U.T.C.D.). All work associated with Traffic Control is to be paid for in the lump sum bid item identified as "Traffic Control".

3. CONSTRUCTION INFLUENCE AREA (C.I.A.)

The Construction Influence Area (C.I.A.) shall include the right-of-way of the following roadways, within the approximate limits described below:

- A. *Adams Road (between Dutton Road and Silverbell Road)*
- B. *Dutton Road (between Kingspointe Drive and Adams Road)*
- C. *Gallagher Road (between Silverbell Road and Orion Road)*
- D. *Orion Road (at intersection with Collins Road)*
- E. *Silverbell Road (between Kern Road and Country Crossing Drive)*
- F. *Silverbell Road (between Adams Road and Gallagher Road)*

4. TRAFFIC RESTRICTIONS

- A. No work shall be performed or lane closures allowed during any national holiday period, as defined by the Engineer.
- B. Lane closures will not be permitted from 7:00 to 8:30 AM and 4:00 to 6:00 PM weekdays.
- C. No lane closures or flagging sequences will be allowed where the Contractor can accomplish the work without a closure in the opinion of R.C.O.C. and/or the Engineer. Lane closures and flagging operations will be allowed only in areas and situations deemed necessary by R.C.O.C. and/or the Engineer. This lane closure prohibition or approval by R.C.O.C. and/or the Engineer includes brief closures for truck loading and unloading, dumping, etc.
- D. All work shall be conducted during daytime hours only. Night work may be permitted, at the discretion of R.C.O.C. and/or the Engineer. However, any additional cost for maintaining traffic shall be borne by the Contractor.
- E. Flag control shall be used as directed by R.C.O.C. and/or the Engineer for cross street vehicular and pedestrian traffic. Additional flaggers used at unsignalized intersections and driveways, as directed by R.C.O.C. and/or the Engineer, shall be incidental to the project. Note: Only uniformed police officers may override active traffic signals.
- F. Sign covers shall be placed over existing regulatory, warning and construction signs that are not applicable during construction. The Contractor shall notify R.C.O.C. and the Engineer at least 24 hours in advance of erection or removal of overlays on existing signs.
- G. Once work is initiated that includes any lane restrictions, that work shall be continuous until completed. A lack of work activity in the opinion of R.C.O.C. and/or the Engineer will require the removal and replacement of lane restrictions at the Contractor's expense.

5. TRAFFIC CONTROL DEVICES

- A. Temporary signs
 - 1. All temporary signs that will be in place for more than fourteen (14) days shall be mounted on driven posts. All temporary signs that will be in place for less than fourteen (14) days may also be mounted on driven posts but at least shall be mounted on posts with secure bases adequately sandbagged against overturning.

6. MEASUREMENT AND PAYMENT

- A. Traffic control is incidental to the project and paid for in the lump sum base bid price.

END OF SECTION

SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Submittal procedures.
- B. Construction progress schedules.
- C. Proposed products list.
- D. Product data.
- E. Shop drawings.
- F. Test reports.
- G. Certificates.
- H. Manufacturer's instructions.
- I. Manufacturer's field reports.

1.2 SUBMITTAL PROCEDURES

- A. Transmit each submittal with Engineer accepted form.
- B. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix.
- C. Identify Project, Contractor, subcontractor and supplier; pertinent drawing and detail number, and specification section number, appropriate to submittal.
- D. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and Contract Documents.
- E. Schedule submittals to expedite Project, and deliver to Engineer at 7927 Nemco Way, Suite 115, Brighton, MI 48116. Coordinate submission of related items.
- F. For each submittal for review, allow 15 days excluding delivery time to and from Contractor.
- G. Identify variations from Contract Documents and product or system limitations, which may be detrimental to successful performance of completed Work.
- H. Allow space on submittals for Contractor and Engineer review stamps.

- I. When revised for resubmission, identify changes made since previous submission.
- J. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.
- K. Submittals not requested will not be recognized or processed.

1.3 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial schedules within 10 days after date established in Notice to Proceed. After review, resubmit required revised data within ten days.
- B. Submit revised Progress Schedules with each Application for Payment.
- C. Distribute copies of reviewed schedules to Project site file, subcontractors, suppliers, and other concerned parties.
- D. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.
- E. Submit computer generated horizontal bar chart with separate line for each section of Work, identifying first work day of each week.
- F. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate early and late start, early and late finish, float dates, and duration.
- G. Indicate estimated percentage of completion for each item of Work at each submission.
- H. Submit separate schedule of submittal dates for shop drawings, product data, and samples, including products identified under Allowances, and dates reviewed submittals will be required from Engineer. Indicate decision dates for selection of finishes.
- I. Indicate delivery dates for products identified under Allowances.
- J. Revisions to Schedules:
 - 1. Indicate progress of each activity to date of submittal, and projected completion date of each activity.
 - 2. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.
 - 3. Prepare narrative report to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken, or proposed, and its effect including effect of changes on schedules of separate contractors.

1.4 PROPOSED PRODUCTS LIST

- A. Within 10 days after date of Notice to Proceed, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

1.5 PRODUCT DATA

- A. Product Data: Submit to Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Submit number of copies Contractor requires, plus two copies Engineer will retain.
- C. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- D. Indicate product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- E. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES.

1.6 SHOP DRAWINGS

- A. Shop Drawings: Submit to Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. When required by individual specification sections, provide shop drawings signed and sealed by professional engineer responsible for designing components shown on shop drawings.
 - 1. Include signed and sealed calculations to support design.
 - 2. Submit drawings and calculations in form suitable for submission to and approval by authorities having jurisdiction.
 - 3. Make revisions and provide additional information when required by authorities having jurisdiction.
- D. Submit number of reproductions Contractor requires, plus two copies Engineer will retain.
- E. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES.

1.7 TEST REPORTS

- A. Submit for Engineer's knowledge as contract administrator or for Fiscal Agent.
- B. Submit test reports for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

1.8 CERTIFICATES

- A. When specified in individual specification sections, submit certification by manufacturer, installation/application subcontractor, or Contractor to Engineer, in quantities specified for Product Data.

- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product but must be acceptable to Engineer.

1.9 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, to Engineer for delivery to Fiscal Agent in quantities specified for Product Data.
- B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

1.10 MANUFACTURER'S FIELD REPORTS

- A. Submit reports for Engineer's benefit as contract administrator or for Fiscal Agent.
- B. Submit report in duplicate within 24 hours of observation to Engineer for information.
- C. Submit for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01 40 00

QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quality control and control of installation.
- B. Tolerances.
- C. References.
- D. Testing and inspection services.
- E. Examination.
- F. Preparation.

1.2 QUALITY CONTROL AND CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. When manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work by persons qualified to produce required and specified quality.
- F. Verify field measurements are as indicated on Shop Drawings or as instructed by manufacturer.

1.3 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. When manufacturers' tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

1.4 REFERENCES

- A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Obtain copies of standards where required by product specification sections.
- C. When specified reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.
- D. Neither contractual relationships, duties, nor responsibilities of parties in Contract nor those of Engineer shall be altered from Contract Documents by mention or inference otherwise in reference documents.

1.5 TESTING AND INSPECTION SERVICES

- A. Employ and pay for services of an independent testing agency or laboratory acceptable to Fiscal Agent to perform specified testing.
 - 1. Prior to start of Work, submit testing laboratory name, address, and telephone number, and names of full time registered Engineer and responsible officer.
 - 2. Submit copy of report of laboratory facilities inspection made by Materials Reference Laboratory of National Bureau of Standards during most recent inspection, with memorandum of remedies of deficiencies reported by inspection.
- B. The independent firm will perform tests, inspections and other services specified in individual specification sections and as required by Engineer or Authority having jurisdiction.
 - 1. Laboratory: Authorized to operate at Project location.
 - 2. Laboratory Staff: Maintain full time registered Engineer on staff to review services.
 - 3. Testing Equipment: Calibrated at reasonable intervals with devices of an accuracy traceable to National Bureau of Standards or accepted values of natural physical constants.
- C. Testing, inspections and source quality control may occur on or off project site. Perform off-site testing as required by Engineer or Fiscal Agent.
- D. Reports will be submitted by independent firm to Engineer, Contractor, and authority having jurisdiction, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
 - 1. Submit final report indicating correction of Work previously reported as non-compliant.
- E. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.
 - 1. Notify Engineer and independent firm 24 hours prior to expected time for operations requiring services.
 - 2. Make arrangements with independent firm and pay for additional samples and tests required for Contractor's use.
- F. Testing and employment of testing agency or laboratory shall not relieve Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

- G. Re-testing or re-inspection required because of non-conformance to specified requirements shall be performed by same independent firm on instructions by Engineer. Payment for re-testing or re-inspection will be charged to Contractor by deducting testing charges from Contract Sum/Price.
- H. Agency Responsibilities:
 - 1. Test samples of mixes submitted by Contractor.
 - 2. Provide qualified personnel at site. Cooperate with Engineer and Contractor in performance of services.
 - 3. Perform specified sampling and testing of products in accordance with specified standards.
 - 4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 5. Promptly notify Engineer and Contractor of observed irregularities or non-conformance of Work or products.
 - 6. Perform additional tests required by Engineer.
 - 7. Attend preconstruction meetings and progress meetings.
- I. Agency Reports: After each test, promptly submit [two] copies of report to Engineer, Contractor, and authority having jurisdiction. When requested by Engineer, provide interpretation of test results. Include the following:
 - 1. Date issued.
 - 2. Project title and number.
 - 3. Name of inspector.
 - 4. Date and time of sampling or inspection.
 - 5. Identification of product and specifications section.
 - 6. Location in Project.
 - 7. Type of inspection or test.
 - 8. Date of test.
 - 9. Results of tests.
 - 10. Conformance with Contract Documents.
- J. Limits on Testing Authority:
 - 1. Agency or laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. Agency or laboratory may not approve or accept any portion of the Work.
 - 3. Agency or laboratory may not assume duties of Contractor.
 - 4. Agency or laboratory has no authority to stop the Work.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.

- B. Verify existing substrate is capable of structural support or attachment of new Work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Verify utility services are available, of correct characteristics, and in correct locations.

3.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

END OF SECTION

SECTION 12 93 00
SITE FURNISHINGS

PART 1 GENERAL

1.1 SUMMARY

- A. Furnish and install the following:
 - 1. Regulatory/Safety Signage & Wayfinding Signage
- B. Related Sections:
 - 1. Section 32 13 13 – Concrete requirements.

1.2 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.
- B. Product Data: For each type of product.
- C. Samples: For each exposed product and for each color and texture specified.
- D. Samples for Initial Selection: For units with factory-applied finishes.
- E. Samples for Verification: For each type of exposed finish, not less than 6-inch (152-mm) long linear components and 4-inch (102-mm) square sheet components.
- F. Product Schedule: For site furnishings. Use same designations indicated on drawings.

1.3 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For site furnishings to include in maintenance manuals.

PART 2 PRODUCTS

2.1 REGULATORY/SAFETY SIGNAGE & WAYFINDING SIGNAGE MATERIALS

- A. Aluminum: Alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated; free of surface blemishes and complying with the following:
 - 1. Rolled or Cold-Finished Bars, Rods, and Wire: ASTM B 211 (ASTM B 211M).
 - 2. Extruded Bars, Rods, Wire, Profiles, and Tubes: ASTM B 221 (ASTM B 221M).
 - 3. Structural Pipe and Tube: ASTM B 429/B 429M.
 - 4. Sheet and Plate: ASTM B 209 (ASTM B 209M).
 - 5. Castings: ASTM B 26/B 26M.
- B. Steel and Iron: Free of surface blemishes and complying with the following:
 - 1. Plates, Shapes, and Bars: ASTM A 36/A 36M.
 - 2. Steel Pipe: Standard-weight steel pipe complying with ASTM A 53/A 53M, or electric-resistance-welded pipe complying with ASTM A 135/A 135M.

3. Tubing: Cold-formed steel tubing complying with ASTM A 500/A 500M.
 4. Mechanical Tubing: Cold-rolled, electric-resistance-welded carbon or alloy steel tubing complying with ASTM A 513, or steel tubing fabricated from steel complying with ASTM A 1011/A 1011M and complying with dimensional tolerances in ASTM A 500/A 500M; zinc coated internally and externally.
 5. Sheet: Commercial steel sheet complying with ASTM A 1011/A 1011M.
 6. Perforated Metal: From steel sheet, not less than 0.120-inch (3.0-mm) nominal thickness; manufacturer's standard perforation pattern.
 7. Expanded Metal: Carbon-steel sheets, deburred after expansion, and complying with ASTM F 1267.
 8. Malleable-Iron Castings: ASTM A 47/A 47M, grade as recommended by fabricator for type of use intended.
 9. Gray-Iron Castings: ASTM A 48/A 48M, Class 200.
- C. Anchors, Fasteners, Fittings, and Hardware: Stainless steel commercial quality, tamperproof, vandal and theft resistant.
- D. Nonshrink, Nonmetallic Grout: Premixed, factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107/C 1107M; recommended in writing by manufacturer, for exterior applications.
- E. Erosion-Resistant Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with potable water at Project site to create pourable anchoring, patching, and grouting compound; resistant to erosion from water exposure without needing protection by a sealer or waterproof coating; recommended in writing by manufacturer, for exterior applications.
- F. Galvanizing: Where indicated for steel and iron components, provide the following protective zinc coating applied to components after fabrication:
1. Zinc-Coated Tubing: External, zinc with organic overcoat, consisting of a minimum of 0.9 oz./sq. ft. (0.27 kg/sq. m) of zinc after welding, a chromate conversion coating, and a clear, polymer film. Internal, same as external or consisting of 81 percent zinc pigmented coating, not less than 0.3 mil (0.0076 mm) thick.
 2. Hot-Dip Galvanizing: According to ASTM A 123/A 123M, ASTM A 153/A 153M, or ASTM A 924/A 924M.

2.2 FABRICATION

- A. Metal Components: Form to required shapes and sizes with true, consistent curves, lines, and angles. Separate metals from dissimilar materials to prevent electrolytic action.
- B. Welded Connections: Weld connections continuously. Weld solid members with full-length, full-penetration welds and hollow members with full-circumference welds. At exposed connections, finish surfaces smooth and blended so no roughness or unevenness shows after finishing and welded surface matches contours of adjoining surfaces.
- C. Pipes and Tubes: Form simple and compound curves by bending members in jigs to produce uniform curvature for each repetitive configuration required; maintain cylindrical cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of handrail and railing components.

- D. Exposed Surfaces: Polished, sanded, or otherwise finished; all surfaces smooth, free of burrs, barbs, splinters, and sharpness; all edges and ends rolled, rounded, or capped.
- E. Factory Assembly: Assemble components in the factory to greatest extent possible to minimize field assembly. Clearly mark units for assembly in the field.

2.3 GENERAL FINISH REQUIREMENTS

- A. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.4 ALUMINUM FINISHES

- A. Baked-Enamel, Powder-Coat Finish: Manufacturer's standard, baked, polyester, powder-coat finish complying with finish manufacturer's written instructions for surface preparation, including pretreatment, application, baking, and minimum dry film thickness.

2.5 STEEL AND GALVANIZED-STEEL FINISHES

- A. Baked-Enamel, Powder-Coat Finish: Manufacturer's standard, baked, polyester, powder-coat finish complying with finish manufacturer's written instructions for surface preparation, including pretreatment, application, baking, and minimum dry film thickness.
- B. PVC Finish: Manufacturer's standard, UV-light stabilized, mold-resistant, slip-resistant, matte-textured, dipped or sprayed-on, PVC-plastisol finish, with flame retardant added; complying with coating manufacturer's written instructions for pretreatment, application, and minimum dry film thickness.

2.6 IRON FINISHES

- A. Baked-Enamel, Powder-Coat Finish: Manufacturer's standard, baked, polyester, powder-coat finish complying with finish manufacturer's written instructions for surface preparation, including pretreatment, application, baking, and minimum dry film thickness.

2.7 STAINLESS-STEEL FINISHES

- A. Surface Preparation: Remove tool and die marks and stretch lines, or blend into finish.
- B. Polished Finishes: Grind and polish surfaces to produce uniform finish, free of cross scratches.
- C. Run directional finishes with long dimension of each piece.
- D. Directional Satin Finish: No 4.
- E. Dull Satin Finish: No. 6.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for correct and level finished grade, mounting surfaces, installation tolerances, and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. Comply with manufacturer's written installation instructions unless more stringent requirements are indicated. Complete field assembly of site furnishings where required.
- B. Unless otherwise indicated, install site furnishings after landscaping and paving have been completed.
- C. Install site furnishings level, plumb, true, and securely anchored at locations indicated on Drawings.
- D. Post Setting: Set cast-in support posts in concrete footing with smooth top, shaped to shed water. Protect portion of posts above footing from concrete splatter. Verify that posts are set plumb or at correct angle and are aligned and at correct height and spacing. Hold posts in position during placement and finishing operations until concrete is sufficiently cured.
- E. Posts Set into Voids in Concrete: Form or core-drill holes for installing posts in concrete to depth recommended in writing by manufacturer of site furnishings and 3/4 inch (19 mm) larger than OD of post. Clean holes of loose material, insert posts, and fill annular space between post and concrete with non-shrink, nonmetallic grout, mixed and placed to comply with anchoring material manufacturer's written instructions, with top smoothed and shaped to shed water.

END OF SECTION

SECTION 31 10 00

SITE CLEARING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Remove debris.
 - 2. Remove designated asphalt and concrete pavement.
 - 3. Remove designated fence.
 - 4. Remove designated trees, shrubs, and other plant life.
 - 5. Strip topsoil.
- B. Related Sections:
 - 1. Section 31 22 13 - Rough Grading.

1.2 QUALITY ASSURANCE

- A. Perform Work in accordance with local governing agency standards.
- B. Conform to the local governing agency code for environmental requirements and disposal of debris.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Locate and protect survey control and reference points. Promptly notify Engineer of discrepancies discovered.
- C. Control datum for survey is that shown on Drawings.
- D. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
- E. Promptly report to Engineer loss or destruction of reference point or relocation required because of changes in grades or other reasons.
- F. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Engineer.

- G. Verify existing plant life designated to remain.

3.2 PREPARATION

- A. Call Local Utility Line Information service, MISS DIG, at 1-800-482-7171 not less than three working days before performing Work.
 - 1. Request underground utilities to be located and marked within and surrounding construction areas.

3.3 PROTECTION

- A. General Site Protection:
 - 1. Protect from damage existing items indicated to remain by the erection of barriers or by other appropriate means to ensure protection.
 - 2. Barricade all open depressions, excavations, pits and the like. Provide adequate barricades at all times. Construct barricades of fencing materials and/or lumber conforming to local safety regulations. Remove barriers and fences when no longer required.
 - 3. Maintain and keep public sidewalks, highways and streets in a condition satisfactory to local and/or state officials, and provide necessary watchmen if, and as required, in the use of public thoroughfares. Keep public sidewalks, highways and roads clean of spillage at all times.
- B. Utility Protection:
 - 1. Locate, identify, and protect from damage existing utilities indicated to remain by the erection of barriers or by other appropriate means to ensure protection.
- C. Tree Protection:
 - 1. Protect all trees to remain as designated on plan or as determined in field from damage or injury by any construction operation or equipment, from abuse by workers or any other danger that might arise as a result of this contract.
 - 2. Where existing trees are vulnerable to damage by construction operations or as indicated and/or as indicated on plan, erect suitable barriers around trees to be protected.
 - 3. Require any damage to trees resulting from insufficient protection to be repaired by a competent tree surgeon to the satisfaction of the Engineer.
 - 4. Remove barriers when protection is no longer required.
 - 5. The owner shall be compensated for the full value of trees damaged beyond repair. Value shall be determined by guidelines proposed by the Council of Tree and Landscape Appraisers as interpreted by a member of the American Society of Consulting Arborists.

3.4 CLEARING

- A. Remove trees and shrubs (if any), grass, other vegetation, improvements or obstructions interfering with installation of Work as indicated on plans or as directed in project kick-off meeting. Removal includes digging out stumps and roots. Coordinate portions of this work with others as determined in the project kick-off meeting.

3.5 REMOVAL

- A. Remove any debris, rock, and extracted plant life from site. All debris resulting from site clearing operations shall be hauled off site.

- B. Remove asphalt paving, concrete sidewalks, ramps and curbs as indicated on Drawings. Neatly saw cut pavement edges at right angle to surface.
- C. Remove chain link fencing and posts where indicated on drawings. Remove designated fence material from site.
- D. Continuously clean-up and remove waste materials from site. Do not allow materials to accumulate on site.
- E. Do not burn or bury materials on site. Leave site in clean condition.

3.6 TOPSOIL STRIPPING

- A. Strip grass and topsoil to full depth of topsoil from areas to be further excavated or re-graded. Do not excavate wet topsoil.
- B. Stockpile topsoil alongside of work area, outside of grading limits. Construct stockpile area to positively drain surface water.
- C. Remove excess excavated subsoil and topsoil not intended for reuse, from site.

END OF SECTION

SECTION 32 12 16

ASPHALT PAVING

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Asphalt materials.
2. Aggregate materials.
3. Aggregate subbase.
4. Asphalt paving leveling course and wearing course.

B. Related Sections:

1. Section 31 22 13 - Rough Grading: Preparation of site for paving and base.
2. Section 31 23 23 - Fill: Compacted subbase for paving.
3. Section 32 05 16 - Aggregates for Exterior Improvements: Product requirements for aggregate for placement by this section.

1.2 REFERENCES

A. American Association of State Highway and Transportation Officials:

1. AASHTO M140 - Standard Specification for Emulsified Asphalt.

B. ASTM International:

1. ASTM D977 - Standard Specification for Emulsified Asphalt.
2. ASTM D979 - Standard Practice for Sampling Bituminous Paving Mixtures.
3. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort.
4. ASTM D1559 – Test Method for Resistance of Plastic Flow of Bituminous Mixtures Using Marshall Apparatus.
5. ASTM D2172 - Standard Test Methods for Quantitative Extraction of Bitumen from Bituminous Paving Mixtures.
6. ASTM D2950 - Standard Test Method for Density of Bituminous Concrete in Place by Nuclear Methods.
7. ASTM D3549 - Standard Test Method for Thickness or Height of Compacted Bituminous Paving Mixture Specimens.

C. MDOT 2012 Standard Specifications for Construction and Supplemental Specifications.

1.3 SUBMITTALS

A. Product Data:

1. Submit product information for asphalt and aggregate materials.
2. Submit mix design with laboratory test results supporting design.

B. Manufacturer's Certificate: Certify that materials specified in this section meet or exceed the specified requirements.

- C. The paving contractor shall execute the Guarantee for Bituminous Pavement form located at the end of this section per the requirements set forth on the form.

1.4 QUALITY ASSURANCE

- A. Mixing Plant: Certified by State of Michigan.
- B. Obtain materials from same source throughout.
- C. Perform Work in accordance with Michigan Department of Transportation (MDOT) standards.

1.5 QUALIFICATIONS

- A. Installer: Company specializing in performing work of this section with minimum of five (5) years documented experience.

1.6 ENVIRONMENTAL REQUIREMENTS

PART 2 PRODUCTS

2.1 ASPHALT MATERIALS

- A. Asphalt Cement: Shall comply with the requirements of ASTM D3381 for viscosity graded asphalt cement AC-10 (85-100 penetration grade) and meet the requirements of Section 501 of the Michigan Department of Transportation Standard Specifications for Construction (latest edition).
- B. Reclaimed Asphalt Pavement (RAP): Processed material obtained by milling or full depth removal of existing asphalt paving.

2.2 AGGREGATE MATERIALS

- A. Coarse Aggregate: Shall consist of crushed stone, crushed gravel, a mixture of uncrushed gravel with either crushed stone or crushed gravel, or other inert material having similar characteristics. It shall be composed of clean, tough, durable fragments free from an excess of flat or elongated pieces and shall be free of organic matter and deleterious substances and meet the requirements of Section 902 of the Michigan Department of Transportation Standard Specifications for Construction (latest edition).
- B. Fine Aggregate: Shall be well graded from coarse to fine and consist of natural sand, stone screenings or a blend of natural sand and stone screenings. It shall be composed of rough surfaced and angular grains of quartz or other hard durable rock and meet the requirements of Section 902 of the Michigan Department of Transportation Standard Specifications for Construction (latest edition).
- C. Mineral Filler: Shall be limestone dust, dolomite dust, slag or hydrated lime meeting the requirements of Section 902 of the Michigan Department of Transportation Standard Specifications for Construction (latest edition).

2.3 MIXES

- A. Use dry material to avoid foaming. Mix uniformly.
- B. Asphalt Paving Mixtures: Designed in accordance with the Michigan Department of Transportation Standard Specifications for Construction (latest edition).
 - 1. Bike Path Wearing Course: MDOT 36A (1.5" Depth). 15% Max. R.A.P. Content
 - 2. Bike Path Leveling/Base Course: MDOT 36A (1.5" Depth). 15% Max. R.A.P. Content
 - 3. Standard Duty Asphalt: MDOT 13A (1.5" Depth), 27% Max. R.A.P. Content
 - 4. Standard Duty Asphalt and Deep Strength Asphalt Binder Grade – MDOT PG 64-28
 - 5. Bike Path Binder Grade – MDOT PG 58-28
 - 6. Deep Strength Asphalt (RCOC) – MDOT 5E10 (2" Depth)
 - 7. Deep Strength Asphalt (RCOC) – MDOT 4E10 (3" Depth)
 - 8. Deep Strength Asphalt (RCOC) – MDOT 3E10 (4" Depth)
 - 9. Bond Coat – SS-1H at .05 gals/s.y.

2.4 SOURCE QUALITY CONTROL

- A. Submit proposed mix design of each class of mix for review prior to beginning of Work.
- B. Test samples in accordance with ASTM D979, D2172 and D2950.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify utilities indicated under paving are installed with excavations and trenches backfilled and compacted.
- C. Verify compacted subgrade, aggregate base course and subbase is dry and ready to support paving and imposed loads.
 - 1. Proof roll subbase with a (25-ton minimum weight) rubber-tired roller or loaded dump truck in a minimum of two perpendicular passes to identify soft spots.
 - 2. Remove soft subbase and replace with compacted fill as specified in Section 31 23 23.
- D. Verify gradients and elevations of base are correct.
- E. Verify all manhole, catch basin and inlet grates and frames (and any other type of casting within the area to be paved) are installed in correct position and at correct elevation.

3.2 SUBBASE AND BASE COURSE

- A. Aggregate Subbase and/or Base Course to be installed per Section 32 05 16.

3.3 EXISTING WORK

- A. Saw cut existing paving as indicted on Drawings.

- B. Clean existing paving to remove foreign material, excess joint sealant and crack filler from paving surface.
- C. Repair surface defects in existing paving to provide uniform surface to receive new paving.

3.4 DOUBLE COURSE ASPHALT PAVING

- A. Place wearing course to the thickness as indicated on Drawings.
- B. Compact each course by rolling to specified density (Ninety-seven (97) percent of the recorded laboratory specimen density per ASTM D1559). Do not displace or extrude paving from position. Hand compact in areas inaccessible to rolling equipment.
- C. Perform rolling with consecutive passes to achieve even and smooth finish, without roller marks.

3.5 ERECTION TOLERANCES

- A. Flatness: Maximum variation of 1/4 inch as measured with 10 foot straight edge.
- B. Scheduled Compacted Thickness: No less than specified on the Drawings.
- C. Variation from Indicated Elevation: Within 1/4 inch.

3.6 FIELD QUALITY CONTROL

- A. Record the locations where samples are taken to correlate with subsequent testing.
- B. Sample asphalt paving in accordance with ASTM D979.
- C. Asphalt Cement Content: ASTM D2172; three tests for each days paving unless otherwise directed or specified by the Owner.
- D. Asphalt Paving Mix Temperature: Measure temperature at time of placement.
- E. Asphalt Paving Thickness: ASTM D3549; perform five tests for each days paving unless otherwise directed or specified by the Owner.
- F. Asphalt Paving Density: ASTM D2950 nuclear method; perform five tests for each days paving unless otherwise directed or specified by the Owner.
- G. Additional testing may be required if any of the previous tests indicate insufficient values. If two successive tests indicate insufficient values, contact the Owner for a course of action.
- H. Asphalt concrete materials not complying with specified requirements shall be repaired or removed and replaced with new paving.

3.7 PROTECTION OF FINISHED WORK

- A. Immediately after placement, protect paving from mechanical injury for at least 6 hours or until surface temperature is less than 140 degrees F.

END OF SECTION

DATE:

CONTRACTOR:

STREET ADDRESS:

CITY, STATE, ZIP:

AGENT:

GUARANTEE FOR BITUMINOUS PAVEMENT

We hereby guarantee that the Asphalt Pavement which we have installed at _____ for has been done in strict accordance with the Drawings and Specifications. We will repair or replace, or agree to have repaired or replaced, all Work which may prove to be defective in workmanship or materials. We will repair or replace, or agree to have repaired or replaced, any adjacent Work which required repair or replacement because of our defective Work. We guarantee the Work for two years from the date of acceptance by the Owner

Failure to comply with the above paragraph within 10 days after receipt of written notice from the Owner, or failure to Work with diligence, authorizes the Owner to proceed with repair of the defective Work. We shall pay the costs and charges for the repairs along with interest at the maximum rate permitted by law upon demand. If we fail to fulfill the preceding obligation, and if the Owner brings an action to enforce this guarantee, we agree to pay the Owner's reasonable attorney fees incurred.

CONTRACTOR'S SIGNATURE

- (a) The Paving Contractor shall execute the Guarantee Form as shown above.
- (b) All Manufacturer's Warranties for materials shall be filled out, dated, signed and submitted to Owner.

END OF SECTION

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
FOG SEAL

C&T:KPK

1 of 3

C&T:APPR:TC:CJB:05-27-11

a. Description. This work consists of furnishing all materials, equipment, labor and preparation necessary for an application of a fog seal following a chip seal to protect against water infiltration and weathering and to prevent loss of aggregate from the chip seal. A fog seal is a light application of a slow-setting emulsified asphalt diluted with water. All work and materials must be in accordance with the standard specifications, except as modified herein.

b. Materials. The material must meet the following requirement:

Asphalt Emulsion: CSS-1h..... 904

Dilute asphalt emulsion, at one part asphalt emulsion to one part water, at the emulsion plant.

c. Equipment. Use equipment that is safe, environmentally acceptable, and capable of producing a quality product.

1. Pressure Distributor. The pressure distributor must have the following characteristics:

A. Have a ground speed computer controlled device interconnected with the asphalt emulsion pump such that the specified application rate is supplied at any speed;

B. Be capable of maintaining the asphalt emulsion at the specified temperature.

C. Have spray bar nozzles capable of producing a uniform fan spray and with shutoff control that is instantaneous, with no dripping.

D. Be capable of maintaining the specified application rate within ± 0.015 gal/syd for each load.

2. Miscellaneous. Provide a power broom and all necessary hand tools, thermometers, etc. Distributors and power brooms must be equipped with at least one visible approved flashing, rotating, or oscillating amber light.

d. Pre-Paving On-Site Meeting. A pre-paving meeting between the Engineer and Contractor will be held prior to beginning work. The agenda for this meeting will include a review of the following:

1. Work schedule,
2. Traffic control plan,
3. Equipment calibration and adjustments,

4. Condition of materials and equipment, and
5. Quality control plan (JMF, Yield Check Methods, etc.).

e. Construction. Place the longitudinal construction joint at the edge of metal of the driving lane; at a location requiring a minimal overlap onto the driving lane; or at a location requiring a minimal overlap of the new longitudinal joint resulting from milling and resurfacing.

Where corrugations are present joints are to be constructed at the outside edge of the far side of the corrugation on the first pass. The joint must be placed at the outside edge of the opposite side of the corrugation for the second application.

Complete application of the fog seal within 48 hours of the application of chip seal, but not on the same day as the application of chip seal.

Apply the fog seal only when the pavement and air temperature is 55 degrees F or above. Do not apply the fog seal if there is threatening weather and temperatures are forecast to be below 32 degrees F within 24 hours from the time of application.

Use pressure sufficient to apply emulsion at a uniform rate, but without splattering or drilling from the spray bar. Adjust nozzle angle and spray bar height to ensure correct spray pattern.

Apply fog seal at a rate of 0.10 to 0.15 gallons of diluted material per square yard of pavement treated. Ensure the fog seal applications results in a uniform coverage of emulsion just sufficient to flow into and seal the pavement pores, small cracks, and voids. The asphalt emulsion application rate, as determined by a yield check, must not exceed a tolerance of ± 0.015 gal/syd from the established JMF application rate.

If a condition is identified that causes an unsatisfactory fog seal, stop all production work and perform corrective action immediately at no additional cost to the contract. If there are adverse environmental conditions, provide the Engineer an action plan that clearly demonstrates how the fog seal operation will be adjusted for the actual environmental conditions.

Allow the Engineer access to all work in progress for the purpose of quality assurance review and testing.

f. Quality Control. Establish, maintain, and follow an effective quality control system in accordance with current Department procedures. The quality control system must detail plans, procedures, and organization necessary to furnish and apply a fog seal that complies with the contract. Follow the quality control system until work is accepted.

Establish, maintain, and follow a Contractor Quality Control (CQC) plan sufficient to ensure that the warranty related treatment complies with the contract. The CQC plan must cover all fog seal operations. Submit a copy of the plan to the Engineer, at the pre-construction meeting, for approval. Follow the approved plan throughout the project.

Include the following information, at a minimum, in the CQC plan:

1. Materials to be used on the project.
2. Sampling and testing methods used to determine compliance with material

specifications.

- 3. Equipment to be used on the project.
- 4. Calibration method used to determine compliance with the application rates.
- 5. Procedures for pavement preparation.
- 6. Controls implemented by the Contractor to ensure that the fog seal material is cured or set up satisfactorily before opening to traffic.
- 7. Procedures implemented by the Contractor to for monitoring initial acceptance requirements.

g. Documentation. Provide the Engineer a daily report including the following information:

- 1. Control section, project number, county, route, Engineer;
- 2. Date, air temperature, pavement temperature, humidity;
- 3. Asphalt emulsion temperature;
- 4. Beginning and ending stations;
- 5. JMF: application and dilution rates (asphalt emulsion);
- 6. Yield checks on asphalt emulsion (3 per day, minimum);
- 7. Length, width, total square yards; and
- 8. Contractor's signature.

Provide asphalt emulsion documentation in accordance with current Department acceptance procedures.

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

Pay Item	Pay Unit
Seal, Fog.....	Square Yard

- 1. **Seal, Fog** includes all materials, equipment, and labor for placement of the asphalt emulsion including surface preparation, stationing, and documentation.

Section 502. HMA Crack Treatment

502.01. Description

This work consists of treating cracks in HMA surfaces using both a saw or rout and seal process and an overband process.

A. Definitions

Primary Crack. Crack $\frac{1}{8}$ inch to $1\frac{1}{4}$ inch wide with less than 25% of its length having secondary cracking.

Secondary Crack. Series of parallel cracks with no or few interconnecting cracks to the primary crack.

502.02. Materials

Provide materials in accordance with the following section:

Joint and Crack Sealants for Construction 914

- A. **Saw or Rout and Seal.** Provide a hot-poured, extra low-modulus, joint-and-crack sealant product from the Qualified Products List. Follow manufacturer's recommendation for material installation.
- B. **Overband.** Provide an overband crack fill asphalt rubber product from the Qualified Products List. Follow manufacturer's recommendation for material installation.

502.03. Construction

- A. **Equipment.** Provide equipment capable of meeting the requirements of this subsection.
1. **Compressed Air System.** Provide and use a compressed air system that produces a continuous, high-volume, high-pressure stream of clean, dry air to prepare cracks. Equip the air compressor with a moisture separator to remove oil and water from the air supply. Provide a compressor capable of producing at least 100 psi at a continuous air flow of 150 cfm.
 2. **Melter Applicator.** Provide a melter applicator consisting of a boiler kettle equipped with pressure pump, hose, and applicator wand. Equip the unit with the following:
 - a. Shutoff control on the applicator hose;
 - b. Mechanical agitator in the kettle to provide continuous blending;
 - c. Thermometers to monitor the material temperature and the heating oil temperature; and

- d. Thermostatic controls that allow the operator to regulate material temperature up to 425°F.
3. **Application Wand.** Apply the material using either a wand followed by a V-shaped or U-shaped squeegee or a round application head with a concave underside.
- B. **Pre-Production Meeting.** Before beginning work, conduct an on-site pre-production meeting with the Engineer to discuss the following:
1. Contractor's detailed work schedule;
 2. Traffic control plan;
 3. Required project documentation;
 4. Review crack treatment methods criteria;
 5. Inspection of the condition of equipment;
 6. The Contractor's *QC Plan*; and
 7. The Contractor's designated Authorized Representative.
- C. **Crack Preparation.** Clean and dry cracks using compressed air and other tools to remove loose dirt, vegetation, and deleterious material. Clean cracks no more than 10 minutes before filling. Any debris or vegetation removed from cracks in a curb and gutter section will be removed and disposed at no additional cost to the Department.
- D. **Crack Treatment Methods**
1. **Saw or Rout and Seal.** Treat primary transverse cracks in the pavement surface using the saw or rout and seal process. Treat primary transverse cracks in the shoulders unless otherwise directed.

Saw or rout, clean, and fill all primary transverse cracks. The Department defines a transverse crack as a crack less than 10 degrees off of perpendicular to the centerline.

The following cracks should not be sealed:

 - a. Secondary cracks;
 - b. Multiple nearby cracks that have raveled; and
 - c. Multiple cracks that include broken asphalt.

Saw or rout all primary transverse cracks as defined above by creating a reservoir along the crack. Create the reservoir to a volume of at least 7.5 cubic inches per foot of crack and with a 1:1 width-to-depth ratio. Ensure that the finished reservoir walls are vertical and the reservoir bottom is flat. Fill the reservoir such that the final level is

flush with the pavement surface and spread uniformly over the entire length of the crack. The width of the overband, including the routed reservoir, must be no more than 2½ inches wide with a thickness of ⅛ inch.

2. **Overband.** The Contractor will treat all other primary and secondary cracks with material placed in an overband configuration.

Apply overband material to clean, dry cracks. Apply overband 4 inches wide, $\pm\frac{1}{2}$ inch and from ⅛ inch to $\frac{3}{16}$ inch thick.

The Contractor may increase the maximum application width to 6 inches for coverage of multiple cracks, with Engineer approval.

Place temporary pavement markings before opening the road to traffic if overband material obliterates existing pavement markings.

Apply overband as follows unless otherwise required:

- a. **Stand Alone Overband Crack Fill.** If no other surface treatment is required on the pavement, fill visible cracks in the road less than 1¼ inch wide.
- b. **Micro-Surfacing Preparation.** If preparing the pavement for a micro-surface overlay, fill visible cracks in the road less than 1¼ inch wide. Allow to cure for a minimum of 3 days prior to placement of micro-surface.
- c. **Chip Seal Preparation.** If preparing the pavement surface for a single or double chip seal, fill cracks with widths from ¼ inch to 1¼ inch or 3 feet or longer. Allow to cure for a minimum of 7 days prior to placement of chip seal.
- d. **Paver-Placed Surface Seal (PPSS).** If preparing the pavement for a paver-placed surface seal, fill cracks with widths from ¼ inch to 1¼ inch or 3 feet or longer. Allow to cure for a minimum of 14 days prior to placement of PPSS.
- e. **HMA Ultra-Thin Overlay.** If preparing the pavement for an HMA ultra-thin overlay, fill visible cracks less than 1¼ inch wide. Allow to cure for a minimum of 14 days prior to placement of the HMA ultra-thin overlay.

Do not seal the following cracks when preparing the pavement for micro-surfacing, chip seals, paver-placed surface seals, or HMA ultra-thin overlays:

- i. Multiple nearby cracks that have raveled;
- ii. Multiple cracks that include broken asphalt; and

- iii. Multiple longitudinal cracks in each wheel path.
- E. **Weather Limitations.** Place material at air temperatures from 45°F to 85°F. Do not place material if moisture is present in the crack.
- F. **Cure Time and Repair.** Allow the material to cool before opening the road to traffic. Apply detackifying solution, if required, to protect the uncured crack treatment material from tracking. Do not use blotting materials, including sand, aggregate, sawdust, or paper. Repair treated pavement areas, damaged by traffic at no additional cost to the Department.
- G. **Quality Control.** Provide and follow a QC plan for production and construction processes. Provide the Engineer with a copy of the QC plan for review and approval, prior to the pre-production meeting. Maintain QC measures until the Engineer accepts the work.

Comply with the approved QC plan throughout the project and allow the Engineer access to work in progress for assurance review and testing. If the Engineer identifies a condition causing unsatisfactory crack treatment, immediately stop production and correct the work at no additional cost to the Department.

Ensure that the QC plan addresses the following:

1. A detailed description explaining how field crews will determine primary transverse and all other primary and secondary cracks. Separately detail projects with multiple pavement sections;
2. The sealant material and equipment used to heat, handle, and apply sealant material in accordance with the manufacturer's specifications. Provide the material manufacturer's specifications to the Engineer upon request;
3. Saw or rout and seal operation reservoir configuration;
4. Procedures for crack cleaning;
5. Replacement criteria for cutting tools;
6. Controls implemented to ensure that flying dust and debris are not directed toward adjacent traveled lanes, pedestrians, parked vehicles, or buildings;
7. An action plan for adjusting crack sealing operations to address actual environmental conditions if adverse environmental conditions occur; and
8. Proposed procedure for monitoring the work to ensure that acceptance requirements are met.

- H. **Acceptance.** Upon completion of work, schedule an inspection with the Engineer. The Engineer will note deficiencies, including areas exhibiting adhesion failure, cohesion failure, missed cracks, or other factors the Engineer determines unacceptable. Correct the unacceptable work. Notify the Engineer upon completion of corrective work.

502.04. Measurement and Payment Refer to Bid Form

Pay Item	Pay Unit
Overband Crack Fill, Lane	Lane Mile
Overband Crack Fill, Ramp	Lane Mile
HMA Crack Treatment, Lane	Lane Mile
HMA Crack Treatment, Ramp	Lane Mile

- A. **Overband Crack Fill.** The Engineer will measure **Overband Crack Fill, Lane** along the centerline of each lane. This measurement includes traffic lanes, as defined in the Lane Mile Inventory, and any adjacent paved shoulders.

The Engineer will measure **Overband Crack Fill, Ramp** along the ramp centerline beginning at the 2-foot gore point including shoulders.

The unit prices for **Overband Crack Fill**, of the type required, include the cost of preparing and filling cracks using the overband method, providing the required documentation, corrective work, and temporary traffic markings.

- B. **HMA Crack Treatment.** The Engineer will measure **HMA Crack Treatment, Lane** along the centerline of each lane. This measurement includes traffic lanes, as defined in the Lane Mile Inventory, and adjacent paved shoulders.

The Engineer will measure **HMA Crack Treatment, Ramp** along the ramp centerline beginning at the 2-foot gore point including shoulders.

The unit price for **HMA Crack Treatment**, of the type required, includes the cost of preparing, filling, and sealing the cracks, including treating primary transverse cracks with the saw or rout and seal method, and treating all other primary and secondary cracks with the overband method.

Section 914. Joint and Waterproofing Materials

914.01. General Requirements

Joint and waterproofing materials for use in concrete construction must meet the requirements of this section.

914.02. Testing

Steel joint material testing must be in accordance with ASTM E8/E8M or ASTM A370 and the ASTM specifications applicable to the specific material.

Other joint and waterproofing material testing must be in accordance with the specified ASTM, AASHTO, or Department methods, as modified by this section.

914.03. Joint Filler for Concrete Construction

Cut joint filler into the shape and to the dimensions shown on the plans. Joint filler must not deform or break due to twisting, bending, or handling when exposed to atmospheric conditions. For concrete pavements, punch holes in the fiber joint filler for load transfer bars in new concrete pavements, as shown on the plans.

- A. **Fiber Joint Filler.** Fiber joint filler must meet the requirements of ASTM D1751.
- B. **Recycled Rubber Joint Filler.** Recycled rubber joint filler must meet the requirements of ASTM D1751 except that the minimum asphalt content does not apply.
- C. **Closed-Cell Polypropylene Foam.** Semi-rigid, closed-cell polypropylene foam joint filler must meet the requirements of ASTM D8139.

914.04. Joint and Crack Sealants for Construction

- A. **Hot-Poured Joint and Crack Sealant.** Hot-poured joint and crack sealant must meet the requirements of the Qualified Products List for Hot-Poured, Extra Low Modulus, Joint and Crack Sealant.

Material containers must be legibly marked with a non-fading, weather-resistant ink or paint. Include the manufacturer's name or trade name, batch number, recommended pouring temperature, and the maximum safe heating temperature on the label.

- B. **Backer Rod for Use with Hot-Poured Joint Sealant.** Backer rod for use with a hot-poured joint sealant must be solid, round, heat-resistant, closed-cell, cross-linked PE foam meeting the requirements of ASTM D5249 for Type I.

914.05. Joint Spall Repair Materials

Select joint spall repair material according to the contract.

914.06. Epoxy Resin Adhesive

Epoxy resin adhesive must be capable of being injected into, and flow along, a crack 0.005 inch wide. Select epoxy-resin adhesive from the Qualified Products List.

Use a fast-setting grout or fast-set temporary seal as recommended by the epoxy resin adhesive manufacturer.

914.07. Dowel Bars for Transverse Expansion and Contraction Joints

Dowel bars must meet the requirements of ASTM A1078/A1078M.

Provide dowel baskets from a Department-approved source. Secure the dowel bars into the baskets by welding or other mechanical method so the dowels maintain alignment during and after concrete placement.

The ends of dowel bars for expansion and contraction joints must be saw cut or sheared and free of burrs. If dowel bars are sheared, ensure that the ends remain round and do not deform. Dowel bars that are not free of burrs, deformation, or other surface defects will be rejected. Protect dowel bars during handling and storage according to ASTM A1078/A1078M.

- A. **Coatings for Dowel Bars.** If required, provide dowel bars coated with an epoxy powder coating meeting the requirements of the Qualified Products List. The epoxy powder must be pigmented purple or gray.

The Engineer may sample and test dowel bars for average coating thickness, and check for chips, cracks, or other damage to the coating and for the presence of a bond breaker, if required, before installation in the concrete construction. Dowels with coatings not meeting the thickness requirements or dowels with coating damage will be rejected.

Epoxy-coated dowel bars must have an average coating thickness of not less than 0.010 inch or more than 0.014 inch on any bar, with individual determinations on a single bar within 0.004 inch of the average. Coating is not required on the end faces of the bars or on the cylindrical surface within 3 inches of the end fixed in the supporting basket by welding or other mechanical means.

To prevent bonding to concrete, epoxy-coated dowels must be coated with an asphalt material meeting the requirements of MC 70 or RC 250, as specified in subsection 904.03.B, or an alternative bond-release agent selected from the Qualified Products List. Bond-release agents must provide a pull-out shear bond stress of the dowel bar no greater than

60 psi for initial and final movement of the dowel from the concrete specimen.

The Contractor or supplier may apply asphaltic coatings to the dowel bar and the dowel basket assembly. The manufacturer must apply the alternative bond-release agents to the dowel bar and the dowel basket assembly.

- B. **Dowel Bar Expansion Caps.** Dowel bars for expansion joints must include metal or plastic expansion caps as shown on the plans and approved by the Engineer. Expansion caps must be sized to provide a slip fit onto the coated bar.

Expansion caps must have a uniform diameter for a length of at least 4 inches and must include a stop to ensure that the end of the cap remains at least 1 inch away from the end of the dowel bar during concrete placement. Fabricate metal expansion caps from at least 28-gauge sheet steel and close at the sides and end by crimping. Plastic expansion caps must be one piece with a uniform thickness of at least 1/16 inch, entirely closed on the end.

914.08. Devices for Transverse End-of-Pour Joints

Use straight steel tie bar devices for end-of-pour joints.

Straight tie bars for end-of-pour joints must consist of bars of the diameter and length shown on the plans meeting the requirements of ASTM A615/A615M, ASTM A706/A706M, or ASTM A996/A996M (Type R or Type A). Epoxy coat straight tie bars as specified in subsection 905.03.C except that the application of the epoxy coating within 4 inches of each end of the tie bar or the repair of damage to the coating within 4 inches of each end of the bar is not required.

914.09. Lane Ties for Longitudinal Pavement Joints

- A. **Straight Tie Bars.** Straight tie bars for longitudinal pavement joints must consist of bars of the diameter and length shown on the plans meeting the requirements of ASTM A615/A615M, ASTM A706/A706M, or ASTM A996/A996M (Type R or Type A). Epoxy coat straight tie bars as specified in subsection 905.03.C except that the application of the epoxy coating within 4 inches of each end of the tie bar or the repair of damage to the coating within 4 inches of each end of the bar is not required.
- B. **Bent Tie Bars for Bulkhead Joints.** Bent tie bars for bulkhead joints must consist of bars of the diameter and length shown on the plans. The tie bars must have a yield strength of at least 40,000 psi and be capable of withstanding bending to a 90° angle, re-straightening, and then

withstanding the pull-out test requirements specified in subsection 602.03.F.

Epoxy coat bent tie bars as specified in subsection 905.03.C except that the application of the epoxy coating within 4 inches of each end of the tie bar or the repair of damage to the coating within 4 inches of each end of the bar is not required.

914.10. Structure Expansion Anchors and Bolts

Select expansion anchors from the Qualified Products List in the sizes and shapes shown on the plans. Bolts for flush-type anchors must meet the requirements of ASTM A307 for Grade A.

914.11. Preformed Waterproofing Membranes and Joint Waterproofing

Select preformed waterproofing fabric system, including the manufacturer's recommended primer, from the Qualified Products List.

914.12. Elastomeric Bearings and Pads

- A. **Bearings.** Elastomeric bearings must meet the requirements of the *AASHTO LRFD Bridge Construction Specifications*, Subsection 18.2, "Elastomeric Bearings," for 100% virgin polychloroprene (neoprene) or polyisoprene (natural rubber) bearings and must be classified as being of low-temperature Grade 4 or 5.

Laminated bearings must have a shear modulus of 100 psi \pm 15 psi. Plain bearings must have a shear modulus of 200 psi \pm 30 psi. Rolled steel sheet laminates must meet the requirements of ASTM A36/A36M or ASTM A1011/A1011M, Grade 36, Grade 40, or Grade 50. Blast-clean the surfaces of the laminates where elastomers are to be bonded.

Elastomeric bearings must be tested and accepted in accordance with Section 8 of AASHTO M251 except that the definition of a lot specified in Subsection 8.2 of AASHTO M251 is revised as follows: Sampling, testing, and acceptance consideration will be made on a lot basis. A lot of bearings must be considered to be a group of bearings that are manufactured over a 4-month period from the same elastomer recipe, cured under the same conditions, and type (plain, fabric laminated, or steel-laminated).

- B. **Leveling Pads.** Elastomeric leveling pads (1/8 inch thick or as specified in the contract) must meet the requirements of the *AASHTO LRFD Bridge Construction Specifications*, Subsection 18.2, "Elastomeric Bearings," for 100% virgin polychloroprene (neoprene) or polyisoprene (natural rubber) bearings and must be classified as being of low-temperature Grade 3. Leveling pads must be plain elastomer and have a hardness between

50 and 70 on the Shore A scale. Provide certification to the Engineer that elastomeric leveling pads conform to this subsection.

Elastomeric leveling pads must be tested and accepted in accordance with Appendix X1 of AASHTO M251 except that a lot is defined to be material that is manufactured from the same elastomer recipe and cured under the same conditions and tested no less than once per year.

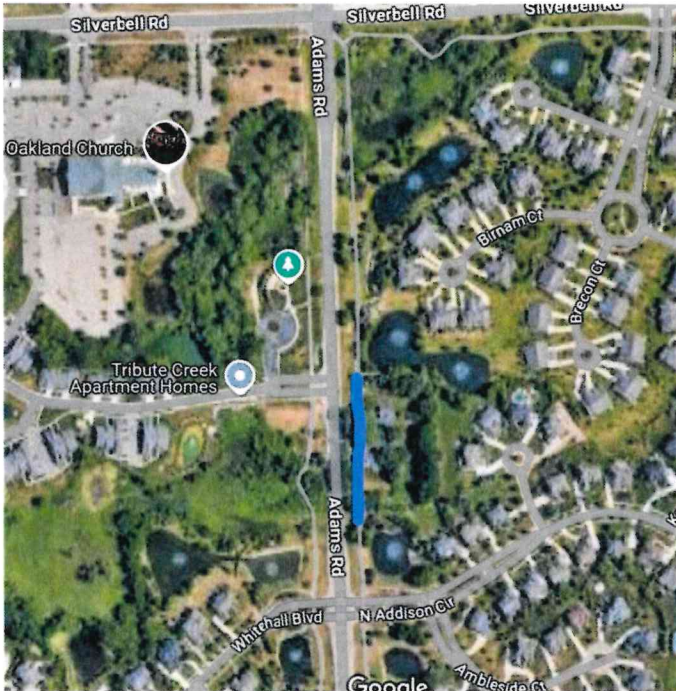
914.13. Non-Metallic Washers

Washers used as spacers between pin plates and link plates must be HDPE, non-metallic washers meeting the requirements of ASTM D4976, Group 2, Class 4, Grade 4.

APPENDIX A

PATHWAY EXHIBITS

#1 Adams Road Modetz (E side of Adams, connection of paths between Dutton and Silverbell)



Built 2011
 Asphalt Path total length 370 feet
 Exposed Path width 8 feet
 Total sq. ft. 2,960

2025: path in good shape

Repairs needed: several spots where cracks need to be filled and some heaving may have to be repaired

Spider cracks-1/8" = 250 linear feet
 1/4" = 23 linear feet
 1/2" = 17 linear feet
 3/4" = 8 linear feet
 1" = 8 linear feet (with weeds)
 1" = 3 linear feet from tree roots small heaving

Going south on the path: At start of path there is a 3/4" crack across path / path dips when meeting other path
 There are a lot of thin cracks along the side of the path
 Cracks across path – 3/4" 153 ft in by drive,
 Cracks across path in three spots – 1" and some small heaving between 184 ft in - 200 feet in (due to trees)
 Cracks across path 1/4" to 1/2" and some small heaving at 264 ft in and 290 ft in
 Long crack 1/4" to 1/2" down middle of path 10-15 ft long 340 ft in





#2 Cider Mill Connector (PC Mill to behind Flagstar to PCT)



Built 2016

Asphalt Path total length 578 feet

Exposed Path width 8.5 feet

Total sq. ft. 4,913

Concrete bridge total length 54 feet

Exposed path width starts at 9.5 feet on either side of bridge. Bridge width is 14 feet

Total path incl. bridge = 632 feet

2025-path in great shape

Repairs needed: 2 spots by parking lot, cracks by sewer cover

Clear weeds from concrete path joints and from weeds on both sides of the bridge

Spider cracks-1/8" = 15 linear feet

1/4" = 13 linear feet

1/2" = 6 linear feet



#3 Silverbell & Brewster (S side of Silverbell from Brewster to start of Coventry Lane path)



Built 2016

Asphalt Path total length 502 feet

Exposed Path width 9.5 feet

Total sq. ft. 4,769

2025-path in great shape

Repairs needed: 3 spots with cracks $\frac{1}{4}$ to $\frac{1}{2}$ " (from Brewster: at 68 feet in, at 308 feet in, and 430 feet in

Spider cracks – $\frac{1}{8}$ " = 113 linear feet

$\frac{1}{2}$ " = 8 linear feet



#4 Eagle Creek Boardwalk (cement approach and Trex boardwalk)



Built 2017

Trex boardwalk = 200 lineal feet

Concrete approach = 102 lineal feet west of boardwalk

Concrete approach = 60 lineal feet east of boardwalk

Concrete Path width = 8 feet (sections are 8' x 8')

Total concrete. = 1,296 sq. ft

Total Path incl. boardwalk = 362 feet

2025-path in great shape – boardwalk needs bushes to be trimmed and path needs weed killer in joints

Repairs needed:

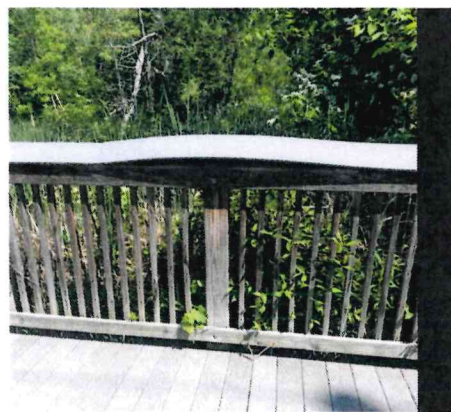
Boardwalk: 13 railing boards are bowed

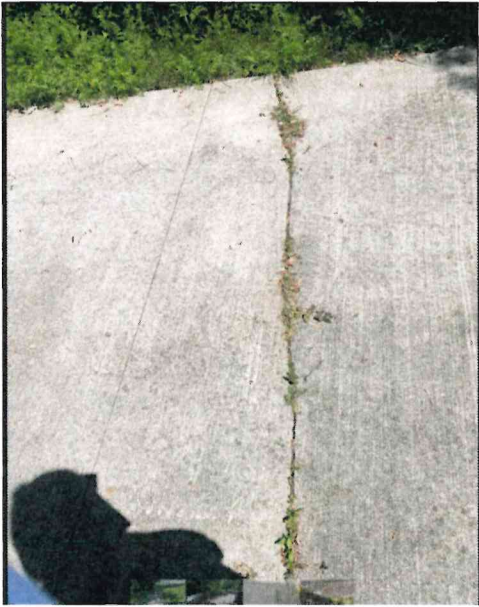
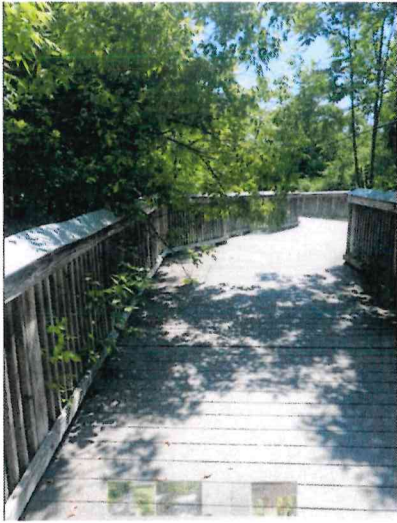
$\frac{3}{4}$ " lip at start of concrete path (by school, west of boardwalk)

2 sections (8') have $\frac{1}{2}$ '-1" crack with weeds across

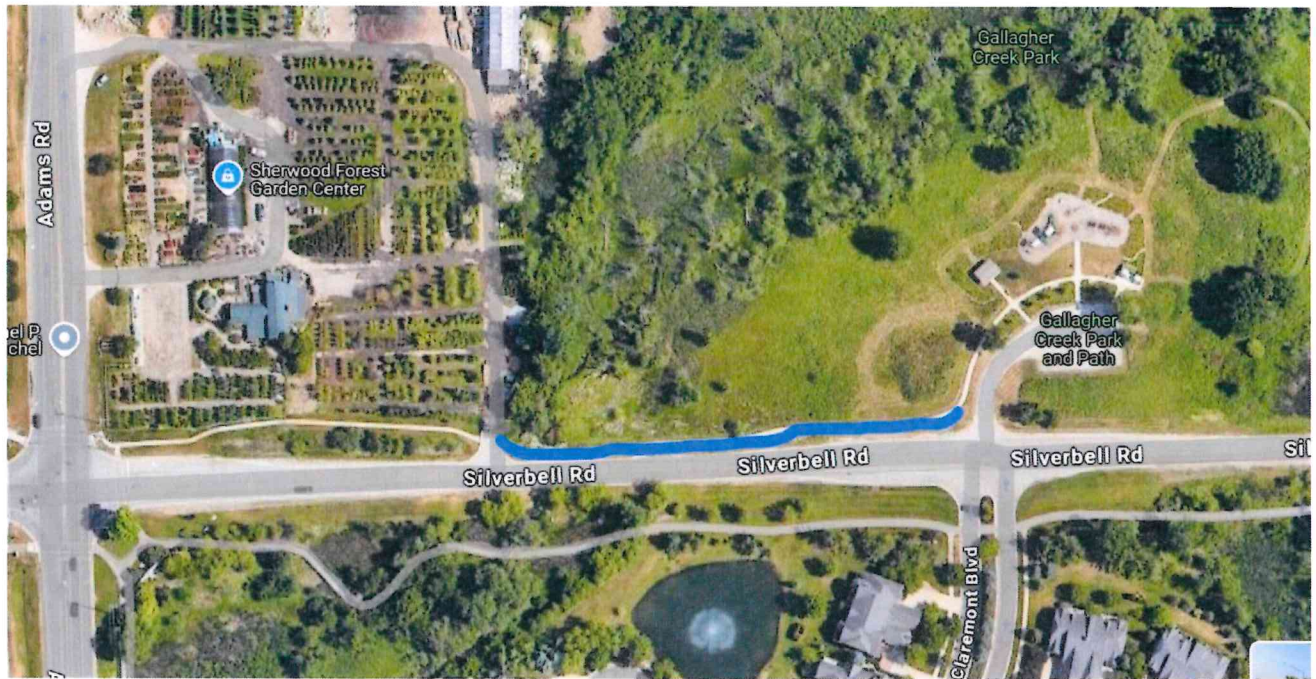
1 joint section has 1" gap with weeds

End of concrete path to the east broken section 1-2' cracked corner





#5 Gallagher creek park (N side Silverbell, Sherwood Forest property line to Gallagher Creek Park)



Built 2018

Concrete Path total length 505 feet

Exposed Path width 5 feet (sections are 5' x 5')

Total sq. ft. 2,525

2025-path in great shape

Repairs needed:

(3) ¼" cracks across the path = 15 linear feet

14 joints need rubber/sand filling

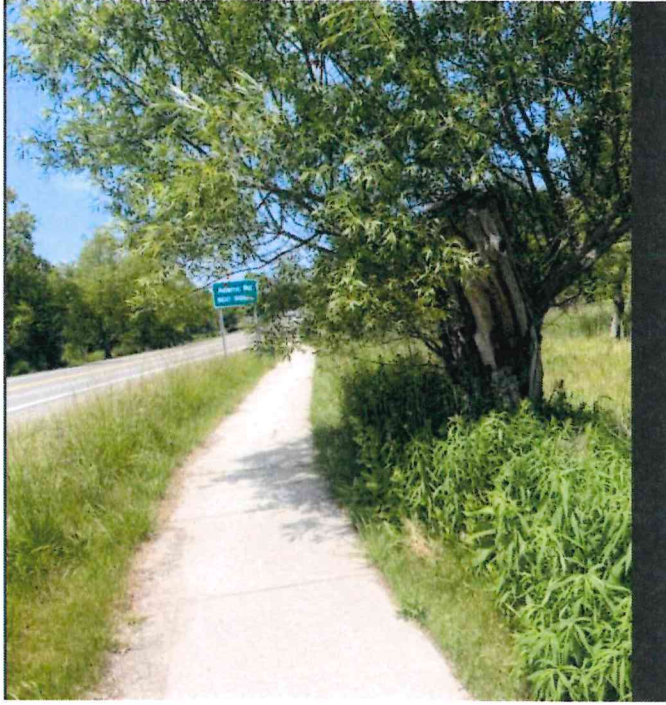
Path joints need to be sprayed with weed killer

Two trees need to be trimmed as they are overhanging path (including the path within the park)

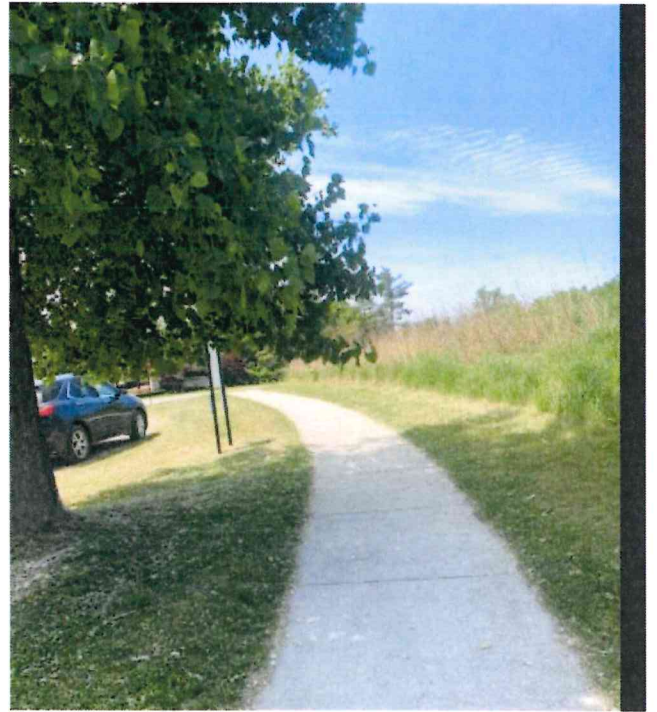
Path leading to parking lot and by restrooms



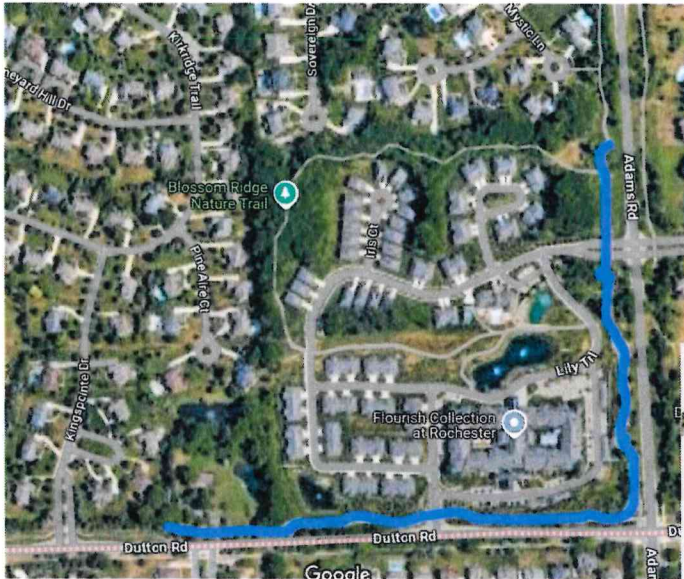
Tree overhanging path along Silverbell



Tree overhanging path within park



#6 Dutton (N side Dutton Blossom Ridge to Adams N to just before Mystic Lane)



Built 2018
 Asphalt Paths total length 2,550 feet
 Exposed Path width 10 feet
 Total sq. ft. 25,500

2025-path in good shape

Repairs needed: several spots where small cracks & gouges need to be filled

Spider cracks – 1/8" = 895 linear feet

1/4" = 82 linear feet

1/2" = 61 linear feet

3/4" = 2 linear feet along Dutton

1" = 8.5 linear feet along Dutton

1" x 1" deep crack = 10 linear feet across path along Adams

Gouges: 1" circle= 88 along Dutton / 16 along Adams

Gouges along Dutton: 1" x 2.5 feet, 1" x 5 feet, 1" x 12 feet, 2" x 6.5 feet, 4" x 1.5 feet

Gouges along Adams: 3/4" x 3", (2) at 1" x 5", 1" x 7", 1" x 15", 1.5" x 9", 1.5" x 17", 1.5" x 26", 1.5" x 29"

Starting near Kingspointe: there is cracking / small heaving

At entrance off of Dutton, there is a large lip where path meets street (also a long crack 1/4")

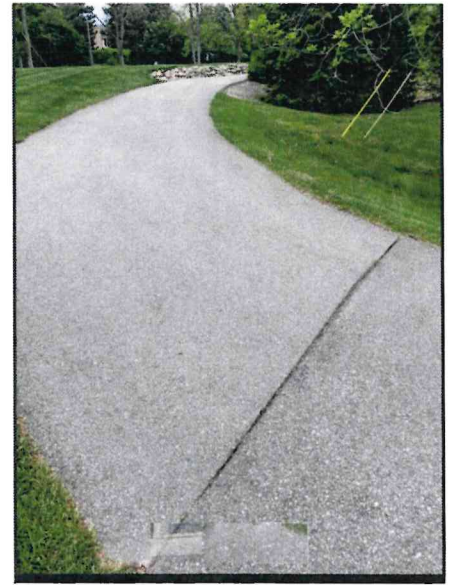
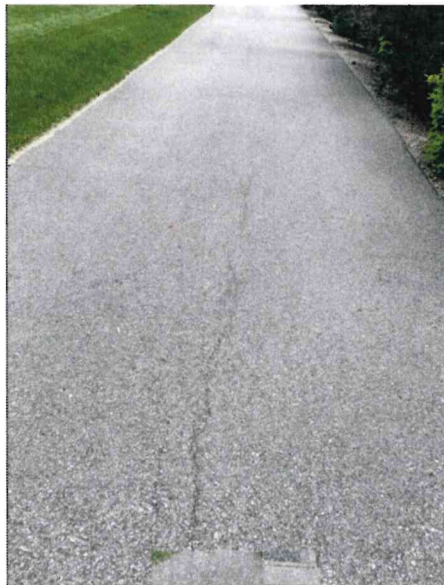
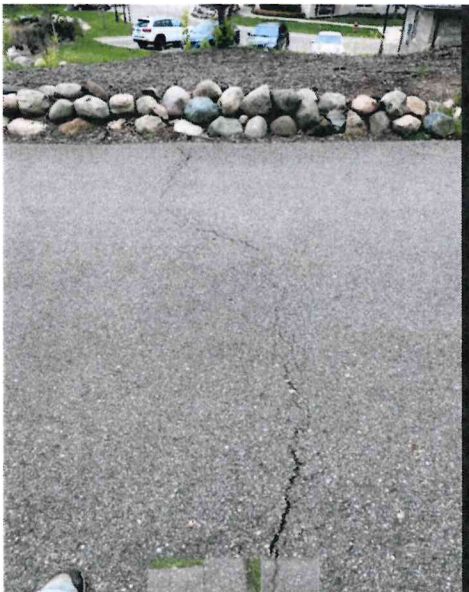
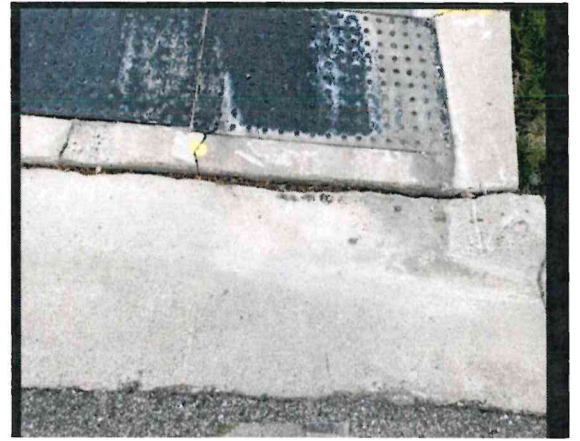
Small gouges in asphalt at 397 feet in, 499 feet in,

2 gouges side by side at 2,173 feet in

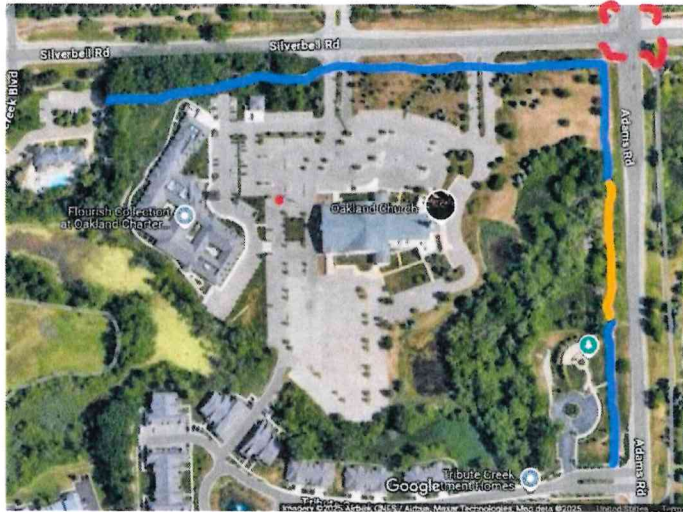
Small cracks 1/4" to 3/4" running across path at 1,133 feet in, 1,337 feet in, 1,462 feet in, 1,944 feet in

Small crack 1/4" running down the middle of the path (7-8 feet long) at 793 feet in

Wide crack 1" running across path at 1,615 feet in



#7 Oakland Christian Church (Silverbell from church to Adams S to Vet Tribute)



■	Asphalt path
■	Boardwalk
■	Improved

Built 2019
Path asphalt total length 1686 feet (850 @ 9 ft, 510 @9.5 ft, 133 @10ft, 193 @11ft)
 Path width 9.5 feet from west entrance going west, 9 feet from west entrance to start of boardwalk, 10 feet from end of boardwalk to brick walk at tribute, then 11 feet from brick walk to Tribute creek blvd
 Total sq. ft. 15,948

Boardwalk total length 434 feet

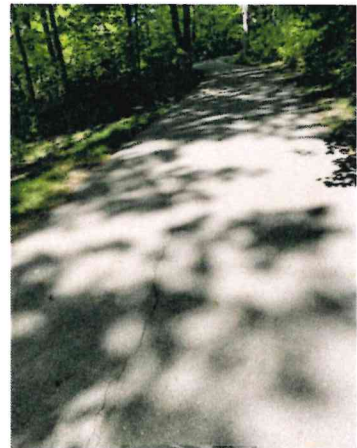
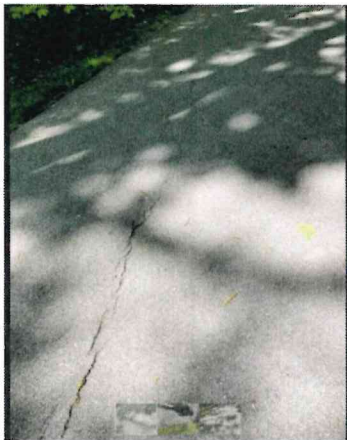
Total path incl. boardwalk = 2,120 feet

2025-path in good shape
 Repairs needed: several crack along edge and from tree roots

- Spider cracks – 1/8" = 936 linear feet
- 1/4" = 75 linear feet
- 1/2" = 14 linear feet
- 3/4" = 10 linear feet
- 2" x 10' gap by brick walk at vet tribute
- Gouges = 3
- Gouge 1.5" x 8"
- Gouge by bridge 1" x 2 feet
- 3 areas with small heaving due to trees
- Possible grinding by concrete – 1" lip western entrance area 9ft
- Possible grinding by concrete – 1" lip eastern entrance 13ft
- 1.5 ft crack in concrete crosswalk section at corner
- Path needs edging
- Boardwalk needs brush cleared

From west church entrance going west to culvert: (9.5 ft wide), 113 feet in 1/4" crack about 10 feet long, 147 feet in 1/4" crack about 10 feet long, 212 feet in 1/4" crack about 3 feet long, 224 feet in 1/4" crack about 3 feet long, 235 feet in large crack 1/2 - 3/4", 264 feet in 1/2" crack, from 295 feet in to 397 feet in several long 1/2" cracks
 From west entrance going east: (9 ft wide) from 79 feet in to 170 feet in several small cracks along the edge, 1/2 to 3/4"
 From east church entrance going east: (9 ft wide) 48 feet in - separation & 1 inch lifting of 3 ft x 8 1/2 ft section,
 Small heaving and cracks due to tree roots 1/2" at: 94 feet in, at 175 feet in, at 187 feet in, at 198 feet in
 Small heaving and cracks due to tree roots 14 feet in from end of boardwalk going toward tribute
 2 Boards need to be replaced

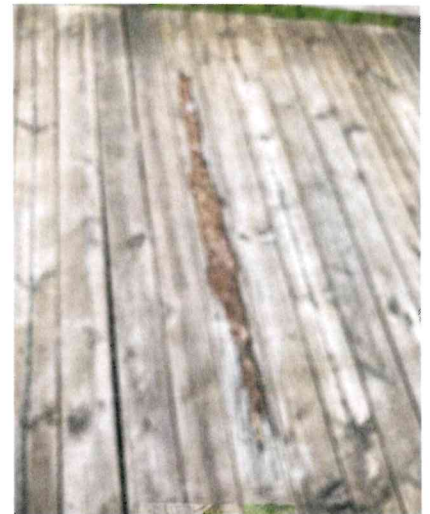
From West entrance going west toward culvert



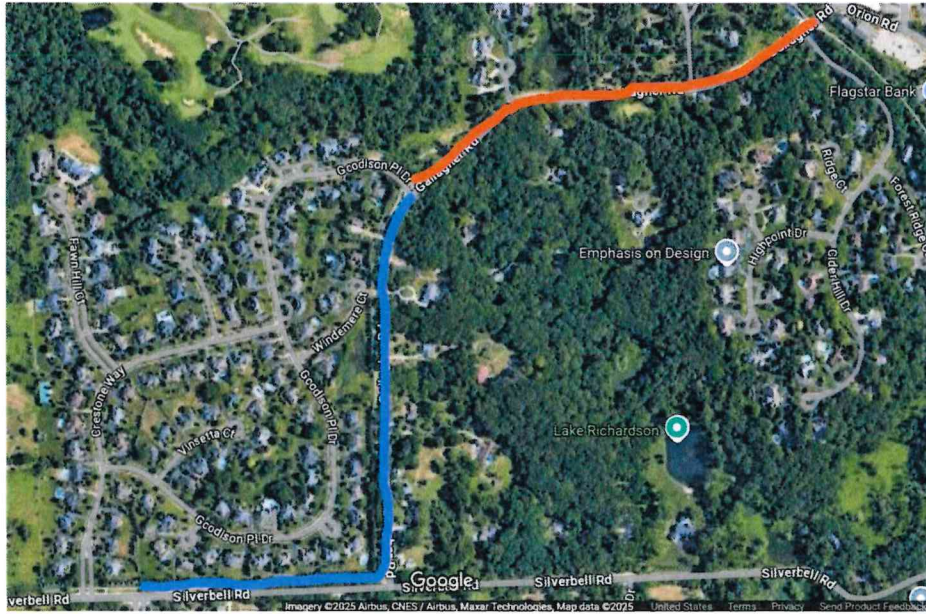
By Eastern Entrance



From West entrance going east



#8 Gallagher Road (W side Gallagher Silverbell to PCT)



■	Asphalt path
■	Concrete path

Built 2022
Asphalt Path total length 3,125 feet
 Path width 8 – 8.5 feet
 Total sq. ft. 25,780

Concrete Path total length 1,750 feet
 Concrete Path width = 5 feet (sections are mostly 5' x 5') (some sections were less than 5' in length)

Gap total length 377 feet

Total path 5,252 feet (incl. gap)

2025-path in great shape

Repairs needed on Asphalt path: small cracks along side

Spider cracks-1/8" = 566 linear feet
 1/4" = 33 linear feet
 1/2" = 27 linear feet
 1" = 29 linear feet
 Gouge: 1.5" x 7"
 Path needs to be edged and debris blown off

2025-path in great shape

Repairs needed on Concrete path:

Closer to where concrete path meets asphalt path there is a hairline crack across the path
 Lots of loose gravel / mud over path from road runoff
 Wall was full of weeds – needs weed killer
 27 sections have weeds in joints and need weed killer
 Path needs to be edged and debris blown off



Summary of Asphalt paths:

Total Length of 6 asphalt paths: 8,811 feet

Total sq. ft. = 79,870

Repairs needed: several spots where cracks need to be filled and some heaving may have to be repaired.

Spider cracks – $1/8'' = 2,775$

$1/4'' = 226$ linear feet

$1/2'' = 133$ linear feet

$3/4'' = 20$ linear feet

$1'' = 45.5$ linear feet (with weeds)

$1'' = 3$ linear feet from tree roots small heaving

$1'' \times 1''$ deep crack = 10 linear feet across path

$2'' \times 10'$ gap by brick walk way

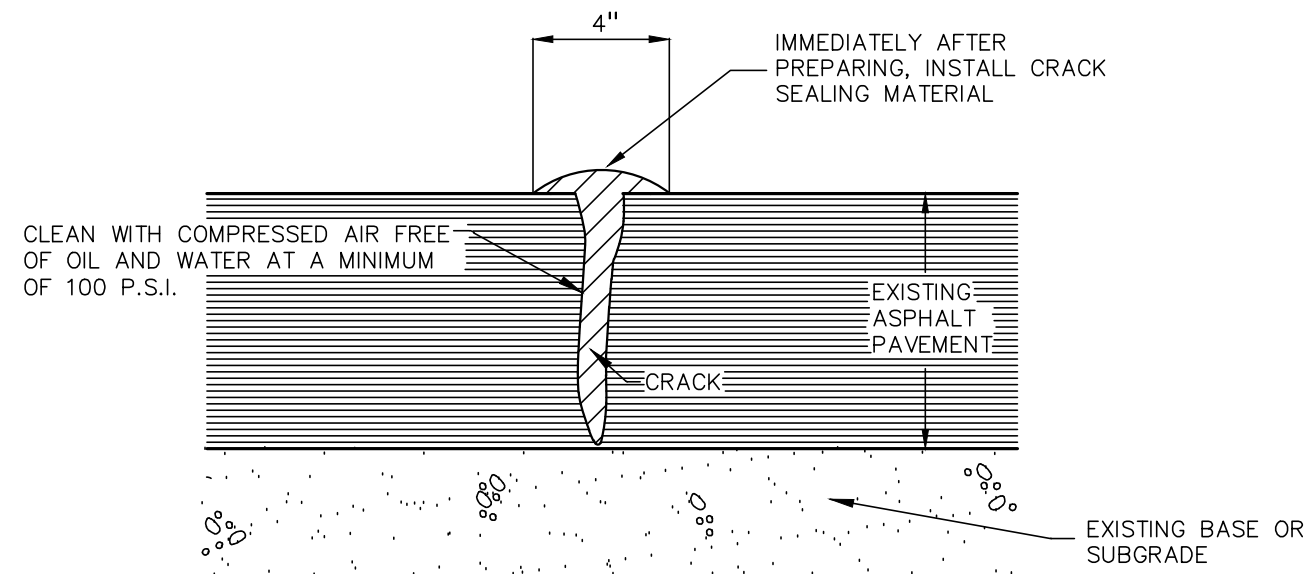
Gouges: $1''$ circle = 107

Gouges: $3/4'' \times 3''$, $1'' \times 2.5$ feet, (2) at $1'' \times 5''$, $1'' \times 7''$, $1'' \times 15''$, $1'' \times 2$ feet, $1'' \times 5$ feet, $1'' \times 12$ feet, $1.5'' \times 7''$, $1.5'' \times 8''$, $1.5'' \times 9''$, $1.5'' \times 17''$, $1.5'' \times 26''$, $1.5'' \times 29''$, $2'' \times 6.5$ feet, $4'' \times 1.5$ feet

3 areas with small heaving due to trees

APPENDIX B

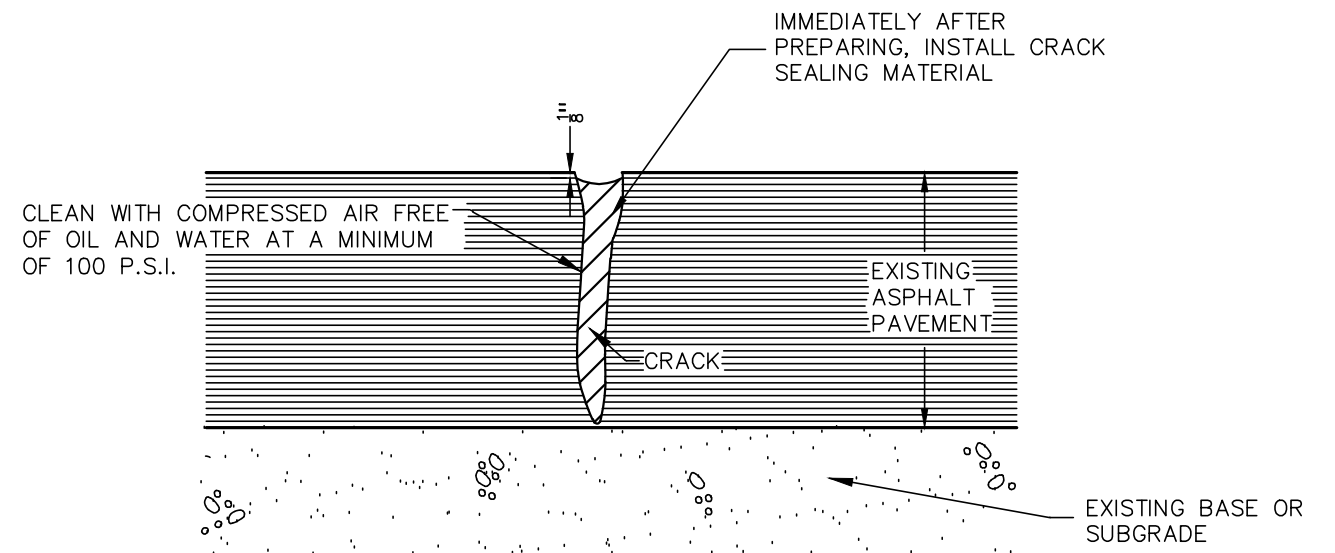
CONSTRUCTION REPAIR DETAILS & SPECIFICATIONS



OVERBAND CRACK FILL

NOTE: NOT TO SCALE

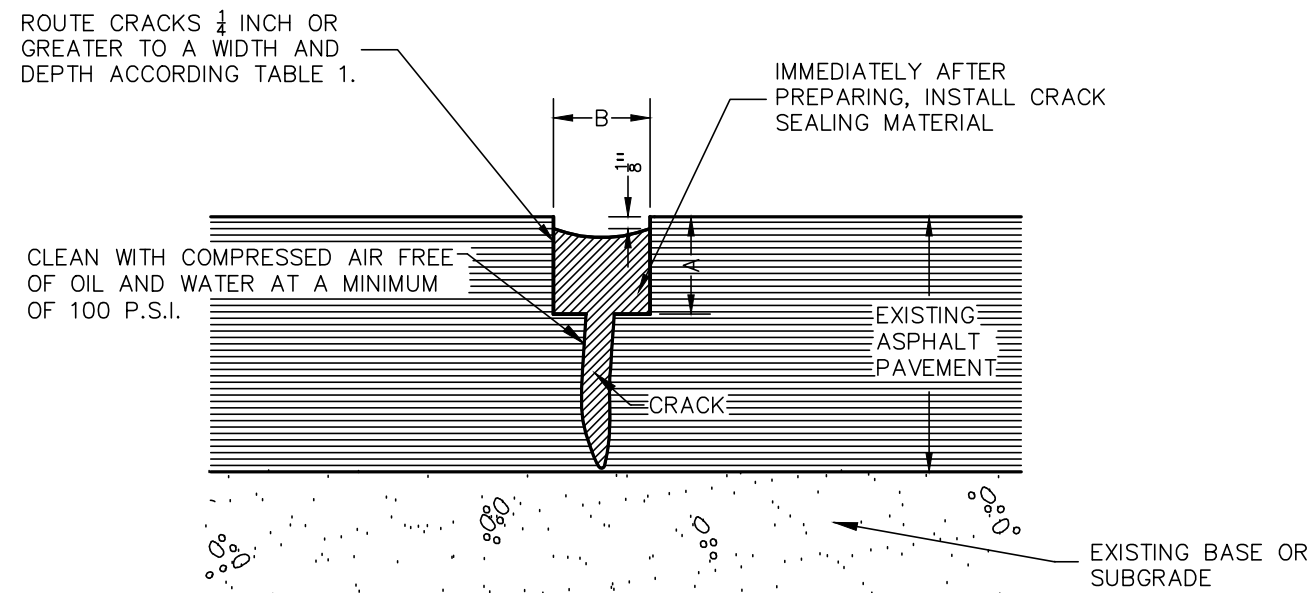
REFER TO THE 2020 MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION - SECTION 502, FOR DETAILED SPECIFICATIONS.



RECESSED CRACK FILL

NOTE: NOT TO SCALE

REFER TO THE 2020 MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION - SECTION 502, FOR DETAILED SPECIFICATIONS.



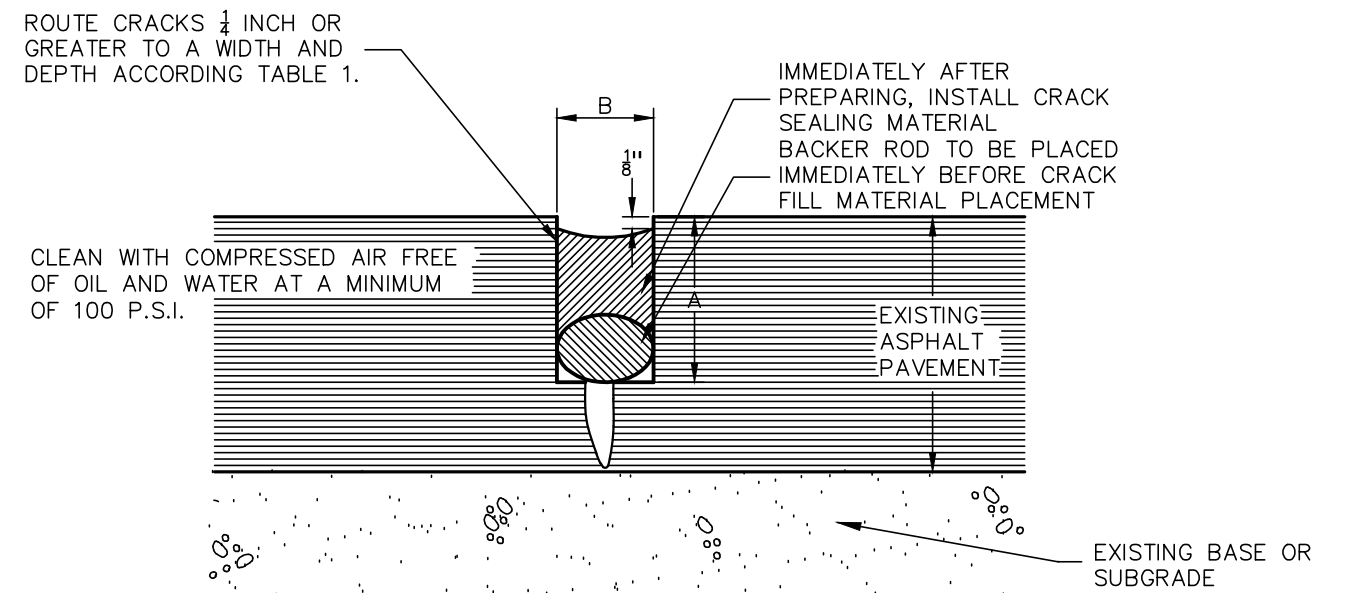
ASPHALT CRACK SEALING

NOTES: NOT TO SCALE

REFER TO THE ATTACHED ASPHALT CRACK SEALING SPECIFICATIONS AND THE 2020 MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION - SECTION 502, FOR DETAILED SPECIFICATIONS.

BACKER ROD DIAMETER SHALL BE 25% GREATER THAN ROUTED WIDTH, WHERE SPECIFIED.

TABLE 1 CRACK WIDTH	ROUTE WIDTH, B	ROUTE DEPTH, A
1/4" TO 1/2"	1/2"	1"
1/2" TO 1"	1"	2"



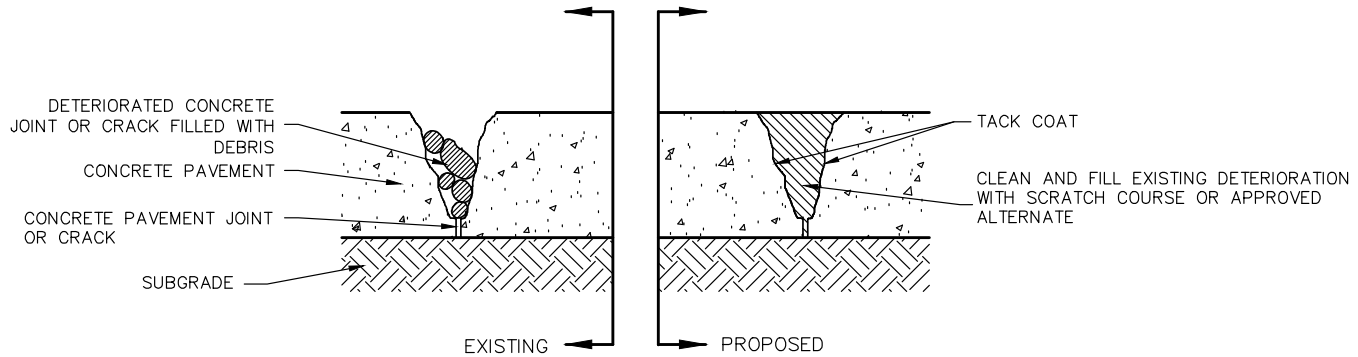
ASPHALT CRACK SEALING WITH BACKER ROD

NOTES: NOT TO SCALE

REFER TO THE ATTACHED ASPHALT CRACK SEALING SPECIFICATIONS AND THE 2020 MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION - SECTION 502, FOR DETAILED SPECIFICATIONS.

BACKER ROD DIAMETER SHALL BE 25% GREATER THAN ROUTED WIDTH, WHERE SPECIFIED.

TABLE 1 CRACK WIDTH	ROUTE WIDTH, B	ROUTE DEPTH, A
1/4" TO 1/2"	1/2"	1-1/2"
1/2" TO 1"	1"	2-1/2"



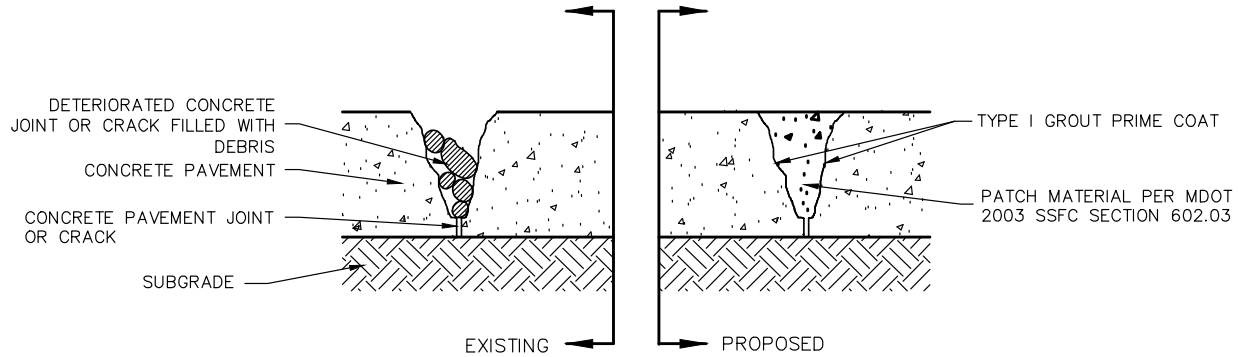
CLEAN AND PATCH SPALLED CONCRETE
JOINTS AND CRACKS

NOT TO SCALE

REMOVE LOOSE AND DETERIORATED CONCRETE WITH A PNEUMATIC HAMMER 30 POUNDS OR LESS, CHIPPING, BRUSH HAMMER, CHISEL, SHOT BLAST OR HYDRO-BLASTING. HEAVY HAMMERS ARE NOT PERMITTED.

LOOSE OR DETERIORATED CONCRETE CAN BE REMOVED BY COLD MILLING.

THE ENTIRE AREA SHALL BE BLOWN CLEAN WITH A JET OF COMPRESSED AIR TO REMOVE THE SAND AND ALL OTHER FOREIGN MATERIALS.



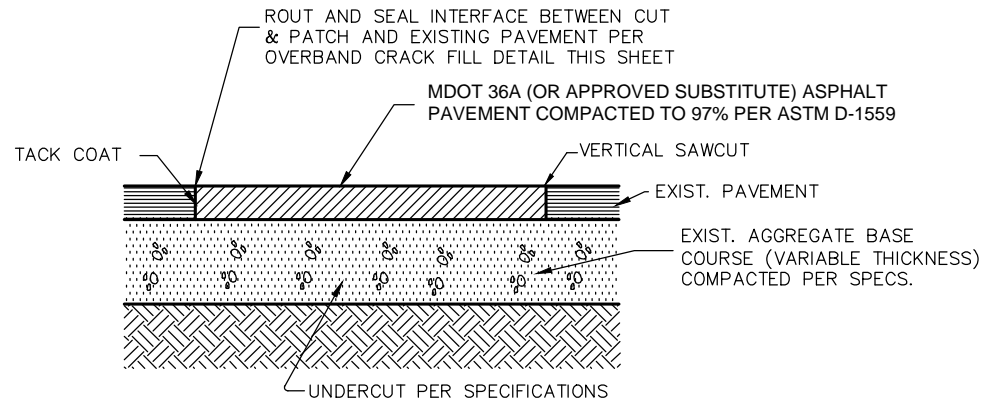
CLEAN AND PATCH SPALLED CONCRETE
JOINTS AND CRACKS

NOT TO SCALE

REMOVE LOOSE AND DETERIORATED CONCRETE WITH A PNEUMATIC HAMMER 30 POUNDS OR LESS, CHIPPING, BRUSH HAMMER, CHISEL, SHOT BLAST OR HYDRO-BLASTING. HEAVY HAMMERS ARE NOT PERMITTED.

LOOSE OR DETERIORATED CONCRETE CAN BE REMOVED BY COLD MILLING.

THE ENTIRE AREA SHALL BE BLOWN CLEAN WITH A JET OF COMPRESSED AIR TO REMOVE THE SAND AND ALL OTHER FOREIGN MATERIALS.



CUT AND PATCH ASPHALT PAVEMENT

NOT TO SCALE

NOTES:

CUT & PATCH AREAS SHOWN IN PLANS ARE APPROXIMATE IN SIZE & LOCATION AND MAY BE ADJUSTED AT THE TIME OF CONSTRUCTION AS DIRECTED BY THE OWNER.

ASPHALT CUT AND PATCH CONSISTS OF SAW-CUTTING EXISTING PAVEMENT, REMOVAL AND DISPOSAL OF DETERIORATED ASPHALT, REGRADING THE AGGREGATE BASE AS NECESSARY, PAVING THE AREA FLUSH WITH EXISTING SURROUNDING PAVEMENT, AND ROUTING AND SEALING AROUND THE PERIMETER OF THE PATCH. PROPOSED PAVEMENT SECTION TO MATCH EXISTING. PERFORM SUBGRADE UNDERCUTTING AS NECESSARY PER PLAN DETAIL.