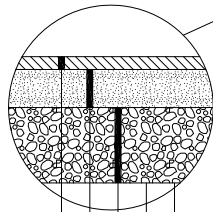
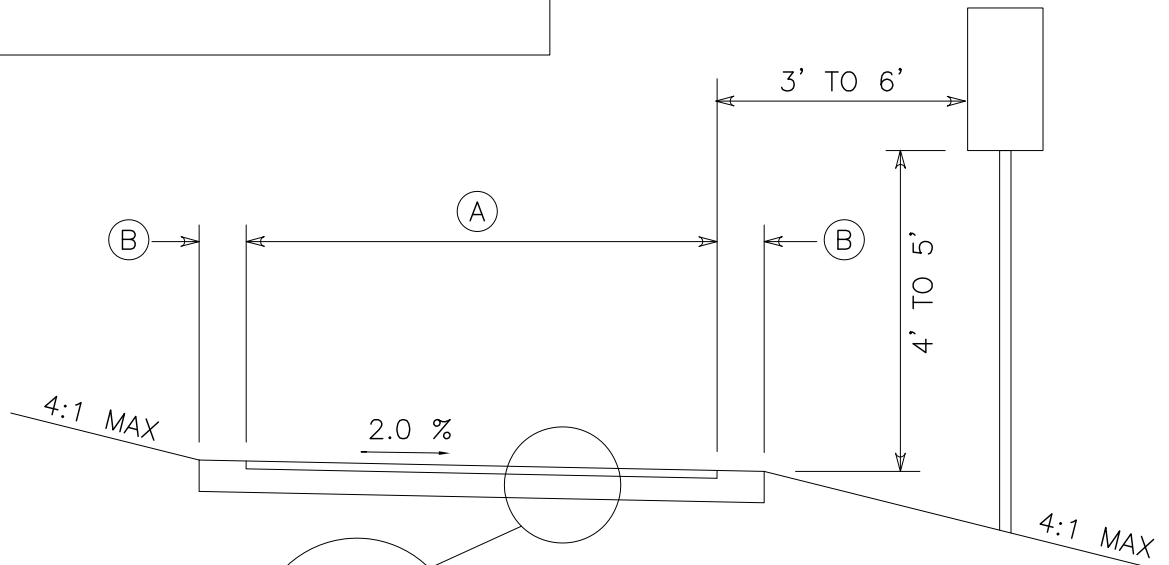


BITUMINOUS TRAIL DESIGN

- Ⓐ - PATHWAY WIDTH 10 ft
- Ⓑ - SHOULDER WIDTH 1 FT MIN.



- 3" SP 9.5 WEARING COURSE MIXTURE (2,B)
- 6" CL 5 AGGREGATE BASE (MODIFIED)
- 12" SELECT GRANULAR BORROW
- 6" MINIMUM SCARIFY AND RE COMPACT
- (SUBGRADE PREP)
- FABRIC IF DIRECTED BY ENGINEER

NOTES:

1. TRAIL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE CITY OF MONTICELLO GENERAL SPECIFICATIONS AND STANDARD DETAIL PLATES.
2. PEDESTRIAN RAMPS SHALL BE CONSTRUCTED WITH TRUNCATED DOMES AND CONFORM TO ADA REQUIREMENTS.
3. MODIFY SURFACING, BASE, AND SUBGRADE DESIGN BASED ON EXPECTED VEHICULAR USE AND SUBGRADE SOILS.



Standard Plate Library
City of Monticello

Title:

Typical Trail Section

Date: 03-05

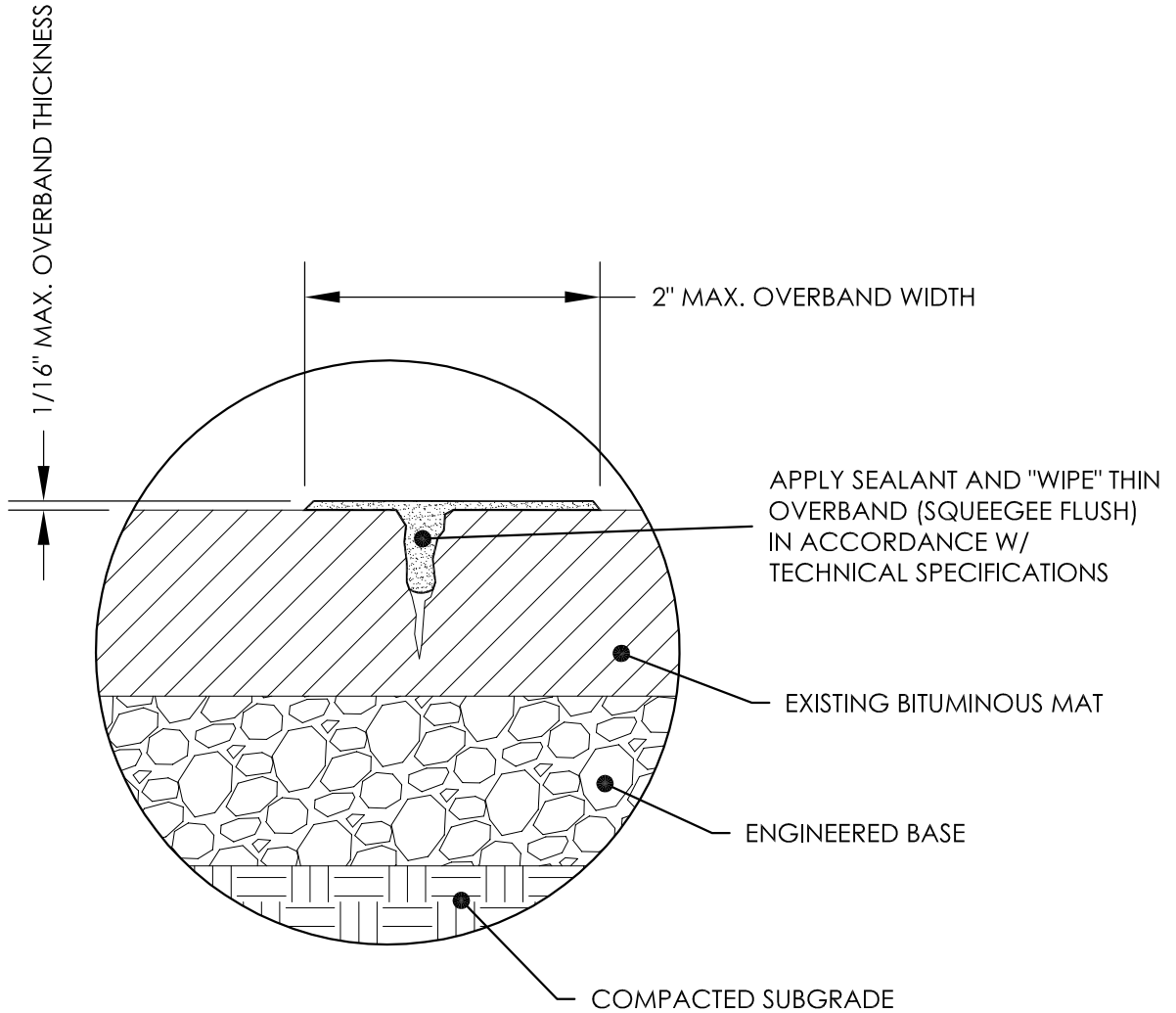
Plate No.

5013

Revised: 03-15

NOTES:

1. REFER TO TECHNICAL SPECIFICATIONS AND DRAWINGS.
2. DO NOT ROUT.
3. JOINT AND CRACK SEALANT:
 - A. CRAFCO ASPHALT RUBBER PLUS #34241
4. APPLY SAND OR 1-PLY PAPER AS PER TECHNICAL SPECIFICATIONS.



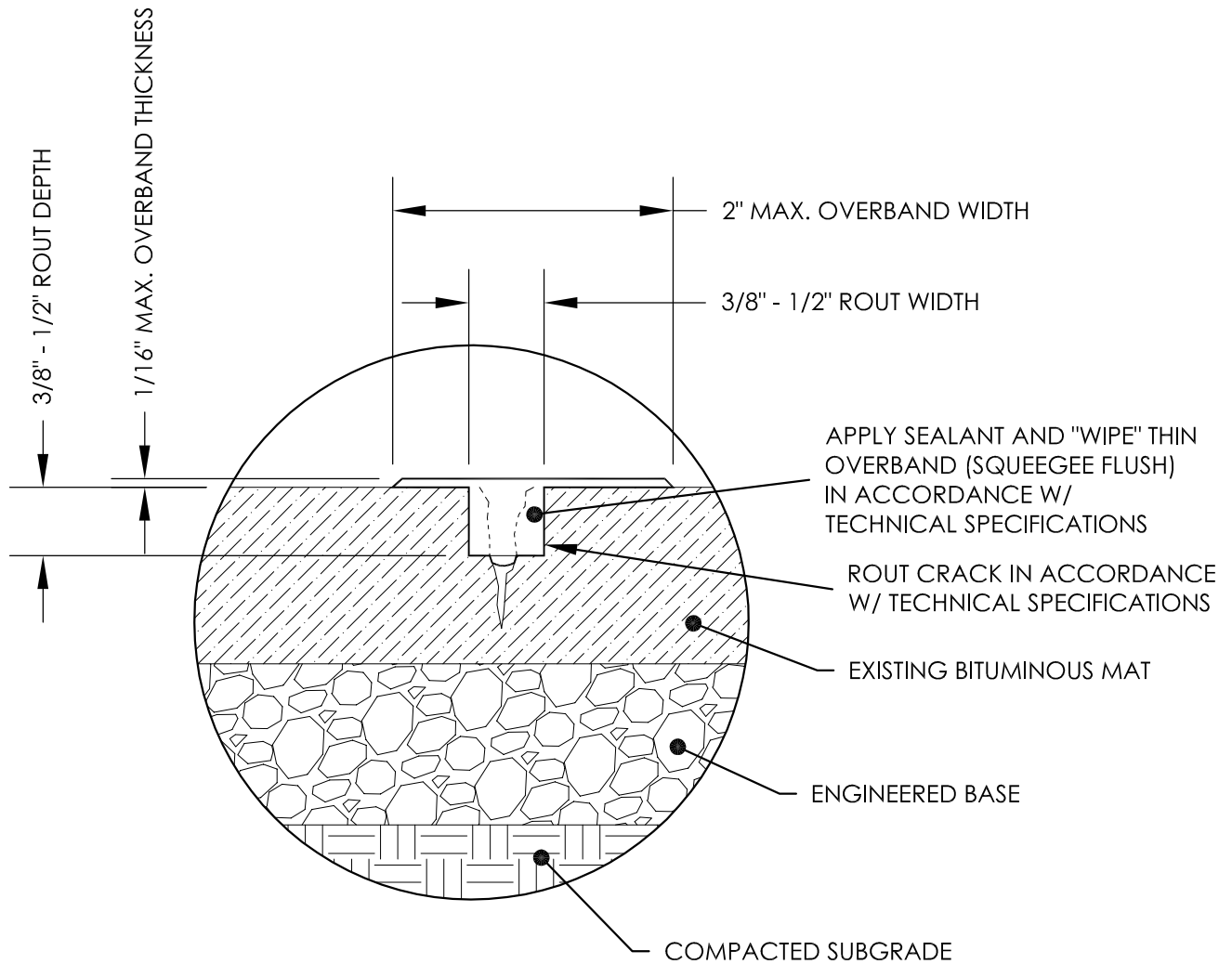
TR-2
####

BITUMINOUS TRAIL CRACK REPAIR: 1/4" - 1/2" NON-TRANSVERSE

NTS

NOTES:

1. REFER TO TECHNICAL SPECIFICATIONS AND DRAWINGS.
2. JOINT AND CRACK SEALANT:
 - A. CRAFCO ASPHALT RUBBER PLUS #34241
3. APPLY SAND OR 1-PLY PAPER AS PER TECHNICAL SPECIFICATIONS.



TR-3
###

BITUMINOUS TRAIL CRACK REPAIR: 1/4" - 1/2" TRANSVERSE

NTS

2F. Consideration of approving pathway micro surfacing improvements in Groveland Addition (TP, ML)

A. REFERENCE AND BACKGROUND

The Monticello Parks Department is recommending trail maintenance to be completed within the Groveland Addition. The project will include crack filling, infrared patching and installation of micro-surfacing. The proposed pathway project segments total approximately 134,976 feet of micro-surfacing. Staff has included a map of the project area and specifications to complete the trail maintenance under supporting data. Staff posted an RFP for three weeks and obtained one proposal from MP Asphalt totaling \$38,000.

Staff is recommending the proposal from MP Asphalt to complete the crack filling, infrared patching and installation of micro-surfacing. Staff did get a quote from MP Asphalt to reconstruct a trail segment that is located on a dead-end spur in the Groveland addition for a sum of \$54,000. However, the current Parks Budget doesn't support the trail reconstruction work. Park staff is proposing to work with the Street Department to reconstruct 1,000 feet of the trail with the remainder of the Parks & Pathway Budget.

The Parks Department has inspected and rated the city's pathway system annually since 2009, and has developed a program to track, manage and perform maintenance of the pathway system. The city currently has 24 miles of pathways and approximately ten miles of pathways are plowed each year. Parks has used the PACER method to inspect and rate the pathways (see enclosed information). In addition, when determining methods to maintain the pathways, the Parks Department uses the following criteria:

- Pavement structure condition and age.
- Drainage issues.
- Constructability of maintenance method.
- Consideration for pathways that are plowed versus non-plowed.
- Frequency of use.

Facts about the pathways proposed for micro-surfacing this year within Groveland Additions include the following:

- 8-10 feet wide.
- Constructed in 2002 with 2" of bituminous pavement over 6" of aggregate base

Currently, Monticello trails overall are 7.2 out of 10. PACER Rating below:

Quality	Rating	Treatment (Asphalt)
Excellent	9-10	No maintenance required
Good	7-8	Crack sealing and minor patching
Fair	5-6	Preservation treatments (non-structural)
Poor	3-4	Structural renewal (overlay)
Failed	1-2	Reconstruction

The project is anticipated to be completed in June-August. The micro-surfacing product will be applied when temperatures are a minimum 70 degrees as specified.

- A1. Budget Impact:** Approximately \$50,000 was budgeted in the Park & Pathway Fund for trail maintenance in 2020. The contractor’s proposal is for crack filling, infrared patching and installation of micro-surfacing product for a sum of \$38,000. The remaining pathway budget of \$12,000 will be used to purchase asphalt needed to complete an overlay with public works staff.
- A2. Staff Workload Impact:** Department staff time will be utilized to manage the project and pedestrian traffic control.

B. ALTERNATIVE ACTIONS

- 1. Motion to accept quote from MP Asphalt Contractors, Inc. for pathway micro-surfacing improvements in the Groveland Development for a total project cost of \$38,000, and to authorize staff to utilize the remaining \$12,000 to purchase asphalt needed for an overlay.
- 2. Motion to deny pathway maintenance and improvements at this time.

C. STAFF RECOMMENDATION

Staff recommends Alternative #1.

D. SUPPORTING DATA

- Pathway Map.
- Specifications
- Quote from MP Asphalt.



CITY OF MONTICELLO

SPECIFICATIONS

FOR

TRAIL PAVEMENT REHABILITATION

FOR THE

CITY OF MONTICELLO MINNESOTA

AUGUST 4, 2015

Prepared By:

*City of Monticello
Office of Public Works
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Monticello, MN 55362*

*Tom Pawelk
Park Superintendent*

*Shibani Bisson
City Engineer
WSB & Associates, Inc.*

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Website: www.ci.monticello.mn.us*

DESCRIPTION OF WORK

SUMMARY

This project consists of trail pavement rehabilitation intended to improve the serviceability and ride quality of the shared multi-use paved trail along west County Road 75 between Washington Avenue and Meadow Oak Avenue and along County Road 18 between CSAH 75 and I-94 to (see enclosed map of the project area). The trail segment identified for Work has experienced surface deficiencies primarily in the form of surface cracking and minor to major raveling. The trail pavement will require crack filing, asphalt removal and patching or infrared patching, and T-Mat installation. An alternate quote shall be provided for the crack filling and asphalt patching work.

The trail segment is a component of the City of Monticello paved trail system, a heavily-used route for trail users of all recreation types: walking/hiking/running, dog-walking, biking, rollerblading, commuting, and roller skiing. For these reasons, the Contractor must pay careful attention to the requirements for safety, maintenance of traffic, and approved work times, as referenced throughout the Contract Documents.

To maintain heavy trail traffic during the summer months, the Contractor will be required to place T-Mat in specific trail Segments, allowing trail to fully dry prior to moving onto next Segment. The contractor shall only close the trail segment that is actively being worked on.

The contractor shall submit to the City a schedule of the intended closure dates of the trail segments one week prior to commencing work to allow the City to properly notify the public.

The contractor shall not change the dates of closure once submitted (excluding delays due to weather related events). The contractor shall install temporary construction signage as necessary and as determined by the City. No substitutions will be allowed.

PRESERVATION OF EXISTING FEATURES

The Contractor shall minimize disruption and damages to existing Project Site features, including but not limited to lawns, trees, existing topography, pavements, and curbing. All construction access and traffic shall be confined to the routes indicated on the Drawings or by the project Engineer. Any damages to Project Site features outside the specified routes shall be repaired and restored by the Contractor to the satisfaction of the City of Monticello at no cost to the City of Monticello.

The Contractor and City of Monticello shall create a photo inventory of pre-construction conditions of the Project Site for later use in determination of changed conditions.

END OF SECTION

REFERENCE STANDARDS

1.1 REFERENCE STANDARDS

- A. Applicability of Standards: For products and workmanship required by these or other Contract Documents, comply with requirements of the applicable Reference Standard except where modified or altered by the Contract Documents. Applicable Reference Standards have the same force and effect as if bound or copied directly into the Contract Documents.
1. The following Reference Standards are hereby made part of the Contract Documents. Names and website addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

ABBREVIATION /ACRONYM	REFERENCE STANDARD	WEBSITE/ CONTACT INFORMATION
MN/DOT-SPEC	State of Minnesota Department of Transportation "Standard Specifications for Construction," 2005	www.dot.state.mn.us/tsecsup/spec
ADAAG	American Disabilities Act (ADA) Architectural Barriers Act (ABA) Accessibility Guidelines for Buildings and Facilities	www.access-board.gov
MMUTCD	Minnesota Manual on Uniform Traffic Control Devices	www.dot.state.mn.us/traffceng/otepubl/mutcd/index.html
MN/DOT - TEM	The Official Minnesota Department of Transportation Traffic Engineering Manual (TEM) prepared by the Office of Traffic, Safety, and Operations	www.dot.state.mn.us/traffceng/otepubl/tem

- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents, unless otherwise indicated.
- C. Copies of Standards: Each entity engaged in the Work should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.
- D. Abbreviations and Acronyms for Standards and Regulations: Where abbreviations and acronyms are used in the Contract Documents, they shall mean the recognized name of the Reference Standard.

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION 1 – CLEAN AND PREPARE TRAIL SURFACE

PART 1 – GENERAL

1.1 SUMMARY

- A. This section includes requirements for the preparation of the existing bituminous surface including crack filling and patching of pavement to promote the successful coverage of polymerized asphalt emulsion.

1.2 PROJECT CONDITIONS

- A. Work shall be performed only when the following conditions are present:
 - 1. Rain is not forecasted in the next 24 hours.
- B. Prep Work shall be performed Monday through Thursday, excluding holidays, during the hours of 7:00 AM to 7:00 PM, unless otherwise approved by the Owner.
- C. Contractor shall notify the Parks Superintendent not less than 2 days prior to commencing work activities, excluding weekends and holidays.
- D. Prior to commencing work, the Contractor shall demonstrate compliance to the following requirements, to the satisfaction of the City of Monticello:
 - 1. Safety:
 - a. Refer to the conditions of the Proposal Form.
 - b. Contractor use of City of Monticello-furnished products or materials shall not relieve the Contractor of any requirements and responsibilities for safety on the project.
 - 2. Maintenance of Traffic:
 - a. All trails shall remain CLOSED to public use during the work, unless otherwise approved by the City of Monticello project engineer.
 - 3. Work Hours:
 - a. Shall be carefully planned to coordinate with subsequent work activities.

PART 2 - PRODUCTS

2.1 TRAFFIC CONTROL DEVICES

- A. Conform to devices prescribed by the MMUTCD, or approved equal.
- B. Survey ribbon, lathe, or rope shall not be acceptable traffic control devices.
- C. Acceptable traffic control devices include MUTCD sign panels installed on Type III barricades and/or portable fencing panels, and approved equals.

2.2 EQUIPMENT

- A. All equipment shall be appropriately sized and suitable for use on paved trails.
- B. All propelled equipment shall be rubber-tired.
- C. Audible and/or visual devices shall be installed on equipment, as appropriate, to provide advance warning to trail users.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. The Contractor shall coordinate a site meeting with the City of Monticello Representative prior to commencing construction activities to generally review the scope of work and to ensure that the requirements of Part 1.2.D are acceptable.
- B. Receive approval to proceed from City of Monticello Representative.

3.2 PERFORMANCE

- A. Operate equipment in a responsible manner. Operate audible or visual devices, as needed, to ensure safety of approaching trail users.
- B. Provide traffic control devices as shown in the plan. Relocate devices during performance of the work, as needed.
- C. Cracks shall be prepared by routing or blowing out debris with compressed air and heating the crack face with a hot air lance before filling with CrafcO asphalt rubber plus #34241. All routed cracks must follow technical specs TR2, TR3. See attachment.

Alternate 1 – Crack Filling: This work shall consist of performing crack filling following technical specifications.

- D. Patching of Asphalt shall be completed with one of two alternates in the areas identified by the City and as described below:

Alternate 2- Pavement Removal and Patching: This work shall consist of full depth sawcutting and removal of the asphalt, 1-inch mill for a 1-foot width around the removal area and placement of 3-inches of 2360 Type SP 9.5 Wearing Course Mixture (2,B).

Alternate 3- Infrared Patching: This work shall consist of performing an asphalt thermal bond infrared patch in areas selected by the City. The newly patched surface shall be installed in a manner so that it bonds the with the old asphalt surface, creating a smooth, seamless repair. An asphalt rejuvenator shall be applied to the surface with this method.

- E. Using a string trimmer, edger, or similar, remove all encroaching vegetation from the trail edge, exposing the edge.
- F. Using a string trimmer, heat lance, or pick, remove all vegetation from cracks on the trail surface.
- G. Using a flat shovel or similar, remove all accumulated and/or embedded dirt and debris from relative low points, depressions, and poorly drained areas.
- H. Using a walk-behind blower, power broom, or similar, remove all dirt, dust, and debris from the trail surface, across its full width, ensuring that the surface will remain clean until subsequent work activities commence.

3.3 CLEAN UP AND DISPOSAL

- A. Remove and properly dispose of all work-related debris off site in accordance with local and state regulations.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. Measurement shall be by project square yard for all work described herein or as required by the Contract Documents. No additional measurement shall be made for items associated with the successful execution of the Work, including but not limited to labor, equipment, and materials.

4.2 PAYMENT

- A. Payment shall be by project square yard, per the conditions of the Contract Documents, except for Part 3.2E.

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION 2 – T-MAT ASPHALT RESURFACING

PART 1 – GENERAL

1.1 SUMMARY

- A. This section includes application of a polymerized asphalt emulsion, containing fibers and aggregates, to existing bituminous surfaces.

1.2 PROJECT CONDITIONS

- A. Application shall be performed only when the following conditions are present:
 - 1. Air and surface temperature exceed 70 degrees F, and
 - 2. Relative humidity is less than 60%, and
 - 3. Rain has not fallen in the past 8 hours and
 - 4. Rain is not forecasted in the next 24 hours, and
 - 5. Next day high temperature forecast exceeds 70 degrees F.
- B. Placement of the product shall be performed Monday through Wednesday, excluding holidays, during the hours of 7:00 AM to 7:00 PM, unless otherwise approved by the City of Monticello.
- C. All Trails shall be open to the public Friday - Sunday
- D. Contractor shall notify the Parks Superintendent not less than 2 days prior to commencing work activities, excluding weekends and holidays, such that the Owner can provide adequate advanced trail closure notice to staff and public.
- E. Prior to commencing work, the Contractor shall demonstrate compliance to the following requirements, to the satisfaction of the City of Monticello:
 - 1. Safety:
 - a. Refer to the conditions of the Proposal Form.
 - b. Contractor use of City of Monticello-furnished signage shall not relieve the Contractor of any requirements or responsibilities for safety on the project.
 - 2. Maintenance of Traffic:
 - a. The Contractor shall CLOSE the paved trail to public use for the duration of the work, including curing and drying of the product, as shown in the drawings.
 - b. Coordinate all traffic control and closures with the City of Monticello Representative one week prior to any closures.
 - c. All turf trails shall remain OPEN to public use throughout the duration of the work, unless otherwise approved by the City of Monticello Representative. The Contractor shall maintain traffic through the turf trail segment crossings depicted on the Drawings.

- d. The Contractor shall be responsible for providing means and methods for traffic maintenance that are acceptable to the City of Monticello Representative.
3. Work Hours:
- a. Shall be carefully planned to optimize favorable weather conditions necessary for drying and curing of the product, and shall conform to the conditions of Parts 1.2.A and 1.2.B.

.3 BIDDER QUALIFICATIONS

- A. Bidder must be a certified applicator of T-MAT, as authorized by Crius Corporation. Certified applicators shall be pre-qualified to ensure that they have the necessary equipment and personal training necessary to install T-MAT.

PART 2 - PRODUCTS

2.1 APPROVED PRODUCTS

- A. T-MAT, as manufactured by Crius Corporation, consisting of a highly polymerized asphalt emulsion fortified with fibers and fillers specifically designed to enhance and stabilize the emulsion, blended with a gradation of aggregate as specified. No substitution will be considered unless written request has been submitted to the Owner for approval at least four (4) calendar days prior to the date and hour set for receipt of bids. Refer to Proposal Form Part VII.
- B. Acrylic Adhesion Promoter: Use product approved by the asphalt emulsion product manufacturer.
- C. Aggregate: Dresser trap rock 100% manufactured sand, or equal, meeting gradation requirements of Part 2.2.B.
- D. Mixture rate shall be 9 pounds of aggregate per gallon of T-MAT.

2.2 AGGREGATE MATERIALS

- A. Aggregate shall consist of a durable manufactured sand, crushed stone or fines or a combination thereof. The material shall not exceed 7% moisture content and shall be free of all plant or organic matter or debris. All aggregate to be used shall be pre-tested and approved by the manufacturer.
- B. Aggregate shall conform to the following gradation when tested in accordance with ASTM C136.

Sieve Size	% Passing
#4	100
#8	100
#16	99
#30	91
#50	56
#100	30
#200	12.7

2.3 EQUIPMENT

- A. All equipment shall be certified for T-MAT installation by the manufacturer.
- B. Distributor vehicle shall be self-propelled, rubber-tired, suitable for trail use, and capable of applying the product across the full width of the trail in a single pass.
- C. Distributor vehicle tank capacity shall not exceed 500 gallons. Not greater than 300 gallons of product shall be present in the tank at any time.
- D. Feeder vehicle shall be properly sized and loaded to travel to designated access points without risking damage to park infrastructure.

2.4 TRAFFIC CONTROL DEVICES

- A. Conform to devices prescribed by the MMUTCD, or approved equal.
- B. Survey ribbon, lathe, or rope shall not be acceptable traffic control devices.
- C. Acceptable traffic control devices include MUTCD sign panels installed on Type III barricades and/or portable fencing panels, and approved equals.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. The Contractor shall coordinate a site meeting with the City of Monticello Representative prior to commencing construction activities to generally review the scope of work and to ensure that the requirements of Part 1.2.D are acceptable.
- B. Conduct work only if the surface has been cleaned and prepared per Section 1 – Clean and Prepare Trail Surface.

- C. Receive approval to proceed from City of Monticello Representative.

3.2 PREPARATION

- A. Apply Acrylic Adhesion Promoter to all heavily shaded areas and as directed by the City of Monticello Representative, per manufacturer recommendations.

3.3 PERFORMANCE

- A. Conduct work in phases to meet the requirements of Part 1.2.D.2. Install appropriate traffic control devices and move the devices as necessary during each phase.
- B. Apply two coats, uniform coat of T-MAT to the full trail width, per manufacturer recommendations. Do not allow product to spill over the trail edge or to pool on the trail surface.
- C. Coverage rate shall be at least 0.50 gallons per square yard.
- D. Speed of distribution vehicle shall be sufficiently slow, to ensure optimal adhesion of the product.
- E. Traffic control devices shall remain in-place until the finished surface has fully cured, dried, and can be opened to traffic without risk of damage to the work.

3.4 CLEAN UP AND DISPOSAL

- A. In the event of overspill of the product during installation, confine the product to the trail shoulder and prevent any flow towards surface waters or wetlands. Allow product to dry, and then return to clean up and dispose of the product. Overspill material shall be considered excess product.
- B. In the event of pooling of the product during installation, use a squeegee or similar to spread the product uniformly across the surrounding trail surface, provided that the resultant product thickness will cure and dry at the same rate as surrounding areas. If the resultant product thickness will not cure and dry at a reasonable rate, or at the direction of the City of Monticello Representative, spread the product off of the trail edge, and treat it as overspill material.
- C. Remove and properly dispose of all work-related debris and excess product off site in accordance with local and state regulations.
- D. Material beyond the edge of paved trail must be allowed to cure and dry, and then be cleanly detached from the adjacent pavement surface and properly disposed of off-site.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. Measurement shall be by project square yard for all work described herein or as required by the Contract Documents. No additional measurement shall be made for items associated with the successful execution of the Work, including but not limited to labor, equipment, and materials.

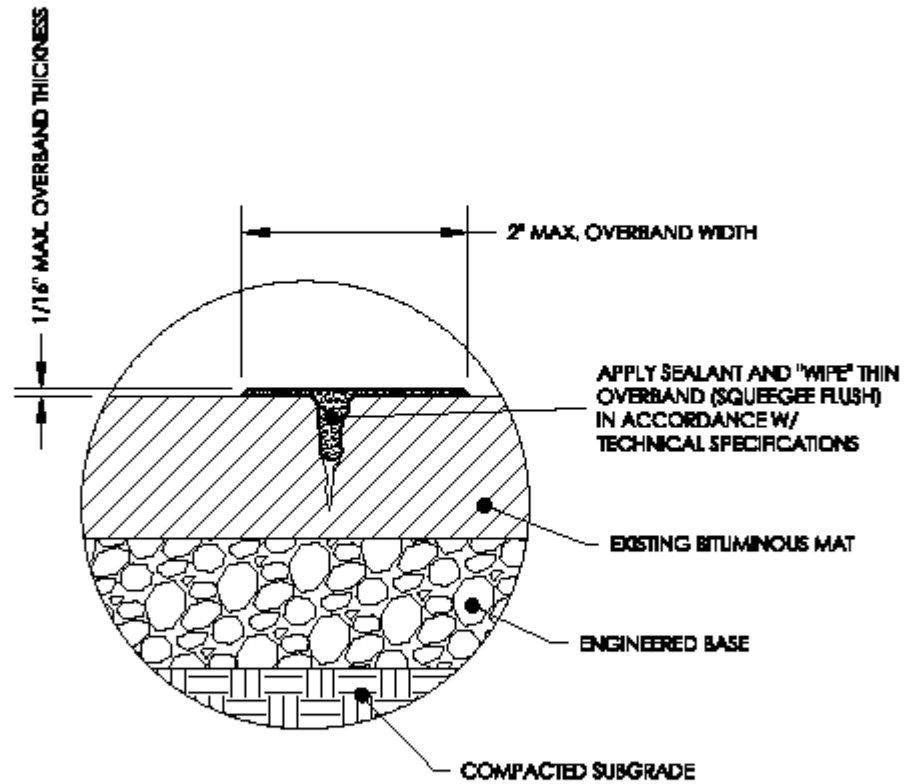
4.2 PAYMENT

- A. Payment shall be by project square yard, per the conditions of the Contract Documents.

END OF SECTION

NOTES:

1. REFER TO TECHNICAL SPECIFICATIONS AND DRAWINGS.
2. DO NOT ROUT.
3. JOINT AND CRACK SEALANT:
 - A. CRAFCO ROADSAYER 534.
4. APPLY SAND OR 1-FLY PAPER AS PER TECHNICAL SPECIFICATIONS.



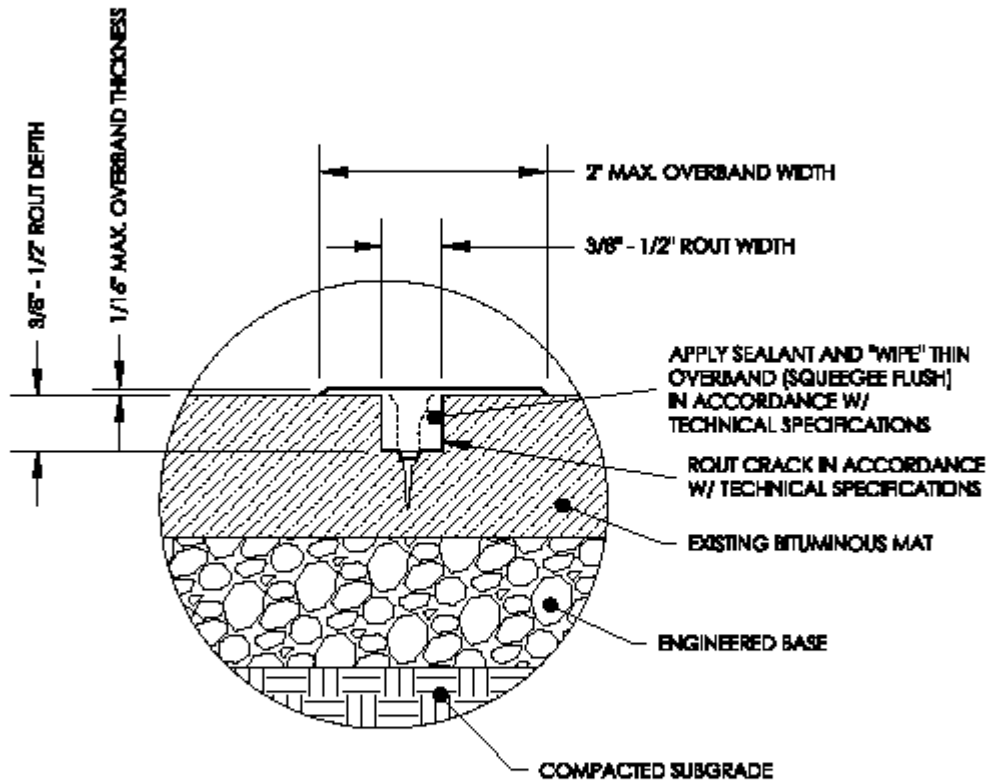
TR-2

BITUMINOUS TRAIL CRACK REPAIR: 1/4" - 1/2" NON-TRANSVERSE

NTS

NOTES:

1. REFER TO TECHNICAL SPECIFICATIONS AND DRAWINGS.
2. JOINT AND CRACK SEALANT:
A. CRAFCO ROADSAVER 534.
3. APPLY SAND OR 1-PLY PAPER AS PER TECHNICAL SPECIFICATIONS.

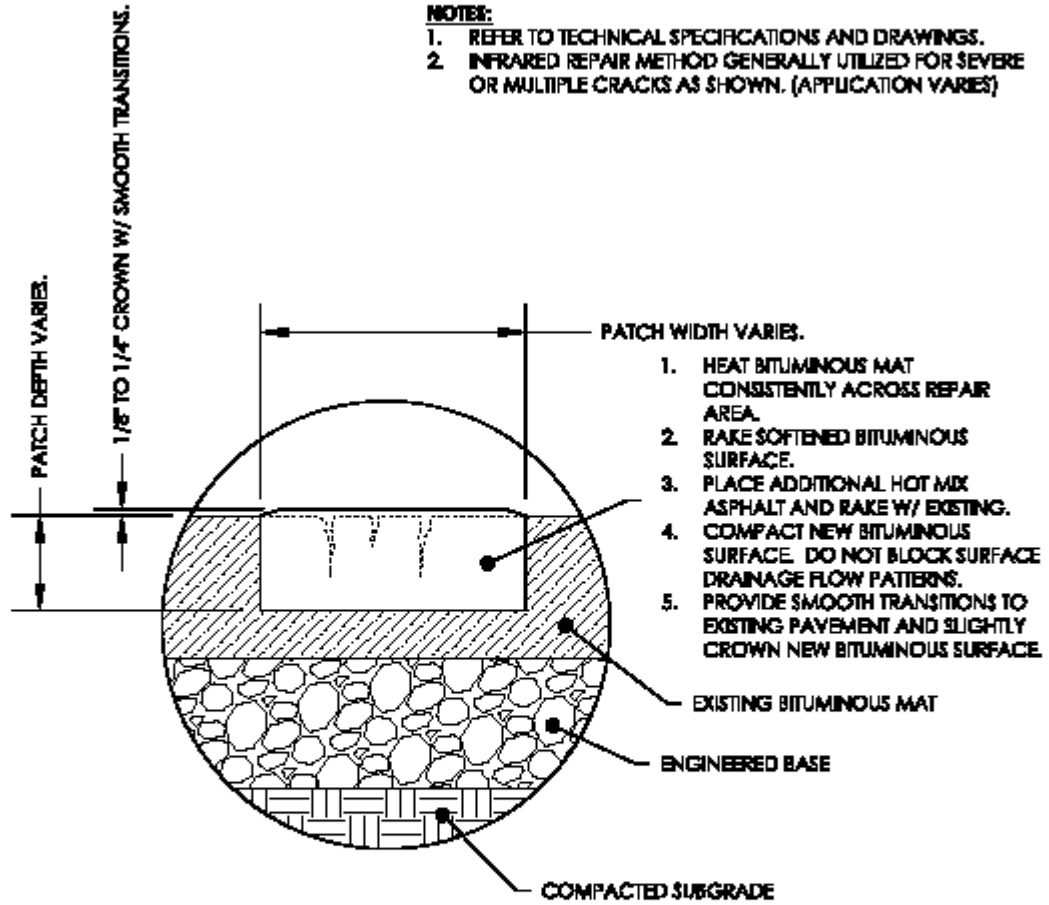


BITUMINOUS TRAIL CRACK REPAIR: 1/4" - 1/2" TRANSVERSE

NTS

NOTE:

1. REFER TO TECHNICAL SPECIFICATIONS AND DRAWINGS.
2. INFRARED REPAIR METHOD GENERALLY UTILIZED FOR SEVERE OR MULTIPLE CRACKS AS SHOWN. (APPLICATION VARIES)

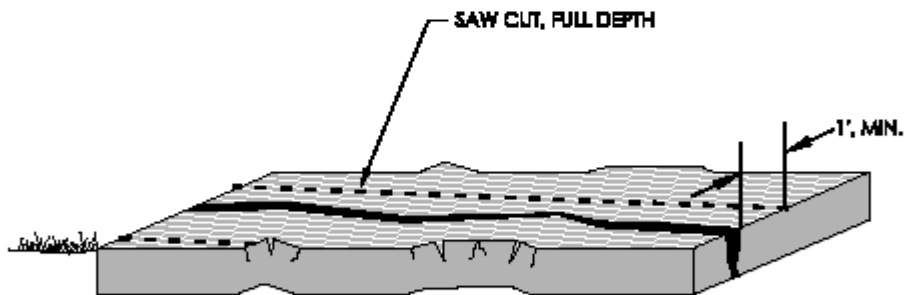


STR-6 INFRARED PATCH

NTS

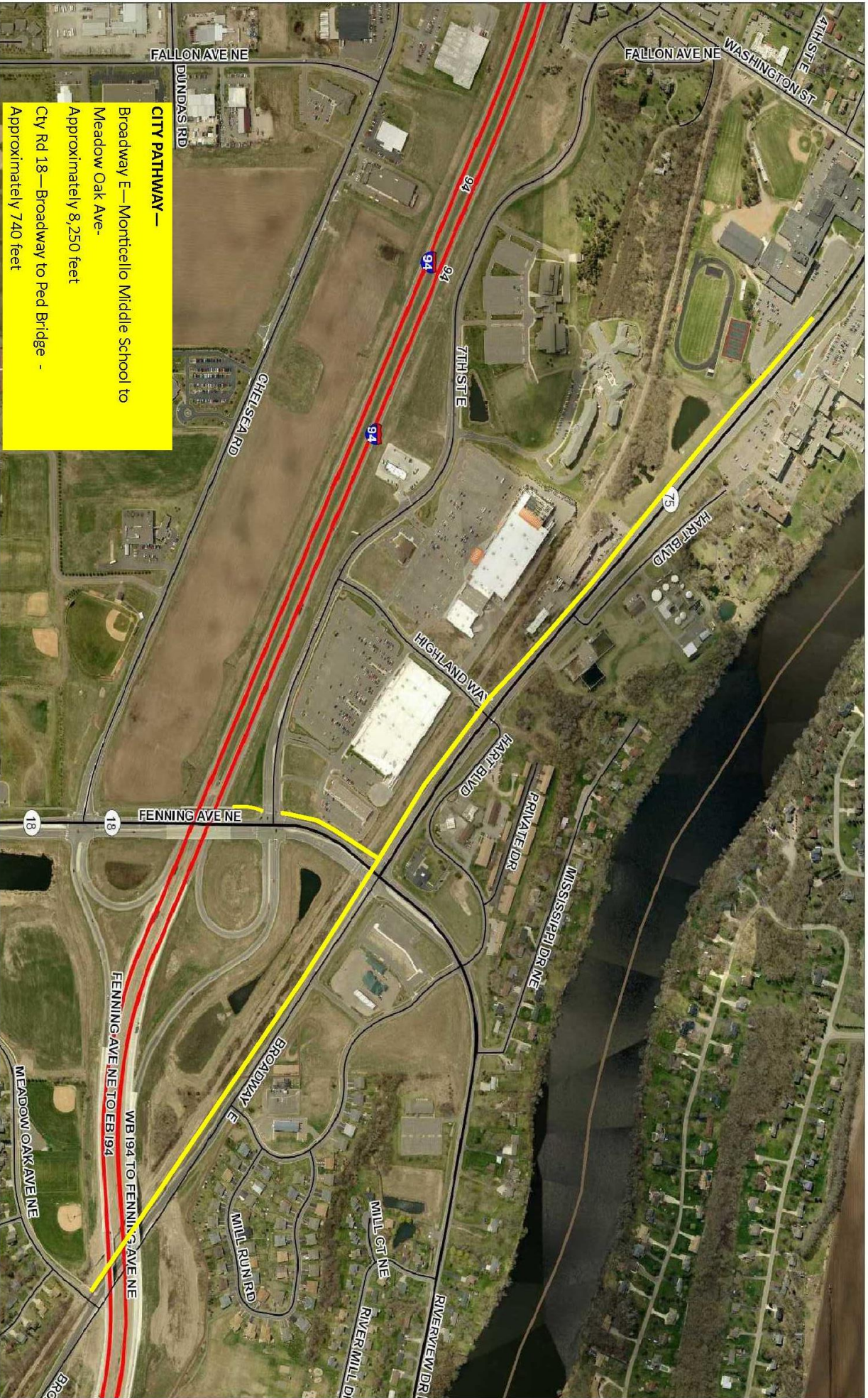
NOTES:

1. SAWCUT BITUMINOUS PAVEMENT FULL WIDTH BETWEEN REPAIR EXTENTS (INCIDENTAL).
2. REMOVE 1" OF BITUMINOUS MATERIAL ON BOTH SIDES OF CRACK OR AS FIELD MARKED TO REMOVE ALL HEAVING AND DISTORTION ASSOCIATED WITH CRACK.
3. APPLY BITUMINOUS TACK COAT MATERIAL TO SIDES OF SAW CUT PRIOR TO PLACING NEW BITUMINOUS MATERIAL (INCIDENTAL).
4. PLACE AND COMPACT BITUMINOUS MAT, SPWEA2406 WITH VIBRATORY ROLLER EQUIPMENT THAT IS PROPERLY SIZED TO NOT CAUSE ANY DAMAGE TO ADJACENT TRAILS PER MnDOT SPEC 2360.
5. SHOULDER WITH TOPSOIL (AMENDED AND LOOSENED), RESTORE SEED (MnDOT 25-141) AND MULCH OR BLANKET AS DIRECTED BY OWNER AND PER MnDOT SPEC 2572.
6. DETAIL REFLECTS ACCEPTABLE MEANS AND METHODS. CONTRACTOR MAY SUBMIT ALTERNATIVE MEANS AND METHODS TO OWNER FOR REVIEW AND APPROVAL.
7. ALL CONSTRUCTION RELATED DEBRIS, VEGETATION AND CONTAMINATED SOILS SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED.

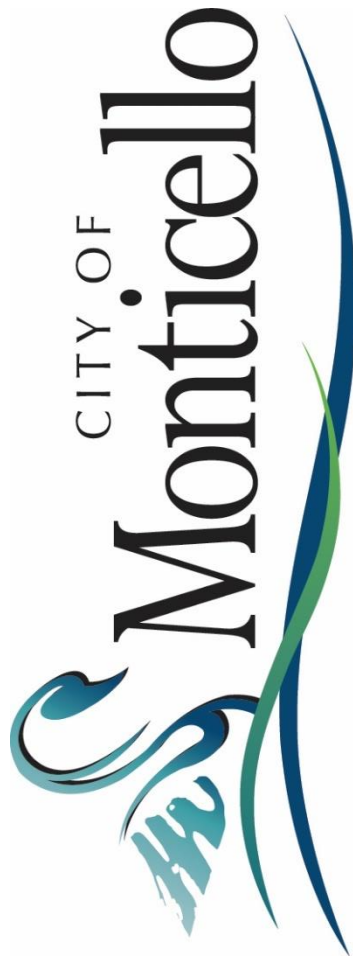


BITUMINOUS TRAIL CRACK REPAIR: 1" OR GREATER

NTS



CITY PATHWAY —
Broadway E—Monticello Middle School to
Meadow Oak Ave-
Approximately 8,250 feet
Cty Rd 18—Broadway to Ped Bridge -
Approximately 740 feet



CITY OF MONTICELLO

SPECIFICATIONS

FOR

TRAIL PAVEMENT REHABILITATION

FOR THE

CITY OF MONTICELLO MINNESOTA

MARCH 20, 2018

Prepared By:

*City of Monticello
Office of Public Works
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Monticello, MN 55362*

*Tom Pawelk
Park Superintendent*

*Shibani Bisson
City Engineer
WSB & Associates, Inc.*

*Phone: 763-295-3170
Fax: 763-271-3272
Website: www.ci.monticello.mn.us*

DESCRIPTION OF WORK

SUMMARY

This project consists of trail pavement rehabilitation intended to improve the serviceability and ride quality of the shared multi-use paved trail within the Meadow Oak development. (see enclosed map of the project area). The trail segment identified for Work has experienced surface deficiencies primarily in the form of surface cracking and minor to major raveling. The trail pavement will require crack filing, asphalt removal and patching or infrared patching, and RoadGuard installation. An alternate quote shall be provided for the crack filling and asphalt patching work.

The trail segment is a component of the City of Monticello paved trail system, a heavily-used route for trail users of all recreation types: walking/hiking/running, dog-walking, biking, rollerblading, commuting, and roller skiing. For these reasons, the Contractor must pay careful attention to the requirements for safety, maintenance of traffic, and approved work times, as referenced throughout the Contract Documents.

To maintain heavy trail traffic during the summer months, the Contractor will be required to place RoadGuard in specific trail Segments, allowing trail to fully dry prior to moving onto next Segment. The contractor shall only close the trail segment that is actively being worked on.

The contractor shall submit to the City a schedule of the intended closure dates of the trail segments one week prior to commencing work to allow the City to properly notify the public.

The contractor shall not change the dates of closure once submitted (excluding delays due to weather related events). The contractor shall install temporary construction signage as necessary and as determined by the City. No substitutions will be allowed.

PRESERVATION OF EXISTING FEATURES

The Contractor shall minimize disruption and damages to existing Project Site features, including but not limited to lawns, trees, existing topography, pavements, and curbing. All construction access and traffic shall be confined to the routes indicated on the Drawings or by the project Engineer. Any damages to Project Site features outside the specified routes shall be repaired and restored by the Contractor to the satisfaction of the City of Monticello at no cost to the City of Monticello.

The Contractor and City of Monticello shall create a photo inventory of pre-construction conditions of the Project Site for later use in determination of changed conditions.

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION 32 2350

CLEAN AND PREPARE TRAIL SURFACE

PART 1 – GENERAL

1.1 SUMMARY

- A. Section includes preparation of the existing bituminous surface to promote the successful coverage of micro-surfacing or sealcoating operations.

1.2 MEASUREMENT AND PAYMENT

- A. Measurement shall be by lump sum for all work described herein or as required by the Contract Documents. No additional measurement shall be made for items associated with the successful execution of the Work, including but not limited to labor, equipment, and materials.

1.3 PROJECT CONDITIONS

- A. Work shall be performed only when the following conditions are present:
 - 1. Rain is not forecasted in the next 24 hours.
- B. Work shall be performed Monday through Friday, excluding holidays, during the hours of 7:00 AM to 7:00 PM, unless otherwise approved by the Owner.
- C. Contractor shall notify the Owner not less than 2 days prior to commencing work activities, excluding weekends and holidays.
- D. Prior to commencing work, the Contractor shall demonstrate compliance to the following requirements, to the satisfaction of the Owner:
 - 1. Safety:
 - a. Refer to the conditions of the Proposal Form.
 - b. Contractor use of Owner-furnished products or materials shall not relieve the Contractor of any requirements and responsibilities for safety on the project.
 - 2. Maintenance of Traffic:
 - a. All trails shall remain CLOSED to public use during the work, unless otherwise approved by the Owner Representative.
 - 3. Timing of work:
 - a. Shall be carefully planned to coordinate with subsequent work activities.

PART 2 – PRODUCTS

2.1 TRAFFIC CONTROL DEVICES

- A. Conform to devices prescribed by the MMUTCD, or approved equal.
- B. Survey ribbon, lathe, or rope shall not be acceptable traffic control devices.
- C. Acceptable traffic control devices include MUTCD sign panels installed on Type III barricades and/or portable fencing panels, and approved equals.
- D. Provide traffic control devices as shown in the plan. Relocate devices during performance of the work, as needed.

2.2 EQUIPMENT

- A. All equipment shall be appropriately sized and suitable for use on paved trails.
- B. All propelled equipment shall be rubber-tired.
- C. Audible and/or visual devices shall be installed on equipment, as appropriate, to provide advance warning to trail users.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. The Contractor shall coordinate a site meeting with the Owner Representative prior to commencing construction activities to generally review the scope of work and to ensure that the requirements of Part 1.3.D are acceptable.
- B. Receive approval to proceed from Owners Representative.

3.2 PERFORMANCE

- A. Using a string trimmer, edger, or similar, remove all encroaching vegetation from the trail edge, exposing the edge.
- B. Using a string trimmer, heat lance, or pick, remove all vegetation from cracks on the trail surface.
- C. Using a flat shovel or similar, remove all accumulated and/or embedded dirt and debris from relative low points, depressions, and poorly drained areas.
- D. Using a walk-behind blower, power broom, or similar, remove all dirt, dust, and debris from the trail surface, across its full width, ensuring that the surface will remain clean until subsequent work activities commence.

3.3 CLEAN UP AND DISPOSAL

- A. Remove and properly dispose of all work-related debris off site in accordance with local and state regulations.

END OF SECTION

SECTION 32 2354

MICRO-SURFACING

PART 1 – GENERAL

1.1 SUMMARY

- A. This section covers the furnishing of all labor, materials, tools, equipment and performance of all work and services necessary or incidental to construct micro-surfacing on a prepared pavement.

1.2 RELATED DOCUMENTS

- A. 2014 Mn/DOT Specification Section 2354, MICRO-SURFACING, shall apply except as modified herein.

1.3 MEASUREMENT AND PAYMENT

- A. Measurement shall be by project square yard for all work described herein or as required by the Contract Documents. No additional measurement shall be made for items associated with the successful execution of the Work, including but not limited to labor, equipment, and materials.
- B. Payment shall be in the amount of the contract unit price, per the conditions of the Contract Documents.
- C. Bituminous material for fog seal, where applicable, shall be considered incidental to the contract.

1.4 PROJECT CONDITIONS

- A. Work shall be performed only when the following conditions are present:
 - 1. Air and surface temperature exceed 50 degrees F, and
 - 2. Relative humidity is less than 60%, and
 - 3. Rain has not fallen in the past 8 hours and
 - 4. Rain is not forecasted in the next 24 hours, and
 - 5. Next day high temperature forecast exceeds 50 degrees F.
- B. Placement of the product shall be performed Monday through Thursday, excluding holidays, during the hours of 7:00 AM to 7:00 PM, unless otherwise approved by the Owner.
- C. All Trails shall be open to the public Friday - Sunday
- D. Contractor shall notify the Owner not less than 2 days prior to commencing work activities, excluding weekends and holidays, such that the Owner can provide adequate advanced trail closure notice to staff and public.
- E. Prior to commencing work, the Contractor shall demonstrate compliance to the following requirements, to the satisfaction of the Owner:
 - 1. Safety:
 - a. Refer to the conditions of the Proposal Form.
 - b. Contractor use of Owner-furnished products or materials shall not relieve the Contractor of any requirements and responsibilities for safety on the project.
 - 2. Maintenance of Traffic:
 - a. The Contractor shall CLOSE the paved trail to public use for the duration of the work, including curing and drying of the product, as shown in the drawings.
 - b. Coordinate all traffic control and closures with the Owner Representative.

- c. All turf trails shall remain open to public use throughout the duration of the work, unless otherwise approved by the Owners Representative. The Contractor shall maintain traffic through the turf trail segment crossings depicted on the Drawings.
 - d. The Contractor shall be responsible for providing means and methods for traffic maintenance that are acceptable to the Owner Representative.
3. Work Hours:
- a. Shall be carefully planned to optimize favorable weather conditions necessary for drying and curing of the product, and shall conform to the conditions of Parts 1.4.A through 1.4.C.

PART 2 - PRODUCTS

2.1 PRODUCTS

- A. Micro-surfacing: Provide a micro-surface complying with Mn/DOT Specification Section 2354. The micro-surface type shall be Surface Course utilizing Type 1 aggregate gradation per Mn/DOT Specification Section 3139.5. Under this contract, the contractor shall not be obligated to apply either Rut Fill or Scratch Course Microsurfacing. A Job Mix Formula (JMF) complying with Mn/DOT Specification Section 2354.2E shall be provided with the contractor's bid.
- B. Acrylic Adhesion Promoter or Bituminous Tack Coat: Use product approved by the asphalt emulsion product manufacturer if required by the Micro-surfacing JMF in heavily shaded areas.

2.2 AGGREGATE MATERIALS

- A. Aggregate shall consist of a durable manufactured sand, crushed stone or fines, or a combination thereof. The material shall not exceed 7% moisture content and shall be free of all plant or organic matter or debris. Aggregate shall comply with Mn/DOT Specification Section 3139.5.
- B. Aggregate gradation shall comply with Mn/DOT Specification Section 3139.5.B Type 1.
- C. Aggregate mixture rate shall be provided with JMF.

2.3 EQUIPMENT

- A. Distributor vehicle shall be self-propelled, rubber-tired, suitable for trail use, and capable of applying the product across the full width of the trail in a single pass.
- B. Distributor vehicle tank capacity shall not exceed 500 gallons. Not greater than 300 gallons of product shall be present in the tank at any time.
- C. Feeder vehicle shall be properly sized and loaded to travel to designated access points without risking damage to park infrastructure.

2.4 TRAFFIC CONTROL DEVICES

- A. Conform to devices prescribed by the MMUTCD, or approved equal.
- B. Survey ribbon, lathe, or rope shall not be acceptable traffic control devices.
- C. Acceptable traffic control devices include MUTCD sign panels installed on Type III barricades and/or portable fencing panels, or approved equals.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. The Contractor shall coordinate a site meeting with the Owners Representative prior to commencing construction activities to generally review the scope of work and to ensure that the requirements of Part 1.4.D are acceptable.
- B. Conduct work only if the surface has been cleaned and prepared per Section 32 2350 – CLEAN AND PREPARE TRAIL SURFACE.
- C. The Owner may replace the Test Strip requirement (MN/DOT spec 2354.3B.4) for Phase 1, Day 1 construction.
- D. Receive approval to proceed from Owners Representative prior to commencing parts 3.2 through 3.4.

3.2 PREPARATION

- A. Apply Acrylic Adhesion Promoter or Bituminous Tack Coat to all heavily shaded areas and as shown on the plans or as directed by the Owners Representative if required by the Micro-surfacing JMF. Install per manufacturer's recommendations.
- B. The owner may waive MN/DOT specification 2354.3B.6 - Fog seal requirement if the JMF specifically states to apply product to an untreated asphalt surface.

3.3 PERFORMANCE

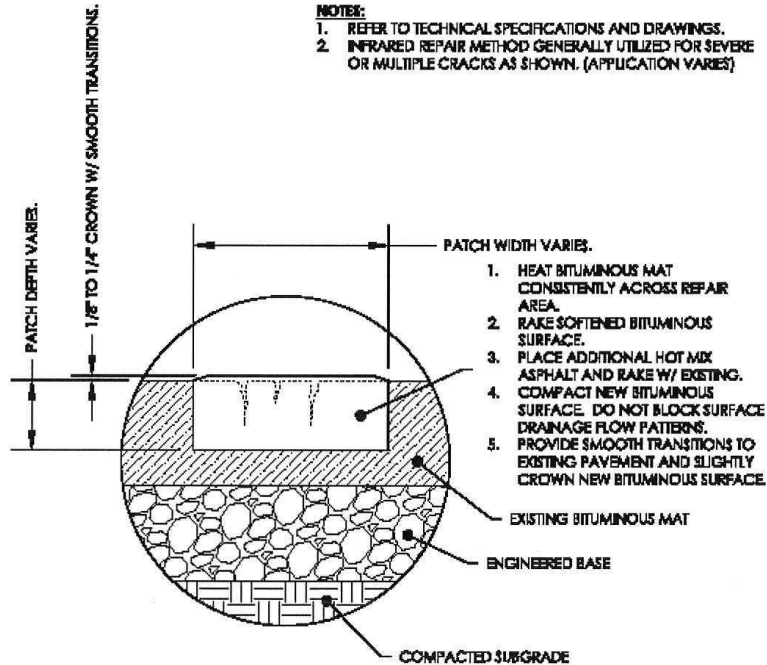
- A. Conduct work in phases to meet the requirements of Part 1.4.E.2. Install appropriate traffic control devices and move the devices as necessary during each phase.
- B. Apply a uniform coat of Micro-surface to the full trail width. Do not allow product to spill over the trail edge or to pool on the trail surface.
- C. Minimum coverage rate of Micro-surface shall be 0.50 gallons per square yard. Coverage rate shall be achieved with a minimum of two coats.
- D. Speed of distribution vehicle shall be sufficiently slow, to ensure optimal adhesion of the product.
- E. Finished surface of Micro-surface shall be smooth and free from defects caused during installation of material. Defects include, but are not limited to, ridges in surface, scratching of surface, squeegee marks, or contamination of material during placement. All defects shall be promptly corrected utilizing a squeegee to the satisfaction of the owner.
- F. Traffic control devices shall remain in-place until the finished surface has fully cured, dried, and can be opened to traffic without risk of damage to the work.
- G. A one year warranty will be provided to the Owner. Defective work will be corrected within the warranty period.

3.4 CLEAN UP AND DISPOSAL

- A. In the event of overspill of the product during installation, confine the product to the trail shoulder and prevent any flow towards surface waters or wetlands. Allow product to dry, and then return to clean up and dispose of the product. Overspill material shall be considered excess product. No compensation shall be made for overspill material.
- B. In the event of pooling of the product during installation, use a squeegee or similar to spread the product uniformly across the surrounding trail surface, provided that the resultant product thickness will cure and dry at the same rate as surrounding areas. If the resultant product thickness will not cure and dry at a reasonable rate, or at the direction of the Owner Representative, spread the product off of the trail edge, and treat it as overspill material.

- C. Remove and properly dispose of all work-related debris and excess product off site in accordance with local and state regulations.
- D. Material beyond the edge of paved trail must be allowed to cure and dry, and then be cleanly detached from the adjacent pavement surface and properly disposed of off-site.

END OF SECTION



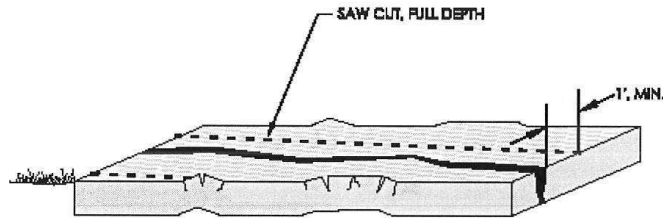
NOTES:

1. REFER TO TECHNICAL SPECIFICATIONS AND DRAWINGS.
2. INFRARED REPAIR METHOD GENERALLY UTILIZED FOR SEVERE OR MULTIPLE CRACKS AS SHOWN. (APPLICATION VARIES)

STR-6 INFRARED PATCH
NTS

NOTES:

1. SAWCUT BITUMINOUS PAVEMENT FULL WIDTH BETWEEN REPAIR EXTENTS (INCIDENTAL).
2. REMOVE 1" OF BITUMINOUS MATERIAL ON BOTH SIDES OF CRACK OR AS FIELD MARKED TO REMOVE ALL HEAVING AND DISTORTION ASSOCIATED WITH CRACK.
3. APPLY BITUMINOUS TACK COAT MATERIAL TO SIDES OF SAW CUT PRIOR TO PLACING NEW BITUMINOUS MATERIAL (INCIDENTAL).
4. PLACE AND COMPACT BITUMINOUS MAT, SPWEA2406 WITH VIBRATORY ROLLER EQUIPMENT THAT IS PROPERLY SIZED TO NOT CAUSE ANY DAMAGE TO ADJACENT TRAILS PER MNDOT SPEC 2340.
5. SHOULDER WITH TOPSOIL (AMENDED AND LOOSENED), RESTORE SEED (MNDOT 25-141) AND MULCH OR BLANKET AS DIRECTED BY OWNER AND PER MNDOT SPEC 2672.
6. DETAIL REFLECTS ACCEPTABLE MEANS AND METHODS. CONTRACTOR MAY SUBMIT ALTERNATIVE MEANS AND METHODS TO OWNER FOR REVIEW AND APPROVAL.
7. ALL CONSTRUCTION RELATED DEBRIS, VEGETATION AND CONTAMINATED SOILS SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED.

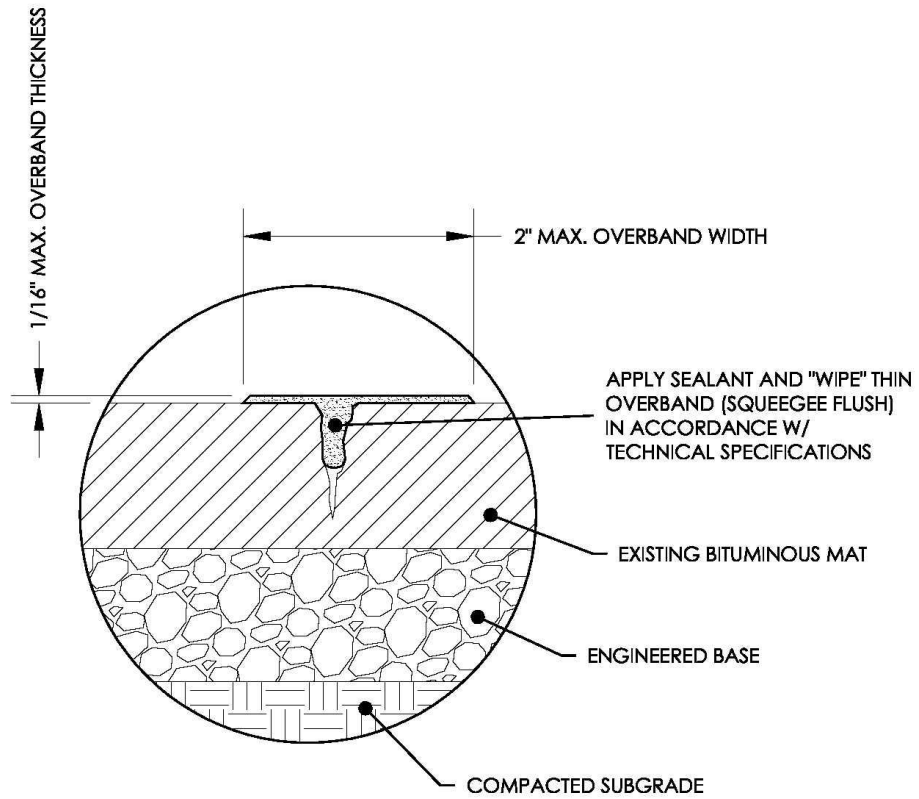


BITUMINOUS TRAIL CRACK REPAIR: 1" OR GREATER

NTS

NOTES:

1. REFER TO TECHNICAL SPECIFICATIONS AND DRAWINGS.
2. DO NOT ROUT.
3. JOINT AND CRACK SEALANT:
 - A. CRAFCO ASPHALT RUBBER PLUS #34241
4. APPLY SAND OR 1-PLY PAPER AS PER TECHNICAL SPECIFICATIONS.

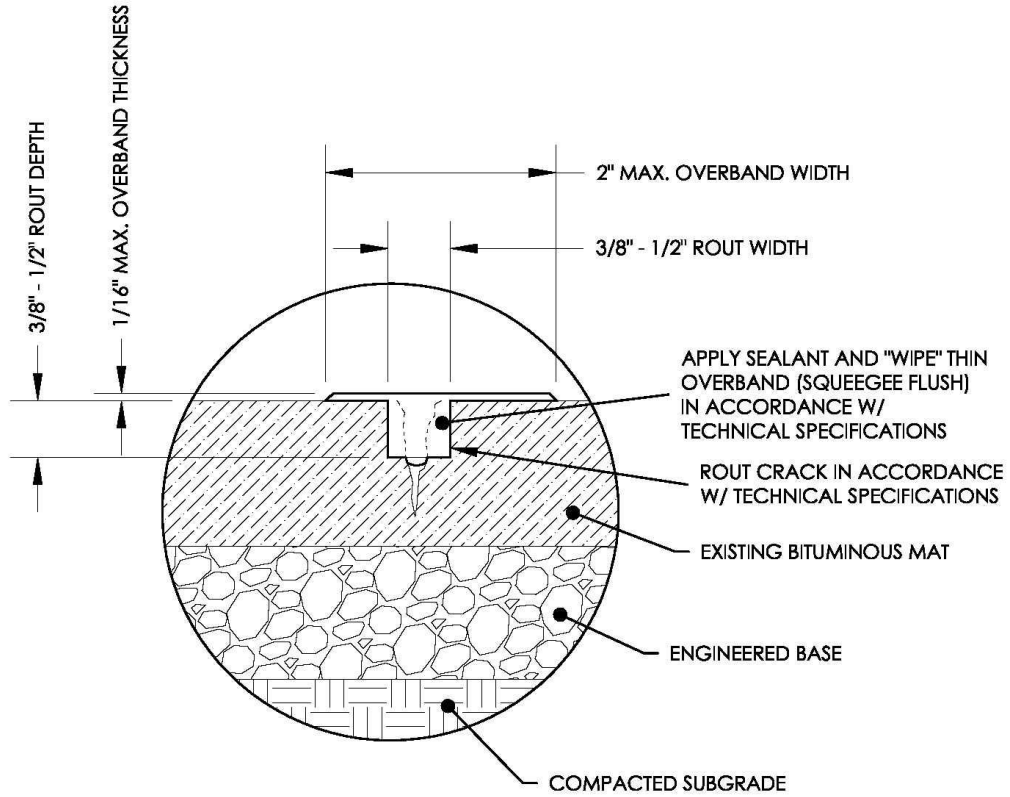


BITUMINOUS TRAIL CRACK REPAIR: 1/4" - 1/2" NON-TRANSVERSE

NTS

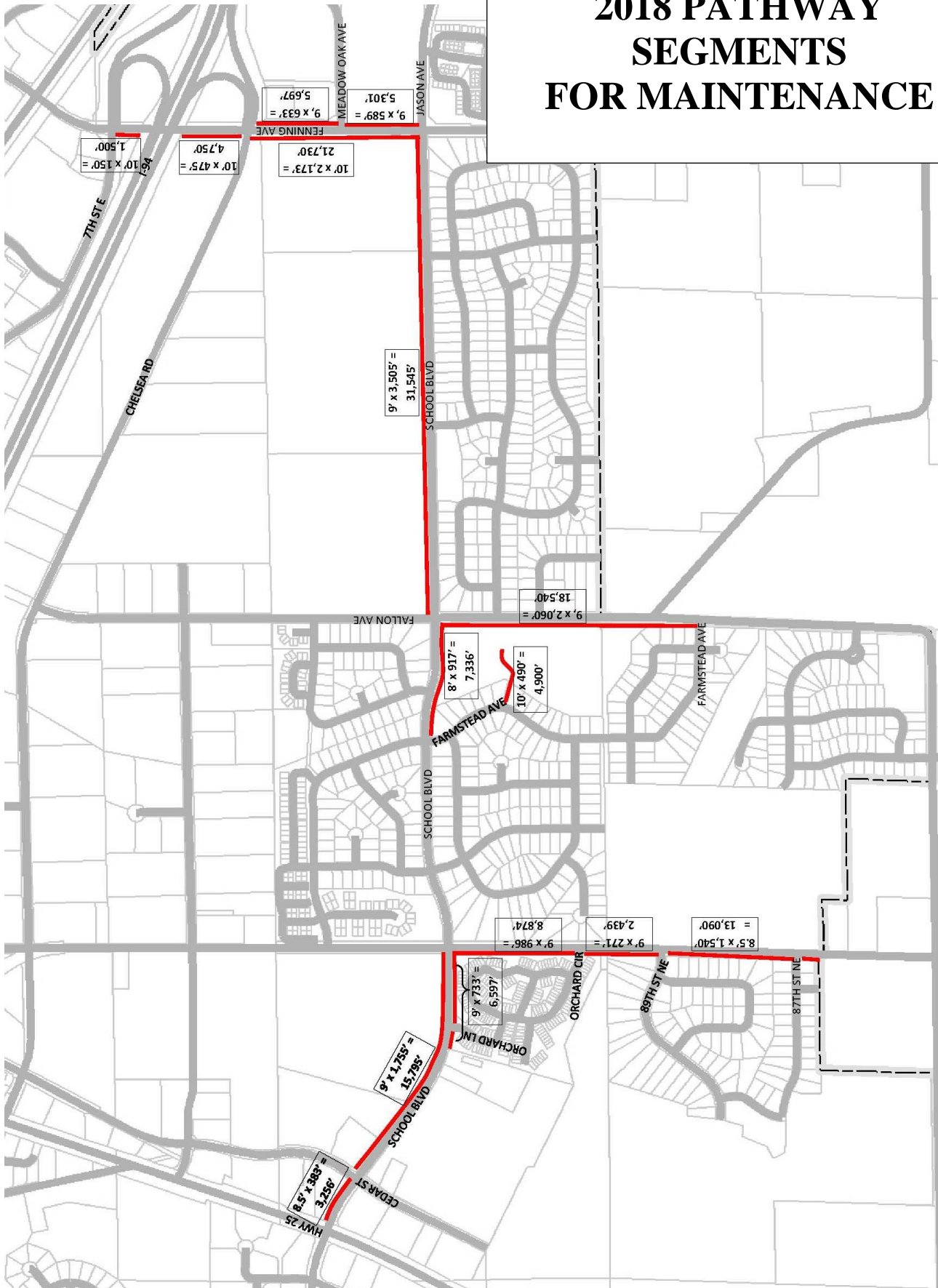
NOTES:

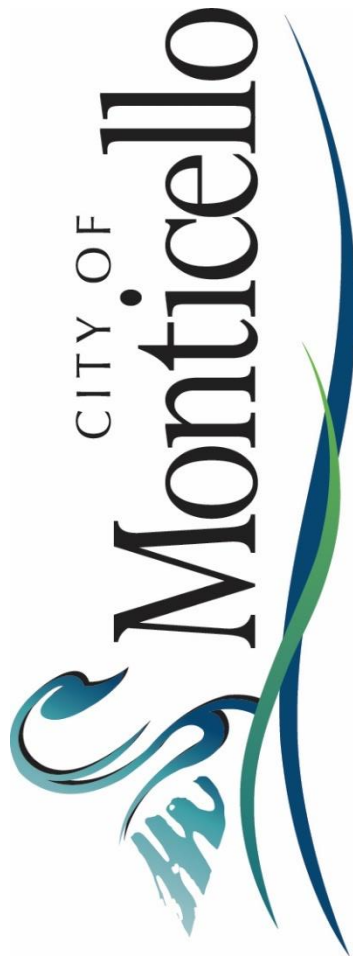
1. REFER TO TECHNICAL SPECIFICATIONS AND DRAWINGS.
2. JOINT AND CRACK SEALANT:
 - A. CRAFCO ASPHALT RUBBER PLUS #34241
3. APPLY SAND OR 1-PLY PAPER AS PER TECHNICAL SPECIFICATIONS.



TR-3 BITUMINOUS TRAIL CRACK REPAIR: 1/4" - 1/2" TRANSVERSE
 #####
 NTS

2018 PATHWAY SEGMENTS FOR MAINTENANCE





CITY OF MONTICELLO

SPECIFICATIONS

FOR

TRAIL PAVEMENT
REHABILITATION

FOR THE

CITY OF MONTICELLO
MINNESOTA

MAY 8, 2020

Prepared By:

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DESCRIPTION OF WORK

SUMMARY

This project consists of trail pavement rehabilitation intended to improve the serviceability and ride quality of the shared multi-use paved trail within the southwest quadrant of the City of Monticello. (see enclosed map of the project area). The trail segments identified for work have experienced surface deficiencies primarily in the form of surface cracking minor to major raveling. The trail pavement will require crack filling, asphalt removal and patching or infrared patching, tree root cutting/barrier and micro surfacing treatment installation. Bidders are encouraged to visit the site along with City staff to fully understand all of the project components. A lump sum breakdown including the unit prices for crack filling, asphalt patch, micro surfacing, fog sealing, tree root cutting, root barrier and pavement reconstruct work shall be provided along with the bid.

The trail segment is a component of the City of Monticello paved trail system, a heavily-used route for trail users of all recreation types: walking/hiking/running, dog-walking, biking, rollerblading, commuting, and roller skiing. For these reasons, the Contractor must pay careful attention to the requirements for safety, maintenance of traffic, and approved work times, as referenced throughout the Contract Documents.

To maintain heavy trail traffic during the summer months, the Contractor will be required to place micro surfacing in specific trail Segments, allowing trail to fully dry prior to moving onto next Segment. The contractor shall only close the trail segment that is actively being worked on.

No contractor or subcontractor shall commence work under this contract until he has obtained at his own cost and expense all insurance required by this article, such insurance to be approved by the owner and maintained by the contractor until final completion of the work. Completed operations insurance shall also be maintained by the contractor for a period of one (1) year after final completion date.

The contractor shall take out and maintain for the duration of this contract statutory workmen's compensation insurance and employer's liability insurance as shall be required under the laws of the state of Minnesota.

A. Workmen's Compensation Insurance

The contractor shall take out and maintain during the life of this contract such-public liability and property damage insurance as shall protect him from all claims for bodily injury, including accidental death, as well as from all claims for property damage arising from operations under this contract. The minimum limits which are required are: Public Liability, \$1,000,000 per each occurrence, General Aggregate, \$1,000,000, and Worker's Compensation, \$100,000 (employer's liability limit).

Such policy shall include coverage for:

(a) Injury to or destruction of any property arising out of the collapse of or structural injury to any building or structure due:

- i. to grading of land, excavation, borrowing, filling, backfilling, tunneling, pile driving, coffer-dame work, or caisson work, or
- ii. to moving, shoring, underpinning, raising, or demolition of any building or structure or removal or rebuilding of any structural support thereof.

(b) Injury to or destruction of wires, conduits, pipes, mains, sewers, tanks, tunnels, any similar property, and any apparatus in connection therewith, beneath the surface of the ground or water, caused by and occurring during the use of mechanical equipment for the purpose of grading land, paving, excavating, drilling, borrowing, filling, backfilling, or pile driving or injury to or destruction of property at any time resulting therefrom.

(c) Injury to or destruction of any property arising out of blasting or explosion.

2. *Automobile Insurance*

The contractor shall carry automobile insurance on all automotive equipment owned, rented, or borrowed in the minimum amount of \$500,000 combined single limit.

3. *Contractual Liability Insurance*

The contractor agrees to hold harmless and indemnify the owner, the engineer, and their agents from every claim, action, cause of action, liability, damage, expense, or payment incurred by reasons of any bodily injury including death or property damage resulting from the contractor's operations on this project.

4. *Owner's Protective Liability and Property Damage Insurance*

The contractor shall provide owner's protective liability and property damage insurance in the name of the owner and the engineer insuring against bodily injury and property damage liability in the limits set forth above for which they may become legally obligated to pay as damages sustained by any persons caused by accident and arising out of operations performed for the named insured by independent contractors and general supervision thereof.

C. *Builder's Risk--Fire and Extended Coverage Insurance*

If the nature of the entire installation or portion thereof is such that it is insurable against the perils of fire, extended coverage, vandalism, and malicious mischief, such insurance shall be procured and maintained by the contractor in behalf of himself, the owner, and his subcontractors on a complete value form.

Insurance certificates evidencing that the above insurance is in force with companies acceptable to the owner and in the amounts required shall be submitted to the owner for examination and approved concurrently with the execution of the contract, after which they shall be filed with the owner. In addition to the normal information provided on the insurance certificates, they shall specifically provide that:

1. A certificate will not be modified except upon ten days' prior written notice to the owner;
2. Coverage is included for blasting, collapse, and underground hazards; and
3. The contractual liability hazard has been insured.

The contractor shall submit to the City a schedule of the intended closure dates of the trail segments one week prior to commencing work to allow the City to properly notify the public.

The contractor shall not change the dates of closure once submitted (excluding delays due to weather related events). The contractor shall install temporary construction signage as necessary and as determined by the City. No substitutions will be allowed.

PRESERVATION OF EXISTING FEATURES

The Contractor shall minimize disruption and damages to existing Project Site features, including but not limited to lawns, trees, existing topography, pavements, and curbing. All construction access and traffic shall be confined to the routes indicated on the Drawings or by the project Engineer. Any damages to Project Site features outside the specified routes shall be repaired and restored by the Contractor to the satisfaction of the City of Monticello at no cost to the City of Monticello.

The Contractor and City of Monticello shall create a photo inventory of pre-construction conditions of the Project Site for later use in determination of changed conditions.

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION 32 2350

CLEAN AND PREPARE TRAIL SURFACE

PART 1 – GENERAL

1.1 SUMMARY

- A. Section includes thorough preparation of the existing bituminous surface to promote the successful coverage of micro-surfacing or sealcoating operations.

1.2 MEASUREMENT AND PAYMENT

- A. Measurement shall be by lump sum for all work described herein or as required by the Contract Documents. No additional measurement shall be made for items associated with the successful execution of the Work, including but not limited to labor, equipment, and materials.

1.3 PROJECT CONDITIONS

- A. Work shall be performed only when the following conditions are present:
 - 1. Rain is not forecasted in the next 24 hours.
- B. Work shall be performed Monday through Friday, excluding holidays, during the hours of 7:00 AM to 7:00 PM, unless otherwise approved by the Owner.
- C. Contractor shall notify the Owner not less than 2 days prior to commencing work activities, excluding weekends and holidays.
- D. Prior to commencing work, the Contractor shall demonstrate compliance to the following requirements, to the satisfaction of the Owner:
 - 1. Safety:
 - a. Refer to the conditions of the Proposal Form.
 - b. Contractor use of Owner-furnished products or materials shall not relieve the Contractor of any requirements and responsibilities for safety on the project.
 - 2. Maintenance of Traffic:
 - a. All trails shall remain CLOSED to public use during the work, unless otherwise approved by the Owner Representative.
 - 3. Timing of work:
 - a. Shall be carefully planned to coordinate with subsequent work activities.

PART 2 – PRODUCTS

2.1 TRAFFIC CONTROL DEVICES

- A. Conform to devices prescribed by the MMUTCD, or approved equal.
- B. Survey ribbon, lathe, or rope shall not be acceptable traffic control devices.
- C. Acceptable traffic control devices include MUTCD sign panels installed on Type III barricades and/or portable fencing panels, and approved equals.
- D. Provide traffic control devices as shown in the plan. Relocate devices during performance of the work, as needed.

2.2 EQUIPMENT

- A. All equipment shall be appropriately sized and suitable for use on paved trails.
- B. All propelled equipment shall be rubber-tired.
- C. Audible and/or visual devices shall be installed on equipment, as appropriate, to provide advance warning to trail users.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. The Contractor shall coordinate a site meeting with the Owner Representative prior to commencing construction activities to generally review the scope of work and to ensure that the requirements of Part 1.3.D are acceptable.
- B. Receive approval to proceed from Owners Representative.

3.2 PERFORMANCE

- A. Using a string trimmer, edger, or similar, remove all encroaching vegetation from the trail edge, exposing the edge.
- B. Using a string trimmer, heat lance, or pick, remove all vegetation from cracks on the trail surface.
- C. Using a flat shovel or similar, remove all accumulated and/or embedded dirt and debris from relative low points, depressions, and poorly drained areas.
- D. Using a walk-behind blower, power broom, or similar, remove all dirt, dust, and debris from the trail surface, across its full width, ensuring that the surface will remain clean until subsequent work activities commence.

3.3 CLEAN UP AND DISPOSAL

- A. Remove and properly dispose of all work-related debris off site in accordance with local and state regulations.

END OF SECTION

SECTION 32 2354

MICRO-SURFACING

PART 1 – GENERAL

1.1 SUMMARY

- A. This section covers the furnishing of all labor, materials, tools, equipment and performance of all work and services necessary or incidental to construct micro-surfacing on a prepared pavement.

1.2 RELATED DOCUMENTS

- A. 2018 Mn/DOT Specification Section 2354, MICRO-SURFACING, shall apply except as modified herein.

1.3 MEASUREMENT AND PAYMENT

- A. Measurement shall be by project square yard for all work described herein or as required by the Contract Documents. No additional measurement shall be made for items associated with the successful execution of the Work, including but not limited to labor, equipment, and materials.
- B. Payment shall be in the amount of the contract unit price, per the conditions of the Contract Documents.
- C. Bituminous material for fog seal, where applicable, shall be considered incidental to the contract.

1.4 PROJECT CONDITIONS

- A. Work shall be performed only when the following conditions are present:
 - 1. Air and surface temperature exceed 50 degrees F, and
 - 2. Relative humidity is less than 60%, and
 - 3. Rain has not fallen in the past 8 hours and
 - 4. Rain is not forecasted in the next 24 hours, and
 - 5. Next day high temperature forecast exceeds 50 degrees F.
- B. Placement of the product shall be performed Monday through Thursday, excluding holidays, during the hours of **7:00 AM to 7:00 PM**, unless otherwise approved by the Owner.
- C. All Trails shall be open to the public Friday - Sunday
- D. Contractor shall notify the Owner not less than 2 days prior to commencing work activities, excluding weekends and holidays, such that the Owner can provide adequate advanced trail closure notice to staff and public.
- E. Prior to commencing work, the Contractor shall demonstrate compliance to the following requirements, to the satisfaction of the Owner:
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 - 2. Maintenance of Traffic:
 - a. The Contractor shall CLOSE the paved trail to public use for the duration of the work, including curing and drying of the product, as shown in the drawings.
 - b. Coordinate all traffic control and closures with the Owner Representative.

- c. All turf trails shall remain open to public use throughout the duration of the work, unless otherwise approved by the Owners Representative. The Contractor shall maintain traffic through the turf trail segment crossings depicted on the Drawings.
 - d. The Contractor shall be responsible for providing means and methods for traffic maintenance that are acceptable to the Owner Representative.
3. Work Hours:
- a. Shall be carefully planned to optimize favorable weather conditions necessary for drying and curing of the product, and shall conform to the conditions of Parts 1.4.A through 1.4.C.

PART 2 - PRODUCTS

2.1 PRODUCTS

- A. Micro-surfacing: Provide a micro-surface complying with Mn/DOT Specification Section 2354. The micro-surface type shall be Surface Course utilizing Type 1 aggregate gradation per Mn/DOT Specification Section 3139.5. Under this contract, the contractor shall not be obligated to apply either Rut Fill or Scratch Course Micro-surfacing. A Job Mix Formula (JMF) complying with Mn/DOT Specification Section 2354.2E shall be provided with the contractor's bid.
- B. Acrylic Adhesion Promoter or Bituminous Tack Coat: Use product approved by the asphalt emulsion product manufacturer if required by the Micro-surfacing JMF in heavily shaded areas.

2.2 AGGREGATE MATERIALS

- A. Aggregate shall consist of a durable manufactured sand, crushed stone or fines, or a combination thereof. The material shall not exceed 7% moisture content and shall be free of all plant or organic matter or debris. Aggregate shall comply with Mn/DOT Specification Section 3139.5.
- B. Aggregate gradation shall comply with Mn/DOT Specification Section 3139.5.B Type 1.
- C. Aggregate mixture rate shall be provided with JMF.

2.3 EQUIPMENT

- A. Distributor vehicle shall be self-propelled, rubber-tired, suitable for trail use, and capable of applying the product across the full width of the trail in a single pass.
- B. Distributor vehicle tank capacity shall not exceed 500 gallons. Not greater than 300 gallons of product shall be present in the tank at any time.
- C. Feeder vehicle shall be properly sized and loaded to travel to designated access points without risking damage to park infrastructure.

2.4 TRAFFIC CONTROL DEVICES

- A. Conform to devices prescribed by the MMUTCD, or approved equal.
- B. Survey ribbon, lathe, or rope shall not be acceptable traffic control devices.
- C. Acceptable traffic control devices include MUTCD sign panels installed on Type III barricades and/or portable fencing panels, or approved equals.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. The Contractor shall coordinate a site meeting with the Owners Representative prior to commencing construction activities to generally review the scope of work and to ensure that the requirements of Part 1.4.D are acceptable.
- B. Conduct work only if the surface has been cleaned and prepared per Section 32 2350 – CLEAN AND PREPARE TRAIL SURFACE.
- C. The Owner may replace the Test Strip requirement (MN/DOT spec 2354.3B.4) for Phase 1, Day 1 construction.
- D. Receive approval to proceed from Owners Representative prior to commencing parts 3.2 through 3.4.

3.2 PREPARATION

- A. Apply Acrylic Adhesion Promoter or Bituminous Tack Coat to all heavily shaded areas and as shown on the plans or as directed by the Owners Representative if required by the Micro-surfacing JMF. Install per manufacturer's recommendations.
- B. The owner may waive MN/DOT specification 2354.3B.6 - Fog seal requirement if the JMF specifically states to apply product to an untreated asphalt surface.

3.3 PERFORMANCE

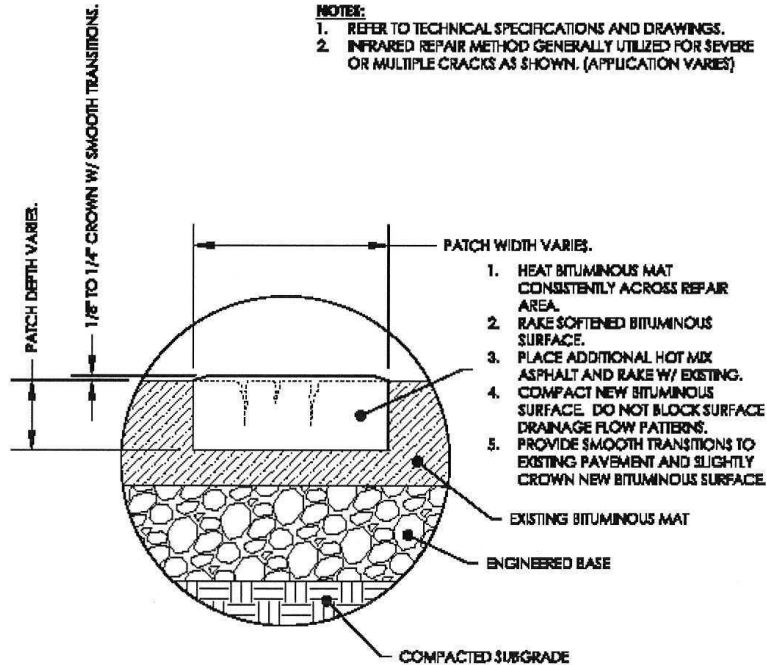
- A. Conduct work in phases to meet the requirements of Part 1.4.E.2. Install appropriate traffic control devices and move the devices as necessary during each phase.
- B. Apply a uniform coat of Micro-surface to the full trail width. Do not allow product to spill over the trail edge or to pool on the trail surface.
- C. Minimum coverage rate of Micro-surface shall be 0.50 gallons per square yard. Coverage rate shall be achieved with a minimum of two coats.
- D. Speed of distribution vehicle shall be sufficiently slow, to ensure optimal adhesion of the product.
- E. Finished surface of Micro-surface shall be smooth and free from defects caused during installation of material. Defects include, but are not limited to, ridges in surface, scratching of surface, squeegee marks, or contamination of material during placement. All defects shall be promptly corrected utilizing a squeegee to the satisfaction of the owner.
- F. Traffic control devices shall remain in-place until the finished surface has fully cured, dried, and can be opened to traffic without risk of damage to the work.
- G. A one year warranty will be provided to the Owner. Defective work will be corrected within the warranty period.

3.4 CLEAN UP AND DISPOSAL

- A. In the event of overspill of the product during installation, confine the product to the trail shoulder and prevent any flow towards surface waters or wetlands. Allow product to dry, and then return to clean up and dispose of the product. Overspill material shall be considered excess product. No compensation shall be made for overspill material.
- B. In the event of pooling of the product during installation, use a squeegee or similar to spread the product uniformly across the surrounding trail surface, provided that the resultant product thickness will cure and dry at the same rate as surrounding areas. If the resultant product thickness will not cure and dry at a reasonable rate, or at the direction of the Owner Representative, spread the product off of the trail edge, and treat it as overspill material.

- C. Remove and properly dispose of all work-related debris and excess product off site in accordance with local and state regulations.
- D. Material beyond the edge of paved trail must be allowed to cure and dry, and then be cleanly detached from the adjacent pavement surface and properly disposed of off-site.

END OF SECTION



NOTES:

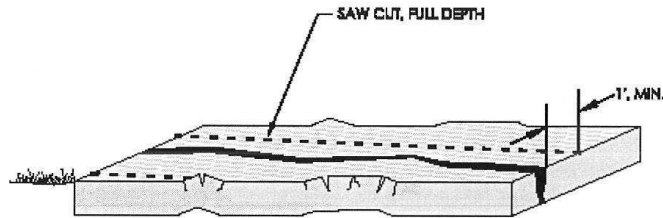
1. REFER TO TECHNICAL SPECIFICATIONS AND DRAWINGS.
2. INFRARED REPAIR METHOD GENERALLY UTILIZED FOR SEVERE OR MULTIPLE CRACKS AS SHOWN. (APPLICATION VARIES)

STR-6 INFRARED PATCH

NTS

NOTES:

1. SAWCUT BITUMINOUS PAVEMENT FULL WIDTH BETWEEN REPAIR EXTENTS (INCIDENTAL).
2. REMOVE 1" OF BITUMINOUS MATERIAL ON BOTH SIDES OF CRACK OR AS FIELD MARKED TO REMOVE ALL HEAVING AND DISTORTION ASSOCIATED WITH CRACK.
3. APPLY BITUMINOUS TACK COAT MATERIAL TO SIDES OF SAW CUT PRIOR TO PLACING NEW BITUMINOUS MATERIAL (INCIDENTAL).
4. PLACE AND COMPACT BITUMINOUS MAT, SPWEA2406 WITH VIBRATORY ROLLER EQUIPMENT THAT IS PROPERLY SIZED TO NOT CAUSE ANY DAMAGE TO ADJACENT TRAILS PER MNDOT SPEC 2340.
5. SHOULDER WITH TOPSOIL (AMENDED AND LOOSENED), RESTORE SEED (MNDOT 25-141) AND MULCH OR BLANKET AS DIRECTED BY OWNER AND PER MNDOT SPEC 2672.
6. DETAIL REFLECTS ACCEPTABLE MEANS AND METHODS. CONTRACTOR MAY SUBMIT ALTERNATIVE MEANS AND METHODS TO OWNER FOR REVIEW AND APPROVAL.
7. ALL CONSTRUCTION RELATED DEBRIS, VEGETATION AND CONTAMINATED SOILS SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED.

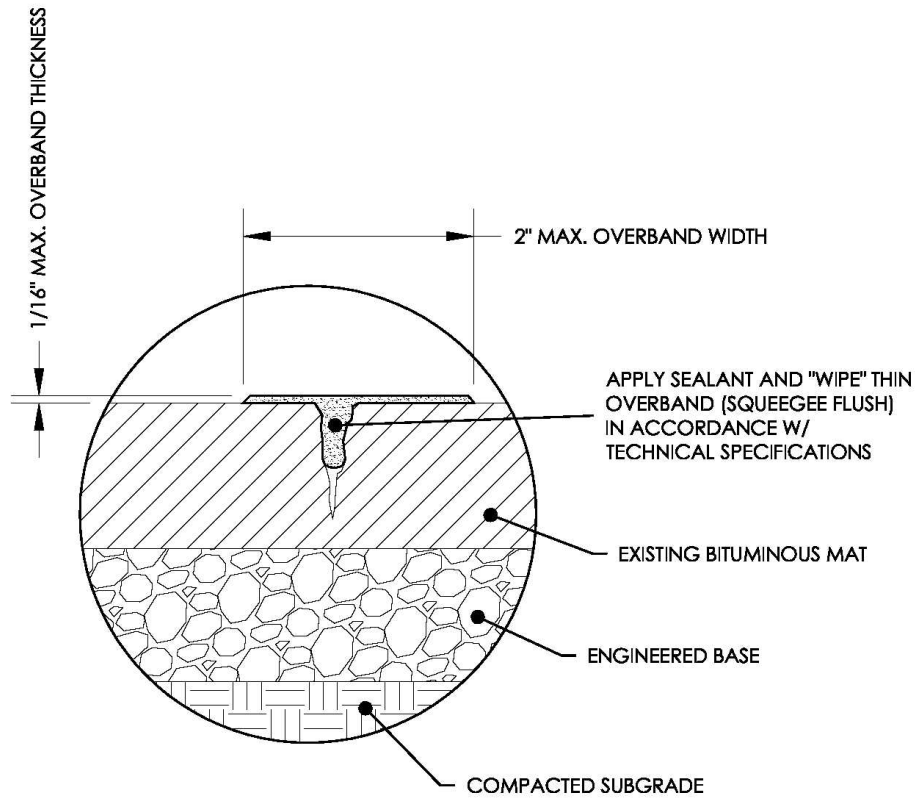


TR-11 BITUMINOUS TRAIL CRACK REPAIR: 1" OR GREATER

NTS

NOTES:

1. REFER TO TECHNICAL SPECIFICATIONS AND DRAWINGS.
2. DO NOT ROUT.
3. JOINT AND CRACK SEALANT:
 - A. CRAFCO ASPHALT RUBBER PLUS #34241
4. APPLY SAND OR 1-PLY PAPER AS PER TECHNICAL SPECIFICATIONS.

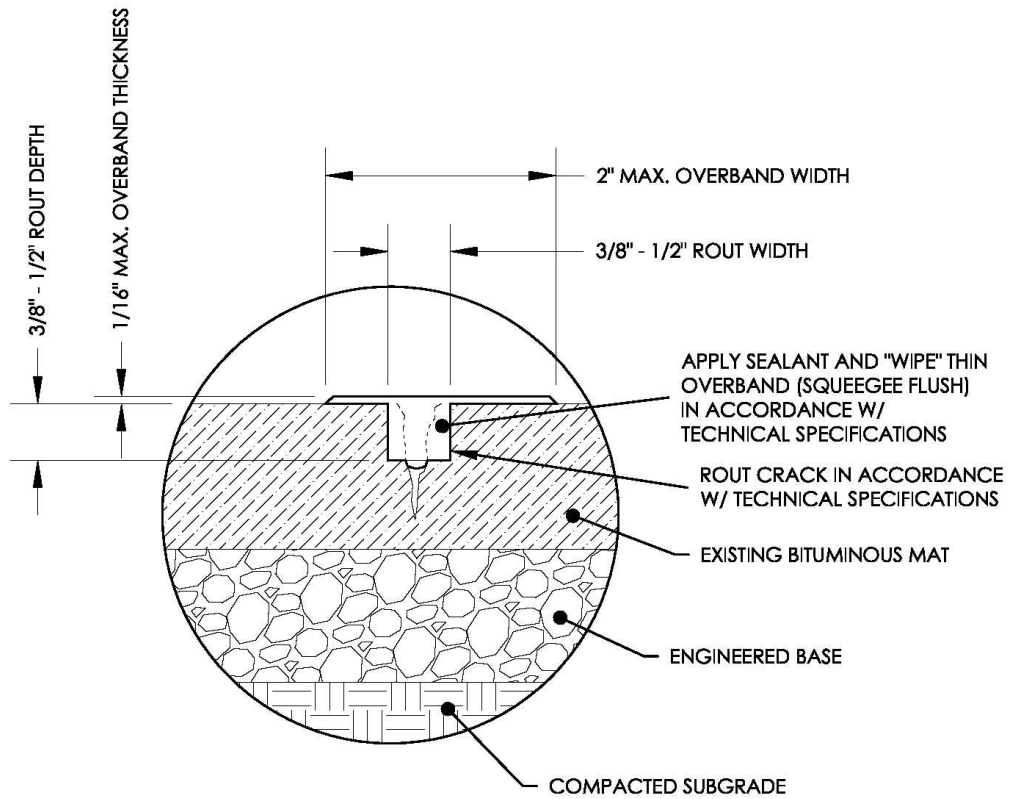


BITUMINOUS TRAIL CRACK REPAIR: 1/4" - 1/2" NON-TRANSVERSE

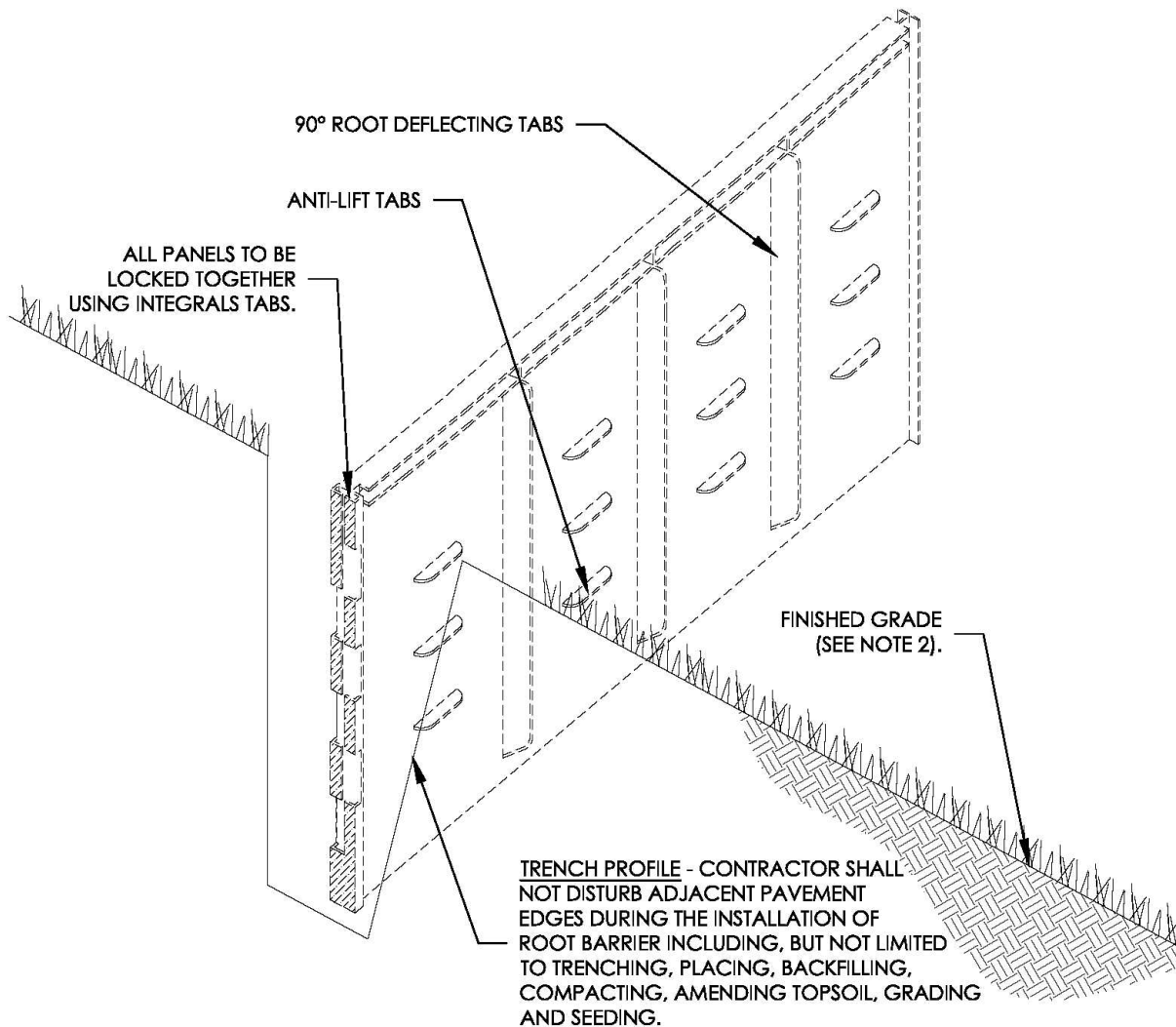
NTS

NOTES:

1. REFER TO TECHNICAL SPECIFICATIONS AND DRAWINGS.
2. JOINT AND CRACK SEALANT:
 - A. CRAFCO ASPHALT RUBBER PLUS #34241
3. APPLY SAND OR 1-PLY PAPER AS PER TECHNICAL SPECIFICATIONS.



TR-3 BITUMINOUS TRAIL CRACK REPAIR: 1/4" - 1/2" TRANSVERSE
 #####
 NTS



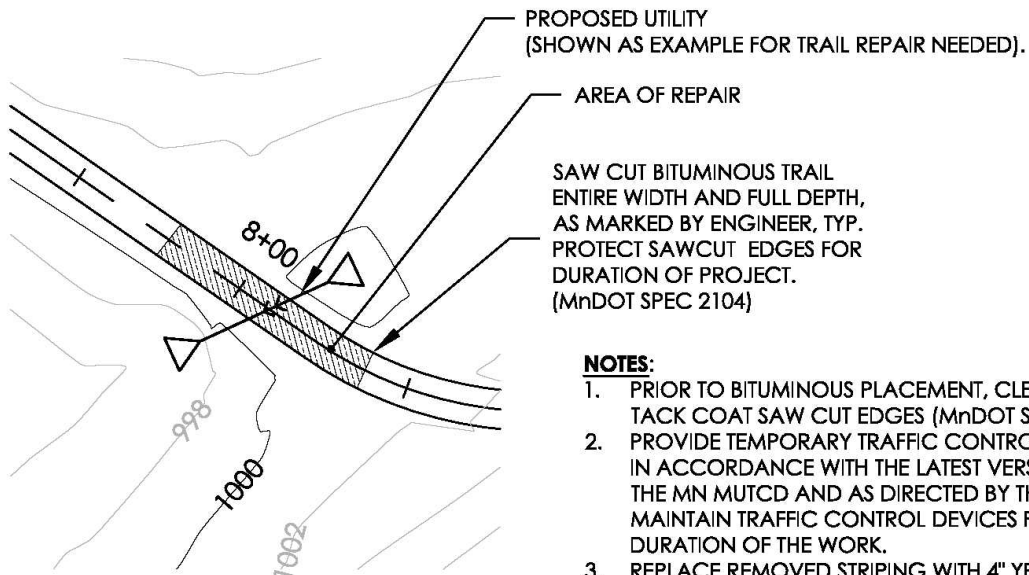
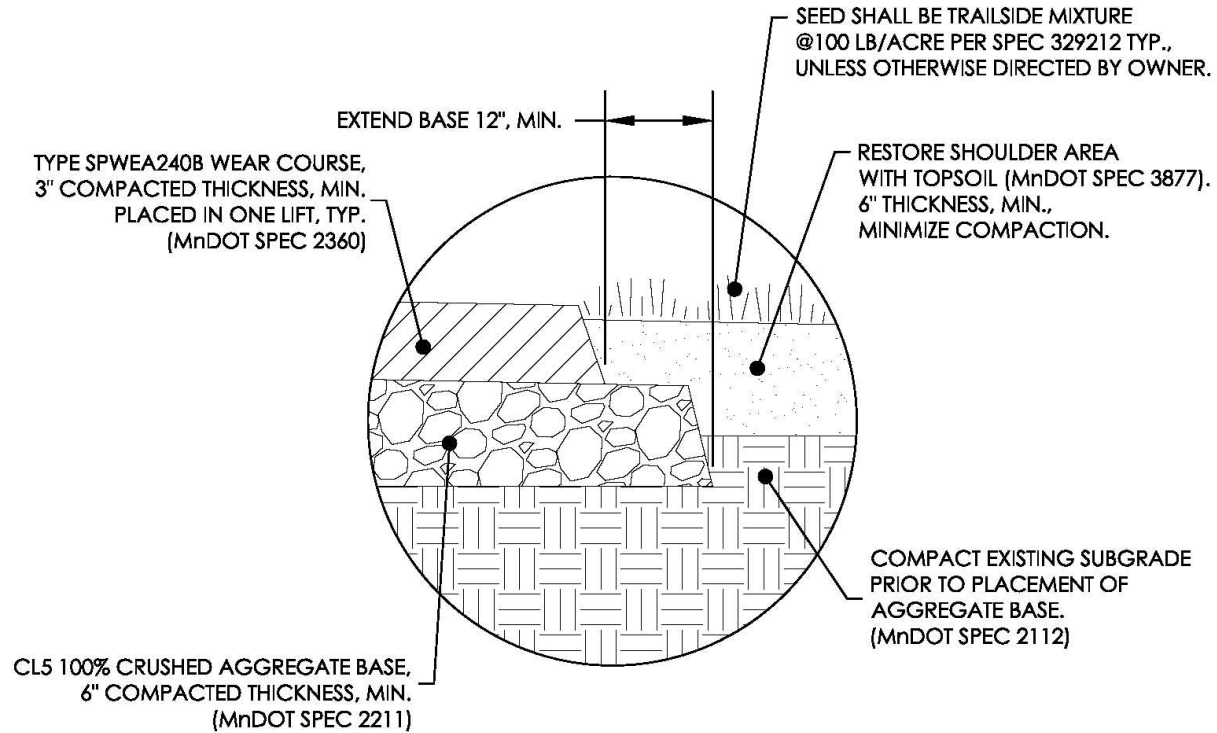
NOTES:

1. ROOT BARRIER USED SHALL BE 18" IN DEPTH, UNLESS OTHERWISE SPECIFIED IN CONTRACT. (SEE PLANS FOR LENGTH OF ROOT BARRIER).
2. ROOT BARRIER SHALL BE PLACED SO THAT TOP EDGE SHALL BE LOCATED 1/2" BELOW FINISHED GRADE.
3. SIDE WITH TABS SHALL BE FACING VEGETATION.
4. INSTALL ROOT BARRIER 3' OFF EDGE OF TRAIL, TYP. PER MANUFACTURERS GUIDELINES AND CONTRACT DOCUMENTS. WHEN INSTALLED ADJACENT TO EXISTING IMPROVED SURFACES, UTILIZE MEANS AND METHODS TO PROTECT THE EXISTING INFRASTRUCTURE FROM DAMAGE.
5. ROOT BARRIER SHALL BE MANUFACTURED BY DEEP ROOT PARTNERS OR APPROVED EQUAL.



ROOT BARRIER





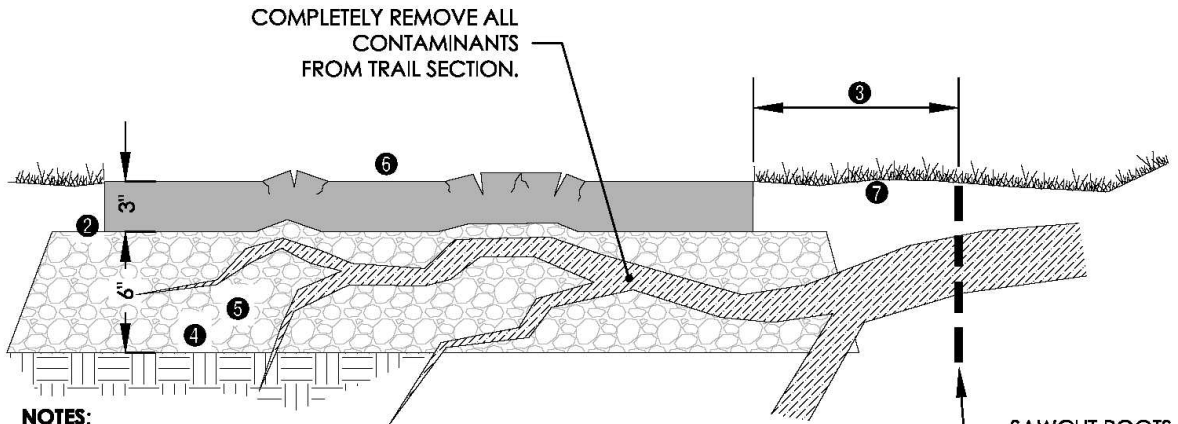
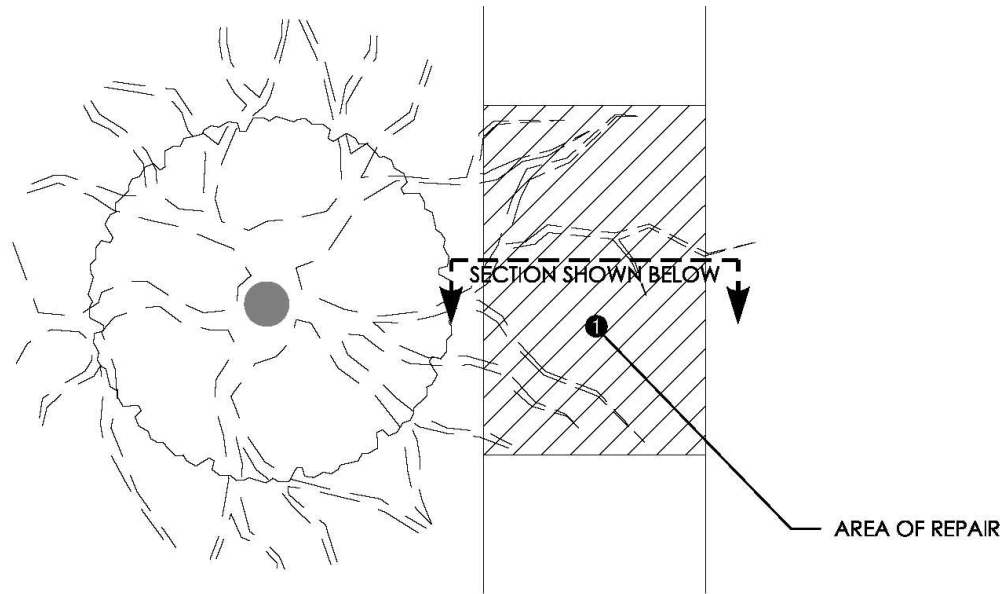
NOTES:

1. PRIOR TO BITUMINOUS PLACEMENT, CLEAN AND TACK COAT SAW CUT EDGES (MnDOT SPEC 2357).
2. PROVIDE TEMPORARY TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE LATEST VERSION OF THE MN MUTCD AND AS DIRECTED BY THE OWNER. MAINTAIN TRAFFIC CONTROL DEVICES FOR THE DURATION OF THE WORK.
3. REPLACE REMOVED STRIPING WITH 4" YELLOW LATEX PAINT, TYP. MATCH PREEXISTING PAVEMENT MARKINGS.

SAMPLE PLAN

TR-9 TYPICAL BITUMINOUS TRAIL REPAIR SECTION

NTS



NOTES:

1. SAWCUT BITUMINOUS PAVEMENT FULL WIDTH BETWEEN REPAIR EXTENTS.
2. REMOVE BITUMINOUS PAVEMENT AND CONTAMINATED BASE MATERIAL.
3. SAW CUT TREE ROOTS 2' FROM TRAIL EDGE, MIN. INSTALL ROOT BARRIER AS DIRECTED BY ENGINEER/CONTRACT DOCUMENTS. (SEE DETAIL GEN-4).
4. RECOMPACT SUBGRADE.
5. PLACE AND COMPACT CL5 AGGREGATE BASE, PER MnDOT SPEC 221.1.
6. PLACE AND COMPACT BITUMINOUS MAT, SPWEA240B WITH VIBRATORY ROLLER EQUIPMENT THAT IS PROPERLY SIZED, AS TO NOT CAUSE ANY DAMAGE TO ADJACENT TRAILS PER MnDOT SPEC 2360.
7. SHOULDER WITH TOPSOIL (AMENDED AND LOOSENED), RESTORE SEED (MnDOT 25-141) AND MULCH OR BLANKET AS DIRECTED BY OWNER AND PER MnDOT SPEC 2572.
8. DETAIL REFLECTS ACCEPTABLE MEANS AND METHODS. CONTRACTOR MAY SUBMIT ALTERNATIVE MEANS AND METHODS TO OWNER FOR REVIEW AND APPROVAL.
9. ALL CONSTRUCTION RELATED DEBRIS, VEGETATION AND CONTAMINATED SOILS SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF.

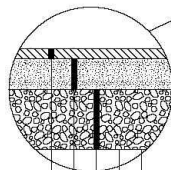
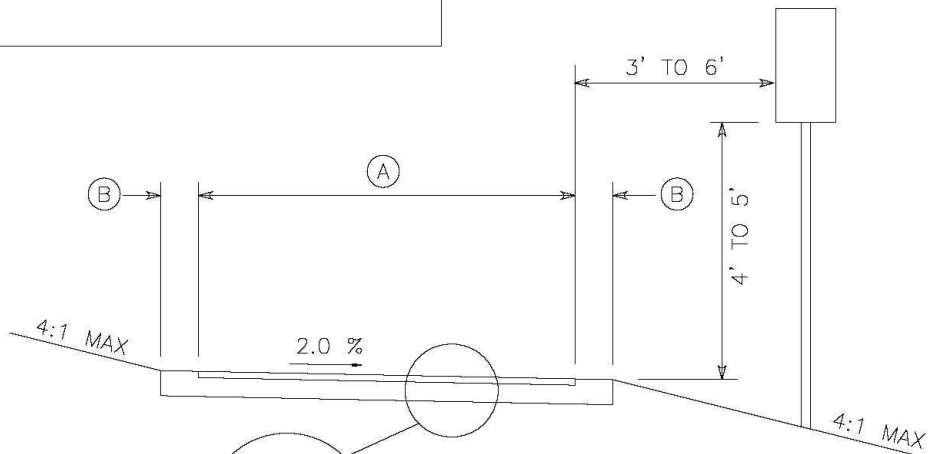
SAWCUT ROOTS
CLEANLY TO
DEPTH OF 18"
MIN.

TR-10 TRAIL REPAIR - TREE ROOT DAMAGE

NTS

BITUMINOUS TRAIL DESIGN

- Ⓐ - PATHWAY WIDTH 10 ft
- Ⓑ - SHOULDER WIDTH 1 ft MIN.



- 3" SP 9.5 WEARING COURSE MIXTURE (2.B)
- 6" CL 5 AGGREGATE BASE (MODIFIED)
- 12" SELECT GRANULAR BORROW
- 6" MINIMUM SCARIFY AND RE COMPACT (SUBGRADE PREP)
- FABRIC IF DIRECTED BY ENGINEER

NOTES:

1. TRAIL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE CITY OF MONTICELLO GENERAL SPECIFICATIONS AND STANDARD DETAIL PLATES.
2. PEDESTRIAN RAMPS SHALL BE CONSTRUCTED WITH TRUNCATED DOMES AND CONFORM TO ADA REQUIREMENTS.
3. MODIFY SURFACING, BASE, AND SUBGRADE DESIGN BASED ON EXPECTED VEHICULAR USE AND SUBGRADE SOILS.



Title:

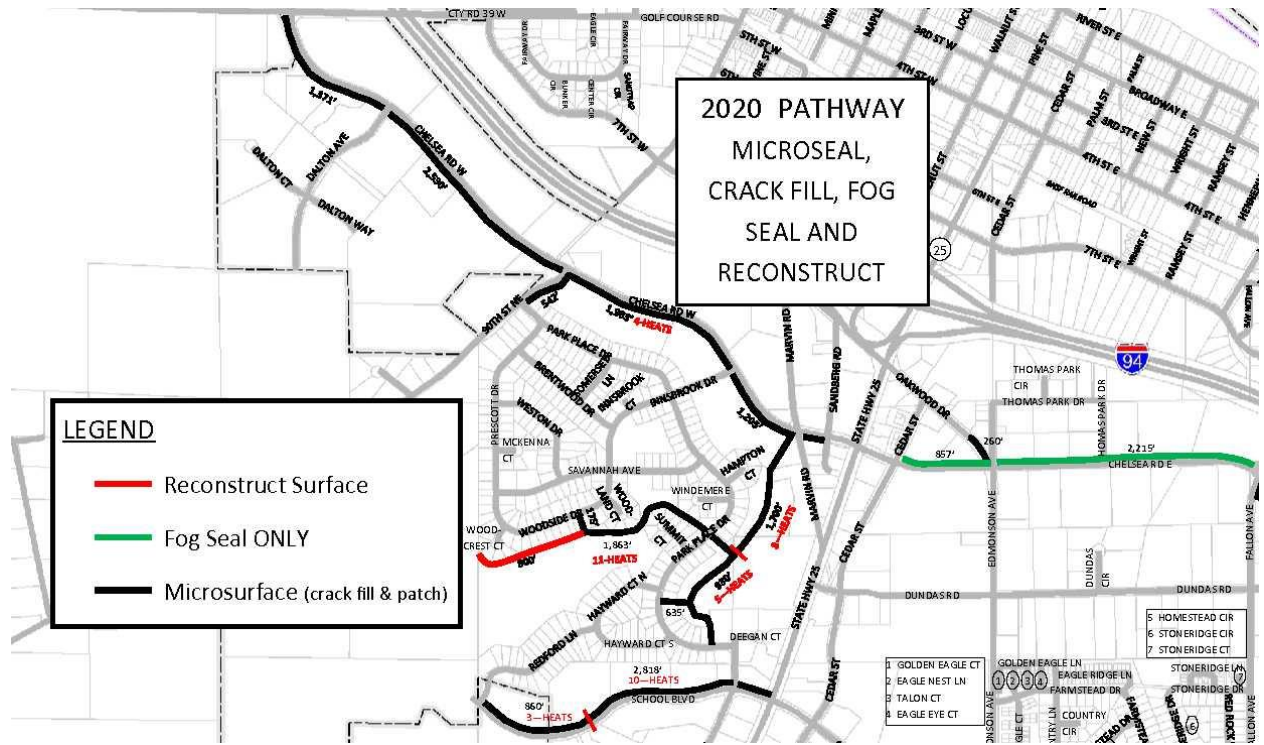
Typical Trail Section

Date: 03-05

Plate No.

Revised: 03-15

5013



2020 INSPECTIONS																	
SECTION	DESCRIPTION/LOCATION	LENGTH	RATING	CRACK FILL	DISTANCE BETWEEN CRACKS	ASPHALT KNUCKLING	HOLES UNDERMIND	SURFACE CRACK SEALED	SURFACE FOG SEALED	SURFACE CHIP SEALED	ADDITIONAL COMMENTS	YEAR OF INSP	YEAR OF INSP - 2ND	YEAR OF INSP- 3RD	YEAR OF INSP- 4TH	YEAR OF INSP- 5TH	YEAR OF INSP- 6TH
NE01P	7TH ST E (CEDAR ST TO WASHINGTON ST)	2211	5	YES	AVG 15 FT	YES	NO				CRACKS, TRIM TREES, REPAIR AROUND 4 WATER SHUT OFF, FOG SEAL	2011	2013	2017			
NE02P	7TH ST E (WASHINGTON ST TO WEST SIDE OF ENTRANCE TO ST. HENRY'S CHURCH)	1720	6	YES	AVG 20 FT	NO	NO				CRACKS, TRIM TREES, BE AWARE OF CABLE BOX, FOG SEAL	2011	2013	2017			
NE04P	BROADWAY E - EAST END OF MIDDLE SCHOOL TO HIGHLAND WAY	3190	7	YES	AVG 300 FT	NO	NO				CRACKING NEAR MMS EAST DRIVEWAY, TRIM TREES, BLACKTOP WATER SHUT OFF, FOG SEAL, ACI 2015	2011	2013	2017			
NE05P	PATHWAY TO SWAN VIEWING AREA (MISSISSIPPI DR NORTH TO RIVER)	180	6	YES	AVG 15 FT	NO	NO				CRACKS, FOG SEAL	2011	2013	2017			
NE06P	CSAH 18 (WEST SIDE FROM 7TH ST E TO BROADWAY E)	590	8	YES	AVG 250 FT	NO	NO				CRACKS, BE AWARE OF LANDSCAPE ROCK & HIGH LINE POLES, FOG SEAL, ACI 2015	2011	2013	2017			
NE07P	CSAH 39 E (EAST SIDE FROM BROADWAY E TO HART BLVD)	575	7	YES	AVG 80 FT	NO	NO				CRACKS, BE AWARE OF: WATER SHUT OFF, FIRE HYDRANT, 4 - HIGH LINE POLES, FOG SEAL	2011	2013	2017			
NE08P	BROADWAY E (SOUTH SIDE FROM CSAH 18 TO MEADOW OAK AVE)	2650	7	YES	AVG 400 FT	NO	NO	2012	2012		CRACKS, FOG SEAL, ACI 2015	2011	2013	2017			
NE09P	MILL RUN RD TO RIVER FOREST DR	1990	6	YES	40 FT	YES	NO				CRACKS, TRIM TREES, STUMP 2' OFF PATH, SHED & BRICKS 1' OFF PATH, FOG SEAL	2011	2013	2017			
NE10P	RIVER MILL PARK (ENTRANCE OFF OF MILL TRAIL LN)	265	6	YES	AVG 6 FT	YES	NO				CRACKS, FOG SEAL	2011	2013	2017			
NE11P	GILLARD AVE WEST TO RIVER FOREST DR	336	8	YES	100 FT	NO	NO				CRACKS, TRIM TREES, FOG SEAL	2011	2013	2017			
NE12P	GILLARD AVE (WEST SIDE FROM RIVER FOREST DR TO 95TH ST)	1142	7	YES	200 FT	NO	NO	2010	2010		CRACKS, BRICKS NEAR PATH, REPAIR AROUND WATER SHUT OFF	2011	2013	2017			
NE13P	95TH ST (SOUTH SIDE FROM GILLARD TO HAUG AVE - INTO SUNSET PONDS PARK)	1704	8	YES	300 FT	NO	NO				CRACKS, FOG SEAL, 4 - SINK HOLES, 5X2 AREA OF SINK HOLES	2011	2013	2017			
NE14P	SUNSET PONDS (94TH ST TO GINGHAM CT)	1515	7	YES	200 FT	YES	NO				CRACKS, ELECTRICAL BOX CABINET 2' OF PATH, MANHOLE COVER, FOG SEAL, 11 - SINK HOLES	2011	2013	2017			
NW01P	BROADWAY W (SOUTH SIDE FROM ROD & GUN CLUB) TO CHESTNUT	8017	5	YES	AVG 175 FT	3 SPOTS	3 SPOTS	2010	2010		REMOVE 1 STUMP, ACI 2014, ACI PEELING IN PINES & AT OTTER CREEK PARK	2011	2013	2017			
NW02P	RAILROAD TRACKS (MAPLE ST TO WALNUT ST)	1182	3	YES	AVG 10 FT	YES	NO				CRACKS, ADD BLACKTOP WHERE MISSING, REPAIR AREA HEAVING, TRIM TREES, FOG SEAL, 2468 NEEDS REDONE TREE ROOTS	2011	2013	2017			
NW03P	RAILROAD TRACKS (WALNUT ST TO PINE ST)	321	5	YES	AVG 15 FT	NO	YES				CRACKS, REPAIR SINK HOLE, BE AWARE OF ELECTRICAL BOX 2' OFF PATH, FOG SEAL	2011	2013	2017			
NW04P	FRONT ST (NORTH SIDE FROM LOCUST TO WALNUT ST)	432	7	YES	AVG 30 FT	NO	NO	2010			OK - 2013; MINOR CRACKS	2011	2013	2017			
NW05P	FRONT ST PIER (FROM STREET TOWARD RIVER)	285	6	YES	AVG 30 FT	NO	NO	2010	2010		MINOR CRACKING - APPROX 10 FT FROM DOCK	2011	2013	2017			
NW06P	WEST BRIDGE PARK (ALONG RIVER FROM WALNUT ST TO RIVER BRIDGE)	450	6	YES	AVG 50 FT	1 SPOTS	NO	2010			10x10 REPAIR - HEAVING	2011	2013	2017			
NW07P	WEST BRIDGE PARK (WITHIN PARK FROM PARKING LOT TO COMMUNITY ROOM)	234	6	NO	AVG 80 FT	NO	NO	2010			REPAIR HEAVING, FOG SEAL	2011	2013	2017			
NW08P	COUNTRY CLUB PARK (WEST OF EAGLE CIR)	275	7	YES	4 CRACK	YES	NO				CRACKS, FOG SEAL, 12X8 REPAIR - HEAVING	2011	2013	2017			
NW09P	EAST BRIDGE PARK (UNDER BRIDGE, ALONG RIVER TO PARKING LOT)	395	7	YES	AVG 50	NO	NO				OK	2011	2013	2017			
NW10P	CTY RD 75 - NORTH SIDE - EAST TO TRAIL HEAD START	1715	9	NO	NO CRACKS	NO	NO				NEW	2013	2017				
NW11P	ST TO RIVER ST WEST	1778	9	NO	NO CRACKS	NO	NO				NEW	2013	2017				
NW12P	7TH STREET WEST - MINNESOTA ST WEST TO ELM ST	1280	10	NO	NO CRACKS	NO	NO				NEW	2017					
SE01P	STATE HWY 25 SOUTH OF I94 (EAST SIDE FROM OAKWOOD DR TO CHELSEA RD)	756	8	YES	AVG 58 FT	NO	NO	2010			CRACKS, FOG SEAL - 2013- NO CRACKS; 2015 - 13 NEW CRACKS	2011	2013	2015	2017		

2020 INSPECTIONS																	
SECTION	DESCRIPTION/LOCATION	LENGTH	RATING	CRACK FILL	DISTANCE BETWEEN CRACKS	ASPHALT KNUCKLING	HOLES UNDERMIND	SURFACE CRACK SEALED	SURFACE FOG SEALED	SURFACE CHIP SEALED	ADDITIONAL COMMENTS	YEAR OF INSP	YEAR OF INSP - 2ND	YEAR OF INSP- 3RD	YEAR OF INSP- 4TH	YEAR OF INSP- 5TH	YEAR OF INSP- 6TH
SE02P	STATE HWY 25 SOUTH OF 194 (EAST SIDE FROM CHELSEA RD DUNDAS RD)	1315	8	YES	AVG 54 FT	NO	NO	2010	2010		CRACKS, FOG SEAL - 2013 - 4 CRACKS; 2015 - 24 NEW CRACKS	2011	2013	2015	2017		
SE03P	STATE HWY 25 SOUTH OF 194 (EAST SIDE DUNDAS RD TO SCHOOL BLVD)	1164	8	YES	AVG 43 FT	NO	NO	2010			CRACKS, FOG SEAL - 2013 - 5 CRACKS; 2015 - 27 NEW CRACKS	2011	2013	2015	2017		
SE04P	STATE HWY 25 SOUTH OF 194 (EAST SIDE SCHOOL BLVD SOUTH 1722 FEET)	1722	8	YES	AVG 44 FT	NO	NO	2010			2013 - 11 CRACKS; 2015 - 39 NEW CRACKS	2011	2013	2015	2017		
SE05P	CHELSEA RD E (FROM CEDAR ST TO EDMONSON AVE)	857	7	YES	AVG 71 FT	NO	NO				CRACKS, FOG SEAL - 2013 - 3 CRACKS; 2015 - 12 CRACKS	2011	2013	2015	2017		
SE06P	OAKWOOD DR CUL DE SAC - SE END TO EDMONSON AVE	260	7	YES	AVG 130 FT	NO	NO				CRACKS, FOG SEAL - 2013 - 0 CRACKS; 2015 - 2 NEW CRACKS		2013	2015	2017		
SE07P	SCHOOL BLVD (STATE HWY 25 EAST TO CEDAR ST)	383	7	YES	AVG 60 FT	NO	YES	2012			CRACKS, BE AWARE OF LANDSCAPING, FOG SEAL - 2013; 2015 - 5 CRACKS	2011	2013	2015	2017		
SE08P	SCHOOL BLVD (NORTH SIDE - CEDAR ST TO EDMONSON AVE)	1755	7	YES	AVG 30 FT	NO	NO	2012			CRACKS, FOG SEAL - 2015 - 59 CRACKS, ROCKS, TREES; 2013 - 13 CRACKS, 6X4 NEXT TO PATHWAY	2011	2013	2015	2017		
SE09P	SCHOOL BLVD (SOUTH SIDE - EAST OF ENTRANCE TO QUAD DEV TO EDMONSON AVE)	733	7	YES	AVG 61 FT	NO	NO	2012			CRACKS, BE AWARE OF LANDSCAPING, FOG SEAL, MANHOLE COVER	2011	2012	2013	2015	2017	
SE10P	EDMONSON AVE (WEST SIDE - SCHOOL BLVD TO ORCHARD CIR)	986	8	YES	AVG 98 FT	NO	NO				CRACKS, FOG SEAL - 2013 - 2 CRACKS; 2017 - 10 CRACKS	2011	2012	2013	2015	2017	
SE11P	EDMONSON AVE (WEST SIDE - ORCHARD CIR 623' SOUTH)	623	7	YES	AVG 45 FT	NO	NO				CRACKS, ADD BLACKTOP TO MAN HOLE COVER, FOG SEAL - WORK AROUND MANHOLE - 2013; 8 SINKHOLE	2011	2012	2013	2015	2017	
SE12P	EDMONSON AVE (WEST SIDE - APPROX 93' NORTH OF 89TH ST TO APPROX 168' SOUTH OF 87TH ST)	1196	7	YES	AVG 400 FT	NO	YES				2013 - 2 CRACKS; 2017 - 3 CRACKS, 1 SINKHOLE AND 1 SPOT MISSING BLACKTOP	2011	2012	2013	2015	2017	
SE13P	SCHOOL BLVD (NORTH SIDE EDMONSON TO COUNTRY AVE)	589	10	NO	NO CRACKS	NO	NO	2012			2015 - NEW SURFACE	2011	2012	2013	2015	2017	
SE14P	SCHOOL BLVD (COUNTRY AVE TO FARMSTEAD DR)	1010	10	NO	NO CRACKS	NO	NO	2012			2015 - NEW SURFACE, ROCKS, ELECTRIC BOX, TRIM TREES, FOG SEAL	2011	2012	2013	2015	2017	
SE15P	SCHOOL BLVD (NORTH SIDE - FARMSTEAD DR TO STONERIDGE DR)	362	10	NO	NO CRACKS	NO	NO	2012			BE AWARE OF FIRE HYDRANT & FENCE, FOG SEAL - 2015 NEW SURFACE, 2013 - 3 NEW CRACKS	2011	2012	2013	2015	2017	
SE16P	SCHOOL BLVD (NORTH SIDE STONERIDGE DR TO FALLON AVE)	558	10	NO	NO CRACKS	NO	NO	2012			2015 - NEW SURFACE	2011	2012	2013	2015	2017	
SE17P	SCHOOL BLVD (SOUTH SIDE - FARMSTEAD AVE TO FALLON AVE)	917	4	YES	Multi-CRACKS - AVG 70 FT	YES	YES	2012			34" X 16" - 2013 - 4 HOLES; 2015 - 6 NEW CRACKS; 2017 - 13 NEW CRACKS	2011	2012	2013	2015	2017	
SE18P	FALLON AVE (WEST SIDE - SCHOOL BLVD SOUTH TO FARMSTEAD AVE)	2060	6	YES	AVG 41 FT	NO	NO	2012			2' X 2' AND 10" X 6" - 2013 - NO CRACKS; 2015 - 50 NEW CRACKS, 3 SINK HOLES; 2017 - 5 NEW CRACKS, 10 NEW SINK HOLES	2011	2012	2013	2015	2017	
SE19P	SCHOOL BLVD (NORTH SIDE - FALLON AVE TO CSAH 18)	3505	7	YES	13 NEW CRACKS	NO	NO	2012	2273 FT DONE IN 2012		CRACKS, BE AWARE OF CONCRETE WALL WITHIN FEET OF PATHWAY, FOG SEAL	2011	2012	2013	2015	2017	
SE20P	SCHOOL BLVD (SOUTH SIDE - FALLON AVE 950' EAST TO SIDEWALK)	950	10	NO	NO CRACKS	NO	NO				2015 - NEW SURFACE	2011	2012	2013	2015	2017	
SE21P	STARLING NORTH TO FALCON	325	4	YES	AVG 7 FT	YES	NO				CRACKS, REPAIR HEAVING, TRIM TREES, FOG SEAL 8X12, 8X15	2011	2012	2013	2015	2017	
SE22P	MALLARD LN SOUTH 320'	320	3	YES	AVG 24 FT	YES	NO				2017 - SOUTH 320 FT - 3 SPOTS HEAVING 29X8, 18X8 AND 18X8; CRACKS, REPAIR HEAVING, FOG SEAL, SHED NEXT TO TRAIL - TREE TRIM	2011	2012	2013	2015	2017	
SE23P	MOCKINGBIRD LN TO ORIOLE LN - CARDINAL HILLS TOT LOT	412	6	YES	AVG 25 FT	NO	NO				CRACKS, TRIM TREES, FOG SEAL	2011	2012	2013	2015	2017	
SE24P	CHELSEA RD E (NORTH SIDE - FALLON AVE TO CSAH 18)	4536	7	YES	AVG50 FT	NO	5 SPOTS				CRACKS, BE AWARE OF WATER SHUT OFF & MANHOLES, FOG SEAL	2011	2012	2013	2016	2017	
SE25P	CSAH 18 (WEST SIDE FROM CHELSEA RD TO PEDESTRIAN BRIDGE)	475	7	YES	AVG 40 FT	NO	NO				CRACKS, FOG SEAL, MANHOLE	2011	2013	2016	2017		

2020 INSPECTIONS																	
SECTION	DESCRIPTION/LOCATION	LENGTH	RATING	CRACK FILL	DISTANCE BETWEEN CRACKS	ASPHALT KNUCKLING	HOLES UNDERMIND	SURFACE CRACK SEALED	SURFACE FOG SEALED	SURFACE CHIP SEALED	ADDITIONAL COMMENTS	YEAR OF INSP	YEAR OF INSP - 2ND	YEAR OF INSP- 3RD	YEAR OF INSP- 4TH	YEAR OF INSP- 5TH	YEAR OF INSP- 6TH
SE26P	CSAH 18 (WEST SIDE FROM PED BRIDGE TO 7TH ST E)	150	9	NO	NO NEW CRACKS	NO	NO	2016	2016		2016 - ACI	2011	2013	2016	2017		
SE27P	CSAH 18 (WEST SIDE FROM CHELSEA RD TO SCHOOL BLVD)	1218	7	NO	AVG 93 FT	NO	NO	2012	2012		CRACKS, TRIM TREES, FOG SEAL; 2016 - 13 NEW CRACKS	2011	2012	2013	2016	2017	
SE28P	CSAH 18 (EAST SIDE - CHELSEA RD TO MEADOW OAK AVE (ROUND-A-BOU)	633	9	NO	NO CRACKS	NO	NO				BE AWARE OF MANHOLE COVERS, FOG SEAL	2011	2013	2016	2017		
SE29P	CSAH 18 (EAST SIDE - MEADOW OAK AVE TO JASON AVE)	589	8	NO	2 CRACKS	NO	NO	2012	2012		CRACKS, BE AWARE OF MANHOLE COVERS, FOG SEAL	2011	2012	2013	2015	2017	
SE30P	JASON AVE (NORTH SIDE - CSAH 18 TO EASTWOOD LN)	1905	8	YES	17 CRACKS	NO	NO	2012	2012		2016 - ACI, 5" X 9", 4" X 8" AND 5" X 11"; 2015 - 10+ NEW CRACKS, ACI 2016	2011	2012	2013	2015	2017	
SE31P	"Y" FROM PATHWAY SECTION SE30P - TO EASTWOOD CIR	53	8	YES	NO CRACKS	NO	NO	2012	2012		2016 - ACI, BE AWARE OF MULCH & ROCK,	2011	2012	2013	2015	2017	
SE32P	EASTWOOD CIR NORTH TO MEADOW OAK AVE	316	6	YES	2 CRACKS	NO	NO	2012	2012		2016 - ACI, CRACKS, TRIM TREES, BE AWARE OF MULCH & ROCKS, FOG SEAL	2011	2012	2013	2015	2017	
SE33P	MEADOW OAK LN TO NORTH SIDE OF RR TRACKS	217	8	NO	NO NEW CRACKS	NO	NO	2012	2012		2016 - ACI, CRACKS, FOG SEAL; 2015 - 5 NEW CRACKS,	2011	2012	2013	2015	2017	
SE34P	RAILROAD TRACKS - SOUTH SIDE - ALONG BROADWAY E FROM MEADOW OAK AVE EAST	1781	7	YES	5 CRACKS	YES	YES	2012	2012		2017 - 5 NEW CRACKS, 2016 - ACI, 2015 - 20 NEW CRACKS, TRIM TREES, BE AWARE OF MAN HOLE COVER, TRIM TREES, FOG SEAL - 2013; 2 SINKHOLES	2011	2012	2013	2015	2017	
SE35P	MEADOW OAKS - BRIAR OAKES BLVD EAST TO MEADOW OAK DR	1706	7	YES	3 CRACKS	NO	NO	2012	2012		2017 - 3 NEW CRACKS, 2015 - 15 NEW CRACKS, 2" X 5" AND 3" X 7"	2011	2012	2013	2015	2017	
SE36P	MEADOW OAKS - OFF OF SECTION SE35P TO RED OAK LN	268	4	YES	AVG 15 FT	YES	NO				2017 -ACI, CRACKS, REPAIR HEAVING, FOG SEAL, TREE TRIM	2011	2013	2015	2017		
SE37P	MEADOW OAK DR (STEMS OFF TO THE EAST)	200	8	YES	3 CRACKS	NO	NO				2017 - ACI, LEO WALL, NO PARKING SIGNS, 2015 - 3 NEW CRACKS	2011	2013	2015	2017		
SE38P	BETWEEN MEADOW OAK DR & OAK RIDGE DR	1575	5	YES	AVG 80 FT	YES	NO				2017 - ACI, 5 SPOTS HEAVING,CRACKS, REPAIR HEAVING, BE AWARE OF LANDSCAPE ITEMS, TRIM TREES, FOG SEAL	2011	2013	2015	2017		
SE39P	CONNECT SECTION SE38P TO OAK RIDGE DR	164	6	YES	AVG 20 FT	NO	NO				2017 - ACI, CRACKS, FOG SEAL	2011	2013	2015	2017		
SE40P	CONNECTING SECTION 38P TO MEADOW OAK DR	140	7	YES	45 FT	NO	NO				2017 - ACI, 3 CRACKS; OK - 2013; 2 CRACKS	2011	2013	2015	2017		
SE41P	SOUTH OF EAST OAK DR	1200	6	YES	60 FT	NO	YES				2017 - ACI, 15 SINK HOLES; CRACKS, FOG SEAL, 2015 - 5 SINK HOLES, TREE TRIMMING	2011	2013	2015	2017		
SE42P	NORTH OF OAKVIEW LN TO RED OAK LN	335	10	YES	2 CRACKS	NO	NO				2017 - ACI, CRACKS, REPAIR POT HOLES, REPAIR PAVEMENT, TRIM TREES, FOG SEAL - 2013; BRAND NEW PATHWAY	2011	2013	2015	2017		
SE43P	WEST OF MEADOW LN TO BRIAR OAKES BLVD	492	9	YES	2 CRACKS	NO	NO				2017 - ACI, TRIM SHRUBS	2011	2013	2015	2017		
SE44P	SOUTH OF OAK RIDGE DR	212	3	YES	AVG 10 FT	YES	YES				2017 - ACI, 1 SINK HOLE; CRACKS, REPAIR LAST 20 FT OF PATHWAY, FOG SEAL	2011	2013	2015	2017		
SE45P	CONNECTING SHADY OAK CIR & HAWTHORNE PL N	247	4	YES	AVG 8 FT	YES	NO				2017 - ACI, CRACKS, REPAIR HEAVING, BE AWARE OF WATER SHUT OFF, FOG SEAL, 2X21, TREE TRIMMING, 3 OTHER HEAVING SPOTS	2011	2013	2015	2017		
SE46P	CSAH 18 (SOUTH SIDE FROM SPIRIT HILLS RD TO TROY MARQUETTE DR)	2815	6	YES	AVG 30 FT	NO	YES				CRACKS, REPAIR 9 SINK HOLES, LOWER SHUT OFF VALVE, BE AWARE OF ROCKS & SHED, FOG SEAL, TREE TRIMMING	2011	2013	2015	2017		
SE47P	EAST OF SPIRIT HILLS RD - SOUTH OF OVERLOOK LN	580	5	YES	AVG 64 FT	YES	YES				2017 - 5 SINK HOLES, 2 HEAVING SPOTS, LAST 10 FEET - GOOD - TREE TRIMMING, CRACKS, FOG SEAL	2011	2013	2015	2017		
SE48P	NORTH OF WILDWOOD WAY	375	5	YES	AVG 37 FT	NO	NO				2017 - ACI, TRIM TREES,	2011	2013	2015	2017		
SE49P	CSAH 18 (JASON AVE NORTH SIDE FROM OAKVIEW CT TO OAK RIDGE CIR	1068	8	YES	HORIZONTAL CRACKS	NO	NO				2017 - TRIM TREES, 2013 - NEW PATHWAY; 2015 - CRACKING HORIZONTAL ON EDGES	2011	2013	2015	2017		
SE50P	CSAH 18 - SOUTH SIDE FROM WILDWOOD BLVD TO GATEWATER DR	1418	5	YES	AVG 80 FT	NO	NO				CRACKS, REPAIR LOW AREAS, FOG SEAL	2011	2013	2016	2017		
SE51P	FENNING AVE NE - EAST SIDE FROM 86TH ST TO 85TH ST	580	4	YES	AVG 30 FT	YES	NO				2017 - HEAVING BY PINES, 100 FT ??, TREE TRIMMING, CRACKS, FOG SEAL	2011	2013	2016	2017		
SE52P	CSAH 18 PED BRIDGE	316	9	NO	NO CRACKS	NO	NO				OK	2011	2013	2016	2017		

2020 INSPECTIONS																	
SECTION	DESCRIPTION/LOCATION	LENGTH	RATING	CRACK FILL	DISTANCE BETWEEN CRACKS	ASPHALT KNUCKLING	HOLES UNDERMIND	SURFACE CRACK SEALED	SURFACE FOG SEALED	SURFACE CHIP SEALED	ADDITIONAL COMMENTS	YEAR OF INSP	YEAR OF INSP - 2ND	YEAR OF INSP- 3RD	YEAR OF INSP- 4TH	YEAR OF INSP- 5TH	YEAR OF INSP- 6TH
SE53P	MEADOW OAKS - BETWEEN BRIAR OAKES BLVD AND RED OAK LN	755	6	YES	AVG 30 FT	YES	NO				2017 - ACI, TREE TRIMMING, 8X12, 8X27, 8X12; 2013 - OK, CRACKS, FOG SEAL, HEAVING	2011	2013	2016	2017		
SE54P	CARDINAL HILLS TOT LOT - PATH TO SHELTER	77	9	NO	NO CRACKS	NO	NO				OK	2011	2013	2016	2017		
SE55P	STONERIDGE DR TO FARMSTEAD DR	364	7	YES	19 FT	NO	NO				2017 - 25 CRACKS	2016	2017				
SE56P	FARMSTEAD DR THROUGH PIONEER PARK TO PARKING LOT	490	9	NO	AVG 100 FT	NO	NO				2016 - 5 CRACKS, FOG SEAL	2013	2016	2017			
SE57P	FARMSTEAD AVE TO 87TH ST NE	1205	10	NO	NO CRACKS	NO	NO				NEW 2015 - 1 MANHOLE COVER	2015	2017				
SE58P	FENNING AVE - 86TH ST NORTH 165'	635	10	NO	NO CRACKS	NO	NO				2017 - OK, NO CRACKS	2017					
SE59P	DEER ST, 5991	150															
SW01P	CHELSEA RD W (SOUTH SIDE FROM CTY RD 39 TO DALTON AVE)	1371	7	YES	AVG 228 FT	NO	YES				2017 - 2 AREAS WHERE HOLES SINKING, FENCE NEXT TO PATHWAY; OK - 2013 - 1 AREA WHERE HOLES ARE SINKING; 2016 - 2 FEET OFF MANHOLE COVER TRAIL	2011	2013	2016	2017		
SW02P	CHELSEA RD W (SOUTH SIDE FROM DALTON AVE TO 90TH ST)	2530	8	YES	AVG 210 FT	NO	NO				2017 - 12 CRACKS, 2016 - 6 CRACKS, FOG SEAL; 2013 -OK, 1 CRACK	2011	2013	2016	2017		
SW03P	DALTON AVE (EAST SIDE SOUTH END FROM CULDESAC TO DALTON WAY)	721	9	YES	NO CRACKS	NO	NO				OK	2011	2013	2016			
SW04P	DALTON AVE (EAST SIDE FROM DALTON WAY TO CHELSEA RD W)	1113	8	NO	AVG 215 FT	NO	YES				OK - 2013 - 1 HOLE; 2016 - 5 CRACKS, FOG SEAL	2011	2013	2016			
SW05P	90TH ST (EAST SIDE FROM PARK PLACE DR TO CHELSEA RD W)	542	8	NO	AVG 130 FT	NO	NO	2011			2016 - 4 CRACKS, FOG SEAL	2011	2013	2016			
SW06P	CHELSEA RD W (SOUTH SIDE FROM 90TH ST TO INNSBROOK DR)	1983	7	YES	AVG 70 FT	NO	NO	2011			REPAIR AROUND WATER SHUT OFF - 2013 - 5 CRACKS	2011	2013	2016			
SW07P	PRESCOTT DR WEST TO 90TH ST	238	9	NO	NO CRACKS	NO	NO	2011			OK	2011	2013	2016			
SW08P	CHELSEA RD W (SOUTH SIDE FROM INNSBROOK DR TO SANDBERG RD)	1205	7	YES	AVG 33 FT	NO	NO	2011			CRACKS, FOG SEAL	2011	2013	2016			
SW09P	WOODSIDE DR BETWEEN 3668 & 3694	175	8	NO	AVG 85 FT	NO	NO	2011			2 CRACKS, TRIM TREES, REPLACE BLACKTOP IN NEED OF MAJOR REPAIR, FOG SEAL - 2013; NO CRACKS	2011	2013	2016			
SW10P	GROVELAND (BETWEEN 3RD & 4TH ADDITION)	2663	2	YES	AVG 100 FT	YES	YES	2011			CRACKS, BE AWARE OF FENCE NEAR PATHWAY, FOG SEAL - 2013; HEAVING, SINKHOLES	2011	2013	2016			
SW11P	CHELSEA RD - SOUTH SIDE ALONG SANDBERG RD TO PARK PLACE DR	1700	5	YES	AVG 275 FT	NO	YES	2011			CRACKS, REPLACE BAD BLACK TOP (2 SINK HOLES), FOG SEAL - 2013; 3 LRG SINKHOLES, AREA FOG SEAL	2011	2013	2016			
SW12P	SW11P TO PARK PLACE DR - BETWEEN 9614 & 9644 PARK PLACE DR	930	6	YES	AVG 100 FT	YES	NO	2011			CRACKS, REPLACE BAD BLACK TOP (2 SINK HOLES), FOG SEAL - 2013; NO SINKHOLES	2011	2013	2016			
SW13P	SCHOOL BLVD - WEST OF RIVER CITY LANES TO REDFORD LN	860	8	YES	AVG 20 FT	NO	NO	2011			CRACKS, REPLACE BLACKTOP WHERE SINK HOLE IS, FOG SEAL - 2013; SINKHOLES HAVE BEEN REPAIRED	2011	2013	2016			
SW14P	SCHOOL BLVD (DEEGAN AVE TO WEST OF FINAL DRIVE TO RIVER CITY LANES)	2818	7	YES	AVG 60 FT	NO	NO	2011			CRACKS, BE AWARE OF LANDSCAPING & WATER SHUT OFF, FOG SEAL	2011	2013	2016			
SW15P	9641 PARK PLACE DR TO PARK PLACE DRIVE	635	7	NO	AVG 315 FT	NO	NO	2011			CRACKS, FOG SEAL - 2013; NO CRACKS	2011	2013	2016			