



AGENDA
Committee on Public Services
Tuesday, September 3, 2019 @ 4:00 p.m.
City Council Conference Room, City Hall 10th Floor

Council Member Peter Spadafore, Chair
Council Member Kathie Dunbar, Vice Chair
Council Member Jeremy Garza, Member

1) Call to Order

2) Public Comment on Agenda Items

3) Minutes

- July 16, 2019

4) Discussion/Action:

- A.) RESOLUTION – Local Agency Pavement Warranty Program, Adoption and Implementation

- B.) DISCUSSION – Budget Priorities for 2020/2021; along with Public Service Board Priorities

5) Other

- Board Of Public Service Communication;
RE: Michigan's Transportation Infrastructure

6) Adjourn

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MINUTES
Committee on Public Service
Monday, July 16, 2019 @ 4:00 p.m.
City Hall, Conference Room, 10th Floor

CALL TO ORDER

The meeting was called to order at 4:00 p.m.

ROLL CALL

Council Member Peter Spadafore, Chair
Council Member Kathie Dunbar, Vice Chair
Council Member Jeremy Garza, Member

OTHERS PRESENT

Sherrie Boak, Council Office Manager
Greg Venker, Assistant City Attorney
Andy Kilpatrick, Public Service Director
Brian McGrain, Economic Development & Planning Director
Chad Gamble, Parking Manager
Chris Mumby, Public Service
Rich Lamay, Public Service
Maria Medina
Randy Medina
Liz Elder
Evelyn Boynton

Public Comments

Mr. Medina, 5809 Schafer, spoke on his concerns with continual water at the front of his property. He then referenced multiple (7) notices he has received or been given to the Public Service Department on the subject. He noted that Mr. Sullivan with Public Service was on site July 16th. Mr. Medina asked for additional assistance to address the ongoing issue. Council Member Garza offered to show photos he had taken with his cell phone. Mr. Mumby acknowledged they were aware of the situation, confirmed they have spoken about remedies which include the costly repair to the neighborhood of installing a curb and gutter and new culverts. This cost would be assessed to all the residents in the area effected, not just Mr. Medina. Mr. Mumby continued by stating that another option would be to do a survey and provide suggestions to all property owners who could then fix it at their own cost. Council Member Spadafore asked if a resident has filled in their culvert and in turn has now caused this issue for Mr. Medina, would be that be a violation, and Mr. Mumby confirmed culverts cannot be filled in, but at this point it would be up to Council if they want to charge for the removal of the dirt. He concluded by stating in this case, there is no cost effective way to help Mr. Medina without charging him along with the 7-8 neighbors. Council Member Garza stated

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his understanding was the Medina's were looking for a long term solution. Mr. Kilpatrick stated that would be a special assessment set by Council and could run for 7-10 years depending on the cost. Council Member Dunbar asked if there were costs to the proposed solutions. Mr. Mumby noted the option with storm sewer and curbs will be expensive, the other options could be costly depending on how many parcels have to be re-ditched and cleaned out. Mr. Kilpatrick added that they are trying to uncover the culverts and clean out to make sure drains flow the way they are supposed to, and if this effects both sides of the street. Once a survey is done they can make the determination. Mr. Medina admitted that when he cleaned out his culver, the culvert pipe itself was cracked, so he turned it so the crack wouldn't be on the top, but now it is on the side.

Mr. Mumby stated he would keep the Committee and Mr. Medina updated.

Minutes

MOTION BY COUNCIL MEMBER DUNBAR TO APPROVE THE MINUTES FROM JUNE 18, 2019. MOTION CARRIED 3-0.

MOTION BY COUNCIL MEMBER DUNBAR TO APPROVE THE MINUTES FROM JULY 8, 2019. MOTION CARRIED 3-0.

Discussion

RESOLUTION – Special Assessment Roll; Snow and Ice Removal; Winter 2018/2019

Mr. Lamay stated he had photos for each of the claims and would be providing those during each appeal.

300 Allen

Mr. Lamay acknowledged that this address was done while the staff were in the neighborhood for a complaint on another property, and noticed the ice, particularly at the corner. The before and after photos were referenced.

Ms. Elder was presented with the photos as well, and admitted she could not speak to why her husband did not address the corner where it appeared there was still ice after they cleared the sidewalk.

Council Member Dunbar suggested in the future the photos include every area Public Service will be referencing in their defense of the work and assessment.

MOTION BY COUNCIL MEMBER DUNBAR TO DENY THE APPEAL FOR 300 ALLEN IN THE AMOUNT OF \$149.00. MOTION CARRIED 3-0.

1600 E. Michigan Avenue

This address was not on the appeal list because the owners did not meet the requirements in the letter with the deadline of July 8th.

Ms. Boynton appealed to the Committee that they did not get a notice, they had hired someone to clear the snow and ice, and placed calls to the City for details however did not get what they had asked for. Mr. Mumby reiterated the City Ordinance on snow removal and requirement to remove within 24 hours. Council Member Spadafore clarified that the notice she received stated the July 8, 2019 deadline and she did not meet that, therefore this Committee could not address the complaint. He asked Public Service to forward the materials, details and back up photos to him and he would forward to Ms. Boynton.

133 Allen

The Committee reviewed the material presented by Mr. Lamay which clarified it was noticed March 5th, cleared March 7th and took 40-60 minutes to clear.

MOTION BY COUNCIL MEMBER GARZA TO DENY THE CLAIM FOR 133 ALLEN IN THE AMOUNT OF \$289.00. MOTION CARRIED 3-0.

Council Member Dunbar asked if Public Service kept copies of weather reports.

909 Sparrow

Mr. Lamay presented before and after photos.

MOTION BY COUNCIL MEMBER GARZA TO DENY THE CLAIM FOR 909 SPARROW IN THE AMOUNT OF \$149.00. MOTION CARRIED 3-0.

2919 Cumberland

Mr. Lamay presented photos for the property what was tagged on February 20, 2019 and cleared February 23, 2019. It was noted this property is in the school route and the photos made it evident all the other neighbors did clear their sidewalks.

MOTION BY COUNCIL MEMBER DUNBAR TO DENY THE CLAIM FOR 2919 CUMBERLAND IN THE AMOUNT OF \$289.00. MOTION CARRIED 3-0.

2918 Cumberland

Mr. Lamay referenced the photos, noting some did melt, but there was a large build-up of ice on the driveways and ramps. Council Member Dunbar asked if the whole neighborhood was cleared, and it was noted it was.

MOTION BY COUNCIL MEMBER DUNBAR TO DENY THE CLAIM FOR 2918 CUMBERLAND IN THE AMOUNT OF \$219.00. MOTION CARRIED 3-0.

1518 Willow

The Committee reviewed the photos and Public Service staff noted that the ice build-up was so bad that they had to do 20 minutes one day and return for another 20 minutes the next day.

MOTION BY COUNCIL MEMBER DUNBAR TO DENY THE CLAIM FOR 1518 WILLOW IN THE AMOUNT OF 219.00. MOTION CARRIED 3-0.

Council Member Spadafore asked law for a determination on the notices that were returned undeliverable, and Mr. Venker stated that the City met their obligation because they were mailed to the owner of record.

1117 W. Kalamazoo St. 1

Council Member Spadafore noted that after verifying that the notice is only sent to the owner, and the owner's notice was returned on this property because it was sent to 517 E. Grand River Avenue not 517 E. Cesar Chavez, it would need to be addressed separately. And therefore need to be removed from the roll.

MOTION BY COUNCIL MEMBER GARZA TO REMOVE THE ASSESSMENT FROM THE ROLL. MOTION CARRIED 3-0.

MOTION BY COUNCIL MEMBER GARZA TO APPROVE AMENDED ROLL #SN2019. MOTION CARRIED 3-0.

UPDATE – Parking Upgrades and App Roll-out

Mr. Gamble provided updates on the parking upgrades and distributed their flyers and education material on the projects. Mr. Gamble went on to list some of the specifics in the upgrades which include pedestrian safe passage, new charging stations, new signage, painting, stripping and renovation of the stair wells. The week of July 22, 2019 the roof top parking at the North Grand ramp will be closed and those parkers will be moved to other portions of the ramp. This year they have accomplished way finding and complete replacement of the drainage system, which includes new pavement topping. The ramp on N. Capital will be closed for new drive approaches and they will receive the new parking equipment for the revenue control system and gating (TIBA). Mr. Gamble concluded his overview by highlighting the “Passport Program”, the complete of the makeover project in late 2019 for N. Grand, and new pay stations.

ORDINANCE – Amendment to Chapter 606; Section 606.03; Signage or Advertisements on Sales/Auctions

Council Member Spadafore reviewed the amendments and noted the required hearing was held with no comments.

MOTION BY COUNCIL MEMBER GARZA TO APPROVE THE ORDINANCE AMENDMENTS.
MOTION CARRIED 3-0

DISCUSSION – Public Service Board; Budget Priorities for 2020/2021

Council Member Spadafore placed the document on file and will address on a future agenda when the Council is considering their FY2020 Budget Priorities.

UPDATE – Trash Collection; Public Service Department

Mr. Kilpatrick confirmed a recent press release which the Council obtained, that outlined the phase out of the use of City trash bags along rates changes that were also noted in the budget.

Council Member Garza stepped away from the meeting at 5:06 p.m.

Mr. Kilpatrick continued by noting they are continuing to work on the buyback option, but have already determined they will buy back from suppliers and some stores that sold the bags.

Council Member Garza returned to the meeting at 5:07 p.m.

As part of the buyback option they are looking into locations residents can bring the unused bags, and considering what the City will use the unused bags for, one option being park clean up bags. Mr. Kilpatrick and Committee discussed the future of the trash carts that will be used instead of the bags, and options for markings to determine pick up dates.

Other

No other topics were discussed.

ADJOURN

The meeting was adjourned at 5:13 p.m.

Submitted by Sherrie Boak,

Recording Secretary

Lansing City Council

Approved: _____

BY THE COMMITTEE ON PUBLIC SERVICE
RESOLVED BY THE CITY COUNCIL OF THE CITY OF LANSING

WHEREAS, the Michigan Legislature (MCL 247.663) requires each city or village to adopt a Local Agency Pavement Warranty Program that was approved by the Michigan Department of Transportation in 2018; and

WHEREAS, the Michigan Local Agency Pavement Warranty Program was developed by the Local Agency Pavement Warranty Task Force for use by all 533 cities and villages in the format approved by the Michigan Department of Transportation in 2018; and

WHEREAS, the Michigan Department of Transportation has reviewed and approved the Michigan Local Agency Pavement Warranty Program consisting of: Special Provisions (Boilerplate, Concrete, HMA, Location, Pass-Through Warranty Bond); a Warranty Bond Form and Contract Form; and Guidelines for Local Agency Pavement Warranty Programs; and

WHEREAS the above described Provisions, Forms, and Guidelines are attached hereto for reference and consideration.

NOW THEREFORE BE IT RESOLVED, the City of Lansing hereby adopts the Michigan Local Agency Pavement Warranty Program and accompanying documents in accordance to the requirements of MCL 247.663;

BE IT FURTHER RESOLVED, this resolution is made a part of the minutes of the City Council of the City of Lansing meeting on __ (date) __.

BY THE COMMITTEE ON PUBLIC SERVICE
RESOLVED BY THE CITY COUNCIL OF THE CITY OF LANSING

WHEREAS, The Michigan Legislature created a requirement (MCL 247.663) as part of the Transportation Funding Package of 2015 that requires each city and village to adopt a Local Agency Pavement Warranty Program that was approved by the Michigan Department of Transportation in 2018;

WHEREAS, the City of Lansing adopted the Michigan Local Agency Pavement Warranty Program on __ (date) __;

WHEREAS, the City of Lansing agrees to consider a local pavement warranty on each project that includes \$2 million or more in paving-related items *and* includes any state or federal funds;

WHEREAS, the Local Agency Pavement Warranty Program law requires each city and village to report annually on each project that includes \$2 million or more in paving-related items *and* includes any state or federal funds, whether or not a warranty was utilized in the project;

WHEREAS, the City of Lansing agrees to implement the Michigan Local Agency Pavement Warranty Program consistent with the Guidelines for Local Agency Pavement Warranty Program document that was approved by the Michigan Department of Transportation in 2018; and which the City of Lansing's adopted Implementation Policy defines the City of Lansing's intent of its pavement warranty program;

NOW THEREFORE BE IT RESOLVED, the City of Lansing hereby agrees to implement the Local Agency Pavement Warranty Program and annually report in accordance with the law.

<local agency name>

LOCAL AGENCY

PASS THROUGH WARRANTY BOND

Bond Number: _____

KNOWN ALL MEN BY THESE PRESENTS:

That we, _____ (hereinafter called the "Principal" and _____ (hereinafter called "Surety") a corporation duly organized under the laws of the State of _____ and duly licensed to transact business in the State of Michigan, are held and firmly bound unto the <local agency name> (hereinafter called the "Obligee"), in the sum of \$ _____ dollars for the payment of which sum well and truly to be made, we, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal has heretofore entered into a contract with the Obligee, under Contract ID _____ and;

WHEREAS, the said Principal is required to guarantee the:

installed under said contract, against defects in materials or workmanship which may develop during the period of _____ years beginning the date of the Acceptance Date of Warranted Work by the Obligee.

In no event shall losses paid under this bond aggregate more than the amount of the bond.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if said Principal shall faithfully carry out and perform the said guarantee, and shall, on due notice, repair and make good at its own expense any and all defects in materials or workmanship in the said work which may develop during the period specified above or shall pay over, make good and reimburse to the said Obligee all loss and damage which said Obligee may sustain by reason of failure or default of said Principal so to do, then this obligation shall be null and void; otherwise shall remain in full force and effect.

PROVIDED HOWEVER, that in the event of any default on the part of said Principal, a written statement of the particular facts showing such default and the date thereof shall be delivered to the Surety by registered mail, promptly in any event within ten (10) days after the Obligee or his representative shall learn of such default and that no claim, suit or action by reason of any default of the Principal shall be brought hereunder after the expiration of thirty (30) days from the end of the warranty period as herein set forth.

Signed this _____ day of _____ 20_____.

Contractor _____

By _____

Surety _____

By _____

MICHIGAN
LOCAL AGENCY
SPECIAL PROVISION
FOR
HOT MIX ASPHALT and CONCRETE PAVEMENT WARRANTY
1 of 7

RJR

4/8/2018

- a. Description.** The Hot Mix Asphalt (HMA) and Concrete Pavement Warranty (Pavement Warranty) consists of the contract warranty provisions, warranty bond, the terms of this special provision, the terms of the special provisions for Warranty Work Requirements for HMA and Concrete Pavements, and the Specifications for Warranty Work included in the contract. This special provision establishes the common terms, definitions, and requirements applied to pavement projects requiring a warranty. The Pavement Warranty assures and protects the Local Agency (Agency) from specific defects in pavements due to materials and/or workmanship.

Under the Pavement Warranty special provisions the Contractor is responsible for correcting defects in the pavement caused by elements within the Contractor's control (i.e., the materials and/or workmanship), during the warranty term. The Pavement Warranty passes through to subcontractors and / or suppliers at the direction of the Contractor and upon written notice to the Agency. The Agency is responsible for the pavement design. Therefore, the Contractor assumes no responsibility for design related defects. A pavement defect due to the materials, workmanship and the design, will result in a shared responsibility for correcting the defect by the Agency and the Contractor. The Contractor is responsible for the percentage of fault attributable to the materials and/or workmanship. The Agency is responsible for the percentage of fault attributable to the design. Note: The Agency elects to require the Contractor to provide the pavement design(s) in *design-build* contract documents and specifications. In this case, the Contractor is responsible for the percentage of fault attributable to the design

b. Definitions.

Abrasion. The wearing (loss) of a material by tire friction or snow plowing.

Acceptance Date of Warranted Work. The date when the warranted work is complete, has been determined by the Agency to be in compliance with the contract specifications, and is continuously open to traffic. This is the date of warranted work acceptance (See Section c. Warranted Work Acceptance) and constitutes the start of the warranty period. There may be more than one acceptance date of warranted work for a project.

Adhesion. The bonding of a material to an underlying pavement surface.

Asphalt Flushing. The accumulation of excess asphalt binder on the pavement surface that creates a shiny, reflective condition, and becomes tacky to the touch at high temperatures.

Cohesion. The resistance of a material to internal rupture.

Conflict Resolution Team (CRT). The three-person team responsible for voting in resolution of disputes between the Agency and the Contractor regarding any claim of non-compliance with the warranty requirements.

Crack. A visible fissure or surface discontinuity that may or may not extend through the entire slab/pavement. Cracks may be singular or in multiple patterns. Surface Crack types are:

- a. **Alligator.** Parallel longitudinal cracks with transverse tears between them exhibiting a pattern similar to an alligator hide. An alligator crack typically starts in a wheel path and may extend to other lane locations of a HMA pavement.
- b. **Block.** Transverse and longitudinal cracking in a pavement that has progressed to a pattern that the pavement is broken into blocks of size less than 12 - foot by 12 - foot. The shape of each block may be irregular.
- c. **Corner.** Orientation is generally diagonal and located near a concrete slab corner. It may intersect either a transverse or a longitudinal pavement joint.
- d. **Longitudinal/Open Joint.** A crack, at least five feet in length, that is oriented primarily in the longitudinal direction versus the transverse direction. That is, the angle between the overall crack line and the centerline is less than 45 degrees. It can exist anywhere in the driving lane; i.e., at the pavement centerline joint, wheel path, center of lane, or lane/shoulder joint. This does not include reflective cracking from underlying pavement.
- e. **Map.** Interconnecting, variable spaced cracks in a random orientation and pattern.
- f. **Non-Working.** Cracks that experience relatively little horizontal or vertical movement as a result of temperature change or traffic loading. As a general rule, a width less than 1/8 inch.
- g. **Transverse.** A crack, at least five feet in length, that is oriented primarily in the transverse direction versus the longitudinal direction. That is, the angle between the overall crack line and the transverse line is less than 45 degrees. It can be either straight or irregular in direction.
- h. **Working.** Cracks that experience considerable horizontal or vertical movement as a result of temperature change or traffic loading. In general, the width is greater than or equal to 1/8 inch.

De-bonding. A physical separation of two HMA layers. De-bonding will be visually identified as shoving, or loss of the top course. Surface potholes, regardless of depth, will be classified as de-bonding.

Driving Lane(s). The delineated pavement surface used by traffic and the portion of the pavement considered warranted work. Each of the following is considered a separate driving lane.

- Each individual mainline lane.
- The sum of all ramp lanes and the associated acceleration/deceleration lanes is considered a separate driving lane.
- The sum of all auxiliary lanes, such as passing lanes and turn lanes, is considered a separate driving lane.

Approaches, driveways, shoulders and adjoining transition tapers between various types of pavement are not considered driving lanes for the purpose of this provision.

Joint Sealant Failure. The loss of material integrity consisting of either adhesive failure (de-bonding), cohesive failure (material separation), or the complete loss of sealant material.

Local Agency. A road commission or municipality with legal responsibility for the roads or streets within their respective governmental jurisdictions. Sometimes referred to as Agency.

Loss of Cover Aggregate. Areas of coarse and fine aggregate removal from the pavement surface caused by the mechanical action of troweling and/or grooving the concrete surface during placement.

Opening to Traffic. The allowance of vehicles on the new pavement with the appropriate lane markings/striping and signage.

Over-band. A type of crack sealing in which sealing material is allowed to completely cover prepared cracks by extending onto the adjacent pavement surface.

Raveling. Surface disintegration of a HMA pavement, due to the loss of coarse or fine aggregate material that occurs over an area or in a continuous longitudinal strip. Wear caused by snowplow abrasion is not considered raveling.

Rutting. A longitudinal surface depression in the wheel path. It may have associated transverse displacement or humping.

Scaling. The concrete surface has a visible, exposed, rough texture from a loss of either aggregate or mortar.

Shattered Slab. A concrete pavement slab broken into four or more sections by full-depth cracks.

Spall. Broken or missing piece of concrete contiguous with the perimeter edge of a slab with a surface area exceeding two square inches.

Warranty Bond. A bond (the lesser amount of 5% (percent) of the total contract amount or \$1,000,000) issued by a surety which guarantees meeting of the warranty requirements.

Warranted Work. Completed warranted work upon acceptance that is to be evaluated throughout the warranty term.

Warranty Work. Corrective actions / repairs performed to correct deficiencies in the completed warranted work in order to achieve final acceptance (Section I of this special provision) at the end of the warranty term.

Warranty. A surety guarantee that the warranty requirements will be met.

- c. **Warranted Work Acceptance.** The Agency and the Contractor must jointly review all completed warranted work, or a portion thereof, as determined by the Agency. If the work does not meet contract requirements, the Contractor must make all necessary corrections, at their expense, prior to acceptance. Warranted work acceptance will occur as soon as the Agency's confirmation is in writing in the Agency's acceptance notice. And that contract requirements have been met for the warranted work and has been continuously open to traffic. The date on which acceptance date of warranted work occurs is the start date for the warranty term.

Warranted work acceptance will be documented in the Agency's acceptance notice and executed jointly by the Agency and the Contractor. A copy of the acceptance notice will be sent to the Contractor's warranty bond surety agent by the Agency. Neither the warranted work acceptance nor any prior inspection, acceptance or approval by the Agency diminishes the Contractor's responsibility under this warranty.

The Agency in order to accommodate seasonal limitations or staged construction shall accept the warranted work and begin the warranty term, excluding any area needing corrective work.

Acceptance of material, in penalty, under the Agency's quality assurance program will not relieve the Contractor from meeting the Pavement Warranty requirements for the accepted material.

d. Warranty Bond. The Contractor is to furnish a single term warranty bond on a form supplied by the Local Agency, in an amount stipulated in the Special Provision for Warranty Work Requirements, prior to contract award. The effective starting date of the warranty bond and warranty term will be the Acceptance Date of Warranted Work. The warranty bond will be released at the end of the warranty term and/or upon satisfactory completion of all warranty work; whichever is later as per Section I. Final Acceptance of this special provision.

e. Rights and Responsibilities of the Agency. The Agency:

1. Reserves the right to approve the schedule, time, traffic control and methods proposed by the Contractor to perform warranty work.

2. Reserves the right to approve all material usage and specifications in warranty work.

3. Reserves the right to determine a Contractor's warranty work performance as meeting the contract specifications.

4. Reserves the right to perform, or have performed, routine maintenance during the warranty term; which routine maintenance will not diminish the Contractor's responsibility under the warranty.

5. Reserves the right, upon the non-availability of the Contractor, to make immediate emergency repairs to the pavement to prevent an unsafe road condition as determined by the Agency and upon notification to the Contractor of the requirement for additional repairs.

6. Will be responsible for monitoring the pavement throughout the warranty term. And will provide the Contractor all written reports of the pavement condition related to the warranty requirements. The Agency reserves the right not to relieve the Contractor of any responsibility based upon a claim for any failure by the Agency to adequately monitor the pavement or to report findings to the Contractor.

7. Will be responsible for notifying the Contractor, in writing, of any warranty work (corrective action/repair) requirement to meet the warranty requirements.

f. Rights and Responsibilities of the Contractor. The Contractor:

1. Must warrant to the Agency that the warranted work will be free of defects in the materials and/or workmanship. Ensure the warranty bond is described on the completed form and submitted to the Agency prior to award of contract.

2. Will be responsible for performing all warranty work including, but not limited to, maintaining traffic, finish pavement marking, and restoring all other associated pavement features, at the Contractor's expense.

3. Will be responsible for performing all repairs, resulting from being in non-compliance with the warranty requirements, using Agency approved materials and methods. Corrective actions and/or repairs shall commence before the expiration of the 60-day period of notification unless otherwise approved by the Agency.

4. Will be responsible to perform emergency repairs of the warranted work upon verbal and written notification from the Agency as per Section k. Emergency Repairs in this Special Provision.

5. Must notify the Agency and submit a written course of action for performing the needed warranty work a minimum of 10 (ten) calendar days prior to commencement of warranty work, except in the case of emergency repairs as detailed in this special provision. The submittal must propose a schedule for performing the warranty work and the materials and methods to be used.

6. Must follow an Agency approved maintaining traffic plan when performing warranty work. Ensure all warranty work is performed under permit issued by the Agency's Engineer. The permit fee and an individual permit performance bond will not be required. The permit insurance requirements, however, will apply.

7. Must furnish to the Agency, if warranty work required, a supplemental lien bond covering any warranty work being performed. The supplemental bond is furnished prior to beginning any warranty work. Ensure the supplemental bond is in the amount required by the Agency to cover the costs of warranty work.

8. Must complete all warranty work prior to conclusion of the warranty period, or as otherwise agreed to by the Agency.

9. Will be liable during the warranty period in the same manner as Contractors currently are liable for their construction related activities with the Agency pursuant to the current MDOT Standard Specifications for Construction including, but not limited to subsections 104.07.C, 107.10, and 107.11 or revisions thereto. This liability will arise and continue only during the period when the Contractor is performing warranty work. This liability is in addition to the Contractor performing and/or paying for any required warranty work, and will include liability for injuries and/or damages and any expenses resulting therefrom which are not attributable to normal wear and tear of traffic and weather; but are due to non-compliant materials, faulty workmanship, and to the operations of the Contractor as set forth more fully in subsections 104.07.C, 107.10 and 107.11 of the current MDOT Standard Specifications for Construction or revisions thereto.

g. Evaluation Method. The Agency will conduct pavement evaluations by dividing the project into segments. Each individual driving lane will be divided into segments of 528 feet (1/10 mile) in length for measuring and quantifying the condition parameters. The Evaluation Method will include field pavement condition reviews. The Agency reserves the right to waive this evaluation in emergency situations.

The beginning point for laying out segments will be the Point of Beginning (POB) of the project. Segments will be laid out consecutively to the Point of Ending (POE) of the project. The original segmentation of the project will be used for all successive reviews throughout the warranty term.

h. Condition Parameters. Condition parameters are used to measure the performance of the warranted pavement during the warranty term. Each condition parameter threshold limit is applied to each segment and defines the number of allowable defective segments before corrective action (warranty work) is required.

During the warranty term, the Contractor will not be held responsible for pavement defect caused by factors unrelated to materials and/or workmanship. These include but are not limited to: chemical and fuel spills, vehicle fires, snow plowing, and quality assurance testing such as coring. Other factors considered to be beyond the control of the Contractor which may contribute to pavement distress will be considered by the Agency's Engineer on a case by case basis upon receipt of a written request from the Contractor.

- i. **Warranty Requirements.** Warranty work will be required when the following two criteria are met as a result of a defect in the pavement.

Criterion 1 - The threshold limit for a condition parameter is exceeded, and

Criterion 2 - The maximum allowable number of defective segments is exceeded for one or more condition parameters for a driving lane.

Specific threshold limits and segment limits are covered in the Agency's Special Provision for Warranty Work Requirements.

Joint field investigation(s) by the Agency and the Contractor will be conducted to reach an agreement to determine the cause(s) of the pavement defects, whether the cause(s) are a result of defects in materials and/or workmanship, and assignment of responsibility. All costs related to the joint field investigation will be shared proportionately between the Contractor and the Agency based on the determined cause of the condition.

If an agreement cannot be reached, a Conflict Resolution Team (CRT) shall be convened in accordance with Section j. Conflict Resolution Team of this special provision.

- j. **Conflict Resolution Team (CRT).** If a dispute arises on the application or fulfillment of the terms of this warranty, either party may serve written notice that appointment of a CRT is required. The sole responsibility of the CRT is to provide a decision on disputes between the Agency and the Contractor regarding application or fulfillment of the warranty requirements. The CRT will consist of three voting members:

- One (1) member selected and compensated by the Agency.
- One (1) member selected and compensated by the Contractor.
- One (1) member mutually selected by the Agency and the Contractor. Compensation for the third party member will be equally shared by the Agency and the Contractor.

At least two members of the CRT must vote in favor of a motion to make a decision.

The CRT decides the need for a forensic investigation, its scope and the party to conduct the investigation. The forensic investigation, if any, will be conducted following the NCHRP Report 747 "Guide for Conducting Forensic Investigations of Highway Pavement". All costs related to the forensic investigation will be shared proportionately between the Contractor and the Agency based on the determined cause of the condition.

- k. **Emergency Repairs.** When the Agency determines that emergency repairs of the warranted work are necessary for public safety, the Agency or its agent may take immediate and sufficient repair action to safeguard the traveling public prior to notification to the Contractor of the need for emergency repairs. Emergency repairs of warranted work by the Contractor must be authorized by the Agency's Engineer.

Prior to emergency repairs of warranted work, the Agency will document the basis for the emergency action. In addition, the Agency will preserve documentation of the defective condition.

However, should the Contractor be unable to perform emergency repair requirements, to the Agency's satisfaction and within the time frame required by the Agency, the Agency will perform, or have performed any emergency repairs deemed necessary. Any such emergency repairs undertaken will not relieve the Contractor from meeting the warranty requirements of this special provision. Any costs associated with the emergency repairs will be paid by the Contractor if determined to be the fault of the Contractor.

- i. Final Acceptance.** The Agency and Contractor must jointly review all of the warranted work and any warranty work at the end of the warranty term to determine meeting of contract requirements. The Agency's final acceptance date of warranted work and any warranty work will occur as soon as the Agency's confirmation is in writing, on the Agency's final acceptance notice as jointly executed by the Agency and Contractor And that contract requirements have been met for the warranted work and any warranty work. The Agency will authorize the release of the warranty bond, and with a copy of the final acceptance notice sent to the Contractor's warranty bond surety agent.
- m. Non-extension of Contract.** This special provision must not be construed as extending or otherwise affecting the claim process and statute of limitation applicable to this Contract.
- n. Measurement and Payment.** All costs, including engineering and maintaining traffic costs, associated with meeting the requirements of this special provision are considered to be included in the contract unit prices for the warranted work items regardless of when such costs are incurred throughout the warranty term or after the end of the warranty term as jointly agreed upon between the Agency and the Contractor. These costs include but are not limited to, all materials, labor and equipment necessary to complete the required warranty work.

MICHIGAN
LOCAL AGENCY
SPECIAL PROVISION
FOR
**WARRANTY WORK REQUIREMENTS FOR JOINTED
PLAIN CONCRETE PAVEMENT**

LM

1 of 3

3/8/2018

a. Description. This special provision is for use with MICHIGAN LOCAL ROAD AGENCY SPECIAL PROVISION FOR HOT MIX ASPHALT and CONCRETE PAVEMENT WARRANTY for construction/reconstruction projects using jointed concrete pavement on an unbound or stabilized aggregate base that will be warranted against defects in workmanship and materials.

When a local agency concrete project is to be warranted, its Initial Acceptance shall follow Section.602 of the current MDOT Standard Specifications for Construction.

b. Terms of the Warranty

Limits of the Warranted Work - Warranted work includes all jointed plain concrete pavement placed in driving lanes within the project limits, unless described otherwise on the plans.

Warranty Term - A timeframe which begins at the Acceptance Date of Warranted Work of a completed Concrete Pavement project. Multi-phased projects may have multiple "Acceptance Dates of Warranted Work." The Warranty Term will last five (5) years, unless otherwise specified in the contract.

Warranty Bond - The Contractor shall furnish a single term bond worth 5% of the total contract or \$1,000,000 whichever is less, secured in the name of the road owner and/or the agency in charge of the project. The effective starting date of the warranty bond will be the Acceptance Date of Warranted Work. The warranty bond will be released at the end of the warranty period or upon satisfactory completion of all warranty work; whichever is later.

Warranty Requirements - Table 1 lists maximum allowable defect thresholds for each condition per 1/10th-mile lane segments and the maximum allowable number of segments for each condition parameter. If the Contractor has not met any warranty requirement, even in non-contiguous segments, the Engineer will request warranty fixes.

Each driving lane will be assessed separately. Any warranty work required of the Contractor to correct deficiencies for any condition, will be full-width across the driving lane.

c. Quality Control / Quality Assurance (QA/QC). The Contractor is responsible for project quality and must provide QC testing procedures and results.

The Engineer will perform Quality Assurance (QA) testing as a spot-check to determine Initial Acceptance or assess penalties if specifications are not met. QA testing does not relieve the Contractor of QC responsibilities. A Contractor may not use QA tests as evidence in a warranty dispute.

d. Initial Ride Quality Acceptance. Initial Ride Quality requirements are outlined in the bid documents.

e. Corrective Action. Table 2 lists the recommended corrective actions/treatments for the various defects. The Contractor may use an alternative action subject to Engineer's approval.

Table 1: Warranty Requirements

Condition Parameter or Defect	Threshold Limits Per Segment (Length = 528 feet)	Max. Defective Segments Per Driving Lane-Mile (b)
Transverse Crack	2 (a)	1
Longitudinal Crack	5% of segment length	1
Map Cracking	10% of segment area	1
Spalling	10% each slab (c) < 2 slabs	1
Surface Scaling	15% of the slab area < 1 slab	1
Corner Cracking	1	1
Joint Sealant Failure	10% joint length (c,d) < 2 slabs	1
Shattered Slab	0	0

a. For segments less than 1/10 mile in length, divide the segment length in feet by 528. The multiply the threshold limit shown in the table by this fractional number. Round the result to the nearest whole number for the new threshold limit. In no case can the threshold limit be less than 1.

b. The maximum allowable number of defective segments per condition for a specific driving lane is determined by multiplying the length of the specific driving lane in miles by the maximum allowable defective segments per mile as shown in the table for that condition. . In no case can the max Defective segments per driving lane limit be less than 1.

c. Can be non-contiguous. 10% value applies to total perimeter (four sides) of the slab.

d. Applies to all transverse and longitudinal joints on the perimeter of the slab. Non-contiguous lengths will be summed on a per-slab basis.

Table 2: Recommended Corrective Action

Condition Parameter or Defect	Recommended Action (a)
Longitudinal Cracking (b)	Retrofit load transfer
Transverse Cracking (b)	Retrofit load transfer
Corner Cracking	Full-depth, tied, concrete patch
Map Cracking	Remove and replace
Spalling	Repair with epoxy or cement mortar (c)
Surface Scaling	Diamond grind surface (d)
Joint Sealant Failure	Remove and replace seal material (e)
Shattered Slab	Full depth slab replacement (f)
<p>a. If multiple defects are present, the Engineer may revise the recommended actions, up to and including removal and replacement.</p> <p>b. The Engineer's requested corrective treatment will depend on the crack's location and depth. Full-depth T-cracks require retrofit load transfer (> 90% load transfer efficiency) as a minimum. Full depth/full length L-cracks require slab removal and replacement, if outside influence of lane ties.</p> <p>c. The Engineer's requested repair depends on the area and depth of spall, relying on most current specifications in the MDOT Material's Technology Section, Construction and Technology Division.</p> <p>d. Diamond grinding applies to entire slab surface area where scaling exists.</p> <p>e. Replace with existing material type. Neoprene seals are removed and replaced full-width.</p> <p>f. All shattered slabs must be removed and replaced.</p>	

MICHIGAN
LOCAL AGENCY
SPECIAL PROVISION
FOR
**WARRANTY WORK REQUIREMENTS FOR
HOT MIX ASPHALT PAVEMENTS**

LM

1 of 3

3/8/2018

a. Description. This special provision is for use with MICHIGAN LOCAL ROAD AGENCY SPECIAL PROVISION FOR HOT MIX ASPHALT and CONCRETE PAVEMENT WARRANTY for Local Agency projects constructing a Hot Mix Asphalt (HMA) pavement that will be warranted against defects in workmanship and materials.

Follow Section 501 of the current MDOT Standard Specifications for Construction to determine initial acceptance of a warranted project.

b. Definitions of the Work Types as defined in this specification

Long Term Warranty - This includes **New Construction / Reconstruction** and HMA placement on an approved aggregate base where the subbase and drainage have been analyzed and determined that the planned improvements meet design life requirements.

Medium Term Warranty– This includes **Rehabilitation** and when HMA is placed on an aggregate base, subbase, and/or drainage situation, which was not analyzed to assure that the existing materials and/or planned improvements meet the pavement’s design life requirements and the project did not include or improve the base, sub-base and/or drainage. This includes crush-shape-pave projects and other similar 3R work.

Short Term Warranty– This is for **Overlays** when HMA is placed on existing HMA, concrete or composite pavement.

c. Terms of the Warranty

Limits of Warranted Work - Warranted work includes all HMA placed in driving lanes in the project limits, unless otherwise indicated on project documents.

Warranty Term – A timeframe which begins at the Acceptance Date of Warranted Work of a completed HMA project. Multi-phased projects may have multiple “Acceptance Dates of Warranted Work.” Warranty term length is specified in Table 1

Warranty Bond - The Contractor shall furnish a single term bond worth 5% of the total contract or \$1,000,000 whichever is less, secured in the name of the road owner and/or the agency in charge of the project. The effective starting date of the warranty bond will be the Acceptance Date of Warranted Work. The warranty bond will be released at the end of the warranty period or upon satisfactory completion of all warranty work; whichever is later.

Warranty Requirements - Table 1 lists maximum allowable defect thresholds for each condition per 1/10-mile lane segments and the maximum allowable number of defective segments for each condition parameter. If the Contractor has exceeded any warranty requirement, even in non-contiguous segments, the Engineer will request warranty fixes.

Each Driving lane will be assessed separately. Any warranty work required of the Contractor to correct deficiencies for any condition, will be full-width across the entire driving lane.

d. Quality Control/Quality Assurance (QA/QC) - The Contractor is responsible for project quality and must provide QC testing procedures and results to the Engineer.

The Engineer will perform Quality Assurance (QA) testing, as a spot-check to determine Initial Acceptance or assess penalties if specifications are not met. QA testing does not relieve the Contractor of QC responsibilities.

e. Corrective Actions. Table 2 lists recommended corrective actions to outline typical acceptable treatments for the various condition parameters. The Agency will accept the listed corrective action if the action addresses the cause of the condition parameter. The Contractor may use an alternative action subject to Engineer's approval.

Table 1: Warranty Requirements

Condition Parameter	LONG TERM WARRANTY (INCLUDES NEW CONSTRUCTION / RECONSTRUCTION)		MEDIUM TERM WARRANTY (INCLUDES REHABILITATION CRUSH & SHAPE & PAVE)		SHORT TERM WARRANTY (INCLUDES SINGLE COURSE & MULTIPLE COURSE OVERLAY)	
	Threshold Limits Per Segment (Segment Length = 528 feet = 1/10 mile)	Max. Defective Segments Per Driving Lane-Mile	Threshold Limits Per Segment (Segment Length = 528 feet = 1/10 mile)	Max. Defective Segments Per Driving Lane-Mile	Threshold Limits Per Segment (Segment Length = 528 feet = 1/10 mile)	Max. Defective Segments Per Driving Lane-Mile (c)
Warranty period	5 years		3 years		1 year	
Transverse Cracking	3(b)	1	3(b)	2 (d)	3(a,b,d)	3 (a,d)
Open Joints & Long. cracking	10% of Segment length	1	25% of Segment length	2 (d)	25% of Segment length(a,d)	3 (a,d)
De-bonding	5% of Segment length	1	5% of Segment length	1	5% of Segment length	1
Raveling	8% of Segment length	1	8% of Segment length	1	8% of Segment length	1
Flushing	5% of Segment length	1	5% of Segment length	1	5% of Segment length	1
Rutting (d, e, f)	Ave. rut depth = 3/8 inch	1 (e)	Ave. rut depth = 3/8 inch	1 (e)	Ave. rut depth = 3/8 inch	1 (e)
Alligator or block cracking (g)	Any amount	0 (none allowed)	Any amount	0 (none allowed)	Any amount	0 (none allowed)

- a. For a single course overlay, or multiple course overlays less than 2" thick, transverse and longitudinal cracking will not be warranty conditions.
- b. For segments less than 1/10 mile in length, divide the segment length in feet by 528. Then multiply the threshold limit shown in the table by this fractional number. Round the result to the nearest whole number for the new threshold limit. In no case can the threshold limit be less than 1.

The maximum allowable number of defective segments per condition for a specific driving lane is determined by multiplying the length of the specific driving lane in miles by the maximum allowable defective segments per mile as shown in the table for that condition. Round all fractional values n to the nearest whole number. In no case can the max. segments per driving lane limit be less than 1.
- c. The Engineer shall waive this requirement if it is determined the cracks are reflective cracks from the surface being overlaid.
- d. Rut-depth threshold applies to each wheel path individually.
- e. For single course overlays constructed on existing rutted pavement without first milling, wedging or otherwise fixing the existing ruts > 1/2 inch, the Engineer shall waive this requirement.
- f. The Engineer will evaluate for rutting throughout the warranty period. If rutting is found in a 1/10-mile segment, the rutting will be measured in that segment at the POB and every 132 feet thereafter.

The Engineer will take rut measurements with a straight, rigid device at least 7 feet long that does not deflect from its own weight, or a wire that remains taut when extended 7 feet. The Engineer will place across the pavement, perpendicular to travel with at least one bearing point on either side of a rut. The straightedge is properly located when sliding it along its axis does not change these contact points. The Engineer will measure rut depth at the greatest distance from the bottom of the straightedge to the bottom of the paved rut.
- g. Any amount of alligator and/or block cracking is unacceptable, and must be removed and replaced as directed by the Engineer.

Table 2: Suggested Corrective Actions

Condition Parameter	Recommended Action
Transverse cracking	Seal, or cut/seal (per Engineer direction)
Longitudinal cracking	Seal, or cut/seal (per Engineer direction)
De-bonding	Mill, resurface affected courses
Raveling	Mill, resurface affected courses
Flushing	Mill, resurface affected courses
Rutting	Microsurface or mill/resurface (a)
Alligator or block cracking	Remove and replace (b)
Note: The actual fix approved by the Engineer may differ from these suggestions.	
a. The Engineer's recommended action depends on rut depth.	
b. Removal and replacement will be required for any areas exhibiting alligator or block cracking to the extent and depth of the cracking.	

MICHIGAN
LOCAL AGENCY
SPECIAL PROVISION
FOR
PASS-THROUGH WARRANTY BONDS

LM

1 of 1

9/5/2017

a. Description. This special provision establishes the conditions under which and method for a contractor to assign responsibility for the warranty obligations and the providing of a warranty bond to a warranty contractor(s). Second tier subcontractor assignments are prohibited.

b. Requirements. Ensure the Warranty Contract(s) and warranty bond(s) are on forms provided by the Local Agency. Ensure the bonds meet the requirements of Michigan law and of the Local Agency and include other items such as the powers of Attorney and Endorsement as specified by the Local Agency.

c. Method. The assignment must be made to the warranty contractor(s) that will perform the work covered by the warranty. If for any reason after signing the Warranty Contract and providing the Warranty Bond, the warranty contractor does not perform the work, the warranty contractor will remain obligated for the warranty obligations and the warranty bond obligations will remain in effect unless the Local Agency consents in writing to substituting a different contractor to assume those warranty obligations and accepts a substitute warranty bond.

The assignment of warranty work must be designated with and at the time of electronic bid submittal. To become a warranty contractor responsible for the warranty obligations of the contract, and providing a warranty bond, the warranty contractor must complete and submit to the Local Agency a Warranty Contract and a Warranty Bond for each warranty it will be responsible for. Ensure the Warranty Contract is signed by an authorized signer of the warranty contractor, as identified in its prequalification application.

Submit the Warranty Contract and Warranty Bond to the Local Agency prior to award of the construction contract to the prime contractor for the work to which the warranty applies. Ensure the warranty contractor is prequalified in the work classification for the type of work to be warranted. The Warranty Bond must guarantee performance of all warranty obligations for the covered work, in accordance with the Warranty Contract. All provisions of the prime contract will be applicable to the warranty contractor in regard to the warranty work, except as otherwise expressly provided in the Warranty Contract.

Under no circumstances does the assignment of the warranty work and the execution of a Warranty Contract create any obligations to the Local Agency beyond the obligations undertaken in the prime contract. The purpose of the Local Agency accepting the assignment of warranty obligations is to allow a warranty contractor to stand in place of the prime contractor for purposes of the warranty work without increasing any obligation or liability that the Local Agency would have had if the prime contractor had not assigned the warranty work.

d. Measurement and Payment. This work will not be paid for separately, but will be included in costs for other pay items.

Designers should add the project specific type of warranty and additional information shown in the example for the project following the format in the example below. Ensure the font and color is correct for the special provision, then delete this note and submit with the project at turn in to LAP (MDOT oversight) or Local Agency (local oversight) without further review.

**MICHIGAN
LOCAL AGENCY
SPECIAL PROVISION
FOR
PAVEMENT WARRANTY INFORMATION**

LM

1 of 1

3/8/2018

a. Description. This work consists of the determined low Bidder, or the subcontractor(s) indicated in writing from the contractor, providing a warranty bond for the warranty(ies) listed herein. Below are the warranty(ies) required in this contract along with the locations where the warranty applies and a listing of the pay items and estimated quantities associated with that warranty type.

Example of warranty information to be added.

WARRANTY WORK REQUIREMENTS FOR HMA PLACED OVER AGGREGATE BASE WITH OUT BASE OR DRAINAGE IMPROVEMENTS - applies for job number 123456A from:

Sta. 10+00 (POB) to 20+50 for southbound
Sta. 10+00 (POB) to 20+50 for northbound

Pay Item Description	Quantity and Pay Units
HMA, 4E1	500 Ton
HMA, 5E1	500 Ton

WARRANTY WORK REQUIREMENTS FOR HMA RECONSTRUCTION - applies for job number 123456A from:

Sta. 20+50 to Sta. 35+00 (POE) for southbound
Sta. 20+50 to Sta. 35+50 (POE) for northbound

Pay Item Description	Quantity and Pay Units
HMA, 4E1	500 Ton
HMA, 5E1	500 Ton

b. Bonds. Ensure the bonds are on approved forms. Ensure the bonds meet the requirements of Michigan law and of the local agency, and include other items such as the powers of Attorney and Endorsement as specified by the Local Agency.

c. Construction. None specified.

d. Measurement and Payment. The bonds will not be paid for separately but are considered to be included in the cost of the related items of work.

GUIDELINES FOR LOCAL AGENCY PAVEMENT WARRANTY PROGRAM

By
CRA Engineering Committee
Local Agency Pavement Warranty Task Force

Revised 8-13-2018

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PREFACE- Intent of the Local Agency Warranty Program

The Legislature (P.A. 175 of 2015) requires each local road agency to adopt a Local Pavement Warranty Program acceptable to the Michigan Department of Transportation. Warranties have the potential to improve the quality of road projects, benefitting the drivers, taxpayers and road agencies of Michigan

The intent of the Local Agency Pavement Warranty Program is to provide a warranty program that all local agencies can use for all hot mix asphalt and plain jointed concrete paving projects on public roads and streets. This pavement warranty program was created by the Local Agency Pavement Warranty Task Force, to establish a common pavement warranty program for all local agencies in Michigan. The goals of this Local Agency Pavement Warranty program is to standardize the review, to provide oversight of pavement warranty projects, and to make this program more transparent and uniform for private sector contractors.

This Local Agency Pavement Warranty Program is available for all local road agencies if they choose to use it. Local road agencies vary dramatically in size and sophistication; therefore the Local Road Warranty Task Force developed a warranty program to address the capabilities of the rural, the mid-sized urban and the large urban agencies. This approach provides a warranty program that meets the intent of Public Act 175 of 2015 (MCL 247.662 and 247.663), and provides all local road agencies with a pavement warranty program that provides value to the public.

The Local Road Warranty Task Force recognizes there may be substantial benefits and public confidence resulting from a comprehensive pavement warranty program. However, the existing pavement structure, drainage and planned improvements for each project will need to be evaluated on an individual basis to critically assess a justification or basis for a pavement warranty. Road agencies should anticipate increased project costs related to higher bid prices and costs for the warranty administration such as: pavement monitoring, defect documentation, official notifications, joint field inspections; defect remediation and dispute resolution.

The intent of this GUIDELINES FOR LOCAL AGENCY PAVEMENT WARRANTY PROGRAM, is to provide an overview and guidance on implementing a pavement warranty project. This guideline is intended for local agency use and it not intended to be a contract document.

GUIDELINES FOR LOCAL AGENCY PAVEMENT WARRANTY PROGRAM

Pavement Warranty Reporting and General Warranty Project Selection

Acceding to PA 175 of 2015, all local road agencies must submit an annual report to the state for all projects where the pavement-related bid items exceeded \$ 2 million, regardless of whether or not the agency included a pavement warranty on the project. Each local road agency must submit and maintain its records to comply with the reporting requirements included in Appendix E.

The Task Force determined that the Legislature's intent for local pavement warranties is to provide assurances to elected officials and taxpayers in the use of the new funds arriving for road and bridge infrastructure. Assurances which include that local road projects would be held to a higher standard in the future.

At the same time, there are logical explanations why a local road agency may choose to not require a warranty such as unjustifiably higher costs for a warranted project that may or may not be affordable to the community and may or may not be justified by the scope of the project; recognition of a limit to the contractor's ability to bond for every project; some projects are simple preservation or resurfacing over an existing imperfect road base wherein the contractor cannot control such pre-existing conditions; and many other engineering factors that indicate a pavement warranty would not serve the taxpayer's best interests. Whether or not a warranty is selected on a project with \$2 million in pavement related items, this must be reported to the Legislature on an annual, state fiscal year basis.

The Legislature had the wisdom to specify that warranties would be left to the discretion and justification of the local road agency and its road engineering expertise. Agencies can waive a pavement warranty with a written justification. The agency's written justification identifies reasons such as project appropriateness, scope and type of project improvements, why this is in the best interest of the local agency, project cost justification, and effectiveness of the warranty provisions. It is highly recommended for all local road agencies with paving projects where the engineer's opinion of cost exceeds \$ 1.8 million in pavement related items that serious consideration should be given to include the pavement warranty special provisions in the project proposal prior to advertisement.

The Task Force does not believe the Legislature intended every local new construction, reconstruction, rehabilitation, and overlay road project to be warranted, and thus included the \$2 million threshold. Because pavement is the road component most likely to fail – and the area most aggravating to the motoring public – the Task Force believed the Local Pavement Warranty Program was intended to focus on pavement-related items. The Task Force has relied on customary and basic engineering principles in defining pavement-related items that are recommended for consideration of a warranty. As a result of the Local Agency Warranty Task Force believes the Michigan Legislature intended a local road agency to use its best judgment in requiring a warranty, consistent with the scope of the intended project and the ability to enforce it.

This Local Agency Pavement Warranty Program considers the vast array of project types and sizes. Local road agency projects often involve short stretches of pavement resurfacing to address a surface condition or safety concern. These types of projects are accomplished with very limited budgets, often with funding from non-MTF sources. In addition, often these types of projects do not address the subgrade, existing aggregate base or drainage systems; which all are major factors in determining the longevity of a pavement surface. If the road segment may

be subjected to a significant amount of overloads (higher than average daily truck counts and/or heavier than normal axle loading) during the anticipated warranty term, the road may not be a good candidate for pavement warranties. Therefore, the Local Agency Pavement Warranty Program is recommended for road segments designated as “all-season road” which are designed for year-round normal loading.

While the law indicates where possible a pavement warranty shall be secure when the paving project exceeds \$2 million, the Task Force recognizes project bids are often 10 percent over the engineer’s opinion of cost, and that a warranty requirement cannot be retroactively applied to a road project after the bids are opened. Thus, the Task Force has recommended the more conservative \$1.8 million engineer’s opinion of cost for pavement related items, as the point when the local agency decides if the warranty special provisions are included in the bid documents, rather than the \$2 million stated in the law.

The Task Force believes the Michigan Legislature was speaking in the context of new Michigan Transportation Funds for roads, which are exclusively state revenue sources, when it included the Local Agency Pavement Warranty Program alongside the new funding legislation in the 2015 Transportation Package. It also seems clear the Legislature was speaking not just to the new transportation funds, but also to the other road funds under its control, which includes the federal funds flowing through MDOT to the local road agencies.

The Local Agency Pavement Warranty Program also recognizes that if the only source of revenue for a local road agency paving or reconstruction projects is entirely locally derived revenue (non- Act 51 or Federal Funds) such as local general fund, millage revenue, special assessment districts or other locally raised revenue; then these projects will not be subject to the Local Agency Pavement Warranty Program reporting requirements.

It’s important to note that this Local Agency Pavement Warranty Program may also be used by that local road agency on any paving project regardless if the \$2 million dollar threshold for pavement related items has been reached or not. This approach ensures that Local Pavement Warranties can be used on any project with any funding source, including Michigan Transportation Funds, and can utilize the same requirements to provide greater understanding and transparency to contractors, stakeholders and the public.

Warranty Contract Process

For those construction projects advertised and let through the MDOT Local Agency Programs, the construction contract is between the prime contractor and MDOT. The prime contractors’ surety company names MDOT as the obligee in the performance bond in the original contract. For Local Agency Pavement Warranty projects, an additional warranty contract and pavement warranty bond will be required prior to award, see Appendix D. The bid proposal shall include a contract consistent with the model contract and bond form shown in Appendix D. These documents will serve as the contract and warranty bond between the local road agency and the paving contractor for the warranty work. The warranty bond will be provided by the paving contractor in the name of the local road agency.

The MDOT Local Agency Agreement will reference the local road agency’s responsibility to administer the warranty portion of the contract. Upon the acceptance of the construction work, the prime contractor’s contract and performance bond with MDOT will be released and no longer in effect. At this point the warranty contract and warranty bond are triggered to begin the new contract for the warranted work during the warranty term.

The local road agency will be solely responsible for administering the warranty contract, inspection of warranted work during the warranty period, approving remediation work and seeking resolution through the warranty bond if the contractor is unresponsive in performing corrective work and declaring acceptance of all warranted / corrective work at the end of the warranty period.

General Guidelines of Local Road Agency Warranties

These General Guidelines are recommended for all local road agencies administering pavement warranties for public road and street construction contracts. The responsibility and authority for administering pavement warranties rest with the road owner and/or the local road agency that conducted the construction administration phase of the project.

To determine the pavement-related cost for a hot mixed asphalt pavement warranty project, the Local Agency is required to prepare an opinion of cost for all of the pavement-related items which include: the pavement, curb, shoulders, aggregate base, subbase and underdrain pay items. To determine the pavement-related cost for concrete pavements, the local road agency engineer is required to prepare an opinion of cost for all of the pavement-related items which include: pavement, curb, shoulders, joint sealing, dowel bars, load transfer devices, aggregate base, subbase and underdrain. If the total estimated cost of these pavement-related items exceeds \$1.8 million in the opinion of the Engineer, the local road agency should review the existing pavement variables, stated in the "Pavement Warranty Reporting and General Warranty Project Selection" section of this document, to determine if the pavement warranty special provisions should be included in the bid documents.

The contractor is responsible for correcting defects attributable to elements within the contractor's control. Each warranty specification includes condition parameters and distress thresholds to provide a basis for evaluating the warranted work. Each distress parameter includes threshold limits that, if exceeded during the warranty period, would trigger notifying the contractor to participate in a joint field investigation. Depending on the outcome of the investigation the contractor may be required to prepare a remediation plan to correct distresses that are attributable to its materials and/or workmanship or there may be a call for further investigation. If the agency and the contractor cannot agree, either side can call for a Conflict Resolution Team to resolve the dispute as described in the Local Road Agency Special Provision for Hot Mix Asphalt and Concrete Pavement Warranty.

Once a remediation plan is agreed-to by the local road agency and the contractor, the corrective action shall be performed. The corrective actions and/or repairs shall be performed to correct deficiencies in the warranted work in order to achieve acceptance at the end of the warranty period. If the contractor fails to perform the remediation work within specified timeframes, the local road agency shall notify the surety company to perform the work. Further, if a defect is declared as an imminent safety problem by the agency, the local agency may complete the work and seek reimbursement from the contractor or submit a claim against the warranty bond.

All required corrective action must be performed by the contractor at no cost to the owner. The condition parameter thresholds and warranty requirements may vary depending on the date the specification was developed; type of warranty; and the application to the construction work. It is important, therefore, to refer to the specific warranty special provision in the contract when administering warranties.

The warranty administration phase should follow the documentation procedures outlined in Appendix A, B, C, D and E of these guidelines. The warranty administration can be performed by qualified local agency staff members or under a consultant service contract.

Warranty Documents

The Local Agency Pavement Warranty consists of the warranty contract and warranty bond as well as the appropriate special provisions:

- Local Road Agency Special Provision for Hot Mix Asphalt and Concrete Pavement Warranty
- Local Road Agency Special Provision for Warranty Work Requirements for Hot Mix Asphalt Pavement
- Local Road Agency Special Provision for Warranty Work Requirements for Jointed Plain Concrete Pavement
- Local Road Agency Special Provision for Pavement Warranty Information

The Local Road Agency Special Provision for Hot Mix Asphalt and Concrete Pavement Warranty establishes the common terms and definitions applied to pavement projects requiring a warranty. The Local Road Agency Special Provision for Warranty Work Requirements for Hot Mix Asphalt Pavements warrants the Local Road Agency against specific defects in HMA pavements. The Local Road Agency Special Provision for Warranty Work Requirements for Jointed Plain Concrete Pavement warrants the Local Road Agency against specific defects in concrete pavements. Local Road Agency Special Provision for Pavement Warranty Information provides the beginning and ending locations for warranted work and the applicable warranty work requirements special provision.

Under the Local Agency Pavement Warranty special provisions the Prime Contractor is responsible for correcting defects in the pavement caused by elements within the contractor's control (i.e., the materials supplied, the workmanship, etc.), during the warranty period. The Pavement Warranty Contract Provisions and Warranty Bond may pass through to subcontractors, and with this the responsibility to correct warranty defects, at the direction of the Prime Contractor and upon written notice to the agency prior to the start of the work.

The contractor assumes no responsibility for defects that are design related unless the paving contract is design-build. When a defect is attributable to the materials and/or workmanship and/or the design, the responsibility for correcting the defect (or defects) will be shared by the agency and the contractor. The contractor is responsible for the percentage of fault attributable to the workmanship and/or materials, and the agency is responsible for the percentage of fault attributable to the design. Note: The agency may elect to require the contractor to provide the pavement design(s) in the contract documents and specifications. In this case, the Contractor shall also be responsible for the percentage of fault attributable to the pavement design.

Warranty Process

The process flow charts as shown in Appendix A describe the steps involved in the warranty administration process. The warranty term begins with the acceptance of the warranted work during construction of the project. Warranty Administration involves periodic condition inspections of the mainline pavement areas throughout the warranty term; joint field inspections; documentation of findings, official notifications; joint determination of defects; initiation of corrective action, inspection & documentation of the corrective action taken, filing those inspection reports as necessary, and if necessary a conflict resolution process. If at any time, a safety issue or significant defect is observed or reported, prior to a scheduled inspection, an interim inspection will be initiated by the agency. If emergency repairs are determined to be necessary the agency can perform these repairs without altering the contractor's responsibilities under the warranty contract.

A joint field review between the local road agency and the warranty contractor may be held to verify and confirm of findings documented during the various inspections. MDOT should be included in any official communication dealing with the warranty if the construction project had MDOT oversight. The findings of the final inspection at the end of the warranty term are distributed to the owner, (and MDOT if construction had MDOT oversight), the warranty contractor and the Surety Company.

The appeal process, when needed, involves assembling a conflict resolution team (CRT) to conduct investigations as needed to determine distress cause & effect and establish concurrence between the local agency and the warranty contractor regarding warranty compliance issues. More on the CRT can be found in the section j, Correction of Defects of the Local Road Agency Special Provision for Hot Mix Asphalt and Concrete Pavement Warranty.

The final step of the process, after the project or warranty work has been deemed acceptable is closing out the warranty project through notification of the contractor, the bonding company and Local agency's Finance and /or Administration Division.

Rights and Responsibilities of the Local Agency

The agency administering the project should inform the appropriate local road agency maintenance staff about sections of roadway incorporated in a warranty contract. The local road agency has the right to perform, or have performed, routine and emergency reactive maintenance during the warranty period. Major planned maintenance projects conducted during a warranty period need to be evaluated in terms of possible impact to the ongoing warranty coverage.

If corrective work is required to bring the project back into compliance with the requirements found in the warranty special provisions; the local agency in charge of the construction project must approve the schedule, materials and methods of construction repair. If the contractor is unable to comply with this provision, or fails to comply with it to the local agency's satisfaction, the local agency reserves the right to arrange for the work to be completed at the contractor's expense. If this action by the local agency is required, it will in no way relieve the contractor from meeting the warranty requirements stated in the project documents.

The rights and responsibilities are further detailed in Section e, Rights and Responsibilities of the Agency in the Local Agency Special Provision for Hot Mix Asphalt and Concrete Pavement Warranty.

Rights and Responsibilities of the Contractor

The contractor must provide a written work plan for any necessary corrective warranty work. A request for a work permit must be submitted through the local road agency's permit process and work should be coordinated with the construction inspection agency if different from the local agency issuing the permit. All corrective warranty work should be completed within the warranty term. If scheduling conflicts necessitate corrective work being completed outside of the warranty term, the local road agency shall be notified as soon as the contractor is aware of the conflict.

The rights and responsibilities of the contractor are further detailed in Section f. Rights and Responsibilities of the Contractor in the Local Agency Special Provision for Hot Mix asphalt and Concrete Pavement Warranty.

Supplemental Lien Bonds and Liability Insurance

In addition to the warranty bond that is in place, if corrective work is necessary the contractor must furnish supplemental lien bond to the local agency covering the corrective work. The Engineer is responsible for estimating the amount of the supplemental lien bond required. The amount should be approximately equal to the dollar amount of the corrective work. The contractor must also have liability insurance in place prior to performing corrective work during the warranty period. The contractor should not be allowed on-site to perform corrective work during the warranty period until the supplemental lien bond is in place and the proper insurances verified. Depending on the nature and scope of the corrective work, the local agency may waive this supplemental lien bond, but not the liability insurance.

Warranty Inspections

Warranty inspections are limited to only mainline pavement areas. There are two types of inspections conducted during the warranty period. The cursory inspection is a simplified inspection to quickly identify segments in the project that may have distresses that exceed threshold values. This cursory inspection normally does not require a lane closure and is conducted from the roadway shoulder estimating distress lengths and widths. The detailed inspection requires direct measuring and reporting of all observed distress in each segment. Traffic control may be required to complete the detailed inspection.

The minimum inspection frequency for the various warranty provisions are specified in the applicable warranty inspection guidelines, see Appendix B. The minimum number of inspections is dependent upon the warranty duration. The local road agency may elect to perform additional inspections over & above the recommended minimum interim inspections. The suggested time frames in the inspection guidelines allow local road agencies to notify the contractor regarding warranty compliance. Interim inspections may be delayed if weather makes it difficult to inspect the road or creates an unsafe condition. Final inspections shall be completed in a timely manner to ensure that there is enough time to document any thresholds that exceed the condition thresholds and notify the contractor prior to the expiration of the warranty.

The designation of lanes during the warranty inspection shall be detailed adequately so that it is clear to all involved in the warranty process which lane is being referenced. If necessary, a sketch should be included. It is important to use the same lane numbering designation for all inspections conducted throughout the warranty period.

If defects are found in any inspection, they should be carefully and accurately documented, even if the severity or number does not meet the threshold to require corrective work. These notes shall be kept in the inspection files and reviewed prior to all future inspections of the work. The inspectors of the work should pay specific attention to areas previously noted, record those defects, and list any changes in those defects differing from the last inspection.

Correction of Defects

If inspections during the warranty term show a defect has exceeded the allowable threshold as defined in either the Hot Mixed Asphalt or Concrete Warranty specification, the contractor shall be notified of the finding. The agency should call for a joint field investigation to determine the cause of the defect, and to discuss the best possible remediation of the problem. If additional forensic investigation is desired, the scope of the investigation, party or consultant to conduct

the investigation, and the cost split shall be agreed to by the engineer and contractor prior to scheduling the investigation.

If the contractor and engineer are in agreement, the Engineer shall send notice to contractor in writing the defect(s), location(s), recommended remediation and a request for a schedule to complete the work. The contractor will reply back to the Engineer, copying the local agency (and MDOT if MDOT had original construction oversight) with a schedule to complete the work. The local agency will issue a permit to the contractor to complete the warranty work according to the Local Agency's Right-of-way permit policy. The contractor will complete the work under the inspection of the Engineer.

If the contractor and engineer disagree, then a Conflict Resolution Team (CRT) may be convened. The CRT will be made of:

- One (1) member selected, and compensated by the agency.
- One (1) member selected and compensated by the contractor.
- One (1) member mutually selected by the Agency and the contractor.
Compensation for the third party member will be equally shared by the agency and the contractor.

At least two members of the CRT must vote in favor of a motion to make a decision. If the CRT decides to conduct a forensic investigation, the CRT will determine the scope of work and select the party to conduct the investigation. All costs related to the forensic investigation will be shared proportionately between the contractor and the agency based on the determined cause of the warranty defect condition.

Emergency Repairs

When the agency determines that emergency repairs of the warranted work are necessary for public safety, the agency or its agent may take immediate and sufficient repair action to address the imminent danger and to safeguard the traveling public. Prior to emergency repairs of warranted work, the agency will document the basis for the emergency action. In addition, the agency will preserve all documentation of the defective condition, including failed materials samples if applicable.

Once the imminent danger to the public has been addressed, the local road agency shall notify the contractor to explain the situation, identify the work temporarily done by the agency, and to what further actions need to happen to return the warranted work and pavement to threshold compliance. A joint inspection may be called to investigate the situation.

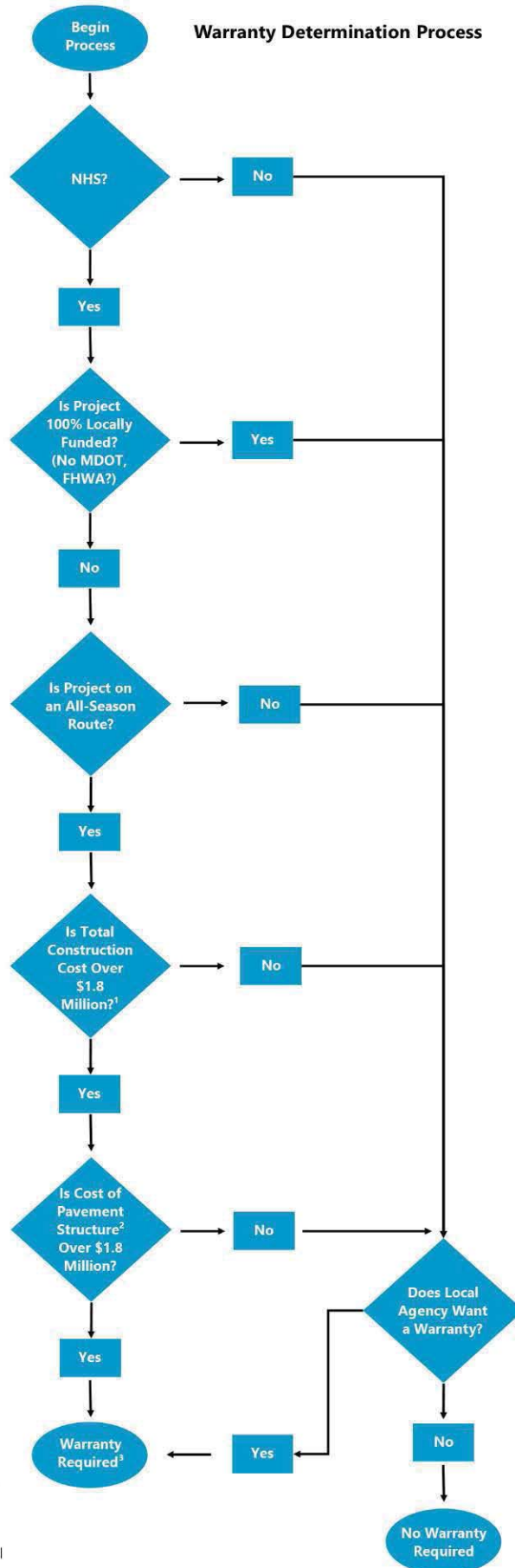
The emergency repairs of warranted work by the contractor must be authorized by the agency's engineer.

Should the contractor be unable to perform the emergency repair to the agency's satisfaction and/or within the time frame required by the agency, the agency will perform, or have performed any emergency repairs deemed necessary. Any such emergency repairs undertaken will not relieve the contractor from meeting the warranty requirements. Any costs associated with the emergency repairs will be paid by the contractor when due to a cause from defective materials and/or workmanship.

APPENDIX A

Flow Charts

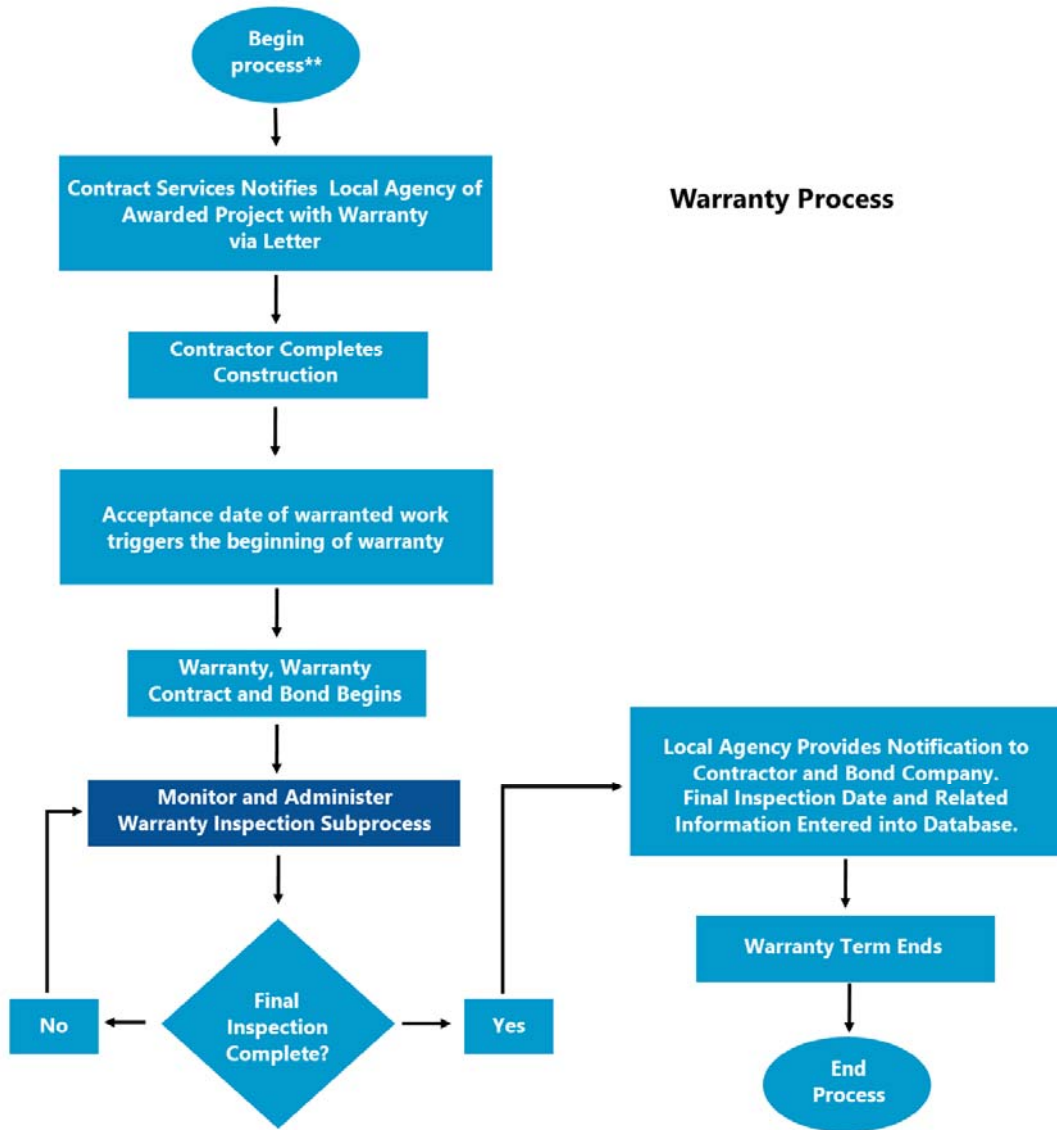
Warranty Determination Process



¹Use \$1.8 million as cost to account for bid variability.

²Pavement structure as defined by MDOT Standard Specifications includes: HMA or concrete pavement, curbs, shoulders, aggregate or granular base, subbase and underdrain.

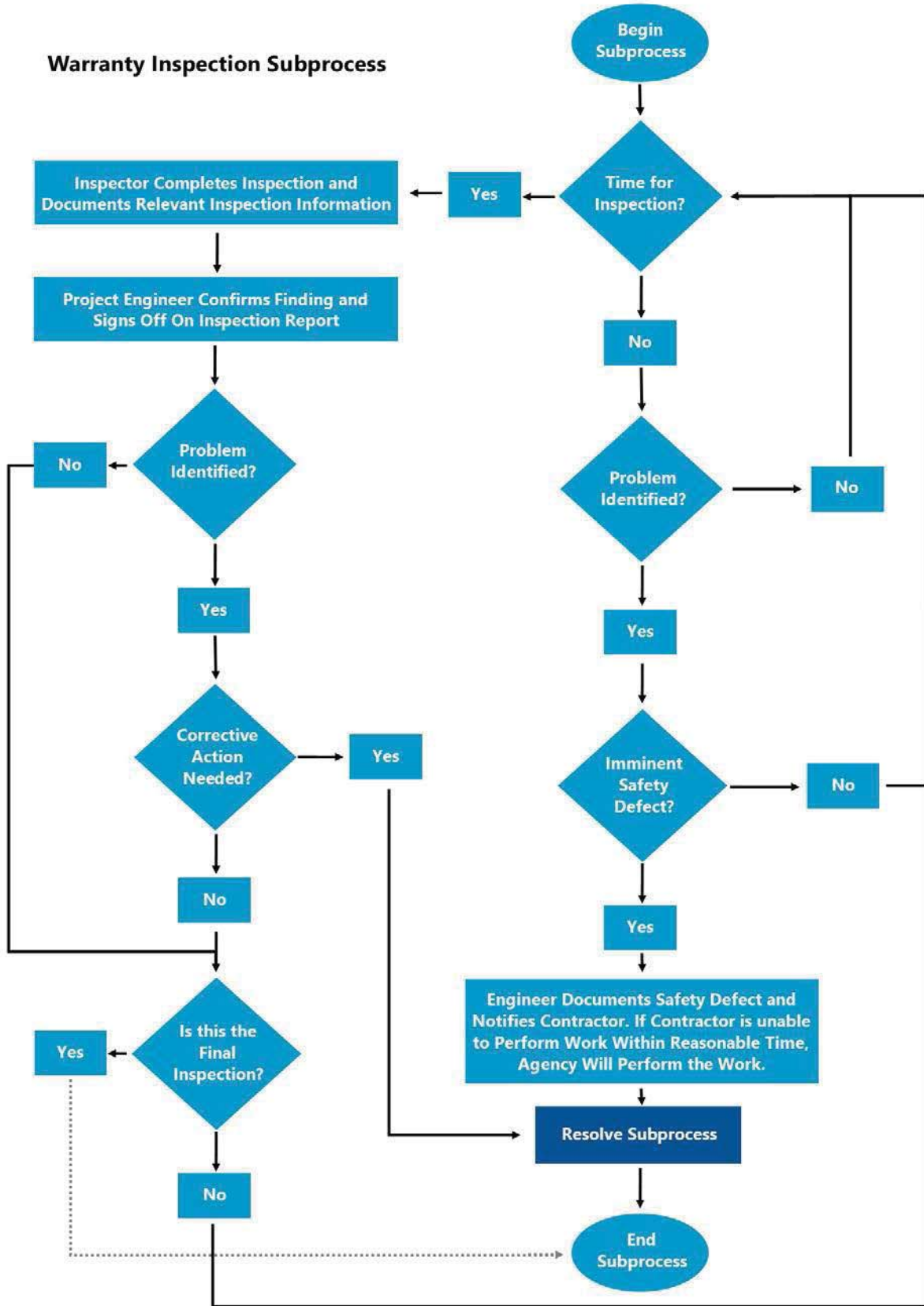
³If a local agency waives a warranty, an explanation will need to be reported.



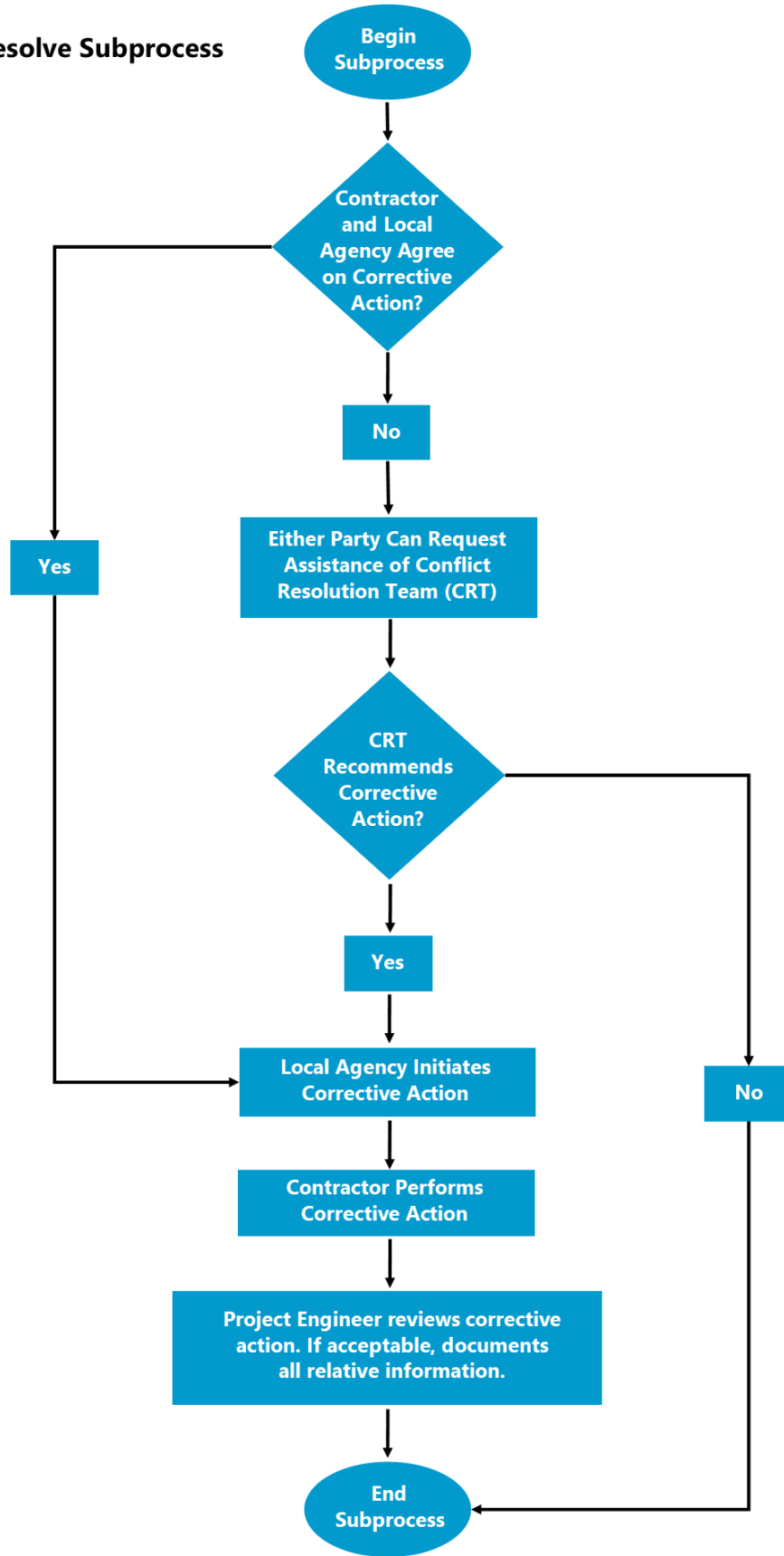
**This is the process if MDOT has oversight and/or MDOT let bid.

If project is locally let, with no MDOT oversight, the local agency shall determine the process.

Warranty Inspection Subprocess



Resolve Subprocess



APPENDIX B

Inspection Guidelines

LOCAL AGENCY
WARRANTY INSPECTION GUIDELINES
HMA NEW CONSTRUCTION / RECONSTRUCTION

Warranty period: 5 Year

Inspection Period Begins: Interim - 6 months after Initial Acceptance
Final - 56 months after initial Acceptance
(Local Agency may do additional inspections)

Notes:

1. Segments defined as 528 foot (1/10 mile).
2. Each lane will be evaluated separately.
3. The threshold level for each distress type is determined separately.

Procedure: For both **INTERIM & FINAL** inspections

1. **Perform overview inspection.** Based on results of overview inspection, recommend the project for either:
 - a. Acceptable – no corrective work needed. If this is the final inspection recommend acceptance of the work, or
 - b. Detailed inspection – more detailed inspection and / or measurements are needed
2. **Perform detailed inspection if required.** Based on the results of detailed inspection, either:
 - a. Acceptable – no corrective work needed. If this is the final inspection recommend acceptance of the work, or
 - b. Warranty work is needed – Provide contactor written notice of the distresses and locations needing corrective work.

Condition Parameter Measurement:

Performance parameters will be measured as described for each of the following distress types in mainline pavement areas:

1. **Transverse Cracking** - Total number of transverse cracks in a segment. Each individual crack must exceed 5 feet in length to be included in the total.
2. **Longitudinal Cracking** - Total linear feet of longitudinal cracks in a segment. Each individual crack must exceed 5 feet in length to be included in the total.
3. **De-bonding**- Total longitudinal length, in feet, of de-bonding in a segment. Potholes are to be classified as de-bonding. Measure individual de-bonding locations in the longitudinal direction, regardless of width of the distress location and sum these lengths for the segment.
4. **Raveling** - Total longitudinal length, in feet, of raveling in a segment. Measure individual raveling locations in the longitudinal direction, regardless of width of the distress location and sum these lengths for the segment.
5. **Flushing** - Total longitudinal length, in feet, of flushing in a segment. Measure individual flushing locations in the longitudinal direction, regardless of width of the distress location and sum these lengths for the segment.
6. **Rutting** - The average rut depth, in inches, in a segment. Each wheel path shall be evaluated separately. If rutting is found, the pavement surface will be measured beginning at the POB and every 132 feet thereafter to determine average rut depth to quantify rutting for a

particular segment. Rut measurements will be done using a straight rigid device that is a minimum of 7 feet long and of sufficient stiffness that it will not deflect from its own weight, or a wire under sufficient tension to prevent sag when extended 7 feet. Measurements will be taken by placing this "straightedge" across the pavement surface perpendicular to the direction of travel. The straightedge shall contact the surface on at least two bearing points with one located on either side of the rut. The straightedge is properly located when sliding the straightedge along its axis does not change the location of the contact points. Rut depth is then measured at the point of greatest perpendicular distance from the bottom of the straightedge to the pavement surface.

7. **Alligator Cracking** – Total area, in square feet, of alligator cracking in a segment. Measure individual alligator cracked areas and sum the areas for the segment.

Overview Inspection Procedure:

1. Review any notes from previous inspections.
2. Perform a "windshield" survey of the entire location length. Based solely on visual examination and estimated measurements, approximate the individual distress quantities for the questionable segment(s) of each distress type and record on the inspection form. Details which should be noted for the inspection include, but are not limited the following:
 - a. The lane or ramp where the distress was noted and the associated direction.
 - b. Approximate distress location (i.e. 1/4 mile north of the POB, or at the intersection of 1st St in SW quadrant, or near drive for house #123..)
 - c. The distress quantity, in general terms (i.e. minor amounts of longitudinal cracking; mid lane flushing).
 - d. Areas where temporary maintenance makes it difficult to determine the type of distress, (i.e. presence of cold patching material).
3. Estimate if any of the following distress threshold conditions are exceeded
 - a. Transverse Cracking exceeds 3 total in the segment length (3 cracks within 528 feet) for any single segments.
 - b. Longitudinal Cracking exceeds 10 percent of the segment length (53 feet within 528 feet) for any single segments.
 - c. Debonding exceeds 5 percent (5%) of the segment length (26 feet within 528 longitudinal feet) for any 1 segment.
 - d. Raveling exceeds 8 percent (8%) of the segment length (42 feet within 528 longitudinal feet) for any 1 segment.
 - e. Flushing exceeds 5 percent (5%) of the segment length (26 feet within 528 longitudinal feet) for any 1 segment.
 - f. Average rut depth exceeds 0.375 (3/8) inches for any 1 segment.
 - g. Any amount of alligator cracking.
4. If **any** condition above is estimated to be true:
 - a. Perform Detailed Inspection; and

- b. Provide a description of the magnitude and location(s) of the distress condition(s) observed which justify the Detailed Inspection.
5. If **all** conditions above are false:
 - a. Recommend work is acceptable.
 - b. If this is an interim or other non-final inspection, put notes in file.
 - c. If this is final inspection recommend final acceptance.

Detailed Inspection Procedure:

1. Determine the questionable segments suspected of exceeding threshold limits for each individual distress type based on the overview inspection notes.
2. Document the lane, direction and distance from POB, of each questionable segment identified in Step 1.
3. For each questionable segment, measure and record the amount of each individual distress type and record on the inspection form.
 - a. Transverse Cracking
 - b. Longitudinal Cracking
 - c. De-bonding
 - d. Raveling
 - e. Flushing
 - f. Rutting
 - g. Alligator Cracking
4. Determine if any of the threshold limits for transverse cracking, longitudinal cracking, de-bonding, raveling, flushing, or alligator cracking, listed under Overview Inspection, are exceeded.
5. Evaluate segments where the average rut depth appears to exceed 0.25 inches as follows.
 - a. Measure the average rutting at all questionable segments to verify that the threshold was exceeded.
6. Warranty work is required at those segments for which any of the threshold limits for transverse cracking, longitudinal cracking, de-bonding, raveling, flushing, rutting, or alligator cracking are exceeded. Provide the contractor with results of the inspection indicating segments where warranty work is required.

LOCAL AGENCY
WARRANTY INSPECTION GUIDELINES
**HMA CONSTRUCTION OVER AGGREGATE BASE
WITHOUT BASE OR DRAINAGE IMPROVEMENT**

Warranty period: 3 Year

Inspection Period Begins: Interim - 6 months after Initial Acceptance
Final - 32 months after initial Acceptance
(Local Agency may do additional inspections)

Notes:

1. Segments defined as 528 foot (1/10 mile).
2. Each lane will be evaluated separately
3. The threshold level for each distress type is determined separately.

Procedure: For both **INTERIM & FINAL** inspections

1. **Perform overview inspection.** Based on results of cursory inspection, recommend the project for either:
 - a. Acceptable – no corrective work needed. If this is the final inspection recommend acceptance of the work, or
 - b. Detailed inspection – more detailed inspection and / or measurements are needed
2. **Perform detailed inspection if required.** Based on the results of detailed inspection, either:
 - a. Acceptable – no corrective work needed. If this is the final inspection recommend acceptance of the work, or
 - b. Warranty work is needed – Provide contactor written notice of the distresses and locations needing corrective work.

Condition Parameter Measurement:

Performance parameters will be measured as described for each of the following distress types in mainline pavement areas:

1. **Transverse Cracking** - Total number of transverse cracks in a segment. Each individual crack must exceed 5 feet in length to be included in the total.
2. **Longitudinal Cracking** - Total linear feet of longitudinal cracks in a segment. Each individual crack must exceed 5 feet in length to be included in the total.
3. **De-bonding**- Total longitudinal length, in feet, of de-bonding in a segment. Potholes are to be classified as de-bonding. Measure individual de-bonding locations in the longitudinal direction, regardless of width of the distress location and sum these lengths for the segment.
4. **Raveling** - Total longitudinal length, in feet, of raveling in a segment. Measure individual raveling locations in the longitudinal direction, regardless of width of the distress location and sum these lengths for the segment.
5. **Flushing** - Total longitudinal length, in feet, of flushing in a segment. Measure individual flushing locations in the longitudinal direction, regardless of width of the distress location and sum these lengths for the segment.
6. **Rutting** - The average rut depth, in inches, in a segment. Each wheel path shall be evaluated separately. If rutting is found, the pavement surface will be measured beginning at the POB and every 132 feet

thereafter to determine average rut depth to quantify rutting for a particular segment. Rut measurements will be done using a straight rigid device that is a minimum of 7 feet long and of sufficient stiffness that it will not deflect from its own weight, or a wire under sufficient tension to prevent sag when extended 7 feet. Measurements will be taken by placing this “straightedge” across the pavement surface perpendicular to the direction of travel. The straightedge shall contact the surface on at least two bearing points with one located on either side of the rut. The straightedge is properly located when sliding the straightedge along its axis does not change the location of the contact points. Rut depth is then measured at the point of greatest perpendicular distance from the bottom of the straightedge to the pavement surface.

7. **Alligator Cracking** – Total area, in square feet, of alligator cracking in a segment. Measure individual alligator cracked areas and sum the areas for the segment.

Overview Inspection Procedure:

1. Review any notes from previous inspections.
2. Perform a “windshield” survey of the entire location length. Based solely on visual examination and estimated measurements, approximate the individual distress quantities for questionable segment(s) of each distress type and record on the inspection form. Details which should be noted for the inspection include, but are not limited the following:
 - a. The lane or ramp where the distress was noted and the associated direction.
 - b. Approximate distress location (i.e. 1/4 mile north of the POB, or at the intersection of 1st St in SW quadrant, or near drive for house #123..)
 - c. The distress quantity, in general terms (i.e. minor amounts of longitudinal cracking; mid lane flushing).
 - d. Areas where temporary maintenance makes it difficult to determine the type of distress, (i.e. presence of cold patching material).
3. Estimate if any of the following distress threshold conditions are exceeded
 - a. Transverse Cracking exceeds 3 total in the segment length (3 cracks within 528 feet) for any 2 segments. All reflective cracking shall be ignored as these will not count against the allowable amount.
 - b. Longitudinal Cracking exceeds 25 percent of the segment length (132 feet within 528 feet) for any 2 segments. All reflective cracking shall be ignored as these will not count against the allowable amount.
 - c. Debonding exceeds 5 percent (5%) of the segment length (26 feet within 528 longitudinal feet) for any 1 segment..
 - d. Raveling exceeds 8 percent (8%) of the segment length (42 feet within 528 longitudinal feet) for any 1 segment.
 - e. Flushing exceeds 5 percent (5%) of the segment length (26 feet within 528 longitudinal feet) for any 1 segment.
 - f. Average rut depth exceeds 0.375 (3/8) inches for any 1 segment.

- g. Any amount of alligator cracking.
- 4. If **any** condition above is estimated to be true:
 - a. Perform Detailed Inspection; and
 - b. Provide a description of the magnitude and location(s) of the distress condition(s) observed which justify the Detailed Inspection.
- 5. If **all** conditions above are false,
 - a. Recommend work is acceptable.
 - b. If this is an interim or other non-final inspection, put notes in file.
 - c. If this is final inspection recommend final acceptance.

Detailed Inspection Procedure:

- 1. Determine the questionable segments suspected of exceeding threshold limits for each individual distress type based on the overview inspection notes.
- 2. Document the lane, direction and distance from POB, of each questionable segment identified in Step 1.
- 3. For each questionable segment, measure and record the amount of each individual distress type and record on the inspection form.
 - a. Transverse Cracking
 - b. Longitudinal Cracking
 - c. De-bonding
 - d. Raveling
 - e. Flushing
 - f. Rutting
 - g. Alligator Cracking
- 4. Determine if any of the threshold limits for transverse cracking, longitudinal cracking, de-bonding, raveling, flushing, or alligator cracking, listed under Overview Inspection, are exceeded.
- 5. Evaluate segments where the average rut depth appears to exceed 0.25 inches as follows.
 - a. Measure the average rutting at all questionable segments to verify that the threshold was exceeded.
- 6. Warranty work is required at those segments for which any of the threshold limits for transverse cracking, longitudinal cracking, de-bonding, raveling, flushing, rutting, or alligator cracking are exceeded. Provide the contractor with results of the inspection indicating segments where warranty work is required.

LOCAL AGENCY
WARRANTY INSPECTION GUIDELINES
HMA OVERLAY

Warranty period: 1 Year

Inspection Period Begins: Final - 10 months after Initial Acceptance
(Local Agency may do additional inspections such as at 6 months after initial acceptance, after spring break up, etc.)

Notes:

1. Segments defined as 528 foot (1/10 mile).
2. Each lane will be evaluated separately.
3. The threshold level for each distress type is determined separately.

Procedure:

1. Perform **overview inspection**. Based on results of cursory inspection, recommend the project for either:
 - a. Acceptable – no corrective work needed. If this is the final inspection recommend acceptance of the work, or
 - b. Detailed inspection – more detailed inspection and / or measurements are needed
2. **Perform detailed inspection if required**. Based on the results of detailed inspection, either:
 - a. Acceptable – no corrective work needed. If this is the final inspection recommend acceptance of the work, or
 - b. Warranty work is needed – Provide contactor written notice of the distresses and locations needing corrective work.

Condition Parameter Measurement:

Performance parameters will be measured as described for each of the following distress types in mainline pavement areas:

1. **Transverse Cracking** - Total number of transverse cracks in a segment. Only count cracks that are not “reflective” from a prior crack or joint. Count all transverse cracks that cannot be positively identified as “reflective” or are questionable. Each individual crack must exceed 5 feet in length to be included in the total. Ignore transverse cracking for all single course overlays, or if the total thickness of multiple course overlays is 2” or less.
2. **Longitudinal Cracking** - Total linear feet of longitudinal cracks in a segment. Only count cracks that are **not** “reflective” from a prior crack or joint. Count all longitudinal cracks that cannot be positively identified as “reflective” or are questionable. Each individual crack must exceed 5 feet in length to be included in the total. Ignore transverse cracking for all single course overlays, or if the total thickness of multiple course overlays is 2” or less.
3. **De-bonding**- Total longitudinal length, in feet, of de-bonding in a segment. Potholes are to be classified as de-bonding. Measure individual de-bonding locations in the longitudinal direction, regardless of width of the distress location and sum these lengths for the segment.
4. **Raveling** - Total longitudinal length, in feet, of raveling in a segment. Measure individual raveling locations in the longitudinal direction, regardless of width of the distress location and sum these lengths for the segment.

5. **Flushing** - Total longitudinal length, in feet, of flushing in a segment. Measure individual flushing locations in the longitudinal direction, regardless of width of the distress location and sum these lengths for the segment.
6. **Rutting** - The average rut depth, in inches, in a segment. Each wheel path shall be evaluated separately. If rutting is found, the pavement surface will be measured beginning at the POB and every 132 feet thereafter to determine average rut depth to quantify rutting for a particular segment. Rut measurements will be done using a straight rigid device that is a minimum of 7 feet long and of sufficient stiffness that it will not deflect from its own weight, or a wire under sufficient tension to prevent sag when extended 7 feet. Measurements will be taken by placing this “straightedge” across the pavement surface perpendicular to the direction of travel. The straightedge shall contact the surface on at least two bearing points with one located on either side of the rut. The straightedge is properly located when sliding the straightedge along its axis does not change the location of the contact points. Rut depth is then measured at the point of greatest perpendicular distance from the bottom of the straightedge to the pavement surface.
7. **Alligator Cracking** – Total area, in square feet, of alligator cracking in a segment. Measure individual alligator cracked areas and sum the areas for the segment.

Overview Inspection Procedure:

1. Review any notes from previous inspections.
2. Perform a “windshield” survey of the entire location length. Based solely on visual examination and estimated measurements, approximate the individual distress quantities for the questionable segment(s) of each distress type and record on the inspection form. Details which should be noted for the inspection include, but are not limited the following:
 - a. The lane or ramp where the distress was noted and the associated direction.
 - b. Approximate distress location (i.e. 1/4 mile north of the POB, or at the intersection of 1st St in SW quadrant, or near drive for house #123..)
 - c. The distress quantity, in general terms (i.e. minor amounts of longitudinal cracking; mid lane flushing).
 - d. Areas where temporary maintenance makes it difficult to determine the type of distress, (i.e. presence of cold patching material).
3. Estimate if any of the following distress threshold conditions are exceeded
 - a. Transverse Cracking exceeds 3 total in the segment length (3 cracks within 528 feet) for any 3 segments. All reflective cracking shall be ignored as these will not count against the allowable amount.
 - b. Longitudinal Cracking exceeds 25 percent of the segment length (132 feet within 528 feet) for any 3 segments. Ignore all reflective cracking. All reflective cracking shall be ignored as these will not count against the allowable amount.

- c. Debonding exceeds 5 percent (5%) of the segment length (26 feet within 528 longitudinal feet) for any 1 segment.
 - d. Raveling exceeds 8 percent (8%) of the segment length (42 feet within 528 longitudinal feet) for any 1 segment.
 - e. Flushing exceeds 5 percent (5%) of the segment length (26 feet within 528 longitudinal feet) for any 1 segment.
 - f. Average rut depth exceeds 0.375 (3/8) inches for any 1 segment.
 - g. Any amount of alligator cracking.
4. If **any** condition above (in item 2) is estimated to be true:
- a. Perform Detailed Inspection; and
 - b. Provide a description of the magnitude and location(s) of the distress condition(s) observed which justify the Detailed Inspection.
5. If **all** conditions above are false,
- a. Recommend work is acceptable.
 - b. If this is an interim or other non-final inspection, put notes in file
 - c. If this is final inspection recommend final acceptance.

Detailed Inspection Procedure:

1. Determine the questionable segments suspected of exceeding threshold limits for each individual distress type based on the overview inspection notes.
2. Document the lane, direction and distance from POB, of each questionable segment identified in Step 1.
3. For each questionable segment, measure and record the amount of each individual distress type and record on the inspection form.
 - a. Transverse Cracking
 - b. Longitudinal Cracking
 - c. De-bonding
 - d. Raveling
 - e. Flushing
 - f. Rutting
 - g. Alligator Cracking
4. Determine if any of the threshold limits for transverse cracking, longitudinal cracking, de-bonding, raveling, flushing, or alligator cracking, listed under Overview Inspection, are exceeded.
5. Evaluate segments where the average rut depth appears to exceed 0.25 inches as follows.
 - a. Measure the average rutting at all questionable segments to verify that the threshold was exceeded.
6. Warranty work is required at those segments for which any of the threshold limits for transverse cracking, longitudinal cracking, de-bonding, raveling, flushing, rutting, or alligator cracking are exceeded. Provide the contractor with results of the inspection indicating segments where warranty work is required.

LOCAL AGENCY
WARRANTY INSPECTION GUIDELINES
NEW/RECONSTRUCTED JOINTED PLAIN CONCRETE PAVEMENT

Warranty period: 5 Years

Inspection Period Begins: Interim -30 months after Initial Acceptance
Final - 56 months after initial Acceptance
(Local Agency may do additional inspections)

- Notes:**
1. **Segment** - 528 feet in a specific driving lane. For inspection a segment begins at the point where the joint sealant failure or pavement distress begins to appear and extends for 528 feet from that point.
 2. **Slab** - The pavement outlined between consecutive transverse joints and longitudinal joints or a longitudinal joint and the outer pavement edge. Segments consist of one or more slabs.
 3. **Driving Lanes** - Each of the following is considered a Driving Lane.
 - a. Each individual mainline lane.
 - b. The sum of all ramp lanes and associated acceleration/deceleration lanes.
 - c. The sum of all auxiliary lanes, such as passing lanes and turn lanes.
 4. **Condition Parameters** - Each condition parameter has a threshold level applied to each segment and a maximum number of defective segments before corrective action is required. A segment is defective if the threshold level is exceeded.
 5. **Longitudinal Joint Designation** - All inspections relate to the driving lane as defined in the warranty special provision. For tallying joint sealant failure and pavement distress (spalling), consider the entire perimeter of the slab in all cases. The condition parameter of the full joint associated with the slab being evaluated is considered even though two adjacent slabs may share the same interior longitudinal joint.
 6. The contractor will not be required to take corrective measures as a result of the interim inspection unless the Engineer determines emergency repairs are needed for public safety. Any faults or distresses noted will be logged and verified with the final inspection.

- Procedure:** For both **INTERIM & FINAL** inspections
1. **Perform overview inspection.** Based on results of overview inspection, recommend the project for either:
 - a. Acceptable – no corrective work needed. If this is the final inspection recommend acceptance of the work, or
 - b. Detailed inspection – more detailed inspection and / or measurements are needed
 2. **Perform detailed inspection if required.** Based on the results of detailed inspection, either:
 - a. Acceptable – no corrective work needed. If this is the final inspection recommend acceptance of the work, or
 - b. Warranty work is needed – Provide contractor written notice of the distresses and locations needing corrective work.

Overview Inspection Procedure:

1. Review any notes from previous inspections of the work.
2. Perform a “windshield” survey of the entire project length. Inspect all driving lanes. Based solely on visual examination and estimated measurements, approximate the individual distress quantities for the questionable segment(s) of each distress type and record on the inspection form. Details which should be noted for the inspection include, but are not limited the following:
 - a. The lane or ramp where the distress was noted and the associated direction.
 - b. Approximate distress location (i.e. 1/4 mile north of the POB, or at the intersection of 1st St in SW quadrant, or near drive for house #123..)
 - c. Estimate the distress quantity. Also include a description of distress in general terms (i.e. minor amounts of longitudinal cracking; every joint has loss of sealant).
 - d. Areas where temporary maintenance makes it difficult to determine the type of distress, (i.e. presence of cold patching material).
3. If this is an **interim** or other non-final inspection, Put notes in file and STOP HERE.
4. If this is the final inspection, estimate if any of the following distress threshold conditions are exceeded
 - a. Transverse Cracking exceeds 2 total for any 1 segment. (2 cracks within 528 feet).
 - b. Longitudinal Cracking exceeds 5 percent (5%) of the segment length (26 feet within 528 feet) for any 1 segment.
 - c. Map Cracking exceeds 10 percent (10%) of the segment area (632 square feet within 528 longitudinal feet assuming 12 foot lane width) for any 1 segment.
 - d. Spalling exceeds 10 percent (10%) of each slab. Can be non-contiguous. Include all 4 sides of the slab.
 - e. Scaling exceeds 15 percent (15%) of the slab area.
 - f. Corner cracking exceeds 1 for any 1 segment.
 - g. Joint Sealant failure exceeds 10 percent (10%) total joint length in a segment. Include both longitudinal & transverse joints
 - h. Any shattered slabs.
5. If any condition above is true:
 - a. Perform Detailed Inspection; and
 - b. Provide a description of the magnitude and location(s) of the distress condition(s) observed which justify the Detailed Inspection.
6. If all conditions above are false and this is the final inspection, recommend Final Acceptance.

Detailed Inspection Procedure: This will be done at **FINAL** inspection when distresses are estimated to be at threshold levels, and at **INTERIM** inspections as directed by the engineer.

1. Determine the questionable segments suspected of exceeding threshold limits for each individual distress type based on the overview inspection notes.

2. Document the lane, direction and distance from POB, of each questionable segment identified in Step 1.
3. For each questionable segment, measure and record the amount of each individual distress type and record on the inspection form.
 - a. Transverse Cracking
 - b. Longitudinal Cracking
 - c. Map Cracking
 - d. Spalling
 - e. Flushing
 - f. Scaling
 - g. Joint sealant failure
 - h. Shattered slabs
4. Determine if any of the threshold limits for the various distresses are exceeded.
5. Warranty work is required at those segments for which any of the threshold limits are exceeded. Provide the contractor with results of the inspection indicating segments where warranty work is required.

APPENDIX C

Inspection Forms

Under Development

The inspections forms have not been developed to-date; the Task Force Education Committee is working with LTAP to create inspection forms compatible with the RoadSoft program to enable tracking the warranty inspection forms to the actual location along a road segment

APPENDIX D

Model Pavement Warranty Contract and Bond Forms

MICHIGAN
LOCAL AGENCY
SPECIAL PROVISION
FOR
PASS-THROUGH WARRANTY BONDS

LM

1 of 1

9/5/2017

a. Description. This special provision establishes the conditions under which and method for a contractor to assign responsibility for the warranty obligations and the providing of a warranty bond to a warranty contractor(s). Second tier subcontractor assignments are prohibited.

b. Requirements. Ensure the Warranty Contract(s) and warranty bond(s) are on forms provided by the Local Agency. Ensure the bonds meet the requirements of Michigan law and of the Local Agency and include other items such as the powers of Attorney and Endorsement as specified by the Local Agency.

c. Method. The assignment must be made to the warranty contractor(s) that will perform the work covered by the warranty. If for any reason after signing the Warranty Contract and providing the Warranty Bond, the warranty contractor does not perform the work, the warranty contractor will remain obligated for the warranty obligations and the warranty bond obligations will remain in effect unless the Local Agency consents in writing to substituting a different contractor to assume those warranty obligations and accepts a substitute warranty bond.

The assignment of warranty work must be designated with and at the time of electronic bid submittal. To become a warranty contractor responsible for the warranty obligations of the contract, and providing a warranty bond, the warranty contractor must complete and submit to the Local Agency a Warranty Contract and a Warranty Bond for each warranty it will be responsible for. Ensure the Warranty Contract is signed by an authorized signer of the warranty contractor, as identified in its prequalification application.

Submit the Warranty Contract and Warranty Bond to the Local Agency prior to award of the construction contract to the prime contractor for the work to which the warranty applies. Ensure the warranty contractor is prequalified in the work classification for the type of work to be warranted. The Warranty Bond must guarantee performance of all warranty obligations for the covered work, in accordance with the Warranty Contract. All provisions of the prime contract will be applicable to the warranty contractor in regard to the warranty work, except as otherwise expressly provided in the Warranty Contract.

Under no circumstances does the assignment of the warranty work and the execution of a Warranty Contract create any obligations to the Local Agency beyond the obligations undertaken in the prime contract. The purpose of the Local Agency accepting the assignment of warranty obligations is to allow a warranty contractor to stand in place of the prime contractor for purposes of the warranty work without increasing any obligation or liability that the Local Agency would have had if the prime contractor had not assigned the warranty work.

d. Measurement and Payment. This work will not be paid for separately, but will be included in costs for other pay items.

<local agency name>
LOCAL AGENCY
PASS-THROUGH WARRANTY BOND

Bond Number: _____

KNOWN ALL MEN BY THESE PRESENTS

That we, _____ (hereinafter called the "Principal" and _____ (hereinafter called "Surety") a corporation duly organized under the laws of the State of _____ and duly licensed to transact business in the State of Michigan, are held and firmly bound unto the _____ *<local agency name>* (hereinafter called the "Obligee"), in the sum of \$ _____ dollars for the payment of which sum well and truly to be made, we, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal has heretofore entered into a contract with the Obligee, under Contract ID _____ and;

WHEREAS, the said Principal is required to guarantee the:

installed under said contract, against defects in materials or workmanship which may develop during the period of ___ years beginning the date of the Acceptance Date of Warranted Work by the Obligee.

In no event shall losses paid under this bond aggregate more than the amount of the bond.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if said Principal shall faithfully carry out and perform the said guarantee, and shall, on due notice, repair and make good at its own expense any and all defects in materials or workmanship in the said work which may develop during the period specified above or shall pay over, make good and reimburse to the said Obligee all loss and damage which said Obligee may sustain by reason of failure or default of said Principal so to do, then this obligation shall be null and void; otherwise shall remain in full force and effect.

PROVIDED HOWEVER, that in the event of any default on the part of said Principal, a written statement of the particular facts showing such default and the date thereof shall be delivered to the Surety by registered mail, promptly in any event within ten (10) days after the Obligee or his representative shall learn of such default and that no claim, suit or action by reason of any default of the Principal shall be brought hereunder after the expiration of thirty (30) days from the end of the warranty period as herein set forth.

Signed by: _____ day of _____ 20_____.

Contractor _____

By _____

Surety _____

By _____

PASS THROUGH WARRANTY CONTRACT

This contract ID number _____ is executed on the date signed below by the _____ of the <local agency name> between the Warranty Contractor, Prime Contractor and the Local Agency in conjunction with the execution of this contract ID number, _____ between the Local Agency and the Prime Contractor.

(Warranty Contractor)

(Prime Contractor)

The work included within this Warranty Contract is, described here:

The Warranty Contractor represents that it has entered into a subcontract with the Prime Contractor to perform Warranted Work for the project, but that any failure to have properly done so, or any breach or failure in the performance of that subcontract, shall not diminish or otherwise affect the obligations of the Warranty Contractor to the Local Agency under this warranty contract. Nor shall the obligations of the Warranty Contractor to the Local Agency under this warranty contract be diminished or affected if the Prime Contractor or some other person performs some or all of the Warranted Work or warranty obligations for the project, unless the Local Agency consents to, and executes, a written amendment to this warranty contract.

Insofar as they pertain to the warranty rights and obligations, the terms of the contract are hereby incorporated by reference into this warranty contract and, for purposes of this warranty contract, references in the contract to the contractor shall be deemed to refer to the Warranty Contractor.

The Warranty Contractor hereby agrees to fulfill and perform, without qualification or exception, all of the warranty obligations under the terms of the contract, as if they were the Prime Contractor. Until acceptance of the Warranted Work, the Prime Contractor will be responsible to the Department for ensuring completion of the Warranted Work and to the Local Agency for fulfilling the terms of the warranty for that work. Upon acceptance of the Warranted Work, the Warranty Contractor shall have full responsibility for the warranty obligations and the Prime Contractor will be relieved of further obligation for performing those warranty obligations.

The Warranty Contractor agrees that its obligations to the Local Agency under this warranty contract are the same as if the Warranty Contractor was the Prime Contractor; the Warranty Contractor can assert no rights, defenses or qualifications to the warranty obligations under the contract that would have been unavailable to the Prime Contractor, if the Prime Contractor had retained contractual responsibility for the warranty. The Warranty Contractor may assert the same rights under the terms of the warranty as could have been asserted by the Prime Contractor, if the Prime Contractor had retained contractual responsibility for the warranty.

This warranty contract may be executed prior to execution of the contract with the Prime Contractor, provided that if the Local Agency fails to execute the contract with the Prime Contractor this warranty contract shall be null and void.

By: _____

By: _____

Title: _____

Title: _____

By: _____

Typed name: _____

Local Agency: _____

Date: _____

APPENDIX E

Reporting Forms

Under Development

Local Road Agencies Warranty Program Reporting

We have partnered with the Transportation Asset Management Council to modify the Investment Reporting Tool to provide an open and transparent reporting method for each local transportation agency. The reporting fields will be enabled as soon as the Local Agency Pavement Warranty Program is approved by MDOT

We have also partnered with the Michigan Technological University - CTT to modify the Roadsoft Program to provide a common data entry method for each local road agency. The Roadsoft warranty data fields will be imported into the TAMC ITR module to provide a statewide presentation of the warranty projects that exceed the \$ 2,000,000 threshold.

APPENDIX F

Education and Training

Under Development

Education of Local Road Agencies on Local Pavement Warranty Program

Since the passage of the 2015 Transportation Package, the CRA has been informing its members of the coming warranty requirement; the *Engineering Updates* provided by the CRA-MML Engineering Specialist have also described the imminent Local Pavement Warranty Program. The CRA provided updates about the Local Pavement Warrant Program at its nine regional Council meetings during fall-winter 2017-2018; at its County Engineers Workshop in February 2018; at its Highway Conference in March 2018, and at its Road Commissioners Conference in April 2018. The CRA is also developing this Guidance Document on Local Pavement Warranties to serve as the training manual for. The CRA has scheduled and dedicated a large portion of its annual 2017 Law Symposium to a session on Implementing the New Local Pavement Warranties on December 5, 2017; speakers include the legal counsel from the Road Commission for Oakland County and CRA-MML Engineering Specialist Steve Puuri. The CRA-MML Engineering Specialist Steve Puuri and two bond counsel representatives provided an update at the Michigan Concrete Association.

In addition, the Local Pavement Warranty Task Force has created an Education Committee that has been developing model agency adoption resolutions and training materials. The Task Force has partnered with the Local Technical Assistance Program to develop and conduct training program for decision makers and project staff. The Education Committee is poised to distribute adoption and training materials upon approval of the Local Agency Pavement Warranty Program by MDOT. Finally, the Task Force has developed this Guidance Document to assist local agency decision makers and project staff with implementing their Local Agency Pavement Warranty program.

RESOLUTION #2018-246

BY THE COMMITTEE OF THE WHOLE
RESOLVED BY THE CITY COUNCIL OF THE CITY OF LANSING

WHEREAS, the Charter of the City of Lansing requires the Council to adopt an annual statement of Budget Policies and Priorities serving to guide the Administration in developing and presenting the Fiscal Year ~~2019-2020~~ 2020/2021 Budget; and

WHEREAS, the City Council established the following Mission/Vision and goals; and

The City of Lansing's mission is to ensure quality of life by:

- I. Promoting a vibrant, safe, healthy and inclusive community that provides opportunity for personal and economic growth for residents, businesses and visitors
 - a. The City's diverse economy generates and retains (sustains) high quality stable jobs that strengthen the sales and property tax base and contribute to an exceptional quality of life.
 - b. The City is governed in a transparent, efficient, accountable and responsive manner on behalf of all citizens.
 - c. The City's neighborhoods have various resources that allow them to be on a long term viable and appealing basis.
 - d. Support economic development initiatives that promote and retain new industries and markets.
- II. Securing short and long term financial stability through prudent management of city resources.
 - a. Wise stewardship of financial resources results in the City's ability to meet and exceed service demands and obligations without compromising the ability of future generations to do the same.
 - b. Pursue and facilitate shared services regionally that allow for cost savings and revenue enhancement.
 - c. Support initiatives that build the City's property and income tax base.
- III. Providing reliable, efficient and quality services that are responsive to the needs of residents and businesses.
 - a. The City's core services and infrastructure are efficiently, effectively and strategically delivered to enable economic development and to maintain citizen's health, safety and general welfare.
- IV. Adopting sustainable practices that protect and enhance our cultural, natural and historical resources.
 - a. Seek partnership opportunities with educational and corporate institutions and to maintain and expand our talent base.
 - b. Create vibrant places, support events and activities that showcase our waterfront and green spaces.
 - c. Raise the level of support for projects and initiatives that showcase local and state history.

- V. Facilitating regional collaboration and connecting communities.
- a. The City has a safe efficient and well connected multimodal transportation system that contributes to a high quality of life and is sensitive to surrounding uses.
 - b. Seek a balanced distribution of affordable housing in the tri-county region.

WHEREAS, the City Council would like to continue its commitment, if funding is available, to:

- Maintain and improve the City’s infrastructure;
- Preserve and ensure clean, safe, well-maintained housing and neighborhoods;
- Provide comprehensive and affordable recreational programs and youth and family services;
- Explore alternatives for improved efficiency in service and delivery; and

WHEREAS, in considering these Fiscal Year ~~2019-2020~~ 2020/2021 Budget priorities, the Administration is encouraged to ascertain the feasibility of funding any new programs through either the reduction of spending in existing program areas or the exploration of new funding sources that would assure the sustainability of the program; and

WHEREAS, the Administration was encouraged to supplement, not supplant any existing resources for police, fire and local roads with the General Fund revenues collected under this millage; and

WHEREAS, the Administration is requested to include in its Fiscal Year ~~2019-2020~~ 2020/2021 Budget, the necessary funding to accomplish all requested plans, studies, evaluations, reviews, report submissions, program assessments, and analyses noted within this resolution below, or alternatively documentation as to why such activities are prohibitively costly; and

WHEREAS, the Lansing City Charter states that the budget proposal due on the fourth Monday in March of each year shall contain “the necessary information for understanding the budget” and how the proposal addresses the priorities proposed by the City Council.

NOW BE IT RESOLVED, that the Lansing City Council, hereby, acknowledges that the City will likely need to adopt, at best, a budget which recognizes the structural changes that are the result of lost revenues and future liabilities, encourages the Administration to prudently develop next year’s budget with the following conditions:

- Protection of public and emergency services.

BE IT FURTHER RESOLVED, that the Administration is requested to review the attached statement of policies and priorities and implement those items that would boost efficiencies to increase productivity or reduce costs, that could replace existing programming, or if funding becomes available, that could be considered as new programming; and

BE IT FURTHER RESOLVED, that the Administration is requested, to the extent practicable, to include non-appropriations clauses and other similar out provisions in existing and future leases, and vendor contracts upon review of City Council; and

NOW THEREFORE BE IT FURTHER RESOLVED that the Administration is requested to develop and provide all plans, studies, evaluations, reviews, report submissions, program assessments, and analyses noted as set forth below in this resolution, or alternatively, documentation as to why such activities were prohibitively costly, by the fourth Monday in ~~March 2019~~ March 2020.

- I. Promoting a vibrant, safe, healthy and inclusive community that provides opportunity for personal and economic growth for residents, businesses and visitors.
 - a) The City's diverse economy generates and retains (sustains) high quality stable jobs that strengthen the sales and property tax base and contribute to an exceptional quality of life
 - (1) Economic Development For presentation to City Council beautification standard/expectation and a storm water mitigation plan for all proposed development projects that receive incentives from the City. Such standards should serve as a planning and economic development tool that will enhance property values, create jobs, and revitalize neighborhoods and business areas. These standards and plan should be presented to the City Council.
 - b) The City is governed in a transparent efficient accountable and responsive manner on behalf of all citizens.
 - (1) A delineation of recommendations of the Financial Health Team, noting which recommendations have been implemented, which are in the FY ~~2018/2019~~ 2020/2021 proposed Budget, which are planned to be implemented at a future time, and which have been determined not to be implemented at any time. A timetable for future implementation is requested.
 - (2) Supplemental Accounting Level Detail. A plan and timeline for the implementation of performance-based budgeting.
 - (3) Development and analysis of a cost recovery schedule for City services.
 - (4) Development of a return on investment analysis for all proposed changes in City services.

- (5) Identification of, and a complete and ongoing analysis of, the City's structural deficits and the Administration's plan to eliminate the same.
 - (6) Incorporate into the proposed Budget a 5-Year projection of revenues and expenditures.
 - (7) Continue to invest one-time money into Retirement & OPEB obligations and how to increase funding.
 - (8) Continue to invest one-time money into Infrastructure, including sidewalks.
 - (9) Continue to invest one-time money into hardware and software investments for City operations.
- c) The City's neighborhoods have various resources that allow them to be long term viable and appealing.
- (1) A researched report on surrounding community models for neighborhood organization technical support structure within the City.
 - (2) Working with the City Attorney and Code Compliance Division to expedite improvements or closure of abandoned, neglected, and burned out houses and commercial buildings by using the International Property Maintenance Code (IPMC) and adopt the latest version of the IPMC from the State of Michigan. Development of aggressive policies to deal with problematic property owners.
 - (3) Food Access: Together with the City of Lansing Economic Development Corporation development of a plan should increase quality food access throughout the City using all incentives available.
 - (4) Code Compliance: Assurance that the Code Compliance Department is conducting the appropriate inspections and issuing appropriate fines to ensure the buildings in our City are safe and that we have quality neighborhoods and conduct a study of Code Compliance to determine a level of service for first time inspections and re-inspections assuring the safety of the housing stock for residential and mobile homes.
 - (5) Further expand down payment assistance programs with employers to encourage employees to live in the City of Lansing, and encourage employment of Lansing Residents.

- d) Support economic development initiatives that will promote and retain new industries and markets.
 - e) Funding through HRCS for a G.E.D. program that targets lower income areas.
- II. Securing short and long-term financial stability through prudent management of City resources.
- a) Wise stewardship of financial resources results in the City's ability to meet and exceed service demands and obligations without compromising the ability of future generations to do the same.
 - (1) Administration is requested to submit the following list of deliverables when they are due per City Charter and State Statute and adhere to them based on these priorities.
 - (a) Comprehensive Annual Financial Audit (CAFR) annually, no later than December 31st of each year, in accordance with the State Statute.
 - (b) During the months of October, January and April of each fiscal year, the Director of Finance's written report showing the control of expenditures. (Charter- Article 7-110)
 - (c) By September 1st of each fiscal year, a written budget update report so that Council can review their standings on current budget items in preparation for the Council required creation of Budget Policies and Priorities that need to be adopted by October 1, 2019. (Charter- Article 7-102)
 - (d) No later than the last regular City Council meeting in January of each year, a State of the City report to the City Council and to the public. (Charter- Article 4 -102.4)
 - (e) The Proposed Budget with annual estimate of all revenues and annual appropriation of expenditures no later than the 4th Monday in March of each year. (Charter – Article 7-101)
 - (f) A presentation to Council of each department budget in preparation for Council to adopt the Budget Resolution no later than the 3rd Monday in May each year.

- b) Pursue and facilitate shared services regionally that allow for cost savings and revenue enhancement.
 - (1) Pursue partnerships with stakeholders, (intra municipal and intergovernmental), to align services in relation to public services.
 - (2) Facilities Plan: Submit to the City Council a five and ten-year Master Facilities Plan including school and county facilities that are used for current and future City uses. City Council is also requesting that the Administration continue to work on any delayed maintenance issues with regard to all City Facilities.
 - c) Support initiatives that build City's property and income tax base
- III. Providing reliable, efficient and quality services that are responsive to the needs of residents and businesses.
- a) The City's core services and infrastructure are efficiently, effectively and strategically delivered to enable economic development and to maintain citizen's health, safety and general welfare.
 - (1) Establish funding for **two additional Code Compliance Officer** as well as **an additional support staff** to track down property owners that have not scheduled re-inspection and to research properties suspected of being unregistered rentals.
 - (2) City-wide Emergency Preparedness: Allocation of sufficient funding for the Emergency Management Division to prepare City Employees with appropriate emergency training, continue efforts to prepare the public and neighborhood groups to assist in emergencies, and provide basic search and rescue operations and necessary emergency equipment at key City facilities, and communicate the plan to the Lansing City Council and the public. Updated and continual training should be provided. The Administration shall assist residents in times of unforeseen disasters.
 - (3) Fire Facilities Maintenance: The Administration is to conduct a study of the maintenance needs of all fire stations and report to City Council an update of the status of the study by the 4th Monday of March. Along with a funding recommendation for short and long-term improvement to these structures.
 - (4) Regionalism: The Administration should continue with the current regional efforts and look into the possibility of expanding the efforts.

- (5) Police-Community Relations: Designate funding to help the Police Department to ensure the improvement of police-community relations. Reaffirming the City's commitment to equality and freedom for all people regardless of actual or perceived race, sex, religion, ancestry, national origin, color, age, height, weight, student status, marital status, familiar status, housing status, military discharge status, sexual orientation, gender identification or express, mental or physical limitation, and legal source of income.
- (6) Crime Prevention: Designate funding to invest in programs for long-term crime prevention strategies.
- (7) Allocate Overtime for Problem Solving Area: Designate sufficient funding for overtime for police officers to address problem solving to help certain crime and address quality of life issues.
- (8) Community Policing: Continue and increase funding along with searching for grant funds for COPs in neighborhoods with a goal not only to reduce crime but to stabilize the neighborhood over an extended period of time that will help to ensure its ability to rebound.
- (9) Establish a Community Policing within the 2nd Ward.
- (10) Leadership vacancies: Develop and implement a plan and timeline to fill all funded vacancies and provide a report to City Council.
- (11) Front -loading of Police Officers: Continue to front-load Police Officers so that we have officers ready to take the road when officers retire.
- (12) Increase street sweeping, especially areas heavily traversed by bikes.
- (13) A study to determine the effectiveness of traffic calming and what measures may be successful and funding to implement.

IV. Adopting sustainable practices that protect and enhance our cultural, natural and historical resources.

- a) Seek partnership opportunities with educational and corporate institutions and to maintain and expand our talent base.
- b) Create vibrant places, support events and activities that showcase our waterfront and green spaces.
 - (1) Trail/Greenways Encouraging the Parks and Recreation Department to work collaboratively with the Tri-County Planning Commission to

develop/expand our citywide/regional trail system and seek opportunities to reduce expenses in this effort. Additionally, look at the feasibility of connecting the River Trail (through bike lanes/Greenways to Trails) where there is currently no access to the trail.

- c) Raise the level of support for projects and initiatives that showcase local and state history.

V. Facilitating regional collaboration and connecting communities

- a) The City has a safe efficient and well-connected multimodal transportation system that contributes to a high quality of life and is sensitive to surrounding uses.

- (1) Corridor: City Council encourages the Administration continue to develop a plan and report its status to the Lansing City Council that seeks to revitalize and enhance all major corridors that lead into the City.

- b) Seek a balanced distribution of affordable housing in the tri-county region.

OPTION TO ADD THE 2019 BOARD OF PUBLIC SERVICE LIST HERE

~~RESOLVED, recognizing the financial challenges facing the City of Lansing (“City”) and its Public Service Department (“Department”), including the Department’s obligations to comply with numerous mandates, including unfunded mandates, the Lansing Board of Public Service supports the efforts of the Department.~~

~~RESOLVED, the Board of Public Service supports and recommends the following budget priorities to the Lansing City Council for consideration with Council's Budget Policies and Priorities for the Fiscal Year July 1, 2018 – June 30, 2019:~~

- ~~1. General Fund levels should be increased for implementation of the City's Street System Asset Management Plan, and for additional funding for reconstructing neighborhood streets with a Pavement Surface Evaluation Rating of 4 or lower;~~
- ~~2. Continued implementation of the recommendations in the City's Complete Streets Ordinance, and funding of the sidewalk gap closure program, sidewalk repairs and right-of-way maintenance and improvement, consistent with keeping safety a priority;~~
- ~~3. Increase funding to update and improve the fleet of city vehicles, with specific priority for the Public Service Department;~~

4. Continued support for maintaining, keeping current and updating of the City's Cityworks Asset Management Software, consistent with legal requirements and improved efficiencies, along with other financial considerations;
5. The City should approve a budget to: (i) expand opportunities for multi-family residential and business recycling; and (ii) implement organic waste recovery;
6. Explore the establishment of a Material Recovery Facility (MRF) for the recovery of recyclable commodities; and
7. The Department's efforts to secure approval for the implementation of the Wet Weather Program, submitted to the Michigan Department of Environmental Quality in 2011.

RESOLVED, as the Department generates savings through improved efficiencies in service delivery and other areas, these savings should be maintained within the Department.



Andy Schor, Mayor

PUBLIC SERVICE DEPARTMENT

Wastewater Division

1625 Sunset Avenue

Lansing, Michigan 48917

(517) 483-4404

FAX: (517) 483-4536

<http://publicservice.cityoflansingmi.com/pubwater/>

June 21, 2019

Mr. Chris Swope
City Clerk
City Hall
Lansing, Michigan

RE: Board of Public Service: Budget Priorities Resolution for FY 2020/21

Dear Mr. Swope:

The attached resolution was adopted at the Board of Public Service meeting held June 13, 2019.

Please place on the Council Agenda.

Please let me know if you have any questions.

Respectfully submitted,

Janette Tate
Recording Secretary

Attachment

LANSING BOARD OF PUBLIC SERVICE BUDGET PRIORITIES RESOLUTION

JUNE 13, 2019

RESOLVED, recognizing the financial challenges facing the City of Lansing (“City”) and its Public Service Department (“Department”), including the Department’s obligations to comply with numerous mandates, including unfunded mandates, the Lansing Board of Public Service supports the efforts of the Department.

RESOLVED, the Board of Public Service supports and recommends the following budget priorities to the Lansing City Council for consideration with Council's Budget Policies and Priorities for the Fiscal Year July 1, 2020–June 30, 2021:

1. General Fund levels should be increased for implementation of the City's Street System Asset Management Plan, and for additional funding for reconstructing neighborhood streets with a Pavement Surface Evaluation Rating of 4 or lower. We encourage support for the department to look for new and innovative ways to extend the life of our existing streets and seek additional funding.
2. Increase compliance with the City’s Complete Streets Ordinance, and additional funding of the sidewalk gap closure program, sidewalk repairs and right-of-way maintenance and improvement, consistent with keeping safety a priority for Lansing residents and visitors, while meeting or exceeding the compliance with the Americans with Disabilities Act.
3. Increase funding to update and improve the fleet of city vehicles, with specific priority for the Public Service Department;
4. Increase funding for the cleaning and maintenance of our wastewater aeration basins to remove sludge and silt buildup from the bottom of these tanks and repairing them once cleaned. This will allow us to be at or above the recommended guidelines.
5. The City should approve a budget to: (i) expand opportunities for multi-family residential and business recycling; and (ii) implement organic waste recovery;
6. Follow recommendations of the energy audit of all facilities and properties to save on energy and cut costs by replacing wasteful devices with ones that are energy efficient and reduce the carbon footprint of the City of Lansing.
7. Fund training and work with federal, state, county, local municipalities, and organizations to become a leader in PFAS regulation, testing, monitoring and enforcement.

RESOLVED, as the Department generates savings through improved efficiencies in service delivery and other areas, these savings should be maintained within the Department.



Andy Schor, Mayor

PUBLIC SERVICE DEPARTMENT

Wastewater Division

1625 Sunset Avenue

Lansing, Michigan 48917

(517) 483-4404

FAX: (517) 483-4536

<http://publicservice.cityoflansingmi.com/pubwater/>

August 1, 2019

Mr. Chris Swope
City Clerk
City Hall
Lansing, Michigan

RE: Board of Public Service Resolution

Dear Mr. Swope:

The attached resolution was adopted at the Board of Public Service meeting held July 11, 2019.

Please place on the Council Agenda.

Please let me know if you have any questions.

Respectfully submitted,

Janette Tate
Recording Secretary

Attachment



Andy Schor, Mayor

PUBLIC SERVICE DEPARTMENT

Wastewater Division
1625 Sunset Avenue
Lansing, Michigan 48917
(517) 483-4404
FAX: (517) 483-4536

<http://publicservice.cityoflansingmi.com/pubwater/>

TO: Andy Schor, Mayor

FROM: Janette Tate
Secretary to the Board of Public Service

DATE: August 1, 2019

SUBJECT: Board of Public Service Resolution

The attached resolution was adopted at the Board of Public Service meeting held July 11, 2019.

Please forward this information to the City Clerk for placement on the Council Agenda.

Please let me know if you have any questions. Thank you.

cc: Chris Swope, City Clerk
cc: City Council

LANSING BOARD OF PUBLIC SERVICE RESOLUTION

JULY 11, 2019

WHEREAS, The vast majority of city streets are rated poor and fair, and are getting worse due to a lack of funding for maintenance and repair. The city lacks the resources to adequately respond to the crisis in our transportation infrastructure. We have no options at the local level to deal with this crisis; and

WHEREAS, This challenge is not unique to Lansing. Local governments across Michigan face similar infrastructure crises. It is estimated that restoring roads and bridges across Michigan requires an additional \$2.5-billion in state appropriations annually.

Therefore be it RESOLVED, the Public Service Board urges Lansing City Council and the administration to pass a resolution strongly supporting significant state government investment in the Michigan's transportation infrastructure. It further urges Council and the administration to strongly support adjusting the distribution formula to better recognize the differing wear-and-tear on roads based on usage.