NAME OF CONTRACTOR	
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PROPOSAL AND SPECIFICATIONS

FOR

HIGHWAY CONSTRUCTION



COUNTY LOCAL ROAD SYSTEM

<u>PROJECT NO. 4053</u> – 1.45 miles of roadway rehabilitation on 109<sup>th</sup> Avenue from 37<sup>th</sup> Street to 34<sup>th</sup> Street in Cheshire and Trowbridge Townships, Allegan County. Rehabilitation will include clearing, crushing and shaping, shoulder preparation, widening, aggregate base, culvert replacements, HMA paving, and restoration.

CHESHIRE AND TROWBRIDGE TOWNSHIPS

JULY 14, 2021

BOARD OF COUNTY ROAD COMMISSIONERS OF ALLEGAN COUNTY, MICHIGAN

1308 Lincoln Road, Allegan, MI 49010

### ALLEGAN COUNTY ROAD COMMISSION

### ADVERTISEMENT FOR BIDS

### COUNTY LOCAL ROAD CONSTRUCTION

Sealed bids will be received by the Allegan County Road Commission at their office at 1308 Lincoln Road (M-89), Allegan, Michigan until 11:00 A.M., Local Time, July 14, 2021, and, at such time, be publicly opened and read aloud for the following:

<u>PROJECT NO. 4053</u> – 1.45 miles of roadway rehabilitation on 109<sup>th</sup> Avenue from 37<sup>th</sup> Street to 34<sup>th</sup> Street in Cheshire and Trowbridge Townships, Allegan County. Rehabilitation will include clearing, crushing and shaping, shoulder preparation, widening, aggregate base, culvert replacements, HMA paving, and restoration.

Complete specifications, plans, and bid forms are available at the Road Commission office and the Road Commission website <a href="www.alleganroads.org">www.alleganroads.org</a> under the Projects link. When accessing plans from the website, please send an email to <a href="maileganroads.org">jlemaire@alleganroads.org</a> to be added to the plan holders list.

All bids must be submitted on forms furnished by the Road Commission and sealed in envelopes with the name and address of the bidder, and the item bid upon clearly marked thereon.

A bid deposit of at least 5% of the bid amount will be required for this item. The bid deposit may be in the form of certified check, cashier's check or bid bond.

The Commission reserves the right to reject any or all bids, to waive minor technicalities, and to accept the bid that is deemed to be in the best interest of the County of Allegan.

BOARD OF COUNTY ROAD COMMISSIONERS OF ALLEGAN COUNTY, MICHIGAN

> John Kleinheksel, Chairman James Rybicki, Vice-Chairman Larry Brown, Member

<u>PROJECT NO. 4053</u> – 1.45 miles of roadway rehabilitation on 109<sup>th</sup> Avenue from 37<sup>th</sup> Street to 34<sup>th</sup> Street in Cheshire and Trowbridge Townships, Allegan County. Rehabilitation will include clearing, crushing and shaping, shoulder preparation, widening, aggregate base, culvert replacements, HMA paving, and restoration.

BID and AWARD	
Date	

Board of County Road Commissioners Of Allegan County 1308 Lincoln Road Allegan, MI 49010

### Gentlemen:

The undersigned has examined the plans, specifications, and location of the work described herein and is fully informed as to the nature of the work and the conditions relating to its performance and understands that the quantities shown in the estimate are approximate only and are subject to either increase or decrease; and hereby proposed to furnish all necessary machinery, tools, apparatus and other means of doing the work, do all the work, furnish all the materials except as otherwise specified herein, and, for the unit prices named in the accompanying unit price schedule, to complete work in strict accordance with the plans and specifications therefore.

The undersigned further proposes to such extra work as may be ordered by you, prices for that are not included in the itemized bid, compensation therefore to be made on the basis agreed upon before such extra work is begun.

The undersigned agrees to final completion of all items of work on or before October 30, 2021. The schedule for liquidated damages is located in the general specifications.

The contractor shall submit a progress schedule subject to approval of the Engineer prior to the award of the contract.

The undersigned encloses a certified check, cashier's check, or Bid Bond, representing 5% of the bid, in the amount of \$\_\_\_\_\_\_\_\_, payable to the Allegan County Road Commission as a guarantee of good faith. If the contract is awarded to the undersigned, and the undersigned fails to furnish satisfactory bonds to the Road Commission within fifteen (15) days after being given notice of award said check will be forfeited to the Allegan County Road Commission as liquidated damage.

### THE CONTRACT

The Contract Documents consist of the bid documents, this Agreement, Conditions of the Contract (General Supplementary, Special and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement and Modifications issued after execution of this Agreement; these form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negation, representations or agreements, either written or oral. If anything in the other Contract Documents is inconsistent with this Agreement, this Agreement will govern.

<u>PROJECT NO. 4053</u> – 1.45 miles of roadway rehabilitation on 109<sup>th</sup> Avenue from 37<sup>th</sup> Street to 34<sup>th</sup> Street in Cheshire and Trowbridge Townships, Allegan County. Rehabilitation will include clearing, crushing and shaping, shoulder preparation, widening, aggregate base, culvert replacements, HMA paving, and restoration.

### ALLEGAN COUNTY ROAD COMMISSION ALLEGAN, MICHIGAN ITEMIZED UNIT PRICE BID SCHEDULE

ITEM OF WORK	QUANTITY	UNIT	UNIT PRICE	TOTAL
Clearing	1	LS	TRIOL	TOTAL
Station Grading	1	LS		
Subbase, CIP	1,800	Cyd		
Topsoil Surface, Salv, LM	500	Cyd		
Subgrade Undercutting, Type II	500	Cyd		
Geotextile, Stabilization	1000	Syd		
Aggregate, 6A	50	Ton		
Excavation, Peat	12,000	Cyd		
Backfill, Swamp	12,000	Cyd		
HMA Base Crushing and Shaping	17,000	Syd		
Aggregate Surface Cse	2,000	Ton		
Culv End Sect, Conc, 18 inch	3	Ea		
	2	Ea		
Culv End Sect, Conc, 24 inch	96			
Culv, Cl E, Conc, 18 inch		Ft Ft		
Culv, Cl E, Conc, 24 inch	40	Ft		
Culv, Cl E, Conc, 48 inch	56	Ft		
Pavt for Butt Joints, Rem	90	Syd		
Shoulder Prep	1	LS		
Shoulder, Cl II, LM	100	Cyd		
Approach, Cl II	255	Ton		
Approach, HMA Millings	15	Ton		
HMA, LVSP, MOD	1,200	Ton		
Riprap, Plain	60	Syd		
Pavt Mrkg, Waterborne, 4 inch, White	5,200	Ft		
Pavt Mrkg, Waterborne, 4 inch, Yellow	1,415	Ft		
Pavt Mrkg, Type NR, Tape, 4 inch, Yellow, Temp	208	Ft		
Slope Restoration, Type A	2,250	Syd		
Slope Restoration, Type C	1,650	Syd		
Extended Restoration	1	LS		
Sign, Type B, Temp, Modified	126	Sft		
Plastic Drum, High Intensity, Lighted, Modified	30	Ea		
Barricade Type III, High Intensity, Dbl Sided, Ltd, Modified	6	Ea		
Erosion Control, Silt Fence	1,100	Ft		
Monument Box Adjust	2	Ea		
Project Cleanup	1	LS		

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TOTAL	ų.			

The undersigned bidder agrees that the be utilized is awarded this contract and the Board of County Road Common Contractor and Brief Description.	id any change from th nissioners of Allega	nis list will be permin n County. <b>LIST</b>	itted only w	ith the consent of
I hereby state that all of the informat that I have the authority to submit this of County Road Commissioners of All otherwise colluded with any other bid anything of value from an official or County that would tend to destroy or h	s bid, which will becon legan County. I here dder, nor have I mad employee of the Boa	me a binding contr by state that I have e any agreement v rd of County Road	act if accepe not commeter not commeter in the	oted by the Board nunicated with nor fered or accepted
In case the bidder is a co-partnership,	each member must	sign this proposal.		
In case the bidder is a Corporation, accordance with its articles of incorporation				
I hereby state that I have read, unders	stand and agree to be	bound by all the to	erms of this	bid document.
SIGNATURE:	NAME:	(Type or Prin	nt)	
TITLE:	DATE:			
FIRM NAME:	PHONE:			
ADDRESS:				
(Street Address)	(City)		(State)	(Zip)
FOR COUNTY USE ONLY - DO NOT	Γ WRITE BELOW			
ACCEPTED BY: BOARD OF COUNT OF THE COUNTY OF ALLEGAN, MIC		ONERS		
	Chairman		_	
	Vice-Chairman		-	
	Member		-	
Date				

### STANDARD SPECIFICATIONS

The Standard Specifications for Construction of the Michigan Department of Transportation, 2012 Edition shall apply. Nothing herein will be construed to create any obligation or duty on the part of the Board of County Road Commissioners of Allegan County, including obligations or duties which may be expressed or implied in the Standard Specifications for Construction of the Michigan Department of Transportation, unless specifically set forth in the contract documents.

The quantity for all pay items will not exceed more than 5% of the plan quantity unless the contractor has received a written work order from the Allegan County Road Commission. Amounts in excess of the plan quantity will not be considered for payment unless the increase was directed by the Engineer or an error in calculations is proven.

<u>CLEARING</u>: The contractor will remove all trees and brush that are marked or are entirely or partially within the right-of-way or within the slope stake line as shown on the plans and all stumps within five (5) feet of the right-of-way or within the slope stake line unless instructed otherwise by the Engineer. Trees will remain the property of the adjacent landowner, if they want them. If not, the contractor will dispose of them. The contractor will dispose of all stumps. Where called for on the plans or when directed by the Engineer in the field, the contractor shall grind stumps to avoid disturbing underground facilities. The tree and stump removal will be done in accordance with Section 201 & 202 of the 2012 Standard Specifications for Construction.

The Contractor will not receive any additional compensation due to delays caused by utility companies.

METHOD OF PAYMENT FOR CLEARING: The item of "Clearing" will be paid for as a lump sum. No tree count is provided. It is the contractor's responsibility to inspect the site and verify accuracy of trees, stumps, and brush shown on the plans. No change in payment will be made for variances. Clearing stakes have been set. Direct any questions to the Allegan County Road Commission.

PAY ITEM PAY UNIT

Clearing Lump Sum

STATION GRADING: The item of "Station Grading" will include all culvert removal, fence removal, fence relocation regardless of fence type, obliterating roadway, rock excavation, concrete removal, HMA removal, earth excavation, embankment, and saw cuts required. The contractor will place ditches and slopes as shown on the project cross section sheets. The earth excavation quantity does include the existing topsoil and pavement that must be stripped. The embankment quantity does include material to replace stripped topsoil and pavement in fill sections. The embankment quantity does not reflect shrinkage. Some excavation and embankment will be required to make a smooth transition into driveways; this is included in the earthwork figures. Additional driveway changes in slopes or ditch depths will not result in extra payment on this item. Additional grading in yards at the request of property owners will be included in Station Grading.

Some material excavated from ditches will not be suitable for embankment and will be disposed of at the contractor's expense.

All slopes in yard areas will be finished to Class A tolerance. Slopes not in yards will be trimmed to Class B tolerance (Section 205.03 page 138).

The Controlled Density Method (Section 205.03 page 135) of the Standard Specifications for Construction will apply. The Engineer will run density tests at his discretion.

### **STATION GRADING (CON'T):**

Any salvaged gravel required to maintain local traffic will be included in the item of Station Grading. Any movement of crushed hma material for peat excavation and backfill will be included in the item of Station Grading.

METHOD OF PAYMENT FOR STATION GRADING: The item of "Station Grading" will be paid for as a lump sum. The quantities listed above are approximate; any changes in quantity will not alter the lump sum pay quantity for Station Grading.

PAY ITEM PAY UNIT

Station Grading Lump Sum

<u>SUBBASE, CIP:</u> Section 301 of the Standard Specifications will apply. The contractor will furnish, place, compact and shape the material to obtain a minimum depth of 12 inch of Subbase from Station P.O.B. to P.O.E. All Subbase will be Class II material.

The Subbase material will be compacted to not less than 95% of the maximum unit weight. Density tests will be done at the discretion of the Engineer.

METHOD OF PAYMENT FOR SUBBASE, CIP: The item of "Subbase, CIP" will be paid by the cubic yard, compacted-in-place.

PAY ITEM PAY UNIT

Subbase, CIP Cubic Yard

<u>TOPSOIL SURFACE, SALV, LM:</u> The existing topsoil will be stripped from the areas within the right-of-way or grading limits shown or as directed in the field, adjacent to roadway as detailed in the project description. The salvaged topsoil will be stockpiled for measurement. The item includes picking up, stockpiling, replacing and shaping the topsoil at least 3 inches deep.

Prior to seeding, the Contractor will be required to drag all front and back slopes that are 1 on 3 or flatter. Slopes that are steeper than 1 on 3 must be left in a relatively smooth condition. Slope preparation will be included in the item of Topsoil Surface, Salv, LM.

METHOD OF PAYMENT FOR TOPSOIL SURFACE, SALV, LM: The item of "Topsoil Surface, Salv, LM" will be paid for by the cubic yard as measured in the stockpile. The plan quantity is the maximum Cubic Yards that will be paid.

PAY ITEM PAY UNIT

Topsoil Surface, Salv, LM Cubic Yard

SUBGRADE UNDERCUTTING, TYPE II: The item of "Subgrade Undercutting, Type II" will consist of cutting out undesirable material below the Subgrade and will include backfilling with Class II material (Section 205 Standard Specifications for Construction). Subgrade undercutting will be done only if requested by the engineer. Backfill of Subgrade Undercutting will be compacted to not less than 95% of the Maximum Unit Weight. Tests will be run at the discretion of the engineer. This item will also include all muck, morrow and peat excavation and backfill required up to 6 feet deep.

### SUBGRADE UNDERCUTTING, TYPE II (CON'T):

METHOD OF PAYMENT FOR SUBGRADE UNDERCUTTING, TYPE II: The item of "Subgrade Undercutting, Type II" will be paid for by the cubic yard as measured from the area actually excavated from the roadway. Backfill for the undercutting is included in the price for Subgrade Undercutting, Type II. The pay quantity for this item shall not exceed more than 5% of the plan quantity unless the contractor has received a written work order from the Allegan County Road Commission.

PAY ITEM PAY UNIT

Subgrade Undercutting, Type II Cubic Yard

<u>GEOTEXTILE, STABILIZATION:</u> The item of "Geotextile, Stabilization" will include all labor, material and equipment to place material as instructed by the Engineer. Material will be in accordance with section 308 of the Standard Specifications.

<u>METHOD OF PAYMENT FOR GEOTEXTILE, STABILIZATION:</u> The item of "Geotextile, Stabilization" will be paid for by the square yard as measured in place.

PAY ITEM PAY UNIT

Geotextile Stabilization Square Yard

AGGREGATE, 6A: The item of "Aggregate, 6A" will include furnishing, hauling, placing, and shaping of the material. Material will meet MDOT 6A Specifications. This item is not shown on the plans, and will be used at the discretion of the Engineer. The item is intended to be used for pipe bedding over Geotextile Stabilization (separate item).

METHOD OF PAYMENT FOR AGGREGATE, 6A: The item of "Aggregate, 6A" will be paid for by the ton. Weight slips will be required.

PAY ITEM PAY UNIT

Aggregate, 6A Ton

<u>EXCAVATION, PEAT:</u> The item of "Excavation, Peat" will include all labor, material, and equipment necessary to remove peat, marl, soft clay, or other undesirable material as directed by the Engineer. All work will be performed in accordance with Section 205 of the Standard Specifications and in accordance with Standard Plan R-103 (current edition), Treatment of Peat Marshes, Method A-1, or as directed by the Engineer in the field.

METHOD OF PAYMENT FOR EXCAVATION, PEAT: The item of "Excavation, Peat" will be paid by the cubic yard as measured in place.

PAY ITEM PAY UNIT

Excavation, Peat Cubic Yard

<u>BACKFILL, SWAMP:</u> The item of "Backfill, Swamp" will include all labor, material, and equipment necessary to backfill areas, which are excavated as part of "Excavation, Peat." All work will be performed in accordance with Section 205 of the Standard Specifications and in accordance with Standard Plan R-103 (current edition), Treatment of Peat Marshes, Method A-1, or as directed by the Engineer in the field.

### BACKFILL, SWAMP (CON'T):

METHOD OF PAYMENT FOR BACKFILL, SWAMP: The item of "Backfill, Swamp" will be paid by the cubic yard as measured in place.

PAY ITEM PAY UNIT

Backfill, Swamp Cubic Yard

<u>HMA BASE CRUSHING AND SHAPING:</u> This item will include all labor, material and equipment required to scarify, crush, grade, shape roll and compact the existing HMA surface to a minimum depth of 6 inches. The pay item does not differentiate between various depths of crushing required. Gravel will be added on top of the existing HMA prior to the crush and shape operation and will be paid for separately as Aggregate Surface Course. This item will include the final shaping compaction required prior to paving on the entire project.

METHOD OF PAYMENT FOR HMA BASE CRUSHING AND SHAPING: The item of "HMA Base Crushing and Shaping" will be paid for by the square yard. The existing HMA surface area will be measured for payment.

PAY ITEM PAY UNIT

HMA Base Crushing and Shaping Square Yard

AGGREGATE SURFACE CSE: This item will include all labor, material, and equipment required to add MDOT 22A gravel to the HMA surface prior to pulverizing and mixed thoroughly with the existing material. This item may also be used to add additional aggregate after pulverizing.

<u>METHOD OF PAYMENT FOR AGGREGATE SURFACE CSE:</u> The item of "Aggregate Surface Cse" will be paid for by the ton. Scaled tickets are required.

PAY ITEM PAY UNIT

Aggregate Surface Cse Ton

<u>SEWER, CULVERT AND END SECTIONS:</u> The items of sewer, culvert, and end section will include all labor and material for placing the new storm sewer, culverts and end sections as specified. Excavating and backfilling will be included in the item of Sewer and Culverts. If any material more than 0.5 feet below the sewer or culvert is ordered to be removed by the Engineer, it will be paid for as "Subgrade Undercutting, Type II".

Granular bedding and backfill will be included in the item of Sewer and Culverts.

All sewer, culverts, and end sections will be laid true to the lines and grades given, bells or grooves upgrade, ends fully and closely jointed, and each section will have a full, firm bearing throughout its length. All pipe sections/joint assemblies for use in culvert will be selected from the Qualified Products List for Watertight Sewer and Culvert Joint Systems.

Pipes with diameters greater than 24 inch will have the pipe joints wrapped with a non-woven Geotextile fabric. The fabric will have a minimum width of 36 inch and will be centered on the joint.

It is the contractor's responsibility to protect all new culverts and existing culverts to be left in place from damage by heavy equipment by ramping or other means necessary. All cross culverts and sewer will be placed prior to the machine grading unless approved by the Engineer.

### SEWER, CULVERT AND END SECTIONS (CONT.):

All drainage structures and covers will meet the requirements of Section 403 of the 2012 MDOT Standard Specifications for Construction and the current MDOT Standard Plans R-1 thru R-24. They will be of the size noted on the plans or as directed by the Engineer in the field and will include all labor, material, equipment to furnish and install the drainage structures for a functional installation. Drainage Structure Covers will be the type noted on the plans.

Concrete Cross Culverts will be placed at the following locations:

<u>STATION</u>	<u>TYPE</u>	END SECTIONS	<u>LENGTH</u>
10+84	Culv, Cl E, Conc, 18 inch	1	48
16+31	Culv, Cl E, Conc, 18 inch	2	48
35+90	Culv, Cl E, Conc, 48 inch	0	56
71+15	Culv, CI E, Conc, 24 inch	2	40

METHOD OF PAYMENT FOR SEWER, CULVERT, AND END SECTION: The item of "Culvert" will be paid by the linear foot and the item of "End Section" will be paid for by the individual unit.

PAY ITEM PAY UNIT

Culv, CI E, Conc, \_\_\_ inch Foot Culv End Sect, Conc, inch Each

<u>PAVEMENT FOR BUTT JOINTS, REM:</u> When a butt joint is specified, the Contractor will mill the existing bituminous surface to the thickness of the proposed overlay. The material will be removed for the full width of the joint. The removal will be tapered up to the original surface over a distance specified by the engineer. This item will also include any cold milling required on the project. This item will also include disposing of the material milled.

METHOD OF PAYMENT FOR PAVEMENT FOR BUTT JOINTS, REM: The item of "Pavement for Butt Joints, Rem" will be paid for by the square yard.

PAY ITEM PAY UNIT

Pavement for Butt Joints, Rem Square Yard

SHOULDER PREP: This item will include all labor, material, and equipment required to prepare the shoulders along the existing surface prior to HMA Base Crushing and Shaping. The shoulder will be entirely stripped of vegetation between the existing asphalt edge and the beginning of the ditch fore slope. Any excess material will be removed and disposed outside the road right-of-way as part of this item.

This item also includes relocating mailboxes if they conflict with construction. The shoulder preparation may require mowing and/or spraying to kill vegetation if completed more than one week prior to paving.

### METHOD OF PAYMENT FOR SHOULDER PREP

The item of "Shoulder Prep" will be paid for by the lump sum.

PAY ITEM PAY UNIT

Shoulder Prep Lump Sum

### SHOULDER, CI II, LM

This item will include all labor, material, and equipment to place and compact the material according to Section 307 of the Standard Specifications.

Dumping of material on the road metal, shoulders or approaches and blading it out will not be permitted. A mechanical shouldering machine, power broom, skid steer, and double drum roller will be required for this project. All equipment used is subject to the approval of the Engineer.

Shoulder material must be placed within 14 calendar days of paving completion. After 14 days, liquidated damages will be assessed in accordance with section 108.10 of the 2012 Standard Specifications for Construction.

### METHOD OF PAYMENT FOR SHOULDER, CI II, LM

The item of "Shoulder, CI II, LM" will be paid for by the cubic yard, loose measure. If scales are available, the material will be weighted and a conversion based on 3,000 lb per cubic yard loose measure will be used.

PAY ITEM PAY UNIT

Shoulder& Approach, Cl II, LM Cubic Yard

APPROACH, CL II: The item of "Approach, Cl II" will include all labor, material and equipment to place and compact the material specified on the plans. Section 307 of the Standard Specifications for Construction will apply.

METHOD OF PAYMENT FOR APPROACH, CL II: The item of "Approach, Cl II" will be paid for by the ton. Weight slips will be required.

PAY ITEM PAY UNIT

Approach, CI II Ton

<u>APPROACH, HMA Millings:</u> The item of "Approach, HMA Millings" will include all labor, material and equipment to place and compact the material specified on the plans. Section 307 of the Standard Specifications for Construction will apply. Material must approximate 22A gradation or be approved by Engineer.

METHOD OF PAYMENT FOR APPROACH, HMA Millings: The item of "Approach, HMA Millings" will be paid for by the ton. Weight slips will be required.

PAY ITEM PAY UNIT

Approach, HMA Millings Ton

<u>HMA:</u> This item includes furnishing, hauling, and placing the required HMA mixture as indicated below. This work will also include cleaning and sweeping as required and placing mixes around catch basins and downspouts. No additional payment will be made for HMA valley curb. HMA material used on driveways, side roads, and intersections will also be included in this item and

### HMA (CON'T):

paid for as the HMA mixture used, no additional payment will be made. Driveway construction will be a single course over existing HMA approaches or over gravel approaches that connect to concrete drives inside or at the road right-of-way. Driveway construction will be two course on new road surfacing projects or where the concrete approach was removed. The work will also include furnishing and applying Bond Coat (included in HMA items), MDOT Standard Specifications MS-2a or SS-1h before placing the HMA. Bond Coat will be placed at the rate of 0.05 – 0.10 gallons per square yard prior to placing HMA.

Performance Grade Asphaltic Cement Bituminous Material will be PG 64-22 unless specified on the individual bid sheets as PG 64-28.

### HMA, LVSP, MOD

- 1. The Contractor will submit a mix design with a range of 5.0 to 8.0 percent (effective bitumen) of bitumen content. Target air voids of 3.0% through regression.
- 2. The limits for the bitumen content of range 1 will be + 0.30 from the optimum mix design.
- 3. The Contractor will submit a mix design and test results of the aggregates to be used at least two weeks before commencing paving. The mix design will be submitted to an approved testing laboratory for design compliance tests. The Road Commission will require a mix design in accordance with the MDOT "HMA Production Manual".
- 4. All mix designs must be approved by the Engineer.

### ROLLING OF THE HMA MIXTURE

Nuclear gauge testing requirements may be waived at the discretion of the Engineer; the rolling and compaction operation will be controlled by the "Number of Rollers Method" shown below.

Average Laydown Rate,	Number of Rollers Required				
Square Yards per Hour	Compaction Rollers	Finish Rollers			
Less than 800	1	*1			
800-1800	1	1			
1800-4000	2	1			
4000-7000	3	1			

<sup>\*</sup> The compaction roller may also be used as the finish roller.

### METHOD OF PAYMENT FOR HMA MIXTURES

The item of "HMA Mixtures" will be paid for by the Ton.

PAY ITEM PAY UNIT

HMA. LVSP. Mod Ton

<u>RIPRAP</u>, <u>PLAIN</u>: The item of "Riprap, Plain" will include all labor, equipment and material to place the Riprap as instructed by the engineer.

Section 813 of the Standard Specifications for Construction will apply to this item.

The Riprap will be placed over Geotextile Fabric, included in this item.

METHOD OF PAYMENT FOR RIPRAP, PLAIN: The item of "Riprap, Plain" will be paid for by the square yard. The pay quantity for this item shall not exceed more than 5% of the plan quantity unless the contractor has received a written work order from the Allegan County Road Commission. Amounts in excess of the plan quantity will not be considered for payment unless an error in calculations is proven.

PAY ITEM PAY UNIT

Riprap, Plain Square Yard

<u>PAVT MRKG, WATERBORNE, 4 INCH, WHITE:</u> This item will include all equipment, labor, and material required to place the Pavt Mrkg according to Section 811 of the Standard Specifications.

Pavt Mrkgs must be placed within 14 calendar days of shoulder completion. After this time, liquidated damages will be assessed in accordance with section 108.10 of the 2012 Standard Specifications for Construction.

### METHOD OF PAYMENT FOR PAVT MRKG, WATERBORNE, 4-INCH, WHITE

The item of "Pavt Mrkg, Waterborne, 4-inch, White" will be paid for by the linear foot.

PAY ITEM PAY UNIT

Pavt Mrkg, Waterborne, 4-inch, White Foot

<u>PAVT MRKG, WATERBORNE, 4 INCH, YELLOW:</u> This item will include all equipment, labor, and material required to place the Pavt Mrkg according to Section 811 of the Standard Specifications.

Pavt Mrkgs must be placed within 14 calendar days of shoulder completion. After this time, liquidated damages will be assessed in accordance with section 108.10 of the 2012 Standard Specifications for Construction.

### METHOD OF PAYMENT FOR PAVT MRKG, WATERBORNE, 4-INCH, YELLOW

The item of "Pavt Mrkg, Waterborne, 4-inch, Yellow" will be paid for by the linear foot.

PAY ITEM PAY UNIT

Pavt Mrkg, Waterborne, 4-inch, Yellow Foot

<u>PAVT MRKG, TYPE NR, TAPE, 4-INCH, YELLOW, TEMP:</u> This item will include all equipment, labor, and material required to place the pavement marking according to Section 812 of the Standard Specifications. Marks will be four (4) foot long and placed every 50 feet.

### PAVT MRKG, TYPE NR, TAPE, 4 INCH, YELLOW, TEMP (CON'T):

### METHOD OF PAYMENT FOR PAVT MRKG, TYPE NR, TAPE, 4-INCH, YELLOW, TEMP

The item of "Pavt Mrkg, Type NR, Tape, 4-inch, Yellow, Temp" will be paid by the foot.

PAY ITEM PAY UNIT

Pavt Mrkg, Type NR, Tape, 4-inch, Yellow, Foot

SLOPE RESTORATION, TYPE A: The item of "Slope Restoration, Type A" will include all labor, material and equipment required to do the restoration. Restoration will consist of placing Seeding, Mixture TUF (220#/acre); Seeding, Mixture CR (70#/acre), Fertilizer, Chemical Nutrient, Cl A (176#/acre); Mulch (2 ton/acre); and Mulch Anchoring. Place Mulch and Mulch Anchoring within one calendar day after seeding.

Section 816 of the Standard Specifications for Construction will apply. The following is an approximate list of restoration material quantities:

MATERIAL
Seeding, Mixture TUF
Seeding, Mixture CR

QUANTITY
150 Lb
50 Lb

Fertilizer, Chemical Nutrient, CI A 100 Lb (Nutrients)

Mulch 1.0 Ton

Mulch Anchoring Per manufactures recommendation

METHOD OF PAYMENT FOR SLOPE RESTORATION, TYPE A: The item of "Slope Restoration, Type A" will be paid for by the square yard measured in place.

PAY ITEM PAY UNIT

Slope Restoration, Type A Square Yard

SLOPE RESTORATION, TYPE C: The item of "Slope Restoration, Type C" will include all labor, material and equipment required to do the restoration. Restoration will consist of placing Seeding, Mixture TUF (400#/acre); Seeding, Mixture CR (70#/acre), Fertilizer, Chemical Nutrient, CI A (228#/acre); and High Velocity Mulch Blanket. Place High Velocity Mulch Blanket and Anchoring within one calendar day after seeding.

Section 816 of the Standard Specifications for Construction will apply. The material for Mulch Blanket will meet the specifications set on page 853 (Section 917.15) of the 2012 MDOT Standard Specifications for Construction. The following is an approximate list of restoration material quantities:

MATERIALQUANTITYSeeding, Mixture TUF140 LbSeeding, Mixture CR25 Lb

Fertilizer, Chemical Nutrient, Cl A 75 Lb (Nutrients) High Velocity Mulch Blanket 1,600 Syd

Mulch Blanket Anchoring Per manufactures recommendation

METHOD OF PAYMENT FOR SLOPE RESTORATION, TYPE C: The item of "Slope Restoration, Type C" will be paid for by the square yard measured in place.

PAY ITEM PAY UNIT

Slope Restoration, Type C Square Yard

<u>EXTENDED RESTORATION:</u> The item of "Extended Restoration" will include all labor, material and equipment required to maintain the restoration of the construction site. The contractor shall be responsible for the permanent establishment of turf and maintaining the temporary and permanent soil erosion control measures for a period of one year from the date of final approval or when the site is stabilized and approved by the Engineer. This may include reseeding, maintaining check dams and spillways, and fixing erosion on site.

<u>METHOD OF PAYMENT FOR EXTENDED RESTORATION:</u> The item of "Extended Restoration" will be paid for as a lump sum.

PAY ITEM PAY UNIT

Extended Restoration Lump Sum

SIGN, TYPE B, TEMP, MODIFIED: The item of "Sign, Type B, Temp, Modified" will include supplying all materials, equipment and labor required to erect and maintain construction signs as designated by the Engineer. Materials and placement will conform to the MDOT Standard Specifications for Construction and the Michigan Manual of Uniform Traffic Control Devices. Signs will be placed as instructed by the Engineer. All "CONSTRUCTION AHEAD" and "ROAD CLOSED AHEAD" signs will be 48" x 48" mounted on two posts with one steady burn light. Place "CONSTRUCTION AHEAD" signs on all public roads approaching the project limits. Also, place "ROAD CLOSED AHEAD" signs at each end of the project limits if applicable. (Steady burn light and posts are included in the Sign, Type B, Temp, Modified item).

METHOD OF PAYMENT FOR SIGN, TYPE B, TEMP, MODIFIED: The item of "Sign, Type B, Temp, Modified" will be paid for by the square foot of sign face.

PAY ITEM PAY UNIT

Sign, Type B, Temp, Modified Square Foot

<u>PLASTIC DRUM, HIGH INTENSITY, LTD, MODIFIED:</u> The item of "Plastic Drum, High Intensity, Ltd, Modified" will include all labor, equipment and material to furnish, set up, move and maintain the drums as required by the Engineer. Drums will be equipped with one light.

Section 812 of the Standard Specifications for Construction will apply.

METHOD OF PAYMENT FOR PLASTIC DRUM, HIGH INTENSITY, LTD, MODIFIED: The item of "Plastic Drum, High Intensity, Ltd, Modified" will be paid for by the individual unit.

PAY ITEM PAY UNIT

Plastic Drum, High Intensity, Ltd, Modified Each

BARRICADE ,TYPE III, HIGH INTENSITY, DOUBLE SIDED, LTD, MODIFIED: The item of "Barricade, Type III, High Intensity, Double Sided, Ltd, Modified" will include all labor, equipment and material to furnish, set up, move and maintain the barricades.

The Contractor will furnish and maintain Barricades, Type III with three lights and an R-11-4 Sign (ROAD CLOSED TO THRU TRAFFIC) mounted above the barricade. The R-11-4 sign will comply with and be paid as "Sign, Type B, Temp, Modified".

Section 812 of the Standard Specifications for Construction will apply.

### BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LTD, MODIFIED (CON'T):

METHOD OF PAYMENT FOR BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LTD, MODIFIED: The item of "Barricade, Type III, Double Sided, Ltd, Modified" will be paid for as individual units.

PAY ITEM PAY UNIT

Barricade, Type III, High Intensity, Double Sided, Ltd, Modified Each

<u>EROSION CONTROL</u>, <u>SILT FENCE</u>: The item of "Erosion Control, Silt Fence" will include all labor, material and equipment to place silt fence as instructed by the Engineer. Section 208 of the Standard Specifications for Construction will apply to this item.

METHOD OF PAYMENT FOR EROSION CONTROL, SILT FENCE: The item of "Erosion Control, Silt Fence" will be paid for by the linear foot.

PAY ITEM PAY UNIT

Erosion Control, Silt Fence Foot

<u>MONUMENT BOX, ADJ.</u>: This item includes all equipment, labor, and material required to remove existing monument boxes and reset them to match the final surface elevation of the HMA. Any new boxes required will be furnished by the Allegan County Road Commission.

METHOD OF PAYMENT FOR MONUMENT BOX, ADJ.: The item of "Monument Box, Adj." shall be paid for by the individual unit.

PAY ITEM PAY UNIT

Monument Box, Adj. Each

<u>PROJECT CLEANUP:</u> The item of "Project Cleanup" will include all labor, material and equipment to pick up stone, sticks, branches, roots and other debris from the project.

This item will also include moving all mailboxes to a temporary location to be approved by the mail carrier and to reset the boxes permanently on the project. If new boxes or posts are required, they will be supplied by the Road Commission. Project Cleanup also includes placing a 1" x 3" with the respective property address written on it in the front yard of each residence to assist with identification for emergency vehicles.

METHOD OF PAYMENT FOR PROJECT CLEANUP: The item of "Project Cleanup" will be paid for as a lump sum.

PAY ITEM PAY UNITProject Lump Sum

### ALLEGAN COUNTY ROAD COMMISSION ALLEGAN, MICHIGAN

### **GENERAL SPECIFICATIONS**

### MICHIGAN DEPARTMENT OF TRANSPORTATION-STANDARD SPECIFICATIONS

The work covered by the plans and specifications will be done in accordance with the 2012 Michigan Department of Transportation Standard Specifications for Construction, except as qualified in supplemental specifications and special conditions of the Allegan County Road Commission or as agreed to in writing at the time of the award of the contract.

### **DEFINITION OF TERMS**

See Section 101 of Michigan Department of Transportation Standard Specifications for Construction.

### SPECIAL CONDITIONS

Special requirements, regulations or directions applying to a particular project may be made a part of these specifications.

### **THE WORK**

The work consists of the completed services, construction and/or paving by the Contract Documents and includes all materials and labor incorporated or to be incorporated therein.

### RESPONSIBILITIES OF CONTRACTOR

- A. Responsibility for and Supervision of Construction. Unless otherwise stated herein, Contractor will be solely responsible for all construction under this Contract, including the methods, techniques, sequences, procedures, and means, and for coordination of all work. Contractor will supervise and direct the work to the best of Contractor's ability, and give it all attention necessary for such proper supervision and direction. Contractor will notify the Road Commission of any anticipated pay item overruns or extras as soon as possible to allow for approval or design changes.
- B. <u>Discipline and Employment.</u> Contractor will maintain at all times strict discipline among Contractor's employees, and contractor agrees not to employ for work on the project any person unfit for without sufficient skill to perform the job for which he or she was employed.
- C. <u>Furnishing of Labor, Materials, etc.</u> Unless otherwise stated herein, Contractor will provide and pay for all labor, materials, and equipment, including tools, construction equipment, and machinery, utilities, including water, transportation, and all other facilities and services necessary for the proper completion of work on the project in accordance with the Contract Documents.
- D. <u>Payment of Taxes; Procurement of Licenses and Permits.</u> Contractor will pay all taxes required by law in connection with work on the project in accordance with this agreement including sales, use, and similar taxes, and will secure all licenses and permits necessary for proper completion of the work, paying the fees for such licenses and permits.
- E. <u>Compliance with Laws and Regulations.</u> Contractor will comply with all laws and ordinances, and the rules, regulations or orders of all public authorities relating to the performance of the work under and pursuant to this Agreement including, but not limited to, the Occupational Safety and Health Act of 1970, the Michigan Occupational Safety and Health Act, and the rules and regulations of the Michigan Construction Safety Commission.

### RESPONSIBILITIES OF CONTRACTOR (CON'T):

- F. <u>Responsibility for Negligence of Employees and Subcontractors.</u> Contractor assumes full responsibility for acts, negligence or omissions of all of Contractor's employees on the project, for those of Contractor's subcontractors and their employees, and for those of all other persons doing work under a contract with Contractor.
- G. Responsibility for Safety. Unless otherwise stated herein, at Contractor's expense, Contractor will take all necessary precautions (including, without limitation, the furnishing of traffic control, barricades, traffic control devices, flaggers, warning lights, signs, warning signs, safety channels, channelization devices, guards, fences, walks, flags, cables and lights) for the safety of, and the prevention of injury, loss and damage to, persons and property (including, without limitation, in the term persons, members of the public, employees, Contractor's subcontractors and their respective employees, other contractors, their subcontractors and respective employees) on, about or adjacent to the location where the work is being performed, and will comply with all applicable provisions of safety rules, ordinances, codes, regulations, and orders of duly-constituted public authorities including, but not limited to, the Michigan Manual of Uniform Traffic Control Devices.
- H. <u>Responsibility of Subcontractors</u>. The Contractor will require any subcontractor hired by the Contractor for the purpose of performing any of the work described by the Contract documents to be bound by all of the terms and conditions of the Contract documents and to perform the work in accordance with the Contract documents. Each and every condition of the Contract documents, including without limitation, the <u>RESPONSIBILITIES OF THE CONTRACTOR</u>, will be made a condition of each subcontract entered into by the Contractor in conjunction with the performance of the work.

### **INDEMNIFICATION**

To the fullest extent permitted by law, the Contractor will indemnify, defend, and hold harmless The Board of County Road Commissioners of Allegan County, its officers, employees, representatives and agents from and against any and all claims, damages, demands, payments, suits, actions, recoveries, judgements, losses and expenses, including attorney fees, interest, and court costs, which are made, brought or recovered against the Board of County Road Commissioners of Allegan County, arising out of or resulting from performance of the Contractor's work under this Contract, provided that such claims, damages, losses, demands, payments, suits, actions, recoveries, judgements and/or expenses are attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including loss of use resulting therefrom, but only if caused in whole or in part, by the act, omissions, fault, negligence or breach of the conditions of this Contract by negligent acts or omissions of the Contractor, the Contractor's sub-subcontractors, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. The Contractor will not, however, be obligated to indemnify the Board of County Road Commissioners of Allegan County, for any damage or injuries caused by or resulting from the sole negligence of the Board of County Road Commissioners of Allegan County. Such obligation will not be construed to negate, abridge or otherwise reduce other rights or obligations of indemnity which would otherwise exist as a party or person described in this paragraph.

In claims against any person or entity indemnified under this Agreement by an employee of the Contractor, the Contractor's sub-subcontractors, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this paragraph will not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or the Contractor's subcontractors under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

### **INSURANCE**

A. <u>Contractor's Insurance.</u> Prior to start of the Contractor's work, the Contractor will procure for the Contractor's work and maintain in force until the completion of the work, workers' compensation insurance, employer's liability insurance, comprehensive general liability insurance and all insurance required of the contract under the contract documents.

The Board of County Road Commissioners of Allegan County will be named as an additional insured on each of these policies except for worker's compensation.

The insurance will include contractual liability insurance covering the Contractor's obligations under its agreement of indemnification as set forth herein.

- B. <u>Minimum Limits of Liability.</u> The Contractor's comprehensive general and automobile liability insurance as required herein, will be written with limits of liability not less than the following:
  - a. Comprehensive general liability including completed operations
    - (1) \$ 500,000 each occurrence
  - b. Property damage
    - (1) \$ 500,000 each occurrence
- C. <u>Number of Policies</u>. Comprehensive general liability insurance and other liability insurance may be arranged under a single policy for the full limit required or by combination of underlying policies with the balance provided by an excess or umbrella liability policy.
- D. <u>Cancellation, Renewal or Modification.</u> The Contractor will maintain in effect all insurance coverage required under this Agreement at the Contractor's sole expense and with insurance companies acceptable to the Board of County Road Commissioners of Allegan County.

All insurance policies will contain a provision that the coverage afforded thereunder will not be cancelled or not renewed nor restrictive modifications added at any time after a certificate of insurance required under agreement has been issued and before the work; as defined herein, has been completed, until at least thirty (30) days prior thereto written notice has been given to the Board of County Road Commissioners of Allegan County unless otherwise specifically required in the Contract Documents.

Certificates of insurance or certified copies of policies acceptable to the Board of County Road Commissioners of Allegan County will be filed with the Board of County Road Commissioners of Allegan County prior to the commencement of the Contractor's work.

In the event that the Contractor fails to obtain or maintain any insurance coverage required under this Agreement, the Board of County Road Commissioners of Allegan County may:

- 1. Purchase such coverage and charge the expense thereof to the Contractor, and
- 2. Withhold from any payment due or to become due to the Contractor an amount sufficient to protect the Board of County Road Commissioners of Allegan County from such claims, damages, demands, payments, suits, actions, recoveries, judgments, losses and expenses, including attorney fees, interest and court costs, and
- 3. Terminate this agreement.

Nothing contained in this Agreement, nor the Board of County Road Commissioners of Allegan County's compliance therewith, will relieve the Contractor from its obligations under the Contract to purchase and maintain required insurance or to indemnify the Board of County Road Commissioners of Allegan County.

### **PROGRESS CLAUSE**

The successful bidder will be required to submit a Progress Schedule, giving an outline of his proposed order of work and to indicate the dates for completion of the work. This outline, when approved by the Road Commission, will become a part of the contract.

### PROSECUTION OF THE WORK

The Contractor will begin the work within five (5) days after being notified by the Road Commission of the award of the contract, unless this is inconsistent with the Progress Schedule, in which case the Progress Schedule will govern. He will prosecute the work in the order given in the Progress Schedule, with force and equipment adequate to complete the sections within the time limit therein fixed for completion. In case of failure to proceed with the work as rapidly as is provided in the Progress Schedule, or if it appears at any time that such work is not being prosecuted in such a manner as to insure its completion within time specified, the Road Commission will have the right to require the contractor to furnish and place in operation such additional force and equipment as the Road Commission will deem necessary to bring the work up to the Progress Schedule; and in case of the Contractor's neglect to do so, the Road Commission may place such working force and equipment on the work and charge the Contractor the cost of the labor and such rental and depreciation rates for the plan and equipment as in its judgment is reasonable, and for such time as the plant and equipment are in service.

### **ESTIMATED QUANTITIES**

The quantities listed in the proposal are the estimated quantities. Increases or decreases in quantities will not be considered as a basis for adjustment in unit prices and Articles 109.03 of M.D.O.T. Standard Specifications for Construction will not apply in this regard.

### FINAL PAYMENT

Final payment will not be made until the contractor will have filed with the Board of County Road Commissioners the consent of the Surety of the payment of the final estimate and satisfactory evidence by affidavit or otherwise that all his indebtedness by reason of the contract has been fully paid or satisfactorily secured. In case such evidence is not furnished, the Road Commission may retain out of any amount due said contractor sums sufficient to cover all lienable claims unpaid.

### AFFIRMATIVE ACTION POLICY (EQUAL EMPLOYMENT OPPORTUNITY EMPLOYER)

The Allegan County Road Commission will require the Contractor to submit an Affirmative Action Policy stating that they are an equal employment opportunity employer and will recruit, hire and promote in all job classifications without regard to race, color, religion, sex or national origin, except where sex is a bona fide occupational qualification. The Affirmative Action Policy will be signed by the Contractor or one of the Company's Authorized Officers.

### **CONTRACT BONDS**

The Successful Bidder will furnish satisfactory performance and lien bonds, each in the amount of not less than one hundred (100) percent of the total contract price. Such bonds will be on forms provided and will meet the regulations of the Allegan County Road Commission and the requirements specified in the laws of Michigan.

Bonds will not be required for contracts of less than \$5,000.00.

### M.D.O.T. - PREQUALIFICATION

Contractors bidding on this work must be pre-qualified by the Michigan Department of Transportation to do similar work on State or Federal-aid Secondary projects.

### **LIQUIDATED DAMAGES**

Failure to complete the project on or before the completion date specified will be assessed according to the following schedule:

Origin	al Contract Amount	Liquid Damages Per Calendar Day
\$	0 to 49,999	75
	50,000 to 99,999	150
	100,000 to 499,999	450
	500,000 to 999,999	900
	1,000,000 to 1,999,999	1,300
	2,000,000 to 4,999,999	1,550
	5,000,000 to 9,999,999	2,650
	10,000,000 and above	3,000

The liquidated damages may be waived if the contractor meets the requirements set forth in Section 108.07 of the 2012 Standard Specifications for Construction. Approval of the Engineer is required.

### A Contractor's Guide to

## STORM WATER POLLUTION PREVENTION



## Our Watershed, Our Responsibility

- A watershed is an area of land that catches rain and snow melt and drains into a river, lake, stream, or wetland. There are several major watersheds in Allegan County including the Kalamazoo River Watershed and the Macatawa Watershed.
- As citizens and contractors living and working in Allegan County, it is your duty to ensure that the surface waters of the community are kept clean and healthy.

### Where Do Storm Drains Go?

- Storm drains, catch basins, and ditches are directly connected to local waterways.
- This direct connection means that whatever enters the storm drain eventually enters a river, lake, stream or wetland.
- When fertilizer, yard waste, sediment, or other contaminants enter a storm drain, it has adverse effects on local waterways.



### **Eliminating Illicit Discharges**

- An illicit discharge is the discharge of pollutants to storm sewer systems via overland flow or direct dumping into catch basins.
- Illicit discharges are illegal! Reporting them can help eliminate the problem and keep our rivers and streams clean.

Report an illicit discharge to the Pollution Emergency Alerting System (PEAS) at (800) 292-5706 or to the Allegan County Road Commission at (269) 673-2184.

### Practicing Healthy Land Care

- Use a fertilizer that is organic slowrelease with low or no phosphorus. Phosphorus is the main cause of algae growth in streams, which depletes the oxygen aquatic organisms need to survive.
- Get your soil tested through your county Michigan State University Extension office. This will tell you what fertilizer you should use, if any.
- Don't dump leaves or grass clippings down the drain or blow them into the street! Decaying leaves also deplete the oxygen in streams. They can be used as mulch, or they can be disposed of by curbside pick-up.

## Maintaining Your Fleet

- Leaky vehicles and construction machinery can easily cause stream contamination by tracking fluids and other pollutants off site, eventually draining into a catch basin
- You can prevent vehicle fluids from entering local bodies of water by ensuring that your vehicles and equipment are properly maintained and in good working condition.
- Proper disposal of chemicals and other waste is critical to the health of streams and rivers. Solid and liquid waste materials are not meant to be dumped in catch basins. Remember that catch basins are made for storm water only!



streams stops pollutants from reaching the Leaving a buffer zone of 20 feet erosion, stream, and creates a habitat for wisely! land bank and riparian stream awns local wildlife. prevents between Manage

# Managing Streets and Parking Lots

- Storm water runoff from streets and parking lots is a main cause of pollution because the storm water takes sediment and other solids with it into catch basins.
- The runoff from these impervious surfaces entering streams contains total suspended solids (TSS).
- Suspended solids make water in streams cloudy, which inhibits aquatic plant growth. This in turn affects the health of aquatic organisms that require oxygen from the aquatic plants.
- You can prevent this by keeping roads clean near the construction site and have a designated disposal area for cigarette butts and other small debris that can make its way into a carch basin



PROJECT NO. 4053 – 1.45 miles of roadway rehabilitation on 109th Avenue from 37th Street to 34th Street in Cheshire and Trowbridge Townships, Allegan County. Rehabilitation will include clearing, crushing and shaping, shoulder preparation, widening, aggregate base, culvert replacements, HMA paving, and restoration.

									Enginee	rs Estimate
			UNIT		UNIT		UNIT		UNIT	
ITEM OF WORK	QUANTITY	_	PRICE BID	AMOUNT	PRICE BID	AMOUNT	PRICE BID	AMOUNT	PRICE BID	AMOUNT
Clearing	1	LS		\$0.00		\$0.00		\$0.00	, .,	\$10,000.00
Station Grading	1	LS		\$0.00		\$0.00		\$0.00	1 - 1	\$10,000.00
Subbase, CIP	1,800	- /		\$0.00		\$0.00		\$0.00	\$8.00	\$14,400.00
Topsoil Surface, Salv, LM	500			\$0.00		\$0.00		\$0.00	\$5.00	\$2,500.00
Subgrade Undercutting, Type II	500			\$0.00		\$0.00		\$0.00	\$10.00	\$5,000.00
Geotextile, Stabilization	1,000			\$0.00		\$0.00		\$0.00	\$2.00	\$2,000.00
Aggregate, 6A	50			\$0.00		\$0.00		\$0.00	\$20.00	\$1,000.00
Excavation, Peat	12,000	Cyd		\$0.00		\$0.00		\$0.00	\$8.00	\$96,000.00
Backfill, Swamp	12,000	Cyd		\$0.00		\$0.00		\$0.00	\$8.00	\$96,000.00
HMA Base Crushing and Shaping	17,000	Syd		\$0.00		\$0.00		\$0.00	\$1.50	\$25,500.00
Aggregate Surface Cse	2,000	Ton		\$0.00		\$0.00		\$0.00	\$16.00	\$32,000.00
Culv End Sect, Conc, 18 inch	3	Ea		\$0.00		\$0.00		\$0.00	\$600.00	\$1,800.00
Culv End Sect, Conc, 24 inch	2	Ea		\$0.00		\$0.00		\$0.00	\$650.00	\$1,300.00
Culv, Cl E, Conc, 18 inch	96	Ft		\$0.00		\$0.00		\$0.00	\$45.00	\$4,320.00
Culv, Cl E, Conc, 24 inch	40	Ft		\$0.00		\$0.00		\$0.00	\$50.00	\$2,000.00
Culv, Cl E, Conc, 48 inch	56	Ft		\$0.00		\$0.00		\$0.00	\$160.00	\$8,960.00
Pavt for Butt Joints, Rem	90	Syd		\$0.00		\$0.00		\$0.00	\$6.00	\$540.00
Shoulder Prep	1	LS		\$0.00		\$0.00		\$0.00	\$5,000.00	\$5,000.00
Shoulder, CL II, LM	100	Cyd		\$0.00		\$0.00		\$0.00	\$25.00	\$2,500.00
Approach, Cl II	255	Ton		\$0.00		\$0.00		\$0.00	\$25.00	\$6,375.00
Approach, HMA Millings	15	Ton		\$0.00		\$0.00		\$0.00	\$25.00	\$375.00
HMA, LVSP	1,200	Ton		\$0.00		\$0.00		\$0.00	\$65.00	\$78,000.00
Riprap, Plain	60	Syd		\$0.00		\$0.00		\$0.00	\$60.00	\$3,600.00
Pavt Mrkg, Waterborne, 4 inch, White	5,200	Ft		\$0.00		\$0.00		\$0.00	\$0.25	\$1,300.00
Pavt Mrkg, Waterborne, 4 inch, Yellow	1,415	Ft		\$0.00		\$0.00		\$0.00	\$0.25	\$353.75
Pavt Mrkg, Type NR, Tape, 4 inch, Yellow, Temp	208	Ft		\$0.00		\$0.00		\$0.00	\$2.00	\$416.00
Slope Restoration, Type A	2,250	Syd		\$0.00		\$0.00		\$0.00	\$2.00	\$4,500.00
Slope Restoration, Type C	1,650			\$0.00		\$0.00		\$0.00	\$3.00	\$4,950.00
Extended Restoration	1	ĹŠ		\$0.00		\$0.00		\$0.00	\$2,000.00	\$2,000.00
Sign, Type B, Temp, Modified	126	Sft		\$0.00		\$0.00		\$0.00	\$7.00	\$882.00
Plastic Drum, High Intensity, Lighted, Modified	30			\$0.00		\$0.00		\$0.00	\$25.00	\$750.00
Barricade Type III, High Intensity, Dbl Sided, Ltd, Modified	6			\$0.00		\$0.00		\$0.00	\$200.00	\$1,200.00
Erosion Control, Silt Fence	1,100	Ft		\$0.00		\$0.00		\$0.00	\$2.50	\$2,750.00
Monument Box Adjust	2			\$0.00		\$0.00		\$0.00	\$200.00	\$400.00
Project Cleanup	1	LS		\$0.00		\$0.00		\$0.00	\$5,000.00	\$5,000.00
			TOTAL BID	\$0.00	TOTAL BID	\$0.00	TOTAL BID	\$0.00	TOTAL BID	\$433,671.75