NAME OF CONTRACTOR	
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PROPOSAL AND SPECIFICATIONS

FOR

HIGHWAY CONSTRUCTION



COUNTY LOCAL ROAD SYSTEM

<u>PROJECT NO. 4048</u> – 2.03 miles of roadway reconstruction including clearing, grade establishment, sand subbase, aggregate base, culvert replacements, and restoration on 122nd Avenue from 10th Street to 6th Street in Martin Township, Allegan County.

MARTIN TOWNSHIP

AUGUST 11, 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, August 11, 2021, and, at such time, be publicly opened and read aloud for the following:

<u>PROJECT NO. 4048</u> – 2.03 miles of roadway reconstruction including clearing, grade establishment, sand subbase, aggregate base, culvert replacements, and restoration on 122nd Avenue from 10th Street to 6th Street in Martin Township, Allegan County.

Complete specifications, plans, and bid forms are available at the Road Commission office and the Road Commission website www.alleganroads.org under the Projects link. When accessing plans from the website, please send an email to jlemaire@alleganroads.org 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. 4048</u> – 2.03 miles of roadway reconstruction including clearing, grade establishment, sand subbase, aggregate base, culvert replacements, and restoration on 122nd Avenue from 10th Street to 6th Street in Martin Township, Allegan County.

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 <u>July 31, 2022</u>. Any disturbed areas will be required to be restored prior to a winter shutdown if work is started in the fall of 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. 4048</u> - 2.03 miles of roadway reconstruction including clearing, grade establishment, sand subbase, aggregate base, culvert replacements, and restoration on 122nd Avenue from 10th Street to 6th Street in Martin Township, Allegan County.

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

			UNIT	
ITEM OF WORK	QUANTITY	UNIT	PRICE	TOTAL
Clearing	1	LS		
Station Grading	1	LS		
Subbase, CIP	24,100	Cyd		
Topsoil Surface, Salv, LM	3,400	Cyd		
Subgrade Undercutting, Type II	1,250	Cyd		
Geotextile, Stabilization	4,600	Syd		
High Performance Biaxial Geogrid	4,000	Syd		
Aggregate, 6A	50	Ton		
Aggregate, 21AA	1,300	Ton		
Excavation, Peat	1,000	Cyd		
Backfill, Swamp	1,000	Cyd		
Culv End Sect, Conc, 18 inch	12	Ea		
Culv End Sect, Conc, 24 inch	2	Ea		
Culv, CI E, Conc, 18 inch	304	Ft		
Culv, Cl E, Conc, 24 inch	40	Ft		
Culv, CI E, Conc, 36 inch	64	Ft		
Culv, Cl F, 12 inch	980	Ft		
Culv, Cl F, 15 inch	240	Ft		
Culv, Cl F, 18 inch	390	Ft		
Dr Structure, 36 inch Dia	1	Ea		
Dr Structure Cover, Type B, Modified	1	Ea		
Underdrain, Subgrade, 6 inch	925	Ft		
Underdrain Outlet, 6 inch	60	Ft		
Underdrain, Outlet Ending, 6 inch	6	Ea		
Curb and Gutter, Conc, Det F2	60	Ft		
Aggregate Base, 6 inch	3,500	Syd		
Aggregate Base, 8 inch	36,800	Syd		
Aggregate Base, 10 inch	1,600	Syd		
Approach, CI II	825	Ton		
Approach, HMA Millings	20	Ton		
Riprap, Plain	100	Syd		
Riprap, Heavy	20	Syd		
Slope Restoration, Type A	29,650	Syd		
Slope Restoration, Type C	4,650	Syd		
Extended Restoration	1	LS		
Sign, Type B, Temp, Modified	221	Sft		
Plastic Drum, High Intensity, Lighted, Modified	30	Ea		
Barricade Type III, High Intensity, Dbl Sided, Ltd, Modified	8	Ea		
Erosion Control, Silt Fence	800	Ft		

Erosion Control, Check Dam, Stone	160	Ft	
Project Cleanup	1	LS	
Railroad Inspection and Flagging	1	LS	

TOTAL	\$		
IOIAL	Ψ		

The undersigned bidder agrees that be utilized is awarded this contract at the Board of County Road Commonter Contractor and Brief Description	nd any change from this list v missioners of Allegan Cou	vill be permitted only with t nty. LIST NAME OF	he consent of
I hereby state that all of the informa that I have the authority to submit thi of County Road Commissioners of A otherwise colluded with any other bi anything of value from an official or County that would tend to destroy or	s bid, which will become a billegan County. I hereby state dder, nor have I made any a employee of the Board of C	inding contract if accepted that I have not communic agreement with nor offered	by the Board cated with nor d or accepted
In case the bidder is a co-partnership	, each member must sign thi	s proposal.	
In case the bidder is a Corporation accordance with its articles of incorporation			
I hereby state that I have read, under	stand and agree to be bound	by all the terms of this bid	document.
SIGNATURE:	NAME:	Type or Print)	
TITLE:			
FIRM NAME:			
ADDRESS:			
(Street Address)	(City)	(State)	(Zip)
FOR COUNTY USE ONLY - DO NO	T WRITE BELOW		
ACCEPTED BY: BOARD OF COUNT OF THE COUNTY OF ALLEGAN, MI		S	
	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.

Any salvaged gravel required to maintain local traffic will be included in the item of Station Grading.

STATION GRADING (CON'T):

The following is an approximate list of earthwork quantities (Note: Quantities below are compacted in place units, Subbase not included).

 STATION
 EARTH EXCAVATION
 EMBANKMENT

 122nd Avenue
 24365 CYD
 13150 CYD

 7th Street
 350 CYD
 290 CYD

 6th Street
 2070 CYD
 20 CYD

 TOTAL:
 26785 CYD
 13460 CYD

<u>METHOD OF PAYMENT FOR STATION GRADING:</u> 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 18 inch of Subbase from Station P.O.B. to P.O.E. on 122nd Avenue and a minimum depth of 12 inch of Subbase on approaching streets. 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.

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

<u>HIGH PERFORMANCE BIAXIAL GEOGRID:</u> The item of "High Performance Biaxial Geogrid" will include labor, material and equipment to place material as instructed by the Engineer. Placement and material will be in accordance with the following:

Ensure all areas immediately beneath the installation area for the geogrid are properly prepared as shown on the plans, as specified, or as directed by the Engineer. Ensure the geogrid is installed in accordance with the manufacturer's recommendations.

Ensure the geogrid is placed in continuous full length strips with the highest tensile strength perpendicular to the slope line/wall face. Place the geogrid taut prior to geotextile separator and backfill placement for the reinforced steepened slope. Anchor the geogrid in position after a layer of geogrid has been placed, until the subsequent backfill layer can be placed. Create the wrapped face steepened slopes as shown on the plans. Ensure adjacent rolls of geogrid are overlapped 6 inches minimum. Whenever possible the backfill placement must proceed from the slope line/wall face inward, to assist in tensioning the geogrids. Construction vehicles will not be permitted on the geogrid until at least 6 inches of backfill has been placed on the geogrid.

Use high performance biaxial geogrid that has a regular grid structure and has aperture geometry, and rib and junction cross-section sufficient to permit significant mechanical interlock with the material being reinforced. Ensure the geogrid has significant dimensional stability through all ribs and junctions of the grid structure. Ensure the geogrid maintains its reinforcement and interlock capabilities under repeated dynamic loads while in service. Ensure the geogrid is resistant to ultraviolet degradation, to damage under normal construction practices, and to all forms of biological or chemical degradation normally encountered in highway construction.

Ensure the geogrid is composed of polypropylene, high-density polyethylene, or polyester virgin resins. Ensure the protective coatings of polyester geogrids contains less than 5 percent filler content. Repair damaged coating prior to backfilling. Ensure the high performance biaxial geogrid meets the minimum requirements of Table 1:

Table 1: High Performance Biaxial Geogrid Physical Property Requirements

Property	Test Method	Minimum Value
Interlock Open Area	COE Method(a)	60 %
Ultimate Tensile Strength MD(c) CMD(c)	ASTM D6637(b)	1,800 lb/ft 2,050 lb/ft
Tensile Strength (2%) MD(c) CMD(c)	ASTM D6637(b)	580 lb/ft 690 lb/ft

- a. Percent open area measured without magnification by means of Corps of Engineers method as specified in CW 02215 Civil Works Construction Guide, November, 1977.
- b. Ultimate Strength and Tensile Modulus at 2 percent elongation measured by means of *ASTM D 6637*. No offset allowances or specimen pretensioning are made in calculating tensile modulus.
- c. "MD" and "CMD" represent 'machine' and 'cross-machine' directions, referring to the principle directions of the manufacturing process.

METHOD OF PAYMENT FOR HIGH PERFORMANCE BIAXIAL GEOGRID: The item of "High Performance Biaxial Geogrid" will be paid for by the square yard as measured in place. No payment will be made for overlap or wasted material.

PAY ITEM PAY UNIT

High Performance Biaxial Geogrid 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>AGGREGATE, 21AA:</u> The item of "Aggregate, 21AA" will include furnishing, hauling, placing, and shaping of the material. Material will meet MDOT 21AA Specifications.

METHOD OF PAYMENT FOR AGGREGATE, 21AA: The item of "Aggregate, 21AA" will be paid for by the ton. Scaled tickets are required.

PAY ITEM PAY UNIT

Aggregate, 21AA Ton

<u>EXCAVATION</u>, <u>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-C, 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 for by the cubic yard as measured from the area actually excavated from the roadway.

PAY ITEM PAY UNIT

Excavation, Peat Cubic Yard

<u>BACKFILL</u>, <u>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-C, Treatment of Peat Marshes, Method A-1, or as directed by the Engineer in the field.

METHOD OF PAYMENT FOR BACKFILL, SWAMP: The item of "Backfill, Swamp" will be paid for by the cubic yard as measured from the area actually backfilled as part of "Excavation, Peat" and in accordance with Standard Plan R-103-B.

PAY ITEM PAY UNIT

Backfill, Swamp Cubic Yard

<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.

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.

SEWER, CULVERT AND END SECTIONS (CONT.):

Concrete Cross Culverts will be placed at the following locations:

<u>STATION</u>	<u>TYPE</u>	END SECTIONS	<u>LENGTH</u>
10+75	Culv, CI E, Conc, 18 inch	2	40
24+55	Culv, CI E, Conc, 18 inch	2	48
69+10	Culv, CI E, Conc, 36 inch	0	64
74+20	Culv, CI E, Conc, 18 inch	2	48
89+30	Culv, CI E, Conc, 18 inch	2	64
115+48	Culv, CI E, Conc, 18 inch	2	64
6th Street 154+25	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.

<u>PAY ITEM</u>	PAY UNIT
Culv, CI F, inch	Foot
Culv, CI E, Conc, inch	Foot
Culv End Sect, Conc, inch	Each
Dr Structure, 36 inch Dia	Each
Dr Structure Cover, Type B, Modified	Each

<u>UNDERDRAIN</u>, <u>SUBGRADE</u>, <u>6 INCH</u>: The item of "Underdrain, Subgrade, 6 inch" will include all labor, material and equipment to place the item as instructed by the Engineer.

Section 404 of the Standard Specifications for Construction will apply.

METHOD OF PAYMENT FOR UNDERDRAIN, SUBGRADE 6 INCH: The item of "Underdrain, Subgrade, 6 inch" will be paid for by the linear foot.

PAY ITEM	<u>PAY UNIT</u>

Underdrain, Subgrade, 6 inch Foot

<u>UNDERDRAIN OUTLET, 6 INCH:</u> The item of "Underdrain Outlet, 6 inch" will include all labor, material and equipment required to place a piece of 6 inch PVC Schedule 40 or stronger from the end of the 6 inch Subgrade Underdrain to the Underdrain, Outlet Ending, 6 inch.

METHOD OF PAYMENT FOR UNDERDRAIN OUTLET, 6 INCH: The item of "Underdrain Outlet, 6 inch" will be paid for by the linear foot.

PAY ITEM	<u>PAY UNIT</u>

Underdrain Outlet, 6 inch Foot

<u>UNDERDRAIN</u>, <u>OUTLET ENDING</u>, <u>6 INCH</u>: The item of "Underdrain, Outlet Ending, 6 inch" will include all labor, material and equipment required to place a precast end section at the end of an Underdrain Outlet, 6 inch.

METHOD OF PAYMENT FOR UNDERDRAIN, OUTLET ENDING, 6 INCH: The item of "Underdrain, Outlet Ending, 6 inch" will be paid for by the individual unit.

PAY ITEM PAY UNIT

Underdrain, Outlet Ending, 6 inch Each

<u>CURB AND GUTTER, CONC, DET F2:</u> The item of "Curb and Gutter, Conc, Det F2" will include all labor, material, and equipment required to place the concrete curb, including a prepared base.

Section 802 of the Standard Specifications for Construction will apply to this item.

MDOT Standard Plans R-30-G and R-122-C will apply to this item.

METHOD OF PAYMENT FOR CURB AND GUTTER, CONC, DET F2: The item of "Curb and Gutter, Conc, Det F2" will be paid for by the foot as measured from the joint with the roadway.

PAY ITEM PAY UNIT

Curb and Gutter, Conc, Det F2 Foot

AGGREGATE BASE, 6 INCH: The item of "Aggregate Base, 6 inch" will include all labor, material and equipment to place, and compact the base course.

The contractor may use 22A gravel, 22A slag, 22A limestone, 22A recycled concrete, or cold-milled bituminous material, which approximates the gradation for 22A material. When milled bituminous material is used as aggregate base, the density provisions of Standard Specifications are not waived. Milled bituminous material may be used full depth or on top of 22A gravel to obtain the specified thickness. 22A gravel shall not be placed on top of bituminous millings.

"Aggregate Base, 6 inch" must be placed directly on top of the sand subbase. Salvaged gravel or any material not meeting 22A specification is not allowed between the aggregate base and the sand subbase.

Section 302 of the Standard Specifications for Construction will apply.

METHOD OF PAYMENT FOR AGGREGATE BASE, 6 INCH: The item of "Aggregate Base, 6 inch" will be paid for by the square yard, compacted in place.

PAY ITEM PAY UNIT

Aggregate Base, 6 inch Square Yard

AGGREGATE BASE, 8 INCH: The item of "Aggregate Base, 8 inch" will include all labor, material and equipment to place, and compact the base course.

The contractor may use 22A gravel, 22A slag, 22A limestone, 22A recycled concrete, or cold-milled bituminous material, which approximates the gradation for 22A material. When milled bituminous material is used as aggregate base, the density provisions of Standard Specifications are not waived. Milled bituminous material may be used full depth or on top of 22A gravel to obtain the specified thickness. 22A gravel shall not be placed on top of bituminous millings.

AGGREGATE BASE, 8 INCH (CONT.):

"Aggregate Base, 8 inch" must be placed directly on top of the sand subbase. Salvaged gravel or any material not meeting 22A specification is not allowed between the aggregate base and the sand subbase.

Section 302 of the Standard Specifications for Construction will apply.

METHOD OF PAYMENT FOR AGGREGATE BASE, 8 INCH: The item of "Aggregate Base, 8 inch" will be paid for by the square yard, compacted in place.

PAY ITEM PAY UNIT

Aggregate Base, 8 inch Square Yard

AGGREGATE BASE, 10 INCH: The item of "Aggregate Base, 10 inch" will include all labor, material and equipment to place, and compact the base course.

The contractor may use 22A gravel, 22A slag, 22A limestone, 22A recycled concrete, or cold-milled bituminous material, which approximates the gradation for 22A material. When milled bituminous material is used as aggregate base, the density provisions of Standard Specifications are not waived. Milled bituminous material may be used full depth or on top of 22A gravel to obtain the specified thickness. 22A gravel shall not be placed on top of bituminous millings.

Section 302 of the Standard Specifications for Construction will apply.

METHOD OF PAYMENT FOR AGGREGATE BASE, 10 INCH: The item of "Aggregate Base, 10 inch" will be paid for by the square yard, compacted in place.

PAY ITEM PAY UNIT

Aggregate Base, 10 inch Square 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.

APPROACH, HMA MILLINGS (CONT.):

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>RIPRAP:</u> The item of "Riprap, ___" 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.

<u>METHOD OF PAYMENT FOR RIPRAP:</u> The item of "Riprap, __" 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 Riprap, Heavy Square Yard

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:

MATERIALQUANTITYSeeding, Mixture TUF1400 LbSeeding, Mixture CR500 Lb

Fertilizer, Chemical Nutrient, CI A 1300 Lb (Nutrients)

Mulch 12.2 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

<u>SLOPE RESTORATION, TYPE C:</u> 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

SLOPE RESTORATION, TYPE C (CONT.):

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 TUF382 LbSeeding, Mixture CR70 Lb

Fertilizer, Chemical Nutrient, Cl A 225 Lb (Nutrients)

High Velocity Mulch Blanket 4,650 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

EXTENDED RESTORATION: 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

<u>BARRICADE</u>, <u>TYPE III</u>, <u>HIGH INTENSITY</u>, <u>DOUBLE SIDED</u>, <u>LTD</u>, <u>MODIFIED</u>: 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.

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>EROSION CONTROL</u>, <u>CHECK DAM</u>, <u>STONE</u>: The item of "Erosion Control, Check Dam, Stone" will include all labor, material and equipment to place the check dam as instructed by the engineer.

Section 208 of the Standard Specifications for Construction will apply to this item.

METHOD OF PAYMENT FOR EROSION CONTROL, CHECK DAM, STONE: The item of "Erosion Control, Check Dam, Stone" will be paid for by the linear foot.

PAY ITEM PAY UNIT

Erosion Control, Check Dam Foot

<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.

<u>PAY ITEM</u> <u>PAY UNIT</u>Project Cleanup Lump Sum

RAILROAD INSPECTION AND FLAGGING: The item of "Railroad Inspection and Flagging" will include providing advance notice to the Railroad and the Engineer to meet the railroad notice requirements found in the Coordination Clause for Work on Railroad Property for providing flaggers for work on, above, or below Railroad property.

Materials. None specified.

Construction. Ensure construction methods are in compliance with the requirements in the Coordination Clause for Work on Railroad Property.

Measurement and Payment. The Contractor must pay or pre-pay to the Railroad the full amount of the Railroad's bill for inspection and flagging. The Contractor, prior to submitting payment requests for reimbursement of flagging costs to the Engineer, will review for accuracy the actual flagging costs and days worked against the billed or pre-paid amount. Inconsistencies must be resolved between the Contractor and Railroad prior to submitting to the Engineer. The Contractor must provide to the Engineer a statement of costs paid by the Contractor for flagging and detailed itemization to support the actual cost paid or pre-paid amount. The Department will reimburse the Contractor upon satisfactory review of submitted documentation for flagging services. This process will continue for the life of the need for flagging services.

Costs incurred for inspection and flagging due to the failure of the Contractor to properly notify the Railroad in advance of beginning work which may require a flagger as stated in the Coordination Clause for Work on Railroad Property, are the responsibility of the Contractor.

The Contractor must inform the Railroad, with a copy to the Engineer, in writing when flagging is no longer needed and retain a copy of this written notification. Also, if the Contractor does not notify the Railroad 36 hours in advance of its no longer needing flagging, the Railroad will schedule and the Contractor must pay such flagging services until said cancellation notice is provided. Before final payment is made by the Department to the Contractor for the project, satisfactory evidence must be submitted indicating all bills for inspection and flagging services and devices furnished by the Railroad have been paid. This pay item covers only inspection and flagging services provided by the Railroad. All other costs incurred by the Contractor in complying with Railroad requirements will not be specific pay items, but must be included in prices bid for other items of the work

See the attached special provisions for Railroad insurance requirements for Grand Elk Railroad and the Coordination Clause for Work on Railroad Property.

RAILROAD INSPECTION AND FLAGGING (CONT.):

METHOD OF PAYMENT FOR RAILROAD INSPECTION AND FLAGGING: The item of "Railroad Inspection and Flagging" will be paid as a lump sum.

PAY ITEM PAY UNIT

Railroad Inspection and Flagging 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. <u>Responsibility for and Supervision of Construction.</u> 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:

Origina	l 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.

ALLEGAN COUNTY ROAD COMMISSION

SPECIAL PROVISION FOR

RAILROAD INSURANCE REQUIREMENTS FOR GRAND ELK RAILROAD

CCE:JLD 1 of 2 5-4-16

- **a. Description.** This work consists of providing required insurance before work is commenced and keeping that insurance in effect until all work required to be performed under the terms of the contract is satisfactorily completed as evidenced by the formal acceptance by the Grand Elk Railroad and the Department.
- **b.** Insurance Requirements. The contractor shall carry the following insurance, in a form, and with an insurer or insurers, acceptable to the Department and Grand Elk Railroad, Inc. hereinafter referred to as the Railroad.

The following insurance is required in addition to any other forms of insurance or bonds required except to the extent that any of the requirements are expressly waived or revised in writing by the Railroad. The contractor, prior to commencement of any work pursuant to the Temporary Entry Permit, hereinafter referred to as the License, and throughout the term of this License, shall at its own cost and expense, maintain insurance of the following kinds and amounts to deliver to the Railroad Real Estate Department satisfactory evidence of such insurance as indicated herein.

- 1. Public Liability Insurance including contractual liability insurance with a limit of not less than \$5,000,000 combined single limit for bodily injury and/or property damage for damages arising out of bodily injuries to or death of all persons in any one occurrence and for damage to or destruction of property, including the loss of use thereof, in any one occurrence. The Railroad shall be named as an additional insured under this insurance.
- 2. Worker's Compensation Insurance in Statutory Amounts. Employer's Liability and Occupational Disease Insurance with limits of \$1,000,000 each accident, \$1,000,000 policy limit and \$1,000,000 each employee. Such policy shall include a waiver of subrogation in favor of the Railroad.
- 3. Automobile Liability Insurance with a limit of not less than \$5,000,000 combined single limit for bodily injury and/or property damage per occurrence. The Railroad shall be named as an additional insured under this insurance.
- 4. The contractor shall, with respect to the operations performed by it or any of its' subcontractors, provide Railroad Protective Liability Insurance in the name of the Railroad and the Department with a limit of not less than \$2,000,000 per occurrence, combined single limit for bodily injury and/or property damage, for damages arising out of bodily injuries or to death of all such persons and for damage to or destruction of property, including the loss of use thereof. Such insurance shall also contain an aggregate of not less than \$6,000,000 for damages arising out of more than one occurrence. The Railroad shall be the "Named Insured" on this policy.

5. General Contractor's Pollution Liability coverage, with limits of not less than \$5,000,000 aggregate bodily injury, property damage and cleanup expenses resulting from pollution conditions, also provides coverage for contractor's liability for subcontracted activities, such as lead paint removal and asbestos abatement. The Railroad shall be named as Additional Named Insured under this insurance.

The insurance specified above shall be carried until the project is satisfactorily completed and formally accepted by the Railroad and the Department. Failure to procure and maintain such insurance shall constitute a breach of the License.

The above indicated coverage's shall be effected under standard form policies issued by insurers of financial responsibility that are rated "A" or better by Best's Insurance Reports, "AA" or better by Standard & Poor's Insurance Rating Service and "Aa" or better by Moody's Investors Service. The Railroad reserves the right to reject as inadequate any insurance coverage provided by an insurance company that is rated less than the ratings above by any of the aforementioned rating services.

The above indicated insurance coverage's shall be enforceable by any legitimate claimant after the termination or cancellation of this License or any attachment hereto, whether by expiration of time, by operation of law or otherwise, so long as the basis of the claim against the insurance company occurred during the period of time when the License was in effect and the insurance was in force.

The contractor shall furnish the Railroad with certificates of insurance evidencing the insurance coverage's required above and shall also furnish the original Railroad Protective Liability insurance policy referred to in Item 4 above, at least thirty (30) day prior to the commencement of the License. The Railroad shall be named as an additional insured under the insurance coverage's outlined above. Certificates of Insurance and/or policies should be sent to Grand Elk Railroad, Inc., Real Estate Department, 315 West 3rd Street, Pittsburg, Kansas 66762.

All insurance policies shall be endorsed to provide that the insurance company shall give thirty (30) days prior written notice to Grand Elk Railroad, Inc., 315 West 3rd Street, Pittsburg, Kansas 66762 if the policies are to be terminated or if any changes are to be made which will in any way affect the insurance requirements of the License.

- **c. Construction.** If any of the insurance is canceled, the Contractor and all subcontractors must cease operations as of the date of cancellation and cannot resume operations until new insurance is in force.
- **d. Measurement and Payment.** The Contractor must pay for railroad liability insurance. Insurance costs as described in this special provision will be included as part of other pay items.

ALLEGAN COUNTY ROAD COMMISSION

COORDINATION CLAUSE FOR WORK ON RAILROAD PROPERTY

CCE:JLD 1 of 1 5-4-16

As soon as the project is awarded, the Contractor shall complete the steps necessary to fulfill the requirements included in the Special Provision for Railroad Insurance Requirements for Grand Elk Railroad. The Contractor shall submit the required paperwork and a letter containing the following information to the Grand Elk Railroad (Grand Elk Railroad, Inc., Real Estate Department, 315 West 3rd Street, Pittsburg, Kansas 66762) to complete the Application for a Temporary Entry Permit for this work:

- 1. Company name and address
- 2. Contact name
- 3. Contact phone
- 4. Contact fax
- 5. Contact cell
- 6. Contact email
- 7. Date expected to start work on railroad bridge
- 8. Date expected to complete all work on railroad bridge
- 9. Specific schedule of planned work at railroad bridge (include days of week and time of day)

When the paperwork has been reviewed and approved, the Grand Elk Railroad will issue a Temporary Entry Permit. The Contractor must abide by the requirements of this permit. Access to the area below the bridge and on railroad right-of-way is not allowed without prior approval from the Grand Elk Railroad.

The Contractor must coordinate with the Grand Elk Railroad to make arrangements for flagging services and reimbursement thereof. The Grand Elk Railroad may require an advance payment from the Contractor for flagging service.

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!



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

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



BID TABULATION - Wednesday, August 11, 2021 - HIGHWAY CONSTRUCTION Allegan County Road Commission 1308 Lincoln Road Allegan, Michigan 49010-9762

														MINARY 'S ESTIMATE
	1	1	LINUT			SESTIMATE								
ITEM OF WORK	QUANTITY	UNIT	UNIT PRICE BID	AMOUNT										
Clearing	1	LS		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	\$60,000.00	\$60,000.00
Station Grading	1	LS		0.00		0.00		0.00		0.00		0.00	180,000.00	180,000.00
Subbase, CIP	24,100	Cyd		0.00		0.00		0.00		0.00		0.00	8.00	192,800.00
Topsoil Surface, Salv, LM	3,400	Cyd		0.00		0.00		0.00		0.00		0.00	5.00	17,000.00
Subgrade Undercutting, Type II	1,250	Cyd		0.00		0.00		0.00		0.00		0.00	9.00	11,250.00
Geotextile, Stabilization	4,600	Syd		0.00		0.00		0.00		0.00		0.00	2.50	11,500.00
High Performance Biaxial Geogrid	4,000	Syd		0.00		0.00		0.00		0.00		0.00	5.00	20,000.00
Aggregate, 6A	50	Ton		0.00		0.00		0.00		0.00		0.00	30.00	1,500.00
Aggregate, 21AA	1,300	Ton		0.00		0.00		0.00		0.00		0.00	25.00	32,500.00
Excavation, Peat	1,000	Cyd		0.00		0.00		0.00		0.00		0.00	8.00	8,000.00
Backfill, Swamp	1,000	Cyd		0.00		0.00		0.00		0.00		0.00	8.00	8,000.00
Culv End Sect, Conc, 18 inch	12	Ea		0.00		0.00		0.00		0.00		0.00	600.00	7,200.00
Culv End Sect, Conc, 24 inch	2	Ea		0.00		0.00		0.00		0.00		0.00	800.00	1,600.00
Culv, Cl E, Conc, 18 inch	304	Ft		0.00		0.00		0.00		0.00		0.00	40.00	12,160.00
Culv, Cl E, Conc, 24 inch	40	Ft		0.00		0.00		0.00		0.00		0.00	60.00	2,400.00
Culv, Cl E, Conc, 36 inch	64	Ft		0.00		0.00		0.00		0.00		0.00	90.00	5,760.00
Culv, Cl F, 12 inch	980	Ft		0.00		0.00		0.00		0.00		0.00	16.00	15,680.00
Culv, Cl F, 15 inch	240	Ft		0.00		0.00		0.00		0.00		0.00	19.00	4,560.00
Culv, Cl F, 18 inch	390	Ft		0.00		0.00		0.00		0.00		0.00	22.00	8,580.00
Dr Structure, 36 inch Dia	1	Ea		0.00		0.00		0.00		0.00		0.00	600.00	600.00
Dr Structure Cover, Type B, Modified	1	Ea		0.00		0.00		0.00		0.00		0.00	400.00	400.00
Underdrain, Subgrade, 6 inch	925	Ft		0.00		0.00		0.00		0.00		0.00	4.00	3,700.00
Underdrain Outlet, 6 inch	60	Ft		0.00		0.00		0.00		0.00		0.00	15.00	900.00
Underdrain, Outlet Ending, 6 inch	6	Ea		0.00		0.00		0.00		0.00		0.00	150.00	900.00
Curb and Gutter, Conc, Det F2	60	Ft		0.00		0.00		0.00		0.00		0.00	30.00	1,800.00
Aggregate Base, 6 inch	3,500	Syd		0.00		0.00		0.00		0.00		0.00	5.00	17,500.00
Aggregate Base, 8 inch	36,800	Syd		0.00		0.00		0.00		0.00		0.00	6.50	239,200.00
Aggregate Base, 10 inch	1,600	Syd		0.00		0.00		0.00		0.00		0.00	8.00	12,800.00
Approach, CI II	825	Ton		0.00		0.00		0.00		0.00		0.00	20.00	16,500.00
Approach, HMA Millings	20	Ton		0.00		0.00		0.00		0.00		0.00	25.00	500.00
Riprap, Plain	100	Syd		0.00		0.00		0.00		0.00		0.00	65.00	6,500.00
Riprap, Heavy	20	Syd		0.00		0.00		0.00		0.00		0.00	80.00	1,600.00
Slope Restoration, Type A	29,650	Syd		0.00		0.00		0.00		0.00		0.00	2.00	59,300.00
Slope Restoration, Type C	4,650	Syd		0.00		0.00		0.00		0.00		0.00	3.00	13,950.00
Extended Restoration	1	LS		0.00		0.00		0.00		0.00		0.00	1,000.00	1,000.00
Sign, Type B, Temp, Modified	221	Sft		0.00		0.00		0.00		0.00		0.00	8.00	1,768.00
Plastic Drum, High Intensity, Lighted, Modified	30	Ea		0.00		0.00		0.00		0.00		0.00	25.00	750.00
Barricade Type III, High Intensity, Dbl Sided, Ltd, Modified	8	Ea		0.00		0.00		0.00		0.00		0.00	200.00	1,600.00
Erosion Control, Silt Fence	800	Ft		0.00		0.00		0.00		0.00		0.00	2.00	1,600.00
Erosion Control, Check Dam	160	Ft		0.00		0.00		0.00		0.00		0.00	20.00	3,200.00
Project Cleanup	1	LS		0.00		0.00		0.00		0.00		0.00	2,000.00	2,000.00
Railroad Inspection and Flagging	1	LS		0.00		0.00		0.00		0.00		0.00	12,000.00	12,000.00
			TOTAL BID	\$0.00	TOTAL BID	\$1,000,558.00								



NOTICE OF AUTHORIZATION

Permit Number: WRP028306 v. 1 Date Issued: April 7, 2021 Site Name: 03 - 122nd Street Reconstruction Culvert, unnamed ditch **Expiration Date: April 7, 2026** The Michigan Department of Environment, Great Lakes, and Energy (EGLE), Water Resources Division, P.O. Box 30458, Lansing, Michigan 48909-7958, under provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, specifically: Part 31, Floodplain Regulatory Authority of the Water Resources Protection. □ Part 301, Inland Lakes and Streams. Part 303, Wetlands Protection. Part 315, Dam Safety. ☐ Part 323, Shorelands Protection and Management. ☐ Part 325, Great Lakes Submerged Lands. ☐ Part 353, Sand Dunes Protection and Management. Authorized activity: Remove the existing structure at the 122nd Avenue crossing of an unnamed stream. Install a single, 64 foot long by 3-foot diameter corrugated metal pipe culvert with a recessed invert. Place road fill and riprap slope protection.

To be conducted at property located in: Allegan County, Waterbody: unnamed ditch/stream Section 09, Town 02N, Range 11W, Martin Township

Permittee:

Ryan Brown Allegan County Road Commission 1308 Lincoln Road Allegan, Michigan 49009

Issued By:

Holly Vickers Transportation Review Unit Water Resources Division 616-295-2787

This notice must be displayed at the site of work.

Laminating this notice or utilizing sheet protectors is recommended.

Please refer to the above permit number with any questions or concerns.



MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY WATER RESOURCES DIVISION PERMIT

Issued To:						
Allegan County Road Commission 1308 Lincoln Road Allegan, Michigan 49009						
Permit No: Submission No.: Site Name: Issued: Revised: Expires:	WRP028306 v.1 HP7-ESRD-3EPFZ 03 - 122nd Street Reconstruction Culvert, unnamed ditch April 7, 2021 April 7, 2026					
Water Resources	g issued by the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Division (WRD), under the provisions of the Natural Resources and Environmental 94 PA 451, as amended (NREPA); specifically:					

Part 301, Inland Lakes and Streams Part 323, Shorelands Protection and Management

Part 303, Wetlands Protection Part 325, Great Lakes Submerged Lands Part 315, Dam Safety

Part 353, Sand Dunes Protection and Management

Part 31, Water Resources Protection (Floodplain Regulatory Authority)

Permission is hereby granted, based on permittee assurance of adherence to State of Michigan requirements and permit conditions, to:

Authorized Activity:

Remove the existing structure at the 122nd Avenue crossing of an unnamed stream. Install a single, 64 foot long by 3-foot diameter corrugated metal pipe culvert with a recessed invert. Place road fill and riprap slope protection.

Waterbody Affected: unnamed ditch/stream

Property Location: Allegan County, Martin Township, Town/Range/Section 02N11W09

Authority granted by this permit is subject to the following limitations:

- A. Initiation of any work on the permitted project confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit.
- B. The permittee, in exercising the authority granted by this permit, shall not cause unlawful pollution as defined by Part 31 of the NREPA.
- C. This permit shall be kept at the site of the work and available for inspection at all times during the duration of the project or until its date of expiration.
- D. All work shall be completed in accordance with the approved plans and specifications submitted with the application and/or plans and specifications attached to this permit.

- E. No attempt shall be made by the permittee to forbid the full and free use by the public of public waters at or adjacent to the structure or work approved.
- F. It is made a requirement of this permit that the permittee give notice to public utilities in accordance with 2013 PA 174 (Act 174) and comply with each of the requirements of Act 174.
- G. This permit does not convey property rights in either real estate or material, nor does it authorize any injury to private property or invasion of public or private rights, nor does it waive the necessity of seeking federal assent, all local permits, or complying with other state statutes.
- H. This permit does not prejudice or limit the right of a riparian owner or other person to institute proceedings in any circuit court of this state when necessary to protect his rights.
- I. Permittee shall notify EGLE within one week after the completion of the activity authorized by this permit.
- J. This permit shall not be assigned or transferred without the written approval of EGLE.
- K. Failure to comply with conditions of this permit may subject the permittee to revocation of permit and criminal and/or civil action as cited by the specific state act, federal act, and/or rule under which this permit is granted.
- L. All dredged or excavated materials shall be disposed of in an upland site (outside of floodplains, unless exempt under Part 31 of the NREPA, and wetlands).
- M. In issuing this permit, EGLE has relied on the information and data that the permittee has provided in connection with the submitted application for permit. If, subsequent to the issuance of a permit, such information and data prove to be false, incomplete, or inaccurate, EGLE may modify, revoke, or suspend the permit, in whole or in part, in accordance with the new information.
- N. The permittee shall indemnify and hold harmless the State of Michigan and its departments, agencies, officials, employees, agents, and representatives for any and all claims or causes of action arising from acts or omissions of the permittee, or employees, agents, or representative of the permittee, undertaken in connection with this permit. The permittee's obligation to indemnify the State of Michigan applies only if the state: (1) provides the permittee or its designated representative written notice of the claim or cause of action within 30 days after it is received by the state, and (2) consents to the permittee's participation in the proceeding on the claim or cause of action. It does not apply to contested case proceedings under the Administrative Procedures Act, 1969 PA 306, as amended, challenging the permit. This permit shall not be construed as an indemnity by the State of Michigan for the benefit of the permittee or any other person.
- O. Noncompliance with these terms and conditions and/or the initiation of other regulated activities not specifically authorized shall be cause for the modification, suspension, or revocation of this permit, in whole or in part. Further, EGLE may initiate criminal and/or civil proceedings as may be deemed necessary to correct project deficiencies, protect natural resource values, and secure compliance with statutes.
- P. If any change or deviation from the permitted activity becomes necessary, the permittee shall request, in writing, a revision of the permitted activity from EGLE. Such revision request shall include complete documentation supporting the modification and revised plans detailing the proposed modification. Proposed modifications must be approved, in writing, by EGLE prior to being implemented.
- Q. This permit may be transferred to another person upon written approval of EGLE. The permittee must submit a written request to EGLE to transfer the permit to the new owner. The new owner must also submit a written request to EGLE to accept transfer. The new owner must agree, in writing, to accept all conditions of the permit. A single letter signed by both parties that includes all the above information may be provided to EGLE. EGLE will review the request and, if approved, will provide written notification to the new owner.
- R. Prior to initiating permitted construction, the permittee is required to provide a copy of the permit to the contractor(s) for review. The property owner, contractor(s), and any agent involved in exercising the permit are held responsible to ensure that the project is constructed in accordance with all drawings and specifications. The contractor is required to provide a copy of the permit to all subcontractors doing work authorized by the permit.
- S. Construction must be undertaken and completed during the dry period of the wetland. If the area does not dry out, construction shall be done on equipment mats to prevent compaction of the soil.
- T. Authority granted by this permit does not waive permit requirements under Part 91, Soil Erosion and Sedimentation Control, of the NREPA, or the need to acquire applicable permits from the County Enforcing Agent (CEA).

EGLE-WRD WRP028306 v1.0 Approved Issued On:04/07/2021 Expires On:04/07/2026

- U. Authority granted by this permit does not waive permit requirements under the authority of Part 305, Natural Rivers, of the NREPA. A Natural Rivers Zoning Permit may be required for construction, land alteration, streambank stabilization, or vegetation removal along or near a natural river.
- V. The permittee is cautioned that grade changes resulting in increased runoff onto adjacent property is subject to civil damage litigation.
- W. Unless specifically stated in this permit, construction pads, haul roads, temporary structures, or other structural appurtenances to be placed in a wetland or on bottomland of the water body are not authorized and shall not be constructed unless authorized by a separate permit or permit revision granted in accordance with the applicable law.
- X. For projects with potential impacts to fish spawning or migration, no work shall occur within fish spawning or migration timelines (i.e., windows) unless otherwise approved in writing by the Michigan Department of Natural Resources (MDNR), Fisheries Division.
- Y. Work to be done under authority of this permit is further subject to the following special instructions and specifications:
 - 1. All work shall be completed in accordance with plans attached and kept on file with EGLE's, WRD, Transportation Review Unit.
 - 2. Authority granted by this permit does not waive compliance requirements under Part 91, Soil Erosion and Sedimentation Control, of the NREPA. Any discharge of sediment into waters of the state and/or off the road right-of-way is a violation of this permit, Part 91, and Part 31, Water Resources Protection, of the NREPA. A violation of these parts subjects the permittee to potential fines and penalties.
 - 3. This permit does not authorize or sanction work that has been completed in violation of applicable federal, state, or local statutes.
 - 4. The permittee is responsible for acquiring all necessary easements or rights-of-way before commencing any work authorized by this permit. All construction operations relating to or part of this project shall be confined to the existing right-of-way limits or other acquired easements.
 - 5. Temporary soil erosion and sedimentation control measures shall be installed before or upon commencement of the earth change and shall be maintained daily. Temporary soil erosion and sedimentation control measures shall be maintained until permanent soil erosion and sedimentation control measures are in place and the area is stabilized. Permanent soil erosion and sedimentation control measures for all slopes, channels, ditches, or any disturbed area shall be installed within five (5) calendar days after final grading, or the final earth change has been completed.
 - 6. All raw areas in uplands resulting from the permitted construction activity shall be effectively stabilized with sod and/or seed and mulch (or other technology specified by this permit or project plans) in a sufficient quantity and manner to prevent erosion and any potential siltation to surface waters or wetlands. Temporary stabilization measures shall be installed before or upon commencement of the permitted activity and shall be maintained until permanent measures are in place. Permanent measures shall be in place within five (5) days of achieving final grade.
 - 7. All raw earth within 100 feet of a lake, stream, or wetland that is not brought to final stabilization by the end of the active growing season shall be temporarily stabilized with mulch blankets in accordance with the following dates: September 20th for the Upper Peninsula, October 1st for the Lower Peninsula north of US-10, and October 10th for the Lower Peninsula south of US-10.
 - 8. This permit placard shall be kept posted at the work site, in a prominent location at all times for the duration of the project, or until permit expiration.

- 9. This permit is being issued for the maximum time allowed and no extensions of this permit will be granted. Initiation of the construction work authorized by this permit indicates the permittee's acceptance of this condition. The permit, when signed by EGLE, will be for a five-year period beginning at the date of issuance. If the project is not completed by the expiration date, a new permit must be sought.
- 10. All dredge/excavated spoils including organic and inorganic soils, vegetation, and other material removed shall be placed on upland (non-wetland, non-floodplain or non-bottomland), prepared for stabilization, revegetated and reseeded with native Michigan species appropriate to the site, and mulched in such a manner so as to prevent and ensure against erosion of any material into any waterbody, wetland, or floodplain.
- 11. All riprap shall be properly sized and graded based on wave action and velocity and shall consist of clean natural field stone or rock (free of paint, soil or other fines, asphalt, soluble chemicals, or organic material).
- 12. During removal or repair of the existing structure, every precaution shall be taken to prevent debris from entering any watercourse. Any debris reaching the watercourse during the removal and/or reconstruction of the structure shall be immediately retrieved from the water. All material shall be disposed of in an acceptable manner consistent with local, state, and federal regulations.
- 13. Prior to the removal of the existing structures, cofferdams of steel sheet piling, gravel bags, clean stone, coarse aggregate, concrete or other acceptable barriers shall be installed to isolate all construction activity from the water. The barriers shall be maintained in good working order throughout the duration of the project. Upon project completion, the accumulated materials shall be removed and disposed of at an upland site.
- 14. All cofferdam and temporary steel sheet pile shall then be removed in its entirety, unless specifically shown to be left in plan on the accepted plans. Cofferdam and sheet pile that is left in place shall be cut off at the elevation shown on the plans and shall be a minimum of one foot below the stream bottom.
- 15. The existing structure shall be kept open to pass the stream flow during removal of the existing road fill.
- 16. The placement of the new culvert and the initial placement of fill in the stream shall be done immediately after removal of the existing culvert. The placement shall be conducted in such a manner that all flow is immediately passed through the new culverts, allowing the major placement of fill to be done in the dry or in still water where erosion and sedimentation will be minimized. The fill material used in this initial placement shall be washed gravel, coarse aggregate, or rock and shall be placed at both ends of the culvert to a level above normal water level before backfill material is placed.
- 17. The culvert shall be installed to align with the center line of the existing stream at both the inlet and outlet ends and must be recessed into the stream bed to provide a natural channel substrate throughout the structure, as shown on the approved plans.
- 18. Road fill side slopes shall not be steeper than 1-on-2 (1 vertical to 2 horizontal) except where headwalls of reinforced concrete, mortar masonry, dry masonry, or other acceptable methods are used.
- 19. Road fill side slopes terminating in the stream and any raw streambanks resulting from the construction shall be stabilized with temporary measures in accordance with appropriate Best Management Practices based on site conditions, and if necessary, may be riprapped extending above the ordinary high-water mark, before or upon commencement of the permitted activity. Temporary stabilization measures shall be maintained until permanent measures are in place.

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- 20. All other road fill slopes, ditches, and other raw areas draining directly to the stream may be protected with riprap, sod and/or seed and mulch as may be necessary to provide effective erosion protection. The placement of riprap shall be limited to the minimum necessary to ensure proper stabilization of the side slopes and fill in the immediate vicinity of the structure.
- 21. If the project, or any portion of the project, is stopped and lies incomplete for any length of time other than that encountered in a normal work week, every precaution shall be taken to protect the incomplete work from erosion, including the placement of temporary gravel bag riprap, temporary seed and mulch, or other acceptable temporary protection.
- 22. No work shall be done in the stream during periods of above-normal flows except as necessary to prevent erosion.
- 23. To avoid disturbance of Northern long-eared bat, which is federally listed as a threatened species, or Indiana bat, which is federally listed as an endangered species, any tree larger than three inches in diameter shall not be cut between April 1 and September 30 of any year.
- 24. This project occurs within an area that is considered to be occupied by the federally threatened eastern massasauga rattlesnake (EMR). The following BMPs are necessary to avoid potential take of EMR:
 - Use wildlife-safe materials for erosion control and site restoration. Eliminate the use of erosion control products containing plastic mesh netting or other similar materials that could entangle EMR.
 - To increase human safety and awareness of EMR, those implementing the project should first watch MDNR's "60-Second Snakes: The Eastern Massasauga Rattlesnake" video (available at https://youtu.be/~PFnXe_e02w), or review the EMR factsheet (available at https://www.fws.gov/midwest/endangered/reptiles/eama/pdf/EMRfactsheetSep2016.pdf), or call (517) 351-2555.
 - During project implementation, require reporting of any federally listed species, including EMR, to the Service within 24 hours.
 - Exclusionary fencing should be used as a barrier around the project site that occurs within or
 adjacent to EMR habitat. Once the fence is installed the construction area should be cleared by
 qualified individual who has demonstrated experience in identification of EMR or otherwise
 approved by the Service. The exclusionary fencing should be walked weekly to ensure the
 integrity of the barrier. Once construction activities are complete, the exclusionary fence should
 be removed from the site.
 - The project site should be revegetated with appropriate native or natural wetland plants to maintain the quality of the existing wetland and prevent the establishment of invasive species.
- 25. Prior to the start of construction, all adjacent non-work wetland areas shall be protected by properly trenched sedimentation barrier to prevent sediment from entering the wetland. Orange construction fencing shall be installed as needed to prohibit construction personnel and equipment from entering or performing work in these areas. Fence shall be maintained daily throughout the construction process. Upon project completion, the accumulated materials shall be removed and disposed of at an upland site, the sedimentation barrier shall then be removed in its entirety and the area restored to its original configuration and cover.

26. Stormwater shall not directly outlet to the stream.

Issued By:

Holly Vickers

Transportation Review Unit Water Resources Division

616-295-2787

cc: Martin Township Clerk

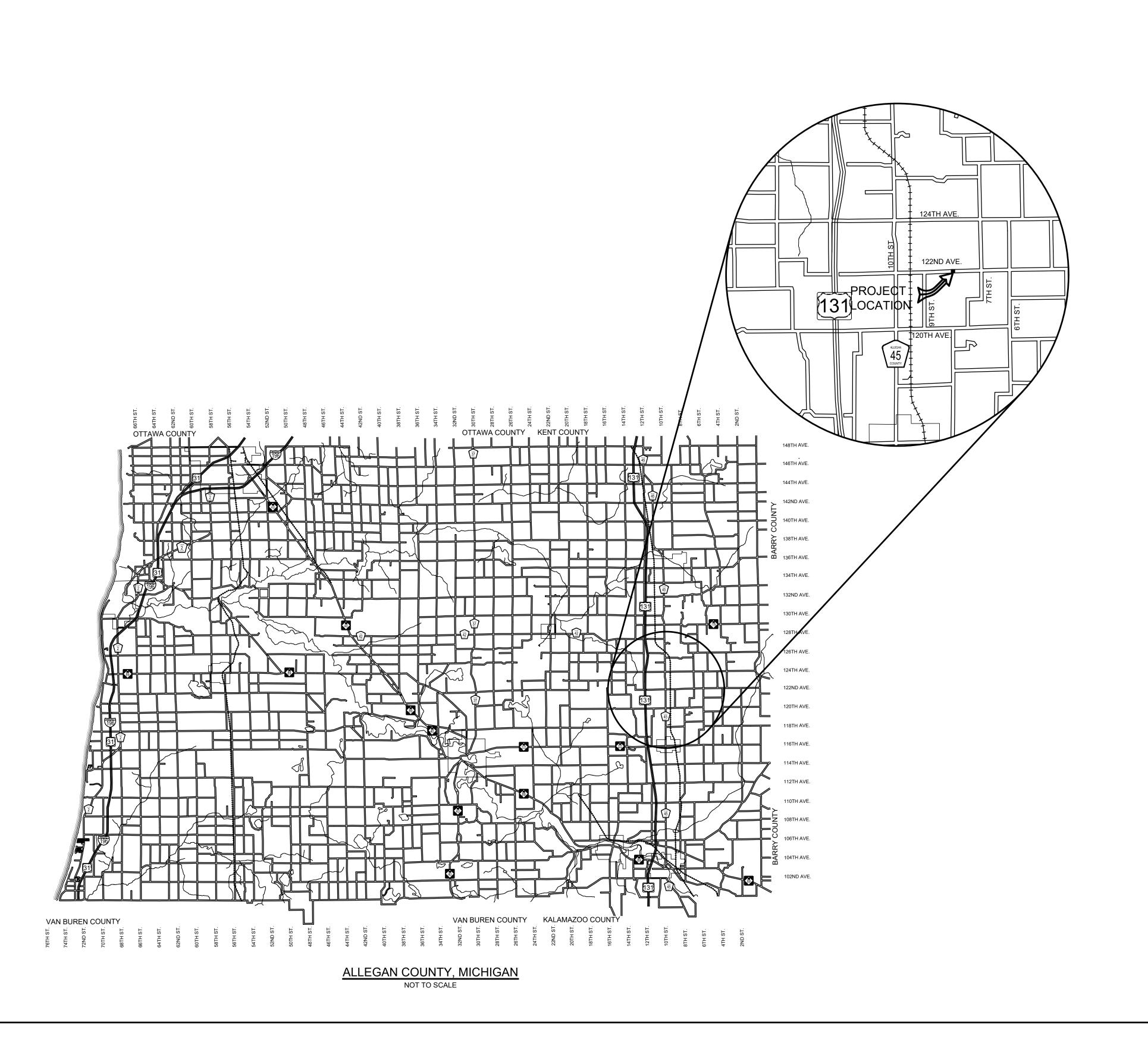
Allegan County Drain Commissioner

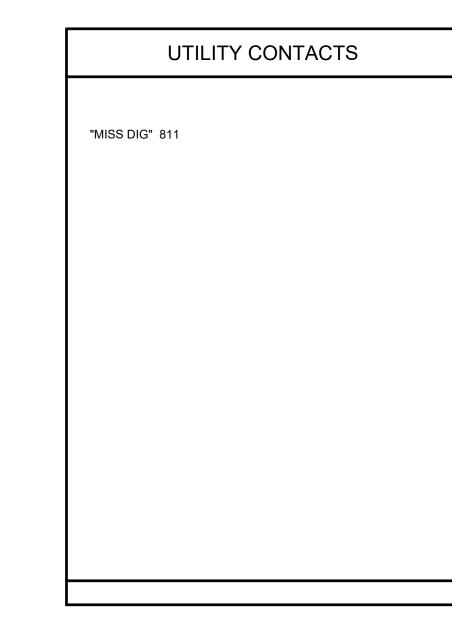
Allegan County CEA Mr. Jason Combs, EGLE Ms. Janelle Hohm, EGLE

Mr. Brian Gunderman, MDNR, Fisheries

ALLEGAN COUNTY ROAD COMMISSION

122ND AVENUE RECONSTRUCTION PROJECT UNNAMED DITCH MARTIN TOWNSHIP





PREPARED UNDER THE SUPERVISION OF:

DRAWN BY: **REVIEWED BY:** SCALE:

RE-TOWN

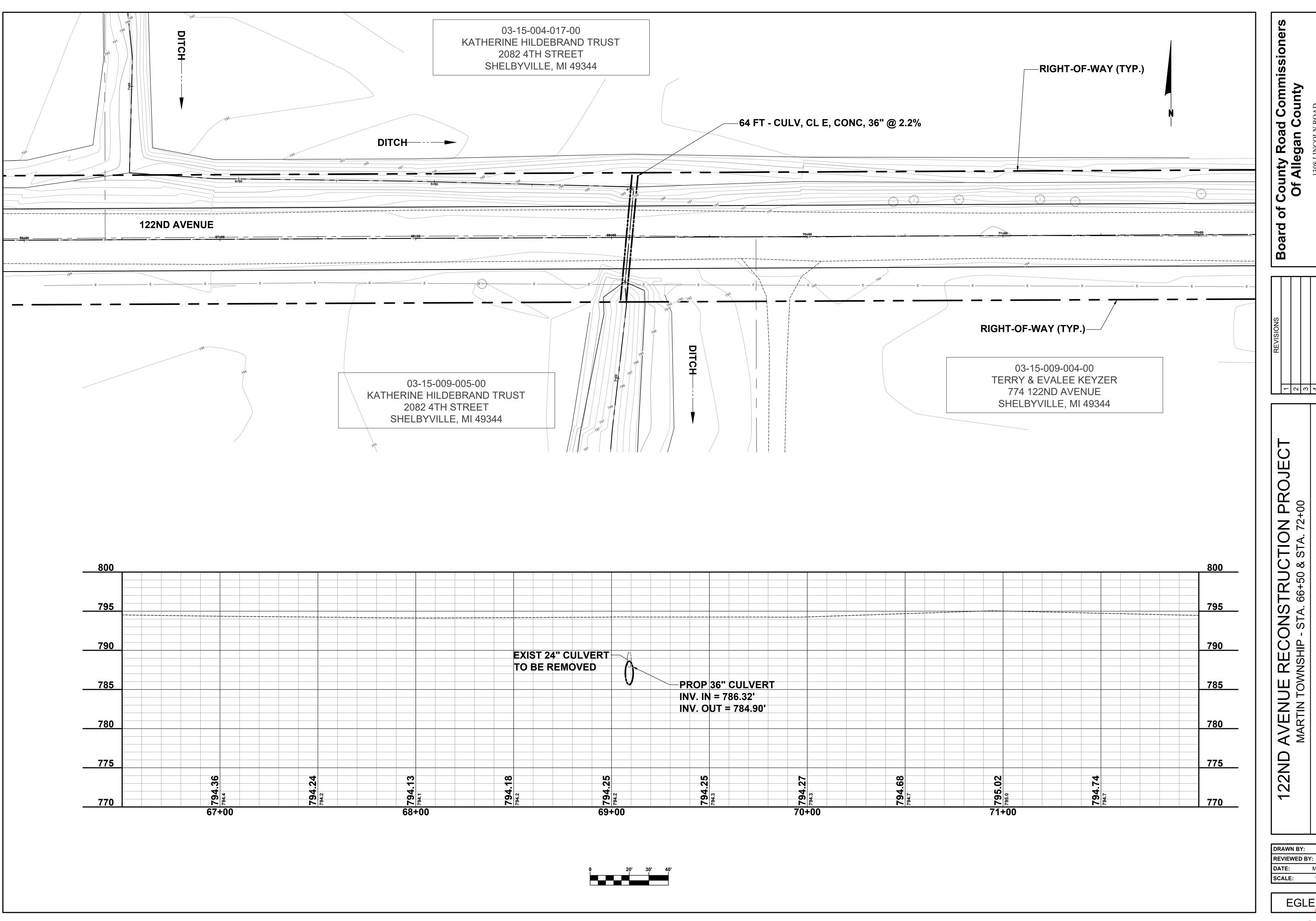
2ND

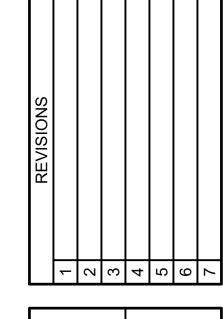
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INDEX OF PLANS 1 - COVER SHEET

2 - ROAD PLAN AND PROFILE 3 - DITCH PLAN AND PROFILE

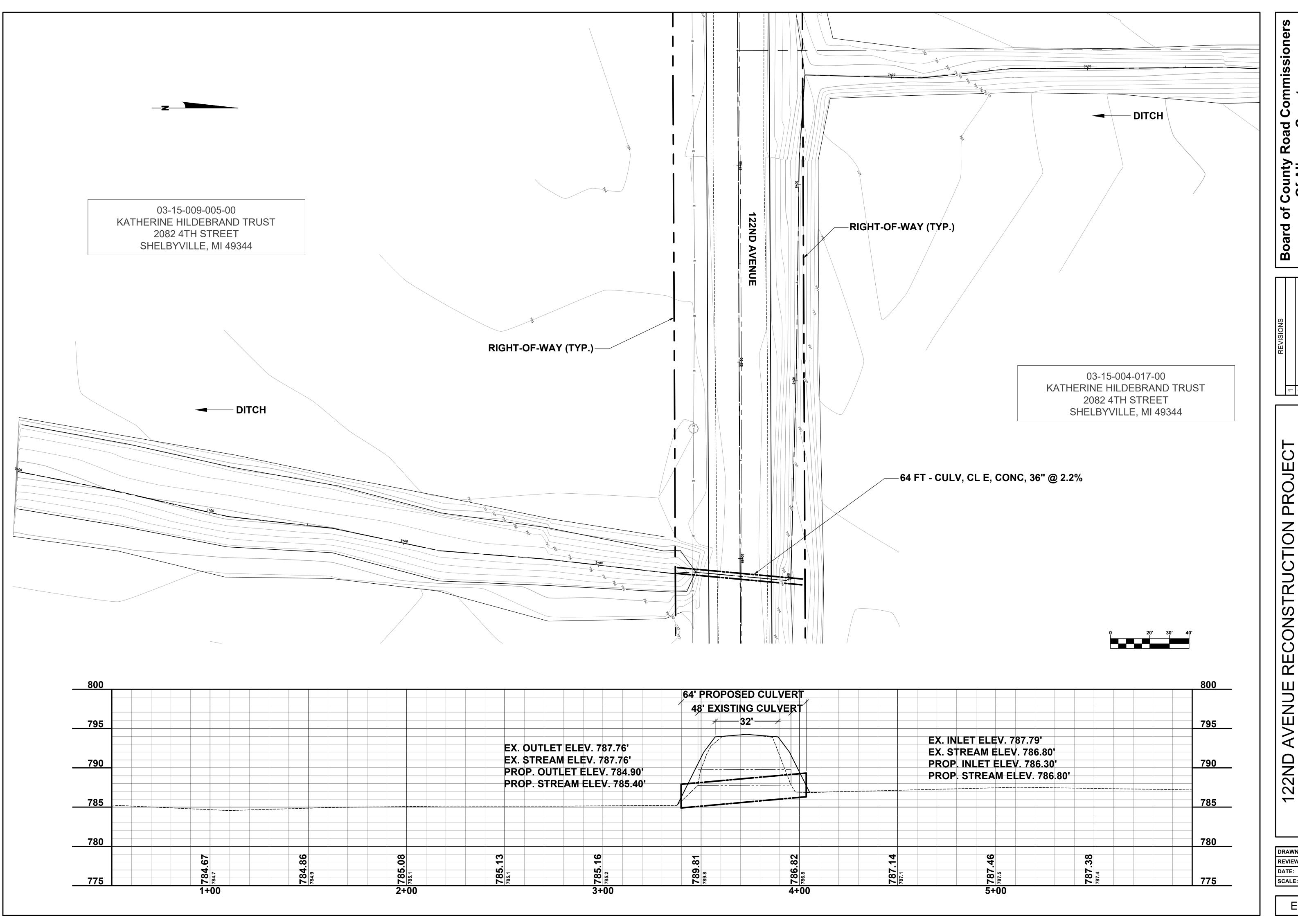
RYAN P. BROWN REGISTERED PROFESSIONAL ENGINEER No. 65933





EGLE EGLE 2VR

1" = 20'H, 5'V



- 0 6 4 G 0 F

AVENUE RECONSTRUCTION
MARTIN TOWNSHIP - UNNAMED DITCH

DRAWN BY: REVIEWED BY: SCALE: 1" = 20'H, 5'V

EGLE EGLE 3/R