## Survey Legend

## Found

[M] R/W Monument Box © Concrete Monument 

O I.P.F. Iron Pin ① I.P.F. Iron Pin W/ ID Cap

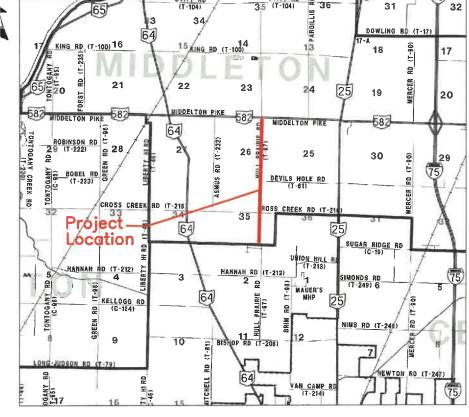
O P.K.F. P.K. Nail

M R/W Monument Box Concrete Monument

# Railroad Spike

● I.P.S.Iron Pin W/ ID Cap ● P.S. Iron Pipe

• P.K.S.P.K. Nail



# Location Map

## Index of Sheets

Title
Typical Section
General Notes
Pavement Markings, Driveway Details and Approach Details 5
General Summary and Subsummaries 6
Hull Prairie Road Plan Views

## Project Description

This project is on Hull Prairie Road in Middleton Township and consists of overlaying the paved surface of Hull Prairie Road and applying an asphalt overlay of the existing pavement surface.

## 2019 Specifications

The standard specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal, and the Wood County Construction Standards shall govern this improvement.

## Approvals

I hereby approve these plans and declare the making of this improvement will require the closing of the highway to traffic and detours will be provided as indicated on the location map.



John M. Musteric, P.E. P.S. Wood County Engineer



We, the Trustees of Middleton Township in formal session, hereby approve these plans and certify the necessary right-of-way is available. We agree to maintain the project in a manner satisfactory to the Director of Transportation of the State of Ohio, and/or his duly authorized representative and will make ample provisions each year for such maintenance.

Performed under the authority of Section 5555.01 Et. Seq. and Section 5535.01 Et. Seq. of the Ohio Revised Code.

Board of Middleton Township Trustees

Mike Moulton, Trustee

Fred Vetter, Trustee

Donald Cromley, Trustee

UNDERGROUND UTILITIES CONTACT TWO WORKING DAYS BEFORE YOU DIG



OHIO811, 8-1-1, or 1-800-362-2764 (Non members must be called directly)

Su	pplemental	Prints of S	Standar	d Construction Drawing:	S
0.D.O.T.	DRWG. DATE	O.D.O.T. DRWG.	DATE	WOOD COUNTY DRAWING	PAGE
BP-3.1	1-21-22	MT-101.60	1-17-20		
DM-1.1	7-17-20	MT-105.10	1-17-20		
HW-2.2	7-20-18				

	Specifications
832	10-19-18

TITLE

WOOD COUNTY ENGINEER'S OFFICE John M. Musteric, P.E., P.S., County Engineer Bowling Green, Ohio

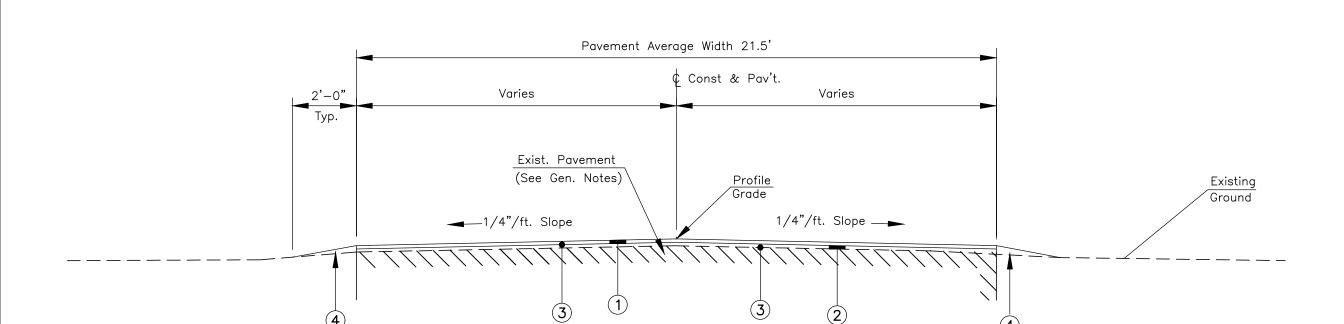
DESIGNED

REVIEWED APPROVED

JMM JOB NUMBER

REVISION

2023 MIDDLETON TOWNSHIP PAVING PROGRAM MIDDLETON TWP, WOOD COUNTY



<u>HULL PRAIRIE ROAD</u> STA. 12+59 TO STA. 120+53 = 10,794 LIN. FT. (2.04 MILES)

TYPICAL SECTION

## LEGEND

- 1) Item 441: Asphalt Concrete, Surface Course Type-1, (1.0") (449) PG64-22
- (2) Item 441: Asphalt Concrete, Intermediate Course Type-1, (0.50" Min Leveling) (449)
- 3) Item 407: Non-Tracking Tack Coat
- (4) Item 411: 2" (Avg.) Stabilized Crushed Aggregate (2' Wide)

TYPICAL SECTION

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## **REGULATIONS**

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All work must comply with applicable federal, state, and local regulations in all respects, including compliance with the Occupational Safety and Health Administration regulations.

## **BEGINNING CONSTRUCTION**

The Engineer shall be notified seven (7) days prior to the beginning of the actual construction.

#### PROFILE

The profile grades as shown on the plans are on the centerline of construction.

#### ROUNDING

The rounding at slope breakpoints shown on the typical sections apply to all cross sections even though otherwise shown on the plans.

## SURVEY HORIZONTAL & VERTICAL CONTROL

The Wood County Engineer's office will establish horizontal and vertical control for the project.

Contact PH: 419-354-9060

## CONTINGENCY QUANTITIES

The Contractor shall not order materials or perform work for items designated by plan note to be used "as directed by the Engineer" unless authorized by the Engineer. The actual work locations and quantities used at the discretion of the Engineer shall be made a matter of record by incorporation into the final change order governing the completion of this project.

## INSPECTION & APPROVAL

All work performed within the scope of this project shall be subject to inspection and the approval of the Wood County Engineer or his duly authorized representative.

## ESTIMATED QUANTITIES

The estimated quantities are for the purpose of competitive bidding and are not necessarily the final pay quantities. Final field measurements and calculations shall determine the final quantity to be paid.

## CONCRETE SURFACE FINISH

The requirements of ODOT-CMS Section 511 rubbed finish shall apply for all exposed concrete surfaces.

## CONSTRUCTION LAYOUT STAKES

The contractor shall be responsible for placing all construction layout stakes on the project. Wood County will provide control points for all baselines and bench marks shown on the plans.

#### HAUL ROADS

The Contractor shall maintain haul roads in a condition acceptable to the Wood County Engineer. The maintenance shall include, but is not limited to, the removal of mud, stone, and other materials from pavement surfaces. Haul routes shall be approved by the Wood County Engineer prior to construction of this project.

## REVIEW OF DRAINAGE FACILITIES

Before any work is started on the project and again before the final acceptance by the County, representatives of the County Engineer and the Contractor shall make inspection of all existing sewers and ditches which are to remain in service and which may be affected by the work. Records of the inspection shall be kept in writing by the County.

All new conduits, catch basins, and manholes constructed as a part of the project shall be free of all foreign matter and in a clean condition before the projects will be accepted by the County.

All existing sewers and ditches inspected initially by the above mentioned parties shall be maintained and left in a condition reasonably comparable to that determined by the original inspection. Any change in the condition resulting from the Contractor's operations shall be corrected by the Contractor to the satisfaction of the Engineer.

Payment for all operations described above shall be included in the Unit Bid Price for the applicable Item 611.

#### MAINTAINING DITCH FLOW

The Contractor shall so conduct his operations as to maintain the flow of ditches at all times. This work shall consist of all operations related to maintaining ditch flow including pumping, fluming, etc. The plans for the proposed maintenance shall be submitted to the Wood County Engineer for approval at least five (5) days before construction. The Contractor shall be responsible, however, for any damages caused by upstream flooding due to his operations. Payment for this work shall be included in the Unit Bid Price for the applicable Item 611.

## WORK AGREEMENTS

All work that is required outside of the limits of the public right—of—way shall be done under work agreements with the individual property owners affected. The Wood County Engineer will obtain said agreements, however, the Contractor shall ensure that said agreements have been procured before proceeding with the work.

## MITIGATING ENVIRONMENTAL IMPACTS

In order to minimize any adverse construction noise impacts, any power—operated construction type device shall not be operated during normal sleeping hours. In addition, any power—operated construction—type device shall not be operated in such a manner that the noise created substantially exceeds the noise customarily and necessarily attendant to the reasonable and efficient performance of such equipment. A temporary crossing or ford shall not be developed in conjunction with this project, either for the contractor's equipment or for vehicular traffic.

## MONUMENTS, BENCH MARKS, AND CONTROL POINTS

The Contractor shall, prior to actual construction, erect protective barricades around all visible survey monuments that are to remain in or adjacent to the construction limits. Any monument, bench mark, control point, property corner stake, pin, or marker damaged or disturbed by construction shall be replaced by the Wood County Engineer at the expense of the Contractor.

## SLAC

Slag materials shall not be used on this project.

## **ROADWAY**

## NON-RIGID PAVEMENT REMOVAL

Removal and disposal of existing non-rigid pavement shall be included in the Unit Bid Price for Item 203 — Excavation, not including embankment.

#### SPOILS MATERIALS

Disposal of all spoil materials shall be the responsibility of the Contractor. All spoil materials shall be hauled away from the site and disposed of in a manner suitable to the Engineer. The cost of this work shall be included in the Unit Bid Price for the pertinent item.

#### EXCAVATED MATERIALS

Surplus earth shall be spread over the project site and/or adjacent properties "as directed by the Engineer" and payment for this work shall be included in the Unit Bid Price for Item 203 — Embankment. Unusable subgrade material shall be removed and disposed of in a manner suitable to the Engineer and payment for this work shall be included in the Unit Bid Price for Item 203 — Excavation, not including embankment.

## RECLAIMED ASPHALT CONCRETE PAVEMENT

In areas of embankment construction where pavement exists, the existing pavement shall be reclaimed in accordance with ODOT-CMS 703.16-Suitable Materials for Embankment Construction. Payment for Reclaimed Asphalt Concrete Pavement shall be included in the Unit Bid Price for Item 203-Embankment.

## CLEARING AND GRUBBING

Although there are no trees and/or stumps specifically marked for removal within the limits of this project, a lump sum quantity has been included in the General Summary for Item 201, Clearing and Grubbing. All provisions as set forth in the specifications under this item shall be included in the bid price for Item 201, Clearing and Grubbing.

## DRIVEWAYS

Driveways damaged or altered during project construction shall be replaced or repaired as per the existing driveway. Payment for this work shall be included in the Unit Bid Price for Item 203 — Excavation, not including embankment.

## **PAVEMENT**

## AGGREGATE BASE, AS PER PLAN

Materials furnished for Item 304 — Aggregate Base shall exclude the use of all slags.

## PAVEMENT JOINTS

Where the new construction meets the existing pavement a neat saw—cut joint shall be made prior to removal of the existing pavement. Payment for this work shall be included in the Unit Bid Price for Item 441 — Asphalt Concrete.

## ASPHALT CONCRETE PAVEMENT

The Asphalt Concrete Pavement shall consist of constructing a Surface Course (Type-1) in accordance with ODOT-CMS Item 441. The design criteria for Medium Traffic Volumes shall be used unless otherwise specified.

## PAVEMENT PREPARATION

The existing pavement surface shall be cleaned and maintained free of accumulated material in accordance with ODOT-CMS section 401.12.

## PAVEMENT REPAIR

Pavement repair work shall consist of spot leveling and/or patching operations applied in advance of the leveling course. All work shall be in accordance with Item 253 — pavement repair and "as directed by the engineer".

## LEVELING COURSE APPLICATION

The asphalt paver shall be equipped with a forty (40) foot longitudinal beam when applying the leveling and surface courses. All longitudinal joints shall be staggered between courses.

#### TACK COAT

Tack coat and cover aggregate operations shall be in accordance with ODOT-CMS Item 407. The rate of application of the tack coat shall be subject to adjustment "as directed by the engineer". Plan quantities indicate an average application rate of 0.08 gallons per square yard of tack coat for estimating purposes only. The payment for cover aggregate shall be included in the unit bid price for Item 407 — Tack Coat.

## ASPHALT REJUVENATING AGENT

The asphalt rejuvenating agent shall be an emulsion composed of a petroleum resin oil base uniformly emulsified with water. Each bidder must submit with his bid a certified statement from the asphalt rejuvenator manufacturer showing that the asphalt rejuvenating emulsion conforms to the required physical and chemical requirements. The rejuvenating agent shall have a record of at least five years of satisfactory service as a petroleum maltene based emulsion asphalt rejuvenating agent and in—depth sealer. Satisfactory service shall be based on the capability of the material to decrease the viscosity of the asphalt binder by petroleum maltene fraction replacement method, increase the phase angle and provide an in—depth seal.

The asphalt rejuvenating agent shall be applied to the asphalt surface prior to placement of pavement markings. The contractor must allow a minimum of 7 days between asphalt rejuvenating agent application and placement of final pavement markings.

Ingineer

#### **DETOURS**

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Roads may be closed to thru traffic "as directed by the Engineer". However, the Contractor shall maintain access to local residences at all times. The Contractor shall notify the Wood County Engineer in writing forty-eight (48) hours before any detour or rerouting of traffic is put into effect.

> County Office Building One Courthouse Square Bowling Green, Ohio 43402 Phone: (419) 354-9060

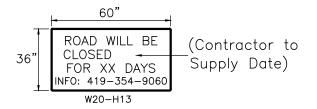
Plan Designated Detour Route:

Shall be submitted by the contractor prior to any construction taking place and shall be approved by the Wood County Engineer and/or Township Trustees.

## BARRICADES, LIGHTS, AND SIGNS

The Contractor shall maintain full width access to all driveways at all times. Notice of closure signs, as detailed in these plans, shall be erected by the contractor at least one week in advance of the scheduled road closure. The signs shall be erected on the right-hand side of the road facing traffic. They shall be placed so as not to interfere with the visibility of any other traffic control signs. They should be erected at the point of closure.

Notice of closure sign:



The Contractor shall provide, erect and maintain standard 48 X 30 inch road closed signs, sign supports, barricades and lights, as detailed in SCD MT-101.60 at "Begin Work" and "End Work" stations of the project during the period in which the affected roads are closed to traffic.

## BARRICADES, LIGHTS, AND SIGNS CONT'D

Payment for any additional signs and/or barricades required to provide clarity to the traffic control schemes set forth in the plans or the OMUTCD, or payment for any signs and/or barricades which require relocation to provide clarity as determined by the engineer, shall be at no additional cost to the county and shall be considered incidental to and included in the lump sum contract price for Item 614 - Maintaining Traffic.

## MAINTAINING TRAFFIC ON AFFECTED ROADS

Methods of maintaining traffic shall be in accordance with item 614 and the OMUTCD.

The contractor shall submit to the Wood County Engineer a description of the proposed sequence of construction operations for approval, prior to starting the work. the sequence of construction shall reflect absolute minimum durations for temporary traffic lane use.

When necessitated by construction, one way traffic flow may be established. A traffic lane at least ten (10) feet wide shall be provided with traffic flow controlled by at least two (2) flaggers. Traffic control devices shall be placed to limit traffic to one lane in accordance with the OMUTCD and ODOT standard drawings in general and MT-97.10 and MT-97.12 specifically. In no case will one way flow be permitted until adequate traffic control devices and flaggers are in place and approved by the Engineer. The one way traffic operation shall be limited to daylight hours only. road shall be reopened to two way traffic flow at night and at all times when the Contractor is not working such as weekends, holidays or when work is suspended due to weather conditions. All work and materials associated with the closure of roads affected by this project and only allowed during construction periods shall be paid for under Item 614 — Maintaining Traffic.

It is the intent to minimize the impact to the traveling public. Lane closures or restrictions are only allowed during the setting of the precast box culvert. Any other time during construction shall not be permitted. The level of utilization of maintenance of traffic devices shall be commensurate with the work in progress.

All other work and traffic control devices shall be in accordance with CMS 614 and other applicable portions of the specifications, as well as the OMUTCD. Payment for all labor, equipment and materials shall be included in the contract price for Item 614 — Maintaining Traffic, unless separately itemized in the contract documents.

Traffic control devices shall be set up prior to the start of construction and shall be properly maintained during construction. They shall remain in place only as long as they are needed and shall be immediately removed thereafter. All signs with messages which do not apply during a certain period shall be covered or set aside out of view of traffic. All traffic control devices shall be kept in proper position, clean, legible and in good working condition at all times.

Driveway access shall be maintained at all periods of construction by use of existing and proposed pavement, berms or shoulders to the satisfaction of the Engineer. The contractor shall provide residents and/or businesses with a minimum forty-eight (48) hour notice when access to their driveways will be restricted due to construction.

## **CONDUIT**

#### CONDUIT

All conduit on this project shall be Reinforced Concrete Pipe (C-76, Class-3) in accordance with ODOT-CMS Section 706.02 or Polyvinyl Chloride (PVC), ASTM designations D-3034, SDR-35, in accordance with ODOT-CMS Section 707.45.

## CONDUIT BACKFILL

All conduits inside the paved area shall be backfilled vertically to the top of the trench and laterally to five (5) feet outside the edge of pavement with Low Strength Mortar (LSM) backfill. All conduits outside the paved area shall be backfilled with earth material and shall be graded, seeded and mulched upon completion of this project. Payment for this work shall be included in the Unit Bid Price for applicable Item 611.

#### CONDUIT BEDDING

All conduit on this project shall be laid on Class "B" Bedding. Payment for granular bedding shall be included in the Unit Bid Price for the applicable Item 611.

## CONDUIT ENDS

All conduit, whether terminating in headwalls or endwalls, shall begin and end with pipe ends as normally fabricated by the manufacturer. Ends shall not be cut to fit either skew or slope.

## FABRICATION OF CONNECTIONS

When connecting a smaller pipe by breaking into an existing large pipe culvert, the lead pipe shall be trimmed to fit the inside circumference of the large pipe. Payment for this work shall be included in the Unit Bid Price for the applicable Item 611.

## EXISTING PIPES AND UTILITIES

Where the plans provide for a proposed conduit to be connected to, or cross over or under an existing sewer or underground utility, it shall be the responsibility of the Contractor to locate the existing pipes or utilities, both as to line and grade, before starting to lay the proposed

If it is determined that the elevation of the existing conduit, or existing appurtenance to be connected, differs from the plan elevation or results in a change in the plan conduit slope, the Engineer shall be notified before starting construction of any portion of the proposed conduit which will be affected by the variance in the existing elevations.

If it is determined that the proposed conduit will intersect an existing sewer or underground utility if constructed as shown on the plan, the Engineer shall be notified before starting construction of any portion of the proposed conduit which would be affected by the interference with an existing

Payment for all operations described above shall be included in the contract price for the pertinent Item 611.

## **UTILITIES**

## UNDERGROUND UTILITIES

The locations of existing underground utilities shown on these plans are as obtained from the owners as required by Section 153.64 of the Ohio Revised Code. It is believed that they are essentially correct, but the exact locations shall be the responsibility of the Contractor. Wood County makes no guarantees as to their accuracy or completeness.

#### UTILITY NOTIFICATION

The Contractor shall notify the Ohio Utility Protection Services (OUPS 800-362-2764) and the owners of underground utilities shown on the plans who are not members of a registered underground utility protection service at least two (2) working days (excluding Saturdays, Sundays, and legal holidays) prior to commencing construction operations in any area which may involve underground utilities.

### UTILITY STAKING

The owner of the underground utility shall, within two (2) days (excluding Saturdays, Sundays, and legal holidays) after notice is received, stake, mark, or otherwise designate the location of the underground utilities in the construction area in such a manner as to indicate their course together with the approximate depth at which they were installed. The marking or locating shall be coordinated to stay approximately two (2) days ahead of the planned construction in accordance with Sec. 153.64 of the Ohio Revised Code.

#### UTILITY ADJUSTMENT

Any and all work required for Public or Private Utilities shall be done by and at the expense of the respective Owners, unless otherwise noted in these plans. The Contractor shall notify each respective utility company at least seven (7) days prior to the time of construction.

## UTILITY OWNERSHIP

The following utilities and owners are located within the limits of this project:

Electrical:

Hancock-Wood Electric

North Baltimore, OH 45872

Phone: (419) 257-5034

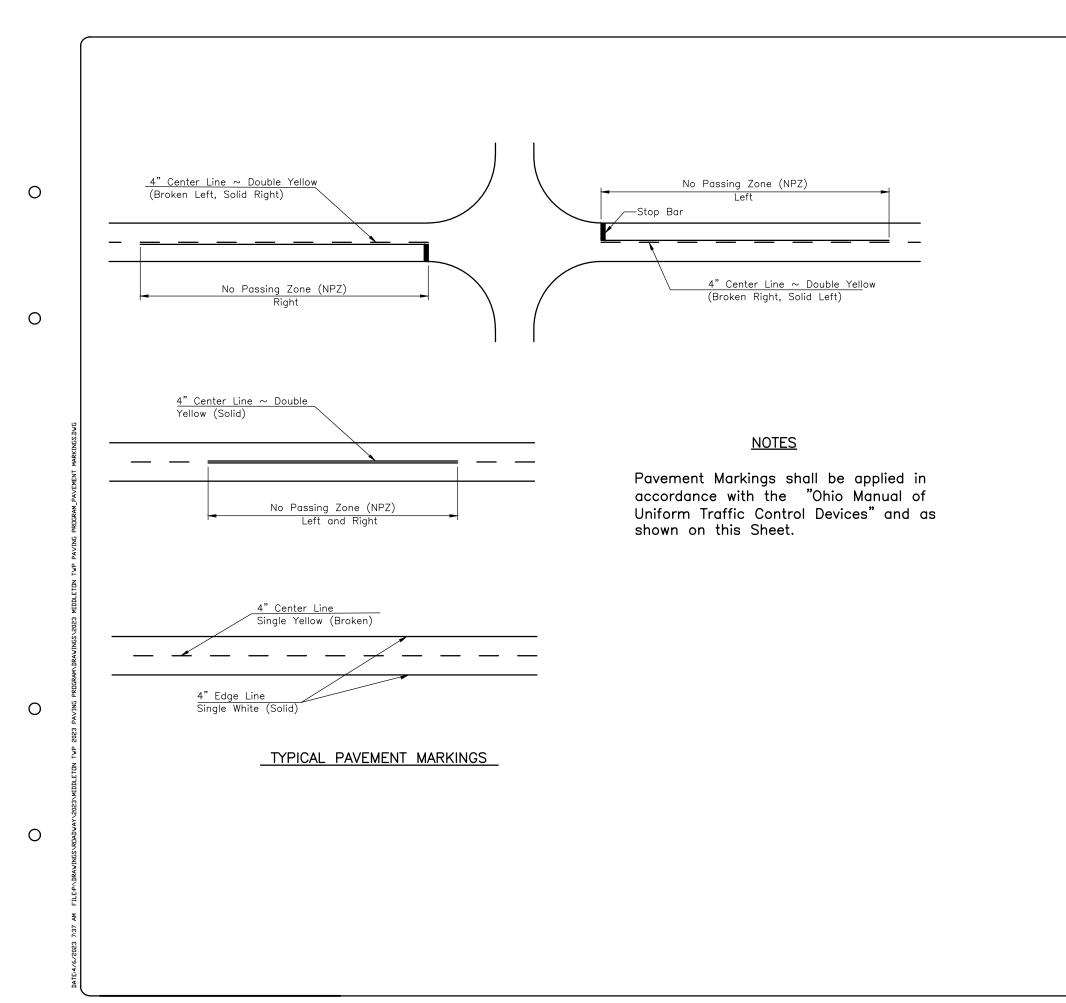
Attn: Bob Hamlin

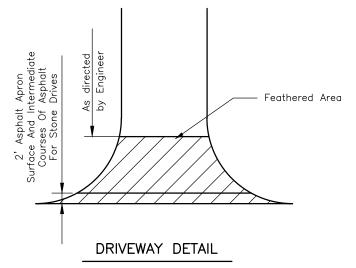
1399 Business Park Drive South

Cable/Telephone: Frontier 160 W. Wooster Street

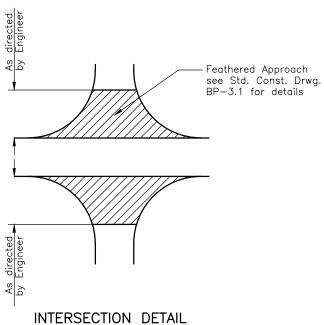
Bowling Green, OH 43402 Phone: (419) 354-9455 Attn.: Eric Massenaill

Cable/Telephone: Century Link relocations@lumen.com





(ITEM 411 FOR STONE DRIVEWAYS)
(ITEM 441 FOR ASPHALT OR CONCRETE DRIVEWAYS)



INTERSECTION DETAIL

PAVEMENT MARKINGS, DRIVEWAY DETAILS
AND APPROACH DETAILS

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2023 MIDDLETON TOWNSHIP PAVING PROGRAM MIDDLETON TWP, WOOD COUNTY

WOOD COUNTY ENGINEER'S OFFICE John M. Musteric, P.E., P.S., County Engineer Bowling Green, Ohio

DESIGNED

JPS

DRAWN

SPJ **REVIEWED** 

JPS APPROVED

JMM JOB NUMBER

REVISION

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					PA	VEMEN'	I SUM	1MARY			441	
							254	407	411	449		448
STA <sup>-</sup>	STATION PROPOSE PAVEMEN		OSED MENT	Average Width of Existing Pavement	Area of Proposed Pavement	1 4 5 1	Pavement Planing	Non-Tracking Tack Coat (.08 gal./s.y.)	Stabilized Crushed Agg. (3" Avg)	0.50" Min. Leveling Asphalt Conc Int Course		1.0" Asphalt Conc Surface Course (PG64-22)
FROM	TO/AT	LENGTH	WIDTH	€	0			z :	O	0.4		
1 IXOIVI	10/ 41	Feet	Feet	Feet	Sq.Yd.		Sq.Yd.	Gal.	Cu. Yd.	Cu. Yd.		Cu. Yd.
	AIRIE ROAD											
12+59	120+53	10794	21.5	21.5	25786			4126	400	538		717
Add for	Driveways								50			25
Add for	Feathered	Approach	ies				563	46	40			16
Totals to General Summary				mary			563	4172	490	538		758

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GENERAL SUMMARY						
ITEM QUAN. UN		UNIT	DESCRIPTION			
			ROADWAY			
411	490	Cu.Yd.	Stabilized Crushed Aggregate			
			PAVEMENT			
254	563	Sq.Yd.	Pavement Planing, Asphalt Concrete			
407	4172	Gal.	Non-Tracking Tack Coat			
441	538	Cu.Yd.	Asphalt Conc. Inter. Course Type 1 (449) (0.50" Min. Levelir			
441	758	Cu.Yd.	Asphalt Conc. Surface Course Type 1 (448) (1.0")			
			PAVEMENT MARKINGS			
642	2.04	Mile	Center Line, Type 1			
642	4.08	Mile	Edge Line, 4 inch, Type 1			
642	50	Foot	Stop Line, Type 1			
			GENERAL			
614	1	Lump Sum	Maintaining Traffic			
624	1	Lump Sum	Mobilization			

WOOD COUNTY ENGINEER'S OFFICE John M. Musteric, P.E., P.S., County Engineer Bowling Green, Ohio

DESIGNED JPS

> **DRAWN** SPJ

REVIEWED

APPROVED

JMM JOB NUMBER

REVISION

\_\_\_\_

2023 MIDDLETON TOWNSHIP PAVING PROGRAM MIDDLETON TWP, WOOD COUNTY

SCALE: 1"= 300'

ENGINEER'S OFFICE E., P.S., County Engineer Green, Ohio WOOD COUNTY E John M. Musteric, P.E. Bowling

DESIGNED JPS DRAWN

SPJ REVIEWED

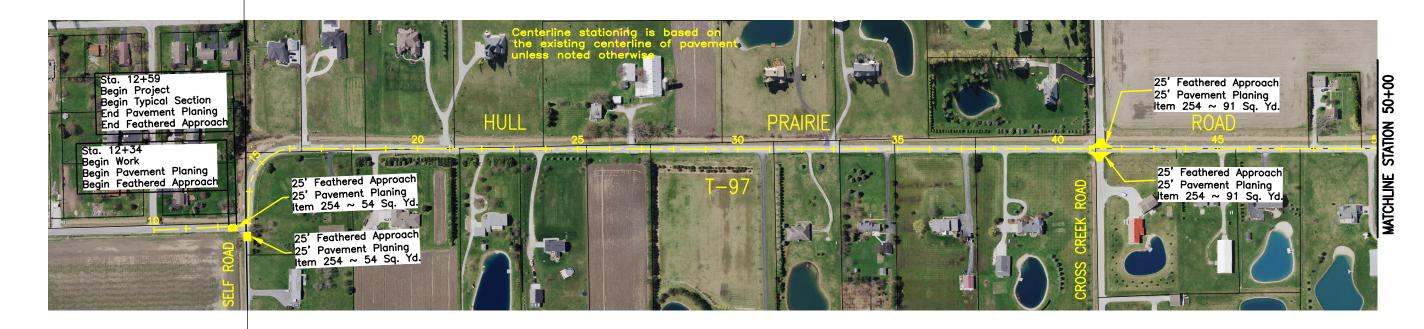
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REVISION

임 2023 MIDDLETON TOWNSHIP PAVING PROGRAM MIDDLETON TWP, WOOD COUNTY,

SECTION 35, T6N, R10E



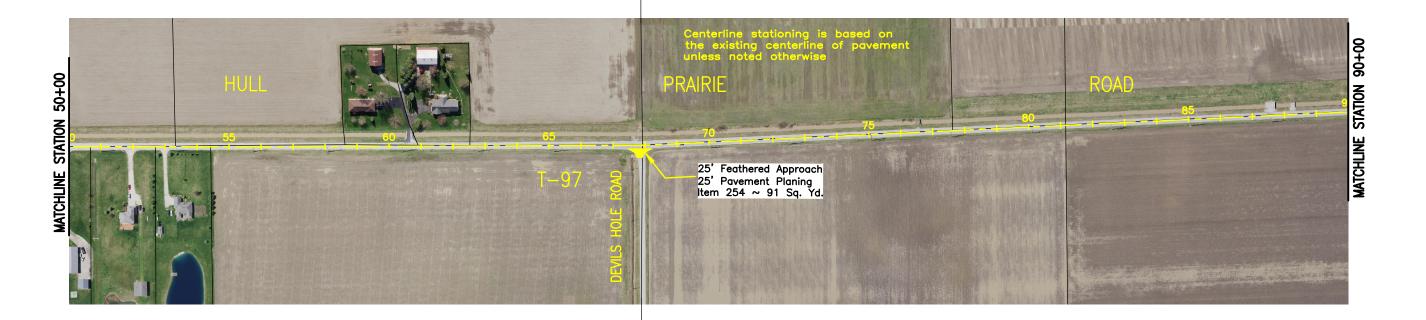
SECTION 35, T6N, R10E

SECTION 35, T6N, R10E

SECTION 2, T5N, R10E

SECTION 2, T5N, R10E

SECTION 26, T6N, R10E



SECTION 35, T6N, R10E

SECTION 26, T6N, R10E

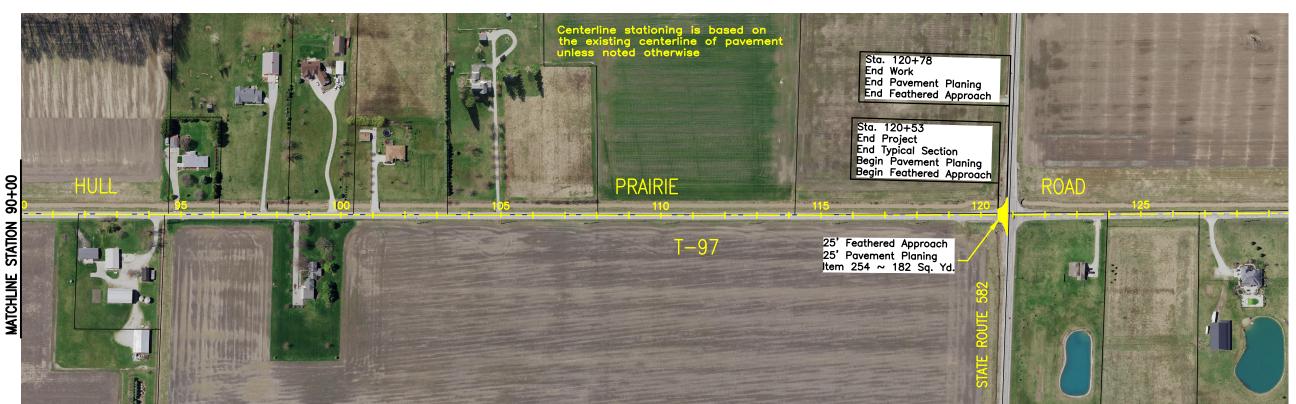
PLAN VIEWS HULL PRAIRIE ROAD STA 10+00 TO 90+00

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SECTION 23, T6N, R10E

WOOD COUNTY ENGINEER'S OFFICE John M. Musteric, P.E., P.S., County Engineer Bowling Green, Ohio

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SECTION 26, T6N, R10E