

# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

## GEA-306-4.45

BAINBRIDGE TWP, SOUTH RUSSELL, RUSSELL TWP  
GEAUGA COUNTY

**FEDERAL PROJECT NUMBER**  
E161611

**RAILROAD INVOLVEMENT**  
N/A

**PROJECT DESCRIPTION**  
RESURFACING CHILLICOTHE RD (SR 306) FROM WASHINGTON ST IN BAINBRIDGE TWP TO KINSMAN RD (SR 87) IN RUSSELL TWP. INCLUDES DRAINAGE WORK NORTH OF CRAIG DR.

**EARTH DISTURBED AREAS**  
PROJECT EARTH DISTURBED AREA: 2.08 ACRES  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.25 ACRES  
NOTICE OF INTENT EARTH DISTURBED AREA: 2.33 ACRES



**LOCATION MAP**

LATITUDE: 41°26'13.42" LONGITUDE: 81°20'17.23"



PORTION TO BE IMPROVED	-----	=====
INTERSTATE HIGHWAY	-----	=====
FEDERAL ROUTES	-----	=====
STATE ROUTES	-----	=====
COUNTY & TOWNSHIP ROADS	-----	=====
OTHER ROADS	-----	=====

**DESIGN DESIGNATION**

	4.45-5.81	5.81-6.74	6.74-7.96
CURRENT ADT (2023)	12,500	12,500	11,000
DESIGN YEAR ADT (2043)	12,500	12,500	11,500
DESIGN HOURLY VOLUME (2043)	1,200	1,100	1,000
DIRECTIONAL DISTRIBUTION	52.4	51.5	51.5
TRUCKS (24 HOUR B&C)	2	2	2
DESIGN SPEED	45/50	50	50
LEGAL SPEED	40/45	45	45

DESIGN FUNCTIONAL CLASSIFICATION:  
PRINCIPAL ARTERIAL  
NHS PROJECT ----- NO

**DESIGN EXCEPTIONS**  
N/A

**ADA DESIGN WAIVERS**  
N/A

**UNDERGROUND UTILITIES**  
Contact Two Working Days Before You Dig

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

PLAN PREPARED BY:

ODOT DISTRICT 12  
PLANNING AND ENGINEERING  
5500 TRANSPORTATION BLVD  
GARFIELD HEIGHTS, OH 44125

GPD GROUP  
520 SOUTH MAIN ST., SUITE 2531  
AKRON, OH 44311

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ENGINEER'S SEAL:

SIGNED: *Mark R. Grossman*  
DATE: 05/12/20

ENGINEER'S SEAL:

SIGNED: *Eric M. Kallio*  
DATE: 6/25/2021

STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-3.1	1/17/20	HW-2.1	7/20/18	800-2020 7/16/21	WATERWAY
BP-3.2	1/18/19	HW-2.2	7/20/18	821 4/20/12	PERMIT 6/10/21
				832 10/19/18	
				875 1/18/19	
				897 1/16/15	
				921 4/20/12	
DM-1.1	7/17/20	MT-97.10	4/19/19		
DM-4.4	1/15/16	MT-97.12	1/20/17		
		MT-99.20	4/19/19		
MH-1.1	1/15/16	MT-101.90	4/17/20		
MH-1.2	1/15/16	MT-102.20	4/19/19		
		MT-105.10	1/17/20		
BP-4.1	7/19/13				
BP-5.1	1/18/19	TC-41.20	10/18/13		
		TC-61.10	1/17/20		
LA-1.1	10/15/10	TC-65.10	1/17/14		
		TC-65.11	7/21/17		
RM-1.1	1/15/21	TC-71.10	1/19/18		
		TC-82.10	7/19/19		

**2019 SPECIFICATIONS**  
THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

APPROVED: *[Signature]*  
DATE: 6/16/21 DISTRICT DEPUTY DIRECTOR

APPROVED: \_\_\_\_\_  
DATE: \_\_\_\_\_ DIRECTOR, DEPARTMENT OF TRANSPORTATION

TITLE SHEET

DESIGN AGENCY	KHD
DESIGNER	KHD
REVIEWER	DAB 05-13-21
PROJECT ID	99694
SHEET TOTAL	P.1   78

**Work Zone Markings**

The following estimated quantities have been carried to the General Summary for use at locations identified by the Engineer for work zone pavement markings per the requirements of CMS 614.04 and 614.11. Place temporary markings at the same locations as the proposed permanent markings.

After the planing is completed, use the following temporary markings:

- Item 614 – Work Zone Center Line, Class I, 642 Paint ..... **4.38 Miles**
- Item 614 – Work Zone Edge Line, Class I, 6", 642 Paint ..... **7.89 Miles**
- Item 614 – Work Zone Stop Channelizing Line, Class I, 642 Paint..... **721 FT**
- Item 614 – Work Zone Stop Line, Class I, 642 Paint ..... **154 FT**
- Item 614 – Work Zone Lane Arrow, Class I, 642 Paint ..... **17 Each**

After the surface course is placed, use the following temporary markings:

- Item 614 – Work Zone Center Line, Class III, 642 Paint ..... **3.77 Miles**
- Item 614 – Work Zone Edge Line, Class III, 6", 642 Paint ..... **6.98 Miles**
- Item 614 – Work Zone Stop Channelizing Line, Class III, 642 Paint..... **721 FT**
- Item 614 – Work Zone Stop Line, Class III, 642 Paint ..... **154 FT**
- Item 614 – Work Zone Lane Arrow, Class III, 642 Paint ..... **17 Each**

**Work Zone Marking Signs**

After planing or paving, the Contractor may place these signs instead of placing work zone edge lines, which shall be non-performed, as directed by the Engineer. These signs shall be removed when painted edge lines are present. The following estimated quantity has been carried to the General Summary:

- Item 614 – Work Zone Marking Signs ..... **12 Each**

**Major Work Items**

The following major work items will require traffic maintenance which shall be incorporated into the Contractor's sequence of operations.

- A. Removal of existing RPMs
- B. Planing of asphalt concrete
- C. Completion of pavement repairs
- D. Adjustment/reconstruction of existing castings
- E. Placing of asphalt concrete
- F. Placing proposed pavement markings and raised pavement markers

**Continuous Access**

The Contractor shall maintain safe and adequate driveways and walkways in order to provide continuous access for pedestrians, passenger vehicles, trucks, and safety equipment to all adjoining properties

The cost for all materials, equipment, and labor necessary to provide continuous access shall be included in the lump sum price for Item 614 – Maintaining Traffic.

Properties with multiple driveways shall only have work performed at one driveway at a time. The Contractor shall coordinate the time period of the work with the property owner to ensure that access is maintained at all times.

**Covering of Ground-Mounted Signs – General**

When required by other items or incidentally to Item 614 – Maintaining Traffic, cover existing ground-mounted signs with plywood or OSB blanks (1/2" minimum thickness) covering 80% of the sign area and all of the sign legend. The use of low quality materials such as duct tape and black plastic is not permitted.

**Work Hour Description**

Off-peak hours are defined as any period other than 6:00-9:00 am and 3:00-6:00 pm (Monday thru Friday) and legal holidays.

**Maintaining Traffic and Sequence of Operations**

All asphalt concrete operations shall be conducted in a manner that will assure minimum danger and inconvenience to highway users. The procedure for the removal or placement of any existing or proposed asphalt course shall be such that no greater than 1-1/2" discontinuity in the elevation of the travelled surface shall be exposed to traffic.

Traffic shall not be permitted to cross any partial-width removal or resurfacing joint during the actual removal or paving operation except as necessary. Any partial-width longitudinal joints which must be exposed to traffic shall be ramped using Item 614 – Asphalt Concrete for Maintaining Traffic at a rate not steeper than 6:1.

Temporary transverse removal or paving joints which must be exposed to traffic shall be ramped using Item 614 – Asphalt Concrete for Maintaining Traffic as a rate not to exceed 1" in 10'.

For removal of existing overlays, a transition may be planed into the existing overlay and may be substituted for the asphalt ramps previously described, provided the transition is removed in a subsequent operation within 24 hours.

Whenever traffic is subject to partial width removals or overlays prior to full width completion, the Contractor shall provide W8-11-48 "UNEVEN LANES" signs (dual sign installation). Placement shall be as directed by the Engineer and included in the lump sum payment for Item 614 – Maintaining Traffic.

Whenever any part of the traveled surface is closed, the motorists shall be warned and diverted by the Contractor through the use of a flashing arrow, in addition to those provisions set forth in the OMUTCD, the Traffic Engineering Manual and the applicable Standard Construction Drawings.

**Notifications and Contacts**

The contractor shall notify the following entities in writing and via telephone at least eighteen (18) days prior to the beginning of construction activities and at least seven (7) days prior to a switch in traffic patterns. Included in the notification shall be the projected dates and time frames of any road closures.

- |   |  |
|---|--|
| Ohio Department of Transportation<br>District 12<br>5500 Transportation Blvd.<br>Garfield Heights, OH 44125<br>(216) 581-2100 | Bainbridge Police Department<br>8353 Bainbridge Road<br>Chagrin Falls, Ohio 44023<br>(440) 543-8252        |
| Ohio State Highway Patrol<br>Chardon Patrol Post<br>530 Center Street<br>Chardon, OH 44024<br>(440) 286-6612                  | Bainbridge Fire Department<br>17822 Chillicothe Road<br>Chagrin Falls, Ohio 44023<br>(440) 543-9873        |
| Bainbridge Service Department<br>17800 Haskins Road<br>Chagrin Falls, Ohio 44023<br>(440) 543-9871                            | Chagrin Falls Board Of Education<br>400 E Washington Street<br>Chagrin Falls, Ohio 44022<br>(440) 247-3933 |

Should the projected dates and time frames of the start and end of the lane closures change throughout the duration of the project, the agencies listed above must be notified immediately of such changes.

**Dust Control**

The contractor shall furnish and apply water for dust control as directed by the engineer. The following estimated quantities have been included for dust control purposes:

- Item 616 – Water..... **15 MGal**

**Sequence of Construction**

**Phase 1 (East Widening)**

The contractor shall shift and reduce traffic to two ten-foot lanes on the west side of the road by SCD MT-102.20. During construction the contractor shall maintain one-lane two-way by flagger control using SCD MT-97.10. At the end of each working day the contractor shall reopen the closed lane in order to maintain the two ten-foot lanes.

The contractor shall complete all drainage and roadway improvements up to and including the intermediate course.

Prior to phase 2 the contractor shall mill the remaining surface and intermediate course on SR 306. The intermediate course shall be placed on the pavement (not included in areas of the Phase 2 Shoulder Widening) by MT-97.12 during off peak hours.

**Phase 2 (West Widening)**

The contractor shall shift and reduce traffic to two ten-foot lanes on the east side of the road by SCD MT-102.20. During construction the contractor shall maintain one-lane two-way by flagger control using SCD MT-97.10. At the end of each working day the contractor shall reopen the closed lane in order to maintain the two ten-foot lanes.

The contractor shall complete all drainage and roadway improvements up to and including the intermediate course.

**Phase 3 (SR 306 Surface Course and Pavement Markings)**

The contractor shall thoroughly clean the asphalt intermediate course and place the final asphalt surface course and the final pavement markings throughout the project limits. The work shall be restricted to off-peak hours. During placement of the asphalt surface course, traffic shall be maintained under flagger control in accordance with MT-97.12. During final pavement marking operations, traffic shall be maintained in accordance with MT-99.20.


**Overnight Trench Closing**

The base widening shall be completed to a depth of no more than 1.5 inches below the existing pavement by the end of each workday. No trench shall be left open overnight except for a short length (25 feet or less) of a work section at the end of the trench. In case work must be suspended because of inclement weather or other reasons, the trench for the uncompleted base widening shall be backfilled at the direction of the engineer.

**Trench for Widening**

Trench excavation for base widening shall be only on one side of the pavement at a time. The open trench shall be adequately maintained and protected with drums or barricades at all times. Placement of proposed subbase and base material shall follow as closely as possible behind excavation operations. The length of widening trench which is open at any one time shall be held to a minimum and shall at all times be subject to approval of the engineer.

DESIGN AGENCY



DESIGNER  
KHD

REVIEWER  
DAB 05-13-21

PROJECT ID  
99694

SHEET TOTAL  
P.13 | 78