

The approximate Project Limits for each applicable roadway are provided in Table 5-1, and approximate project limits are shown in Appendix C - Project Limits.

Table 5-1: Approximate Project Limits

Roadway Name	Begin	End
WAY SR 83	10.81 (begin concrete pavement)	11.03 (SR 3)
WAY SR 3	14.57 (on SR 3 ramp)	17.89 (Milltown Rd)
WAY SR 83	13.73 (end SR 3 overlap)	14.64 (end concrete, 0.02 mi. south of Burbank Rd)
WAY SR 585	0.00 (begin exit ramp from SR 3)	0.33 (end ramp to Akron Rd)
WAY SR 3	17.71 (Cleveland Rd southbound right lane concrete pavement)	17.89 (begin Cleveland Rd southbound right lane concrete pavement)
WAY CR 3A (Cleveland Rd Northbound)	5.65 (Pavement joint on Cleveland Rd)	5.71 (begin SR 3 on Cleveland Rd)
US 30 Interchange	Ramps G, E, B, and Y	
SR 585 Interchange	Ramps I, I-2, I-1, H, H-1, and H-2	
SR 3 Interchange	Ramps T, R, S, SA, SB, and SC	

For informational purposes, project maps with approximate location layouts are in Appendix E - Environmental Commitments. Work Limits shall be determined by the DBT.

The Consultant shall provide the engineering services, design, and preparation of detail construction plans for the construction of the proposed project.

The Contractor shall provide the furnishing of materials, construction and completion in every detail of all the work described in the Contract Documents to fulfill the intent of the Contract.

6 FIELD OFFICE

~~Field office Type C as required by Construction and Material Specification Item 619, shall be available and completely functional no later than 1 week prior to the start of physical project work until 30 days following work complete, including all time extensions. The field office requirements are only applicable to the Department’s personnel.~~

7 GENERAL PROVISIONS FOR THE WORK

7.1 Governing Regulations

All services, including but not limited to survey, design and construction work, performed by the DBT and all subcontractors (including sub-consultants), shall be in compliance with all applicable ODOT Manuals and Guidelines.

It will be the responsibility of the DBT to acquire and utilize the necessary ODOT manuals that apply to the design and construction work required to complete this project.

The current edition, including updates released on or before the advertising date, of the following ODOT Manuals and Guidelines shall be met or exceeded in the performance of the design and construction work required to complete this project:

Bridge Design Manual

Location and Design Manuals (L&D)

Volume One - Roadway Design

Volume Two - Drainage Design

Volume Three - Plan Preparation

Pavement Design Manual

Specifications for Geotechnical Explorations

Survey and Mapping Specifications

Construction and Material Specifications (CMS)

Proposal Notes (PN) for Construction and Material Specifications

Supplemental Specifications (SS) for Construction and Material Specifications

Item Master

Manual for Abandoned Underground Mines - Inventory and Risk Assessment

State Highway Access Management Manual (SHAMM)

Standard Construction Drawings (SCD)

Plan Insert Sheets (PIS)

Traffic Engineering Manual (TEM)

Ohio Manual of Uniform Traffic Control Devices (OMUTCD)

Real Estate Administration Policies and Procedures Manual:

Appraisal

Acquisition Property Management

Relocation

ROW Plans

Utilities

Wireless Communication Tower Manual

Environmental Services Handbooks and Guidelines

Waterway Permit Manual

CADD Engineering Standards Manual

Geotechnical Bulletins

CADD files supplied by the DBT

Project Design Standards and Notes (Appendix D)

will be used only by the Office of Contract Sales to assist in understanding the DBT's bid for award recommendation purposes.

No shared concepts, shared quantity information, discussions, comments made or shared by either party will be considered binding, a revision to the Contract Documents, or acceptance or validation of any design concept or assumed quantities of Work.

7.3 Partnering Agreement

The DBT is required to enter into a partnering agreement with the Department that is:

- Facilitated
- Self-Facilitated



The objective of this agreement is the timely completion of the work and a quality product that will be a source of pride to both the Department and the DBT. Partnering will not affect the terms and conditions of the contract. The partnering agreement is a document which is solely intended to establish an environment of cooperation between the parties. The costs associated with the partnering process will be in accordance with Proposal Note 111.

7.4 Communication

All communication during design and construction shall be with the District Project Manager and the District Project Engineer.

District's Project Manager's Name:	Scott Ockunzzi
Phone number:	(419) 207-7174
E-mail:	Scott.Ockunzzi@dot.ohio.gov

District's Project Engineer's Name:	Megan Feller
Phone number:	(419) 565-8809
E-mail:	Megan.Feller@dot.ohio.gov

At the Pre-Design Meeting, the DBT shall name a Project Manager who will act as a liaison between the DBT and the Department.

7.5 Permits

The DBT shall ensure that the Project is constructed and maintained in accordance with all requirements, regulations, and applicable permits required for the Project. This includes the permits described herein and any additional permits not specifically identified in the Contract Documents.

If the DBT becomes aware of any failure to perform an environmental commitment, the DBT shall notify the Department immediately.

Should the DBT determine the scope of work will include areas outside of the Environmentally Cleared Area, see Appendix E - Environmental Commitments, a re-evaluation will be conducted by the Department to determine if additional field investigations are needed to document environmental resources and potential impacts. The DBT shall notify the Department as soon as possible if work outside of the Environmentally Cleared Areas is needed to avoid potential delays. Depending on the additional impacts, the Department will require 1-2 months to complete the re-evaluation. As needed, the Department will conduct appropriate agency coordination prior to permit application submittal.

8.2 Environmental Permits

The DBT shall:

1. Be aware of all applicable environmental permits related to the Work.
2. Coordinate with the Department and prepare applications and other relevant information necessary to obtain all environmental permits required to perform the Work.
3. Comply with all conditions imposed by environmental permits in design and construction.
4. Notify the Department regarding any failure to comply with conditions of the environmental permits.
5. Maintain and update environmental permits to ensure they are in effect during the Work.
6. Coordinate with the Department and submit any documents regarding updates required for environmental approvals to the Department for coordination with the regulatory agency.

If the DBT modifies elements of the Conceptual Design used as the basis for obtaining a permit, the DBT accepts all responsibility for associated cost and schedule impacts resulting from the permit modification process and accepts the risk that the regulatory agency may not approve the proposed permit modification.

At no time shall the DBT coordinate environmental permitting issues directly with the regulatory agencies, unless directed to do so by the Department. The DBT shall not commence with Work covered by environmental permits until the applicable permit approval is obtained from the regulatory agency.

Table 8-2 identifies work performed by the Department related to various environmental permits and the status of Department activities. Table 8-2 is not a comprehensive list of the environmental permits required to perform the Work. Unless otherwise noted, the DBT shall be responsible to obtain all necessary environmental permits and pay all charges, fees and taxes associated with these permits.

Table 8-2: Status of Department Activities for Environmental Permits

Agency	Permit/Approval	Status
U.S. Army Corps of Engineers	ODOT RGP-B Maintenance	ODOT has obtained the Waterway Permit, and it is included in Appendix E - Environmental Commitments
Ohio Environmental Protection Agency	NPDES	To be submitted by ODOT to OEPA upon receipt of NOI from the DBT

The DBT shall acquire required noise permits and/or variances from the local jurisdiction.

The DBT shall be responsible for any fines levied by regulatory agencies as a result of their construction activities or non-compliance with any permit special or general conditions.

8.3 Temporary Sediment and Erosion Control

The DBT shall be responsible for designing and implementing all temporary sediment and erosion controls in accordance with SS 832 and the Ohio NPDES general permit for storm water discharges from construction activities (NPDES Permit). For information about OEPA's NPDES Permit requirements, see:

https://epa.ohio.gov/dsw/permits/GP_ConstructionSiteStormWater.

The DBT shall submit information to the Department for development of the Notice of Intent for the NPDES Permit, including the total acreage of earth disturbing activities for both off project and on project work. The DBT shall assume that approval from OEPA will require a minimum of 31 days following submittal to the ODOT Project Manager. Earth disturbing activity is not permitted prior to approval of coverage under the NPDES Permit.

For projects that require an NOI, the DBT must develop a Storm Water Pollution Prevention Plan in accordance with SS832 and the NPDES Permit. The DBT shall not initiate any earth disturbing activity until the SWPPP is approved.

The DBT shall be compensated for furnishing and installing items related to temporary sediment and erosion control requirements. The Department will compensate the DBT through an encumbered amount included in the Proposal as a non-bid reference number. The Proposal specifies the unit prices for the temporary sediment and erosion control items. Payments for temporary sediment and erosion control items that exceed the encumbered amount will be made through an Extra Work Change Order using the specified unit prices. The specified unit prices are fixed for the Contract Documents and may not be negotiated or adjusted for inflation or claimed changed condition.

All temporary erosion control items shall be removed before the project is accepted. Removed materials shall become the property of the DBT and shall be disposed of in accordance with the appropriate C&MS specifications.

8.4 Regulated Materials

The DBT shall meet all regulatory conditions imposed with regulated materials, including hazardous materials, associated with the Project. The DBT shall characterize, collect, contain, and properly dispose of all waste generated or encountered during the Work. The DBT shall ensure that the site is properly contained during construction so that regulated materials do not migrate off-site. The DBT shall prepare and implement a Spill Prevention Control and Countermeasures (SPCC) Plan per the requirements of 40 CFR Part 112 that provides specific guidance for managing, handling, and disposing of regulated materials that may be encountered within the Right-of-Way and for protecting the health and safety of all on-site personnel and the general public.

The project will be conducted within existing ODOT right-of-way. Deep excavation will be required for the proposed culvert work. No utilities will need to be relocated to construct this project. In accordance with the ODOT Office of Environmental Services' (OES) Regulated Materials Review (RMR) guidelines, an RMR Screening was conducted. The current land use of the properties adjacent to this project are residential and forested floodplain. No regulated materials records were found within the project boundaries during a search of the Ohio Regulated Properties Search (ORPS) tool. Based on this information, the project is considered exempt from further regulated material investigations.

If any unknown regulated materials are discovered through work on the Project, the DBT shall notify the Department immediately and shall follow the SPCC Plan, as well as all appropriate regulations.

8.4.1 Asbestos

Based on the work being performed on this project, an Asbestos Survey is not required.

8.5 Noise Analysis and Noise Barriers

Based on the type of work being performed on this project, neither a Noise Analysis or new Noise Barriers are required.

9 RIGHT OF WAY (ROW)

The DBT shall perform all necessary construction work for the project within the Project Right of Way (ROW).

The DBT shall locate existing right of way lines based on requirements specified in Chapter 4733-37 of the Ohio Revised Administrative Code (Board Rules) governed by regulations outlined in Chapter 4733, Ohio Revised Code (Regulation Laws). The DBT shall research existing right of way information from all available sources including but not limited to ODOT records, County road records, Commissioners' Journals and records of other County offices to the extent necessary to provide an accurate basis for the establishment of the existing right of way.

For any interchange ramps that are closed, black on orange “Closed” plaques shall be mounted to the face of any associated existing, proposed, or temporary guide signs.

All interchange ramps shall remain open, except when the following ramps may be detoured using the following routes:

Table 11-2: Ramp Detour Routes

Ramp	Description	Detour Route
Y	SR 83 South to Lincoln Way	SR 83 South to SR 302 North to US 30 East to Lincoln Way
B	SR 3 South to US 30 West	SR 83 South to SR 302 North to US 30 East to SR 3 North
C	US 30 West to SR 83 South	US 30 West to SR 302 South to US 30 East to SR 83 South
D	US 30 West to SR 3 North	US 30 West to SR 302 South to US 30 East to SR 3 North
E	SR 83 North to US 30 West	SR 83 North to SR 585 South to SR 83 South to US 30 West
G	US 30 East to SR 3 North	US 30 East to Apple Creek Rd North to US 30 West to SR 3 North
H-1	SR 3 South to SR 585	SR 83 South to US 250 West to SR 83 North to SR 585
H-2	SR 585 to SR 3 South	SR 585 to SR 3 North to Cleveland Rd South to SR 3 South
I-1	SR 585 to SR 3 North	SR 585 to SR 3 South to Lincoln Way West to US 30 East to SR 3 North
I-2	SR 3 North to SR 585	SR 3 North to Cleveland Rd South to SR 3 South to SR 585
S-C	SR 83 South to Cleveland Rd	SR 83 South to SR 585 North to SR 3 North to Cleveland Rd
R	Cleveland Rd North to SR 3 South	Cleveland Rd North Left Turn to SR 3 South (Ramp S)
S	SR 3 South to SR 83 (Includes S-A and S-B)	SR 3 South Left Turn to SR 3 South (Ramp R) to SR 585 North to SR 3 North
T	SR 3 North to Cleveland Rd	SR 83 North to SR 604 East

11.2.2 Window Contract

Disincentives for violations of MOT durations shall be assessed per proposal note PN 129 and the window contract table below:

Table 11-3. Window Contract Table

Description of Critical Work	Calendar Days to Complete	Disincentive \$ Per Day	Work Window			
			Start	End		
US 30 West to SR 83 South (Ramp C)*	30	\$1,000	Contract Execution Date	Project Completion Date		
US 30 West to SR 3 North (Ramp D)*		\$3,500				
US 30 East to SR 3 North (Ramp G)*		\$10,000				
SR 83 South to Lincoln Way (Ramp Y)*	45	\$9,000	Concurrently with SR 83 Southbound right lane from SR 3 to SR 585 per Table 11-1			
SR 83 North to US 30 West (Ramp E)*		\$500				
SR 3 North to Cleveland Rd (Ramp T)		\$10,000				
SR 3 South to US 30 West (Ramp B)*	60	\$10,000				
SR 585 to SR 3 South (Ramp H-2)		\$10,000				
SR 585 to SR 3 North (Ramp I-1)		\$2,000				
SR 3 North to SR 585 (Ramp I-2)		\$10,000				
SR 83 South to Cleveland Rd (Ramp S-C)		\$2,500				
SR 3 South to SR 83 (Ramp S, S-A, and S-B)		\$7,000				
SR 3 South to SR 585 (Ramp H-1)	See Work Window	\$4,000				
Cleveland Rd to SR 3 South (Ramp R)		No Disincentive				
All lanes on all roads returned to original or final configuration with all signs and long-term or final pavement markings installed (Winter Shut-Down)		\$5,000			Second Friday in November	First Monday in April

**US 30 interchange ramp closures violate ODOT Policy 21-008(P) and Standard Procedure 123-001(SP), and are permitted by an exception granted by the Maintenance of Traffic Exception Committee (MOTEC)*

11.2.3 Additional MOT Requirements

In addition to the requirements and restrictions listed within this section, below are some project-specific MOT requirements:

- All temporary MOT devices will comply with the Manual for Assessing Safety Hardware (MASH) report and NCHRP-350 report if devices are manufactured prior to 12/31/2019 and meet the Quality Standards for Temporary Traffic Control Devices as applicable

- If the DBT requires that temporary traffic be maintained on existing shoulders, the following requirements apply:
 - The assumed depth of the existing concrete shoulders is adequate for maintenance of traffic purposes, but the existing rumble strips shall be removed by mill and fill or another method as approved by the Engineer
 - The assumed depth of the existing asphalt shoulders is not adequate for maintenance of traffic purposes. If the DBT elects to maintain traffic on existing asphalt shoulders, the existing shoulder pavement shall be removed and replaced with Item 615, Pavement for Maintaining Traffic, Class A. This shoulder pavement may be left in-place at the end of the project, so long as the cross-slopes and shoulder widths match the pre-construction condition
- The DBT shall submit the location of work zone access/egress points for Department review and approval before installation. Design of such access/egress points and acceleration/deceleration areas shall be in accordance with SCD MT-101.30 and the TEM.
- The length of acceleration or deceleration lanes for ramps or access points shall be maximized using existing and proposed pavement as much as possible and shall be installed and signed according to appropriate SCDs. If the minimum required acceleration or deceleration distance cannot be achieved by use of existing or proposed pavement, temporary pavement shall be installed.
- Where not stated elsewhere in this document, drop-offs in work zones shall be maintained per SCD MT-101.90, including conformance to Condition II in all full-depth pavement replacement locations where the posted speed limit is less than 45 mph.
- When developing MOT plans, the DBT shall ensure that drainage is maintained during all phases of construction, and for any temporary pavement that is constructed, and shall include any grading, conduit, and/or structures required to do so
- If the DBT's MOT plans include the removal and replacement of any existing concrete median barrier, the cost for replacement of the barrier and associated anchorages and assemblies in a shape matching what was removed shall be incidental to Item 614 Maintaining Traffic
- When opening pavement to traffic, traffic shall only be placed on existing full-depth pavement or new intermediate or surface course asphalt, or full-depth concrete pavement, and all pavement markings shall be in-place
- ~~When opening traffic for the winter shut-down period on existing pavement, new pavement markings conforming with CMS 642 shall be installed on all existing pavement, whether they were removed for MOT purposes or not~~
- Work zone pavement markings shall not be placed on final surface course asphalt or concrete surface, unless temporary tape is used per CMS 740.06
- The DBT shall coordinate with The City of Wooster to ensure that the MOT plans do not conflict with the City's planned reconstruction of Melrose Drive from Milltown Rd to Smithville-Western Rd in 2022.
- The contractor shall perform a pre-construction video for any identified local maintenance detour routes or off-state-system haul routes.
- Unless required by other constraints, night work on the project is prohibited from 7:00 PM to 7:00 AM.

12 SURVEY

A. ODOT Survey Responsibilities

The Department survey crews have provided the following survey information, listed below:

1. Appendix G - Survey Control Data
2. Primary Project Control Monuments/Benchmarks
 - a. 10 - Type 'A' monuments (horizontal and vertical control) at approximately 1 mile intervals along the mainline of the project.
 - b. 4 - Type 'B' outlying monuments for calibration purposes
3. Centerline of RW Alignment Based on the surveyed location of 36 record centerline monuments
4. Centerline Geometry Critical points such as P.C., P.I., P.T., T.S., C.S with coordinates
5. Project Adjustment Factor for scaling State Plane Grid Coordinates to Project Ground Coordinates
6. Aerial Imagery (2018)
7. CAD files: (<ftp://ftp.dot.state.oh.us/pub/Districts/D03/91095/Survey/>):
 - a. 91095_BK001.dgn - Centerline of RW Geometry
 - b. 91095_BA001.dgn - Aerial derived planimetrics
 - c. 91095_KD001.dgn - LiDAR derived terrain model
 - d. 91095_KD002.dgn - LiDAR derived terrain model
 - e. 91095_BC001.dgn - Base combined of the above files
 - f. Geopak TIN files (2), GPK file, project seed files

The DBT shall consider Appendix G a contractual document, and all other files shall be considered reference files for the DBT to use for project plan development.

B. DBT Survey Responsibilities

The DBT will be responsible for any and all survey work necessary for design and construction beyond what the district has provided as detailed above.

Survey work and deliverables will be accordance to all applicable ODOT standards including but not limited to the ODOT Surveying and Mapping Specifications, the ODOT CADD Engineering Standards Manual, ODOT L&D Manual and the 2019 Construction & Materials Specification (Note Section 623).

The DBT shall minimize the disturbance to existing control and centerline monumentation. Where disturbance to centerline monumentation is unavoidable quantities for the replacement of these monuments will be included as part of the construction plans. If replacement of said monuments is not feasible due to safety or design considerations, then reference monuments will be set at locations as agree upon by the DBT and the District Survey Operations Manager. A post construction monument verification report (CMS 623) will be provided by the DBT to the District at the end of construction activities.

The DBT shall include in the plans in table form all control points, centerline monumentation and geometry provided by the Department as well as new, replacement or reference monument constructed listed both State Plane Coordinates and Project Adjusted Coordinates.

Description	Pavement Treatment		
	A	B	C
Item 204 Subgrade Compaction	Yes	-	Yes
Item 204 Proof Rolling			
Item 206 Cement Stabilized Subgrade	12" Deep	-	12" Deep
Item 605 Underdrains with Fabric Wrap	Yes	-	Yes
Item 304 Aggregate Base	6" Deep	-	6" Deep
Item 302 Asphalt Concrete Base	5" PG 88-22M, As Per Plan	-	-
Item 407 Trackless Tack Coat	Shall be applied to a surface prior to placing asphalt intermediate and surface course		-
Item SS861 Asphalt Concrete Intermediate Course	12.5 MM, Type A (446), As Per Plan, 1.75" (PG 88-22M)		-
Item 442 Asphalt Concrete Surface Course	12.5 MM, Type A (447), As Per Plan, 1.5" (PG 88-22M)		-
Item 452 Concrete Pavement	-	9" Non-Reinforced, Class QC 1P with QC/QA	
Item 408 Prime Coat	As Per Plan for placement on compacted aggregate		
Item 617 Compacted Aggregate	2' Wide, 2" Thick adjacent to all uncurbed edges of pavement		

- When removing pavement adjacent to the existing SR 3/SR 83 median concrete barrier wall footer, the contractor shall take care to not disturb the existing barrier wall footer
- The As Per Plan note for the Item 302 Asphalt Concrete Base course is for density as found in Appendix D - Project Design Standards
- All asphalt concrete installed on the project, including base course, shall use Item 442 anti-segregation equipment
- The requirements for the SS 861 intermediate and 442 surface courses shall be modified by plan note such that the binder used will be PG88-22M

- For the SR 3/SR 83 in the southbound direction, between stations 837+00 and 921+00, install and collect thermal temperature data for all test sections using a Paver Mounted Thermal Profiler (PMTF) Install and verify the PMTF system is operating properly prior to the start of asphalt placement. Work with the manufacturer to obtain training and/or any mounting hardware required for the specific paver application. Collect continuous thermal temperature data while placing each course of all test sections placed on the project. Provide electronic copies of all raw data files collected to the engineer and Ohio University at the end of each day of paving.
- Item 408 Prime Coat, As Per Plan Note: The contractor shall apply one coat of MC-70 (as per section 702) at a rate of 0.40 gal/sy to the completed aggregate shoulder (item 617) as directed by the engineer. The contractor shall provide a shield to prevent the spraying or drifting of liquid bituminous material onto the edge of pavement or edge line. The attention of the contractor is directed to 107.10 of the specifications.
- Proposal Note (PN) 420 Surface Smoothness Requirements for Pavements shall apply to all "Pavement Treatment A" sections except the SR 3 South Cleveland Rd right lane pavement section
- All coarse aggregate provided for asphalt concrete surface and intermediate courses shall be crushed carbonate stone meeting the requirements of CMS 703.01 and 703.05. All coarse aggregate for asphalt concrete base shall be crushed carbonate stone meeting the requirements of 703.04

13.1.1 Geotechnical Requirements

In addition to the requirements of Table 13-3, the following subgrade treatments are also required where the items are applicable:

- The DBT shall prepare stable subgrade conforming to CMS 204. Stable subgrade is defined as subgrade where proof rolling results in permanent rutting of 1 inch or less and elastic (rebound) movement of 1 inch or less.
- The Item 206 Cement Stabilized Subgrade shall include all requirements per Item 206, including curing coat and mix design
 - The DBT shall globally chemically stabilize the subgrade (except as noted below in the remainder of Section 13.1.1). Perform Subgrade Chemical Stabilization to conform to the requirements of Item 206 Chemically Stabilized Subgrade. Use the assumed spreading rate as specified by ODOT Geotechnical Bulletin 1, Figure C. for bid estimating purposes. The Department will adjust the contract for actual cement amount required by Supplement 1120 per CMS 109.05.B
 - Perform Mixture Design for Chemically Stabilized Soils per Supplement 1120. Use the assumed chemical spreading rates unless the ODOT Construction Engineer approves a change or as required by Supplement 1120.

consist of seven 1,200-foot different pavement buildups to test how different types Highly Modified Asphalt (HiMA) mixes perform in different pavement courses and in combination with other asphalt mixes and aggregate base thicknesses. The mixes and thicknesses that are to be used in the different test sections are identified Table 13-4 below, except that the Item 304 aggregate base course depth shall be 6 inches for every section.

Table 13-4: Test Section Pavements

Test Section Number	Station Begin	Station End	Monitoring Location	Asphalt Concrete Base Depth (in)	Asphalt Concrete Base Mix	Asphalt Concrete Int. Mix	Asphalt Concrete Surf. Mix
Mainline	(Outside test section limits)			5	B1	I1	S1
1	837+00	849+00	843+00	9.25	B2	I1	S1
2	849+00	861+00	853+00	9.25	B2	I2	S1
3	861+00	873+00	867+00	9.25	B2	I2	S2
4	873+00	885+00	878+00	7.25	B1	I2	S2
5	885+00	897+00	891+00	7.25	B1	I1	S1
6	897+00	909+00	904+00	5.75	B1	I1	S1
7	909+00	921+00	915+00	5	B1	I1	S1

The test section mixes and depths identified in Table 13-4 shall conform to the following thicknesses and requirements in Table 13-5.

Table 13-5: Test Section Pavement Mixes

Asphalt Concrete Mix Number	Pavement Depth (in)	Pavement Mix Description
B1	See Table 13-4	Item 302 Asphalt Concrete Base, As Per Plan, (PG 88-22M)
B2		Item 302 Asphalt Concrete Base (PG 64-22)
I1	1.75	Item SS861 Asphalt Concrete Intermediate Course 12.5 MM, Type A (446) As Per Plan, (PG 88-22M)
I2	1.75	Item SS861 Asphalt Concrete Intermediate Course 12.5 MM, Type A (446)
S1	1.5	Item 442 Asphalt Concrete Surface Course 12.5 MM, Type A (446) As Per Plan, (PG 88-22M)
S2	1.5	Item 442 Asphalt Concrete Surface Course 12.5 MM, Type A (446)

- The DBT shall also be responsible for the installation of some of the monitoring equipment as outlined in Section 18.5.
- Cores will be removed at the locations specified by the Research Team after placement of the 302 Asphalt Base, SS 861 Intermediate Course, and 442 Surface Course. A total of 42 each 6” diameter cores (6 per test section) will be removed from the asphalt base, 42 each 4” diameter cores (6 per test section) from the intermediate course, and 42 each 4” diameter cores (6 per test section) from the surface course. In addition, a total of 42 each full depth (through all asphalt layers) 4” diameter cores will be removed after placement of the surface course. Core dimensions are taken with respect to the inside diameter of the bit. The DBT will be responsible for filling the cores holes.
- For each test section mix type per Table 13-5, obtain a random plant sample and perform one full set of QC tests per CMS 441.09. In addition, for each test section mix type per Table 13-5, obtain a separate random sample and test for asphalt binder content and gradation only. Report all test results on the TE-199 QC record.
- For each test section mix type per Table 13-5, label and hold 25,000 grams of mixture for ODOT and 25,000 grams of mixture for the researcher. Obtain additional samples as required by ODOT and/or the researcher. The contractor shall provide Ohio University with the following:
 - 5 - one gallon containers of each binder used
 - 3 - 50 lb bags of each aggregate gradation used
 - 3 - 50 lb bags of each RAP used
- The material listed in Table 13-6, pounds of loose mix, shall be collected by the contractor and shipped to ORITE at the Ohio University Lancaster campus. (1570 Granville Pike, Lancaster, OH, 43130)

Table 13-6 Asphalt Mixture Loose Samples

Mix	Total for Mix (lbs)
Item 302 Asphalt Concrete Base, As Per Plan, (PG 88-22M)	272
Item 302 Asphalt Concrete Base (PG 64-22)	272
Item SS861 Asphalt Concrete Intermediate Course 12.5 MM, Type A (446) As Per Plan, (PG 88-22M)	304
Item SS861 Asphalt Concrete Intermediate Course 12.5 MM, Type A (446)	304
Item 442 Asphalt Concrete Surface Course 12.5 MM, Type A (446) As Per Plan, (PG 88-22M)	304
Item 442 Asphalt Concrete Surface Course 12.5 MM, Type A (446)	304
Total	1760

Route	Station Begin	Station End	Existing Feature	Proposed Feature
SR 3/SR 83 Northbound	879+60	918+50	Sub-standard outside graded shoulder and guardrail offsets	Standard graded shoulder and guardrail offsets per L&D. Alignment of northbound bifurcated section will have to be shifted a minimum 6 ft left of existing to achieve this
SR 3 Northbound Deceleration Lane and Exit Ramp to SR 3 Cleveland Rd (Ramp T)	918+50	Exit Ramp	2-lane exit ramp with mainline decision point	Single lane SR 3 ramp exit and 2-lane SR 83 mainline.
Ramp T	Entire Ramp		2-lane exit ramp	Single lane exit ramp with left turn lane configuration per L&D Figure 503-5a Alternate A with deceleration length of 415 ft
SR 83 Curve C-11	920+00	932+00	278 ft SSD Dc 6 degrees	318 ft SSD Dc 5 degrees, 30 minutes
Ramp R Acceleration Lane	911+00	929+00	Merge taper 40:1	Merge taper 50:1

- The above geometric improvements can be found on Sheets H-1 - H-23 in Appendix H - Design Exception Report with additional details in other parts of the study
- The station limits above are approximate. The DBT shall set the final limits of geometric improvements based on what is needed to develop the proposed geometric improvements
- The longitudinal limits of the graded shoulder and guardrail offset improvements at Ramps H-2, I, and I-2 shall be set based on what is required to upgrade the stopping sight distance

14.5 Barrier and Guardrail

The DBT shall design and construct new guardrail, end treatments, and assemblies within project limits per ODOT L&D Manual Volume 1, Section 600 and MASH compliant within the proposed project and existing right of way limits. This includes the existing guardrail and Bridge Terminal Assemblies between Ramps H and I and the existing parapet on the SR 585 structure over SR 3 / SR 83.

The DBT shall not disturb all existing median and outside concrete barrier within the project limits except as noted below:

- Where geometric improvements as detailed in Section 14.5 require the relocation of barrier or installation of new barrier for proposed alignments and roadside hazard protection.
- Any new guardrail that is installed shall comply with Midwest Guardrail System (MGS) requirements
- If a proposed guardrail or other new feature is required to tie-in to an existing barrier, the DBT shall retrofit the barrier so that the tie-in can be made
- If the replacement of a guardrail within the pavement replacement limits is part of guardrail that extends outside the pavement replacement limits, the entire run of guardrail shall be replaced, except at Ramp H exit ramp to SR 585/Bowman Street
- If there are any existing or proposed roadside objects or drop-offs that require protection, the DBT shall design and install adequate protection for those warranting features, even if those features are not currently protected
- Where the DBT is instructed by the Engineer to replace an existing median barrier inlet, the Engineer will also instruct the DBT to replace approximately 30 feet of existing median barrier at each of these inlet replacement locations. Incidental to this replacement is tying into the existing median wall and footer and preparing the subgrade under the footer. The DBT shall provide a unit price per foot for this barrier wall replacement as directed by the Engineer - Estimated Quantity: 300 ft
- The existing impact attenuator near Sta. 936+00 shall be removed and replaced with a Type 3 impact attenuator
- Any barrier that is replaced or installed abutting existing barrier shall conform to the shape and design of the existing barrier
- The following quantities have been set aside for existing median barrier wall repairs. The DBT shall provide a unit price for performing these repairs and will be paid for the quantity performed. These repair areas will be identified by the Engineer.
 - Item 512 Crack Repair by Epoxy Injection - 250 Linear Feet
 - Item 519 Patching Concrete Structures - 1,100 Square Feet

15 DRAINAGE

15.1 Drainage General

The DBT shall remove and replace all existing drainage features within the project limits, except as modified below:

- Drainage inlets and structures within median barrier are not intended to be replaced. The replacement of the conduit where it ties into the drainage structure shall conform to CMS 611.10 and the following:
 - The existing conduit to be replaced shall be removed in its entirety including the portion within the existing median inlet
 - The new conduit shall be installed and secured within the existing drainage structure

C-R-S	SFN	Feature Intersection	Work Type
WAY-3-15.52WR	8500843	Ramp H-2 Over Little Apple Creek	See Section 17.2
WAY-3-15.54	8500878	Ramp H-1 Over Little Apple Creek	Deck Patching
WAY-3-15.817	8500908	SR 3/SR 83 Over Little Apple Creek	No Work
WAY-3-16.69	8500932	SR 3/SR 83 Under Portage Rd	No Work
WAY-83-13.91	8503699	SR 83 Over SR 3/Cleveland Rd	No Work

17.1 General Requirements

The purpose of this project related to structures is to perform minor rehabilitation work on existing structures.

Several of the existing structures require concrete deck patching, which shall conform to the requirements of CMS 519. The DBT shall provide a unit price per square foot to perform deck patching for the quantities allocated to each structure in Table 17-2.

After the pre-design meeting, the DBT shall schedule an onsite field meeting with the District Bridge Engineer and Project Engineer to review the decks of the structures in Table 17-2 and identify deck patching areas. The DBT shall then prepare plans based on the locations identified in this meeting. The DBT will be paid at the contract unit price for the actual quantity of deck patching performed. Traffic control required for this review will be provided by the DBT and is incidental to Item 614, Maintaining Traffic.

Table 17-2: Deck Patching

C-R-S	SFN	Feature Intersection	Estimated Deck Patching Quantity (sy)
WAY-250-12.18L	8500606	US 250/SR 3/SR 83 Over US 30 East	52 sy
WAY-3-15.16	8500754	SR 3/SR 83 Over Apple Creek	37 sy
WAY-3-15.54	8500878	Ramp H-1 Over Little Apple Creek	17 sy

- When preparing roadway plans for this project, the DBT shall ensure that vertical clearances to existing overhead structures are not less than the existing vertical clearance
- After an initial field investigation, it is thought that all existing bridge terminal assemblies (BTA) can be upgraded to MGS requirements. The DBT shall verify that this is the case, and if not, shall retrofit the existing parapet such that BTAs can be upgraded to MGS

17.4 Approach Slabs

The purpose of this project related to approach slabs to keep the existing approach slabs but perform repairs as follows:

- Mill the existing asphalt overlay off the approach slabs down to the top of the concrete approach slabs per CMS 254
- Perform approach slab patching per the requirements of CMS 519 and as described below
- Install surface course asphalt conforming to the requirements of Section 13.1, ensuring a smooth transition from the proposed pavement to and from the existing bridge deck. If the proposed asphalt pavement depth is too thick for a surface course alone, the DBT shall also install a variable depth asphalt intermediate course conforming to the mix design requirements of Section 13.1.

The DBT shall provide a unit price per square foot to perform deck patching for the quantities allocated to each structure in Table 17-3. After milling is performed on each approach slab, the DBT shall schedule an onsite field meeting with the Project Engineer to review the approach slabs in Table 17-3 and identify patching areas. The DBT will be paid at the contract unit price for the actual quantity of patching performed. Traffic control required for this review will be provided by the DBT and is incidental to Item 614, Maintaining Traffic.

Table 17-3: Approach Slab Patching

C-R-S	SFN	Feature Intersection	Approach Slab Patching (sy)
WAY-250-12.18L	8500606	US 250/SR 3/SR 83 Over US 30 East	16 sy
WAY-3-15.16	8500754	SR 3/SR 83 Over Apple Creek	12 sy
WAY-3-15.54	8500878	Ramp H-1 Over Little Apple Creek	4 sy

18 TRAFFIC CONTROL

18.1 Pavement Markings and Delineators

The DBT shall perform Work related to pavement markings and delineators in accordance with Section 7.1 and the following sections.

- A. Pavement Marking Requirements and Locations: Shall conform to CMS 640 and be installed within pavement replacement limits and MOT transition areas per the DBT’s design. All permanent pavement markings shall be Item 644 thermoplastic on asphalt surfaces and Item 646 epoxy on concrete surfaces. Pavement marking types and optics shall conform to Table 18-1.

18.2 Signing

The DBT shall perform Work related to signs in accordance with Section 7.1 and the following sections.

18.2.1 Flat Sheet Signs

- A. Flat Sheet Sign work required: Yes No.

It is the intent of the project to leave the existing flat sheet signs in-place

Redesign and replace all existing flat sheet signs with new signs within the limits of roadway alignment changes as outlined in Section 14.5. Size and design the signs in accordance with the OMUTCD, TEM, and SDMM.

1. All flat sheet signs within the City of Wooster corporation limits shall be installed per the requirements of City of Wooster standard construction drawings TR-3.0 and TR-3.1 Sign Post Specifications.
2. The following signs shall be installed where none currently exist:
 - Install signs on exit ramps per SCD TC-73.20
 - SR 585 Interchange: Install chevron signs on the loop portions of the ramps. Install horizontal alignment warning signs for Ramps H-2 and I-2 per OMUTCD recommendations

Removed flat sheet signs shall become the property of the Contractor.

18.2.2 Extrusheet Signs

1. Extrusheet Sign Work Required: Yes No.

It is the intent of the project to leave existing extrusheet signs in-place.

The exception to this is that the DBT shall remove, re-design, and replace the following existing overhead guide signs on SR 3 / 83 north where the exit ramp to SR 3 / Cleveland Rd is being re-configured per Section 14.5:

- Cantilever sign at Sta. 905+00
- Span-mounted sign at Sta. 932+00

Size and design the signs in accordance with the OMUTCD, TEM, and SDMM.

2. Tourist-Oriented Directional Signs (TODS) and logo signs: Yes No.

Tourist-Oriented Directional Signs (TODS) and logo signs are installed and maintained by Ohio Logos, Inc., under contract with and in locations approved by ODOT. Under the terms of the contract, the DBT shall be required to temporarily relocate the signs during construction. Provide temporary suitable supports, adjust the location with the

18.5 Intelligent Transportation Systems (ITS)

A. ITS Work Required: Yes No

All proposed ITS work on this project is related to traffic and pavement monitoring for the Pavement Research Project. The final installation of all equipment below will be by the Ohio University Pavement Research Team and by the ODOT Office of Traffic Monitoring. However, the DBT is required to install the following equipment prior to the final activation of the traffic and pavement monitoring systems.

1. Automatic Traffic Recorder Station (SR 3 / SR 83 Sta. 894+00)
 - Install 4 each 24" pull boxes and 3" conduit per SCD HL-30.11 and HL-30.22. Jack and bore under pavement and conduit in trench to pull boxes and to pole.
 - Install one 30 ft aluminum pole with transformer (breakaway) base, foundation, grounding per CMS 625.16 at approximate STA 894+00 Right. Final location shall be approved before installation by Traffic Monitoring, Technical Services:
 - Ed Newmeyer: Edward.Newmeyer@dot.ohio.gov
 - Sandra Mapel: Sandra.Mapel@dot.ohio.gov
 - Install a size 3 pole-mounted ATR cabinet
 - Install a 130 watt (minimum) solar panel on the pole, facing south.
 - Provide grounding per CMS 625.16
2. Pavement Monitoring Stations - 7 each (1 per test section from Table 13-4)
 - Install 18" pull boxes and 3" PVC conduit per CMS 725, SCD HL-30.11, SCD HL-30.22. Install each pull box adjacent to the edge of pavement, run conduit from the pull box to the cabinet per SCD TC-83.10 (power service and controller mounting on wood poles)
 - Install a mounting setup per SCD HL-40.20 sheet 1 of 3. The only items to include on the mounting setup are cabinet and 3" conduit that connects from nearest pull box to cabinet
 - Cabinet for use with pavement monitoring equipment shall be at least 24"x24"x18", and shall be a type adequate for pole-mounting
 - Each cabinet shall be equipped with a 2500W 12VDC/120VAC Pure Sine inverter to allow for future hookup to a portable generator
 - Provide grounding per CMS 625.16

Pole and cabinet details and approved products should be per ITB Contract 157-22. Details are included in Attachment D of the following document:

<https://www.dot.state.oh.us/Divisions/ContractAdmin/Contracts/PurchDocs/157-22.pdf>

19 PROJECT SCHEDULE REQUIREMENTS

The DBT shall develop and maintain a project schedule in accordance with the selected notes:

- CM&S 108.03 A. Progress Schedule
- Proposal Note 105 - Critical Path Method Progress Schedule for Single Season Projects
- Proposal Note 107 - Critical Path Method Progress Schedule for Multi-Season Projects
- Proposal Note 131 - Early Completion Schedule
- Proposal Note 132 - Critical Path Method Progress Schedule for Design/Build Multi-Season Projects including updates released on or before the prebid meeting date, shall be met or exceeded.

20 PLAN SUBMITTALS AND REVIEW REQUIREMENTS

20.1 Plan Components

All plans submitted by the DBT shall be in conformance with the following ODOT manuals:

1. Real Estate Policies and Procedures Manual Section 3100.
The DBT shall also identify all topographic features within the existing and proposed Right-Of-Way limits, including underground utilities.
2. Bridge Design Manual.
Note: Bridge subsummaries are required.
3. Location and Design Manual, Volume 3:
The following sections of the Location and Design Manual, Volume 3 are NOT required:

1302.13	Plan Signatures
1307.2	General summary sheet
1307.4	Quantity Calculations
1310.3	Earthwork and Seeding Quantities

Units of measure are **NOT** required.

Simplified plans (section 1301.2) are **NOT** allowed.