

**Specifications for New Centerline to Line and Grade of
Mutual Catawba road in Union Township in Champaign County, Ohio.**

General Conditions

Scope: It is the intent of these specifications to describe the materials and methods required to construct 300 feet of new centerline to line and grade for Mutual Catawba Road in Union township as well as the pavement and full depth reclamation of the adjacent existing roadway. The extent of the project will correspond with the limits as provided with the plan schematic included with this project.

The work consists of, and the contractor will be paid for: Construction of new centerline to Line and Grade, full depth reclamation of pavement adjacent to newly constructed road, providing profile adjustments per the plan notes, applying an asphaltic concrete surface course as directed by the County, placing stabilized crushed aggregate berm, paint striping, and traffic control.

Supervision: Work shall be performed under the supervision of the County Engineer or his designated representative. Determination of the methods to be used to obtain the specified results, direction of the contractor's employees and operation of equipment shall rest with the contractor.

Safety: The contractor shall operate in a safe manner at all times. Equipment shall be in good operating condition with all guards and protective devices in place and in working condition. Items such as steps, walkways and railings shall be in good condition. Personal safety equipment shall be furnished and issued by the contractor as required. He shall further see to it that this equipment is used and that his employees work in a safe manner. The Champaign County Engineer's Safety Policy Manual shall apply to this project. The Contractor will be required to sign the provided Acknowledgment/agreement form.

Liability: The Contractor shall carry Workman's Compensation, public liability, personal liability, and property damage insurance. The Contractor shall furnish satisfactory evidence of insurance coverage to the maximum extent of \$5,500,000.00 bodily injury and \$5,100,000.00 property damage to insure adequate payment for any damage caused by their operations.

Tax payment: The Contractor shall furnish a statement regarding personal property tax, on the provided form, in accordance with section 5719.042 O.R.C.

Bid and Performance Bonds: Bids shall be accompanied by a bid guaranty bond in the amount of 100% of the bid or a certified check, cashier's check, or letter of credit in the amount of 10% of the bid in accordance with section 153.54 O.R.C. If a certified check, cashier's check or letter of credit is submitted with the bid, then the successful bidder will be required to provide a performance bond in the amount of 100% of the bid at the time the contract is signed. The address and telephone number of the bonding company and agent must be included with all

bid guaranty bonds and performance bonds.

Wages: This job is subject to Ohio prevailing wage rates which are part of these specifications. Wage rates can be viewed at the State of Ohio Department of Commerce web site.

Contractor Qualifications: Bids are solicited only from contractors qualified to perform this type of work and who have successfully complete similar work. The successful bidder shall furnish evidence of his ability to perform this type of work. The contractor awarded the contract will have to submit an approved ODOT job mix formula for the specified asphalt.

Materials Testing: All materials used in this work are subject to testing for compliance with the specifications. Tests will be performed at the County's option and expense. The contractor will cooperate to the extent necessary in supplying the requested samples or making the material available.

Asphalt Binder Price Adjustment: Section 401.20 will not apply to these specifications. No placing index factor will be applied to adjust the price for asphalt binders.

Sub-contracting: The contractor shall not sub-contract more than 30% of the dollar value of the project. If the contractor intends to use sub-contractors, they shall be named on the bid along with the work it is intended for them to perform. They shall be subject to the same qualification requirements as the contractor. The contractor shall be responsible for all actions and performance by his sub-contractors including the payment of prevailing wages and the submission of payrolls.

Work Dates: Work shall be completed and the road opened to traffic by **October 14, 2016**. In accordance with Sections 108.06, 108.07, 108.08, 108.09 and 108.10 liquidated damages in the amount of \$750.00 per day will be assessed for each calendar day the project is not completed. However, all asphalt must be placed in conformance with weather limitations of 401.05.

Termination of Contract: The County Engineer may terminate the contract for the convenience of the County at any time. The Engineer may, by written instruction to the contractor, decrease or increase the quantity of any item or portions of a contract, and the Engineer shall authorize payment to the contractor for the reasonable cost incurred, in connection with such item or portions, prior to the date of such decrease or cancellation made by order of the Engineer.

Finding for Recovery: An award will not be made to any bidder, including the lowest and best bidder or the lowest responsive and responsible bidder against whom a finding for recovery has been issued by the Ohio Auditor of State, if the finding for recovery is unresolved, as provided in Section 9.24 of the Ohio Revised Code, whether or not it is clear that any funds used in this project could be deemed to be "state funds". A bidder with an unresolved finding for recovery shall be deemed not a best bid or not a responsible bid.

Utility Coordination: At the time of plan preparation, OUPS markings or record plans were not available. Based on the scope of work for this project, utility interference or disruption is not anticipated. Prior to construction, the contractor shall contact OUPS and have existing utilities marked in the field.

DMA Form: Declaration Regarding Material Assistance/Non-Assistance to a Terrorist Organization (DMA) Form HLS 0038 2/06 is attached and must be signed and returned. This form serves as a declaration of the provision of material assistance to a terrorist organization or organization that supports terrorism as identified by the U.S. Department of State Terrorist Exclusion List. This list is found at www.homelandsecurity.ohio.gov/dma_terrorist/terrorist_exclusion_list.pdf

Affidavit of Compliance with O.R.C. 3517.13: Ohio Revised Code Section 3517.13(I)(3) and (J)(3) requires that no agency or department of this state or any political subdivision shall enter into any contract for the purchase of goods costing more than five hundred dollars or services costing more than five hundred dollars with a corporation, individual, partnership or other association organized under Chapter 1785 of the Revised Code, estate, or trust unless the contract includes a certification that the individuals named in Revised Code Sections 3517.13(I)(1) and (J)(1) are in compliance with the aforementioned provisions. The offeror is required to complete the attached AFFIDAVIT OF COMPLIANCE WITH OHIO REVISED CODE SECTION 3517.13. Failure to submit the required affidavit with the proposal/bid pack will deem the offeror's response to be non-responsive and disqualified from receiving further consideration.

Specifications

Item numbers refer to ODOT Construction and Material Specifications dated January 1, 2013. These specifications will cover the work unless otherwise noted.

1. ITEM 202 – PAVEMENT MILLING, ASPHALT CONCRETE: Consists of the milling and compaction of the existing pavement. Payment will be for square yard of pavement milled. Limits for pavement milling are included per the plan details and quantities.
2. ITEM 203 – ROADWAY EXCAVATION AND EMBANKMENT CONSTRUCTION: Consists of the construction of new embankment following the new line and grade as per the plans. Any excavation materials may be used for embankment on the shoulder and slope where the materials are in accordance with 203.08 or as directed by the Engineer. Payment shall be at the contract price per cubic yard for embankment construction.
3. ITEM 206 - CEMENT: Consists of applying cement per the special provision for full depth reclamation. For bidding purposes, 5% cement has been included with the calculations.

Payment will be per ton of cement applied.

4. ITEM 304 – AGGREGATE BASE: Consists of the placement and compaction of 12” of aggregate base and shall be in accordance with 304.01, furnishing 304.02 aggregate and placing and compacting as specified in 304.04 and 304.05. In addition, this item consists of the stabilization of the aggregate base as per the special provision in this contract. No aggregate shall be placed until sub-grade conforms to line and grade as shown on the plans and is approved by Engineer. Payment shall be the contract price per cubic yard of 304 aggregate base placed.
5. ITEM 411 – STABILIZED CRUSHED AGGREGATE, AS PER PLAN: This item shall consist of stabilized crushed aggregate placed 12" wide and 3" deep adjacent to the finished pavement elevation. Material shall be placed and compacted along the edge of pavement, including any transitions required at driveways/approaches. Payment shall be made per cubic yard.
6. ITEM 441 - ASPHALT CONCRETE SURFACE COURSE: TYPE 1, (448), PG64-22, AS PER PLAN: Consists of placing and compacting 3” of asphaltic concrete on Mutual Catawba road as shown within these specifications. The job mix formula shall be in accordance with table 441.02-1 (PG 64-22) Type 1 Surface for Heavy traffic with the exception of gradation. Gradation shall be in accordance with table 441.02-1 (PG 64-22) Type 1 Surface for Heavy traffic. The asphalt binder range shall be 6.0 to 8.0 percent. Recycled asphalt shall not exceed 10% of any mix produced. The provisions of 401.20 Asphalt Binder Price Adjustment will not be applied to these specifications.

Asphalt samples from each 1000 ton batch shall be taken throughout the application of the project. The Contractor will supply the necessary size plates (to be laid on the surface of the highway and paved over) for the samples and the Contractor will be responsible to take the sample and coordinate the collection of the samples with the County. All cost of testing shall be the responsibility of the County. All batch slips from the plant shall show the percent of AC asphalt contained in said load with all weight to be in "English" units (tons).

All butt joints will be required to be sealed with AC20. Only County and State roadways shall be utilized as haul roads unless otherwise approved by the Engineer in writing.

The average asphalt bitumen content shall be at least 6.2 % of the total mix per road. Test will be performed for every 500 tons laid. If an individual asphalt bitumen content test is below 6.0 % or above 8.0% the material shall be removed and replaced at the cost of the contractor.

Payment shall be based upon unit quantities applied as detailed in these specifications. The Contractor shall be paid 100% of all work performed, after test results of the asphalt samples have been determined to be in conformance.

7. ITEM 642 – EDGE LINE: Consists of water based traffic paint in accordance with ITEM

642. Payment will be per mile of line.
8. ITEM 642 – CENTER LINE: Consists of water based traffic paint in accordance with ITEM 642. Pre-marking, layout, and any no passing zone surveys necessary shall be included in this item. Payment will be per mile of line, regardless of type. The County will provide pavement striping logs to the contractor at the preconstruction meeting. The striping logs provided by the County shall govern final pavement marking placement.
 9. ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN: Consists of furnishing and placing necessary signs at all intersecting roads and furnishing necessary flag men, signs or other traffic control devices to handle traffic in the work zone. DO NOT PASS signs and pavement markings shall be in place in accordance with 614.04 Temporary markings shall be installed as per 614.11 the same day of paving. Local traffic will be maintained throughout the entire project at all times. Payment will be for lump sum bid.
 10. ITEM SPECIAL - CHEMICALLY STABILIZED SUBGRADE, MISC.: FULL DEPTH RECLAIMED BASE COURSE, 12 INCHES DEEP: Consists of full depth pavement reclamation as well as the stabilization of newly constructed aggregate base. Payment will be per square yard of reclaimed pavement completed. Limits of full depth reclamation are provided per the attached schematic plan and details included with the project. Other associated work items included with this pay item are provided in the plan notes where applicable.

Bid Form
Mutual Catawba Road construction 2016
Champaign County, Ohio

| Item | Quantity | Unit | Description | Unit Price | Extension |
|-------------|-----------------|-------------|--|-------------------|------------------|
| 1 | 800 | SQ YD | ITEM 202 – PAVEMENT REMOVED, ASPHALT CONCRETE | _____ | _____ |
| 2 | 902 | CU YD | ITEM 203 - EXCAVATION AND EMBANKMENT CONSTRUCTION | _____ | _____ |
| 3 | 54 | TON CU | ITEM 206 - CEMENT | _____ | _____ |
| 4 | 330 | YD | ITEM 304 - AGGREGATE BASE | _____ | _____ |
| 5 | 13 | CU YD | ITEM 411 – STABILIZED CRUSHED AGGREGATE, AS PER PLAN | _____ | _____ |
| 6 | 0.28 | MIL E | ITEM 642 – EDGE LINE, 4" | _____ | _____ |
| 7 | 0.14 | MIL E | ITEM 642 – CENTER LINE | _____ | _____ |
| 8 | 1 | LUM P | ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN | _____ | _____ |
| 9 | 156 | CU YD | ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22, AS PER PLAN | _____ | _____ |
| 10 | 1330 | SQ YD | ITEM SPECIAL - CHEMICALLY STABILIZED SUBGRADE, MISC.: FULL DEPTH RECLAIMED BASE COURSE, 12 INCHES DEEP | _____ | _____ |

FINAL BID TOTAL:

TOTAL BID _____
ESTIMATE: _____

I certify that I have inspected the job and have read and understand the plans and specifications, including the required completion date. Any questions or concerns about any quantities should be directed to the office of the Champaign County Engineer prior to submitting any bid.

By: _____

Company: _____

Address: _____

Phone: _____

Operating Conditions

A Pre-Construction meeting shall be scheduled prior to start of work. The contractor shall notify the Engineer (937/653-4848) 48 hours prior to the initial start of work.

There will be no work performed from 6 P.M. on Saturday until 6 A.M. on Monday without the approval of the Engineer.

Work shall be conducted in such a manner as to cause minimum inconvenience to the public and the residents along the project.

Once the contractor commences work, it shall be carried out in a continuous manner and in accordance with the job schedule until completion. If the work is interrupted, the contractor shall notify the Engineer of the cause. If the Engineer agrees that the cause is valid, he will give the Contractor written permission to restart the work. The Contractor shall notify the Engineer the day prior to restarting.

The contractor will have a qualified representative, capable of making decisions on the contractor's behalf at all times the contractor or sub-contractor is working.

A copy of the plans and specifications shall be at the job site while any work is being completed.

Any changes in quantities or work must be authorized by written change orders, signed by the Contractor and the Engineer on the provided form. A change order must be secured before any additional work or additional quantities are used. Approved changes in work or quantities shall be paid at the bid unit price. A change order issued for an item for which there is no unit bid price will be paid according to the average bid price for that item as established in the latest available edition of the Ohio Department of Transportation Summary of Contracts Awarded. In the event that either of the above methods is not applicable, the approved change order will be paid in accordance with ORC Section 153.62

AFFIDAVIT
OF COMPLIANCE WITH OHIO REVISED CODE SECTION 3517.13

STATE OF _____

COUNTY OF _____ SS:

I _____, being duly sworn, depose and state as follows:
(Name)

1. I am duly authorized to make the statements contained herein on behalf of
_____ ("The Contracting Party").

2. The Contracting Party is a/an (select one):

- Individual, partnership, or other unincorporated business association (including, without limitation, a professional association organized under Ohio Revised Code Chapter 1785), estate, or trust.
- Corporation organized and existing under the laws of the State of _____.
- Labor organization

3. I hereby affirm that the Contracting Party and each of the individuals specified in **R.C. 3517.13(I)(3)** (with respect to non-corporate entities and labor organizations) or **R.C. 3517.13(J)(3)** (with respect to corporations) are in full compliance with the political contribution limitations set forth in R.C. 3517.13(I) and (J), as applicable.

4. I understand that a false representation on this certification constitutes a felony of the fifth degree pursuant to R.C. 3517.13(AA) and 3517.992(R)(3).

Affiant further sayeth naught.

By _____
(Signature)

Title _____

SWORN TO BEFORE ME and subscribed in my presence this _____ day of
_____, 20____.

Notary Public

SEAL

My Commission Expires _____

LEGAL NOTICE

Bids will be received by the Champaign County Commissioners at their office located at 1512 South US 68, Suite A-100, Urbana, Ohio 43078 until 9:15 A.M., August 23, 2016 for the construction of portion of Mutual-Catawba Road in Union Township, Champaign County, Ohio. Bids shall be accompanied by a bid guaranty bond in the amount of 100% of the bid or a certified check, cashier's check or letter of credit in the amount of 10% of the bid in accordance with ORC 153.54. Bids shall be submitted in sealed envelopes marked "Mutual-Catawba Road Construction". Specifications are on file at the office of the Champaign County Engineer, 428 Beech Street, Urbana, Ohio 43078.

The Champaign County Board of Commissioners reserves the right to reject any or all bids.

Board of Commissioners
Champaign County

By: Stephen McCall, PE, PS
County Engineer

**STATE OF OHIO
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FULL DEPTH RECLAMATION (FDR) CHEMICAL STABILIZATION**

April 23, 2010

- 01. Description**
- 02. Materials**
- 03. Submittals**
- 04. Equipment**
- 05. Construction**
- 06. Mixture Design for Full Depth Reclamation**
- 07. Method of Measurement**
- 08. Basis of Payment**

01. Description. Full depth reclamation (FDR) consists of constructing a stabilized, reclaimed base course by pulverizing the existing asphalt pavement and existing aggregate material, and then mixing it with the subgrade soil and either cement, lime, or lime kiln dust.

02. Materials. Furnish materials conforming to:

| | |
|-------------------------|----------|
| Portland cement | 701.04 |
| Lime (quick lime) | 712.04.B |
| Lime kiln dust | 712.04.C |
| Aggregate..... | 703.17 |

Furnish water conforming to 499.02.

For the curing coat, furnish rapid setting emulsified asphalt conforming to 702.04 or the curing materials specified in 451.02.

03. Submittals. Prepare and submit the report for mixture design for full depth reclamation as required in Supplement 1120 and modified in this special provision.

Submit, for the Engineer's acceptance, a report that lists the type of equipment to be used, speed of the intended equipment usage, rate of application of the chemical, and calculations that demonstrate how the required percentage of chemical will be applied. Submit the report to the Engineer for acceptance at least 2 workdays before the stabilization work begins.

04. Mixture Design for Full Depth Reclamation. Perform a mixture design according to Supplement 1120 with the following modifications.

Collect samples of the existing asphalt pavement, existing aggregate material, and subgrade soil to the specified depth. Collect one sample for every 5000 square yards (4000 m²) of reclaimed base course, but not less than a total of four samples for a project. Record the location of all samples, and the thickness of existing pavement and aggregate layers.

Process and prepare samples to closely simulate field conditions. When performing tests on untreated samples, only determine the liquid limit and plastic limit if the subgrade soil comprises more than 20 percent of the specified depth of reclamation.

Do not perform the moisture conditioning or the expansion testing.

Determine the minimum percentage of chemical that results in an average 7-day unconfined compressive strength that meets the minimum strengths shown in the following table. Interpolate the minimum percentage between points on the graph. If the average strength for the mixture with the greatest percentage of stabilization chemical does not meet the minimum strengths, contact the Department.

TABLE 04-1 MINIMUM UNCONFINED COMPRESSIVE STRENGTH

| Thickness of proposed asphalt pavement overlay | UCS after 7 days |
|--|-------------------|
| Less than 3 inches (75 mm) | 300 psi (2.1 MPa) |
| At least 3 inches (75 mm) | 200 psi (1.4 MPa) |

05. Equipment. Provide equipment that meets the following requirements:

A. Use equipment capable of automatically metering liquids with a variation of not more than two percent by weight of liquids. Calibrate before use.

B. Reclaimer. Use a self-propelled, traveling rotary reclaimer or equivalent machine capable of cutting through existing roadway material to depths of up to 16 inches (405 mm) with one pass. Provide equipment capable of pulverizing the existing pavement, aggregate base and subgrade soil in place, to a minimum width of 8 feet (2.4 meters), and mixing any added materials to the specified depth. The rotation speed of the cutting drum must be adjustable independent of the machine's forward speed.

Use a machine equipped with a computer controlled liquid proportioning system capable of regulating and monitoring the water application rate relative to depth of cut, width of cut, and speed. Connect the water pump on the machine by a hose to the supply truck, and mechanically or electronically interlock the pump with the forward movement of the machine. Mount the spray bar so that water is injected directly into the mixing chamber. Provide equipment capable of mixing water, chemicals, and the pulverized pavement materials into a homogenous mixture. Maintain the cutting drum in good condition during the work.

Do not use equipment such as road planers or cold-milling machines designed to mill or plane the existing roadway materials rather than crush or fracture them.

C. Compaction. Provide a vibratory padfoot roller with at least 52,000 pounds (23,500 kg) of centrifugal force for breakdown compaction. Provide a single or tandem smooth drum vibratory roller having a minimum effective weight of 12 tons (11 metric tons) for finish rolling.

06. Construction. Perform full depth reclamation work when the air temperature is 40 °F (5 °C) or above and when the soil is not frozen. Do not perform this work during wet or unsuitable weather.

A. Pulverizing and Shaping. Before spreading any stabilizing chemicals or aggregate, pulverize the existing roadway materials to the specified depth. Pulverize until 95 percent of the material passes through the 2 inch (50 mm) sieve. Shape to within 3/4 inch (18 mm) of the proposed grade and compact until no further densification is achieved. Add water to the

pulverized material to bring it to at least optimum moisture content but not more than 3 percent above optimum moisture content.

B. Spreading. After pulverizing, spread the specified chemical uniformly on the surface using a mechanical spreader at the approved rate and at a constant slow rate of speed. Use a distribution bar with a maximum height of 3 feet (1 meter) above the subgrade. Use a canvas shroud that surrounds the distribution bar and extends to the surface.

Minimize dusting when spreading the chemical. Control dust according to 107.19. Do not spread the chemical when wind conditions create blowing dust that exceeds the limits in 107.19.

Do not spread the chemical on standing water.

If specified, spread aggregate at the approved rate using an auger or vane type distributor for dry materials.

Provide a one square yard (square meter) canvas sheet and scale to check the spreading rate of the chemical and aggregate.

C. Mixing. Mix according to 206.05.B. Mix cement or lime kiln dust according to 206.05.B.1. Mix lime according to 206.05.B.2. Check the depth of the mixture according to 206.05.B.3.

D. Compacting. Start compaction no more than 30 minutes after the final mixing. Begin rolling at the low side of the reclaimed base course. Initially, do not compact within 3 to 6 inches (80 to 150 mm) of an unsupported edge to prevent distortion.

Compact the reclaimed base course to the requirements in 204.03, except the Engineer will use 98 percent of the maximum dry density for acceptance. The Engineer will determine the maximum dry density for acceptance using the test section method.

Use the moisture controls according to 203.07.A, except ensure that the moisture content at time of compaction is at or above optimum but not greater than 3 percent above optimum moisture content.

Perform the final rolling using a steel-wheeled roller. Do not use vibration during the final rolling.

The Contractor may either shape and fine grade the reclaimed base course before the curing period, or shape the reclaimed base course before the curing period and fine grade after the curing period. If fine grading before the curing period, fine grade the same day as mixing, compacting, and shaping. If fine grading after the curing period, shape the reclaimed base course approximately 1/2 inch (13 mm) above the profile grade and typical sections. In either case, fine grade the reclaimed base course to the profile grade and typical sections within the tolerances in 203.08.

E. Curing. Immediately after the compaction and shaping of the reclaimed base course, cover the surface with curing coat for curing the reclaimed base course. Use a rate of 1 gallon per 30 square feet (1.36 liters per square meter) for emulsions or a rate of 1 gallon per 150 square feet (0.27 liters per square meter) when the curing materials in 451.02 are used.

Apply the curing coat prior to the surface drying out. If the curing coat is delayed or the surface starts to dry out apply water for temporary curing until the curing coat can be applied. Do not apply the curing coat unless the curing coat can set up before it rains. When the

application of curing coat must be delayed, keep the reclaimed base course wet by using water until the curing coat can be applied.

Cure the reclaimed base course for at least five days before placement of the overlying course.

F. Proof Rolling. After the cure period, proof roll the reclaimed base course according to Item 204.

G. Protection. Protect any finished portion of the reclaimed base course upon which any construction equipment is required to travel to prevent marring, distortion or damage of any kind. Immediately and satisfactorily correct any such damage.

Drain and maintain the work according to 203.04.A. Do not operate any equipment on the reclaimed base course during the curing period. Do not allow the reclaimed base course to freeze during the cure period. Cover the completed reclaimed base course with asphalt concrete pavement within 14 calendar days.

07. Method of Measurement. The Department will measure Full Depth Reclaimed Base Course by the number of square yards (square meters) computed from the profile grade and typical sections accepted in place.

The Department will measure cement, lime, and lime kiln dust by the number of tons (metric tons) incorporated in the complete and accepted work.

The Department will measure aggregate by the number of tons (metric tons) incorporated in the complete and accepted work.

The Department will measure Curing Coat by the number of square yards (square meters) computed from the profile grade and typical sections accepted in place.

08. Basis of Payment. The Department will pay lump sum for all work, labor, and equipment described in 04. Mixture Design for Full Depth Reclamation. The Department will pay one-half of the lump sum amount when the soil sampling and testing is complete and the report is accepted by the Department. The Department will pay one-half of the lump sum amount bid when the reclaimed base course is completed and accepted by the Department.

The Department will pay for accepted quantities at the contract prices as follows:

| Item | Unit | Description |
|-------------|-------------|---|
| Special | Square Yard | Chemically Stabilized Subgrade, Misc.: Full Depth Reclaimed Base Course, 12 inches deep |
| 206 | Ton | Cement |
| Special | Ton | Chemically Stabilized Subgrade, Misc.: Aggregate for FDR Base |
| Special | Each | Chemically Stabilized Subgrade, |