

Ohio Department of Transportation Prebid Questions

Project No. 060117

Sale Date - 3/22/2006

Question Submitted: 2/16/2006

Question Number: 1

Please provide an explanation as to why the pavement thicknesses for the concrete and asphalt pavement sections are equal in depth. Currently the concrete section is 14.5 inches of item 844 with 6 inches of 304 base. The asphalt section is also 14.5 inches of item 880 plus 6 inches of 304 aggregate base. Prior bids always have an asphalt pavement design thickness greater than the concrete pavement design thickness. What factors were utilized and/or determined in the design to allow these two compositions to be equal in depth.

The two pavement alternatives for this project were designed using the AASHTO design procedure for the soil conditions at the site and the projected traffic loading. On this project that resulted in equal thicknesses for concrete and asphalt.

Question Submitted: 2/17/2006

Question Number: 2

We have reviewed the soil profiles provided (sheets 1-9) in the plans. Please provide or make available the subsurface investigation report prepared for this project. In addition there is currently no data for all ramp work.

The subsurface investigation report for the project is available to view at the district office

Question Submitted: 2/23/2006

Question Number: 3

Please provide an explanation for the Life Cycle Cost Adjustment Factor shown on Page 4 of the Proposal. After reviewing the Life Cycle Cost Adjustment Factor for Project 060117 and comparing it with the Life Cycle Cost Adjustment Factor for Project 06087, we find a dramatic discrepancy between the two.

By looking at the chart below, you will see a large difference between the bid adjustment factors for Project 060117 versus Project 06087. You will also note that the Rigid Pavement Repair Class FS on Project 060117 is \$135.00 per square yard versus \$95.00 per square yard on Project 06087. This baffles me! The bid date is March 8 for Project 06087 and March 22 for Project 060117, yet the difference between these two square yard prices is approximately 42%. These projects bid two weeks apart so why is there such a big difference in the cost to repair?

In addition, when analyzing the Asphalt Surface 12.5mm, Type A, the cost is \$85.00 per cubic yard on Project 06087 and \$95.00 per cubic yard on Project 060117. The difference here is approximately only 12%. Again, these projects bid two weeks apart so why is there such a big difference in the cost of the asphalt?

Proj.#	Bid Adj.Factor	SY Concrete	Amount/SY
060117	\$396,837	318,267	\$1.25/SY
060087	\$406,840	127,716	\$3.19/SY

The life cycle cost adjustment factor is the Department's estimated cost difference for the future rehabilitation needs of the two pavement options over the 35 year anticipated performance for each pavement option. The anticipated performance and future rehabilitation needs are different for the two projects in question resulting in different life cycle cost adjustment factors. Unit price estimates for the life cycle cost adjustment factor are generated in the time period necessary for printing and publishing of the Proposal and represent the Department's best estimate, at that time, of the cost to perform the various items of work. The two adjustment factors were estimated over one month apart and projects awarded in the interim would influence the prices of the second estimate. Other factors influencing the price estimates are the fact that the two projects are located in different areas of the state and involve routes with different functional classifications and different traffic volumes.

Question Submitted: 2/27/2006

Question Number: 4

We have reviewed the subsurface investigation report made available for this project and can not locate the required information that is needed to calculate and determine the asphalt or concrete pavement thickness sections designed for this project. Please provide the following missing data; California Bearing Ratio (CBR), Modulus of Subgrade Reaction (k), Soil Resilient Modulus (Mr).

California Bearing Ratio (CBR) = 7 Modulus of Subgrade Reaction (k) = 126 pci Soil Resilient Modulus (Mr) = 8,400 psi

Question Submitted: 3/10/2006

Question Number: 5

Due to the major work types on this project being divided among Paving, Earthwork, and Maintenance of Traffic items, We would request that the Department under Section 108.01 reduce the 50% requirement to a 40% requirement of work being performed the the contractor on this project.

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Ohio Department of Transportation Prebid Questions

Question Submitted: 3/10/2006

Question Number: 6

1. Ref # 105 is called out as a type B pipe but the plans (sheets 313,773) call it out as a type C pipe as it is not under pavement.
2. Can any of the bowl areas at the interchange or the median be used as waste areas?
3. Has ODOT considered cement/lime subgrade stabilization in lieu of undercutting the subbase?

Question Submitted: 3/10/2006

Question Number: 7

Can the percentage of work performed by the prime contractor be reduced from 50% to 40% ?

Question Submitted: 3/10/2006

Question Number: 8

Ref. 57- Subgrade Compaction

Typical sections show subgrade compaction to be performed between lifts of 304 aggregate base and the undercut/fabric/204B granular subgrade work. Given that the project is to be fully undercut, is it the intent of performing subgrade compaction at the bottom of the specified undercut, or is it to excavate to the required undercut depth and non-perform any subgrade compaction work. This item as is may be redundant.

Question Submitted: 3/10/2006

Question Number: 9

O.D.O.T.'s current supplemental specification for 880 seven year warranty projects under 880.04 Mix Design and Material, Section A. "Meet or exceed the quality requirements of 703.03 for virgin aggregate used in the top 3.0 inches. Meet or exceed quality aggregates of 703.03 virgin aggregate below the top 3.0 inches." Section C; Meet or exceed the PG 70-22 requirements for asphalt binders used in the top 3 inches of pavement..... This project contains an unusual plan note with respect to 880 seven year warranty project stating that the contractor is required to use 100% slag coarse aggregate in the 880 surface mix for all ramp material and for the surface mix in all mainline and shoulder areas to be a minimum aggregate blend of 50% slag and 50% limestone aggregates.

* This note contradicts the very intent of the 880 seven year warranty specification by specifying what aggregates are to be used in these mixes.

* The use of 100% slag or a 50% blend of slag with limestone in asphalt mixes has produced mixes inconsistent in gradations and specific gravities jeopardizing optimum compaction.

The current 880 seven year warranty specification has never specified or excluded aggregates for 880 asphalt warranty mixes. Can District 12 provide historical data on 880 seven year warranty projects where a slag/ limestone coarse aggregate blend has been used successfully?

The use of 100% slag in the surface course for ramps and a min. 50% slag with limestone blend on the mainline is not an unusual plan note for asphalt overlays in District 12. The district has restricted the use of 100% limestone on interstate and interstate look-a-likes for the past 2 years. This was done to improve safety by specifying aggregates that provide acceptable long term surface friction (skid numbers). District 12 has, for many years, also restricted the use of washed gravel, which is permitted per 703.05, part B. Under 880.04 Mix Design and Materials, Section A, the spec. states: "Meet or exceed the quality requirements of 703.05 for virgin aggregate used in the top 3.0 inches.....". Referring to 703.05, part B, Coarse Aggregates, crushed air-cooled slag is an acceptable material. The plan note does not contradict the intent of the 880 Supplemental Specifications due to the allowable use of slag in the surface course. Also, restricting or requiring specific aggregates has previously occurred, including on some warranty projects in D-12, as well as in other Districts. District 12 has a long history of successfully using ACBFS in surface courses. The specific approach regarding the use of 100% slag, for ramps and a blend of min. 50% slag with limestone for mainline asphalt surface mixes has been successfully used to achieve safe skid resistant and durable surface courses. Achieving density of these mixes has not been an issue on past projects. Although District 12 does not have a history of specifying slag with the 880 seven year warranty, it has successfully been done in another District(s).

Question Submitted: 3/13/2006

Question Number: 10

Ref. 312- Pavement for Maintaining Traffic, Class A: From looking at the quantity tables and plan sheets, the quantity given appears to be overstated. Can ODOT please verify their quantities with beginning stations, ending stations, taper stations, widths, etc.? There is little information given on the MOT plan sheets to try and match up with the quantities in the summary.

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Ohio Department of Transportation Prebid Questions

Question Submitted: 3/14/2006

Question Number: 11

Addendum #2 adds bid item 406 104,273 LF of Portable Concrete Barrier 50" APP. Isn't this covered by revised bid item 400 which is the same?

Per addendum #2 you are installing temporary pavement from station 890+50 to station 996+24 both EB and WB. This provides for the additional lane that the A+B bidding would open. If these lanes are already provided by temp pavement why is there A+B bidding?

With the added temporary pavement in addendum #2 it appears there is not enough quantity provided. Will this be corrected? Will new drawings be giving reflecting these changes?

Revised drawing page 115 in addendum #2, section U-U does not reflect the same as the drawing. Which is correct?

Will ODOT be providing calculations and locations and/or limits for 301 used for shoulder treatment?

Quantities and calculations given for ramp G-E seem to be understated. They do not match typical sections and stations for this ramp. Will these be corrected?

With all the changes made to maintenance of traffic in addendums 1 and 2 will ODOT provide revised drawings and plan sheets showing all corrections and quantities?

Question Submitted: 3/15/2006

Question Number: 12

The current MOT plans show several MOT lane widths of 10', which we feel is a safety hazard to the traveling public. Due to the large volume of truck traffic, we feel this MOT lane width should be designed at a minimum 11-foot width. Even more critical, all the ramps are high-speed curves and definitely should not have been designed a 10' MOT lane width. We feel this is also a violation of the Location and Design Manual, 500 Maintenance of Traffic. It clearly states in all manuals (including yours) that where accessibility to additional width is available, it should be used for the safety of the traveling public.

Question Submitted: 3/15/2006

Question Number: 13

Addendum #2 added the bid item for "Cofferdams, Cribs, and Sheeting, As Per Plan" which includes the installation and removal of sheeting under bridge CUY-480-18.30. There is no plan information shown regarding vertical clearance to the existing structure (the remainder of the existing overhead structures onsite have this information shown in the profile plan sheets). Please provide this information.

Question Submitted: 3/15/2006

Question Number: 14

The Cofferdams, Cribs, and Sheeting, As Per Plan item that was added does not spell out the station limits for the sheeting. Please provide the beginning and end stationing.

Question Submitted: 3/15/2006

Question Number: 15

Currently there are several MOT plan sheets and typical sections indicating traffic lanes directly adjacent to the PCB, not having a 1-foot minimum lateral offset as called for in the Location and Design Manual, 500 Maintenance of Traffic. This is directly a traffic manual violation that puts the Contractor at a continual liability for every accident on the project. We also feel that this is a safety hazard to the traveling public and should be addressed. Typical Standards should have a minimum 1-foot clearance provided between travel lanes and the toe of the PCB.

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Ohio Department of Transportation Prebid Questions

Question Submitted: 3/15/2006

Question Number: 16

Reference #3-Pavement Removal has a quantity of 311,935 sy.

There is a plan note under general notes stating: "Existing plans entitled CUY-77-8.69/CUY-80-17.37, CUY-480-15.81 and CUY-480-15.84 may be inspected in the ODOT District 12 Office in Garfield Heights, Ohio".

Upon looking at the existing plans, there appears to be a plan error in reference to the existing pavement sections from stations 860+00 to 938+25.

The plans for new construction show a typical section of pavement as follows throughout the project: 3" asphalt overlay, 10" reinforced concrete pavement, 4" subbase. The sepias on record from original construction at District 12 showed no subbase, but 4" 301 under the concrete on these areas (in conflict with what the plans for reconstruction show). This area encompasses approximately 147,800 sy worth of the plan quantity.

Given this scenario, can ODOT verify existing pavement sections and determine how the removal of the existing 4" bituminous base would be paid for?

Question Submitted: 3/15/2006

Question Number: 17

Amendment #2 in EBS has created duplicated bid items (Ref. 0400 and 0406) for Item 622 "Portable Concrete Barrier, 50", APP". Can ODOT please revise?

Question Submitted: 3/15/2006

Question Number: 18

Addendum No. 1 added incentive and deconvective penalties for opening new pavements to traffic for both westbound and eastbound 480. During the Pre-bid on March 2, 2006 we asked how ODOT wanted the new warranty pavements to be transitioned to the existing pavements when opened. Please provide details as to how ODOT wishes to accomplish this transition from existing pavements to the new warranty pavements for both asphalt and concrete designs. This situation will also exist in all remaining phases and MOT shifts above and beyond the incentive and deconvective areas.

Question Submitted: 3/16/2006

Question Number: 19

In Addendum #2 ODOT responded to a prebid question requesting a complete one night ramp closure for each phase for paving operations only.

It seems as though the intent of the one-night closure is for the concrete option.

The asphalt contractor has the same problem of adequate distance between the temporary barrier wall and the paving area. The concrete contractor is permitted to place the concrete in one 14.5" lift. In order to construct a warranty pavement the asphalt contractor is restricted by density, lift thickness and temperature requirements that would prohibit the asphalt contractor from completing this operation in a one night closure, we respectfully request that these closures be at least three nights per phase?

The district feels that the one night ramp closure for each phase is sufficient. Due to the nature of these ramps, Interstate to Interstate connectors, high traffic volumes and no real easy detours, the district does not want to close them more than one time.

Question Submitted: 3/16/2006

Question Number: 20

Ref. 285- "Transition Area Delineation"

The plan note on sheet 86 in the second paragraph under item 1 makes reference to removal of existing surface course and replacement of surface course in the transition area. Is this work considered incidental to this bid item or will the removal and resurfacing be paid under separate line items?

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Ohio Department of Transportation Prebid Questions

Question Submitted: 3/17/2006

Question Number: 21

Please provide an explanation for the life cycle cost adjustment factor shown on Page 4 of the Proposal. After reviewing the life cycle cost adjustment factor for the I-480 project (ODOT 060117) and comparing it with the life cycle cost adjustment factor for similar projects (ODOT 060087 and 060150) you will find that the life cycle cost adjustment factor for the concrete portion of the 060117 project has not been treated fairly. The following chart demonstrates a dramatic difference.

Project No. Bid Adj. FactorSY ConcreteAmount/SY

060117\$396,837318,267\$1.25/SY

060087\$406,840127,716\$3.19/SY

060150\$1,110,957353,724\$3.14/SY

As you can clearly see, the bid adjustment factor for Projects 060087 and 060150 are \$3.19 and \$3.14 per square yard respectively, where the bid adjustment factor for Project 060117 is only \$1.25 per square yard. The bulk of this is based on the full depth pavement repairs, which in Project 060117 was estimated to cost \$135.00/SY where in both Projects 060087 and 060150 the estimated cost was \$95.00/SY.

Following was you answer to our pre-bid question submitted on February 23, 2006:

The life cycle cost adjustment factor is the Department's estimated cost difference for the future rehabilitation needs of the two pavement options over the 35 year anticipated performance for each pavement option. The anticipated performance and future rehabilitation needs are different for the two projects in question resulting in different life cycle cost adjustment factors. Unit price estimates for the life cycle cost adjustment factor are generated in the time period necessary for printing and publishing of the Proposal and represent the Department's best estimate, at that time, of the cost to perform the various items of work. The two adjustment factors were estimated over one month apart and projects awarded in the interim would influence the prices of the second estimate. Other factors influencing the price estimates are the fact that the two projects are located in different areas of the state and involve routes with different functional classifications and different traffic volumes.

If that is the case, when did you estimate Project 060150? Most likely it was estimated one month after Project 060117 and now you are telling us that in one month the estimate for Item 255, Rigid Repair, Class FS has decreased. Furthermore, you state that "different regions" is another determining factor. Cuyahoga County is the least expensive region for pavement repairs due to the fact that Cuyahoga has the least expensive costs of cementitious materials and concrete aggregates due to the Great Lakes' sources. However, 255 rigid pavement repairs are performed no differently on I-480 than on USR 24 or SR 161. A specification is a specification and traffic control is traffic control! What other form of nonsense do you want to give me now to convince me and the rest of the bidders that the life cycle cost adjustment factor was fairly determined for ODOT 060117. Or, maybe it was determined fairly.....for the asphalt contractors only!

Question Submitted: 3/17/2006

Question Number: 22

1.) Is the use of foundry sand permitted for Item 204 embankment?

2.) This being a warranty asphalt project and recognizing the desire of the district to have good skid numbers we respectfully request that the Life cycle cost adjustment factor of \$396,837.00 be reduced by at least an estimated \$135,000. The reason for this request is that the concrete option permits the contractor to use all the materials permitted by the CMS book, while the asphalt concrete option is restrictive and permits only the use of slag coarse aggregate in the surface course. This restriction increases the price of coarse aggregate by a minimum of \$7.15 per ton as quoted by local aggregate suppliers. Also by being restricted to slag aggregate in the surface course the asphalt contractor has to provide additional PG binder due to the absorptive factor of slag aggregate.

A1) No. The only materials permitted are as per section 204.02 of the CMS. A2) The life cycle cost adjustment factor is the Dept's estimated cost difference for the future rehabilitation needs of the two pavement options over the 35 year anticipated performance for each pavement option. Unit price estimates for the life cycle cost adjustment factor are generated in the time period necessary for printing and publishing of the Proposal and represent the Dept's best estimate, at that time, of the cost to perform the various items of work. Therefore the Dept respectfully declines to reduce the estimate for this factor.

Question Submitted: 3/7/2006

Question Number: 23

Will RPCC and/or RACP materials be permitted for Granular Material, Type B on this project?

The only materials that will be permitted for this item are as per Section 204.02 of the CMS.

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Ohio Department of Transportation Prebid Questions

Question Submitted: 3/8/2006

Question Number: 24

Year 2 and Year 3 Phase 2 and Phase 3 MOT plans do not provide adequate distances between the temporary barrier wall and the paving area. Will ODOT allow the contractors to close an additional lane and temporarily shift the temporary barrier wall for each phase for paving operations only? This closure would be from 8:00pm to 6:00am.

The contractor will be permitted to close the lane adjacent to the portable concrete barrier at times permitted per the "Permitted Lane Closure Times" on the Departments web site.

Question Submitted: 3/8/2006

Question Number: 25

Year 1 Phase 1A and Phase 1B MOT plans do not provide adequate distances between the temporary barrier wall and the paving area. Will ODOT allow a 1-night ramp closure for each phase for paving operations only? This closure would be from 8:00pm to 6:00am and pertain to the following ramps; S-W, W-S, N-E, S-E, E-S, E-N?

Question Submitted: 3/9/2006

Question Number: 26

Ref. 148- #304 Aggregate Base
Typical plan sections and details (sheet 730) call for aggregate base underneath concrete median. There is no quantity listed in the calculations for this. Can ODOT please determine and add quantity to summary?

Question Submitted: 3/9/2006

Question Number: 27

"Work Zone Traffic Control Devices Reminder" dated 12/13/04 states "Contractors are allowed to use portable concrete barrier in their inventory for its useful life or until January 1, 2008, provided it was manufactured according to construction standard drawings MC-9.1 or MC-9.2) or subsequently RM-4.1 or RM-4.2) and purchased before October 1, 2002." The completion date for this project is 10/15/2008, will the contractor have to replace any PCB on the project that does not conform to drawing RM-4.2 after January 1, 2008?

Question Submitted: 3/9/2006

Question Number: 28

The work zone delineation plan note on sheet 86 does not match the plan insert sheet on sheet 89. Are the edge lines and lane lines to be 4" or 6"? Is the striping to be 643 polyester or does the contractor have the option of either 642 paint or 643 polyester?

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