
General Questions

Q.1) What is the 2022 asphalt specification reorganization?

- A.1) All the asphalt specifications were reorganized to pull information together into “silos” such as field operations, plant operations, and QC requirements. The goal was to untangle the web of cross-references and exceptions, to make the specifications easier to understand, and to make future updates easier. Another goal was not to make many technical or pay item changes but there were some.

Q.2) Who did this reorganization?

- A.2) The reorganization was a collaborative effort between CO Construction Administration, Materials Management, Pavement Engineering, and District Two.

Q.3) When does this go into effect?

- A.3) The changes will be included in the **January 21, 2022** version of Supplemental Specification 800. The required plan changes (item descriptions and item master extensions) go into effect for projects with a plan package submittal deadline of January 21, 2022 or later.

Q.4) Why do this now, why not wait for the next C&MS book?

- A.4) The team spent over a year and a half working to meet the deadline for a 2022 C&MS book that was cancelled after the reorganization was nearly complete. To wait a year or more to implement was too high a risk of not implementing at all and would be very difficult to maintain two sets of specifications for the next year or more as any revisions are made.

Q.5) Will there be any training?

- A.5) Yes, we are planning to have discussions with ODOT construction, testing, and design personnel through regularly scheduled meetings of those groups. We may travel to districts or set up Teams meetings to allow for question and answer time from more people. We are planning an LTAP webinar and coordination with Ohio Contractors Association, Flexible Pavements of Ohio, and ODOT Office of Consultant Services to reach outside entities and may give presentations at conferences and gatherings.

Q.6) What specifications changed?

- A.6) All the current asphalt specifications had changes, some more than others. C&MS items with changes are: 401, 402, 403, 301, 302, 424, 441, 442, 443, 446, 447, and 448. Other C&MS items, Supplemental Specifications, and Proposal Notes were also updated as needed with new references.

Q.7) Were any new specifications added?

- A.7) Yes, there are new non-pay items 440 and 449. Item 440 contains the common mix design requirements for all the asphalt mixes. Item 449 is a non-density acceptance method that brings together the Basic mix acceptance from 403.05 and the 448 non-density acceptance. It will be included in pay item descriptions in parentheses for all asphalt concrete base items and any time density acceptance is not used.

Q.8) Why have non-density acceptance?

- A.8) The non-density acceptance has always been part of the specifications when another acceptance method (446, 447, or 448) was not called out or if 448 acceptance did not meet the conditions for gauge density acceptance. Specifying non-density acceptance makes it easier to understand how the material is accepted and easier to add density requirements for base courses in the future.

Design Questions

Q.9) Does this require any plan development changes?

- A.9) Yes, changes are required for any plans using items 301, 302, 424, and may be required for 441 and 442 surface and intermediate course items using 448 acceptance. See the summary of plan changes listed at the end of the design questions section.

Q.10) Will the Pavement Design Manual (PDM) be updated and when?

- A.10) Yes, the PDM will be updated in the January 2022 quarterly release.

Q.11) What about proposal notes, supplemental specifications, other design manuals, etc.?

- A.11) The team attempted to identify and update all the required changes in other specifications, manuals, drawings, etc., in the January 2022 quarterly release. Some items may have been missed and they will be updated as they are discovered.

Q.12) What plans need to be changed?

- A.12) All plans with SS 800 dated 1/21/22 or later that include any of the affected items require updating to reflect the new specifications and pay item descriptions. To allow for item master and plan changes, this is being phased in for plan packages submitted after 1/21/2022. Plans without any affected pavement items follow the standard SS 800 implementation schedule.

Q.13) When do I specify 448 acceptance?

- A.13) Use 448 acceptance for surface and intermediate courses placed at a uniform thickness of 1" or thicker on projects consisting of at least one continuous mile of paving two or more adjacent lanes.

Q.14) When do I specify 449 acceptance?

- A.14) Use 449 acceptance for all base courses (301 and 302) and all 424 Type A. Use 449 acceptance for surface and intermediate courses, including 424 Type B, not meeting the requirements for 446, 447, or 448. Typically this will be short sections of paving less than one mile, anything placed less than 1" thick, and anything placed at a variable depth.

Q.15) Are there any other design changes?

- A.15) Yes, as part of the reorganization, SS 861 AC Intermediate Course, 12.5mm was incorporated into item 442. As a result of this, all the asphalt lift thickness requirements were reviewed and updated in the PDM to better align with recommended practices based on the nominal maximum aggregate size of the mix.

Summary of changes affecting plan development:

- All 301, 302, and 424 Type A items need 449 acceptance in parentheses added to the pay item descriptions and updated item extensions.
- All items using 448 acceptance must meet the requirements for density; at least 1" of material placed at uniform thickness and at least one continuous mile of paving in two or more adjacent lanes.
- Surface and intermediate courses not meeting the criteria for density acceptance (446, 447, or 448) must include 449 acceptance in parentheses in the pay item description and updated item extension.
- Item 424 Type B requires either 448 or 449 acceptance as appropriate.
- Minimum and maximum lift thicknesses for asphalt mixes were updated in the PDM.
- Begins with all plan package submittal deadlines after 1/21/2022.

Construction Questions

Q.16) What changes affect construction?

- A.16) The primary change is to where information is located. Items 401, 402, 403, and 441 were revised extensively with information moved between them and to other new items. Also, any asphalt placed without a density requirement will now specify 449 acceptance.

Q.17) What changed in item 401?

- A.17) Item 401 is now exclusively the field operations. All the material requirements for producing asphalt concrete, all the RAP and RAS requirements, and anything else not related to placing asphalt in the field have moved elsewhere. The order the information is presented was completely revised to be more consistent with other specifications, easier to find and understand, and more in the order that operations occur in the field.

Q.18) What changed in item 402?

- A.18) Item 402 was expanded and now includes all activities at the plant to produce the mix including the plant calibration requirements, RAP and RAS processing and stockpiling requirements, mixing and production requirements, and loading of the trucks.

Q.19) What changed in item 403?

- A.19) Item 403 was significantly expanded bringing in all the quality control requirements from item 441.

Q.20) What is this new item 440?

- A.20) Item 440 contains the general mix design requirements that apply to all asphalt mixes. This includes the aggregate and binder material requirements, the requirements for a JMF submittal, and the allowable limits for RAP and RAS.

Q.21) What changed in item 441?

- A.21) Nearly all of item 441 was moved elsewhere, primarily to item 403 and to a new item 440.

Q.22) What changed in item 442?

- A.22) The 12.5mm intermediate course that had been SS 861 was incorporated in 442.

Q.23) What changed in item 448?

- A.23) The non-density acceptance in 448 for short sections, non-uniform applications, or courses less than 1" thick was removed from 448 and moved to the new 449 acceptance method.

Q.24) What is this new acceptance method 449?

- A.24) Item 449 is a non-density acceptance method that brings together the Basic mix acceptance from 403.05 and the 448 on-density acceptance. It will be included in pay item descriptions in parentheses when density acceptance is not used.

Q.25) Are there changes to how we inspect the work?

- A.25) No, there were few, if any, technical changes that affect how the contractor performs the work and how ODOT inspects and accepts it.

Asphalt Testing, QC & Mix Design Questions

Q.26) What changes affect asphalt testing and mix design?

- A.26) The primary change is to where information is located. Items 403 and 441 were revised extensively with much of 441 moved to 403. Mix design information previously in item 401 and 441 was moved primarily to the new item 440.

Q.27) What changed in item 403?

- A.27) Item 403 was significantly expanded bringing in all the quality control requirements from item 441. Item 403 now includes all QA requirements including QC and VA sampling, testing, and comparison.

Q.28) What is this new item 440?

- A.28) Item 440 contains the general mix design requirements that apply to all asphalt mixes. This includes the aggregate and binder material requirements, the requirements for a JMF submittal, and the allowable limits for RAP and RAS. The mix specific requirements remain in 301, 302, 424, 441, 442, and 443.

Q.29) What changed in item 441?

- A.29) Nearly all of item 441 was moved elsewhere, primarily to item 403 and to a new item 440. Item 441 is now specifically Marshall mix requirements.

Q.30) What changed in item 442?

- A.30) The 12.5mm intermediate course that had been SS 861 was incorporated in 442.

Q.31) Were there any changes to the mix design or QC procedures?

- A.31) Yes, after the reorganization was complete, several changes were proposed to the spec committee and will be included in the January 21, 2022 release. See the summary of these changes below.

Summary of changes affecting mix design and QC procedures:

- Added a minimum binder content of 3.9 percent to item 302 mixes.
- Added requirement to perform moisture content testing for aggregate, RAP, and RAS stockpiles each production day.
- Increased the minimum total binder content to 6.7 percent for item 424 Type B mixes.
- Increased the minimum binder content to 5.8 percent for item 441 Intermediate Type 1 mixes and to 4.6 percent for Intermediate Type 2 mixes.
- Increased the minimum total binder content to 5.8 percent for item 442 surface courses.
- Added a requirement to perform and report IDEAL-CT testing to items 441 and 442 mixes but no minimum required value.