



TRANSPORTATION CABINET

Frankfort, Kentucky 40622
www.transportation.ky.gov/

Steven L. Beshear
Governor

Michael W. Hancock, P.E.
Secretary

May 9, 2012

CALL NO. 100
CONTRACT ID NO. 121315
Addendum # 2

Subject: Jefferson County, TIP 0163 (063)
Letting May 11, 2012

- (1) Added - Listing of Proposal Modifications and Plan sheet Revisions - Pages 17(d) thru 17(g) of 620
- (2) Added - Listing of Questions and Answers - Pages 17(h) thru 17(p) of 620
- (3) Revised - Special Notes - Pages 452, 461, 475 of 620
- (4) Added - Special Notes - Pages 478(a) and 484(a) of 620

Proposal revisions are available at
<http://transportation.ky.gov/Construction-Procurement>

Plan Revisions are available at: <http://www.lynnimaging.com/kytransportation/>

If you have any questions, please contact us at (502) 564-3500.

Sincerely,

A handwritten signature in blue ink that reads "Ryan Griffith".

Ryan Griffith
Director
Division of Construction Procurement

RG:jj

Enclosures



An Equal Opportunity Employer M/F/D

**THE PARKLANDS OF FLOYDS FORK – PROJECT 3A
SOUTH BECKLEY CREEK PARK & POPE LICK PARK**

**ADDENDUM NO. 2
May 8, 2012**

**THE PARKLANDS OF FLOYDS FORK – PROJECT 3A
SOUTH BECKLEY CREEK PARK & POPE LICK PARK**

This addendum shall be attached to the specifications and/or drawings of the above mentioned project and shall become part of the contract documents. All statements made herein shall supersede statements in the main body of the specifications and items shown on the drawings with which they are in conflict. Work and materials not specifically mentioned herein shall be as described in the main body of the specifications and as shown on the drawings. **The bidder must acknowledge the receipt of this Addendum on the Bid Form where indicated.**

MODIFICATIONS TO CONTRACT DOCUMENTS:

Modifications to the Specifications, Proposal, Contract and Bond:

Section #/Page Description

- | | |
|-----------|---|
| 312000-3 | Paragraph 2.1.A: Revise paragraph to read after General: “Borrow soil materials for the Grand Allee area will be obtained from within the Grand Allee area from the existing on-site stockpile and the borrow area as designated on the plans. Borrow material for all other areas of the project may be import material to meet the specifications for each location.” |
| 312000-12 | Paragraph 3.23.A: Revise paragraph to read after Disposal: “Surplus satisfactory and unsatisfactory soil and waste material will be disposed of on-site within each project area for the Grand Allee, Trestle Point, and Tyler Schooling areas as directed by owner. All surplus materials will be placed outside of floodplain limits.” |
| 312000-12 | Paragraph 3.23.B: Revise paragraph to read: “The minor quantities of surplus satisfactory and unsatisfactory soil and waste material for the Distillery Bend and Floyds Fields areas are to be disposed of within the overall project boundaries as directed by the owner. All surplus materials will be placed outside of floodplain limits.” |
| 321313-1 | Paragraph 1.2A: Revise paragraph to include Detectable warning mats. |
| 321313-4 | Paragraph 2.10: Paragraph added. |
| 321313-11 | Paragraph 3.13: Paragraph added. |

Modifications to the Drawings:

**THE PARKLANDS OF FLOYDS FORK – PROJECT 3A
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<u>Sheet #</u>	<u>Description</u>
G0-6	Addendum 2 sheets identified on Index Sheet.
FF-C2.1	Revised parking lot grading & addition of concrete drainage flume.
FF-C3.1	Revised site grading/parking lot grading and drainage.
C-8.1	Concrete flume detail added.
PR-C1.10	Enlarged Geometric Plan added, Proposed 60' Right-of-way added and portion of roadway within Right-of-way modified to Metro Public Works Standard pavement section.
PR-C2.1	Revised ditch grading.
PR-C2.2	Revised temporary sediment basin grading and outlet structure location.
PR-C2.5	Revised ditch grading.
PR-C5.1	Added Enlarged Geometric Plan #4, Revised Enlarged Plan #2 and Revised keynotes.
PR-C6.1	Rearranged and added miscellaneous details.
PR-C6.2	Rearranged and added Temporary Sediment Basin detail.
LT-C1.7	Added Keynote for drainage pipe structure modification.
LT-C1.8	Added Keynotes for drainage pipe structure modification and verification of hydrant field location with possible trail/hydrant field adjustments.
LT-C1.13	Revisions to drainage pipe and structure references.
LT-C6.1	Rearranged and added miscellaneous details.
BR-S101	Updated Slope Protection Quantities.
BR-S201	Revised Slope Protection and Railing and Mesh.
BR-S202	Added Railing Details.
BR-S203	Updated Slope Protection Quantities.
A5-302	Omitted
A5-101	Updated Key Notes: Site Furnishings are N.I.C.; Rock Fence Note updated

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- Updated Knuckle #5A: Rock Fence note updated to reference Subset 4 for details and removed key note “K”.
Updated Knuckle #5B: Rock Fence note updated to reference Subset 4 for details and removed key note “K”.
- A5-102 Updated Key Notes: Site Furnishings are N.I.C.; Rock Fence Note updated
Updated Knuckle #8: Rock Fence note updated to reference Subset 4 for details and removed key note “K”.
- A5-103 Updated Key Notes: Site Furnishings are N.I.C.; Rock Fence Note updated
- A5-104 Updated Key Notes: Site Furnishings are N.I.C.; Rock Fence Note updated
Updated Knuckle #16 to show omission of Louisville Loop at the driveway crossing.
Updated Knuckle #18: Revised East side of Louisville Loop Alignment
- A5-105 Updated Key Notes: Site Furnishings are N.I.C.; Rock Fence Note updated
- A5-106 Updated Key Notes: Site Furnishings are N.I.C.; Rock Fence Note updated
Updated Knuckle #26: Revised Knuckle Layout
- A5-107 Updated Key Notes: Site Furnishings are N.I.C.; Rock Fence Note updated
- A5-108 Updated Key Notes: Site Furnishings are N.I.C.; Rock Fence Note updated
- A6-101 Deleted select bollards to accommodate future signage package

Attachments:

Specifications, Proposals, Contract and Bond Sections

- Special Note SUMMARY OF QUESTIONS AND ANSWERS SUBMITTED DURING THE
BIDDING PHASE
- 312000-3 EARTH MOVING
- 312000-12 EARTH MOVING
- 321313-1 PORTLAND CEMENT CONCRETE PAVING
- 321313-4 PORTLAND CEMENT CONCRETE PAVING
- 321313-11 PORTLAND CEMENT CONCRETE PAVING

Plan Sheets

**THE PARKLANDS OF FLOYDS FORK – PROJECT 3A
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G0-6	Reissued Plan Sheet with Addendum No. 2 items noted.
FF-C2.1	Reissued Plan Sheet with Addendum No. 2 items noted.
FF-C3.1	Reissued Plan Sheet with Addendum No. 2 items noted.
C-8.1	Reissued Plan Sheet with Addendum No. 2 items noted.
PR-C1.10	Reissued Plan Sheet with Addendum No. 2 items noted.
PR-C2.1	Reissued Plan Sheet with Addendum No. 2 items noted.
PR-C2.2	Reissued Plan Sheet with Addendum No. 2 items noted.
PR-C2.5	Reissued Plan Sheet with Addendum No. 2 items noted.
PR-C5.1	Reissued Plan Sheet with Addendum No. 2 items noted.
PR-C6.1	Reissued Plan Sheet with Addendum No. 2 items noted.
PR-C6.2	Reissued Plan Sheet with Addendum No. 2 items noted.
LT-C1.7	Reissued Plan Sheet with Addendum No. 2 items noted.
LT-C1.8	Reissued Plan Sheet with Addendum No. 2 items noted.
LT-C1.13	Reissued Plan Sheet with Addendum No. 2 items noted.
LT-C6.1	Reissued Plan Sheet with Addendum No. 2 items noted.
BR-S101	Reissued Plan Sheet with Addendum No. 2 items noted.
BR-S201	Reissued Plan Sheet with Addendum No. 2 items noted.
BR-S202	Reissued Plan Sheet with Addendum No. 2 items noted.
BR-S203	Reissued Plan Sheet with Addendum No. 2 items noted.
A5-101	Reissued Plan Sheet with Addendum No. 2 items noted.
A5-102	Reissued Plan Sheet with Addendum No. 2 items noted.
A5-103	Reissued Plan Sheet with Addendum No. 2 items noted.
A5-104	Reissued Plan Sheet with Addendum No. 2 items noted.
A5-105	Reissued Plan Sheet with Addendum No. 2 items noted.
A5-106	Reissued Plan Sheet with Addendum No. 2 items noted.
A5-107	Reissued Plan Sheet with Addendum No. 2 items noted.
A5-108	Reissued Plan Sheet with Addendum No. 2 items noted.
A6-101	Reissued Plan Sheet with Addendum No. 2 items noted.
A6-102	Reissued Plan Sheet with Addendum No. 2 items noted.

END OF ADDENDUM NO. 2

**THE PARKLANDS OF FLOYDS FORK – PROJECT 3A
SOUTH BECKLEY CREEK PARK & POPE LICK PARK**

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May 8, 2012**

**THE PARKLANDS OF FLOYDS FORK – PROJECT 3A
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**SUMMARY OF QUESTIONS AND ANSWERS SUBMITTED
DURING THE BIDDING PHASE**

Question:

Can CAD info be provided to the bidders for quantity takeoff purposes?

Answer:

Yes, please see section 00800 in the proposal on page 137.

Question:

The proposal (specs) refers to bridges T110 & T111, but we haven't found any information in the plans. Are T110 & T111 included in this phase of the project?

Answer:

Bridges T110 & T111 will be boardwalk bridges in Project 3A. They were not included in the Bid Set; their design will be clarified in an addendum.

Question:

There are 2 different deadlines and contacts mentioned in the proposal for questions to be submitted. Which is correct?

Answer:

Questions about the project during the advertisement should be submitted in writing to the Division of Construction Procurement. This may be done by fax (502) 564-7299 or email to kytc.projectquestions@ky.gov. The Department will attempt to answer all submitted questions. The Department reserves the right not to answer if the question is not pertinent or does not aid in clarifying the project intent. No questions or inquiries will be allowed beyond 5:00 p.m. EST, May 4, 2011.

Question:

Will MSE Walls (designed in accordance with KYTC Standards) be allowed as an alternate to the Segmental Retaining Walls Specified in Section 323223? The MSE walls can be furnished with a form liner finish resembling a limestone finish.

Answer:

No, MSE Walls will not be approved as an equal to the Segmental Retaining Walls. Segmental Retaining Walls must meet the specifications in Section 323223.

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Question:

Sheet DB-C1.4 refers to drainage structure DB-111 as a 8' x 2.5' RCBC, while Sheet LT-C1.6 refers to DB-111 as a 38" x 60" RCEP, which is correct?

Also DB-119 is referenced as a 8' x 2.5' RCBC on sheet DB-C1.4, and on sheet LT-C1.7 as a 38" x 60" RCEP, and then again on sheet RW-S101 a 8' x 2.5' Box Culvert in a completely different drainage configuration, which is correct?

In both cases if the RCBC is the choice, can these structures be pre-fabricated?

Answer:

The box structures were modified to elliptical pipe structures, reference to 38x60 RCEP is correct. This will be further clarified in an addendum.

Question:

If there is a conflict between KYTC specs and 21st Century Parks specifications contained in the contract document, which apply?

Answer:

21st Century Parks specifications will override KYTC specifications. In many instances the 21st Century Parks specifications refer to the KYTC specifications.

Question:

Will you consider cement stabilization in lieu of lime stabilization?

Answer:

Bidders shall provide bids based on the use of lime at the percentage specified.

The successful Bidder shall be required to field verify the percentage of lime needed to stabilize the sections of the roadway identified in the plans in accordance with Kentucky Transportation Cabinet Division of Materials Kentucky Method 64-520-08 and other associated tests. The successful Bidder shall submit a written report prepared by a Geotechnical Testing Laboratory with a qualified staff experienced in testing and designing chemical stabilization and capable of conducting tests referenced in KM 64-520-08. The report shall be prepared under the direction of a Kentucky-licensed Professional Engineer.

The report shall clearly identify the percentage of lime required to meet the performance standards established in KM 64-520-08 as well as provide all other information needed to ensure that proper density of the chemically stabilized soils is attained.

For estimating purposes, 21st Century Parks has determined that a six (6)% lime content, based upon dry unit weight of the soil, should be sufficient to provide the proper performance results. Based upon field verification tests provided by the successful Bidder, the lime content may be increased or decreased as required or as directed by 21st Century Parks or their authorized representative. Accordingly, it is anticipated the Contractors bid price would be increased or decreased based on final test results using the unit prices submitted as part of the bid process (Specifications Section 012200 – Unit Prices).

Appendix D of the *Report of Subsurface Exploration* is available as part of the geotechnical reports as outlined in Section 00800 of the Project Manual included in the bid proposal; it has the results of laboratory classification tests on soil samples collected from the test borings. The

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results of Atterberg Limits tests and grain size tests (percent finer than No. 200 sieve) suggest that lime is the appropriate chemical additive to stabilize the roadway. However, other chemical additives, such as Portland cement (or lime kiln dust), may be considered, provided that the successful Bidder demonstrates to 21st Century Parks that the performance of an alternative chemical additive material is equal to or greater than the performance of the lime as per Kentucky Method 64-520-08 and other associated tests. In order for an alternative chemical additive to be considered by 21st Century Parks, the successful Bidder shall be required to clearly demonstrate in the laboratory as well as in the actual field applications (mock up installation of stabilized section of roadway using the alternative chemical additive at the proposed %, optimum moisture, and mixed to the proper depth) such that the requirements as set forth in Kentucky Method 64-520-08 and Section 208 of the KY Standard Specifications for Road and Bridge Construction are met.

Question:

Pre-bid meeting minutes mention limitations on access through the 2A portion of the park. What are these limitations? Are there no limitations until end of October?

Answer:

No heavy construction traffic will be allowed to access the Project 3A site through the Project 2 area, including access from Blue Heron Road and S. Beckley Station Rd. and the existing Egg Lawn Road, from the time of contract award. Only typical vehicular traffic of cars and pickups will be allowed. The Project 2 area will remain under the control of the Project 2A and 2B contractors until October 2012. In October, this area of the Park will be turned over to 21st Century Parks and opened to the public.

Question:

Can portion 2A and bridge F-102 be used for construction hauling and material deliveries?

Answer:

No construction hauling or heavy material deliveries will be allowed through the Project 2 area or over Bridge F-102.

Question:

Will the contract time be extended if adverse weather conditions and/or flooding occurs?

Answer:

Delays and Extensions are addressed in the AIA document A201, Articles 8 and 15, as included in the Project Manual.

Question:

Bridge F-104 requires MSD salvaged limestone. Is there information about this product – cost? location? who loads? who hauls? etc.

Answer:

Both bridge F-103 and F-104 require irregular “IRR” salvaged limestone as part of their bank stabilization as shown on the drawings. The salvaged limestone is located in downtown Louisville at the Vogt Industrial Commons, 1000 West Ormsby Avenue. The material is free but will require loading and hauling at the cost of the contractor.

Question:

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The typical section “Park Road and Louisville Loop at Trestle Point” on plan PR-C3.1 indicates stone and asphalt pavement for the Park Road. Plan PR-C1.9 seems to indicate grading & sub-grading only in this area. Which is correct? Also, what roadway is “the value added option” that does not get chemical stabilization referred to on plan PR-C3.1?

Answer:

There will be no “value added optional roadway” scope of work; the roadway segment within Trestle Point is to be constructed to sub-grade only, and only to a point just past where the Louisville Loop departs away from the roadway alignment (see revised plan sheets within Addendum 1 for further clarification).

Question:

Is lime kiln dust an acceptable product for the chemically stabilized roadbed?

Answer:

Bidders shall provide bids based on the use of lime at the percentage specified.

The successful Bidder shall be required to field verify the percentage of lime needed to stabilize the sections of the roadway identified in the plans in accordance with Kentucky Transportation Cabinet Division of Materials Kentucky Method 64-520-08 and other associated tests. The successful Bidder shall submit a written report prepared by a Geotechnical Testing Laboratory with a qualified staff experienced in testing and designing chemical stabilization and capable of conducting tests referenced in KM 64-520-08. The report shall be prepared under the direction of a Kentucky-licensed Professional Engineer.

The report shall clearly identify the percentage of lime required to meet the performance standards established in KM 64-520-08 as well as provide all other information needed to ensure that proper density of the chemically stabilized soils is attained.

For estimating purposes, 21st Century Parks has determined that a six (6)% lime content, based upon dry unit weight of the soil, should be sufficient to provide the proper performance results. Based upon field verification tests provided by the successful Bidder, the lime content may be increased or decreased as required or as directed by 21st Century Parks or their authorized representative. Accordingly, it is anticipated the Contractors bid price would be increased or decreased based on final test results using the unit prices submitted as part of the bid process (Specifications Section 012200 – Unit Prices).

Appendix D of the *Report of Subsurface Exploration* is available as part of the geotechnical reports as outlined in Section 00800 of the Project Manual included in the bid proposal; it has the results of laboratory classification tests on soil samples collected from the test borings. The results of Atterberg Limits tests and grain size tests (percent finer than No. 200 sieve) suggest that lime is the appropriate chemical additive to stabilize the roadway. However, other chemical additives, such as Portland cement (or lime kiln dust), may be considered, provided that the successful Bidder demonstrates to 21st Century Parks that the performance of an alternative chemical additive material is equal to or greater than the performance of the lime as per Kentucky Method 64-520-08 and other associated tests. In order for an alternative chemical additive to be considered by 21st Century Parks, the successful Bidder shall be required to clearly demonstrate in the laboratory as well as in the actual field applications (mock up installation of stabilized section of roadway using the alternative chemical additive at the proposed %, optimum

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moisture, and mixed to the proper depth) such that the requirements as set forth in Kentucky Method 64-520-08 and Section 208 of the KY Standard Specifications for Road and Bridge Construction are met.

Question:

Will railroad insurance or railroad flagmen be required in the vicinity of the railroad trestle?

Answer:

No special railroad insurance or flagmen will be required at the trestle.

Question:

Do the areas within the disturb limits get seeded? If so, what is the seeding specification?

Answer:

Yes, this information is provided on the C 1.5 series drawings, SWPPP Plans, General Note #2.

Question:

Does KYTC liquid asphalt price adjustment per spec. 109.07 apply to this project?

Answer:

No. The project is a lump sum based on quantities per the plans.

Question:

Plan G 0.6 in addendum 1 shows plan sheets 224 and 236 as being revised by addendum #1, but those sheets are not included in the addendum.

Answer:

Sheets 224 (BR-S203) and 236 (BR-S303) were omitted from Addendum #1. They will appear in a future addendum.

Question:

On the concrete pavement for the Louisville Loop, are all contraction and expansion joints to be sealed per the spec section 321373?

Answer:

Yes, all contraction and expansion joints in the concrete pavement for the Louisville Loop are to be sealed per the spec section 321373.

Question:

Can you clarify the locations of borrow materials and areas for the disposal of waste materials?

Answer:

Borrow soil materials for the Grand Allee area will be obtained from within the Grand Allee area from the existing on-site stockpile and the borrow area as designated on the plans.

Borrow material for all other areas of the project is may be import material to meet the specifications for each location.

Surplus satisfactory and unsatisfactory soil and waste material will be disposed of on-site **within each project area** for the Grand Allee, Trestle Point, and Tyler Schooling areas as directed by the owner.

The minor quantities of surplus satisfactory and unsatisfactory soil and waste material for the Distillery Bend and Floyds Fields areas are to be disposed of within the **overall project boundaries** as directed by the owner.

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All surplus materials will be placed outside of floodplain limits.

Question:

Is the use of stainless steel anchor bolts needed on the pole and pedestal bases?

Answer:

No, stainless steel anchor bolts are not required for the pole and pedestal bases.

Question:

Is there a specific technical reason why MSE walls will not be allowed for this project?

Answer:

MSE will not be accepted for this project if they cannot meet the specifications in Section 323223. In addition to the technical specs, the Segmental Retaining Walls must meet the aesthetic specifications regarding pattern, module and color. Substitutions are subject to conditions outlined in Section 012500.

Question:

Regarding the rock fences – Is the approximate quantity of 845 feet stated in the pre-bid meeting correct? The reason for asking is that some of the fences are shown but not labeled (possibly future ?). Also, some of the knuckle areas have fences, and it appears that knuckle #2 has fence but the label is not correct.

Answer:

The approximate quantity of 845 linear feet of rock fences stated in the pre-bid meeting minutes refers to the rock fences (not associated with any knuckles) in the Grand Allee area only as shown on Sheet A4-101. There is an additional 92 linear feet of rock fences associated with knuckles throughout the project for an approximate total of 937 linear feet in Project 3A. There are other rock fences that are shown on the drawings but are part of future phases. Knuckle #2 does not have any rock fences; the dashed lines shown are culvert headwalls and are labeled correctly. Please reference civil drawings for the detail.

Question:

Will alternate finishes be considered for the stainless steel boardwalk handrail components?

Answer:

Bidders shall bid the stainless steel finish specified (#4 Satin). In addition to the base bid, bidders may submit a voluntary deductive alternate finish for consideration.

Question:

Segmental Retaining Wall 1: The embedment on the 2:1 running slope seems a bit light to me. I am concerned about erosion during rain events undermining the wall along that section.

Answer:

Final bottom of wall elevations may require adjustments in the field to meet the existing conditions for each wall. Bidders should adjust their quantities as needed to meet this requirement.

Question:

Segmental Retaining Wall 1: Just beyond the running slope at the face of the wall we encounter a 3:1 toe slope. Normal NCMA specifications for retaining wall designs call for a minimum of 16"

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plus 1" per foot of wall height embedment in order to deal with global stability effectively. I've done my take offs to account for this - I would recommend that others do the same to insure the structural stability of the wall.

Answer:

Each bidder is responsible for the applicable quantities to complete the project. The wall design provided must meet the minimum global stability requirements of the project.

Question:

Segmental Retaining Wall Setback: I would recommend going with a near vertical setback vs the normal 5.1 degree setback of the blocks to A) keep as much real estate at the top of the walls as possible (otherwise we lose up to ~4' by the time the wall is built to height at the tallest sections), and B) make the job of pouring the copings at the tunnel a lot easier to do.

Answer:

Retaining walls 1, 2 & 3 shall be constructed to a near vertical condition as shown. The typical section on sheet RW S101.

Question:

Segmental Retaining Wall Slip Joints: I would recommend that these are incorporated into the final wall design to address any differential settlement that may occur at the tunnel location, as well as at any RCP locations in the wall that are greater than 24" diameter.

Answer:

Slip Joints shall be provided on each side of the tunnel and as appropriate at each drainage structure.

Question:

Specification Section 323223 1.2(A): Does this require all SRW systems covered under this specification to have a mechanical connection between the reinforcement and block facing unit?

Answer:

All walls that have ground reinforcement shall be mechanically connected to the facing units.

Question:

Specification Section 323223 1.3(A) & (B): These sections reference "AASHTO Standard Specifications for Highway Bridges" and "AASHATO Standard Specifications for Highway Bridges" respectively. Since KYTC Standard Specification Section 613.03.12(2) indicates that the current edition of AASHTO design standards should be used in the design of retaining walls, should these references be more appropriately stated as, "AASHTO LRFD Bridge Design Specifications-6th Edition, 2012"?

Answer:

The AAHSTO standard specifications for Highway Bridges shall be used for the MSE walls on this project.

Question:

Specification Section 323223 1.3(C): This section stipulates that the SRW units for Wall 1, 2 and 3 shall be Redi-Rock or equal. Given the need for reinforced wall design as well as gravity wall design, shouldn't this section indicate the "Redi-Rock Positive Connection System" or approved equal?

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Answer:

The wall provided shall have ground reinforcement mechanically connected to the facing units.

Question:

Specification Section 323223 1.3(C)2: Module width "w" for the Redi-Rock units should be 28", 41" or 60", not 23".

Answer:

The wall facing units provided shall have block dimension similar to those shown on the drawings. The 28" units would be acceptable.

Question:

Specification Section 323223 1.3(H): It is unclear what test procedure is required here. If it can be assumed to be ASTM D6638, Standard Test Method for Determining Connection Strength Between Geosynthetic Reinforcement and Segmental Concrete Units (Modular Concrete Blocks), then the reductions of the service state connection strength and peak connection strength are completely arbitrary and without basis in any formal design guidance or method for segmental retaining wall design. Shouldn't the better specification reference be AASHTO (2012), Section 11.10.6.4.4b? This section details the requirements for conversion of both the short-term connection test data (ASTM D6638 or FHWA NHI-10-025, Appendix B4) and the long-term connection test data (FHWA NHI-10-025, Appendix B3) for a 75-year design life connection.

Answer:

The AASHTO specification is acceptable for this project.

Question:

Specification Section 323223 2.1(B): What is the reference for "nominal size aggregate no. 30"? This is not a KYTC designated size.

Answer:

The granular backfill shall meet the requirements of Section 805.11 of the KYTC standard specifications. The reference to "nominal size aggregate no. 30" shall be deleted.

Question:

Specification Section 323223 2.3(A): What is aggregate no. 53? This does not appear to be a KYTC standard material.

Answer:

The aggregate for the leveling pad shall meet the requirements of Section 302 of the KYTC Standard Specifications. The reference to aggregate no. 53 shall be deleted.

Question:

Specification Section 323223 2.4(A): What "pull-out test" is referenced here? Is this another reference to ASTM D6638 or is it ASTM D6706 - Standard Test Method for Measuring Geosynthetic Pullout Resistance in Soil?

Answer:

The specification section referenced above can be deleted from the project.

Question:

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Specification Section 323223 2.4(B): Can a more complete reference for this certification requirement be provided? Again, this information does not appear to be available on the KYTC website.

Answer:

The Miragrid XT products or equal are acceptable for this project. Other manufactures can submit their product information for review by the engineer prior to construction.

Question:

Specification Section 323223 2.4(F): Can the list of KYTC approved geogrids be provided? Again this information does not appear to be available on the KYTC website.

Answer:

The Miragrid XT products or equal are acceptable for this project.

Question:

Specification Section 323223 2.4(G) 1&2: The products provided appear to be biaxial geogrids intended for pavement subgrade reinforcement. These geogrids do not have sufficient tensile strength to be used in MSE retaining wall design. If products that have completed the AASHTO NTPEP evaluation program are deemed acceptable, would the Miragrid XT products manufactured by Ten Cate Geosynthetics in Pendergrass, Georgia be a suitable alternative? Data sheets for the five (5) XT product styles required for use with the Redi-Rock Positive Connection System are attached for consideration.

Answer:

The Miragrid XT products or equal are acceptable for this project.

Question:

With regard to Bridge F-103: Drawing BR-S101 (I know it's "For Information Only") indicates 73 Cubic Yards of Retaining Wall Gabion at Abutment #2, but no such work is indicated elsewhere in the drawings.

Answer:

This quantity has been removed from the Estimate of Quantities on Sheet BR S101.

Question:

With regard to Bridge F-104: We find no details pertaining to "Bridge Handrail" for this structure. Is there a preferred manufacturer & model number for the metal mesh panels? There appears to be a bust in elevations pertaining to this structure, when evaluating existing grades shown in profile drawings (LT-C1.18) and those shown in structure drawings. Has the bridge or its location changed and some drawings not revised? Please clarify.

Answer:

Details for the handrail have been added to sheets BR S202 & BR S203. The elevations for this bridge will be revised prior to beginning construction. The quantities for the bridge will be unaffected by this revision.

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2. One optimum moisture-maximum density curve for each soil material.
3. Report of actual unconfined compressive strength and/or results of bearing tests of each stratum tested.

1.5 QUALITY ASSURANCE

- A. Codes and Standards: Perform earthwork complying with requirements of authorities having jurisdiction.
- B. Testing and Inspection Service: Owner will employ a qualified independent geotechnical engineering testing agency to classify proposed on-site and borrow soils to verify that soils comply with specified requirements and to perform required field and laboratory testing.

1.6 PROJECT CONDITIONS

- A. Existing Utilities: Do not interrupt existing utilities serving facilities occupied by the Owner or others except when permitted in writing by the Owner and the only after acceptable temporary utility services have been provided.
 1. Provide a minimum 72-hours' notice to the Owner and receive written notice to proceed before interrupting any utility.
 2. Protect existing utilities that are to remain.
- B. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies to shutoff services if lines are active.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. General: Borrow soil materials for the Grand Allee area will be obtained from within the Grand Allee area from the existing on-site stockpile and the borrow area as designated on the plans. Borrow material for all other areas of the project may be import material to meet the specifications for each location.
- B. Satisfactory Soil Materials: ASTM D 2487 soil classification groups CL, CH, GW, GP, GM, SW, SP, and SM; free of rock or gravel larger than 2 inches (50 mm) in any dimension, debris, waste, frozen materials, vegetation and other deleterious matter
- C. Unsatisfactory Soil Materials: ASTM D 2487 soil classification groups GC, SC, ML, MH, OL, OH, and PT.
- D. Backfill and Fill Materials: Satisfactory soil materials.
- E. Subbase and Base Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 95 percent

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- C. Settling: Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 - 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.23 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: **Surplus satisfactory and unsatisfactory soil and waste material will be disposed of on-site within each project area for the Grand Allee, Trestle Point, and Tyler Schooling areas as directed by owner. All surplus materials will be placed outside of floodplain limits.**
- B. **The minor quantities of surplus satisfactory and unsatisfactory soil and waste material for the Distillery Bend and Floyds Fields areas are to be disposed of within the overall project boundaries as directed by the owner. All surplus materials will be placed outside of floodplain limits.**

3.24 USE OF EXPLOSIVES

- A. The use of explosives is allowed. The contractor will be responsible for verifying and coordinating with the Louisville Metropolitan Sewer District any restrictions for permitting blasting adjoining or within the site of Floyds Fork Water Quality Treatment Center or any utilities that serve the Center. The contractor shall also conform to all local and public agency restrictions for performing any blasting.
- B. Per the Kentucky Department of Highways Standard Specification for Road and Bridge Construction, Section 107, Legal Relations and Responsibility to Public, Subsection 107.11, Use of Explosives and Section 112, Maintenance and Control of Traffic During Construction, Sub Section 112.03.09, Blasting.

END OF SECTION 312000

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SECTION 321313 – PORTLAND CEMENT CONCRETE PAVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

1. Curbs and gutters.
2. Sidewalks.
3. Concrete pavement for park roads and trails.
4. Site concrete on grade.
5. **Detectable warning mats.**

- B. Related Sections:

1. Section 033000 "Cast-in-Place Concrete for general building applications of concrete.
2. Section 312000 "Earth Moving" for subgrade preparation, grading and subbase course, and proof rolling.
3. Section 321373 "Concrete Paving Joint Sealants" for joint sealants in expansion and contraction joints within concrete paving and in joints between concrete paving and asphalt paving or adjacent construction.
4. Section 321723 "Pavement Markings" for pavement striping and markings.

1.3 SUBMITTALS

- A. Product data for proprietary materials and items, including reinforcement and forming accessories, synthetic fiber reinforcement, admixtures, joint systems, curing compounds, and others if requested by Architect.
- B. Design mixes for each class of concrete. Include revised mix proportions when characteristics of materials, project conditions, weather, test results, or other circumstances warrant adjustments.
- C. Laboratory test reports for evaluation of concrete materials and mix design tests.
- D. Material certificates in lieu of material laboratory test reports when permitted by Architect. Material certificates shall be signed by manufacturer and Contractor certifying that each material item complies with or exceeds requirements. Provide certification from admixture manufacturers that chloride content complies with requirements.

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2.9 FIBER REINFORCEMENT

- A. Synthetic Fiber: 100 percent virgin monofilament polypropylene fibers engineered and design for use in concrete paving copying with ASTM C 1116/C116M, Type III 1/2 to 1 ½ inches long.
1. Provide fibers that have a specific gravity of 0.9, a minimum tensile strength of 70 ksi, graded per manufacturer specifically manufactured to an optimum gradation for use as concrete secondary reinforcement.
 2. Uniformly disperse in concrete mixture at manufacturers recommended rate but not less than 1.5 lb/cu.

2.10 DETECTABLE WARNING MATERIAL

- A. Surface-applied Detectable Warning Mats:
1. Surface-Applied Detectable Warning Surface: Durable, preformed vitrified polymer composite or thermoplastic mats with integral truncated domes suitable for use on pedestrian access routes.
 2. Manufacturers: Subject to compliance with requirements available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. TopMark, by Flint Trading Company, Thomasville, NC 27360; (336)475-6600; www.flintrtrading.com.
 - b. Ultra ADA Pads- Urethane, by UltraTech International, Inc. Jacksonville, FL 32256, (800) 353-1611, www.ADApads.com.
 - c. Armor-Tile, by Engineered Plastics Inc., (800)682-2525; www.armor-tile.com
 - d. Or approved equal.
 3. Color: Brick Red; integral throughout the thickness of the mat
 4. Fasteners: No fasteners to be used for this application.
 5. Adhesive: Use manufacturer's recommended 2-part epoxy adhesive.
 6. Sealant: Use manufacturer's recommended sealant.
 7. Size: 24 inches wide by length shown on the architectural drawings.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine exposed subgrades and subbase surfaces for compliance with requirements for dimensional, grading, and elevation tolerances.
- B. Proof-roll prepared subbase surface to check for unstable areas or poor soils conditions and verify need for additional compaction or removal and replacement of subbase material. Do

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have not been met, as directed by Architect. Testing agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C42, or by other methods as directed.

3.12 REPAIRS AND PROTECTION

- A. Remove and replace concrete paving that is broken, damaged, or defective or that does not comply with requirements in this Section. Remove work in complete sections from joint to joint unless otherwise approved by Architect.
- B. Drill test cores, where directed by Architect, when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory paving areas with portland cement concrete bonded to paving with epoxy adhesive.
- C. Protect concrete paving from damage. Exclude traffic from paving for at least 14 days after placement. When construction traffic is permitted, maintain paving as clean as possible by removing surface stains and spillage of materials as they occur.
- D. Maintain concrete paving free of stains, discoloration, dirt, and other foreign material. Sweep paving not more than two days before date scheduled for Substantial Completion inspections.

3.13 DETECTABLE WARNINGS

- A. Install detectable warning mats following manufacturer's recommended instructions, including surface preparation, 2-part epoxy adhesive materials, and sealer protection. The material shall not require the use of mechanical fasteners.
- B. The mats must be pliable during installation to allow the mat to be cut to match the access route geometries.
- C. Install in temperatures equal or greater than 45 degrees F.

END OF SECTION 321313