
**ADDENDUM 1 TO CONTRACT DOCUMENTS
RUNWAY 1/19 AND PARALLEL TAXIWAY EXTENSION – GRADING &
DRAINAGE PACKAGE**

This Addendum modifies the contract documents as indicated herein. Bidders must acknowledge receipt of this Addendum in the space provided on the Bid Form – Page B-6. Failure to do so may subject the Bidder to disqualification. This Addendum consists of the following: Minutes of the Pre-Bid Conference, Contract Drawing Revisions / Clarifications, Specification Revisions / Clarifications, and Responses to Submitted Questions. Also included as attachments are the following: a copy of the Pre-Bid Conference Sign-In Sheet (4 pages), a revised Bid Schedule (9 pages), a revised Bid Form Page B-19 (1 page), Specification Section P-152 (10 Pages), and an exhibit titled “Typical Section – Addendum 1” (1 page).

**PRE-BID CONFERENCE MINUTES
RUNWAY 1/19 AND PARALLEL TAXIWAY EXTENSION – GRADING &
DRAINAGE PACKAGE**

**RUSSELL REGIONAL AIRPORT, ROME, GEORGIA
(FLOYD COUNTY BID 20-0611)**

**Thursday, May 28, 2020
10:00 a.m.**

1. Introduction:
 - *A Sign-In Sheet was circulated for those present to sign.*

2. Bid Instruction:
 - Bids Due: Thursday, June 11, 2020 at 2:00 PM Local Time
 - Deliver Bids to:
 - Floyd County Administration Building
12 East Fourth Avenue, Suite 106
Rome, GA 30162
 - Contract Documents – Distributed Electronically
 - Volume 1 – Notice thru Contract Forms
 - Volume 2 – General and Supplementary Conditions
 - Volume 3 – Technical Specifications
 - Volume 4 – Appendices (FAA Advisory Circular’s, Geotech Report)
 - Volume 5 – Drawings Part 1 of 2
 - Volume 6 – Drawings Part 2 of 2
 - Proposal Form – pages B-1 through B-20 (Volume 1).
 - Bid Guaranty – Bid Bond in the amount of 5% of the total bid (Volume 1).
 - Bidders Declaration – Page B-9 (Volume 1).
 - Non-Collusion Affidavit – Page B-10 (Volume 1).
 - E-Verify – Page B-14 (Volume 1).
 - IRS W-9 – Page B-20 (Volume 1).
 - Provide signed original and one (1) copy of the signed original.

Access to the County Administration Building was discussed. It was noted that the building is expected to re-open to the public on Monday, June 1, 2020. If this is the case, the Bid Opening

will be held inside the Administration Building in Suite 106. If the building is not open to the public on the day that bids are due, Bidders can call the phone number which will be posted on the door so that they may drop off their bid. The bid opening will then be held outside the Administration Building. Bidders were advised to not wait until the last minute to drop of their bid.

3. Scope of work:
- Grading & Drainage on an Approx. 40-acre site.
 - Clearing & Grubbing.
 - Excavation and Embankment Formation (Approx. 150,000 CY).
 - Drainage System Installation (Approx. 2,900 LF).
 - Perimeter Fencing (Approx. 3,000 LF).
 - Erosion Control.

It was noted that all material required for embankment is available within the grading limits on the project site.

4. Contract Requirements:
- Time for completion of all work is 210 consecutive calendar days (IB-1; Volume 1).
 - \$1,000 per day liquidated damages (00800-1; Volume 2).
 - Award expected: Within 120 days (IB-3; Volume 1).
 - Insurance Requirements (00800-4; Volume 2).

5. Airport Security and Safety Issues:
- FAA Construction Safety and Phasing Plan has been submitted and is awaiting approval.
 - Security and Safety: FAA AC 150/5370-2G (Volume 4) and Contractor's Safety Plan Compliance Document (SPCD).
 - No Airport Badging Requirements.
 - Stay within designated work areas and/or haul routes.

It was noted that the Engineer has submitted the Project Safety and Phasing Plan to the FAA for review, and that the Contractor is required to prepare and submit a Safety Plan Compliance Document (SPCD) to the Engineer for review and approval. Bidders were encouraged to familiarize themselves with the Safety Plan Compliance Document requirements on the Drawings.

6. Payment:
- Pay Application will be processed monthly.
 - Form will be provided by the Engineer.
 - Contractor's Superintendent and RPR will agree on quantities prior to the Engineer preparing the Application for Payment.

7. Questions and Addenda:
- Questions are due by 5:00 p.m. (local time) on Tuesday, June 2, 2020 to jmiorin@cmtengr.com.
 - Addenda will be sent to all Contractors on record receiving a plan set.

8. Open Discussion:

➤ *Project Funding was discussed. It was noted that the project is 100% locally funded. It was also noted that there are no Davis Bacon requirements for the project.*

- *Access to the site was discussed for the purposes of performing a site visit. It was noted that those persons interested in visiting the site may contact the Airport Manager to make necessary arrangements. Bidders were instructed to not access Airport property without first contacting the Airport Manager.*
- *The Contractor's staging area and site access was discussed. It was noted that an additional access point to the project site exists off Jones Mill Road at the existing gate leading to the localizer shelter. The Contractor may utilize this access point solely or in addition to the site access point shown on the drawings.*
- *Contract award was discussed. It was noted that a contract is expected to be issued within the 120-day award period. It was also noted that, since there is no Federal or State funds associated with the work, a contract award is expected to occur quickly should favorable bids be received.*
- *Project permitting was discussed. It was noted that a portion of the work area requires a permit from the USACE prior to disturbance. Should this permit not be in-hand at the time the work commences, a Notice-to-Proceed will be provided to the Contractor to start work outside of the environmentally sensitive areas. Once a permit is received from the USACE, a separate Notice-to-Proceed will be provided for this permitted area.*
- *It was noted that there is no minority participation requirement for the project, however, minority participation is encouraged.*
- *The Contractor's Quality Control Program and the Owner's Quality Assurance was discussed. It was noted that the Contractor is responsible for Quality Control and that the Owner will perform Quality Assurance. It was indicated that clarification for the Contractor's QC Program will be clarified in an Addendum.*

End of Pre-Bid Conference Minutes

Contract Drawing Revisions / Clarifications:

Drawing PSPP-1, Project Safety & Phasing Plan: Regarding the Contractors staging area and access points to the site. These access points exit from and enter onto a public road. As such, the Contractor is required to install a Construction Exit per the Detail on Drawing PSPD-1 at each access point utilized. Costs associated with Construction Exits shall be included in the unit price for Mobilization. Additionally, the Contractor is required to monitor tracking of dirt and debris resulting from Contractor or Sub-Contractor work activities, personnel, or vehicles onto Jones Mill Road. The Contractor will be expected to remove all dirt and debris resulting from Contractor or Sub-Contractor work activities, personnel or vehicles from Jones Mill Road expeditiously once notified by the Owner or Resident Project Representative (RPR). Should the Contractor's work activities or operations result in damage to Jones Mill Road, the Contractor will perform repairs at the direction of the Owner in a timely manner. The Contractor will be expected to be diligent about performing repairs which result from his work activities or operations so that the public roadway is maintained in a safe condition.

Drawing PSPP-1, Project Safety & Phasing Plan: Regarding traffic control to and from the project site. The Contractor will be required to install and maintain appropriate traffic control devices per GDOT Specification Section 150 and the Manual on Uniform Traffic Control Devices (MUTCD) throughout the project duration along Jones Mill Road at the access points to the site. A basic level of traffic signs, flaggers (when needed), and warning signs shall be installed to facilitate construction traffic entering and leaving the site and to notify vehicular traffic along Jones Mill Road of the presence of access points. Costs associated with appropriate traffic control devices shall be included in the unit price for Mobilization.

Drawing TS-1, Typical Sections: Bidders are referred to the Typical Section – Addendum #1 exhibit included as an attachment to this Addendum. This exhibit presents a “Proposed Grading Typical Section” which replaces same on Drawing TS-1 provided in the contract documents. This exhibit has been revised to help clarify cut and fill and to revise note 1 in the exhibit.

Drawing DP-3, Demolition Plans 3; Drawing ST-3, Staking Plans 3; Drawing IEC-3, Erosion & Sediment Control Plan No. 3 Initial Phase; and Drawing GEC-3 Erosion & Sediment Control Plan No. 3 Grading Phase: Bidders are advised that the work shown on these plans associated with the existing farm pond north of Jones Mill Road is eliminated from the project. The existing farm pond north of Jones Mill Road will not be breached and drained as part of the work. Clearing and Grubbing in the vicinity of this farm pond (Area 1 and Area 2 comprising 2.5 acres) will not be performed. Erosion Control Measures related to clearing and grubbing in the vicinity of the farm pond and the breaching and draining of the pond will not be installed.

Drawing ST-3, Staking Plans 3: Bidders are instructed to strike through notes 2, 3, and 4 shown on this drawing. These notes are no longer applicable to the project.

Specification Revisions / Clarifications:

Bid Schedule, Pages B-4.1 through B-4.9: Bidders are instructed to remove these pages from the Bid Form and replace them with Pages B-4.1 (Addendum 1) through B-4.9 (Addendum 1). The revised Bid Schedule incorporates the following adjustments:

- Adjust the Clearing & Grubbing estimated quantity to reflect anticipated clearing and grubbing in the area immediately south of Jones Mill Road.
- Adjust the Embankment in Place estimated quantity.
- Include a new Pay Item and estimated quantity for Rock Excavation.
- Adjust the Temporary Matting and Permanent Matting estimated quantities.
- Adjust the Temporary Seeding and Permanent Seeding estimated quantities.
- Adjust the Topsoil and Mulching estimated quantities.

Bid Forms, Page B-19, Preliminary Contractor Project Schedule: Bidders are instructed to remove Page B-19 included in the contract documents and replace it with Page B-19 (Addendum 1) which is included as an attachment to this Addendum.

Section 01400, Quality Control Services: It is clarified that the Contractor shall provide Quality Control Services on the project. The Quality Control Services shall be performed by an independent testing firm retained by the Contractor. Use of Contractor personnel to perform Quality Control Testing will not be allowed. The independent testing firm shall be pre-qualified with the Georgia Department of Transportation in Area Classes 6.04(a) and 6.04(b). Technicians performing the field tests shall, at a minimum, possess GDOT RTT certification.

Section P-152, Excavation, Subgrade and Embankment: Bidders are instructed to remove Specification Section P-152 included in the contract documents and replace it with Specification Section P-152 (Addendum 1), which is included as an attachment to this Addendum.

Section T-901, Seeding: Bidders are reminded that this specification covers the work associated with temporary and permanent seeding and that the Contractor is required to obtain a satisfactory stand of grass in accordance with section T-901-3.4. This may require multiple applications of approved seed, lime, and fertilizers. Regardless of the number of applications of approved seed, lime, and fertilizers required to achieve a satisfactory stand of grass; temporary and / or permanent seeding will only be paid for once per acre measured and accepted.

General: Bidders are advised that the Erosion Control Plan for the project (Volume 6 of the distributed electronic documents) is currently being reviewed by the County for issuance of a Land Disturbance Permit. Bidders are also advised that the successful Contractor is considered the Primary Permittee for the project. In that regard, the Contractor will be required to prepare and submit a Notice of Intent (NOI) to the Georgia EPD. The Contractor will be required to pay the fees (\$40 per disturbed acre) associated with the NOI and shall include this cost in the unit price for Mobilization. Upon completion of the work and prior to final acceptance, the Contractor shall prepare and submit a Notice of Termination (NOT). In addition to the fee associated with the NOI, the Contractor is responsible for paying the following fees associated with the project to Floyd County:

- \$40 per disturbed acre to Floyd County as a Local Issuing Authority,
- \$25 per disturbed acre to Floyd County for the Land Disturbing Activity Permit,
- \$175 standard permit fee to the Floyd County Building Inspections Department.

The Contractor shall include these costs in the unit price for Mobilization.

Responses to Submitted Questions:

- Question: Are the plans available in full size?
Response: Yes, Plan are available in a full-size PDF format. Contact the issuing office: Crawford, Murphy & Tilly, Inc., Attn: James Miorin, jmiorin@cmtengr.com.
- Question: Are there CAD files available for this project?
Response: Yes, CAD files are available for the project. Contact the issuing office: Crawford, Murphy & Tilly, Inc., Attn: James Miorin, jmiorin@cmtengr.com.
- Question: Item 33 Temporary Erosion Control Matting- Which type of material are we to price for this Item as stated on ECD-5 Excelsior or Double Sided Straw?
Response: Temporary Erosion Control Matting shall be Jute Matting, Excelsior Matting, or Paper Matting in accordance with Specification Section E-895-2.1.
- Question: Item 34 Permanent Erosion Control Matting- Which type of material are we to price for this Item as stated on ECD-2 or ECD-5? (Two different specs.)
Response: Permanent Erosion Control Matting shall be a rolled product meeting the minimum requirements as indicated in Specification Section E-895-2.2.
- Question: Is A GC License Required to bid the Job?
Response: Grading contractors are classified as a specialty area of construction, so no contractor license is issued by the GSOS unless they are performing utility (water/sewer) installation as a part of that work. They are all required to have a current certification for Erosion, Sediment Control and Pollution Prevention aka "Blue Card".
- Question: I noted a pre-bid tomorrow. Is the pre-bid meeting mandatory?
Response: The pre-bid meeting is not mandatory.
- Question: According to today's pre-bid meeting, we were told that the missing fill material will be supplied by Floyd County; We would like to know where the material is located, at what distance, or will it be transported to the job site by the County?
Response: There is no missing fill material. All material required for embankment in place, is available on the project site within the grading limits.

- Question: (We are) interested in receiving more information. Is there a fee for the bid documents and was the Pre-Bid Meeting Mandatory?
- Response: There is no fee for the bid documents and the Pre-Bid Meeting is not mandatory.
- Question: How many feet are you going to require compaction testing?
- Response: Compaction testing for embankment is required for every lift. Refer to Specification Section P-152-2.8.
- Question: In the bid documents, it is showing a field office. Why this is required when there is only grading on this phase? What are the specs for the field office?
- Response: A field office is required to provide space for the Resident Project Representative during performance of the work. The field office will also be used as a place to conduct business associated with the project. Refer to Specification Section 01510 – 3.04G. Additional requirements for the field office are:
- Minimum 500 SF weatherproof building (a prefabricated mobile unit is acceptable) with a minimum ceiling height of 7 feet; subdivided into two (2) enclosed rooms, one of which is approximately 150 SF and the other approximately 350 SF.
 - Provide sufficient heat and natural and artificial lighting.
 - Provide potable hot and cold water.
 - Provide a means for maintaining a room temperature between 64 degrees F and 76 degrees F.
 - Provide lockable doors and windows.
 - Provide and maintain suitable sanitary facilities meeting State and Local Health Department requirements. A self-contained “Port-A-Jon” unit with an operable sink for hand washing is acceptable. Clean, supply and stock sanitary facilities at all times during the contract period.
 - Provide one desk, eight chairs, one (1) two-drawer lockable filing cabinet, one (1) trash can, and one (1) folding table (30”x72” min.) suitable for seating of eight persons.
 - Provide one (1) fire extinguisher and bottled water supplied as needed during the contract period.
 - Phone and internet service will not be required.
- Question: There is a line item for topsoil. Are we to respreads the topsoil, if so in what location?
- Response: Topsoil shall be placed on prepared areas within the grading limits. Refer to Specification Section T-905 and the Proposed Grading Typical Section on Drawing TS-1.
- Question: The limits of grading shown on the grading plan have up to 15 foot sheer cuts at the phase 1 / phase 2 line. Should temporary slopes be made into the phase 2 area, or should the temporary slopes be limited to the phase 1 area? This scenario will also create some low points holding water. Please address how this will be handled.
- Response: It is anticipated that temporary slopes which tie proposed grade to existing grade at the contract limit line will be made into both the phase 1 and phase 2 areas. Should a temporary slope be made into the phase 2 area, this tie-in is expected to be coordinated with the adjacent drainage work to be performed while the Runway is closed. If, however, tie-ins into the phase 2 area cannot be accomplished during the installation of adjacent drainage work, additional Runway closures will be coordinated with the Airport. The number of additional Runway closures over a weekend will be kept to 2.

Question: Under spec P-152-2.2.b Undercutting: It states that unsuitable materials shall be disposed off the airport and will be paid at the contract unit price for embankment in place. Please clarify if an onsite waste area can be used for undercut material. Does this also apply to the "Muck Excavation"? Does the muck material need to be hauled off site?

Response: Material which, in the sole opinion of the Owner and Engineer, cannot be adequately worked into embankment or areas of fill will be disposed of on airport property. For estimating purposes, bidders may assume that the one-way paved, public road haul distance from the project site to the on-airport location for disposal of unsuitable material is 2.5 miles. It is anticipated that material generated from muck excavation will be incorporated into the non-structural fill or possibly used to supplement the topsoil required for the work.

Question: Can you clarify what the intent is for rock if encountered? Even if the bores provided to us do not show mass rock, there is always the risk for rock to be present. Several of the bores do not go deep enough to ensure that no rock is present. The specs have crossed out anything having to do with rock. If rock is encountered, is it the contractor's responsibility to remove it in this contract? If yes, then can we have access to the site to perform some additional drilling? If yes, also confirm that blasting will be allowed.

Response: A new Pay Item and estimated quantity has been established for rock excavation. Refer to the Bid Schedule included as an attachment to this Addendum. While rock excavation is not anticipated, it is noted that a new Pay Item and unit price has been established for this contract as part of this Addendum. Additionally, refer to Specification Section P-152 with is included as an attachment to this Addendum. Blasting will be permitted if material cannot be removed as specified in P-152-1.2.b. Should a Bidder desire access to the site to perform additional drilling, they may contact the Airport Manager to make necessary arrangements.

This concludes Addendum 1 in its entirety. Acknowledge receipt of this Addendum in the space provided on the Bid Form, page B-6. Direct all inquiries regarding this Addendum to jmiorin@cmtengr.com.

End of Addendum 1

SCHEDULE OF BIDS

**RUSSELL REGIONAL AIRPORT
RUNWAY 1/19 AND PARALLEL TAXIWAY EXTENSION
GRADING & DRAINAGE PACKAGE**

FLOYD COUNTY BID NUMBER: 20-0611

Item No.	Spec. No.	Item Description / (Write Unit Price in Words)	Estimated Quantity	Unit	Unit Price	Amount
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SCHEDULE OF BIDS

TOTAL : \$ _____

B-4.1 (ADDENDUM 1)

SCHEDULE OF BIDS

**RUSSELL REGIONAL AIRPORT
RUNWAY 1/19 AND PARALLEL TAXIWAY EXTENSION
GRADING & DRAINAGE PACKAGE**

FLOYD COUNTY BID NUMBER: 20-0611

Item No.	Spec. No.	Item Description / (Write Unit Price in Words)	Estimated Quantity	Unit	Unit Price	Amount
1	01510	MOBILIZATION	1	L. SUM	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
2	01510	ENGINEER'S FIELD OFFICE	1	L. SUM	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
3	S-140A	REMOVE EXISTING PIPE (ALL SIZES)	540	LIN. FT.	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
4	S-140B	REMOVE EXISTING DRAINAGE STRUCTURE (ALL TYPES)	2	EACH	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
5	S-140C	REMOVE EXISTING GATE (ALL SIZES)	1	EACH	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
6	P-151	CLEARING AND GRUBBING	20	ACRE	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				

B-4.2 (ADDENDUM 1)

SCHEDULE OF BIDS

**RUSSELL REGIONAL AIRPORT
RUNWAY 1/19 AND PARALLEL TAXIWAY EXTENSION
GRADING & DRAINAGE PACKAGE**

FLOYD COUNTY BID NUMBER: 20-0611

<u>Item No.</u>	<u>Spec. No.</u>	<u>Item Description / (Write Unit Price in Words)</u>	<u>Estimated Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Amount</u>
7	P-152A	EMBANKMENT IN PLACE	169,000	CU. YD.	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
8	P-152C	ROCK EXCAVATION	1,000	CU. YD.	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
9	P-152D	MUCK EXCAVATION	2,000	CU. YD.	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
10	P-156	INSTALLATION AND REMOVAL OF SILT FENCE	8,530	LIN. FT.	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
11	D-699A	MAINTENANCE OF PERMANENT POND	1	EACH	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
12	D-699B	MAINTENANCE OF TEMPORARY SEDIMENT BASIN	1	EACH	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				

B-4.3 (ADDENDUM 1)

SCHEDULE OF BIDS

**RUSSELL REGIONAL AIRPORT
RUNWAY 1/19 AND PARALLEL TAXIWAY EXTENSION
GRADING & DRAINAGE PACKAGE**

FLOYD COUNTY BID NUMBER: 20-0611

Item No.	Spec. No.	Item Description / (Write Unit Price in Words)	Estimated Quantity	Unit	Unit Price	Amount
13	D-699C	PUMP PERMANENT POND	35	DAY	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
14	D-699D	PUMP TEMPORARY SEDIMENT BASIN	35	DAY	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
15	D-700A	STONE RETROFITTING (Rt)	1	EACH	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
16	D-701B	18 INCH CLASS V RCP	321	LIN. FT.	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
17	D-701C.	24 INCH CLASS III RCP	317	LIN. FT.	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
18	D-701D	24 INCH CLASS V RCP	719	LIN. FT.	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				

B-4.4 (ADDENDUM 1)

SCHEDULE OF BIDS

**RUSSELL REGIONAL AIRPORT
RUNWAY 1/19 AND PARALLEL TAXIWAY EXTENSION
GRADING & DRAINAGE PACKAGE**

FLOYD COUNTY BID NUMBER: 20-0611

Item No.	Spec. No.	Item Description / (Write Unit Price in Words)	Estimated Quantity	Unit	Unit Price	Amount
19	D-701E	30 INCH CLASS III RCP	238	LIN. FT.	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
20	D-701G	42 INCH CLASS III RCP	213	LIN. FT.	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
21	D-701H	48 INCH CLASS III RCP	65	LIN. FT.	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
22	D-701I	48 INCH CLASS V RCP	1,046	LIN. FT.	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
23	D-751A	POND OUTLET CONTROL STRUCTURE	1	EACH	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
24	D-751B	MANHOLE	3	EACH	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				

B-4.5 (ADDENDUM 1)

SCHEDULE OF BIDS

**RUSSELL REGIONAL AIRPORT
RUNWAY 1/19 AND PARALLEL TAXIWAY EXTENSION
GRADING & DRAINAGE PACKAGE**

FLOYD COUNTY BID NUMBER: 20-0611

Item No.	Spec. No.	Item Description / (Write Unit Price in Words)	Estimated Quantity	Unit	Unit Price	Amount
25	D-751C	STORM DRAIN INLET	5	EACH	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
26	D-751D	18 INCH CONCRETE HEADWALL	1	EACH	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
27	D-751E	24 INCH CONCRETE HEADWALL	1	EACH	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
28	D-751F	42 INCH CONCRETE HEADWALL	1	EACH	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
29	D-751G	48 INCH CONCRETE HEADWALL	1	EACH	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
30	D-753A	RIP RAP OUTLET PROTECTION	55	TON	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				

B-4.6 (ADDENDUM 1)

SCHEDULE OF BIDS

**RUSSELL REGIONAL AIRPORT
 RUNWAY 1/19 AND PARALLEL TAXIWAY EXTENSION
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FLOYD COUNTY BID NUMBER: 20-0611

Item No.	Spec. No.	Item Description / (Write Unit Price in Words)	Estimated Quantity	Unit	Unit Price	Amount
31	D-753C	CHECK DAM	16	EACH	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
32	D-753D	ROCK FILTER DAM	1	EACH	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
33	E-891	INLET PROTECTION	6	EACH	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
34	E-895A	TEMPORARY EROSION CONTROL MATTING	40,000	SQ. YD.	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
35	E-895B	PERMANENT EROSION CONTROL MATTING	37,200	SQ. YD.	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
36	EC-1A	FLOC LOG	6	EACH	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				

B-4.7 (ADDENDUM 1)

SCHEDULE OF BIDS

**RUSSELL REGIONAL AIRPORT
RUNWAY 1/19 AND PARALLEL TAXIWAY EXTENSION
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FLOYD COUNTY BID NUMBER: 20-0611

Item No.	Spec. No.	Item Description / (Write Unit Price in Words)	Estimated Quantity	Unit	Unit Price	Amount
37	F-162	10 FOOT CHAIN LINK FENCE WITH THREE STRANDS BARBED WIRE, INSTALLED, COMPLETE	3,000	LIN. FT.	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
38	F-167	24 FOOT WIDE DUAL LEAF SWING GATE (12' PER LEAF), INSTALLED, COMPLETE	3	EACH	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
39	T-901A	PERMANENT SEEDING	40	ACRE	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
40	T-901B	TEMPORARY SEEDING	40	ACRE	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
41	T-904	SODDING	4,600	SQ. YD.	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
42	T-905	TOPSOILING (OBTAINED ON SITE OR FROM STOCKPILE)	24,200	CU. YD.	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				

B-4.8 (ADDENDUM 1)

SCHEDULE OF BIDS

**RUSSELL REGIONAL AIRPORT
 RUNWAY 1/19 AND PARALLEL TAXIWAY EXTENSION
 GRADING & DRAINAGE PACKAGE**

FLOYD COUNTY BID NUMBER: 20-0611

Item No.	Spec. No.	Item Description / (Write Unit Price in Words)	Estimated Quantity	Unit	Unit Price	Amount
43	T-908	MULCHING	40	ACRE	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
44	GDOT 165-0030	MAINTENANCE OF TEMPORARY SILT FENCE	8,530	LIN. FT.	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
45	GDOT 167-1000	WATER QUALITY MONITORING AND SAMPLING	7	EACH	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
46	GDOT 167-1500	WATER QUALITY INSPECTIONS	7	MONTH	\$	\$
		<u>Dollars</u>				
		<u>Cents</u>				
TOTAL :					\$	

B-4.9 (ADDENDUM 1)

PRELIMINARY CONTRACTOR PROJECT SCHEDULE

All bidders are required to complete and submit with their bids the following Preliminary Contractor Project Schedule. This schedule will be used strictly as an anticipatory pre-construction scheduling and estimating tool. This preliminary schedule is non-binding and in no instance will negate the contract time specified in the bid and contract documents. Failure to complete this form or blatantly misrepresenting information on this form may be grounds for rejection of bid.

Estimated number of work hours per weekday: _____ hours

Estimated number of work hours per weekend: _____ hours

<u>ANTICIPATED WORK DAYS & HOURS</u>					
Contract Time = 210 Consecutive Calendar Days					
WORK ITEM	WEEKDAYS	HRS	WEEKEND	HRS	TOTAL DAYS
Mobilization	days		days		days
Initial Erosion Control	days		days		days
Clearing / Grubbing	days		days		days
Excavation / Embankment Formation	days		days		days
Drainage	days		days		days
Fencing	days		days		days
Seeding / Sodding	days		days		days
Final Clean Up	days		days		days
Contract Time Summary / Consecutive Calendar Days =					

NAME OF BIDDER: _____ DATE: _____

BY: _____ TITLE: _____

B-19 (Addendum 1)

ITEM P-152
EXCAVATION, SUBGRADE, AND EMBANKMENT

DESCRIPTION

152-1.1 This item covers excavation, disposal, placement, and compaction of all materials within the limits of the work required to construct safety areas, runways, taxiways, aprons, and intermediate areas as well as other areas for drainage, building construction, parking, or other purposes in accordance with these specifications and in conformity to the dimensions and typical sections shown on the plans.

152-1.2 Classification. All material excavated shall be classified as defined below:

a. Unclassified excavation. Unclassified excavation shall consist of the excavation and disposal of all material, regardless of its nature which is not otherwise classified and paid for under one of the following items.

b. Rock excavation. Rock excavation shall include all solid rock in ledges, in bedded deposits, in unstratified masses, and conglomerate deposits which are so firmly cemented they cannot be excavated with a single-tooth ripper mounted on a crawler tractor having a minimum draw bar pull rated at not less than 56,000 pounds (Caterpillar D-8K or equivalent) or by a Caterpillar 977 front-end loader or equivalent. All boulders containing a volume of more than 1 cubic yard will be classified as "rock excavation."

c. Muck excavation. Muck excavation shall consist of the removal and disposal of deposits or mixtures of soils and organic matter not suitable for foundation material. Muck shall include materials that will decay or produce subsidence in the embankment. It may consist of decaying stumps, roots, logs, humus, or other material not satisfactory for incorporation in the embankment.

d. Drainage excavation. Drainage excavation shall consist of all excavation made for the primary purpose of drainage and includes drainage ditches, such as intercepting, inlet or outlet ditches; temporary levee construction; or any other type as shown on the plans.

~~**e. Borrow excavation.** Borrow excavation shall consist of approved material required for the construction of embankments or for other portions of the work in excess of the quantity of usable material available from required excavations. Borrow material shall be obtained from areas designated by the Resident Project Representative (RPR) within the limits of the airport property but outside the normal limits of necessary grading, or from areas outside the airport boundaries.~~

152-1.3 Unsuitable excavation. Unsuitable material shall be disposed in designated waste areas as shown on the plans. Materials containing vegetable or organic matter, such as muck, peat, organic silt, or sod shall be considered unsuitable for use in embankment construction. Material suitable for topsoil may be used on the embankment slope when approved by the RPR. The determination of whether or not material is unsuitable shall be made at the sole discretion of the Engineer or the Engineer's representative.

P-152-1 (Addendum 1)

CONSTRUCTION METHODS

152-2.1 General. Before beginning excavation, grading, and embankment operations in any area, the area shall be cleared or cleared and grubbed in accordance with Item P-151.

The suitability of material to be placed in embankments shall be subject to approval by the RPR. All unsuitable material shall be disposed of in waste areas as shown on the plans. All waste areas shall be graded to allow positive drainage of the area and adjacent areas. The surface elevation of waste areas shall be specified on the plans or approved by the RPR.

When the Contractor's excavating operations encounter artifacts of historical or archaeological significance, the operations shall be temporarily discontinued and the RPR notified. At the direction of the RPR, the Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and allow for their removal. Such excavation will be paid for as extra work. Areas outside the limits of the pavement areas where the top layer of soil has become compacted by hauling or other Contractor activities shall be scarified and disked to a depth of 4 inches (100 mm), to loosen and pulverize the soil. Stones or rock fragments larger than 2 inches (50 mm) in their greatest dimension will not be permitted in the top 6 inches (150 mm) of the subgrade.

If it is necessary to interrupt existing surface drainage, sewers or under-drainage, conduits, utilities, or similar underground structures, the Contractor shall be responsible for and shall take all necessary precautions to preserve them or provide temporary services. When such facilities are encountered, the Contractor shall notify the RPR, who shall arrange for their removal if necessary. The Contractor, at their own expense, shall satisfactorily repair or pay the cost of all damage to such facilities or structures that may result from any of the Contractor's operations during the period of the contract.

a. Blasting. Blasting will be permitted as directed by the RPR and in accordance with the following:

Blasting will be permitted only when proper precautions are taken for the safety of all persons, work, and property. All damage done to the work or property shall be repaired by the Contractor. The cost of repair is incidental to this item. All operations of the Contractor in connection with the transportation, storage, and use of explosives shall conform to all federal, state and local regulations and explosive manufacturers' instructions, with applicable approved permits reviewed by the RPR. Any approval will not relieve the Contractor of their responsibility in blasting operations.

Where blasting is approved, the Contractor shall employ a vibration consultant, approved by the RPR, to advise on explosive charge weights per delay and to analyze records from seismograph recordings. The seismograph shall be capable of producing a permanent record of the three components of the motion in terms of particle velocity, and in addition shall be capable of internal dynamic calibration.

In each distinct blasting area, where pertinent factors affecting blast vibrations and their effects in the area remain the same, the Contractor shall submit a blasting plan of the initial blasts to the RPR for approval. This plan must consist of hole size, depth, spacing, burden, type of explosives, type of delay sequence, maximum amount of explosive on any one delay period,

P-152-2 (Addendum 1)

depth of rock, and depth of overburden if any. The maximum explosive charge weights per delay included in the plan shall not be increased without the approval of the RPR.

The Contractor shall keep a record of each blast: its date, time and location; the amount of explosives used, maximum explosive charge weight per delay period, and, where necessary, seismograph records identified by instrument number and location.

Blasting and explosive storage shall be in accordance with all federal, state, and local safety regulations.

These records shall be made available to the RPR on a monthly basis or in tabulated form at other times as required.

152-2.2 Excavation. No excavation shall be started until the work has been staked out by the Contractor and the RPR has obtained from the Contractor, the survey notes of the elevations and measurements of the ground surface. The Contractor and RPR shall agree that the original ground lines shown on the original topographic mapping are accurate, or agree to any adjustments made to the original ground lines.

All areas to be excavated shall be stripped of vegetation and topsoil. Topsoil shall be stockpiled for future use in areas designated on the plans or by the RPR. All suitable excavated material shall be used in the formation of embankment, subgrade, or other purposes as shown on the plans. All unsuitable material shall be disposed of as shown on the plans.

The grade shall be maintained so that the surface is well drained at all times.

When the volume of the excavation exceeds that required to construct the embankments to the grades as indicated on the plans, the excess shall be used to grade the areas of ultimate development or disposed as directed by the RPR. When the volume of excavation is not sufficient for constructing the embankments to the grades indicated, the deficiency shall be obtained from borrow areas.

a. Selective grading. When selective grading is indicated on the plans, the more suitable material designated by the RPR shall be used in constructing the embankment or in capping the pavement subgrade. If, at the time of excavation, it is not possible to place this material in its final location, it shall be stockpiled in approved areas until it can be placed. The more suitable material shall then be placed and compacted as specified. Selective grading shall be considered incidental to the work involved. The cost of stockpiling and placing the material shall be included in the various pay items of work involved.

b. Undercutting. Rock, shale, hardpan, loose rock, boulders, or other material unsatisfactory for safety areas, subgrades, roads, shoulders, or any areas intended for turf shall be excavated to a minimum depth of 12 inches (300 mm) below the subgrade or to the depth specified by the RPR. Muck, peat, matted roots, or other yielding material, unsatisfactory for subgrade foundation, shall be removed to the depth specified. Unsuitable materials shall be disposed of on the airport. The cost is incidental to this item. This excavated material shall be paid for at the contract unit price per cubic yard (per cubic meter) for embankment in place. The excavated area shall be backfilled with suitable material obtained from the grading operations or borrow areas and compacted to specified densities. The necessary backfill will constitute a part of the

P-152-3 (Addendum 1)

embankment. Where rock cuts are made, backfill with select material. Any pockets created in the rock surface shall be drained in accordance with the details shown on the plans.

c. Over-break. Over-break, including slides, is that portion of any material displaced or loosened beyond the finished work as planned or authorized by the RPR. All over-break shall be graded or removed by the Contractor and disposed of as directed by the RPR. The RPR shall determine if the displacement of such material was unavoidable and their own decision shall be final. Payment will not be made for the removal and disposal of over-break that the RPR determines as avoidable. Unavoidable over-break will be classified as "Unclassified Excavation."

d. Removal of utilities. The removal of existing structures and utilities required to permit the orderly progress of work will be accomplished by the Contractor as indicated on the plans. All existing foundations shall be excavated at least 2 feet (60 cm) below the top of subgrade or as indicated on the plans, and the material disposed of as directed by the RPR. All foundations thus excavated shall be backfilled with suitable material and compacted as specified for embankment or as shown on the plans.

152-2.3 Borrow excavation. Borrow areas within the airport property are indicated on the plans. Borrow excavation shall be made only at these designated locations and within the horizontal and vertical limits as staked or as directed by the RPR. All unsuitable material shall be disposed of by the Contractor as shown on the plans.

152-2.4 Drainage excavation. Drainage excavation shall consist of excavating drainage ditches including intercepting, inlet, or outlet ditches; or other types as shown on the plans. The work shall be performed in sequence with the other construction. Ditches shall be constructed prior to starting adjacent excavation operations. All satisfactory material shall be placed in embankment fills; unsuitable material shall be placed in designated waste areas or as directed by the RPR. All necessary work shall be performed true to final line, elevation, and cross-section. The Contractor shall maintain ditches constructed on the project to the required cross-section and shall keep them free of debris or obstructions until the project is accepted.

152-2.5 Preparation of cut areas or areas where existing pavement has been removed. In those areas on which a subbase or base course is to be placed, the top 12 inches of subgrade shall be compacted to not less than 100 % of maximum density for non-cohesive soils, and 95% of maximum density for cohesive soils as determined by ASTM D 1557. As used in this specification, "non-cohesive" shall mean those soils having a plasticity index (PI) of less than 3 as determined by ASTM D4318.

152-2.6 Preparation of embankment area. All sod and vegetative matter shall be removed from the surface upon which the embankment is to be placed. The cleared surface shall be broken up by plowing or scarifying to a minimum depth of 6 inches (150 mm) and shall then be compacted per paragraph 152-2.10.

Sloped surfaces steeper than one (1) vertical to four (4) horizontal shall be plowed, stepped, benched, or broken up so that the fill material will bond with the existing material. When the subgrade is part fill and part excavation or natural ground, the excavated or natural ground

P-152-4 (Addendum 1)

portion shall be scarified to a depth of 12 inches (300 mm) and compacted as specified for the adjacent fill.

No direct payment shall be made for the work performed under this section. The necessary clearing and grubbing and the quantity of excavation removed will be paid for under the respective items of work.

152-2.7 Control Strip. The first half-day of construction of subgrade and/or embankment shall be considered as a control strip for the Contractor to demonstrate, in the presence of the RPR, that the materials, equipment, and construction processes meet the requirements of this specification. The sequence and manner of rolling necessary to obtain specified density requirements shall be determined. The maximum compacted thickness may be increased to a maximum of 12 inches (300 mm) upon the Contractor's demonstration that approved equipment and operations will uniformly compact the lift to the specified density. The RPR must witness this demonstration and approve the lift thickness prior to full production.

Control strips that do not meet specification requirements shall be reworked, re-compacted, or removed and replaced at the Contractor's expense. Full operations shall not begin until the control strip has been accepted by the RPR. The Contractor shall use the same equipment, materials, and construction methods for the remainder of construction, unless adjustments made by the Contractor are approved in advance by the RPR.

152-2.8 Formation of embankments. The material shall be constructed in lifts as established in the control strip, but not less than 6 inches (150 mm) nor more than 12 inches (300 mm) of compacted thickness.

When more than one lift is required to establish the layer thickness shown on the plans, the construction procedure described here shall apply to each lift. No lift shall be covered by subsequent lifts until tests verify that compaction requirements have been met. The Contractor shall rework, re-compact and retest any material placed which does not meet the specifications.

The lifts shall be placed, to produce a soil structure as shown on the typical cross-section or as directed by the RPR. Materials such as brush, hedge, roots, stumps, grass and other organic matter, shall not be incorporated or buried in the embankment.

Earthwork operations shall be suspended at any time when satisfactory results cannot be obtained due to rain, freezing, or other unsatisfactory weather conditions in the field. Frozen material shall not be placed in the embankment nor shall embankment be placed upon frozen material. Material shall not be placed on surfaces that are muddy, frozen, or contain frost. The Contractor shall drag, blade, or slope the embankment to provide surface drainage at all times.

The material in each lift shall be within $\pm 2\%$ of optimum moisture content before rolling to obtain the prescribed compaction. The material shall be moistened or aerated as necessary to achieve a uniform moisture content throughout the lift. Natural drying may be accelerated by blending in dry material or manipulation alone to increase the rate of evaporation.

P-152-5 (Addendum 1)

The Contractor shall make the necessary corrections and adjustments in methods, materials or moisture content to achieve the specified embankment density.

The contractor will take samples of excavated materials which will be used in embankment for testing and develop a Moisture-Density Relations of Soils Report (Proctor) in accordance with D 1557. A new Proctor shall be developed for each soil type based on visual classification.

Density tests will be taken by the contractor for every 3,000 square yards of compacted embankment for each lift which is required to be compacted, or other appropriate frequencies as determined by the RPR.

If the material has greater than 30% retained on the 3/4-inch (19.0 mm) sieve, follow AASHTO T-180 Annex Correction of maximum dry density and optimum moisture for oversized particles. Rolling operations shall be continued until the embankment is compacted to not less than 100% of maximum density for non-cohesive soils, and 95% of maximum density for cohesive soils as determined by ASTM D 1557. Under all areas to be paved, the embankments shall be compacted to a depth of 12 inches and to a density of not less than 98 percent of the maximum density as determined by ASTM D 1557. As used in this specification, "non-cohesive" shall mean those soils having a plasticity index (PI) of less than 3 as determined by ASTM D4318.

On all areas outside of the pavement areas, no compaction will be required on the top 4 inches which shall be prepared for a seedbed in accordance with Item T-901.

The in-place field density shall be determined in accordance with ASTM D1556. The Contractor's laboratory shall perform all density tests in the RPR's presence and provide the test results upon completion to the RPR for acceptance. If the specified density is not attained, the area represented by the test or as designated by the RPR shall be reworked and/or re-compacted and additional random tests made. This procedure shall be followed until the specified density is reached.

Compaction areas shall be kept separate, and no lift shall be covered by another lift until the proper density is obtained.

During construction of the embankment, the Contractor shall route all construction equipment evenly over the entire width of the embankment as each lift is placed. Lift placement shall begin in the deepest portion of the embankment fill. As placement progresses, the lifts shall be constructed approximately parallel to the finished pavement grade line.

When rock, concrete pavement, asphalt pavement, and other embankment material are excavated at approximately the same time as the subgrade, the material shall be incorporated into the outer portion of the embankment and the subgrade material shall be incorporated under the future paved areas. Stones, fragmentary rock, and recycled pavement larger than 4 inches (100 mm) in their greatest dimensions will not be allowed in the top 12 inches (300 mm) of the subgrade. Rockfill shall be brought up in lifts as specified or as directed by the RPR and the finer material shall be used to fill the voids forming a dense, compact mass. Rock, cement concrete pavement,

P-152-6 (Addendum 1)

asphalt pavement, and other embankment material shall not be disposed of except at places and in the manner designated on the plans or by the RPR.

When the excavated material consists predominantly of rock fragments of such size that the material cannot be placed in lifts of the prescribed thickness without crushing, pulverizing or further breaking down the pieces, such material may be placed in the embankment as directed in lifts not exceeding 2 feet (60 cm) in thickness. Each lift shall be leveled and smoothed with suitable equipment by distribution of spalls and finer fragments of rock. The lift shall not be constructed above an elevation 4 feet (1.2 m) below the finished subgrade.

Payment for compacted embankment will be made under embankment in-place and no payment will be made for excavation, borrow, or other items.

~~**152-2.9 Proof rolling.** The purpose of proof rolling the subgrade is to identify any weak areas in the subgrade and not for compaction of the subgrade. After compaction is completed, the subgrade area shall be proof rolled with a 20-ton (18.1 metric ton) Tandem axle Dual Wheel Dump Truck loaded to the legal limit with tires inflated to 100 psi in the presence of the RPR. Apply a minimum of one coverage, or as specified by the RPR, under pavement areas. A coverage is defined as the application of one tire print over the designated area. Soft areas of subgrade that deflect more than 1-inch (25 mm) or show permanent deformation greater than 1-inch (25 mm) shall be removed and replaced with suitable material or reworked to conform to the moisture content and compaction requirements in accordance with these specifications. Removal and replacement of soft areas is incidental to this item.~~

152-2.10 Compaction requirements. The subgrade under areas to be paved shall be compacted to a depth of 12 inches (300 mm) and to a density of not less than 100 percent of the maximum dry density as determined by ASTM D1557. The subgrade in areas outside the limits of the pavement areas shall be compacted to a depth of 12 inches (300 mm) and to a density of not less than 95 percent of the maximum density as determined by ASTM D1557.

The material to be compacted shall be within $\pm 2\%$ of optimum moisture content before being rolled to obtain the prescribed compaction (except for expansive soils). When the material has greater than 30 percent retained on the $\frac{3}{4}$ inch (19.0 mm) sieve, follow the methods in ASTM D1557 for correction of maximum dry density and optimum moisture for oversized particles. Tests for moisture content and compaction will be taken at a minimum of 3,000 S.Y. of subgrade. All quality assurance testing shall be performed by Owner's Quality Assurance Testing Firm.

The in-place field density shall be determined in accordance with ASTM D1556.

Maximum density refers to maximum dry density at optimum moisture content unless otherwise specified.

P-152-7 (Addendum 1)

If the specified density is not attained, the entire lot shall be reworked and/or re-compacted and additional random tests made. This procedure shall be followed until the specified density is reached.

All cut-and-fill slopes shall be uniformly dressed to the slope, cross-section, and alignment shown on the plans or as directed by the RPR and the finished subgrade shall be maintained.

152-2.11 Finishing and protection of subgrade. Finishing and protection of the subgrade is incidental to this item. Grading and compacting of the subgrade shall be performed so that it will drain readily. All low areas, holes or depressions in the subgrade shall be brought to grade. Scarifying, blading, rolling and other methods shall be performed to provide a thoroughly compacted subgrade shaped to the lines and grades shown on the plans. All ruts or rough places that develop in the completed subgrade shall be graded, re-compacted, and retested. The Contractor shall protect the subgrade from damage and limit hauling over the finished subgrade to only traffic essential for construction purposes.

The Contractor shall maintain the completed course in satisfactory condition throughout placement of subsequent layers. No subbase, base, or surface course shall be placed on the subgrade until the subgrade has been accepted by the RPR.

152-2.12 Haul. All hauling will be considered a necessary and incidental part of the work. The Contractor shall include the cost in the contract unit price for the pay of items of work involved. No payment will be made separately or directly for hauling on any part of the work.

The Contractor's equipment shall not cause damage to any excavated surface, compacted lift or to the subgrade as a result of hauling operations. Any damage caused as a result of the Contractor's hauling operations shall be repaired at the Contractor's expense.

The Contractor shall be responsible for providing, maintaining and removing any haul roads or routes within or outside of the work area, and shall return the affected areas to their former condition, unless otherwise authorized in writing by the Owner. No separate payment will be made for any work or materials associated with providing, maintaining and removing haul roads or routes.

152-2.13 Surface Tolerances. In those areas on which a subbase or base course is to be placed, the surface shall be tested for smoothness and accuracy of grade and crown. Any portion lacking the required smoothness or failing in accuracy of grade or crown shall be scarified to a depth of at least 3 inches (75 mm), reshaped and re-compacted to grade until the required smoothness and accuracy are obtained and approved by the RPR. The Contractor shall perform all final smoothness and grade checks in the presence of the RPR. Any deviation in surface tolerances shall be corrected by the Contractor at the Contractor's expense.

- a. **Smoothness.** The finished surface shall not vary more than +/- ½ inch (12 mm) when tested with a 12-foot (3.7-m) straightedge applied parallel with and at right angles to the centerline. The straightedge shall be moved continuously forward at half the length of the 12-foot (3.7-m) straightedge for the full length of each line on a 50-foot (15-m) grid.

P-152-8 (Addendum 1)

- b. Grade.** The grade and crown shall be measured on a 50-foot (15-m) grid and shall be within +/-0.05 feet (15 mm) of the specified grade.

On safety areas, turfed areas and other designated areas within the grading limits where no subbase or base is to be placed, grade shall not vary more than 0.10 feet (30 mm) from specified grade. Any deviation in excess of this amount shall be corrected by loosening, adding or removing materials, and reshaping.

152-2.14 Topsoil. When topsoil is specified or required as shown on the plans or under Item T-905, it shall be salvaged from stripping or other grading operations. The topsoil shall meet the requirements of Item T-905. If, at the time of excavation or stripping, the topsoil cannot be placed in its final section of finished construction, the material shall be stockpiled at approved locations. Stockpiles shall not be placed on areas that subsequently will require any excavation or embankment fill. If, in the judgment of the RPR, it is practical to place the salvaged topsoil at the time of excavation or stripping, the material shall be placed in its final position without stockpiling or further re-handling.

Upon completion of grading operations, stockpiled topsoil shall be handled and placed as shown on the plans and as required in Item T-905. Topsoil shall be paid for as provided in Item T-905. No direct payment will be made for topsoil under Item P-152.

METHOD OF MEASUREMENT

152-3.1 Measurement for payment specified by the cubic yard shall be computed by the comparison of digital terrain model (DTM) surfaces. The end area is that bound by the original ground line established by field cross-sections and the final theoretical pay line established by cross-sections shown on the plans, subject to verification by the RPR. The Contractor shall provide a ground run topographic survey of the final completed surface on a 20 foot minimum grid. This survey shall be performed by a Land Surveyor registered in the State of Georgia, and shall identify all features, ditches, grade breaks, and swales. Provide the survey and its DTM Surface to the Engineer.

152-3.2 The quantity of compacted embankment in place to be paid for shall be the number of cubic yards measured in its final position. Measurement shall not include the quantity of materials excavated without authorization beyond normal slope lines, or the quantity of material used for purposes other than those directed.

152-3.3 The quantity of rock excavation to be paid for shall be the number of cubic yards measured in its original position. Measurement shall not include the quantity of materials excavated without authorization.

152-3.4 The quantity of muck excavation to be paid for shall be the number of cubic yards measured in its original position. Measurement shall not include the quantity of materials excavated without authorization.

P-152-9 (Addendum 1)

152-3.5 Excavation for drainage shall not be measured for payment. This work is considered incidental to the installation of drainage items.

BASIS OF PAYMENT

152-4.1 Rock Excavation and Muck Excavation payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

152-4.2 For Embankment In Place, payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-152A	Embankment in place - per cubic yard
Item P-152C	Rock Excavation - per cubic yard
Item P-152D	Muck Excavation – per cubic yard

REFERENCES

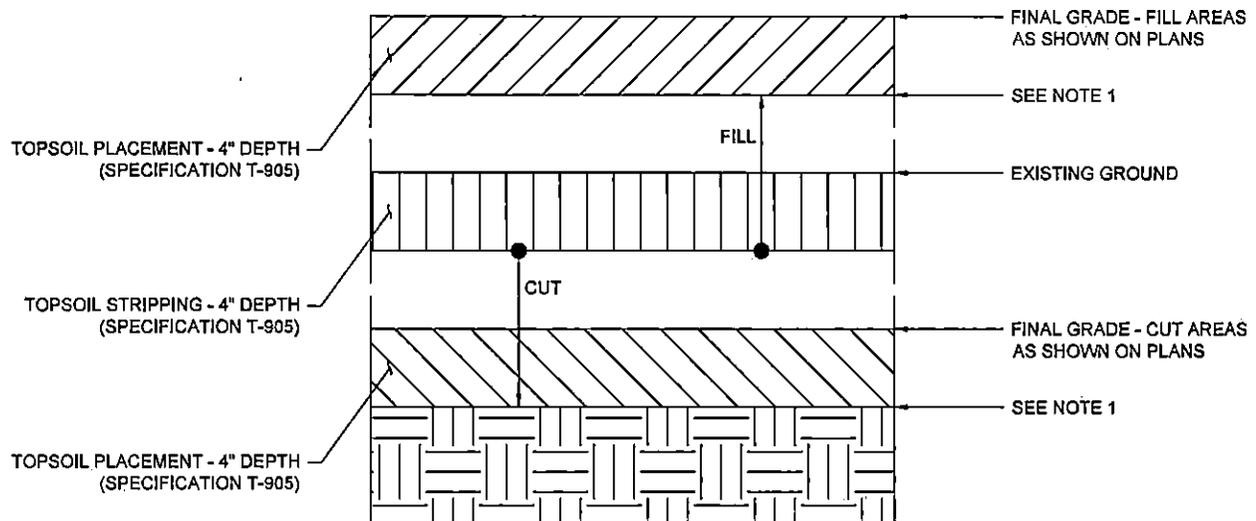
The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AASHTO T-180	Standard Method of Test for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop
ASTM D698	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft ³ (600 kN-m/m ³))
ASTM D1556	Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D1557	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft ³ (2700 kN-m/m ³))
ASTM D6938	Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
AC 150/5370-2	Operational Safety on Airports During Construction Software
FAARFIELD	FAA Rigid and Flexible Iterative Elastic Layered Design
FAA RD-76-66	Design and Construction of Airport Pavements on Expansive Soils

END OF ITEM P-152

P-152-10 (Addendum 1)

TYPICAL SECTION - ADDENDUM #1



NOTES:

1. IN AREAS OF CUT OR FILL, THE SURFACE USED FOR MEASUREMENT AND PAYMENT OF EMBANKMENT IN PLACE SHALL BE THAT SURFACE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH SPECIFICATION SECTION P-152 LESS FOUR INCHES OVER THE ENTIRE DISTURBED AREA.

PROPOSED GRADING TYPICAL SECTION

N.T.S