



## TRANSPORTATION CABINET

Frankfort, Kentucky 40622  
www.kentucky.gov

**Ernie Fletcher**  
Governor

**Bill Nighbert**  
Acting Secretary

**Marc Williams**  
Commissioner of Highways

February 6, 2007

CALL NO. 100  
CONTRACT ID NO. 071003  
Change # 1

Subject: Jefferson County, BRO 5137 (33)  
Letting February 16, 2007

Listed below are the enclosed changes on the subject project:

- (1) Revised - Special Provision for Embankment-Pages 67-70(a) of 113
- (2) Revised - Bid Items - Pages 102-106 of 113

If you obtained bid items from our Website, it is imperative that you download a new set of bid items before submitting them for bidding.

Your bid, to be considered, must be based upon the above-mentioned changes, and these changes are to be made a part of the bid proposal which you submit to the Kentucky Department of Highways.

Specimen proposals may not be used for bidding purposes.

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

A handwritten signature in black ink, appearing to read "Steve Waddle".

Steve Waddle  
Director  
Division of Construction Procurement

SW:ks

Enclosures

**SPECIAL PROVISION FOR EMBANKMENT AT  
BRIDGE END BENT STRUCTURES**

This Special Provision will apply when indicated on the plans or in the proposal. Section references herein are to the Department's 2004 Standard Specifications for Road and Bridge Construction.

**1.0 DESCRIPTION.** Construct a soil, granular, or rock embankment with granular or cohesive pile core and place structure granular backfill, as the Plans require. Construct the embankment according to the requirements of this Special Provision, the Plans, Standard Drawing RGX 100 and 105, and the 2004 Standard Specifications.

**2.0 MATERIALS.**

**2.1 Granular Embankment.** Conform to Subsection 805.10. When Granular Embankment materials are erodible or unstable according to Subsection 805.03.04, use the Special Construction Methods found in 3.2 of the Special Provision.

**2.2 Rock Embankment.** Provide durable rock from roadway excavation that consists principally of Unweathered Limestone, Durable Shale (SDI equal to or greater than 95 according to KM 64-513), or Durable Sandstone.

**2.3 Granular Pile Core.** Select a gradation of durable rock to facilitate pile driving that conforms to Subsection 805.11. If granular pile core material hinders pile driving operations, take appropriate means necessary to reach the required pile tip elevation, at no expense to the Department.

**2.4 Cohesive Pile Core.** Conform to Section 206 of the Standard Specifications and use soil with at least 50 percent passing a No. 4 sieve having a minimum Plasticity Index (PI) of 10. In addition, keep the cohesive pile core free of boulders, larger than 6 inches in any dimension, or any other obstructions, which would interfere with drilling operations. If cohesive pile core material interferes with drilling operations, take appropriate means necessary to maintain excavation stability, at no expense to the Department.

**2.5 Structure Granular Backfill.** Conform to Subsection 805.11

**2.6 Geotextile Fabric.** Conform to Type I or Type IV in Section 214 and 843 as required in the plans.

### 3.0 CONSTRUCTION.

**3.1 General.** Construct roadway embankments at end bents according to Section 206 and in accordance with the Special Provision, the Plans, and Standard Drawings for the full embankment section. In some instances, granular or rock embankment will be required for embankment construction for stability purposes, but this special provision does not prevent the use of soil when appropriate. Refer to the plans for specific details regarding material requirements for embankment construction.

Place and compact granular or cohesive pile core, soil, granular or rock embankment, and structure granular backfill according to the applicable density requirements for the project. When constructing granular or rock embankments, use granular pile core for driven pile foundations and use cohesive pile core for pre-drilled pile or drilled shaft foundations. Place geotextile fabric, Type IV between cohesive pile core and structure granular backfill and granular or rock embankment.

When granular or rock embankment is required for embankment construction, conform to the general requirements of Subsection 206.03.02 B). In addition, place the material in no greater than 2-foot lifts and compact with a vibrating smooth wheel roller capable of producing a minimum centrifugal force of 15 tons. Apply these requirements to the full width of the embankment for a distance of twice the embankment height or 50 feet, whichever is less, as shown on Standard Drawing RGX-105.

When using granular pile core, install 8-inch perforated underdrain pipe at or near the elevation of the original ground in the approximate locations depicted on the standard drawing, and as the Engineer directs, to ensure positive drainage of the embankment. Wrap the perforated pipe with a fabric of a type recommended by the pipe manufacturer.

After constructing the embankment, excavate for the end bent cap, drive piling or install shafts, place the mortar bed, construct the end bent, and complete the embankment to finish grade according to the construction sequence shown on the Plans or Standard Drawings and as specified hereinafter.

After piles are driven or shafts installed (see design drawings), slope the bottom of the excavation towards the ends of the trench as noted on the plans for drainage. Using a separate pour, place concrete mortar, or any class concrete, to provide a base for forming and placing the cap. Place side forms for the end bent after the mortar has set sufficiently to support workmen and forms without being disturbed.

Install 4-inch perforated pipe in accordance with the plans and Standard Drawings. In the event slope protection extends above the elevation of the perforated pipe, extend the pipe through the slope protection. After placing the end bent cap and removing adjacent forms, fill the excavation

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with structure granular backfill material to the level of the berm prior to placing beams for the bridge. For soil embankments, place Type IV geotextile fabric between embankment material and structure granular backfill. After completing the end bent backwall, or after completing the span end wall, place the structure granular backfill to subgrade elevation. If the original excavation is enlarged, fill the entire volume with compacted structure granular backfill at no expense to the Department. Do not place backfill before removing adjacent form work. Place structure granular backfill material in trench ditches at the ends of the excavation. Place Geotextile Fabric, Type IV over the surface of structure granular backfill prior to placing aggregate base course.

Tamp the backfill with hand tampers, pneumatic tampers, or other means the Engineer approves. Thoroughly compact the backfill under the overhanging portions of the structure to ensure that the backfill is in intimate contact with the sides of the structure.

Do not apply seeding, sodding, or other vegetation to the exposed granular embankment.

**3.2 Special Construction Methods.** Erodible or unstable materials may erode even when protected by riprap or channel lining; use the special construction method described below when using these materials.

Use fine aggregates or friable sandstone granular embankment at "dry land" structures only. Do not use them at stream crossings or locations subject to flood waters.

For erodible or unstable materials having 50 percent or more passing the No. 4 sieve, protect with geotextile fabric. Extend the fabric from the original ground to the top of slope over the entire area of the embankment slopes on each side of, and in front of, the end bent. Cover the fabric with at least 12 inches of non-erodible material.

For erodible or unstable materials having less than 50 percent passing a No. 4 sieve, cover with at least 12 inches of non-erodible material.

Where erodible or unstable granular embankment will be protected by riprap or channel lining, place geotextile fabric between the embankment and the specified slope protection.

#### **4.0 MEASUREMENT.**

**4.1 Granular Embankment.** The Department will measure the quantity in cubic yards using the plan quantity, increased or decreased by authorized adjustments as specified in Section 204. The Department will not measure for payment any Granular Embankment that is not called for in the plans.

The Department will not measure for payment any special construction caused by using erodible or unstable materials and will consider it incidental to the Granular Embankment regardless of whether the erodible or unstable material was

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specified or permitted.

**4.2 Rock Embankment.** The Department will not measure for payment any rock embankment and will consider it incidental to roadway excavation or embankment in place, as applicable. (embankments requiring rock with none present within project excavation limits will be constructed using granular embankment)

**4.3 Granular Pile Core.** The Department will measure the quantity in cubic yards using the plan quantity, increased or decreased by authorized adjustments as specified in Section 204. The Department will not measure for payment furnishing and placing 8-inch perforated underdrain pipe and will consider it incidental to the Granular pile core. The Department will not measure for payment any granular pile core that is necessary because the contractor elects to use granular or rock embankment when it is not specified in the plans.

**4.4 Cohesive Pile Core.** The Department will measure the quantity in cubic yards using the plan quantity, increased or decreased by authorized adjustments as specified in Section 204.

**4.5 Structure Granular Backfill.** The Department will measure the quantity in cubic yards using the plan quantity, increased or decreased by authorized adjustments as specified in Section 204. The Department will not measure any additional material required for backfill outside the limits shown on the Plans and Standard Drawings for payment and will consider it incidental to the work.

When following construction sequence "A", as shown on the Standard Drawings, the Department will not measure structure excavation at the end bent for payment and will consider it incidental to Structure Granular Backfill.

The Department will not measure for payment the 4-inch perforated underdrain pipe and will consider it incidental to the Structure Granular Backfill.

**4.4 4.6 Geotextile Fabric.** The Department will measure the quantities as specified in Section 214. The Department will not measure the quantity of fabric used for separating granular or rock embankment and cohesive pile core and will consider it incidental to cohesive pile core.

**4.7 End Bent.** The Department will measure the quantities according to the Contract. The Department will not measure furnishing and placing the 2-inch mortar or concrete bed for payment and will consider it incidental to the end bent construction.

**5.0 PAYMENT.** The Department will make payment for the completed and

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accepted quantities under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
2223	Granular Embankment	Cubic Yards
20209EP69	Granular Pile Core	Cubic Yards
20210EP69	Cohesive Pile Core	Cubic Yards
2231	Structure Granular Backfill	Cubic Yards
2596, 2599	Geotextile Fabric, Type	See Section 214

The Department will consider payment as full compensation for all work required in this provision.

January 10, 2005

**TRANSPORTATION CABINET**

Department of Highways  
FRANKFORT, KY 40622

Sheet No: 1  
Contract ID: 07-1003  
JEFFERSON COUNTY  
BRO 5137 (33)  
Letting: 2/16/07

THE BIDDER MUST MAKE THE EXTENSIONS AND ADDITIONS  
SHOWING TOTAL AMOUNT BID USING FIGURES ONLY

Item No.	Code No.	Item	Approximate Quantity	Unit	Unit Price Dollars	Amount Dollars
		ROADWAY			.	.
0010	00001	DGA BASE	3,915.00	TON	.	.
0020	00018	DRAINAGE BLANKET-TYPE II-ASPH	1,277.00	TON	.	.
0030	00078	CRUSHED AGGREGATE SIZE NO 2	4.00	TON	.	.
0040	00100	ASPHALT SEAL AGGREGATE	12.80	TON	.	.
0050	00190	LEVELING & WEDGING PG64-22	1,163.00	TON	.	.
0060	00214	CL3 ASPH BASE 1.00D PG64-22	2,908.00	TON	.	.
0070	00216	CL3 ASPH BASE 1.00D PG76-22	1,127.00	TON	.	.
0080	00291	EMULSIFIED ASPHALT RS-2	1.50	TON	.	.
0090	00336	CL3 ASPH SURF 0.38A PG76-22	1,351.00	TON	.	.
0100	00358	ASPHALT CURING SEAL	5.80	TON	.	.
0110	00440	ENTRANCE PIPE-15 INCH	155.00	LF	.	.
0120	00441	ENTRANCE PIPE-18 INCH	123.00	LF	.	.
0130	00443	ENTRANCE PIPE-24 INCH	48.00	LF	.	.
0140	00464	CULVERT PIPE-24 INCH	18.00	LF	.	.
0150	01000	PERFORATED PIPE-4 INCH	3,404.00	LF	.	.
0160	01010	NON-PERFORATED PIPE-4 INCH	59.00	LF	.	.
0170	01020	PERF PIPE HEADWALL TY 1-4 INCH	4.00	EACH	.	.
0180	01433	SLOPED BOX OUTLET TYPE 1-18 IN	1.00	EACH	.	.
0190	01490	DROP BOX INLET TYPE 1	1.00	EACH	.	.
0200	01496	DROP BOX INLET TYPE 3	1.00	EACH	.	.
0210	01875	STANDARD HEADER CURB	55.00	LF	.	.
0220	01890	ISLAND HEADER CURB TYPE 1	550.00	LF	.	.
0230	01985	DELINEATOR FOR BARRIER-YELLOW	10.00	EACH	.	.
0240	02003	RELOCATE TEMP CONC MED BARRIER	750.00	LF	.	.
0250	02014	BARRICADE-TYPE III	4.00	EACH	.	.
0260	02159	TEMPORARY DITCH	2,100.00	LF	.	.

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Department of Highways

FRANKFORT, KY 40622

Sheet No: 2

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JEFFERSON COUNTY

BRO 5137 (33)

Letting: 2/16/07

THE BIDDER MUST MAKE THE EXTENSIONS AND ADDITIONS  
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Item No.	Code No.	Item	Approximate Quantity	Unit	Unit Price Dollars	Amount Dollars
0270	02200	ROADWAY EXCAVATION	10,097.00	CUYD	.	.
0280	02242	WATER	200.00	MGAL	.	.
0290	02274	FENCE-6 FT CHAIN LINK	734.00	LF	.	.
0300	02351	GUARDRAIL-STEEL W BEAM-S FACE	2,137.50	LF	.	.
0310	02360	GUARDRAIL TERMINAL SECTION NO 1	3.00	EACH	.	.
0320	02363	GUARDRAIL CONNECTOR TO BRIDGE END TY A	4.00	EACH	.	.
0330	02372	REMOVE GUARDRAIL CON TO BR END	2.00	EACH	.	.
0340	02381	REMOVE GUARDRAIL	1,812.50	LF	.	.
0350	02391	GUARDRAIL END TREATMENT TYPE 4A	1.00	EACH	.	.
0360	02396	REMOVE GUARDRAIL END TREATMENT	6.00	EACH	.	.
0370	02429	RIGHT-OF-WAY MONUMENT TYPE 1	9.00	EACH	.	.
0380	02432	WITNESS POST	9.00	EACH	.	.
0390	02484	CHANNEL LINING CLASS III	451.00	TON	.	.
0400	02545	CLEARING AND GRUBBING 3.7 ACRES	1.00	LS	.	.
0410	02562	SIGNS	451.00	SQFT	.	.
0420	02585	EDGE KEY	114.00	LF	.	.
0430	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS	.	.
0440	02653	LANE CLOSURE	7.00	EACH	.	.
0450	02655	CROSSOVER	1.00	LS	.	.
0460	02671	VAR MESSAGE SIGN-PORT 3 LINE	2.00	EACH	.	.
0470	02676	MOBILIZATION FOR MILL & TEXT	1.00	LS	.	.
0480	02677	ASPH PAVE MILLING & TEXTURING	211.00	TON	.	.
0490	02690	SAFELOADING	4.00	CUYD	.	.
0500	02701	TEMPORARY SILT FENCE	2,100.00	LF	.	.
0510	02702	SAND FOR BLOTTER	14.50	TON	.	.
0520	02704	SILT TRAP TYPE B	26.00	EACH	.	.



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Sheet No: 3

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BRO 5137 (33)

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THE BIDDER MUST MAKE THE EXTENSIONS AND ADDITIONS  
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Item No.	Code No.	Item	Approximate Quantity	Unit	Unit Price Dollars	Amount Dollars
0530	02707	CLEAN SILT TRAP TYPE B	78.00	EACH	.	.
0540	02709	CLEAN TEMPORARY SILT FENCE	4,200.00	LF	.	.
0550	02726	STAKING	1.00	LS	.	.
0560	02731	REMOVE STRUCTURE	1.00	LS	.	.
0570	02775	FLASHING ARROW	2.00	EACH	.	.
0580	03171	CONCRETE BARRIER WALL TYPE 9T	750.00	LF	.	.
0590	05950	EROSION CONTROL BLANKET	1,280.00	SQYD	.	.
0600	05952	TEMPORARY MULCH	17,908.00	SQYD	.	.
0610	05953	TEMP SEEDING AND PROTECTION	2,000.00	SQYD	.	.
0620	05966	TOPDRESSING FERTILIZER	1.00	TON	.	.
0630	05985	SEEDING AND PROTECTION	11,522.00	SQYD	.	.
0640	05989	SPECIAL SEEDING CROWN VETCH	5,278.00	SQYD	.	.
0650	05990	SODDING	4,264.00	SQYD	.	.
0660	06510	PAVE STRIPING-TEMP PAINT-4 IN	60,400.00	LF	.	.
0670	06514	PAVE STRIPING-PERM PAINT-4 IN	18,240.00	LF	.	.
0680	06530	PAVE STRIPING REMOVAL-4 INCH	60,400.00	LF	.	.
0690	06573	PAVE MARKING-PRE THERM STR ARROW	8.00	EACH	.	.
0700	06574	PAVE MARKING-PRE THERM CURV ARROW	305.00	EACH	.	.
0710	06586	PAVEMENT MARKER TY IVA-MY TEMP	80.00	EACH	.	.
0720	06588	PAVEMENT MARKER TY IVA-BY TEMP	546.00	EACH	.	.
0730	06589	PAVEMENT MARKER TYPE V-MW	93.00	EACH	.	.
0740	06591	PAVEMENT MARKER TYPE V-BY	184.00	EACH	.	.
0750	06600	REMOVE PAVEMENT MARKER TYPE V	277.00	EACH	.	.
0760	08100	CONCRETE-CLASS A	2.85	CUYD	.	.
0770	08150	STEEL REINFORCEMENT	20.00	LB	.	.
0780	20320ES719	REMOVE AND RELOCATE CRASH CUSHION	2.00	EACH	.	.
0790	20496NS843	SILT TRAP TYPE C	5.00	EACH	.	.

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FRANKFORT, KY 40622

Sheet No: 4

Contract ID: 07-1003

JEFFERSON COUNTY

BRO 5137 (33)

Letting: 2/16/07

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Item No.	Code No.	Item	Approximate Quantity	Unit	Unit Price Dollars	Amount Dollars
0800	20497NS843	CLEAN SILT TRAP TYPE C	15.00	EACH	.	.
0810	20588NC	INSTALL PROJECT IDENTIFICATION SIGNS	2.00	EACH	.	.
0820	20738NS112	TEMPORARY CRASH CUSHION	2.00	EACH	.	.
0830	21447NC	TEMPORARY STREAM CROSSING	1.00	LS	.	.
0840	21530ND	WILLOW STAKES	1,200.00	EACH	.	.
0850	21531ND	INSTALL BAT BOX	1.00	EACH	.	.
		BRIDGE			.	.
0860	02231	STRUCTURE GRANULAR BACKFILL	332.00	CUYD	.	.
0870	02998	MASONRY COATING	1,109.00	SQYD	.	.
0880	03299	ARMORED EDGE FOR CONCRETE	231.90	LF	.	.
0890	08002	STRUCTURE EXCAV-SOLID ROCK	478.00	CUYD	.	.
0900	08003	FOUNDATION PREPARATION	1.00	LS	.	.
0910	08019	CYCLOPEAN STONE RIP RAP	972.00	TON	.	.
0920	08033	TEST PILES	70.00	LF	.	.
0930	08046	PILES-STEEL HP12X53	476.00	LF	.	.
0940	08094	PILE POINTS-12 INCH	19.00	EACH	.	.
0950	08100	CONCRETE-CLASS A	891.80	CUYD	.	.
0960	08104	CONCRETE-CLASS AA	1,202.50	CUYD	.	.
0970	08150	STEEL REINFORCEMENT	146,961.00	LB	.	.
0980	08151	STEEL REINFORCEMENT-EPOXY COATED	231,101.00	LB	.	.
0990	08636	PRECAST PC I BEAM TYPE 5	3,473.30	LF	.	.
1000	20209EP69	GRANULAR PILE CORE	912.00	CUYD	.	.
		(ADDED: 2-6-07)			.	.
1010	21119ED	CONCRETE FORM LINER	1,374.00	SQYD	.	.
		WATERLINE RELOCATION			.	.
1020	01095	DUCTILE IRON PIPE-8 INCH	10.00	LF	.	.
		PRESSURE - CLASS 350			.	.

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Item No.	Code No.	Item	Approximate Quantity	Unit	Unit Price Dollars	Amount Dollars
1030	01103	DUCTILE IRON PIPE-16 INCH TR-FLEX PRESSURE - CLASS 350	1,020.00	LF	.	.
1040	01314	PLUG PIPE 12"	4.00	EACH	.	.
1050	03472	TIE-IN 12 INCH	2.00	EACH	.	.
1060	03528	GATE VALVE-8 INCH	1.00	EACH	.	.
1070	03536	GATE VALVE-16 INCH	3.00	EACH	.	.
1080	20125EC	TEE 16" X 8"	1.00	EACH	.	.
1090	20150EC	TRANSFER SERVICE 5/8" - 3/4"	2.00	EACH	.	.
1100	20150EC	TRANSFER SERVICE 8"	1.00	EACH	.	.
1110	20151EC	RELOCATE SERVICE 5/8" - 3/4"	1.00	EACH	.	.
1120	20708ND	CUT AND PLUG 12 IN	4.00	EACH	.	.
1130	20795ND	REDUCER 16"X12"	2.00	EACH	.	.
1140	21455ND	ABANDON VALVE 12" - OPEN POSITION	1.00	EACH	.	.
1150	21456ND	INSTALL LEAK DETECTION SETUP	1.00	EACH	.	.
1160	21548NN	CREEK CROSSING TRAINEES	1.00	LS	.	.
1170	02742	TRAINEE PAYMENT REIMBURSEMENT 1 CARPENTER DEMOBILIZATION & MOBILIZATION	1,400.00	HOUR	.	.
1180	02568	MOBILIZATION	1.00	LS	.	.
1190	02569	DEMOBILIZATION	1.00	LS	.	.
<b>TOTAL BID</b>					\$	.