



**COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET**

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

Matthew G. Bevin
Governor

Greg Thomas
Secretary

July 23, 2018

CALL NO. 103
CONTRACT ID NO. 181025
ADDENDUM # 2

Subject: BOONE COUNTY, STP 8200(017)
Letting July 27, 2018

- (1) Revised - Utilities and Rail Certification Note - Pages 35-40 of 243
- (2) Revised - Proposal Bid Items - Pages 237-243 of 243
- (3) Revised - Plan Sheets - R2, R2d, R2f, R2g, R2h, R2i, R214, and R215

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

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

Sincerely,

A handwritten signature in black ink that reads "Rachel Mills".

Rachel Mills, P.E.
Director
Division of Construction Procurement

RM:mr
Enclosures



An Equal Opportunity Employer M/F/D

UTILITIES AND RAIL CERTIFICATION NOTE

Boone County
00STP8200016
FD52 008 6979203U
Mile point: 2.251 TO 5.370
RECONSTRUCT AND WIDEN KY 237 FROM VALLEY VIEW DRIVE TO ROGERS LANE. (14CCR)
ITEM NUMBER: 06-8001.21

PROJECT NOTES ON UTILITIES

Damage to Utilities

Any intentional or accidental disruption of service due to damage to gas, sewer, or water mains caused by any of the contractor's operations without three days advance notice to the utility owner shall be cause for the Cabinet to charge liquidated damages in the amount of five thousand dollars per day (\$5,000/day) per occurrence against the contractor until such a time as the utility main is restored.

Any intentional or accidental disruption of any individual gas, water, or sewer service caused by any of the contractor's operations without three days advance notice to the utility owner shall be cause for the Cabinet to charge liquidated damages in the amount of five hundred dollars per day (\$500/day) per occurrence against the contractor until such time as service is restored.

In the case of a main disruption, liquidated damages shall be charged at the main disruption rate only. Liquidated damages shall not be charged in addition for service disruptions when a main disruption is involved.

Flowable Fill Requirement

The Contractor shall use flowable fill as the backfill media any place water lines cross under the existing or proposed roadway surfaces. It should also be noted that the cost of the flowable fill shall be incidental to the cost of the water line being installed.

External Utility Permits

Kentucky Division of Water permits for water relocation construction were not available before bidding. These items will be distributed at the preconstruction meeting.

Abandoned Utilities

The Contractor shall safeload the entire length of all abandoned pipes 6 inches in diameter and larger under proposed pavement and under any existing pavement that is to remain. The Contractor shall safeload the entire length of all abandoned pipes 15 inches and larger which will be located outside of proposed pavement but within project limits. Appropriate bid items have been included in the road contract. The safeloading criteria above shall be observed unless otherwise directed by the Section Engineer or his representative.

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Please Note: The information presented in this Utility Note is informational in nature and the information contained herein is not guaranteed.

The Contractor will be responsible for contacting all utility facility owners on the subject project to coordinate activities. The Contractor will coordinate activities to minimize and, where possible, avoid conflicts with utility facilities. Where conflicts with utility facilities are unavoidable, the contractor will coordinate any necessary relocation work with the facility owner and Resident Engineer. The Kentucky Transportation Cabinet maintains the right to remove or alter portions of this contract if a utility conflict occurs. The utility facilities as noted in the previous section(s) have been determined using data garnered by varied means and with varying degrees of accuracy: from the facility owners, a result of S.U.E., field inspections, and/or reviews of record drawings. The facilities defined may not be inclusive of all utilities in the project scope and are not Level A quality, unless specified as such. It is the Contractor's responsibility to verify all utilities and their respective locations before excavating.

The Contractor shall make every effort to protect underground facilities from damage as prescribed in the Underground Facility Damage Protection Act of 1994, Kentucky Revised Statute KRS 367.4901 to 367.4917. It is the Contractor's responsibility to determine and take steps necessary to be in compliance with federal and state damage prevention directives. The Contractor is instructed to contact KY 811 for the location of existing underground utilities. Contact shall be made a minimum of two (2) and no more than ten (10) business days prior to excavation. The Contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY 811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-member facility owners, whom are to be contacted through their individual Protection Notification Center. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area. Non-compliance with these directives can result in the enforcement of penalties.

NOTE: DO NOT DISTURB THE FOLLOWING FACILITIES LOCATED WITHIN THE PROJECT DISTURB LIMITS

Mid-Valley Pipeline crude oil transmission facilities shall not be disturbed by the Contractor as part of this project. This facility crosses the project at Station 213+10.08. The Contractor should proceed with caution in the vicinity of this facility. Test excavations to date indicate a minimum existing cover of 3.17 feet. After construction, minimum proposed cover should be 3.52 feet. Existing depths of the pipeline vary and should be verified by the Contractor prior to construction. Investigation to date has not indicated relocation of the pipeline is required.

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Mid-Valley Pipeline will require timber mat cover/loading protection at a minimum but preference is an “air bridge” to protect pipeline crossing location. Refer to the bid documents for maximum allowable loading stresses on the pipeline. It is the responsibility of the Contractor to coordinate with Mid-Valley Pipeline inspectors while working in the vicinity of the pipeline crossing.

Boone-Florence Water Commission has a 16” water distribution facility that crosses the project near Station 86+70. This is only the Boone-Florence Water Commission facility within project limits and shall not be disturbed by the Contractor.

The Contractor is fully responsible for protection of all utilities listed above

THE FOLLOWING FACILITY OWNERS ARE RELOCATING/ADJUSTING THEIR FACILITIES WITHIN THE PROJECT LIMITS AND WILL BE COMPLETE PRIOR TO CONSTRUCTION

Duke Energy (Gas) distribution facilities should be relocated prior to roadway construction. Duke began this relocation work on May 14, 2018. The company began work at the Oakbrook Dr./Carters Mill Ln. intersection and then proceeded to the Gunpowder Creek crossing in order to avoid all potential roadway construction conflicts. Work then began at the start of the roadway project and is progressing towards the end of the roadway project. This work is expected to be complete prior to the start of roadway construction.

There is an existing 12-inch high pressure transmission facility that crosses the project between Stations 188+00 – 195+00. This facility will not be relocated prior to construction. The Contractor will need to coordinate with Duke Energy on the relocation schedule of this facility in order to avoid conflicts.

Duke Energy’s proposed gas main locations are marked in the plan set in the Utility Reference Sheets (Sheets R197 – R215), as provided as part of the bid documents. Locations in the Utility Reference Sheets are approximate and final as-built gas mains shall be verified with Duke Energy by the Contractor.

THE FOLLOWING FACILITY OWNERS HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE OWNER OR THEIR SUBCONTRACTOR AND IS TO BE COORDINATED WITH THE ROAD CONTRACT

Owen Electric Cooperative, Cincinnati Bell Telephone, Charter Communications, and Duke Energy (Gas) have overhead and/or underground facilities that will be relocated by the utility owners concurrently with the road construction. **These companies estimate relocation of their facilities will be complete by August 31, 2019. This date is an estimation. The successful contractor should be aware that relocations by these**

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companies may not be complete by this date. The road contractor will be required to coordinate with these utility companies and their contractors until completion of their work.

While the aforementioned Duke Energy (Gas) distribution project is expected to be complete prior to roadway construction, there will be a pressure improvement project which will provide a connection for two separate distribution networks. This connection will be installed between roadway STA. 219+00 and 231+00. This project is expected to begin 9/1/18 and expected completion date is 10/31/18. Duke can be flexible in this timeline and is willing to work within the timeline agreed upon by the roadway contractor.

Additionally, a Duke Energy (Gas) high-pressure transmission line exists between Stations 188+00 – 195+00 which is to be relocated concurrently with road construction. The road contractor shall coordinate schedules with Duke Energy (Gas) in order to avoid conflicts with this relocation. Duke Energy (Gas) requires the existing earth between the above stations to remain undisturbed until the completion of the new gas transmission facilities.

It will be the responsibility of the Contractor to remove any abandoned portions of the existing gas transmission line in conflict with the construction of the roadway project. Any pipe removed will become property of the road contractor. Duke Energy (gas) tested the pipe for hazardous materials and none were detected.

The Cabinet will consider submission of a bid as the Contractor's agreement to not make any claims for additional monetary compensation due to delays or other conditions created by the operations of Owen Electric Cooperative, Cincinnati Bell Telephone, Charter Communications, and Duke Energy (Gas). Monetary claims will not be considered for any delays incurred before or after August 31, 2019. Any costs (including delay costs) related to the coordination and cooperation with these utility companies shall be included in the bid item for "General Utility Coordination". After August 31, 2019, when the Contractor cannot perform work on the controlling operation due to conflicting work, or incomplete infrastructure relocations, being performed by Owen Electric Cooperative, Cincinnati Bell Telephone, Charter Communications, or Duke Energy (Gas) calendar days will be added to the fixed completion date on a day for day basis. No days will be added for delays prior to August 31, 2019. Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of – or adjacent to – the project, the KYTC Section Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the Cabinet's work in general harmony and in a satisfactory manner, and his decision shall be final and binding upon the Contractor.

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THE FOLLOWING FACILITY OWNERS HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE ROAD CONTRACTOR AS INCLUDED IN THIS CONTRACT

City of Florence Water, Boone County Water District, and Sanitation District No. 1 have facilities to be adjusted by the roadway contractor using plans inserted into the road construction plans and specifications inserted into the project proposal. Appropriate utility bid items have been included in the contract bid documents.

Utility Phasing:

The Contractor should be aware that some utilities will need to be relocated to accommodate the relocation of other utilities or construction of the roadway. Portions of utility relocations may need to be conducted outside of the MOT plan to allow the project to move forward. The Contractor should review the plans and draw his own conclusions as to the phasing of the various utilities. Utility work that needs to be conducted outside of the MOT phasing should be coordinated with the section engineer. The Contractor should pay close attention to the proximity of construction of new facilities when working in the vicinity of existing water mains to prevent blow-outs.

Notes:

- Utility pipeline fittings are not bid as separate pay items in new utility main installations in this contract. Fittings are considered incidental to pipe and other items.
- Utility service laterals included in this contract are not paid on a linear basis. Service laterals are bid in lump sum as short side and long side.
- Bidding contractors should note that several other items of pay have been modified from previous road contracts. The contractor should thoroughly review the Standard Bid Item Descriptions for each utility discipline included in the contract. These bid item descriptions are included elsewhere in the project proposal.

Impacts to Sanitation District No. 1 facilities are minimal. There are seven manhole rim adjustments and one new manhole installation. There is not a separate set of SD1 plans provided. All SD1 bid items are included in the roadway plan set. Notes have also been added to the roadway plan set identifying adjustment locations.

RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED

No Rail Involvement **Rail Involved** **Rail Adjacent**

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AREA FACILITY OWNER CONTACT LIST

Facility Owner	Address	Contact Name	Phone	Email
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UTILIY FACILITY OWNER CONTACT INFORMATION TO BE PROVIDED AT PRECONSTRUCTION MEETING

PROPOSAL BID ITEMS

REVISED ADDENDUM #2: 7-23-18

181025

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Section: 0001 - PAVING-ALT #1

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00003		CRUSHED STONE BASE	51,649.00	TON		\$	
0020	00008		CEMENT STABILIZED ROADBED	120,196.00	SQYD		\$	
0030	00020		TRAFFIC BOUND BASE	152.00	TON		\$	
0040	00100		ASPHALT SEAL AGGREGATE	24.60	TON		\$	
0050	00103		ASPHALT SEAL COAT	3.00	TON		\$	
0060	00214		CL3 ASPH BASE 1.00D PG64-22	70,136.00	TON		\$	
0070	00356		ASPHALT MATERIAL FOR TACK	68.00	TON		\$	
0080	00358		ASPHALT CURING SEAL	120.00	TON		\$	
0090	00388		CL3 ASPH SURF 0.38B PG64-22	11,851.00	TON		\$	
0100	01810		STANDARD CURB AND GUTTER	30,100.00	LF		\$	
0110	02084		JPC PAVEMENT-8 IN	1,455.00	SQYD		\$	
0120	02101		CEM CONC ENT PAVEMENT-8 IN	963.00	SQYD		\$	
0130	02542		CEMENT	2,294.00	TON		\$	
0140	02677		ASPHALT PAVE MILLING & TEXTURING	138.00	TON		\$	
0150	02702		SAND FOR BLOTTER	301.00	TON		\$	
0160	10020NS		FUEL ADJUSTMENT	205,212.00	DOLL	\$1.00	\$	\$205,212.00
0170	10030NS		ASPHALT ADJUSTMENT	320,611.00	DOLL	\$1.00	\$	\$320,611.00
0180	23379EC		STAMPED CONCRETE	425.00	SQYD		\$	
0190	24779EC		INTELLIGENT COMPACTION FOR SOIL	242,795.00	CUYD		\$	
0200	24780EC		INTELLIGENT COMPACTION FOR AGGREGATE	51,183.00	TON		\$	
0210	24781EC		INTELLIGENT COMPACTION FOR ASPHALT	81,631.00	TON		\$	
0220	24891EC		PAVE MOUNT INFRARED TEMP EQUIPMENT	1,857,132.00	SF		\$	
0230	24990EC		INTELLIGENT COMP SUBGRADE STABILIZATION	120,196.00	SQYD		\$	

Section: 0002 - PAVING- ALT #2

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0240	00003		CRUSHED STONE BASE	93,072.00	TON		\$	
0250	00008		CEMENT STABILIZED ROADBED	120,145.00	SQYD		\$	
0260	00020		TRAFFIC BOUND BASE	152.00	TON		\$	
0270	00100		ASPHALT SEAL AGGREGATE	24.60	TON		\$	
0280	00103		ASPHALT SEAL COAT	3.00	TON		\$	
0290	00214		CL3 ASPH BASE 1.00D PG64-22	35,984.00	TON		\$	
0300	00356		ASPHALT MATERIAL FOR TACK	44.00	TON		\$	
0310	00358		ASPHALT CURING SEAL	120.00	TON		\$	
0320	00388		CL3 ASPH SURF 0.38B PG64-22	11,851.00	TON		\$	
0330	01810		STANDARD CURB AND GUTTER	30,100.00	LF		\$	
0340	02084		JPC PAVEMENT-8 IN	1,455.00	SQYD		\$	
0350	02101		CEM CONC ENT PAVEMENT-8 IN	963.00	SQYD		\$	
0360	02542		CEMENT	2,293.00	TON		\$	
0370	02677		ASPHALT PAVE MILLING & TEXTURING	138.00	TON		\$	
0380	02702		SAND FOR BLOTTER	301.00	TON		\$	
0390	10020NS		FUEL ADJUSTMENT	166,800.00	DOLL	\$1.00	\$	\$166,800.00
0400	10030NS		ASPHALT ADJUSTMENT	187,090.00	DOLL	\$1.00	\$	\$187,090.00

PROPOSAL BID ITEMS

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0410	20263ED		GEOGRID REINFORCEMENT	120,145.00	SQYD		\$	
0420	23379EC		STAMPED CONCRETE	425.00	SQYD		\$	
0430	24779EC		INTELLIGENT COMPACTION FOR SOIL	242,795.00	CUYD		\$	
0440	24780EC		INTELLIGENT COMPACTION FOR AGGREGATE	92,616.00	TON		\$	
0450	24781EC		INTELLIGENT COMPACTION FOR ASPHALT	47,479.00	TON		\$	
0460	24891EC		PAVE MOUNT INFRARED TEMP EQUIPMENT	1,857,132.00	SF		\$	
0470	24990EC		INTELLIGENT COMP SUBGRADE STABILIZATION	120,145.00	SQYD		\$	

Section: 0003 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0480	00021		DRAINAGE BLANKET-EMBANKMENT	3,137.00	CUYD		\$	
0490	00078		CRUSHED AGGREGATE SIZE NO 2	2,287.00	TON		\$	
0500	01000		PERFORATED PIPE-4 IN (REVISED: 7-16-18)	33,722.00	LF		\$	
0510	01010		NON-PERFORATED PIPE-4 IN	96.00	LF		\$	
0520	01020		PERF PIPE HEADWALL TY 1-4 IN	1.00	EACH		\$	
0530	01024		PERF PIPE HEADWALL TY 2-4 IN	2.00	EACH		\$	
0540	01028		PERF PIPE HEADWALL TY 3-4 IN	4.00	EACH		\$	
0550	01875		STANDARD HEADER CURB	1,852.00	LF		\$	
0560	01890		ISLAND HEADER CURB TYPE 1	438.00	LF		\$	
0570	02091		REMOVE PAVEMENT	1,346.00	SQYD		\$	
0580	02159		TEMP DITCH	8,554.00	LF		\$	
0590	02160		CLEAN TEMP DITCH	4,279.00	LF		\$	
0600	02230		EMBANKMENT IN PLACE	273,799.00	CUYD		\$	
0610	02242		WATER	648.00	MGAL		\$	
0620	02274		FENCE-6 FT CHAIN LINK	842.00	LF		\$	
0630	02287		DOUBLE VEHICULAR CHAIN LINK GATE	1.00	EACH		\$	
0640	02351		GUARDRAIL-STEEL W BEAM-S FACE	5,412.50	LF		\$	
0650	02360		GUARDRAIL TERMINAL SECTION NO 1	2.00	EACH		\$	
0660	02363		GUARDRAIL CONNECTOR TO BRIDGE END TY A	4.00	EACH		\$	
0670	02367		GUARDRAIL END TREATMENT TYPE 1	5.00	EACH		\$	
0680	02381		REMOVE GUARDRAIL	50.00	LF		\$	
0690	02391		GUARDRAIL END TREATMENT TYPE 4A	19.00	EACH		\$	
0700	02429		RIGHT-OF-WAY MONUMENT TYPE 1	126.00	EACH		\$	
0710	02432		WITNESS POST	3.00	EACH		\$	
0720	02484		CHANNEL LINING CLASS III	1,315.00	TON		\$	
0730	02545		CLEARING AND GRUBBING 72.39 ACRES	1.00	LS		\$	
0740	02562		TEMPORARY SIGNS	1,013.00	SQFT		\$	
0750	02585		EDGE KEY	210.00	LF		\$	
0760	02599		FABRIC-GEOTEXTILE TYPE IV	51,561.00	SQYD		\$	
0770	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0780	02651		DIVERSIONS (BY-PASS DETOURS)	1.00	LS		\$	
0790	02671		PORTABLE CHANGEABLE MESSAGE SIGN	4.00	EACH		\$	
0800	02676		MOBILIZATION FOR MILL & TEXT	1.00	LS		\$	
0810	02690		SAFELOADING	60.00	CUYD		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0820	02703		SILT TRAP TYPE A	72.00	EACH		\$	
0830	02704		SILT TRAP TYPE B	72.00	EACH		\$	
0840	02705		SILT TRAP TYPE C	72.00	EACH		\$	
0850	02706		CLEAN SILT TRAP TYPE A	72.00	EACH		\$	
0860	02707		CLEAN SILT TRAP TYPE B	72.00	EACH		\$	
0870	02708		CLEAN SILT TRAP TYPE C	72.00	EACH		\$	
0880	02720		SIDEWALK-4 IN CONCRETE	1,404.00	SQYD		\$	
0890	02720		SIDEWALK-4 IN CONCRETE SPECIAL SIDEWALK (@ ROUNDABOUT SPLITTER ISLANDS)	526.00	SQYD		\$	
0900	02726		STAKING	1.00	LS		\$	
0905	02731		REMOVE STRUCTURE (EX. TRIPLE 14'X7' RCBC @ STA 183.00) (ADDED: 7-23-18)	1.00	LS		\$	
0910	02775		ARROW PANEL	2.00	EACH		\$	
0920	03171		CONCRETE BARRIER WALL TYPE 9T	1,944.00	LF		\$	
0930	05950		EROSION CONTROL BLANKET	6,158.00	SQYD		\$	
0940	05952		TEMP MULCH	233,578.00	SQYD		\$	
0950	05953		TEMP SEEDING AND PROTECTION	175,184.00	SQYD		\$	
0960	05963		INITIAL FERTILIZER	6.90	TON		\$	
0970	05964		20-10-10 FERTILIZER	11.50	TON		\$	
0980	05985		SEEDING AND PROTECTION	198,270.00	SQYD		\$	
0990	05990		SODDING	17,930.00	SQYD		\$	
1000	05992		AGRICULTURAL LIMESTONE	138.00	TON		\$	
1010	06410		STEEL POST TYPE 1	1,137.00	LF		\$	
1020	06510		PAVE STRIPING-TEMP PAINT-4 IN	101,460.00	LF		\$	
1030	06514		PAVE STRIPING-PERM PAINT-4 IN	82,777.00	LF		\$	
1040	06516		PAVE STRIPING-PERM PAINT-8 IN	3,268.00	LF		\$	
1050	06565		PAVE MARKING-THERMO X-WALK-6 IN	1,722.00	LF		\$	
1060	06568		PAVE MARKING-THERMO STOP BAR-24IN	544.00	LF		\$	
1070	06570		PAVE MARKING-PAINT CROSS-HATCH	2,972.00	SQFT		\$	
1080	06572		PAVE MARKING-DOTTED LANE EXTEN	440.00	LF		\$	
1090	06573		PAVE MARKING-THERMO STR ARROW	1.00	EACH		\$	
1100	06574		PAVE MARKING-THERMO CURV ARROW	45.00	EACH		\$	
1110	06575		PAVE MARKING-THERMO COMB ARROW	7.00	EACH		\$	
1120	06589		PAVEMENT MARKER TYPE V-MW	431.00	EACH		\$	
1130	06591		PAVEMENT MARKER TYPE V-BY	783.00	EACH		\$	
1140	08900		CRASH CUSHION TY VI CLASS B TL2	6.00	EACH		\$	
1150	15092		S MANHOLE	1.00	EACH		\$	
1160	15094		S MANHOLE ADJUST TO GRADE	7.00	EACH		\$	
1170	23158ES505		DETECTABLE WARNINGS	939.00	SQFT		\$	
1180	23274EN11F		TURF REINFORCEMENT MAT 1	5,246.00	SQYD		\$	
1190	23275EN11F		TURF REINFORCEMENT MAT 2	795.00	SQYD		\$	
1200	23276EN11F		TURF REINFORCEMENT MAT 3	351.00	SQYD		\$	
1210	23626EC		DETENTION BASIN (STA 101+56.57) (REVISED: 7-23-18)	1.00	LS		\$	
1211	23626EC		DETENTION BASIN (STA 194+55.35) (ADDED: 7-23-18)	1.00	LS		\$	
1220	23649EC		DRAIN POND	1.00	LS		\$	
1230	23791EC		PAVE STRIPING-CHEVRON MARKINGS	1,298.00	SQFT		\$	

PROPOSAL BID ITEMS

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1240	24845EC		UTILITY COORDINATION	1.00	LS		\$	

Section: 0004 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1250	00440		ENTRANCE PIPE-15 IN	199.00	LF		\$	
1260	00466		CULVERT PIPE-30 IN	8.00	LF		\$	
1270	00470		CULVERT PIPE-48 IN	236.00	LF		\$	
1280	00472		CULVERT PIPE-60 IN	201.00	LF		\$	
1290	00521		STORM SEWER PIPE-15 IN	8,149.00	LF		\$	
1300	00522		STORM SEWER PIPE-18 IN	4,495.00	LF		\$	
1310	00524		STORM SEWER PIPE-24 IN	1,424.00	LF		\$	
1320	00528		STORM SEWER PIPE-36 IN	239.00	LF		\$	
1330	01202		PIPE CULVERT HEADWALL-15 IN	4.00	EACH		\$	
1340	01204		PIPE CULVERT HEADWALL-18 IN	9.00	EACH		\$	
1350	01208		PIPE CULVERT HEADWALL-24 IN	5.00	EACH		\$	
1360	01210		PIPE CULVERT HEADWALL-30 IN	1.00	EACH		\$	
1370	01212		PIPE CULVERT HEADWALL-36 IN	1.00	EACH		\$	
1380	01216		PIPE CULVERT HEADWALL-48 IN	2.00	EACH		\$	
1390	01220		PIPE CULVERT HEADWALL-60 IN	1.00	EACH		\$	
1400	01456		CURB BOX INLET TYPE A	79.00	EACH		\$	
1410	01480		CURB BOX INLET TYPE B	1.00	EACH		\$	
1420	01544		DROP BOX INLET TYPE 11	5.00	EACH		\$	
1430	01559		DROP BOX INLET TYPE 13G	7.00	EACH		\$	
1440	01581		DROP BOX INLET TYPE 16G	1.00	EACH		\$	
1450	02484		CHANNEL LINING CLASS III	410.00	TON		\$	
1460	02600		FABRIC GEOTEXTILE TY IV FOR PIPE	52,525.00	SQYD	\$2.00	\$	\$105,050.00
1470	22766ED		TRENCH DRAIN	16.00	LF		\$	
1480	23609ED		HYDRAULIC CONTROL STRUCTURE (STA 101+56.57) (REVISED: 7-23-18)	1.00	LS		\$	
1481	23609ED		HYDRAULIC CONTROL STRUCTURE (STA 194+55.35) (ADDED: 7-23-18)	1.00	LS		\$	
1490	23952EC		DRAINAGE JUNCTION BOX TY B	5.00	EACH		\$	
1500	24814EC		PIPELINE INSPECTION	7,376.00	LF		\$	

Section: 0005 - BRIDGE-27648

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1510	02231		STRUCTURE GRANULAR BACKFILL	1,056.20	CUYD		\$	
1520	02998		MASONRY COATING	1,054.00	SQYD		\$	
1530	08001		STRUCTURE EXCAVATION-COMMON	4,926.00	CUYD		\$	
1540	08002		STRUCTURE EXCAV-SOLID ROCK	145.00	CUYD		\$	
1550	08019		CYCLOPEAN STONE RIP RAP	3,698.00	TON		\$	
1560	08033		TEST PILES	78.00	LF		\$	
1570	08046		PILES-STEEL HP12X53	972.00	LF		\$	
1580	08094		PILE POINTS-12 IN	32.00	EACH		\$	

PROPOSAL BID ITEMS

181025

Report Date 7/23/18

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1590	08100		CONCRETE-CLASS A	603.30	CUYD		\$	
1600	08104		CONCRETE-CLASS AA	1,009.30	CUYD		\$	
1610	08135		MECHANICAL REINF COUPLER #10	43.00	EACH		\$	
1620	08150		STEEL REINFORCEMENT	67,877.00	LB		\$	
1630	08151		STEEL REINFORCEMENT-EPOXY COATED	249,355.00	LB		\$	
1640	08634		PRECAST PC I BEAM TYPE 4	1,612.30	LF		\$	
1650	23630EC		ARMORED EDGE FOR CONCRETE	1.00	LS		\$	
1660	23813EC		DECK DRAIN	24.00	EACH		\$	

Section: 0006 - BRIDGE-CULVERT 27646

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1670	08002		STRUCTURE EXCAV-SOLID ROCK	13.00	CUYD		\$	
1680	08003		FOUNDATION PREPARATION	1.00	LS		\$	
1690	08100		CONCRETE-CLASS A	511.20	CUYD		\$	
1700	08150		STEEL REINFORCEMENT	69,192.00	LB		\$	

Section: 0007 - BRIDGE-RETAINING WALL 27647

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1710	08001		STRUCTURE EXCAVATION-COMMON	37.00	CUYD		\$	
1720	08002		STRUCTURE EXCAV-SOLID ROCK	51.00	CUYD		\$	
1730	08039		PRE-DRILLING FOR PILES	60.00	LF		\$	
1740	08051		PILES-STEEL HP14X89	165.00	LF		\$	
1750	08100		CONCRETE-CLASS A	17.10	CUYD		\$	
1760	08150		STEEL REINFORCEMENT	2,354.00	LB		\$	
1770	21119ED		CONCRETE FORM LINER	42.00	SQYD		\$	

Section: 0008 - SIGNING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1780	06406		SBM ALUM SHEET SIGNS .080 IN	350.00	SQFT		\$	
1790	06407		SBM ALUM SHEET SIGNS .125 IN	80.00	SQFT		\$	
1800	06410		STEEL POST TYPE 1	300.00	LF		\$	
1810	06411		STEEL POST TYPE 2	900.00	LF		\$	
1820	06490		CLASS A CONCRETE FOR SIGNS	65.00	CUYD		\$	
1830	21373ND		REMOVE SIGN	5.00	EACH		\$	
1840	21596ND		GMSS TYPE D	10.00	EACH		\$	
1850	24631EC		BARCODE SIGN INVENTORY	81.00	EACH		\$	

Section: 0009 - SIGNALIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1860	04795		CONDUIT-2 IN	1,100.00	LF		\$	
1870	04811		ELECTRICAL JUNCTION BOX TYPE B	6.00	EACH		\$	

PROPOSAL BID ITEMS

181025

Report Date 7/23/18

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1880	04820		TRENCHING AND BACKFILLING	1,100.00	LF		\$	
1890	04830		LOOP WIRE	4,000.00	LF		\$	
1900	04844		CABLE-NO. 14/5C	2,200.00	LF		\$	
1910	04850		CABLE-NO. 14/1 PAIR	4,000.00	LF		\$	
1920	04885		MESSENGER-10800 LB	450.00	LF		\$	
1930	04895		LOOP SAW SLOT AND FILL	1,100.00	LF		\$	
1940	04931		INSTALL CONTROLLER TYPE 170	1.00	EACH		\$	
1950	04932		INSTALL STEEL STRAIN POLE	4.00	EACH		\$	
1960	20093NS835		INSTALL PEDESTRIAN HEAD-LED	8.00	EACH		\$	
1970	20188NS835		INSTALL LED SIGNAL-3 SECTION	8.00	EACH		\$	
1980	20456NS835		INSTALL TEMP VIDEO CAMERA	5.00	EACH		\$	
1990	21743NN		INSTALL PEDESTRIAN DETECTOR	8.00	EACH		\$	
2000	23157EN		TRAFFIC SIGNAL POLE BASE	18.00	CUYD		\$	
2010	24955ED		REMOVE SIGNAL EQUIPMENT	1.00	EACH		\$	

Section: 0010 - LIGHTING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
2020	04701		POLE 40 FT MTG HT	18.00	EACH		\$	
2030	04722		BRACKET 8 FT	3.00	EACH		\$	
2040	04725		BRACKET 15 FT	15.00	EACH		\$	
2050	04740		POLE BASE	18.00	EACH		\$	
2060	04750		TRANSFORMER BASE	18.00	EACH		\$	
2070	04761		LIGHTING CONTROL EQUIPMENT	1.00	EACH		\$	
2080	04780		FUSED CONNECTOR KIT	18.00	EACH		\$	
2090	04793		CONDUIT-1 1/4 IN	3,600.00	LF		\$	
2100	04795		CONDUIT-2 IN	375.00	LF		\$	
2110	04820		TRENCHING AND BACKFILLING	4,000.00	LF		\$	
2120	04832		WIRE-NO. 12	1,836.00	LF		\$	
2130	04833		WIRE-NO. 8	10,800.00	LF		\$	
2140	20391NS835		ELECTRICAL JUNCTION BOX TYPE A	4.00	EACH		\$	
2150	24589ED		LED LUMINAIRE	18.00	EACH		\$	

Section: 0011 - WATERLINE-BOONE COUNTY WATER DISTRICT

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
2160	14004		W DIRECTIONAL BORE	200.00	LF		\$	
2170	14009		W ENCASMENT STEEL BORED RANGE 4	77.00	LF		\$	
2180	14011		W ENCASMENT STEEL BORED RANGE 6	64.00	LF		\$	
2190	14018		W FIRE HYDRANT ADJUST	3.00	EACH		\$	
2200	14019		W FIRE HYDRANT ASSEMBLY	11.00	EACH		\$	
2210	14020		W FIRE HYDRANT RELOCATE	15.00	EACH		\$	
2220	14029		W METER ADJUST	3.00	EACH		\$	
2230	14030		W METER RELOCATE	28.00	EACH		\$	
2240	14037		W PIPE DUCTILE IRON 08 INCH	1,044.00	LF		\$	
2250	14039		W PIPE DUCTILE IRON 12 INCH	130.00	LF		\$	
2260	14040		W PIPE DUCTILE IRON 16 INCH	9,088.00	LF		\$	

PROPOSAL BID ITEMS

REVISED ADDENDUM #2: 7-23-18

181025

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Report Date 7/23/18

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
2270	14048		W PIPE DCTL IRON RSTRND JOINT 08 IN	93.00	LF		\$	
2280	14050		W PIPE DCTL IRON RSTRND JOINT 12 IN	100.00	LF		\$	
2290	14051		W PIPE DCTL IRON RSTRND JOINT 16 IN	281.00	LF		\$	
2300	14074		W PLUG EXISTING MAIN	2.00	EACH		\$	
2310	14090		W TAPPING SLEEVE AND VALVE SIZE 2	1.00	EACH		\$	
2320	14095		W TIE-IN 08 INCH	5.00	EACH		\$	
2330	14097		W TIE-IN 12 INCH	2.00	EACH		\$	
2340	14098		W TIE-IN 16 INCH	3.00	EACH		\$	
2350	14106		W VALVE 08 INCH	6.00	EACH		\$	
2360	14108		W VALVE 12 INCH	3.00	EACH		\$	
2370	14109		W VALVE 16 INCH	14.00	EACH		\$	
2380	14113		W VALVE BOX ADJUST	11.00	EACH		\$	
2390	14118		W VALVE CUT-IN 08 INCH	4.00	EACH		\$	
2400	14121		W VALVE CUT-IN 16 INCH	2.00	EACH		\$	
2410	14145		W SERV COPPER LONG SIDE 1 IN	1.00	EACH		\$	
2420	14147		W SERV COPPER LONG SIDE 2 IN	1.00	EACH		\$	
2430	14148		W SERV COPPER LONG SIDE 3/4 IN	15.00	EACH		\$	
2440	14152		W SERV COPPER SHORT SIDE 3/4 IN	20.00	EACH		\$	

Section: 0012 - WATERLINE-CITY OF FLORENCE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
2450	14001		W AIR RELEASE VALVE 3/4 INCH	1.00	EACH		\$	
2460	14019		W FIRE HYDRANT ASSEMBLY	1.00	EACH		\$	
2470	14037		W PIPE DUCTILE IRON 08 INCH	250.00	LF		\$	
2480	14095		W TIE-IN 08 INCH	2.00	EACH		\$	
2490	14113		W VALVE BOX ADJUST	7.00	EACH		\$	

Section: 0013 - DEMOBILIZATION &/OR MOBILIZATION

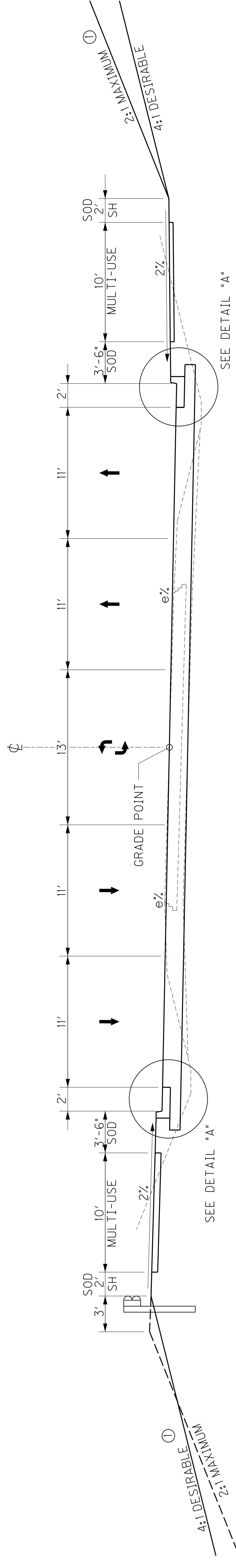
LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
2500	02568		MOBILIZATION	1.00	LS		\$	
2510	02569		DEMOBILIZATION	1.00	LS		\$	

TYPICAL SECTION

THE EARTHWORK QUANTITIES SHOWN IN THE PLANS ARE BASED ON ASPHALT PAVEMENT ALTERNATE NO. 1 TYPICAL SECTION. IF ALTERNATE NO. 2 IS SELECTED, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST THE EARTHWORK TO CONSTRUCT TO THE PROFILE GRADE SHOWN IN THE PLANS. PAYMENT FOR EXCAVATION AND/OR EMBANKMENT WILL BE BASED ON PLAN QUANTITIES.

① SEE CROSS-SECTIONS FOR SLOPES OUTSIDE THE LIMITS OF THE SHOULDER

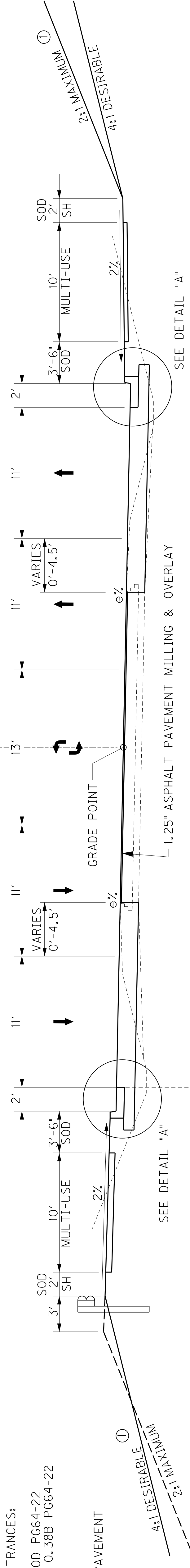
COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-8001.21	R2



**KY 237 SUPERELEVATED 5-LANE SECTION
STA. 80 + 34.87 TO STA. 95 + 31.66**

- ENTRANCE CONSTRUCTION**
- GRAVEL ENTRANCES:
 - 4" CRUSHED STONE BASE
 - 2" CL3 ASPHALT SURFACE 0.38B PG64-22
 - 4" TRAFFIC BOUND BASE
- COMMERCIAL ENTRANCES:**
- 4" CRUSHED STONE BASE
 - 2" CL3 ASPHALT SURFACE 0.38B PG64-22
 - 2" CL3 ASPHALT SURFACE 0.38B PG64-22
- RESIDENTIAL ASPHALT ENTRANCES:**
- 4" CRUSHED STONE BASE
 - 2" CL3 ASPHALT SURFACE 0.38B PG64-22
 - 2" CL3 ASPHALT SURFACE 0.38B PG64-22
- CONCRETE ENTRANCES:**
- 4" CRUSHED STONE BASE
 - 8" NON-REINFORCED JPC PAVEMENT

- MULTI-USE PATH**
- 4" CRUSHED STONE SURFACE 0.38B PG64-22
- UNDER ENTRANCES (SEE DETAIL "E")**
- 4" CRUSHED STONE BASE
 - 2" CL3 ASPHALT SURFACE 0.38B PG64-22
 - 2" CL3 ASPHALT SURFACE 0.38B PG64-22



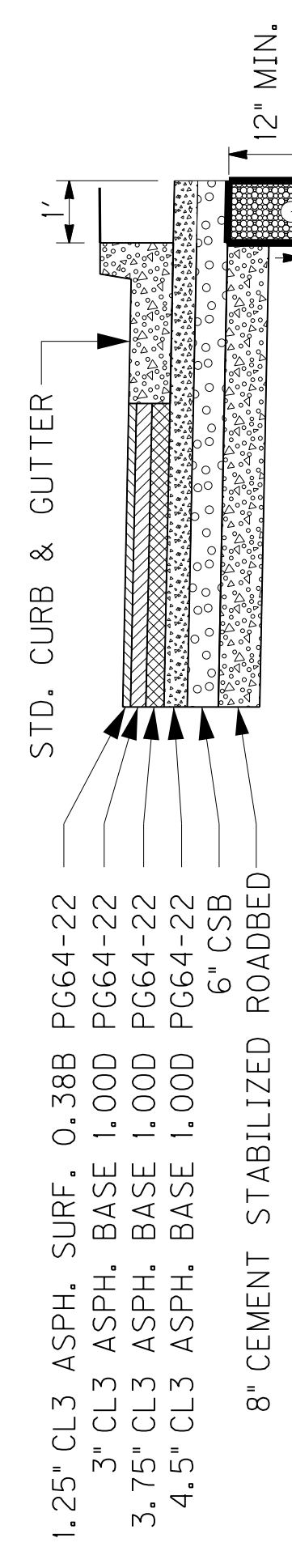
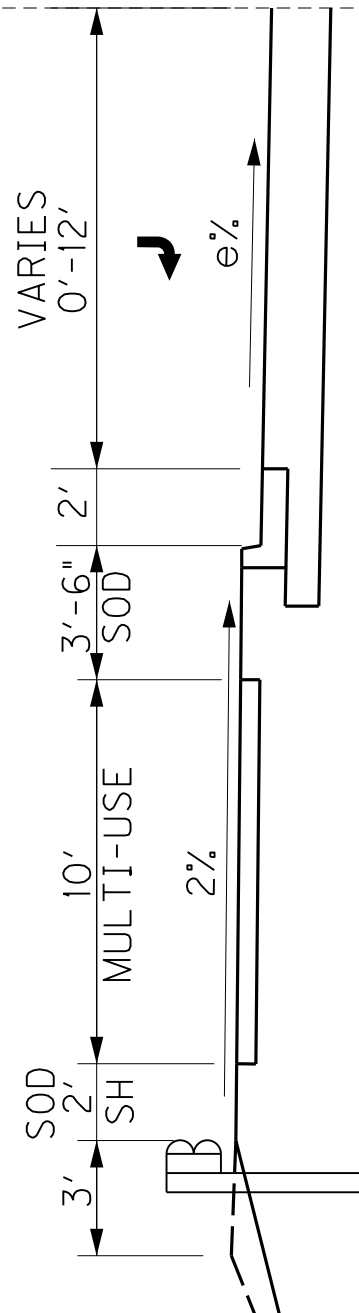
**KY 237 SUPERELEVATED 5-LANE SECTION
STA. 72 + 60.30 TO STA. 80 + 34.87**

* NOTE: FROM STA. 73+00 TO STA. 75+92.50 EXISTING PAVEMENT TAPERS TO 2-LANE ROADWAY

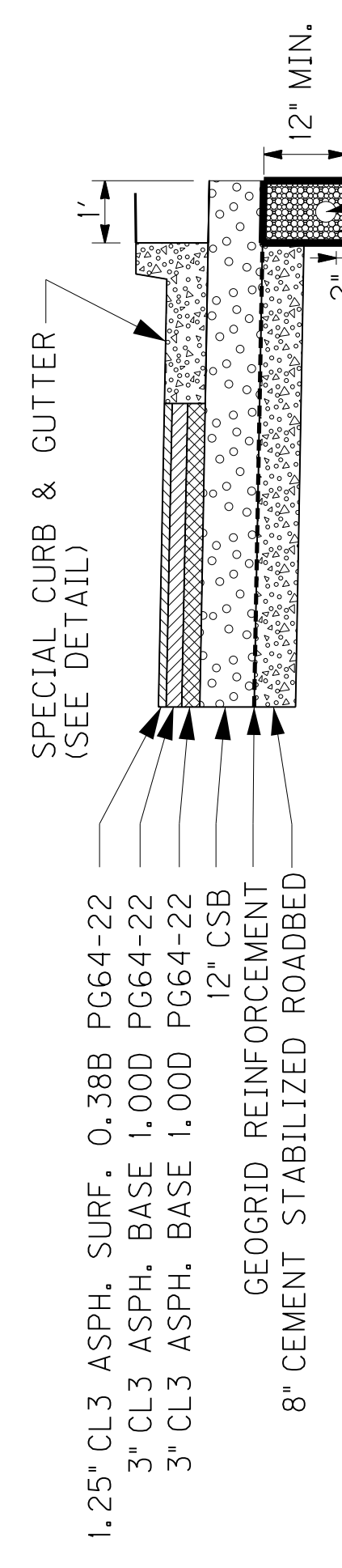
- PAVEMENT DESIGN ALTERNATE NO. 1**
- KY 237 & APPROACH ROADS
- ROADBED PREPARATION
- 8" CEMENT STABILIZED ROADBED
 - 6% CEMENT (106 LBS/CF)
 - ASPHALT CURING SEAL (2.0 LB/SY)
 - SAND FOR BLOTTER (5.0 LB/SY)
- TRAFFIC LANES
- 6" CRUSHED STONE BASE
 - 4.5" CL3 ASPHALT SURFACE 0.38B PG64-22
 - 3.75" CL3 ASPHALT SURFACE 0.38B PG64-22
 - 3" CL3 ASPHALT SURFACE 0.38B PG64-22
 - 1.25" CL3 ASPHALT SURFACE 0.38B PG64-22
- OVERLAY
- ASPHALT PAVEMENT MILLING & OVERLAY
 - 1.25" CL3 ASPHALT SURFACE 0.38B PG 64-22
- URBAN SHOULDERS
- STANDARD CURB & GUTTER

- PAVEMENT DESIGN ALTERNATE NO. 2**
- KY 237 & APPROACH ROADS
- ROADBED PREPARATION
- 8" CEMENT STABILIZED ROADBED
 - 6% CEMENT (106 LBS/CF)
 - ASPHALT CURING SEAL (2.0 LB/SY)
 - SAND FOR BLOTTER (5.0 LB/SY)
- TRAFFIC LANES
- 6" CRUSHED STONE BASE
 - 4.5" CL3 ASPHALT SURFACE 0.38B PG64-22
 - 3.75" CL3 ASPHALT SURFACE 0.38B PG64-22
 - 3" CL3 ASPHALT SURFACE 0.38B PG64-22
 - 1.25" CL3 ASPHALT SURFACE 0.38B PG64-22
- OVERLAY
- ASPHALT PAVEMENT MILLING & OVERLAY
 - 1.25" CL3 ASPHALT SURFACE 0.38B PG 64-22
- URBAN SHOULDERS
- STANDARD CURB & GUTTER

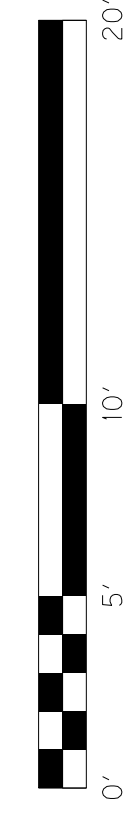
TYPICAL RIGHT TURN LANE WIDENING (SEE PLANS)



**DETAIL "A"
PAVEMENT ALT. NO. 1
N.T.S.**



**DETAIL "A"
PAVEMENT ALT. NO. 2
N.T.S.**



KY 237
TYPICAL SECTIONS

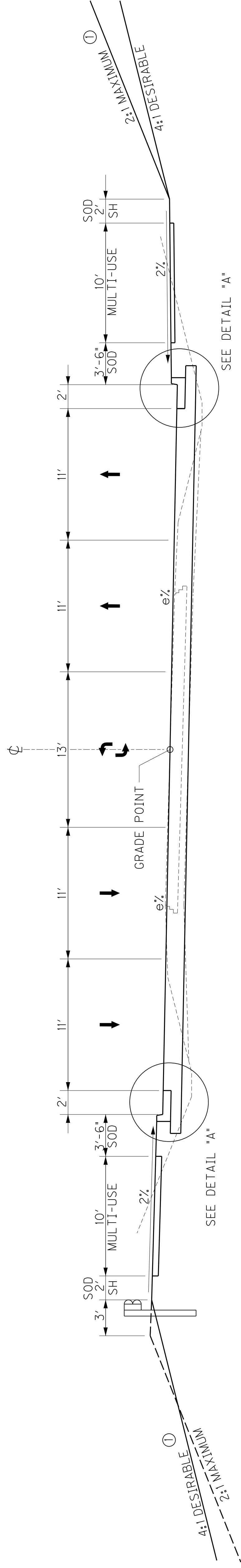
TYPICAL SECTION

THE EARTHWORK QUANTITIES SHOWN IN THE PLANS ARE BASED ON ASPHALT PAVEMENT ALTERNATE NO. 1 TYPICAL SECTION. IF ALTERNATE NO. 2 IS SELECTED, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST THE EARTHWORK TO CONSTRUCT TO THE PROFILE GRADE SHOWN IN THE PLANS. PAYMENT FOR EXCAVATION AND/OR EMBANKMENT WILL BE BASED ON PLAN QUANTITIES.

① SEE CROSS-SECTIONS FOR SLOPES OUTSIDE THE LIMITS OF THE SHOULDER

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-8001.21	R2

REVISED 7-19-18

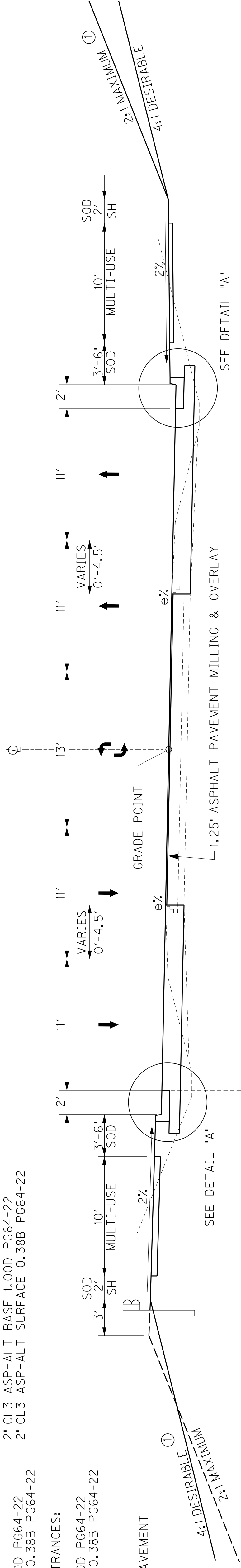


**KY 237 SUPERELEVATED 5-LANE SECTION
STA. 80 + 34.87 TO STA. 95 + 31.66**

- MULTI-USE PATH**
- 4" CRUSHED STONE BASE
 - 2" CL3 ASPHALT SURFACE 0.38B PG64-22
- UNDER ENTRANCES (SEE DETAIL "E")**
- 4" CRUSHED STONE BASE
 - 2" CL3 ASPHALT BASE 1.00D PG64-22
 - 2" CL3 ASPHALT SURFACE 0.38B PG64-22

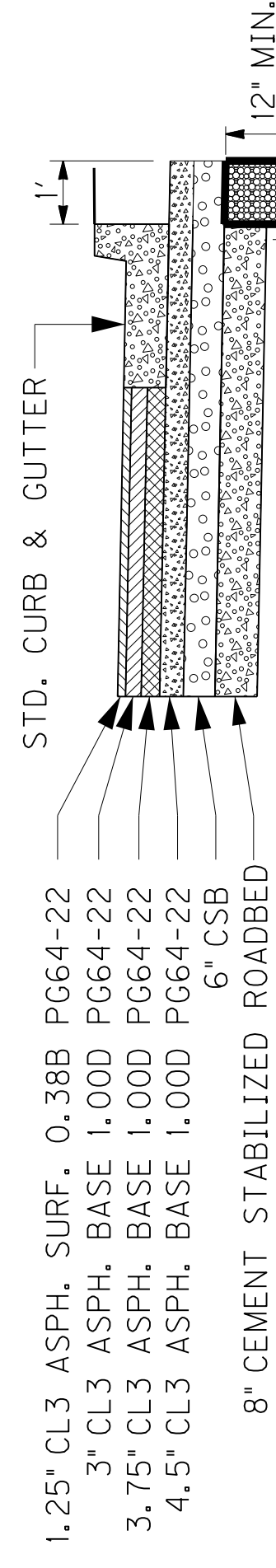
- ENTRANCE CONSTRUCTION**
- GRAVEL ENTRANCES:
 - 4" TRAFFIC BOUND BASE
- COMMERCIAL ENTRANCES:**
- 6" CRUSHED STONE BASE
 - 2" CL3 ASPHALT BASE 1.00D PG64-22
 - 2" CL3 ASPHALT SURFACE 0.38B PG64-22

- RESIDENTIAL ASPHALT ENTRANCES:**
- 4" CRUSHED STONE BASE
 - 2" CL3 ASPHALT BASE 1.00D PG64-22
 - 2" CL3 ASPHALT SURFACE 0.38B PG64-22
- CONCRETE ENTRANCES:**
- 4" CRUSHED STONE BASE
 - 8" NON-REINFORCED JPC PAVEMENT



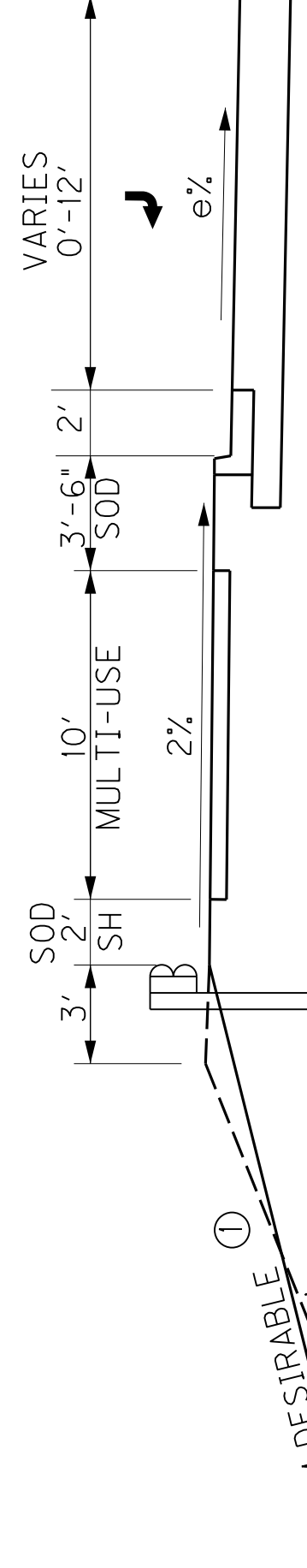
**KY 237 SUPERELEVATED 5-LANE SECTION
STA. 72 + 60.30 TO STA. 80 + 34.87**

* NOTE: FROM STA. 73+00 TO STA. 75+92.50 EXISTING PAVEMENT TAPERS TO 2-LANE ROADWAY



**DETAIL "A"
PAVEMENT ALT. NO. 1
N.T.S.**

TYPICAL RIGHT TURN LANE WIDENING (SEE PLANS)



PAVEMENT DESIGN ALTERNATE NO. 2

KY 237 & APPROACH ROADS

- ROADBED PREPARATION**
- 8" CEMENT STABILIZED ROADBED
 - 6% CEMENT (106 LBS/CF)
 - ASPHALT CURING SEAL (2.0 LB/SY)
 - SAND FOR BLOTTER (5.0 LB/SY)

- TRAFFIC LANES**
- 6" CRUSHED STONE BASE
 - 4.5" CL3 ASPHALT BASE 1.00D PG64-22
 - 3.75" CL3 ASPHALT BASE 1.00D PG64-22
 - 3" CL3 ASPHALT BASE 1.00D PG64-22
 - 1.25" CL3 ASPHALT SURFACE 0.38B PG64-22

- OVERLAY**
- ASPHALT PAVEMENT MILLING & OVERLAY
 - 1.25" CL3 ASPHALT SURFACE 0.38B PG 64-22

- URBAN SHOULDERS & GUTTER**
- URBAN SHOULDERS
 - STANDARD CURB & GUTTER

PAVEMENT DESIGN ALTERNATE NO. 1

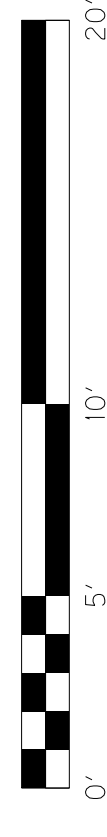
KY 237 & APPROACH ROADS

- ROADBED PREPARATION**
- 8" CEMENT STABILIZED ROADBED
 - CEMENT 6% AREA (106 LBS/CF)
 - ASPHALT CURING SEAL (2.0 LB/SY)
 - SAND FOR BLOTTER (5.0 LB/SY)

- TRAFFIC LANES**
- 6" CRUSHED STONE BASE
 - 4.5" CL3 ASPHALT BASE 1.00D PG64-22
 - 3.75" CL3 ASPHALT BASE 1.00D PG64-22
 - 3" CL3 ASPHALT BASE 1.00D PG64-22
 - 1.25" CL3 ASPHALT SURFACE 0.38B PG64-22

- OVERLAY**
- ASPHALT PAVEMENT MILLING & OVERLAY
 - 1.25" CL3 ASPHALT SURFACE 0.38B PG 64-22

- URBAN SHOULDERS & GUTTER**
- URBAN SHOULDERS
 - STANDARD CURB & GUTTER



**DETAIL "A"
PAVEMENT ALT. NO. 2
N.T.S.**

KY 237
TYPICAL SECTIONS

TYPICAL SECTION

PAVEMENT DESIGN ALTERNATE NO. 1
 CAMP ERNST ROAD

ROADBED PREPARATION
 8" CEMENT STABILIZED ROADBED
 6% CEMENT (106 LBS/CF)
 ASPHALT CURING SEAL (2.0 LB/SY)
 SAND FOR BLOTTER (5.0 LB/SY)

TRAFFIC LANES
 6" CRUSHED STONE BASE
 4.5" CL3 ASPHALT BASE 1,000 PG64-22
 3.75" CL3 ASPHALT BASE 1,000 PG64-22
 3" CL3 ASPHALT BASE 1,000 PG64-22
 1.25" CL3 ASPHALT SURFACE 0.38B PG64-22

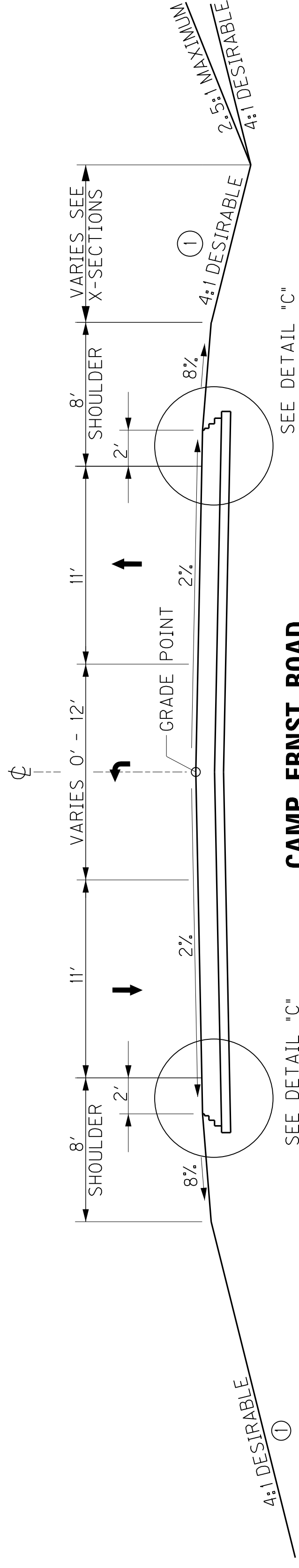
RURAL SHOULDERS

PAVEMENT DESIGN ALTERNATE NO. 2
 CAMP ERNST ROAD

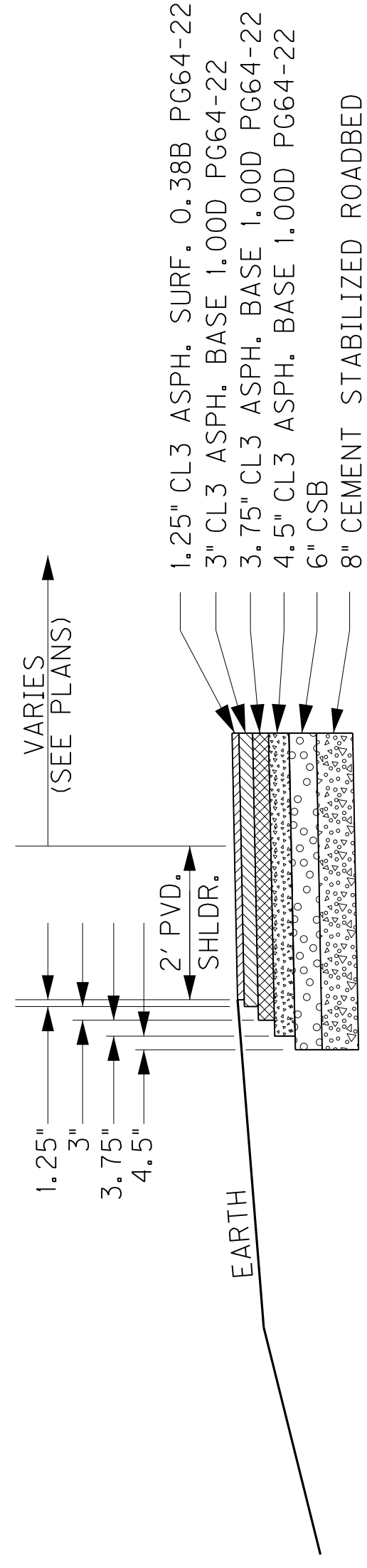
ROADBED PREPARATION
 8" CEMENT STABILIZED ROADBED
 6% CEMENT (106 LBS/CF)
 ASPHALT CURING SEAL (2.0 LB/SY)
 SAND FOR BLOTTER (5.0 LB/SY)

TRAFFIC LANES
 GEOGRID REINFORCEMENT
 12" CRUSHED STONE BASE
 3" CL3 ASPHALT BASE 1,000 PG64-22
 3" CL3 ASPHALT BASE 1,000 PG64-22
 1.25" CL3 ASPHALT SURFACE 0.38B PG64-22

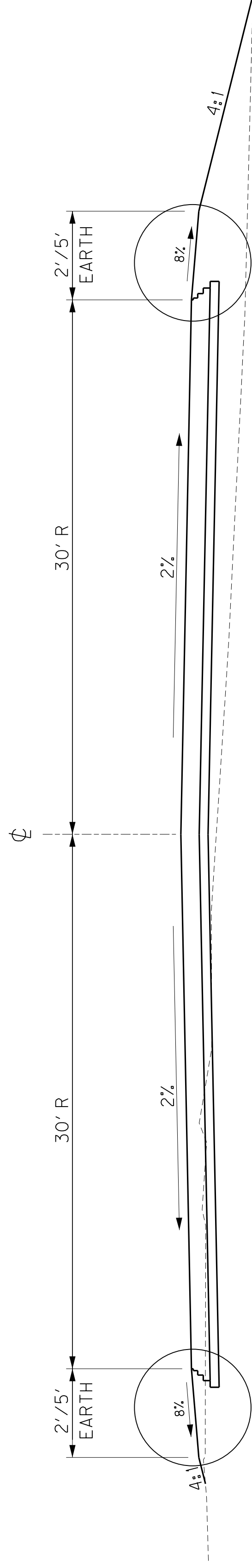
RURAL SHOULDERS



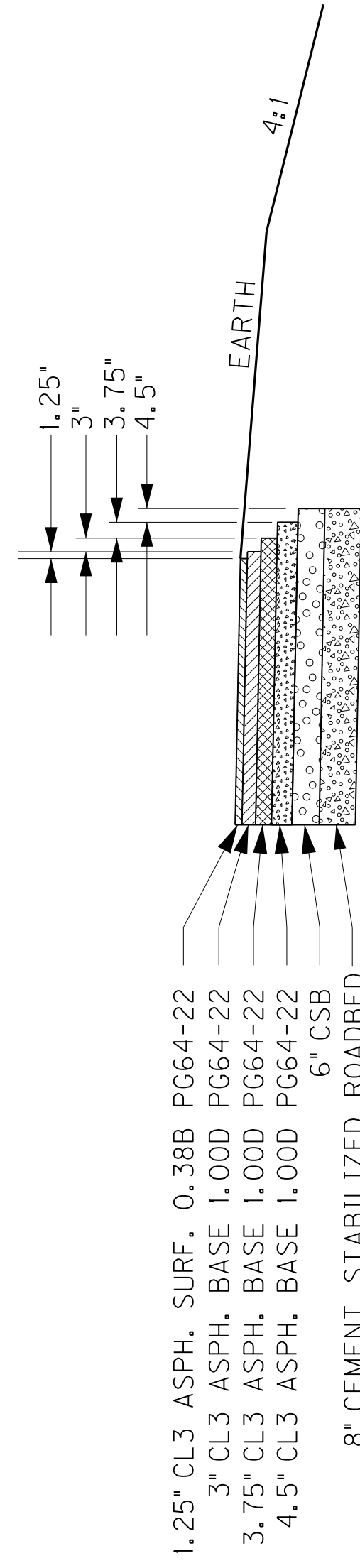
**CAMP ERNST ROAD
 NORMAL 3-LANE SECTION
 STA. 43 + 90 TO STA. 50 + 00**



**DETAIL "C"
 FULL DEPTH PAVED RURAL SHOULDER
 N.T.S.**



CUL-DE SAC DETAIL



**DETAIL "D"
 EARTH SHOULDER
 N.T.S.**

PAVEMENT DESIGN ALTERNATE NO. 1
 CUL-DE-SAC

ROADBED PREPARATION
 8" CEMENT STABILIZED ROADBED
 6% CEMENT (106 LBS/CF)
 ASPHALT CURING SEAL (2.0 LB/SY)
 SAND FOR BLOTTER (5.0 LB/SY)

TRAFFIC LANES
 6" CRUSHED STONE BASE
 4.5" CL3 ASPHALT BASE 1,000 PG64-22
 3.75" CL3 ASPHALT BASE 1,000 PG64-22
 3" CL3 ASPHALT BASE 1,000 PG64-22
 1.25" CL3 ASPHALT SURFACE 0.38B PG64-22

EARTH SHOULDERS

PAVEMENT DESIGN ALTERNATE NO. 2
 CUL-DE-SAC

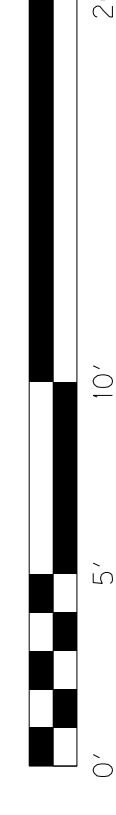
ROADBED PREPARATION
 8" CEMENT STABILIZED ROADBED
 6% CEMENT (106 LBS/CF)
 ASPHALT CURING SEAL (2.0 LB/SY)
 SAND FOR BLOTTER (5.0 LB/SY)

TRAFFIC LANES
 GEOGRID REINFORCEMENT
 12" CRUSHED STONE BASE
 3" CL3 ASPHALT BASE 1,000 PG64-22
 3" CL3 ASPHALT BASE 1,000 PG64-22
 1.25" CL3 ASPHALT SURFACE 0.38B PG64-22

EARTH SHOULDERS

SOME DETAILS ON THESE TYPICAL SECTIONS MAY INDICATE THE USE OF PAVEMENT ALT. NO. 1 ONLY. SHOULD PAVEMENT ALT. NO. 2 BE CHOSEN, THE CONTRACTOR SHALL SUBSTITUTE THE APPLICABLE DEPTHS AND DIMENSIONS.

CAMP ERNST ROAD AND CUL-DE-SAC
 TYPICAL SECTIONS



SEE CROSS-SECTIONS FOR SLOPES OUTSIDE THE LIMITS OF THE SHOULDER

TYPICAL SECTION

PAVEMENT DESIGN ALTERNATE NO. 1
 CAMP ERNST ROAD

ROADBED PREPARATION
 8" CEMENT STABILIZED ROADBED
 6% CEMENT (106 LBS/CF)
 ASPHALT CURING SEAL (2.0 LB/SY)
 SAND FOR BLOTTER (5.0 LB/SY)

TRAFFIC LANES
 6" CRUSHED STONE BASE
 4.5" CL3 ASPHALT BASE 1,000 PG64-22
 3.75" CL3 ASPHALT BASE 1,000 PG64-22
 3" CL3 ASPHALT BASE 1,000 PG64-22
 1.25" CL3 ASPHALT SURFACE 0.38B PG64-22

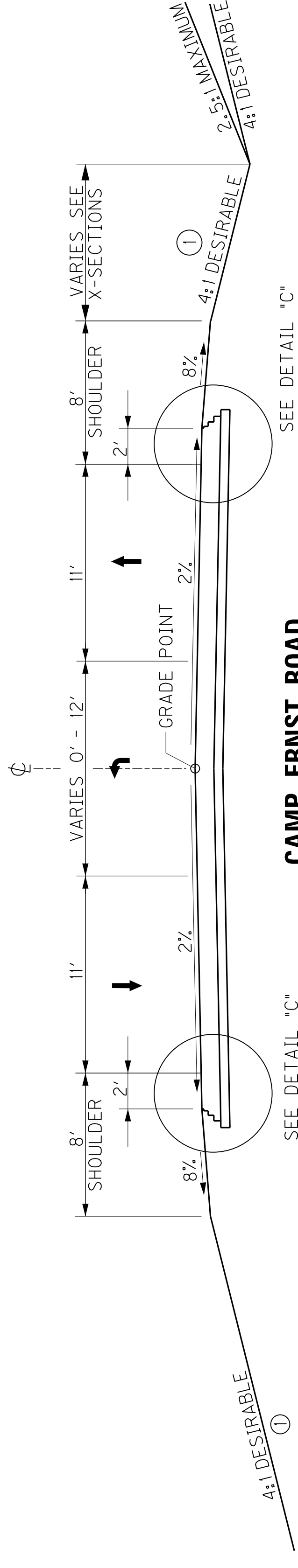
RURAL SHOULDERS

PAVEMENT DESIGN ALTERNATE NO. 2
 CAMP ERNST ROAD

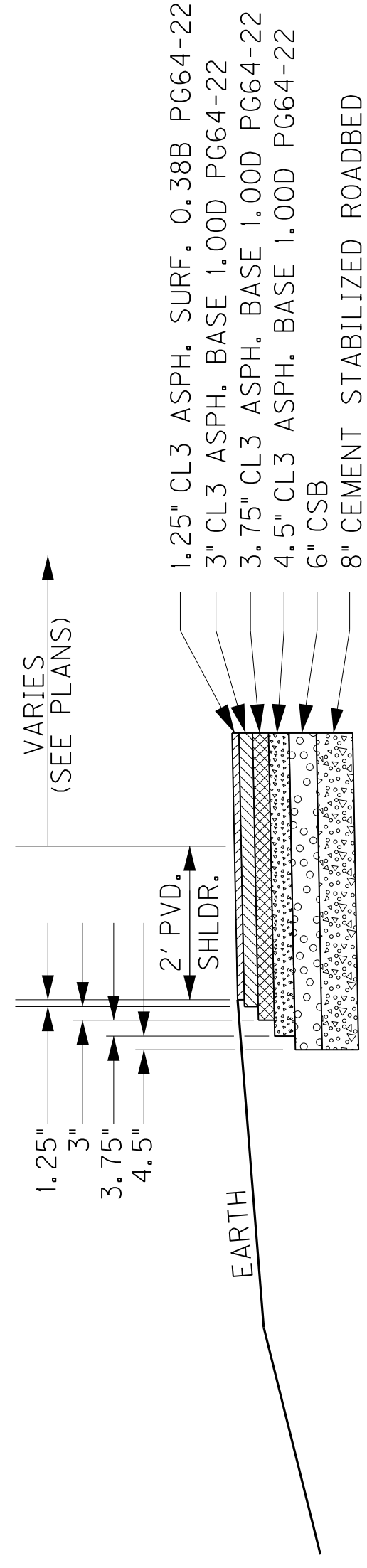
ROADBED PREPARATION
 8" CEMENT STABILIZED ROADBED
 6% CEMENT (106 LBS/CF)
 ASPHALT CURING SEAL (2.0 LB/SY)
 SAND FOR BLOTTER (5.0 LB/SY)

TRAFFIC LANES
 GEORGRID REINFORCEMENT
 12" CRUSHED STONE BASE
 3" CL3 ASPHALT BASE 1,000 PG64-22
 3" CL3 ASPHALT BASE 1,000 PG64-22
 1.25" CL3 ASPHALT SURFACE 0.38B PG64-22

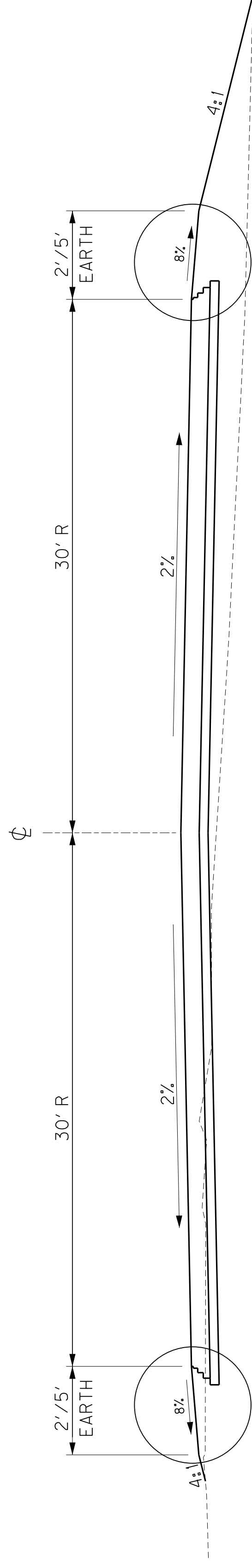
RURAL SHOULDERS



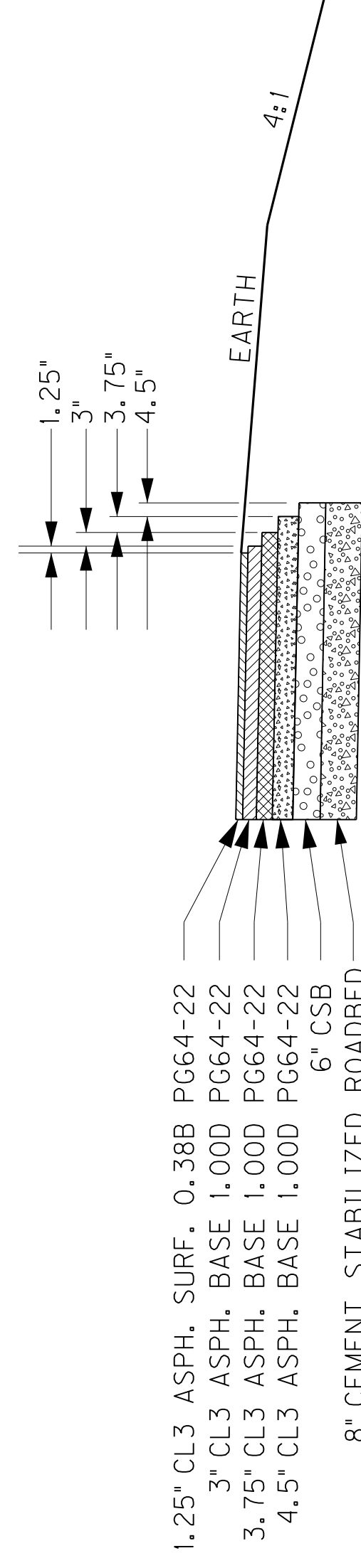
**CAMP ERNST ROAD
 NORMAL 3-LANE SECTION
 STA. 43 + 90 TO STA. 50 + 00**



**DETAIL "C"
 FULL DEPTH PAVED RURAL SHOULDER
 N.T.S.**



CUL-DE SAC DETAIL



**DETAIL "D"
 EARTH SHOULDER
 N.T.S.**

SEE CROSS-SECTIONS FOR SLOPES
 OUTSIDE THE LIMITS OF THE SHOULDER

PAVEMENT DESIGN ALTERNATE NO. 1
 CUL-DE-SAC

ROADBED PREPARATION
 8" CEMENT STABILIZED ROADBED
 6% CEMENT (106 LBS/CF)
 ASPHALT CURING SEAL (2.0 LB/SY)
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TRAFFIC LANES
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 3" CL3 ASPHALT BASE 1,000 PG64-22
 1.25" CL3 ASPHALT SURFACE 0.38B PG64-22

EARTH SHOULDERS

PAVEMENT DESIGN ALTERNATE NO. 2
 CUL-DE-SAC

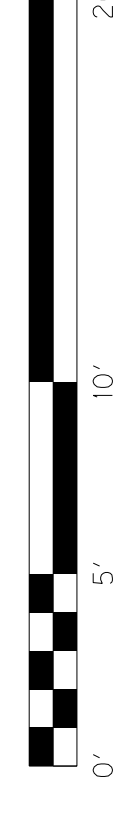
ROADBED PREPARATION
 8" CEMENT STABILIZED ROADBED
 6% CEMENT (106 LBS/CF)
 ASPHALT CURING SEAL (2.0 LB/SY)
 SAND FOR BLOTTER (5.0 LB/SY)

TRAFFIC LANES
 GEORGRID REINFORCEMENT
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EARTH SHOULDERS

SOME DETAILS ON THESE TYPICAL SECTIONS MAY INDICATE THE USE OF PAVEMENT ALT. NO. 1 ONLY. SHOULD PAVEMENT ALT. NO. 2 BE CHOSEN, THE CONTRACTOR SHALL SUBSTITUTE THE APPLICABLE DEPTHS AND DIMENSIONS.

CAMP ERNST ROAD AND CUL-DE-SAC
 TYPICAL SECTIONS



GENERAL SUMMARY

ITEM	DESCRIPTION	UNIT	KY 237	THUNDER RIDGE DRIVE	CARTERS MILL / OAKBROOK	CAMP ERNST ROAD	BLUE STEM EXTENSION	MOT	PROJECT TOTALS
21	DRAINAGE BLANKET - EMBANKMENT	CY	3,137	0	0	0	0		3,137
1000	PERFORATED PIPE - 4 INCH	LF	33,722	0	0	0	0		33,722
1010	NON-PERFORATED PIPE - 4 INCH	LF	96	0	0	0	0		96
1020	PERFORATED PIPE HEADWALL TYPE 1-4"	EACH	1	0	0	0	0		1
1024	PERFORATED PIPE HEADWALL TYPE 2-4"	EACH	2	0	0	0	0		2
1028	PERFORATED PIPE HEADWALL TYPE 3-4"	EACH	4	0	0	0	0		4
1875	STANDARD HEADER CURB	LF	1,584	0	0	268	0		1,852
1890	ISLAND HEADER CURB TYPE 1	LF	438	0	0	0	0		438
2091	REMOVE PAVEMENT	SOYD	1,346	0	0	0	0		1,346
2159	TEMPORARY DITCH	LF	7,887	75	160	305	127		8,554
2160	CLEAN TEMPORARY DITCH	LF	3,944	38	80	153	64		4,279
78	CRUSHED AGGREGATE SIZE NO. 2	TON	2,287	0	0	0	0		2,287
23649EC	DRAIN POND	EACH	3	0	0	0	0		3
2230	EMBANKMENT IN PLACE	CUYD	242,795	289	0	1,050	41		273,799
2242	WATER	MGAL	598	5	12	23	10		648
2274	FENCE-6 FT CHAIN LINK	LF	842	0	0	0	0		842
2287	DBL. VEHICULAR CHAIN LINK GATE (10' WIDE)	EACH	1	0	0	0	0		1
2351	GUARDRAIL-STEEL W BEAM-S FACE	LF	5,412.5	0	0	0	0		5,412.5
2360	GUARDRAIL TERMINAL SECTION NO 1	EACH	2	0	0	0	0		2
2363	GUARDRAIL CONNECTOR TO BRIDGE END TY A	EACH	4	0	0	0	0		4
2367	GUARDRAIL END TREATMENT TYPE 1	EACH	5	0	0	0	0		5
2381	REMOVE GUARDRAIL	LF	0	0	0	50	0		50
2391	GUARDRAIL END TREATMENT TYPE 4A	EACH	19	0	0	0	0		19
2429	RIGHT-OF-WAY MONUMENT TYPE 1	EACH	114	0	0	6	6		126
2432	WITNESS POST	EACH	3	0	0	0	0		3
2484	CHANNEL LINING CLASS III	TON	933	0	0	0	0		1315
23274ENIIF	TURF REINFORCEMENT MAT 1	SOYD	5,178	0	0	68	0		5,246
23275ENIIF	TURF REINFORCEMENT MAT 2	SOYD	795	0	0	0	0		795
23276ENIIF	TURF REINFORCEMENT MAT 3	SOYD	351	0	0	0	0		351
2545	CLEARING AND GRUBBING	LS							1
2568	MOBILIZATION	LS							1
2569	DEMobilIZATION	LS							1
2585	EDGE KEY	LF	96	30	64	20	0		210
2599	FABRIC-GEOTEXTILE TYPE IV	SOYD	51,561	0	0	0	0		51,561
2650	MAINTAIN & CONTROL TRAFFIC	LS							1
2671	PORTABLE CHANGEABLE MESSAGE SIGN	EACH							4
2703	SILT TRAP TYPE A	EACH							72
2704	SILT TRAP TYPE B	EACH							72
2705	SILT TRAP TYPE C	EACH							72
2706	CLEAN SILT TRAP TYPE A	EACH							72
2707	CLEAN SILT TRAP TYPE B	EACH							72
2708	CLEAN SILT TRAP TYPE C	EACH							72
2726	STAKING	LS							1
2775	FLASHING ARROW	EACH	2	0	0	0	0		2
5950	EROSION CONTROL BLANKET	SOYD	5,480	0	0	678	-		6,158
5952	TEMPORARY MULCH	SOYD							233,578
5953	TEMP SEEDING AND PROTECTION	SOYD							175,184
5963	INITIAL FERTILIZER	TON							6.9
5964	20-10-10 FERTILIZER	TON							11.5
5985	SEEDING AND PROTECTION	SOYD							198,270
5990	SODDING	SOYD	17,457	118	145	0	210		17,930
5992	AGRICULTURAL LIMESTONE	TON							138.0
23626FC	DETENTION BASIN - STA. 101+56.57	LS	1	0	0	0	0		1
23626EC	DETENTION BASIN - STA. 194+55.35	LS	1	0	0	0	0		1
2676	MOBILIZATION FOR MILL & TEXT	LS							1

NOTES:

- APPROXIMATELY 72.39 ACRES
- FOR CONTROLLING DUST CAUSED BY MAINTAINING TRAFFIC ONLY (200 MGAL/MILE)
- EARTHWORK

EXCAVATION
178,121 C.Y. COM FROM CROSS SECTIONS 15
7,599 C.Y. RDZ 4
18,233 C.Y. TRANSVERSE BENCHING 4
10,222 C.Y. EMB. FOUND. BENCHING 4
214,175 C.Y. TOTAL
EMBANKMENT
244,175 C.Y. EMB FROM CROSS SECTIONS
1,169 C.Y. REFILL 12
18,233 C.Y. TRANSVERSE BENCHING 4
10,222 C.Y. EMB. FOUND. BENCHING 4
273,799 C.Y. TOTAL
- ESTIMATE FOR EARTHWORK CALCULATIONS FOR DESIGN ONLY. COMMON IS CONSIDERED THE AREA ABOVE THE RDZ LINE AS SHOWN ON THE CROSS-SECTIONS. THE CONTRACTOR IS ADVISED THAT THE EARTHWORK CALCULATIONS SHOWN ARE FOR INFORMATION ONLY. ASSUMPTIONS FOR SHRINKAGE FACTORS ARE THE CONTRACTOR'S RESPONSIBILITY.
- SEE GEOTECHNICAL REPORT FOR LOCATIONS.
- INCLUDES 7 TONS FROM PERFORATED PIPE SUMMARY SHEET. SEE GEOTECHNICAL REPORT NOTE 16 FOR LOCATION.
- TOTAL INCLUDES 382 TONS FROM PIPE DRAINAGE SUMMARY SHEET.
- FOR FOUNDATION EMBANKMENT BENCHES. SEE GEOTECHNICAL REPORT NOTE 15 FOR LOCATION. ESTIMATED QUANTITIES:
3,137 CY DRAINAGE BLANKET - EMB
18,182 SY FABRIC - GEOTEXTILE TYPE IV
- FOR EMBANKMENT STABILITY AT STRUCTURE SEE GEOTECHNICAL REPORT NOTE 10 FOR LOCATION. ESTIMATED QUANTITIES:
874 TONS CRUSHED AGGREGATE SIZE NO. 2
7,276 SY FABRIC - GEOTEXTILE TYPE IV
- ASSUME CONSTRUCTION PERIOD OF 2 SEASONS.
- FOR POND STABILIZATION. SEE GEOTECHNICAL REPORT NOTE 20 FOR LOCATION.
- THIS VALUE PROVIDES FOR 1' OF UNDERCUT IN SHALE AREAS.
- INCLUDES 295 TONS FOR SPILL-THRU STABILITY SEE GEOTECHNICAL REPORT NOTE 11 FOR LOCATION.
- SEE GEOTECHNICAL REPORT NOTE 21 FOR LOCATIONS.
- INCLUDES 668 CY COM FROM CUL-DE-SACS
- FOR SOFT AND/OR SATURATED SOILS. SEE GEOTECHNICAL NOTE NO. 12. ESTIMATED QUANTITIES:
256 TONS CRUSHED AGGREGATE SIZE NO. 2
5,375 SY FABRIC - GEOTEXTILE TYPE IV
- FOR CROSS-OVERS, TIE-INS, ENTRANCES, ETC. SEE GEOTECHNICAL NOTE NO. 7. ESTIMATED QUANTITIES:
250 TONS CRUSHED AGGREGATE SIZE NO. 2
8,730 SY FABRIC - GEOTEXTILE TYPE IV

GENERAL SUMMARY

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-8001.21	R2f

ITEM	DESCRIPTION	UNIT	KY 237	THUNDER RIDGE DRIVE	CARTERS MILL / OAKBROOK	CAMP ERNST ROAD	BLUE STEM EXTENSION	MOT	PROJECT TOTALS
21	DRAINAGE BLANKET - EMBANKMENT	CY	3,137	0	0	0	0		3,137
1000	PERFORATED PIPE - 4 INCH	LF	33,722	0	0	0	0		33,722
1010	NON-PERFORATED PIPE - 4 INCH	LF	96	0	0	0	0		96
1020	PERFORATED PIPE HEADWALL TYPE 1-4"	EACH	1	0	0	0	0		1
1024	PERFORATED PIPE HEADWALL TYPE 2-4"	EACH	2	0	0	0	0		2
1028	PERFORATED PIPE HEADWALL TYPE 3-4"	EACH	4	0	0	0	0		4
1875	STANDARD HEADER CURB	LF	1,584	0	0	268	0		1,852
1890	ISLAND HEADER CURB TYPE 1	LF	438	0	0	0	0		438
2091	REMOVE PAVEMENT	SOYD	1,346	0	0	0	0		1,346
2159	TEMPORARY DITCH	LF	7,887	75	160	305	127		8,554
2160	CLEAN TEMPORARY DITCH	LF	3,944	38	80	153	64		4,279
78	CRUSHED AGGREGATE SIZE NO. 2	TON	2,287	0	0	0	0		2,287
23649EC	DRAIN POND	EACH	3	0	0	0	0		3
2230	EMBANKMENT IN PLACE	CUYD	242,795	289	0	1,050	41		273,799
2242	WATER	MGAL	598	5	12	23	10		648
2274	FENCE-6 FT CHAIN LINK	LF	842	0	0	0	0		842
2287	DBL. VEHICULAR CHAIN LINK GATE (10' WIDE)	EACH	1	0	0	0	0		1
2351	GUARDRAIL-STEEL W BEAM-S FACE	LF	5,412.5	0	0	0	0		5,412.5
2360	GUARDRAIL TERMINAL SECTION NO 1	EACH	2	0	0	0	0		2
2363	GUARDRAIL CONNECTOR TO BRIDGE END TY A	EACH	4	0	0	0	0		4
2367	GUARDRAIL END TREATMENT TYPE 1	EACH	5	0	0	0	0		5
2381	REMOVE GUARDRAIL	LF	0	0	0	50	0		50
2391	GUARDRAIL END TREATMENT TYPE 4A	EACH	19	0	0	0	0		19
2429	RIGHT-OF-WAY MONUMENT TYPE 1	EACH	114	0	0	6	6		126
2432	WITNESS POST	EACH	3	0	0	0	0		3
2484	CHANNEL LINING CLASS III	TON	933	0	0	0	0		933
23274ENIIF	TURF REINFORCEMENT MAT 1	SOYD	5,178	0	0	68	0		5,246
23275ENIIF	TURF REINFORCEMENT MAT 2	SOYD	795	0	0	0	0		795
23276ENIIF	TURF REINFORCEMENT MAT 3	SOYD	351	0	0	0	0		351
2545	CLEARING AND GRUBBING	LS							1
2568	MOBILIZATION	LS							1
2569	DEMobilIZATION	LS							1
2585	EDGE KEY	LF	96	30	64	20	0		210
2599	FABRIC-GEOTEXTILE TYPE IV	SOYD	51,561	0	0	0	0		51,561
2650	MAINTAIN & CONTROL TRAFFIC	LS							1
2671	PORTABLE CHANGEABLE MESSAGE SIGN	EACH							4
2703	SILT TRAP TYPE A	EACH							72
2704	SILT TRAP TYPE B	EACH							72
2705	SILT TRAP TYPE C	EACH							72
2706	CLEAN SILT TRAP TYPE A	EACH							72
2707	CLEAN SILT TRAP TYPE B	EACH							72
2708	CLEAN SILT TRAP TYPE C	EACH							72
2726	STAKING	LS							1
2775	FLASHING ARROW	EACH	2	0	0	0	0		2
5950	EROSION CONTROL BLANKET	SOYD	5,480	0	0	678	-		6,158
5952	TEMPORARY MULCH	SOYD							233,578
5953	TEMP SEEDING AND PROTECTION	SOYD							175,184
5963	INITIAL FERTILIZER	TON							6.9
5964	20-10-10 FERTILIZER	TON							11.5
5985	SEEDING AND PROTECTION	SOYD							198,270
5990	SODDING	SOYD	17,457	118	145	0	210		17,930
5992	CRUSHED GRANITE	TON							138.0
23626FC	DETENTION BASIN - STA. 101+56.57	LS	1	0	0	0	0		1
23626EC	DETENTION BASIN - STA. 194+55.35	LS	1	0	0	0	0		1
2676	MOBILIZATION FOR MILL & TEXT	LS							1

NOTES:

- ① APPROXIMATELY 72.39 ACRES
 - ② FOR CONTROLLING DUST CAUSED BY MAINTAINING TRAFFIC ONLY (200 MGAL/MILE)
 - ③ EARTHWORK
- | | |
|------------|--|
| EXCAVATION | 178,121 C.Y. COM FROM CROSS SECTIONS ⑤ |
| | 7,599 C.Y. RDZ ④ |
| | 18,233 C.Y. TRANSVERSE BENCHING ④ |
| | 10,222 C.Y. EMB. FOUND. BENCHING ④ |
| | 214,175 C.Y. TOTAL |
| EMBANKMENT | |
| | 244,175 C.Y. EMB FROM CROSS SECTIONS |
| | 1,169 C.Y. REFILL ⑫ |
| | 18,233 C.Y. TRANSVERSE BENCHING ④ |
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- ESTIMATE FOR EARTHWORK CALCULATIONS FOR DESIGN ONLY. COMMON IS CONSIDERED THE AREA ABOVE THE RDZ LINE AS SHOWN ON THE CROSS-SECTIONS. THE CONTRACTOR IS ADVISED THAT THE EARTHWORK CALCULATIONS SHOWN ARE FOR INFORMATION ONLY. ASSUMPTIONS FOR SHRINKAGE FACTORS ARE THE CONTRACTOR'S RESPONSIBILITY.
- ④ SEE GEOTECHNICAL REPORT FOR LOCATIONS.
 - ⑤ INCLUDES 7 TONS FROM PERFORATED PIPE SUMMARY SHEET. SEE GEOTECHNICAL REPORT NOTE 16 FOR LOCATION.
 - ⑥ TOTAL INCLUDES 382 TONS FROM PIPE DRAINAGE SUMMARY SHEET.
 - ⑦ FOR FOUNDATION EMBANKMENT BENCHES. SEE GEOTECHNICAL REPORT NOTE 15 FOR LOCATION. ESTIMATED QUANTITIES:
3,137 CY DRAINAGE BLANKET - EMB
18,182 SY FABRIC - GEOTEXTILE TYPE IV
 - ⑧ FOR EMBANKMENT STABILITY AT STRUCTURE SEE GEOTECHNICAL REPORT NOTE 10 FOR LOCATION. ESTIMATED QUANTITIES:
874 TONS CRUSHED AGGREGATE SIZE NO. 2
7,276 SY FABRIC - GEOTEXTILE TYPE IV
 - ⑨ ASSUME CONSTRUCTION PERIOD OF 2 SEASONS.
 - ⑩ FOR POND STABILIZATION. SEE GEOTECHNICAL REPORT NOTE 20 FOR LOCATION.
 - ⑪ THIS VALUE PROVIDES FOR 1' OF UNDERCUT IN SHALE AREAS.
 - ⑫ INCLUDES 295 TONS FOR SPILL-THRU STABILITY SEE GEOTECHNICAL REPORT NOTE 11 FOR LOCATION.
 - ⑬ SEE GEOTECHNICAL REPORT NOTE 21 FOR LOCATIONS.
 - ⑭ INCLUDES 668 CY COM FROM CUL-DE-SACS
 - ⑮ FOR SOFT AND/OR SATURATED SOILS. SEE GEOTECHNICAL NOTE NO. 12. ESTIMATED QUANTITIES:
256 TONS CRUSHED AGGREGATE SIZE NO. 2
5,375 SY FABRIC - GEOTEXTILE TYPE IV
 - ⑯ FOR CROSS-OVERS, TIE-INS, ENTRANCES, ETC. SEE GEOTECHNICAL NOTE NO. 7. ESTIMATED QUANTITIES:
250 TONS CRUSHED AGGREGATE SIZE NO. 2
8,730 SY FABRIC - GEOTEXTILE TYPE IV

GENERAL SUMMARY

NOTES:

- Ⓐ SEE GENERAL NOTES SHEET R2m
- Ⓑ FOR UTILITY ABANDONMENT

ITEM	DESCRIPTION	UNIT	KY 237	THUNDER RIDGE DRIVE	CARTERS MILL / OAKBROOK	CAMP ERNST ROAD	BLUE STEM EXTENSION	MOT	PROJECT TOTALS
6510	PAVE STRIPING-TEMP PAINT-4 IN	LF	99,660	0	0	1,800	0		101,460
6514	PAVE STRIPING-PERM PAINT-4 IN	LF	78,933	0	557	2,540	747		82,777
6516	PAVE STRIPING-PERM PAINT-8 IN	LF	3,067	0	0	201	0		3,268
23791EC	PAVE STRIPING-CHEVRON MARKINGS	SOFT	1,298	0	0	0	0		1,298
6565	PAVE MARKING-THERMO X-WALK-6 INCH	LF	1,248	95	226	83	70		1,722
6568	PAVE MARKING-THERMO STOP BAR-24IN	LF	392	12	40	89	11		544
6570	PAVE MARKING-THERMO CROSS-HATCH	SOFT	2,291	0	0	681	0		2,972
6572	PAVE MARKING-DOTTED LANE EXTEN	LF	440	0	0	0	0		440
6573	PAVE MARKING-THERMO STR ARROW	EACH	1	0	0	0	0		1
6574	PAVE MARKING-THERMO CURV ARROW	EACH	45	0	0	0	0		45
6575	PAVE MARKING-THERMO COMB ARROW	EACH	7	0	0	0	0		7
6589	PAVEMENT MARKER TYPE V-MW	EACH	431	0	0	0	0		431
6591	PAVEMENT MARKER TYPE V-BY	EACH	783	0	0	0	0		783
24845EC	UTILITY COORDINATION	LS							1
2720	SIDEWALK-4 INCH CONCRETE	SOYD	877	90	166	21	250		1,404
23158ES505	DETECTABLE WARNINGS (YELLOW)	SOFT	754	21	41	40	83		939
2720	SPECIAL SIDEWALK @ ROUNDABOUT SPLITTER ISLANDS)	SOYD	440	0	0	86	0		526
2690	SAFELOADING	CY	60						60
15094	S MANHOLE ADJUST TO GRADE	EACH	7						7
15092	S MANHOLE	EACH	1						1
2562	TEMPORARY SIGNS	SOFT							1,013
6410	STEEL POST TYPE 1	LF							1,137
8900	CRASH CUSHION TY V1 CLASS B TL2	EACH							6
3171	CONCRETE BARRIER WALL TYPE 9T	LF							1,944
2651	DIVERSIONS (BY-PASS DETOURS)	LS							1
2731	REMOVE STRUCTURE - EX, TRIPLE 14'X7' RCBC @ STA. 183+00	LS	1						1

GENERAL SUMMARY

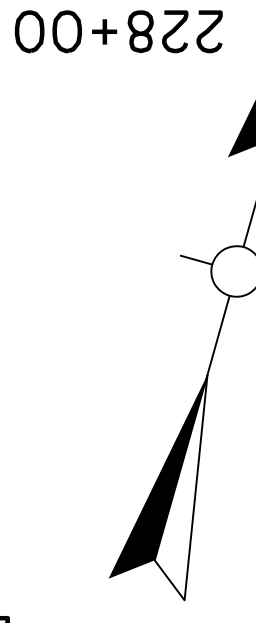
REVISED 7-20-18

NOTES:

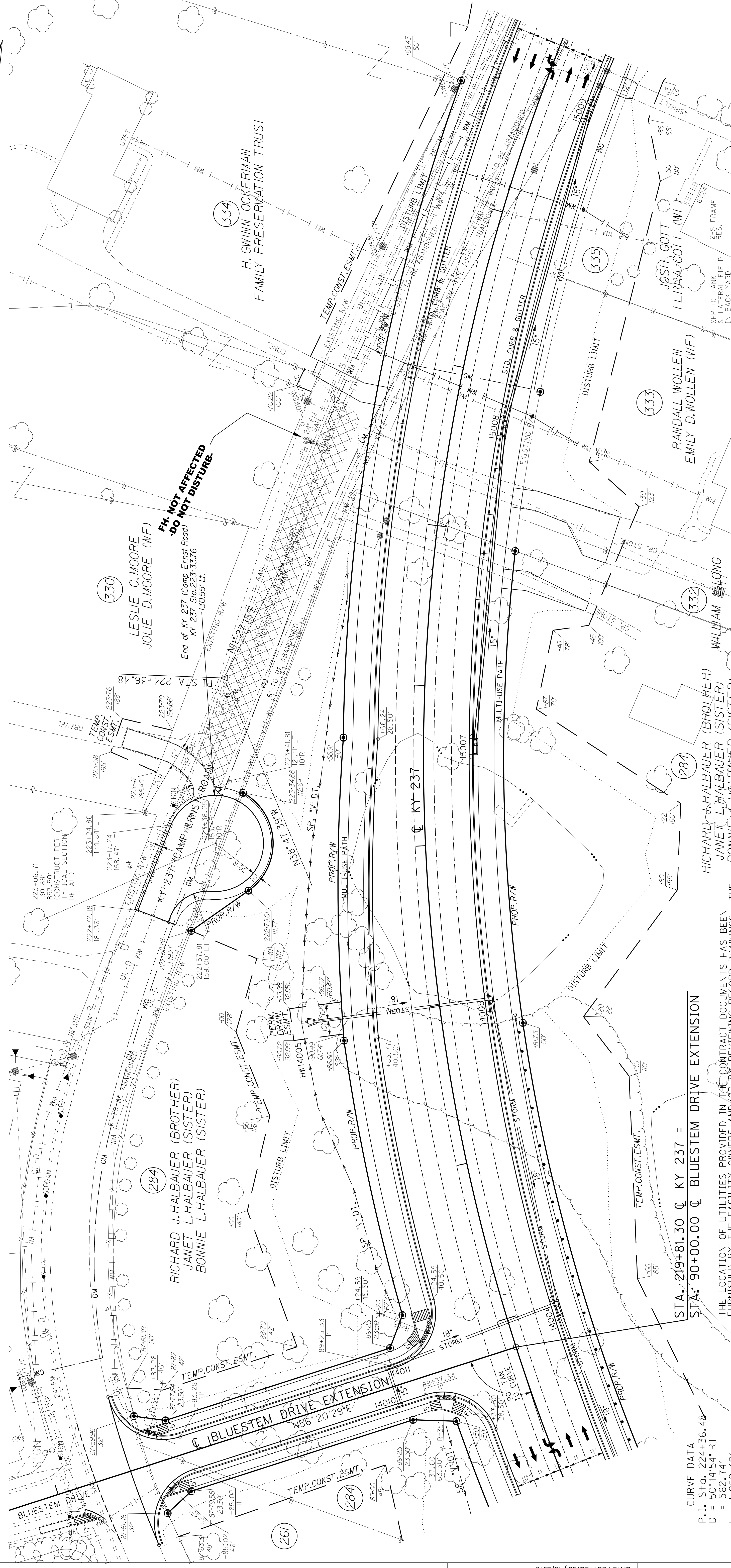
- Ⓐ SEE GENERAL NOTES SHEET R2m
- Ⓑ FOR UTILITY ABANDONMENT

ITEM	DESCRIPTION	UNIT	KY 237	THUNDER RIDGE DRIVE	CARTERS MILL / OAKBROOK	CAMP ERNST ROAD	BLUE STEM EXTENSION	MOT	PROJECT TOTALS
6510	PAVE STRIPING-TEMP PAINT-4 IN	LF	99,660	0	0	1,800	0		101,460
6514	PAVE STRIPING-PERM PAINT-4 IN	LF	78,933	0	557	2,540	747		82,777
6516	PAVE STRIPING-PERM PAINT-8 IN	LF	3,067	0	0	201	0		3,268
2379IEC	PAVE STRIPING-CHEVRON MARKINGS	SOFT	1,298	0	0	0	0		1,298
6565	PAVE MARKING-THERMO X-WALK-6 INCH	LF	1,248	95	226	83	70		1,722
6568	PAVE MARKING-THERMO STOP BAR-24IN	LF	392	12	40	89	11		544
6570	PAVE MARKING-THERMO CROSS-HATCH	SOFT	2,291	0	0	681	0		2,972
6572	PAVE MARKING-DOTTED LANE EXTEN	LF	440	0	0	0	0		440
6573	PAVE MARKING-THERMO STR ARROW	EACH	1	0	0	0	0		1
6574	PAVE MARKING-THERMO CURV ARROW	EACH	45	0	0	0	0		45
6575	PAVE MARKING-THERMO COMB ARROW	EACH	7	0	0	0	0		7
6589	PAVEMENT MARKER TYPE V-MW	EACH	431	0	0	0	0		431
6591	PAVEMENT MARKER TYPE V-BY	EACH	783	0	0	0	0		783
24845EC	UTILITY COORDINATION	LS							1
2720	SIDEWALK-4 INCH CONCRETE	SOYD	877	90	166	21	250		1,404
23158ES505	DETECTABLE WARNINGS (YELLOW)	SOFT	754	21	41	40	83		939
2720	SPECIAL SIDEWALK @ ROUNDABOUT SPLITTER ISLANDS)	SOYD	440	0	0	86	0		526
2690	SAFELOADING	CY	60						60
15094	S MANHOLE ADJUST TO GRADE	EACH	7						7
15092	S MANHOLE	EACH	1						1
2562	TEMPORARY SIGNS	SOFT						1,013	1,013
6410	STEEL POST TYPE 1	LF						1,137	1,137
8900	CRASH CUSHION TY V1 CLASS B TL2	EACH						8	8
3171	CONCRETE BARRIER WALL TYPE 9T	LF						2,849	1,944
2651	DIVERSIONS (BY-PASS DETOURS)	LS						1	1
2731	REMOVE STRUCTURE - EX, TRIPLE 14'X7' RCBC @ STA. 183+00	LS	1						1

COUNTY OF	BOONE	ITEM NO.	06-8001.21	SHEET NO.	R214
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219+00 220+00 221+00 222+00 223+00 224+00 225+00 226+00 227+00 228+00



UTILITY PLANS

SCALE: 1" = 30'

0' 30' 60' 120'

NOTE: SPECTRUM FIBER FOLLOWS OWEN ELECTRIC. TELEPHONE INFORMATION NOT ON PLANS.

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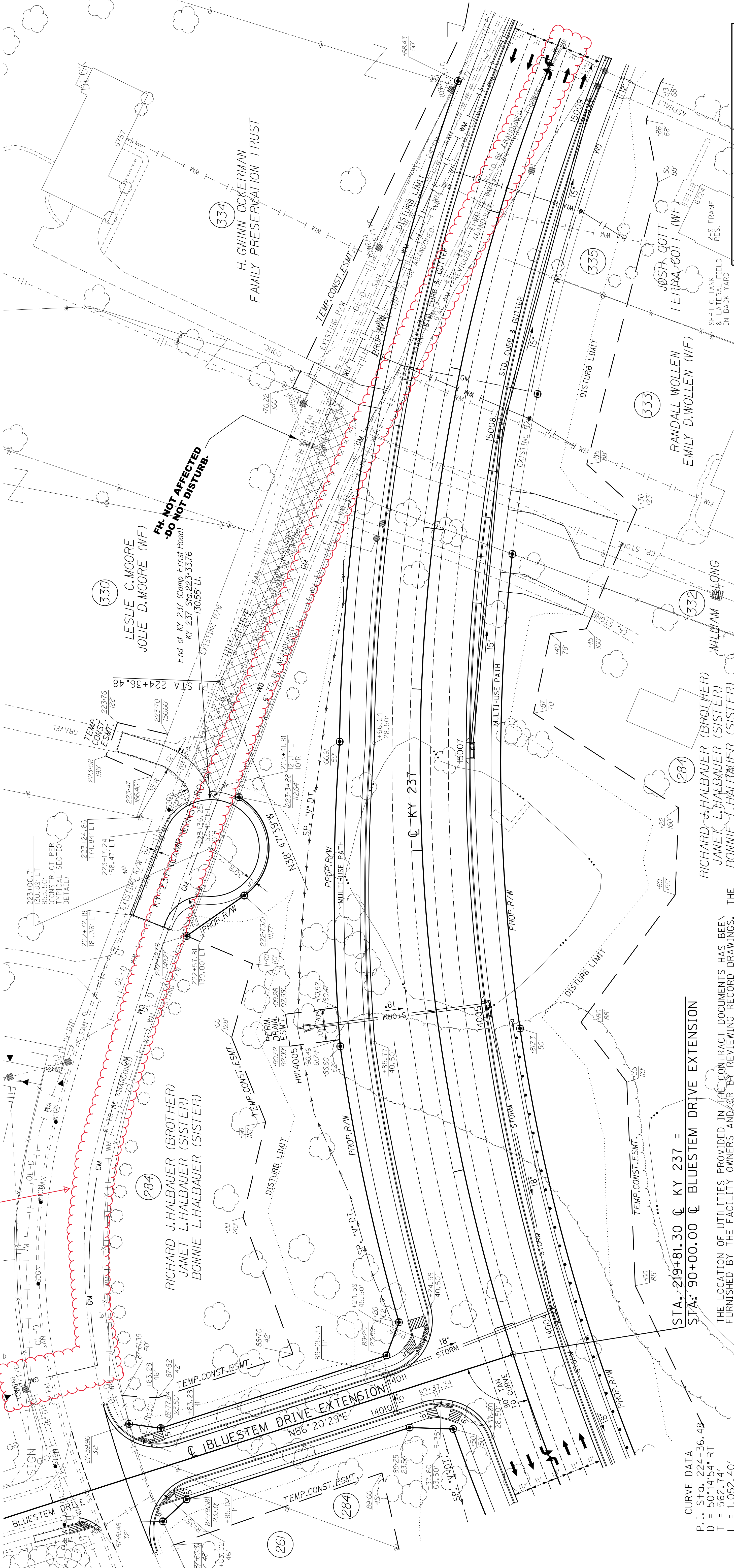
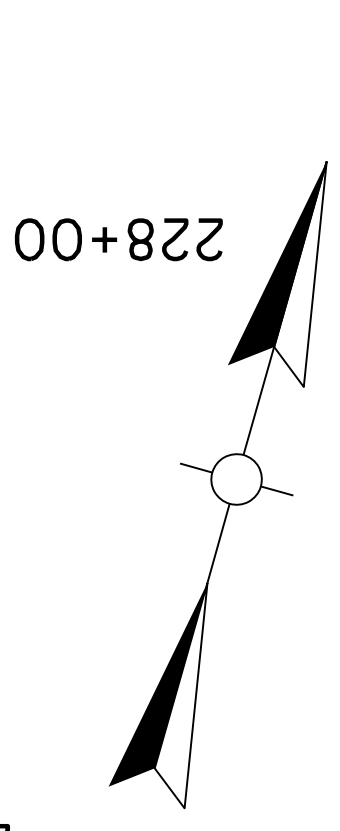
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STA: 219+81.30 @ KY 237 =
 STA: 90+00.00 @ BLUESTEM DRIVE EXTENSION

CURVE DATA
 P.I. Sta. 224+36.48
 D = 50'14"54" RT
 T = 562.74'
 L = 1,052.40'
 R = 1,200.00'
 e = 125.40'
 e = 5.00%
 Runoff = See X-Sec.
 Runoff = See X-Sec.

COUNTY OF	BOONE	ITEM NO.	06-8001.21	SHEET NO.	R214
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REVISED 7-16-18



UTILITY PLANS

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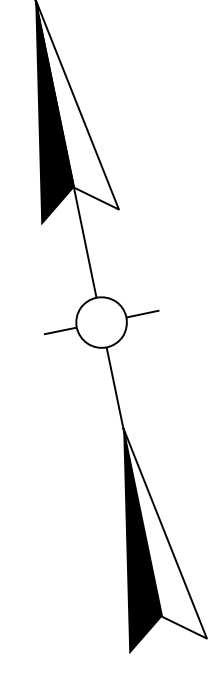
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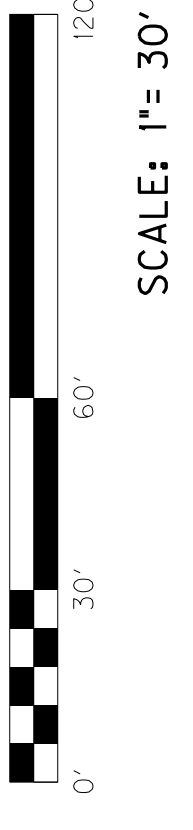
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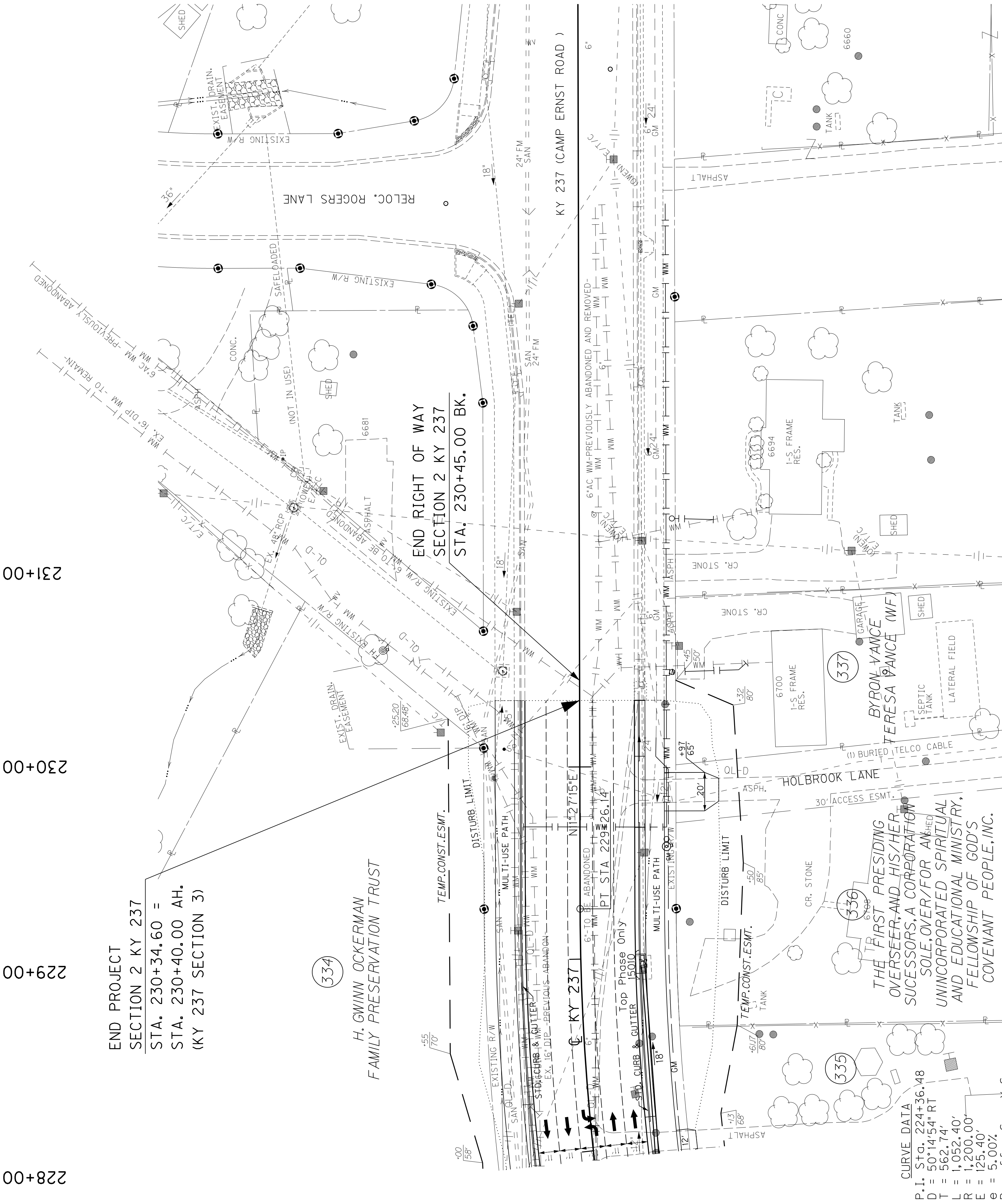
COUNTY OF	BOONE	ITEM NO.	06-8001.21	SHEET NO.	R215
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UTILITY PLANS



KY 237 STA. 228+00 TO STA. 230+34.60



END PROJECT
SECTION 2 KY 237
STA. 230+34.60 =
STA. 230+40.00 AH.
(KY 237 SECTION 3)

(334)
H. GWINN OCKERMAN
FAMILY PRESERVATION TRUST

(335)
THE FIRST PRESIDING
OVERSEER AND HIS/HER
SUCCESSORS, A CORPORATION
SOLE, OVER FOR AN
UNINCORPORATED SPIRITUAL
AND EDUCATIONAL MINISTRY,
FELLOWSHIP OF GOD'S
COVENANT PEOPLE, INC.

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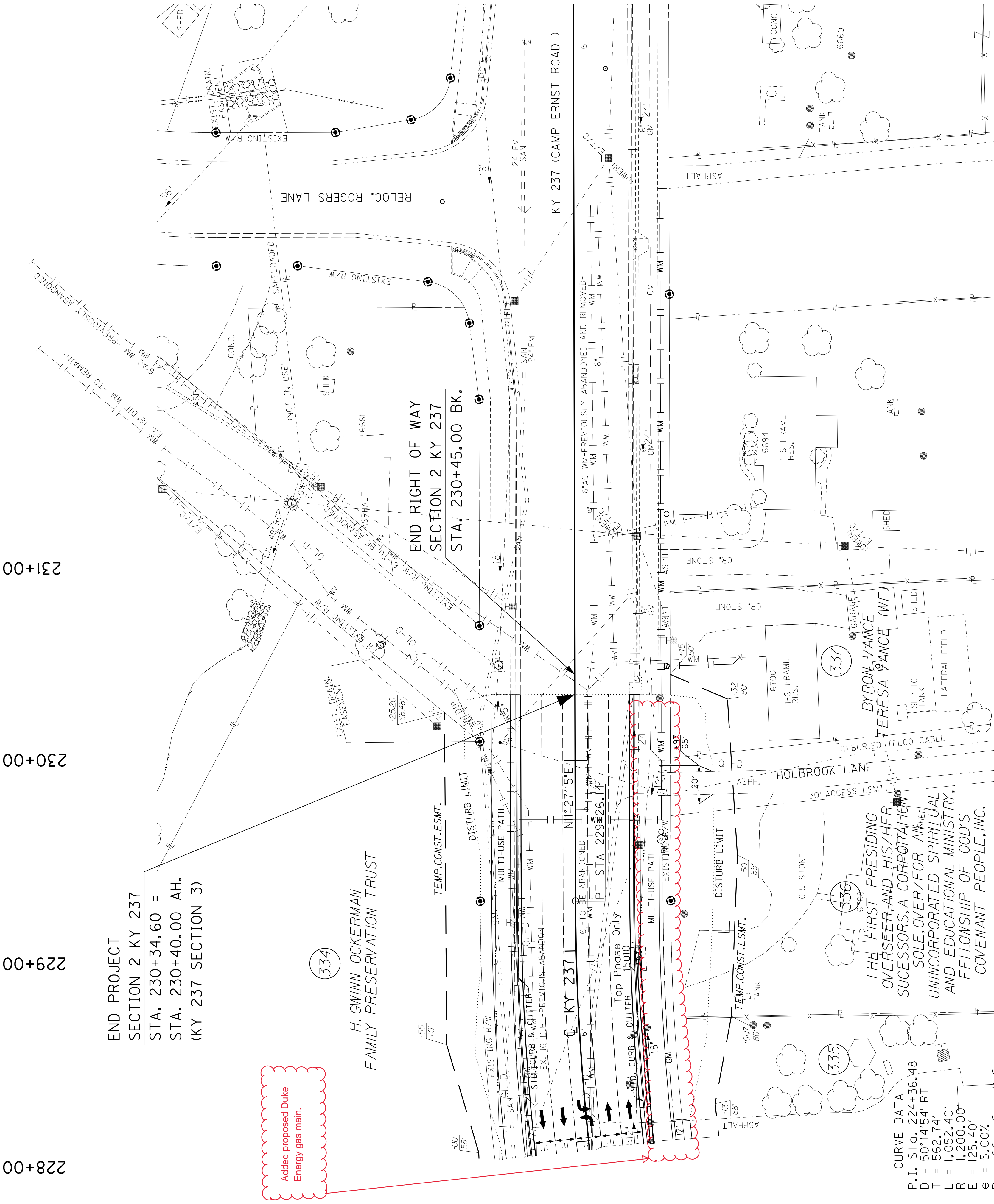
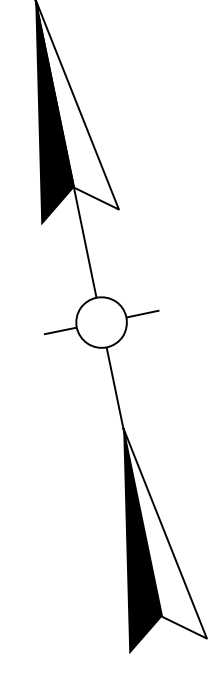
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COUNTY OF	BOONE	ITEM NO.	06-8001.21	SHEET NO.	R215
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REVISED 7-16-18



END PROJECT
SECTION 2 KY 237
STA. 230+34.60 =
STA. 230+40.00 AH.
(KY 237 SECTION 3)

Added proposed Duke
Energy gas main.

H. GWINN OCKERMAN
FAMILY PRESERVATION TRUST

END RIGHT OF WAY
SECTION 2 KY 237
STA. 230+45.00 BK.

KY 237 (CAMP ERNST ROAD)

THE FIRST PRESIDING
OVERSEER AND HIS/HER
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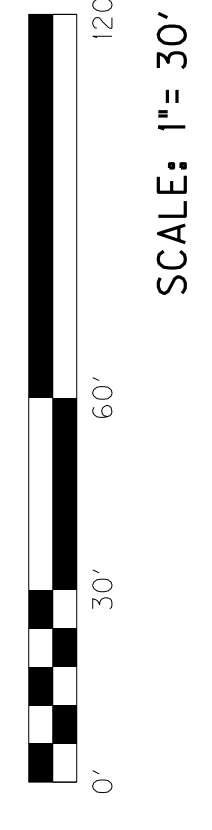
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