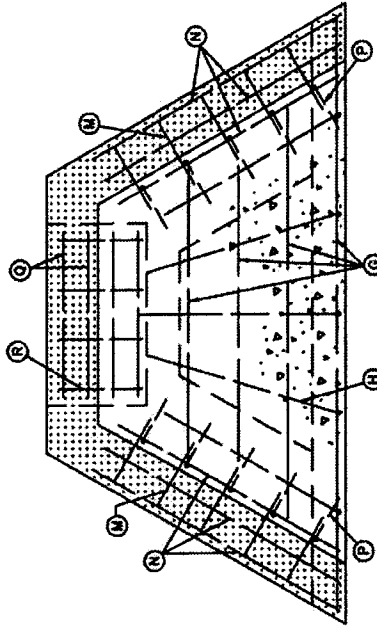
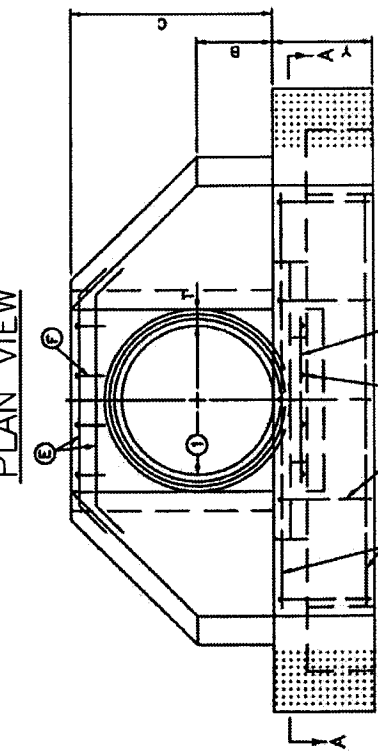


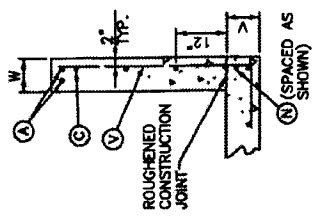
PLAN VIEW



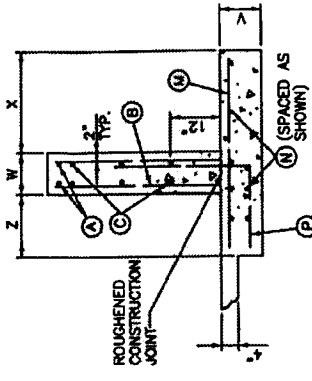
SECTION A-A



FRONT ELEVATION



WING SECTION
30"-60" CIRCULAR PIPE



WING SECTION
66"-108" CIRCULAR PIPE

SHEET NOTE: Q
① DIAMETER OF PIPE

SECTION B-B

- NOTES:
1. [Pattern] APPLIES TO 66" DIAMETER AND GREATER. (CIRCULAR PIPE)
 2. SEE SHEETS 2, 3, AND 4 OF CURRENT STD. DWG. 154 FOR DIMENSIONS, QUANTITIES, AND BILL OF REINFORCEMENT.
 3. DIMENSIONS FROM FACE OF CONCRETE TO STEEL SHALL BE 2" CLEAR DISTANCE UNLESS OTHERWISE NOTED.
 4. ENCIRCLED LETTERS, O, INDICATE STEEL BAR LOCATIONS.
 5. BARS (B), (C), (P), (M), (V) ARE SPACED 1'-0" O.C. ALL OTHER BARS SHALL BE EVENLY SPACED.
 6. BARS (B) AND (V) ARE PLACED IN ORDER OF INCREASING LENGTHS, BEGINNING AT THE END OF EACH WING.
 7. BARS (C) ARE PLACED IN ORDER OF INCREASING LENGTHS, BEGINNING AT TOP OF EACH WING.
 8. HEADWALLS LOCATED AT EDGE OF SHOULDER SHALL BE PARALLEL TO CENTERLINE OF THE ROAD.
 9. APRON BETWEEN WINGS SHALL BE SLOPED IN DIRECTION OF FLOW EQUAL TO SLOPE OF PIPE, NOT TO EXCEED 5%.
 10. FRONT OF HEADWALL AND ENDS OF WINGS SHALL REMAIN VERTICAL.
 11. FENCE AND / OR HANDRAIL IS REQUIRED FOR ALL HEADWALLS, SEE STD. DWG. 308.
 12. ALL EXPOSED EDGES ARE TO HAVE 3/4" CHAMFER.

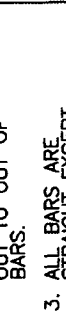
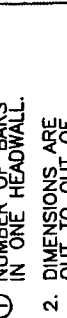
NO.		DATE		REVISION DESCRIPTION		BY	
SHEET 1 OF 4							
DIVISION OF ENGINEERING							
PIPE CULVERT HEADWALLS							
0° SKEW							
30"-108" PIPE							
STANDARD DRAWING NO.	154-1			DATE			
APPROVED	5/1/08			DATE			
CHECKED				DATE			
DESIGNED				DATE			

DIMENSION	DIAMETER OF PIPE														DIMENSION
	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"	90"	96"	102"	108"	
A	3'-9"	4'-4"	4'-11"	5'-6"	6'-1"	6'-8"	7'-5"	8'-0"	8'-7"	9'-2"	9'-9"	10'-4"	10'-11"	11'-6"	A
B	1'-3"	1'-6"	1'-9"	2'-0"	2'-3"	2'-6"	2'-9"	3'-0"	3'-3"	3'-6"	3'-9"	4'-0"	4'-3"	4'-6"	B
C	3'-6"	4'-0"	4'-7"	5'-1"	5'-8"	6'-2"	7'-0"	7'-5"	8'-0"	8'-6"	9'-1"	9'-7"	10'-2"	10'-8"	C
E	3'-1"	3'-8"	4'-3"	4'-10"	5'-5"	6'-0"	6'-7"	7'-2"	7'-9"	8'-4"	8'-11"	9'-6"	10'-1"	10'-8"	E
F	4'-4"	5'-0"	5'-8"	6'-4"	7'-0"	7'-8"	8'-7"	9'-3"	9'-11"	10'-7"	11'-3"	11'-11"	12'-7"	13'-3"	F
H	7'-6"	8'-8"	10'-0"	11'-2"	12'-6"	13'-8"	15'-2"	16'-6"	17'-8"	19'-0"	20'-2"	21'-6"	22'-8"	24'-0"	H
J	3'-9"	4'-4"	5'-0"	5'-7"	6'-3"	6'-10"	7'-7"	8'-3"	8'-10"	9'-6"	10'-1"	10'-9"	11'-4"	12'-0"	J
M	0'-5"														M
T	0'-3.5"	0'-4.0"	0'-4.5"	0'-5.0"	0'-5.5"	0'-6.0"	0'-6.5"	0'-7.0"	0'-7.5"	0'-8.0"	0'-8.5"	0'-9.0"	0'-9.5"	0'-10.0"	T
V	0'-8"														V
W	0'-8"														W
X	-														X
Y	2'-0"														Y
Z	-														Z
SHEET 2 OF 4															
CU.YDS. CONC. HEADWALLS	3.36	4.30	5.35	6.53	7.82	9.22	18.76	20.95	23.25	25.67	31.48	34.31	37.25	40.32	CU.YDS. CONC. HEADWALLS
LBS. STEEL HEADWALLS	281	363	430	496	583	687	1320	1571	1815	2043	2451	2753	3050	3379	LBS. STEEL HEADWALLS

NO.	DATE	REVISION DESCRIPTION	BY
DIVISION OF ENGINEERING			
DIMENSIONS AND QUANTITIES 30"-108" HEADWALLS CIRCULAR PIPE 0" SKEW			
STANDARD NUMBER	154-2	DATE	5/1/02
APPROVED		CHECKED	
DESIGNED		DATE	5/1/02

NOTES:
 1. NUMBER OF BARS IN ONE HEADWALL.
 2. DIMENSIONS ARE OUT TO OUT OF BARS.
 3. ALL BARS ARE STRAIGHT EXCEPT THOSE SHOWN BELOW.

BENT BAR SHAPES



BENT BAR SHAPES



SHEET 3 OF 4

NO. DATE REVISION DESCRIPTION BY

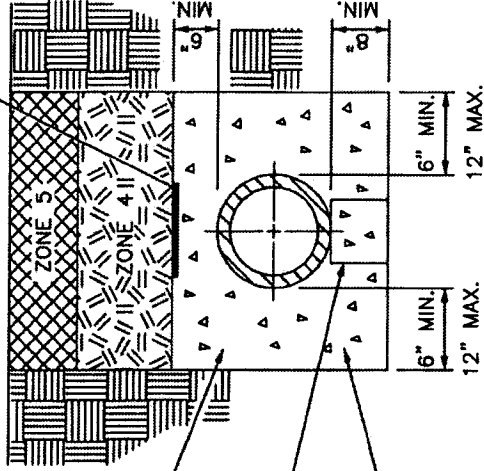
DIVISION OF ENGINEERING

BILL OF REINFORCEMENT
 30"-90" DIAMETER
 CIRCULAR PIPE HEADWALLS
 0' SKEW

STANDARD DRAWING NO. 154-3
 DATE 5/1/68
 DRAWN BY
 CHECKED BY

M A R K		S I Z E		NO		LGTH		K		M A R K		S I Z E		NO		LGTH		K		M A R K		S I Z E		NO		LGTH		K	
30"		42"		54"		66"		72"		78"		84"		90"															
①	②	①	②	①	②	①	②	①	②	①	②	①	②	①	②	①	②	①	②	①	②	①	②	①	②	①	②	①	②
A	5	H	4	V2	5	A	5	A	5	A	5	A	5	A	5	A	5	A	5	A	5	A	5	A	5	A	5	A	5
C1	4	N	4	V3	5	B1	5	B1	5	B1	5	B1	5	B1	5	B1	5	B1	5	B1	5	B1	5	B1	5	B1	5	B1	5
C2	4	Q	4	V4	5	B2	5	B2	5	B2	5	B2	5	B2	5	B2	5	B2	5	B2	5	B2	5	B2	5	B2	5	B2	5
E1	5	R	4	V1	5	B3	5	B3	5	B3	5	B3	5	B3	5	B3	5	B3	5	B3	5	B3	5	B3	5	B3	5	B3	5
E2	5	V1	5	V2	5	B4	5	B4	5	B4	5	B4	5	B4	5	B4	5	B4	5	B4	5	B4	5	B4	5	B4	5	B4	5
F	4	V2	5	V3	5	C1	4	C1	4	C1	4	C1	4	C1	4	C1	4	C1	4	C1	4	C1	4	C1	4	C1	4	C1	4
G1	4	V3	5	V4	5	C2	4	C2	4	C2	4	C2	4	C2	4	C2	4	C2	4	C2	4	C2	4	C2	4	C2	4	C2	4
G2	4	V4	5	V1	5	C3	4	C3	4	C3	4	C3	4	C3	4	C3	4	C3	4	C3	4	C3	4	C3	4	C3	4	C3	4
H	4	V2	5	V3	5	C4	4	C4	4	C4	4	C4	4	C4	4	C4	4	C4	4	C4	4	C4	4	C4	4	C4	4	C4	4
N	4	V3	5	V4	5	E1	5	E1	5	E1	5	E1	5	E1	5	E1	5	E1	5	E1	5	E1	5	E1	5	E1	5	E1	5
Q	4	V4	5	V1	5	E2	5	E2	5	E2	5	E2	5	E2	5	E2	5	E2	5	E2	5	E2	5	E2	5	E2	5	E2	5
R	4	V1	5	V2	5	E3	5	E3	5	E3	5	E3	5	E3	5	E3	5	E3	5	E3	5	E3	5	E3	5	E3	5	E3	5
V1	5	V2	5	V3	5	E4	5	E4	5	E4	5	E4	5	E4	5	E4	5	E4	5	E4	5	E4	5	E4	5	E4	5	E4	5
V2	5	V3	5	V4	5	F	4	F	4	F	4	F	4	F	4	F	4	F	4	F	4	F	4	F	4	F	4	F	4
						G1	4	G1	4	G1	4	G1	4	G1	4	G1	4	G1	4	G1	4	G1	4	G1	4	G1	4	G1	4
						G2	4	G2	4	G2	4	G2	4	G2	4	G2	4	G2	4	G2	4	G2	4	G2	4	G2	4	G2	4
						G3	4	G3	4	G3	4	G3	4	G3	4	G3	4	G3	4	G3	4	G3	4	G3	4	G3	4	G3	4
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						H	4	H	4	H	4	H	4	H	4	H	4	H	4	H	4	H	4	H	4	H	4	H	4
						N	4	N	4	N	4	N	4	N	4	N	4	N	4	N	4	N	4	N	4	N	4	N	4
						Q	4	Q	4	Q	4	Q	4	Q	4	Q	4	Q	4	Q	4	Q	4	Q	4	Q	4	Q	4
						V1	5	V1	5	V1	5	V1	5	V1	5	V1	5	V1	5	V1	5	V1	5	V1	5	V1	5	V1	5
						V2	5	V2	5	V2	5	V2	5	V2	5	V2	5	V2	5	V2	5	V2	5	V2	5	V2	5	V2	5
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MAGNETIC MARKER TAPE

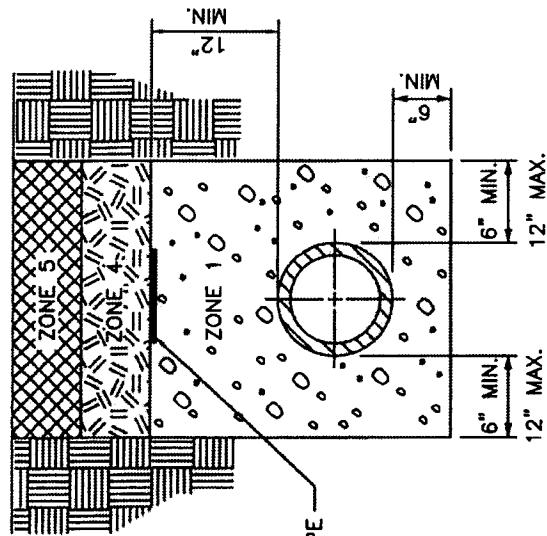


CONTRACTOR TO PROVIDE ADEQUATE MEANS TO PREVENT FLOATING OF PIPE WHEN INSTALLING CRADLE

PRECAST CONCRETE BLOCK OR BRICK BEHIND EACH BELL NOT TO EXCEED 6" SPACING

CONCRETE CLASS "A"

STANDARD CONCRETE ENCASEMENT
(NOTE: AS REQUIRED BY DESIGN)



MAGNETIC MARKER TAPE

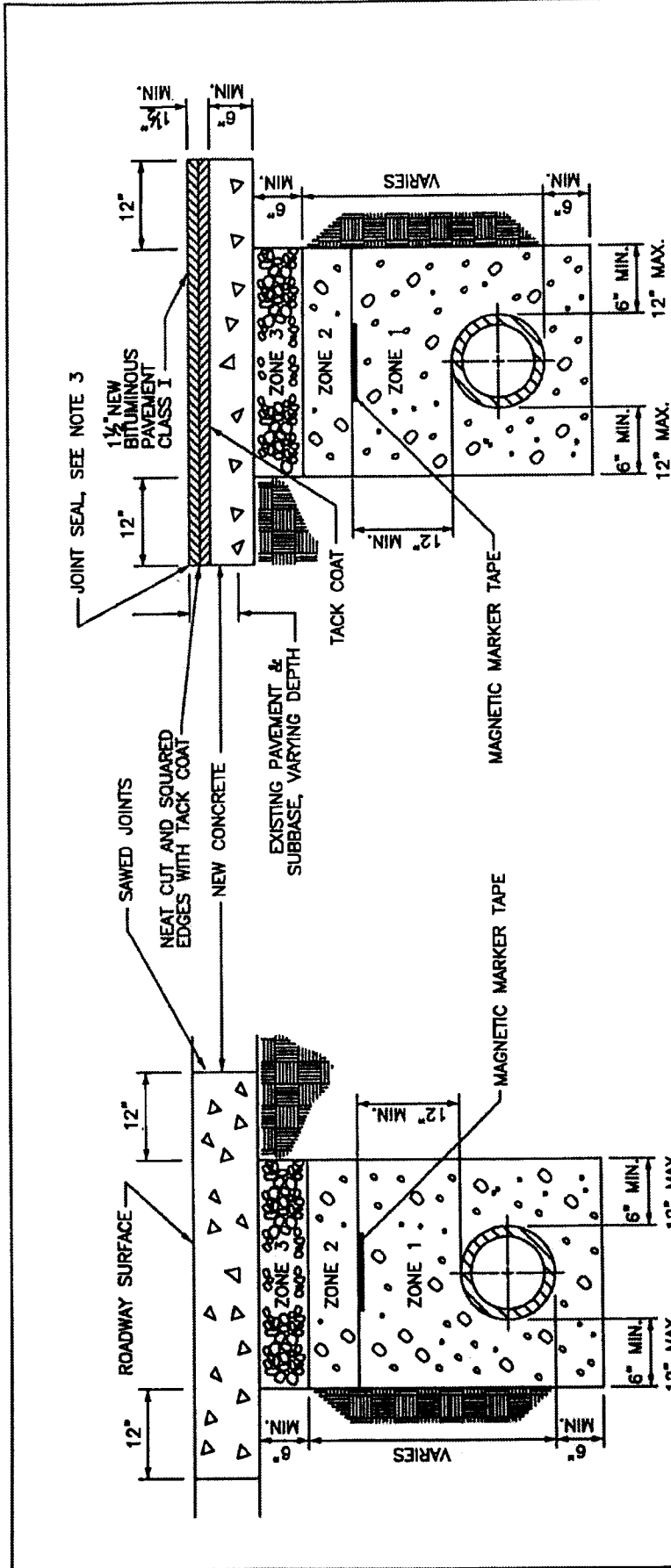
PIPE LAID IN ROCK
OR SOIL TRENCH

PIPE BACKFILL DESCRIPTIONS	
ZONE 1	NO. 9 STONE
ZONE 2	NO. 9 OR NO. 57 STONE
ZONE 3	COMPACTED DGA
ZONE 4	CONSOLIDATED SOIL, (NO ROCK GREATER THAN 6" DIAMETER), NO. 9, OR NO. 57 STONE
ZONE 5	12" MAX TOPSOIL NO ROCK ALLOWED

NOTES:

- COVER, UP TO AND INCLUDING ZONE 4 SHALL BE ESTABLISHED BEFORE TRENCH EXCAVATION.
- ALL SANITARY SEWER LINES CONSTRUCTED FROM NON-METALLIC MATERIALS SHALL HAVE MAGNETIC MARKER TAPE INSTALLED IN THE TRENCH ABOVE THE SANITARY SEWER LINE.
- MAGNETIC MARKER TAPE FOR SANITARY SEWER ONLY.

NO.	DATE	REVISION DESCRIPTION	BY
DIVISION OF ENGINEERING			
TRENCHING, LAYING, BACKFILLING AND BEDDING OUTSIDE R/W LIMITS			
STANDARD DRAWING NO. 200			
APPROVED BY: <i>[Signature]</i>		DATE: 5/1/02	
DRAWN BY: <i>[Signature]</i>		DATE: 5/1/02	
CHECKED BY: <i>[Signature]</i>		DATE: 5/1/02	



BITUMINOUS PAVEMENT

CONCRETE PAVEMENT

NOTES:

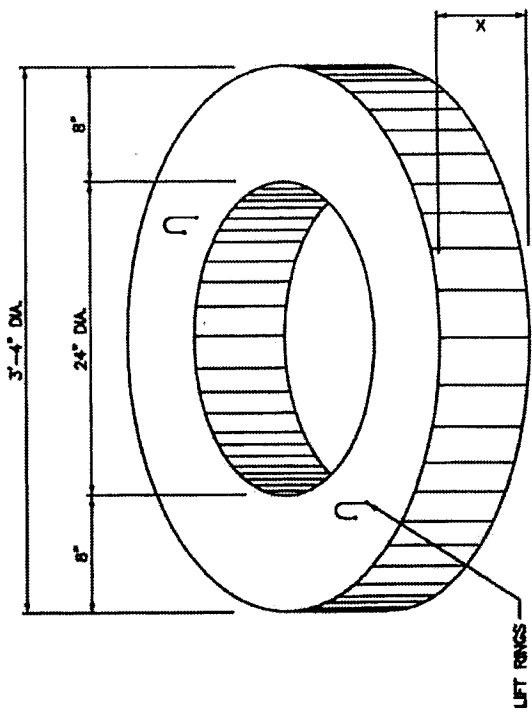
1. REPLACE CONCRETE PAVEMENT WITH NEW CONCRETE PAVEMENT, 6" MINIMUM OR EXISTING THICKNESS, WHICHEVER IS GREATER.
2. JOINT SEAL PERMETER OF CUT PAVEMENT WITH FLEXMASTER POURABLE CRACK SEALANT 1109 OR APPROVED EQUAL.
3. MAGNETIC MARKER TAPE FOR SANITARY SEWER ONLY.

PIPE BACKFILL DESCRIPTIONS	
ZONE 1	NO. 9 STONE
ZONE 2	NO. 9 OR NO. 57 STONE
ZONE 3	COMPACTED DGA
ZONE 4	CONSOLIDATED SOIL (NO ROCK GREATER THAN 6" DIAMETER), NO. 9, OR NO. 57 STONE
ZONE 5	12" MAX. TOPSOIL, NO ROCK ALLOWED

NO.	DATE	REVISION DESCRIPTION	BY
DIVISION OF ENGINEERING			
TRENCHING, LAYING, BACKFILLING AND BEDDING UNDER STREET PAVEMENT			
DRAWING NUMBER: 201-1		DATE: 5/1/69	
DRAWN BY: [Signature]		CHECKED BY: [Signature]	

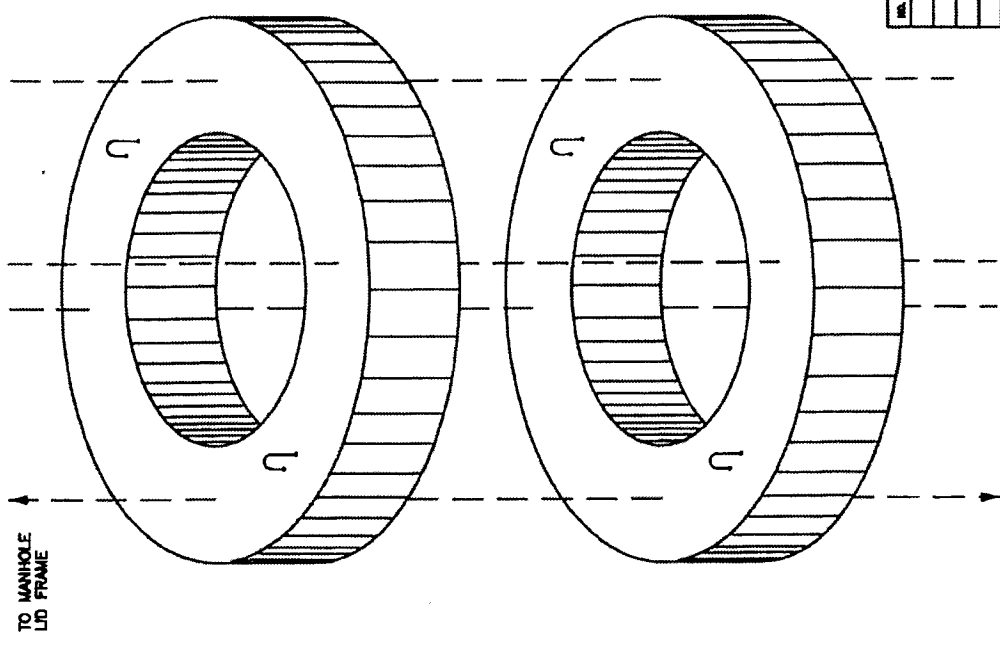
NOTES:

1. LIFT RINGS TO BE CUT BEFORE ADDING THE NEXT RING OR TOP.
2. COAT OUTSIDE AND IN BETWEEN ADJUSTING RINGS WITH SEM-FIBRATED ASPHALT DAMPROOFING COMPOUND APPLIED BY BRUSH OR SPRAY.
3. GRADE RINGS WITH NON-PARALLEL SURFACES MAY BE USED TO ADJUST CASTING TO SLOPED SURFACE.
4. CONCRETE: CLASS "A" 3500 PSI AT 28 DAYS, AND IN ACCORDANCE WITH ASTM C-478, OR LATEST EDITION.
5. NO MORE THAN 2 GRADE RINGS MAY BE USED AT ONE LOCATION AND THE MAXIMUM HEIGHT OF ALL RINGS USED SHALL NOT EXCEED 12 INCHES.
6. APPLY MASTIC BETWEEN ALL JOINTS.



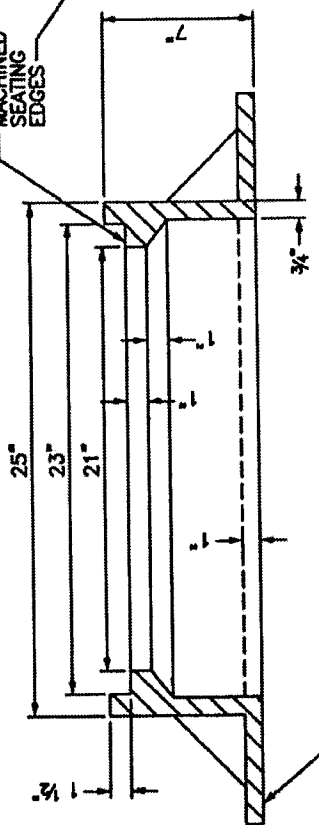
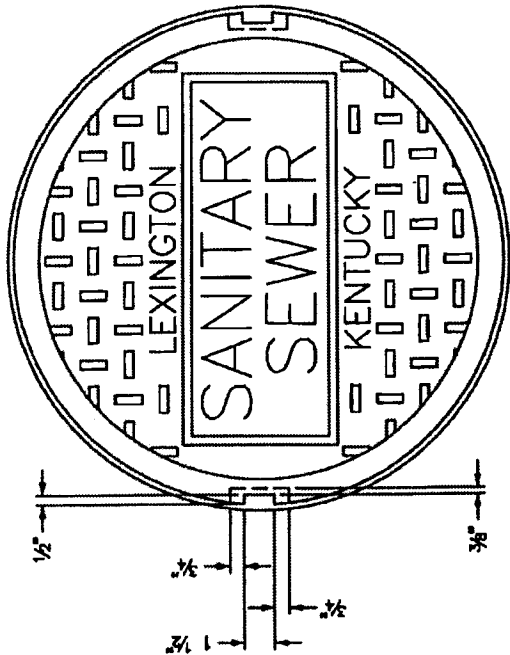
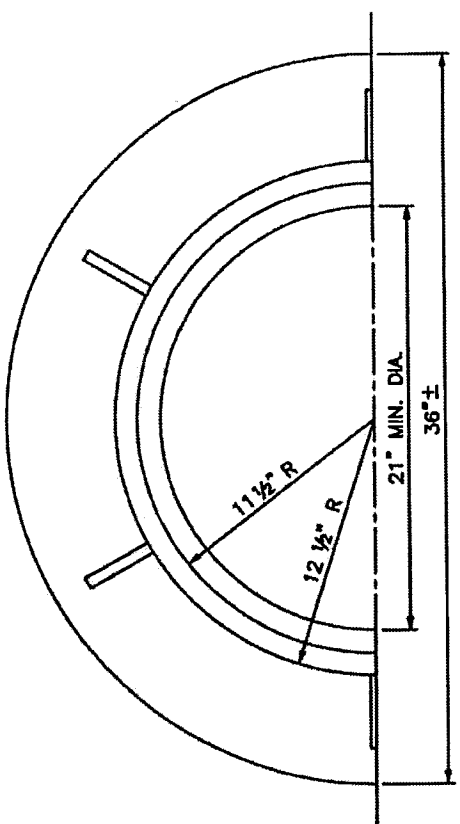
GRADE RING WIDTH CHART

X	WEIGHT LBS.
2"	140
3"	210
4"	279
6"	419
8"	560
12"	730



TO MANHOLE ECCENTRIC CONE SECTION

NO.	DATE	REVISION DESCRIPTION	BY
DIVISION OF ENGINEERING			
SEWER MANHOLE ADJUSTMENT GRADE RINGS			
DESIGNED BY	DATE	PROJECT NO.	214
CHECKED BY	DATE	SCALE	1/8" = 1'-0"
APPROVED BY	DATE		



SET FRAME CASTING IN FULL MORTAR BED, FOR WATERTIGHT MANHOLE FRAME AND LID - SEE APPLICABLE STANDARD DRAWING

COVER DETAIL

NOTE:
MANHOLE FRAME & LID ASSEMBLY SHALL HAVE A MINIMUM LID WEIGHT OF 120 LBS. AND A TOTAL MINIMUM FRAME & LID WEIGHT OF 305 LBS. WITH ALL STEEL IN ACCORDANCE WITH ASTM A-48 CLASS 35 SPEC.

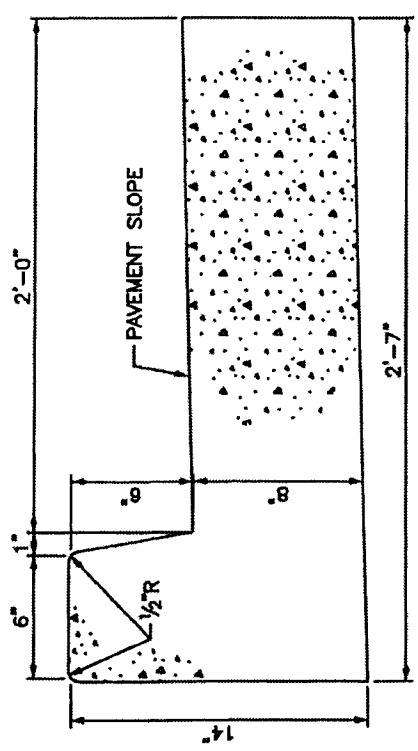
FRAME DETAIL

NO.	DATE	REVISION DESCRIPTION	BY

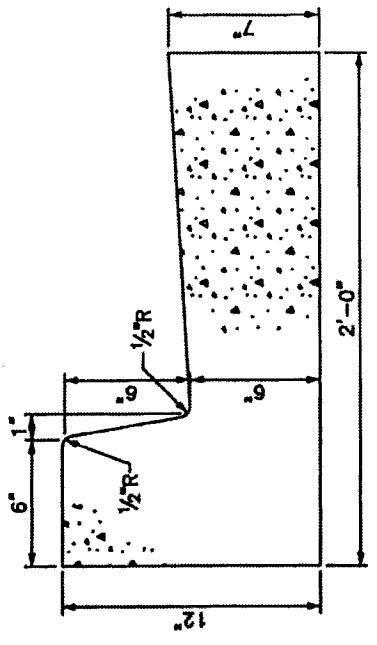
DIVISION OF ENGINEERING

STANDARD CIRCULAR
MANHOLE FRAME & COVER

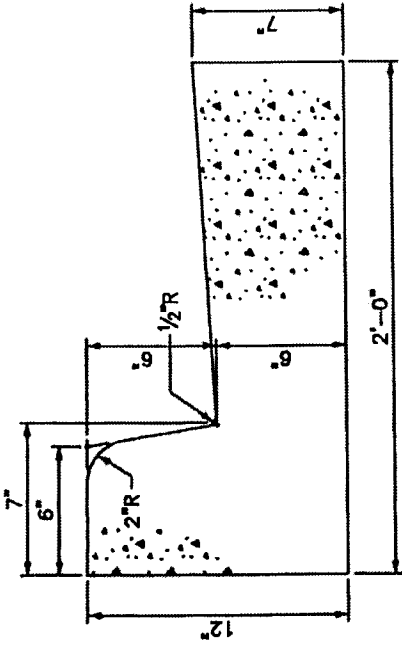
PROJECT NO. 220
DATE 5/1/64
DRAWN BY [Signature]
CHECKED BY [Signature]



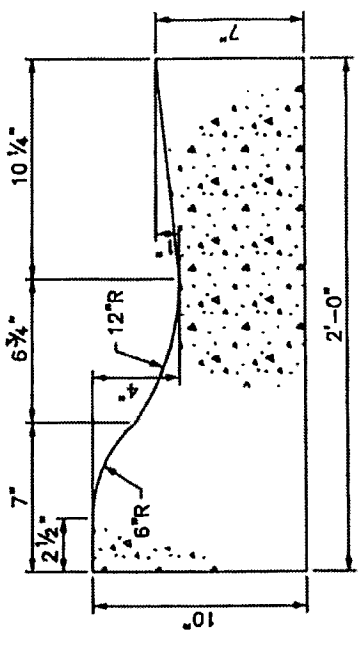
TYPE 2



TYPE 1



TYPE 3



TYPE 4
(RESIDENTIAL LOCAL STREETS ONLY)

NOTES:

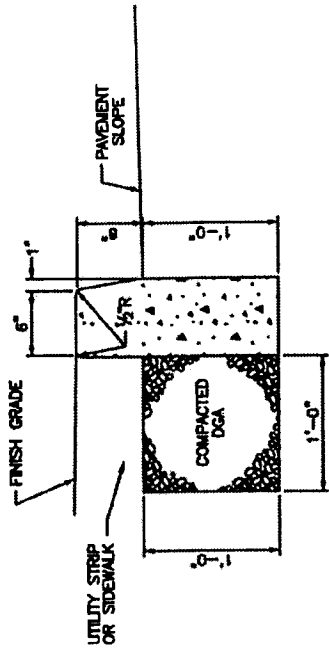
1. CONCRETE SHALL BE KDOT CLASS "A".
2. SAWED CONTRACTION JOINTS SHALL BE CONSTRUCTED EVERY 20 FEET, WITH A MIN. DEPTH OF 3", IN ACCORDANCE WITH KDOT STANDARD SPECIFICATION.
3. EXPANSION JOINTS SHALL BE CONSTRUCTED AT ALL BREAKS IN ALIGNMENT, AT CONTACT WITH NEW OR EXISTING CONCRETE, AT ALL DRAINAGE INLETS, AT THE BEGINNING AND ENDING POINTS OF CURVES, AND NOT TO EXCEED 200' MAXIMUM SPACING FOR SLIP FORM APPLICATION AND 30' MAXIMUM SPACING FOR HAND PLACED.
4. ALL CONCRETE SHALL BE CURED WITH WHITE PIGMENTED MEMBRANE FORMING COMPOUND (AASHTO M 148, TYPE 2).

NO.	DATE	REVISION DESCRIPTION	BY

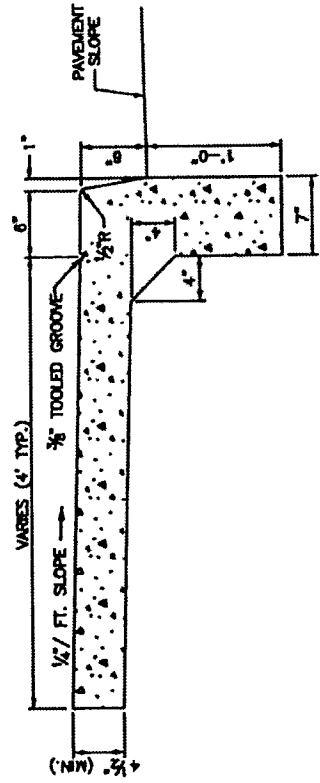
DIVISION OF ENGINEERING

CURB & GUTTER

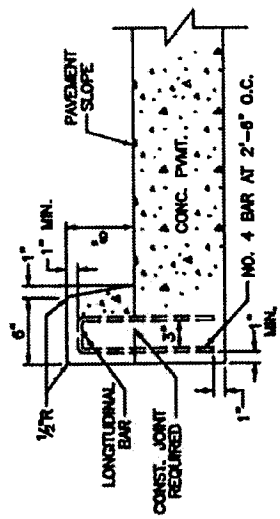
PROJECT NUMBER: 301
 DATE: 5/1/04
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]



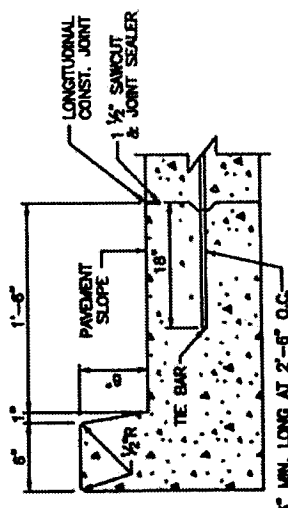
HEADER CURB



MONOLITHIC CURB AND SIDEWALK



INTEGRAL CURB, TYPE 1




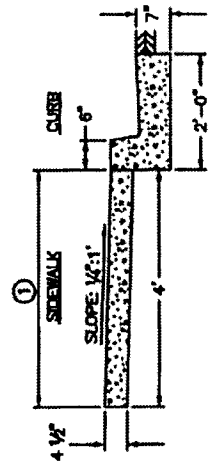
INTEGRAL CURB, TYPE 2

NO. 4 BAR 2'-3" MIN. LONG AT 2'-6" O.C.

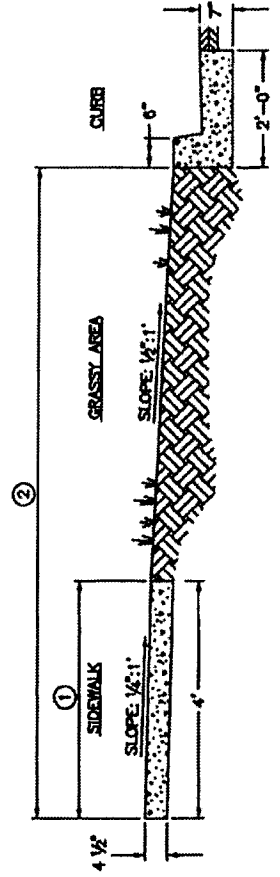
NOTES:

1. CONCRETE SHALL BE KDOT CLASS "A".
2. SAWED CONTRACTION JOINTS SHALL BE CONSTRUCTED EVERY 20 FEET, 3" MINIMUM DEPTH.
3. THE CONTRACTOR HAS THE OPTION OF CONSTRUCTING THE STANDARD INTEGRAL CURB AS DETAILED IN EITHER TYPE 1 OR 2. IF TYPE 2 IS CHOSEN A LONGITUDINAL CONSTRUCTION JOINT SHALL BE REQUIRED AND THE REMAINING PAVEMENT AND CURB SHALL BE CONSTRUCTED MONOLITHIC WITHOUT A HORIZONTAL CONSTRUCTION JOINT AND ACCOMPANYING REINFORCING STEEL (TYPE 1).
4. EXPANSION JOINTS SHALL BE CONSTRUCTED AT ALL BREAKS IN ALIGNMENT, AT ALL DRAINAGE INLETS AND AT THE BEGINNING AND ENDING POINTS OF CURVES.
5. ALL CONCRETE, EXCEPT BONDING SURFACES, SHALL BE CURED WITH WHITE PIGMENTED MEMBRANE FORMING COMPOUND (AASHTO M 148, TYPE 2).

NO.	DATE	REVISIONS	BY
DIVISION OF ENGINEERING			
INTEGRAL CURB, HEADER CURB, MONOLITHIC CURB & SIDEWALK			
			
302			



SIDEWALK/CURB AND GUTTER



SIDEWALK/CURB AND GUTTER WITH GRASSY UTILITY STRIP

NOTES:

1. CONCRETE SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED ON A THOROUGHLY COMPACTED SUB-GRADE AND SHALL BE FOUR AND ONE HALF (4 1/2) INCHES IN THICKNESS AND A MINIMUM WIDTH OF FOUR (4) FEET. CONCRETE SHALL HAVE SPECIFICATIONS FOR CLASS "A", KENTUCKY DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS, CURRENT EDITION. WHITE PIGMENTED (TYPE "A" OR "B") CURING COMPOUND IS REQUIRED (ALSO KENTUCKY DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS, CURRENT EDITION).
2. EXPANSION JOINTS SHALL BE PLACED AT THIRTY-TWO (32) FOOT INTERVALS IN EXISTING NEIGHBORHOODS. EXPANSION MATERIAL SHALL BE PLACED AT THE BEGINNING AND END OF NEWLY CONSTRUCTED AREAS.
3. THE SIDEWALKS SHALL BE PLACED ADJACENT TO THE STREET RIGHT-OF-WAY LINE SLOPE TOWARD CURB SHALL BE ONE QUARTER (1/4) OF AN INCH TO THE FOOT. CONSTRUCTION IN EXISTING NEIGHBORHOODS SHALL REQUIRE THE CONTRACTOR TO MATCH EXISTING GRADE AND SIDEWALK WIDTH UNLESS SPECIFIED OTHERWISE BY THE DIVISION OF ENGINEERING.

SHEET NOTES:

- ① NORMAL SIDEWALK WIDTH SHALL BE 4' UNLESS CHANGE IS AUTHORIZED BY URBAN COUNTY ENGINEER'S OFFICE.
- ② DISTANCE WILL VARY WITH ROAD CROSS-SECTION.

NO.	DATE	REVISION DESCRIPTION	BY

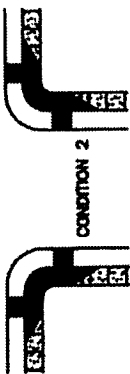
DIVISION OF ENGINEERING

SIDEWALK CONSTRUCTION SPECIFICATIONS

PROJECT NUMBER	303
DATE	5/1/88
DESIGNED BY	[Signature]
CHECKED BY	[Signature]



CONDITION 1



CONDITION 2

RAMP TYPE 1

NORMAL TREATMENT FOR ARTERIALS AND SIGNALIZED INTERSECTIONS

DROP BACK OF SIDEWALK AS REQUIRED TO PROVIDE MAXIMUM 1:1 RAMP SLOPE. EXTEND RAMP WITHIN SIDEWALK AS REQUIRED. REFER TO CHART ON THIS SHEET.

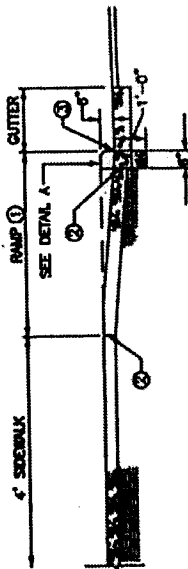


RAMP TYPE 1 CONDITION 1

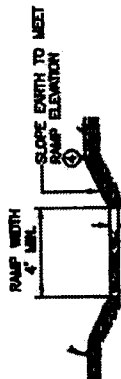
DROP BACK OF SIDEWALK AS REQUIRED TO PROVIDE MAXIMUM 1:1 RAMP SLOPE. EXTEND RAMP WITHIN SIDEWALK AS REQUIRED. REFER TO CHART ON THIS SHEET.



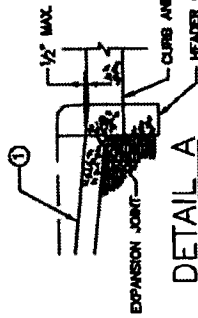
RAMP TYPE 1 CONDITION 2



PROFILE RAMP TYPE 1



CROSS SECTION RAMP TYPE 1



DETAIL A

NOTE: FOR USE WITH 8" HEADER CURB OR 6" CURB AND GUTTER

UTILITY STRIP WIDTH	BACK OF 4' SIDEWALK DROP FROM NORMAL
0	3"
1	2 1/2"
2	2"
3	1 1/2"
4	1"
5	1/2"
6	0

① 1/2:1 CROSS SLOPE ② 1/4:1 CROSS SLOPE
 *WHERE ROLL CURB IS USED, Y DOES NOT APPLY.

NOTES:

1. RAMP LOCATIONS WILL VARY, DEPENDENT ON CROSSWALK AND RAMP LOCATION.
2. THE RAMP SHALL BE CONSTRUCTED OF CLASS "A" CONCRETE, STEP-SAFE TRANSPO INDUSTRIES TILE OR ENGINEER APPROVED EQUIVALENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. THE NORMAL GUTTER LINE SHOULD BE MAINTAINED THROUGH THE RAMP.
4. RAMPS SHOULD BE LOCATED WITHIN MARKED LIMITS OF CROSSWALKS.
5. WHERE NO CURB EXISTS, STREET EDGE SHALL BE SAW CUT, OR AS DIRECTED BY L.F.L.C.G. ENGINEER.

SHEET NOTES:

- ① MAXIMUM RAMP SLOPE 1:1.
- ② 1/2" EXPANSION JOINT AT BACK OF CURBLINE AND SIDEWALK LINE.
- ③ NO BUMP PERMITTED.
- ④ SLOPE VARIES UNIFORMLY TO A MAXIMUM OF 1:1 AT GUTTER LINE.

NO.	DATE	REVISION DESCRIPTION	BY

DIVISION OF ENGINEERING

SIDEWALK RAMP TYPE 1

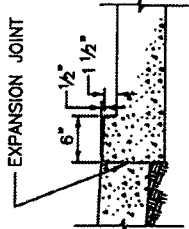
304

5/1/08

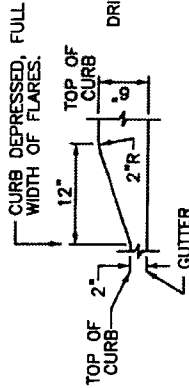
5/1/08

MAXIMUM ALLOWABLE APRON AND DRIVEWAY WIDTHS

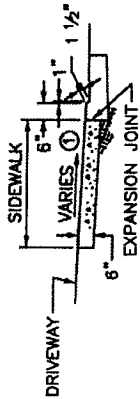
CLASSIFICATION	DRIVEWAY	APRON
SINGLE RESIDENTIAL	12'	18'
DOUBLE OR JOINT RESIDENTIAL	20'	26'



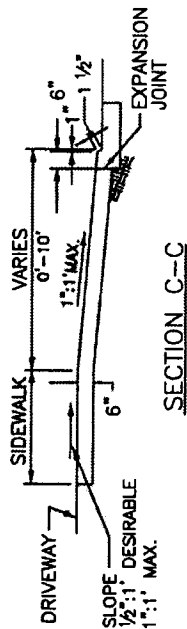
SECTION A-A



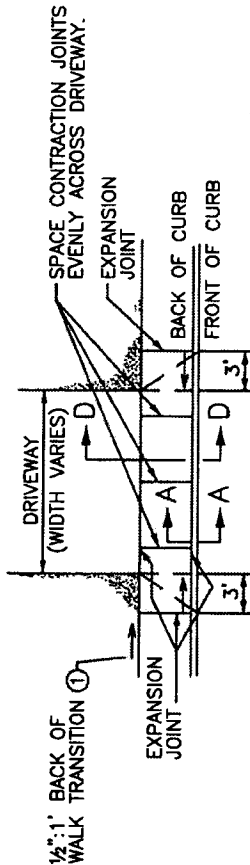
SECTION B-B



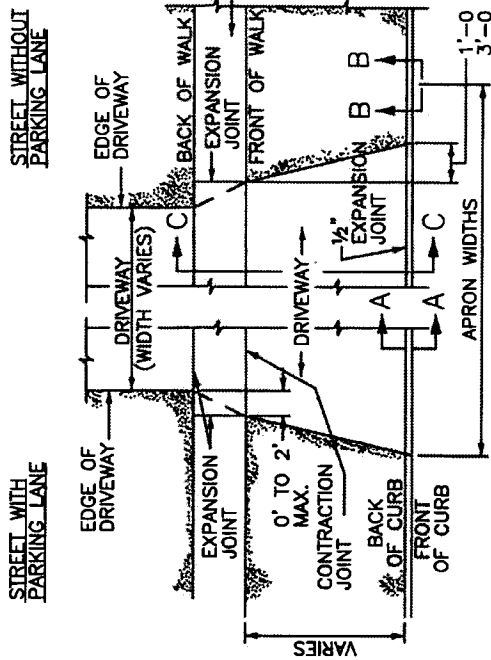
SECTION D-D



SECTION C-C



ENTRANCE WITHOUT UTILITY STRIP



ENTRANCE WITH UTILITY STRIP

NOTE: FOR USE WITH 6" HEADER CURB OR 6" CURB AND GUTTER

UTILITY STRIP WIDTH	DROP BACK OF DRIVEWAY	SIDEWALK SLOPE	SLOPE ON APRON
0'	1 1/2"	7.29%	N/A
2'	1 1/2"	5.21%	8.33%
4'	1 1/2"	3.12%	8.33%
5'	1 1/2"	2.08%	8.33%
6'	1"	2.08%	8.33%
8'	0"	2.08%	8.33%
10'	0"	2.08%	7.50%

BASED ON 1/2:1 GROSS SLOPE

UTILITY STRIP WIDTH	DROP BACK OF DRIVEWAY	SIDEWALK SLOPE	SLOPE ON APRON
0'	1 1/2"	7.29%	N/A
2'	1 1/2"	4.17%	8.33%
4'	1"	2.60%	8.33%
6'	0"	2.08%	8.33%
8'	0"	2.08%	7.64%
10'	0"	2.08%	6.25%
		2.08%	5.42%

BASED ON 1/4:1 GROSS SLOPE

NOTES:

1. DROP BACK OF SIDEWALK GRADE 1 1/2" OVER 3' TO PROVIDE A MAXIMUM SLOPE OF 1:1.
2. PROVIDE A SAWED JOINT ALONG CENTER LINE OF APRON.
3. MAXIMUM DROP AT BACK OF SIDEWALK SHALL NOT EXCEED 1 1/2".
4. MAXIMUM CROSS SLOPE ON SIDEWALK SHALL NOT EXCEED 1:1 (8.3%).
5. MAXIMUM SLOPE ON APRON SHALL NOT EXCEED 1:1 (8.3%).
6. ENTIRE APRON FROM BACK OF CURB TO BACK OF SIDEWALK SHALL BE CONSTRUCTED WITH A SINGLE POUR.

NO.	DATE	REVISION DESCRIPTION	BY

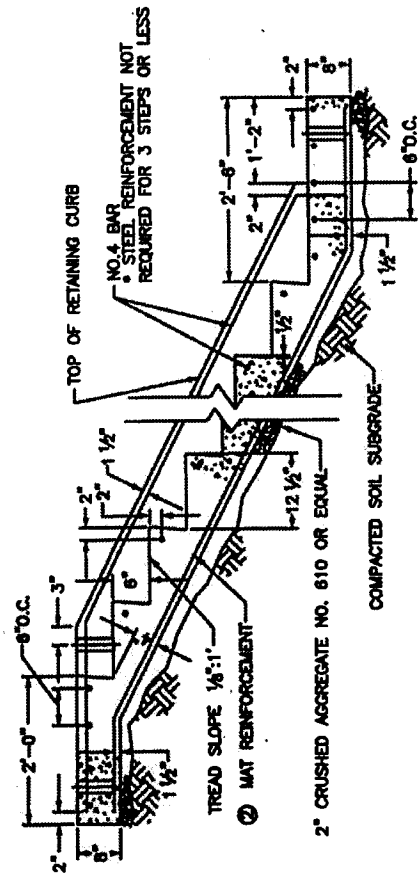
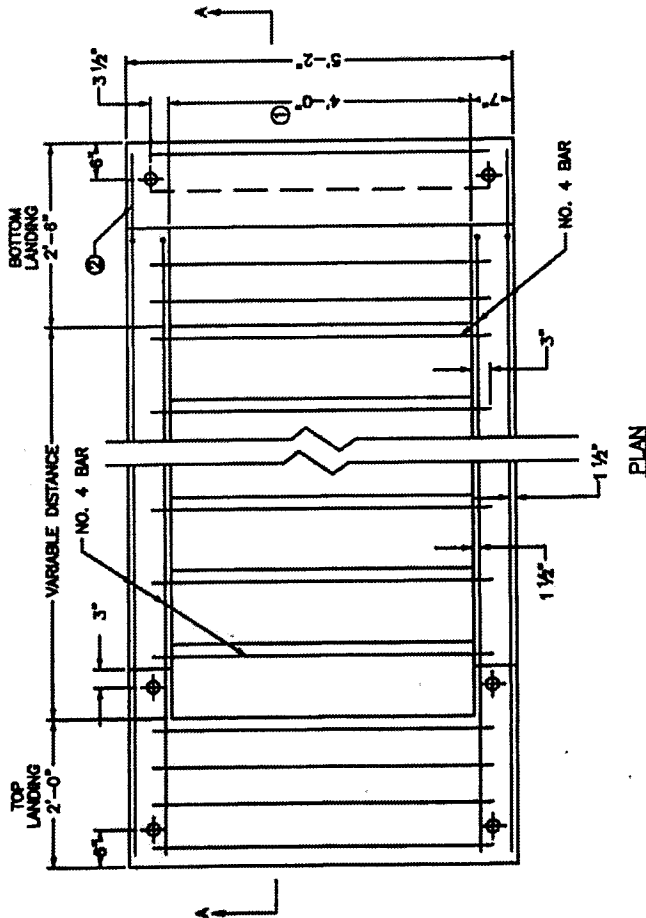
DIVISION OF ENGINEERING

RESIDENTIAL ENTRANCE DETAILS

STANDARD DRAWING NO. 307

APPROVED: [Signature]

DATE: [Date]



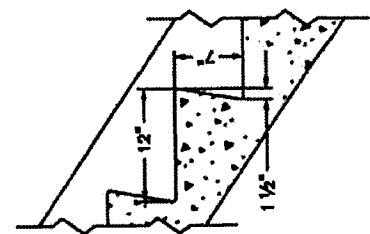
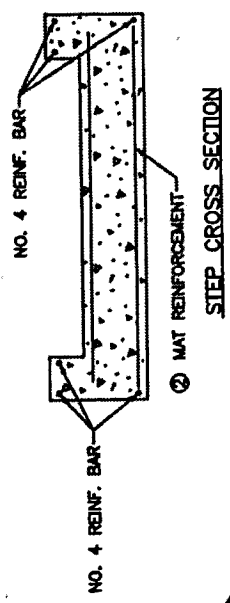
SECTION A-A 2:1 SLOPE

- NOTES:
1. MAT REINFORCEMENT (1) NO. 4 REINFORCEMENT BARS, LONG BARS 6" O.C. AND TRANSV. BARS 12" O.C., MIN. GRADE 40, OR WELDED WIRE FABRIC-6X8-WAXWA, 58 LBS./100 SQ. FT.
 2. NO. 4 REINFORCEMENT BARS ADDITIONALLY AS SHOWN.
 3. ROUND ALL EXPOSED EDGES AND CORNERS 1/4" R.
 4. MAT REINFORCEMENT IN BOTTOM OF THE STEPS SHALL BE WIRE FABRIC OR BAR MAT (2).
 5. HANDRAIL SHALL BE REQUIRED WITH THREE OR MORE STEPS.

TABLE OF QUANTITIES

SLOPE	LOCATION	ADDITIONAL NO. 4 BAR REINF. (LBS)		MAT REINFORCEMENT WIRE FABRIC(SQ.FT.)		BAR MAT (LBS)		CU. YDS. CLASS "A" CONCRETE	
		4' WIDTH (1)	4' WIDTH (2)	4' WIDTH (1)	4' WIDTH (2)	4' WIDTH (1)	4' WIDTH (2)	4' WIDTH (1)	4' WIDTH (2)
2:1	BOTTOM LANDING	23,547	3,340	11,776	2,375	27,388	5,177	0.337	0.058
	INTERMEDIATE STEP	8,015	1,336	5,991	1,208	12,191	2,983	0.16	0.025
	TOP LANDING	22,483	3,340	9,504	1,917	20,708	3,897	0.285	0.051
1 1/2:1	BOTTOM LANDING	23,603	3,340	12,502	2,542	28,613	5,400	0.36	0.062
	INTERMEDIATE STEP	7,431	1,336	5,268	1,063	11,119	2,088	0.17	0.027
	TOP LANDING	22,548	3,340	9,710	1,958	21,014	3,952	0.281	0.054

(1) APPROXIMATE QUANTITY TO ADD FOR EACH ADDITIONAL FOOT OF WIDTH OVER 4'-0".



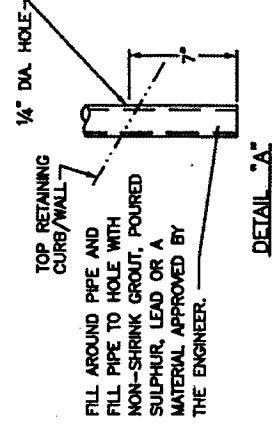
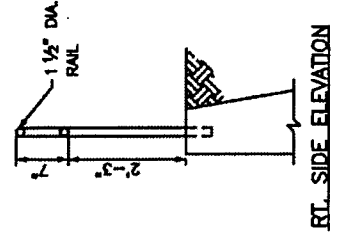
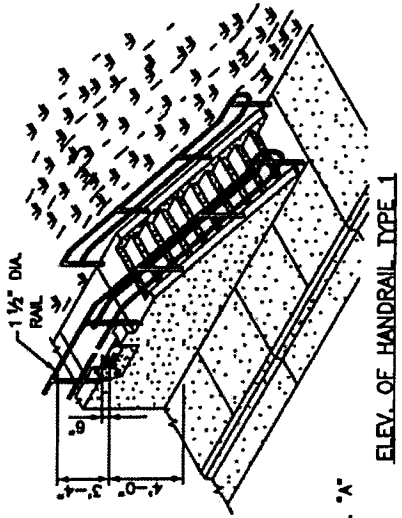
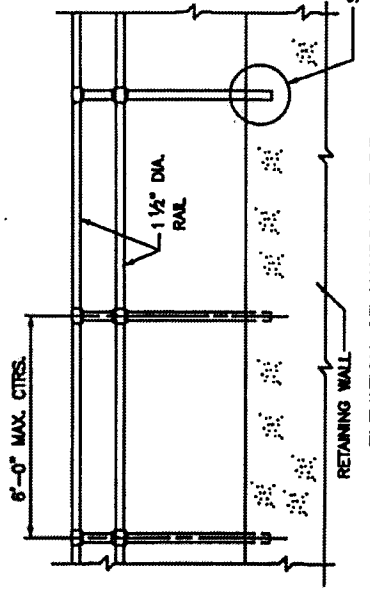
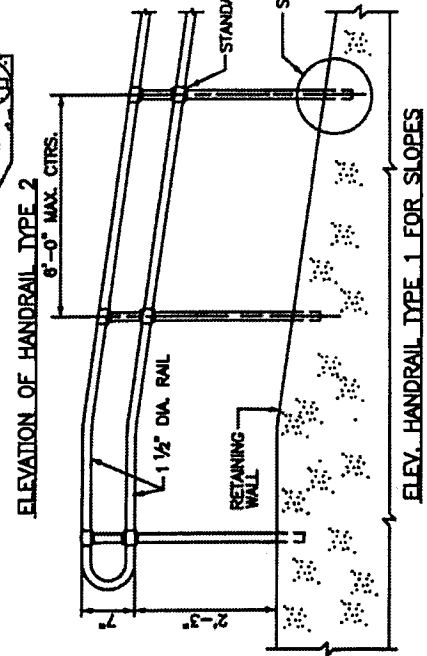
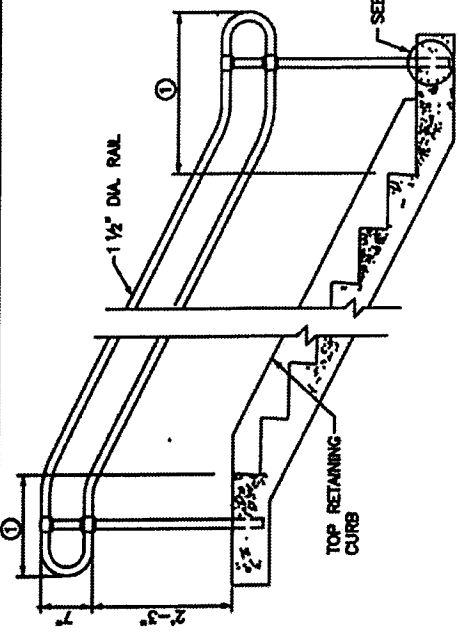
NO.	DATE	REVISION DESCRIPTION	BY

DIVISION OF ENGINEERING

CONCRETE STEPS

STANDARD DRAWING NO. 315
 DATE 5/1/68
 DRAWN BY [Signature]
 CHECKED BY [Signature]

STEP DETAIL FOR 1 1/2:1 SLOPE



NOTES:

1. ALL HANDRAILS SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICANS WITH DISABILITIES ACT (ADA) GUIDELINES.
2. ANCHOR POST IN CORED OR FORMED HOLES (SEE DETAIL "A").
3. HANDRAIL SHALL BE REQUIRED WITH THREE OR MORE STEPS.
4. HANDRAIL USED AS A TOP HANDRAIL ON STEPS AND HANDRAIL USED ON A RETAINING WALL SHALL BE REQUIRED WHEN THE ADJACENT FLOOR, GROUND LEVEL, ROAD, WALK, ETC. IS 4" OR MORE BELOW THE TOP OF THE RETAINING WALL. HANDRAIL SHALL BE UNIFORMLY CONSTRUCTED.
5. THE TOP OF THE RETAINING WALL OR CURB SHALL BE A MINIMUM OF 6" ABOVE THE ADJOINING SIDEWALK.
6. RAILS SHALL NOT ROTATE IN FITTINGS AND SHALL HAVE WELDED CONNECTIONS.
7. THE CLEAR SPACE BETWEEN HANDRAILS AND WALL SHALL BE 1 1/2".
8. HANDRAILS SHOULD BE CONSTRUCTED OF DN 40 SCHEDULE 40 ALUMINUM PIPE IN ACCORDANCE WITH ASTM-B221 OR B210 ALLOY 6061-TB.

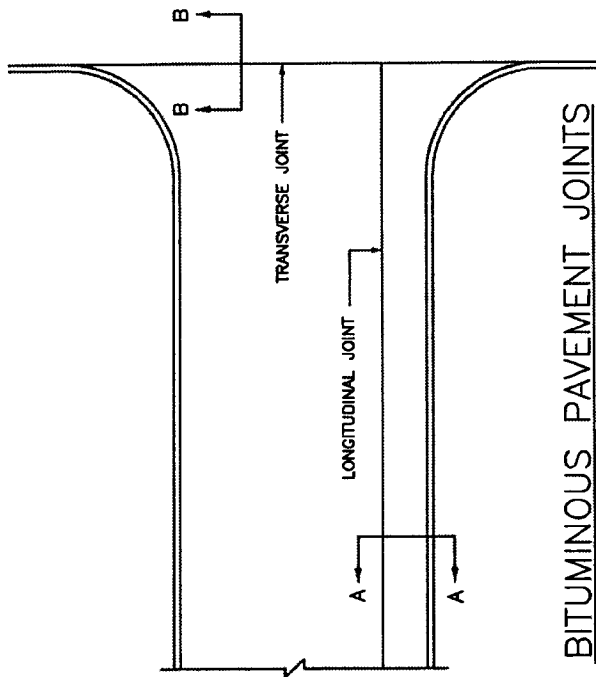
SHEET NOTE:

① HANDRAILS SHALL EXTEND 12" BEYOND THE TOP RISER AND AT LEAST 12" PLUS THE WIDTH OF ONE TREAD BEYOND THE BOTTOM RISER. AT THE TOP, THE EXTENSION SHALL BE PARALLEL WITH THE FLOOR OR GROUND SURFACE AT THE BOTTOM, THE HANDRAIL SHALL CONTINUE TO SLOPE FOR A DISTANCE OF THE WIDTH OF ONE TREAD FROM THE BOTTOM RISER, THE REMAINDER OF THE EXTENSION SHALL BE HORIZONTAL.

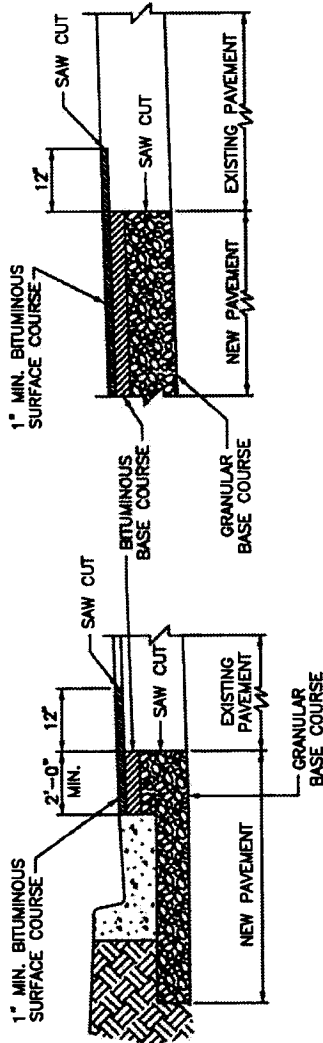
NO.	DATE	REVISION DESCRIPTION	BY
DIVISION OF ENGINEERING			
HANDRAIL			
DRAWING NUMBER: 318 PROJECT: 5/1/02 DATE: 5/1/02			DESIGNED BY: [Signature] CHECKED BY: [Signature] APPROVED BY: [Signature]

NOTES:

1. ALL SAW-CUTS SHALL BE NEAT AND STRAIGHT.
2. IMMEDIATELY BEFORE LAYING NEW BITUMINOUS COURSES, ALL SAW CUT EDGES SHALL BE CLEANED OF DUST AND DEBRIS AND SPRAYED WITH A BITUMINOUS TACK COAT.
3. EDGE KEY SHALL NOT BE REQUIRED IF BOTH EXISTING AND NEW PAVEMENT ARE TO RECEIVE AN OVERLAY AS PART OF THIS CONTRACT.



BITUMINOUS PAVEMENT JOINTS



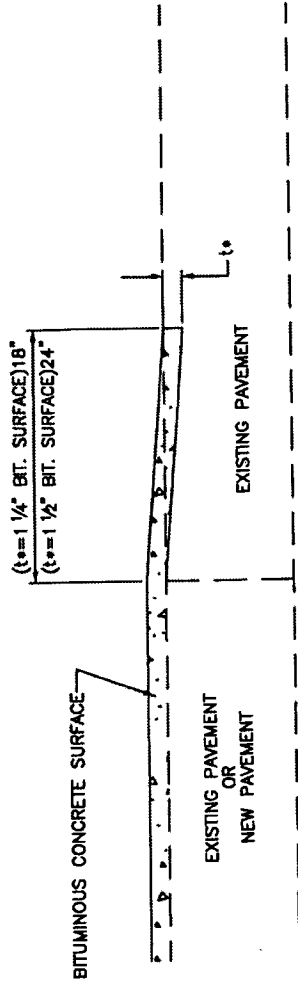
SECTION A-A

LONGITUDINAL EDGE KEY

SECTION B-B

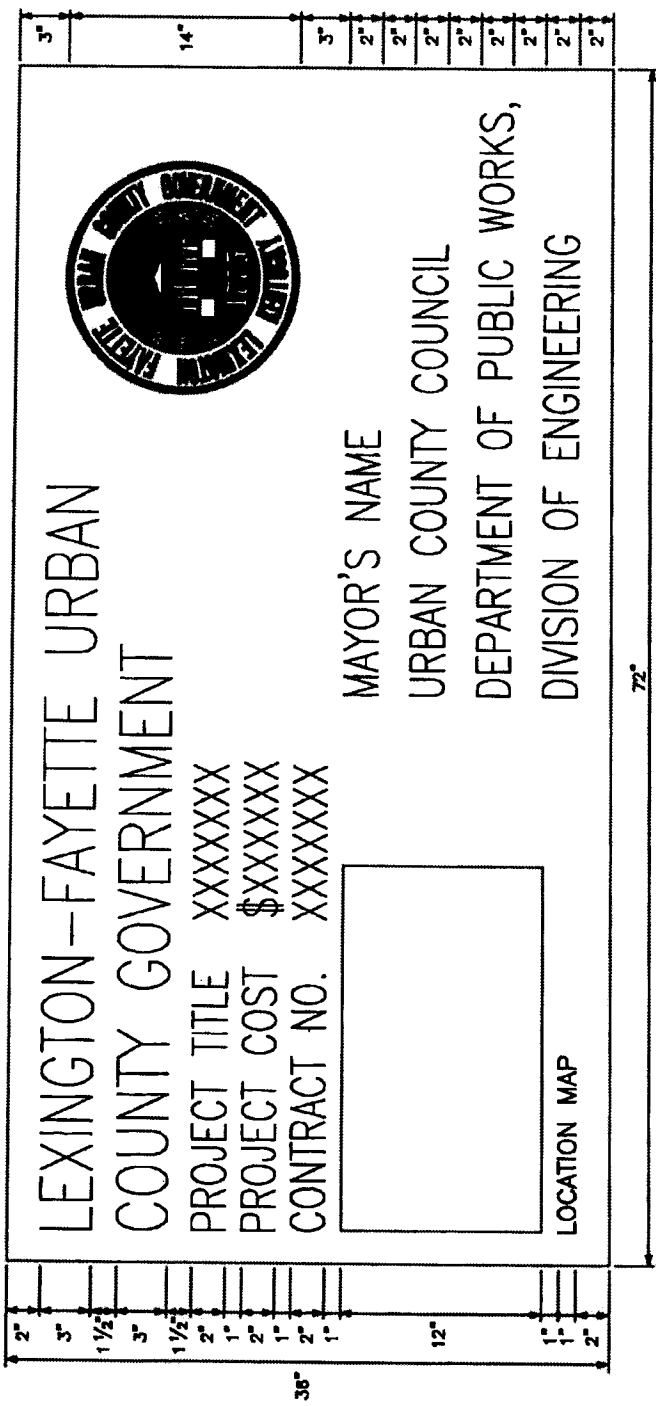
TRANSVERSE EDGE KEY

NO.	DATE	REVISION DESCRIPTION	BY
DIVISION OF ENGINEERING			
EDGE KEY			
STANDARD DRAWING NO. 318			DATE
APPROVED BY <i>[Signature]</i>			5/1/68
DRAWN BY <i>[Signature]</i>			5/1/68
CHECKED BY <i>[Signature]</i>			DATE



EDGE KEY

NO.	DATE	REVISION DESCRIPTION	BY
DIVISION OF ENGINEERING			
TYPICAL EDGE KEY			
FOR			
MINIMUM OVERLAYS,			
SHORT PROJECTS,			
LOW SPEED			
STANDARD DRAWING NO.	319		
APPROVED BY	<i>[Signature]</i>	DATE	5/1/68
DESIGNED BY	<i>[Signature]</i>	DATE	5/1/68
CHECKED BY	<i>[Signature]</i>	DATE	5/1/68



NO.	DATE	REVISION DESCRIPTION	BY
DIVISION OF ENGINEERING			
PUBLIC IMPROVEMENT SIGN			
DRAWING NUMBER: 323		DATE: 5/1/04	
DRAWN BY: [Signature]		CHECKED BY: [Signature]	

NOTES:

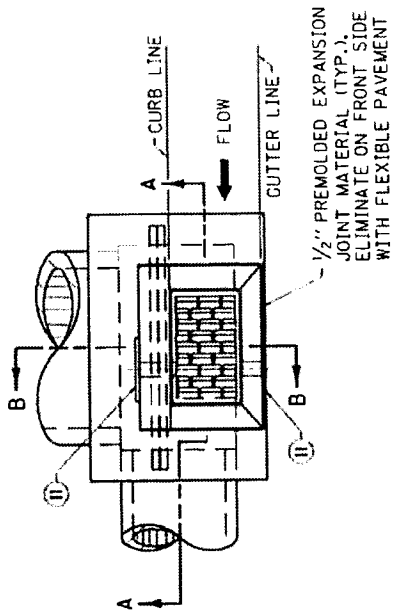
THIS SIGN SHALL BE:

1. FURNISHED AND ERECTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE, IN ADDITION TO THE NORMAL WARNING AND REGULATORY SIGNS.
2. OF GOOD QUALITY EXTERIOR PLYWOOD OR OTHER APPROVED MATERIAL.
3. PAINTED WITH SOLID BLUE LETTERS ON A WHITE BACKGROUND.
4. UPDATED AS NEEDED TO INDICATE THE APPROPRIATE MAYOR'S NAME.
5. FRAMED AND BRACED SO AS TO REMAIN VERTICAL AND PLAINLY VISIBLE TO THE TRAVELING PUBLIC.
6. ERECTED PRIOR TO STARTING CONSTRUCTION WORK.
7. ERECTED AT EACH END OF THE PROJECT AT LOCATIONS DIRECTED BY THE ENGINEER AND AT OTHER LOCATIONS SPECIFIED ON THE PLANS OR IN THE PROPOSAL.
8. KEPT CLEAN AND IN GOOD CONDITION FOR THE DURATION OF THE CONSTRUCTION AS DIRECTED BY THE ENGINEER.
9. THE COST SHOWN APPLIES ONLY TO THE PORTION OF PROJECT UNDER CONSTRUCTION IN A CONTINUOUS SECTION. IN THE EVENT THE PROJECT CONSISTS OF MORE THAN ONE CONTINUOUS SECTION THE COST SHOWN SHALL BE FOR THE PARTICULAR SECTION WHERE WORK IS IN PROGRESS.

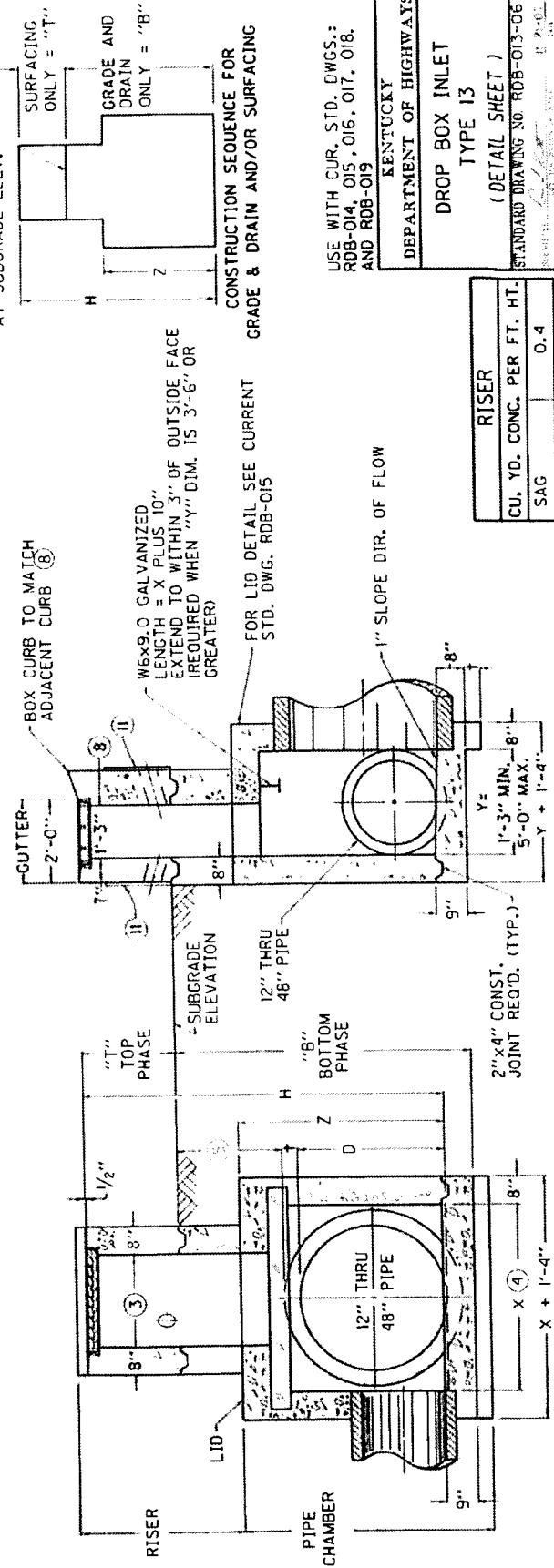
LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, DEPARTMENT OF PUBLIC WORKS AND DEVELOPMENT

NOTES

1. BOX INLET SHALL BE CONSTRUCTED IN TWO PHASES (BOTTOM AND TOP) AND MAY BE CONSTRUCTED IN A SAG VERTICAL CURVE OR ON GRADE.
 BID ITEM: DROP BOX INLET TYPE 13 (Δ) (*)
 (Δ) = "S" (SAG CONDITION)
 (Δ) = "C" (GRADE CONDITION)
 (*) = "T" (TOP PHASE)
 (*) = "B" (BOTTOM PHASE)
2. FOR ILLUSTRATION PURPOSES THIS DRAWING DEPICTS A BOX LOCATED ON A GRADE CONDITION. SEE CURRENT STD. DWG. ROB-014, FOR DETAILS OF SAG AND GRADE CONDITIONS.
3. DIMENSION VARIES DEPENDING UPON LOCATION OF BOX; GRADE CONDITION = 2'-3", SAG CONDITION = 4'-11".
4. GRADE CONDITION: X = 2'-3" MIN. TO 5'-0" MAX., SAG CONDITION: X = 4'-11".
5. 2'-0" DESIRED COVER, 1'-0" MINIMUM COVER OVER PIPE AND/OR LID.
6. "H" IS CONCRETE PIPE WALL THICKNESS OR METAL CORRUGATION DEPTH.
7. ALL WALLS AND SLABS ARE 8" THICK UNLESS OTHERWISE SHOWN.
8. THICKNESS = CURB WIDTH + 2" (MINIMUM WIDTH 8" WITHOUT CURB). INLET MAY BE CONSTRUCTED WITH OR WITHOUT A CURB. THE CURB ON THE BOX SHALL BE CONSTRUCTED TO MATCH THE ADJOINING CURB WITH THE SAME CONSTRUCTION AND MATERIAL DETAILS (SEE CURRENT STD. DWG. RPM-100). THIS DRAWING DEPICTS A LIP CURB APPLICATION.
9. THE TOP PHASE SHALL BE CAST AFTER THE ADJOINING CURB AND GUTTER HAVE BEEN CAST.
10. SEE CURRENT STD. DWG. ROB-014, 015, 016, 018 AND ROB-019 FOR FRAME AND GRATE DETAIL, STEEL PATTERN, DIMENSIONS AND QUANTITIES.
11. FABRIC WRAPPED BACKFILL DRAIN, (ONE PER WEEP HOLE).
12. THIS GRATE IS BICYCLE FRIENDLY.



PLAN VIEW



CONST. JOINT REQUIRED AT SUBGRADE ELEV. -

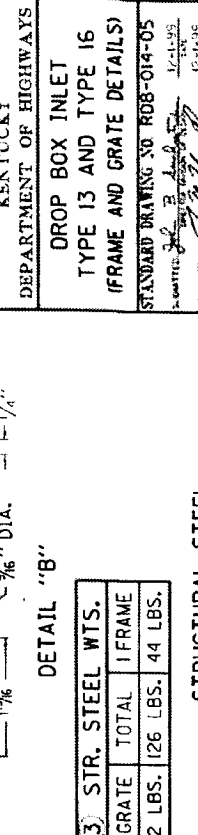
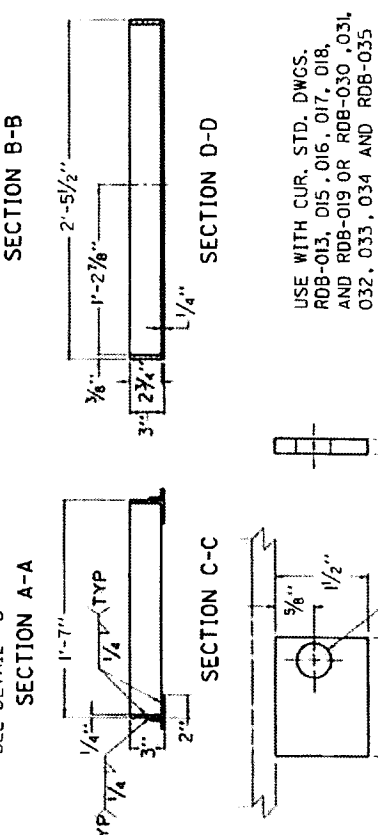
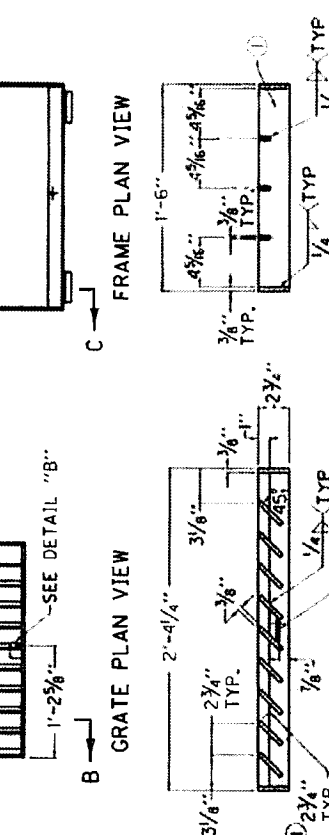
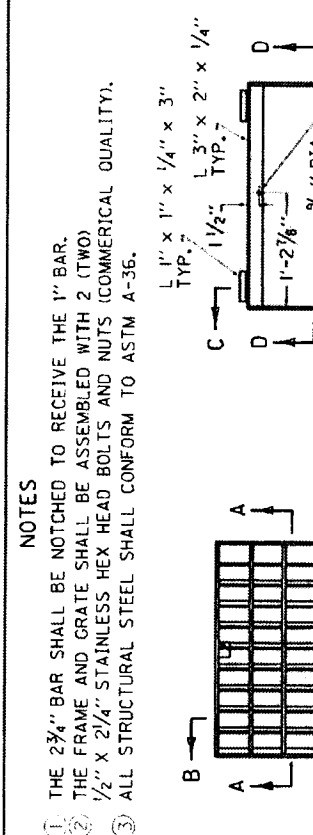
CONSTRUCTION SEQUENCE FOR GRADE & DRAIN AND/OR SURFACING

USE WITH CUR. STD. DWGS.: ROB-014, 015, 016, 017, 018, AND ROB-019

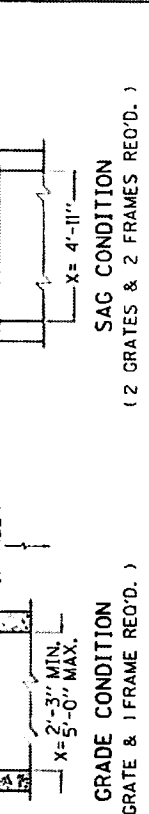
KENTUCKY
 DEPARTMENT OF HIGHWAYS
 DROP BOX INLET
 TYPE 13
 (DETAIL SHEET)

RISER	
CU. YD. CONC. PER FT. HT.	0.4
SAG	0.4
GRADE	0.2

STANDARD DRAWING NO. RDB-013-06
 E. A. GILL
 J. B. GILL
 J. B. GILL



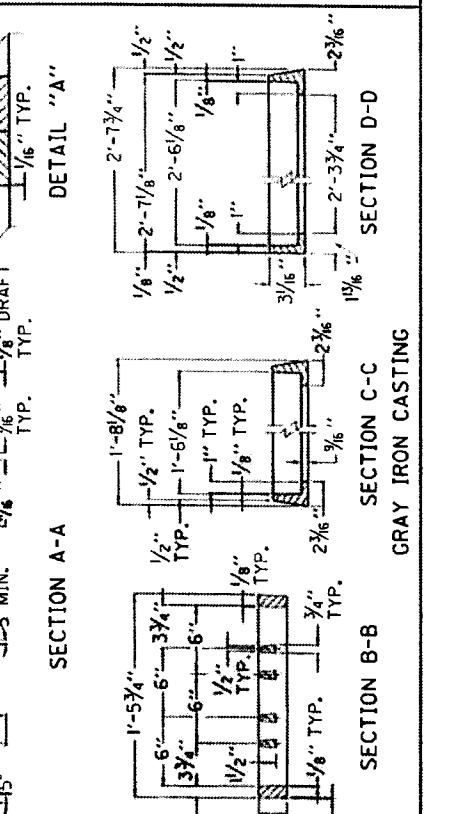
- NOTES**
- THE 2 3/4" BAR SHALL BE NOTCHED TO RECEIVE THE 1" BAR.
 - THE FRAME AND GRATE SHALL BE ASSEMBLED WITH 2 (TWO) 1/2" x 2 1/4" STAINLESS HEX HEAD BOLTS AND NUTS (COMMERCIAL QUALITY).
 - ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36.



APPROX. WEIGHT

1 GRATE	160 LBS.
1 FRAME	TO LBS.

- NOTES**
- ALL FILLETS AND ROUNDS SHALL BE 1/8" R.
 - THE FRAME AND GRATE SHALL BE MANUFACTURED OF CAST GRAY IRON CONFORMING TO ASTM A-48 CLASS 55B.



KENTUCKY
DEPARTMENT OF HIGHWAYS
DROP BOX INLET
TYPE 13 AND TYPE 16
(FRAME AND GRATE DETAILS)
STANDARD DRAWING NO RDB-014-05
APPROVED: [Signature]
DATE: 12-14-36

USE WITH CUR. STD. DWGS.
RDB-013, 015, 016, 017, 018,
AND RDB-019 OR RDB-030, 031,
032, 033, 034 AND RDB-035

REINFORCEMENT STEEL FOR 8' LID

(GRADE CONDITION)

SIZE		NO. 5 STEEL BARS				LBS.	
X	Y	BAR S QTY. LIN. FT. QTY.	BAR T LIN. FT. QTY.	BAR U LIN. FT. QTY.	BAR V LIN. FT. QTY.	BAR V LIN. FT.	LBS.
2'-3"	1'-3"	4	3'-0"	8	1'-0"	57	7
	2'-0"	8	3'-0"	10	1'-6"	71	
5'-0"	2'-6"	16	4'-0"	12	2'-0"	85	10
	3'-0"	16	4'-6"	14	2'-6"	99	
	3'-6"	16	5'-0"	16	3'-0"	113	
	4'-0"	18	5'-6"	18	3'-6"	127	
4'-6"	4'-6"	20	6'-0"	20	4'-0"	142	
	5'-0"	4	2'-3"	4	1'-3"	40	
	2'-0"	8	3'-0"	8	1'-0"	70	
2'-6"	3'-0"	10	3'-6"	10	1'-6"	85	
	3'-0"	12	4'-0"	12	2'-0"	101	
4'-0"	3'-6"	14	4'-6"	14	2'-6"	116	
	4'-0"	16	5'-0"	16	3'-0"	132	
	4'-6"	18	5'-6"	18	3'-6"	148	
	5'-0"	20	6'-0"	20	4'-0"	163	
3'-0"	1'-3"	4	2'-3"	4	1'-0"	42	
	2'-0"	8	3'-0"	8	1'-0"	76	
	2'-6"	10	3'-6"	10	1'-6"	94	
	3'-0"	12	4'-0"	12	2'-0"	111	
4'-6"	3'-6"	14	4'-6"	14	2'-6"	129	
	4'-0"	16	5'-0"	16	3'-0"	147	
	4'-6"	18	5'-6"	18	3'-6"	164	
	5'-0"	20	6'-0"	20	4'-0"	182	
3'-6"	1'-3"	4	2'-3"	4	1'-0"	65	
	2'-0"	8	3'-0"	8	1'-0"	102	
	2'-6"	10	3'-6"	10	1'-6"	122	
	3'-0"	12	4'-0"	12	2'-0"	142	
4'-0"	3'-6"	14	4'-6"	14	2'-6"	161	
	4'-0"	16	5'-0"	16	3'-0"	181	
	4'-6"	18	5'-6"	18	3'-6"	201	
	5'-0"	20	6'-0"	20	4'-0"	221	
4'-6"	1'-3"	4	2'-3"	4	1'-0"	71	
	2'-0"	8	3'-0"	8	1'-0"	111	
	2'-6"	10	3'-6"	10	1'-6"	133	
	3'-0"	12	4'-0"	12	2'-0"	155	
4'-0"	3'-6"	14	4'-6"	14	2'-6"	177	
	4'-0"	16	5'-0"	16	3'-0"	199	
	4'-6"	18	5'-6"	18	3'-6"	221	
	5'-0"	20	6'-0"	20	4'-0"	243	
4'-6"	1'-3"	4	2'-3"	4	1'-0"	85	
	2'-0"	8	3'-0"	8	1'-0"	129	
	2'-6"	10	3'-6"	10	1'-6"	153	
	3'-0"	12	4'-0"	12	2'-0"	177	
4'-0"	3'-6"	14	4'-6"	14	2'-6"	201	
	4'-0"	16	5'-0"	16	3'-0"	225	
	4'-6"	18	5'-6"	18	3'-6"	249	
	5'-0"	20	6'-0"	20	4'-0"	273	

REINFORCEMENT STEEL FOR 8" LID

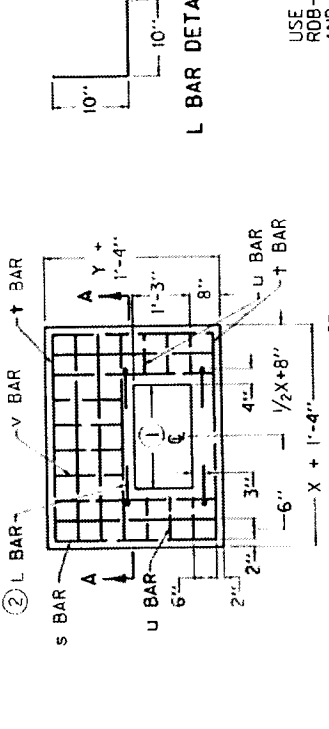
(SAG CONDITION)

SIZE		NO. 5 STEEL BARS				LBS.	
X	Y	BAR S QTY. LIN. FT. QTY.	BAR T LIN. FT. QTY.	BAR U LIN. FT. QTY.	BAR V LIN. FT. QTY.	BAR V LIN. FT.	LBS.
2'-3"	1'-3"	4	3'-0"	8	1'-0"	138	90
	2'-0"	8	3'-0"	10	1'-6"	164	
5'-0"	2'-6"	16	4'-0"	12	2'-0"	191	10
	3'-0"	16	4'-6"	14	2'-6"	217	
	3'-6"	16	5'-0"	16	3'-0"	243	
	4'-0"	18	5'-6"	18	3'-6"	269	
4'-6"	4'-6"	20	6'-0"	20	4'-0"	295	
	5'-0"	4	2'-3"	4	1'-0"	138	
	2'-0"	8	3'-0"	8	1'-6"	164	
2'-6"	3'-0"	10	3'-6"	10	1'-6"	191	
	3'-0"	12	4'-0"	12	2'-0"	217	
4'-0"	3'-6"	14	4'-6"	14	2'-6"	243	
	4'-0"	16	5'-0"	16	3'-0"	269	
	4'-6"	18	5'-6"	18	3'-6"	295	
	5'-0"	20	6'-0"	20	4'-0"	321	
3'-0"	1'-3"	4	2'-3"	4	1'-0"	92	
	2'-0"	8	3'-0"	8	1'-6"	118	
	2'-6"	10	3'-6"	10	2'-0"	144	
	3'-0"	12	4'-0"	12	2'-6"	169	
4'-6"	3'-6"	14	4'-6"	14	2'-6"	195	
	4'-0"	16	5'-0"	16	3'-0"	221	
	4'-6"	18	5'-6"	18	3'-6"	247	
	5'-0"	20	6'-0"	20	4'-0"	273	

REINFORCEMENT STEEL FOR 8" LID

(SAG CONDITION)

SIZE		NO. 5 STEEL BARS				LBS.	
X	Y	BAR S QTY. LIN. FT. QTY.	BAR T LIN. FT. QTY.	BAR U LIN. FT. QTY.	BAR V LIN. FT. QTY.	BAR V LIN. FT.	LBS.
2'-3"	1'-3"	4	3'-0"	8	1'-0"	92	7
	2'-0"	8	3'-0"	10	1'-6"	118	
4'-0"	2'-6"	16	4'-0"	12	2'-0"	144	22
	3'-0"	16	4'-6"	14	2'-6"	169	
	3'-6"	16	5'-0"	16	3'-0"	195	
	4'-0"	18	5'-6"	18	3'-6"	221	
4'-6"	4'-6"	20	6'-0"	20	4'-0"	247	
	5'-0"	4	2'-3"	4	1'-0"	92	
	2'-0"	8	3'-0"	8	1'-6"	118	
2'-6"	3'-0"	10	3'-6"	10	2'-0"	144	
	3'-0"	12	4'-0"	12	2'-6"	169	
4'-0"	3'-6"	14	4'-6"	14	2'-6"	195	
	4'-0"	16	5'-0"	16	3'-0"	221	
	4'-6"	18	5'-6"	18	3'-6"	247	
	5'-0"	20	6'-0"	20	4'-0"	273	



PLAN VIEW OF 8" LID

SECTION A-A

NOTES:

- DIMENSION VARIES DEPENDING UPON LOCATION OF BOX : GRADE CONDITION= 2'-3", SAG CONDITION= 4'-11"
- IN ADDITION TO THE CHARTED STEEL, FOUR L BARS ARE REQUIRED IN THE LID AND ARE INCLUDED IN THE TOTALS.
- CONCRETE QUANTITIES FOR LID ARE INCLUDED ON " DIMENSIONS AND ESTIMATE OF QUANTITIES FOR D.B.I. TYPE 13" - SEE CUR. STD. DWGS. RDB-016 AND RDB-017.
- REINFORCEMENT SHALL HAVE A CLEAR DISTANCE OF 2" FROM THE OUTSIDE FACE UNLESS OTHERWISE SHOWN.

USE WITH CUR. STD. DWGS.: RDB-013, 014, 016, 017, 018, AND RDB-019

KENTUCKY
DEPARTMENT OF HIGHWAYS

DROP BOX INLET
TYPE 13

(DETAIL & BAR CHART FOR LID)
STANDARD DRAWING NO. RDB-015-03

DIMENSIONS AND ESTIMATE OF QUANTITIES
(PIPE CHAMBER-SAG CONDITION)

NO.	INLET SIZE ④		MAX. PIPE DIA.	PIPE LOCATION	Z	CONCRETE		
	X	Y				CU. YD. ①	②	③
71		1'-3"	12"	X OR Y	2'-2"	1.2		
72		2'-0"	15"	X OR Y	2'-5"	1.3		
73		1'-3"	18"	X OR Y	2'-9"	1.4		
74		2'-0"	21"	X OR Y	3'-0"	1.5		0.4
75		2'-6"	24"	X OR Y	3'-3"	1.6		
76		1'-3"	27"	X OR Y	3'-6"	1.7		
77		2'-0"	30"	X OR Y	3'-10"	1.8		0.4
78		2'-6"	36"	X OR Y	4'-1"	1.9		
79		1'-3"	42"	X OR Y	4'-4"	2.0		0.4
80		2'-0"	48"	X OR Y	4'-7"	2.1		
81		2'-6"		X OR Y	5'-2"	2.2		0.5
82		1'-3"		X OR Y		2.3		
83		2'-0"		X OR Y		2.4		
84		2'-6"		X OR Y		2.5		
85		3'-0"		X OR Y		2.6		
86		1'-3"		X OR Y		2.7		
87		2'-0"		X OR Y		2.8		
88		2'-6"		X OR Y		2.9		
89		3'-0"		X OR Y		3.0		
90		3'-6"		X OR Y		3.1		
91		1'-3"		X OR Y		3.2		
92		2'-0"		X OR Y		3.3		
93		2'-6"		X OR Y		3.4		
94		3'-0"		X OR Y		3.5		
95		3'-6"		X OR Y		3.6		
96		1'-3"		X OR Y		3.7		
97		2'-0"		X OR Y		3.8		
98		2'-6"		X OR Y		3.9		
99		3'-0"		X OR Y		4.0		
100		3'-6"		X OR Y		4.1		
101		4'-0"		X OR Y		4.2		
102		1'-3"		X OR Y		4.3		
103		2'-0"		X OR Y		4.4		
104		2'-6"		X OR Y		4.5		
105		3'-0"		X OR Y		4.6		
106		3'-6"		X OR Y		4.7		
107		4'-0"		X OR Y		4.8		
108		4'-6"		X OR Y		4.9		
109		1'-3"		X OR Y		5.0		
110		2'-0"		X OR Y		5.1		
111		2'-6"		X OR Y		5.2		
112		3'-0"		X OR Y		5.3		
113		3'-6"		X OR Y		5.4		
114		4'-0"		X OR Y		5.5		
115		4'-6"		X OR Y		5.6		
116		5'-0"		X OR Y		5.7		

REFERENCE CHART

DIA. OF PIPE	D.B.I. TYPE 13		CONCRETE TO DEDUCT FOR EACH PIPE CUBIC YARDS
	PIPE ON "X" SIDE OF INLET	PIPE ON "Y" SIDE OF INLET	
0		1'-3"	0.1
12"		2'-0"	0.1
15"-18"		2'-6"	0.2
21"		3'-0"	0.3
24"		3'-6"	0.4
27"		4'-0"	0.4
30"-33"		4'-6"	0.5
36"		5'-0"	0.5
42"			
48"			

NOTES

- ① BASED ON Z AS EQUAL TO D+1'-0" WHEN "Y" DIMENSION IS LESS THAN 3'-6". BASED ON Z AS EQUAL TO D+1'-3" WHEN "Y" DIMENSION IS 3'-6" OR GREATER.
- ② SEE REFERENCE CHART FOR QUANTITIES TO DEDUCT FOR PIPE.
- ③ 0 = CU. YD. PER FOOT INCREASE OR DECREASE WHEN Z VARIES.
- ④ SEE CURRENT STD. DWGS. RDB-013 AND RDB-014 FOR DIMENSIONS.
- ⑤ SEE CUR. STD. DWG. RDB-018 AND RDB-019 FOR STEEL REINFORCEMENT IN PIPE CHAMBER AND RISER WHEN H = 8'-0" OR GREATER.
- ⑥ INLET IS SHOWN ON PLANS AS "DROP BOX INLET TYPE 13". FOLLOWING THIS IS A NUMBER AND A BOX HEIGHT. USE THIS NUMBER WITH THIS CHART.
- ⑦ SEE CURRENT STD. DWG. RDB-016 FOR DIMENSIONS AND ESTIMATE OF QUANTITIES WHEN BOXES ARE LOCATED IN A GRADE CONDITION.

USE WITH CUR. STD. DWGS.
RDB-013, 014, 015, 016, 018,
AND RDB-019

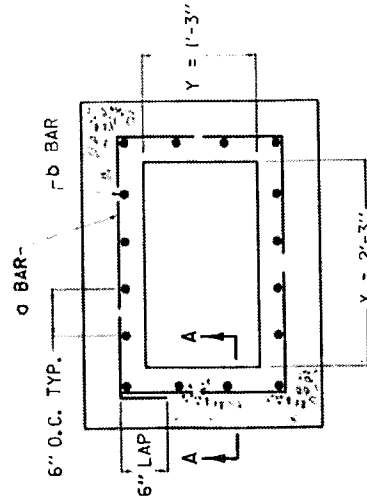
KENTUCKY
DEPARTMENT OF HIGHWAYS

DROP BOX INLET
TYPE 13
(PIPE CHAMBER-SAG CONDITION)

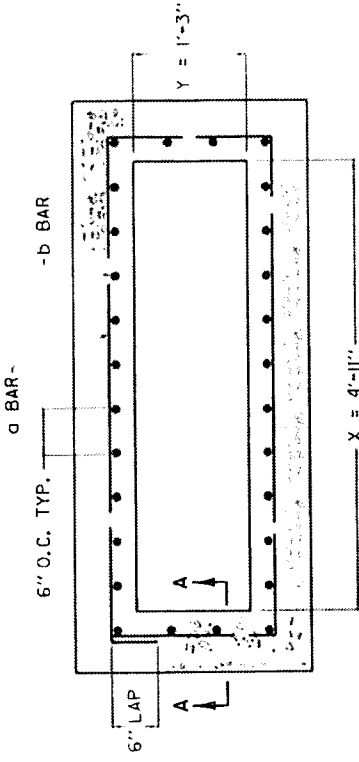
STANDARD DRAWING NO. RDB-017-02

APPROVED: *[Signature]*
DATE: 12-1-59

ADDITIONAL STEEL REINFORCEMENT REQUIREMENTS
(RISER, H = 8'-0" TO 15'-0", GRADE AND SAG CONDITION)



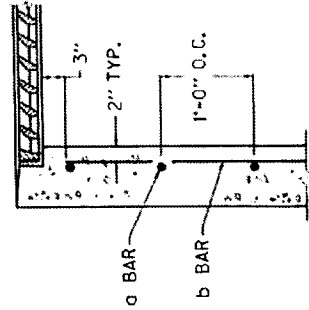
GRADE CONDITION



SAG CONDITION

NOTES

1. STEEL REINFORCEMENT SHALL HAVE A CLEAR DISTANCE OF 2" FROM THE FACE UNLESS OTHERWISE SHOWN.
2. ALL STEEL REINFORCEMENT SHALL BE NO. 5 BARS.



SECTION A-A

APPROXIMATE RISER QUANTITIES PER ONE FOOT IN HEIGHT						
CON-DITION	SIZE	BAR a		BAR b		LBS STEEL
		QTY.	LIN. FT.	QTY.	LIN. FT.	
GRADE	2'-3"	3	9'-3"	16	1'-0"	26
SAG	4'-11"	3	14'-7"	28	1'-0"	44

USE WITH CUR. STD. DWGS.
RDB-013, 014, 015, 016, 017,
AND RDB-019

KENTUCKY
DEPARTMENT OF HIGHWAYS

DROP BOX INLET
TYPE 13
(ADDITIONAL STEEL - RISER)
STANDARD DRAWING NO. RDB-018-03

DATE: 10/1/84
BY: [Signature]
CHECKED: [Signature]

① ADDITIONAL STEEL REINFORCEMENT REQUIREMENTS
(PIPE CHAMBER, H = 8' TO 15', GRADE CONDITION)

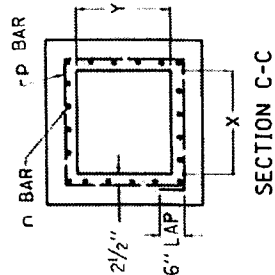
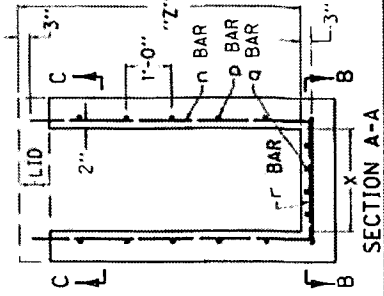
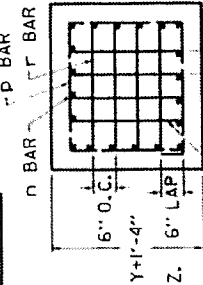
SIZE ②		NO. 5 STEEL BARS						LBS. ⑤			
X	Y	③ QTY.	④ LIN. FT.	④ QTY.	④ LIN. FT.	④ QTY.	④ LIN. FT.	④ QTY.	④ LIN. FT.	TOTAL ⑥	TOTAL ⑥
2'-6"	1'-3"	16	9'-3"	3	1'-9"	3	14'-9"	3	1'-9"	3	316
	2'-0"	20	10'-9"	4	2'-6"	4	16'-3"	4	2'-6"	4	351
2'-3"	2'-6"	22	11'-9"	5	3'-0"	5	17'-3"	5	3'-0"	5	381
	3'-0"	24	12'-9"	6	3'-6"	6	18'-3"	6	3'-6"	6	410
4'-0"	3'-6"	26	13'-9"	7	4'-0"	7	19'-3"	7	4'-0"	7	440
	4'-0"	28	14'-9"	8	4'-6"	8	20'-3"	8	4'-6"	8	470
4'-6"	4'-6"	30	15'-9"	9	5'-0"	9	21'-3"	9	5'-0"	9	500
	5'-0"	32	16'-9"	10	5'-6"	10	22'-3"	10	5'-6"	10	529
2'-6"	1'-3"	20	9'-9"	3	1'-9"	3	14'-9"	3	1'-9"	3	302
	2'-0"	22	11'-3"	4	2'-6"	4	16'-1"	4	2'-6"	4	350
2'-6"	2'-6"	24	12'-3"	5	3'-0"	5	17'-1"	5	3'-0"	5	379
	3'-0"	26	13'-3"	6	3'-6"	6	18'-1"	6	3'-6"	6	409
3'-0"	3'-6"	28	14'-3"	7	4'-0"	7	19'-1"	7	4'-0"	7	438
	3'-6"	30	15'-3"	8	4'-6"	8	20'-1"	8	4'-6"	8	468
4'-0"	4'-6"	32	16'-3"	9	5'-0"	9	21'-1"	9	5'-0"	9	498
	4'-6"	34	17'-3"	10	5'-6"	10	22'-1"	10	5'-6"	10	527

① ADDITIONAL STEEL REINFORCEMENT REQUIREMENTS
(PIPE CHAMBER, H = 8' TO 15', SAG CONDITION)

SIZE ②		NO. 5 STEEL BARS						LBS. ⑤			
X	Y	③ QTY.	④ LIN. FT.	④ QTY.	④ LIN. FT.	④ QTY.	④ LIN. FT.	④ QTY.	④ LIN. FT.	TOTAL ⑥	TOTAL ⑥
2'-6"	1'-3"	28	14'-7"	3	1'-9"	3	14'-7"	3	1'-9"	3	302
	2'-0"	32	16'-1"	4	2'-6"	4	16'-1"	4	2'-6"	4	350
4'-11"	2'-6"	34	17'-1"	5	3'-0"	5	17'-1"	5	3'-0"	5	379
	3'-0"	36	18'-1"	6	3'-6"	6	18'-1"	6	3'-6"	6	409
3'-0"	3'-6"	38	19'-1"	7	4'-0"	7	19'-1"	7	4'-0"	7	438
	4'-0"	40	20'-1"	8	4'-6"	8	20'-1"	8	4'-6"	8	468
4'-6"	4'-6"	42	21'-1"	9	5'-0"	9	21'-1"	9	5'-0"	9	498
	5'-0"	44	22'-1"	10	5'-6"	10	22'-1"	10	5'-6"	10	527

NOTES

- BASED ON "Z" AS EQUAL TO 6'-0".
- SEE CURRENT, STD. DWG. RDB-013 AND RDB-014 FOR LOCATION AND DIMENSIONS.
- LENGTH OF n BAR IS ALWAYS SAME AS "Z" DIMENSION.
- ADD OR SUBTRACT ONE p BAR PER EVEN FOOT VARIANCE FROM 6'-0" Z.
- NO DEDUCTIONS HAVE BEEN MADE FOR PIPE.
- ADD OR SUBTRACT LBS. STEEL PER FOOT VARIANCE FROM 6'-0" Z.
- REINFORCEMENT SHALL HAVE A CLEAR DISTANCE OF 2" FROM THE FACE UNLESS OTHERWISE SHOWN.

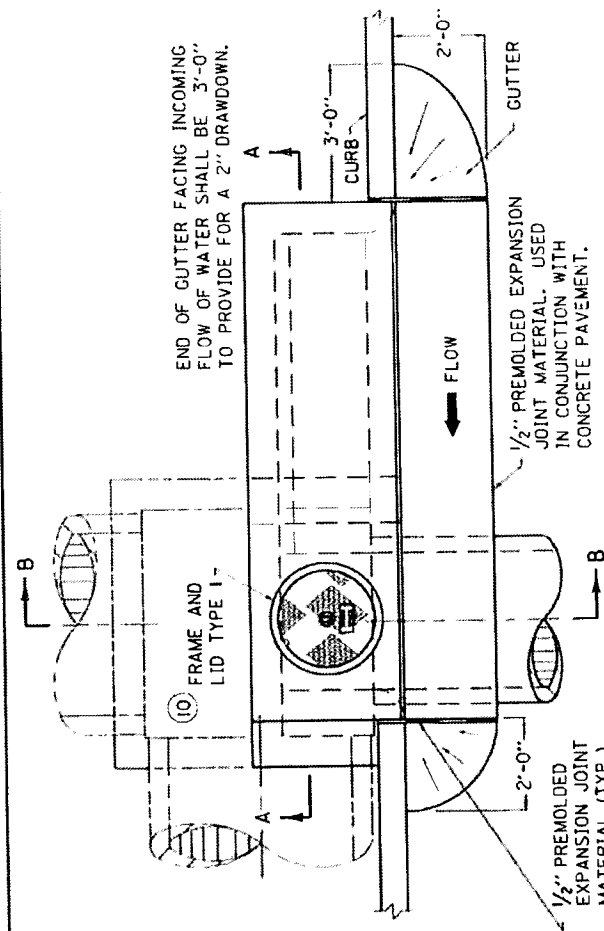


USE WITH CUR. STD. DWGS.:
RDB-013, 014, 015, 016, 017,
AND RDB-018

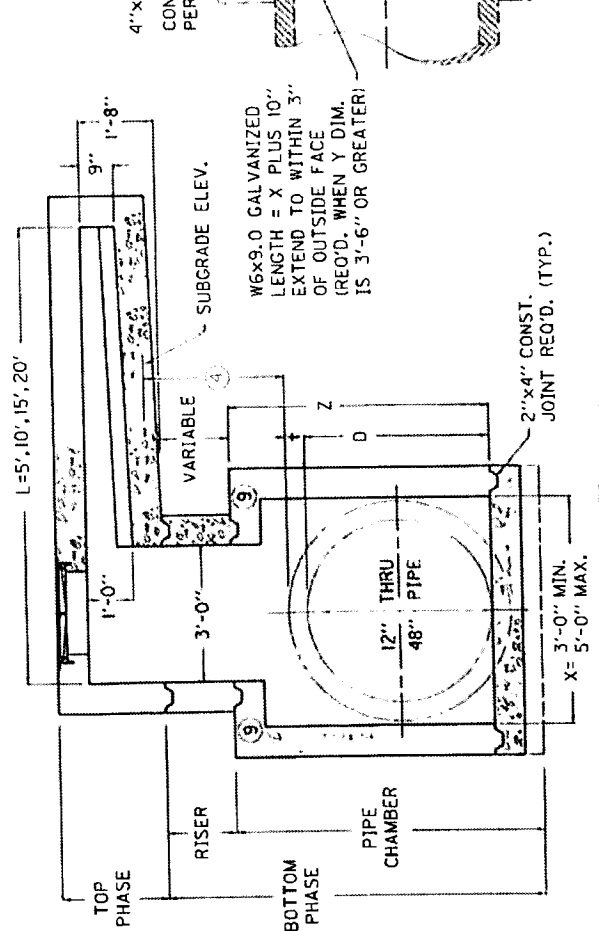
KENTUCKY
DEPARTMENT OF HIGHWAYS
DROP BOX INLET
TYPE 13
(ADDITIONAL STEEL - CHAMBER)
STANDARD DRAWING NO. RDB-019-03
DATE 12-14-35

NOTES ~

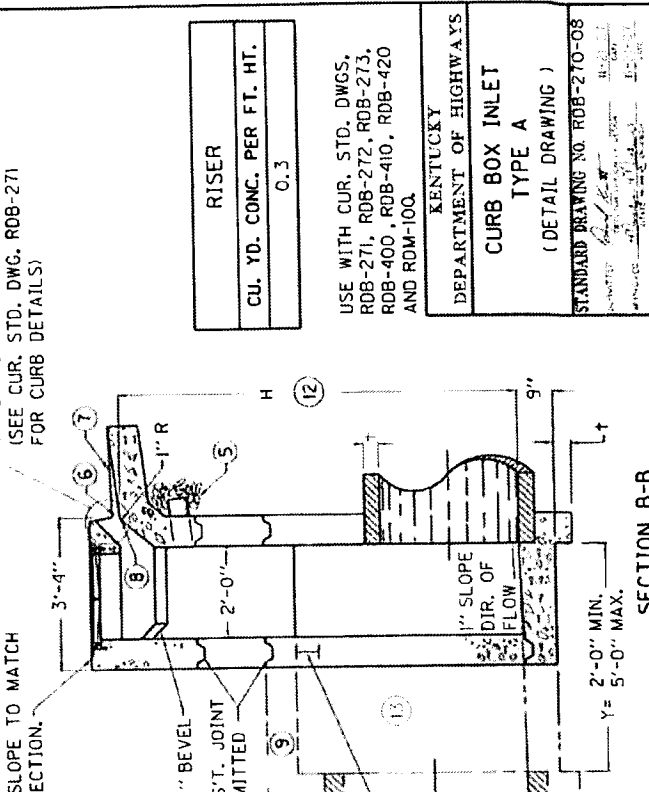
1. INLET SHALL BE CONSTRUCTED IN TWO PHASES (BOTTOM AND TOP) BID ITEM: CURB BOX INLET TYPE A (A) (B) = BOTTOM PHASE ONLY, (T) = TOP PHASE ONLY. NO SUFFIX INDICATES COMPLETE INLET.
2. SEE CUR. STD. DWG. RDB-271, RDB-272, RDB-273, RDB-400, RDB-410 AND RDB-420 FOR STEEL PATTERN, DIMENSIONS AND QUANTITIES.
3. ALL WALLS, SLABS AND GUTTERS ARE 8" THICK UNLESS OTHERWISE INDICATED.
4. 2'-0" DESIRED COVER, 1'-0" MINIMUM COVER.
5. SPALLS OR CRUSHED STONE AROUND END OF 4" OR 6" PIPE FOR SUBGRADE DRAINAGE.
6. 2" MINIMUM DRAWDOWN.
7. GUTTER CROSS SLOPE.
8. FLOW LINE (2" BELOW NORMAL GUTTERLINE ELEVATION).
9. LID MAY BE RAISED OR LOWERED IF APPROVED BY THE ENGINEER.
10. SEE CUR. STD. DWG. RDM-100 FOR FRAME AND LID TYPE I.
11. NOTE: "t" IS CONCRETE PIPE WALL THICKNESS OR METAL PIPE CORRUGATION DEPTH.
12. MINIMUM HEIGHTS
 $H = Z + 1'-8"$ FOR STANDARD CURB
 $H = Z + 1'-10"$ FOR ISLAND CURB
 $H = Z + 1'-5"$ FOR BARRIER CURB
13. CHAMBER MAY BE SHIFTED TO ROADWAY SIDE OF BOX PROVIDED THERE IS 1'-0" MINIMUM COVER BETWEEN SUBGRADE ELEVATION AND TOP OF PIPE.



PLAN VIEW



SECTION A-A

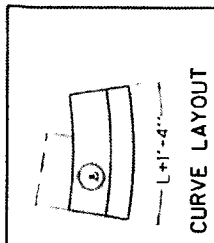


SECTION B-B

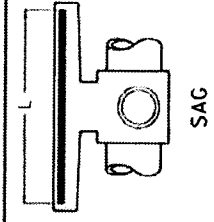
RISER
CU. YD. CONC. PER FT. HT.
0.3

USE WITH CUR. STD. DWGS. RDB-271, RDB-272, RDB-273, RDB-400, RDB-410, RDB-420 AND RDM-100.

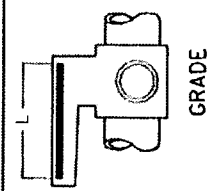
KENTUCKY
 DEPARTMENT OF HIGHWAYS
 CURB BOX INLET
 TYPE A
 (DETAIL DRAWING)
 STANDARD DRAWING NO. RDB-270-08



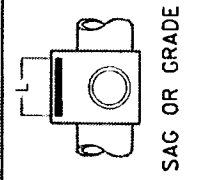
CURVE LAYOUT



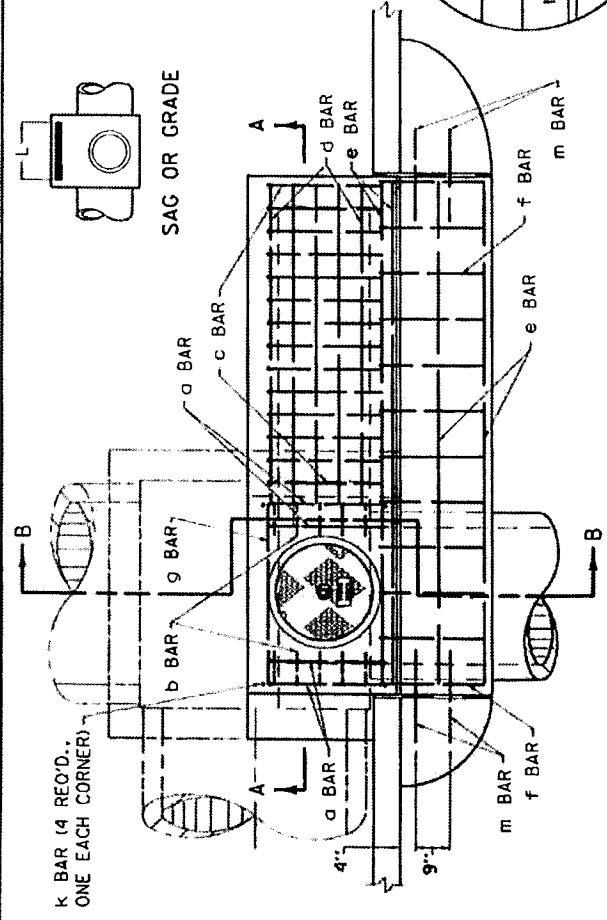
SAG



GRADE

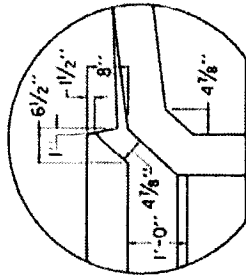


SAG OR GRADE

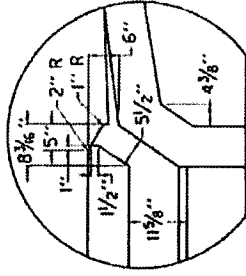


PLAN VIEW

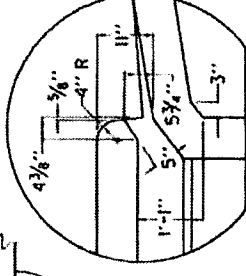
- NOTES
- SEE CURRENT STD. DWG. RDB-273 FOR LID REINFORCEMENT.
 - e, f, AND g BARS SPACED 1'-0" O.C. ALL OTHER BARS SPACED 6" O.C. EXCEPT WHERE OTHERWISE SPECIFIED.
 - PLACE ALL STEEL REINFORCEMENT 2" FROM INSIDE OF INLET WALL EXCEPT WHERE OTHERWISE SPECIFIED.



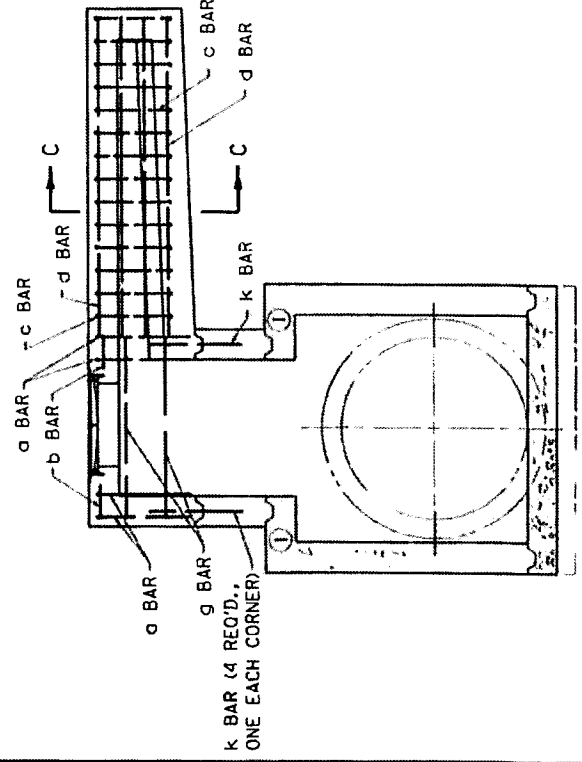
STANDARD CURB



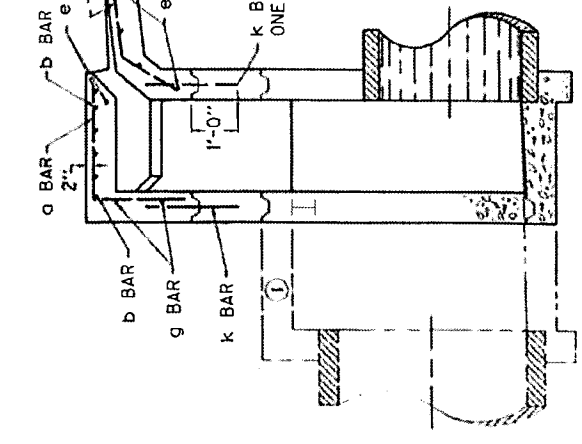
ISLAND CURB



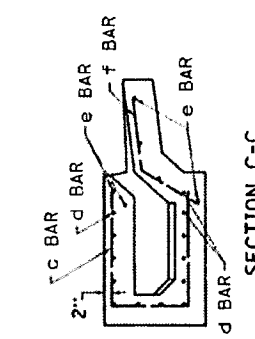
BARRIER CURB



SECTION A-A



SECTION B-B



SECTION C-C

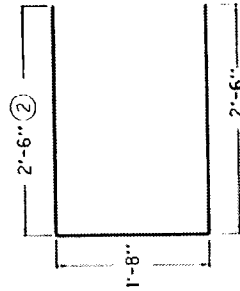
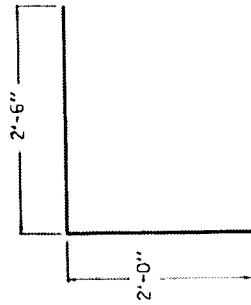
USE WITH CUR. STD. DWGS.
RDB-270, RDB-272, RDB-273,
RDB-400, RDB-410, RDB-420.

KENTUCKY DEPARTMENT OF HIGHWAYS
CURB BOX INLET TYPE A (STEEL DRAWING)
STANDARD DRAWING NO. RDB-271-02 SUBMITTED BY: [Signature] APPROVED: [Signature]
11-21-07 11-21-07 SER.

DIMENSIONS AND ESTIMATE OF QUANTITIES (TOP PHASE)

NO. 5 STEEL BARS

③ SIZE NO.	THROAT "L"	CONC.	BAR a		BAR b		BAR c		BAR d ④		BAR d ⑤		BAR e		BAR f		BAR g		BAR k ①		BAR m		LBS.
			QTY.	LN. FT.	QTY.	LN. FT.	QTY.	LN. FT.	QTY.	LN. FT.	QTY.	LN. FT.	QTY.	LN. FT.	QTY.	LN. FT.	QTY.	LN. FT.	QTY.	LN. FT.	QTY.	LN. FT.	
1	5'-0"	1.4	4	4'-6"	4	0'-9"	4	6'-7"	2'-0"	1'-0"	6'-0"	7	3'-0"	2	4'-0"	4	2'-0"	4	2'-0"			165	
2	10'-0"	2.7	14	4'-6"	13	0'-9"	14	6'-7"	7'-0"	3'-6"	11'-0"	12	3'-0"	6	4'-0"	4	2'-0"	4	2'-0"			349	
3	15'-0"	3.9	24	4'-6"	24	0'-9"	24	6'-7"	12'-0"	6'-0"	16'-0"	17	3'-0"	17	4'-0"	4	2'-0"	4	2'-0"			532	
4	20'-0"	5.1	34	4'-6"	34	0'-9"	34	6'-7"	17'-0"	8'-6"	21'-0"	22	3'-0"	22	4'-0"	4	2'-0"	4	2'-0"			716	



~NOTES~

- ① USE K BARS ONLY IN CONJUNCTION WITH THE RISER.
- ② 2'-3" FOR ISLAND CURB.
- ③ INLETS ARE SHOWN ON PLANS AS "CURB BOX INLET TYPE A". FOLLOWING THIS ON THE PLANS ARE TWO NUMBERS AND A BOX HEIGHT. USE SECOND NUMBER WITH THIS CHART.
- ④ THIS SET OF d BARS ARE TO BE USED ONLY WHEN THE BOX INLET IS BUILT ON GRADE.
- ⑤ THIS SET OF e BARS ARE TO BE USED ONLY WHEN THE BOX INLET IS BUILT IN A SAG.
6. b, d, e, g, k, and m BARS ARE ALL STRAIGHT BARS.
7. THE ENGINEER MAY REQUIRE ADDITIONAL REINFORCEMENT TO ELIMINATE SETTLEMENT OF ADJOINING SIDEWALK WHEN APPLICABLE. THIS WORK SHALL BE INCIDENTAL TO THE COST OF THE CURB BOX.

USE WITH CUR. STD. DWGS.
RDB-270, RDB-271, RDB-273,
RDB-400, RDB-410, RDB-420

KENTUCKY
DEPARTMENT OF HIGHWAYS

**CURB BOX INLET
TYPE A
(TOP PHASE TABLES)**

STANDARD DRAWING NO RDB-272-06

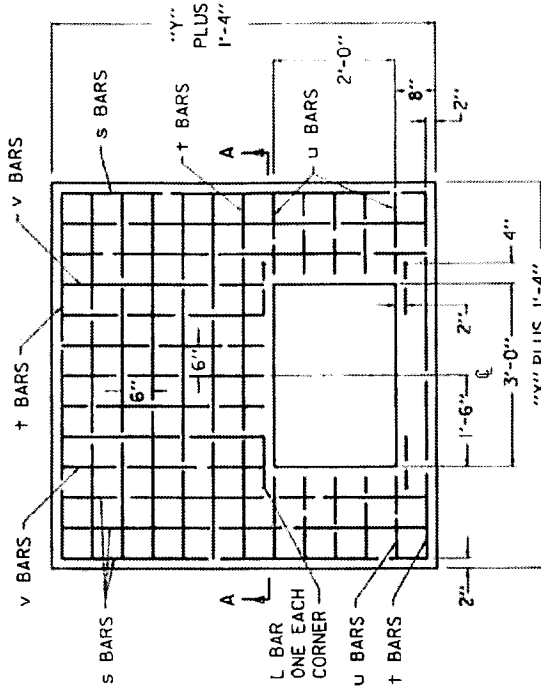
APPROVED: *[Signature]*
DATE: 12-1-55

REINFORCEMENT STEEL FOR 8" LID

SIZE		NO. 5 STEEL BARS										LBS.	
		BAR S		BAR T		BAR U		BAR V		BAR W			
X	Y	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.
2'-0"	2'-6"	-	3'-6"	6	-	-	-	-	0'-10"	-	-	7	-
3'-0"	3'-0"	-	4'-0"	8	-	-	-	-	1'-4"	-	-	59	-
3'-6"	3'-6"	4	4'-6"	10	4'-0"	-	-	14	1'-10"	-	-	77	-
4'-0"	4'-0"	-	5'-0"	12	-	-	-	-	2'-4"	-	-	94	-
4'-6"	4'-6"	-	5'-6"	14	-	-	-	-	2'-10"	-	-	112	-
5'-0"	5'-0"	-	6'-0"	16	-	-	-	-	3'-4"	-	-	130	-
2'-0"	2'-0"	-	3'-0"	4	-	-	-	-	-	-	-	147	-
2'-6"	2'-6"	-	3'-6"	6	-	-	-	-	0'-10"	-	-	38	-
3'-0"	3'-0"	-	4'-0"	8	-	-	-	-	1'-4"	-	-	62	-
3'-6"	3'-6"	4	4'-6"	10	4'-6"	-	-	14	1'-10"	-	-	81	-
4'-0"	4'-0"	-	5'-0"	12	-	-	-	-	2'-4"	-	-	100	-
4'-6"	4'-6"	-	5'-6"	14	-	-	-	-	2'-10"	-	-	118	-
5'-0"	5'-0"	-	6'-0"	16	-	-	-	-	3'-4"	-	-	137	-
2'-0"	2'-0"	-	3'-0"	4	-	-	-	-	-	-	-	156	-
2'-6"	2'-6"	-	3'-6"	6	-	-	-	-	0'-10"	-	-	70	-
3'-0"	3'-0"	-	4'-0"	8	-	-	-	-	1'-4"	-	-	97	-
3'-6"	3'-6"	8	4'-6"	10	5'-0"	0'-10"	-	14	1'-10"	-	-	119	-
4'-0"	4'-0"	-	5'-0"	12	-	-	-	-	2'-4"	-	-	141	-
4'-6"	4'-6"	-	5'-6"	14	-	-	-	-	2'-10"	-	-	163	-
5'-0"	5'-0"	-	6'-0"	16	-	-	-	-	3'-4"	-	-	185	-
2'-0"	2'-0"	-	3'-0"	4	-	-	-	-	-	-	-	207	-
2'-6"	2'-6"	-	3'-6"	6	-	-	-	-	0'-10"	-	-	78	-
3'-0"	3'-0"	-	4'-0"	8	-	-	-	-	1'-4"	-	-	105	-
3'-6"	3'-6"	8	4'-6"	10	5'-0"	0'-10"	-	14	1'-10"	-	-	128	-
4'-0"	4'-0"	-	5'-0"	12	-	-	-	-	2'-4"	-	-	151	-
4'-6"	4'-6"	-	5'-6"	14	-	-	-	-	2'-10"	-	-	174	-
5'-0"	5'-0"	-	6'-0"	16	-	-	-	-	3'-4"	-	-	197	-
2'-0"	2'-0"	-	3'-0"	4	-	-	-	-	-	-	-	220	-
2'-6"	2'-6"	-	3'-6"	6	-	-	-	-	0'-10"	-	-	97	-
3'-0"	3'-0"	-	4'-0"	8	-	-	-	-	1'-4"	-	-	127	-
3'-6"	3'-6"	12	4'-6"	10	6'-0"	1'-4"	-	14	1'-10"	-	-	154	-
4'-0"	4'-0"	-	5'-0"	12	-	-	-	-	2'-4"	-	-	180	-
4'-6"	4'-6"	-	5'-6"	14	-	-	-	-	3'-4"	-	-	207	-
5'-0"	5'-0"	-	6'-0"	16	-	-	-	-	2'-10"	-	-	233	-

-NOTES-

1. IN ADDITION TO THE CHARTED STEEL, FOUR L BARS ARE REQUIRED IN THE LID AND ARE INCLUDED IN THE TOTALS.
2. CONCRETE QUANTITIES FOR LID ARE INCLUDED ON "DIMENSIONS AND ESTIMATE OF QUANTITIES (PIPE CHAMBER)". SEE CUR. STD. DWG. RDB-410.
3. REINFORCEMENT SHALL HAVE A CLEAR DISTANCE OF 2" FROM THE OUTSIDE FACE UNLESS OTHERWISE SHOWN.



DETAIL OF 8" LID
PLAN VIEW



SECTION A-A

USE WITH CUR. STD. DWGS.
RDB-271, RDB-272, RDB-400,
RDB-410, RDB-420, RDB-270.

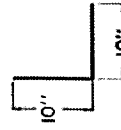
KENTUCKY
DEPARTMENT OF HIGHWAYS

CURB BOX INLET
TYPE A

(DETAIL & BAR CHART FOR 8" LID)

STANDARD DRAWING NO. RDB-273-05

APPROVED: *[Signature]*
DATE: 12-1-59
DRAWN BY: *[Signature]*
DATE: 12-1-59



L BAR DETAIL

NOTES

1. INLET SHALL BE CONSTRUCTED IN TWO PHASES (BOTTOM AND TOP) BID ITEM: CURB BOX INLET TYPE B (Δ)
 Δ (B) = BOTTOM PHASE ONLY
 Δ (T) = TOP PHASE ONLY
 NO SUFFIX INDICATES COMPLETE INLET.

2. SEE CUR. STD. DWGS. RDB-281, RDB-282, RDB-283, RDB-400, RDB-410, AND RDB-420 FOR STEEL PATTERN, DIMENSIONS AND QUANTITIES.

3. ALL WALLS, SLABS AND GUTTERS ARE 8" THICK UNLESS OTHERWISE INDICATED.

4. 24" DESIRED COVER, 12" MINIMUM COVER.

5. SPALLS OR CRUSHED STONE AROUND END OF A 4" OR 6" PIPE FOR SUBGRADE DRAINAGE.

6. 4" MINIMUM DRAWDOWN.

7. GUTTER CROSS SLOPE.

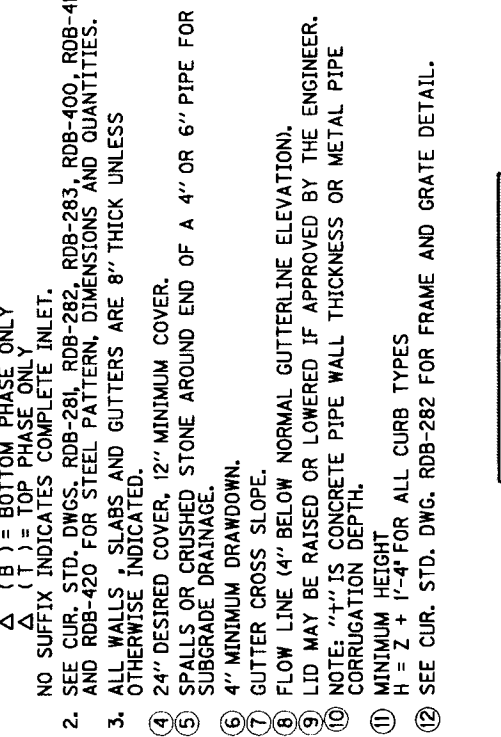
8. FLOW LINE (4" BELOW NORMAL GUTTERLINE ELEVATION).

9. LID MAY BE RAISED OR LOWERED IF APPROVED BY THE ENGINEER.

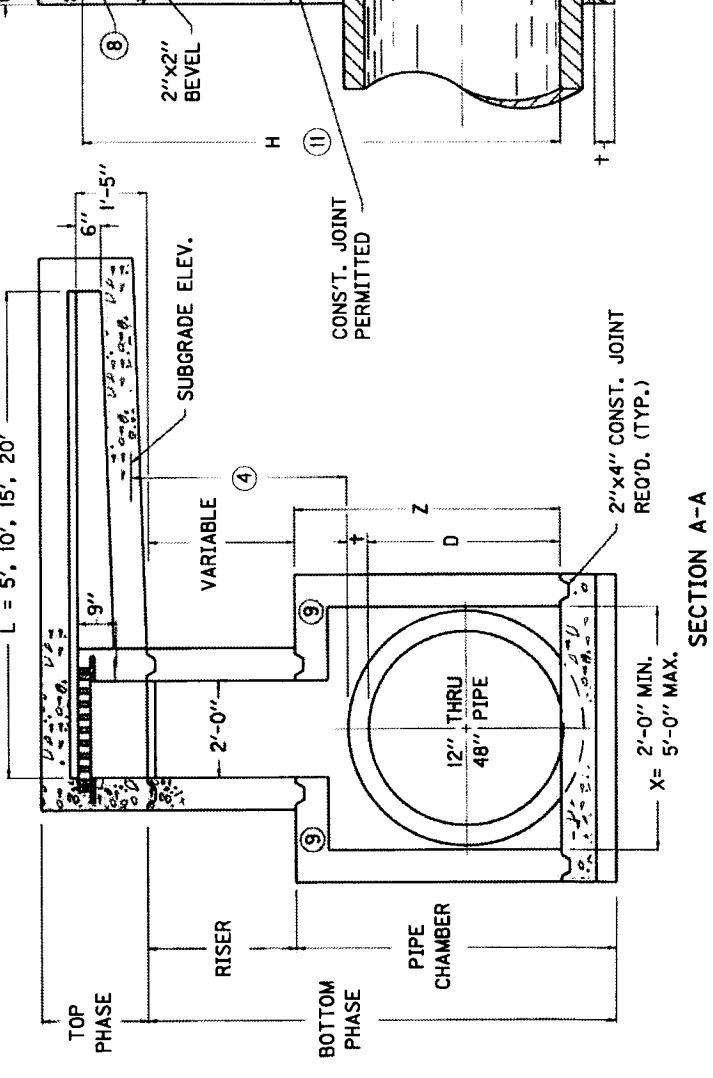
10. NOTE: "t" IS CONCRETE PIPE WALL THICKNESS OR METAL PIPE CORRUGATION DEPTH.

11. MINIMUM HEIGHT
 $H = Z + 1'-4"$ FOR ALL CURB TYPES

12. SEE CUR. STD. DWG. RDB-282 FOR FRAME AND GRATE DETAIL.



RISER	
CU. YD. CONC. PER FT. HT.	0.3



USE WITH CUR. STD. DWGS.:
 RDB-281, RDB-282, RDB-283,
 RDB-400, RDB-410, RDB-420.

KENTUCKY
 DEPARTMENT OF HIGHWAYS

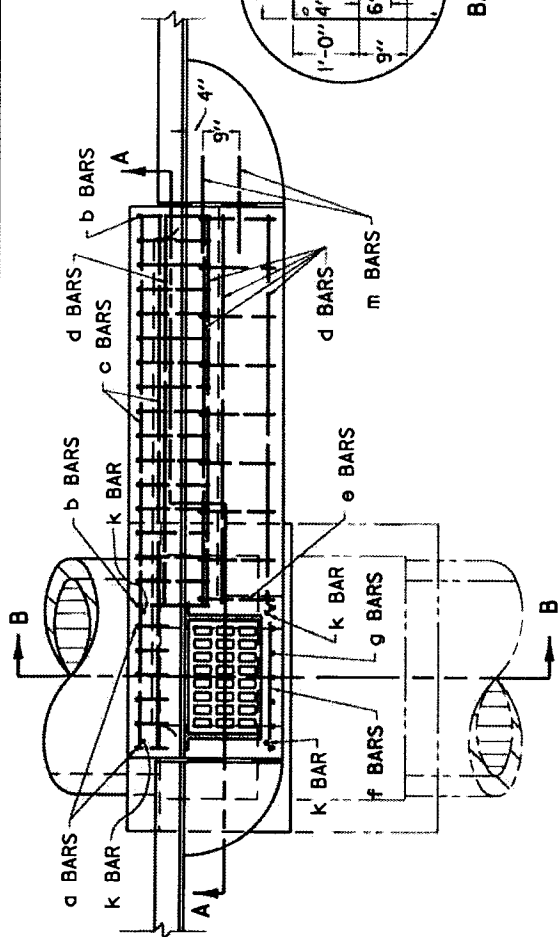
CURB BOX INLET
 TYPE B
 (DETAIL DRAWING)

STANDARD DRAWING NO. RDB-280-05

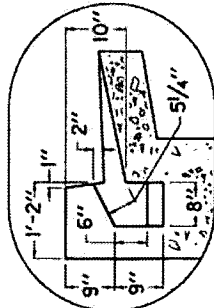
APPROVED: [Signature]
 SUBMITTED: [Signature]
 DATE: 11-21-07
 DATE: 11-21-07

NOTES ~

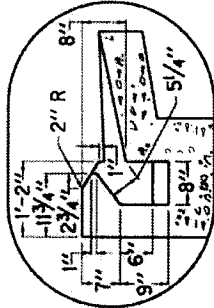
- SEE CURRENT STD. DWG. RDB-283 FOR LID REINFORCEMENT.
- e and d BARS SPACED 1'-0" O.C. ALL OTHER BARS SPACED 6" O.C. EXCEPT WHERE OTHERWISE SPECIFIED.
- PLACE ALL STEEL REINFORCEMENT 2" FROM INSIDE OF INLET WALL EXCEPT WHERE OTHERWISE SPECIFIED.



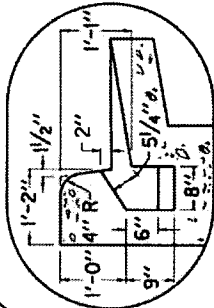
PLAN VIEW



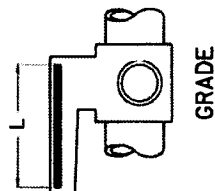
STANDARD CURB



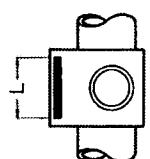
ISLAND CURB



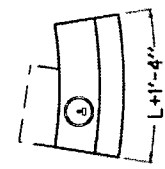
BARRIER CURB



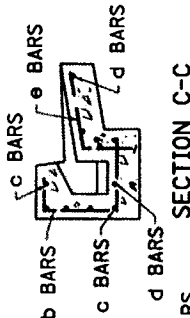
GRADE



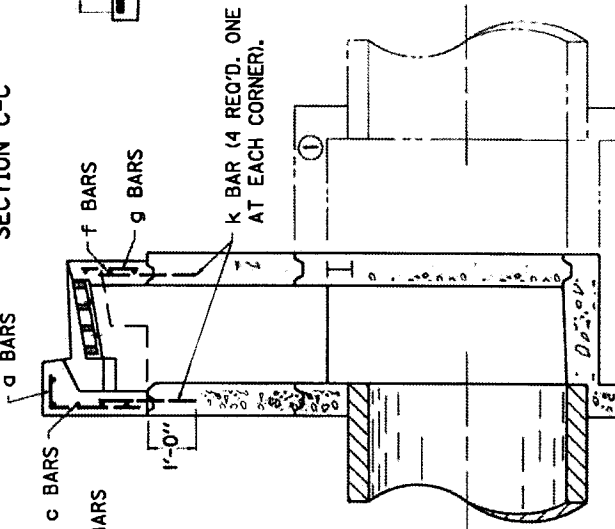
SAG OR GRADE



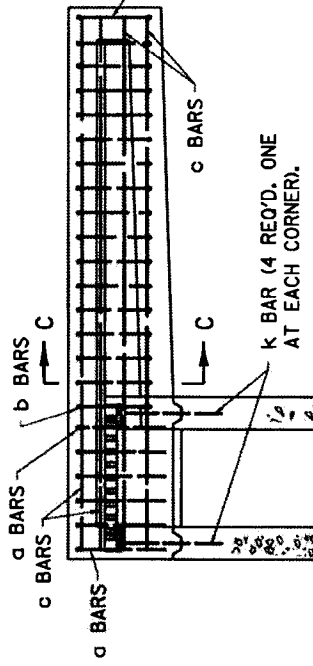
CURVE LAYOUT



SECTION C-C



SECTION B-B



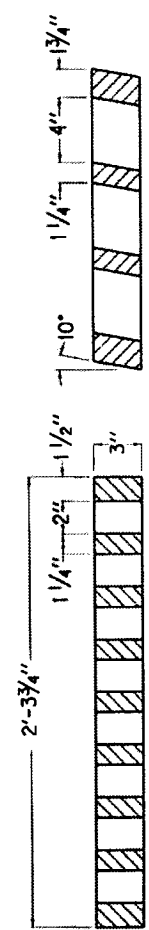
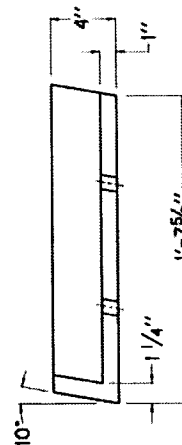
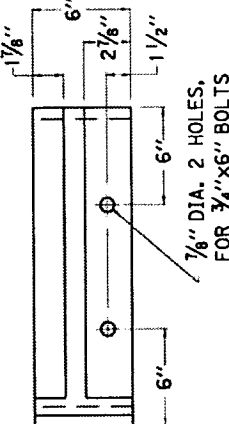
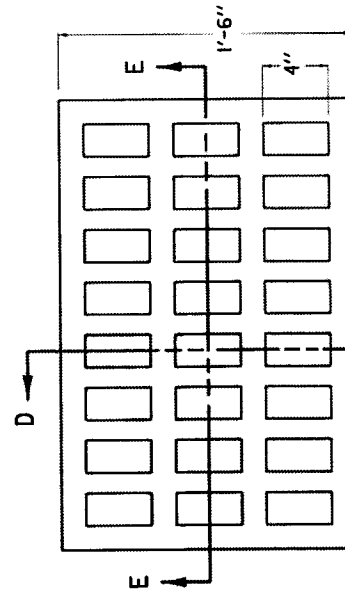
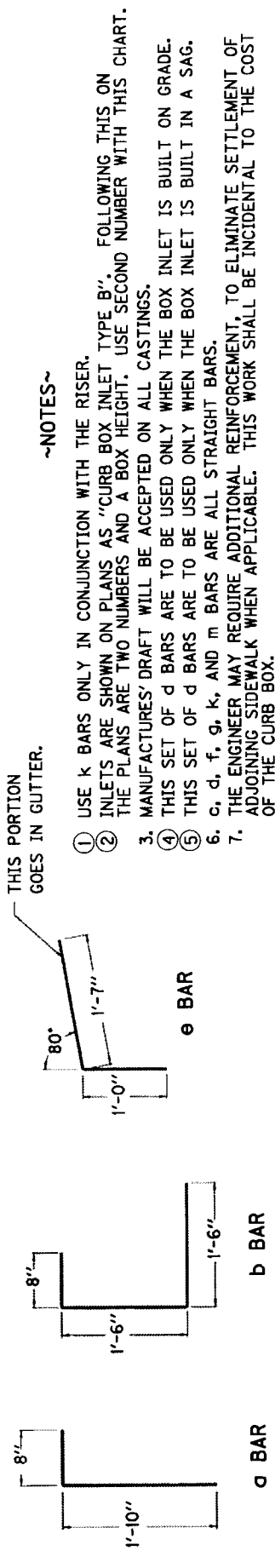
SECTION A-A

USE WITH CUR. STD. DWGS.:
RDB-280, RDB-282, RDB-283,
RDB-400, RDB-410, RDB-420.

KENTUCKY	
DEPARTMENT OF HIGHWAYS	
CURB BOX INLET	
TYPE B	
(STEEL DRAWING)	
STANDARD DRAWING NO. RDB-281-02	
DATE	12-1-99
APPROVED	12-1-99

DIMENSIONS AND ESTIMATE OF QUANTITIES (TOP PHASE)

② SIZE NO.		THROAT "L"	CONC.	NO. 5 STEEL BARS													LBS.
				BAR a	BAR b	BAR c	BAR d ④	BAR d ⑤	BAR e	BAR f	BAR g	BAR k ①	BAR m				
GRADE	SAG	FT.	CU. YD.	QTY.	LN. FT.	QTY.	LN. FT.	QTY.	LN. FT.	QTY.	LN. FT.	QTY.	LN. FT.	QTY.	LN. FT.	QTY.	LN. FT.
1	5	5'-0"	0.8	7	3'-7"	6'-0"	3'-0"	1'-6"	4	3'-0"	3	1'-2"	4	2'-0"	4	2'-0"	127
2	6	10'-0"	1.5	6	2'-6"	11'-0"	8'-0"	4'-0"	10	4'-0"	3	1'-2"	7	1'-2"	4	2'-0"	233
3	7	15'-0"	2.1	27	3'-7"	16'-0"	13'-0"	6'-6"	14	6'-6"	3	3'-0"	14	3'-0"	4	2'-0"	333
4	8	20'-0"	2.8	37	3'-7"	21'-0"	18'-0"	9'-0"	20	9'-0"	3	3'-0"	20	3'-0"	4	2'-0"	439



USE WITH CUR. STD. DWGS.
RDB-280, RDB-281, RDB-283
RDB-400, RDB-410, RDB-420

KENTUCKY
DEPARTMENT OF HIGHWAYS

**CURB BOX INLET
TYPE B
(TOP PHASE TABLES)**

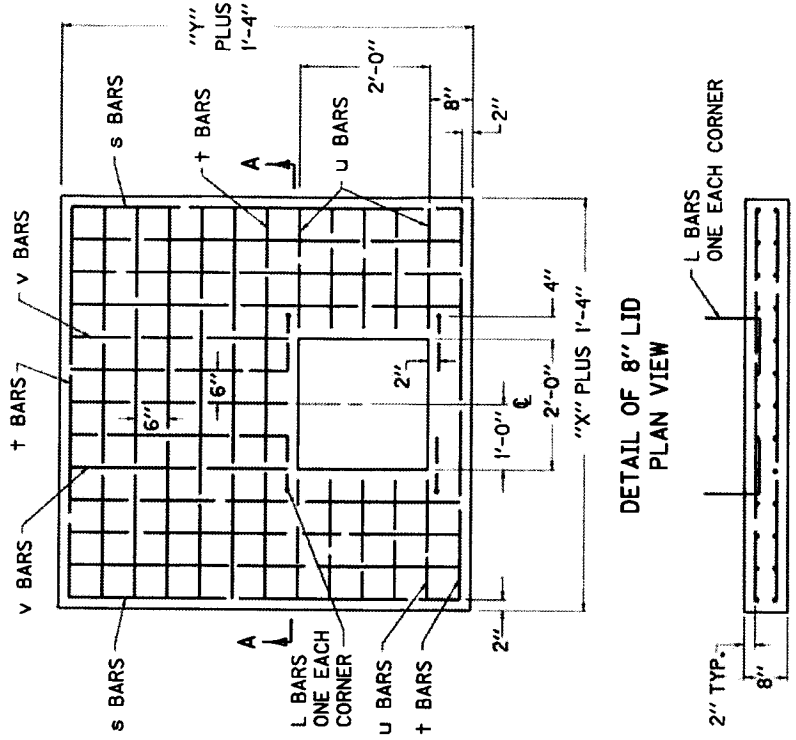
STANDARD DRAWING NO. RDB-282-03
SUBMITTED BY: *[Signature]* DATE: 12-1-99
APPROVED BY: *[Signature]* DATE: 12-1-99

REINFORCEMENT STEEL FOR 8" LID

SIZE		NO. 5 STEEL BARS						LBS.
		BAR s	BAR t	BAR u	BAR v	BAR w		
X	Y	QTY.	QTY.	QTY.	QTY.	QTY.	QTY.	QTY.
2'-0"	2'-0"	-	-	-	-	-	-	7
2'-6"	2'-6"	6	6	-	-	-	-	49
3'-0"	3'-0"	8	8	-	-	-	-	63
3'-6"	3'-6"	10	10	-	-	-	-	76
4'-0"	4'-0"	12	12	-	-	-	-	90
4'-6"	4'-6"	14	14	-	-	-	-	103
5'-0"	5'-0"	16	16	-	-	-	-	117
2'-0"	2'-0"	4	4	-	-	-	-	34
2'-6"	2'-6"	6	6	-	-	-	-	52
3'-0"	3'-0"	8	8	-	-	-	-	67
3'-6"	3'-6"	10	10	-	-	-	-	81
4'-0"	4'-0"	12	12	-	-	-	-	96
4'-6"	4'-6"	14	14	-	-	-	-	111
5'-0"	5'-0"	16	16	-	-	-	-	125
2'-0"	2'-0"	4	4	-	-	-	-	66
2'-6"	2'-6"	6	6	-	-	-	-	87
3'-0"	3'-0"	8	8	-	-	-	-	105
3'-6"	3'-6"	10	10	-	-	-	-	123
4'-0"	4'-0"	12	12	-	-	-	-	141
4'-6"	4'-6"	14	14	-	-	-	-	158
5'-0"	5'-0"	16	16	-	-	-	-	178
2'-0"	2'-0"	4	4	-	-	-	-	73
2'-6"	2'-6"	6	6	-	-	-	-	96
3'-0"	3'-0"	8	8	-	-	-	-	114
3'-6"	3'-6"	10	10	-	-	-	-	133
4'-0"	4'-0"	12	12	-	-	-	-	152
4'-6"	4'-6"	14	14	-	-	-	-	171
5'-0"	5'-0"	16	16	-	-	-	-	190
2'-0"	2'-0"	4	4	-	-	-	-	93
2'-6"	2'-6"	6	6	-	-	-	-	119
3'-0"	3'-0"	8	8	-	-	-	-	141
3'-6"	3'-6"	10	10	-	-	-	-	162
4'-0"	4'-0"	12	12	-	-	-	-	184
4'-6"	4'-6"	14	14	-	-	-	-	206
5'-0"	5'-0"	16	16	-	-	-	-	228
2'-0"	2'-0"	4	4	-	-	-	-	101
2'-6"	2'-6"	6	6	-	-	-	-	127
3'-0"	3'-0"	8	8	-	-	-	-	150
3'-6"	3'-6"	10	10	-	-	-	-	173
4'-0"	4'-0"	12	12	-	-	-	-	196
4'-6"	4'-6"	14	14	-	-	-	-	219
5'-0"	5'-0"	16	16	-	-	-	-	242
2'-0"	2'-0"	4	4	-	-	-	-	120
2'-6"	2'-6"	6	6	-	-	-	-	150
3'-0"	3'-0"	8	8	-	-	-	-	176
3'-6"	3'-6"	10	10	-	-	-	-	202
4'-0"	4'-0"	12	12	-	-	-	-	228
4'-6"	4'-6"	14	14	-	-	-	-	254
5'-0"	5'-0"	16	16	-	-	-	-	280

~NOTES~

1. IN ADDITION TO THE CHARTED STEEL, FOUR L BARS ARE REQUIRED IN THE LID AND ARE INCLUDED IN THE TOTALS.
2. CONCRETE QUANTITIES FOR LID ARE INCLUDED ON "DIMENSIONS AND ESTIMATE OF QUANTITIES (PIPE CHAMBER)", SEE CUR. STD. DWG. RDB-410.
3. REINFORCEMENT SHALL HAVE A CLEAR DISTANCE OF 2" FROM THE OUTSIDE FACE UNLESS OTHERWISE SHOWN.



DETAIL OF 8" LID
PLAN VIEW

SECTION A-A

L BAR DETAIL

USE WITH CUR. STD. DWGS.
RDB-280, RDB-281, RDB-282,
RDB-400, RDB-410, RDB-420.

KENTUCKY
DEPARTMENT OF HIGHWAYS

**CURB BOX INLET
TYPE B**

DETAIL & BAR CHART FOR 8" LID

STANDARD DRAWING NO. RDB-283-03

SUBMITTED BY: *[Signature]* DATE: 12-1-99
APPROVED BY: *[Signature]* DATE: 12-1-99

PIPE DIA. (IN)	PIPE TYPE	CIRCULAR PIPE COVER HEIGHTS IN FEET					
		2-5	10-15	20-25	30-35	40-45	50-55
12 & 15	2 1/2" x 1/2" CSPHS (1)	16 GA.					
	2 3/4" x 1/2" CSPHS (1)	16 GA.					
	2 3/4" x 1/2" CSPLS (1)	16 GA.					
	2 3/4" x 1/2" CAPHS	16 GA.					
	PVC	SMOOTH WALL (SOLID WALL)					
	HDPE	RIBBED (PROFILE WALL)					
18	RCP (11)	FF					
	2 1/2" x 1/2" CSPHS (1)	16 GA.					
	2 3/4" x 1/2" CSPHS (1)	16 GA.					
	2 3/4" x 1/2" CAPHS	16 GA.					
	SRS (1)	16 GA.					
	SRA	RIBBED (PROFILE WALL)					
21	PVC	16 GA.					
	HDPE	RIBBED (PROFILE WALL)					
	RCP (11)	FF					
	SRS	16 GA.					
	SRA	RIBBED (PROFILE WALL)					
	PVC	16 GA.					
24	HDPE	16 GA.					
	RCP (11)	FF					
	SRS	16 GA.					
	SRA	RIBBED (PROFILE WALL)					
	PVC	16 GA.					
	HDPE	RIBBED (PROFILE WALL)					

NOTES

- ① GAGES FOR CORRUGATED STEEL PIPE ITEMS SHOWN ARE BASED ON ALUMINUM-COATED TYPE 2 STEEL AS PER AASHTO M-274. ALUMINUM COATED TYPE 2 STEEL IS ONLY PERMITTED IN PH RANGES OF 5 TO 9
- ② WHEN CORRUGATED STEEL PIPE IS ZINC COATED (GALVANIZED) THE GAGE SHALL BE ONE GAGE HEAVIER THAN SHOWN IN THE TABLES.
- ③ CSP, CAP, SRS AND SRA ARE SHOWN IN GAGE.
- ④ MAXIMUM COVER HEIGHT MEASURED FROM TOP OF PIPE TO SUBGRADE ELEVATION SHALL GOVERN. GAGE OF PIPE TO BE USED FOR ENTIRE LENGTH OF PIPE INSTALLATION.
- ⑤ MINIMUM COVER HEIGHTS FOR PIPE SHALL BE 2 FEET. GAGE OF PIPE FOR COVER HEIGHTS LESS THAN 2 FEET SHALL BE THAT SHOWN FOR COVER HEIGHTS OF 30 FEET (SEE STD. SPECIFICATIONS FOR BACKFILL). HDPE AND PVC SHALL NOT BE PERMITTED FOR COVER HEIGHTS LESS THAN 2 FEET.
- ⑥ 24" DIA. PIPE IS MINIMUM SIZE FOR COVER HEIGHTS FROM 30 FEET TO 65 FEET.
- ⑦ MINIMUM COVER HEIGHT FOR ENTRANCE PIPE SHALL BE 0.5 FEET.
- ⑧ GAGE OF ENTRANCE PIPE FOR COVER HEIGHTS LESS THAN 2 FEET SHALL MEET THE FOLLOWING REQUIREMENTS:
 - a. GAGE OF CSP SHALL BE THAT SHOWN FOR HEIGHTS OF 30 FEET.
 - b. GAGE OF CAP SHALL BE ONE GAGE HEAVIER THAN SHOWN IN THE TABLE.
- ⑨ ALL CIRCULAR STRUCTURAL PLATE SHALL BE 5% VERTICALLY ELONGATED.
- ⑩ SEE CURRENT STANDARD DRAWING RDI-035 FOR COATINGS, LININGS AND PAVINGS FOR NON-STRUCTURAL PIPE.
- ⑪ SEE STANDARD DRAWING RDI-021 AND STANDARD DRAWING RDI-026 FOR RCP COVER HEIGHT AND BEDDING REQUIREMENTS.

LEGEND
 CSPHS: CORRUGATED STEEL PIPE WITH HELICAL LOCK SEAM OR HELICAL WELDED SEAM (HELICAL CORR.)
 CSPLS: CORRUGATED STEEL PIPE WITH LONGITUDINAL RIVETED OR SPOT WELDED SEAM (ANNULAR CORR.)
 CAPHS: CORRUGATED ALUMINUM ALLOY PIPE WITH HELICAL LOCK SEAM (HELICAL CORR.)
 HDPE: HIGH DENSITY POLYETHYLENE PIPE
 PVC: POLYVINYL CHLORIDE
 SRS: SPIRAL RIB STEEL
 SRA: SPIRAL RIB ALUMINUM
 RCP: CIRCULAR REINFORCED CONCRETE PIPE
 FF: FLOWABLE FILL REQUIRED

CIRCULAR PIPE COVER HEIGHTS IN FEET

PIPE DIA. (IN)	PIPE TYPE	CIRCULAR PIPE COVER HEIGHTS IN FEET											
		2-5	10-15	20-25	30-35	40-45	50-55	60-65					
21	2 1/2" x 1/2" CSPHS (1)	16 GA.											
	2 3/4" x 1/2" CSPHS (1)	16 GA.											
	2 3/4" x 1/2" CAPHS	16 GA.											
	SRS (1)	16 GA.											
	SRA	RIBBED (PROFILE WALL)											
	PVC	14 GA.											
24	HDPE	16 GA.											
	RCP (11)	FF											
	SRS	16 GA.											
	SRA	RIBBED (PROFILE WALL)											
	PVC	16 GA.											
	HDPE	RIBBED (PROFILE WALL)											

KENTUCKY
 DEPARTMENT OF HIGHWAYS

CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS

STANDARD DRAWING NO. RDI-001-09
 SUBMITTED: _____ DATE: 12-2-11
 APPROVED: _____ DATE: 12-2-11

PIPE DIA. (IN)	PIPE TYPE	CIRCULAR PIPE COVER HEIGHTS IN FEET (3)												
		2-5	10-15	20-25	30-35	40-45	50-55	60-65	10-15	20-25	30-35	40-45	50-55	60-65
27 & 30 (8)	2 1/2" x 1/2" CSPHS (1)	16 GA.	16 GA.	16 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	10 GA.	12 GA.	10 GA.
	2 1/2" x 1/2" CSPLS (1)	16 GA.	16 GA.	16 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	10 GA.	12 GA.	10 GA.
	2 1/2" x 1/2" CAPHS	16 GA.	16 GA.	16 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	10 GA.	12 GA.	10 GA.
	SRS (1)	16 GA.	16 GA.	16 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	10 GA.	12 GA.	10 GA.
	SRA	16 GA.	16 GA.	16 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	10 GA.	12 GA.	10 GA.
	PVC	16 GA.	16 GA.	16 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	10 GA.	12 GA.	10 GA.
	HDPE	16 GA.	16 GA.	16 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	10 GA.	12 GA.	10 GA.
	RCP	16 GA.	16 GA.	16 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	10 GA.	12 GA.	10 GA.
	HDPE	16 GA.	16 GA.	16 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	10 GA.	12 GA.	10 GA.
	RCP	16 GA.	16 GA.	16 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	10 GA.	12 GA.	10 GA.
36	2 1/2" x 1/2" CSPHS (1)	14 GA.	14 GA.	14 GA.	10 GA.	12 GA.	10 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.
	2 1/2" x 1/2" CSPLS (1)	14 GA.	14 GA.	14 GA.	10 GA.	12 GA.	10 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.
	2 1/2" x 1/2" CAPHS	14 GA.	14 GA.	14 GA.	10 GA.	12 GA.	10 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.
	SRS (1)	14 GA.	14 GA.	14 GA.	10 GA.	12 GA.	10 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.
	SRA	14 GA.	14 GA.	14 GA.	10 GA.	12 GA.	10 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.
	PVC	14 GA.	14 GA.	14 GA.	10 GA.	12 GA.	10 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.
	HDPE	14 GA.	14 GA.	14 GA.	10 GA.	12 GA.	10 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.
	RCP	14 GA.	14 GA.	14 GA.	10 GA.	12 GA.	10 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.
	HDPE	14 GA.	14 GA.	14 GA.	10 GA.	12 GA.	10 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.
	RCP	14 GA.	14 GA.	14 GA.	10 GA.	12 GA.	10 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.
42	2 1/2" x 1/2" CSPHS (1)	14 GA.	14 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.
	2 1/2" x 1/2" CSPLS (1)	14 GA.	14 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.
	2 1/2" x 1/2" CAPHS	14 GA.	14 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.
	SRS (1)	14 GA.	14 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.
	SRA	14 GA.	14 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.
	PVC	14 GA.	14 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.
	HDPE	14 GA.	14 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.
	RCP	14 GA.	14 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.
	HDPE	14 GA.	14 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.
	RCP	14 GA.	14 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	12 GA.	14 GA.	10 GA.	12 GA.	10 GA.	8 GA.

NOTES

- GAGES FOR CORRUGATED STEEL PIPE ITEMS SHOWN ARE BASED ON ALUMINUM-COATED TYPE 2 STEEL AS PER AASHTO M-274. ALUMINUM COATED TYPE 2 STEEL IS ONLY PERMITTED IN PH RANGES OF 5 TO 9.
- WHEN CORRUGATED STEEL PIPE IS ZINC COATED (GALVANIZED) THE GAGE SHALL BE ONE GAGE HEAVIER THAN SHOWN IN THE TABLES.
- SEE CURRENT STANDARD DRAWING RDI-001 FOR EXPLANATION OF COVER HEIGHTS LESS THAN 2 FEET.
- CSP, CAP, SRS AND SRA ARE SHOWN IN GAGE.
- MAXIMUM COVER HEIGHT MEASURED FROM TOP OF PIPE TO SUB GRADE ELEVATION SHALL GOVERN GAGE OF PIPE TO BE USED FOR ENTIRE LENGTH OF PIPE INSTALLATION.
- MINIMUM COVER HEIGHT FOR ENTRANCE PIPE SHALL BE 0.5 FEET.
- ALL CIRCULAR STRUCTURAL PLATE SHALL BE 5% VERTICALLY ELONGATED.
- ENTRANCE PIPE GREATER THAN 30" DIA. SHALL BE CULVERT PIPE.
- SEE CURRENT STANDARD DRAWING RDI-035 FOR COATINGS, LININGS AND PAVINGS FOR NON-STRUCTURAL PIPE.

LEGEND

- CSPHS: CORRUGATED STEEL PIPE WITH HELICAL LOCK SEAM OR HELICAL WELDED SEAM (HELICAL CORR.)
- CSPLS: CORRUGATED STEEL PIPE WITH LONGITUDINAL RIVETED OR SPOT WELDED SEAM (ANNULAR CORR.)
- CAPHS: CORRUGATED ALUMINUM ALLOY PIPE WITH HELICAL LOCK SEAM (HELICAL CORR.)
- HDPE: HIGH DENSITY POLYETHYLENE PIPE
- PVC: POLYVINYL CHLORIDE
- SRS: SPIRAL RIB STEEL
- SRA: SPIRAL RIB ALUMINUM
- RCP: CIRCULAR REINFORCED CONCRETE PIPE
- FF: FLOWABLE FILL REQUIRED

NOTES CONTINUED

- SEE DETAIL SHEET "PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER REINFORCED CONC. PIPE" AND DETAIL SHEET "PIPE BEDDING TRENCH CONDITION REINFORCED CONC. PIPE" FOR RCP COVER HEIGHT AND BEDDING REQUIREMENTS.

27" PIPE - 42" PIPE

KENTUCKY
DEPARTMENT OF HIGHWAYS

CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS

STANDARD DRAWING NO. RDI-002-04

APPROVED: *[Signature]* DATE: 12-2-11

SUBMITTED: *[Signature]* DATE: 12-2-11

BY: *[Signature]* TITLE: CIVIL ENGINEER

CIRCULAR PIPE COVER HEIGHTS IN FEET (3)

PIPE DIA. (IN)	PIPE TYPE	COVER HEIGHTS IN FEET																					
		2-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100-105	105-110
48	27 1/2" x 1/2" CSPHS (1)	14 GA.																					
	27 1/2" x 1/2" CSPLS (1)	12 GA.																					
	27 1/2" x 1/2" CAPHS	10 GA.																					
	SRS (1)	14 GA.																					
	SRA	12 GA.																					
	PVC	10 GA.																					
	HDPE	10 GA.																					
	RCP (9)	10 GA.																					
	27 1/2" x 1/2" CSPHS (1)	14 GA.																					
	27 1/2" x 1/2" CSPLS (1)	12 GA.																					
54	3" x 1" CSPHS (1)	14 GA.																					
	3" x 1" CSPLS (1)	12 GA.																					
	5" x 1" CSPHS (1)	10 GA.																					
	5" x 1" CSPLS (1)	12 GA.																					
	27 1/2" x 1/2" CAPHS	10 GA.																					
	3" x 1" CAPHS	12 GA.																					
	SRS (1)	14 GA.																					
	SRA	12 GA.																					
	RCP (9)	10 GA.																					
	7		10 GA.																				

LEGEND

- CSPHS: CORRUGATED STEEL PIPE WITH HELICAL LOCK SEAM OR HELICAL WELDED SEAM (HELICAL CORR.)
- CSPLS: CORRUGATED STEEL PIPE WITH LONGITUDINAL RIVETED OR SPOT WELDED SEAM (ANNULAR CORR.)
- CAPHS: CORRUGATED ALUMINUM ALLOY PIPE WITH HELICAL LOCK SEAM (HELICAL CORR.)
- HDPE: HIGH DENSITY POLYETHYLENE PIPE
- PVC: POLYVINYL CHLORIDE
- SRS: SPIRAL RIB STEEL
- SRA: SPIRAL RIB ALUMINUM
- RCP: CIRCULAR REINFORCED CONCRETE PIPE

- NOTES**
1. GAGES FOR CORRUGATED STEEL PIPE ITEMS SHOWN ARE BASED ON ALUMINUM-COATED TYPE 2 STEEL AS PER AASHTO M-274. ALUMINUM COATED TYPE 2 STEEL IS ONLY PERMITTED IN PH RANGES OF 5 TO 9.
 2. WHEN CORRUGATED STEEL PIPE IS ZINC COATED (GALVANIZED) THE GAGE SHALL BE ONE GAGE HEAVIER THAN SHOWN IN THE TABLES.
 3. SEE CURRENT STANDARD DRAWING RDI-001 FOR EXPLANATION OF COVER HEIGHTS LESS THAN 2 FEET.
 4. CSP, CAP, SRS AND SRA ARE SHOWN IN GAGE.
 5. MAXIMUM COVER HEIGHT MEASURED FROM TOP OF PIPE TO SUBGRADE ELEVATION SHALL GOVERN GAGE OF PIPE TO BE USED FOR ENTIRE LENGTH OF PIPE INSTALLATION.
 6. ALL CIRCULAR STRUCTURAL PLATE SHALL BE 5% VERTICALLY ELONGATED.
 7. 54" DIA. PIPE IS MINIMUM SIZE FOR COVER HEIGHTS GREATER THAN 65 FEET.
 8. SEE CURRENT STANDARD DRAWING RDI-035 FOR COATINGS, LININGS AND PAVINGS FOR NON-STRUCTURAL PIPE.
 9. SEE STANDARD DRAWING RDI-021 AND STANDARD DRAWING RDI-026 FOR RCP COVER HEIGHT AND BEDDING REQUIREMENTS.

KENTUCKY
DEPARTMENT OF HIGHWAYS

**CULVERT &
STORM SEWER PIPE TYPES
& COVER HEIGHTS**

STANDARD DRAWING NO. RDI-003-04

DATE: 12-2-11
APPROVED: [Signature]
SUBMITTED: [Signature]

EQUI. PIPE DIA. (IN)	PIPE TYPE	NON-CIRCULAR PIPE COVER HEIGHTS IN FEET											
		2	5	6	7	8	9	10	2	5	6	7	8
15	2 3/4" x 1/2" CSPA (1)	16 GA.	/										
	2 3/4" x 1/2" CAPA	16 GA.											
	SRSA (1)	16 GA.											
	SRAA	16 GA.											
18	2 3/4" x 1/2" CSPA (1)	16 GA.	/										
	2 3/4" x 1/2" CAPA	16 GA.											
	SRSA (1)	16 GA.											
	SRAA	16 GA.											
21	2 3/4" x 1/2" CSPA (1)	16 GA.	/										
	2 3/4" x 1/2" CAPA	16 GA.											
	SRSA (1)	16 GA.											
	SRAA	16 GA.											
24	2 3/4" x 1/2" CSPA (1)	16 GA.	/										
	2 3/4" x 1/2" CAPA	14 GA.											
	SRSA (1)	16 GA.											
	SRAA	14 GA.											
30	2 3/4" x 1/2" CSPA (1)	16 GA.	/										
	2 3/4" x 1/2" CAPA	14 GA.											
	SRSA (1)	16 GA.											
	SRAA	14 GA.											
36	2 3/4" x 1/2" CSPA (1)	14 GA.	/										
	2 3/4" x 1/2" CAPA	12 GA.											
	SRSA (1)	14 GA.											
	SRAA	12 GA.											
42	2 3/4" x 1/2" CSPA (1)	14 GA.	/										
	2 3/4" x 1/2" CAPA	12 GA.											
	SRSA (1)	14 GA.											
	SRAA	12 GA.											
48	2 3/4" x 1/2" CSPA (1)	12 GA.	/										
	2 3/4" x 1/2" CAPA	10 GA.											
	SRSA (1)	14 GA.											
	SRAA	12 GA.											
54	2 3/4" x 1/2" CSPA (1)	12 GA.	/										
	2 3/4" x 1/2" CAPA	10 GA.											
	SRSA (1)	14 GA.											
	SRAA	12 GA.											
60	2 3/4" x 1/2" CSPA (1)	10 GA.	/										
	2 3/4" x 1/2" CAPA	8 GA.											
	SRSA (1)	14 GA.											
	SRAA	10 GA.											

LEGEND

CSPA: CORRUGATED STEEL PIPE ARCH
 CAPA: CORRUGATED ALUMINUM ALLOY PIPE ARCH
 SRSA: SPIRAL RIB STEEL ARCH
 SRAA: SPIRAL RIB ALUMINUM ARCH
 RCHEP: REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE

(2) SEE DETAIL SHEET "PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER REINFORCED CONC. PIPE" AND DETAIL SHEET "PIPE BEDDING TRENCH CONDITION REINFORCED CONC. PIPE FOR RCHEP COVER HEIGHT AND BEDDING REQUIREMENTS."

(3) SEE CURRENT STANDARD DRAWING RDI-016 FOR NON-CIRCULAR PIPE ALTERNATES.

11. SEE CURRENT STANDARD DRAWING RDI-035 FOR COATINGS, LININGS AND PAYINGS FOR NON-STRUCTURAL PIPE.

15" PIPE - 60" PIPE
NON-CIRCULAR

KENTUCKY
DEPARTMENT OF HIGHWAYS

CULVERT, ENTRANCE &
STORM SEWER PIPE TYPES
& COVER HEIGHTS

STANDARD DRAWING NO. RDI-011-02

SUBMITTED: *[Signature]* JI-21-07
 DIRECTOR DIVISION OF DESIGN
 APPROVED: *[Signature]* JI-21-07
 CHIEF ENGINEER

SHEET 1 OF 2

EQUIVALENT CIRCULAR PIPE DIAMETER	2 3/4" x 1/2" CSPA & CAPA		① CSPA AND 3" x 1" CAPA		6" x 2" CSPA		9" x 2 1/2" CAPAASB		RCHEP	
	SPAN (INCH)	RISE (INCH)	SPAN (INCH)	RISE (INCH)	SPAN (INCH)	RISE (INCH)	SPAN (INCH)	RISE (INCH)	SPAN (INCH)	RISE (INCH)
15"	17	13								
18"	21	15							23	14
21"	24	18								
24"	28	20							30	19
30"	35	24							38	24
36"	42	29							45	29
42"	49	33							53	34
48"	57	38							60	38
54"	64	43		46					68	43
60"	71	47		51					76	48
66"				55	6'-1"	4'-7"			83	53
72"				59	6'-9"	4'-11"			91	58
78"				63	7'-3"	5'-3"	6'-11"	5'-9"	98	63
84"				67	7'-11"	5'-7"	7'-9"	6'-0"	106	68
90"				71	8'-7"	5'-11"	8'-5"	6'-3"	113	72
96"				75	9'-4"	6'-3"	9'-3"	6'-5"	121	77
102"				79	9'-9"	6'-7"	9'-11"	6'-8"	128	82
108"				83	10'-8"	6'-11"	10'-9"	6'-10"	136	87
114"				87	11'-5"	7'-3"	11'-5"	7'-1"	143	92
120"				91	11'-10"	7'-7"	12'-3"	7'-3"	151	97

CHART KEY

- 2 3/4" x 1/2" CSPA: CORRUGATED STEEL PIPE ARCH
- 3" x 1" OR 5" x 1" CSPA: CORRUGATED STEEL PIPE ARCH
- 6" x 2" CSPA: CORRUGATED STEEL PIPE ARCH
- 2 3/4" x 1/2" CAPA: CORRUGATED ALUMINUM ALLOY PIPE ARCH
- 3" x 1" CAPA: CORRUGATED ALUMINUM ALLOY PIPE ARCH
- 9" x 2 1/2" CAPAASB: CORRUGATED ALUMINUM ALLOY PIPE ARCH WITH ALUMINUM OR STEEL BOLTS
- RCHEP: REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE

NOTES

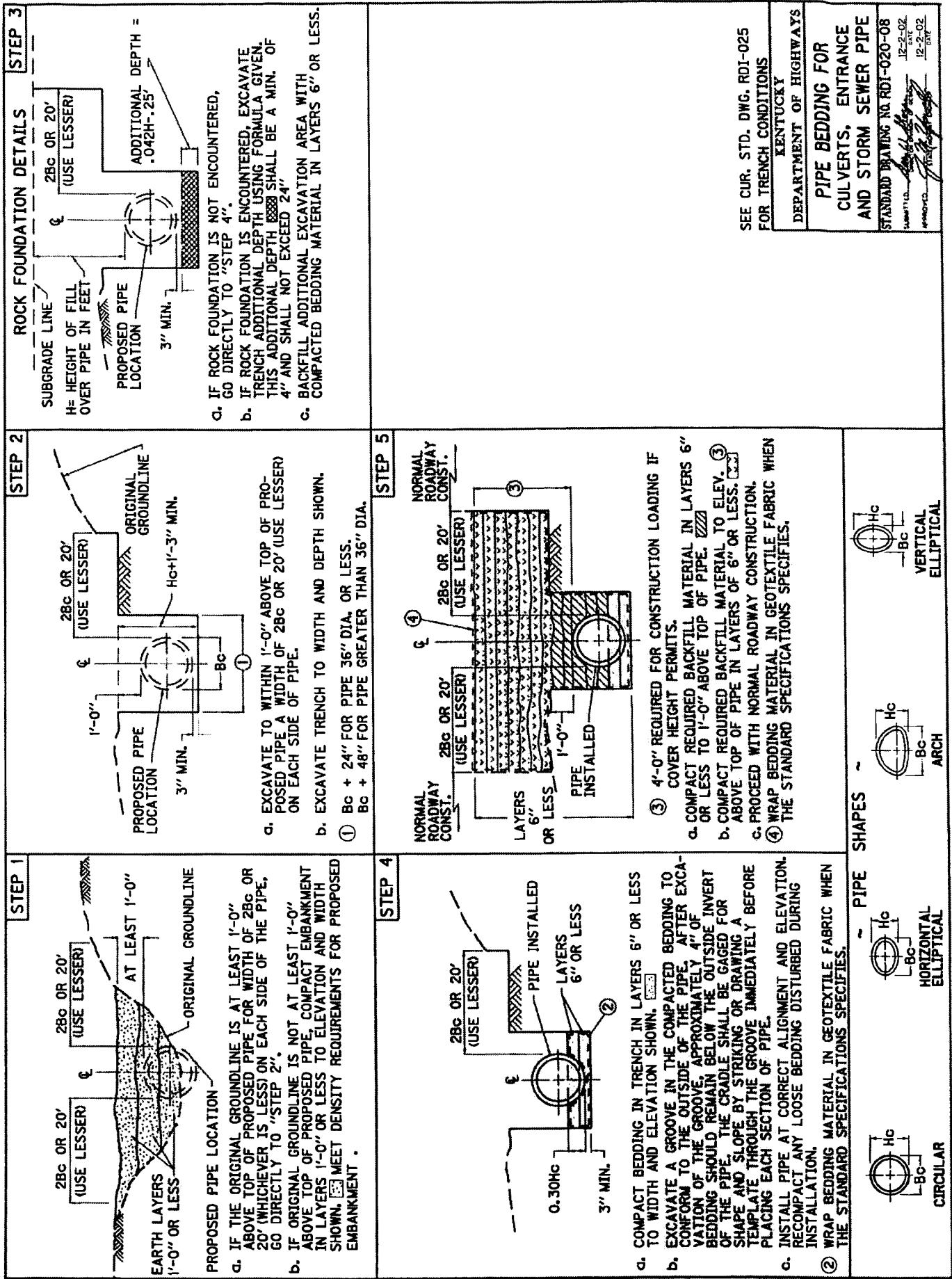
- ① 3" x 1" OR 5" x 1"

KENTUCKY
DEPARTMENT OF HIGHWAYS

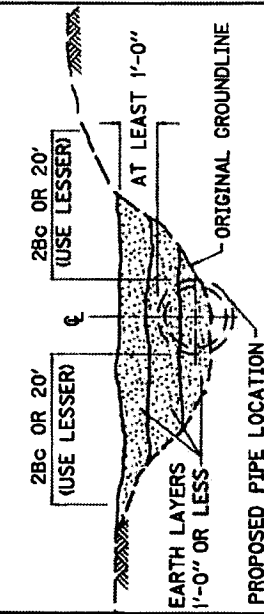
**NON-CIRCULAR PIPE
ALTERNATES**

STANDARD DRAWING NO. RDI-016-02

SUBMITTED: *[Signature]* 11-21-07 DATE
 APPROVED: *[Signature]* 11-21-07 DATE
 GRIP ENGINEER

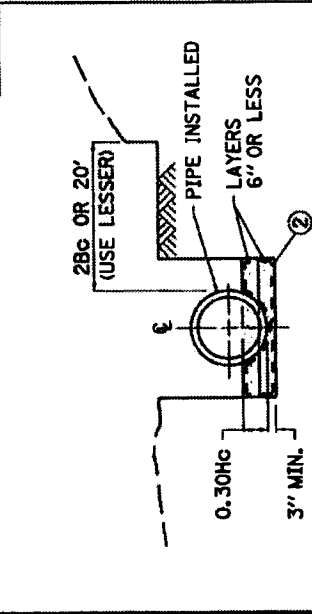


STEP 1



- PROPOSED PIPE LOCATION
- IF THE ORIGINAL GROUNDLINE IS AT LEAST 1'-0" ABOVE TOP OF PROPOSED PIPE FOR WIDTH OF 2Bc OR 20' (WHICHEVER IS LESS) ON EACH SIDE OF THE PIPE, GO DIRECTLY TO "STEP 2".
 - IF ORIGINAL GROUNDLINE IS NOT AT LEAST 1'-0" ABOVE TOP OF PROPOSED PIPE, COMPACT EMBANKMENT IN LAYERS 1'-0" OR LESS TO ELEVATION AND WIDTH SHOWN. MEET DENSITY REQUIREMENTS FOR PROPOSED EMBANKMENT.

STEP 4

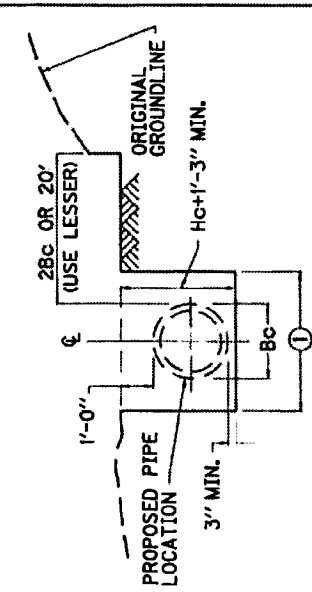


- COMPACT BEDDING IN TRENCH IN LAYERS 6" OR LESS TO WIDTH AND ELEVATION SHOWN.
- EXCAVATE A GROOVE IN THE COMPACTED BEDDING TO CONFORM TO THE OUTSIDE OF THE PIPE, AFTER EXCAVATION OF THE GROOVE, APPROXIMATELY 4" OF BEDDING SHOULD REMAIN BELOW THE OUTSIDE INVERT OF THE PIPE. THE CRADLE SHALL BE GAGED FOR SHAPE AND SLOPE BY STRIKING OR DRAWING A TEMPLATE THROUGH THE GROOVE IMMEDIATELY BEFORE PLACING EACH SECTION OF PIPE.
- INSTALL PIPE AT CORRECT ALIGNMENT AND ELEVATION. RECOMPACT ANY LOOSE BEDDING DISTURBED DURING INSTALLATION.

② WRAP BEDDING MATERIAL IN GEOTEXTILE FABRIC WHEN THE STANDARD SPECIFICATIONS SPECIFIES.

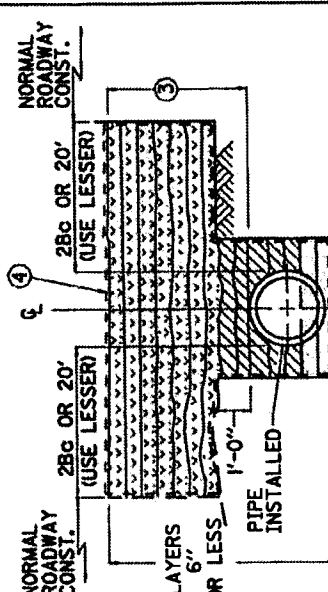


STEP 2



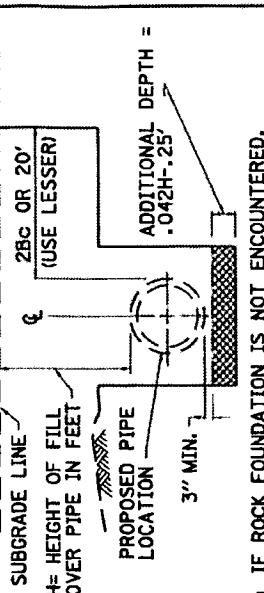
- EXCAVATE TO WITHIN 1'-0" ABOVE TOP OF PROPOSED PIPE A WIDTH OF 2Bc OR 20' (USE LESSER) ON EACH SIDE OF PIPE.
 - EXCAVATE TRENCH TO WIDTH AND DEPTH SHOWN.
- ① Bc + 24" FOR PIPE 36" DIA. OR LESS.
Bc + 48" FOR PIPE GREATER THAN 36" DIA.

STEP 5



- 4'-0" REQUIRED FOR CONSTRUCTION LOADING IF COVER HEIGHT PERMITS.
- COMPACT REQUIRED BACKFILL MATERIAL IN LAYERS 6" OR LESS TO 1'-0" ABOVE TOP OF PIPE.
- COMPACT REQUIRED BACKFILL MATERIAL TO ELEV. ABOVE TOP OF PIPE IN LAYERS OF 6" OR LESS.
- PROCEED WITH NORMAL ROADWAY CONSTRUCTION. WRAP BEDDING MATERIAL IN GEOTEXTILE FABRIC WHEN THE STANDARD SPECIFICATIONS SPECIFIES.

STEP 3



- IF ROCK FOUNDATION IS NOT ENCOUNTERED, GO DIRECTLY TO "STEP 4".
- IF ROCK FOUNDATION IS ENCOUNTERED, EXCAVATE TRENCH ADDITIONAL DEPTH USING FORMULA GIVEN. THIS ADDITIONAL DEPTH SHALL BE A MIN. OF 4" AND SHALL NOT EXCEED 24".
- BACKFILL ADDITIONAL EXCAVATION AREA WITH COMPACTED BEDDING MATERIAL IN LAYERS 6" OR LESS.

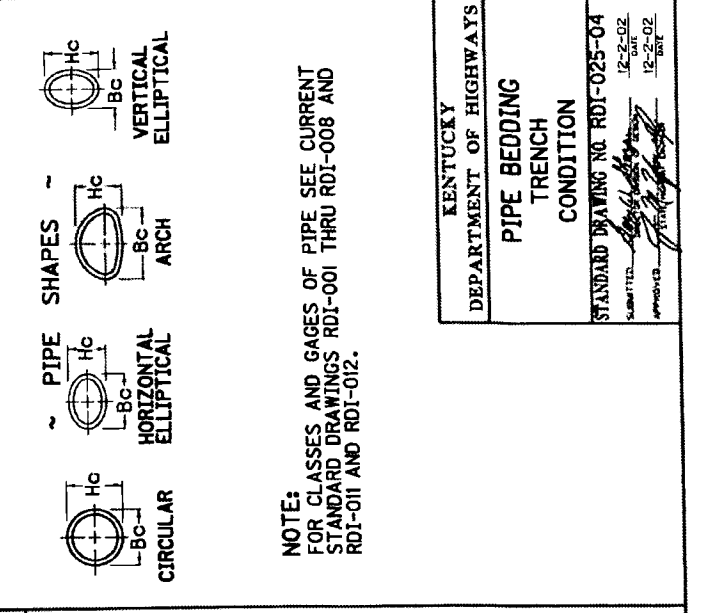
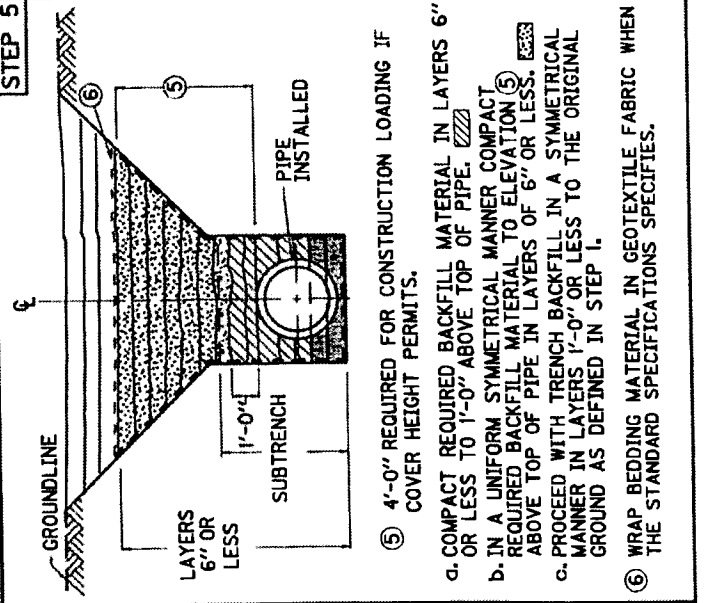
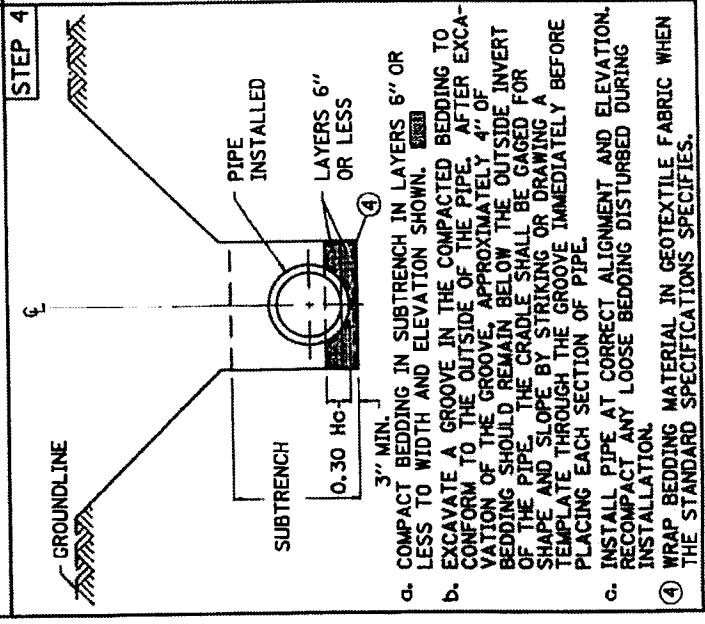
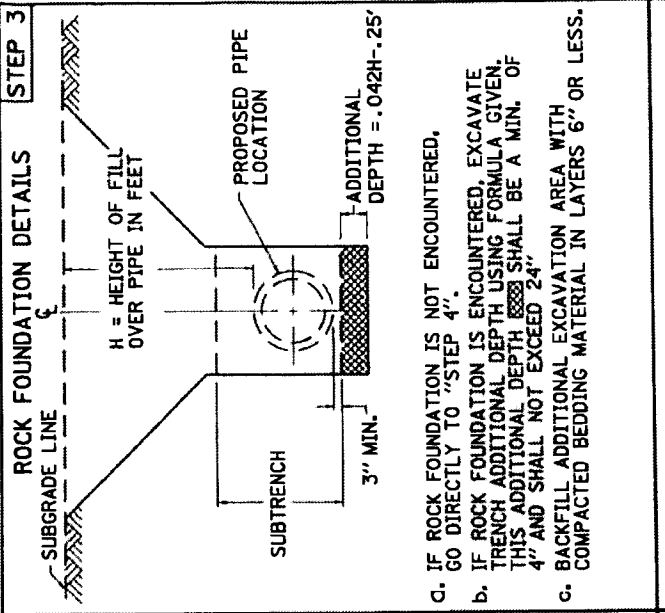
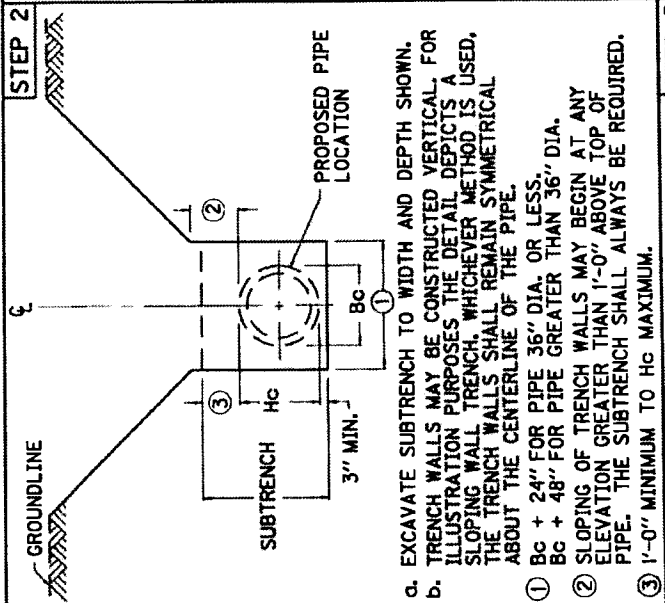
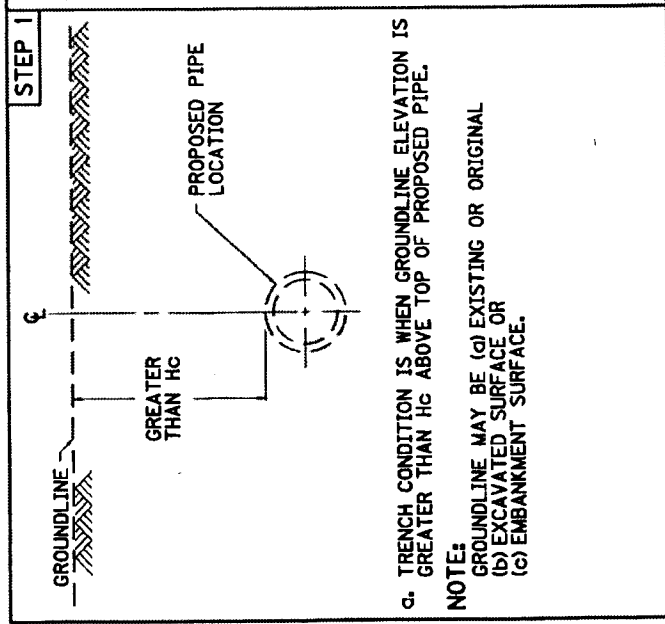
SEE CUR. STD. DWG. RDI-025 FOR TRENCH CONDITIONS

KENTUCKY
DEPARTMENT OF HIGHWAYS

**PIPE BEDDING FOR
CULVERTS, ENTRANCE
AND STORM SEWER PIPE**

STANDARD DRAWING NO. RDI-020-08

DATE 12-2-02
DRAWN BY [Signature]
CHECKED BY [Signature]



KENTUCKY
 DEPARTMENT OF HIGHWAYS
**PIPE BEDDING
 TRENCH
 CONDITION**
 STANDARD DRAWING NO. RDI-025-04
 SUBMITTED: 12-2-02
 APPROVED: 12-2-02
 DATE

PIPE MATERIAL	PH RANGE ③					
	(ACID) L (< 5)		M (5 - 9)		H (> 9)	
	COATING	PAVING	COATING	PAVING	COATING	PAVING
STEEL GALVANIZED	P	I	BP	I	P	I
ALUMINUM-COATED TYPE 2 STEEL	-	-	HB	I	-	-
ALUMINUM ALLOY	B	I	HB	I	B	I
REINFORCED CONCRETE	-	EP	-	-	-	EP
PLASTIC	-	-	-	-	-	-

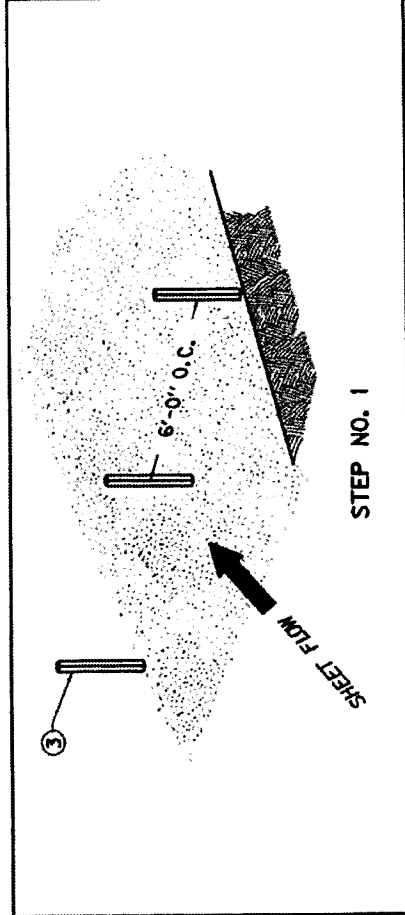
HB - HALF ASPHALT COATED
 B - FULLY ASPHALT COATED
 BP - FULLY ASPHALT COATED OR POLYMERIC COATED
 P - POLYMERIC COATED (PRECOATED GALVANIZED)
 EP - EXTRA PROTECTION
 I - PAVED INVERT

NOTES

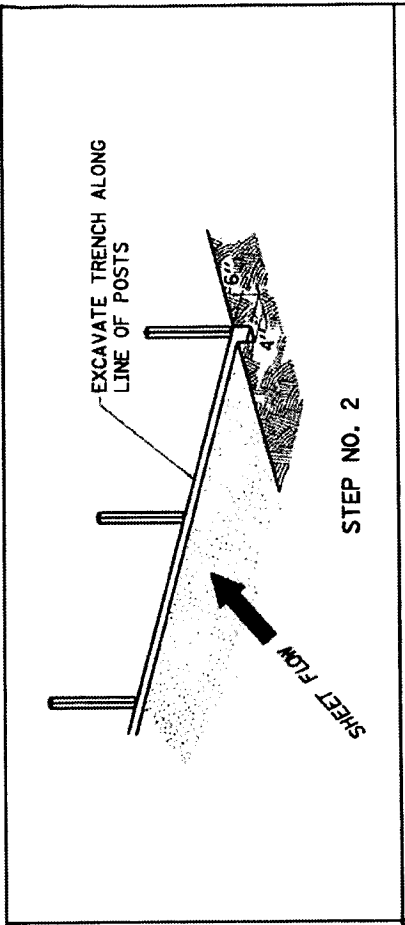
1. EXCEPTIONS FOR STORM SEWERS:
 - a. ANNULAR CORRUGATED PIPE SHALL BE FULLY LINED.
 - b. HELICAL CORRUGATED PIPE > 24" DIA. SHALL BE FULLY LINED.
 - c. HELICAL CORRUGATED PIPE < 24" DIA. SHALL NOT REQUIRE COATING, PAVING, OR LINING.
 - d. SPIRAL RIB PIPE SHALL NOT REQUIRE COATING, PAVED INVERT, OR LINING.
 2. EXCEPTIONS FOR ENTRANCE PIPE:
 - a. COATINGS REQUIRED FOR LOW PH LEVELS.
 - b. PAVED INVERTS SHALL NOT BE REQUIRED FOR ENTRANCE PIPE.
 - c. ENTRANCE PIPE GREATER THAN 30" DIA. SHALL BE CULVERT PIPE.
- ③ L = LOW PH RANGE (ACID)
 M = MEDIUM PH RANGE
 H = HIGH PH RANGE (BASE)
- ④ ALUMINUM COATED TYPE 2 STEEL IS ONLY PERMITTED IN PH RANGES OF 5 TO 9

KENTUCKY
DEPARTMENT OF HIGHWAYS
COATINGS, LININGS AND
PAVINGS FOR
NON-STRUCTURAL PLATE
PIPE

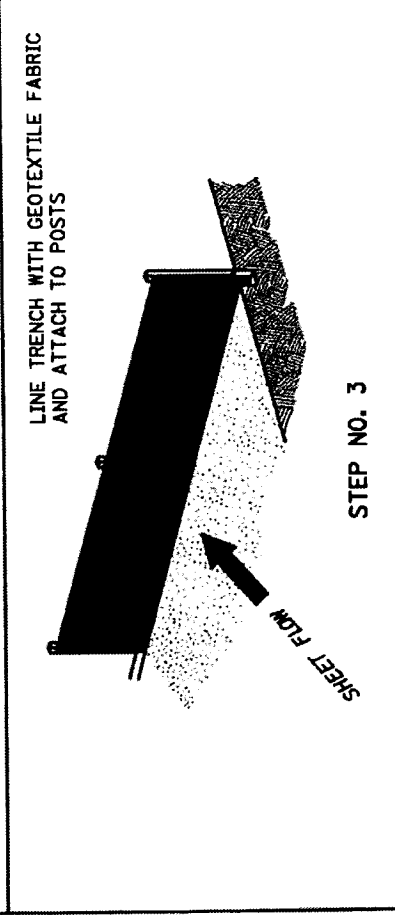
STANDARD DRAWING NO. RDI-035-01
 AUTHORITY: *[Signature]* 12-1-99
 APPROVED: *[Signature]* 12-1-99
 DATE:



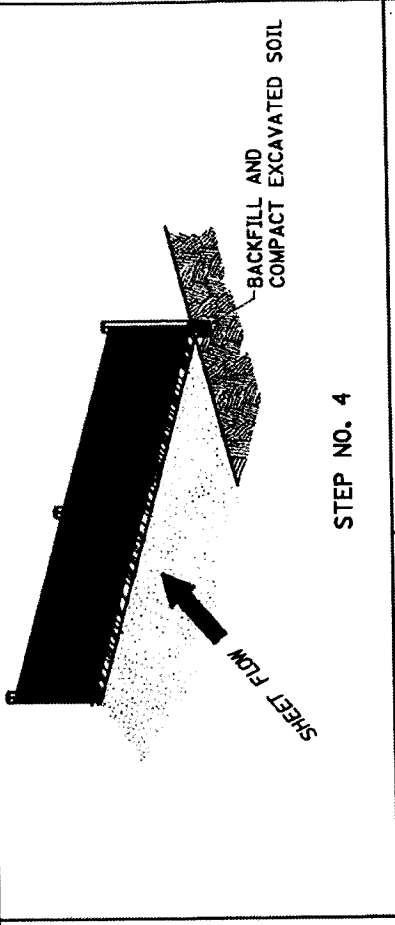
STEP NO. 1



STEP NO. 2



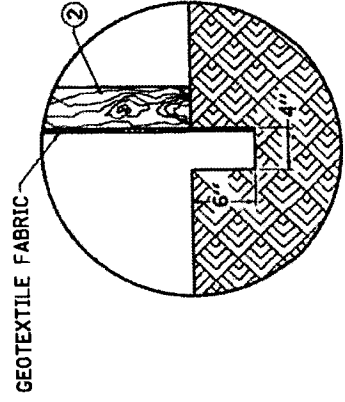
STEP NO. 3



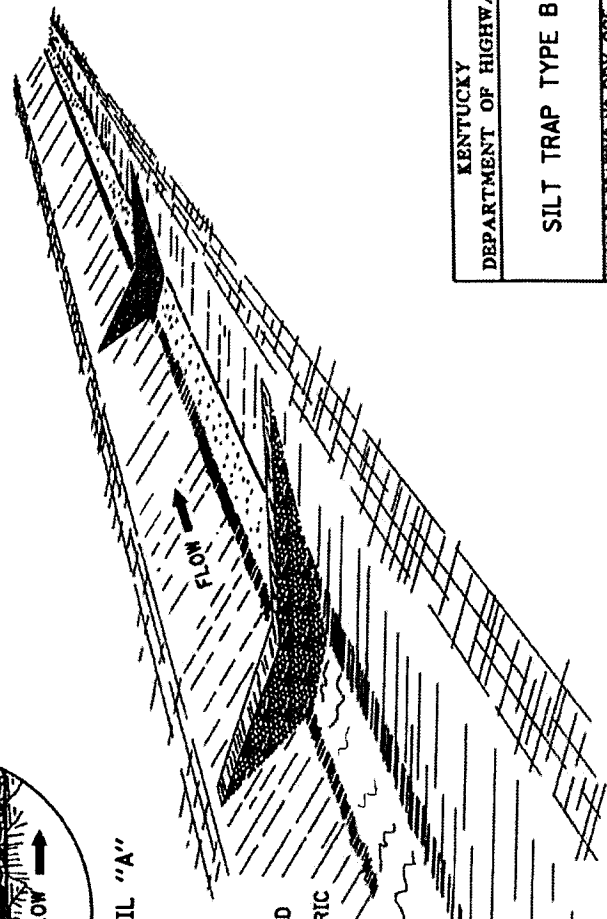
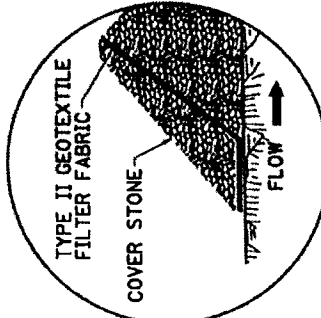
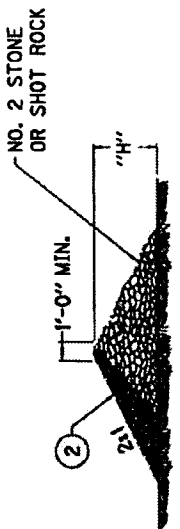
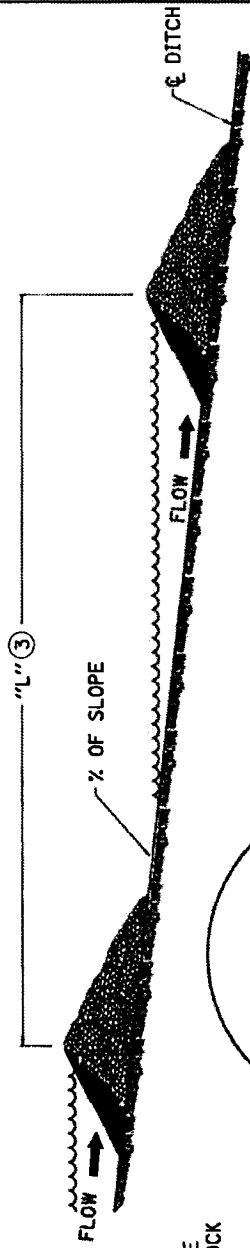
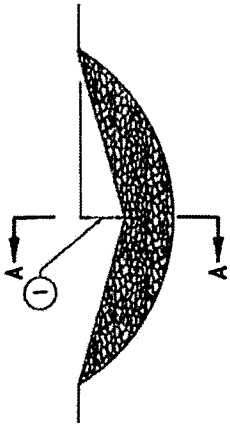
STEP NO. 4

NOTES

1. SEE STANDARD SPECIFICATIONS FOR POST SIZE, GEOTEXTILE FABRIC, WIRE STAPLES AND ALL OTHER PERTINENT INFORMATION.
- ② POSTS MAY BE WOODEN OR METAL T-SECTION.
- ③ POSTS SHALL BE SET 1'-4" DEEP.



KENTUCKY DEPARTMENT OF HIGHWAYS	
TEMPORARY SILT FENCE	
STANDARD DRAWING NO. RDX-210-02	DATE: 12-1-99
DESIGNED BY: [Signature]	DRAWN BY: [Signature]
CHECKED BY: [Signature]	DATE: 12-01-99
APPROVED: [Signature]	



-NOTES-

- BID ITEM AND UNIT TO BID:
- | CODE | PAY ITEM | PAY UNIT |
|------|------------------------|----------|
| 2704 | SILT TRAP TYPE B | EACH |
| 2707 | CLEAN SILT TRAP TYPE B | EACH |
- ① MIDDLE OF SILT TRAP SHALL BE A MINIMUM OF 1'-0" LOWER THAN SIDES SO FLOW WILL NOT BYPASS TRAP OR ERODE BANKS.
 - ② UPSTREAM FACE OF SILT TRAP SHALL BE A FOUR INCH MIN. LAYER OF CRUSHED AGGREGATE HAVING 100% PASSING A 3" SIEVE AND NO MORE THAN 5% PASSING A NO. 8 SIEVE (SEE SECTION "A-A"). LINE UPSTREAM FACE WITH FILTER FABRIC UP TO BOTTOM OF THE V AND COVER FABRIC WITH STONE TO HOLD IN PLACE (SEE DETAIL "A").
 - ③ "L" = ^{1/4"}SLOPE OF DITCH
 - ④ SPACE SILT TRAPS AT LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
 5. SILT TRAP TYPE B SHALL BE USED ON ALL SLOPES GREATER THAN 2%.
 6. SILT TRAP TYPE B MAY BE USED ON ALL SLOPES LESS THAN 2%.

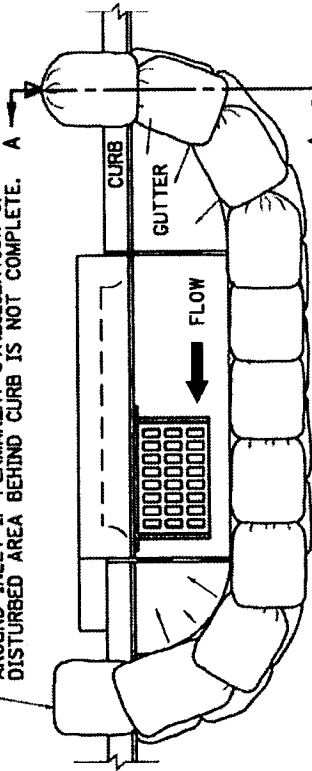
KENTUCKY
DEPARTMENT OF HIGHWAYS

SILT TRAP TYPE B

STANDARD DRAWING NO. RDX-225

DATE 11-21-07
SUBMITTED BY 11-21-07
APPROVED BY 11-21-07

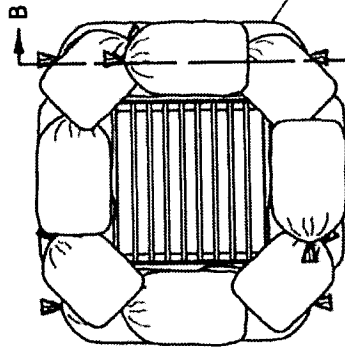
INSTALL ADDITIONAL STONE BAGS OR SILT FENCE AROUND INLET IF PERMANENT STABILIZATION OF DISTURBED AREA BEHIND CURB IS NOT COMPLETE.



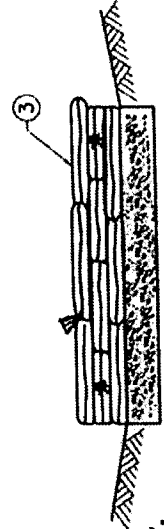
PLAN VIEW



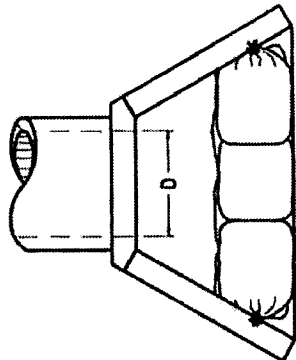
SECTION A-A



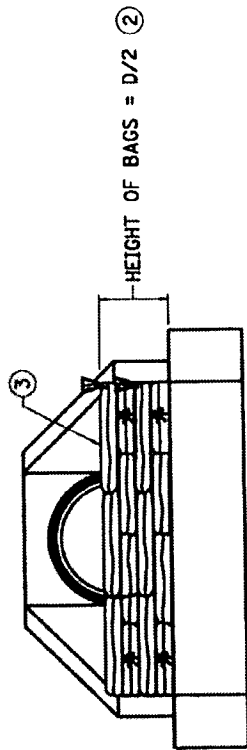
PLAN VIEW



SECTION B-B



PLAN VIEW



FRONT ELEVATION

~NOTES~

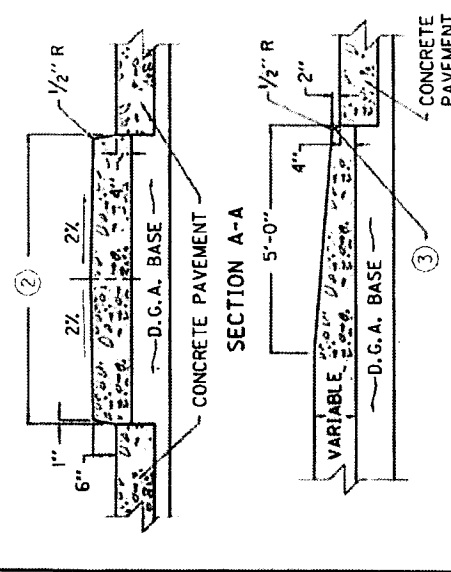
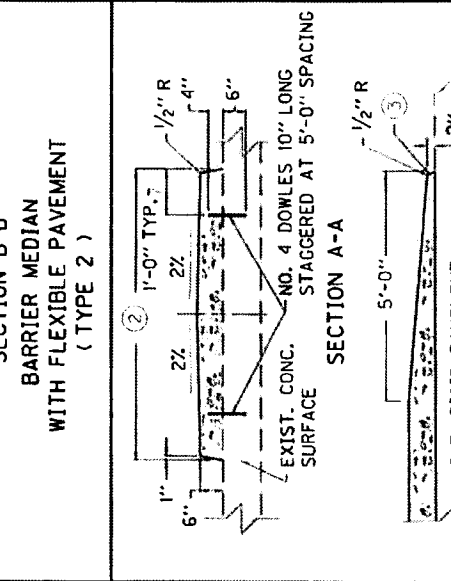
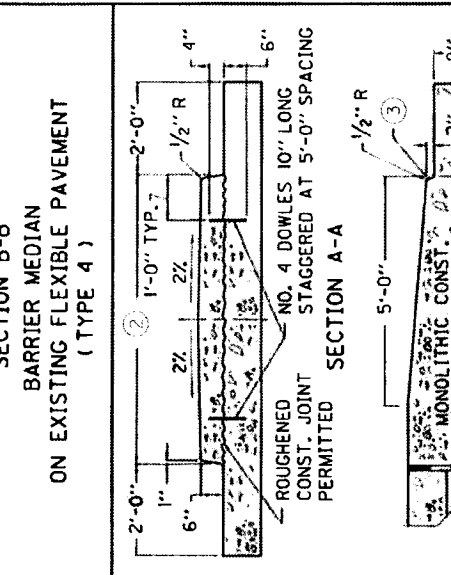
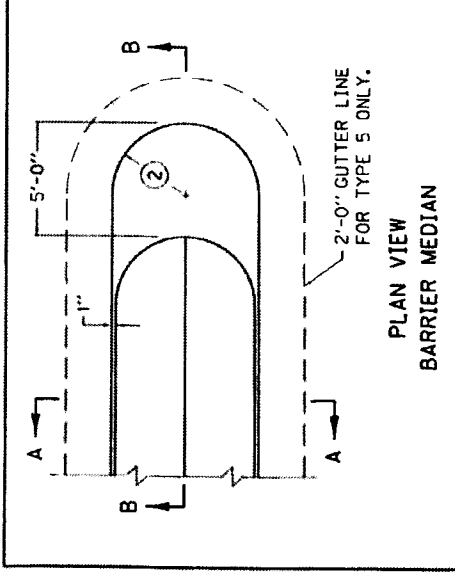
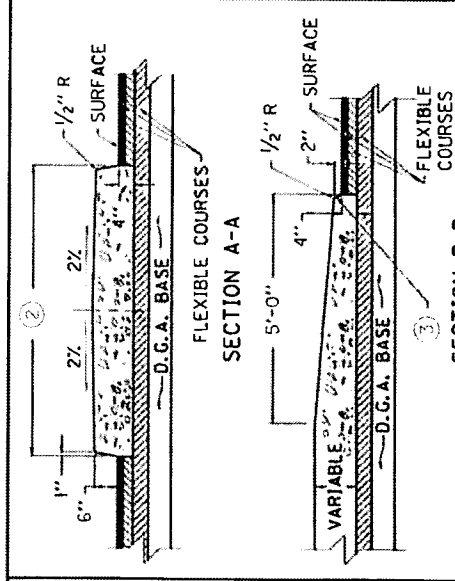
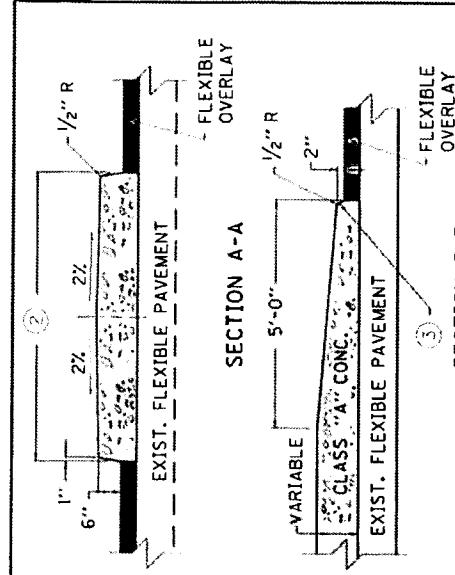
1. SILT TRAP TYPE C SHALL INCLUDE GEOTEXTILE FABRIC BAGS, NO. 57 STONE, LABOR AND ALL INCIDENTALS NECESSARY FOR ONE COMPLETE INSTALLATION.
2. BID ITEM AND UNIT TO BID:
3. PAY UNIT
4. SILT TRAP TYPE C EACH
5. CLEAN SILT TRAP TYPE C EACH
6. INLET PROTECTION IS SUITABLE FOR USE IN BOTH PAVED AND UNPAVED AREAS.
7. THE HEIGHT REQUIREMENT IS WAIVED IN CASES WHERE IT WILL CREATE AN UNACCEPTABLE PONDING SITUATION ON THE PAVEMENT OR ON AN ADJACENT PROPERTY.
8. INTERWEAVE BAG ENDS TO FILL GAPS BETWEEN BAGS.
9. CONSTRUCT 18" X 30" BAGS OF NON-WOVEN TYPE II GEOTEXTILE FABRIC CONFORMING TO SECTION 843 OF THE STANDARD SPECIFICATIONS, DOUBLE STITCH BAG SEAMS WITH 1LB. POLYESTER THREAD. ATTACH ONE (1) TIE STRING TO EACH BAG. BAG OPENING SHALL BE ON 18" SIDE.
10. FILL BAGS WITH NO. 57 STONE BETWEEN 1/2 TO 3/5 FULL (50 LB TO 60 LB).
11. SILT TRAP TYPE C SHALL NOT BE USED IN BLUE LINE STREAMS.

KENTUCKY
DEPARTMENT OF HIGHWAYS

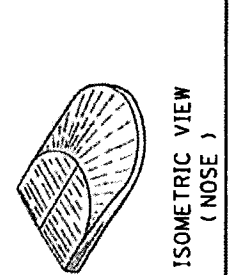
SILT TRAP TYPE C

STANDARD DRAWING NO. ROX-230

SUBMITTED: *[Signature]* 11-21-07
APPROVED: *[Signature]* 11-21-07

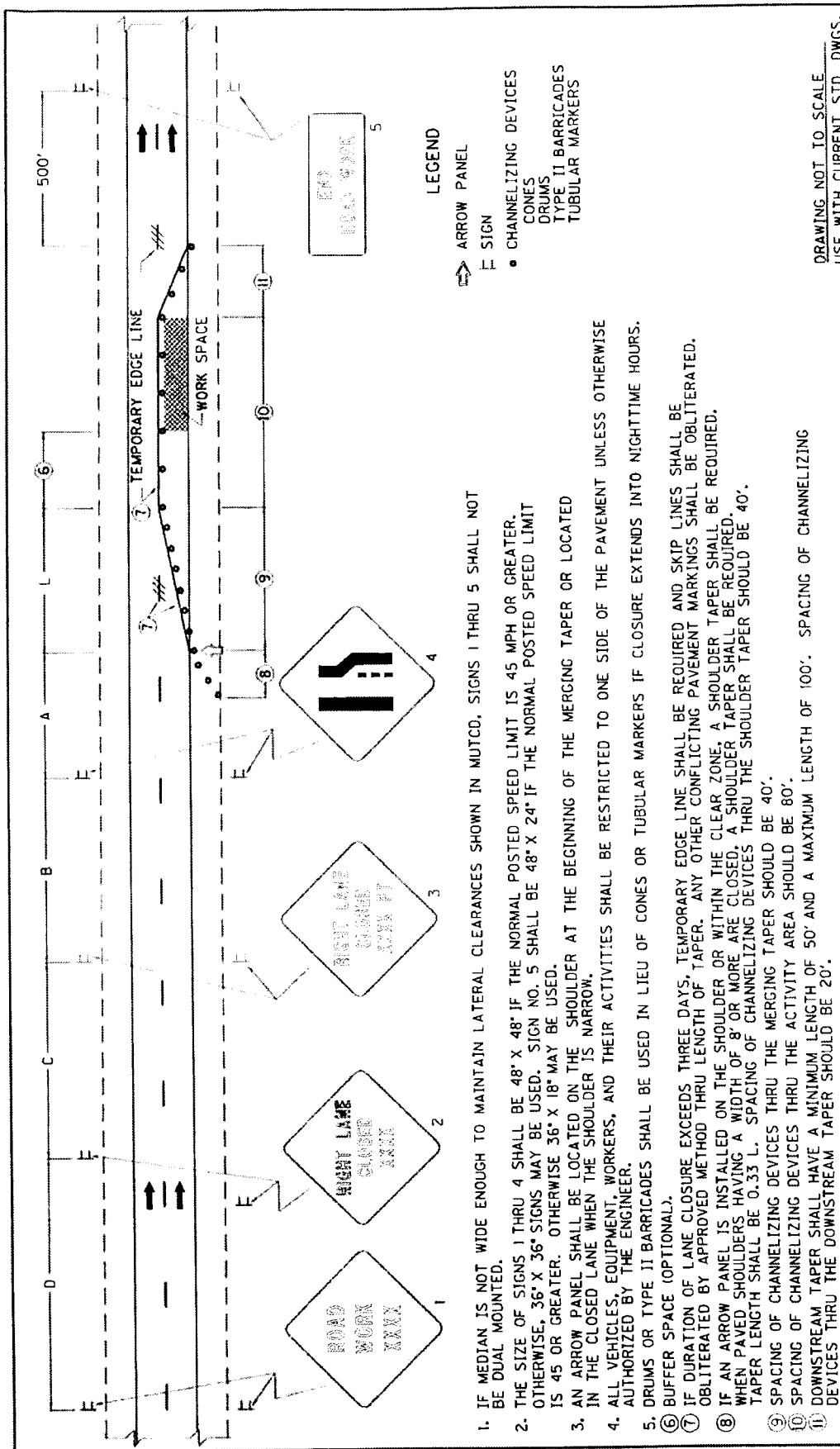


KENTUCKY
DEPARTMENT OF HIGHWAYS
STANDARD BARRIER MEDIAN
STANDARD DRAWING NO. RPM-010-05
APPROVED: [Signature] 12-11-59
12-11-59



NOTES

1. THE UNIT BID PER SQUARE YARD SHALL BE: STANDARD BARRIER MEDIAN TYPE ★.
- ★ = 1 OR 2 OR 3 OR 4 OR 5.
2. SEE PLANS FOR CONSTANT OR VARIABLE WIDTH DIMENSIONS.
3. SLOPE TO CONFORM TO SIDE SLOPES.
4. ALL BARRIER MEDIANS SHALL BE CONSTRUCTED OF CLASS "A" CONCRETE.



DRAWING NOT TO SCALE
 USE WITH CURRENT STD. DWGS.
 TTD-110 AND TTC-160

KENTUCKY
 DEPARTMENT OF HIGHWAYS
 LANE CLOSURE
 MULTI-LANE HIGHWAY
 CASE I

STANDARD DRAWING NO TTC-115-02
 DATE 12-2-81
 BY [Signature]
 CHECKED [Signature]

LEGEND

- ➡ ARROW PANEL
- F SIGN
- CHANNELIZING DEVICES
- CONES
- DRUMS
- TYPE II BARRICADES
- TUBULAR MARKERS

1. IF MEDIAN IS NOT WIDE ENOUGH TO MAINTAIN LATERAL CLEARANCES SHOWN IN MUTCD, SIGNS 1 THRU 5 SHALL NOT BE DUAL MOUNTED.
2. THE SIZE OF SIGNS 1 THRU 4 SHALL BE 48" X 48" IF THE NORMAL POSTED SPEED LIMIT IS 45 MPH OR GREATER, OTHERWISE, 36" X 36" SIGNS MAY BE USED. SIGN NO. 5 SHALL BE 48" X 24" IF THE NORMAL POSTED SPEED LIMIT IS 45 OR GREATER. OTHERWISE 36" X 18" MAY BE USED.
3. AN ARROW PANEL SHALL BE LOCATED ON THE SHOULDER AT THE BEGINNING OF THE MERGING TAPER OR LOCATED IN THE CLOSED LANE WHEN THE SHOULDER IS NARROW.
4. ALL VEHICLES, EQUIPMENT, WORKERS, AND THEIR ACTIVITIES SHALL BE RESTRICTED TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.
5. DRUMS OR TYPE II BARRICADES SHALL BE USED IN LIEU OF CONES OR TUBULAR MARKERS IF CLOSURE EXTENDS INTO NIGHTTIME HOURS.
6. BUFFER SPACE (OPTIONAL).
7. IF DURATION OF LANE CLOSURE EXCEEDS THREE DAYS, TEMPORARY EDGE LINE SHALL BE REQUIRED AND SKIP LINES SHALL BE OBLITERATED BY APPROVED METHOD THRU LENGTH OF TAPER. ANY OTHER CONFLICTING PAVEMENT MARKINGS SHALL BE OBLITERATED.
8. IF AN ARROW PANEL IS INSTALLED ON THE SHOULDER OR WITHIN THE CLEAR ZONE, A SHOULDER TAPER SHALL BE REQUIRED. WHEN PAVED SHOULDERS HAVING A WIDTH OF 8' OR MORE ARE CLOSED, A SHOULDER TAPER SHALL BE REQUIRED. TAPER LENGTH SHALL BE 0.33 L. SPACING OF CHANNELIZING DEVICES THRU THE SHOULDER TAPER SHOULD BE 40'.
9. SPACING OF CHANNELIZING DEVICES THRU THE MERGING TAPER SHOULD BE 40'.
10. SPACING OF CHANNELIZING DEVICES THRU THE ACTIVITY AREA SHOULD BE 80'.
11. DOWNSTREAM TAPER SHALL HAVE A MINIMUM LENGTH OF 50' AND A MAXIMUM LENGTH OF 100'. SPACING OF CHANNELIZING DEVICES THRU THE DOWNSTREAM TAPER SHOULD BE 20'.

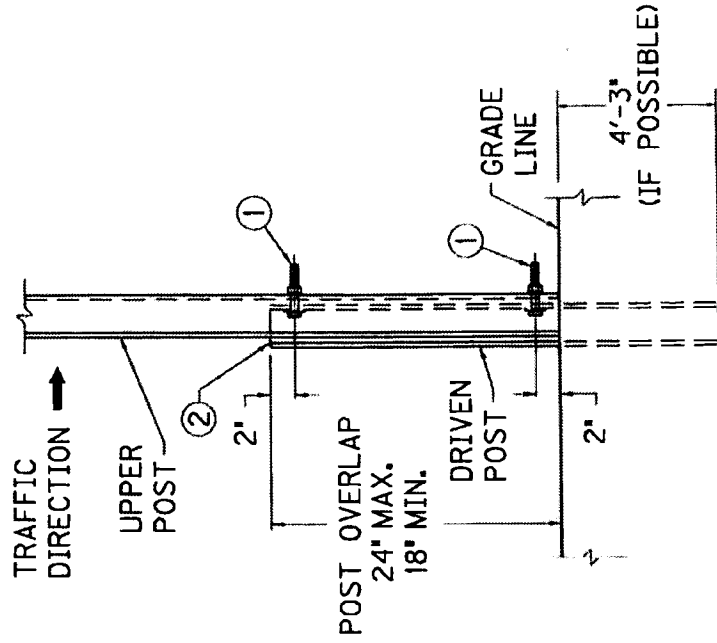
SIGNING AND SPACING TABLE

ROAD TYPE	A	B	C	D	L
EXPRESSWAY/ FREEWAY	1000'	500'	1100'	2600'	840'
SP. LT. ≥ 45 MPH	500'	500'	500'	1100'	680'
SP. LT. ≤ 40 MPH	250'	250'	500'	500'	320'

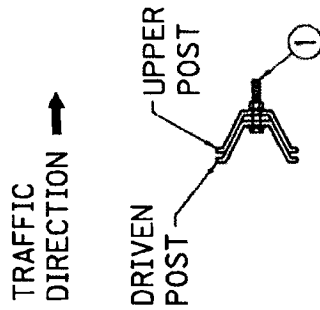
*NOTE: USE NORMAL POSTED SPEED LIMIT

APPLICATION

THIS DRAWING APPLIES TO LANE CLOSURES OF LEFT OR RIGHT LANES ON TWO-DIRECTION, MULTI-LANE HIGHWAYS. IF TEMPORARY TRAFFIC BARRIER IS USED, REFER TO CURRENT STANDARD DRAWING TTC-120.



SIDE ELEVATION



TOP VIEW

APPLICATION

PREFERABLY, SIGN POSTS ARE NOT TO BE SPLICED. HOWEVER, TO OBTAIN THE REQUIRED HEIGHT, SIGN POSTS MAY BE SPLICED ONCE IN THEIR LENGTH AND ACCORDING TO THIS STANDARD DRAWING.

GENERAL NOTES

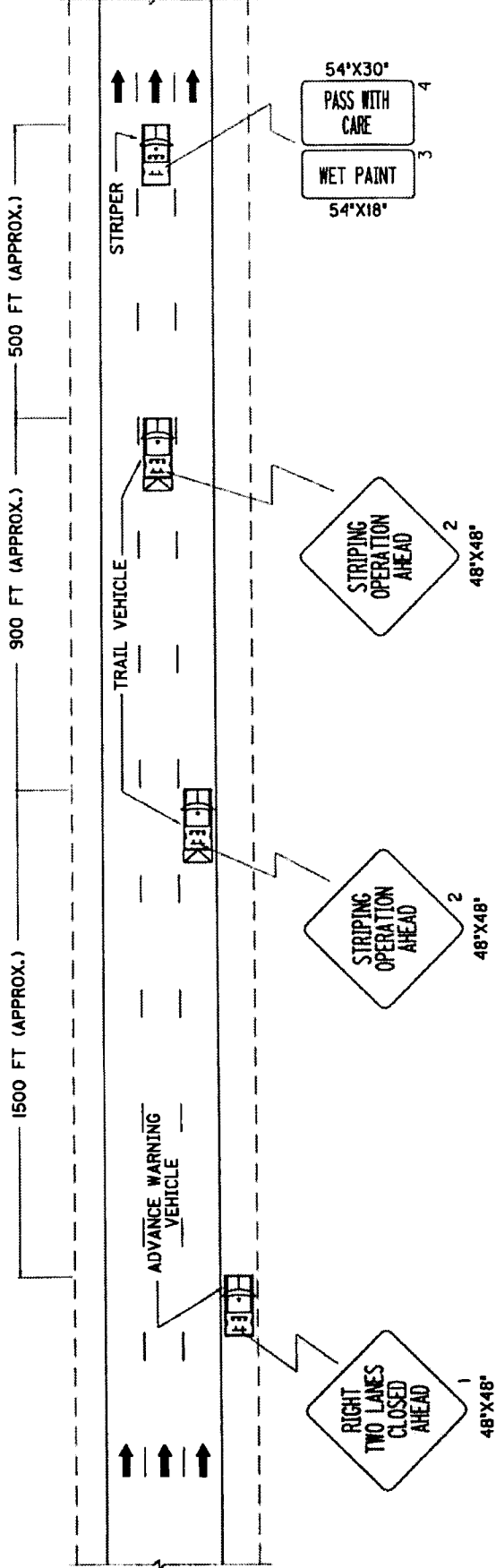
- ① TWO (2) 5/16" X 2" HEX HEAD CAP SCREWS, TWO (2) ROUND WASHERS, TWO (2) LOCK WASHERS, AND TWO HEX HEAD NUTS (ASTM A307).
- ② THE DRIVEN POST STUB SHALL BE REMOVED WHEN THE UPPER POST IS NOT IN PLACE.

DRAWING NOT TO SCALE

KENTUCKY
DEPARTMENT OF HIGHWAYS

POST
SPLICING
DETAIL

STANDARD DRAWING NO. TTD-110-01
 QUANTITY 1
 DATE 11-21-01
 APPROVED BY [Signature] 11-21-01
 SA [Signature]



LEGEND

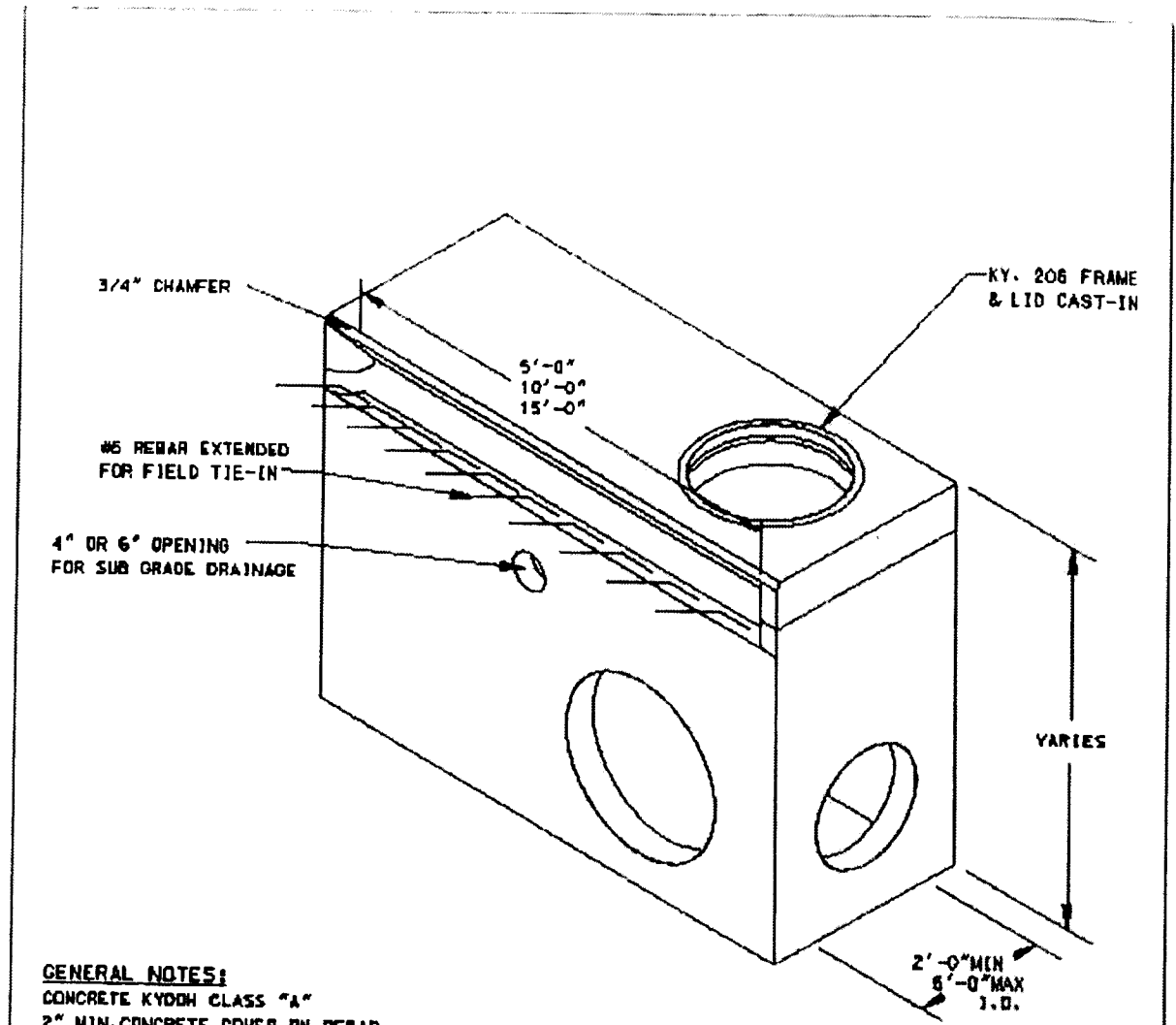
- 1. FLASH ARROW PANELS TO DIRECT TRAFFIC RIGHT OR LEFT AS APPROPRIATE. FLASHING ARROW PANELS SHALL BE TYPE B (60"X30") OR LARGER.
- 2. SIGNS 1 THRU 3 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF FLUORESCENT ORANGE SHEETING. SIGN 4 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF REFLECTIVE WHITE SHEETING.
- 3. ALL VEHICLES IN THE STRIPING TRAIN SHALL BE EQUIPPED WITH HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS
- 4. TRUCK MOUNTED ATTENUATOR ON THE CAB.
- 5. THE LAST TRAIL VEHICLE IN THE WORK TRAIN SHALL BE EQUIPPED WITH A TRUCK MOUNTED ATTENUATOR (T.M.A.) IF LANES ARE 10' WIDE OR GREATER.
- 6. WHEN MORE THAN TWO LANES ARE TO BE CLOSED, SIGN 1 SHALL AGREE WITH THE NUMBER OF LANES CLOSED AND ADDITIONAL TRAIL VEHICLES SHALL BE USED.
- 7. TWO-WAY RADIO COMMUNICATION SHALL BE MAINTAINED BETWEEN ALL VEHICLES IN THE WORK TRAIN.
- 8. THE SPACING BETWEEN VEHICLES IN THE WORK TRAIN SHOULD BE ADJUSTED, AS NEEDED, TO PROVIDE ADEQUATE SIGHT DISTANCE TO APPROACHING VEHICLES AND TO PROTECT THE FRESHLY APPLIED LINE.
- 9. VEHICLE-MOUNTED SIGNS SHALL BE MOUNTED IN A MANNER SUCH THAT THEY ARE NOT OBTURED BY EQUIPMENT OR SUPPLIES.
- 10. SIGN LEGENDS ON VEHICLE-MOUNTED SIGNS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.

DRAWING NOT TO SCALE
 USE WITH CURRENT STD. DWGS.
 TTD-100

KENTUCKY
 DEPARTMENT OF HIGHWAYS
 MOBILE OPERATION
 FOR DURABLE STRIPING
 CASE II

STANDARD DRAWING NO. TTS-125-01
 SCALE: 1/4" = 1'-0" (SEE SECTION 11-21-01)
 APPROVED: [Signature]
 DATE: 11-21-07

APPLICATION
 THIS DRAWING APPLIES TO DURABLE STRIPING OPERATIONS INVOLVING MULTIPLE LANE CLOSURES ON MULTI-LANE ROADWAYS.



GENERAL NOTES:
 CONCRETE KYDDH CLASS "A"
 2" MIN. CONCRETE COVER ON REBAR
 REINF. → REBAR "C.C.-EA. WAY GRADE TO
 BE PER STANDARD SPECIFICATIONS
 REBAR GAGE TO BE TAC WELD OR TIED
 PIPE & LIFT HOLES TO BE DROUTED IN WITH
 STATE APPROVED NON-SHRINK GROUT
 DWG TO BE USED IN CONJUNCTION WITH
 KYDDH STD. DWG
 STD. SPECIFICATION 710.03.02 APPLIES
 TO THIS STRUCTURE
 ALL DIMENSIONS ARE BASED ON B-WALL PIPE.
 FOR C-WALL PIPE APPLICATIONS B-WALL
 OPENINGS WILL BE USED
 ALUMINUM PANEL FORMS MAY BE USED
 TO BE SUBMITTED FOR STRUCTURES WITH
 LESS THAN 4" CON. COVER
 OVER PIPE OPENINGS

WEIGHTS FOR TOP PHASES

5'	Top = 1,895
10'	Top = 3,330
15'	Top = 5,695

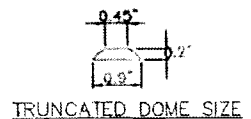
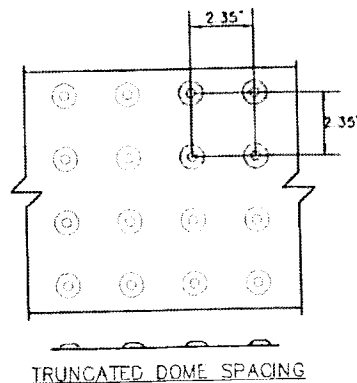
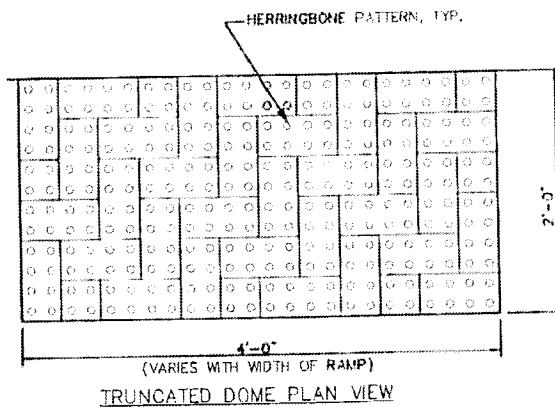
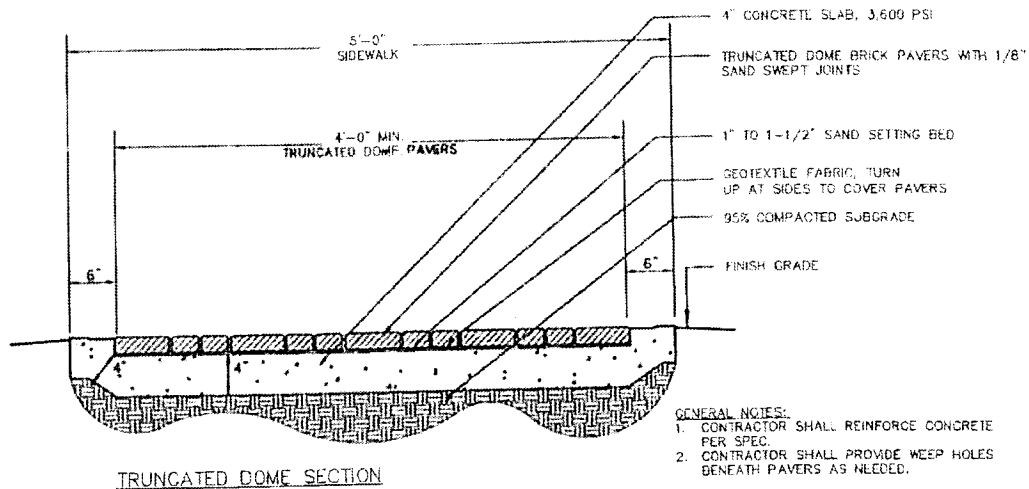
AVAILABLE MARKETS • KY

★
DIXIE

PH# 1-800-737-0707	DWG# TCI-644
DATE: 02/17/06	SHEET# 1 OF 1

CURB BOX INLET TYPE A (MOD)

SCALE: NTS



NOTES:

1. DETECTABLE WARNINGS SHALL BE OF THE PAVER TYPE PER PINE HALL BRICK SPECIFICATIONS.
2. WIDTH OF DETECTABLE WARNING AREA SHALL BE A MINIMUM OF 4 FEET AND VARY WITH WIDTH OF RAMP.
3. LENGTH OF DETECTABLE WARNING AREA SHALL BE 2 FEET REGARDLESS OF SECTION WIDTH.
4. DETECTABLE WARNING AREA CAN BE SQUARE WHERE USED IN A CURB RADIUS.
5. DETECTABLE WARNING DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.
6. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE.
7. DETECTABLE WARNINGS USED ON INTERIOR SURFACES SHALL DIFFER FROM ADJOINING WALKING SURFACES IN RESILIENCY OR SOUND-ON-CANE CONTACT.
8. COLOR TO BE APPROVED BY OWNER/LANDSCAPE ARCHITECT.
9. THE MATERIAL USED TO PROVIDE CONTRAST SHOULD CONTRAST BY AT LEAST 70% CONTRAST IN PERCENT IS DETERMINED BY:

$$\text{CONTRAST} = \frac{(B1 - B2)}{B1} \times 100$$

WHERE B1 = LIGHT REFLECTANCE VALUE (LRV) OF THE LIGHTER AREA AND B2 = LIGHT REFLECTANCE VALUE (LRV) OF THE DARKER AREA. (NOTE THAT IN ANY APPLICATION BOTH WHITE AND BLACK ARE NEVER ABSOLUTE; THUS, B1 NEVER EQUALS 100 AND B2 IS ALWAYS GREATER THAN 0.)

TRUNCATED DOME DETAIL

N.T.S.



APPENDIX B

PREVAILING WAGE RATES



FEDERAL



General Decision Number: KY140100 10/24/2014 KY100

Superseded General Decision Number: KY20130100

State: Kentucky

Construction Type: Highway

Counties: Anderson, Bath, Bourbon, Boyd, Boyle, Bracken, Breckinridge, Bullitt, Carroll, Carter, Clark, Elliott, Fayette, Fleming, Franklin, Gallatin, Grant, Grayson, Greenup, Hardin, Harrison, Henry, Jefferson, Jessamine, Larue, Lewis, Madison, Marion, Mason, Meade, Mercer, Montgomery, Nelson, Nicholas, Oldham, Owen, Robertson, Rowan, Scott, Shelby, Spencer, Trimble, Washington and Woodford Counties in Kentucky.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Modification Number	Publication Date
0	01/03/2014
1	02/14/2014
2	04/18/2014
3	05/09/2014
4	05/23/2014
5	06/06/2014
6	06/27/2014
7	07/04/2014
8	07/18/2014
9	07/25/2014
10	08/22/2014
11	10/24/2014

BRIN0004-003 06/01/2011

BRECKENRIDGE COUNTY

	Rates	Fringes
BRICKLAYER.....	\$ 24.11	10.07

* BRKY0001-005 06/01/2014

BULLITT, CARROLL, GRAYSON, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, & TRIMBLE COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 25.37	10.50

BRKY0002-006 06/01/2011

BRACKEN, GALLATIN, GRANT, MASON & ROBERTSON COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 26.57	10.26

* BRKY0007-004 06/01/2014

BOYD, CARTER, ELLIOT, FLEMING, GREENUP, LEWIS & ROWAN COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 30.57	17.94

BRKY0017-004 06/01/2009

ANDERSON, BATH, BOURBON, BOYLE, CLARK, FAYETTE, FRANKLIN,
HARRISON, JESSAMINE, MADISON, MERCER, MONTGOMERY, NICHOLAS,
OWEN, SCOTT, WASHINGTON & WOODFORD COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 24.11	9.97

CARP0064-001 04/01/2014

	Rates	Fringes
CARPENTER.....	\$ 27.50	14.96
Diver.....	\$ 41.63	14.96
PILEDRIVERMAN.....	\$ 27.75	14.96

ELEC0212-008 06/02/2014

BRACKEN, GALLATIN and GRANT COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 26.74	16.45

ELEC0212-014 07/01/2013

BRACKEN, GALLATIN & GRANT COUNTIES:

	Rates	Fringes
Sound & Communication Technician.....	\$ 22.50	9.51

ELEC0317-012 05/28/2014

BOYD, CARTER, ELLIOT & ROWAN COUNTIES:

	Rates	Fringes
ELECTRICIAN Cable Splicer.....	\$ 32.68	18.13
Electrician.....	\$ 32.62	21.45

ELEC0369-007 05/29/2013

ANDERSON, BATH, BOURBON, BOYLE, BRECKINRIDGE, BULLITT, CARROLL,

CLARK, FAYETTE, FRAONKLIN, GRAYSON, HARDIN, HARRISON, HENRY, JEFFERSON, JESSAMINE, LARUE, MADISON, MARION, MEADE, MERCER, MONTGOMERY, NELSON, NICHOLAS, OLDHAM, OWEN, ROBERTSON, SCOTT, SHELBY, SPENCER, TRIMBLE, WASHINGTON, & WOODFORD COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 29.48	14.37

ELEC0575-002 06/02/2014		

FLEMING, GREENUP, LEWIS & MASON COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 31.70	14.21

ENGI0181-018 07/01/2014		

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 28.85	14.15
GROUP 2.....	\$ 26.24	14.15
GROUP 3.....	\$ 26.65	14.15
GROUP 4.....	\$ 25.95	14.15

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - A-Frame Winch Truck; Auto Patrol; Backfiller; Batcher Plant; Bituminous Paver; Bituminous Transfer Machine; Boom Cat; Bulldozer; Mechanic; Cableway; Carry-All Scoop; Carry Deck Crane; Central Compressor Plant; Cherry Picker; Clamshell; Concrete Mixer (21 cu. ft. or Over); Concrete Paver; Truck-Mounted Concrete Pump; Core Drill; Crane; Crusher Plant; Derrick; Derrick Boat; Ditching & Trenching Machine; Dragline; Dredge Operator; Dredge Engineer; Elevating Grader & Loaders; Grade-All; Guries; Heavy Equipment Robotics Operator/Mechanic; High Lift; Hoe-Type Machine; Hoist (Two or More Drums); Hoisting Engine (Two or More Drums); Horizontal Directional Drill Operator; Hydrocrane; Hyster; KeCal Loader; LeTourneau; Locomotive; Mechanic; Mechanically Operated Laser Screed; Mechanic Welder; Mucking Machine; Motor Scraper; Orangepeel Bucket; Overhead Crane; Piledriver; Power Blade; Pumpcrete; Push Dozer; Rock Spreader, attached to equipment; Rotary Drill; Roller (Bituminous); Rough Terrain Crane; Scarifier; Scoopmobile; Shovel; Side Boom; Subgrader; Tailboom; Telescoping Type Forklift; Tow or Push Boat; Tower Crane (French, German & other types); Tractor Shovel; Truck Crane; Tunnel Mining Machines, including Moles, Shields or similar types of Tunnel Mining Equipment

GROUP 2 - Air Compressor (Over 900 cu. ft. per min.); Bituminous Mixer; Boom Type Tamping Machine; Bull Float; Concrete Mixer (Under 21 cu. ft.); Dredge Engineer; Electric Vibrator; Compactor/Self-Propelled Compactor; Elevator (One Drum or Buck Hoist); Elevator (When used to Hoist Building Material); Finish Machine; Firemen & Hoist (One Drum); Flexplane; Forklift (Regardless of Lift

Height); Form Grader; Joint Sealing Machine; Outboard Motor Boat; Power Sweeper (Riding Type); Roller (Rock); Ross Carrier; Skid Mounted or Trailer Mounted Concrete Pump; Skid Steer Machine with all Attachments; Switchman or Brakeman; Throttle Valve Person; Tractair & Road Widening Trencher; Tractor (50 H.P. or Over); Truck Crane Oiler; Tugger; Welding Machine; Well Points; & Whirley Oiler

GROUP 3 - All Off Road Material Handling Equipment, including Articulating Dump Trucks; Greaser on Grease Facilities servicing Heavy Equipment

GROUP 4 - Bituminous Distributor; Burlap & Curing Machine; Cement Gun; Concrete Saw; Conveyor; Deckhand Oiler; Grout Pump; Hydraulic Post Driver; Hydro Seeder; Mud Jack; Oiler; Paving Joint Machine; Power Form Handling Equipment; Pump; Roller (Earth); Steerman; Tamping Machine; Tractor (Under 50 H.P.); & Vibrator

CRANES - with booms 150 ft. & Over (Including JIB), and where the length of the boom in combination with the length of the piling leads equals or exceeds 150 ft. - \$1.00 over Group 1 rate

EMPLOYEES ASSIGNED TO WORK BELOW GROUND LEVEL ARE TO BE PAID 10% ABOVE BASIC WAGE RATE. THIS DOES NOT APPLY TO OPEN CUT WORK.

IRON0044-009 06/01/2013

BRACKEN, GALLATIN, GRANT, HARRISON, ROBERTSON, BOURBON (Northern third, including Townships of Jackson, Millersburg, Ruddel Mills & Shawhan); CARROLL (Eastern third, including the Township of Ghent); FLEMING (Western part, excluding Townships of Beechburg, Colfax, Elizaville, Flemingsburg, Flemingsburg Junction, Foxport, Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills, Nepton, Pecksridge, Plummers Landing, Plummers Mill, Poplar Plains, Ringos Mills, Tilton & Wallingford); MASON (Western two-thirds, including Townships of Dover, Lewisburg, Mays Lick, Maysville, Minerva, Moranburg, Murphysville, Ripley, Sardis, Shannon, South Ripley & Washington); NICHOLAS (Townships of Barefoot, Barterville, Carlisle, Ellisville, Headquarters, Henryville, Morningglory, Myers & Oakland Mills); OWEN (Townships of Beechwood, Bromley, Fairbanks, Holbrook, Jonesville, Long Ridge, Lusby's Mill, New, New Columbus, New Liberty, Owenton, Poplar Grove, Rockdale, Sanders, Teresita & Wheatley); SCOTT (Northern two-thirds, including Townships of Biddle, Davis, Delaplain, Elmville, Longlick, Muddy Ford, Oxford, Rogers Gap, Sadieville, Skinnersburg & Stonewall)

Rates Fringes

IRONWORKER
Fence Erector.....\$ 22.50 18.40
Structural.....\$ 24.80 18.40

IRON0070-006 06/01/2014

ANDERSON, BOYLE, BRECKINRIDGE, BULLITT, FAYETTE, FRANKLIN,
GRAYSON, HARDIN, HENRY, JEFFERSON, JESSAMINE, LARUE, MADISON,
MARION, MEADE, MERCER, NELSON, OLDHAM, SHELBY, SPENCER,
TRIMBLE, WASHINGTON & WOODFORD

BOURBON (Southern two-thirds, including Townships of Austerlity,
Centerville, Clintonville, Elizabeth, Hutchison, Littlerock,
North Middletown & Paris);

CARROLL (Western two-thirds, including Townships of Carrollton,
Easterday, English, Locust, Louis, Prestonville & Worthville);

CLARK (Western two-thirds, including Townships of Becknerville,
Flanagan, Ford, Pine Grove, Winchester & Wyandotte);

OWEN (Eastern eighth, including Townships of Glenmary, Gratz,
Monterey, Perry Park & Tacketts Mill);

SCOTT (Southern third, including Townships of Georgetown, Great
Crossing, Newtown, Stampling Ground & Woodlake);

	Rates	Fringes
IRONWORKER.....	\$ 26.97	19.75

IRON0372-006 06/01/2013

BRACKEN, GALLATIN, GRANT, HARRISON and ROBERTSON

BOURBON (Northern third, including Townships of Jackson,
Millersburg, Ruddel Mills & Shawhan);

CARROLL (Eastern third, including the Township of Ghent);

FLEMING (Western part, Excluding Townships of Beechburg, Colfax,
Elizaville, Flemingsburg, Flemingsburg Junction, Foxport,
Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills,
Nepton, Pecksridge, Plummers Landing, Plummers Mill, Poplar
Plains,

Ringos Mills, Tilton & Wallingford);

MASON (Western two-thirds, including Townships of Dover,
Lewisburg, Mays Lick, Maysville, Minerva, Moranburg,
Murphysville, Ripley, Sardis, Shannon, South Ripley &
Washington);

NICHOLAS (Townships of Barefoot, Barterville, Carlisle,
Ellisville, Headquarters, Henryville, Morningglory, Myers &
Oakland Mills);

OWEN (Townships of Beechwood, Bromley, Fairbanks, Holbrook,
Jonesville, Long Ridge, Lusby's Mill, New, New Columbus, New
Liberty, Owenton, Poplar Grove, Rockdale, Sanders, Teresita &
Wheatley);

SCOTT (Northern two-thirds, including Townships of Biddle,
Davis, Delaplain, Elmville, Longlick, Muddy Ford, Oxford, Rogers
Gap, Sadieville, Skinnersburg & Stonewall) COUNTIES

	Rates	Fringes
IRONWORKER, REINFORCING.....	\$ 26.47	19.30

IRON0769-007 12/01/2012

BATH, BOYD, CARTER, ELLIOTT, GREENUP, LEWIS, MONTGOMERY & ROWAN

CLARK (Eastern third, including townships of Bloomingdale,
Hunt, Indian Fields, Kiddville, Loglick, Rightangele & Thomson);

FLEMING (Townships of Beechburg, Colfax, Elizaville, Flemingsburg, Flemingsburg Junction, Foxport, Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills, Nepton, Peckridge, Plummers Landing, Plummers Mill, Poplar Plains, Ringos Mills, Tilton & Wallingford);
 MASON (Eastern third, including Townships of Helena, Marshall, Orangeburg, Plumville & Springdale);
 NICHOLAS (Eastern eighth, including the Township of Moorefield Sprout)

	Rates	Fringes
IRONWORKER.....	\$ 32.54	20.18

LABO0189-003 07/01/2014

BATH, BOURBON, BOYD, BOYLE, BRACKEN, CARTER, CLARK, ELLIOTT, FAYETTE, FLEMING, FRANKLIN, GALLATIN, GRANT, GREENUP, HARRISON, JESSAMINE, LEWIS, MADISON, MASON, MERCER, MONTGOMERY, NICHOLAS, OWEN, ROBERTSON, ROWAN, SCOTT, & WOOLFORD COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 21.80	11.96
GROUP 2.....	\$ 22.05	11.96
GROUP 3.....	\$ 22.10	11.96
GROUP 4.....	\$ 22.70	11.96

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Side Rail

Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized

LABO0189-008 07/01/2014

ANDERSON, BULLITT, CARROLL, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE & WASHINGTON COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 22.71	11.05
GROUP 2.....	\$ 22.96	11.05
GROUP 3.....	\$ 23.01	11.05
GROUP 4.....	\$ 23.61	11.05

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Side Rail Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste

- Levels A & B; Miner & Driller (Free Air); Tunnel Blaster;
& Tunnel Mucker (Free Air); Directional & Horizontal
Boring; Air Track Drillers (All Types); Powdermen &
Blasters; Troxler & Concrete Tester if Laborer is Utilized

LABO0189-009 07/01/2014

BRECKINRIDGE & GRAYSON COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 22.66	11.10
GROUP 2.....	\$ 22.91	11.10
GROUP 3.....	\$ 22.96	11.10
GROUP 4.....	\$ 23.56	11.10

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Side Rail Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized

PAIN0012-005 06/11/2005

BATH, BOURBON, BOYLE, CLARK, FAYETTE, FLEMING, FRANKLIN,
 HARRISON, JESSAMINE, MADISON, MERCER, MONTGOMERY, NICHOLAS,
 ROBERTSON, SCOTT & WOODFORD COUNTIES:

	Rates	Fringes
PAINTER		
Bridge/Equipment Tender and/or Containment Builder..	\$ 18.90	5.90
Brush & Roller.....	\$ 21.30	5.90
Elevated Tanks; Steeplejack Work; Bridge & Lead Abatement.....	\$ 22.30	5.90
Sandblasting & Waterblasting.....	\$ 22.05	5.90
Spray.....	\$ 21.80	5.90

 PAIN0012-017 05/01/2014

BRACKEN, GALLATIN, GRANT, MASON & OWEN COUNTIES:

	Rates	Fringes
PAINTER (Heavy & Highway Bridges - Guardrails - Lightpoles - Striping)		
Bridge Equipment Tender and Containment Builder.....	\$ 20.73	8.71
Brush & Roller.....	\$ 23.39	8.71
Elevated Tanks; Steeplejack Work; Bridge & Lead Abatement.....	\$ 24.39	8.71
Sandblasting & Water Blasting.....	\$ 24.14	8.71
Spray.....	\$ 23.89	8.71

 PAIN0118-004 06/01/2014

ANDERSON, BRECKINRIDGE, BULLITT, CARROLL, GRAYSON, HARDIN,
 HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY,
 SPENCER, TRIMBLE & WASHINGTON COUNTIES:

	Rates	Fringes
PAINTER		
Brush & Roller.....	\$ 18.50	12.02
Spray, Sandblast, Power Tools, Waterblast & Steam Cleaning.....	\$ 19.00	12.02

 PAIN1072-003 12/01/2013

BOYD, CARTER, ELLIOTT, GREENUP, LEWIS and ROWAN COUNTIES

	Rates	Fringes
Painters:		
Bridges; Locks; Dams; Tension Towers & Energized		

Substations.....	\$ 31.03	15.10
Power Generating Facilities..	\$ 27.79	15.10

 PLUM0248-003 06/01/2014

BOYD, CARTER, ELLIOTT, GREENUP, LEWIS & ROWAN COUNTIES:

	Rates	Fringes
Plumber and Steamfitter.....	\$ 33.00	18.95

 PLUM0392-007 06/01/2014

BRACKEN, CARROLL (Eastern Half), GALLATIN, GRANT, MASON, OWEN & ROBERTSON COUNTIES:

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 29.80	17.79

 PLUM0502-003 08/01/2013

BRECKINRIDGE, BULLITT, CARROLL (Western Half), FRANKLIN (Western three-fourths), GRAYSON, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE & WASHINGTON COUNTIES

	Rates	Fringes
PLUMBER.....	\$ 32.00	17.17

 SUKY2010-160 10/08/2001

	Rates	Fringes
Truck drivers:		
GROUP 1.....	\$ 16.57	7.34
GROUP 2.....	\$ 16.68	7.34
GROUP 3.....	\$ 16.86	7.34
GROUP 4.....	\$ 16.96	7.34

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Mobile Batch Truck Tender

GROUP 2 - Greaser; Tire Changer; & Mechanic Tender

GROUP 3 - Single Axle Dump; Flatbed; Semi-trailer or Pole Trailer when used to pull building materials and equipment; Tandem Axle Dump; Distributor; Mixer; & Truck Mechanic

GROUP 4 - Euclid & Other Heavy Earthmoving Equipment & Lowboy; Articulator Cat; 5-Axle Vehicle; Winch & A-Frame when used in transporting materials; Ross Carrier; Forklift when used to transport building materials; & Pavement Breaker

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable , i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rates.

0000/9999: weighted union wage rates will be published annually each January.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union majority rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

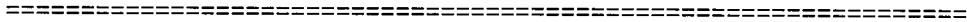
Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.



END OF GENERAL DECISION



APPENDIX “C”

LPA DOCUMENTS

1. **FEDERAL CONTRACT NOTES**
2. **DISADVANTAGED BUSINESS ENTERPRISE PROGRAM**
3. **23CFR635.109 STANDARDIZED CHANGED CONDITION CLAUSES**
4. **LPA CHANGE ORDER FORM**
5. **FHWA 1273 DOCUMENTS**



1. FEDERAL CONTRACT NOTES

A. BID OPENING

Sealed bids will be accepted in accordance with the instructions detailed in section 1.0. The bid opening is open to the public. The Bidder shall file all documents necessary to support its bid and include them with its bid. Bidders shall be responsible for the actual delivery of bids during business hours to the address indicated in the cover letter. It shall not be sufficient to show that the bid was mailed in time to be received before scheduled closing time for receipt of bids.

Failure by a bidder to comply with all applicable sections and guidelines of the current Kentucky Standard Specifications for Road & Bridge Construction 2012 (including, but not limited to the following), may result in a bid not being considered responsive and thus not eligible to be considered for an award:

- 102.10 Delivery of Proposals
- 102.08 Irregular Proposals
- 102.14 Disqualification of Bidders
- 102.09 Proposal Guaranty

Additionally, LFUCG, in accordance with the Regulations of the United States Department of Transportation 23 CFR 635.112 (h), hereby notifies all bidders that failure by a bidder to comply with the following may result in a bid not being considered responsive and thus not eligible to be considered for award.

Prior to the project being awarded, LFUCG will verify that the contractor is not listed on an "Excluded Party List" (suspended or debarred) at www.epls.gov/eplsearch.do

B. PUBLIC WORKS ACT

Wage and Hour Acts. In performing the work, the Contractor and Subcontractors are required to comply with the wage and hour requirements prescribed by KRS 337.505- 337.550.

Payment. The Contractor and Subcontractor shall pay all laborers, workmen and mechanics performing work under this contract not less than the wages set forth in the prevailing wage schedule, incorporated as part of the Bid and Contract Documents, as determined by the Kentucky Department of Labor in accordance with provisions of KRS 337.505 through KRS 337.550 for projects with a total cost exceeding \$250,000. The designated wage rates represent minimum allowable rates of pay and shall not be construed to mean that higher rates may not have to be paid in order to secure labor. Thus, differences between designated wage rates and actual wage rates shall not be an appropriate basis for adjustment of the contract sum.

Prevailing Wage Rates. The current version of the applicable prevailing wage rates have been issued with this Bid Document. The prevailing wage rates, set forth in the wage determination, are determined by the Kentucky Department of Labor in accordance with provisions contained in KRS 337.505 through KRS 337.550. Any Contractor or Subcontractor found to be in violation of any provisions of KRS 337.505 to 337.550 by the Commissioner of the Department of Labor and upon notification to the Vice President for Administrative Services Fiscal Affairs and the Secretary of the Finance and Administration Cabinet, the Secretary of the Finance and Administration Cabinet shall declare the offending Contractor ineligible to bid on public works until such time the Contractor is in substantial compliance as determined by the Commissioner of Labor.

C. CIVIL RIGHTS ACT OF 1964

LFUCG, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252) and the Regulations of the Federal Department of Transportation (49 C.F.R., Part 21), issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure that the contract entered into pursuant to this advertisement will be awarded to the lowest responsible bidder without discrimination on the ground of race, color, or national origin.

D. BUY AMERICA STIPULATION (23CFR635.410)

None of the funds appropriated or otherwise made available by this Act may be used for a project for the construction, alteration, maintenance, or repair of a public building or public work unless all of the iron, steel, and manufactured goods used in the project are produced in the United States.

E. NOTICE TO ALL BIDDERS OF BID RIGGING

To report bid rigging activities call: 1-800-424-9071.

The U.S. Department of Transportation (DOT) operates the above toll- free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m. eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

LFUCG and Bidder shall comply with Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et. seq.) and all implementing regulations and executive orders, and Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. § 701) and the Kentucky Equal Employment Act 1978 (K.R.S. § 45.550 to 45.640) and the Americans with Disabilities Act (42 U.S.C. § 12101 et. seq.). No person shall be

excluded from participation in, be denied the benefits of, or be subject to discrimination in relation to activities carried out under this bid or any contracting resulting from it on the basis of race, color, age, religion, sex, disability, or national origin. This includes provision of language assistance services to individuals of limited English proficiency seeking and/or eligible for services under this bid or resulting Contract.



F. NOTICE OF REQUIREMENT OF AFFIRMATIVE ACTION

**KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
EMPLOYMENT REQUIREMENTS
RELATING TO
NONDISCRIMINATION OF EMPLOYEES
(APPLICABLE TO FEDERAL-AID SYSTEM CONTRACTS)**

**AN ACT OF THE KENTUCKY GENERAL ASSEMBLY
TO PREVENT DISCRIMINATION IN EMPLOYMENT
KRS CHAPTER 344
EFFECTIVE JUNE 16, 1972**

The contract on this project, in accordance with KRS Chapter 344, provides that during the performance of this contract, the contractor agrees as follows:

1. The contractor shall not fail or refuse to hire, or shall not discharge any individual, or otherwise discriminate against an individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, national origin, sex, disability or age (between forty and seventy); or limit, segregate, or classify his employees in any way which would deprive or tend to deprive an individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, national origin, sex, disability or age (between forty and seventy). The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
2. The contractor shall not print or publish or cause to be printed or published a notice or advertisement relating to employment by such an employer or membership in or any classification or referral for employment by the employment agency, indicating any preference, limitation, specification, or discrimination, based on race, color, religion, national origin, sex, disability or age (between forty and seventy), except that such notice or advertisement may indicate a preference, limitation, or specification based on religion, or national origin when religion, or national origin is a bona fide occupational qualification for employment.
3. If the contractor is in control of apprenticeship or other training or retraining, including on-the-job training programs, he shall not discriminate against an individual because of his race, color, religion, national origin, sex, disability or age (between forty and seventy), in admission to, or employment in any program established to provide apprenticeship or other training.
4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a

notice to be provided advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The contractor will take such action with respect to any subcontract or purchase order as the administrating agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

**G. NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY
(Executive Order 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

GOALS FOR MINORITY PARTICIPATION IN EACH TRADE	GOALS FOR FEMALE PARTICIPATION IN EACH TRADE
10.8%	6.9%

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally-assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4, 3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated

starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed. The notification shall be mailed to:

**Evelyn Teague, Regional Director
Office of Federal Contract Compliance Programs
61 Forsyth Street, SW, Suite 7B75
Atlanta, Georgia 30303-8609**

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is Fayette County.

7. DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

It is the policy of LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT ("LFUCG") that Disadvantaged Business Enterprises ("DBE") shall have the opportunity to participate in the performance of highway construction projects financed in whole or in part by Federal Funds in order to create a level playing field for all businesses who wish to contract with LFUCG. To that end, LFUCG will comply with the regulations found in 49 CFR Part 26, and the definitions and requirements contained therein shall be adopted as if set out verbatim herein.

LFUCG, contractors, subcontractors, and sub-recipients shall not discriminate on the basis of race, color, national origin, or sex in the performance of work performed pursuant to LFUCG contracts. The contractor shall carry out applicable requirements of 49 CFR 26 in the award and administration of federally assisted highway construction projects. The contractor will include this provision in all its subcontracts and supply agreements pertaining to contracts with LFUCG.

Failure by the contractor to carry out these requirements is a material breach of its contract with LFUCG, which may result in the termination of the contract or such other remedy as LFUCG deems necessary.

DBE GOAL

The Disadvantaged Business Enterprise (DBE) goal established for this contract, as listed on the front page of the proposal, is the percentage of the total value of the contract. The contractor shall exercise all necessary and reasonable steps to ensure that Disadvantaged Business Enterprises participate in at least the percent of the contract as set forth above as goals for this contract.

OBLIGATION OF CONTRACTORS

Each contractor prequalified to perform work on LFUCG projects shall designate and make known to LFUCG a liaison officer who is assigned the responsibility of effectively administering and promoting an active program for utilization of DBEs. If a formal goal has not been designated for the contract, all contractors are encouraged to consider DBEs for subcontract work as well as for the supply of material and services needed to perform this work.

Contractors are encouraged to use the services of banks owned and controlled by minorities and women.

CERTIFICATION OF CONTRACT GOAL

Contractors shall include the following certification in bids for projects for which a DBE goal has been established. BIDS SUBMITTED WHICH DO NOT INCLUDE CERTIFICATION OF DBE PARTICIPATION WILL NOT BE READ PUBLICLY. These bids will not be considered for award by LFUCG and they will be returned to the bidder.

“The bidder certifies that it has secured participation by Disadvantaged Business Enterprises (“DBE”) in the amount of the total value of this contract and that the DBE participation is in compliance with the requirements of 49 CFR 26 and the policies of the Kentucky Transportation Cabinet pertaining to the DBE Program.”

The certification statement is located in the printed bid packet. All contractors must certify their DBE participation on that page. DBEs utilized in achieving the DBE goal must be certified and prequalified for the work items at the time the bid is submitted

SECOND TIER SUBCONTRACTS

Second Tier subcontracts on federally assisted projects shall be permitted. However, in the case of DBE's, second tier subcontracts will only be permitted where the other subcontractor is also a DBE. All second tier subcontracts shall have the consent of both the Contractor and the Engineer.

DBE PARTICIPATION PLAN

All bidders are encouraged to submit their General DBE Participation Plan with their bid on the official form. Lowest responsive bidders whose bid packages include DBE Participation Plans may be awarded the contract at the next Awards Committee meeting provided that the DBE goal is met. The DBE Participation Plan shall include the following:

1. Name and address of DBE Subcontractor(s) and/or supplier(s) intended to be used in the proposed project;
2. Description of the work each is to perform including the work item , unit, quantity, unit price and total amount of the work to be performed by the individual DBE;
3. The dollar value of each proposed DBE subcontract and the percentage of total project contract value this represents. DBE participation may be counted as follows;
 - a) If DBE suppliers and manufactures assume actual and contractual responsibility, the dollar value of materials to be furnished will be counted toward the goal as follows:
 - The entire expenditure paid to a DBE manufacturer;
 - 60 percent of expenditures to DBE suppliers that are not manufacturers provided the supplier is a regular dealer in the product involved. A regular dealer must be engaged in, as its principal business and in its own name, the sale of products to the public, maintain an inventory and own and operate distribution equipment; and
 - the amount of fees or commissions charged by the DBE firms for a bona fide service, such as professional, technical, consultant, or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials, supplies, delivery of materials and supplies or for furnishing bonds, or insurance, providing such fees or commissions are determined to be reasonable and customary.

- b) The dollar value of services provided by DBEs such as quality control testing, equipment repair and maintenance, engineering, staking, etc.;
- c) The dollar value of joint ventures. DBE credit for joint ventures will be limited to the dollar amount of the work actually performed by the DBE in the joint venture;
- 4. Written and signed documentation of the bidder's commitment to use a DBE contractor whose participation is being utilized to meet the DBE goal; and
- 5. Written and signed confirmation from the DBE that it is participating in the contract as provided in the prime contractor's commitment.

The apparent low bidder who does not submit a General DBE Participation Plan with the bid within 10 calendar days after receipt of notification that they are the apparent low bidder. The project will not be considered for award prior to submission and approval of the apparent low bidder's DBE Participation Plan.

Detailed DBE Participation Plan forms will be included in the Contractor Package presented to successful bidders following the awarding of the project. The Detailed DBE Participation Plan must be completed and returned to Contract Procurement in accordance with Cabinet policy. A copy of the blank estimate will be included with the Detailed DBE Participation Plan to list sequence items by PCN (Project Control Number).

Changes to DBE Participation Plans must be approved by LFUCG. LFUCG may consider extenuating circumstances including, but not limited to, changes in the nature or scope of the project, the inability or unwillingness of a DBE to perform the work in accordance with the bid, and/or other circumstances beyond the control of the prime contractor.

CONSIDERATION OF GOOD FAITH EFFORT REQUESTS

If the DBE participation submitted in the bid by the apparent lowest responsive bidder does not meet or exceed the DBE contract goal, the apparent lowest responsive bidder must submit a Good Faith Effort Package to satisfy LFUCG that sufficient good faith efforts were made to meet the contract goals prior to submission of the bid. Efforts to increase the goal after bid submission will not be considered in justifying the good faith effort, unless the contractor can show that the proposed DBE was solicited prior to the letting date. DBEs utilized in achieving the DBE goal must be certified and prequalified for the work items at the time the bid is submitted. One complete set and nine (9) copies of this information must be received by LFUCG no later than 12:00 noon of the tenth calendar day after receipt of notification that they are the apparent low bidder.

Where the information submitted includes repetitious solicitation letters it will be acceptable to submit a sample representative letter along with a distribution list of the firms solicited. Documentation of DBE quotations shall be a part of the good faith effort submittal as necessary to demonstrate compliance with the factors listed below which LFUCG considers in judging good faith efforts. This documentation may include written subcontractors' quotations, telephone log notations of verbal quotations, or other types of quotation documentation.

The Good Faith Effort Package shall include, but may not be limited to information showing evidence of the following:

1. Whether the bidder attended any pre-bid meetings that were scheduled by LFUCG to inform DBEs of subcontracting opportunities;
2. Whether the bidder provided solicitations through all reasonable and available means;
3. Whether the bidder provided written notice to all DBEs listed in the DBE directory at the time of the letting who are prequalified in the areas of work that the bidder will be subcontracting;
4. Whether the bidder followed up initial solicitations of interest by contacting DBEs to determine with certainty whether they were interested. If a reasonable amount of DBEs within the targeted districts do not provide an intent to quote or no DBEs are prequalified in the subcontracted areas, the bidder must notify the DBE Liaison in the Office of Minority Affairs to give notification of the bidder's inability to get DBE quotes;
5. Whether the bidder selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise perform these work items with its own forces;
6. Whether the bidder provided interested DBEs with adequate and timely information about the plans, specifications, and requirements of the contract;
7. Whether the bidder negotiated in good faith with interested DBEs not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection should be so noted in writing with a description as to why an agreement could not be reached;
8. Whether quotations were received from interested DBE firms but were rejected as unacceptable without sound reasons why the quotations were considered unacceptable. The fact that the DBE firm's quotation for the work is not the lowest quotation received will not in itself be considered as a sound reason for rejecting the quotation as unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a DBE quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy DBE goals;
9. Whether the bidder specifically negotiated with subcontractors to assume part of the responsibility to meet the contract DBE goal when the work to be subcontracted includes potential DBE participation;
10. Whether the bidder made any efforts and/or offered assistance to interested DBEs in obtaining the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal; and
11. Any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include DBE participation.

FAILURE TO MEET GOOD FAITH REQUIREMENT

Where the apparent lowest responsive bidder fails to submit sufficient participation by DBE firms to meet the contract goal and upon a determination by the Good Faith Committee based upon the information submitted that the apparent lowest responsive bidder failed to make sufficient reasonable efforts to meet the contract

goal, the bidder will be offered the opportunity to meet in person for administrative reconsideration. The bidder will be notified of the Committee's decision within 24 hours of its decision. The bidder will have 24 hours to request reconsideration of the Committee's decision. The reconsideration meeting will be held within two days of the receipt of a request by the bidder for reconsideration.

The request for reconsideration will be heard by LFUCG. The bidder will have the opportunity to present written documentation or argument concerning the issue of whether it met the goal or made an adequate good faith effort. The bidder will receive a written decision on the reconsideration explaining the basis for the finding that the bidder did or did not meet the goal or made adequate Good Faith efforts to do so.

The result of the reconsideration process is not administratively appealable to LFUCG or to the United States Department of Transportation.

LFUCG reserves the right to award the contract to the next lowest responsive bidder or to rebid the contract in the event that the contract is not awarded to the low bidder as the result of a failure to meet the good faith requirement.

SANCTIONS FOR FAILURE TO MEET DBE REQUIREMENTS OF THE PROJECT

Failure by the prime contractor to fulfill the DBE requirements of a project under contract or to demonstrate good faith efforts to meet the goal constitutes a breach of contract. When this occurs, LFUCG will hold the prime contractor accountable, as would be the case with all other contract provisions. Therefore, the contractor's failure to carry out the DBE contract requirements shall constitute a breach of contract and as such LFUCG reserves the right to exercise all administrative remedies at its disposal including, but not limited to the following:

- Disallow credit toward the DBE goal;
- Withholding progress payments;
- Withholding payment to the prime in an amount equal to the unmet portion of the contract goal; and/or
- Termination of the contract.

PROMPT PAYMENT

The prime contractor will be required to pay the DBE within seven (7) working days after he or she has received payment from LFUCG for work performed or materials furnished.

CONTRACTOR REPORTING

All contractors must keep detailed records and provide monthly reports to LFUCG on their progress in meeting the DBE requirement on any contract. These records may include, but shall not be limited to payroll, lease agreements, cancelled payroll checks, executed subcontracting agreements, etc. Prime contractors will be required to submit certified reports on monies paid to each DBE subcontractor or supplier utilized to meet a DBE goal. LFUCG also as official forms that must be completed by the contractor and submitted by the 3rd of each month.

Prime contractors will incorporate a requirement into DBE subcontracts, including supply contracts that DBEs must provide to LFUCG, a copy of all checks received from the prime contractor within seven days of receipt of payment for work performed on Cabinet projects. Checks to DBE subcontractors must include the PCN number, estimate number, and the sequence and quantity.

DEFAULT OR DECERTIFICATION OF THE DBE

If the DBE subcontractor or supplier is decertified or defaults in the performance of its work, and the overall goal cannot be credited for the uncompleted work, the prime contractor may utilize a substitute DBE or elect to fulfill the DBE goal with another DBE on a different work item. If after exerting good faith effort in accordance with LFUCG's Good Faith Effort policies and procedures, the prime contractor is unable to replace the DBE, then the unmet portion of the goal may be waived at the discretion of LFUCG.

8. 23CFR635.109 Standardized Changed Condition Clauses.

(a) Except as provided in paragraph (b) of this section, the following changed conditions contract clauses shall be made part of, and incorporated in, each highway construction project approved under 23 U.S.C. 106:

(1) *Differing site conditions.* (i) During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before the site is disturbed and before the affected work is performed. (ii) Upon written notification, the engineer will investigate the conditions, and if it is determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the contract, an adjustment, excluding anticipated profits, will be made and the contract modified in writing accordingly. The engineer will notify the contractor of the determination whether or not an adjustment of the contract is warranted. (iii) No contract adjustment which results in a benefit to the contractor will be allowed unless the contractor has provided the required written notice. (iv) No contract adjustment will be allowed under this clause for any effects caused on unchanged work. (This provision may be omitted by the STD's at their option.)

(2) *Suspensions of work ordered by the engineer.* (i) If the performance of all or any portion of the work is suspended or delayed by the engineer in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the contractor shall submit to the engineer in writing a request for adjustment within 7 calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment. (ii) Upon receipt, the engineer will evaluate the contractor's request. If the engineer agrees that the cost and/ or time required for the performance of the contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the engineer will make an adjustment (excluding profit) and modify the contract in writing accordingly. The contractor will be notified of the engineer's determination whether or not an adjustment of the contract is warranted. (iii) No contract adjustment will be allowed unless the contractor has submitted the request for adjustment within the time prescribed. (iv) No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided or excluded under any other term or condition of this contract.

(3) *Significant changes in the character of work.* (i) The engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such

alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the contract nor release the surety, and the contractor agrees to perform the work as altered. (ii) If the alterations or changes in quantities significantly change the character of the work under the contract, whether such alterations or changes are in themselves significant changes to the character of the work or by affecting other work cause such other work to become significantly different in character, an adjustment, excluding anticipated profit, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the contractor in such amount as the engineer may determine to be fair and equitable. (iii) If the alterations or changes in quantities do not significantly change the character of the work to be performed under the contract, the altered work will be paid for as provided elsewhere in the contract. (iv) The term "significant change" shall be construed to apply only to the following circumstances:

(A) When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction; or

(B) When a major item of work, as defined elsewhere in the contract, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original contract item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed.

(b) The provisions of this section shall be governed by the following:

(1) Where State statute does not permit one or more of the contract clauses included in paragraph (a) of this section, the State statute shall prevail and such clause or clauses need not be made applicable to Federal-aid highway contracts.

(2) Where the State transportation department has developed and implemented one or more of the contract clauses included in paragraph (a) of this section, such clause or clauses, as developed by the State transportation department may be included in Federal-aid highway contracts in lieu of the corresponding clause or clauses in paragraph (a) of this section. The State's action must be pursuant to a specific State statute requiring differing contract conditions clauses. Such State developed clause or clauses, however, must be in conformance with 23 U.S.C., 23 CFR and other applicable Federal statutes and regulations as appropriate and shall be subject to the Division Administrator's approval as part of the PS&E.

(c) In the case of a design-build project, STDs are strongly encouraged to use "suspensions of work ordered by the engineer" clauses, and may consider "differing site condition" clauses and "significant changes in the character of work" clauses which are appropriate for the risk and responsibilities that are shared with the designbuilder.

[56 FR 37004, Aug. 2, 1991; 57 FR 10062, Mar. 23, 1992, as amended at 67 FR 75925, Dec. 10, 2002]

<http://www.gpo.gov/fdsys/pkg/CFR-2013-title23-voll/pdf/CFR-2013-title23-voll-part635.pdf>

9. LPA Change Order Form

Please use the attached Project LPA Change Order form as required:



Kentucky Transportation Cabinet
 Office of Local Programs
LPA CHANGE ORDER

TC 20-33
 07/2010

Page _____
 Contract ID _____
 Change Order No _____
 Contractor _____
 Contractor _____
 Address _____

Project Sponsor _____
 County _____
 Project Number _____
 Project Name _____

Proposed Changes in Connection with Contract Items:

Item No.	Description	Quantity	Unit	Unit Price	Amount
<i>Total for this Page</i>					
<i>Total for Continuation Page(s)</i>					
<i>Total Contract Items</i>					

Proposed Items of Supplemental Agreement:

Ref. No.	Description	Quantity	Unit	Unit Price	Amount
<i>Total for this Page</i>					
<i>Total for Continuation Page(s)</i>					
<i>Total Supplemental Agreement</i>					
Total Amount					

Time Extension/Explanation:

Reasons for Proposed Changes and Cost Analysis:

If approved by Transportation Cabinet, the undersigned contractor agrees to do the work outlined herein and to accept as payment in full the basis of payment as set forth herein.

Requested _____
Project Engineer _____ DATE _____

Recommended _____
District LPA Coordinator _____ DATE _____

Recommended _____
Commissioner of Rural & Municipal Aid _____ DATE _____

Approved _____
LPA Signature Authority _____ DATE _____

Title _____ DATE _____

Approved _____
Secretary of Transportation Cabinet _____ DATE _____

By: _____
Contractor _____

Date _____



10. FHWA 1273 – SEE FOLLOWING PAGES



**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of any Federal agency, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of any Federal agency, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.