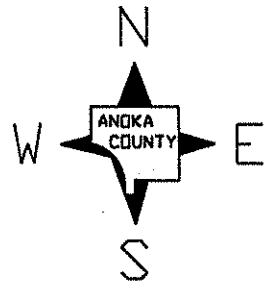


ANOKA COUNTY HIGHWAY DEPARTMENT



CONSTRUCTION PLAN FOR: COLD RECYCLING INPLACE BIT., RT TURN LN CONSTR. & BITUMINOUS SURFACING

COUNTY ROAD NO. C.S.A.H. 24

From: C.R. NO. 103 (229TH AVE.)

To: C.S.A.H. NO. 13 (UNIVERSITY AVE. EXT.)

From: _____

To: _____

COUNTY PROJECT NO. 99-10-24

GROSS LENGTH 18968.00 FEET 3.592 MILES

BRIDGES LENGTH 0.00 FEET 0.000 MILES

EXCEPTIONS LENGTH 0.00 FEET 0.000 MILES

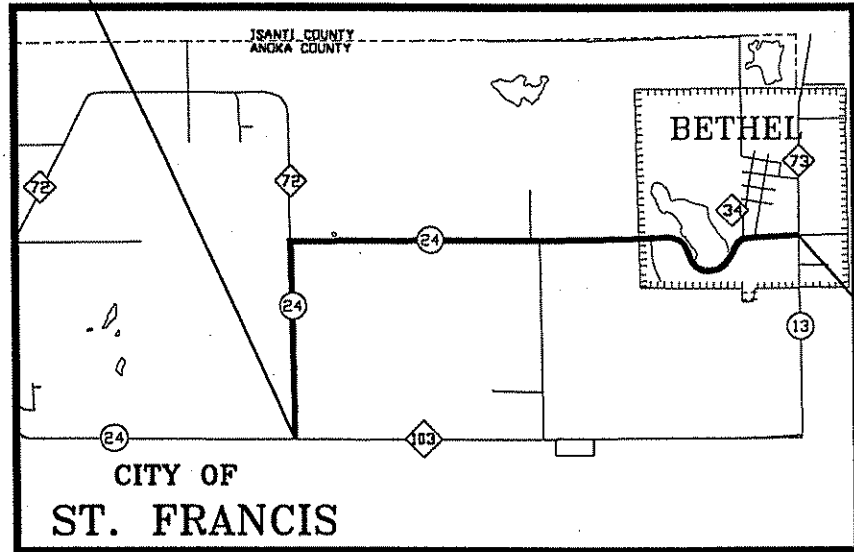
NET LENGTH 18968.00 FEET 3.592 MILES

BEGIN C.P. 99-10-24

ADT (1997) = 1018

7 TON DESIGN

END C.P. 99-10-24



GOVERNING SPECIFICATIONS

THE 1995 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION".

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MMUTCD, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS" DATED JANUARY 1998.

ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

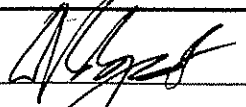
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINN.

[Signature]
ASSISTANT COUNTY ENGINEER
REG. NO. 25086 DATE: 4-5-99
APPROVED: 4/22/99
[Signature]
ANOKA COUNTY ENGINEER

STATEMENT OF ESTIMATED QUANTITIES

ITEM NO	ITEM	UNIT	EST. QUANT.
2021.501	MOBILIZATION	L S	1
2101.501	CLEARING	ACRE	0.25
2101.502	CLEARING	TREE	10
2101.506	GRUBBING	ACRE	0.25
2101.507	GRUBBING	TREE	8
2104.501	REMOVE PIPE CULVERTS	LIN FT	24
2104.503	REMOVE CONCRETE PAVEMENT	SQ YD	22
2104.503	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SQ YD	62
2104.511	SAWING CONCRETE PAVEMENT	LIN FT	10
2104.513	SAWING BITUMINOUS PAVEMENT	LIN FT	11
① 2104.523	SALVAGE SIGN TYPE C	EACH	5
② 2104.523	SALVAGE SIGN TYPE SPECIAL	EACH	1
2105.501	COMMON EXCAVATION	CU YD	(P) 793
2105.522	SELECT GRANULAR BORROW (LV)	CU YD	410
2120.501	EARTH SHOULDERING	CU YD	1138
③ 2211.501	AGGREGATE BASE CLASS 5	TON	667
④ 2123.503	MOTOR GRADER	HOUR	72
⑤ 2130.501	WATER	M-GAL	72
⑥ 2232.501	MILL BITUMINOUS SURFACE	SQ YD	60
2331.604	COLD RECYCLE INPLACE BITUMINOUS MIXTURE	SQ YD	48474
2350.604	TYPE MV 4 WEAR COURSE MIX 1 1/2" THICK	SQ YD	421
2350.604	TYPE MV 4 WEAR COURSE MIX 2" THICK	SQ YD	372
2350.609	TYPE MV 4 WEARING COURSE MIXTURE	TON	4980
2350.609	TYPE LV 3 NON WEARING COURSE MIXTURE	TON	7500
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	3124
2501.511	CS PIPE CULVERT	LIN FT	30
2501.567	CS SAFETY APRON & GRATE DESIGN 3128	EACH	2
2540.602	INSTALL MAIL BOX SUPPORT	EACH	43
2563.501	TRAFFIC CONTROL	L S	1
② 2564.602	INSTALL SIGN TYPE SPECIAL	EACH	1
2575.501	SEEDING	ACRE	4.7
2575.502	SEED MIXTURE 80A	POUND	212
2575.511	MULCH MATERIAL TYPE 1	TON	0.8
2575.512	MULCH MATERIAL TYPE 2	GALLON	1043
2575.519	DISC ANCHORING	ACRE	0.4
2575.523	EROSION CONTROL BLANKETS CATEGORY 2	SQ YD	22
2575.532	COMMERCIAL FERTILIZER ANALYSIS 10-10-10	POUND	2350
2580.501	TEMPORARY LANE MARKING	LIN FT	3035

- ① SALVAGE TO ANOKA COUNTY SIGN DEPARTMENT.
- ② MUNICIPAL STREET SIGNS.
- ③ 364 TONS FOR RESTORATION OF AGGREGATE ENTRANCES.
- ④ FOR TOPSOIL STRIPPING & SUBGRADE PREP., (EXCLUDING TR.LN. CONSTR. AREAS)
- ⑤ FOR DUST CONTROL AS DIRECTED BY THE ENGINEER.
- ⑥ FOR BUTT JOINT MILLING.

CERTIFIED BY  REG. NO. 25066 DATE 4-5-99
 COUNTY PROJECT 89-10-24 SHEET 2 OF 10 SHEETS

BASIS OF PLANNED QUANTITIES

- 2211 AGGREGATE BASE CLASS 5:
- 2120 EARTH SHOULDERING:
- 2350 TYPE MV 4 WEARING COURSE MIX: 110 LBS./SQ.YD. PER 1" THICKNESS
- 2350 TYPE LV 3 NON WEARING COURSE MIX: 120 LBS./SQ.YD. PER 1" THICKNESS.
- 2357 BITUMINOUS MATERIAL FOR TACK COAT: 0.05 GAL./SQ.YD. PER LIFT APPLIED.
- 2575 SEEDING: BASED ON HORIZONTAL MEASUREMENT +10%.
- 2575 SEED MIXTURE 80A: 45 LBS./ACRE.
- 2575 MULCH MATERIAL TYPE 1: 2 TON/ACRE.
- 2575 MULCH MATERIAL TYPE 2: 0.18 GAL./SQ.YD.
- 2575 COMMERCIAL FERTILIZER ANAL. 10-10-10 (OR EQUIVALENT): 500 LBS./ACRE.

CLEARING AND GRUBBING


STA-STA	LOC.	CLEARING		GRUBBING	
		TREE	ACRE	TREE	ACRE
45+71-47+87	34'-60' RT		0.25		0.25
48+31	53' RT	4		1	
49+01	38' RT	2		1	
49+75	55' RT	1		1	
49+75	56' RT	0		1	
49+86	43' RT	0		1	
50+22	53' RT	1		1	
50+26	57' RT	1		1	
50+27	64' RT	1		1	
TOTALS		10	0.25	8	0.25

MN/DOT STANDARD PLATES

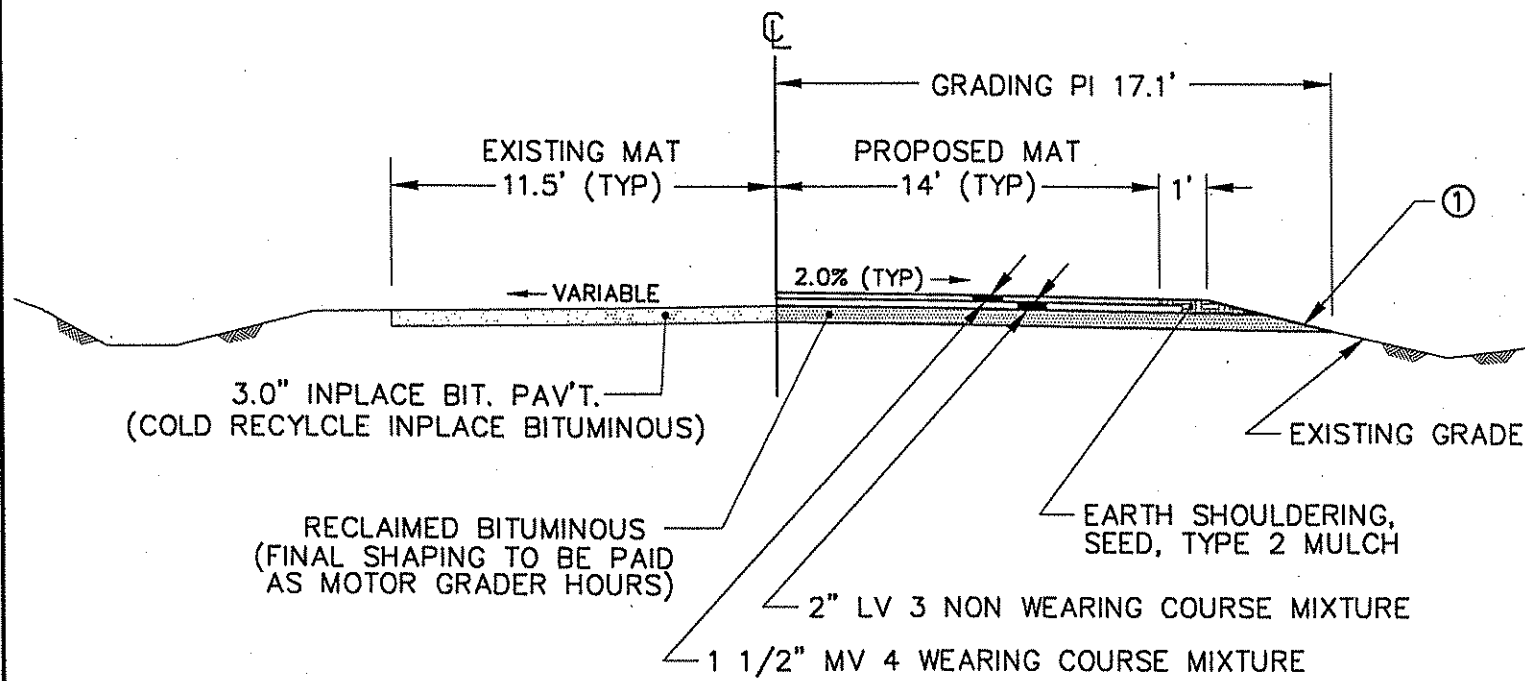
THESE STANDARD PLATES AS APPROVED BY THE FHWA SHALL APPLY.

PLATE NO.	DESCRIPTION
M0004 A	SPECIFICATION REFERENCE TO STANDARD PLATES
M3040 F	CORRUGATED METAL PIPE CULVERT
M3128 F	SAFETY APRON
M3221 C	CORRUGATED STEEL PIPE COUPLING BAND
M8000 I	STANDARD BARRICADES
M9102 D	TURF ESTABLISHMENT AREAS (AT PIPE CULVERT ENDS)

NOTE: CONVERT METRIC STANDARD PLATES TO NEAREST TO 0.0003'

CERTIFIED BY  REG. NO. 25066 DATE 4-5-99
 COUNTY PROJECT 99-10-24

TYPICAL SECTIONS



① STRIP INPLACE TOPSOIL PRIOR TO WIDENING, TO BE PAID AS MOTOR GRADER HOURS.

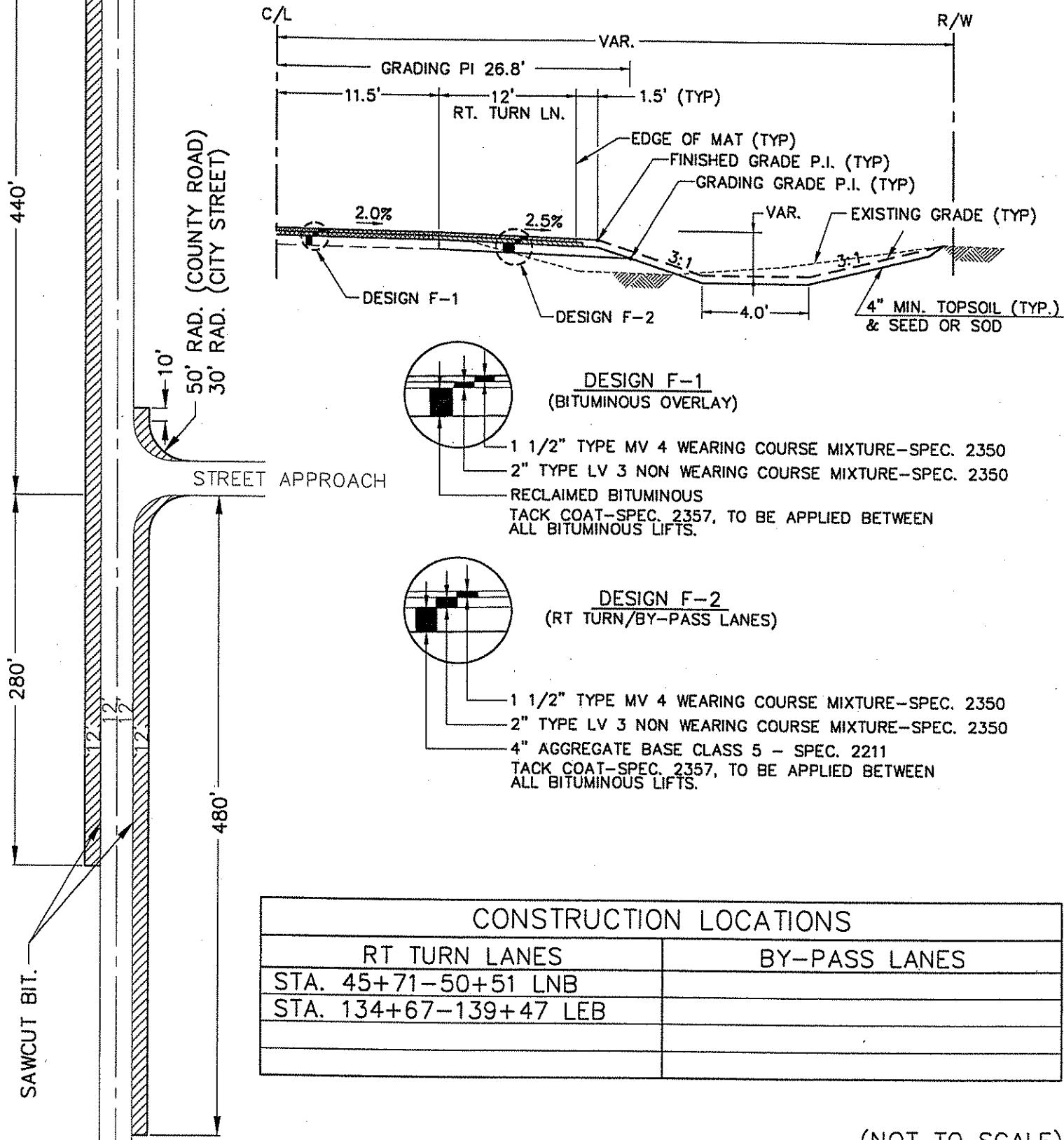
DESIGN DESIGNATIONS:

TYPE MV 4 WEARING COURSE MIXTURE: MVWE45035B
 TYPE LV 3 NON WEARING COURSE MIXTURE: LVNW35030B

(NOT TO SCALE)

CERTIFIED BY *[Signature]* REG. NO. 25066 DATE 4-5-99
 COUNTY PROJECT 99-10-24 SHEET 4 OF 10 SHEETS

TYPICAL RT. TURN & BY-PASS LANE CONSTRUCTION



DESIGN F-1
(BITUMINOUS OVERLAY)

- 1 1/2" TYPE MV 4 WEARING COURSE MIXTURE-SPEC. 2350
- 2" TYPE LV 3 NON WEARING COURSE MIXTURE-SPEC. 2350
- RECLAIMED BITUMINOUS TACK COAT-SPEC. 2357, TO BE APPLIED BETWEEN ALL BITUMINOUS LIFTS.

DESIGN F-2
(RT TURN/BY-PASS LANES)

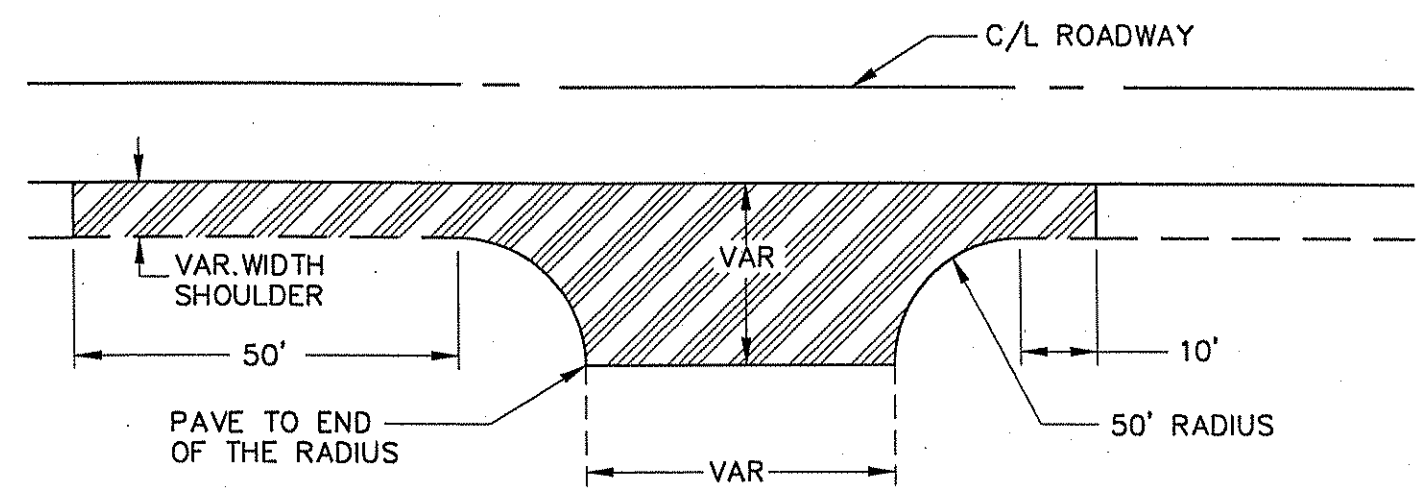
- 1 1/2" TYPE MV 4 WEARING COURSE MIXTURE-SPEC. 2350
- 2" TYPE LV 3 NON WEARING COURSE MIXTURE-SPEC. 2350
- 4" AGGREGATE BASE CLASS 5 - SPEC. 2211
- TACK COAT-SPEC. 2357, TO BE APPLIED BETWEEN ALL BITUMINOUS LIFTS.

CONSTRUCTION LOCATIONS	
RT TURN LANES	BY-PASS LANES
STA. 45+71-50+51 LNB	
STA. 134+67-139+47 LEB	

(NOT TO SCALE)

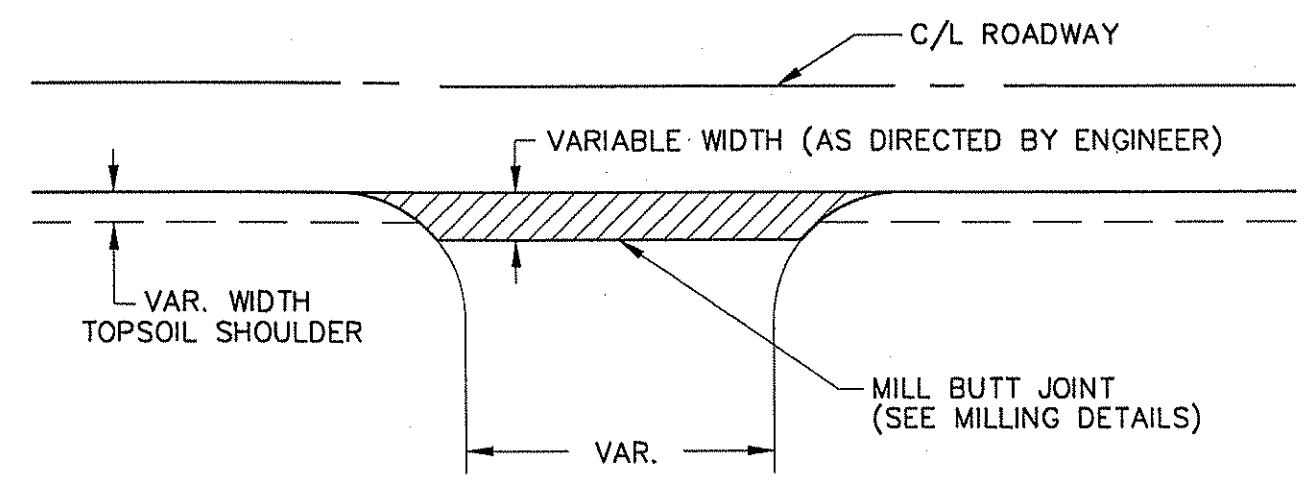
TYPICAL STREET APPROACHES

UNPAVED STREET APPROACHES



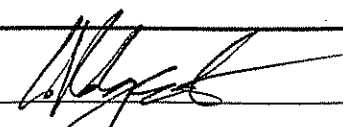
NOTE: PAID FOR AS ITEM NO. 2350.604
(TYPE MV 4 WEAR COURSE 2" THICK)

PAVED STREET APPROACHES



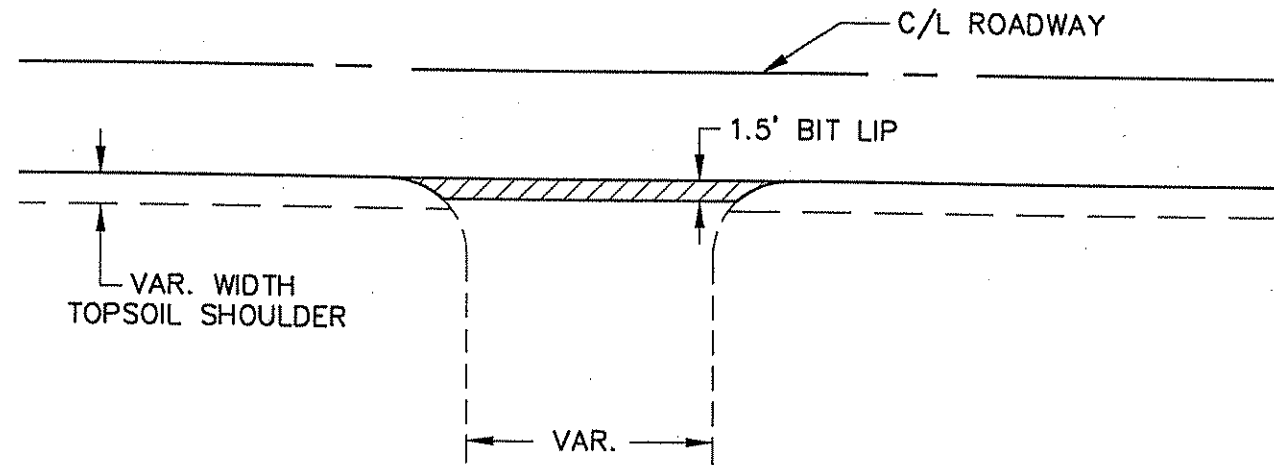
NOTE: KICKOUT PAID FOR AS ITEM NO. 2350.609 (TYPE MV 4 WEARING COURSE MIXTURE)/ OR
KICKOUT PAID FOR AS ITEM NO. 2350.604 (TYPE MV 4 WEAR COURSE 1 1/2" THICK)

(NOT TO SCALE)

CERTIFIED BY  REG. NO. 2586 DATE 4-5-99
COUNTY PROJECT 99-10-24 SHEET 6 OF 10 SHEETS

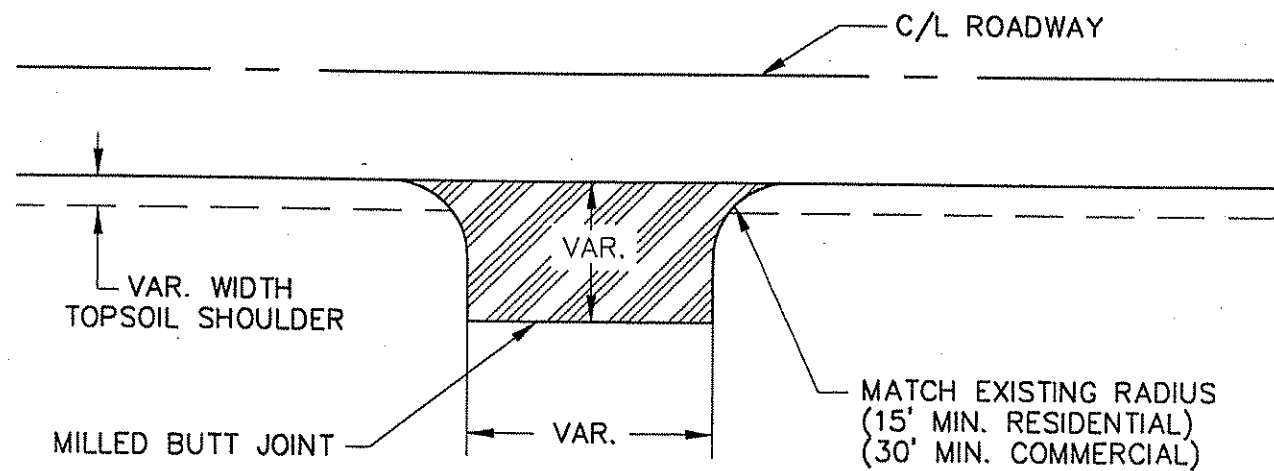
TYPICAL ENTRANCES

UNPAVED DRIVEWAY AND FIELD ENTRANCES



NOTE: KICKOUT PAID FOR AS ITEM NO. 2350.609
(TYPE MV 4 WEARING COURSE MIXTURE)

PAVED ENTRANCES



NOTE: PAID FOR AS ITEM NO. 2350.604
(TYPE MV 4 WEAR COURSE 1 1/2" THICK)

(NOT TO SCALE)

CERTIFIED BY

REG. NO. 25066

DATE 4-5-99

COUNTY PROJECT

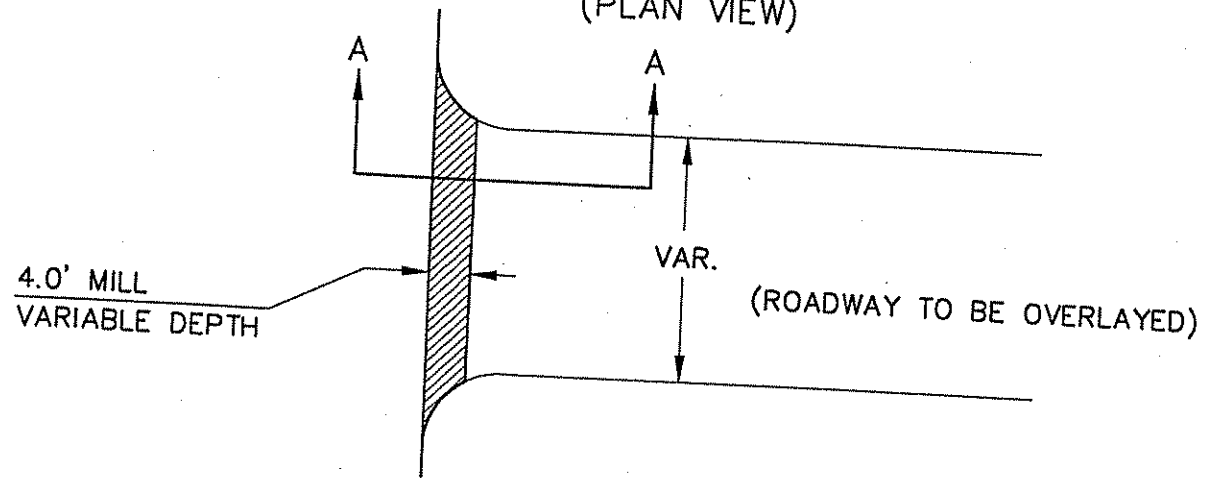
99-10-24

SHEET 7 OF 10 SHEETS

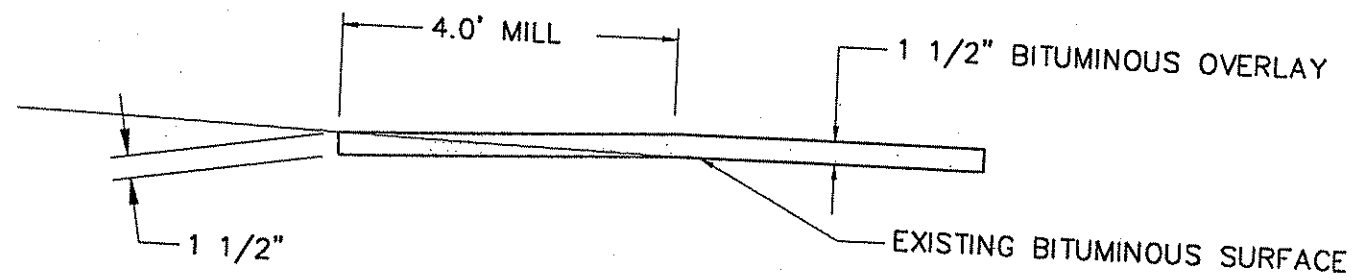
MILLING DETAILS

BUTT JOINTS

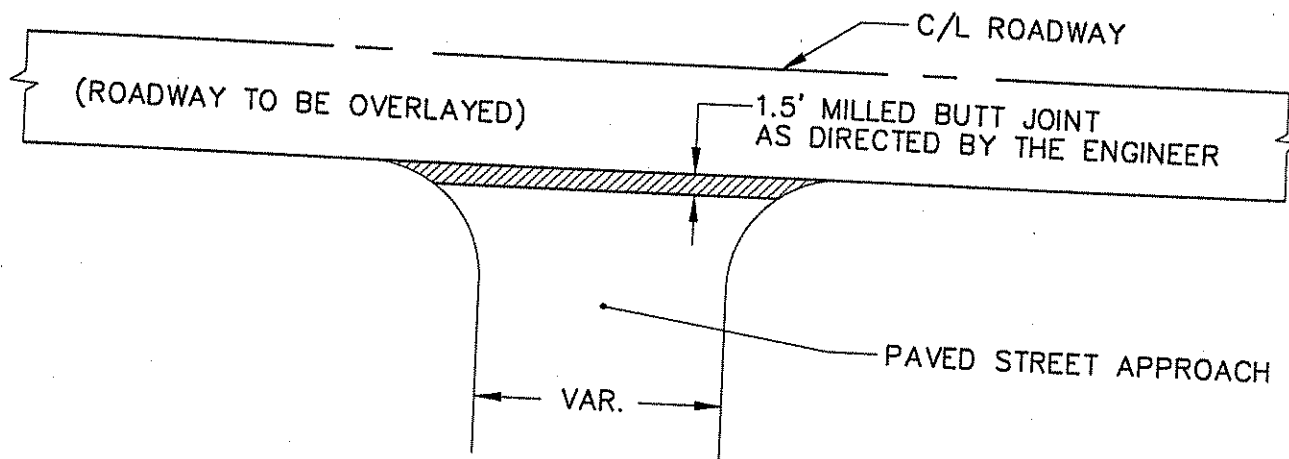
(PLAN VIEW)



(SECTION A-A)



PAVED STREET APPR. & ENTRANCES



(NOT TO SCALE)

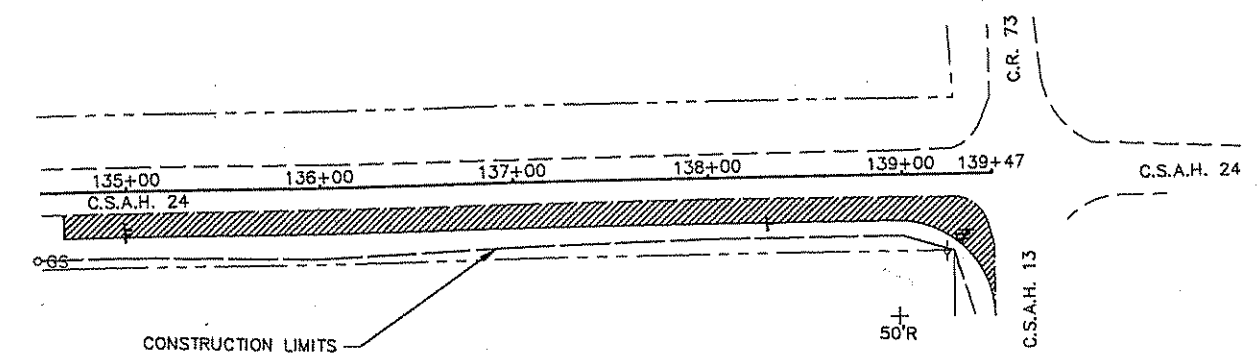
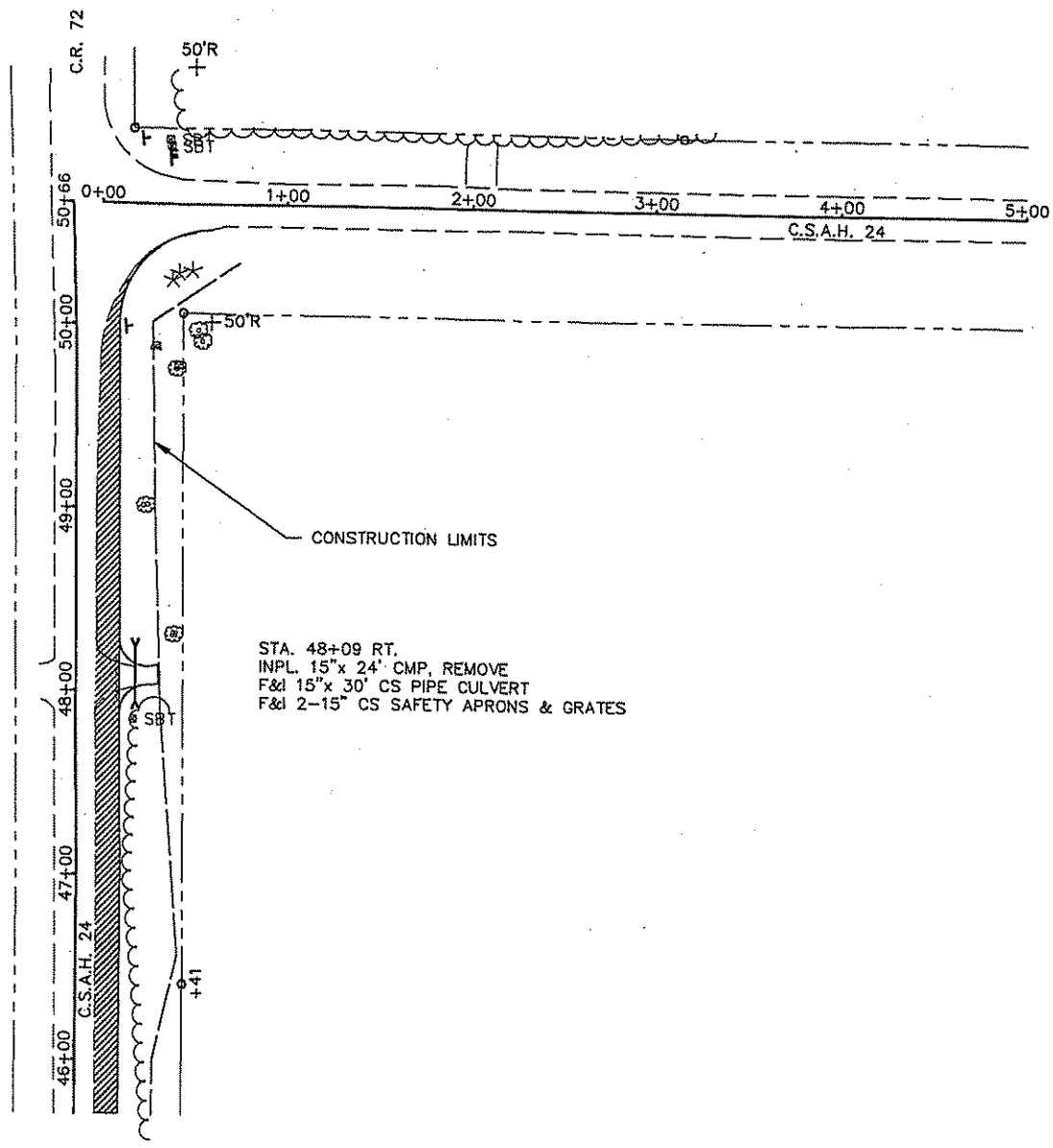
CERTIFIED BY 

REG. NO. 25086

DATE 4-5-99

COUNTY PROJECT 99-10-24

SHEET 8 OF 10 SHEETS



REVISIONS		
DATE	BY	BY

WIDENING FOR TURN/BY-PASS LANES

PLAN VIEW

R/W

R/W

98.91 50+31 98.58

98.54 50+00 98.21

97.51 49+00 97.18

96.63001 48+09 96.3

96.45001 47+09 96.12

95.63001 46+47 95.3

94.88001 46+00 94.55

EXISTING GRADE

GRADING GRADE

STA. 45+71-50+51 LNB RT TURN LANE

R/W

R/W

98.99 139+29 98.66

99.28 139+00 98.95

99.75 138+00 99.42

100.51 137+00 100.18

101.4 136+00 101.07

102.24 135+00 101.91

STA. 134+67-139+47 LEB RT TURN LANE

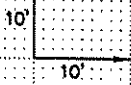
R/W

R/W

R/W

R/W

REVISIONS	DATE	BY



CROSS-SECTIONS
 STA. 46+00 TO STA. 50+31
 STA. 135+00 TO STA. 139+29