MAD NOVEMBER 2017

PROJECT ID: 1401-02-74

WITH:

COUNTY: COLUMBIA

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (Includes Erosion Control Plans)
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right of Way Plat~~
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
~~Section No.~~	~~8~~	~~Structure Plans~~
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 420

05

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

C COLUMBUS, JAMES STREET

(USH 151 INTERCHANGE AREA)

STH 16

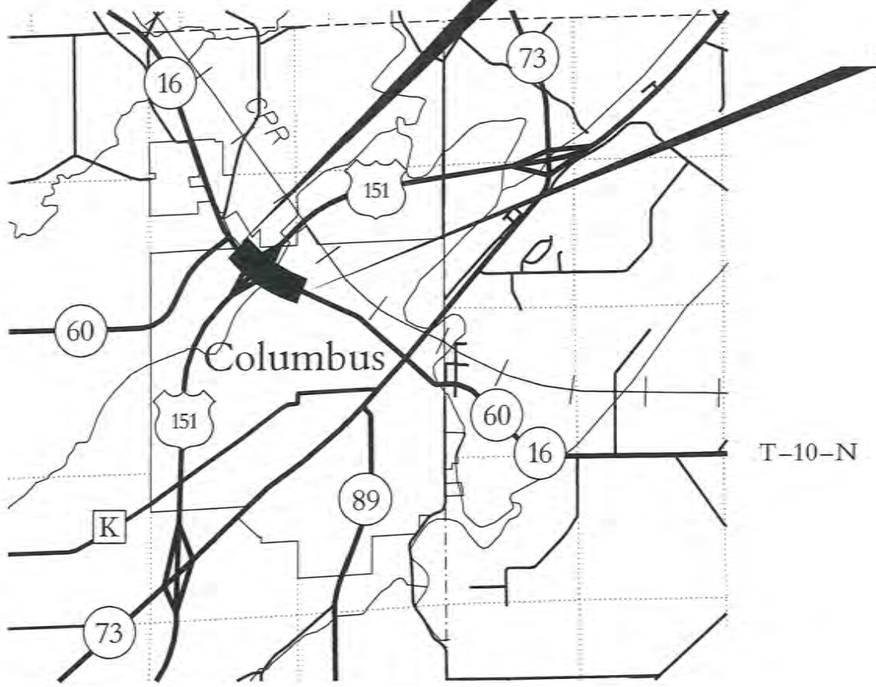
COLUMBIA COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1401-02-74	WISC 2017503	1

STATE PROJECT NUMBER
1401-02-74

BEGIN PROJECT 1401-02-74
STA. 103+85.18EB
Y = 325,064.91
X = 649,954.83

END PROJECT 1401-02-74
STA. 128+52.27EB



T-10-N

R-12-E

LAYOUT
SCALE 0 0.5 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.467 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), COLUMBIA COUNTY NADA 83 (2007).

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88 2007).

DESIGN DESIGNATION		STH 60-USH 151	USH 151-INDUSTRIAL/DIX
A.A.D.T. (2021)	=	24,900	19,400
A.A.D.T. (2041)	=	28,700	22,300
D.H.V.	=	3,600	2,800
D.D.	=	60/40	60/40
T.	=	15.1%	14.8%
DESIGN SPEED	=	50 MPH/40 MPH	40 MPH
ESALS	=	9,600,000	9,600,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
MARSH AREA		TELEPHONE	T
		WATER	W
WOODED OR SHRUB AREA		UTILITY PEDESTAL	
		POWER POLE	
		TELEPHONE POLE	

ORIGINAL PLANS PREPARED BY
KL Engineering
[A] Better Experience

WISCONSIN
BRIAN W. VEIT
41689-006
OREGON, WI
PROFESSIONAL ENGINEER

May 16, 2017 (Date)

(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	KL ENGINEERING / WISDOT
Designer	KL ENGINEERING
Project Manager	DAVID PILON
Regional Examiner	
Regional Supervisor	KARLA KNORR
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 05/18/2017 (Signature)

E

ABBREVIATIONS

BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
BLDG.	BUILDING
CTR	CENTER
C/L	CENTERLINE
C.E.	COMMERCIAL ENTRANCE
CONC.	CONCRETE
CSW	CONCRETE SIDEWALK
CMCP	CORRUGATED METAL CULVERT PIPE
CP	CULVERT PIPE
CPCS	CULVERT PIPE CORRUGATED STEEL
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CPT	CONSTRUCTION PERMIT
EB	EASTBOUND
ELEC	ELECTRIC
IE	INVERT ELEVATION
EX.	EXISTING
FO	FIBER OPTIC
F.E.	FIELD ENTRANCE
GAS	GAS
HMA	HOT MIX ASPHALT
HSE.	HOUSE
LHF	LEFT HAND FORWARD
MH	MANHOLE
MAX.	MAXIMUM
MIN.	MINIMUM
NOR.	NORMAL
NTS	NOT TO SCALE
PLE	PERMANENT LIMITED EASEMENT
P.E.	PRIVATE ENTRANCE
P.L.	PROPERTY LINE
PROP.	PROPOSED
PRW	PROPOSED RIGHT-OF-WAY
RAD	RADIUS
R/L	REFERENCE LINE
RCCP	REINFORCED CONCRETE CULVERT PIPE
REQ'D.	REQUIRED
RHF	RIGHT HAND FORWARD
RW	RIGHT-OF-WAY LINE
SAN	SANITARY SEWER
SHLD	SHOULDER
SW	SIDEWALK
SF	SQUARE FEET
SY	SQUARE YARD
S.D.D.	STANDARD DETAIL DRAWING
STA	STATION
SS	STORM SEWER
TEL	TELEPHONE
TLE	TEMPORARY LIMITED EASEMENT
TYP	TYPICAL
WAT	WATER
WB	WESTBOUND

ORDER OF DETAIL SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
PAVING DETAILS
EROSION CONTROL
STORM SEWER
PERMANENT SIGNING
STREET LIGHTING
TRAFFIC SIGNAL
PAVEMENT MARKING
TRAFFIC CONTROL
ALIGNMENT DETAILS
CONTROL POINT DATA SHEETS

UTILITY CONTACTS

COMMUNICATIONS

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ke3543@us.att.com

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eanthon@columbuswaterandlight.com

ELECTRIC **

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ATC Management, Inc. - Electricity
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De Pere, WI 54115
(920) 338-6582
molsen@atcllc.com

** Not a member of Diggers Hotline

WE ENERGIES - GAS

La Troy Brumfield
333 W Everett Street , A299
Milwaukee, WI 53203
(414) 221-5617
LaTroy.Brumfield@we-energies.com

DIGGERS HOTLINE

Dial 811 or (800) 242-8511

www.DiggersHotline.com

GENERAL NOTES

EXISTING TOPOGRAPHY AND BASEMAP ARE FLOWN AND MAY NOT BE CURRENT. AS SUCH, ADJUSTMENTS TO THE PLAN MAY BE REQUIRED TO FIT FIELD CONDITIONS.

REMOVAL ITEMS REQUIRING RESTORATION OF CONCRETE OR ASPHALT SHALL BE REMOVED TO AN EXISTING JOINT OR SAWED AS DETERMINED BY THE ENGINEER.

NO TREES AND/OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

ALL GRADES PROVIDED ALONG RADII ARE AT EDGE OF PAVEMENT.

EXPANSION JOINTS TO BE CONSTRUCTED AT ALL RADII POINTS IN THE CURB AND GUTTER OR AT LOCATIONS SHOWN ON THE PLAN.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS AS NEEDED. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

PIPE ELEVATIONS, LENGTHS, AND LOCATIONS AS SHOWN ON THE PLANS, MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

CONTRACTOR IS RESPONSIBLE FOR RESHAPING AND FINISHING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY THEIR OPERATION OUTSIDE THE NORMAL CONSTRUCTION LIMITS.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY ARE TO BE RESTORED AS DIRECTED BY THE ENGINEER AND AS SHOWN ON THE PLANS.

LOCATIONS OF INLETS AND MANHOLES AS SHOWN ON THE STORM SEWER SHEETS ARE BY STATION AND OFFSET TO THE CENTER OF THE STRUCTURE (SEE DETAIL).

THE CONTRACTOR'S HMA PAVING OPERATION SHALL BE CONSISTENT WITH THE TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING OR PARKING LANE.

TEMPORARY STORAGE OF ANY EXCAVATION EQUIPMENT OR MATERIALS WILL NOT BE PERMITTED IN WETLANDS OR FLOODPLAIN OF ANY WETLANDS.

WETLANDS ARE PRESENT AT THE LOCATIONS SHOWN ON THE PLANS, DO NOT OPERATE MACHINERY OUTSIDE OF THE SLOPE INTERCEPTS IN THESE LOCATIONS.

HMA PAVEMENT, WHEN INDICATED ON THE PLANS, SHALL CONSIST OF COURSES AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS.

TOTAL DEPTH	LAYERS	TYPE
3.5-INCH	3.5-INCH	4 LT 58-28 S

NOTE: HMA PAVEMENT AND ASPHALTIC SURFACE QUANTITIES ARE BASED ON 112 LB/SY/IN

WISDOT CONTACT

DAVID PILON, P.E.
WISDOT SW REGION (MADISON)
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DESIGN CONTACT

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bveit@klengineering.com

DNR LIAISON

ERIC HEGGELUND
DEPARTMENT OF NATURAL RESOURCES
DNR SOUTH CENTRAL REGION HEADQUARTERS
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FITCHBURG, WI 53711
(608) 275-3301
eric.heggelund@wisconsin.gov

BEGIN PROJECT
STA. 103+85.18EB

BEGIN CONSTRUCTION
STA. 107+92.61EB

BEGIN CONSTRUCTION
STA. 108+99.12WB

BEGIN CONSTRUCTION
STA. 18+50.19A

BEGIN CONSTRUCTION
STA. 42+38.80C

END CONSTRUCTION
STA. 30+46.14B

END CONSTRUCTION
STA. 68+69.52D

END CONSTRUCTION
STA. 126+99.44EB

END CONSTRUCTION
STA. 127+00.00WB

END PROJECT
STA. 128+52.27EB

RAMP A (SB ON-RAMP)

RAMP B (SB OFF-RAMP)

RAMP C (NB OFF-RAMP

RAMP D (NB ON-RAMP)

STH 16 WB

STH 16 EB

USH 151 SB

USH 151 NB

ROBBINS CREEK

DELINEATED WETLANDS (TYP.)

B-11-078
EXISTING TO REMAIN

B-11-077
EXISTING TO REMAIN

B-11-085
EXISTING TO REMAIN

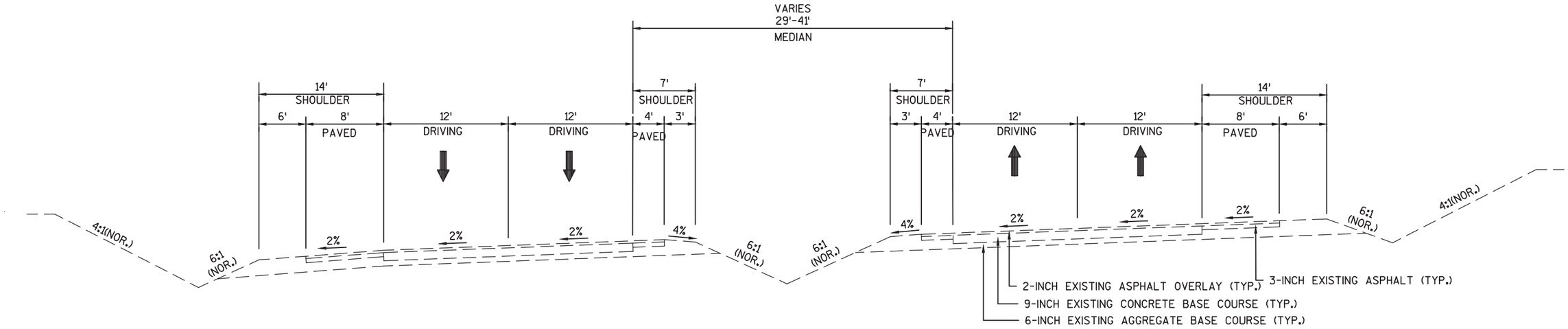
R/W

N

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PROJECT OVERVIEW	SHEET 3 E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\PROJECT OVERVIEW\0202PLOPOVW.DWG PLOT DATE : 4/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : 1:170

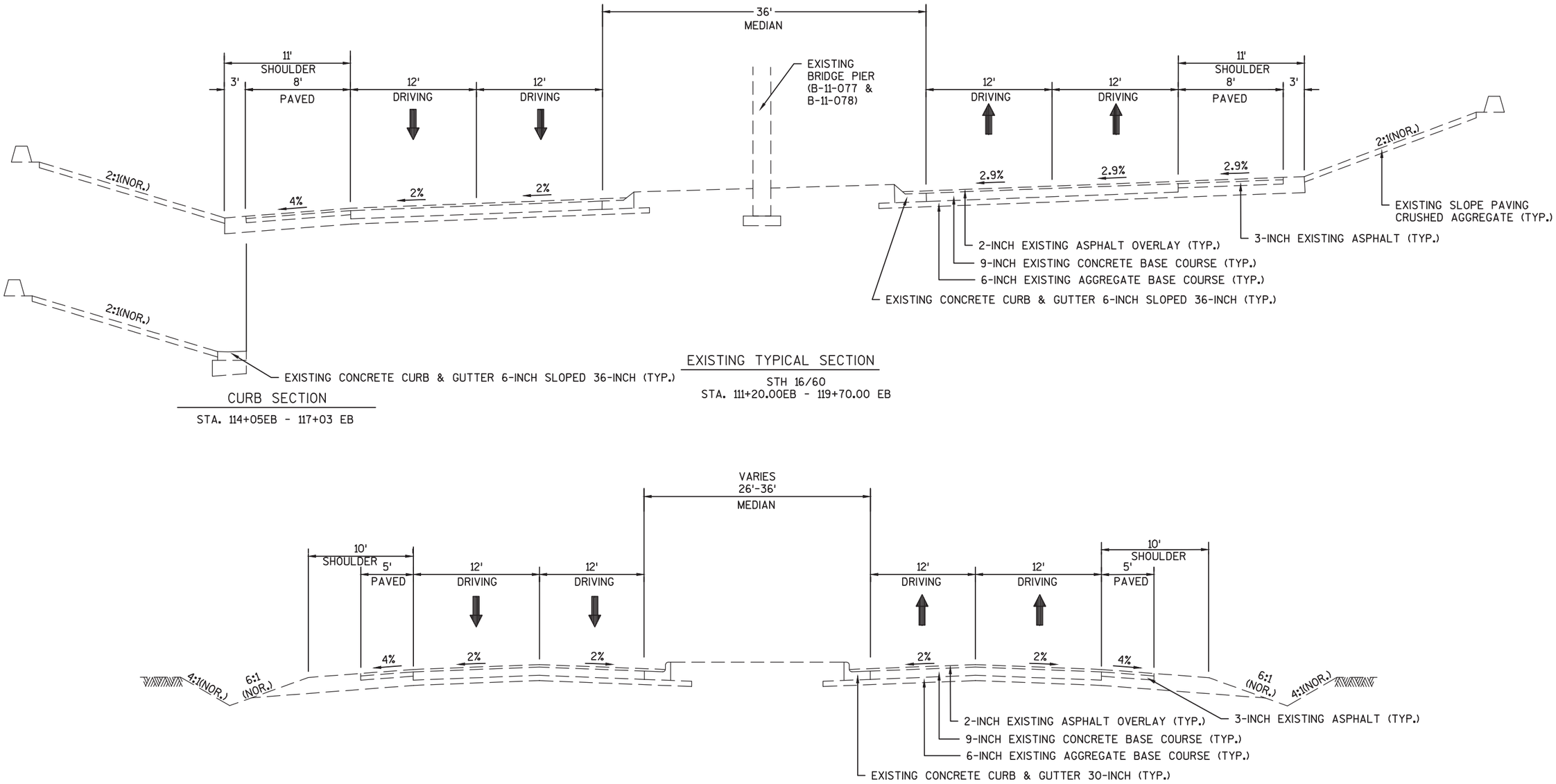
WISDOT/CADDS SHEET 42



EXISTING TYPICAL SECTION

STH 16/60
STA. 107+92.61EB - 111+20.00EB

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	EXISTING TYPICAL SECTIONS	SHEET 4	E



CURB SECTION

STA. 114+05EB - 117+03 EB

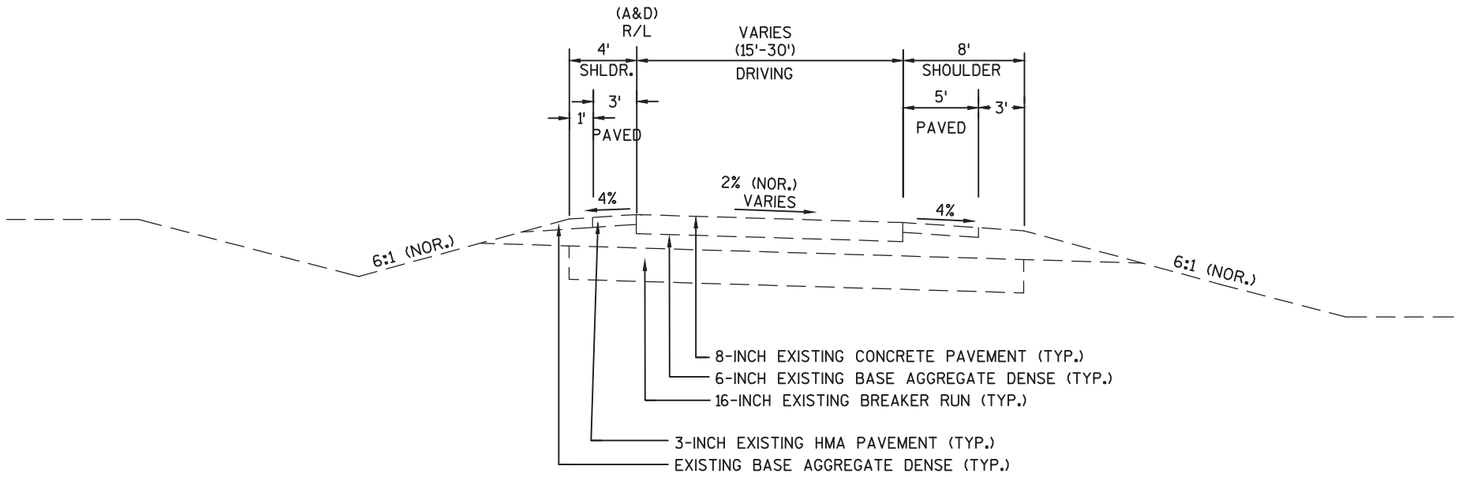
EXISTING TYPICAL SECTION

STH 16/60
STA. 111+20.00EB - 119+70.00 EB

EXISTING TYPICAL SECTION

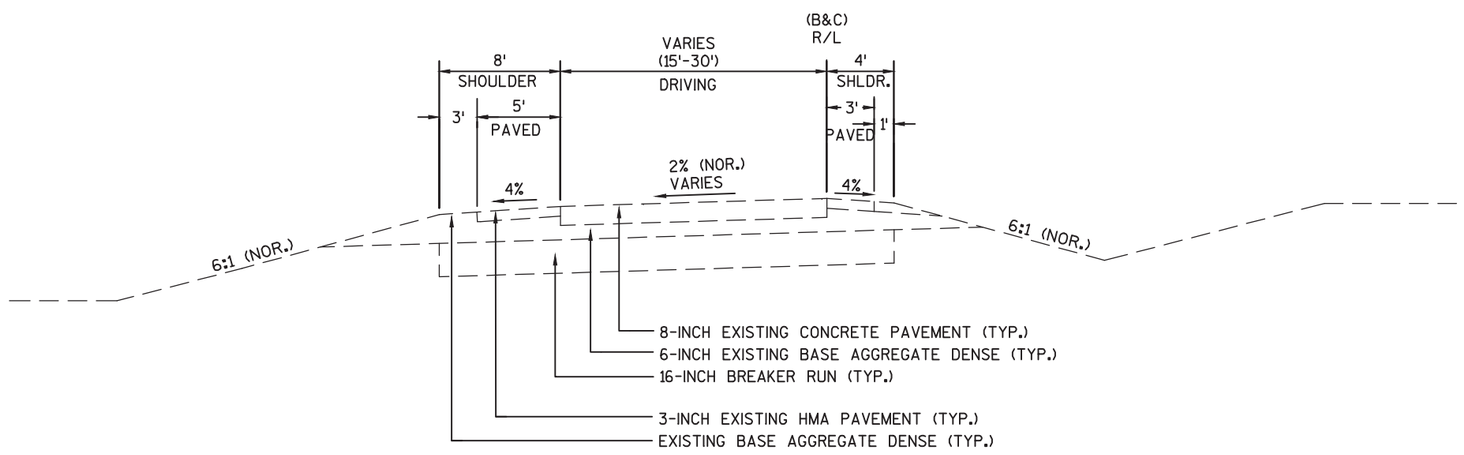
STH 16/60
STA. 119+70.00EB - 126+99.44EB

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	EXISTING TYPICAL SECTIONS	SHEET 5	E



EXISTING TYPICAL SECTION

RAMP A & D
STA. 24+50.00A - STA. 27+00.00A
STA. 60+00.00D - 63+50.00D



EXISTING TYPICAL SECTION

RAMP B & C
STA. 20+00B - STA. 24+74.98B
STA. 44+11.62C - STA. 49+84+24C

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	EXISTING TYPICAL SECTIONS	SHEET 6	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TYPICAL SECTIONS\EXISTING TYPICAL SECTIONS.DWG PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:10 FT

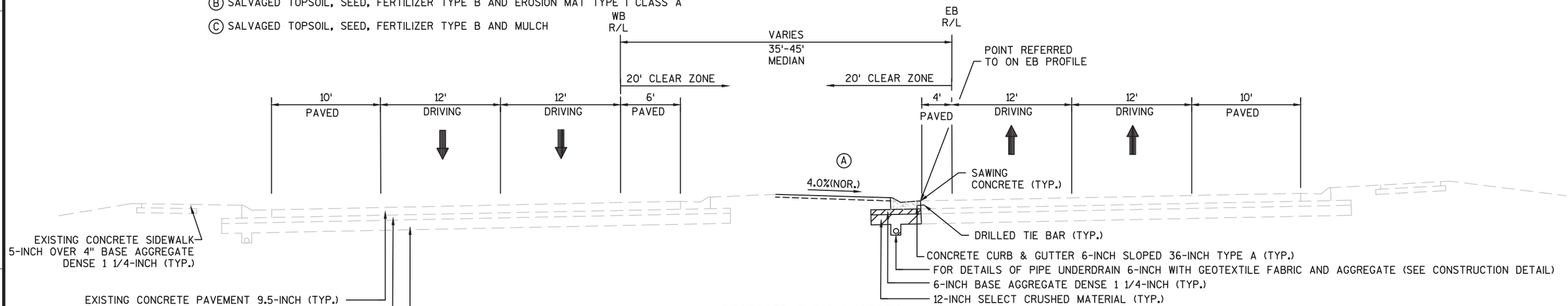
WISDOT/CADDS SHEET 42

LEGEND

Ⓐ SALVAGED TOPSOIL, SEED, FERTILIZER TYPE B AND EROSION MAT TYPE 1 CLASS B

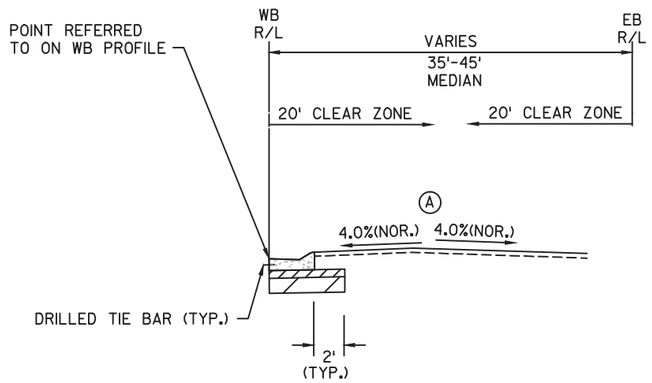
Ⓑ SALVAGED TOPSOIL, SEED, FERTILIZER TYPE B AND EROSION MAT TYPE I CLASS A

Ⓒ SALVAGED TOPSOIL, SEED, FERTILIZER TYPE B AND MULCH



PROPOSED TYPICAL SECTION

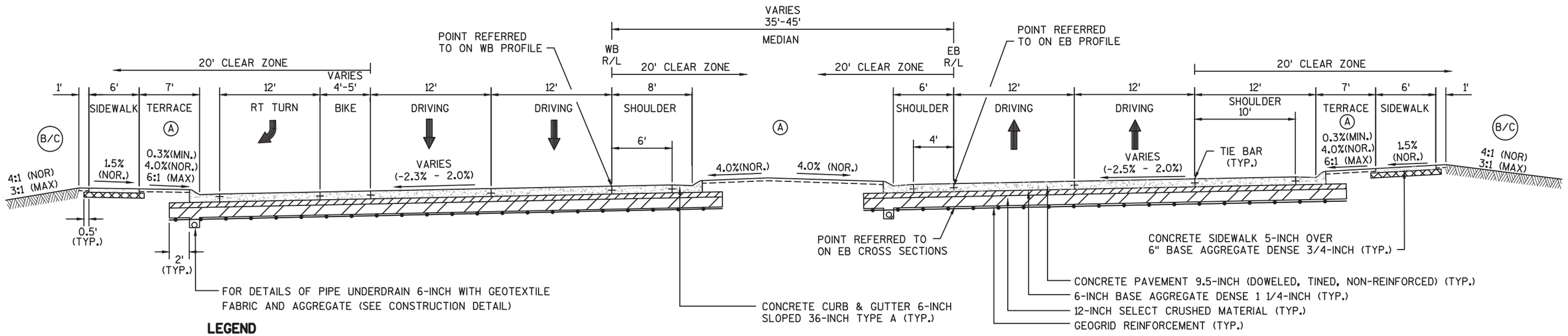
STH 16/60
STA. 103+85.18EB - STA. 107+92.61EB



PROPOSED TYPICAL SECTION

STH 16/60
STA. 105+34.00EB - STA. 108+99.12EB

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PROPOSED TYPICAL SECTIONS	SHEET 7	E



LEGEND

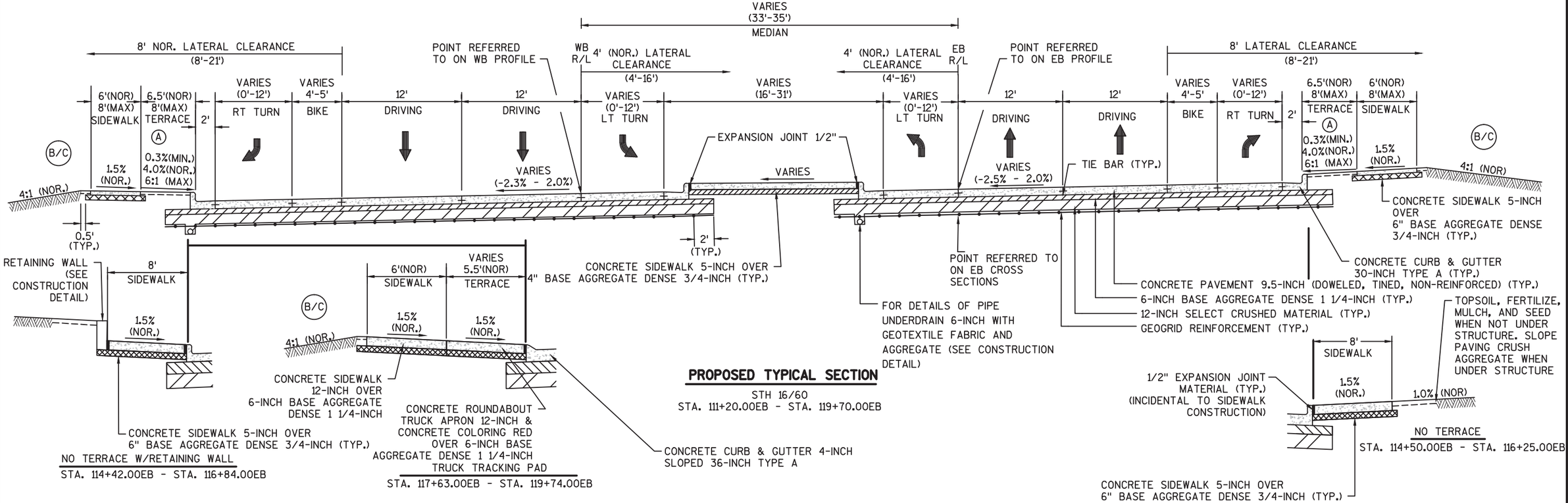
Ⓐ SALVAGED TOPSOIL, SEED, FERTILIZER TYPE B AND EROSION MAT TYPE 1 CLASS B

Ⓑ SALVAGED TOPSOIL, SEED, FERTILIZER TYPE B AND EROSION MAT TYPE I CLASS A

Ⓒ SALVAGED TOPSOIL, SEED, FERTILIZER TYPE B AND MULCH

PROPOSED TYPICAL SECTION

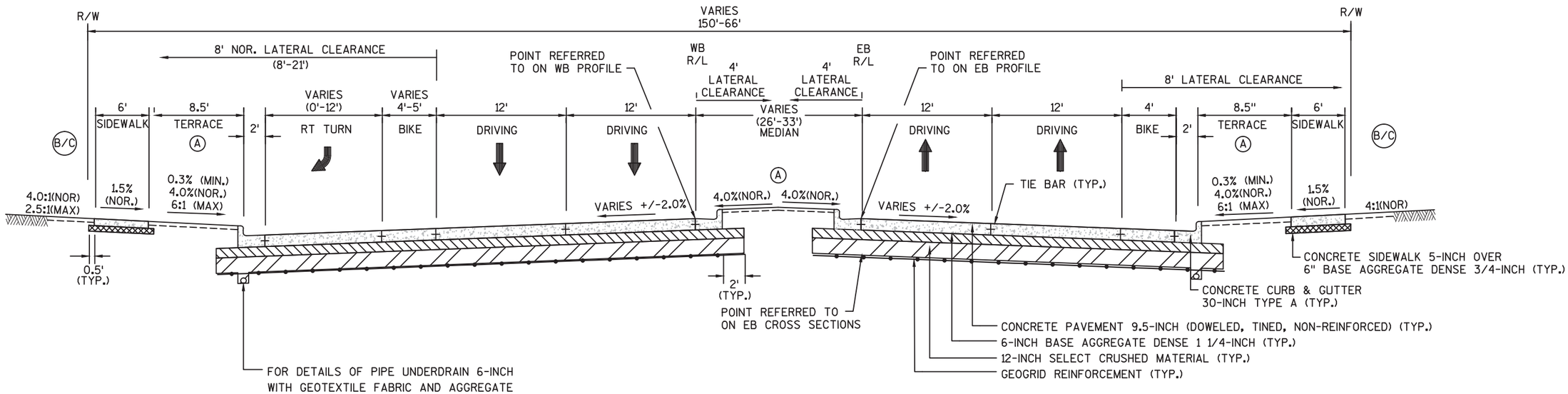
STH 16/60
STA. 107+92.61EB - STA. 111+20.00EB



PROPOSED TYPICAL SECTION

STH 16/60
STA. 111+20.00EB - STA. 119+70.00EB

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PROPOSED TYPICAL SECTIONS	SHEET 8	E



LEGEND

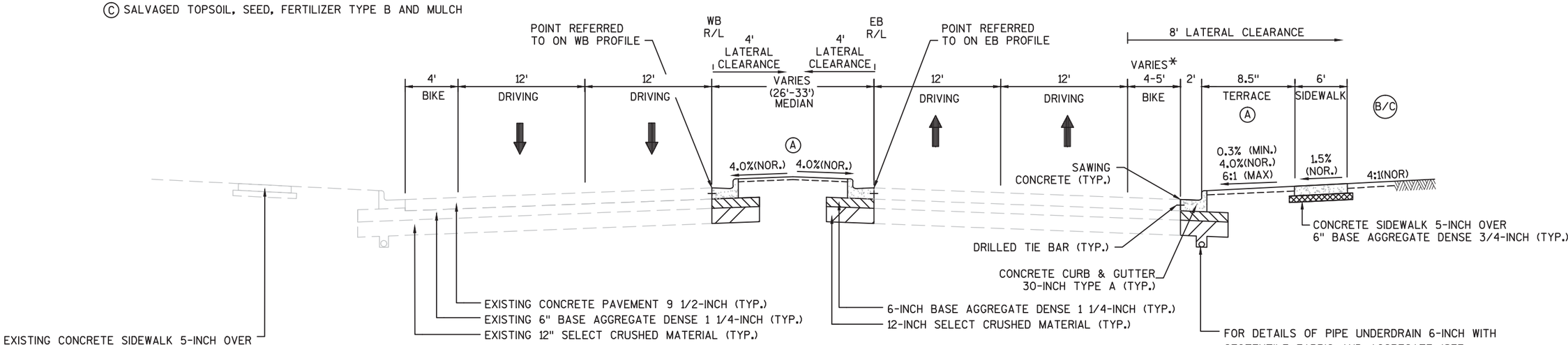
(A) SALVAGED TOPSOIL, SEED, FERTILIZER TYPE B AND EROSION MAT TYPE 1 CLASS B

(B) SALVAGED TOPSOIL, SEED, FERTILIZER TYPE B AND EROSION MAT TYPE I CLASS A

(C) SALVAGED TOPSOIL, SEED, FERTILIZER TYPE B AND MULCH

PROPOSED TYPICAL SECTION

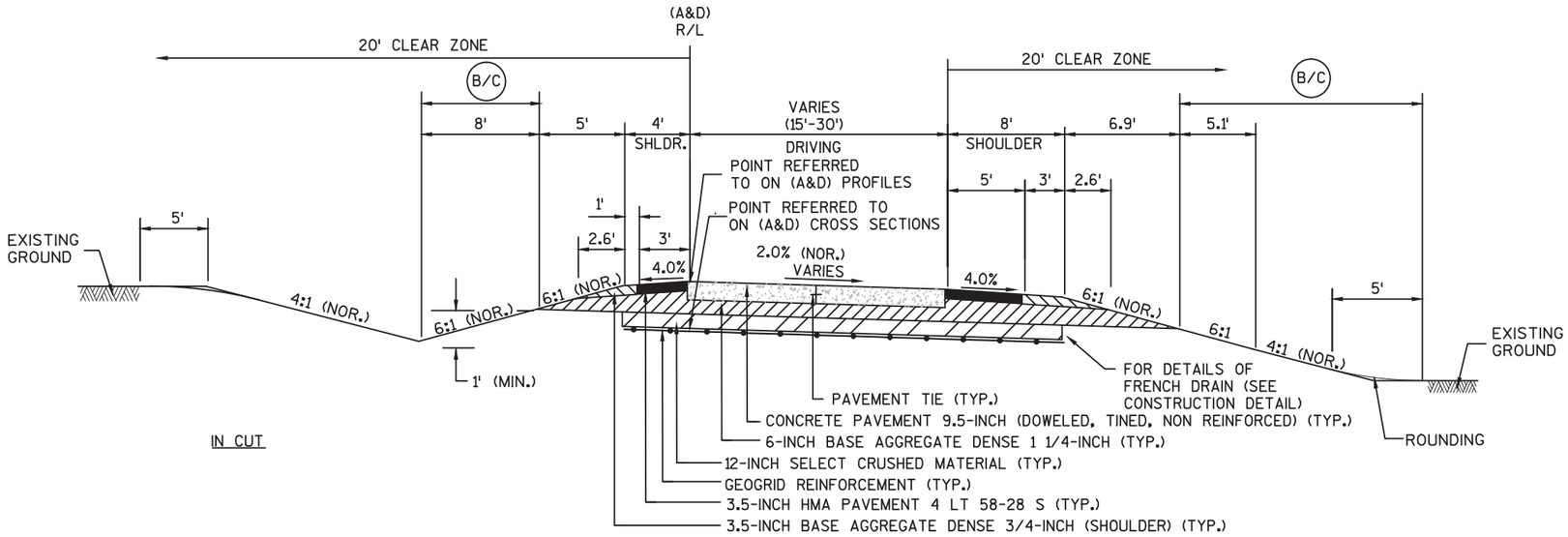
STH 16/60
STA. 119+70.00EB - STA. 126+99.44EB



PROPOSED TYPICAL SECTION

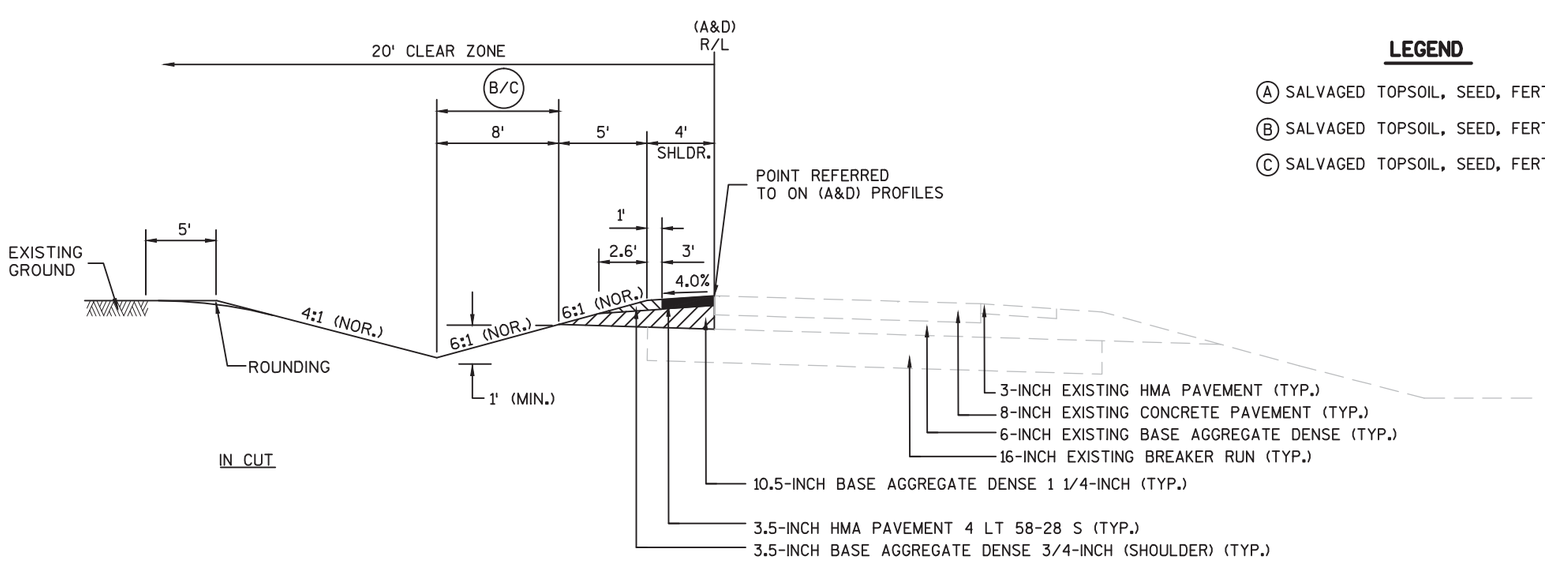
STH 16/60
STA. 126+99.44EB - STA. 128+53.20EB

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PROPOSED TYPICAL SECTIONS	SHEET 9	E



PROPOSED TYPICAL SECTION

RAMP A & D
STA. 24+50.00A - STA. 27+00.00A
STA. 60+00.00D - STA. 63+50.00D



LEGEND

(A) SALVAGED TOPSOIL, SEED, FERTILIZER TYPE B AND EROSION MAT TYPE 1 CLASS B

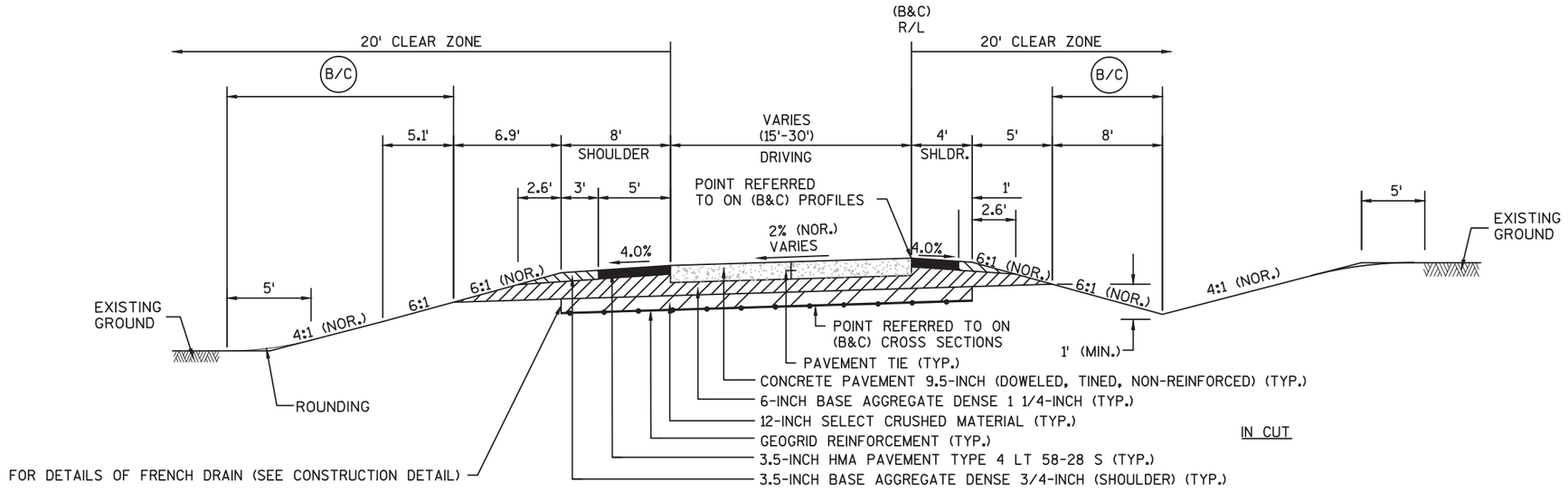
(B) SALVAGED TOPSOIL, SEED, FERTILIZER TYPE B AND EROSION MAT TYPE I CLASS A

(C) SALVAGED TOPSOIL, SEED, FERTILIZER TYPE B AND MULCH

PROPOSED TYPICAL SECTION

RAMP A & D
STA. 18+50.19A - STA. 24+50.00A
STA. 63+50.00D - STA. 68+69.52D

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PROPOSED TYPICAL SECTIONS	SHEET 10	E



PROPOSED TYPICAL SECTION

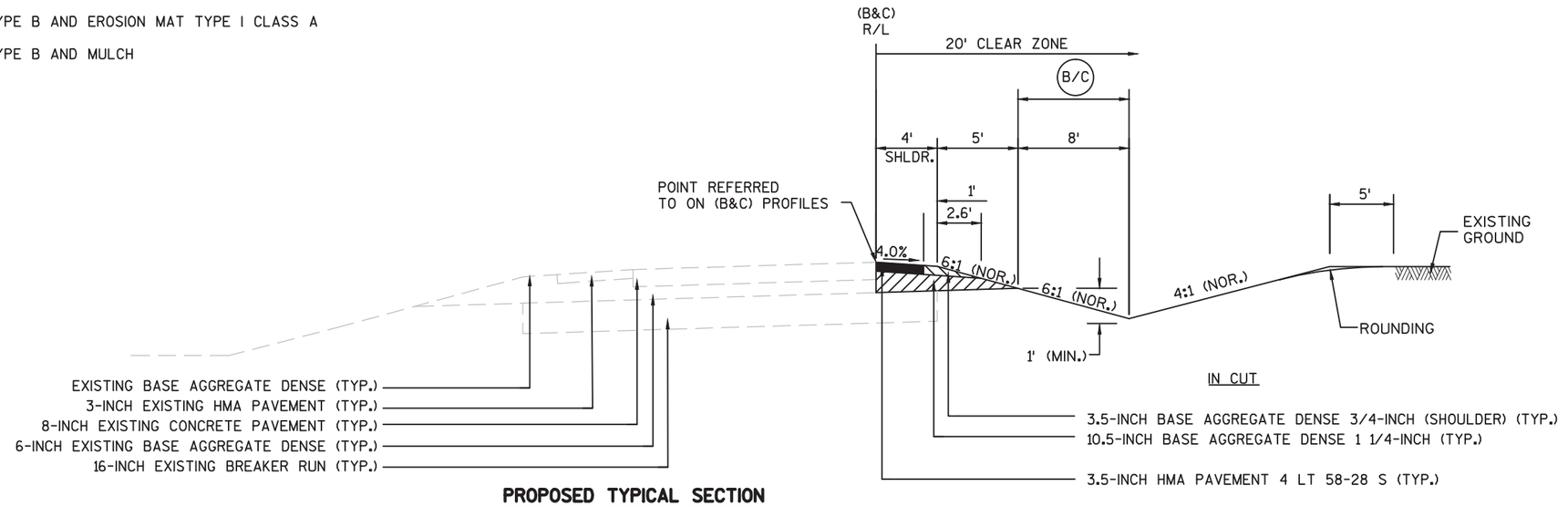
RAMP B & C
STA. 20+00+00B - STA. 24+74.98B
STA. 44+11.62C - STA. 49+84.24C

LEGEND

Ⓐ SALVAGED TOPSOIL, SEED, FERTILIZER TYPE B AND EROSION MAT TYPE 1 CLASS B

Ⓑ SALVAGED TOPSOIL, SEED, FERTILIZER TYPE B AND EROSION MAT TYPE I CLASS A

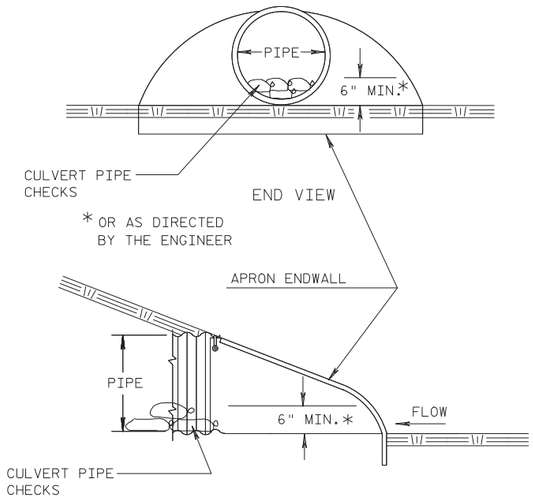
Ⓒ SALVAGED TOPSOIL, SEED, FERTILIZER TYPE B AND MULCH



PROPOSED TYPICAL SECTION

RAMP B & C
STA. 24+74.98B - STA. 30+46.14B
STA. 42+38.80C - STA. 44.11+62C

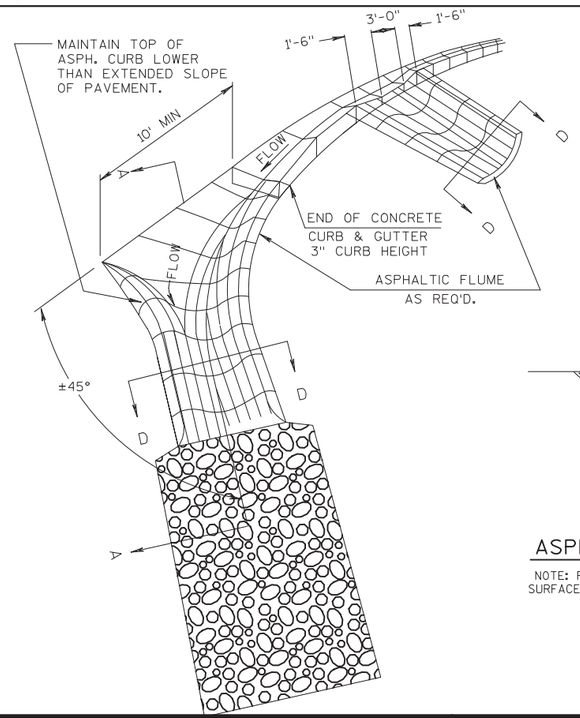
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PROPOSED TYPICAL SECTIONS	SHEET 11	E

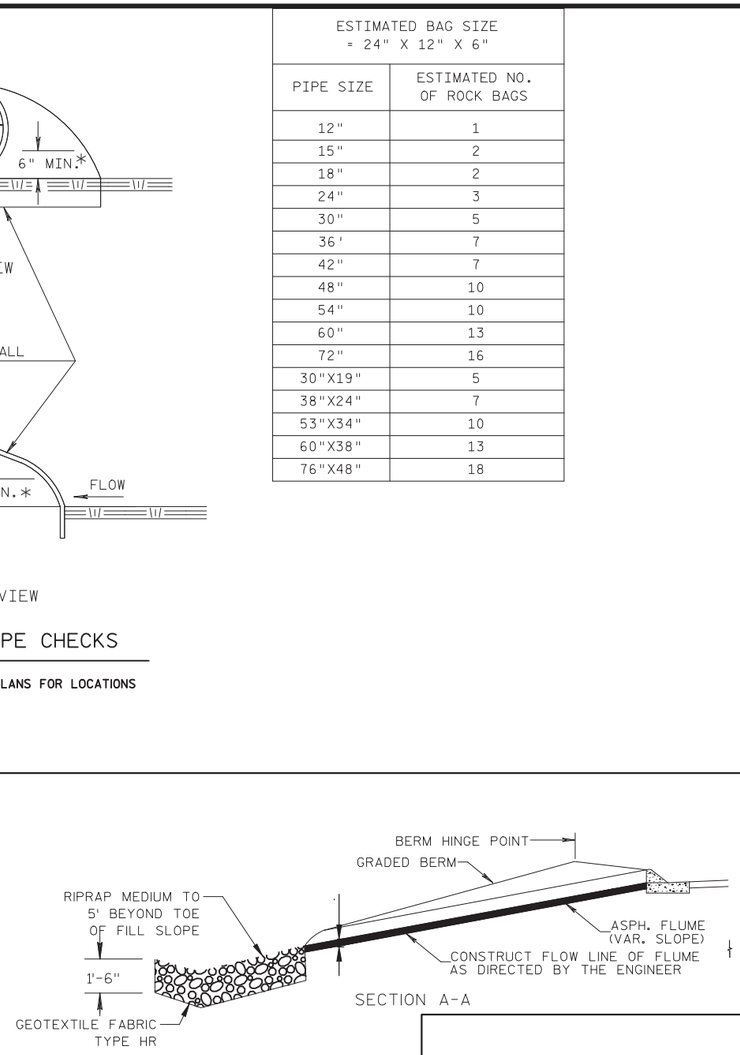


ESTIMATED BAG SIZE = 24" X 12" X 6"	
PIPE SIZE	ESTIMATED NO. OF ROCK BAGS
12"	1
15"	2
18"	2
24"	3
30"	5
36'	7
42"	7
48"	10
54"	10
60"	13
72"	16
30"X19"	5
38"X24"	7
53"X34"	10
60"X38"	13
76"X48"	18

CULVERT PIPE CHECKS

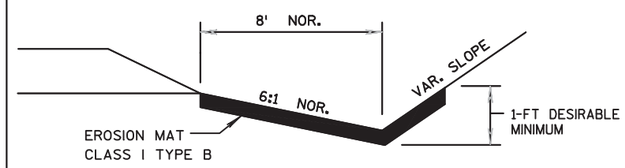
SEE EROSION CONTROL PLANS FOR LOCATIONS





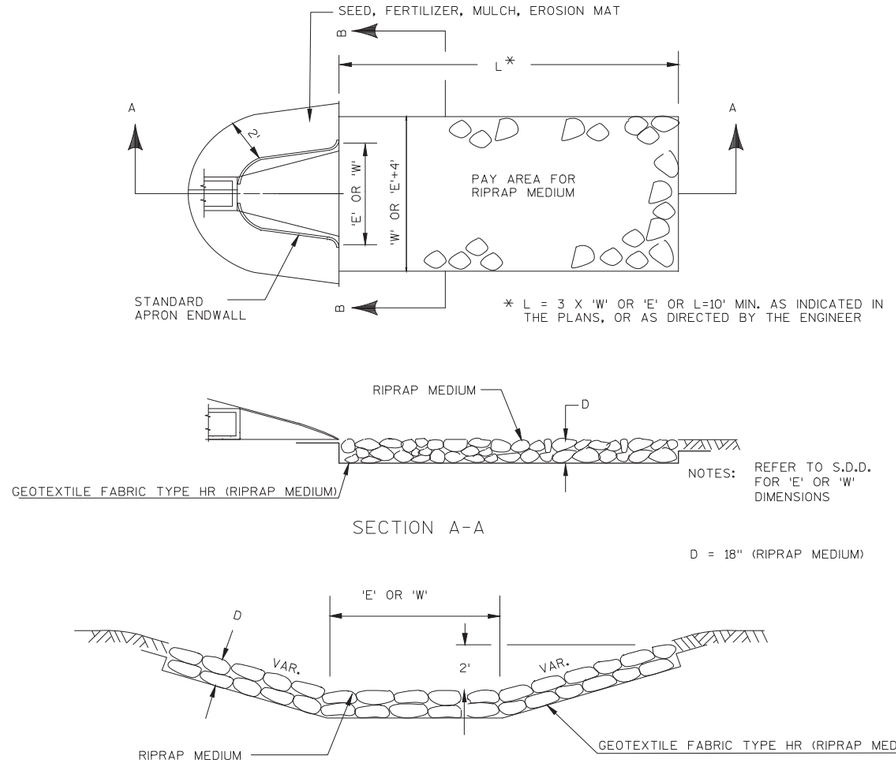
ASPHALTIC FLUME DETAIL

NOTE: FOR FURTHER DETAIL SEE CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES S.D.D.



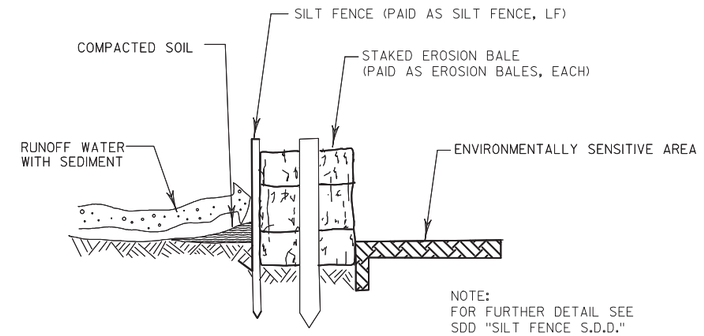
EROSION MAT DETAIL FOR DITCHES

(REQ'D. IN ALL DITCHES)



RIPRAP TREATMENT AT PIPE ENDWALL DETAIL

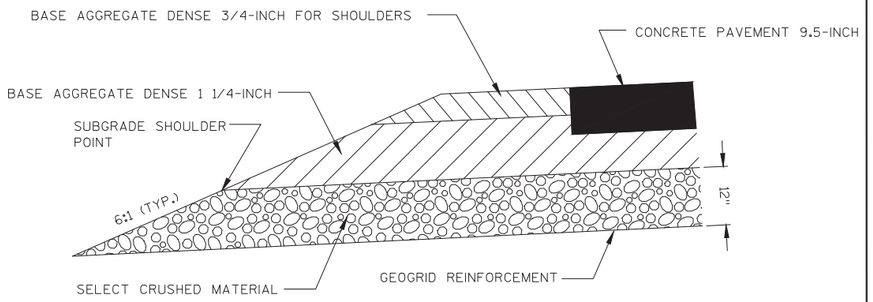
SEE EROSION CONTROL PLANS FOR LOCATIONS



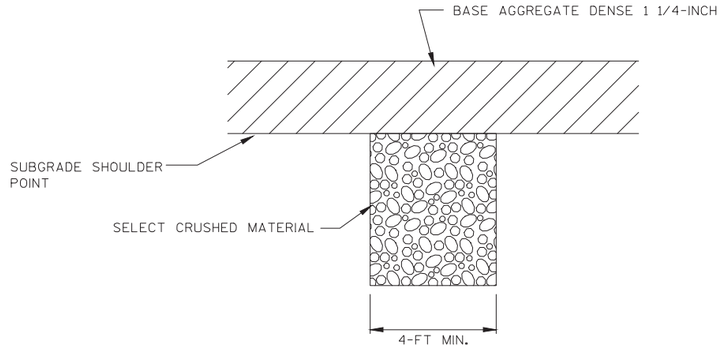
SIILT FENCE AND EROSION BALE OUTLET STRUCTURE DETAIL

SEE EROSION CONTROL PLAN FOR LOCATIONS

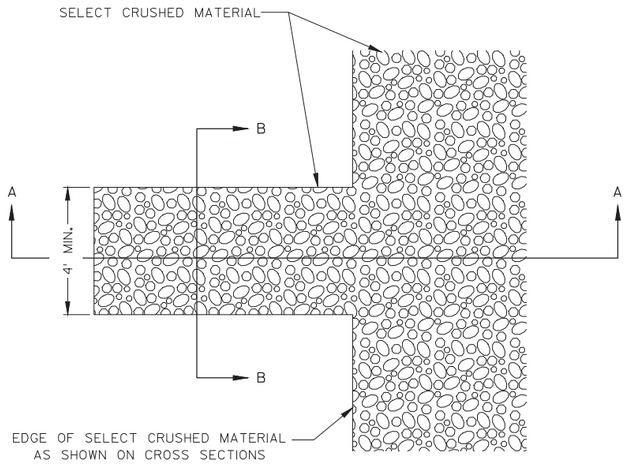
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY:	CONSTRUCTION DETAILS	SHEET 12	E



SECTION A-A



SECTION B-B



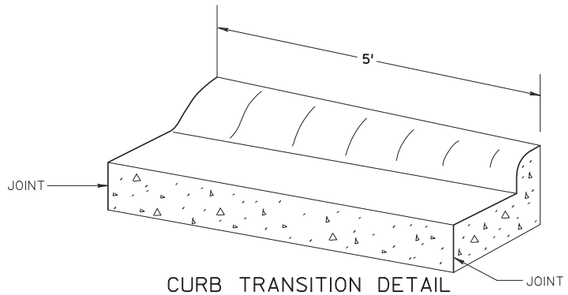
FRENCH DRAIN DETAIL

CONSTRUCT DRAINS AT LEAST EVERY 250'
AND AT EACH SAG VERTICAL CURVE IN THE PROFILE.

(LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER)

EXCAVATION REQUIRED TO CONSTRUCT FRENCH DRAINS
INCIDENTAL TO THE ITEM SELECT CRUSHED MATERIAL

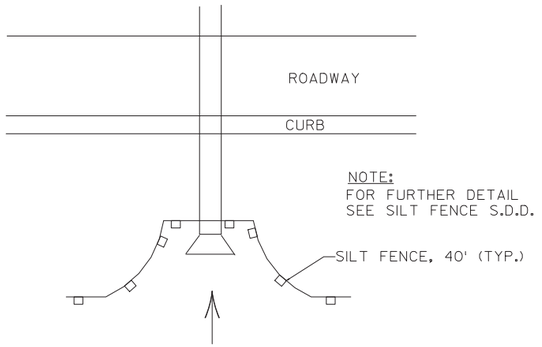
DO NOT COVER SELECT CRUSHED MATERIAL WITH TOPSOIL



CURB TRANSITION DETAIL

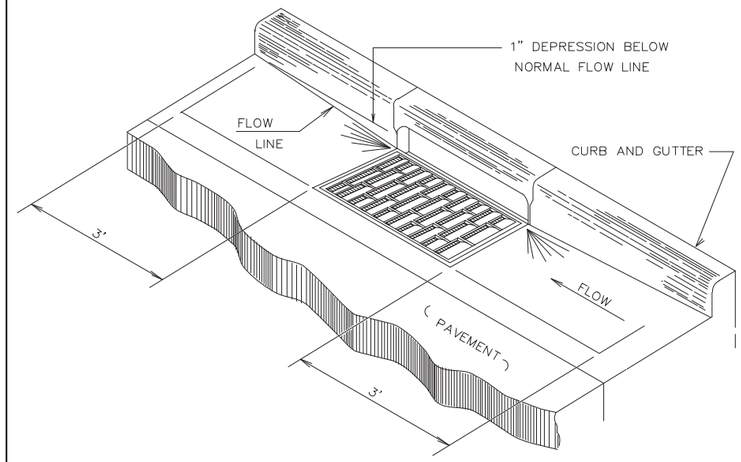
CONCRETE CURB & GUTTER 30-INCH TYPE A
TO CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE A
OR
CONCRETE CURB & GUTTER 30-INCH TYPE A
TO CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A

(TO BE MEASURED & PAID FOR AS CONCRETE CURB & GUTTER 30-INCH)



SILT FENCE AT PIPE INLET

SEE EROSION CONTROL PLANS FOR LOCATIONS



INLET FLOW LINE DETAIL (STORM SEWER INLETS)

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

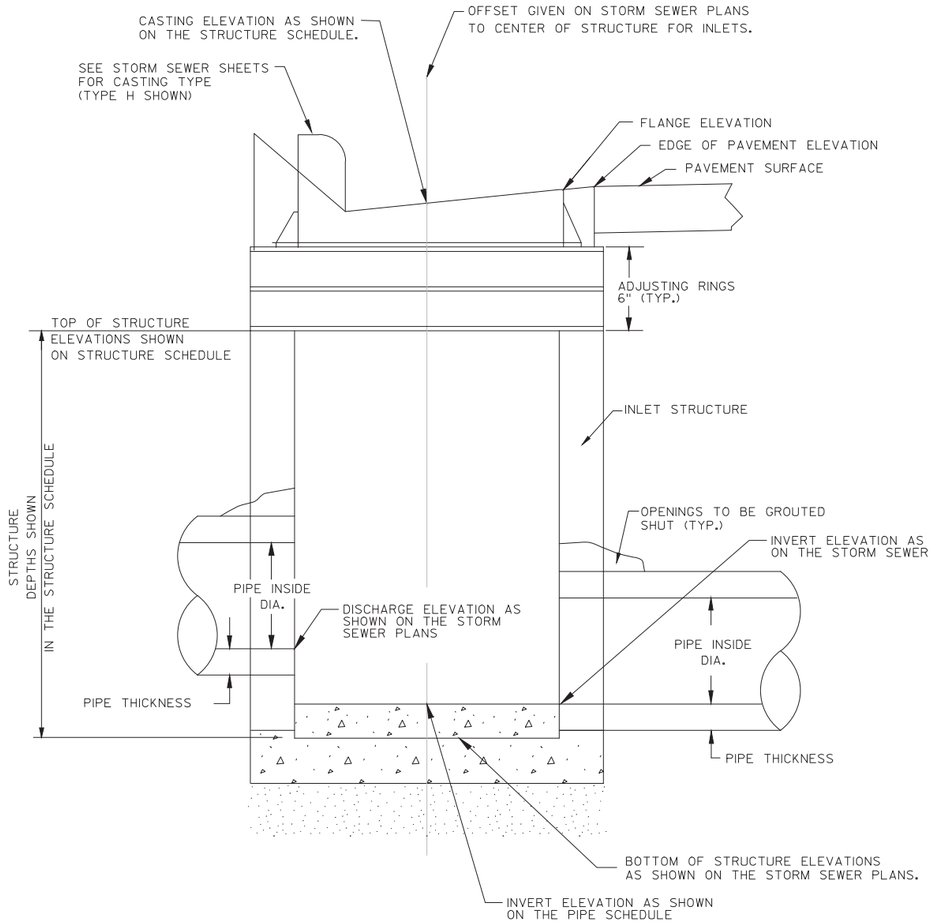
TOTAL PROJECT AREA = 14.6 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 10.1 ACRES

GENERAL NOTES:

GRANULAR BACKFILL REQUIRED AROUND INLET
(INCIDENTAL TO CONSTRUCTION OF INLET)

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, APPLICABLE SPECIAL PROVISIONS, AND S.D.D. FOR INLETS.

CONNECT PIPE UNDERDRAIN TO INLETS. SEE S.D.D. "EDGEDRAIN OUTLET & OUTFALL MARKERS" FOR DETAILS.

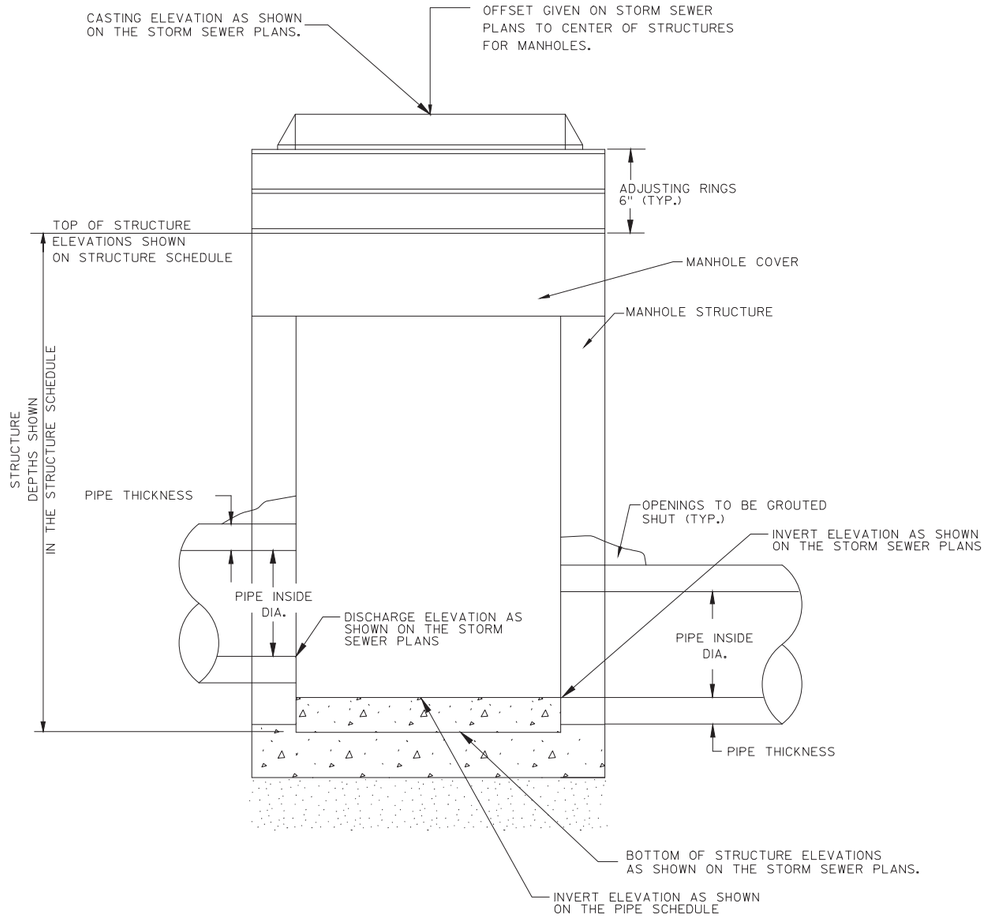


DETAIL OF INLET W/CASTING

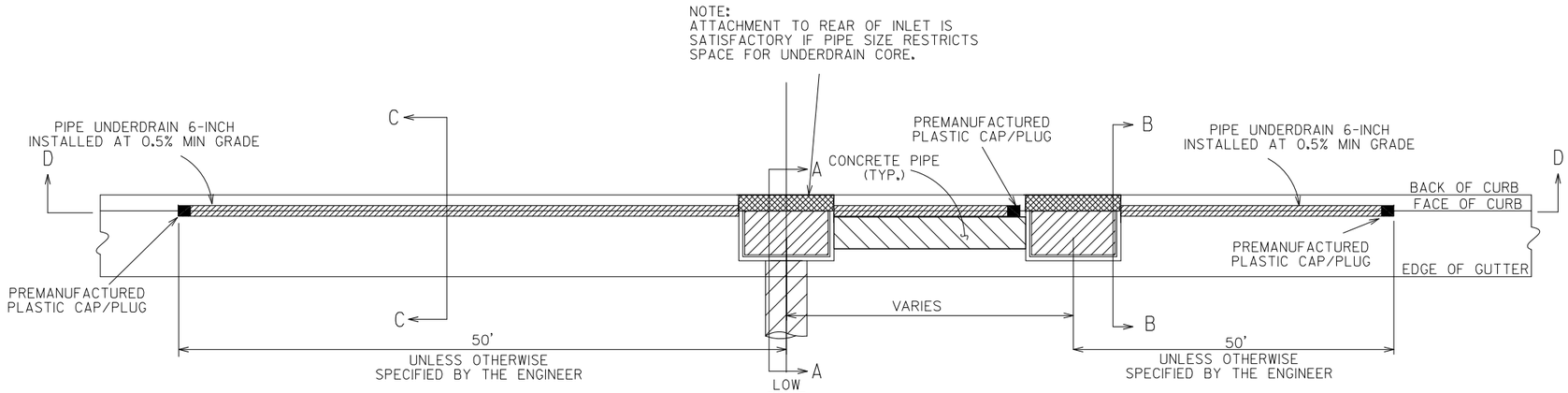
GENERAL NOTES:

GRANULAR BACKFILL REQUIRED AROUND MANHOLE
(INCIDENTAL TO CONSTRUCTION OF MANHOLE)

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, APPLICABLE SPECIAL PROVISIONS, AND S.D.D. FOR MANHOLES.



DETAIL OF MANHOLE W/CASTING



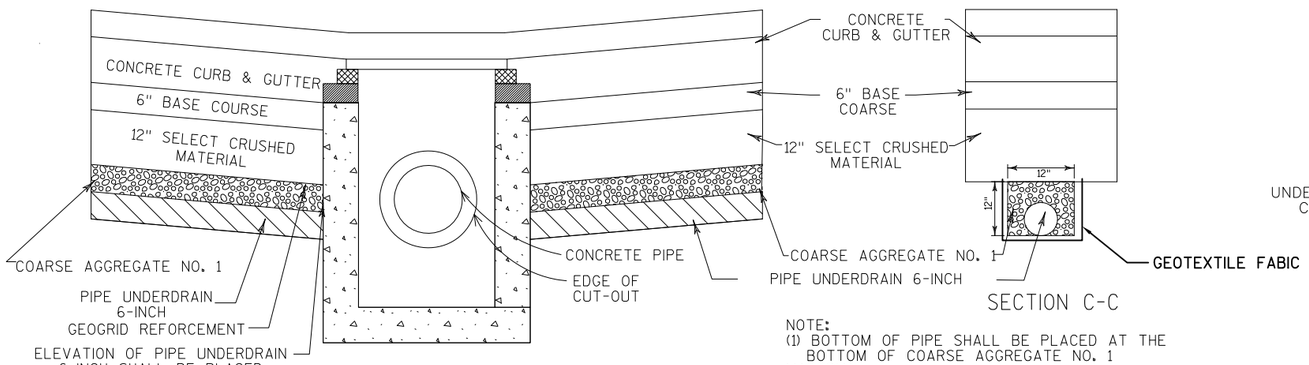
LOW POINT INLET

TOP VIEW
SPLIT DETAIL

INLET CONFIGURATION
WITH UNDERDRAIN AT LOW POINTS

LOW POINT INLET WITH FLANKING INLETS

NOTE:
WHERE MULTIPLE INLETS ARE USED AT LOW POINTS, PIPE UNDERDRAIN SHALL BE INSTALLED 50 FEET TO EITHER DIRECTION FROM THE LOW POINT AT A MINIMUM POSITIVE GRADE OF 0.5%. THE SECTION OF UNDERDRAIN BETWEEN THE CENTER AND OUTER INLETS SHALL BE PLACED TIGHT TO THE OUTER INLET, CAPPED WITH A PREMANUFACTURED PLASTIC CAP OR PLUG, AND LAID AS SPECIFIED ABOVE TO THE CENTER INLET.

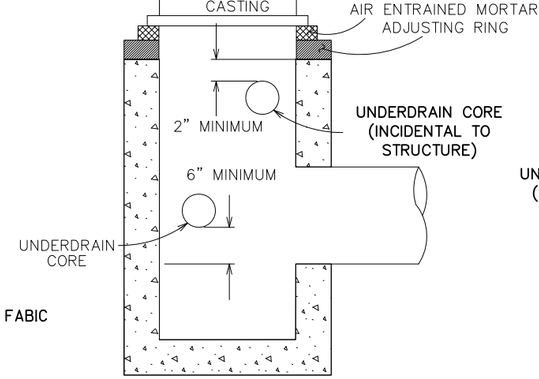


SECTION D-D

TYPICAL INLET CONFIGURATION WITH UNDERDRAIN CORED INTO WALL WITH NO PIPE FOUND AT LOW POINTS WITHOUT FLANKING INLETS

SECTION C-C

NOTE:
(1) BOTTOM OF PIPE SHALL BE PLACED AT THE BOTTOM OF COARSE AGGREGATE NO. 1 MATERIAL.
(2) BOTTOM OF COARSE AGGREGATE NO. 1 MATERIAL TYPICALLY 1' BELOW THE BOTTOM OF THE SELECT CRUSHED MATERIAL.

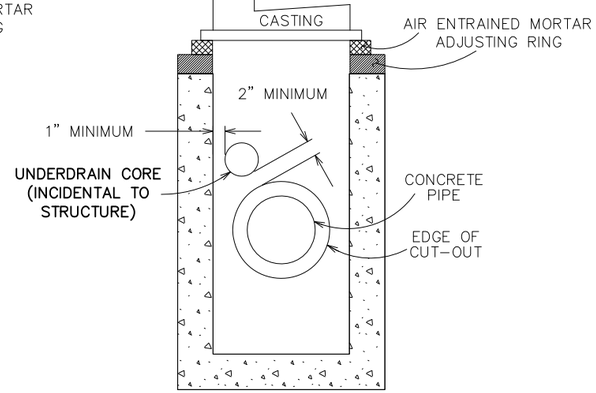


SECTION A-A

NOTE:
(1) BOTTOM OF CORE PLACED A MINIMUM OF 6" ABOVE THE INVERT OF THE CROSS PIPE.
(2) TOP OF CORE HOLES WILL BE A MINIMUM OF 2" BELOW THE TOP OF THE INLET STRUCTURES (BOTTOM OF RINGS)

CROSS-SECTION VIEW
TYPICAL INLET CONFIGURATION WITH UNDERDRAIN CORED INTO WALL WITH CROSSPIPE ONLY

FOUND AT LOW POINTS WITHOUT FLANKING INLETS



SECTION B-B

NOTE:
(1) CORE HOLES SHALL PROVIDE FOR A MINIMUM OF 2" OF CONCRETE BETWEEN THE CUTOUT FOR A CONCRETE PIPE AND THE EDGE OF THE CORE HOLE.
(2) CORE HOLES SHALL HAVE 1" CLEARANCE FROM THE INSIDE WALLS OF A STRUCTURE.
(3) ALL CORE HOLES INTO THE STORM SEWER STRUCTURES ARE INCIDENTAL

CROSS-SECTION VIEW
TYPICAL INLET IN SUMP CONDITION WITH UNDERDRAIN CORED INTO WALL WITH PIPE FOUND AT FLANKING INLETS NEAR LOWPOINTS

PIPE UNDERDRAIN 6-INCH WITH GEOTEXTILE FABRIC & AGGREGATE

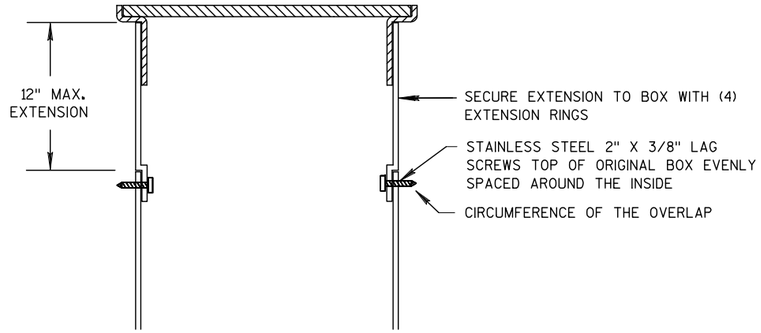
(SEE STORM SEWER PLANS FOR LOCATIONS)

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

NON-CONDUCTIVE PULL BOX DIMENSION (INCHES)			
BOX DIAMETER ** (INSIDE)	A	24	24
BOX DIAMETER ** (OUTSIDE)	B	25	25
BOX LENGTH	C	36	42
COVER	D	25 1/2	25 1/2
FRAME	E	27	27
FRAME	F	25 3/4	25 3/4
FRAME	G	22 1/2	22 1/2
WEIGHT (POUNDS) *			
COVER		50	50

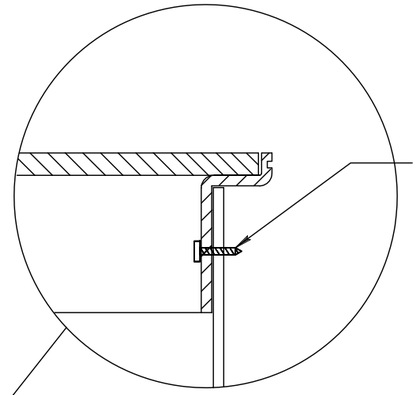
* THE ACTUAL WEIGHT OF THE COVER MAY VARY NOT TO EXCEED 100 LBS.

** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE

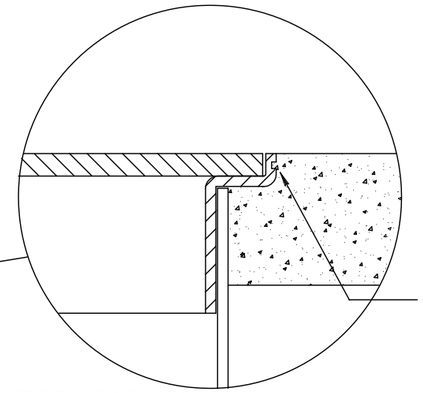


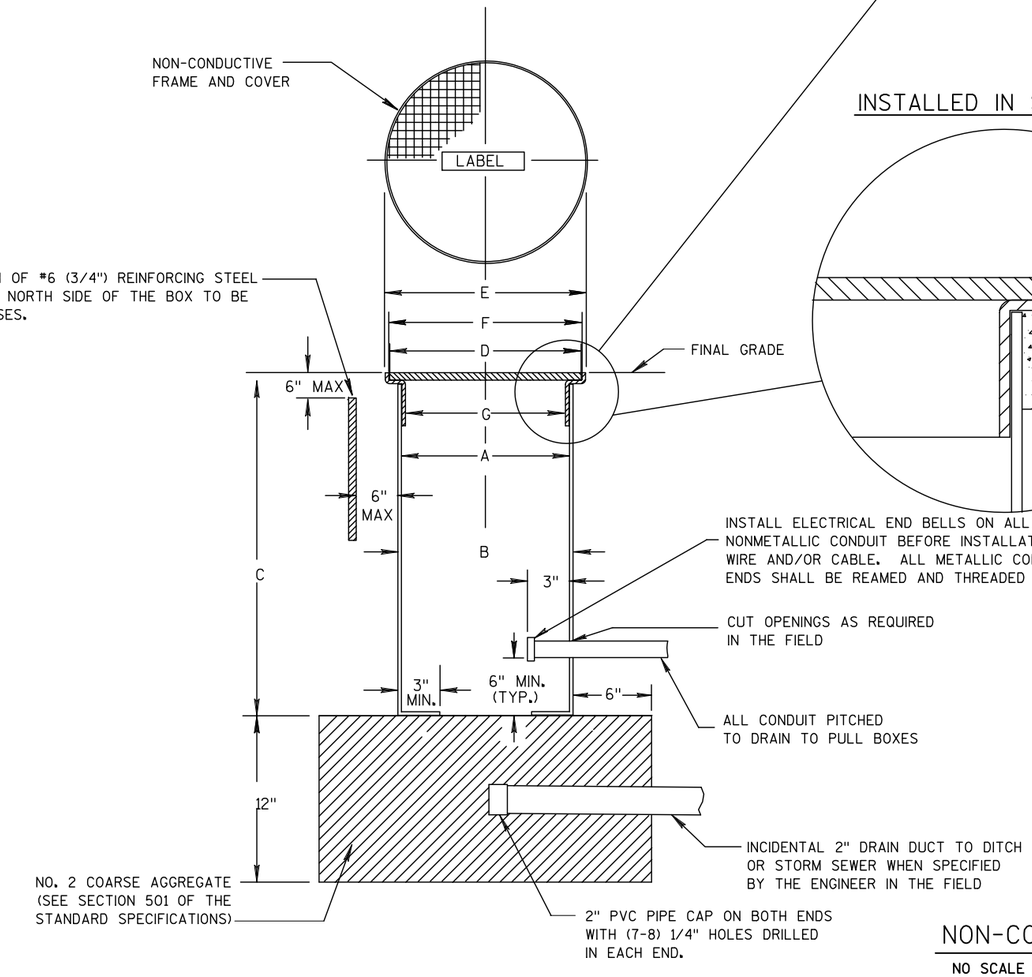
BOX EXTENSION

INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK





NON-CONDUCTIVE PULL BOX

NO SCALE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DISCONTINUITIES LESS THAN 1/4".

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

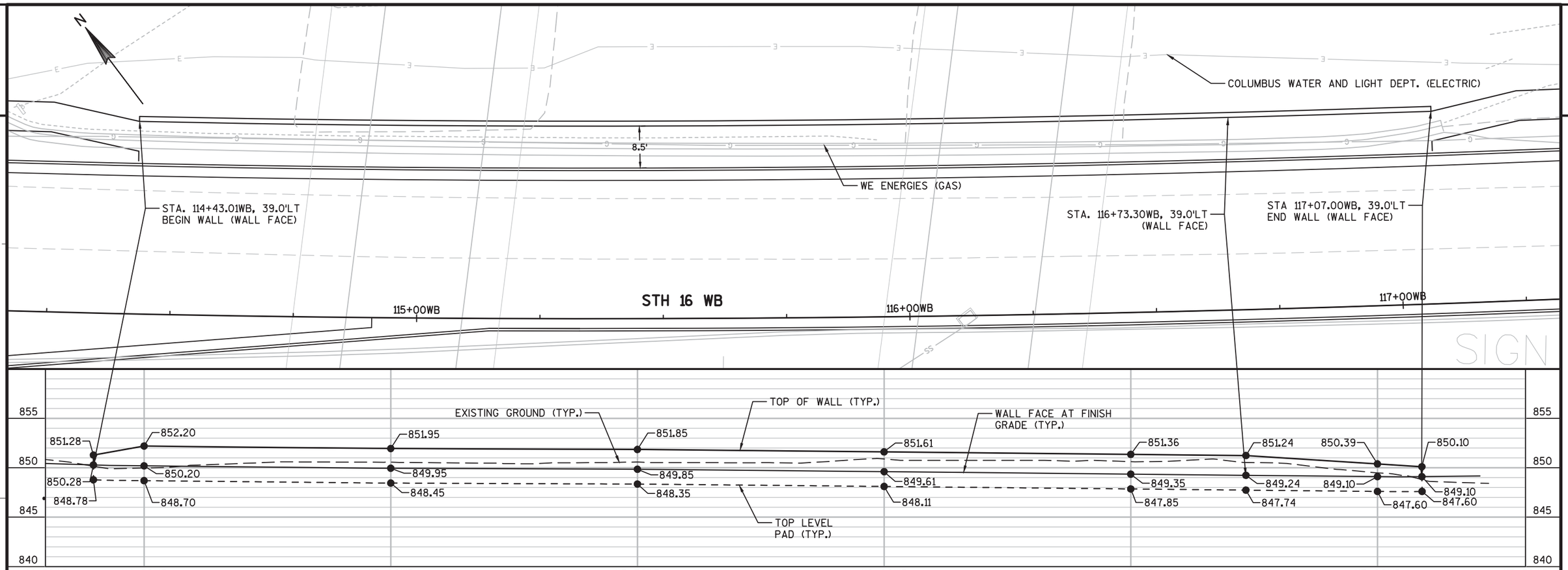
THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

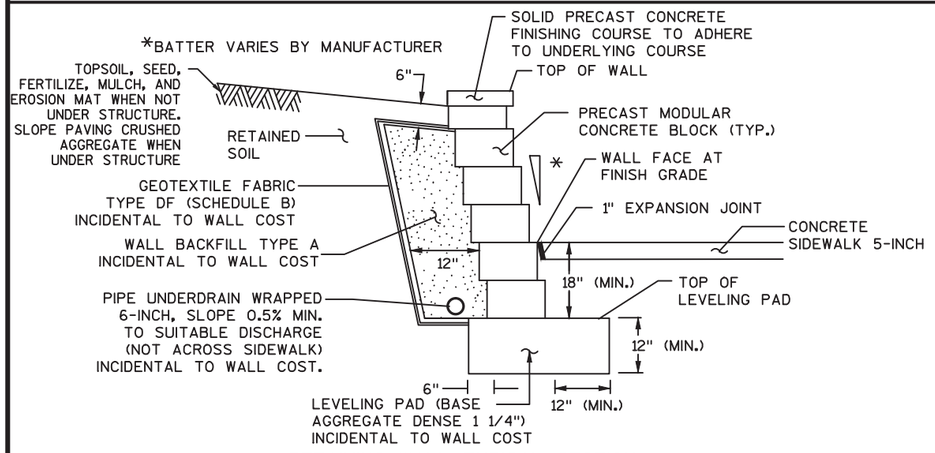
ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS.

WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE.

LABEL ON COVER SHALL READ "ELECTRIC" FOR TRAFFIC SIGNAL OR LIGHTING PULL BOXES OR "COMMUNICATIONS" FOR COMMUNICATIONS PULL BOXES.



RETAINING WALL PLAN VIEW



RETAINING WALL TYPICAL SECTION

NTS

STA. 114+43WB LT - STA 117+07WB LT

(STH 16)

SOIL PARAMETERS

SOIL DESCRIPTION	UNIT WEIGHT (pcf)	FRICTION ANGLE (degrees)	COHESION (psf)
GRANULAR FILL	125	30°	0

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS AND SHOP DRAWINGS FOR THE RETAINING WALL IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE GRADES PROVIDED ON THIS DETAIL.

DESIGN FOR THE RETAINING WALL TO PROVIDE FOR THE FINISHED SLOPE BEHIND THE WALL AS SHOWN ON THE CROSS SECTIONS.

WALL TO HAVE SPLIT BLOCK APPEARANCE AND BE TAN OR GRAY IN COLORATION. (TO BE APPROVED BY THE ENGINEER)

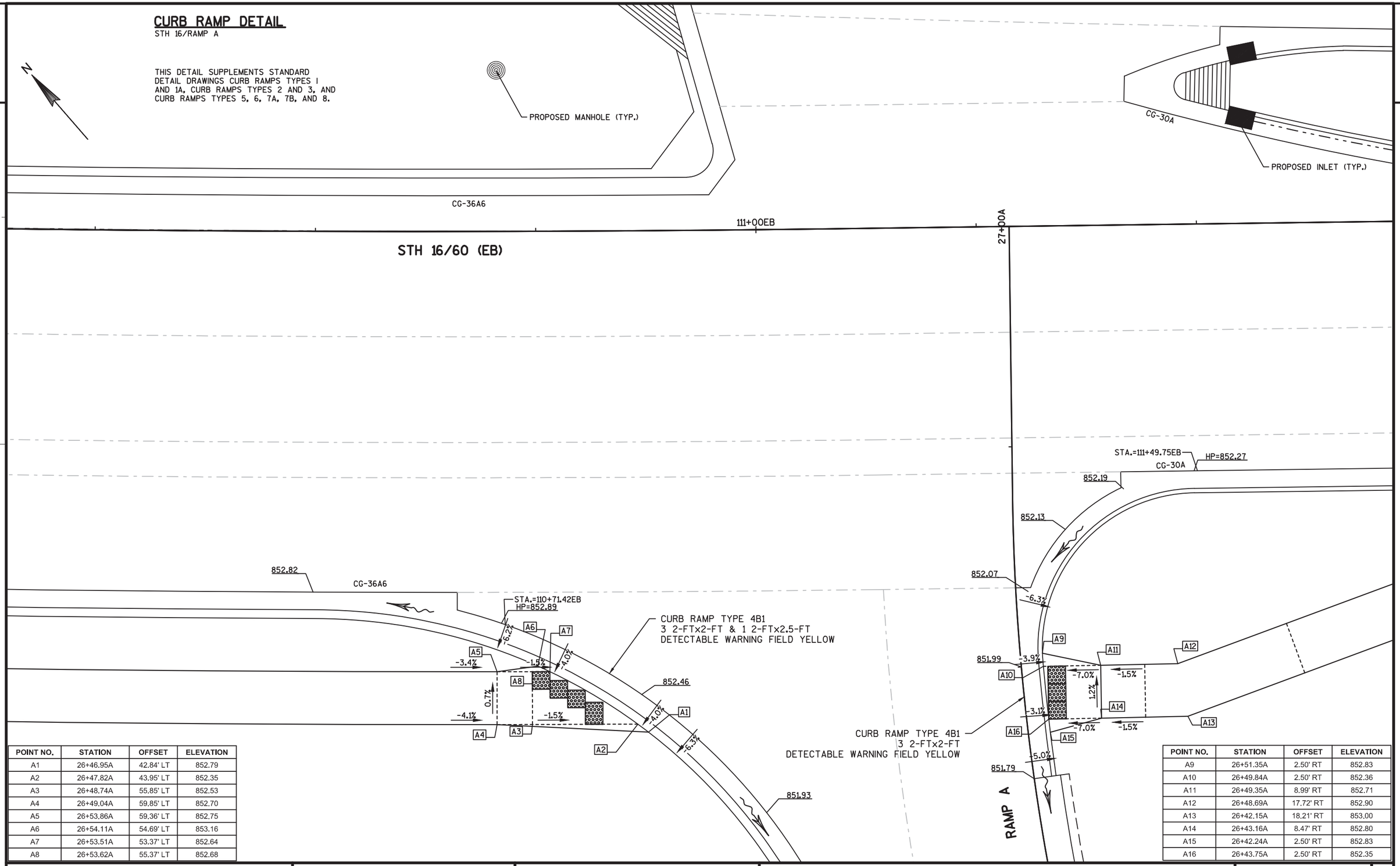
ALLOWABLE SOIL BEARING CAPACITY = 2,500 PSF.

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CONSTRUCTION DETAILS	SHEET 17	E

CURB RAMP DETAIL

STH 16/RAMP A

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 1 AND 1A, CURB RAMPS TYPES 2 AND 3, AND CURB RAMPS TYPES 5, 6, 7A, 7B, AND 8.



POINT NO.	STATION	OFFSET	ELEVATION
A1	26+46.95A	42.84' LT	852.79
A2	26+47.82A	43.95' LT	852.35
A3	26+48.74A	55.85' LT	852.53
A4	26+49.04A	59.85' LT	852.70
A5	26+53.86A	59.36' LT	852.75
A6	26+54.11A	54.69' LT	853.16
A7	26+53.51A	53.37' LT	852.64
A8	26+53.62A	55.37' LT	852.68

POINT NO.	STATION	OFFSET	ELEVATION
A9	26+51.35A	2.50' RT	852.83
A10	26+49.84A	2.50' RT	852.36
A11	26+49.35A	8.99' RT	852.71
A12	26+48.69A	17.72' RT	852.90
A13	26+42.15A	18.21' RT	853.00
A14	26+43.16A	8.47' RT	852.80
A15	26+42.24A	2.50' RT	852.83
A16	26+43.75A	2.50' RT	852.35

PROJECT NO: 1401-02-71	HWY: STH 16	COUNTY: COLUMBIA	CONSTRUCTION DETAILS: CURB RAMP	SHEET 18	E

POINT NO.	STATION	OFFSET	ELEVATION
B50	20+64.20B	85.30' LT	849.86
B51	20+64.56B	83.87' LT	849.37
B52	20+64.98B	85.88' LT	849.40
B53	20+66.49B	92.74' LT	849.81
B54	20+67.46B	107.37' LT	850.30
B55	20+71.62B	106.47' LT	850.39
B56	20+70.83B	91.66' LT	849.88
B57	20+69.29B	84.12' LT	849.35
B58	20+68.05B	74.28' LT	849.64
B59	20+67.45B	75.56' LT	849.21

POINT NO.	STATION	OFFSET	ELEVATION
B60	20+46.33B	2.50' RT	850.43
B61	20+44.83B	2.51' RT	850.15
B62	20+43.17B	7.86' RT	850.23
B63	20+41.98B	11.68' RT	850.51
B64	20+40.45B	16.62' RT	850.59
B65	20+37.65B	35.31' RT	851.35
B66	20+31.71B	34.44' RT	851.26
B67	20+34.59B	15.27' RT	850.51
B68	20+36.25B	9.90' RT	850.41
B69	20+36.70B	4.87' RT	850.80
B70	20+38.03B	4.17' RT	850.29
B71	20+57.83B	39.31' LT	849.97
B72	20+54.36B	28.14' LT	850.08
B73	20+51.20B	18.00' LT	849.96
B74	20+52.33B	41.85' LT	850.04
B75	20+48.63B	29.92' LT	850.16
B76	20+44.92B	18.00' LT	850.10

CURB RAMP DETAIL

STH 16/RAMP B

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 1 AND 1A, CURB RAMPS TYPES 2 AND 3, AND CURB RAMPS TYPES 5, 6, 7A, 7B, AND 8.

N

849.12

849.54

849.47

849.62

RAMP B

CG-36A6

CURB RAMP TYPE 5
2 2-FTx3-FT
DETECTABLE WARNING FIELD YELLOW

CURB RAMP TYPE 4B1
3 2-FTx3-FT
DETECTABLE WARNING FIELD YELLOW

849.45

849.70

CG-36A6
STA.=109+94.06EB

HP=849.71

850.15

850.06

CURB RAMP TYPE 5
2 2-FTx3-FT
DETECTABLE WARNING
FIELD YELLOW

CURB RAMP TYPE 4B1
2 2-FTx2-FT
& 1 2-FT X 3-FT
DETECTABLE WARNING
FIELD YELLOW

850.12

850.20

850.46

850.57

850.60

CG-30A

PROPOSED INLET (TYP.)

PROPOSED MANHOLE (TYP.)

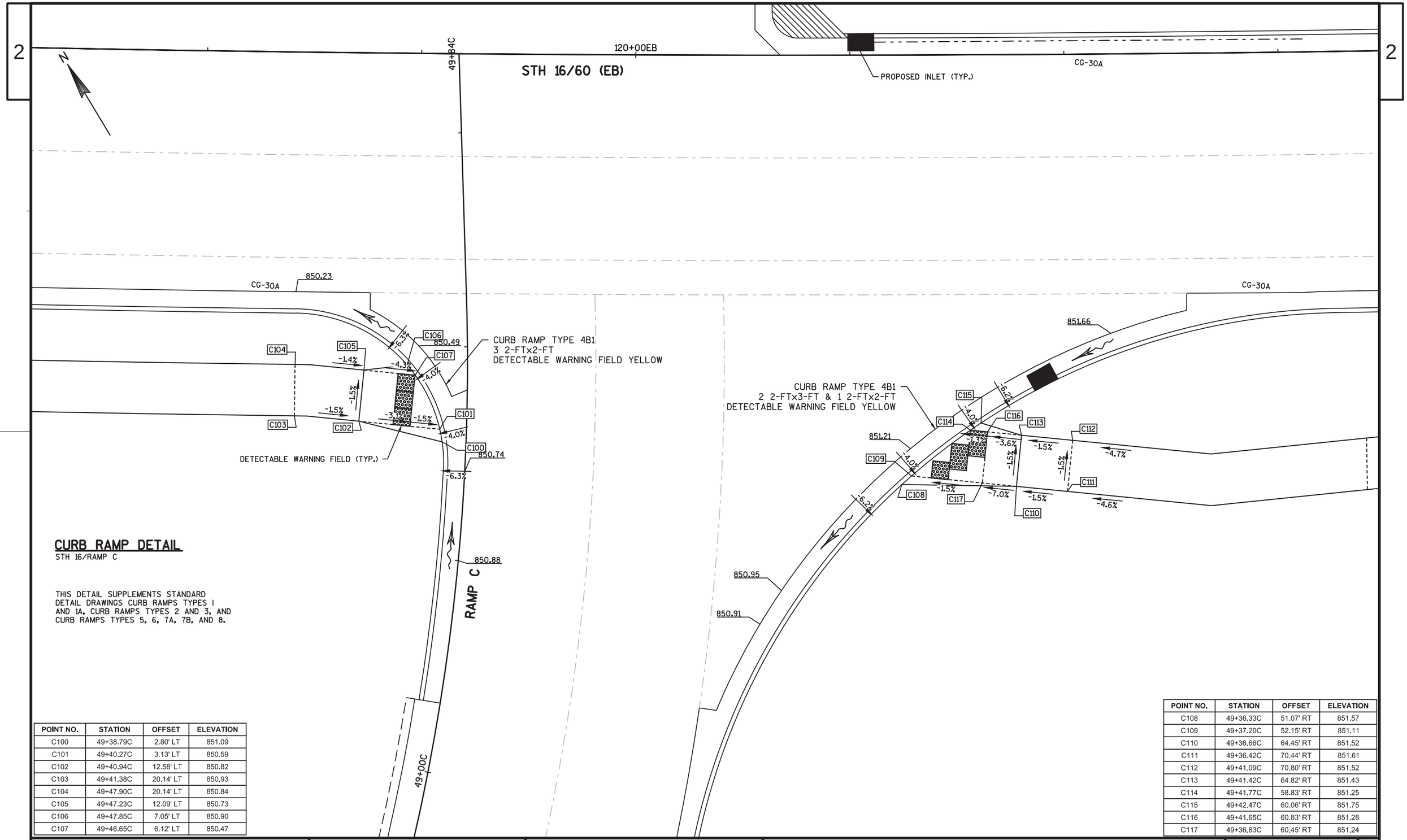
110+00WB

111+00WB

20+00B

STH 16/60 (WB)

PROJECT NO:1401-02-71	HWY: STH 16	COUNTY: COLUMBIA	CONSTRUCTION DETAILS: CURB RAMP	SHEET 19	E



CURB RAMP DETAIL

STH 16/RAMP C

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 1 AND 1A, CURB RAMPS TYPES 2 AND 3, AND CURB RAMPS TYPES 5, 6, 7A, 7B, AND 8.

POINT NO.	STATION	OFFSET	ELEVATION
C100	49+38.79C	2.80' LT	851.09
C101	49+40.27C	3.13' LT	850.59
C102	49+40.94C	12.58' LT	850.82
C103	49+41.38C	20.14' LT	850.93
C104	49+47.90C	20.14' LT	850.84
C105	49+47.23C	12.09' LT	850.73
C106	49+47.85C	7.05' LT	850.90
C107	49+46.65C	6.12' LT	850.47

POINT NO.	STATION	OFFSET	ELEVATION
C108	49+36.33C	51.07' RT	851.57
C109	49+37.20C	52.15' RT	851.11
C110	49+36.66C	64.45' RT	851.52
C111	49+36.42C	70.44' RT	851.61
C112	49+41.09C	70.80' RT	851.52
C113	49+41.42C	64.82' RT	851.43
C114	49+41.77C	58.83' RT	851.25
C115	49+42.47C	60.06' RT	851.75
C116	49+41.65C	60.83' RT	851.28
C117	49+36.83C	60.45' RT	851.24

PROJECT NO:1401-02-71	HWY: STH 16	COUNTY: COLUMBIA	CONSTRUCTION DETAILS: CURB RAMP	SHEET 20	E

POINT NO.	STATION	OFFSET	ELEVATION
D150	60+58.52D	3.00' LT	849.20
D151	60+60.32D	3.00' LT	848.74
D152	60+60.65D	8.54' LT	848.97
D153	60+66.64D	8.19' LT	848.99
D154	60+67.83D	3.00' LT	849.10
D155	60+66.33D	3.00' LT	848.71

POINT NO.	STATION	OFFSET	ELEVATION
D156	60+65.11D	40.66' RT	849.30
D157	60+63.94D	41.61' RT	848.86
D158	60+63.55D	49.79' RT	848.98
D159	60+63.37D	53.78' RT	848.26
D160	60+62.79D	66.58' RT	849.77
D161	60+56.84D	65.35' RT	849.66
D162	60+57.39D	53.51' RT	849.17
D163	60+57.56D	49.51' RT	849.09
D164	60+57.65D	47.51' RT	849.06
D165	60+56.53D	48.61' RT	849.57
D166	60+62.79D	66.58' RT	849.77
D167	60+56.84D	65.35' RT	849.64

CURB RAMP DETAIL

STH 16/RAMP D

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 1 AND 1A, CURB RAMPS TYPES 2 AND 3, AND CURB RAMPS TYPES 5, 6, 7A, 7B, AND 8.

N

D153 D154 D155 D156 D157 D158 D159 B166 D160 D162 D161 B167 D163 D164 D165 D151 D152 D150

-6.3% -5.3% -4.0% -0.6% -0.4% -4.2% -1.5% -7.0% -1.5% -4.0% -1.0% -2.5% -1.5% -6.3% -4.6%

CURB RAMP TYPE 4B1
3 2-FTx2-FT
DETECTABLE WARNING
FIELD YELLOW

CURB RAMP TYPE 4B1
1 2-FTx2-FT,
1 2-FTx3-FT,
& 1 2-FTx2.5-FT
DETECTABLE WARNING
FIELD YELLOW

848.52 848.79 848.93 849.00 849.39 850.26

RAMP D

STA.=119+78.61WB

HP=849.06

CG-36A4 848.98

CG-30A

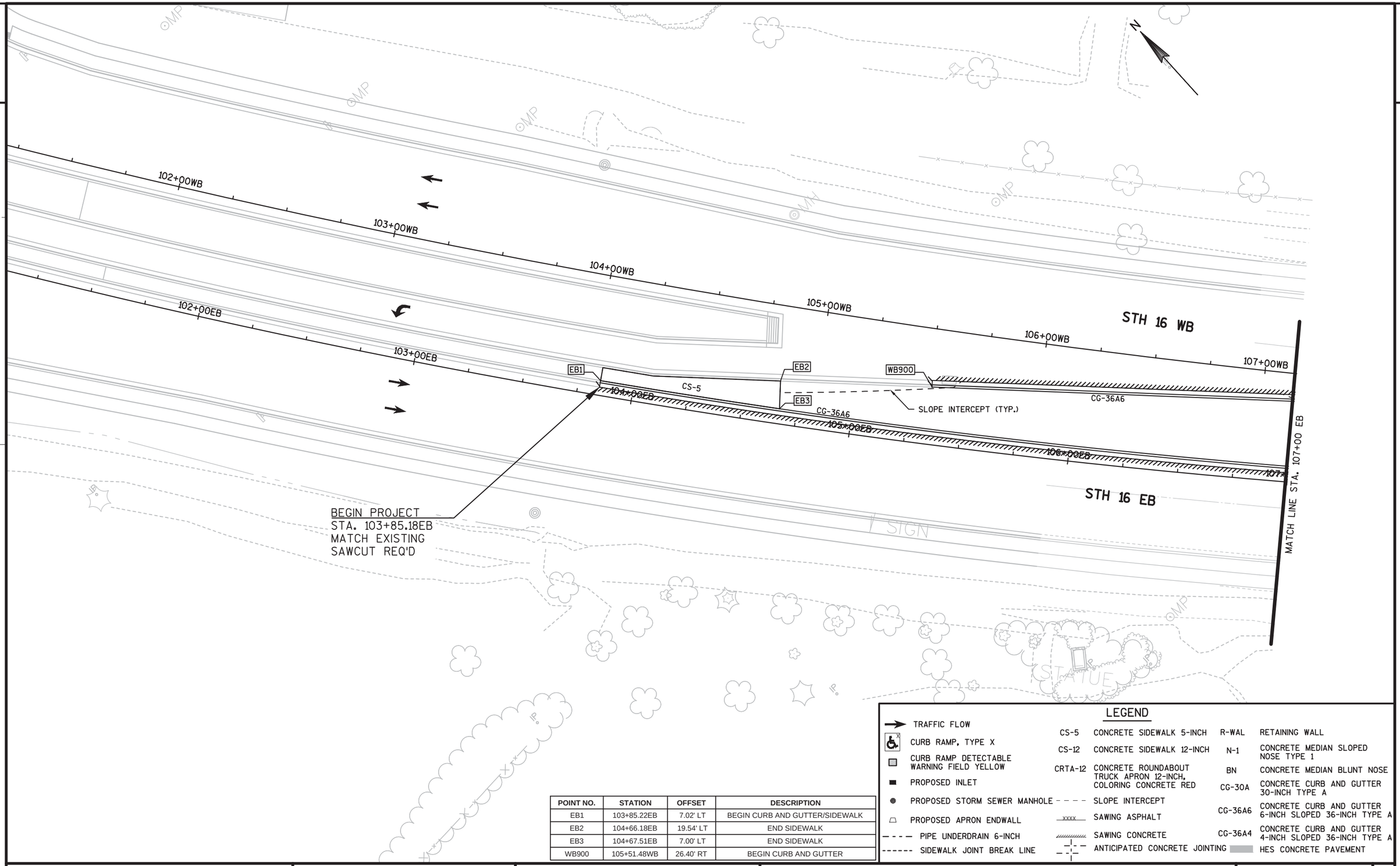
PROPOSED INLET (TYP.)

STH 16/60 (WB)

60+00D 120+00WB CG-30A

PROJECT NO:1401-02-71	HWY: STH 16	COUNTY: COLUMBIA	CONSTRUCTION DETAILS: CURB RAMP	SHEET 21	E

2



POINT NO.	STATION	OFFSET	DESCRIPTION
EB1	103+85.22EB	7.02' LT	BEGIN CURB AND GUTTER/SIDEWALK
EB2	104+66.18EB	19.54' LT	END SIDEWALK
EB3	104+67.51EB	7.00' LT	END SIDEWALK
WB900	105+51.48WB	26.40' RT	BEGIN CURB AND GUTTER

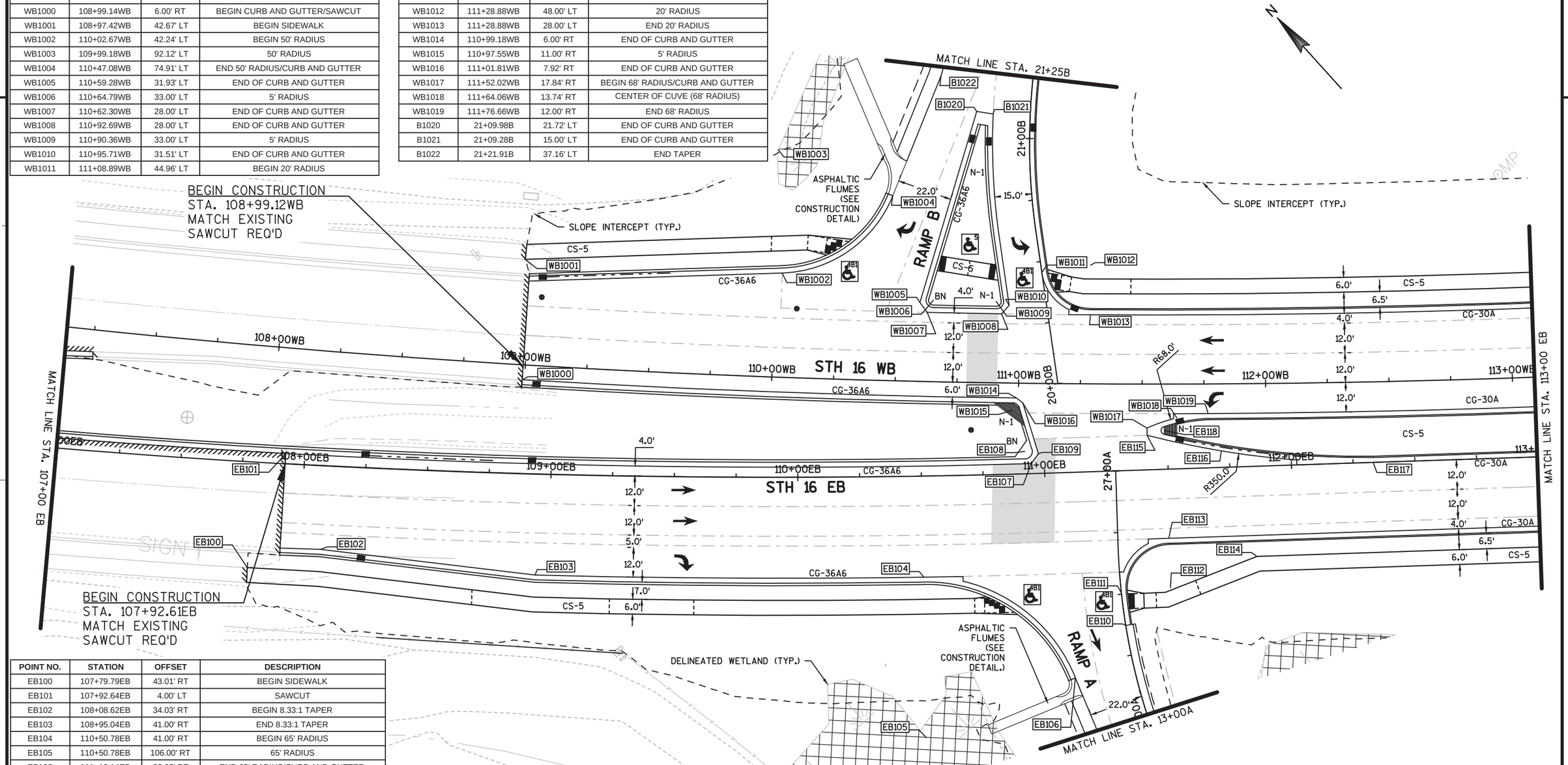
LEGEND

- TRAFFIC FLOW
- CURB RAMP, TYPE X
- CURB RAMP DETECTABLE WARNING FIELD YELLOW
- PROPOSED INLET
- PROPOSED STORM SEWER MANHOLE
- PROPOSED APRON ENDWALL
- PIPE UNDERDRAIN 6-INCH
- SIDEWALK JOINT BREAK LINE
- CS-5 CONCRETE SIDEWALK 5-INCH
- CS-12 CONCRETE SIDEWALK 12-INCH
- CRTA-12 CONCRETE ROUNDABOUT TRUCK APRON 12-INCH, COLORING CONCRETE RED
- SLOPE INTERCEPT
- SAWING ASPHALT
- SAWING CONCRETE
- ANTICIPATED CONCRETE JOINTING
- R-WAL RETAINING WALL
- N-1 CONCRETE MEDIAN SLOPED NOSE TYPE 1
- BN CONCRETE MEDIAN BLUNT NOSE
- CG-30A CONCRETE CURB AND GUTTER 30-INCH TYPE A
- CG-36A6 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
- CG-36A4 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
- HES CONCRETE PAVEMENT

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PLAN DETAILS - STH 16	SHEET 22	E

POINT NO.	STATION	OFFSET	DESCRIPTION
WB1000	108+99.14WB	6.00' RT	BEGIN CURB AND GUTTER/SAWCUT
WB1001	108+97.42WB	42.67' LT	BEGIN SIDEWALK
WB1002	110+02.67WB	42.24' LT	BEGIN 50' RADIUS
WB1003	109+99.18WB	92.12' LT	50' RADIUS
WB1004	110+47.08WB	74.91' LT	END 50' RADIUS/CURB AND GUTTER
WB1005	110+59.28WB	31.93' LT	END OF CURB AND GUTTER
WB1006	110+64.79WB	33.00' LT	5' RADIUS
WB1007	110+62.30WB	28.00' LT	END OF CURB AND GUTTER
WB1008	110+92.69WB	28.00' LT	END OF CURB AND GUTTER
WB1009	110+90.36WB	33.00' LT	5' RADIUS
WB1010	110+95.71WB	31.51' LT	END OF CURB AND GUTTER
WB1011	111+08.89WB	44.96' LT	BEGIN 20' RADIUS

POINT NO.	STATION	OFFSET	DESCRIPTION
WB1012	111+28.88WB	48.00' LT	20' RADIUS
WB1013	111+28.88WB	28.00' LT	END 20' RADIUS
WB1014	110+99.18WB	6.00' RT	END OF CURB AND GUTTER
WB1015	110+97.55WB	11.00' RT	5' RADIUS
WB1016	111+01.81WB	7.92' RT	END OF CURB AND GUTTER
WB1017	111+52.02WB	17.84' RT	BEGIN 68' RADIUS/CURB AND GUTTER
WB1018	111+64.06WB	13.74' RT	CENTER OF CUVE (68' RADIUS)
WB1019	111+76.66WB	12.00' RT	END 68' RADIUS
B1020	21+09.98B	21.72' LT	END OF CURB AND GUTTER
B1021	21+09.28B	15.00' LT	END OF CURB AND GUTTER
B1022	21+21.91B	37.16' LT	END TAPER

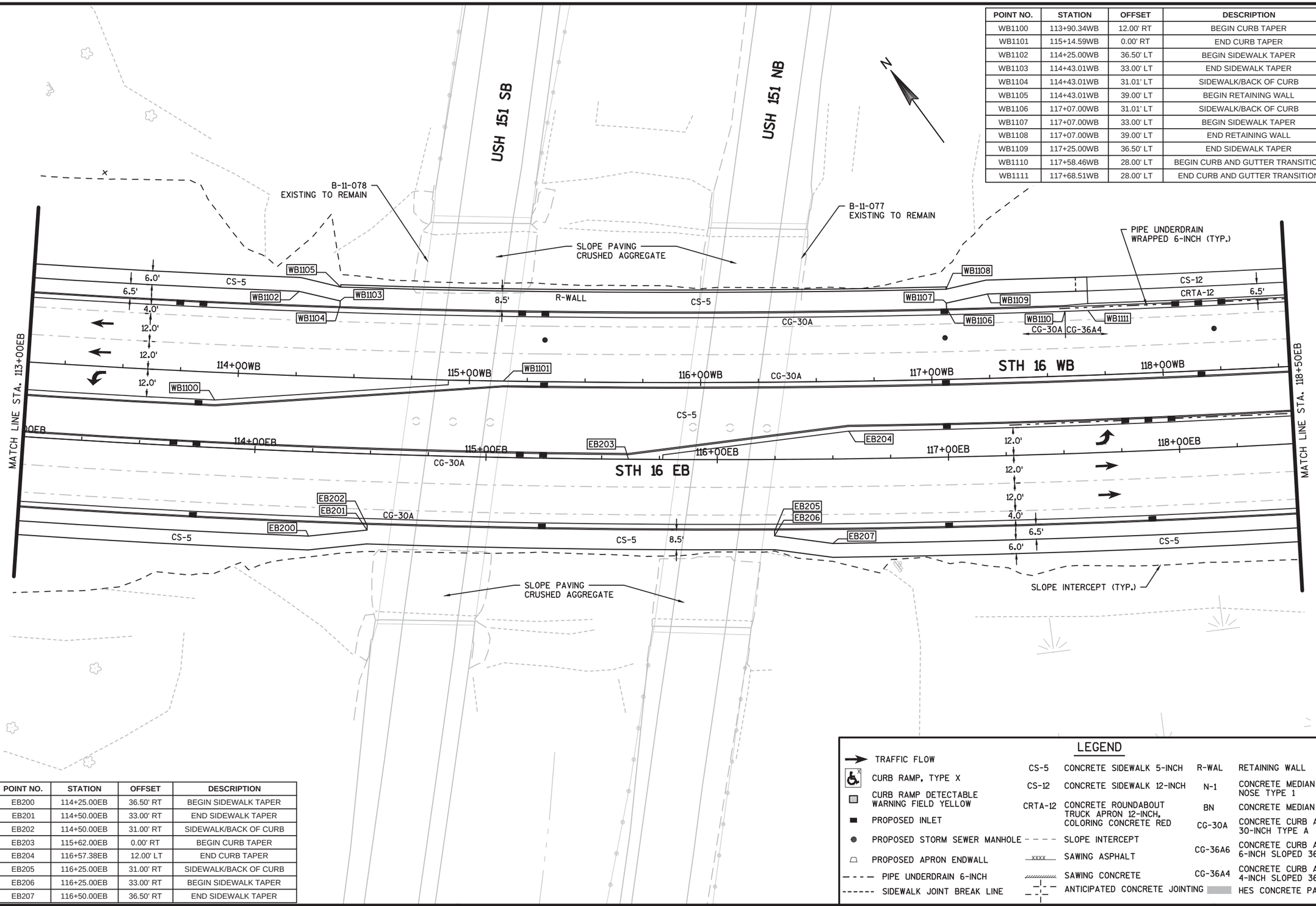


POINT NO.	STATION	OFFSET	DESCRIPTION
EB100	107+79.79EB	43.01' RT	BEGIN SIDEWALK
EB101	107+92.64EB	4.00' LT	SAWCUT
EB102	108+08.62EB	34.03' RT	BEGIN 8.33:1 TAPER
EB103	108+95.04EB	41.00' RT	END 8.33:1 TAPER
EB104	110+50.78EB	41.00' RT	BEGIN 65' RADIUS
EB105	110+50.78EB	106.00' RT	65' RADIUS
EB106	111+10.14EB	83.25' RT	END 65' RADIUS/CURB AND GUTTER
EB107	110+95.06EB	4.00' LT	END CURB AND GUTTER
EB108	110+92.58EB	9.00' LT	5' RADIUS
EB109	110+98.07EB	7.94' LT	END CURB AND GUTTER
EB110	111+31.14EB	62.69' RT	END CURB AND GUTTER
EB111	111+29.80EB	49.49' RT	BEGIN 20' RADIUS
EB112	111+49.75EB	48.00' RT	20' RADIUS
EB113	111+49.75EB	28.00' RT	END 20' RADIUS
EB114	111+85.16EB	36.50' RT	END SIDEWALK TAPER
EB115	111+42.32EB	14.00' LT	BEGIN 350' RADIUS/CURB AND GUTTER
EB116	111+72.19EB	6.68' LT	CENTER OF CUVE (350' RADIUS)
EB117	112+33.51EB	0.00' RT	END 350' RADIUS
EB118	111+49.60EB	15.66' LT	3.6' RADIUS

LEGEND

TRAFFIC FLOW	CS-5	CONCRETE SIDEWALK 5-INCH	R-WAL RETAINING WALL
CURB RAMP, TYPE X	CS-12	CONCRETE SIDEWALK 12-INCH	N-1 CONCRETE MEDIAN SLOPED NOSE TYPE 1
CURB RAMP DETECTABLE WARNING FIELD YELLOW	CRTA-12	CONCRETE ROUNDABOUT TRUCK APRON 12-INCH, COLORING CONCRETE RED	BN CONCRETE MEDIAN BLUNT NOSE
PROPOSED INLET			CG-30A CONCRETE CURB AND GUTTER 30-INCH TYPE A
PROPOSED STORM SEWER MANHOLE		SLOPE INTERCEPT	CG-36A6 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
PROPOSED APRON ENDWALL		SAWING ASPHALT	
PIPE UNDERDRAIN 6-INCH		SAWING CONCRETE	CG-36A4 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
SIDEWALK JOINT BREAK LINE		ANTICIPATED CONCRETE JOINTING	HES CONCRETE PAVEMENT

POINT NO.	STATION	OFFSET	DESCRIPTION
WB1100	113+90.34WB	12.00' RT	BEGIN CURB TAPER
WB1101	115+14.59WB	0.00' RT	END CURB TAPER
WB1102	114+25.00WB	36.50' LT	BEGIN SIDEWALK TAPER
WB1103	114+43.01WB	33.00' LT	END SIDEWALK TAPER
WB1104	114+43.01WB	31.01' LT	SIDEWALK/BACK OF CURB
WB1105	114+43.01WB	39.00' LT	BEGIN RETAINING WALL
WB1106	117+07.00WB	31.01' LT	SIDEWALK/BACK OF CURB
WB1107	117+07.00WB	33.00' LT	BEGIN SIDEWALK TAPER
WB1108	117+07.00WB	39.00' LT	END RETAINING WALL
WB1109	117+25.00WB	36.50' LT	END SIDEWALK TAPER
WB1110	117+58.46WB	28.00' LT	BEGIN CURB AND GUTTER TRANSITION
WB1111	117+68.51WB	28.00' LT	END CURB AND GUTTER TRANSITION



POINT NO.	STATION	OFFSET	DESCRIPTION
EB200	114+25.00EB	36.50' RT	BEGIN SIDEWALK TAPER
EB201	114+50.00EB	33.00' RT	END SIDEWALK TAPER
EB202	114+50.00EB	31.00' RT	SIDEWALK/BACK OF CURB
EB203	115+62.00EB	0.00' RT	BEGIN CURB TAPER
EB204	116+57.38EB	12.00' LT	END CURB TAPER
EB205	116+25.00EB	31.00' RT	SIDEWALK/BACK OF CURB
EB206	116+25.00EB	33.00' RT	BEGIN SIDEWALK TAPER
EB207	116+50.00EB	36.50' RT	END SIDEWALK TAPER

LEGEND

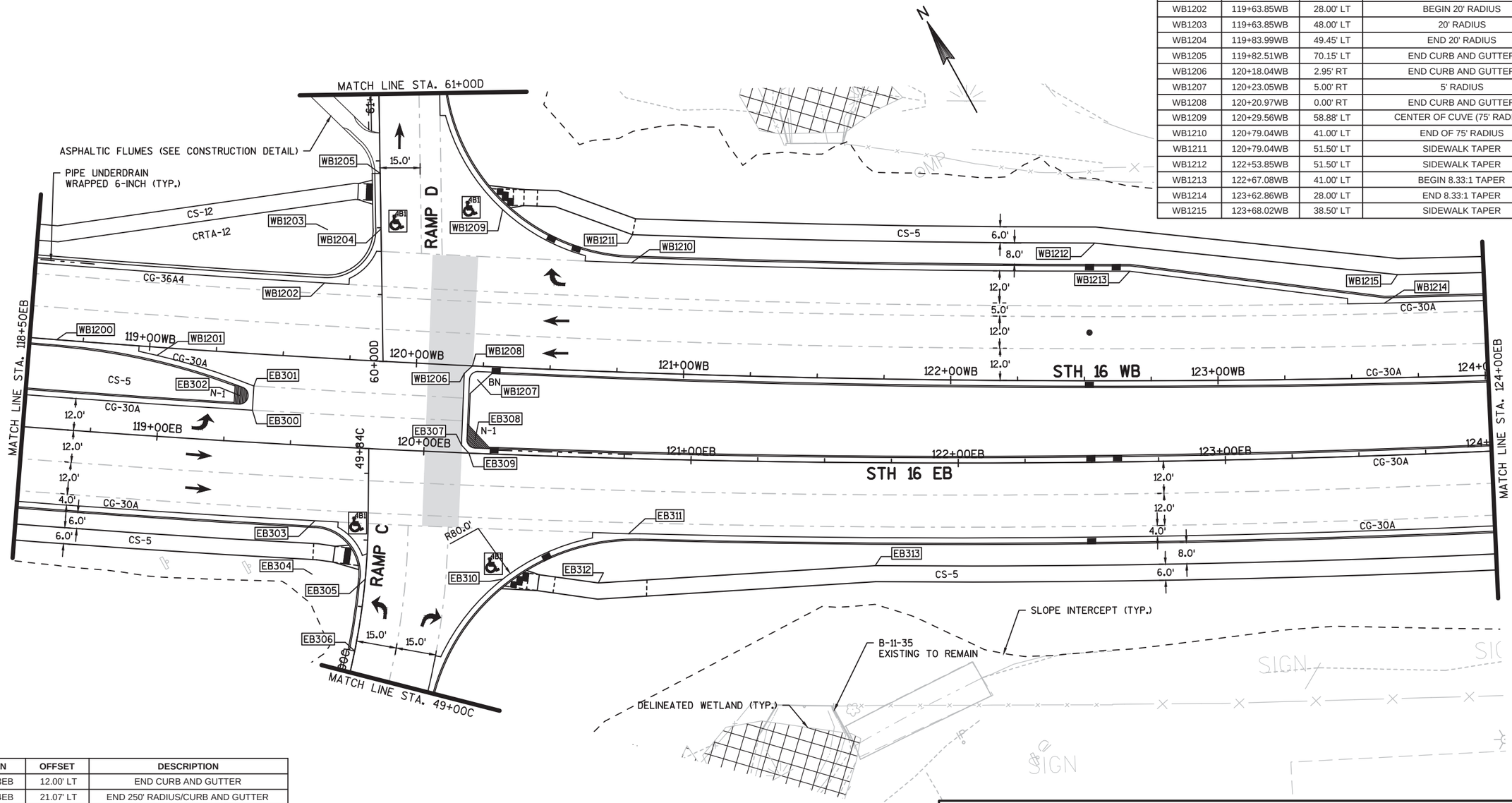
- TRAFFIC FLOW
- CURB RAMP, TYPE X
- CURB RAMP DETECTABLE WARNING FIELD YELLOW
- PROPOSED INLET
- PROPOSED STORM SEWER MANHOLE
- PROPOSED APRON ENDWALL
- PIPE UNDERDRAIN 6-INCH
- SIDEWALK JOINT BREAK LINE
- SLOPE INTERCEPT
- SAWING ASPHALT
- SAWING CONCRETE
- ANTICIPATED CONCRETE JOINTING

CS-5	CONCRETE SIDEWALK 5-INCH
CS-12	CONCRETE SIDEWALK 12-INCH
CRTA-12	CONCRETE ROUNDABOUT TRUCK APRON 12-INCH, COLORING CONCRETE RED
R-WAL	RETAINING WALL
N-1	CONCRETE MEDIAN SLOPED NOSE TYPE 1
BN	CONCRETE MEDIAN BLUNT NOSE
CG-30A	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CG-36A6	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
CG-36A4	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
HES	CONCRETE PAVEMENT

PROJECT NO:1401-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PLAN DETAILS - STH 16 | SHEET 24 | E

2

POINT NO.	STATION	OFFSET	DESCRIPTION
WB1200	118+65.06WB	0.00' RT	BEGIN 250' RADIUS
WB1201	119+02.93WB	3.03' RT	CENTER OF CUVE (250' RADIUS)
WB1202	119+63.85WB	28.00' LT	BEGIN 20' RADIUS
WB1203	119+63.85WB	48.00' LT	20' RADIUS
WB1204	119+83.99WB	49.45' LT	END 20' RADIUS
WB1205	119+82.51WB	70.15' LT	END CURB AND GUTTER
WB1206	120+18.04WB	2.95' RT	END CURB AND GUTTER
WB1207	120+23.05WB	5.00' RT	5' RADIUS
WB1208	120+20.97WB	0.00' RT	END CURB AND GUTTER
WB1209	120+29.56WB	58.88' LT	CENTER OF CUVE (75' RADIUS)
WB1210	120+79.04WB	41.00' LT	END OF 75' RADIUS
WB1211	120+79.04WB	51.50' LT	SIDEWALK TAPER
WB1212	122+53.85WB	51.50' LT	SIDEWALK TAPER
WB1213	122+67.08WB	41.00' LT	BEGIN 8.33:1 TAPER
WB1214	123+62.86WB	28.00' LT	END 8.33:1 TAPER
WB1215	123+68.02WB	38.50' LT	SIDEWALK TAPER



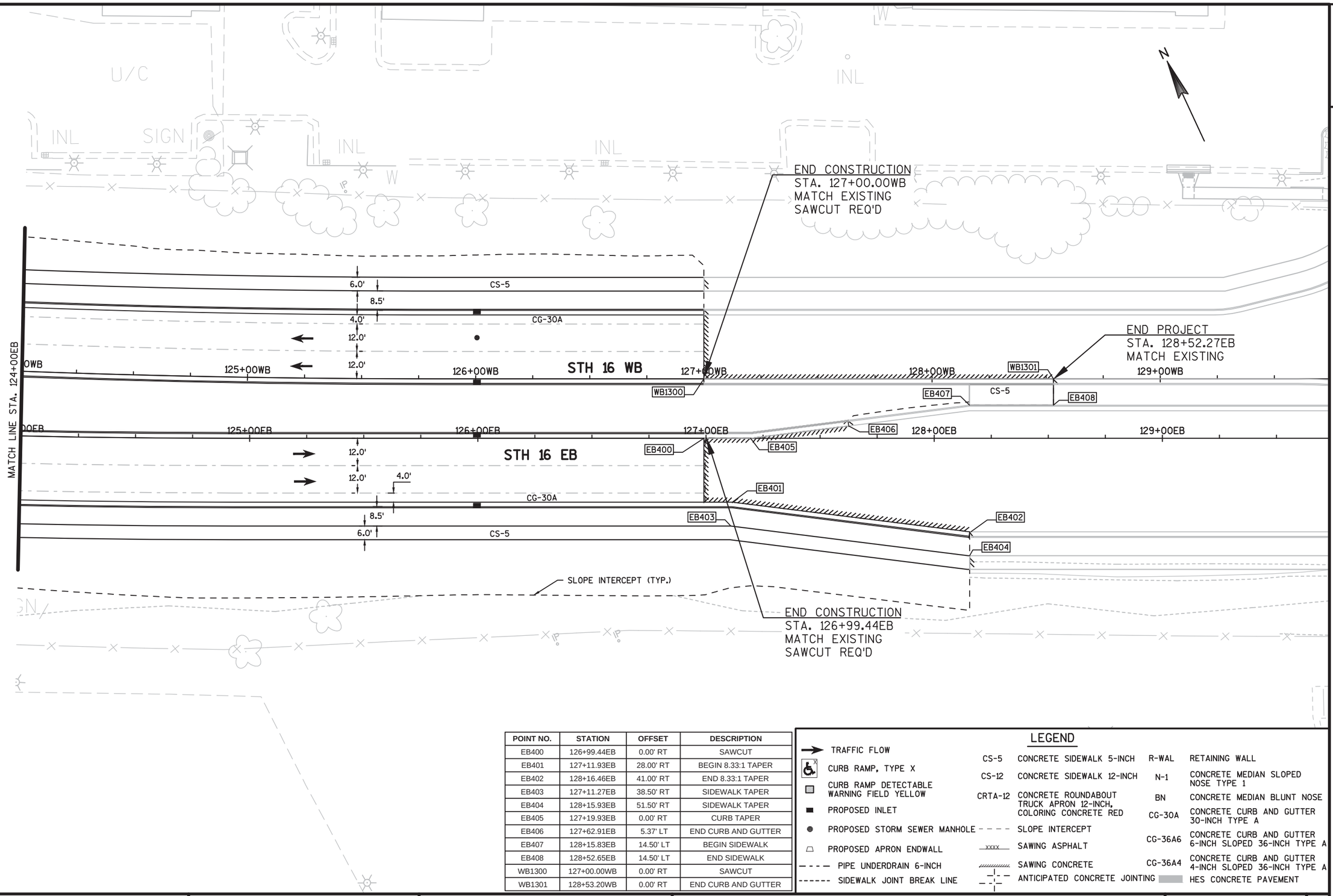
POINT NO.	STATION	OFFSET	DESCRIPTION
EB300	119+35.43EB	12.00' LT	END CURB AND GUTTER
EB301	119+35.44EB	21.07' LT	END 250' RADIUS/CURB AND GUTTER
EB302	119+30.21EB	17.25' LT	5.25' RADIUS
EB303	119+61.04EB	28.00' RT	BEGIN 20' RADIUS
EB304	119+61.04EB	48.00' RT	20' RADIUS
EB305	119+80.81EB	48.81' RT	END 20' RADIUS
EB306	119+78.22EB	75.85' RT	END CURB AND GUTTER
EB307	120+14.30EB	2.93' LT	END CURB AND GUTTER
EB308	120+19.30EB	5.00' LT	5' RADIUS
EB309	120+17.23EB	0.00' RT	END CURB AND GUTTER
EB310	120+31.55EB	46.63' RT	CENTER OF CURVE (80' RADIUS)
EB311	120+77.75EB	28.12' RT	END OF 80' RADIUS
EB312	120+67.08EB	46.84' RT	SIDEWALK TAPER
EB313	121+69.58EB	38.50' RT	SIDEWALK TAPER

LEGEND

- TRAFFIC FLOW
- CURB RAMP, TYPE X
- CURB RAMP DETECTABLE WARNING FIELD YELLOW
- PROPOSED INLET
- PROPOSED STORM SEWER MANHOLE
- PROPOSED APRON ENDWALL
- PIPE UNDERDRAIN 6-INCH
- SIDEWALK JOINT BREAK LINE

CS-5	CONCRETE SIDEWALK 5-INCH	R-WAL	RETAINING WALL
CS-12	CONCRETE SIDEWALK 12-INCH	N-1	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CRTA-12	CONCRETE ROUNDABOUT TRUCK APRON 12-INCH, COLORING CONCRETE RED	BN	CONCRETE MEDIAN BLUNT NOSE
		CG-30A	CONCRETE CURB AND GUTTER 30-INCH TYPE A
	SLOPE INTERCEPT	CG-36A6	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
xxxx	SAWING ASPHALT		
	SAWING CONCRETE	CG-36A4	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
	ANTICIPATED CONCRETE JOINTING		HES CONCRETE PAVEMENT

2



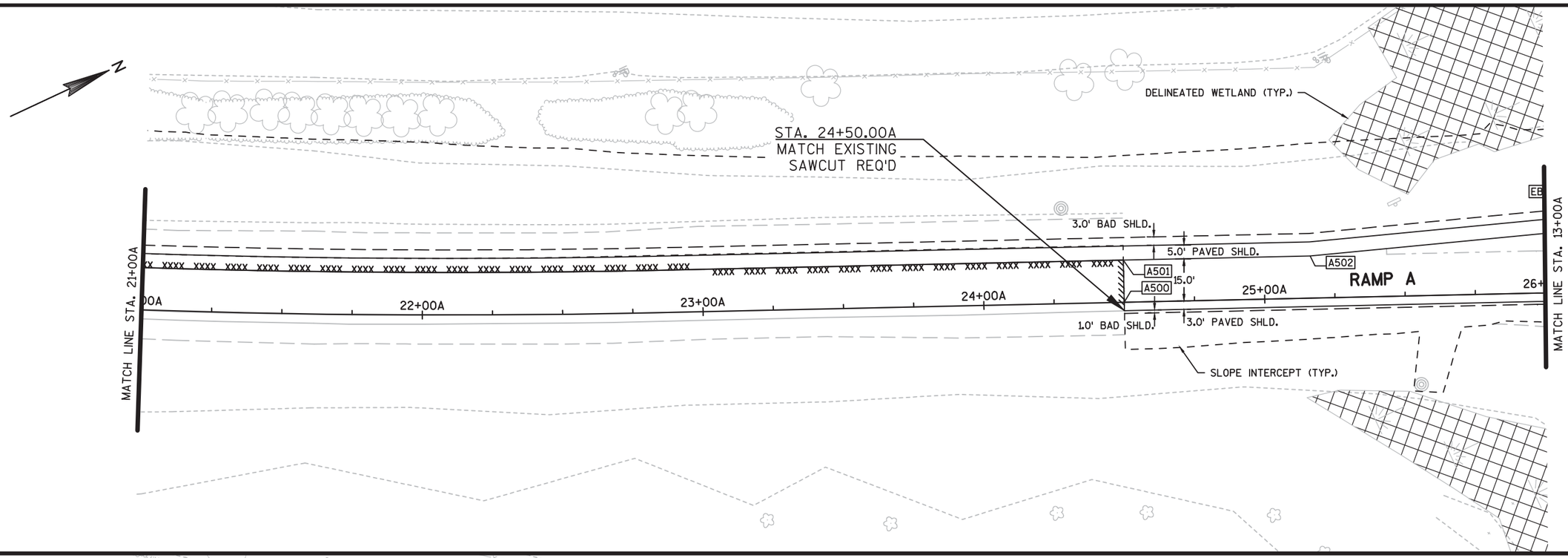
POINT NO.	STATION	OFFSET	DESCRIPTION
EB400	126+99.44EB	0.00' RT	SAWCUT
EB401	127+11.93EB	28.00' RT	BEGIN 8.33:1 TAPER
EB402	128+16.46EB	41.00' RT	END 8.33:1 TAPER
EB403	127+11.27EB	38.50' RT	SIDEWALK TAPER
EB404	128+15.93EB	51.50' RT	SIDEWALK TAPER
EB405	127+19.93EB	0.00' RT	CURB TAPER
EB406	127+62.91EB	5.37' LT	END CURB AND GUTTER
EB407	128+15.83EB	14.50' LT	BEGIN SIDEWALK
EB408	128+52.65EB	14.50' LT	END SIDEWALK
WB1300	127+00.00WB	0.00' RT	SAWCUT
WB1301	128+53.20WB	0.00' RT	END CURB AND GUTTER

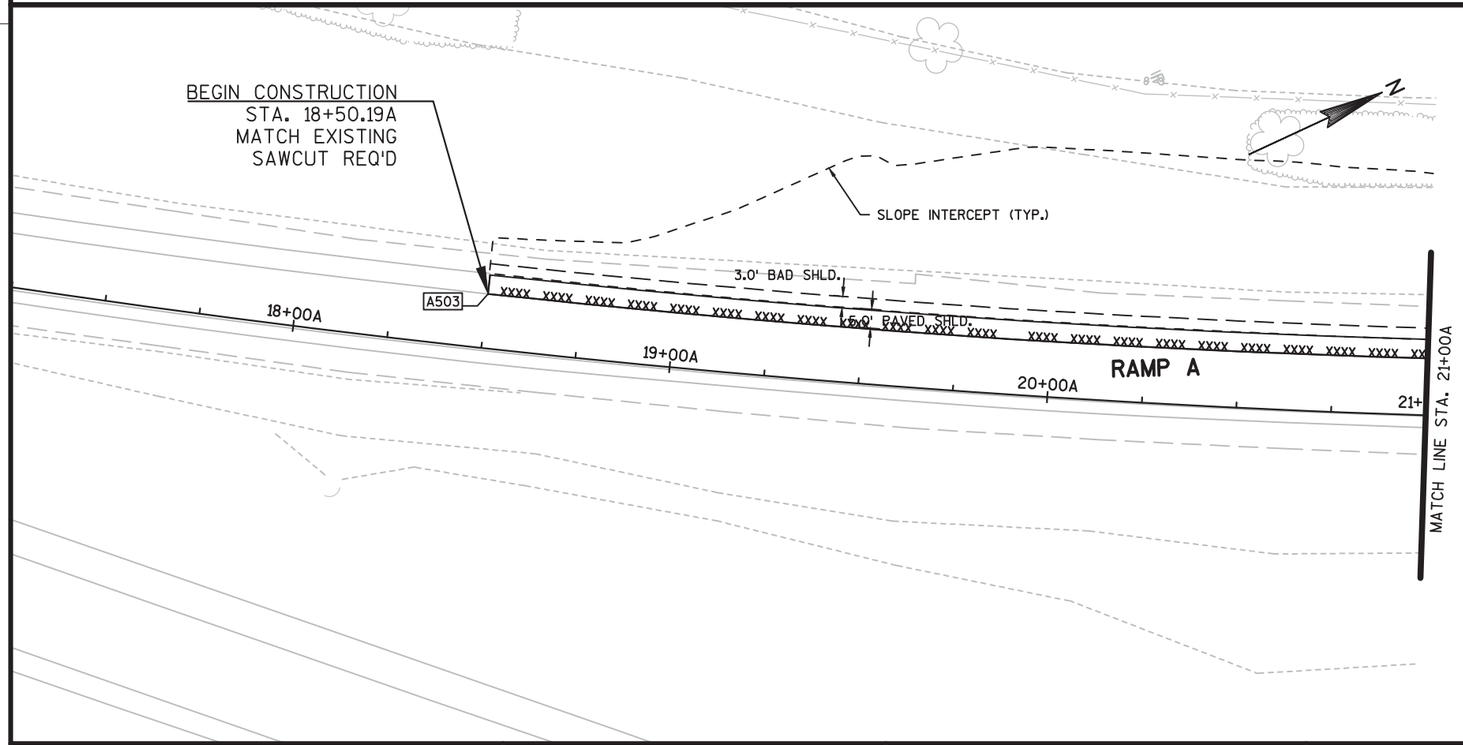
LEGEND

- TRAFFIC FLOW
- CURB RAMP, TYPE X
- CURB RAMP DETECTABLE WARNING FIELD YELLOW
- PROPOSED INLET
- PROPOSED STORM SEWER MANHOLE
- PROPOSED APRON ENDWALL
- PIPE UNDERDRAIN 6-INCH
- SIDEWALK JOINT BREAK LINE

CS-5	CONCRETE SIDEWALK 5-INCH
CS-12	CONCRETE SIDEWALK 12-INCH
CRTA-12	CONCRETE ROUNDABOUT TRUCK APRON 12-INCH, COLORING CONCRETE RED
	SLOPE INTERCEPT
xxxx	SAWING ASPHALT
	SAWING CONCRETE
	ANTICIPATED CONCRETE JOINTING
R-WAL	RETAINING WALL
N-1	CONCRETE MEDIAN SLOPED NOSE TYPE 1
BN	CONCRETE MEDIAN BLUNT NOSE
CG-30A	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CG-36A6	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
CG-36A4	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
	HES CONCRETE PAVEMENT

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PLAN DETAILS - STH 16	SHEET 26	E



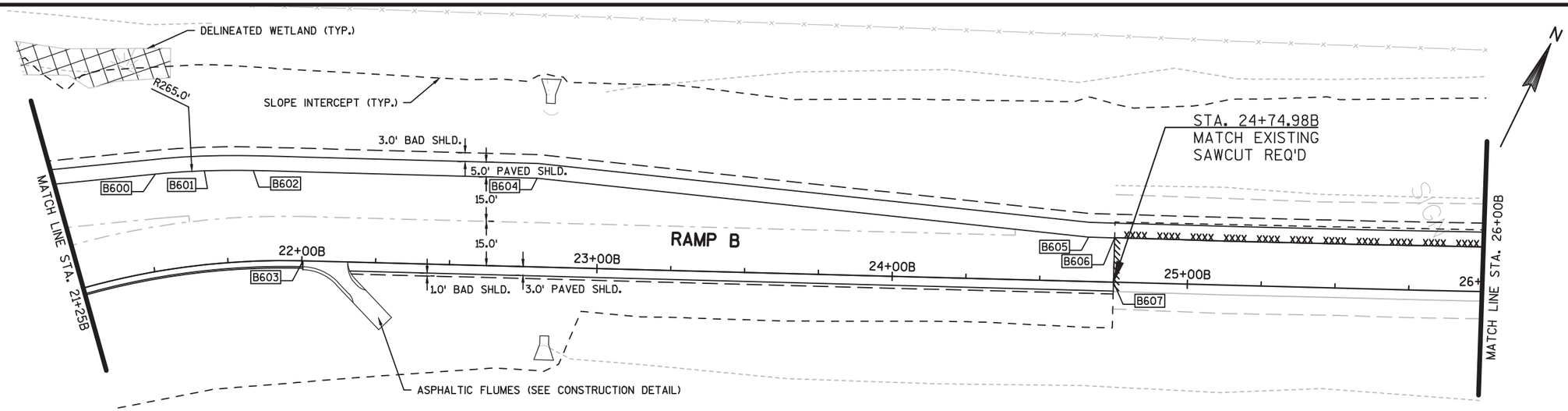


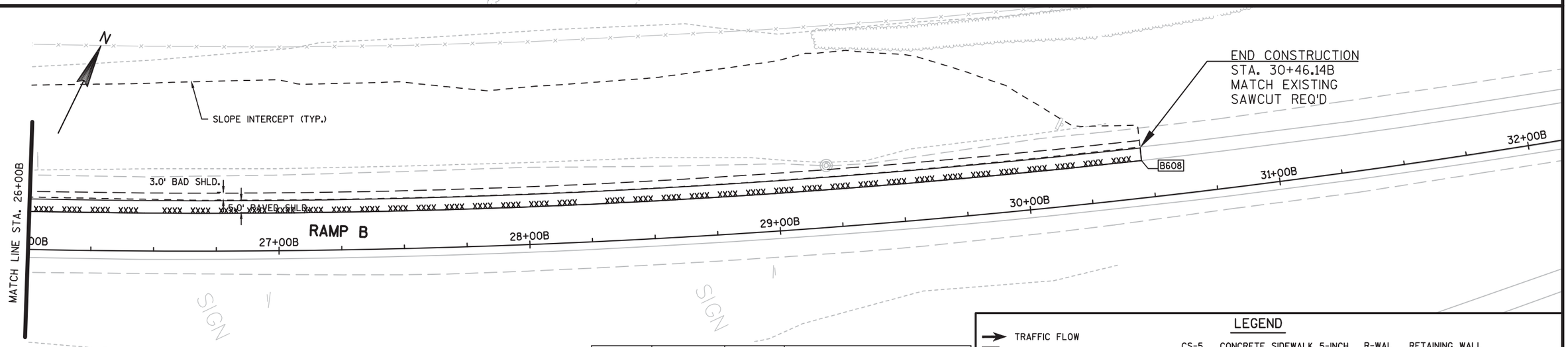
POINT NO.	STATION	OFFSET	DESCRIPTION
A500	24+50.00A	0.00' RT	SAWCUT/END RIGHT SHOULDER
A501	24+50.00A	15.00' LT	SAWCUT
A502	25+16.55A	15.00' LT	BEGIN TAPER
A503	18+50.19A	14.34' LT	END LEFT SHOULDER

LEGEND

- TRAFFIC FLOW
- CURB RAMP, TYPE X
- CURB RAMP DETECTABLE WARNING FIELD YELLOW
- PROPOSED INLET
- PROPOSED STORM SEWER MANHOLE
- PROPOSED APRON ENDWALL
- PIPE UNDERDRAIN 6-INCH
- SIDEWALK JOINT BREAK LINE
- CS-5 CONCRETE SIDEWALK 5-INCH
- CS-12 CONCRETE SIDEWALK 12-INCH
- CRTA-12 CONCRETE ROUNDABOUT TRUCK APRON 12-INCH, COLORING CONCRETE RED
- SLOPE INTERCEPT
- SAWING ASPHALT
- SAWING CONCRETE
- ANTICIPATED CONCRETE JOINTING
- R-WAL RETAINING WALL
- N-1 CONCRETE MEDIAN SLOPED NOSE TYPE 1
- BN CONCRETE MEDIAN BLUNT NOSE
- CG-30A CONCRETE CURB AND GUTTER 30-INCH TYPE A
- CG-36A6 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
- CG-36A4 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
- HES CONCRETE PAVEMENT

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PLAN DETAILS - STH 16	SHEET 27	E





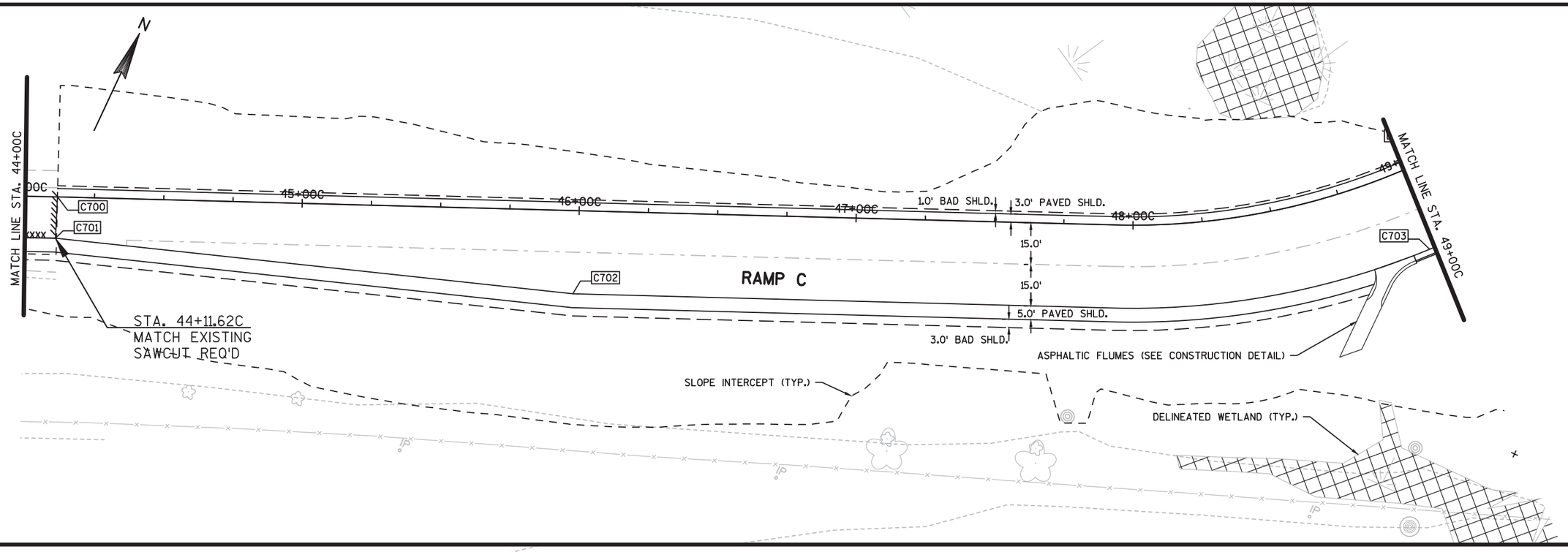
POINT NO.	STATION	OFFSET	DESCRIPTION
B600	21+55.21B	32.55' LT	BEGIN OF 265' RADIUS
B601	21+69.90B	31.63' LT	CENTER OF CUVE (265' RADIUS)
B602	21+84.64B	30.63' LT	END OF 265' RADIUS
B603	22+00.41B	0.00' RT	END OF CURB AND GUTTER
B604	22+78.97B	30.04' LT	BEGIN TAPER
B605	24+66.19B	15.00' LT	END TAPER
B606	24+74.98B	15.00' LT	SAWCUT
B607	24+75.00B	0.00' RT	END RIGHT SHOULDER
B608	30+46.15B	14.89' LT	END LEFT SHOULDER

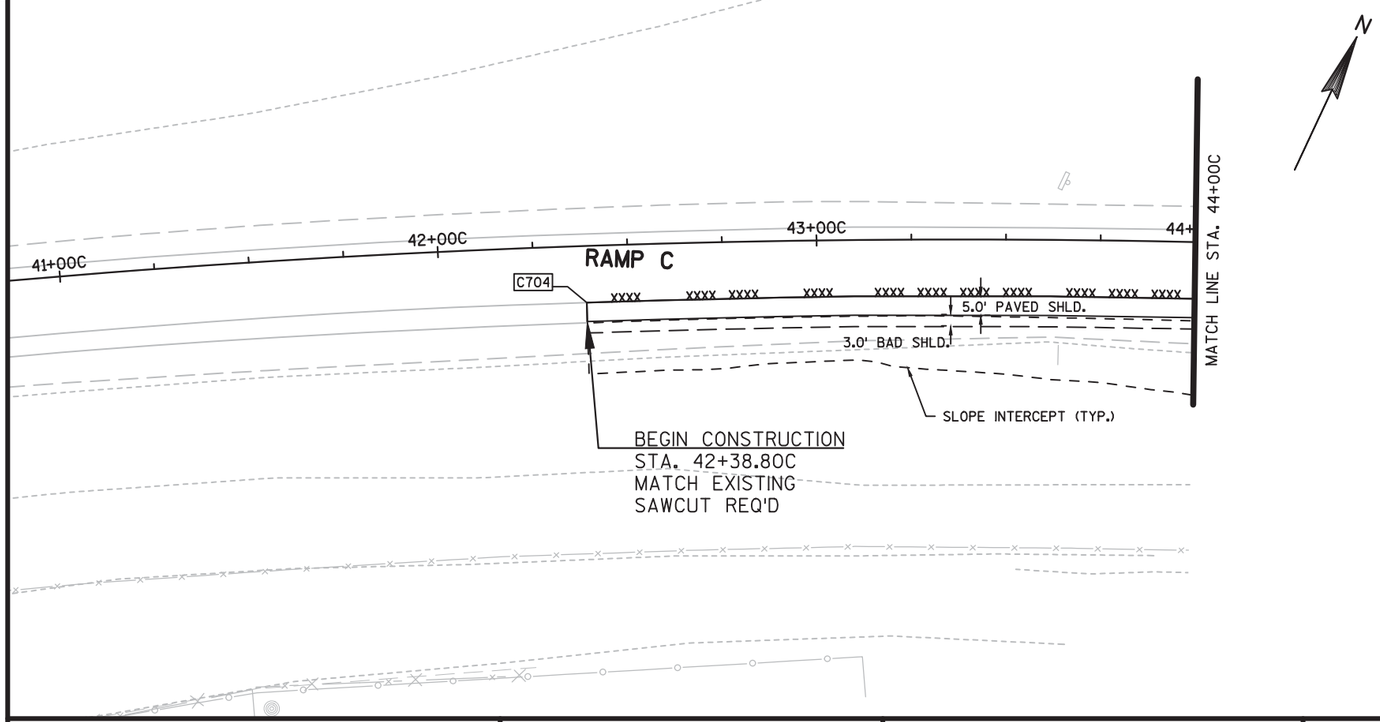
LEGEND

- TRAFFIC FLOW
- CURB RAMP, TYPE X
- CURB RAMP DETECTABLE WARNING FIELD YELLOW
- PROPOSED INLET
- PROPOSED STORM SEWER MANHOLE
- PROPOSED APRON ENDWALL
- PIPE UNDERDRAIN 6-INCH
- SIDEWALK JOINT BREAK LINE

CS-5	CONCRETE SIDEWALK 5-INCH
CS-12	CONCRETE SIDEWALK 12-INCH
CRTA-12	CONCRETE ROUNDABOUT TRUCK APRON 12-INCH, COLORING CONCRETE RED
	SLOPE INTERCEPT
	SAWING ASPHALT
	SAWING CONCRETE
	ANTICIPATED CONCRETE JOINTING

R-WAL	RETAINING WALL
N-1	CONCRETE MEDIAN SLOPED NOSE TYPE 1
BN	CONCRETE MEDIAN BLUNT NOSE
CG-30A	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CG-36A6	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
CG-36A4	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
	HES CONCRETE PAVEMENT



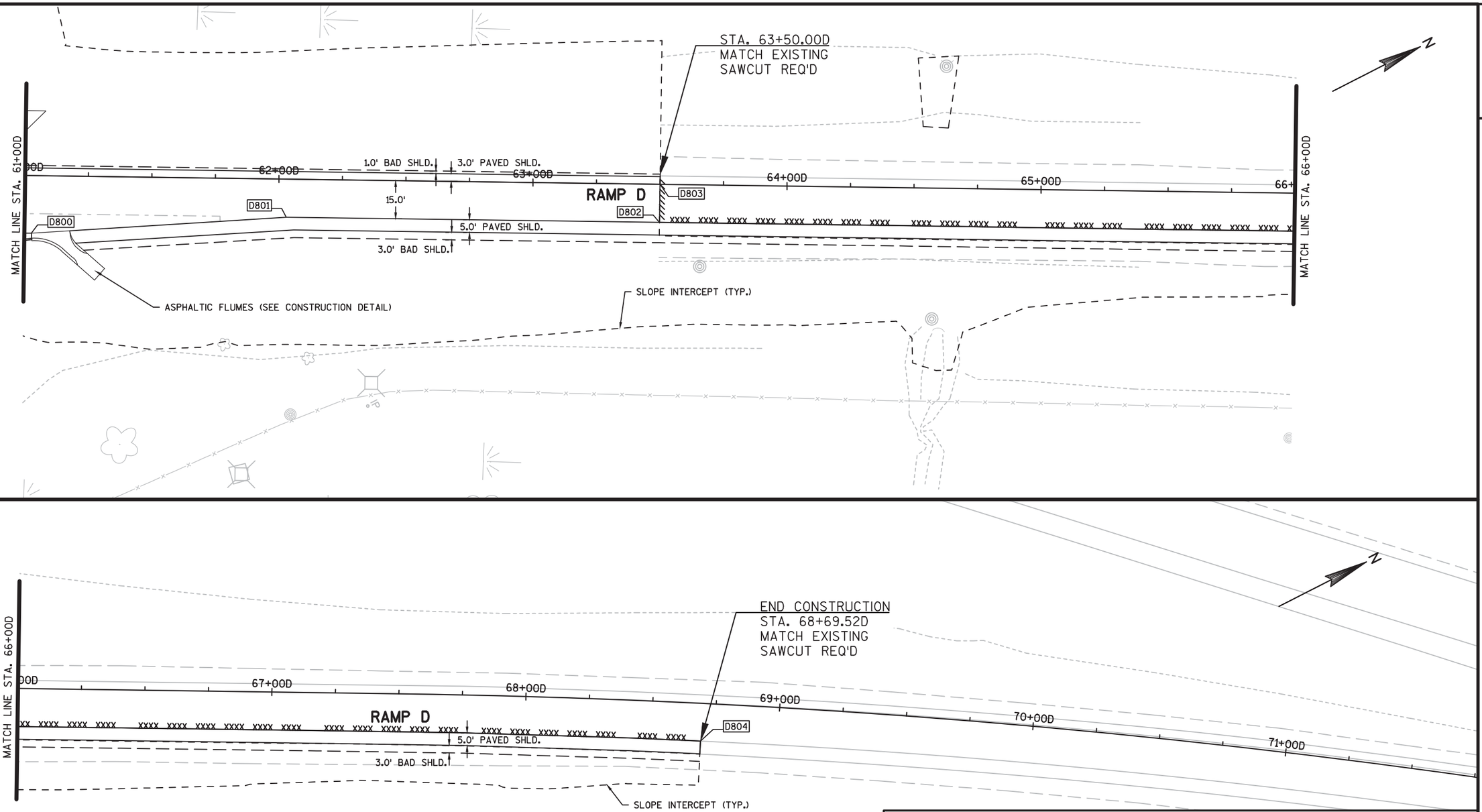


POINT NO.	STATION	OFFSET	DESCRIPTION
C700	44+11.63C	0.00' RT	SAWCUT/END LEFT SHOULDER
C701	44+11.29C	14.92' RT	SAWCUT
C702	45+98.50C	30.00' RT	END TAPER
C703	48+98.07C	30.00' RT	END RIGHT SHOULDER

LEGEND

- TRAFFIC FLOW
- CURB RAMP, TYPE X
- CURB RAMP DETECTABLE WARNING FIELD YELLOW
- PROPOSED INLET
- PROPOSED STORM SEWER MANHOLE
- PROPOSED APRON ENDWALL
- PIPE UNDERDRAIN 6-INCH
- SIDEWALK JOINT BREAK LINE
- CS-5 CONCRETE SIDEWALK 5-INCH
- CS-12 CONCRETE SIDEWALK 12-INCH
- CRTA-12 CONCRETE ROUNDABOUT TRUCK APRON 12-INCH, COLORING CONCRETE RED
- SLOPE INTERCEPT
- xxxx SAWING ASPHALT
- SAWING CONCRETE
- ANTICIPATED CONCRETE JOINTING
- R-WAL RETAINING WALL
- N-1 CONCRETE MEDIAN SLOPED NOSE TYPE 1
- BN CONCRETE MEDIAN BLUNT NOSE
- CG-30A CONCRETE CURB AND GUTTER 30-INCH TYPE A
- CG-36A6 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
- CG-36A4 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
- HES CONCRETE PAVEMENT

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PLAN DETAILS - STH 16	SHEET 29	E



POINT NO.	STATION	OFFSET	DESCRIPTION
D800	61+02.87D	22.70' RT	END OF CURB AND GUTTER
D801	62+03.04D	15.00' RT	END TAPER
D802	63+50.00D	15.03' RT	SAWCUT
D803	63+50.00D	0.00' RT	END LEFT SHOULDER
D804	68+69.52D	14.85' RT	END RIGHT SHOULDER

LEGEND

- TRAFFIC FLOW
- CURB RAMP, TYPE X
- CURB RAMP DETECTABLE WARNING FIELD YELLOW
- PROPOSED INLET
- PROPOSED STORM SEWER MANHOLE
- PROPOSED APRON ENDWALL
- PIPE UNDERDRAIN 6-INCH
- SIDEWALK JOINT BREAK LINE
- CS-5 CONCRETE SIDEWALK 5-INCH
- CS-12 CONCRETE SIDEWALK 12-INCH
- CRTA-12 CONCRETE ROUNDABOUT TRUCK APRON 12-INCH, COLORING CONCRETE RED
- SLOPE INTERCEPT
- SAWING ASPHALT
- SAWING CONCRETE
- ANTICIPATED CONCRETE JOINTING
- R-WAL RETAINING WALL
- N-1 CONCRETE MEDIAN SLOPED NOSE TYPE 1
- BN CONCRETE MEDIAN BLUNT NOSE
- CG-30A CONCRETE CURB AND GUTTER 30-INCH TYPE A
- CG-36A6 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
- CG-36A4 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
- HES CONCRETE PAVEMENT

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PLAN DETAILS - STH 16	SHEET 30	E

2

2

N

102+00WB

103+00WB

104+00WB

105+00WB

106+00WB

107+00WB

STH 16 WB

102+00EB

103+00EB

104+00EB

105+00EB

106+00EB

107+

STH 16 EB

MATCH LINE STA. 107+00 EB

STA. 103+85.18EB
BEGIN PROJECT 1401-02-74

MATCH EXISTING
SAWCUT REQUIRED

I SIGN

STATUE

STH 16 WB SUPERELEVATION TABLE				STH 16 EB SUPERELEVATION TABLE			
STATION	INSIDE SLOPE	OUTSIDE SLOPE	DESCRIPTION	STATION	INSIDE SLOPE	OUTSIDE SLOPE	DESCRIPTION
99+72.49 WB	-2.00%	-2.00%	End Normal Crown	99+68.00 EB	-2.00%	-2.00%	End Normal Crown
100+44.66 WB	0.00%	-2.00%	Level Crown	280+28.57 EB	-2.00%	0.00%	Level Crown
101+16.84 WB	2.00%	-2.00%	Reverse Crown	101+12.00 EB	-2.00%	2.00%	Reverse Crown
101+27.66 WB	5.40%	-5.40%	Begin Full Super	101+30.00 EB	-2.50%	2.50%	Begin Full Super
115+05.38 WB	5.40%	-5.40%	End Full Super	110+83.70 EB	-2.50%	2.50%	End Full Super
115+16.21 WB	2.00%	-2.00%	Reverse Crown	113+13.44 EB	-2.00%	2.00%	Reverse Crown
115+88.38 WB	0.00%	-2.00%	Level Crown	124+72.70 EB	-2.00%	2.00%	End Full Super
116+60.55 WB	-2.00%	-2.00%	Begin Normal Crown	125+96.70 EB	-2.00%	-2.00%	Begin Normal Crown

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PAVING DETAILS - STH 16	SHEET 31	E

2

STA. 108+99.12WB
BEGIN CONSTRUCTION 1401-02-74
MATCH EXISTING
SAWCUT REQUIRED

MATCH LINE STA. 21+00B

SEE CONSTRUCTION DETAIL
STH 16/151/RAMP B FOR
CURB RAMP INFORMATION

RAMP B

STH 16 WB

STH 16 EB

RAMP A

SEE CONSTRUCTION DETAIL
STH 16/151/RAMP A FOR
CURB RAMP INFORMATION

MATCH LINE STA. 107+00 EB

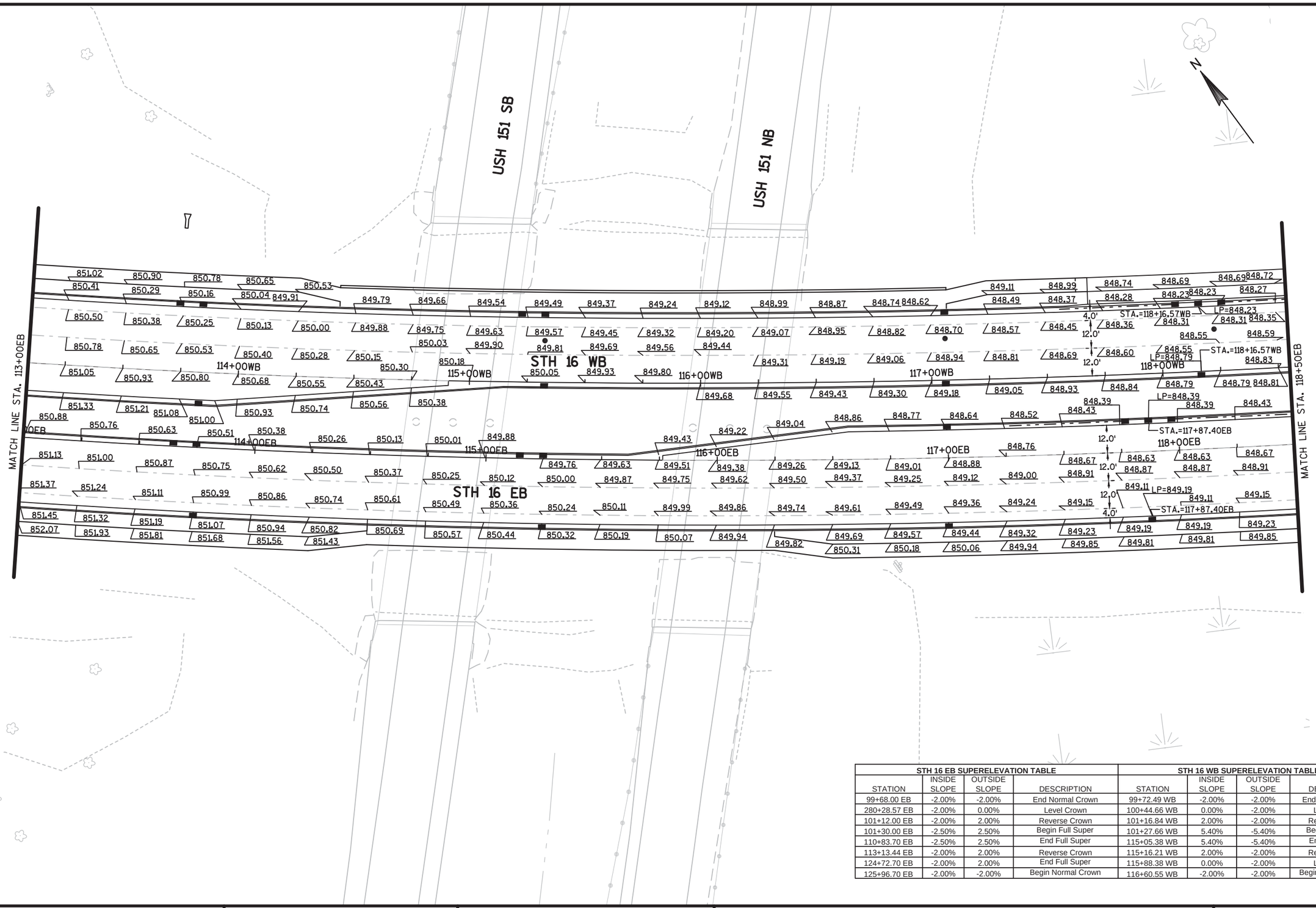
MATCH LINE STA. 113+00 EB

MATCH LINE STA. 13+00A

STA. 107+92.61EB
BEGIN CONSTRUCTION 1401-02-74
MATCH EXISTING
SAWCUT REQUIRED

STH 16 WB SUPERELEVATION TABLE				STH 16 EB SUPERELEVATION TABLE			
STATION	INSIDE SLOPE	OUTSIDE SLOPE	DESCRIPTION	STATION	INSIDE SLOPE	OUTSIDE SLOPE	DESCRIPTION
99+72.49 WB	-2.00%	-2.00%	End Normal Crown	99+68.00 EB	-2.00%	-2.00%	End Normal Crown
100+44.66 WB	0.00%	-2.00%	Level Crown	280+28.57 EB	-2.00%	0.00%	Level Crown
101+16.84 WB	2.00%	-2.00%	Reverse Crown	101+12.00 EB	-2.00%	2.00%	Reverse Crown
101+27.66 WB	5.40%	-5.40%	Begin Full Super	101+30.00 EB	-2.50%	2.50%	Begin Full Super
115+05.38 WB	5.40%	-5.40%	End Full Super	110+83.70 EB	-2.50%	2.50%	End Full Super
115+16.21 WB	2.00%	-2.00%	Reverse Crown	113+13.44 EB	-2.00%	2.00%	Reverse Crown
115+88.38 WB	0.00%	-2.00%	Level Crown	124+72.70 EB	-2.00%	2.00%	End Full Super
116+60.55 WB	-2.00%	-2.00%	Begin Normal Crown	125+96.70 EB	-2.00%	-2.00%	Begin Normal Crown

2

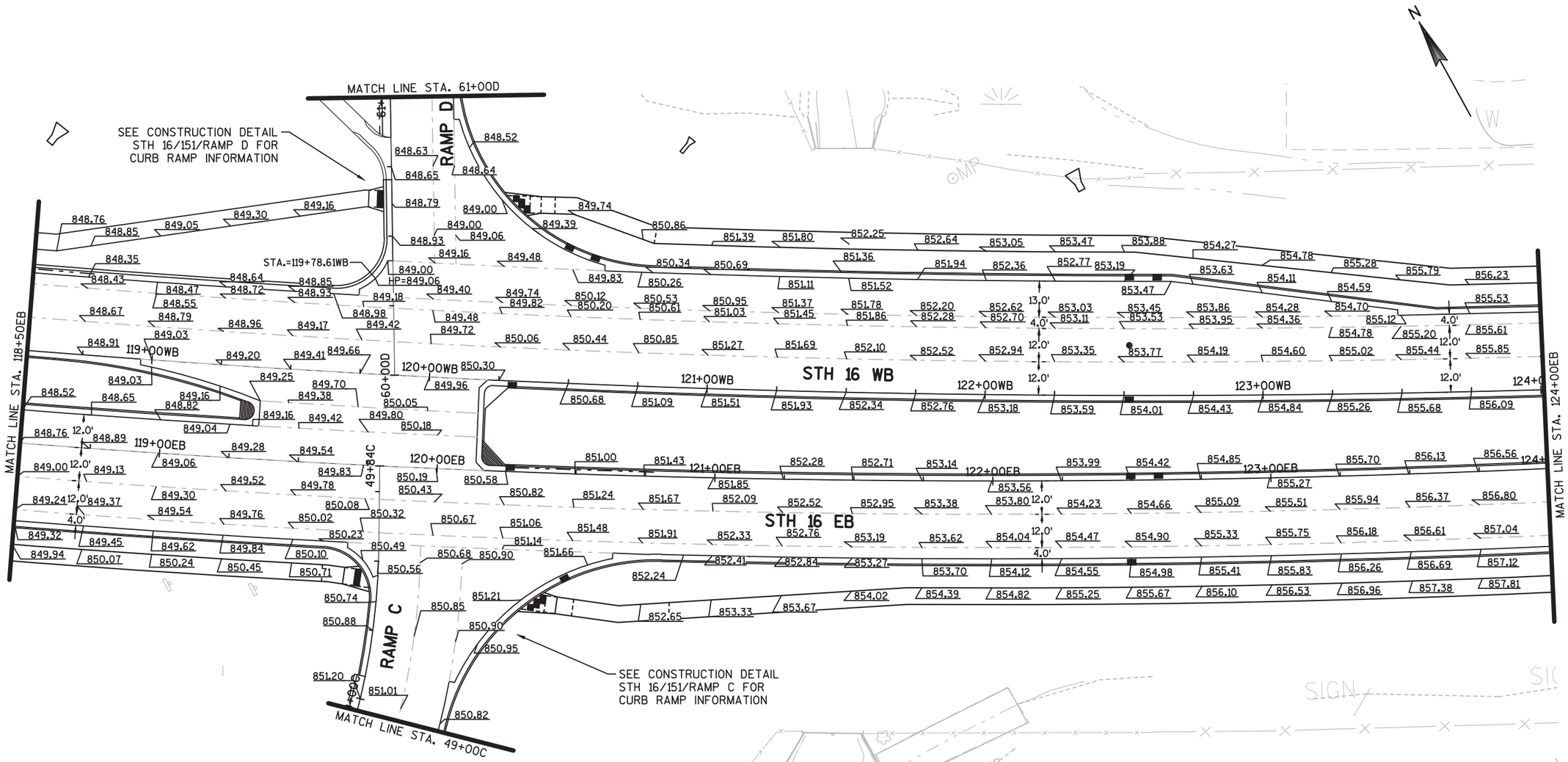


STH 16 EB SUPERELEVATION TABLE				STH 16 WB SUPERELEVATION TABLE			
STATION	INSIDE SLOPE	OUTSIDE SLOPE	DESCRIPTION	STATION	INSIDE SLOPE	OUTSIDE SLOPE	DESCRIPTION
99+68.00 EB	-2.00%	-2.00%	End Normal Crown	99+72.49 WB	-2.00%	-2.00%	End Normal Crown
280+28.57 EB	-2.00%	0.00%	Level Crown	100+44.66 WB	0.00%	-2.00%	Level Crown
101+12.00 EB	-2.00%	2.00%	Reverse Crown	101+16.84 WB	2.00%	-2.00%	Reverse Crown
101+30.00 EB	-2.50%	2.50%	Begin Full Super	101+27.66 WB	5.40%	-5.40%	Begin Full Super
110+83.70 EB	-2.50%	2.50%	End Full Super	115+05.38 WB	5.40%	-5.40%	End Full Super
113+13.44 EB	-2.00%	2.00%	Reverse Crown	115+16.21 WB	2.00%	-2.00%	Reverse Crown
124+72.70 EB	-2.00%	2.00%	End Full Super	115+88.38 WB	0.00%	-2.00%	Level Crown
125+96.70 EB	-2.00%	-2.00%	Begin Normal Crown	116+60.55 WB	-2.00%	-2.00%	Begin Normal Crown

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PAVING DETAILS - STH 16	SHEET 33	E

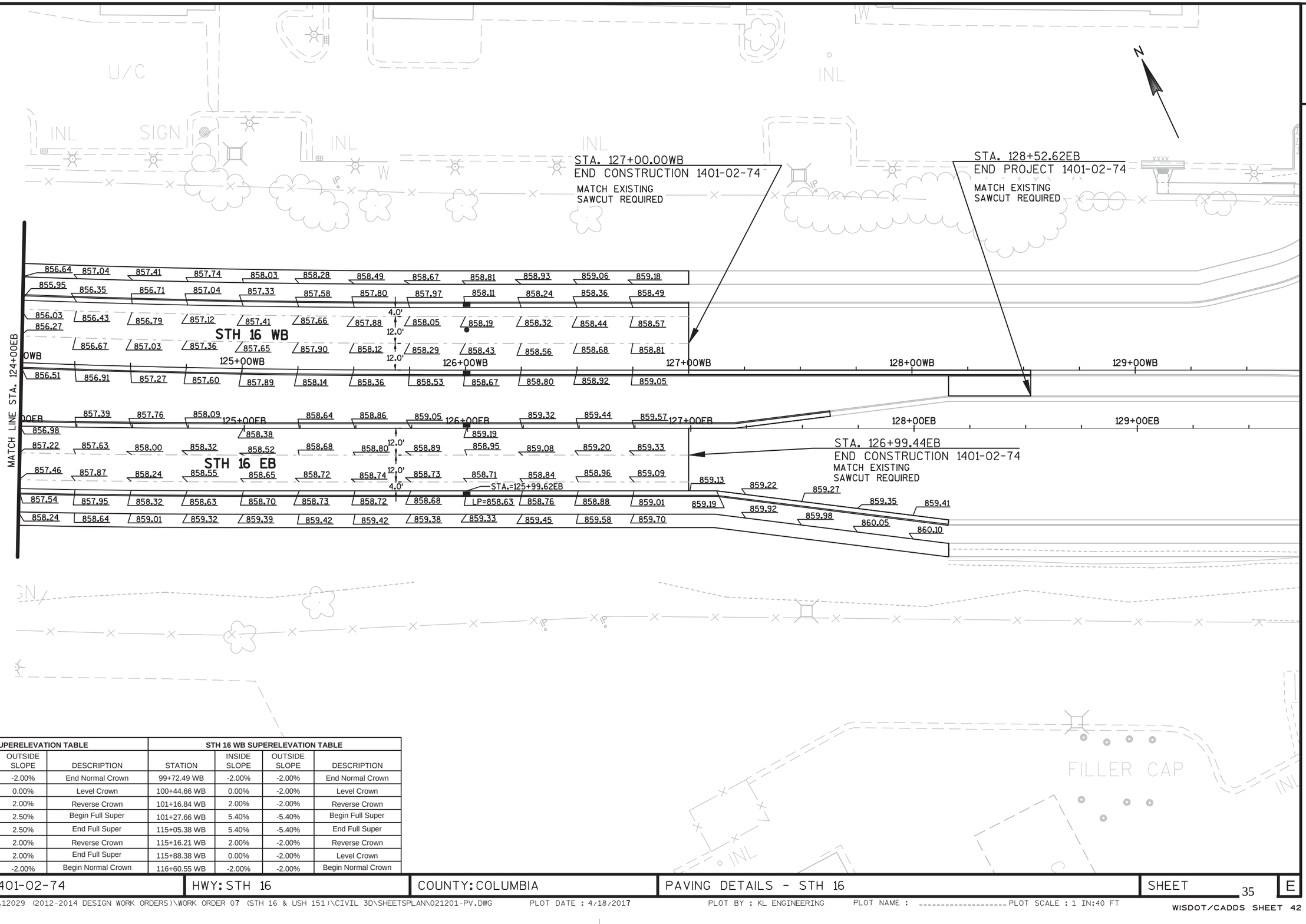
FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\021201-PV.DWG PLOT DATE : 4/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:40 FT

2



STH 16 EB SUPERELEVATION TABLE				STH 16 WB SUPERELEVATION TABLE			
STATION	INSIDE SLOPE	OUTSIDE SLOPE	DESCRIPTION	STATION	INSIDE SLOPE	OUTSIDE SLOPE	DESCRIPTION
99+68.00 EB	-2.00%	-2.00%	End Normal Crown	99+72.49 WB	-2.00%	-2.00%	End Normal Crown
280+28.57 EB	-2.00%	0.00%	Level Crown	100+44.66 WB	0.00%	-2.00%	Level Crown
101+12.00 EB	-2.00%	2.00%	Reverse Crown	101+16.84 WB	2.00%	-2.00%	Reverse Crown
101+30.00 EB	-2.50%	2.50%	Begin Full Super	101+27.66 WB	5.40%	-5.40%	Begin Full Super
110+83.70 EB	-2.50%	2.50%	End Full Super	115+05.38 WB	5.40%	-5.40%	End Full Super
113+13.44 EB	-2.00%	2.00%	Reverse Crown	115+16.21 WB	2.00%	-2.00%	Reverse Crown
124+72.70 EB	-2.00%	2.00%	End Full Super	115+88.38 WB	0.00%	-2.00%	Level Crown
125+96.70 EB	-2.00%	-2.00%	Begin Normal Crown	116+60.55 WB	-2.00%	-2.00%	Begin Normal Crown

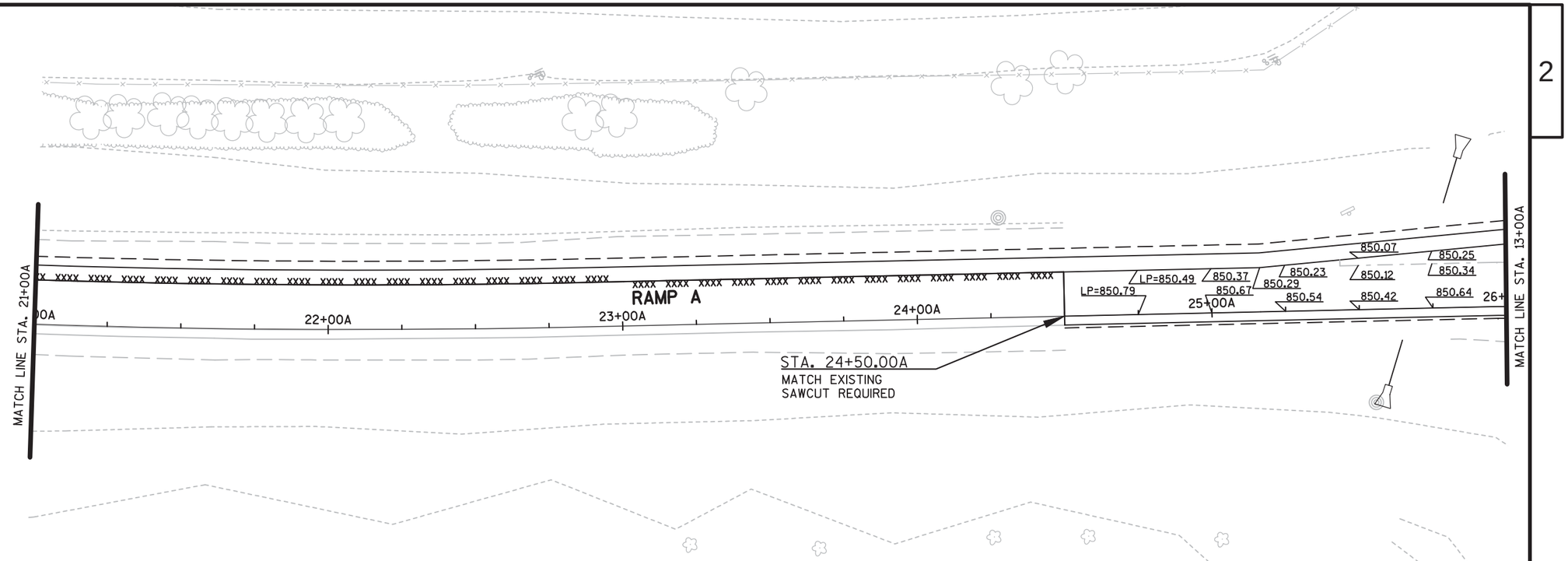
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PAVING DETAILS - STH 16	SHEET 34	E

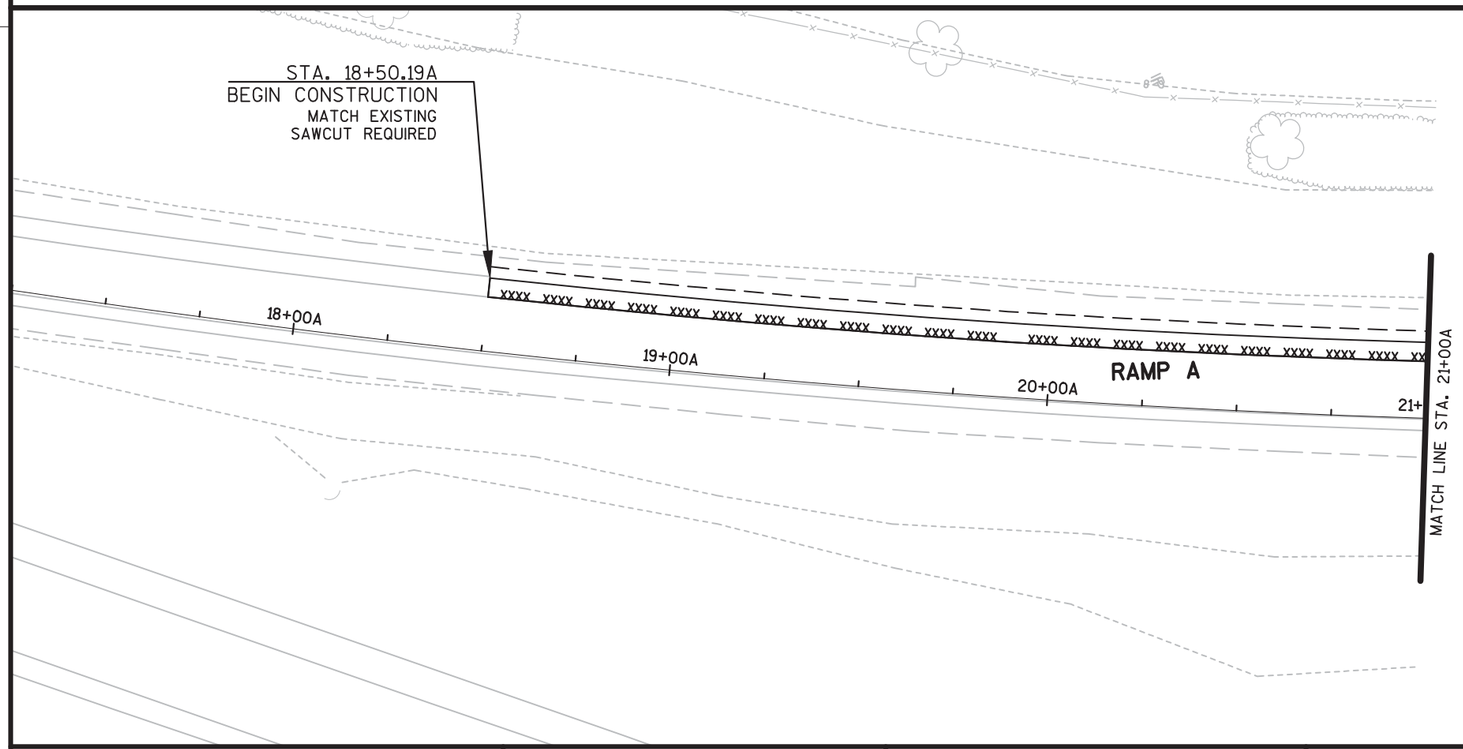


STH 16 EB SUPERELEVATION TABLE				STH 16 WB SUPERELEVATION TABLE			
STATION	INSIDE SLOPE	OUTSIDE SLOPE	DESCRIPTION	STATION	INSIDE SLOPE	OUTSIDE SLOPE	DESCRIPTION
99+68.00 EB	-2.00%	-2.00%	End Normal Crown	99+72.49 WB	-2.00%	-2.00%	End Normal Crown
280+28.57 EB	-2.00%	0.00%	Level Crown	100+44.66 WB	0.00%	-2.00%	Level Crown
101+12.00 EB	-2.00%	2.00%	Reverse Crown	101+16.84 WB	2.00%	-2.00%	Reverse Crown
101+30.00 EB	-2.50%	2.50%	Begin Full Super	101+27.66 WB	5.40%	-5.40%	Begin Full Super
110+83.70 EB	-2.50%	2.50%	End Full Super	115+05.38 WB	5.40%	-5.40%	End Full Super
113+13.44 EB	-2.00%	2.00%	Reverse Crown	115+16.21 WB	2.00%	-2.00%	Reverse Crown
124+72.70 EB	-2.00%	2.00%	End Full Super	115+88.38 WB	0.00%	-2.00%	Level Crown
125+96.70 EB	-2.00%	-2.00%	Begin Normal Crown	116+60.55 WB	-2.00%	-2.00%	Begin Normal Crown

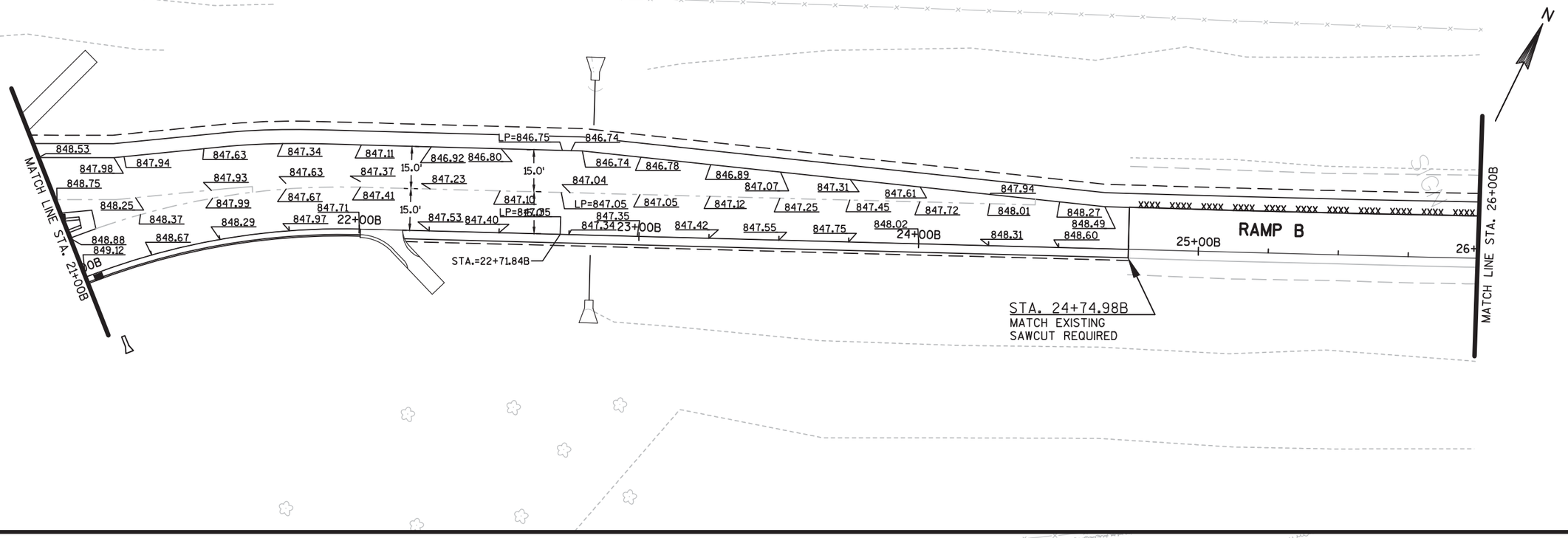
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PAVING DETAILS - STH 16	SHEET 35	E

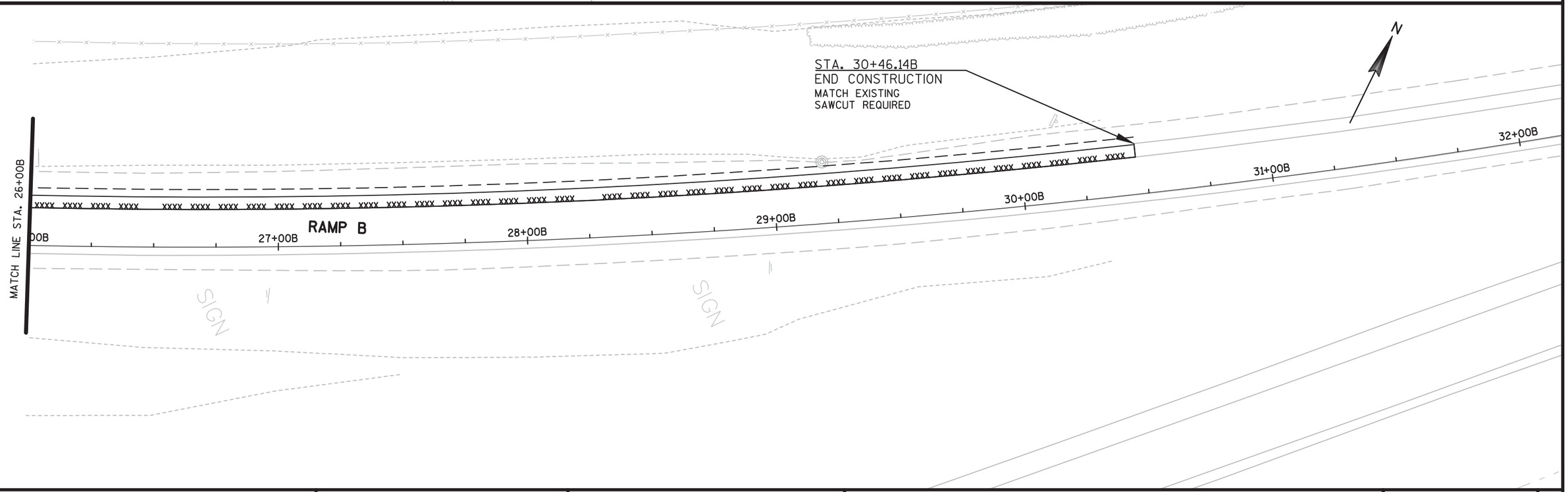
2





PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PAVING DETAILS - STH 16	SHEET 36	E





PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PAVING DETAILS - STH 16	SHEET 37	E

STA. 44+11.62C
MATCH EXISTING
SAWCUT REQUIRED

MATCH LINE STA. 44+00C

00C 45+00C 46+00C 47+00C 48+00C

857.32 857.00 856.67 856.35 856.03 855.71 855.39 855.07 854.74 854.42 854.10 853.78 853.46 853.13 852.81 852.49 852.17 851.85 851.52
857.00 856.70 856.37 856.05 855.73 855.41 855.09 854.44 854.12 853.80 853.48 853.16 852.83 852.51 852.19 851.87 851.54
856.64 856.27 855.91 855.55 854.83 854.77 854.53 854.47 854.14 853.82 853.50 853.18 852.86 852.53 852.21 851.89 851.57 851.23
855.19 851.23 850.93 850.83

RAMP C

15.0'
15.0'

MATCH LINE STA. 49+00C

N

41+00C 42+00C 43+00C 44+

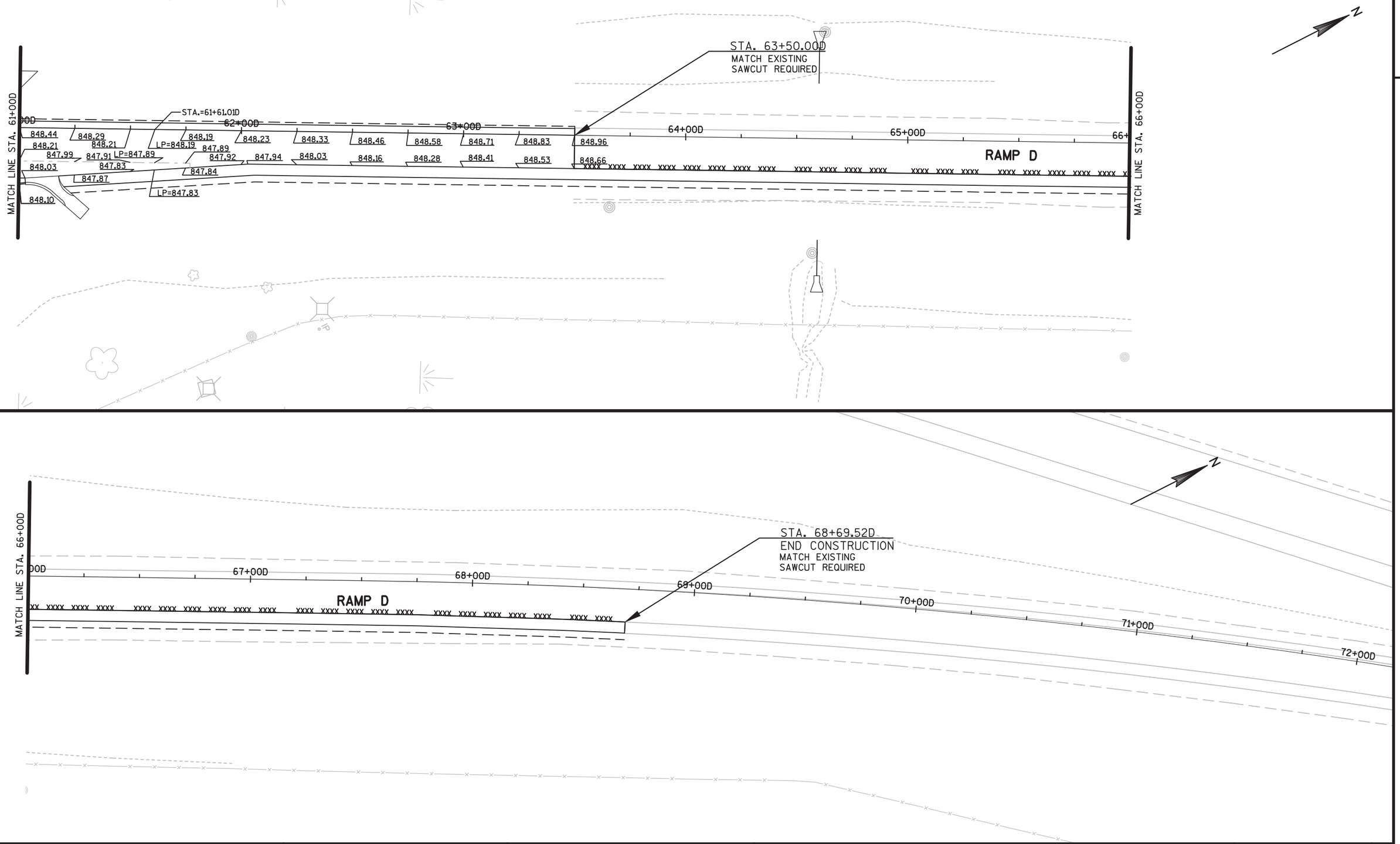
RAMP C

MATCH LINE STA. 44+00C

STA. 42+38.80C
BEGIN CONSTRUCTION
MATCH EXISTING
SAWCUT REQUIRED

N

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PAVING DETAILS - STH 16	SHEET 38	E



PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PAVING DETAILS - STH 16	SHEET 39	E

2

2

N

R/W

102+00WB

103+00WB

104+00WB

105+00WB

106+00WB

107+00WB

102+00EB

103+00EB

104+00EB

105+00EB

106+00EB

107+

STH 16 WB

STH 16 EB

SLOPE INTERCEPT (TYP.)

MATCH LINE STA. 107+00 EB

SIGN

STATUE

R/W

NOTE: INLET PROTECTION SHALL BE PLACED AT THE DISCRETION OF THE ENGINEER.

LEGEND

- SALVAGED TOPSOIL, SEED NO. 20, MULCHING FERTILIZER TYPE B, EROSION MAT TYPE I CLASS B
- SALVAGED TOPSOIL, SEED NO. 20, MULCHING FERTILIZER TYPE B, EROSION MAT TYPE I CLASS A
- SILT FENCE
- AC — INLET PROTECTION TYPE A UNTIL FINAL GRADING IS COMPLETED, THEN PLACE INLET PROTECTION TYPE C
- AD — INLET PROTECTION TYPE A UNTIL FINAL GRADING IS COMPLETED, THEN PLACE INLET PROTECTION TYPE D
- A — INLET PROTECTION TYPE A
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- EROSION BALES
- RIPRAP MEDIUM
- CULVERT PIPE CHECKS

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	EROSION CONTROL - STH 16	SHEET 40	E

LEGEND

- SALVAGED TOPSOIL, SEED NO. 20, MULCHING FERTILIZER TYPE B, EROSION MAT TYPE I CLASS B
- SALVAGED TOPSOIL, SEED NO. 20, MULCHING FERTILIZER TYPE B, EROSION MAT TYPE I CLASS A
- SILT FENCE
- AC — INLET PROTECTION TYPE A UNTIL FINAL GRADING IS COMPLETED, THEN PLACE INLET PROTECTION TYPE C
- AD — INLET PROTECTION TYPE A UNTIL FINAL GRADING IS COMPLETED, THEN PLACE INLET PROTECTION TYPE D
- A — INLET PROTECTION TYPE A
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- EROSION BALES
- RIPRAP MEDIUM
- CULVERT PIPE CHECKS

NOTE: INLET PROTECTION SHALL BE PLACED AT THE DISCRETION OF THE ENGINEER.

N

ASPHALTIC FLUME WITH RIPRAP MEDIUM (SEE CONSTRUCTION DETAIL)

MATCH LINE STA. 21+50B

SLOPE INTERCEPT (TYP.)

R/W

RAMP B

21+00B

SLOPE INTERCEPT (TYP.)

MATCH LINE STA. 107+00 EB

108+00WB

109+00WB

110+00WB

111+00WB

20+00B

112+00WB

113+00WB

MATCH LINE STA. 113+00 EB

STH 16 WB

108+00EB

109+00EB

110+00EB

111+00EB

112+00EB

113+

STH 16 EB

SIGN

R/W

SLOPE INTERCEPT (TYP.)

36" ENDWALL WITH CULVERT PIPE CHECK (SEE CONSTRUCTION DETAIL) (TYP.)

ASPHALTIC FLUME WITH RIPRAP MEDIUM (SEE CONSTRUCTION DETAIL)

27+00A

RAMP A

MATCH LINE STA. 13+00A

SLOPE INTERCEPT (TYP.)

DELINEATED WETLAND (TYP.)

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	EROSION CONTROL - STH 16	SHEET 41	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\EROSION CONTROL\02200PLEC.DWG PLOT DATE : 4/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1:40_XREF

2

N

USH 151 SB

USH 151 NB

SLOPE INTERCEPT (TYP.)

SILT FENCE AND EROSION BALE OUTLET STRUCTURE (SEE CONSTRUCTION DETAIL) (TYP.)

MATCH LINE STA. 113+00EB

MATCH LINE STA. 118+50EB

STH 16 WB

STH 16 EB

114+00WB

115+00WB

116+00WB

117+00WB

118+00WB

114+00EB

115+00EB

116+00EB

117+00EB

118+00EB

AC

AD

A

SLOPE INTERCEPT (TYP.)

USH 151 SB

USH 151 NB

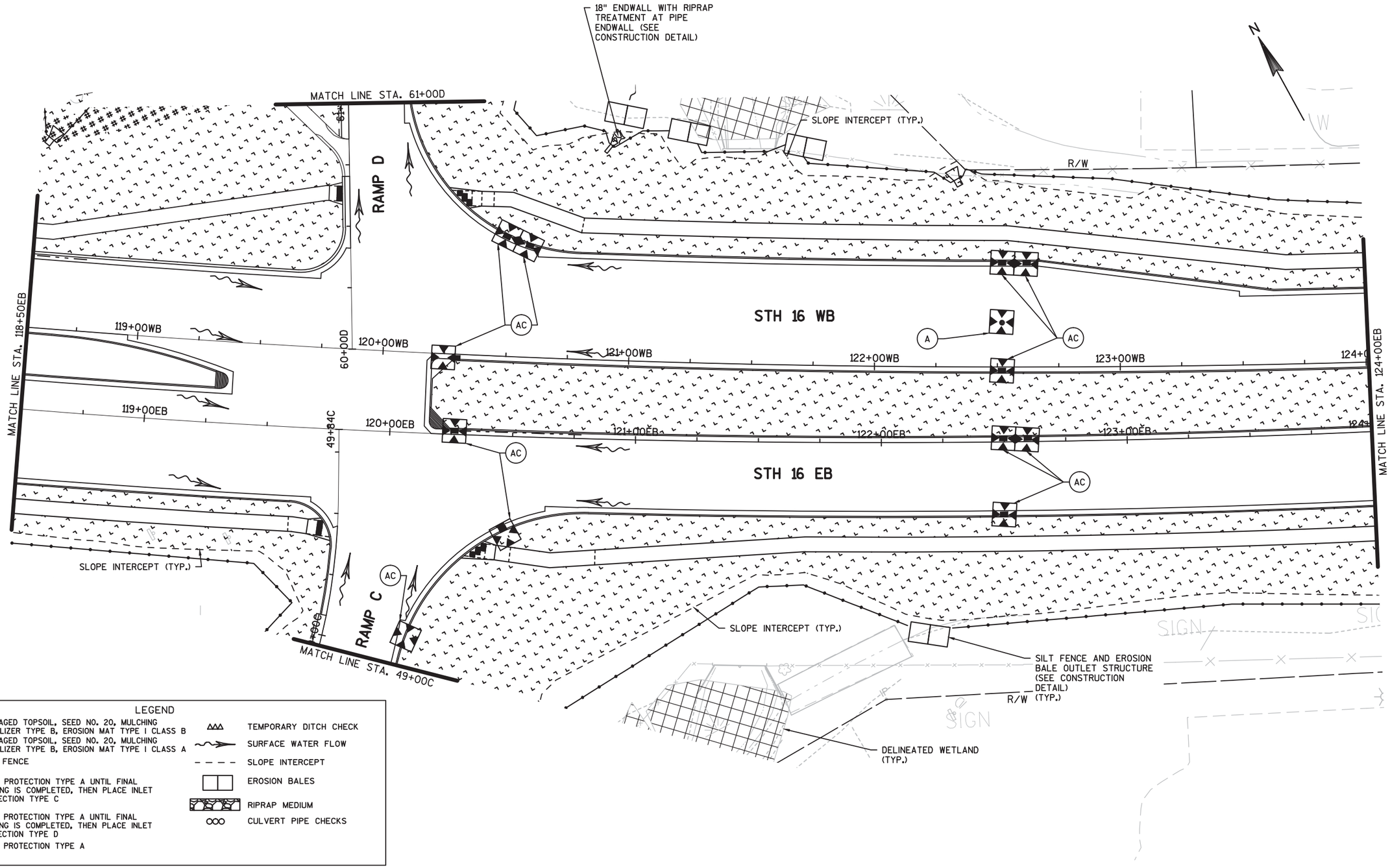
LEGEND

- SALVAGED TOPSOIL, SEED NO. 20, MULCHING FERTILIZER TYPE B, EROSION MAT TYPE I CLASS B
- SALVAGED TOPSOIL, SEED NO. 20, MULCHING FERTILIZER TYPE B, EROSION MAT TYPE I CLASS A
- SILT FENCE
- (AC) INLET PROTECTION TYPE A UNTIL FINAL GRADING IS COMPLETED, THEN PLACE INLET PROTECTION TYPE C
- (AD) INLET PROTECTION TYPE A UNTIL FINAL GRADING IS COMPLETED, THEN PLACE INLET PROTECTION TYPE D
- (A) INLET PROTECTION TYPE A
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- EROSION BALES
- RIPRAP MEDIUM
- CULVERT PIPE CHECKS

NOTE: INLET PROTECTION SHALL BE PLACED AT THE DISCRETION OF THE ENGINEER.

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	EROSION CONTROL - STH 16	SHEET 42	E

2



LEGEND

- SALVAGED TOPSOIL, SEED NO. 20, MULCHING FERTILIZER TYPE B, EROSION MAT TYPE I CLASS B
- SALVAGED TOPSOIL, SEED NO. 20, MULCHING FERTILIZER TYPE B, EROSION MAT TYPE I CLASS A
- SILT FENCE
- (AC) INLET PROTECTION TYPE A UNTIL FINAL GRADING IS COMPLETED, THEN PLACE INLET PROTECTION TYPE C
- (AD) INLET PROTECTION TYPE A UNTIL FINAL GRADING IS COMPLETED, THEN PLACE INLET PROTECTION TYPE D
- (A) INLET PROTECTION TYPE A
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- EROSION BALES
- RIPRAP MEDIUM
- CULVERT PIPE CHECKS

NOTE: INLET PROTECTION SHALL BE PLACED AT THE DISCRETION OF THE ENGINEER.

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	EROSION CONTROL - STH 16	SHEET 43	E

LEGEND

- SALVAGED TOPSOIL, SEED NO. 20, MULCHING FERTILIZER TYPE B, EROSION MAT TYPE I CLASS B
- SALVAGED TOPSOIL, SEED NO. 20, MULCHING FERTILIZER TYPE B, EROSION MAT TYPE I CLASS A
- SILT FENCE
- (AC) INLET PROTECTION TYPE A UNTIL FINAL GRADING IS COMPLETED, THEN PLACE INLET PROTECTION TYPE C
- (AD) INLET PROTECTION TYPE A UNTIL FINAL GRADING IS COMPLETED, THEN PLACE INLET PROTECTION TYPE D
- (A) INLET PROTECTION TYPE A
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- EROSION BALES
- RIPRAP MEDIUM
- CULVERT PIPE CHECKS

NOTE: INLET PROTECTION SHALL BE PLACED AT THE DISCRETION OF THE ENGINEER.

N

R/W

SLOPE INTERCEPT (TYP.)

STH 16 WB

STH 16 EB

MATCH LINE STA. 124+00EB

125+00WB

126+00WB

127+00WB

128+00WB

129+00WB

125+00EB

126+00EB

127+00EB

128+00EB

129+00EB

(A)

(AC)

SLOPE INTERCEPT (TYP.)

R/W

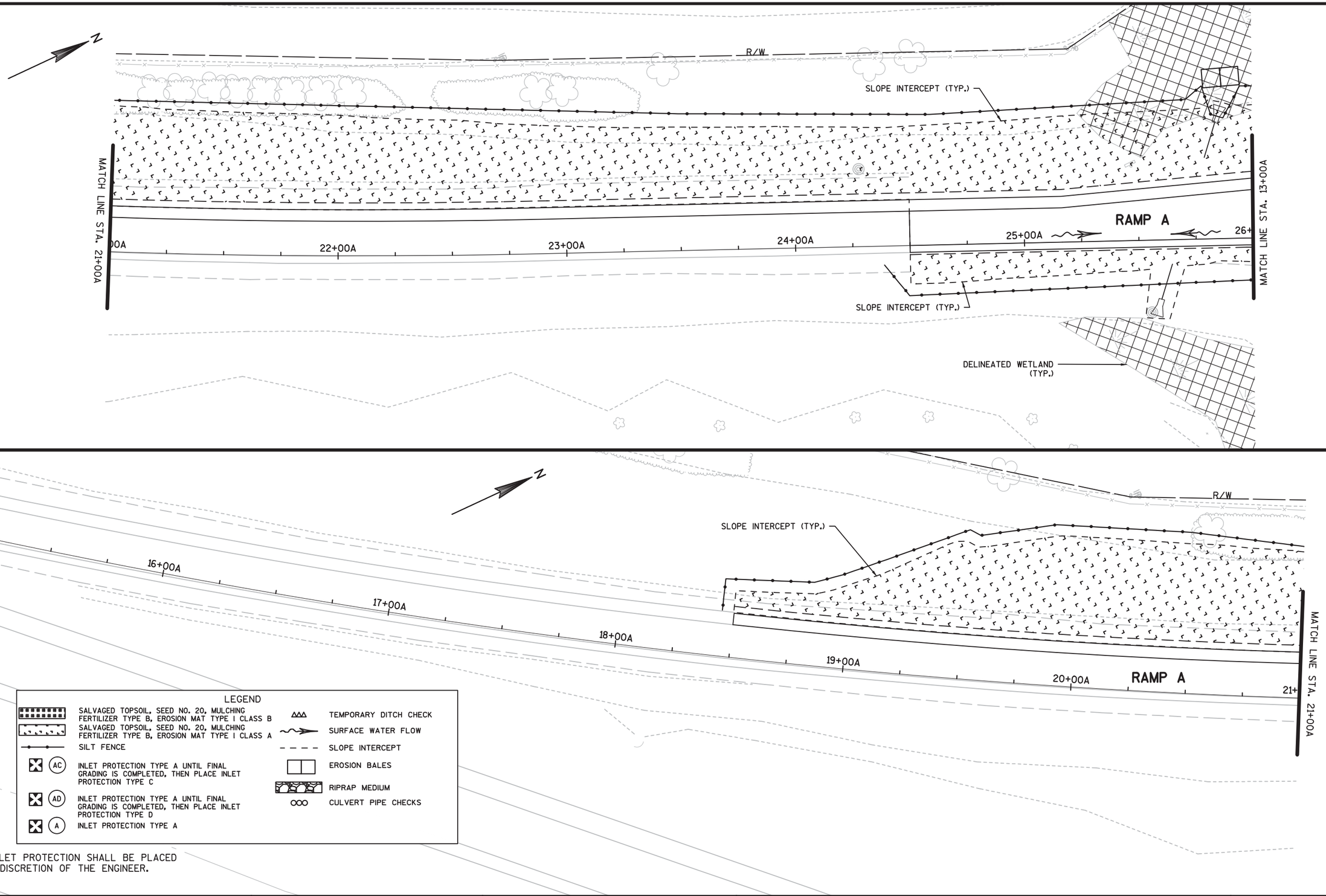
FILLER CAP

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	EROSION CONTROL - STH 16	SHEET 44	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\EROSION CONTROL\022006_EC.DWG PLOT DATE : 4/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

2



NOTE: INLET PROTECTION SHALL BE PLACED AT THE DISCRETION OF THE ENGINEER.

2

DELINEATED WETLAND (TYP.)

R/W

SLOPE INTERCEPT (TYP.)

MATCH LINE STA. 21+50B

RAMP B

22+00B

23+00B

24+00B

25+00B

26+00B

27+

MATCH LINE STA. 27+00B

SLOPE INTERCEPT (TYP.)

ASPHALTIC FLUME WITH RIPRAP MEDIUM (SEE CONSTRUCTION DETAIL)

24" ENDWALL WITH CULVERT PIPE CHECK (SEE CONSTRUCTION DETAIL) (TYP.)

N

SIGN

SLOPE INTERCEPT (TYP.)

MATCH LINE STA. 27+00B

RAMP B

28+00B

29+00B

30+00B

31+00B

32+00B

33+00B

SIGN

N

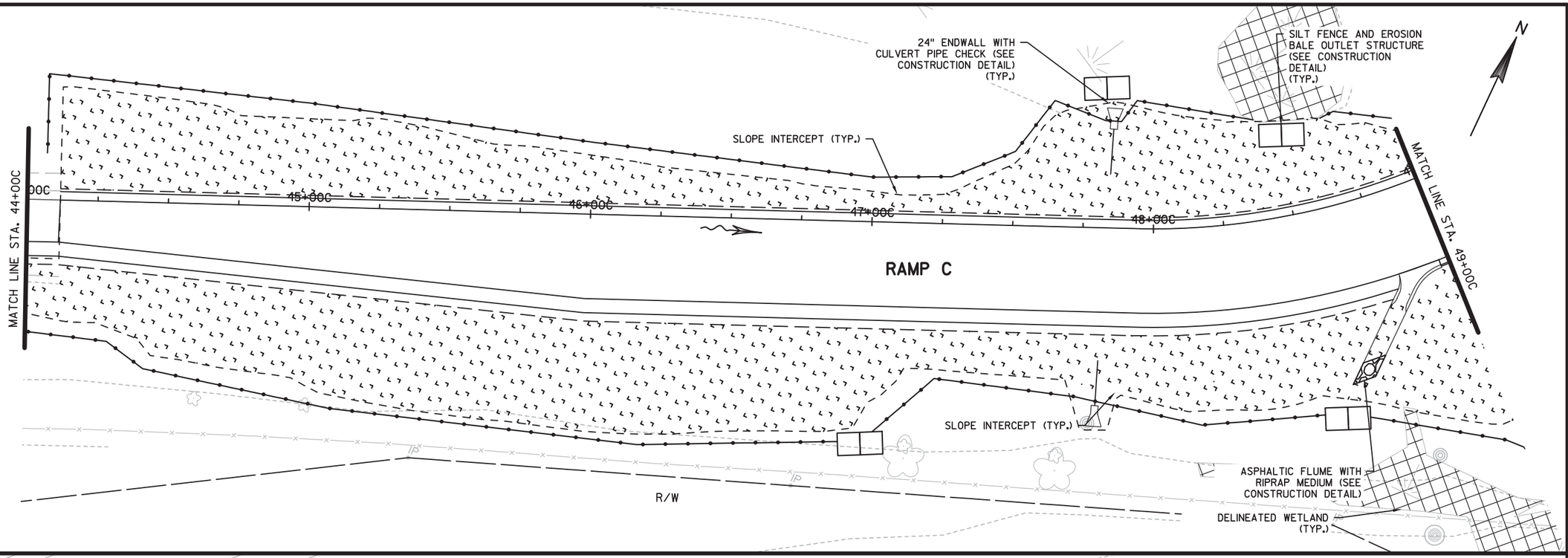
LEGEND

- SALVAGED TOPSOIL, SEED NO. 20, MULCHING FERTILIZER TYPE B, EROSION MAT TYPE I CLASS B
- SALVAGED TOPSOIL, SEED NO. 20, MULCHING FERTILIZER TYPE B, EROSION MAT TYPE I CLASS A
- SILT FENCE
- (AC) INLET PROTECTION TYPE A UNTIL FINAL GRADING IS COMPLETED, THEN PLACE INLET PROTECTION TYPE C
- (AD) INLET PROTECTION TYPE A UNTIL FINAL GRADING IS COMPLETED, THEN PLACE INLET PROTECTION TYPE D
- (A) INLET PROTECTION TYPE A
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- EROSION BALES
- RIPRAP MEDIUM
- CULVERT PIPE CHECKS

NOTE: INLET PROTECTION SHALL BE PLACED AT THE DISCRETION OF THE ENGINEER.

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	EROSION CONTROL - STH 16	SHEET 46	E

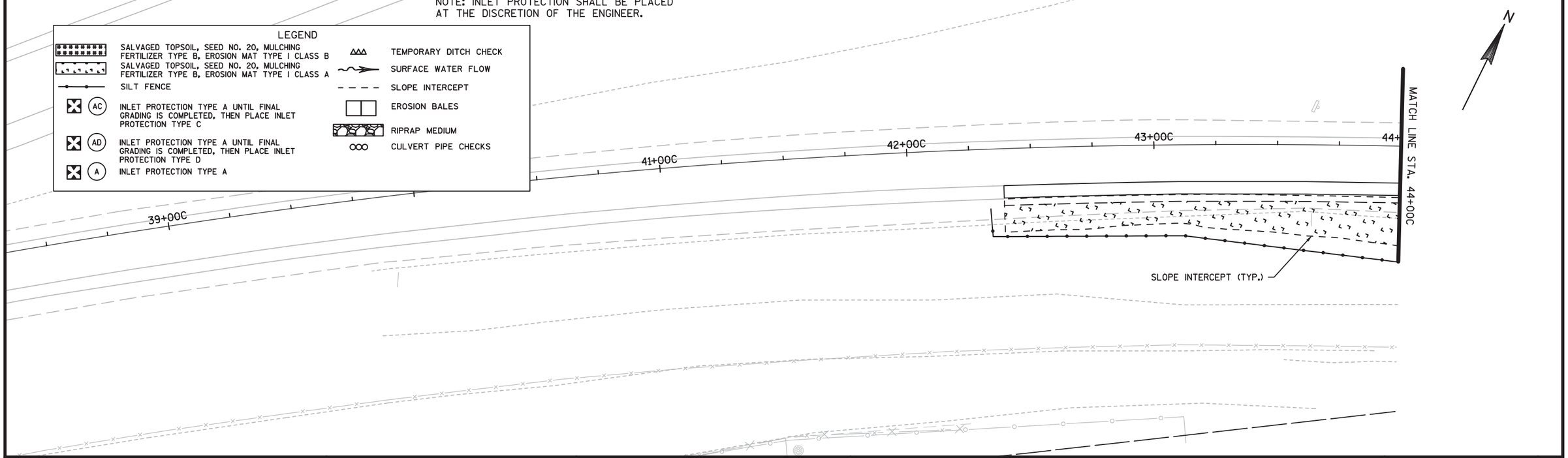
2



NOTE: INLET PROTECTION SHALL BE PLACED AT THE DISCRETION OF THE ENGINEER.

LEGEND

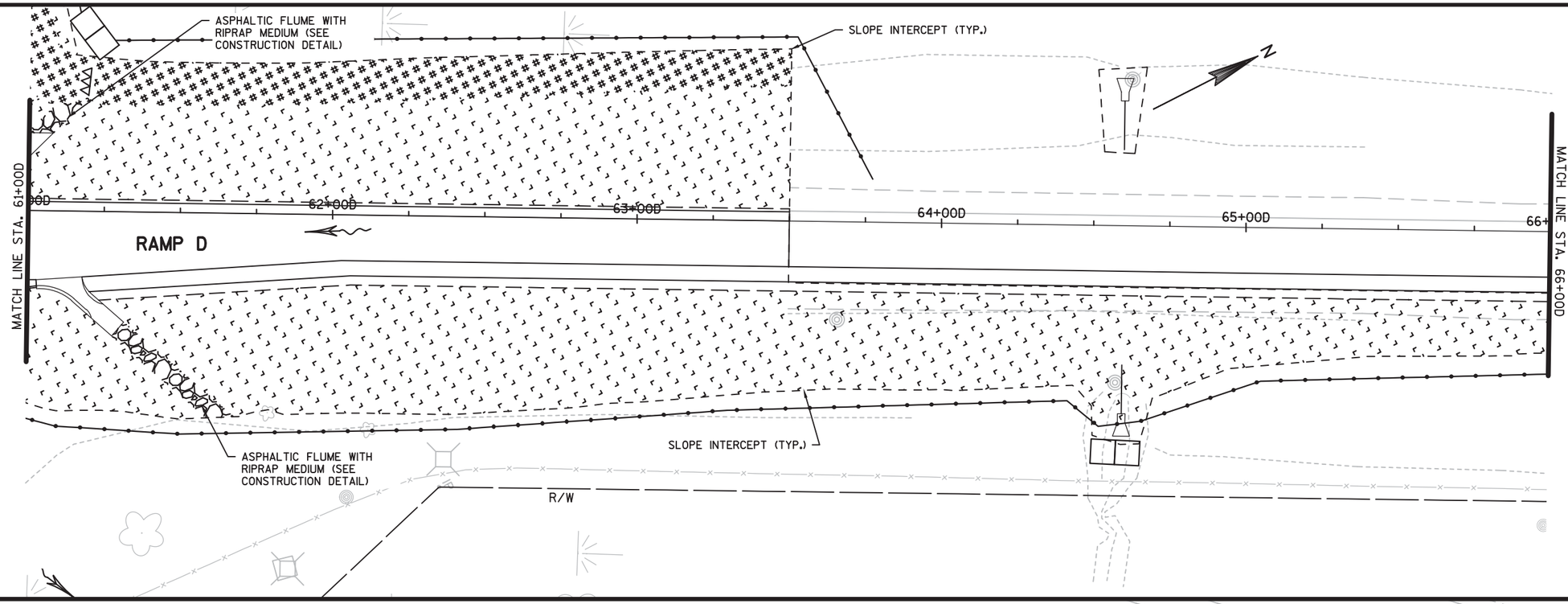
- SALVAGED TOPSOIL, SEED NO. 20, MULCHING FERTILIZER TYPE B, EROSION MAT TYPE I CLASS B
- SALVAGED TOPSOIL, SEED NO. 20, MULCHING FERTILIZER TYPE B, EROSION MAT TYPE I CLASS A
- SILT FENCE
- (AC) INLET PROTECTION TYPE A UNTIL FINAL GRADING IS COMPLETED, THEN PLACE INLET PROTECTION TYPE C
- (AD) INLET PROTECTION TYPE A UNTIL FINAL GRADING IS COMPLETED, THEN PLACE INLET PROTECTION TYPE D
- (A) INLET PROTECTION TYPE A
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- EROSION BALES
- RIPRAP MEDIUM
- CULVERT PIPE CHECKS

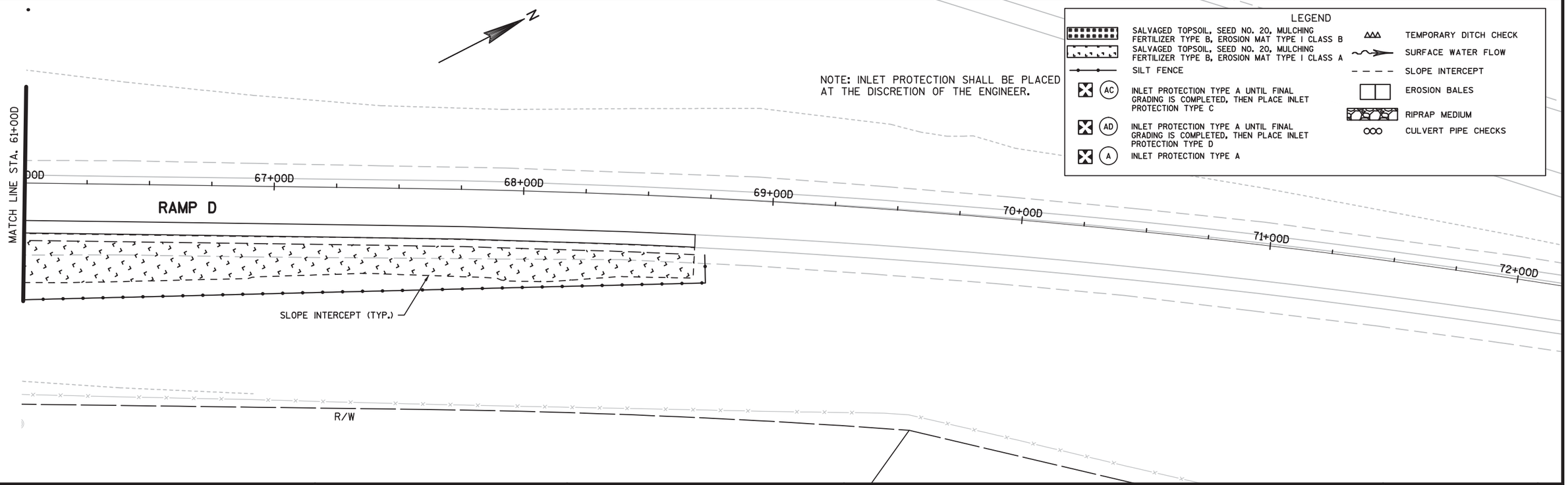


PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	EROSION CONTROL - STH 16	SHEET 47	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\EROSION CONTROL\022000ELEC.DWG PLOT DATE : 4/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2





PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	EROSION CONTROL - STH 16	SHEET 48	E

2

STA 110+02EB, 125.3' LT
36-INCH APRON ENDWALL (1.0)

PIPE UNDERDRAIN 6-INCH WITH GEOTEXTILE FABRIC & AGGREGATE (TYP.)

STA 108+95EB, 79.9' LT
INLETS 2x3-FT-HM (3.5)

STA 108+94EB, 71.7' LT
MANHOLES 4-FT DIAMETER-J (3.0)

STA 110+00EB, 68.3' LT
MANHOLES 6-FT DIAMETER-J (2.0)

STA 108+92EB, 5.6' LT
MANHOLES 4-FT DIAMETER-HM (3.2)

STA 108+25EB, 5.6' LT
INLETS 2x3-FT-HM (3.3)

STA 108+93EB, 36.4' LT
INLETS 2x3-FT-HM (3.1)

STA 108+25EB, 36.5' RT
INLETS 2x3-FT-HM (3.4)

STA 110+71EB, 18.3' LT
MANHOLES 5-FT DIAMETER-J (2.1)

STA 110+62EB, 81.3' RT
36-INCH APRON ENDWALL (2.2)

REMOVING INLETS

REMOVING STORM SEWER (36-INCH)

REMOVING INLETS

REMOVING STORM SEWER (36-INCH)

REMOVING MANHOLE

REMOVING STORM SEWER (24-INCH)

STA 20+99.7B, 23.2' LT
INLETS 2x3-FT-HM (17.3)

STA 20+98.8B, 16.5' LT
INLETS 2x3-FT-HM (17.2)

STA 21+04.5B, 1.5' RT
INLETS 2x3-FT-H (17.1)

STA 21+05.4B, 24.6' RT
12-INCH APRON ENDWALL (17.0)

REMOVING STORM SEWER (36-INCH)

STA 111+31EB, 94.2' LT
18-INCH APRON ENDWALL (4.0)

STA 111+14EB, 66.4' LT
MANHOLES 4-FT DIAMETER-H (4.1)

STA 111+55EB, 19.3' LT
MANHOLES 4-FT DIAMETER-H (4.2)

REMOVING INLETS

REMOVING STORM SEWER (12-INCH)

REMOVING MANHOLES

REMOVING STORM SEWER (24-INCH)

STA 111+55EB, 12.0' LT
INLETS 2x3-FT-H (4.3)

REMOVING STORM SEWER (24-INCH)

RAMP B

RAMP A

STH 16 WB

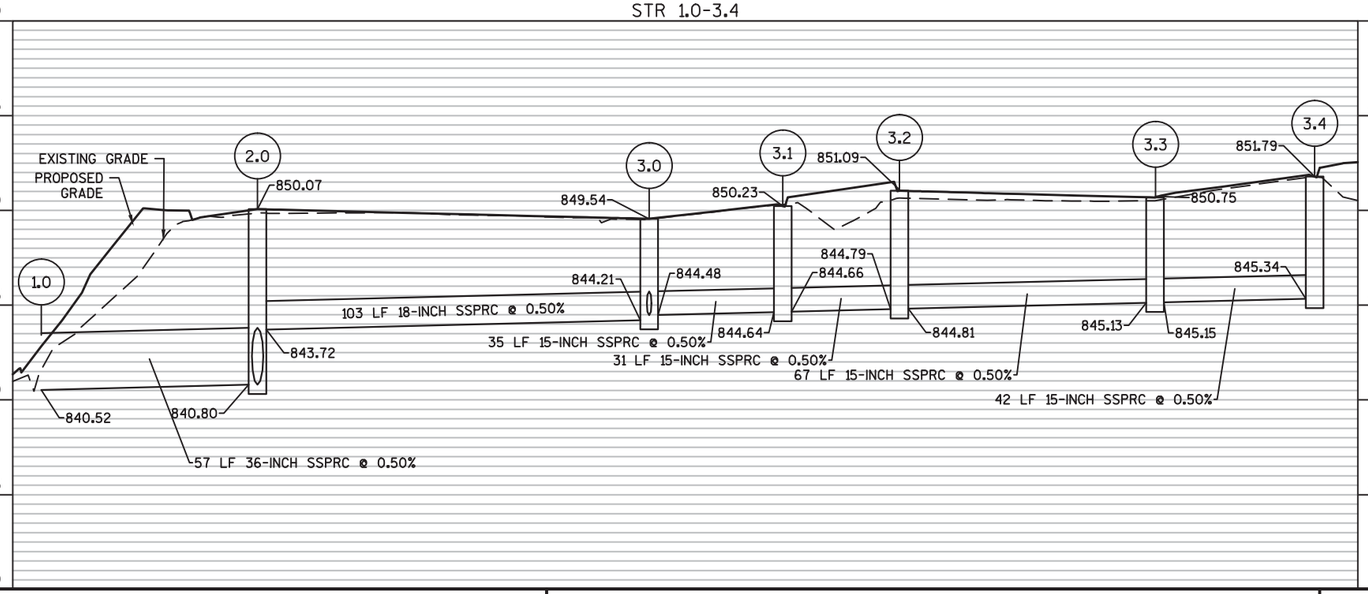
STH 16 EB

108+00WB
109+00WB
110+00WB
111+00WB
112+00WB
113+00WB
20+00
108+00EB
109+00EB
110+00EB
111+00EB
27+00A
26+00A
113+00.00EB

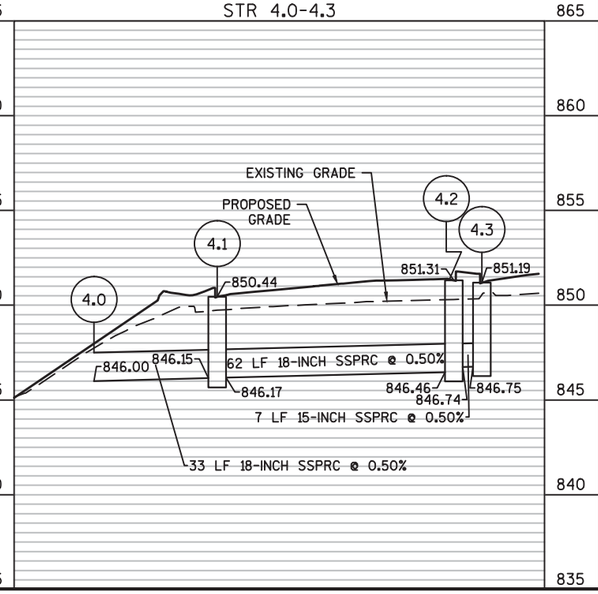
MATCH LINE STA. 113+00.00EB

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBUA	STORM SEWER PLAN	SHEET 49	E

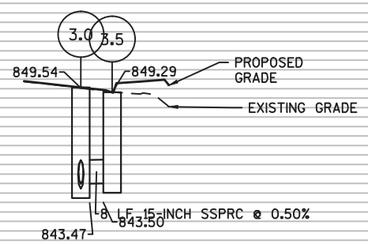
STR 1.0-3.4



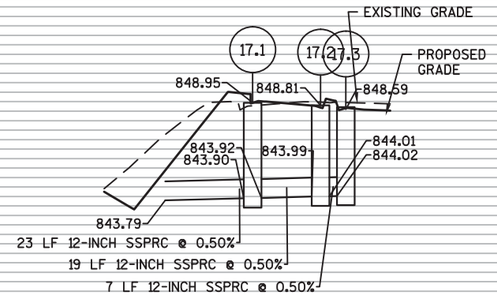
STR 4.0-4.3



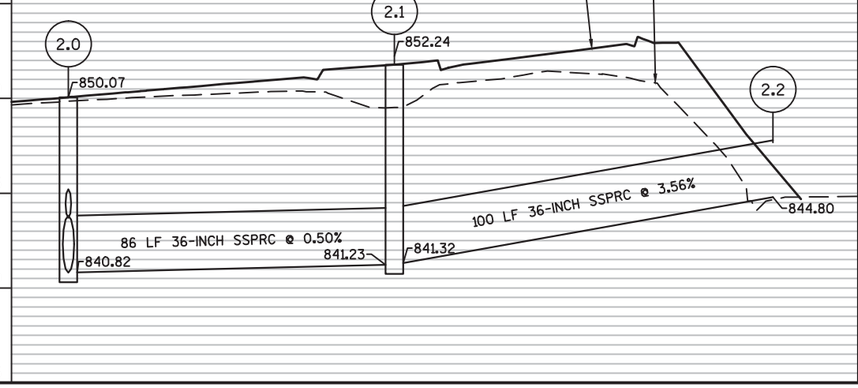
STR 3.0-3.5



STR 17.0-17.1

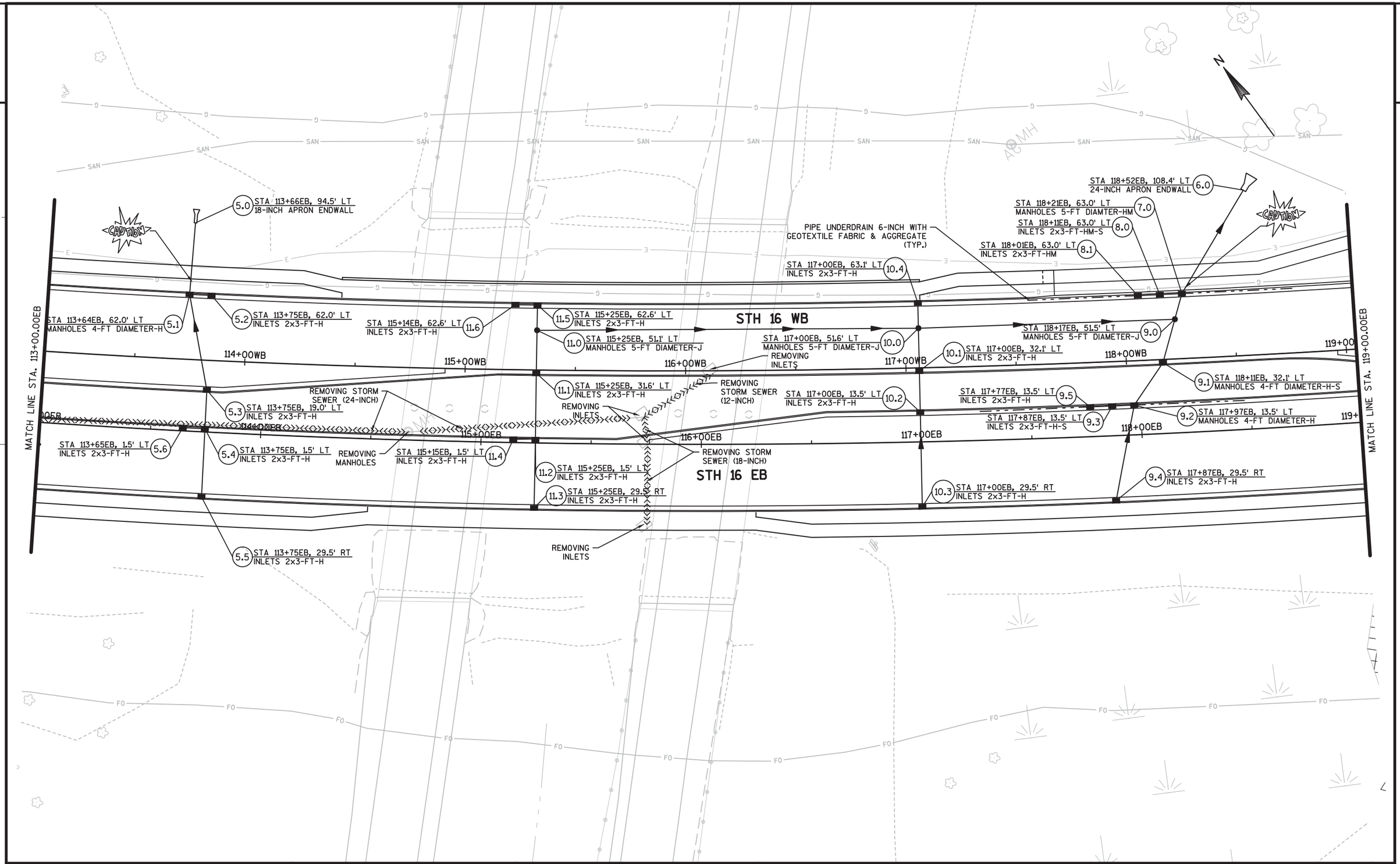


2.0-2.2

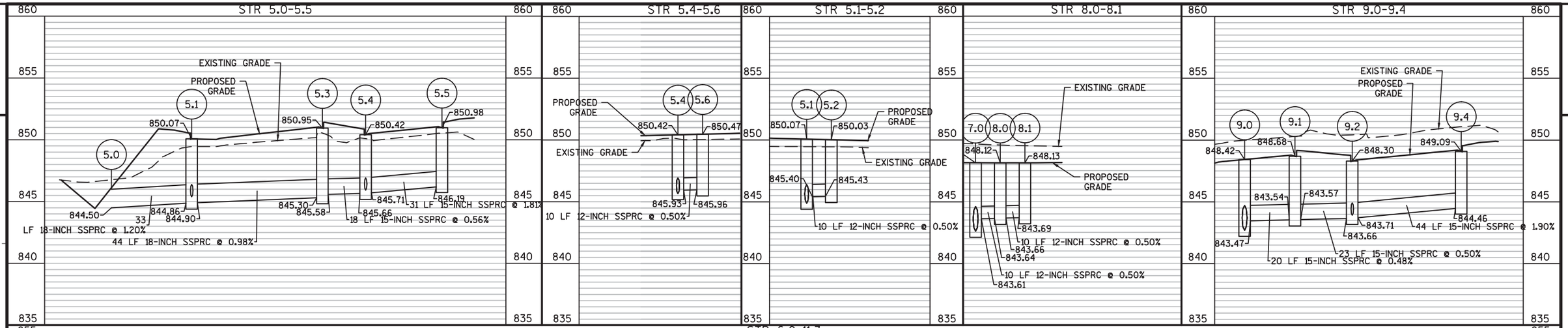


PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBUA	STORM SEWER PLAN	SHEET 50	E

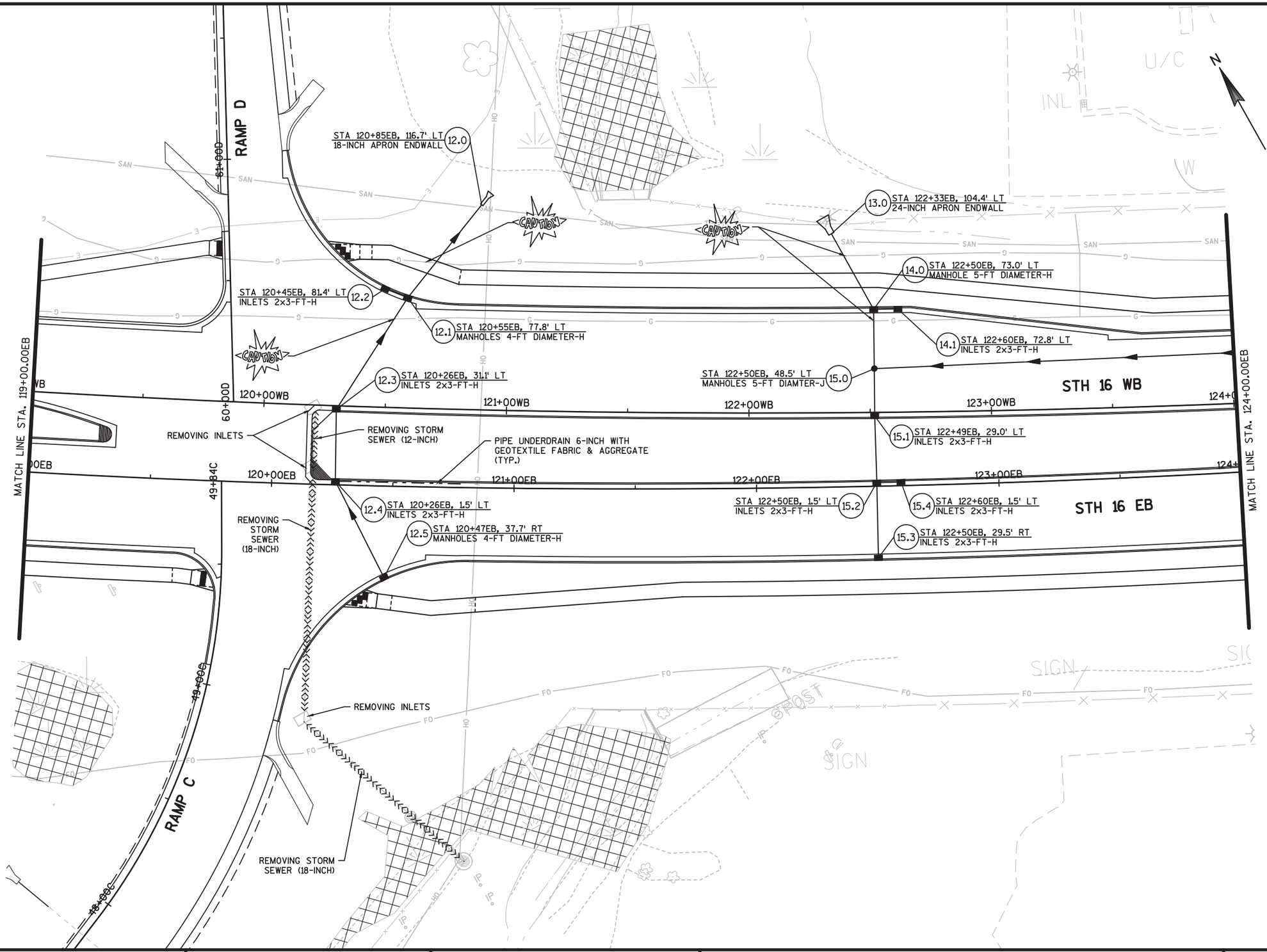
2



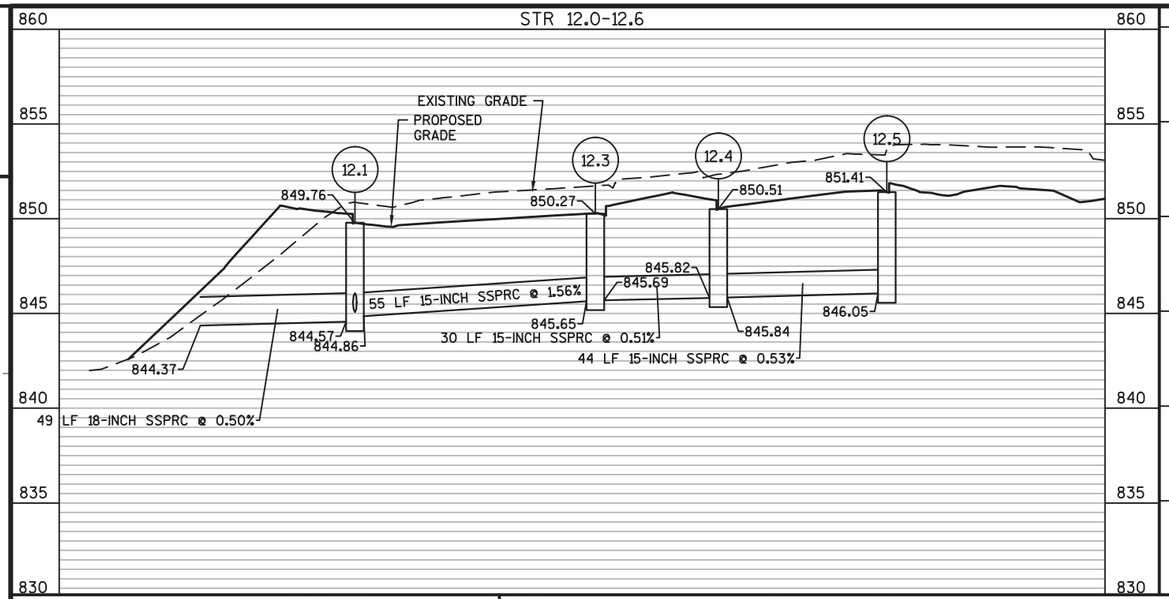
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBUA	STORM SEWER PLAN	SHEET 51	E

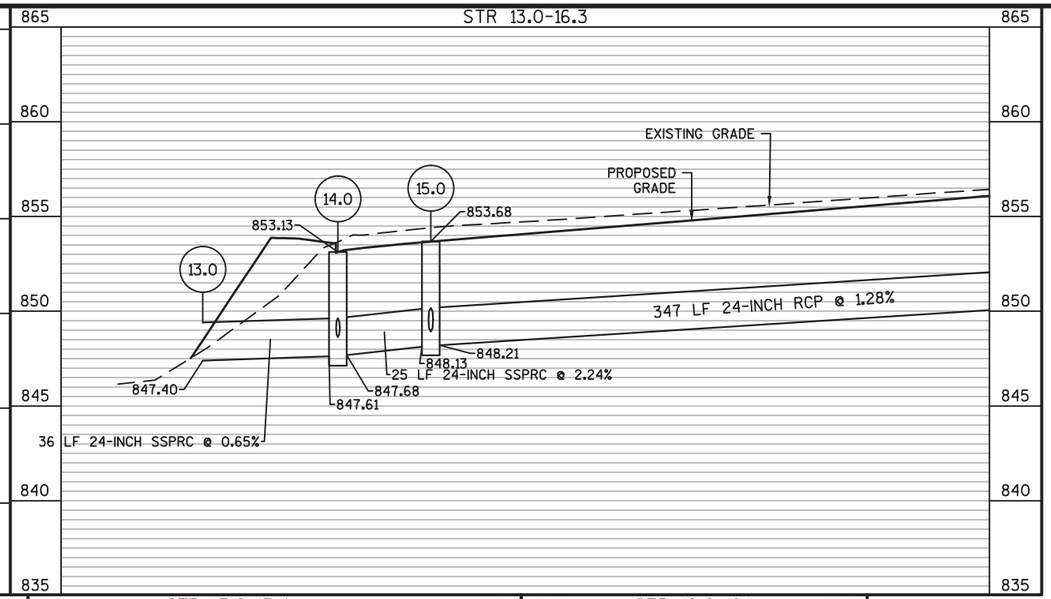

STR 5.0-5.5
EXISTING GRADE
PROPOSED GRADE
5.0
5.1
5.3
5.4
5.5
850.07
850.95
850.42
850.98
844.50
844.86
844.90
845.30
845.58
845.66
845.71
846.19
33 LF 18-INCH SSPRC @ 1.20%
44 LF 18-INCH SSPRC @ 0.98%
18 LF 15-INCH SSPRC @ 0.56%
31 LF 15-INCH SSPRC @ 1.81%
STR 5.4-5.6
PROPOSED GRADE
EXISTING GRADE
5.4
5.6
850.42
850.47
845.93
845.96
10 LF 12-INCH SSPRC @ 0.50%
STR 5.1-5.2
5.1
5.2
PROPOSED GRADE
EXISTING GRADE
850.07
850.03
845.40
845.43
10 LF 12-INCH SSPRC @ 0.50%
STR 8.0-8.1
EXISTING GRADE
PROPOSED GRADE
7.0
8.0
8.1
848.12
848.13
843.69
843.66
843.64
843.61
10 LF 12-INCH SSPRC @ 0.50%
10 LF 12-INCH SSPRC @ 0.50%
STR 9.0-9.4
EXISTING GRADE
PROPOSED GRADE
9.0
9.1
9.2
9.4
848.42
848.68
848.30
849.09
843.47
843.54
843.57
843.71
843.66
844.46
20 LF 15-INCH SSPRC @ 0.48%
23 LF 15-INCH SSPRC @ 0.50%
44 LF 15-INCH SSPRC @ 1.90%
STR 6.0-11.3
EXISTING GRADE
PROPOSED GRADE
6.0
7.0
9.0
10.0
11.0
11.1
11.2
11.3
848.13
848.42
848.79
849.66
849.92
849.66
850.23
842.33
842.59
842.61
842.69
842.72
843.25
843.27
844.88
844.11
844.98
844.96
845.11
845.16
845.61
55 LF 24-INCH SSPRC @ 0.49%
12 LF 24-INCH SSPRC @ 0.89%
116 LF 24-INCH SSPRC @ 0.47%
173 LF 24-INCH SSPRC @ 0.50%
19 LF 15-INCH SSPRC @ 0.50%
30 LF 15-INCH SSPRC @ 0.50%
31 LF 15-INCH SSPRC @ 1.69%
STR 9.3-9.5
EXISTING GRADE
PROPOSED GRADE
9.2
9.3
9.5
848.29
848.30
848.30
843.93
843.96
843.98
844.01
10 LF 12-INCH SSPRC @ 0.50%
10 LF 12-INCH SSPRC @ 0.50%
STR 10.3-10.4
PROPOSED GRADE
EXISTING GRADE
10.3
10.2
10.1
10.0
10.4
849.35
848.55
849.06
848.79
848.50
844.73
844.23
844.19
844.12
844.09
844.02
844.05
844.02
43 LF 15-INCH SSPRC @ 1.33%
19 LF 15-INCH SSPRC @ 0.50%
11 LF 15-INCH SSPRC @ 0.50%
19 LF 15-INCH SSPRC @ 0.50%
STR 11.0-11.6
PROPOSED GRADE
EXISTING GRADE
11.0
11.5
11.6
849.66
849.37
849.41
844.88
844.97
844.94
844.92
10 LF 12-INCH SSPRC @ 0.50%
11 LF 15-INCH SSPRC @ 0.50%
STR 11.2-11.4
11.2
11.4
849.66
849.71
PROPOSED GRADE
EXISTING GRADE
845.38
845.41
10 LF 12-INCH SSPRC @ 0.50%

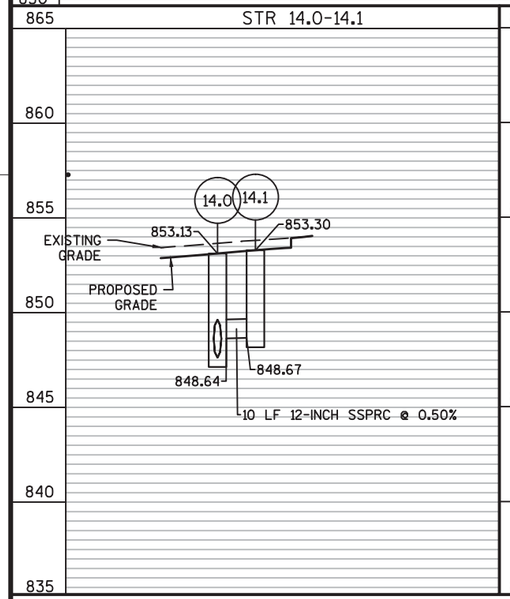
2

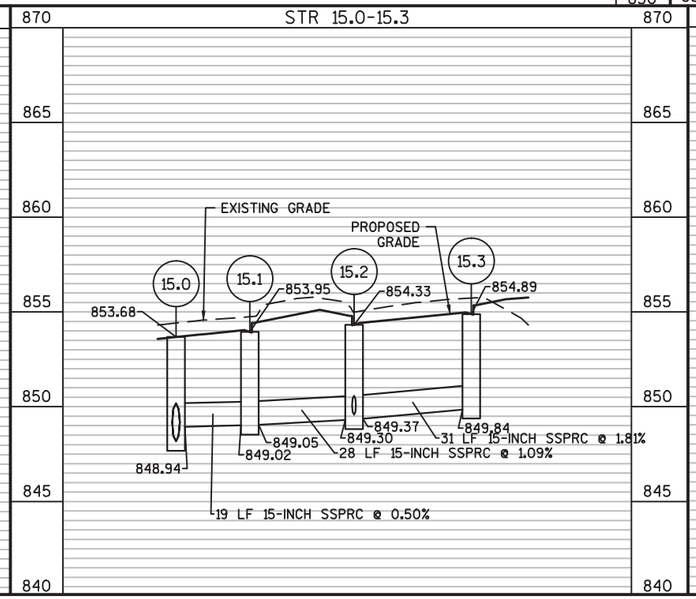


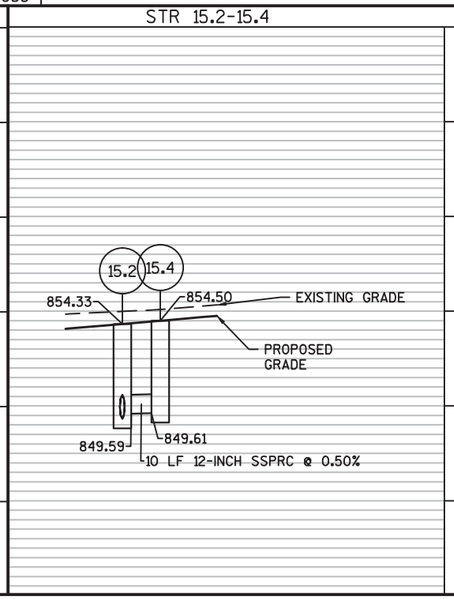
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBUA	STORM SEWER PLAN	SHEET 53	E

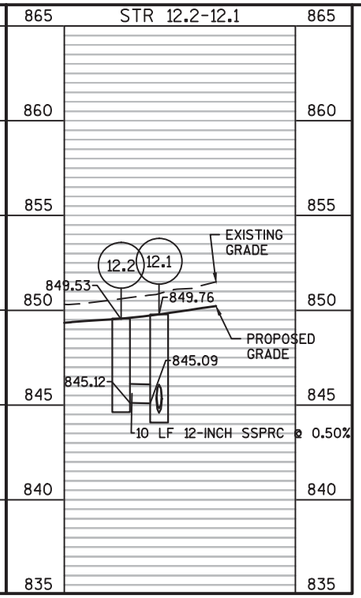

STR 12.0-12.6
EXISTING GRADE
PROPOSED GRADE
12.1
12.3
12.4
12.5
849.76
850.27
850.51
851.41
845.82
845.69
844.37
844.57
844.86
845.65
845.84
846.05
55 LF 15-INCH SSPRC @ 1.56%
30 LF 15-INCH SSPRC @ 0.51%
44 LF 15-INCH SSPRC @ 0.53%
49 LF 18-INCH SSPRC @ 0.50%


STR 13.0-16.3
EXISTING GRADE
PROPOSED GRADE
13.0
14.0
15.0
853.13
853.68
847.40
847.61
847.68
848.13
848.21
347 LF 24-INCH RCP @ 1.28%
25 LF 24-INCH SSPRC @ 2.24%
36 LF 24-INCH SSPRC @ 0.65%


STR 14.0-14.1
14.0
14.1
EXISTING GRADE
PROPOSED GRADE
853.13
853.30
848.64
848.67
10 LF 12-INCH SSPRC @ 0.50%

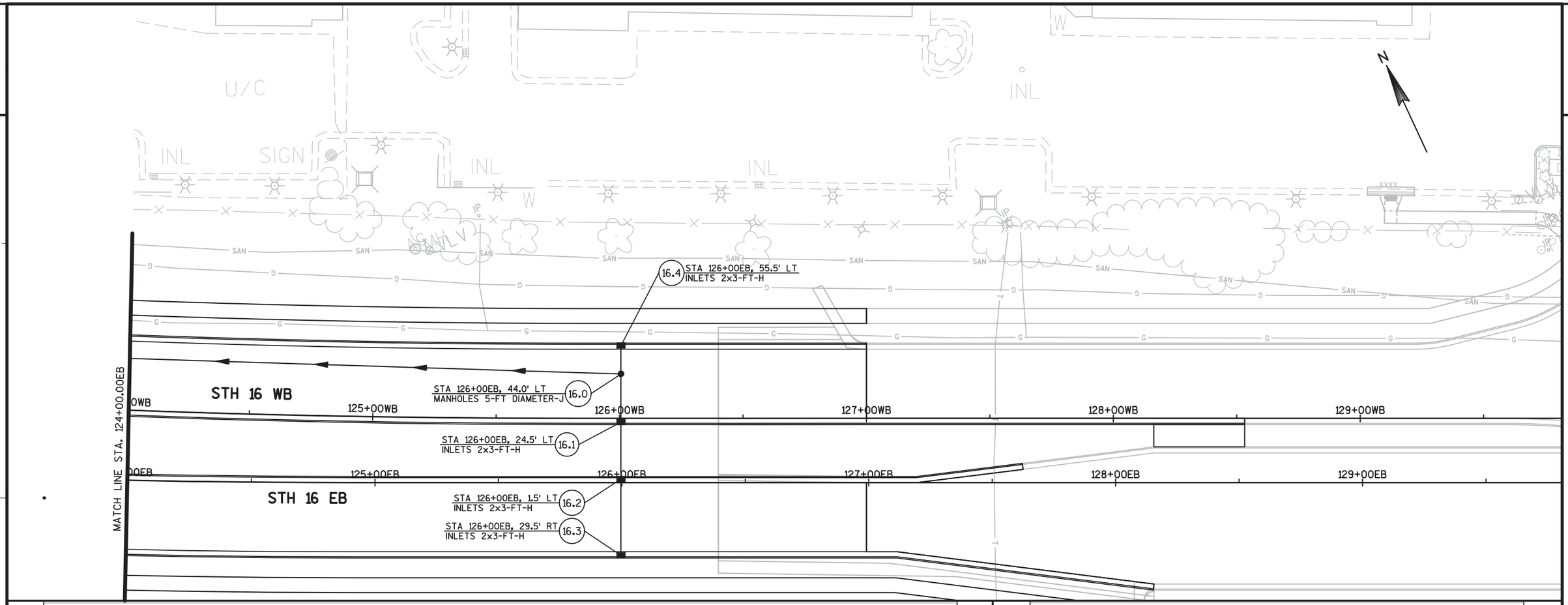

STR 15.0-15.3
EXISTING GRADE
PROPOSED GRADE
15.0
15.1
15.2
15.3
853.68
853.95
854.33
854.89
848.94
849.02
849.05
849.30
849.37
849.84
19 LF 15-INCH SSPRC @ 0.50%
28 LF 15-INCH SSPRC @ 1.09%
31 LF 15-INCH SSPRC @ 1.81%

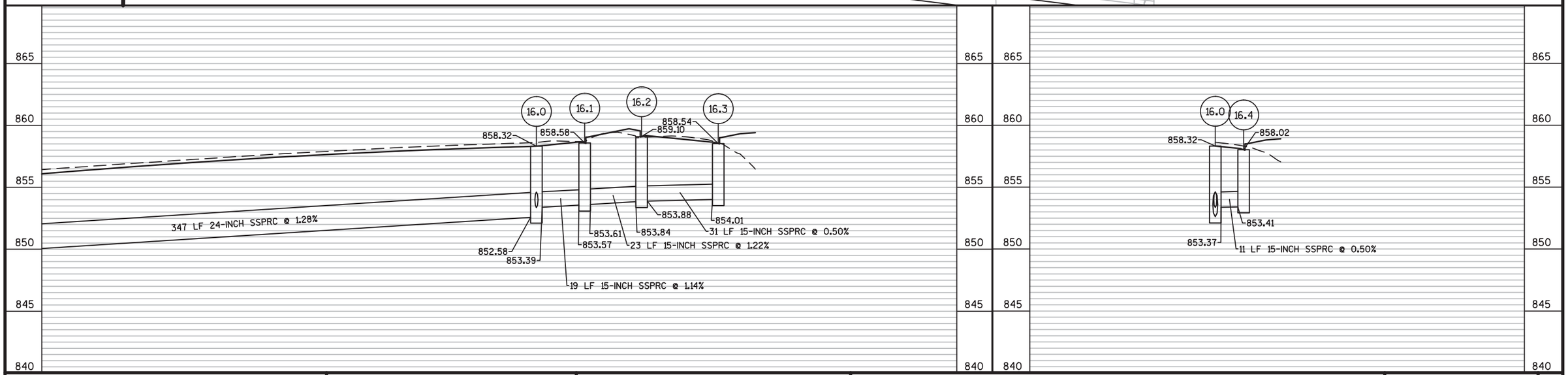

STR 15.2-15.4
15.2
15.4
854.33
854.50
EXISTING GRADE
PROPOSED GRADE
849.59
849.61
10 LF 12-INCH SSPRC @ 0.50%


STR 12.2-12.1
12.2
12.1
EXISTING GRADE
PROPOSED GRADE
849.53
849.76
845.12
845.09
10 LF 12-INCH SSPRC @ 0.50%

2

2

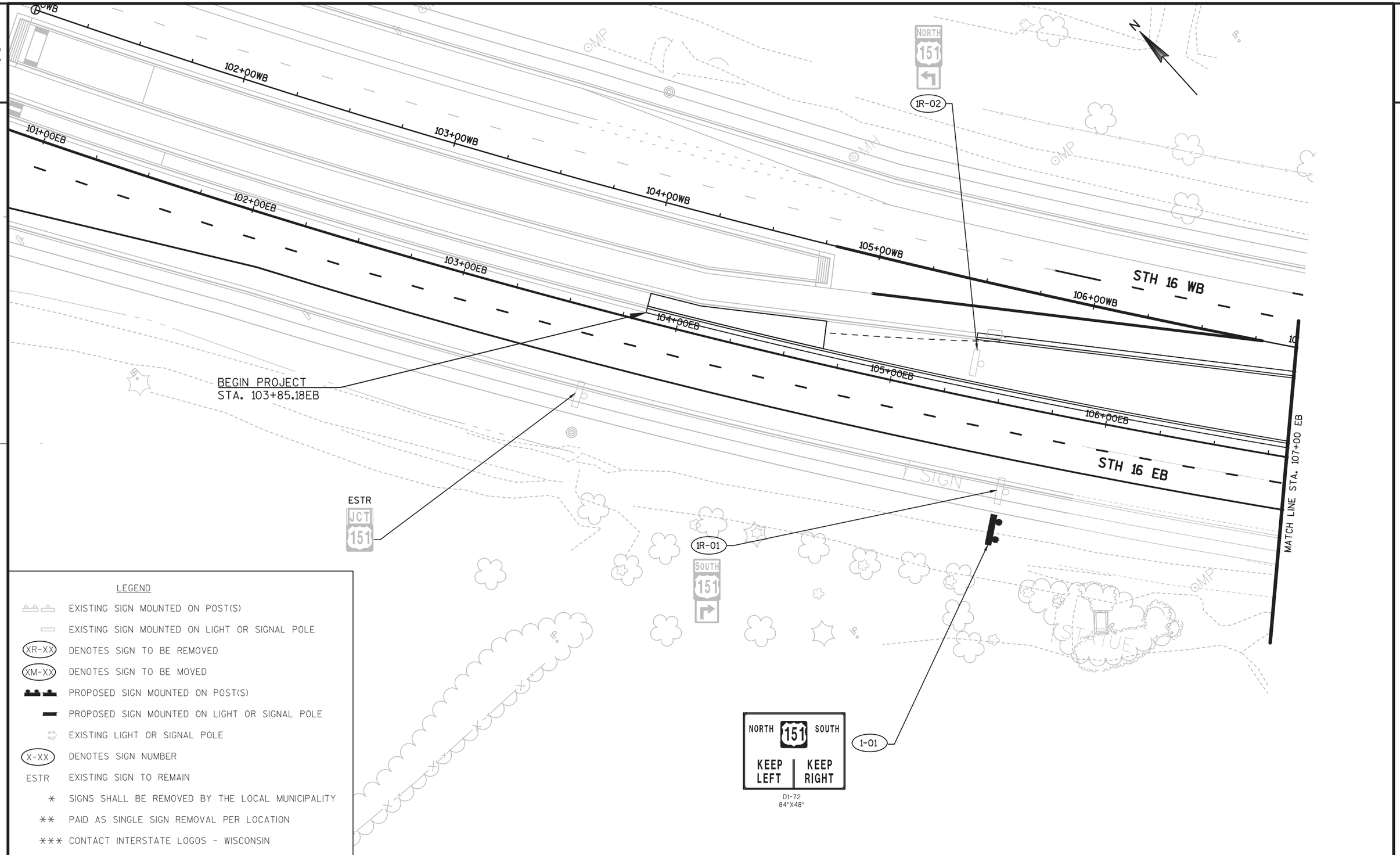




PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBUA	STORM SEWER PLAN	SHEET 55	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\022501_SS.DWG PLOT DATE : 4/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1:40_XREF

2

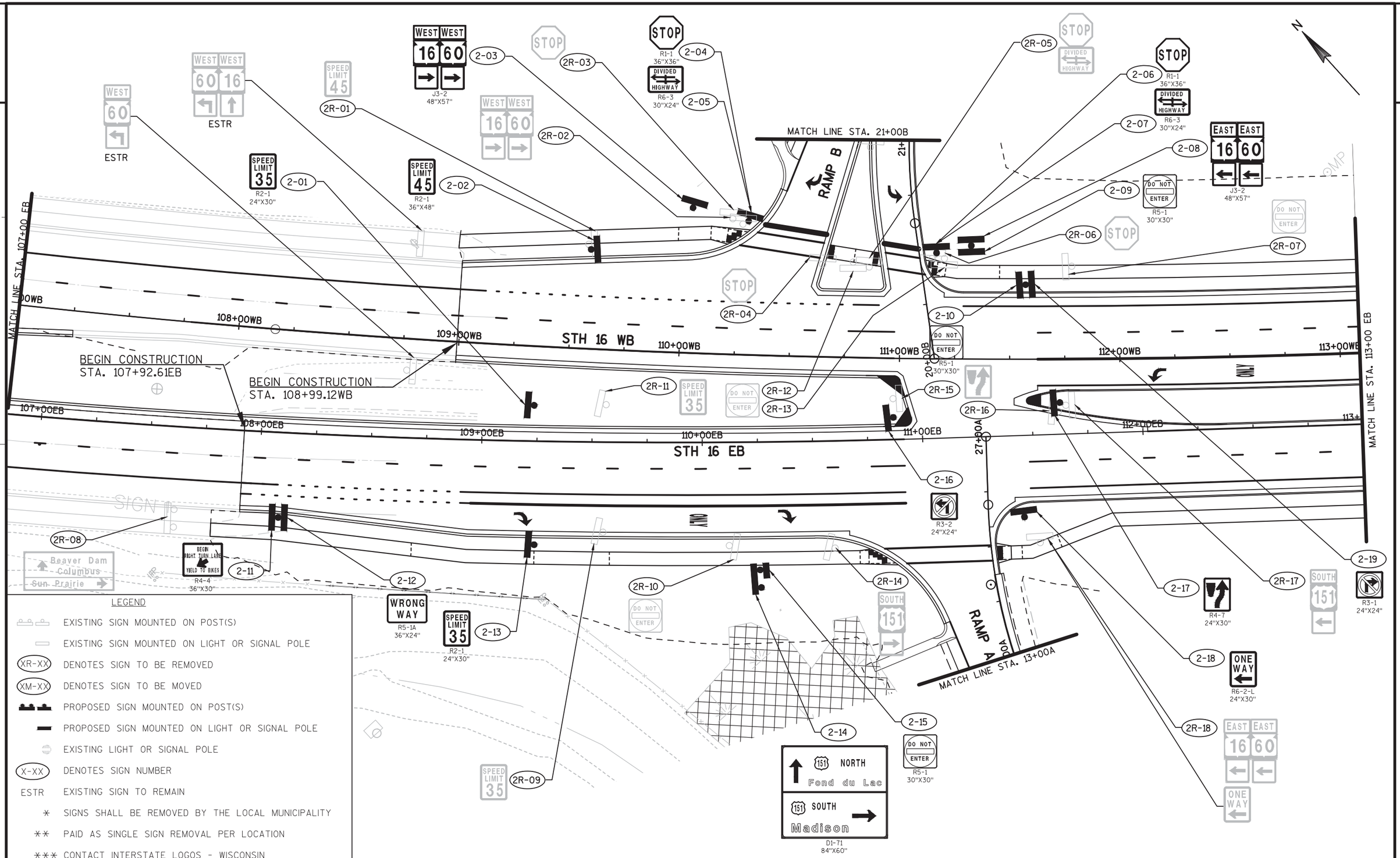


LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON LIGHT OR SIGNAL POLE
- (XR-XX) DENOTES SIGN TO BE REMOVED
- (XM-XX) DENOTES SIGN TO BE MOVED
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON LIGHT OR SIGNAL POLE
- EXISTING LIGHT OR SIGNAL POLE
- (X-XX) DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN
- * SIGNS SHALL BE REMOVED BY THE LOCAL MUNICIPALITY
- ** PAID AS SINGLE SIGN REMOVAL PER LOCATION
- *** CONTACT INTERSTATE LOGOS - WISCONSIN

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PERMANENT SIGNING - STH 16	SHEET 56	E

2



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON LIGHT OR SIGNAL POLE
- (XR-XX) DENOTES SIGN TO BE REMOVED
- (XM-XX) DENOTES SIGN TO BE MOVED
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON LIGHT OR SIGNAL POLE
- EXISTING LIGHT OR SIGNAL POLE
- (X-XX) DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN
- * SIGNS SHALL BE REMOVED BY THE LOCAL MUNICIPALITY
- ** PAID AS SINGLE SIGN REMOVAL PER LOCATION
- *** CONTACT INTERSTATE LOGOS - WISCONSIN

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PERMANENT SIGNING - STH 16	SHEET 57	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\023201-PS.DWG PLOT DATE : 4/21/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:40 FT

2

USH 151 SB

USH 151 NB

BUMP

** 3R-02

Madison

3R-02 **

WRONG WAY 3R-01

WRONG WAY 3-01
R5-1A
36"X24"

B-11-078
EXISTING TO REMAIN

B-11-077
EXISTING TO REMAIN

Portage
Sun Prairie

SOUTH 151
J2-1
24"X57"

3R-03

3-02

MATCH LINE STA. 113+00EB

114+00WB

115+00WB

116+00WB

STH 16 WB

117+00WB

118+00WB

MATCH LINE STA. 118+50EB

114+00EB

115+00EB

116+00EB

STH 16 EB

117+00EB

118+00EB

3-04

Columbus
POPULATION 4,991
I2-3
66"X24"

3-05

151 SOUTH
Madison
D1-70
66"X30"

3-07

WRONG WAY
R5-1A
36"X24"

3R-05

Columbus
POPULATION 4,991

3-03

NORTH 151
J2-1
24"X57"

3-06

151 NORTH
Fond du Lac
D1-70
84"X30"

3R-06

WRONG WAY

3R-04

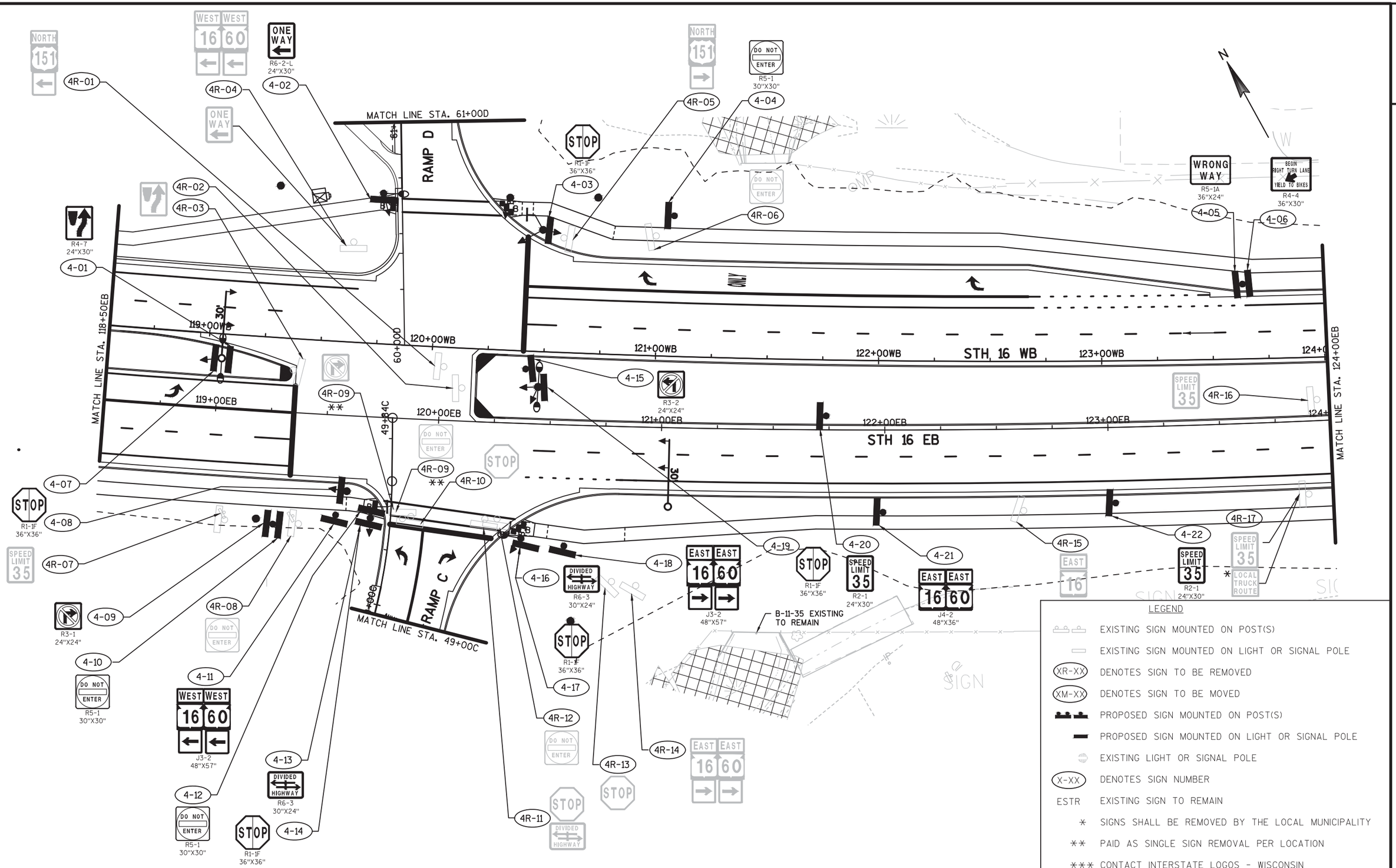
Columbus
Beaver Dam

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON LIGHT OR SIGNAL POLE
- XR-XX DENOTES SIGN TO BE REMOVED
- XM-XX DENOTES SIGN TO BE MOVED
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON LIGHT OR SIGNAL POLE
- EXISTING LIGHT OR SIGNAL POLE
- X-XX DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN
- * SIGNS SHALL BE REMOVED BY THE LOCAL MUNICIPALITY
- ** PAID AS SINGLE SIGN REMOVAL PER LOCATION
- *** CONTACT INTERSTATE LOGOS - WISCONSIN

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PERMANENT SIGNING - STH 16	SHEET 58	E

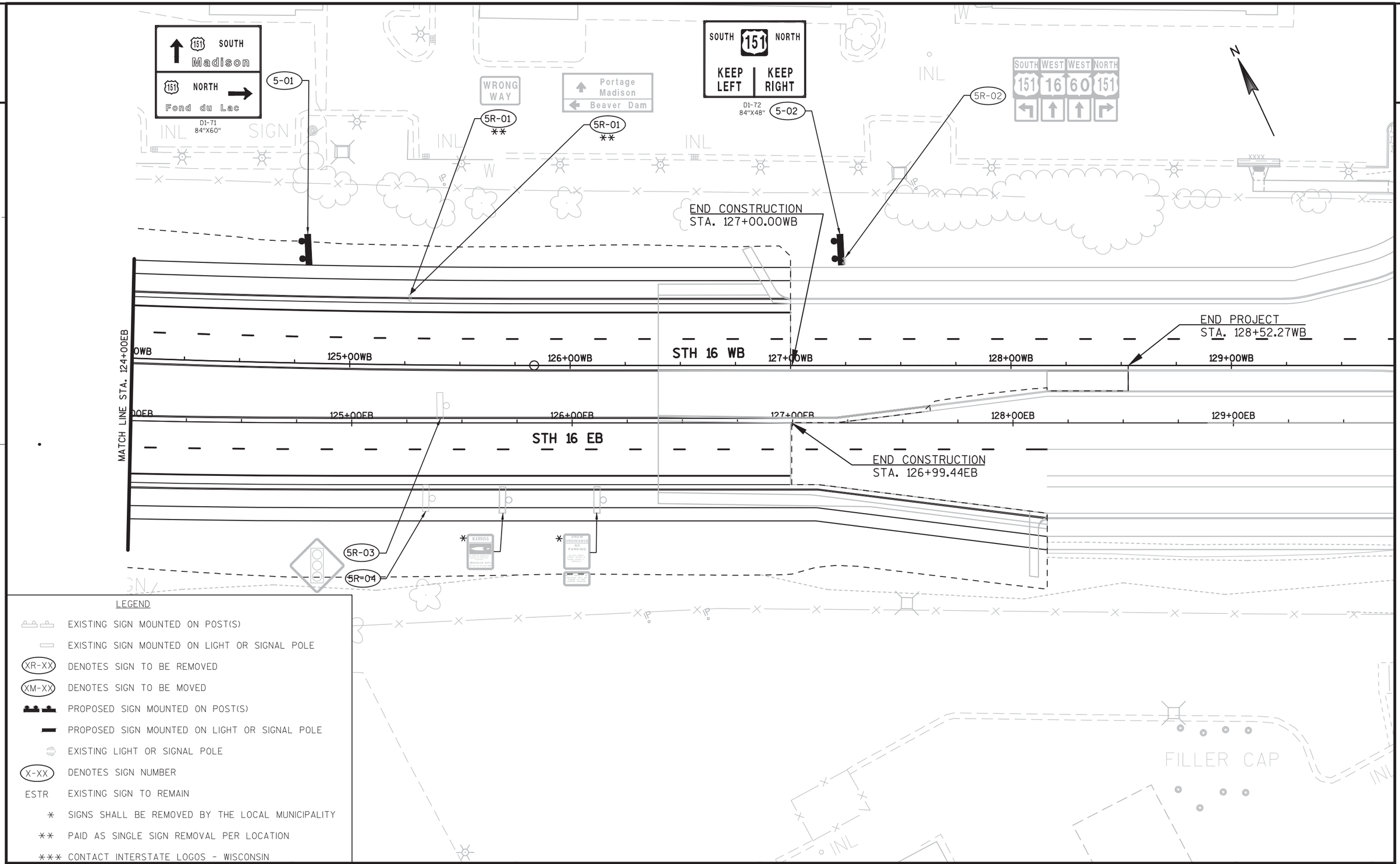
FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\023201-PS.DWG PLOT DATE : 4/21/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:40 FT



PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PERMANENT SIGNING - STH 16	SHEET 59	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\023201-PS.DWG PLOT DATE : 4/21/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

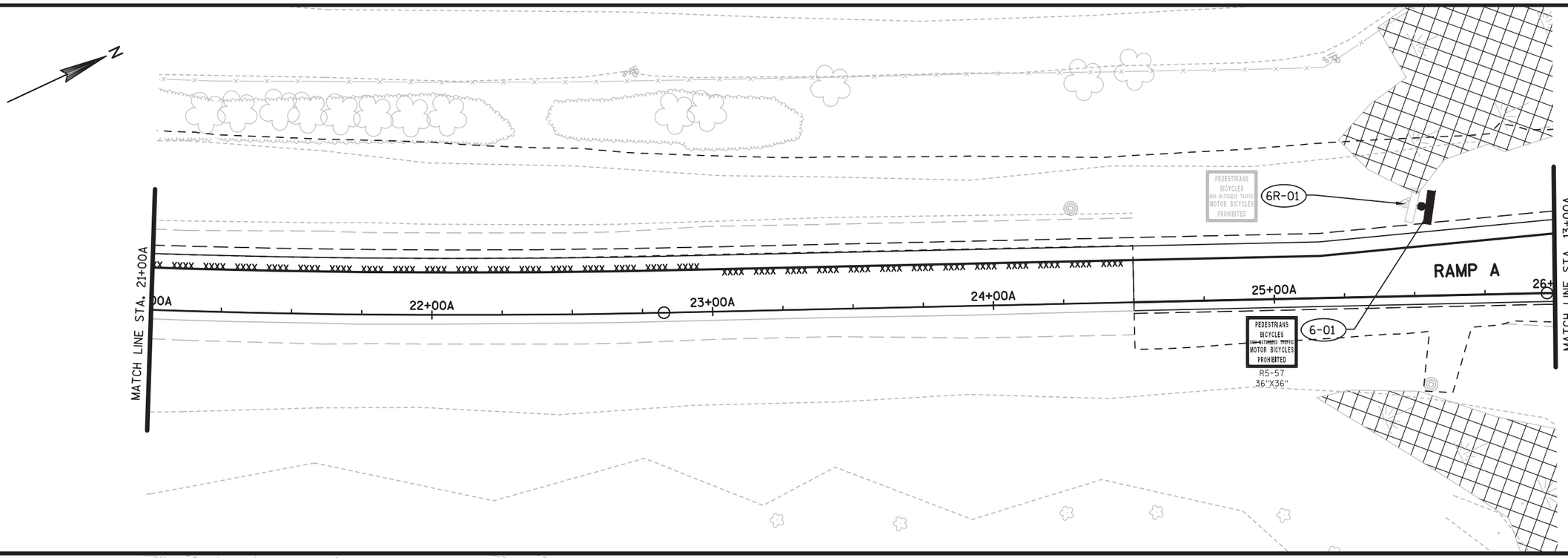
2

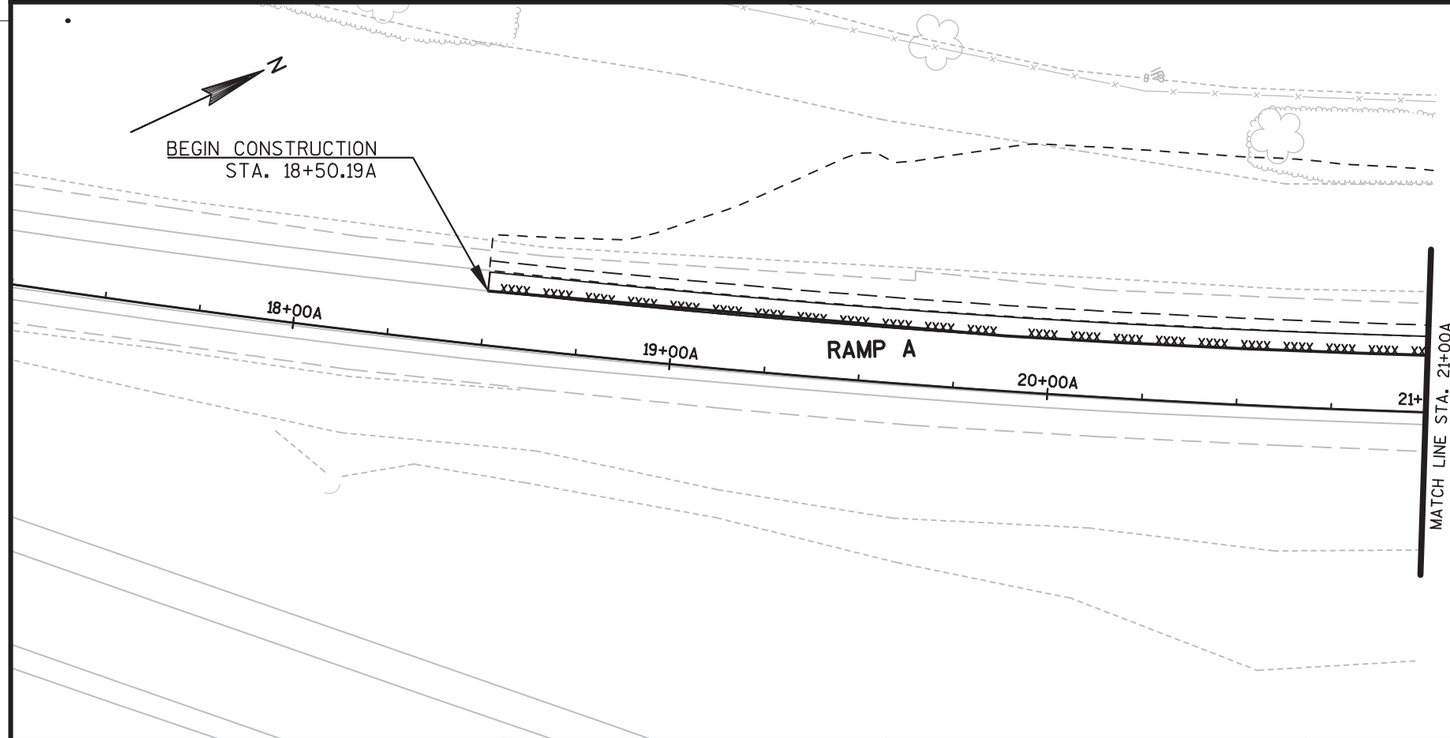


LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON LIGHT OR SIGNAL POLE
- (XR-XX) DENOTES SIGN TO BE REMOVED
- (XM-XX) DENOTES SIGN TO BE MOVED
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON LIGHT OR SIGNAL POLE
- EXISTING LIGHT OR SIGNAL POLE
- (X-XX) DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN
- * SIGNS SHALL BE REMOVED BY THE LOCAL MUNICIPALITY
- ** PAID AS SINGLE SIGN REMOVAL PER LOCATION
- *** CONTACT INTERSTATE LOGOS - WISCONSIN

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PERMANENT SIGNING - STH 16	SHEET 60	E

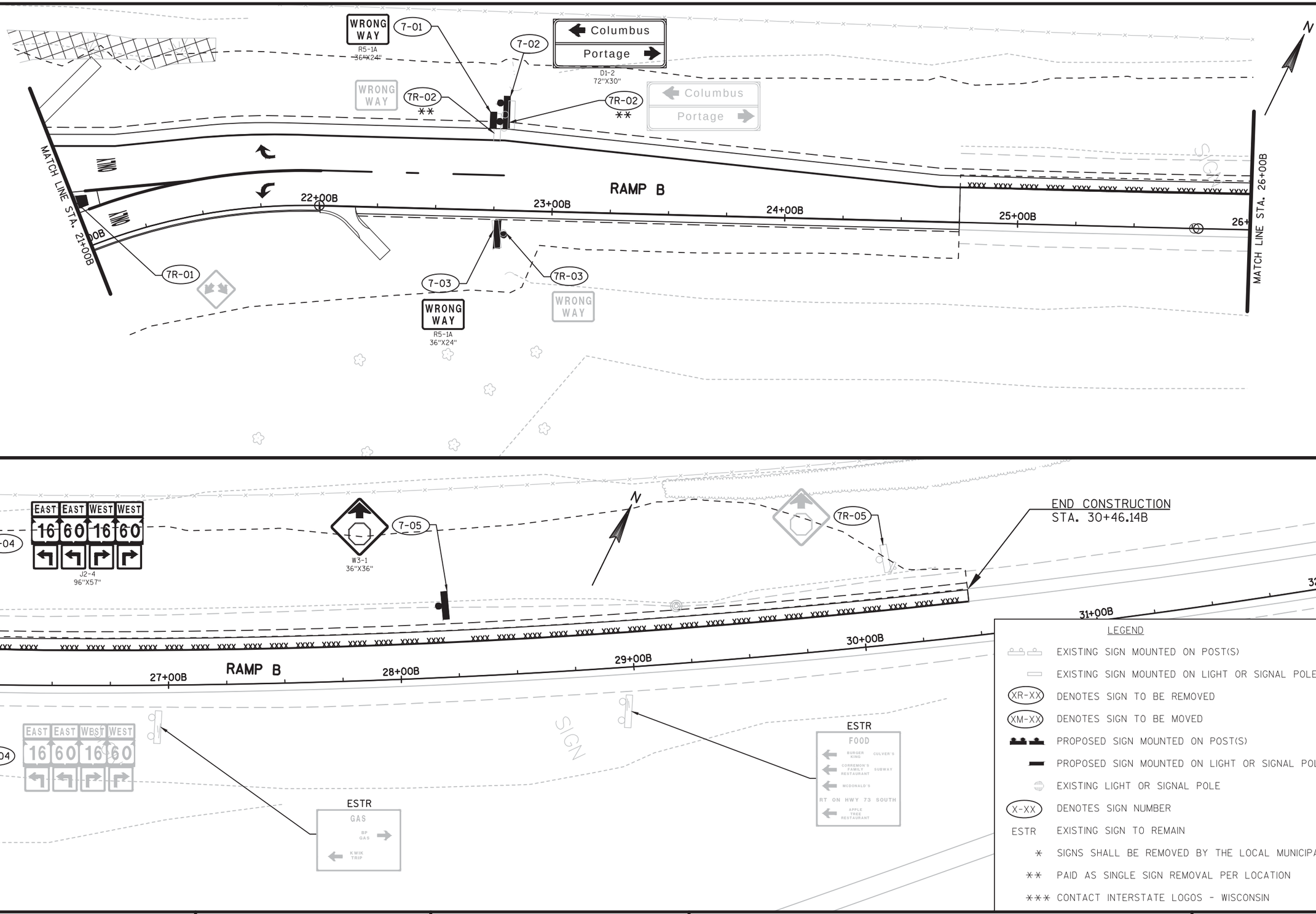




LEGEND

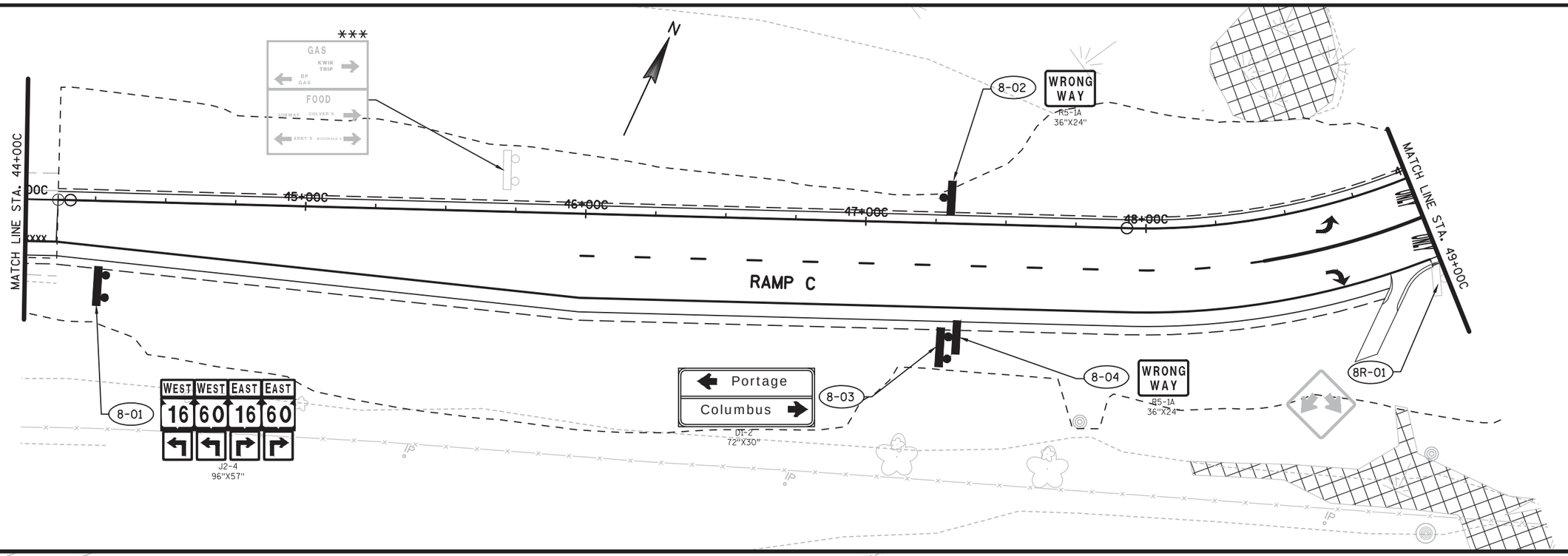
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON LIGHT OR SIGNAL POLE
- (XR-XX) DENOTES SIGN TO BE REMOVED
- (XM-XX) DENOTES SIGN TO BE MOVED
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON LIGHT OR SIGNAL POLE
- EXISTING LIGHT OR SIGNAL POLE
- (X-XX) DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN
- * SIGNS SHALL BE REMOVED BY THE LOCAL MUNICIPALITY
- ** PAID AS SINGLE SIGN REMOVAL PER LOCATION
- *** CONTACT INTERSTATE LOGOS - WISCONSIN

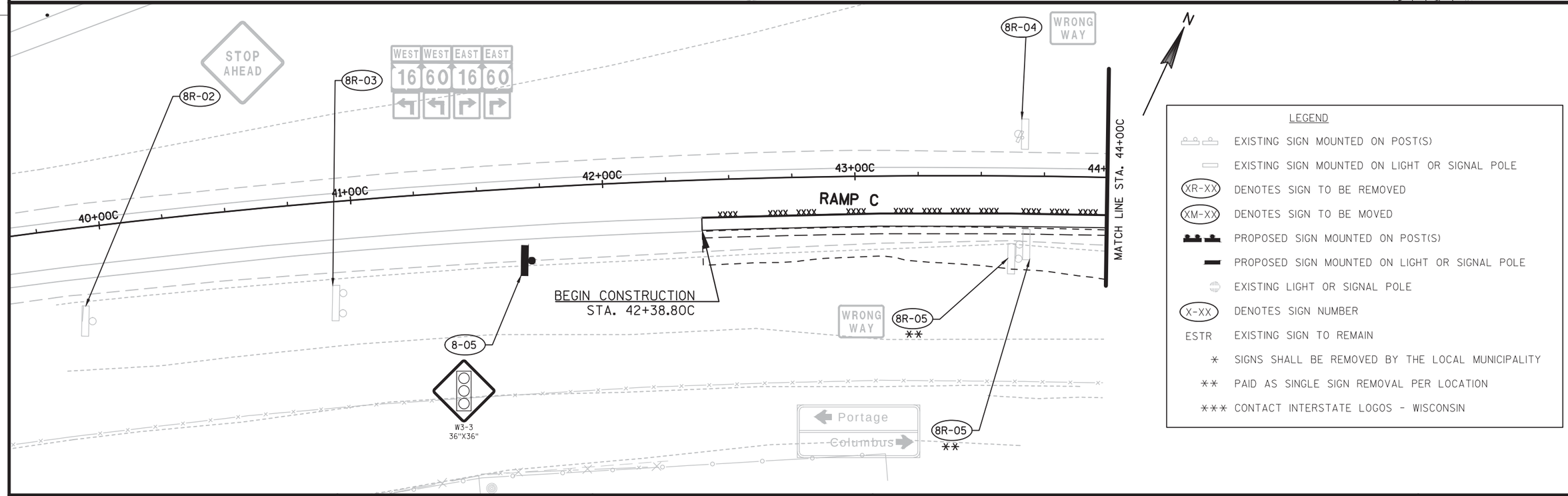
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PERMANENT SIGNING - STH 16	SHEET 61	E



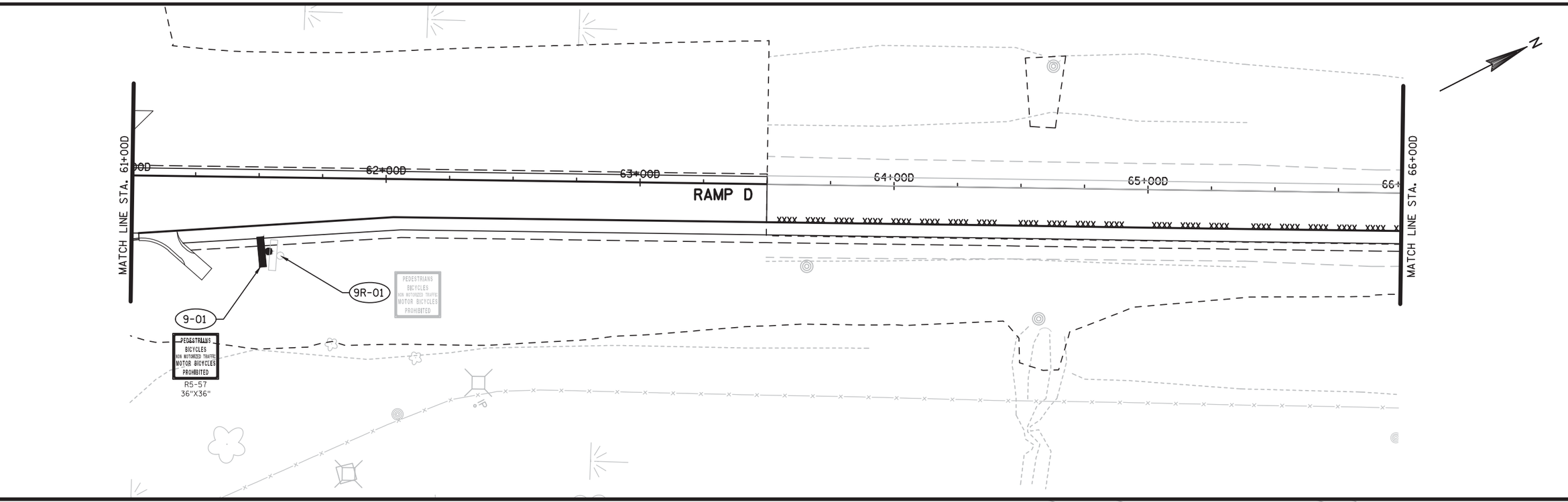
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PERMANENT SIGNING - STH 16	SHEET 62	E

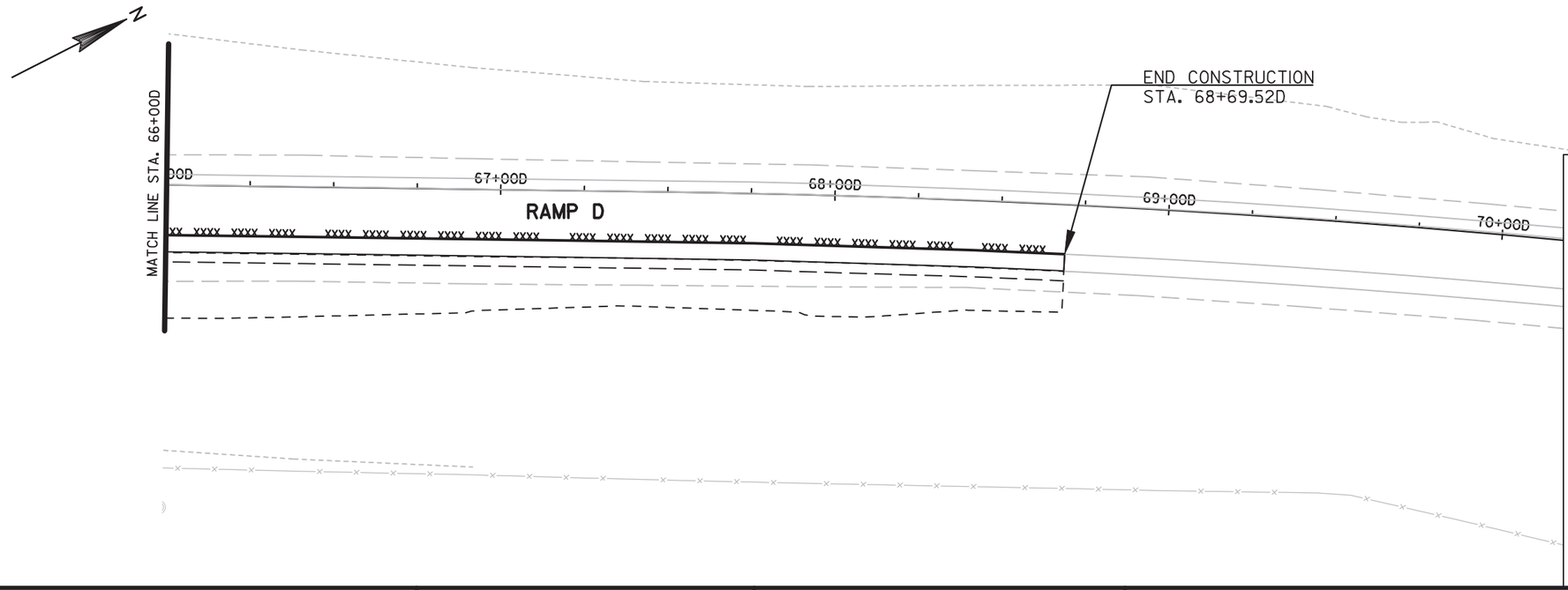
2





PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PERMANENT SIGNING - STH 16	SHEET 63	E





LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON LIGHT OR SIGNAL POLE
- (XR-XX) DENOTES SIGN TO BE REMOVED
- (XM-XX) DENOTES SIGN TO BE MOVED
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON LIGHT OR SIGNAL POLE
- EXISTING LIGHT OR SIGNAL POLE
- (X-XX) DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN
- * SIGNS SHALL BE REMOVED BY THE LOCAL MUNICIPALITY
- ** PAID AS SINGLE SIGN REMOVAL PER LOCATION
- *** CONTACT INTERSTATE LOGOS - WISCONSIN

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PERMANENT SIGNING - STH 16	SHEET 64	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\023201-PS.DWG PLOT DATE : 4/21/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

LIGHTING PLANS PREPARED BY:

WISCONSIN
PATRICK M. TADDY
D-1425-E
WAUNAKEE, WI
DESIGNER

10-13-2016 DATE

Patrick M. Taddy SIGNATURE

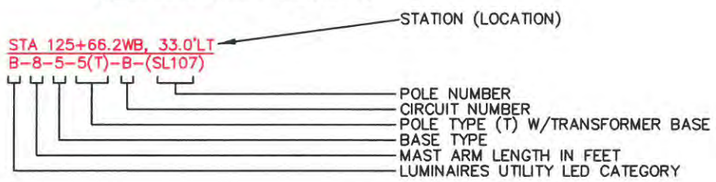
LEGEND:

- SINGLE ARM LIGHTING UNIT – TYPE 5 (WIS DOT TYPE POLE & FIXTURE)
- LIGHTING CONDUIT (2" SCHEDULE 40 PVC UNLESS NOTED)
- CONCRETE CONTROL CABINET BASE/ELECTRICAL SERVICE
- PULL BOX (24"X42" STEEL)

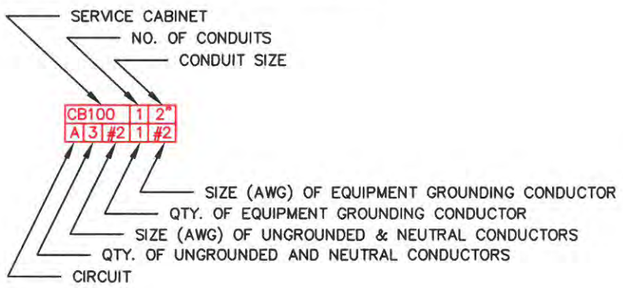
NOTES:

1) WISCONSIN DOT ELECTRICAL UNIT SHALL APPROVE THE FINAL LOCATION FOR ALL CONCRETE BASES AND PULLBOXES IN THE FIELD PRIOR TO INSTALLATION. CONTACT THEM 3 DAYS IN ADVANCE.
2) PITCH ALL CONDUIT TOWARD PULLBOXES. A 2" DRAIN DUCT TO DITCH OR STORM SEWER REQUIRED FOR ALL PULLBOXES IN LOW POINTS. REFER TO THE MISCELLANEOUS QUANTITIES FOR LOCATIONS OF DRAIN DUCT.
3) THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.
4) ALL POLES SHALL BE PLACED A MINIMUM OF 2–3 FEET FROM THE BACK OF CURB.
5) CABINET BASES AND THE PULLBOXES AND CONDUIT WITHIN THE AREA OF CABINET BASES SHALL BE INSTALLED PER FIELD CONDITIONS (WITH ENGINEER APPROVAL). VERIFY THE LOCATION OF ALL ELECTRICAL FACILITIES WITH THE ENGINEER PRIOR TO INSTALLING.
6) ALL LIGHT CIRCUITS TO BE 120/240 SINGLE PHASE. STREET LIGHTS TO OPERATE AT 120 VOLTS, CONNECTED TO ONE PHASE AT A POLE AND THEN ALTERNATING FROM POLE TO POLE. CONTRACTOR TO BALANCE ELECTRICAL LOADS ON EACH FEEDER. PHOTOCONTROL ON LIGHTING CABINET CB100, LOCATED AT DIX AND JAMES STREETS.
7) NO SPLICES ALLOWED IN PULLBOXES.

LIGHTING UNIT LEGEND



CONDUIT/CONDUCTOR LEGEND



ABBREVIATIONS:

PWO = PULL WIRE ONLY

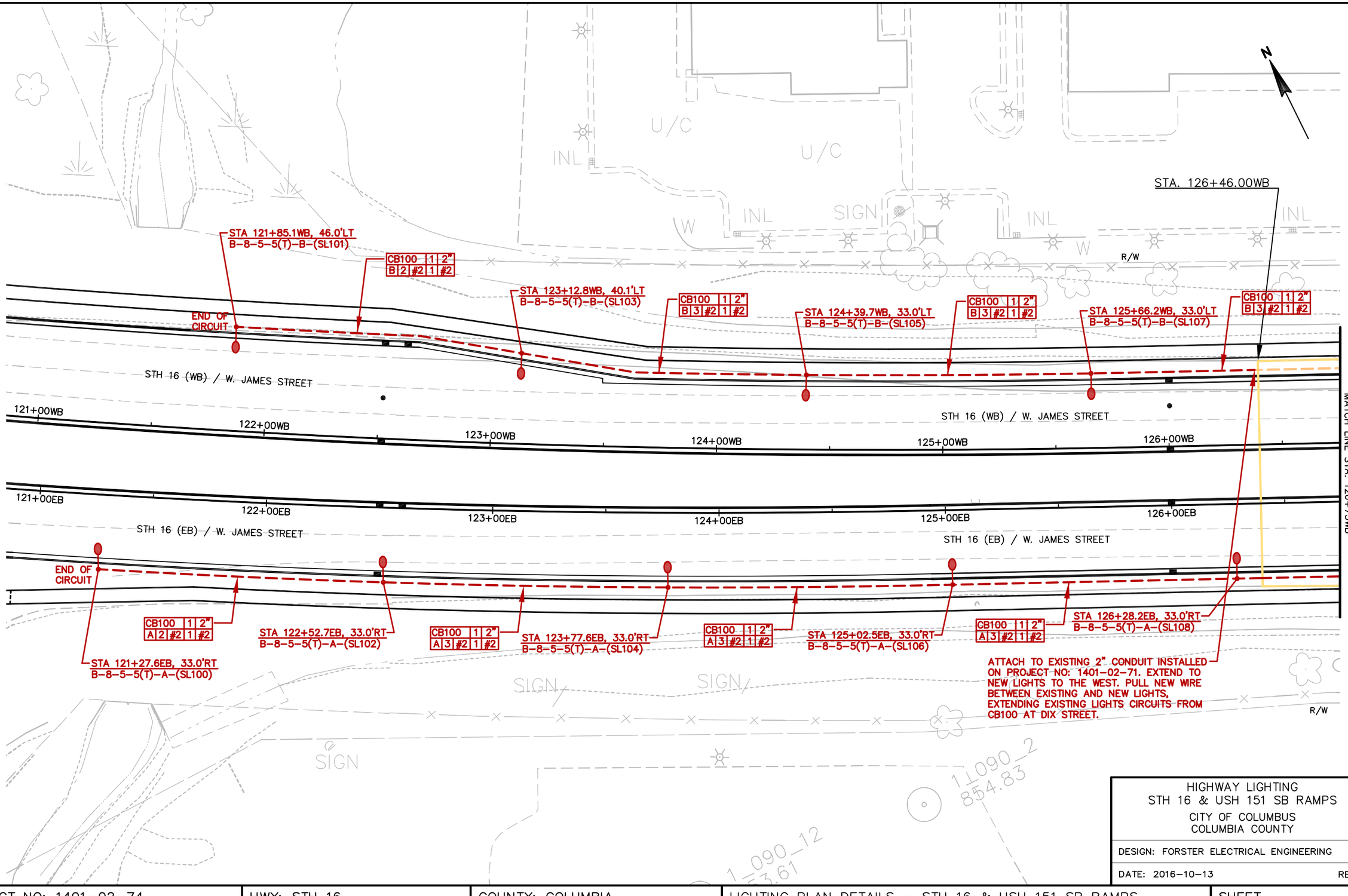
HIGHWAY LIGHTING
STH 16 & USH 151 SB RAMPS
CITY OF COLUMBUS
COLUMBIA COUNTY

DESIGN: FORSTER ELECTRICAL ENGINEERING

DATE: 2016-10-13 REV: 2

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	LIGHTING PLAN GENERAL NOTES – STH 16 & USH 151 SB RAMPS	SHEET	E

2



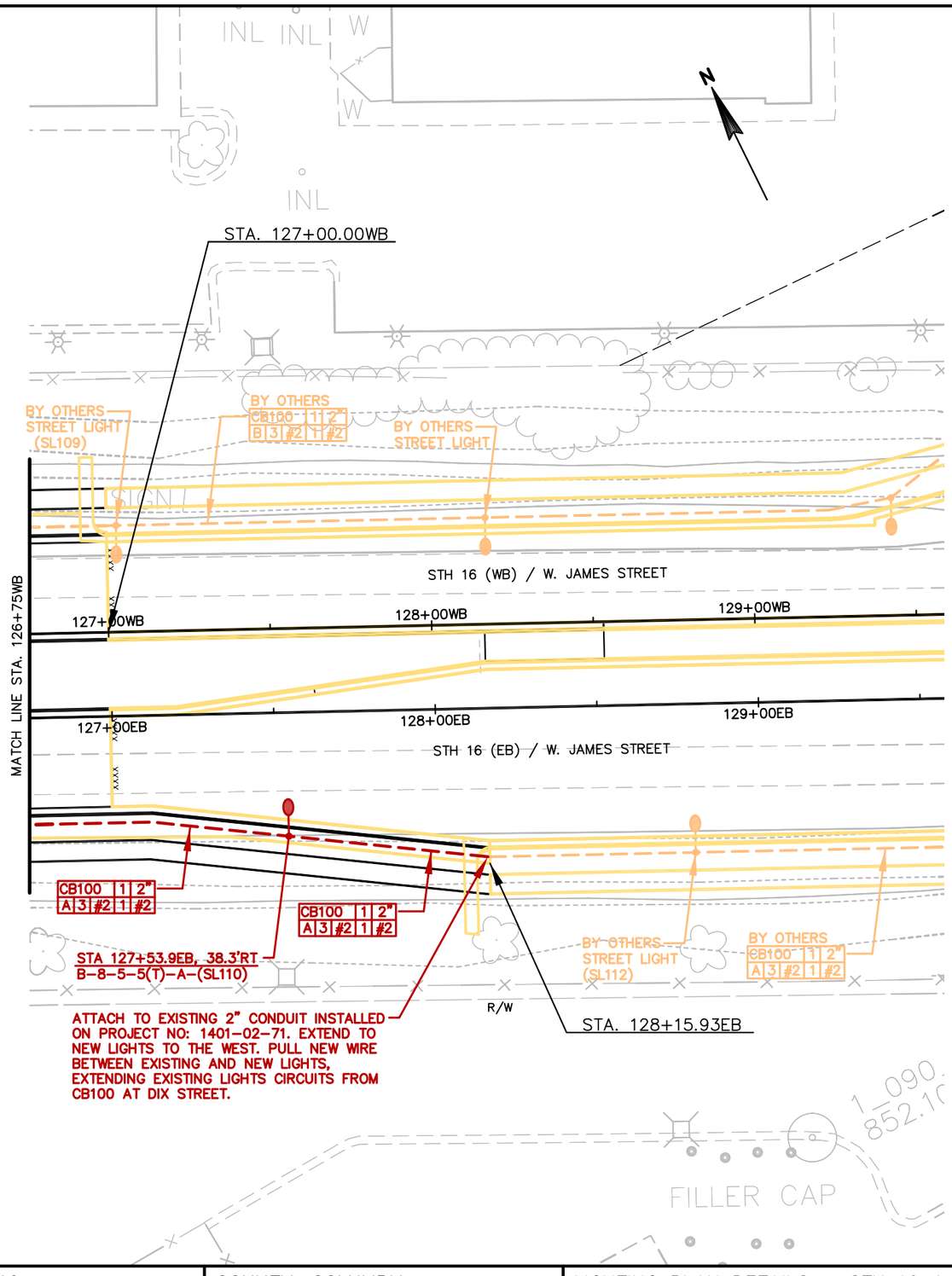
HIGHWAY LIGHTING
STH 16 & USH 151 SB RAMPS
CITY OF COLUMBUS
COLUMBIA COUNTY

DESIGN: FORSTER ELECTRICAL ENGINEERING

DATE: 2016-10-13 REV: 3

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	LIGHTING PLAN DETAILS – STH 16 & USH 151 SB RAMPS	SHEET 66	E

2



HIGHWAY LIGHTING
STH 16 & USH 151 SB RAMPS
CITY OF COLUMBUS
COLUMBIA COUNTY

DESIGN: FORSTER ELECTRICAL ENGINEERING

DATE: 2016-10-13 REV: 1

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	LIGHTING PLAN DETAILS – STH 16 & USH 151 SB RAMPS	SHEET 67	E

LEGEND

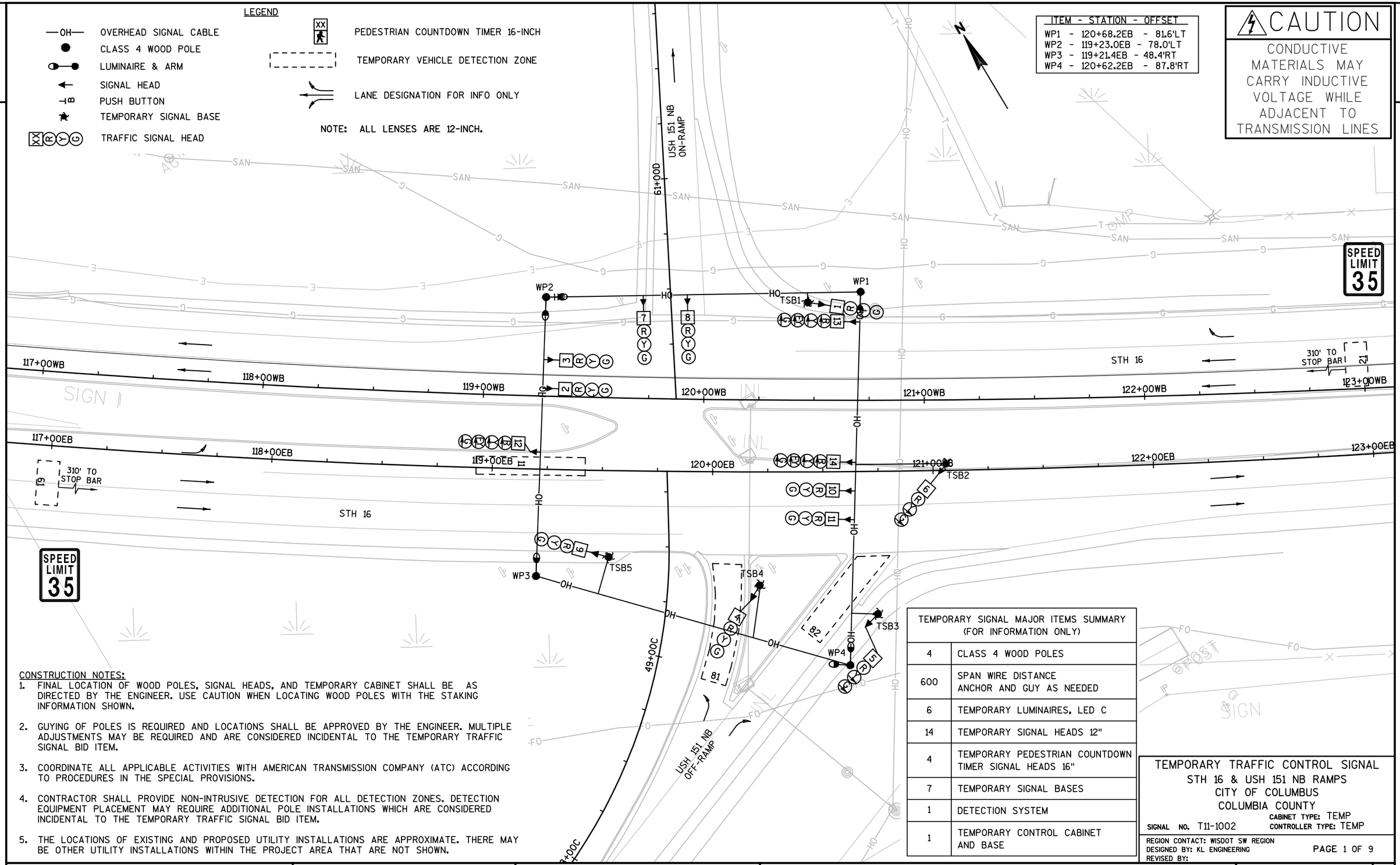
—OH— OVERHEAD SIGNAL CABLE	XX PEDESTRIAN COUNTDOWN TIMER 16-INCH
CLASS 4 WOOD POLE	TEMPORARY VEHICLE DETECTION ZONE
LUMINAIRE & ARM	LANE DESIGNATION FOR INFO ONLY
SIGNAL HEAD	
PUSH BUTTON	
TEMPORARY SIGNAL BASE	
TRAFFIC SIGNAL HEAD	

NOTE: ALL LENSES ARE 12-INCH.

ITEM - STATION - OFFSET
WP1 - 120+68.2EB - 81.6'LT
WP2 - 119+23.0EB - 78.0'LT
WP3 - 119+21.4EB - 48.4'RT
WP4 - 120+62.2EB - 87.8'RT

CAUTION

CONDUCTIVE MATERIALS MAY CARRY INDUCTIVE VOLTAGE WHILE ADJACENT TO TRANSMISSION LINES



CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES, SIGNAL HEADS, AND TEMPORARY CABINET SHALL BE AS DIRECTED BY THE ENGINEER. USE CAUTION WHEN LOCATING WOOD POLES WITH THE STAKING INFORMATION SHOWN.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER. MULTIPLE ADJUSTMENTS MAY BE REQUIRED AND ARE CONSIDERED INCIDENTAL TO THE TEMPORARY TRAFFIC SIGNAL BID ITEM.
3. COORDINATE ALL APPLICABLE ACTIVITIES WITH AMERICAN TRANSMISSION COMPANY (ATC) ACCORDING TO PROCEDURES IN THE SPECIAL PROVISIONS.
4. CONTRACTOR SHALL PROVIDE NON-INTRUSIVE DETECTION FOR ALL DETECTION ZONES. DETECTION EQUIPMENT PLACEMENT MAY REQUIRE ADDITIONAL POLE INSTALLATIONS WHICH ARE CONSIDERED INCIDENTAL TO THE TEMPORARY TRAFFIC SIGNAL BID ITEM.
5. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

TEMPORARY SIGNAL MAJOR ITEMS SUMMARY (FOR INFORMATION ONLY)	
4	CLASS 4 WOOD POLES
600	SPAN WIRE DISTANCE ANCHOR AND GUY AS NEEDED
6	TEMPORARY LUMINAIRES, LED C
14	TEMPORARY SIGNAL HEADS 12"
4	TEMPORARY PEDESTRIAN COUNTDOWN TIMER SIGNAL HEADS 16"
7	TEMPORARY SIGNAL BASES
1	DETECTION SYSTEM
1	TEMPORARY CONTROL CABINET AND BASE

TEMPORARY TRAFFIC CONTROL SIGNAL
STH 16 & USH 151 NB RAMPS
CITY OF COLUMBUS
COLUMBIA COUNTY

SIGNAL NO. T11-1002
CABINET TYPE: TEMP
CONTROLLER TYPE: TEMP

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 1 OF 9

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TEMPORARY TRAFIC SIGNAL PLAN - PRE STAGE	SHEET 68	E

FILE NAME : \\KL1NAS\DATA1\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC SIGNAL SHEETS 2014-03-28-2013 AGE.DWG PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

—OH— OVERHEAD SIGNAL CABLE
CLASS 4 WOOD POLE
LUMINAIRE & ARM
SIGNAL HEAD
PB PUSH BUTTON
TEMPORARY SIGNAL BASE
XX R Y G TRAFFIC SIGNAL HEAD

XX PEDESTRIAN COUNTDOWN TIMER 16-INCH
TEMPORARY VEHICLE DETECTION ZONE
LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH.

CAUTION

CONDUCTIVE MATERIALS MAY CARRY INDUCTIVE VOLTAGE WHILE ADJACENT TO TRANSMISSION LINES

N

SPEED LIMIT 35

SPEED LIMIT 35

WP1
WP2
WP3
WP4
TSB1
TSB2
TSB3
TSB4
TSB5

61+00D
USH 151 NB ON-RAMP
USH 151 NB OFF-RAMP
49+00C

117+00WB
118+00WB
119+00WB
120+00WB
121+00WB
122+00WB
123+00WB

117+00EB
118+00EB
119+00EB
120+00EB
121+00EB
122+00EB
123+00EB

STH 16
310' TO STOP BAR

SIGN

TEMPORARY TRAFFIC CONTROL SIGNAL
STH 16 & USH 151 NB RAMPS
CITY OF COLUMBUS
COLUMBIA COUNTY

SIGNAL NO. T11-1002
CABINET TYPE: TEMP
CONTROLLER TYPE: TEMP

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 2 OF 9

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TEMPORARY TRAFIC SIGNAL PLAN - STAGE 1	SHEET 69	E

FILE NAME : \\KL1NAS\DATA1\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC SIGNAL SHEETS 11-28-2012.DWG 12:09 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

—OH— OVERHEAD SIGNAL CABLE	XX PEDESTRIAN COUNTDOWN TIMER 16-INCH
CLASS 4 WOOD POLE	TEMPORARY VEHICLE DETECTION ZONE
LUMINAIRE & ARM	LANE DESIGNATION FOR INFO ONLY
SIGNAL HEAD	
PUSH BUTTON	
TEMPORARY SIGNAL BASE	
TRAFFIC SIGNAL HEAD	

NOTE: ALL LENSES ARE 12-INCH.

CAUTION

CONDUCTIVE MATERIALS MAY CARRY INDUCTIVE VOLTAGE WHILE ADJACENT TO TRANSMISSION LINES

N

SPEED LIMIT 35

SPEED LIMIT 35

USH 151 NB ON-RAMP

USH 151 NB OFF-RAMP

STH 16

310' TO STOP BAR

WP1 WP2 WP3 WP4

TSB1 TSB2 TSB3 TSB4 TSB5

117+00WB 118+00WB 119+00WB 120+00WB 121+00WB 122+00WB 123+00WB

117+00EB 118+00EB 119+00EB 120+00EB 121+00EB 122+00EB 123+00EB

61+00D 49+00C

SIGN

POST

TEMPORARY TRAFFIC CONTROL SIGNAL
STH 16 & USH 151 NB RAMPS
CITY OF COLUMBUS
COLUMBIA COUNTY

SIGNAL NO. T11-1002
CABINET TYPE: TEMP
CONTROLLER TYPE: TEMP

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 3 OF 9

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TEMPORARY TRAFIC SIGNAL PLAN - STAGE 2A	SHEET 70	E

FILE NAME : \\KL1NAS\DATA1\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC SIGNAL SHEETS 11-28-2014.DWG PLOT DATE : 11/28/2014 2:11:11 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

—OH— OVERHEAD SIGNAL CABLE	XX PEDESTRIAN COUNTDOWN TIMER 16-INCH
CLASS 4 WOOD POLE	TEMPORARY VEHICLE DETECTION ZONE
LUMINAIRE & ARM	LANE DESIGNATION FOR INFO ONLY
SIGNAL HEAD	
PUSH BUTTON	
TEMPORARY SIGNAL BASE	
TRAFFIC SIGNAL HEAD	

NOTE: ALL LENSES ARE 12-INCH.

CAUTION

CONDUCTIVE MATERIALS MAY CARRY INDUCTIVE VOLTAGE WHILE ADJACENT TO TRANSMISSION LINES

N

SPEED LIMIT 35

SPEED LIMIT 35

WP1 WP2 WP3 WP4

TSB1 TSB2 TSB3 TSB4 TSB5

117+00WB 118+00WB 119+00WB 120+00WB 121+00WB 122+00WB 123+00WB

117+00EB 118+00EB 119+00EB 120+00EB 121+00EB 122+00EB 123+00EB

61+00D 49+00C

310' TO STOP BAR

STH 16

USH 151 NB OFF-RAMP

SIGN

TEMPORARY TRAFFIC CONTROL SIGNAL
STH 16 & USH 151 NB RAMPS
CITY OF COLUMBUS
COLUMBIA COUNTY

SIGNAL NO. T11-1002
CABINET TYPE: TEMP
CONTROLLER TYPE: TEMP

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 4 OF 9

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TEMPORARY TRAFIC SIGNAL PLAN - STAGE 2B	SHEET 71	E

FILE NAME : \\KL1NAS\DATA1\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC SIGNAL SHEETS\T11-1002-STAGE2B.DWG PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

—OH— OVERHEAD SIGNAL CABLE	XX PEDESTRIAN COUNTDOWN TIMER 16-INCH
CLASS 4 WOOD POLE	TEMPORARY VEHICLE DETECTION ZONE
LUMINAIRE & ARM	LANE DESIGNATION FOR INFO ONLY
SIGNAL HEAD	
PUSH BUTTON	
TEMPORARY SIGNAL BASE	
TRAFFIC SIGNAL HEAD	

NOTE: ALL LENSES ARE 12-INCH.

CAUTION

CONDUCTIVE MATERIALS MAY CARRY INDUCTIVE VOLTAGE WHILE ADJACENT TO TRANSMISSION LINES

N

SPEED LIMIT 35

SPEED LIMIT 35

TSB1 TSB2 TSB3 TSB4 TSB5 TSB6 TSB7

WP1 WP2 WP3 WP4

310' TO STOP BAR

117+00WB 118+00WB 119+00WB 120+00WB 121+00WB 122+00WB 123+00WB

117+00EB 118+00EB 119+00EB 120+00EB 121+00EB 122+00EB 123+00EB

49+00C

OH FO SAN T-COMP SIGN

TEMPORARY TRAFFIC CONTROL SIGNAL
STH 16 & USH 151 NB RAMPS
CITY OF COLUMBUS
COLUMBIA COUNTY

SIGNAL NO. T11-1002
CABINET TYPE: TEMP
CONTROLLER TYPE: TEMP

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 5 OF 9

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TEMPORARY TRAFIC SIGNAL PLAN - STAGE 3A	SHEET 72	E

FILE NAME : \\KL1NAS\DATA1\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC SIGNAL SHEETS 11-28-2012.DWG PLOT DATE : 11/28/2012 12:06:16PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

—OH— OVERHEAD SIGNAL CABLE	XX PEDESTRIAN COUNTDOWN TIMER 16-INCH
CLASS 4 WOOD POLE	TEMPORARY VEHICLE DETECTION ZONE
LUMINAIRE & ARM	LANE DESIGNATION FOR INFO ONLY
SIGNAL HEAD	
B PUSH BUTTON	NOTE: ALL LENSES ARE 12-INCH.
TEMPORARY SIGNAL BASE	
XX R Y G TRAFFIC SIGNAL HEAD	

CAUTION

CONDUCTIVE MATERIALS MAY CARRY INDUCTIVE VOLTAGE WHILE ADJACENT TO TRANSMISSION LINES

SPEED LIMIT 35

SPEED LIMIT 35

310' TO STOP BAR

310' TO STOP BAR

TSB1 TSB2 TSB3 TSB4 TSB5 TSB6 TSB7

WP1 WP2 WP3 WP4

117+00EB 118+00EB 119+00EB 120+00EB 121+00EB 122+00EB 123+00EB

117+00WB 118+00WB 119+00WB 120+00WB 121+00WB 122+00WB 123+00WB

49+00C

TEMPORARY TRAFFIC CONTROL SIGNAL
STH 16 & USH 151 NB RAMPS
CITY OF COLUMBUS
COLUMBIA COUNTY

SIGNAL NO. T11-1002
CABINET TYPE: TEMP
CONTROLLER TYPE: TEMP

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 6 OF 9

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TEMPORARY TRAFIC SIGNAL PLAN - STAGE 3B	SHEET 73	E

FILE NAME : \\KL1NAS\DATA1\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC SIGNAL SHEETS 11-28-2012.DWG PLOT DATE : 11/28/2012 12:16:16PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- OH — OVERHEAD SIGNAL CABLE
- CLASS 4 WOOD POLE
- LUMINAIRE & ARM
- SIGNAL HEAD
- PB — PUSH BUTTON
- TEMPORARY SIGNAL BASE
- TRAFFIC SIGNAL HEAD
- XX — PEDESTRIAN COUNTDOWN TIMER 16-INCH
- TEMPORARY VEHICLE DETECTION ZONE
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH.

CAUTION

CONDUCTIVE MATERIALS MAY CARRY INDUCTIVE VOLTAGE WHILE ADJACENT TO TRANSMISSION LINES

SPEED LIMIT 35

SPEED LIMIT 35

310' TO STOP BAR

310' TO STOP BAR

117+00WB 118+00WB 119+00WB 120+00WB 121+00WB 122+00WB 123+00WB

117+00EB 118+00EB 119+00EB 120+00EB 121+00EB 122+00EB 123+00EB

WP1 WP2 WP3 WP4

TSB1 TSB2 TSB3 TSB4 TSB5 TSB6 TSB7

SIGN

TEMPORARY TRAFFIC CONTROL SIGNAL
STH 16 & USH 151 NB RAMPS
CITY OF COLUMBUS
COLUMBIA COUNTY

SIGNAL NO. T11-1002
CABINET TYPE: TEMP
CONTROLLER TYPE: TEMP

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 7 OF 9

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TEMPORARY TRAFIC SIGNAL PLAN - STAGE 4	SHEET 74	E

FILE NAME : \\KL1NAS\DATA1\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC SIGNAL SHEETS 11-28-2014.DWG 12:02 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- —OH— OVERHEAD SIGNAL CABLE
- CLASS 4 WOOD POLE
- LUMINAIRE & ARM
- SIGNAL HEAD
- PUSH BUTTON
- TEMPORARY SIGNAL BASE
- TRAFFIC SIGNAL HEAD
- PEDESTRIAN COUNTDOWN TIMER 16-INCH
- TEMPORARY VEHICLE DETECTION ZONE
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH.

CAUTION

CONDUCTIVE MATERIALS MAY CARRY INDUCTIVE VOLTAGE WHILE ADJACENT TO TRANSMISSION LINES

SPEED LIMIT 35

SPEED LIMIT 35

310' TO STOP BAR

310' TO STOP BAR

117+00WB 118+00WB 119+00WB 120+00WB 121+00WB 122+00WB 123+00WB

117+00EB 118+00EB 119+00EB 120+00EB 121+00EB 122+00EB 123+00EB

WP1 WP2 WP3 WP4

TSB1 TSB2 TSB3 TSB4 TSB5 TSB6 TSB7

81 82

TEMPORARY TRAFFIC CONTROL SIGNAL
STH 16 & USH 151 NB RAMPS
CITY OF COLUMBUS
COLUMBIA COUNTY

SIGNAL NO. T11-1002
CABINET TYPE: TEMP
CONTROLLER TYPE: TEMP

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 8 OF 9

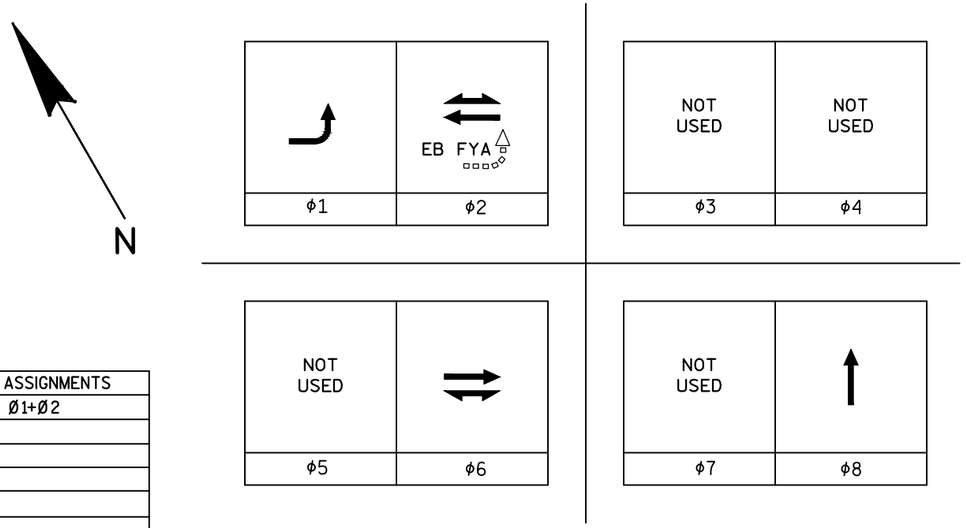
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TEMPORARY TRAFIC SIGNAL PLAN - POST STAGE	SHEET 75	E

FILE NAME : \\KL1NAS\DATA1\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC SIGNAL SHEETS 11-28-2017.DWG PLOT DATE : 11/28/2017 12:25:00 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

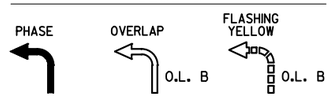
WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	12-14	-
Ø2	1-3	R
Ø3		
Ø4		
Ø5		
Ø6	9-11	R
Ø7		
Ø8	4-8	R
Ø2 PED	2A,2B	
Ø4 PED		
Ø6 PED	6A,6B	
Ø8 PED		

EB FYA	O.L. ASSIGNMENTS
R	Ø1+Ø2



LEGEND



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / ϕ	PHASE RECALL	PHASE ACTIVE
1				X
2	X	6	MIN	X
3				
4				
5				
6	X	2	MIN	X
7				
8				X

TYPE OF INTERCONNECT	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

CENTRAL SYSTEM
LOCATION OF MASTER CONTROLLER NO:
SIGNAL SYSTEM *: N/A

PREEMPTION ASSIGNMENTS

PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED
1	RESERVED		
2	RESERVED		
3	NOT USED		
4	NOT USED		
5	NOT USED		
6	NOT USED		
7	NOT USED		
8	NOT USED		

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR *(S)	11	21	61	81	82			
PHASE CALLED	1	2	6	8	8			
PHASE EXTENDED	1,2	2	6	8	8			
DISCONNECT TIME								
CALLING DELAY					10.0			
EXTENSION STRETCH								
LOOP FUNCTION								

19	17	23	21	27	25	31	29	DETECTOR INPUT
								DETECTOR *(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR *(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

20	18	24	22	28	26	32	30	DETECTOR INPUT
								DETECTOR *(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TRAFFIC CONTROL SIGNAL
STH 16 & USH 151 NB RAMPS
CITY OF COLUMBUS
COLUMBIA COUNTY

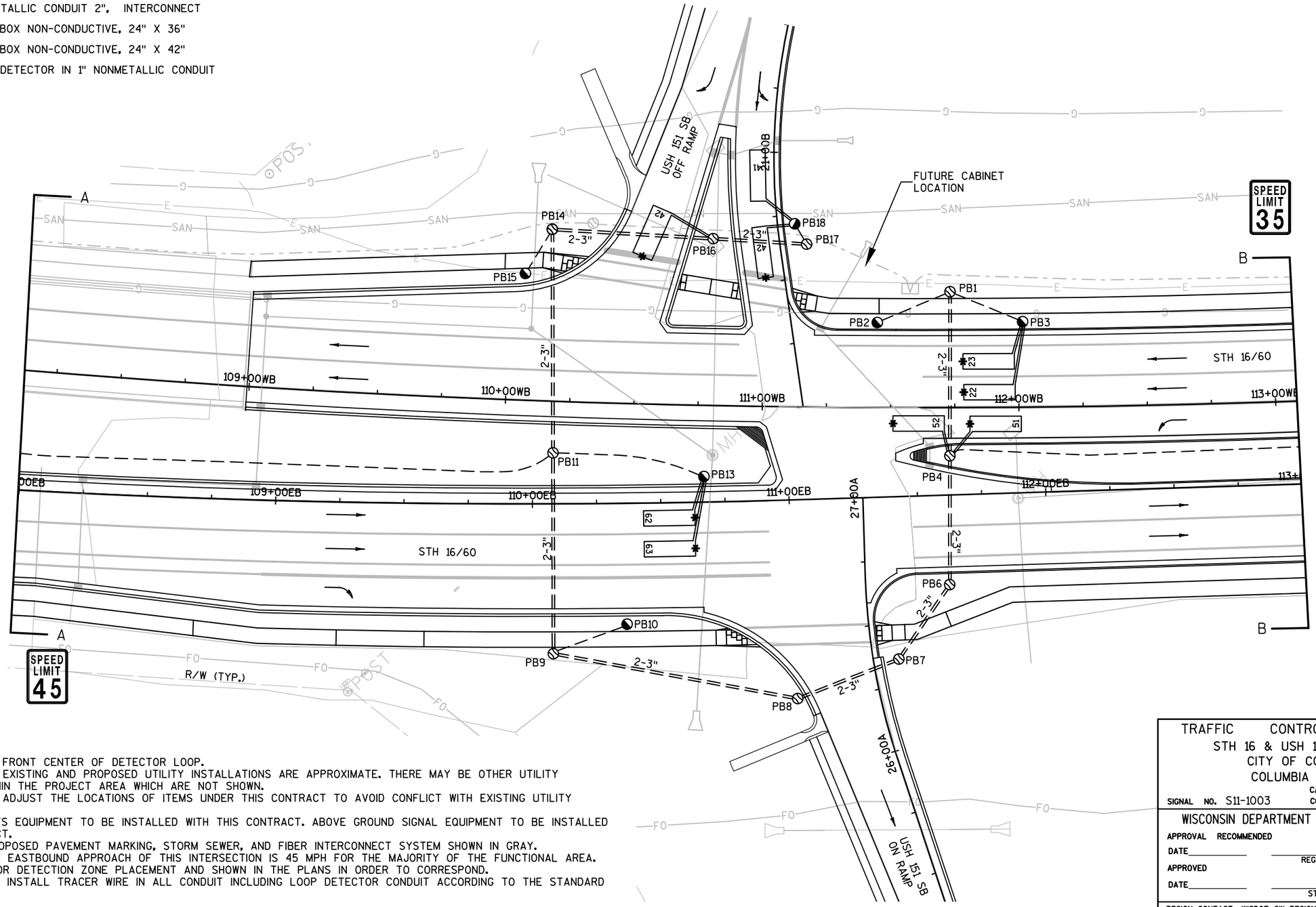
SIGNAL NO. T11-1002

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: KL ENGINEERING
REVISED BY:

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TEMPORARY SEQUENCE OF OPERATIONS - ALL STAGES	SHEET 76	E

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- NONMETALLIC CONDUIT 2", INTERCONNECT
- PULL BOX NON-CONDUCTIVE, 24" X 36"
- PULL BOX NON-CONDUCTIVE, 24" X 42"
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- LANE DESIGNATION ARROW



CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY INSTALLATIONS.
4. THIS PLAN REFLECTS EQUIPMENT TO BE INSTALLED WITH THIS CONTRACT. ABOVE GROUND SIGNAL EQUIPMENT TO BE INSTALLED IN FUTURE PROJECT.
5. EXISTING ITEMS, PROPOSED PAVEMENT MARKING, STORM SEWER, AND FIBER INTERCONNECT SYSTEM SHOWN IN GRAY.
6. SPEED LIMIT IN THE EASTBOUND APPROACH OF THIS INTERSECTION IS 45 MPH FOR THE MAJORITY OF THE FUNCTIONAL AREA. 45 MPH IS USED FOR DETECTION ZONE PLACEMENT AND SHOWN IN THE PLANS IN ORDER TO CORRESPOND.
7. CONTRACTOR SHALL INSTALL TRACER WIRE IN ALL CONDUIT INCLUDING LOOP DETECTOR CONDUIT ACCORDING TO THE STANDARD SPECIFICATIONS.

TRAFFIC CONTROL SIGNAL
STH 16 & USH 151 SB RAMPS
CITY OF COLUMBUS
COLUMBIA COUNTY

CABINET TYPE:
SIGNAL NO. S11-1003 CONTROLLER TYPE:

WISCONSIN DEPARTMENT OF TRANSPORTATION

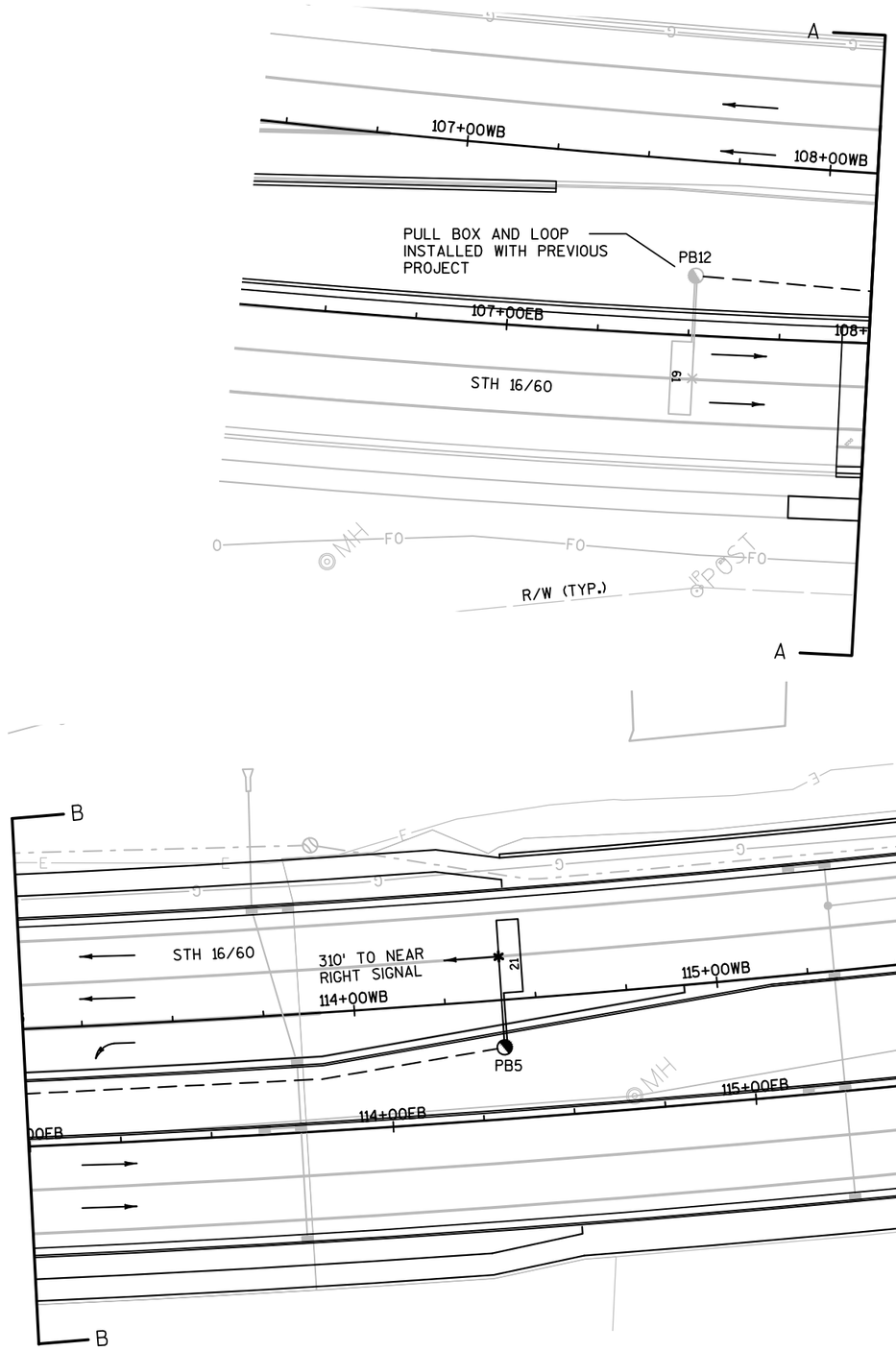
APPROVAL RECOMMENDED
DATE_____ REGION TRAFFIC ENGINEER
APPROVED
DATE_____ STATE TRAFFIC ENGINEER

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 1 OF 2

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC SIGNAL PLAN	SHEET 77	E

2



TRAFFIC CONTROL SIGNAL
STH 16 & USH 151 SB RAMPS
CITY OF COLUMBUS
COLUMBIA COUNTY

SIGNAL NO. S11-1003

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 2 OF 2

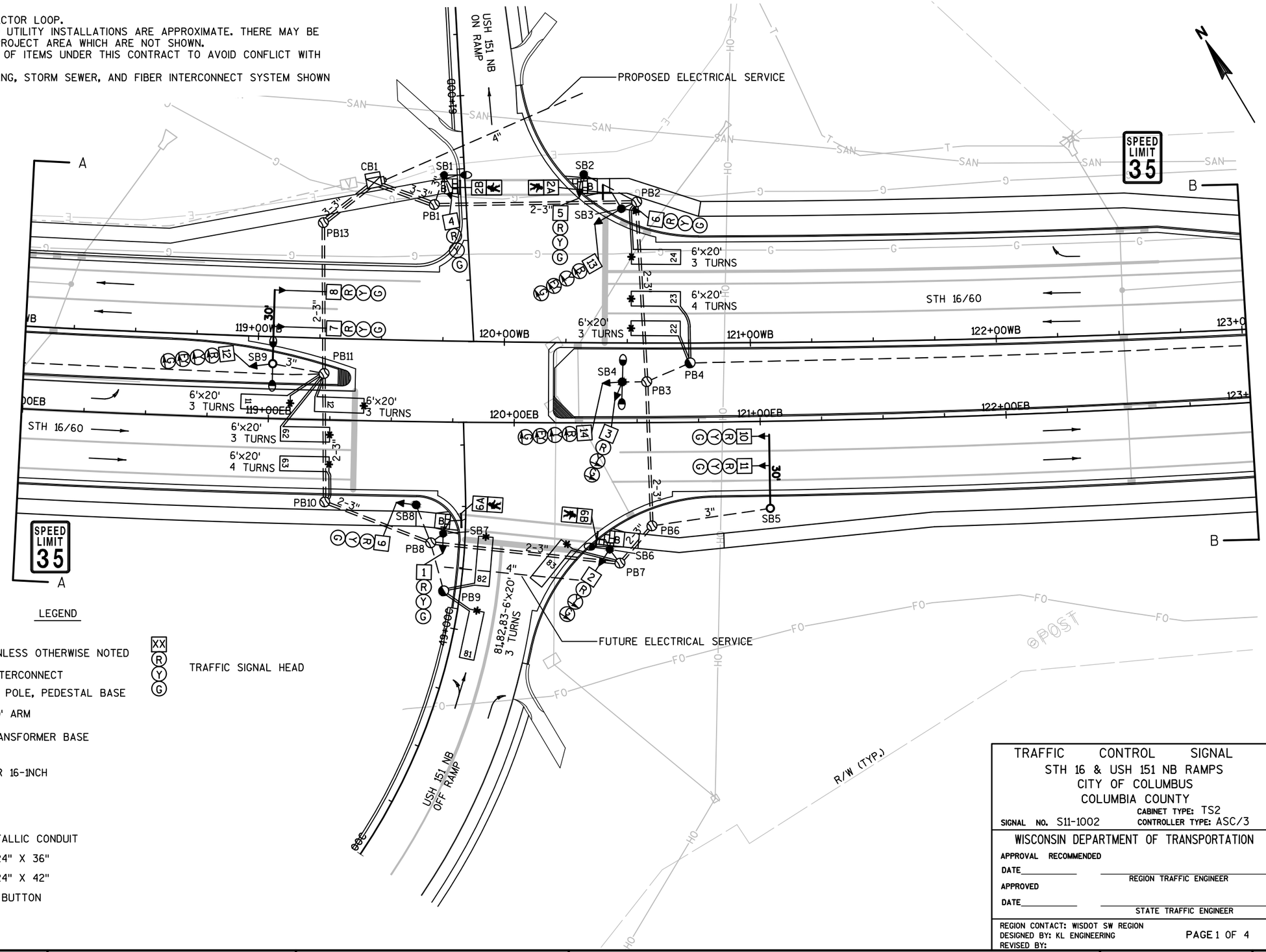
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC SIGNAL PLAN	SHEET 78	E

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY INSTALLATIONS.
4. EXISTING ITEMS, PROPOSED PAVEMENT MARKING, STORM SEWER, AND FIBER INTERCONNECT SYSTEM SHOWN IN GRAY.

BASE	SIGN CODE	SIGN TO FACE
SB1	R10-3ER	SOUTHWEST
SB2	R10-3EL	SOUTHWEST
SB6	R10-3ER	NORTHEAST
SB7	R10-3EL	NORTHEAST

MONOTUBE STRUCTURE NUMBERS	
BASE	STRUCTURE NUMBER
SB5	S-11-1002-01
SB9	S-11-1002-02



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- NONMETALLIC CONDUIT 2", INTERCONNECT
- SIGNAL HEAD, TRAFFIC SIGNAL POLE, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- XX PEDESTRIAN COUNTDOWN TIMER 16-1NCH
- LANE DESIGNATION ARROW
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX NON-CONDUCTIVE, 24" X 36"
- PULL BOX NON-CONDUCTIVE, 24" X 42"
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- XX R Y G TRAFFIC SIGNAL HEAD

TRAFFIC CONTROL SIGNAL
STH 16 & USH 151 NB RAMPS
CITY OF COLUMBUS
COLUMBIA COUNTY

SIGNAL NO. S11-1002
CABINET TYPE: TS2
CONTROLLER TYPE: ASC/3

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE _____ REGION TRAFFIC ENGINEER
APPROVED
DATE _____ STATE TRAFFIC ENGINEER

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: KL ENGINEERING
REVISED BY:

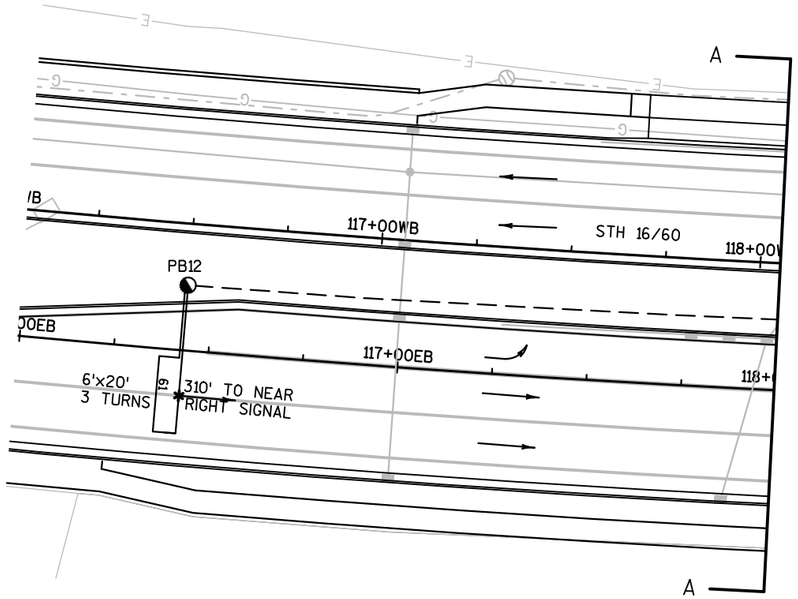
PAGE 1 OF 4

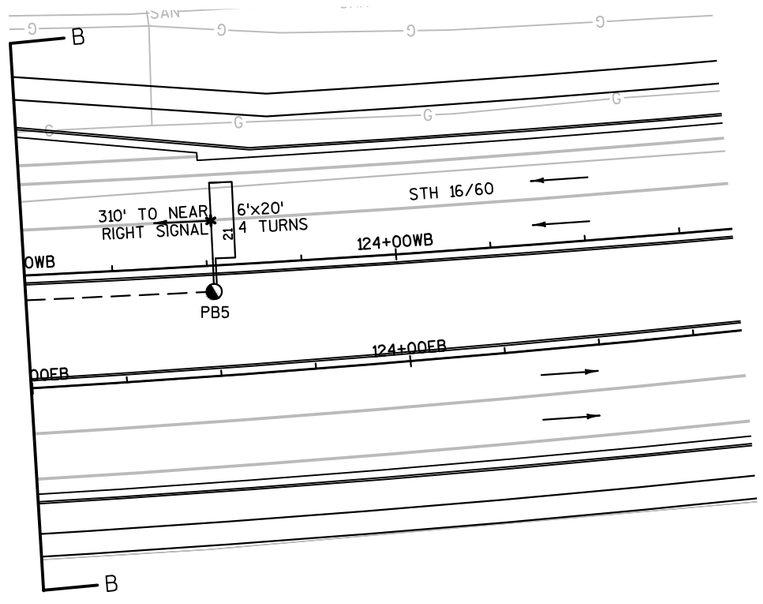
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC SIGNAL PLAN	SHEET 79	E

FILE NAME : \\KL1NAS\DATA1\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC SIGNAL SHEETS.DWG LAST SAVED: 12/14/2017 9:43 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2





TRAFFIC CONTROL SIGNAL
STH 16 & USH 151 NB RAMPS
CITY OF COLUMBUS
COLUMBIA COUNTY

SIGNAL NO. S11-1002

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: KL ENGINEERING
REVISED BY:

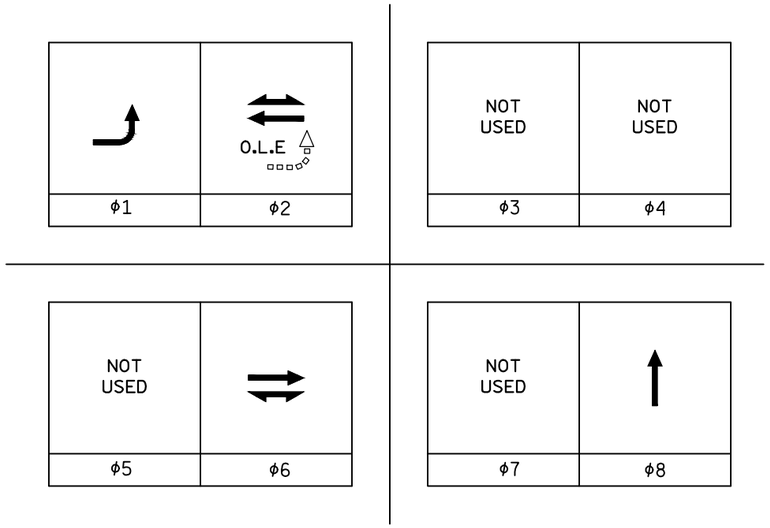
PAGE 2 OF 4

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC SIGNAL PLAN	SHEET 80	E

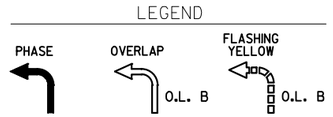
	HEAD NUMBERS	FLASH
Ø1	12-14	-
Ø2	6-8	R
Ø3		
Ø4		
Ø5		
Ø6	9-11	R
Ø7		
Ø8	1-5	R
Ø2 PED	2A,2B	
Ø4 PED		
Ø6 PED	6A,6B	
Ø8 PED		

O.L. ASSIGNMENTS			
OLA			
OLB			
OLC			
OLD			
OLE	12-14	R	Ø1+Ø2
OLF			
OLG			
OLH			

N



LEGEND



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / ϕ	PHASE RECALL	PHASE ACTIVE
1				X
2	X	6	MIN	X
3				
4				
5				
6	X	2	MIN	X
7				
8				X

TYPE OF INTERCONNECT	
NONE	
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	X
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

CENTRAL SYSTEM
LOCATION OF MASTER CONTROLLER NO:
SIGNAL SYSTEM *: SS11-0108

PREEMPTION ASSIGNMENTS

PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED
1	RESERVED		
2	RESERVED		
3	NOT USED		
4	NOT USED		
5	NOT USED		
6	NOT USED		
7	NOT USED		
8	NOT USED		

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29	DETECTOR INPUT
DETECTOR *(S)	11	21			61		81										DETECTOR *(S)
PHASE CALLED	1	2			6		8										PHASE CALLED
PHASE EXTENDED	1,2	2			6		8										PHASE EXTENDED
DISCONNECT TIME																	DISCONNECT TIME
CALLING DELAY																	CALLING DELAY
EXTENSION STRETCH																	EXTENSION STRETCH
LOOP FUNCTION																	LOOP FUNCTION

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30	DETECTOR INPUT
DETECTOR *(S)	12	22	23	24	62	63	82	83									DETECTOR *(S)
PHASE CALLED	1	2	2	2	6	6	8	8									PHASE CALLED
PHASE EXTENDED	1	2	2	2	6	6	8	8									PHASE EXTENDED
DISCONNECT TIME																	DISCONNECT TIME
CALLING DELAY								15.0									CALLING DELAY
EXTENSION STRETCH																	EXTENSION STRETCH
LOOP FUNCTION																	LOOP FUNCTION

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TRAFFIC CONTROL SIGNAL
STH 16 & USH 151 NB RAMPS
CITY OF COLUMBUS COLUMBIA COUNTY

SIGNAL NO. S11-1002

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: KL ENGINEERING
REVISED BY:

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	SEQUENCE OF OPERATIONS	SHEET 81	E

FILE NAME : \\KL1NAS\DATA1\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC SIGNAL SYMBOLS 2015 2016.DWG 12:00 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42

STH 16 & USH 151 NB RAMPS TRAFFIC SIGNAL CABLING CHART NO. 14 CABLE					
CABLE RUN	CABLE	HEAD NO.	MOVEMENT	LENS	CONDUCTOR COLOR
CB1 TO SB1	7/C	4	Ø8 NB TH	R	RED
				Y	ORG
				G	GRN
		2B	Ø2 PED	W	BLU
				DW	BLK
		-	Ø2 PED	BUTTON	WHT/BLK
CB1 TO SB2	5/C	5	Ø8 NB TH	R	RED
				Y	ORG
				G	GRN
		-	Ø2 PED	BUTTON	BLK
CB1 TO SB3	12/C	6	Ø2 WB TH	R	RED
				Y	ORG
				G →	GRN
		13	Ø1 EB LT	R	RED/BLK
				Y ←	ORG/BLK
				FY ←	BLK/WHT
				G ←	GRN/BLK
		2A	Ø2 PED	W	BLU
				DW	BLK
CB1 TO SB4	12/C	3	Ø8 NB TH	R	RED
				Y	ORG
				G →	GRN
		14	Ø1 EB LT	R ←	RED/BLK
				Y ←	ORG/BLK
				FY ←	BLK/WHT
				G ←	GRN/BLK
CB1 TO SB5	5/C	10	Ø6 EB TH	R	RED
				Y	ORG
				G	GRN
		11	Ø6 EB TH	R	RED
				Y	ORG
				G	GRN
CB1 TO SB6	7/C	2	Ø8 NB TH	R	RED
				Y	ORG
				G →	GRN
		6B	Ø6 PED	W	BLU
				DW	BLK
		-	Ø6 PED	BUTTON	WHT/BLK
CB1 TO SB7	12/C	1	Ø8 NB TH	R	RED
				Y	ORG
				G →	GRN
		9	Ø6 EB TH	R	RED/BLK
				Y	ORG/BLK
				G	GRN/BLK
		6A	Ø6 PED	W	BLU
				DW	BLK
		-	Ø6 PED	BUTTON	WHT/BLK
CB1 TO SB8	5/C	9	Ø6 EB TH	R	RED
				Y	ORG
				G →	GRN
CB1 TO SB9	12/C	7	Ø2 WB TH	R	RED
				Y	ORG
				G	GRN
		8	Ø2 WB TH	R	RED
				Y	ORG
				G	GRN
		12	Ø1 EB LT	R ←	RED/BLK
				Y ←	ORG/BLK
				FY ←	BLK/WHT
				G ←	GRN/BLK

STH 16 & USH 151 LIGHTING CABLE CHART TYPE UF 10-2 AWG GROUNDED	
CABLE RUN	LUMINAIRE LOCATION
CB1 TO SB9	WEST MEDIAN
SB9 TO SB6	SE QUADRANT
CB1 TO SB1	NW QUADRANT
SB1 TO SB4	EAST MEDIAN

EQUIPMENT GROUNDING CONDUCTOR 10 AWG	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	CB1

TRAFFIC CONTROL SIGNAL
STH 16 & USH 151 NB RAMPS
CITY OF COLUMBUS COLUMBIA COUNTY

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 4 OF 4

FILE NAME: G:\WDOTCO\12029 (2012-2014 design work orders)\Work Order 07 (STH 16 & USH 151)\CIVIL 3D \SheetsPlan\Traffic Signals\1401-02-74_cabling charts.ppt

ORIGINATOR: KL ENGINEERING, INC.

ORIG. DATE:

REV. DATE:

PRINT DATE: March 28, 2017

(1) INSTALL CELL MODEM
(1) INSTALL ETHERNET SWITCH
(1) ST-ST SINGLE MODE FIBER JUMPER
(1) CAT-5E ETHERNET CABLE JUMPER
(1) INSTALL 12-COUNT F.O. TERMINATION PANEL
(12) F.O. TERMINATIONS

CB1 (S11-1001)

INSTALL FIBER OPTIC CABLE
OUTDOOR PLANT 12-CT W/TRACER WIRE

INSTALL FIBER OPTIC CABLE
OUTDOOR PLANT 12-CT W/TRACER WIRE

CB3

CV1

F0 I/C (TYP.)

INSTALL FIBER OPTIC CABLE
OUTDOOR PLANT 12-CT W/TRACER WIRE

FRONTAGE ROAD N

R/W (TYP.)

STH 16

98+00EB

99+00EB

100+00EB

101+00EB

102+00EB

103+00

102+00WB

103+00WB

STH 16/60

MATCHLINE 103+25WB

STH 60

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2"
- COMMUNICATIONS VAULT
- PULL BOX, 24" X 42"

NOTE: BOLD REPRESENTS PROPOSED INTERCONNECT FACILITIES
GRAYSHADE REPRESENTS EXISTING TRAFFIC SIGNAL FACILITIES

TRAFFIC SIGNAL INTERCONNECT
STH 16
CITY OF COLUMBUS
COLUMBIA COUNTY

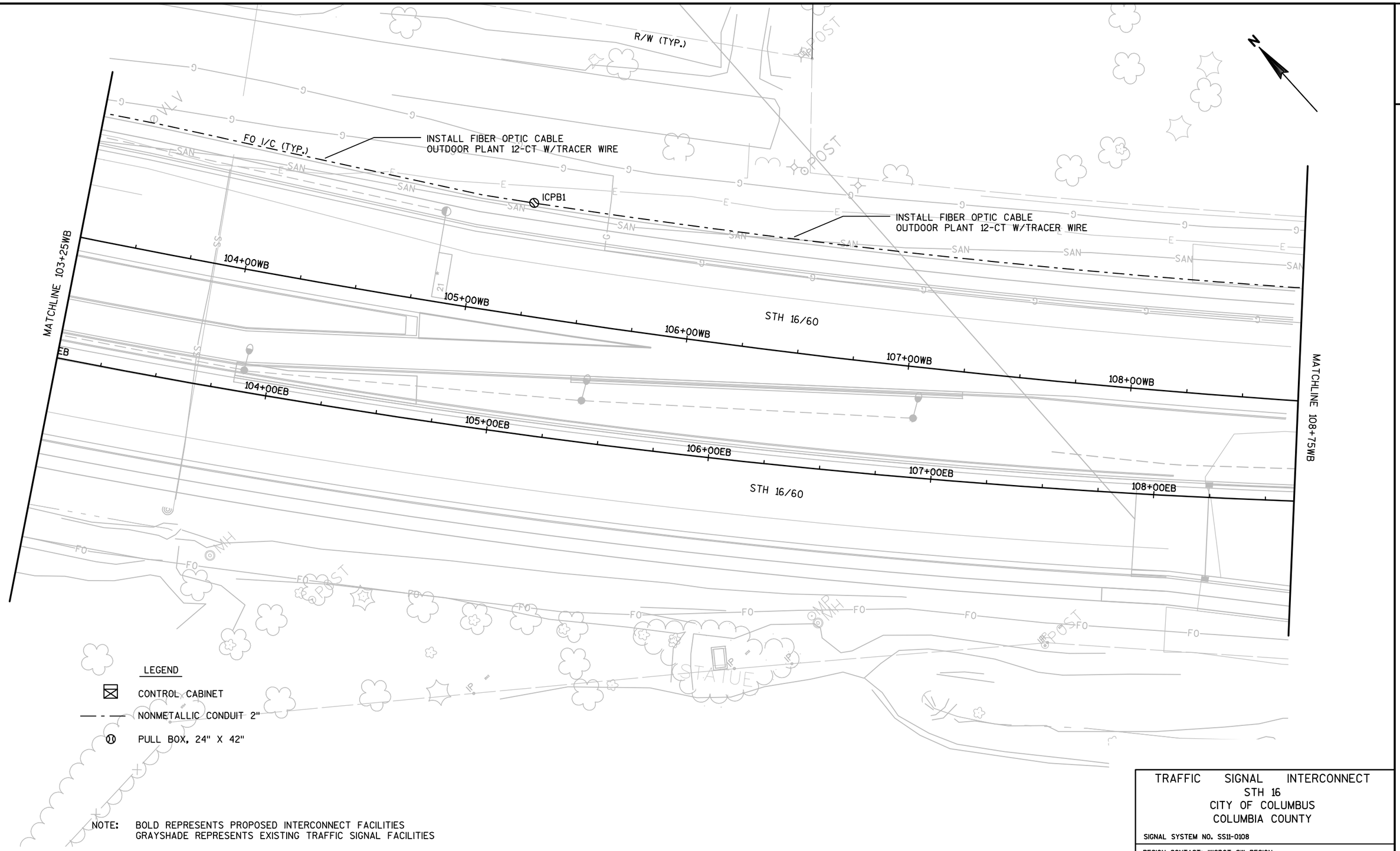
SIGNAL SYSTEM NO. SS11-0108

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: KL ENGINEERING
REVISED BY:

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 83	E

FILE NAME : \\KL1NAS\DATA1\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC SIGNAL SHEETS 2017-08.DWG 8/28/2017 12:03 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2"
- PULL BOX, 24" X 42"

NOTE: BOLD REPRESENTS PROPOSED INTERCONNECT FACILITIES
GRAYSHADE REPRESENTS EXISTING TRAFFIC SIGNAL FACILITIES

TRAFFIC SIGNAL INTERCONNECT
STH 16
CITY OF COLUMBUS
COLUMBIA COUNTY

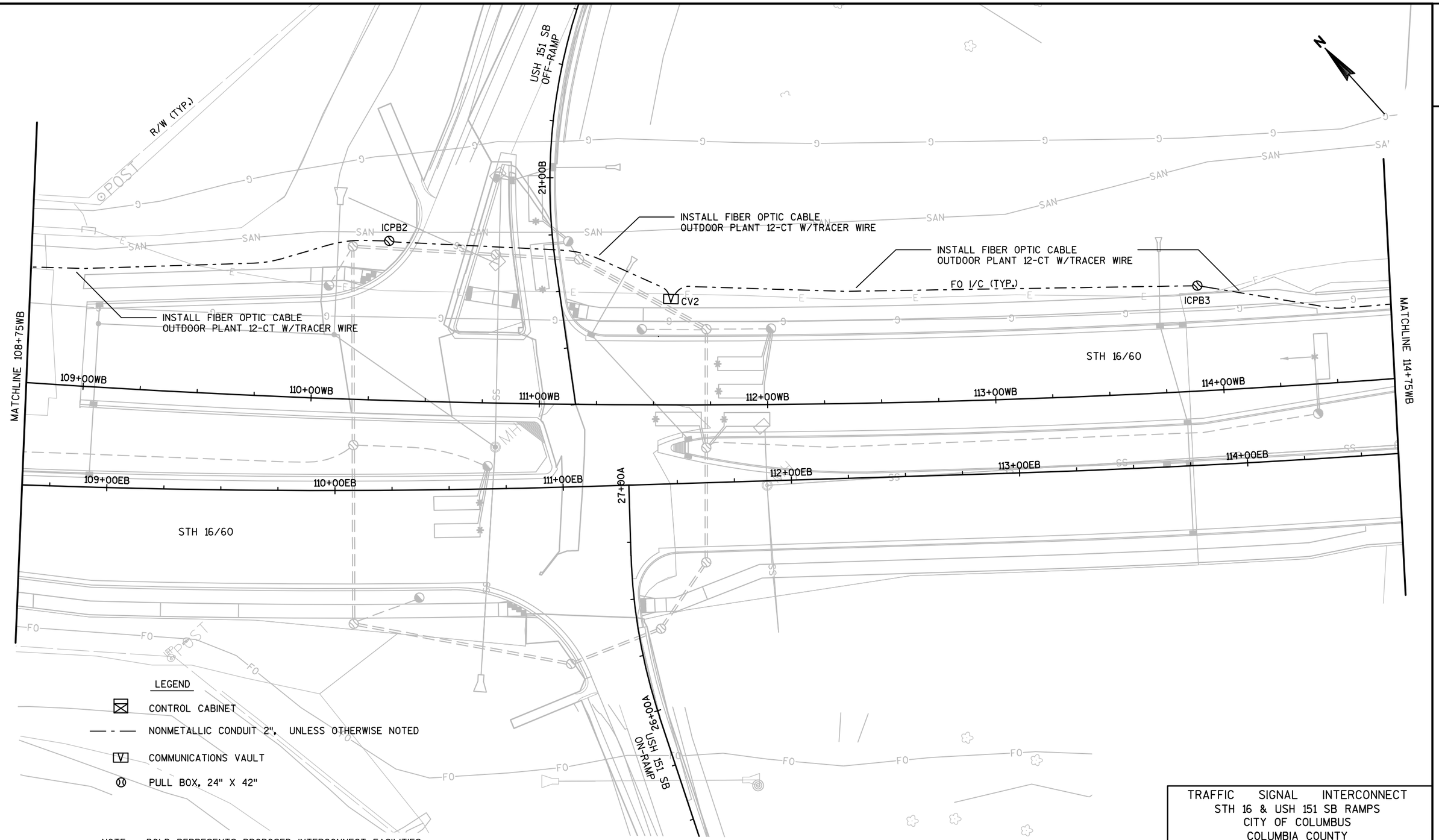
SIGNAL SYSTEM NO. SS11-0108

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 2 OF 4

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 84	E

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- COMMUNICATIONS VAULT
- PULL BOX, 24" X 42"

NOTE: BOLD REPRESENTS PROPOSED INTERCONNECT FACILITIES
GRAYSHADE REPRESENTS EXISTING TRAFFIC SIGNAL FACILITIES

TRAFFIC SIGNAL INTERCONNECT
STH 16 & USH 151 SB RAMPS
CITY OF COLUMBUS
COLUMBIA COUNTY

SIGNAL SYSTEM NO. SS11-0108

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 3 OF 4

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 85	E

2

(1) INSTALL ETHERNET SWITCH
(1) ST-ST SINGLE MODE FIBER JUMPER
(1) CAT-5E ETHERNET CABLE JUMPER
(1) INSTALL 12-COUNT F.O. TERMINATION PANEL
(12) F.O. TERMINATIONS

INSTALL FIBER OPTIC CABLE
OUTDOOR PLANT 12-CT W/TRACER WIRE

ICPB4

FO I/C (TYP.)

CV3

CB1 (S11-1002)

INSTALL FIBER OPTIC CABLE
OUTDOOR PLANT 12-CT W/TRACER WIRE

MATCHLINE 114+75WB

115+00WB
116+00WB
117+00WB
118+00WB
119+00WB
120+00WB

115+00EB
116+00EB
117+00EB
118+00EB
119+00EB
120+00EB

STH 16/60

STH 16/60

USH 151 NB
ON-RAMP

61+00D

USH 151 NB
OFF-RAMP

49+00C

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- COMMUNICATIONS VAULT
- PULL BOX, 24" X 42"

NOTE: BOLD REPRESENTS PROPOSED INTERCONNECT FACILITIES
GRAYSHADE REPRESENTS EXISTING TRAFFIC SIGNAL FACILITIES

TRAFFIC SIGNAL INTERCONNECT
STH 16 & USH 151 NB RAMPS
CITY OF COLUMBUS
COLUMBIA COUNTY

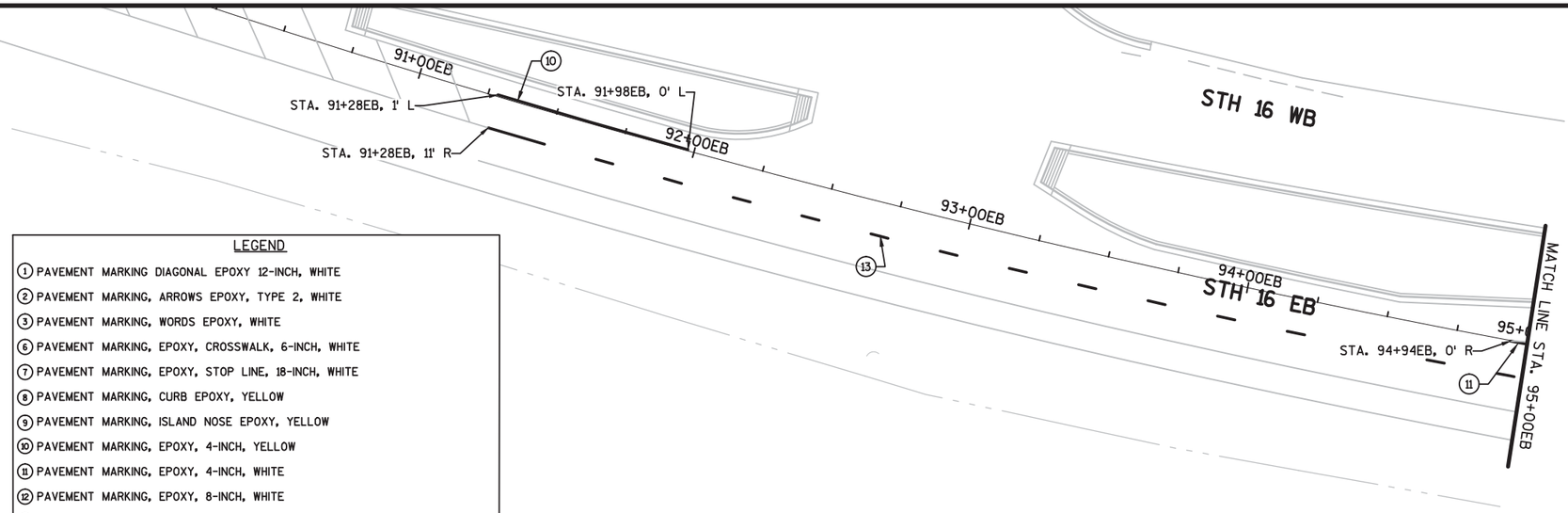
SIGNAL SYSTEM NO. SS11-0108

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 4 OF 4

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 86	E

FILE NAME : \\KL1NAS\DATA1\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC SIGNAL INTERCONNECT.DWG 2/28/2017 12:05 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

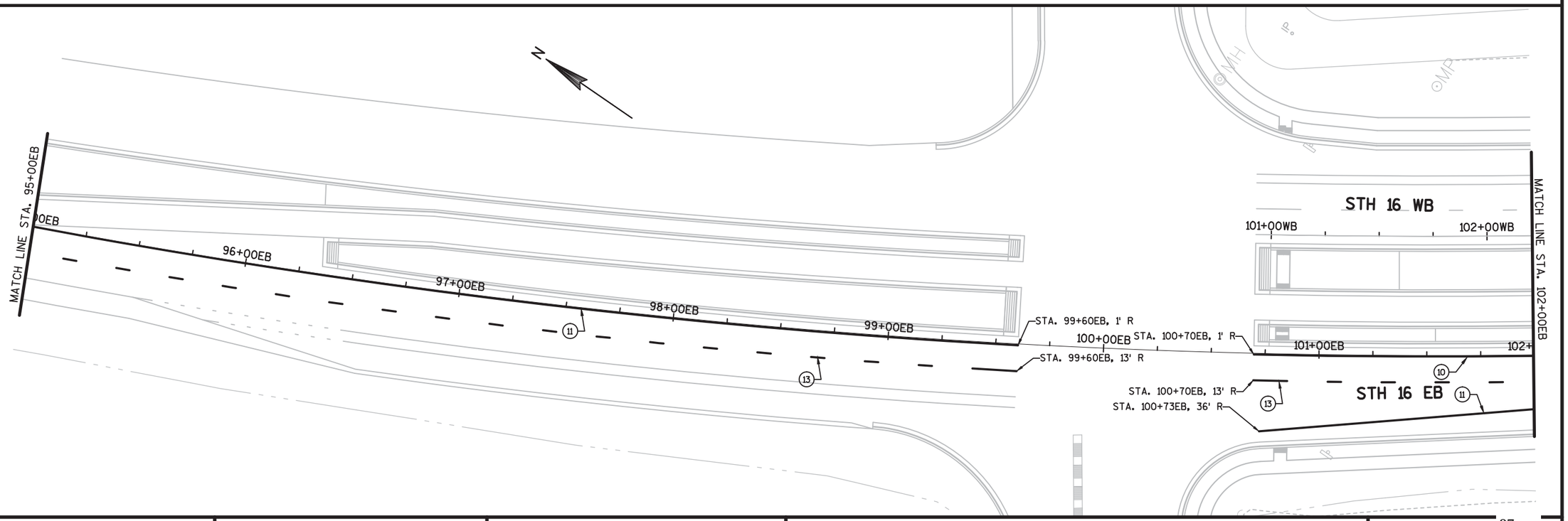


2

LEGEND

1. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, WHITE
2. PAVEMENT MARKING, ARROWS EPOXY, TYPE 2, WHITE
3. PAVEMENT MARKING, WORDS EPOXY, WHITE
6. PAVEMENT MARKING, EPOXY, CROSSWALK, 6-INCH, WHITE
7. PAVEMENT MARKING, EPOXY, STOP LINE, 18-INCH, WHITE
8. PAVEMENT MARKING, CURB EPOXY, YELLOW
9. PAVEMENT MARKING, ISLAND NOSE EPOXY, YELLOW
10. PAVEMENT MARKING, EPOXY, 4-INCH, YELLOW
11. PAVEMENT MARKING, EPOXY, 4-INCH, WHITE
12. PAVEMENT MARKING, EPOXY, 8-INCH, WHITE
13. PAVEMENT MARKING, EPOXY, 4-INCH, DASHED WHITE (12.5' LINE, 37.5' GAP)
14. PAVEMENT MARKING, EPOXY, 4-INCH, DASHED WHITE (3' LINE, 9' GAP)
15. PAVEMENT MARKING, EPOXY, 8-INCH, DASHED WHITE (3' LINE, 9' GAP)

NOTE: PROPOSED LINEWORK SHOWN AS SCREENED FOR CLARITY

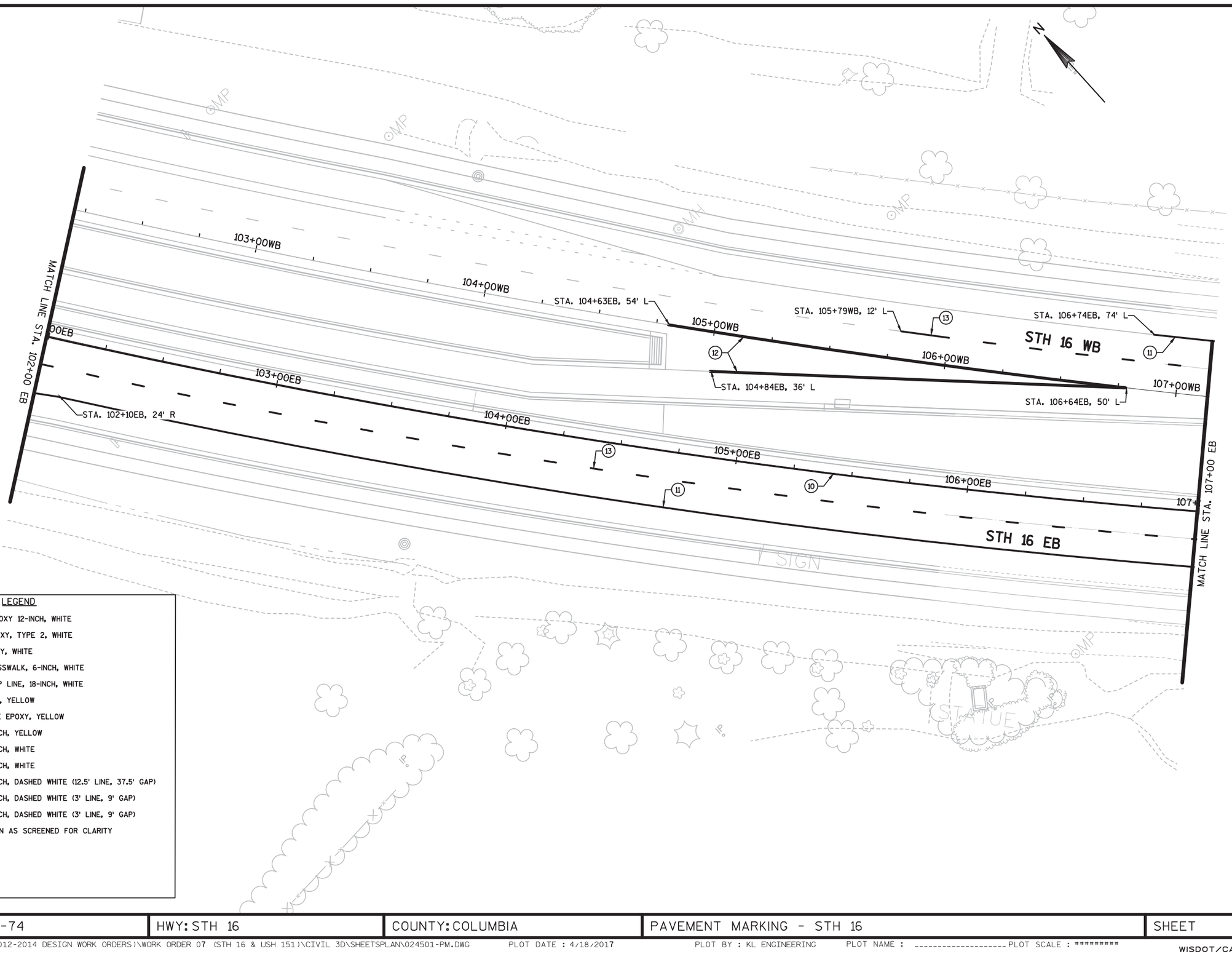


PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PAVEMENT MARKING - STH 16	SHEET 87 E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\024501-PM.DWG PLOT DATE : 4/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : *********

WISDOT/CADDS SHEET 42

2



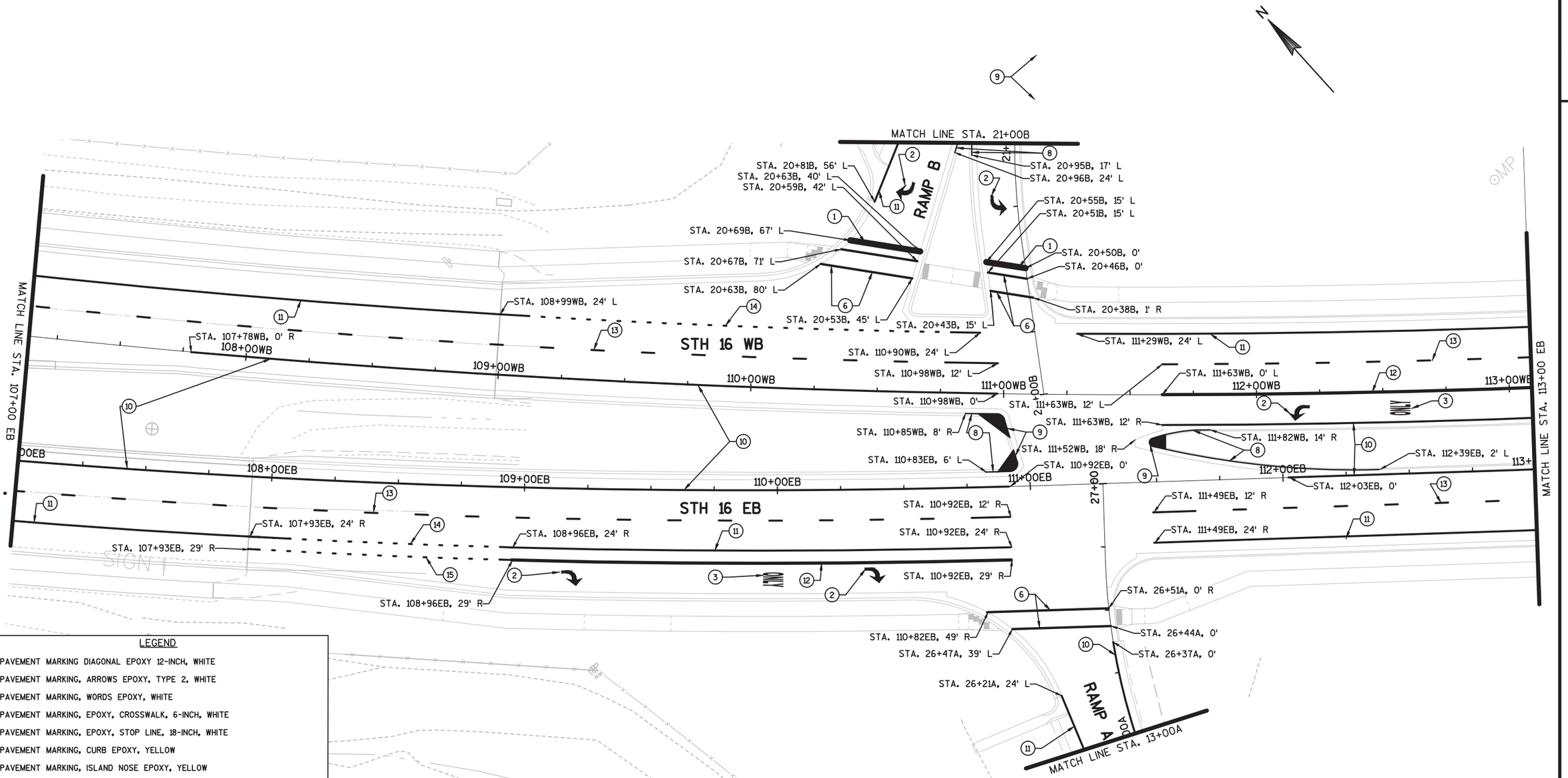
LEGEND

1. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, WHITE
2. PAVEMENT MARKING, ARROWS EPOXY, TYPE 2, WHITE
3. PAVEMENT MARKING, WORDS EPOXY, WHITE
6. PAVEMENT MARKING, EPOXY, CROSSWALK, 6-INCH, WHITE
7. PAVEMENT MARKING, EPOXY, STOP LINE, 18-INCH, WHITE
8. PAVEMENT MARKING, CURB EPOXY, YELLOW
9. PAVEMENT MARKING, ISLAND NOSE EPOXY, YELLOW
10. PAVEMENT MARKING, EPOXY, 4-INCH, YELLOW
11. PAVEMENT MARKING, EPOXY, 4-INCH, WHITE
12. PAVEMENT MARKING, EPOXY, 8-INCH, WHITE
13. PAVEMENT MARKING, EPOXY, 4-INCH, DASHED WHITE (12.5' LINE, 37.5' GAP)
14. PAVEMENT MARKING, EPOXY, 4-INCH, DASHED WHITE (3' LINE, 9' GAP)
15. PAVEMENT MARKING, EPOXY, 8-INCH, DASHED WHITE (3' LINE, 9' GAP)

NOTE: PROPOSED LINEWORK SHOWN AS SCREENED FOR CLARITY

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PAVEMENT MARKING - STH 16	SHEET 88 E

2



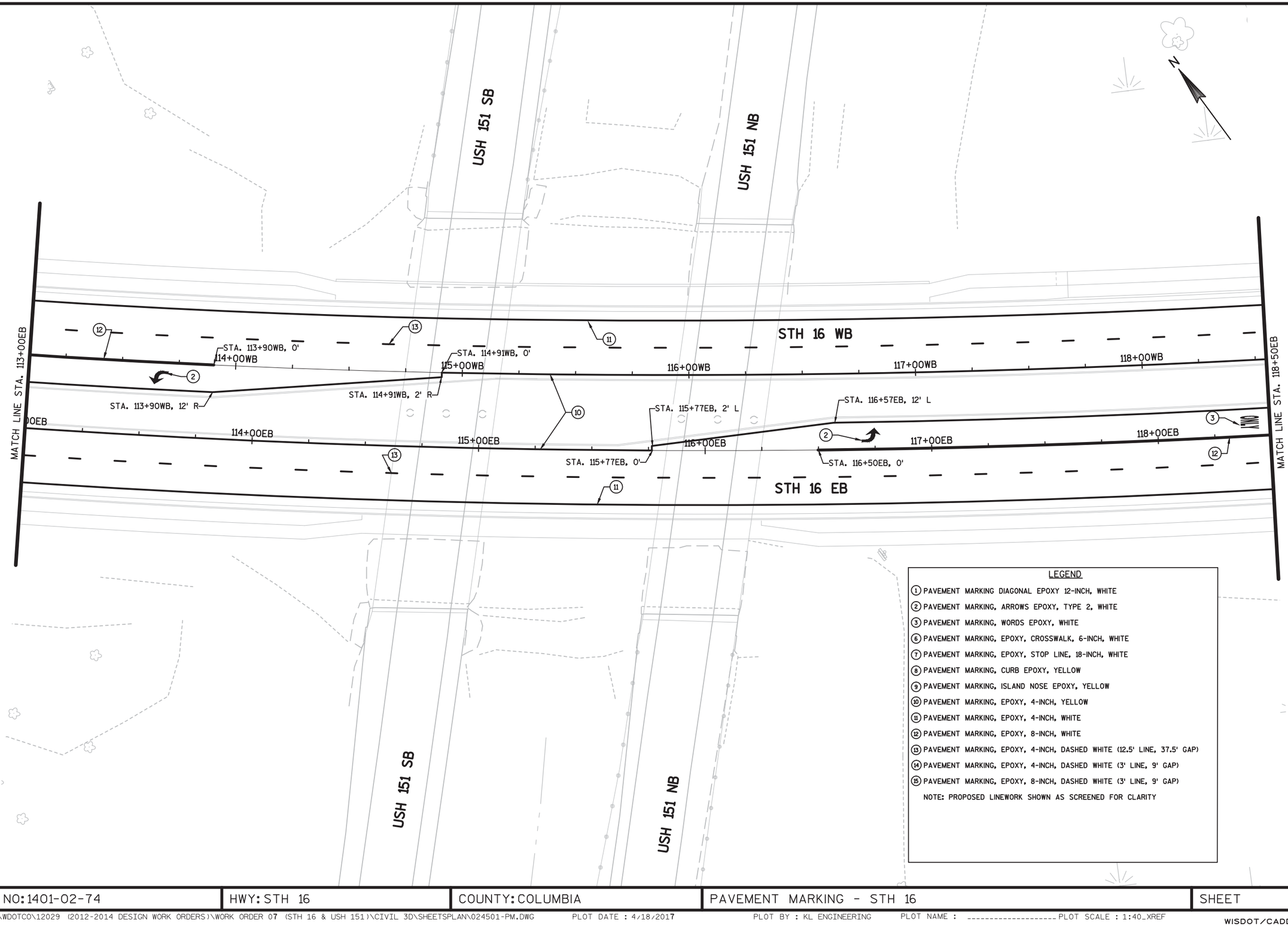
LEGEND

1. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, WHITE
2. PAVEMENT MARKING, ARROWS EPOXY, TYPE 2, WHITE
3. PAVEMENT MARKING, WORDS EPOXY, WHITE
6. PAVEMENT MARKING, EPOXY, CROSSWALK, 6-INCH, WHITE
7. PAVEMENT MARKING, EPOXY, STOP LINE, 18-INCH, WHITE
8. PAVEMENT MARKING, CURB EPOXY, YELLOW
9. PAVEMENT MARKING, ISLAND NOSE EPOXY, YELLOW
10. PAVEMENT MARKING, EPOXY, 4-INCH, YELLOW
11. PAVEMENT MARKING, EPOXY, 4-INCH, WHITE
12. PAVEMENT MARKING, EPOXY, 8-INCH, WHITE
13. PAVEMENT MARKING, EPOXY, 4-INCH, DASHED WHITE (12.5' LINE, 37.5' GAP)
14. PAVEMENT MARKING, EPOXY, 4-INCH, DASHED WHITE (3' LINE, 9' GAP)
15. PAVEMENT MARKING, EPOXY, 8-INCH, DASHED WHITE (3' LINE, 9' GAP)

NOTE: PROPOSED LINEWORK SHOWN AS SCREENED FOR CLARITY

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PAVEMENT MARKING - STH 16	SHEET 89 E

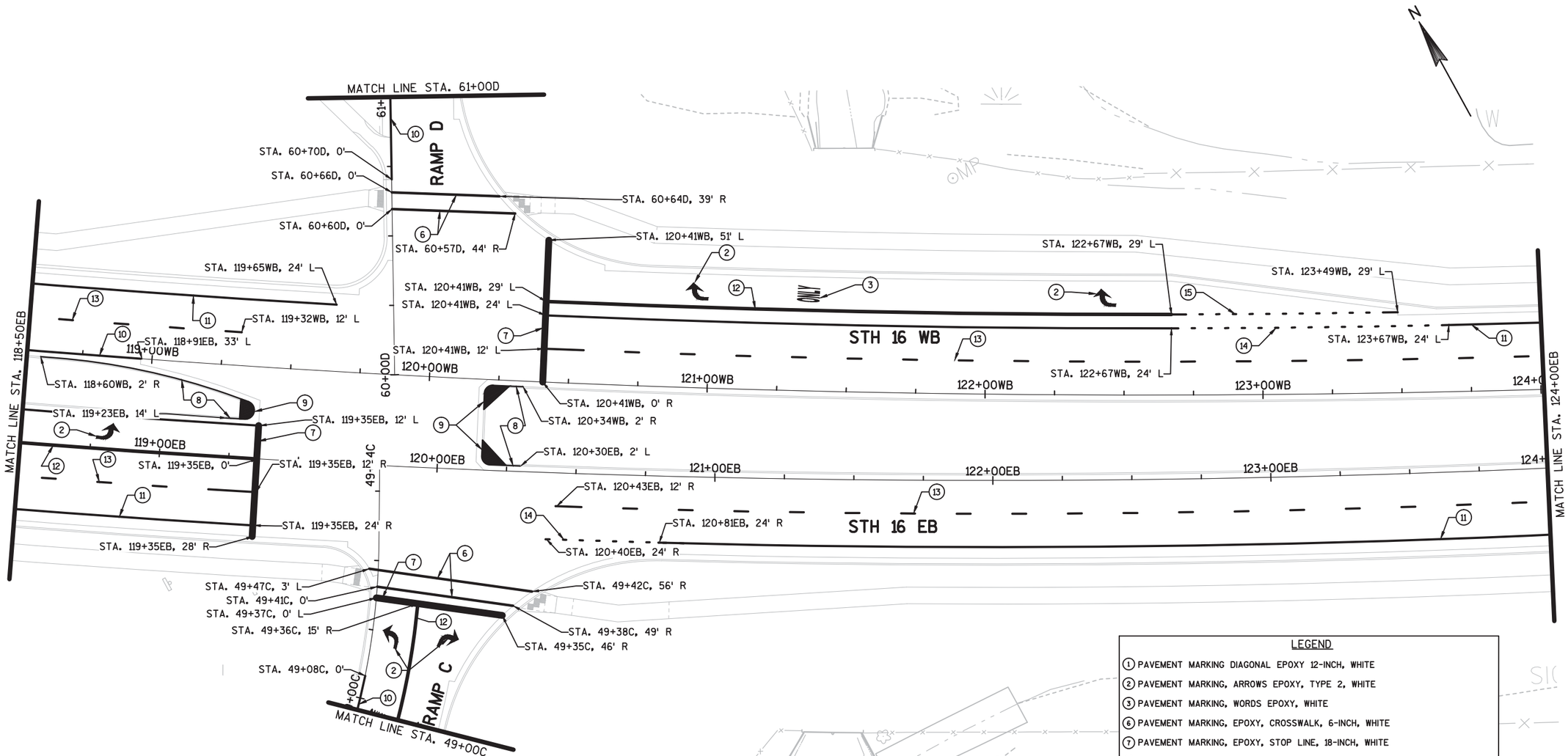
2



PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PAVEMENT MARKING - STH 16	SHEET 90 E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\024501-PM.DWG PLOT DATE : 4/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : 1:40_XREF

2



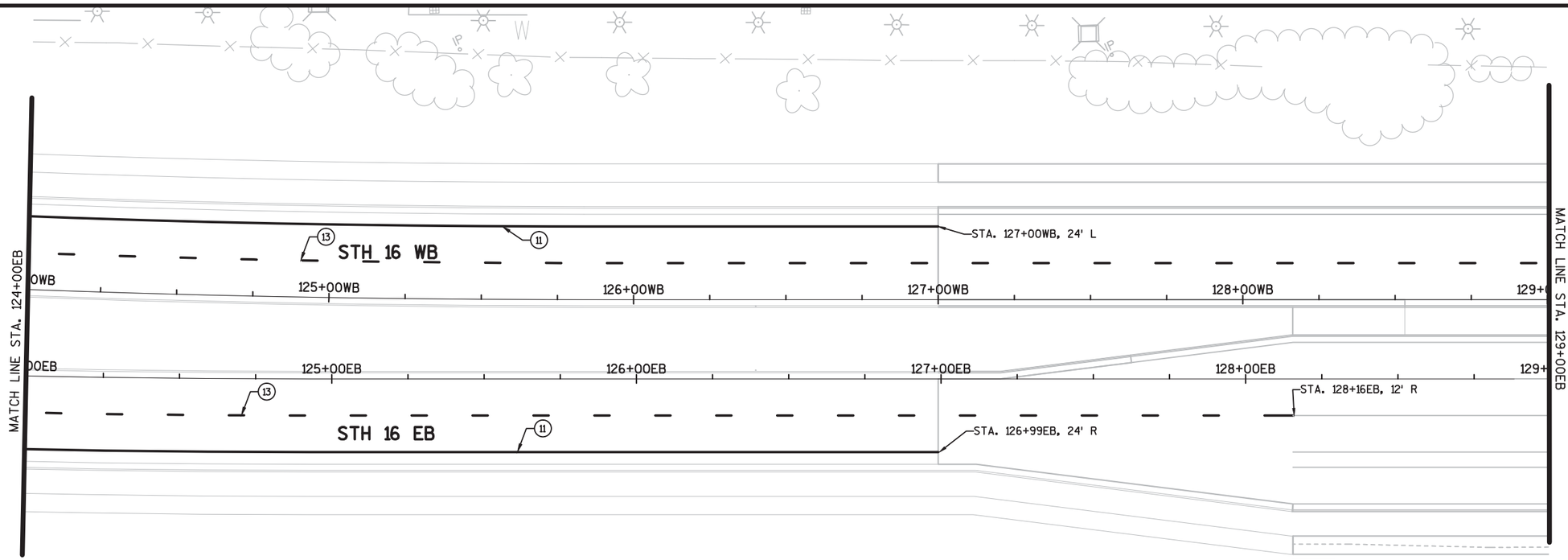
LEGEND

1. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, WHITE
2. PAVEMENT MARKING, ARROWS EPOXY, TYPE 2, WHITE
3. PAVEMENT MARKING, WORDS EPOXY, WHITE
6. PAVEMENT MARKING, EPOXY, CROSSWALK, 6-INCH, WHITE
7. PAVEMENT MARKING, EPOXY, STOP LINE, 18-INCH, WHITE
8. PAVEMENT MARKING, CURB EPOXY, YELLOW
9. PAVEMENT MARKING, ISLAND NOSE EPOXY, YELLOW
10. PAVEMENT MARKING, EPOXY, 4-INCH, YELLOW
11. PAVEMENT MARKING, EPOXY, 4-INCH, WHITE
12. PAVEMENT MARKING, EPOXY, 8-INCH, WHITE
13. PAVEMENT MARKING, EPOXY, 4-INCH, DASHED WHITE (12.5' LINE, 37.5' GAP)
14. PAVEMENT MARKING, EPOXY, 4-INCH, DASHED WHITE (3' LINE, 9' GAP)
15. PAVEMENT MARKING, EPOXY, 8-INCH, DASHED WHITE (3' LINE, 9' GAP)

NOTE: PROPOSED LINEWORK SHOWN AS SCREENED FOR CLARITY

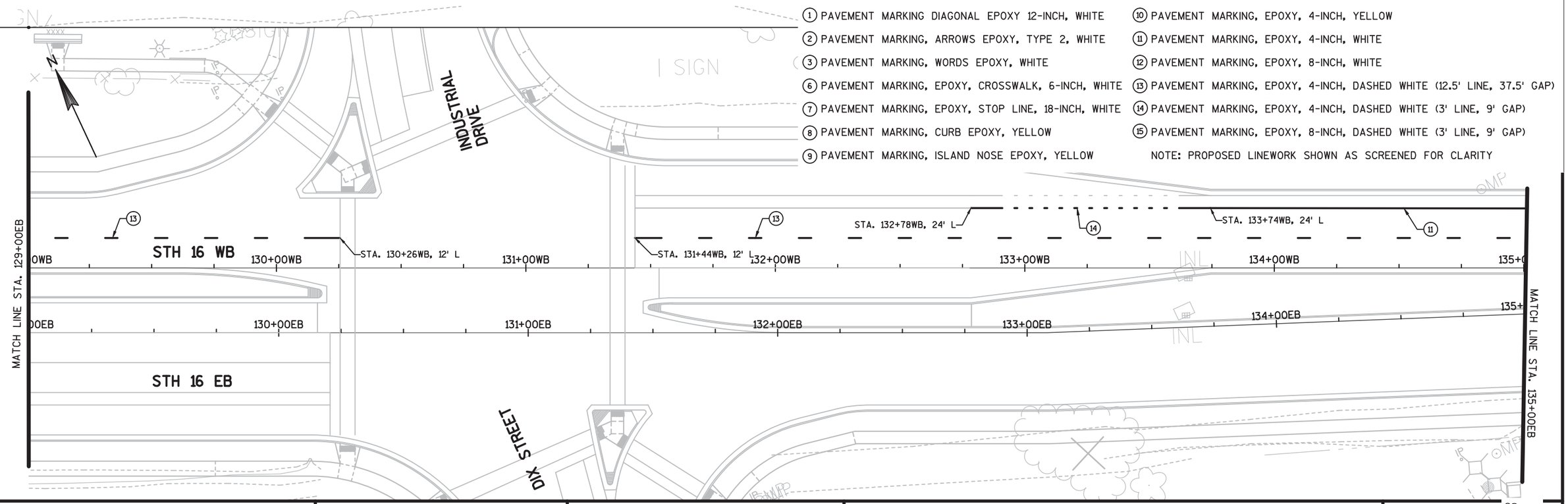
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PAVEMENT MARKING - STH 16	SHEET 91	E

2



LEGEND

(1) PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, WHITE	(10) PAVEMENT MARKING, EPOXY, 4-INCH, YELLOW
(2) PAVEMENT MARKING, ARROWS EPOXY, TYPE 2, WHITE	(11) PAVEMENT MARKING, EPOXY, 4-INCH, WHITE
(3) PAVEMENT MARKING, WORDS EPOXY, WHITE	(12) PAVEMENT MARKING, EPOXY, 8-INCH, WHITE
(6) PAVEMENT MARKING, EPOXY, CROSSWALK, 6-INCH, WHITE	(13) PAVEMENT MARKING, EPOXY, 4-INCH, DASHED WHITE (12.5' LINE, 37.5' GAP)
(7) PAVEMENT MARKING, EPOXY, STOP LINE, 18-INCH, WHITE	(14) PAVEMENT MARKING, EPOXY, 4-INCH, DASHED WHITE (3' LINE, 9' GAP)
(8) PAVEMENT MARKING, CURB EPOXY, YELLOW	(15) PAVEMENT MARKING, EPOXY, 8-INCH, DASHED WHITE (3' LINE, 9' GAP)
(9) PAVEMENT MARKING, ISLAND NOSE EPOXY, YELLOW	NOTE: PROPOSED LINEWORK SHOWN AS SCREENED FOR CLARITY



PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PAVEMENT MARKING - STH 16	SHEET 92 E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\024501-PM.DWG PLOT DATE : 4/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

2

2

N

N

STA. 138+00WB, 24' L

STA. 139+08WB, 17' L

STA. 138+00WB, 12' L

STH 16 WB

STH 16 EB

135+00WB

136+00WB

137+00WB

138+00WB

139+00WB

139+25EB

139+75WB

136+00EB

137+00EB

138+00EB

MATCH LINE STA. 135+00EB

INL

FLAG

SIGN

MH

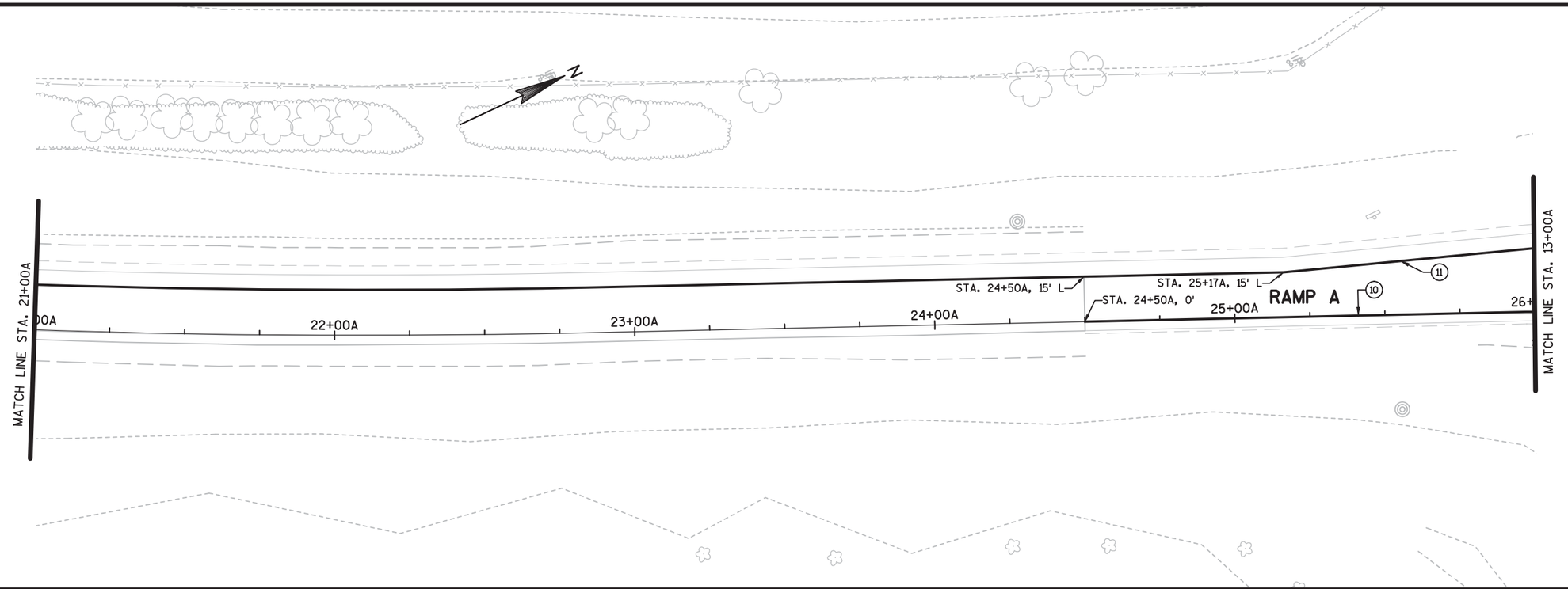
XXXX

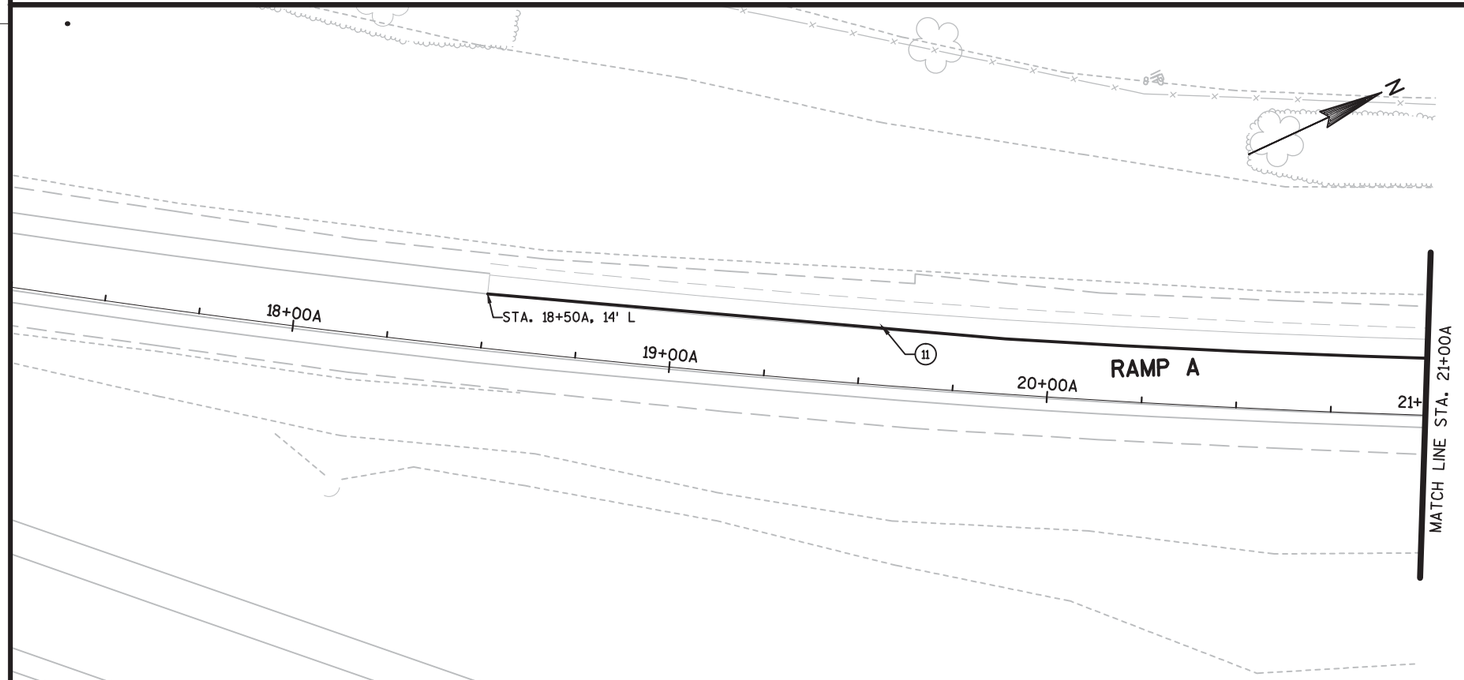
LEGEND

1. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, WHITE
2. PAVEMENT MARKING, ARROWS EPOXY, TYPE 2, WHITE
3. PAVEMENT MARKING, WORDS EPOXY, WHITE
6. PAVEMENT MARKING, EPOXY, CROSSWALK, 6-INCH, WHITE
7. PAVEMENT MARKING, EPOXY, STOP LINE, 18-INCH, WHITE
8. PAVEMENT MARKING, CURB EPOXY, YELLOW
9. PAVEMENT MARKING, ISLAND NOSE EPOXY, YELLOW
10. PAVEMENT MARKING, EPOXY, 4-INCH, YELLOW
11. PAVEMENT MARKING, EPOXY, 4-INCH, WHITE
12. PAVEMENT MARKING, EPOXY, 8-INCH, WHITE
13. PAVEMENT MARKING, EPOXY, 4-INCH, DASHED WHITE (12.5' LINE, 37.5' GAP)
14. PAVEMENT MARKING, EPOXY, 4-INCH, DASHED WHITE (3' LINE, 9' GAP)
15. PAVEMENT MARKING, EPOXY, 8-INCH, DASHED WHITE (3' LINE, 9' GAP)

NOTE: PROPOSED LINEWORK SHOWN AS SCREENED FOR CLARITY

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PAVEMENT MARKING - STH 16	SHEET 93 E





LEGEND

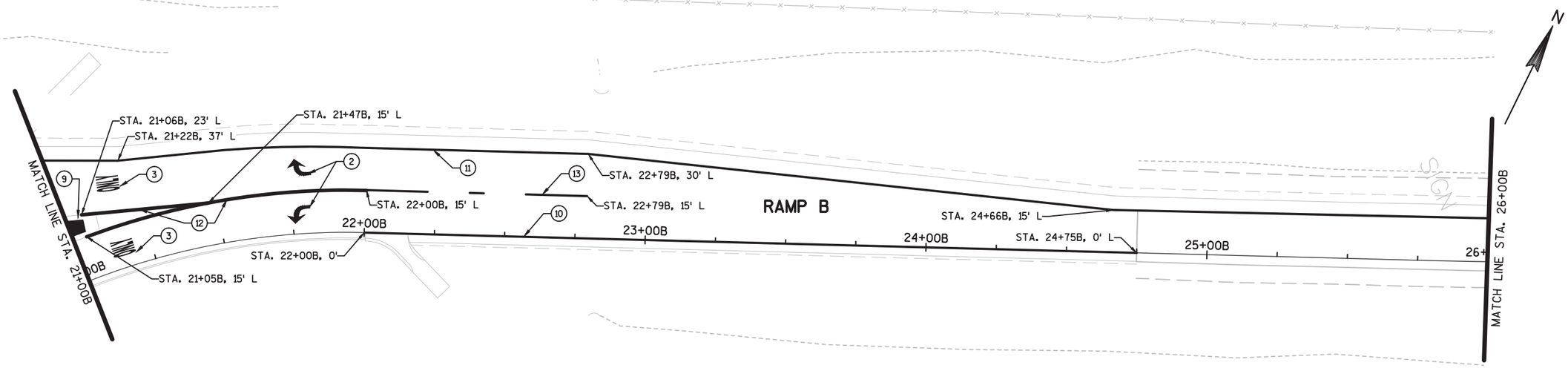
1. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, WHITE
2. PAVEMENT MARKING, ARROWS EPOXY, TYPE 2, WHITE
3. PAVEMENT MARKING, WORDS EPOXY, WHITE
6. PAVEMENT MARKING, EPOXY, CROSSWALK, 6-INCH, WHITE
7. PAVEMENT MARKING, EPOXY, STOP LINE, 18-INCH, WHITE
8. PAVEMENT MARKING, CURB EPOXY, YELLOW
9. PAVEMENT MARKING, ISLAND NOSE EPOXY, YELLOW
10. PAVEMENT MARKING, EPOXY, 4-INCH, YELLOW
11. PAVEMENT MARKING, EPOXY, 4-INCH, WHITE
12. PAVEMENT MARKING, EPOXY, 8-INCH, WHITE
13. PAVEMENT MARKING, EPOXY, 4-INCH, DASHED WHITE (12.5' LINE, 37.5' GAP)
14. PAVEMENT MARKING, EPOXY, 4-INCH, DASHED WHITE (3' LINE, 9' GAP)
15. PAVEMENT MARKING, EPOXY, 8-INCH, DASHED WHITE (3' LINE, 9' GAP)

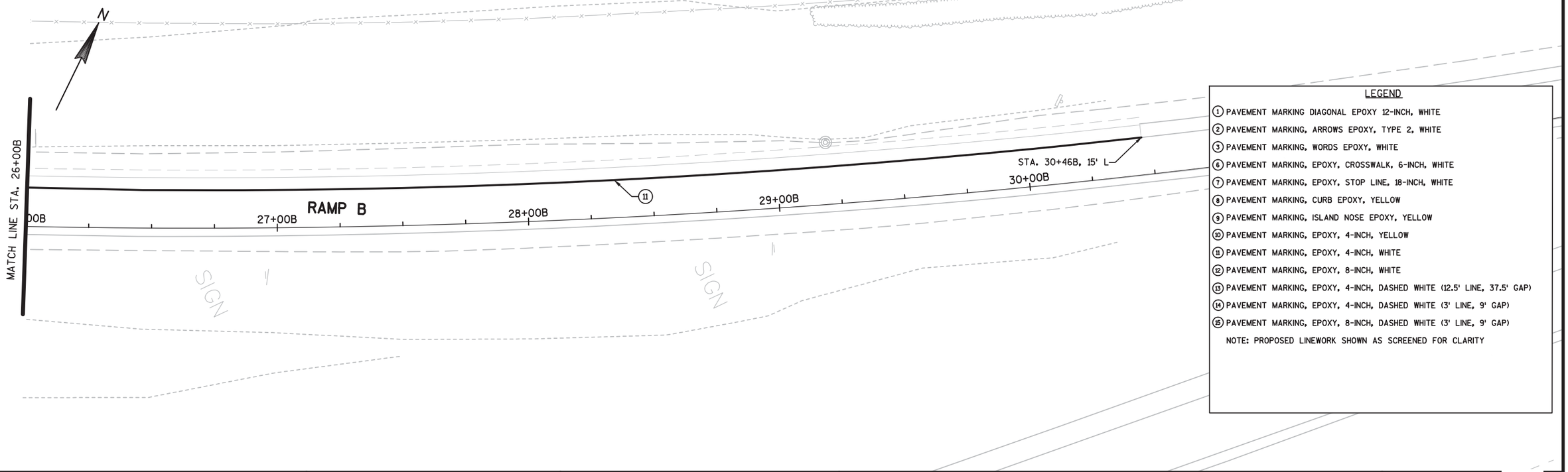
NOTE: PROPOSED LINEWORK SHOWN AS SCREENED FOR CLARITY

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PAVEMENT MARKING - STH 16	SHEET 94 E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\024501-PM.DWG PLOT DATE : 4/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : *********

WISDOT/CADDS SHEET 42



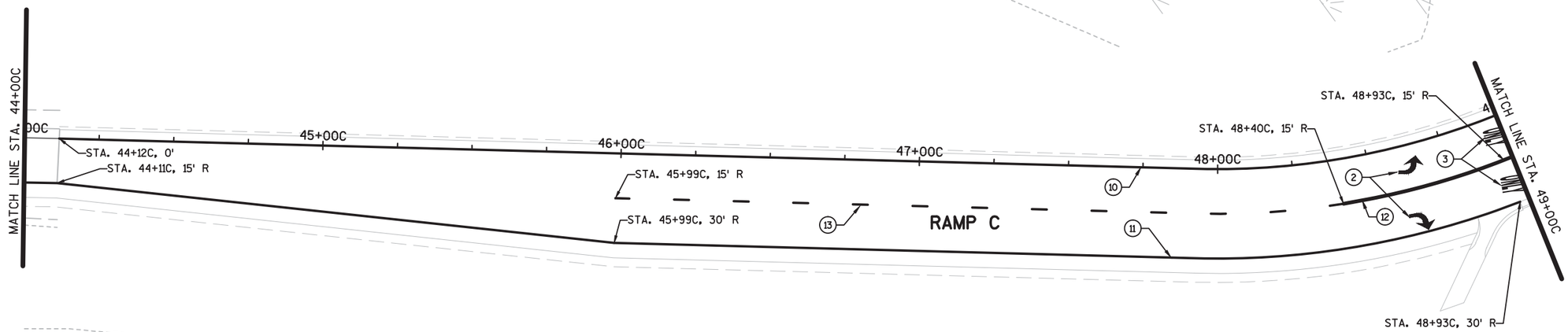


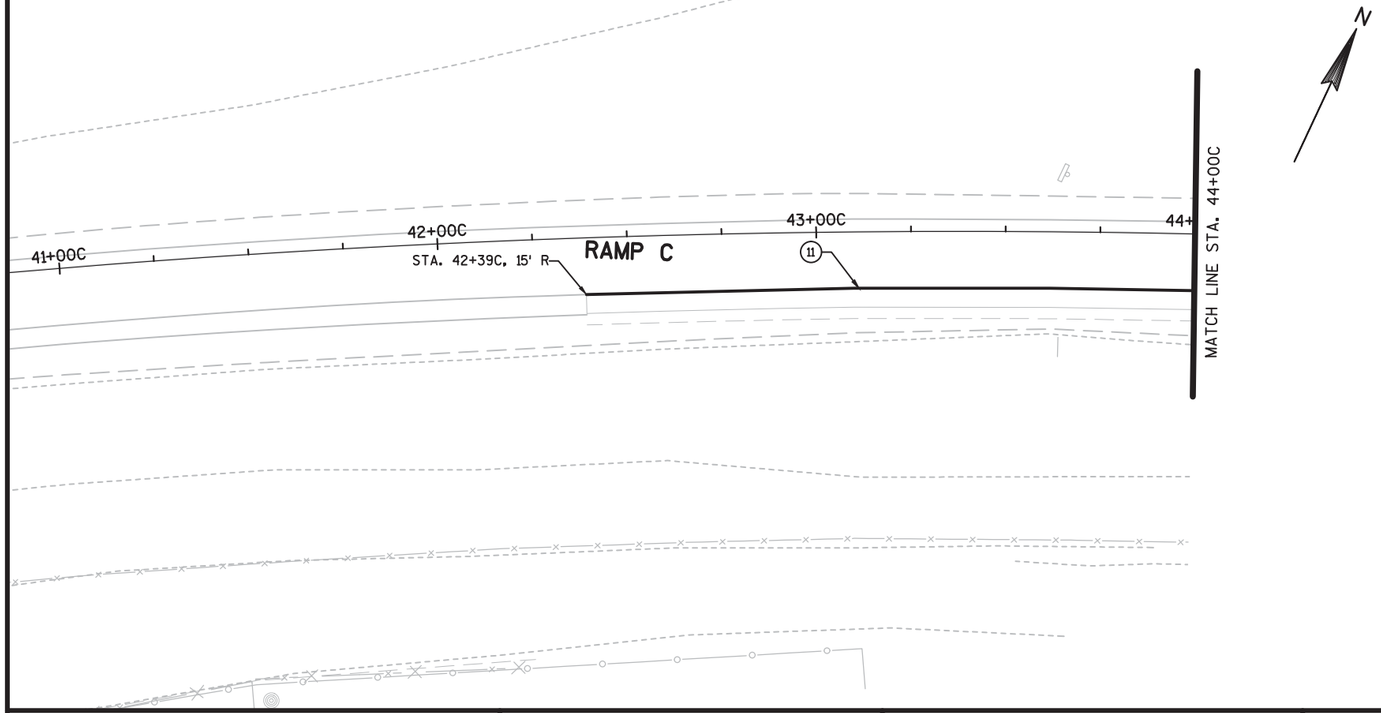
LEGEND

1. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, WHITE
2. PAVEMENT MARKING, ARROWS EPOXY, TYPE 2, WHITE
3. PAVEMENT MARKING, WORDS EPOXY, WHITE
6. PAVEMENT MARKING, EPOXY, CROSSWALK, 6-INCH, WHITE
7. PAVEMENT MARKING, EPOXY, STOP LINE, 18-INCH, WHITE
8. PAVEMENT MARKING, CURB EPOXY, YELLOW
9. PAVEMENT MARKING, ISLAND NOSE EPOXY, YELLOW
10. PAVEMENT MARKING, EPOXY, 4-INCH, YELLOW
11. PAVEMENT MARKING, EPOXY, 4-INCH, WHITE
12. PAVEMENT MARKING, EPOXY, 8-INCH, WHITE
13. PAVEMENT MARKING, EPOXY, 4-INCH, DASHED WHITE (12.5' LINE, 37.5' GAP)
14. PAVEMENT MARKING, EPOXY, 4-INCH, DASHED WHITE (3' LINE, 9' GAP)
15. PAVEMENT MARKING, EPOXY, 8-INCH, DASHED WHITE (3' LINE, 9' GAP)

NOTE: PROPOSED LINEWORK SHOWN AS SCREENED FOR CLARITY

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PAVEMENT MARKING - STH 16	SHEET 95 E





LEGEND

1. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, WHITE
2. PAVEMENT MARKING, ARROWS EPOXY, TYPE 2, WHITE
3. PAVEMENT MARKING, WORDS EPOXY, WHITE
6. PAVEMENT MARKING, EPOXY, CROSSWALK, 6-INCH, WHITE
7. PAVEMENT MARKING, EPOXY, STOP LINE, 18-INCH, WHITE
8. PAVEMENT MARKING, CURB EPOXY, YELLOW
9. PAVEMENT MARKING, ISLAND NOSE EPOXY, YELLOW
10. PAVEMENT MARKING, EPOXY, 4-INCH, YELLOW
11. PAVEMENT MARKING, EPOXY, 4-INCH, WHITE
12. PAVEMENT MARKING, EPOXY, 8-INCH, WHITE
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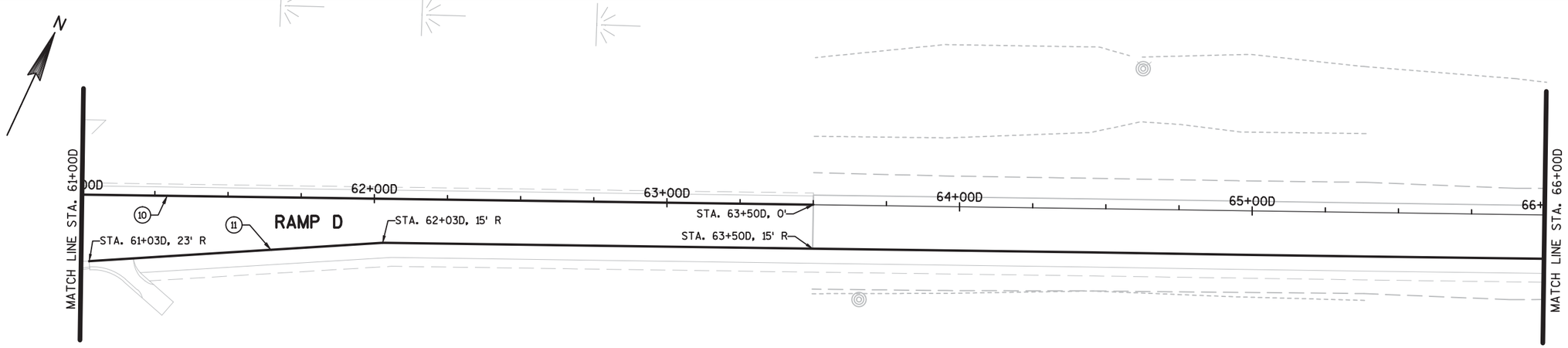
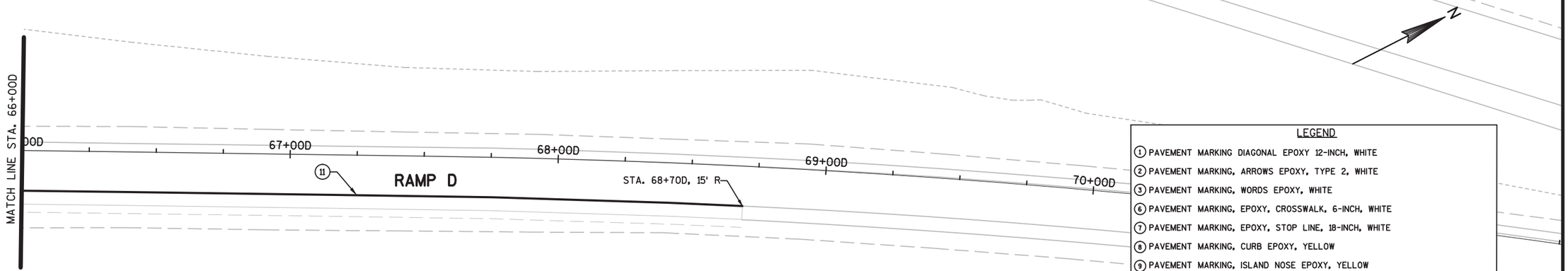
14. PAVEMENT MARKING, EPOXY, 4-INCH, DASHED WHITE (3' LINE, 9' GAP)
15. PAVEMENT MARKING, EPOXY, 8-INCH, DASHED WHITE (3' LINE, 9' GAP)

NOTE: PROPOSED LINEWORK SHOWN AS SCREENED FOR CLARITY

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PAVEMENT MARKING - STH 16	SHEET 96 E





LEGEND

1. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, WHITE
2. PAVEMENT MARKING, ARROWS EPOXY, TYPE 2, WHITE
3. PAVEMENT MARKING, WORDS EPOXY, WHITE
6. PAVEMENT MARKING, EPOXY, CROSSWALK, 6-INCH, WHITE
7. PAVEMENT MARKING, EPOXY, STOP LINE, 18-INCH, WHITE
8. PAVEMENT MARKING, CURB EPOXY, YELLOW
9. PAVEMENT MARKING, ISLAND NOSE EPOXY, YELLOW
10. PAVEMENT MARKING, EPOXY, 4-INCH, YELLOW
11. PAVEMENT MARKING, EPOXY, 4-INCH, WHITE
12. PAVEMENT MARKING, EPOXY, 8-INCH, WHITE
13. PAVEMENT MARKING, EPOXY, 4-INCH, DASHED WHITE (12.5' LINE, 37.5' GAP)
14. PAVEMENT MARKING, EPOXY, 4-INCH, DASHED WHITE (3' LINE, 9' GAP)
15. PAVEMENT MARKING, EPOXY, 8-INCH, DASHED WHITE (3' LINE, 9' GAP)

NOTE: PROPOSED LINEWORK SHOWN AS SCREENED FOR CLARITY

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PAVEMENT MARKING - STH 16	SHEET 97 E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\024501-PM.DWG PLOT DATE : 4/19/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

GENERAL NOTES FOR TRAFFIC CONTROL

1) THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

2) A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE WORK AREAS IF WARRANTED BY CONDITIONS OR AS DIRECTED BY THE ENGINEER.

3) ALL SIGNS ARE 48" X 48" UNLESS NOTED.

4) "WO" IS THE "W" EXCEPT THE BACKGROUND IS ORANGE.

5) FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A TYPE C STEADY BURN WARNING LIGHT.

6) ALL TYPE II AND III BARRICADES SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE "A" (LOW INTENSITY FLASHING) LIGHTS.

7) DIMENSIONS TO CONCRETE BARRIER TEMPORARY PRECAST ARE TO THE FACE OF BARRIER AND ADJACENT TO TRAFFIC.

8) WHEN A SEGMENT OF THE PROJECT IS NOT SHOWN ON THE STAGING PLANS, USE THE SAME TRAFFIC CONTROL AS THE PREVIOUS STAGE FOR THAT SEGMENT.

9) EXISTING AND ADVANCE WARNING TRAFFIC SIGNS THAT REQUIRE RELOCATION DURING CONSTRUCTION STAGING ARE INCIDENTAL TO THE CONTRACT.

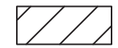
10) MAINTAIN LOCAL ACCESS AT ALL TIMES UNLESS OTHERWISE NOTED IN THE TRAFFIC CONTROL PLANS.

TRAFFIC CONTROL LEGEND

- TYPE II BARRICADE WITH ATTACHED SIGN AND TYPE A LIGHTS
- TYPE III BARRICADE WITH TYPE A LIGHTS
- TYPE III BARRICADE WTH ATTACHED SIGN AND TYPE A LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON EXISTING SUPPORT
- FLEXIBLE TUBULAR MARKER
- SIGN ON TEMPORARY SUPPORT

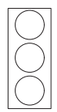
TEMPORARY PAVEMENT CONSTRUCTED IN PREVIOUS STAGE

TEMPORARY PAVEMENT CONSTRUCTED IN CURRENT STAGE



WORK AREA

DIRECTION OF TRAFFIC



SIGNALIZED INTERSECTION

TEMPORARY PAVEMENT MARKING LEGEND

T4W	TEMPORARY PAVEMENT MARKING PAINT, 4-INCH, WHITE
T4Y	TEMPORARY PAVEMENT MARKING PAINT, 4-INCH, YELLOW
T4DY	TEMPORARY PAVEMENT MARKING PAINT, 4-INCH, DOUBLE YELLOW
T8W	TEMPORARY PAVEMENT MARKING PAINT, 8-INCH, WHITE
T18W	TEMPORARY PAVEMENT MARKING PAINT, 18-INCH, WHITE
TR4W	TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE, 4-INCH, WHITE
TR4Y	TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE, 4-INCH, YELLOW
TR4DY	TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE, 4-INCH, DOUBLE YELLOW
TR6W	TEMPORARY PAVEMENT MARKING, CROSSWALK REMOVABLE TAPE, 6-INCH, WHITE
TR8W	TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE, 8-INCH, WHITE
TR18W	TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE, 18-INCH, WHITE
T1	TEMPORARY PAVEMENT MARKING, ARROWS PAINT
T2	TEMPORARY PAVEMENT MARKING, WORDS PAINT

PERMANENT PAVEMENT MARKING LEGEND

P4W	PAVEMENT MARKING, EPOXY, 4-INCH, WHITE
P4Y	PAVEMENT MARKING, EPOXY, 4-INCH, YELLOW
P6W	PAVEMENT MARKING, EPOXY, CROSSWALK, 6-INCH, WHITE
P8W	PAVEMENT MARKING, EPOXY, 8-INCH, WHITE
P18W	PAVEMENT MARKING, EPOXY, STOP LINE, 18-INCH, WHITE
P1	PAVEMENT MARKING, ARROWS EPOXY, TYPE 2, WHITE
P2	PAVEMENT MARKING EPOXY, EPOXY, WHITE

2

SIGN TO BE PLACED
2640' NORTH OF STH 73
SB OFF-RAMP

MAX. 11' WIDTH
W12-52
48"X48"

WEST 16 WEST 60
J4-2
48"X36"

ACCESS TO LOCAL BUSINESSES
R10-71
72"X36"

END ROAD WORK
G20-2A
48"X24"

RAMP D

USH 151 NB
USH 151 SB

RAMP B

STH 16 WB
STH 16 EB

RAMP C

USH 151 NB
USH 151 SB

RAMP A

ROAD WORK AHEAD
W20-1-A

2640'

700'

HWY 16
UNDER CONSTR
0AM-0PM
G20-57
96"X48"

SIGN TO BE PLACED
2640' NORTH OF STH 73
NB OFF-RAMP

MAX. 11' WIDTH
W12-52
48"X48"

WEST 16 WEST 60
J4-2
48"X36"

HWY 16
UNDER CONSTR
0AM-0PM
G20-57
96"X48"

3140'

2640'

ROAD WORK AHEAD
W20-1-A

END ROAD WORK
G20-2A
48"X24"

END ROAD WORK
G20-2A
48"X24"

ACCESS TO LOCAL BUSINESSES
R10-71
72"X36"

ROAD WORK AHEAD
W20-1-A

STH 60

MAX. 11' WIDTH
W12-52
48"X48"

300'

ROAD WORK AHEAD
W20-1-A

ROAD WORK AHEAD
W20-1-A

300'

CONTINENTAL DRIVE

MAX. 11' WIDTH
W12-52
48"X48"

END ROAD WORK
G20-2A
48"X24"

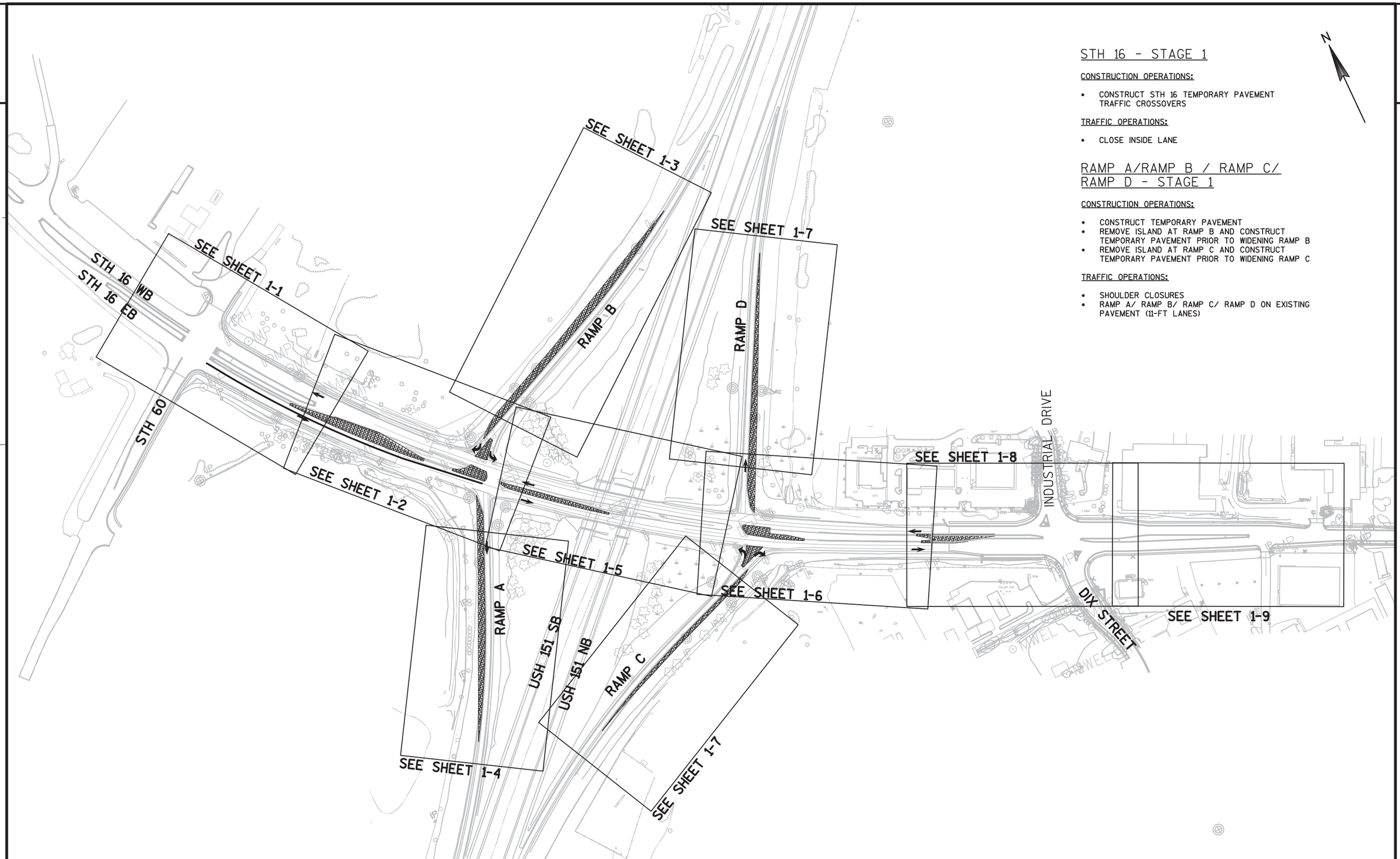
MEISTER DRIVE

DIX STREET

INDUSTRIAL DRIVE

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - ADVANCED WARNING DETAIL	SHEET 99	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025001_TC_OV.DWG 4/18/2017
LAYOUT NAME - SHEET - (1)
PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 42



STH 16 - STAGE 1

CONSTRUCTION OPERATIONS:

- CONSTRUCT STH 16 TEMPORARY PAVEMENT TRAFFIC CROSSOVERS

TRAFFIC OPERATIONS:

- CLOSE INSIDE LANE

RAMP A/RAMP B / RAMP C/ RAMP D - STAGE 1

CONSTRUCTION OPERATIONS:

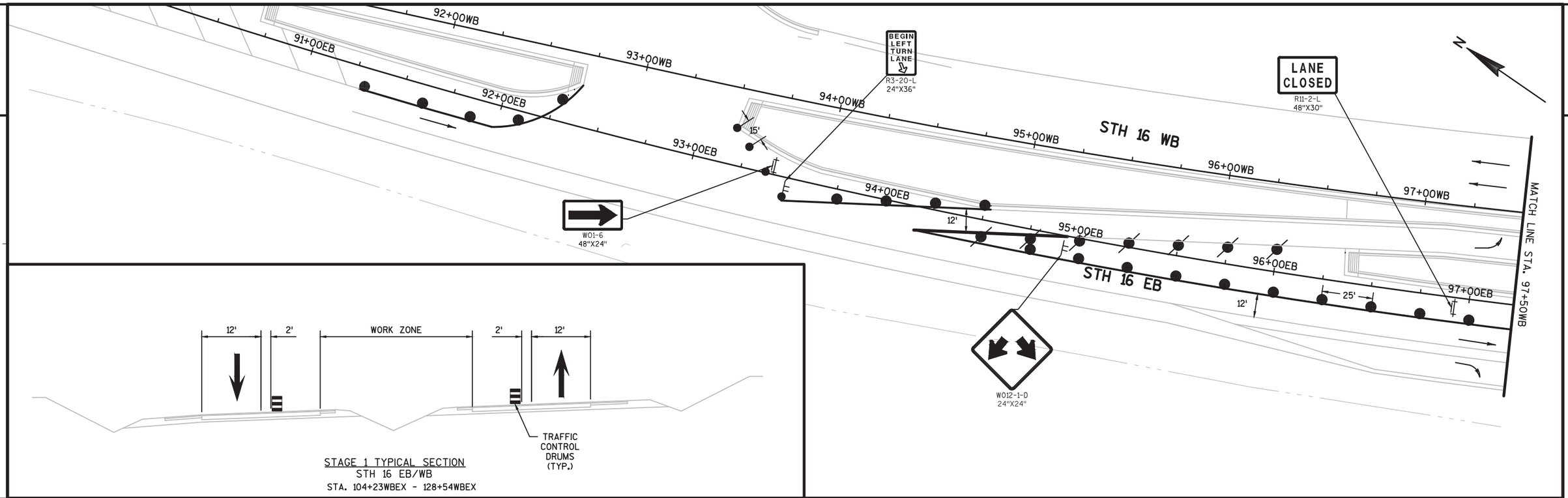
- CONSTRUCT TEMPORARY PAVEMENT
- REMOVE ISLAND AT RAMP B AND CONSTRUCT TEMPORARY PAVEMENT PRIOR TO WIDENING RAMP B
- REMOVE ISLAND AT RAMP C AND CONSTRUCT TEMPORARY PAVEMENT PRIOR TO WIDENING RAMP C

TRAFFIC OPERATIONS:

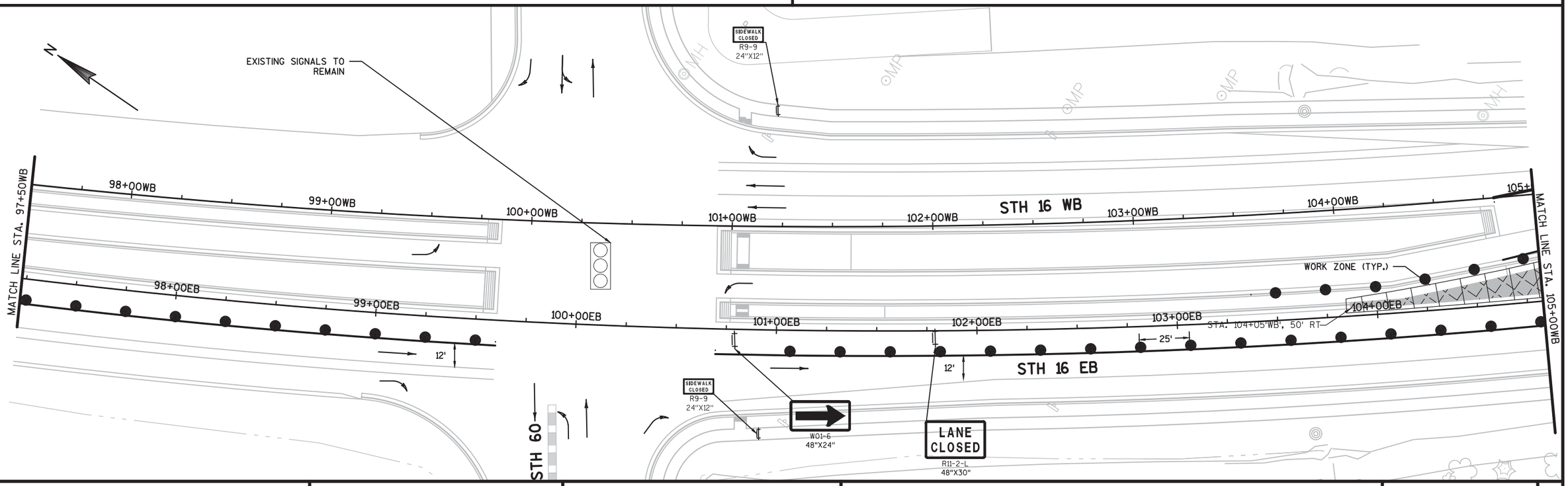
- SHOULDER CLOSURES
- RAMP A/ RAMP B/ RAMP C/ RAMP D ON EXISTING PAVEMENT (11-FT LANES)

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1 OVERVIEW	SHEET 100	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025001_TC_STAGE 1.DWG 8/16/2017
LAYOUT NAME - SHEET - (1)
PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 42

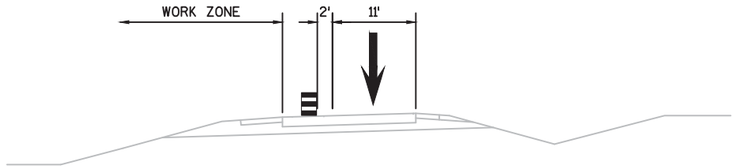


STAGE 1 TYPICAL SECTION
STH 16 EB/WB
STA. 104+23WBEX - 128+54WBEX



PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1 (SHEET 1-1)	SHEET 101	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025001_TC_STAGE 1.DWG 4/26/2017
LAYOUT NAME - SHEET - (1)
PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 42



STAGE 1 TYPICAL SECTION
RAMP B
STA. 20+38B - 31+28B

NOTE: REMOVE ISLAND AND CONSTRUCT TEMPORARY PAVEMENT PRIOR TO WIDENING RAMP B

CONTRACTOR MUST MAINTAIN AN 11-FT TRAVEL LANE ON RAMP B AT ALL TIMES

MATCH LINE STA. 22+00B

RAMP B

STA. 21+09'B', 39' LT

COMPLETE RAMP ISLAND CONSTRUCTION UNDER FLAGGING OPERATIONS

STOP R1-1 36"X36"

STOP R1-1 36"X36"

W012-1-D 24"X24"

DIVIDED HIGHWAY R6-3 30"X24"

DO NOT ENTER R5-1 30"X30"

WEST 16 WEST 60

SPEED LIMIT 45

W01-6 48"X24"

BEGIN LEFT TURN LANE R3-20-L 24"X36"

LANE CLOSED R11-2-L 48"X30"

W012-1-D 24"X24"

STH 16 WB

STH 16 EB

MATCH LINE STA. 105+00WB

MATCH LINE STA. 112+00WB

105+00WB 106+00WB 107+00WB 108+00WB 109+00WB 110+00WB 111+00WB

105+00EB 106+00EB 107+00EB 108+00EB 109+00EB 110+00EB 111+00EB

STA. 105+62'WB', 24' RT

STA. 107+15'WB', 13' RT

WORK ZONE (TYP.)

STA. 109+96'WB', 41' RT

STA. 108+90'WB', 44' RT

STA. 110+49'WB', 5' RT

SPEED LIMIT 35

27+00A

R4-7 24"X30"

SOUTH 151

DO NOT ENTER

STA. 26+39'A', 41' LT

EAST 16 EAST 60

ONE WAY

25+00A

RAMP A

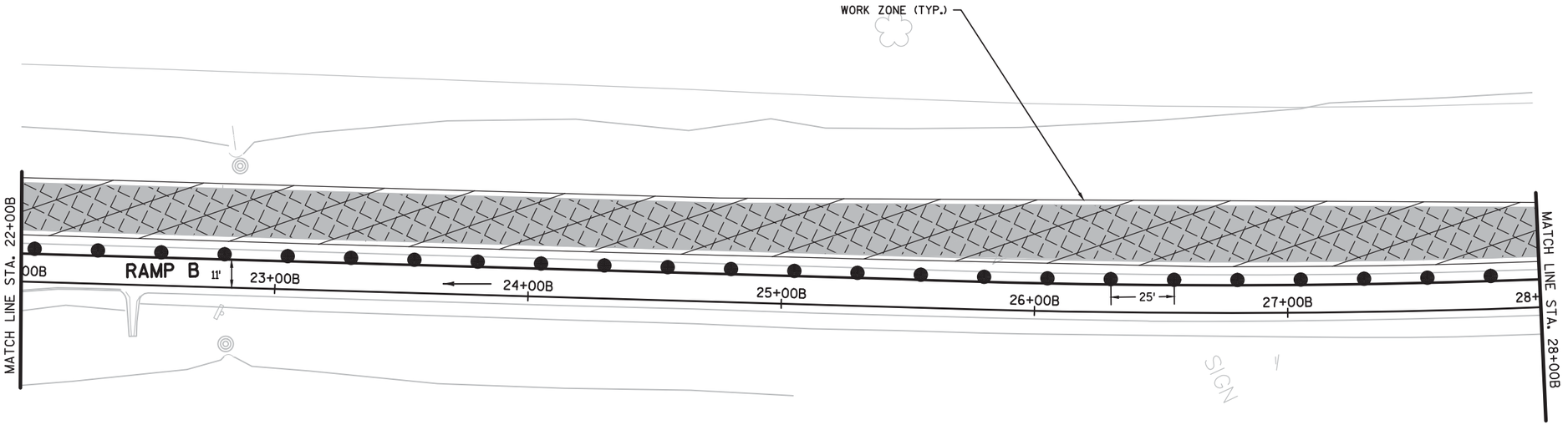
MATCH LINE STA. 25+00A

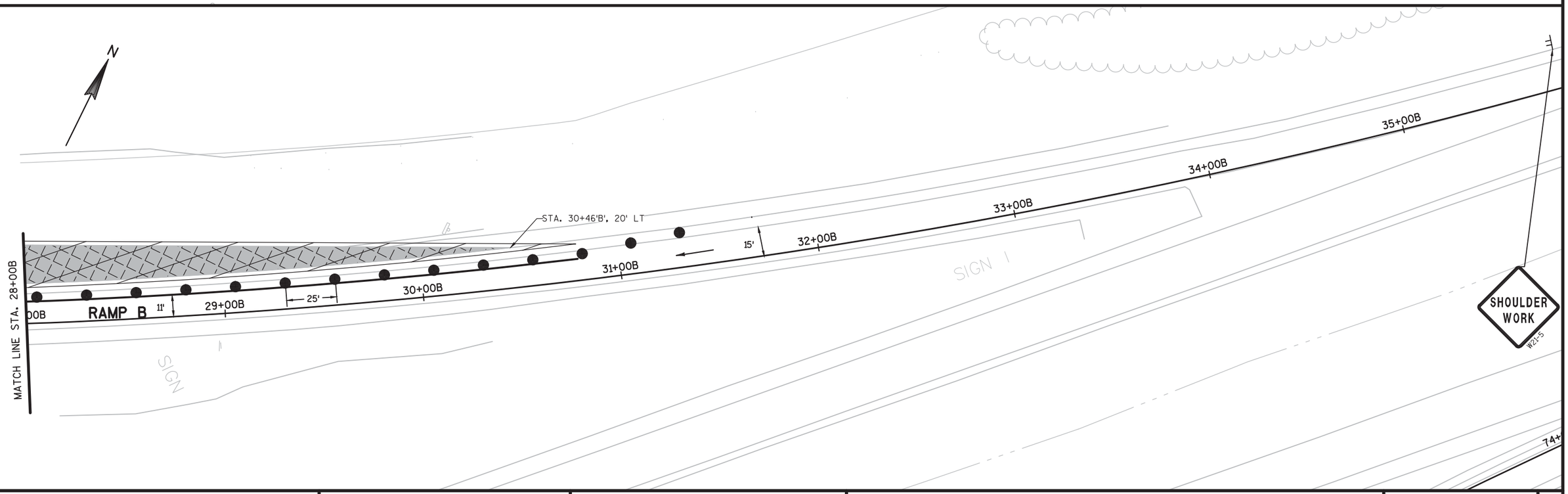
12' 11' 2' WORK ZONE

STAGE 1 TYPICAL SECTION
RAMP A
STA. 18+53A - 26+33A

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1 (SHEET 1-2)	SHEET 102	E

2





PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1 (SHEET 1-3)	SHEET 103	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025001_TC_STAGE 1.DWG 4/26/2017
LAYOUT NAME - SHEET - (1)
PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

2

U.S.H. 151

MATCH LINE STA. 25+00A

25+00A

24+00A

25'

11'

23+00A

RAMP A

22+00A

21+00A

20+00A

19+00A

18+00A

15'

WORK ZONE (TYP.)

STA. 18+50'A', 20' LT

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1 (SHEET 1-4)	SHEET 104	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025001_TC_STAGE 1.DWG 8/3/2017
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

2

N

USH 151 SB

USH 151 NB

WRONG WAY

OMP

BEGIN LEFT TURN LANE

R3-20-L
24"X36"

BUMP

Madison

Portage

Sun Prairie

LANE CLOSED

R11-2-L
48"X30"

STH 16 WB

12'

12'

113+00WB

114+00WB

115+00WB

116+00WB

117+00WB

118+00WB

119+

MATCH LINE STA. 112+00WB

SIGN

MATCH LINE STA. 119+00WB

112+00EB

113+00EB

WORK ZONE (TYP.)

114+00EB

115+00EB

STA. 115+41'WB, 38' RT

116+00EB

117+00EB

118+00EB

119

11'

12'

25'

12'

STH 16 EB

W01-6
48"X24"

LANE CLOSED

R11-2-L
48"X30"

Columbus
POPULATION 4,991

W03-3

WRONG WAY

BEGIN LEFT TURN LANE

R3-20-L
24"X36"

USH 151 SB

USH 151 NB

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1 (SHEET 1-5)	SHEET 105	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025001_TC_STAGE 1.DWG
LAYOUT NAME - SHEET - (1)

8/3/2017

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

2

MATCH LINE STA. 62+00D

62+

11'

61+00D

RAMP D

WEST 16 WEST 60

ONE WAY

W01-6
48"X24"

STA. 60+48'D', 44' RT

TEMPORARY TRAFFIC SIGNAL REQUIRED

NORTH 151

DO NOT ENTER

N

U/C

U/C

W03-3

Portage
Madison
Beaver Dam

STAGE 1 TYPICAL SECTION
RAMP D
STA. 60+40D - 69+47D

11' 2' WORK ZONE

12'

12'

STH 16 WB

MATCH LINE STA. 126+00WB

119+00WB

120+00WB

121+00WB

122+00WB

123+00WB

124+00WB

125+00WB

126+

STA. 125+90'WB', 3' RT

STA. 120+88'WB', 2' RT

WORK ZONE (TYP.)

STA. 122+07'WB', 31' RT

+00EB

120+00EB

121+00EB

122+00EB

123+00EB

124+00EB

125+00EB

126+

11'

12'

25'

12'

STH 16 EB

W01-6
48"X24"

LANE CLOSED
R11-2-L
48"X30"

EAST 16

SPEED LIMIT 35

DO NOT ENTER

STOP

R1-1F
36"X36"

49+00C

DIVIDED HIGHWAY

R6-3
30"X24"

DO NOT ENTER
R5-1
30"X30"

COMPLETE RAMP ISLAND CONSTRUCTION UNDER FLAGGING OPERATIONS

NOTE: REMOVE ISLAND AND CONSTRUCT TEMPORARY PAVEMENT PRIOR TO WIDENING RAMP C

CONTRACTOR MUST MAINTAIN AN 11-FT TRAVEL LANE ON RAMP C AT ALL TIMES

W012-1-D
24"X24"

48+00C

STA. 48+72'C', 53' RT

RAMP C

11'

MATCH LINE STA. 48+00C

EAST 16 EAST 60

SIGN

SIGN

SIGN

STAGE 1 TYPICAL SECTION
RAMP C
STA. 38+90C - 49+47C

WORK ZONE 2' 11'

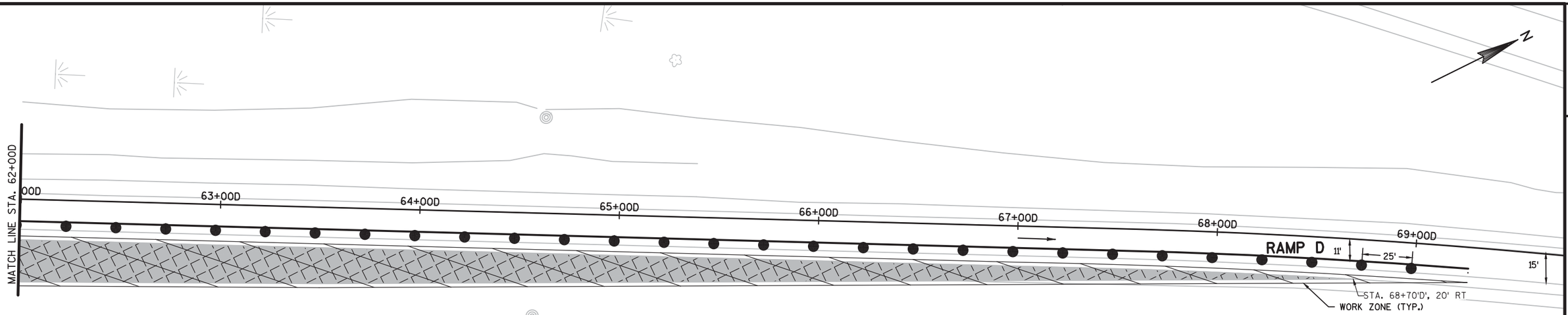
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1 (SHEET 1-6)	SHEET 106	E

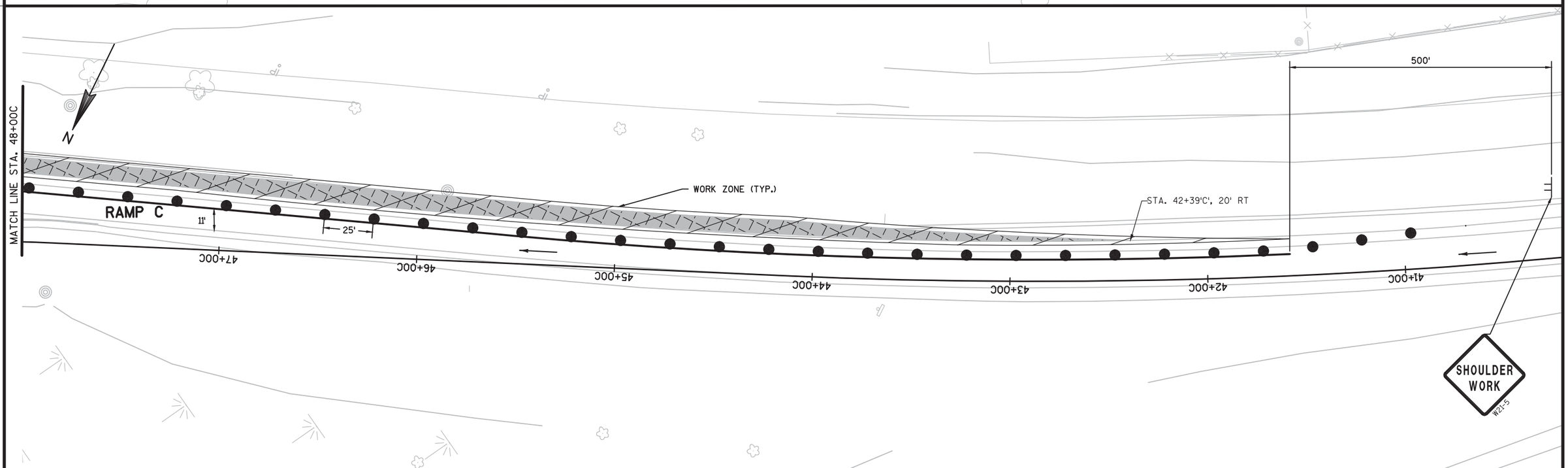
FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025001_TC_STAGE 1.DWG 4/26/2017
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2





PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1 (SHEET 1-7)	SHEET 107	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025001_TC_STAGE 1.DWG 4/28/2017
LAYOUT NAME - SHEET - (1)
PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

INDUSTRIAL DRIVE

N

FLAG

SIDEWALK CLOSED
R9-9
24"X12"

W01-6
48"X24"

LANE CLOSED
R11-2-L
48"X30"

LANE CLOSED
R11-2-L
48"X30"

I SIGN

MATCH LINE STA. 126+00WB

12'
25'
12'

0OWB | 127+00WB | 128+00WB | 129+00WB | 130+00WB | 131+00WB | 132+00WB | 133+

STA. 126+07'WB', 26' RT

0OEB | 127+00EB | 128+00EB | 129+00EB | 130+00EB | 131+00EB | 132+00EB | 133+

STA. 128+52'WB', 3' RT

WORK ZONE (TYP.)

STA. 127+60'WB', 22' RT

12'

12'
12'
STH 16 WB
12'

MATCH LINE STA. 133+00WB

STH 16 EB

LANE CLOSED
R11-2-L
48"X30"

SIDEWALK CLOSED
R9-9
24"X12"

W012-1-D
24"X24"

EXISTING SIGNALS TO REMAIN

DIX STREET

SIGN

FILLER CAP

CANOP

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1 (SHEET 1-8)	SHEET 108	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025001_TC_STAGE 1.DWG 4/26/2017
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

2

2

N

CONTINENTAL DRIVE

BEGIN LEFT TURN LANE
R3-20-L
24"X36"

FLAG
SIGN

MH

350'

STH 16 WB

25'

12'

MATCH LINE STA. 133+00WB

134+00WB | 135+00WB | 136+00WB | 137+00WB | 138+00WB | 139+00WB

134+00EB | 135+00EB | 136+00EB | 137+00EB | 138+00EB

TR4Y

STH 16 EB

LANE CLOSED
R11-2-L
48"X30"

W01-6
48"X24"

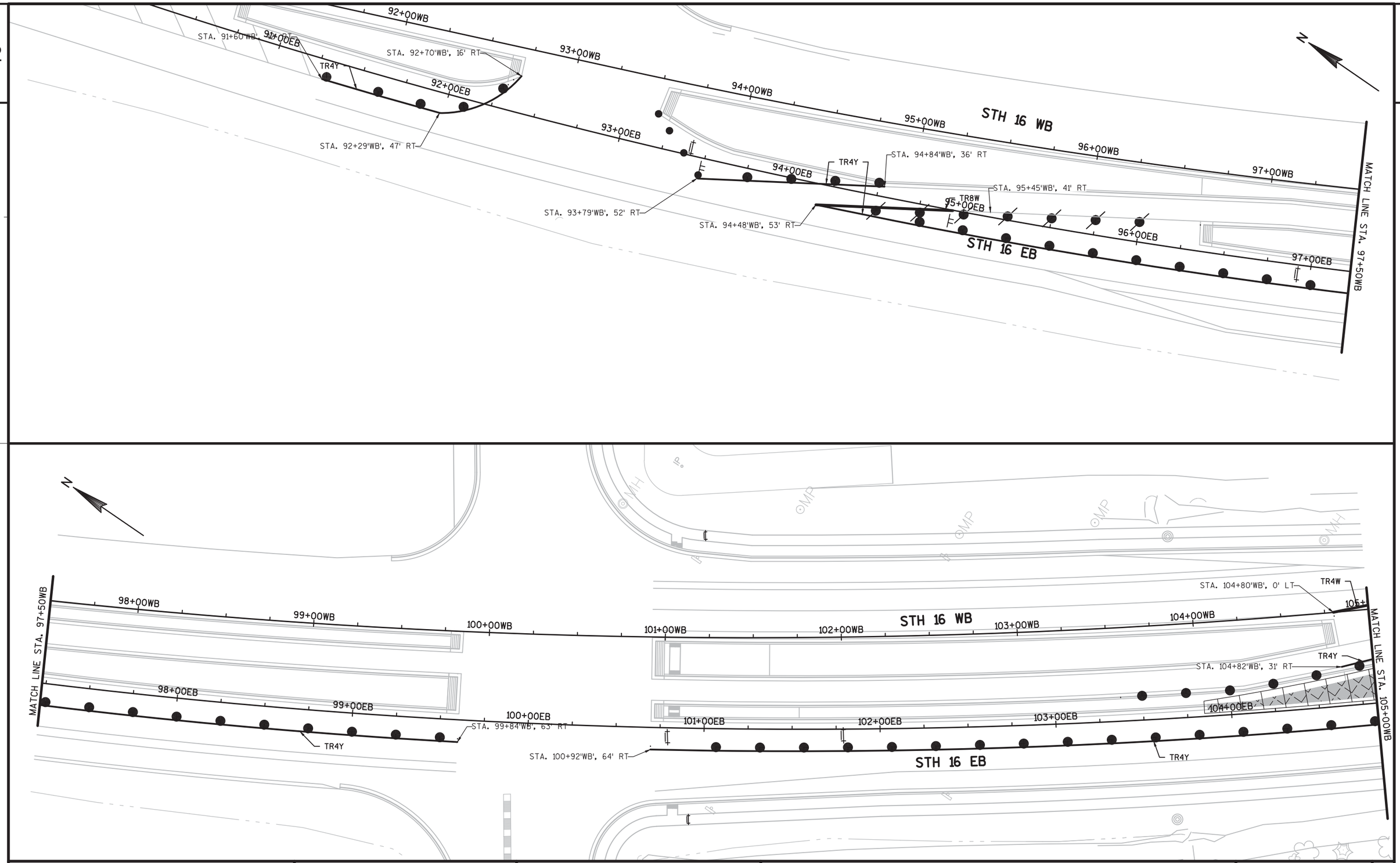
MEISTER DRIVE

SIGN

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1 (SHEET 1-9)	SHEET 109	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025001_TC_STAGE 1.DWG 2/9/2017
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 42



PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1 - PAVEMENT MARKING (SHEET 1-1)	SHEET 110	E

2

2

MATCH LINE STA. 22+00B

RAMP B

22+00A

T4W

STA. 21+32'B', 14' LT

STA. 21+03'B', 32' LT

STA. 21+30'B', 6' LT

21+00B

T8W

STA. 20+43'B', 60' LT

STA. 20+36'B', 12' LT

REMOVABLE TAPE

PAINT

STA. 105+80'WB', 10' LT

TR8W

STA. 106+55'WB', 9' LT

STA. 107+45'WB', 8' LT

STA. 108+99'WB', 7' LT

TR4Y

T4Y

STH 16 WB

STA. 110+90'WB', 9' LT

STA. 111+67'WB', 9' LT

T8W

MATCH LINE STA. 105+00WB

105+00WB

106+00WB

107+00WB

108+00WB

109+00WB

110+00WB

111+00WB

112+

MATCH LINE STA. 112+00WB

STA. 111+67'WB', 3' RT

T4Y

105+00EB

106+00EB

107+00EB

108+00EB

109+00EB

110+00EB

111+00EB

27+00A

STA. 111+03'WB', 52' RT

STA. 111+97'WB', 52' RT

T4Y

TR4Y

STA. 108+22'WB', 62' RT

STH 16 EB

T4W

LANE CLOSED

R11-2-L

48"X30"

STA. 110+46'WB', 76' RT

REMOVABLE TAPE

PAINT

26+00A

RAMP A

STA. 25+94'A', 11' LT

25+00A

MATCH LINE STA. 25+00A

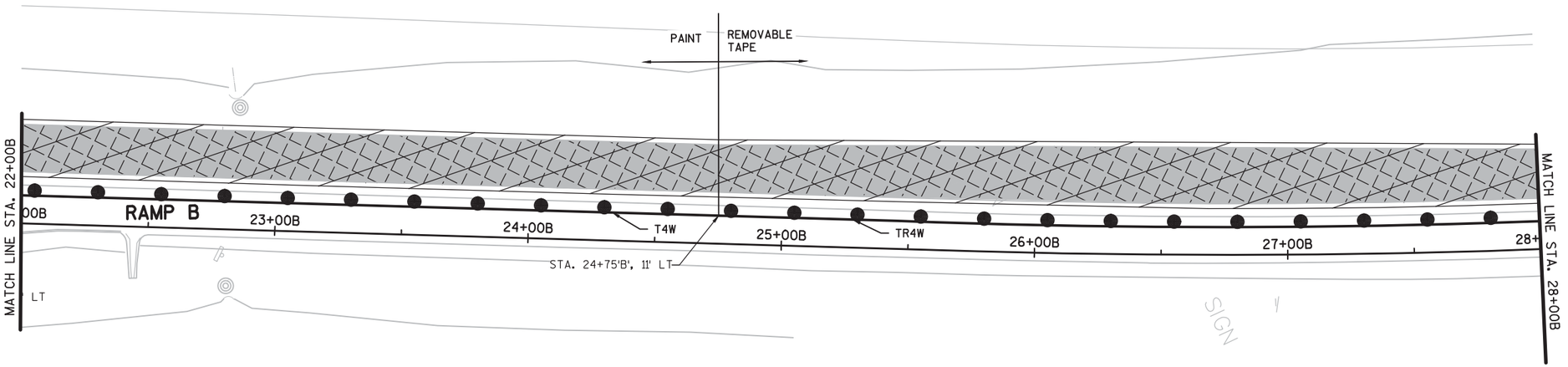
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1 - PAVEMENT MARKING (SHEET 1-2)	SHEET 111	E

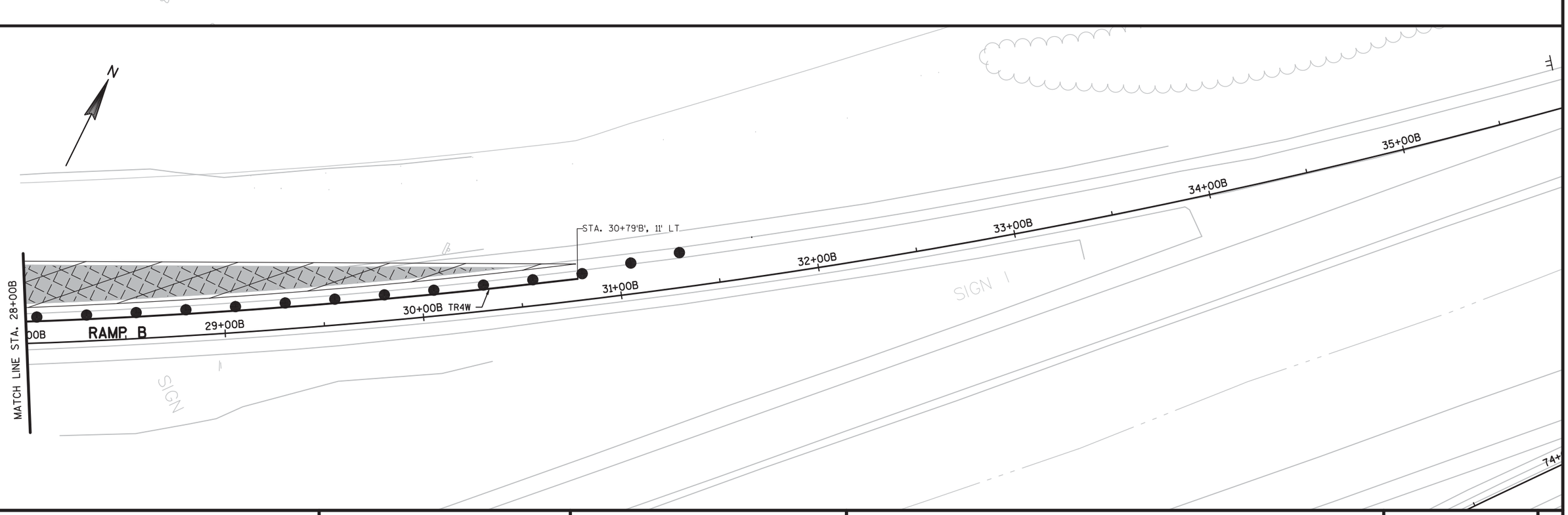
FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025001_TC_STAGE1.DWG
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2





PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1 - PAVEMENT MARKING (SHEET 1-3)	SHEET 112	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025001_TC_STAGE1.DWG
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

U.S.H. 151

PAINT

REMOVABLE TAPE

MATCH LINE STA. 25+00A

STA. 24+50'A', 11' LT

25+

T4W

24+00A

TR4W

23+00A

RAMP A

22+00A

21+00A

20+00A

19+00A

18+00A

STA. 18+17'A', 10' LT

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1 - PAVEMENT MARKING (SHEET 1-4)	SHEET 113	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025001_TC_STAGE1.DWG
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

2

2

N

USH 151 SB

USH 151 NB

OMP

STA. 113+26'WB', 10' LT

STA. 114+03'WB', 10' LT

T8W

STH 16 WB

STA. 113+26'WB', 2' RT

MATCH LINE STA. 112+00WB

112+00WB

113+00WB

114+00WB

115+00WB

116+00WB

117+00WB

118+00WB

119+

MATCH LINE STA. 119+00WB

SIGN I

112+00EB

113+00EB

114+00EB

115+00EB

116+00EB

117+00EB

118+00EB

T4Y

STA. 118+02'WB', 39'

STA. 117+32'WB', 51' RT

T8W

STA. 118+02'WB', 50' RT

STH 16 EB

USH 151 SB

USH 151 NB

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1 - PAVEMENT MARKING (SHEET 1-5)	SHEET 114	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025001_TC_STAGE1.DWG
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

2

MATCH LINE STA. 62+00D

62+

61+00D

RAMP D

STA. 61+05'D', 11' RT

STA. 120+42'WB', 40' LT

T4W

STA. 120+67'WB', 36' LT

T18W

STA. 120+41'WB', 35' LT

STA. 120+41'WB', 11' LT

STA. 119+01'WB', 11' LT

MATCH LINE STA. 119+00WB

STA. 119+30'WB', 37' RT

120+00WB

121+00WB

122+00WB

123+00WB

124+00WB

125+00WB

126+

MATCH LINE STA. 126+00WB

STH 16 WB

T4Y

120+00EB

121+00EB

122+00EB

123+00EB

124+00EB

125+00EB

126+

T8W

STA. 119+30'WB', 48' RT

STA. 119+55'WB', 48' RT

T18W

STA. 119+55'WB', 60' RT

STA. 120+25'WB', 47' RT

STH 16 EB

STA. 49+50'C', 30' RT

STA. 49+50'C', 93' RT

49+00C

T8W

STA. 48+84'C', 50' RT

T4W

STA. 48+65'C', 33' RT

STA. 48+65'C', 25' RT

48+00C

RAMP C

MATCH LINE STA. 48+00C

U/C

U/C

SIGN

Portage

W

W

SIGN

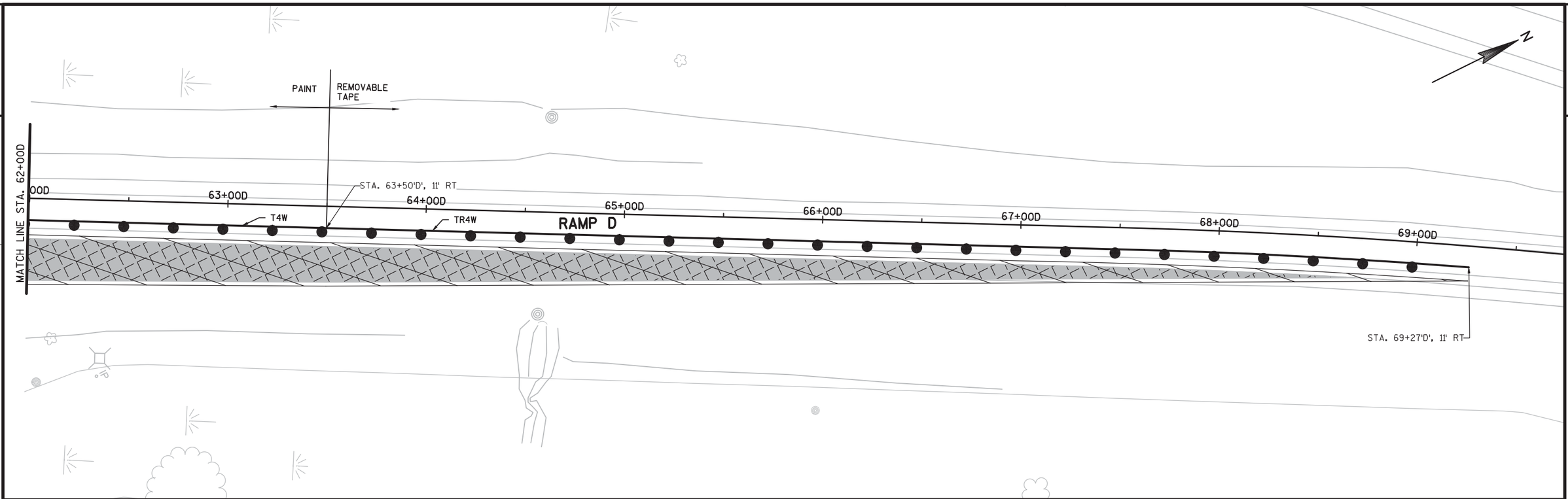
SIGN

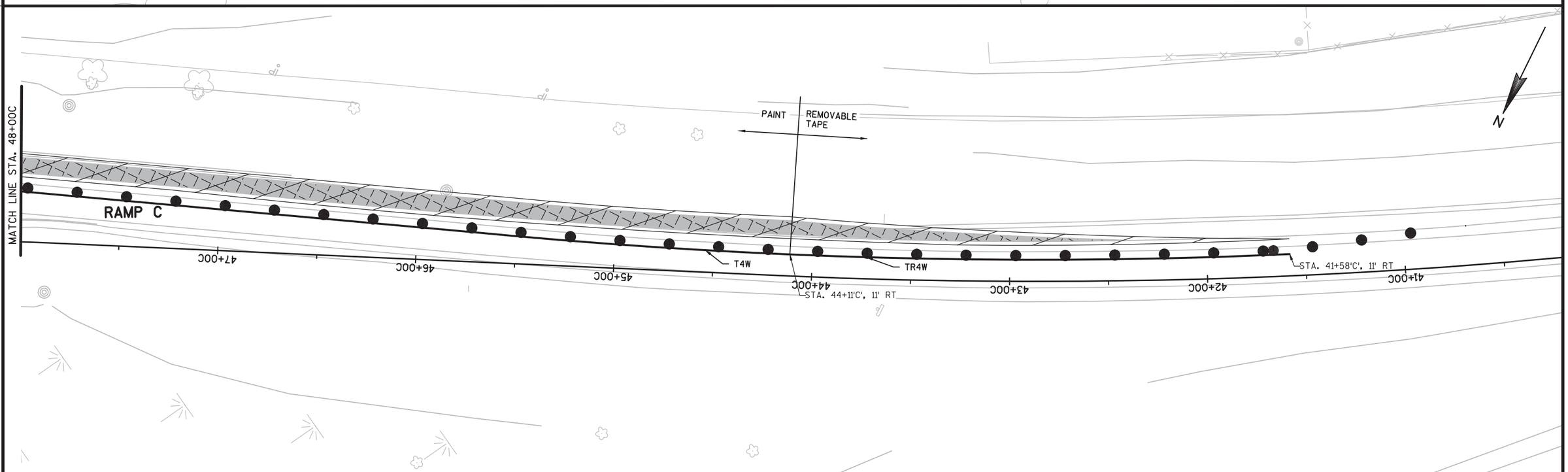
SIGN

N

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1 - PAVEMENT MARKING (SHEET 1-6)	SHEET 115	E

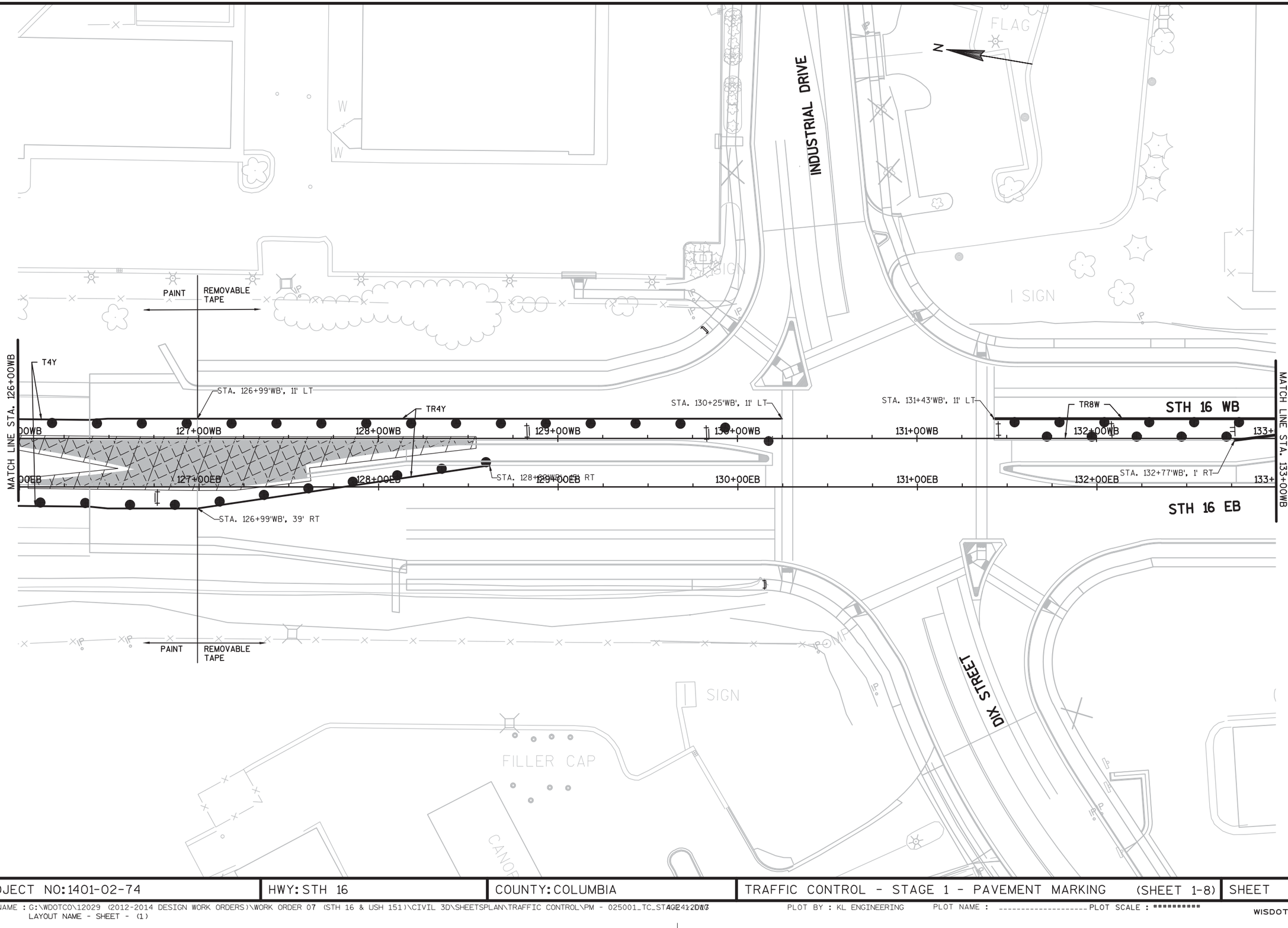
2





PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1 - PAVEMENT MARKING (SHEET 1-7)	SHEET 116	E

2

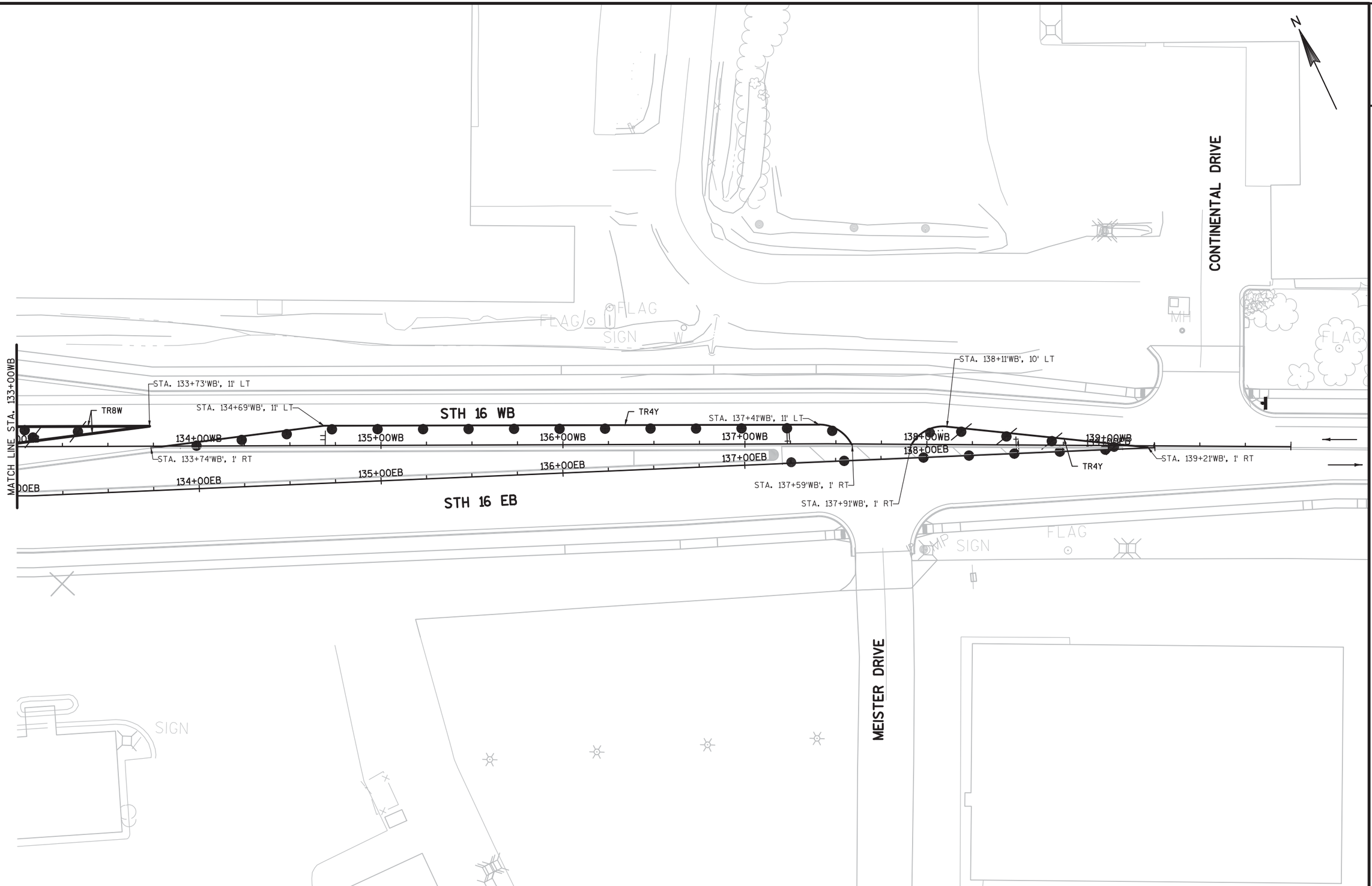


PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1 - PAVEMENT MARKING (SHEET 1-8)	SHEET 117	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025001_TC_STAGE1.DWG
LAYOUT NAME - SHEET - (1)
PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

2



PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1 - PAVEMENT MARKING (SHEET 1-9)	SHEET 118	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025001_TC_STAGE1.DWG
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 42

2

STH 16 - STAGE 2A/2B

CONSTRUCTION OPERATIONS:

- CONSTRUCT STH 16 WB PAVEMENT

TRAFFIC OPERATIONS:

- REDUCE TO ONE LANE IN EACH DIRECTION AND RUN BI-DRIECTIONAL ON THE EASTBOUND LANES

RAMP B/RAMP D - STAGE 2A

CONSTRUCTION OPERATIONS:

- CONSTRUCT RAMP B (EAST SIDE)
- CONSTRUCT RAMP D (WEST SIDE)

TRAFFIC OPERATIONS:

- SHIFT TRAFFIC TO TEMPORARY PAVEMENT PLACED IN STAGE 1

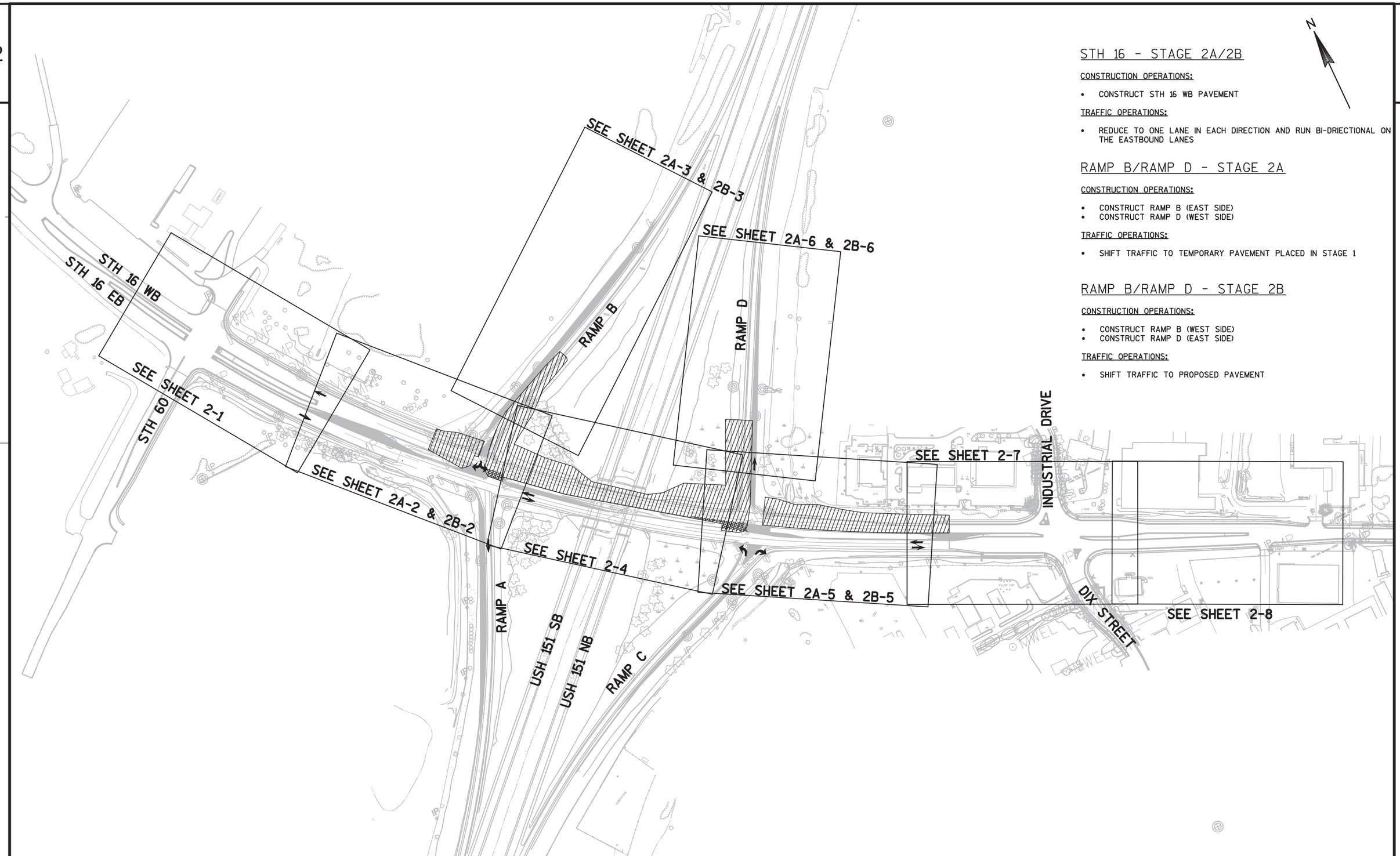
RAMP B/RAMP D - STAGE 2B

CONSTRUCTION OPERATIONS:

- CONSTRUCT RAMP B (WEST SIDE)
- CONSTRUCT RAMP D (EAST SIDE)

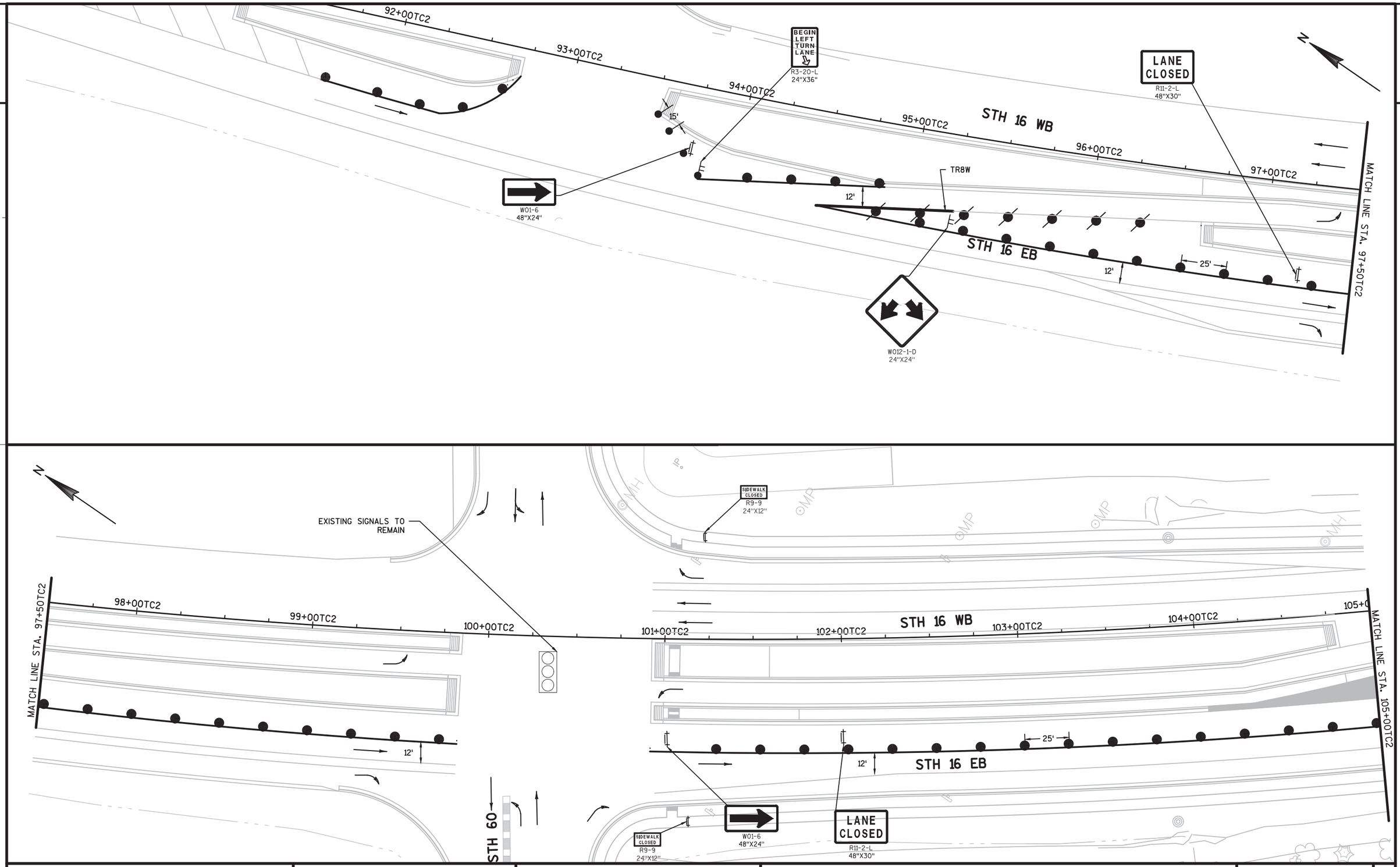
TRAFFIC OPERATIONS:

- SHIFT TRAFFIC TO PROPOSED PAVEMENT



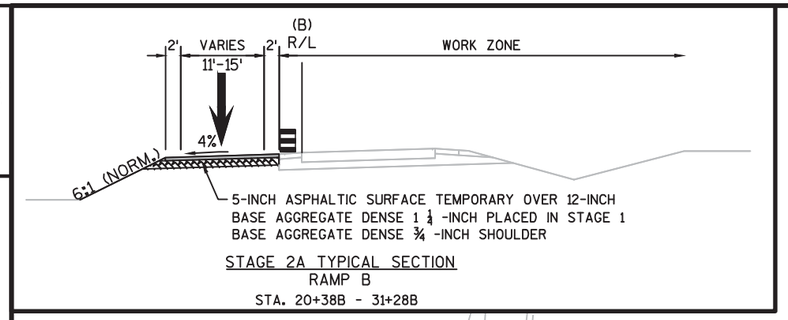
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2/2A/2B OVERVIEW	SHEET 119	E

2

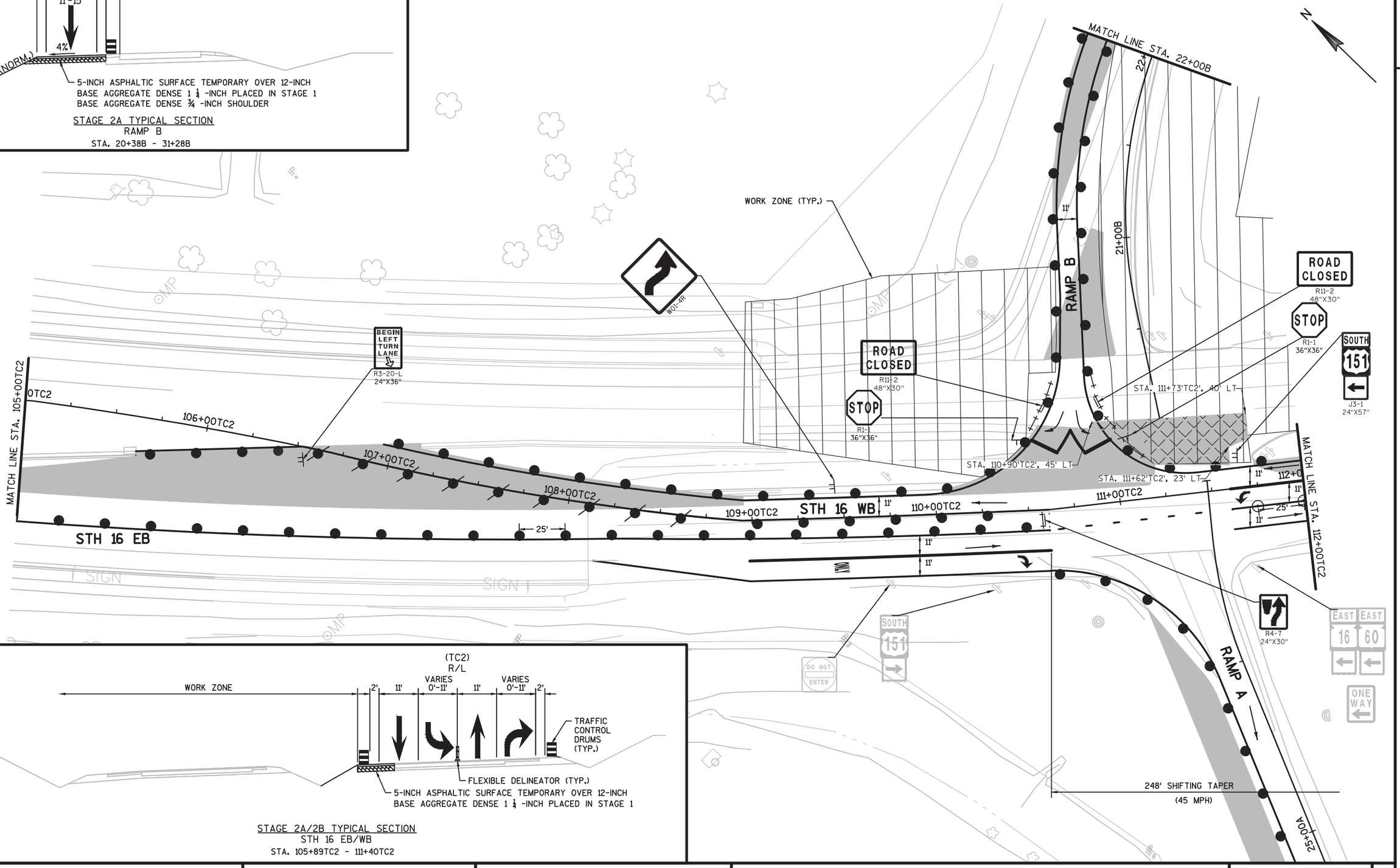


PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2 (SHEET 2-1)	SHEET 120	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025002_TC_STAGE 2 4/20/2017
LAYOUT NAME - SHEET - (1)
PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********
WISDOT/CADDS SHEET 42

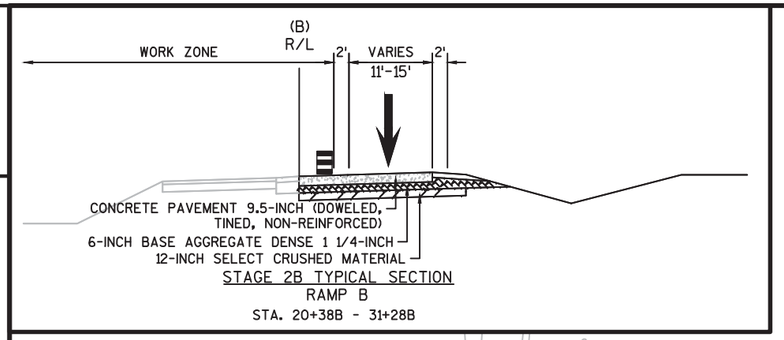


STAGE 2A TYPICAL SECTION
RAMP B
STA. 20+38B - 31+28B



STAGE 2A/2B TYPICAL SECTION
STH 16 EB/WB
STA. 105+89TC2 - 111+40TC2

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2A (SHEET 2A-2)	SHEET 121	E



STAGE 2B TYPICAL SECTION
RAMP B
STA. 20+38B - 31+28B

2

MATCH LINE STA. 105+00WB

105+00TC2

106+00TC2

107+00TC2

108+00TC2

109+00TC2

110+00TC2

111+00TC2

112+00TC2

MATCH LINE STA. 112+00TC2

25'

BEGIN LEFT TURN LANE
R3-20-L
24"X36"

LANE CLOSED
R11-2-L
48"X30"

W01-4R

WORK ZONE (TYP.)

ROAD CLOSED
R11-2
48"X30"

STOP
R1-1
36"X36"

STA. 109+17'TC2', 47' LT

STA. 110+58'TC2', 27' LT

STA. 110+90'TC2', 45' LT

MATCH LINE STA. 22+00B

22+00B

11'

RAMP B

21+00B

ROAD CLOSED
R11-2
48"X30"

STOP
R1-1
36"X36"

SOUTH 151
J3-1
24"X57"

STH 16 WB

STH 16 EB

11'

SOUTH 151

DO NOT ENTER

R4-7
24"X30"

24+00A

EAST 16

EAST 60

ONE WAY

RAMP A

25+00A

248' SHIFTING TAPER
(45 MPH)

SIGN

STATUE

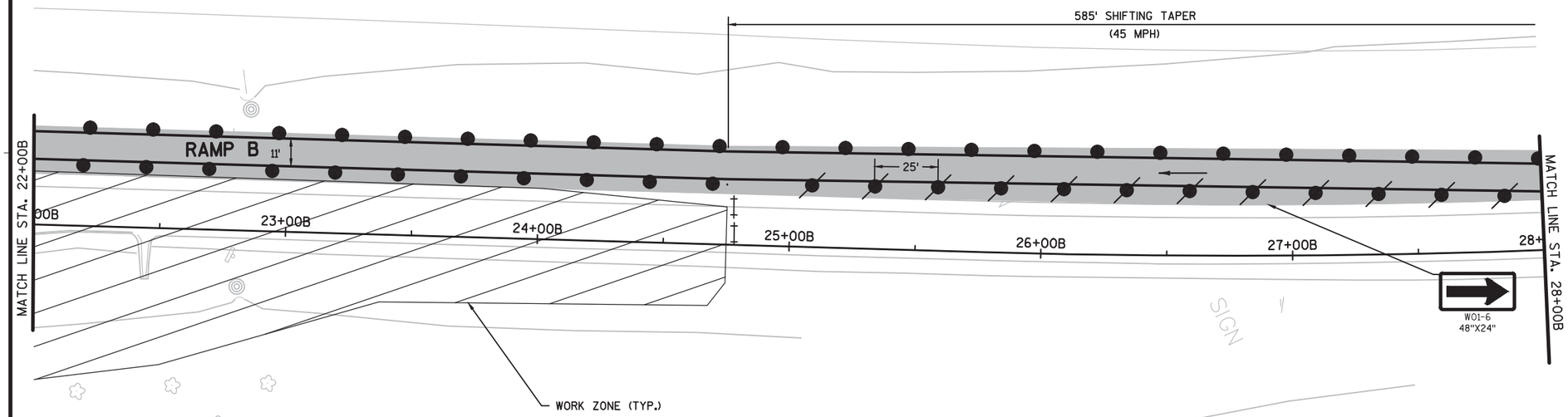
OMP

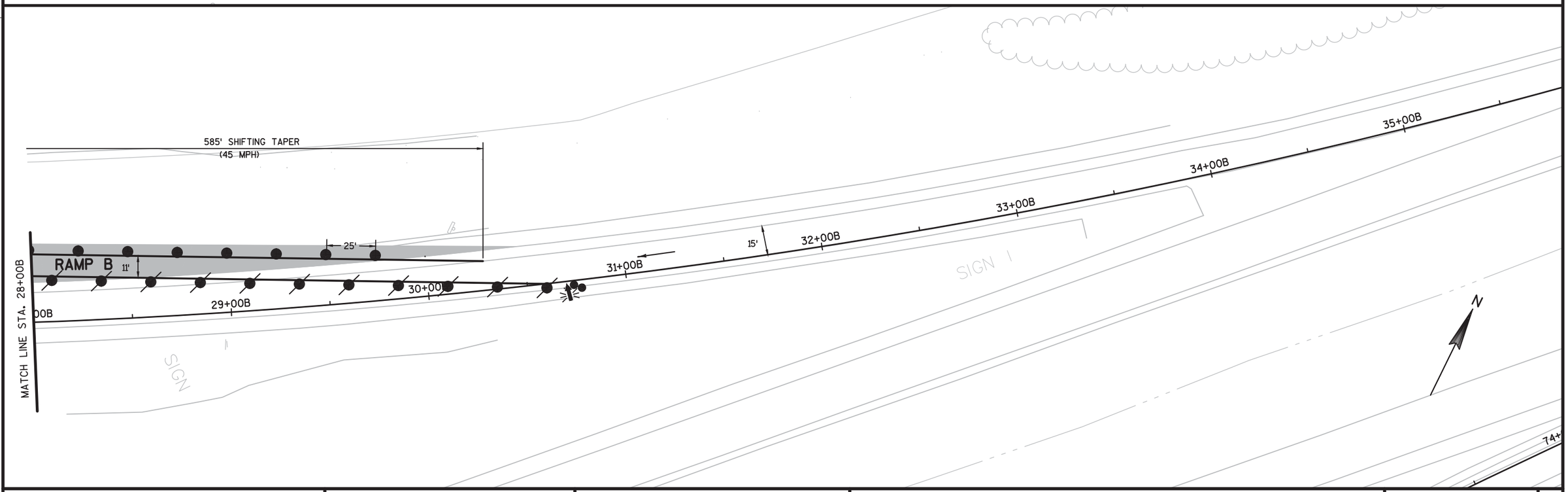
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2B (SHEET 2B-2)	SHEET 122	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025002_TC_STAGE 2B.DWG 8/24/2017
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

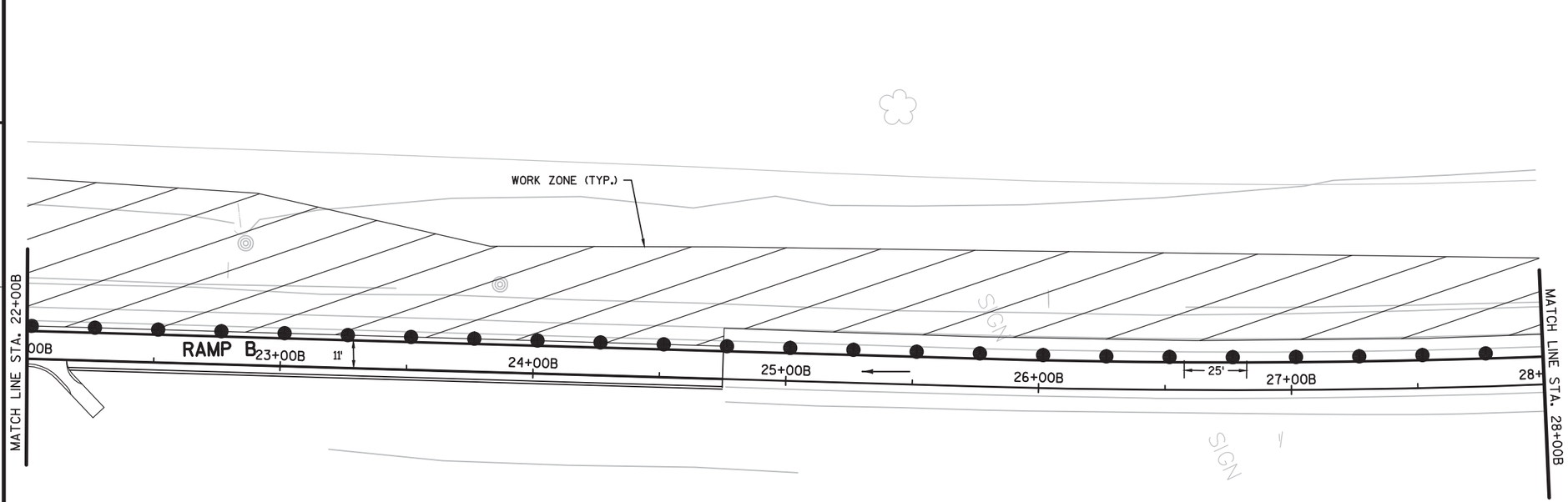
2

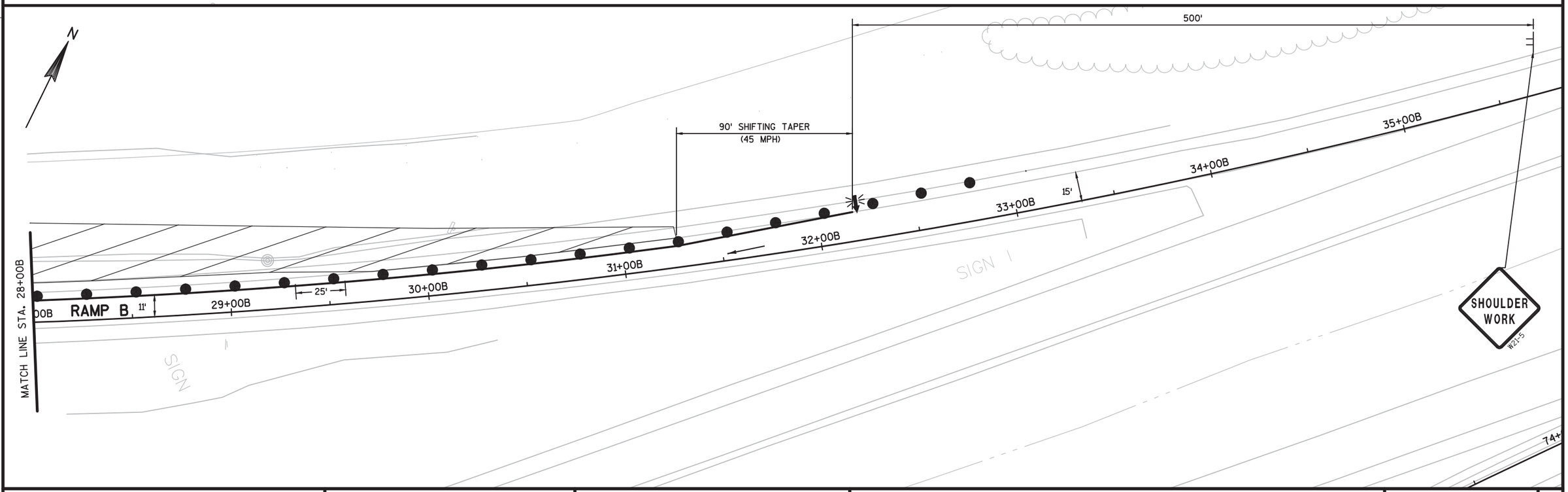




PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2A (SHEET 2A-3)	SHEET 123	E

2



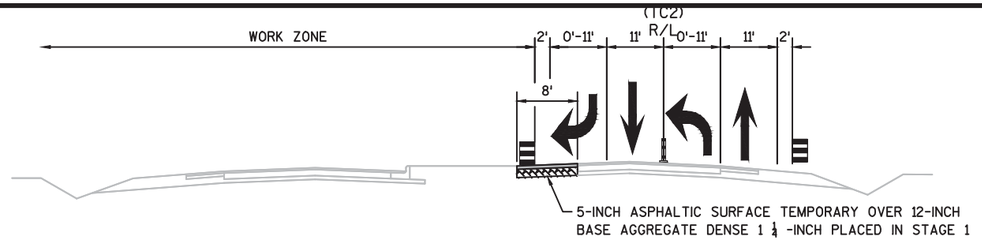


PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2B (SHEET 2B-3)	SHEET 124	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025002_TC_STAGE 2B.DWG 3/2/2017
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 42



STAGE 2A/2B TYPICAL SECTION
STH 16 EB/WB
STA. 111+40TC2 - 129+59TC2

2

WORK ZONE (TYP.)

USH 151 SB

USH 151 NB

248' SHIFTING TAPER
(45 MPH)

STA. 118+37'TC2', 48' LT

LANE CLOSED
R11-2-L
48"X30"

SIGN I

MATCH LINE STA. 112+00TC2

MATCH LINE STA. 119+00TC2

11'
11'
11'
11'
11'
11'

113+00TC2
114+00TC2
115+00TC2
116+00TC2
117+00TC2
118+00TC2

25'
25'

STH 16 WB
STH 16 EB

248' SHIFTING TAPER
(45 MPH)

248' SHIFTING TAPER
(45 MPH)

WRONG WAY

Columbus
POPULATION 4,991

USH 151 SB

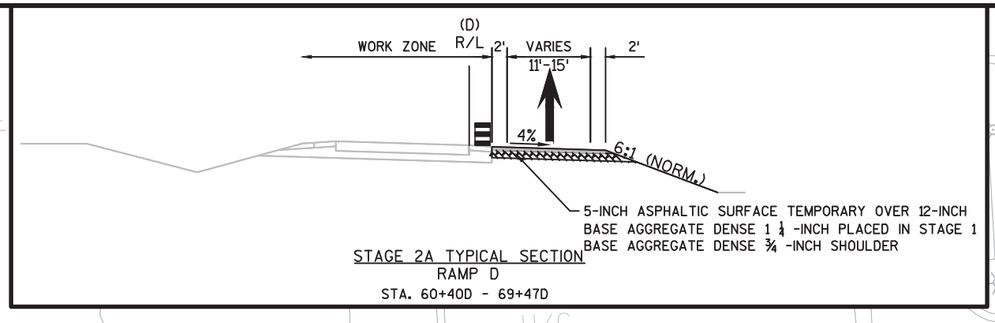
USH 151 NB

W03-3

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2 (SHEET 2-4)	SHEET 125	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025002_TC_STAGE 2A_2B.DWG
LAYOUT NAME - SHEET - (1)
4/20/2017
PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

2



STAGE 2A TYPICAL SECTION
RAMP D
STA. 60+40D - 69+47D

MATCH LINE STA. 62+00D

MATCH LINE STA. 119+00TC2

MATCH LINE STA. 126+00TC2

RAMP D

RAMP C

61+00D

62+

49+00C

48+00C

11'

25'

WEST 16 / WEST 60
J2-2
48"X57"

NORTH 151
J3-1
24"X57"

TEMPORARY TRAFFIC SIGNAL REQUIRED

ROAD CLOSED
R11-2
48"X30"

STA. 120+21TC2', 47' LT

STA. 119+41TC2', 41' LT

STA. 119+42TC2', 20' LT

STA. 120+11TC2', 19' LT

BEGIN RIGHT TURN LANE
R3-20-R
24"X36"

WORK ZONE (TYP.)

W03-3

W01-6
48"X24"

113' SHIFTING TAPER
(35 MPH)

120+00TC2

121+00TC2

122+00TC2

123+00TC2

124+00TC2

125+00TC2

STH 16 WB

STH 16 EB

SPEED LIMIT 35

STOP
R1-1F
36"X36"

DO NOT ENTER
R5-1
30"X30"

DIVIDED HIGHWAY
R6-3
30"X24"

W012-1-D
24"X24"

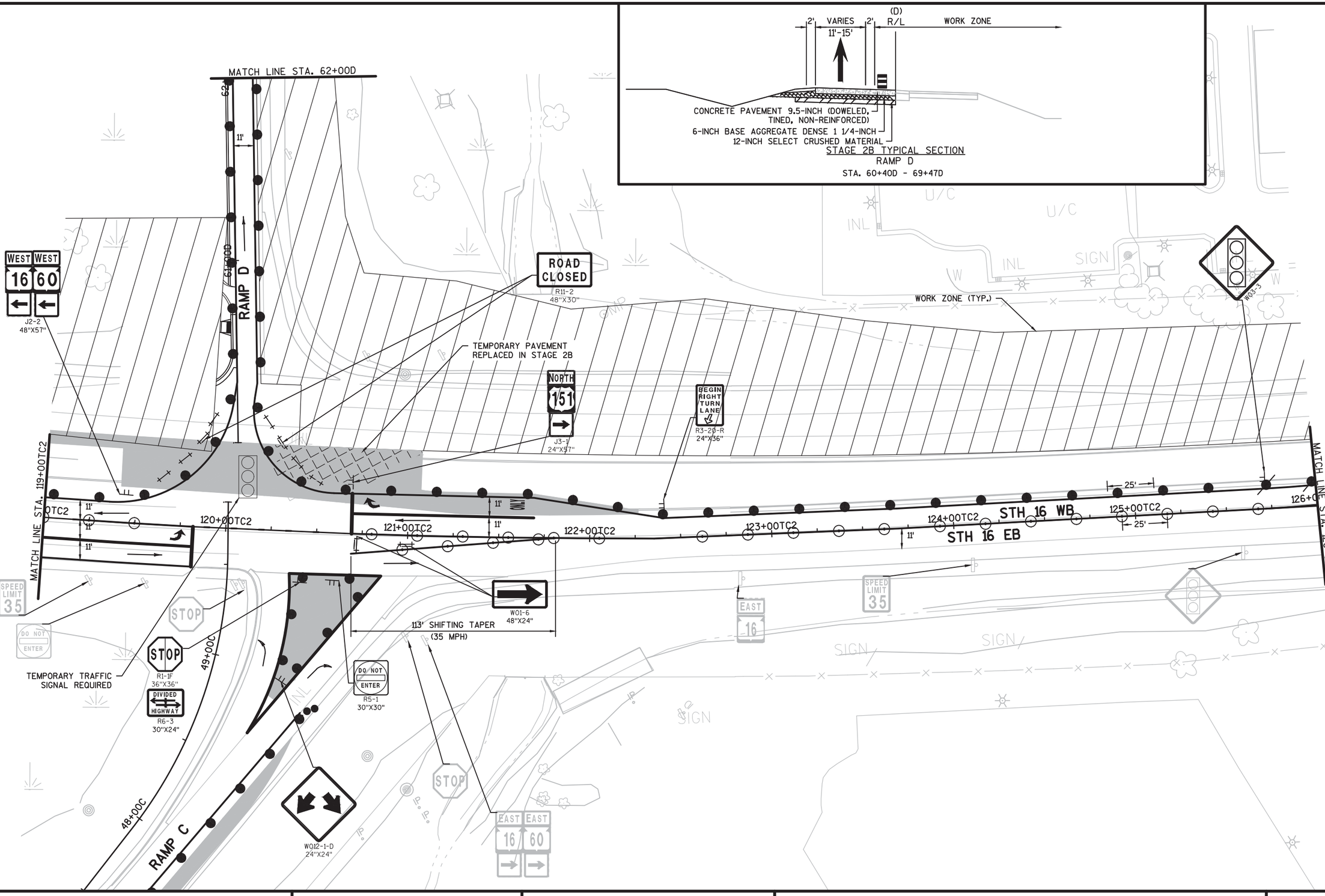
EAST 16 / EAST 60

SIGN

U/C

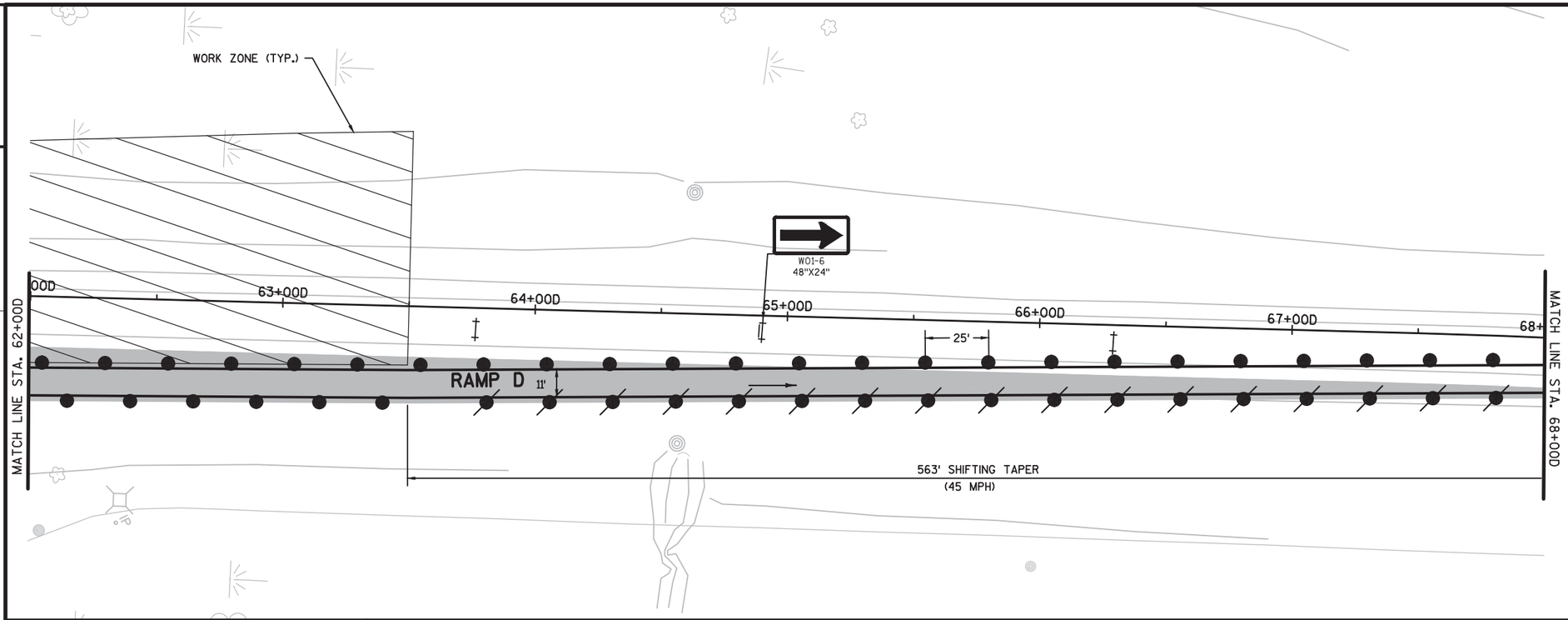
INL

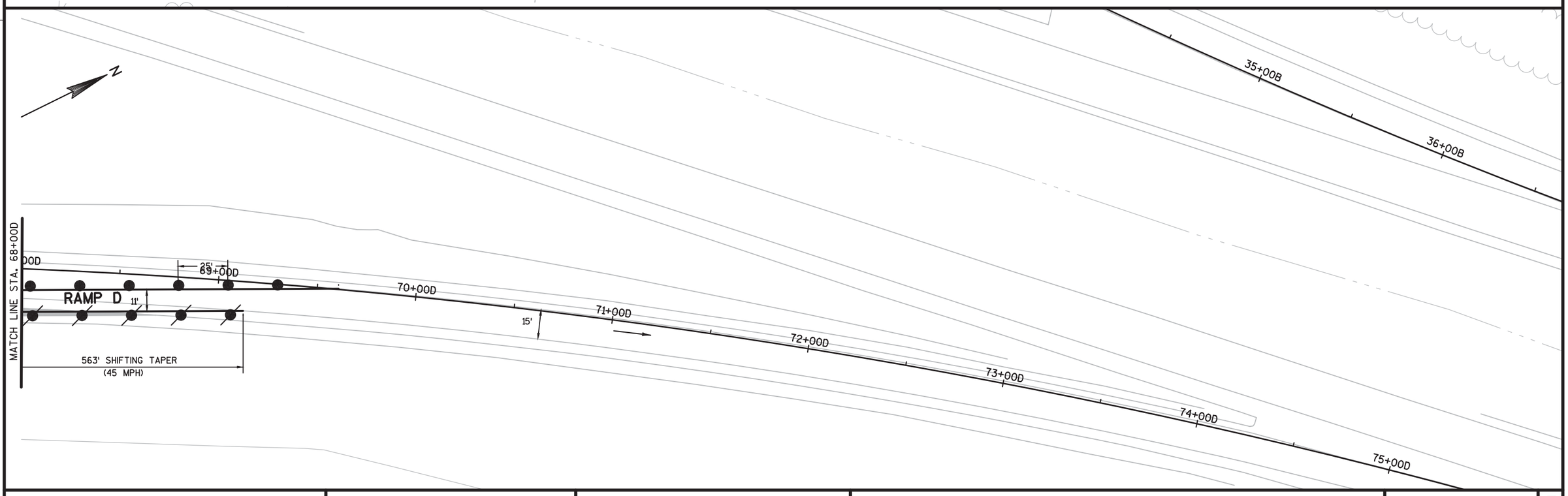
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2A (SHEET 2A-5)	SHEET 126	E



STAGE 2B TYPICAL SECTION
RAMP D
STA. 60+40D - 69+47D

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2B (SHEET 2B-5)	SHEET 127	E





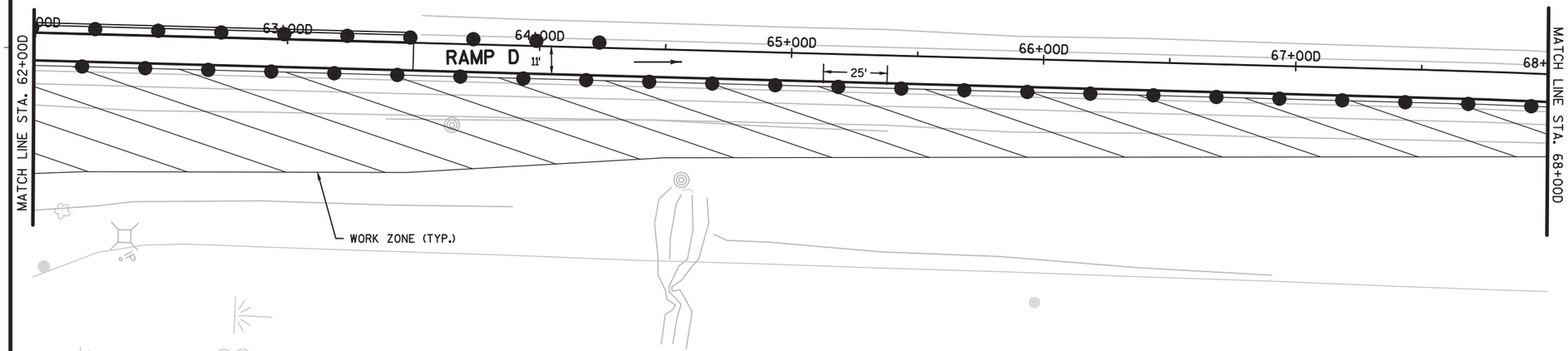
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2A (SHEET 2A-6)	SHEET 128	E

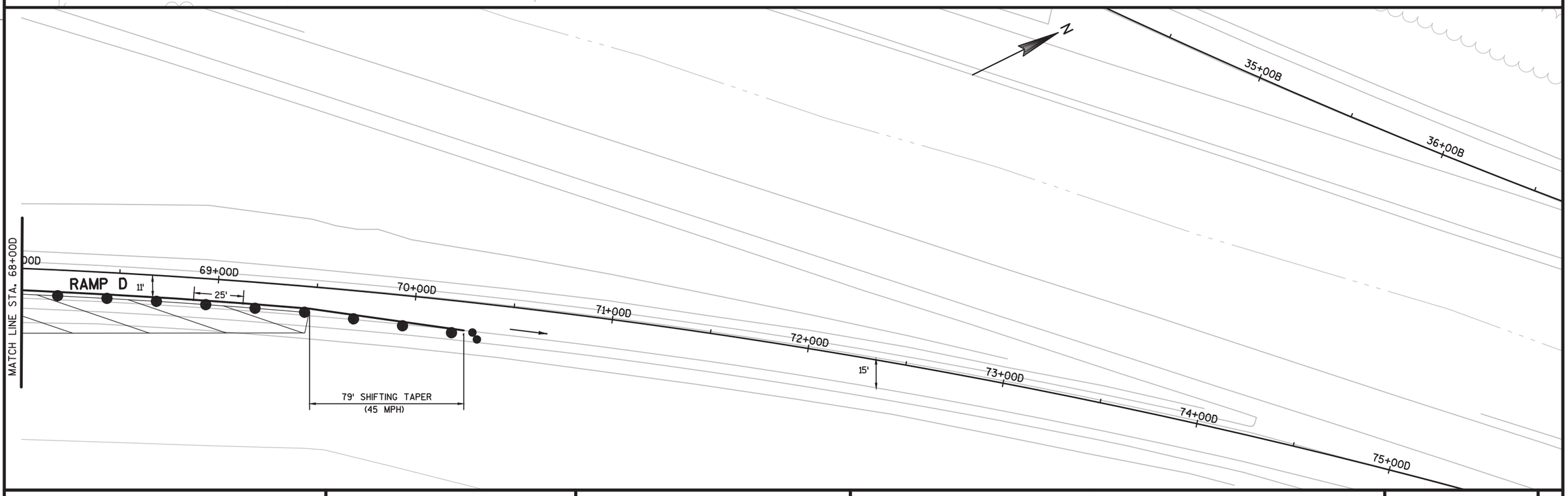
FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025002_TC_STAGE 2A.DWG
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

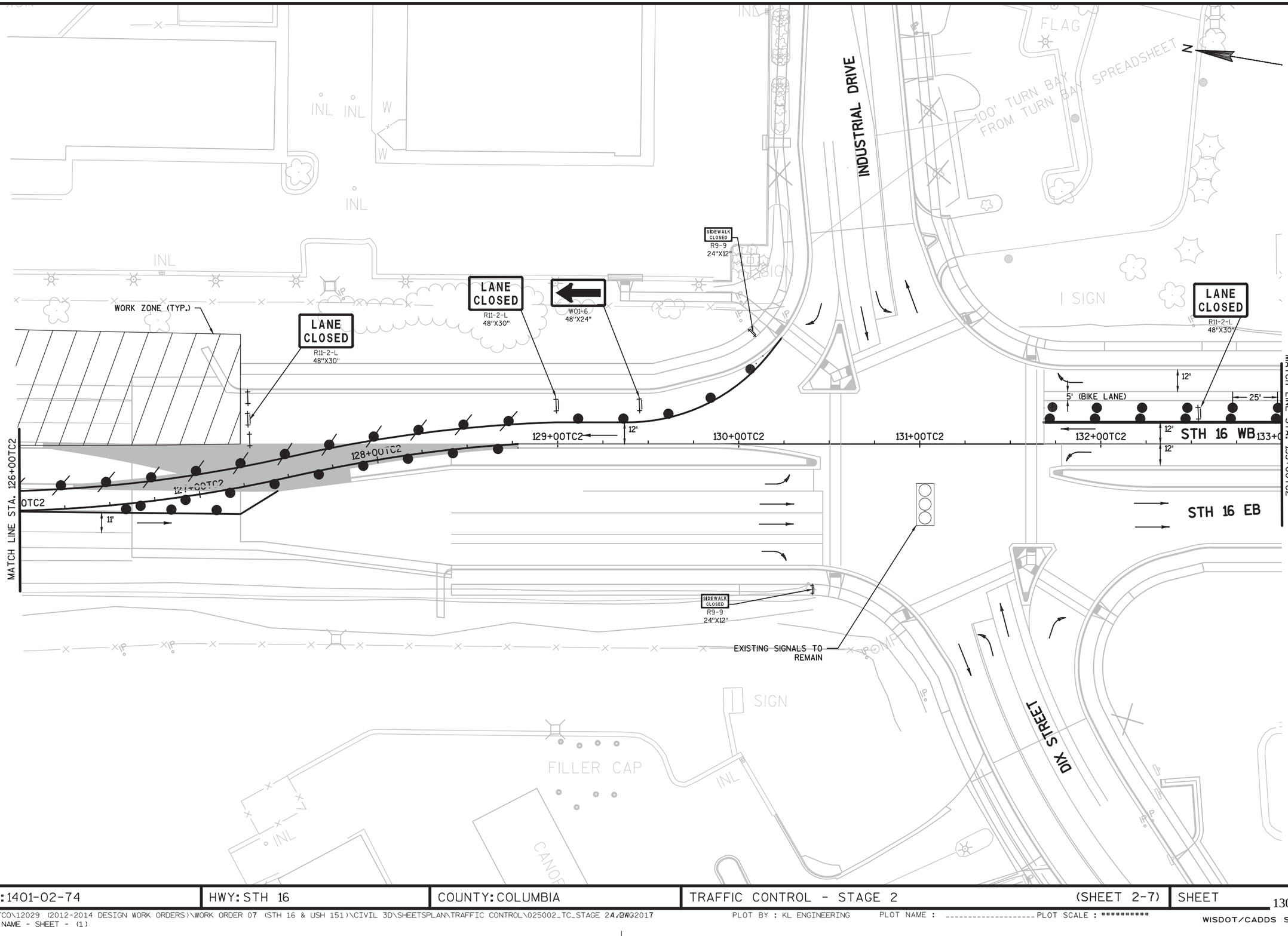




PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2B (SHEET 2B-6)	SHEET 129	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025002_TC_STAGE 2B.DWG 8/2/2017
LAYOUT NAME - SHEET - (1)
PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2



PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2 (SHEET 2-7)	SHEET 130	E

2

2

N

BEGIN RIGHT TURN LANE
R3-20-R
24"X36"

LANE CLOSED
R11-2-L
48"X30"

CONTINENTAL DRIVE

FLAG
SIGN

FLAG

MATCH LINE STA. 133+00TC2

0TC2 | 134+00TC2 | 135+00TC2 | 136+00TC2 | 137+00TC2 | 138+00TC2 | 139+00TC2

STH 16 WB

5' (BIKE LANE)
12'

25'

STH 16 EB

350'

RIGHT LANE CLOSED AHEAD
W20-5-A

W01-6
48"X24"

W012-1-D
24"X24"

SIGN

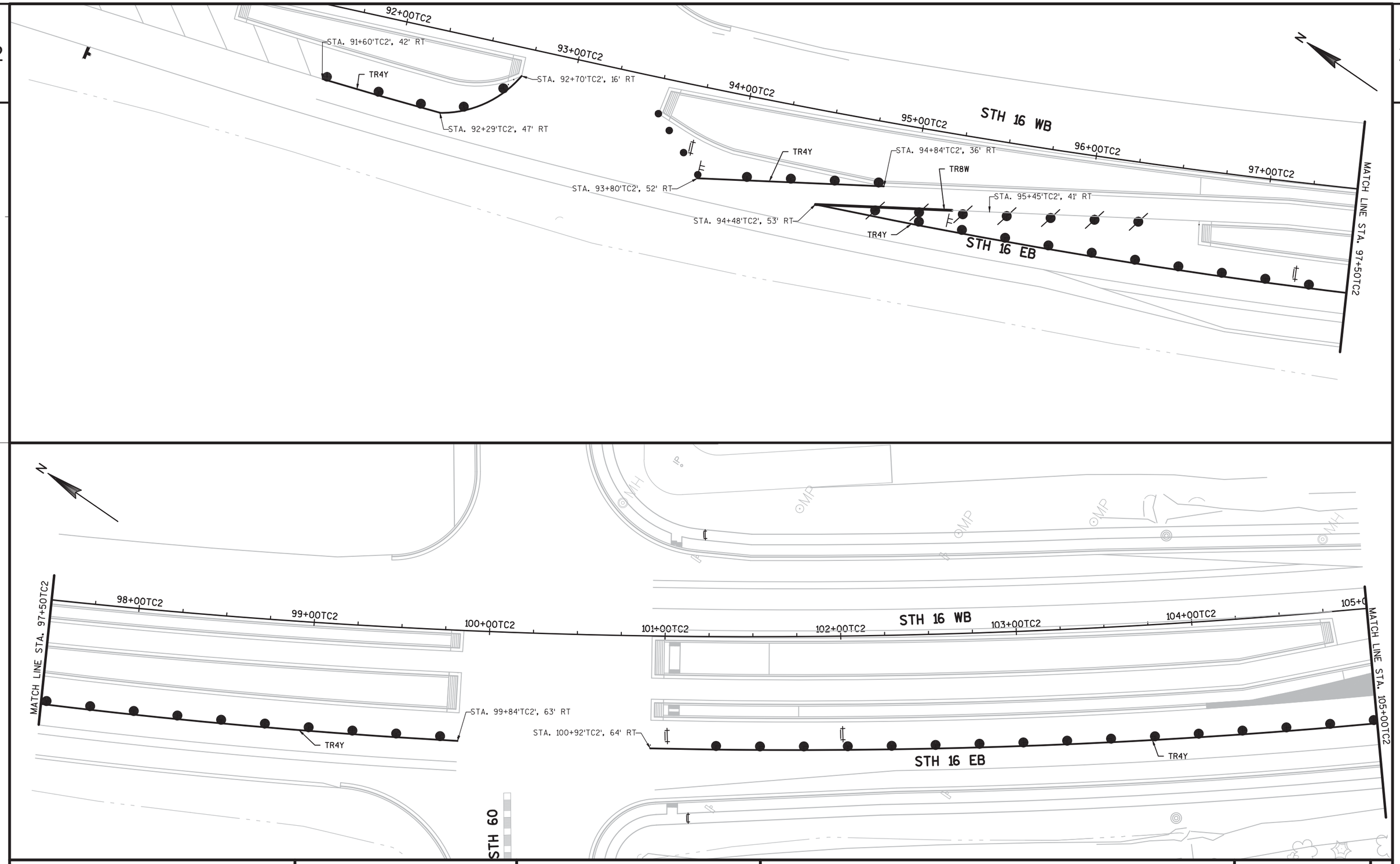
MEISTER DRIVE

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2 (SHEET 2-8)	SHEET 131	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025002_TC_STAGE 2 4/24/2017
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 42

2



PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2 - PAVEMENT MARKING (SHEET 2-1)	SHEET 132	E

2

N

MATCH LINE STA. 22+00B

22+00B

21+00B

RAMP B

STA. 20+31'B', 35' LT

STA. 20+50'B', 45' LT

STA. 20+04'B', 49' LT

STA. 110+84'TC2', 28' LT

STA. 110+98'TC2', 34' LT

STA. 110+69'TC2', 30' LT

STA. 110+53'TC2', 38' LT

STA. 110+39'TC2', 25' LT

STA. 109+95'TC2', 11' LT

STA. 111+43'TC2', 11' LT

MATCH LINE STA. 105+00TC2

105+00TC2

106+00TC2

107+00TC2

108+00TC2

109+00TC2

110+00TC2

111+00TC2

112+00TC2

STA. 106+53'TC2', 0' LT

STA. 106+95'TC2', 11' LT

STA. 105+64'TC2', 19' RT

TR4W

STA. 108+26'TC2', 0'

STA. 108+26'TC2', 11' LT

T4W

TR4Y

STH 16 EB

STH 16 WB

STA. 108+29'TC2', 17' RT

STA. 108+18'TC2', 31' RT

STA. 108+98'TC2', 22' RT

STA. 108+98'TC2', 33' RT

STA. 108+31'TC2', 31' RT

REMOVABLE TAPE

PAINT

T2

T8W

T1

T4W

STA. 110+61'TC2', 0'

STA. 110+61'TC2', 11' RT

STA. 110+61'TC2', 22' RT

STA. 110+61'TC2', 33' RT

T8W

T4W

STA. 111+07'TC2', 24' LT

STA. 111+60'TC2', 0'

T8W

T1

T4DY

T4W

STA. 111+60'TC2', 11' RT

STA. 111+60'TC2', 22' RT

TR4Y
(3' LINE, 9' GAP)

MATCH LINE STA. 112+00TC2

STA. 25+89'A', 20' LT

26+00A

RAMP A

SIGN

SIGN

STATUE

OMP

2

2

MATCH LINE STA. 22+00B

22+00

TR4W

RAMP B

11+00B

STA. 20+49'B', 11' LT

STA. 111+44'TC2', 27' LT

STA. 111+14'TC2', 44' LT

STA. 111+26'TC2', 24' LT

STA. 110+99'TC2', 24' LT

STA. 20+23'B', 0'

T8W

T4W

T18W

STA. 110+86'TC2', 33' LT

STA. 110+76'TC2', 25' LT

STA. 110+29'TC2', 11' LT

STA. 110+61'TC2', 0'

STA. 111+82'TC2', 11' LT

STA. 111+60'TC2', 0'

T1

TD4Y

111+00TC2

TR4Y

(3' LINE, 9' GAP)

STA. 111+60'TC2', 11' RT

STA. 111+60'TC2', 22' RT

T4Y

STA. 110+61'TC2', 11' RT

STA. 110+61'TC2', 22' RT

STA. 110+61'TC2', 33' RT

MATCH LINE STA. 105+00WB

105+00TC2

106+00TC2

107+00TC2

108+00TC2

109+00TC2

110+00TC2

STA. 106+53'TC2', 0' LT

STA. 106+95'TC2', 11' LT

STA. 105+64'TC2', 19' RT

STA. 108+26'TC2', 0'

STA. 108+26'TC2', 11' LT

TR4W

TR4Y

STA. 108+29'TC2', 17' RT

STA. 108+18'TC2', 31' RT

STA. 108+98'TC2', 22' RT

STA. 108+98'TC2', 33' RT

STA. 108+31'TC2', 31' RT

STH 16 WB

STH 16 EB

T2

T1

T8W

T4W

REMOVABLE TAPE

PAINT

REMOVABLE TAPE

PAINT

STA. 25+97'A', 15' LT

25+00A

RAMP A

25+00DA

MATCH LINE STA. 112+00TC2

112+0

SIGN

SIGN

STATUE

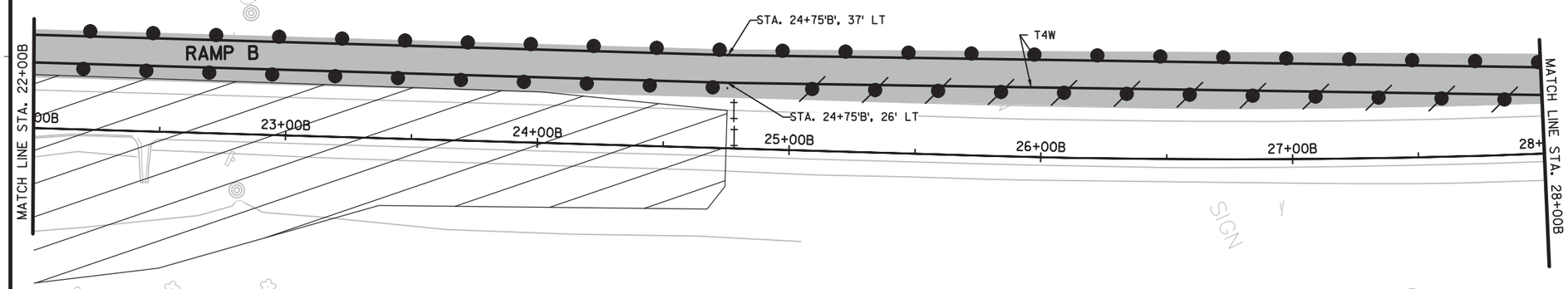
OMP

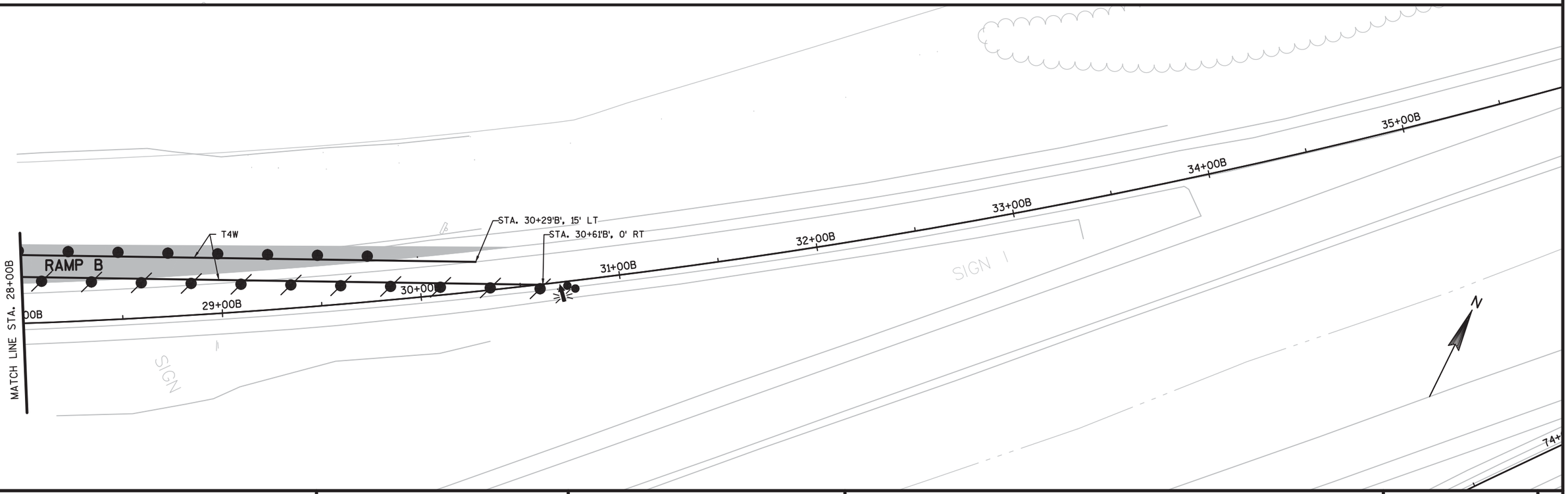
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2B - PAVEMENT MARKNG (SHEET 2B-2)	SHEET 134	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025002_TC_STAGE2B.DWG
LAYOUT NAME - SHEET - (1)

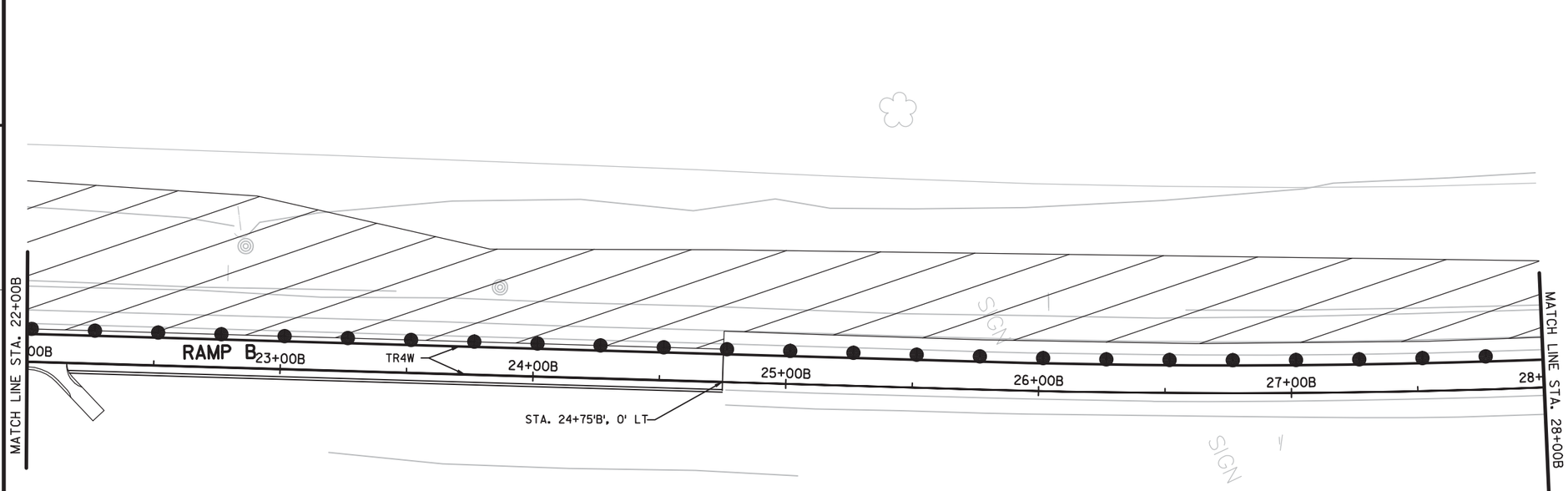
PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 42

2

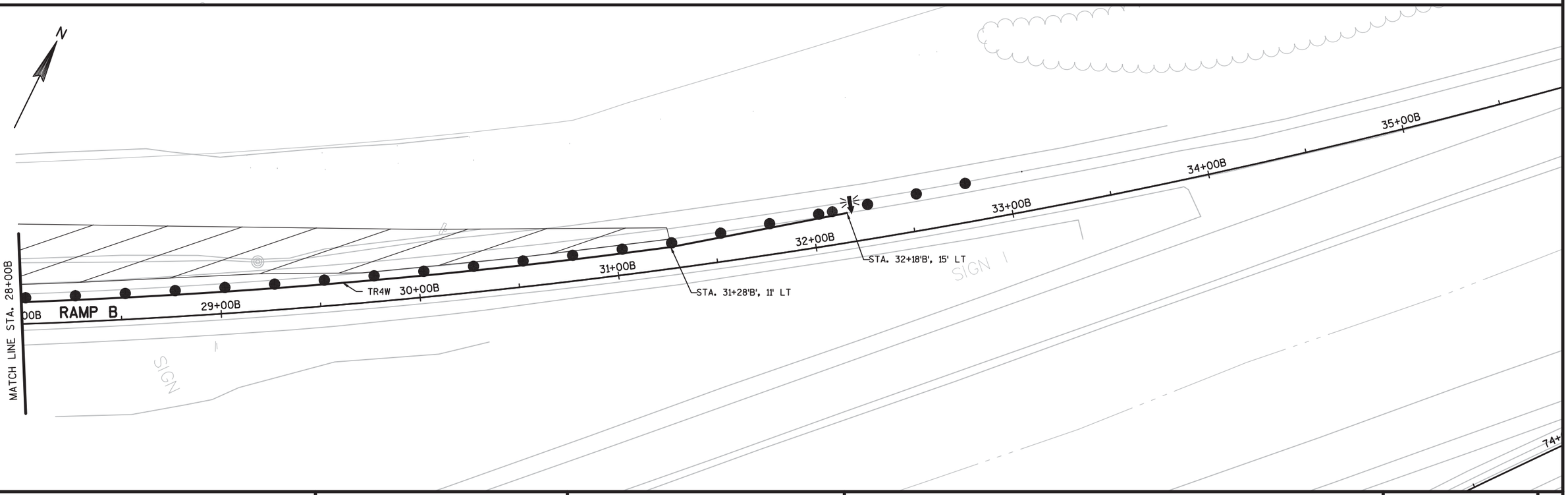




PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2A - PAVEMENT MARKING (SHEET 2A-3)	SHEET 135	E



2



PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2B - PAVEMENT MARKNG (SHEET 2B-3)	SHEET 136	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025002_TC_STAGE2B.DWG
LAYOUT NAME - SHEET - (1)
PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

N

USH 151 SB

USH 151 NB

WORK ZONE (TYP.)

MATCH LINE STA. 112+00TC2

STA. 113+08'TC2', 11' LT

STA. 113+08'TC2', 0'

STA. 113+08'TC2', 11' RT

STA. 113+08'TC2', 22' RT

T4DY

T2

T8W

TR8W
(3' LINE, 9' GAP)

113+00TC2

114+00TC2

115+00TC2

116+00TC2

117+00TC2

118+00TC2

119+00TC2

STA. 115+55'TC2', 11' LT

STA. 115+56'TC2', 0' LT

STA. 116+35'TC2', 0'

STA. 116+35'TC2', 11' RT

STH 16 WB

STH 16 EB

T4W

SIGN II

STA. 118+82'TC2', 11' RT

STA. 118+82'TC2', 22' RT

MATCH LINE STA. 119+00TC2

USH 151 SB

USH 151 NB

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2 - PAVEMENT MARKING (SHEET 2-4)	SHEET 137	E

2

MATCH LINE STA. 62+00D

62+

61+00D

RAMP D

STA. 60+38'D', 43' RT

STA. 60+01'D', 26' RT

STA. 120+69'TC2', 22' LT

STA. 120+77'TC2', 34' LT

T4W

STA. 119+90'TC2', 11' LT

STA. 119+82'TC2', 0'

T18W

TR4Y (3' LINE, 9' GAP)

STA. 120+69'TC2', 11' LT

STA. 121+17'TC2', 22' LT

STA. 121+69'TC2', 22' LT

T2

STA. 122+41'TC2', 11' LT

STA. 121+69'TC2', 11' LT

STA. 125+72'TC2', 11' LT

MATCH LINE STA. 119+00TC2

0TC2

T4DY

T8W

T1

T18W

120+00TC2

121+00TC2

T8W

122+00TC2

123+00TC2

124+00TC2

STH 16 WB

STH 16 EB

125+00TC2

126+0

MATCH LINE STA. 126+00TC2

STA. 120+69'TC2', 0'

TD4Y

STA. 121+81'TC2', 0'

STA. 125+72'TC2', 0' LT

STA. 119+82'TC2', 11' RT

STA. 119+82'TC2', 22' RT

STA. 49+47'C', 34' RT

STA. 120+69'TC2', 11' RT

STA. 49+47'C', 84' RT

T4W

49+00C

STA. 48+83'C', 53' RT

STA. 48+66'C', 29' RT

T4W

48+00C

RAMP C

INL

SIGN

U/C

W

P

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2A - PAVEMENT MARKING (SHEET 2A-5)	SHEET 138	E

2

MATCH LINE STA. 62+00D

62+00D

RAMP D

TR4W

STA. 60+50'D', 0'

STA. 60+33'D', 0'

STA. 60+22'D', 2' LT

STA. 60+32'D', 11' RT

STA. 60+24'D', 10' RT

STA. 120+59'TC2', 22' LT

STA. 119+36'TC2', 11' LT

MATCH LINE STA. 119+00TC2

T4W

T18W

TR4Y (3' LINE, 9' GAP)

T1

STA. 120+69'TC2', 11' LT

T2

STA. 121+69'TC2', 22' LT

STA. 121+69'TC2', 11' LT

STA. 122+41'TC2', 11' LT

STA. 125+72'TC2', 11' LT

MATCH LINE STA. 126+00TC2

TD4Y

T8W

120+00TC2

121+00TC2

122+00TC2

123+00TC2

124+00TC2

125+00TC2

STH 16 WB

STH 16 EB

STA. 120+69'TC2', 0'

STA. 125+72'TC2', 0' LT

STA. 121+81'TC2', 0'

STA. 119+82'TC2', 0'

STA. 119+82'TC2', 11' RT

STA. 119+82'TC2', 22' RT

STA. 49+47'C', 34' RT

STA. 120+69'TC2', 11' RT

STA. 49+47'C', 84' RT

49+00C

STA. 48+83'C', 53' RT

STA. 48+66'C', 29' RT

48+00C

RAMP C

U/C

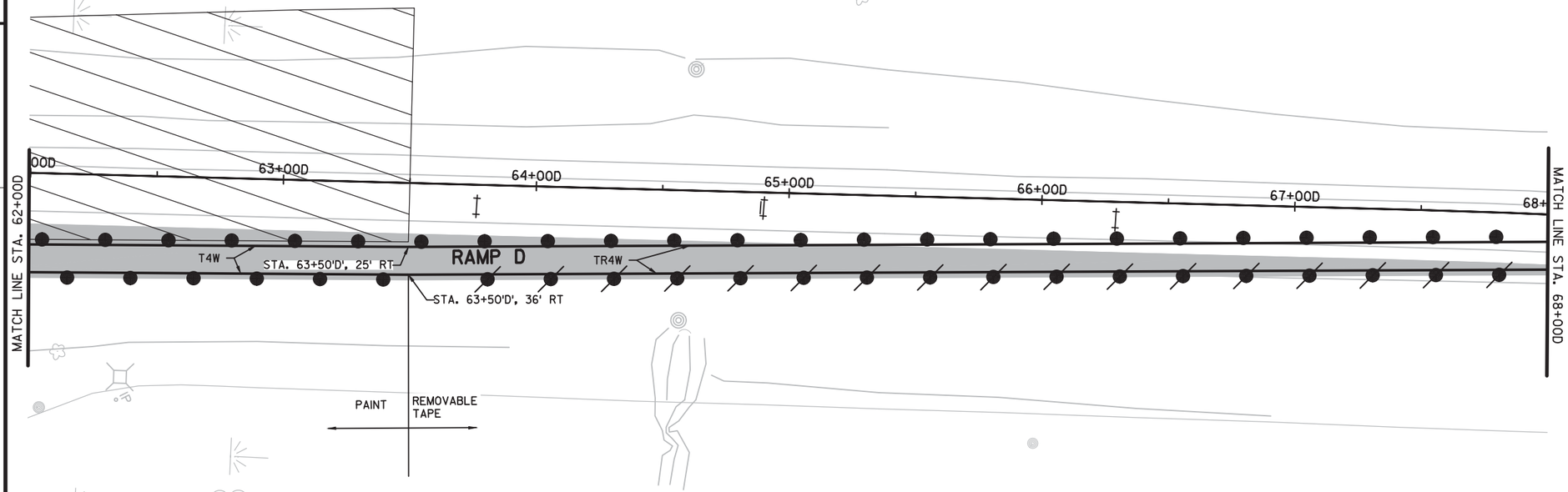
INL

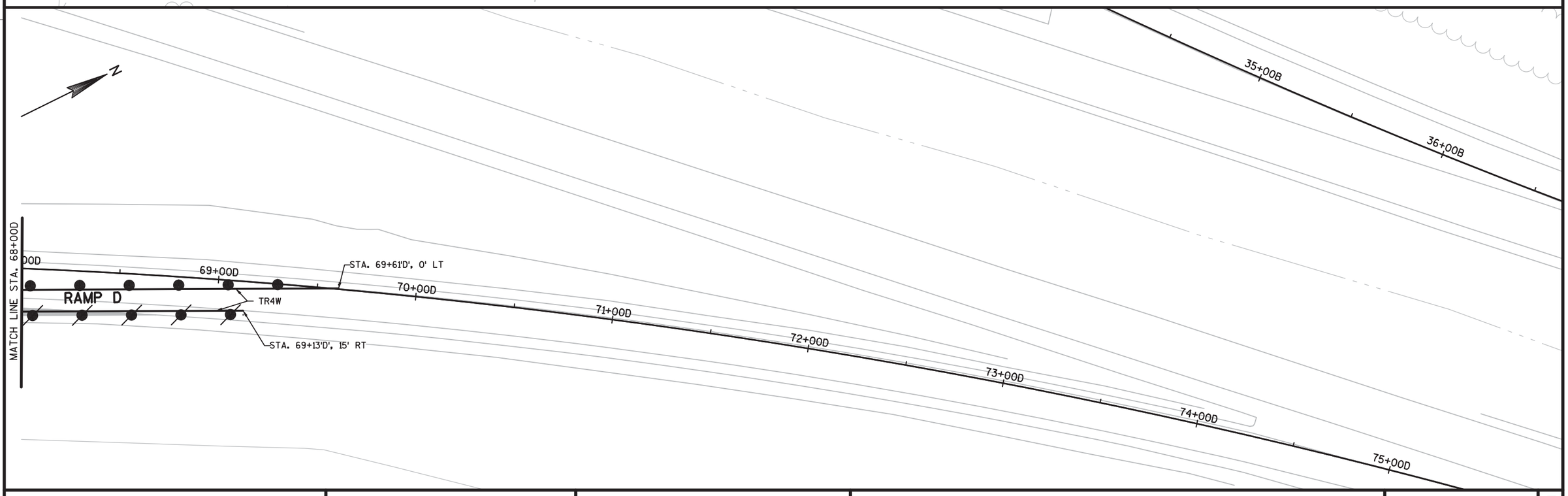
SIGN

W

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2B - PAVEMENT MARKNG (SHEET 2B-5)	SHEET 139	E

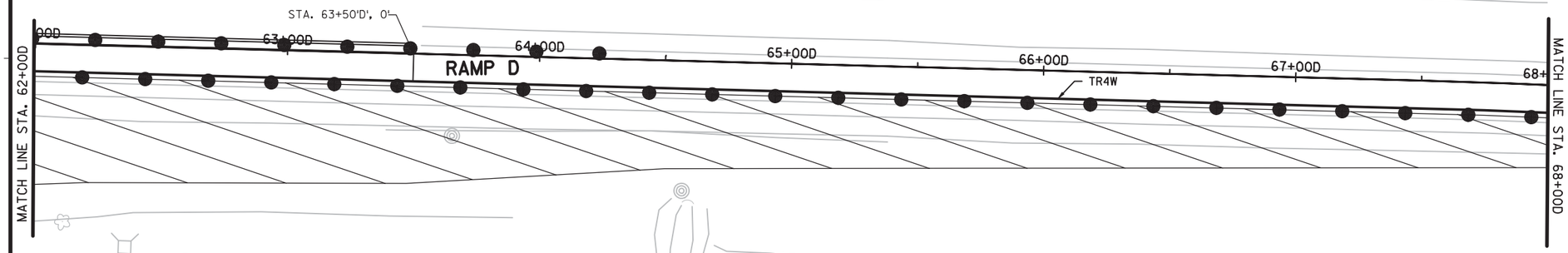
2

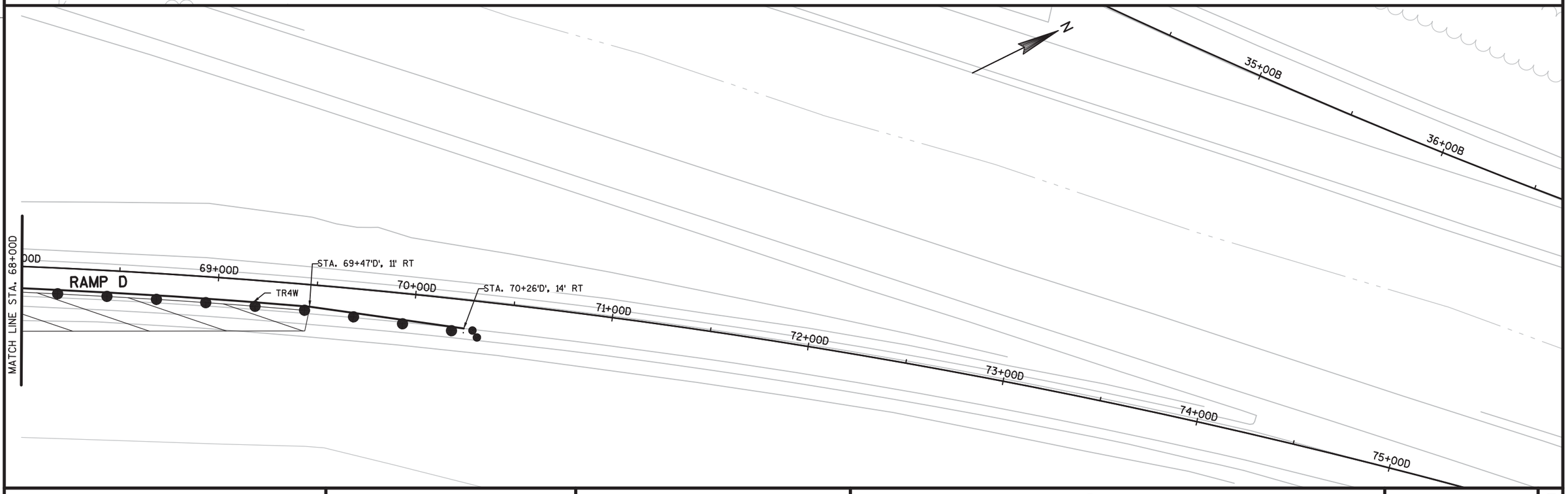




PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2A - PAVEMENT MARKING (SHEET 2A-6)	SHEET 140	E

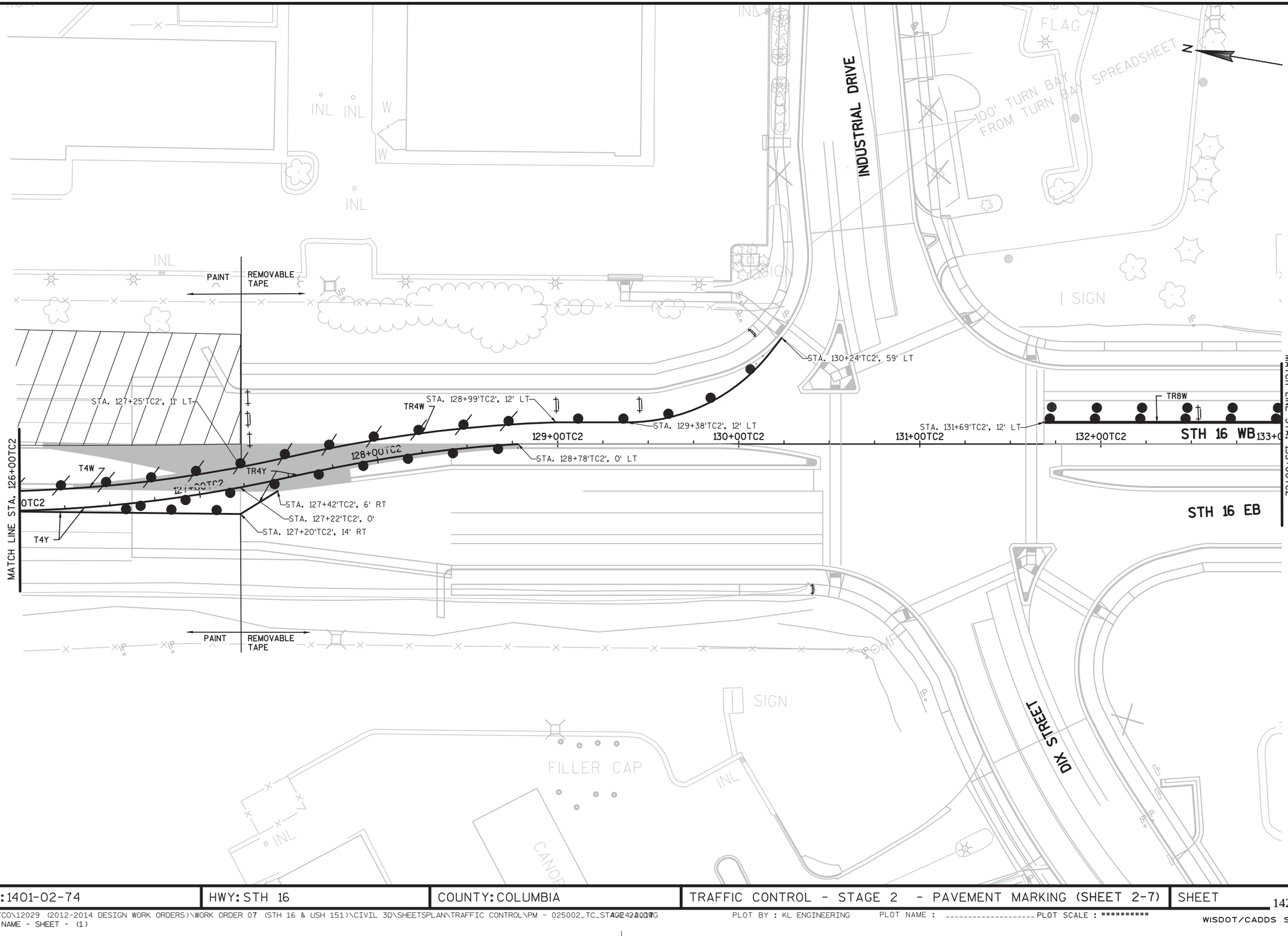
2





PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2B - PAVEMENT MARKNG (SHEET 2B-6)	SHEET 141	E

2



PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2 - PAVEMENT MARKING (SHEET 2-7)	SHEET 142	E

2

2

N

CONTINENTAL DRIVE

FLAG

SIGN

MH

FLAG

BEGIN 12' MEDIAN

STA. 133+99'TC2', 29' LT

STA. 133+99'TC2', 24' LT

STA. 133+02'TC2', 24' LT

TR8W

STA. 133+99'TC2', 12' LT

STA. 134+96'TC2', 17' LT

STA. 134+96'TC2', 12' LT

TR8W

TR4W

STA. 139+33'TC2', 17' LT

STA. 139+33'TC2', 12' LT

MATCH LINE STA. 133+00TC2

0TC2

134+00TC2

135+00TC2

136+00TC2

STH 16 WB

137+00TC2

138+00TC2

139+00TC2

STH 16 EB

RAMP SIGN

FLAG

END 360' MERGING TAPER

MEISTER DRIVE

SIGN

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 2 - PAVEMENT MARKING (SHEET 2-8)	SHEET 143	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025002_TC_STAGE2.DWG
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

WISDOT/CADDS SHEET 42

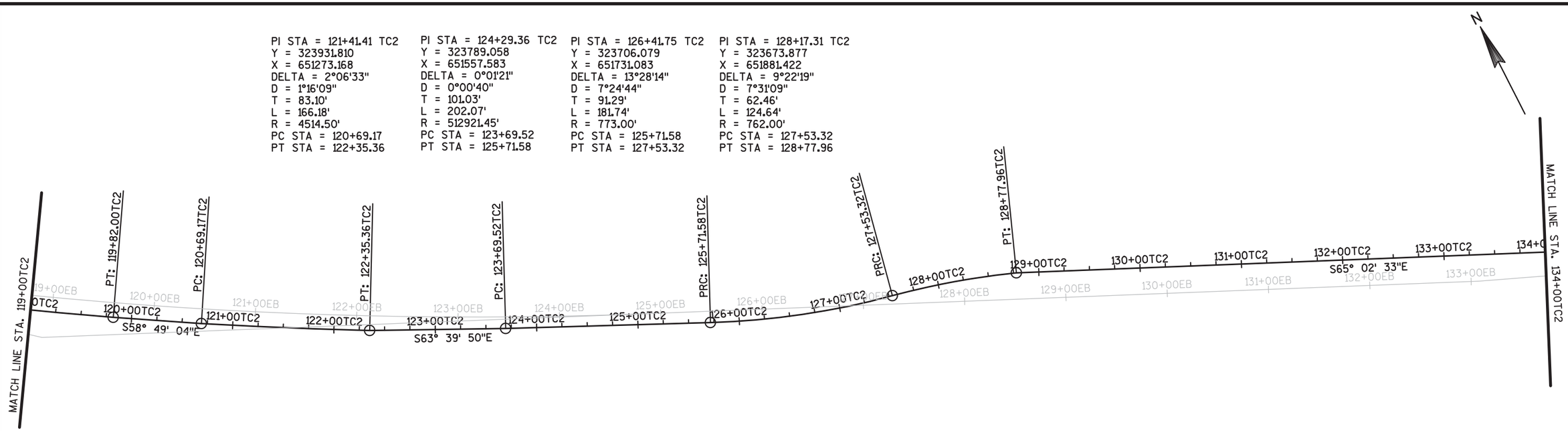
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - ALIGNMENT DIAGRAM STAGE 2	SHEET 144	E

PI STA = 121+41.41 TC2
Y = 323931.810
X = 651273.168
DELTA = 2°06'33"
D = 1°16'09"
T = 83.10'
L = 166.18'
R = 4514.50'
PC STA = 120+69.17
PT STA = 122+35.36

PI STA = 124+29.36 TC2
Y = 323789.058
X = 651557.583
DELTA = 0°01'21"
D = 0°00'40"
T = 101.03'
L = 202.07'
R = 512921.45'
PC STA = 123+69.52
PT STA = 125+71.58

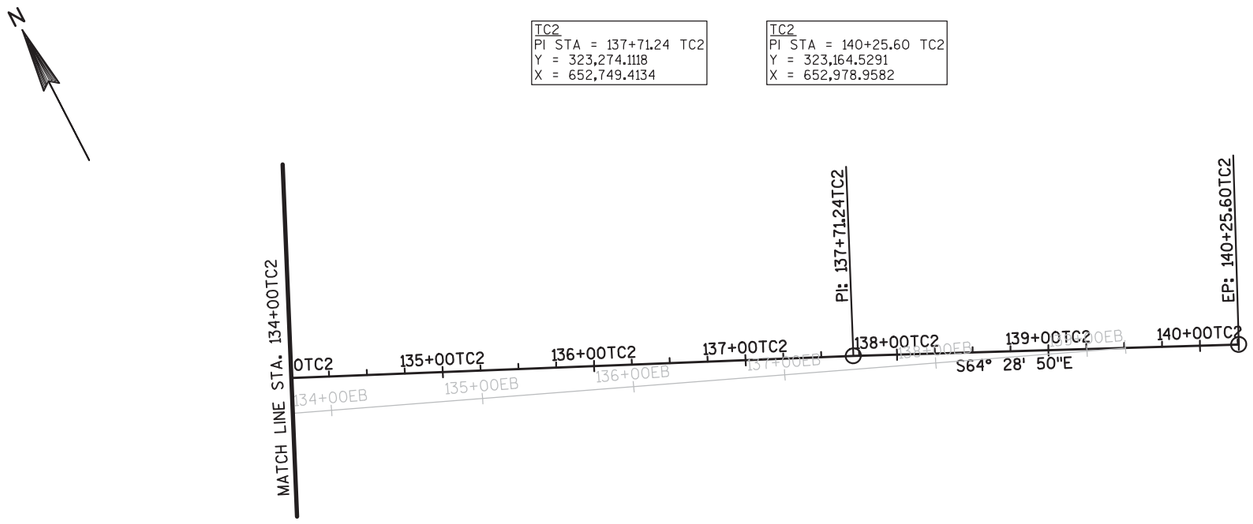
PI STA = 126+41.75 TC2
Y = 323706.079
X = 651731.083
DELTA = 13°28'14"
D = 7°24'44"
T = 91.29'
L = 181.74'
R = 773.00'
PC STA = 125+71.58
PT STA = 127+53.32

PI STA = 128+17.31 TC2
Y = 323673.877
X = 651881.422
DELTA = 9°22'19"
D = 7°31'09"
T = 62.46'
L = 124.64'
R = 762.00'
PC STA = 127+53.32
PT STA = 128+77.96



TC2
PI STA = 137+71.24 TC2
Y = 323,274.1118
X = 652,749.4134

TC2
PI STA = 140+25.60 TC2
Y = 323,164.5291
X = 652,978.9582



PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - ALIGNMENT DIAGRAM STAGE 2	SHEET 145	E

STH 16 - STAGE 3A/3B

CONSTRUCTION OPERATIONS:

- CONSTRUCT STH 16 EB PAVEMENT

TRAFFIC OPERATIONS:

- REDUCE TO ONE LANE IN EACH DIRECTION AND RUN BI-DIRECTIONAL ON THE WESTBOUND LANES
- NORTH SIDEWALK IS OPEN FOR PEDESTRIAN USE

RAMP A/RAMP C - STAGE 3A

CONSTRUCTION OPERATIONS:

- CONSTRUCT RAMP A (EAST SIDE)
- CONSTRUCT RAMP C (WEST SIDE)

TRAFFIC OPERATIONS:

- SHIFT TRAFFIC TO TEMPORARY PAVEMENT PLACED IN STAGE 1

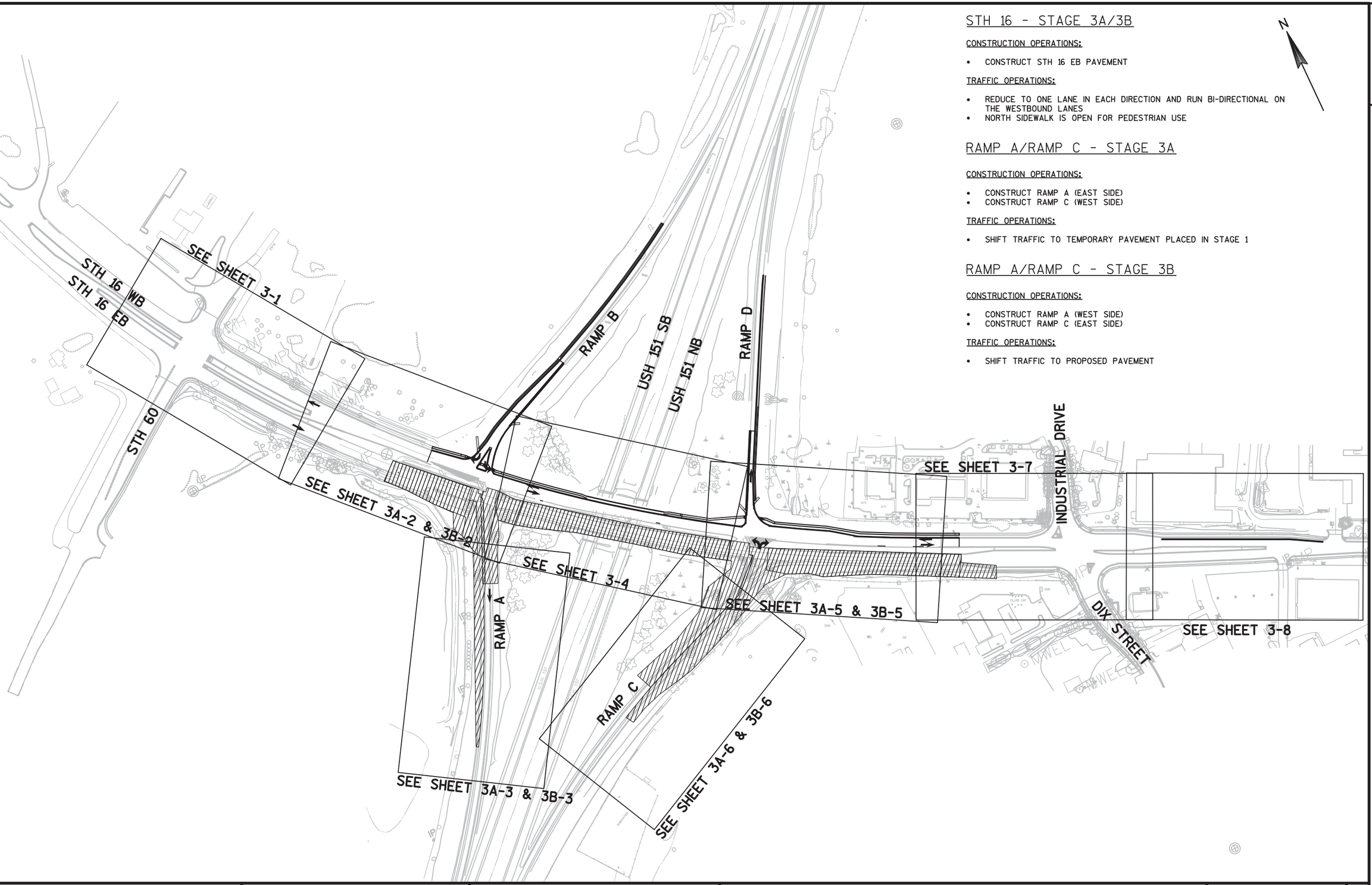
RAMP A/RAMP C - STAGE 3B

CONSTRUCTION OPERATIONS:

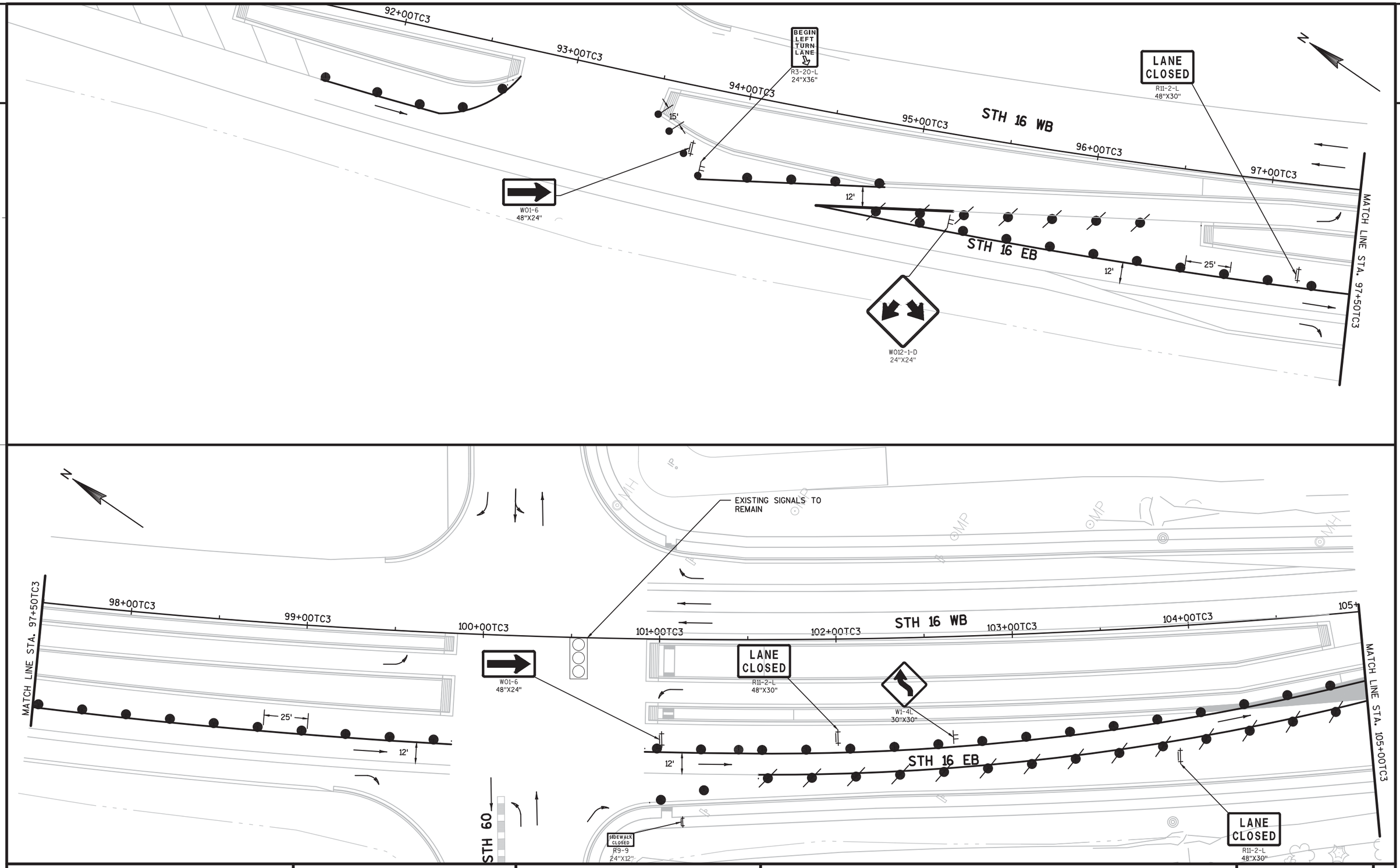
- CONSTRUCT RAMP A (WEST SIDE)
- CONSTRUCT RAMP C (EAST SIDE)

TRAFFIC OPERATIONS:

- SHIFT TRAFFIC TO PROPOSED PAVEMENT

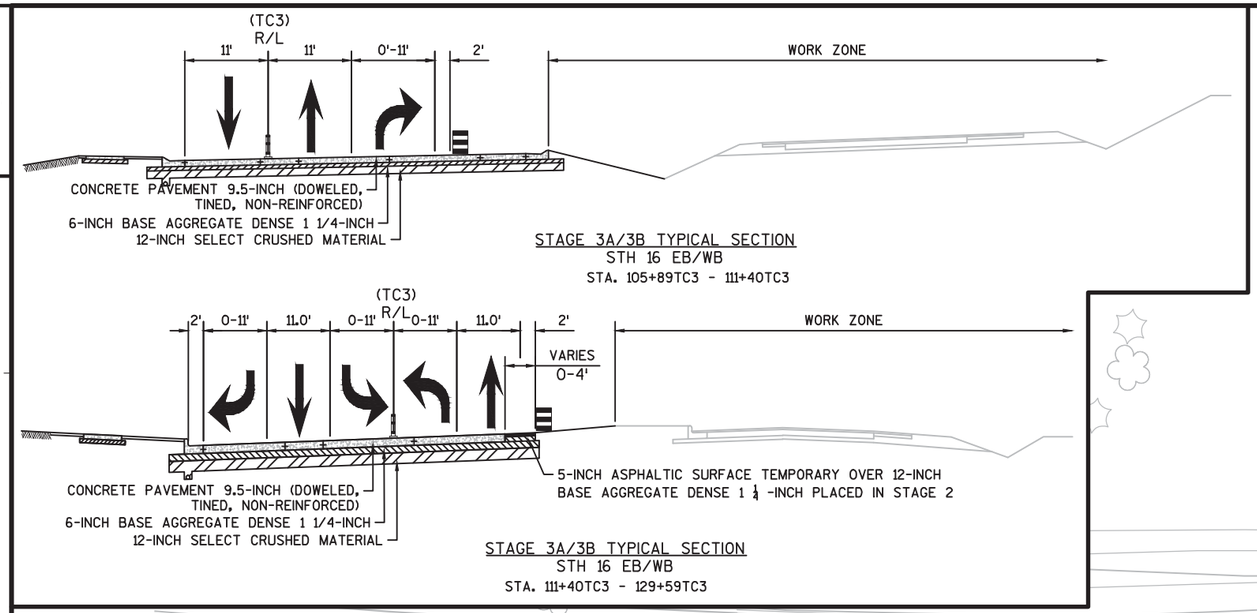


PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3/3A/3B OVERVIEW	SHEET 146	E



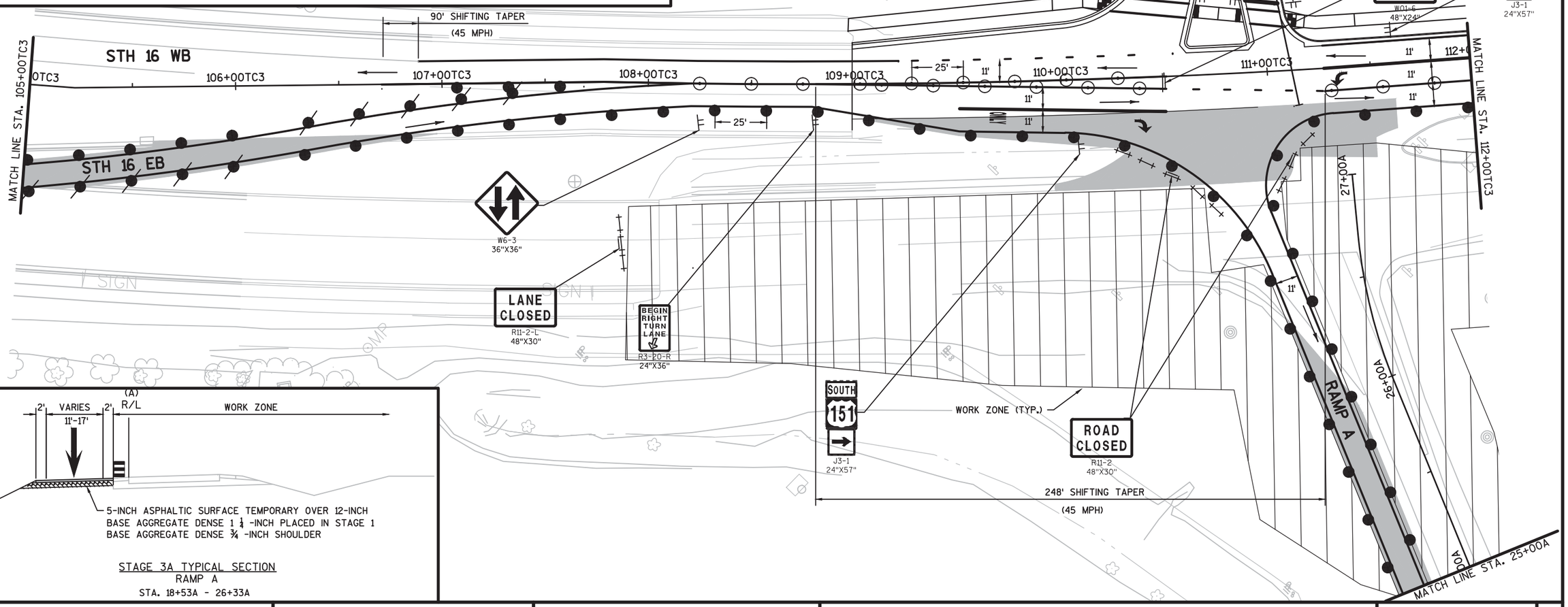
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3 (SHEET 3-1)	SHEET 147	E

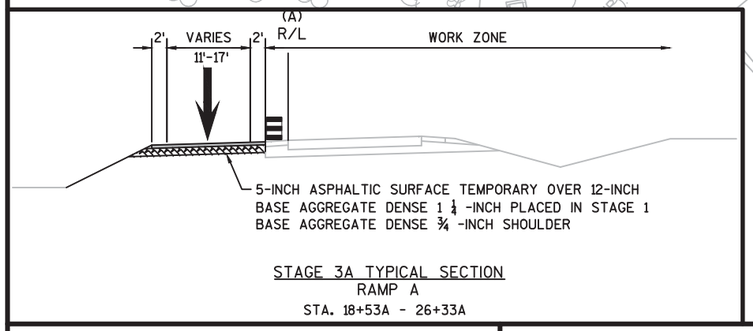
FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025003_TC_STAGE 3A.DWG
LAYOUT NAME - SHEET - (1)
4/20/2017
PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********



STAGE 3A/3B TYPICAL SECTION
STH 16 EB/WB
STA. 105+89TC3 - 111+40TC3

STAGE 3A/3B TYPICAL SECTION
STH 16 EB/WB
STA. 111+40TC3 - 129+59TC3

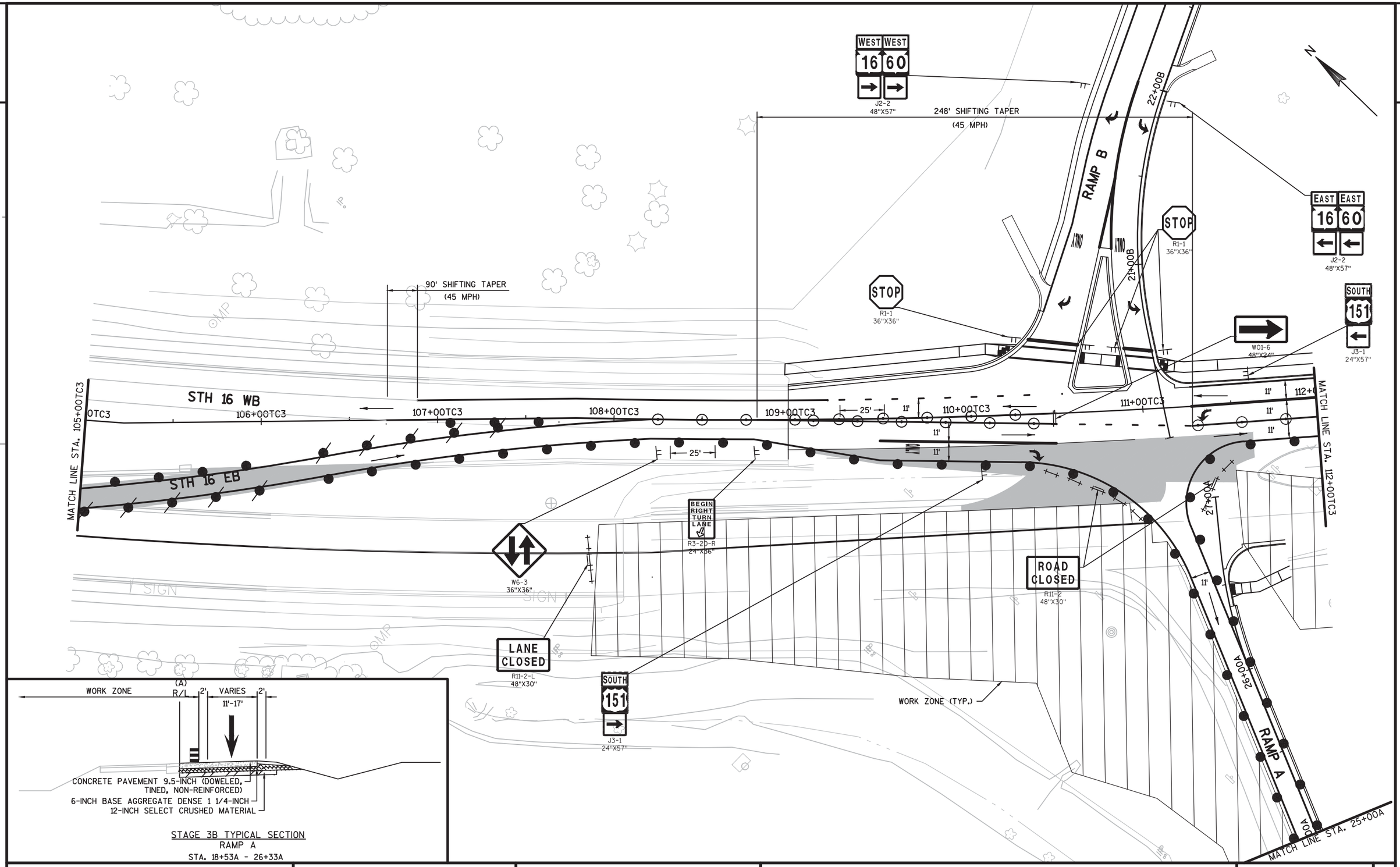




STAGE 3A TYPICAL SECTION
RAMP A
STA. 18+53A - 26+33A

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3A (SHEET 3A-2)	SHEET 148	E

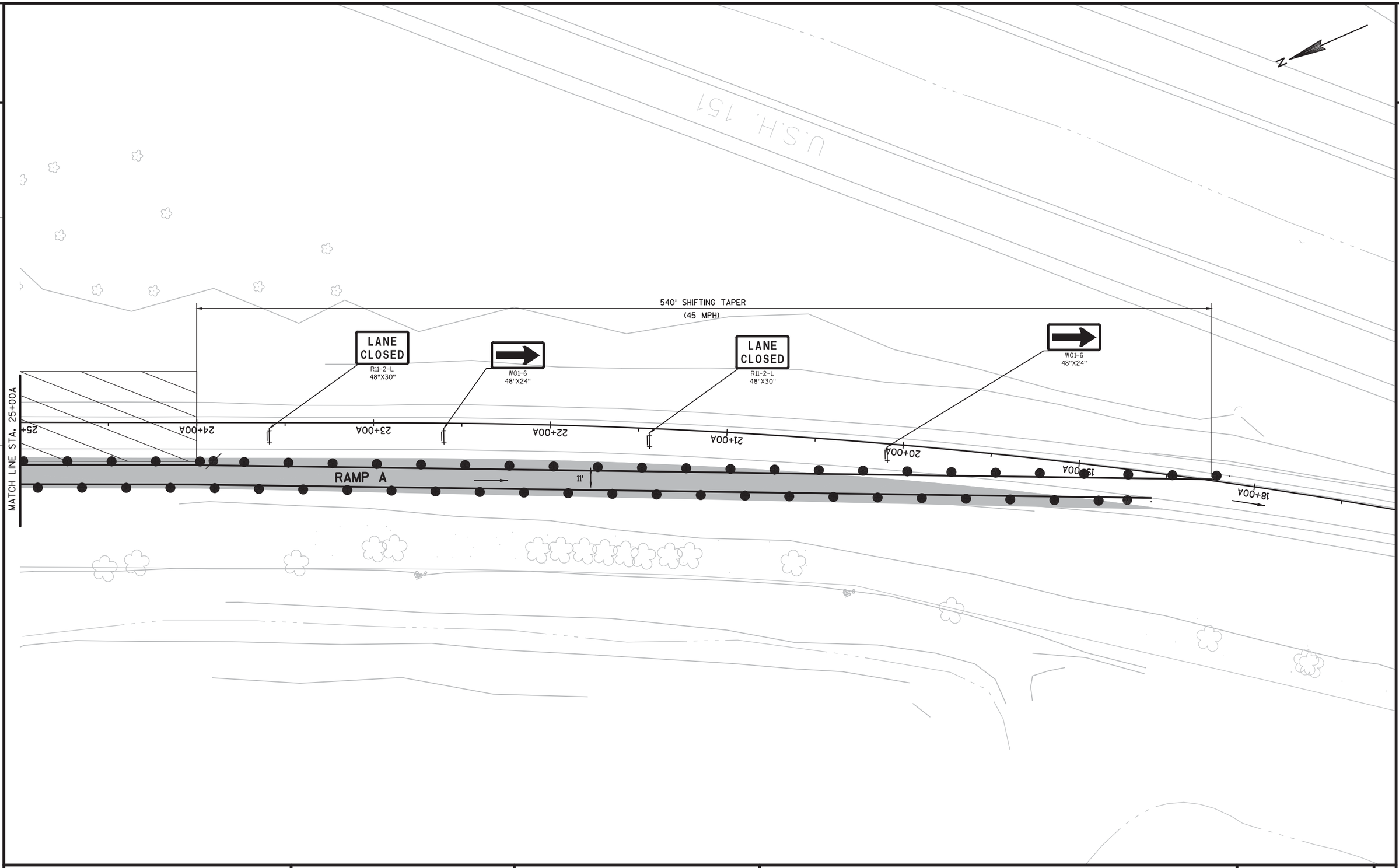
2



STAGE 3B TYPICAL SECTION
RAMP A
STA. 18+53A - 26+33A

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3B (SHEET 3B-2)	SHEET 149	E

2



PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3A (SHEET 3A-3)	SHEET 150	E

2

U.S.H. 151

N

MATCH LINE STA. 25+00A

25+

RAMP A

24+00A

25'

23+00A

22+00A

21+00A

20+00A

19+00A

18+00A

90' SHIFTING TAPER
(45 MPH)

WORK ZONE (TYP.)

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3B (SHEET 3B-3)	SHEET 151	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025003_TC_STAGE 3B.DWG 8/2/2017
LAYOUT NAME - SHEET - (1)
PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

N

USH 151 SB

USH 151 NB

BEGIN LEFT TURN LANE
R3-20-L
24"X36"

MATCH LINE STA. 112+00TC3

113+00TC3

114+00TC3

115+00TC3

STH 16 WB

STH 16 EB

116+00TC3

117+00TC3

118+00TC3

MATCH LINE STA. 119+00TC3

11'

25'

SIGN 1

SIGN 2

LANE CLOSED
R11-2-L
48"X30"

248' SHIFTING TAPER
(45 MPH)

W03-3

USH 151 SB

USH 151 NB

248' SHIFTING TAPER
(45 MPH)

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3 (SHEET 3-4)	SHEET 152	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025003_TC_STAGE 3A.DWG
LAYOUT NAME - SHEET - (1)

2017

PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

2

WEST 16 WEST 60
J2-2
48"X57"

ONE WAY
R6-2-L
24"X30"

NORTH 151
J3-1
24"X57"

62+000

61+000

RAMP D

TEMPORARY TRAFFIC SIGNAL REQUIRED

BEGIN RIGHT TURN LANE
R3-20-R
24"X36"

W03-3

INL°

U/C

U/C

INL

INL

SIGN

SIGN

N

MATCH LINE STA. 119+00TC3

119+00TC3

120+00TC3

121+00TC3

122+00TC3

123+00TC3

124+00TC3

125+00TC3

126+00TC3

MATCH LINE STA. 126+00TC3

11'

11'

11'

13'

11'

11'

25'

25'

STH 16 WB

STH 16 EB

ROAD CLOSED
R11-2
48"X30"

EAST 16 EAST 60
J2-2
48"X57"

WORK ZONE (TYP.)

LANE CLOSED
R11-2-L
48"X30"

49+00C

20C

MATCH LINE STA. 48+00C

RAMP C

SIGN

(C)
R/L

WORK ZONE 2' 11' 2'

5-INCH ASPHALTIC SURFACE TEMPORARY OVER 12-INCH
BASE AGGREGATE DENSE 1 ¼ -INCH PLACED IN STAGE 1
BASE AGGREGATE DENSE ¾ -INCH SHOULDER

STAGE 3A TYPICAL SECTION
RAMP C
STA. 38+90C - 49+47C

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3A (SHEET 3A-5)	SHEET 153	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025003_TC_STAGE 3A.DWG
LAYOUT NAME - SHEET - (1)

4/24/2017

PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

2

WEST 16 WEST 60
J2-2
48"X57"

ONE WAY
R6-2-L
24"X30"

NORTH 151
J3-1
24"X57"

62+00D

61+00D

RAMP D

TEMPORARY TRAFFIC SIGNAL REQUIRED

BEGIN RIGHT TURN LANE
R3-20-R
24"X36"

W03-3

MATCH LINE STA. 119+00TC3

119+00TC3

120+00TC3

121+00TC3

122+00TC3

123+00TC3

124+00TC3

125+00TC3

126+00TC3

MATCH LINE STA. 126+00TC3

STH 16 WB

STH 16 EB

11'

13'

25'

EAST 16 EAST 60
J2-2
48"X57"

ROAD CLOSED
R11-2
48"X30"

94+00C

RAMP C

MATCH LINE STA. 48+00C

WORK ZONE (TYP.)

LANE CLOSED
R11-2-L
48"X30"

U/C

INL

SIGN

(C)

2' 11' 2' R/L WORK ZONE

CONCRETE PAVEMENT 9.5-INCH (DOWELED, TINED, NON-REINFORCED)

6-INCH BASE AGGREGATE DENSE 1 1/4-INCH

12-INCH SELECT CRUSHED MATERIAL

STAGE 3B TYPICAL SECTION
RAMP C
STA. 38+90C - 49+47C

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3B (SHEET 3B-5)	SHEET 154	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025003_TC_STAGE 3B.DWG
LAYOUT NAME - SHEET - (1)

10/2017

PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

2

N

WORK ZONE (TYP.)

MATCH LINE STA. 48+00C

25'

RAMP C

11'

248' SHIFTING TAPER
(45 MPH)

48+00C
47+00C
46+00C
45+00C
44+00C
43+00C
42+00C
41+00C

LANE CLOSED
R11-2-L
48"X30"

W01-6
48"X24"

LANE CLOSED
R11-2-L
48"X30"

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3A (SHEET 3A-6)	SHEET 155	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025003_TC_STAGE 3A.DWG 4/24/2017
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 42

2

N

WORK ZONE (TYP.)

MATCH LINE STA. 48+00C

RAMP C

11'

25'

45' SHIFTING TAPER
(45 MPH)

48+00C
47+00C
46+00C
45+00C
44+00C
43+00C
42+00C
41+00C

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3B (SHEET 3B-6)	SHEET 156	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025003_TC_STAGE 3B.DWG 8/24/2017
LAYOUT NAME - SHEET - (1)
PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

INDUSTRIAL DRIVE

DIX STREET

FLAG

N

W01-6
48"X24"

LANE CLOSED
R11-2-L
48"X30"

W012-1-D
24"X24"

MATCH LINE STA. 126+00TC3

0TC3

127+00TC3

128+00TC3

25'

11'

129+00TC3

130+00TC3

131+00TC3

132+00TC3

12'

12'

12'

STH 16 WB

133+0

MATCH LINE STA. 133+00TC3

STH 16 EB

LANE CLOSED
R11-2-L
48"X30"

WORK ZONE (TYP.)

W01-6
48"X24"

SIDEWALK CLOSED
R9-9
24"X12"

EXISTING SIGNALS TO REMAIN

INL

SIGN

FILLER CAP

CANOPY

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3 (SHEET 3-7)	SHEET 157	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025003_TC_STAGE 3A.DWG
LAYOUT NAME - SHEET - (1)

4/24/2017

PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

2

N

CONTINENTAL DRIVE

BEGIN LEFT TURN LANE
R3-20-L
24"X36"

FLAG

SIGN

MH

MATCH LINE STA. 133+00TC3

0TC3

134+00TC3

135+00TC3

STH 16 WB

136+00TC3

25'

12'

137+00TC3

138+00TC3

TR4Y

139+00TC3

140+00TC3

LANE CLOSED
R11-2-L
48"X30"

STH 16 EB

350'

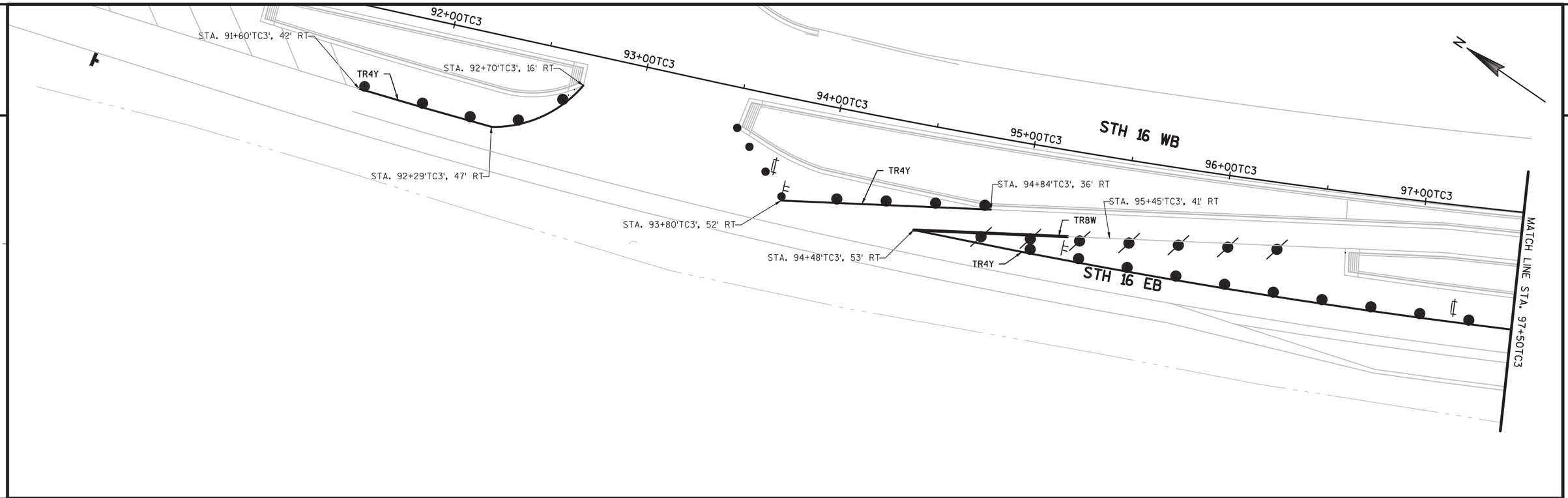
W01-6
48"X24"

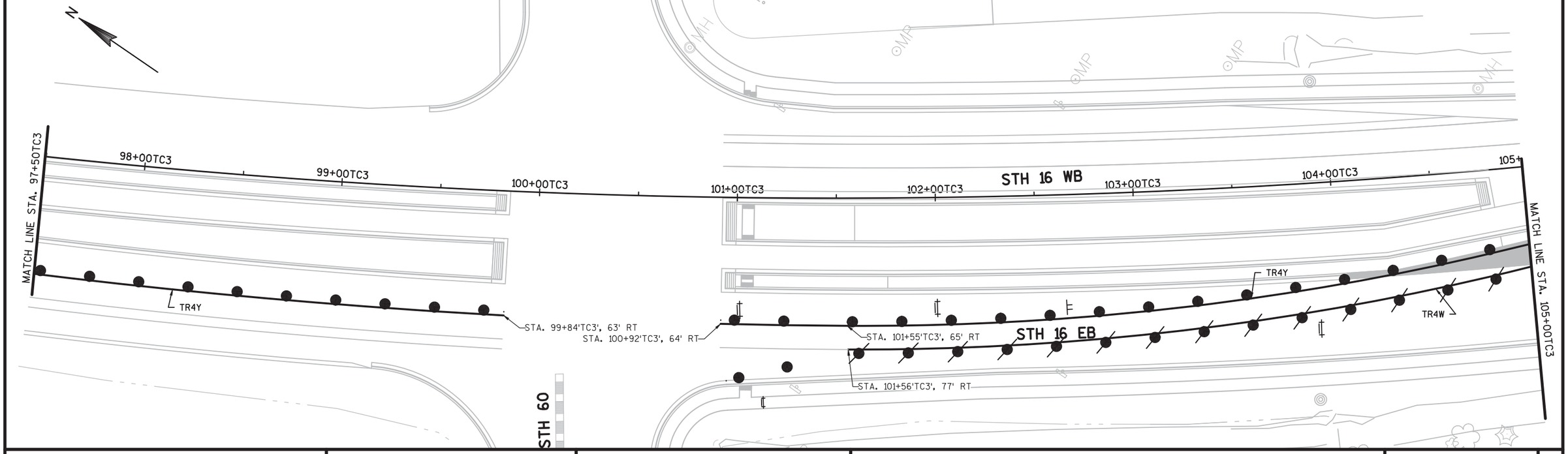
LEFT LANE CLOSED AHEAD
W20-55-A

MEISTER DRIVE

SIGN

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3 (SHEET 3-8)	SHEET 158	E





PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3 - PAVEMENT MARKING (SHEET 3-1)	SHEET 159	E

NOTE: REFER TO "PAVEMENT MARKING PLAN" FOR
PERMANENT PAVEMENT MARKING LAYOUT INFORMATION

STH 16 WB

STH 16 EB

MATCH LINE STA. 105+00TC3

106+00TC3

107+00TC3

108+00TC3

109+00TC3

110+00TC3

111+00TC3

MATCH LINE STA. 112+00TC3

TR4Y

TR4W
(3' LINE, 9' GAP)
STA. 109+21'TC3', 11' LT

STA. 108+81'TC3', 0'

STA. 108+21'TC3', 0'

STA. 108+21'TC3', 11' RT

STA. 108+79'TC3', 11' RT

STA. 109+51'TC3', 13' RT

STA. 109+50'TC3', 24' RT

STA. 110+01'TC3', 26' RT

STA. 110+50'TC3', 17' RT

STA. 110+55'TC3', 11' LT

STA. 110+51'TC3', 0'

TR8W

TR4Y

T2

T1

RAMP B

P4W

P4W
(12.5' LINE, 37.5' GAP)

P4Y

22+00B

P1

P8W

P2

21+00B

P1

P18W

P6W

STA. 111+27'TC3', 11' LT

STA. 111+27'TC3', 0'

TR4Y
(3' LINE, 9' GAP)

TR8W

T1

TR4DY

TR4W

STA. 111+28'TC3', 11' RT

STA. 110+51'TC3', 6' RT

STA. 111+38'TC3', 22' RT

27+00A

STA. 26+79'A', 39' LT

STA. 26+58'A', 44' LT

RAMP A

26+00A

MATCH LINE STA. 25+00A

SIGN

SIGN

STATUE

OMP

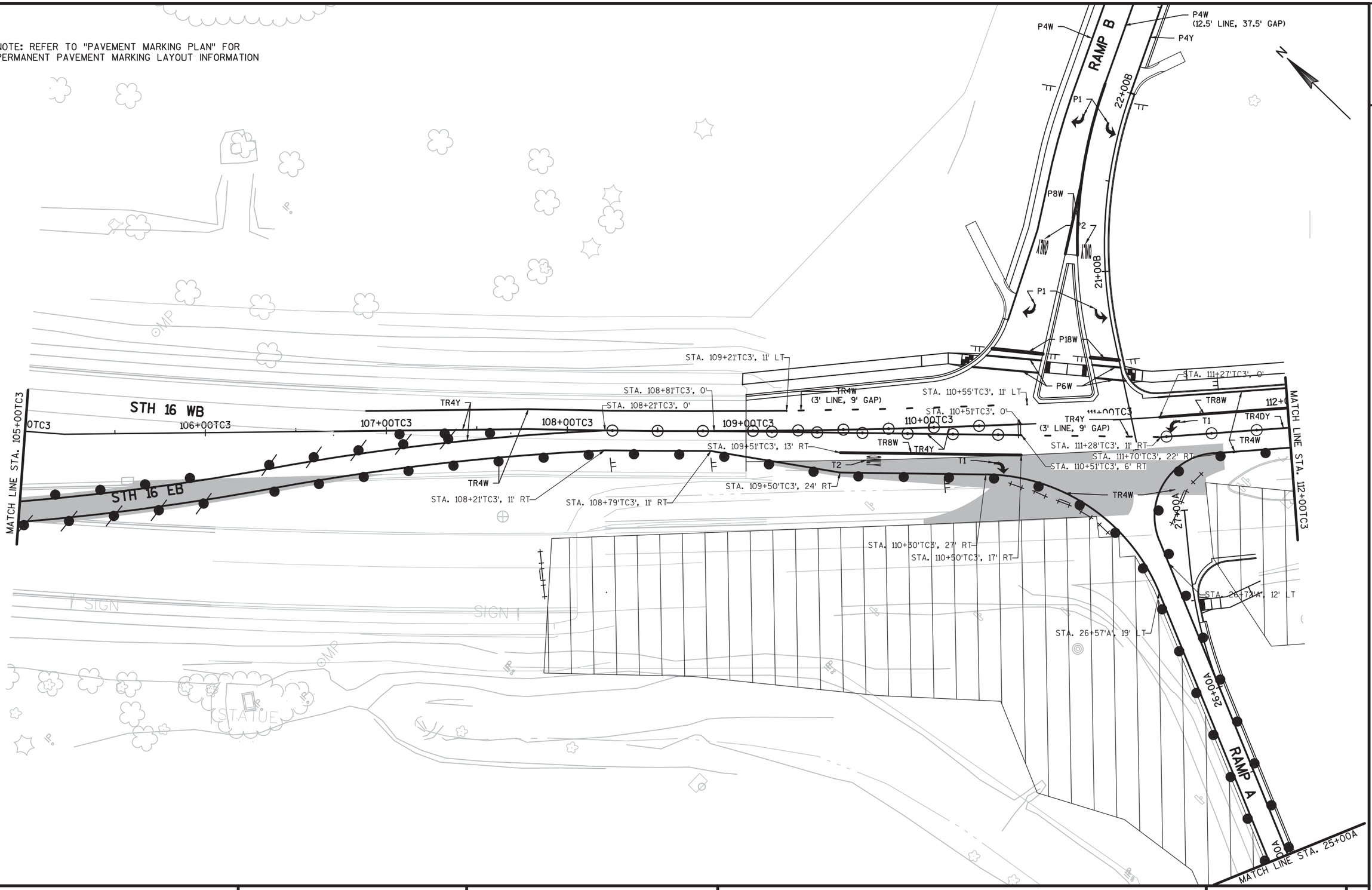
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3A - PAVEMENT MARKING (SHEET 3A-2)	SHEET 160	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025003_TC_STAGE3A2DW.DWG
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 42

NOTE: REFER TO "PAVEMENT MARKING PLAN" FOR
PERMANENT PAVEMENT MARKING LAYOUT INFORMATION



PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3B - PAVEMENT MARKING (SHEET 3B-2)	SHEET 161	E

2

U.S.H. 151

N

MATCH LINE STA. 25+00A

25+00A

24+00A

23+00A

22+00A

21+00A

20+00A

19+00A

18+00A

RAMP A

T4W

TR4W

STA. 20+53'A', 20' LT

STA. 20+52'A', 31' LT

STA. 18+24'A', 1' RT

STA. 18+57'A', 14' LT

PAINT

REMOVABLE TAPE

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3A - PAVEMENT MARKING (SHEET 3A-3)	SHEET 162	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025003_TC_STAGE3A.DWG
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

2

U.S.H. 151

N

MATCH LINE STA. 25+00A

25+00A

STA. 24+50'A', 0' RT

RAMP A

TR4W

24+00A

23+00A

22+00A

21+00A

20+00A

19+00A

18+00A

STA. 18+06'A', 10' LT

STA. 17+15'A', 14' LT

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3B - PAVEMENT MARKING (SHEET 3B-3)	SHEET 163	E

2

N

USH 151 SB

USH 151 NB

STH 16 WB

STH 16 EB

MATCH LINE STA. 112+00TC3

MATCH LINE STA. 119+00TC3

113+00TC3

114+00TC3

115+00TC3

116+00TC3

117+00TC3

118+00TC3

T2

TR8W

TR4DY

TR4W

TR8W
(3' LINE, 9' GAP)

STA. 112+27'TC3', 0'

STA. 112+99'TC3', 0' RT

STA. 112+27'TC3', 11' RT

STA. 112+27'TC3', 22' RT

STA. 114+74'TC3', 0'

STA. 114+75'TC3', 11' RT

STA. 116+21'TC3', 0'

STA. 116+21'TC3', 11' RT

STA. 118+69'TC3', 11' RT

STA. 118+69'TC3', 22' RT

SIGN I

SIGN II

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3 - PAVEMENT MARKING (SHEET 3-4)	SHEET 164	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025003_TC_STAGE3.DWG
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

WISDOT/CADDS SHEET 42

NOTE: REFER TO "PAVEMENT MARKING PLAN" FOR PERMANENT PAVEMENT MARKING LAYOUT INFORMATION

RAMP D

62+00D

61+00D

P4Y

P4W

P6W

STA. 60+60'D', 0'

STA. 119+69'TC3', 11' LT

TR4W

TR4DY

TR4Y
(3' LINE, 9' GAP)

P18W

P1

P8W

P2

P1

STA. 123+57'TC3', 11' LT

TR4W

STA. 119+41'TC3', 0'

120+00TC3

121+00TC3

TR4DY

122+00TC3

123+00TC3

STH 16 WB

STH 16 EB

124+00TC3

125+00TC3

126+00TC3

STA. 125+18'TC3', 0'

TR4Y

MATCH LINE STA. 126+00TC3

TR8W

T1

TR4W

TR18W

STA. 119+41'TC3', 11' RT

STA. 119+41'TC3', 22' RT

STA. 120+36'TC3', 0' LT

STA. 120+17'TC3', 31' RT

TR8W

STA. 121+48'TC3', 11' RT

STA. 120+90'TC3', 16' RT

STA. 120+39'TC3', 34' RT

STA. 125+18'TC3', 11' RT

MATCH LINE STA. 119+00TC3

STA. 119+63'TC3', 22' RT

T1

T1

STA. 119+95'TC3', 32' RT

STA. 120+52'TC3', 42' RT

STA. 120+31'TC3', 54' RT

STA. 49+52'C', 41' RT

TR4W

STA. 49+36'C', 53' RT

49+00C

SIGN

SIGN

SIGN

U/C

U/C

INL

INL

INL

SIGN

W

W

P.

P.

P.

NOTE: REFER TO "PAVEMENT MARKING PLAN" FOR PERMANENT PAVEMENT MARKING LAYOUT INFORMATION

RAMP D

RAMP C

STH 16 WB

STH 16 EB

MATCH LINE STA. 119+00TC3

MATCH LINE STA. 126+00TC3

MATCH LINE STA. 48+00C

62+00D

61+00D

91+00C

P4Y

P4W

P6W

P18W

P1

P8W

P2

TR4W

TR4DY

TR4Y (3' LINE, 9' GAP)

TR8W

TR18W

T1

120+00TC3

121+00TC3

122+00TC3

123+00TC3

124+00TC3

125+00TC3

STA. 119+41'TC3', 0'

STA. 119+41'TC3', 11' RT

STA. 119+41'TC3', 22' RT

STA. 119+84'TC3', 33' RT

STA. 119+95'TC3', 35' RT

STA. 119+69'TC3', 33' RT

STA. 120+36'TC3', 0'

STA. 120+06'TC3', 41' RT

STA. 121+48'TC3', 11' RT

STA. 123+43'TC3', 11' LT

STA. 125+18'TC3', 0'

STA. 125+18'TC3', 11' RT

STA. 49+73'C', 0' RT

STA. 49+35'C', 0'

STA. 119+89'TC3', 44' RT

STA. 49+53'C', 11' RT

INL

U/C

SIGN

W

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3B - PAVEMENT MARKING (SHEET 3B-5)	SHEET 166	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025003_TC_STAGE3B.DWG
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

2

N

NOTION

MATCH LINE STA. 48+00C

RAMP C

T4W

TR4W

48+

47+00C

46+00C

45+00C

STA. 44+14'C', 15' RT

44+00C

STA. 44+13'C', 26' RT

PAINT

REMOVABLE TAPE

TR4W

43+00C

42+00C

STA. 41+63'C', 15' RT

STA. 40+79'C', 0'

41+00C

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3A - PAVEMENT MARKING (SHEET 3A-6)	SHEET 167	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025003_TC_STAGE3A.DWG
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

2

N

NOIL

MATCH LINE STA. 48+00C

RAMP C

TR4W

48+

47+00C

46+00C

45+00C

STA. 44+12'C', 0' LT

44+00C

43+00C

42+00C

41+00C

STA. 42+81'C', 13' RT

STA. 42+36'C', 15' RT

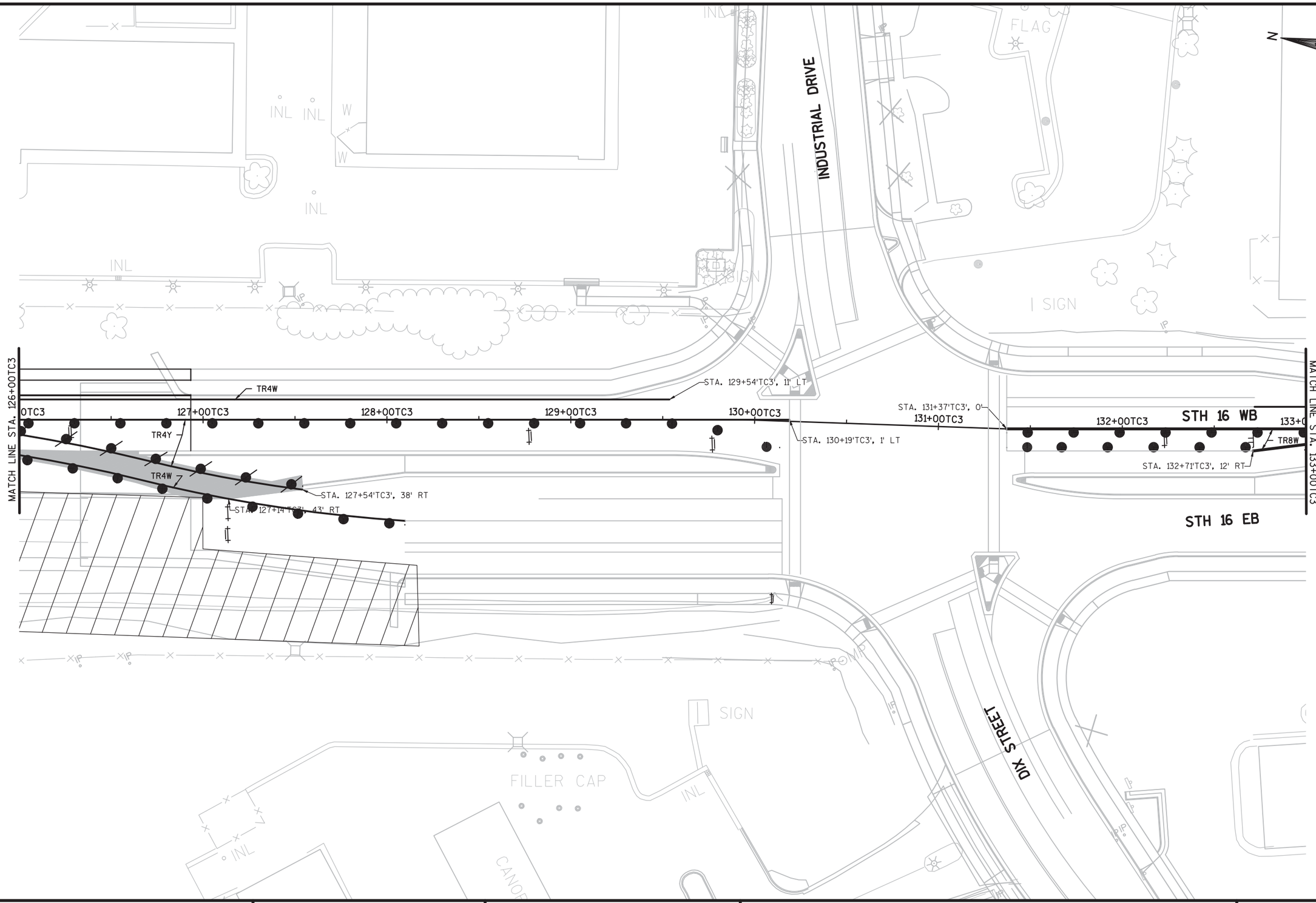
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3B - PAVEMENT MARKING (SHEET 3B-6)	SHEET 168	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025003_TC_STAGE3B.DWG
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2



PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3 - PAVEMENT MARKING (SHEET 3-7)	SHEET 169	E

2

2

N

CONTINENTAL DRIVE

MATCH LINE STA. 133+00TC3

STA. 133+67'TC3', 0' LT

TR8W

0TC3

134+00TC3

STA. 134+62'TC3', 0'

TR4W

STH 16 WB

135+00TC3

136+00TC3

STA. 137+36'TC3', 0'

TR4Y

137+00TC3

STA. 138+05'TC3', 0' RT

138+00TC3

TR4Y

139+00TC3

STA. 139+01'TC3', 15' LT

140+00TC3

STA. 139+17'TC3', 0'

STA. 133+68'TC3', 12' RT

STA. 137+53'TC3', 12' RT

STH 16 EB

STA. 137+85'TC3', 12' RT

FLAG

SIGN

MH

FLAG

SIGN

MEISTER DRIVE

SIGN

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 3 - PAVEMENT MARKING (SHEET 3-8)	SHEET 170	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025003_TC_STAGE3.DWG
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

TC3
PI STA = 88+61.14 TC3
Y = 326,454.4479
X = 649,279.3537

N

BP: 88+61.14TC3

89+00TC3

90+00TC3

S22° 04' 43"E

91+00TC3

92+00TC3

PC: 93+25.19TC3

93+00TC3

94+00TC3

95+00TC3

96+00TC3

97+00TC3

98+00TC3

99+00TC3

100+00TC3

101+00TC3

102+00TC3

103+00TC3

104+00TC3

MATCH LINE STA. 104+00TC3

STH 16 WB

STH 16 EB

91+00EB

92+00EB

93+00EB

94+00EB

95+00EB

96+00EB

97+00EB

98+00EB

99+00EB

100+00EB

101+00EB

102+00EB

103+00EB

PI STA = 96+64.71 TC3
Y = 325465.231
X = 649680.601
DELTA = 18°03'04"
D = 1°30'29"
T = 603.44'
L = 1196.89'
R = 3799.00'
PC STA = 93+25.19
PT STA = 105+22.08

TC3
PI STA = 107+78.50 TC3
Y = 324,821.4796
X = 650,249.7896

TC3
PI STA = 115+30.00 TC3
Y = 324,318.0484
X = 650,806.3855

N

MATCH LINE STA. 104+00TC3

0TC3

105+00TC3

PT: 105+22.08TC3

106+00TC3

S44° 40' 00"E

107+00TC3

PI: 107+78.50TC3

PC: 108+20.86TC3

108+00TC3

S43° 01' 42"E

109+00TC3

110+00TC3

111+00TC3

112+00TC3

113+00TC3

114+00TC3

115+00TC3

PCC: 115+30.00TC3

116+00TC3

117+00TC3

118+00TC3

119+00TC3

MATCH LINE STA. 119+00TC3

STH 16 WB

STH 16 EB

104+00EB

105+00EB

106+00EB

107+00EB

108+00EB

109+00EB

110+00EB

111+00EB

112+00EB

113+00EB

114+00EB

115+00EB

116+00EB

117+00EB

118+00EB

PI STA = 112+06.33 TC3
Y = 324531.928
X = 650522.525
DELTA = 9°41'08"
D = 1°21'57"
T = 355.42'
L = 709.14'
R = 4195.00'
PC STA = 108+20.86
PT STA = 115+30.00

PI STA = 116+40.60 TC3
Y = 324001.843
X = 651226.053
DELTA = 12°02'21"
D = 1°08'59"
T = 525.46'
L = 1047.05'
R = 4983.00'
PC STA = 115+30.00
PT STA = 125+77.05

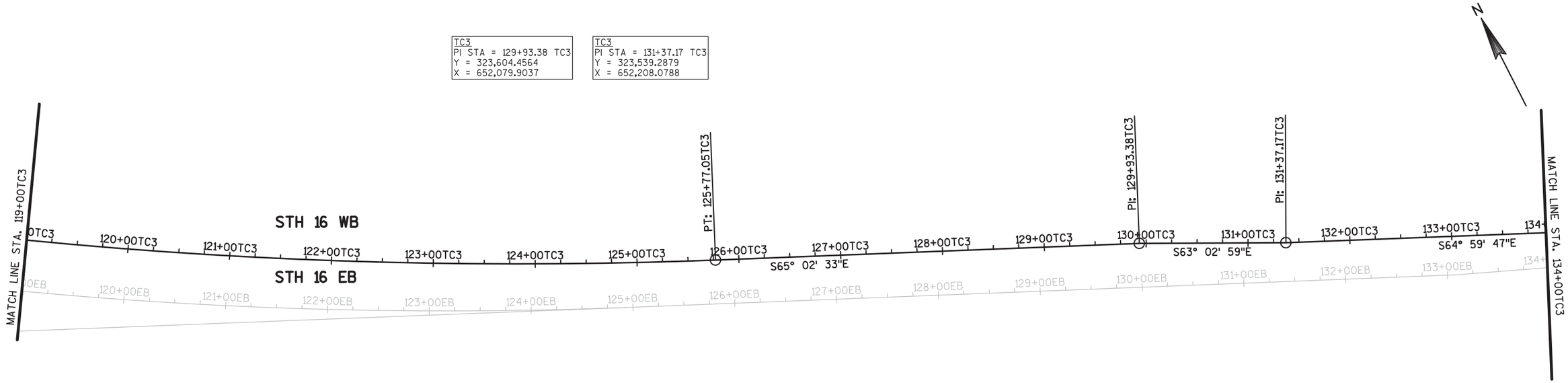
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - ALIGNMENT DIAGRAM STAGE 3	SHEET 171	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\027201_AD STAGE 3.DWG 4/24/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********
LAYOUT NAME - SHEET - (1)
WISDOT/CADDS SHEET 42

2

TC3
PI STA = 129+93.38 TC3
Y = 323,604.4564
X = 652,079.9037

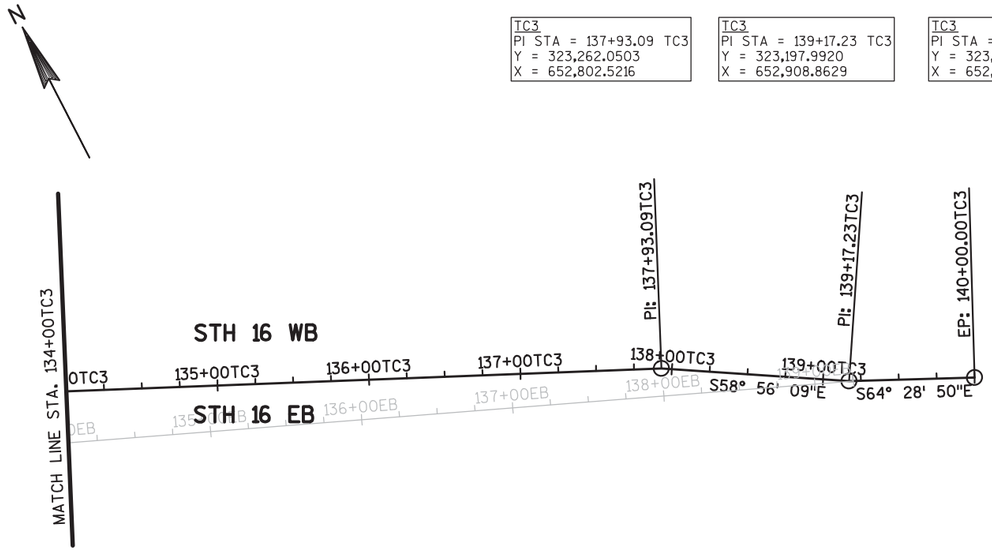
TC3
PI STA = 131+37.17 TC3
Y = 323,539.2879
X = 652,208.0788



TC3
PI STA = 137+93.09 TC3
Y = 323,262.0503
X = 652,802.5216

TC3
PI STA = 139+17.23 TC3
Y = 323,197.9920
X = 652,908.8629

TC3
PI STA = 140+00.00 TC3
Y = 323,162.3335
X = 652,983.5575



PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - ALIGNMENT DIAGRAM STAGE 3	SHEET 172	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\027201_AD STAGE 3.DWG
LAYOUT NAME - SHEET - (1)
4/24/2017
PLOT BY : KL ENGINEERING
PLOT NAME : ----------
PLOT SCALE : **********
WISDOT/CADDS SHEET 42

STH 16 - STAGE 4

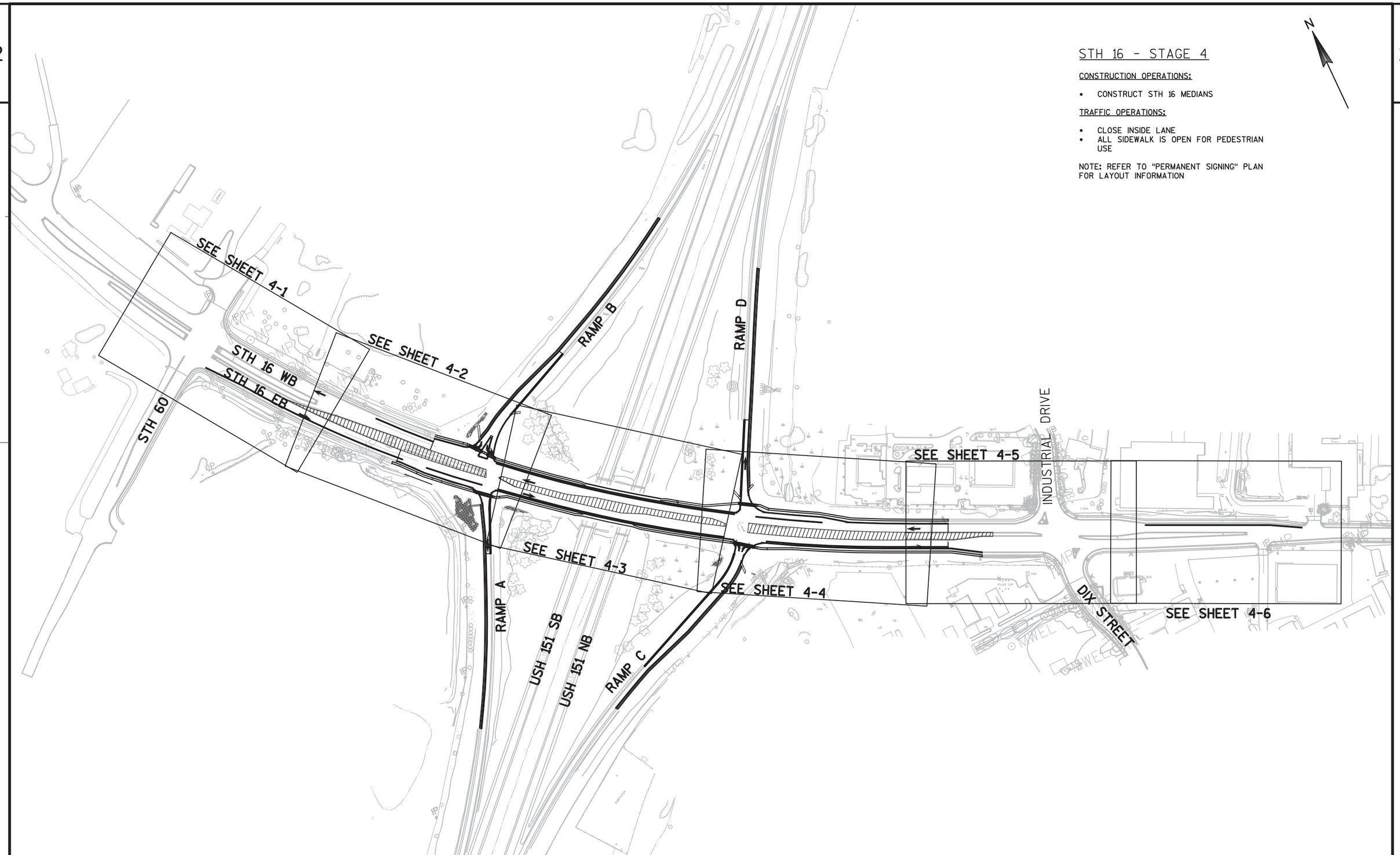
CONSTRUCTION OPERATIONS:

- CONSTRUCT STH 16 MEDIANS

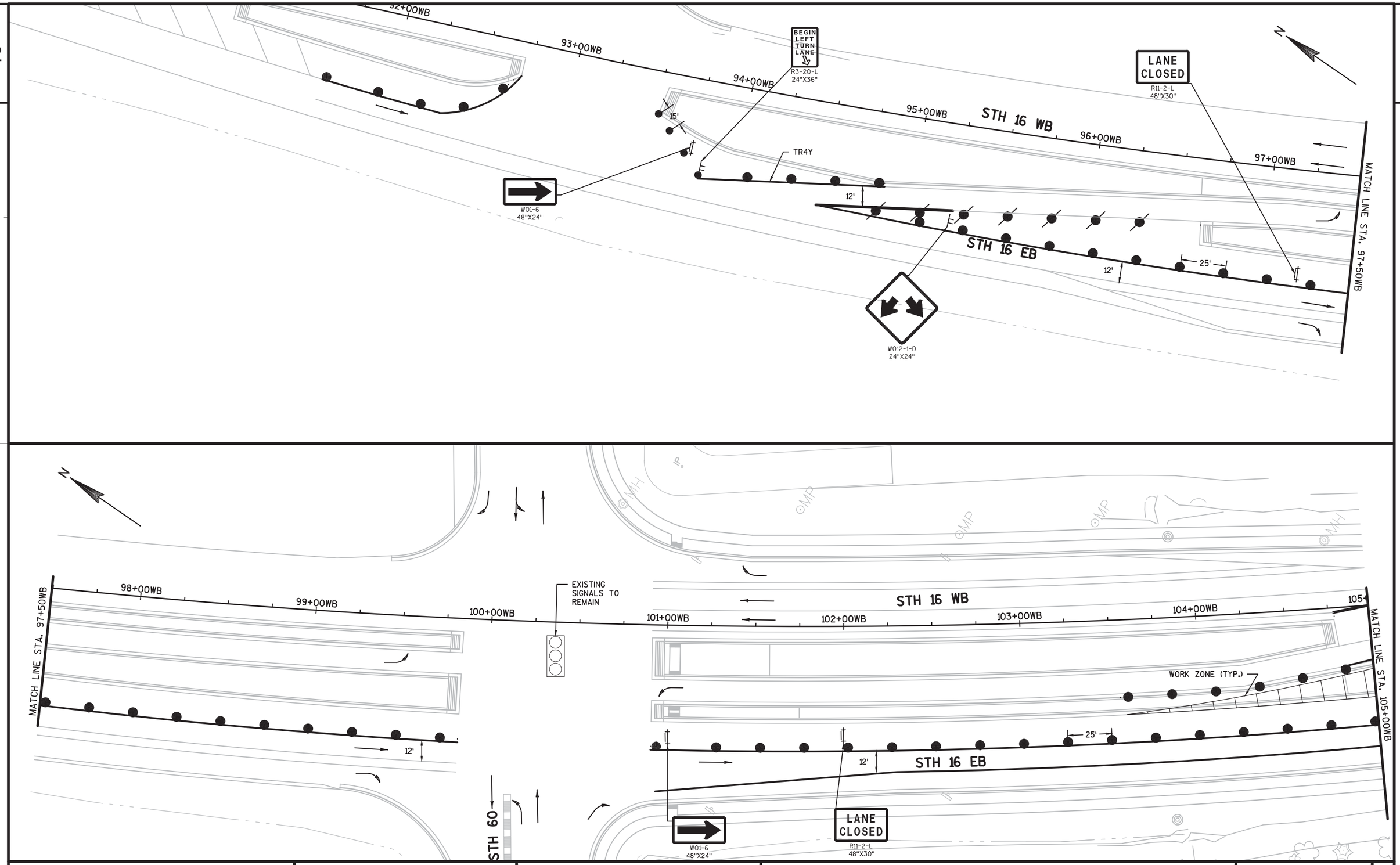
TRAFFIC OPERATIONS:

- CLOSE INSIDE LANE
- ALL SIDEWALK IS OPEN FOR PEDESTRIAN USE

NOTE: REFER TO "PERMANENT SIGNING" PLAN FOR LAYOUT INFORMATION

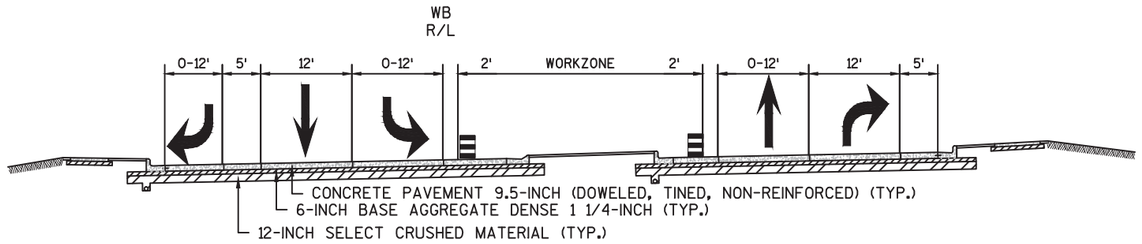


PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 4 OVERVIEW	SHEET 173	E



PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 4 (SHEET 4-1)	SHEET 174	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025004_TC_STAGE 4.DWG 4/26/2017
LAYOUT NAME - SHEET - (1)
PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********



STAGE 4 TYPICAL SECTION
STH 16 EB/WB
STA. 105+89WB - 111+40WB

NOTE: REFER TO "PERMANENT SIGNING PLAN"
FOR PERMANENT SIGNING LAYOUT INFORMATION

2

W012-1-D
24"X24"

BEGIN LEFT TURN LANE
R3-20-L
24"X36"

LANE CLOSED
R11-2-L
48"X30"

W01-6
48"X24"

W01-6
48"X24"

RAMP B

ONLY

ONLY

22+00B

21+00B

N

MATCH LINE STA. 105+00WB

105+00WB

106+00WB

107+00WB

108+00WB

109+00WB

110+00WB

111+00WB

112+

MATCH LINE STA. 112+00WB

STH 16 WB

12'

25'

12'

12'

12'

27+00A

WORK ZONE (TYP.)

12'

STH 16 EB

12'

12'

SIGN

SIGN

LANE CLOSED
R11-2-L
48"X30"

OMP

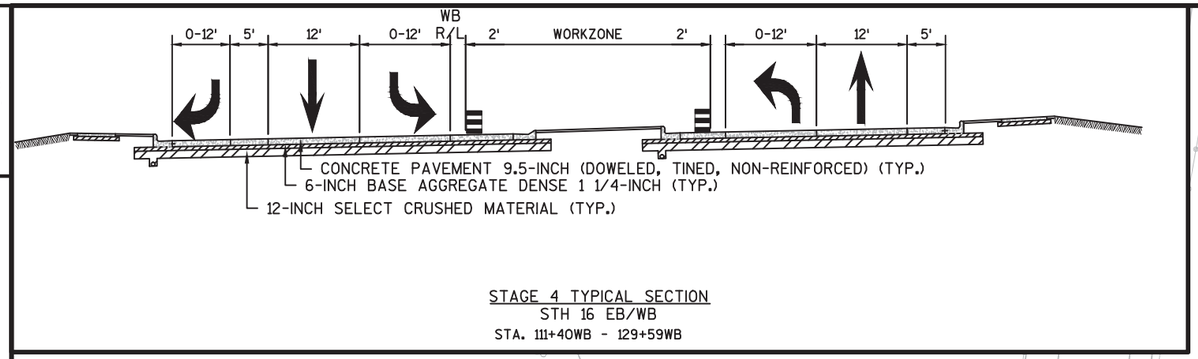
STATUE

26+00A

RAMP A

25+00A

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 4 (SHEET 4-2)	SHEET 175	E



STAGE 4 TYPICAL SECTION
STH 16 EB/WB
STA. 111+40WB - 129+59WB

NOTE: REFER TO "PERMANENT SIGNING PLAN" FOR PERMANENT SIGNING LAYOUT INFORMATION

USH 151 SB

USH 151 NB

LANE CLOSED
R11-2-L
48"X30"

W01-6
48"X24"

BEGIN LEFT TURN LANE
R3-20-L
24"X36"

STH 16 WB

MATCH LINE STA. 112+00WB

113+00WB

114+00WB

115+00WB

116+00WB

117+00WB

118+00WB

119+

MATCH LINE STA. 119+00WB

12'

12'

WORK ZONE (TYP.)

25'

12'

STH 16 EB

LANE CLOSED
R11-2-L
48"X30"

W01-6
48"X24"

BEGIN LEFT TURN LANE
R3-20-L
24"X36"

W03-3

USH 151 SB

USH 151 NB

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 4 (SHEET 4-3)	SHEET 176	E

NOTE: REFER TO "PERMANENT SIGNING PLAN" FOR PERMANENT SIGNING LAYOUT INFORMATION

RAMP D

62+00D

61+00D

TEMPORARY TRAFFIC SIGNAL REQUIRED

W01-6
48"X24"

W03-3

12'

12'

STH 16 WB

25'

MATCH LINE STA. 119+00WB

119+00WB

120+00WB

121+00WB

122+00WB

123+00WB

124+00WB

125+00WB

MATCH LINE STA. 126+00WB

12'

12'

W01-6
48"X24"

WORK ZONE (TYP.)

12'

STH 16 EB

STOP
R1-1F
36"X36"

48+00C

ONLY

ONLY

LANE CLOSED
R11-2-L
48"X30"

STOP
R1-1F
36"X36"

48+00C

RAMP C

INL

U/C

U/C

INL

SIGN

INL

W

INL

SIGN

SIGN

SIGN

P.

P.

P.

P.

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 4A (SHEET 4-4)	SHEET 177	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025004_TC_STAGE 4A.DWG
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : ********** PLOT DATE : 8/3/2017

WISDOT/CADDS SHEET 42

2

INDUSTRIAL DRIVE

LANE CLOSED
R11-2-L
48"X30"

W01-6
48"X24"

LANE CLOSED
R11-2-L
48"X30"

W012-1-D
24"X24"

STH 16 WB

STH 16 EB

MATCH LINE STA. 126+00WB

MATCH LINE STA. 133+00WB

126+00WB
127+00WB
128+00WB
129+00WB
130+00WB
131+00WB
132+00WB
133+

12'
25'

WORK ZONE (TYP.)

EXISTING SIGNALS TO REMAIN

DIX STREET

FILLER CAP

INL

SIGN

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 4 (SHEET 4-5)	SHEET 178	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\025004_TC_STAGE 4.DWG 4/26/2017
LAYOUT NAME - SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

2

N

CONTINENTAL DRIVE

BEGIN LEFT TURN LANE
R3-20-L
24"X36"

W01-4R

350'

MATCH LINE STA. 133+00WB

STH 16 WB

25'

12'

134+00WB

135+00WB

136+00WB

137+00WB

138+00WB

139+00WB

TR4Y

STH 16 EB

LANE CLOSED
R11-2-L
48"X30"

W01-6
48"X24"

MEISTER DRIVE

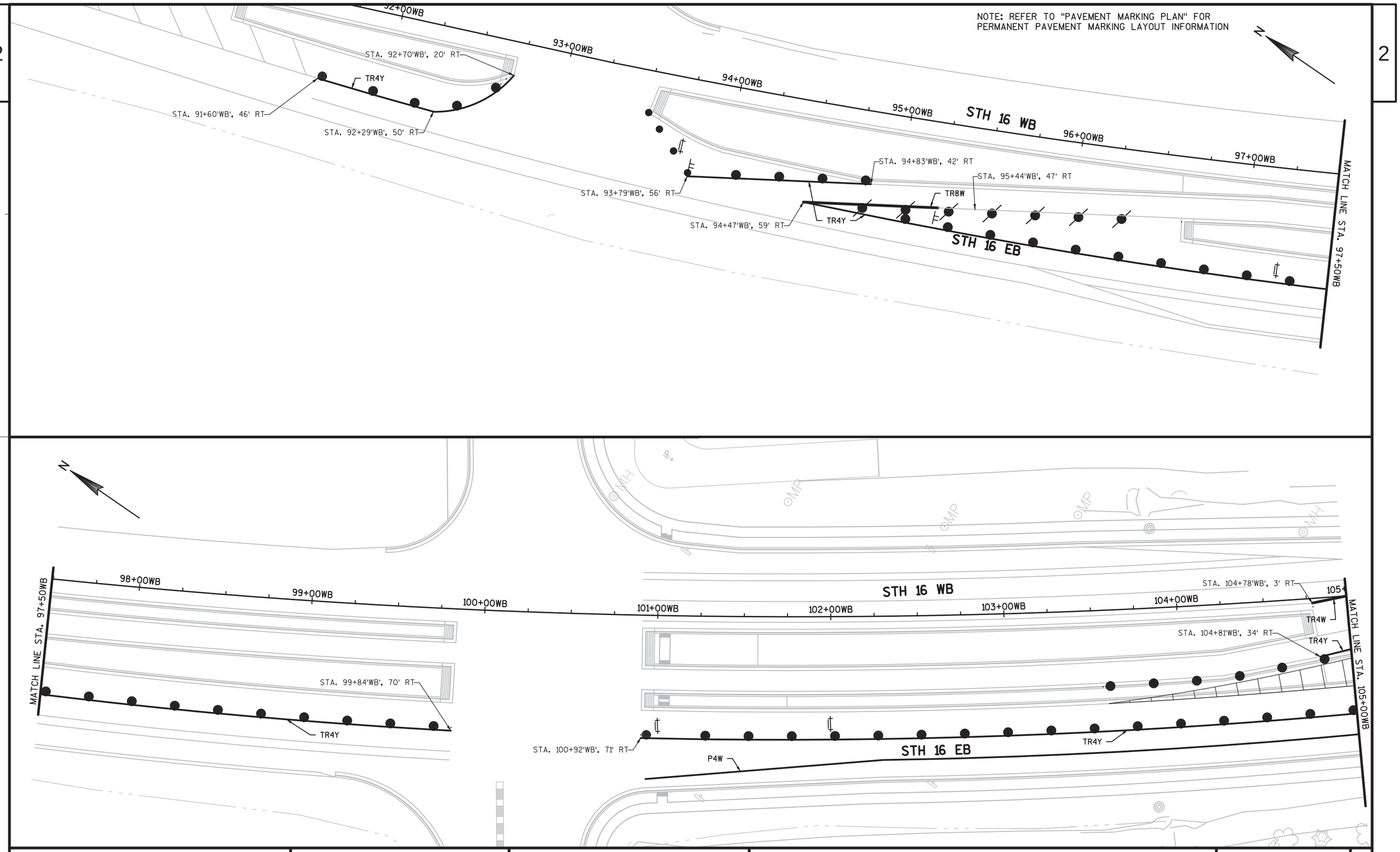
FLAG

SIGN

MH

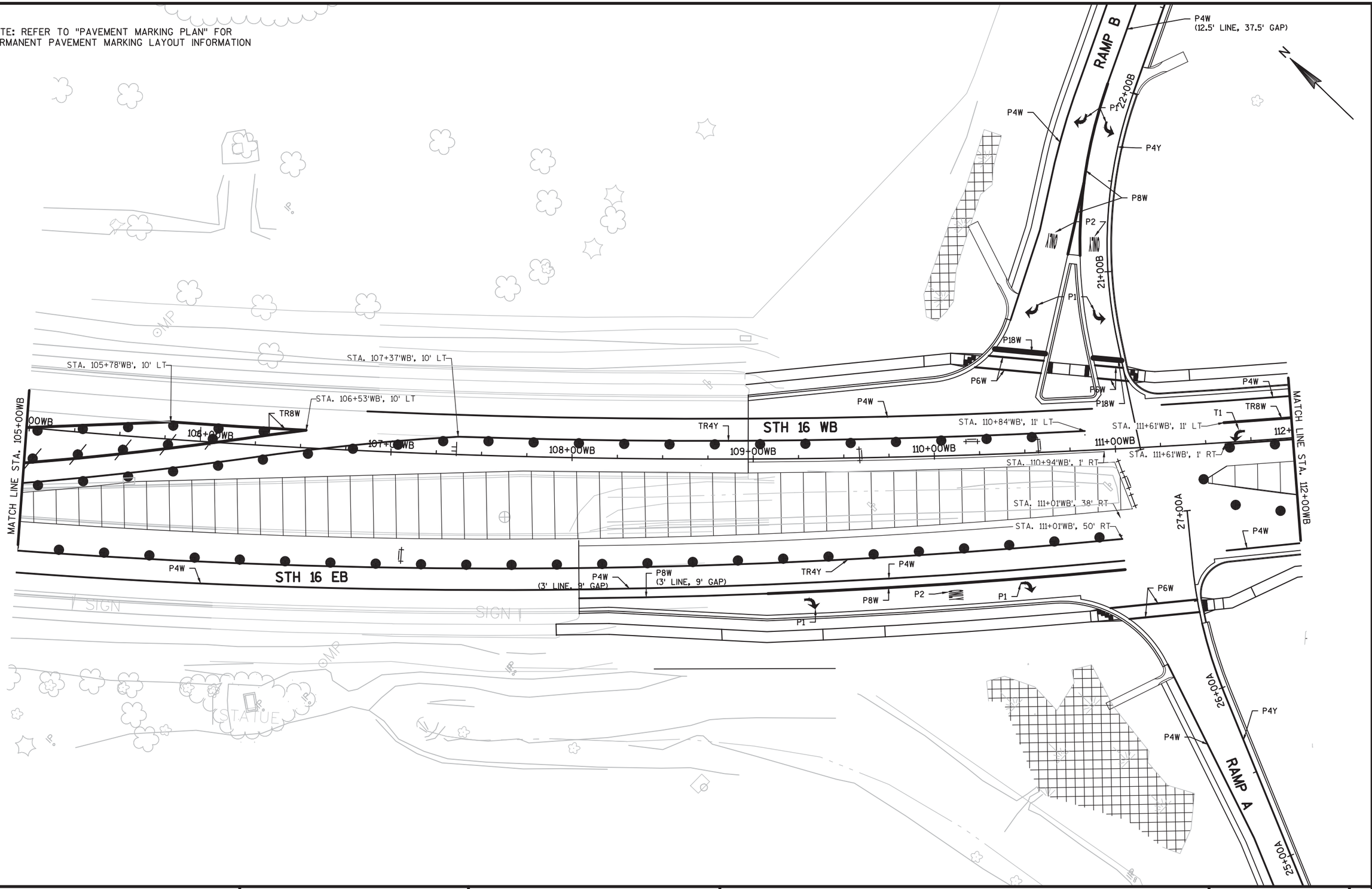
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 4 (SHEET 4-6)	SHEET 179	E

NOTE: REFER TO "PAVEMENT MARKING PLAN" FOR PERMANENT PAVEMENT MARKING LAYOUT INFORMATION



PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 4 - PAVEMENT MARKING (SHEET 4-1)	SHEET 180	E

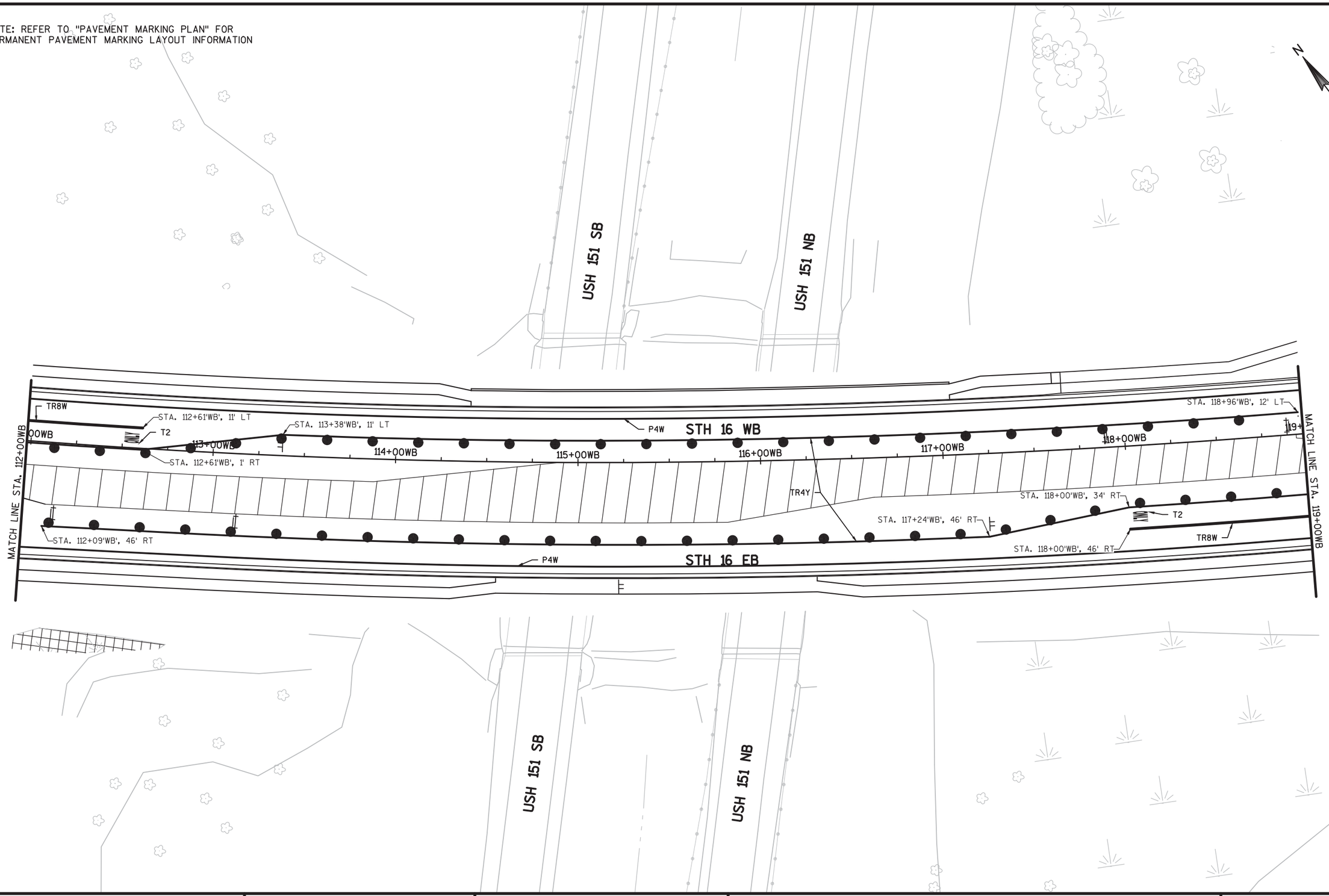
NOTE: REFER TO "PAVEMENT MARKING PLAN" FOR
PERMANENT PAVEMENT MARKING LAYOUT INFORMATION



PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 4 - PAVEMENT MARKING (SHEET 4-2)	SHEET 181	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025004_TC_STAGE4.DWG
LAYOUT NAME - SHEET - (1)
PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

NOTE: REFER TO "PAVEMENT MARKING PLAN" FOR
PERMANENT PAVEMENT MARKING LAYOUT INFORMATION



PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 4 - PAVEMENT MARKING (SHEET 4-3)	SHEET 182	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025004_TC_STAGE4_2D.DWG
LAYOUT NAME - SHEET - (1)
PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

WISDOT/CADDS SHEET 42

NOTE: REFER TO "PAVEMENT MARKING PLAN" FOR
PERMANENT PAVEMENT MARKING LAYOUT INFORMATION

RAMP D

62+00D

61+00D

49+00C

RAMP C

STH 16 WB

STH 16 EB

MATCH LINE STA. 119+00WB

MATCH LINE STA. 126+00WB

119+00WB

120+00WB

122+00WB

123+00WB

124+00WB

125+00WB

126+00WB

STA. 120+39'WB', 12' LT

STA. 120+42'WB', 44' RT

STA. 119+38'WB', 33' RT

STA. 119+38'WB', 45' RT

STA. 119+38'WB', 57' RT

P1

P2

P4W

P4Y

P6W

P8W

P18W

TR4Y

TR8W

TR18W

T1

P8W
(3' LINE, 9' GAP)

P4W
(3' LINE, 9' GAP)

ONLY

U/C

INL

SIGN

W

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 4A - PAVEMENT MARKING (SHEET 4-4)	SHEET 183	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025004_TC_STAGE4A.DWG
LAYOUT NAME - SHEET - (1)

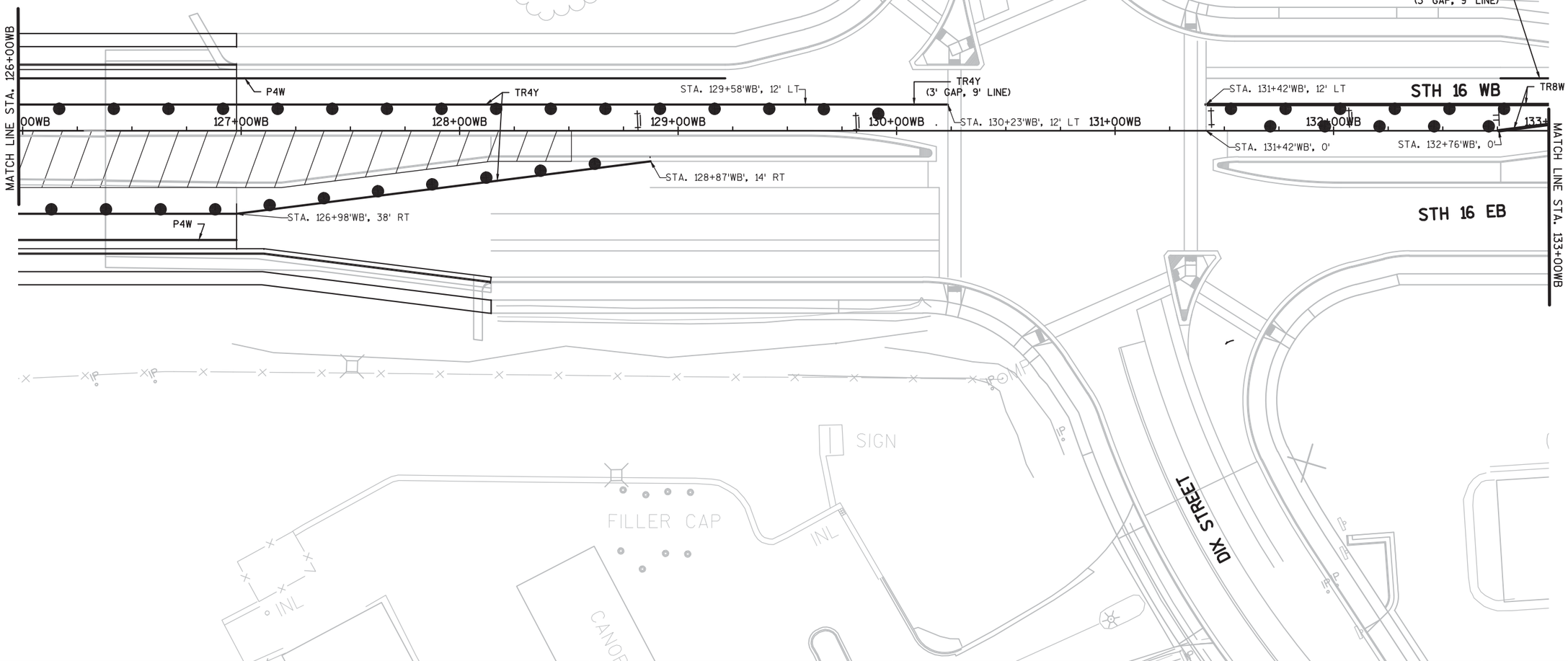
PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

WISDOT/CADDS SHEET 42

NOTE: REFER TO "PAVEMENT MARKING PLAN" FOR
PERMANENT PAVEMENT MARKING LAYOUT INFORMATION

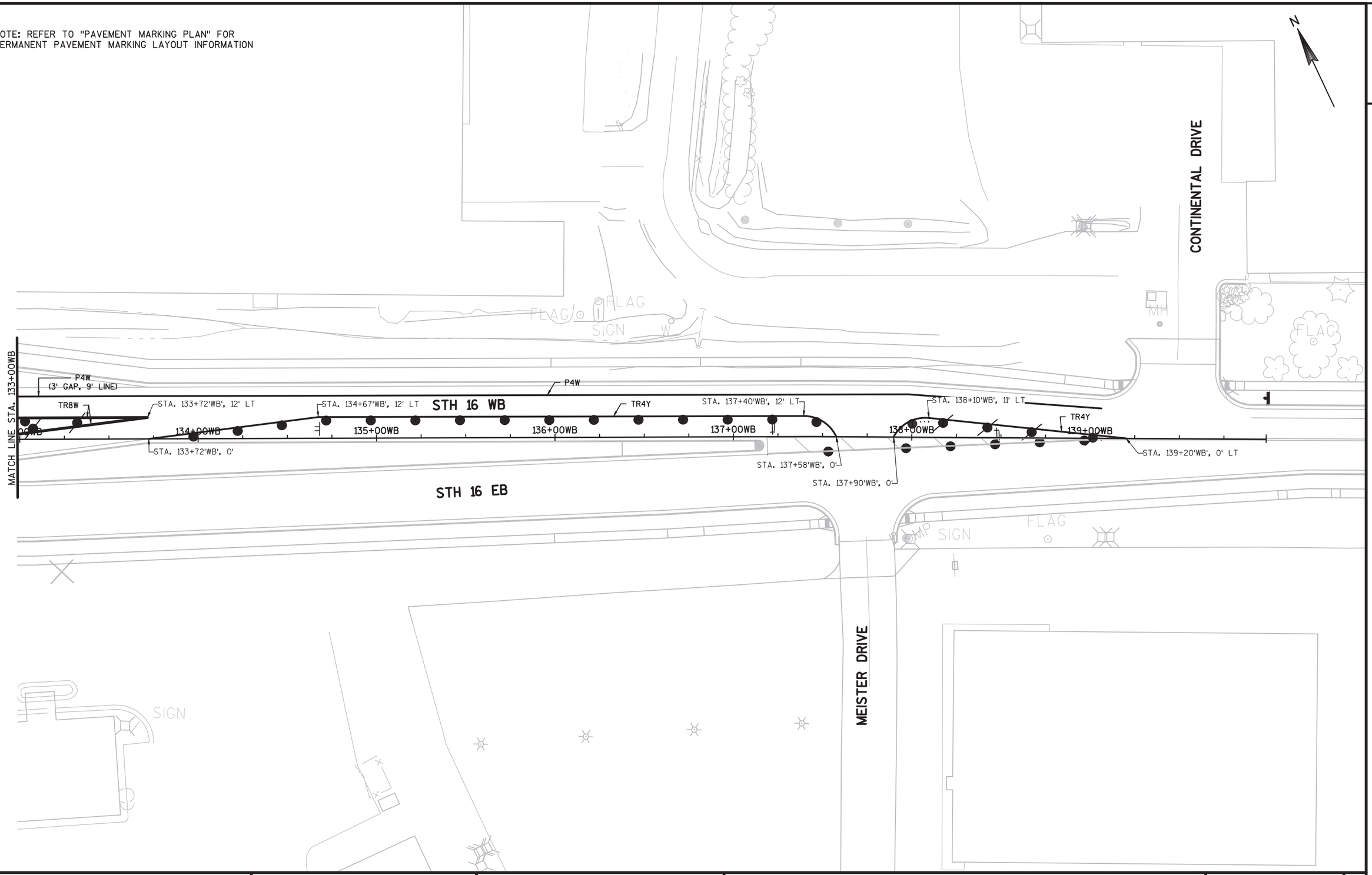
INDUSTRIAL DRIVE

N



PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 4 - PAVEMENT MARKING (SHEET 4-5)	SHEET 184	E

NOTE: REFER TO "PAVEMENT MARKING PLAN" FOR
PERMANENT PAVEMENT MARKING LAYOUT INFORMATION



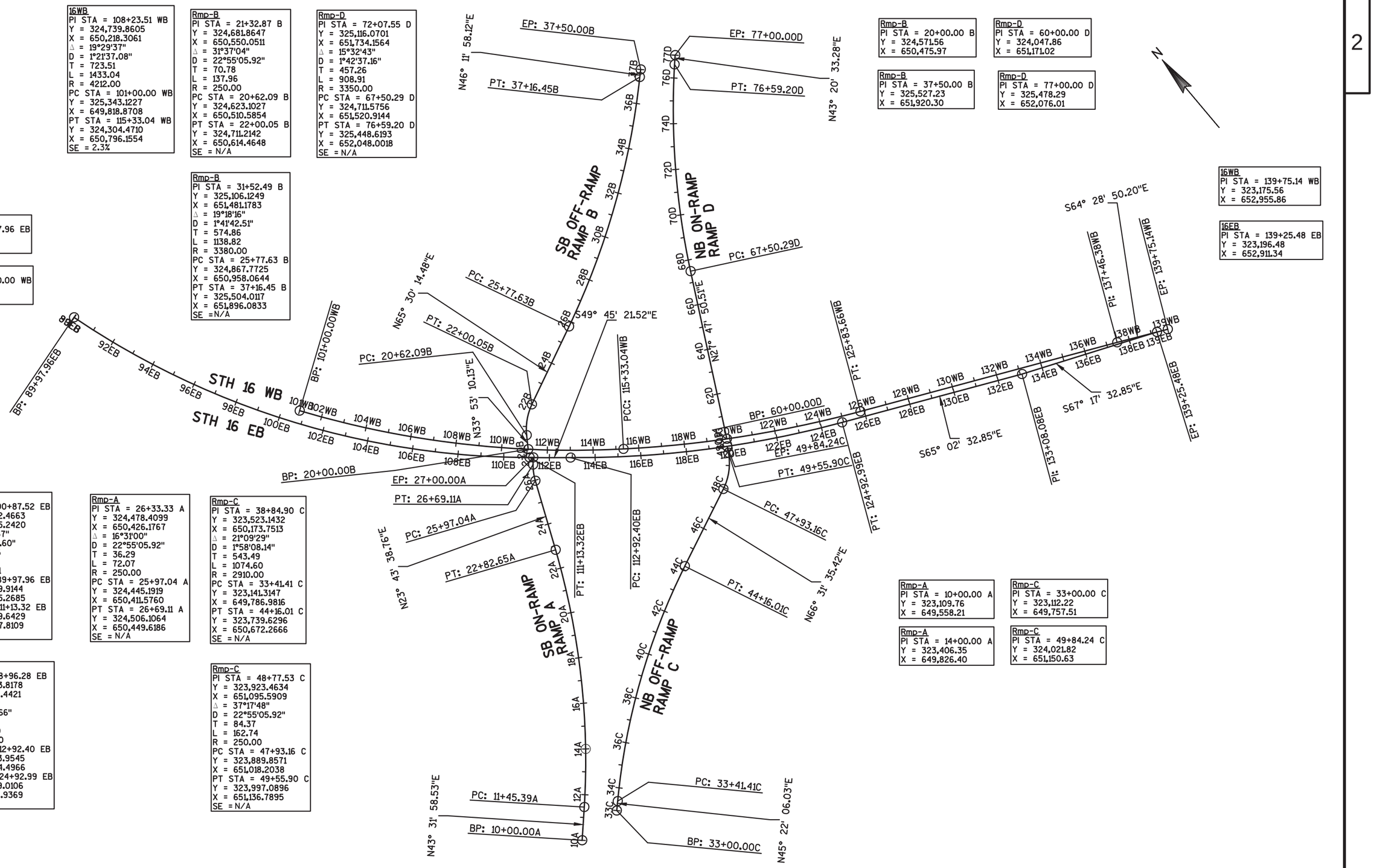
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 4 - PAVEMENT MARKING (SHEET 4-6)	SHEET 185	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\PM - 025004_TC_STAGE4_2.DWG
LAYOUT NAME - SHEET - (1)

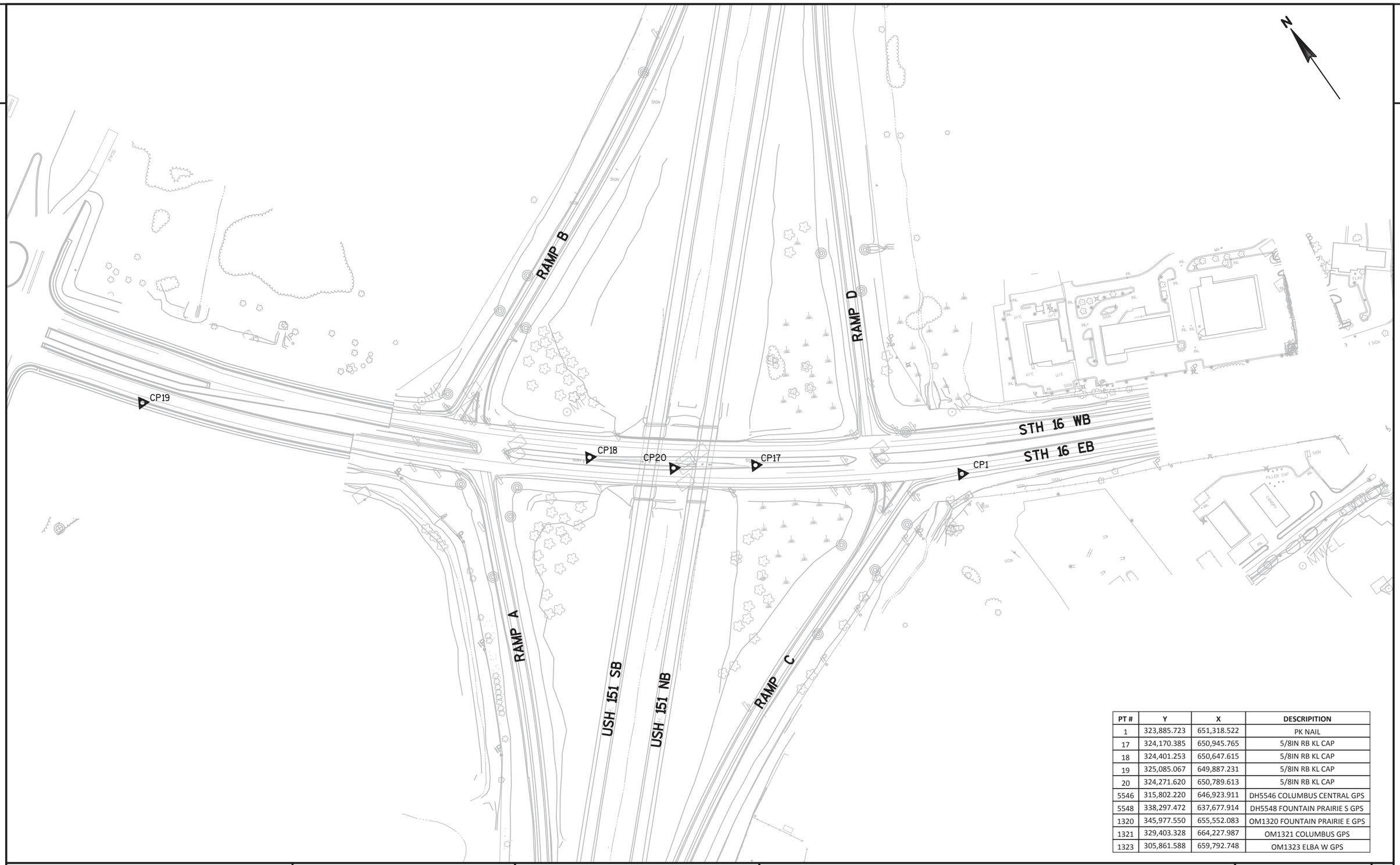
PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	ALIGNMENT DIAGRAM	SHEET 186	E



PT #	Y	X	DESCRIPITION
1	323,885.723	651,318.522	PK NAIL
17	324,170.385	650,945.765	5/8IN RB KL CAP
18	324,401.253	650,647.615	5/8IN RB KL CAP
19	325,085.067	649,887.231	5/8IN RB KL CAP
20	324,271.620	650,789.613	5/8IN RB KL CAP
5546	315,802.220	646,923.911	DH5546 COLUMBUS CENTRAL GPS
5548	338,297.472	637,677.914	DH5548 FOUNTAIN PRAIRIE S GPS
1320	345,977.550	655,552.083	OM1320 FOUNTAIN PRAIRIE E GPS
1321	329,403.328	664,227.987	OM1321 COLUMBUS GPS
1323	305,861.588	659,792.748	OM1323 ELBA W GPS

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CONTROL POINT SHEET	SHEET 187	E

1401-02-74

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	4.000	4.000
0004	204.0100	Removing Pavement	SY	17,400.000	17,400.000
0006	204.0150	Removing Curb & Gutter	LF	2,700.000	2,700.000
0008	204.0165	Removing Guardrail	LF	350.000	350.000
0010	204.0180	Removing Delineators and Markers	EACH	4.000	4.000
0012	204.0210	Removing Manholes	EACH	3.000	3.000
0014	204.0220	Removing Inlets	EACH	8.000	8.000
0016	204.0245	Removing Storm Sewer (size) 001. 12-Inch	LF	61.000	61.000
0018	204.0245	Removing Storm Sewer (size) 002. 18-Inch	LF	266.000	266.000
0020	204.0245	Removing Storm Sewer (size) 003. 24-Inch	LF	449.000	449.000
0022	204.0245	Removing Storm Sewer (size) 005. 36-Inch	LF	278.000	278.000
0024	205.0100	Excavation Common	CY	30,824.000	30,824.000
0026	208.0100	Borrow	CY	658.000	658.000
0028	213.0100	Finishing Roadway (project) 001. 1401-02-74	EACH	1.000	1.000
0030	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,350.000	1,350.000
0032	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	17,500.000	17,500.000
0034	312.0110	Select Crushed Material	TON	17,000.000	17,000.000
0036	405.0100	Coloring Concrete WisDOT Red	CY	150.000	150.000
0038	415.0095	Concrete Pavement 9 1/2-Inch	SY	19,000.000	19,000.000
0040	415.0210	Concrete Pavement Gaps	EACH	4.000	4.000
0042	415.1095	Concrete Pavement HES 9 1/2-Inch	SY	275.000	275.000
0044	415.6000.S	Rout and Seal	LF	4,400.000	4,400.000
0046	416.0512	Concrete Truck Apron 12-Inch	SY	430.000	430.000
0048	416.0610	Drilled Tie Bars	EACH	730.000	730.000
0050	416.0620	Drilled Dowel Bars	EACH	185.000	185.000
0052	440.4410	Incentive IRI Ride	DOL	2,800.000	2,800.000
0054	460.2000	Incentive Density HMA Pavement	DOL	270.000	270.000
0056	460.5224	HMA Pavement 4 LT 58-28 S	TON	380.000	380.000
0058	465.0125	Asphaltic Surface Temporary	TON	2,360.000	2,360.000
0060	465.0315	Asphaltic Flumes	SY	130.000	130.000
0062	522.0324	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	128.000	128.000
0064	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	1.000	1.000
0066	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	3.000	3.000
0068	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	3.000	3.000
0070	522.1036	Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	EACH	2.000	2.000
0072	524.0624	Apron Endwalls for Culvert Pipe Salvaged 24-Inch	EACH	7.000	7.000
0074	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	6,400.000	6,400.000

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Line	Item	Item Description	Unit	Total	Qty
0076	601.0551	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type A	LF	250.000	250.000
0078	601.0555	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type A	LF	1,650.000	1,650.000
0080	602.0410	Concrete Sidewalk 5-Inch	SF	36,400.000	36,400.000
0082	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	163.000	163.000
0084	604.0500	Slope Paving Crushed Aggregate	SY	110.000	110.000
0086	606.0200	Riprap Medium	CY	26.000	26.000
0088	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	159.000	159.000
0090	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	804.000	804.000
0092	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	324.000	324.000
0094	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	764.000	764.000
0096	608.0336	Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	LF	243.000	243.000
0098	611.0535	Manhole Covers Type J-Special	EACH	8.000	8.000
0100	611.0624	Inlet Covers Type H	EACH	38.000	38.000
0102	611.0627	Inlet Covers Type HM	EACH	9.000	9.000
0104	611.0636	Inlet Covers Type HM-S	EACH	1.000	1.000
0106	611.0639	Inlet Covers Type H-S	EACH	2.000	2.000
0108	611.2004	Manholes 4-FT Diameter	EACH	9.000	9.000
0110	611.2005	Manholes 5-FT Diameter	EACH	8.000	8.000
0112	611.2006	Manholes 6-FT Diameter	EACH	1.000	1.000
0114	611.3230	Inlets 2x3-FT	EACH	40.000	40.000
0116	611.8120.S	Cover Plates Temporary	EACH	10.000	10.000
0118	616.0100	Fence Woven Wire (height) 001. 4-FT	LF	100.000	100.000
0120	618.0100	Maintenance And Repair of Haul Roads (project) 001. 1401-02-74	EACH	1.000	1.000
0122	619.1000	Mobilization	EACH	1.000	1.000
0124	620.0200	Concrete Median Blunt Nose	SF	70.000	70.000
0126	620.0300	Concrete Median Sloped Nose	SF	130.000	130.000
0128	623.0200	Dust Control Surface Treatment	SY	5,000.000	5,000.000
0130	624.0100	Water	MGAL	630.000	630.000
0132	625.0500	Salvaged Topsoil	SY	39,500.000	39,500.000
0134	627.0200	Mulching	SY	33,040.000	33,040.000
0136	628.1104	Erosion Bales	EACH	65.000	65.000
0138	628.1504	Silt Fence	LF	9,800.000	9,800.000
0140	628.1520	Silt Fence Maintenance	LF	19,600.000	19,600.000
0142	628.1905	Mobilizations Erosion Control	EACH	14.000	14.000
0144	628.1910	Mobilizations Emergency Erosion Control	EACH	6.000	6.000

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Line	Item	Item Description	Unit	Total	Qty
0146	628.2002	Erosion Mat Class I Type A	SY	26,100.000	26,100.000
0148	628.2004	Erosion Mat Class I Type B	SY	1,550.000	1,550.000
0150	628.7005	Inlet Protection Type A	EACH	62.000	62.000
0152	628.7015	Inlet Protection Type C	EACH	57.000	57.000
0154	628.7020	Inlet Protection Type D	EACH	2.000	2.000
0156	628.7504	Temporary Ditch Checks	LF	80.000	80.000
0158	628.7555	Culvert Pipe Checks	EACH	15.000	15.000
0160	628.7560	Tracking Pads	EACH	15.000	15.000
0162	629.0210	Fertilizer Type B	CWT	26.000	26.000
0164	630.0120	Seeding Mixture No. 20	LB	855.000	855.000
0166	630.0200	Seeding Temporary	LB	460.000	460.000
0168	633.5200	Markers Culvert End	EACH	16.000	16.000
0170	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	8.000	8.000
0172	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	25.000	25.000
0174	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	19.000	19.000
0176	637.2210	Signs Type II Reflective H	SF	595.670	595.670
0178	637.2215	Signs Type II Reflective H Folding	SF	44.760	44.760
0180	637.2230	Signs Type II Reflective F	SF	18.000	18.000
0182	638.2602	Removing Signs Type II	EACH	59.000	59.000
0184	638.3000	Removing Small Sign Supports	EACH	69.000	69.000
0186	642.5001	Field Office Type B	EACH	1.000	1.000
0188	643.0100	Traffic Control (project) 001. 1401-02-74	EACH	1.000	1.000
0190	643.0300	Traffic Control Drums	DAY	76,400.000	76,400.000
0192	643.0410	Traffic Control Barricades Type II	DAY	430.000	430.000
0194	643.0420	Traffic Control Barricades Type III	DAY	6,950.000	6,950.000
0196	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	160.000	160.000
0198	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	150.000	150.000
0200	643.0705	Traffic Control Warning Lights Type A	DAY	13,900.000	13,900.000
0202	643.0715	Traffic Control Warning Lights Type C	DAY	10,170.000	10,170.000
0204	643.0800	Traffic Control Arrow Boards	DAY	215.000	215.000
0206	643.0900	Traffic Control Signs	DAY	6,300.000	6,300.000
0208	643.0920	Traffic Control Covering Signs Type II	EACH	5.000	5.000
0210	645.0120	Geotextile Type HR	SY	50.000	50.000
0212	645.0220	Geogrid Type SR	SY	28,700.000	28,700.000
0214	646.0106	Pavement Marking Epoxy 4-Inch	LF	26,550.000	26,550.000
0216	646.0126	Pavement Marking Epoxy 8-Inch	LF	1,750.000	1,750.000
0218	646.0600	Removing Pavement Markings	LF	48,000.000	48,000.000
0220	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	16.000	16.000
0222	647.0206	Pavement Marking Arrows Bike Lane Epoxy	EACH	17.000	17.000
0224	647.0306	Pavement Marking Symbols Bike Lane Epoxy	EACH	17.000	17.000

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Line	Item	Item Description	Unit	Total	Qty
0226	647.0356	Pavement Marking Words Epoxy	EACH	8.000	8.000
0228	647.0456	Pavement Marking Curb Epoxy	LF	240.000	240.000
0230	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	165.000	165.000
0232	647.0606	Pavement Marking Island Nose Epoxy	EACH	7.000	7.000
0234	647.0726	Pavement Marking Diagonal Epoxy 12-Inch	LF	75.000	75.000
0236	647.0766	Pavement Marking Crosswalk Epoxy 6-Inch	LF	380.000	380.000
0238	647.0955	Removing Pavement Markings Arrows	EACH	26.000	26.000
0240	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	43,600.000	43,600.000
0242	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	18,750.000	18,750.000
0244	649.0600	Temporary Pavement Marking Removable Tape 6-Inch	LF	560.000	560.000
0246	649.0801	Temporary Pavement Marking Removable Tape 8-Inch	LF	4,650.000	4,650.000
0248	649.0802	Temporary Pavement Marking Paint 8-Inch	LF	1,710.000	1,710.000
0250	649.1100	Temporary Pavement Marking Stop Line 18-Inch	LF	210.000	210.000
0252	649.1200	Temporary Pavement Marking Stop Line Removable Tape 18-Inch	LF	265.000	265.000
0254	649.1800	Temporary Pavement Marking Arrows Removable Tape	EACH	18.000	18.000
0256	649.1802	Temporary Pavement Marking Arrows Paint	EACH	9.000	9.000
0258	649.2000	Temporary Pavement Marking Words Removable Tape	EACH	9.000	9.000
0260	649.2002	Temporary Pavement Marking Words Paint	EACH	9.000	9.000
0262	650.4000	Construction Staking Storm Sewer	EACH	66.000	66.000
0264	650.4500	Construction Staking Subgrade	LF	9,930.000	9,930.000
0266	650.5000	Construction Staking Base	LF	4,800.000	4,800.000
0268	650.7000	Construction Staking Concrete Pavement	LF	5,130.000	5,130.000
0270	650.8500	Construction Staking Electrical Installations (project) 001. 1401-02-74	LS	1.000	1.000
0272	650.9910	Construction Staking Supplemental Control (project) 001. 1401-02-74	LS	1.000	1.000
0274	650.9920	Construction Staking Slope Stakes	LF	8,350.000	8,350.000
0276	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	4,407.000	4,407.000
0278	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	2,292.000	2,292.000
0280	652.0240	Conduit Rigid Nonmetallic Schedule 40 4-Inch	LF	130.000	130.000
0282	652.0700.S	Install Conduit into Existing Item	EACH	2.000	2.000
0284	652.0800	Conduit Loop Detector	LF	1,928.000	1,928.000
0286	654.0101	Concrete Bases Type 1	EACH	4.000	4.000
0288	654.0102	Concrete Bases Type 2	EACH	3.000	3.000
0290	654.0105	Concrete Bases Type 5	EACH	10.000	10.000
0292	654.0110	Concrete Bases Type 10	EACH	2.000	2.000
0294	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	1.000	1.000
0296	655.0230	Cable Traffic Signal 5-14 AWG	LF	1,285.000	1,285.000
0298	655.0240	Cable Traffic Signal 7-14 AWG	LF	431.000	431.000

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Line	Item	Item Description	Unit	Total	Qty
0300	655.0260	Cable Traffic Signal 12-14 AWG	LF	838.000	838.000
0302	655.0305	Cable Type UF 2-12 AWG Grounded	LF	736.000	736.000
0304	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	1,226.000	1,226.000
0306	655.0610	Electrical Wire Lighting 12 AWG	LF	1,842.000	1,842.000
0308	655.0635	Electrical Wire Lighting 2 AWG	LF	5,061.000	5,061.000
0310	655.0700	Loop Detector Lead In Cable	LF	2,534.000	2,534.000
0312	655.0800	Loop Detector Wire	LF	3,314.000	3,314.000
0314	657.0100	Pedestal Bases	EACH	4.000	4.000
0316	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	3.000	3.000
0318	657.0315	Poles Type 4	EACH	3.000	3.000
0320	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	3.000	3.000
0322	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	1.000	1.000
0324	657.0614	Luminaire Arms Single Member 4-Inch Clamp 8-FT	EACH	4.000	4.000
0326	657.1345	Install Poles Type 9	EACH	1.000	1.000
0328	657.1350	Install Poles Type 10	EACH	1.000	1.000
0330	657.1530	Install Monotube Arms 30-FT	EACH	2.000	2.000
0332	657.1808	Install Luminaire Arms Steel 8-FT	EACH	2.000	2.000
0334	658.0110	Traffic Signal Face 3-12 Inch Vertical	EACH	11.000	11.000
0336	658.0115	Traffic Signal Face 4-12 Inch Vertical	EACH	3.000	3.000
0338	658.0215	Backplates Signal Face 3 Section 12-Inch	EACH	11.000	11.000
0340	658.0220	Backplates Signal Face 4 Section 12-Inch	EACH	3.000	3.000
0342	658.0416	Pedestrian Signal Face 16-Inch	EACH	4.000	4.000
0344	658.0500	Pedestrian Push Buttons	EACH	4.000	4.000
0346	658.0600	Led Modules 12-Inch Red Ball	EACH	11.000	11.000
0348	658.0605	Led Modules 12-Inch Yellow Ball	EACH	9.000	9.000
0350	658.0610	Led Modules 12-Inch Green Ball	EACH	9.000	9.000
0352	658.0615	Led Modules 12-Inch Red Arrow	EACH	3.000	3.000
0354	658.0620	Led Modules 12-Inch Yellow Arrow	EACH	8.000	8.000
0356	658.0625	Led Modules 12-Inch Green Arrow	EACH	5.000	5.000
0358	658.0635	Led Modules Pedestrian Countdown Timer 16-Inch	EACH	4.000	4.000
0360	658.5069	Signal Mounting Hardware (location) 001. STH 16 & USH 151 NB Ramps	LS	1.000	1.000
0362	659.1120	Luminaires Utility LED B	EACH	6.000	6.000
0364	661.0200	Temporary Traffic Signals for Intersections (location) 001. STH 16 & USH 151 NB Ramps	LS	1.000	1.000
0366	670.0100	Field System Integrator	LS	1.000	1.000
0368	670.0200	ITS Documentation	LS	1.000	1.000
0370	673.0105	Communication Vault Type 1	EACH	3.000	3.000
0372	675.0400.S	Install Ethernet Switch	EACH	2.000	2.000
0374	678.0012	Install Fiber Optic Cable Outdoor Plant 12-CT	LF	2,945.000	2,945.000

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Line	Item	Item Description	Unit	Total	Qty
0376	678.0400	Fiber Optic Termination	EACH	24.000	24.000
0378	678.0500	Communication System Testing	LS	1.000	1.000
0380	690.0150	Sawing Asphalt	LF	1,880.000	1,880.000
0382	690.0250	Sawing Concrete	LF	1,180.000	1,180.000
0384	715.0415	Incentive Strength Concrete Pavement	DOL	5,700.000	5,700.000
0386	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	500.000	500.000
0388	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	350.000	350.000
0390	SPV.0060	Special 001. Utility Line Opening (ULO)	EACH	10.000	10.000
0392	SPV.0060	Special 010. Pull Box Non-Conductive 24X36-Inch	EACH	11.000	11.000
0394	SPV.0060	Special 011. Pull Box Non-Conductive 24X42-Inch	EACH	23.000	23.000
0396	SPV.0060	Special 101. Transformer Base Breakaway-Black 11 1/2-Inch Bolt Circle	EACH	10.000	10.000
0398	SPV.0060	Special 102. Poles Type 5 Aluminum-Black	EACH	10.000	10.000
0400	SPV.0060	Special 103. Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT-BLK	EACH	10.000	10.000
0402	SPV.0060	Special 104. Luminaire Utility LED-Black 139 Watt	EACH	10.000	10.000
0404	SPV.0090	Special 010. Fiber Optic Tracer Cable	LF	2,025.000	2,025.000
0406	SPV.0090	Special 011. Fiber Optic Warning Tape	LF	1,915.000	1,915.000
0408	SPV.0090	Special 012. Pipe Underdrain 6-Inch With Geotextile Fabric And Aggregate	LF	450.000	450.000
0410	SPV.0105	Special 003. Concrete Pavement Joint Layout	LS	1.000	1.000
0412	SPV.0105	Special 011. Traffic Signal Systems Integrator (1401-02-74)	LS	1.000	1.000
0414	SPV.0105	Special 012. Install Fiber Optic Communications In Cabinet (STH 16 & USH 151 NB Ramps)	LS	1.000	1.000
0416	SPV.0105	Special 013. Install Fiber Optic Communications In Cabinet (STH 16 & STH 60)	LS	1.000	1.000
0418	SPV.0120	Special 001. Water For Seeded Areas	MGAL	4,500.000	4,500.000
0420	SPV.0165	Special 001. Wall Modular Block Gravity LRFD	SF	905.000	905.000
0422	SPV.0165	Special 002. Concrete Sidewalk 12-INCH	SF	1,280.000	1,280.000
0424	SPV.0170	Special 001. Pavement Cleanup Project 1401-02-74	STA	90.000	90.000

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REMOVING PAVEMENT

CATEGORY	STAGE	STATION TO STATION	204.0100 REMOVING PAVEMENT (SY)
0010	STAGE 1		
		STH 16 (WESTBOUND)	
		119+74 WB - 127+00 WB	37
		STH 16 (EASTBOUND)	
		108+09 EB - 111+20 EB	17
		111+20 EB - 119+70 EB	114
		119+70 EB - 127+00 EB	814
	STAGE 1 TOTAL		982
	STAGE 2		
		STH 16 (WESTBOUND)	
		108+98 WB - 111+30 WB	968
		111+30 WB - 119+74 WB	3,487
		119+74 WB - 127+00 WB	2,514
		RAMP B	
		20+34 B - 24+75 B	1005
		RAMP D	
		60+32 D - 63+50 D	710
	STAGE 2 TOTAL		8,684
	STAGE 3		
		STH 16 (EASTBOUND)	
		108+09 EB - 111+20 EB	1,206
		111+20 EB - 119+70 EB	2,948
		119+70 EB - 127+00 EB	1,888
		RAMP A	
		24+50 A - 26+66 A	477
		RAMP C	
		44+11 C - 49+56 C	1,215
	STAGE 3 TOTAL		7,734
PROJECT 1401-02-74 TOTALS			**17,400**

REMOVING GUARDRAIL

CATEGORY	STATION TO STATION	LOCATION	204.0165 (LF)
0010	STH 16 (WESTBOUND)		
	113+75 'WB' - 117+25 'WB'	RT	350
PROJECT 1401-02-74 TOTALS			**350**

REMOVING CURB AND GUTTER

CATEGORY	STAGE	STATION TO STATION	204.0150 REMOVING CURB AND GUTTER (LF)
0010	STAGE 1		
		STH 16 (WESTBOUND)	
		108+98 WB - 111+30 WB	381
		119+74 WB - 127+00 WB	588
		STH 16 (EASTBOUND)	
		108+09 EB - 111+20 EB	502
		111+20 EB - 119+70 EB	380
		119+70 EB - 127+00 EB	154
		RAMP B	
		20+34 B - 24+75 B	188
		RAMP C	
		44+11 C - 49+56 C	213
	STAGE 1 TOTAL		2,405
	STAGE 2		
		STH 16 (WESTBOUND)	
		111+30 WB - 119+74 WB	295
	STAGE 2 TOTAL		295
PROJECT 1401-02-74 TOTALS			**2,700**

REMOVING MANHOLES AND INLETS

CATEGORY	STATION	OFFSET	204.0210 REMOVING MANHOLES (EACH)	204.0220 REMOVING INLETS (EACH)
0010	STH 16 (WESTBOUND)			
	111+99 'WB'	11' RT	---	1
	116+12 'WB'	1' RT	---	1
	120+22 'WB'	1' RT	---	1
	STH 16 (EASTBOUND)			
	110+71 'EB'	18' LT	1	---
	111+90 'EB'	2' RT	1	---
	114+67 'EB'	4' LT	1	---
	115+74 'EB'	12' LT	---	1
	115+75 'EB'	37' RT	---	1
	115+76 'EB'	1' LT	---	1
	120+17 'EB'	8' LT	---	1
	RAMP C			
	48+95 'C'	43' RT	---	1
PROJECT 1401-02-74 TOTALS			**3**	**8**

REMOVING SMALL PIPE CULVERTS

CATEGORY	STAGE	STATION TO STATION	203.0100 (EACH)	NOTES
0010	STAGE 2			
		RAMP B		
		22+83 B 55-FT LT	1	REMOVE 16-FT LT & RT
		RAMP D		
		64+60 D 40-FT LT	1	REMOVE 16-FT LT & RT
	STAGE 2 TOTAL		2	
	STAGE 3			
		RAMP A		
		25+59 A 26-FT RT	1	REMOVE 16-FT LT & RT
		RAMP C		
		47+85 C 35-FT LT	1	REMOVE 16-FT LT & RT
	STAGE 3 TOTAL		2	
PROJECT 1401-02-74 TOTALS			**4**	

REMOVING DELINEATORS AND MARKERS

CATEGORY	STATION	OFFSET	204.0180 (EACH)
0040	RAMP A		
	25+83 'A'	49' LT	1
	RAMP B		
	22+83 'B'	23' RT	1
	22+83 'B'	49' LT	1
	RAMP C		
	47+85 'C'	25' LT	1
PROJECT 1401-02-74 TOTALS			**4**

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REMOVE STORM SEWER

CATEGORY	STAGE	STATION TO STATION	204.0245.001 12-INCH (LF)	204.0245.002 18-INCH (LF)	204.0245.003 24-INCH (LF)	204.0245.004 36-INCH (SF)
0010	STAGE 2					
		STH 16 (WESTBOUND)				
		108+98 WB - 111+30 WB	---	---	---	81
		111+30 WB - 119+74 WB	61	---	---	---
		RAMP B				
		20+34 B - 24+75 B	---	---	---	106
		RAMP C				
		44+11 C - 49+56 C	---	---	---	---
	STAGE 2 TOTAL		61	---	---	187
	STAGE 3					
		STH 16 (WESTBOUND)				
		108+98 WB - 111+30 WB	---	---	---	91
		111+30 WB - 119+74 WB	---	51	449	---
		RAMP C				
		44+11 C - 49+56 C	---	215	---	---
	STAGE 3 TOTAL		---	266	449	91
PROJECT 1401-02-74 TOTALS			**61**	**266**	**449**	**278**

EARTHWORK

CATEGORY	STAGE	DIVISION	LOCATION	STATION - STATION	205.0100 Excavation Common (1) Cut (2) (CY)	205.0100 Excavation Common (1) EBS Excavation (3) (CY)	Salvaged/ Unusable Pavement Material (4) (CY)	Available Material (5) (CY)	Reduced EBS in Fill (8) Factor 0.80 (CY)	Unexpanded Fill (CY)	Expanded Fill (10) Factor 1.25 (CY)	Mass Ordinate +/- (11) (CY)	Waste (CY)	208.0100 Borrow (CY)
0010	1	1	STH 16 EB/WB	103+87EB - 108+77EB	709	35	---	709	28	---	-35	745	745	
				109+85EB - 111+00EB	96	5	---	96	4	---	-5	100	100	
				111+55EB - 115+34EB	202	10	---	202	8		-10	212	212	
				119+95EB - 122+05EB	190	10	---	190	8	---	-10	200	200	
				125+91EB - 128+53EB	256	13	---	256	10	---	-13	269	269	
			RAMP A	18+50A - 26+39A	355	18	---	355	14	1032	1,272	-918	---	
			RAMP B	20+44B - 30+46B	507	---	---	507	---	1291	1,614	-1,107	---	
			RAMP C	42+39C - 49+46C	311	16	---	311	12	89	95	216	216	
			RAMP D	60+48D - 68+70D	342	17	---	342	14	588	717	-375	0	
		Sub-total 1			2,968	123	---	2,968	98	2,999	3,626	-658	0	658
0010	2	2	STH 16 EB/WB	108+90EB - 127+00EB	6,801	340	1,206	5,595	272	1,530	1,573	4,022	4,022	
				108+99EB - 110+39EB	28	1	---	28	1	33	40	-12	---	
				110+95EB - 111+57EB	9		---	9		8	9	-1	---	
				118+17EB - 120+00EB	223	11	---	223	9	---	-11	234	234	
			RAMP B	20+46B - 30+46B	3,109	155	593	2,516	124	313	236	2,280	2,280	
			RAMP D	60+30D - 68+70D	3,311	166	498	2,813	132	201	86	2,727	2,727	
		Sub-total 2			13,480	674	2,297	11,184	539	2,086	1,934	9,250	9,250	---
0010	3	3	STH 16 EB/WB	107+80EB - 128+16EB	5,906	295	1,357	4,548	236	2,417	2,725	1,823	1,823	
			RAMP A	18+50A - 26+72A	1,384	69	146	1,238	55	402	433	805	805	
			RAMP C	42+39C - 49+54C	2,777	139	314	2,464	111	467	445	2,019	2,019	
		Sub-total 3			10,067	503	1,817	8,250	403	3,285	3,603	4,646	4,646	---
0010	4	4	STH 16 EB/WB	103+87EB - 107+93EB	---	---	---	---	---	648	809	-809	---	
				107+93EB - 127+00EB	2,865	143	---	2,865	115	619	631	2,234	2,234	
				127+00EB - 128+53EB	---	---	---	---	---	140	175	-175	---	
		Sub-total 4			2,865	143	---	2,865	115	1,407	1,615	1,250	1,250	---
Grand Totals					29,381	1,444	4,114	25,267	1,155	9,778	10,778	14,489	15,146	658
Total Excavation Common					**30,824**									

1) Common Excavation is the sum of the Cut and EBS Excavation columns

2) Salvaged/Unsuable Pavement Material is included in Cut

3) EBS Excavation to be backfilled with Select Crush Material

4) Salvaged/Unusable Pavement Material

5) Available Material = Cut - Salvaged/Unusable Pavement Material

8) Reduced EBS in Fill - Excavated EBS material is usuable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8

10) Expanded Fill. Factor = 1.25

11) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

BASE AGGREGATE DENSE

CATEGORY	STAGE	STATION TO STATION	305.0110 3/4-INCH (TON)	305.0120 1 1/4-INCH (TON)
0010	STAGE 1			
		STH 16 (WESTBOUND)		
		108+98 WB - 111+30 WB	---	223
		111+30 WB - 119+74 WB	---	80
		119+74 WB - 127+00 WB	---	173
		STH 16 (EASTBOUND)		
		108+09 EB - 111+20 EB	---	740
		111+20 EB - 119+70 EB	---	297
		119+70 EB - 127+00 EB	---	426
		RAMP A		
		24+50 A - 26+66 A	18	918
		RAMP B		
		20+34 B - 24+75 B	22	1288
		RAMP C		
		44+11 C - 49+56 C	15	490
		RAMP D		
		60+32 D - 63+50 D	19	819
	STAGE 1 TOTAL		73	5,454
	STAGE 2			
		STH 16 (WESTBOUND)		
		108+98 WB - 111+30 WB	33	557
		111+30 WB - 119+74 WB	142	1,482
		119+74 WB - 127+00 WB	132	1,316
		RAMP B		
		20+34 B - 24+75 B	71	1,607
		RAMP D		
		60+32 D - 63+50 D	57	1,085
	STAGE 2 TOTAL		436	6,047
	STAGE 3			
		STH 16 (EASTBOUND)		
		108+09 EB - 111+20 EB	61	603
		111+20 EB - 119+70 EB	165	1,202
		119+70 EB - 127+00 EB	142	909
		RAMP A		
		24+50 A - 26+66 A	56	1012
		RAMP C		
		44+11 C - 49+56 C	57	1,547
	STAGE 3 TOTAL		481	5,273
	STAGE 4			
		STH 16 (WESTBOUND)		
		111+30 WB - 119+74 WB	360	---
		STH 16 (EASTBOUND)		
		108+09 EB - 111+20 EB	---	177
		111+20 EB - 119+70 EB	---	267
		119+70 EB - 127+00 EB	---	283
	STAGE 4 TOTAL		360	726
PROJECT 1401-02-74 TOTALS			**1,350**	**17,500**

SELECT CRUSHED MATERIAL

CATEGORY	STAGE	STATION TO STATION	312.0110 (TON)
0010	STAGE 2		
		STH 16 (WESTBOUND)	
		108+98 WB - 111+30 WB	776
		111+30 WB - 119+74 WB	2,150
		119+74 WB - 127+00 WB	1,821
		RAMP B	
		20+34 B - 24+75 B	1,242
		RAMP D	
		60+32 D - 63+50 D	683
		EXCAVATION BELOW SUBGRADE (EBS)	1,180
	STAGE 2 TOTAL		7,852
	STAGE 3		
		STH 16 (EASTBOUND)	
		108+09 EB - 111+20 EB	1,059
		111+20 EB - 119+70 EB	2,084
		119+70 EB - 127+00 EB	1,573
		RAMP A	
		24+50 A - 26+66 A	478
		RAMP C	
		44+11 C - 49+56 C	1,502
		EXCAVATION BELOW SUBGRADE (EBS)	875
	STAGE 3 TOTAL		7,571
	STAGE 4		
		STH 16 (WESTBOUND)	
		108+98 WB - 111+30 WB	57
		STH 16 (EASTBOUND)	
		108+09 EB - 111+20 EB	308
		111+20 EB - 119+70 EB	467
		119+70 EB - 127+00 EB	496
		EXCAVATION BELOW SUBGRADE (EBS)	249
	STAGE 4 TOTAL		1,577
PROJECT 1401-02-74 TOTALS			**17,000**

ROUT AND SEAL

CATEGORY	STAGE	STATION TO STATION	415.6000.S (LF)
0010	STAGE 2		
		RAMP B	
		20+34 B - 24+75 B	1,241
		RAMP D	
		60+32 D - 63+50 D	1,026
	STAGE 2 TOTAL		2,267
	STAGE 3		
		RAMP A	
		24+50 A - 26+66 A	970
		RAMP C	
		44+11 C - 49+56 C	1,163
	STAGE 3 TOTAL		2,133
PROJECT 1401-02-74 TOTALS			**4,400**

CONCRETE PAVEMENT

CATEGORY	STAGE	STATION TO STATION	405.0100 COLORING CONCRETE WISDOT RED (CY)	415.0095 CONCRETE PAVEMENT 9 1/2-INCH (SY)	415.0210 CONCRETE PAVEMENT GAPS (EACH)	415.1095 CONCRETE PAVEMENT HES 9 1/2-INCH (SY)	416.0512 CONCRETE TRUCK APRON 12-INCH (SY)	416.0610 DRILLED TIE BARS (EACH)	416.0620 DRILLED DOWEL BARS (EACH)
0010	STAGE 2								
		STH 16 (WESTBOUND)							
		108+98 WB - 111+30 WB	---	1,219	1	---	---	59	41
		111+30 WB - 119+74 WB	150	3,250	---	---	430	---	---
		119+74 WB - 127+00 WB	---	2,801	1	---	---	51	28
		RAMP B							
		20+34 B - 24+75 B	---	1,569	---	---	---	---	14
		RAMP D							
		60+32 D - 63+50 D	---	761	---	---	---	---	14
	STAGE 2 TOTAL		150	9,600	2	---	430	110	97
	STAGE 3								
		STH 16 (EASTBOUND)							
		108+09 EB - 111+20 EB	---	1,577	1	---	---	581	35
		111+20 EB - 119+70 EB	---	3,156	---	---	---	---	---
		119+70 EB - 127+00 EB	---	2,339	1	---	---	39	25
		RAMP A							
		24+50 A - 26+66 A	---	534	---	---	---	---	14
		RAMP C							
		44+11 C - 49+56 C	---	1,794	---	---	---	---	14
	STAGE 3 TOTAL		---	9,400	2	---	---	620	88
	UNDISTRIBUTED		---	---	---	275	---	---	---
PROJECT 1401-02-74 TOTALS			**150**	**19,000**	**4**	**275**	**430**	**730**	**185**

ASPHALTIC ITEMS

CATEGORY	STAGE	STATION TO STATION	460.5224 HMA PAVEMENT 4 LT 58-28 S (TON)	465.0125 ASPHALTIC SURFACE TEMPORARY (TON)	465.0315 ASPHALTIC FLUMES (SY)
0010	STAGE 1				
		STH 16 (WESTBOUND)			
		108+98 WB - 111+30 WB	---	82	---
		111+30 WB - 119+74 WB	---	23	---
		119+74 WB - 127+00 WB	---	61	---
		STH 16 (EASTBOUND)			
		108+09 EB - 111+20 EB	---	295	---
		111+20 EB - 119+70 EB	---	112	---
		119+70 EB - 127+00 EB	---	165	---
		RAMP A			
		24+50 A - 26+66 A	---	366	---
		RAMP B			
		20+34 B - 24+75 B	---	531	---
		RAMP C			
		44+11 C - 49+56 C	---	180	---
		RAMP D			
		60+32 D - 63+50 D	---	327	---
	STAGE 1 TOTAL		---	2,142	---
	STAGE 2A				
		STH 16 (WESTBOUND)			
		108+98 WB - 111+30 WB	---	38	---
		111+30 WB - 119+74 WB	---	44	---
		119+74 WB - 127+00 WB	---	83	---
		RAMP B			
		20+34 B - 24+75 B	17	---	39
		RAMP D			
		60+32 D - 63+50 D	17	---	20
	SUBTOTAL STAGE 2A		34	165	59
	STAGE 2B				
		STH 16 (WESTBOUND)			
		119+74 WB - 127+00 WB	---	53	---
		RAMP B			
		20+34 B - 24+75 B	104	---	22
		RAMP D			
		60+32 D - 63+50 D	80	---	27
	SUBTTOTAL STAGE 2B		184	53	49
	STAGE 2 TOTAL		218	218	108

ASPHALTIC ITEMS (CONTINUED)

CATEGORY	STAGE	STATION TO STATION	460.5224 HMA PAVEMENT 4 LT 58-28 S (TON)	465.0125 ASPHALTIC SURFACE TEMPORARY (TON)	465.0315 ASPHALTIC FLUMES (SY)
	SUBTOTAL STAGE 1		0	2142	0
	SUBTOTAL STAGE 2		218	218	108
0010	STAGE 3A				
		RAMP A			
		24+50 A - 26+66 A	12	---	1
		RAMP C			
		44+11 C - 49+56 C	32	---	2
	SUBTOTAL STAGE 3A		44	---	3
	STAGE 3B				
		RAMP A			
		24+50 A - 26+66 A	86	---	19
		RAMP C			
		44+11 C - 49+56 C	32	---	---
	SUBTOTAL STAGE 3B		118	---	19
	STAGE 3 TOTAL		162	---	22
PROJECT 1401-02-74 TOTALS			**380**	**2,360**	**130**

CULVERTS

CATEGORY	STATION	OFFSET TO BEGINNING OF ENDWALL	522.0324 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH (LF)	522.1012 APRON ENDWALLS FOR CULVERT REINFORCED CONCRETE 12-INCH (EACH)	522.1018 APRON ENDWALLS FOR CULVERT REINFORCED CONCRETE 18-INCH (EACH)	522.1024 APRON ENDWALLS FOR CULVERT REINFORCED CONCRETE 24-INCH (EACH)	522.1036 APRON ENDWALLS FOR CULVERT REINFORCED CONCRETE 36-INCH (EACH)	524.0624 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 24-INCH (EACH)	633.5200 MARKERS CULVERT END (EACH)
0010	STH 16 (EASTBOUND)								
	110+03 EB	125' LT	---	---	---	---	1	---	1
	110+63 EB	81' RT	---	---	---	---	1	---	1
	111+32 EB	94' LT	---	---	1	---	---	---	1
	113+66 EB	95' LT	---	---	1	---	---	---	1
	118+52 EB	108' LT	---	---	---	1	---	---	1
	120+73 EB	115' LT	---	---	1	---	---	---	1
	122+33 EB	104' LT	---	---	---	1	---	---	1
	RAMP A								
	25+59 A	26' RT	16	---	---	---	---	1	1
	25+84 A	51' LT	16	---	---	---	---	1	1
	RAMP B								
	21+05 B	25' RT	---	1	---	---	---	---	1
	22+83 B	55' LT	16	---	---	1	---	---	1
	22+83 B	23' RT	16	---	---	---	---	1	1
	RAMP C								
	47+85 C	35' LT	16	---	---	---	---	1	1
	47+88 C	63' RT	16	---	---	---	---	1	1
	RAMP D								
	64+60 D	40' LT	16	---	---	---	---	1	1
	64+60 C	62' RT	16	---	---	---	---	1	1
PROJECT 1401-02-74 TOTALS			**128**	**1**	**3**	**3**	**2**	**7**	**16**

NOTE: PIPE JOINT TIES ARE INCIDETNAL TO CULVERT PIPE AND APRON ENDWALL INSTALLATION

CONCRETE CURB AND GUTTER

CATEGORY	STAGE	STATION TO STATION	601.0409 CONCRETE CURB AND GUTTER 30-INCH TYPE A (LF)	601.0551 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A (LF)	601.0555 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A (LF)	620.0200 CONCRETE MEDIAN BLUNT NOSE (SF)	620.0300 CONCRETE MEDIAN SLOPED NOSE (SF)
0010	STAGE 2						
		STH 16 (WESTBOUND)					
		108+98 WB - 111+30 WB	---	---	159	---	---
		111+30 WB - 119+74 WB	683	250	---	---	---
		119+74 WB - 127+00 WB	722	---	---	---	---
		RAMP A					
		24+50 A - 26+66 A	153	---	---	---	---
	STAGE 2 TOTAL		1,558	250	159	---	---
	STAGE 3						
		STH 16 (EASTBOUND)					
		108+09 EB - 111+20 EB	---	---	337	---	---
		111+20 EB - 119+70 EB	814	---	---	---	---
		119+70 EB - 127+00 EB	847	---	---	---	---
	STAGE 3 TOTAL		1,661	---	337	---	---
	STAGE 4						
		STH 16 (WESTBOUND)					
		108+98 WB - 111+30 WB	---	---	1,153	---	43
		111+30 WB - 119+74 WB	1,575	---	---	---	50
		119+74 WB - 127+00 WB	1,606	---	---	37	---
		STH 16 (EASTBOUND)					
		108+09 EB - 111+20 EB	---	---	---	33	---
		119+70 EB - 127+00 EB	---	---	---	---	37
	STAGE 4 TOTAL		3,181	---	1,153	70	130
PROJECT 1401-02-74 TOTALS			**6,400**	**250**	**1,650**	**70**	**130**

SLOPED PAVING CRUSHED AGGREGATE

CATEGORY	STAGE	STATION TO STATION	604.0500 (SY)
0010	STAGE 2		
		STH 16 (WESTBOUND)	
		114+43 WB - 117+07 WB	67
	STAGE 2 TOTAL		67
	STAGE 3		
		STH 16 (EASTBOUND)	
		114+49 EB - 116+24 EB	43
	STAGE 3 TOTAL		43
PROJECT 1401-02-74 TOTALS			**110**

CONCRETE SIDEWALK

CATEGORY	STAGE	STATION TO STATION	602.0410 CONCRETE SIDEWALK 5-INCH (SF)	602.0505 CURB RAMP DETECTABLE WARNING YELLOW (SF)	SPV.0165.002 CONCRETE SIDEWALK 12-INCH (SF)
0010	STAGE 2				
		STH 16 (WESTBOUND)			
		108+98 WB - 111+30 WB	768	67	---
		111+30 WB - 119+74 WB	4,572	26	1,280
		119+74 WB - 127+00 WB	4,025	15	---
	STAGE 2 TOTAL		9,365	108	1,280
	STAGE 3				
		STH 16 (WESTBOUND)			
		108+98 WB - 111+30 WB	1,850	16	---
		111+30 WB - 119+74 WB	5,603	24	---
		119+74 WB - 127+00 WB	4,750	15	---
	STAGE 3 TOTAL		12,203	55	---
	STAGE 4				
		STH 16 (WESTBOUND)			
		108+98 WB - 111+30 WB	672	---	---
		111+30 WB - 119+74 WB	13,829	---	---
		119+74 WB - 127+00 WB	331	---	---
	STAGE 4 TOTAL		14,832	---	---
PROJECT 1401-02-74 TOTALS			**36,400**	**163**	**1,280**

RIPRAP MEDIUM

CATEGORY	STAGE	STATION TO STATION	606.0200 RIPRAP MEDIUM (CY)	645.0120 GEOTEXTILE TYPE HR (SY)
0010	STAGE 2			
		RAMP B		
		20+34 B - 24+75 B	17	33
		RAMP D		
		60+32 D - 63+50 D	5	10
	STAGE 2 TOTAL		22	43
	STAGE 3			
		RAMP A		
		24+50 A - 26+66 A	1	2
		RAMP C		
		44+11 C - 49+56 C	3	5
	STAGE 3 TOTAL		4	7
PROJECT 1401-02-74 TOTALS			**26**	**50**

STRUCTURE SCHEDULE

CATEGORY	STAGE	STRUC. NO.	STATION	OFFSET TO CENTER OF STRUCTURE	CASTING ELEV.	TOP OF STR. ELEV.	BOTTOM OF STR. ELEV.	DEPTH	611.3230 INLETS 2X3-FT (EACH)	611.2004 MANHOLES 4-FT DIAMETER (EACH)	611.2005 MANHOLES 5-FT DIAMETER (EACH)	611.2006 MANHOLES 6-FT DIAMETER (EACH)	611.0624 INLET COVERS TYPE H (EACH)	611.0627 INLET COVERS TYPE HM (EACH)	611.0636 INLET COVERS TYPE HM-S (EACH)	611.0639 INLET COVERS TYPE H-S (EACH)	611.0535 MANHOLE COVERS TYPE J-SPECIAL (EACH)	650.4000 CONSTRUCTION STAKING STORM SEWER (EACH)
0010	STAGE 2																	
		1.0	110+03EB	125.2' LT	ENDWALL	---	---	---	---	---	---	---	---	---	---	---	---	1
		2.0	110+00EB	68.2' LT	850.07	848.82	840.48	8.34	---	---	---	1	---	---	---	---	1	1
		2.1	110+71EB	18.2' LT	852.24	850.99	840.91	10.08	---	---	1	---	---	---	---	---	1	1
		3.0	108+95EB	71.5' LT	849.54	848.29	844.01	4.28	---	1	---	---	---	---	---	---	1	1
		3.1	108+94EB	36.3' LT	850.23	849.31	844.46	4.86	1	---	---	---	---	1	---	---	---	1
		3.5	108+95EB	79.7' LT	849.29	848.37	844.32	4.05	1	---	---	---	---	1	---	---	---	1
		4.0	111+32EB	94.2' LT	ENDWALL	---	---	---	---	---	---	---	---	---	---	---	---	1
		4.1	111+15EB	66.4' LT	850.44	849.52	845.95	3.57	---	1	---	---	1	---	---	---	---	1
		4.2	111+56EB	19.3' LT	851.31	850.39	846.26	4.13	---	1	---	---	1	---	---	---	---	1
		4.3	111+56EB	12.0' LT	851.19	850.27	846.57	3.70	1	---	---	---	1	---	---	---	---	1
		5.0	113+66EB	94.5' LT	ENDWALL	---	---	---	---	---	---	---	---	---	---	---	---	1
		5.1	113+65EB	62.0' LT	850.07	849.15	844.68	4.47	---	1	---	---	1	---	---	---	---	1
		5.2	113+75EB	62.0' LT	850.03	849.11	845.27	3.84	1	---	---	---	1	---	---	---	---	1
		5.3	113+75EB	19.0' LT	850.95	850.03	845.11	4.92	1	---	---	---	1	---	---	---	---	1
		6.0	118+52EB	108.4' LT	ENDWALL	---	---	---	---	---	---	---	---	---	---	---	---	1
		7.0	118+22EB	63.0' LT	848.13	847.21	842.35	4.86	---	---	1	---	---	1	---	---	---	1
		8.0	118+11EB	63.0' LT	848.12	847.20	843.48	3.72	1	---	---	---	---	---	1	---	---	1
		8.1	118+01EB	63.0' LT	848.13	847.21	843.53	3.68	1	---	---	---	---	1	---	---	---	1
		9.0	118+18EB	51.5' LT	848.42	847.17	842.46	4.71	---	---	1	---	---	---	---	---	1	1
		9.1	118+11EB	32.1' LT	848.68	847.76	843.36	4.40	---	1	---	---	---	---	---	1	---	1
		10.0	117+00EB	51.6' LT	848.79	847.54	843.01	4.53	---	---	1	---	---	---	---	---	1	1
		10.1	117+00EB	32.1' LT	849.06	848.14	843.92	4.23	1	---	---	---	1	---	---	---	---	1
		10.4	117+00EB	63.1' LT	848.50	847.58	843.88	3.71	1	---	---	---	1	---	---	---	---	1
		11.0	115+25EB	51.1' LT	849.66	848.41	843.87	4.54	---	---	1	---	---	---	---	---	1	1
		11.1	115+25EB	31.6' LT	849.92	849.00	844.78	4.22	1	---	---	---	1	---	---	---	---	1
		11.5	115+25EB	62.6' LT	849.37	848.45	844.74	3.71	1	---	---	---	1	---	---	---	---	1
		11.6	115+15EB	62.6' LT	849.41	848.49	844.81	3.68	1	---	---	---	1	---	---	---	---	1
		12.0	120+85EB	116.7' LT	ENDWALL	---	---	---	---	---	---	---	---	---	---	---	---	1
		12.1	120+55EB	77.8' LT	849.76	848.84	844.37	4.48	---	1	---	---	1	---	---	---	---	1
		12.2	120+45EB	81.4' LT	849.53	848.61	844.96	3.66	1	---	---	---	1	---	---	---	---	1
		12.3	120+26EB	31.1' LT	850.29	849.37	845.49	3.88	1	---	---	---	1	---	---	---	---	1
		13.0	122+33EB	104.4' LT	ENDWALL	---	---	---	---	---	---	---	---	---	---	---	---	1
		14.0	122+50EB	73.0' LT	853.13	852.21	847.38	4.83	---	---	1	---	1	---	---	---	---	1
		14.1	122+60EB	72.8' LT	853.30	852.38	848.51	3.87	1	---	---	---	1	---	---	---	---	1
		15.0	122+50EB	48.5' LT	853.68	852.43	847.93	4.50	---	---	1	---	---	---	---	---	1	1
		15.1	122+50EB	29.0' LT	853.95	853.03	848.84	4.20	1	---	---	---	1	---	---	---	---	1
		16.0	126+00EB	44.0' LT	858.32	857.07	852.36	4.71	---	---	1	---	---	---	---	---	1	1
		16.1	126+00EB	24.5' LT	858.58	857.66	853.39	4.27	1	---	---	---	1	---	---	---	---	1
		16.4	126+00EB	55.5' LT	858.02	857.10	853.23	3.87	1	---	---	---	1	---	---	---	---	1
		17.0	21+05B	24.6' RT	ENDWALL	---	---	---	---	---	---	---	---	---	---	---	---	1
		17.1	21+05B	1.5' RT	848.95	848.03	843.74	4.30	1	---	---	---	1	---	---	---	---	1
		17.2	21+00B	23.2' LT	848.59	847.68	843.83	3.84	1	---	---	---	---	1	---	---	---	1
		17.3	20+99B	16.5' LT	848.81	847.89	843.87	4.03	1	---	---	---	---	1	---	---	---	1
STAGE 2 TOTAL									21	6	8	1	20	6	1	1	8	43
STAGE 3																		
		2.2	110+63EB	81.4' RT	ENDWALL	---	---	---	---	---	---	---	---	---	---	---	---	1
		3.2	108+95EB	5.5' LT	851.09	850.17	844.61	5.56	---	1	---	---	---	1	---	---	---	1
		3.3	108+25EB	5.4' LT	850.75	849.84	844.95	4.89	1	---	---	---	---	1	---	---	---	1
		3.4	108+25EB	36.7' RT	851.79	850.87	845.16	5.71	1	---	---	---	---	1	---	---	---	1
		5.4	113+75EB	1.5' LT	850.42	849.50	845.48	4.02	1	---	---	---	1	---	---	---	---	1
		5.5	113+75EB	29.5' RT	850.98	850.06	846.04	4.02	1	---	---	---	1	---	---	---	---	1
		5.6	113+65EB	1.5' LT	850.47	849.55	845.80	3.75	1	---	---	---	1	---	---	---	---	1
STAGE 3 SUBTOTAL									5	1	---	---	3	3	---	---	---	7

STRUCTURE SCHEDULE (CONTINUED)

CATEGORY	STAGE	STRUC. NO.	STATION	OFFSET TO CENTER OF STRUCTURE	CASTING ELEV.	TOP OF STR. ELEV.	BOTTOM OF STR. ELEV.	DEPTH	611.3230 INLETS 2X3-FT (EACH)	611.2004 MANHOLES 4-FT DIAMETER (EACH)	611.2005 MANHOLES 5-FT DIAMETER (EACH)	611.2006 MANHOLES 6-FT DIAMETER (EACH)	611.0624 INLET COVERS TYPE H (EACH)	611.0627 INLET COVERS TYPE HM (EACH)	611.0636 INLET COVERS TYPE HM-S (EACH)	611.0639 INLET COVERS TYPE H-S (EACH)	611.0535 MANHOLE COVERS TYPE J-SPECIAL (EACH)	650.4000 CONSTRUCTION STAKING STORM SEWER (EACH)
0010	STAGE 3																	
				PREVIOUS SHEET TOTAL					5	1	---	---	3	3	---	0	---	7
		9.2	117+97EB	13.5' LT	848.30	847.38	843.48	3.90	---	1	---	---	1	---	---	---	---	1
		9.3	117+87EB	13.5' LT	848.29	847.37	843.80	3.57	1	---	---	---	---	---	---	1	---	1
		9.4	117+87EB	29.5' RT	849.09	848.17	844.32	3.85	1	---	---	---	1	---	---	---	---	1
		9.5	117+77EB	13.5' LT	848.30	847.38	843.85	3.53	1	---	---	---	1	---	---	---	---	1
		10.2	117+00EB	13.5' LT	848.55	847.63	844.01	3.63	1	---	---	---	1	---	---	---	---	1
		10.3	117+00EB	29.5' RT	849.35	848.43	844.58	3.85	1	---	---	---	1	---	---	---	---	1
		11.2	115+25EB	1.5' LT	849.66	848.74	844.93	3.81	1	---	---	---	1	---	---	---	---	1
		11.3	115+25EB	29.5' RT	850.23	849.31	845.46	3.86	1	---	---	---	1	---	---	---	---	1
		11.4	115+15EB	1.5' LT	849.71	848.79	845.25	3.54	1	---	---	---	1	---	---	---	---	1
		12.4	120+27EB	1.5' LT	850.51	849.59	845.64	3.95	1	---	---	---	1	---	---	---	---	1
		12.5	120+48EB	37.7' RT	851.41	850.49	845.88	4.62	---	1	---	---	1	---	---	---	---	1
		15.2	122+50EB	1.5' LT	854.33	853.41	849.14	4.28	1	---	---	---	1	---	---	---	---	1
		15.3	122+50EB	29.5' RT	854.89	853.97	849.70	4.28	1	---	---	---	1	---	---	---	---	1
		15.4	122+60EB	1.5' LT	854.50	853.58	849.46	4.13	1	---	---	---	1	---	---	---	---	1
		16.2	126+00EB	1.5' LT	859.10	858.18	853.68	4.51	1	---	---	---	1	---	---	---	---	1
		16.3	126+00EB	29.5' RT	858.54	857.62	853.83	3.79	1	---	---	---	1	---	---	---	---	1
	STAGE 3 TOTAL								19	3	---	---	18	3	---	1	---	23
PROJECT 1401-02-74 TOTAL									**40**	**9**	**8**	**1**	**38**	**9**	**1**	**2**	**8**	**66**

PIPE UNDERDRAIN

CATEGORY	STAGE	STATION TO STATION	SPV.0090.012 PIPE UNDERDRAIN 6-INCH WITH GEOTEXTILE FABRIC AND AGGREGATE (LF)
0010	STAGE 2		
		STH 16 (WESTBOUND)	
		109+07 WB - 109+57 WB	50
		111+24 WB - 111+74 WB	50
		117+56 WB - 118+05 WB	50
		118+28 WB - 118+77 WB	50
	STAGE 2 TOTAL		200
	STAGE 4		
		STH 16 (EASTBOUND)	
		108+26 EB - 108+76 EB	50
		111+57 EB - 112+06 EB	50
		117+27 EB - 117+75 EB	50
		117+99 EB - 118+47 EB	50
		120+28 EB - 120+78 EB	50
	STAGE 4 TOTAL		250
PROJECT 1401-02-74 TOTALS			**450**

COVER PLATES TEMPORARY

CATEGORY	LOCATION	611.8120.S (EACH)
0010	UNDISTRUBTED	10
PROJECT 1401-02-74 TOTALS		**10**

PIPE SCHEDULE

CATEGORY	STAGE	FROM STRUCTURE	TO STRUCTURE	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE (%)	608.0312 12-INCH SSPRC (LF)	608.0315 15-INCH SSPRC (LF)	608.0318 CLASS III 18-INCH SSPRC (LF)	608.0324 24-INCH SSPRC (LF)	608.0336 36-INCH SSPRC (LF)
0010	STAGE 2										
		2.0	1.0	840.81	840.53	0.50%	---	---	---	---	57
		2.1	2.0	841.24	840.81	0.50%	---	---	---	---	86
		3.0	2.0	844.22	843.71	0.50%	---	---	103	---	---
		3.1	3.0	844.65	844.47	0.50%	---	35	---	---	---
		3.5	3.0	844.51	844.47	0.50%	---	8	---	---	---
		4.1	4.0	846.16	846.00	0.50%	---	---	33	---	---
		4.2	4.1	846.47	846.16	0.50%	---	---	62	---	---
		4.3	4.2	846.76	846.72	0.50%	---	7	---	---	---
		5.1	5.0	844.89	844.50	1.20%	---	---	33	---	---
		5.2	5.1	845.44	845.39	0.50%	10	---	---	---	---
		5.3	5.1	845.32	844.89	0.98%	---	---	44	---	---
		7.0	6.0	842.60	842.33	0.49%	---	---	---	55	---
		8.0	7.0	843.65	843.60	0.50%	10	---	---	---	---
		8.1	8.0	843.70	843.65	0.50%	10	---	---	---	---
		9.0	8.0	842.71	842.60	0.89%	---	---	---	12	---
		9.1	9.0	843.55	843.46	0.47%	---	20	---	---	---
		10.0	9.0	843.26	842.71	0.47%	---	---	---	116	---
		10.1	10.0	844.11	844.01	0.50%	---	19	---	---	---
		10.4	10.0	844.07	844.01	0.50%	---	11	---	---	---
		11.0	10.0	844.12	843.26	0.50%	---	---	---	173	---
		11.1	11.0	844.97	844.87	0.50%	---	19	---	---	---
		11.5	11.0	844.93	844.87	0.50%	---	11	---	---	---
		11.6	11.5	844.98	844.93	0.50%	10	---	---	---	---
		12.1	12.0	844.58	844.34	0.50%	---	---	49	---	---
		12.2	12.1	845.13	845.08	0.50%	10	---	---	---	---
		12.3	12.1	845.68	844.83	1.56%	---	55	---	---	---
		14.0	13.0	847.63	847.40	0.64%	---	---	---	36	---
		14.1	14.0	848.68	848.63	0.50%	10	---	---	---	---
		15.0	14.0	848.18	847.63	2.24%	---	---	---	25	---
		15.1	15.0	849.03	848.93	0.50%	---	19	---	---	---
		16.0	15.0	852.61	848.18	1.28%	---	---	---	347	---
		16.1	16.0	853.58	853.36	1.14%	---	19	---	---	---
		16.4	16.0	853.42	853.36	0.50%	---	11	---	---	---
		17.1	17.0	843.91	843.79	0.50%	23	---	---	---	---
		17.2	17.1	844.00	843.91	0.50%	19	---	---	---	---
		17.3	17.2	844.04	844.00	0.50%	7	---	---	---	---
	STAGE 2 TOTALS						109	238	324	764	143
	STAGE 3										
		2.2	2.1	844.80	841.24	3.56%	---	---	---	---	100
		3.2	3.1	844.80	844.65	0.50%	---	31	---	---	---
		3.3	3.2	845.14	844.80	0.50%	---	67	---	---	---
		3.4	3.3	845.35	845.14	0.50%	---	42	---	---	---
		5.4	5.3	845.67	845.57	0.56%	---	18	---	---	---
		5.5	5.4	846.23	845.67	1.81%	---	31	---	---	---
		5.6	5.4	845.97	845.92	0.50%	10	---	---	---	---
		9.2	9.1	843.67	843.55	0.50%	---	23	---	---	---
		9.3	9.2	843.97	843.92	0.50%	10	---	---	---	---
		9.4	9.3	844.51	843.67	1.90%	---	44	---	---	---
		9.5	9.3	844.02	843.97	0.50%	10	---	---	---	---
		10.2	10.1	844.20	844.11	0.50%	---	19	---	---	---
		10.3	10.2	844.77	844.20	1.33%	---	43	---	---	---
		11.2	11.1	845.12	844.97	0.50%	---	30	---	---	---
		11.3	11.2	845.65	845.12	1.69%	---	31	---	---	---
	STAGE 3 SUBTOTAL						30	379	---	---	100

PIPE SCHEDULE (CONTINUED)

CATEGORY	STAGE	FROM STRUCTURE	TO STRUCTURE	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE (%)	608.0312 12-INCH SSPRC (LF)	608.0315 15-INCH SSPRC (LF)	608.0318 CLASS III 18-INCH SSPRC (LF)	608.0324 24-INCH SSPRC (LF)	608.0336 36-INCH SSPRC (LF)
0010	STAGE 3										
			STAGE 3 SUBTOTAL				30	379	---	---	100
		11.4	11.2	845.42	845.37	0.50%	10	---	---	---	---
		12.4	12.3	845.83	845.68	0.51%	---	30	---	---	---
		12.5	12.4	846.07	845.83	0.53%	---	44	---	---	---
		15.2	15.1	849.33	849.03	1.09%	---	28	---	---	---
		15.3	15.2	849.89	849.33	1.81%	---	31	---	---	---
		15.4	15.2	849.63	849.58	0.50%	10	---	---	---	---
		16.2	16.1	853.87	853.58	1.22%	---	23	---	---	---
		16.3	16.2	854.02	853.87	0.50%	---	31	---	---	---
	STAGE 3 TOTAL						50	565	---	---	100
PROJECT 1401-02-74 TOTAL							**159**	**804**	**324**	**764**	**243**

FENCING

CATEGORY	STAGE	STATION TO STATION	616.0100 FENCE WOVEN WIRE (4-FT) (LF)
0010	STAGE 3		
		STH 16 (WESTBOUND)	
		108+32 EB - 109+30 EB	100
	STAGE 3 TOTAL		100
PROJECT 1401-02-74 TOTALS			**100**

LANDSCAPING

CATEGORY	STAGE	STATION TO STATION	625.0500 SALVAGED TOPSOIL (SY)	627.0200 MULCHING (SY)	628.2002 EROSION MAT CLASS I TYPE A (SY)	628.2004 EROSION MAT CLASS I TYPE B (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0120 SEEDING MIXTURE NO. 20 (LB)	630.0200 SEEDING TEMPORARY (LB)	SPV.0120.001 WATER FOR SEEDED AREAS (MGAL)
0010	STAGE 1									
		RAMP A								
		24+50 A - 26+66 A	1,556	---	---	---	1	---	42	---
		RAMP B								
		20+34 B - 24+75 B	2,196	---	---	---	1	---	67	---
		RAMP C								
		44+11 C - 49+56 C	833	---	---	---	1	---	23	---
		RAMP D								
		60+32 D - 63+50 D	1,292	---	---	---	1	---	35	---
		UNDISTRUTED	582	---	---	---	1	---	39	---
	STAGE 1 TOTAL		6,459	---	---	---	5	---	206	---
	STAGE 2									
		STH 16 (WESTBOUND)								
		108+98 WB - 111+30 WB	500	500	500	---		14	3	151
		111+30 WB - 119+74 WB	2,904	2,904	2,183	721	2	78	20	441
		119+74 WB - 127+00 WB	1,866	1,866	1,866	---	1	50	13	377
		RAMP B								
		20+34 B - 24+75 B	4,975	4,975	4,676	299	3	134	34	945
		RAMP D								
		60+32 D - 63+50 D	3,759	3,759	3,370	389	2	102	25	681
		UNDISTRUTED	1,401	1,401	1,260	141	1	38	24	---
	STAGE 2 TOTAL		15,405	15,405	13,855	1,550	9	416	119	2595
	STAGE 3									
		STH 16 (EASTBOUND)								
		108+09 EB - 111+20 EB	1,079	1,079	---	---	1	29	7	218
		111+20 EB - 119+70 EB	1,555	1,555	---	---	1	42	10	314
		119+70 EB - 127+00 EB	2,757	2,757	---	---	2	74	19	563
		RAMP A								
		24+50 A - 26+66 A	3,107	3,107	3,107	---	2	84	21	---
		RAMP C								
		44+11 C - 49+56 C	3,866	3,866	3,866	---	2	104	26	---
		UNDISTRUTED	1,236	1,236	1,236	---	1	33	21	---
	STAGE 3 TOTAL		13,600	13,600	8,209	---	9	366	104	1,096

DUST CONTROL

CATEGORY	STAGE	STATION TO STATION	623.0200 DUST CONTROL SURFACE TREATMENT (SY)
0010	STAGE 2		
		STH 16 (WESTBOUND)	
		108+98 WB - 111+30 WB	156
		111+30 WB - 119+74 WB	501
		119+74 WB - 127+00 WB	381
		RAMP B	
		20+34 B - 24+75 B	357
		RAMP D	
		60+32 D - 63+50 D	237
	STAGE 2 TOTAL		1,631
	STAGE 3		
		STH 16 (EASTBOUND)	
		108+09 EB - 111+20 EB	188
		111+20 EB - 119+70 EB	428
		119+70 EB - 127+00 EB	331
		RAMP A	
		24+50 A - 26+66 A	205
		RAMP C	
		44+11 C - 49+56 C	350
	STAGE 3 TOTAL		1,501
	STAGE 4		
		STH 16 (WESTBOUND)	
		108+98 WB - 111+30 WB	10
		111+30 WB - 119+74 WB	154
		119+74 WB - 127+00 WB	---
		STH 16 (EASTBOUND)	
		108+09 EB - 111+20 EB	53
		111+20 EB - 119+70 EB	801
		119+70 EB - 127+00 EB	850
	STAGE 4 TOTAL		1,868
PROJECT 1401-02-74 TOTALS			**5,000**

EROSION CONTROL MOBILZATION

CATEGORY	LOCATION	628.1905 MOBILIZATION EROSION CONTROL (EACH)	628.1910 MOBILIZATION EMERGENCY EROSION CONTROL (EACH)
0010	STAGE 1	3	1
	STAGE 2	4	2
	STAGE 3	4	2
	STAGE 4	3	1
PROJECT 1401-02-74 TOTALS		**14**	**6**

WATER

CATEGORY	TASK	624.0100 (MGAL)
0010	DUST CONTROL	315
	COMPACTION	315
PROJECT 1401-02-74 TOTALS		**630**

LANDSCAPING (CONTINUED)

CATEGORY	STAGE	STATION TO STATION	625.0500 SALVAGED TOPSOIL (SY)	627.0200 MULCHING (SY)	628.2002 EROSION MAT CLASS I TYPE A (SY)	628.2004 EROSION MAT CLASS I TYPE B (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0120 SEEDING MIXTURE NO. 20 (LB)	630.0200 SEEDING TEMPORARY (LB)	SPV.0120.001 WATER FOR SEEDED AREAS (MGAL)
	STAGE 1		6,459	---	---	---	5	---	206	---
	STAGE 2		15,405	15,405	13,855	1,550	9	416	119	2,595
	STAGE 3		13,600	13,600	8,209	---	9	366	104	1,096
0010	STAGE 4									
		STH 16 (WESTBOUND)								
		108+98 WB - 111+30 WB	1,667	1,667	1,667	---	1	30	11	354
		119+74 WB - 127+00 WB	2,002	2,002	2,002	---	1	36	14	455
		UNDISTRUTED	367	366	367	---	1	7	6	---
	STAGE 4 TOTAL		4,036	4,035	4,036	---	3	73	31	809
PROJECT 1401-02-74 TOTALS			**39,500**	**33,040**	**26,100**	**1,550**	**26**	**855**	**460**	**4,500**

EROSION CONTROL

CATEGORY	STAGE	STATION TO STATION	628.1104 EROSION BALES (EACH)	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)	628.7005 INLET PROTECTION TYPE A (EACH)	628.7015 INLET PROTECTION TYPE C (EACH)	628.7020 INLET PROTECTION TYPE D (EACH)	628.7504 TEMPORARY DITCH CHECKS (LF)	628.7555 CULVERT PIPE CHECKS (EACH)	628.7560 TRACKING PADS (EACH)
0010	STAGE 2										
		STH 16 (WESTBOUND)									
		108+98 WB - 111+30 WB	3	173	346	4	2	---	---	---	1
		111+30 WB - 119+74 WB	12	674	1,348	18	15	2	32	---	3
		119+74 WB - 127+00 WB	9	578	1,156	10	8	---	---	---	1
		RAMP B									
		20+34 B - 24+75 B	12	1,409	2,818	3	3	---	32	3	1
		RAMP D									
		60+32 D - 63+50 D	3	1,146	2,292	---	---	---	---	---	1
		UNDISTRIBUTED	---	994	1,987	4	3	---	16	0	---
	STAGE 2 TOTAL		39	4,974	9,947	39	31	2	80	3	7
	STAGE 3										
		STH 16 (EASTBOUND)									
		108+09 EB - 111+20 EB	---	305	609	3	3	---	---	---	1
		111+20 EB - 119+70 EB	---	623	1,246	10	12	---	---	---	3
		119+70 EB - 127+00 EB	3	830	1,660	7	7	---	---	---	2
		RAMP A									
		24+50 A - 26+66 A	6	989	1,980	---	---	---	---	7	1
		RAMP C									
		44+11 C - 49+56 C	12	1,114	2,228	1	2	---	---	3	1
		UNDISTRIBUTED	5	965	1,930	3	2	---	---	3	---
	STAGE 3 TOTAL		26	4,826	9,653	24	26	---	---	13	8
PROJECT 1401-02-74 TOTALS			**65**	**9,800**	**19,600**	**62**	**57**	**2**	**80**	**15**	**15**

PERMANENT SIGNING TYPE II

CATEGORY	SIGN #	SIGN CODE	W IN	SIGN SIZE X	H IN	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4X6-INCH 14 FT EACH	634.0616 POSTS WOOD 4X6-INCH 16 FT EACH	634.0618 POSTS WOOD 4X6-INCH 18 FT EACH	SIGN MOUNTED ON SAME POST AS	REMARKS
0010	1-01	D1-72	84	X	48	28.00	---	---	---	---	2	---	ADVANCED ENTRANCE DIRECTION SIGN
	2-01	R2-1	24	X	30	5.00	---	---	---	1	---	---	SPEED LIMIT 35 MPH
	2-02	R2-1	24	X	30	5.00	---	---	---	1	---	---	SPEED LIMIT 45 MPH
	2-03	J3-2	48	X	57	19.00	---	---	---	---	1	---	DIRECTIONAL ASSEMBLY
	2-04	R1-1	36	X	36	7.46	---	---	---	1	---	2-05	STOP SIGN
	2-05	R6-3	30	X	24	5.00	---	---	---	---	---	2-04	DIVIDED HIGHWAY SIGN CROSSROAD
	2-06	R1-1	36	X	36	7.46	---	---	---	1	---	2-07	STOP SIGN
	2-07	R6-3	30	X	24	5.00	---	---	---	---	---	2-06	DIVIDED HIGHWAY SIGN CROSSROAD
	2-08	J3-2	48	X	57	19.00	---	---	---	---	1	2-09	DIRECTIONAL ASSEMBLY
	2-09	R5-1	30	X	30	6.25	---	---	---	---	---	2-08	DO NOT ENTER
	2-10	R5-1	30	X	30	6.25	---	---	---	---	---	2-19	DO NOT ENTER
	2-11	R4-4	36	X	30	7.50	---	---	---	1	---	2-12	BEGIN RIGHT TURN LANE-YEILD TO BIKES
	2-12	R5-1A	36	X	24	6.00	---	---	---	---	---	2-11	WRONG WAY
	2-13	R2-1	24	X	30	5.00	---	---	---	1	---	---	SPEED LIMIT 35 MPH
	2-14	D1-71	84	X	60	35.00	---	---	---	---	2	2-15	ENTRANCE DIRECTION SIGN (2 ARROWS)
	2-15	R5-1	30	X	30	6.25	---	---	---	---	---	2-14	DO NOT ENTER
	2-16	R3-2	24	X	24	4.00	---	---	1	---	---	---	NO LEFT TURN SYMBOL
	2-17	R4-7	24	X	30	5.00	---	---	---	1	---	---	KEEP RIGHT
	2-18	R6-2L	24	X	30	5.00	---	---	---	1	---	---	ONE WAY LEFT ARROW
	2-19	R3-1	24	X	24	4.00	---	---	---	---	---	2-10	NO RIGHT TURN SYMBOL
	3-01	R5-1A	36	X	24	6.00	---	---	1	---	---	---	WRONG WAY
	3-02	J2-1	24	X	57	9.50	---	---	---	---	1	---	ROUTE TURN ASSEMBLY
	3-03	J2-1	24	X	57	9.50	---	---	---	---	1	---	ROUTE TURN ASSEMBLY
	3-04	I2-3	66	X	24	11.00	---	---	2	---	---	---	MUNICIPALITY SIGN-POP OR UNINC
	3-05	D1-70	66	X	30	13.75	---	---	---	2	---	---	ENTRANCE DIRECTION SIGN (1 ARROW)
	3-06	D1-70	84	X	30	17.50	---	---	---	2	---	---	ENTRANCE DIRECTION SIGN (1 ARROW)
	3-07	R5-1A	36	X	24	6.00	---	---	1	---	---	---	WRONG WAY
	4-01	R4-7	24	X	30	5.00	---	---	---	---	---	SP, 4-07	KEEP RIGHT
	4-02	R6-2L	24	X	30	5.00	---	---	---	---	---	SP	ONE WAY LEFT ARROW
	4-03	R1-1F	36	X	36	---	7.46	---	---	---	---	SP	STOP SIGN (FOLDING)
	4-04	R5-1	30	X	30	6.25	---	---	---	1	---	---	DO NOT ENTER
	4-05	R5-1A	36	X	24	6.00	---	---	---	---	---	4-06	WRONG WAY
	4-06	R4-4	36	X	30	7.50	---	---	---	1	---	4-05	BEGIN RIGHT TURN LANE-YEILD TO BIKES
	4-07	R1-1F	36	X	36	---	7.46	---	---	---	---	SP, 4-01	STOP SIGN (FOLDING)
	4-08	R1-1F	36	X	36	---	7.46	---	---	---	---	SP	STOP SIGN (FOLDING)
	4-09	R3-1	24	X	24	4.00	---	---	---	---	---	4-10	NO RIGHT TURN SYMBOL
	4-10	R5-1	30	X	30	6.25	---	---	---	1	---	4-09	DO NOT ENTER
	4-11	J3-2	48	X	57	19.00	---	---	---	---	1	---	DIRECTIONAL ASSEMBLY
	4-12	R5-1	30	X	30	6.25	---	---	---	---	---	SP, 4-13/14	DO NOT ENTER
	4-13	R6-3	30	X	24	5.00	---	---	---	---	---	SP, 4-12/14	DIVIDED HIGHWAY SIGN CROSSROAD
	4-14	R1-1F	36	X	36	---	7.46	---	---	---	---	SP, 4-12/13	STOP SIGN (FOLDING)
	4-15	R3-2	24	X	24	4.00	---	---	1	---	---	---	NO LEFT TURN SYMBOL
	4-16	R6-3	30	X	24	5.00	---	---	---	---	---	SP, 4-17	DIVIDED HIGHWAY SIGN CROSSROAD
	4-17	R1-1F	36	X	36	---	7.46	---	---	---	---	SP, 4-16	STOP SIGN (FOLDING)
	SUBTOTALS					343.67	37.30	---	6	15	9		

3

PERMANENT SIGNING TYPE II CONTINUED

CATEGORY	SIGN #	SIGN CODE	SIGN SIZE W IN	X	H IN	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4X6-INCH 14 FT EACH	634.0616 POSTS WOOD 4X6-INCH 16 FT EACH	634.0618 POSTS WOOD 4X6-INCH 18 FT EACH	SIGN MOUNTED ON SAME POST AS	REMARKS
0010	4-18	J3-2	48	X	57	19	---	---	---	---	1	---	DIRECTIONAL ASSEMBLY
	4-19	R1-1F	36	X	36	---	7.46	---	---	---	---	SP	STOP SIGN (FOLDING)
	4-20	R2-1	24	X	30	5	---	---	---	1	---	---	SPEED LIMIT 35 MPH
	4-21	J4-2	48	X	36	12	---	---	---	1	---	---	REASSURANCE ASSEMBLY
	4-22	R2-1	24	X	30	5	---	---	---	1	---	---	SPEED LIMIT 35 MPH
	5-01	D1-71	84	X	60	35	---	---	---	---	2	---	ENTRANCE DIRECTION SIGN (2 ARROWS)
	5-02	D1-72	84	X	48	28	---	---	---	---	2	---	ADVANCED ENTRANCE DIRECTION SIGN
	6-01	R5-57	36	X	36	9	---	---	---	1	---	---	PEDESTRIANS, ETC., PROHIBITED
	7-01	R5-1A	36	X	24	6	---	---	---	---	---	7-02	WRONG WAY
	7-02	D1-2	72	X	30	15	---	---	---	2	---	7-01	TWO DESTINATION (ARROWS)
	7-03	R5-1A	36	X	24	6	---	---	1	---	---	---	WRONG WAY
	7-04	J2-4	96	X	57	38	---	---	---	---	2	---	ROUTE TURN ASSEMBLY
	7-05	W3-1	36	X	36	---	---	9.00	---	1	---	---	STOP AHEAD
	8-01	J2-4	96	X	57	38	---	---	---	---	2	---	ROUTE TURN ASSEMBLY
	8-02	R5-1A	36	X	24	6	---	---	1	---	---	---	WRONG WAY
	8-03	D1-2	72	X	30	15	---	---	---	2	---	8-04	TWO DESTINATION (ARROWS)
	8-04	R5-1A	36	X	24	6	---	---	---	---	---	8-03	WRONG WAY
	8-05	W3-3	36	X	36	---	---	9.00	---	---	1	---	SIGNAL AHEAD
	9-01	R5-57	36	X	36	9	---	---	---	1	---	---	PEDESTRIANS, ETC., PROHIBITED
	SUBTOTALS					343.67	37.30	---	6	15	9		
PROJECT 1401-02-74 TOTALS						**595.67**	**44.76**	**18.00**	**8**	**25**	**19**		

REMOVING SIGNS

CATEGORY	SIGN #	SIGN CODE	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMOVING CONCRETE SIGN POST BASE (NOT BID ITEM INFORMATION ONLY)	SIGN MOUNTED ON SAME POST AS	REMARKS
0010	1R-01	J2-1	1	1	---	---	ROUTE TURN ASSEMBLY
	1R-02	J2-1	1	1	---	---	ROUTE TURN ASSEMBLY
	2R-01	R2-1	1	1	---	---	SPEED LIMIT 45 MPH
	2R-02	J3-2	1	1	---	---	DIRECTIONAL ASSEMBLY
	2R-03	R1-1	1	1	---	---	STOP SIGN
	2R-04	R1-1	1	1	1	---	STOP SIGN
	2R-05	R1-1	1	1	1	DIVIDED HWY	STOP SIGN
	2R-06	R1-1	1	1	---	---	STOP SIGN
	2R-07	R5-1	1	1	---	---	DO NOT ENTER
	2R-08	D1-3	1	2	---	---	THREE DESTINATION (ARROWS)
	2R-09	R2-1	1	1	---	---	SPEED LIMIT 35 MPH
	2R-10	R5-1	1	1	---	---	DO NOT ENTER
	2R-11	R2-1	1	1	---	---	SPEED LIMIT 35 MPH
	2R-12	R5-1	1	1	1	---	DO NOT ENTER
	2R-13	R5-1	1	1	---	---	DO NOT ENTER
	2R-14	J3-1	1	1	---	---	DIRECTIONAL ASSEMBLY
	2R-15	R4-7	1	1	---	---	KEEP RIGHT
	2R-16	R4-7	1	1	---	---	KEEP RIGHT
	2R-17	J3-1	1	1	---	---	DIRECTIONAL ASSEMBLY
	2R-18	J3-2	1	1	---	ONE WAY LEFT	DIRECTIONAL ASSEMBLY
	3R-01	R5-1A	1	1	---	---	WRONG WAY
	3R-02	D1-1	1	2	---	BUMP	ONE DESTINATION (ARROW)
	3R-03	D1-2	1	2	---	---	TWO DESTINATION (ARROWS)
	3R-04	D1-2	1	2	---	---	TWO DESTINATION (ARROWS)
	3R-05	I2-3	1	1	---	---	MUNICIPALITY SIGN-POP OR UNINC
	3R-06	R5-1A	1	1	---	---	WRONG WAY
	4R-01	J3-1	1	1	---	---	DIRECTIONAL ASSEMBLY
	4R-02	R4-7	1	1	---	---	KEEP RIGHT
	4R-03	R4-7	1	1	---	---	KEEP RIGHT
	4R-04	J3-2	1	1	---	ONE WAY LEFT	DIRECTIONAL ASSEMBLY
	4R-05	J3-1	1	1	---	---	DIRECTIONAL ASSEMBLY
	4R-06	R5-1	1	1	---	---	DO NOT ENTER
	4R-07	R2-1	1	1	---	---	SPEED LIMIT 35 MPH
	4R-08	R5-1	1	1	---	---	DO NOT ENTER
	4R-09	R3-1	1	1	---	DO NOT ENTER	NO RIGHT TURN SYMBOL
	4R-10	R1-1	1	1	---	---	STOP SIGN
	4R-11	R1-1	1	1	---	DIVIDED HWY	STOP SIGN
	4R-12	R5-1	1	1	1	---	DO NOT ENTER
	4R-13	R1-1	1	1	---	---	STOP SIGN
	4R-14	J3-2	1	1	---	---	DIRECTIONAL ASSEMBLY
	4R-15	J4-1	1	1	---	---	REASSURANCE ASSEMBLY
	4R-16	R2-1	1	1	---	---	SPEED LIMIT 35 MPH
	4R-17	R2-1	1	1	---	LOCAL MOVE SIGN	SPEED LIMIT 35 MPH
SUBTOTAL			43	47			

REMOVING SIGNS CONTINUED (2)

CATEGORY	SIGN #	SIGN CODE	638.2602 REMOVING SIGNS TYPE II EACH	638.3 REMOVING SMALL SIGN SUPPORTS EACH	REMOVING CONCRETE SIGN POST BASE (NOT BID ITEM INFORMATION ONLY)	SIGN MOUNTED ON SAME POST AS	REMARKS
0010	5R-01	R5-1A	1	2	---	DESTINATION	WRONG WAY
	5R-02	J4-4	1	2	---	---	REASSURANCE ASSEMBLY
	5R-03	W3-3	1	1	---	---	SIGNAL AHEAD
	5R-04	W3-3	1	1	---	---	SIGNAL AHEAD
	6R-01	R5-57	1	1	---	---	PEDESTRIANS, ETC., PROHIBITED
	7R-01	W12-1D	1	1	1	---	DOUBLE DOWN ARROW
	7R-02	R5-1A	1	2	---	DESTINATION	WRONG WAY
	7R-03	R5-1A	1	1	---	---	WRONG WAY
	7R-04	J2-4	1	2	---	---	ROUTE TURN ASSEMBLY
	7R-05	W3-1	1	1	---	---	STOP AHEAD
	8R-01	W12-1D	1	1	1	---	DOUBLE DOWN ARROW
	8R-02	W3-1	1	1	---	---	STOP AHEAD
	8R-03	J2-4	1	2	---	---	ROUTE TURN ASSEMBLY
	8R-04	R5-1A	1	1	---	---	WRONG WAY
	8R-05	R5-1A	1	2	---	DESTINATION	WRONG WAY
	9R-01	R5-57	1	1	---	---	PEDESTRIANS, ETC., PROHIBITED
SUBTOTAL			43	47			
PROJECT 1401-02-74 TOTALS			**59**	**69**			

TRAFFIC CONTROL

CATEGORY	STAGE	*NO. OF DAYS (DAY)	643.0300 DRUMS (DAY)	643.0410 BARRICADES TYPE II (DAY)	643.0420 BARRICADES TYPE III (DAY)	643.0500 FLEXIBLE TUBULAR MARKER POSTS (EACH)	643.0600 FLEXIBLE TUBULAR MARKER BASES (EACH)	643.0705 WARNING LIGHTS TYPE A (DAY)	643.0715 WARNING LIGHTS TYPE C (DAY)	643.0800 ARROW BOARD (DAY)	643.0900 SIGNS (DAY)	643.0920 COVERING SIGNS TYPE II (EACH)
0010	STAGE 1	19	9,179	76	380	---	---	760	368	---	760	---
	STAGE 2	52	31,431	208	2548	53	53	5096	4091	104	2236	---
	STAGE 3	44	19,931	104	2550	81	84	5100	4205	92	1892	---
	STAGE 4	30	8,918	---	840	---	---	1680	581	---	840	---
	UNDISTRIBUTED	--	6,940	42	632	27	13	1264	925	19	572	25
PROJECT 1401-02-74 TOTALS		**145**	**76,400**	**430**	**6,950**	**160**	**150**	**13,900**	**10,170**	**215**	**6,300**	**25**

*FOR INFORMATIONAL PURPOSES ONLY

REMOVING PAVEMENT MARKINGS

CATEGORY	STAGE	STATION TO STATION	646.0600 REMOVING PAVEMENT MARKINGS (LF)	647.0955 REMOVING PAVEMENT MARKINGS ARROWS (EACH)
0010	STAGE 1			
		STH 16 (WESTBOUND)		
		108+98 WB - 111+30 WB	1,387	---
		111+30 WB - 119+74 WB	941	---
		119+74 WB - 127+00 WB	2,942	---
		STH 16 (EASTBOUND)		
		108+09 EB - 111+20 EB	3,447	---
		111+20 EB - 119+70 EB	1,865	---
		119+70 EB - 127+00 EB	1,082	---
		RAMP A		
		24+50 A - 26+66 A	1,863	---
		RAMP B		
		20+34 B - 24+75 B	2,343	---
		RAMP C		
		44+11 C - 49+56 C	1,868	---
		RAMP D		
		60+32 D - 63+50 D	1,785	---
	STAGE 1 TOTAL		19,523	---
	STAGE 2			
		STH 16 (WESTBOUND)		
		108+98 WB - 111+30 WB	394	---
		111+30 WB - 119+74 WB	269	---
		119+74 WB - 127+00 WB	935	---
		STH 16 (EASTBOUND)		
		119+70 EB - 127+00 EB	84	---
		RAMP B		
		20+34 B - 24+75 B	1,844	---
		RAMP D		
		60+32 D - 63+50 D	1,453	---
	STAGE 2 TOTAL		4,979	---

CATEGORY	STAGE	STATION TO STATION	646.0600 REMOVING PAVEMENT MARKINGS (LF)	647.0955 REMOVING PAVEMENT MARKINGS ARROWS (EACH)
0010	STAGE 3			
		STH 16 (WESTBOUND)		
		108+98 WB - 111+30 WB	1,556	---
		111+30 WB - 119+74 WB	3,232	2
		119+74 WB - 127+00 WB	2,854	2
		STH 16 (EASTBOUND)		
		108+09 EB - 111+20 EB	675	---
		RAMP A		
		24+50 A - 26+66 A	1,339	---
		RAMP C		
		44+11 C - 49+56 C	1,433	---
	STAGE 3 TOTAL		11,089	4
	STAGE 4			
		STH 16 (WESTBOUND)		
		108+98 WB - 111+30 WB	938	---
		111+30 WB - 119+74 WB	1,666	2
		119+74 WB - 127+00 WB	3,235	3
		STH 16 (EASTBOUND)		
		108+09 EB - 111+20 EB	2,362	3
		111+20 EB - 119+70 EB	1,737	2
		119+70 EB - 127+00 EB	1,492	---
		RAMP A		
		24+50 A - 26+66 A	87	---
		RAMP B		
		20+34 B - 24+75 B	490	6
		RAMP C		
		44+11 C - 49+56 C	317	6
		RAMP D		
		60+32 D - 63+50 D	85	---
	STAGE 4 TOTAL		12,409	22
PROJECT 1401-02-74 TOTALS			**48,000**	**26**

PAVEMENT MARKING - SYMBOLS

CATEGORY	STATION - STATION	647.0166 ARROWS EPOXY TYPE 2 (EACH)	647.0206 ARROWS BIKE LANE EPOXY (EACH)	647.0306 SYMBOLS BIKE LANE EPOXY (EACH)	647.0356 WORDS EPOXY (EACH)
0010	STH 16 (WESTBOUND)				
	108+09 EB - 111+20 EB	2	2	2	1
	111+20 EB - 119+70 EB	2	4	4	1
	119+70 EB - 127+00 EB	---	3	3	---
	STH 16 (WESTBOUND)				
	108+09 WB - 111+20 WB	---	---	---	---
	111+20 WB - 119+70 WB	2	4	4	1
	119+70 WB - 127+00 WB	2	4	4	1
	RAMP A				
	24+50 A - 26+66 A	---	---	---	---
	RAMP B				
	20+34 B - 24+75 B	4	---	---	2
	RAMP C				
	44+11 C - 49+56 C	4	---	---	2
	RAMP D				
	60+32 D - 63+50 D	---	---	---	---
PROJECT 1401-02-74 TOTALS		**16**	**17**	**17**	**8**

TEMPORARY PAVEMENT MARKING - SYMBOLS

CATEGORY	STAGE	649.1800 ARROWS REMOVABLE TAPE (EACH)	649.1802 ARROWS PAINT (EACH)	649.2000 WORDS REMOVABLE TAPE (EACH)	649.2002 WORDS PAINT (EACH)
0010	STAGE 1	---	---	---	---
	STAGE 2	---	4	---	4
	STAGE 3	6	3	3	3
	STAGE 4	12	2	6	2
PROJECT 1401-02-74 TOTALS		**18**	**9**	**9**	**9**

PAVEMENT MARKING - LINES

CATEGORY	STATION - STATION	646.0106 EPOXY 4-INCH WHITE SOLID (LF)	646.0106 EPOXY 4-INCH WHITE 12.5' LINE, 37.5' GAP (LF)	646.0106 EPOXY 4-INCH WHITE 3' LINE, 9' GAP (LF)	646.0106 EPOXY 4-INCH YELLOW SOLID (LF)	646.0126 EPOXY 8-INCH WHITE SOLID (LF)	646.0126 EPOXY 8-INCH WHITE 3' LINE, 9' GAP (LF)	647.0456 CURB EPOXY (LF)	647.0566 STOP LINE EPOXY 18-INCH (LF)	647.0606 ISLAND NOSE EPOXY (EACH)	647.0726 DIAGONAL EPOXY 12-INCH (LF)	647.0766 CROSSWALK EPOXY 6-INCH (LF)
0010	STH 16 (WESTBOUND)											
	108+09 EB - 111+20 EB	210	517	191	319	377	---	5	---	1	---	---
	111+20 EB - 119+70 EB	832	767	---	737	228	---	93	---	1	---	---
	119+70 EB - 127+00 EB	1110	1640	196	---	229	81	5	51	1	---	---
	STH 16 (EASTBOUND)											
	108+09 WB - 111+20 WB	8536	1860	104	1022	198	104	5	---	1	---	---
	111+20 WB - 119+70 WB	790	789	---	735	285	---	117	41	1	---	---
	119+70 WB - 127+00 WB	621	774	50	---	---	---	5	---	1	---	---
	RAMP A											
	24+50 A - 26+66 A	771	---	---	187	---	---	---	---	---	---	90
	RAMP B											
	20+34 B - 24+75 B	986	79	---	275	147	---	10	44	1	75	100
	RAMP C											
	44+11 C - 49+56 C	665	244	---	497	102	---	---	30	---	---	108
	RAMP D											
	60+32 D - 63+50 D	766	---	---	280	---	---	---	---	---	---	83
PROJECT 1401-02-74 TOTALS		**15,287**	**6,670**	**541**	**4,052**	1564	186	**240**	**165**	**7**	**75**	**380**
			26,550				**1,750**					

PAVEMENT CLEANUP PROJECT

CATEGORY	STATION TO STATION	SPV.0170.001 PROJECT 1401-02-74 (STA)
0010	STH 16 (WESTBOUND)	
	108+98 WB - 111+30 WB	6
	111+30 WB - 119+74 WB	8
	119+74 WB - 127+00 WB	9
	STH 16 (EASTBOUND)	
	108+09 EB - 111+20 EB	7
	111+20 EB - 119+70 EB	9
	119+70 EB - 127+00 EB	8
	RAMP A	
	24+50 A - 26+66 A	8
	RAMP B	
	20+34 B - 24+75 B	20
	RAMP C	
	44+11 C - 49+56 C	7
	RAMP D	
	60+32 D - 63+50 D	8
PROJECT 1401-02-74 TOTAL		**90**

TEMPORARY PAVEMENT MARKING - LINES

CATEGORY	STAGE	649.0400 REMOVABLE TAPE 4-INCH WHITE SOLID (LF)	649.0400 REMOVABLE TAPE 4-INCH WHITE 3' SEG, 9' GAP (LF)	649.0400 REMOVABLE TAPE 4-INCH DOUBLE YELLOW SOLID (LF)	649.0400 REMOVABLE TAPE 4-INCH YELLOW SOLID (LF)	649.0400 REMOVABLE TAPE 4-INCH YELLOW 3' SEG, 9' GAP (LF)	649.0402 PAINT 4-INCH WHITE SOLID (LF)	649.0402 PAINT 4-INCH WHITE 3' SEG, 9' GAP (LF)	649.0402 PAINT 4-INCH DOUBLE YELLOW SOLID (LF)	649.0402 PAINT 4-INCH YELLOW 3' SEG, 9' GAP (LF)	649.0402 PAINT 4-INCH YELLOW SOLID (LF)	649.0600 REMOVABLE TAPE 6-INCH WHITE SOLID (LF)	649.0801 REMOVABLE TAPE 8-INCH WHITE SOLID (LF)	649.0801 REMOVABLE TAPE 8-INCH WHITE 3' SEG, 9' GAP (LF)	649.0801 REMOVABLE TAPE 8-INCH WHITE 12' SEG, 37.5' GAP (LF)	649.0802 PAINT 8-INCH WHITE SOLID (LF)	649.1100 STOP LINE 18-INCH (LF)	649.1200 REMOVABLE STOP LINE 18-INCH (LF)
0010	STAGE 1	2063	---	---	4167	---	1507	---	---	---	3303	---	736	---	---	869	52	---
	STAGE 2	5028	---	---	1958	---	7935	124	1437	46	771	---	939	---	---	841	123	---
	STAGE 3	9321	57	1605	3825	43	3627	---	---	---	---	183	1110	62	20	---	35	127
	STAGE 4	7910	135	---	7488	---	---	---	---	---	---	377	1700	57	26	---	---	137
PROJECT 1401-02-74 TOTALS		24,322	192	1,605	17,438	43	13,069	124	1,437	46	4,074	**560**	4,485	119	46	**1,710**	**210**	**265**
				43,600					**18,750**					**4,650**				

RETAINING WALL

CATEGORY	STAGE	STATION TO STATION	SPV.0165.001 WALL MODULAR BLOCK GRAVITY LRFD (SF)
0010	STAGE 2		
		STH 16 (WESTBOUND)	
		114+43 'WB' - 117+07 'WB'	905
PROJECT 1401-02-74 TOTALS			**905**

UTILITY LINE OPENING (ULO)

CATEGORY	STATION TO STATION	SPV.0060.001 (EACH)
0010	UNDISTRIBUTED	10
PROJECT 1401-02-74 TOTALS		**10**

SAWING ITEMS

CATEGORY	STAGE	STATION TO STATION	690.0150 ASPHALT (LF)	690.0250 CONCRETE (LF)
0010	STAGE 1			
		STH 16 (WESTBOUND)		
		108+98 WB - 111+30 WB	---	181
		119+74 WB - 127+00 WB	---	156
		STH 16 (EASTBOUND)		
		108+09 EB - 111+20 EB	---	410
		119+70 EB - 127+00 EB	---	66
	STAGE 1 TOTAL		---	813
	STAGE 2			
		STH 16 (WESTBOUND)		
		108+98 WB - 111+30 WB	---	52
		119+74 WB - 127+00 WB	---	37
		RAMP B		
		20+34 B - 24+75 B	574	18
		RAMP D		
		60+32 D - 63+50 D	525	18
	STAGE 2 TOTAL		1099	125
	STAGE 3			
		STH 16 (EASTBOUND)		
		108+09 EB - 111+20 EB	---	47
		119+70 EB - 127+00 EB	---	159
		RAMP A		
		24+50 A - 26+66 A	603	18
		RAMP C		
		44+11 C - 49+56 C	178	18
	STAGE 3 TOTAL		781	242
PROJECT 1401-02-74 TOTALS			**1,880**	**1,180**

GEOGRID TYPE SR

CATEGORY	STAGE	STATION TO STATION	645.0220 GEOGRID TYPE SR (SY)
0010	STAGE 2		
		STH 16 (WESTBOUND)	
		108+98 WB - 111+30 WB	1,317
		111+30 WB - 119+74 WB	3,707
		119+74 WB - 127+00 WB	3,172
		RAMP B	
		20+34 B - 24+75 B	3,219
		RAMP D	
		60+32 D - 63+50 D	2,090
	STAGE 2 TOTAL		13,504
	STAGE 3		
		STH 16 (EASTBOUND)	
		108+09 EB - 111+20 EB	1,658
		111+20 EB - 119+70 EB	3,568
		119+70 EB - 127+00 EB	2,697
		RAMP A	
		24+50 A - 26+66 A	1,772
		RAMP C	
		44+11 C - 49+56 C	3,223
	STAGE 3 TOTAL		12,918
	STAGE 4		
		STH 16 (WESTBOUND)	
		108+98 WB - 111+30 WB	627
		111+30 WB - 119+74 WB	801
		119+74 WB - 127+00 WB	850
		STH 16 (EASTBOUND)	
		108+09 EB - 111+20 EB	---
		111+20 EB - 119+70 EB	---
		119+70 EB - 127+00 EB	---
	STAGE 4 TOTAL		2,278
PROJECT 1401-02-74 TOTALS			**28,700**

CONSTRUCTION STAKING

CATEGORY	STAGE	STATION - STATION	650.4500 CONSTRUCTION STAKING SUBGRADE (LF)	650.5000 CONSTRUCTION STAKING BASE (LF)	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT (LF)	650.9920 CONSTRUCTION STAKING SLOPE STAKES (LF)
0010	STAGE 1					
		STH 16 (EASTBOUND)				
		108+09 EB - 111+20 EB	590	590	---	---
		111+20 EB - 119+70 EB	400	400	---	---
		119+70 EB - 127+00 EB	470	470	---	---
		RAMP A				
		24+50 A - 26+66 A	790	790	---	790
		RAMP B				
		20+34 B - 24+75 B	1,000	1,000	---	940
		RAMP C				
		44+11 C - 49+56 C	725	725	---	655
		RAMP D				
		60+32 D - 63+50 D	825	825	---	835
	STAGE 1 TOTAL		4,800	4,800	---	3,220
	STAGE 2					
		STH 16 (WESTBOUND)				
		108+98 WB - 111+30 WB	338	---	338	338
		111+30 WB - 119+74 WB	844	---	844	844
		119+74 WB - 127+00 WB	726	---	726	726
		RAMP B				
		20+34 B - 24+75 B	450	---	450	450
		RAMP D				
		60+32 D - 63+50 D	320	---	320	320
	STAGE 2 TOTAL		2,678	---	2,678	2,678
	STAGE 3					
		STH 16 (EASTBOUND)				
		108+09 EB - 111+20 EB	222	---	222	222
		111+20 EB - 119+70 EB	850	---	850	850
		119+70 EB - 127+00 EB	730	---	730	730
		RAMP A				
		24+50 A - 26+66 A	210	---	210	210
		RAMP C				
		44+11 C - 49+56 C	440	---	440	440
	STAGE 3 TOTAL		2,452	---	2,452	2,452
PROJECT 1401-02-74 TOTALS			**9,930**	**4,800**	**5,130**	**8,350**

3

TRAFFIC SIGNAL PULL BOXES

LOCATION / PULL BOX NUMBER	STATION	OFFSET	L/R	SPV.0060.010 PULL BOX NON-CONDUCTIVE 24X36-INCH EACH	SPV.0060.011 * PULL BOX NON-CONDUCTIVE 24X42-INCH EACH	652.0700.S * INSTALL CONDUIT INTO EXISTING ITEM EACH
CATEGORY 0010						
STH 16 & USH 151 NB RAMPS						
PB1	119+70 WB	55.3'	L	--	1	--
PB2	120+54 WB	57.3'	L	--	1	--
PB3	120+54 EB	16.7'	L	--	1	--
PB4	120+72 EB	24.1'	L	1	--	--
PB5	123+50 EB	22.3'	L	1	--	--
PB6	120+56 EB	42'	R	--	1	--
PB7	120+43 EB	57'	R	--	1	--
PB8	119+67 EB	49.2'	R	--	1	--
PB9	119+72 EB	68.6'	R	1	--	--
PB10	119+24 EB	33.4'	R	--	1	--
PB11	119+22 EB	18.8'	L	--	1	--
PB12	116+43 EB	17.2'	L	1	--	--
PB13	119+25 WB	47.0'	L	--	1	--
STH 16 & USH 151 SB RAMPS						
PB1	111+73 WB	45.1'	L	--	1	--
PB2	111+45 WB	33.1'	L	1	--	--
PB3	112+02 WB	33.3'	L	1	--	--
PB4	111+63 EB	15.3'	L	--	1	--
PB5	114+32 EB	19.7'	L	1	--	--
PB6	111+62 EB	34.9'	R	--	1	--
PB7	111+41 EB	63.3'	R	--	1	--
PB8	111+01 EB	77.4'	R	--	1	--
PB9	110+08 EB	58.4'	R	--	1	--
PB10	110+36 EB	47.1'	R	1	--	--
PB11	110+08 EB	19.9'	L	--	1	--
PB12	107+52 EB	16.2'	L	--	--	1
PB13	110+67 EB	9.9'	L	1	--	--
PB14	110+16 WB	67.0'	L	--	1	--
PB15	110+06WB	49.0'	L	1	--	--
PB16	110+80 WB	65.0'	L	--	1	--
PB17	111+17 WB	63.5'	L	--	1	--
PB18	111+12 WB	71.3'	L	1	--	--
CATEGORY 0010 TOTAL				11	19	1

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE (INTERCONNECT PULLBOXES AND VAULTS)

TRAFFIC SIGNAL CABLE AND WIRE - BELOW GROUND

LOCATION	FROM	-	TO	655.0230 * CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG LF	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED LF	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF
CATEGORY 0010								
STH 16 & USH 151 NB RAMPS								
	CB1	-	SB1	--	69	--	69	69
	CB1	-	SB2	178	--	--	--	--
	CB1	-	SB3	--	--	161	--	--
	CB1	-	SB4	--	--	253	--	--
	CB1	-	SB5	366	--	--	--	--
	CB1	-	SB6	--	362	--	--	--
	CB1	-	SB7	--	--	270	--	--
	CB1	-	SB8	280	--	--	--	--
	CB1	-	SB9	--	--	154	154	154
	SB1	-	SB2	--	--	--	--	163
	SB1	-	SB4	--	--	--	237	--
	SB2	-	SB3	--	--	--	--	58
	SB3	-	SB4	--	--	--	--	132
	SB4	-	SB5	--	--	--	--	160
	SB5	-	SB6	--	--	--	--	116
	SB6	-	SB7	--	--	--	--	131
	SB6	-	SB9	--	--	--	276	--
	SB7	-	SB8	--	--	--	--	49
	SB8	-	SB9	--	--	--	--	194
CATEGORY 0010 TOTAL				824	431	838	736	1226

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE (TRAFFIC SIGNAL CABLE AND WIRE - ABOVE GROUND)

INTERCONNECT PULLBOXES AND VAULTS

PULL BOX NUMBER	STATION	OFFSET	L/R	SPV.0060.011 * PULL BOX NON-CONDUCTIVE 24X42-INCH EACH	673.0105 COMMUNICATION VAULT TYPE 1 EACH	652.0700.S * INSTALL CONDUIT INTO EXISTING ITEM EACH
CATEGORY 0010						
PB3 (S11-1001)	100+76.8 WB	71.9	L	--	--	1
CV1	100+91.2 WB	73.3'	L	--	1	--
ICPB1	105+23.3 WB	50.5'	L	1	--	--
ICPB2	110+32.0 WB	69.8'	L	1	--	--
CV2	111+57.6 WB	46.5'	L	--	1	--
ICPB3	113+90.8 WB	46.1'	L	1	--	--
ICPB4	117+30.0 WB	44.5'	L	1	--	--
CV3	119+35.0 WB	63.3'	L	--	1	--
CATEGORY 0010 TOTAL				4	3	1

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE (TRAFFIC SIGNAL PULL BOXES)

TRAFFIC SIGNAL STRUCTURES

LOCATION / BASE NUMBER	STATION	OFFSET	L/R	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	657.0100 PEDESTAL BASES EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0315 POLES TYPE 4 EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.0614 LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 8-FT EACH	659.1120 * LUMINAIRES UTILITY LED B EACH
CATEGORY 0010												
STH 16 & USH 151 NB RAMPS												
SB1	119+74 WB	67.4'	L	--	1	--	1	1	--	--	1	1
SB2	120+32 WB	68.4'	L	1	--	1	--	--	1	--	--	--
SB3	120+47 WB	54.6'	L	1	--	1	--	--	--	1	--	--
SB4	120+44 EB	16.6'	L	--	1	--	1	1	--	--	2	2
SB6	120+39 EB	51.4'	R	--	1	--	1	1	--	--	1	1
SB7	119+72 EB	45.4'	R	1	--	1	--	--	1	--	--	--
SB8	119+61 EB	33.8'	R	1	--	1	--	--	1	--	--	--
CATEGORY 0010 TOTAL				4	3	4	3	3	3	1	4	4

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE (MONOTUBE STRUCTURES)

TRAFFIC SIGNAL CONDUIT

LOCATION	FROM	-	TO	652.0225 * CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0240 CONDUIT RIGID NONMETALLIC SCHEDULE 40 4-INCH LF
CATEGORY 0010						
STH 16 & USH 151 NB RAMPS						
	CB1	-	SERVICE	--	--	75
	CB1	-	PB1	--	78	--
	PB1	-	SB1	13	--	--
	PB1	-	PB2	--	166	--
	PB2	-	SB2	25	--	--
	PB2	-	SB3	7	--	--
	PB2	-	PB3	--	148	--
	PB3	-	SB4	10	--	--
	PB3	-	PB4	20	--	--
	PB4	-	PB5	278	--	--
	PB3	-	PB6	--	118	--
	PB6	-	SB5	--	49	--
	PB6	-	PB7	--	40	--
	PB7	-	SB6	7	--	--
	PB7	-	PB8	--	156	--
	PB8	-	SB7	7	--	--
	PB8	-	SB8	17	--	--
	PB8	-	PB9	21	--	--
	PB8	-	PB10	--	94	--
	PB10	-	PB11	--	105	--
	PB11	-	SB9	--	22	--
	PB11	-	PB12	279	--	--
	PB11	-	PB13	--	124	--
	PB13	-	CB1	--	78	--
SW QUADRANT	-	SE QUADRANT		--	--	55
STH 16 & USH 151 SB RAMPS						
	PB1	-	PB2	27	--	--
	PB1	-	PB3	27	--	--
	PB1	-	PB4	--	126	--
	PB4	-	PB5	269	--	--
	PB4	-	PB6	--	102	--
	PB6	-	PB7	--	72	--
	PB7	-	PB8	--	86	--
	PB8	-	PB9	--	194	--
	PB9	-	PB10	31	--	--
	PB9	-	PB11	--	158	--
	PB11	-	PB12	258	--	--
	PB11	-	PB13	60	--	--
	PB11	-	PB14	--	176	--
	PB14	-	PB15	20	--	--
	PB14	-	PB16	--	126	--
	PB16	-	PB17	--	74	--
	PB17	-	PB18	10	--	--
CATEGORY 0010 TOTAL				1,386	2,292	130

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE (INTERCONNECT CONDUIT)

PEDESTRIAN PUSH BUTTONS

LOCATION / BASE NUMBER	658.0500 PEDESTRIAN PUSH BUTTONS EACH
CATEGORY 0010	
STH 16 & USH 151 NB RAMPS	
SB1	1
SB2	1
SB6	1
SB7	1
CATEGORY 0010 TOTAL	4

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INTERCONNECT FIBER OPTIC SYSTEM TESTING AND DOCUMENTATION

LOCATION	670.0100 FIELD SYSTEM INTEGRATOR LS	670.0200 ITS DOCUMENTATION LS	678.0500 COMMUNICATION SYSTEM TESTING LS
CATEGORY 0010			
PROJECT	1	1	1
CATEGORY 0010 TOTAL	1	1	1

INTERCONNECT CONDUIT

LOCATION FROM	-	TO	652.0225 * CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	678.0012 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 12-CT LF	SPV.0090.010 FIBER OPTIC TRACER CABLE LF	SPV.0090.011 FIBER OPTIC WARNING TAPE LF
CATEGORY 0010						
PROJECT 1401-02-74						
CB1 (S11-1001)	-	PB3 (S11-1001)	--	--	110	--
PB3 (S11-1001)	-	CV1	20	--	25	25
CV1	-	ICPB1	430	530	435	435
ICPB1	-	ICPB2	505	705	510	510
ICPB2	-	CV2	130	330	135	135
CV2	-	ICPB3	235	435	240	240
ICPB3	-	ICPB4	340	540	345	345
ICPB4	-	CV3	205	405	210	210
CV3	-	CB1 (S11-1002)	10	--	15	15
CATEGORY 0010 TOTAL			1,875	2,945	2,025	1,915

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE (TRAFFIC SIGNAL CONDUIT)

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SUMMARY OF STATE FURNISHED ITEMS

QUANTITY	UNIT	DESCRIPTION
1	EACH	POLES TYPE 9
1	EACH	POLES TYPE 10
2	EACH	MONOTUBE ARMS 30-FT
2	EACH	LUMINAIRE ARMS STEEL 8-FT
1	EACH	TRAFFIC SIGNAL CONTROLLER, FULLY ACTUATED, 8-PHASE
1	EACH	TRAFFIC SIGNAL CABINET
2	EACH	ETHERNET SWITCH
2	EACH	FIBER OPTIC PATCH PANEL
1	EACH	CELL MODEM

TEMPORARY TRAFFIC SIGNAL

LOCATION	661.0200.001 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (STH 16 & USH 151 NB RAMPS) LS
CATEGORY 0010	
STH 16 & USH 151 NB RAMPS	1
CATEGORY 0010 TOTAL	1

TRAFFIC SIGNAL LOOP DETECTORS

LOCATION / LOOP NO.	STATION **	OFFSET	L/R	SIZE FT		SIZE FT	NO. OF TURNS	INSTALLATION METHOD	652.0800 CONDUIT LOOP DETECTOR LF	655.0800 LOOP DETECTOR WIRE LF	655.0700 * LOOP DETECTOR LEAD IN CABLE LF
CATEGORY 0010											
STH 16 & USH 151 NB RAMPS											
11	119+09 EB	6'	L	6	X	20	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	86	258	90
12	119+39 EB	6'	L	6	X	20	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	72	216	90
21	123+52 WB	12'	L	6	X	20	4	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	70	280	480
22	120+52 WB	6'	L	6	X	20	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	76	228	205
23	120+52 WB	18'	L	6	X	20	4	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	100	400	205
24	120+52 WB	35'	L	6	X	20	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	88	264	110
61	116+43 EB	12'	R	6	X	20	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	92	276	370
62	119+25 EB	6'	R	6	X	20	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	108	324	140
63	119+25 EB	18'	R	6	X	20	4	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	78	312	140
81	119+86 EB	76'	R	6	X	20	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	80	240	210
82	119+89 EB	46'	R	6	X	20	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	78	234	210
83	120+22 EB	49'	R	6	X	20	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	94	282	260
STH 16 & USH 151 SB RAMPS											
21	114+41 WB	12'	L	6	X	20	-	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	82	-	-
22	111+79 WB	6'	L	6	X	20	-	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	78	-	-
23	111+78 WB	18'	L	6	X	20	-	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	102	-	-
41	110+97 WB	80'	L	6	X	20	-	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	76	-	-
42	111+01 WB	50'	L	6	X	20	-	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	76	-	-
43	110+52 WB	58'	L	6	X	20	-	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	76	-	-
51	111+81 WB	6'	R	6	X	20	-	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	72	-	-
52	111+51 WB	6'	R	6	X	20	-	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	72	-	-
61	107+52 EB	12'	R	6	X	20	-	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	88	-	-
62	110+63 EB	6'	R	6	X	20	-	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	80	-	-
63	110+63 EB	18'	R	6	X	20	-	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	104	-	-
CATEGORY 0010 TOTAL									1,928	3,314	2,510

** LOCATION IS TO THE FRONT CENTER OF DETECTOR LOOP & FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
* ADDITIONAL QUANTITIES SHOWN ELSEWHERE (TRAFFIC SIGNAL CABLE AND WIRE - ABOVE GROUND)

INTERCONNECT FIBER OPTIC COMMUNICATIONS EQUIPMENT (1 OF 2)

LOCATION	678.0400 FIBER OPTIC TERMINATION EACH	SPV.0105.012 INSTALL FIBER OPTIC COMMUNICATIONS IN CABINET (STH 16 & USH 151 NB RAMPS) LS	SPV.0105.013 INSTALL FIBER OPTIC COMMUNICATIONS IN CABINET (STH 16 & STH 60) LS
CATEGORY 0010			
STH 16 & USH 151 NB RAMPS	12	1	--
STH 16 & STH 60	12	--	1
CATEGORY 0010 TOTAL	24	1	1

INTERCONNECT FIBER OPTIC COMMUNICATIONS EQUIPMENT (2 OF 2)

LOCATION	*** INSTALL CELL MODEM (STATE FURNISHED) EACH	*** ST-ST SINGLE MODE FIBER JUMBER (CONTRACTOR FURNISHED) EACH	*** CAT-5E CABLE JUMPER (CONTRACTOR FURNISHED) LS	*** INSTALL 12-COUNT FIBER OPTIC TERMINATION PANEL (STATE FURNISHED) LF	675.0400.S INSTALL ETHERNET SWITCH (STATE FURNISHED) LS
CATEGORY 0010					
STH 16 & USH 151 NB RAMPS	--	1	1	1	1
STH 16 & STH 60	1	1	1	1	1
CATEGORY 0010 TOTAL	1	2	2	2	2

*** INCIDENTAL TO THE INSTALL FIBER OPTIC COMMUNICATIONS IN CABINET (LOCATION) BID ITEM

CONSTRUCTION STAKING

LOCATION	650.8500.001 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (1401-02-74) LS
CATEGORY 0010	
PROJECT	1
CATEGORY 0010 TOTAL	1

TRAFFIC SIGNAL MOUNTING HARDWARE

LOCATION	658.5069.001 SIGNAL MOUNTING HARDWARE (STH 16 & USH 151 NB RAMPS) LS
CATEGORY 0010	
STH 16 & USH 151 NB RAMPS	1
CATEGORY 0010 TOTAL	1

TRAFFIC SIGNAL SYSTEM INTEGRATOR

LOCATION	SPV.0105.011 TRAFFIC SIGNAL SYSTEMS INTEGRATOR (1401-02-74) LS
CATEGORY 0010	
PROJECT	1
CATEGORY 0010 TOTAL	1

MONOTUBE STRUCTURES

LOCATION / BASE NUMBER	STATION	OFFSET	L/R	654.0110 CONCRETE BASES TYPE 10 EACH	657.1345 INSTALL POLES TYPE 9 EACH	657.1350 INSTALL POLES TYPE 10 EACH	657.1530 INSTALL MONOTUBE ARMS 30-FT EACH	657.1808 INSTALL LUMINAIRE ARMS STEEL 8-FT EACH	659.1120 * LUMINAIRES UTILITY LED B EACH
CATEGORY 0010									
STH 16 & USH 151 NB RAMPS									
SB5	121+04 EB	35.4'	R	1	1	--	1	--	--
SB9	119+01 EB	22.3'	L	1	--	1	1	2	2
CATEGORY 0010 TOTAL				2	1	1	2	2	2

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE (TRAFFIC SIGNAL STRUCTURES)

TRAFFIC SIGNAL CONTROL

LOCATION	654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
CATEGORY 0010	
STH 16 & USH 151 NB RAMPS	
CB1	1
CATEGORY 0010 TOTAL	1

TRAFFIC SIGNAL HEADS

LOCATION	SIGNAL BASE NO.	HEAD NO.	658.0110 TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL EACH	658.0115 TRAFFIC SIGNAL FACE 4-12 INCH VERTICAL EACH	658.0600 LED MODULES 12-INCH RED BALL EACH	658.0605 LED MODULES 12-INCH YELLOW BALL EACH	658.0610 LED MODULES 12-INCH GREEN BALL EACH	658.0615 LED MODULES 12-INCH RED ARROW EACH	658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	658.0625 LED MODULES 12-INCH GREEN ARROW EACH	658.0215 BACK PLATES SIGNAL FACE 3 SECTION 12-INCH EACH	658.0220 BACK PLATES SIGNAL FACE 4 SECTION 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH
CATEGORY 0010														
STH 16 & USH 151 NB RAMPS														
	SB1	4	1	--	1	1	1	--	--	--	1	--	--	--
		2B	--	--	--	--	--	--	--	--	--	--	1	1
	SB2	5	1	--	1	1	1	--	--	--	1	--	--	--
	SB3	6	1	--	1	1	1	--	--	--	1	--	--	--
		13	--	1	--	--	--	1	2	1	--	1	--	--
		2A	--	--	--	--	--	--	--	--	--	--	1	1
	SB4	3	1	--	1	--	--	--	1	1	1	--	--	--
		14	--	1	--	--	--	1	2	1	--	1	--	--
	SB5	10	1	--	1	1	1	--	--	--	1	--	--	--
		11	1	--	1	1	1	--	--	--	1	--	--	--
	SB6	2	1	--	1	--	--	--	1	1	1	--	--	--
		6B	--	--	--	--	--	--	--	--	--	--	1	1
	SB7	1	1	--	1	1	1	--	--	--	1	--	--	--
		6A	--	--	--	--	--	--	--	--	--	--	1	1
	SB8	9	1	--	1	1	1	--	--	--	1	--	--	--
	SB9	7	1	--	1	1	1	--	--	--	1	--	--	--
		8	1	--	1	1	1	--	--	--	1	--	--	--
		12	--	1	--	--	--	1	2	1	--	1	--	--
CATEGORY 0010 TOTAL			11	3	11	9	9	3	8	5	11	3	4	4

TRAFFIC SIGNAL CABLE AND WIRE - ABOVE GROUND

LOCATION	FROM SIGNAL BASE	-	TO SIGNAL HEAD	655.0230 * CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	655.0700 * LOOP DETECTOR LEAD IN CABLE LF
CATEGORY 0010						
STH 16 & USH 151 NB RAMPS						
	SB1	-	HEAD 4	19	--	--
		-	HEAD 2B	15	--	--
		-	LUMINAIRE	--	117	--
		-	BUTTON	--	--	6
	SB2	-	BUTTON	--	--	6
		-	HEAD 5	19	--	--
	SB3	-	HEAD 6	21	--	--
		-	HEAD 13	22	--	--
		-	HEAD 2A	15	--	--
	SB4	-	HEAD 14	22	--	--
		-	LUMINAIRE	--	234	--
		-	HEAD 3	19	--	--
	SB5	-	HEAD 10	55	--	--
		-	HEAD 11	45	--	--
	SB6	-	HEAD 2	19	--	--
		-	HEAD 6B	15	--	--
		-	LUMINAIRE	--	117	--
		-	BUTTON	--	--	6
	SB7	-	HEAD 1	19	--	--
		-	HEAD 6A	15	--	--
		-	BUTTON	--	--	6
	SB8	-	HEAD 9	19	--	--
	SB9	-	HEAD 7	45	--	--
		-	HEAD 8	55	--	--
		-	HEAD 12	22	--	--
		-	LUMINAIRE	--	234	--
CATEGORY 0010 TOTAL				461	702	24

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE
(TRAFFIC SIGNAL CABLE AND WIRE - BELOW GROUND, TRAFFIC SIGNAL LOOP DETECTORS)

State Project No. 1401-02-74

LIGHTING BASES, POLES, ARMS, FIXTURES AND WIRE

LIGHT NUMBER	STATION	OFFSET	R/L	654.0105 CONCRETE BASES TYPE 5 EACH	SPV.0060.101 TRANSFORMER BASE BREAKAWAY-BLACK 11 1/2-INCH BOLT CIRCLE EACH	SPV.0060.102 POLES TYPE 5 ALUMINUM-BLACK EACH	SPV.0060.103 LUMINAIRE ARMS Single Member 4 1/2-INCH CLAMP 8-FT- BLK EACH	SPV.0060.104 LUMINAIRE UTILITY LED-BLACK 139 WATT EACH	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF
ALL ITEMS ARE CATEGORY 0020									
SL 100	121+27.6EB	33.0'	RT	1	1	1	1	1	114
SL 101	121+85.1WB	46.0'	LT	1	1	1	1	1	114
SL 102	122+52.7EB	33.0'	RT	1	1	1	1	1	114
SL 103	123+12.8WB	40.1'	LT	1	1	1	1	1	114
SL 104	123+77.6EB	33.0'	RT	1	1	1	1	1	114
SL 105	124+39.7WB	33.0'	LT	1	1	1	1	1	114
SL 106	125+02.5EB	33.0'	RT	1	1	1	1	1	114
SL 107	125+66.2WB	33.0'	LT	1	1	1	1	1	114
SL 108	126+28.2EB	33.0'	RT	1	1	1	1	1	114
SL 110	127+53.9EB	38.3'	RT	1	1	1	1	1	114
SHEET TOTALS				10	10	10	10	10	1140

State Project No. 1401-02-74

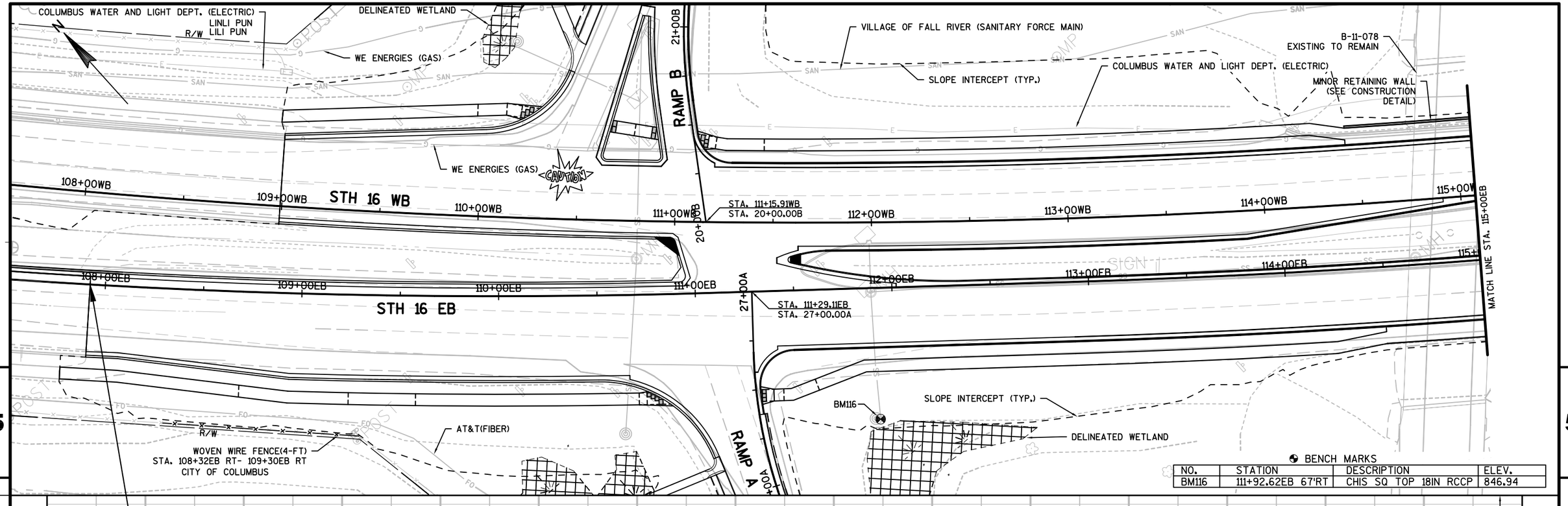
LIGHTING CONDUIT AND WIRE

FROM	-	TO	652.0225 CONDUIT RIGID NONMETALLIC SCH. 40 2-INCH LF	655.0635 ELECTRICAL WIRE LIGHTING 2 AWG LF	REMARKS
ALL ITEMS ARE CATEGORY 0020					
SL 100	-	SL 102	126	399	
SL 102	-	SL 104	126	532	
SL 104	-	SL 106	126	532	
SL 106	-	SL 108	126	532	
SL 108	-	SL 110	126	532	
SL 110	-	SL 112	63	532	Connect conduit to existing conduit installed under Project # 1401-02-71.
SL 101	-	SL 103	127	402	
SL 103	-	SL 105	127	536	
SL 105	-	SL 107	126	532	
SL 107	-	SL 109	73	532	Connect conduit to existing conduit installed under Project # 1401-02-71.
SHEET TOTALS			1146	5061	

HIGHWAY LIGHTING
STH 16 & USH 151 SB RAMPS
CITY OF COLUMBUS
COLUMBIA COUNTY

DESIGN: FORSTER ELECTRICAL ENGINEERING

DATE: 2016-10-13 REV: 2



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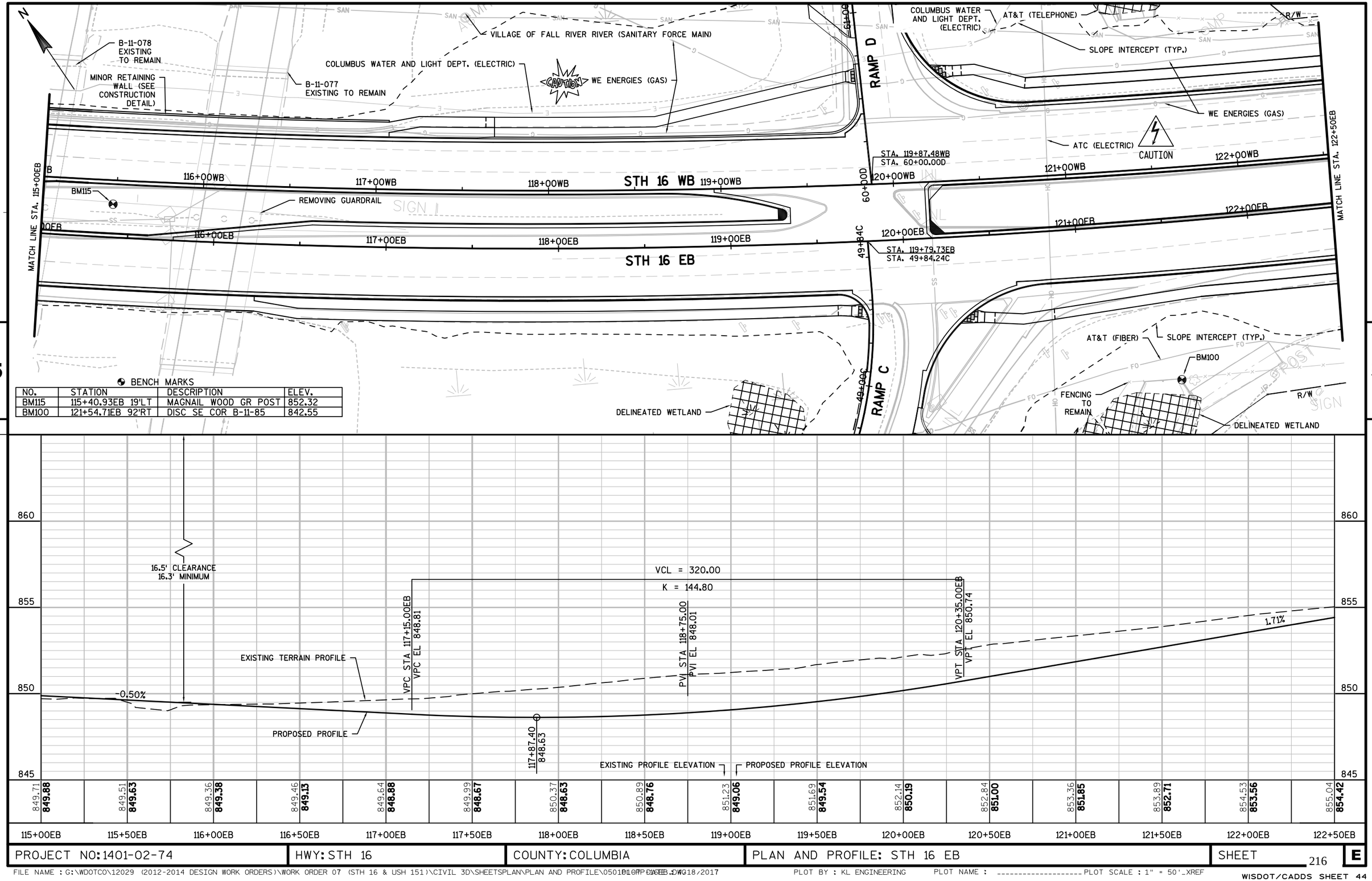
PROJECT NO: 1401-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PLAN AND PROFILE: STH 16 EB | SHEET 215 | E



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
BM115	115+40.93EB 19'LT	MAGNAIL WOOD GR POST	852.32
BM100	121+54.71EB 92'RT	DISC SE COR B-11-85	842.55

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PLAN AND PROFILE: STH 16 EB	SHEET 216 E

JJB REAL ESTATE DEVELOPMENT LLC

1580 WEST JAMES LLC

1540 WEST JAMES LLC

R/W

VILLAGE OF FALL RIVER (SANITARY FORCE MAIN)

SLOPE INTERCEPT (TYP.)

WE ENERGIES (GAS)

CAUTION

WE ENERGIES (GAS)

END PROJECT
STA. 128+52.27EB
MATCH EXISTING
SAWCUT REQ'D

MATCH LINE STA. 122+50EB

STH 16 WB

123+00WB 124+00WB 125+00WB 126+00WB 127+00WB 128+00WB 129+00 130+00WB

123+00EB 124+00EB 125+00EB 126+00EB 127+00EB 128+00EB 129+00EB 130+00EB

STH 16 EB

SLOPE INTERCEPT (TYP.)

SIGN

SIGN

R/W

AT&T (FIBER)

AT&T (TELEPHONE)

KT REAL ESTATE HOLDINGS LLC

GUNDLACH PROPERTIES LLC

SIGN

N

5

5

END CONSTRUCTION
STA. 126+99.44EB
MATCH EXISTING
SAWCUT REQ'D

VCL = 205.00

K = 169.18

VPC STA 123+97.50EB
VPC EL 856.94

PVI STA 125+00.00
PVI EL 858.69

VPT STA 126+02.50EB
VPT EL 859.20

STA = 127+00.00EB
ELEV = 859.69

0.50%

EXISTING TERRAIN PROFILE

1.71%

PROPOSED PROFILE

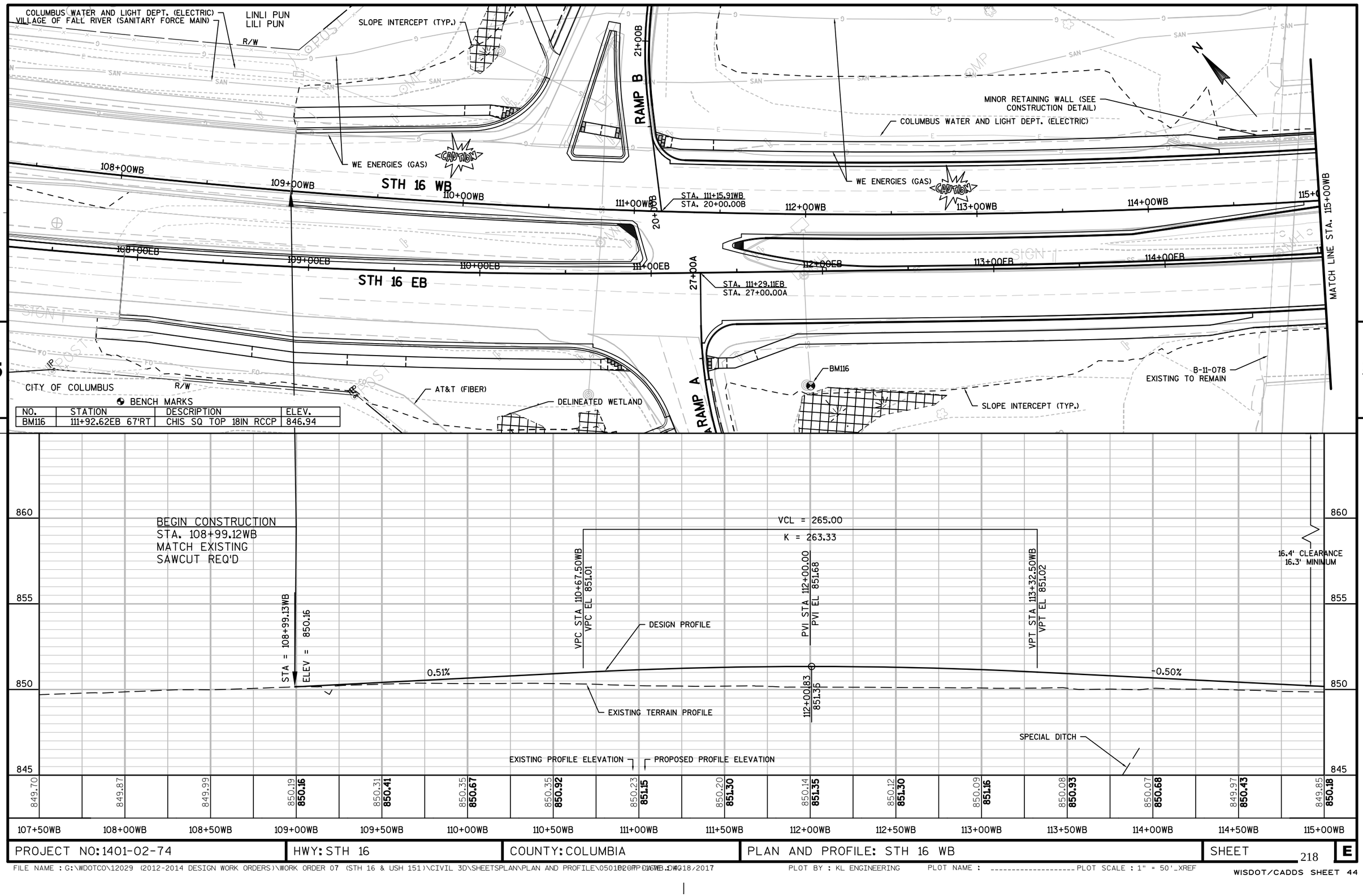
865
860
855
850

EXISTING PROFILE ELEVATION

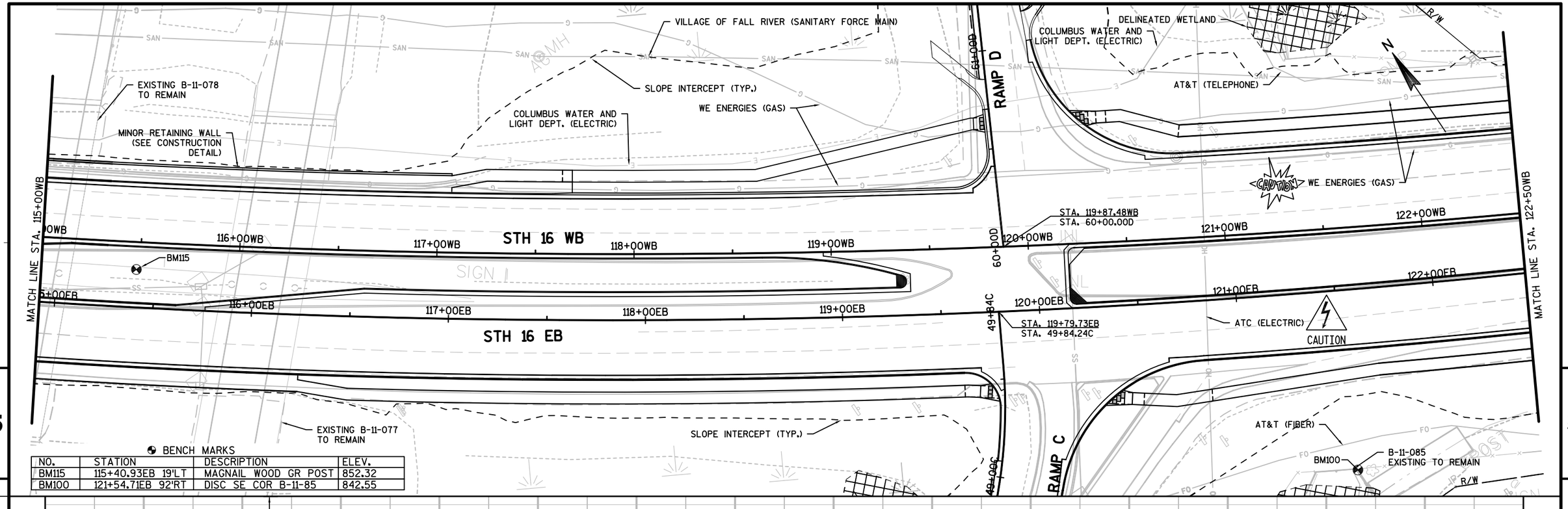
PROPOSED PROFILE ELEVATION

122+50EB	123+00EB	123+50EB	124+00EB	124+50EB	125+00EB	125+50EB	126+00EB	126+50EB	127+00EB	127+50EB	128+00EB	128+50EB	129+00EB	129+50EB	130+00EB
855.04	855.74	856.38	857.03	857.57	858.02	858.57	859.05	859.37	859.69	859.94	860.19	860.32	860.30	860.14	859.83
854.42	**855.27**	**856.13**	**856.98**	**857.76**	**858.38**	**858.86**	**859.19**	**859.44**	**859.69**						

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PLAN AND PROFILE: STH 16 EB	SHEET 217	E



PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PLAN AND PROFILE: STH 16 WB	SHEET 218 E



PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PLAN AND PROFILE: STH 16 WB	SHEET 219	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\PLAN AND PROFILE\0501022PPDSTH16WB.DWG 8/2017 PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : 1" = 50'_XREF

WISDOT/CADDS SHEET 44

JJB REAL ESTATE DEVELOPMENT LLC

1580 WEST JAMES LLC

1540 WEST JAMES LLC

COLUMBUS PHARMACY GROUP LLC

R/W

VILLAGE OF FALL RIVER (SANITARY FORCE MAIN)

SLOPE INTERCEPT (TYP.)

WE ENERGIES (GAS)

WE ENERGIES (GAS)

CAUTION

MATCH LINE STA. 122+50WB

123+00WB 124+00WB 125+00WB 126+00WB 127+00WB 128+00WB 129+00WB 130+00WB

STH 16 WB

123+00EB 124+00EB 125+00EB 126+00EB 127+00EB 128+00EB 129+00EB 130+00EB

STH 16 EB

SLOPE INTERCEPT (TYP.)

AT&T (TELEPHONE)

AT&T (FIBER)

R/W

GUNDLACH PROPERTIES LLC

KT REAL ESTATE HOLDINGS LLC

END CONSTRUCTION
STA. 127+00.00WB
MATCH EXISTING
SAWCUT REQ'D

VCL = 195.00

K = 167.27

VPC STA 124+02.50WB
VPC EL 856.55

PVI STA 125+00.00
PVI EL 858.17

VPT STA 125+97.50WB
VPT EL 858.66

STA = 127+00.00WB
ELEV = 859.17

EXISTING TERRAIN PROFILE

DESIGN PROFILE

1.67%

0.50%

865
860
855
850

	122+50WB	123+00WB	123+50WB	124+00WB	124+50WB	125+00WB	125+50WB	126+00WB	126+50WB	127+00WB	127+50WB	128+00WB	128+50WB	129+00WB	129+50WB	130+00WB
EXISTING PROFILE ELEVATION	854.70	855.41	856.14	856.78	857.46	858.00	858.39	858.68	858.92	859.17	859.47	859.76	859.93	859.95	859.82	859.54
PROPOSED PROFILE ELEVATION	**854.01**	**854.84**	**855.68**	**856.51**	**857.27**	**857.89**	**858.36**	**858.67**	**858.92**	**859.17**						

PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PLAN AND PROFILE: STH 16 WB	SHEET 220	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\PLAN AND PROFILE\0501020PPSTH16WB.DWG 8/18/2017

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1" = 50'_XREF

WISDOT/CADDS SHEET 44

BEGIN CONSTRUCTION
STA. 18+50.19A
MATCH EXISTING
SAWCUT REQ'D

19+00A 20+00A 21+00A 22+00A 23+00A 24+00A 25+00A RAMP A 26+00A 27+00A

MATCH LINE STA. 21+50A

MATCH LINE STA. 21+50A

CITY OF COLUMBUS
DELINEATED WETLAND
R/W
AT&T (FIBER)
STA. 25+84A 51' LT
EXISTING 24-INCH x 85' RCP
16-FT REMOVING CULVERT PIPE
NEW CULVERT PIPE REINFORCED CLASS IV
24-INCH 16-FT
AND APRON ENDWALLS CULVERT PIPE
SALVAGED 24-INCH

STH 16 EB
STH 16 WB
WE ENERGIES (GAS)
STA. 111+29.11EB
STA. 27+00.00A
20+00B 21+00B RAMP B
COLUMBUS WATER AND LIGHT DEPT. (ELECTRIC)
VILLAGE OF FALL RIVER (SANITARY FORCE MAIN)

SLOPE INTERCEPT (TYP.)
AT&T (FIBER)
DELINEATED WETLAND
BM116
STA. 25+59A 26' RT
EXISTING 24-INCH x 85' RCP
16-FT REMOVING CULVERT PIPE
NEW CULVERT PIPE REINFORCED
CLASS IV 24-INCH 16-FT
AND APRON ENDWALLS CULVERT
PIPE SALVAGED 24-INCH

STA. 24+50.00A
MATCH EXISTING
SAWCUT REQ'D

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
BM116	111+92.62EB 67'RT	CHIS SQ TOP 18IN RCCP	846.94

VCL = 220.00
K = 96.82

STA = 24+50.00A
ELEV = 850.920
VPC STA 24+50.00A
VPC EL 850.92

VPI STA 25+60.00A
VPI EL 850.370

VPT STA 26+70.00A
VPT EL 852.32
ELEV = 852.355

-0.50%

DESIGN PROFILE

EXISTING TERRAIN PROFILE

STA. 25+59A 26' RT & STA. 25+84A 51' LT
EXISTING 24-INCH x 85' RCP
32- FT REMOVING CULVERT PIPE
NEW CULVERT PIPE REINFORCED CLASS IV 24-INCH 16-FT
AND APRON ENDWALLS CULVERT PIPE SALVAGED 24-INCH

855 850 845 840

EXISTING PROFILE ELEVATION
PROPOSED PROFILE ELEVATION

21+50A	22+00A	22+50A	23+00A	23+50A	24+00A	24+50A	25+00A	25+50A	26+00A	26+50A	27+00A	27+50A	28+00A	28+50A	29+00A
854.84	853.96	853.02	852.28	851.70	851.25	INFINITY	850.92	850.80	850.83	850.94	850.86	851.33	851.12	851.99	851.13	850.64

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PLAN AND PROFILE: RAMP A	SHEET 221	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\PLAN AND PROFILE\0501_PROFRAMP A.DWG PLOT DATE : 4/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : 1" = 50'_XREF

WISDOT/CADDS SHEET 44

STH 16 WB

110+00WB

111+00WB

112+00WB

DELINEATED WETLAND

R/W

LINLI PUN
LILI PUN

STA. 22+83B 55' LT
EXISTING 24-INCH x 79' RCP
16-FT REMOVING CULVERT PIPE
NEW CULVERT PIPE REINFORCED CLASS IV
24-INCH 16-FT AND APRON ENDWALLS
CULVERT PIPE REINFORCED CONCRETE
24-INCH

SLOPE INTERCEPT (TYP.)

AT&T (TELEPHONE)

WE ENERGIES (GAS)

CAUTION

RAMP B

20+00B

21+00B

22+00B

23+00B

24+00B

25+00B

26+00B

27+00B

28+00B

29+00B

30+00B

VILLAGE OF FALL RIVER (SANITARY FORCE MAIN)

COLUMBUS
WATER AND
LIGHT DEPT.
(ELECTRIC)

STA. 111+15.91WB
STA. 20+00.00B

STA. 22+83B 23' RT
EXISTING 24-INCH x 79' RCP
16-FT REMOVING CULVERT PIPE
NEW CULVERT PIPE REINFORCED CLASS IV
24-INCH 16-FT AND APRON ENDWALLS FOR
CULVERT PIPE SALVAGED 24-INCH

MATCH LINE STA. 27+50B

END CONSTRUCTION
STA. 30+46.14B
MATCH EXISTING
SAWCUT REQ'D

N

MATCH LINE STA. 27+50B

STA. 24+75.00B
MATCH EXISTING
SAWCUT REQ'D

VCL = 305.00
K = 96.45

STA = 20+28.34B
ELEV = 850.55

VPC STA 20+92.50B
VPC EL 849.27

PVI STA 22+45.00
PVI EL 846.22

VPT STA 23+97.50B
VPT EL 847.99

STA = 24+75.00B
ELEV = 848.89

-2.00%

1.16%

EXISTING TERRAIN PROFILE

DESIGN PROFILE

22+85.40
847.34

SPECIAL DITCH

STA. 22+83B 55' LT & STA. 22+83B 23'RT
EXISTING 24-INCH x 79' RCP
32-FT REMOVING PIPE CULVERT
NEW CULVERT PIPE REINFORCED CLASS IV 24-INCH 16-FT. APRON
ENDWALLS FOR CULVERT PIPE SALVAGED 24-INCH, AND APRON
ENDWALLS CULVERT PIPE REINFORCED CONCRETE 24-INCH

EXISTING PROFILE ELEVATION — PROPOSED PROFILE ELEVATION

850.21	849.31	**850.12**	848.85	**849.12**	848.41	**848.29**	848.20	**847.71**	848.21	**847.40**	848.15	**847.35**	848.20	**847.55**	848.38	**848.02**	848.68	**848.60**	849.18	849.88	850.57	851.38	852.04	852.77
20+00B	20+50B		21+00B		21+50B		22+00B		22+50B		23+00B		23+50B		24+00B		24+50B		25+00B	25+50B	26+00B	26+50B	27+00B	27+50B

855 / 850 / 845 / 840

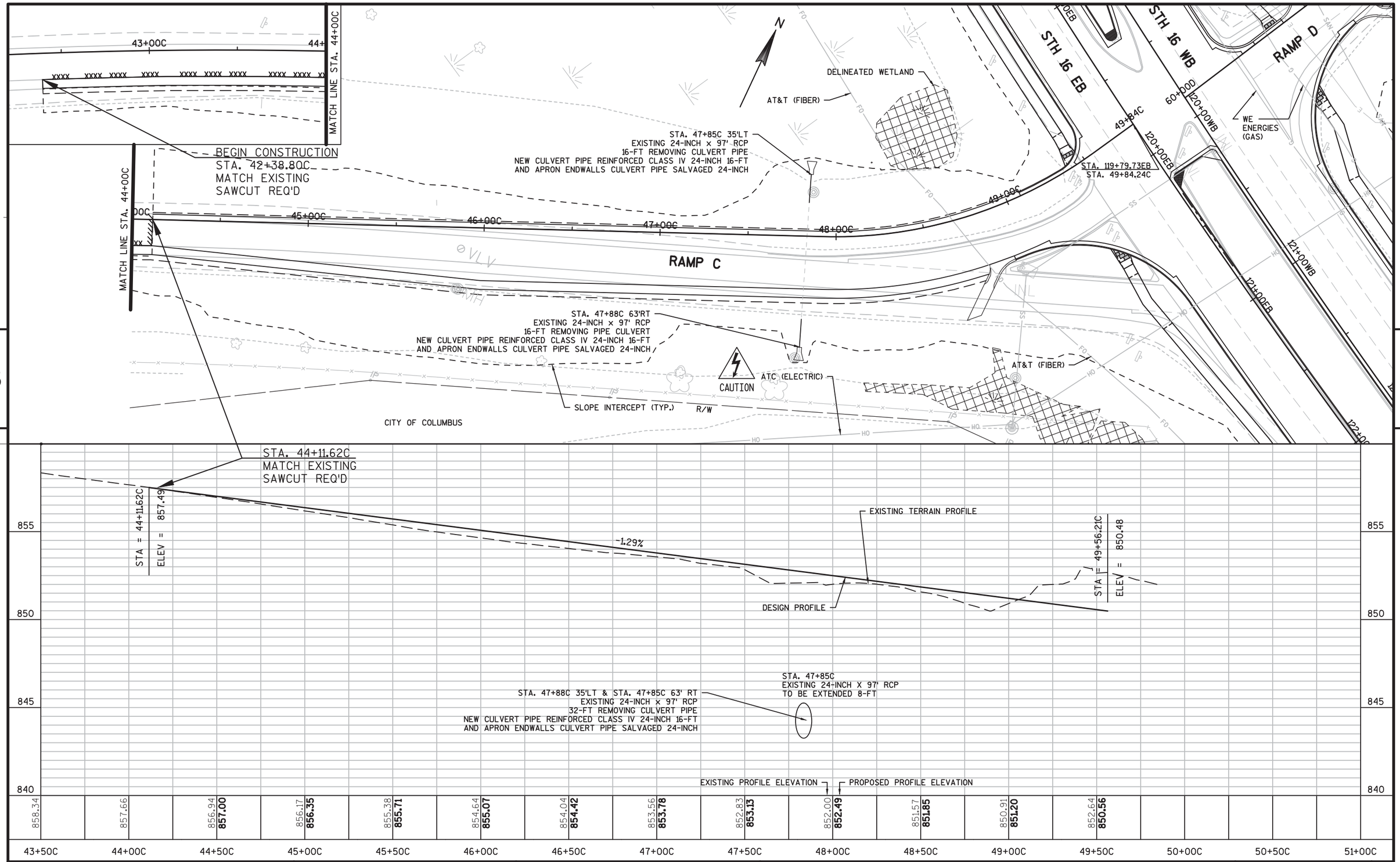
5

5

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PLAN AND PROFILE: RAMP B	SHEET 222	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\PLAN AND PROFILE\0501_PLPF_RAMP B.DWG 8/28/2017 PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : 1" = 50'_XREF

WISDOT/CADDS SHEET 44



PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PLAN AND PROFILE: RAMP C	SHEET 223	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\PLAN AND PROFILE\0501_PLAN PROFILE RAMP C.DWG Date/Time: 4/28/2017 PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : 1" = 50'_XREF

WISDOT/CADDS SHEET 44

DELINEATED WETLAND

119+00EB

119+00WB

STH 16 EB

STH 16 WB

COLUMBUS WATER AND LIGHT DEPT. (ELECTRIC)

WE ENERGIES (GAS)

CAUTION

AT&T (TELEPHONE)

N

MATCH LINE STA. 66+00D

67+00D

68+00D

STA. 64+60D 40'LT
EXISTING 24-INCH x 101' RCP
16-FT REMOVING CULVERT PIPE
NEW CULVERT PIPE REINFORCED CLASS IV 24-INCH
16-FT
AND APRON ENDWALLS CULVERT PIPE SALVAGED
24-INCH

MATCH LINE STA. 66+00D

49+00C

RAMP C

49+84C

60+00D

61+00D

62+00D

63+00D

64+00D

65+00D

66+

STA. 119+87.48WB
STA. 60+00.00D

RAMP D

120+00EB

120+00WB

EXISTING TREE TO REMAIN

SLOPE INTERCEPT (TYP.)

VILLAGE OF FALL RIVER (SANITARY)

COLUMBUS WATER AND LIGHT DEPT. (ELECTRIC)

AT&T (TELEPHONE)

ATC (ELECTRIC)

CAUTION

STA. 64+60D 62'RT
EXISTING 24-INCH x 101' RCP
16-FT REMOVING CULVERT PIPE
NEW CULVERT PIPE REINFORCED CLASS IV 24-INCH 16-FT
AND APRON ENDWALLS CULVERT PIPE SALVAGED 24-INCH

R/W

AT&T (FIBER)

121+00EB

121+00WB

WE ENERGIES (GAS)

JJB REAL ESTATE DEVELOPMENT LLC

5

5

STA. 63+50.00D
MATCH EXISTING
SAWCUT REQ'D

VCL = 190.00

K = 98.28

STA = 60+28.07D
ELEV = 849.22

VPC STA 60+30.00D
VPC EL 849.19

PVI STA 61+25.00
PVI EL 847.83

VPT STA 62+20.00D
VPT EL 848.31

EXISTING TERRAIN PROFILE

-1.43%

0.50%

STA = 63+50.00D
ELEV = 848.96

STA. 64+60D 62'RT & STA. 64+60D 40'LT
EXISTING 24-INCH x 101' RCP
32-FT REMOVING CULVERT PIPE
NEW CULVERT PIPE REINFORCED CLASS IV 24-INCH 16-FT
AND APRON ENDWALLS CULVERT PIPE SALVAGED 24-INCH

61+70.86
848.19

DESIGN PROFILE

SPECIAL DITCH

EXISTING PROFILE ELEVATION

PROPOSED PROFILE ELEVATION

59+00D	59+50D	60+00D	60+50D	61+00D	61+50D	62+00D	62+50D	63+00D	63+50D	64+00D	64+50D	65+00D	65+50D	66+00D	66+50D
		851.36	850.72 **848.93**	850.47 **848.44**	850.11 **848.21**	849.65 **848.23**	849.26 **848.46**	849.01 **848.71**	848.96 **848.96**	848.99	849.11	849.31	849.69	850.16	850.68

855 850 845 840

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PLAN AND PROFILE: RAMP D	SHEET 224	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\PLAN AND PROFILE\0501D50PPRAMP D.DGN 12/8/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1" = 50'_XREF

Standard Detail Drawing List

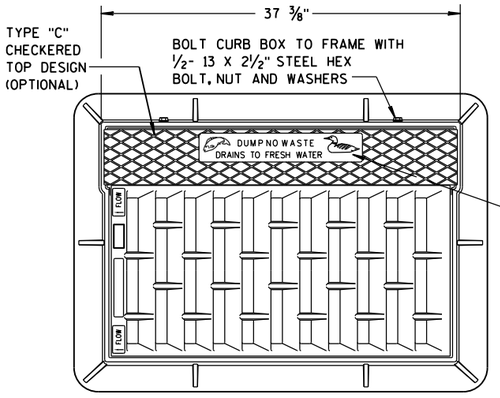
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-19	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-18A	CURB RAMPS TYPES 1 AND 1-A
08D05-18B	CURB RAMPS TYPES 2 AND 3
08D05-18C	CURB RAMPS TYPES 4A AND 4A1
08D05-18D	CURB RAMPS TYPE 4B AND 4B1
08D05-18E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C06-07	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C11-09	CONCRETE BASE TYPE 10
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-03	SIGNAL CONTROL CABINET
09E01-14C	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-05	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-05	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-08A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-08B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-08E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09H09-01	COMMUNICATION VAULT
11B02-02	CONCRETE MEDIAN NOSE
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
13C16-02A	DETAIL FOR RIGHT TURN LANE/TEE INTERSECTION BYPASS LANE ON A CONRETE ROADWAY
13C16-02B	DETAIL FOR RIGHT TURN LANE/TEE INTERSECTION BYPASS LANE ON A CONRETE ROADWAY
13C17-01A	CONCRETE JOINT DETAIL FOR EXIT RAMP TERMINI
13C17-01B	CONCRETE JOINT DETAIL FOR ENTRANCE RAMP TERMINI
13C18-05A	CONCRETE PAVEMENT JOINTING
13C18-05B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-05C	CONCRETE PAVEMENT JOINT TYPES
13C18-05D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14B29-01	SAFETY EDGE
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15B01-08A	FENCE WOVEN WIRE
15B01-08B	FENCE WOVEN WIRE
15C05-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-13A	PAVEMENT MARKING SYMBOLS
15C07-13B	PAVEMENT MARKING WORDS
15C07-13C	PAVEMENT MARKING ARROWS
15C07-13E	PAVEMENT MARKING FOR BIKE LANES
15C08-17A	LONGITUDINAL MARKING (MAINLINE)
15C08-17B	PAVEMENT MARKING (TURN LANES)
15C08-17C	PAVEMENT MARKING (ISLANDS)
15C11-06	FLEXIBLE TUBULAR MARKER POST

6

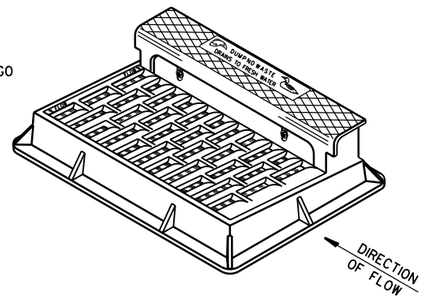
Standard Detail Drawing List

15C18-03	MEDIAN ISLAND MARKING
15C19-04C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C29-05A	BICYCLE LANE MARKING
15C33-02	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-01A	PAVEMENT MARKING (INTERSECTIONS)
15D04-01	TRAFFIC CONTROL, RAMP CONSTRUCTION STAGING
15D06-03	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D11-06	TRAFFIC CONTROL, SINGLE LANE CROSSOVER
15D12-06A	TRAFFIC CONTROL, LANE CLOSURE
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-04	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D29-04	TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD
15D39-01	TRAFFIC CONTROL, DROP-OFF SIGNING

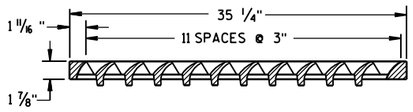
6

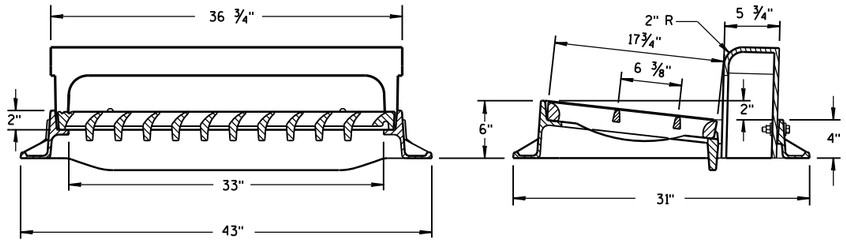


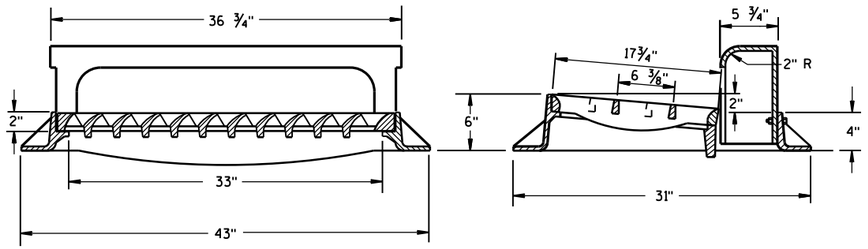
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

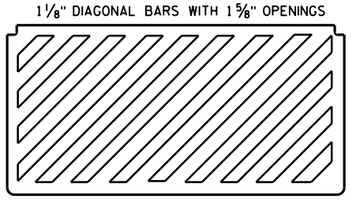






TYPE "H"

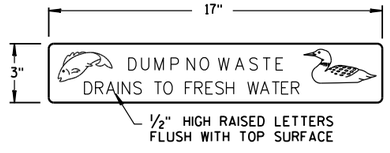
NOTE: EITHER CASTING IS ACCEPTABLE



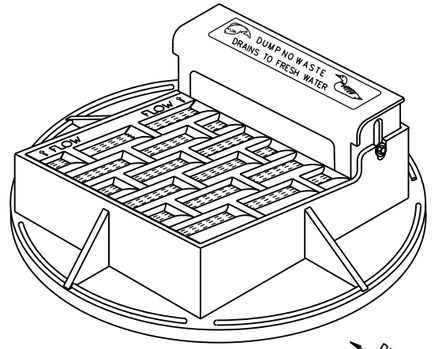
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

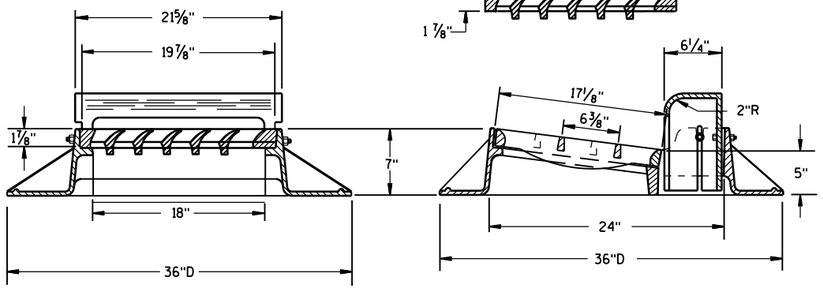


LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.



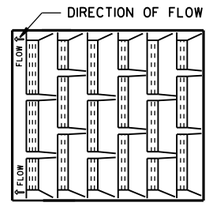
TYPE "A"

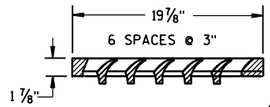
GENERAL NOTES

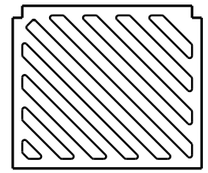
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



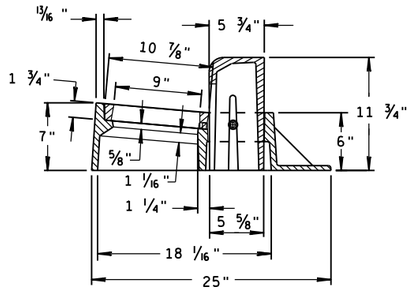


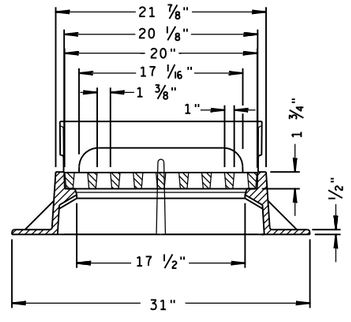


SPECIAL GRATE FOR TYPE "A" COVER

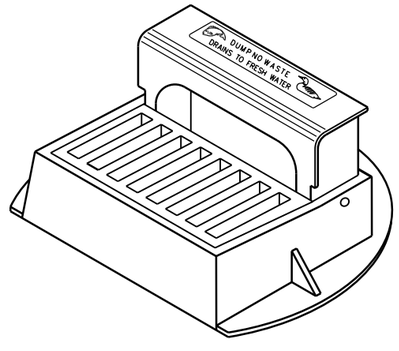
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"



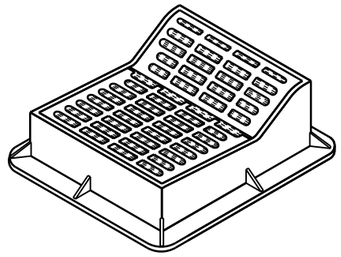
INLET COVERS TYPE A, H, A-S, H-S & Z

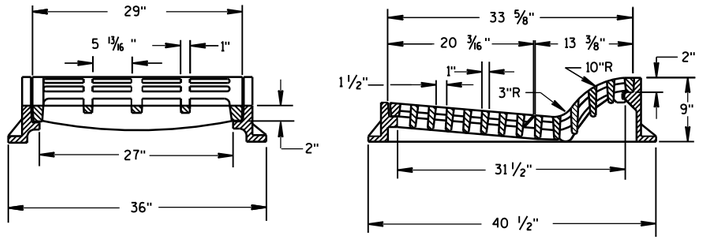
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

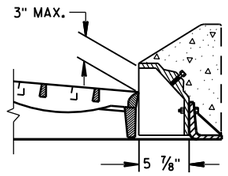
S.D.D. 8 A 5-19a





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

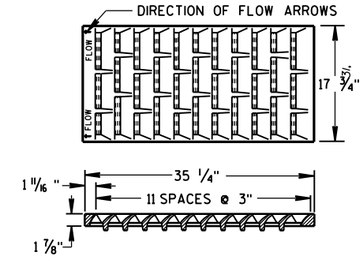
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

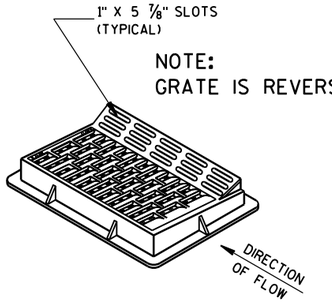
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

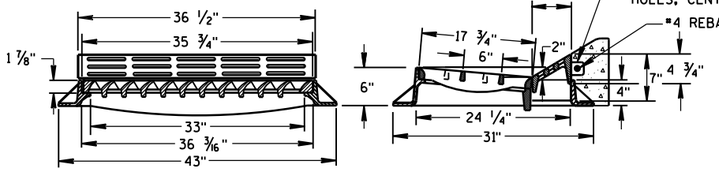
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



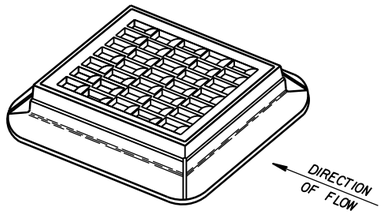


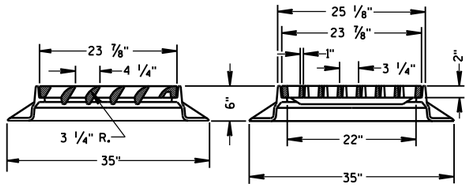


TYPE "HM"

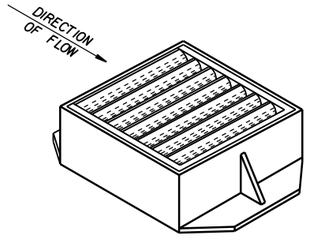
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

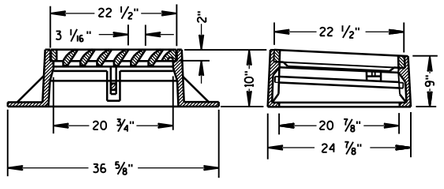
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



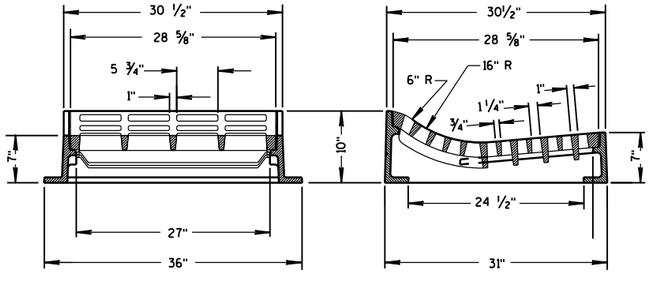


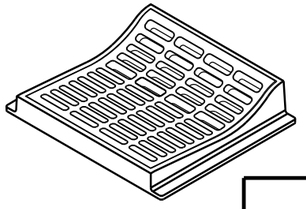
TYPE "S"





TYPE "V"





TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.

INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

228

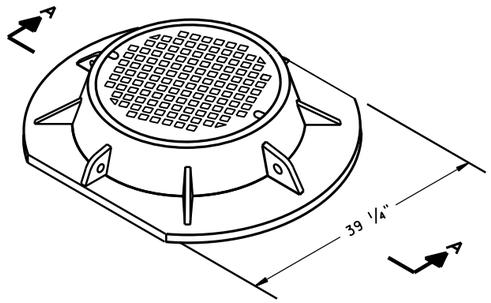
FHWA

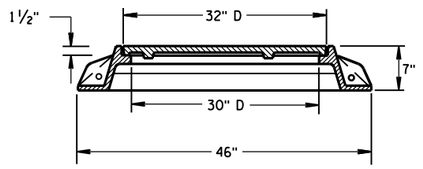
6

S.D.D. 8 A 5-19c

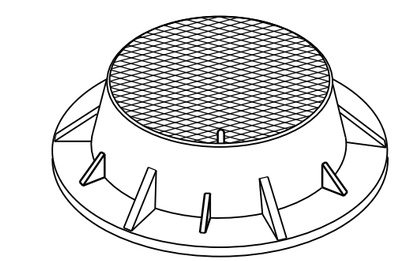
6

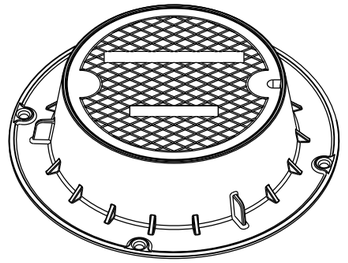
S.D.D. 8 A 5-19c

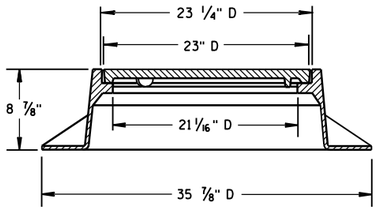


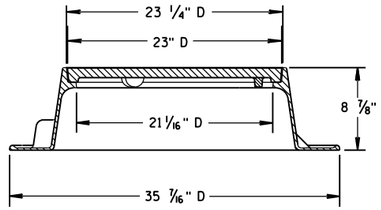


SECTION A-A
TYPE "K"









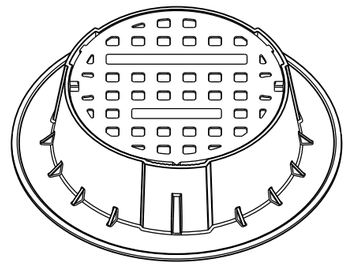
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

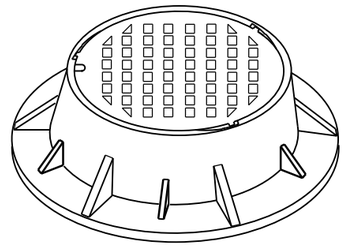
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

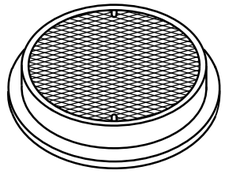
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

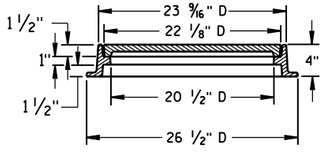
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.





TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE





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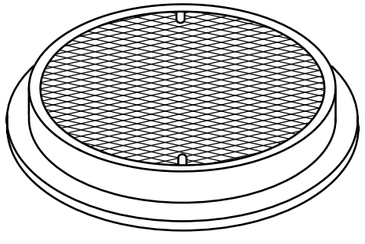

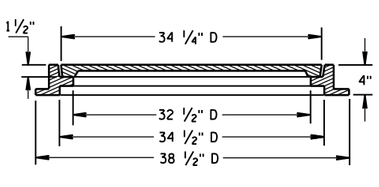

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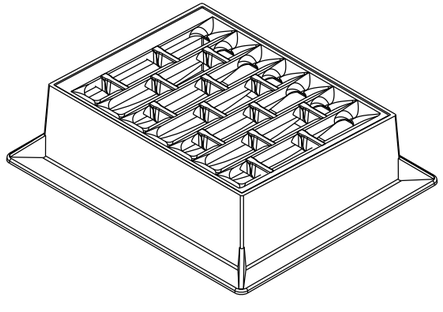
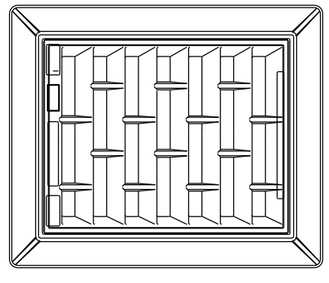
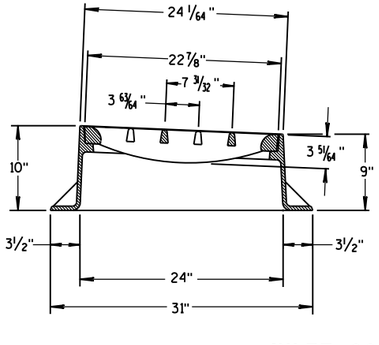
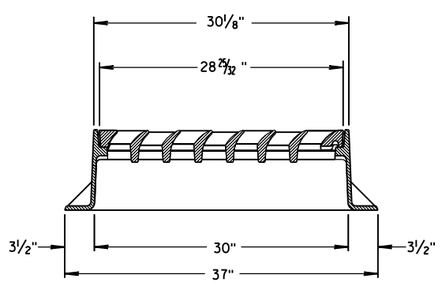








INLET COVER TYPE "BW"

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

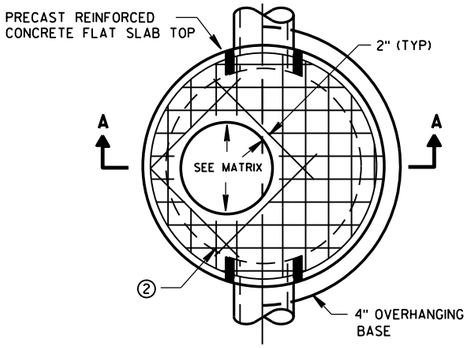
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

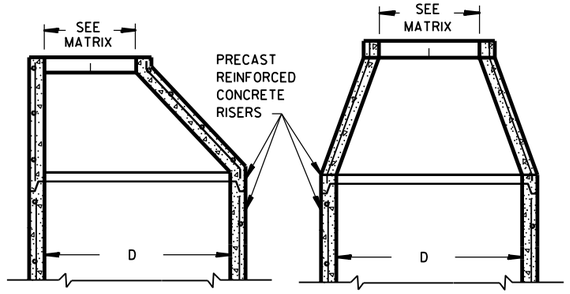
S.D.D. 8 A 5-19d

6

S.D.D. 8 A 5-19d

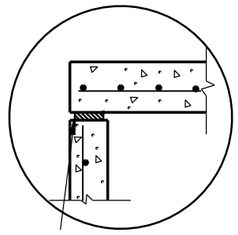


PLAN VIEW CIRCULAR OPENING

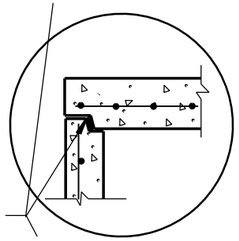


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

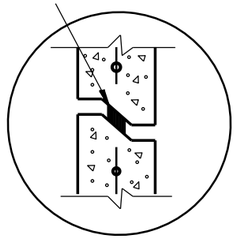


TOP WITH PLAIN END JOINT



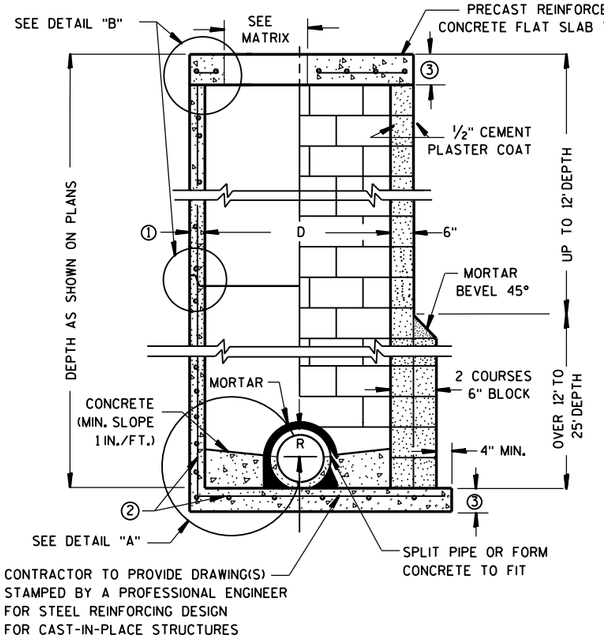
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



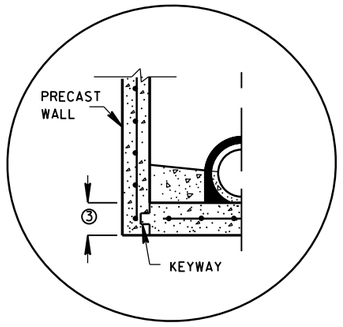
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

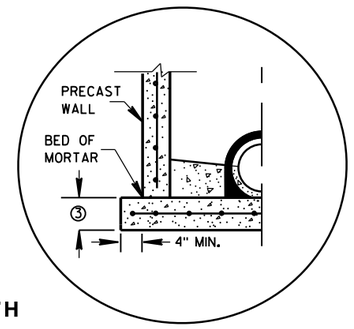


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

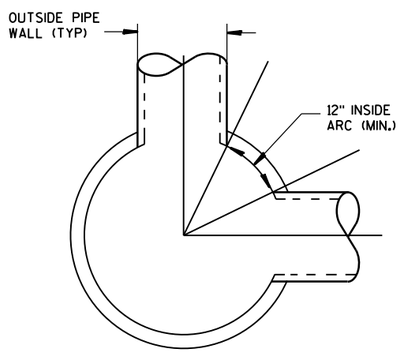


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2016
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERV 230

FHWA

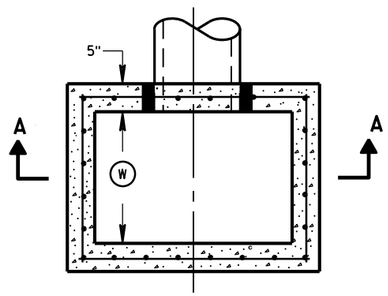
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

6

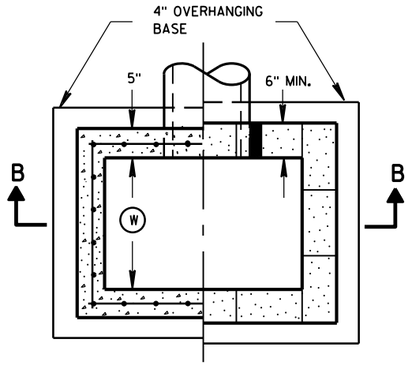
S.D.D. 8 B 9-2

6

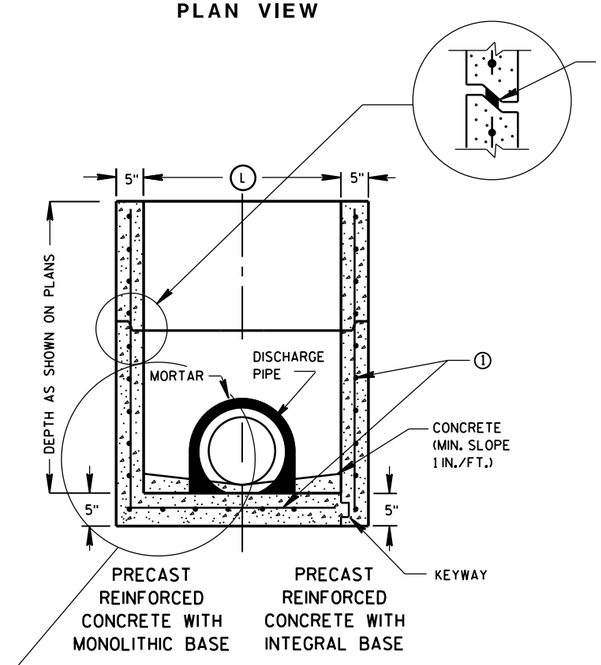
S.D.D. 8 B 9-2



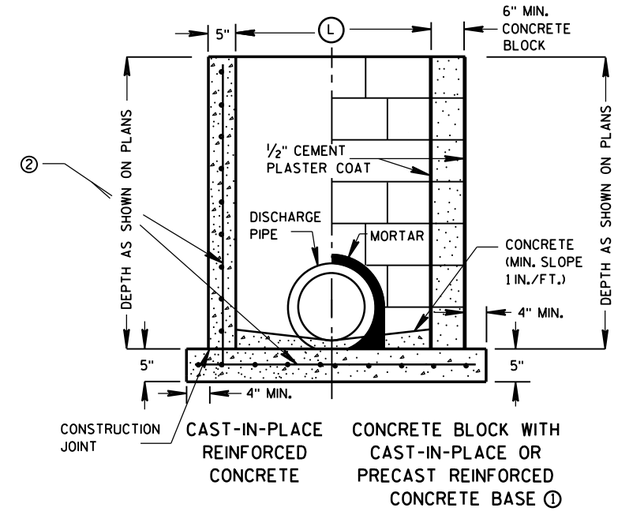
PLAN VIEW



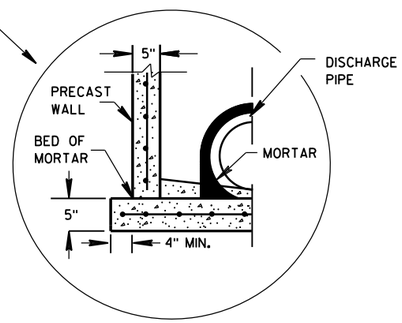
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

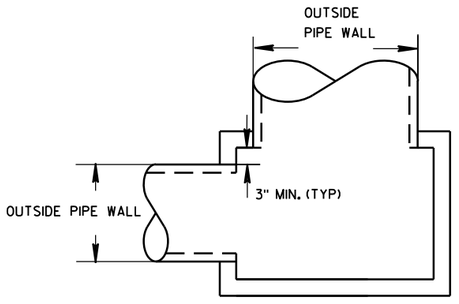
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D IT
UNIT SUPERVIS
FHWA

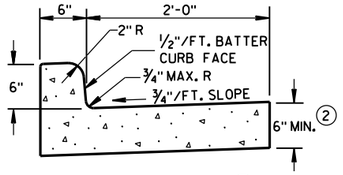
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

6

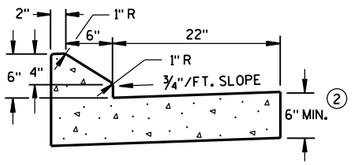
S.D.D. 8 C 7-2

6

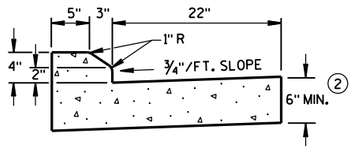
S.D.D. 8 C 7-2



TYPES A & D ①

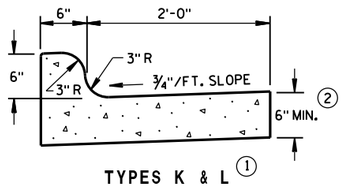


6" SLOPED CURB TYPES G & J ①

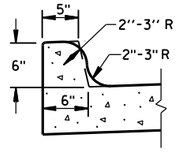


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

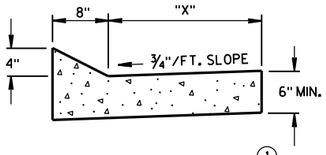


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

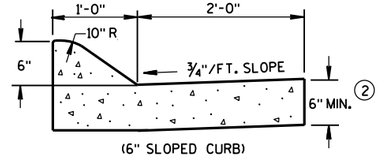
CONCRETE CURB & GUTTER 30"



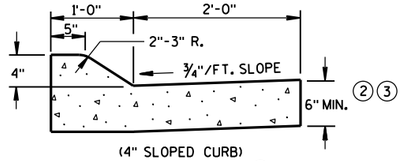
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"

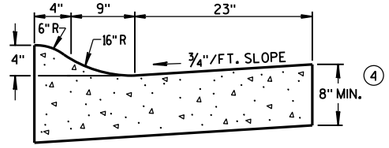


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ①⑤

CONCRETE CURB & GUTTER 36"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

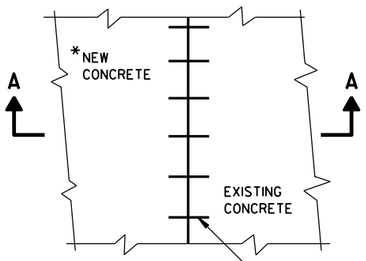
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

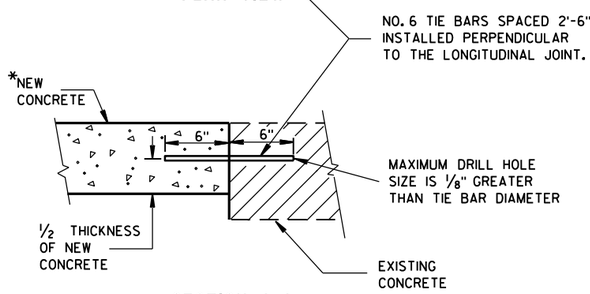
⑤ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



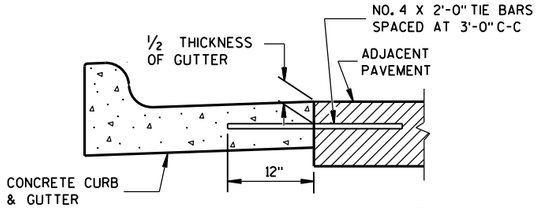
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

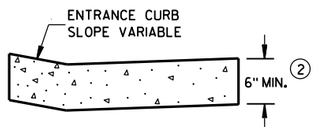


SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT

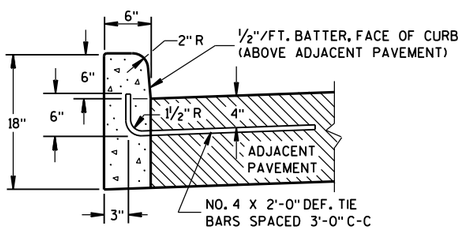


TYPICAL TIE BAR LOCATION ①

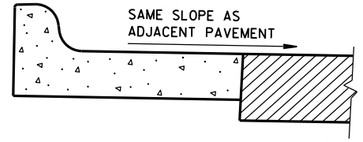


DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)

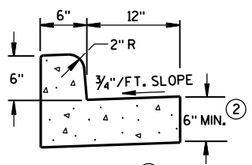


① TYPES A & D



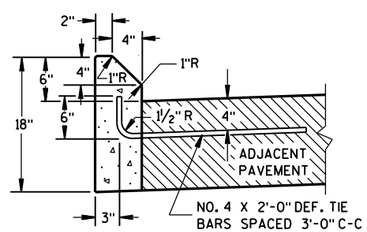
⑥ REVERSE SLOPE GUTTER

(TYPICAL FOR ALL CURB & GUTTER TYPES)



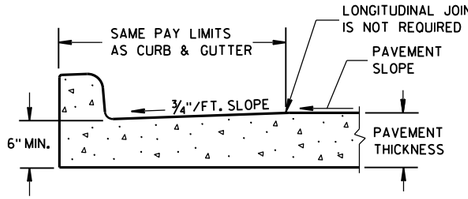
① TYPES A & D

CONCRETE CURB & GUTTER 18"

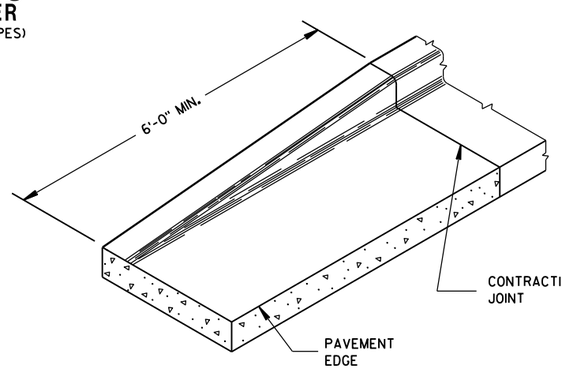


① TYPES G & J

CONCRETE CURB



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2016 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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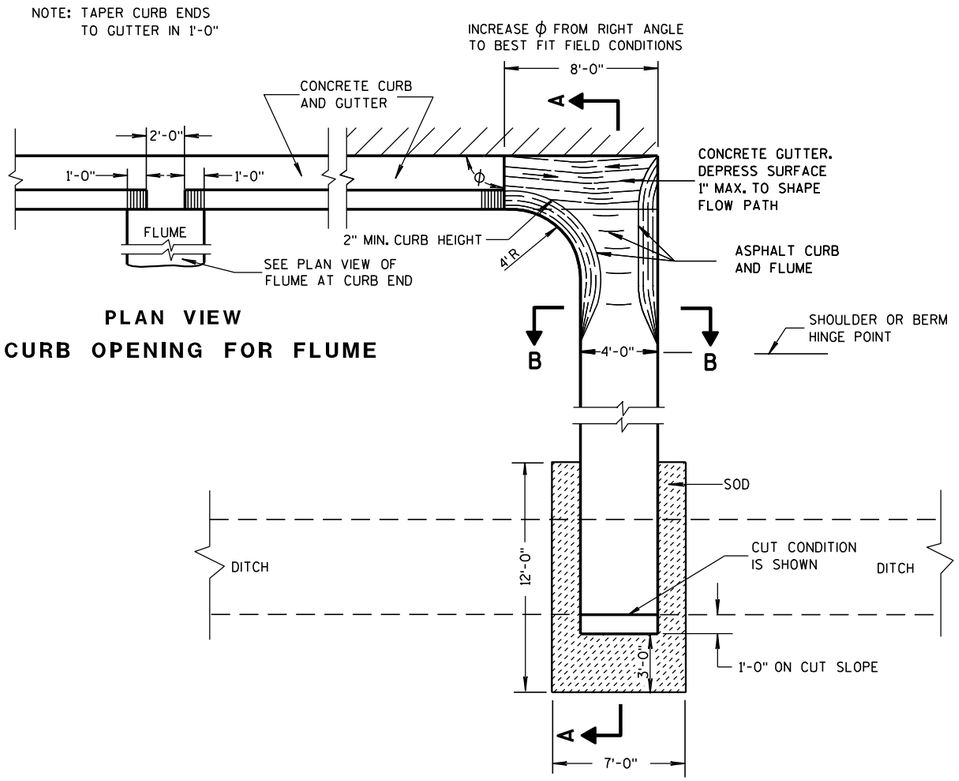
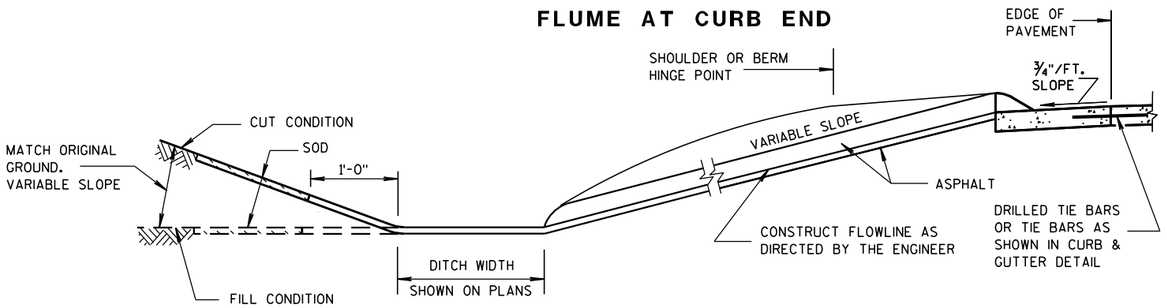
ASPHALTIC FLUME

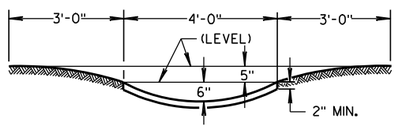


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

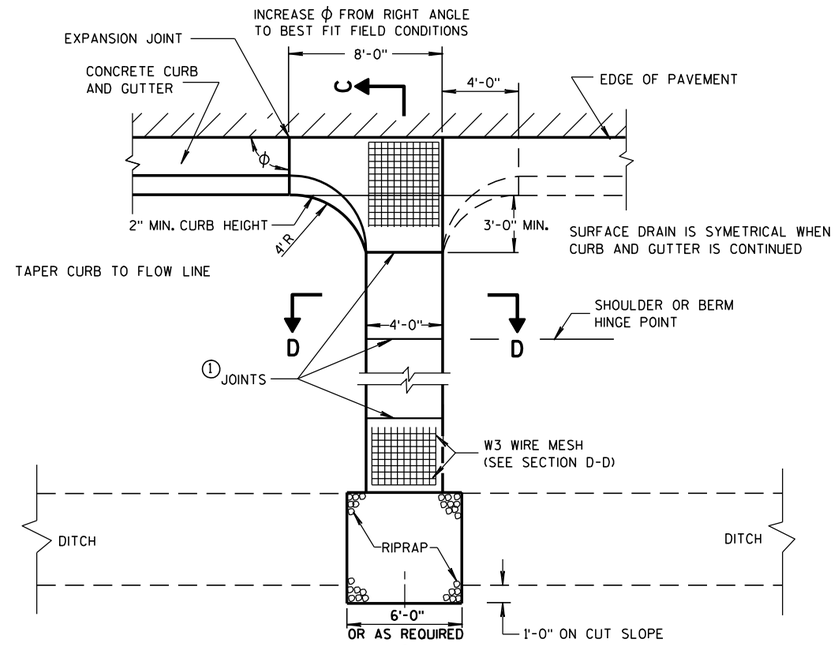
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

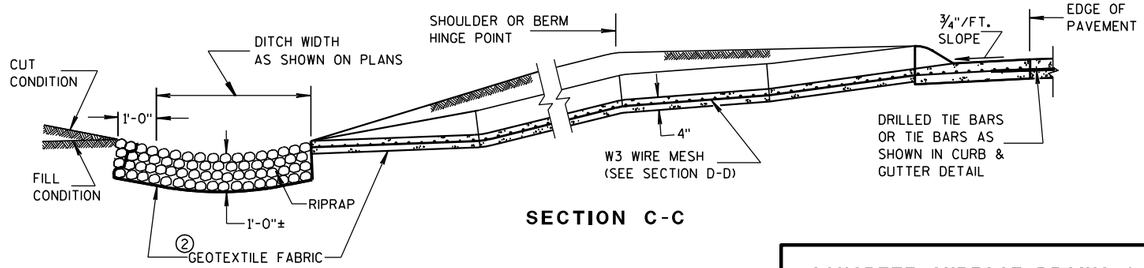
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

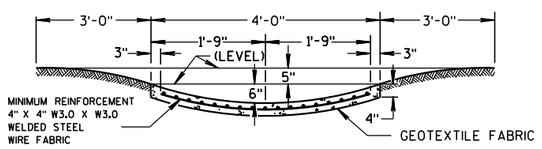
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-4-08 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
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MENT
FHWA

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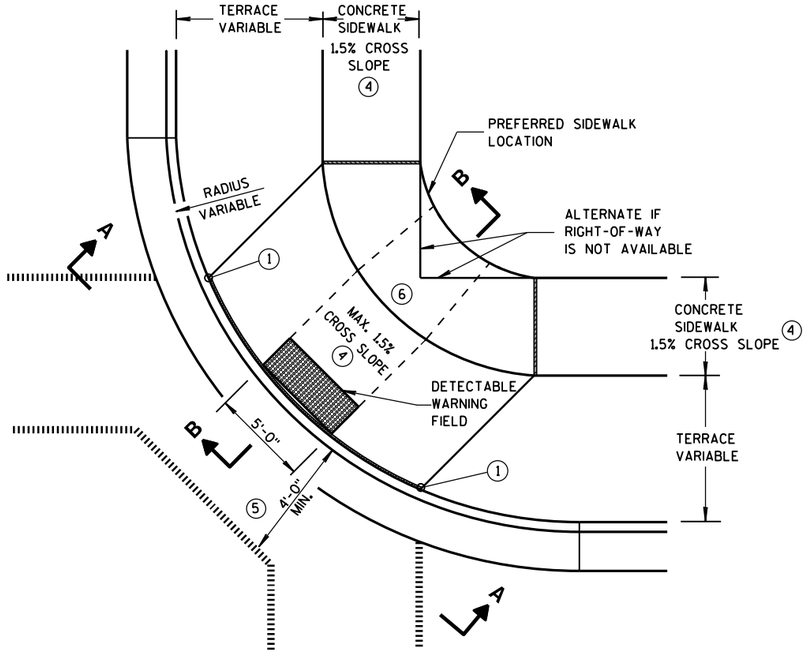
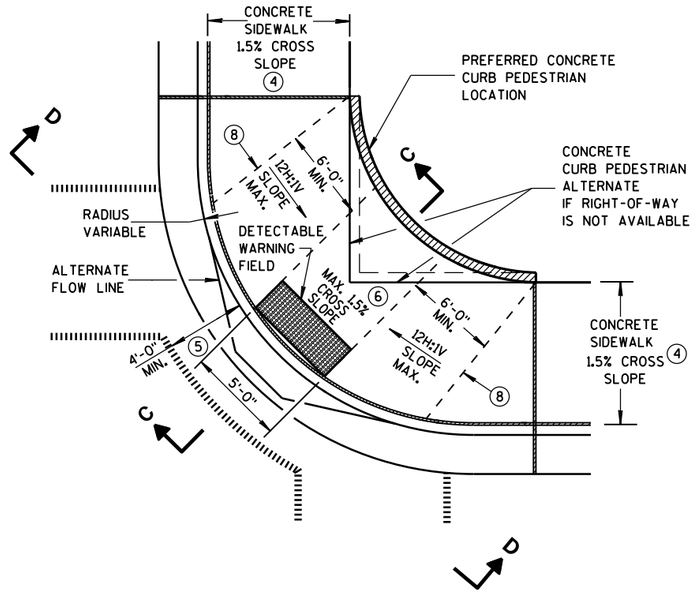


PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

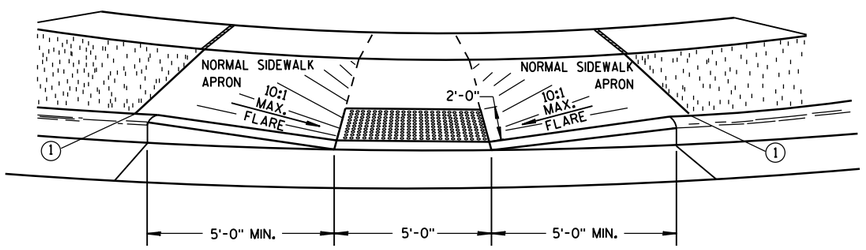
(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

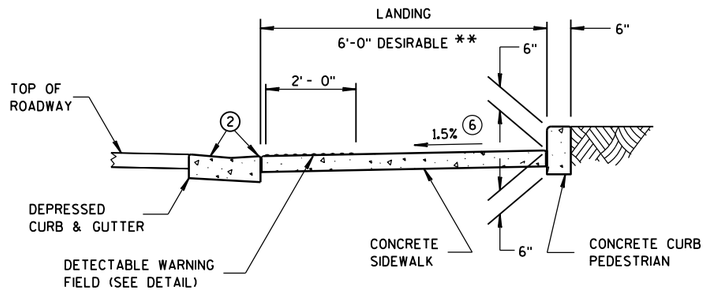
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.



VIEW A-A

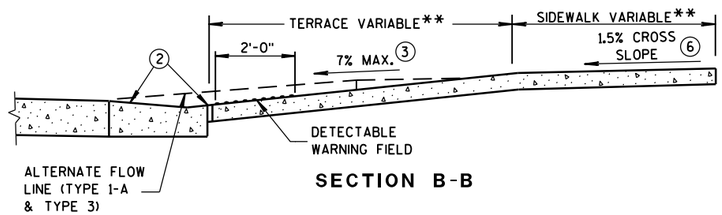
** WIDTH SHOWN ELSEWHERE IN THE PLANS



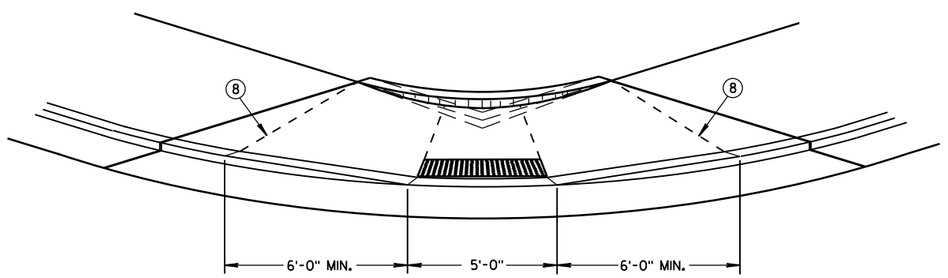
SECTION C-C

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



SECTION B-B



VIEW D-D

CURB RAMPS
TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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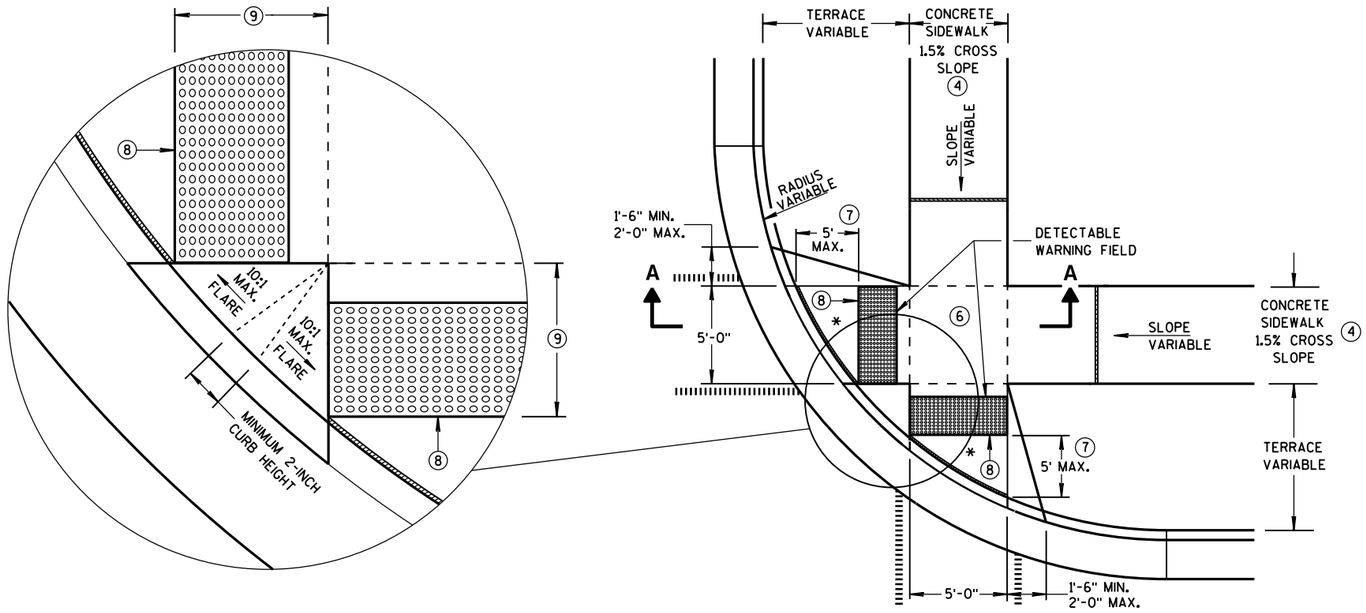
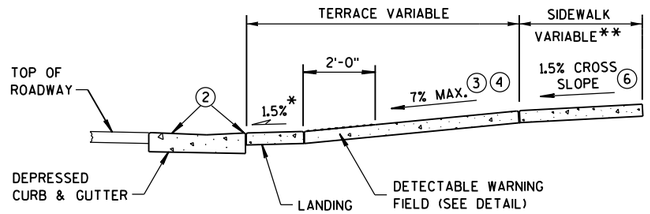


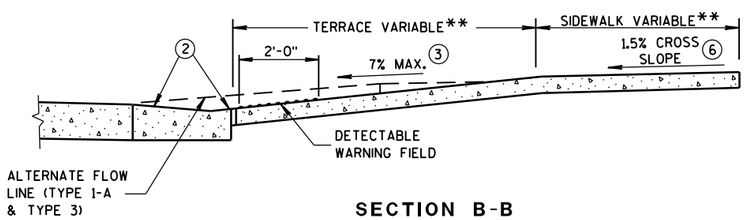
PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

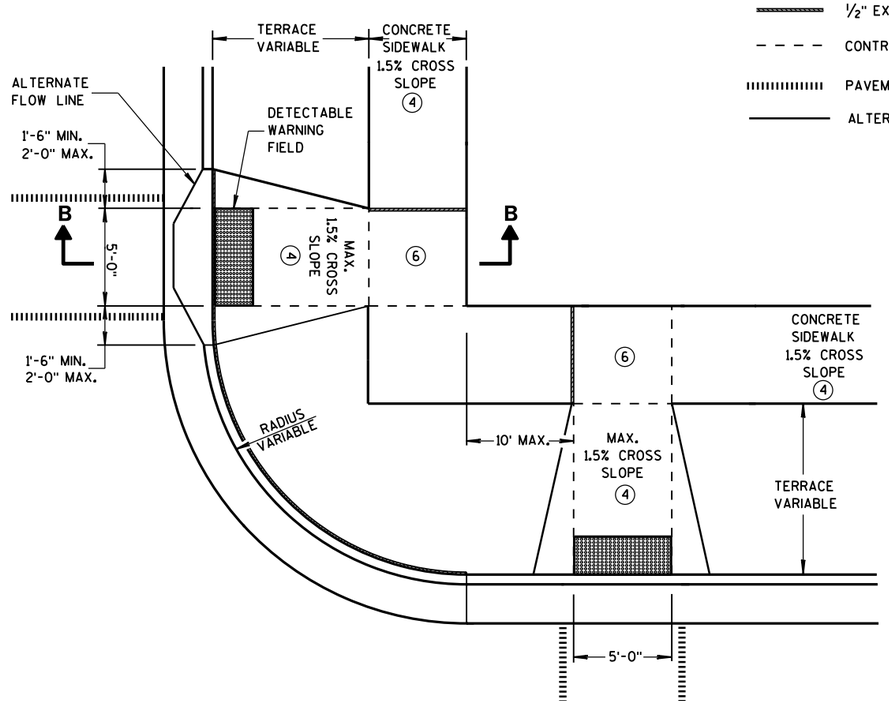
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. USE EQUAL-SIZE PANELS TO DEVELOP OVERLAPPING, STAGGERED ROWS. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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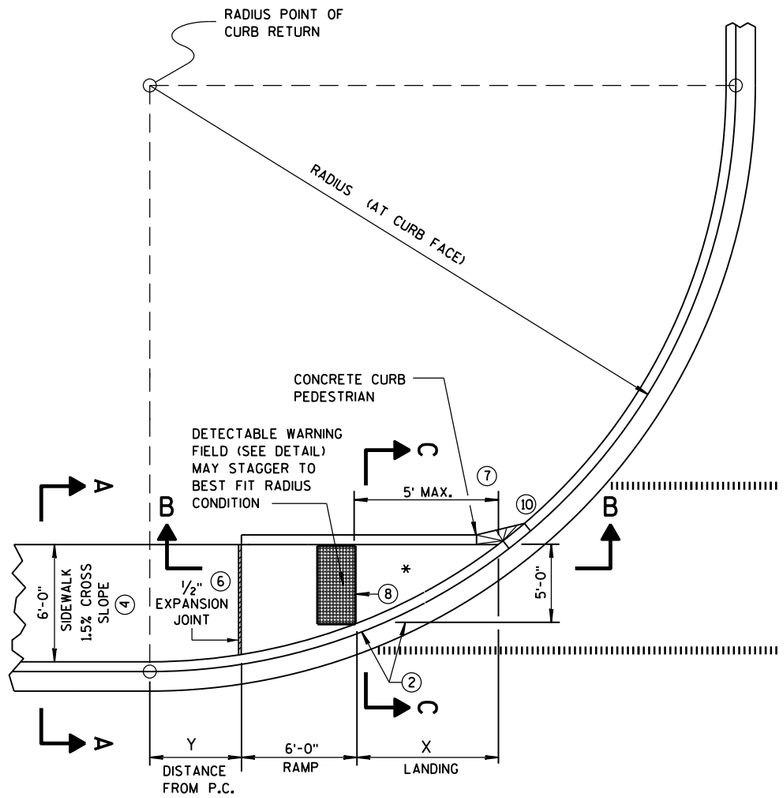
S.D.D. 8 D 5-18b

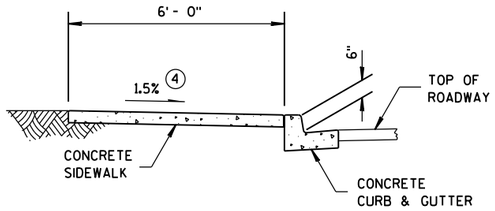


CURB RAMP TYPE 4A

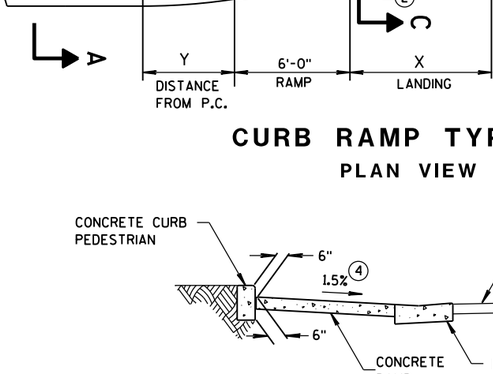
PLAN VIEW

RADIUS (AT CURB FACE)	X	Y
20 FEET	7'-11"	0'-2"
30 FEET	10'-2¾"	1'-7½"
40 FEET	12'-1¼"	2'-10"
50 FEET	13'-8¾"	3'-10¾"
60 FEET	15'-2"	4'-10¼"

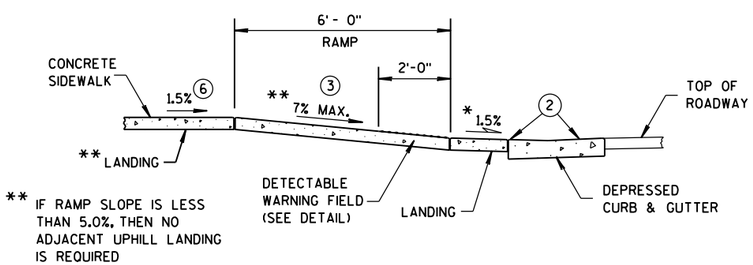
INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

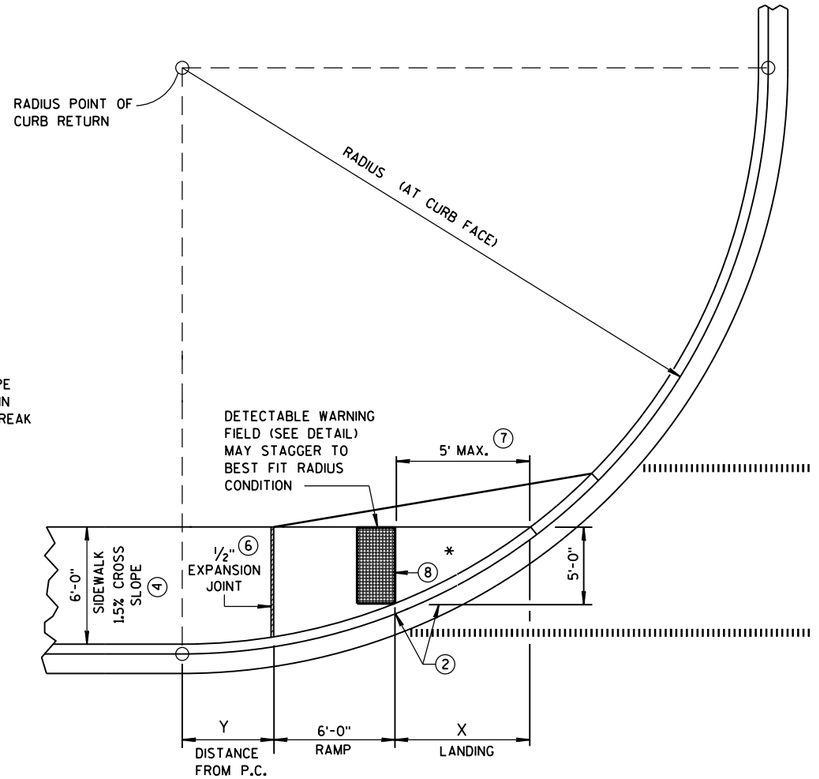


SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



CURB RAMP TYPE 4A1

PLAN VIEW

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

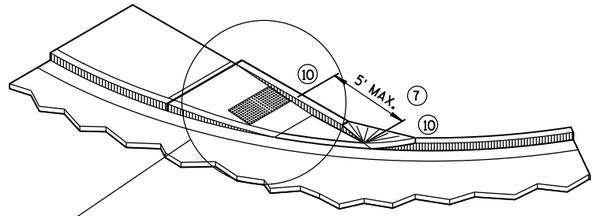
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

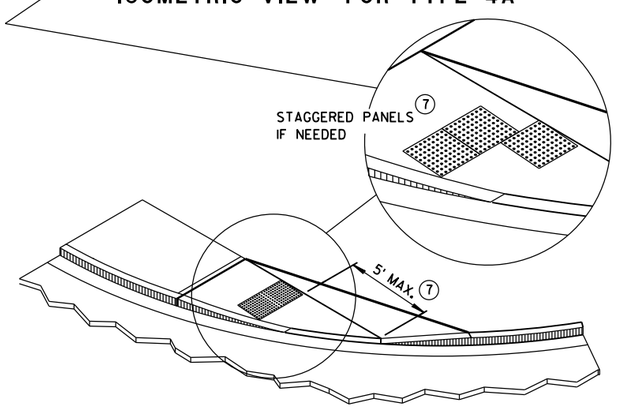
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. USE EQUAL-SIZE PANELS TO DEVELOP OVERLAPPING, STAGGERED ROWS. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI 236

6

S.D.D. 8 D 5-18c

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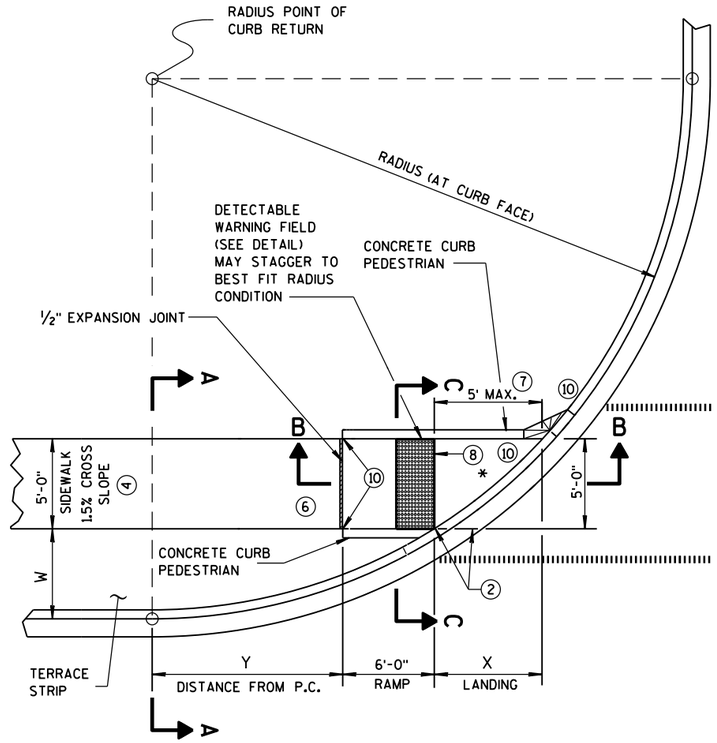
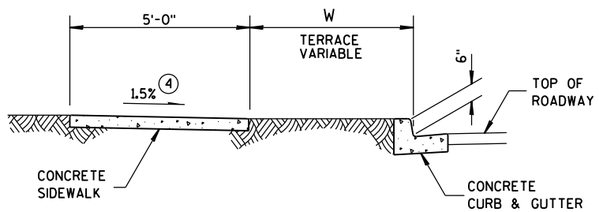
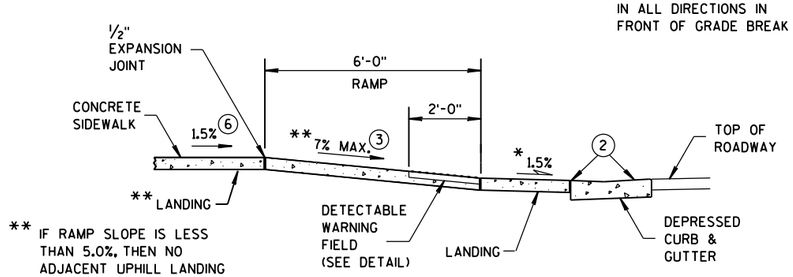
S.D.D. 8 D 5-18c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

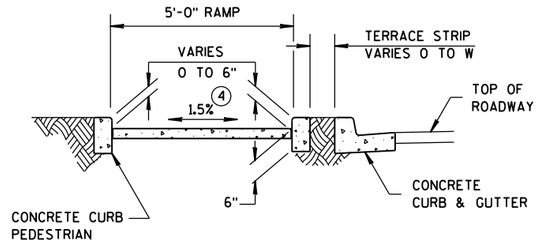
SECTION B-B FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)



SECTION C-C FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-9¾"	3'-6½"	4'-11½"	5'-1¾"	4'-3¼"	6'-5½"	3'-8¾"	7'-6¾"	3'-3"	8'-6¼"
30 FEET	7'-9¼"	5'-10½"	6'-9½"	7'-11¼"	6'-0¼"	9'-8"	5'-5"	11'-1¾"	4'-10¾"	12'-5¾"
40 FEET	9'-4"	7'-10"	8'-2¾"	10'-3"	7'-4¾"	12'-3¾"	6'-8½"	14'-1¼"	6'-1¾"	15'-8½"
50 FEET	10'-8"	9'-6½"	9'-5½"	12'-3¼"	8'-6½"	14'-7½"	7'-9¾"	16'-8¼"	7'-2½"	18'-6¼"
60 FEET	11'-10¼"	11'-0¾"	10'-6½"	14'-1¼"	9'-6½"	16'-8½"	8'-9¼"	18'-11¾"	8'-1½"	21'-0½"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

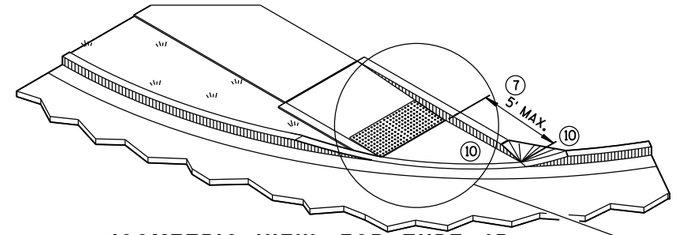
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

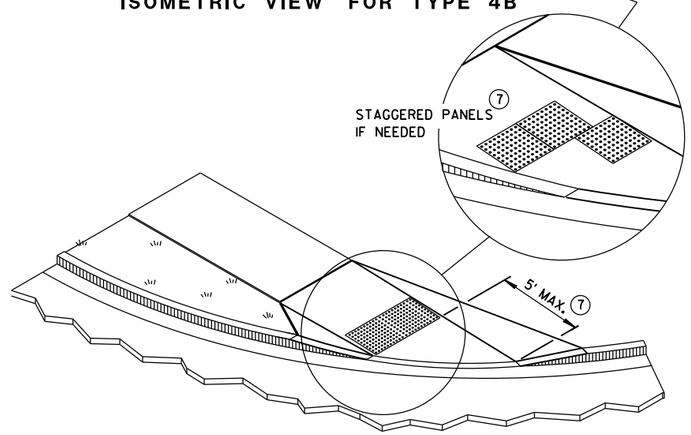
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. USE EQUAL-SIZE PANELS TO DEVELOP OVERLAPPING, STAGGERED ROWS. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

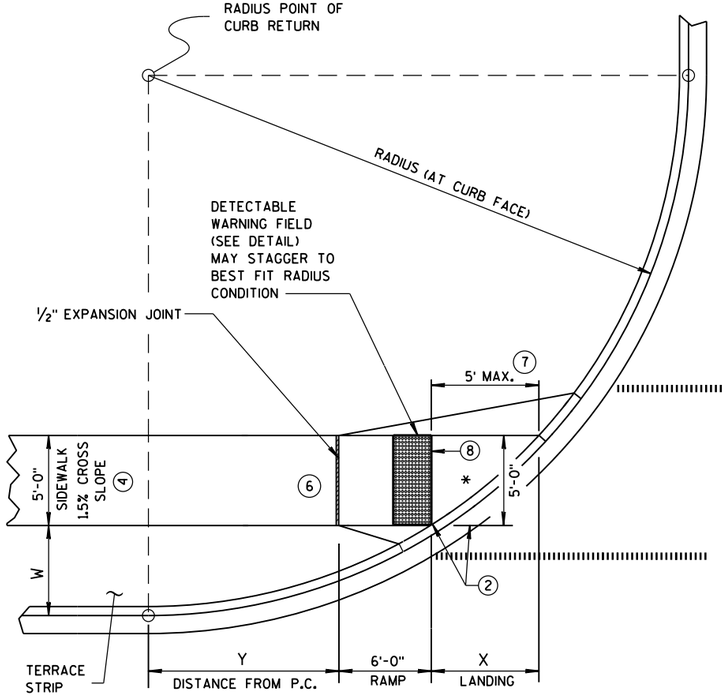
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1



CURB RAMP TYPE 4B1
PLAN VIEW

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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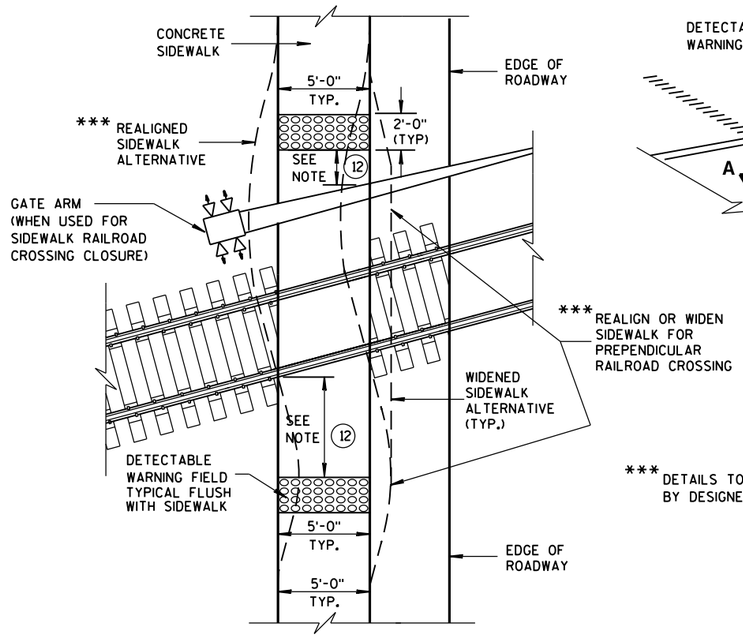
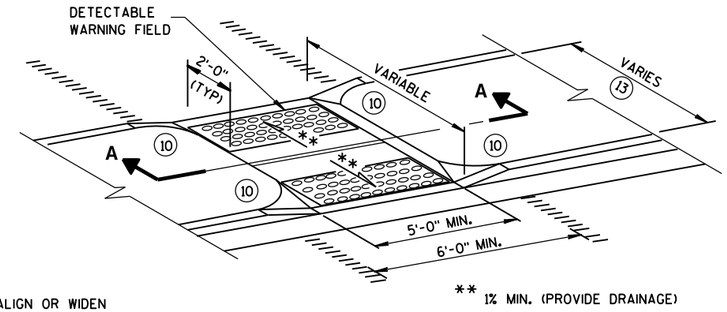
S.D.D. 8 D 5-18d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY DESIGNER



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

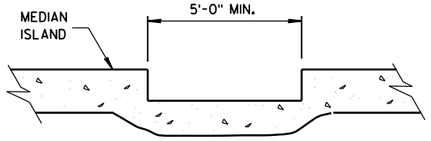
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

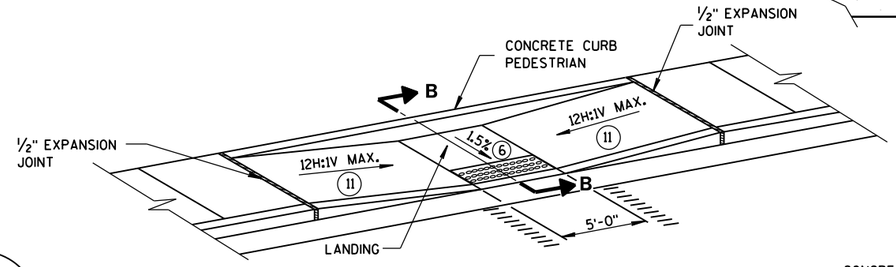
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



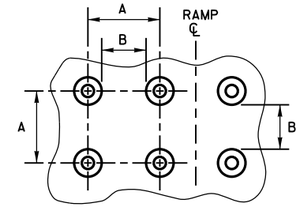
SECTION A-A



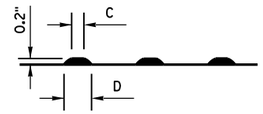
MID-BLOCK CROSSING
TYPE 7A

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

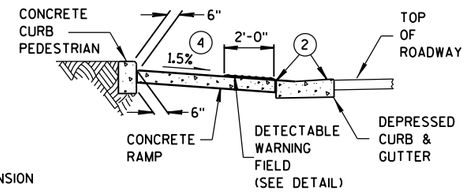
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



PLAN VIEW

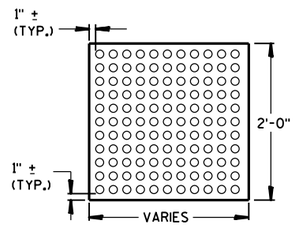


ELEVATION VIEW



SECTION B-B

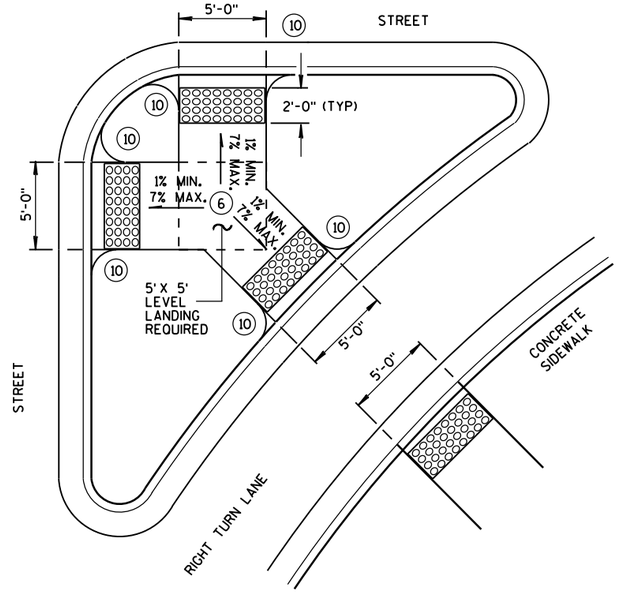
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



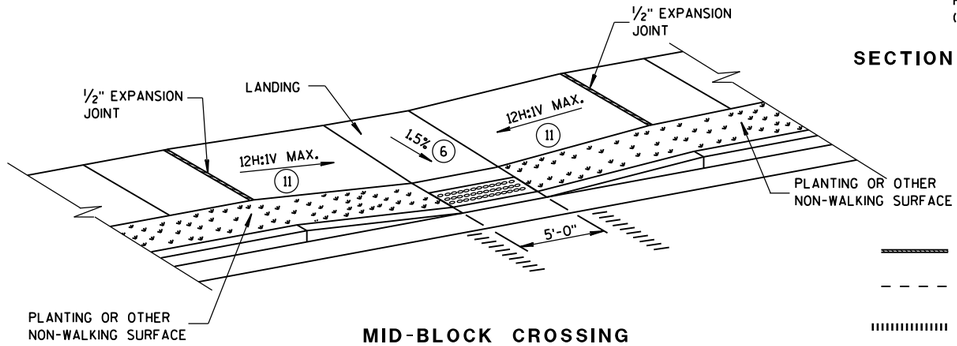
PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

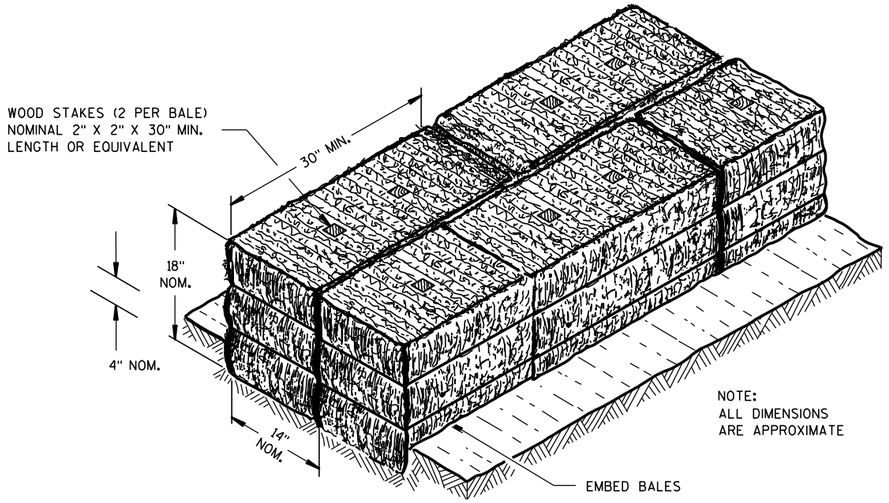
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

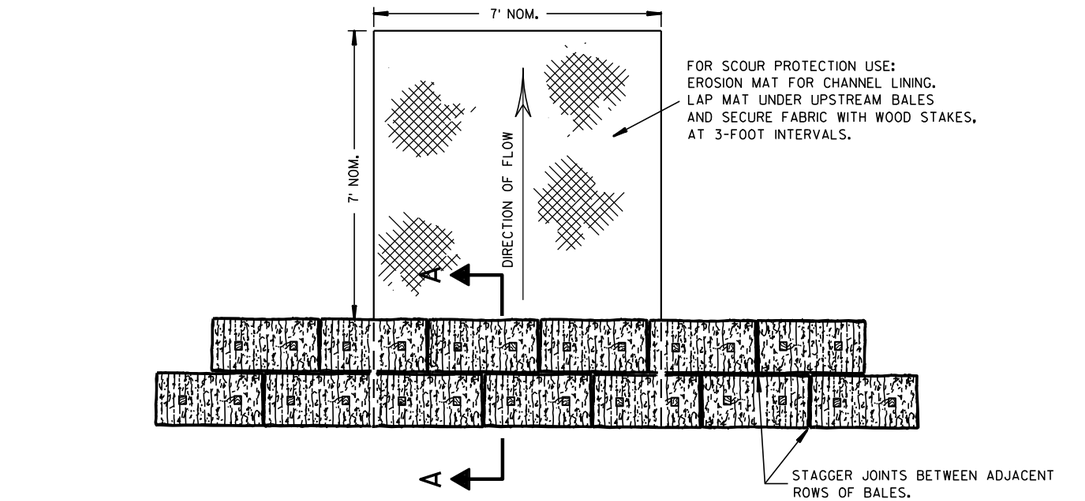
APPROVED
Sept., 2016
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV
ENT
FHWA

6

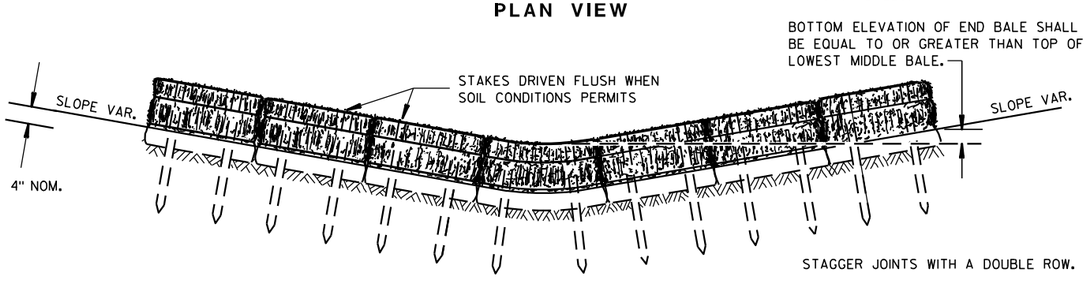
S.D.D. 8 D 5-18e



SECTION A-A



PLAN VIEW



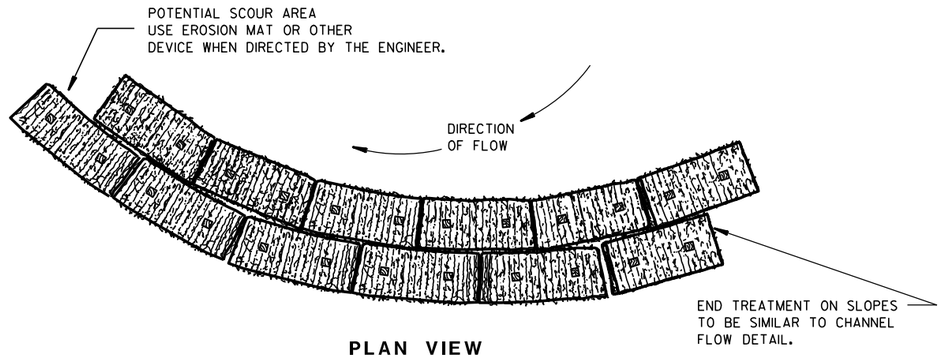
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

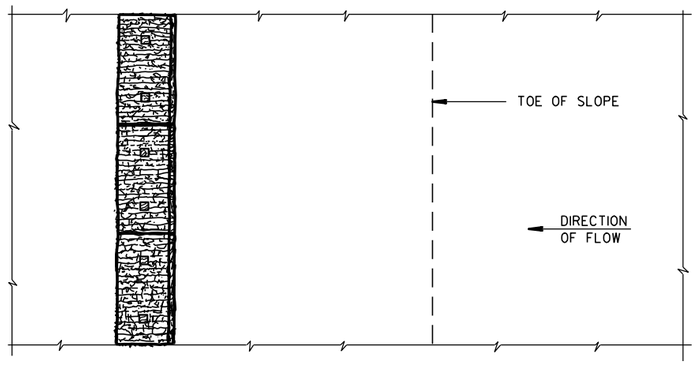
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

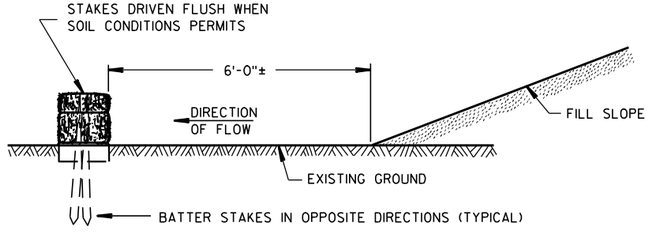


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

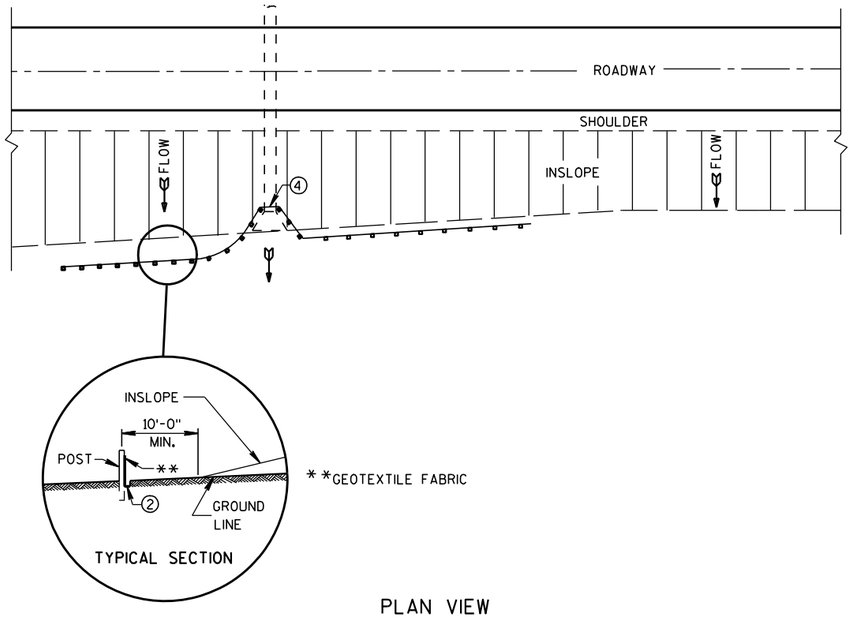
APPROVED
6/04/02 — DATE
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

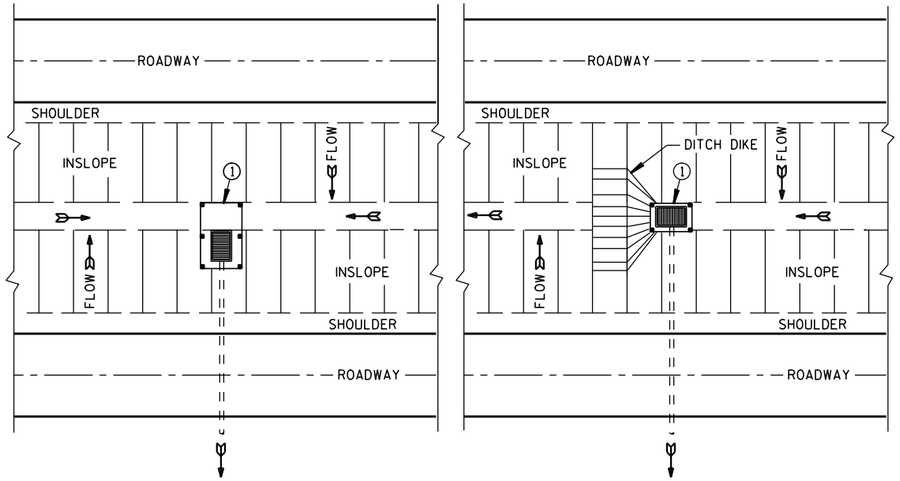
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



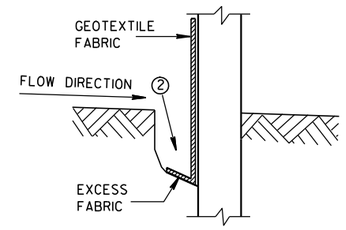
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

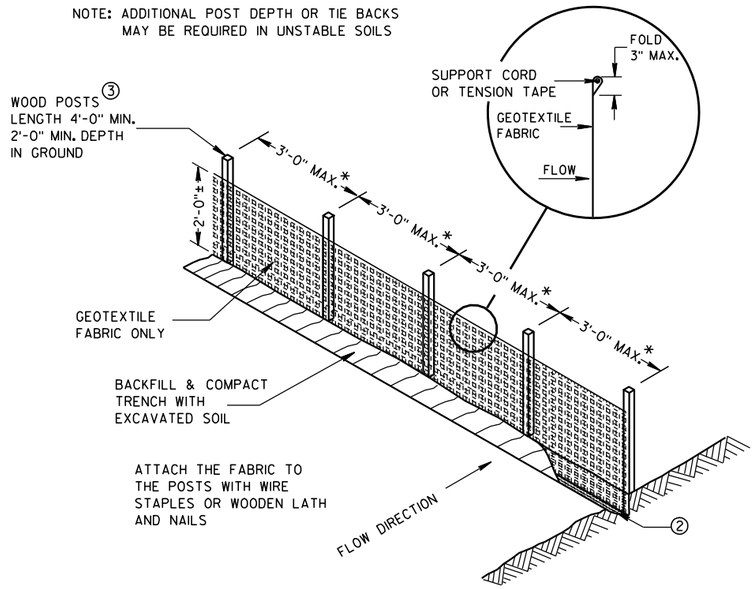
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

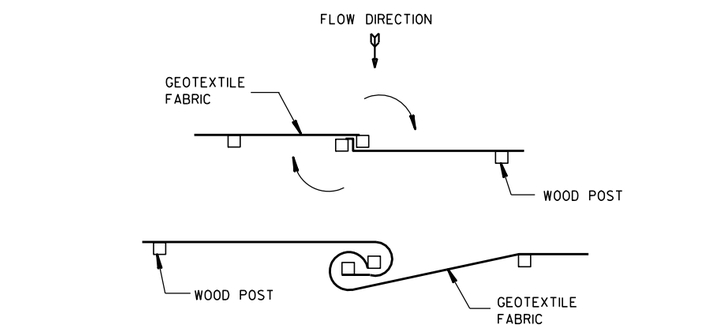
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



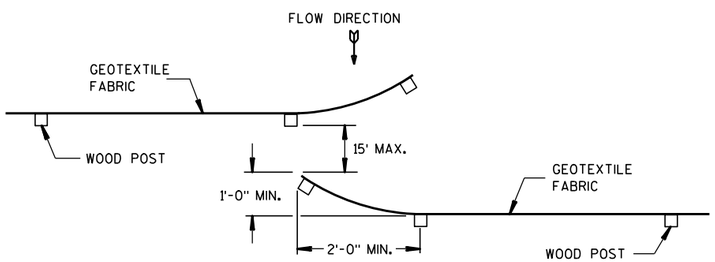
TRENCH DETAIL



SILT FENCE

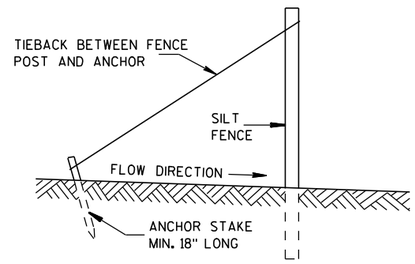


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

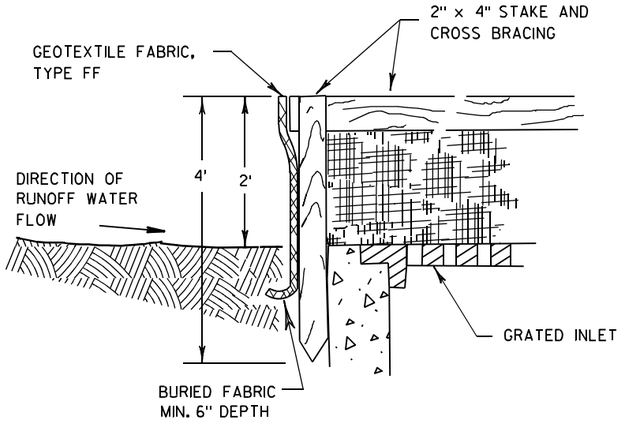
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

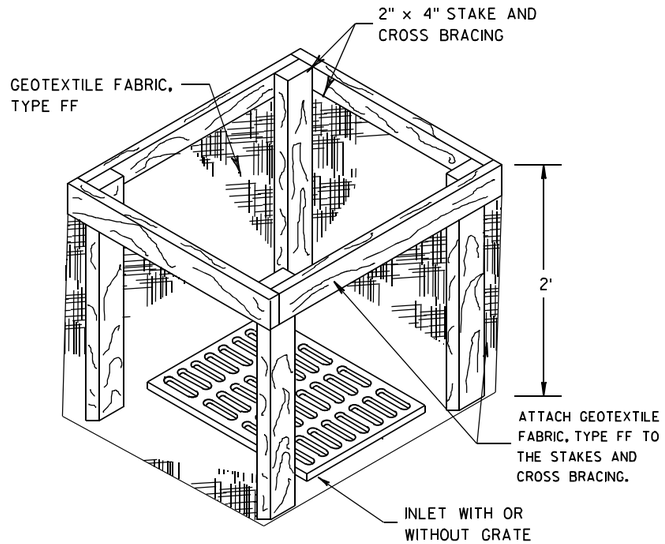
6

S.D.D. 8 E 9-6

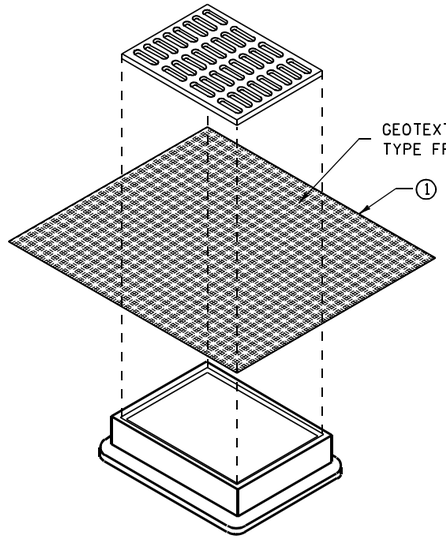
6

S.D.D. 8 E 9-6



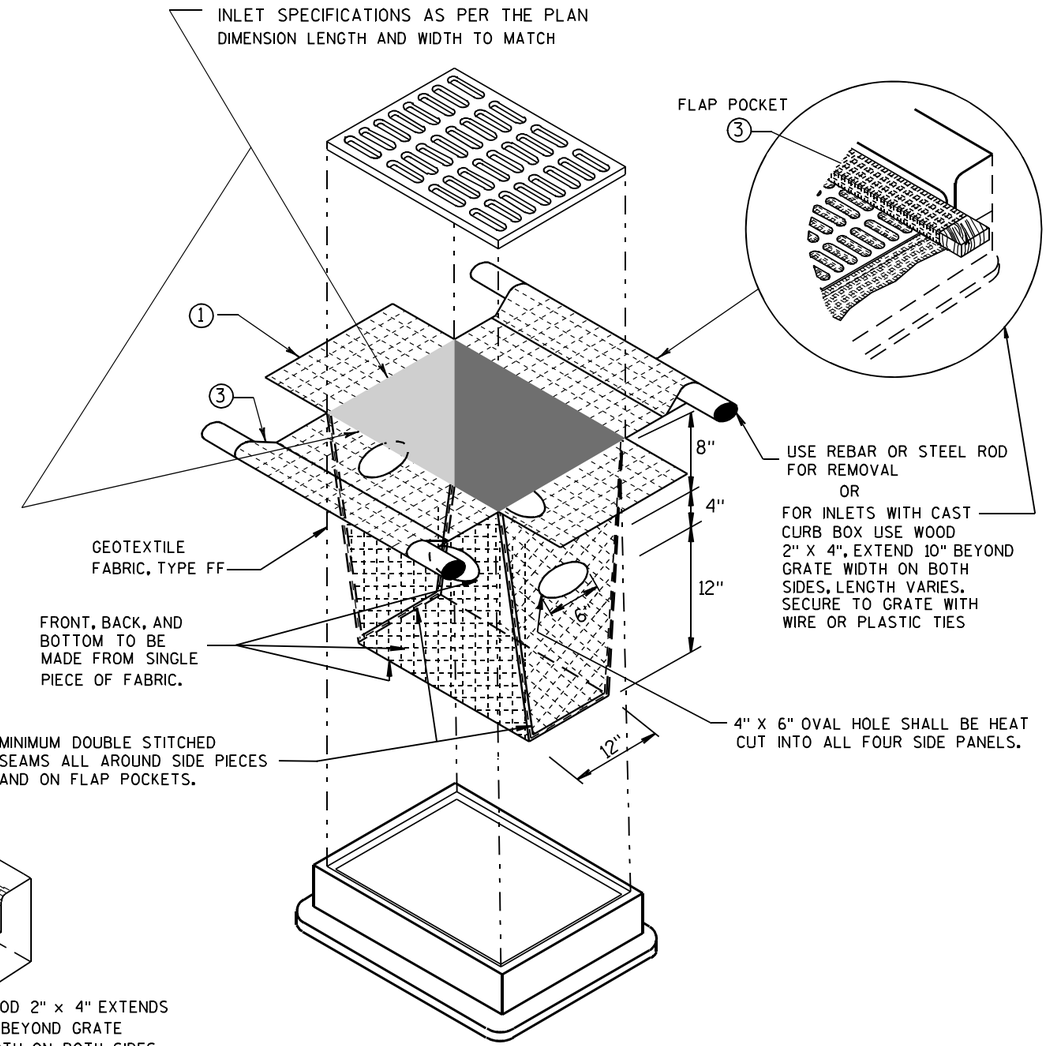


INLET PROTECTION, TYPE A



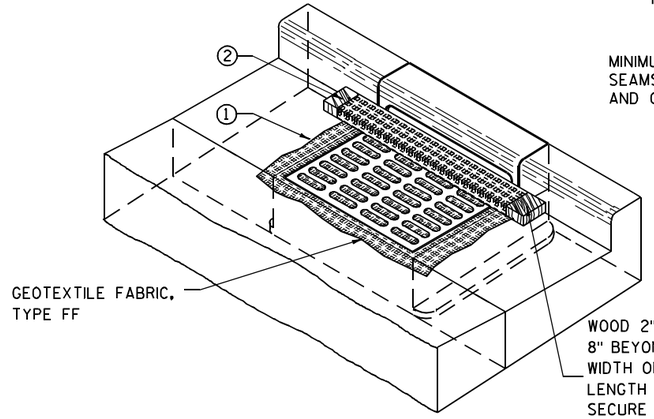
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

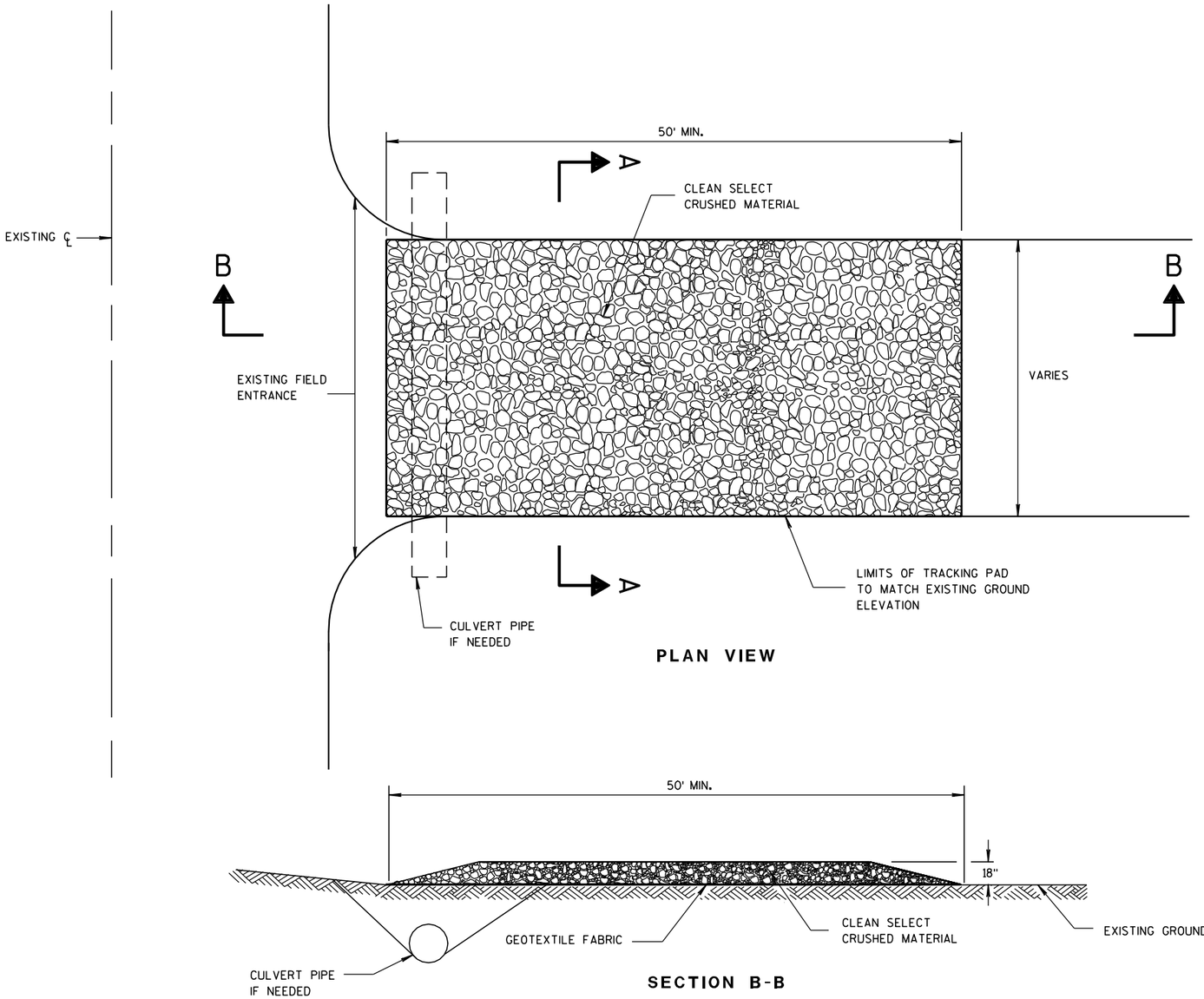
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2



PLAN VIEW

SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

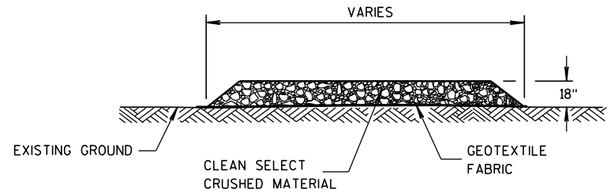
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS ENGINEER
ENT
FHWA

6

S.D.D. 8 E 14-1

6

S.D.D. 8 E 14-1

METAL APRON ENDWALLS

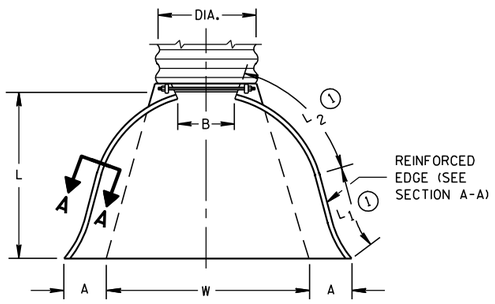
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

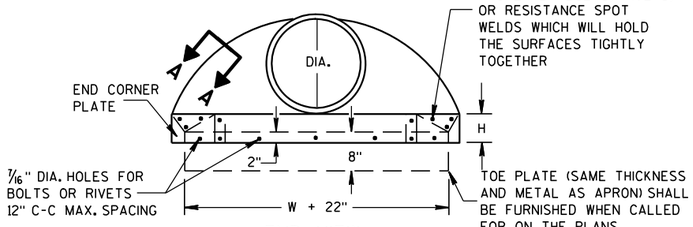
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

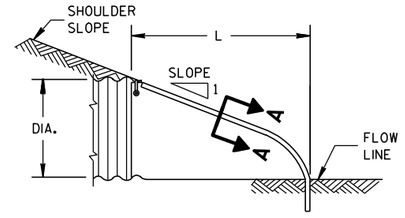
*MINIMUM
**MAXIMUM



PLAN VIEW

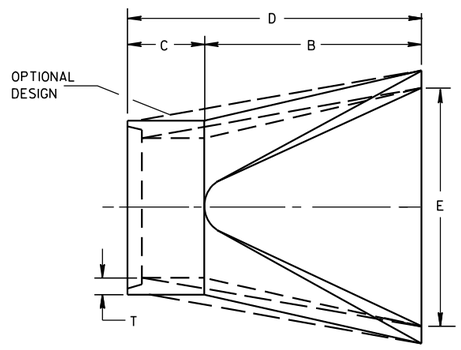


END VIEW

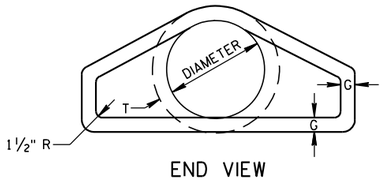


SIDE ELEVATION

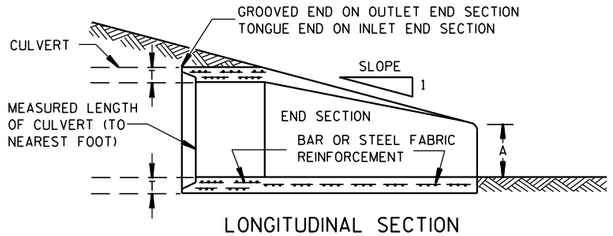
METAL ENDWALLS



PLAN

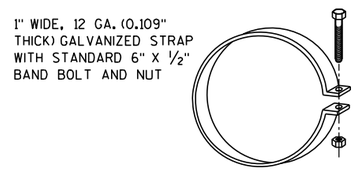


END VIEW



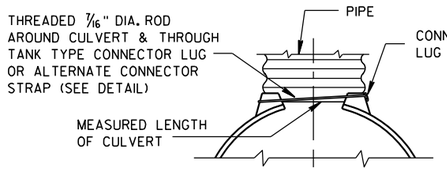
LONGITUDINAL SECTION

CONCRETE ENDWALLS

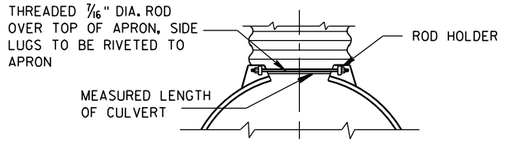


ALTERNATE FOR TYPE 1 CONNECTION

END SECTION CONNECTOR STRAP

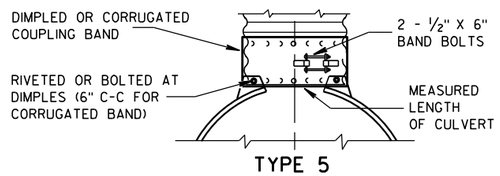


TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE

TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

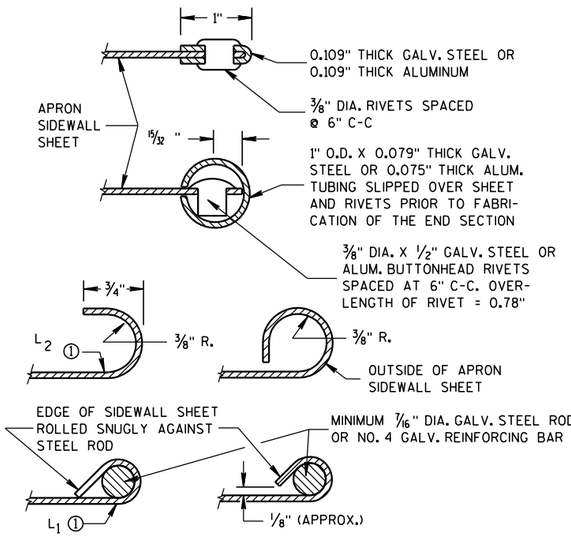
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

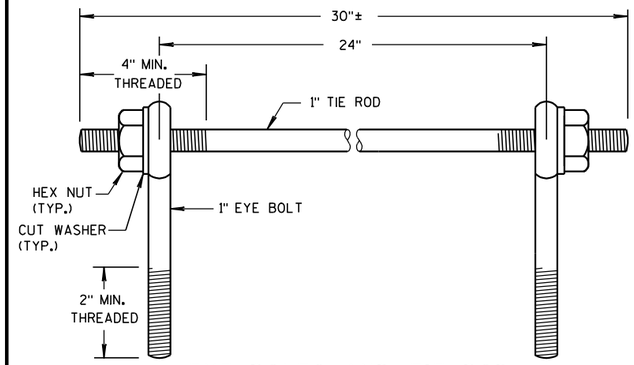
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

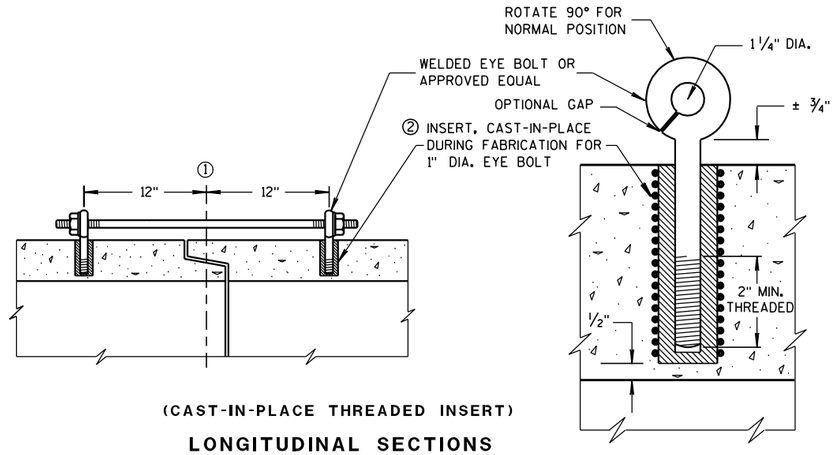
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

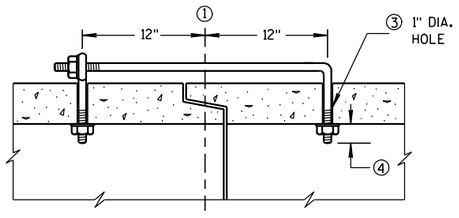
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

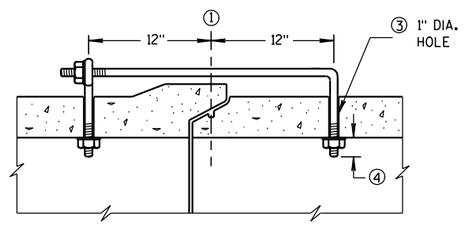
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

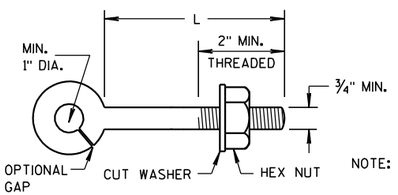


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

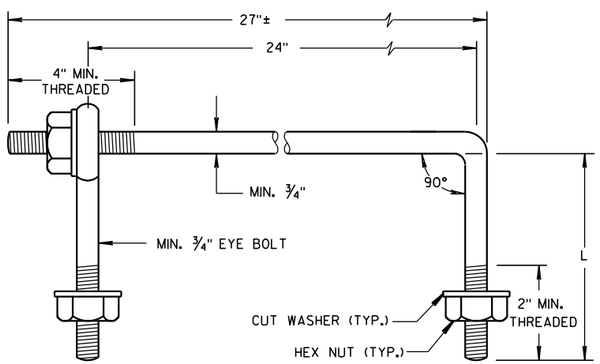
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

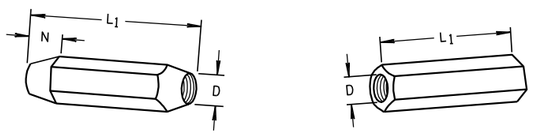
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

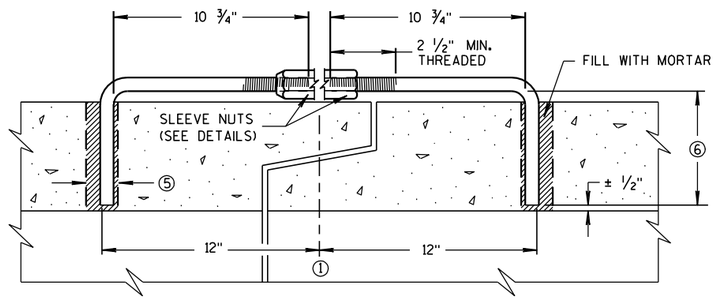
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

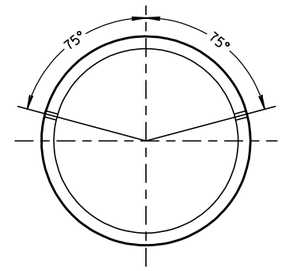
SLEEVE NUTS



LONGITUDINAL SECTION

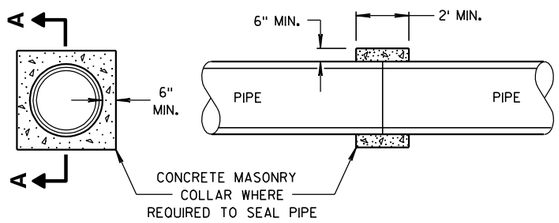
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
244
FHWA

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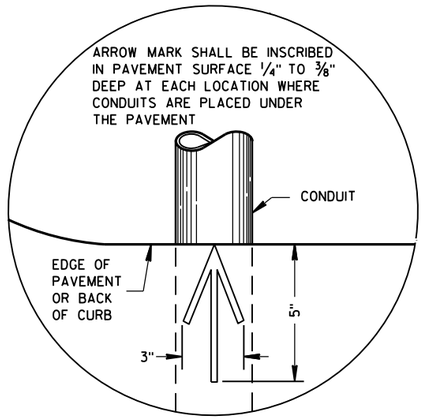
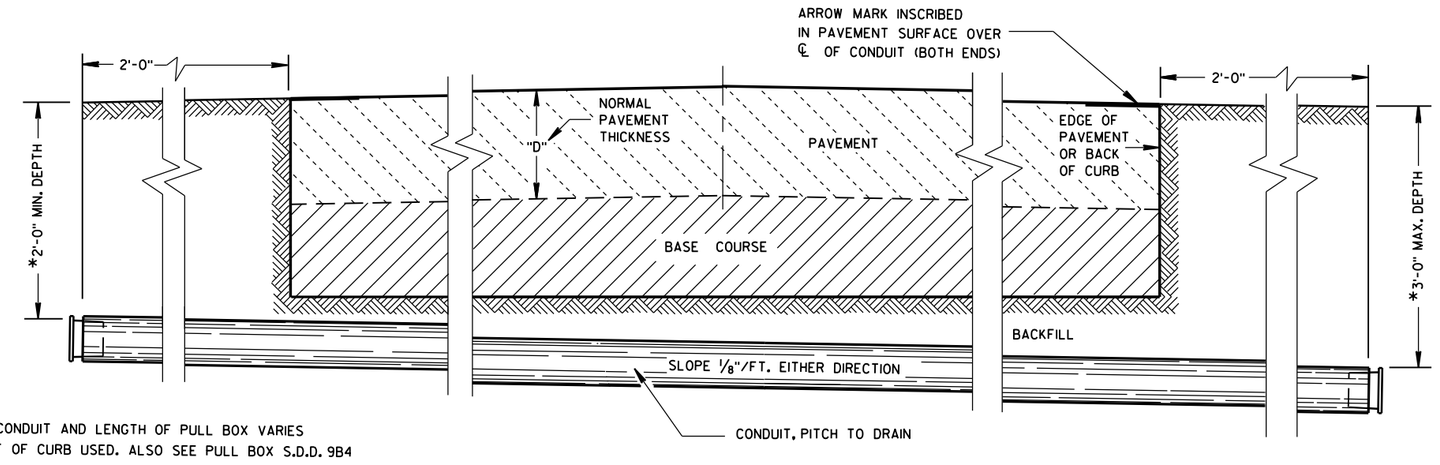
S.D.D. 8 F 4-7



PLAN VIEW

ARROW MARK



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

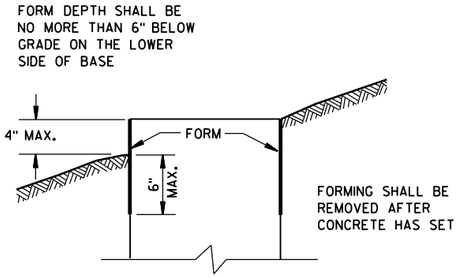
CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 B 2-10



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

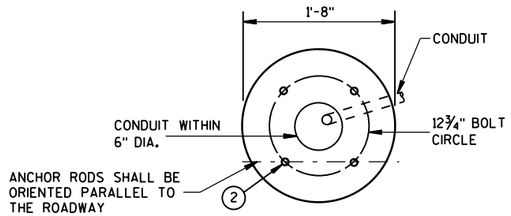
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

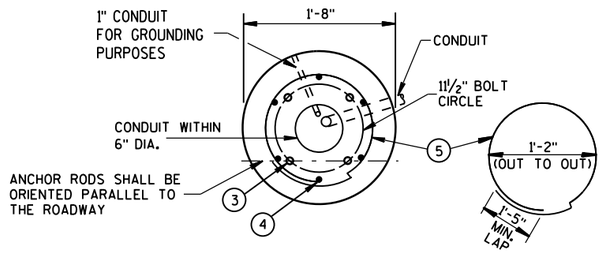
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

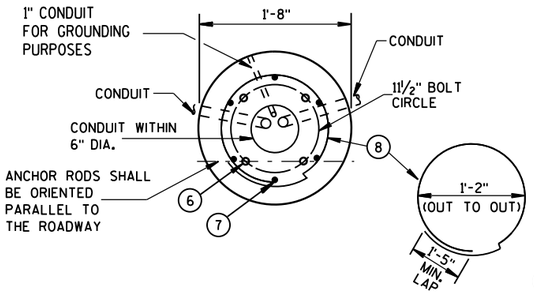
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

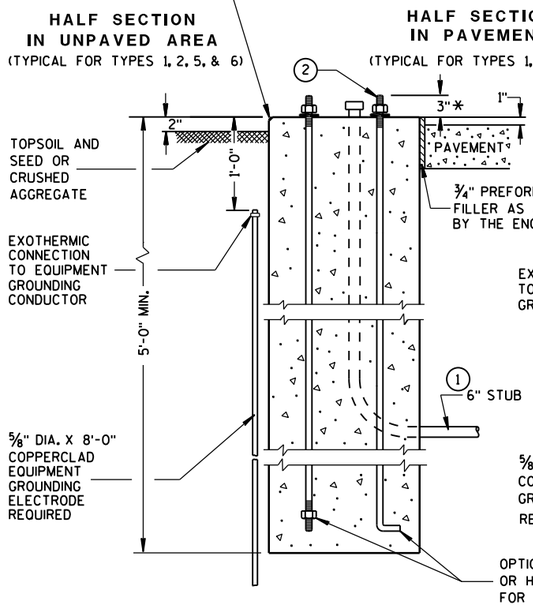
(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

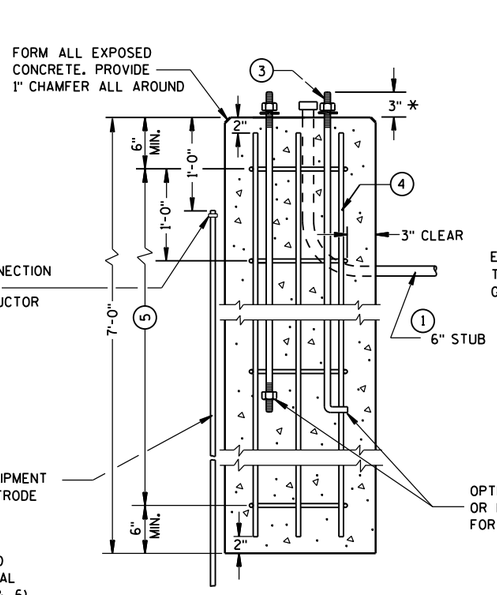
(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



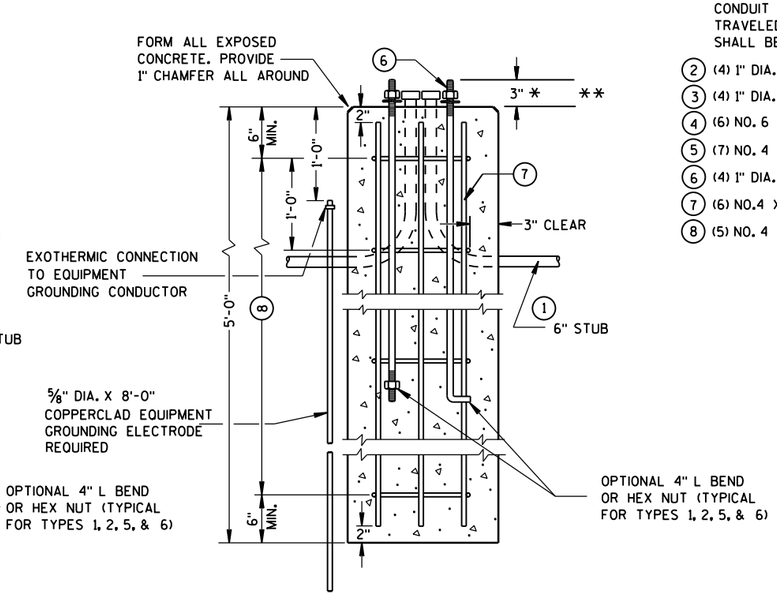








TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 C 2-7

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

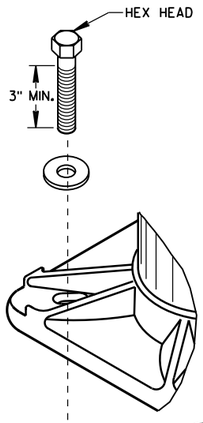
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

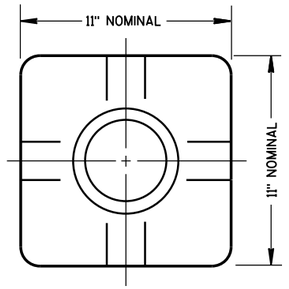
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

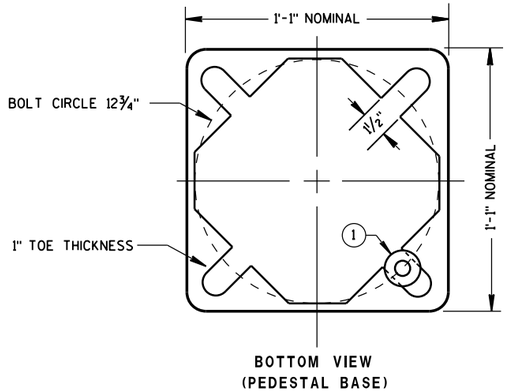
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

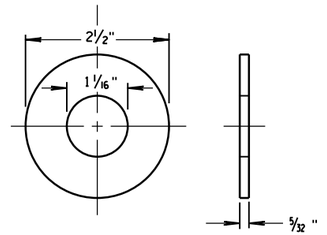




TOP VIEW
(PEDESTAL BASE)

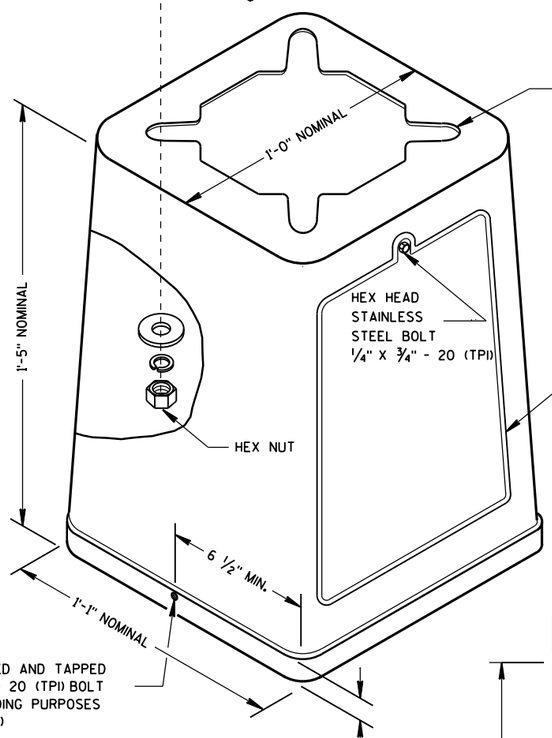


BOTTOM VIEW
(PEDESTAL BASE)

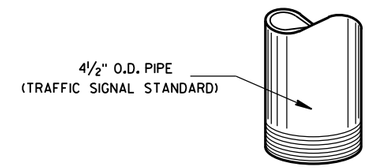


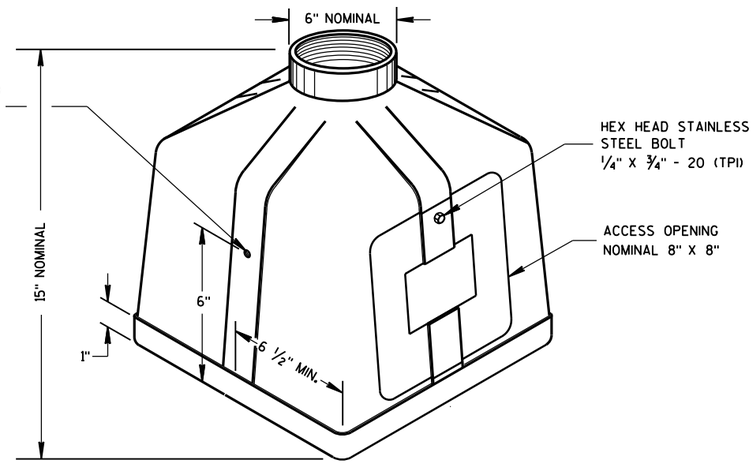
ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

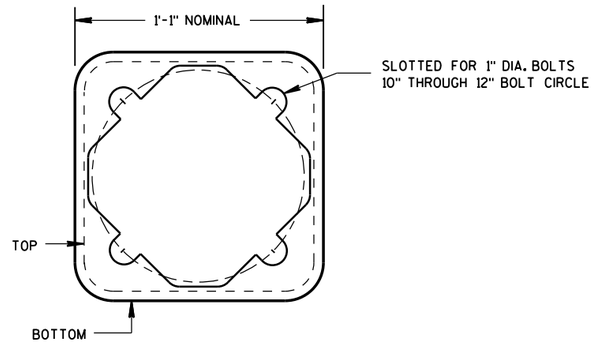


ISOMETRIC VIEW





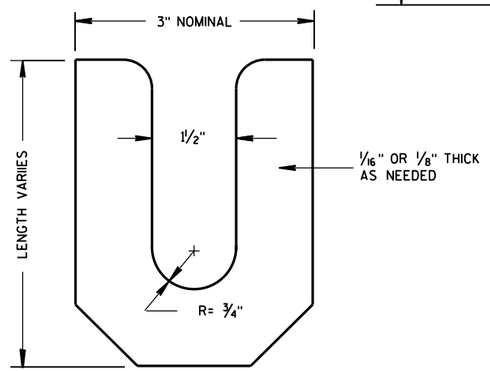
ISOMETRIC VIEW
PEDESTAL BASE



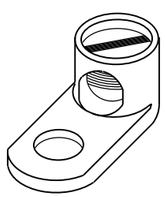
BOTTOM VIEW
(TRANSFORMER BASE)

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM



TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

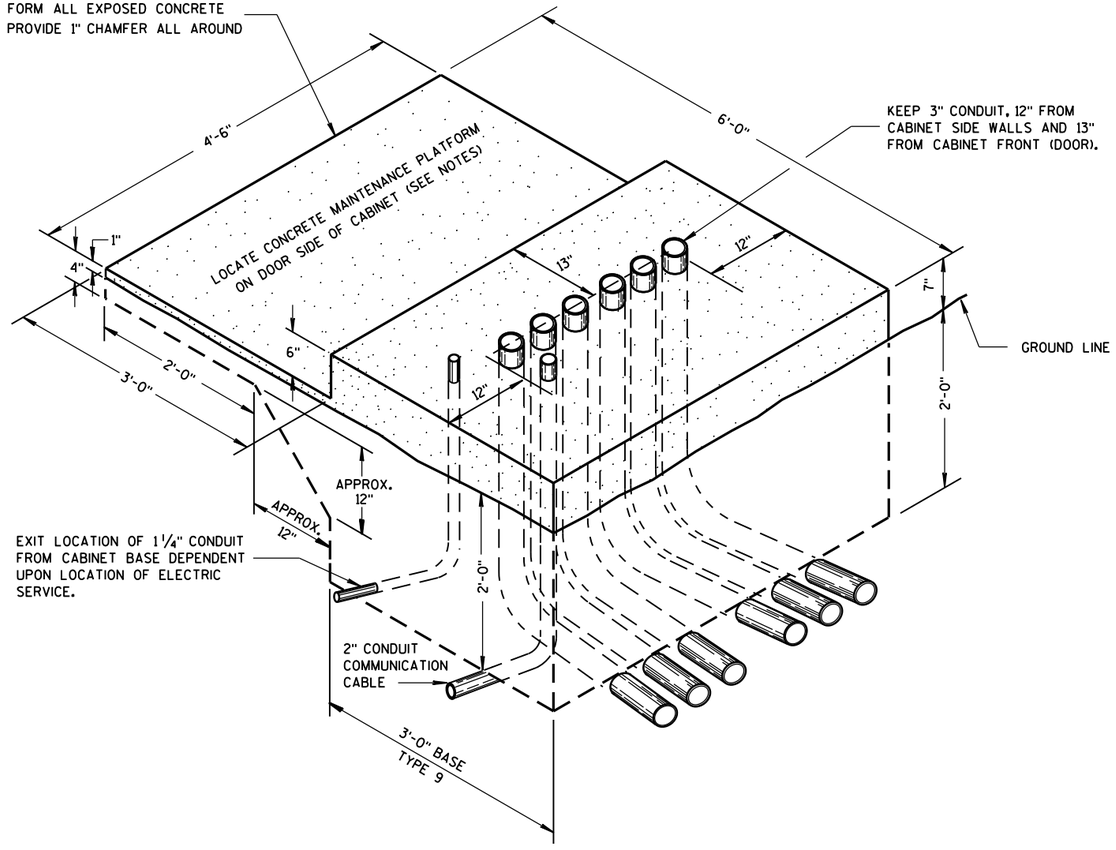
TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

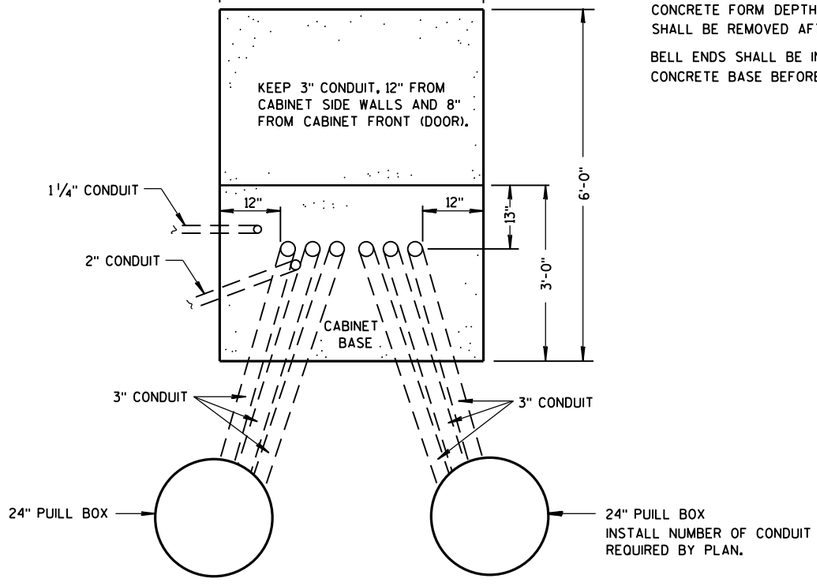
S.D.D. 9 C 3-4



ISOMETRIC VIEW

TYPE 9, SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE (SIX THREE INCH) SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUIT IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

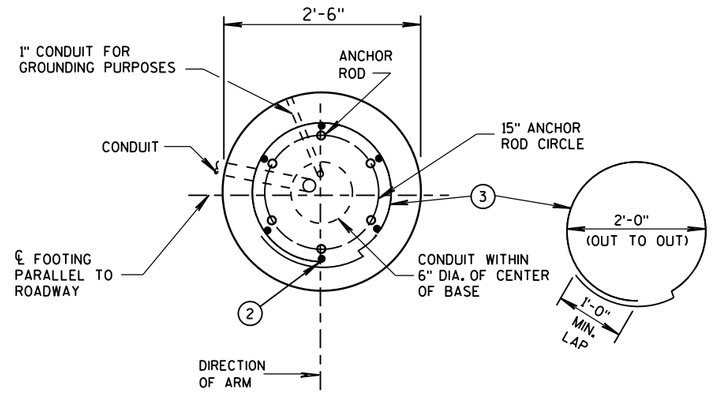
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

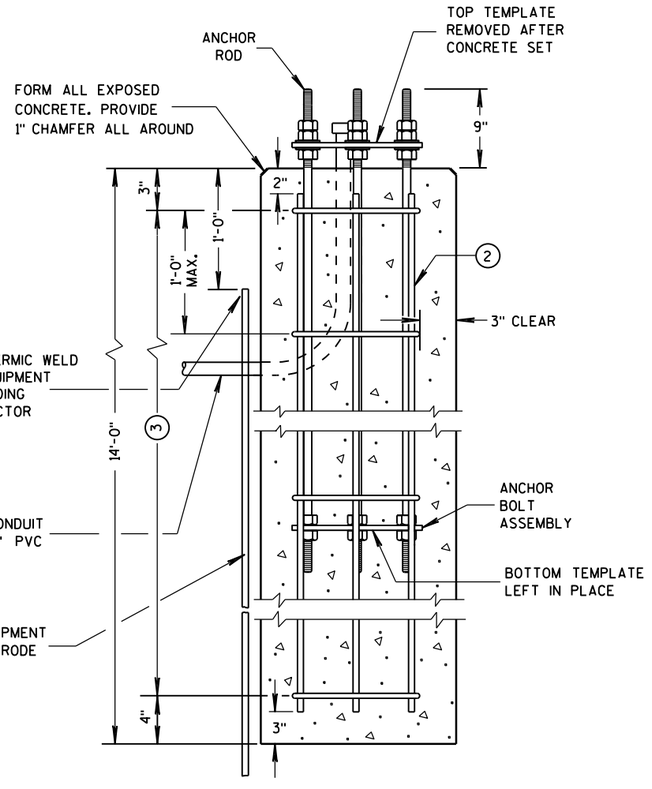
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (6) NO. 6 X 13'-7" BAR STEEL REINFORCEMENT.

(3) (15) NO. 4 X 7'-4" BAR STEEL REINFORCEMENT @ 1'-0" MAX. C-C.

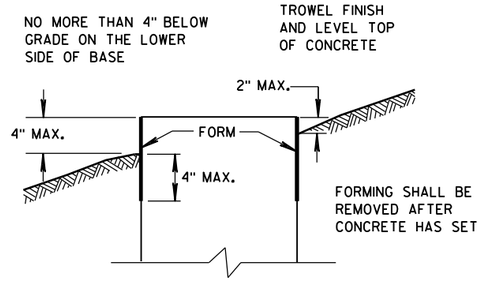
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



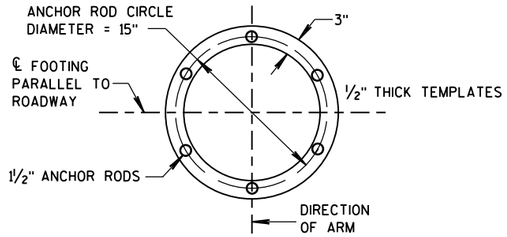


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

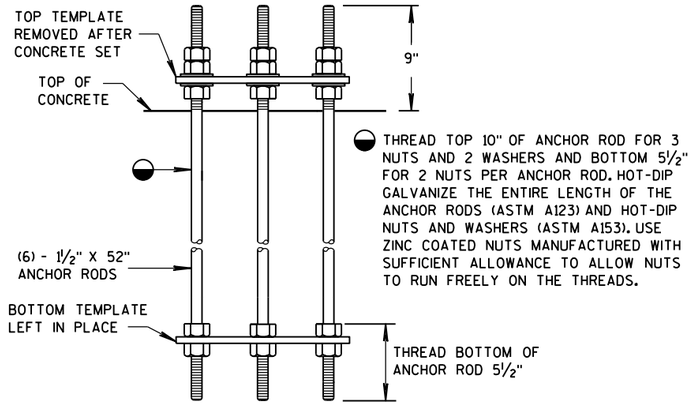
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10
ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	69
LBS. OF VERTICAL BAR STEEL	122

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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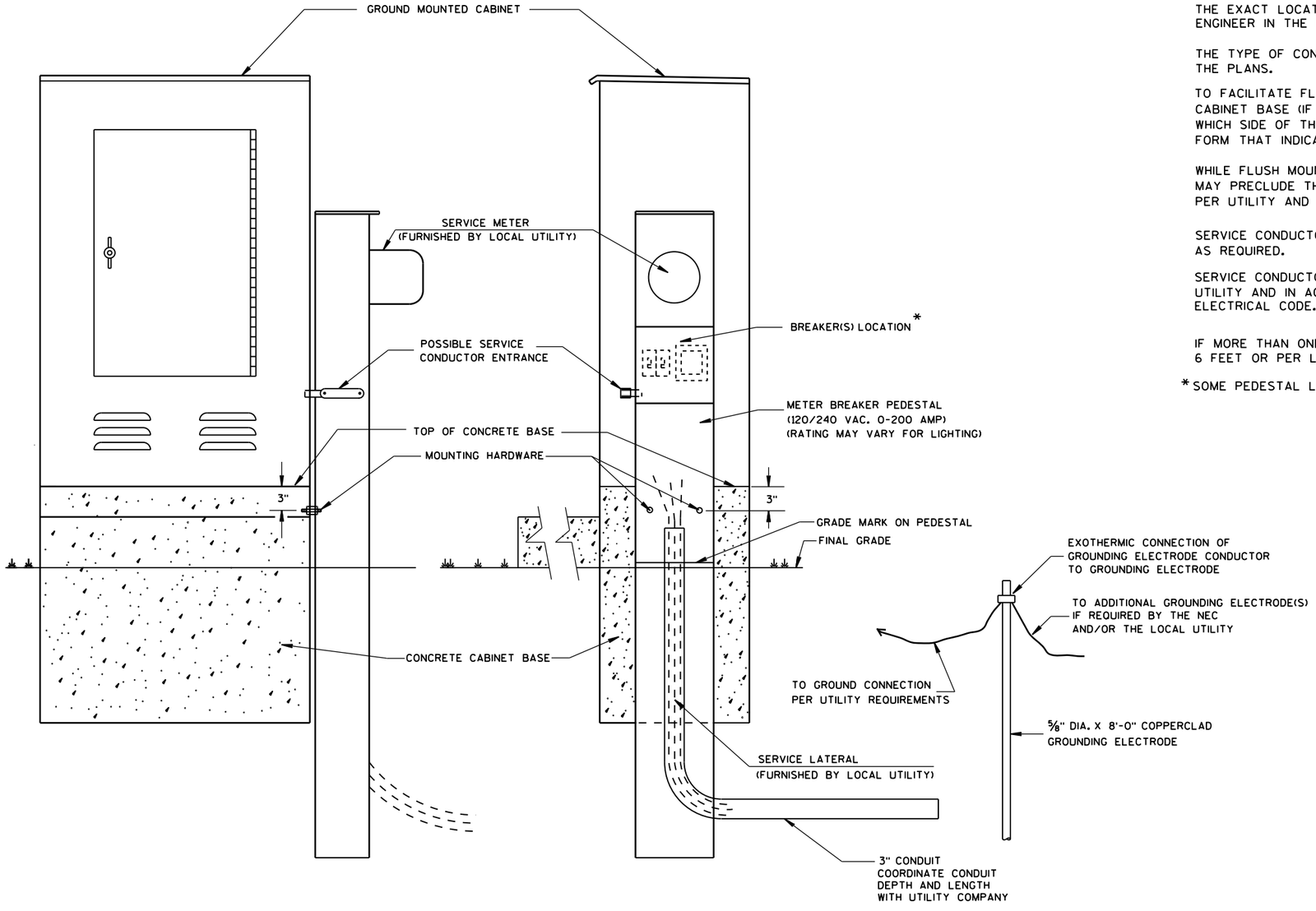

TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

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S.D.D. 9 D 1-5

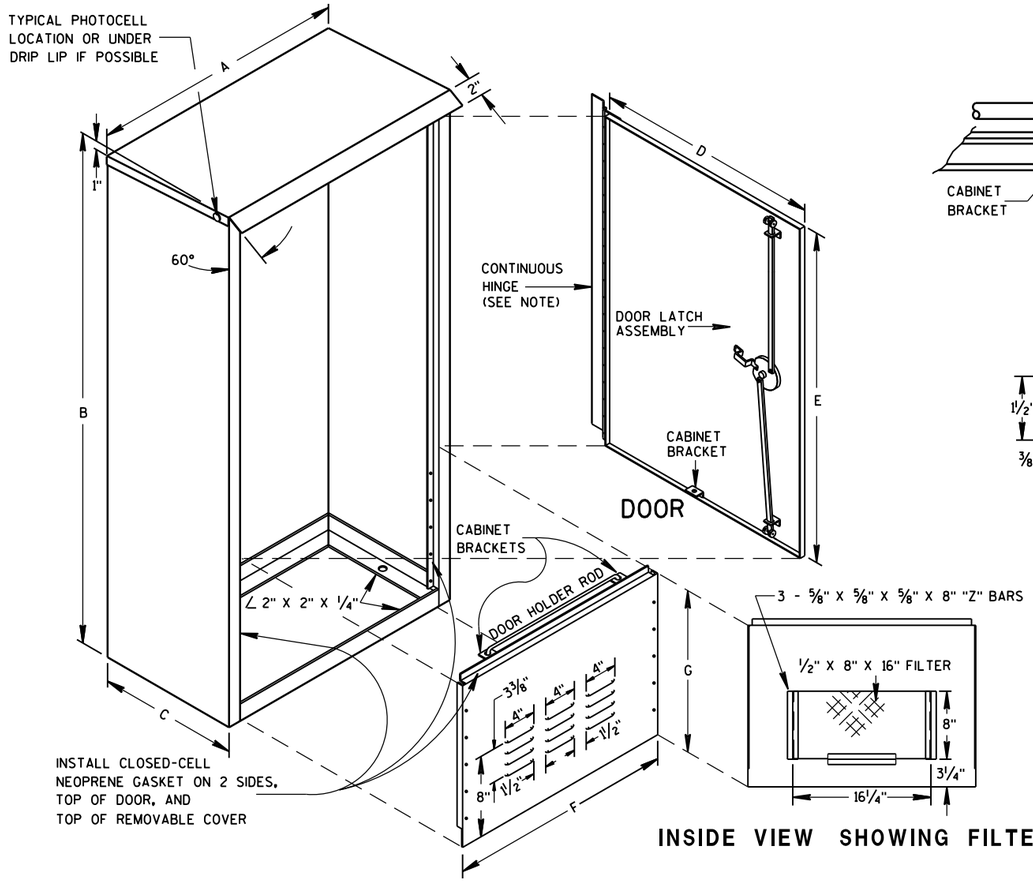
CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

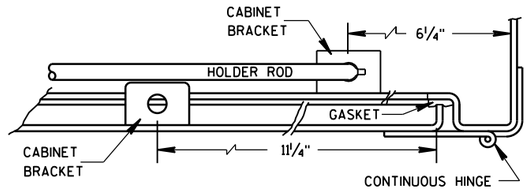
/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

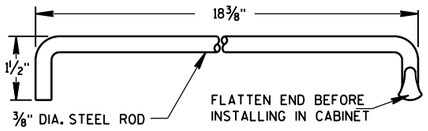


REMOVABLE COVER

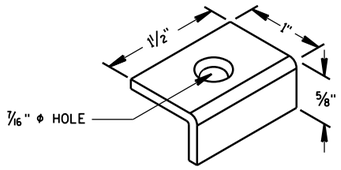
INSIDE VIEW SHOWING FILTER



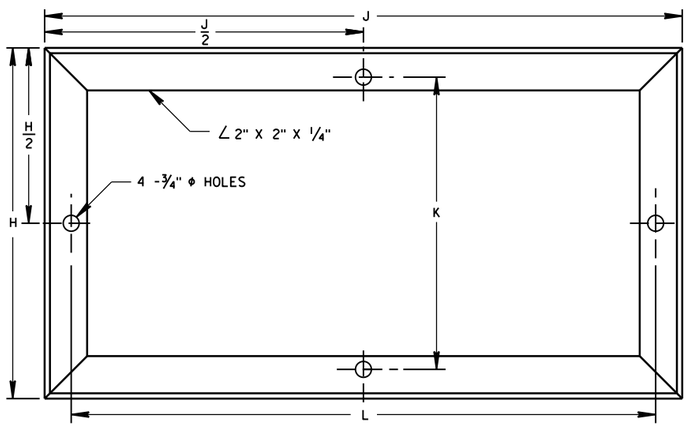
HINGE & DOOR HOLDER



HOLDER ROD



CABINET BRACKET



MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 1/4	8 1/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

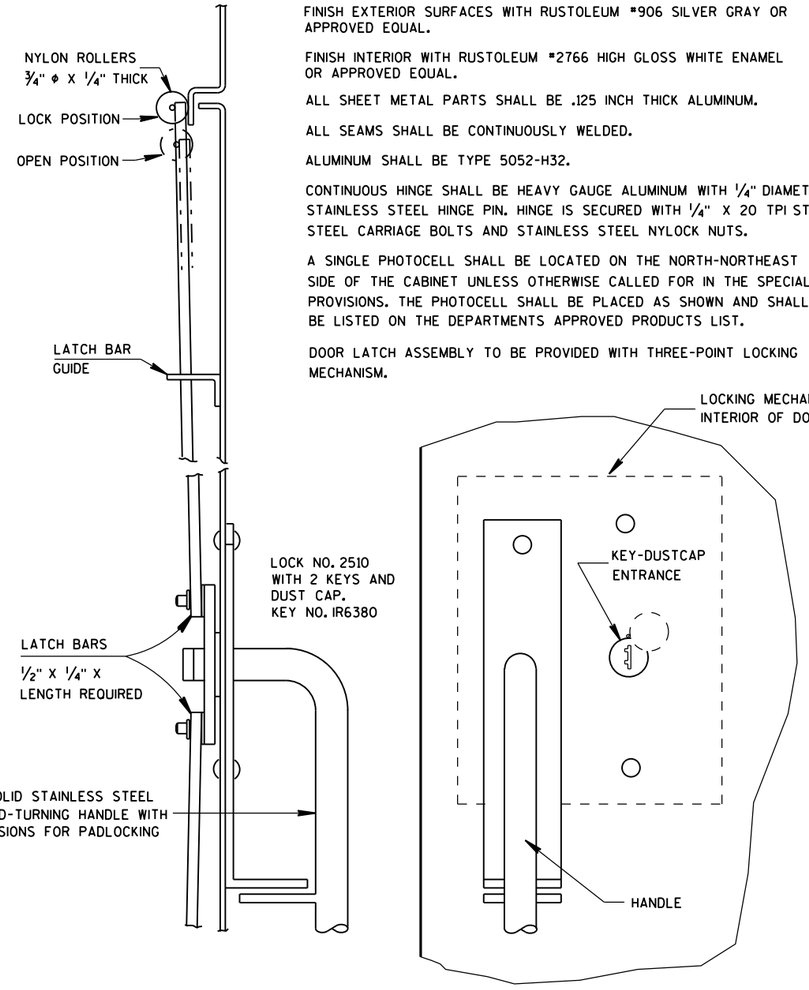
ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/4" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH 1/4" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH-NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST.

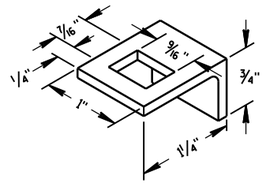
DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.



SIDE VIEW

FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

SIGNAL CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

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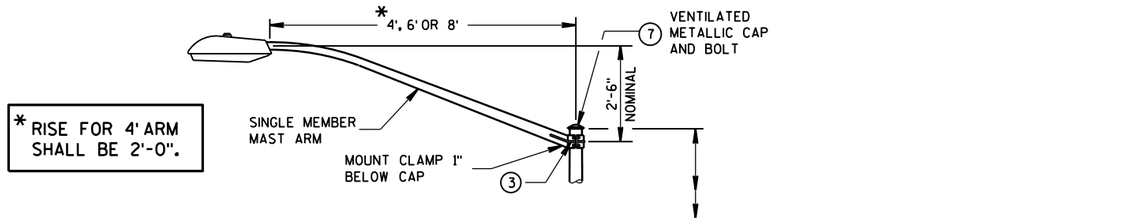
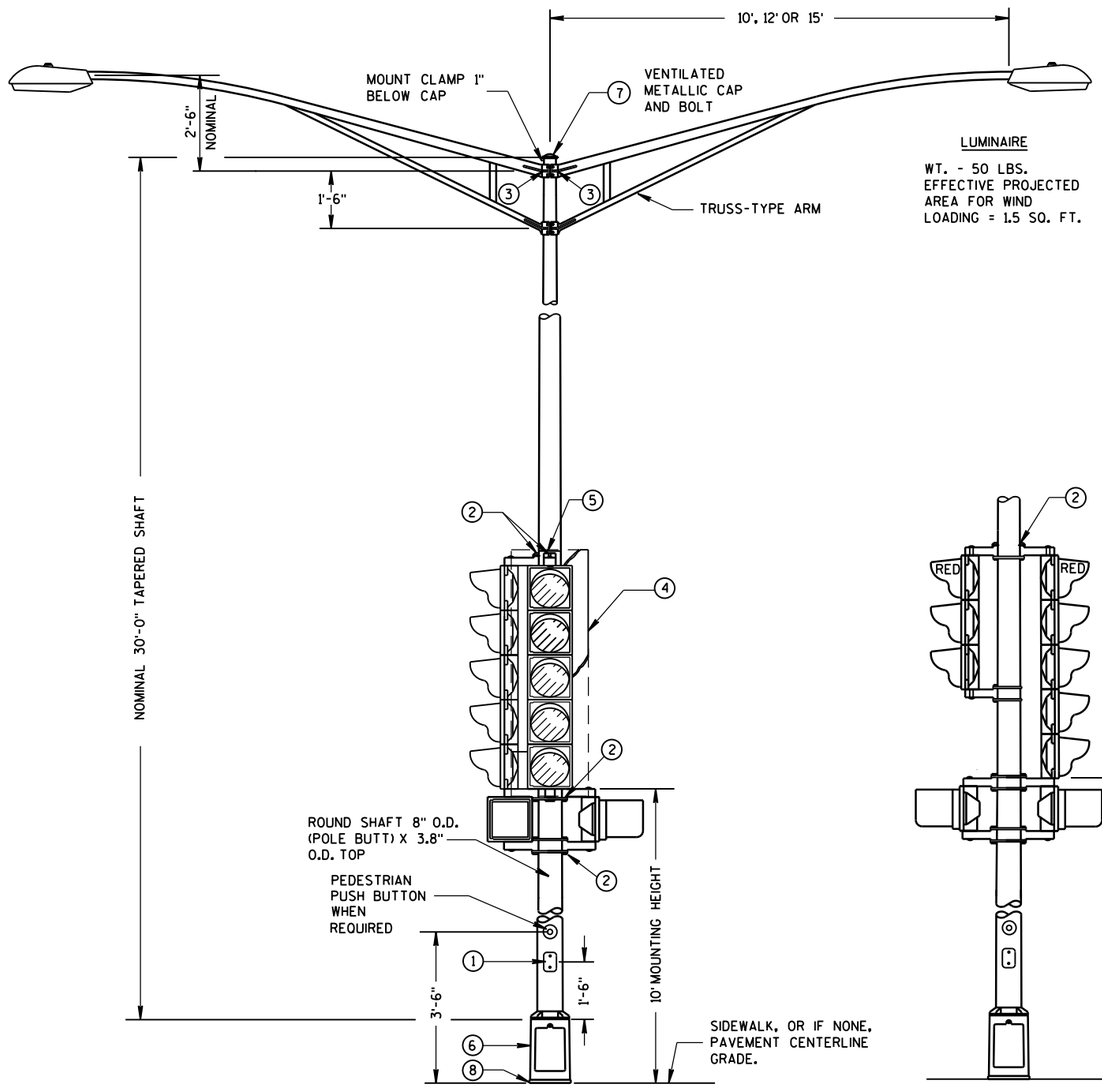
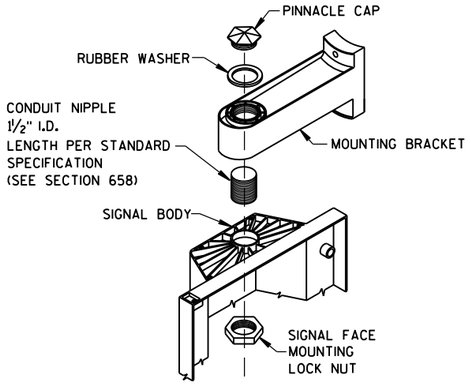




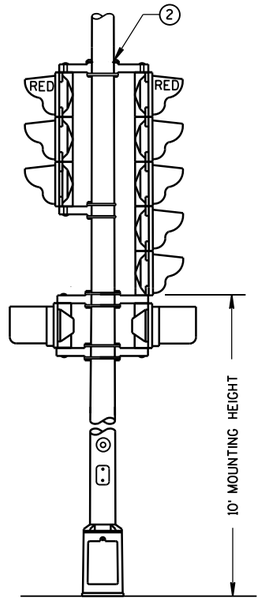
LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED AREA FOR WIND LOADING = 1.5 SQ. FT.

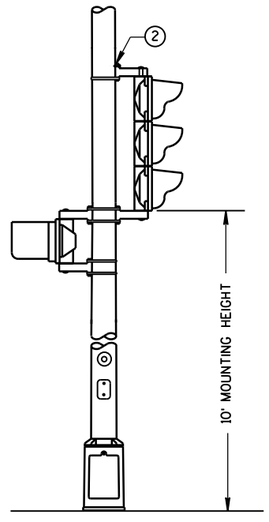
(MAXIMUM LOAD)



SIGNAL FACE MOUNTING DETAIL
(BANDED)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE

TYPE 4 POLE MOUNTING CONFIGURATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL TYPE 4 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL WITH A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658).

(3) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

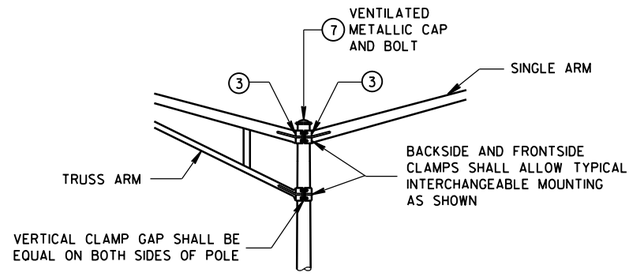
(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(7) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(8) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.



INTERCHANGEABLE MOUNTING DETAIL

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4

STATE OF WISCONSIN
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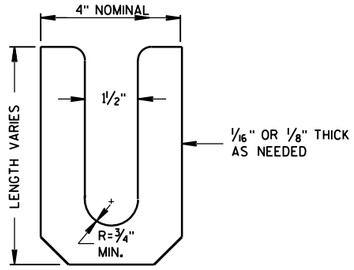
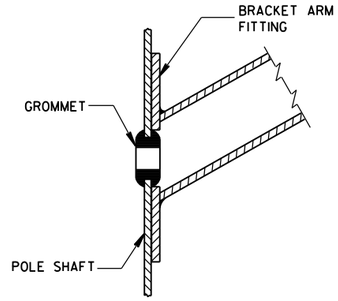
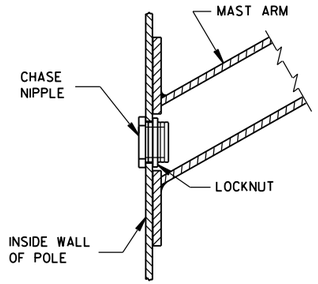


LEVELING SHIM (13)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

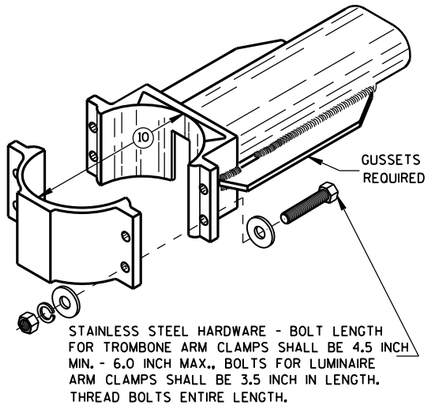
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

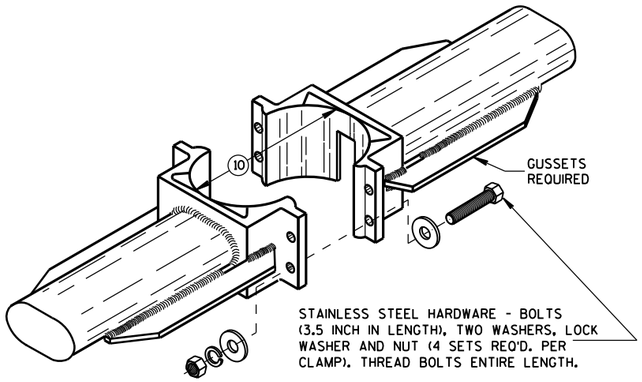
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

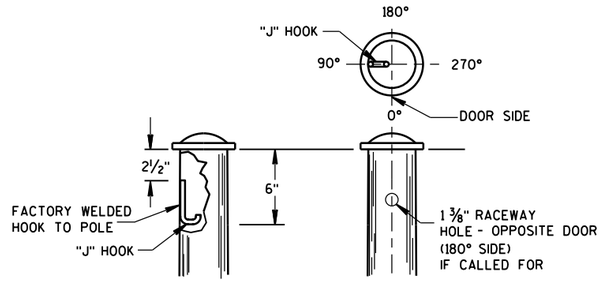
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



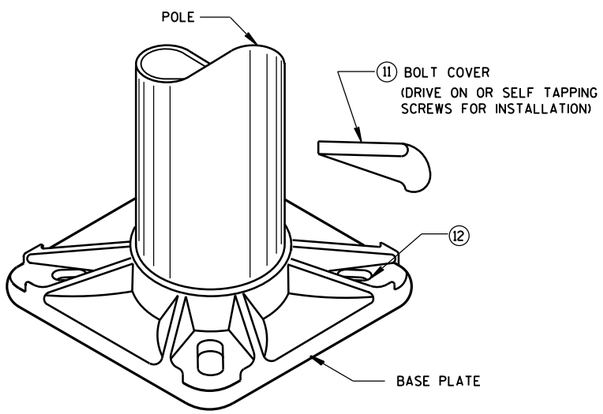
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



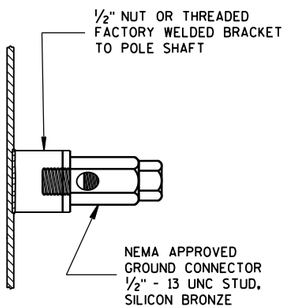
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

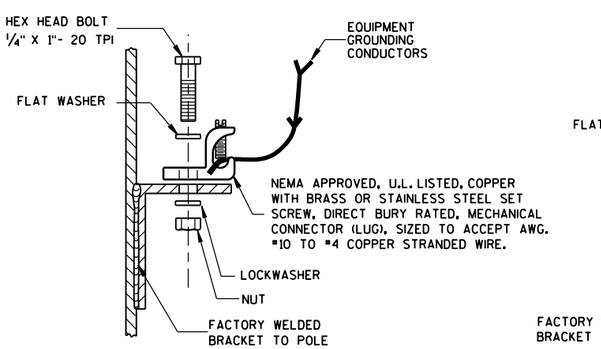


TYPICAL "J" HOOK LOCATION



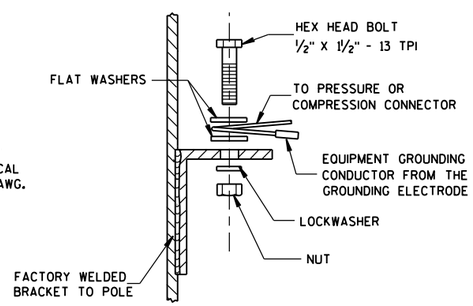
BASE PLATE





TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL 253

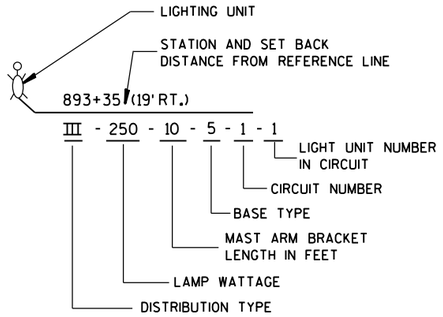
FHWA

6

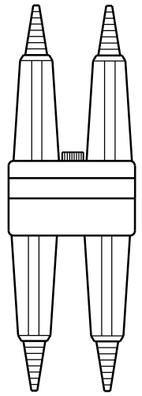
S.D.D. 9 E 1-14g

6

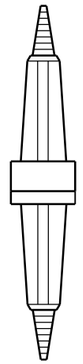
S.D.D. 9 E 1-14g



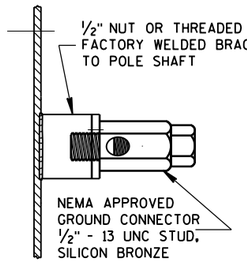
LIGHTING UNIT CODE
(TYPICAL)

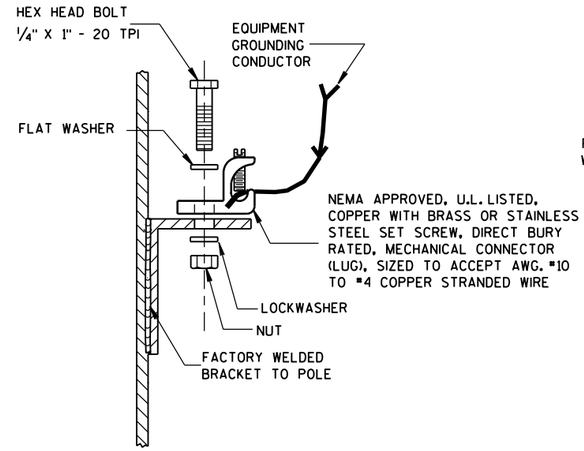


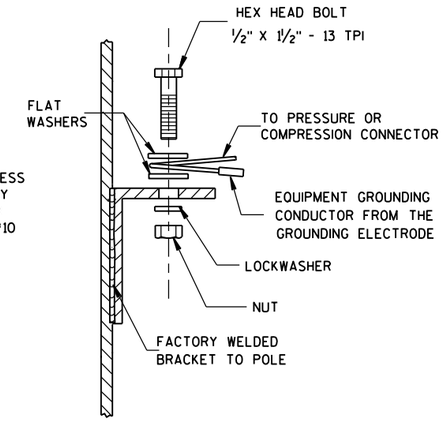
DETAIL "A"
BREAKAWY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



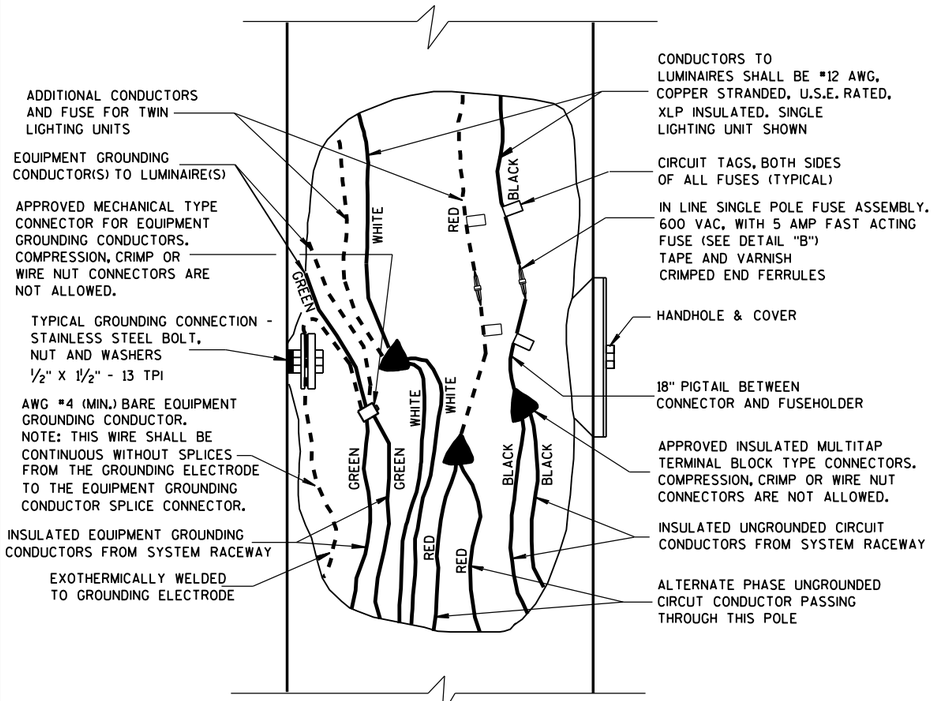
DETAIL "B"
BREAKAWY SINGLE POLE WITH WATERPROOF INSULATING BOOT



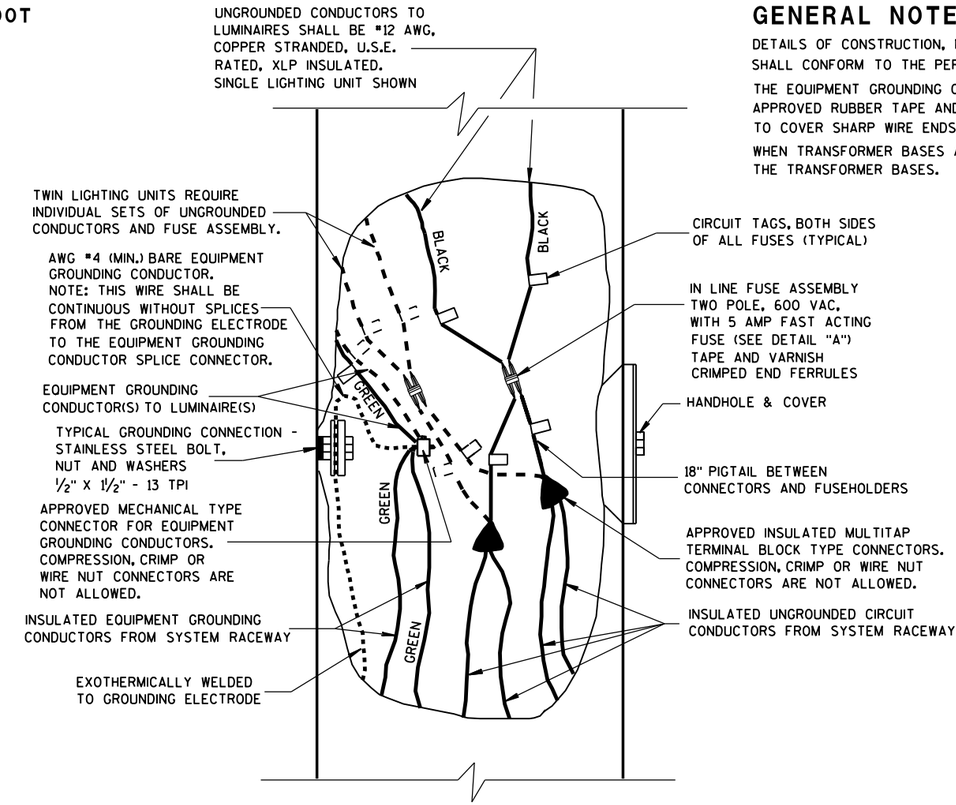




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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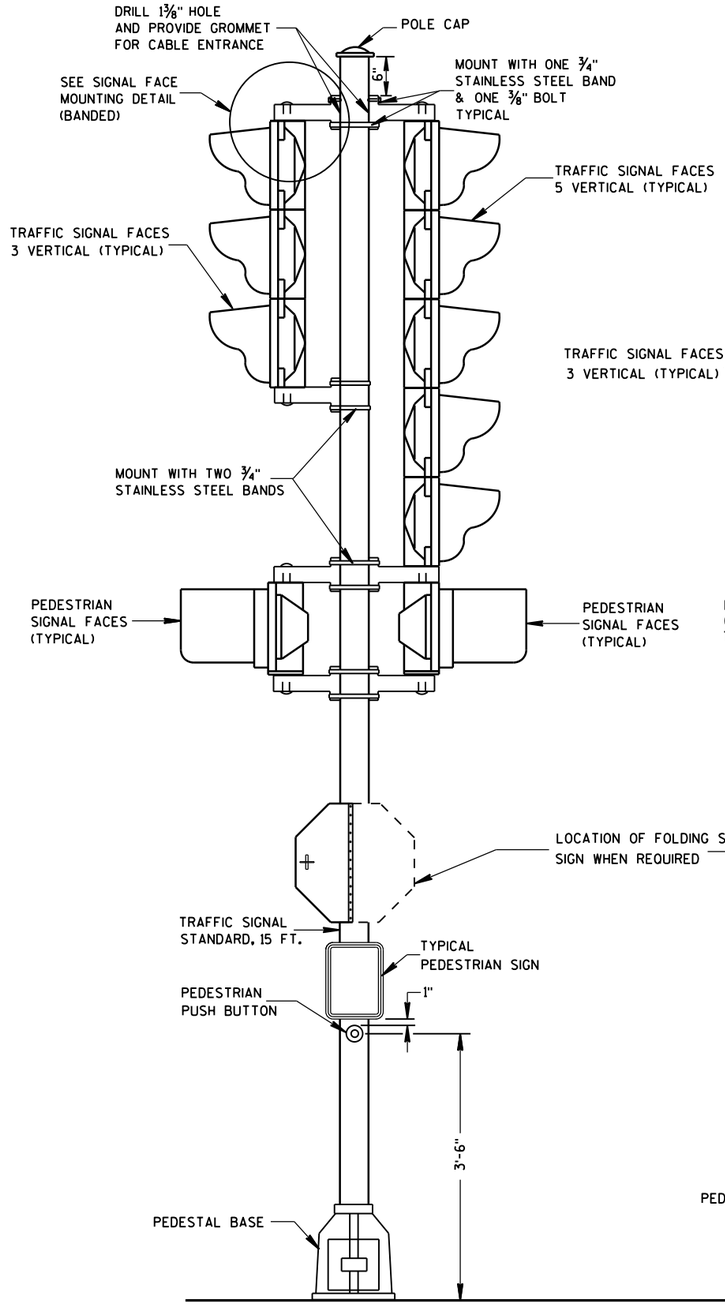
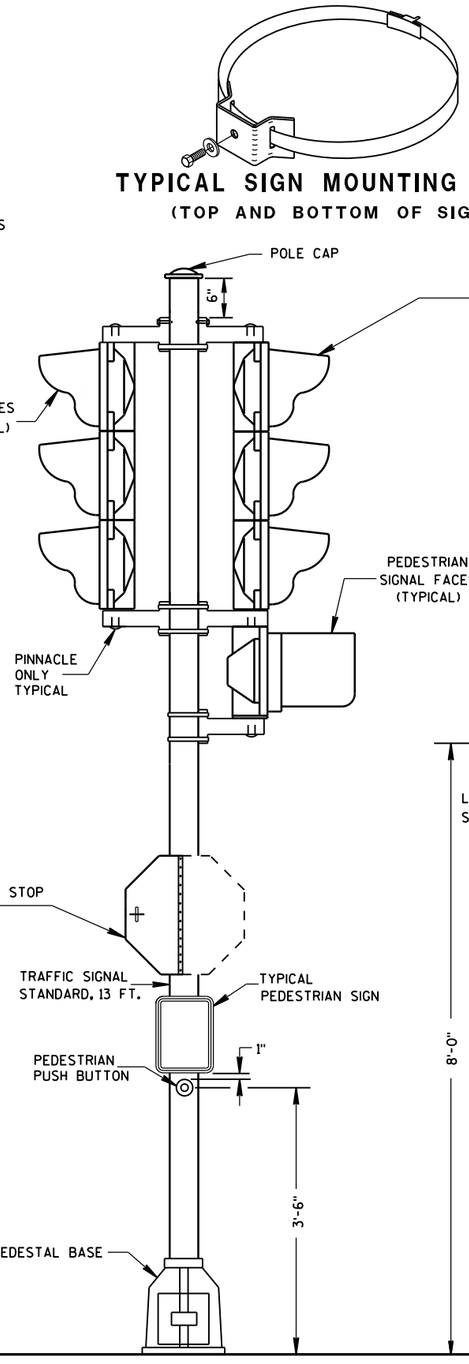
S.D.D. 9 E 3-5

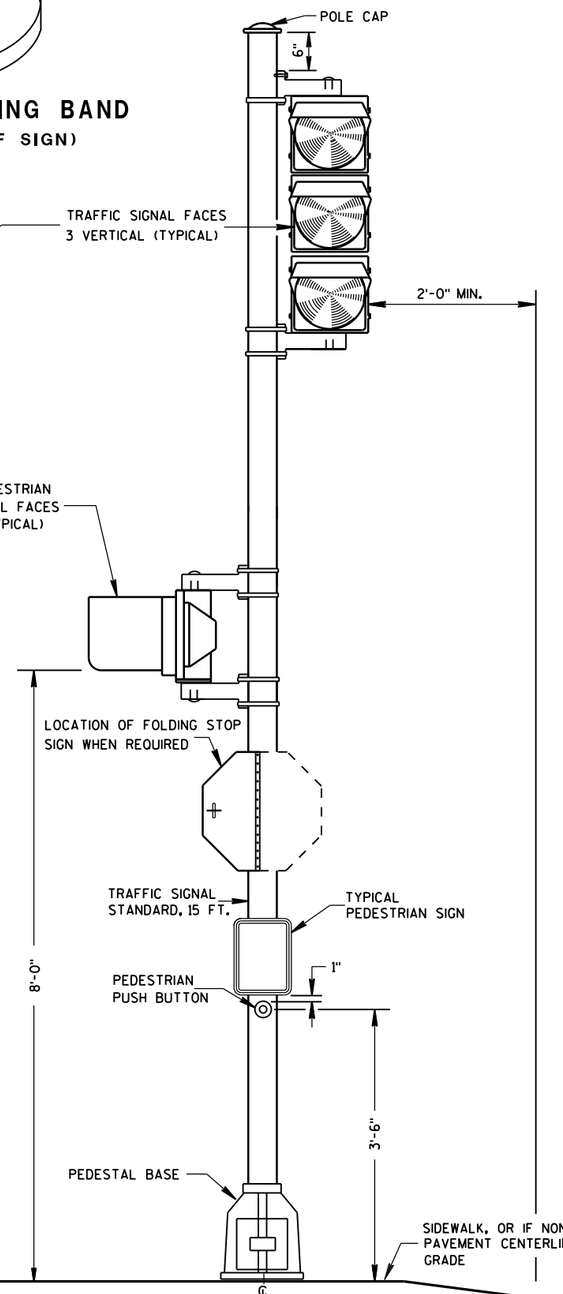


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

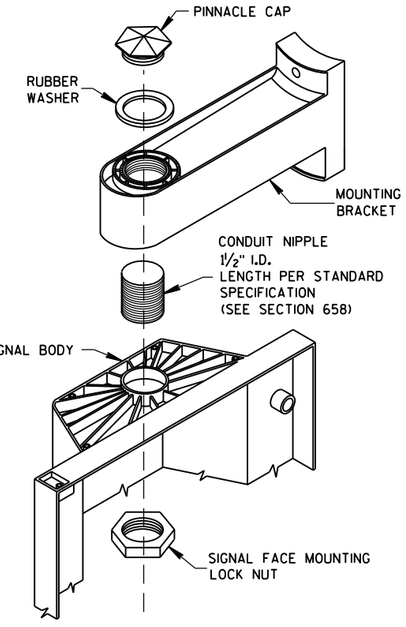
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL
(BANDED)

TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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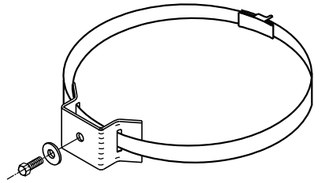
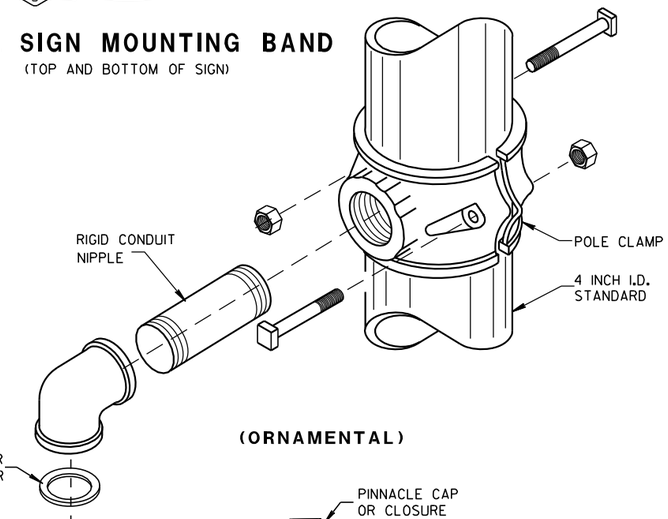
S.D.D. 9 E 6-5



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



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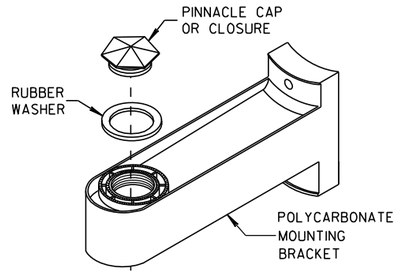
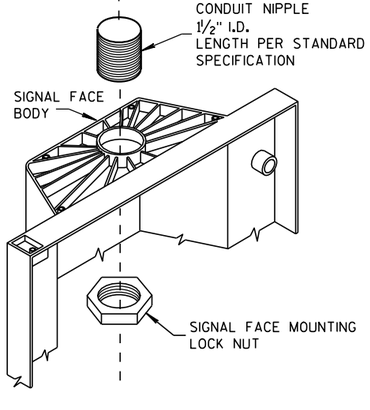
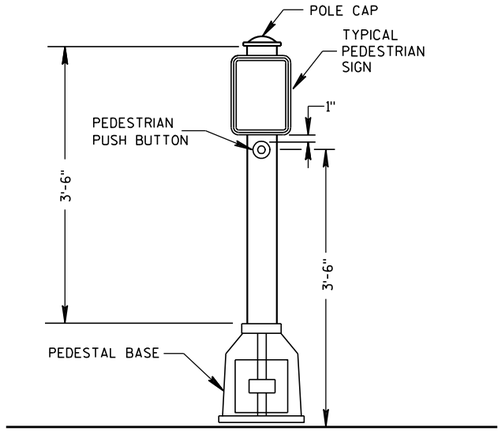


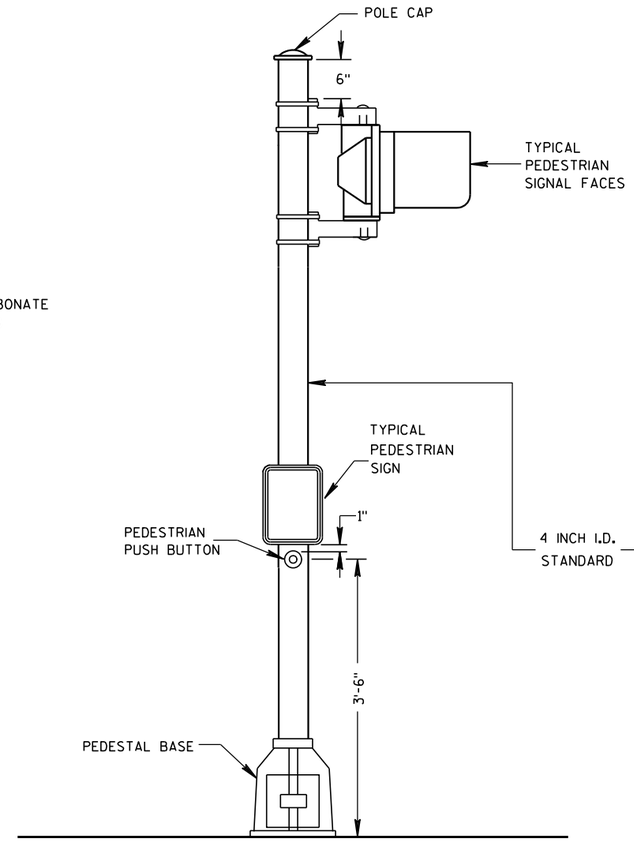
(BANDED)



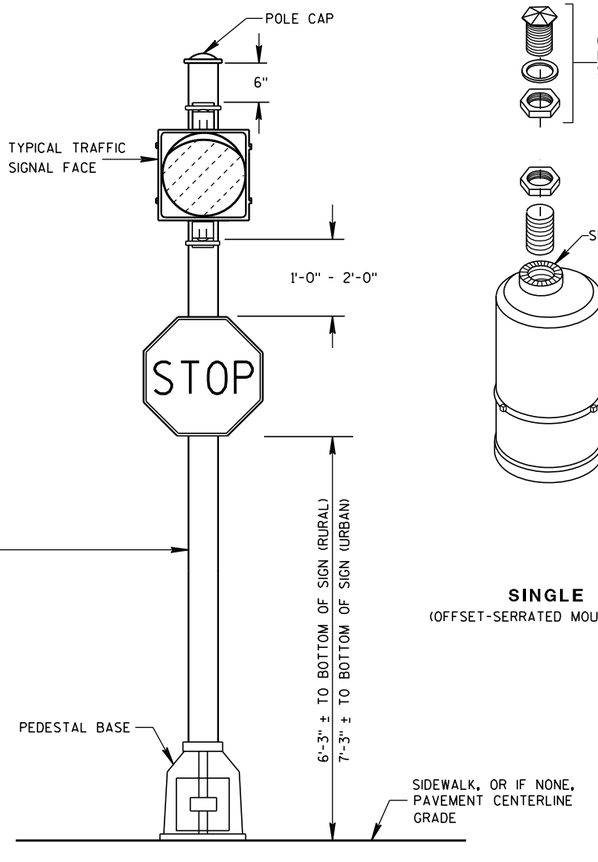
SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING



PEDESTRIAN FACE STANDARD-10 FT.
(WALK-DON'T WALK)



STANDARD FLASHER.
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

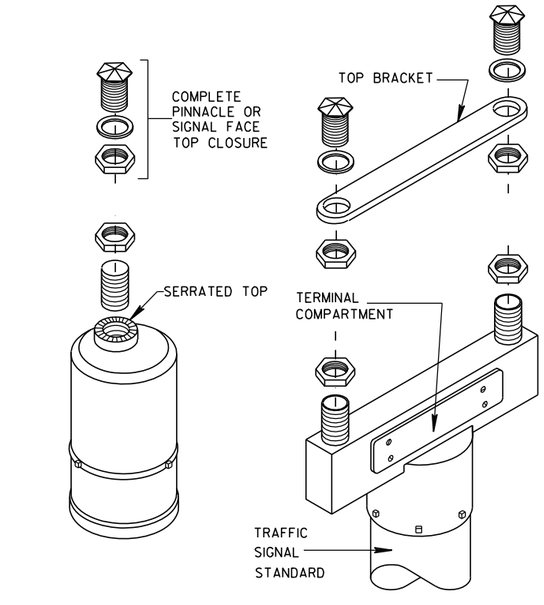
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE DISTRICT TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SINGLE
(OFFSET-SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/11/10 DATE
/S/ John Corbin STATE ELECTRICAL ENGI
256 HWYS
FHWA

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S.D.D. 9 E 7-5

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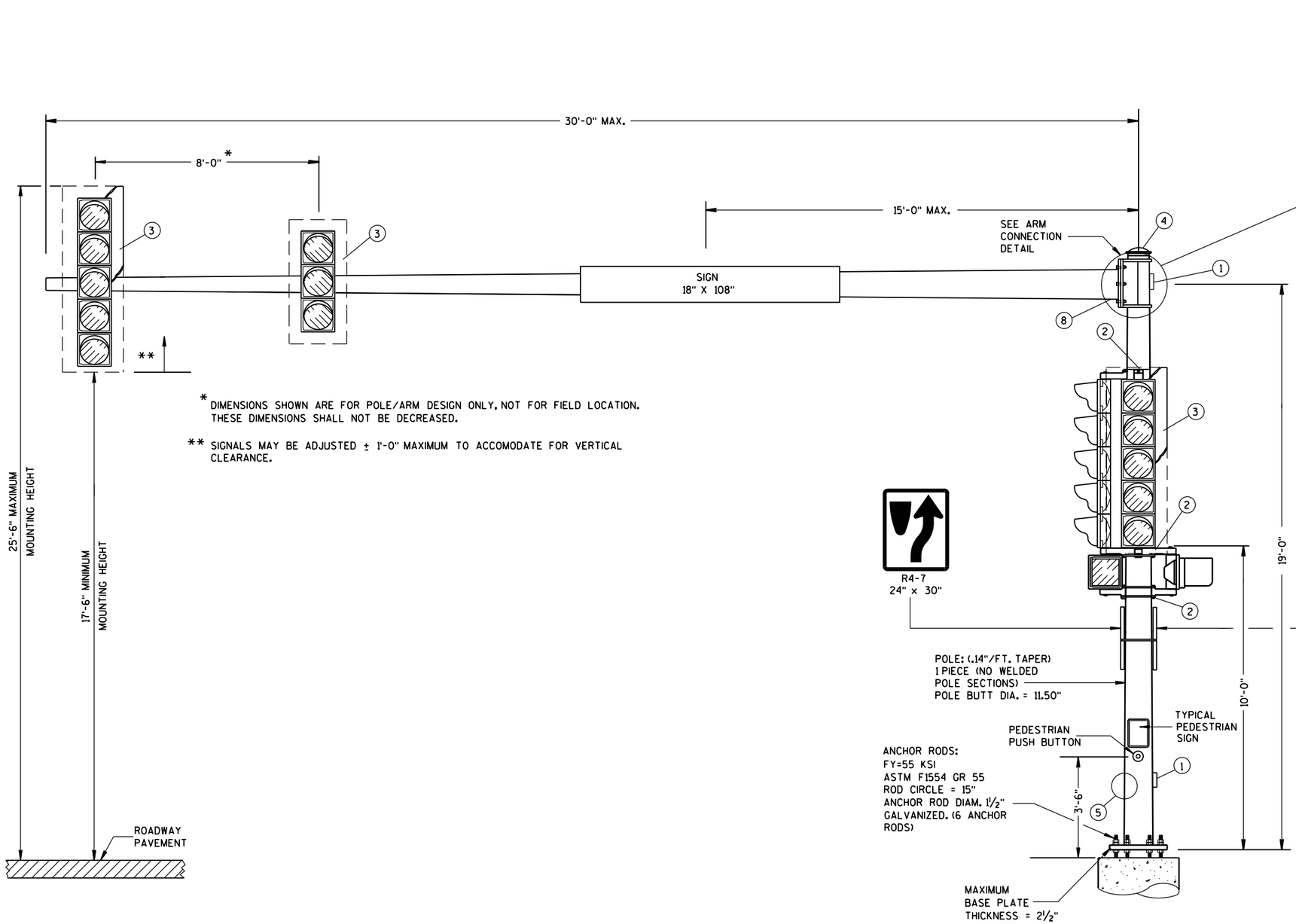
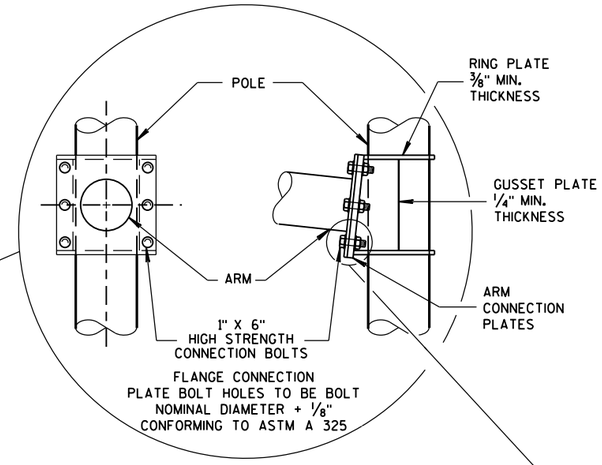
S.D.D. 9 E 7-5

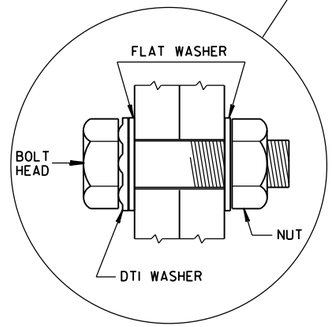


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

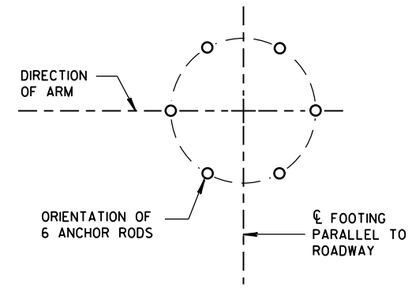
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL

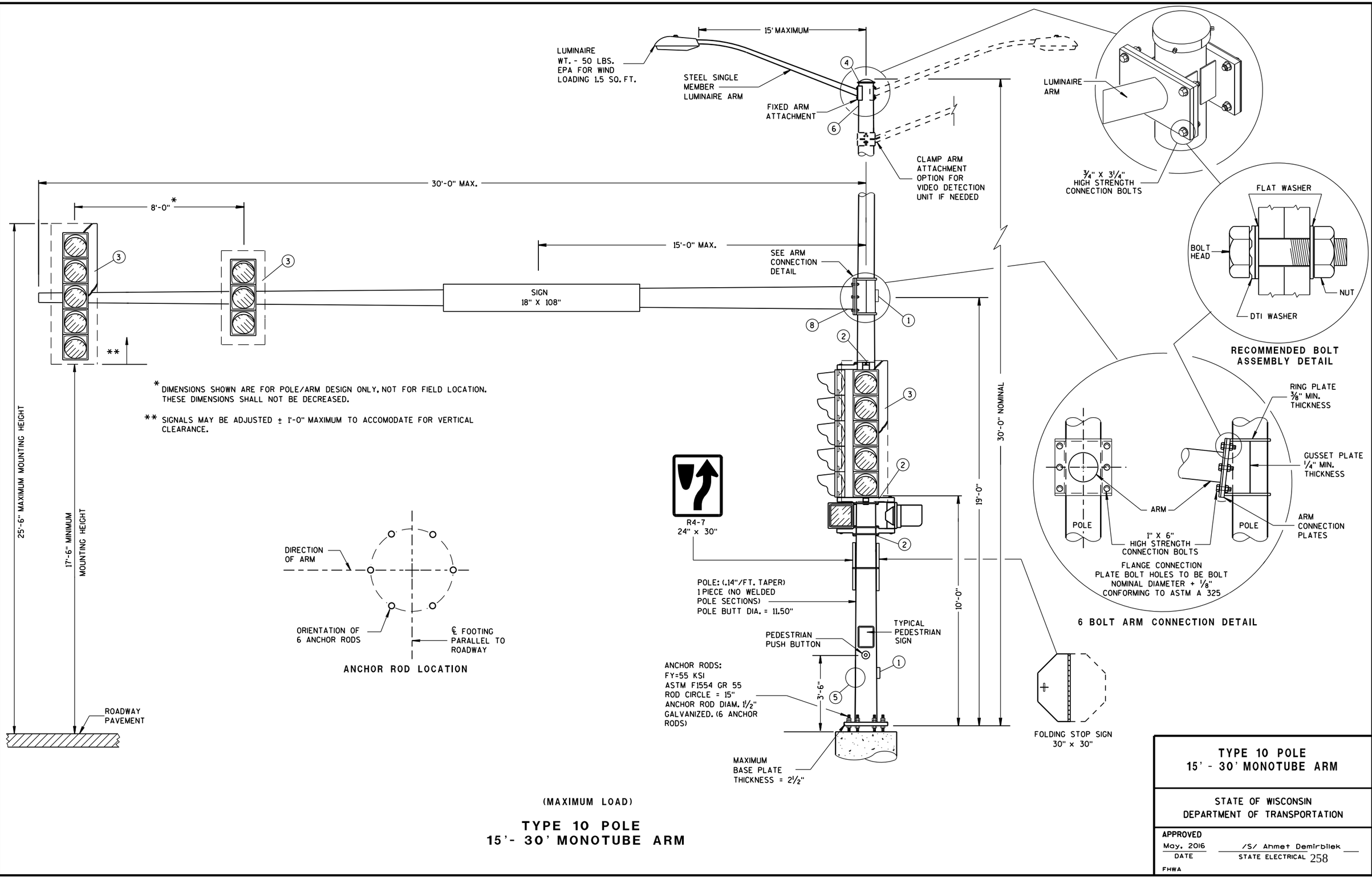


ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 9 POLE 15'- 30' MONOTUBE ARM

TYPE 9 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May, 2016 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL 257
FHWA	



* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

(MAXIMUM LOAD)

TYPE 10 POLE
15'- 30' MONOTUBE ARM

TYPE 10 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May, 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6
S.D.D. 9 E 8-8b

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO 2013 6TH EDITION AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

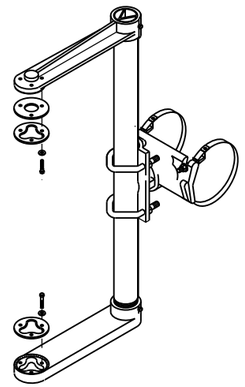
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

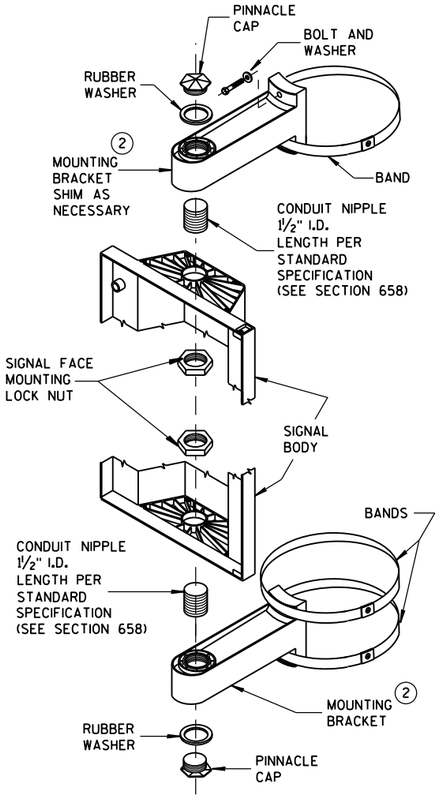
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

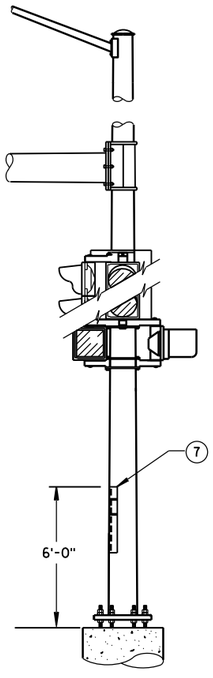


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

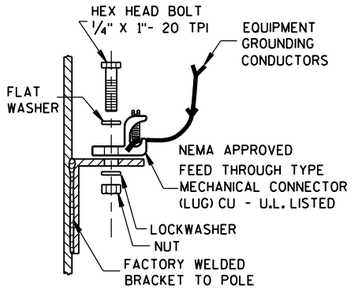
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE
VERTICAL MOUNTING DETAIL

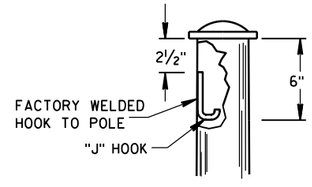


STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL
BE STAINLESS STEEL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

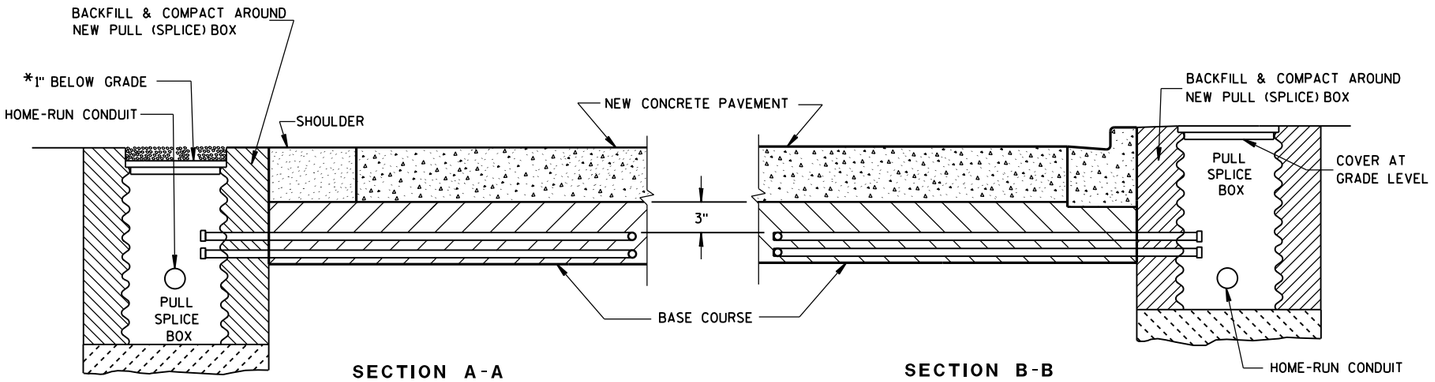
APPROVED
May 2016
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL 259
FHWA

6

S.D.D. 9 E 8-8e

6

S.D.D. 9 E 8-8e



SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

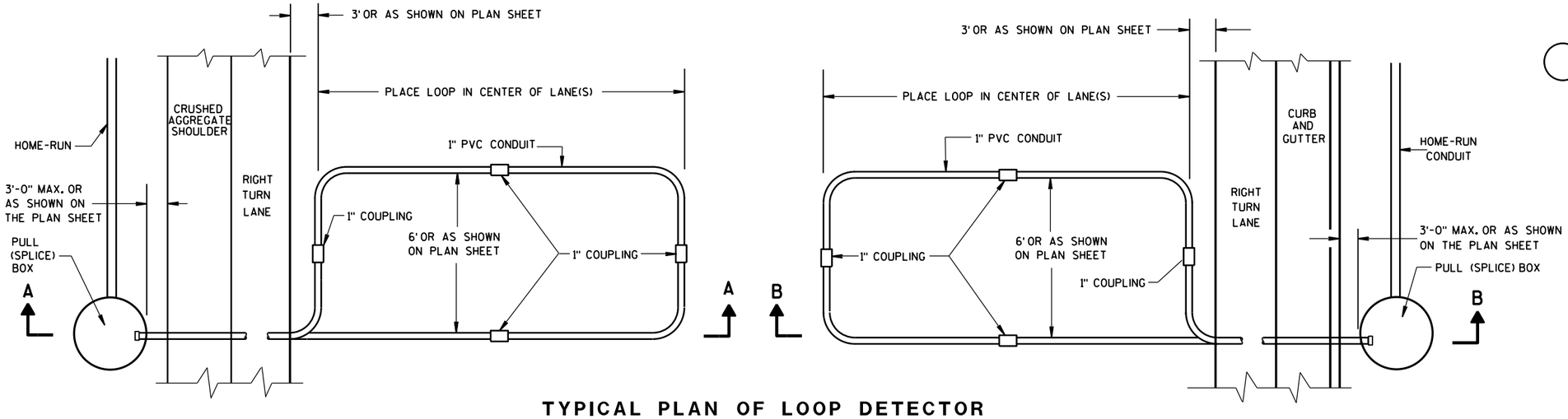
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

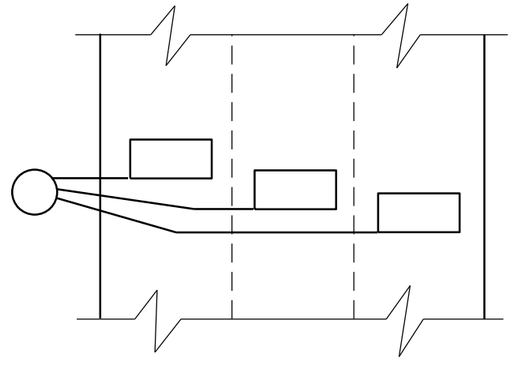
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED Sept. 2014 DATE — /S/ Ahmet Demirbilek STATE ELECTRICAL FHWA

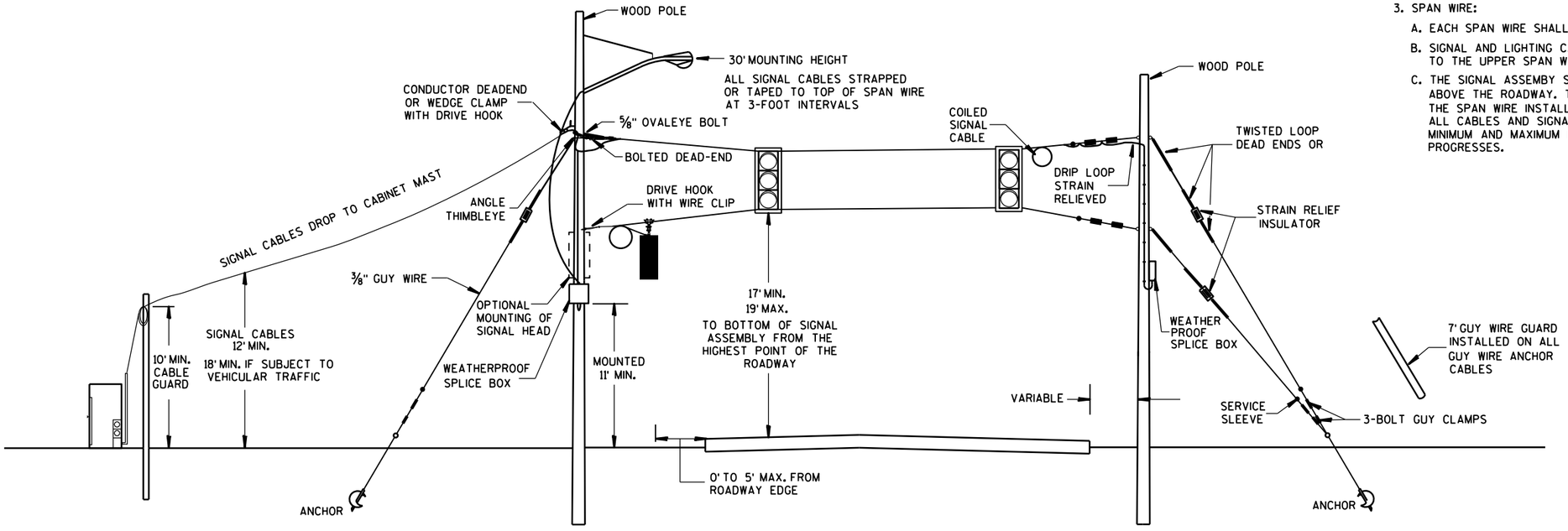
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

MINIMUM POLE LENGTHS	POLE BURIEL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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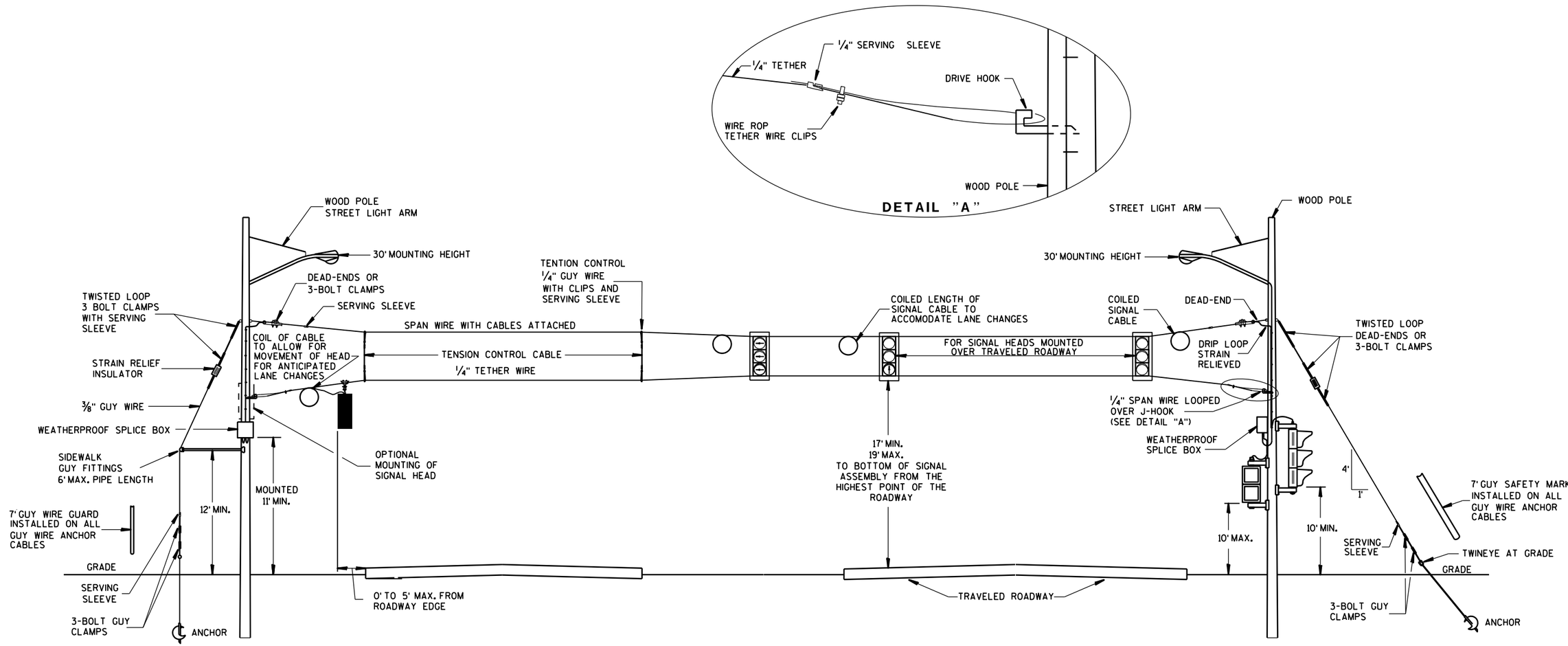
S.D.D. 9 G 1-4a



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
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   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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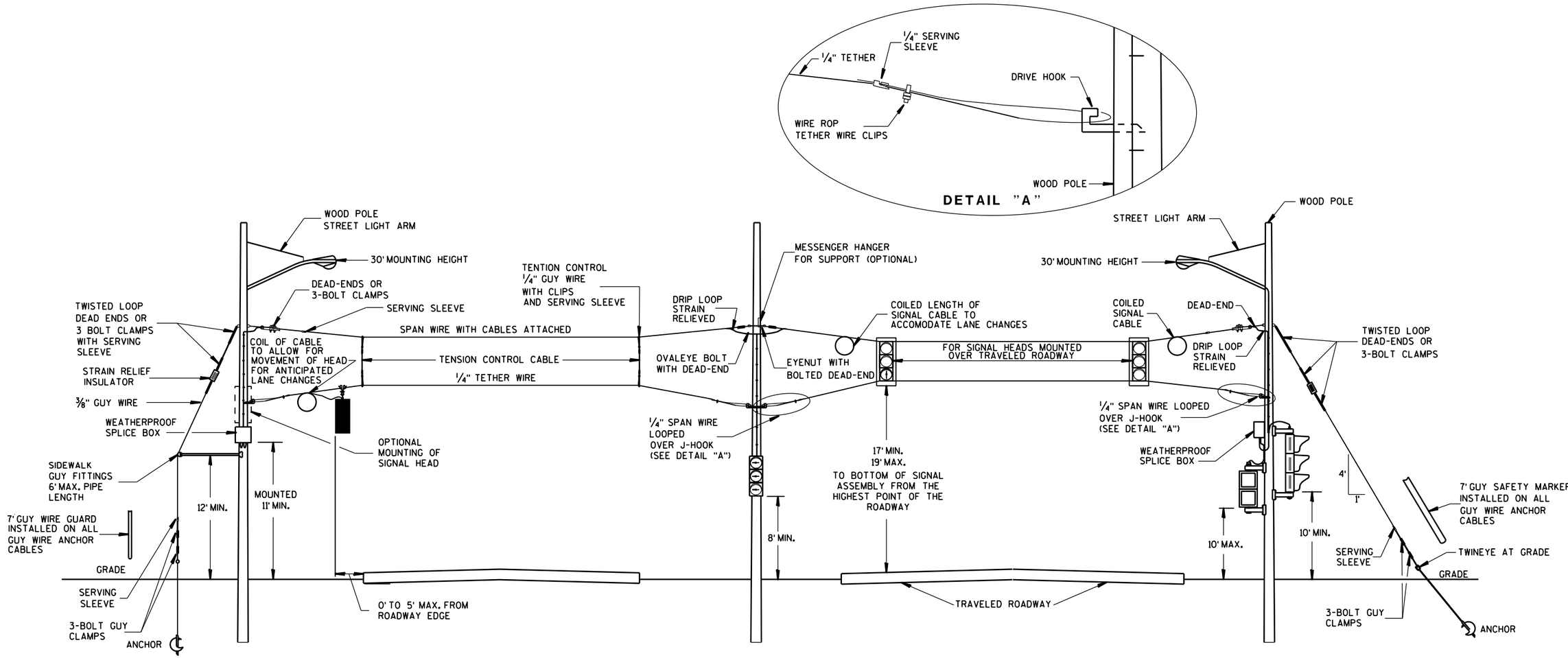
S.D.D. 9 G 1-4b



SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June. 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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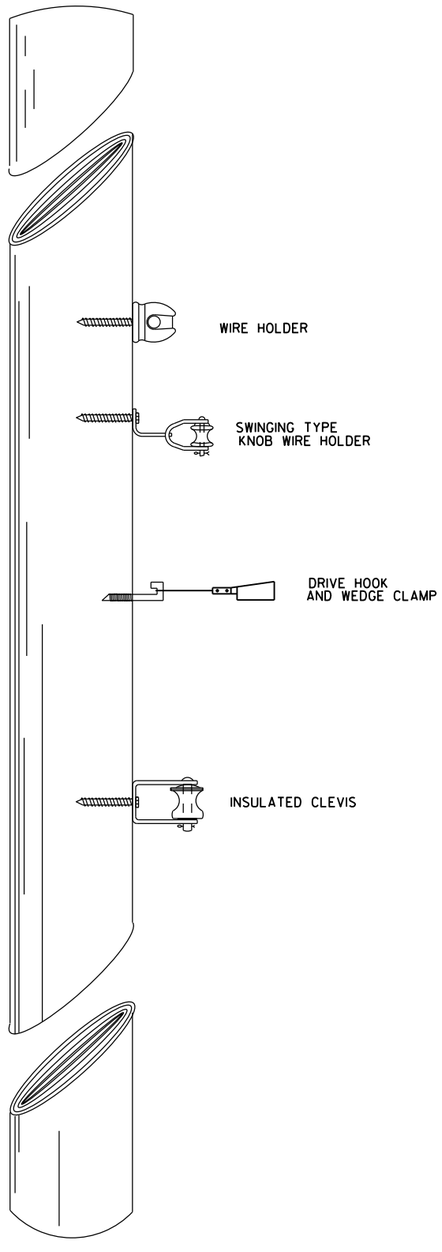
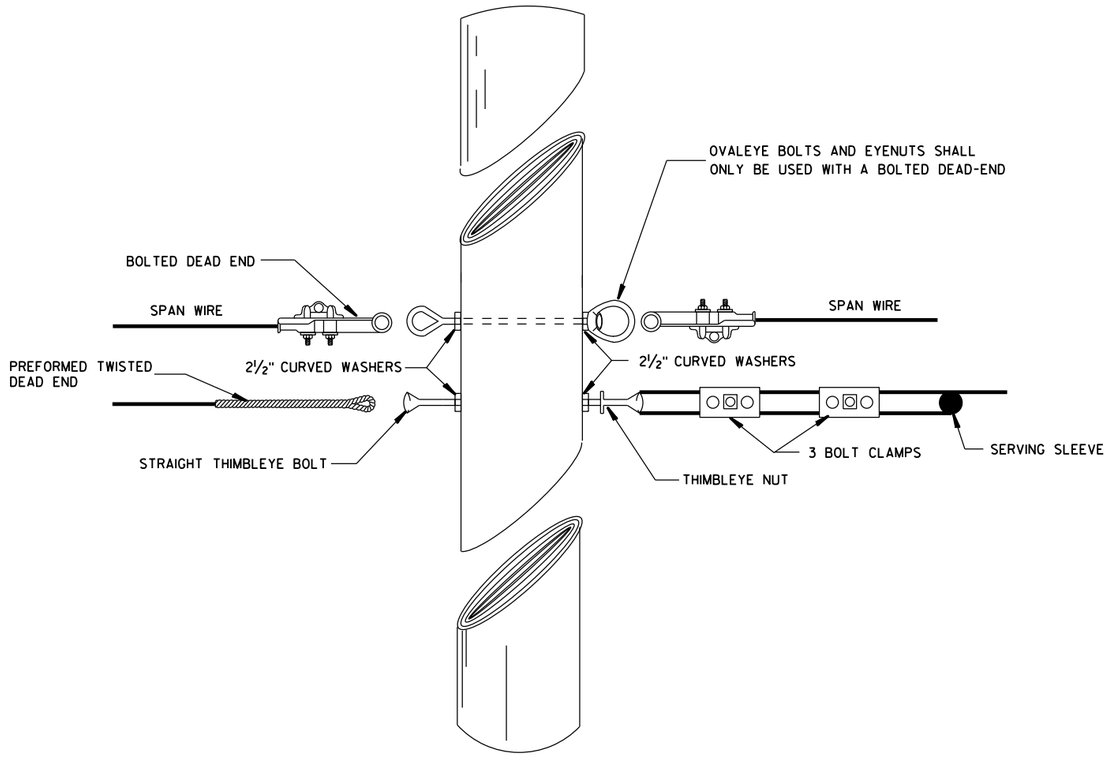
S.D.D. 9 G 1-4c



TYPICAL CABLE HANGERS



TYPICAL DEAD-ENDING

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
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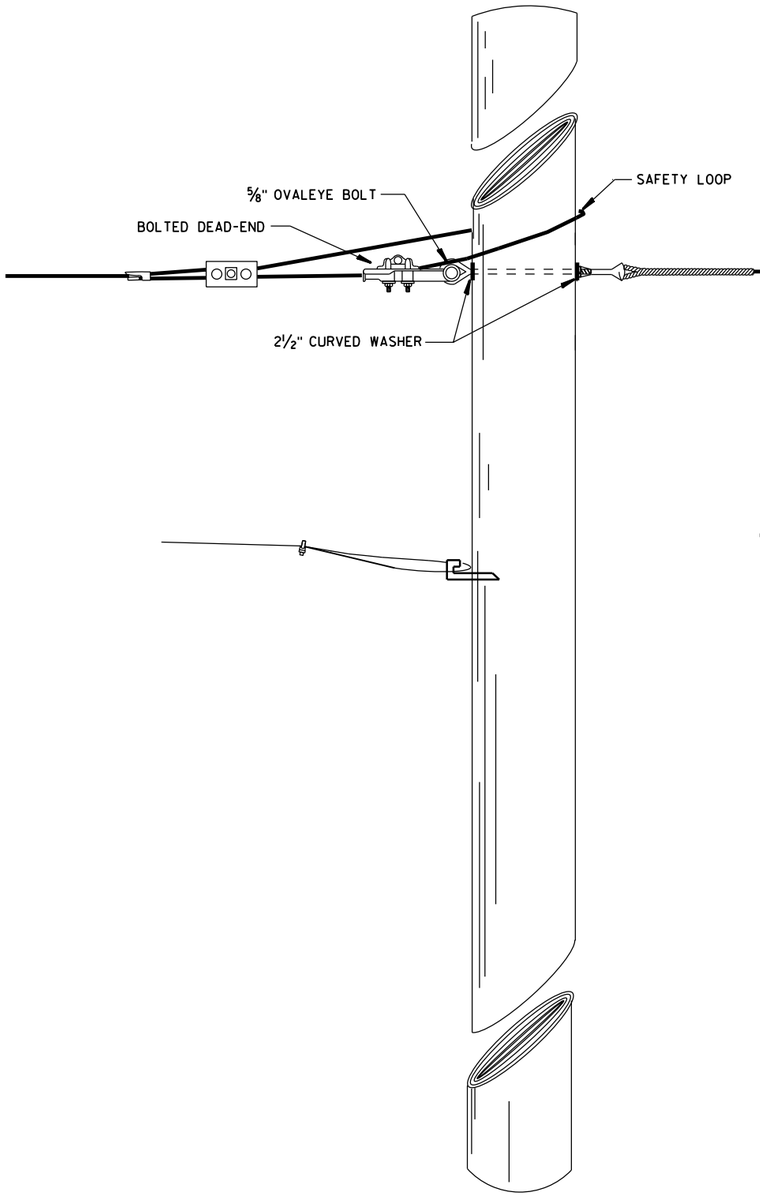
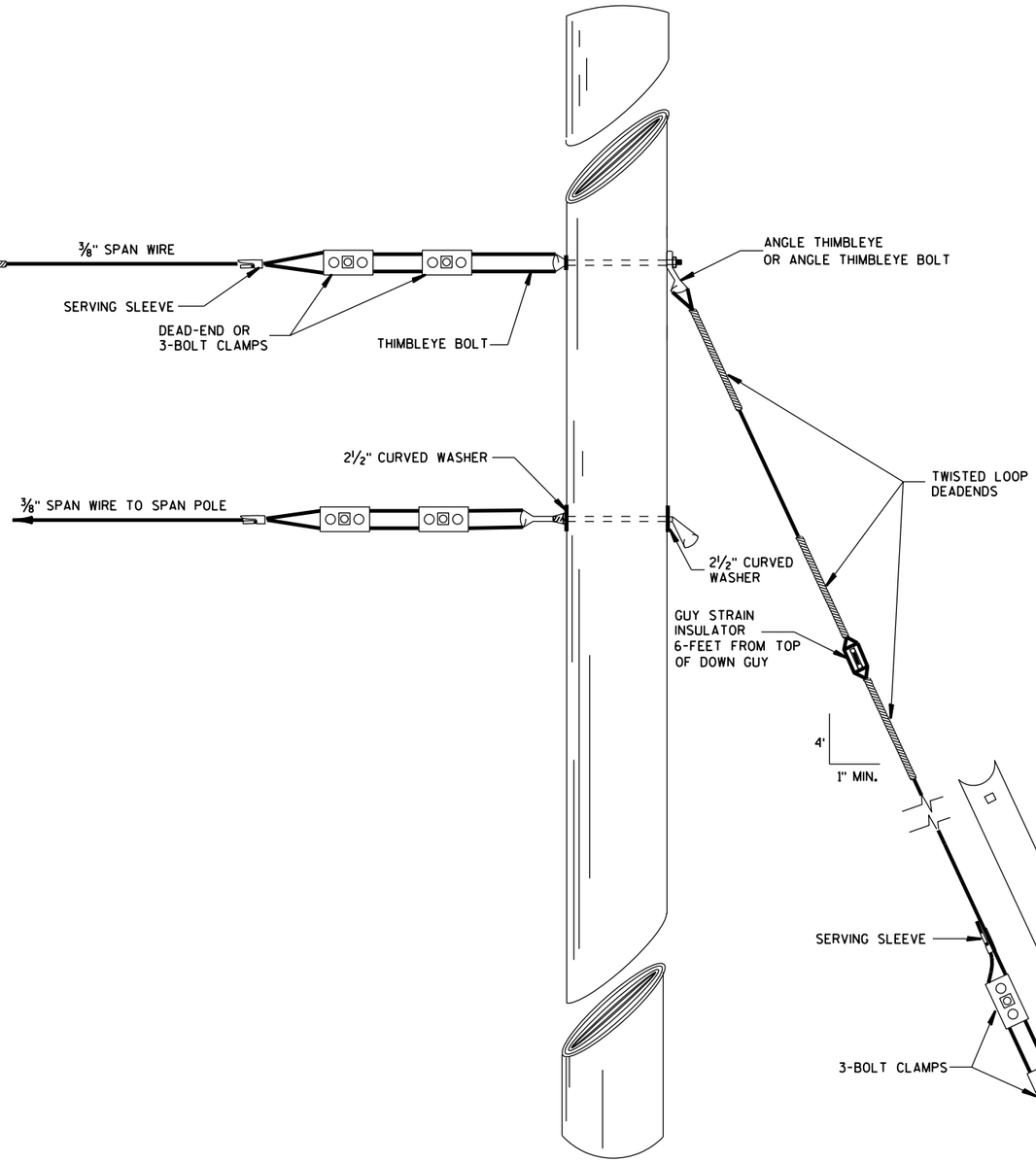
S.D.D. 9 G 1-4d

GENERAL NOTES

1. USE ¾" DRILL IN WOOD POLE TO PROVIDE HOLE FOR ⅝" BOLTS.
2. SAFTY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE



GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED June. 2015 DATE /S/ Ahmet Demirbilek STATE ELECTRICAL

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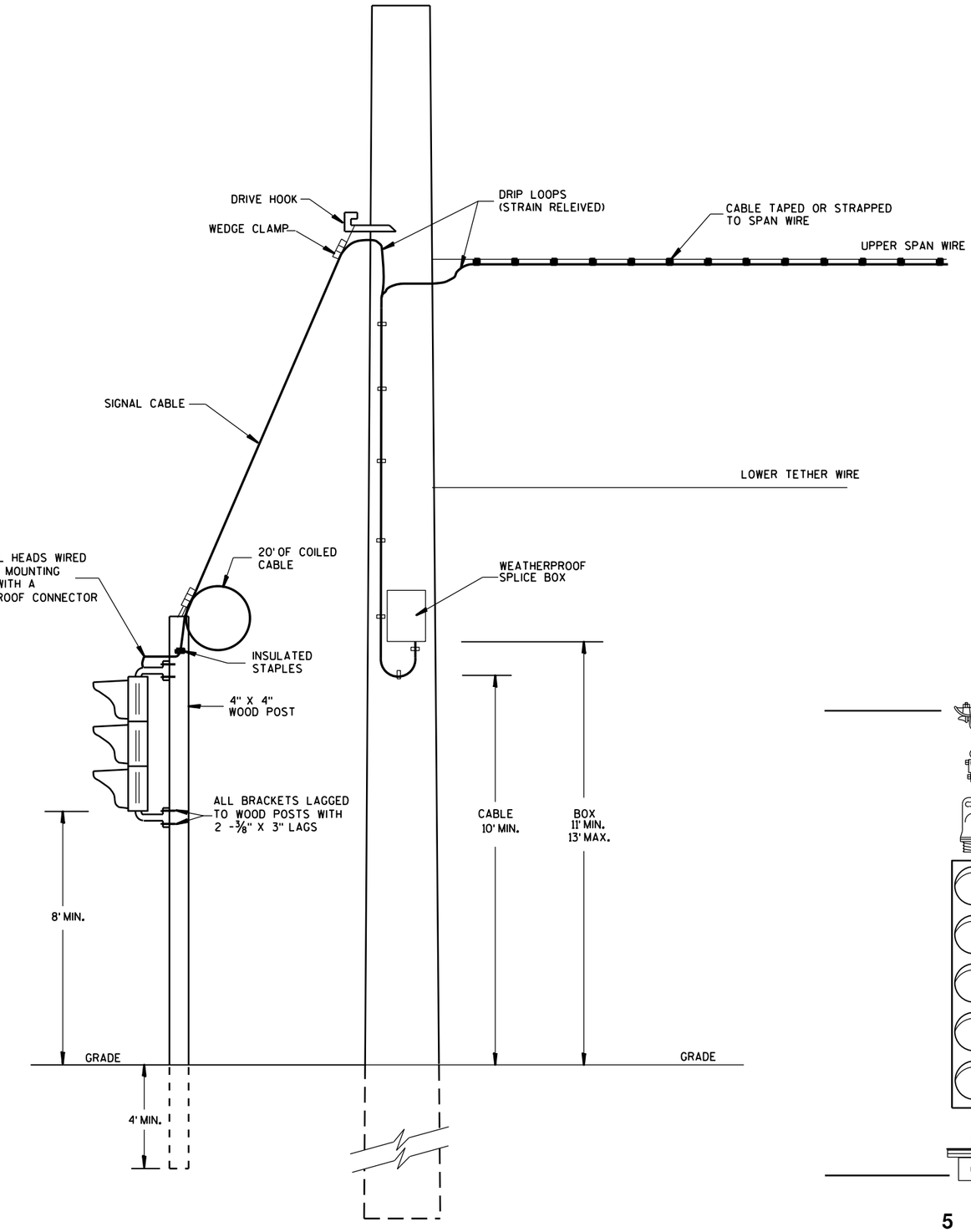
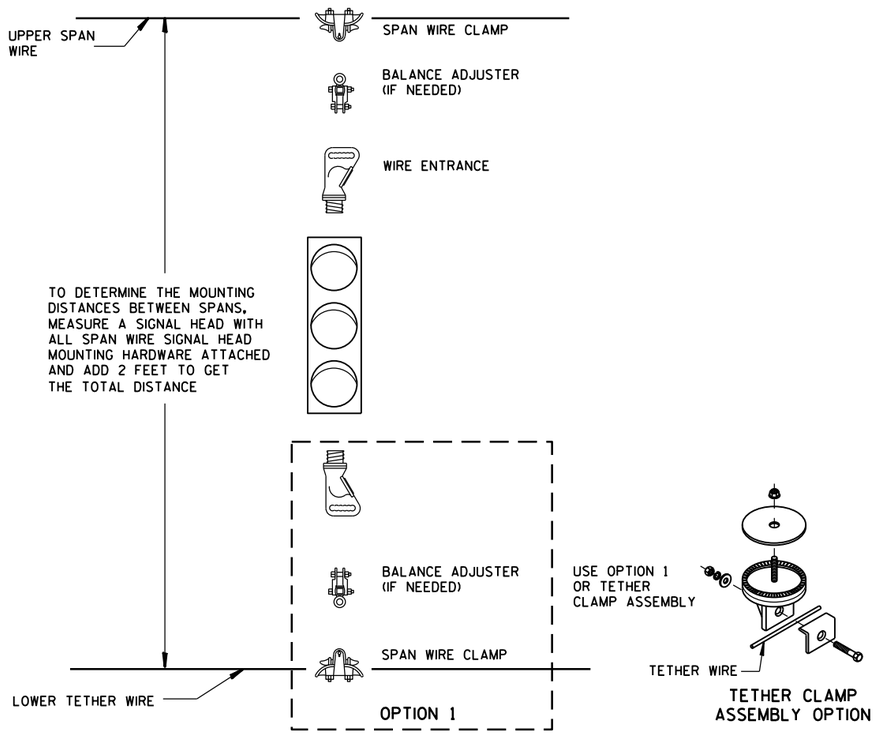
S.D.D. 9 G 1-4e

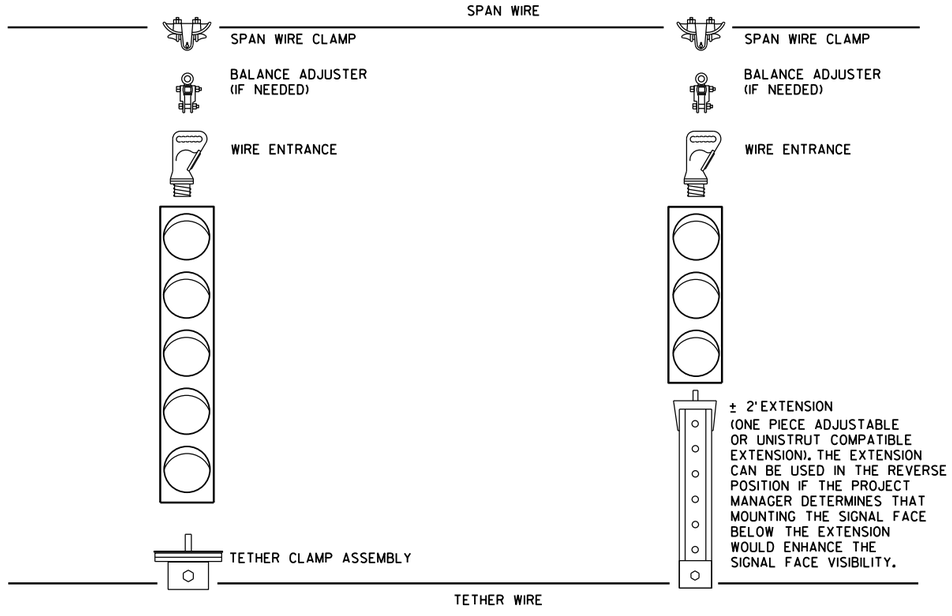


TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TETHER CLAMP ASSEMBLY OPTION

TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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June. 2015 — DATE
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S.D.D. 9 G 1-4f

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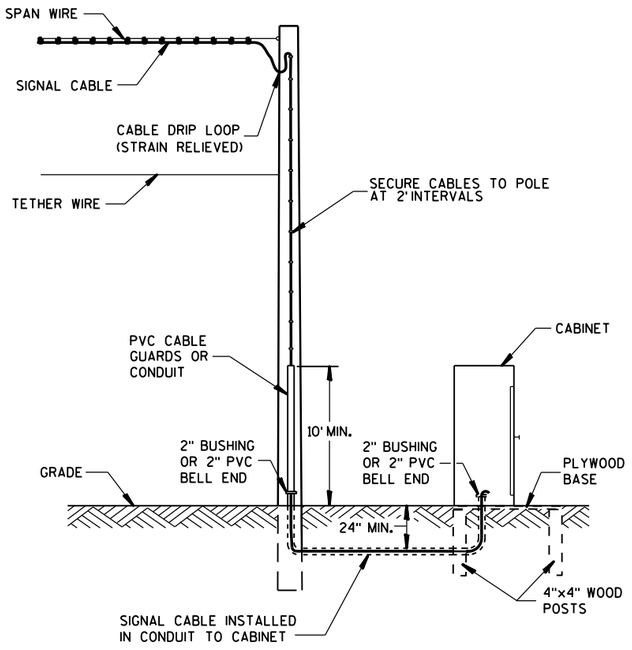
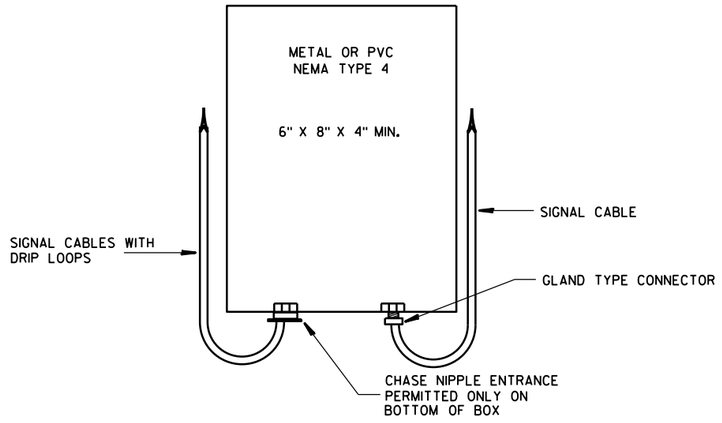
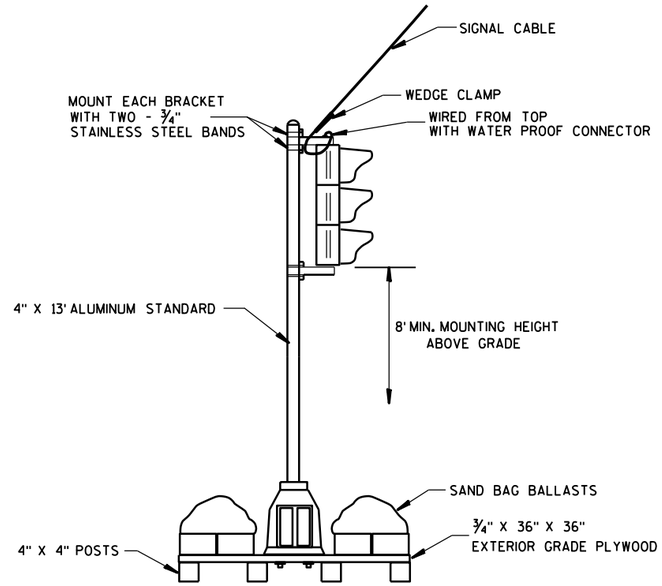
S.D.D. 9 G 1-4f

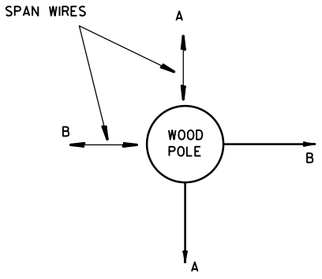




SPLICE BOX

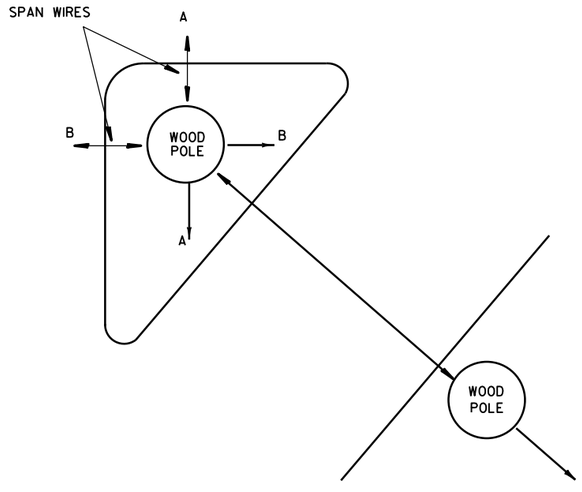


TYPICAL SKID TYPE TEMPORARY

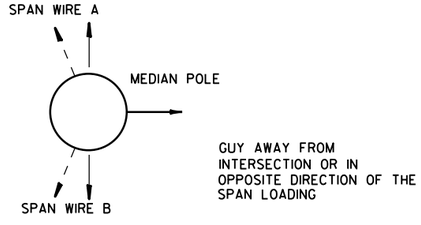


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



MEDIAN POLES

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 G 1-4g

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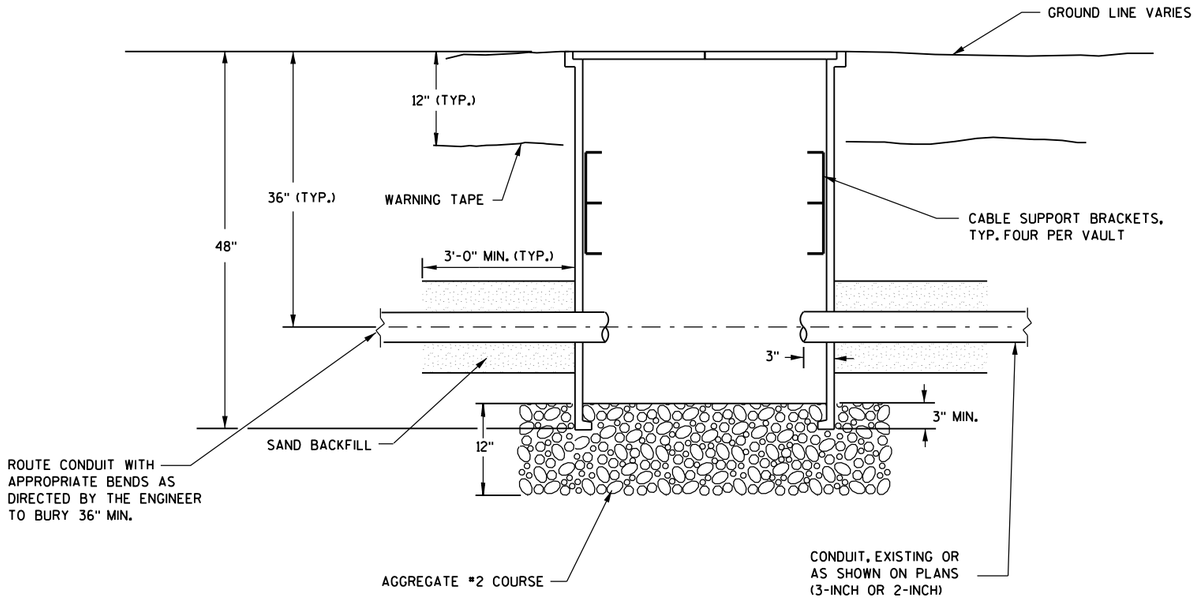
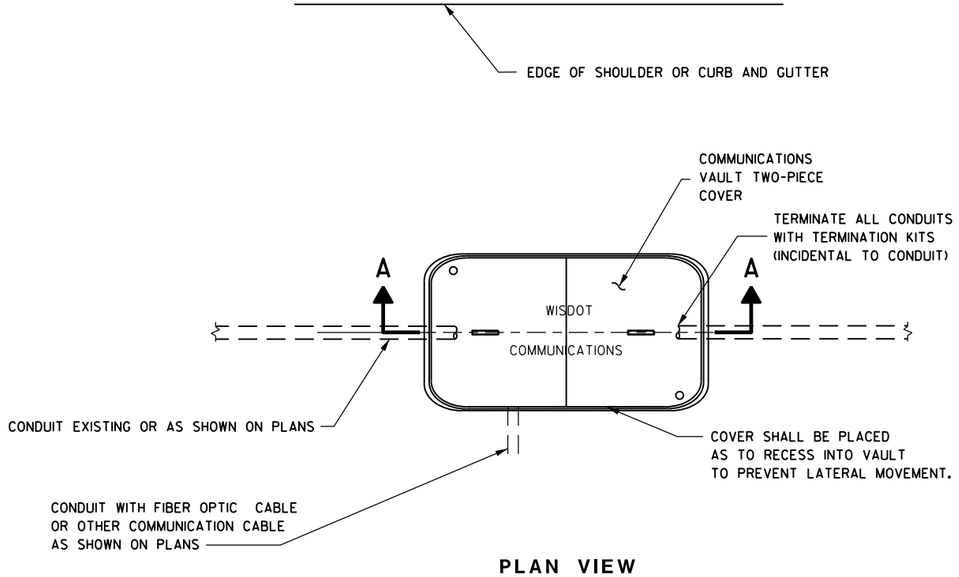
S.D.D. 9 G 1-4g



SECTION A-A



PLAN VIEW

COMMUNICATIONS VAULT

GENERAL NOTES

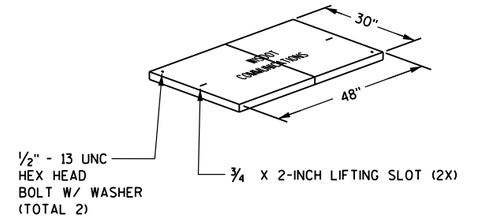
BOX SHALL HAVE AN OPEN BASE.

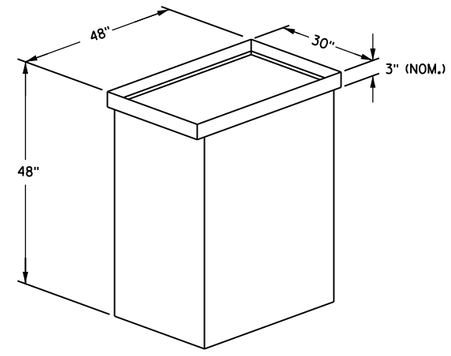
COVER SHALL BE DETECTABLE, AND HAVE A MINIMUM DESIGN LOAD OF 15,000 LBS AND SHALL LOCK.

ALL OPENINGS IN STRUCTURE MUST BE MACHINED AT TIME OF FABRICATION, OR PUNCH DRIVEN AT TIME OF PLACEMENT.

VAULTS SHALL BE OF ONE-PIECE CONSTRUCTION. TWO-PIECE/STACKABLE VAULTS WILL NOT BE PERMITTED.

FIELD PLACEMENT OF COMMUNICATIONS VAULTS SHALL BE AS DIRECTED BY THE ENGINEER.





ISOMETRIC VIEW

COMMUNICATION VAULT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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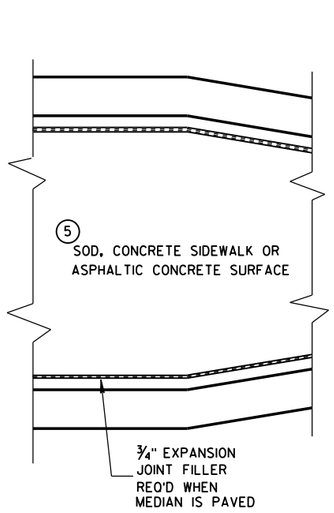
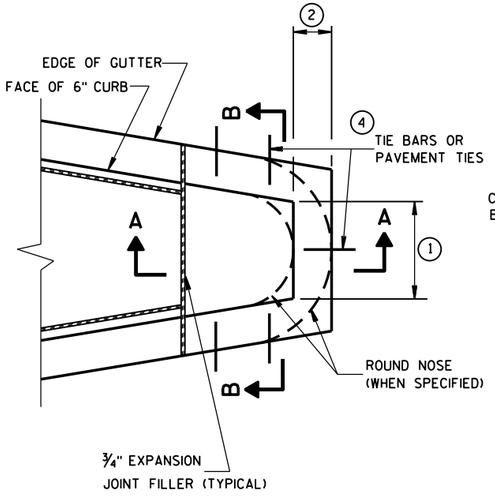
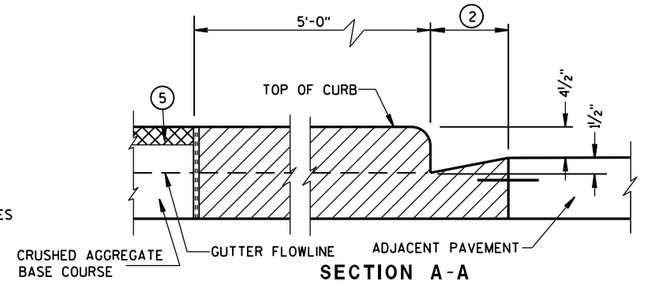
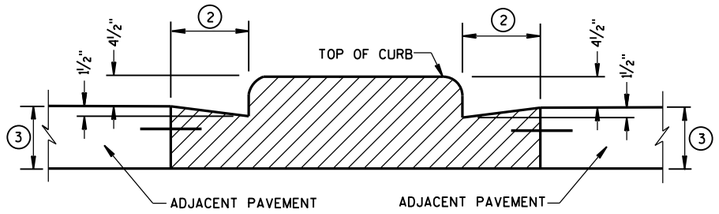
S.D.D. 9 H 9-1







SECTION A-A



SECTION B-B

CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

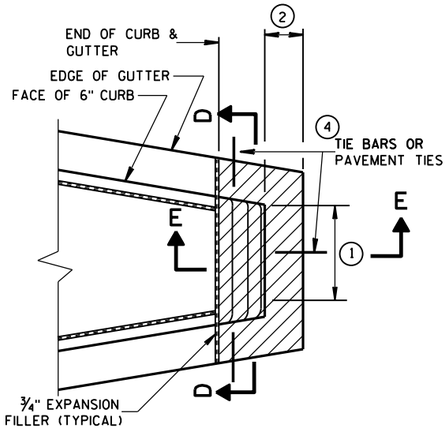
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

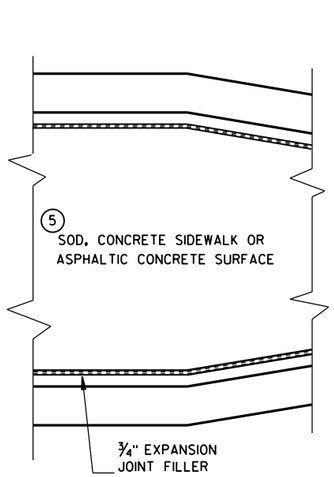
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

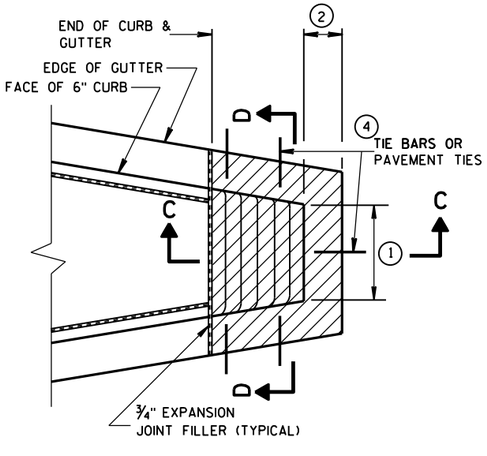
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

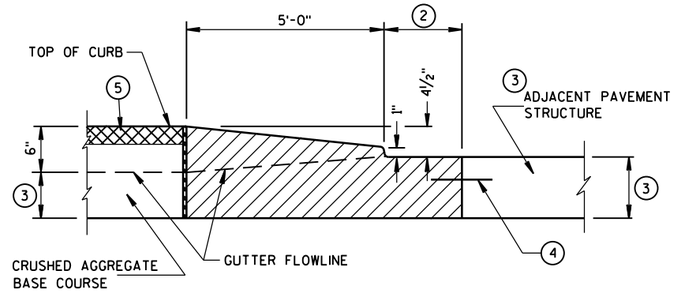
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



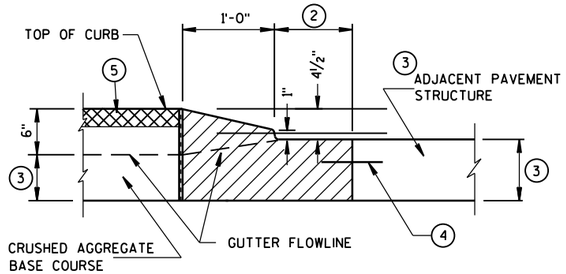




CONCRETE MEDIAN SLOPED NOSE TYPE 1

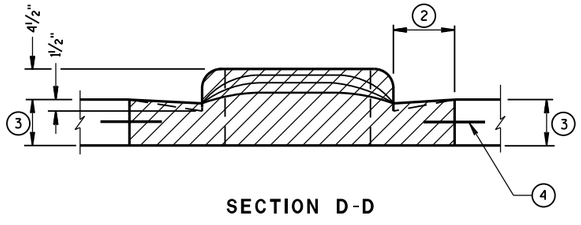


SECTION C-C



SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 11 B 2-2

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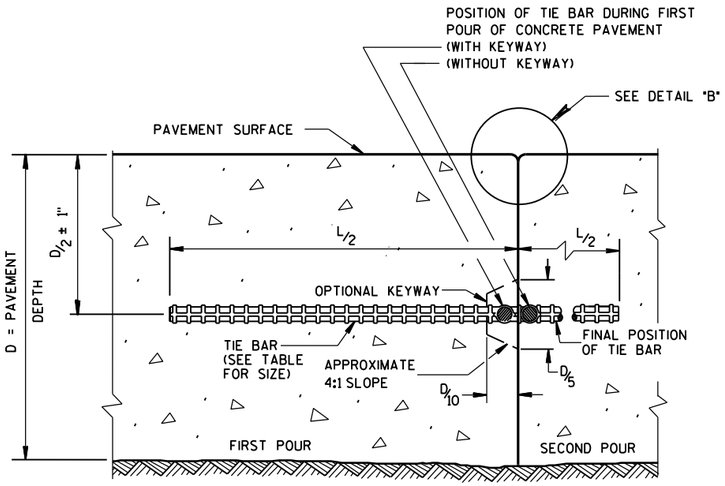
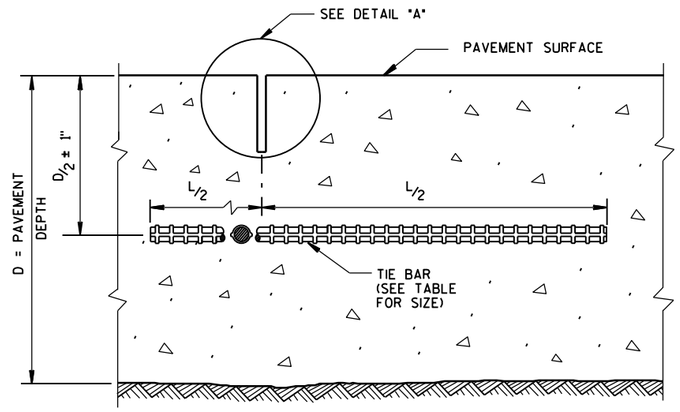
S.D.D. 11 B 2-2



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

PLAN VIEW

SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

DETAIL "A"

DETAIL "B"

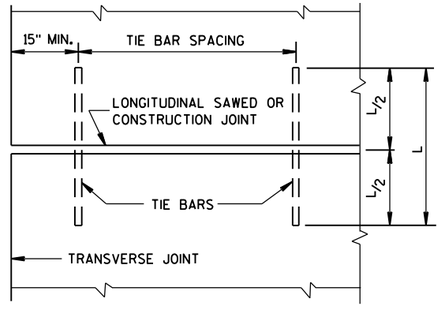
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

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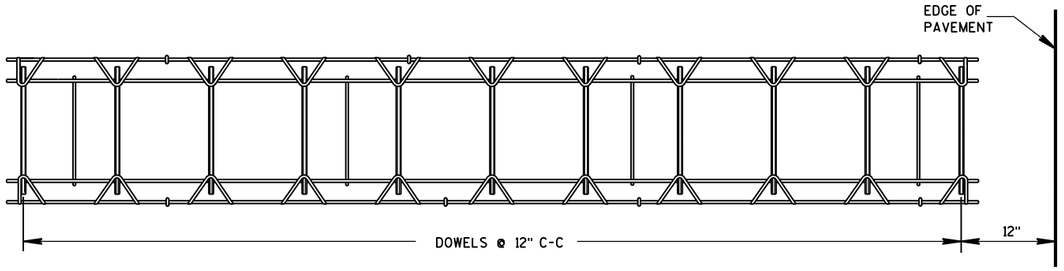
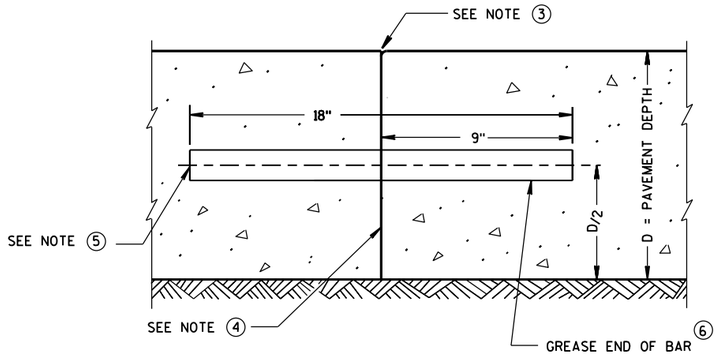
S.D.D. 13 C 1-18



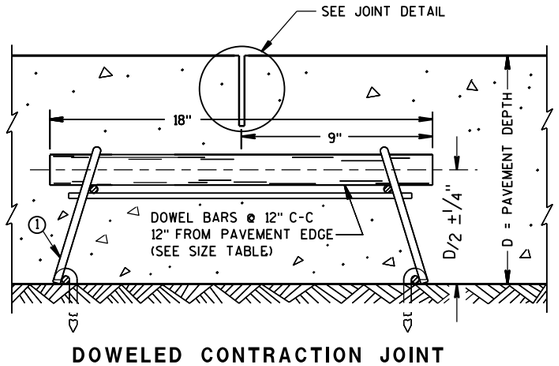
PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



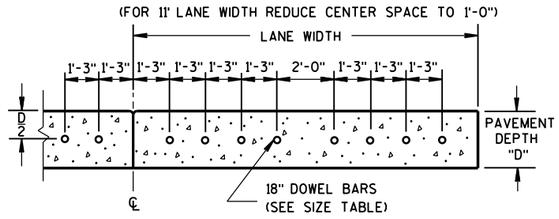
TRANSVERSE CONSTRUCTION JOINT



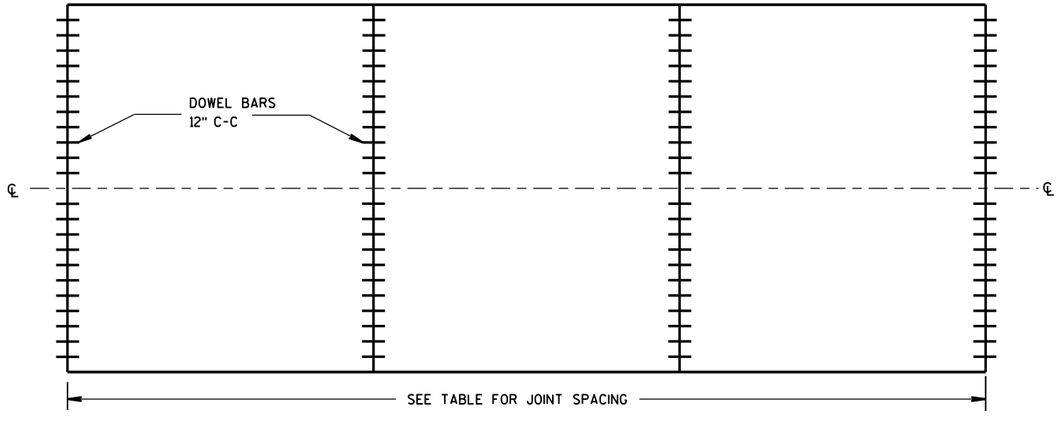
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① **OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.**

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

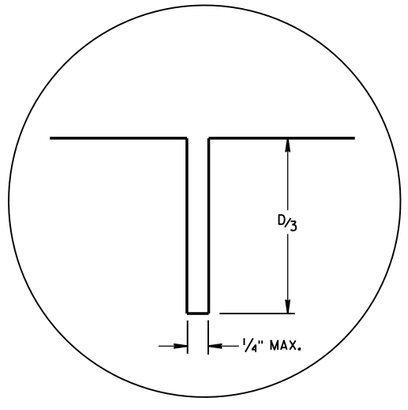
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/3/2013 DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE ENGINEER
FHWA

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S.D.D. 13 C 13-8

GENERAL NOTES

PCCP = PORTLAND CEMENT CONCRETE PAVEMENT.

SHLDR = SHOULDER.

CONTINUE SAW CUT CONTRACTION JOINT ACROSS TURN LANE, EXIT TAPER AND PASSING LANE.

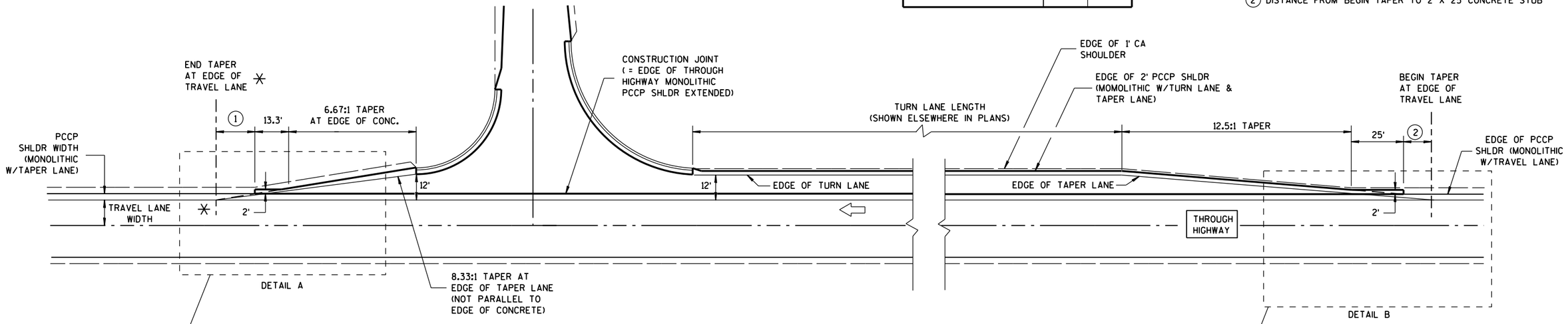
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

THROUGH HIGHWAY LANE WIDTH AND PCCP SHOULDER WIDTH ARE SHOWN ELSEWHERE IN PLANS

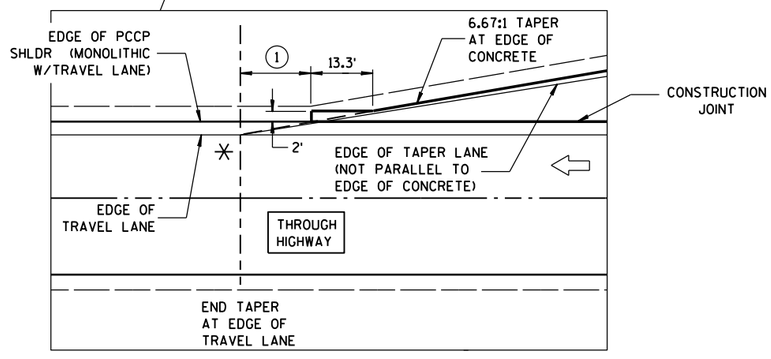
(1) DISTANCE FROM END TAPER TO 2' X 13.3' CONCRETE STUB

(2) DISTANCE FROM BEGIN TAPER TO 2' X 25' CONCRETE STUB

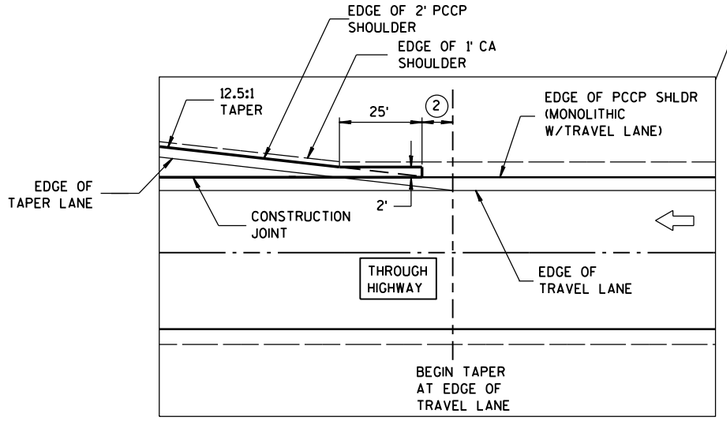
THROUGH HIGHWAY MONOLITHIC PCCP SHOULDER WIDTH (FEET)	DISTANCE (FEET) (1)	DISTANCE (FEET) (2)
2	13.3	0.0
3	20.0	12.5
TAPER RATE : 1	6.67	12.5



NOTE: EDGE OF CONCRETE TAPER (EXTENDED) & EDGE OF TAPER LANE CONVERGE



DETAIL A



DETAIL B

RIGHT TURN LANE AND EXIT TAPER

DETAIL FOR RIGHT TURN LANE/ TEE INTERSECTION BYPASS LANE ON A CONCRETE ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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S.D.D. 13 C 16-2a

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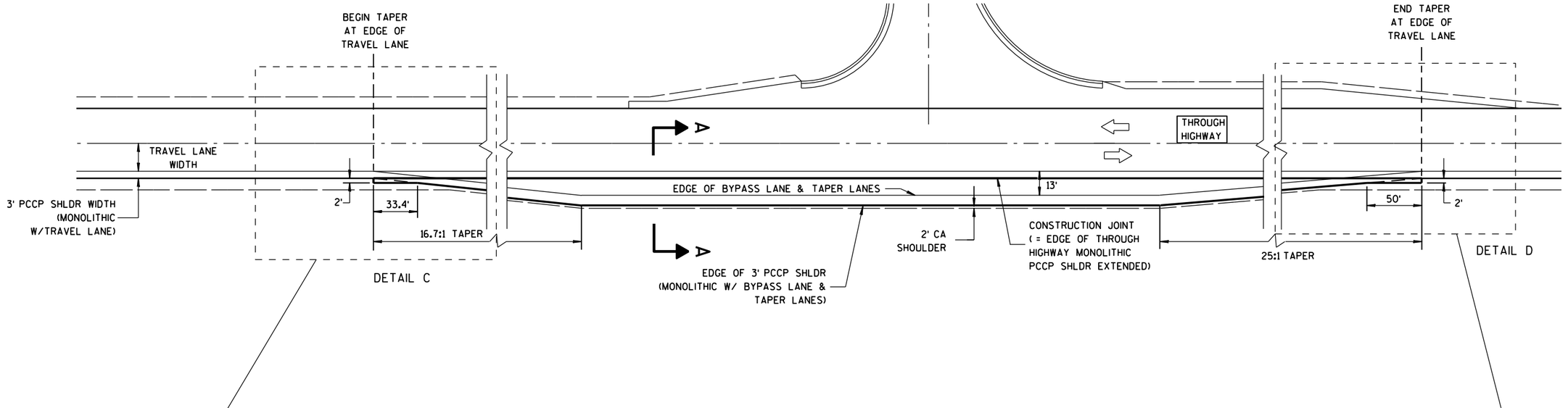
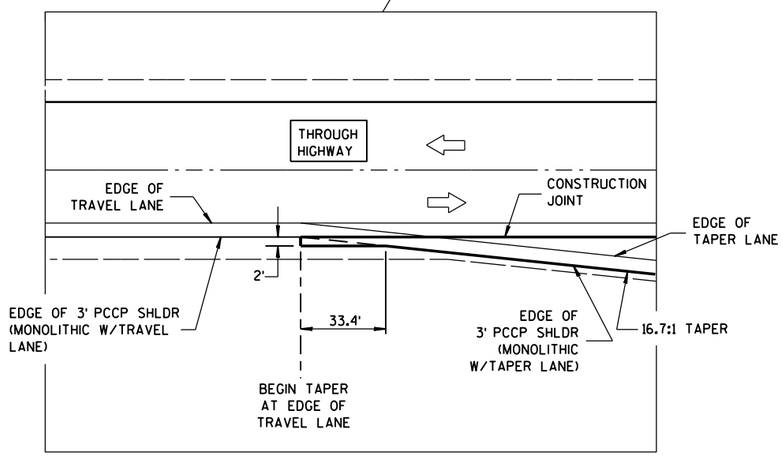
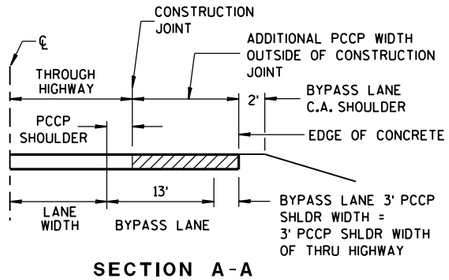
S.D.D. 13 C 16-2a



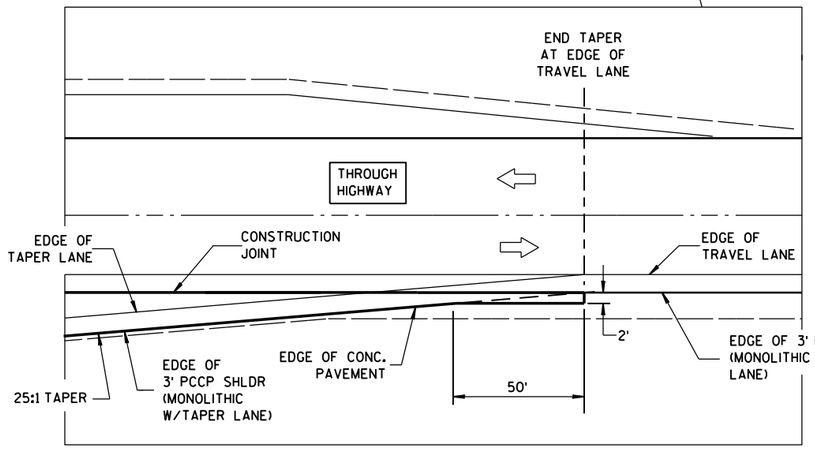


DETAIL C



SECTION A-A

(SHOWING BYPASS LANE AND SHOULDER)



DETAIL D

TWO LANE UNDIVIDED HIGHWAY TEE INTERSECTION BYPASS LANE

DETAIL FOR RIGHT TURN LANE/
TEE INTERSECTION BYPASS LANE
ON A CONCRETE ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/18/12
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

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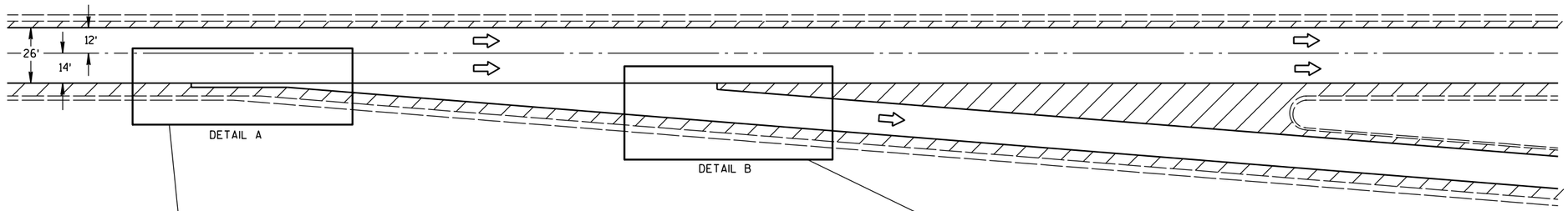
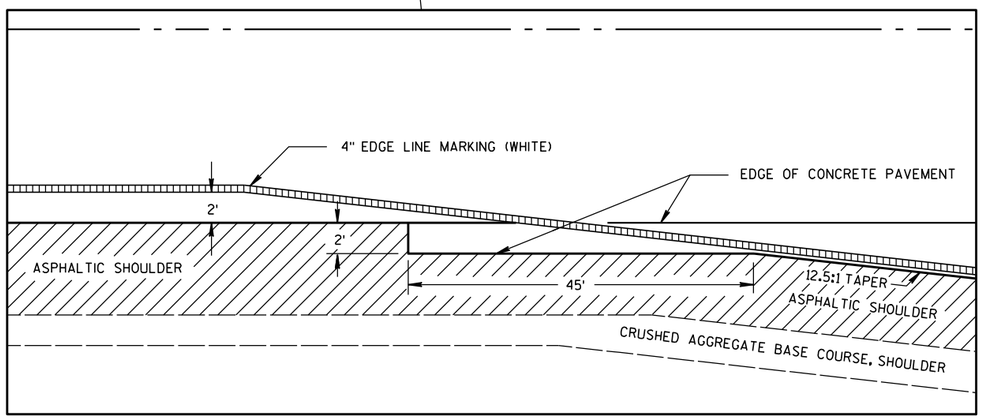
S.D.D. 13 C 16-2b

6

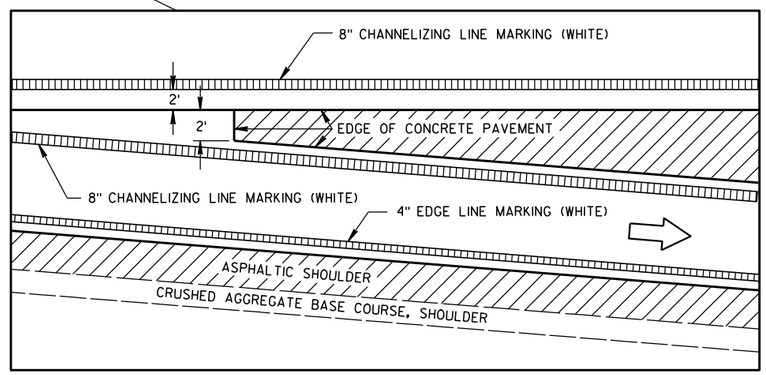
S.D.D. 13 C 16-2b



EXIT RAMP DETAIL



DETAIL A



DETAIL B

CONCRETE JOINT PAVING DETAILS

GENERAL NOTES

PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

SEE SDD 13 A 4-4c OR SDD 13 A 5-1b FOR RAMP AND GORE RUMBLE STRIP LOCATION.

CONCRETE JOINT DETAIL FOR EXIT RAMP TERMINI

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 17-1a

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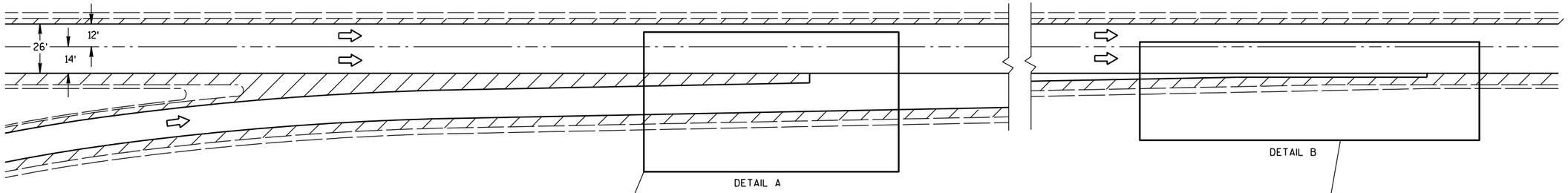
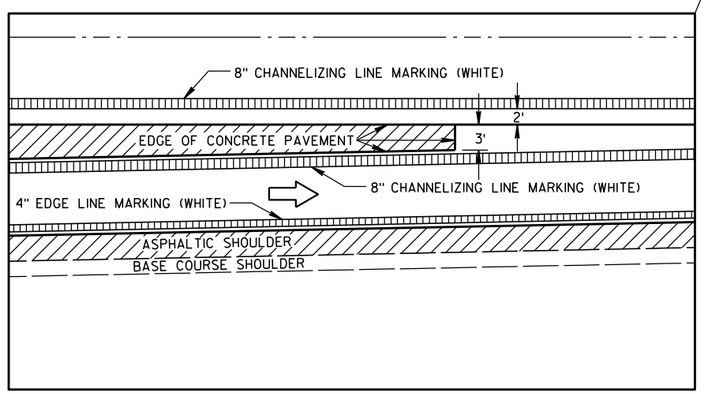
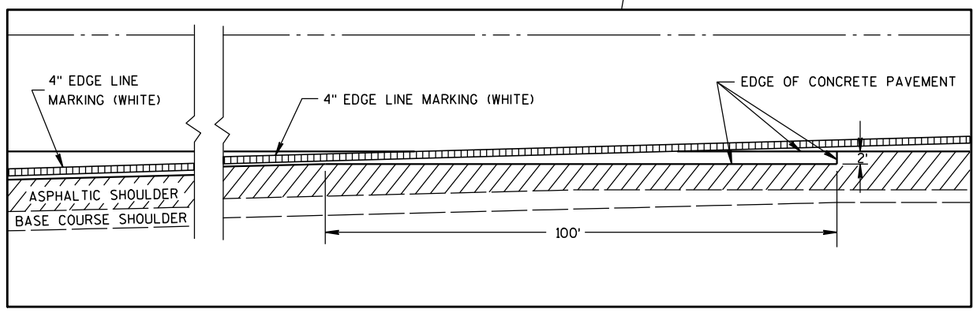
S.D.D. 13 C 17-1a



ENTRANCE RAMP DETAIL



DETAIL A



DETAIL B

CONCRETE JOINT PAVING DETAILS

GENERAL NOTES

PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

SEE SDD 13 A 4-4c OR SDD 13 A 5-1b FOR RAMP AND GORE RUMBLE STRIP LOCATION.

CONCRETE JOINT DETAIL FOR ENTRANCE RAMP TERMINI

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/27/98
DATE

/S/ Rory L. Rhi[illegible]
CHIEF ROADWAY DEVELOP[illegible]INEER

FHWA

6

S.D.D. 13 C 17-1b

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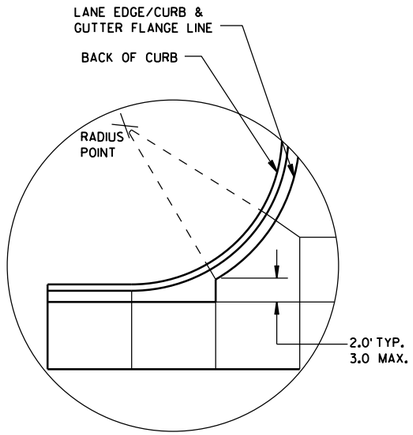
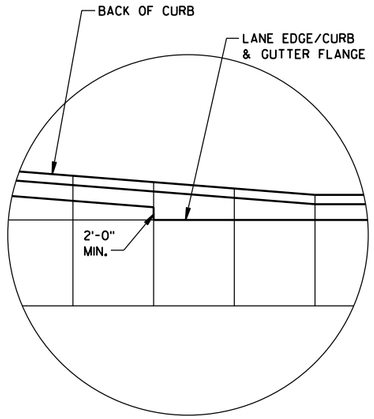
S.D.D. 13 C 17-1b



DETAIL "A"



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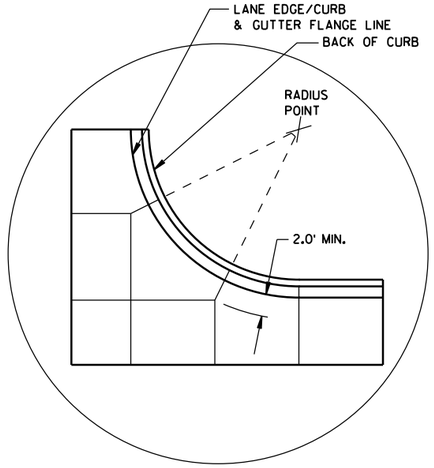
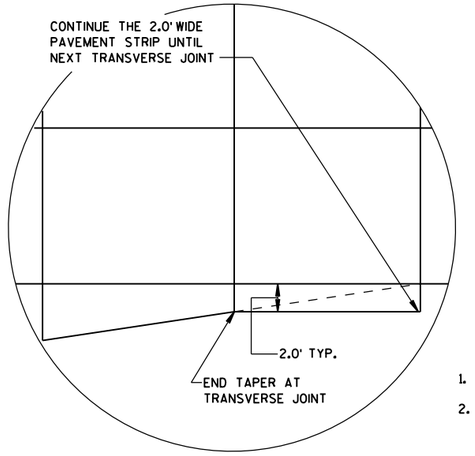


DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

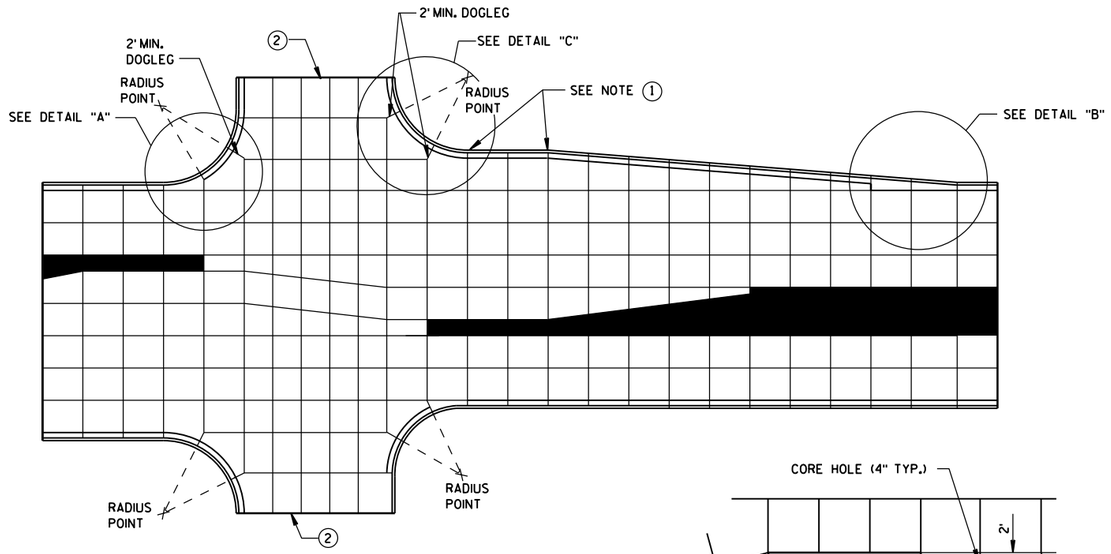
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

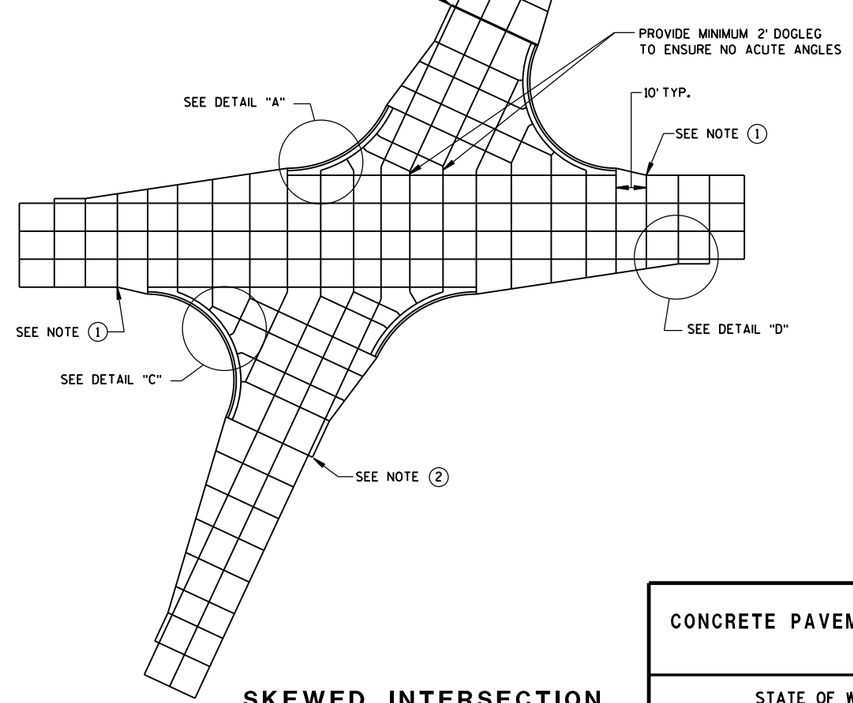
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



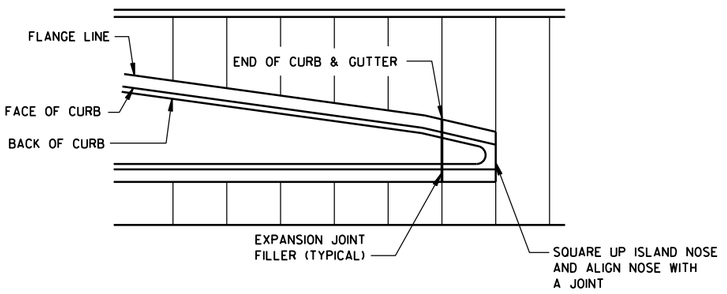
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

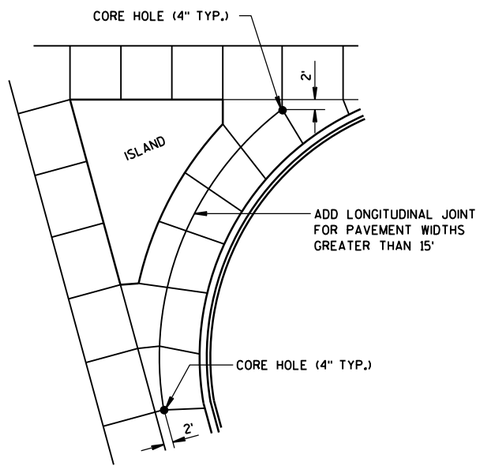
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

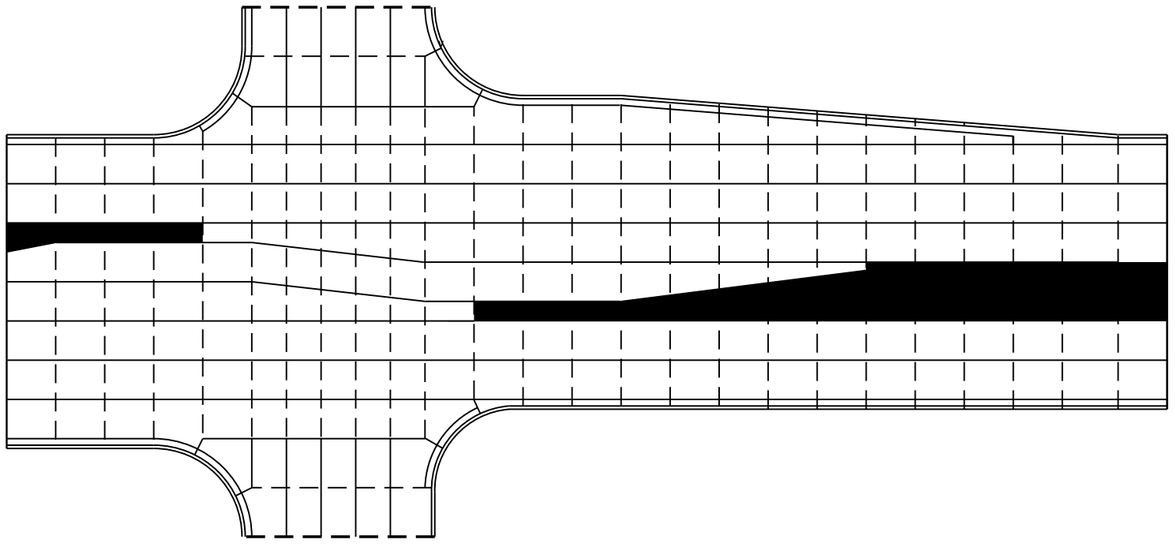
6
S.D.D. 13 C 18-5a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

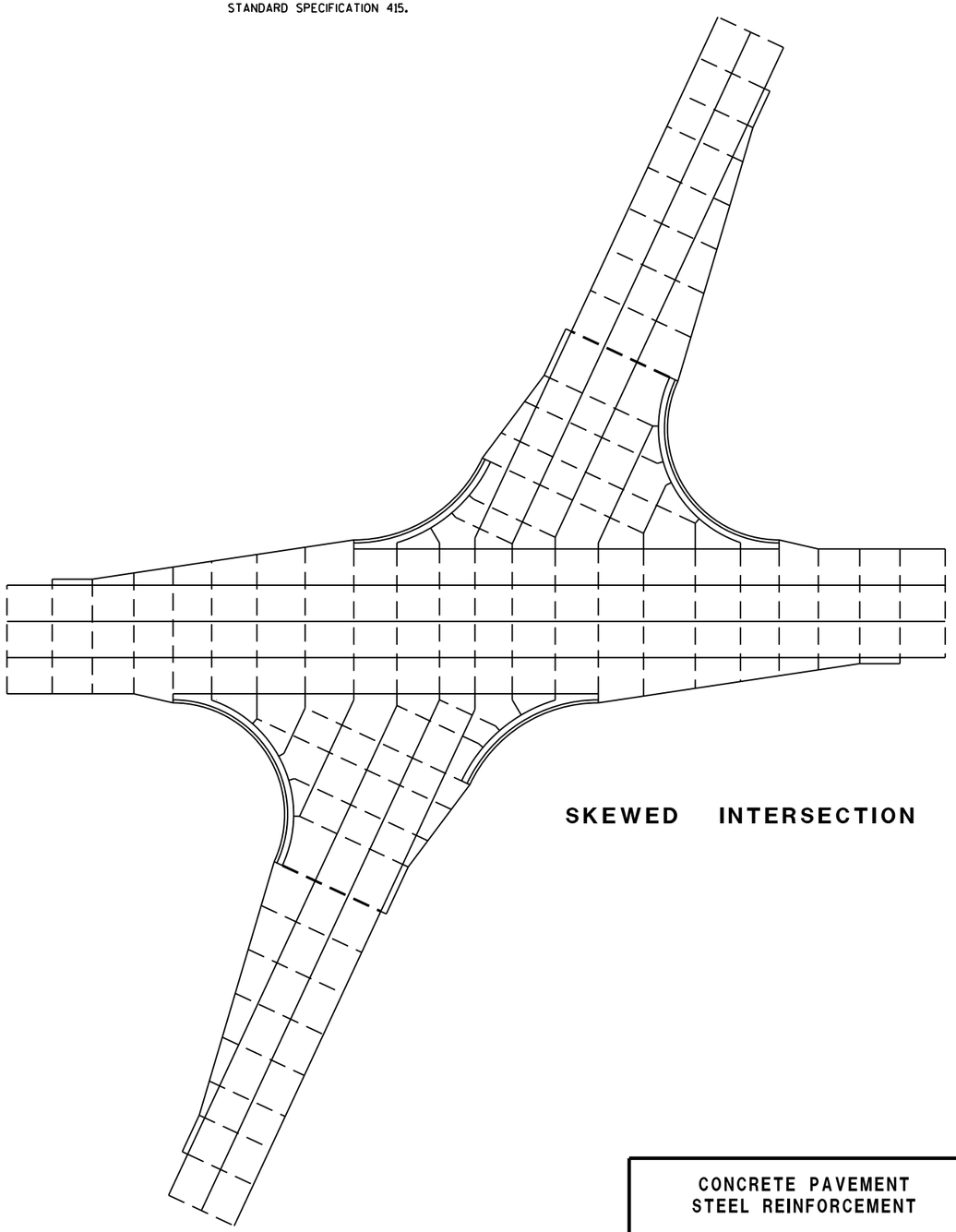
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

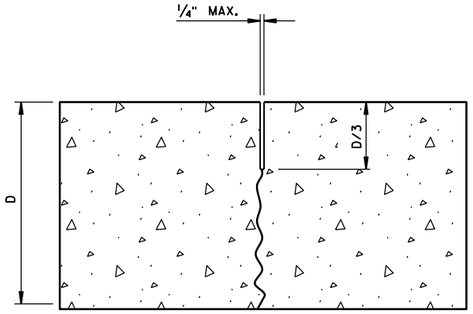
S.D.D. 13 C 18-5b

CONCRETE PAVEMENT
STEEL REINFORCEMENT

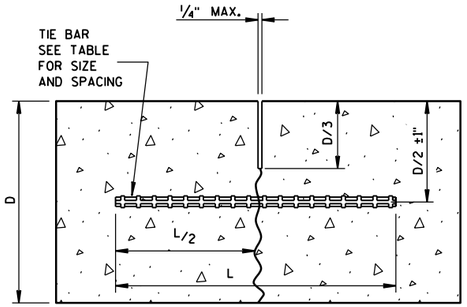
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 13 C 18-5b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

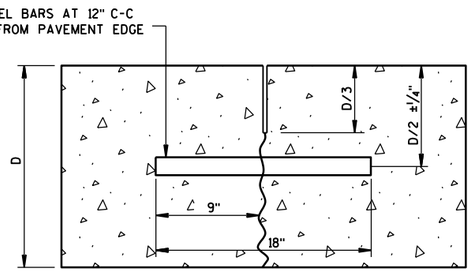
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

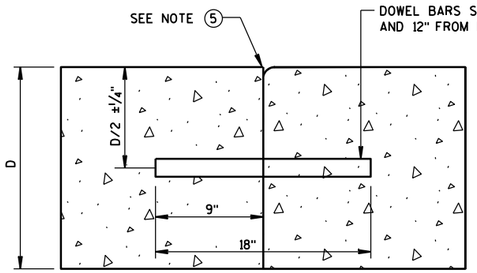
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



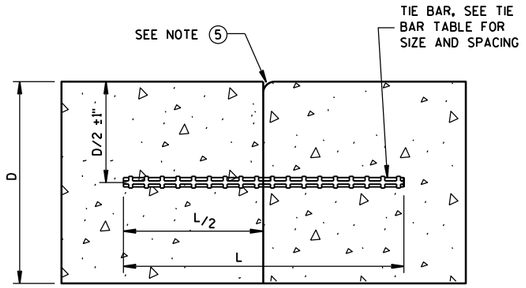
DOWELED-TRANSVERSE

CONTRACTION JOINTS

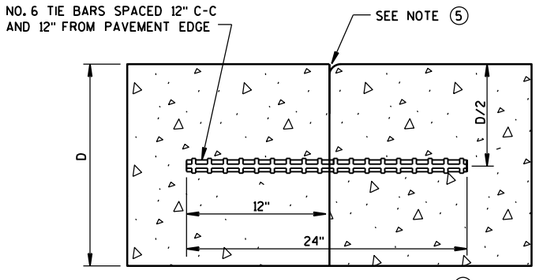
SEE NOTE (2)



DOWELED TRANSVERSE (3)

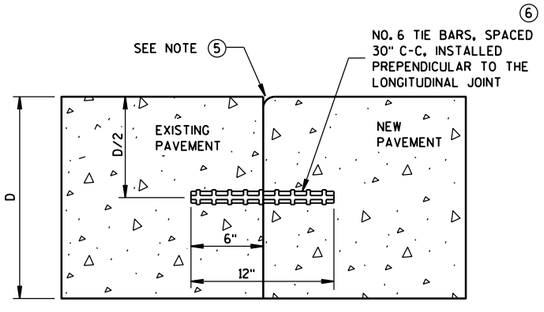


TIED LONGITUDINAL



TIED TRANSVERSE (3)

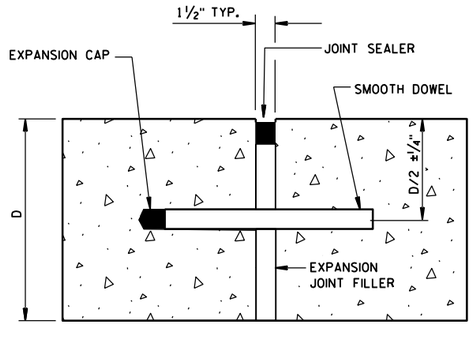
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

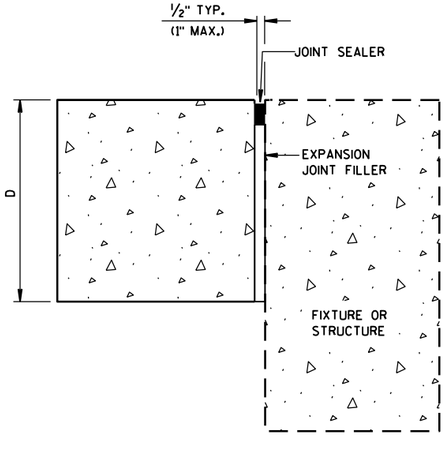
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

6

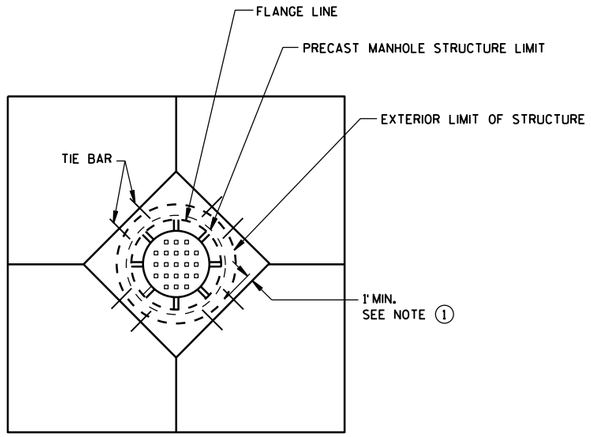
6

S.D.D. 13 C 18-5c

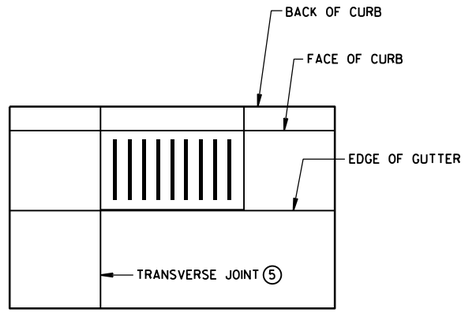
S.D.D. 13 C 18-5c

CONCRETE PAVEMENT
JOINT TYPES

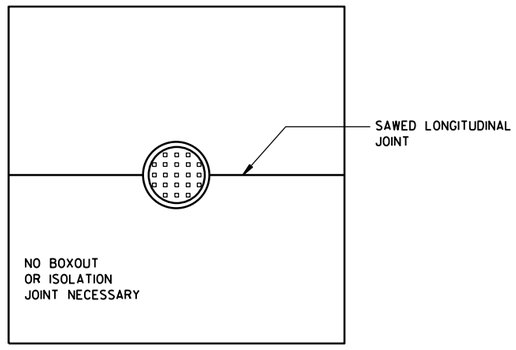
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



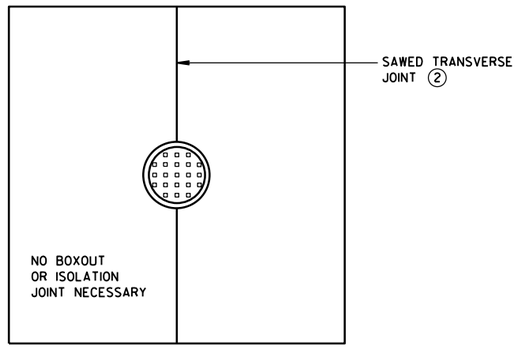
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



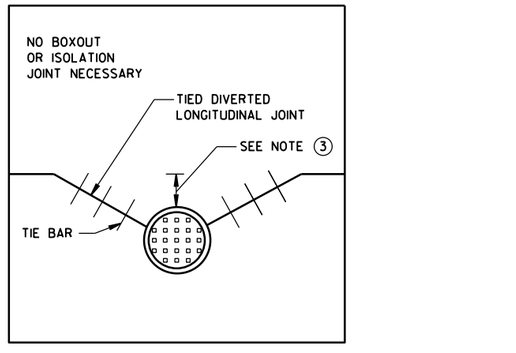
INLET WITH TRANSVERSE JOINT



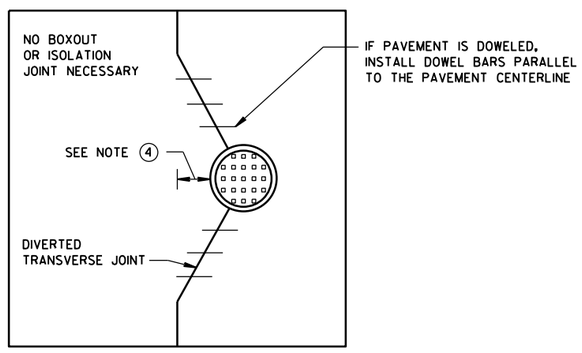
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

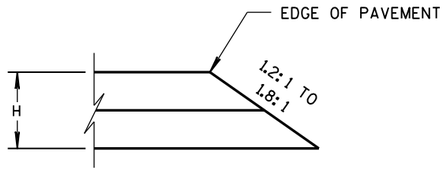
CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December, 2016 — /S/ Peter Kemp, P.E.
DATE — PAVEMENT SUPEF
FHWA

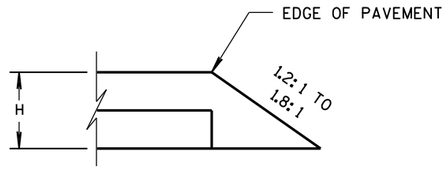
6

S.D.D. 13 C 18-5d



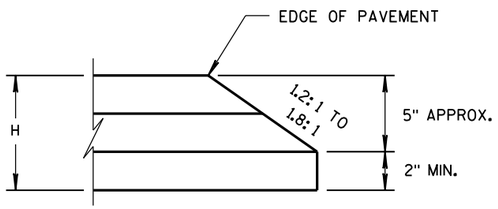
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



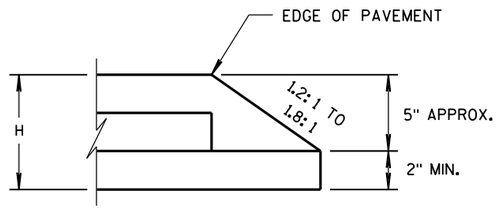
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

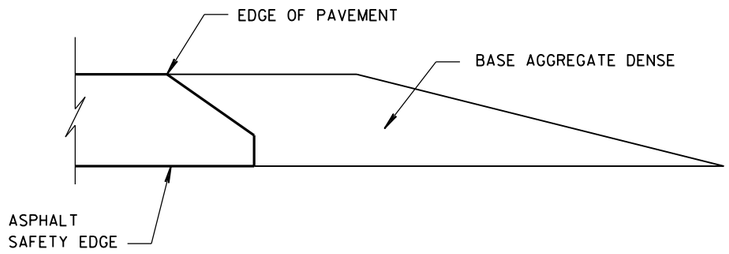
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

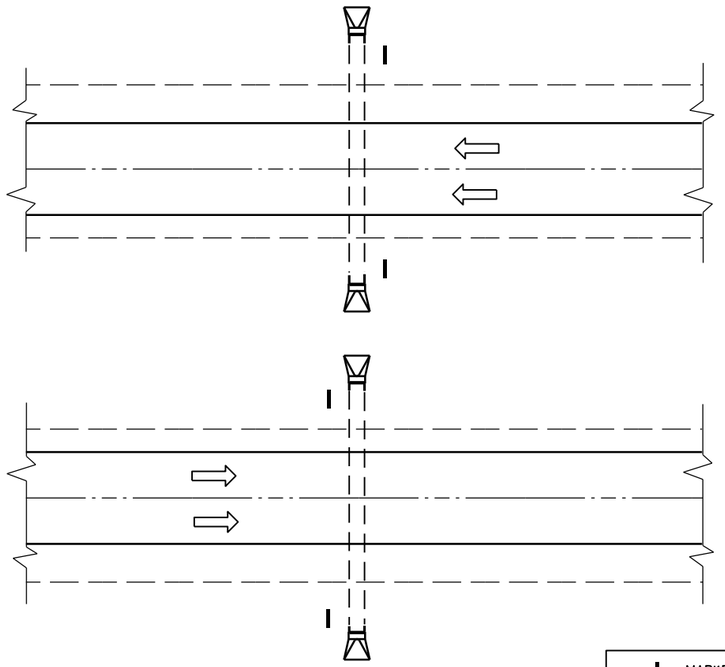
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

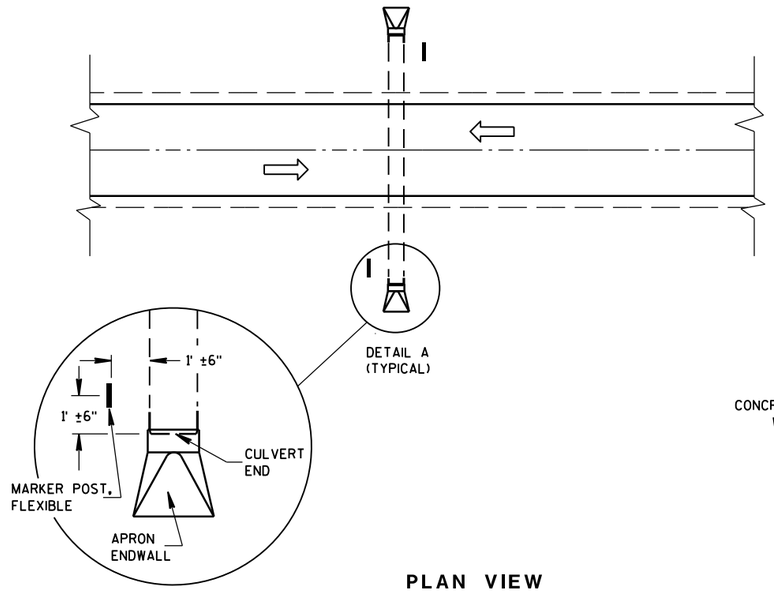
/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

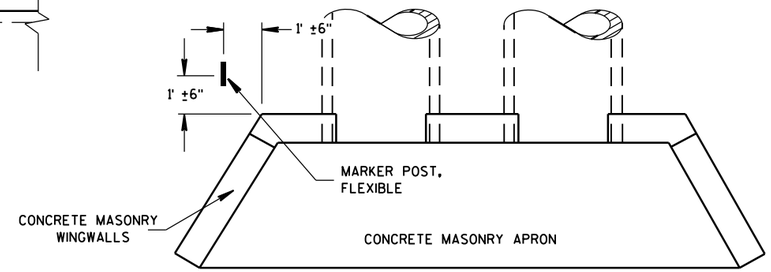
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

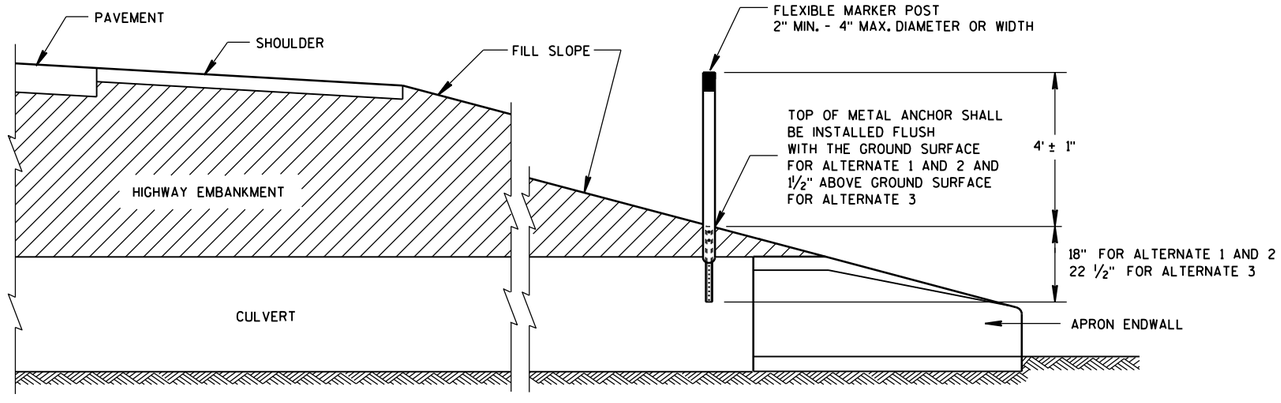
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

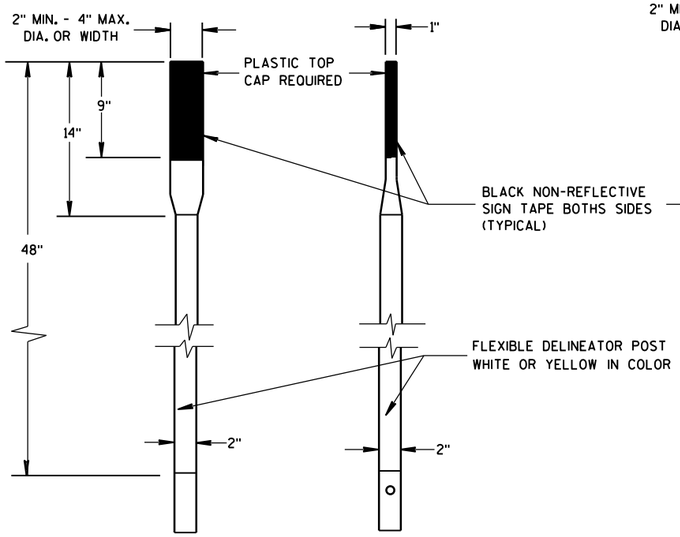
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

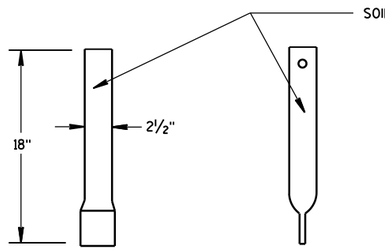
6

S.D.D. 15 A 3-2a

6

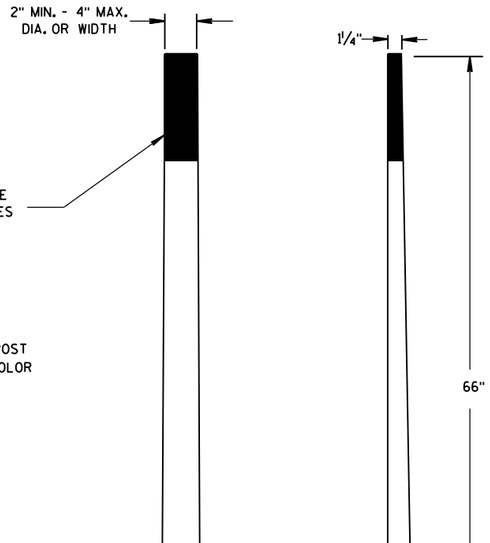
S.D.D. 15 A 3-2a





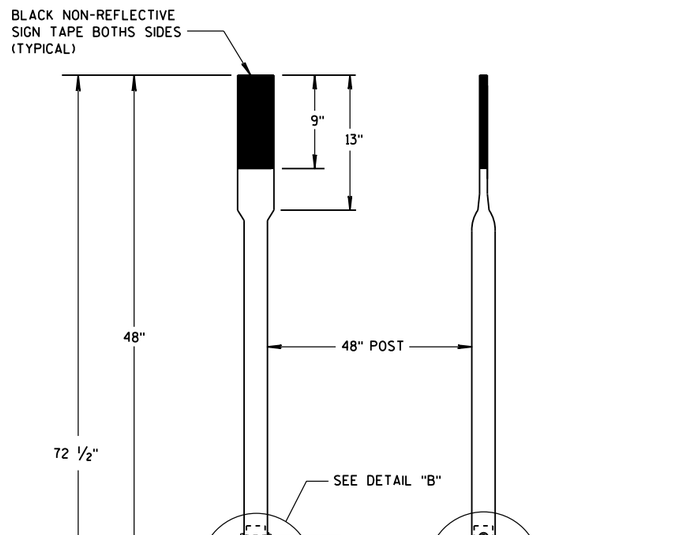
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

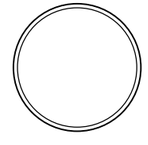
ALTERNATE 2



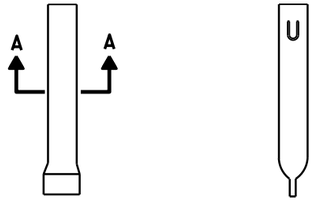
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

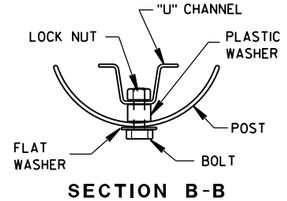


SECTION A-A

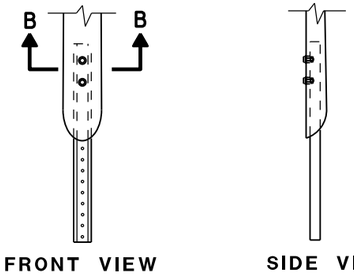


FRONT VIEW SIDE VIEW

ALTERNATE 1

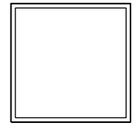


SECTION B-B

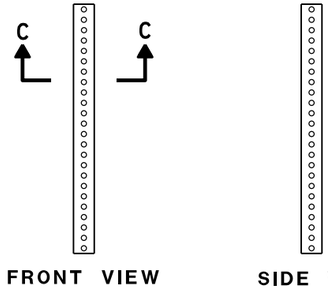


FRONT VIEW SIDE VIEW

ALTERNATE 2



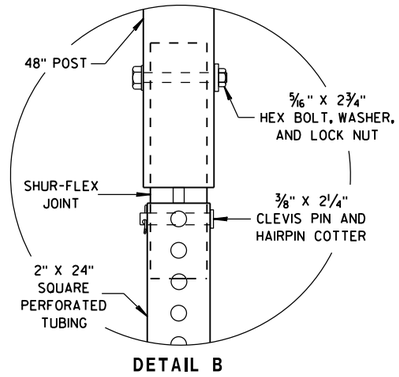
SECTION C-C



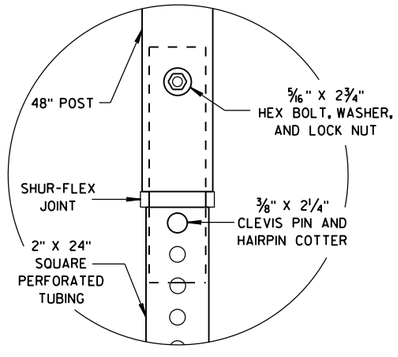
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

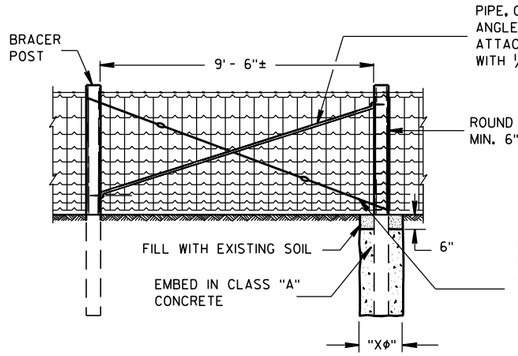
S.D.D. 15 A 3-2b

6

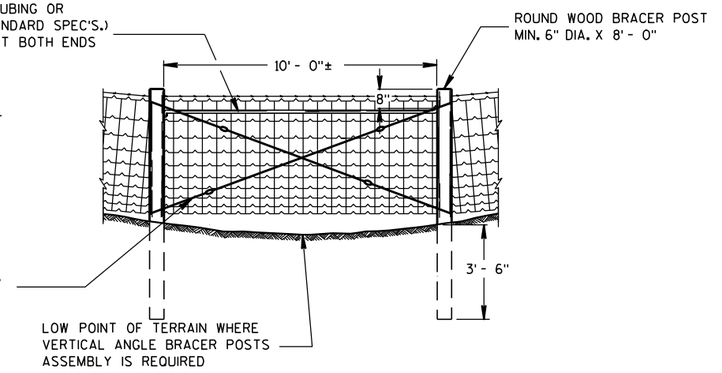
S.D.D. 15 A 3-2b

NOTE: PULL OR STRETCHER POST ASSEMBLIES SHALL BE PLACED MIDWAY BETWEEN END POSTS AND CORNER POSTS WHERE A RUN OF FENCE EXCEEDS 660' BUT IS LESS THAN 1,320'. FOR RUNS OF FENCE IN EXCESS OF 1,320' MAXIMUM SPACING OF PULL OR STRETCHER POST ASSEMBLIES SHALL BE 660'± C-C.

ILLUSTRATION SHOWS POSITION OF STANDARD STEEL BRACE, DOUBLE STRAND GALVANIZED WIRE, AND THE POST TO BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM LEFT TO RIGHT. THE BRACES SHALL BE POSITIONED ON THE OPPOSITE DIAGONALS AND THE OPPOSITE POST SHALL BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM RIGHT TO LEFT.



PULL OR STRETCHER POSTS ASSEMBLY



VERTICAL ANGLE BRACER POSTS ASSEMBLY

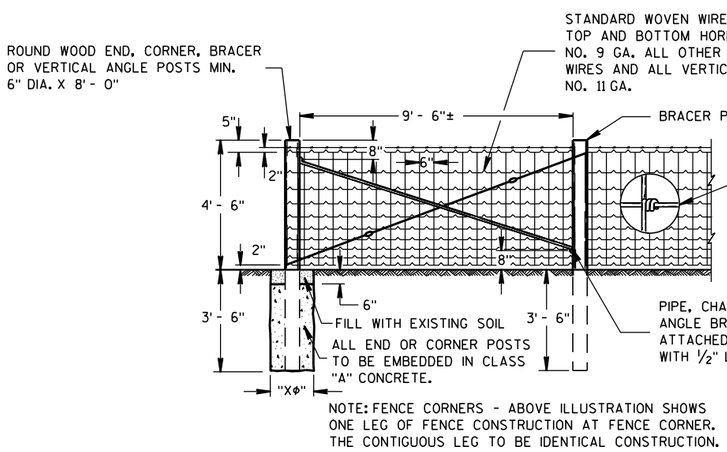
GENERAL NOTES

"XΦ" = DIAMETER OF THE POST PLUS 12".

FENCE STAPLES SHOULD NEVER BE DRIVEN VERTICALLY INTO WOOD POSTS (WITH BOTH LEGS PARALLEL WITH THE WOOD GRAIN). DOING SO CAN SEPARATE THE GRAIN AND SIGNIFICANTLY REDUCE THE HOLDING POWER. ROTATING THE STAPLES SLIGHTLY OFF VERTICAL STRADDLES THE GRAIN AND PROVIDES MORE RESISTANCE TO PULL-OUT.

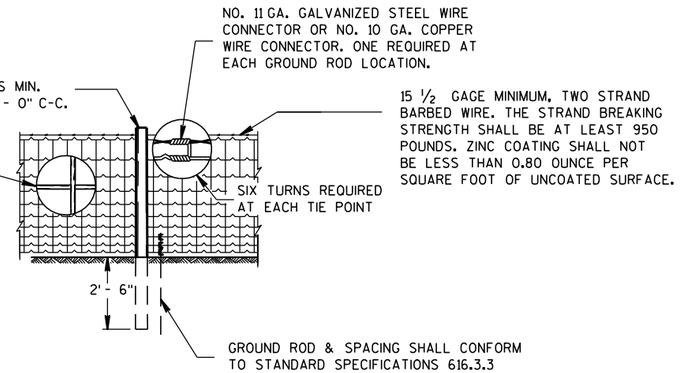
DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED AFTER FORMING. STAPLES SHALL HAVE SLASH-CUT POINTS.

FENCE SHALL BE LOCATED 3'-0" INSIDE THE RIGHT OF WAY LINE UNLESS OTHERWISE INDICATED ON THE PLANS.



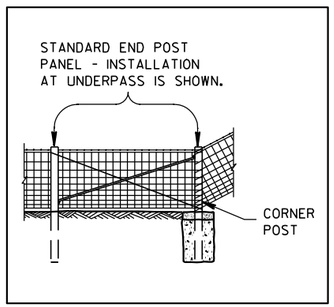
NOTE: FENCE CORNERS - ABOVE ILLUSTRATION SHOWS ONE LEG OF FENCE CONSTRUCTION AT FENCE CORNER. THE CONTIGUOUS LEG TO BE IDENTICAL CONSTRUCTION.

END OR CORNER POSTS ASSEMBLY

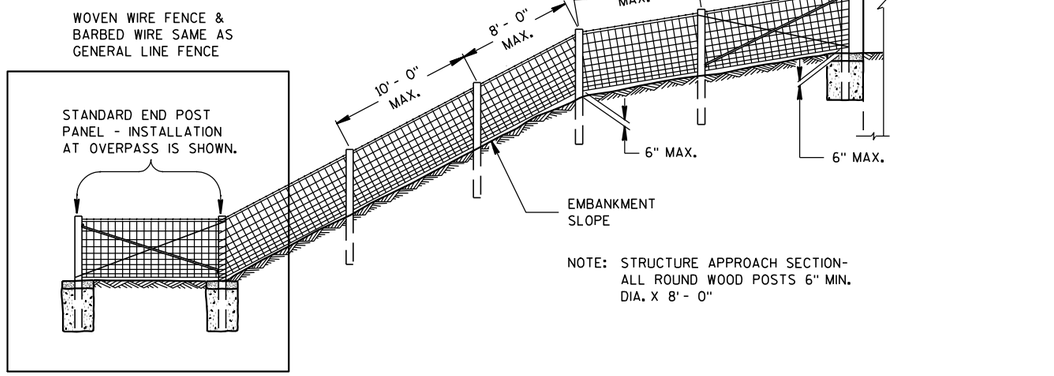


LINE FENCE CONSTRUCTION

GENERAL ROADSIDE VIEW OF WOVEN WIRE FENCE



ALTERNATE FENCE DESIGN AT STRUCTURE



NOTE: STRUCTURE APPROACH SECTION- ALL ROUND WOOD POSTS 6" MIN. DIA. X 8' - 0"

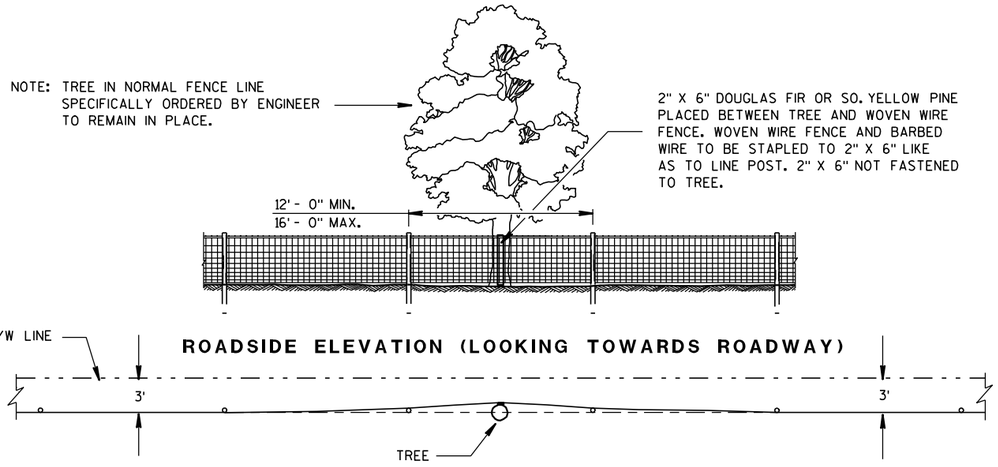
FENCE DESIGN AT STRUCTURE APPROACH

FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

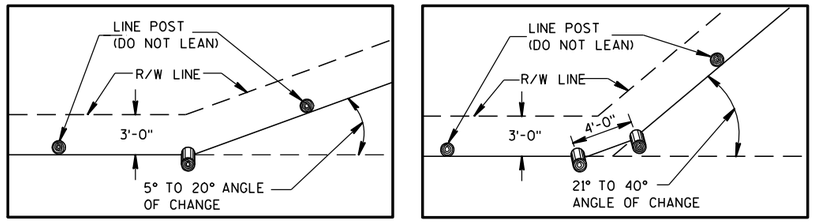
6

S.D.D. 15 B 1-8a



PLAN VIEW

FENCE DESIGN AT TREES REMAINING IN NORMAL FENCE LINE



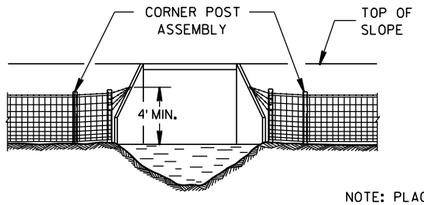
PLAN VIEW
SINGLE POST CORNER

PLAN VIEW
DOUBLE POST CORNER

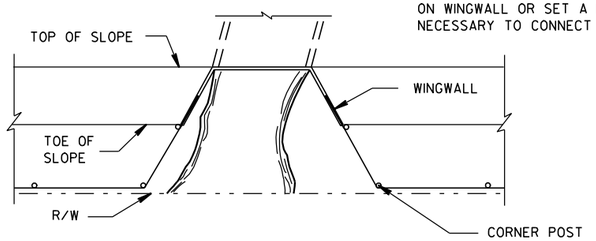
RIGHT OF WAY LINE CHANGE 40° AND LESS

NOTE: SINGLE AND DOUBLE POSTS SHALL BE A MIN. 6" DIA. X 8'-0" WITH A LEAN OF 4" TOWARD THE OUTSIDE OF THE CURVE.

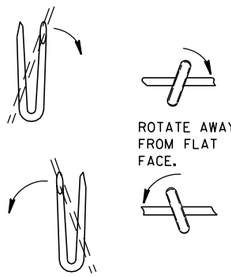
WHEN THE RIGHT OF WAY LINE CHANGE IS MORE THAN 40° USE THE CORNER OR STRETCHER POSTS ASSEMBLY.



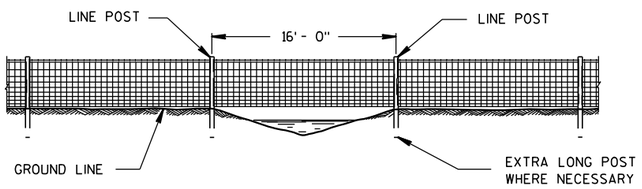
NOTE: PLACE A MINIMUM OF 4 STRANDS OF BARBED WIRE, 6" MAXIMUM CENTERS IN FAN SHAPE CONNECTED TO AN EYE BOLT ON WINGWALL OR SET A LONE POST WHEN NECESSARY TO CONNECT BARBED WIRE.



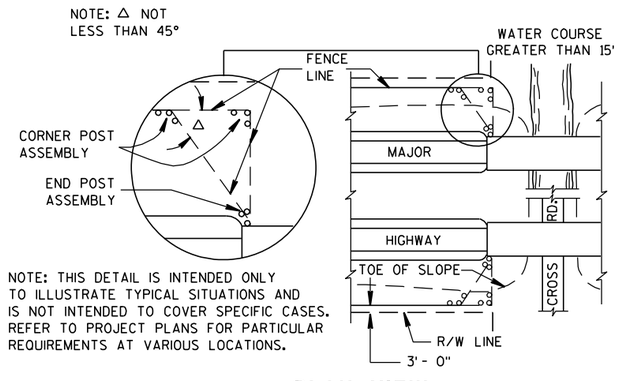
FENCE INSTALLATION TO WINGWALLS



LINE POST

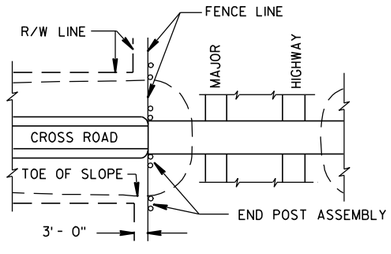


FENCE CONSTRUCTION OVER STREAM COURSES OF 15 FT. OR LESS IN WIDTH



PLAN VIEW

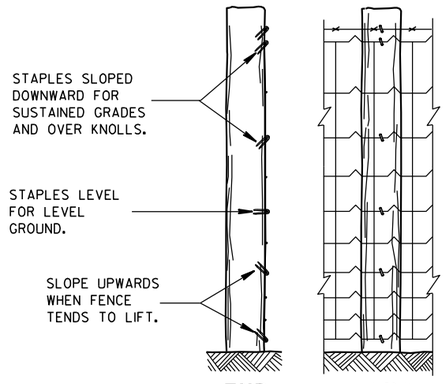
MAJOR HIGHWAY OVERPASS OR STREAM COURSE CROSSING OF GREATER THAN 15 FT. IN WIDTH



PLAN VIEW

MAJOR HIGHWAY UNDERPASS

NOTE: WHEN POSTS ARE DRIVEN THE SMALL END SHALL BE DOWN.



END ELEVATION **FARM SIDE ELEVATION**

FENCE MOUNTING DETAIL

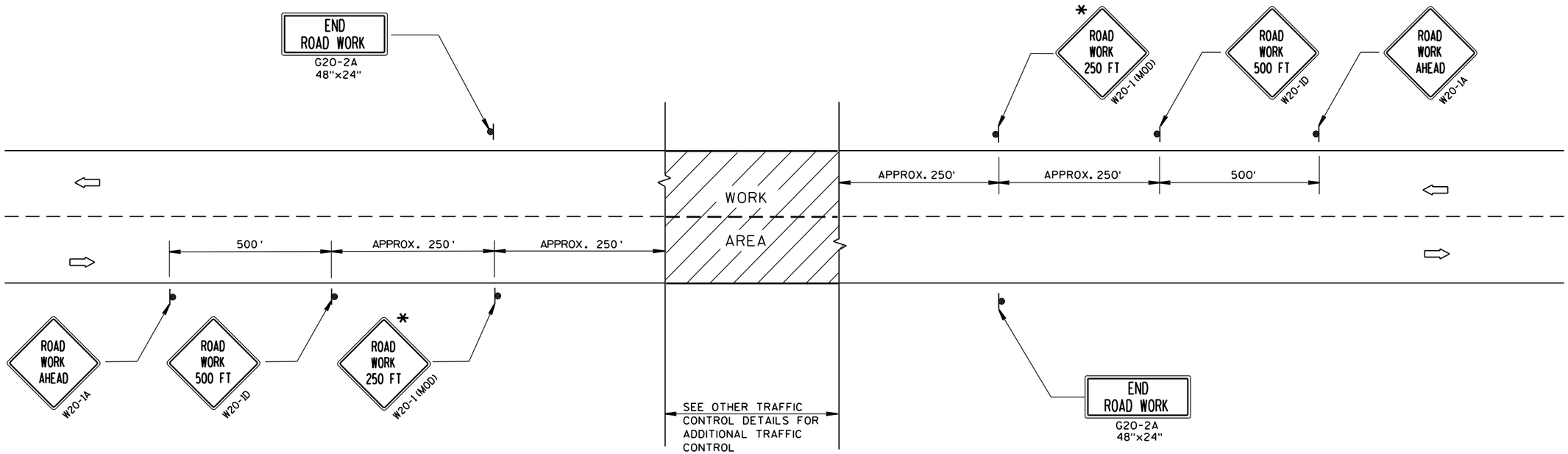
FENCE LOCATION AT STRUCTURES

FENCE WOVEN WIRE

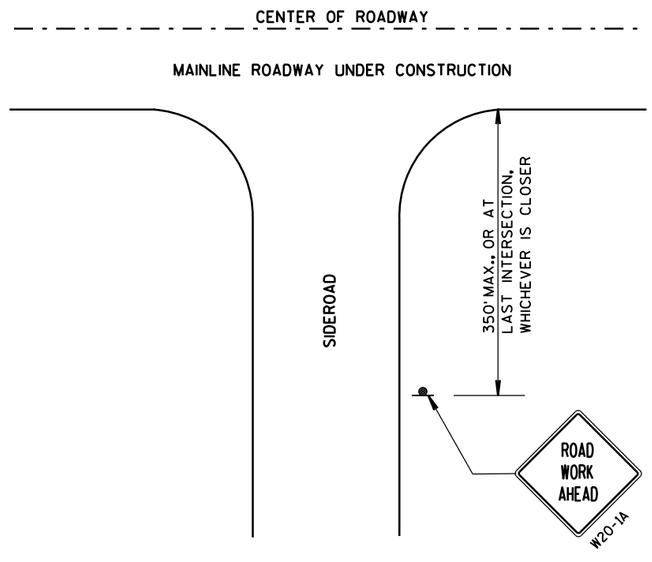
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/4/2008 — DATE
/S/ Jerry H. ---- — ROADWAY STANDARDS ENGINEER
FHWA

S.D.D. 15 B 1-8b
6



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

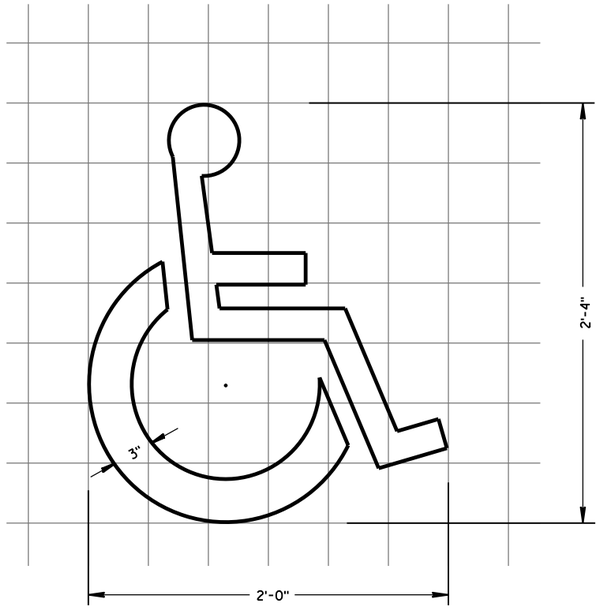
APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

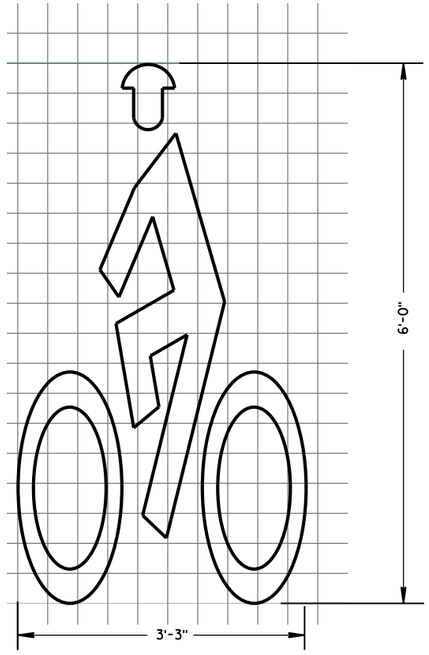
6

S.D.D. 15 C 5-3

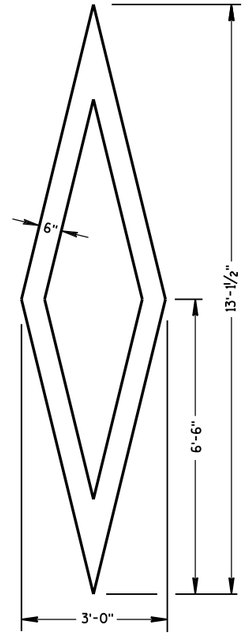
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.





BIKE CROSSING SYMBOL



PREFERENTIAL LANE SYMBOL

6

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S.D.D. 15 C 7-13a

S.D.D. 15 C 7-13a

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

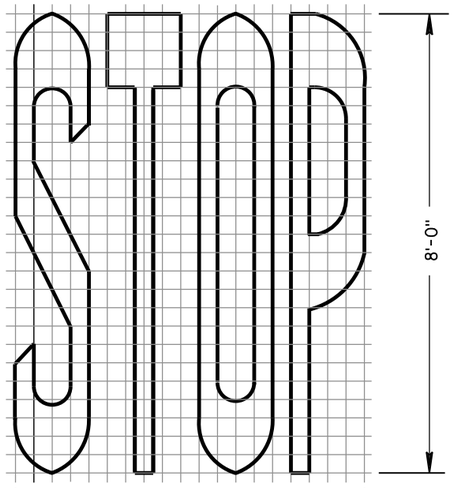
APPROVED

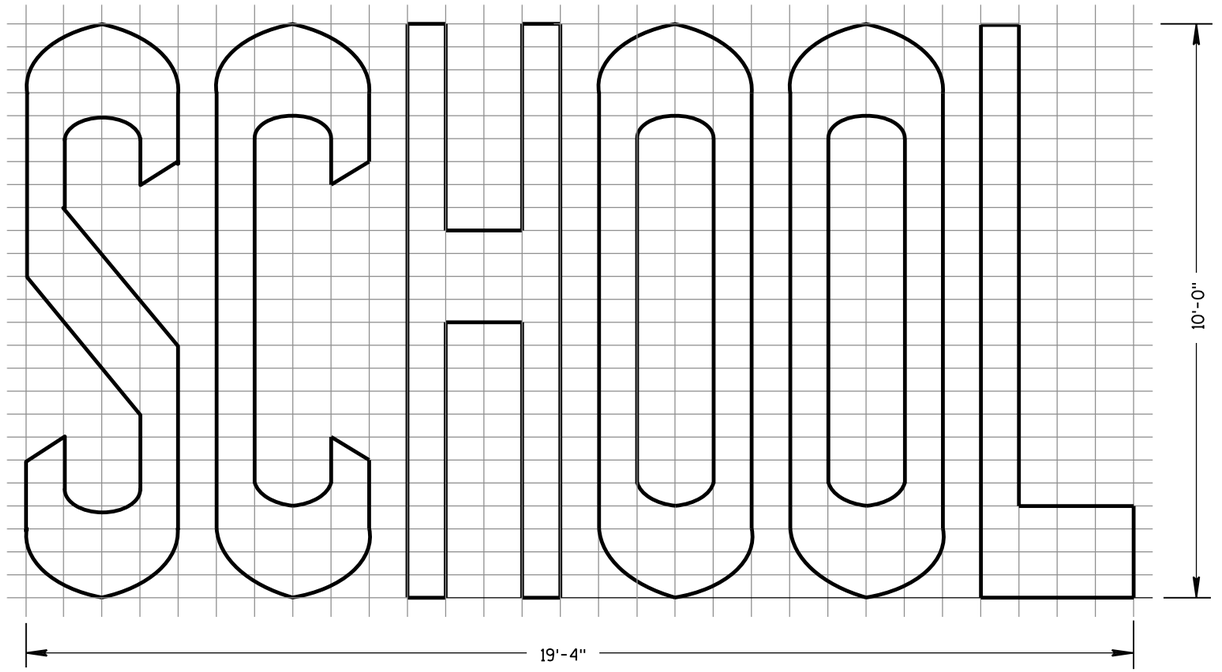
4/18/16	/S/ Matthew R. Rauch
DATE	STATE SIGNING AND MARK EER

FHWA

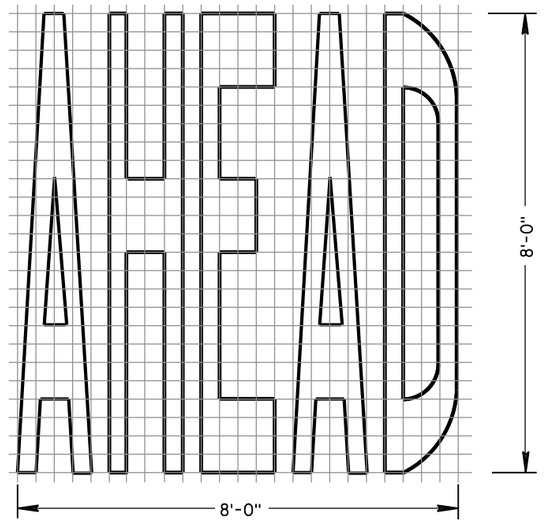
GENERAL NOTES

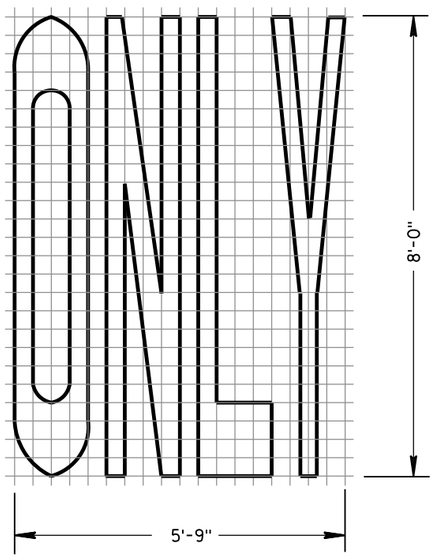
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

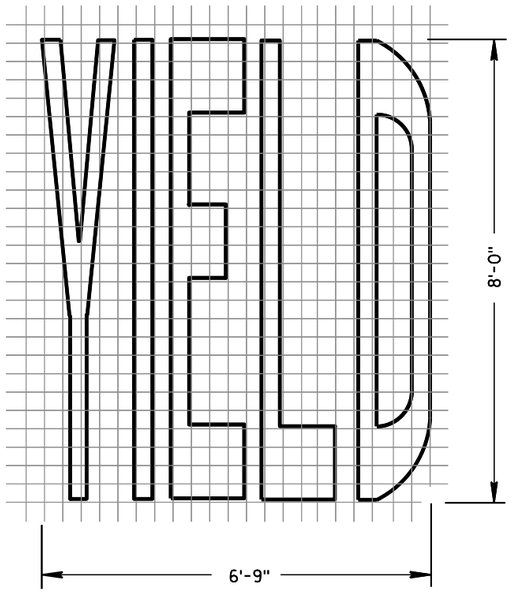


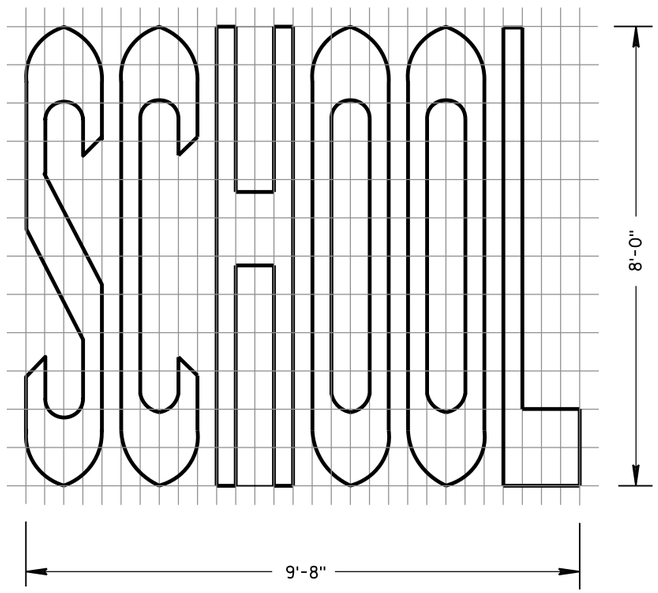


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-16	/S/ Matthew R. Rauch	
DATE	STATE SIGNING AND MARK	EER

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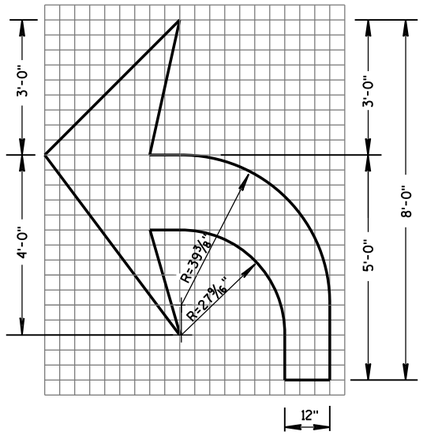
S.D.D. 15 C 7-13b

6

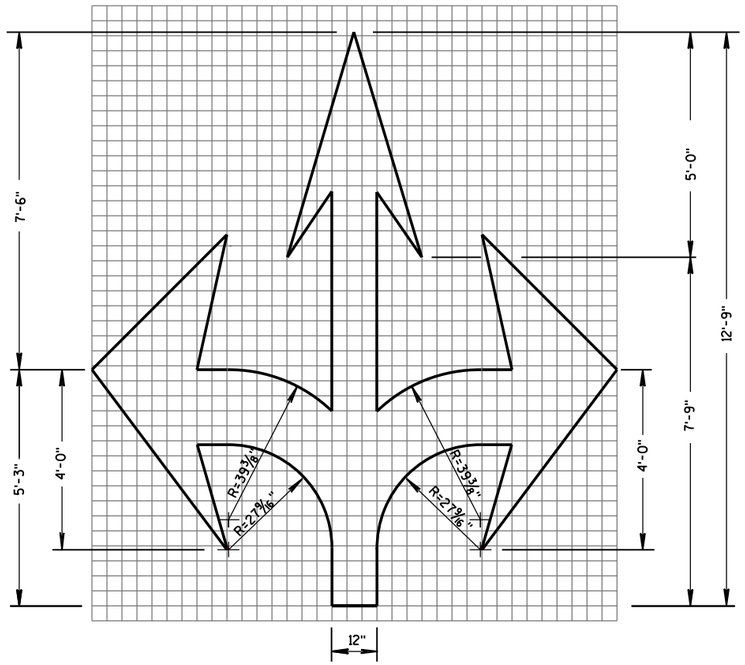
S.D.D. 15 C 7-13b

GENERAL NOTES

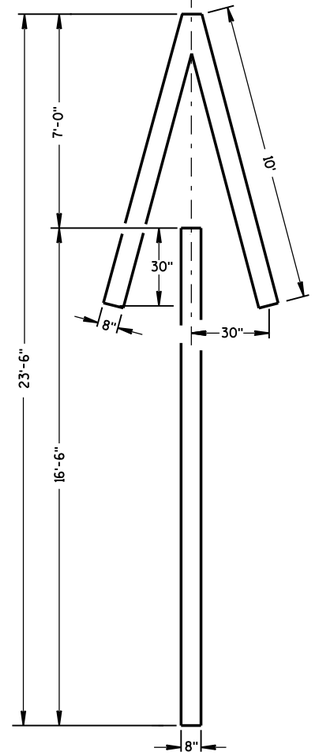
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



TYPE 2



TYPE 6



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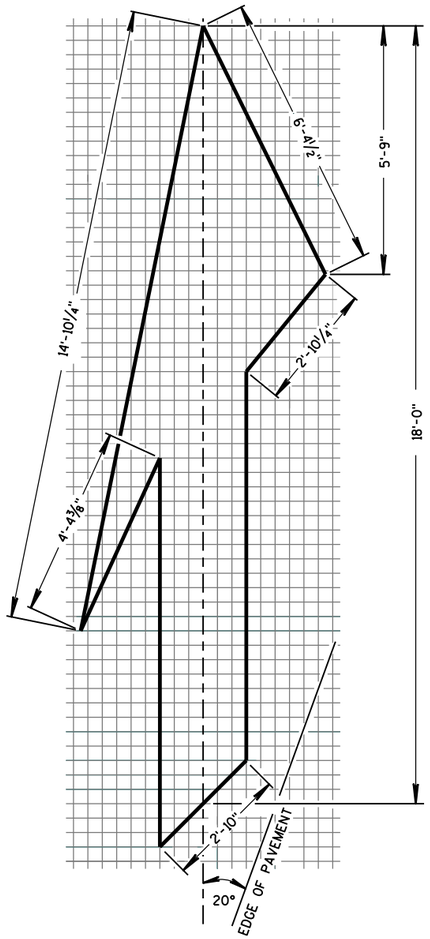
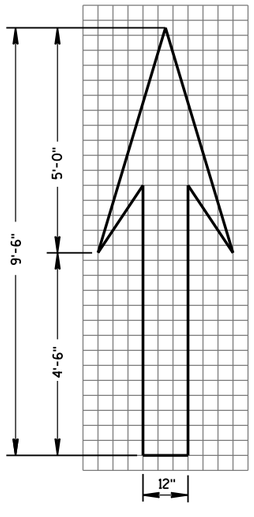
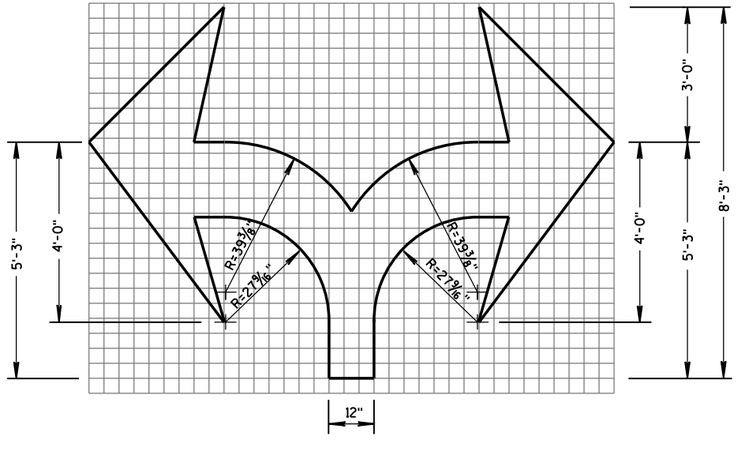


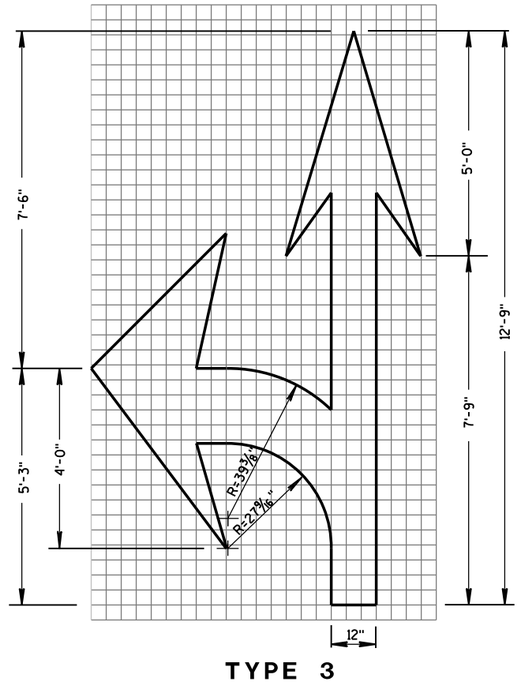
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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4-18-16
DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAR
ENGINEER
FHWA

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S.D.D. 15 C 7-13c

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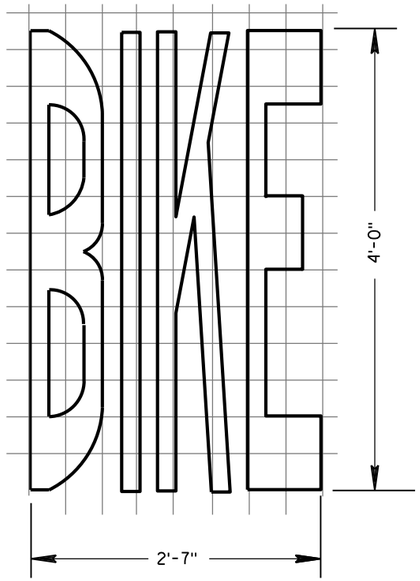
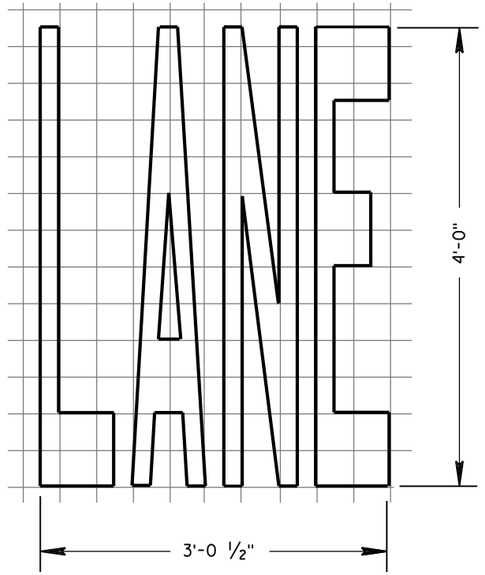
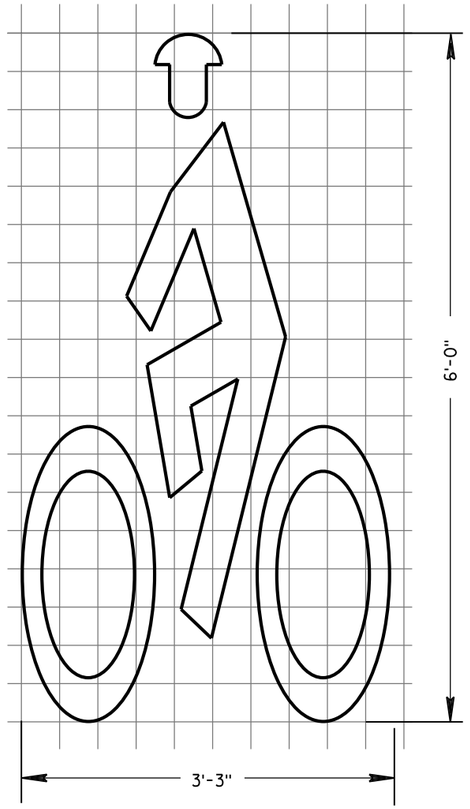
S.D.D. 15 C 7-13c

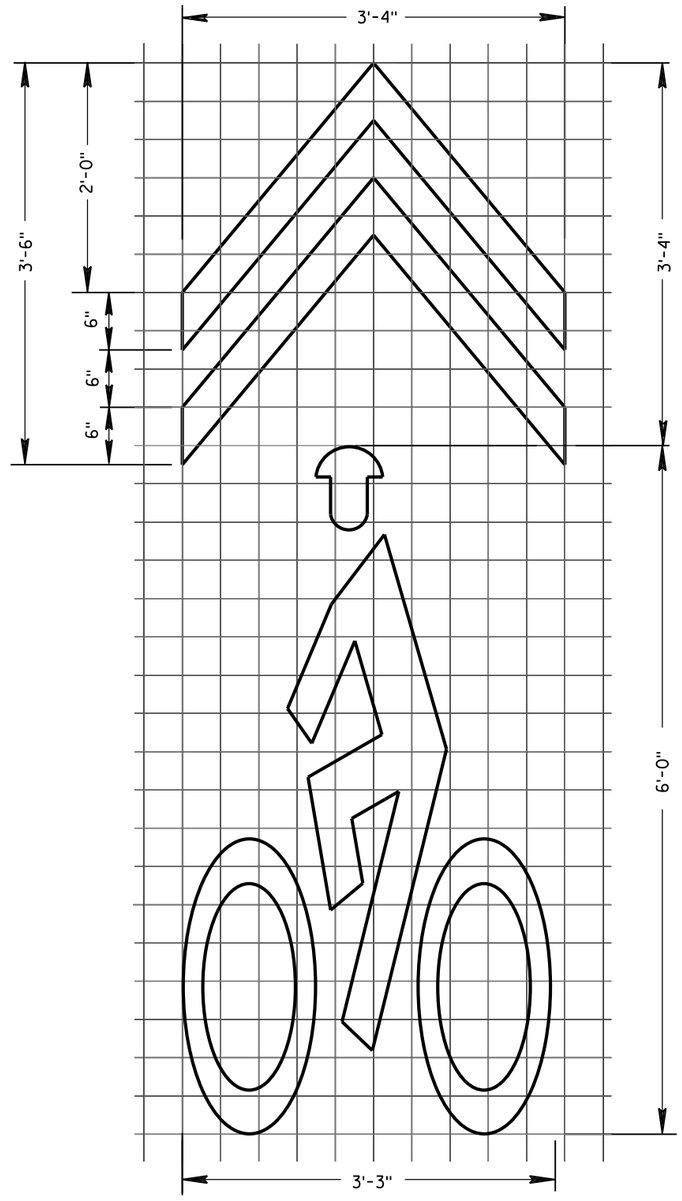




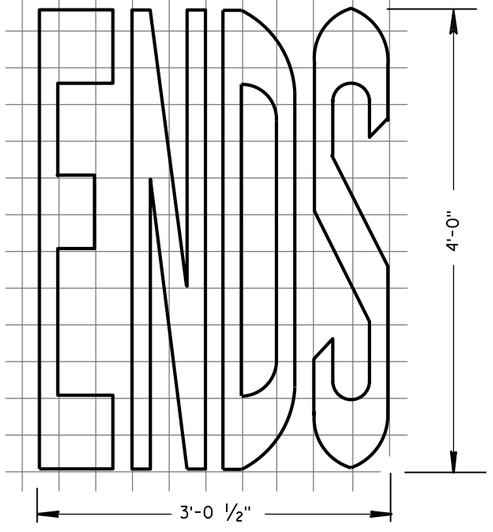
BIKE LANE WORDS



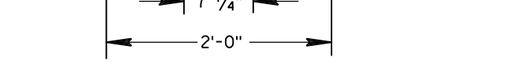
BIKE LANE SYMBOL



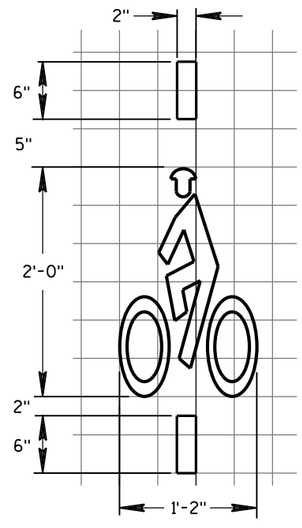
BIKE SYMBOL FOR SHARED LANE



BIKE LANE WORDS



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARK ENGINEER

FHWA

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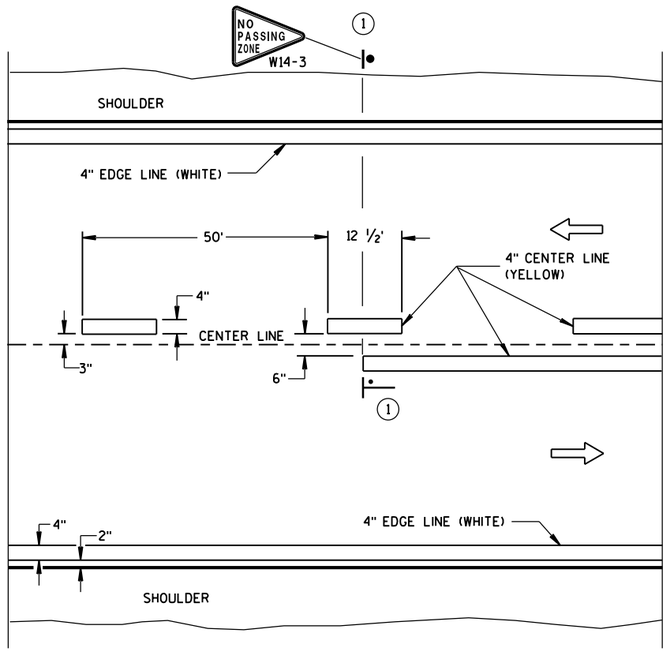
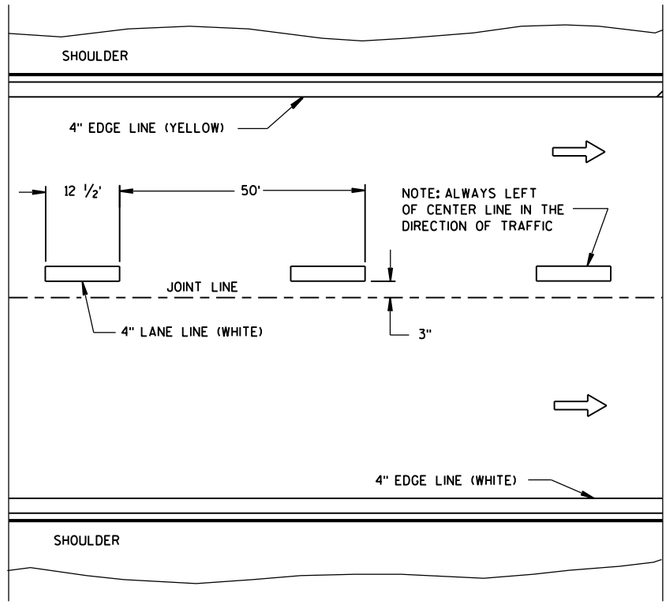
S.D.D. 15 C 7-13e

6

S.D.D. 15 C 7-13e



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

(1) NO PASSING ZONE W14-3 SIGN SHALL BE LOCATED WITHIN 50 FEET OF THE "T" MARKING.

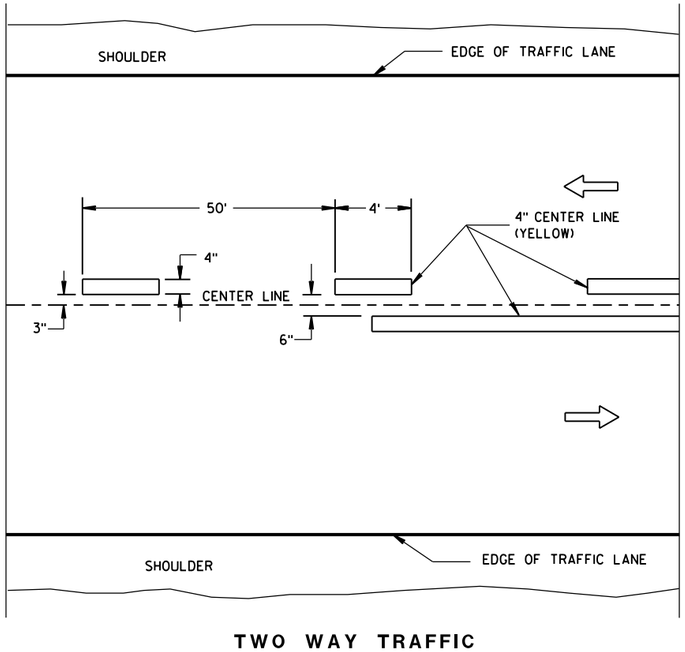
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

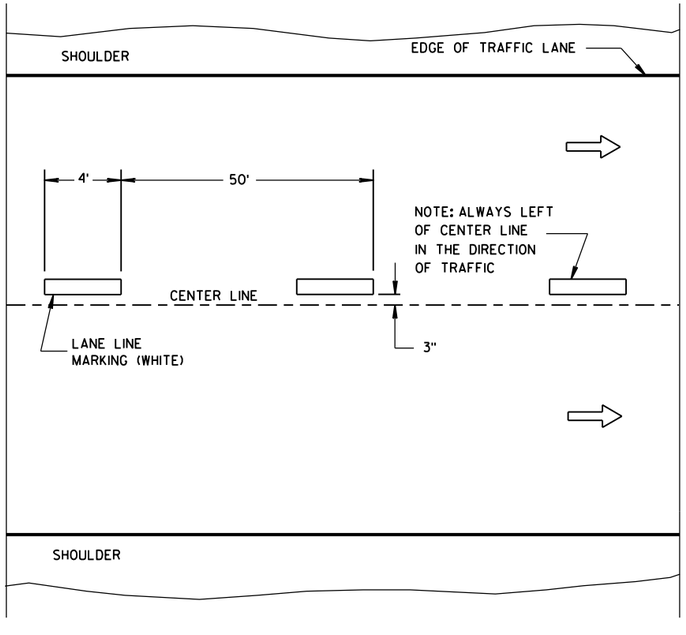
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

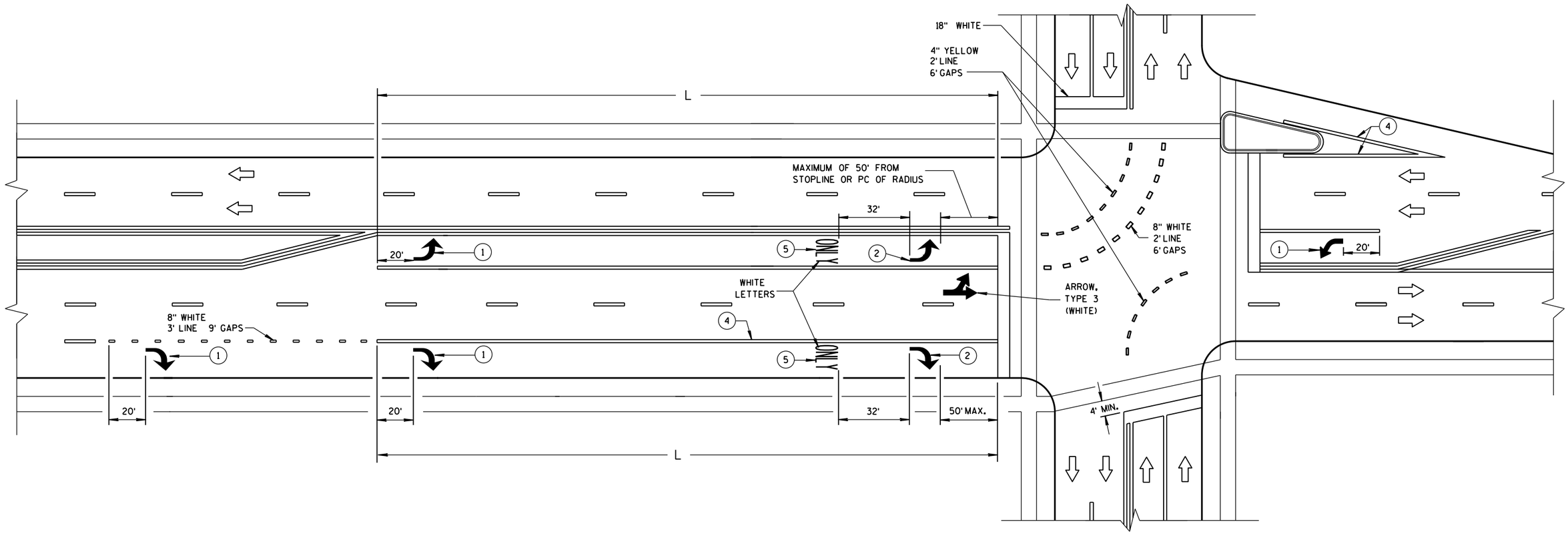
LONGITUDINAL MARKING (MAINLINE)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
Sept., 2016	/S/ Matthew R. Rauch
DATE	STATE SIGNING AND MAR 290 INEER
FHWA	

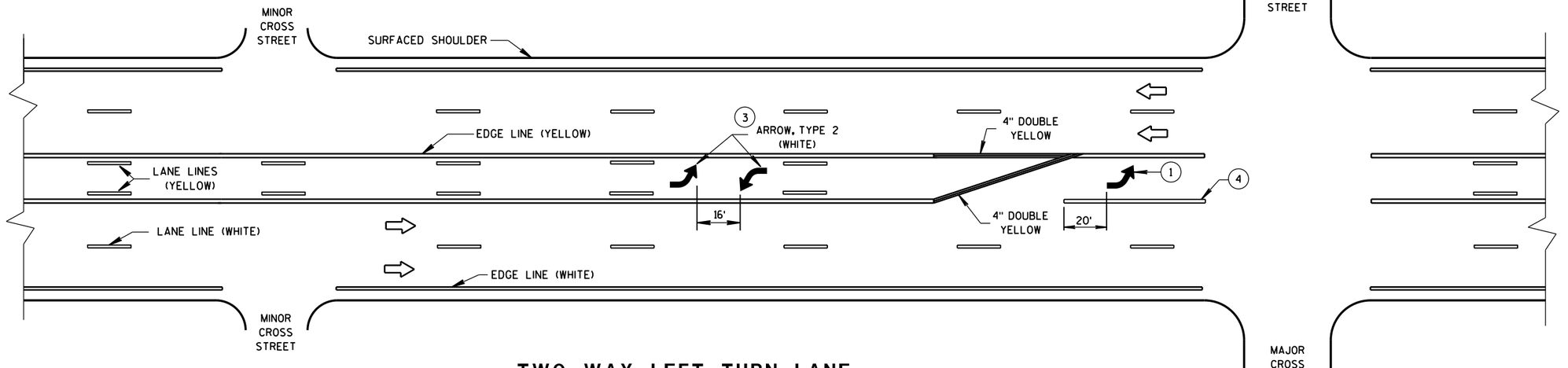
6

S.D.D. 15 C 8-17a

6

S.D.D. 15 C 8-17a





GENERAL NOTES

(1) REQUIRED ARROW, TYPE 2 (WHITE).

(2) REQUIRED ARROW, TYPE 2 (WHITE) WHEN L IS GREATER THAN 78 FEET AND LESS THAN OR EQUAL TO 166 FEET.

(3) A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.

(4) 8" WHITE

(5) REQUIRED WORD ONLY WHEN L IS GREATER THAN 166 FEET.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL

L = LENGTH OF TURN BAY

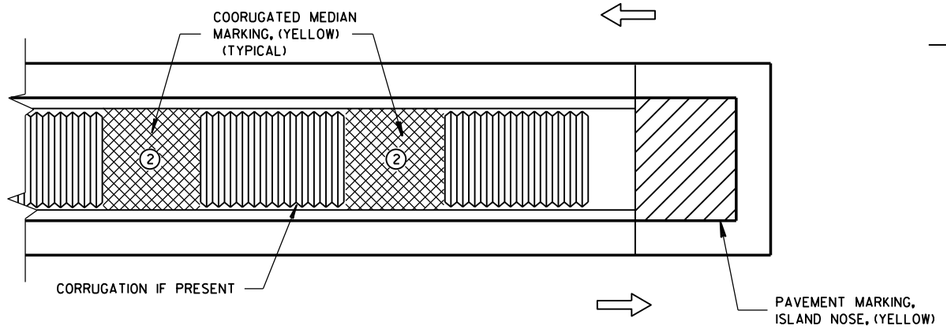
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (TURN LANES)

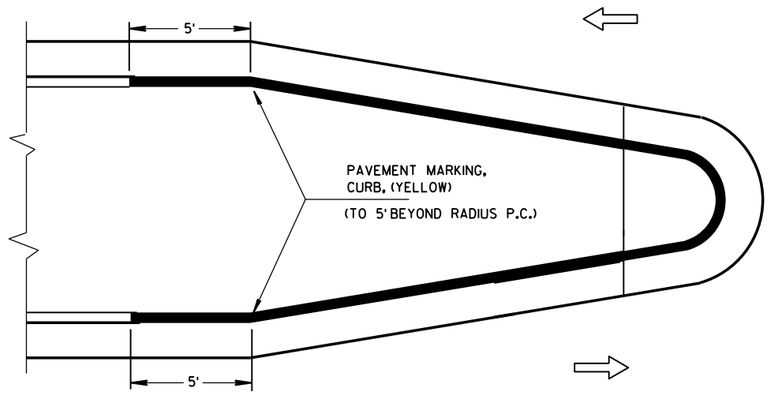
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

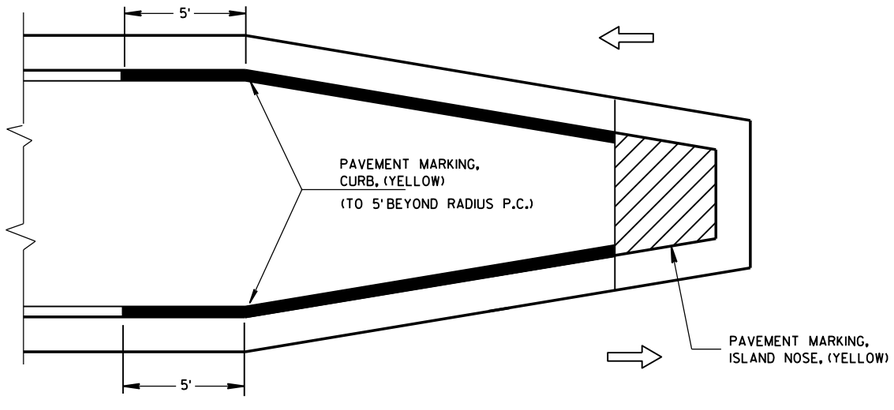
S.D.D. 15 C 8-17b



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

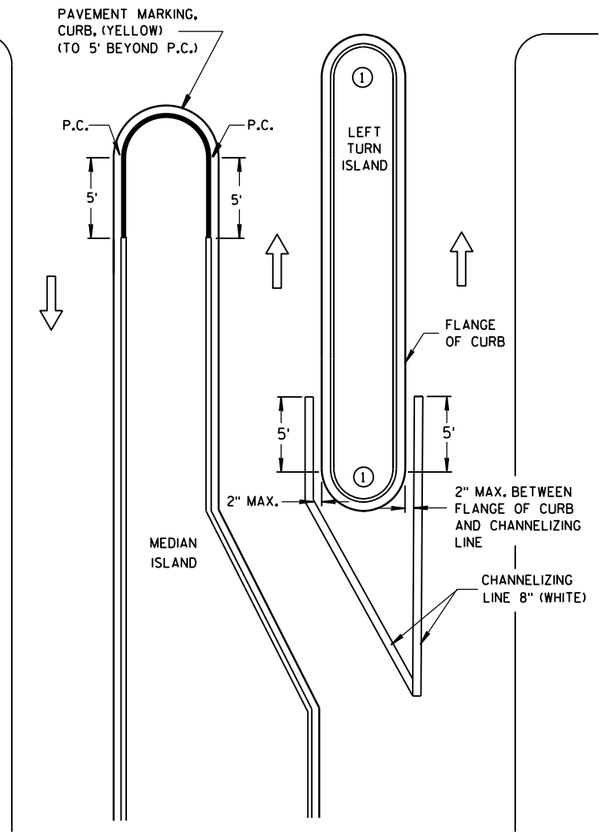


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

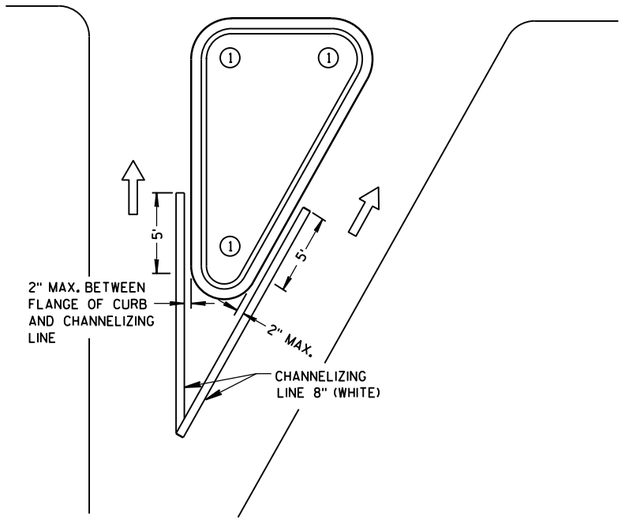


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

2. WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

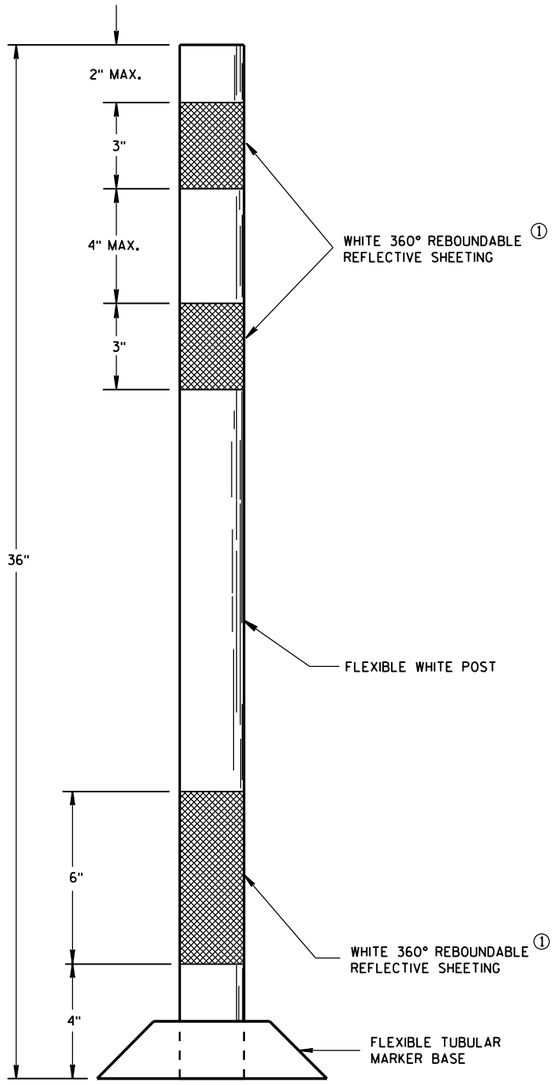
- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

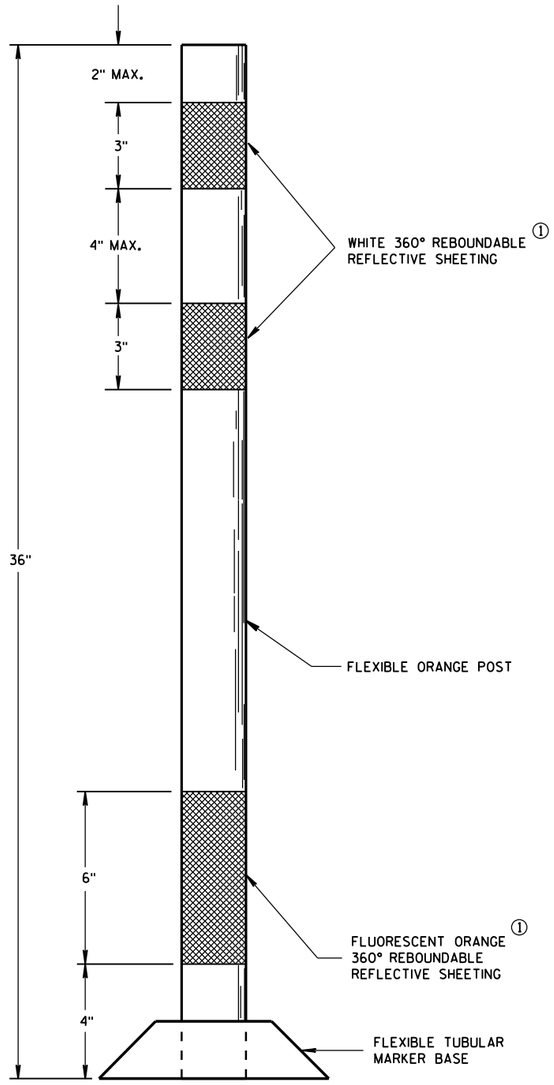
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 C 8-17c



FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER



FLEXIBLE
TUBULAR MARKER POST
WORK ZONE

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

6

S.D.D. 15 C 11-6

FLEXIBLE TUBULAR MARKER POST

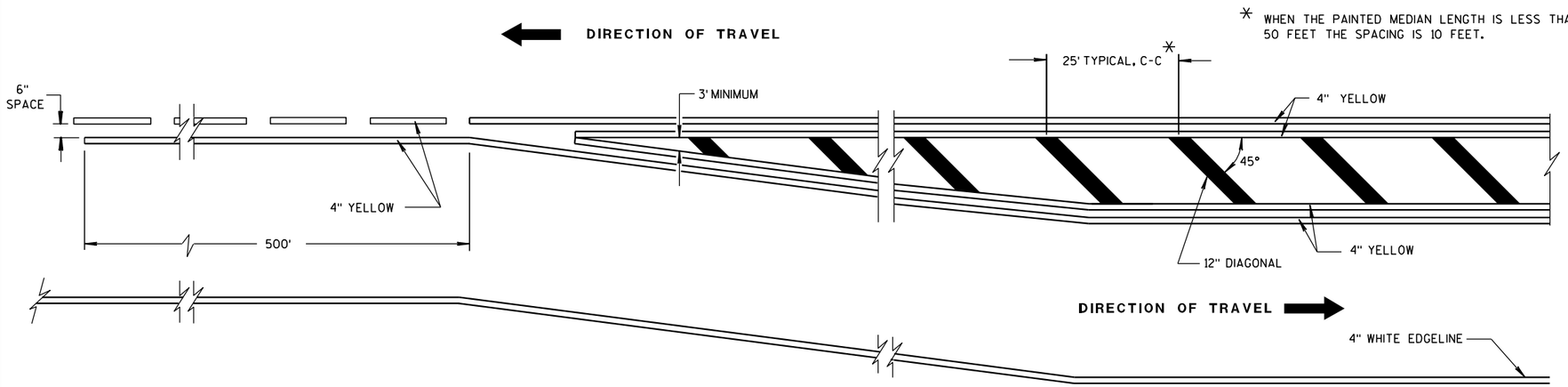
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-16-2015
DATE
FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON
SAFETY ENGINE

6

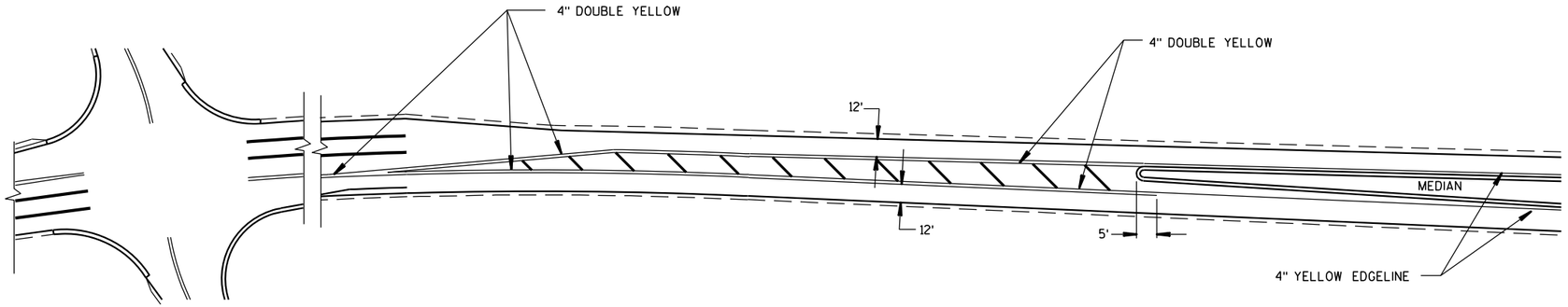
S.D.D. 15 C 11-6



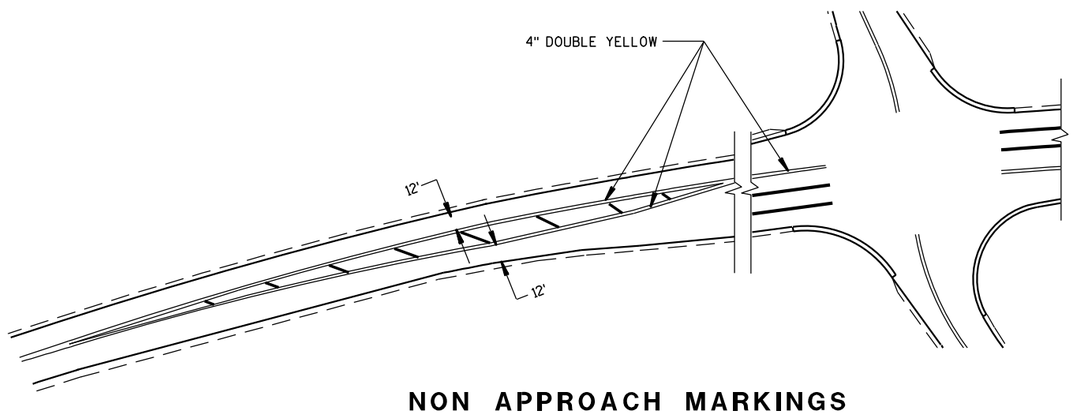
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.



APPROACH MARKINGS FOR OTHER MEDIAN TYPES

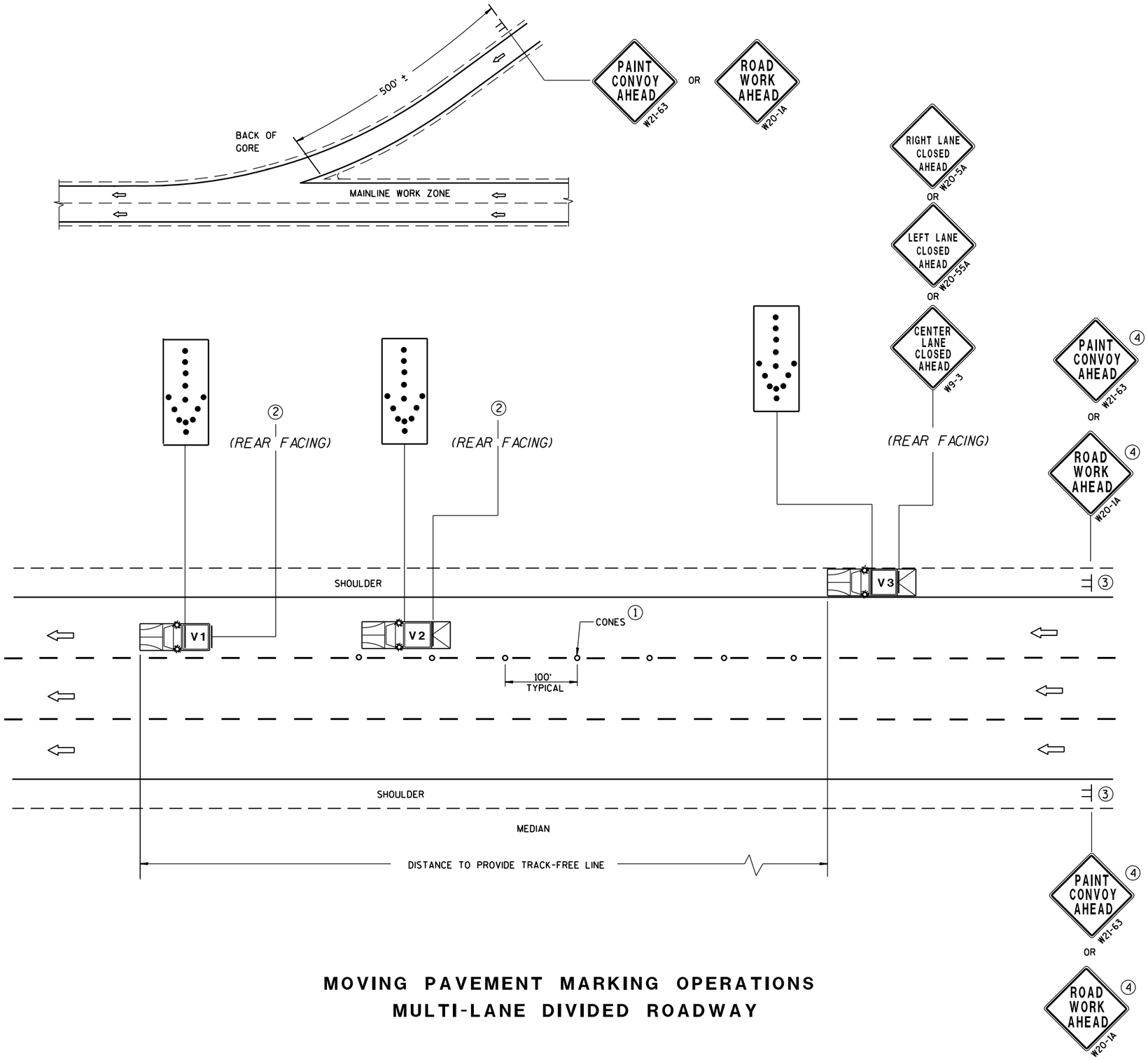


NON APPROACH MARKINGS

MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER
FHWA	

6

S.D.D. 15 C 18-3



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED ROADWAYS.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.

(4) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (MERGE)

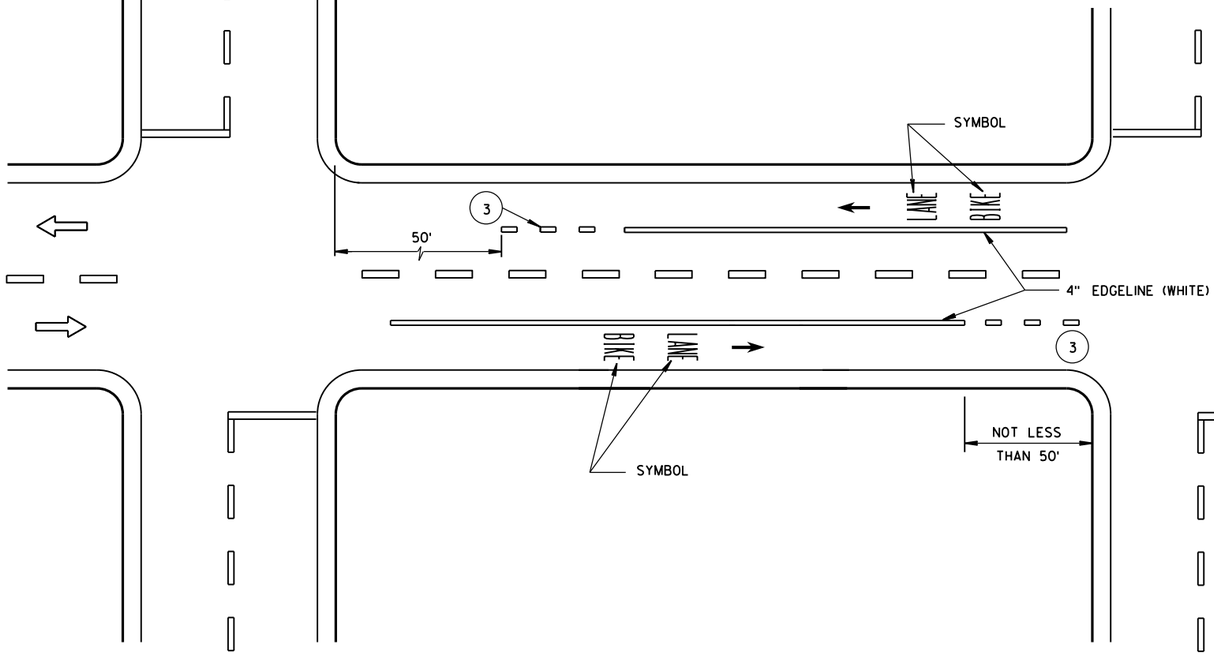
MOVING PAVEMENT MARKING OPERATION
MULTI-LANE DIVIDED ROADWAY

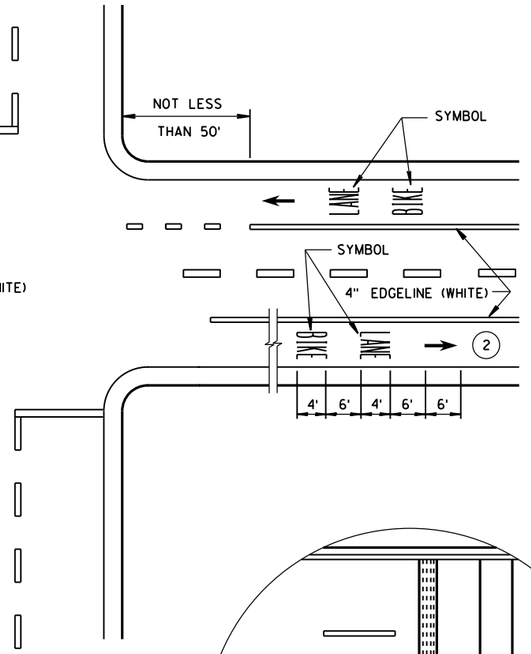
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZON SAFETY ENGINI
FHWA

S.D.D. 15 C 19-4c

S.D.D. 15 C 19-4c



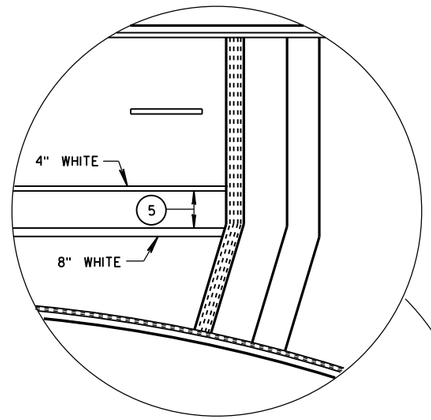


DESIGNATED BICYCLE LANE
NO PARKING

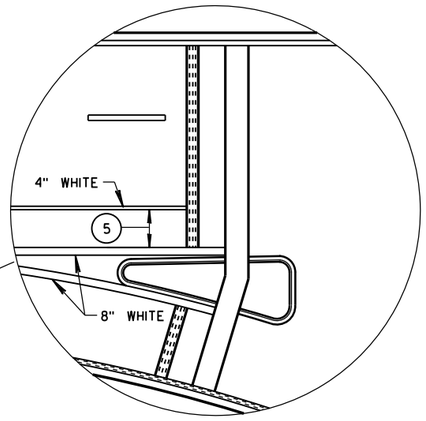
GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
3. DOTTED LINES (3'LINE, 9'GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMODATION FOR CONCRETE PAVEMENT IS 5 FEET WIDE. BIKE ACCOMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4 FEET. USE 5 FEET AT ≥45 MPH.
6. OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FEET WIDE TURN LANE).
7. REFER TO CONTRACT PLANS FOR LANE WIDTH.

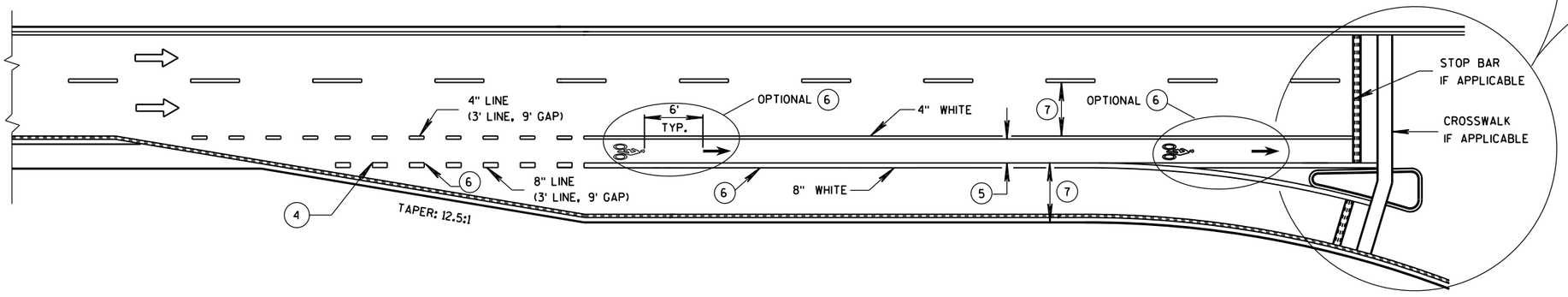
⇨ DIRECTION OF TRAVEL



4 LANE DIVIDED WITHOUT ISLAND



4 LANE DIVIDED WITH ISLAND



BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS
(4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)

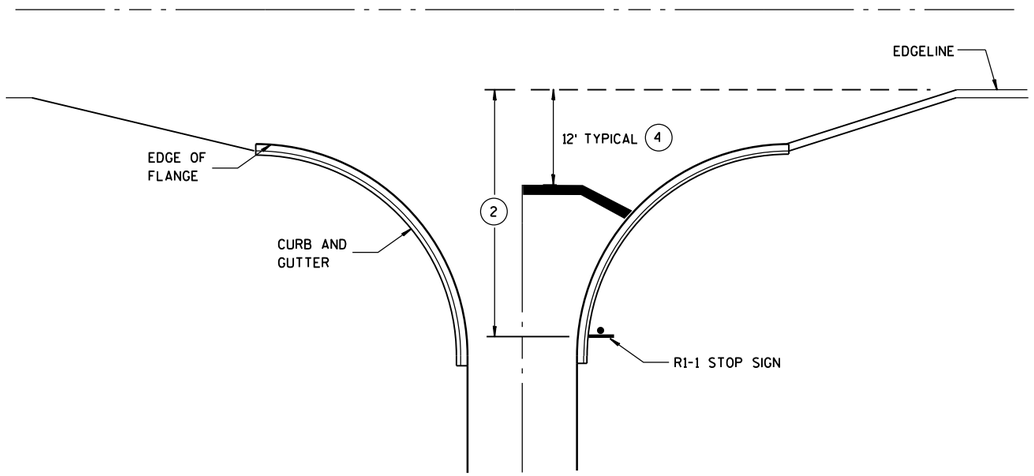
BICYCLE LANE MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 12-2016 DATE FHWA	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER

6

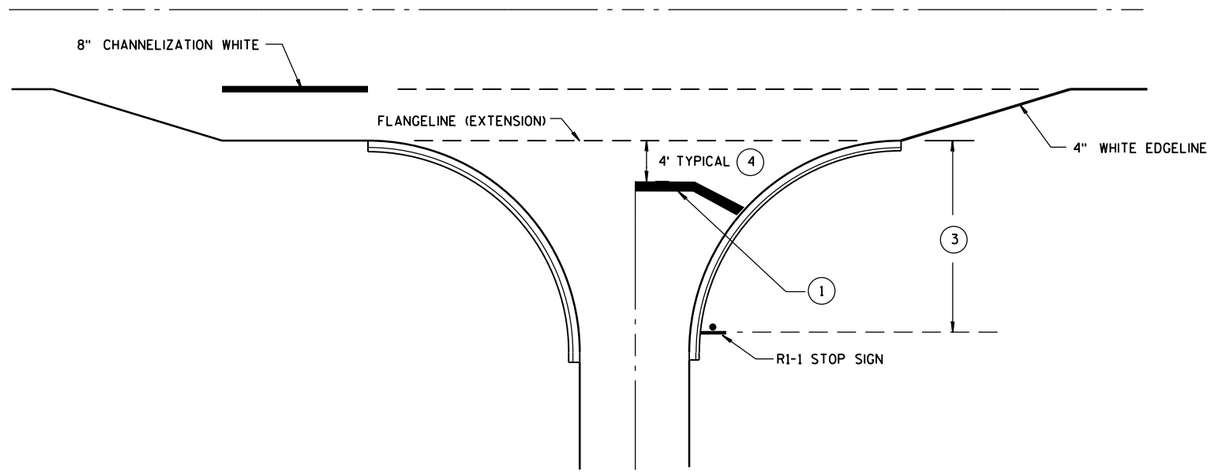
S.D.D. 15 C 29-5a

6

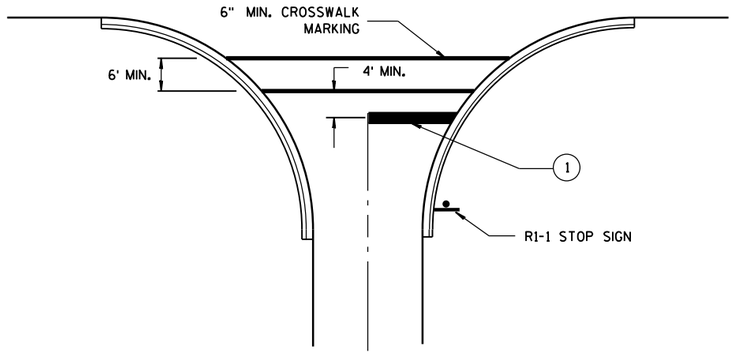
S.D.D. 15 C 29-5a



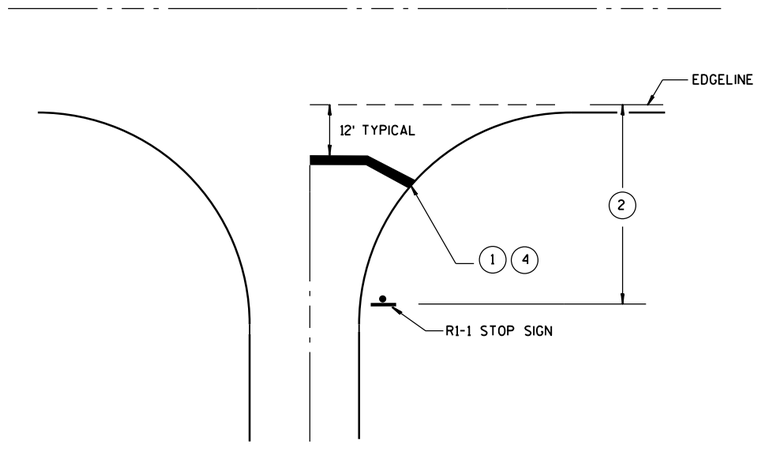
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

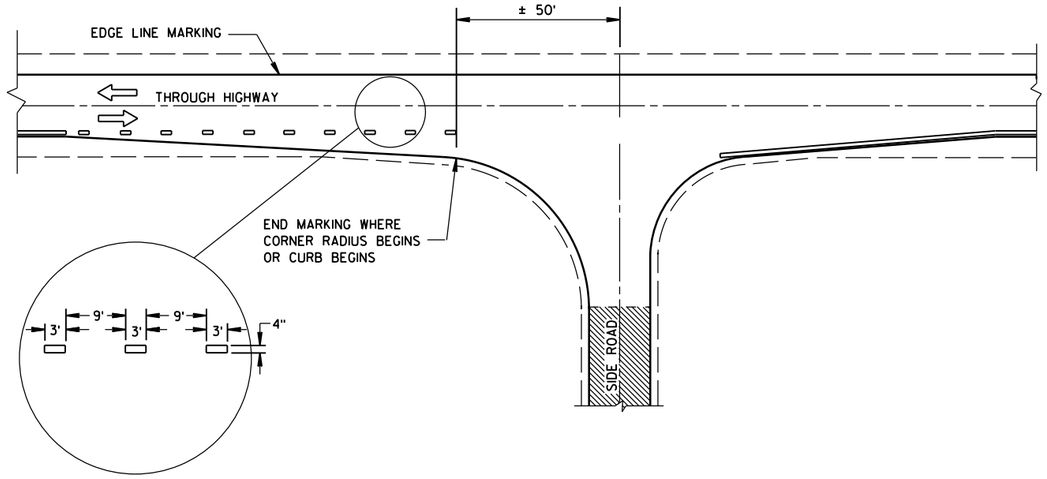
4-18-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR 297 NEER

FHWA

6

S.D.D. 15 C 33-2



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

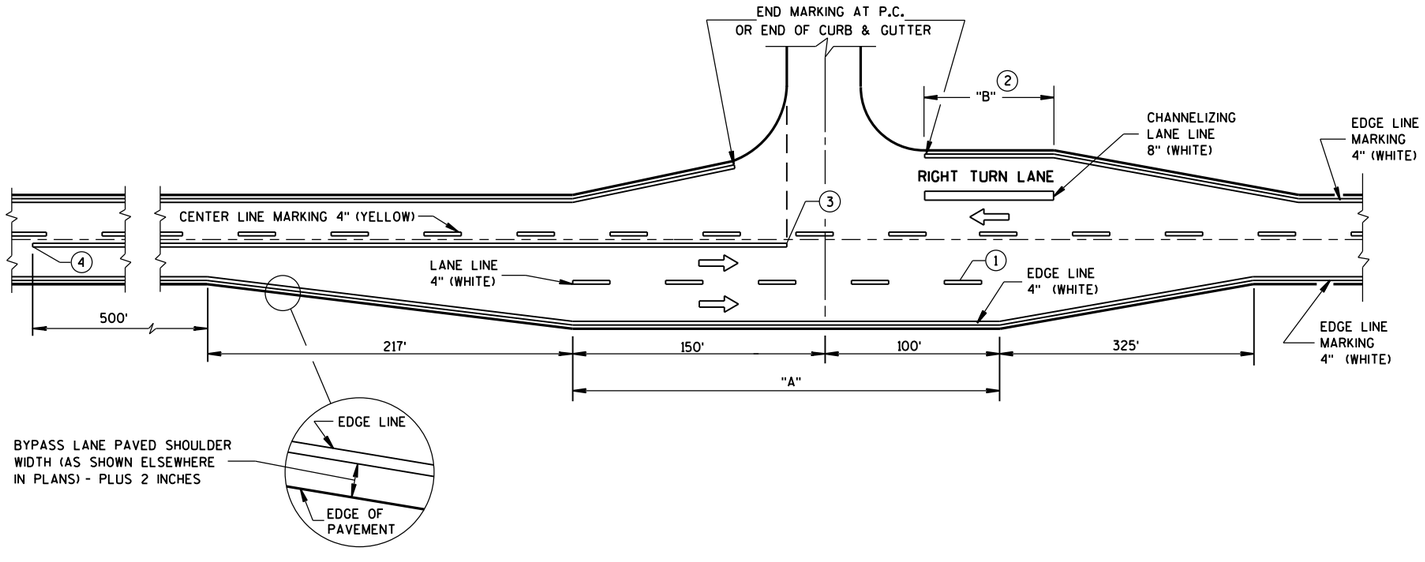
(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(4) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



MAJOR INTERSECTIONS

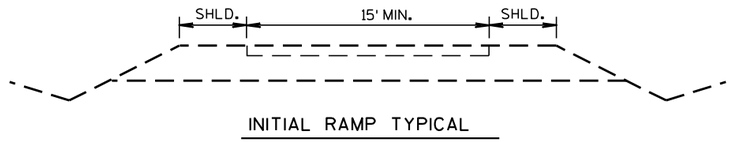
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)

PAVEMENT MARKING
(INTERSECTIONS)

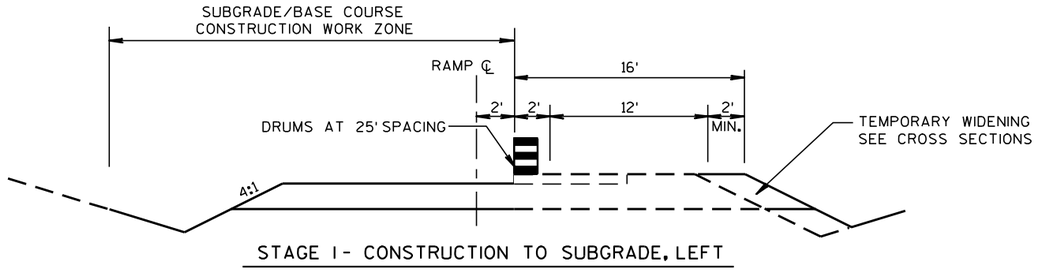
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

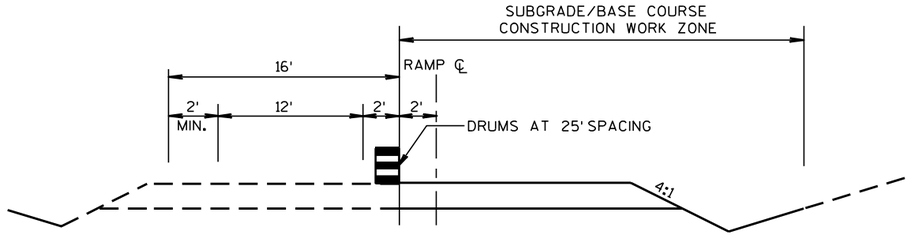
S.D.D. 15 C 35-1a



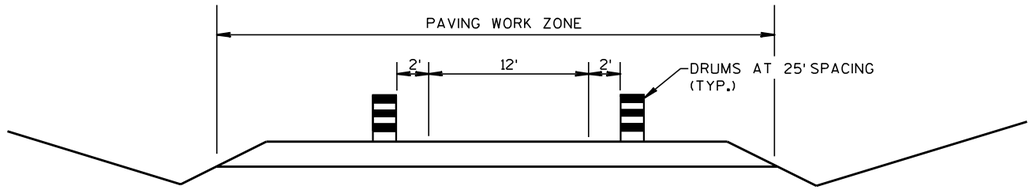
INITIAL RAMP TYPICAL



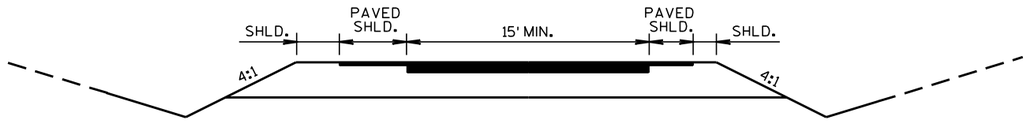
STAGE I - CONSTRUCTION TO SUBGRADE, LEFT



STAGE II - CONSTRUCTION TO SUBGRADE, RIGHT



STAGE III - TRAFFIC ON BASE COURSE



STAGE IV - PAVING

GENERAL NOTES :

WORK SHALL BE SCHEDULED FOR ALL STAGES TO MINIMIZE INCONVENIENCE TO THE TRAFFIC USING THE RAMP WHILE IT IS ONLY BASE COURSE.

IN STAGE III, A MINIMUM 12' LANE WIDTH SHALL BE DELINEATED WITH DRUMS ALONG BOTH EDGES AT ALL TIMES UNTIL PAVED AND PAVEMENT MARKINGS ARE PLACED.

TRAFFIC CONTROL, RAMP CONSTRUCTION STAGING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

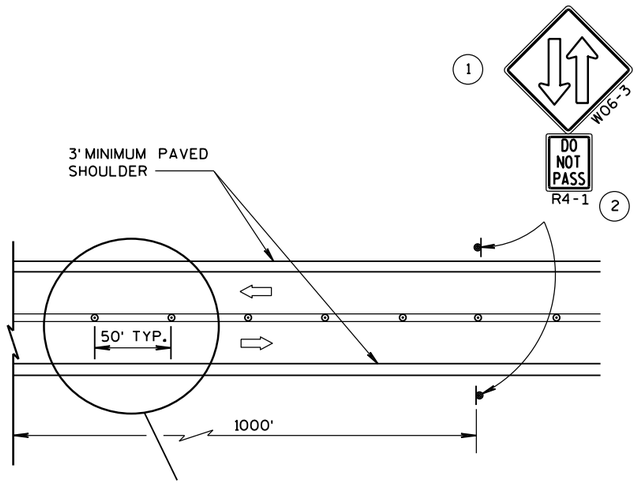
7-14-94
DATE

/S/ Chester J. [illegible]
DIRECTOR, OFFICE [illegible]

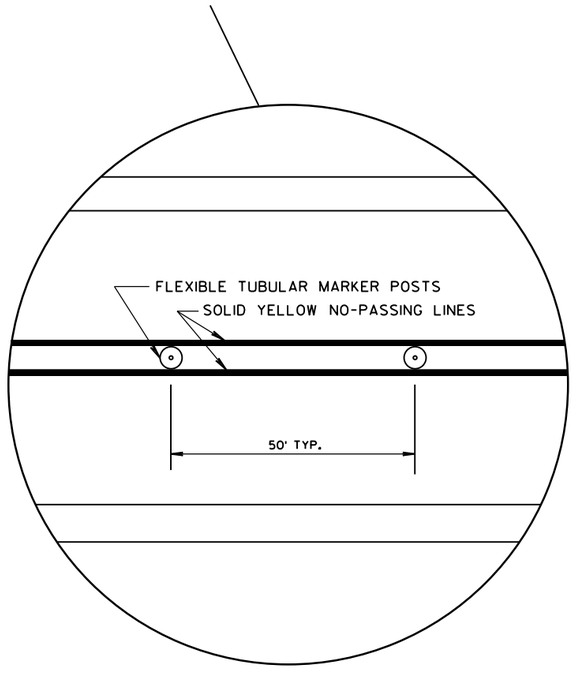
FHWA

6

S.D.D. 15 D 4-1



TWO LANE, TWO WAY OPERATION



LEGEND

- SIGN ON PERMANENT SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- DIRECTION OF TRAFFIC

GENERAL NOTES

ALL SIGNS ARE 48"x48" UNLESS OTHERS NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC AT 50-FOOT SPACING.

COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW.

THE W06-3 WITH THE W057-51 SHALL BE LOCATED 200 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND/OR 500 FEET BEYOND ANY SIDEROAD. THE W06-3 WITH THE R4-1 SHALL BE LOCATED 1000 FEET BEYOND THE W06-3 AND THE W057-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN W06-3 SIGNS.

(2) CONVENTIONAL: 24"x30"
FREEWAY AND EXPRESSWAY: 36"x48"

TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 DATE
/S/ Travis Feltes STATE TRAFFIC ENGINEER
SIGN
FHWA

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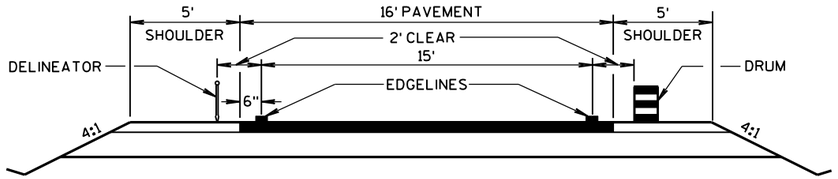
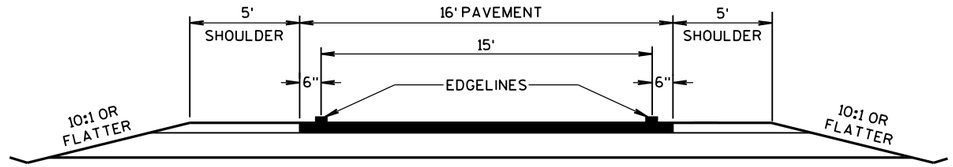


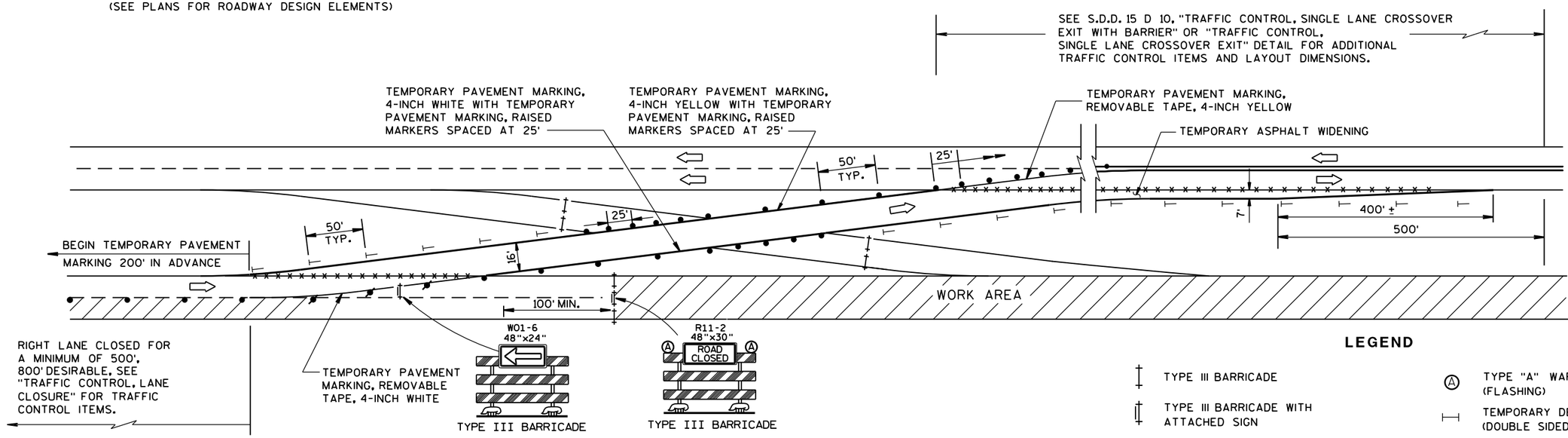
TYPICAL TEMPORARY CROSSOVER ROADWAY DIMENSIONS

(SEE PLANS FOR ROADWAY DESIGN ELEMENTS)



TYPICAL CROSSOVER TO REMAIN IN PLACE ROADWAY DIMENSIONS

(SEE PLANS FOR ROADWAY DESIGN ELEMENTS)



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TEMPORARY DELINEATOR (STEEL POST W/SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING
- TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY DELINEATOR (DOUBLE SIDED)
- REMOVING PAVEMENT MARKINGS
- DELINEATOR FLEXIBLE/ TUBULAR MARKER
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN PROPOSED SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER AND TEMPORARY PAVEMENT MARKING WHERE USED.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

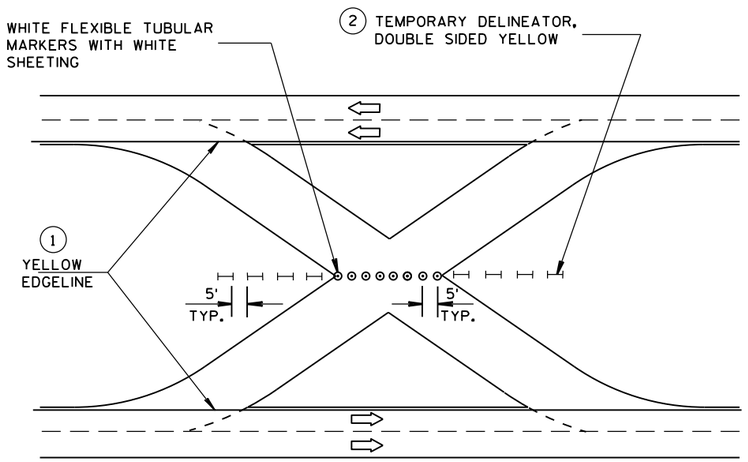
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

REVERSE DEVICES WHEN OTHER LEG OF CROSSOVER IS IN USE.

① FOR PERMANENT CROSSOVER, PAVEMENT MARKING SHOULD CONFORM TO SECTION 646 OF THE STANDARD SPECIFICATIONS.

② FOR PERMANENT CROSSOVER, INSTALL PERMANENT DELINEATORS ACCORDING TO SECTION 633 OF THE STANDARD SPECIFICATIONS.



TRAFFIC CONTROL FOR CROSSOVER THAT IS NOT IN USE

TRAFFIC CONTROL, SINGLE LANE CROSSOVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-16-2015 DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON SAFETY ENGIN IC
FHWA

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S.D.D. 15 D 11-6

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

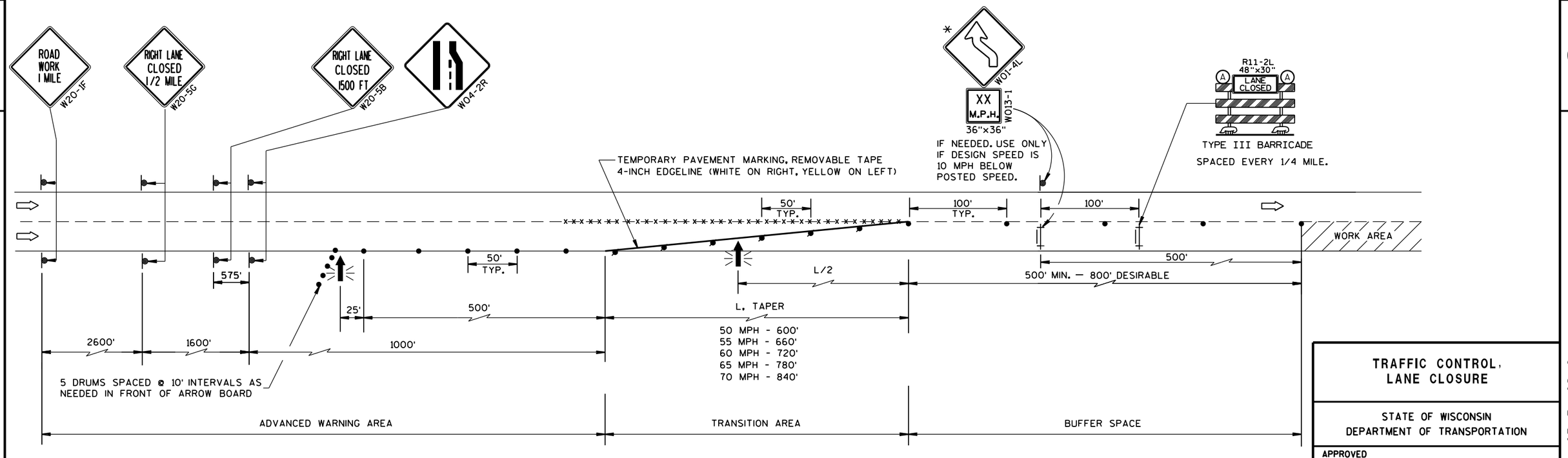
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



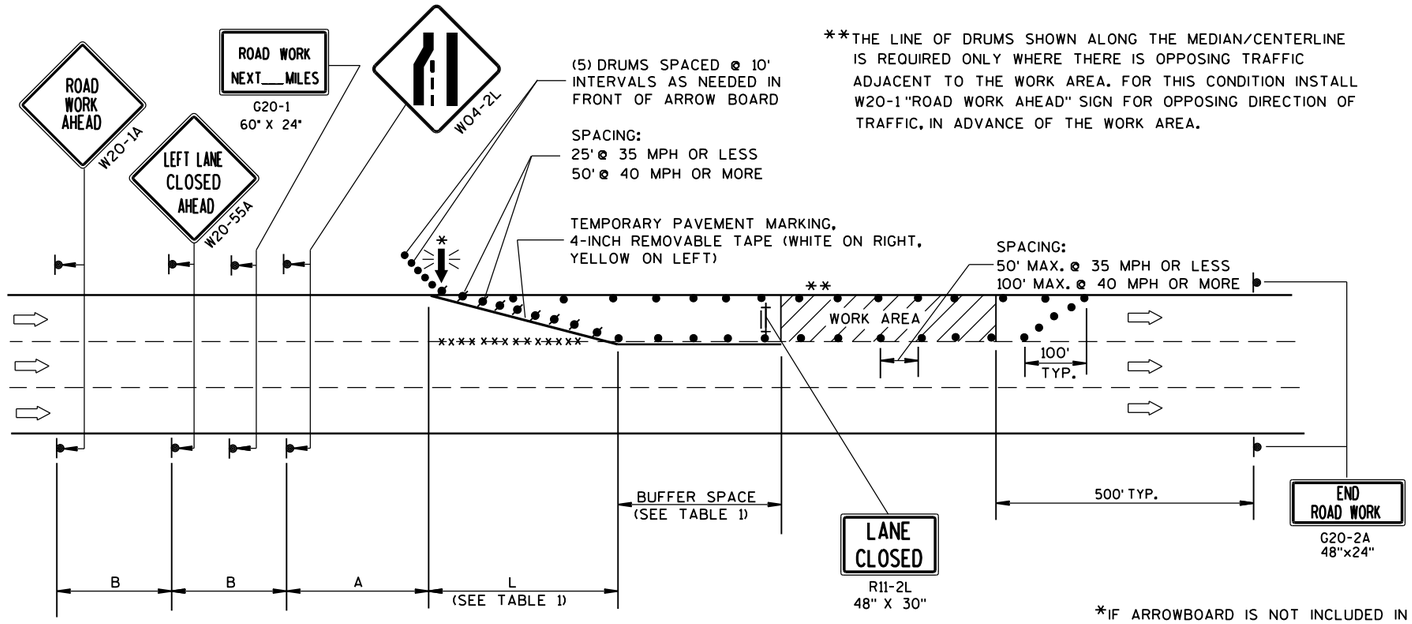
TRAFFIC CONTROL, LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

S.D.D. 15 D 12-6a

S.D.D. 15 D 12-6a



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

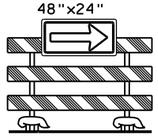


TABLE 1
TAPER AND BUFFER SPACE
FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER

6

S.D.D. 15 D 20-4

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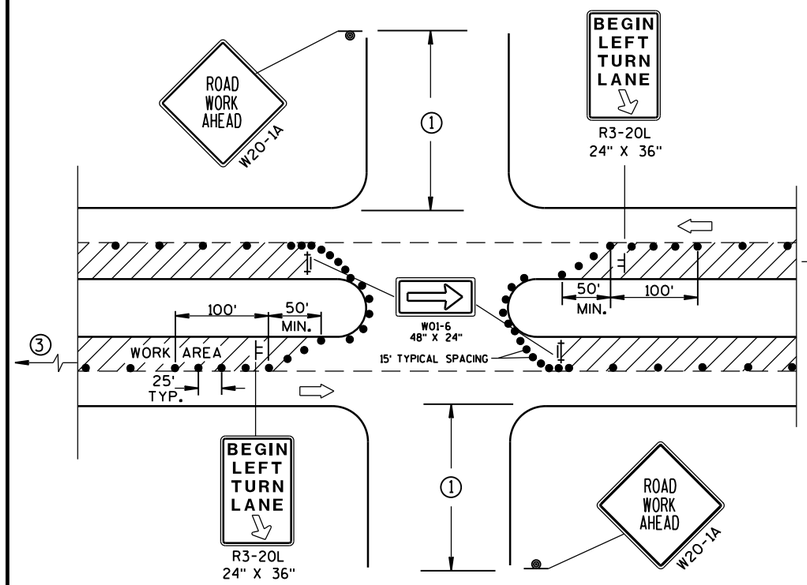
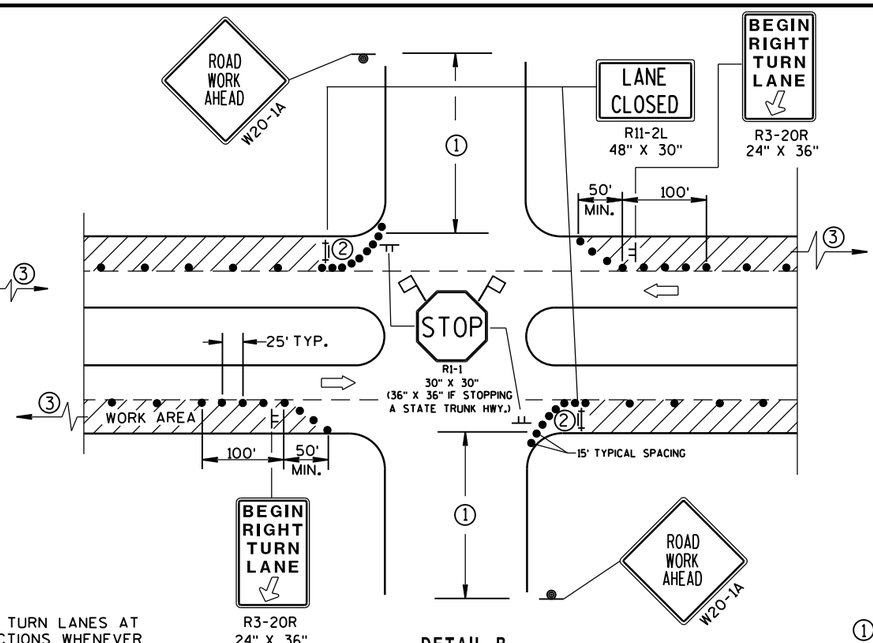
S.D.D. 15 D 20-4



DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

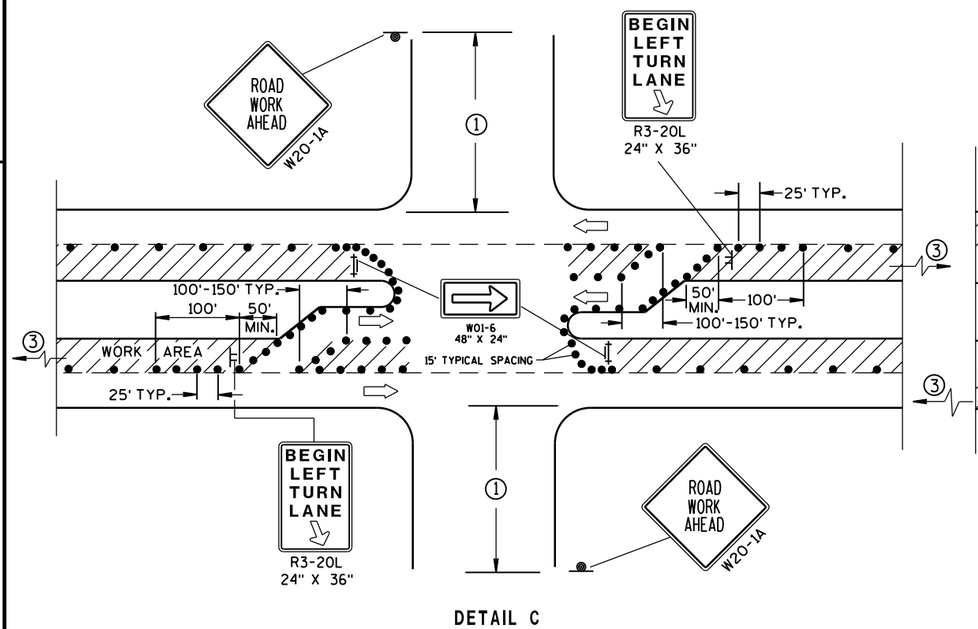
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

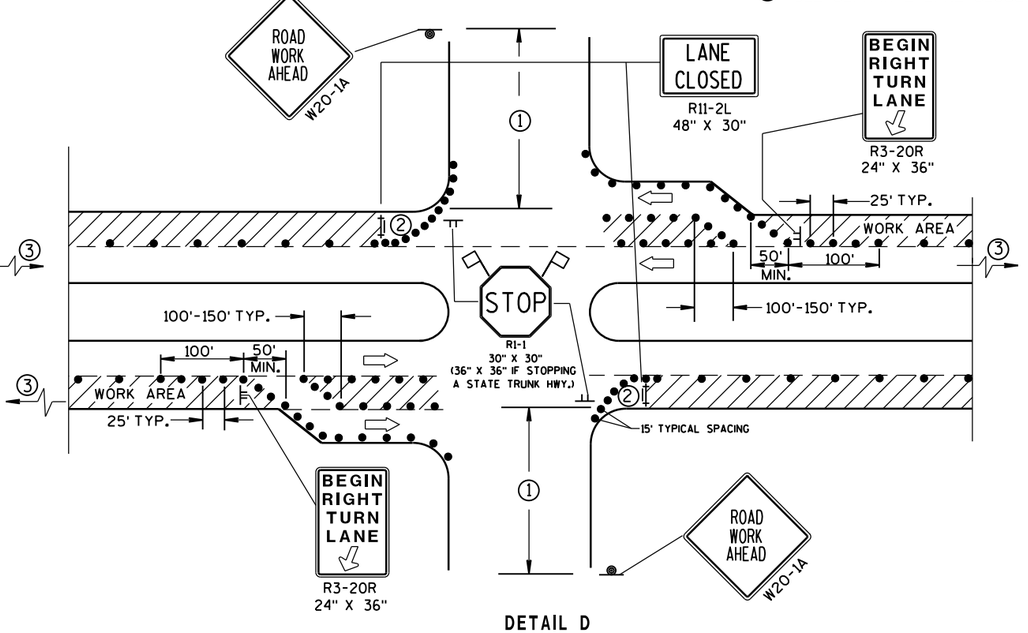
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Peter Anakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

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S.D.D. 15 D 21-4

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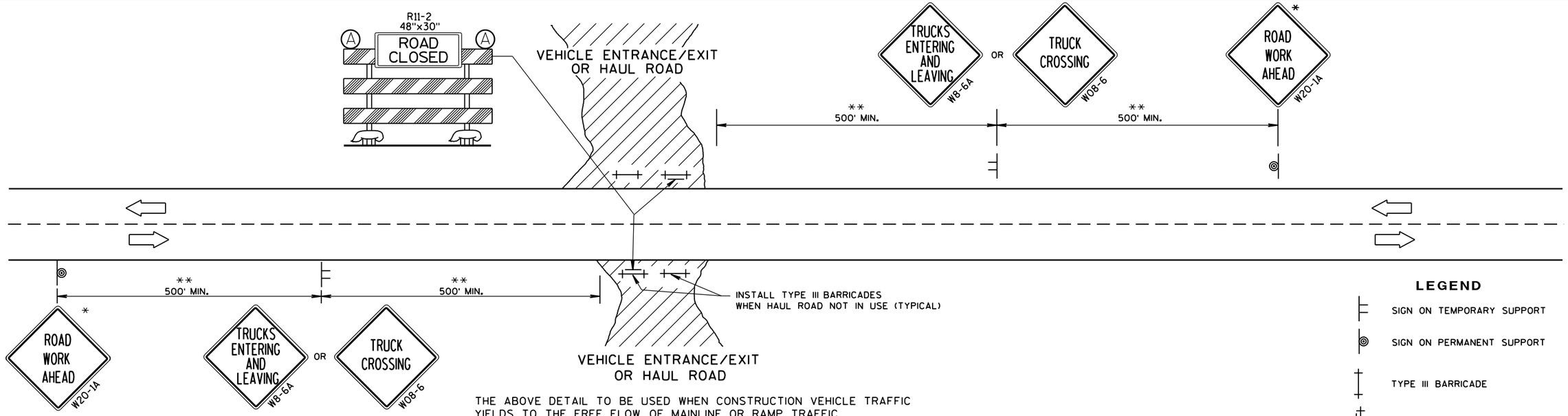
S.D.D. 15 D 21-4



THE ABOVE DETAIL TO BE USED WHEN CONSTRUCTION VEHICLE TRAFFIC YIELDS TO THE FREE FLOW OF MAINLINE OR RAMP TRAFFIC

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS, DEVICES AND FLAGGERS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

WHEN ACTIVITY REFLECTED BY THE SIGN IS NOT CURRENTLY TAKING PLACE, THE HIGHWAY SHALL BE RESTORED TO NORMAL CONDITION AND THE SIGNS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC.

WHEN A SIDE ROAD OR RAMP INTERSECTS WITHIN THE ADVANCE SIGNING AREA, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

* THESE SIGNS ARE TO BE USED ONLY WHEN VEHICLE **ENTRANCE/EXIT CONDITIONS ARE SEPARATED BY MORE THAN 2 MILES** FROM PREVIOUS WORK AREA OR SIGNING OR AS DIRECTED BY THE ENGINEER.

** 500 FEET SHOWN IS FOR ROADWAYS WITH A NON-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FEET. FOR 25-30 MPH, USE 200 FEET. USE 1000 FEET/1500 FEET FOR EXPRESSWAY/FREEWAY.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

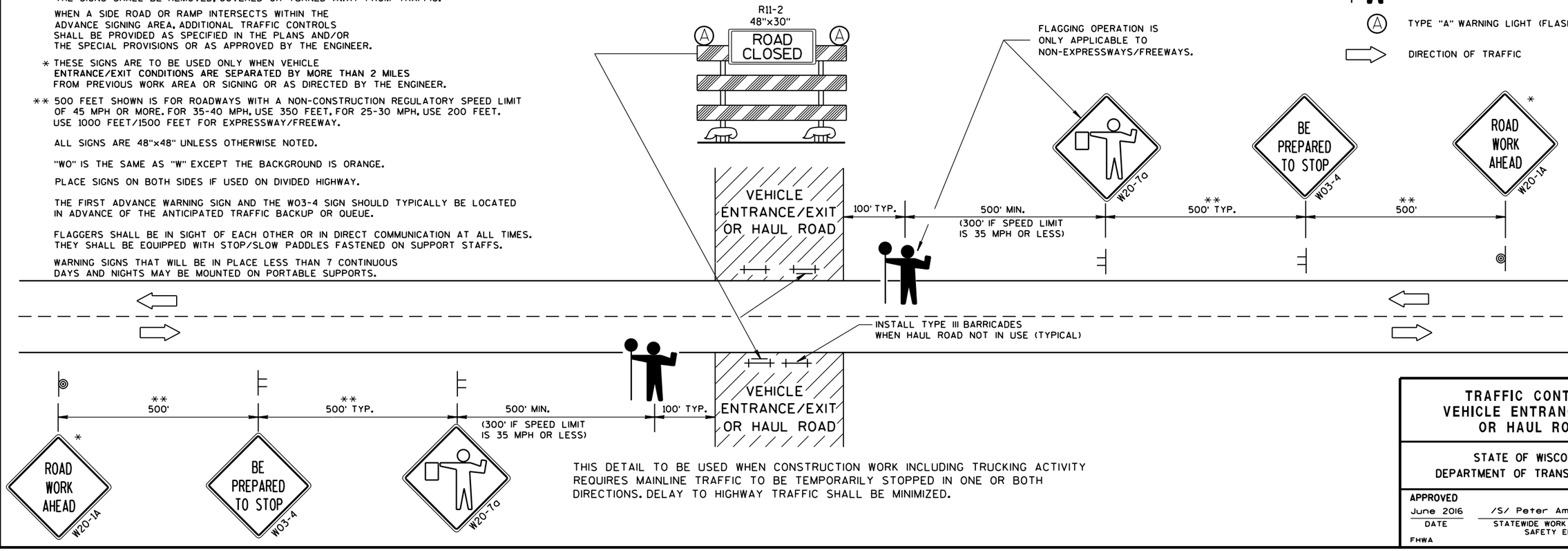
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

PLACE SIGNS ON BOTH SIDES IF USED ON DIVIDED HIGHWAY.

THE FIRST ADVANCE WARNING SIGN AND THE W03-4 SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS.

WARNING SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.



THIS DETAIL TO BE USED WHEN CONSTRUCTION WORK INCLUDING TRUCKING ACTIVITY REQUIRES MAINLINE TRAFFIC TO BE TEMPORARILY STOPPED IN ONE OR BOTH DIRECTIONS. DELAY TO HIGHWAY TRAFFIC SHALL BE MINIMIZED.

TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

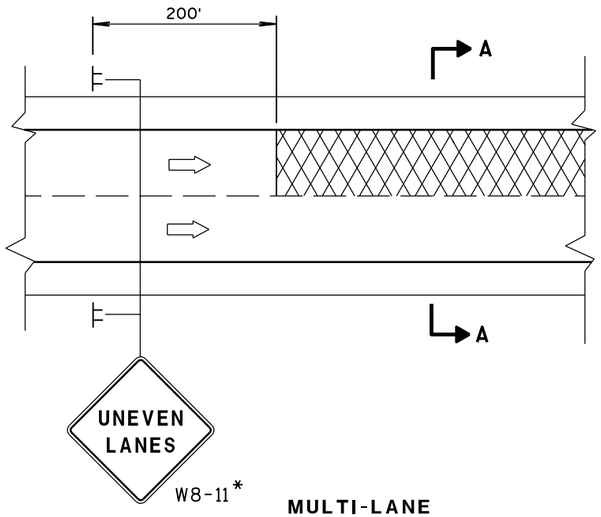
APPROVED

June 2016	/S/ Peter Amakobe Atepe
DATE	STATEWIDE WORK ZONE SAFETY ENGINEER

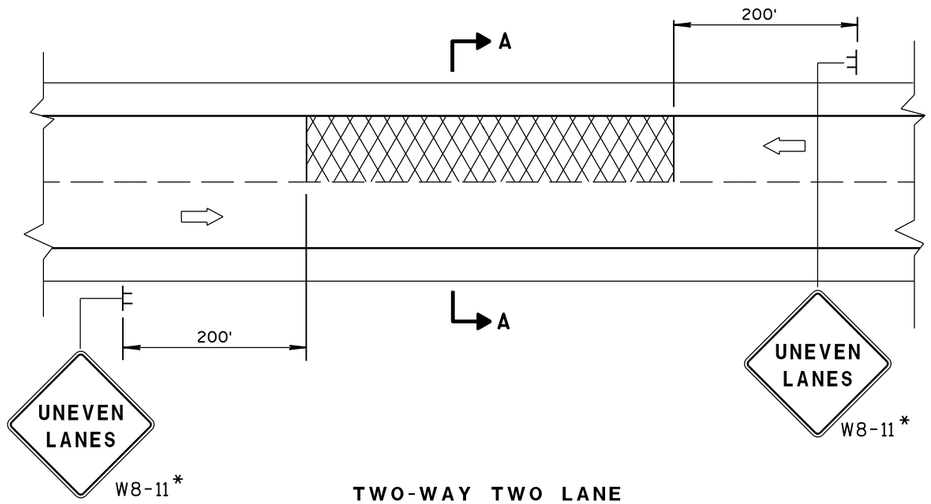
FHWA

6

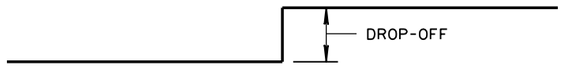
S.D.D. 15 D 29-4



MULTI-LANE

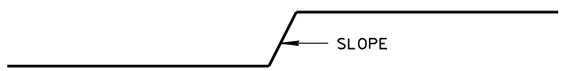


TWO-WAY TWO LANE

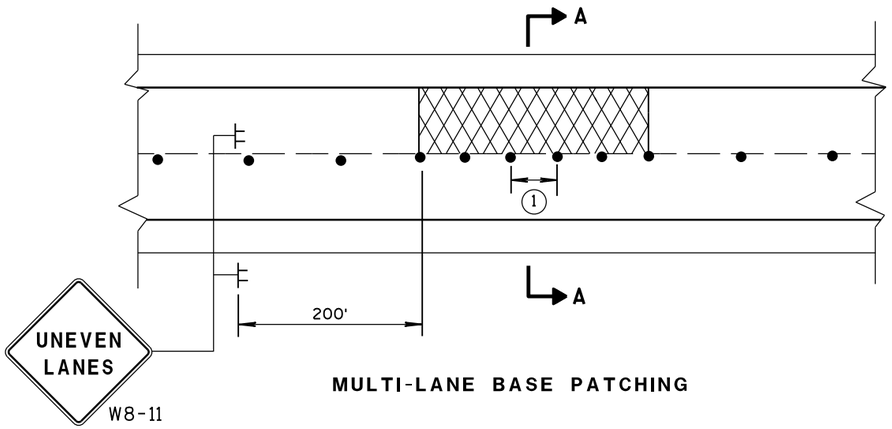


SECTION A-A

OR



SECTION A-A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

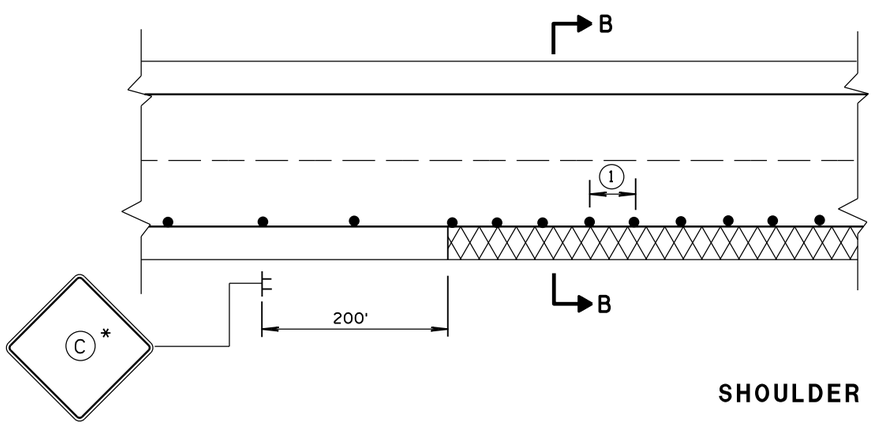
* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1/2 MILE.

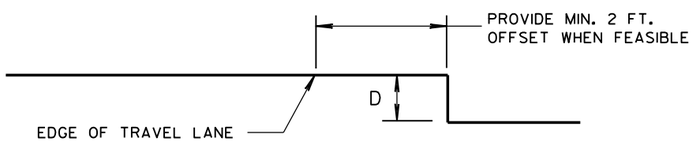
(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER W08-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP-OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT





SECTION B-B

SHOULDER DROP-OFFS

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

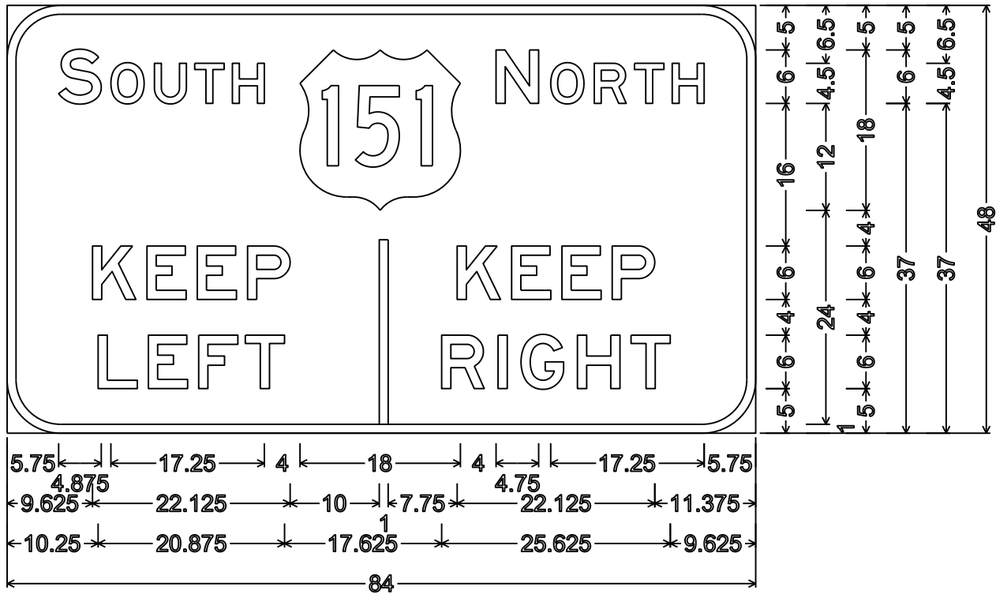
APPROVED
March, 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGI
FHWA

6

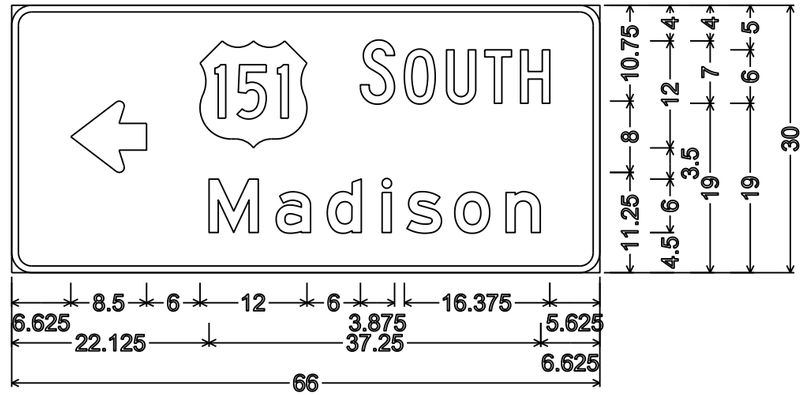
S.D.D. 15 D 39-1

NOTES

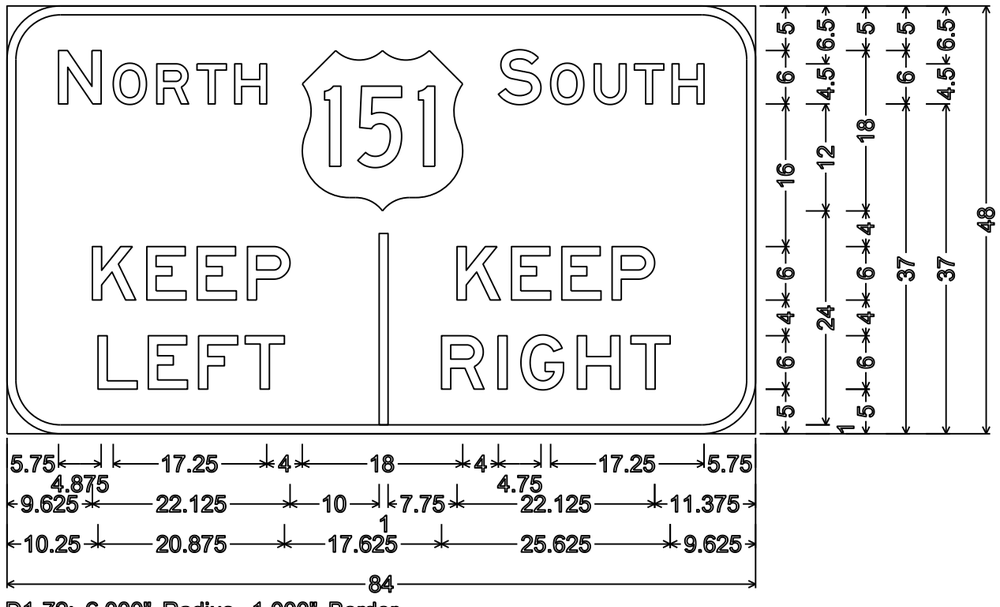
1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted



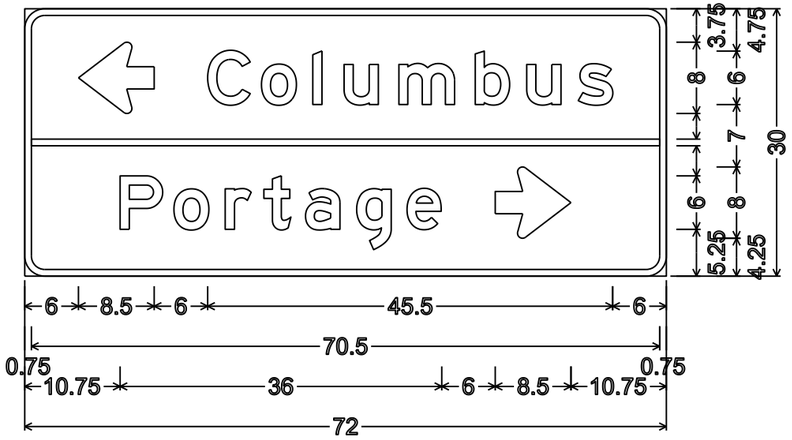
D1-72; 6.000" Radius, 1.000" Border



D1-70;
2.250" Radius, 0.750" Border,
"SOUTH" C



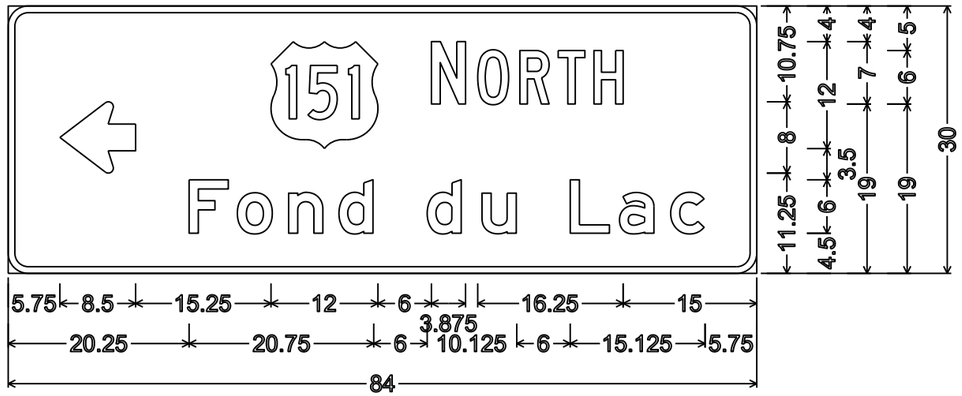
D1-72; 6.000" Radius, 1.000" Border



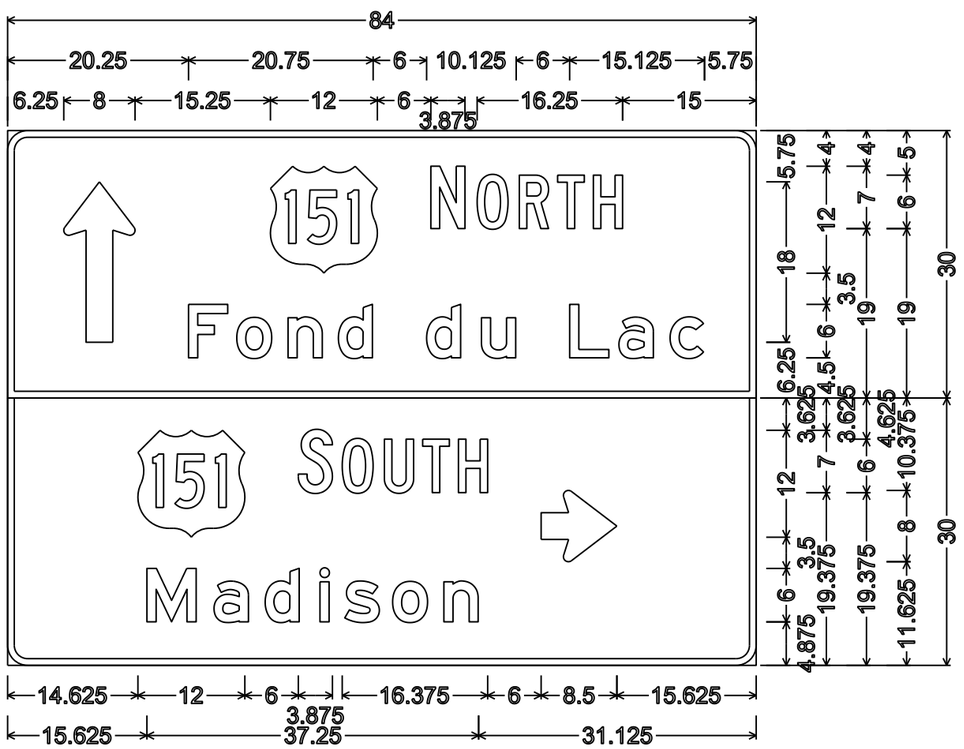
D1-2; 2.250" Radius, 0.750" Border

NOTES

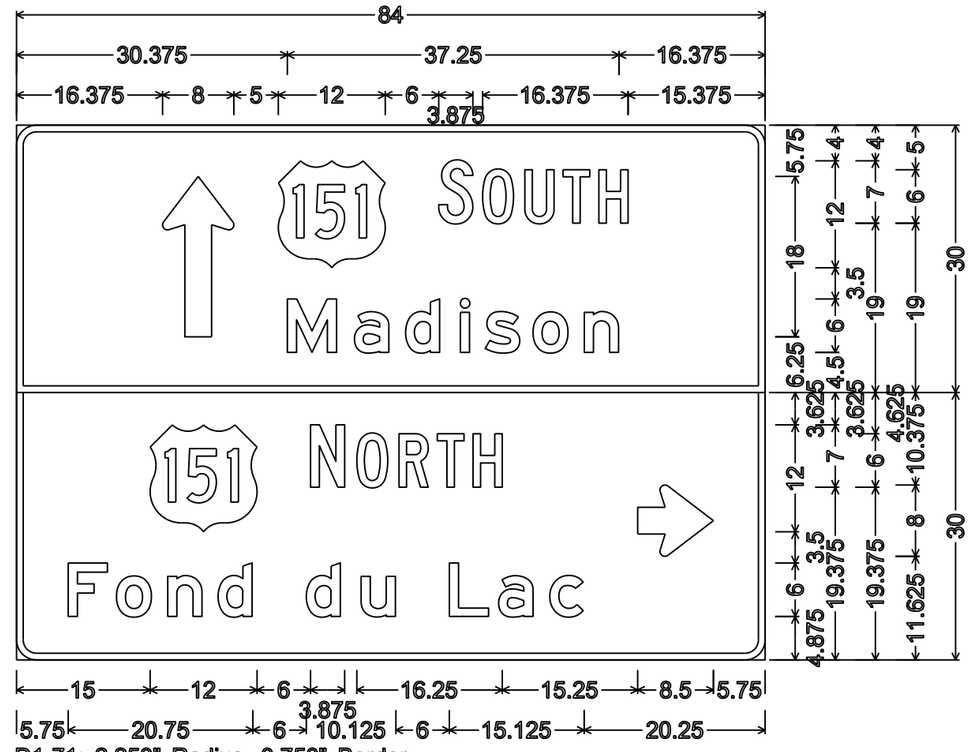
1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted



D1-70; 2.250" Radius, 0.750" Border,
"NORTH" C



D1-71; 2.250" Radius, 0.750" Border,
"NORTH" C; "SOUTH" C



D1-71; 2.250" Radius, 0.750" Border,
"SOUTH" C; "NORTH" C

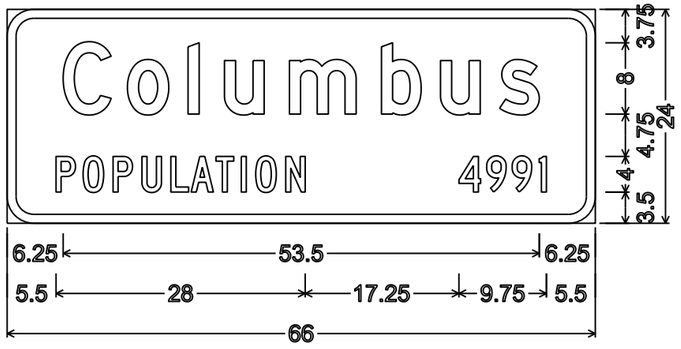
7

7

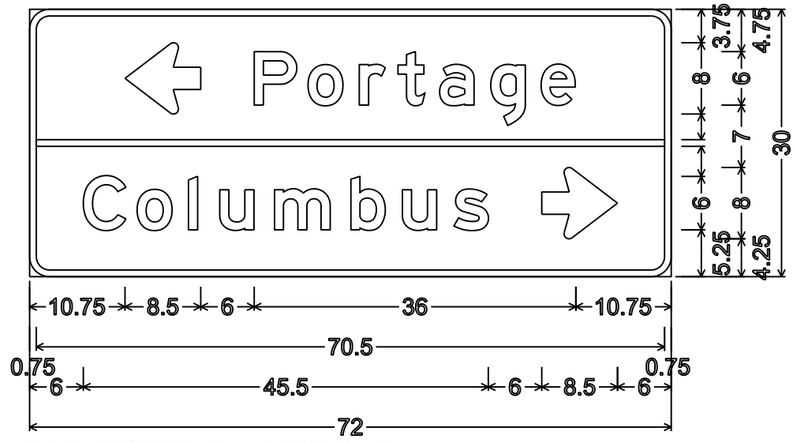
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	PERMANENT SIGNING	SHEET NO: 308	E

NOTES

1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted



I2-3; 3.000" Radius, 1.000" Border,
"Columbus" D; "POPULATION" C; "4991" C



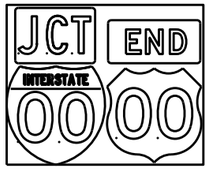
D1-2; 2.250" Radius, 0.750" Border

7

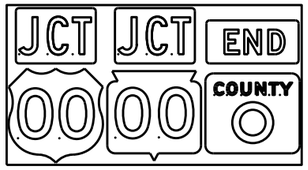
7

TYPICAL ASSEMBLIES

J1-1

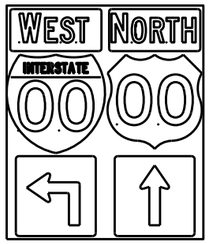


J1-2

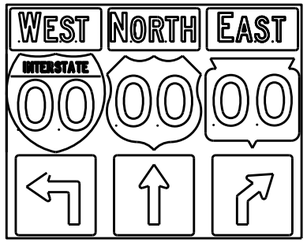


J1-3

J2-1



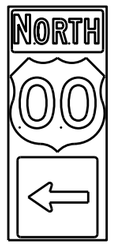
J2-2



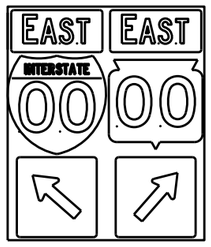
J2-3

JV

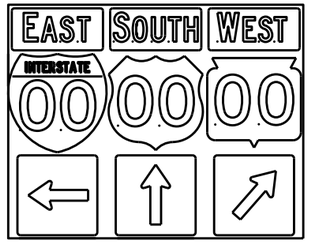
(Typical Vertical J-Assembly
See Note 10 and 11)



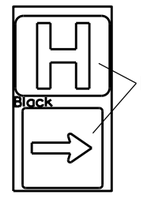
J3-1



J3-2



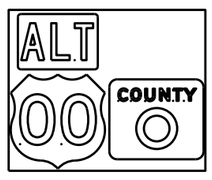
J3-3



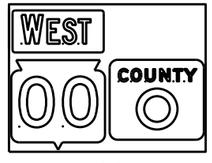
Blue Background

JH-1

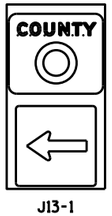
J4-1



J4-2



J4-2



J13-1

J12-1

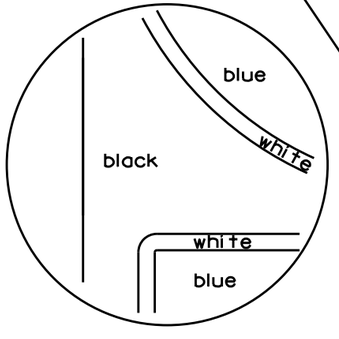
J32-1

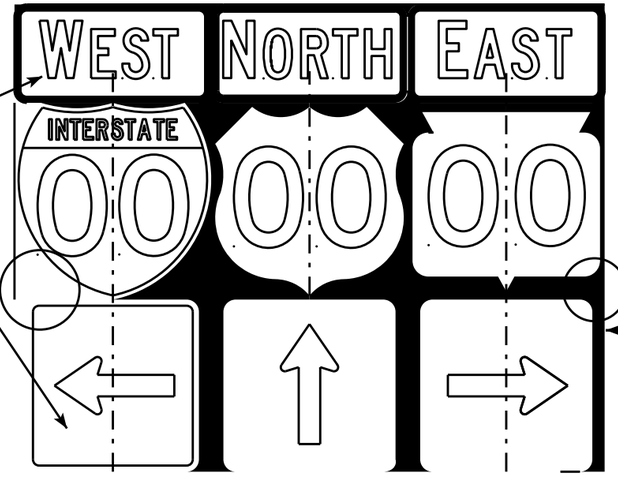
J33-1

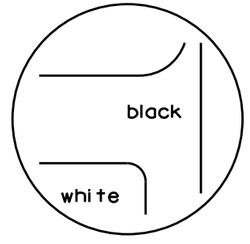
J23-1

J22-1

[blue background with interstate]







[black background]

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

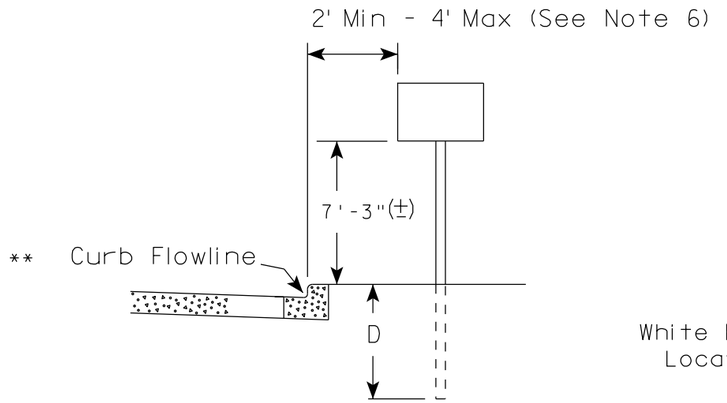
DATE 2/06/14 PL... A2-1S.8

PROJECT NO: | SHEET NO: E

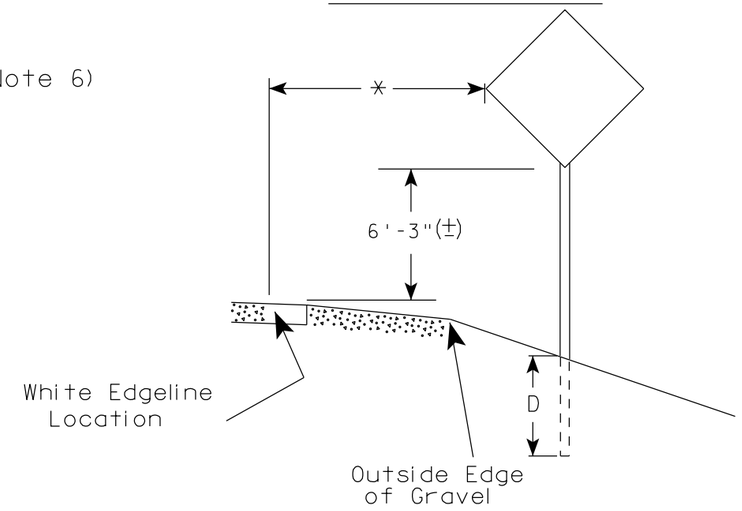
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

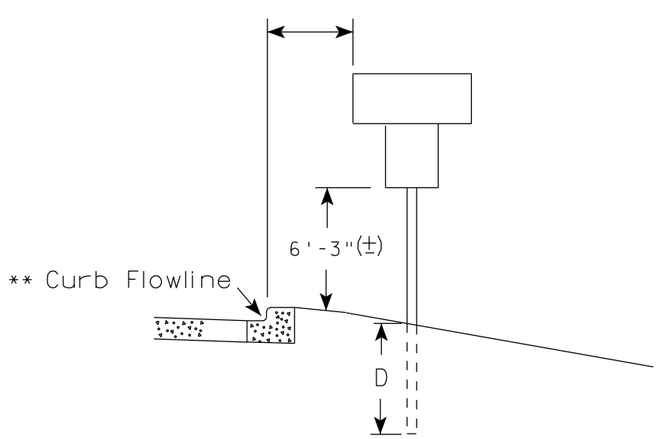
WISDOT/CADDS SHEET 42

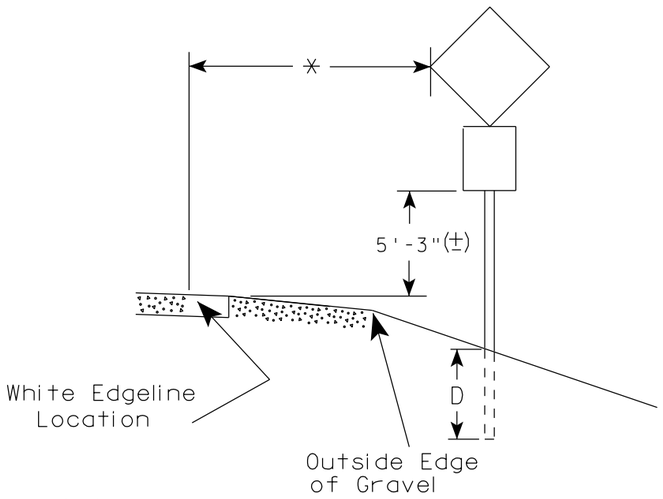
URBAN AREA



RURAL AREA (See Note 2)







GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

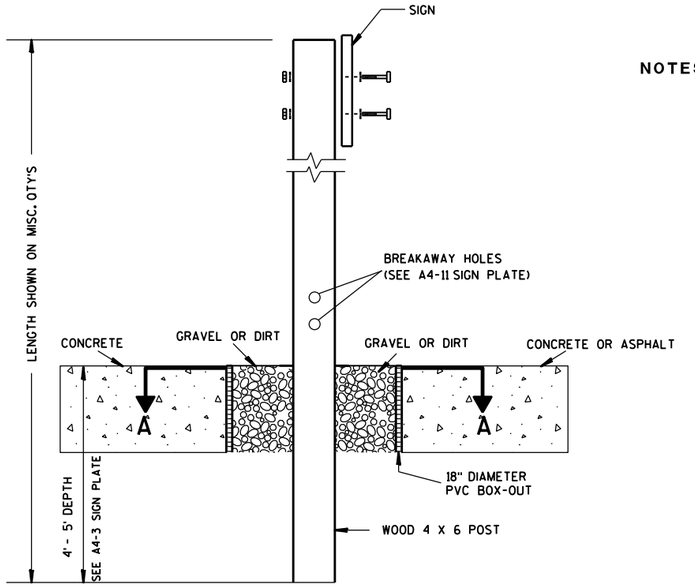
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

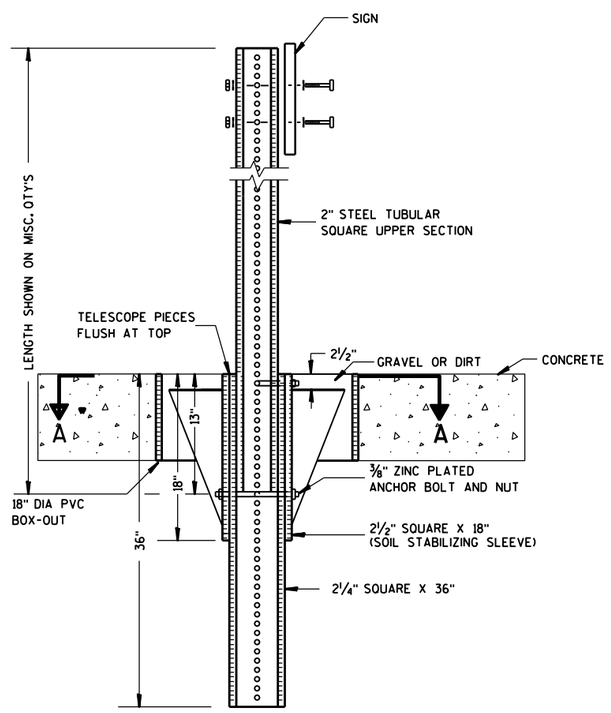
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

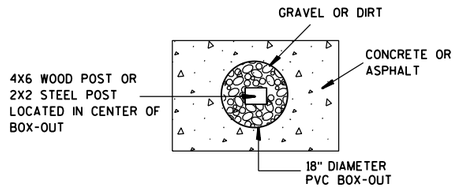
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

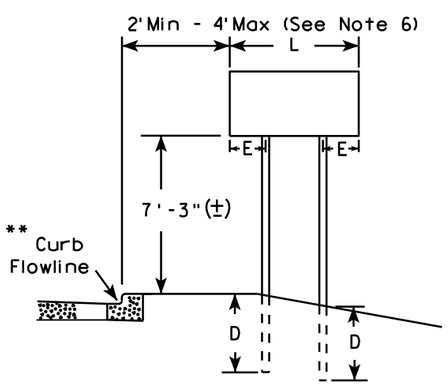
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

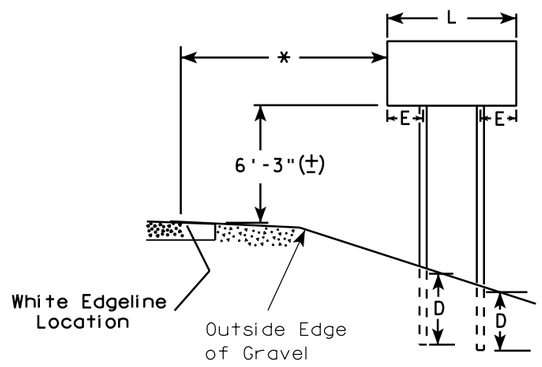
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

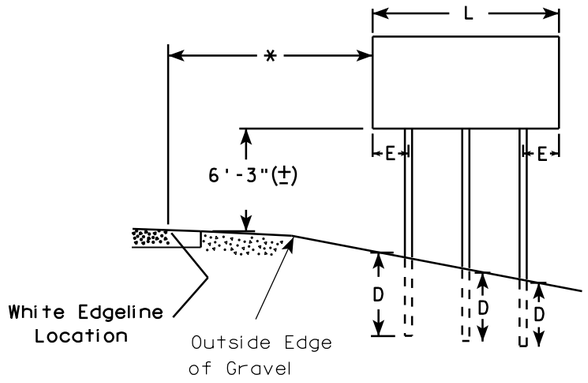
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

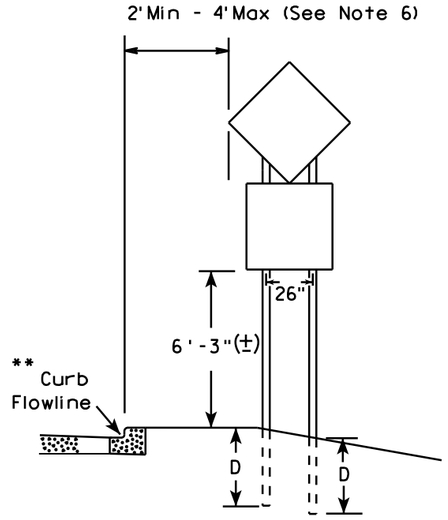
URBAN AREA



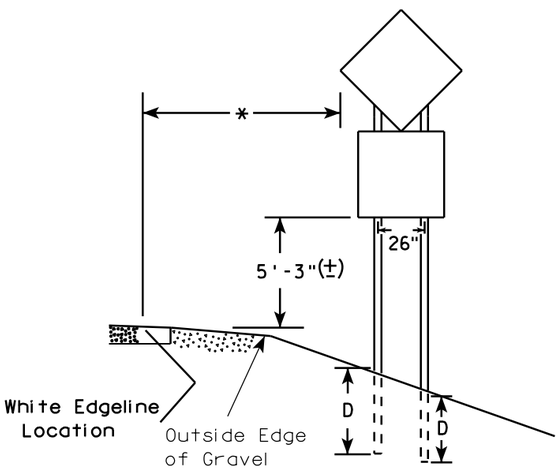
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

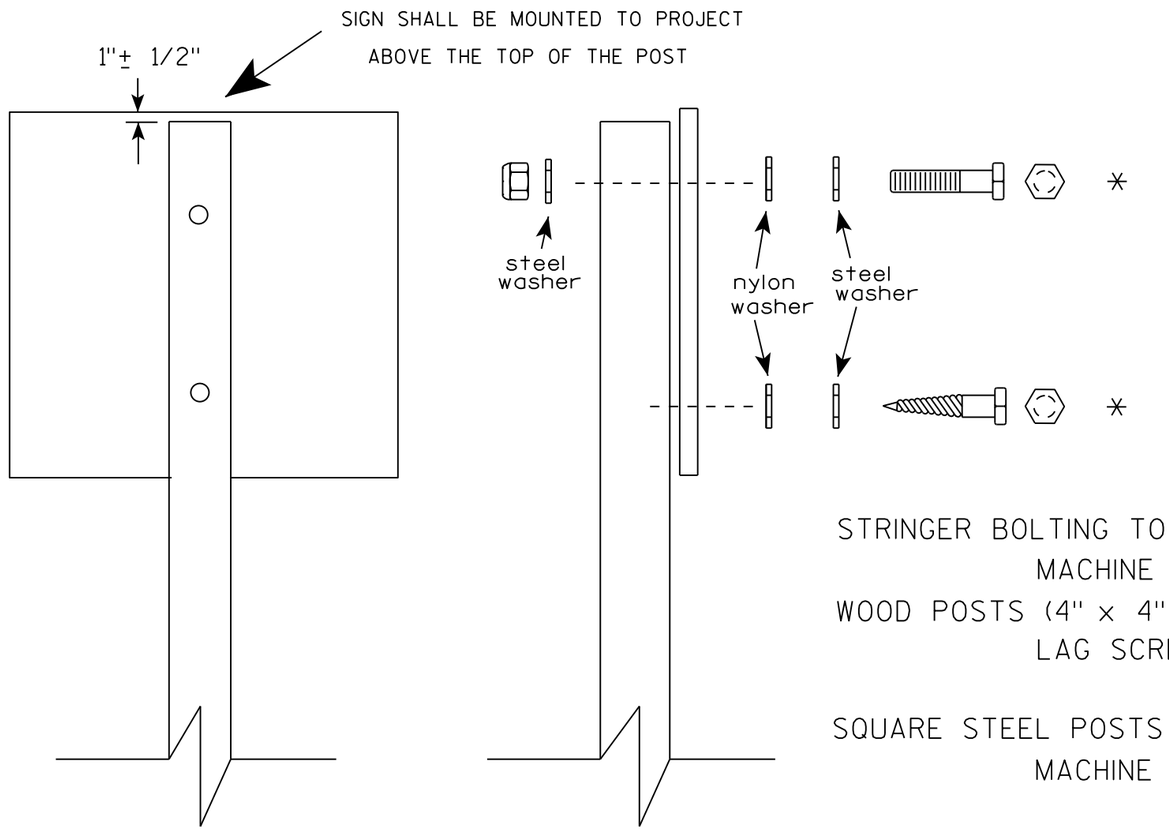
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 23-JUL-2015 15:23 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000 WISDOT/CADDS SHEET 42



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)
SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

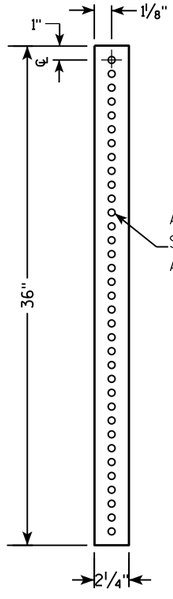
DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

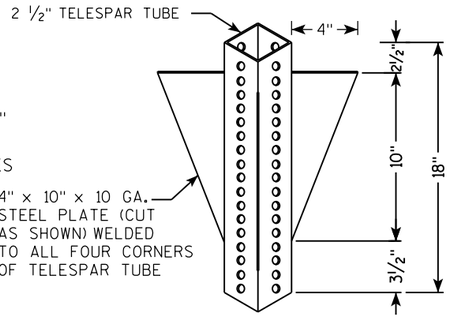
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

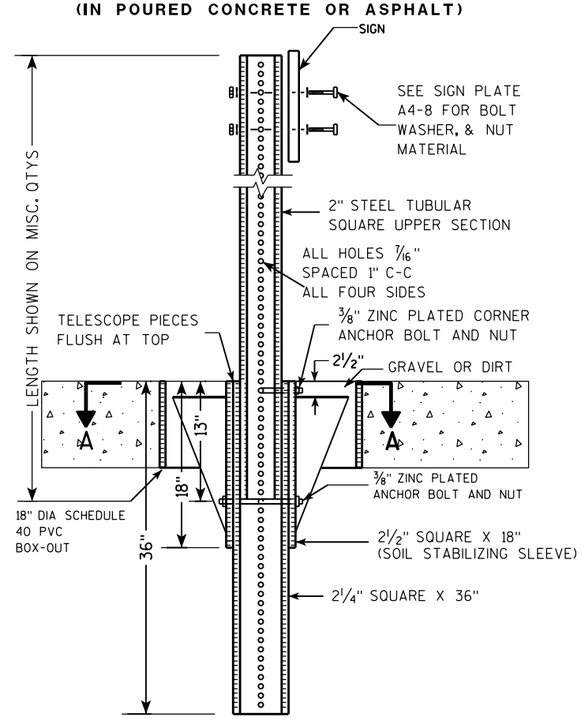
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



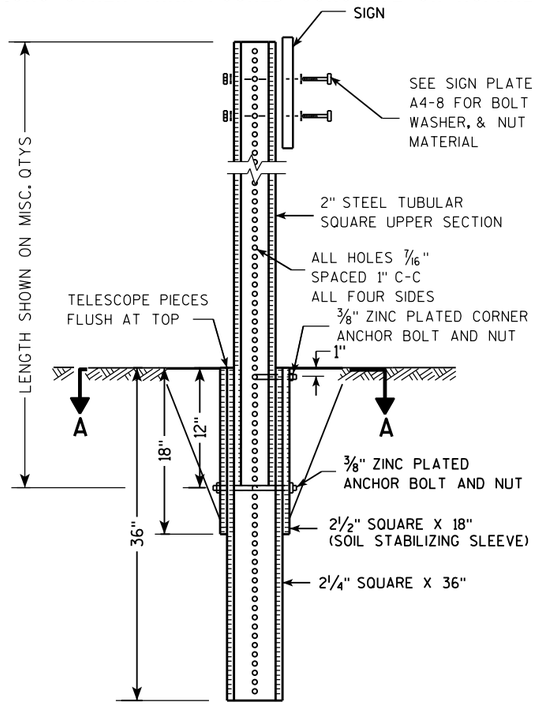
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

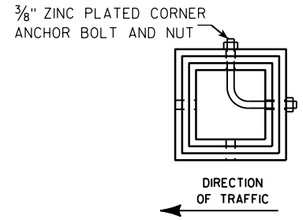


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

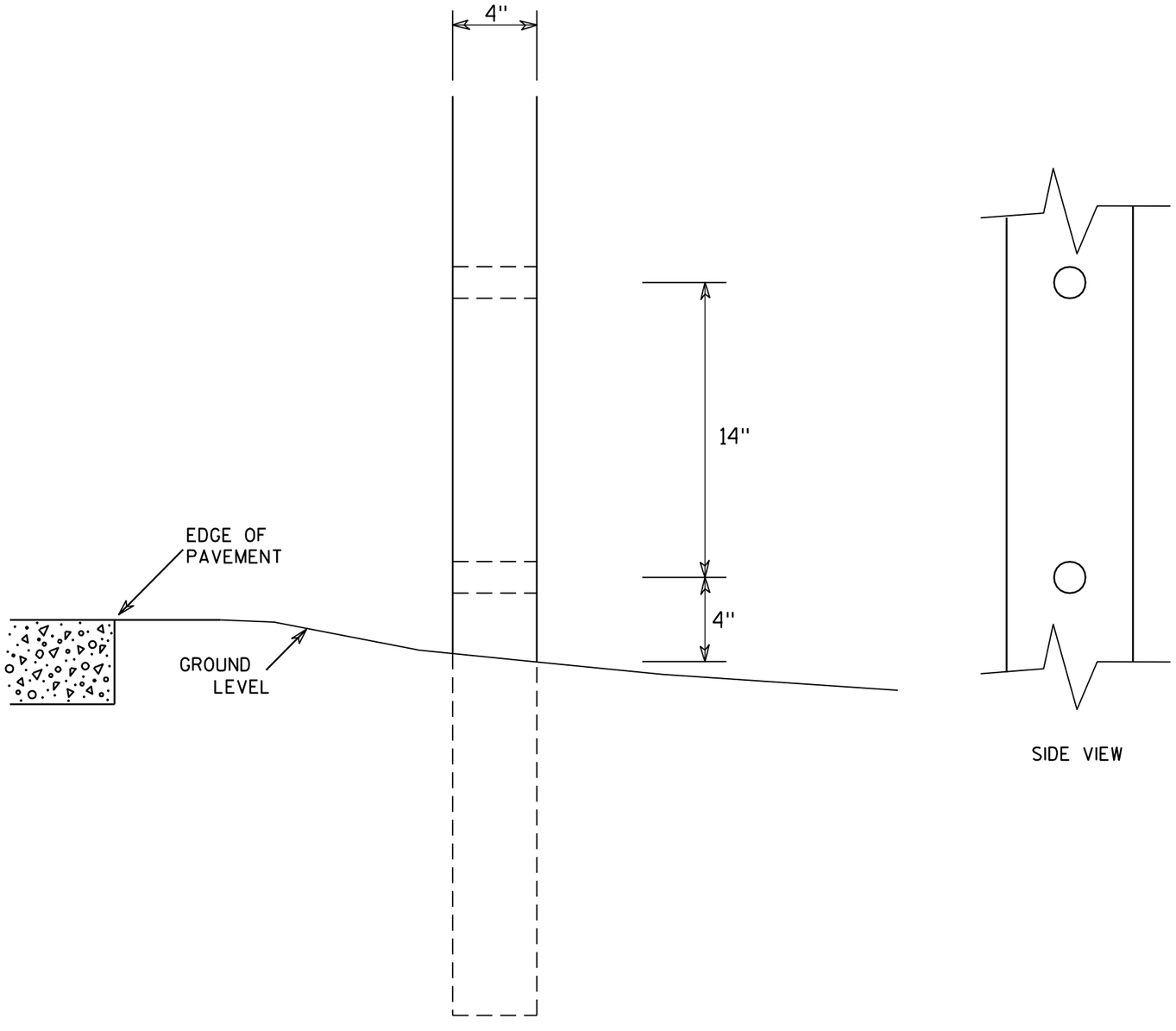
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 315 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

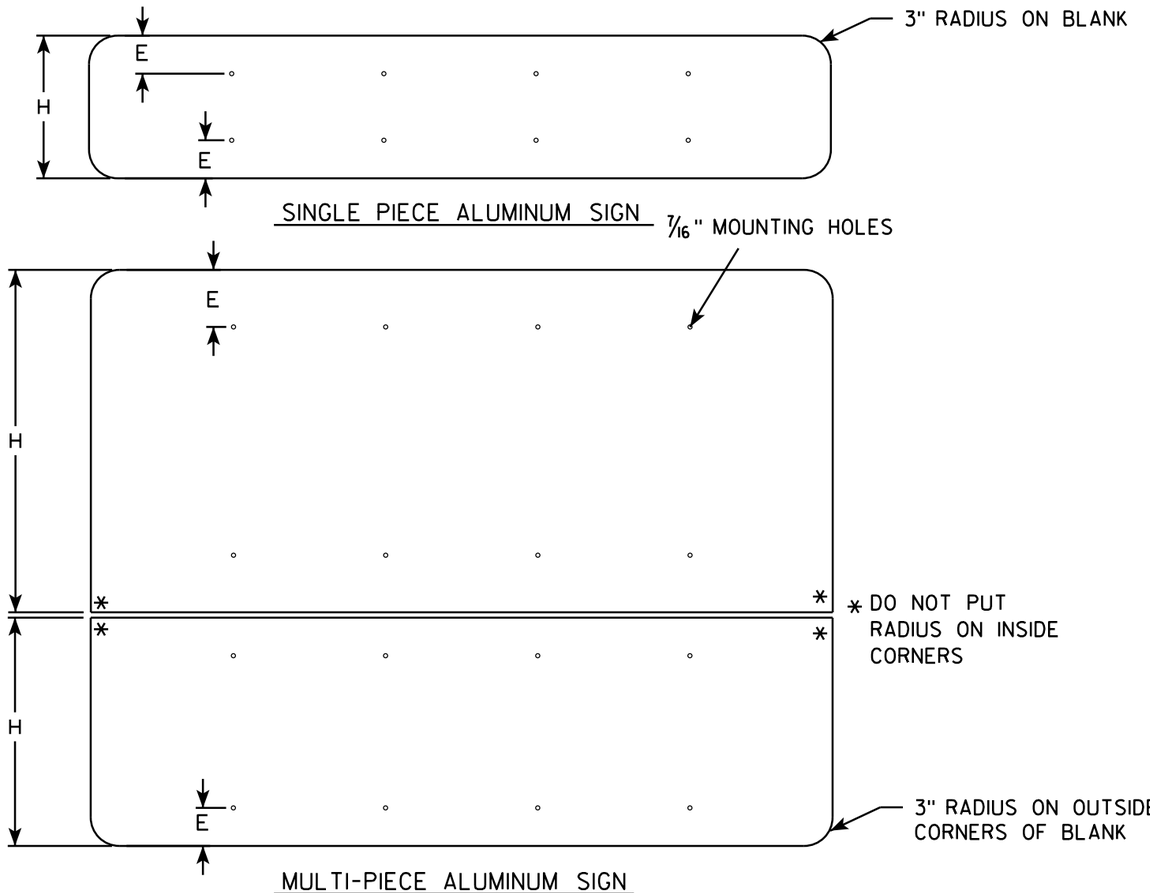
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

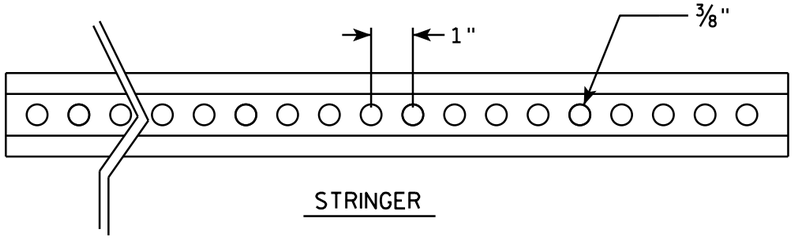
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 316	E

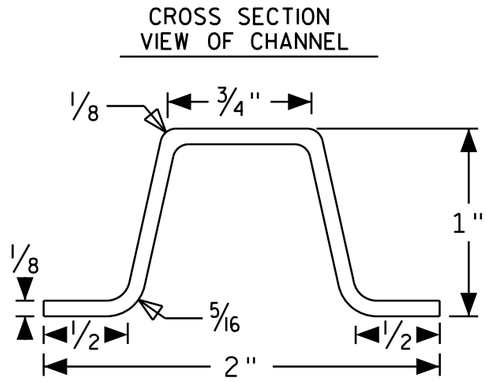


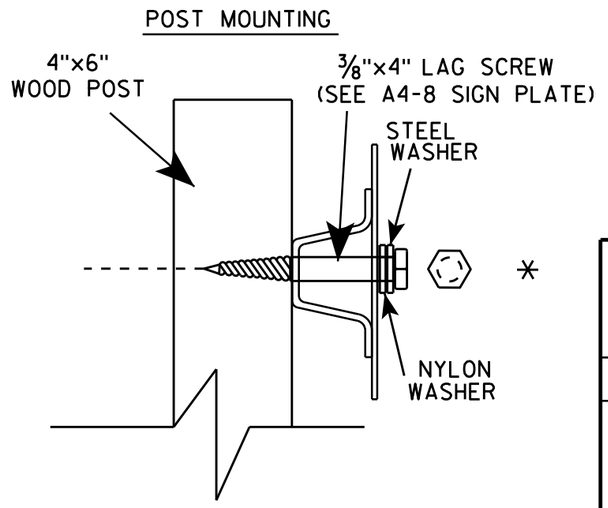
GENERAL NOTES

- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16½" 33½" 50½" 67½"
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19½" 38½" 57½" 76½"
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22½" 43½" 64½" 85½"
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"







SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

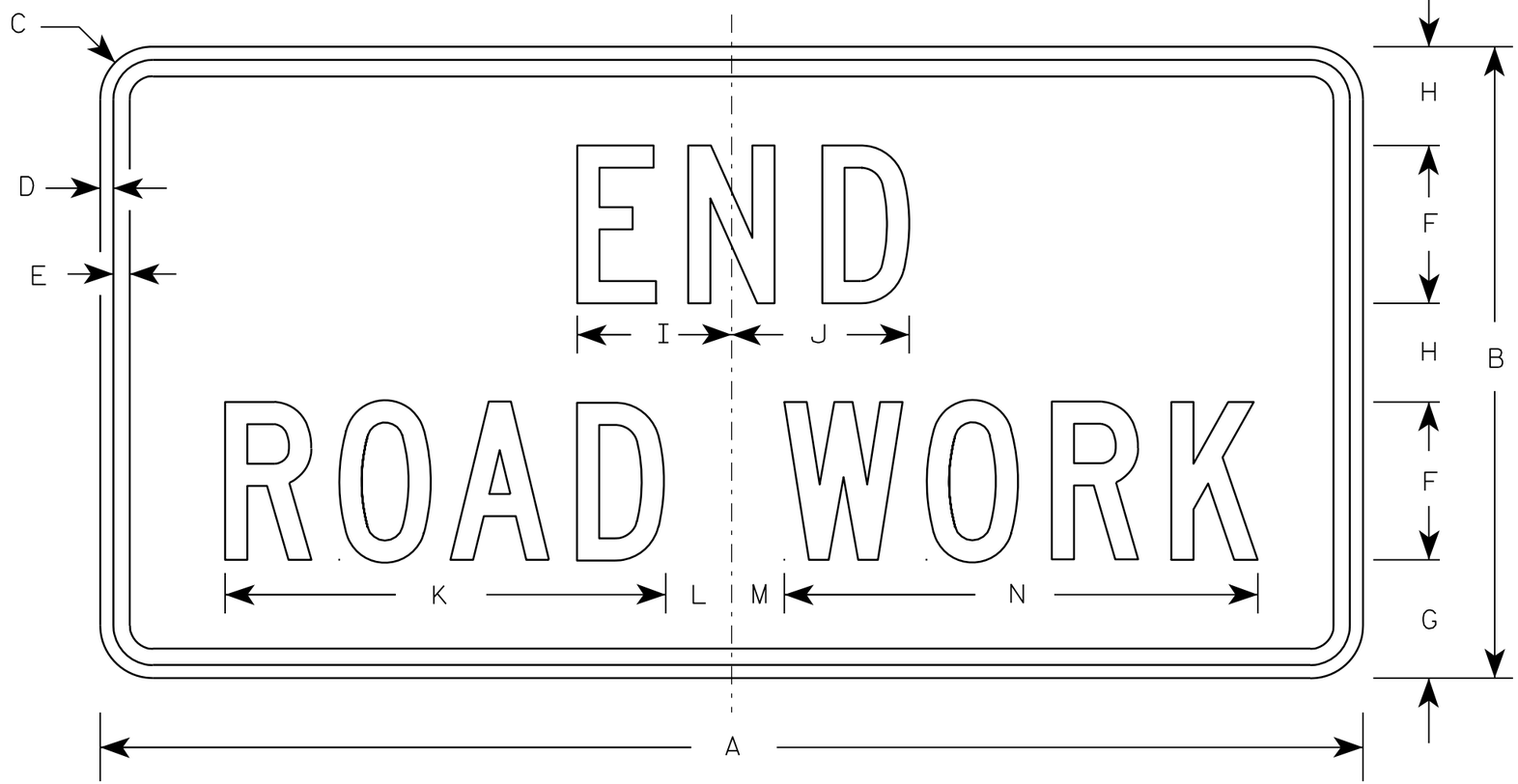
APPROVED Matthew R Rauch

for State Traffic Engineer

DATE 4/26/16 PLATE NO A4-18.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

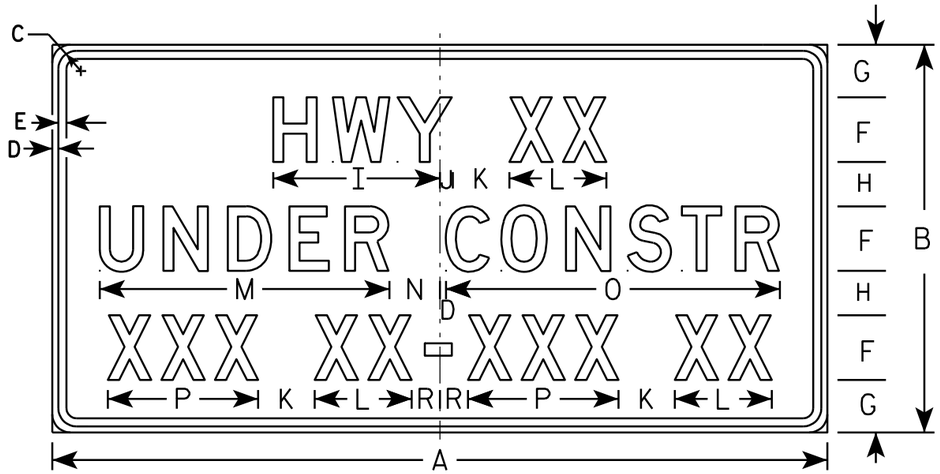
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 318	E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.



G20-57

Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	2400 mm X 1200 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2																												
3																												
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	1 5/8	7	12	35 7/8	6 1/4	41 3/8	18 5/8		3 1/2									32.0	2.88
5																												

STANDARD SIGN
G20-57

WISCONSIN DEPT OF TRANSPORTATION

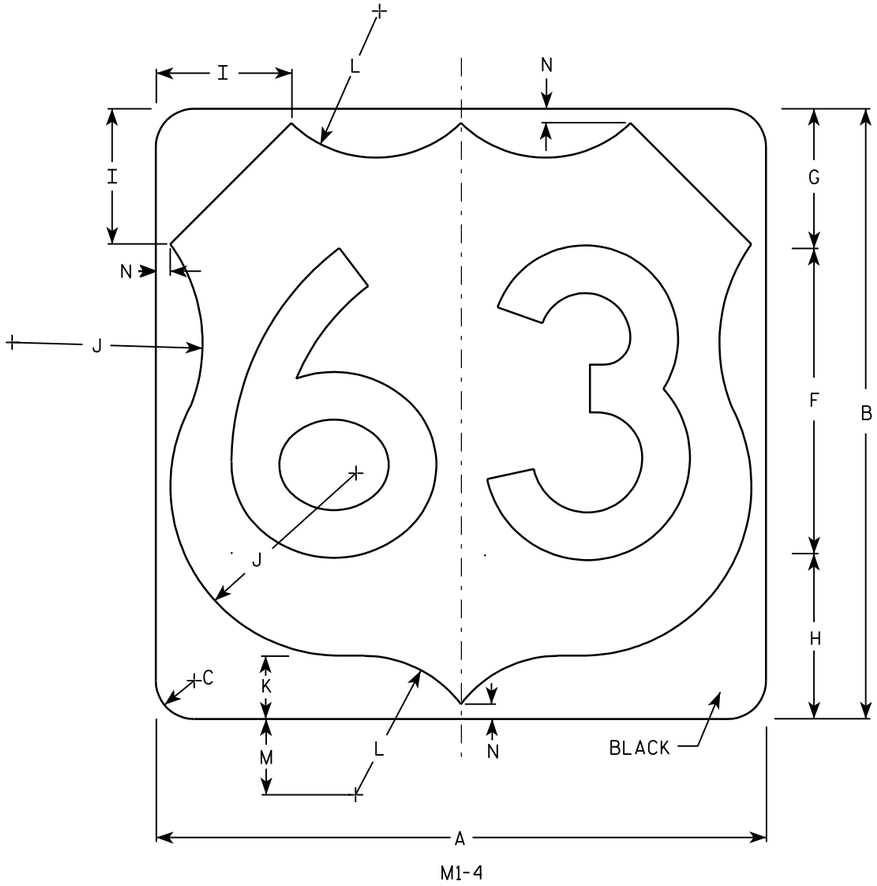
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/13/09 PLATE NO. G20-57.2

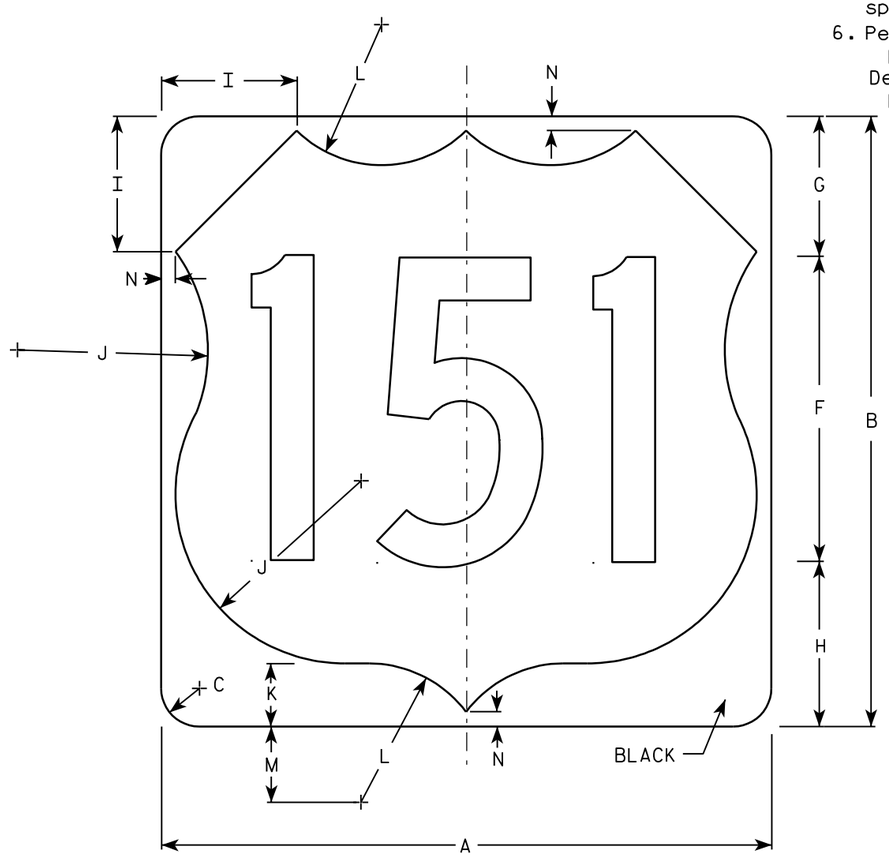
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 319	E

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary signs
   Background - Reflective



M1-4



M1-4

7

7

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

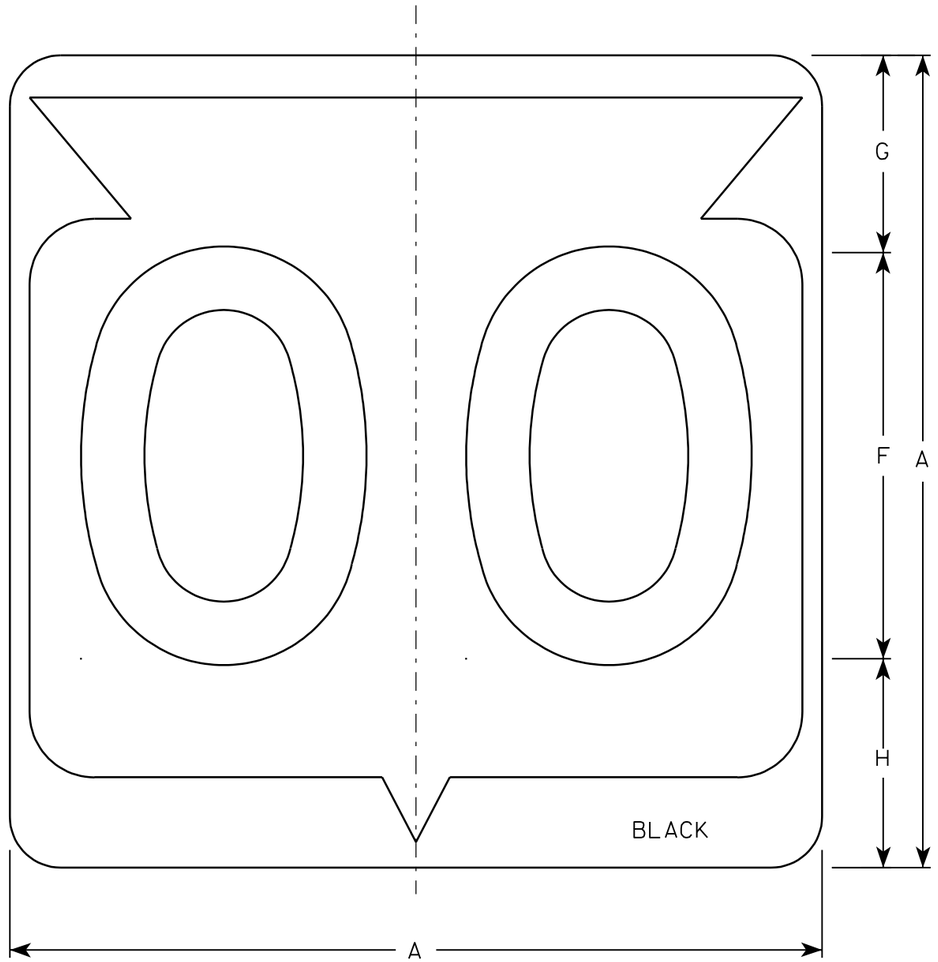
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/25/05 PLATE NO. M1-4.9

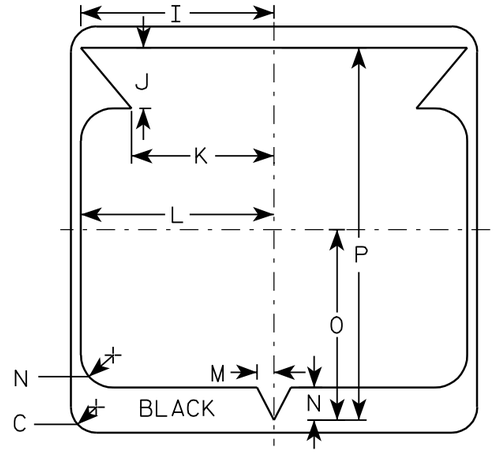
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 320	E



M1-6

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

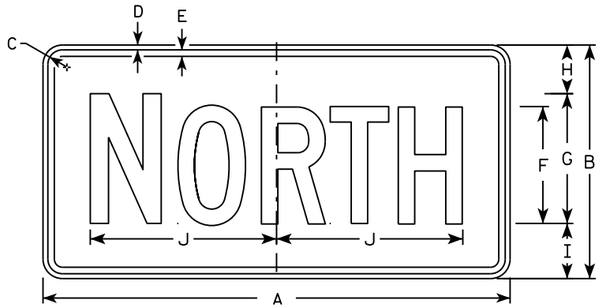
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

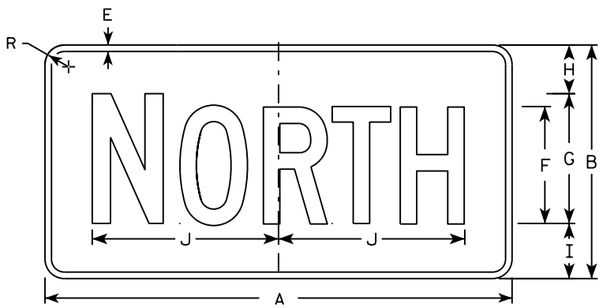
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 321	E



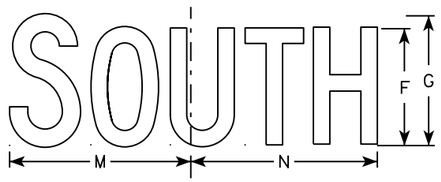
M3-1
MM3-1
MP3-1



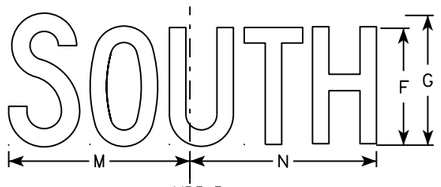
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

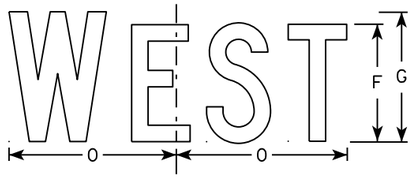
MB3-2
MK3-2
MN3-2



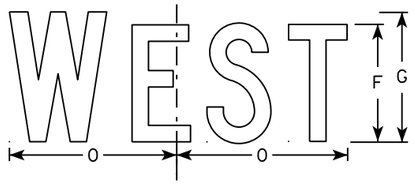
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

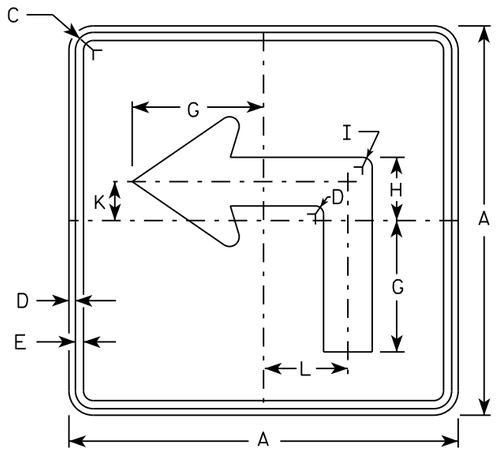
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

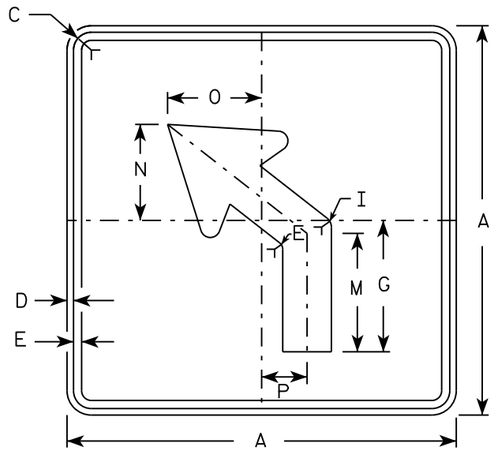
DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

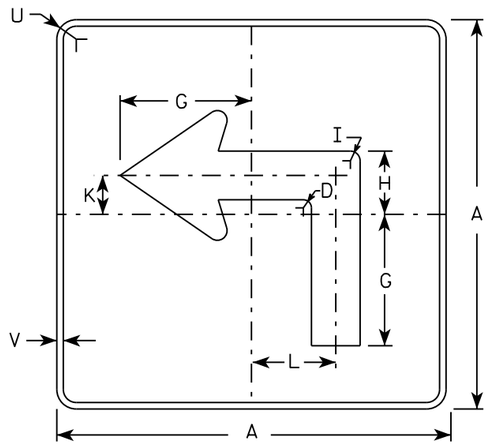
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



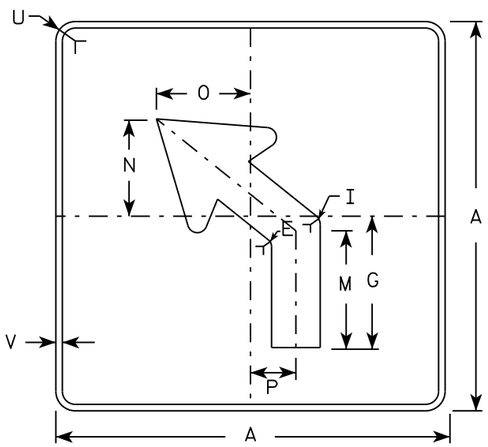
M5-1L
MM5-1L
MO5-1L
MP5-1L



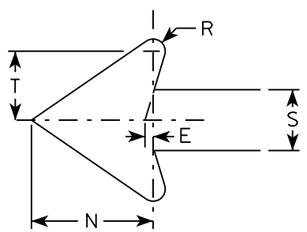
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

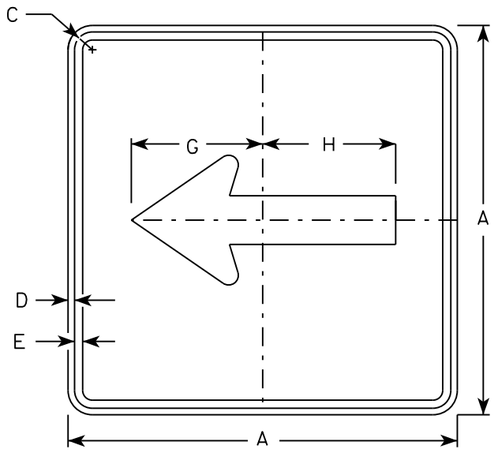
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

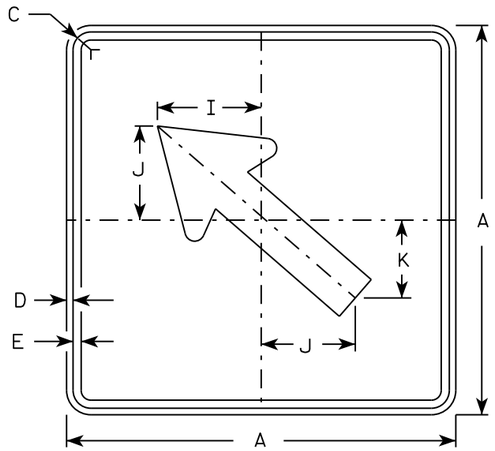
DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



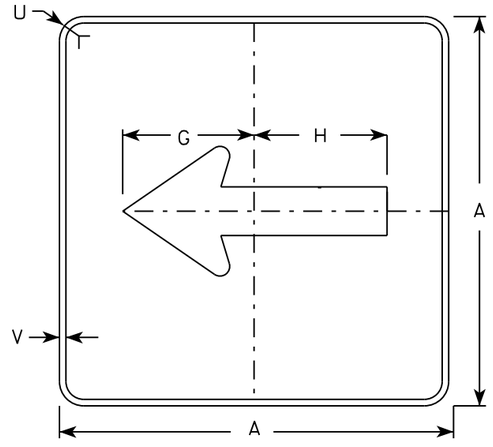
M6-1
MM6-1
MO6-1
MP6-1



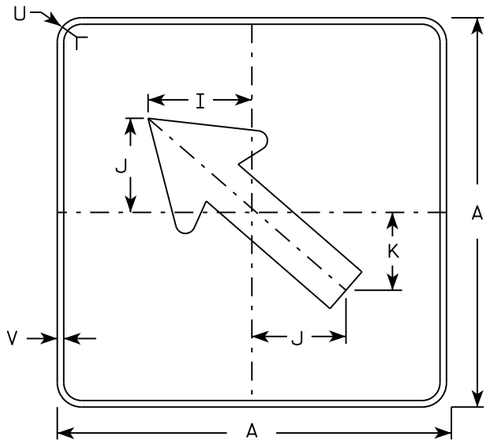
M6-2
MM6-2
MO6-2
MP6-2

NOTES

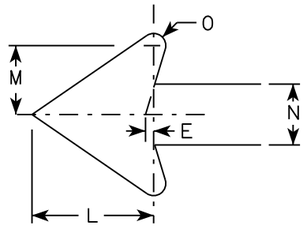
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

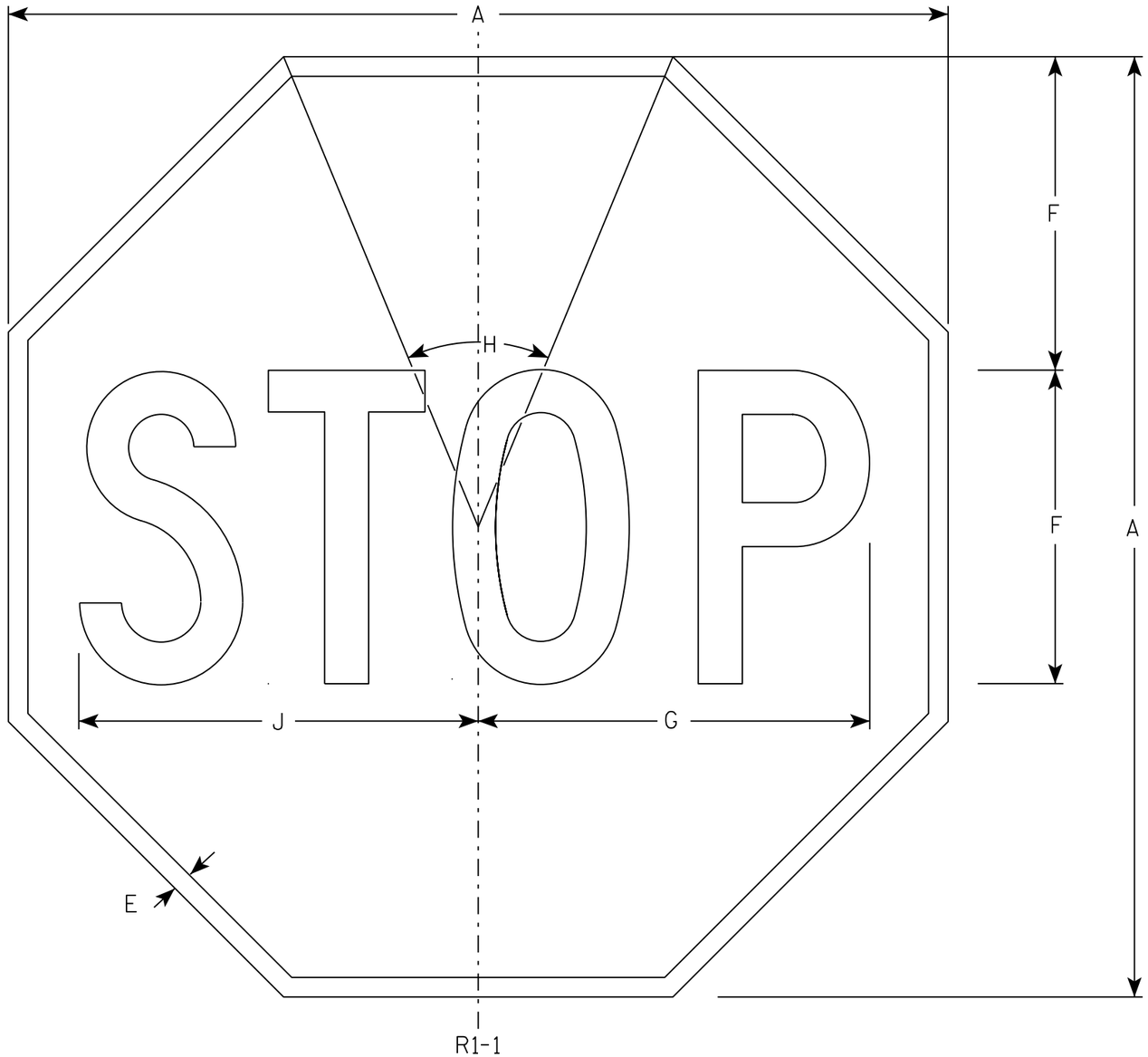
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 324 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R1-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1-1

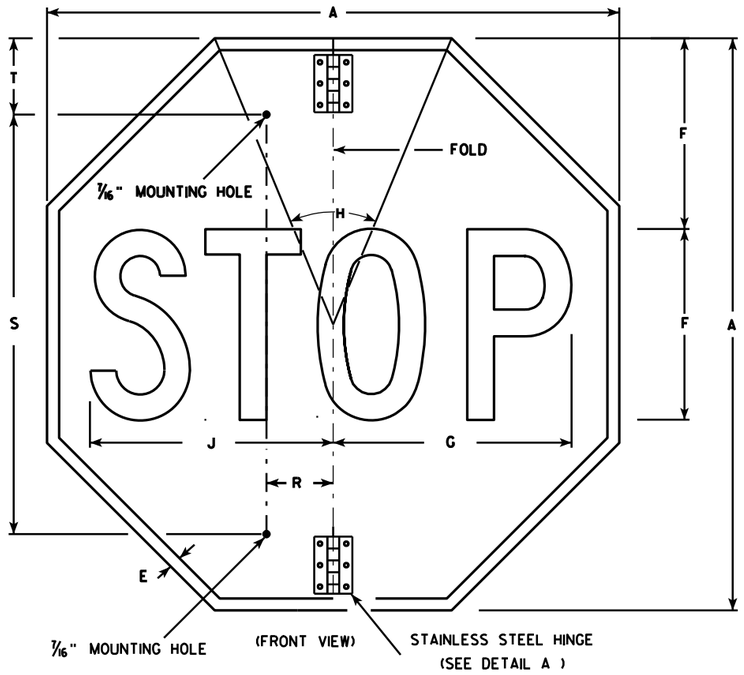
WISCONSIN DEPT OF TRANSPORTATION

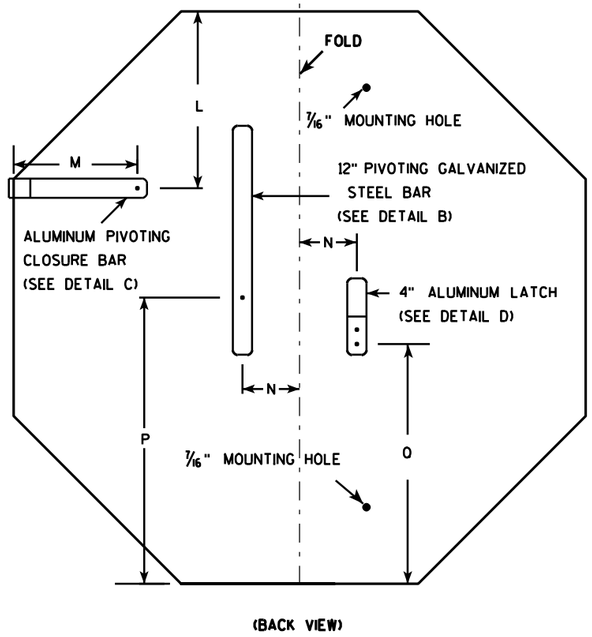
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

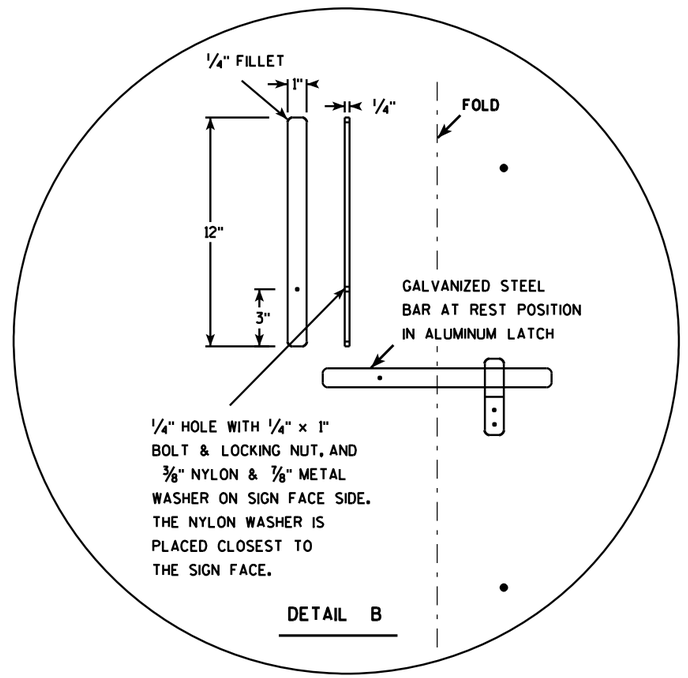
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R11.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.378143:1.000000

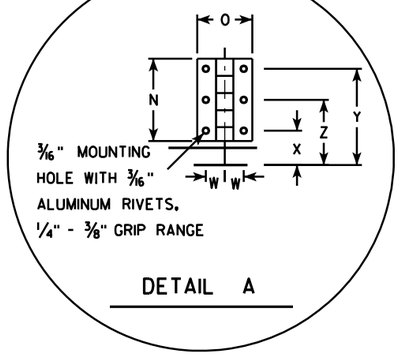


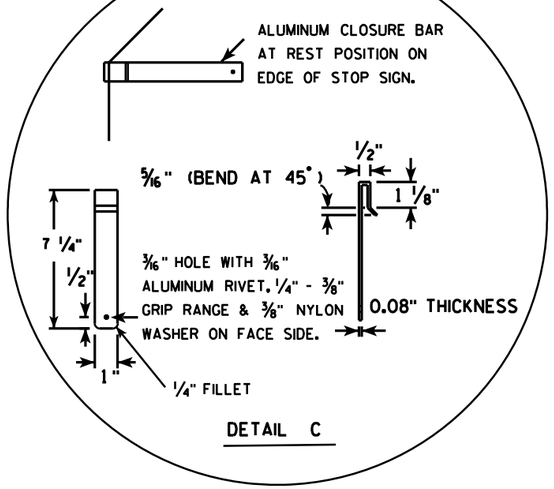


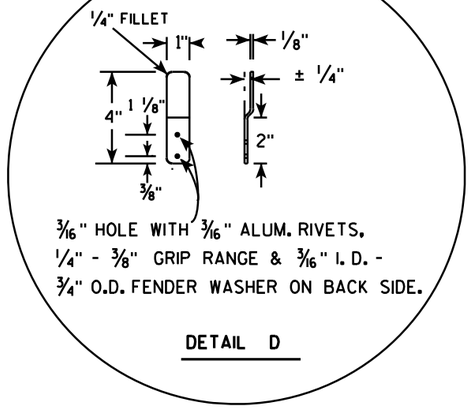
NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.









SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

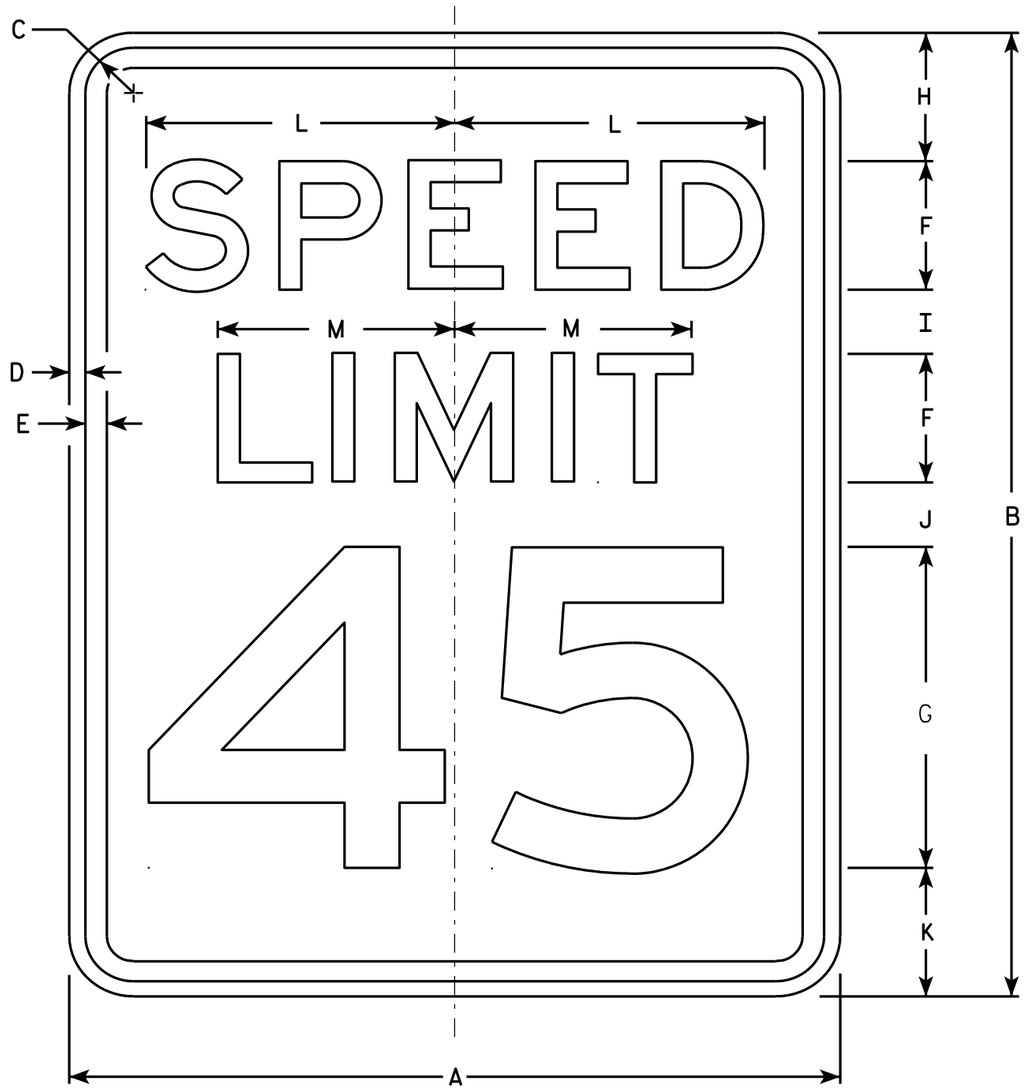
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 326	E



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN
R2-1

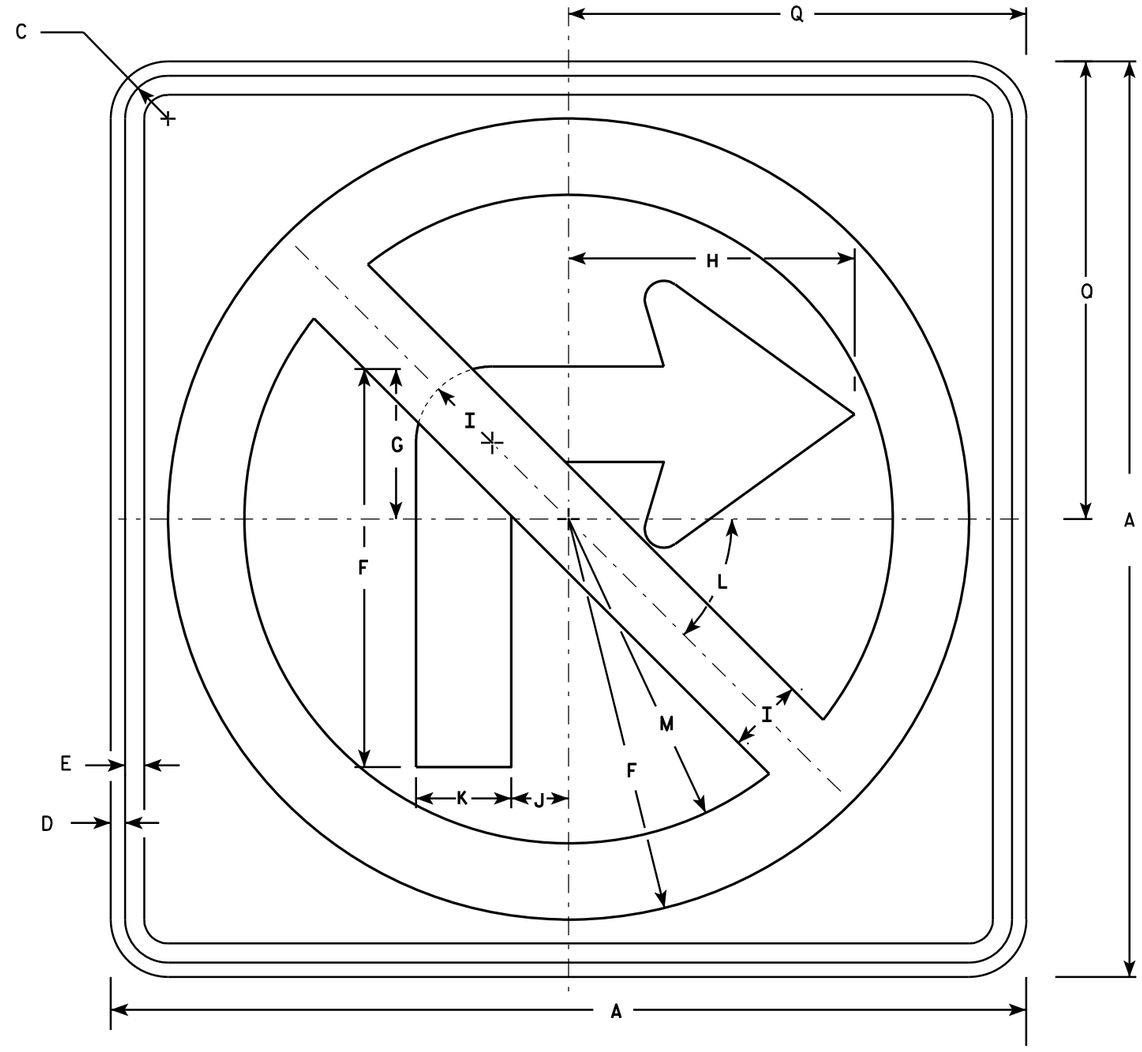
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 327 | E

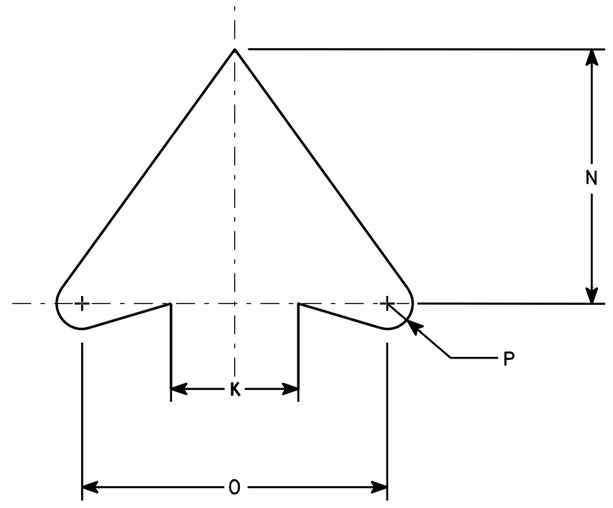
FILE NAME : C:\Users\PROJECTS\tr_stdplate\R21.DGN PLOT DATE : 28-MAY-2010 08:32 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.717577:1.000000
WISDOT/CADDS SHEET 42



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

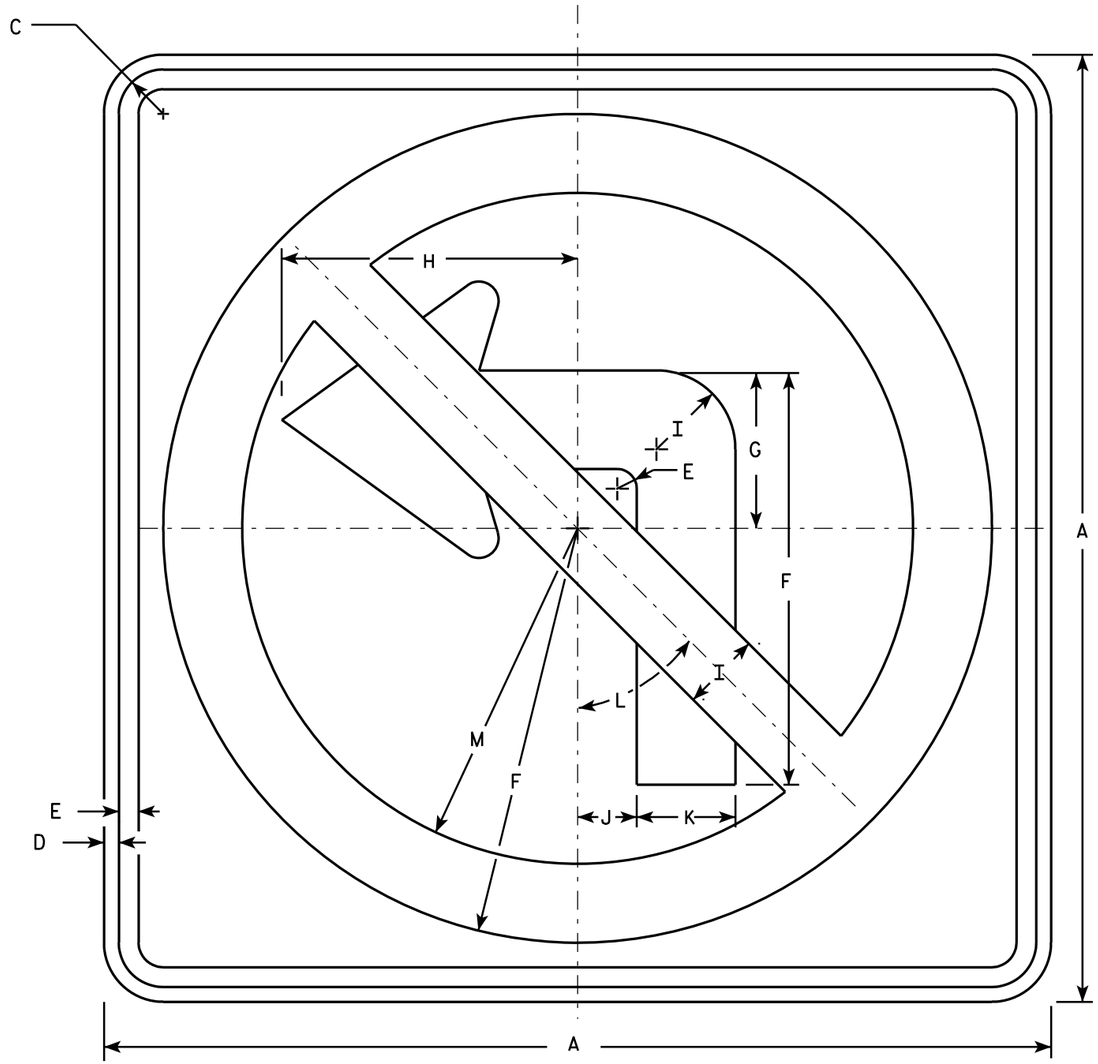
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

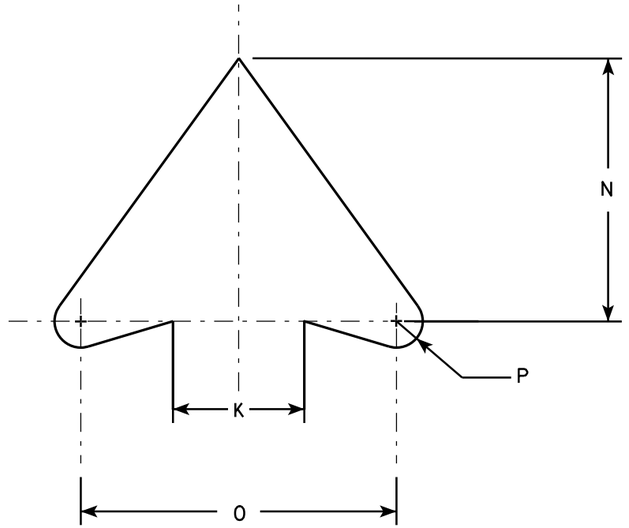
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 328	E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

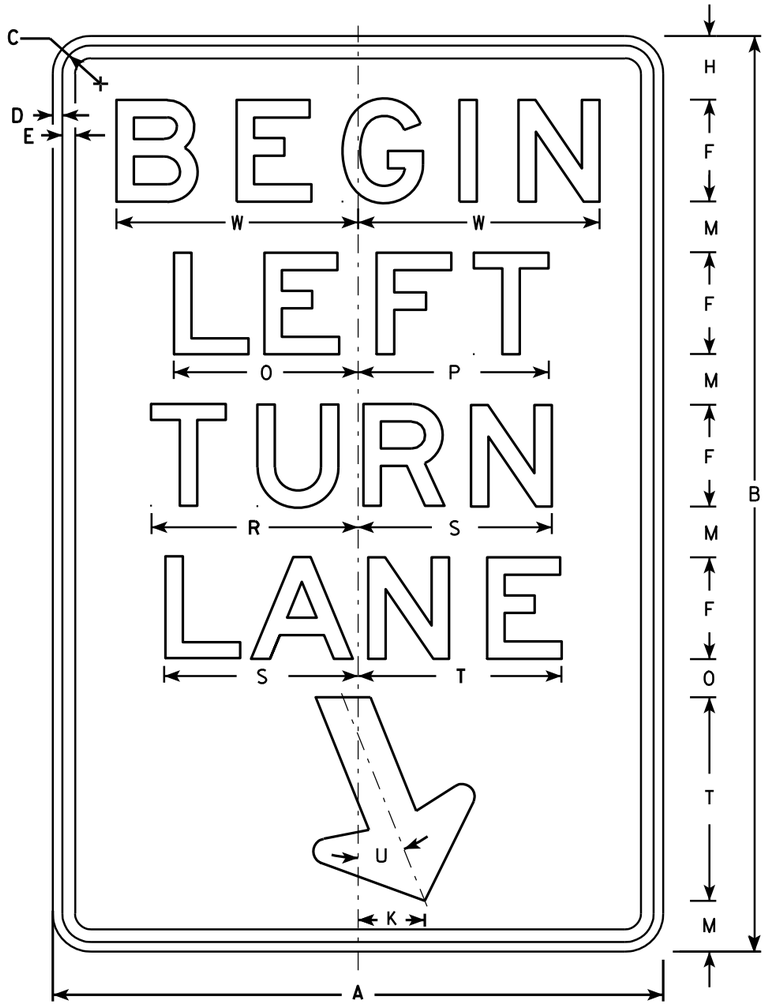
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

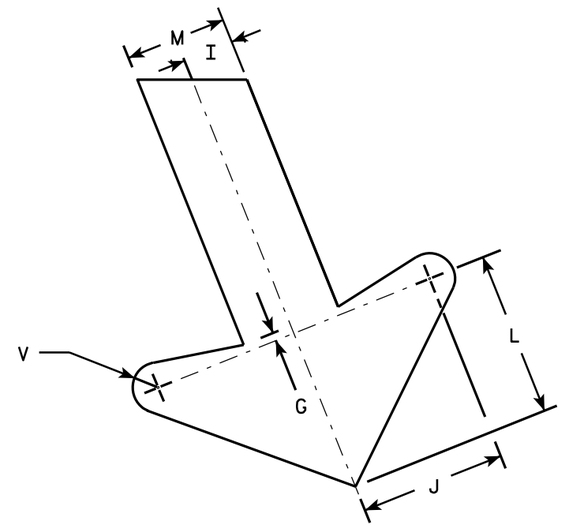
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 329	E



R3-20L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

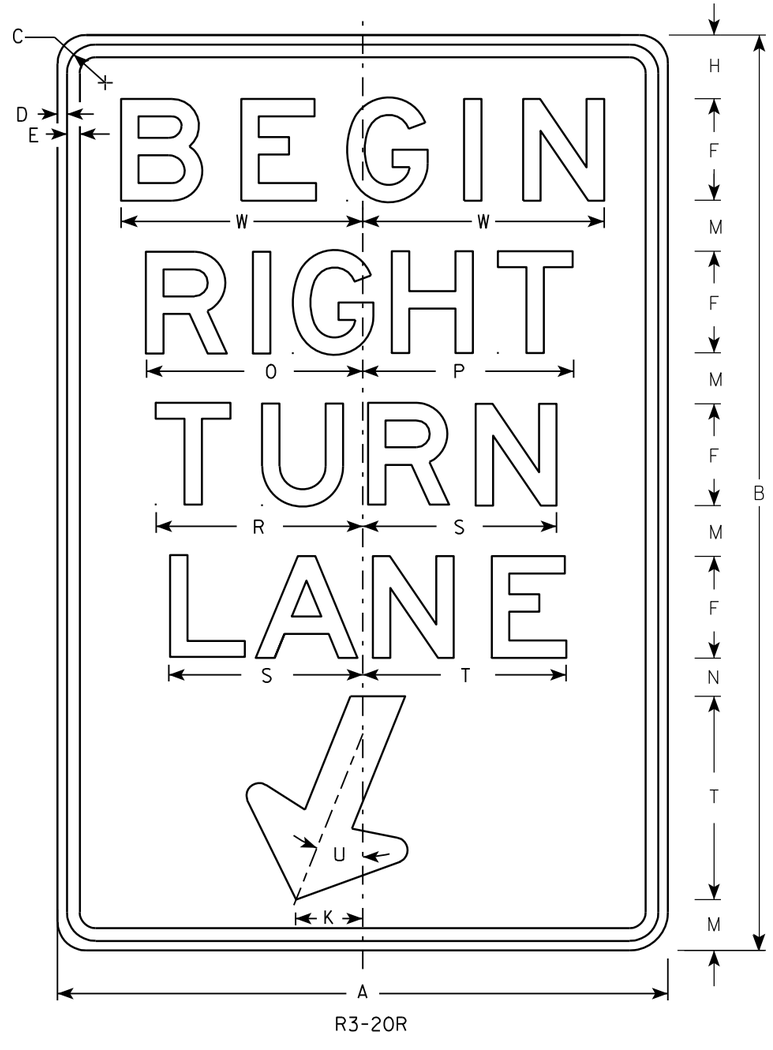
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 330	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R320L.DGN PLOT DATE : 15-OCT-2010 14:45 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

7

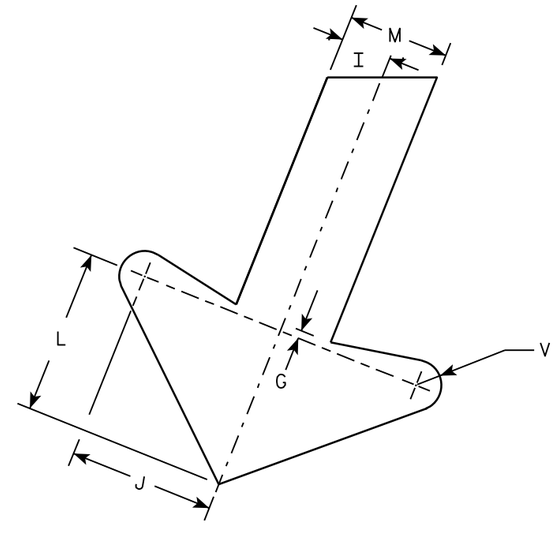
7



R3-20R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

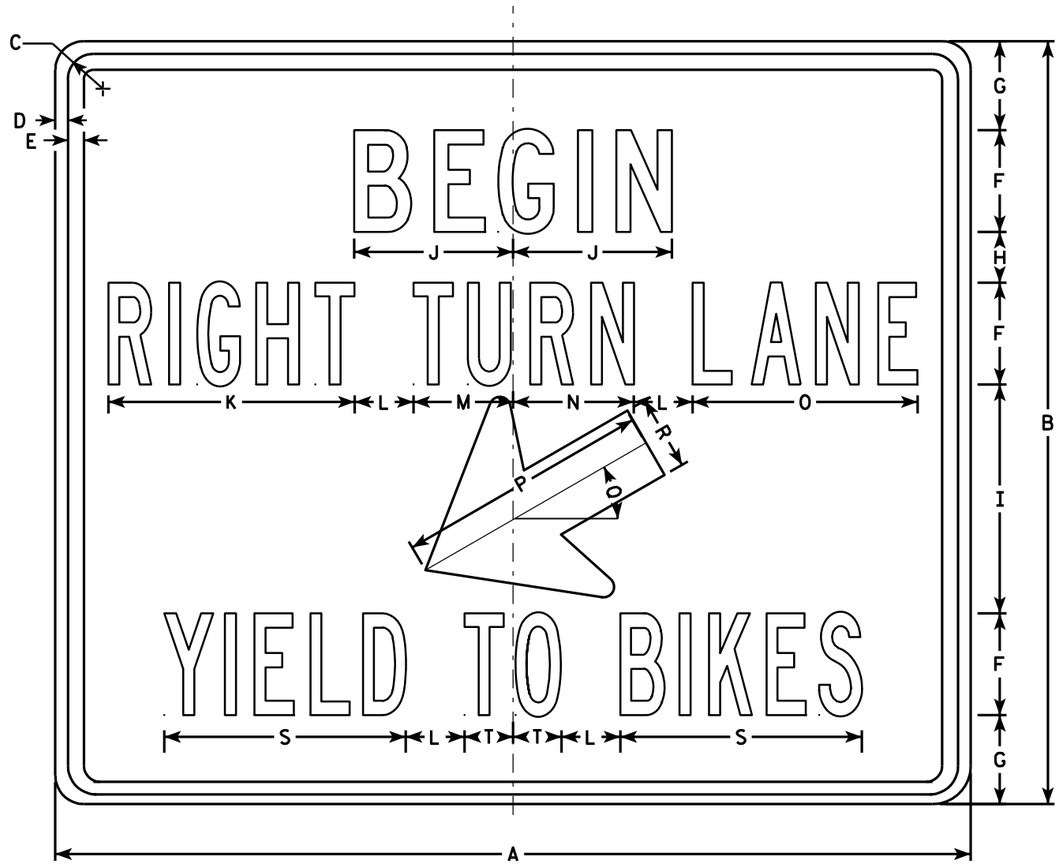
STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 331 | E



R4-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C
   Lines 2 & 3 are Series B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	30	1 3/8	1/2	5/8	4	3 1/2	2	9	6 1/4	9 3/4	2 3/8	3 7/8	4 3/4	8 7/8	10	30°	2 7/8	9 1/2	1 7/8							7.5
2M	36	30	1 3/8	1/2	5/8	4	3 1/2	2	9	6 1/4	9 3/4	2 3/8	3 7/8	4 3/4	8 7/8	10	30°	2 7/8	9 1/2	1 7/8							7.5
3																											
4																											
5																											

STANDARD SIGN
R4-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-4.2

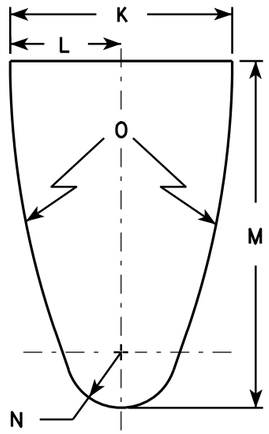
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 332 | E

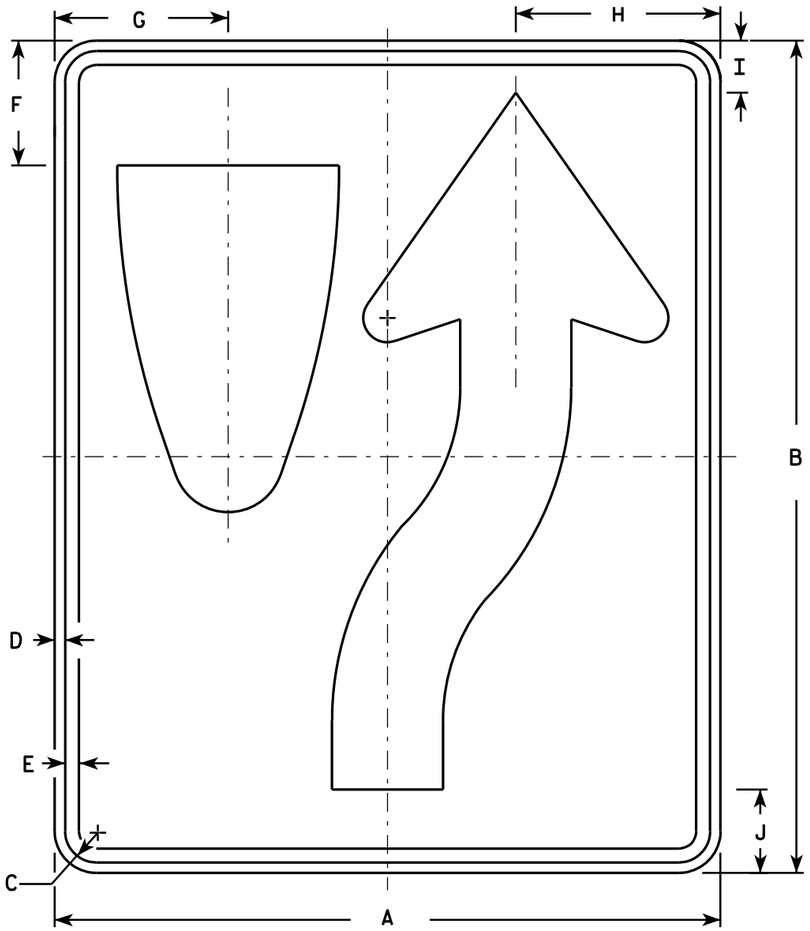
FILE NAME : C:\Users\PROJECTS\tr_stdplate\R44.DGN PLOT DATE : 25-MAR-2011 13:45 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

7

7

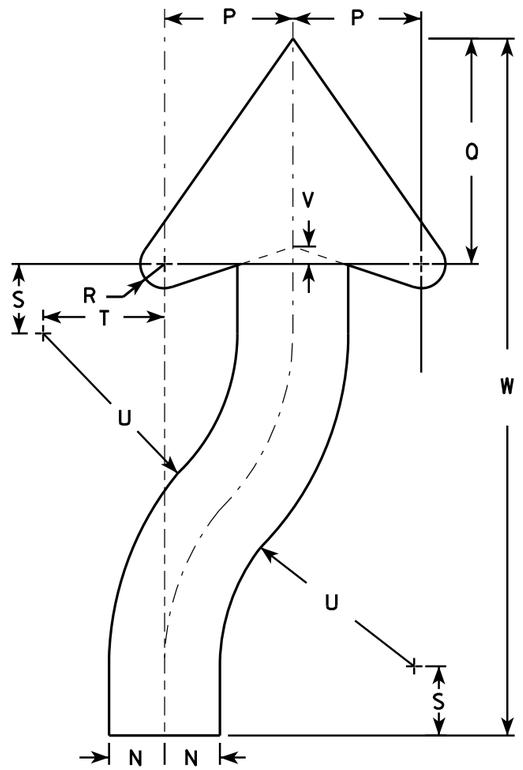




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

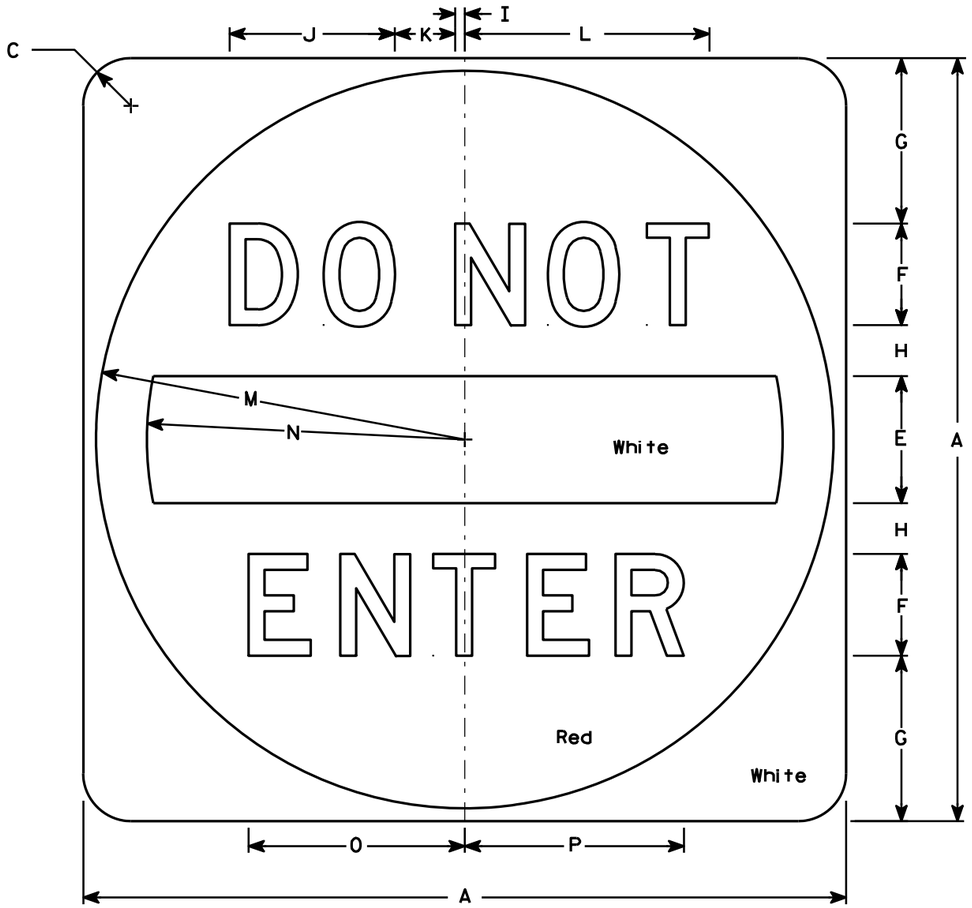
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 333	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See detail
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but when base material is metal, the cornors shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.26
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

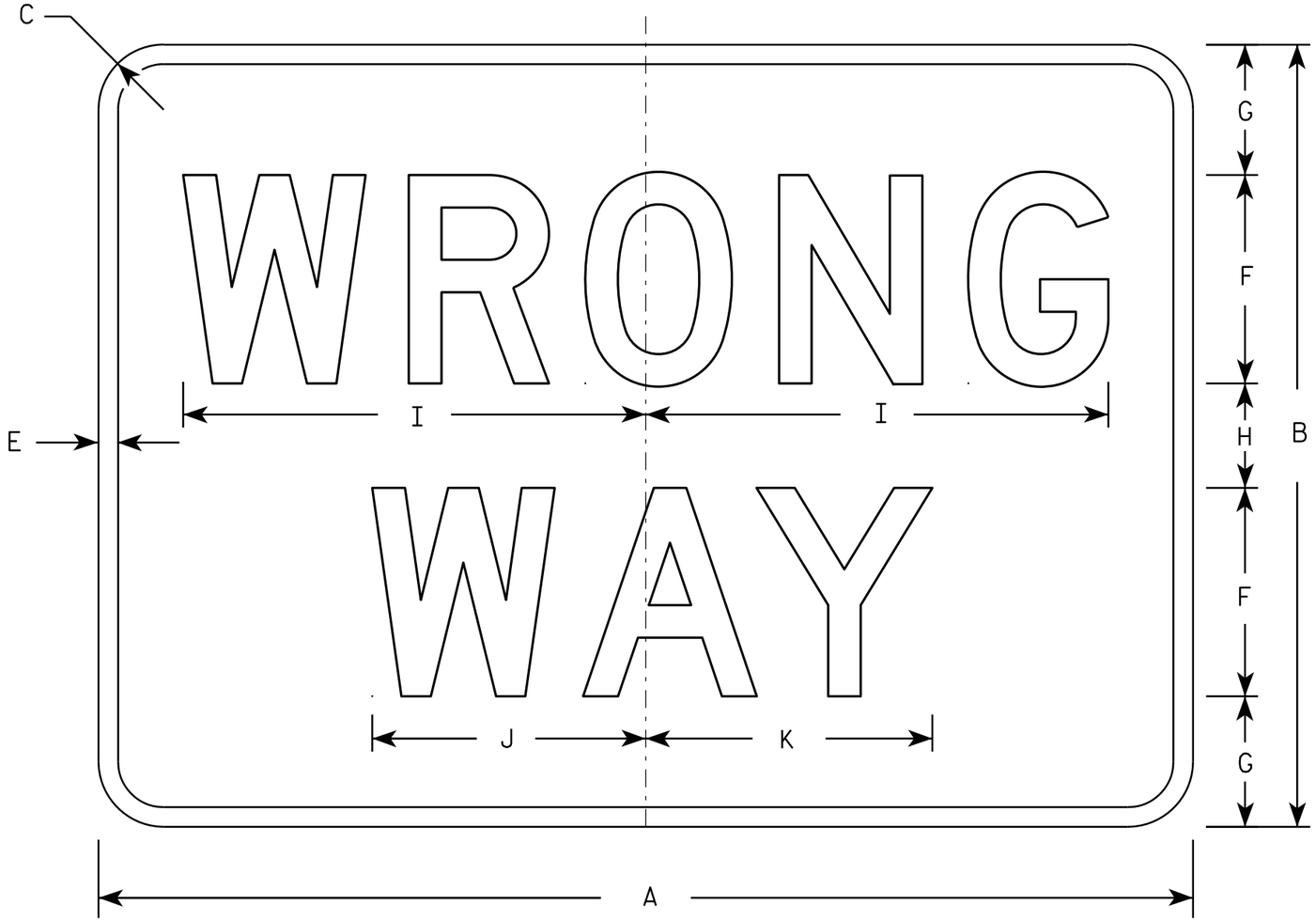
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 334 | E



R5-1A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 335 | E

R5-57

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Lines 1, 2, and 5 are Series C.
   Lines 3 and 4 are Series B.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	36		1 5/8	5/8	3/4	4	3	2	3 1/2	14 1/4	14 7/8	11	11 1/2	4 3/4	1 3/4	9		1 3/8	10	11	2 1/2	1 3/4	15 1/2	13	13 5/8		9.0
5	36		1 5/8	5/8	3/4	4	3	2	3 1/2	14 1/4	14 7/8	11	11 1/2	4 3/4	1 3/4	9		1 3/8	10	11	2 1/2	1 3/4	15 1/2	13	13 5/8		9.0

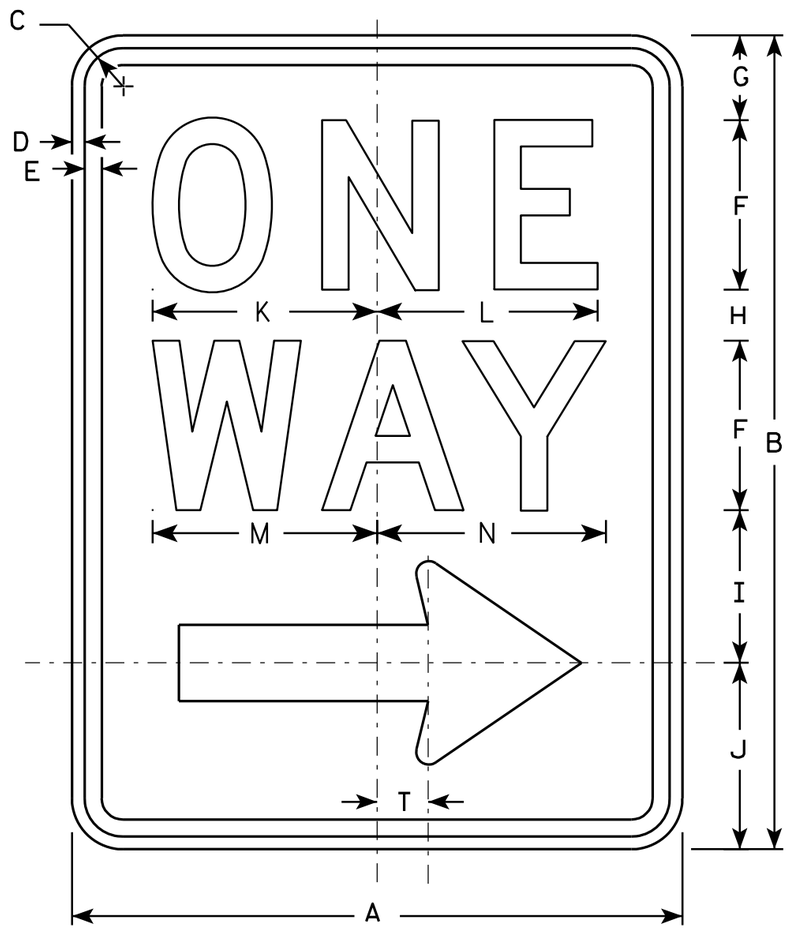
STANDARD SIGN
R5-57

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-57.10

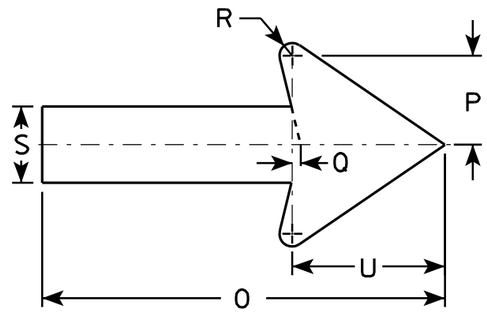
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 336	E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

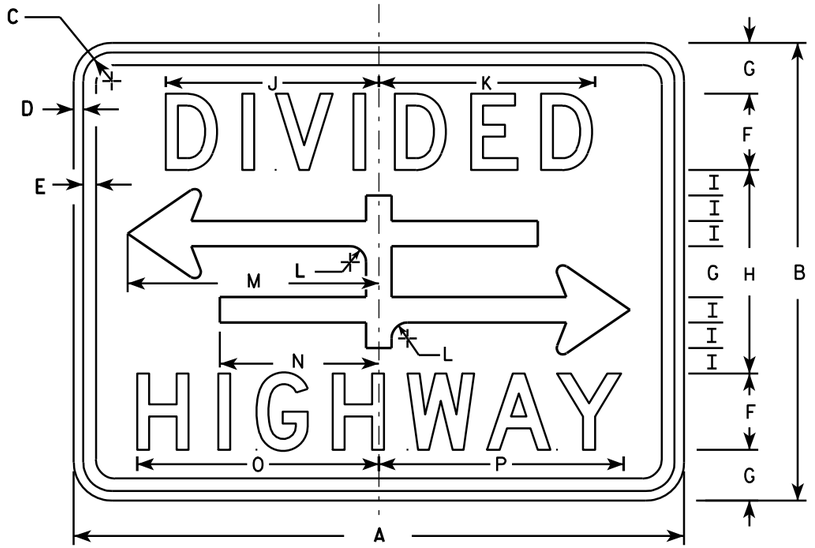
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

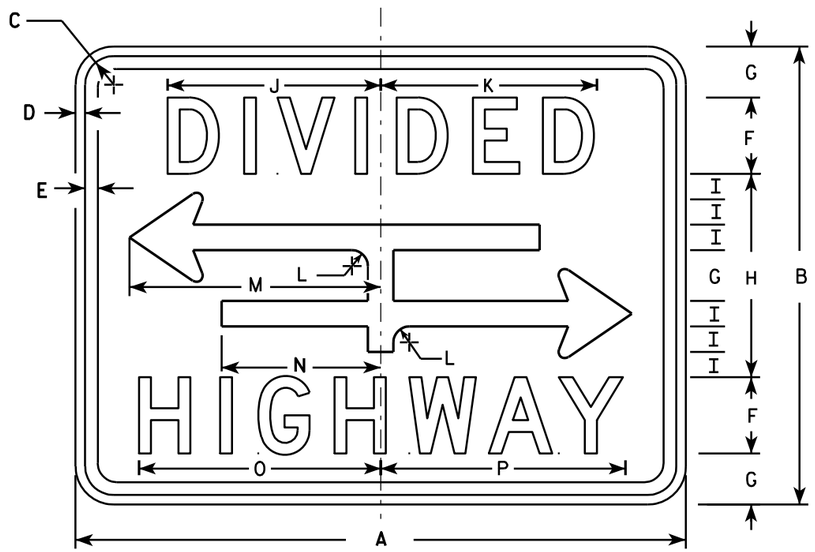
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 337	E



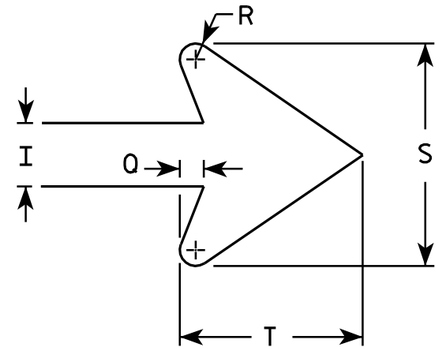
R6-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R6-3A



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

STANDARD SIGN
R6-3 & R6-3A

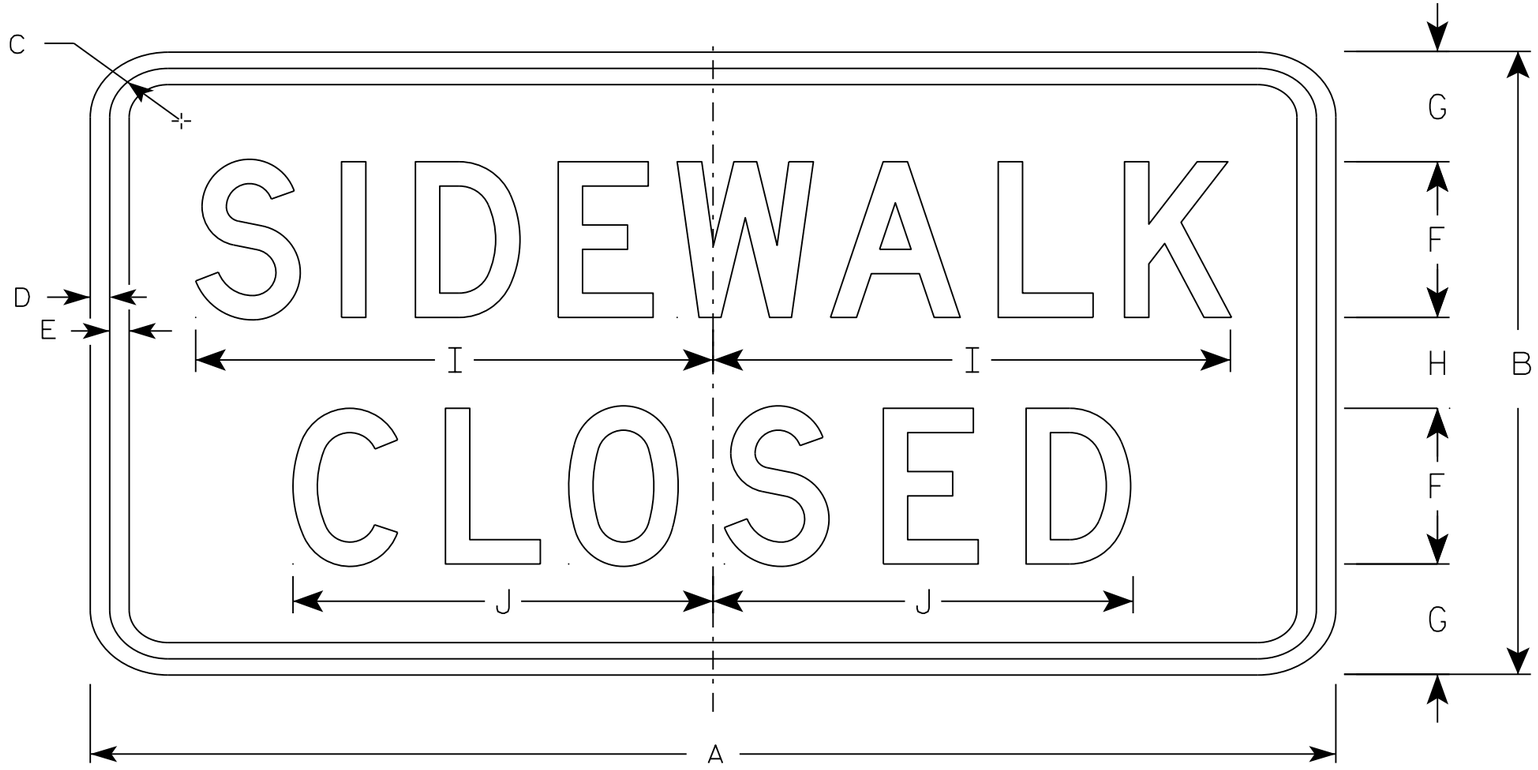
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

SHEET NO: 338 E



R9-9

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE 339 R9-9.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000

R10-71

R10-71L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

R10-71R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	R10-71L&R Area sq. ft.	R10-71 Area sq. ft.
1																												
2S	72	36	2 1/4	3/4	1	18	5	4	6	20 5/8	11 3/4	9 1/8	8 1/2	12 7/8	9 7/8	16 1/8	23 7/8	30	5 5/8	26 3/4	66	23 5/8	8 3/4	13	26 7/8	27	18.0	16.5
2M	72	36	2 1/4	3/4	1	18	5	4	6	20 5/8	11 3/4	9 1/8	8 1/2	12 7/8	9 7/8	16 1/8	23 7/8	30	5 5/8	26 3/4	66	23 5/8	8 3/4	13	26 7/8	27	18.0	16.5
3																												
4																												
5																												

STANDARD SIGN
R10-71

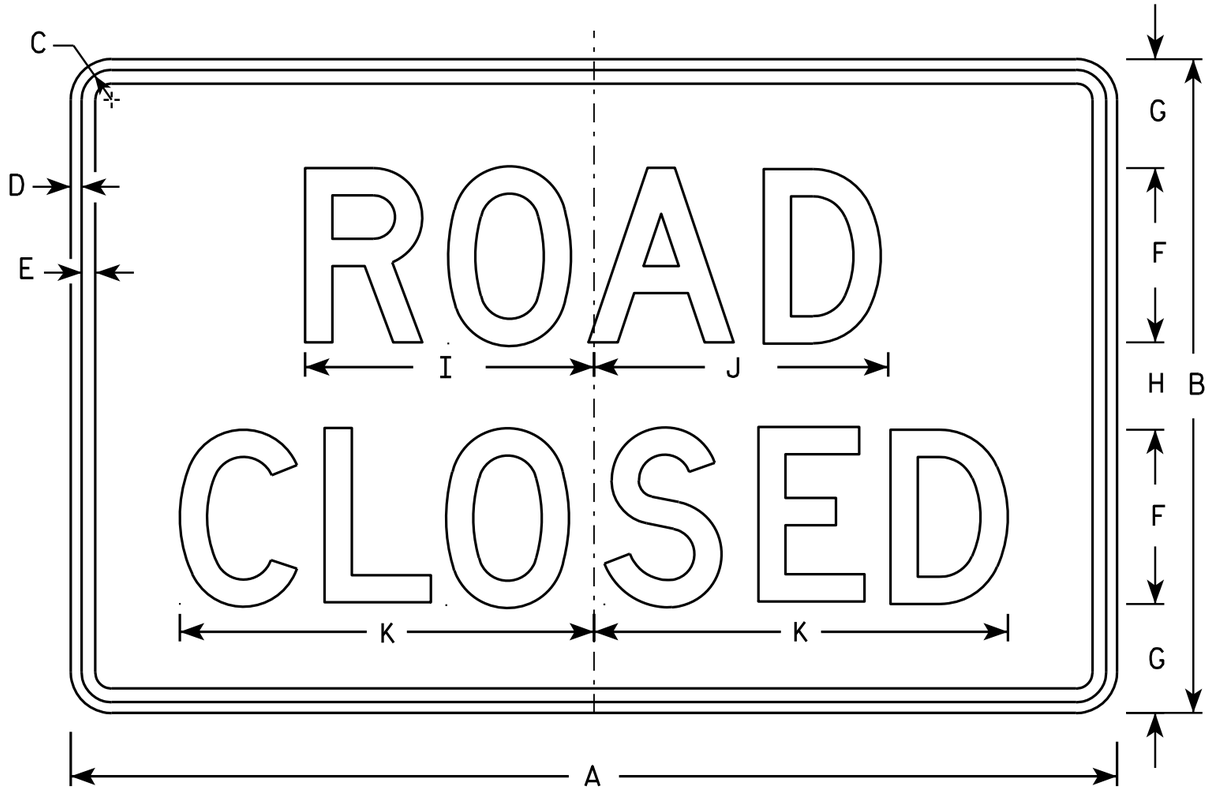
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/4/11 PLATE NO. R10-71.3

PROJECT NO:

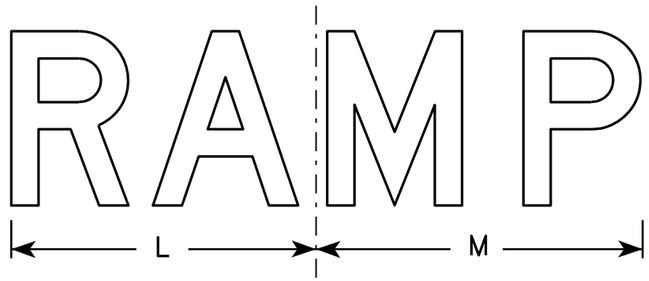
SHEET NO: 340 E



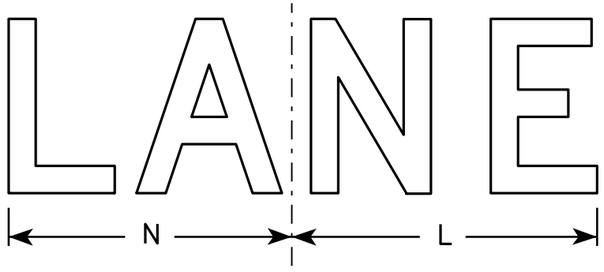
R11-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

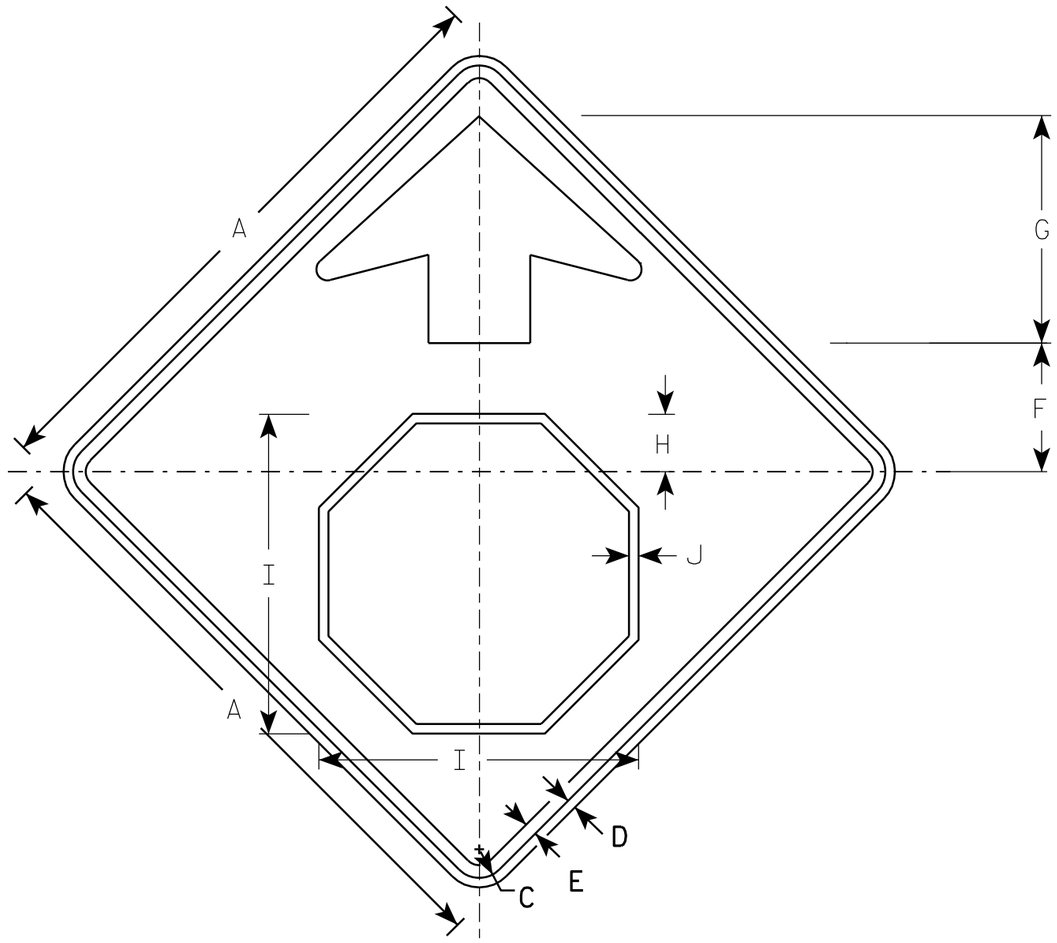
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

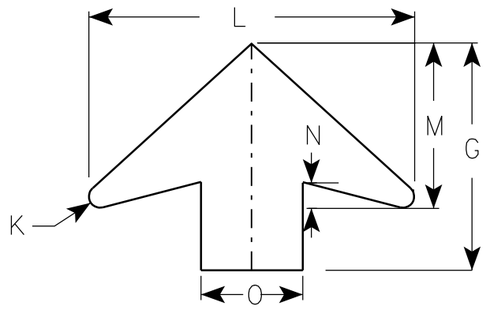
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 341	E



W3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

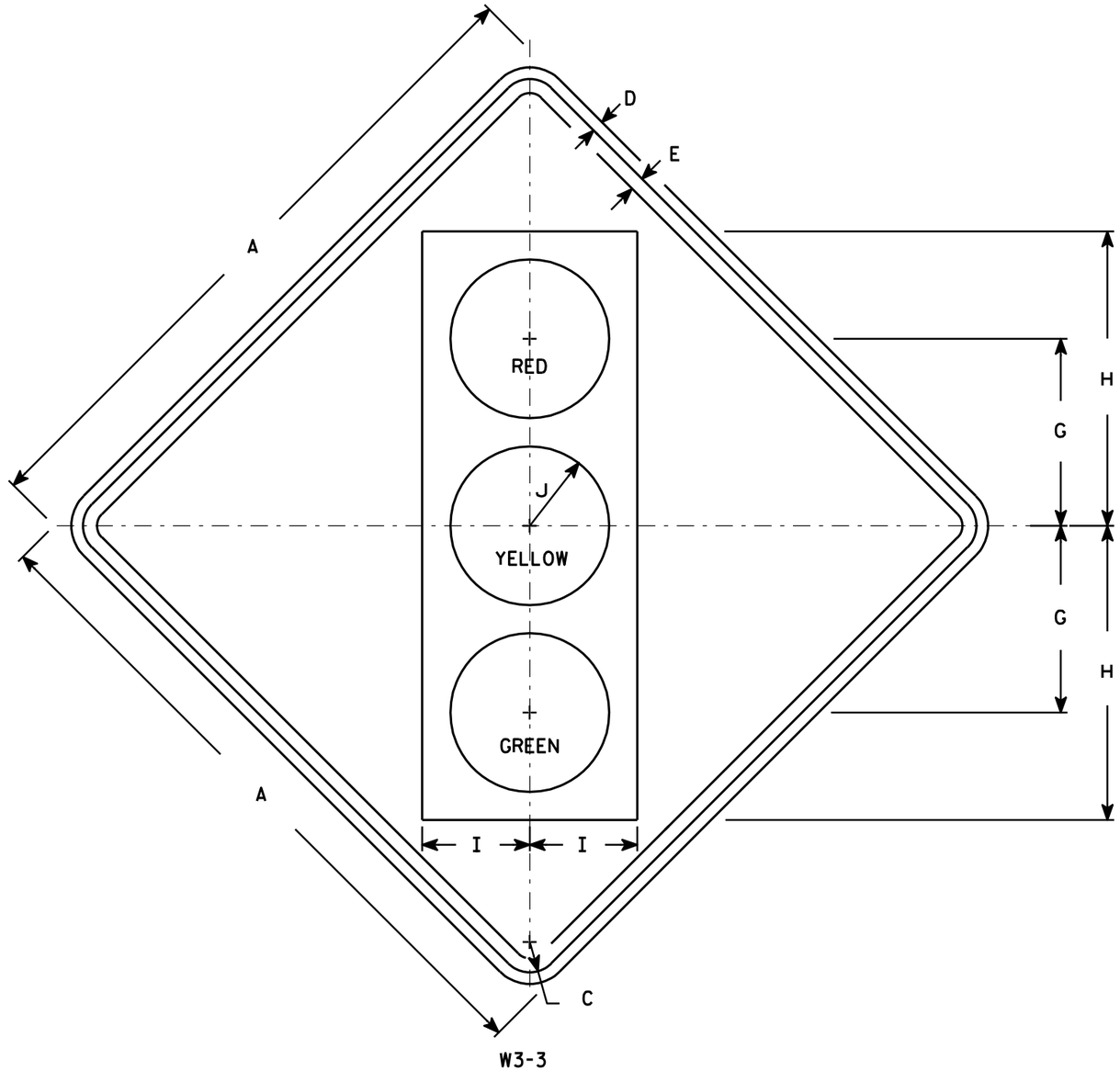
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

SHEET NO: 342 E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

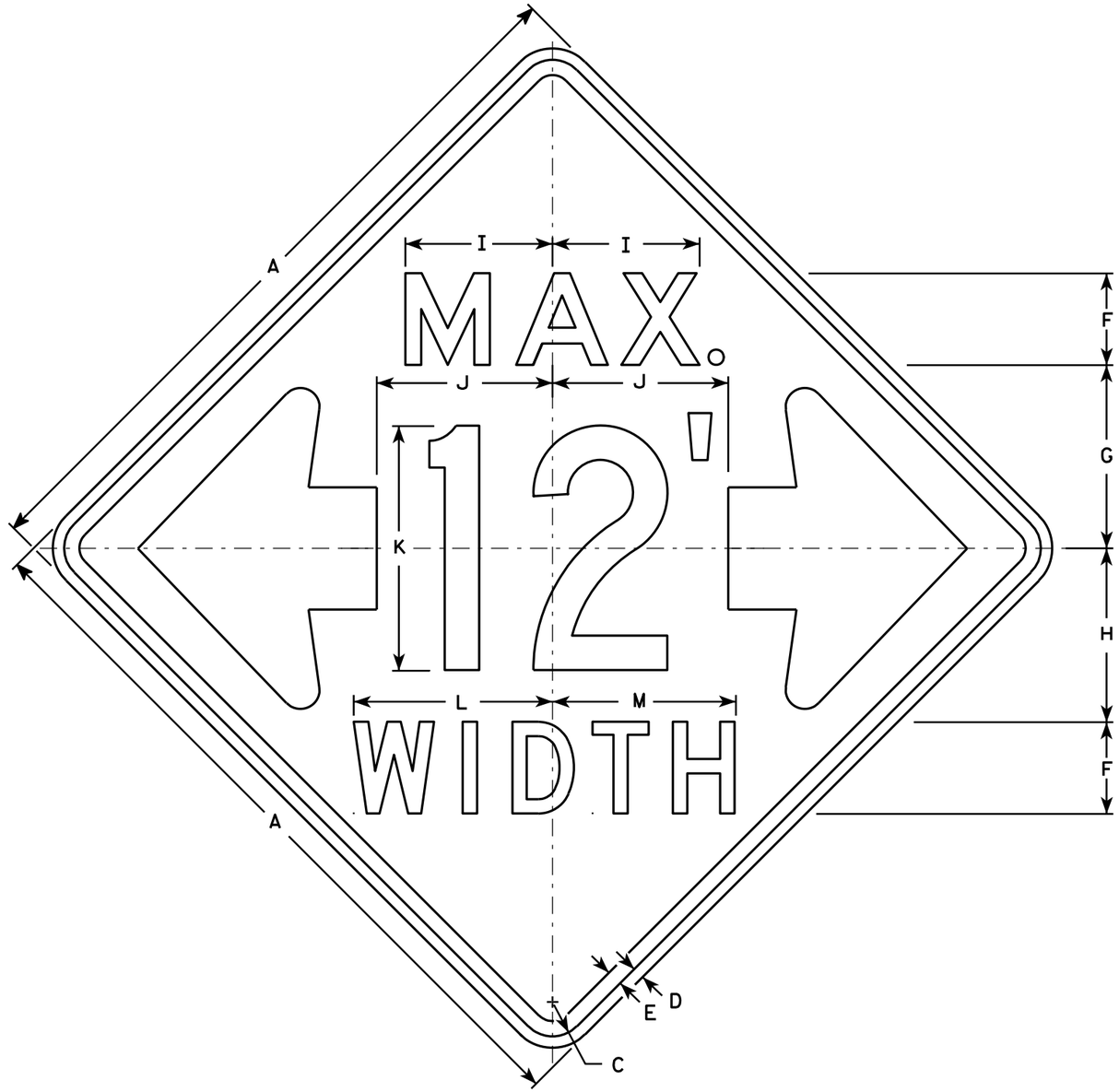
STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

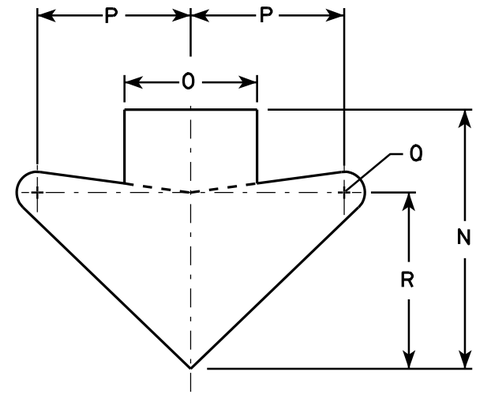
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 343 | E



W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

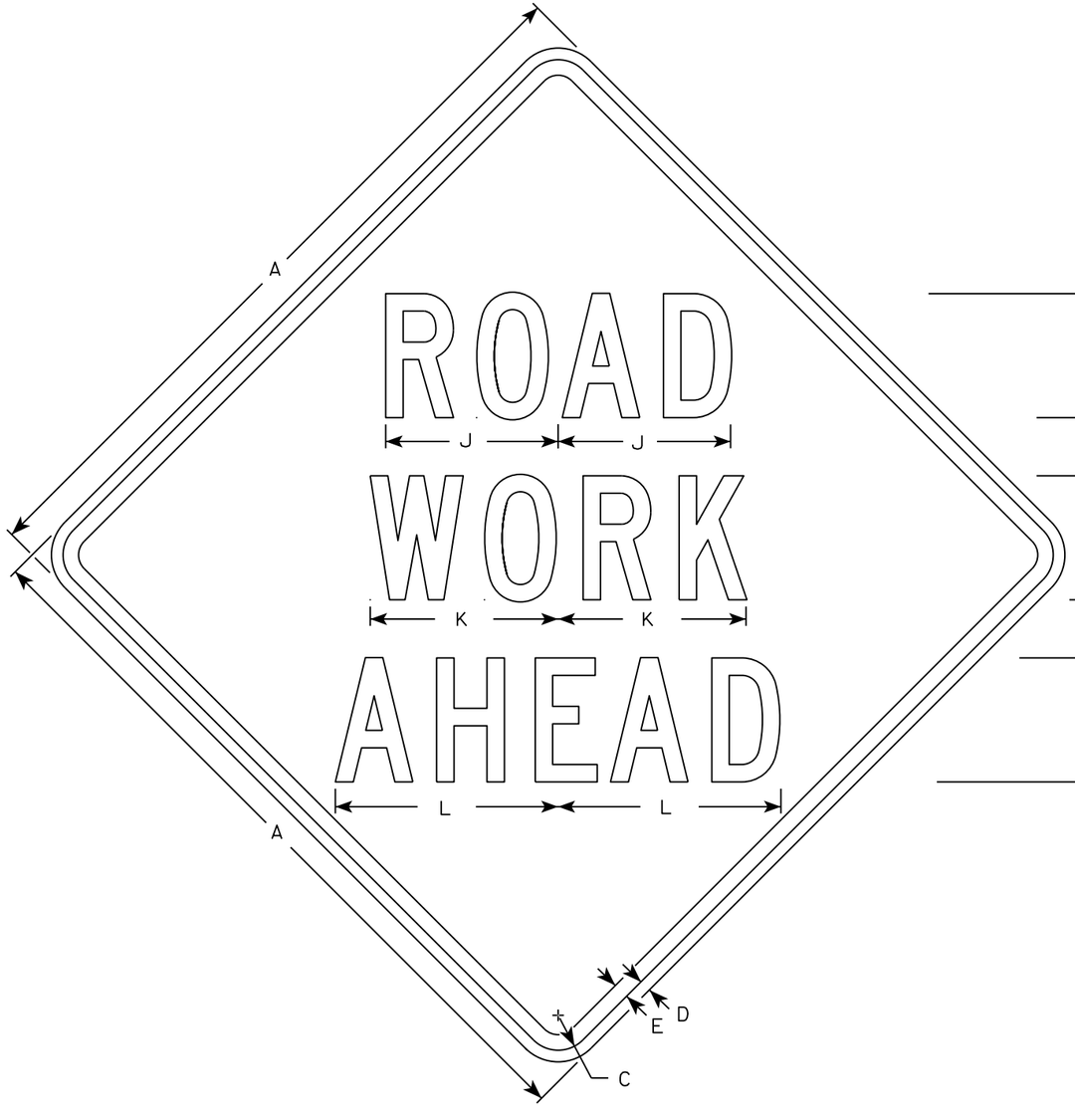
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 344	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000

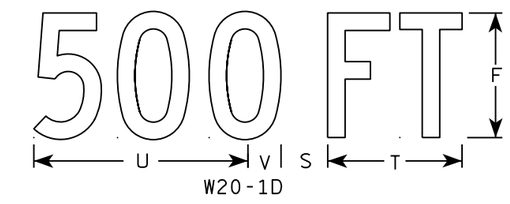
WISDOT/CADDS SHEET 42

7

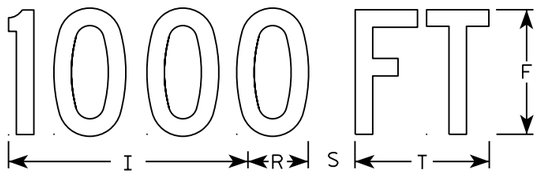
7



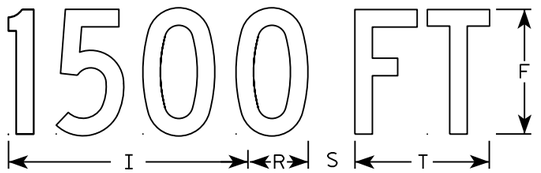
W20-1A



W20-1D

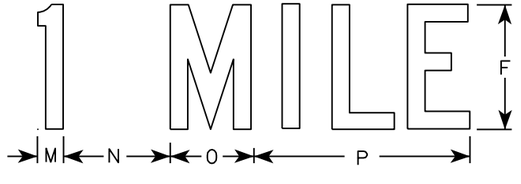


W20-1C

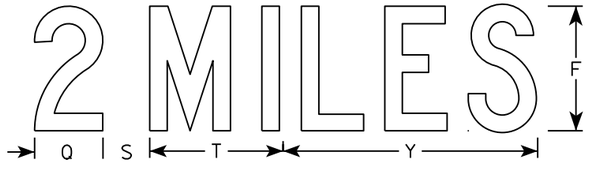


W20-1B

W20-1G



W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

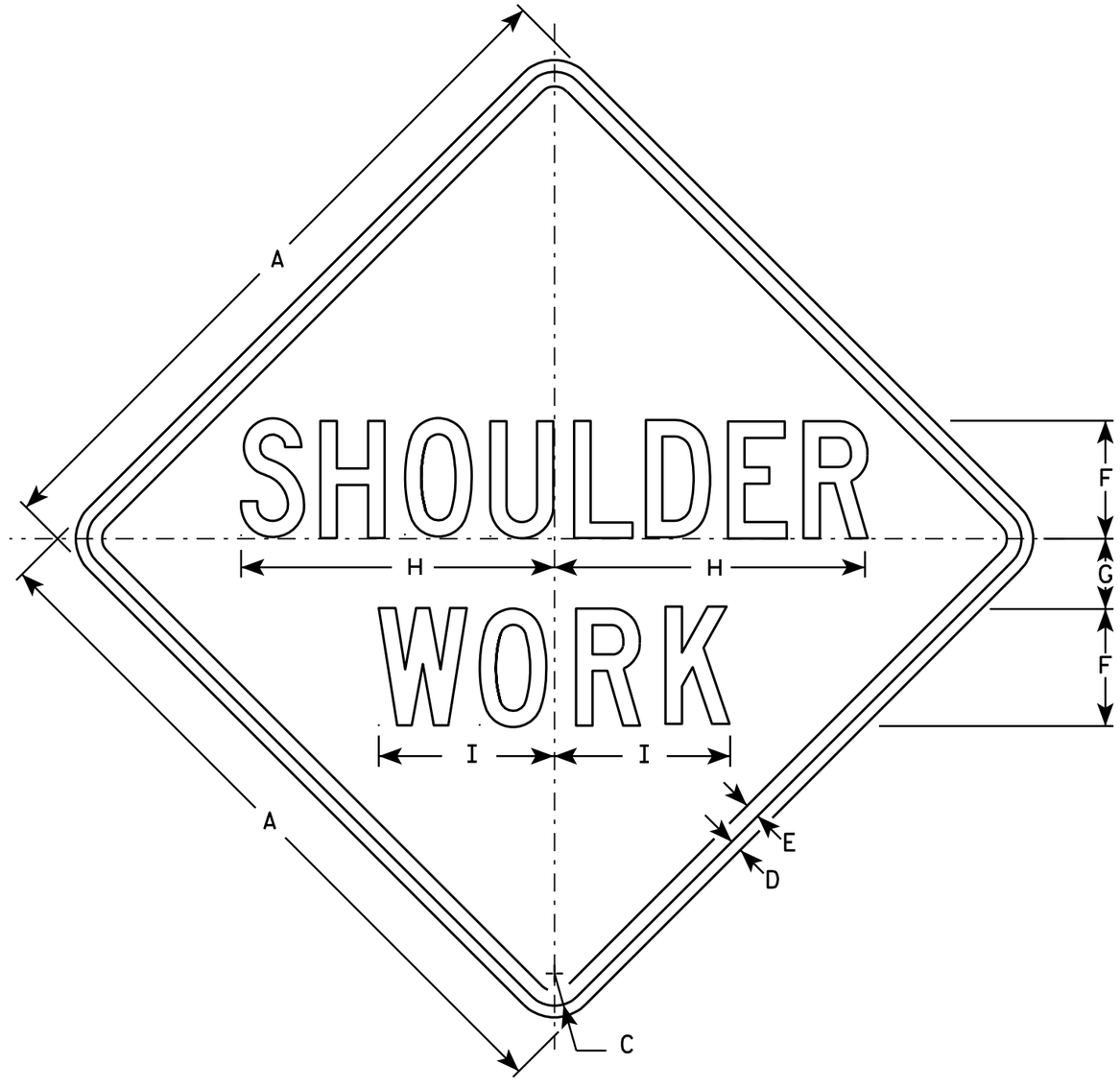
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

PROJECT NO:

SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



W21-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	4	2 1/2	10 3/4	6																		4.0
2S	30		1 3/8	1/2	5/8	5	3	13 3/8	7 1/2																		6.25
2M	30		1 3/8	1/2	5/8	5	3	13 3/8	7 1/2																		6.25
3	36		1 5/8	5/8	3/4	6	3 1/2	16	9																		9.0
4	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
5	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0

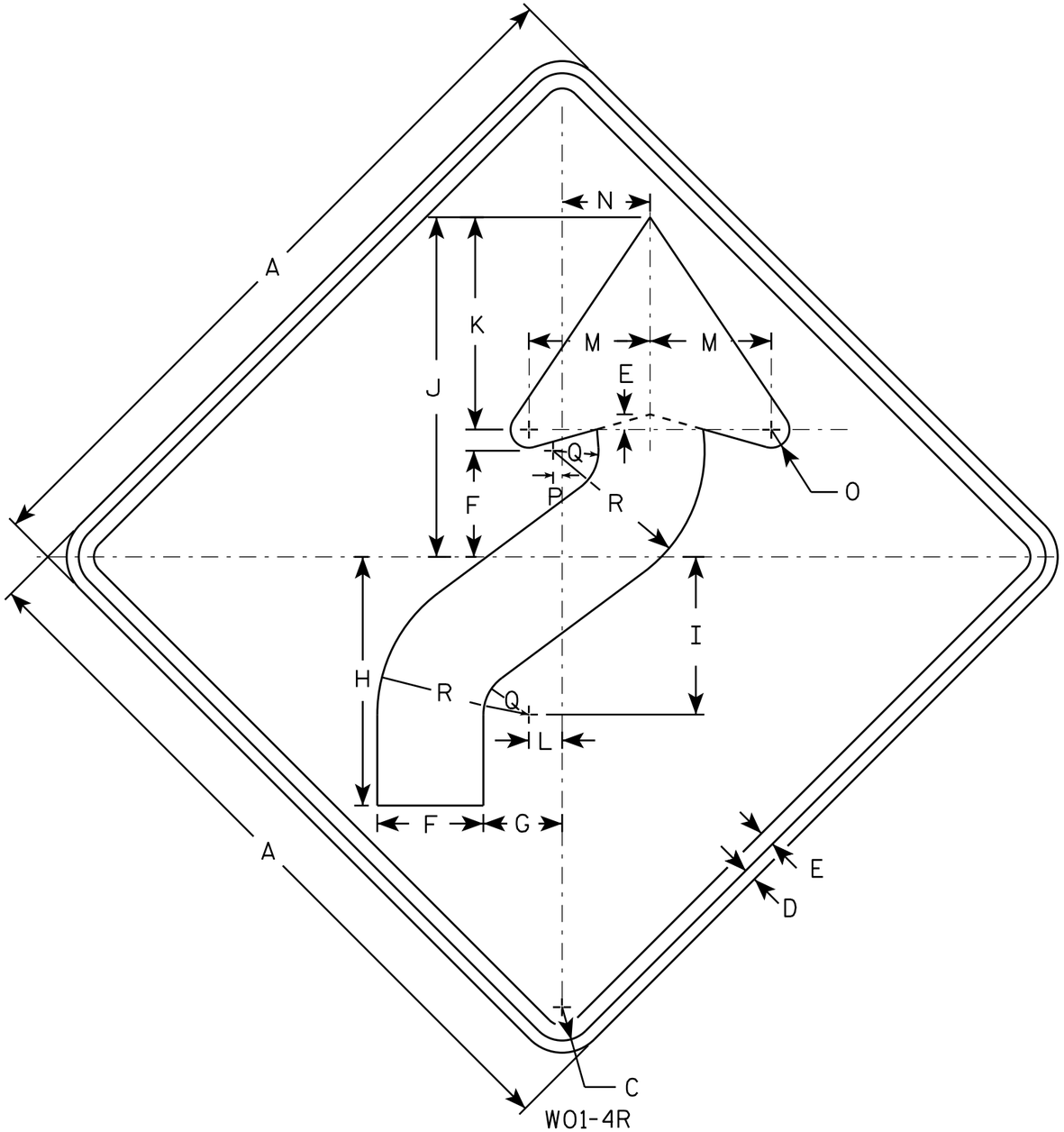
STANDARD SIGN
W21-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-5.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 346	E



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

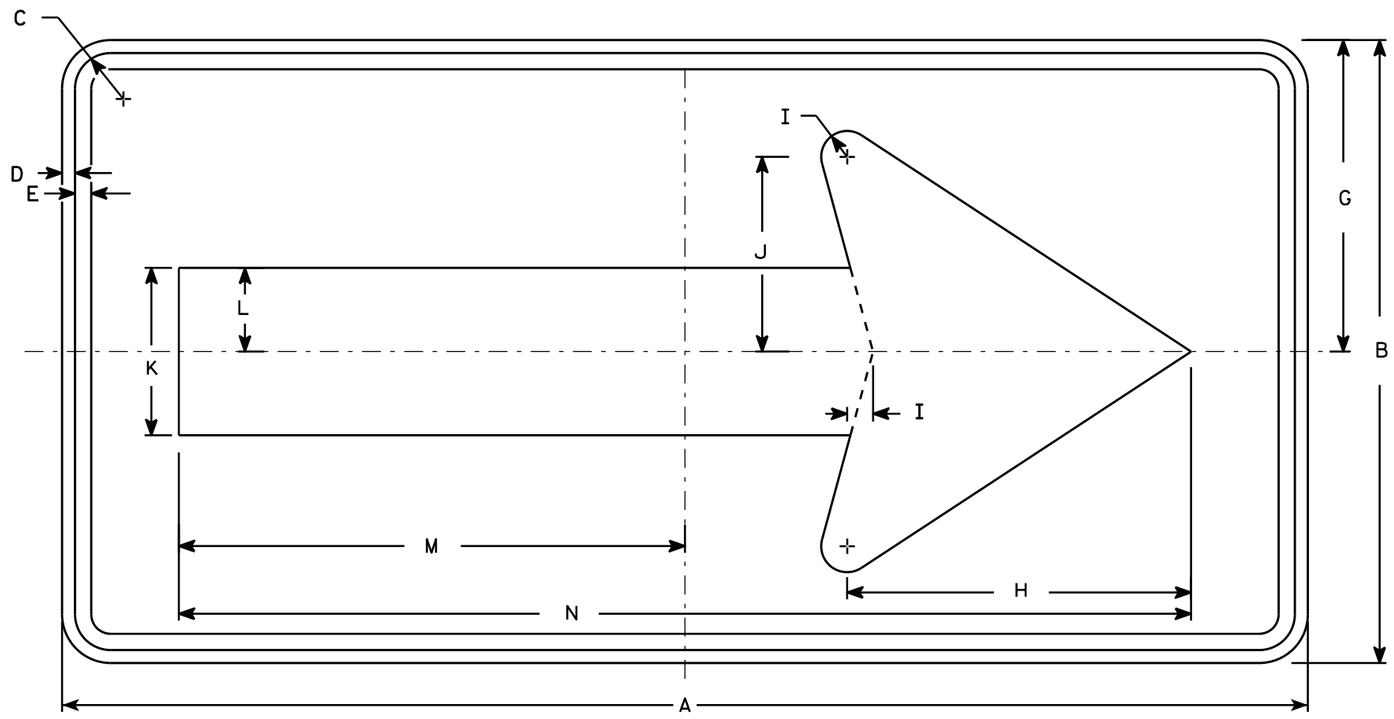
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000
WISDOT/CADDS SHEET 42



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

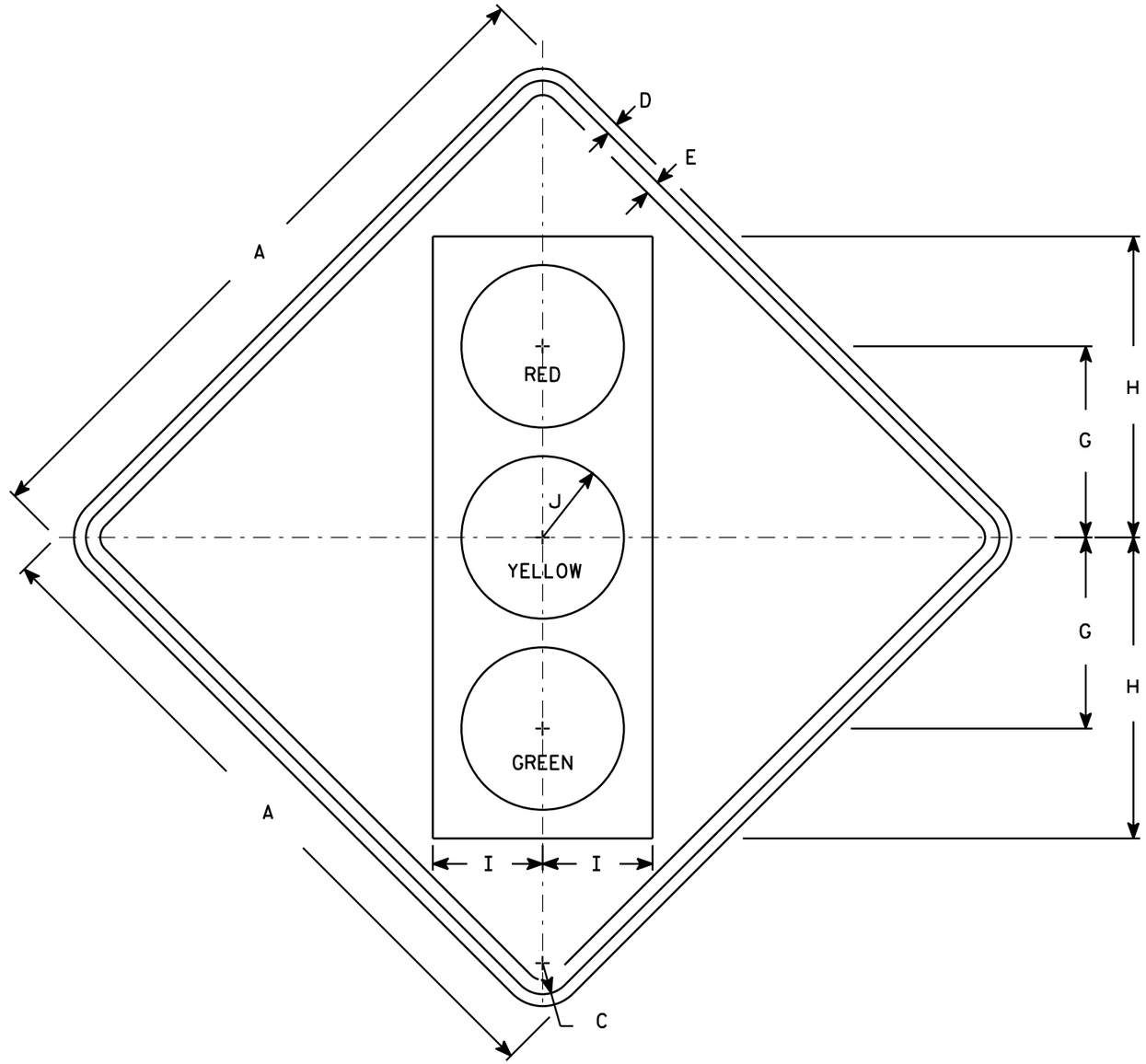
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



W03-3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2S	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
2M	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
3	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

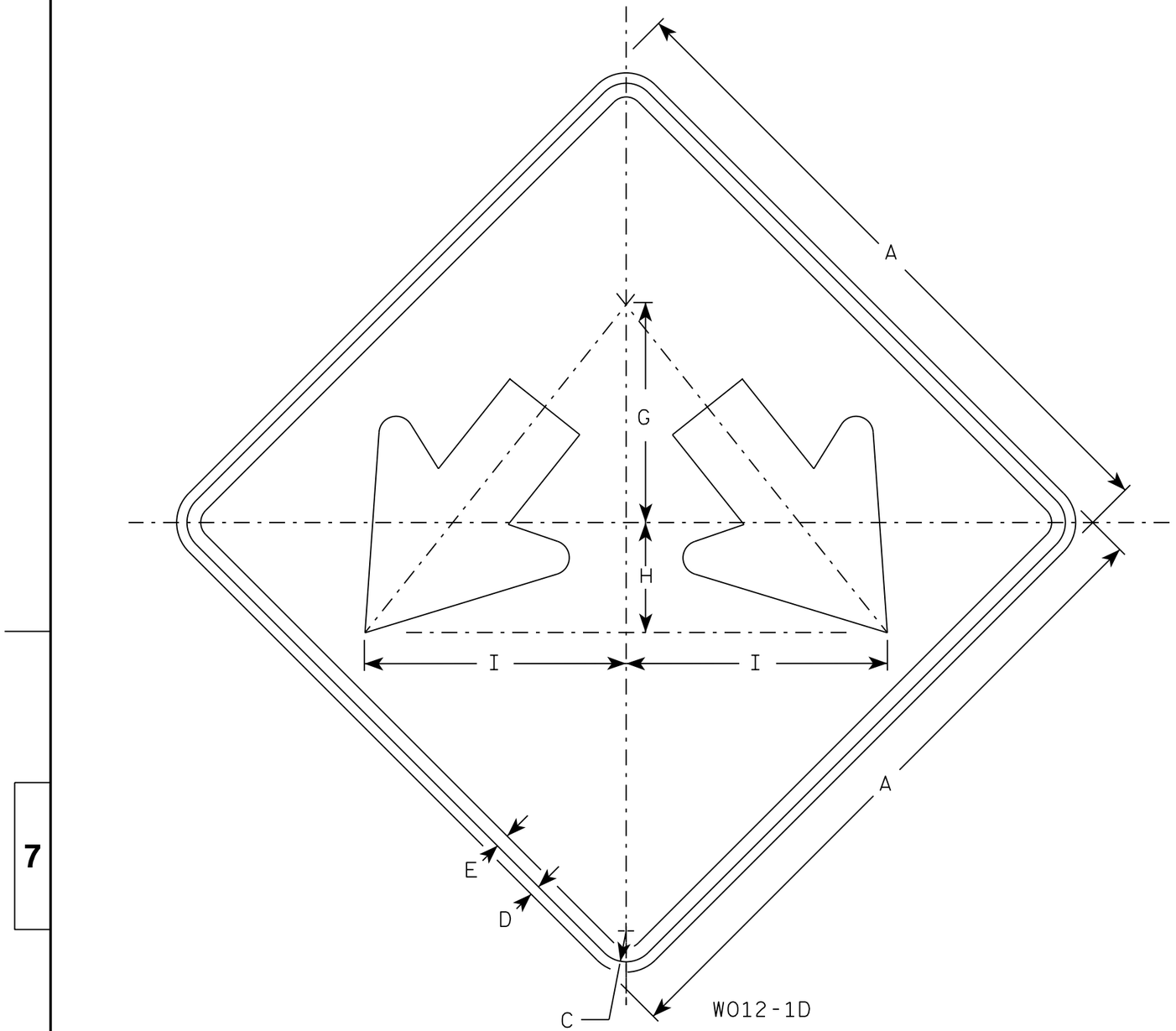
STANDARD SIGN
W03-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLAT 349 W03-3.1

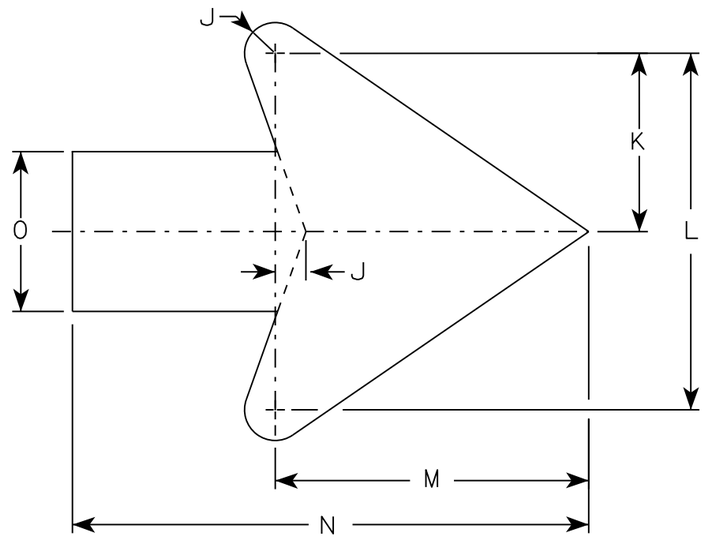
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W012-1D

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0

STANDARD SIGN
W012-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/28/16 PLATE NO W012-1D.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CADfiles\Projects\tr_stdplate\W0121D.DGN PLOT DATE : 11-AUG-2016 11:28 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.621375:1.000000

NOTES:
1-CUT
2-SALVAGED/UNUSABLE PAVEMENT MATERIAL
3-FILL
4-EXPANDED MARSH BACKFILL
5-REDUCED MARSH IN FILL
6-REDUCED EBS IN FILL
7-MASS ORDINATE
8-SELECT FILL

CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
THIS DOES NOT SHOW UP IN CROSS SECTIONS
DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME OR SELECT FILL
WILL BE BACKFILLED WITH CUT OR BORROW
REDUCED MARSH EXCAVATION THAT CAN BE USED IN FILL
REDUCED EBS EXCAVATION THAT CAN BE USED IN FILL
IF MARSH AND EBS TO BE BACKFILLED WITH CUT OR BORROW: CUT-(FILL -EXPANDED ROCK)*FILL FACTOR
AREA UNDER INSIDE 1:1'S EXTENDED DOWN FROM SUBGRADE SHOULDER POINTS

DIVISION 1 (STA 103+87EB - STA 108+77EB): STH 16 EB TEMPORARY(STAGE 1)

		Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)						
STATION	Distance	Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Marsh Exc (SF)	Rock Exc (SF)	EBS (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Marsh Exc (CY)	Rock Exc (CY)	EBS (CY)	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.50 Note 4	Reduced Marsh in Fill 0.60 Note 5	Expanded Rock Backfill 1.1	Reduced EBS In Fill 0.80 Note 6	Mass Ordinate Note 7
103+87		4	0	0	0	0	0													
104+00	13	4	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	2
104+50	50	13	0	0	0	0	1	16	0	0	0	0	1	18	-1	0	0	0	1	19
105+00	50	27	0	0	0	0	1	37	0	0	0	0	2	55	-3	0	0	0	2	58
105+50	50	49	0	0	0	0	2	71	0	0	0	0	4	126	-6	0	0	0	5	132
106+00	50	58	0	0	0	0	3	99	0	0	0	0	5	225	-11	0	0	0	9	237
106+50	50	66	0	0	0	0	3	115	0	0	0	0	6	341	-17	0	0	0	14	358
107+00	50	70	0	0	0	0	4	126	0	0	0	0	6	467	-23	0	0	0	19	490
107+50	50	52	0	0	0	0	3	113	0	0	0	0	6	580	-29	0	0	0	23	609
108+00	50	33	0	0	0	0	2	79	0	0	0	0	4	659	-33	0	0	0	26	692
108+50	50	11	0	0	0	0	1	41	0	0	0	0	2	700	-35	0	0	0	28	735
108+77	27	7	0	0	0	0	0	9	0	0	0	0	0	709	-35	0	0	0	28	745
								709	0	0	0	0	35							

DIVISION 1 (STA 109+85EB - STA 110+98EB): STH 16 EB TEMPORARY(STAGE 1)

		Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)						
STATION	Distance	Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Marsh Exc (SF)	Rock Exc (SF)	EBS (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Marsh Exc (CY)	Rock Exc (CY)	EBS (CY)	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.50 Note 4	Reduced Marsh in Fill 0.60 Note 5	Expanded Rock Backfill 1.1	Reduced EBS In Fill 0.80 Note 6	Mass Ordinate Note 7
109+85		4	0	0	0	0	0													
110+00	15	9	0	0	0	0	0	4	0	0	0	0	0	4	0	0	0	0	0	4
110+50	50	31	0	0	0	0	2	37	0	0	0	0	2	41	-2	0	0	0	2	43
110+98	48	28	0	0	0	0	1	52	0	0	0	0	3	93	-5	0	0	0	4	98
								93	0	0	0	0	5							

DIVISION 1 (STA 111+56EB - STA 115+34EB): STH 16 EB TEMPORARY(STAGE 1)

STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)						Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Reduced Marsh in Fill	Expanded Rock Backfill	Reduced EBS In Fill	
		(SF)	(SF)	(SF)	(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	(CY)	(CY)	(CY)	1.00 Note 1	1.25	1.50 Note 4	0.60 Note 5	1.1	0.80 Note 6	Note 7
111+56		3	0	0	0	0	0													
112+00	44	17	0	0	0	0	1	17	0	0	0	0	1	17	-1	0	0	0	1	18
112+50	50	19	0	0	0	0	1	34	0	0	0	0	2	51	-3	0	0	0	2	53
113+00	50	20	0	0	0	0	1	36	0	0	0	0	2	87	-4	0	0	0	3	91
113+50	50	17	0	0	0	0	1	34	0	0	0	0	2	121	-6	0	0	0	5	127
114+00	50	14	0	0	0	0	1	29	0	0	0	0	1	150	-7	0	0	0	6	158
114+50	50	13	0	0	0	0	1	25	0	0	0	0	1	175	-9	0	0	0	7	184
115+00	50	9	0	0	0	0	0	19	0	0	0	0	1	195	-10	0	0	0	8	204
115+34	34	4	0	0	0	0	0	8	0	0	0	0	0	202	-10	0	0	0	8	212
								202	0	0	0	0	10							

DIVISION 1 (STA 119+95EB - STA 122+05EB): STH 16 EB TEMPORARY(STAGE 1)

STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)						Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Reduced Marsh in Fill	Expanded Rock Backfill	Reduced EBS In Fill	
		(SF)	(SF)	(SF)	(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	(CY)	(CY)	(CY)	1.00 Note 1	1.25	1.50 Note 4	0.60 Note 5	1.1	0.80 Note 6	Note 7
119+95		11	0	0	0	0	1													
120+00	5	24	0	0	0	0	1	3	0	0	0	0	0	3	0	0	0	0	0	3
120+50	50	49	0	0	0	0	2	68	0	0	0	0	3	71	-4	0	0	0	3	74
121+00	50	18	0	0	0	0	1	62	0	0	0	0	3	133	-7	0	0	0	5	140
121+50	50	20	0	0	0	0	1	34	0	0	0	0	2	167	-8	0	0	0	7	176
122+00	50	4	0	0	0	0	0	22	0	0	0	0	1	190	-9	0	0	0	8	199
122+05	5	4	0	0	0	0	0	1	0	0	0	0	0	190	-10	0	0	0	8	200
								190	0	0	0	0	10							

DIVISION 1 (STA 125+91EB - STA 128+53EB): STH 16 EB TEMPORARY(STAGE 1)

STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)						Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Reduced Marsh in Fill	Expanded Rock Backfill	Reduced EBS In Fill	
		(SF)	(SF)	(SF)	(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	(CY)	(CY)	(CY)	1.00 Note 1	1.25	1.50 Note 4	0.60 Note 5	1.1	0.80 Note 6	Note 7
125+91		5	0	0	0	0	0													
126+00	9	7	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	2
126+50	50	36	0	0	0	0	2	39	0	0	0	0	2	41	-2	0	0	0	2	43
127+00	50	45	0	0	0	0	2	74	0	0	0	0	4	116	-6	0	0	0	5	122
127+50	50	38	0	0	0	0	2	77	0	0	0	0	4	192	-10	0	0	0	8	202
128+00	50	13	0	0	0	0	1	47	0	0	0	0	2	240	-12	0	0	0	10	252
128+50	50	4	0	0	0	0	0	16	0	0	0	0	1	256	-13	0	0	0	10	268
128+53	3	4	0	0	0	0	0	0	0	0	0	0	0	256	-13	0	0	0	10	269
								256	0	0	0	0	13							

DIVISION 1 (STA 18+50A - STA 26+39A): RAMP A TEMPORARY(STAGE 1)

STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)						Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Reduced Marsh in Fill	Expanded Rock Backfill	Reduced EBS In Fill	
		(SF)	(SF)	(SF)	(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	(CY)	(CY)	(CY)	1.00 Note 1	1.25	1.50 Note 4	0.60 Note 5	1.1	0.80 Note 6	Note 7
18+50		4	0	0	0	0	0													
19+00	50	7	0	2	0	0	0	10	0	2	0	0	0	10	1	0	0	0	0	9
19+50	50	11	0	28	0	0	1	16	0	28	0	0	1	26	35	0	0	0	1	-9
20+00	50	11	0	50	0	0	1	20	0	72	0	0	1	47	125	0	0	0	2	-78
20+50	50	13	0	64	0	0	1	22	0	105	0	0	1	69	255	0	0	0	3	-186
21+00	50	14	0	60	0	0	1	25	0	114	0	0	1	93	396	0	0	0	4	-303
21+50	50	13	0	49	0	0	1	25	0	100	0	0	1	118	520	0	0	0	5	-402
22+00	50	15	0	48	0	0	1	26	0	89	0	0	1	144	630	0	0	0	6	-486
22+50	50	14	0	45	0	0	1	26	0	86	0	0	1	171	737	0	0	0	7	-566
23+00	50	14	0	38	0	0	1	25	0	77	0	0	1	196	832	0	0	0	8	-636
23+50	50	13	0	33	0	0	1	25	0	66	0	0	1	221	914	0	0	0	9	-692
24+00	50	14	0	30	0	0	1	25	0	58	0	0	1	247	985	0	0	0	10	-738
24+50	50	13	0	21	0	0	1	25	0	47	0	0	1	272	1,043	0	0	0	11	-771
25+00	50	13	0	30	0	0	1	24	0	48	0	0	1	296	1,101	0	0	0	12	-806
25+50	50	13	0	33	0	0	1	24	0	59	0	0	1	320	1,174	0	0	0	13	-854
26+00	50	13	0	30	0	0	1	24	0	59	0	0	1	344	1,246	0	0	0	14	-902
26+39	39	2	0	0	0	0	0	11	0	22	0	0	1	355	1,272	0	0	0	14	-918
								355	0	1,032	0	0	18							

DIVISION 1 (STA 20+44B - STA 30+46B): RAMP B TEMPORARY(STAGE 1)

STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)						Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Reduced Marsh in Fill	Expanded Rock Backfill	Reduced EBS In Fill	
		(SF)	(SF)	(SF)	(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	(CY)	(CY)	(CY)	1.00 Note 1	1.25	1.50 Note 4	0.60 Note 5	1.1	0.80 Note 6	Note 7
20+44		71	0	0	0	0	4													
20+50	6	63	0	0	0	0	3	14	0	0	0	0	0	14	0	0	0	0	0	14
21+00	50	13	0	0	0	0	1	71	0	0	0	0	0	85	0	0	0	0	0	85
21+50	50	12	0	24	0	0	1	23	0	22	0	0	0	108	28	0	0	0	0	80
22+00	50	10	0	56	0	0	1	21	0	74	0	0	0	129	120	0	0	0	0	8
22+50	50	10	0	60	0	0	0	19	0	107	0	0	0	148	254	0	0	0	0	-107
23+00	50	12	0	55	0	0	1	20	0	106	0	0	0	167	387	0	0	0	0	-219
23+50	50	13	0	34	0	0	1	22	0	82	0	0	0	190	489	0	0	0	0	-300
24+00	50	12	0	32	0	0	1	23	0	62	0	0	0	213	567	0	0	0	0	-354
24+50	50	12	0	34	0	0	1	22	0	62	0	0	0	234	644	0	0	0	0	-410
25+00	50	12	0	36	0	0	1	22	0	65	0	0	0	256	725	0	0	0	0	-469
25+50	50	12	0	41	0	0	1	22	0	71	0	0	0	278	814	0	0	0	0	-536
26+00	50	15	0	39	0	0	1	25	0	74	0	0	0	303	906	0	0	0	0	-603
26+50	50	14	0	43	0	0	1	27	0	76	0	0	0	330	1,001	0	0	0	0	-671
27+00	50	15	0	49	0	0	1	27	0	86	0	0	0	358	1,108	0	0	0	0	-751
27+50	50	15	0	40	0	0	1	28	0	83	0	0	0	386	1,212	0	0	0	0	-826
28+00	50	14	0	34	0	0	1	27	0	68	0	0	0	412	1,297	0	0	0	0	-885
28+50	50	13	0	36	0	0	1	25	0	65	0	0	0	437	1,378	0	0	0	0	-941
29+00	50	13	0	45	0	0	1	24	0	75	0	0	0	461	1,472	0	0	0	0	-1,011
29+50	50	12	0	32	0	0	1	23	0	72	0	0	0	484	1,562	0	0	0	0	-1,077
30+00	50	6	0	6	0	0	0	16	0	36	0	0	0	501	1,607	0	0	0	0	-1,106
30+46	46	1	0	0	0	0	0	6	0	5	0	0	0	507	1,614	0	0	0	0	-1,107
								507	0	1,291	0	0	0							

DIVISION 1 (STA 42+39C - STA 49+46C): RAMP C TEMPORARY(STAGE 1)

STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)						Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Reduced Marsh in Fill	Expanded Rock Backfill	Reduced EBS In Fill	
		(SF)	(SF)	(SF)	(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	(CY)	(CY)	(CY)	1.00 Note 1	1.25	1.50 Note 4	0.60 Note 5	1.1	0.80 Note 6	Note 7
42+39		4	0	0	0	0	0													
42+50	11	4	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	2
43+00	50	5	0	0	0	0	0	9	0	0	0	0	0	10	0	0	0	0	0	10
43+50	50	6	0	2	0	0	0	11	0	2	0	0	1	21	2	0	0	0	1	19
44+00	50	7	0	6	0	0	0	13	0	7	0	0	1	33	9	0	0	0	1	24
44+50	50	8	0	7	0	0	0	14	0	12	0	0	1	47	23	0	0	0	2	24
45+00	50	8	0	5	0	0	0	15	0	11	0	0	1	62	37	0	0	0	2	25
45+50	50	9	0	4	0	0	0	16	0	8	0	0	1	78	46	0	0	0	3	32
46+00	50	11	0	5	0	0	1	19	0	8	0	0	1	97	55	0	0	0	4	42
46+50	50	11	0	4	0	0	1	20	0	8	0	0	1	117	65	0	0	0	5	53
47+00	50	10	0	3	0	0	1	20	0	7	0	0	1	137	72	0	0	0	5	65
47+50	50	9	0	3	0	0	0	18	0	6	0	0	1	155	79	0	0	0	6	76
48+00	50	10	0	7	0	0	0	18	0	9	0	0	1	173	89	0	0	0	7	84
48+50	50	7	0	2	0	0	0	16	0	8	0	0	1	189	99	0	0	0	8	90
49+00	50	20	0	0	0	0	1	26	0	2	0	0	1	214	100	0	0	0	9	114
49+46	46	93	0	0	0	0	5	97	0	0	0	0	5	311	95	0	0	0	12	216
								311	0	89	0	0	16							

DIVISION 1 (STA 60+48D - STA 68+70D): RAMP D TEMPORARY(STAGE 1)

STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)						Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Reduced Marsh in Fill	Expanded Rock Backfill	Reduced EBS In Fill	
		(SF)	(SF)	(SF)	(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	(CY)	(CY)	(CY)	1.00 Note 1	1.25	1.50 Note 4	0.60 Note 5	1.1	0.80 Note 6	Note 7
60+48		0	0	0	0	0	0													
60+50	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61+00	50	13	0	28	0	0	1	14	0	26	0	0	1	14	32	0	0	0	1	-18
61+50	50	15	0	56	0	0	1	25	0	78	0	0	1	40	128	0	0	0	2	-89
62+00	50	14	0	53	0	0	1	26	0	101	0	0	1	66	253	0	0	0	3	-187
62+50	50	15	0	47	0	0	1	27	0	93	0	0	1	93	367	0	0	0	4	-275
63+00	50	17	0	29	0	0	1	29	0	70	0	0	1	122	453	0	0	0	5	-331
63+50	50	16	0	23	0	0	1	30	0	47	0	0	1	152	511	0	0	0	6	-359
64+00	50	12	0	23	0	0	1	26	0	42	0	0	1	178	562	0	0	0	7	-385
64+50	50	12	0	28	0	0	1	22	0	47	0	0	1	200	620	0	0	0	8	-420
65+00	50	12	0	12	0	0	1	22	0	37	0	0	1	222	665	0	0	0	9	-444
65+50	50	13	0	6	0	0	1	23	0	16	0	0	1	245	684	0	0	0	10	-439
66+00	50	11	0	4	0	0	1	22	0	9	0	0	1	267	695	0	0	0	11	-427
66+50	50	9	0	5	0	0	0	19	0	8	0	0	1	286	704	0	0	0	11	-418
67+00	50	8	0	3	0	0	0	16	0	7	0	0	1	302	713	0	0	0	12	-411
67+50	50	7	0	1	0	0	0	14	0	4	0	0	1	316	717	0	0	0	13	-401
68+00	50	7	0	0	0	0	0	13	0	1	0	0	1	329	718	0	0	0	13	-389
68+50	50	4	0	0	0	0	0	10	0	0	0	0	1	339	718	0	0	0	14	-378
68+70	20	3	0	0	0	0	0	3	0	0	0	0	0	342	717	0	0	0	14	-375
								342	0	588	0	0	17							

DIVISION 2 (STA 108+89EB - STA 127+00EB): STH 16 EB (STAGE 2)

STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)						Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Reduced Marsh in Fill	Expanded Rock Backfill	Reduced EBS In Fill	
								Note 1	Note 2	Note 3				1.00	1.25	1.50	0.60	1.1	0.80	
		(SF)	(SF)	(SF)	(SF)	(SF)	(SF)	(CY)	(CY)	(CY)	(CY)	(CY)	(CY)	Note 1		Note 4	Note 5		Note 6	Note 7
108+90		92	18	5	0	0	5													
109+00	10	89	18	19	0	0	4	34	7	4	0	0	2	34	4	0	0	0	1	23
109+50	50	96	18	66	0	0	5	172	33	79	0	0	9	206	94	0	0	0	8	72
110+00	50	57	18	0	0	0	3	142	33	61	0	0	7	347	163	0	0	0	14	111
110+50	50	49	18	0	0	0	2	98	33	0	0	0	5	445	158	0	0	0	18	181
111+00	50	40	18	0	0	0	2	82	33	0	0	0	4	528	154	0	0	0	21	234
111+50	50	43	18	15	0	0	2	77	33	14	0	0	4	605	167	0	0	0	24	264
112+00	50	50	18	57	0	0	2	86	33	66	0	0	4	691	246	0	0	0	28	238
112+50	50	50	18	68	0	0	3	93	33	116	0	0	5	783	386	0	0	0	31	157
113+00	50	56	18	61	0	0	3	98	33	120	0	0	5	881	531	0	0	0	35	77
113+50	50	70	18	45	0	0	3	116	33	98	0	0	6	998	648	0	0	0	40	43
114+00	50	56	18	23	0	0	3	116	33	63	0	0	6	1,114	721	0	0	0	45	53
114+50	50	64	18	5	0	0	3	111	33	26	0	0	6	1,225	748	0	0	0	49	103
115+00	50	73	18	2	0	0	4	126	33	6	0	0	6	1,351	750	0	0	0	54	194
115+50	50	79	18	1	0	0	4	141	33	2	0	0	7	1,491	746	0	0	0	60	306
116+00	50	88	18	0	0	0	4	155	33	1	0	0	8	1,646	739	0	0	0	66	434
116+50	50	97	18	0	0	0	5	171	33	0	0	0	9	1,817	731	0	0	0	73	580
117+00	50	103	18	6	0	0	5	185	33	5	0	0	9	2,002	728	0	0	0	80	734
117+50	50	207	18	5	0	0	10	287	33	10	0	0	14	2,290	726	0	0	0	92	990
118+00	50	271	18	4	0	0	14	443	33	8	0	0	22	2,732	715	0	0	0	109	1,411
118+50	50	206	18	9	0	0	10	442	33	12	0	0	22	3,174	707	0	0	0	127	1,827
119+00	50	193	18	31	0	0	10	370	33	37	0	0	18	3,544	735	0	0	0	142	2,136
119+50	50	165	18	0	0	0	8	331	33	28	0	0	17	3,875	754	0	0	0	155	2,415
120+00	50	98	18	0	0	0	5	244	33	0	0	0	12	4,119	741	0	0	0	165	2,638
120+50	50	95	18	0	0	0	5	180	33	0	0	0	9	4,299	732	0	0	0	172	2,793
121+00	50	153	18	74	0	0	8	230	33	69	0	0	12	4,529	807	0	0	0	181	2,915
121+50	50	143	18	51	0	0	7	274	33	116	0	0	14	4,803	938	0	0	0	192	3,025
122+00	50	138	18	46	0	0	7	260	33	90	0	0	13	5,063	1,038	0	0	0	203	3,152
122+50	50	136	18	50	0	0	7	254	33	90	0	0	13	5,317	1,137	0	0	0	213	3,273
123+00	50	118	18	41	0	0	6	235	33	85	0	0	12	5,551	1,232	0	0	0	222	3,380
123+50	50	95	18	30	0	0	5	196	33	66	0	0	10	5,748	1,304	0	0	0	230	3,470
124+00	50	85	18	24	0	0	4	166	33	50	0	0	8	5,914	1,359	0	0	0	237	3,548
124+50	50	82	18	21	0	0	4	155	33	42	0	0	8	6,069	1,404	0	0	0	243	3,625
125+00	50	81	18	18	0	0	4	151	33	37	0	0	8	6,220	1,442	0	0	0	249	3,705
125+50	50	82	18	17	0	0	4	151	33	33	0	0	8	6,371	1,476	0	0	0	255	3,789
126+00	50	73	18	18	0	0	4	143	33	33	0	0	7	6,515	1,509	0	0	0	261	3,865
126+50	50	81	18	21	0	0	4	143	33	36	0	0	7	6,658	1,547	0	0	0	266	3,937
126+99	49	75	18	8	0	0	4	144	33	26	0	0	7	6,801	1,573	0	0	0	272	4,022
SUBTOTAL								6,801	1,206	1,530	0	0	340							

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DIVISION 2 (STA 108+89EB - STA 110+39EB): STH 16 EB TEMPORARY(STAGE 2)

STATION	Distance	Area: Cut (SF)	Area: Salvaged/Unusable Pavement Material (SF)	Area: Fill (SF)	Area: Marsh Exc (SF)	Area: Rock Exc (SF)	Area: EBS (SF)	Incremental Volume (Unadjusted): Cut Note 1 (CY)	Incremental Volume (Unadjusted): Salvaged/Unusable Pavement Material Note 2 (CY)	Incremental Volume (Unadjusted): Fill Note 3 (CY)	Incremental Volume (Unadjusted): Marsh Exc (CY)	Incremental Volume (Unadjusted): Rock Exc (CY)	Incremental Volume (Unadjusted): EBS (CY)	Cumulative Vol (CY): Cut 1.00 Note 1	Cumulative Vol (CY): Expanded Fill 1.25	Cumulative Vol (CY): Expanded Marsh Backfill 1.50 Note 4	Cumulative Vol (CY): Reduced Marsh in Fill 0.60 Note 5	Cumulative Vol (CY): Expanded Rock Backfill 1.1	Cumulative Vol (CY): Reduced EBS In Fill 0.80 Note 6	Mass Ordinate Note 7
108+99		1	0	0	0	0	0													
109+00	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109+50	50	8	0	9	0	0	0	9	0	9	0	0	0	9	11	0	0	0	0	-2
110+00	50	7	0	9	0	0	0	14	0	17	0	0	1	23	32	0	0	0	1	-10
110+39	39	0	0	0	0	0	0	5	0	7	0	0	0	28	40	0	0	0	1	-12
SUBTOTAL								28	0	33	0	0	1							

DIVISION 2 (STA 110+95EB - STA 111+57EB): STH 16 EB TEMPORARY(STAGE 2)

STATION	Distance	Area: Cut (SF)	Area: Salvaged/Unusable Pavement Material (SF)	Area: Fill (SF)	Area: Marsh Exc (SF)	Area: Rock Exc (SF)	Area: EBS (SF)	Incremental Volume (Unadjusted): Cut Note 1 (CY)	Incremental Volume (Unadjusted): Salvaged/Unusable Pavement Material Note 2 (CY)	Incremental Volume (Unadjusted): Fill Note 3 (CY)	Incremental Volume (Unadjusted): Marsh Exc (CY)	Incremental Volume (Unadjusted): Rock Exc (CY)	Incremental Volume (Unadjusted): EBS (CY)	Cumulative Vol (CY): Cut 1.00 Note 1	Cumulative Vol (CY): Expanded Fill 1.25	Cumulative Vol (CY): Expanded Marsh Backfill 1.50 Note 4	Cumulative Vol (CY): Reduced Marsh in Fill 0.60 Note 5	Cumulative Vol (CY): Expanded Rock Backfill 1.1	Cumulative Vol (CY): Reduced EBS In Fill 0.80 Note 6	Mass Ordinate Note 7
110+95		0	0	0	0	0	0													
111+00	5	6	0	3	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
111+50	50	3	0	4	0	0	0	8	0	7	0	0	0	8	8	0	0	0	0	0
111+57	7	2	0	4	0	0	0	1	0	1	0	0	0	9	9	0	0	0	0	-1
SUBTOTAL								9	0	8	0	0	0							

DIVISION 2 (STA 118+19EB - STA 120+00EB): STH 16 EB TEMPORARY(STAGE 2)

STATION	Distance	Area: Cut (SF)	Area: Salvaged/Unusable Pavement Material (SF)	Area: Fill (SF)	Area: Marsh Exc (SF)	Area: Rock Exc (SF)	Area: EBS (SF)	Incremental Volume (Unadjusted): Cut Note 1 (CY)	Incremental Volume (Unadjusted): Salvaged/Unusable Pavement Material Note 2 (CY)	Incremental Volume (Unadjusted): Fill Note 3 (CY)	Incremental Volume (Unadjusted): Marsh Exc (CY)	Incremental Volume (Unadjusted): Rock Exc (CY)	Incremental Volume (Unadjusted): EBS (CY)	Cumulative Vol (CY): Cut 1.00 Note 1	Cumulative Vol (CY): Expanded Fill 1.25	Cumulative Vol (CY): Expanded Marsh Backfill 1.50 Note 4	Cumulative Vol (CY): Reduced Marsh in Fill 0.60 Note 5	Cumulative Vol (CY): Expanded Rock Backfill 1.1	Cumulative Vol (CY): Reduced EBS In Fill 0.80 Note 6	Mass Ordinate Note 7
118+19		21	0	0	0	0	1													
118+50	31	31	0	0	0	0	2	30	0	0	0	0	1	30	-1	0	0	0	1	31
119+00	50	37	0	0	0	0	2	63	0	0	0	0	3	92	-5	0	0	0	4	97
119+50	50	51	0	0	0	0	3	82	0	0	0	0	4	174	-9	0	0	0	7	183
120+00	50	2	0	0	0	0	0	49	0	0	0	0	2	223	-11	0	0	0	9	234
SUBTOTAL								223	0	0	0	0	11							

DIVISION 2 (STA 20+46B - STA 30+46B): RAMP B (STAGE 2)

STATION	Distance	Area: Cut (SF)	Area: Salvaged/Unusable Pavement Material (SF)	Area: Fill (SF)	Area: Marsh Exc (SF)	Area: Rock Exc (SF)	Area: EBS (SF)	Incremental Volume (Unadjusted): Cut Note 1 (CY)	Incremental Volume (Unadjusted): Salvaged/Unusable Pavement Material Note 2 (CY)	Incremental Volume (Unadjusted): Fill Note 3 (CY)	Incremental Volume (Unadjusted): Marsh Exc (CY)	Incremental Volume (Unadjusted): Rock Exc (CY)	Incremental Volume (Unadjusted): EBS (CY)	Cumulative Vol (CY): Cut 1.00 Note 1	Cumulative Vol (CY): Expanded Fill 1.25	Cumulative Vol (CY): Expanded Marsh Backfill 1.50 Note 4	Cumulative Vol (CY): Reduced Marsh in Fill 0.60 Note 5	Cumulative Vol (CY): Expanded Rock Backfill 1.1	Cumulative Vol (CY): Reduced EBS In Fill 0.80 Note 6	Mass Ordinate Note 7
20+46		140	16	40	0	0	7													
20+50	4	153	16	31	0	0	8	20	2	5	0	0	1	20	5	0	0	0	1	13
21+00	50	176	16	3	0	0	9	305	30	31	0	0	15	325	29	0	0	0	13	265
21+50	50	183	16	6	0	0	9	332	30	8	0	0	17	658	22	0	0	0	26	574
22+00	50	199	16	0	0	0	10	353	30	6	0	0	18	1,011	12	0	0	0	40	908
22+50	50	199	16	0	0	0	10	368	30	0	0	0	18	1,379	-7	0	0	0	55	1,265
23+00	50	163	16	0	0	0	8	335	30	0	0	0	17	1,714	-24	0	0	0	69	1,587
23+50	50	117	16	0	0	0	6	259	30	0	0	0	13	1,973	-37	0	0	0	79	1,830
24+00	50	83	16	0	0	0	4	186	30	0	0	0	9	2,159	-46	0	0	0	86	1,995
24+50	50	69	16	1	0	0	3	141	30	1	0	0	7	2,300	-52	0	0	0	92	2,113
25+00	50	36	16	12	0	0	2	97	30	12	0	0	5	2,397	-42	0	0	0	96	2,171
25+50	50	41	16	12	0	0	2	71	30	22	0	0	4	2,469	-18	0	0	0	99	2,189
26+00	50	39	16	15	0	0	2	74	30	25	0	0	4	2,543	10	0	0	0	102	2,205
26+50	50	43	16	14	0	0	2	76	30	27	0	0	4	2,619	40	0	0	0	105	2,221
27+00	50	49	16	15	0	0	2	86	30	27	0	0	4	2,704	70	0	0	0	108	2,247
27+50	50	40	16	15	0	0	2	83	30	28	0	0	4	2,787	100	0	0	0	111	2,270
28+00	50	34	16	14	0	0	2	68	30	27	0	0	3	2,855	131	0	0	0	114	2,278
28+50	50	36	16	13	0	0	2	65	30	25	0	0	3	2,920	158	0	0	0	117	2,285
29+00	50	45	16	13	0	0	2	75	30	24	0	0	4	2,995	185	0	0	0	120	2,305
29+50	50	32	16	12	0	0	2	72	30	23	0	0	4	3,067	210	0	0	0	123	2,322
30+00	50	6	16	6	0	0	0	36	30	16	0	0	2	3,103	229	0	0	0	124	2,309
30+46	46	0	16	1	0	0	0	5	27	6	0	0	0	3,109	236	0	0	0	124	2,280
								3,109	593	313	0	0	155							

DIVISION 2 (STA 60+30D - STA 68+70D): RAMP D (STAGE 2)

STATION	Distance	Area: Cut (SF)	Area: Salvaged/Unusable Pavement Material (SF)	Area: Fill (SF)	Area: Marsh Exc (SF)	Area: Rock Exc (SF)	Area: EBS (SF)	Incremental Volume (Unadjusted): Cut Note 1 (CY)	Incremental Volume (Unadjusted): Salvaged/Unusable Pavement Material Note 2 (CY)	Incremental Volume (Unadjusted): Fill Note 3 (CY)	Incremental Volume (Unadjusted): Marsh Exc (CY)	Incremental Volume (Unadjusted): Rock Exc (CY)	Incremental Volume (Unadjusted): EBS (CY)	Cumulative Vol (CY): Cut 1.00 Note 1	Cumulative Vol (CY): Expanded Fill 1.25	Cumulative Vol (CY): Expanded Marsh Backfill 1.50 Note 4	Cumulative Vol (CY): Reduced Marsh in Fill 0.60 Note 5	Cumulative Vol (CY): Expanded Rock Backfill 1.1	Cumulative Vol (CY): Reduced EBS In Fill 0.80 Note 6	Mass Ordinate Note 7
60+30		432	16	0	0	0	22													
60+50	20	303	16	17	0	0	15	276	12	7	0	0	14	276	-6	0	0	0	11	270
61+00	50	364	16	2	0	0	18	618	30	17	0	0	31	894	-15	0	0	0	36	867
61+50	50	289	16	0	0	0	14	605	30	1	0	0	30	1,498	-43	0	0	0	60	1,470
62+00	50	242	16	0	0	0	12	491	30	0	0	0	25	1,989	-68	0	0	0	80	1,956
62+50	50	193	16	0	0	0	10	402	30	0	0	0	20	2,391	-88	0	0	0	96	2,349
63+00	50	159	16	0	0	0	8	326	30	0	0	0	16	2,717	-104	0	0	0	109	2,661
63+50	50	159	16	0	0	0	8	295	30	0	0	0	15	3,012	-119	0	0	0	120	2,941
64+00	50	23	16	12	0	0	1	168	30	11	0	0	8	3,180	-113	0	0	0	127	3,074
64+50	50	28	16	12	0	0	1	47	30	22	0	0	2	3,227	-88	0	0	0	129	3,066
65+00	50	12	16	12	0	0	1	37	30	22	0	0	2	3,264	-62	0	0	0	131	3,048
65+50	50	6	16	13	0	0	0	16	30	23	0	0	1	3,280	-34	0	0	0	131	3,006
66+00	50	4	16	11	0	0	0	9	30	22	0	0	0	3,289	-7	0	0	0	132	2,958
66+50	50	5	16	9	0	0	0	8	30	19	0	0	0	3,298	16	0	0	0	132	2,914
67+00	50	3	16	8	0	0	0	7	30	16	0	0	0	3,305	36	0	0	0	132	2,872
67+50	50	1	16	7	0	0	0	4	30	14	0	0	0	3,309	54	0	0	0	132	2,829
68+00	50	0	16	7	0	0	0	1	30	13	0	0	0	3,310	70	0	0	0	132	2,784
68+50	50	0	16	4	0	0	0	0	30	10	0	0	0	3,311	83	0	0	0	132	2,742
68+70	20	0	16	3	0	0	0	0	12	3	0	0	0	3,311	86	0	0	0	132	2,727
								3,311	498	201	0	0	166							

DIVISION 3 (STA 107+80EB - STA 128+16EB): STH 16 EB (STAGE 3)

STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)						Mass Ordinate
		Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Marsh Exc (SF)	Rock Exc (SF)	EBS (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Marsh Exc (CY)	Rock Exc (CY)	EBS (CY)	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.50 Note 4	Reduced Marsh in Fill 0.60 Note 5	Expanded Rock Backfill 1.1	Reduced EBS In Fill 0.80 Note 6	Note 7
107+80		5	18	0	0	0	0													
108+00	20	84	18	7	0	0	4	33	13	3	0	0	2	33	2	0	0	0	1	18
108+50	50	73	18	55	0	0	4	145	33	57	0	0	7	179	66	0	0	0	7	21
109+00	50	64	18	44	0	0	3	127	33	92	0	0	6	305	174	0	0	0	12	6
109+50	50	54	18	71	0	0	3	109	33	107	0	0	5	415	302	0	0	0	17	-46
110+00	50	47	18	148	0	0	2	94	33	202	0	0	5	508	550	0	0	0	20	-234
110+50	50	47	18	143	0	0	2	87	33	269	0	0	4	595	882	0	0	0	24	-512
111+00	50	29	18	0	0	0	1	70	33	132	0	0	3	665	1,044	0	0	0	27	-638
111+50	50	30	18	54	0	0	2	54	33	50	0	0	3	720	1,104	0	0	0	29	-677
112+00	50	32	18	42	0	0	2	58	33	89	0	0	3	777	1,213	0	0	0	31	-761
112+50	50	34	18	46	0	0	2	61	33	82	0	0	3	839	1,311	0	0	0	34	-832
113+00	50	38	18	41	0	0	2	67	33	81	0	0	3	905	1,409	0	0	0	36	-896
113+50	50	41	18	22	0	0	2	73	33	58	0	0	4	978	1,478	0	0	0	39	-926
114+00	50	42	18	14	0	0	2	77	33	33	0	0	4	1,054	1,516	0	0	0	42	-920
114+50	50	42	18	4	0	0	2	78	33	17	0	0	4	1,133	1,533	0	0	0	45	-892
115+00	50	45	18	2	0	0	2	81	33	5	0	0	4	1,214	1,535	0	0	0	49	-847
115+50	50	61	18	1	0	0	3	99	33	3	0	0	5	1,313	1,534	0	0	0	53	-780
116+00	50	80	18	0	0	0	4	131	33	2	0	0	7	1,444	1,530	0	0	0	58	-677
116+50	50	95	18	0	0	0	5	162	33	1	0	0	8	1,607	1,522	0	0	0	64	-541
117+00	50	115	18	0	0	0	6	195	33	0	0	0	10	1,801	1,513	0	0	0	72	-370
117+50	50	140	18	0	0	0	7	236	33	0	0	0	12	2,037	1,501	0	0	0	81	-156
118+00	50	159	18	0	0	0	8	276	33	0	0	0	14	2,313	1,487	0	0	0	93	101
118+50	50	174	18	0	0	0	9	308	33	0	0	0	15	2,621	1,472	0	0	0	105	391
119+00	50	180	18	0	0	0	9	328	33	0	0	0	16	2,949	1,455	0	0	0	118	702
119+50	50	175	18	0	0	0	9	329	33	0	0	0	16	3,278	1,439	0	0	0	131	1,014
120+00	50	117	18	0	0	0	6	271	33	0	0	0	14	3,549	1,425	0	0	0	142	1,265
120+50	50	108	18	0	0	0	5	209	33	0	0	0	10	3,757	1,415	0	0	0	150	1,450
121+00	50	129	18	0	0	0	6	219	33	0	0	0	11	3,976	1,404	0	0	0	159	1,647
121+50	50	111	18	1	0	0	6	222	33	1	0	0	11	4,198	1,394	0	0	0	168	1,845
122+00	50	103	18	7	0	0	5	198	33	7	0	0	10	4,396	1,394	0	0	0	176	2,011
122+50	50	99	18	29	0	0	5	187	33	33	0	0	9	4,583	1,425	0	0	0	183	2,133
123+00	50	89	18	41	0	0	4	175	33	65	0	0	9	4,758	1,497	0	0	0	190	2,202
123+50	50	80	18	41	0	0	4	157	33	77	0	0	8	4,915	1,585	0	0	0	197	2,237
124+00	50	69	18	54	0	0	3	138	33	88	0	0	7	5,052	1,688	0	0	0	202	2,239
124+50	50	59	18	65	0	0	3	118	33	109	0	0	6	5,170	1,819	0	0	0	207	2,193
125+00	50	58	18	70	0	0	3	108	33	125	0	0	5	5,278	1,970	0	0	0	211	2,116
125+50	50	67	18	64	0	0	3	115	33	125	0	0	6	5,394	2,120	0	0	0	216	2,048
126+00	50	71	18	56	0	0	4	127	33	111	0	0	6	5,521	2,253	0	0	0	221	2,010
126+50	50	79	18	41	0	0	4	139	33	89	0	0	7	5,660	2,358	0	0	0	226	2,011
127+00	50	74	18	45	0	0	4	142	33	79	0	0	7	5,802	2,449	0	0	0	232	2,028
127+50	50	10	18	55	0	0	1	78	33	93	0	0	4	5,881	2,561	0	0	0	235	1,961
128+00	50	10	18	55	0	0	1	19	33	102	0	0	1	5,899	2,687	0	0	0	236	1,820
128+16	16	11	18	49	0	0	1	6	11	31	0	0	0	5,906	2,725	0	0	0	236	1,778
SUBTOTAL								5,906	1,357	2,417	0	0	295							

DIVISION 3 (STA 18+50A - STA 26+72A): RAMP A (STAGE 3)

STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)						Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Reduced Marsh in Fill	Expanded Rock Backfill	Reduced EBS In Fill	
								Note 1	Note 2	Note 3				1.00	1.25	1.50	0.60	1.1	0.80	
		(SF)	(SF)	(SF)	(SF)	(SF)	(SF)	(CY)	(CY)	(CY)	(CY)	(CY)	(CY)	Note 1		Note 4	Note 5		Note 6	Note 7
18+50		0	0	4	0	0	0	0	0	0	0	0	0							
19+00	50	2	0	7	0	0	0	2	0	10	0	0	0	2	12	0	0	0	0	-11
19+50	50	28	0	11	0	0	1	28	0	16	0	0	1	29	31	0	0	0	1	-2
20+00	50	50	0	11	0	0	2	72	0	20	0	0	4	102	53	0	0	0	4	48
20+50	50	64	0	13	0	0	3	105	0	22	0	0	5	206	75	0	0	0	8	131
21+00	50	60	0	14	0	0	3	114	0	25	0	0	6	321	101	0	0	0	13	220
21+50	50	49	0	13	0	0	2	100	0	25	0	0	5	421	127	0	0	0	17	294
22+00	50	48	0	15	0	0	2	89	0	26	0	0	4	510	155	0	0	0	20	355
22+50	50	45	0	14	0	0	2	86	0	26	0	0	4	596	184	0	0	0	24	413
23+00	50	38	0	14	0	0	2	77	0	25	0	0	4	674	212	0	0	0	27	462
23+50	50	33	0	13	0	0	2	66	0	25	0	0	3	740	240	0	0	0	30	500
24+00	50	30	0	14	0	0	1	58	0	25	0	0	3	798	269	0	0	0	32	529
24+50	50	70	16	0	0	0	4	92	15	13	0	0	5	890	280	0	0	0	36	595
25+00	50	65	16	1	0	0	3	125	30	1	0	0	6	1,015	275	0	0	0	41	696
25+50	50	59	16	5	0	0	3	115	30	5	0	0	6	1,131	276	0	0	0	45	780
26+00	50	42	16	9	0	0	2	94	30	12	0	0	5	1,225	287	0	0	0	49	834
26+50	50	55	16	87	0	0	3	90	30	88	0	0	5	1,315	392	0	0	0	53	789
26+72	22	115	16	0	0	0	6	69	13	35	0	0	3	1,384	433	0	0	0	55	805
								1,384	146	402	0	0	69							

DIVISION 3 (STA 42+39C - STA 49+54C): RAMP C (STAGE 3)

STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)						Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Reduced Marsh in Fill	Expanded Rock Backfill	Reduced EBS In Fill	
								Note 1	Note 2	Note 3				1.00	1.25	1.50	0.60	1.1	0.80	
		(SF)	(SF)	(SF)	(SF)	(SF)	(SF)	(CY)	(CY)	(CY)	(CY)	(CY)	(CY)	Note 1		Note 4	Note 5		Note 6	Note 7
42+39		0	0	4	0	0	0	0	0	0	0	0	0							
42+50	11	0	0	4	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	-2
43+00	50	0	0	5	0	0	0	0	0	9	0	0	0	0	13	0	0	0	0	-12
43+50	50	2	0	6	0	0	0	2	0	11	0	0	0	2	26	0	0	0	0	-24
44+00	50	6	0	7	0	0	0	7	0	13	0	0	0	9	41	0	0	0	0	-33
44+50	50	81	16	6	0	0	4	80	15	12	0	0	4	89	52	0	0	0	4	22
45+00	50	72	16	22	0	0	4	142	30	25	0	0	7	231	77	0	0	0	9	110
45+50	50	67	16	41	0	0	3	128	30	58	0	0	6	359	143	0	0	0	14	142
46+00	50	66	16	55	0	0	3	123	30	88	0	0	6	482	247	0	0	0	19	132
46+50	50	73	16	27	0	0	4	129	30	76	0	0	6	611	335	0	0	0	24	143
47+00	50	90	16	2	0	0	5	151	30	28	0	0	8	763	362	0	0	0	31	238
47+50	50	112	16	9	0	0	6	187	30	11	0	0	9	950	366	0	0	0	38	391
48+00	50	144	16	40	0	0	7	237	30	46	0	0	12	1,187	411	0	0	0	47	554
48+50	50	219	16	27	0	0	11	336	30	62	0	0	17	1,524	472	0	0	0	61	800
49+00	50	280	16	2	0	0	14	462	30	27	0	0	23	1,986	482	0	0	0	79	1,222
49+50	50	492	16	0	0	0	25	715	30	2	0	0	36	2,701	449	0	0	0	108	1,941
49+54	4	530	16	0	0	0	27	76	2	0	0	0	4	2,777	445	0	0	0	111	2,019
								2,777	314	467	0	0	139							

DIVISION 4 (STA 107+93EB - STA 127+00EB): STH 16 EB (STAGE 4)

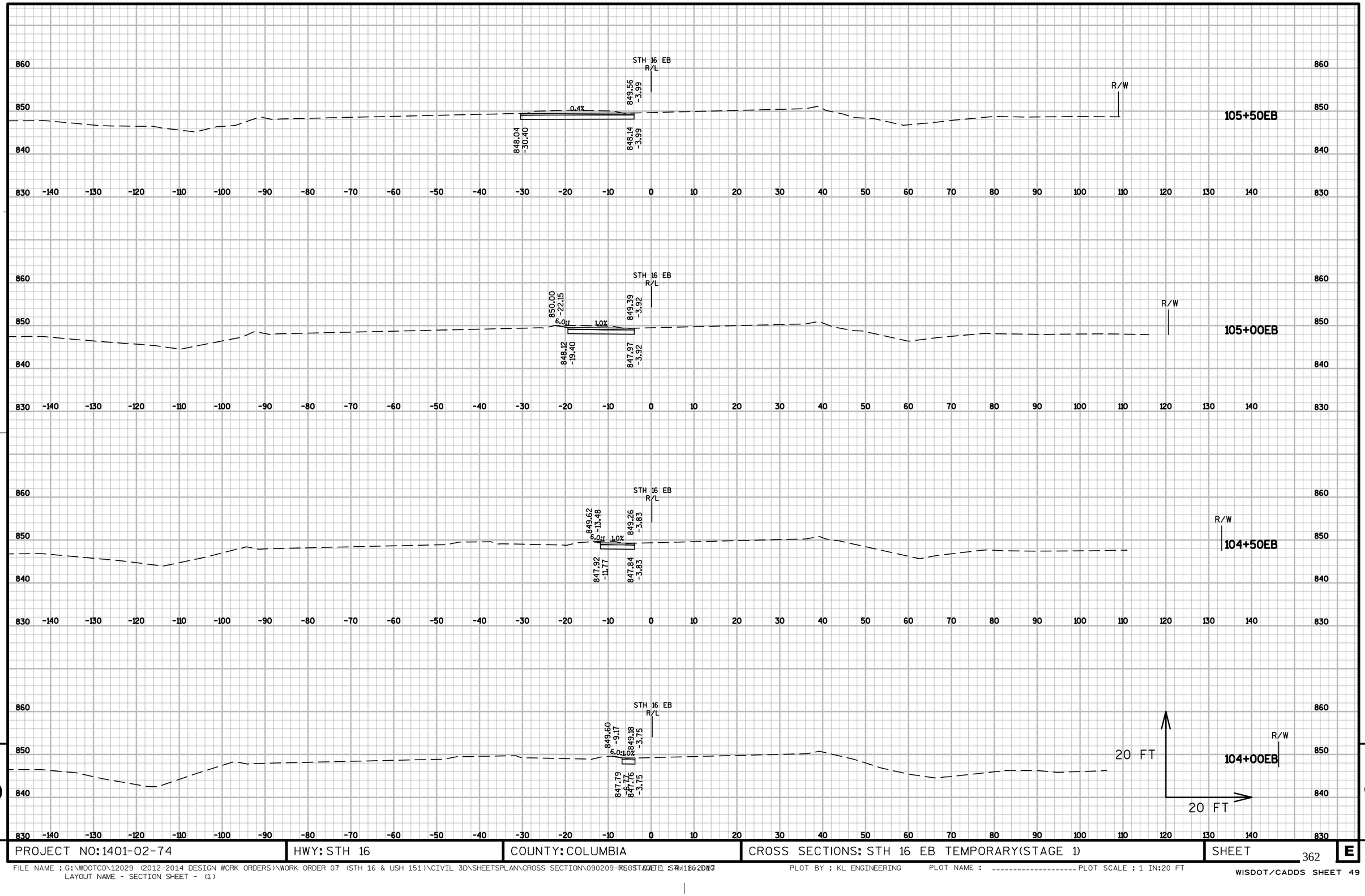
STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)						Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Reduced Marsh in Fill	Expanded Rock Backfill	Reduced EBS In Fill	
								Note 1	Note 2	Note 3				1.00	1.25	1.50	0.60	1.1	0.80	
		(SF)	(SF)	(SF)	(SF)	(SF)	(SF)	(CY)	(CY)	(CY)	(CY)	(CY)	(CY)	Note 1		Note 4	Note 5		Note 6	Note 7
107+93		10	0	0	0	0	0													
108+00	7	10	0	0	0	0	0	3	0	0	0	0	0	3	0	0	0	0	0	3
108+50	50	5	0	0	0	0	0	14	0	0	0	0	1	16	-1	0	0	0	1	17
109+00	50	40	0	34	0	0	2	42	0	31	0	0	2	58	36	0	0	0	2	22
109+50	50	39	0	35	0	0	2	73	0	64	0	0	4	131	112	0	0	0	5	18
110+00	50	26	0	32	0	0	1	60	0	62	0	0	3	191	187	0	0	0	8	4
110+50	50	4	0	47	0	0	0	28	0	73	0	0	1	219	276	0	0	0	9	-57
111+00	50	48	0	0	0	0	2	48	0	43	0	0	2	267	328	0	0	0	11	-61
111+50	50	63	0	0	0	0	3	103	0	0	0	0	5	370	323	0	0	0	15	47
112+00	50	16	0	15	0	0	1	73	0	14	0	0	4	443	337	0	0	0	18	107
112+50	50	16	0	20	0	0	1	29	0	33	0	0	1	473	376	0	0	0	19	97
113+00	50	18	0	20	0	0	1	32	0	37	0	0	2	504	420	0	0	0	20	84
113+50	50	23	0	17	0	0	1	38	0	34	0	0	2	543	460	0	0	0	22	82
114+00	50	25	0	14	0	0	1	44	0	28	0	0	2	587	493	0	0	0	23	94
114+50	50	18	0	9	0	0	1	40	0	21	0	0	2	627	517	0	0	0	25	109
115+00	50	15	0	2	0	0	1	31	0	10	0	0	2	657	528	0	0	0	26	129
115+50	50	17	0	0	0	0	1	30	0	2	0	0	1	687	530	0	0	0	27	157
116+00	50	37	0	0	0	0	2	50	0	0	0	0	2	737	528	0	0	0	29	208
116+50	50	67	0	0	0	0	3	96	0	0	0	0	5	833	523	0	0	0	33	310
117+00	50	83	0	0	0	0	4	139	0	0	0	0	7	972	516	0	0	0	39	455
117+50	50	95	0	0	0	0	5	165	0	0	0	0	8	1,136	508	0	0	0	45	628
118+00	50	109	0	0	0	0	5	189	0	0	0	0	9	1,325	499	0	0	0	53	826
118+50	50	98	0	0	0	0	5	192	0	0	0	0	10	1,517	489	0	0	0	61	1,028
119+00	50	101	0	0	0	0	5	185	0	0	0	0	9	1,701	480	0	0	0	68	1,222
119+50	50	115	0	0	0	0	6	201	0	0	0	0	10	1,902	470	0	0	0	76	1,432
120+00	50	118	0	0	0	0	6	216	0	0	0	0	11	2,118	459	0	0	0	85	1,659
120+50	50	22	0	14	0	0	1	130	0	13	0	0	6	2,248	469	0	0	0	90	1,779
121+00	50	31	0	4	0	0	2	50	0	16	0	0	2	2,297	486	0	0	0	92	1,811
121+50	50	35	0	4	0	0	2	61	0	7	0	0	3	2,359	492	0	0	0	94	1,866
122+00	50	42	0	0	0	0	2	71	0	4	0	0	4	2,429	494	0	0	0	97	1,936
122+50	50	44	0	0	0	0	2	79	0	0	0	0	4	2,509	490	0	0	0	100	2,019
123+00	50	35	0	0	0	0	2	73	0	0	0	0	4	2,582	486	0	0	0	103	2,096
123+50	50	28	0	0	0	0	1	59	0	0	0	0	3	2,641	483	0	0	0	106	2,157
124+00	50	23	0	2	0	0	1	48	0	2	0	0	2	2,689	484	0	0	0	108	2,205
124+50	50	21	0	5	0	0	1	42	0	7	0	0	2	2,730	490	0	0	0	109	2,240
125+00	50	20	0	5	0	0	1	38	0	10	0	0	2	2,769	500	0	0	0	111	2,269
125+50	50	20	0	6	0	0	1	37	0	11	0	0	2	2,806	511	0	0	0	112	2,294
126+00	50	11	0	7	0	0	1	29	0	13	0	0	1	2,834	526	0	0	0	113	2,308
126+50	50	7	0	26	0	0	0	17	0	31	0	0	1	2,851	563	0	0	0	114	2,288
127+00	50	8	0	33	0	0	0	14	0	54	0	0	1	2,865	631	0	0	0	115	2,234
								2,865	0	619	0	0	143							

DIVISION 4 (STA 103+87EB - STA 107+93EB): STH 16 EB (STAGE 4)

STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)						Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Reduced Marsh in Fill	Expanded Rock Backfill	Reduced EBS In Fill	
		(SF)	(SF)	(SF)	(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	Note 3 (CY)	Note 3 (CY)	Note 3 (CY)	1.00 Note 1	1.25	1.50 Note 4	0.60 Note 5	1.1	0.80 Note 6	Note 7
103+87		0	0	4	0	0	0													
104+00	13	0	0	4	0	0	0	0	0	2	0	0	0	0	3	0	0	0	0	-3
104+50	50	0	0	13	0	0	0	0	0	16	0	0	0	0	22	0	0	0	0	-22
105+00	50	0	0	27	0	0	0	0	0	37	0	0	0	0	69	0	0	0	0	-69
105+50	50	0	0	49	0	0	0	0	0	71	0	0	0	0	158	0	0	0	0	-158
106+00	50	0	0	58	0	0	0	0	0	99	0	0	0	0	282	0	0	0	0	-282
106+50	50	0	0	66	0	0	0	0	0	115	0	0	0	0	426	0	0	0	0	-426
107+00	50	0	0	70	0	0	0	0	0	126	0	0	0	0	584	0	0	0	0	-584
107+50	50	0	0	52	0	0	0	0	0	113	0	0	0	0	726	0	0	0	0	-726
107+93	43	0	0	33	0	0	0	0	0	67	0	0	0	0	809	0	0	0	0	-809
								0	0	648	0	0	0							

DIVISION 1 (STA 127+00EB - STA 128+53EB): STH 16 EB (STAGE 4)

STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)						Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Expanded Fill	Expanded Marsh Backfill	Reduced Marsh in Fill	Expanded Rock Backfill	Reduced EBS In Fill	
		(SF)	(SF)	(SF)	(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	Note 3 (CY)	Note 3 (CY)	Note 3 (CY)	1.00 Note 1	1.25	1.50 Note 4	0.60 Note 5	1.1	0.80 Note 6	Note 7
127+00		0	0	45	0	0	0													
127+50	50	0	0	38	0	0	0	0	0	77	0	0	0	0	96	0	0	0	0	-96
128+00	50	0	0	13	0	0	0	0	0	47	0	0	0	0	155	0	0	0	0	-155
128+50	50	0	0	4	0	0	0	0	0	16	0	0	0	0	175	0	0	0	0	-175
128+53	3	0	0	4	0	0	0	0	0	0	0	0	0	0	175	0	0	0	0	-175
								0	0	140	0	0	0							

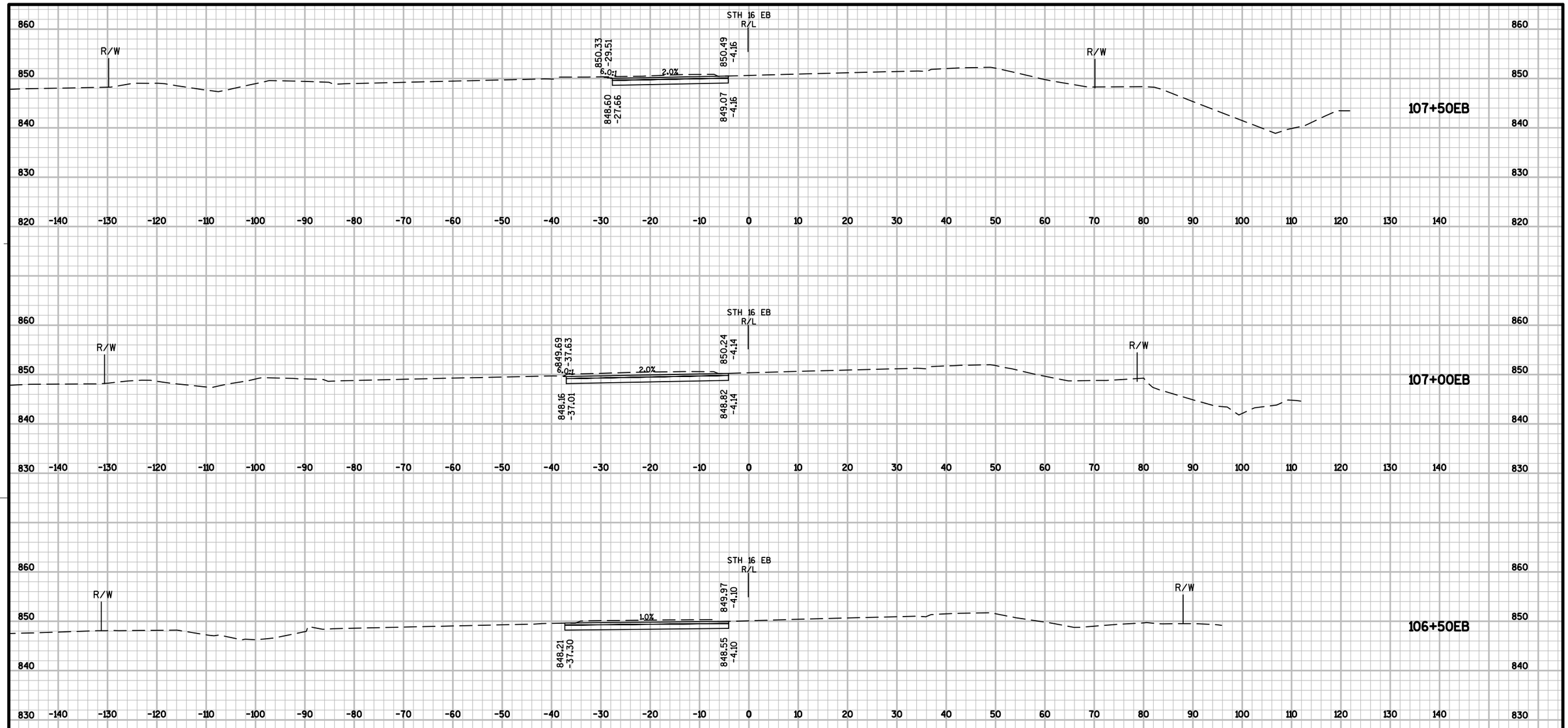


PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 EB TEMPORARY(STAGE 1)	SHEET 362	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090209-RSOSTAGE1_STH16.DWG
LAYOUT NAME - SECTION SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

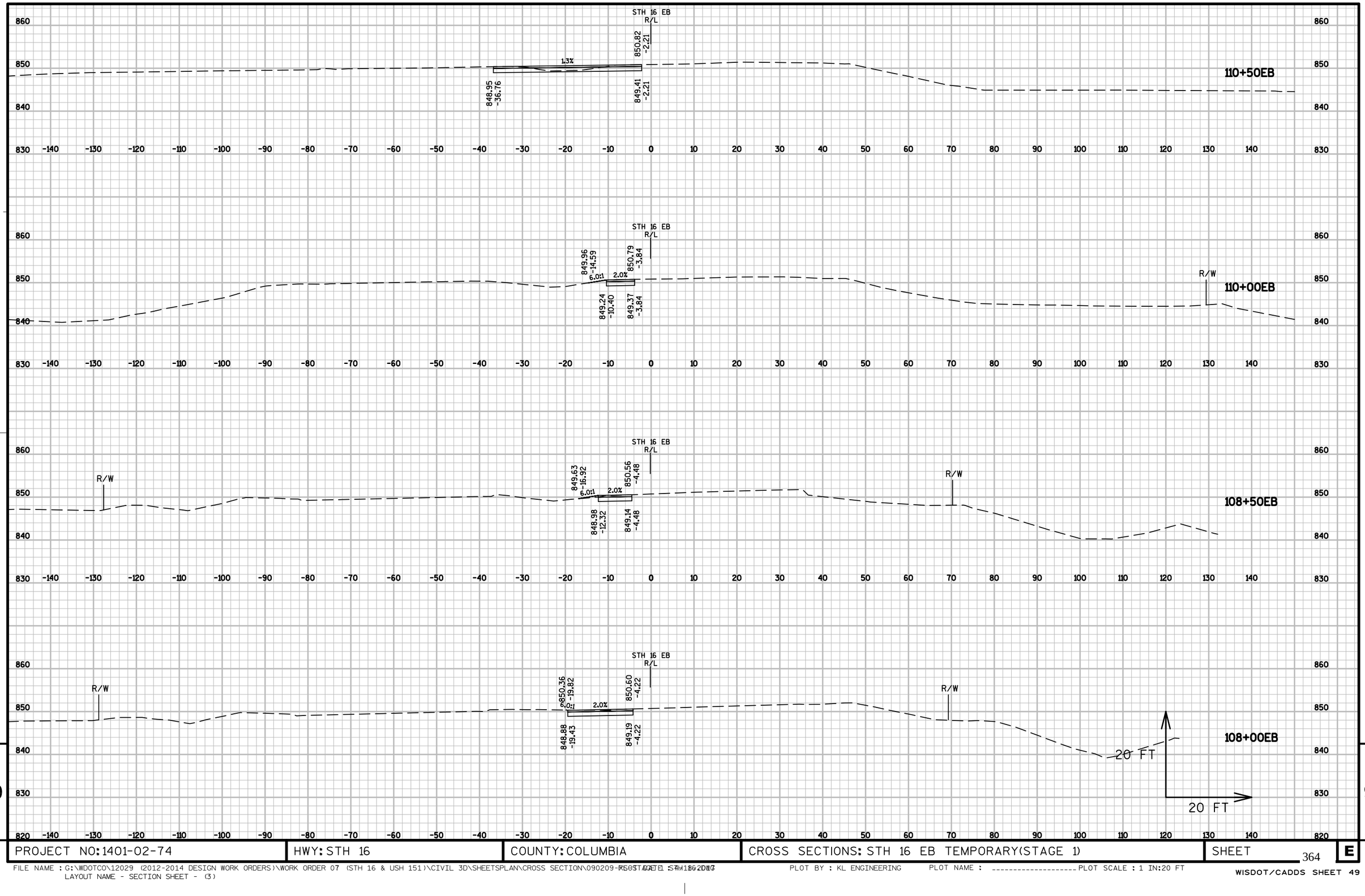


PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 EB TEMPORARY(STAGE 1)	SHEET 363	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090209-XSST02E1 STH 16.DWG
LAYOUT NAME - SECTION SHEET - (2)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

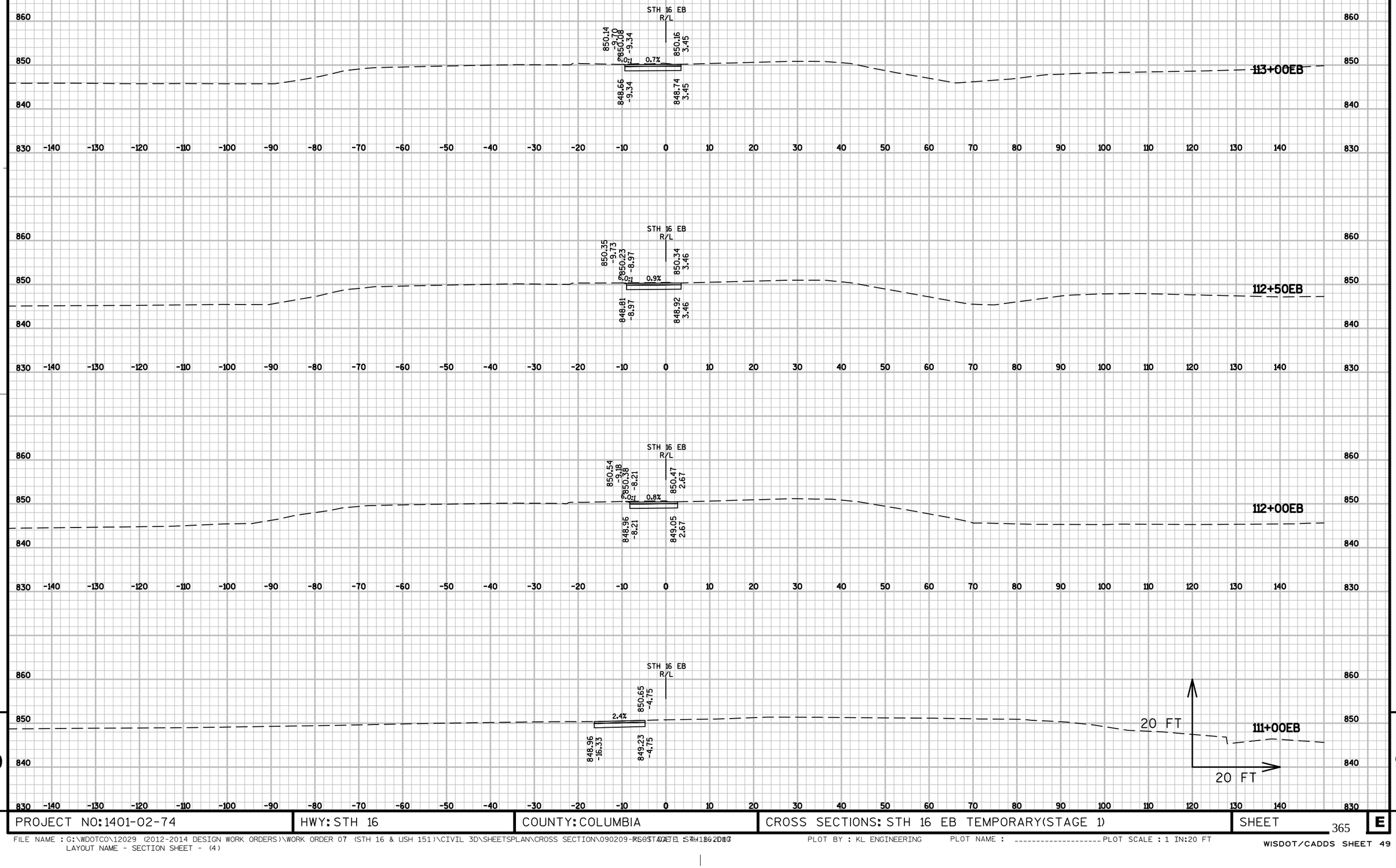


PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 EB TEMPORARY(STAGE 1)	SHEET 364 E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090209-RSOS_02E1_STH16.DWG
LAYOUT NAME - SECTION SHEET - (3)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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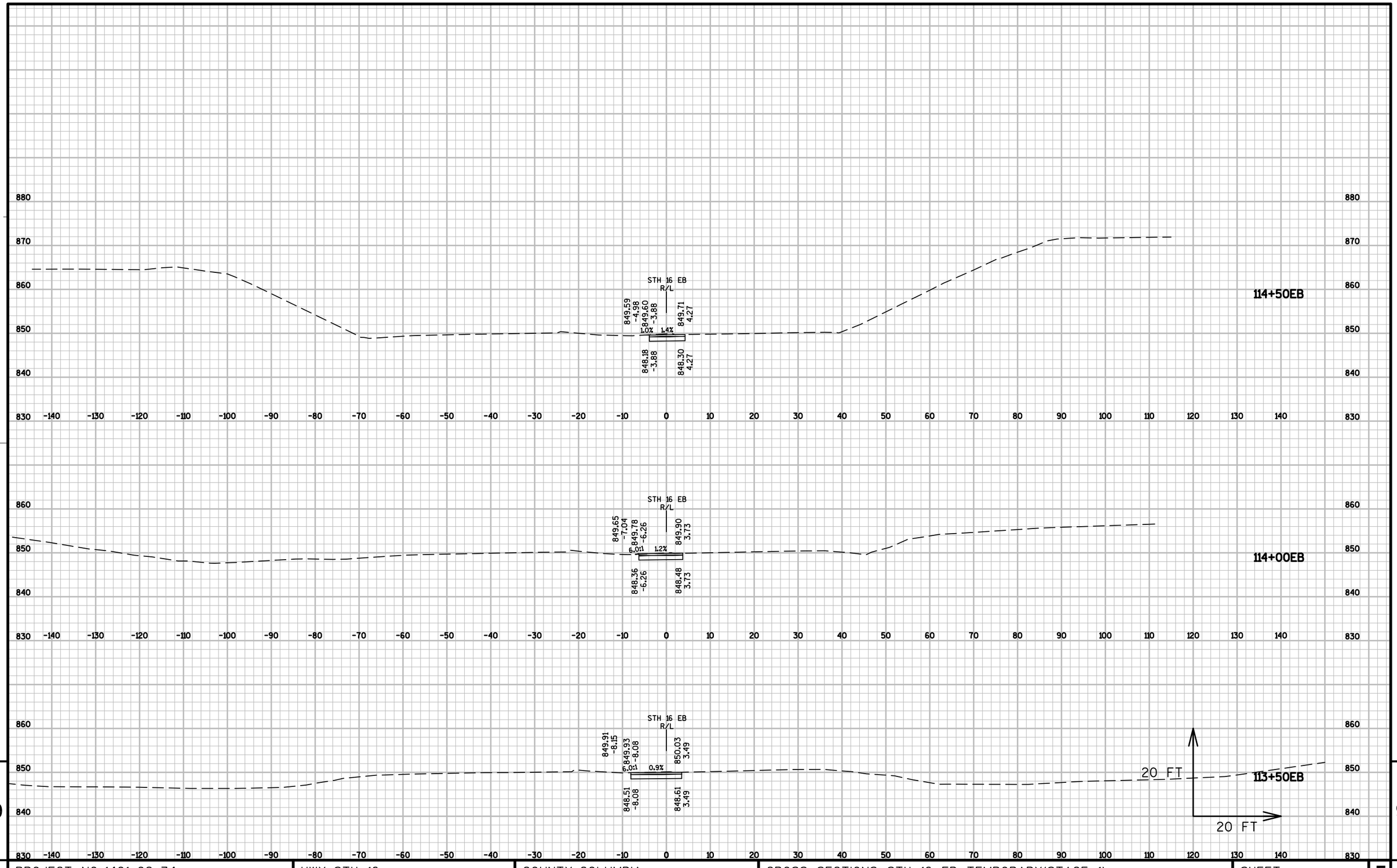
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 EB TEMPORARY(STAGE 1)	SHEET 365	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090209-RSOSTAGE1 STH 16 2017
LAYOUT NAME - SECTION SHEET - (4)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

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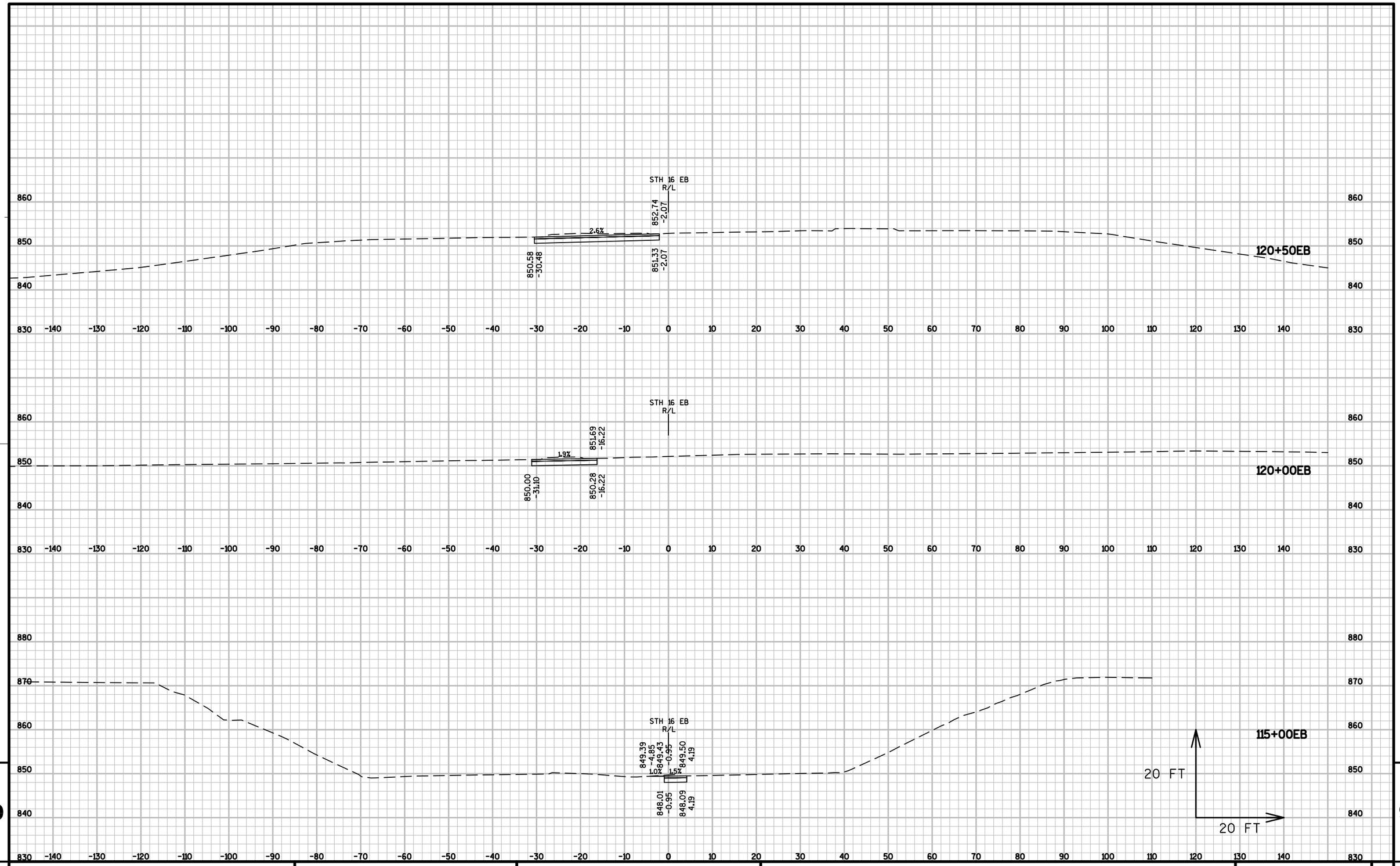
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 EB TEMPORARY(STAGE 1)	SHEET 366	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090209-RSS STAGE 1 STH 16.DWG
LAYOUT NAME - SECTION SHEET - (5)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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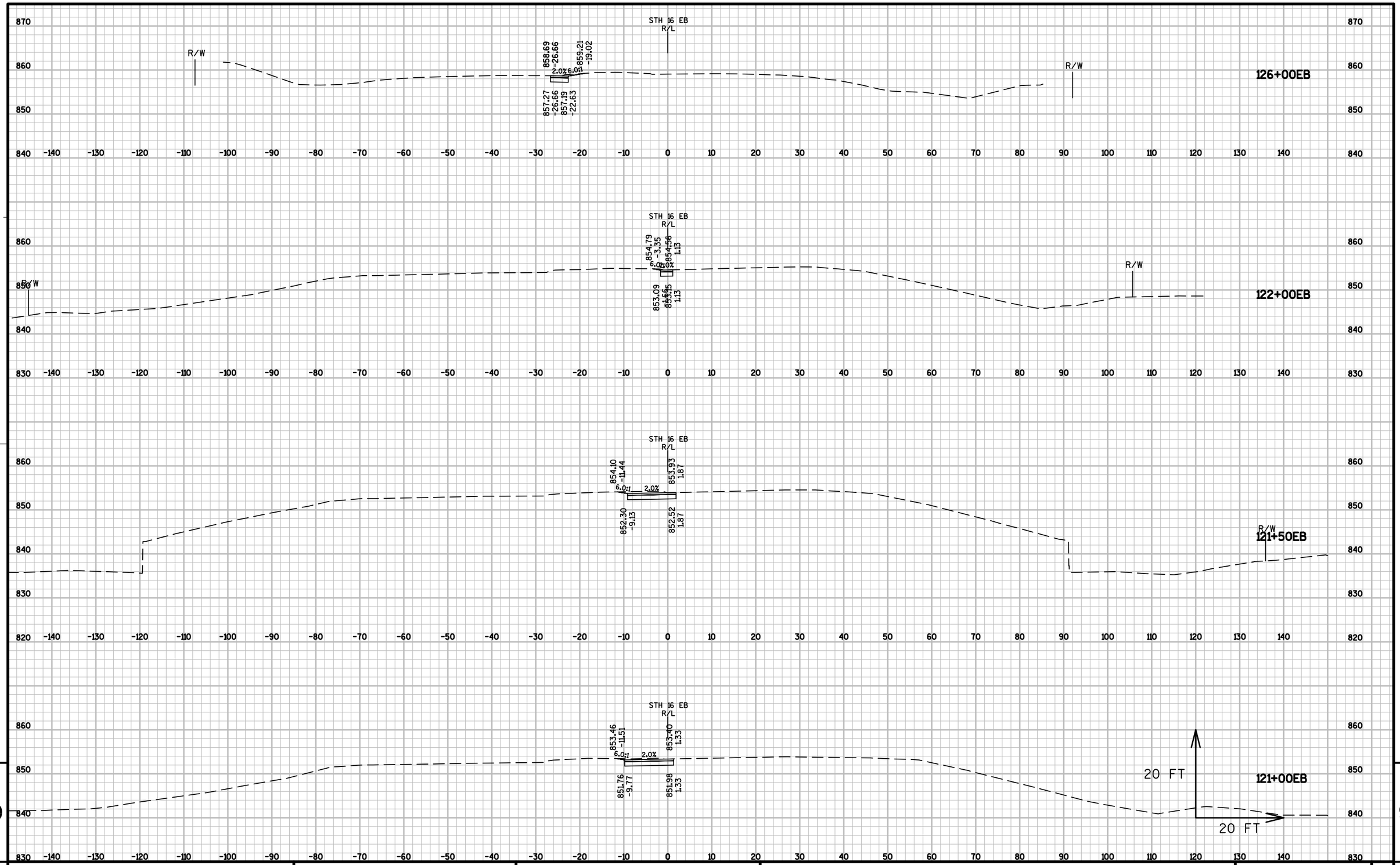
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 EB TEMPORARY(STAGE 1)	SHEET 367	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090209-XSSTAGE1 STH 16.DWG
LAYOUT NAME - SECTION SHEET - (6)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

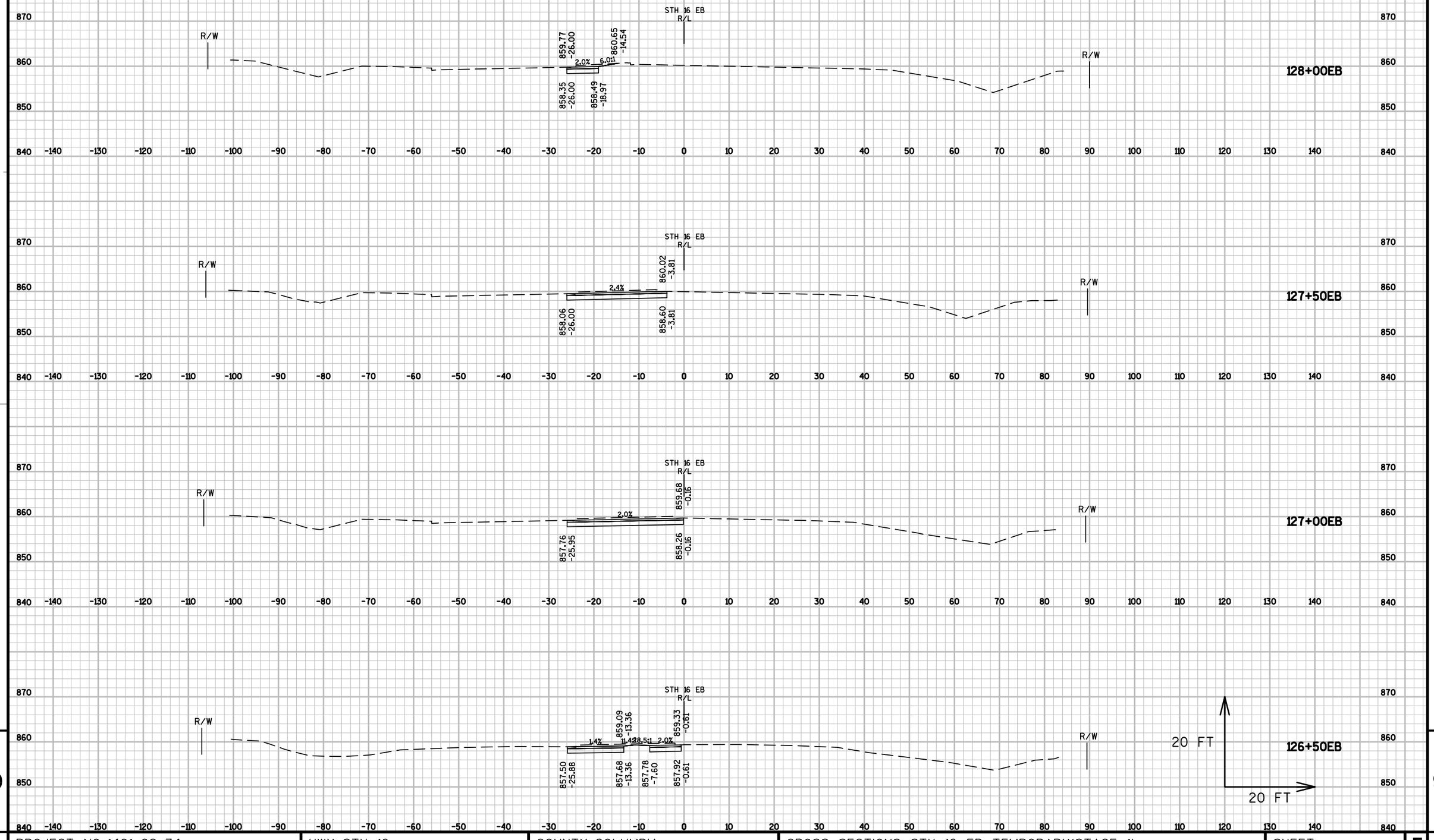


PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 EB TEMPORARY(STAGE 1)	SHEET 368 E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090209-XSSTAGE1 STH 16.DWG
LAYOUT NAME - SECTION SHEET - (7)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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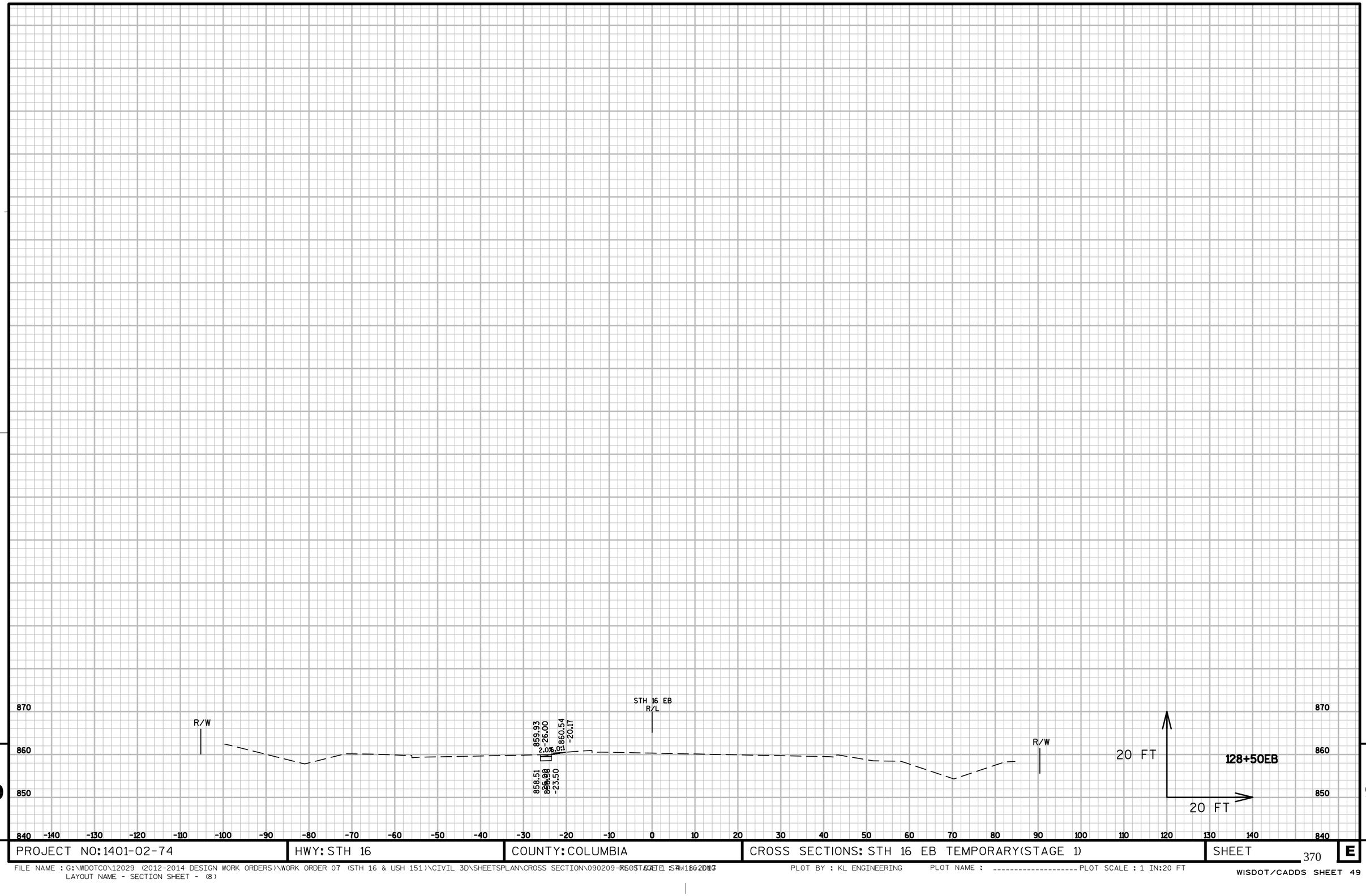
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 EB TEMPORARY(STAGE 1)	SHEET 369	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090209-RSOSTAGE1_STH16.DWG
LAYOUT NAME - SECTION SHEET - (8)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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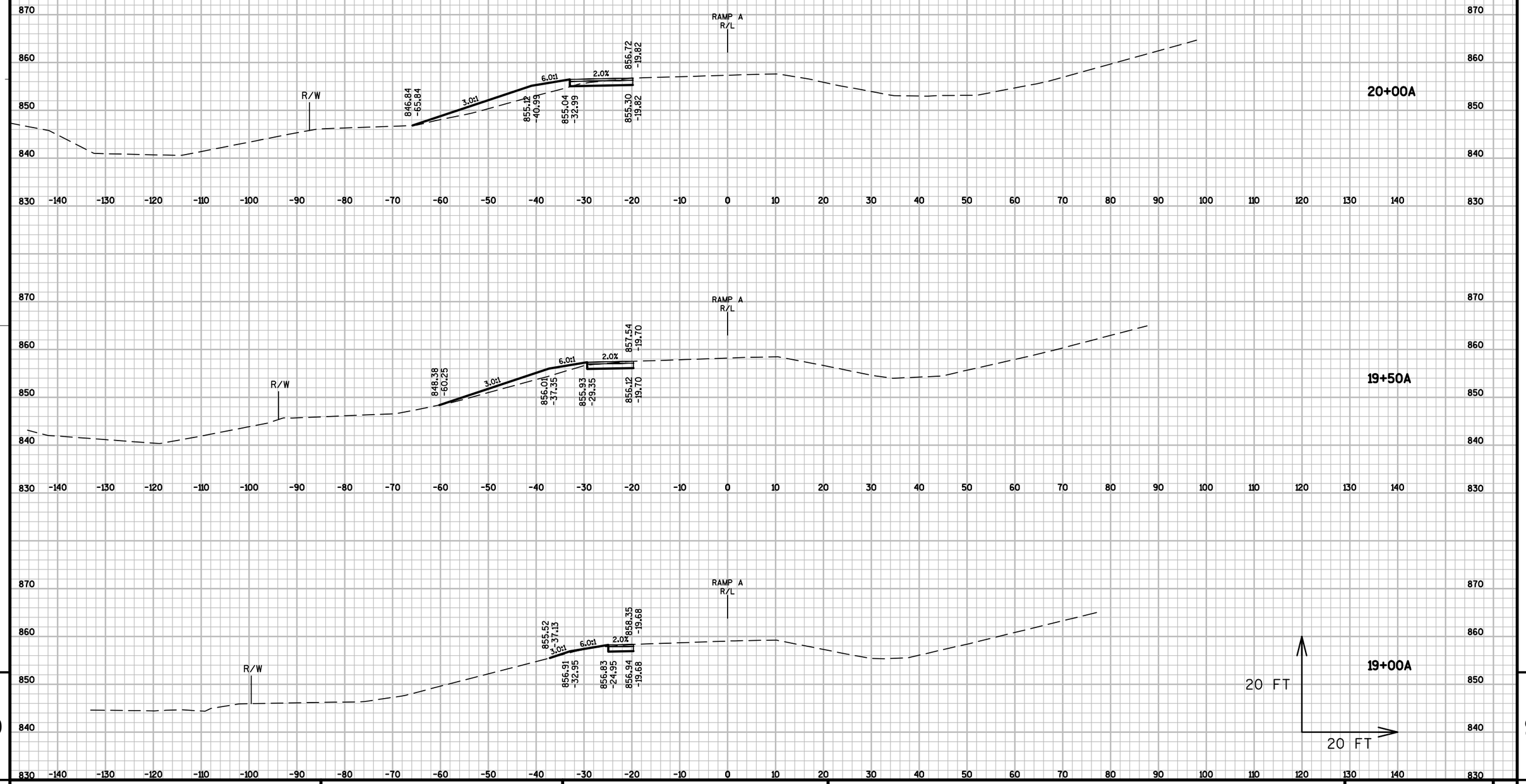
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 EB TEMPORARY(STAGE 1)	SHEET 370	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090209-RS03_STAGE1_STH16.DWG
LAYOUT NAME - SECTION SHEET - (8)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

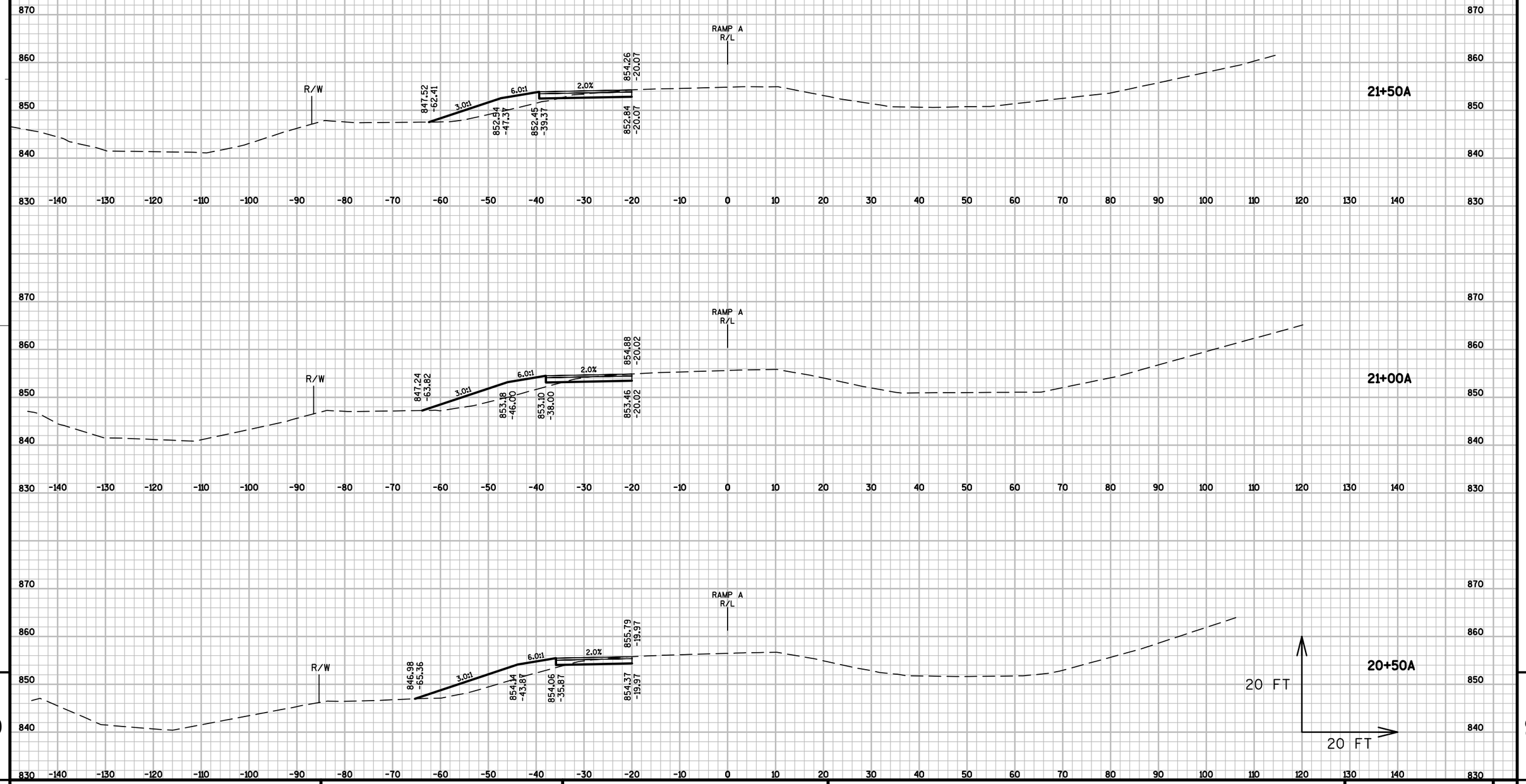


PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP A TEMPORARY(STAGE 1)	SHEET 371	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090205-R503-STAGE1 RAMP A.DWG
LAYOUT NAME - SECTION SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

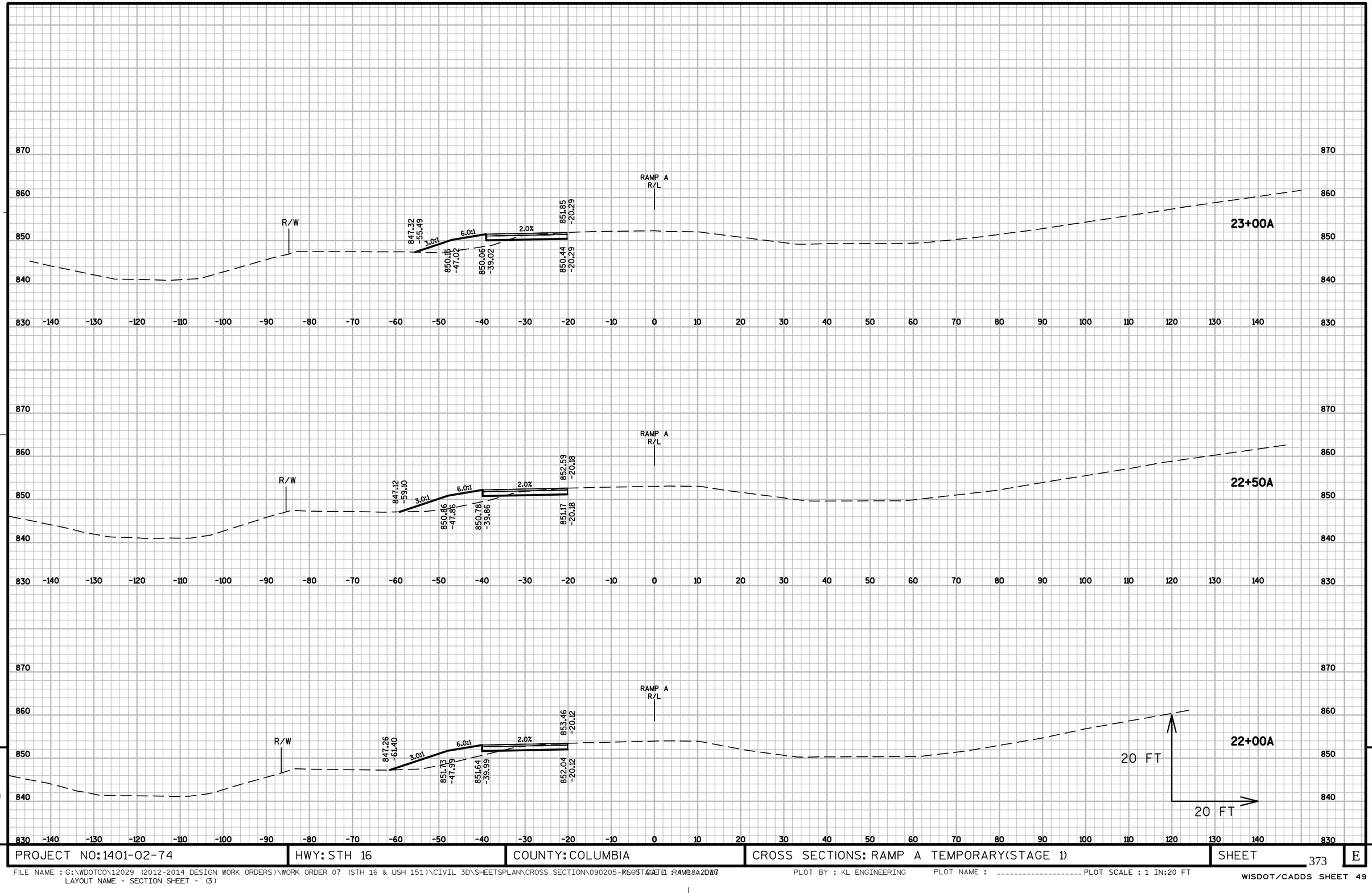


PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP A TEMPORARY(STAGE 1)	SHEET 372	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090205-RSOSTAGE1 RAMP A.DWG
LAYOUT NAME - SECTION SHEET - (2)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

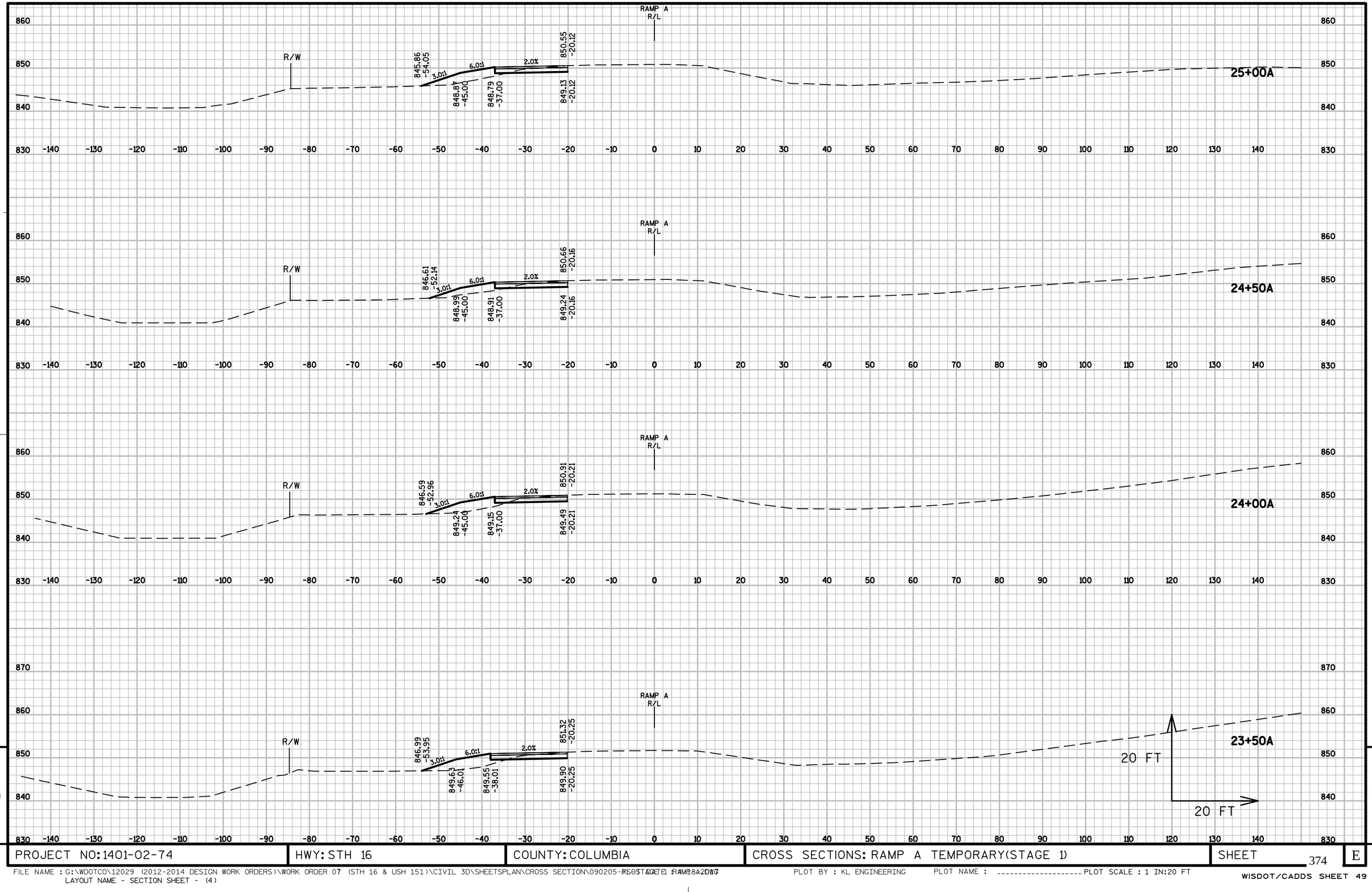


PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP A TEMPORARY(STAGE 1)	SHEET 373	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLANS\CROSS SECTION\090205-RSOSTAGE1 RAMP A.DWG
LAYOUT NAME - SECTION SHEET - (3)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP A TEMPORARY(STAGE 1)	SHEET 374	E

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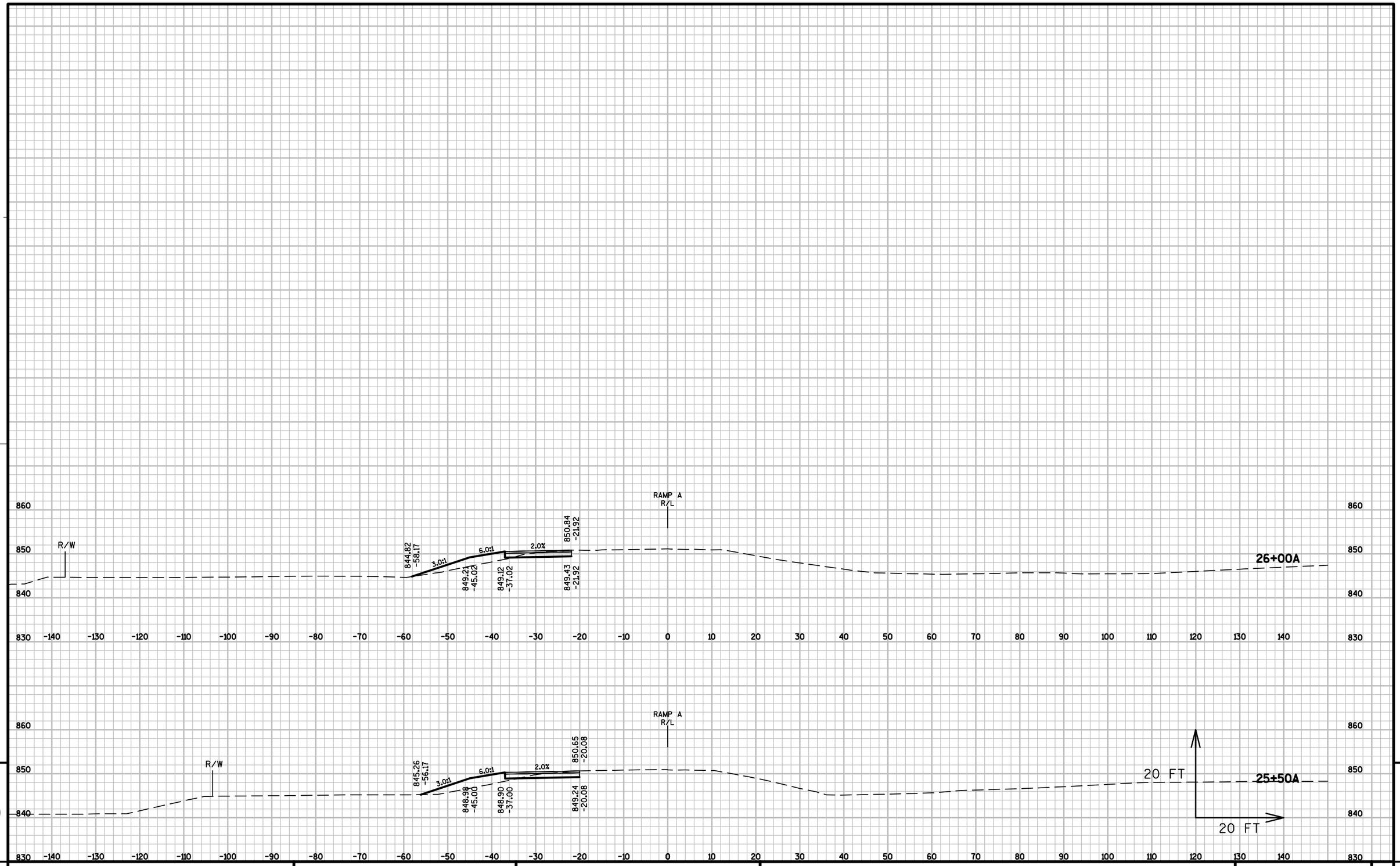
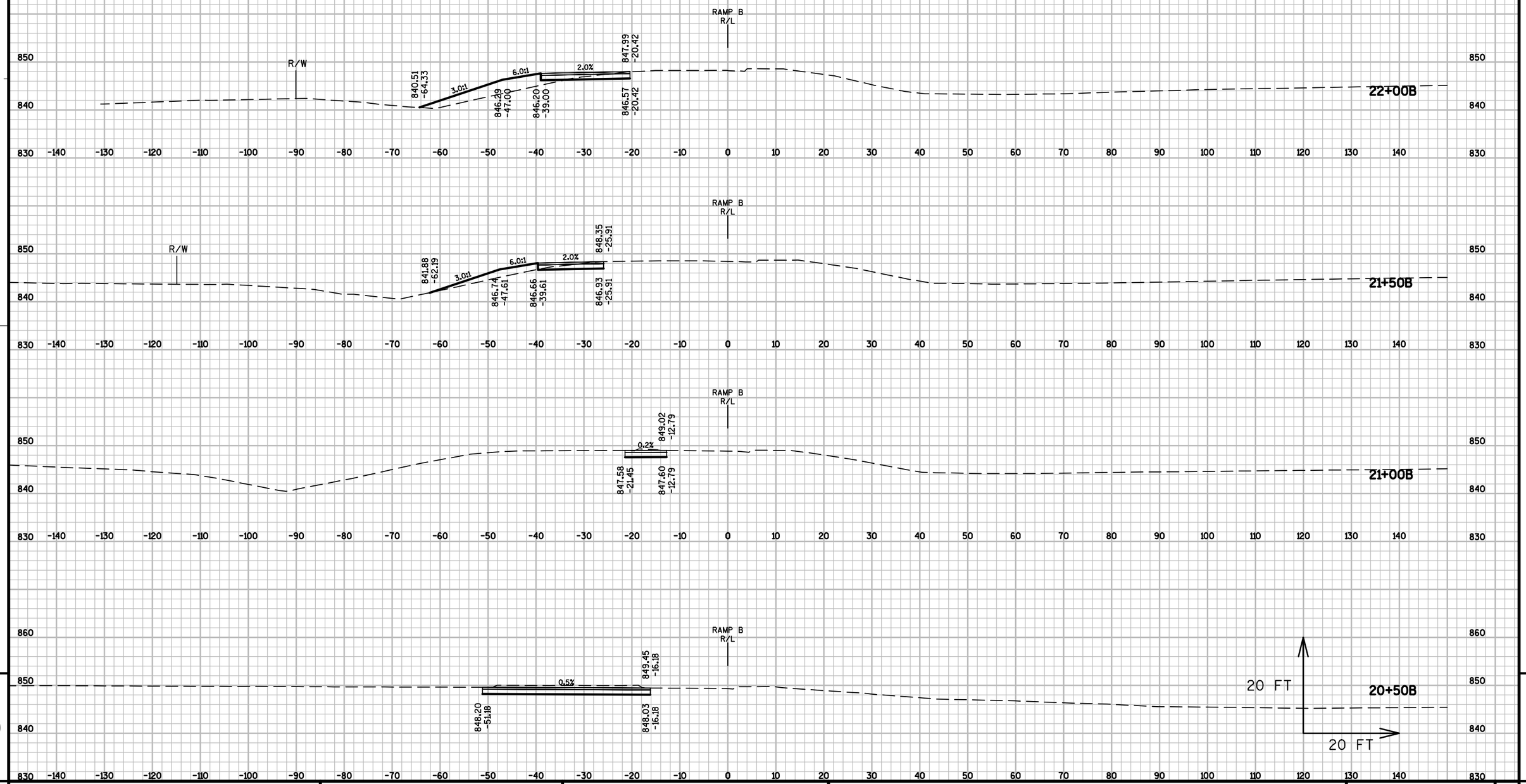


PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP A TEMPORARY(STAGE 1)	SHEET 375	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090205-RSOSTAGE1 RAMP A.DWG
LAYOUT NAME - SECTION SHEET - (5)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

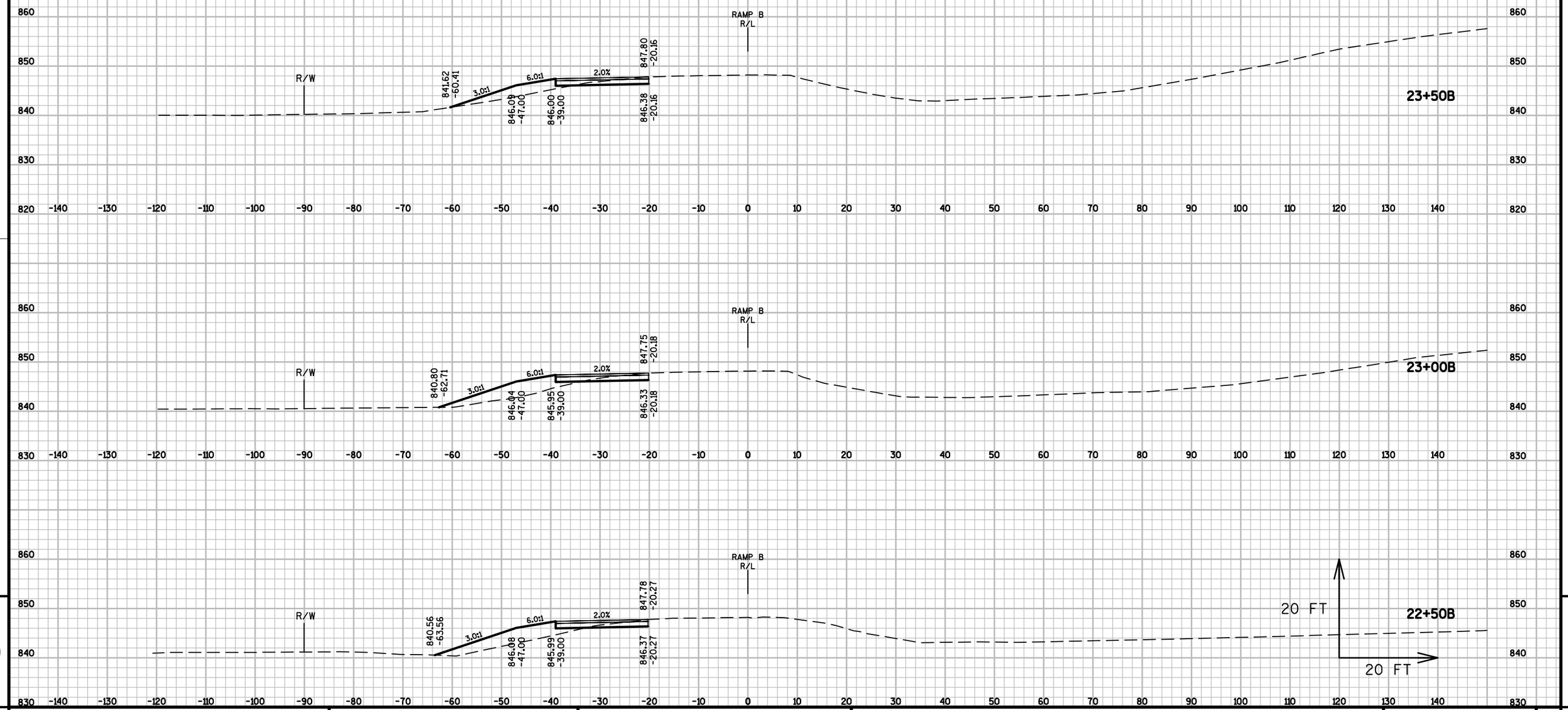


PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP B TEMPORARY(STAGE 1)	SHEET 376	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090206-RSOSTAGE1 RAMPB.DWG
LAYOUT NAME - SECTION SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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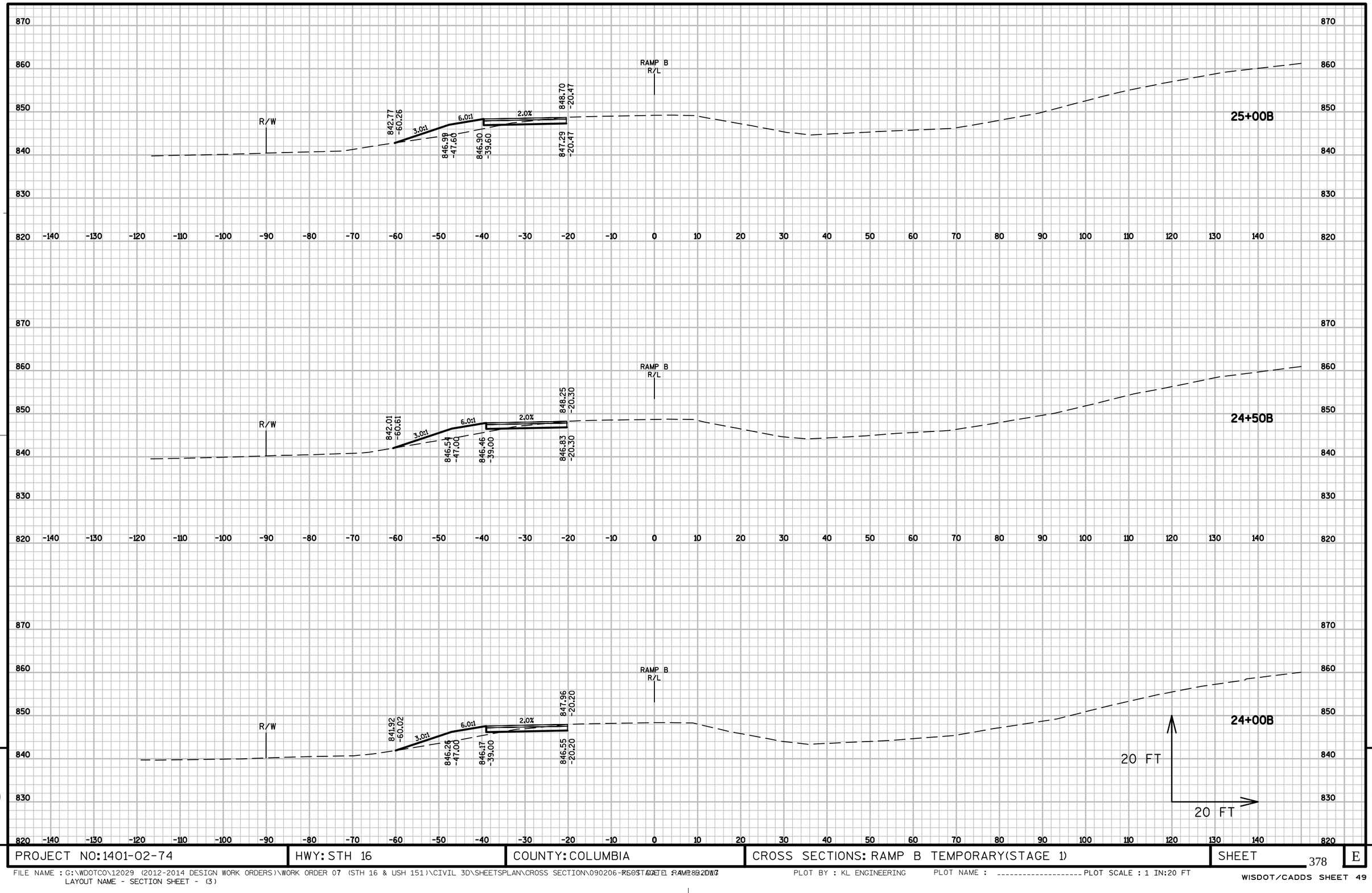
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP B TEMPORARY(STAGE 1)	SHEET 377	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090206-RSOSTAGE1_RAMPB.DWG
LAYOUT NAME - SECTION SHEET - (2)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

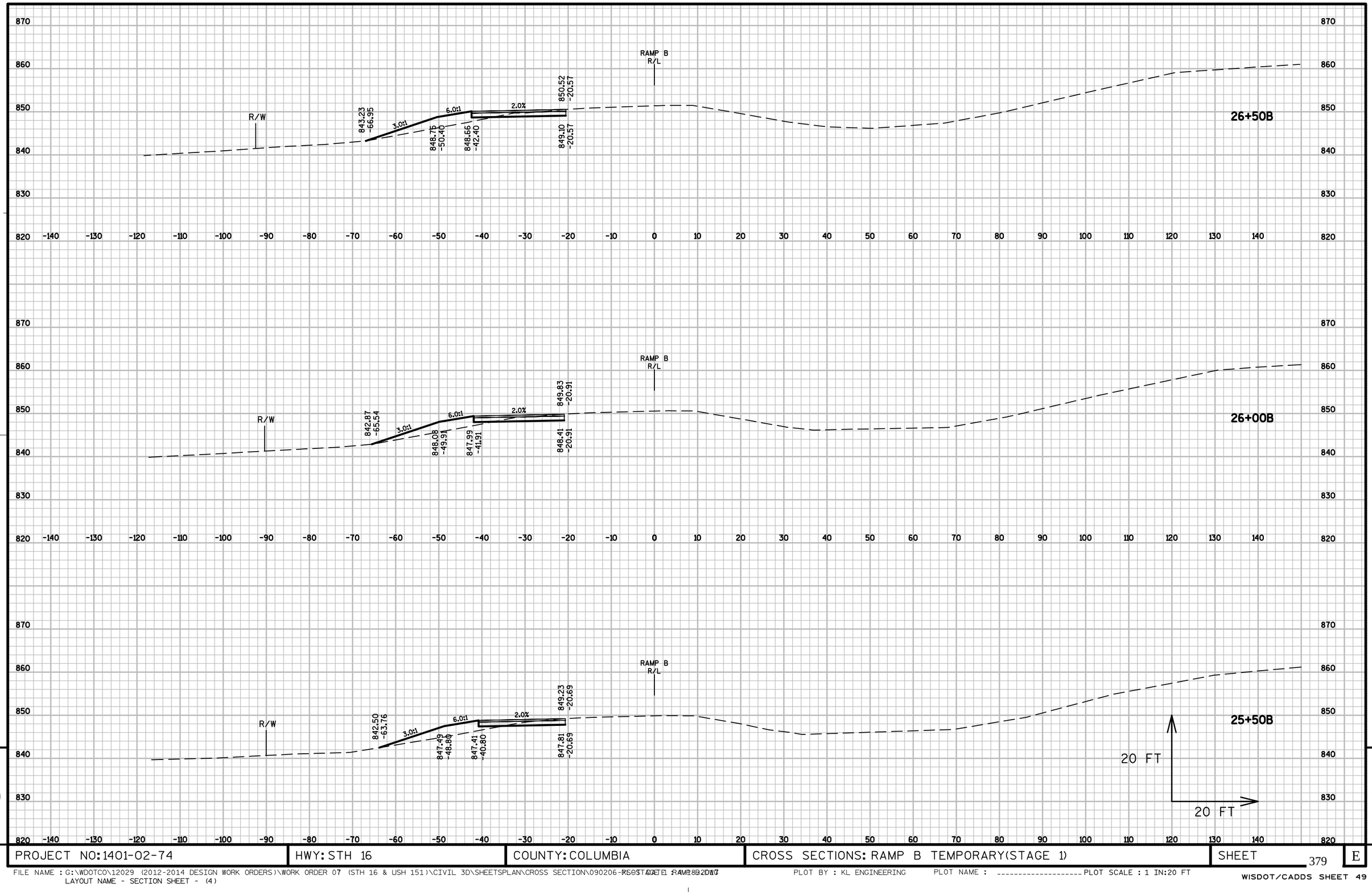


PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP B TEMPORARY(STAGE 1)	SHEET 378	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090206-RSOUTE1_RAMP8.DWG
LAYOUT NAME - SECTION SHEET - (3)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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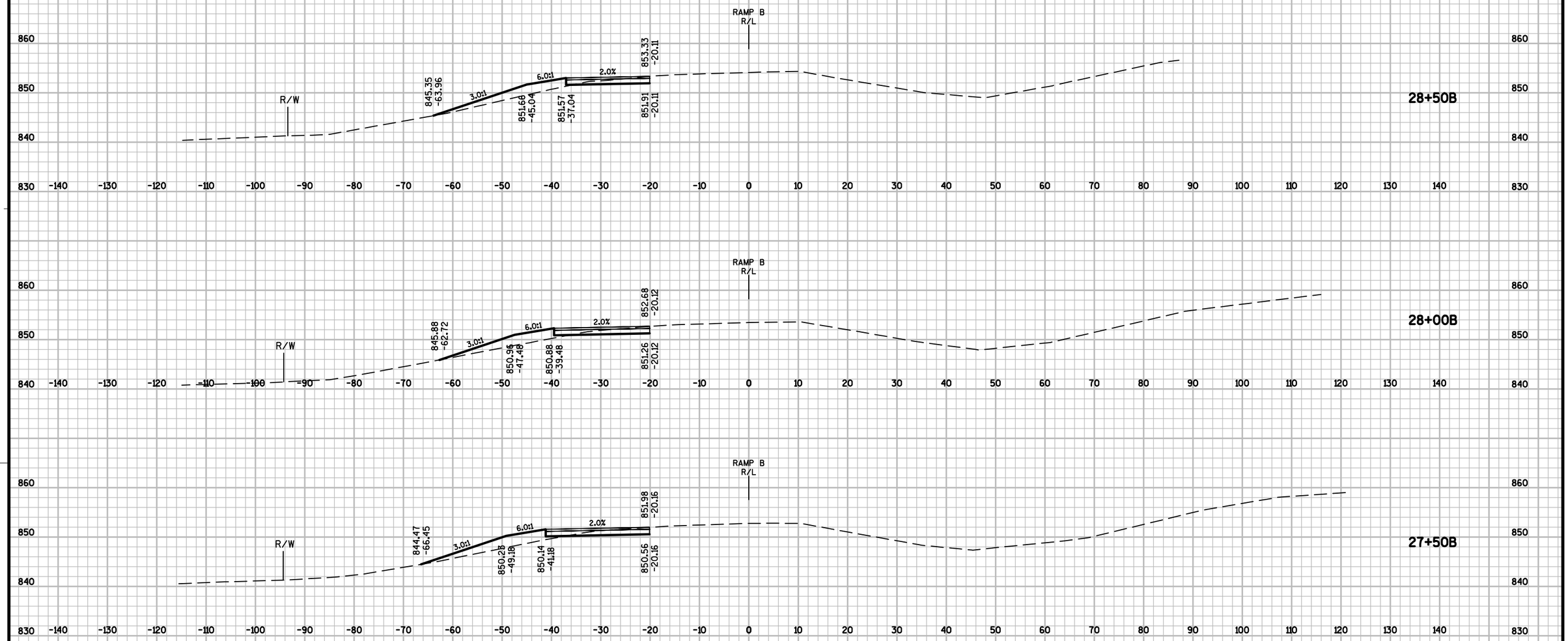
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP B TEMPORARY(STAGE 1)	SHEET 379	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090206-RXSTAGE1 RAMPB.DWG
LAYOUT NAME - SECTION SHEET - (4)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

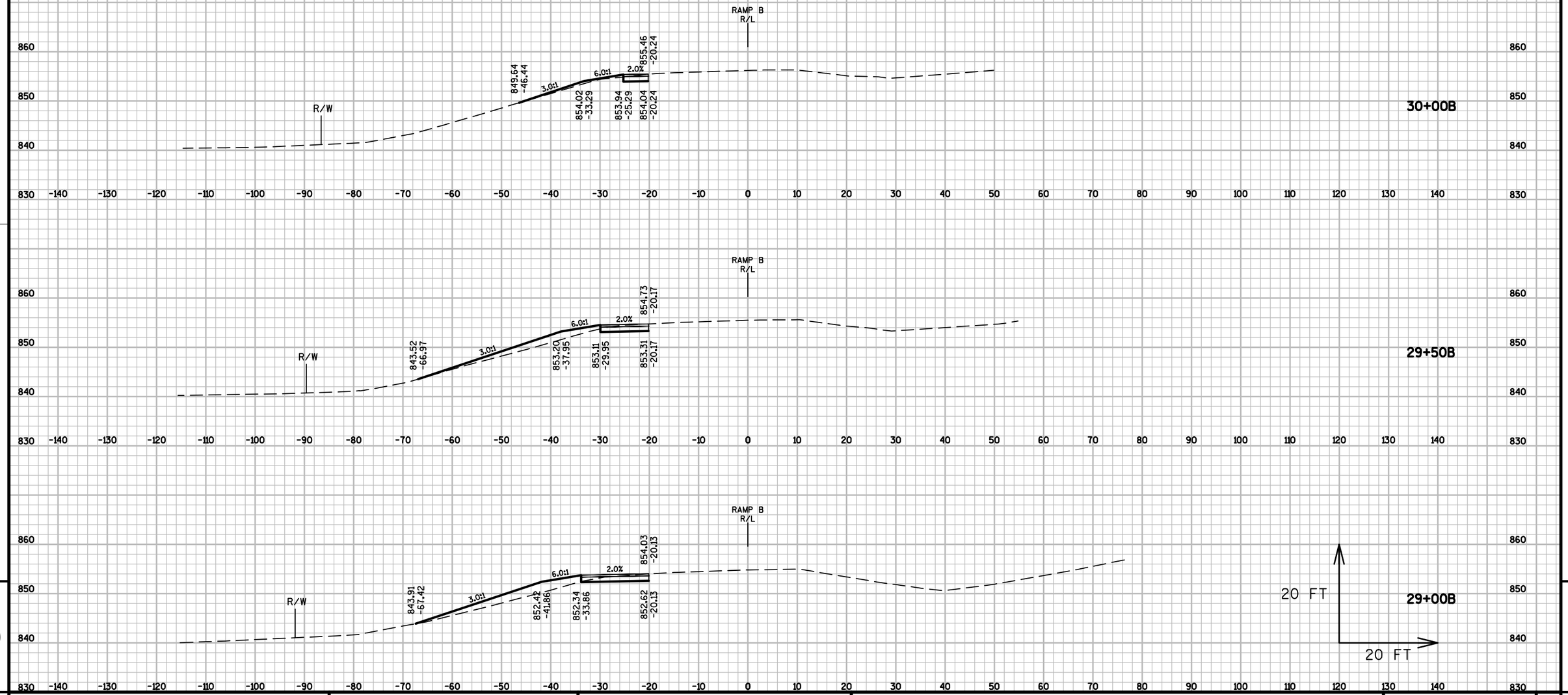


PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP B TEMPORARY(STAGE 1)	SHEET 380	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090206-RSOSTAGE1 RAMPB.DWG
LAYOUT NAME - SECTION SHEET - (5)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

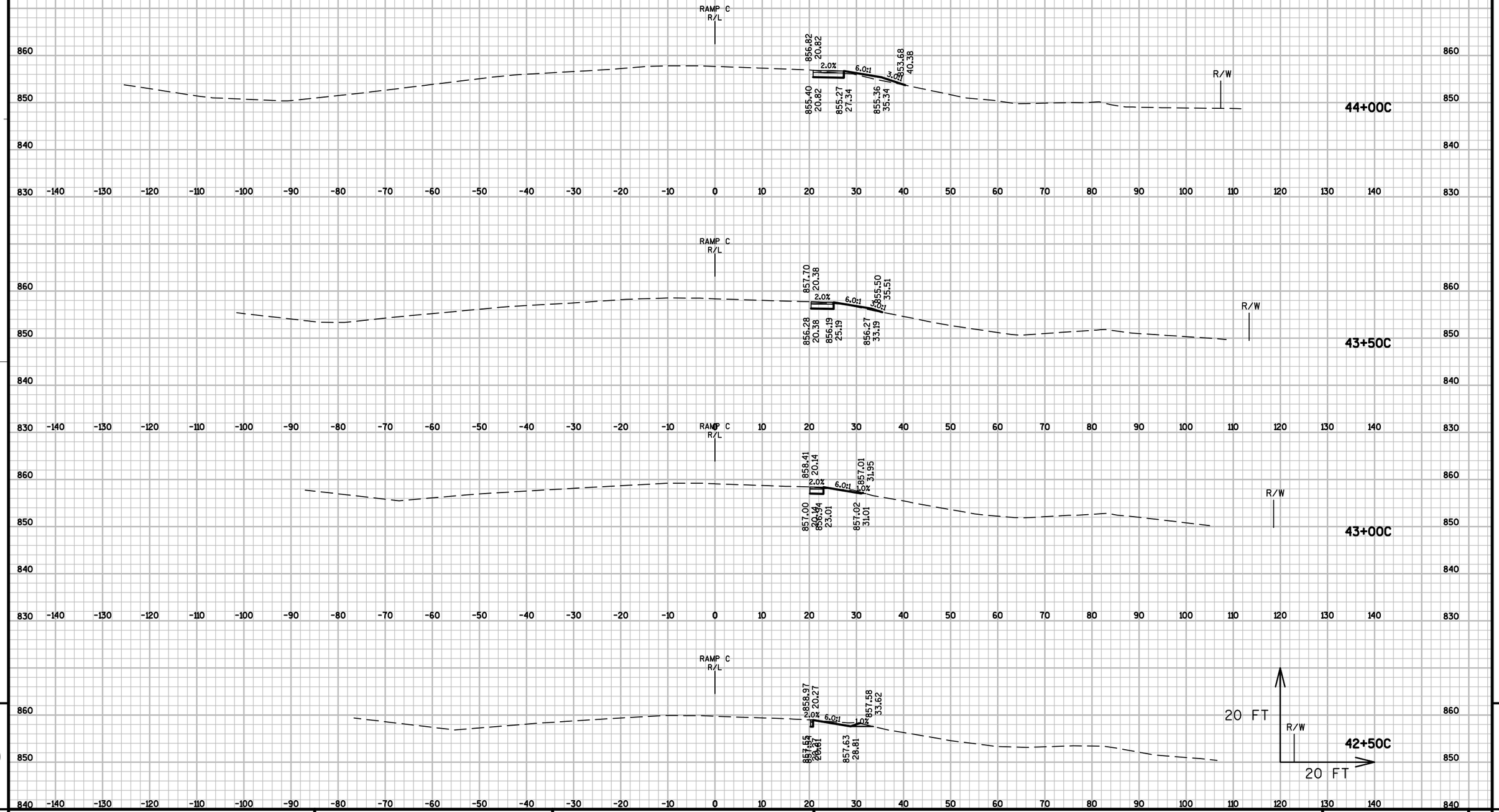


PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP B TEMPORARY(STAGE 1)	SHEET 381	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090206-RSOSTAGE1 RAMP B.DWG
LAYOUT NAME - SECTION SHEET - (6)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

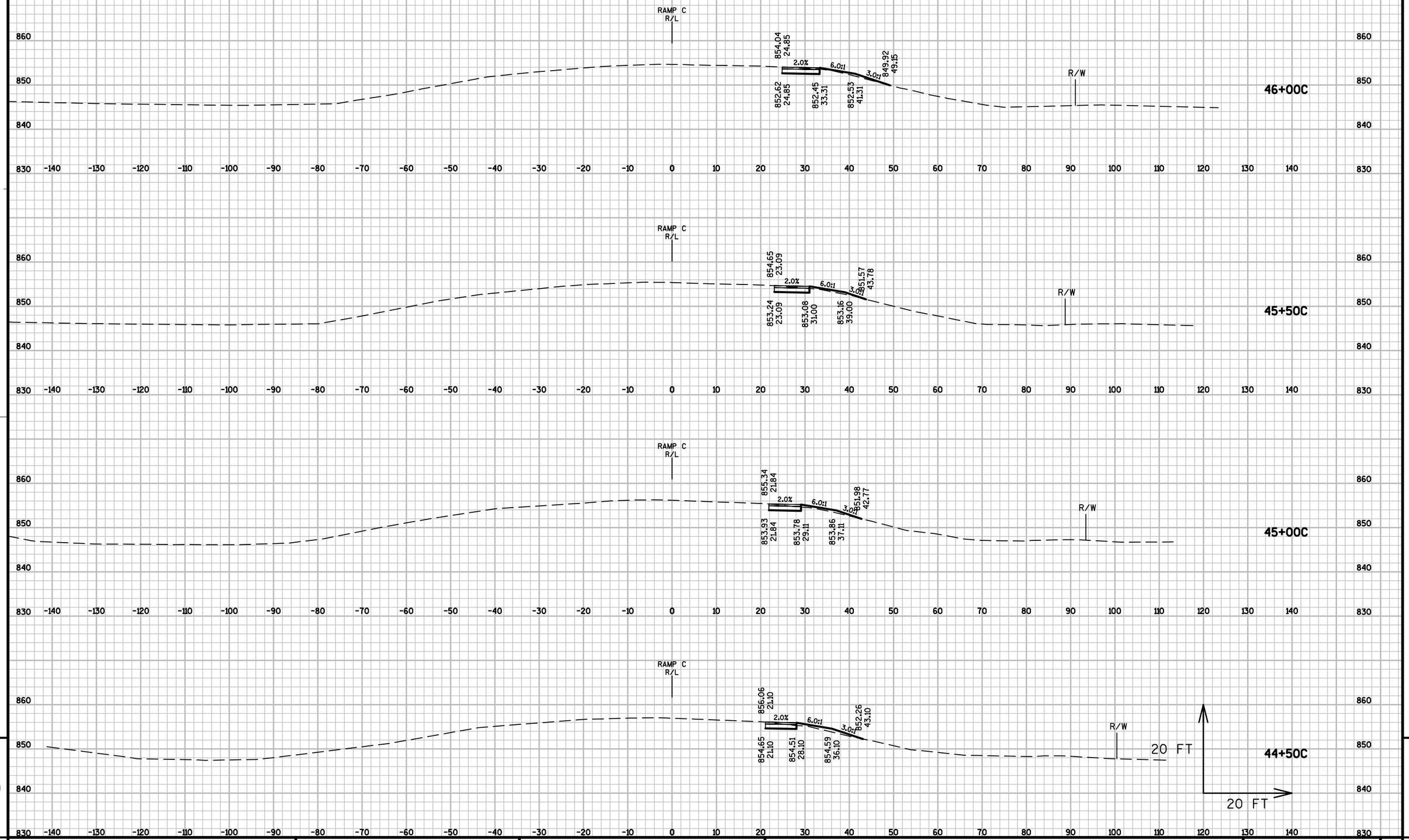


PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP C TEMPORARY(STAGE 1)	SHEET 382	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090207-XSSTAGE1 RAMP C.DWG
LAYOUT NAME - SECTION SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

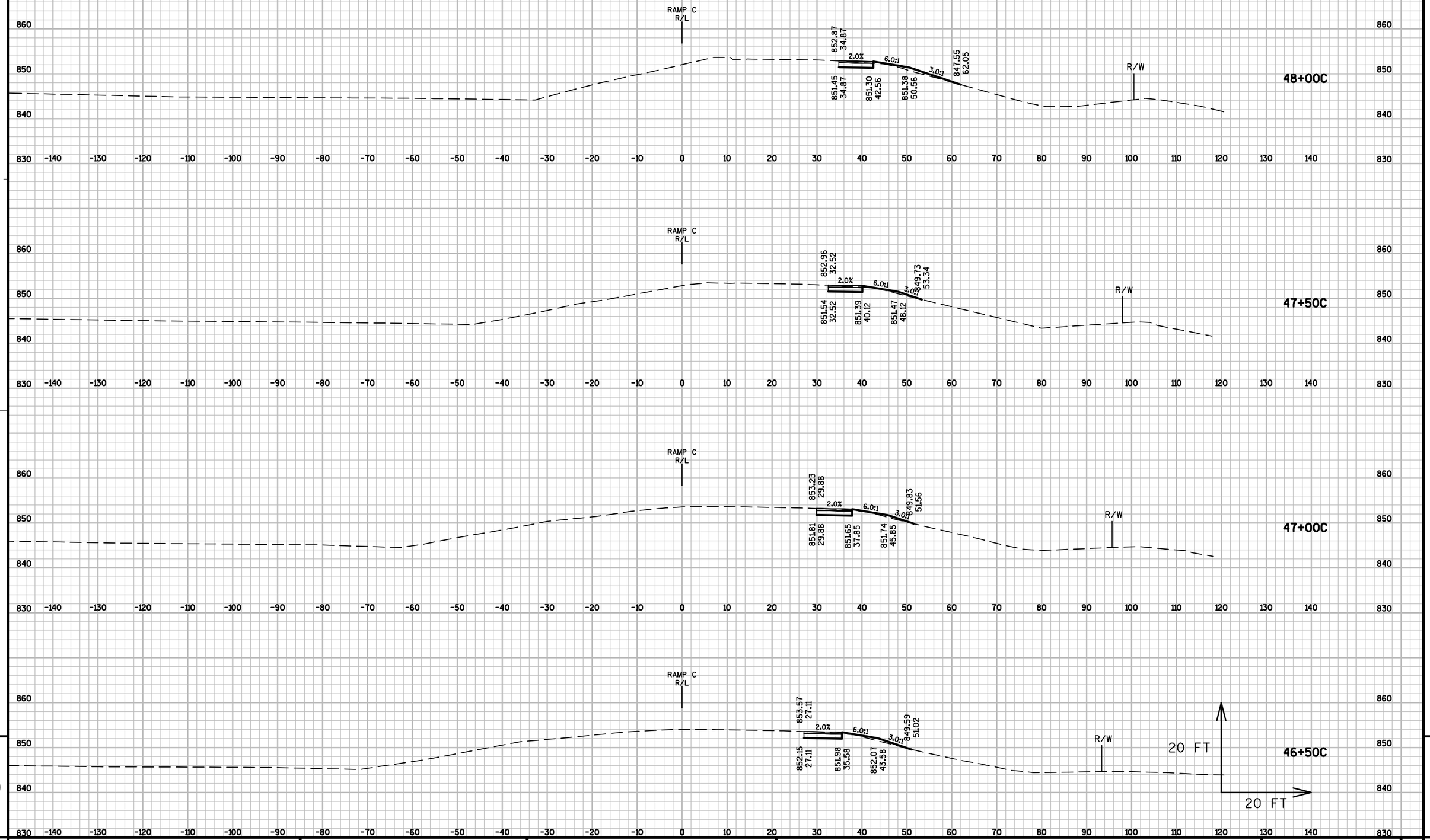


PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP C TEMPORARY(STAGE 1)	SHEET 383	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090207-RSOSTAGE1 RAMP.DWG
LAYOUT NAME - SECTION SHEET - (2)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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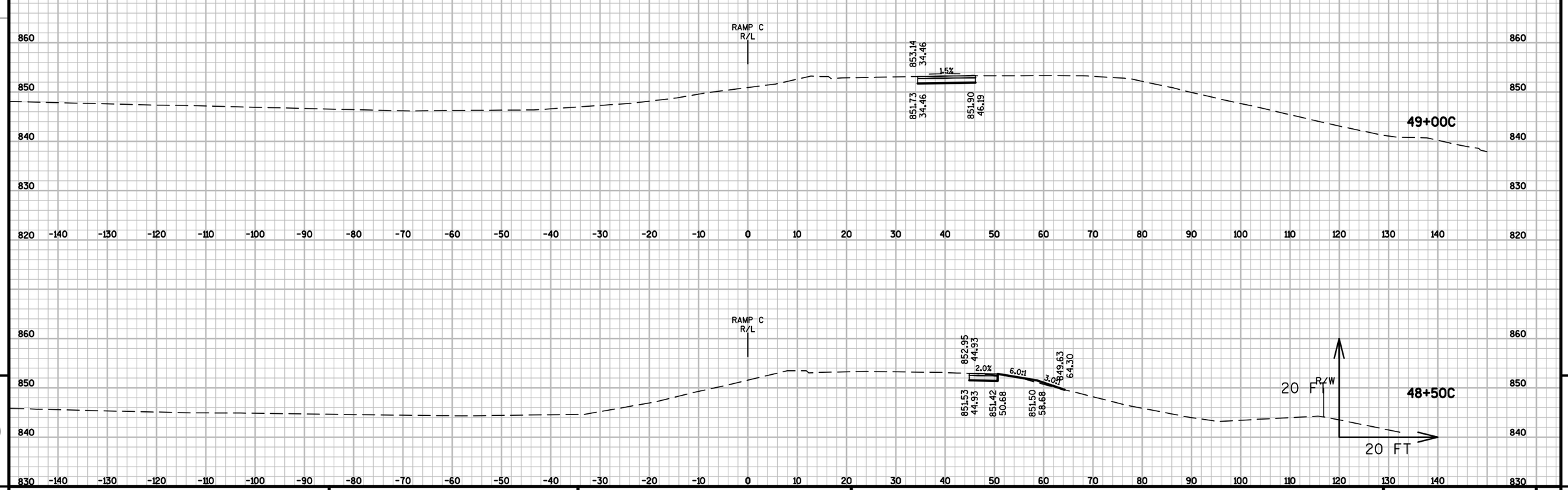
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP C TEMPORARY(STAGE 1)	SHEET 384	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090207-XSST_02E1_RAMP.dwg
LAYOUT NAME - SECTION SHEET - (3)
PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

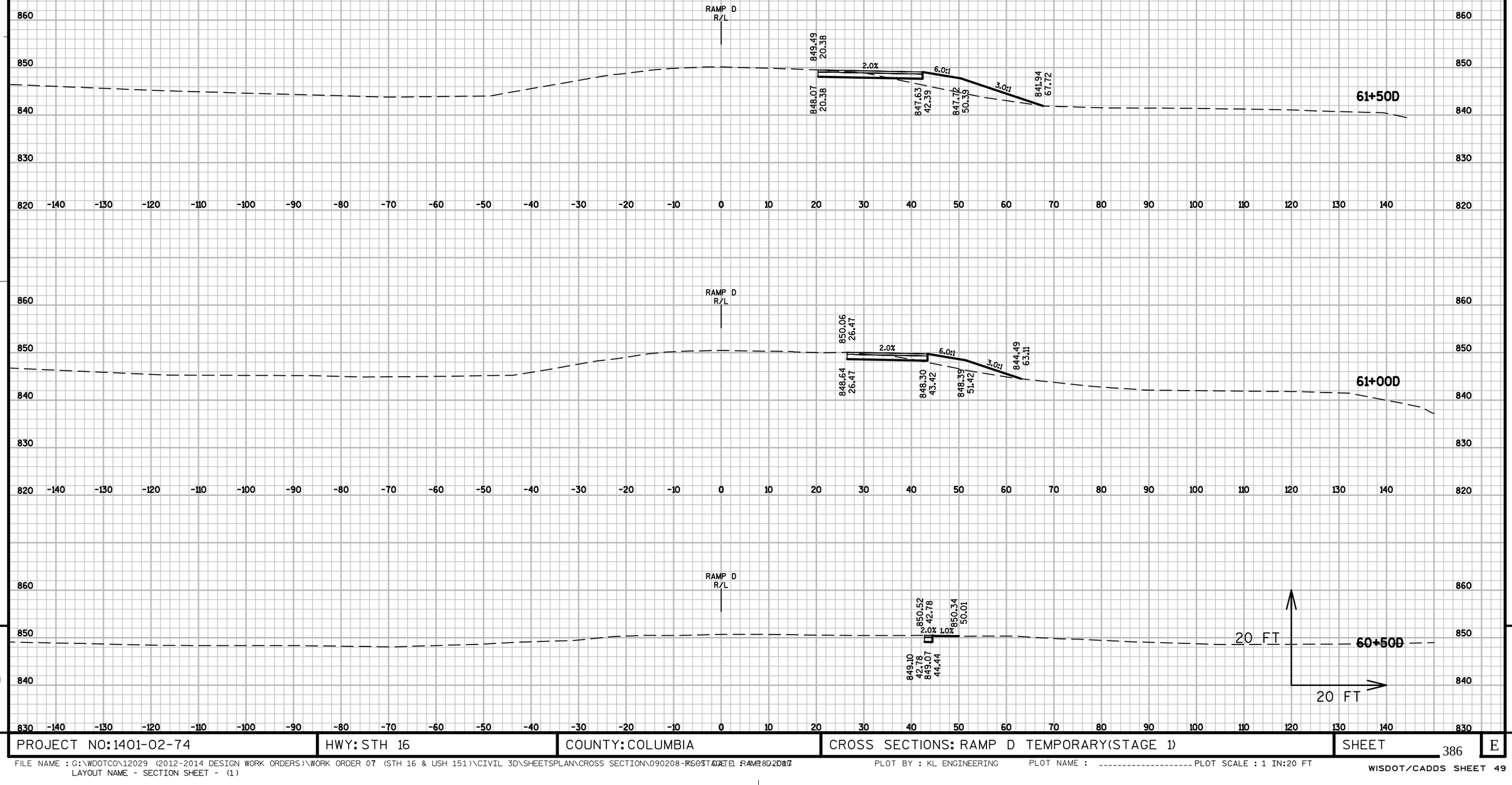


PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP C TEMPORARY(STAGE 1)	SHEET 385	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090207-RSOSTAGE1 RAMP.DWG
LAYOUT NAME - SECTION SHEET - (4)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

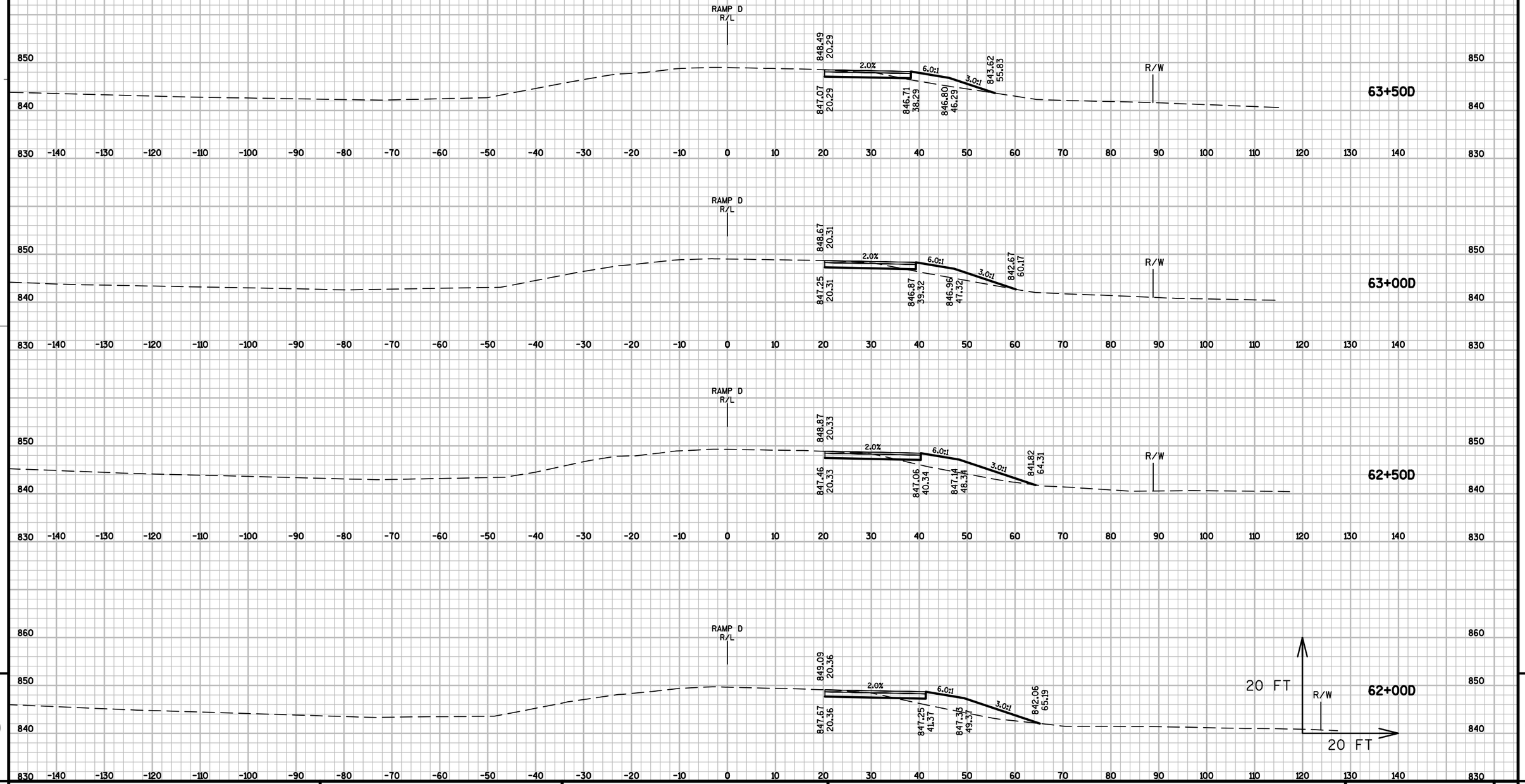


PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP D TEMPORARY(STAGE 1)	SHEET 386	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090208-RSOSTAGE1 RAMPD.DWG
LAYOUT NAME - SECTION SHEET - (1)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

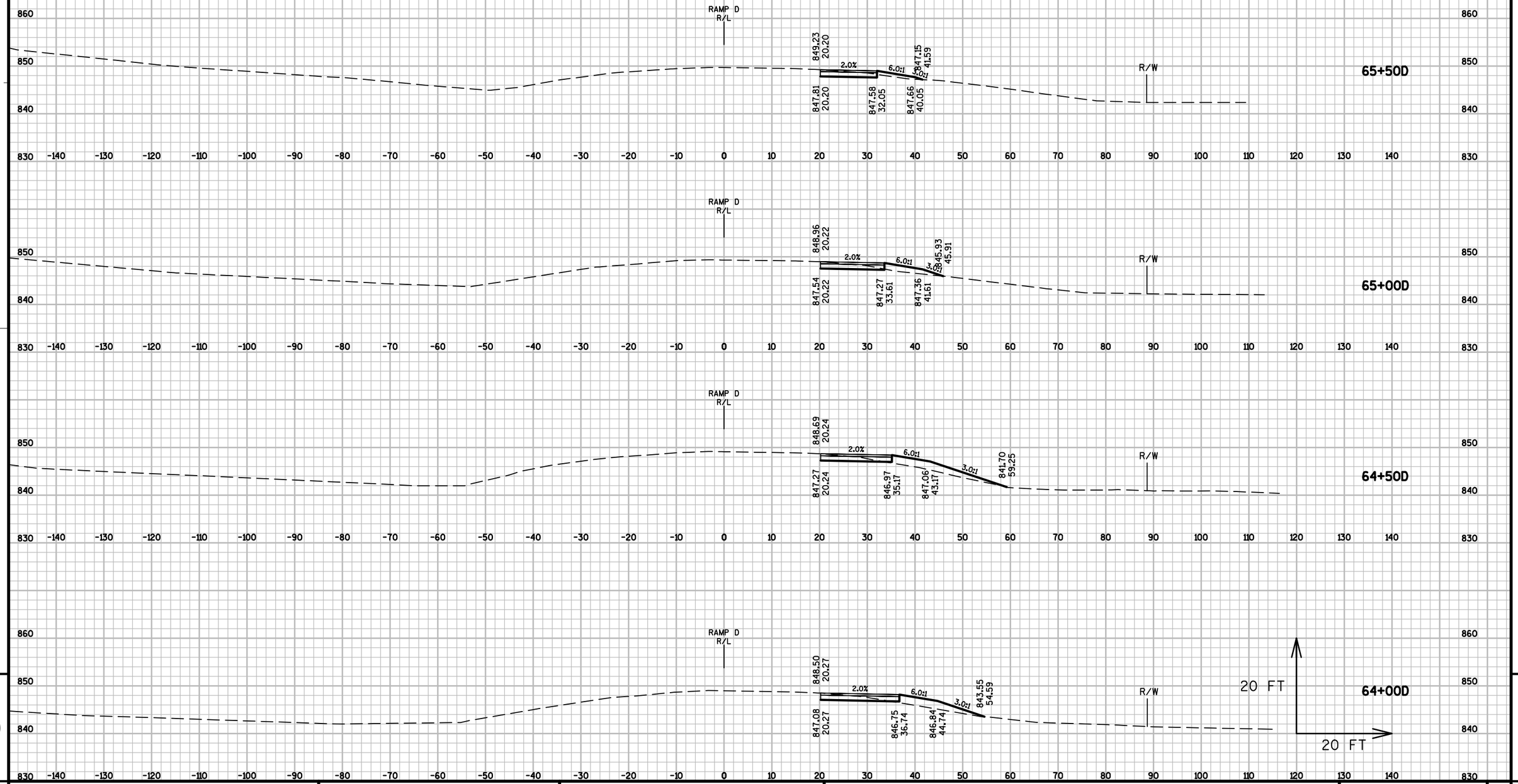


PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP D TEMPORARY(STAGE 1)	SHEET 387	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090208-RSOSTAGE1 RAMPS.DWG
LAYOUT NAME - SECTION SHEET - (2)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



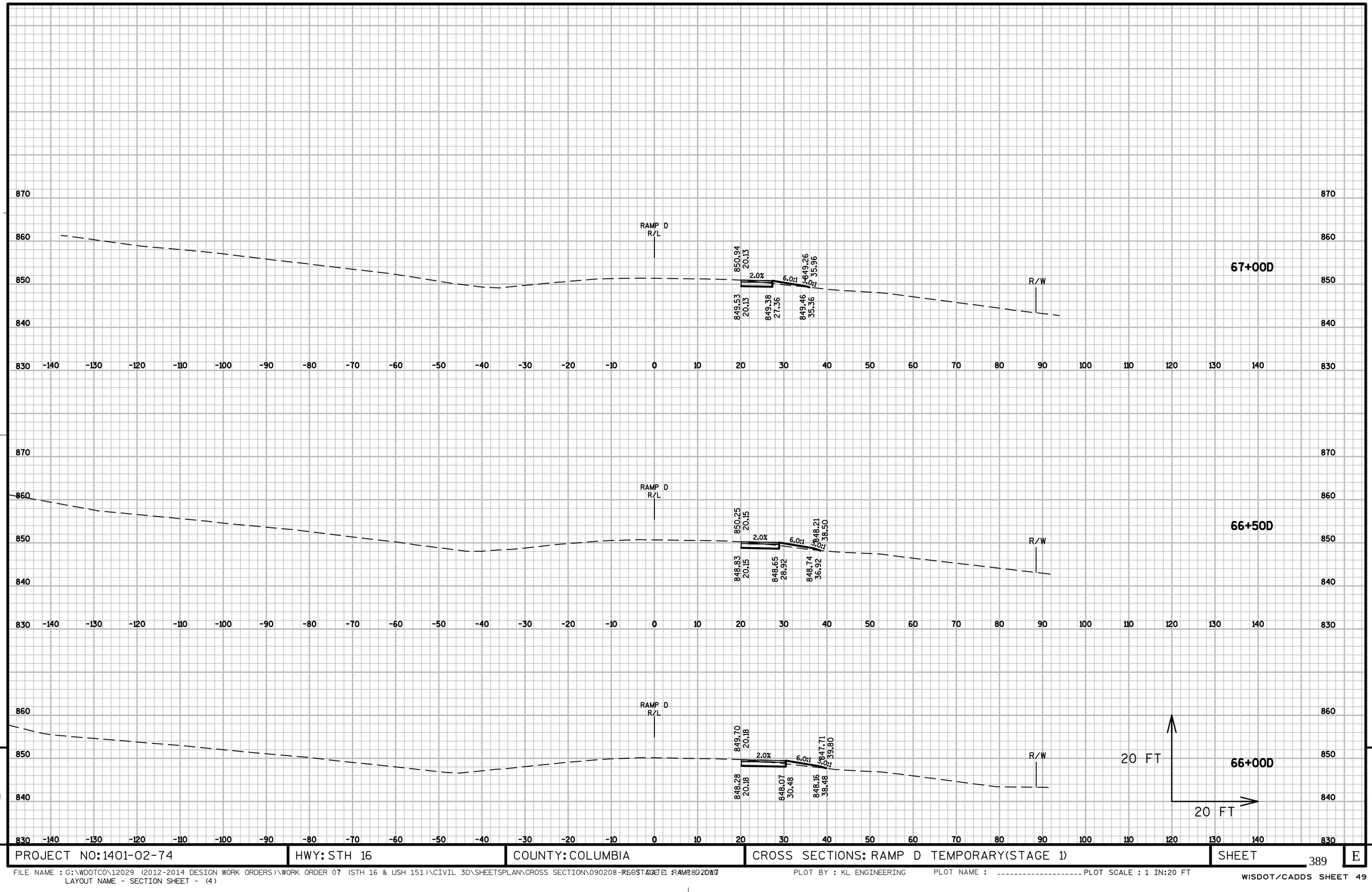
9 9

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP D TEMPORARY(STAGE 1)	SHEET 388	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090208-RSOSTAGE1 RAMPS.DWG
LAYOUT NAME - SECTION SHEET - (3)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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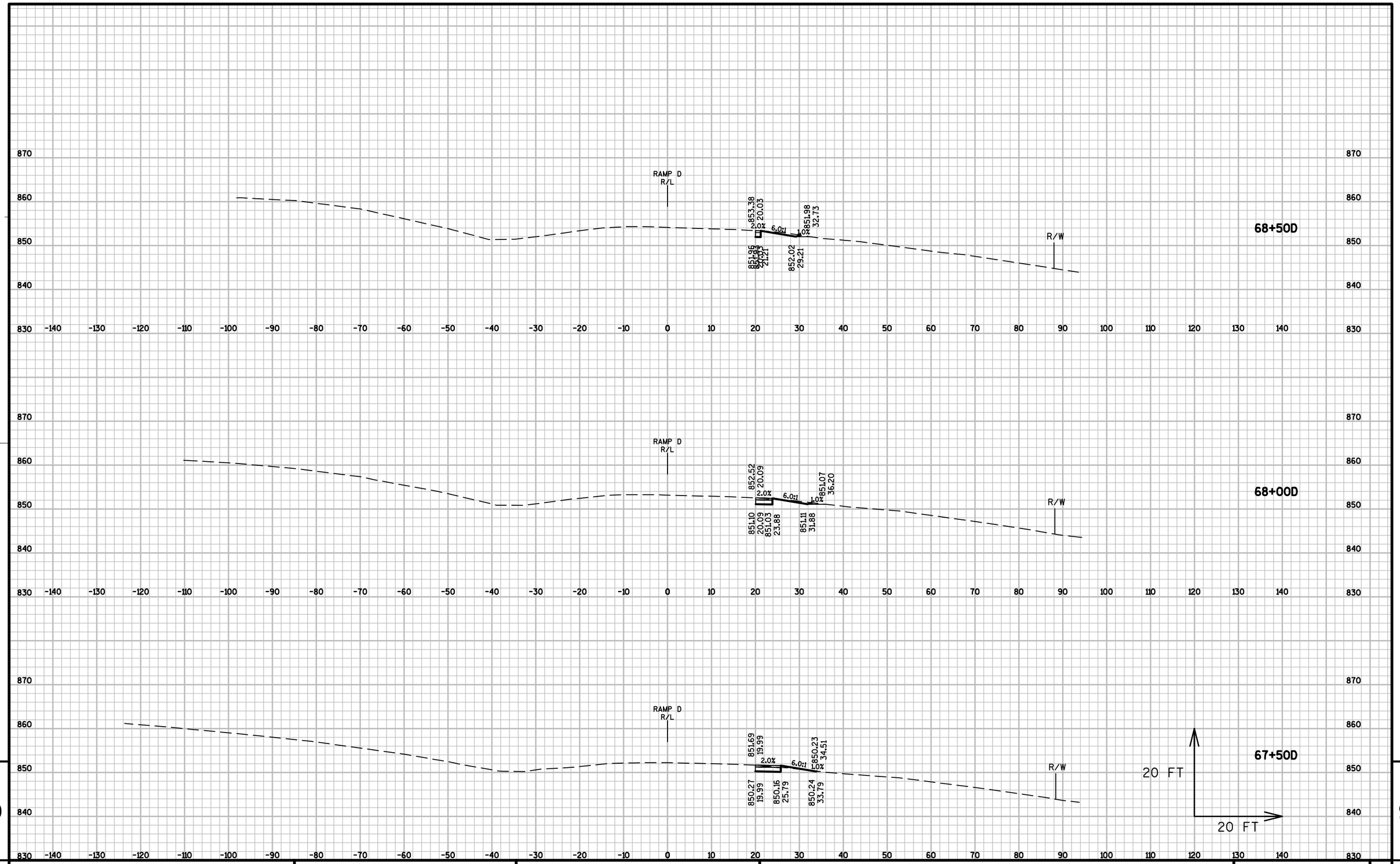
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP D TEMPORARY(STAGE 1)	SHEET 389	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090208-RSOSTAGE1 RAMPD.DWG
LAYOUT NAME - SECTION SHEET - (4)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

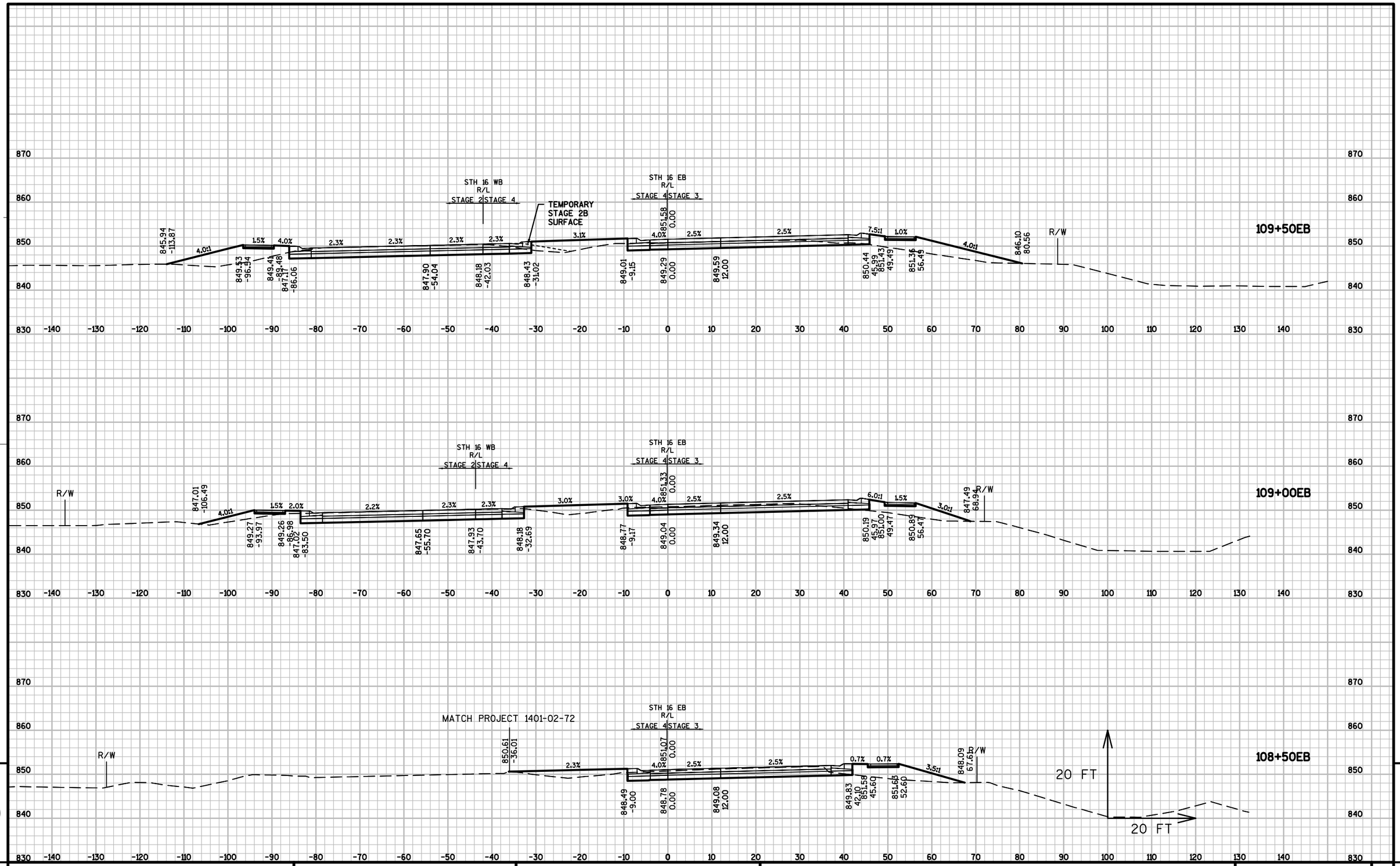


PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP D TEMPORARY(STAGE 1)	SHEET 390	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090208-RSOSTAGE1 RAMP D.DWG
LAYOUT NAME - SECTION SHEET - (5)

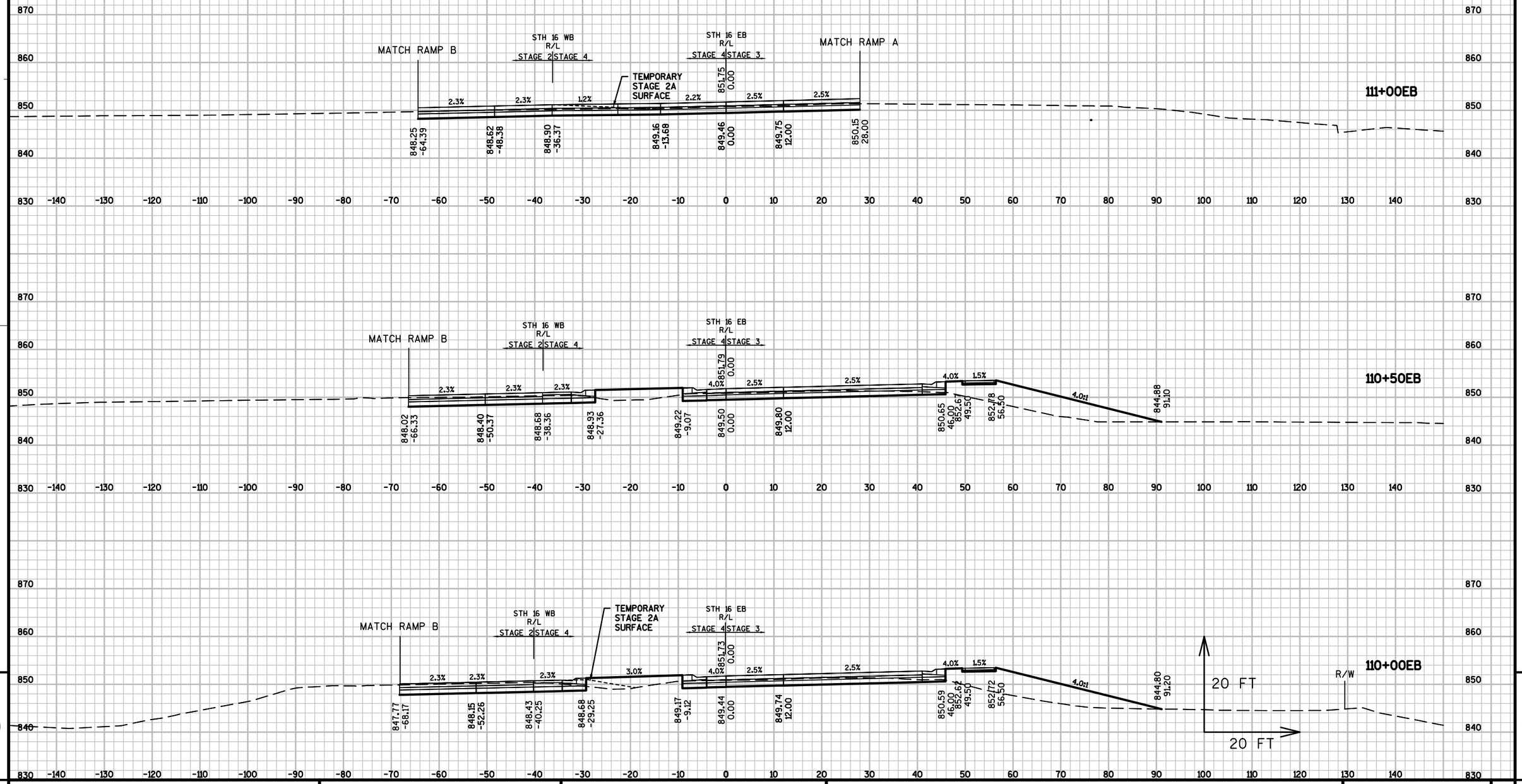
PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 (STAGE 2/3/4)	SHEET 391 E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090201-RSO16EB.DWG 4/18/2017
PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 49



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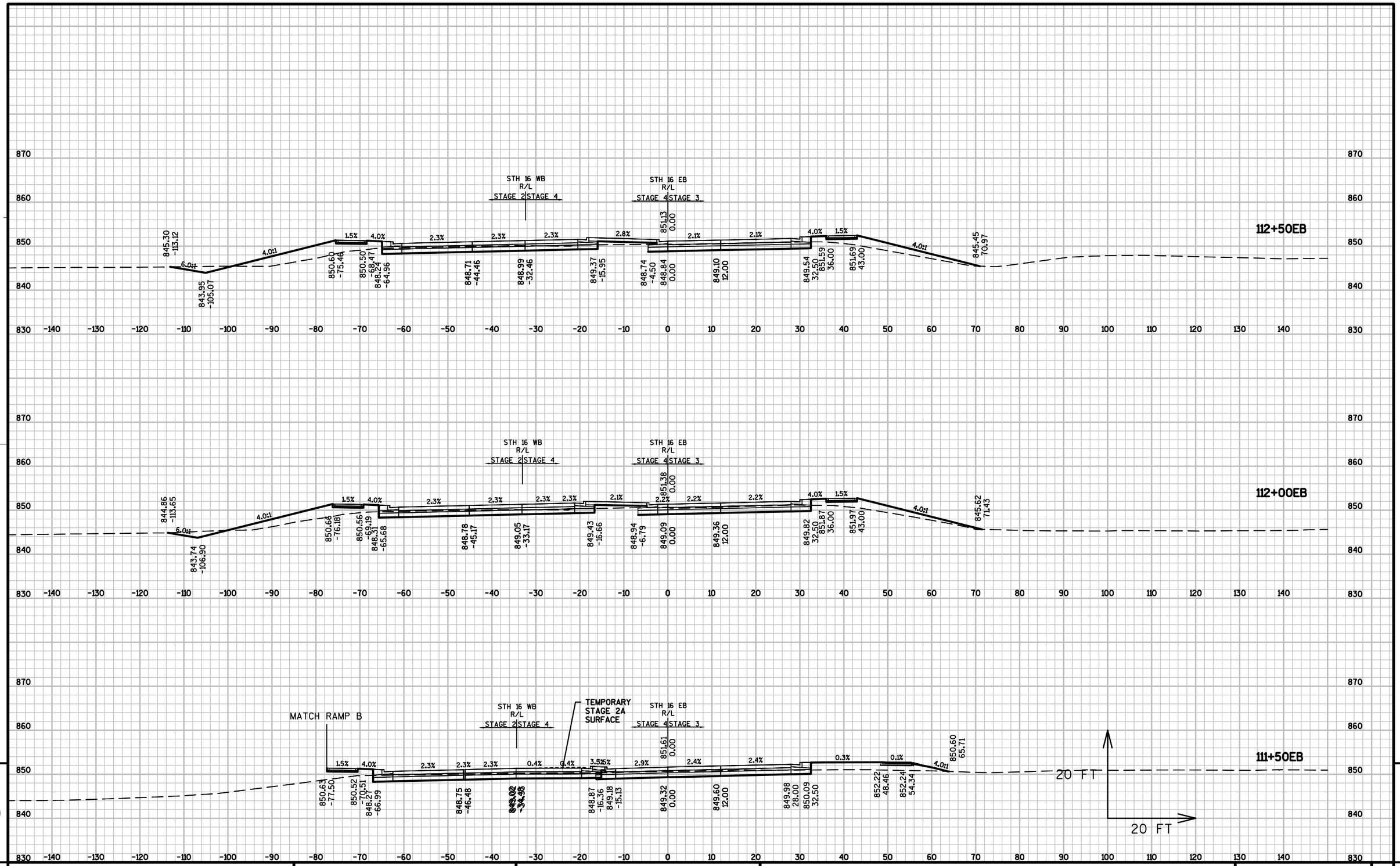
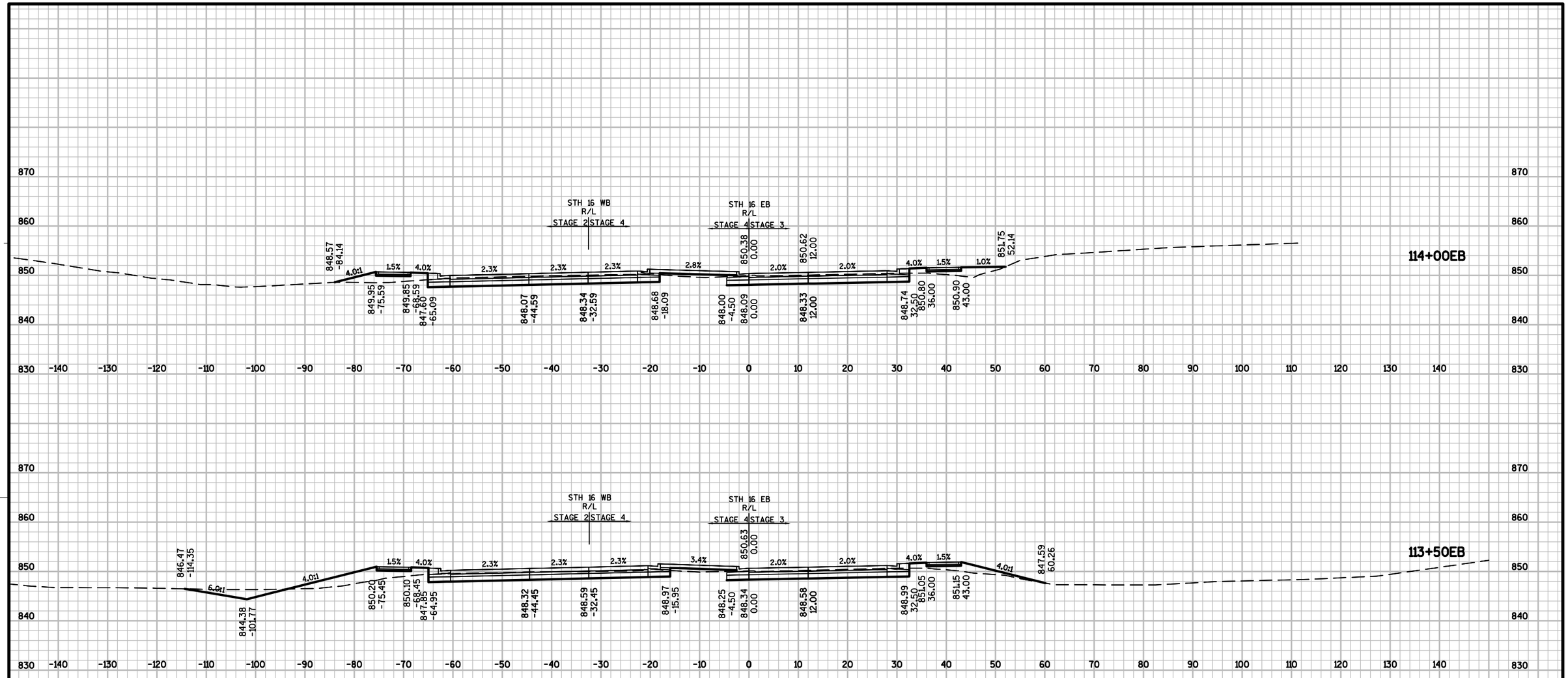
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 (STAGE 2/3/4)	SHEET 392	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090201-RSO16EB.DWG 4/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49



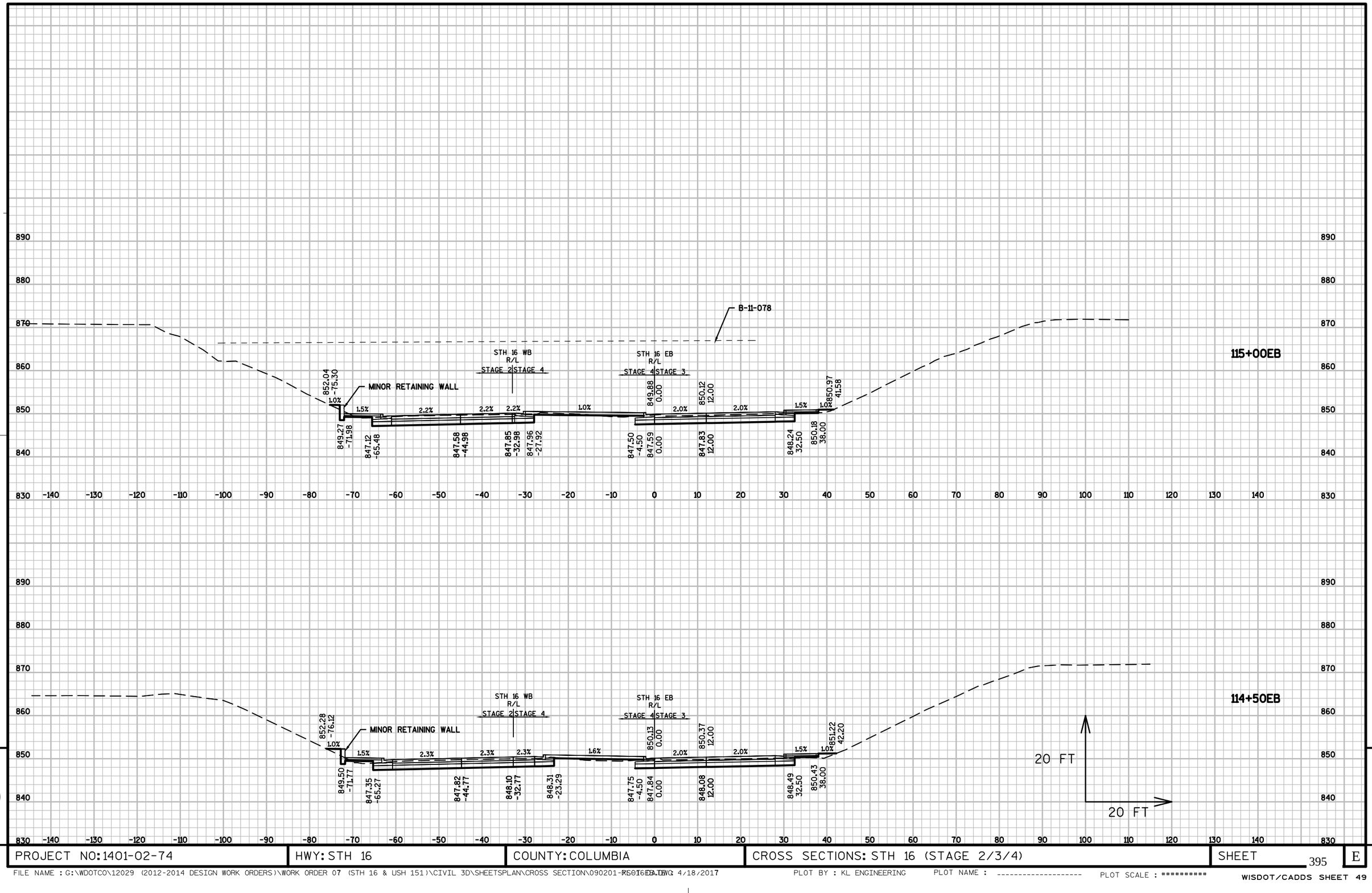
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 (STAGE 2/3/4)	SHEET 393	E



PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 (STAGE 2/3/4)	SHEET 394	E

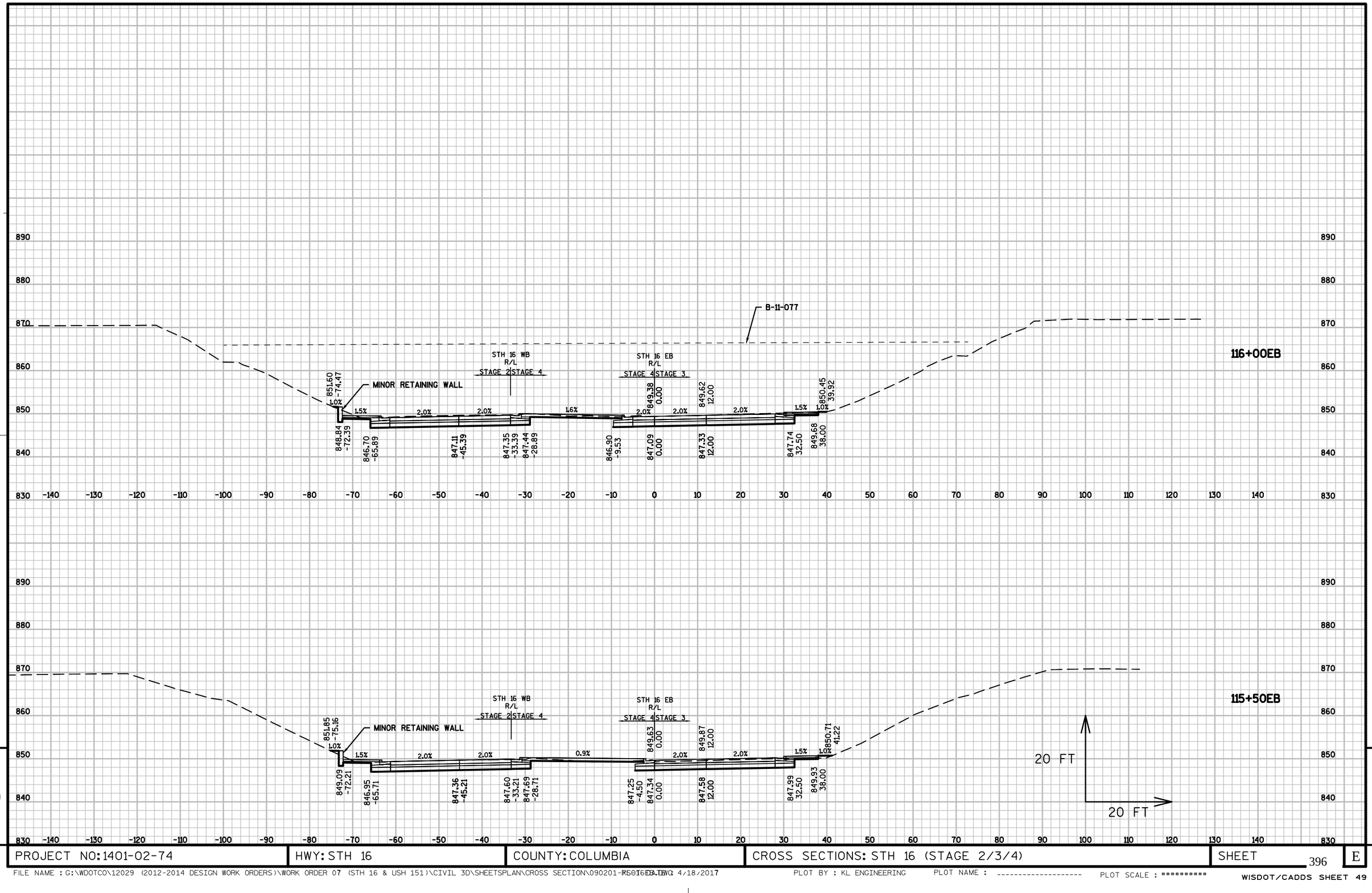
FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090201-XS01-16EB.DWG 4/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 49



PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 (STAGE 2/3/4)	SHEET 395	E

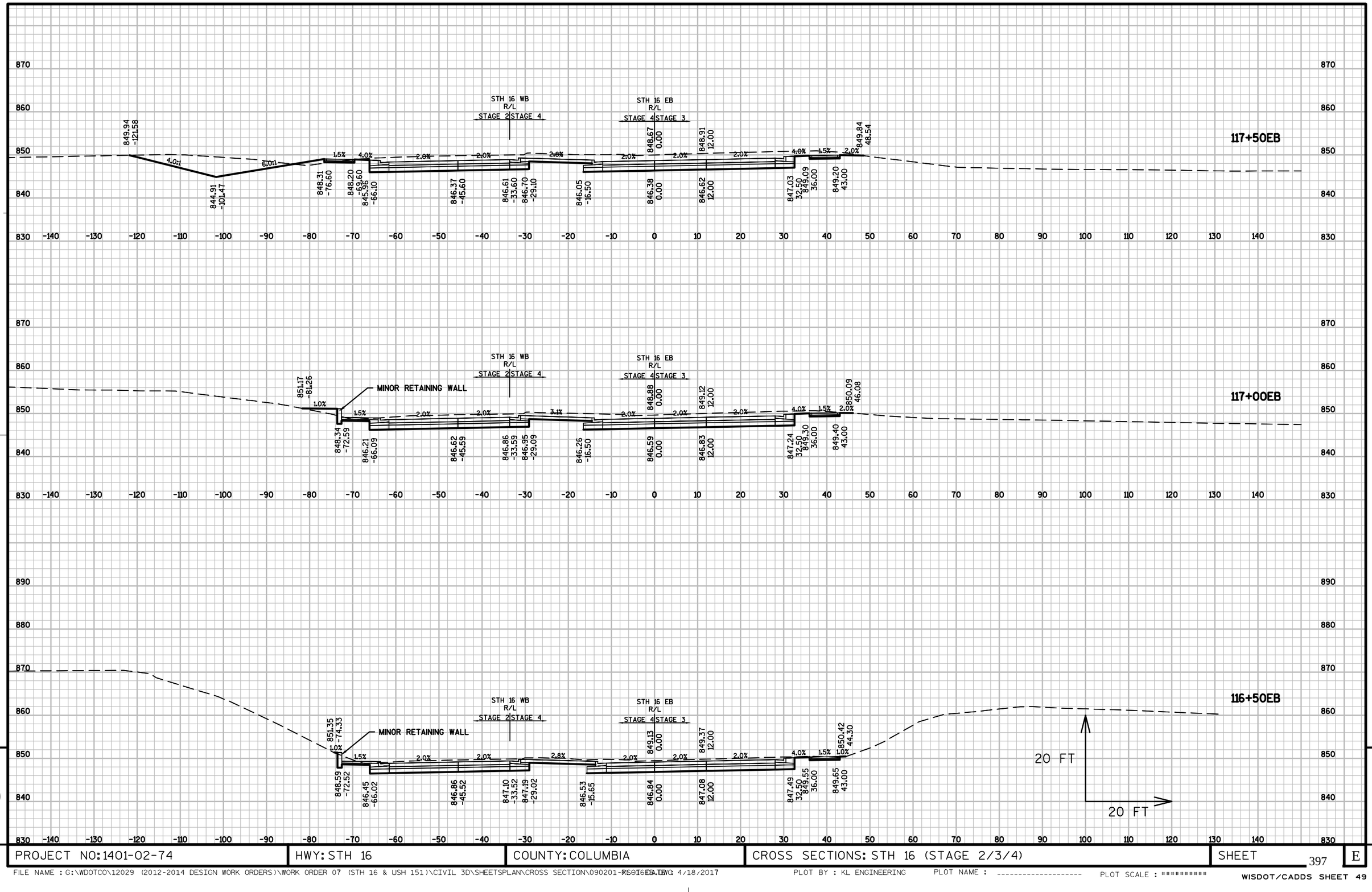
FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090201-XS01601A.DWG 4/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49



PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 (STAGE 2/3/4)	SHEET 396	E

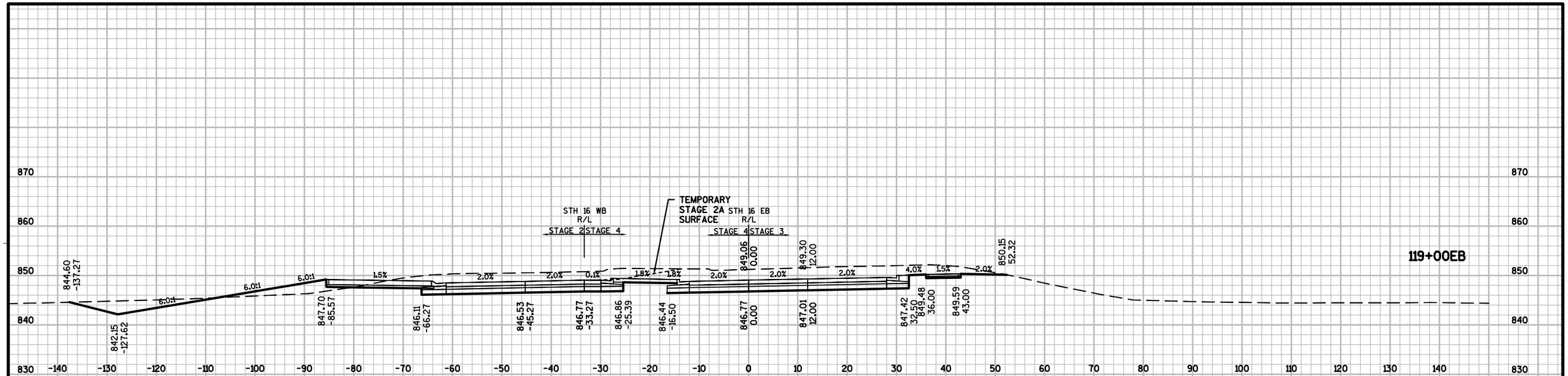
FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090201-XS01601A.DWG 4/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 49



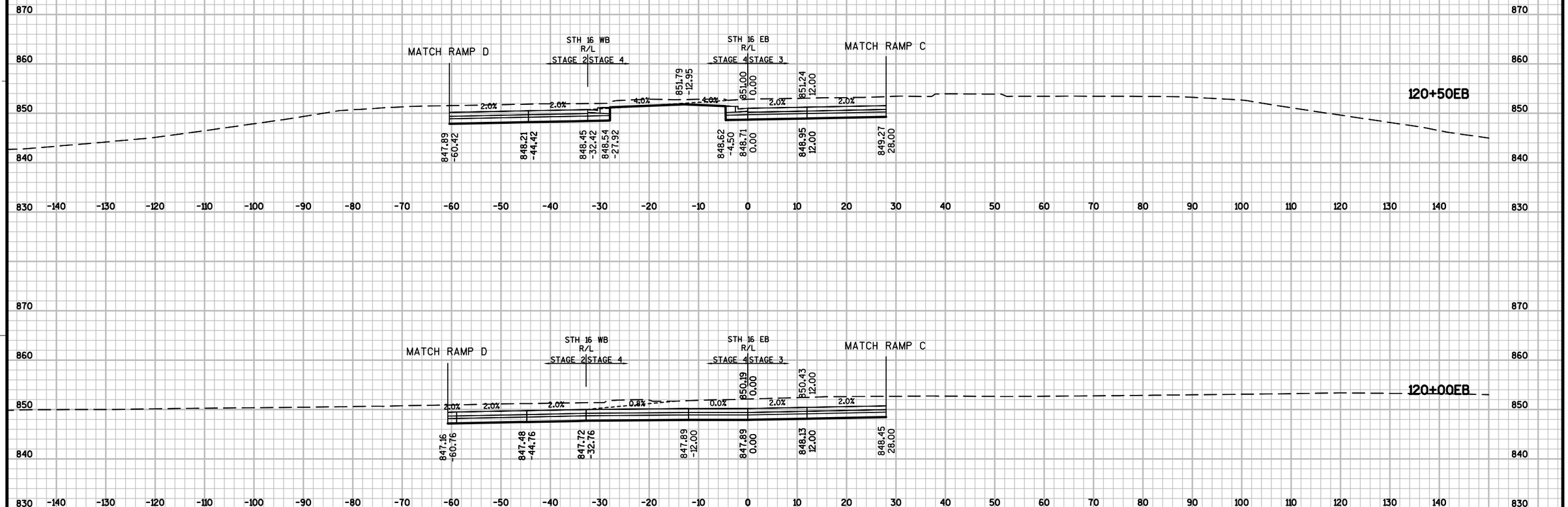
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 (STAGE 2/3/4)	SHEET 397	E

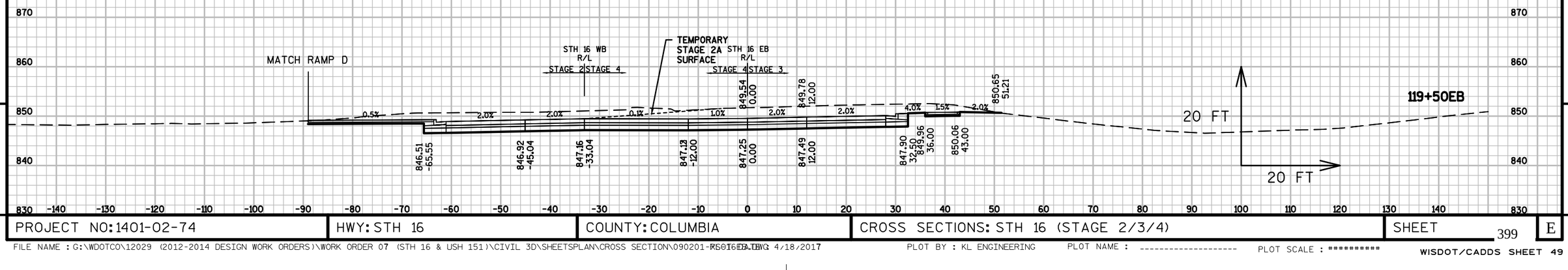
FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090201-XS01E16.DWG 4/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49



PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 (STAGE 2/3/4)	SHEET 398	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090201-XS16EB.DWG 4/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49

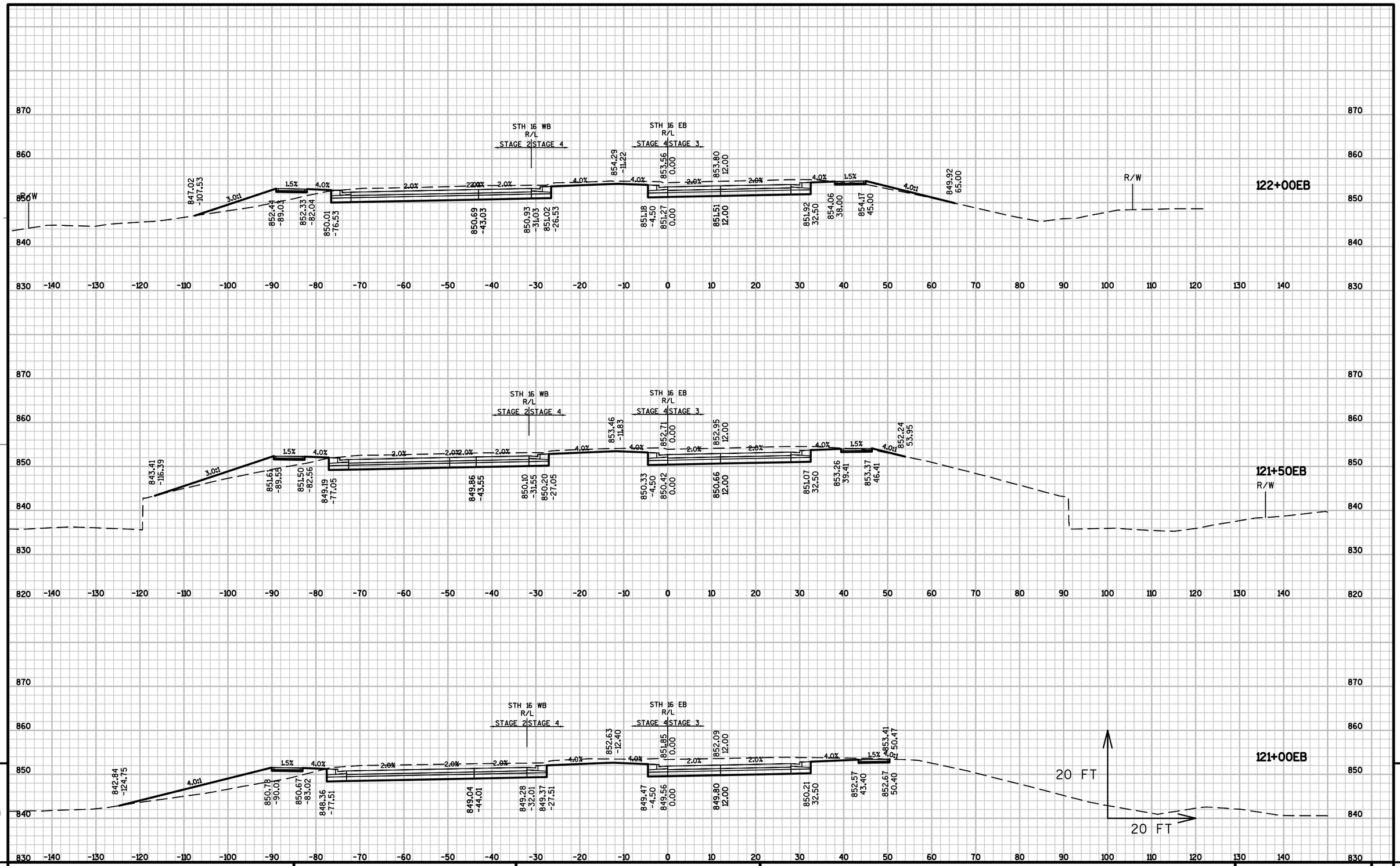




PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 (STAGE 2/3/4)	SHEET 399	E

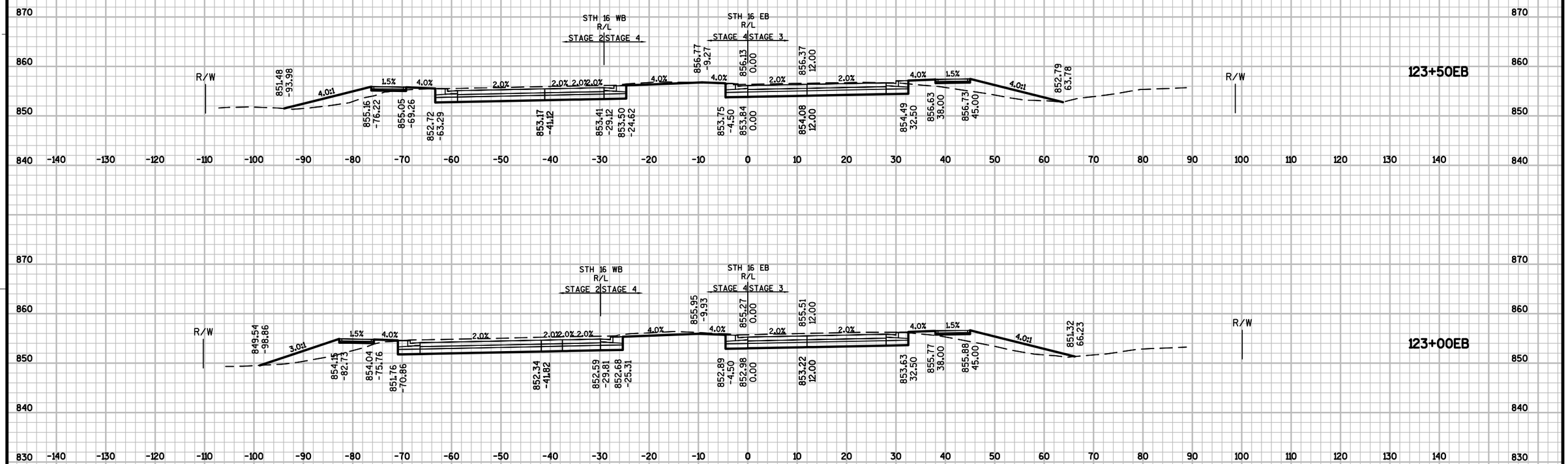
FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090201-RS01-16.DWG 4/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

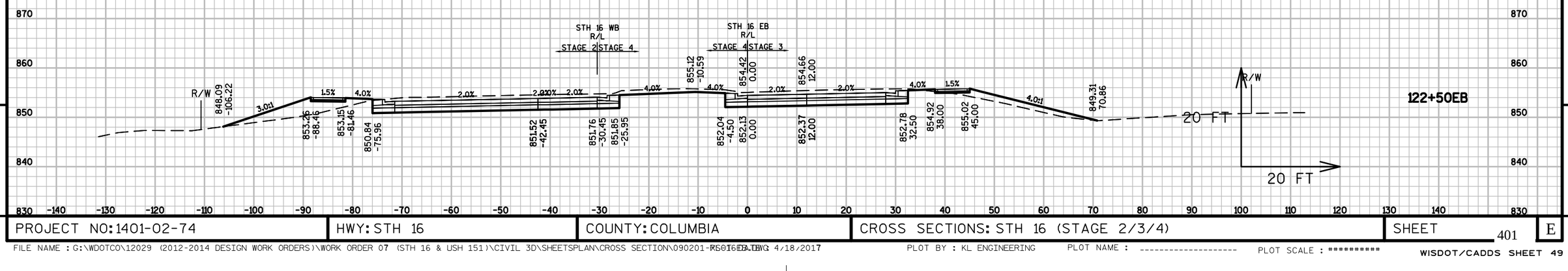
WISDOT/CADDS SHEET 49



PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 (STAGE 2/3/4)	SHEET 400	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090201-RSO16EB.DWG 4/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********





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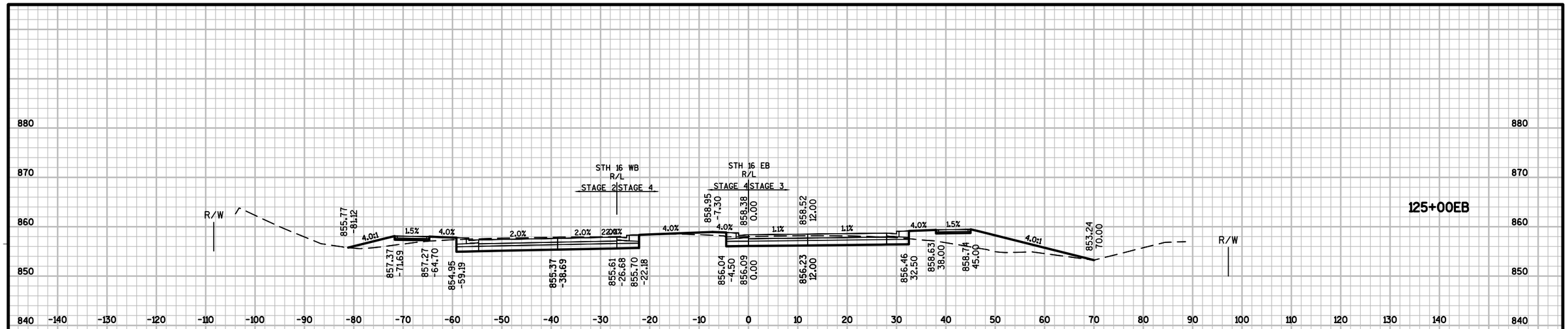
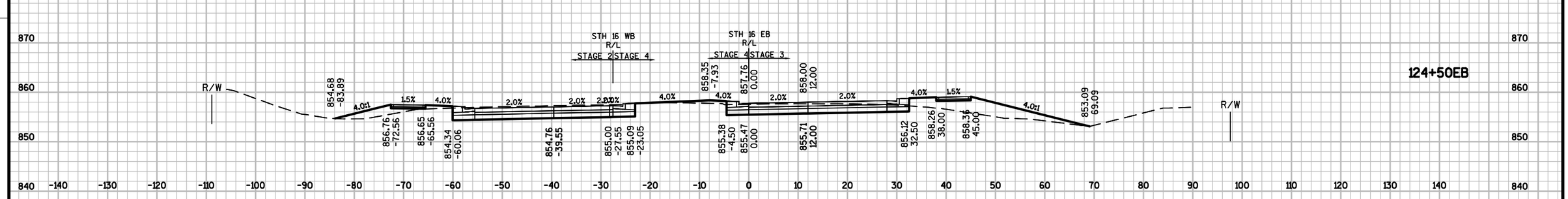
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 (STAGE 2/3/4)	SHEET 401	E





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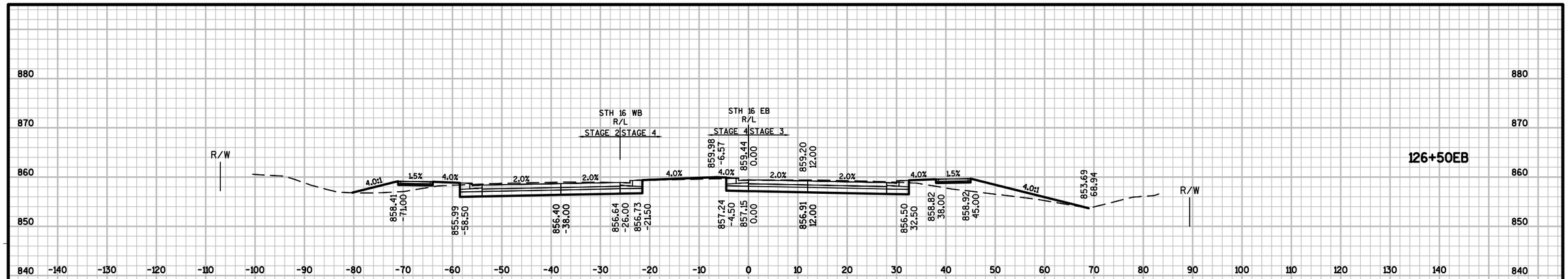
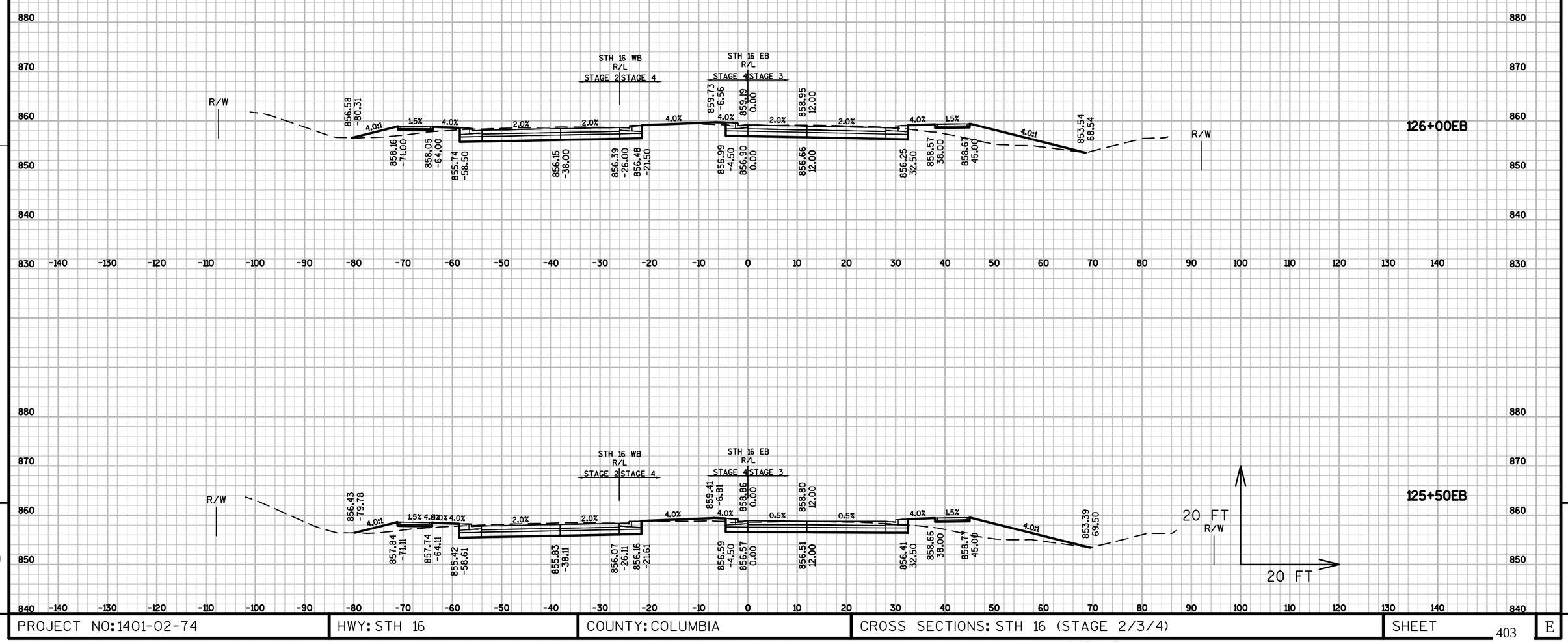
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 (STAGE 2/3/4)	SHEET 402	E





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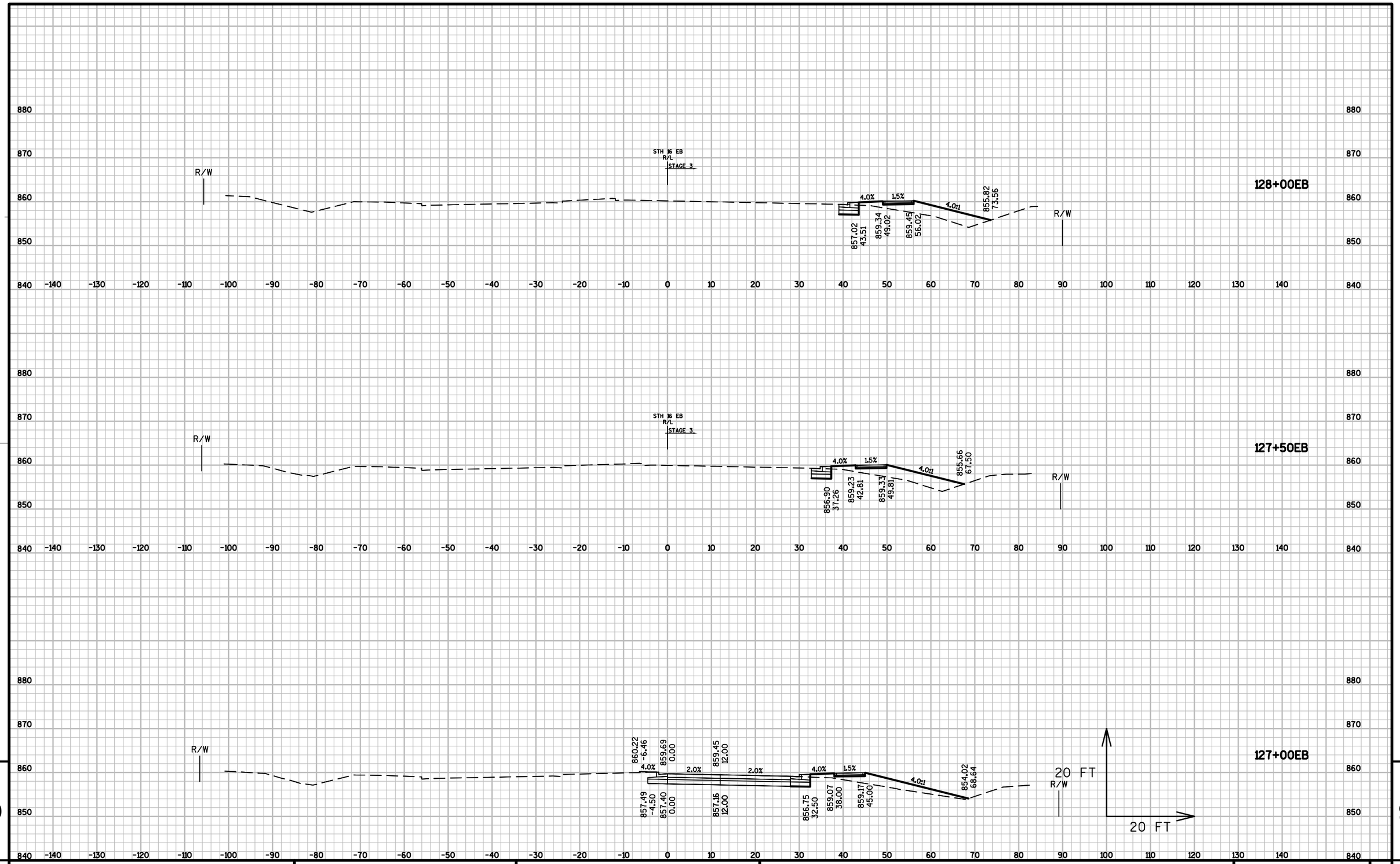
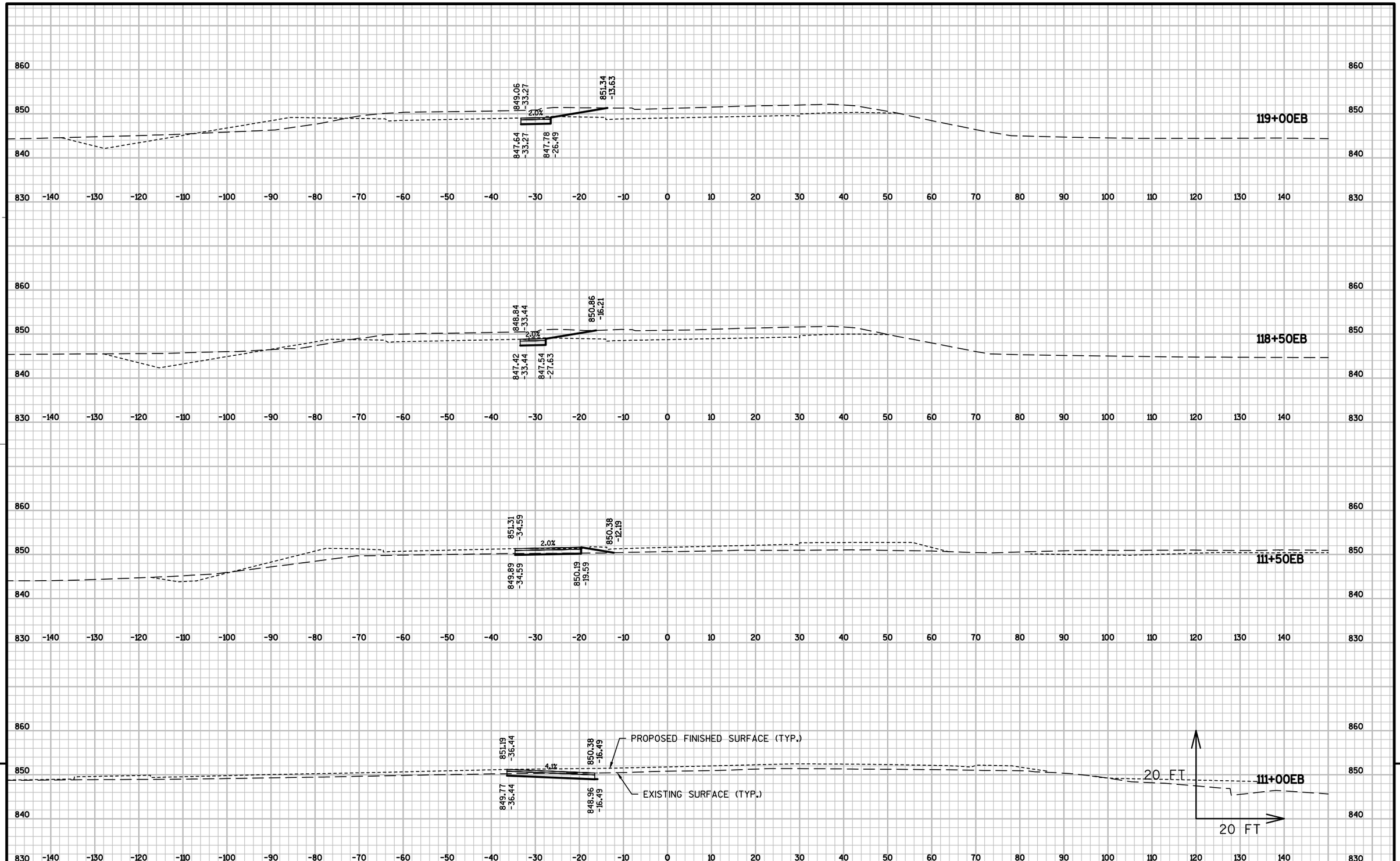
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 (STAGE 2/3/4)	SHEET 403	E



PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 (STAGE 2/3/4)	SHEET 404	E

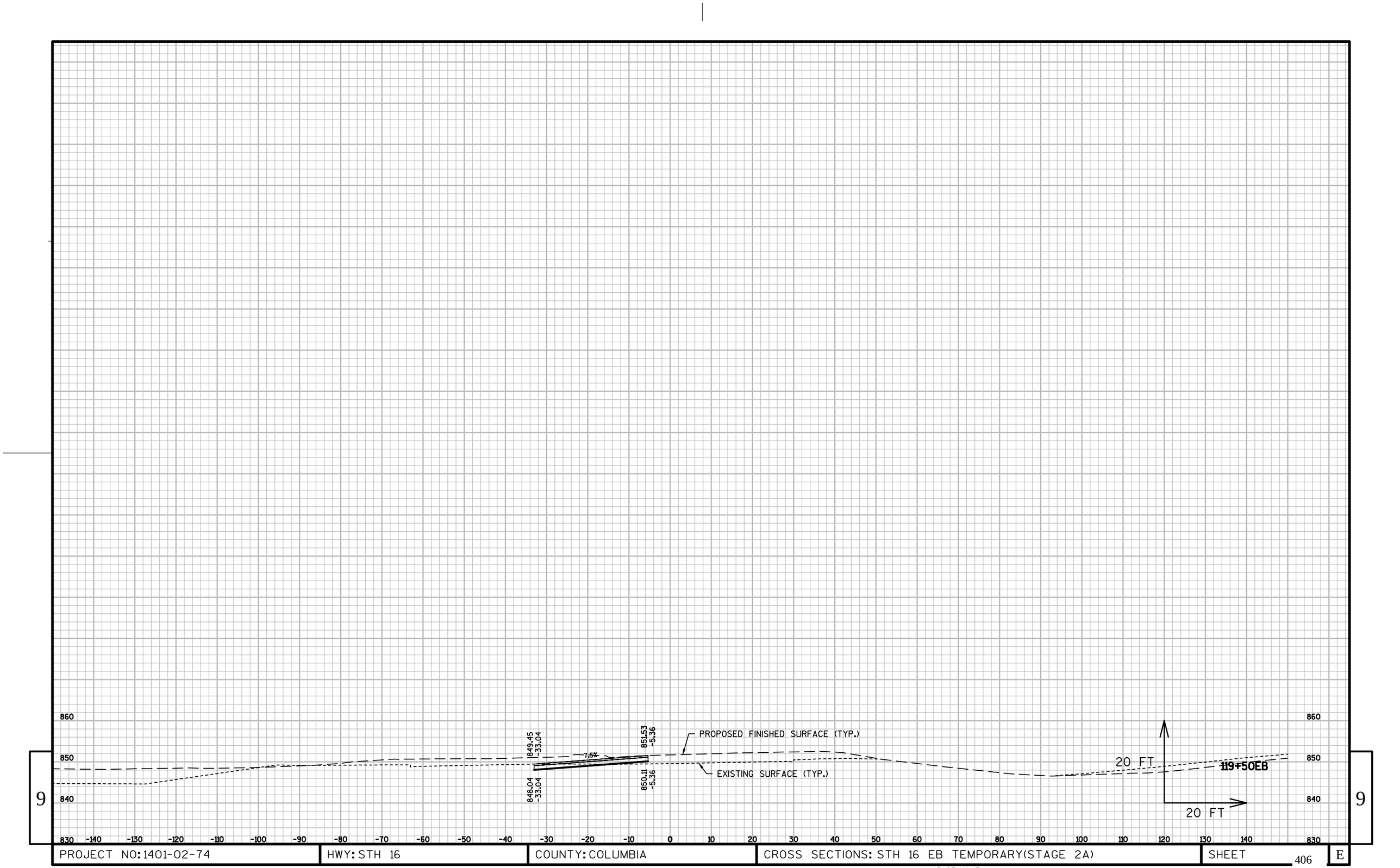


PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 EB TEMPORARY(STAGE 2A)	SHEET 405	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090210-RSOSTAGE2A-STH16EB.DWG
LAYOUT NAME - SECTION SHEET - (9)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

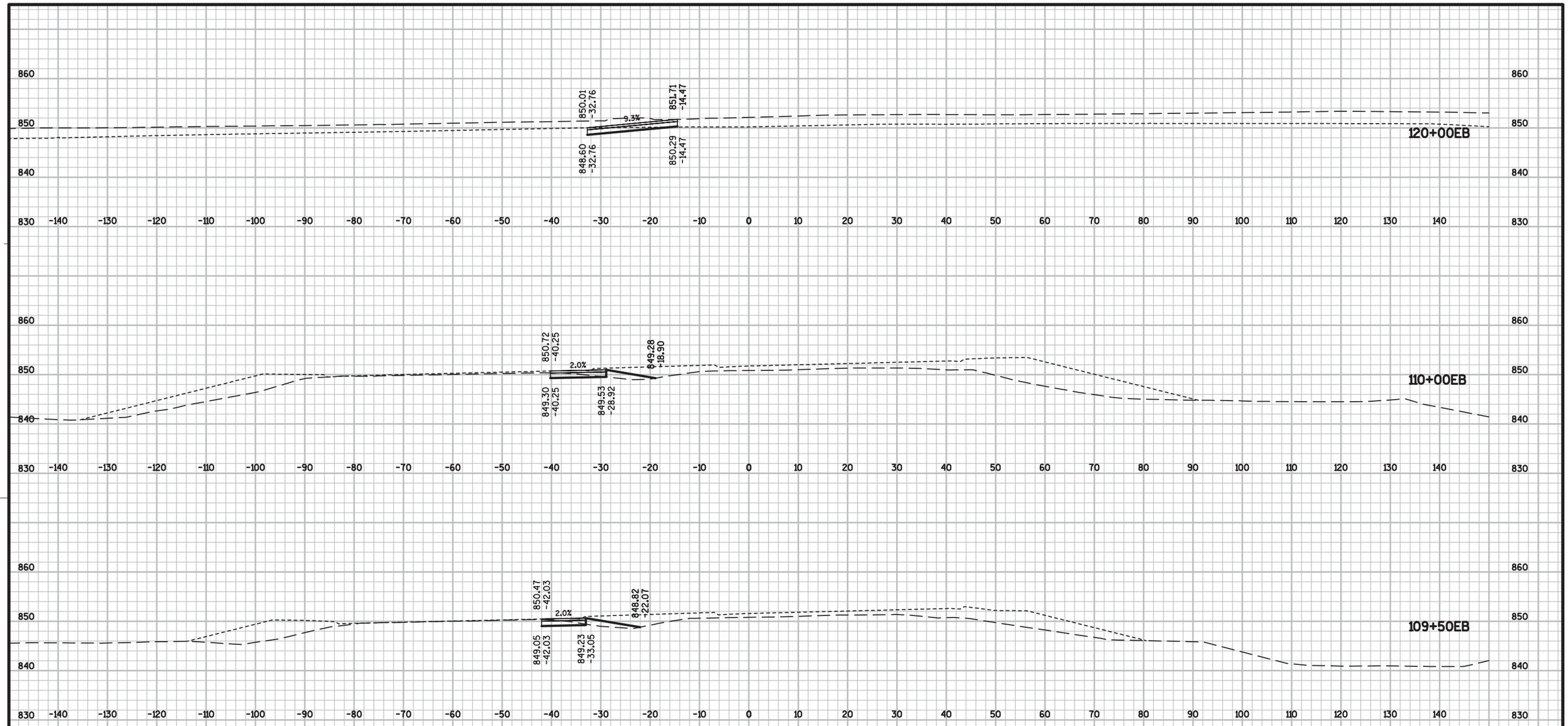


PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 EB TEMPORARY(STAGE 2A)	SHEET 406	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090210-RSOSTAGE2A-STH16.DWG
LAYOUT NAME - SECTION SHEET - (10)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

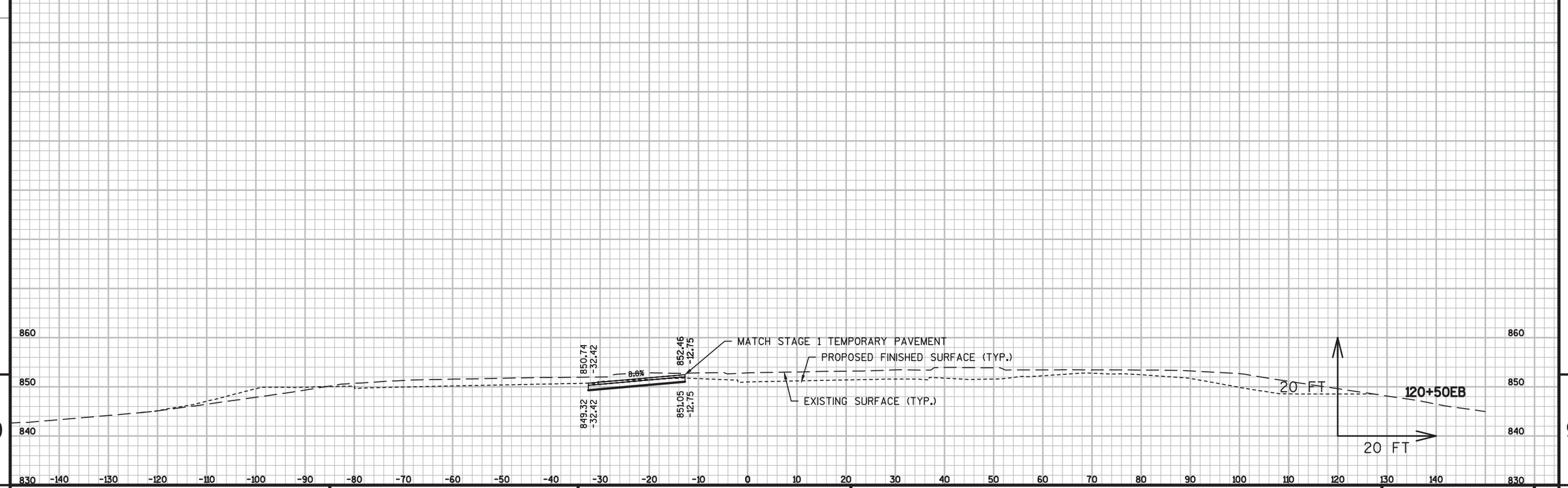


PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 EB TEMPORARY(STAGE 2B)	SHEET 407	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090211-XSECTSTAGE2B 9/19/2017
LAYOUT NAME - SECTION SHEET - (9)

PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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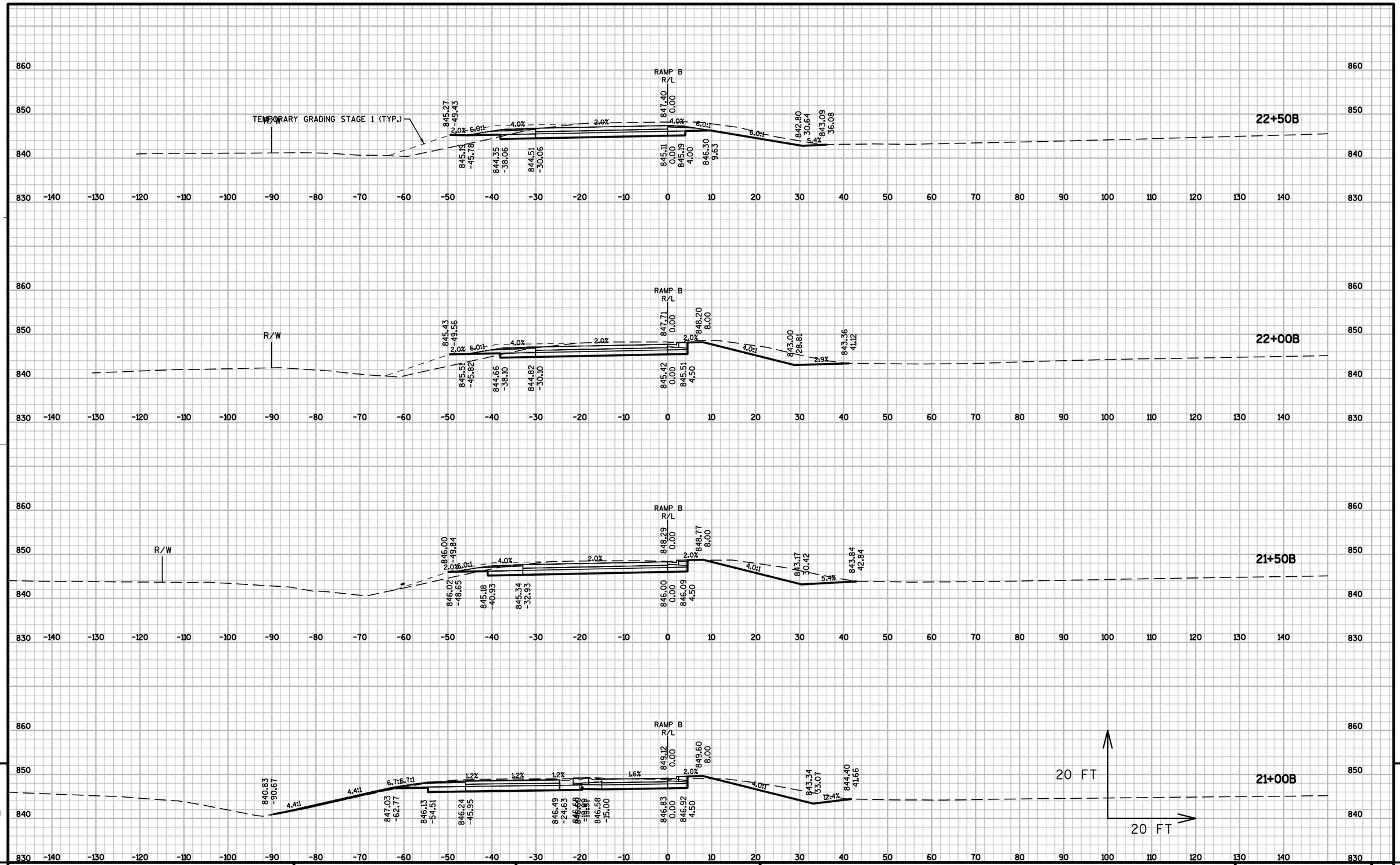
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: STH 16 EB TEMPORARY(STAGE 2B)	SHEET 408	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090211-XSST02EB STH16.DWG
LAYOUT NAME - SECTION SHEET - (10)

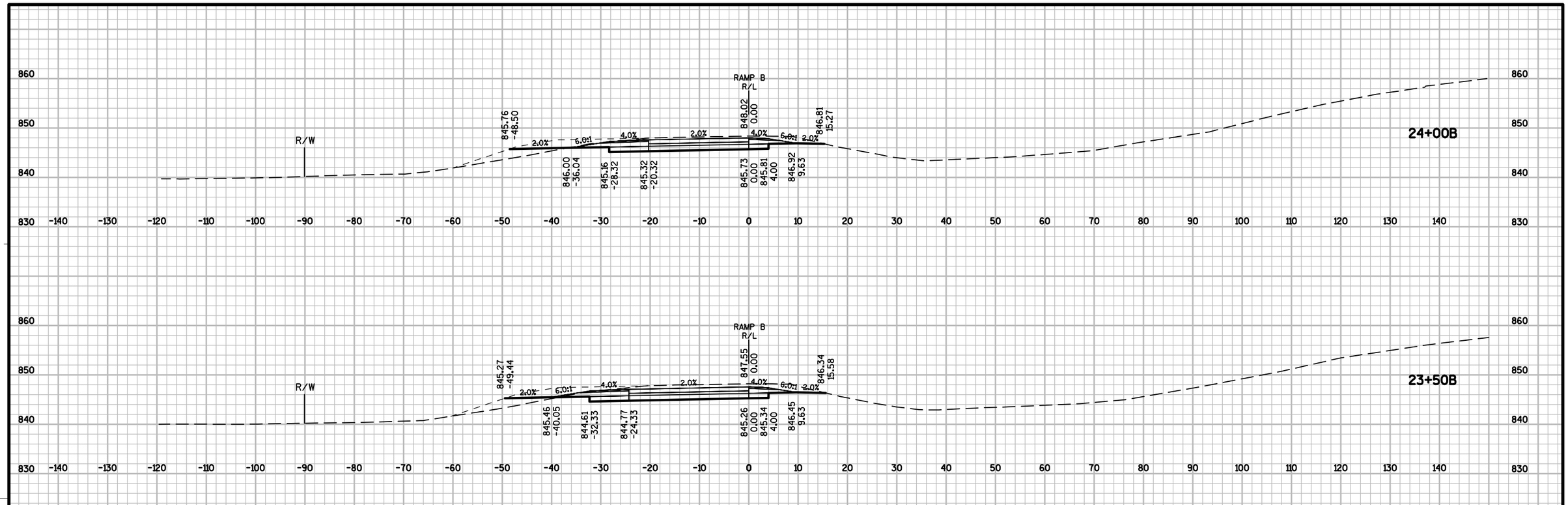
PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



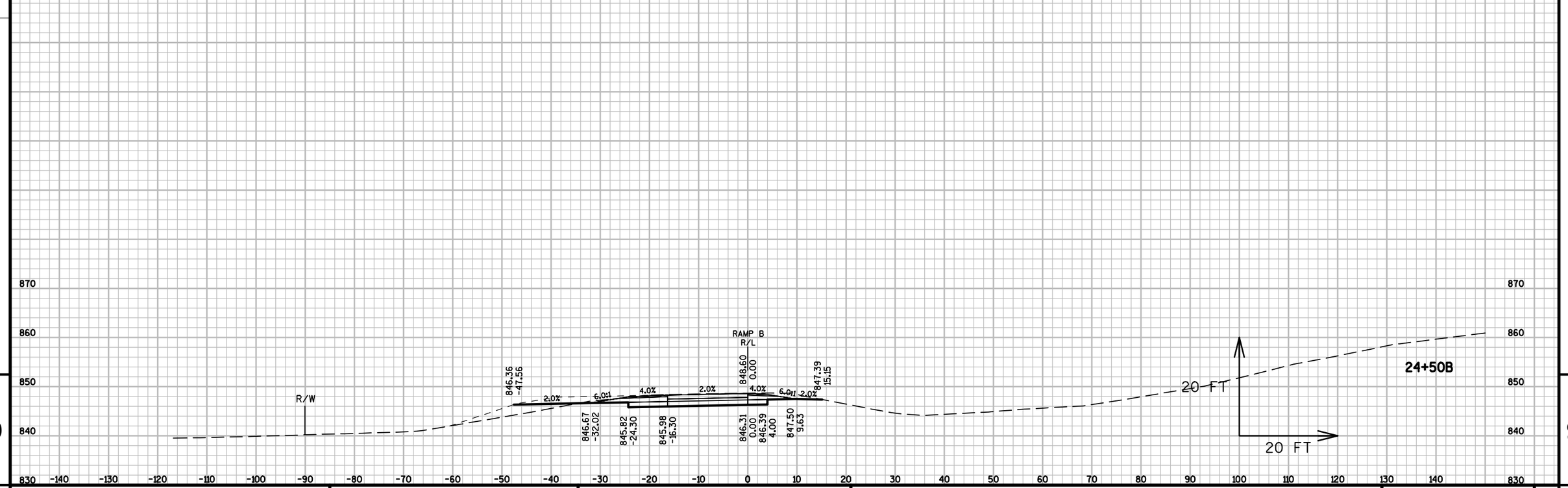
PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP B (STAGE 2)	SHEET 409	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090203-RSECRAMPB.DWG 6/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49



PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP B (STAGE 2)	SHEET 410	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090203-RSECRAMPB_STG2.DWG 8/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49



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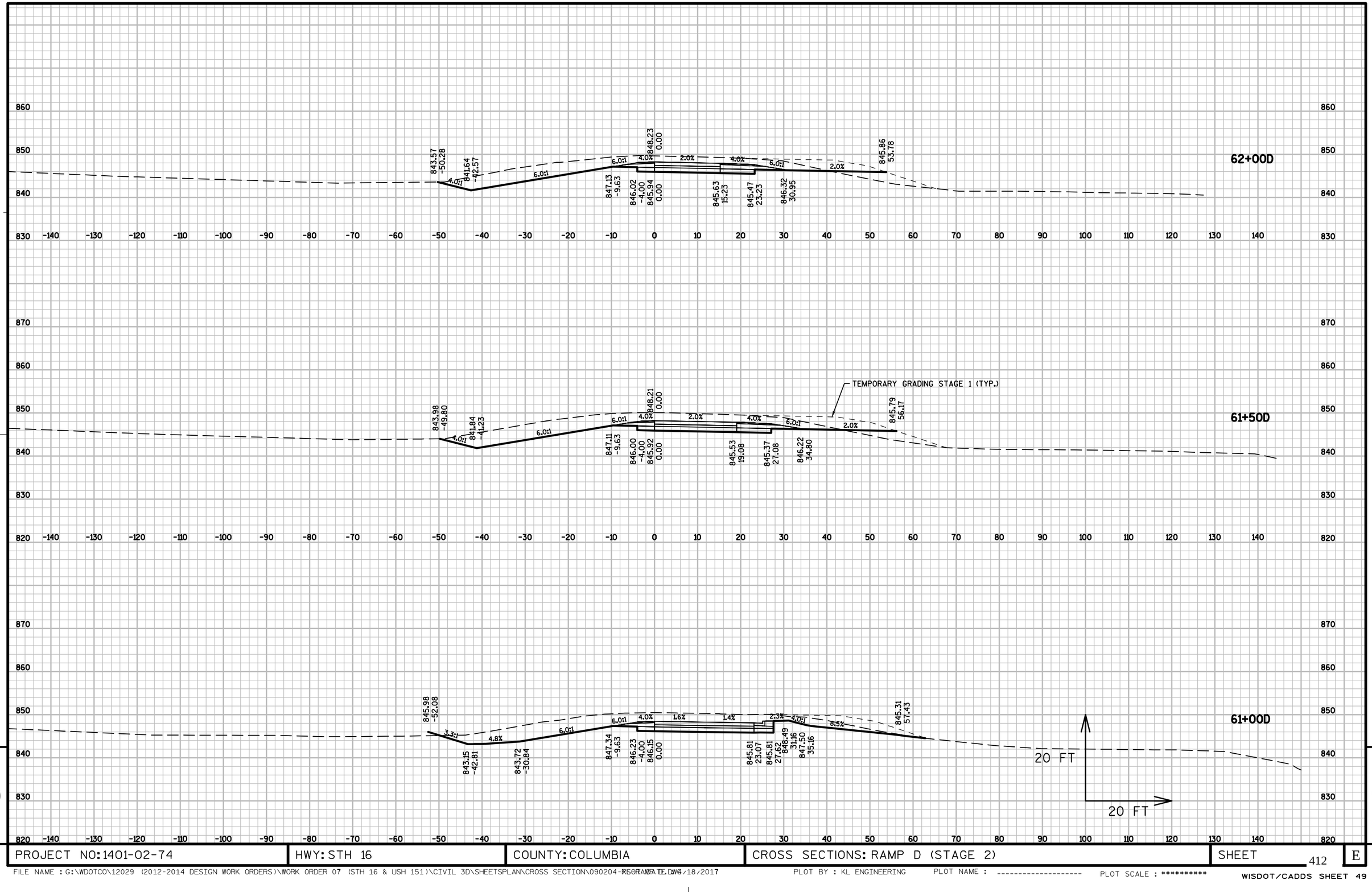
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP B (STAGE 2)	SHEET 411	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090203-RSECRAMPB.DWG 8/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49



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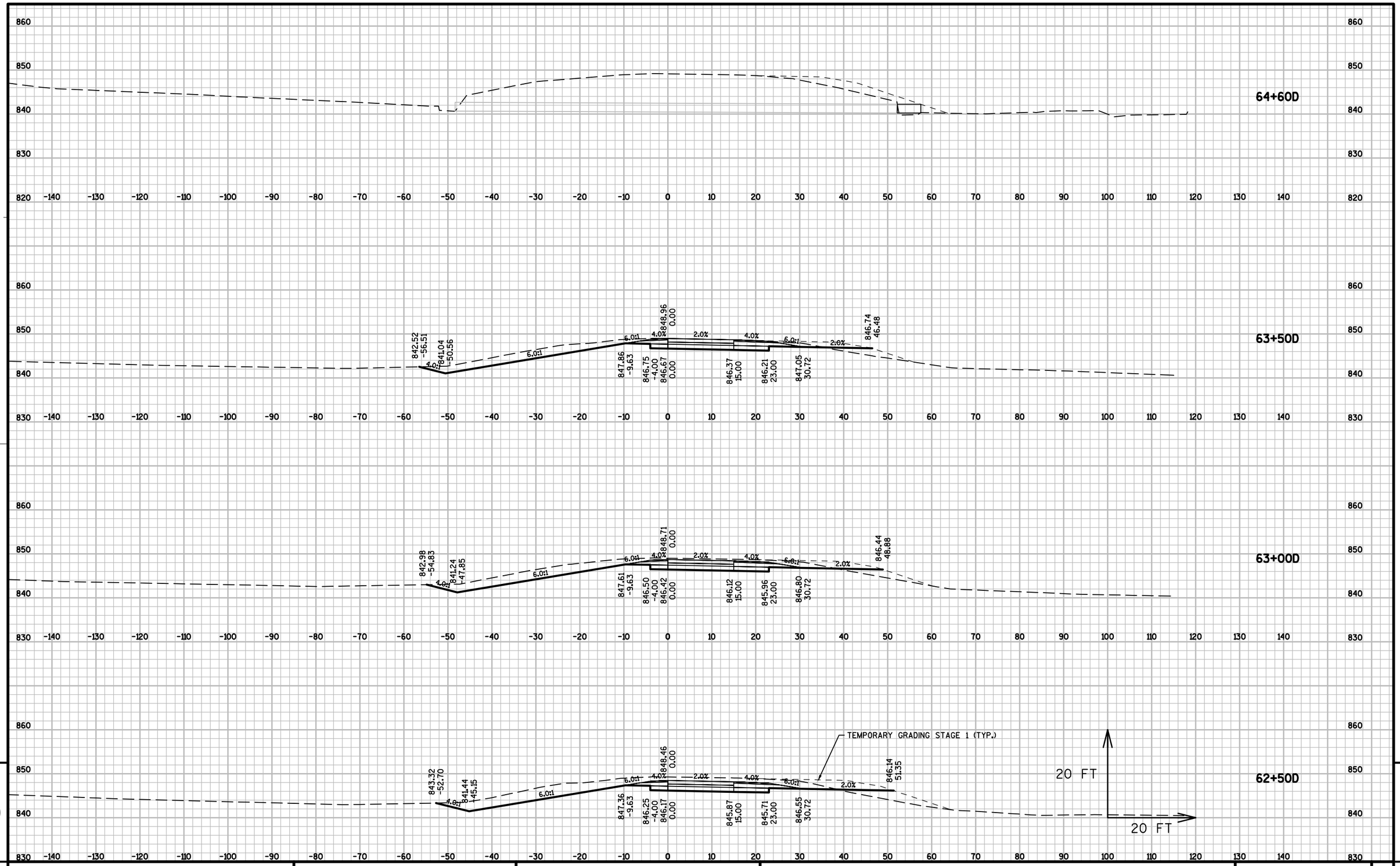
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP D (STAGE 2)	SHEET 412	E

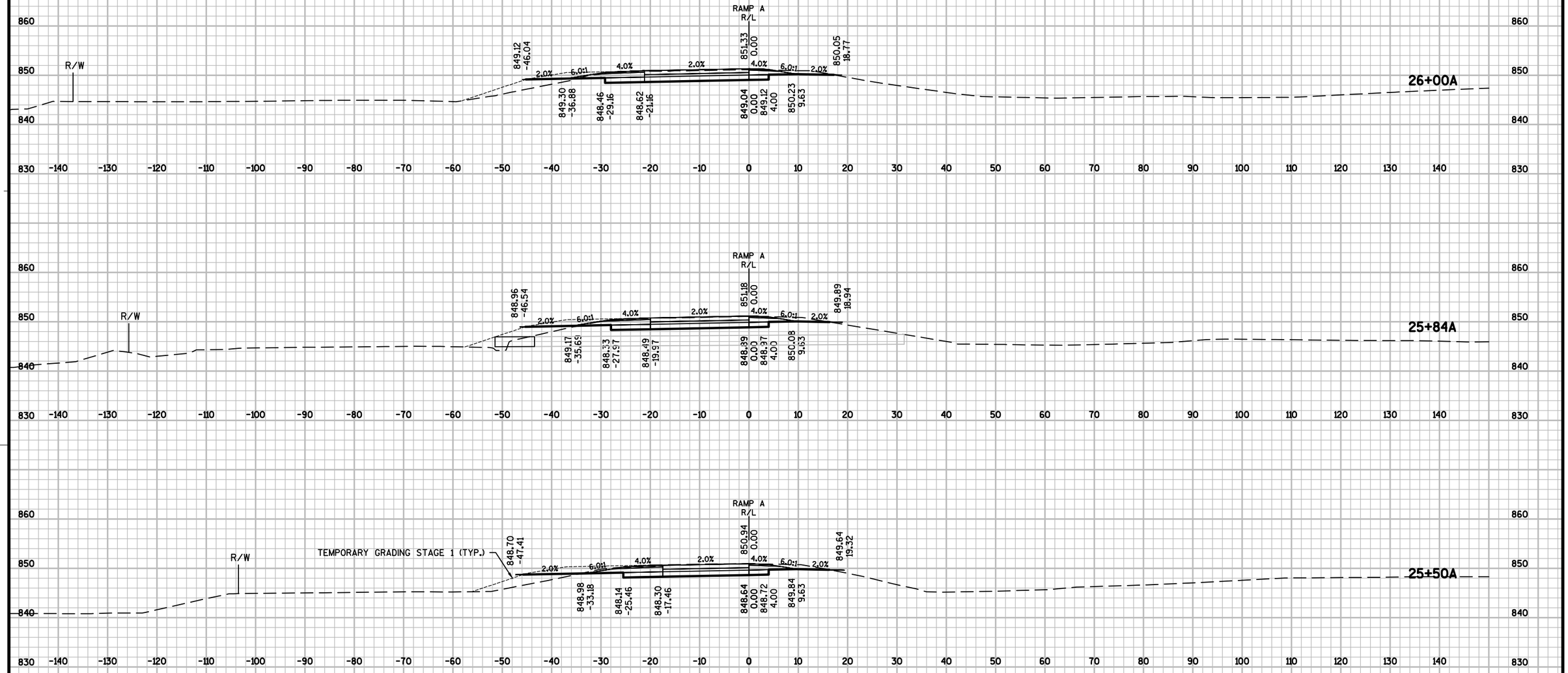
FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090204-RSECRAMPD.DWG 10/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49



PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP D (STAGE 2)	SHEET 413	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090204-RSECRAMPD.DWG 10/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 49



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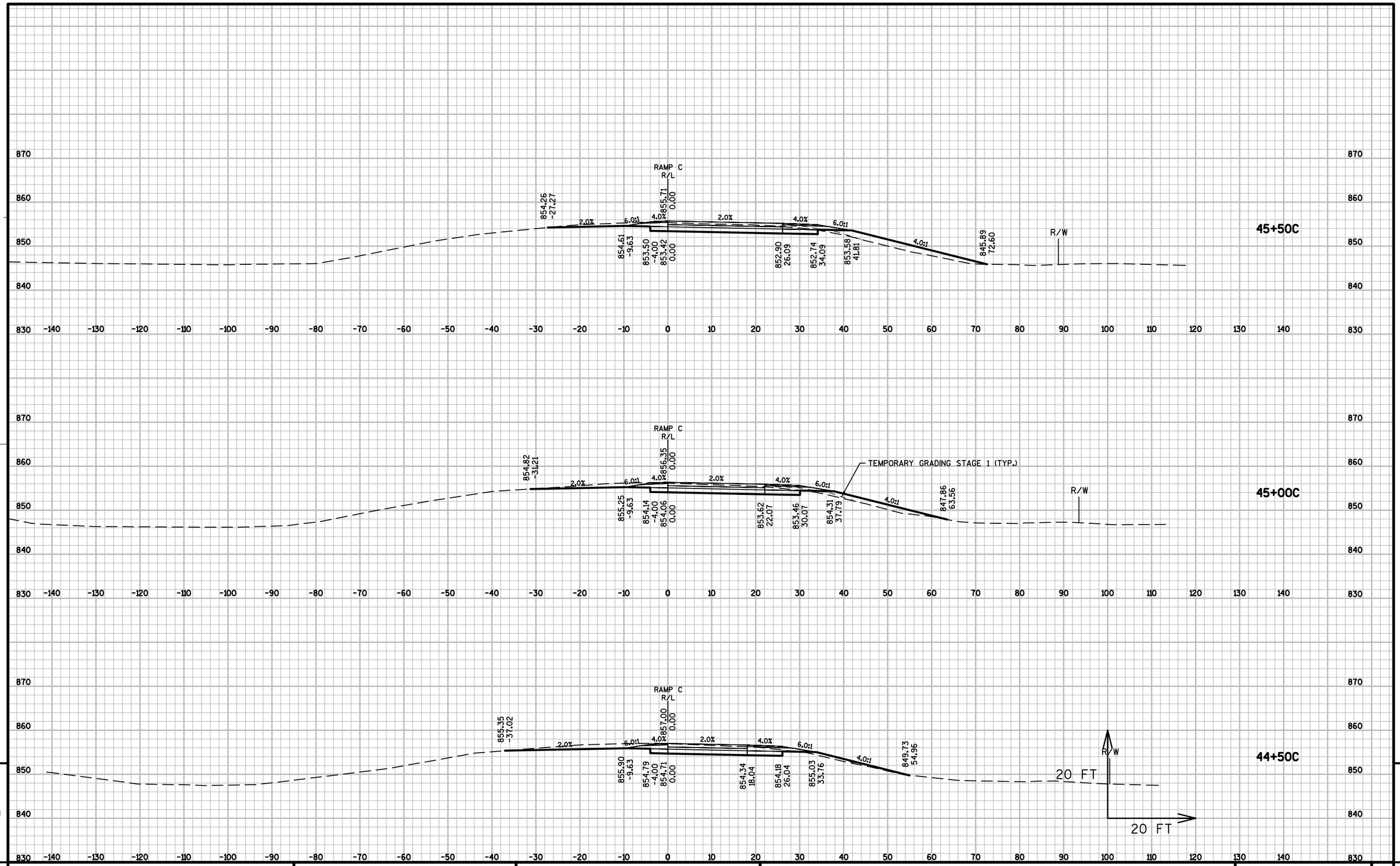
PROJECT NO: 1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP A (STAGE 3)	SHEET 414	E

FILE NAME : G:\WDOTCO\12029 (2012-2014 DESIGN WORK ORDERS)\WORK ORDER 07 (STH 16 & USH 151)\CIVIL 3D\SHEETSPLAN\CROSS SECTION\090202-RSECRAMPA.DWG 8/18/2017 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 49



9

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PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP C (STAGE 3)	SHEET 415	E

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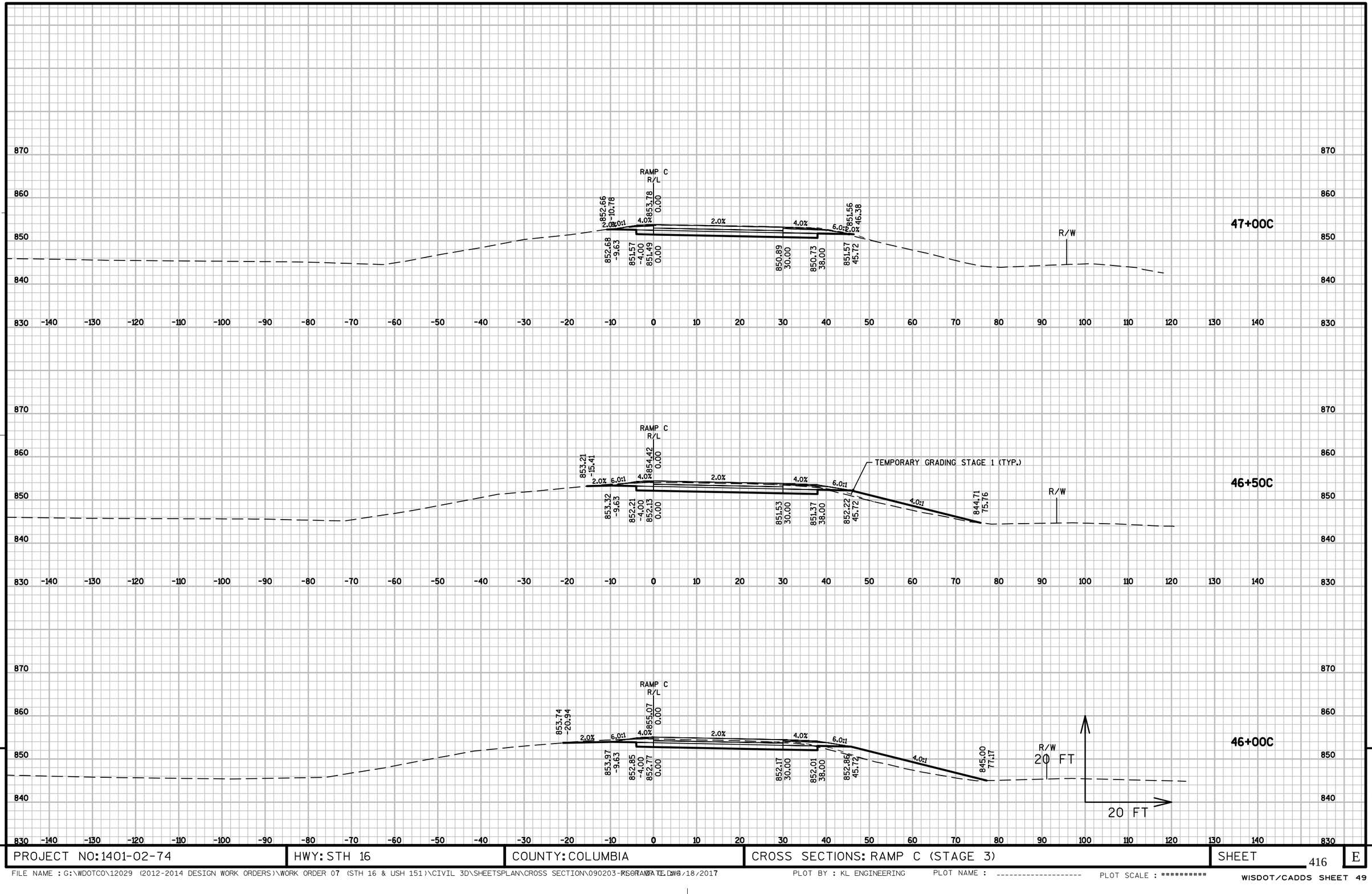

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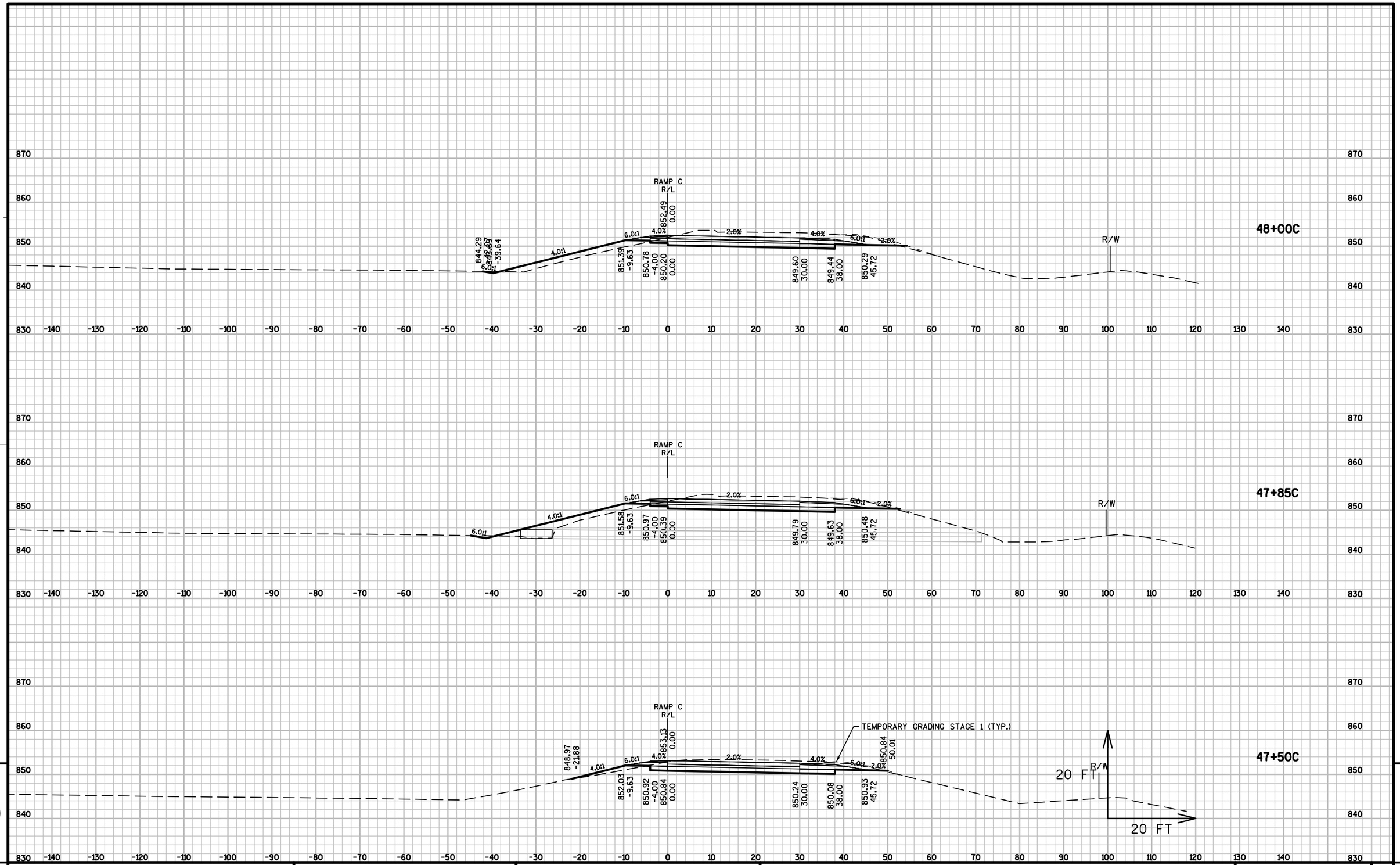

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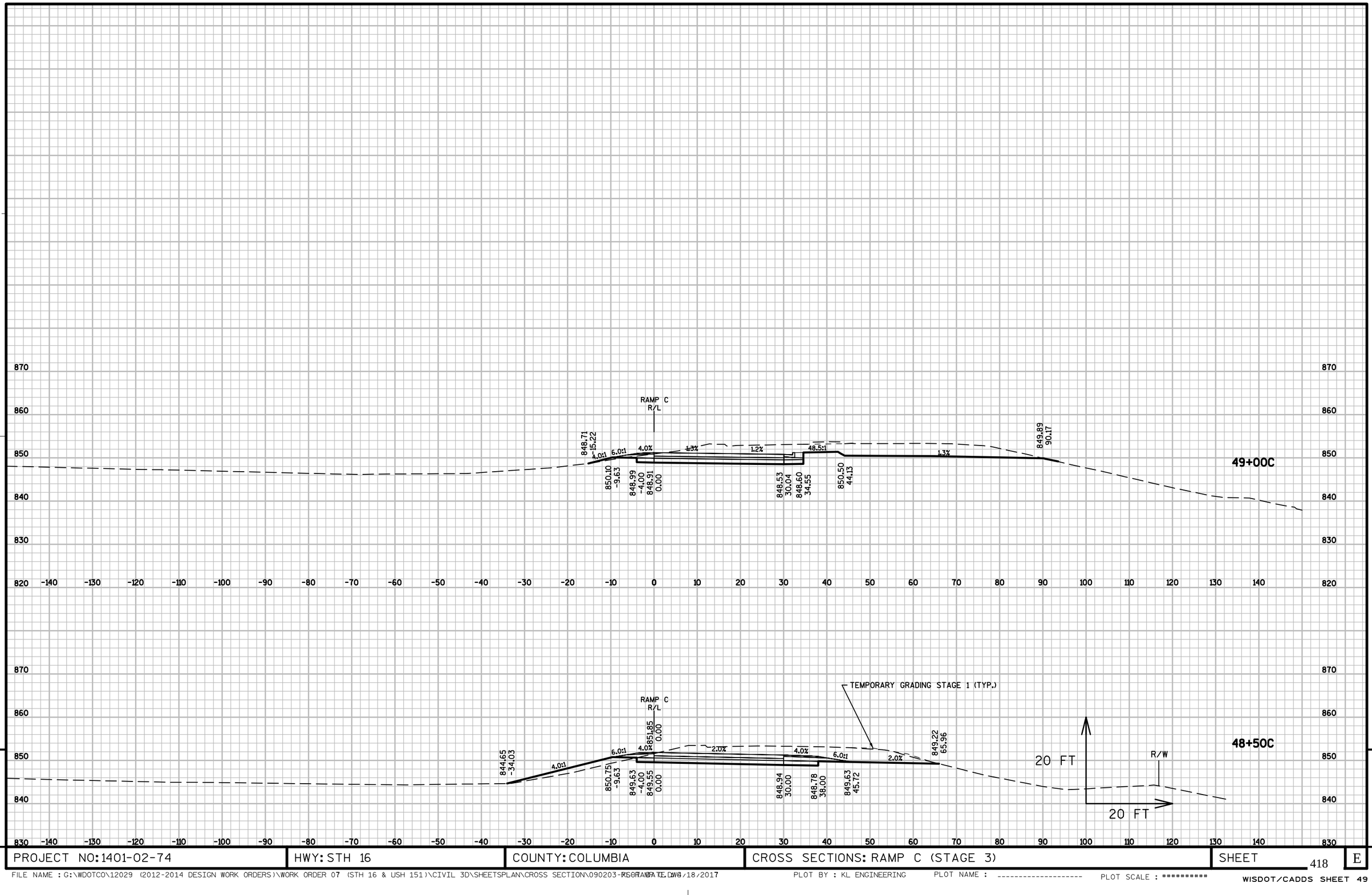

PROJECT NO:1401-02-74	HWY: STH 16	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP C (STAGE 3)	SHEET 418	E

Notes

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