

PROJECT ID: 1228-25-60

COUNTY: MILWAUKEE

Order of Sheets

Section No. 1	Title
Section No. 2	Typical Sections and Details
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	Gross Sections

TOTAL SHEETS = 56



08

DESIGN DESIGNATION

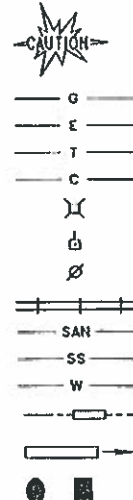
A.A.D.T. 2011 = 33,500
A.A.D.T. =
D.H.V. =
D. =
T. =
DESIGN SPEED = 40 M.P.H.
ESALS =

CONVENTIONAL SYMBOLS

COUNTY LINE
CORPORATE LIMITS
PROPERTY LINE
LOT LINE
LIMITED EASEMENT
EXISTING RIGHT OF WAY
PROPOSED OR NEW R/W LINE
SURVEY LINE
SLOPE INTERCEPT
ORIGINAL GROUND
MARSH OR ROCK PROFILE
(To be noted as such)
MARSH AREA
WOODED OR SHRUB AREA

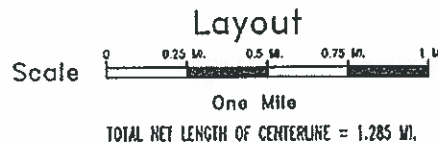


COMBUSTIBLE FLUIDS
UNDERGROUND UTILITIES
GAS
ELECTRIC
TELEPHONE OR TELEGRAPH
COMMUNICATIONS LINE
SERVICE PEDESTAL
POWER POLE
TELEPHONE POLE
RAILROAD
SANITARY SEWER
STORM SEWER
WATER
EXISTING CULVERT
PROPOSED CULVERT
(Box or Pipe)
CULVERT (Profile View)



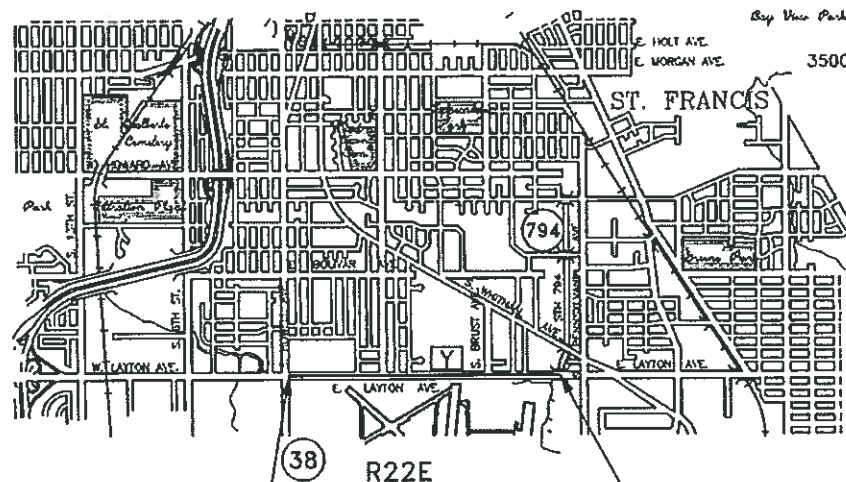
BEGIN PROJECT 1228-25-60
STA. 13+80.37
N = 356 594.80
E = 2 559 921.67

END PROJECT 1228-25-60
STA. 81+63.30



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
NS FREEWAY, LAYTON AVE DETOUR
HOWARD AVE TO VALLEY BRIDGE
CTH Y
MILWAUKEE COUNTY

STATE PROJECT NUMBER
1228-25-60

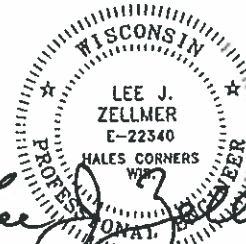


STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1228-25-60		

MILWAUKEE COUNTY
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION SERVICES



SURVEYOR: Milwaukee County



DESIGNER: 7/16/13

REVIEWED: 7/16/13 Joseph A. Wieg
Project Manager

RECOMMENDED FOR APPROVAL: 7/16/2013
Project Supervisor

APPROVED: 7/16/13
Director Department of Transportation

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor Milwaukee County
Designer Milwaukee County
Project Manager ALLEN GILBERTSON
Regional Examiner
Regional Supervisor JAMES FORSETH

APPROVED FOR THE DEPARTMENT
DATE: 7/16/13
(Signature)

ELEVATIONS SHOWN ON THIS PLAN
ARE BASED ON NGVD29.
ALL COORDINATES SHOWN ON THIS PLAN
ARE REFERENCED TO THE WISCONSIN STATE
PLANE COORDINATE SYSTEM (WSPCS), NAD27
SOUTH ZONE.

E

GENERAL NOTES

REMOVALS

NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

UTILITIES

THE LOCATION OF EXISTING, ABANDONED AND PROPOSED UTILITIES SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA NOT SHOWN.

THE CONTRACTOR SHALL COORDINATE ALL UTILITY ADJUSTMENTS WITH THE APPROPRIATE UTILITY.

EROSION CONTROL/LANDSCAPING

THE EROSION CONTROL ITEMS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATION AND DIMENSIONS SHALL BE DETERMINED BY THE ENGINEER. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

SIGNING/MARKING

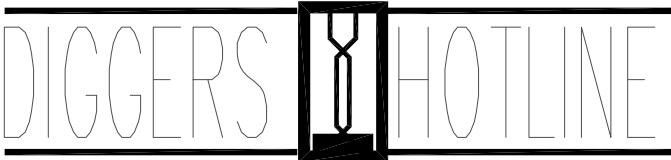
NO SIGNS SHALL BE REMOVED WITHOUT THE CONSENT OF THE ENGINEER. ALL SIGNS REMOVED SHALL BE PLACED AT A SITE SPECIFIED BY THE ENGINEER TO BE PICKED UP BY MILWAUKEE COUNTY. ANY CONFLICTING SIGN SHALL BE COVERED OR REMOVED.

MISCELLANEOUS

CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AT ALL TIMES.

THE CONTRACTOR SHALL STAMP ALL ENDS OF MONOLITHIC PORTLAND CEMENT CONCRETE SURFACES WITH A STAMP BEARING THEIR NAME AND THE YEAR OF CONSTRUCTION. ALL LETTERING SHALL BE 2-INCH. THE COST OF THIS WORK SHALL BE CONSIDERED TO BE INCLUDED IN THE UNIT BID PRICES FOR OTHER PORTLAND CEMENT CONCRETE ITEMS AND NO ADDITIONAL PAYMENT WILL BE MADE.

DETAILS OF CONSTRUCTION NOT SHOWN ON THE PLAN SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



Call 8 1 1
Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www. DiggersHotline.com
WIS. STATUTE 182.0175 (1974)
REQUIRES MIN. OF 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE.

LIST OF STANDARD ABBREVIATIONS

ABUT	Abutment
AGG	Aggregate
AH	Ahead
AADT	Annual Average Daily Traffic
ASPH	Asphaltic or Asphalt
BK	Back
BM	Bench Mark
CB	Catch Basin
CL or C/L	Center Line
CONC	Concrete
CTH	County Trunk Highway
CABC	Crushed Aggregate Base Course
C&G	Curb and Gutter
DHV	Design Hourly Volume
DD	Directional Distribution
DWY	Driveway
EL or ELEV	Elevation
ESALS	Equivalent Single Axle Loads
EBS	Excavation Below Subgrade
CWT	Hundredweight
INL	Inlet
INV	Invert
MH	Manhole
MIS	Metropolitan Interceptor Sewer
PAVT	Pavement
PT	Point
PCC	Portland Cement Concrete
RL or R/L	Reference Line
REQD	Required
R/W	Right-of-Way
SEC	Section
SDD	Standard Detail Drawing
STH	State Trunk Highway
STA	Station
SSPRC	Storm Sewer Pipe Reinforced Concrete
S/W	Sidewalk
TLE	Temporary Limited Easement
V	Velocity or Design Speed
VERT	Vertical
VC	Vertical Curve
VPC	Vertical Point of Curve
VPI	Vertical Point of Intersection
VPT	Vertical Point of Tangency

REVISION DATE: 5/23/2013

MILWAUKEE COUNTY DEPT. OF TRANSPORTATION
(MCDOT)- MAINTENANCE DIVISION
10190 WEST WATERTOWN PLANK ROAD
WAUWATOSA, WI 53226
ATTN: CHARLES SMELTZER (414) 257-6580

MCDOT
TRANSPORTATION DIVISION- TRAFFIC ENGINEERING
2711 WEST WELLS STREET, SUITE 300
MILWAUKEE, WI 53208
ATTN: DANIEL MURPHY (414) 278-4842

MCDOT
TRANSPORTATION DIVISION- HIGHWAY ENGINEERING
2711 WEST WELLS STREET, SUITE 300
MILWAUKEE, WI 53208
ATTN: JOSEPH WIECZOREK (414) 278-4893

MCDOT
TRANSPORTATION DIVISION- CONSTRUCTION ENGINEERING
2711 WEST WELLS STREET, SUITE 300
MILWAUKEE, WI 53208
ATTN: AZIZ ALEIDW (414) 278-4911

MCDOT
MAINTENANCE DIVISION-TRAFFIC SIGNAL ELECTRICAL SHOP
10190 W. WATERTOWN PLANK ROAD
WAUWATOSA, WI 53226
ATTN: STANLEY JACKSON (414) 257-6593

GENERAL MITCHELL INTERNATIONAL AIRPORT
OFFICE OF THE AIRPORT ENGINEER
5300 SOUTH HOWELL AVENUE
MILWAUKEE, WI 53207
ATTN: JIM ZSEBE (414) 747-5394

CITY OF MILWAUKEE
MUNICIPAL BUILDING ROOM 780
841 NORTH BROADWAY
MILWAUKEE, WI 53202
ATTN: MR. JEFFREY POLENSKE (414) 286-2400

MILWAUKEE WATER WORKS
ATTN: MR. DAVE GOLDAPP (414) 286-6301

STREET LIGHTING
ATTN: MR. TOM MANSKE (414) 286-3481

TIME WARNER CABLE
1320 NORTH MARTIN LUTHER KING DRIVE
MILWAUKEE, WI 53212
ATTN: MR. STEVE CRAMER (414) 277-4045
MR. STEVEN VEEDER (414) 908-4766
(FIELD ENGINEER)

WE ENERGIES (GAS OPERATIONS)
333 WEST EVERETT STREET- A279
MILWAUKEE, WI 53203
ATTN: MR. DAN SANDE (414) 221-4578

WE ENERGIES (ELECTRIC)
333 WEST EVERETT STREET- A279
MILWAUKEE, WI 53203
ATTN: MR. DAN SANDE (414) 221-4578

WE ENERGIES (PAVING COORDINATOR)
500 S. 116TH ST. - WADC
WEST ALLIS, WI 53214

AT&T WISCONSIN
2005 PEWAUKEE ROAD
WAUKESHA, WI 53188
ATTN: MR. KEVIN ANDERSON (262) 896-7440

WISCONSIN DEPARTMENT OF TRANSPORTATION
SOUTHEAST REGION - SIGNALS
2000 PEWAUKEE ROAD, SUITE A
WAUKESHA, WI 53187-0798
ATTN: MS. ANNE RESHADI-NEZHAD (262) 521-5353

FEDERAL AVIATION ADMINISTRATION
FAA AIRWAY FACILITIES
GMIA AIR TRAFFIC CONTROL TOWER
5330 SOUTH HOWELL AVENUE
MILWAUKEE, WI 53207
ATTN: MR. DAVID KRAUS (414) 489-2200

MILWAUKEE COUNTY TRANSIT SYSTEM
1942 N. 17TH STREET
MILWAUKEE, WI 53205
ATTN: DAVE ZIAREK (414) 343-1764

CITY OF ST. FRANCIS
4235 S. NICHOLSON AVENUE
ST. FRANCIS , WI 53217
ATTN: MS. MELINDA DEJEWSKI (414) 481-2300

WISCONSIN DEPARTMENT OF NATURAL RESOURCES (DNR)
2300 NORTH DR. MARTIN LUTHER KING JR. DRIVE
MILWAUKEE, WI 53212
ATTN: KRISTINA BETZOLD (414) 263-8517

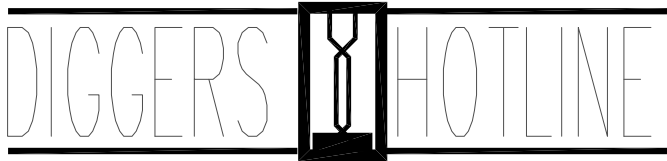
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
260 WEST SEEBOTH STREET
MILWAUKEE, WI 53204-1446
ATTN: DEBRA JENSEN (414) 225-2241

UTILITIES KNOWN TO EXIST WITHIN PROJECT

OWNER	UTILITY TYPE
MILWAUKEE COUNTY DOT	TRAFFIC SIGNALS AND APPURTENANCES
CITY OF MILWAUKEE	SANITARY SEWERS AND MANHOLES WATER MAINS, VALVES, LATERALS AND HYDRANTS
WE ENERGIES (GAS)	GAS MAINS, VALVES AND LATERALS
WE ENERGIES (ELECTRIC)	OVERHEAD CABLES AND BURIED DUCTS
TIME WARNER CABLE COMMUNICATIONS	OVERHEAD CABLES ON WE ENERGIES POLES
AT&T (FORMERLY SBC)	OVERHEAD CABLES ON WE ENERGIES POLES FIBER OPTICS AND BURIED DUCTS
WISCONSIN DOT	TRAFFIC SIGNAL INTERCONNECT
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT	SANITARY SEWER
QWEST COMMUNICATIONS	BURIED CABLE
MIDWEST FIBER NETWORKS	BURIED FIBER OPTICS
LEVEL THREE COMMUNICATIONS	BURIED FIBER OPTICS
GENERAL MITCHELL INTERNATIONAL AIRPORT	BURIED POWER AND CONTROL CABLES
SPRINT	BURIED FIBER OPTICS

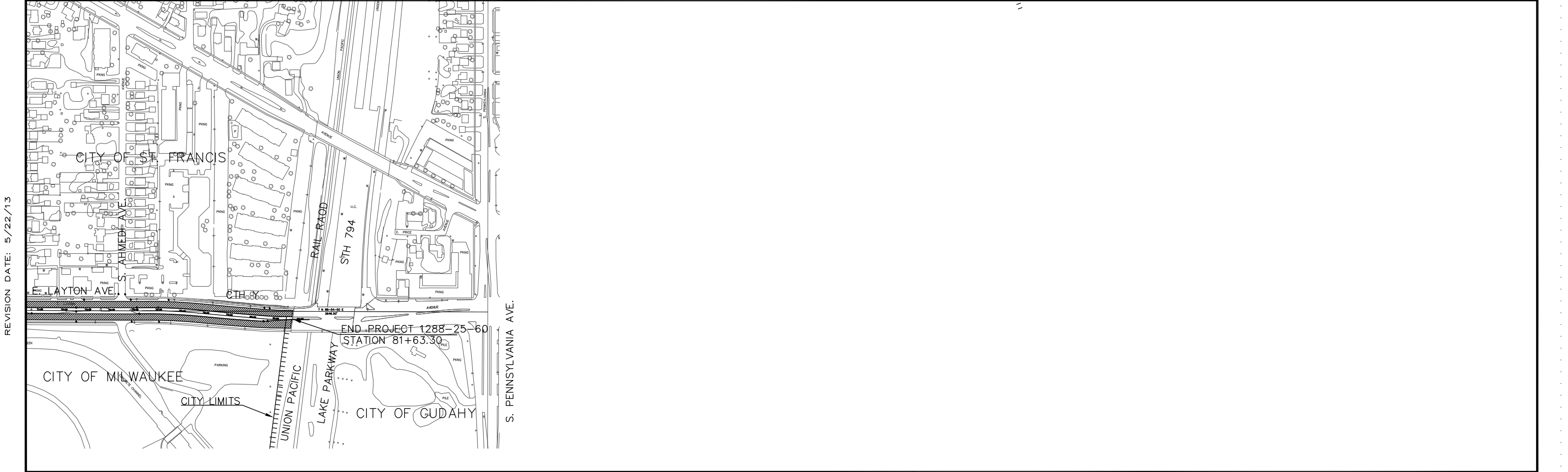
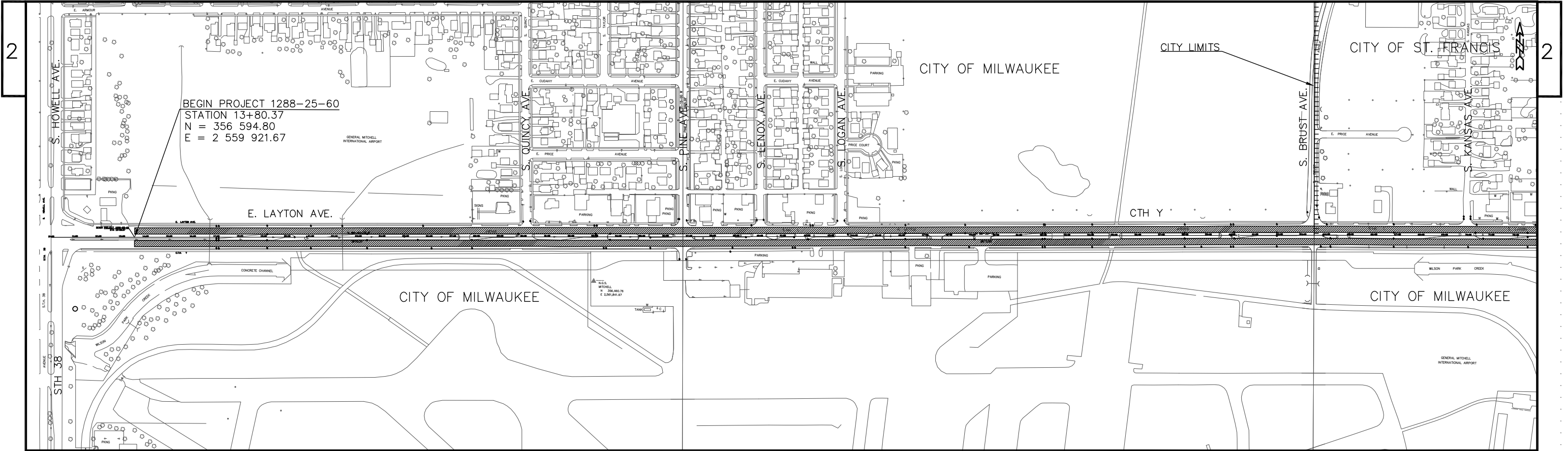
ORDER OF SECTION 2 SHEETS

TITLE	SHEET NO.
WRITTEN MATERIALS	
PROJECT OVERVIEW	
TYPICAL SECTIONS	
CONSTRUCTION DETAILS	
EROSION CONTROL	
PAVEMENT MARKING	
ALIGNMENT DIAGRAM	



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REQUIRES MIN. OF 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE.

REVISION DATE: 5/23/2013



REVISION DATE: 5/22/13

PROJECT NUMBER: 1228-25-60	HWY: E. LAYTON AVE. (CTH Y)	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE: 1"=200'	SHEET NO:	E
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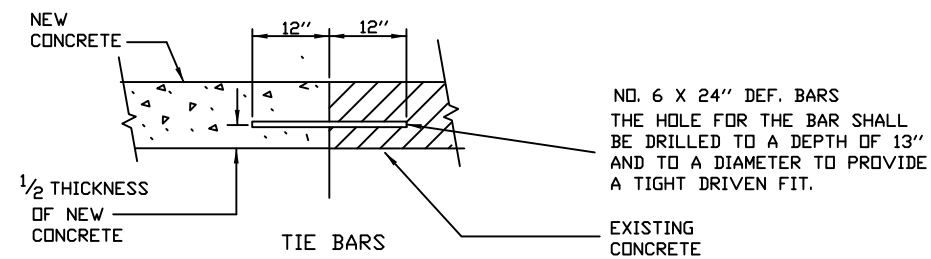
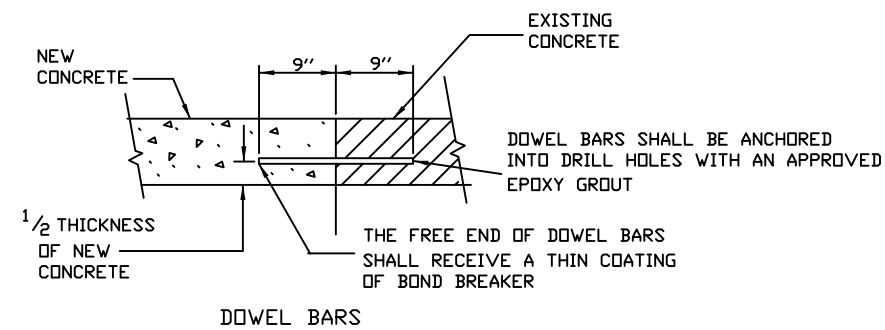
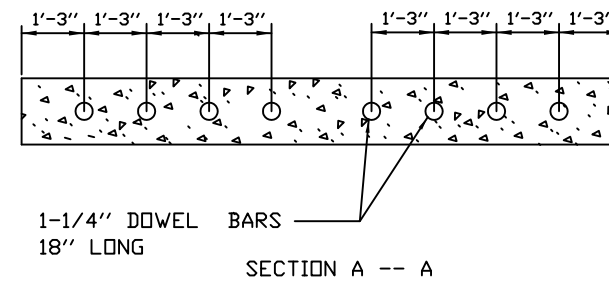
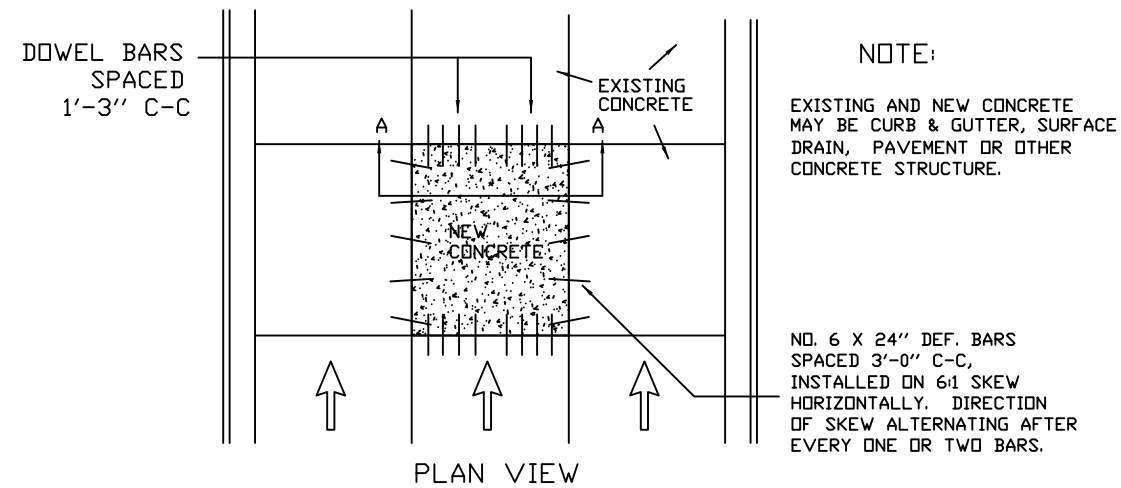


GENERAL NOTES

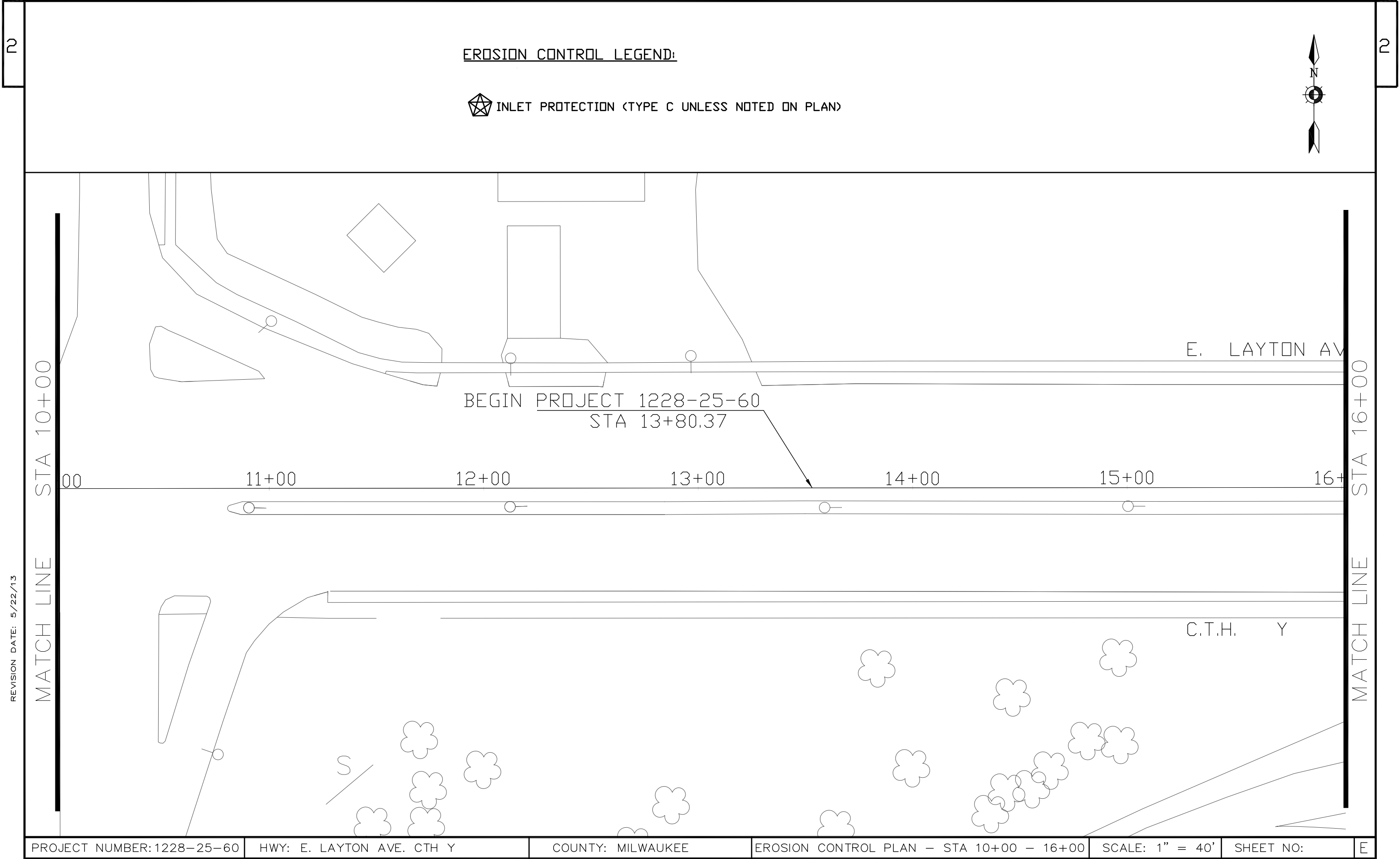
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

DEFORMED BARS USED AS TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.

PAVEMENT JOINTS SHALL BE EXTENDED THROUGH INTEGRAL CURB & GUTTER. JOINTS IN INTEGRAL GUTTER SHALL HAVE THE SAME DIMENSIONS AS THE JOINTS IN THE ADJACENT PAVEMENT. JOINTS IN INTEGRAL CURB SHALL BE 1/8" WIDE.



PAVEMENT REPLACEMENT CONCRETE-PAVEMENT TIES



REVISION DATE: 5/22/13

MATCH LINE STA 10+00

MATCH LINE STA 16+00

PROJECT NUMBER: 1228-25-60	HWY: E. LAYTON AVE. CTH Y	COUNTY: MILWAUKEE	EROSION CONTROL PLAN - STA 10+00 - 16+00	SCALE: 1" = 40'	SHEET NO:	E
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EROSION CONTROL LEGEND:

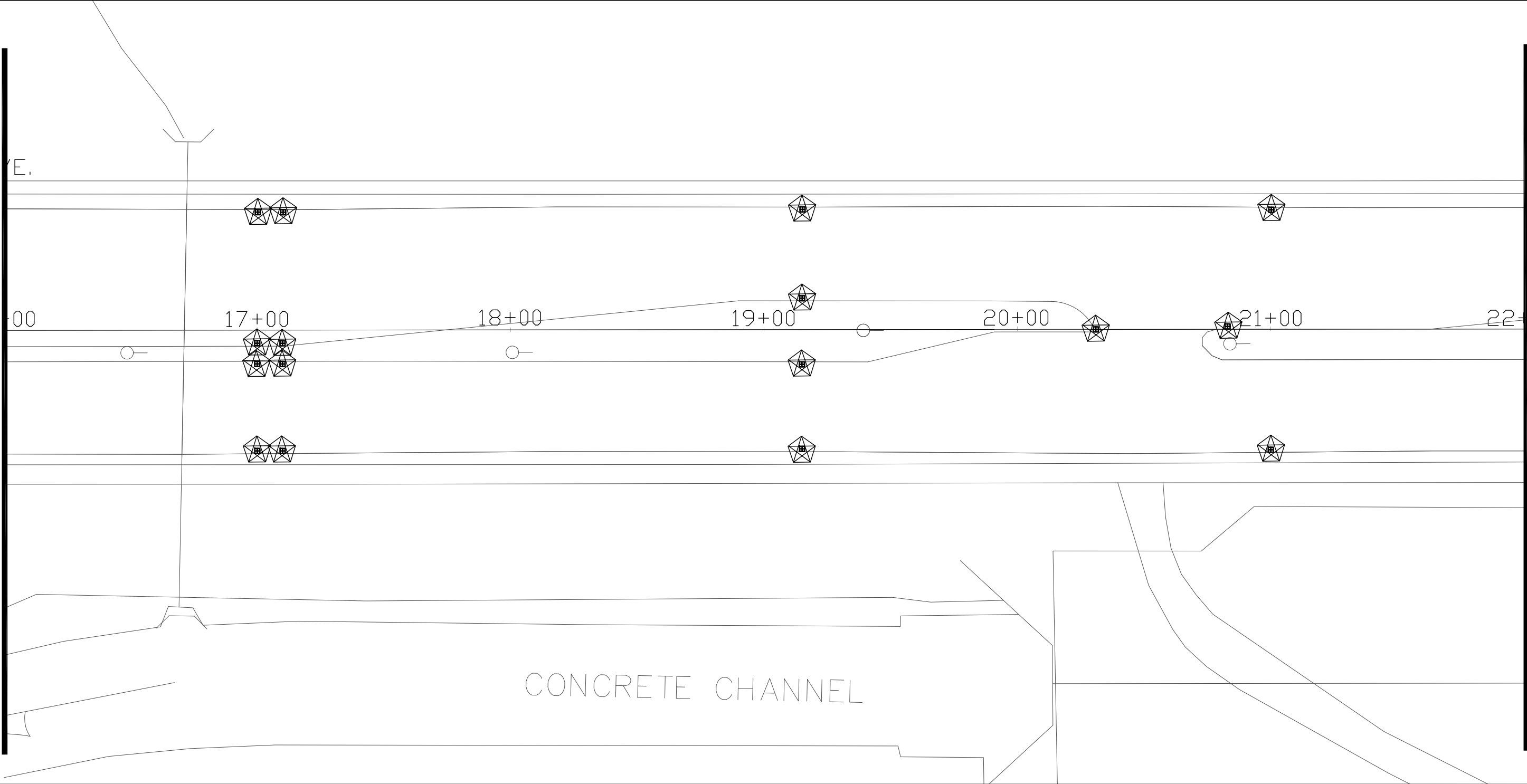


INLET PROTECTION (TYPE C UNLESS NOTED ON PLAN)

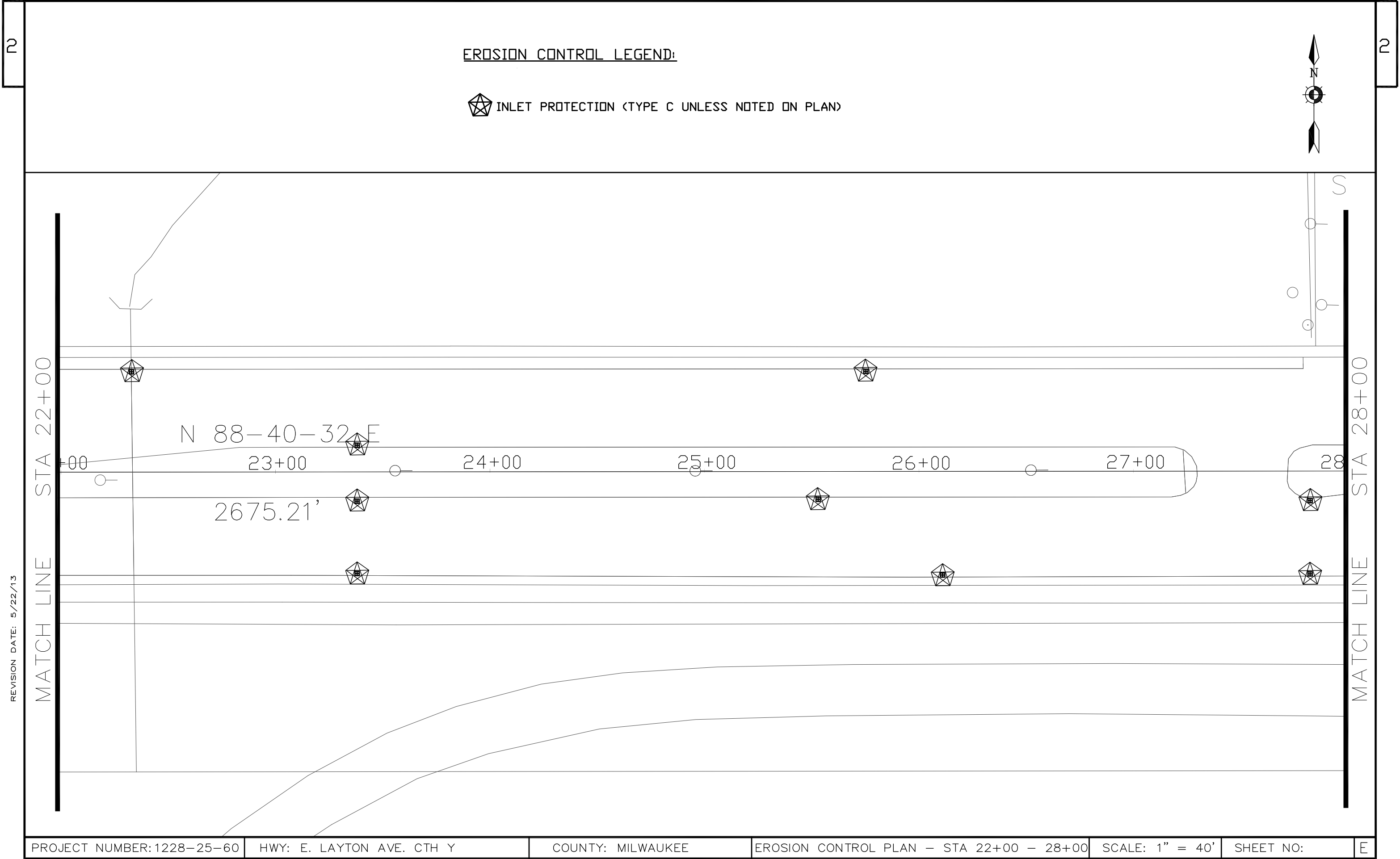


REVISION DATE: 5/22/13

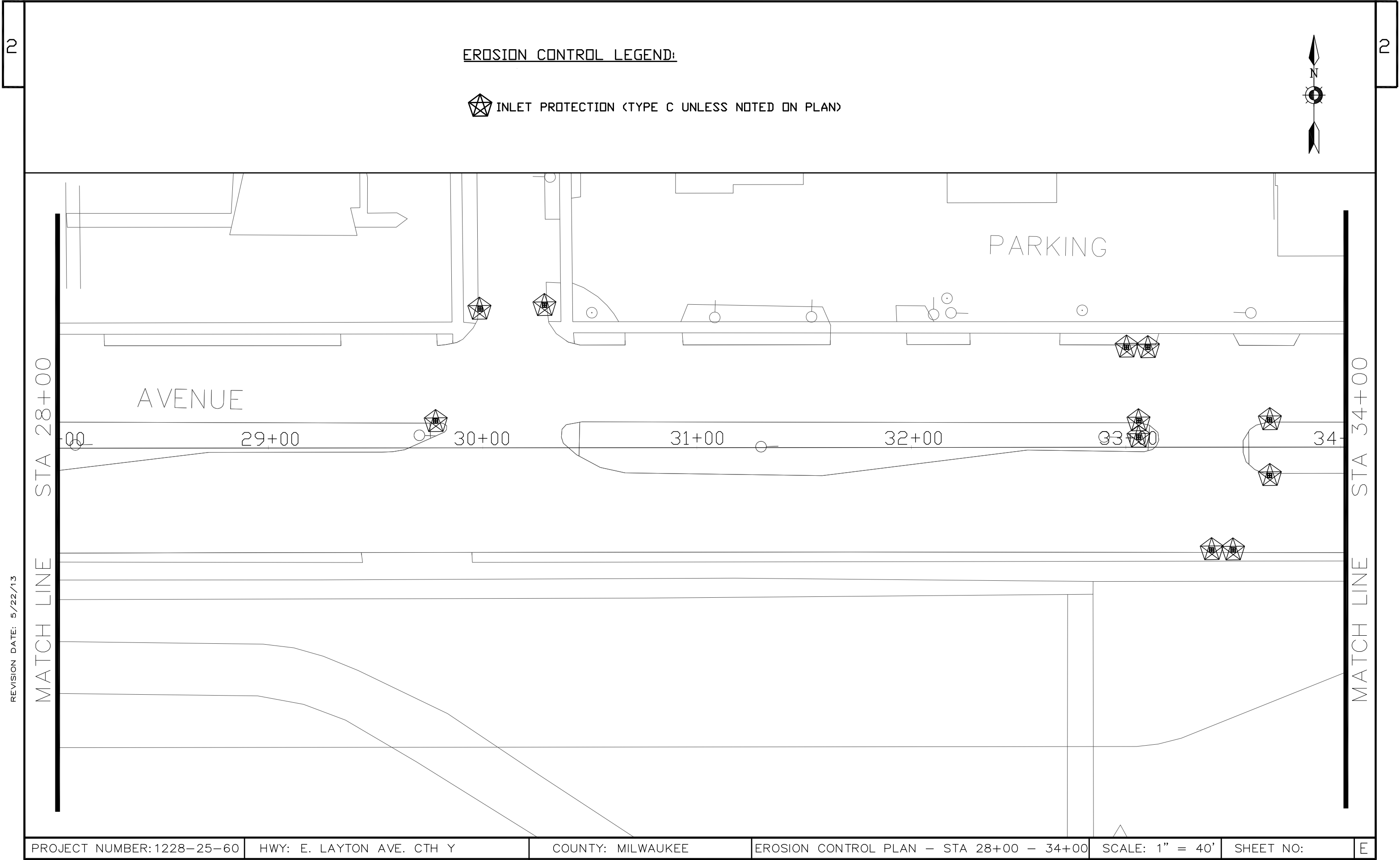
MATCH LINE STA 16+00



MATCH LINE STA 22+00



REVISION DATE: 5/22/13



REVISION DATE: 5/22/13

EROSION CONTROL LEGEND:

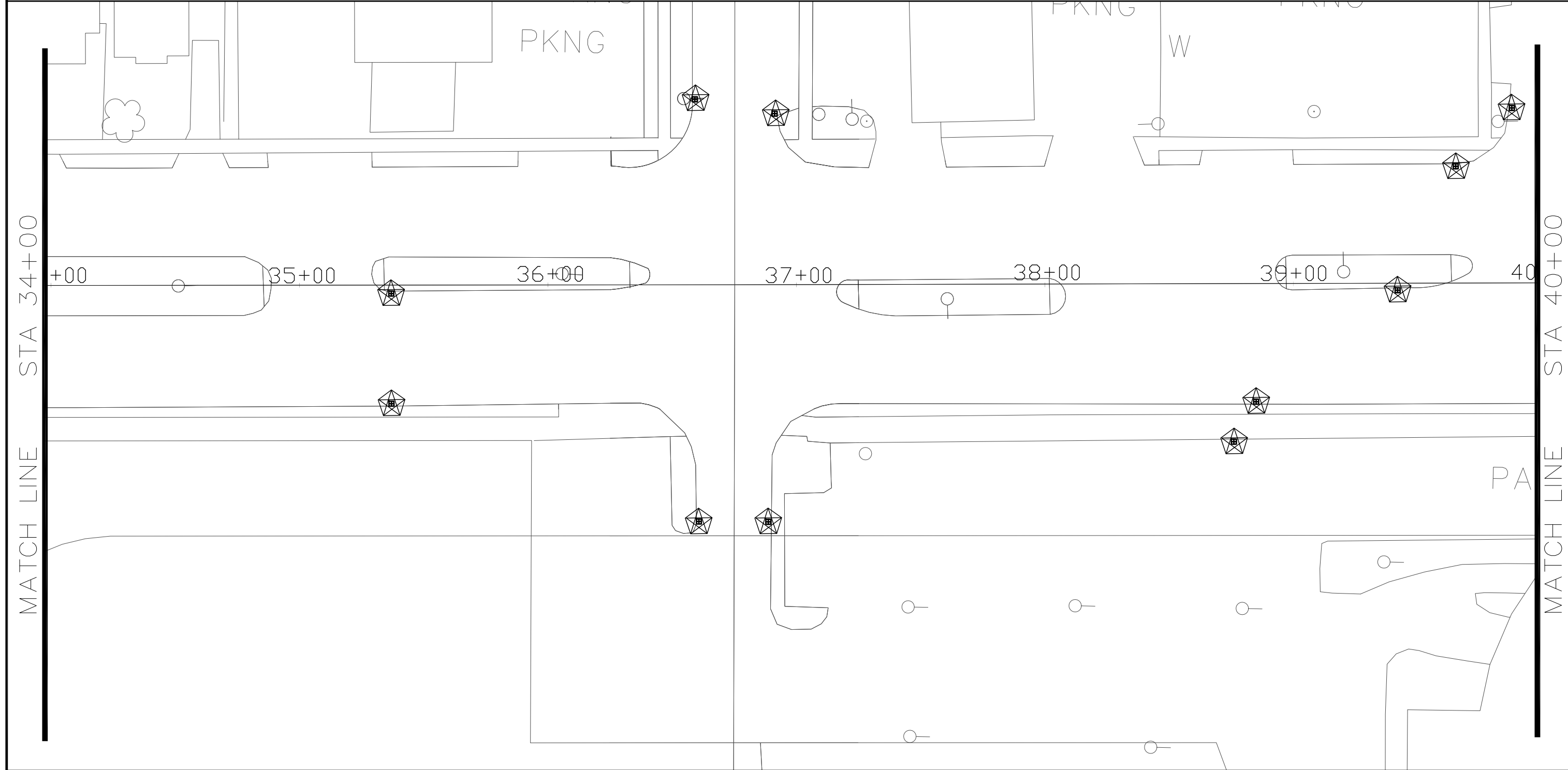
 INLET PROTECTION (TYPE C UNLESS NOTED ON PLAN)



REVISION DATE: 5/22/13

MATCH LINE STA 34+00

MATCH LINE STA 40+00



PROJECT NUMBER: 1228-25-60	HWY: E. LAYTON AVE. CTH Y	COUNTY: MILWAUKEE	EROSION CONTROL PLAN - STA 34+00 - 40+00	SCALE: 1" = 40'	SHEET NO:	E
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EROSION CONTROL LEGEND:



INLET PROTECTION (TYPE C UNLESS NOTED ON PLAN)



REVISION DATE: 5/22/13

MATCH LINE STA 40+00

MATCH LINE STA 46+00

PKNG

PKNG

C.T.H. Y

E.

+00 41+00 42+00 43+00 44+00 45+00 46+00

EROSION CONTROL LEGEND:

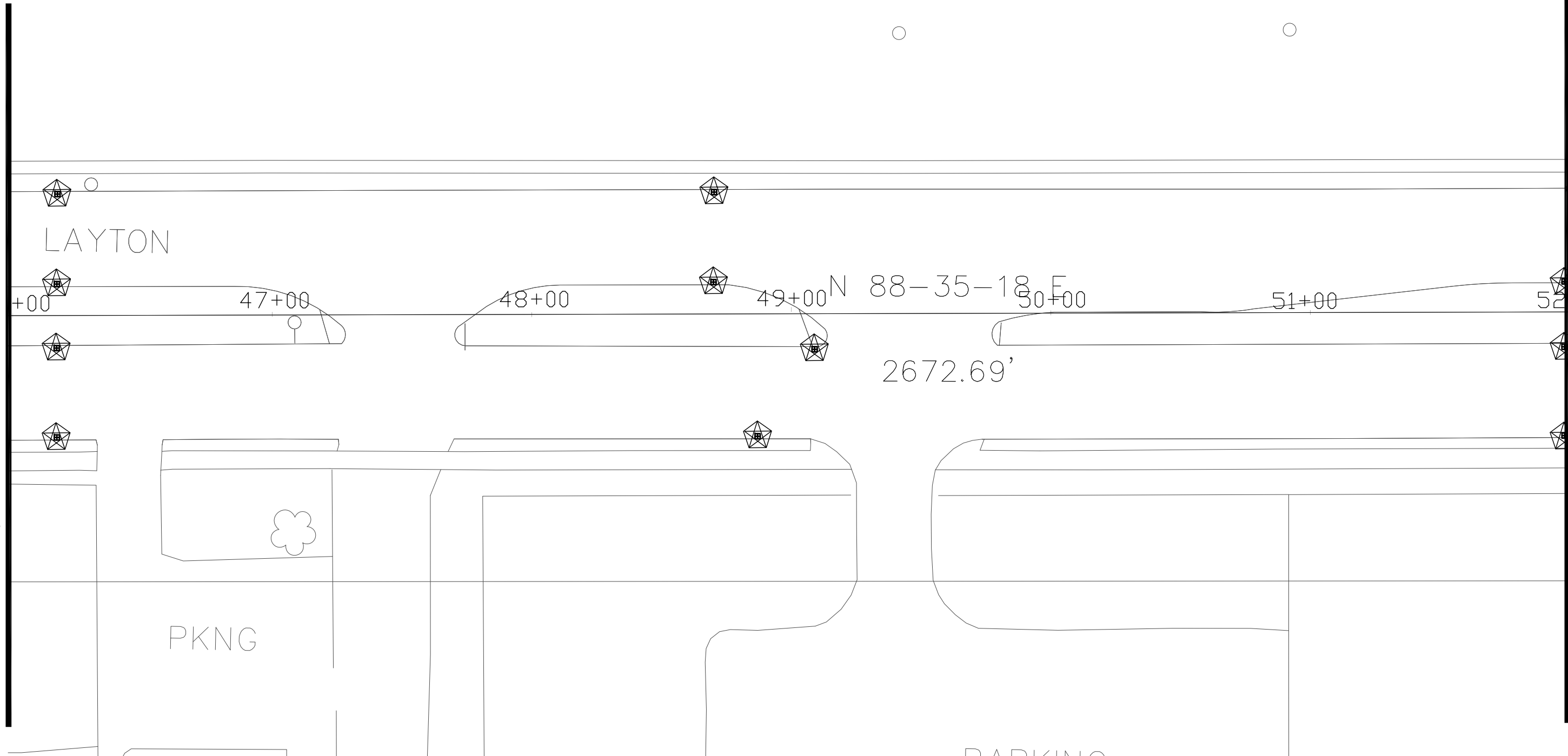


INLET PROTECTION (TYPE C UNLESS NOTED ON PLAN)

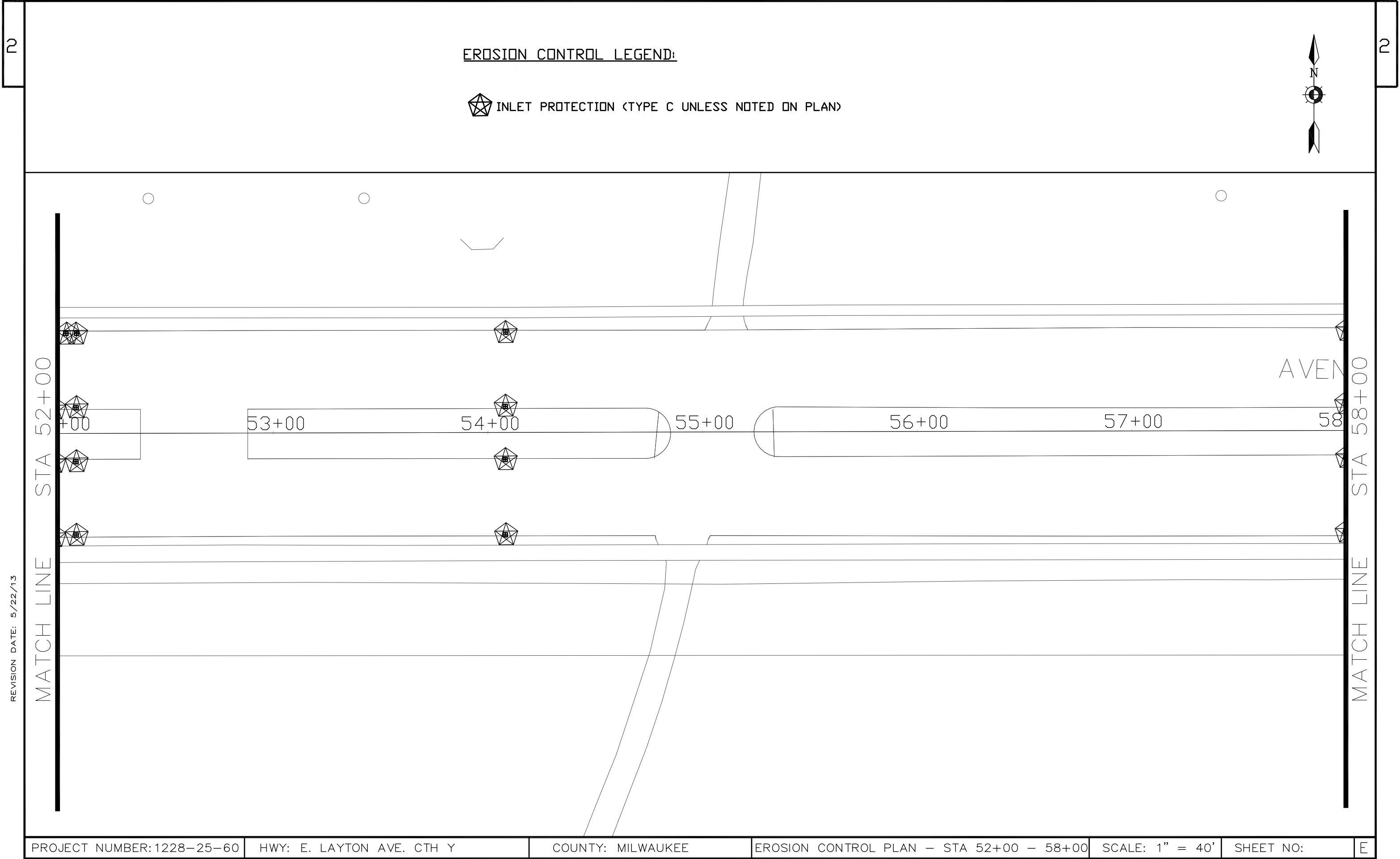


REVISION DATE: 5/22/13

MATCH LINE STA 46+00



MATCH LINE STA 52+00

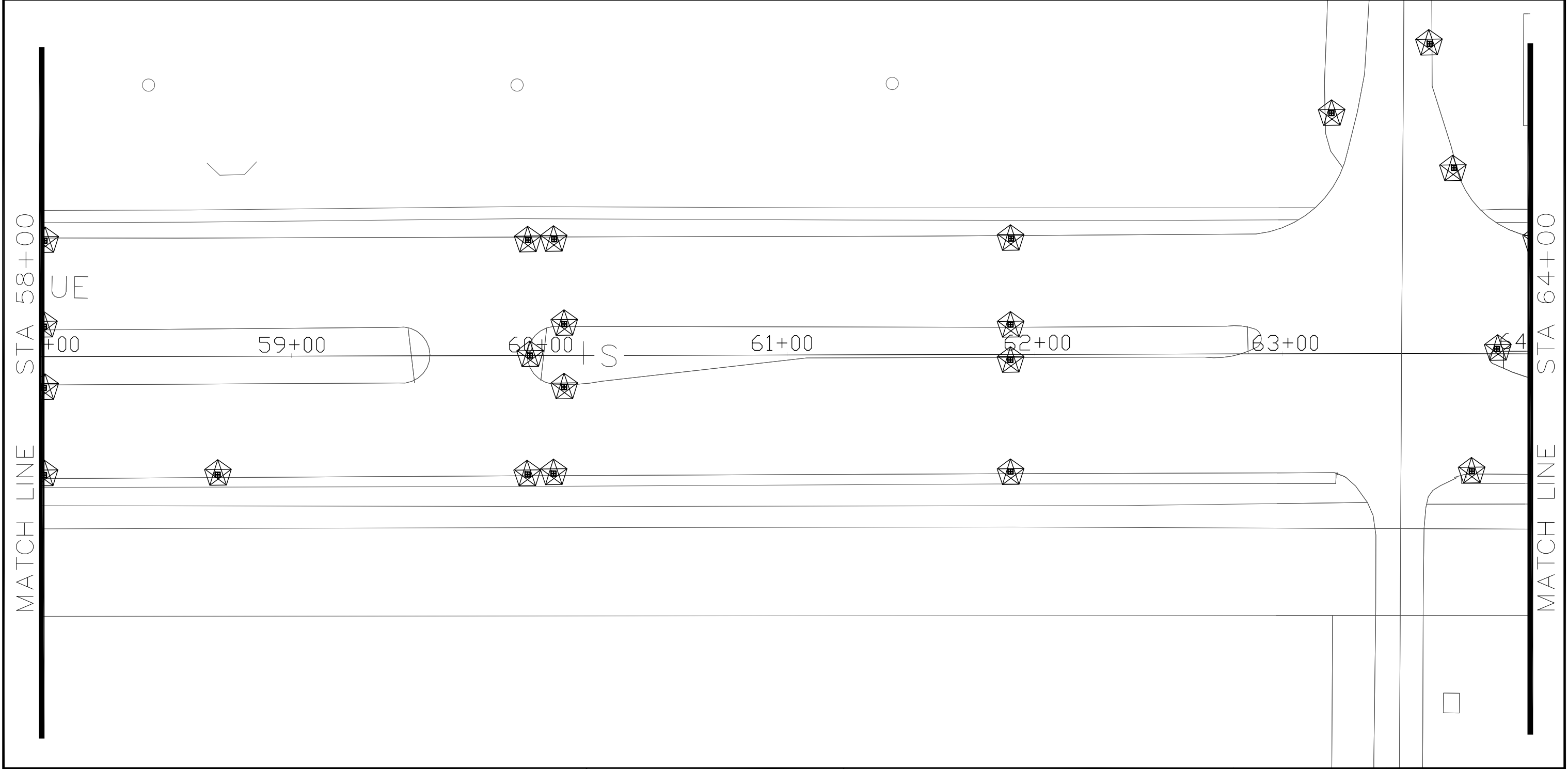


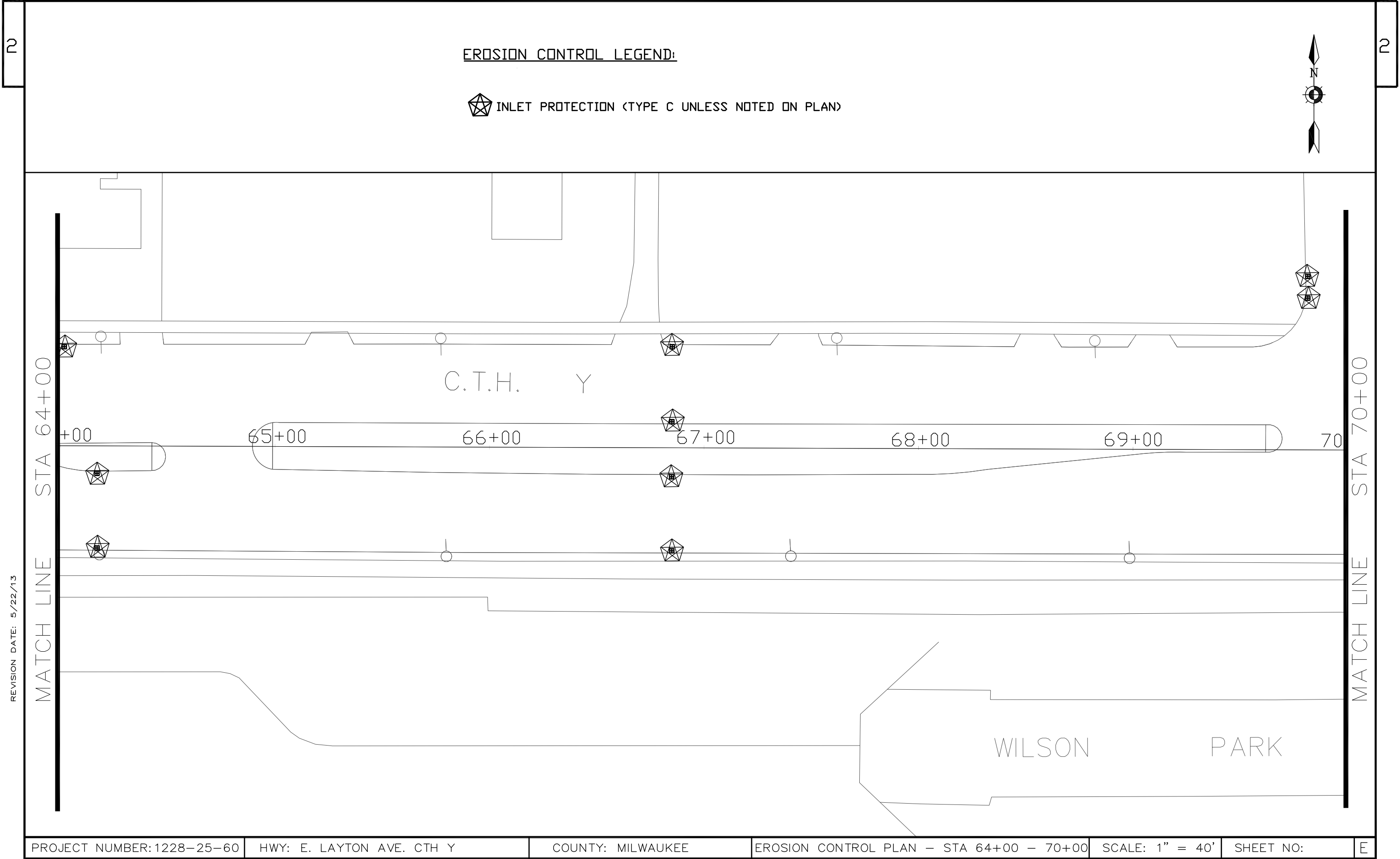
EROSION CONTROL LEGEND:

 INLET PROTECTION (TYPE C UNLESS NOTED ON PLAN)



REVISION DATE: 5/22/13





REVISION DATE: 5/22/13

EROSION CONTROL LEGEND:



INLET PROTECTION (TYPE C UNLESS NOTED ON PLAN)



REVISION DATE: 5/22/13

MATCH LINE STA 70+00

MATCH LINE STA 76+00

E. LAYTON

PKNG

PKNG

W PKNG W

S

CREEK

00 71+00 72+00 73+00 74+00 75+00 76+00

EROSION CONTROL LEGEND:



INLET PROTECTION (TYPE C UNLESS NOTED ON PLAN)



REVISION DATE: 5/22/13

MATCH LINE STA 76+00

MATCH LINE STA 82+00

END PROJECT 1228-25-60
STA. 81+63.30

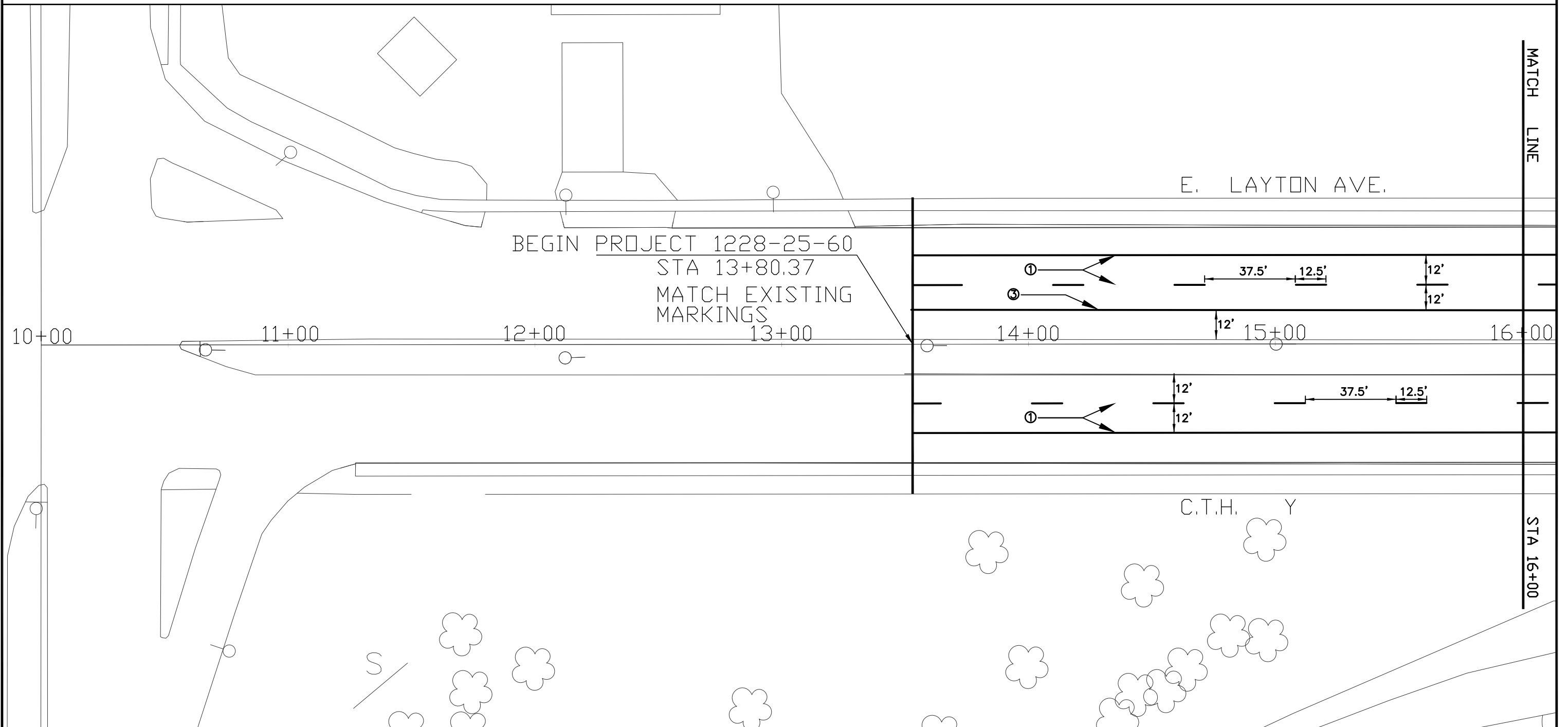
NOTE:

PRIOR TO THE INSTALLATION OF PAVEMENT MARKING CONTACT THE PROJECT ENGINEER FOR PROPER LAYOUT.

PAVEMENT MARKING LEGEND

- ① PAVEMENT MARKING PAINT 4-INCH, (WHITE)
- ② PAVEMENT MARKING PAINT 6-INCH, (CROSSWALK – WHITE)
- ③ PAVEMENT MARKING PAINT 8-INCH, (CHANNELIZING – WHITE)
- ④ PAVEMENT MARKING PAINT 18-INCH, (STOP LINE– WHITE)

REVISION DATE: 10/03/13



PROJECT NUMER: 1228-25-60

HWY: E LAYTON AVE. (CTH Y)

COUNTY: MILWAUKEE

PAVEMENT MARKING, STA. 10+00 TO 16+00

SCALE: 1" = 40'

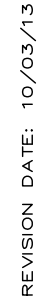
SHEET NO:

2

PRIOR TO THE INSTALLATION OF PAVEMENT MARKING CONTACT
THE PROJECT ENGINEER FOR PROPER LAYOUT.

- ① PAVEMENT MARKING PAINT 4-INCH, (WHITE)
- ② PAVEMENT MARKING PAINT 6-INCH, (CROSSWALK – WHITE)
- ③ PAVEMENT MARKING PAINT 8-INCH, (CHANNELIZING – WHITE)
- ④ PAVEMENT MARKING PAINT 18-INCH, (STOP LINE– WHITE)

2



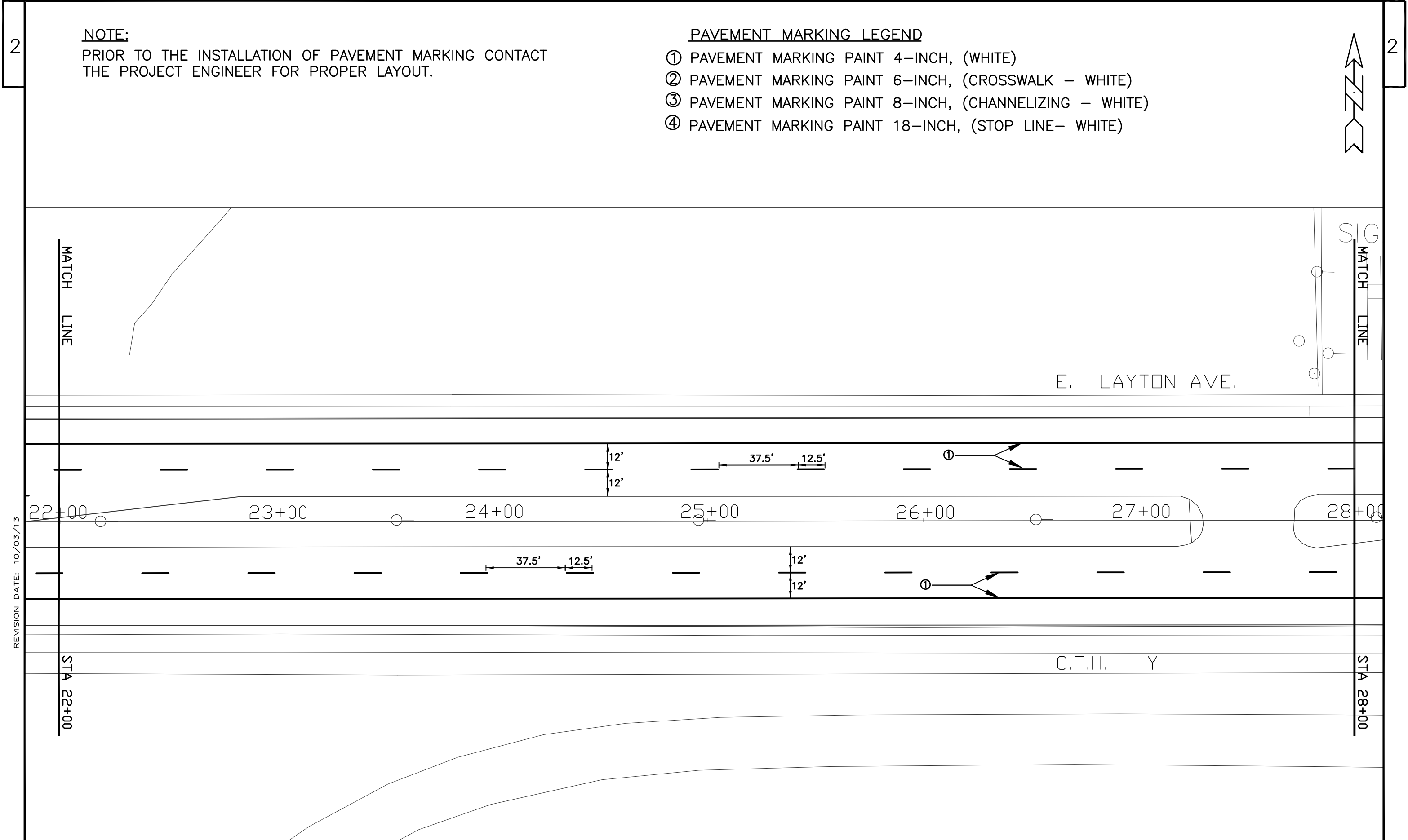
WISDOT/CADDS SHEET 40

2

PRIOR TO THE INSTALLATION OF PAVEMENT MARKING CONTACT
THE PROJECT ENGINEER FOR PROPER LAYOUT.

- ① PAVEMENT MARKING PAINT 4-INCH, (WHITE)
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2

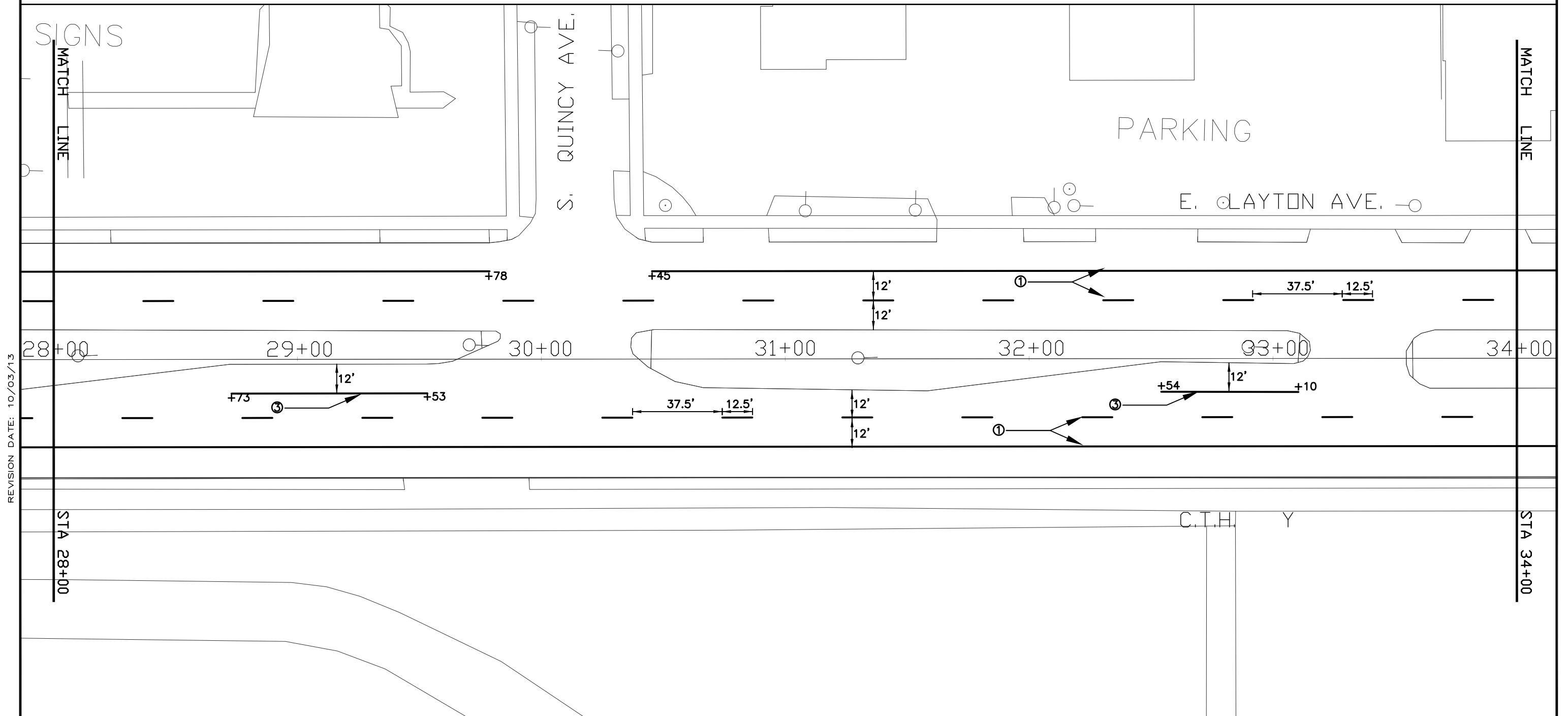


NOTE:

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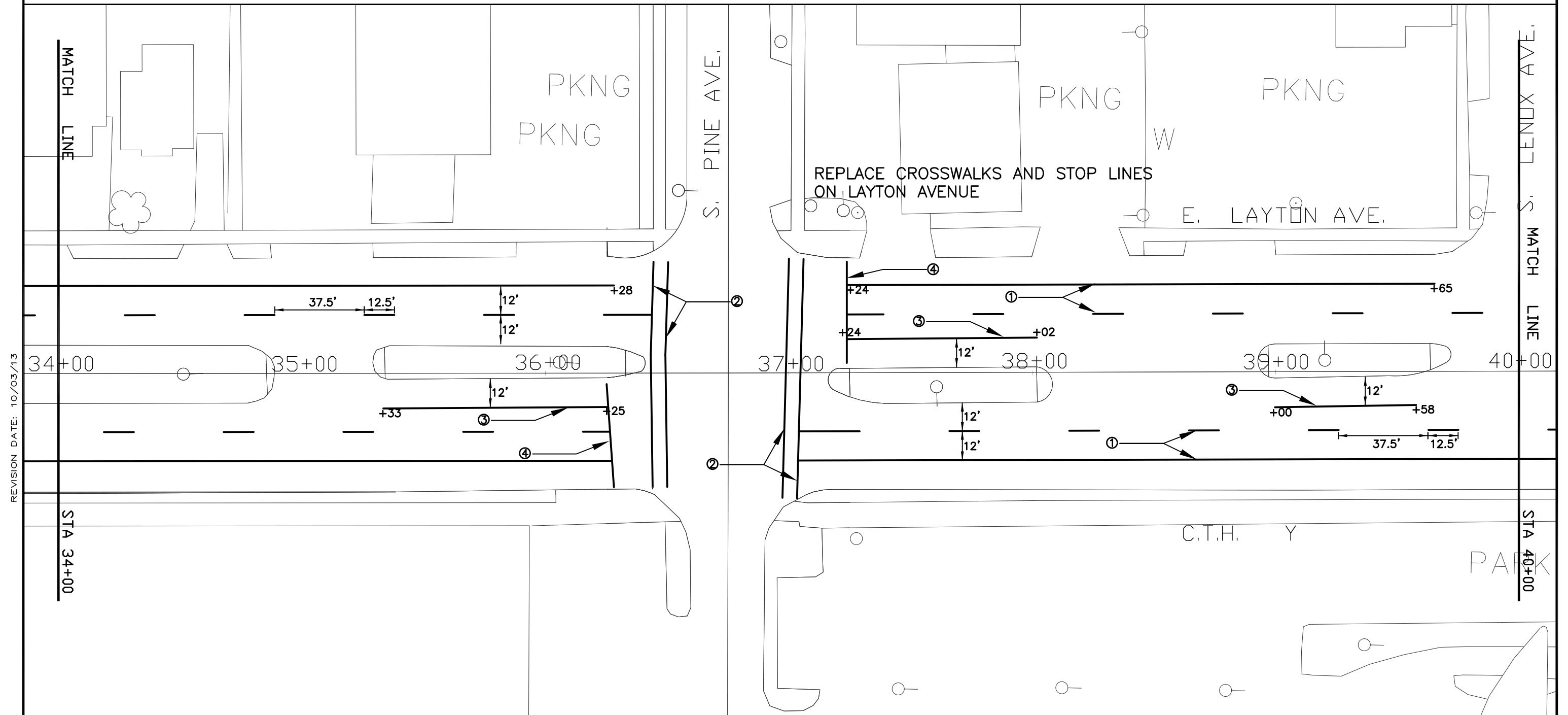


NOTE:

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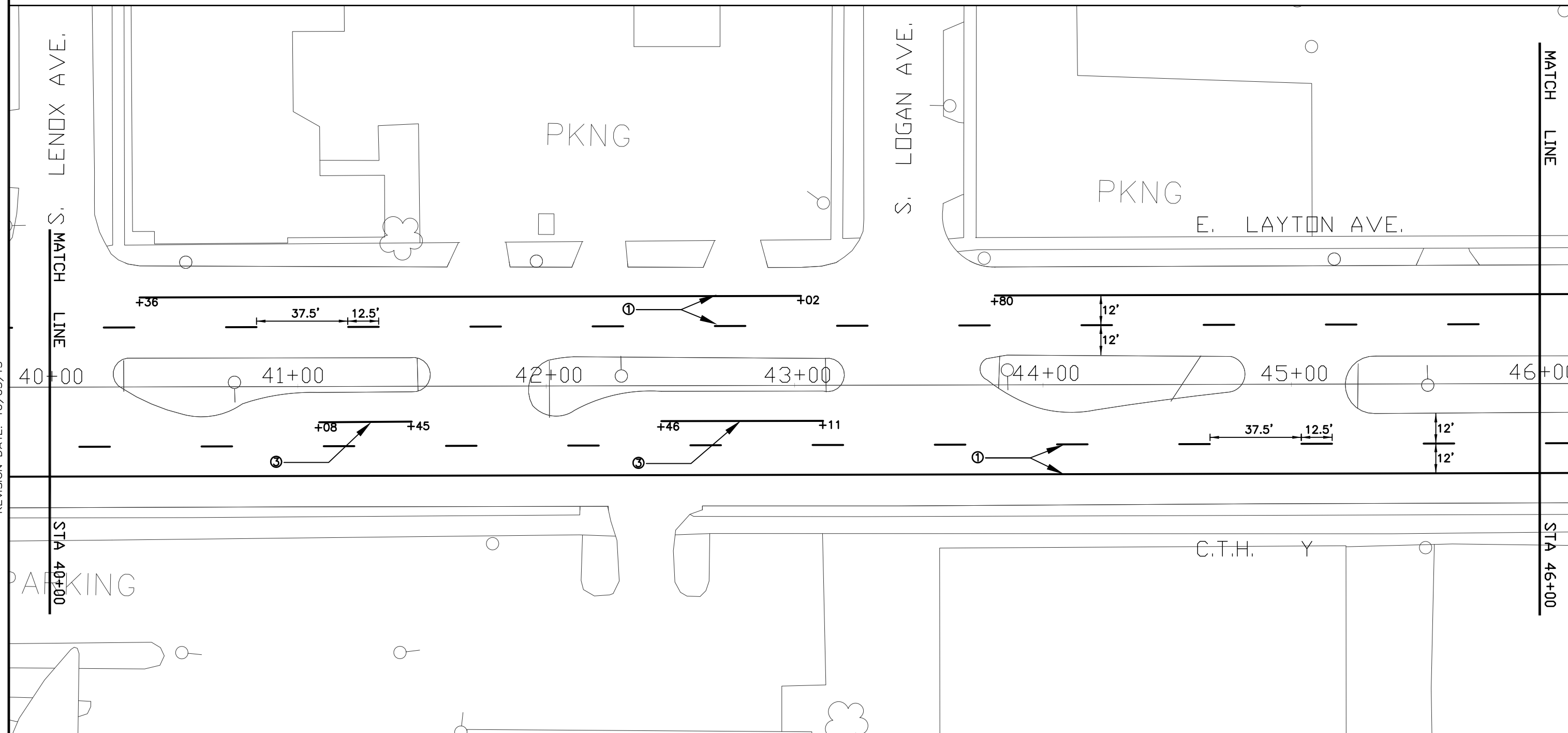
NOTE:

PRIOR TO THE INSTALLATION OF PAVEMENT MARKING CONTACT THE PROJECT ENGINEER FOR PROPER LAYOUT.

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- ④ PAVEMENT MARKING PAINT 18-INCH, (STOP LINE– WHITE)

REVISION DATE: 10/03/13



PROJECT NUMER: 1228-25-60

HWY: E LAYTON AVE. (CTH Y)

COUNTY: MILWAUKEE

PAVEMENT MARKING, STA. 40+00 TO 46+00

SCALE: 1" = 40'

SHEET NO:

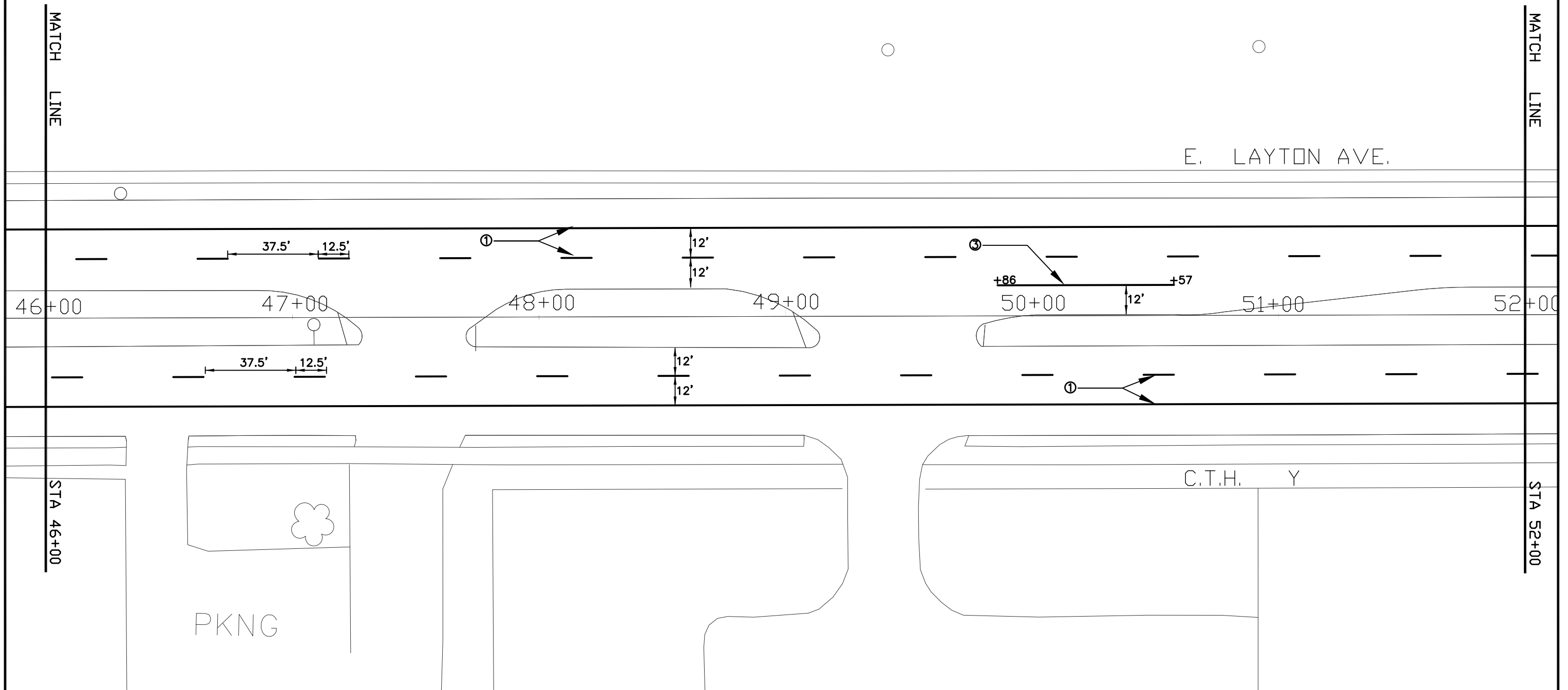
NOTE:
PRIOR TO THE INSTALLATION OF PAVEMENT MARKING CONTACT
THE PROJECT ENGINEER FOR PROPER LAYOUT.

PAVEMENT MARKING LEGEND

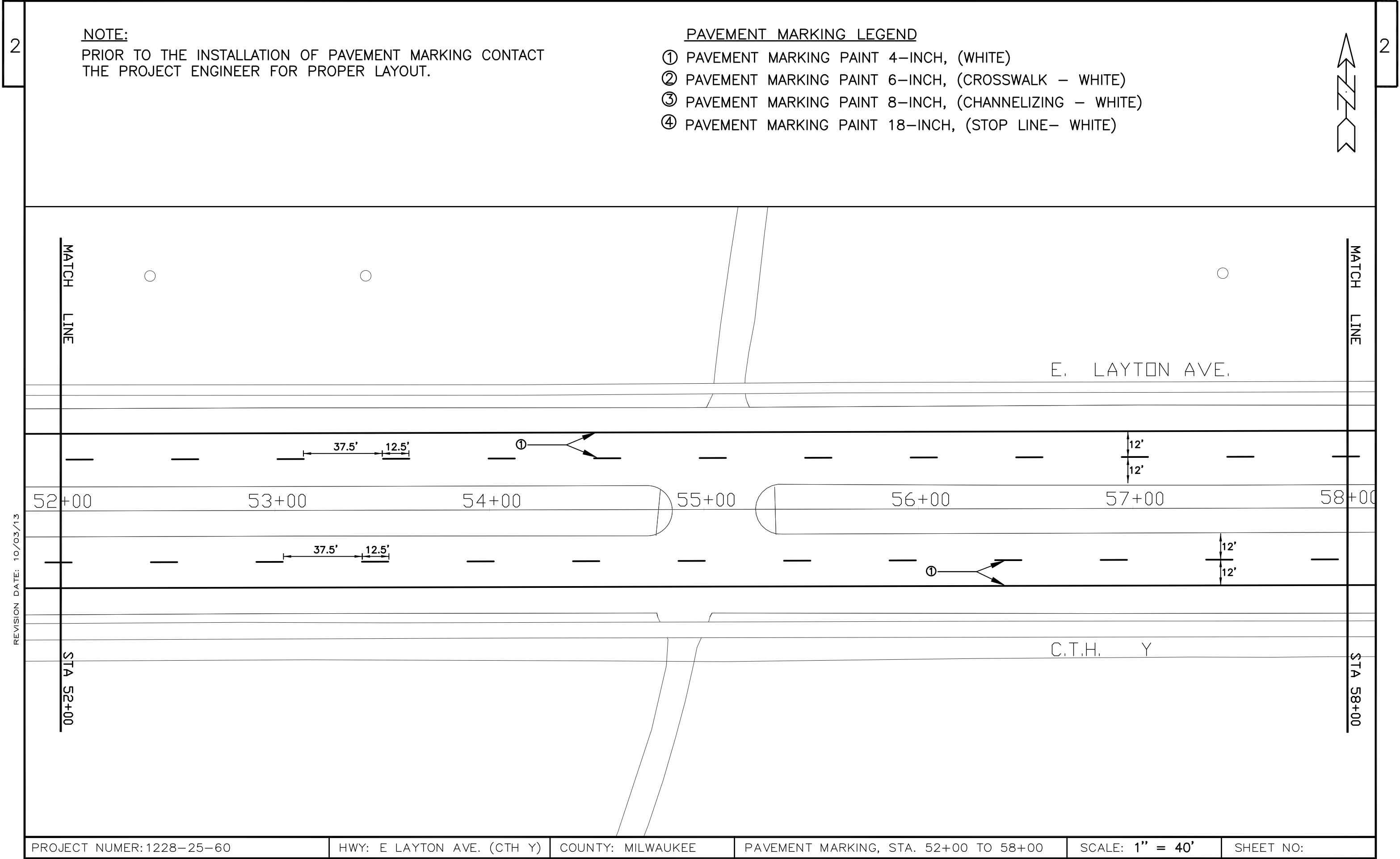
- ① PAVEMENT MARKING PAINT 4-INCH, (WHITE)
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- ④ PAVEMENT MARKING PAINT 18-INCH, (STOP LINE– WHITE)



REVISION DATE: 10/03/13



PROJECT NUMER: 1228-25-60	HWY: E LAYTON AVE. (CTH Y)	COUNTY: MILWAUKEE	PAVEMENT MARKING, STA. 46+00 TO 52+00	SCALE: 1" = 40'	SHEET NO:
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REVISION DATE: 10/03/13

PROJECT NUMER: 1228–25–60	HWY: E LAYTON AVE. (CTH Y)	COUNTY: MILWAUKEE	PAVEMENT MARKING, STA. 52+00 TO 58+00	SCALE: 1" = 40'	SHEET NO:
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NOTE:

PRIOR TO THE INSTALLATION OF PAVEMENT MARKING CONTACT THE PROJECT ENGINEER FOR PROPER LAYOUT.

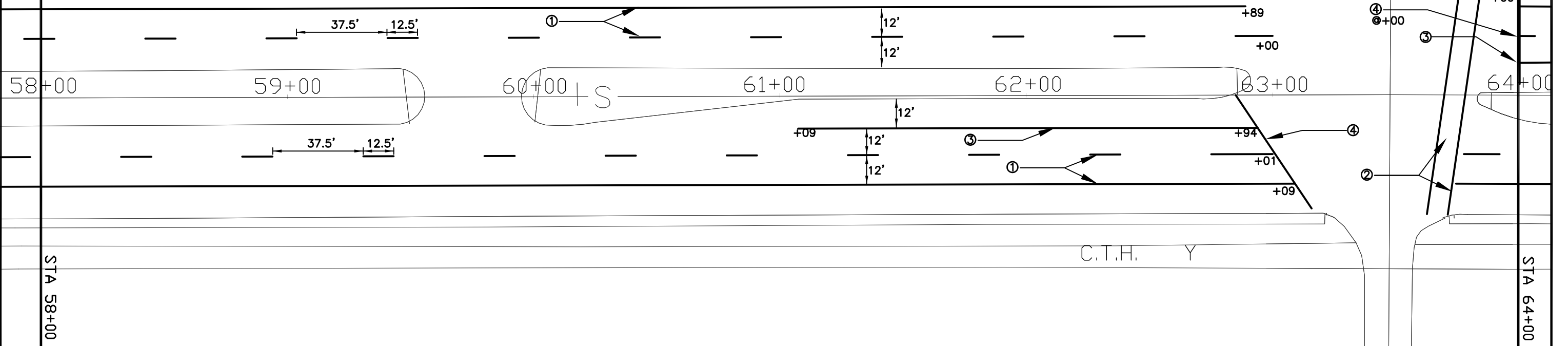
PAVEMENT MARKING LEGEND

- ① PAVEMENT MARKING PAINT 4-INCH, (WHITE)
- ② PAVEMENT MARKING PAINT 6-INCH, (CROSSWALK – WHITE)
- ③ PAVEMENT MARKING PAINT 8-INCH, (CHANNELIZING – WHITE)
- ④ PAVEMENT MARKING PAINT 18-INCH, (STOP LINE– WHITE)

REVISION DATE: 10/03/13

MATCH LINE

STA 58+00



MATCH LINE

STA 64+00

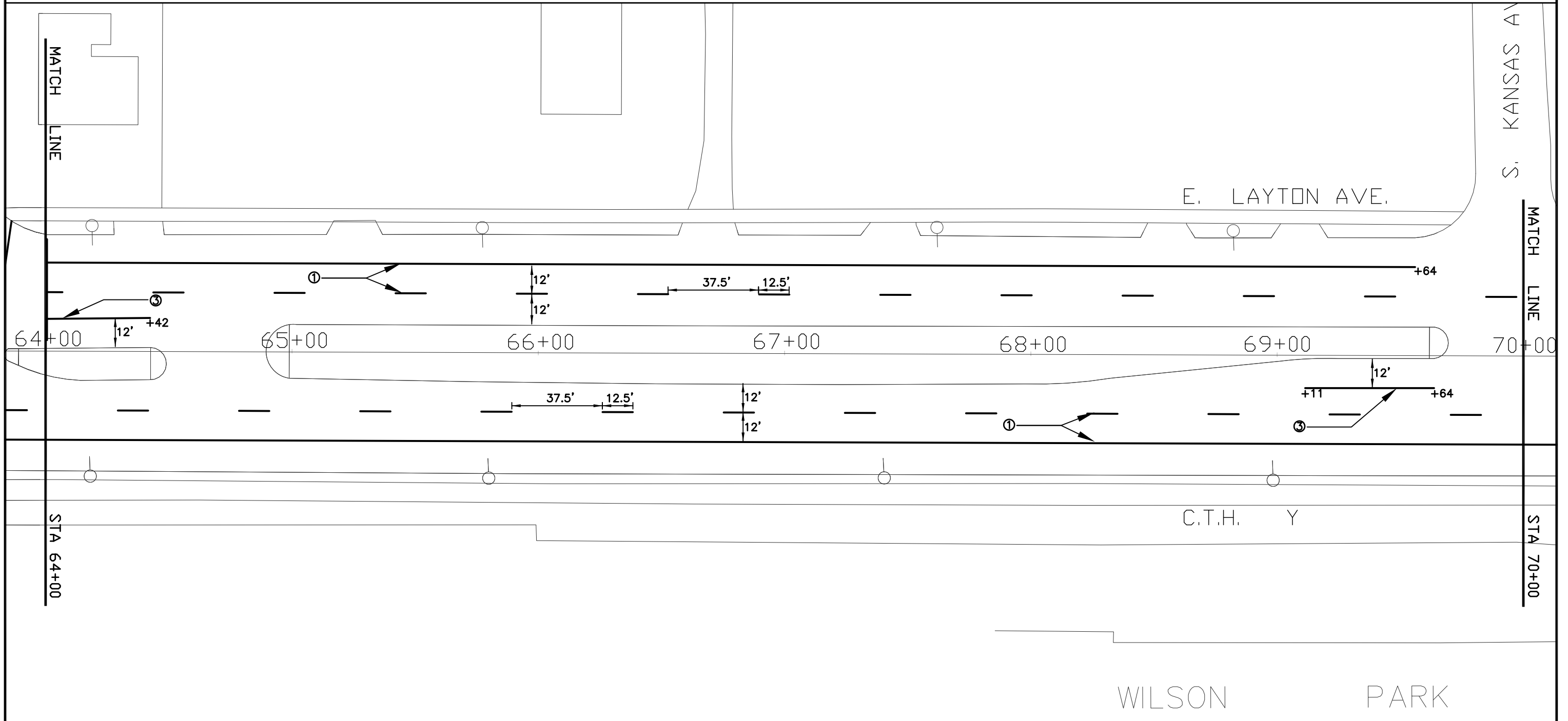
NOTE:

PRIOR TO THE INSTALLATION OF PAVEMENT MARKING CONTACT THE PROJECT ENGINEER FOR PROPER LAYOUT.

PAVEMENT MARKING LEGEND

- ① PAVEMENT MARKING PAINT 4-INCH, (WHITE)
- ② PAVEMENT MARKING PAINT 6-INCH, (CROSSWALK – WHITE)
- ③ PAVEMENT MARKING PAINT 8-INCH, (CHANNELIZING – WHITE)
- ④ PAVEMENT MARKING PAINT 18-INCH, (STOP LINE– WHITE)

REVISION DATE: 10/03/13



PROJECT NUMER: 1228-25-60

HWY: E LAYTON AVE. (CTH Y)

COUNTY: MILWAUKEE

PAVEMENT MARKING, STA. 64+00 TO 70+00

SCALE: 1" = 40'

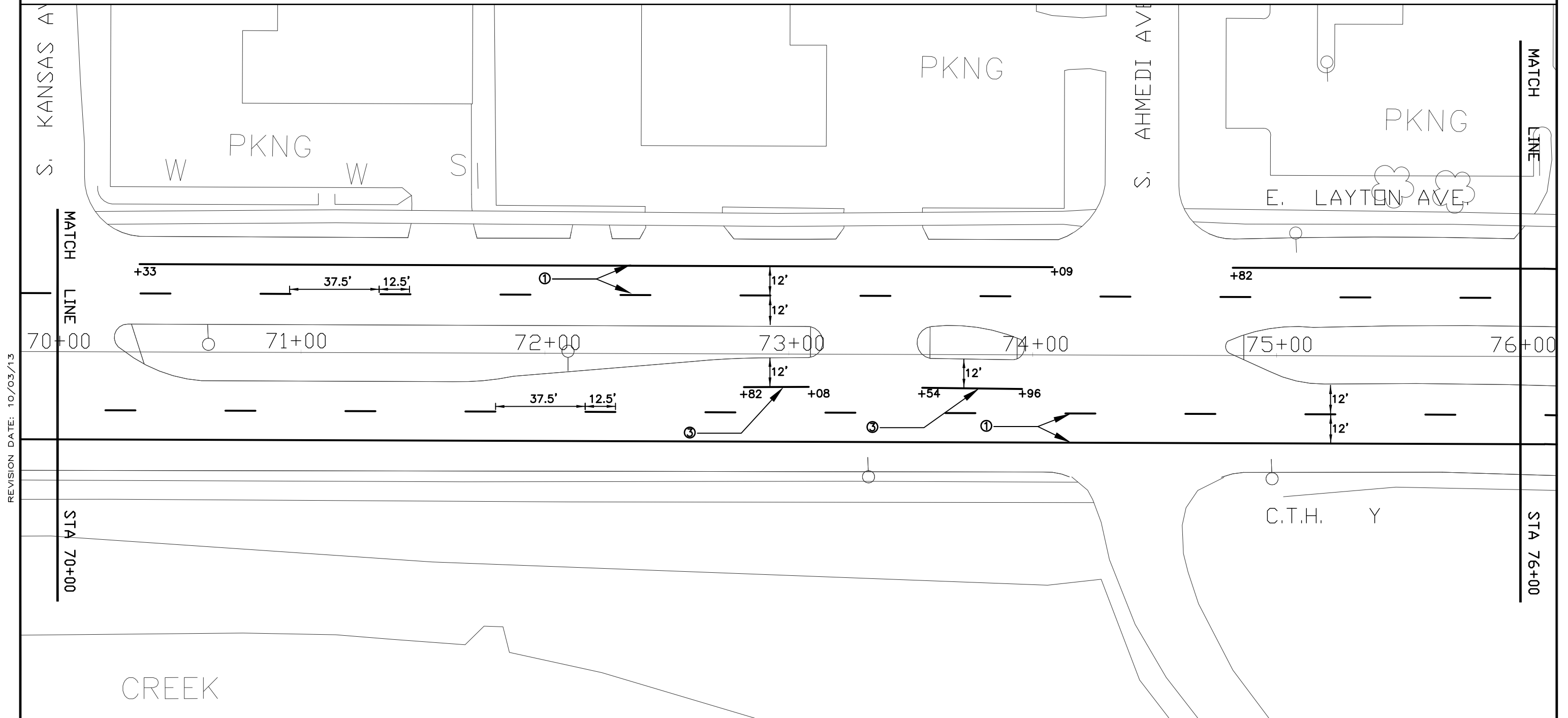
SHEET NO:

NOTE:

PRIOR TO THE INSTALLATION OF PAVEMENT MARKING CONTACT THE PROJECT ENGINEER FOR PROPER LAYOUT.

PAVEMENT MARKING LEGEND

- ① PAVEMENT MARKING PAINT 4-INCH, (WHITE)
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- ③ PAVEMENT MARKING PAINT 8-INCH, (CHANNELIZING – WHITE)
- ④ PAVEMENT MARKING PAINT 18-INCH, (STOP LINE– WHITE)

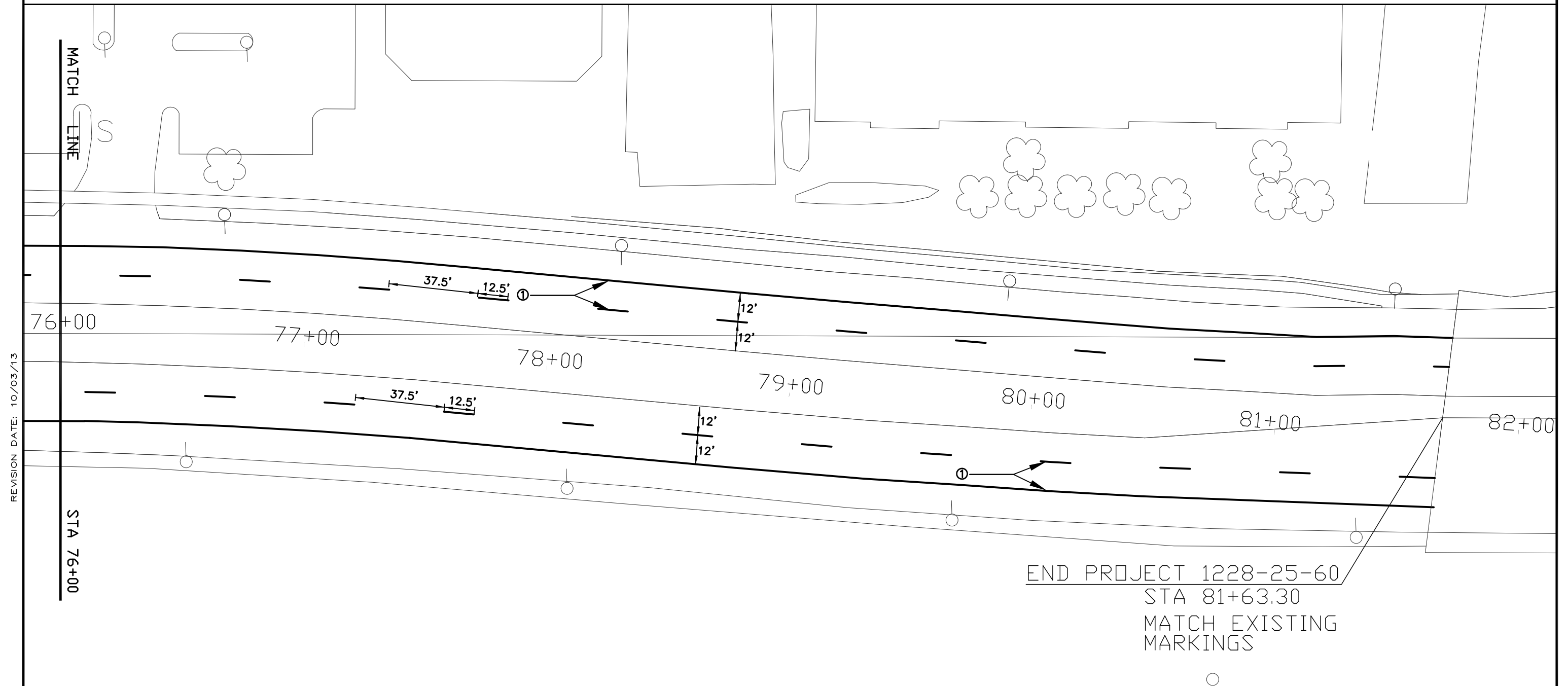


NOTE:

PRIOR TO THE INSTALLATION OF PAVEMENT MARKING CONTACT THE PROJECT ENGINEER FOR PROPER LAYOUT.

PAVEMENT MARKING LEGEND

- ① PAVEMENT MARKING PAINT 4-INCH, (WHITE)
- ② PAVEMENT MARKING PAINT 6-INCH, (CROSSWALK – WHITE)
- ③ PAVEMENT MARKING PAINT 8-INCH, (CHANNELIZING – WHITE)
- ④ PAVEMENT MARKING PAINT 18-INCH, (STOP LINE– WHITE)



S. HOWELL AVE.

BEGIN PROJECT 1288-25-60
STATION 13+80.37
N = 356 594.80
E = 2 559 921.67

E. LAYTON AVE.

N 88° 40' 32" E

2 675.21'

S. QUINCY AVE.

S. PINE AVE.

S. LENOX AVE.

S. LOGAN AVE.

CITY OF MILWAUKEE

N 88° 35' 18" E

2 672.69'

CTH Y

CITY OF ST. FRANCIS

S. BRUST AVE.

S. KANSAS AVE.

N 88° 54' 60" E

2 646.50'

CITY OF MILWAUKEE

CITY OF MILWAUKEE

STH 38



CITY OF ST. FRANCIS

S. AHMEDI AVE.

RAIL ROAD

STH 794

END PROJECT 1288-25-60
STATION 81+63.30

E. LAYTON AVE.

CTH Y

N 88° 54' 50" E

2 646.50'

S. PENNSYLVANIA AVE.

CITY OF MILWAUKEE

CITY OF CUDAHY

CITY LIMITS

UNION PACIFIC

LAKE PARKWAY

REVISION DATE: 5/22/13

PROJECT NUMBER: 1228-25-60

HWY: E. LAYTON AVE. (CTH Y)

COUNTY: MILWAUKEE

ALIGNMENT DIAGRAM

SCALE: 1"=200'

SHEET NO:

E

DATE 26NOV13			E S T I M A T E O F Q U A N T I T I E S		
LINE					1228-25-60
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	213. 0100	FINISHING ROADWAY (PROJECT) 01. 1228-25-60	EACH	1. 000	1. 000
0020	305. 0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	20. 000	20. 000
0030	416. 0610	DRI LLED TIE BARS	EACH	252. 000	252. 000
0040	416. 0620	DRI LLED DOWEL BARS	EACH	288. 000	288. 000
0050	416. 1725	CONCRETE PAVEMENT REPLACEMENT SHES	SY	500. 000	500. 000
0060	420. 1000. S	CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING	SY	41, 000. 000	41, 000. 000
0070	619. 1000	MOBI L I Z A T I O N	EACH	1. 000	1. 000
0080	628. 1905	MOBI L I Z A T I O N S E R O S I O N C O N T R O L	EACH	1. 000	1. 000
0090	628. 1910	MOBI L I Z A T I O N S E M E R G E N C Y E R O S I O N C O N T R O L	EACH	1. 000	1. 000
0100	628. 7015	I N L E T P R O T E C T I O N T Y P E C	EACH	130. 000	130. 000
0110	643. 0200	TRAFFI C C O N T R O L S U R V E I L L A N C E A N D MAINTENANCE (PROJECT) 01. 1228-25-60	DAY	30. 000	30. 000
0120	643. 0300	TRAFFI C C O N T R O L D R U M S	DAY	19, 200. 000	19, 200. 000
0130	643. 0420	TRAFFI C C O N T R O L B A R R I C A D E S T Y P E I I I	DAY	960. 000	960. 000
0140	643. 0715	TRAFFI C C O N T R O L W A R N I N G L I G H T S T Y P E C	DAY	600. 000	600. 000
0150	643. 0800	TRAFFI C C O N T R O L A R R O W B O A R D S	DAY	60. 000	60. 000
0160	643. 0900	TRAFFI C C O N T R O L S I G N S	DAY	1, 800. 000	1, 800. 000
0170	646. 0103	PAVEMENT MARKING PAINT 4-INCH	LF	16, 310. 000	16, 310. 000
0180	646. 0123	PAVEMENT MARKING PAINT 8-INCH	LF	1, 220. 000	1, 220. 000
0190	647. 0563	PAVEMENT MARKING STOP LINE PAINT 18-INCH	LF	200. 000	200. 000
0200	647. 0763	PAVEMENT MARKING CROSSWALK PAINT 6-INCH	LF	630. 000	630. 000
0210	690. 0250	SAWING CONCRETE	LF	1, 280. 000	1, 280. 000

ITEM 213.0100	
FINISHING ROADWAY PROJECT	
LOCATION	L.S.
PROJ 2160-01-70	1
ITEM TOTALS	1
	L.S.

	ITEM 416.1725
	CONCRETE PAVEMENT REPLACEMENT SHES
LOCATION	SY
UNDISTRIBUTED	500
ITEM TOTALS	500
	SY

	ITEM 416.0610	ITEM 416.0620
	DRILLED TIE BARS	DRILLED DOWEL BARS
LOCATION	EA	EA
UNDISTRIBUTED	252	288
ITEM TOTALS	252	288
	EA	EA

	ITEM 420.1000.S
	CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
LOCATION	SY
10+00 - 16+00	1600
16+00 - 22+00	3600
22+00 - 28+00	3600
28+00 - 34+00	3600
34+00 - 40+00	3600
40+00 - 46+00	3600
46+00 - 52+00	3600
52+00 - 58+00	3600
58+00 - 64+00	3600
64+00 - 70+00	3600
70+00 - 76+00	3600
76+00 - 84+00	3400
ITEM TOTALS	41000
	SY

	ITEM 619.1000
	MOBILIZATION
LOCATION	EA
PROJ 1228-25-60	1
ITEM TOTALS	1
	EA

	ITEM 305.0120
	BASE AGGREGATE DENSE 1 1/4- INCH
UNDISTRIBUTED	20
ITEM TOTAL	20
	TON

	ITEM 628.1905
	MOBILIZATIONS
	EROSION
	CONTROL
LOCATION	EA
PROJ 1228-25-60	1
ITEM TOTALS	1
	EA
	ITEM 628.1910
	MOBILIZATIONS
	EMERGENCY
	EROSION
	CONTROL
LOCATION	EA
PROJ 1228-25-60	1
ITEM TOTALS	1
	EA

		ITEM 628.7015
		INLET
		PROTECTION
		TYPE C
		ITEM
		TOTAL
LOCATION		EACH
10+00 - 16+00		0
16+00 - 22+00		16
22+00 - 28+00		9
28+00 - 34+00		11
34+00 - 40+00		11
40+00 - 46+00		9
46+00 - 52+00		11
52+00 - 58+00		9
58+00 - 64+00		21
64+00 - 70+00		9
70+00 - 76+00		15
76+00 - 84+00		7
UNDISTRIBUTED		2
ITEM TOTALS		130

TRAFFIC CONTROL ITEMS

	ITEM 643.0200	ITEM 643.0300	ITEM 643.0420	ITEM 643.0715	ITEM 643.0800	ITEM 643.0900
	TRAFFIC CONTROL SURVEILLANCE & MAINTENANCE DAYS	TRAFFIC CONTROL DRUMS DAYS	TRAFFIC CONTROL BARRICADES TYPE III DAYS	TRAFFIC CONTROL WARNING LIGHTS TYPE C DAYS	TRAFFIC CONTROL WARNING ARROW BOARDS DAYS	TRAFFIC CONTROL SIGNS DAYS
UNDISTRIBUTED	30	19,200	960	600	60	1,800
ITEM TOTAL	30 DAYS	19,200 DAYS	960 DAYS	600 DAYS	60 DAYS	1,800 DAYS

PAVEMENT MARKING ITEMS

			646.0103 PAVEMENT MARKING	646.0123 PAVEMENT MARKING CHANNELIZING	647.0563 PAVEMENT MARKING STOP LINE	647.0763 PAVEMENT MARKING CROSSWALK
			PAINT 4-INCH WHITE	PAINT 8-INCH WHITE	PAINT 18-INCH WHITE	PAINT 6-INCH WHITE
	LOCATION		LF	LF	LF	LF
10+00	to	16+00	570	220	0	0
16+00	to	22+00	1525	110	0	0
22+00	to	28+00	1500	0	0	0
28+00	to	34+00	1450	140	0	0
34+00	to	40+00	1270	230	95	420
40+00	to	46+00	1400	100	0	0
46+00	to	52+00	1500	70	0	0
52+00	to	58+00	1500	0	0	0
58+00	to	64+00	1300	185	105	210
64+00	to	70+00	1470	95	0	0
70+00	to	76+00	1395	70	0	0
76+00	to	84+00	1430	0	0	0
		ITEM TOTALS	16310 LF	1220 LF	200 LF	630 LF

		690.0250
		SAWING
		CONCRETE
LOCATION		LF
UNDISTRIBUTED		1280
	ITEM TOTAL	1280
		LF

CATEGORY SUMMARY:
ALL ITEMS THIS SHEET ARE CATEGORY 0010

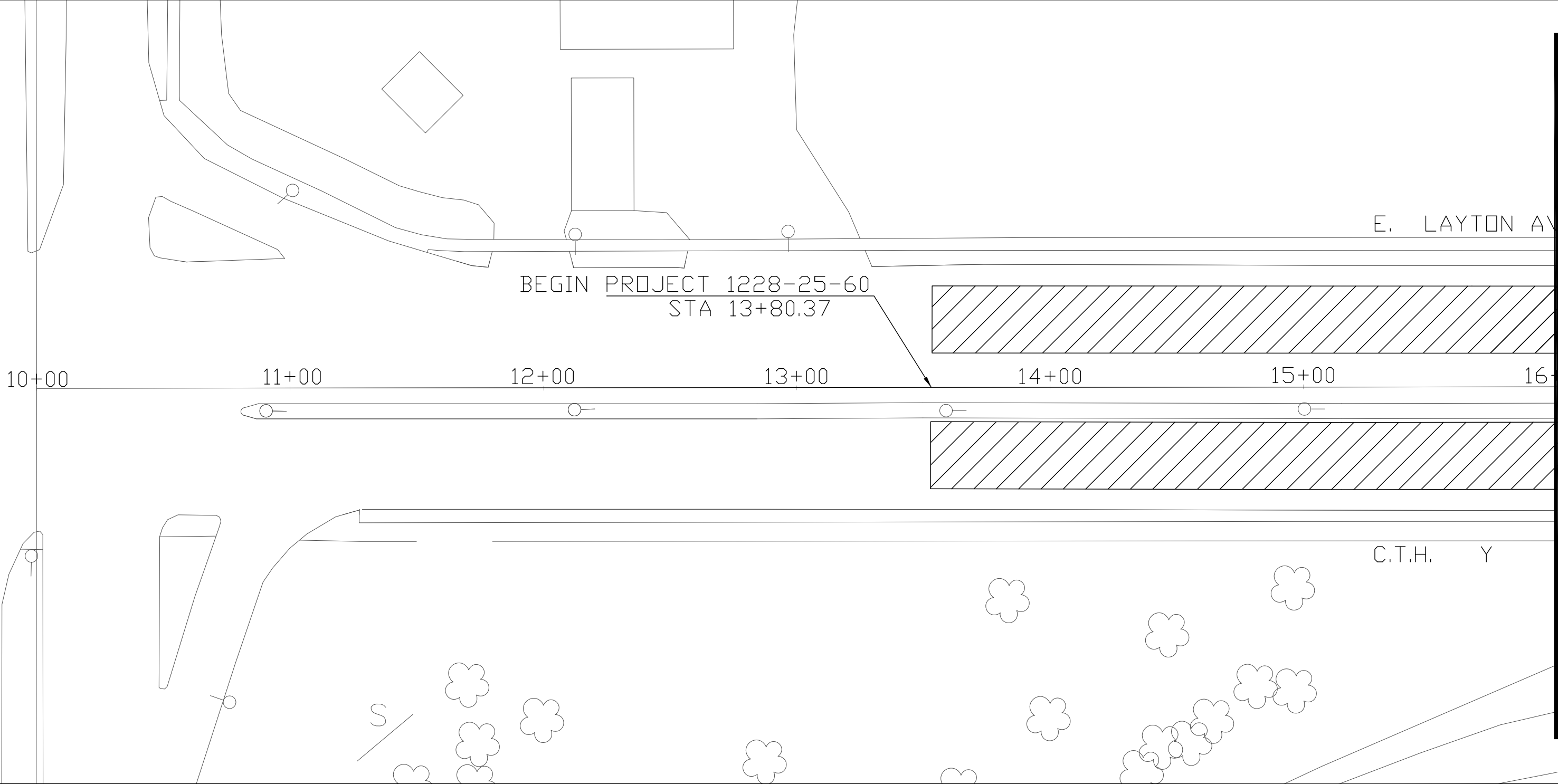
 CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING

NOTES

1. CONCRETE PAVEMENT REPLACEMENT SHES SHALL AS DIRECTED BY THE ENGINEER
SEE TYPICAL FINISHED SECTION FOR WIDTH OF DIAMOND GRINDING
SEE DETAIL FOR REMOVAL, DOWEL AND TIE BAR INSTALLATION
2. SEE S.D.D. TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
AND S.D.D. TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
FOR TRAFFIC CONTROL DETAILS

5

REVISION DATE: 5/22/13



5

STA 16+00

MATCH LINE

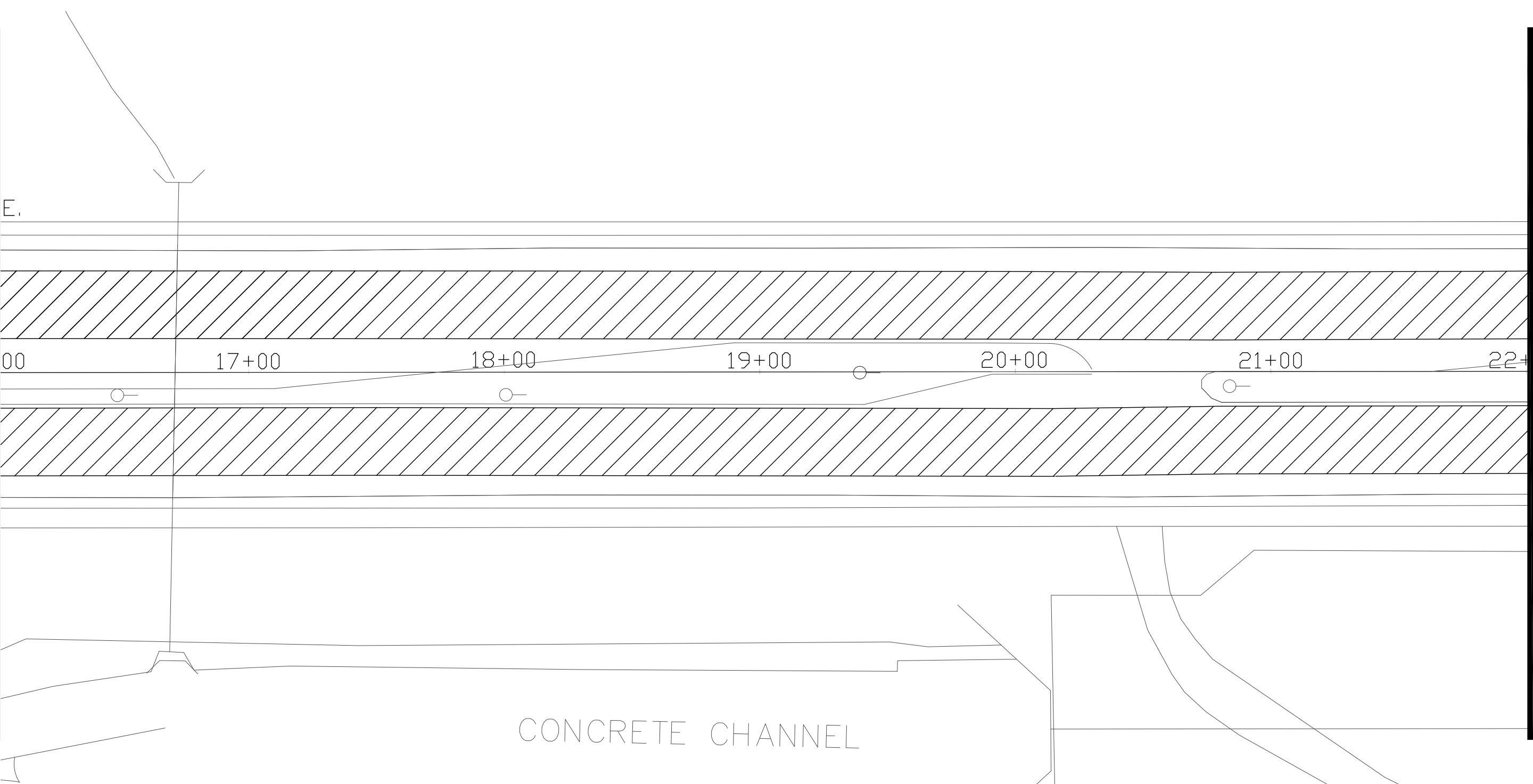
 CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING

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AND S.D.D. TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
FOR TRAFFIC CONTROL DETAILS

5

STA 16+00
MATCH LINE



STA 22+00
MATCH LINE

5

REVISION DATE: 5/22/13

PROJECT NUMBER: 1228-25-60

HWY: E. LAYTON AVE (CTH Y)


COUNTY: MILWAUKEE

PLAN, STA. 16+00 TO 22+00

SCALE: 1"=40'

SHEET NO:

E

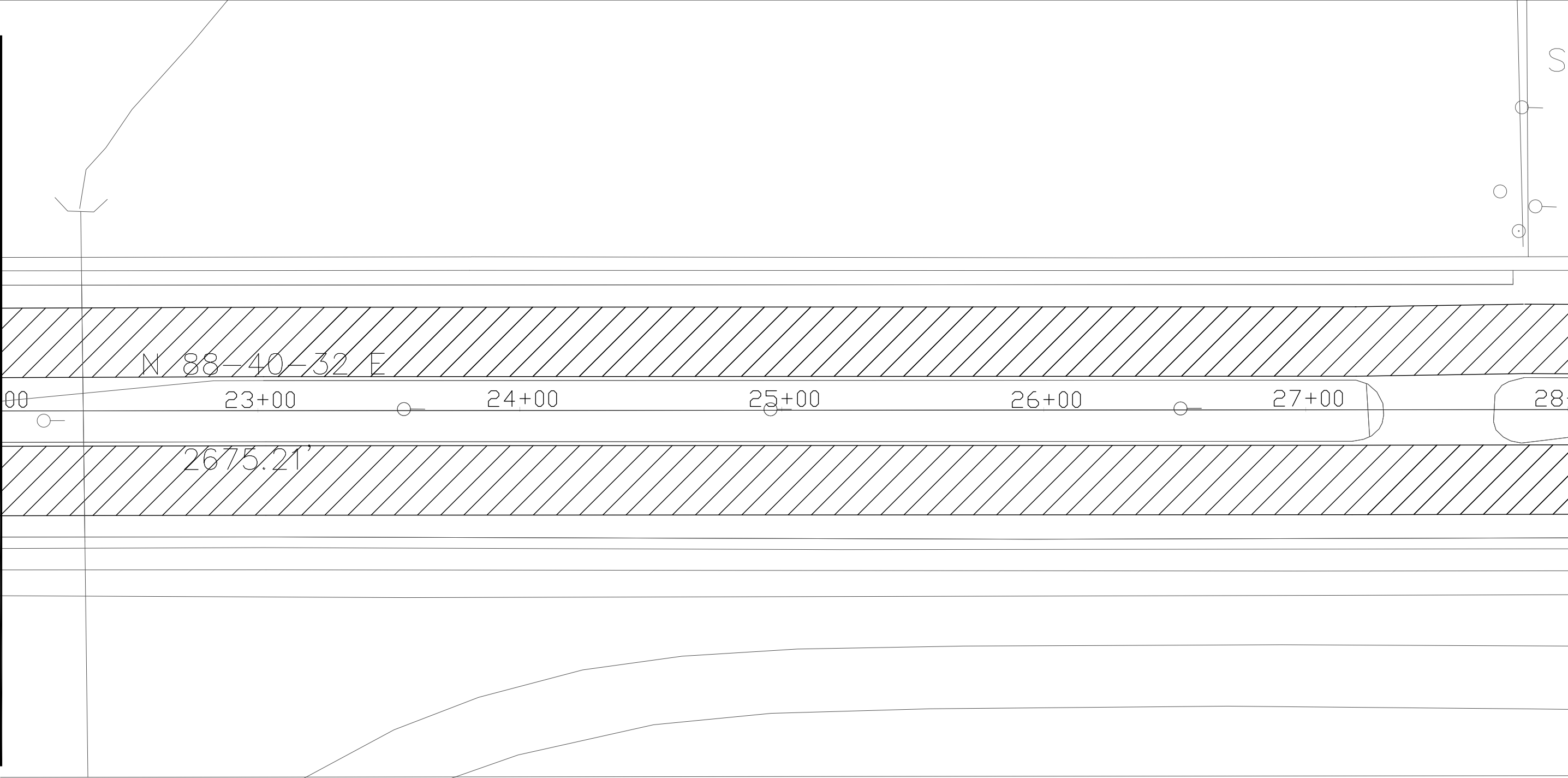
 CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING

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AND S.D.D. TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
FOR TRAFFIC CONTROL DETAILS

5

MATCH LINE STA 22+00



MATCH LINE STA 28+00

5

REVISION DATE: 5/22/13

PROJECT NUMBER: 1228-25-60

HWY: E. LAYTON AVE (CTH Y)

COUNTY: MILWAUKEE

PLAN, STA. 22+00 TO 28+00

SCALE: 1"=40'

SHEET NO:

E

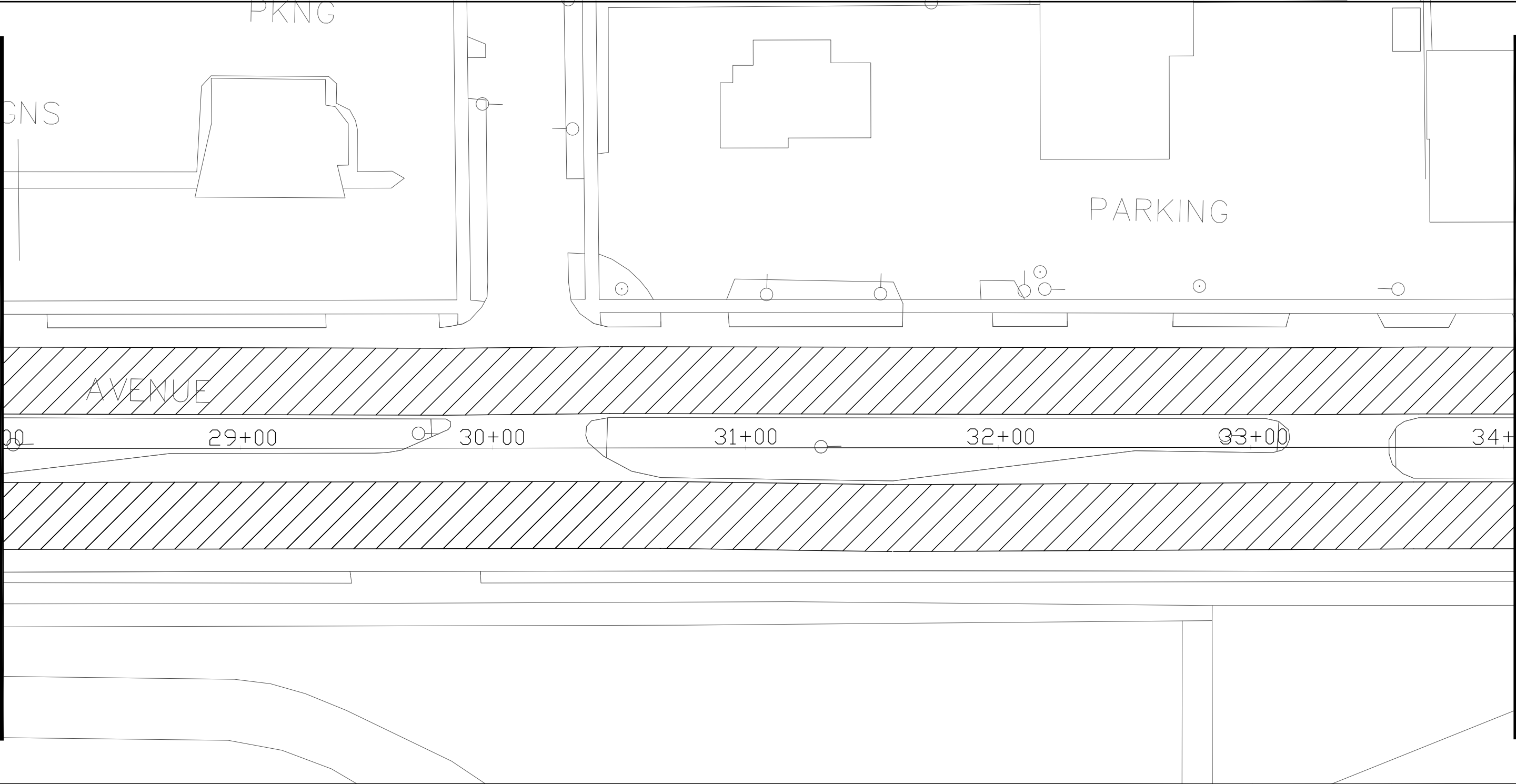
 CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING

NOTES

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AND S.D.D. TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
FOR TRAFFIC CONTROL DETAILS

5

MATCH LINE STA 28+00



5

MATCH LINE STA 34+00

REVISION DATE: 5/22/13

PROJECT NUMBER: 1228-25-60

HWY: E. LAYTON AVE (CTH Y)

COUNTY: MILWAUKEE

PLAN, STA. 28+00 TO 34+00

SCALE: 1"=40'

SHEET NO:

E

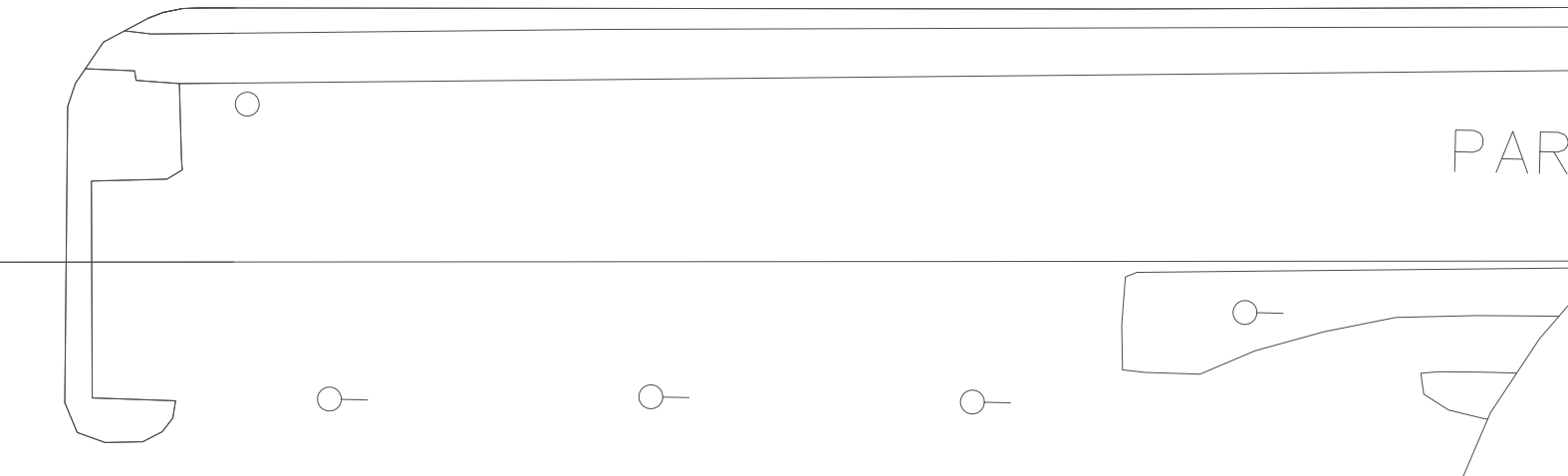
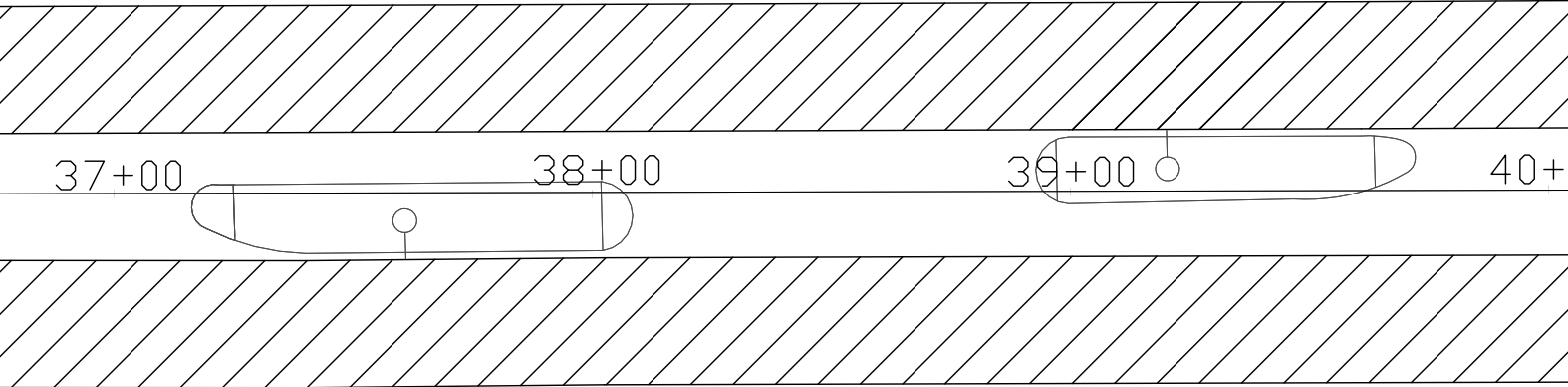
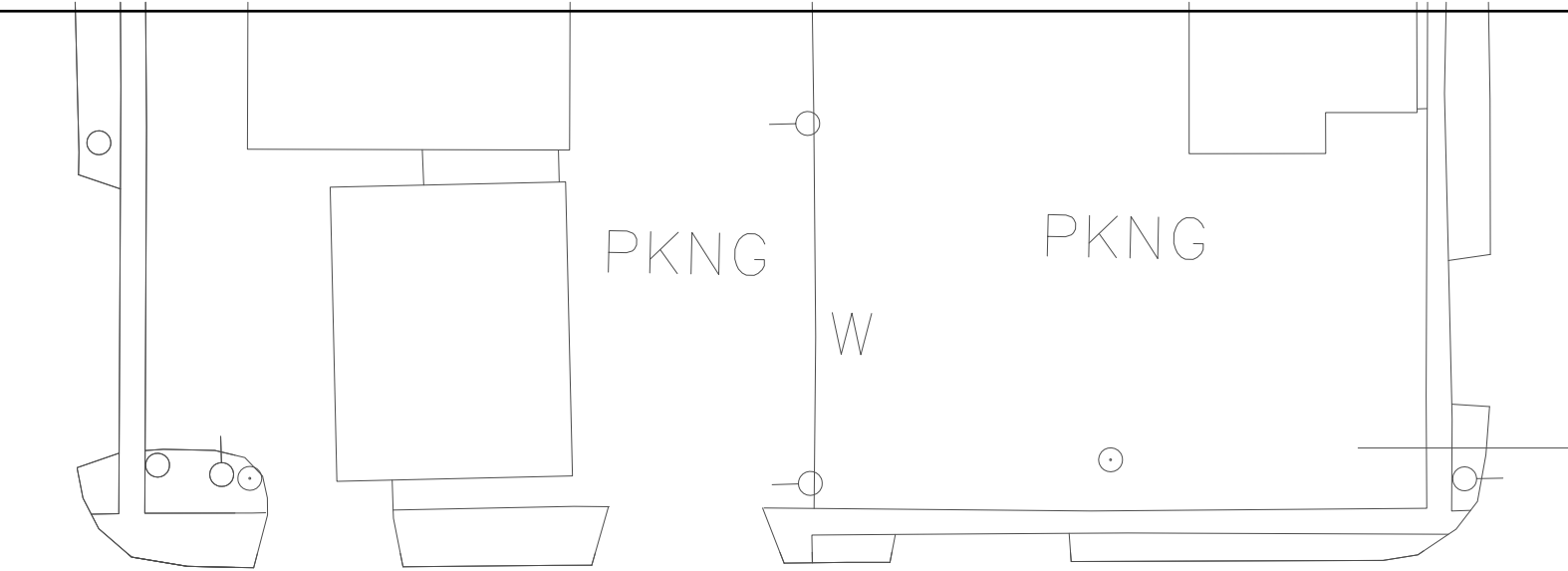
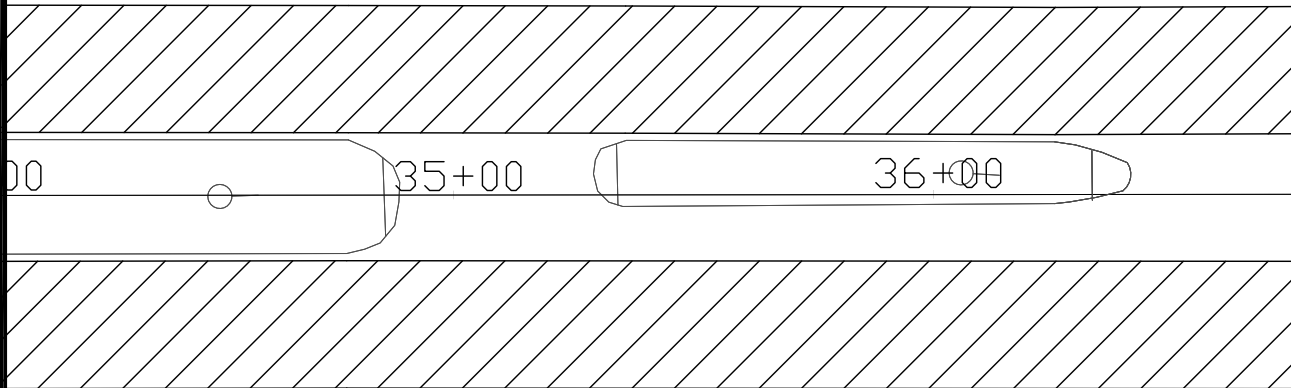
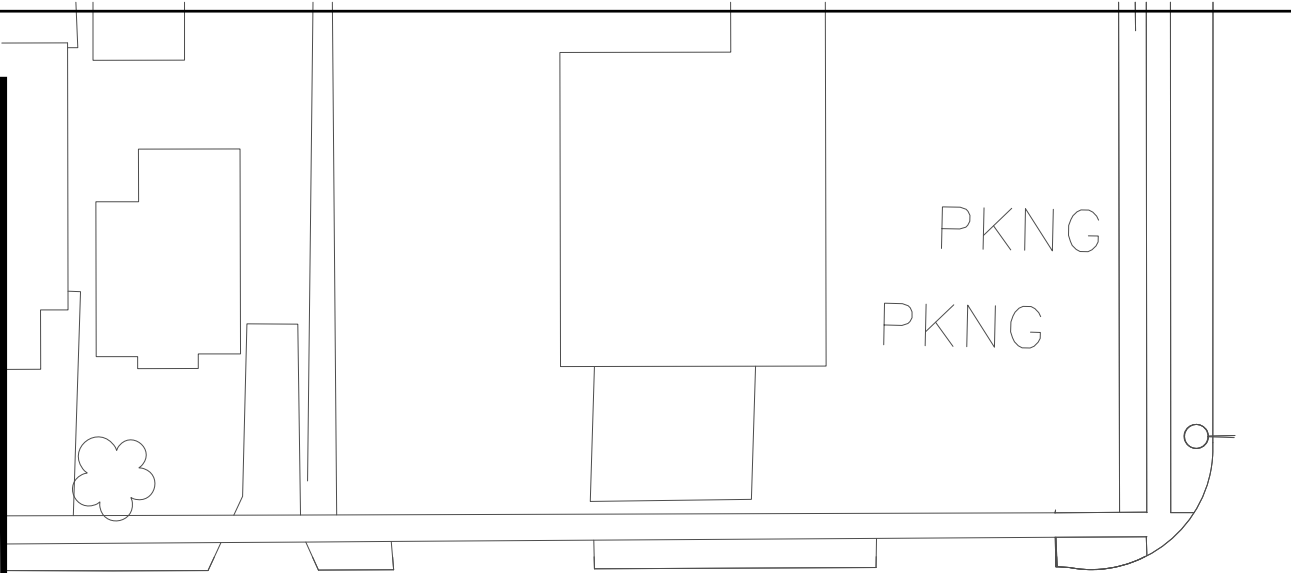
 CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING

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AND S.D.D. TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
FOR TRAFFIC CONTROL DETAILS

5

MATCH LINE STA 34+00



MATCH LINE STA 40+00

5

CIT 11/13

REVISION DATE: 5/22/13

PROJECT NUMBER: 1228-25-60

HWY: E. LAYTON AVE (CTH Y)

COUNTY: MILWAUKEE

PLAN, STA. 34+00 TO 40+00


SCALE: 1"=40'

SHEET NO:

E

1. CONCRETE PAVEMENT REPLACEMENT SHES SHALL AS DIRECTED BY THE ENGINEER
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SEE DETAIL FOR REMOVAL, DOWEL AND TIE BAR INSTALLATION
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FOR TRAFFIC CONTROL DETAILS



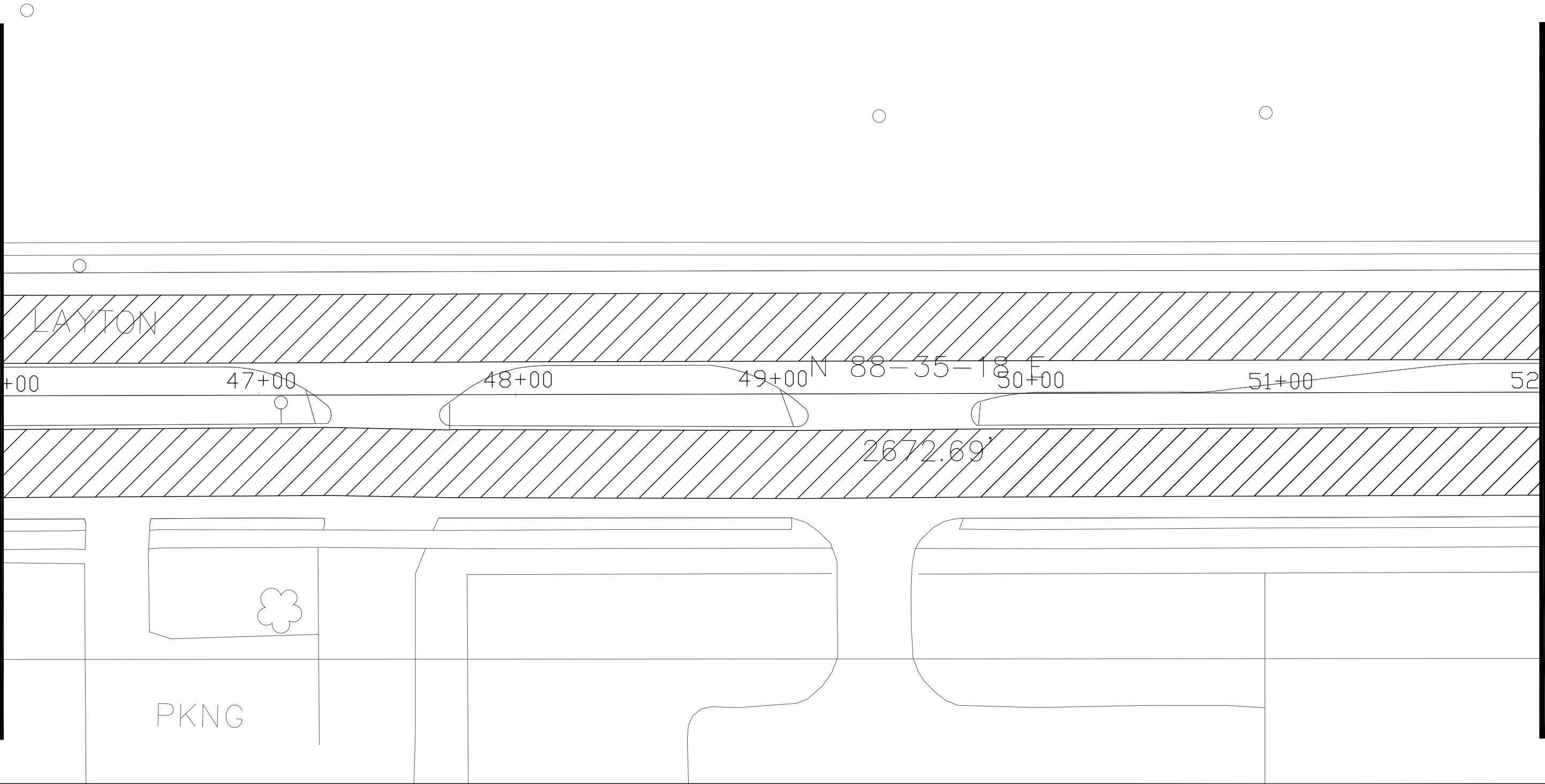
 CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING

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FOR TRAFFIC CONTROL DETAILS

5

MATCH LINE STA 46+00



MATCH LINE STA 52+00

5

REVISION DATE: 5/22/13

PROJECT NUMBER: 1228-25-60

HWY: E. LAYTON AVE (CTH Y)

COUNTY: MILWAUKEE

PLAN, STA. 46+00 TO 52+00

SCALE: 1"=40'

SHEET NO:

E

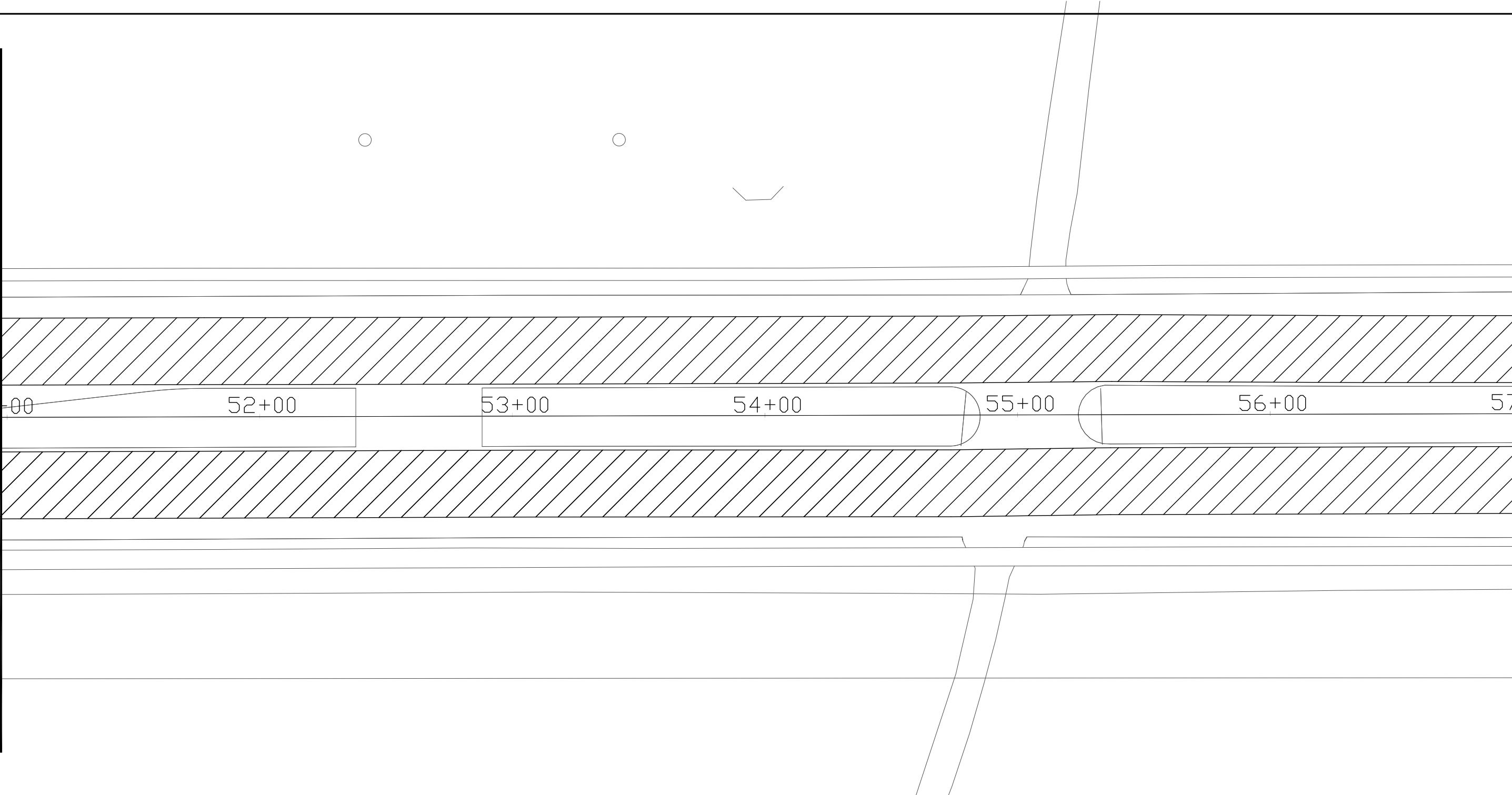
 CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING

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FOR TRAFFIC CONTROL DETAILS

5

MATCH LINE STA 52+00



MATCH LINE STA 58+00

5

CIT 1 INF

REVISION DATE: 5/22/13

PROJECT NUMBER: 1228-25-60

HWY: E. LAYTON AVE (CTH Y)

COUNTY: MILWAUKEE

PLAN, STA. 52+00 TO 58+00

SCALE: 1"=40'

SHEET NO:

E

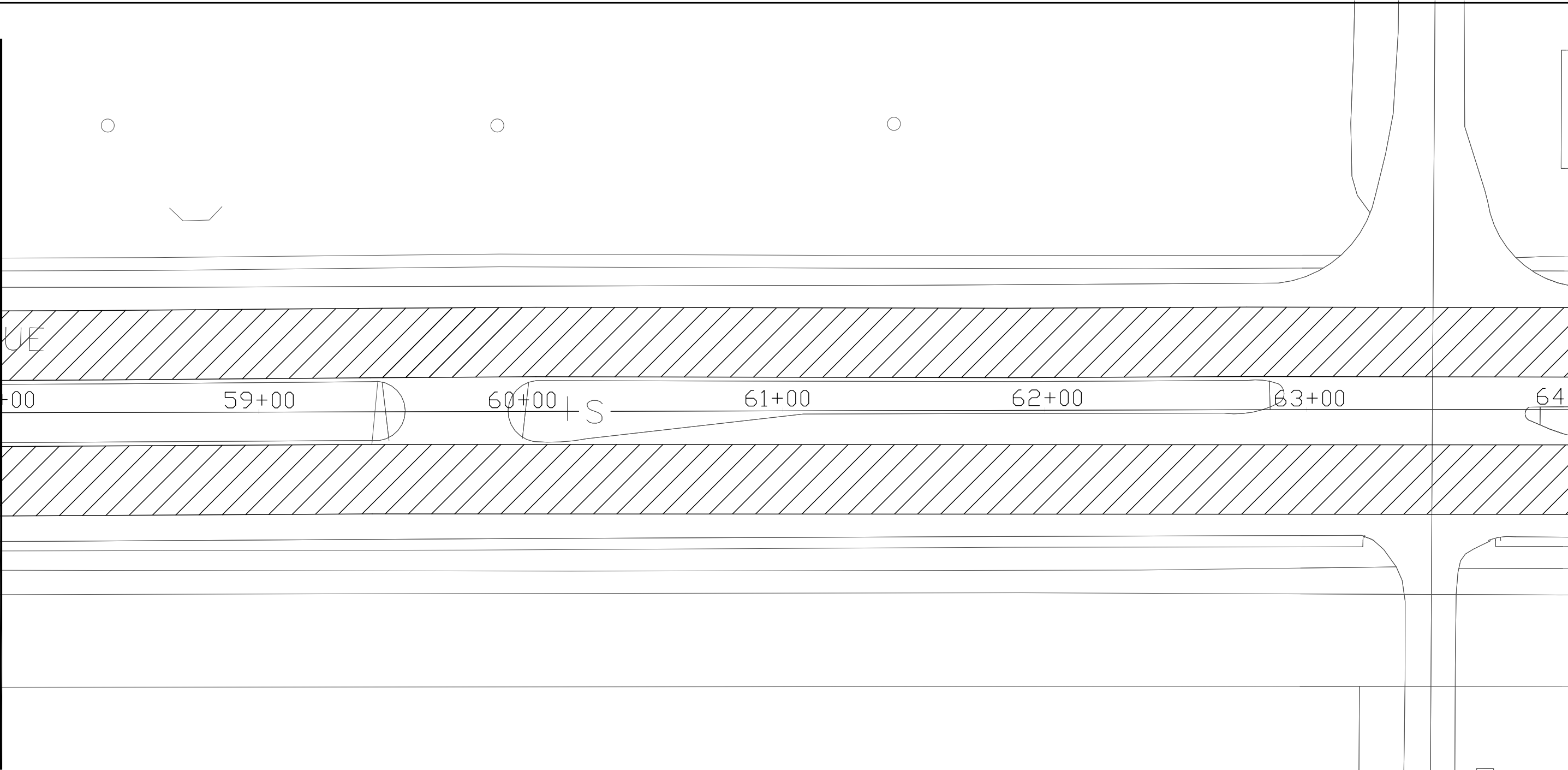
 CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING

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FOR TRAFFIC CONTROL DETAILS

5

MATCH LINE STA 58+00



MATCH LINE STA 64+00

5

REVISION DATE: 5/22/13

PROJECT NUMBER: 1228-25-60

HWY: E. LAYTON AVE (CTH Y)

COUNTY: MILWAUKEE

PLAN, STA. 58+00 TO 64+00

SCALE: 1"=40'

SHEET NO:

E

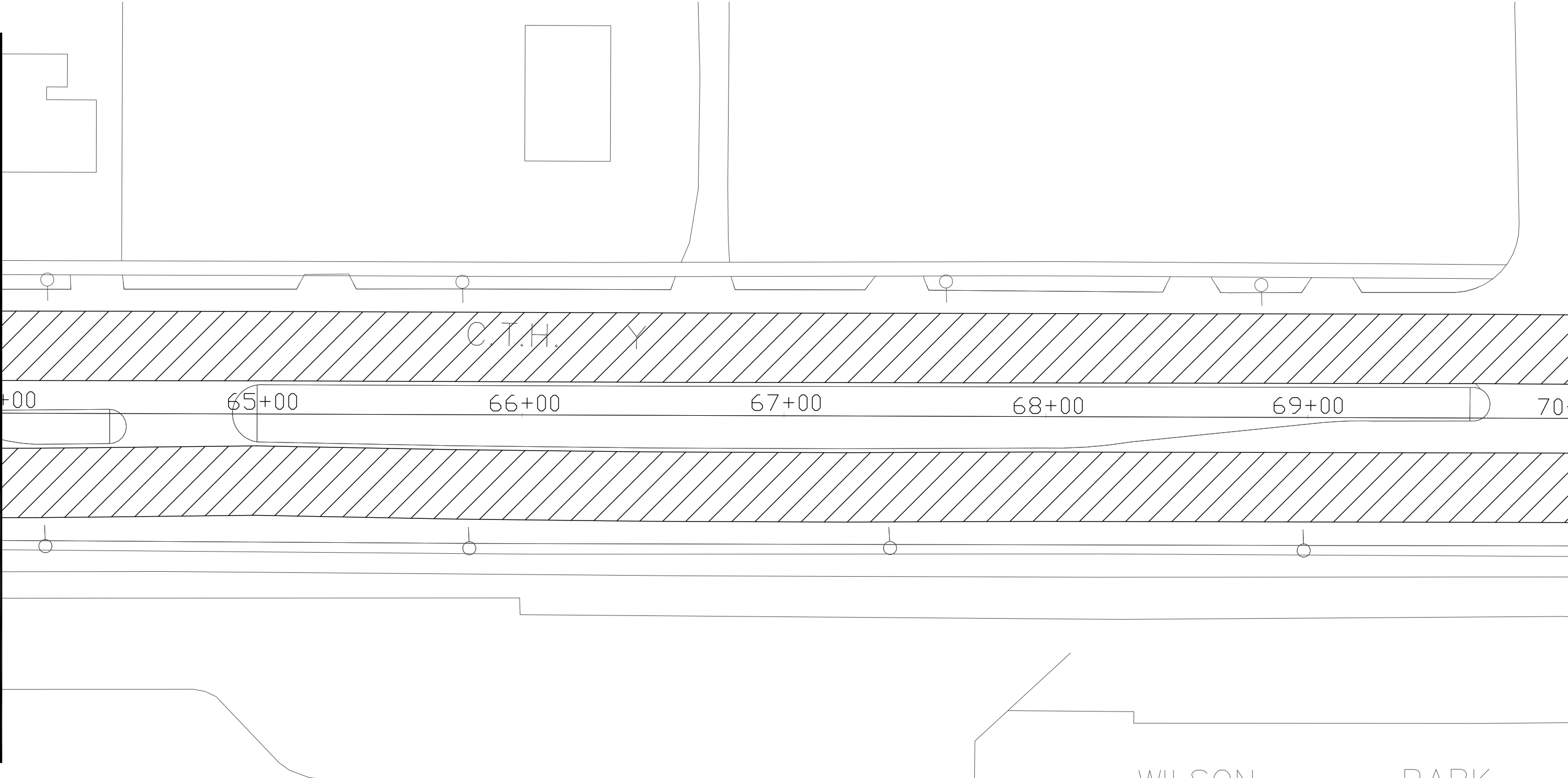
 CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING

NOTES

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FOR TRAFFIC CONTROL DETAILS

5

MATCH LINE STA 64+00



MATCH LINE STA 70+00

5

REVISION DATE: 5/22/13

PROJECT NUMBER: 1228-25-60

HWY: E. LAYTON AVE (CTH Y)


COUNTY: MILWAUKEE

PLAN, STA. 64+00 TO 70+00

SCALE: 1"=40'

SHEET NO:

E

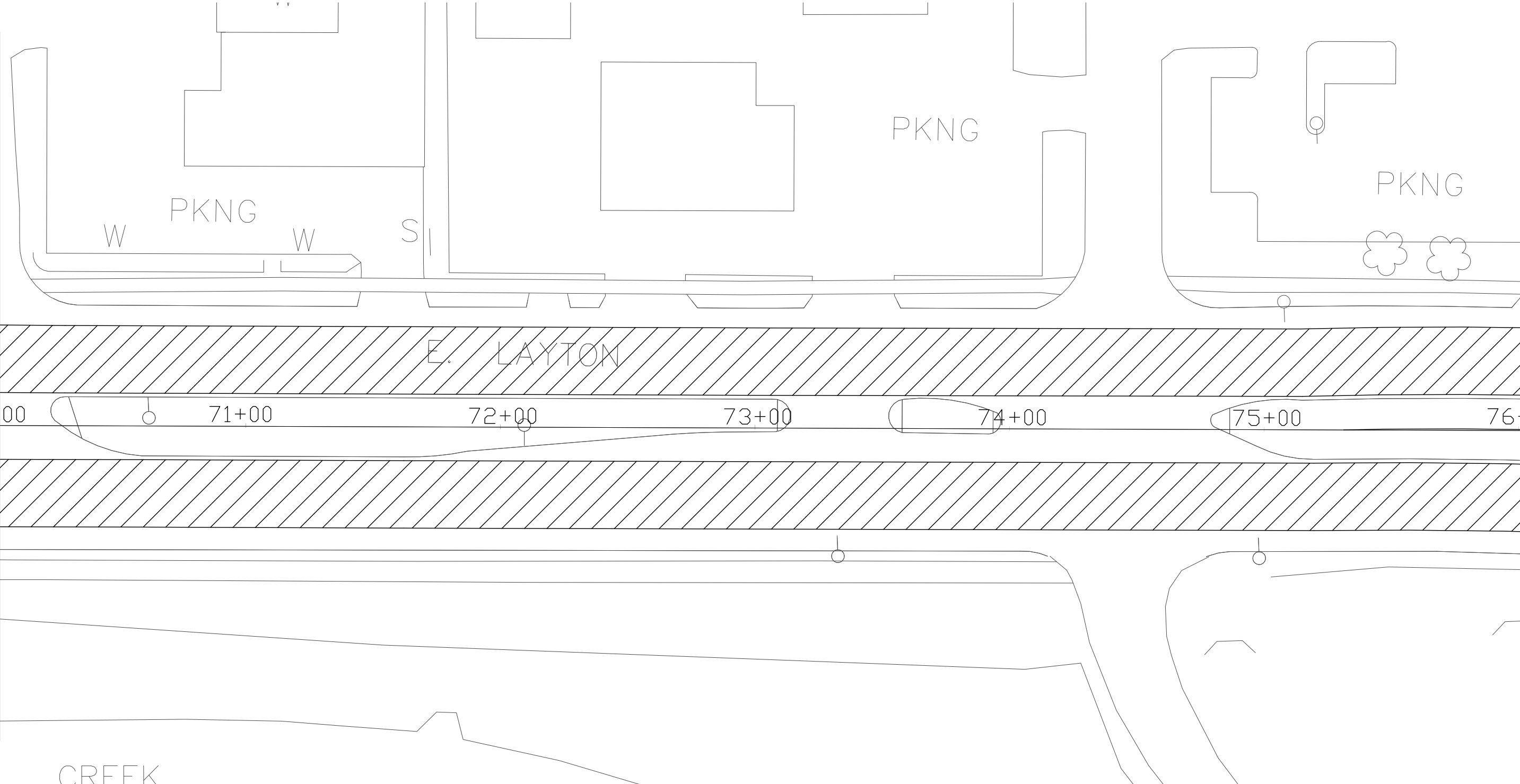
 CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING

NOTES

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AND S.D.D. TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
FOR TRAFFIC CONTROL DETAILS

5

MATCH LINE STA 70+00



MATCH LINE STA 76+00

5

REVISION DATE: 5/22/13

PROJECT NUMBER: 1228-25-60

HWY: E. LAYTON AVE (CTH Y)


COUNTY: MILWAUKEE

PLAN, STA. 70+00 TO 76+00

SCALE: 1"=40'

SHEET NO:

E

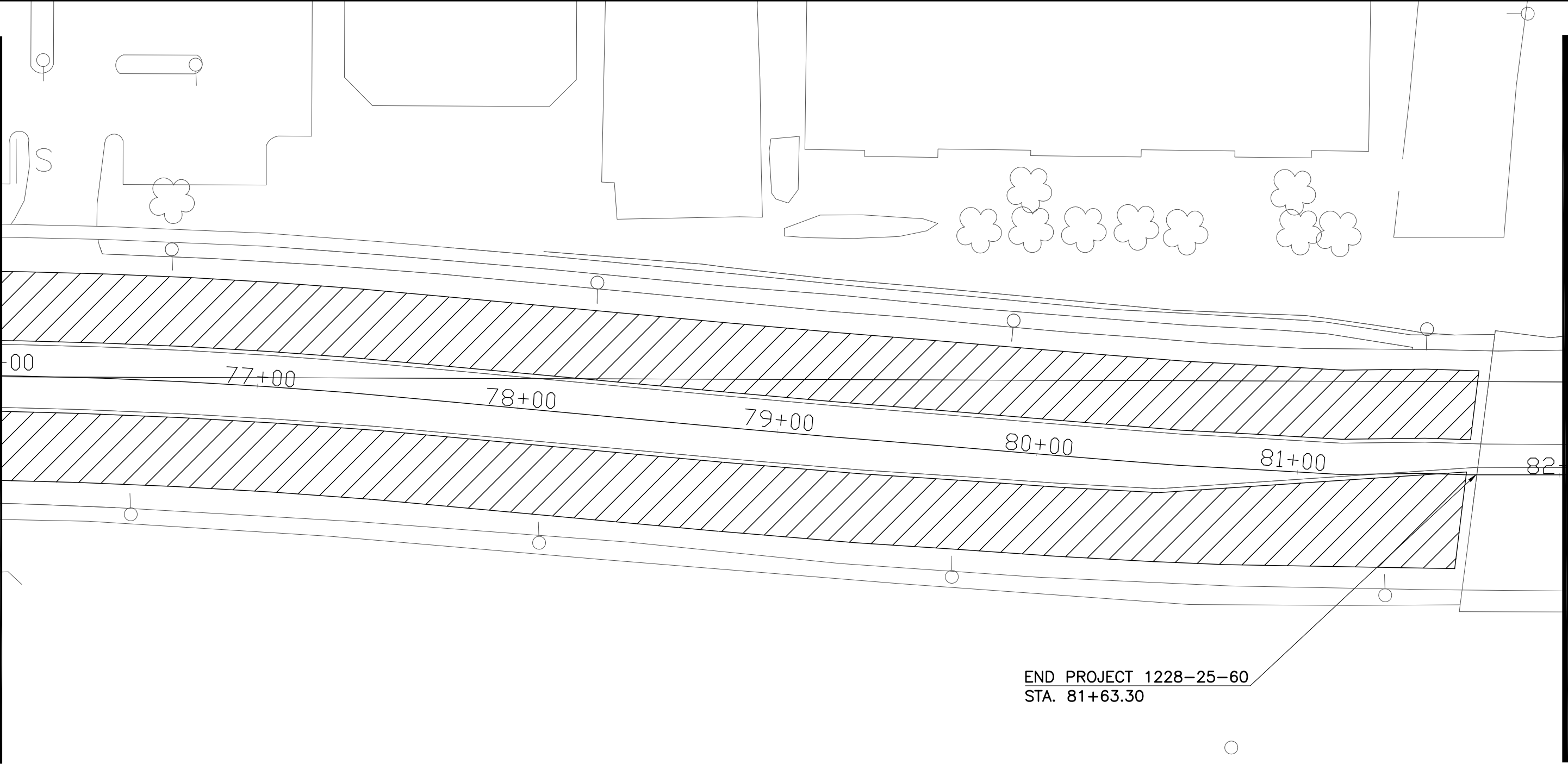
 CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING

NOTES

1. CONCRETE PAVEMENT REPLACEMENT SHES SHALL AS DIRECTED BY THE ENGINEER
SEE TYPICAL FINISHED SECTION FOR WIDTH OF DIAMOND GRINDING
SEE DETAIL FOR REMOVAL, DOWEL AND TIE BAR INSTALLATION
2. SEE S.D.D. TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
AND S.D.D. TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
FOR TRAFFIC CONTROL DETAILS

5

MATCH LINE STA 76+00



MATCH LINE STA 82+00

5

REVISION DATE: 5/22/13

PROJECT NUMBER: 1228-25-60

HWY: E. LAYTON AVE (CTH Y)

COUNTY: MILWAUKEE

PLAN, STA. 76+00 TO 82+00

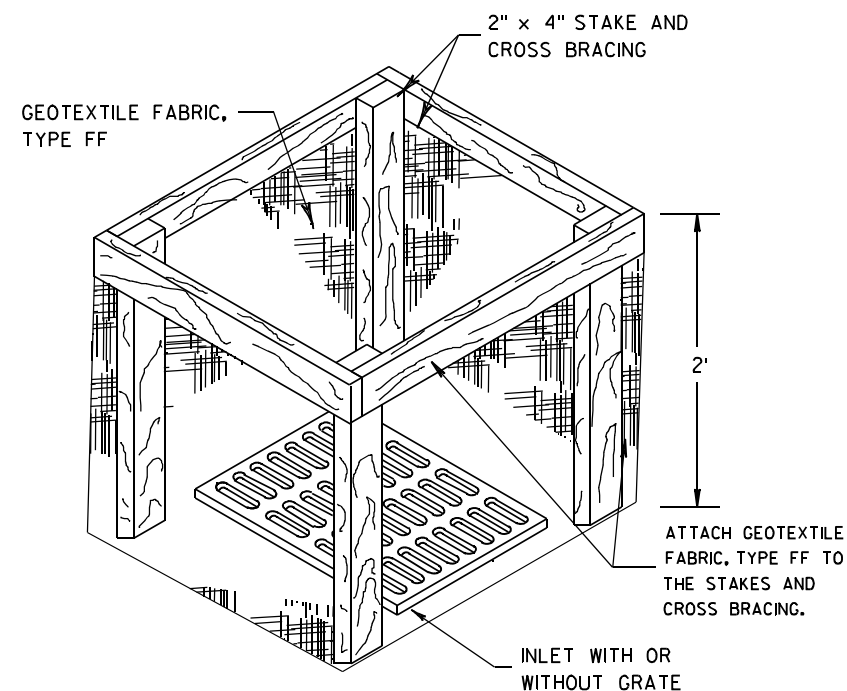
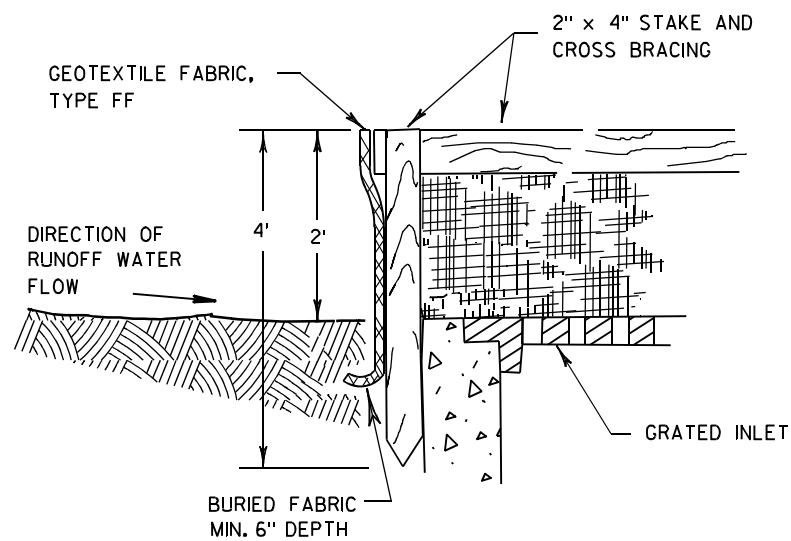
SCALE: 1"=40'

SHEET NO:

E

Standard Detail Drawing List

08E10-02	INLET PROTECTION TYPE A, B, C AND D
13C18-02A	CONCRETE PAVEMENT JOINTING
13C18-02D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
15C05-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M. P. H. OR LESS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15D28-01	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



INLET PROTECTION, TYPE A

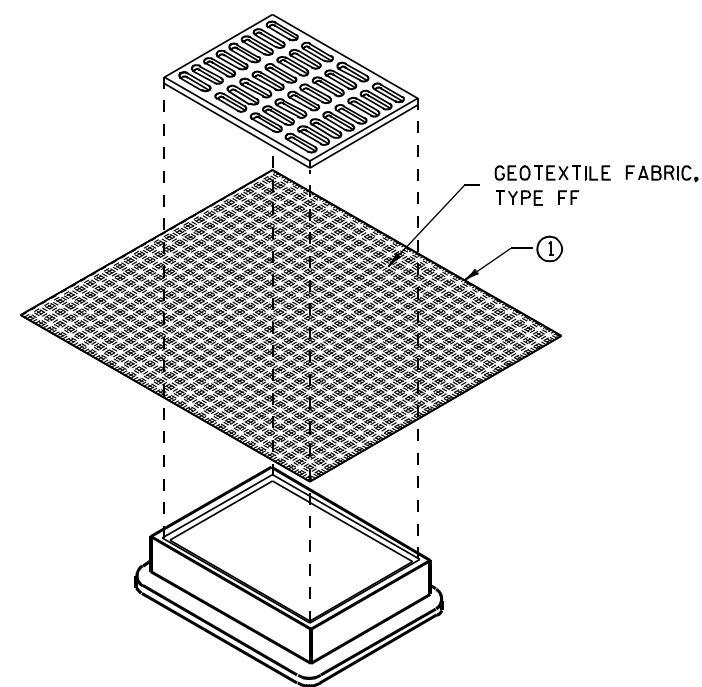
GENERAL NOTES

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.

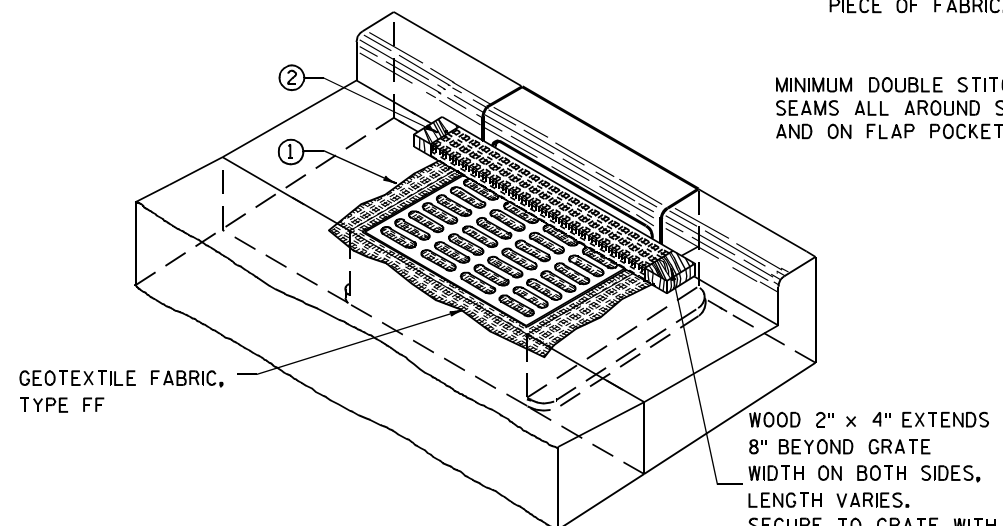
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

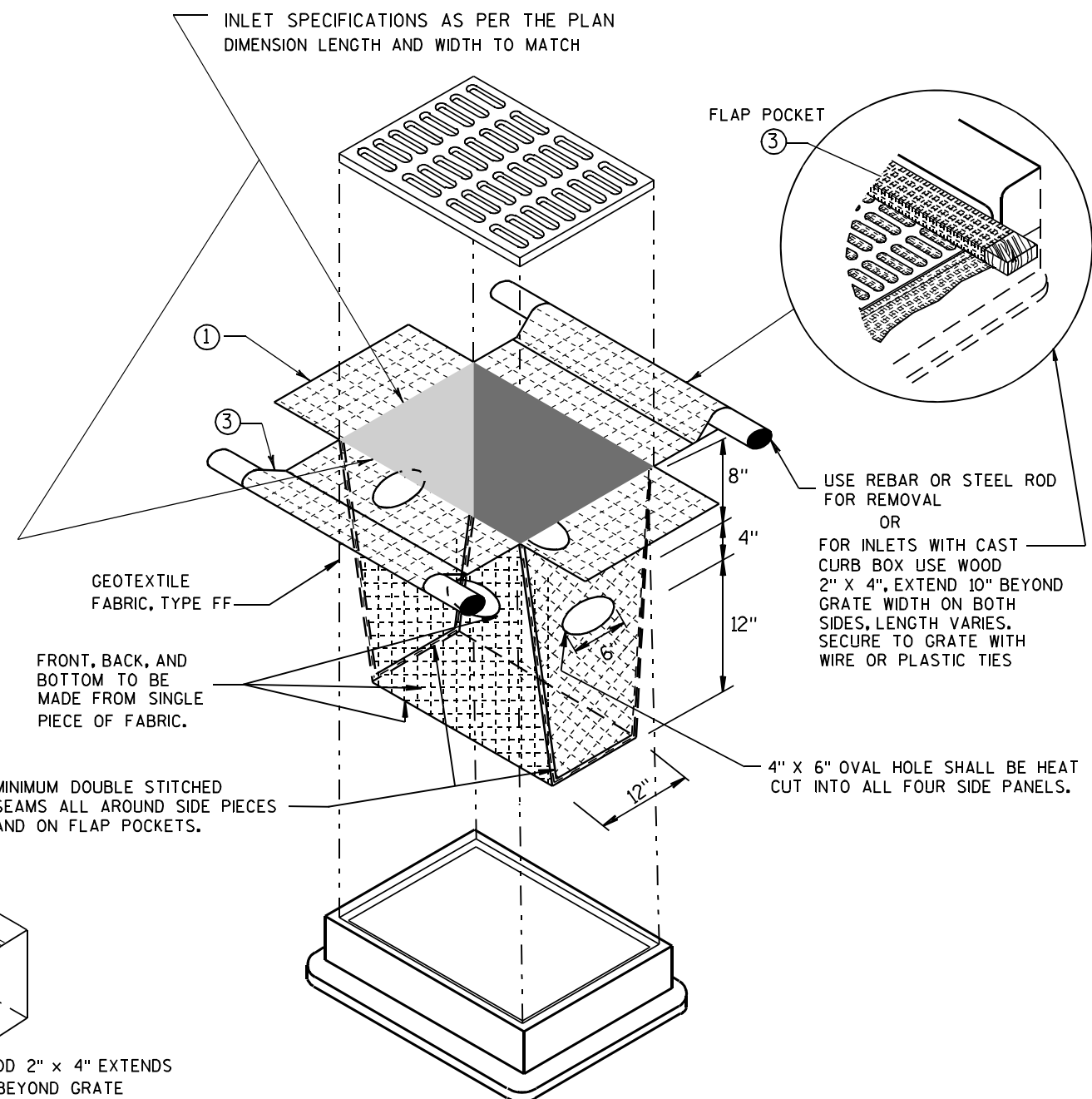
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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.



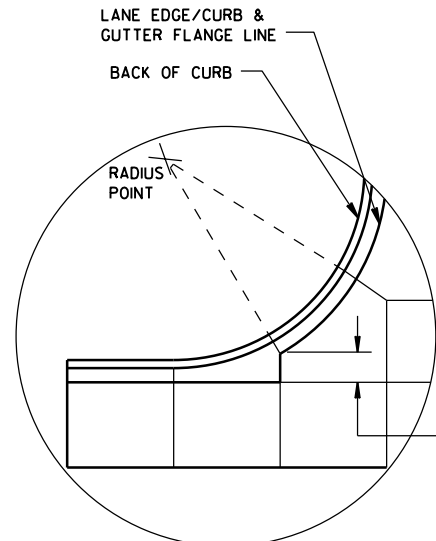
INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

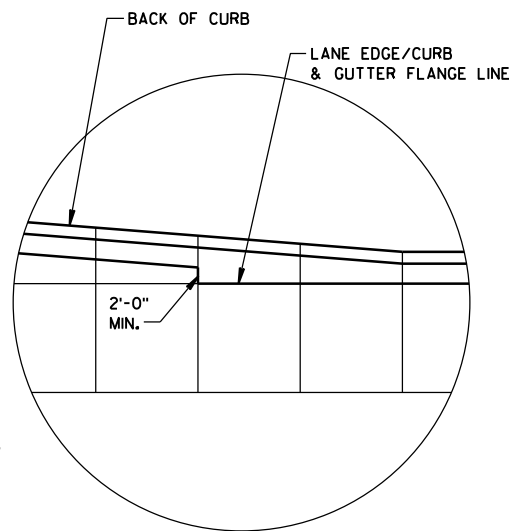
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

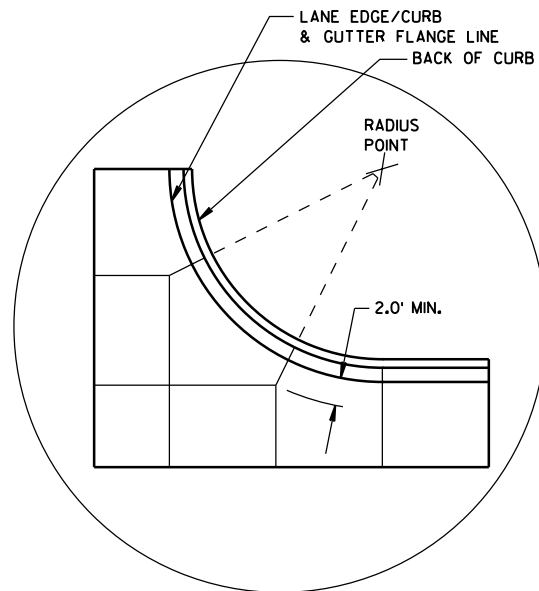
APPROVED
10/16/02 /S/ Beth Cannestra
DATE
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



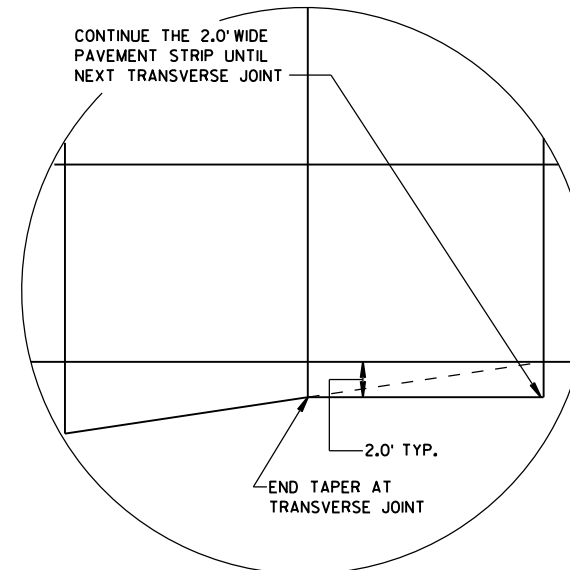
DETAIL "A"



DETAIL "B"



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.

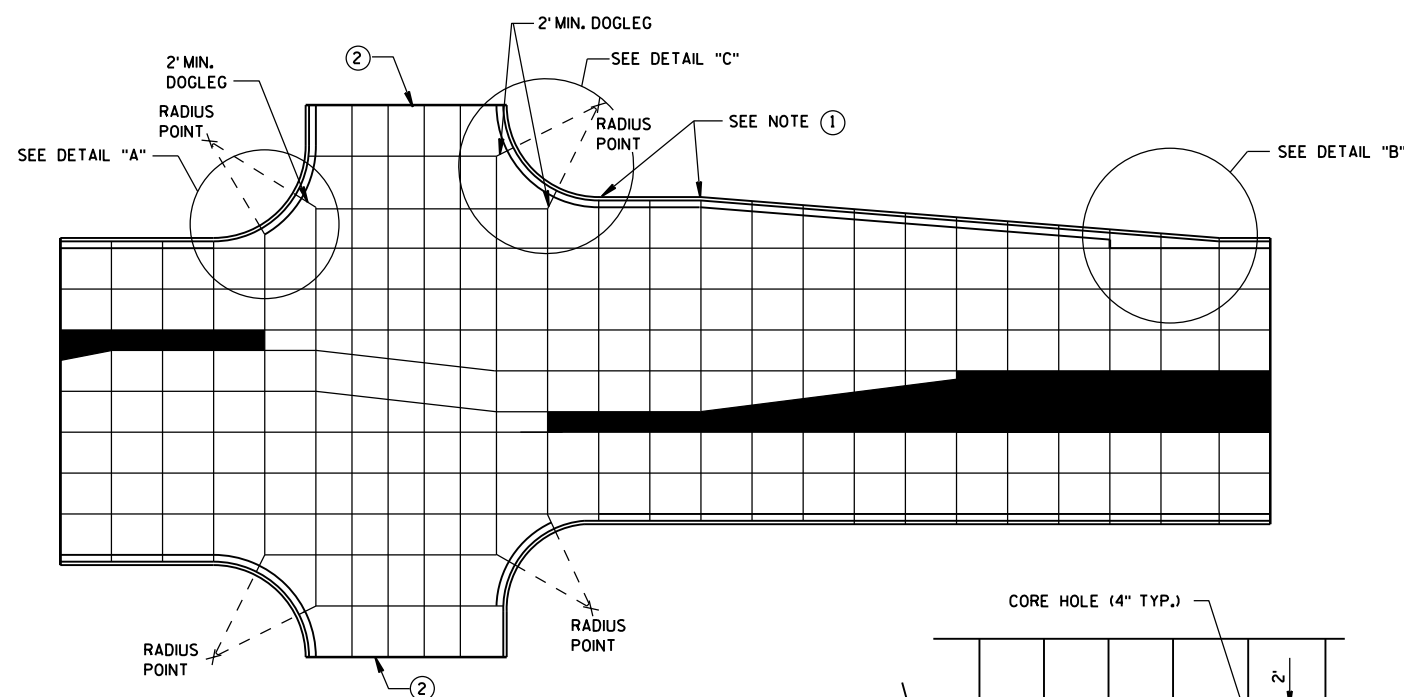
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

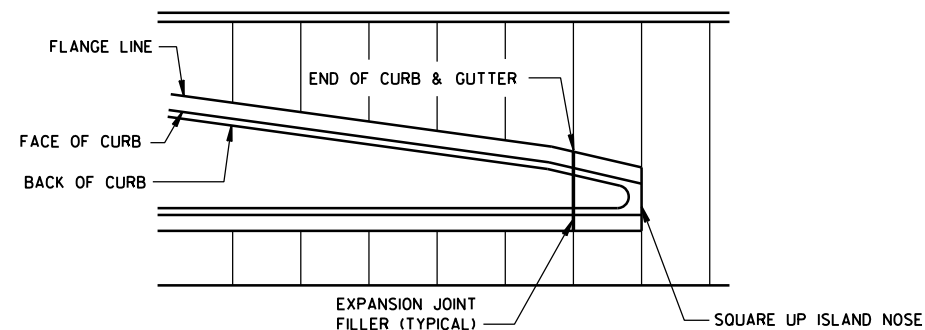
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

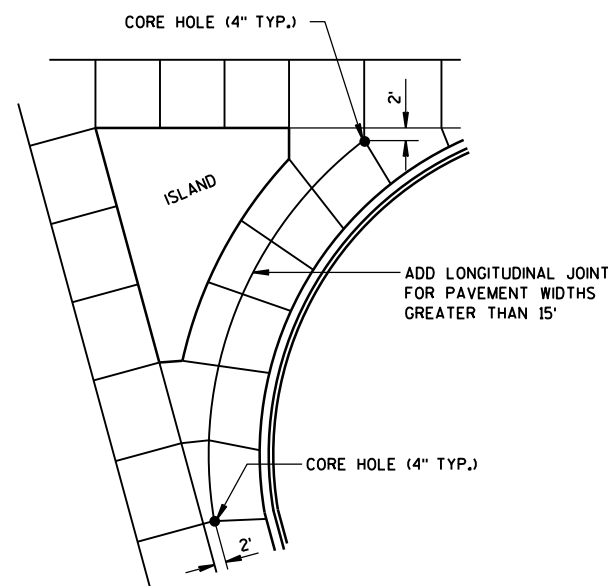
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



STANDARD INTERSECTION



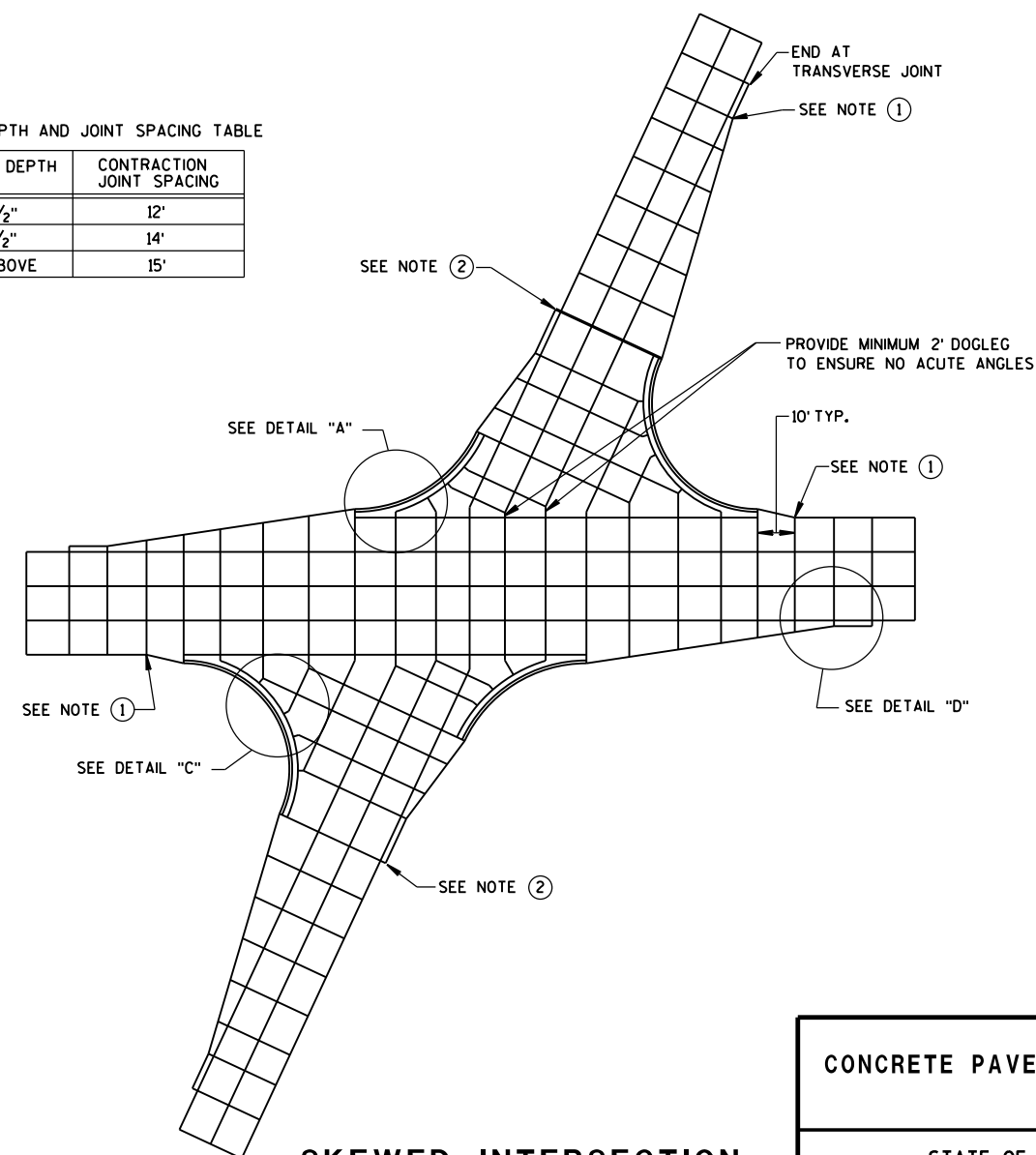
APPROACH TO MEDIAN



LARGE RIGHT TURN

PAVEMENT DEPTH AND JOINT SPACING TABLE

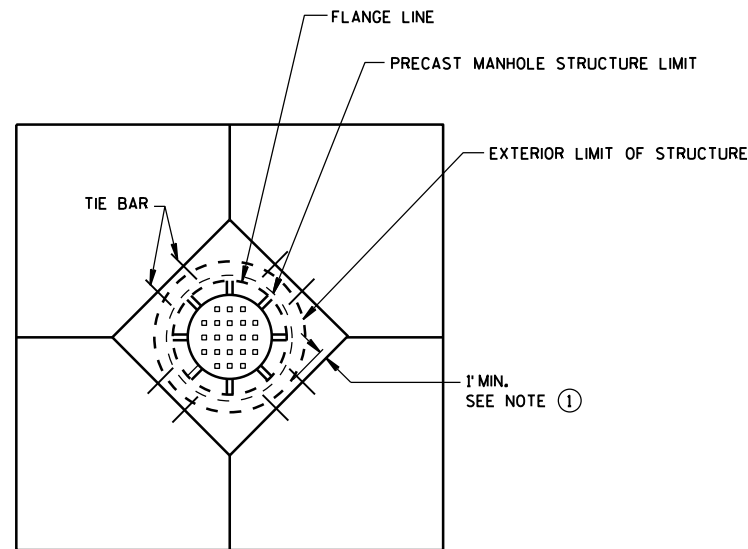
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



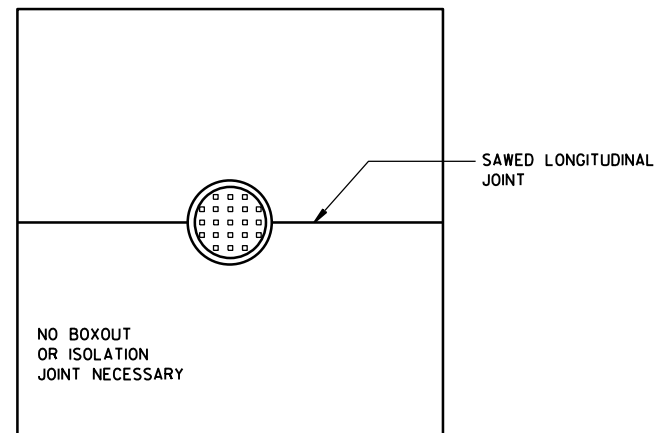
SKewed INTERSECTION

CONCRETE PAVEMENT JOINTING

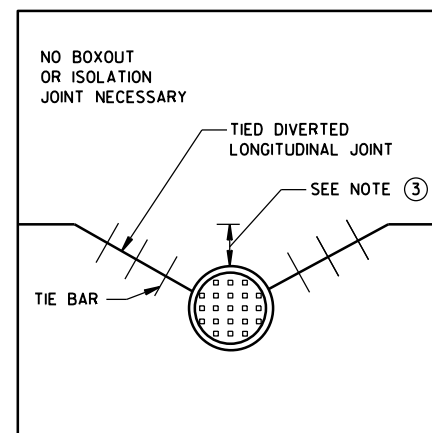
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



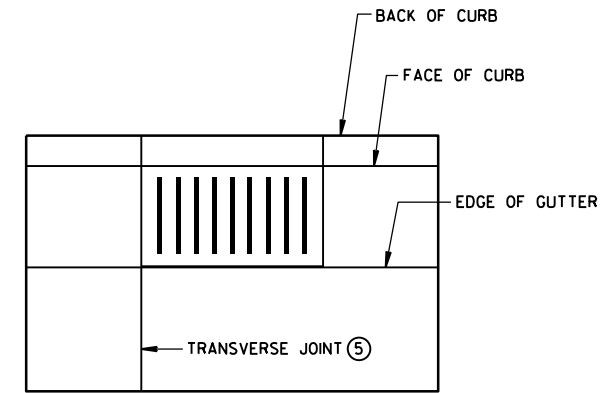
**DIAGONAL MANHOLE BOXOUT
FOR CONSTRUCTION JOINTS**



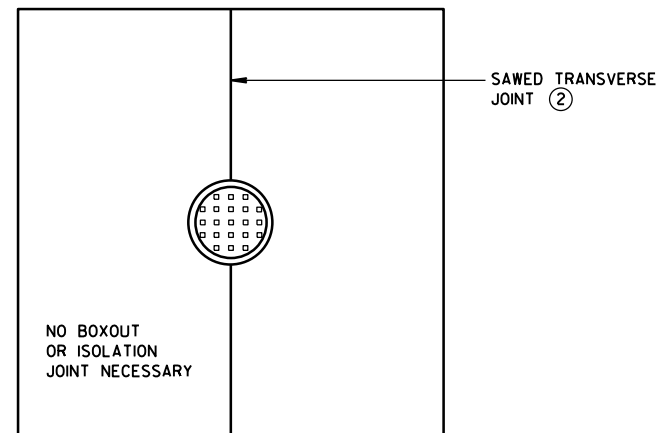
**MANHOLE WITH
LONGITUDINAL JOINT**



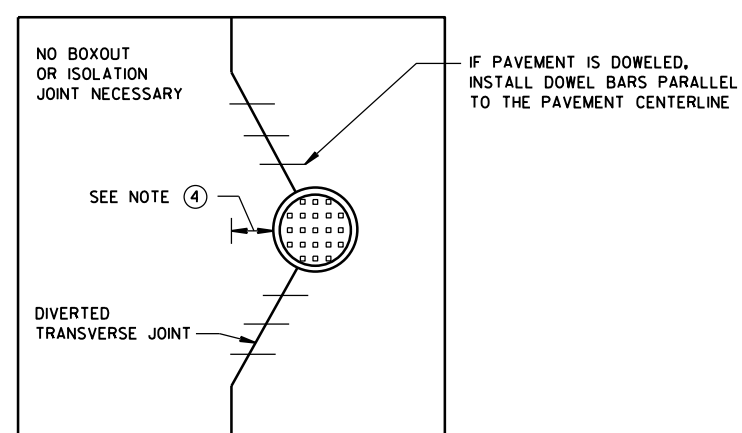
**MANHOLE WITH DIVERTED
LONGITUDINAL CONTRACTION JOINT**



**INLET WITH
TRANSVERSE JOINT**



**MANHOLE WITH
TRANSVERSE 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 LONGITUDINAL 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**

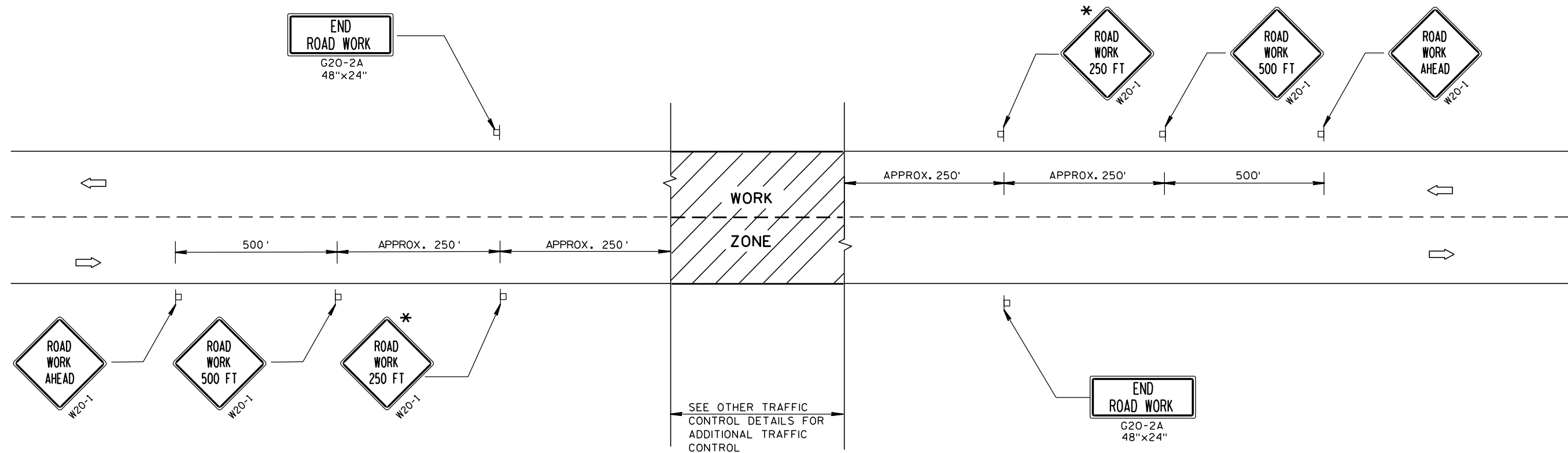
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-3-2013
DATE

FHWA

/S/ Deb Bischoff
PAVEMENT POLICY & DESIGN ENGINEER



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.

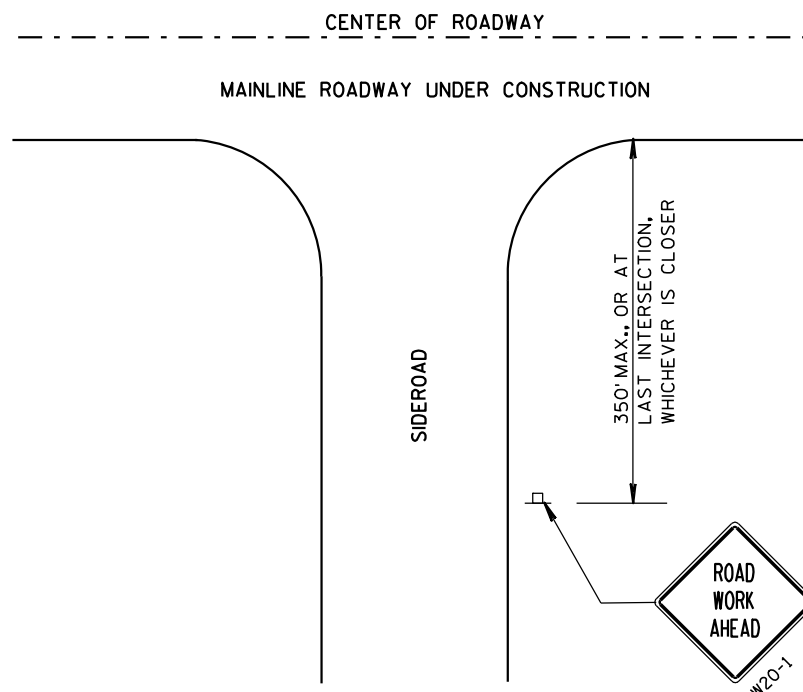
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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, IF APPROVED BY DISTRICT TRAFFIC UNIT.

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.

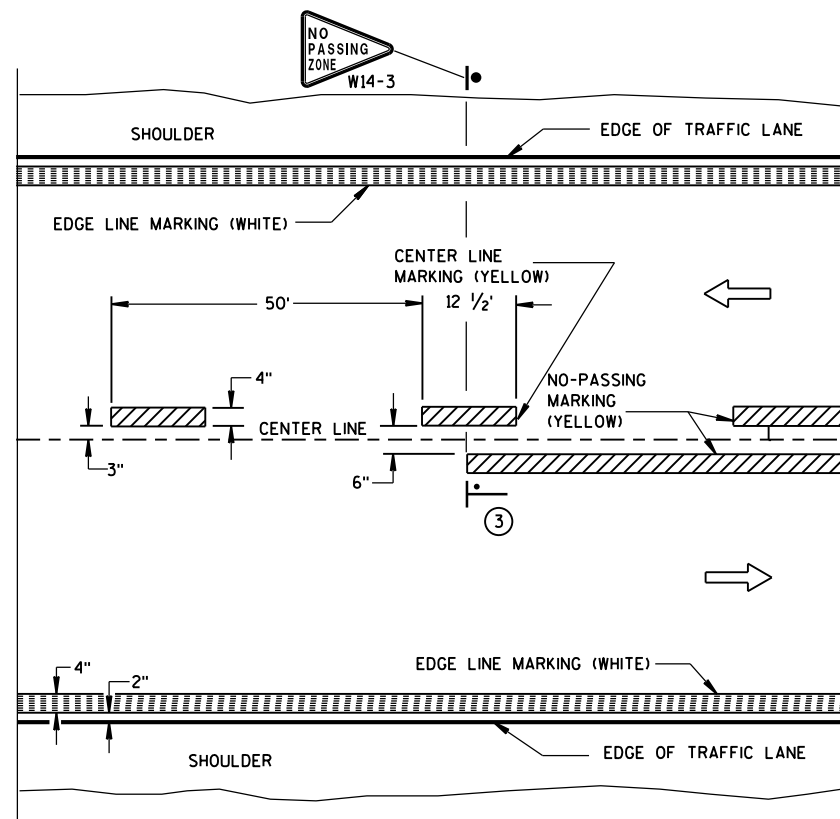
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



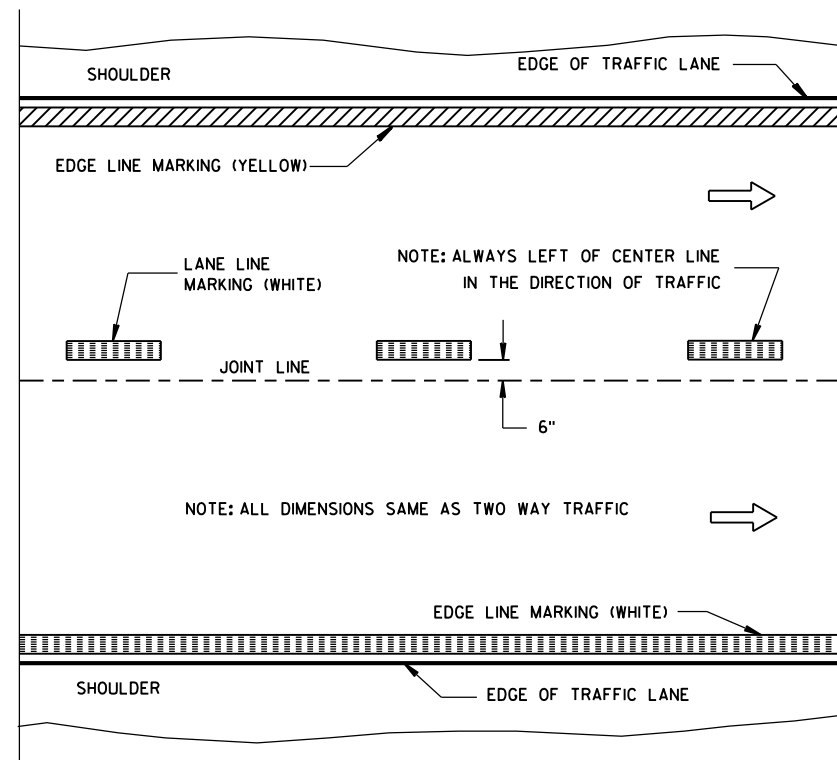
LEGEND

- POST MOUNTED SIGN
- ➡ DIRECTION OF TRAFFIC FLOW

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 5/23/00 DATE	/S/ Chester J. Spang CHIEF SIGNS AND MARKING ENGINEER
FHWA	

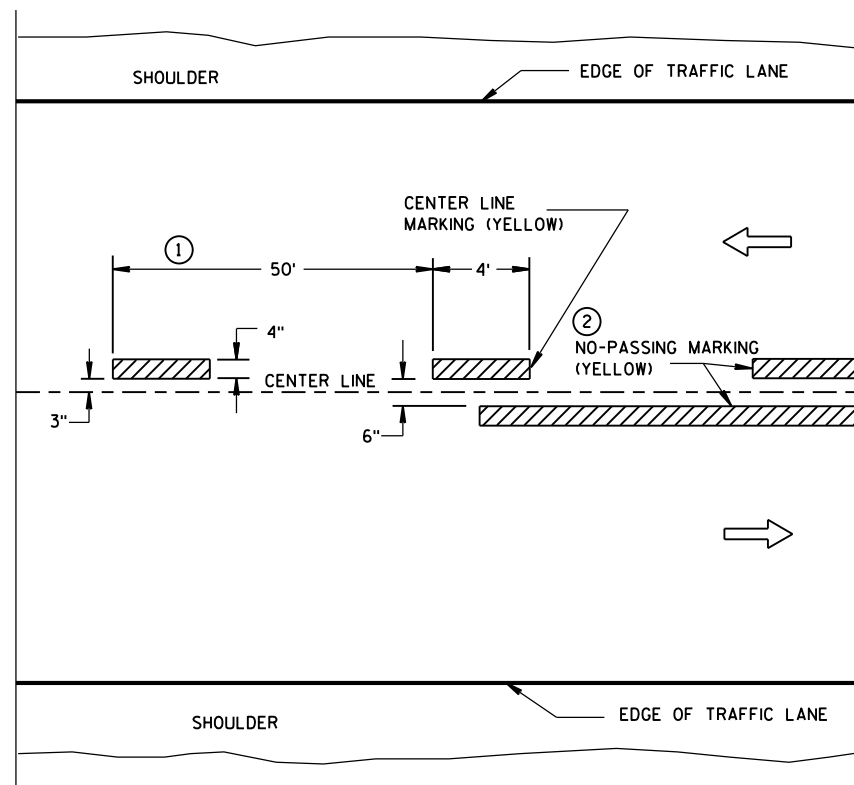


TWO WAY TRAFFIC

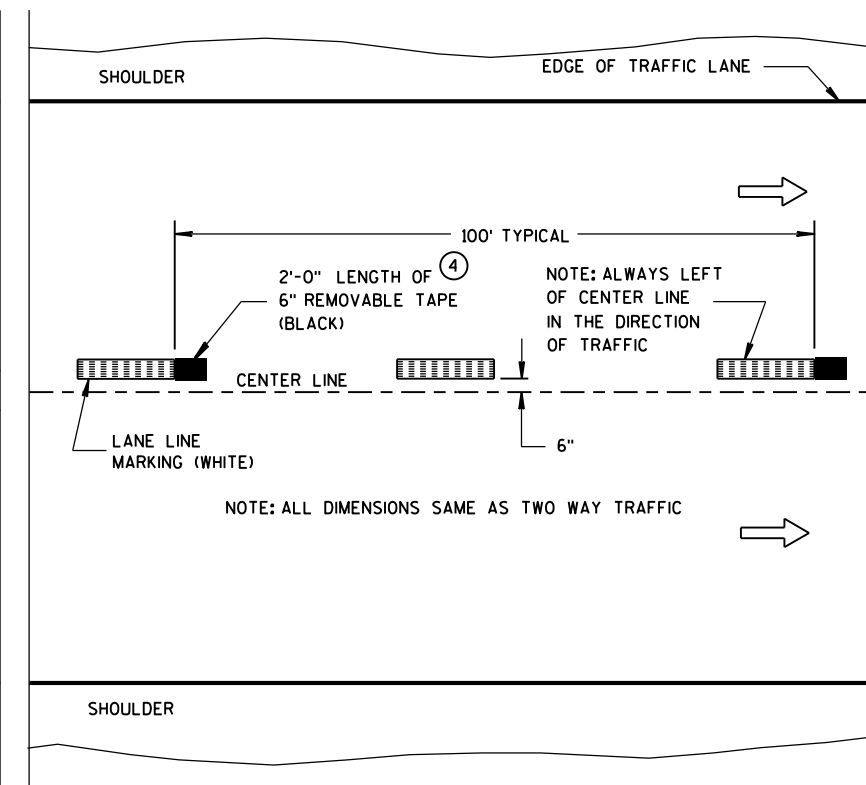


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING
(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

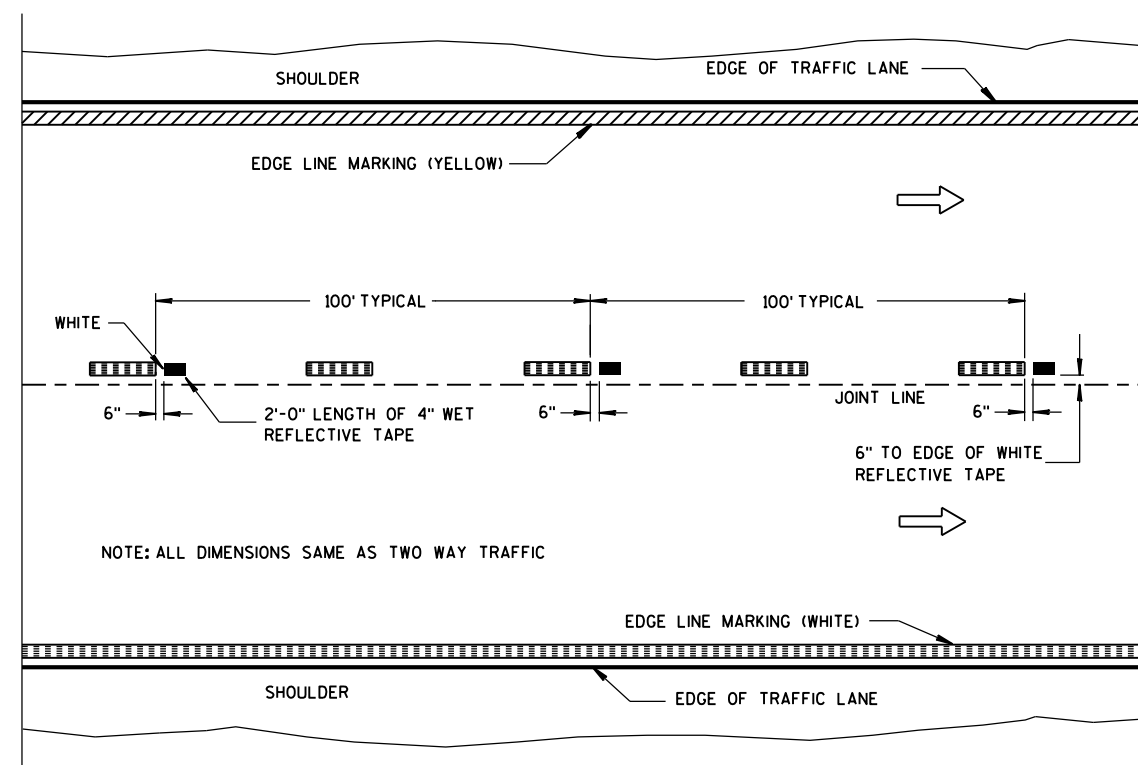
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- ① HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- ② NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
- ③ NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
- ④ CONCRETE ONLY.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

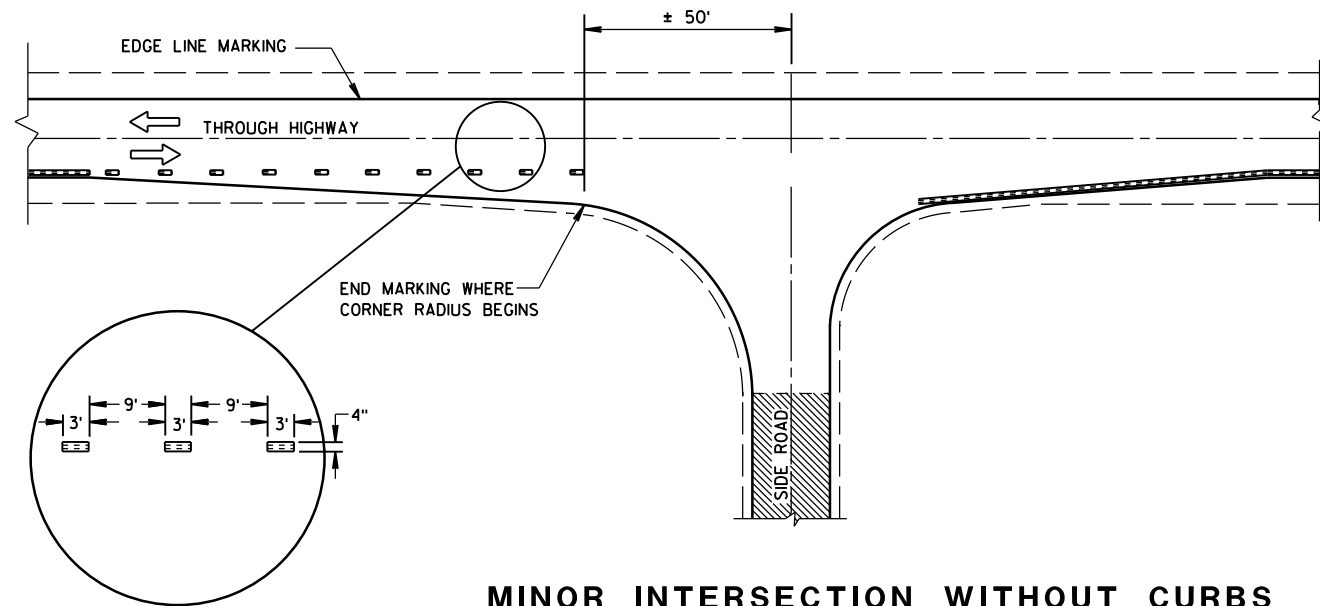
- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013
DATE
FHWA

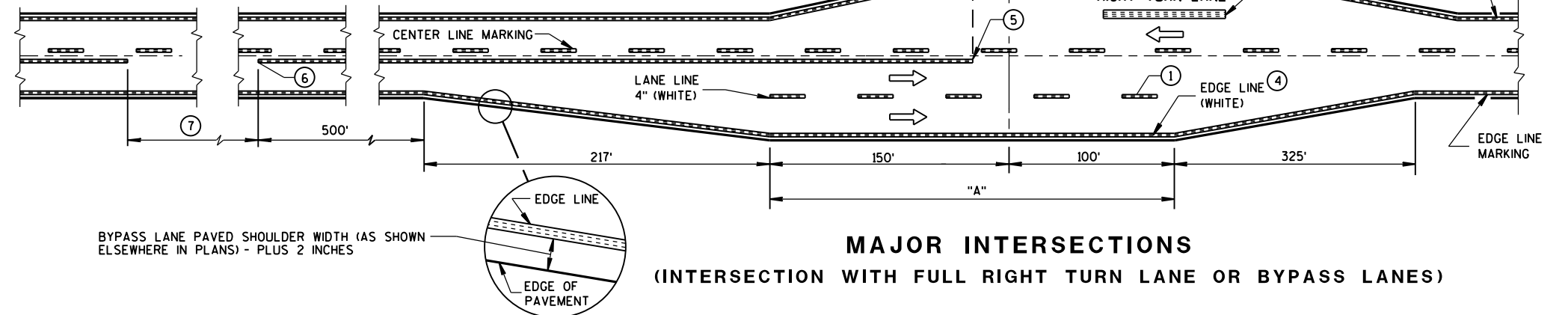
/S/ Travis Feltes
STATE TRAFFIC ENGINEER



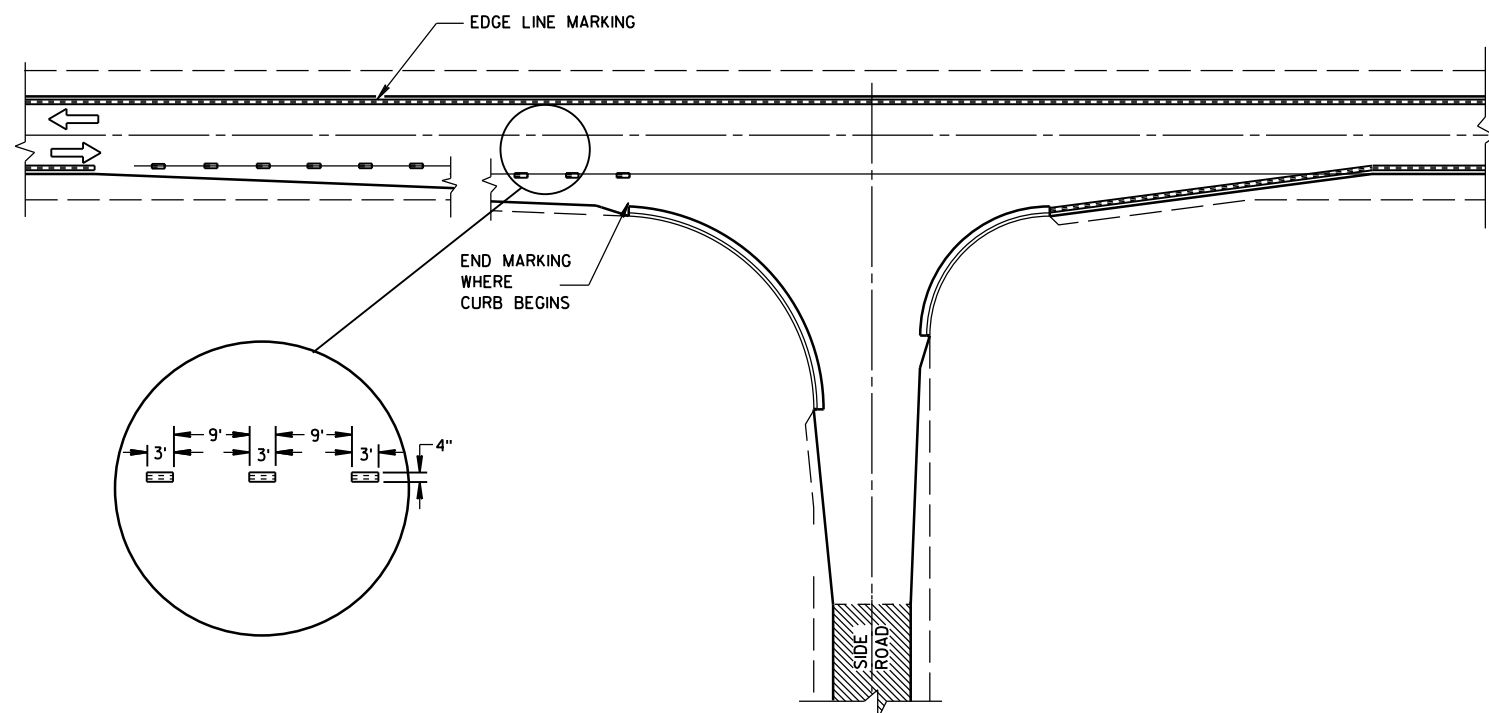
MINOR INTERSECTION WITHOUT CURBS

⑦

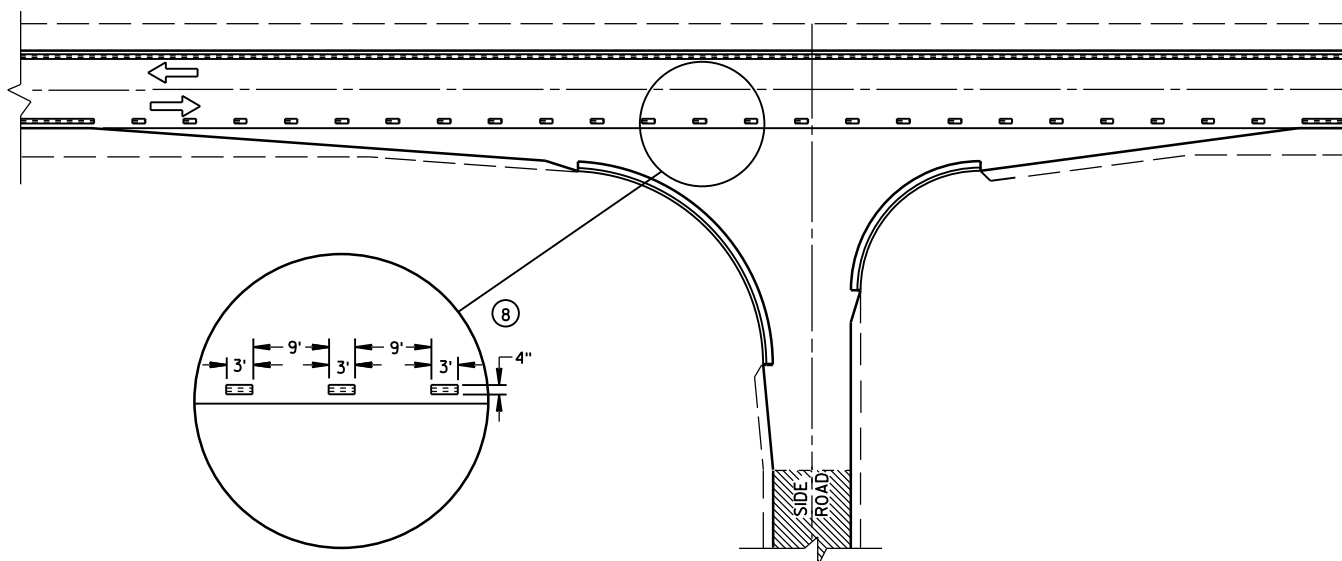
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



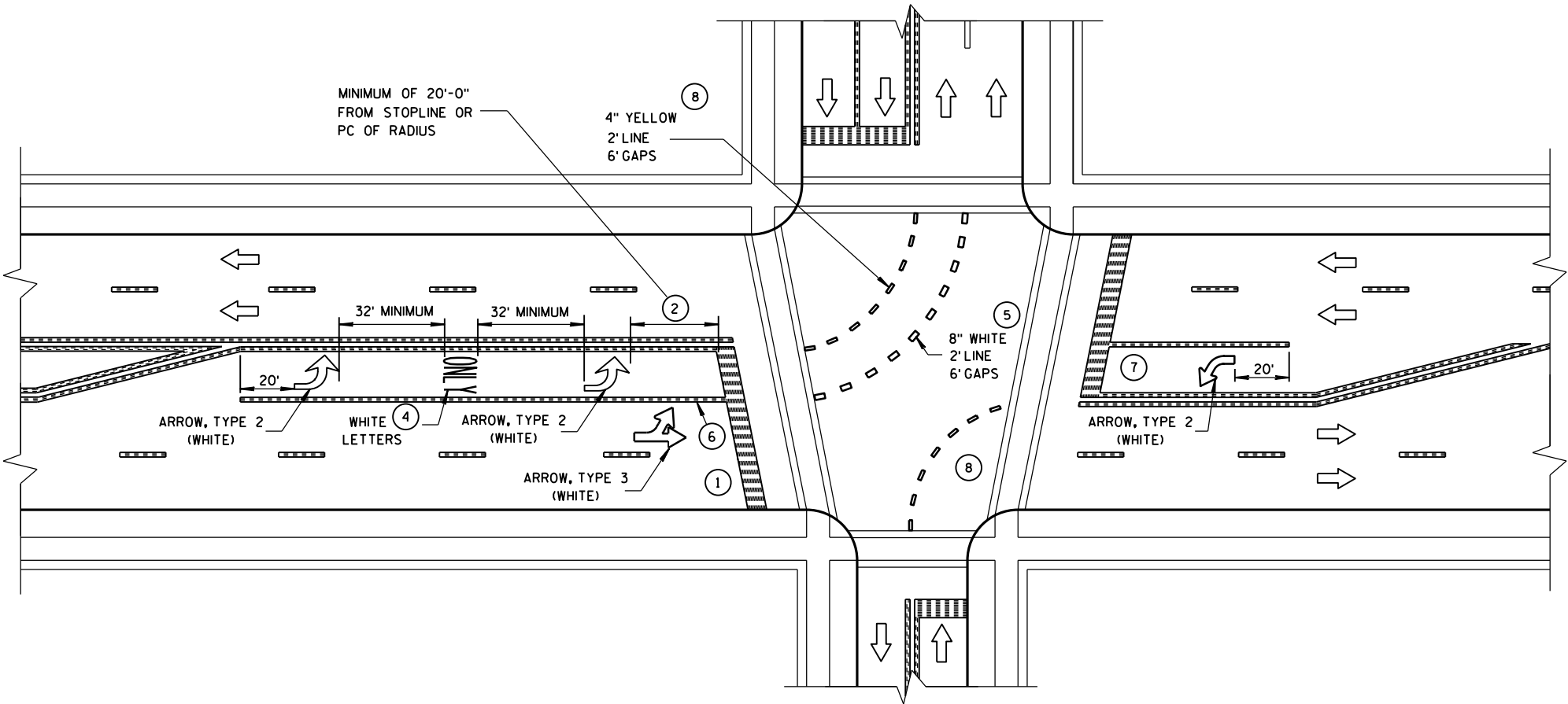
MINOR INTERSECTION WITH CURBS
⑧ (FOR SPECIAL CONDITIONS AS SPECIFIED)

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 ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.
 - ④ THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.
 - ⑤ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
 - ⑥ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
 - ⑦ IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.
 - ⑧ 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

PAVEMENT MARKING
(INTERSECTIONS)

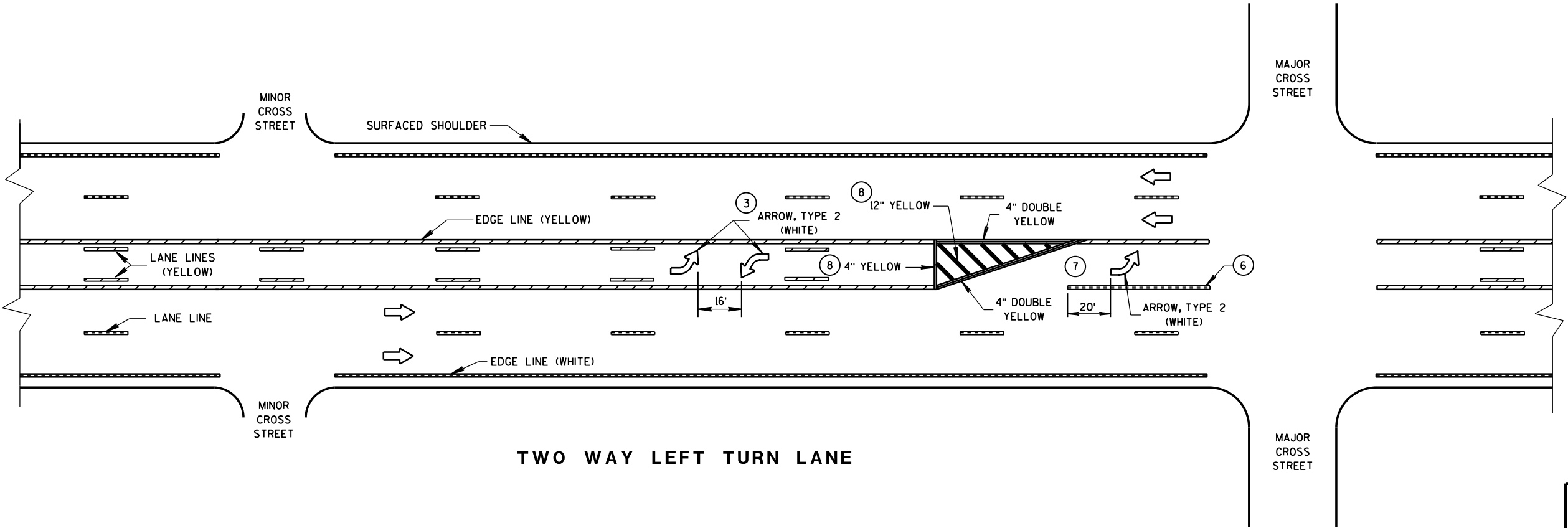
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



GENERAL NOTES

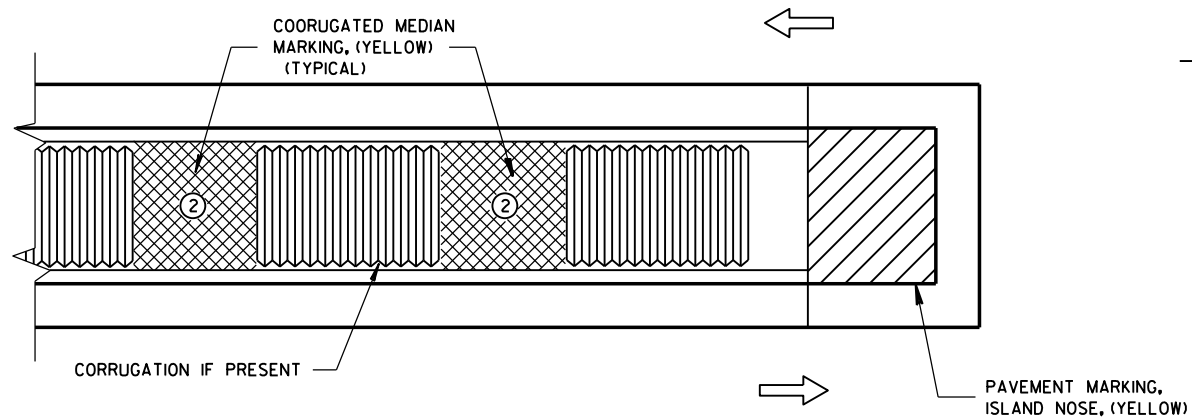
- ① STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- ② DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
- ③ A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ④ ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
- ⑤ 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
- ⑥ 8" WHITE
- ⑦ ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
- ⑧ REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (➡)
SHOWS DIRECTION OF TRAVEL

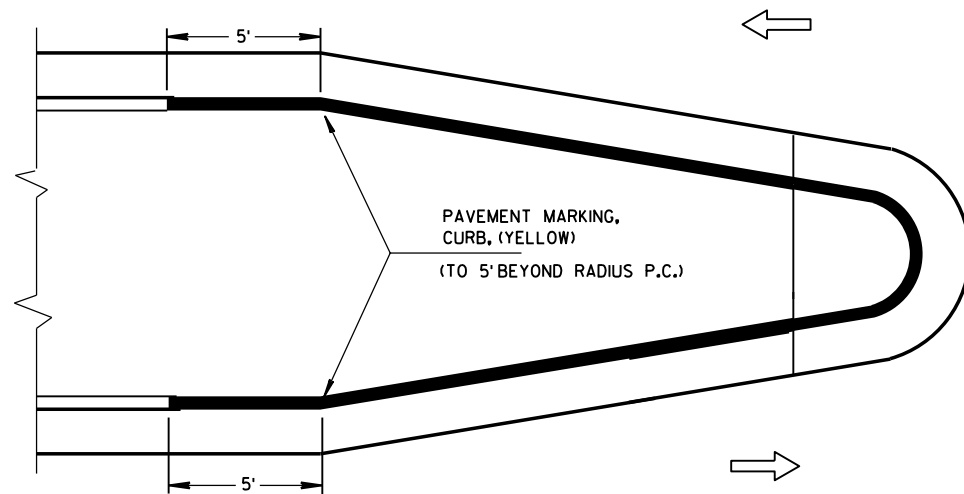


PAVEMENT MARKING
(LEFT TURN LANE)

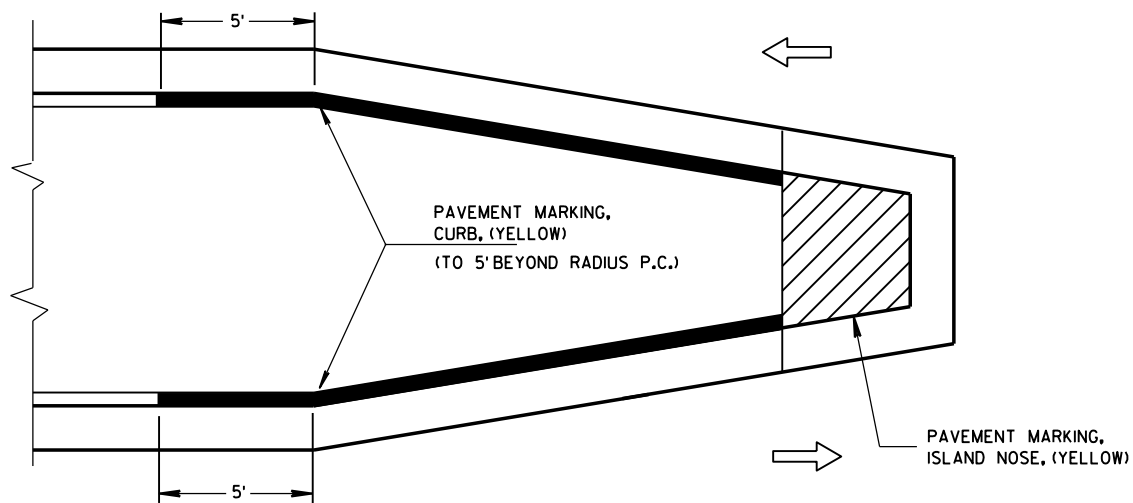
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

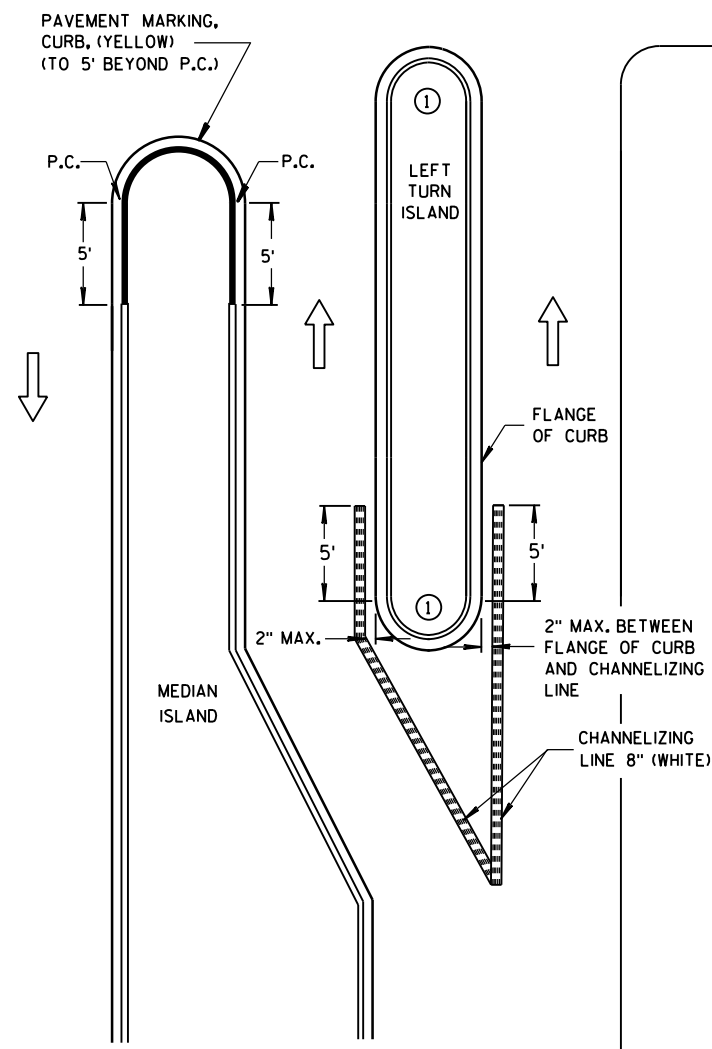


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

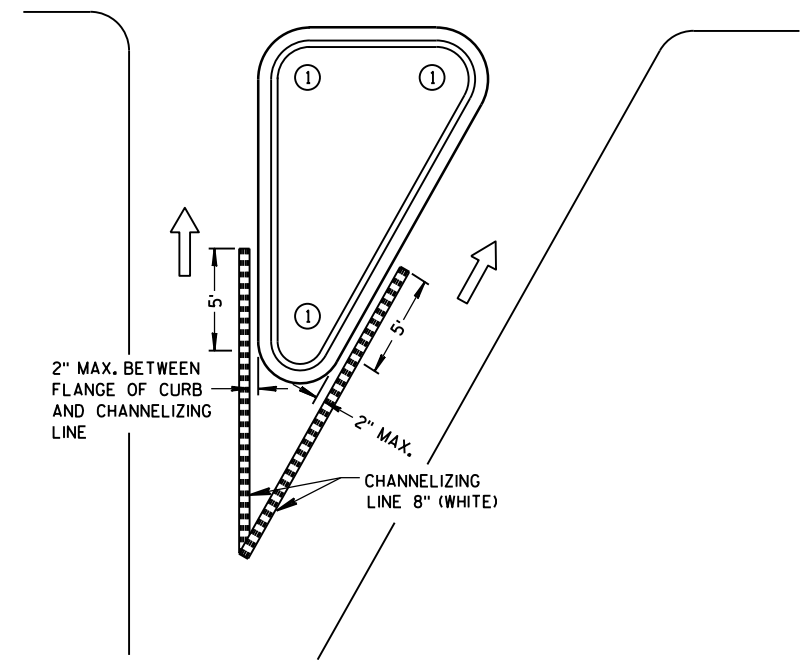
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



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 TRANSPORTATION

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.

ALL SIGNS ARE 48" X 48" 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 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.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

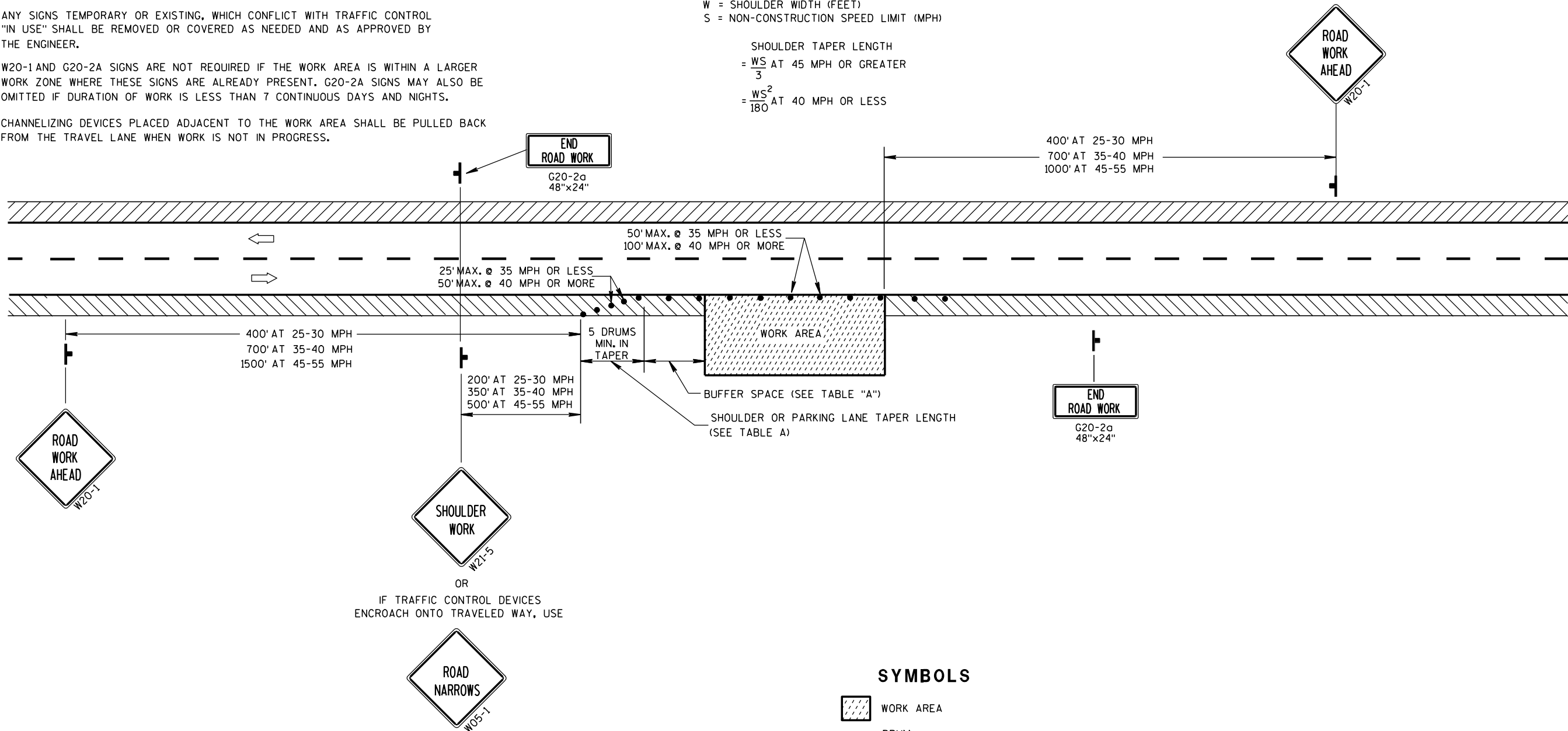
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

S \ W		SHOULDER TAPER LENGTH (FEET)				BUFFER SPACE (FEET)
		4	6	8	10	
30	20	30	40	50		85
35	30	45	55	70		120
40	40	55	75	90		170
45	60	90	120	150		220
50	70	100	135	170		280
55	75	110	150	185		335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
= $\frac{WS}{3}$ AT 45 MPH OR GREATER
= $\frac{WS^2}{180}$ AT 40 MPH OR LESS



SYMBOLS

- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/23/00 DATE	/S/ Chester J. Spang CHIEF SIGNS AND MARKING ENGINEER
FHWA	



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