

NEL APR 07

PROJECT ID: 4984-01-30  
WITH: N/A

COUNTY: WINNEBAGO

**ORDER OF SHEETS**

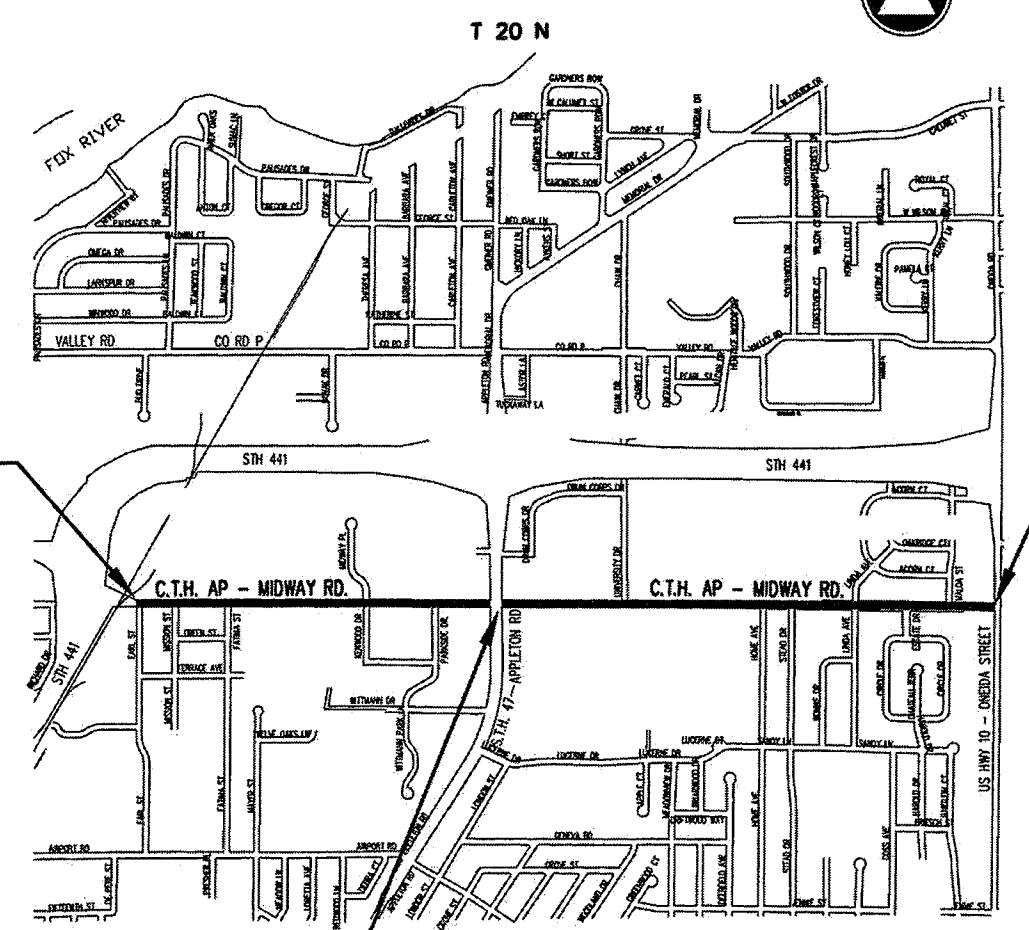
Section No. 1	Title
Section No. 2	Typical Sections and Details
Section No. 3	Estimate of Quantities
Section No. 3	Miscellaneous Quantities
Section No. 4	Right of Way Plot
Section No. 5	Plan and Profile
Section No. 6	Standard Detail Drawings
Section No. 7	Sign Plates
Section No. 8	Structure Plans
Section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

TOTAL SHEETS = 170



**STATE OF WISCONSIN**  
**DEPARTMENT OF TRANSPORTATION**  
**PLAN OF PROPOSED IMPROVEMENT**  
**MIDWAY ROAD, CITY OF MENASHA**  
**USH 10 / ONIEDA ST. - CTH P / RACINE ST.**  
**CTH AP**  
**WINNEBAGO COUNTY**

STATE PROJECT NUMBER  
**4984-01-30**



**BEGIN PROJECT**  
**STA. 29+95.25**  
 N 550601.24  
 E 819136.34

**END PROJECT**  
**STA. 119+83.32**

**DESIGN DESIGNATION**

A.D.T. (2007)	STH 441 TO STH 47	STH 47 TO USH 10
A.D.T. (2027)	= 11,000	= 12,800
D.H.V. (2025)	= 19,500	= 25,500
D.D.	= 1,950	= 2,550
T. (% OF ADT)	= 62-38	= 62-38
DESIGN SPEED	= 6.7	= 6.7
	= 35 M.P.H.	= 35 M.P.H.

**CONVENTIONAL SYMBOLS**

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

TOTAL NET LENGTH OF CENTERLINE = 1.677 MI.

Coordinates on this plan are referenced to the Wisconsin County Coordinate System, Winnebago County.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4984-01-30	STP 2007254	1

ACCEPTED FOR  
 WINNEBAGO COUNTY  
 DATE: 10/19/06  
 SIGNATURE: John M. Hesse

ORIGINAL PLANS PREPARED BY  
McMAHON ASSOCIATES INC.



DATE: 10-19-06  
 SIGNATURE: Michael R. Simon

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY  
 SURVEYOR: McMAHON ASSOCIATES, INC.  
 DESIGNER: McMAHON ASSOCIATES, INC.  
 MANAGEMENT CONSULTANT: SEH  
 C.O. EXAMINER: [Signature]

APPROVED FOR DISTRICT OFFICE  
 DATE: 10/31/2006  
 SIGNATURE: [Signature]

UTILITIES

APPLETON AREA METROPOLITAN FIBER OPTIC NETWORK (AAMFON)

KEVIN VELDMAN  
120 EAST HARRIS STREET  
PO BOX 2019  
APPLETON, WI 54911  
(920) 993-7062 EXT. 2128  
CELL 920-419-7338

AT&T WISCONSIN

CHRIS SABOURIN  
221 W. WASHINGTON STREET  
4TH FLOOR  
APPLETON, WI 54913  
(920) 735-3252; FAX (920)-735-3073

AT&T WISCONSIN

JOHN KOTZ  
TELEPORT COMMUNICATIONS GROUP  
OUTAGAMIE, WINNEBAGO, CALUMET COUNTIES FIBER OPTIC  
2152 SOUTH 114TH STREET  
SUITE A  
WEST ALLIS, WI 53227  
(414) 290-9827

MENASHA UTILITIES

GREG SHULL  
321 MILWAUKEE STREET  
PO BOX 340  
MENASHA, WI 54952-0340  
(920) 967-0011; CELL (920)-475-4733; FAX (920) 967-4815

TDS METROCOM

STEVE JAKUBIEC  
W6174 AEROTECH DRIVE  
SUITE A  
APPLETON, WI 54914  
(920) 882-3342; CELL (920)-562-7221; FAX (920)-882-3340

TIME WARNER CABLE

LARRY PHILSTROM  
1001 KENNEDY AVE.  
KIMBERLY, WI 54136-0145  
(920) 831-9211; FAX (920) 749-1154

TOWN OF MENASHA UTILITY DISTRICT

STEVE LAABS (SANITARY SEWER)  
JEFF ROTH (WATER)  
2340 AMERICAN DRIVE  
NEENAH, WI 54956  
(920) 739-5120

WISCONSIN ELECTRIC POWER CO. D/B/A/ WE ENERGIES

DAN SANDE  
333 W. EVERETT ST.  
ROOM A279  
MILWAUKEE, WI 53203-2998  
(414) 221-4578; FAX (414) 221-2336  
\*\*PRIMARY CONTACT ALL CORRESPONDENCE GAS AND ELECTRIC\*\*

DIGGERS HOTLINE

**TOLL FREE (800) 242-8511**  
Milwaukee Area (414) 259-1181  
Hearing Impaired TDD (800) 542-2289  
**www.DiggersHotline.com**

DNR LIAISON

DEPARTMENT OF NATURAL RESOURCES  
2984 SHAWANO AVENUE  
P.O. BOX 10448  
GREEN BAY, WI 54307-0448  
ATTENTION: SHELLY SCHAEZT  
(920) 492-5819

DESIGN CONTACT

MIKE SIMON  
McMAHON ASSOCIATES  
1445 McMAHON DRIVE  
NEENAH, WI 54956  
(920) 751-4200

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**GENERAL NOTES**

ELEVATIONS SHOWN ON THE PLAN ARE BASED ON CITY AND TOWN OF MENASHA VERTICAL DATUM.

BEARINGS AND COORDINATES SHOWN ON THIS PLAN ARE REFERENCED TO THE WINNEBAGO COUNTY COORDINATE SYSTEM. DISTANCES SHOWN ARE GROUND DISTANCES.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY FACILITIES AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

WHEN THE QUANTITIES OF BASE AGGREGATE DENSE, BREAKER RUN AND HMA PAVEMENT ARE MEASURED FOR PAYMENT BY THE TON, THE THICKNESS AS SHOWN ON THE TYPICAL SECTIONS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND UPON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER IN THE FIELD.

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

MAXIMUM DRIVEWAY SLOPE SHALL BE 10%, EXCEPT WHERE MATCHING THE FRONT OF SIDEWALK. AT LOCATIONS WHERE MATCHING THE FRONT OF SIDEWALK, THE MAXIMUM ALLOWABLE SLOPE WILL BE 15% EXCEPT FOR THE DRIVEWAYS LOCATED AT STA. 95+08 LT. AND 96+24 LT. WINNEBAGO COUNTY HAS APPROVED A MAXIMUM SLOPE OF 20% FOR THE DRIVEWAYS LOCATED AT STA. 95+08 LT. AND 96+24 LT.

CURB HEIGHTS AT THE END OF CURB AND GUTTER SECTIONS ON SIDEROADS AND MAINLINE SHALL BE TAPERED FROM 6" TO 0" IN 3 FEET.

THE EXACT LOCATION OF ALL EROSION CONTROL ITEMS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL RADII SHOWN ON THE PLAN SHEETS ARE TO THE BACK OF CURB.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT SHOWN ON THE CROSS SECTIONS. IF EBS IS REQUIRED, IT SHALL BE PAID FOR AS COMMON EXCAVATION. EBS AREAS WILL BE BACK FILLED WITH BREAKER RUN. EXACT LOCATIONS OF EBS WILL BE DETERMINED BY THE ENGINEER.

THE PAVEMENT SECTION FOR ASPHALTIC DRIVEWAYS AND PARKING LOT TRANSITIONS SHALL CONSIST OF 4-INCHES OF ASPHALTIC SURFACE AND 12-INCHES OF BASE AGGREGATE DENSE, 1 1/4 INCH. THE ASPHALTIC SURFACE SHALL BE CONSTRUCTED IN TWO LIFTS, 2-INCH UPPER LAYER AND 2-INCH LOWER LAYER.

CONCRETE PAVEMENT JOINTS IN ADDITION TO THOSE REQUIRED TO MEET THE SPACING REQUIREMENTS OF THE STANDARD DETAIL DRAWING FOR URBAN DOWELED CONCRETE PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE ITEM CONCRETE PAVEMENT 9-INCH. THIS INCLUDES ALL ADDITIONAL JOINTS REQUIRED AT INTERSECTIONS, MANHOLES, INLETS, VALVES AND OTHER APPURTENANCES LOCATED WITHIN THE PAVEMENT LIMITS.

THE ELEVATIONS SHOWN ON THE ROADWAY CROSS SECTIONS ARE FINISHED SUBGRADE ELEVATIONS AT THE CENTERLINE, AT THE SUBGRADE EXCAVATION LIMITS TWO FEET BEHIND THE PROPOSED CURB AND GUTTER, AND AT THE SLOPE INTERCEPTS.

THE EXACT LIMITS OF CONCRETE, ASPHALT OR GRAVEL DRIVEWAY REMOVALS AND REPLACEMENT, AND CONCRETE OR ASPHALT SIDEWALK REMOVAL AND REPLACEMENT SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE PAVEMENT SECTION FOR ASPHALT SIDEWALK REPLACEMENT AREAS SHALL CONSIST OF 2-INCHES OF ASPHALTIC SURFACE AND 6-INCHES OF BASE AGGREGATE DENSE 1 1/4-INCH.

CONCRETE APPROACHES AND DRIVEWAY AREAS SHALL CONSIST OF 7-INCHES CONCRETE AND 6-INCHES BASE AGGREGATE 1 1/4-INCH.

ALL DISTURBED AREAS NOT OTHERWISE SURFACED SHALL BE TOPSOILED, FERTILIZED, SEEDED AND MULCHED.

THE EXACT LOCATION AND LIMITS OF PRIVATE AND COMMERCIAL ENTRANCES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

FILL AS SHOWN ON THE PLAN PERTAINS TO EMBANKMENT CONSTRUCTED FROM COMMON EXCAVATION. THE FACTOR USED FOR EXPANDING THE FILLS TO COMPLETE THE VOLUME OF MATERIAL REQUIRED IS 30% FOR COMMON EXCAVATION.

THE RIGHT OF WAY LIMITS AS SHOWN ON THE PLANS ARE BASED ON AVAILABLE SURVEY RECORDS. NO TITLE POLICY INVESTIGATIONS WERE COMPLETED FOR THE PROJECT. IN AREAS WHERE THE EXISTING SIDEWALK IS LOCATED OUTSIDE THE RIGHT OF WAY LIMITS AS SHOWN ON THE PLANS, THE SIDEWALK IS CONSIDERED TO BE PUBLIC RIGHT OF WAY IN ACCORDANCE WITH WISCONSIN STATE STATUTES, CHAPTER 893, SECTION 28.

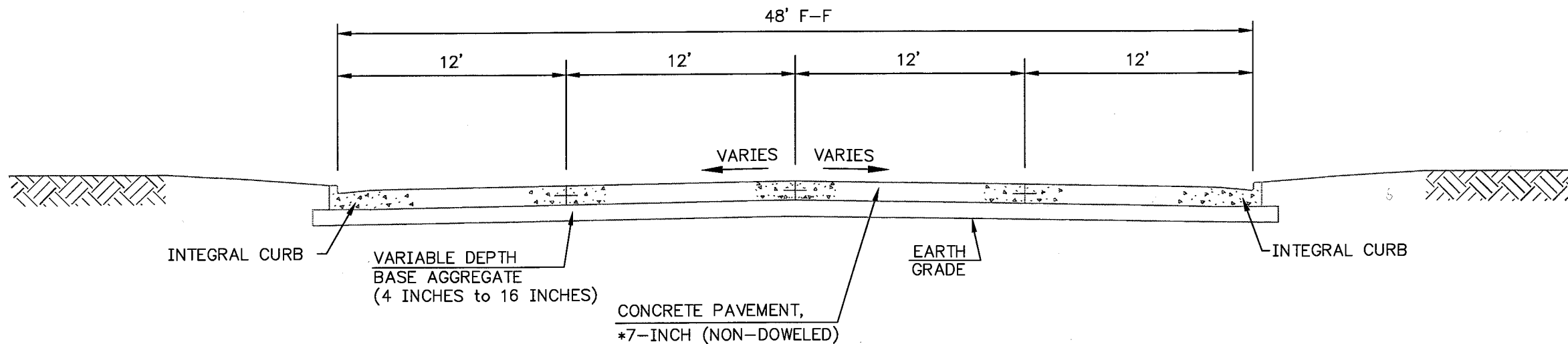
THE EXACT LOCATION AND LIMITS OF GEOGRID PLACE SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

CONCRETE SIDEWALK AREAS SHALL CONSIST OF 4-INCHES CONCRETE AND 4-INCHES BASE AGGREGATE DENSE 1 1/4-INCH.

**STANDARD ABBREVIATIONS AND SYMBOLS**

ADJ.	ADJUST	P.G.L.	PROFILE GRADE LINE
ASPH	ASPHALT	P.I.	POINT OF INTERSECTION
AVE.	AVENUE	P.T.	POINT OF TANGENCY
⊙	BENCH MARK	P.V.C.	POINT OF VERTICAL CURVATURE
B-B	BACK TO BACK OF CURB	P.V.I.	POINT OF VERTICAL INTERSECTION
☉ or CL	CENTERLINE	P.V.T.	POINT OF VERTICAL TANGENCY
CONC.	CONCRETE	P/L	PROPERTY LINE
C.M.P.	CORRUGATED METAL CULVERT PIPE	PVT.	PAVEMENT
C.T.H.	COUNTY TRUNK HIGHWAY	PED.	PEDESTAL
CL.	CLASS	R	RADIUS
Δ	DELTA	R.C.P.	REINFORCED CONCRETE PIPE
D.	DEGREE OF CURVE	RECON.	RECONSTRUCT
DW	DRIVEWAY	REQ'D	REQUIRED
E.	EAST	R/L	REFERENCE LINE
ELEV	ELEVATION	REM.	REMOVE
EOR	END OF RADIUS	R/W	RIGHT OF WAY
EXIST.	EXISTING	RD.	ROAD
F-F	FACE TO FACE OF CURB	RT.	RIGHT
FL	FLOWLINE	S.	SOUTH
GRAV	GRAVEL	SAN	SANITARY SEWER
GV	GAS VALVE	SB	SOUTH BOUND
HMA	HMA	S.D.D.	STANDARD DETAIL DRAWING
H.P.	HIGH POINT	S.I.	SLOPE INTERCEPT
HYD.	HYDRANT	STA.	STATION
L	LENGTH OF CURVE	S.T.H.	STATE TRUNK HIGHWAY
L.V.C.	LENGTH OF VERTICAL CURVE	STA.	STATION
L.S.	LANDSCAPING	SW	CONCRETE SIDEWALK
LT.	LEFT	T.I.	TEMPORARY INTEREST
MH	MANHOLE	TYP.	TYPICAL
MAX	MAXIMUM	V.C.	VERTICAL CURVE
MIN	MINIMUM	W	WATERMAIN
NB	NORTH BOUND	WV	WATER VALVE/SHUTOFF
NO.	NUMBER	☉	HYDRANT W/AUXILIARY VALVE
NOR.	NORMAL	⊙	LIGHT POLE
P.E.	PRIVATE ENTRANCE		

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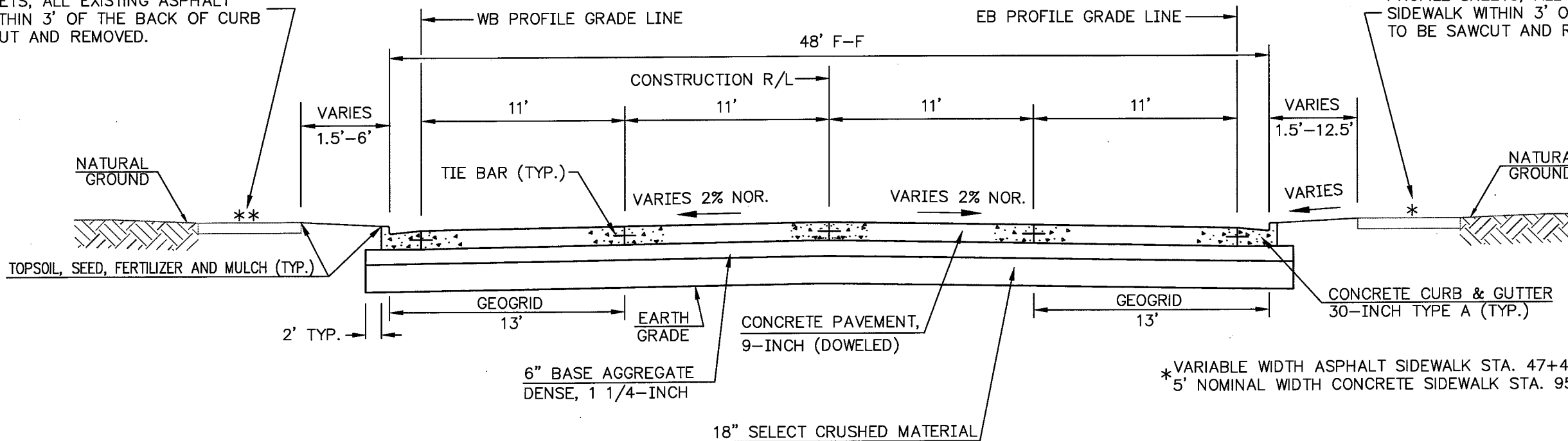


\*BORINGS INDICATE THAT THE CONCRETE PAVEMENT THICKNESS RANGES FROM 6 TO 8 INCHES.

**EXISTING TYPICAL SECTION FOR C.T.H. AP  
S.T.H. 441 TO U.S.H. 10**

UNLESS OTHERWISE NOTED ON THE PLAN / PROFILE SHEETS, ALL EXISTING ASPHALT SIDEWALK WITHIN 3' OF THE BACK OF CURB TO BE SAWCUT AND REMOVED.

UNLESS OTHERWISE NOTED ON THE PLAN / PROFILE SHEETS, ALL EXISTING ASPHALT SIDEWALK WITHIN 3' OF THE BACK OF CURB TO BE SAWCUT AND REMOVED.



\* VARIABLE WIDTH ASPHALT SIDEWALK STA. 47+49 RT. - 54+07 RT.  
\* 5' NOMINAL WIDTH CONCRETE SIDEWALK STA. 95+99 RT. - 119+83 RT.

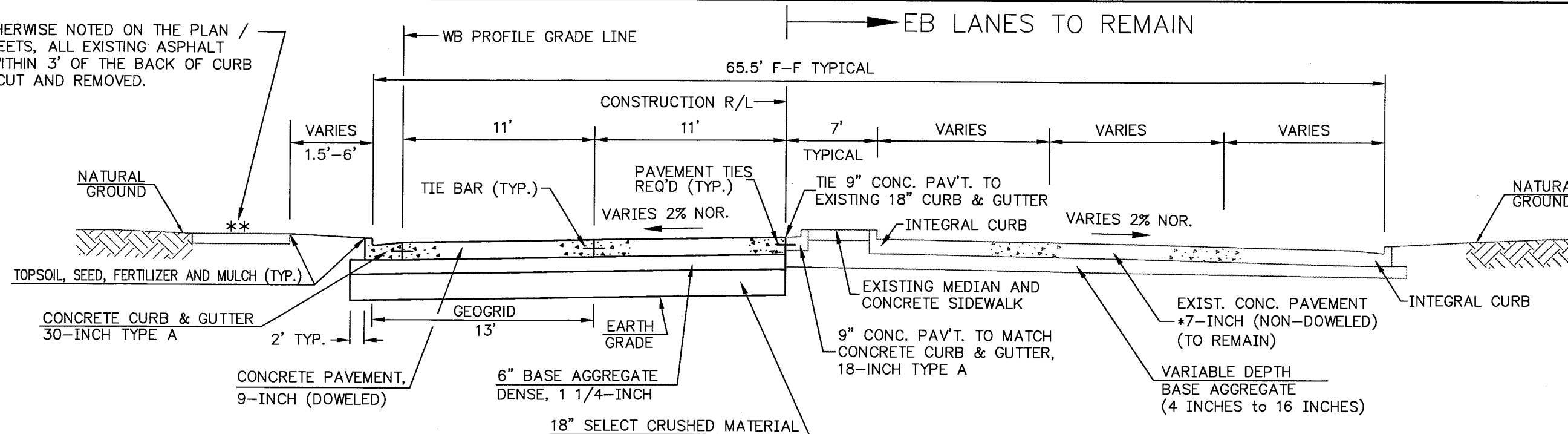
\*\* VARIABLE WIDTH ASPHALT SIDEWALK STA. 54+68 LT. - 67+25 LT.  
\* 5' NOMINAL WIDTH CONCRETE SIDEWALK STA. 68+40 LT. - 105+18 LT.

**PROPOSED TYPICAL SECTION FOR MIDWAY ROAD (C.T.H. AP)**

STA. 29+95.25 - STA. 60+95.54  
STA. 73+82.01 - STA. 119+50

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UNLESS OTHERWISE NOTED ON THE PLAN / PROFILE SHEETS, ALL EXISTING ASPHALT SIDEWALK WITHIN 3' OF THE BACK OF CURB TO BE SAWCUT AND REMOVED.



\*\*

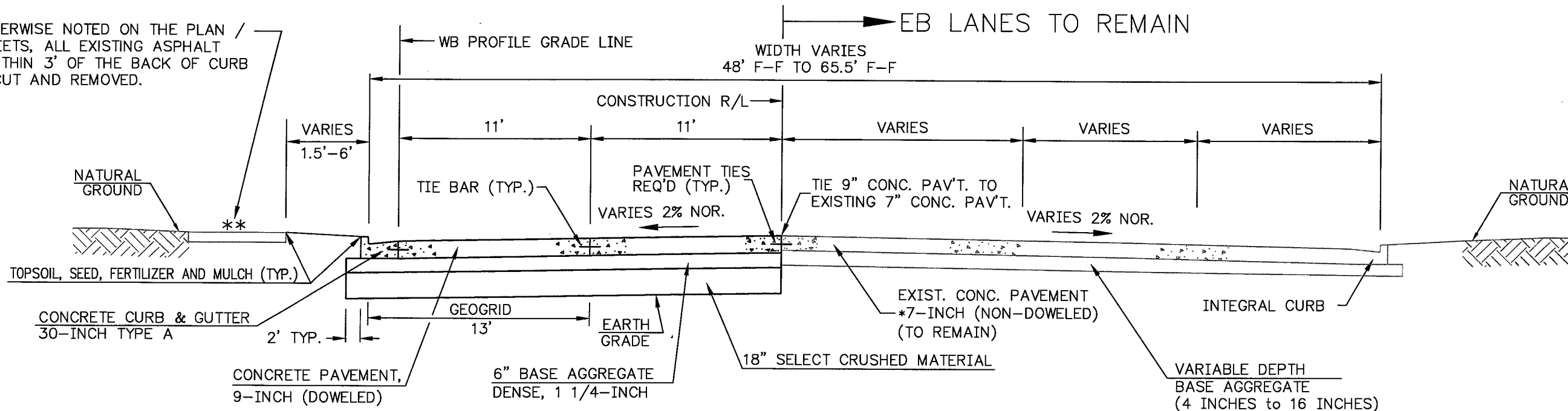
VARIABLE WIDTH ASPHALT SIDEWALK STA. 54+68 LT. - 67+25 LT.  
5' NOMINAL WIDTH CONCRETE SIDEWALK STA. 68+40 LT. - 105+18 LT.

\*BORINGS INDICATE THAT THE CONCRETE PAVEMENT THICKNESS RANGES FROM 6 TO 8 INCHES.

**PROPOSED TYPICAL SECTION FOR MIDWAY ROAD (C.T.H. AP)**

STA. 65+80.12 - STA. 67+06.77

UNLESS OTHERWISE NOTED ON THE PLAN / PROFILE SHEETS, ALL EXISTING ASPHALT SIDEWALK WITHIN 3' OF THE BACK OF CURB TO BE SAWCUT AND REMOVED.

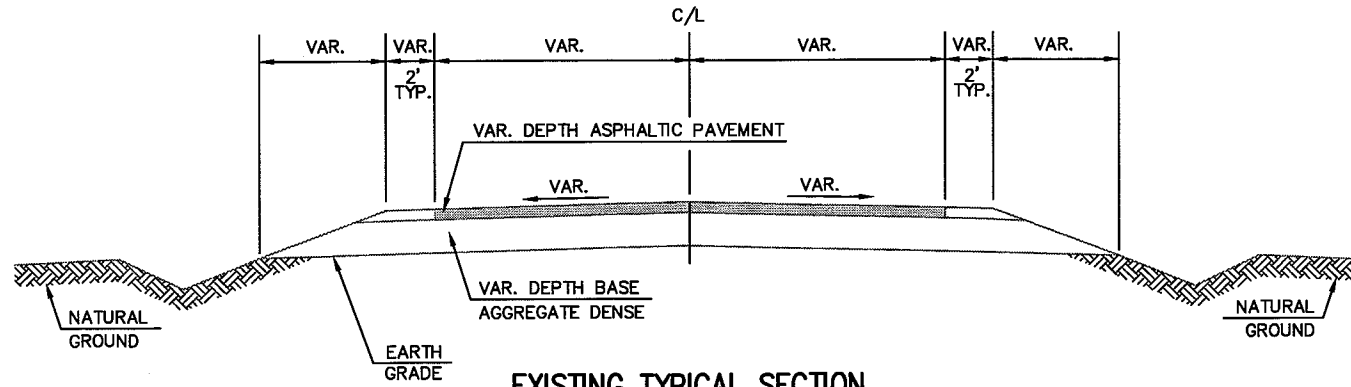


\*\* VARIABLE WIDTH ASPHALT SIDEWALK STA. 54+68 LT. - 67+25 LT.  
5' NOMINAL WIDTH CONCRETE SIDEWALK STA. 68+40 LT. - 105+18 LT.

\*BORINGS INDICATE THAT THE CONCRETE PAVEMENT THICKNESS RANGES FROM 6 TO 8 INCHES.

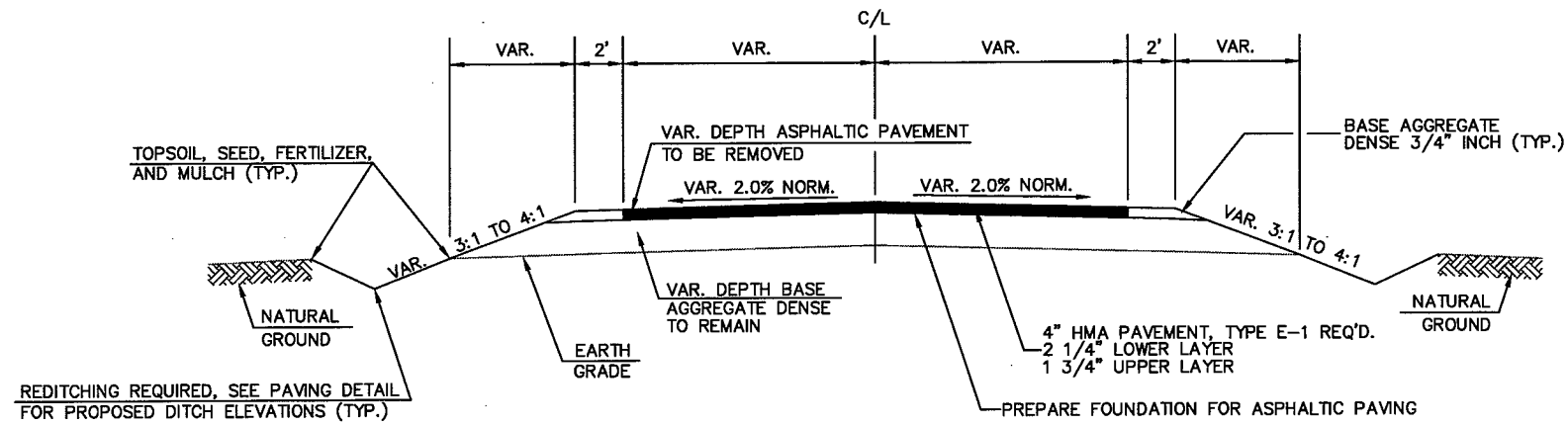
**PROPOSED TYPICAL SECTION FOR MIDWAY ROAD (C.T.H. AP)**

STA. 60+95.54 - STA. 65+80.12  
STA. 68+39.60 - STA. 73+82.01



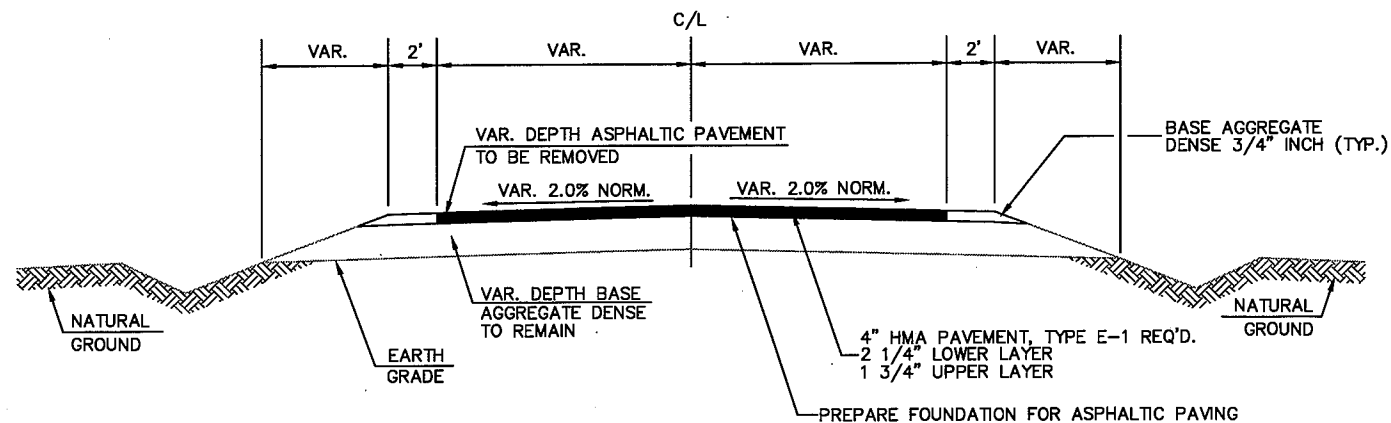
**EXISTING TYPICAL SECTION**

FOR:  
 EARL ST. HOME AVE.  
 MISSION ST. STEAD DR.  
 FATIMA ST. LINDA ST.  
 UNIVERSITY DR. MALOA ST.



**PROPOSED TYPICAL SECTION**

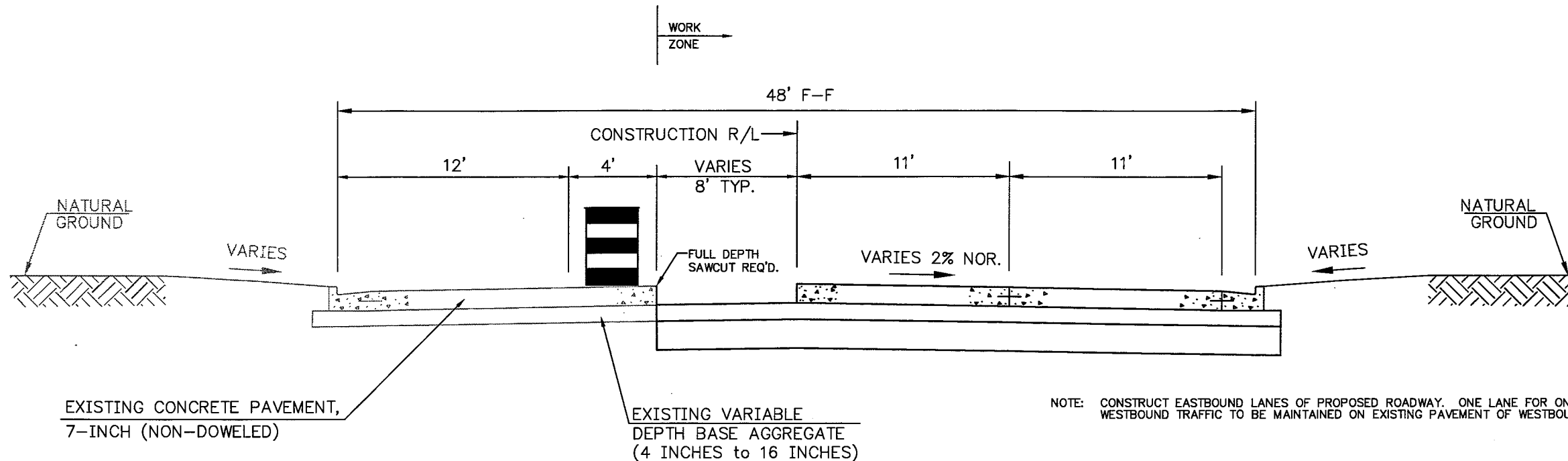
FOR:  
 EARL ST.



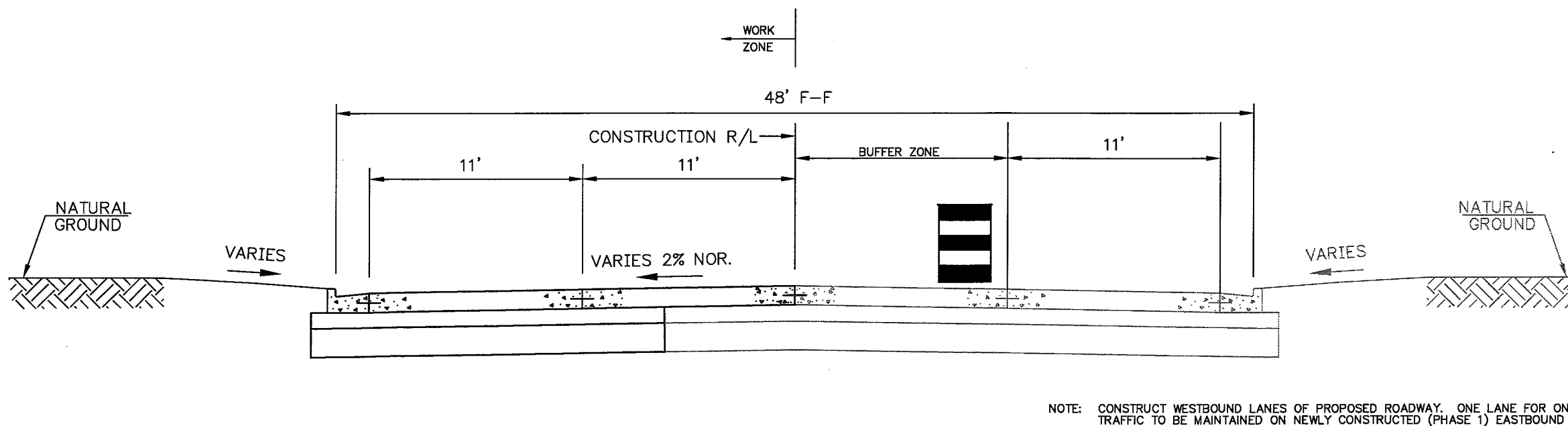
**PROPOSED TYPICAL SECTION**

FOR:  
 MISSION ST. STEAD DR.  
 FATIMA ST. LINDA ST.  
 UNIVERSITY DR. MALOA ST.  
 HOME AVE.

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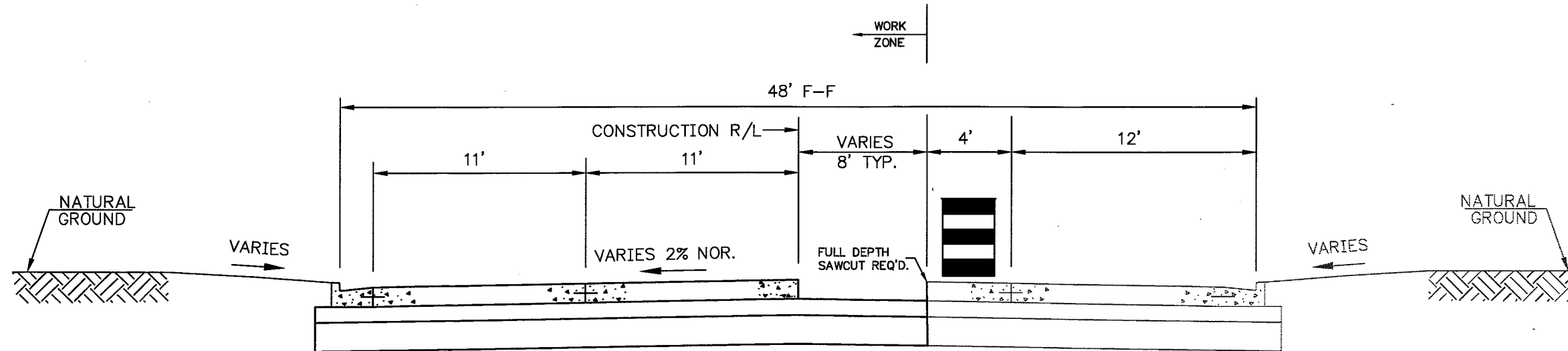


**PHASE 1 TYPICAL SECTION FOR C.T.H. AP  
S.T.H. 47 TO U.S.H. 10**



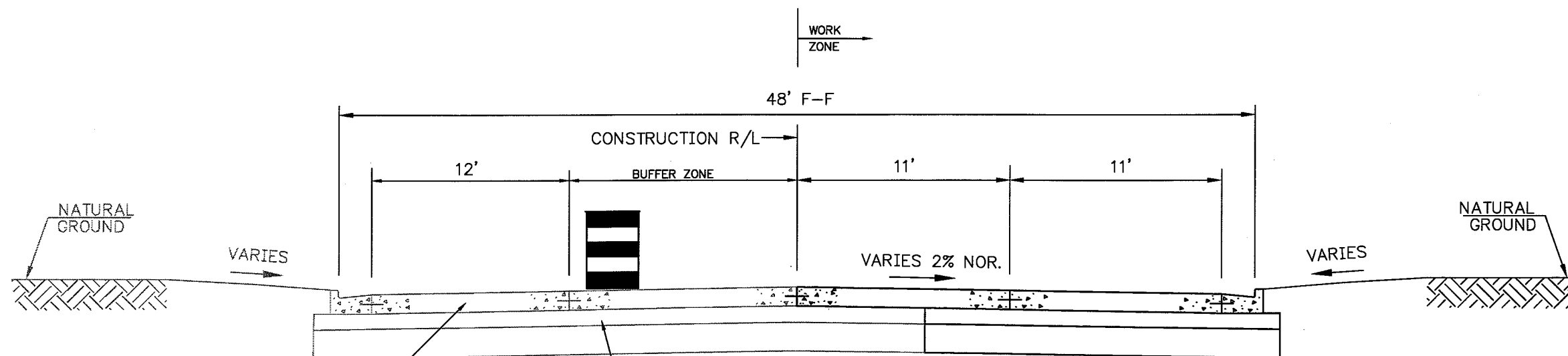
**PHASE 2 TYPICAL SECTION FOR C.T.H. AP  
S.T.H. 47 TO U.S.H. 10**

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NOTE: CONSTRUCT WESTBOUND LANES OF PROPOSED ROADWAY. ONE LANE FOR ONE WAY EASTBOUND TRAFFIC TO BE MAINTAINED ON EXISTING PAVEMENT OF EASTBOUND LANES.

**PHASE 3 TYPICAL SECTION FOR C.T.H. AP  
S.T.H. 441 TO S.T.H. 47**



EXISTING CONCRETE PAVEMENT,  
7-INCH (NON-DOWELED)

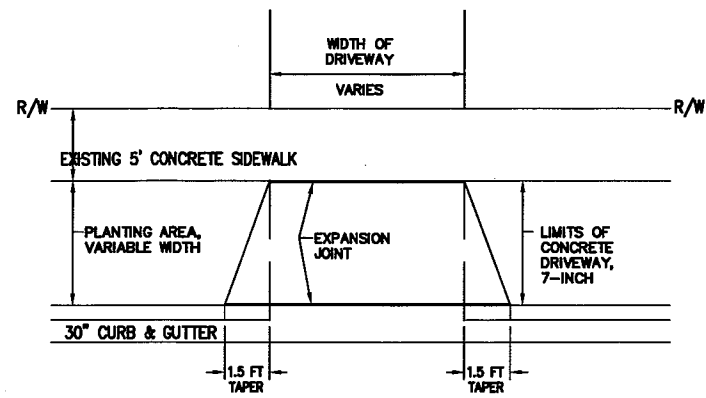
EXISTING VARIABLE  
DEPTH BASE AGGREGATE  
(4 INCHES TO 16 INCHES)

NOTE: CONSTRUCT EASTBOUND LANES OF PROPOSED ROADWAY. ONE LANE FOR ONE WAY WESTBOUND TRAFFIC TO BE MAINTAINED ON NEWLY CONSTRUCTED (PHASE 3) WESTBOUND LANES.

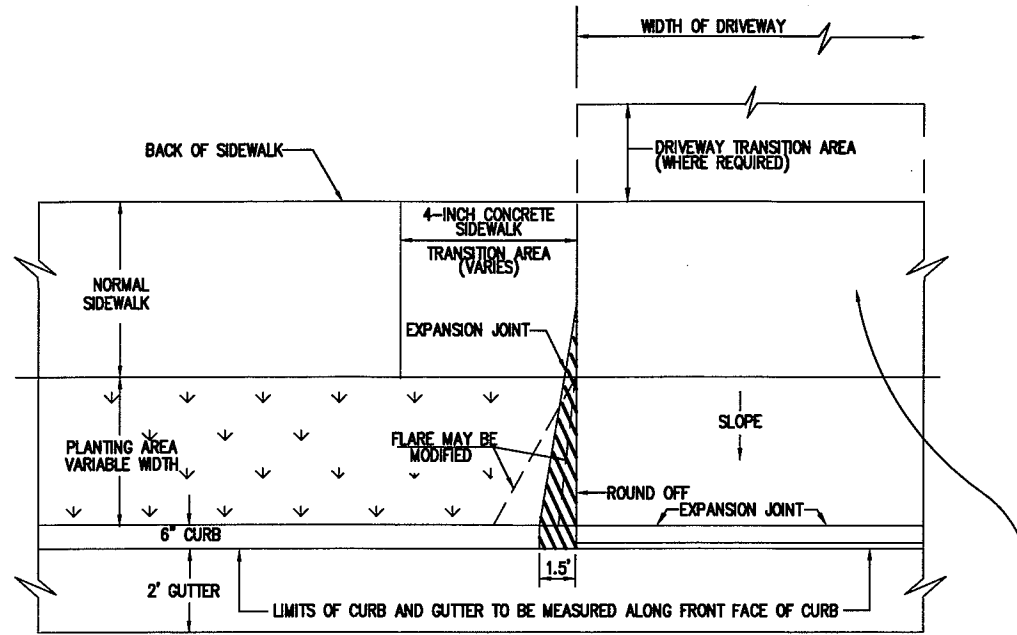
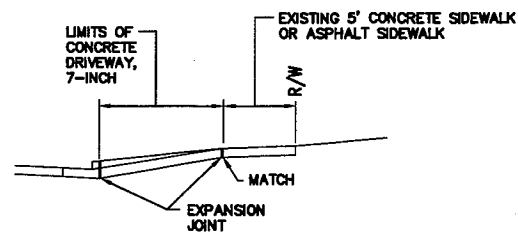
**PHASE 4 TYPICAL SECTION FOR C.T.H. AP  
S.T.H. 441 TO S.T.H. 47**

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**CONCRETE DRIVEWAY DETAIL**  
(EXISTING SIDEWALK TO REMAIN)



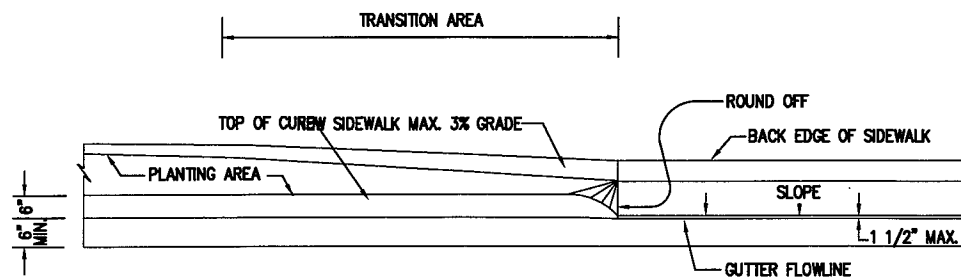
**PLAN**  
**CONCRETE DRIVEWAY DETAIL**

CONCRETE SIDEWALK THROUGH DRIVEWAY TO BE MEASURED AND PAID FOR AS CONCRETE DRIVEWAY

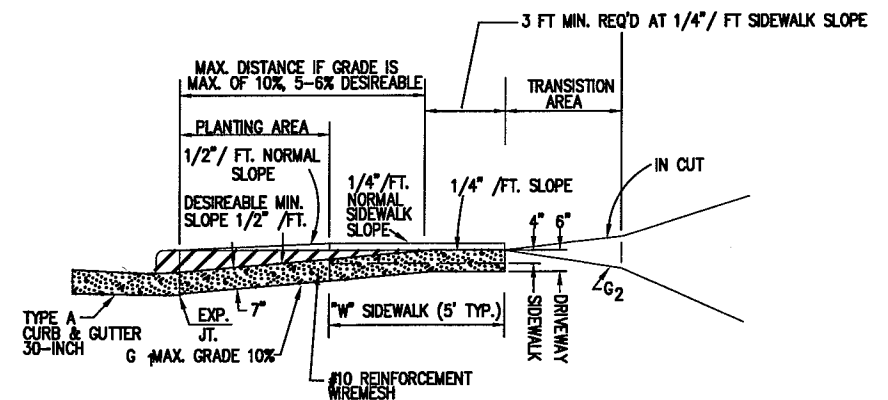
**GENERAL NOTES FOR DRIVEWAYS**

MATERIALS FOR DRIVEWAY TRANSITION AREAS TO BE SAME AS EXISTING  
 FOR ASPHALTIC DRIVEWAYS USE 12" BASE AGGREGATE DENSE, 1 1/4-INCH AND 4" ASPHALTIC SURFACE (2" UPPER LAYER AND 2" LOWER LAYER) OR MATCH EXISTING, WHICHEVER IS GREATER.  
 FOR CONCRETE DRIVEWAYS, USE 7" C

TRANSITIONS WILL CONSIST OF A STRAIGHTLINE GRADE FROM BACK OF CURB TO MATCH POINT.



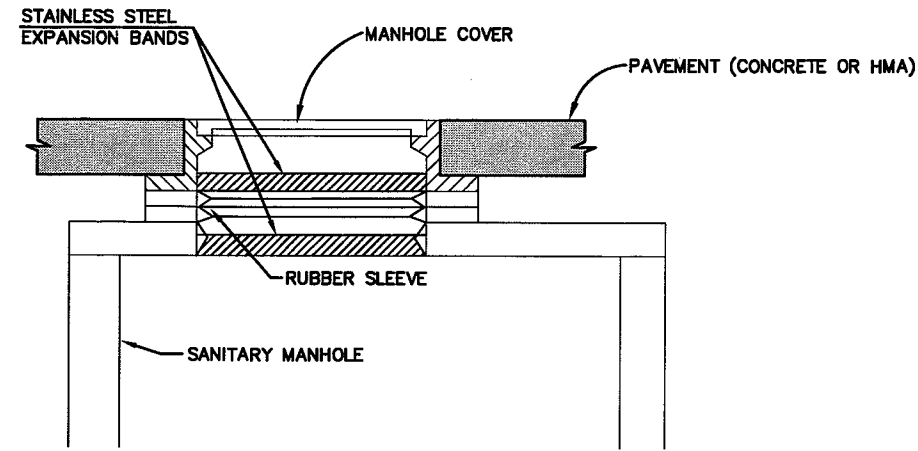
**PROFILE PARALLEL TO CENTERLINE OF ROADWAY**



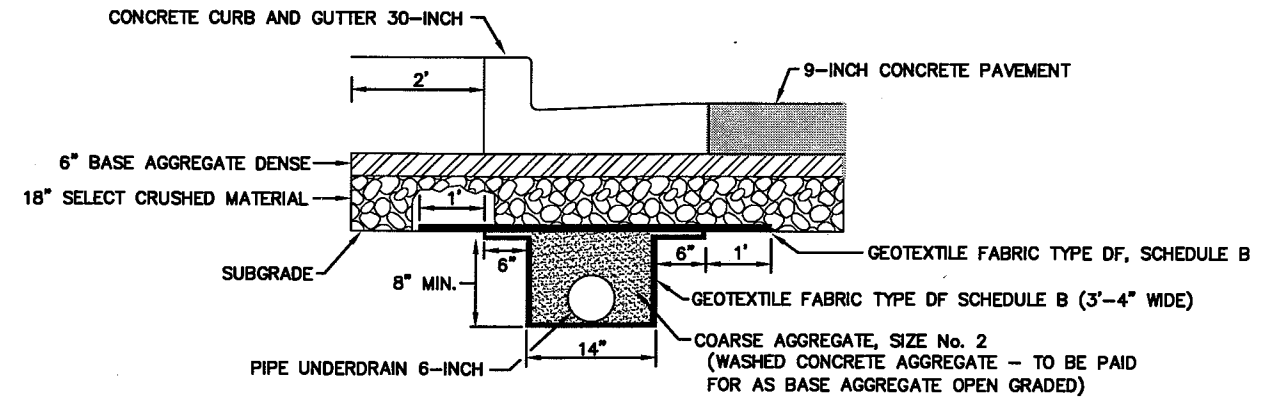
**PROFILE PARALLEL TO C/L OF DRIVEWAY**

NOTE: ALGEBRAIC DIFFERENCE BETWEEN TANGENT GRADES G1 AND G2 EXTENDED IN FILLS MAX. 15%

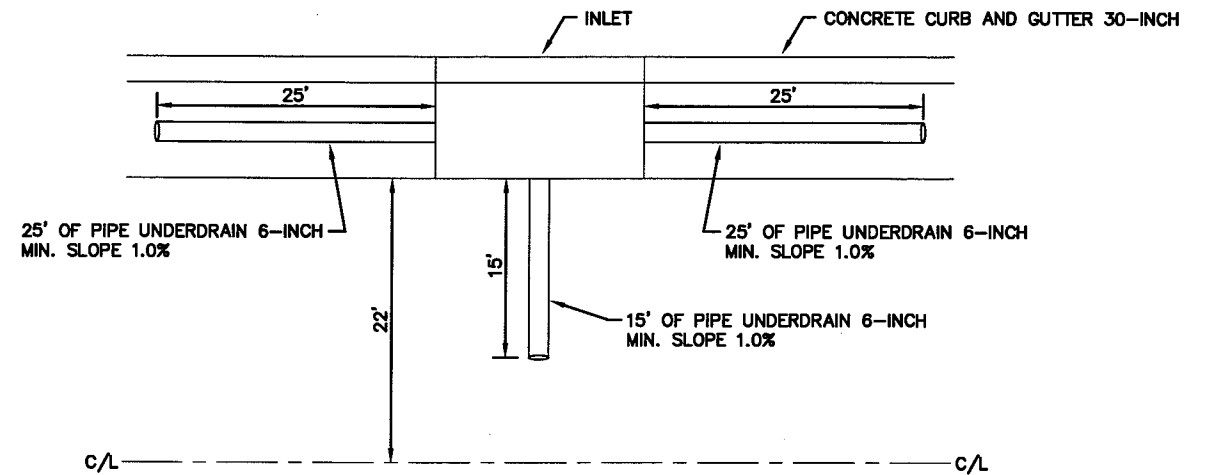
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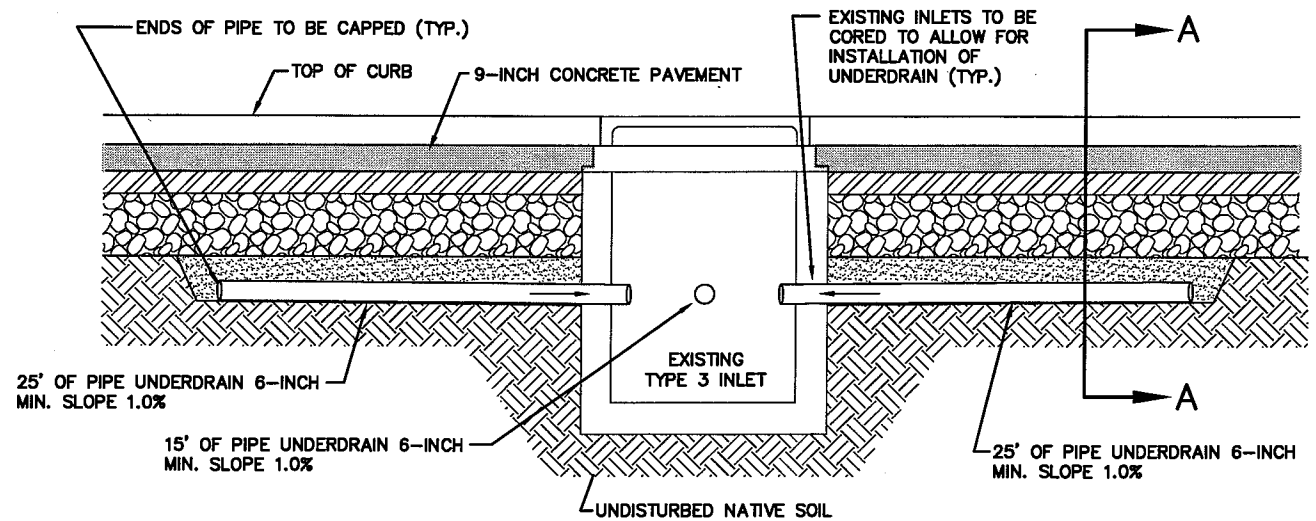
**INTERNAL RUBBER CHIMNEY SEAL DETAIL**



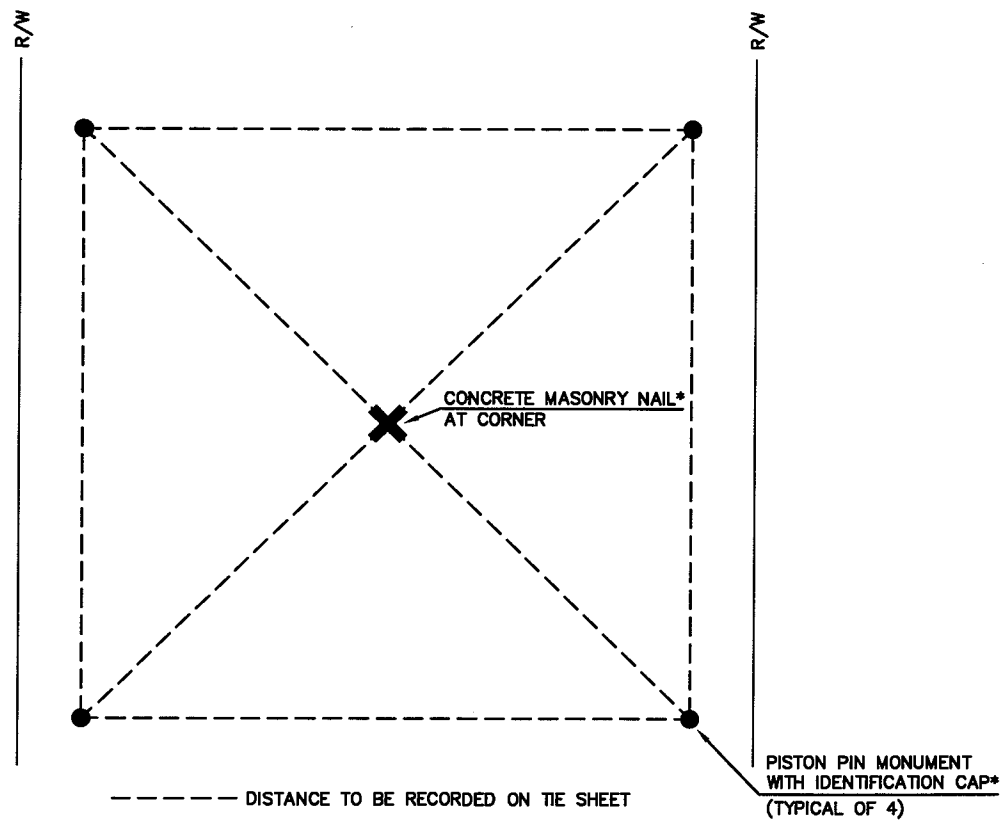
**SECTION A-A**



**PLAN VIEW**



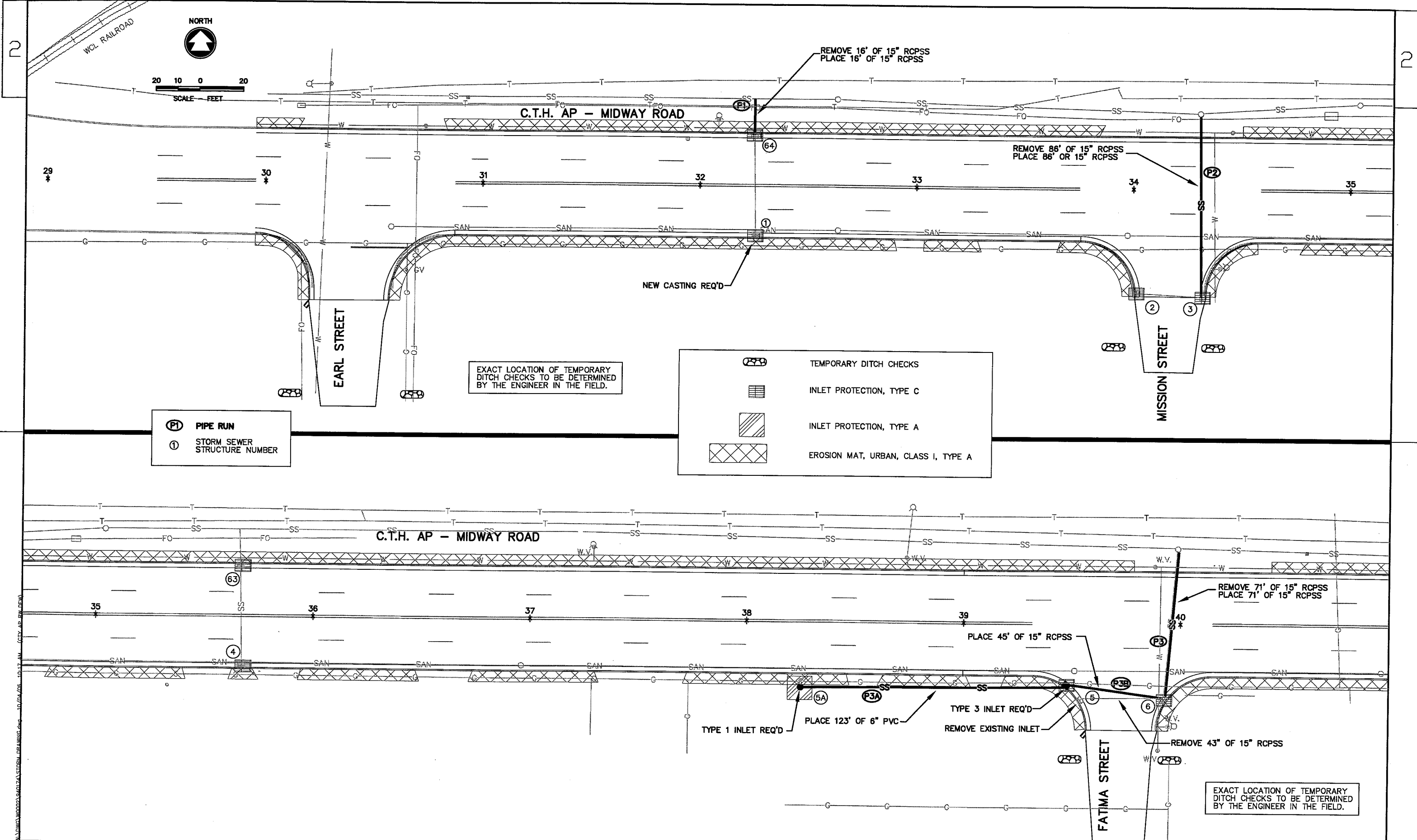
**STUB DRAIN DETAIL FOR INLETS AT LOW POINTS**



**LANDMARK REFERENCE MONUMENTS, SPECIAL**

----- DISTANCE TO BE RECORDED ON TIE SHEET  
 \* MATERIAL TO BE PROVIDED BY WINNEBAGO COUNTY

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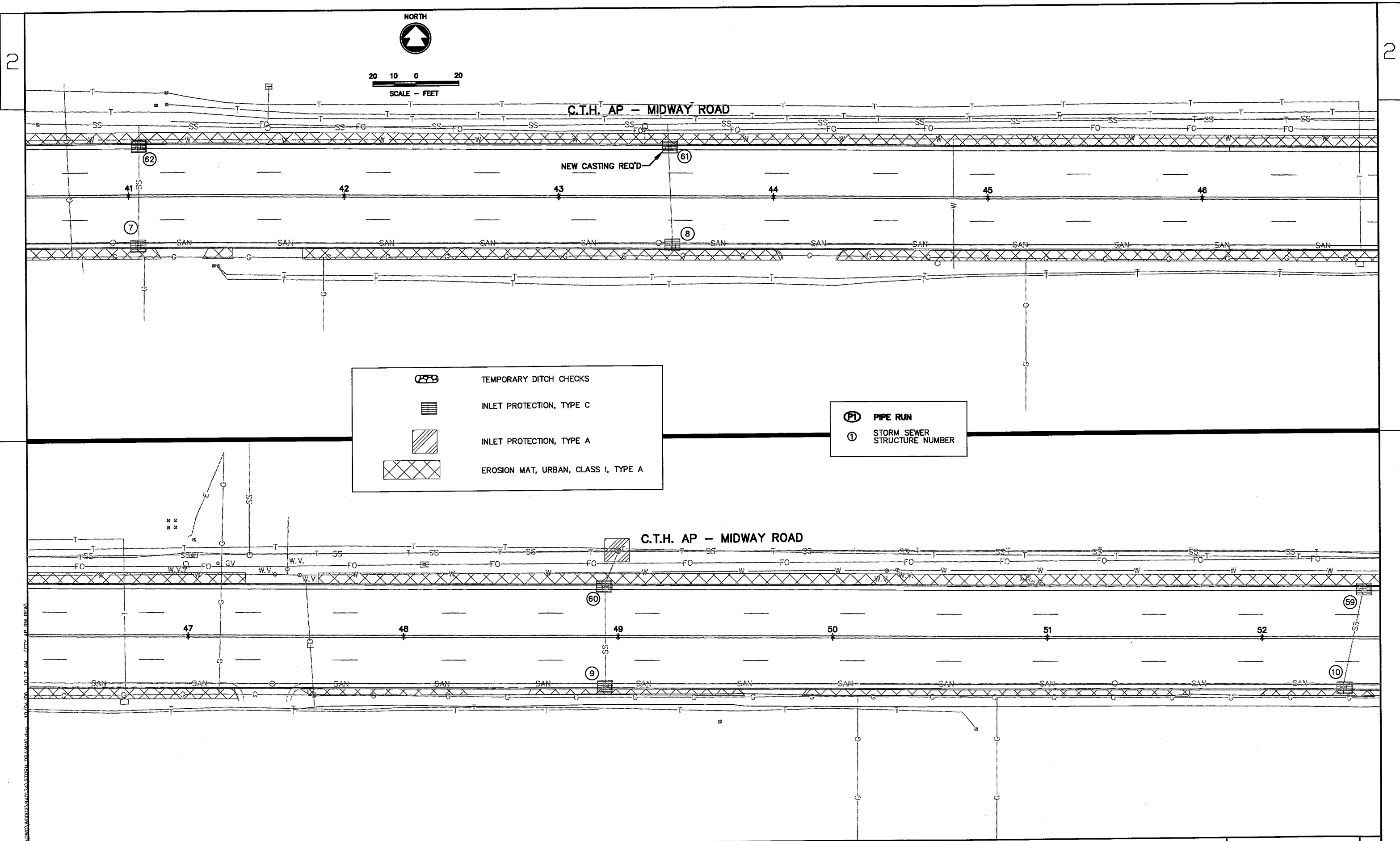


(P1) PIPE RUN  
 (1) STORM SEWER STRUCTURE NUMBER

EXACT LOCATION OF TEMPORARY DITCH CHECKS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

	TEMPORARY DITCH CHECKS
	INLET PROTECTION, TYPE C
	INLET PROTECTION, TYPE A
	EROSION MAT, URBAN, CLASS I, TYPE A

EXACT LOCATION OF TEMPORARY DITCH CHECKS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.



20 10 0 20  
SCALE - FEET

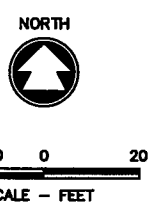
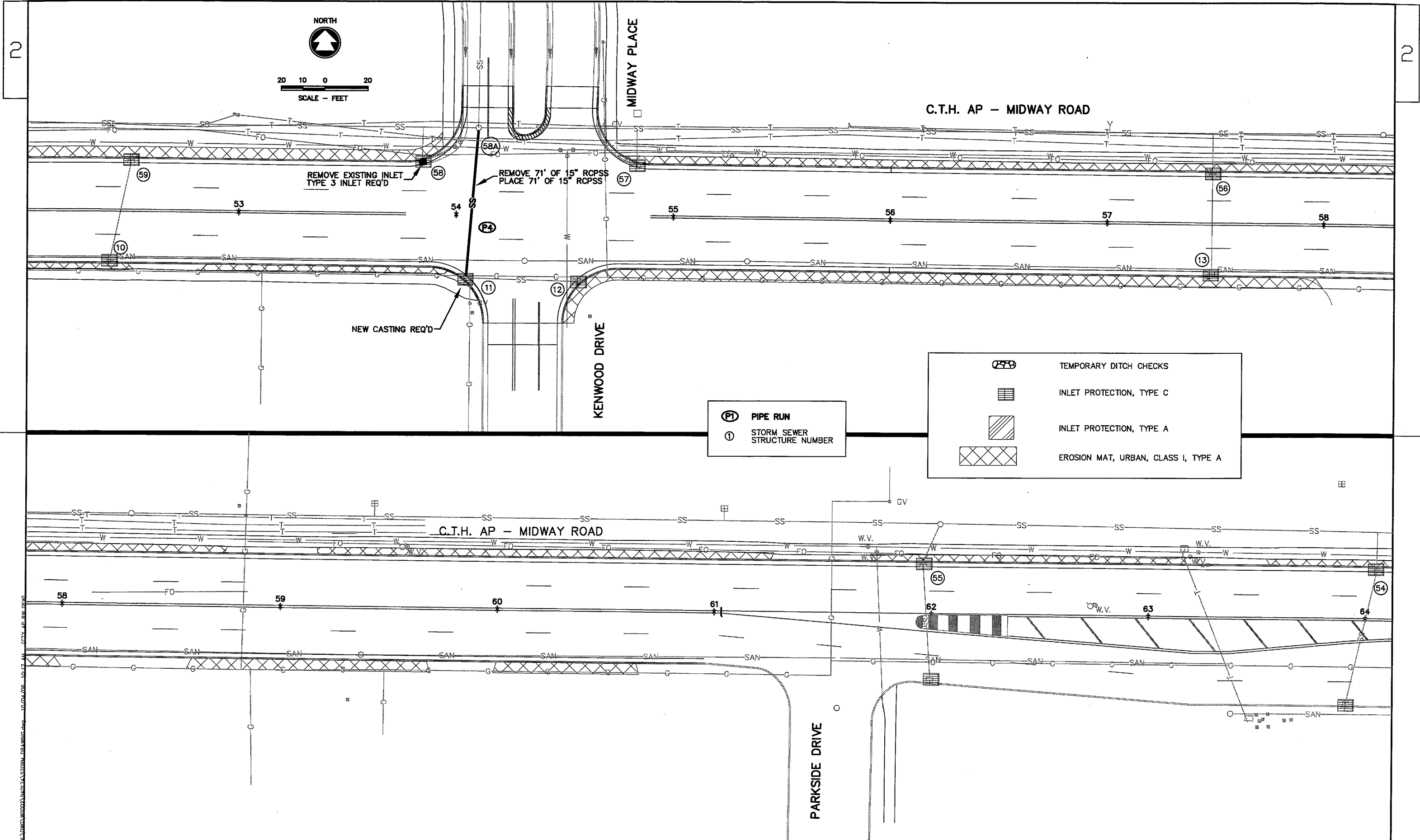
C.T.H. AP - MIDWAY ROAD

NEW CASTING REQ'D

	TEMPORARY DITCH CHECKS
	INLET PROTECTION, TYPE C
	INLET PROTECTION, TYPE A
	EROSION MAT, URBAN, CLASS I, TYPE A

	PIPE RUN
	STORM SEWER STRUCTURE NUMBER

C.T.H. AP - MIDWAY ROAD



C.T.H. AP - MIDWAY ROAD

REMOVE EXISTING INLET  
TYPE 3 INLET REQ'D

REMOVE 71' OF 15" RCPSS  
PLACE 71' OF 15" RCPSS

NEW CASTING REQ'D

MIDWAY PLACE

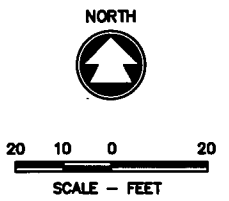
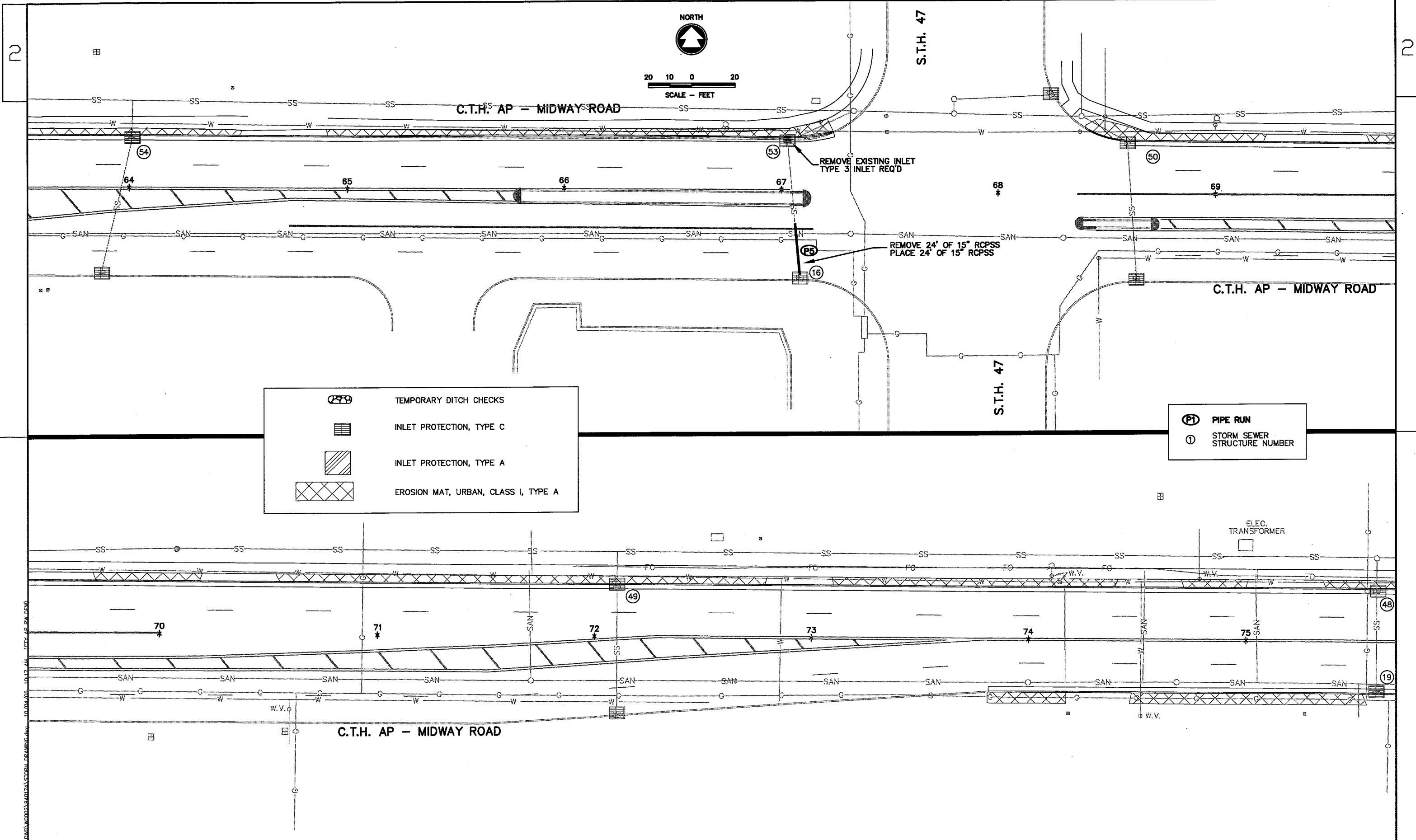
KENWOOD DRIVE

(P1) PIPE RUN  
① STORM SEWER  
STRUCTURE NUMBER

	TEMPORARY DITCH CHECKS
	INLET PROTECTION, TYPE C
	INLET PROTECTION, TYPE A
	EROSION MAT, URBAN, CLASS I, TYPE A

C.T.H. AP - MIDWAY ROAD

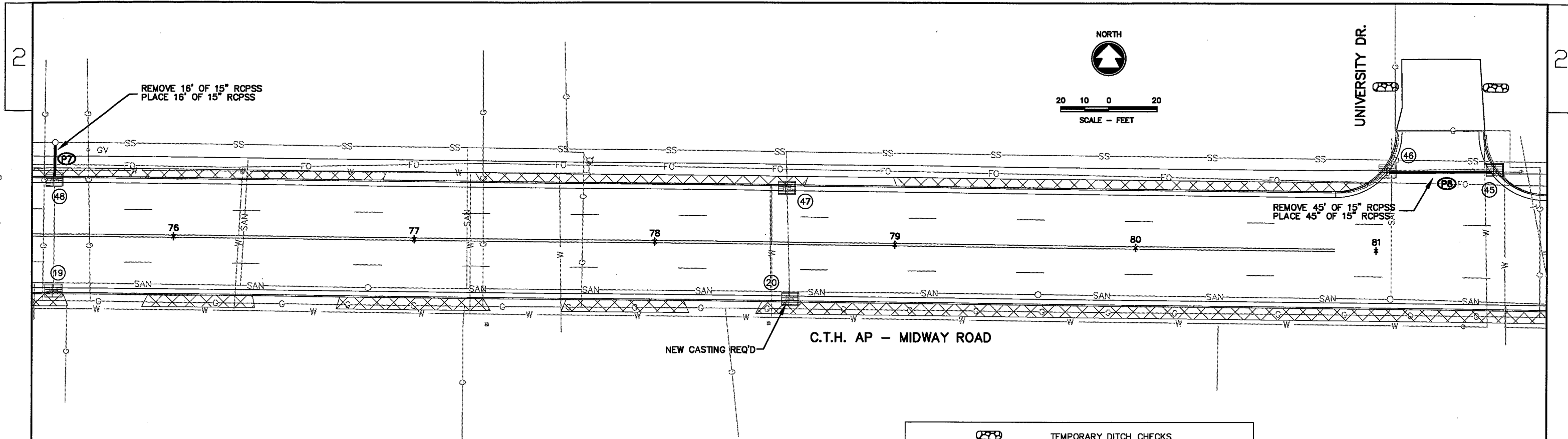
PARKSIDE DRIVE



	TEMPORARY DITCH CHECKS
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	INLET PROTECTION, TYPE A
	EROSION MAT, URBAN, CLASS I, TYPE A

	PIPE RUN
	STORM SEWER STRUCTURE NUMBER

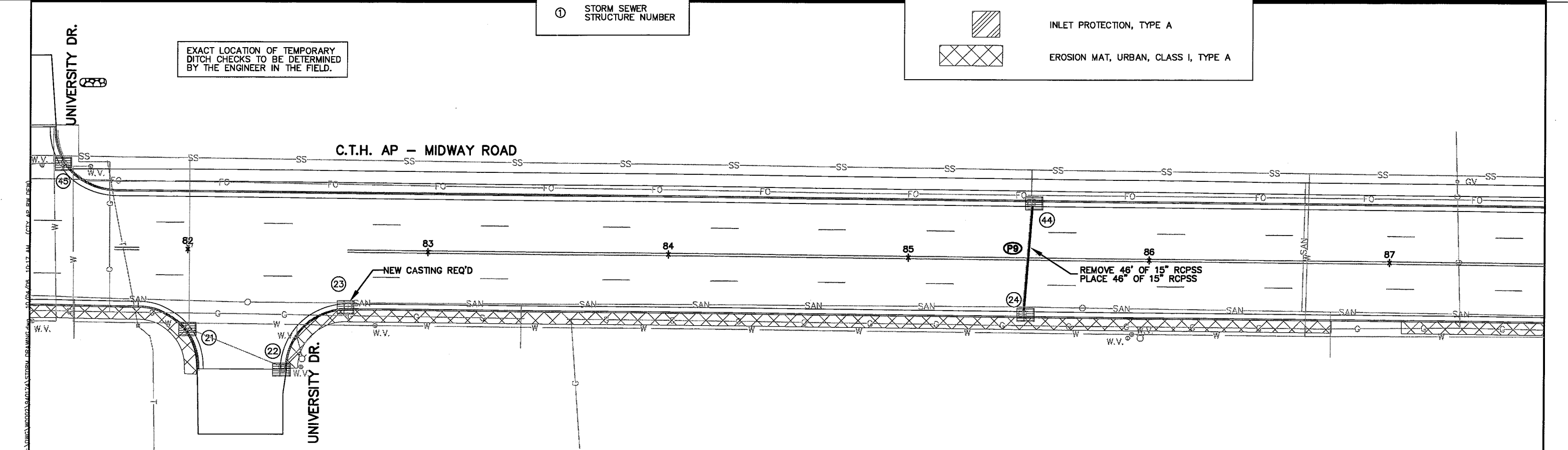
WSDOT/CADD SHEET 42

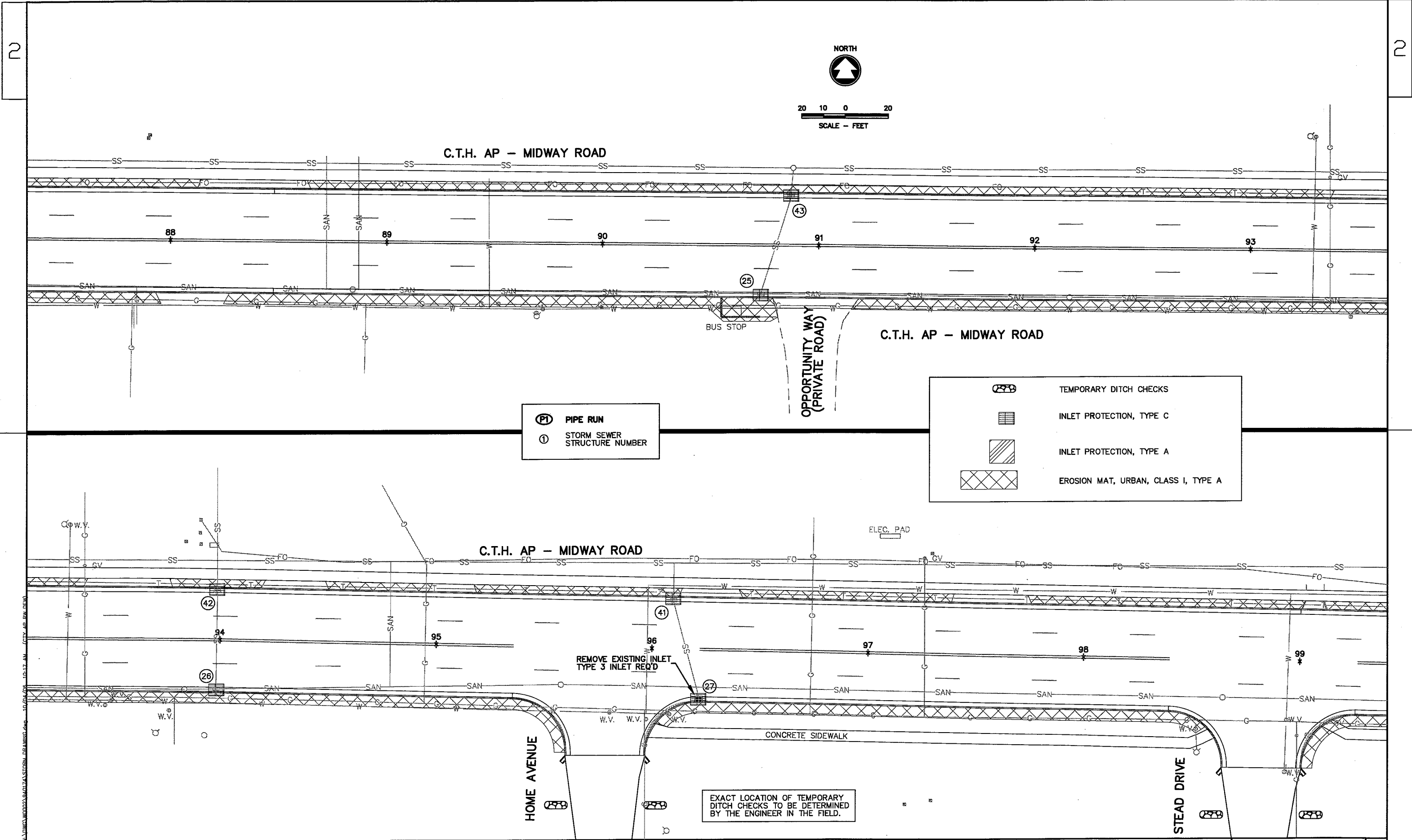


(P1) PIPE RUN  
 (1) STORM SEWER STRUCTURE NUMBER

	TEMPORARY DITCH CHECKS
	INLET PROTECTION, TYPE C
	INLET PROTECTION, TYPE A
	EROSION MAT, URBAN, CLASS I, TYPE A

EXACT LOCATION OF TEMPORARY DITCH CHECKS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.



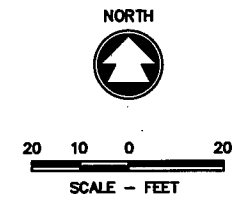
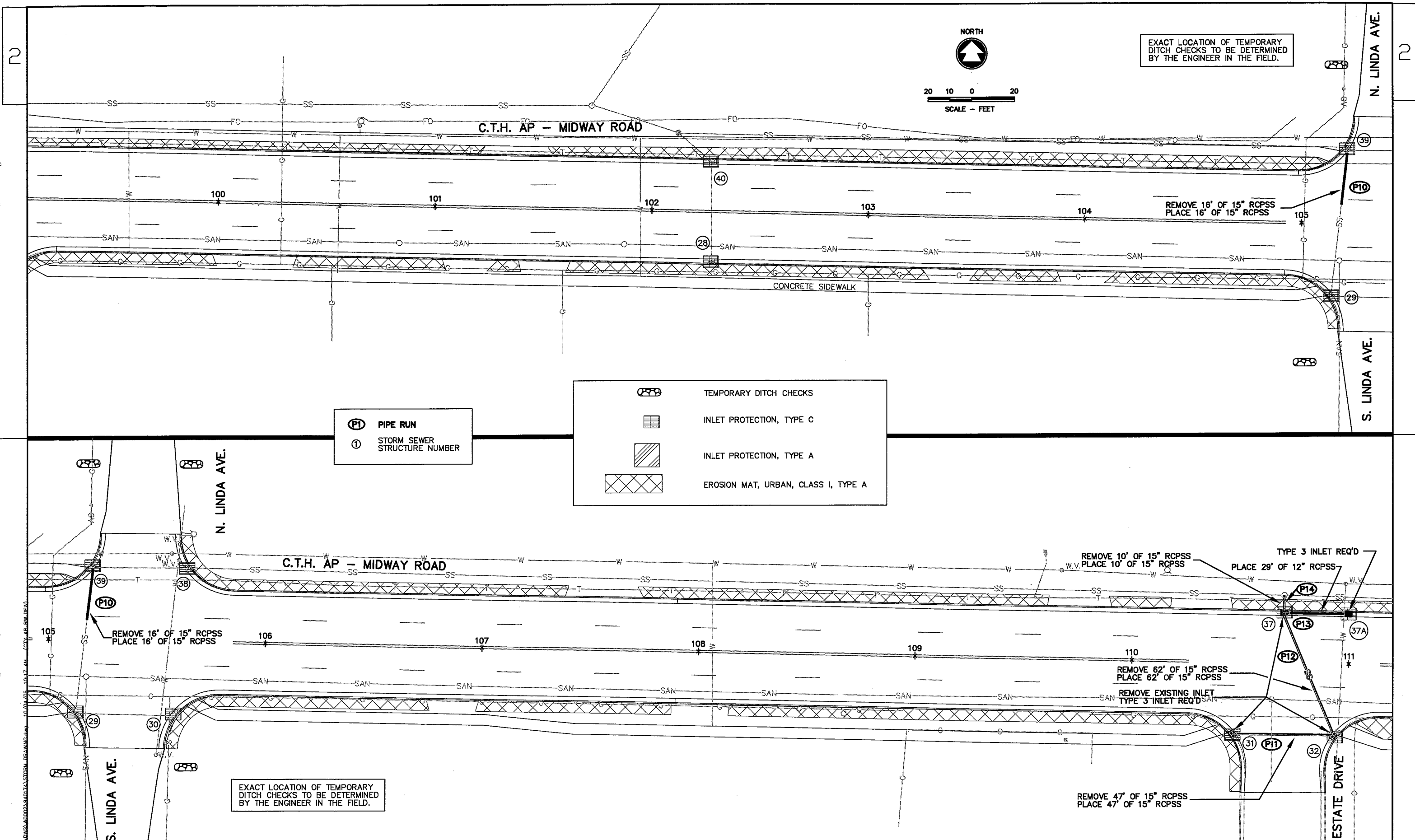


(P1) PIPE RUN  
 (1) STORM SEWER STRUCTURE NUMBER

TEMPORARY DITCH CHECKS  
 INLET PROTECTION, TYPE C  
 INLET PROTECTION, TYPE A  
 EROSION MAT, URBAN, CLASS I, TYPE A

EXACT LOCATION OF TEMPORARY DITCH CHECKS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.





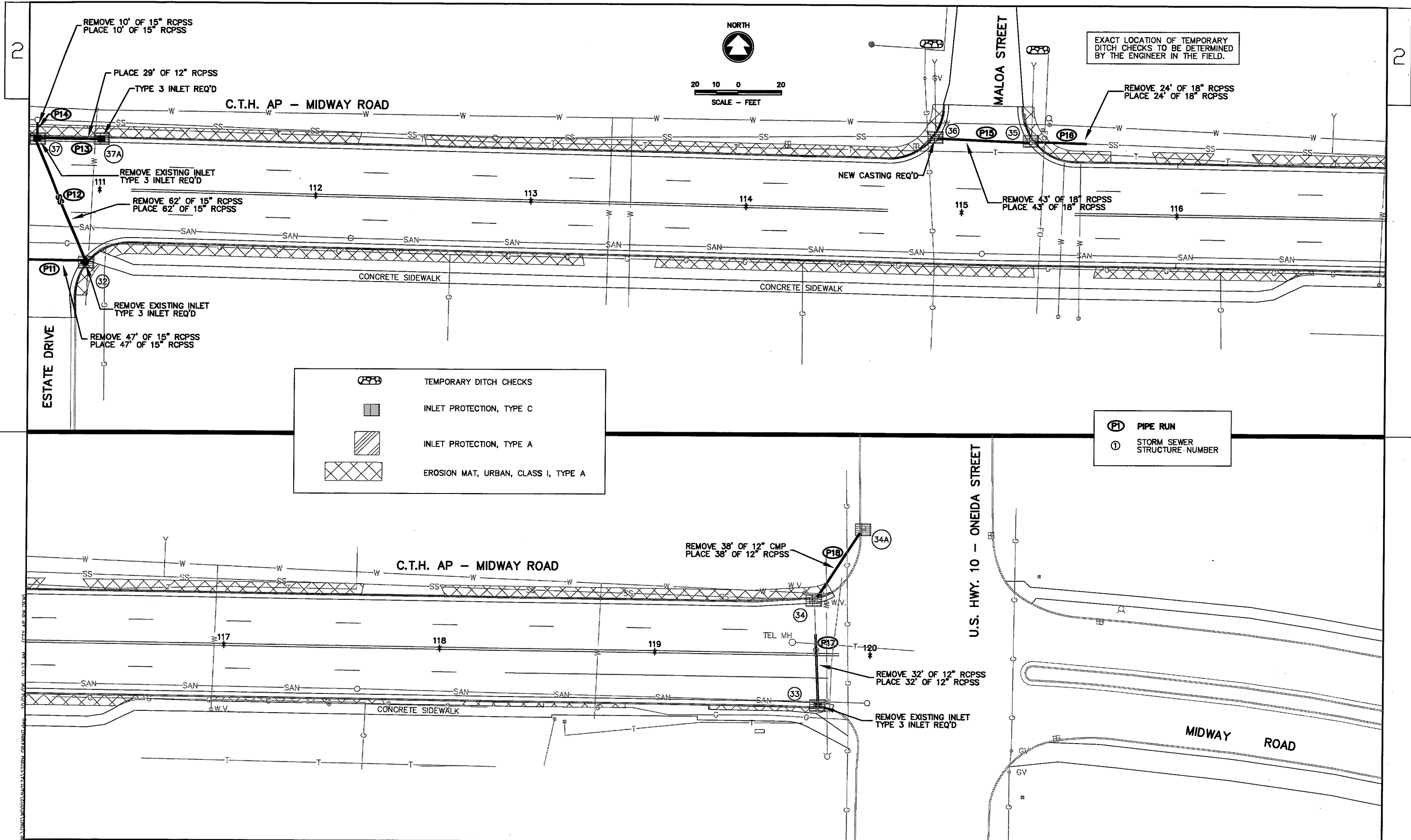
EXACT LOCATION OF TEMPORARY DITCH CHECKS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

(P1) PIPE RUN  
 (1) STORM SEWER STRUCTURE NUMBER

	TEMPORARY DITCH CHECKS
	INLET PROTECTION, TYPE C
	INLET PROTECTION, TYPE A
	EROSION MAT, URBAN, CLASS I, TYPE A

EXACT LOCATION OF TEMPORARY DITCH CHECKS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

WSDOT/CADD SHEET 42



	TEMPORARY DITCH CHECKS
	INLET PROTECTION, TYPE C
	INLET PROTECTION, TYPE A
	EROSION MAT, URBAN, CLASS I, TYPE A

	PIPE RUN
	STORM SEWER STRUCTURE NUMBER

STATE PROJECT NUMBER: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

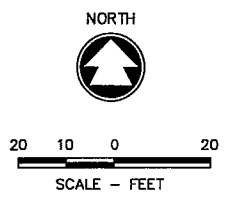
STORM SEWER / EROSION CONTROL DETAIL

SHEET NO: 18

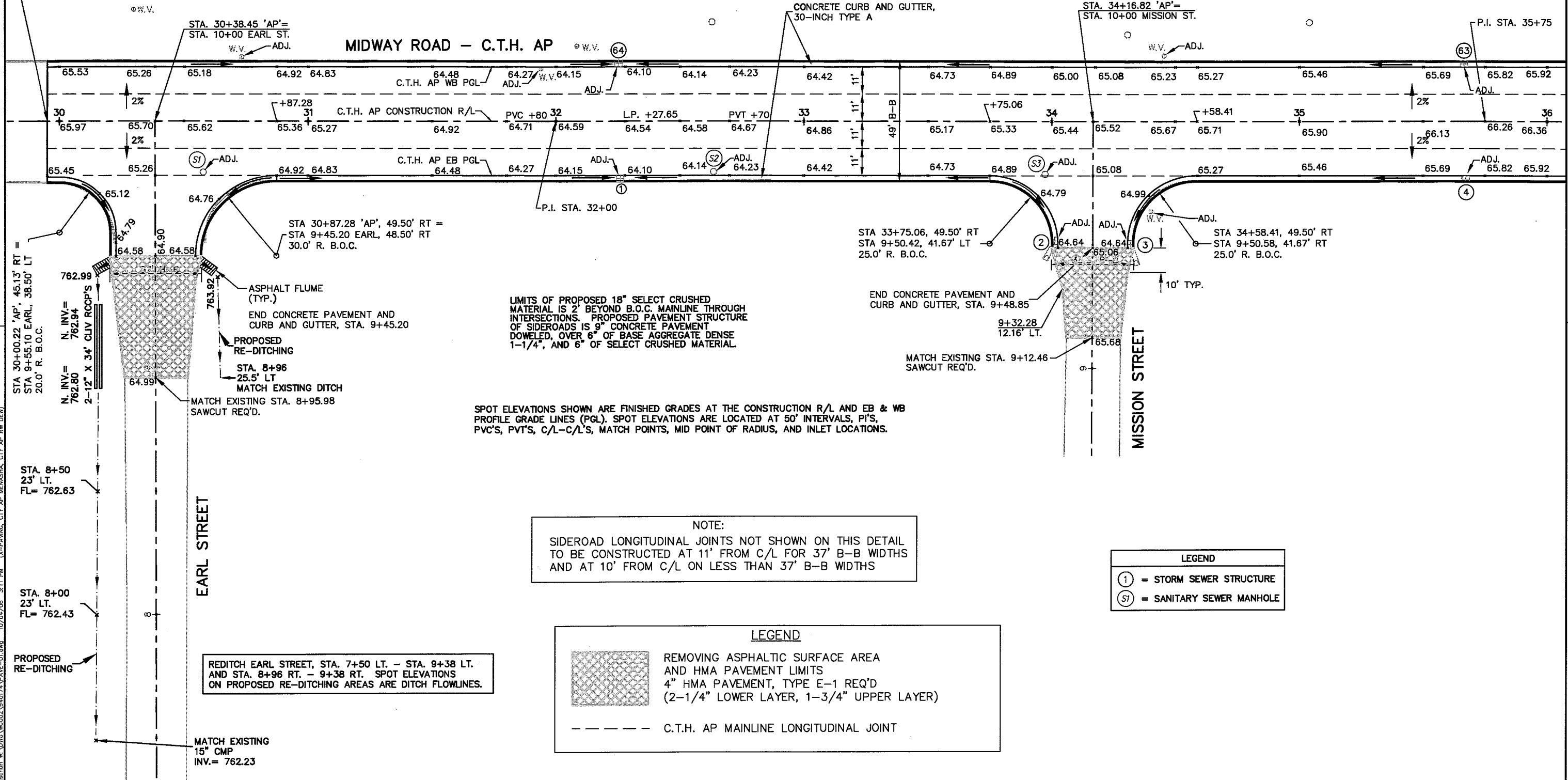
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WSDOT/CADD SHEET 42

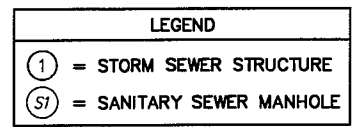
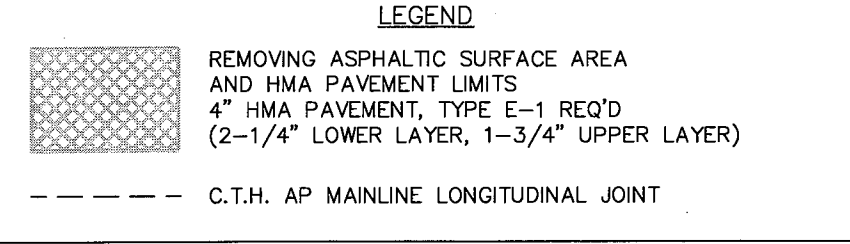
BEGIN PROJECT 4984-01-30  
 STA. 29+95.25  
 FULL DEPTH SAWCUT AND PAVEMENT TIES REQ'D.  
 MATCH EXISTING TRANSVERSE JOINT



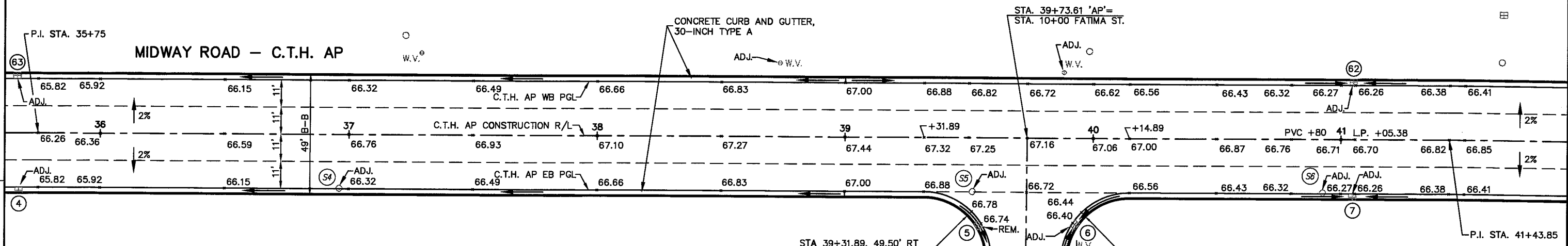
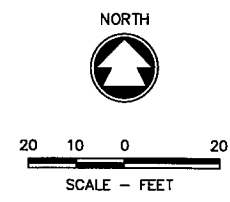
MIDWAY ROAD - C.T.H. AP



NOTE:  
 SIDEROAD LONGITUDINAL JOINTS NOT SHOWN ON THIS DETAIL TO BE CONSTRUCTED AT 11' FROM C/L FOR 37' B-B WIDTHS AND AT 10' FROM C/L ON LESS THAN 37' B-B WIDTHS



WSDOT/CADD SHEET 42



SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE CONSTRUCTION R/L AND EB & WB PROFILE GRADE LINES (PGL). SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, P.I.'S, PVC'S, PVT'S, C/L-C/L'S, MATCH POINTS, MID POINT OF RADIUS, AND INLET LOCATIONS.

NOTE:  
 SIDEROAD LONGITUDINAL JOINTS NOT SHOWN ON THIS DETAIL TO BE CONSTRUCTED AT 11' FROM C/L FOR 37' B-B WIDTHS AND AT 10' FROM C/L ON LESS THAN 37' B-B WIDTHS

**LEGEND**

REMOVING ASPHALTIC SURFACE AREA AND HMA PAVEMENT LIMITS  
 4" HMA PAVEMENT, TYPE E-1 REQ'D  
 (2-1/4" LOWER LAYER, 1-3/4" UPPER LAYER)

C.T.H. AP MAINLINE LONGITUDINAL JOINT

**LEGEND**

= STORM SEWER STRUCTURE

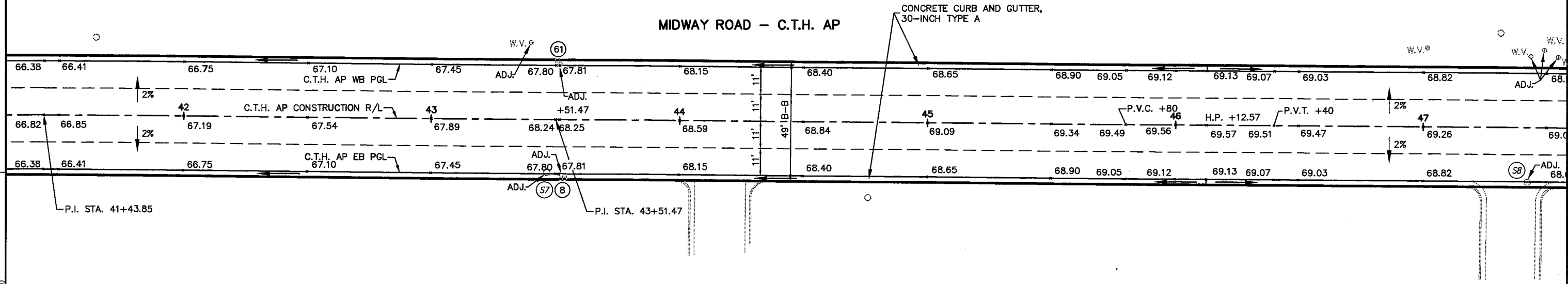
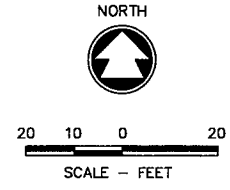
= SANITARY SEWER MANHOLE

LIMITS OF PROPOSED 18" SELECT CRUSHED MATERIAL IS 2' BEYOND B.O.C. MAINLINE THROUGH INTERSECTIONS. PROPOSED PAVEMENT STRUCTURE OF SIDEROADS IS 9" CONCRETE PAVEMENT DOWELED, OVER 6" OF BASE AGGREGATE DENSE 1-1/4", AND 6" OF SELECT CRUSHED MATERIAL.

c:\cshuh\w\pave\w002\940174\PAVE-02.dwg 10/24/06 3:13 PM (X-PAVING, CTY, AP, MEMASHA, CTY, AP, RW, DEV)

2

2



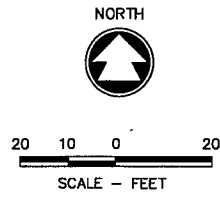
SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE CONSTRUCTION R/L AND EB & WB PROFILE GRADE LINES (PGL). SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, P.I.'S, PVC'S, PVT'S, C/L-C/L'S, MATCH POINTS, MID POINT OF RADIUS, AND INLET LOCATIONS.

LEGEND	
---	LONGITUDINAL JOINT

NOTE:  
SIDEROAD LONGITUDINAL JOINTS NOT SHOWN ON THIS DETAIL TO BE CONSTRUCTED AT 11' FROM C/L FOR 37' B-B WIDTHS AND AT 10' FROM C/L ON LESS THAN 37' B-B WIDTHS

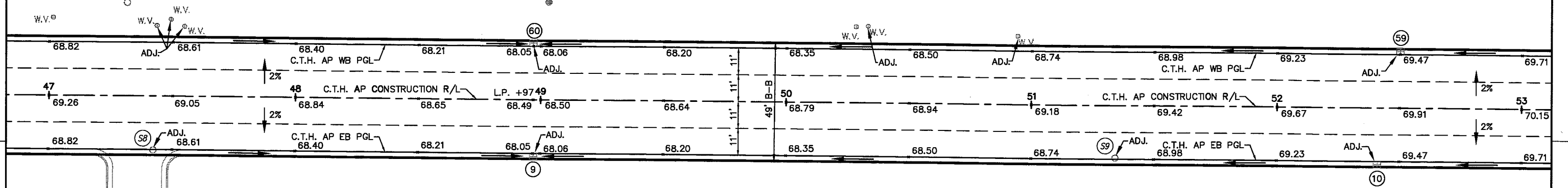
LEGEND	
(1)	= STORM SEWER STRUCTURE
(S7)	= SANITARY SEWER MANHOLE

c:\cshub\w\pwc\WOOD2\940174\PAVE-03.dwg 10/04/06 12:03 PM (X-PAVING, CITY AP, MENASHA, CTY AP, RW DEV)



MIDWAY ROAD - C.T.H. AP

MIDWAY ROAD - C.T.H. AP



SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE CONSTRUCTION R/L AND EB & WB PROFILE GRADE LINES (PGL). SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, PVT'S, PVC'S, C/L-C/L'S, MATCH POINTS, MID POINT OF RADIUS, AND INLET LOCATIONS.

**LEGEND**

----- LONGITUDINAL JOINT

**NOTE:**

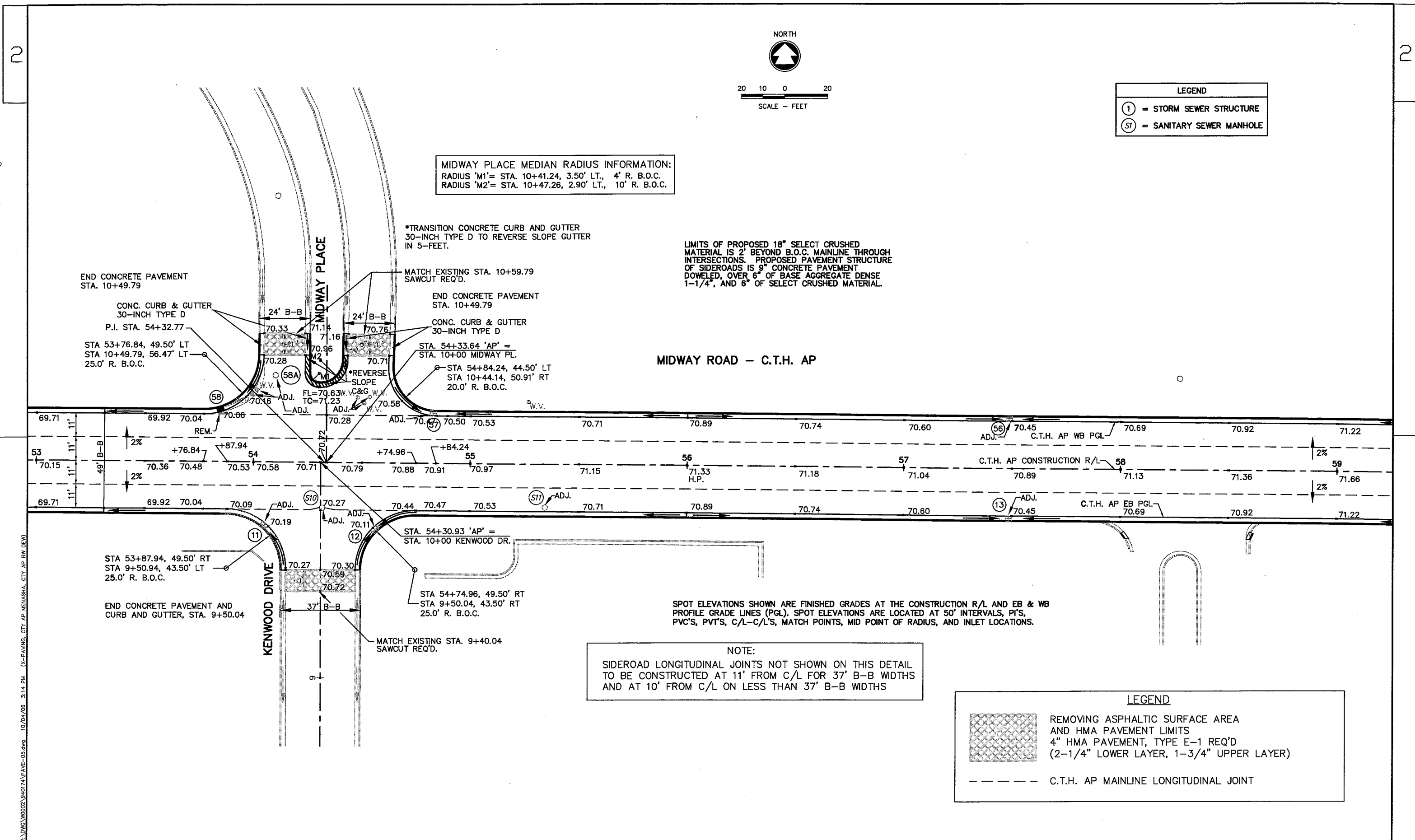
SIDEROAD LONGITUDINAL JOINTS NOT SHOWN ON THIS DETAIL TO BE CONSTRUCTED AT 11' FROM C/L FOR 37' B-B WIDTHS AND AT 10' FROM C/L ON LESS THAN 37' B-B WIDTHS

**LEGEND**

(1) = STORM SEWER STRUCTURE

(S1) = SANITARY SEWER MANHOLE

c:\cshuh\_w\dwg\WOOD2\940174\PAVE-04.dwg 10/04/05 12:04 PM (X-PAVING, CITY AP, MENASHA, CITY AP, RW, DEW)



MIDWAY PLACE MEDIAN RADIUS INFORMATION:  
 RADIUS 'M1' = STA. 10+41.24, 3.50' LT., 4' R. B.O.C.  
 RADIUS 'M2' = STA. 10+47.26, 2.90' LT., 10' R. B.O.C.

\*TRANSITION CONCRETE CURB AND GUTTER  
 30-INCH TYPE D TO REVERSE SLOPE GUTTER  
 IN 5- FEET.

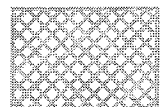
LIMITS OF PROPOSED 18" SELECT CRUSHED  
 MATERIAL IS 2' BEYOND B.O.C. MAINLINE THROUGH  
 INTERSECTIONS. PROPOSED PAVEMENT STRUCTURE  
 OF SIDEROADS IS 9" CONCRETE PAVEMENT  
 DOWELED, OVER 6" OF BASE AGGREGATE DENSE  
 1-1/4", AND 6" OF SELECT CRUSHED MATERIAL.

MIDWAY ROAD - C.T.H. AP

SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE CONSTRUCTION R/L AND EB & WB  
 PROFILE GRADE LINES (PGL). SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, P.I.'S,  
 PVC'S, PVT'S, C/L-C/L'S, MATCH POINTS, MID POINT OF RADIUS, AND INLET LOCATIONS.

NOTE:  
 SIDEROAD LONGITUDINAL JOINTS NOT SHOWN ON THIS DETAIL  
 TO BE CONSTRUCTED AT 11' FROM C/L FOR 37' B-B WIDTHS  
 AND AT 10' FROM C/L ON LESS THAN 37' B-B WIDTHS

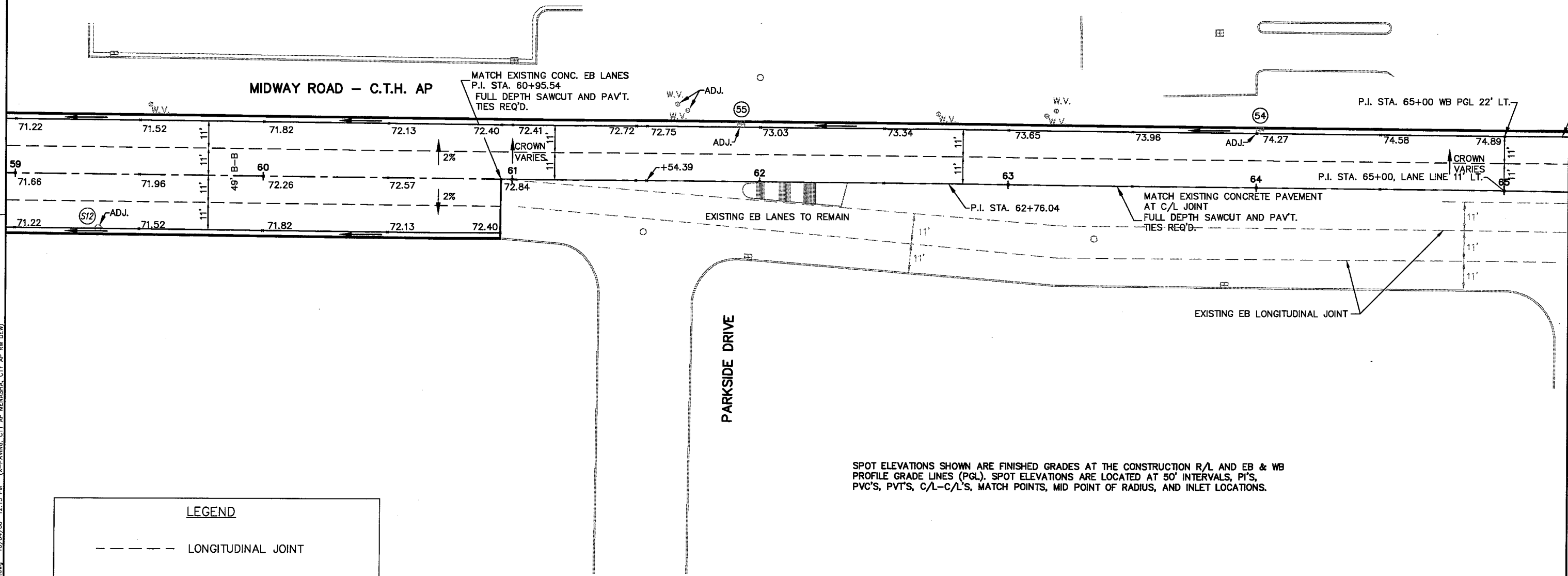
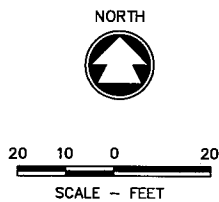
LEGEND  
 (1) = STORM SEWER STRUCTURE  
 (S1) = SANITARY SEWER MANHOLE

LEGEND  
 REMOVING ASPHALTIC SURFACE AREA  
 AND HMA PAVEMENT LIMITS  
 4" HMA PAVEMENT, TYPE E-1 REQ'D  
 (2-1/4" LOWER LAYER, 1-3/4" UPPER LAYER)  
 - - - - - C.T.H. AP MAINLINE LONGITUDINAL JOINT

c:\cshub\w\dwg\WOOD2\940174\PAVE-05.dwg 10/04/05 3:14 PM C:\PAVING.CTY AP MENASHA.CTY AP RW DEW

2

2



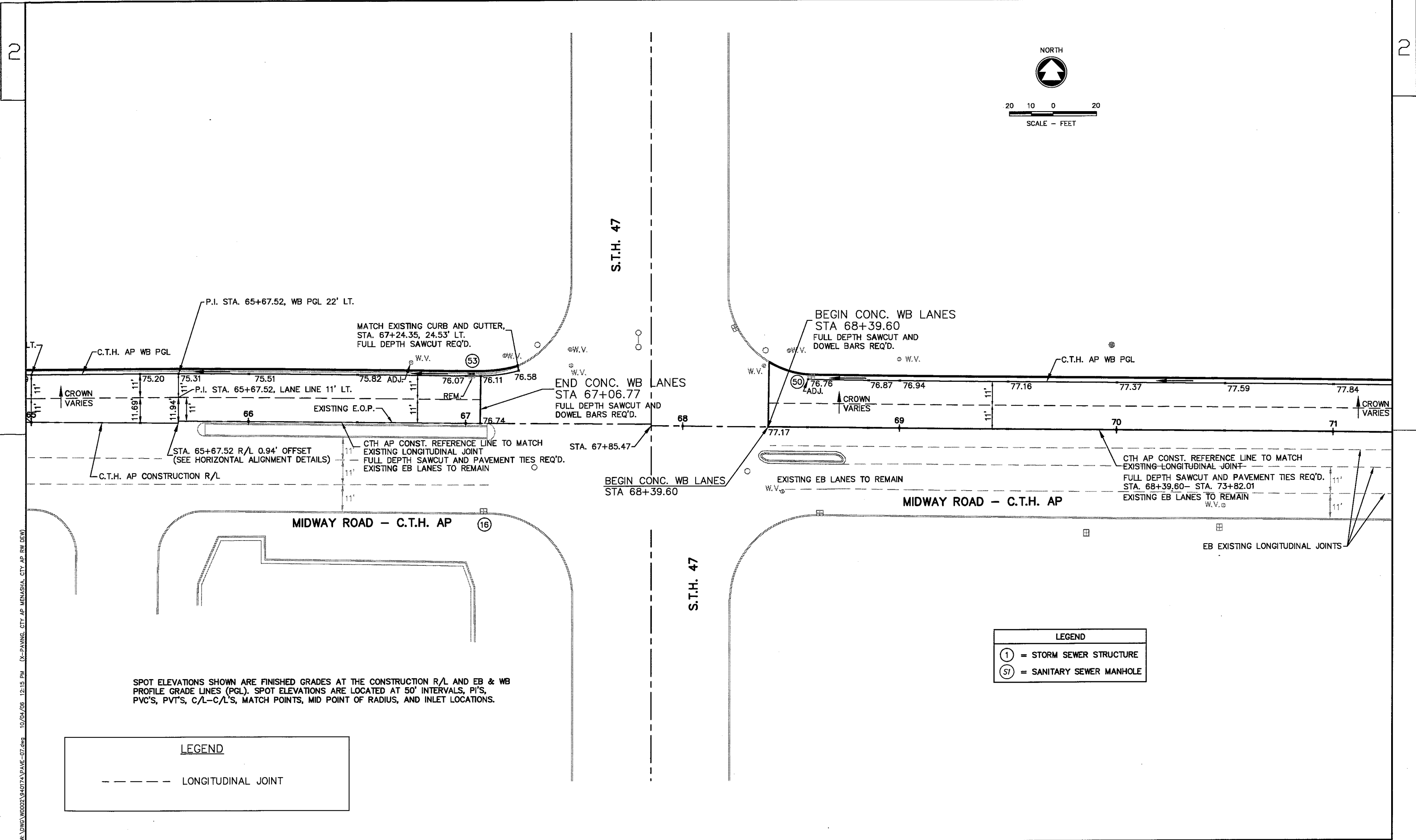
SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE CONSTRUCTION R/L AND EB & WB PROFILE GRADE LINES (PGL). SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, P.I.'S, PVC'S, PVT'S, C/L-C/L'S, MATCH POINTS, MID POINT OF RADIUS, AND INLET LOCATIONS.

**LEGEND**

----- LONGITUDINAL JOINT

c:\schub\w\dwg\w0002\94017A\PAVE-06.dwg 10/04/06 12:15 PM (X-PAVING, CTY AP, MENASHA, CTY AP, RW, DEW)



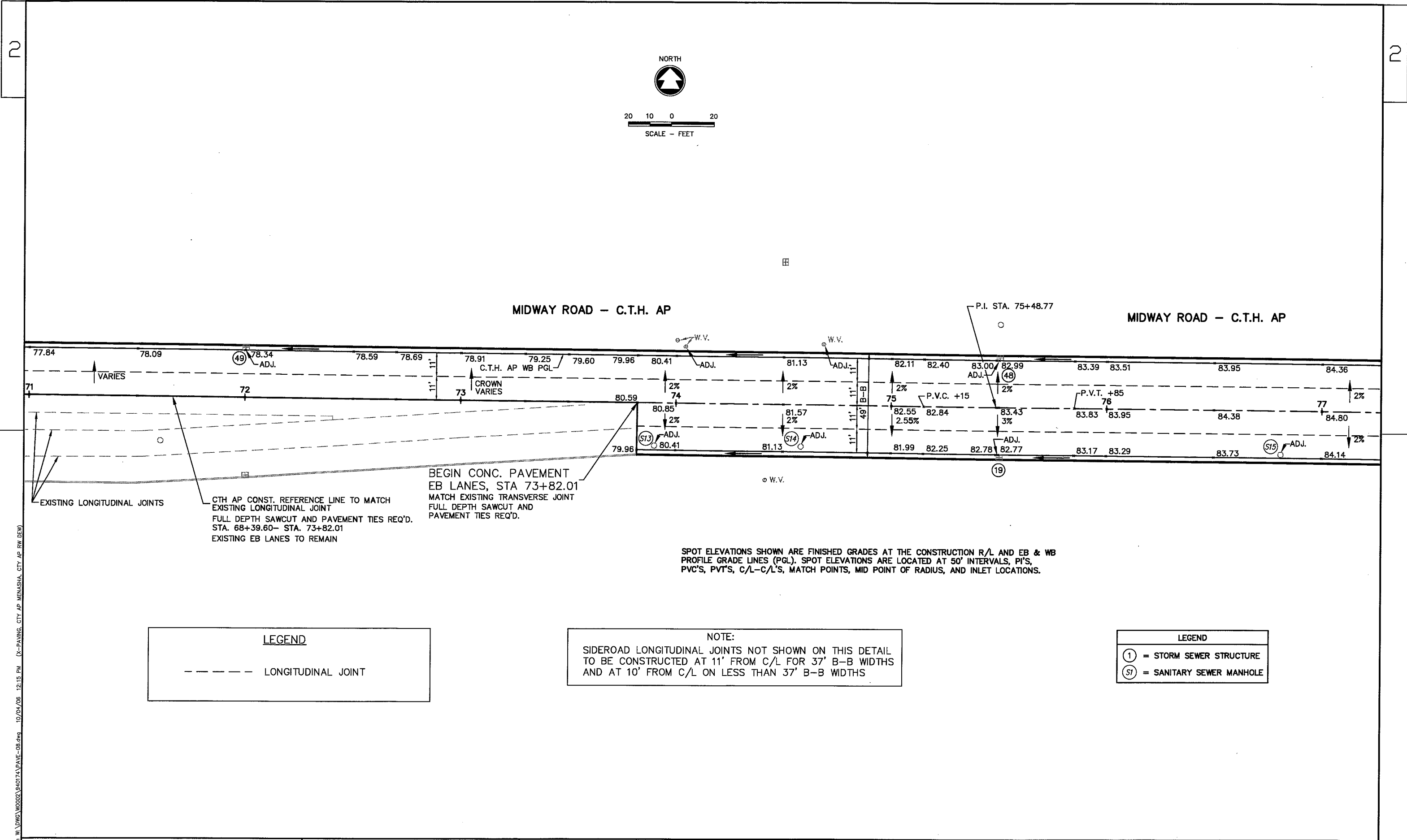


SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE CONSTRUCTION R/L AND EB & WB PROFILE GRADE LINES (PGL). SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, P.I.'S, PVC'S, PVT'S, C/L-C/L'S, MATCH POINTS, MID POINT OF RADIUS, AND INLET LOCATIONS.

**LEGEND**  
 - - - - - LONGITUDINAL JOINT

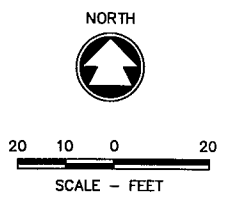
**LEGEND**  
 (1) = STORM SEWER STRUCTURE  
 (S1) = SANITARY SEWER MANHOLE

10/04/06 12:15 PM (X-PAVING, CTY AP, MENASHA, CTY AP, RW, DEW) W:\Dwg\W0002\94074\PAVE-07.dwg



MIDWAY ROAD - C.T.H. AP

MIDWAY ROAD - C.T.H. AP



BEGIN CONC. PAVEMENT  
EB LANES, STA 73+82.01  
MATCH EXISTING TRANSVERSE JOINT  
FULL DEPTH SAWCUT AND  
PAVEMENT TIES REQ'D.

CTH AP CONST. REFERENCE LINE TO MATCH  
EXISTING LONGITUDINAL JOINT  
FULL DEPTH SAWCUT AND PAVEMENT TIES REQ'D.  
STA. 68+39.60- STA. 73+82.01  
EXISTING EB LANES TO REMAIN

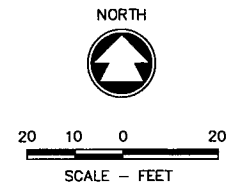
SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE CONSTRUCTION R/L AND EB & WB  
PROFILE GRADE LINES (PGL). SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, P.I.'S,  
PVC'S, PVT'S, C/L-C/L'S, MATCH POINTS, MID POINT OF RADIUS, AND INLET LOCATIONS.

**LEGEND**  
----- LONGITUDINAL JOINT

**NOTE:**  
SIDEROAD LONGITUDINAL JOINTS NOT SHOWN ON THIS DETAIL  
TO BE CONSTRUCTED AT 11' FROM C/L FOR 37' B-B WIDTHS  
AND AT 10' FROM C/L ON LESS THAN 37' B-B WIDTHS

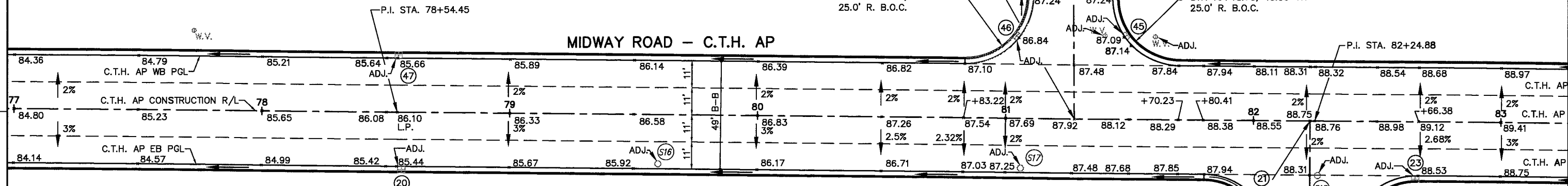
**LEGEND**  
① = STORM SEWER STRUCTURE  
S1 = SANITARY SEWER MANHOLE

c:\cshur\w\pav\WOOD02\840174\PAVE-08.dwg 10/04/06 12:15 PM (X-PAVING, CITY AP, MENASHA, CITY AP, RW, DEW)



LIMITS OF PROPOSED 18" SELECT CRUSHED MATERIAL IS 2' BEYOND B.O.C. MAINLINE THROUGH INTERSECTIONS. PROPOSED PAVEMENT STRUCTURE OF SIDEROADS IS 9" CONCRETE PAVEMENT DOWELED, OVER 6" OF BASE AGGREGATE DENSE 1-1/4", AND 6" OF SELECT CRUSHED MATERIAL.

MIDWAY ROAD - C.T.H. AP



**LEGEND**

REMOVING ASPHALTIC SURFACE AREA AND HMA PAVEMENT LIMITS  
4" HMA PAVEMENT, TYPE E-1 REQ'D (2-1/4" LOWER LAYER, 1-3/4" UPPER LAYER)

C.T.H. AP MAINLINE LONGITUDINAL JOINT

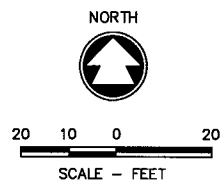
**NOTE:**  
SIDEROAD LONGITUDINAL JOINTS NOT SHOWN ON THIS DETAIL TO BE CONSTRUCTED AT 11' FROM C/L FOR 37' B-B WIDTHS AND AT 10' FROM C/L ON LESS THAN 37' B-B WIDTHS

**LEGEND**

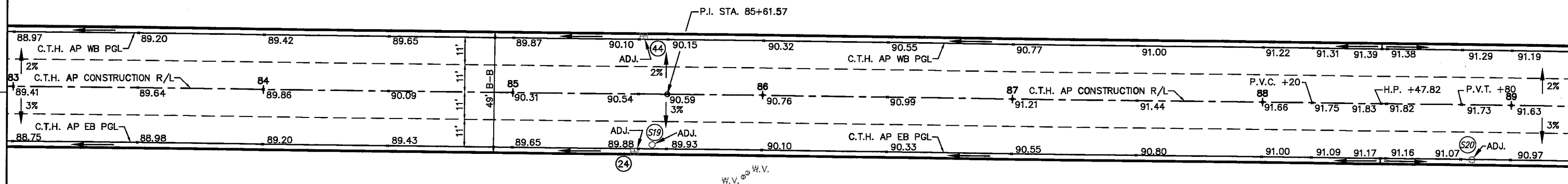
(1) = STORM SEWER STRUCTURE

(SI) = SANITARY SEWER MANHOLE

c:\ehp\w\dwg\WOOD02\94014\PAVE-09.dwg 02/07/07 10:01 AM (X-PAVING, CTY AP MENASHA, CTY AP RW DEW)



MIDWAY ROAD - C.T.H. AP



SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE CONSTRUCTION R/L AND EB & WB PROFILE GRADE LINES (PGL). SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, P.I.'S, P.V.C.'S, P.V.T.'S, C/L-C/L'S, MATCH POINTS, MID POINT OF RADIUS, AND INLET LOCATIONS.

**LEGEND**

----- LONGITUDINAL JOINT

**NOTE:**  
 SIDEROAD LONGITUDINAL JOINTS NOT SHOWN ON THIS DETAIL TO BE CONSTRUCTED AT 11' FROM C/L FOR 37' B-B WIDTHS AND AT 10' FROM C/L ON LESS THAN 37' B-B WIDTHS

**LEGEND**

(1) = STORM SEWER STRUCTURE  
 (S1) = SANITARY SEWER MANHOLE

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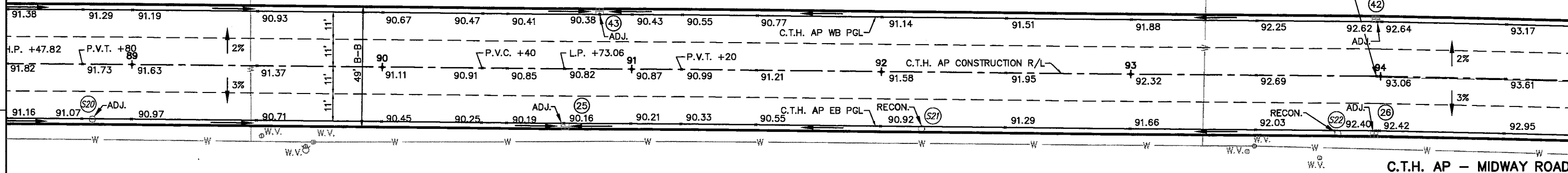
2

2



20 10 0 20  
SCALE - FEET

### C.T.H. AP - MIDWAY ROAD



### C.T.H. AP - MIDWAY ROAD

SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE CONSTRUCTION R/L AND EB & WB PROFILE GRADE LINES (PGL). SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, P.I.'S, P.V.C.'S, P.V.T.'S, C/L-C/L'S, MATCH POINTS, MID POINT OF RADIUS, AND INLET LOCATIONS.

**LEGEND**

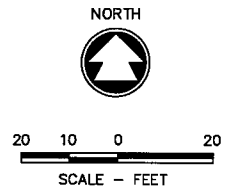
----- LONGITUDINAL JOINT

**NOTE:**  
 SIDEROAD LONGITUDINAL JOINTS NOT SHOWN ON THIS DETAIL TO BE CONSTRUCTED AT 11' FROM C/L FOR 37' B-B WIDTHS AND AT 10' FROM C/L ON LESS THAN 37' B-B WIDTHS

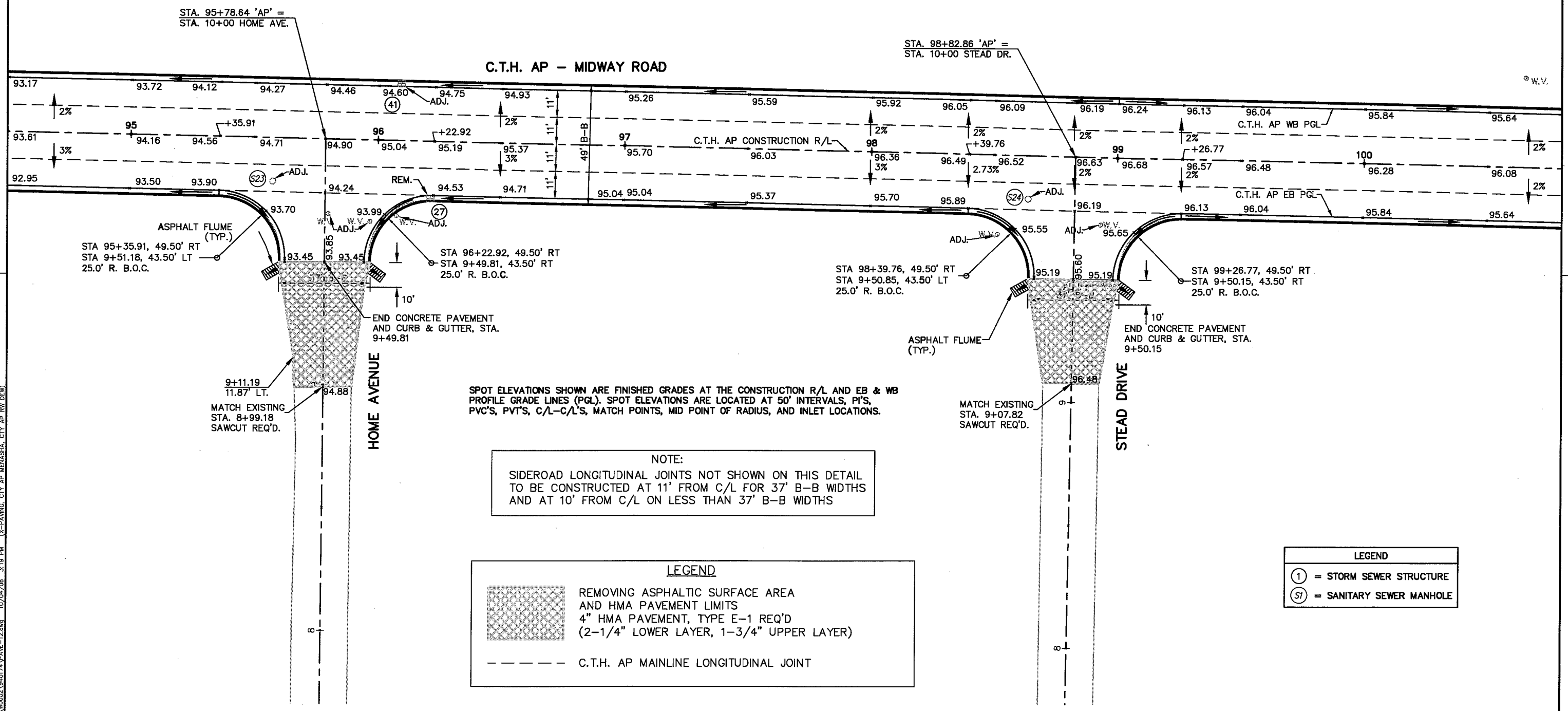
**LEGEND**

① = STORM SEWER STRUCTURE  
 S⑦ = SANITARY SEWER MANHOLE

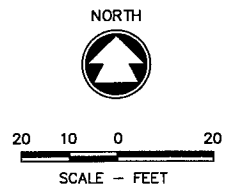
C:\DWG\W0002\940174\PAVE-11.dwg 10/24/08 12:28 PM (X-PAVING, CITY AP MENASHA, CTY AP RW DEV)



LIMITS OF PROPOSED 18" SELECT CRUSHED MATERIAL IS 2' BEYOND B.O.C. MAINLINE THROUGH INTERSECTIONS. PROPOSED PAVEMENT STRUCTURE OF SIDEROADS IS 9" CONCRETE PAVEMENT DOWELED, OVER 6" OF BASE AGGREGATE DENSE 1-1/4", AND 6" OF SELECT CRUSHED MATERIAL.

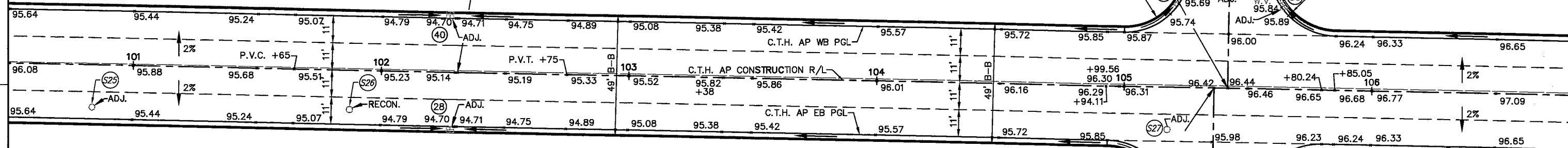


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SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE CONSTRUCTION R/L AND EB & WB PROFILE GRADE LINES (PGL). SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, P.I.'S, PVC'S, PVT'S, C/L-C/L'S, MATCH POINTS, MID POINT OF RADIUS, AND INLET LOCATIONS.

C.T.H. AP - MIDWAY ROAD



N. LINDA AVE.

S. LINDA AVE.

STA. 105+41.87 'AP' = STA. 10+00 N. LINDA AVE.

STA 104+99.56, 48' LT  
STA 10+48.27, 42' LT  
23.5' R. B.O.C.

MATCH EXISTING STA. 11+02.62 SAWCUT REQ'D.

END CONCRETE PAVEMENT AND CURB & GUTTER, STA. 10+49.78

STA 105+85.05, 49.50' LT  
STA 10+49.22, 43.50' RT  
25.0' R. B.O.C.

STA 104+94.11, 48.66' RT  
STA 9+51.68, 42.62' LT  
24.15' R. B.O.C.

STA. 105+36.34 'AP' = STA. 10+00 S. LINDA AVE.

END CONCRETE PAVEMENT AND CURB & GUTTER, STA. 9+50.15

STA 105+80.24, 49.50' RT  
STA 9+50.15, 43.50' RT  
25.0' R. B.O.C.

MATCH EXISTING STA. 9+00.48 SAWCUT REQ'D.

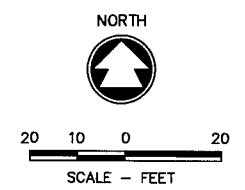
NOTE:  
SIDEROAD LONGITUDINAL JOINTS NOT SHOWN ON THIS DETAIL TO BE CONSTRUCTED AT 11' FROM C/L FOR 37' B-B WIDTHS AND AT 10' FROM C/L ON LESS THAN 37' B-B WIDTHS

LEGEND	
(1)	= STORM SEWER STRUCTURE
(S7)	= SANITARY SEWER MANHOLE

LEGEND	
	REMOVING ASPHALTIC SURFACE AREA AND HMA PAVEMENT LIMITS 4" HMA PAVEMENT, TYPE E-1 REQ'D (2-1/4" LOWER LAYER, 1-3/4" UPPER LAYER)
---	C.T.H. AP MAINLINE LONGITUDINAL JOINT

LIMITS OF PROPOSED 18" SELECT CRUSHED MATERIAL IS 2' BEYOND B.O.C. MAINLINE THROUGH INTERSECTIONS. PROPOSED PAVEMENT STRUCTURE OF SIDEROADS IS 9" CONCRETE PAVEMENT DOWELED, OVER 6" OF BASE AGGREGATE DENSE 1-1/4", AND 6" OF SELECT CRUSHED MATERIAL.

SECTION W:\DWG\W002\940174\PAVE-13.dwg 10/24/06 3:18 PM (X-PAVING, CTY AP MENASHA, CTY AP RW DEW)

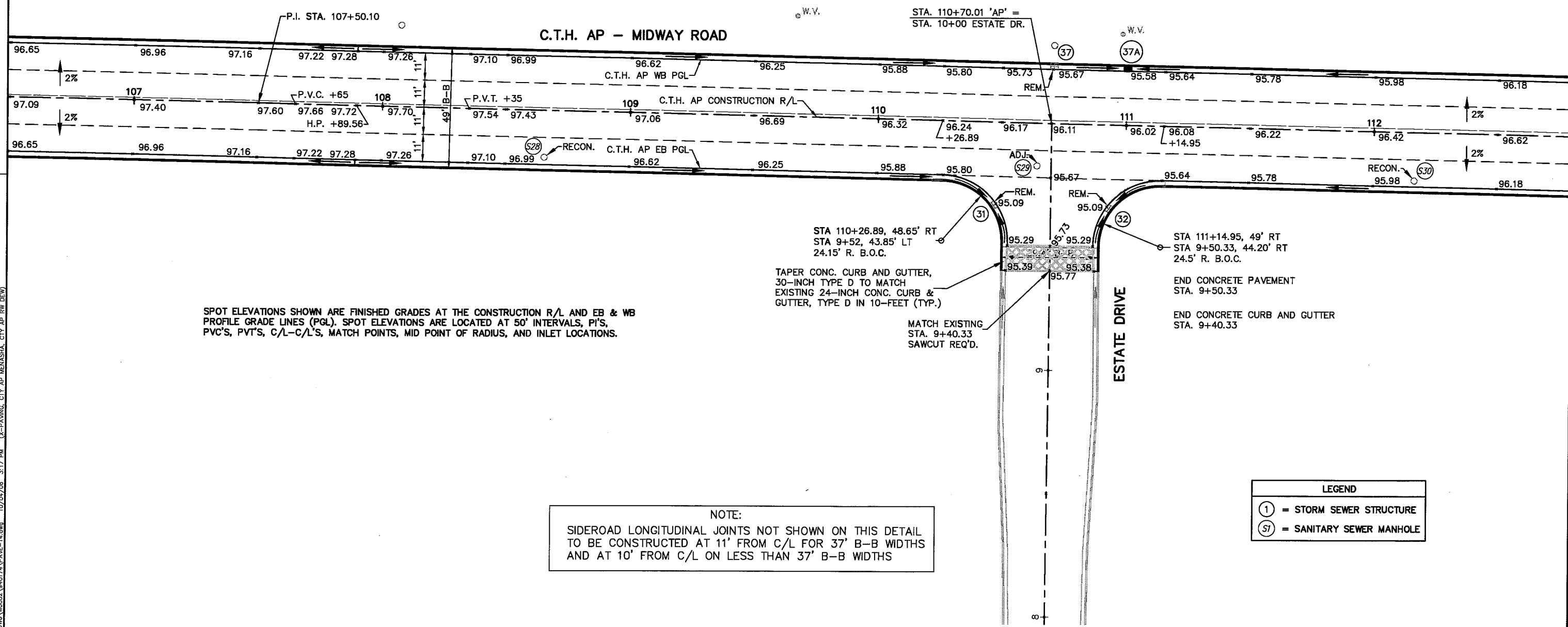


LIMITS OF PROPOSED 18" SELECT CRUSHED MATERIAL IS 2' BEYOND B.O.C. MAINLINE THROUGH INTERSECTIONS. PROPOSED PAVEMENT STRUCTURE OF SIDEROADS IS 9" CONCRETE PAVEMENT DOWELED, OVER 6" OF BASE AGGREGATE DENSE 1-1/4", AND 6" OF SELECT CRUSHED MATERIAL.

**LEGEND**

REMOVING ASPHALTIC SURFACE AREA AND HMA PAVEMENT LIMITS  
4" HMA PAVEMENT, TYPE E-1 REQ'D  
(2-1/4" LOWER LAYER, 1-3/4" UPPER LAYER)

C.T.H. AP MAINLINE LONGITUDINAL JOINT



SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE CONSTRUCTION R/L AND EB & WB PROFILE GRADE LINES (PGL). SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, P.I'S, PVC'S, PVT'S, C/L-C/L'S, MATCH POINTS, MID POINT OF RADIUS, AND INLET LOCATIONS.

**NOTE:**  
SIDEROAD LONGITUDINAL JOINTS NOT SHOWN ON THIS DETAIL TO BE CONSTRUCTED AT 11' FROM C/L FOR 37' B-B WIDTHS AND AT 10' FROM C/L ON LESS THAN 37' B-B WIDTHS

**LEGEND**

= STORM SEWER STRUCTURE

= SANITARY SEWER MANHOLE

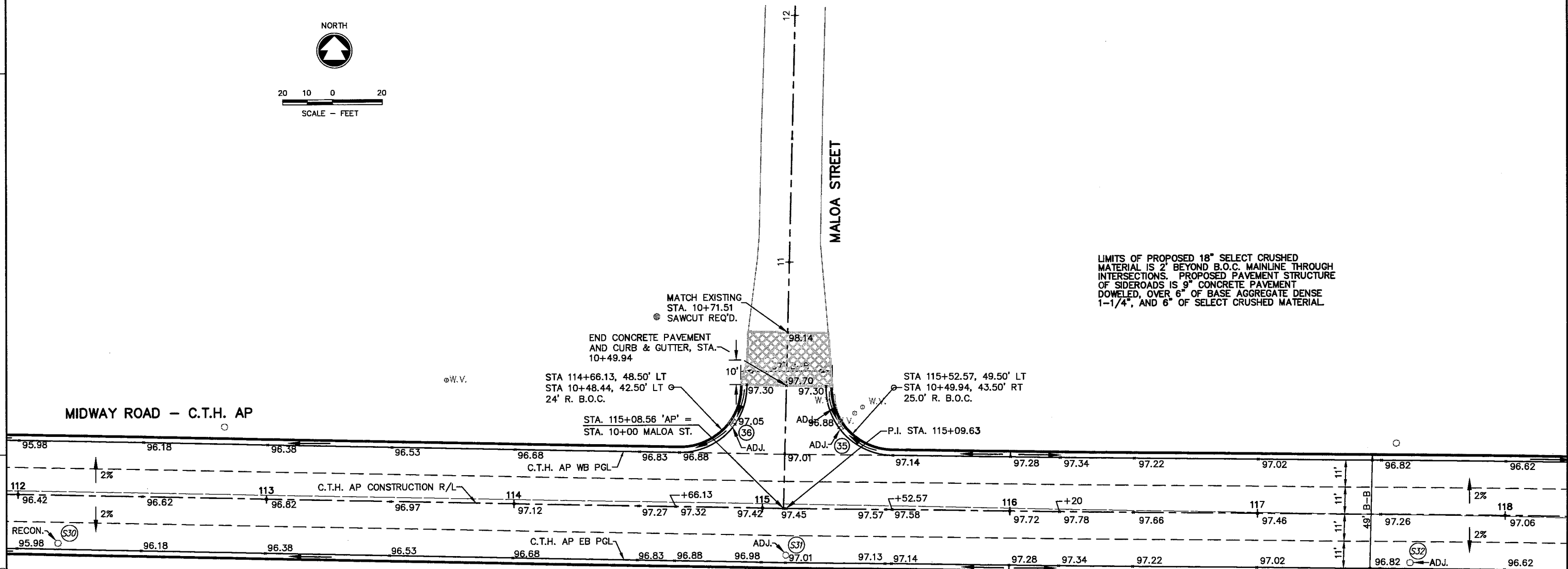
c:\csh\w\dwg\WOOD2\94074\PAVE-14.dwg 10/04/08 3:17 PM (X-PAVING, CTY AP, MENASHA, CTY AP, RW, DEW)





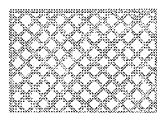
20 10 0 20  
SCALE - FEET

LIMITS OF PROPOSED 18" SELECT CRUSHED MATERIAL IS 2' BEYOND B.O.C. MAINLINE THROUGH INTERSECTIONS. PROPOSED PAVEMENT STRUCTURE OF SIDEROADS IS 9" CONCRETE PAVEMENT DOWELED, OVER 6" OF BASE AGGREGATE DENSE 1-1/4", AND 6" OF SELECT CRUSHED MATERIAL.

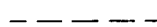


SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE CONSTRUCTION R/L AND EB & WB PROFILE GRADE LINES (PGL). SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, P.I.'S, PVC'S, PVT'S, C/L-C/L'S, MATCH POINTS, MID POINT OF RADIUS, AND INLET LOCATIONS.

LEGEND



REMOVING ASPHALTIC SURFACE AREA AND HMA PAVEMENT LIMITS  
4" HMA PAVEMENT, TYPE E-1 REQ'D  
(2-1/4" LOWER LAYER, 1-3/4" UPPER LAYER)



C.T.H. AP MAINLINE LONGITUDINAL JOINT

NOTE:

SIDEROAD LONGITUDINAL JOINTS NOT SHOWN ON THIS DETAIL TO BE CONSTRUCTED AT 11' FROM C/L FOR 37' B-B WIDTHS AND AT 10' FROM C/L ON LESS THAN 37' B-B WIDTHS

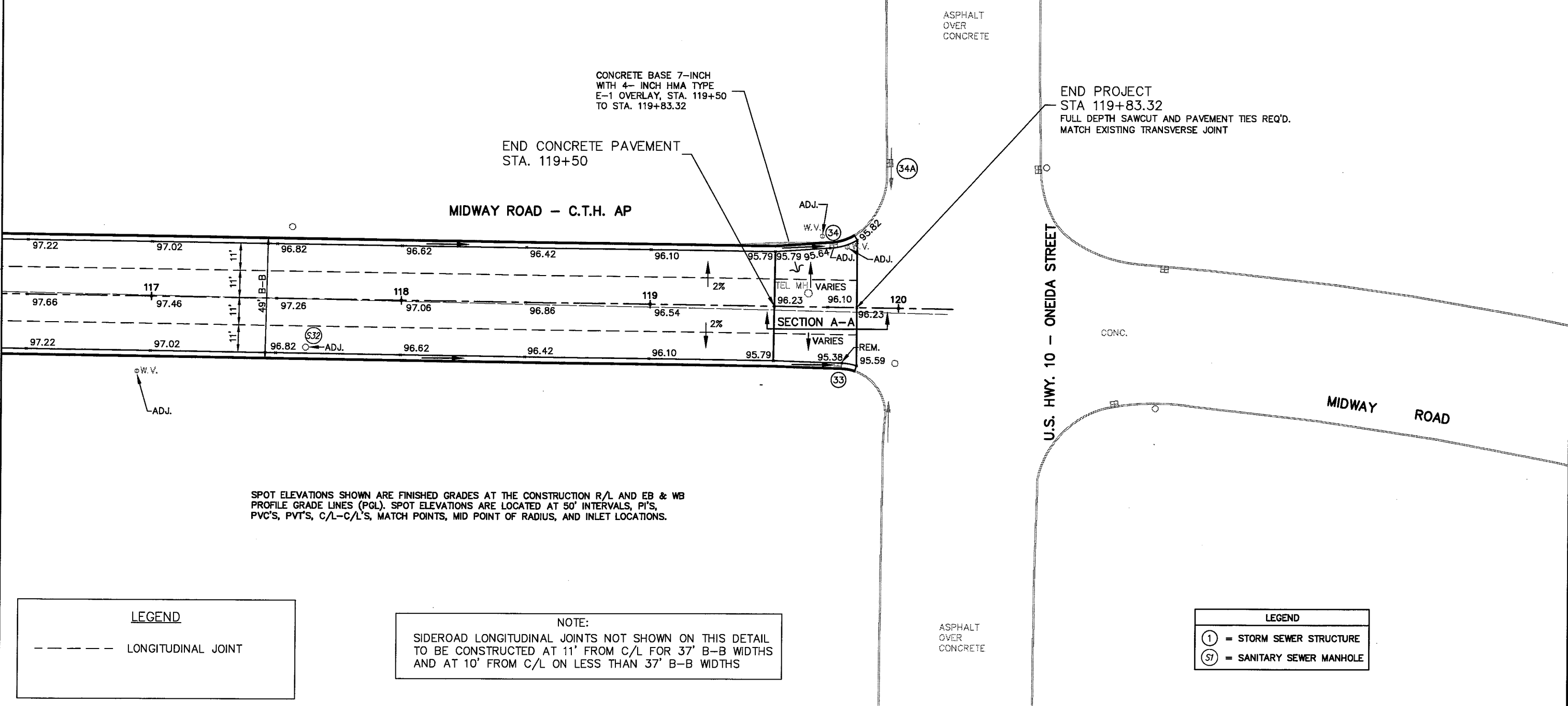
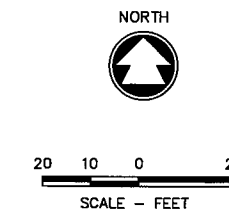
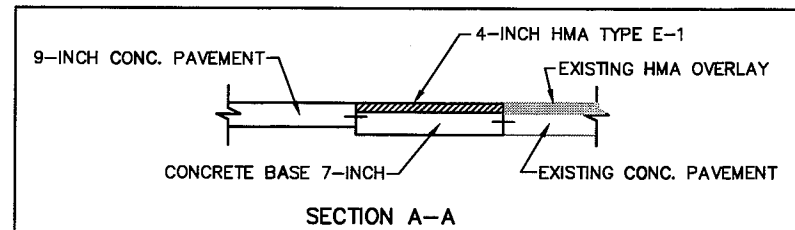
LEGEND

- (1) = STORM SEWER STRUCTURE
- (S1) = SANITARY SEWER MANHOLE

C:\Paving\_City\_AP\_Menasha\_City\_AP\_RW\_DET\10\_04\_06\_3:17 PM (X-PAVING\_CTY\_AP\_MENASHA\_CTY\_AP\_RW\_DET) 10/04/06 3:17 PM

2

2



W:\DWS\WOODS\940174\PAVE-16.dwg 10/04/06 12:30 PM (X-PAVING, CITY AP, MENASHA, CITY AP, RW DES)

STATE PROJECT NUMBER: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

PAVING DETAIL

SHEET NO:

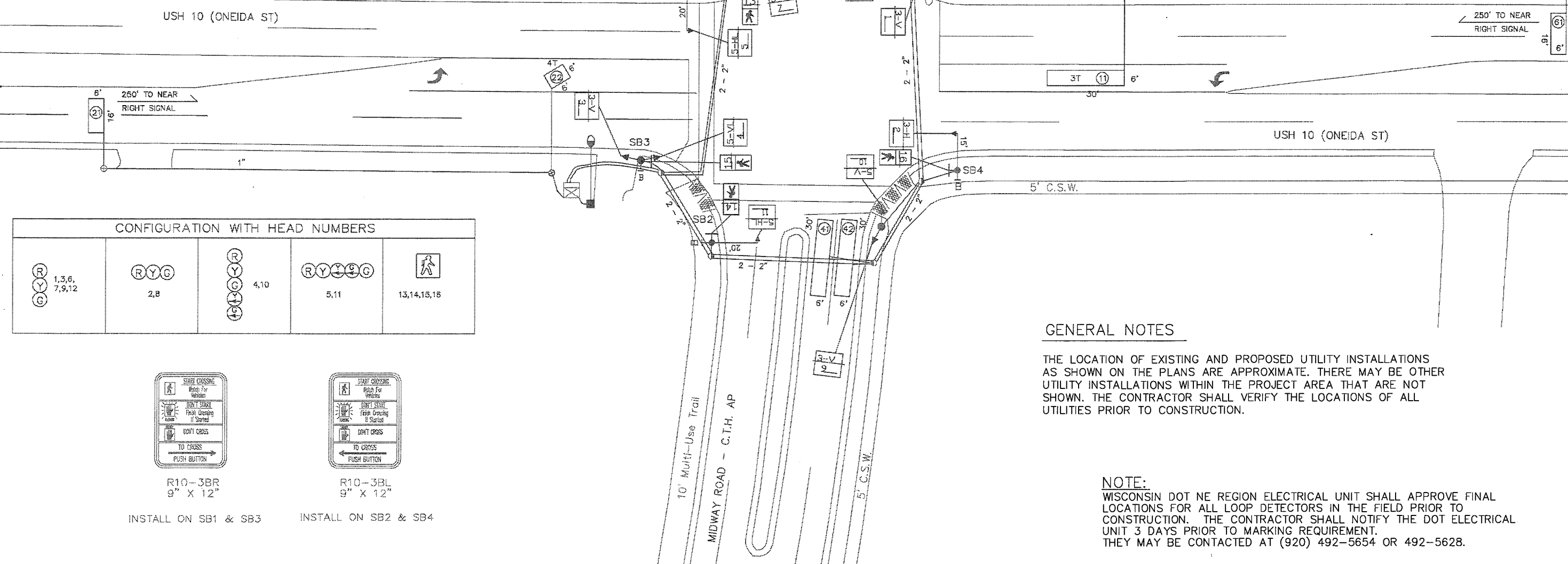
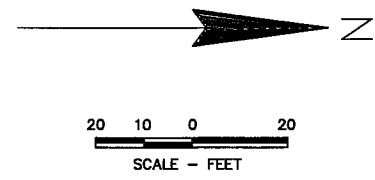
34

E

WISDOT/CADD SHEET 42

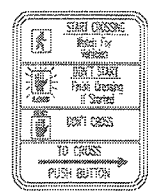
LEGEND

- PULL BOX 12" X 24"
- PULL BOX 24" X 36"
- SIGNAL HEAD PEDESTAL MOUNT
- SIGNAL HEAD MAST-ARM MOUNT WITH LUMINAIRE
- CONTROL CABINET BASE
- CONDUIT
- MOUNTING CONFIGURATION
- SIGNAL HEAD NUMBER
- DON'T WALK INDICATOR 12"
- WALK INDICATOR 12"
- LOOP DETECTOR IN 1" NON-METALLIC CONDUIT WITH 12" PULL BOX
- LOOP DETECTOR (1/4" Grooves)
- UNDERGROUND ELECTRIC
- SERVICE POLE
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- UTILITY POLE
- PEDESTRIAN HEAD W/PUSH BUTTON

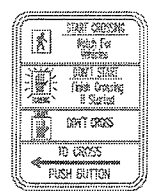


CONFIGURATION WITH HEAD NUMBERS

--	--	--	--	--



R10-3BR  
9" X 12"  
INSTALL ON SB1 & SB3



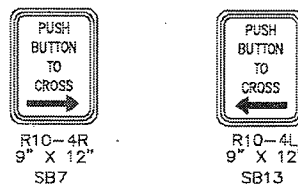
R10-3BL  
9" X 12"  
INSTALL ON SB2 & SB4

GENERAL NOTES

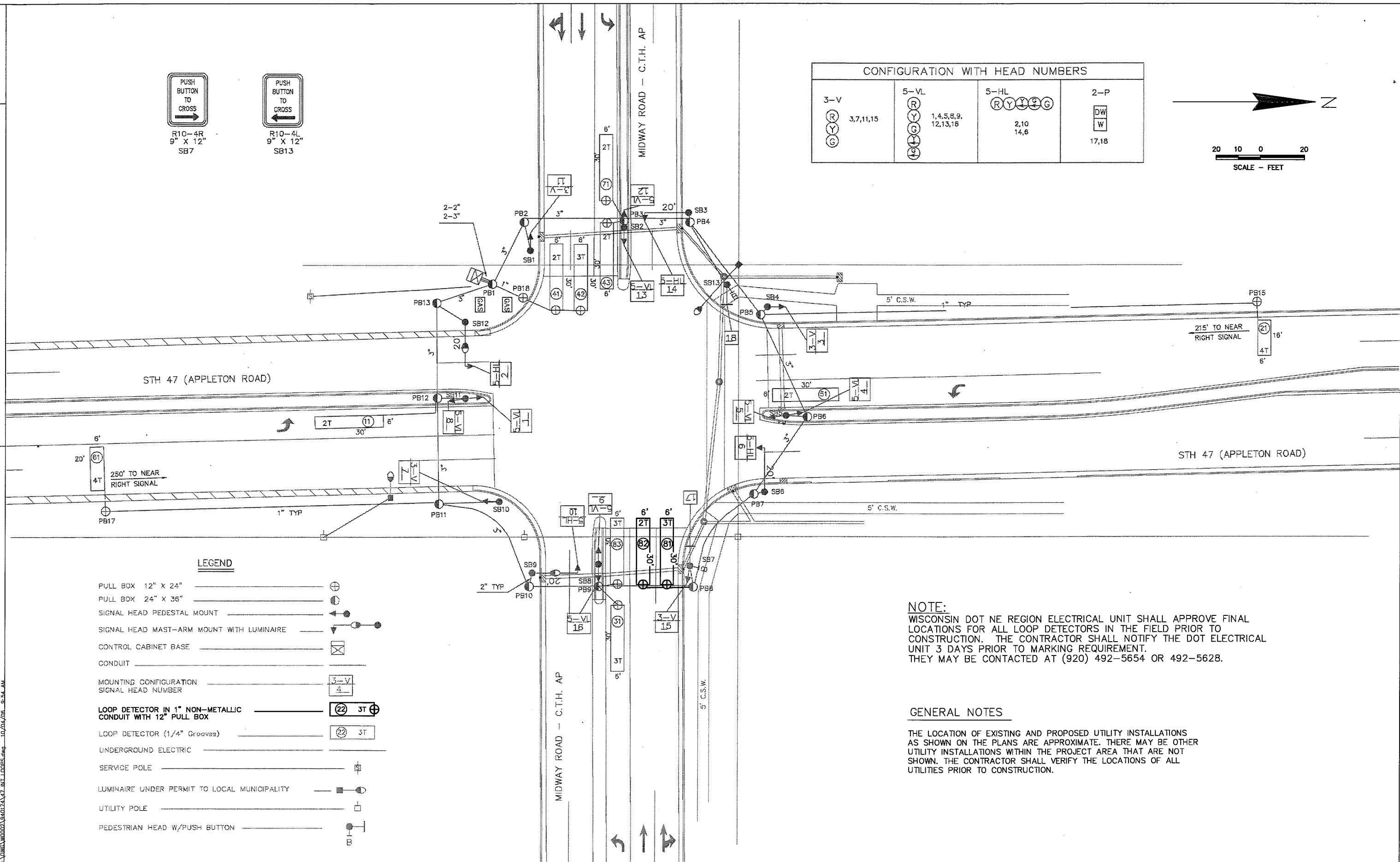
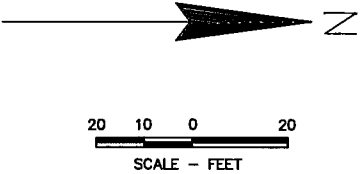
THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

NOTE:

WISCONSIN DOT NE REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL LOOP DETECTORS IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE DOT ELECTRICAL UNIT 3 DAYS PRIOR TO MARKING REQUIREMENT. THEY MAY BE CONTACTED AT (920) 492-5654 OR 492-5628.



CONFIGURATION WITH HEAD NUMBERS			
3-V Ⓡ Ⓢ Ⓣ	5-VL Ⓡ Ⓢ Ⓣ Ⓡ Ⓢ	5-HL Ⓡ Ⓢ Ⓣ Ⓡ Ⓢ	2-P DW W 17,18
3,7,11,15	1,4,5,8,9,12,13,16	2,10,14,6	



**LEGEND**

- PULL BOX 12" X 24"
- PULL BOX 24" X 36"
- SIGNAL HEAD PEDESTAL MOUNT
- SIGNAL HEAD MAST-ARM MOUNT WITH LUMINAIRE
- CONTROL CABINET BASE
- CONDUIT
- MOUNTING CONFIGURATION SIGNAL HEAD NUMBER
- LOOP DETECTOR IN 1" NON-METALLIC CONDUIT WITH 12" PULL BOX
- LOOP DETECTOR (1/4" Grooves)
- UNDERGROUND ELECTRIC
- SERVICE POLE
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- UTILITY POLE
- PEDESTRIAN HEAD W/PUSH BUTTON

**NOTE:**  
 WISCONSIN DOT NE REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL LOOP DETECTORS IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE DOT ELECTRICAL UNIT 3 DAYS PRIOR TO MARKING REQUIREMENT. THEY MAY BE CONTACTED AT (920) 492-5654 OR 492-5628.

**GENERAL NOTES**  
 THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.



C.T.H. AP - MIDWAY ROAD

NOTE:  
MATCH EXISTING PAVEMENT  
MARKINGS AT MATCH POINT

REMOVE 1 SIGN AND  
ONE SIGN SUPPORT

REMOVE 1 SIGN AND  
ONE SIGN SUPPORT

REMOVE 1 SIGN AND  
ONE SIGN SUPPORT

REMOVE 1 SIGN AND  
ONE SIGN SUPPORT

NOTE:  
SIGNS THAT ARE REMOVED ARE  
TO BE REINSTALLED AT THE SAME  
LOCATION ON NEW SIGN SUPPORTS.

NOTE:  
SEE STANDARD DETAIL DRAWINGS FOR  
ADDITIONAL INFORMATION ON PAVEMENT  
MARKING DETAILS NOT SHOWN HERE.

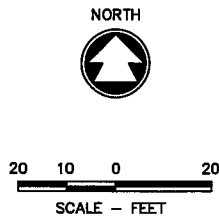
LEGEND			
A	PAVT MARKING, NO PASSING, EPOXY, 4-INCH (DOUBLE YELLOW)	H	PAVT MARKING, RAILROAD CROSSING, EPOXY (WHITE)
B	PAVT MARKING, LANE LINE, EPOXY, 4-INCH (DASHED WHITE)	I	PAVT MARKING, WORDS, EPOXY (WHITE)
C	PAVT MARKING, STOP LINE, EPOXY, 18-INCH (WHITE)	J	PAVT MARKING, DIAGONAL, EPOXY, 12-INCH (YELLOW)
D	PAVT MARKING, EPOXY, 8-INCH (WHITE)	K	PAVT MARKING, CROSSWALK, EPOXY, 12-INCH (WHITE)
E	PAVT MARKING, ISLAND NOSE, EPOXY (YELLOW)	L	PAVT MARKING, CONCRETE CORRUGATED MEDIAN, EPOXY
F	PAVT MARKING, EDGELINE, EPOXY, 4-INCH (YELLOW)	M	PAVT MARKING, ARROW, TYPE 2, EPOXY (WHITE)
G	PAVT MARKING, CURB, EPOXY (YELLOW)	N	PAVT MARKING, ARROW, TYPE 3, EPOXY (WHITE)
		O	PAVT MARKING, DIAGONAL, EPOXY, 8-INCH (WHITE)

C.T.H. AP - MIDWAY ROAD

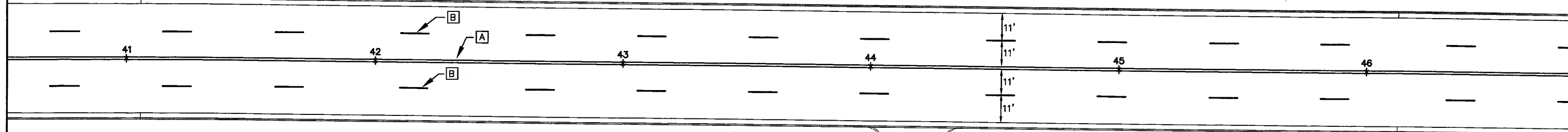
REMOVE 1 SIGN AND  
ONE SIGN SUPPORT

REMOVE 1 SIGN AND  
ONE SIGN SUPPORT

C:\Users\jw\Documents\Projects\4984-01-30\4984-01-30.dwg 10/20/16 10:48 AM CTX-AB-RW.DWG



C.T.H. AP - MIDWAY ROAD



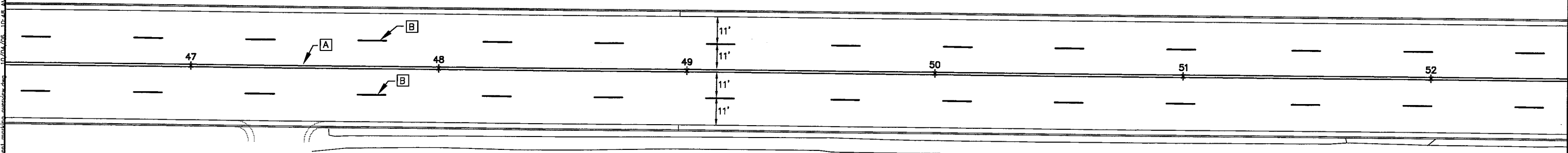
**LEGEND**

<b>A</b> PAVT MARKING, NO PASSING, EPOXY, 4-INCH (DOUBLE YELLOW)	<b>H</b> PAVT MARKING, RAILROAD CROSSING, EPOXY (WHITE)
<b>B</b> PAVT MARKING, LANE LINE, EPOXY, 4-INCH (DASHED WHITE)	<b>I</b> PAVT MARKING, WORDS, EPOXY (WHITE)
<b>C</b> PAVT MARKING, STOP LINE, EPOXY, 18-INCH (WHITE)	<b>J</b> PAVT MARKING, DIAGONAL, EPOXY, 12-INCH (YELLOW)
<b>D</b> PAVT MARKING, EPOXY, 8-INCH (WHITE)	<b>K</b> PAVT MARKING, CROSSWALK, EPOXY, 12-INCH (WHITE)
<b>E</b> PAVT MARKING, ISLAND NOSE, EPOXY (YELLOW)	<b>L</b> PAVT MARKING, CONCRETE CORRUGATED MEDIAN, EPOXY
<b>F</b> PAVT MARKING, EDGELINE, EPOXY, 4-INCH (YELLOW)	<b>M</b> PAVT MARKING, ARROW, TYPE 2, EPOXY (WHITE)
<b>G</b> PAVT MARKING, CURB, EPOXY (YELLOW)	<b>N</b> PAVT MARKING, ARROW, TYPE 3, EPOXY (WHITE)
	<b>O</b> PAVT MARKING, DIAGONAL, EPOXY, 8-INCH (WHITE)

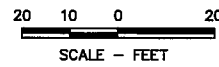
NOTE:  
SEE STANDARD DETAIL DRAWINGS FOR  
ADDITIONAL INFORMATION ON PAVEMENT  
MARKING DETAILS NOT SHOWN HERE.

NOTE:  
SIGNS THAT ARE REMOVED ARE  
TO BE REINSTALLED AT THE SAME  
LOCATION ON NEW SIGN SUPPORTS.

C.T.H. AP - MIDWAY ROAD



WSDOT/CADD SHEET 42



REMOVE 1 SIGN AND ONE SIGN SUPPORT

MIDWAY PLACE

KENWOOD DRIVE

C.T.H. AP - MIDWAY ROAD

LEGEND

- |   |   |
|---|---|
| [A] PAVT MARKING, NO PASSING, EPOXY, 4-INCH (DOUBLE YELLOW) | [H] PAVT MARKING, RAILROAD CROSSING, EPOXY (WHITE)  |
| [B] PAVT MARKING, LANE LINE, EPOXY, 4-INCH (DASHED WHITE)   | [I] PAVT MARKING, WORDS, EPOXY (WHITE)              |
| [C] PAVT MARKING, STOP LINE, EPOXY, 18-INCH (WHITE)         | [J] PAVT MARKING, DIAGONAL, EPOXY, 12-INCH (YELLOW) |
| [D] PAVT MARKING, EPOXY, 8-INCH (WHITE)                     | [K] PAVT MARKING, CROSSWALK, EPOXY, 12-INCH (WHITE) |
| [E] PAVT MARKING, ISLAND NOSE, EPOXY (YELLOW)               | [L] PAVT MARKING, CONCRETE CORRUGATED MEDIAN, EPOXY |
| [F] PAVT MARKING, EDGELINE, EPOXY, 4-INCH (YELLOW)          | [M] PAVT MARKING, ARROW, TYPE 2, EPOXY (WHITE)      |
| [G] PAVT MARKING, CURB, EPOXY (YELLOW)                      | [N] PAVT MARKING, ARROW, TYPE 3, EPOXY (WHITE)      |
|   | [O] PAVT MARKING, DIAGONAL, EPOXY, 8-INCH (WHITE)   |

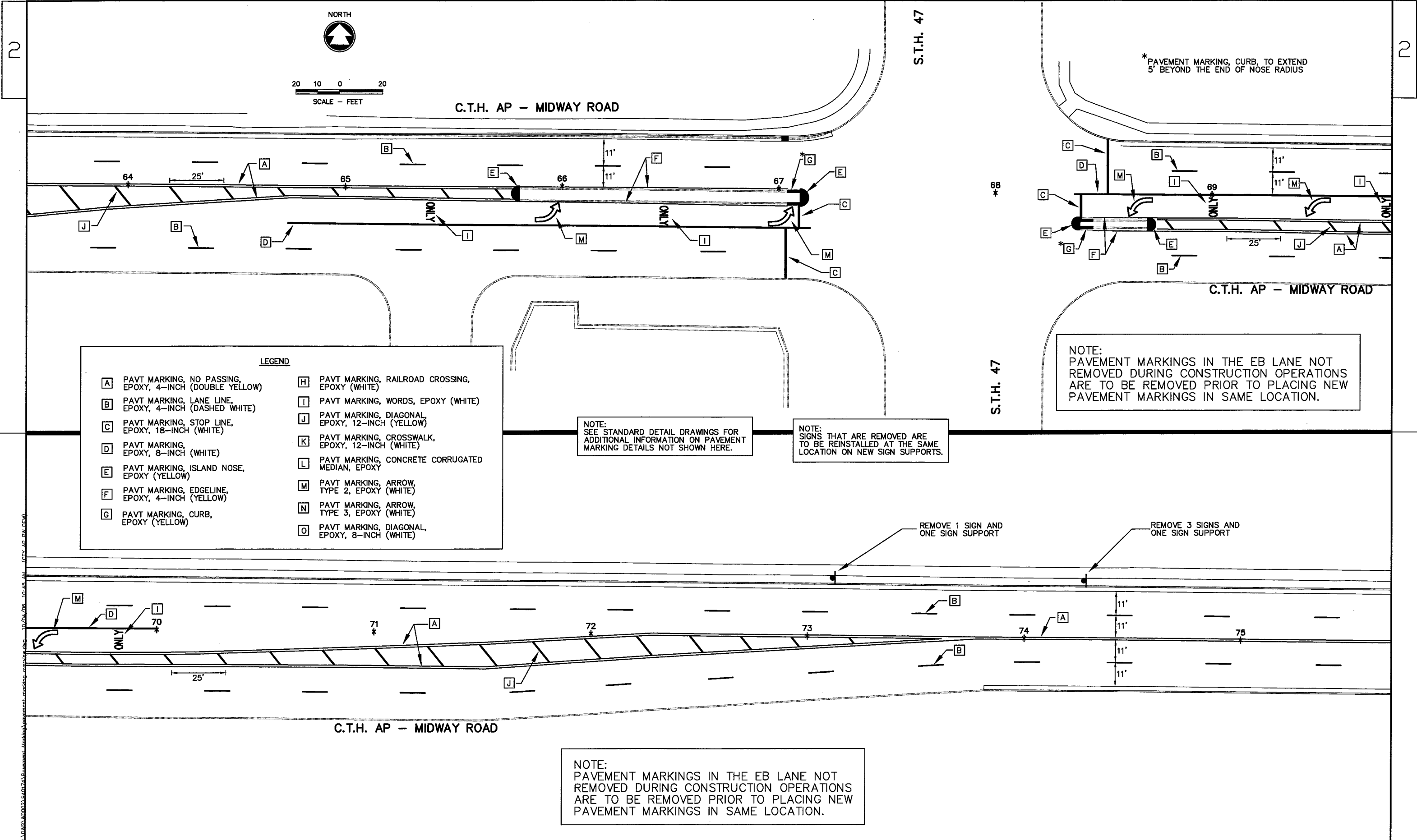
NOTE: SEE STANDARD DETAIL DRAWINGS FOR ADDITIONAL INFORMATION ON PAVEMENT MARKING DETAILS NOT SHOWN HERE.

NOTE: SIGNS THAT ARE REMOVED ARE TO BE REINSTALLED AT THE SAME LOCATION ON NEW SIGN SUPPORTS.

C.T.H. AP - MIDWAY ROAD

PARKSIDE DRIVE

NOTE: PAVEMENT MARKINGS IN THE EB LANE NOT REMOVED DURING CONSTRUCTION OPERATIONS ARE TO BE REMOVED PRIOR TO PLACING NEW PAVEMENT MARKINGS IN SAME LOCATION.



20 10 0 20  
SCALE - FEET

C.T.H. AP - MIDWAY ROAD

S.T.H. 47

\* PAVEMENT MARKING, CURB, TO EXTEND 5' BEYOND THE END OF NOSE RADIUS

**LEGEND**

<b>A</b> PAVT MARKING, NO PASSING, EPOXY, 4-INCH (DOUBLE YELLOW)	<b>H</b> PAVT MARKING, RAILROAD CROSSING, EPOXY (WHITE)
<b>B</b> PAVT MARKING, LANE LINE, EPOXY, 4-INCH (DASHED WHITE)	<b>I</b> PAVT MARKING, WORDS, EPOXY (WHITE)
<b>C</b> PAVT MARKING, STOP LINE, EPOXY, 18-INCH (WHITE)	<b>J</b> PAVT MARKING, DIAGONAL, EPOXY, 12-INCH (YELLOW)
<b>D</b> PAVT MARKING, EPOXY, 8-INCH (WHITE)	<b>K</b> PAVT MARKING, CROSSWALK, EPOXY, 12-INCH (WHITE)
<b>E</b> PAVT MARKING, ISLAND NOSE, EPOXY (YELLOW)	<b>L</b> PAVT MARKING, CONCRETE CORRUGATED MEDIAN, EPOXY
<b>F</b> PAVT MARKING, EDGELINE, EPOXY, 4-INCH (YELLOW)	<b>M</b> PAVT MARKING, ARROW, TYPE 2, EPOXY (WHITE)
<b>G</b> PAVT MARKING, CURB, EPOXY (YELLOW)	<b>N</b> PAVT MARKING, ARROW, TYPE 3, EPOXY (WHITE)
	<b>O</b> PAVT MARKING, DIAGONAL, EPOXY, 8-INCH (WHITE)

NOTE:  
SEE STANDARD DETAIL DRAWINGS FOR ADDITIONAL INFORMATION ON PAVEMENT MARKING DETAILS NOT SHOWN HERE.

NOTE:  
SIGNS THAT ARE REMOVED ARE TO BE REINSTALLED AT THE SAME LOCATION ON NEW SIGN SUPPORTS.

NOTE:  
PAVEMENT MARKINGS IN THE EB LANE NOT REMOVED DURING CONSTRUCTION OPERATIONS ARE TO BE REMOVED PRIOR TO PLACING NEW PAVEMENT MARKINGS IN SAME LOCATION.

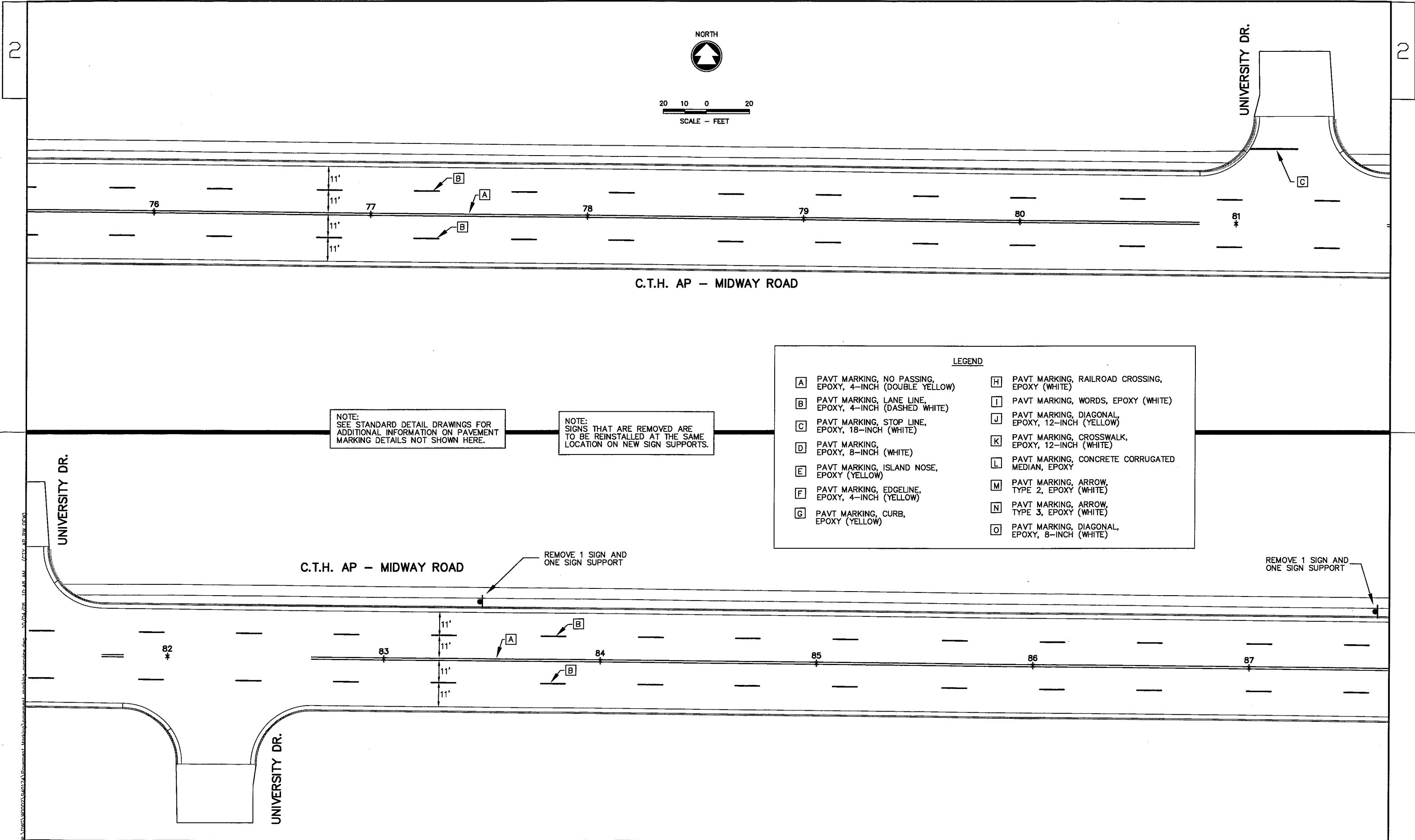
REMOVE 1 SIGN AND ONE SIGN SUPPORT

REMOVE 3 SIGNS AND ONE SIGN SUPPORT

C.T.H. AP - MIDWAY ROAD

NOTE:  
PAVEMENT MARKINGS IN THE EB LANE NOT REMOVED DURING CONSTRUCTION OPERATIONS ARE TO BE REMOVED PRIOR TO PLACING NEW PAVEMENT MARKINGS IN SAME LOCATION.





20 10 0 20  
SCALE - FEET

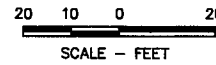
NOTE:  
SEE STANDARD DETAIL DRAWINGS FOR  
ADDITIONAL INFORMATION ON PAVEMENT  
MARKING DETAILS NOT SHOWN HERE.

NOTE:  
SIGNS THAT ARE REMOVED ARE  
TO BE REINSTALLED AT THE SAME  
LOCATION ON NEW SIGN SUPPORTS.

**LEGEND**

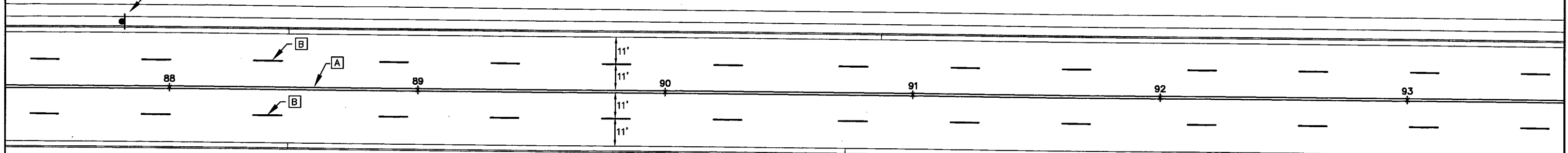
<b>A</b> PAVT MARKING, NO PASSING, EPOXY, 4-INCH (DOUBLE YELLOW)	<b>H</b> PAVT MARKING, RAILROAD CROSSING, EPOXY (WHITE)
<b>B</b> PAVT MARKING, LANE LINE, EPOXY, 4-INCH (DASHED WHITE)	<b>I</b> PAVT MARKING, WORDS, EPOXY (WHITE)
<b>C</b> PAVT MARKING, STOP LINE, EPOXY, 18-INCH (WHITE)	<b>J</b> PAVT MARKING, DIAGONAL, EPOXY, 12-INCH (YELLOW)
<b>D</b> PAVT MARKING, EPOXY, 8-INCH (WHITE)	<b>K</b> PAVT MARKING, CROSSWALK, EPOXY, 12-INCH (WHITE)
<b>E</b> PAVT MARKING, ISLAND NOSE, EPOXY (YELLOW)	<b>L</b> PAVT MARKING, CONCRETE CORRUGATED MEDIAN, EPOXY
<b>F</b> PAVT MARKING, EDGELINE, EPOXY, 4-INCH (YELLOW)	<b>M</b> PAVT MARKING, ARROW, TYPE 2, EPOXY (WHITE)
<b>G</b> PAVT MARKING, CURB, EPOXY (YELLOW)	<b>N</b> PAVT MARKING, ARROW, TYPE 3, EPOXY (WHITE)
	<b>O</b> PAVT MARKING, DIAGONAL, EPOXY, 8-INCH (WHITE)

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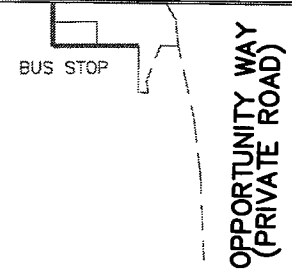
C.T.H. AP - MIDWAY ROAD

REMOVE 1 SIGN AND ONE SIGN SUPPORT



**LEGEND**

<b>A</b> PAVT MARKING, NO PASSING, EPOXY, 4-INCH (DOUBLE YELLOW)	<b>H</b> PAVT MARKING, RAILROAD CROSSING, EPOXY (WHITE)
<b>B</b> PAVT MARKING, LANE LINE, EPOXY, 4-INCH (DASHED WHITE)	<b>I</b> PAVT MARKING, WORDS, EPOXY (WHITE)
<b>C</b> PAVT MARKING, STOP LINE, EPOXY, 18-INCH (WHITE)	<b>J</b> PAVT MARKING, DIAGONAL, EPOXY, 12-INCH (YELLOW)
<b>D</b> PAVT MARKING, EPOXY, 8-INCH (WHITE)	<b>K</b> PAVT MARKING, CROSSWALK, EPOXY, 12-INCH (WHITE)
<b>E</b> PAVT MARKING, ISLAND NOSE, EPOXY (YELLOW)	<b>L</b> PAVT MARKING, CONCRETE CORRUGATED MEDIAN, EPOXY
<b>F</b> PAVT MARKING, EDGELINE, EPOXY, 4-INCH (YELLOW)	<b>M</b> PAVT MARKING, ARROW, TYPE 2, EPOXY (WHITE)
<b>G</b> PAVT MARKING, CURB, EPOXY (YELLOW)	<b>N</b> PAVT MARKING, ARROW, TYPE 3, EPOXY (WHITE)
	<b>O</b> PAVT MARKING, DIAGONAL, EPOXY, 8-INCH (WHITE)

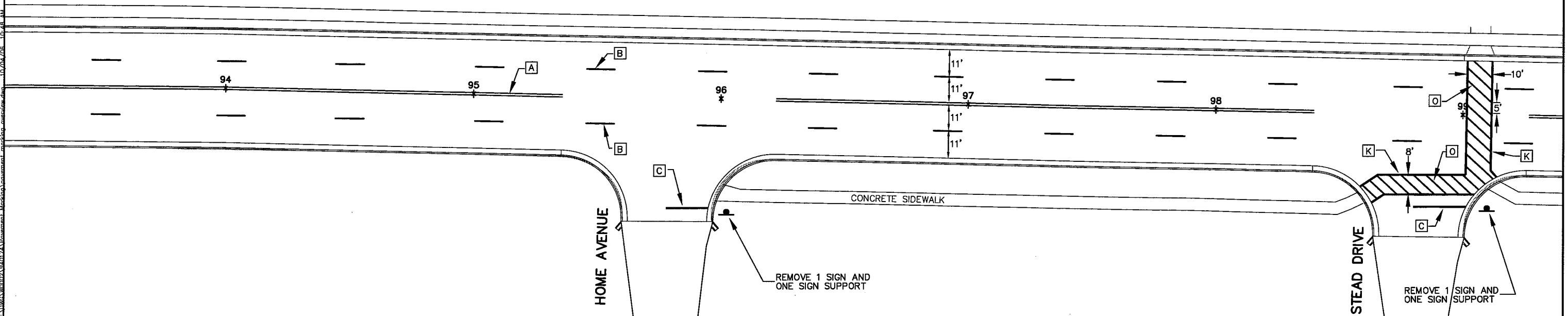


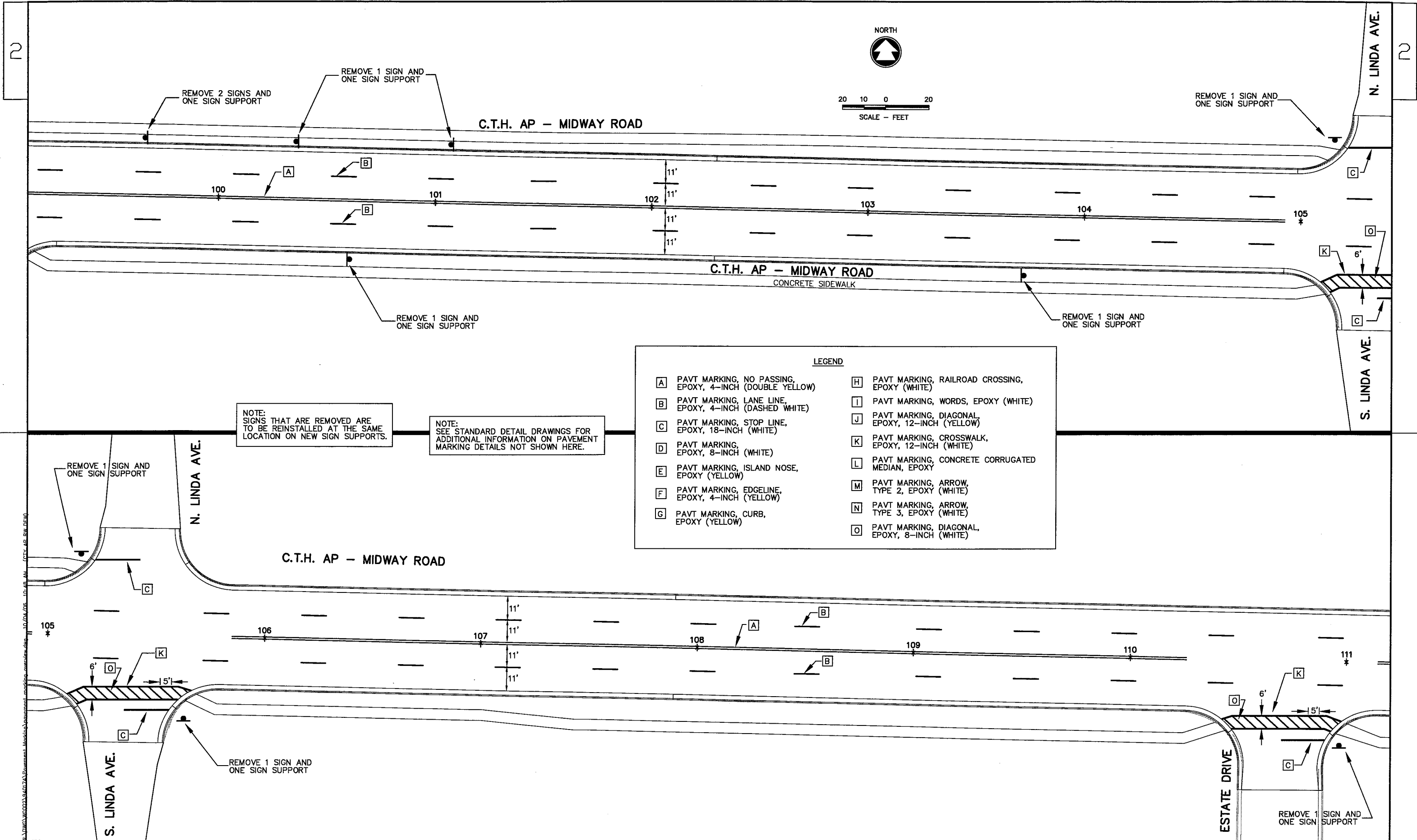
C.T.H. AP - MIDWAY ROAD

NOTE: SIGNS THAT ARE REMOVED ARE TO BE REINSTALLED AT THE SAME LOCATION ON NEW SIGN SUPPORTS.

NOTE: SEE STANDARD DETAIL DRAWINGS FOR ADDITIONAL INFORMATION ON PAVEMENT MARKING DETAILS NOT SHOWN HERE.

C.T.H. AP - MIDWAY ROAD





NORTH

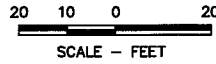
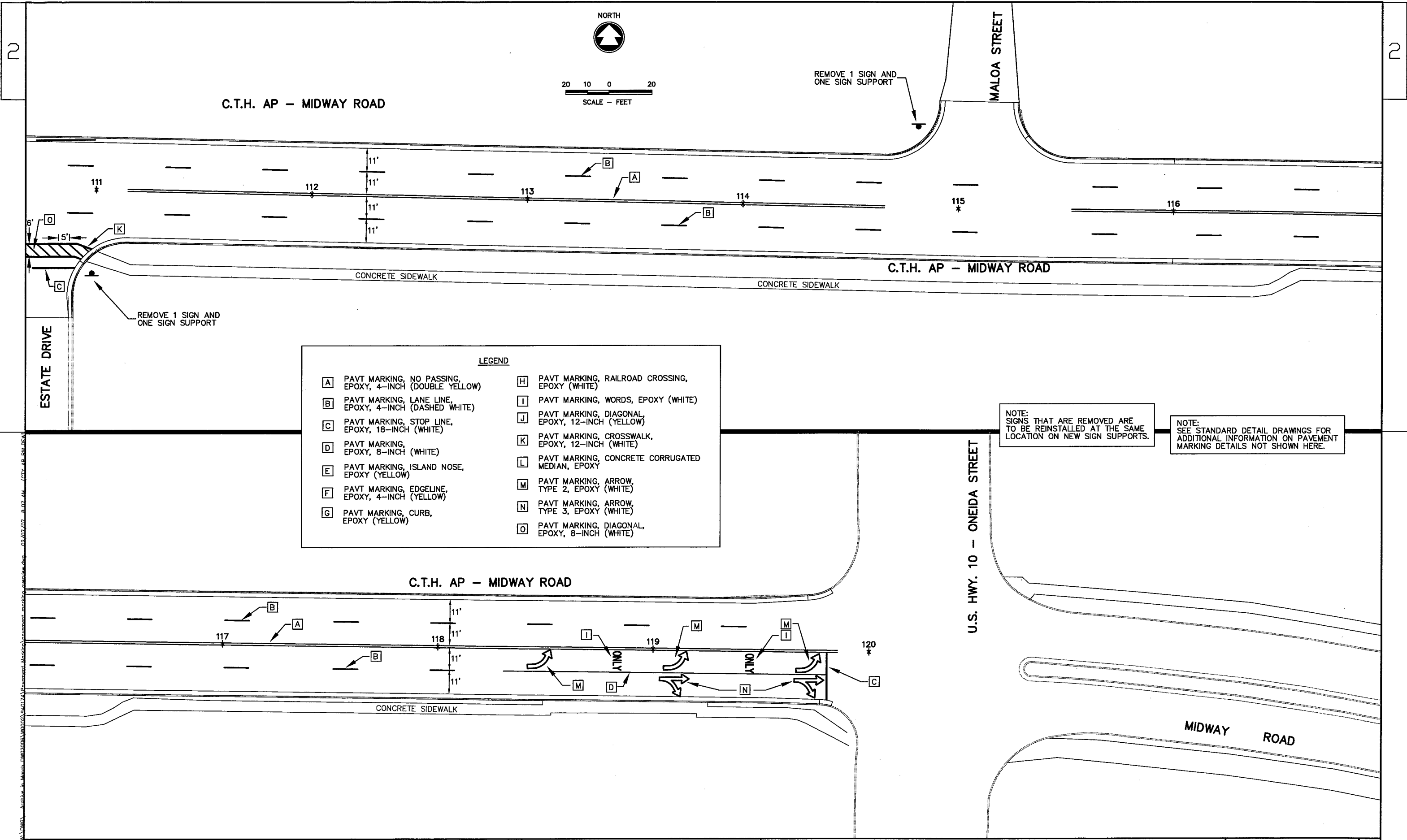


20 10 0 20  
SCALE - FEET

NOTE:  
SIGNS THAT ARE REMOVED ARE  
TO BE REINSTALLED AT THE SAME  
LOCATION ON NEW SIGN SUPPORTS.

NOTE:  
SEE STANDARD DETAIL DRAWINGS FOR  
ADDITIONAL INFORMATION ON PAVEMENT  
MARKING DETAILS NOT SHOWN HERE.

LEGEND	
A	PAVT MARKING, NO PASSING, EPOXY, 4-INCH (DOUBLE YELLOW)
B	PAVT MARKING, LANE LINE, EPOXY, 4-INCH (DASHED WHITE)
C	PAVT MARKING, STOP LINE, EPOXY, 18-INCH (WHITE)
D	PAVT MARKING, EPOXY, 8-INCH (WHITE)
E	PAVT MARKING, ISLAND NOSE, EPOXY (YELLOW)
F	PAVT MARKING, EDGELINE, EPOXY, 4-INCH (YELLOW)
G	PAVT MARKING, CURB, EPOXY (YELLOW)
H	PAVT MARKING, RAILROAD CROSSING, EPOXY (WHITE)
I	PAVT MARKING, WORDS, EPOXY (WHITE)
J	PAVT MARKING, DIAGONAL, EPOXY, 12-INCH (YELLOW)
K	PAVT MARKING, CROSSWALK, EPOXY, 12-INCH (WHITE)
L	PAVT MARKING, CONCRETE CORRUGATED MEDIAN, EPOXY
M	PAVT MARKING, ARROW, TYPE 2, EPOXY (WHITE)
N	PAVT MARKING, ARROW, TYPE 3, EPOXY (WHITE)
O	PAVT MARKING, DIAGONAL, EPOXY, 8-INCH (WHITE)



C.T.H. AP - MIDWAY ROAD

MALOA STREET

ESTATE DRIVE

C.T.H. AP - MIDWAY ROAD

**LEGEND**

<b>A</b> PAVT MARKING, NO PASSING, EPOXY, 4-INCH (DOUBLE YELLOW)	<b>H</b> PAVT MARKING, RAILROAD CROSSING, EPOXY (WHITE)
<b>B</b> PAVT MARKING, LANE LINE, EPOXY, 4-INCH (DASHED WHITE)	<b>I</b> PAVT MARKING, WORDS, EPOXY (WHITE)
<b>C</b> PAVT MARKING, STOP LINE, EPOXY, 18-INCH (WHITE)	<b>J</b> PAVT MARKING, DIAGONAL, EPOXY, 12-INCH (YELLOW)
<b>D</b> PAVT MARKING, EPOXY, 8-INCH (WHITE)	<b>K</b> PAVT MARKING, CROSSWALK, EPOXY, 12-INCH (WHITE)
<b>E</b> PAVT MARKING, ISLAND NOSE, EPOXY (YELLOW)	<b>L</b> PAVT MARKING, CONCRETE CORRUGATED MEDIAN, EPOXY
<b>F</b> PAVT MARKING, EDGELINE, EPOXY, 4-INCH (YELLOW)	<b>M</b> PAVT MARKING, ARROW, TYPE 2, EPOXY (WHITE)
<b>G</b> PAVT MARKING, CURB, EPOXY (YELLOW)	<b>N</b> PAVT MARKING, ARROW, TYPE 3, EPOXY (WHITE)
	<b>O</b> PAVT MARKING, DIAGONAL, EPOXY, 8-INCH (WHITE)

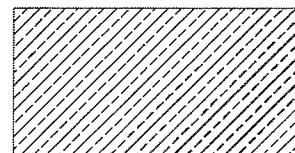
NOTE:  
SIGNS THAT ARE REMOVED ARE TO BE REINSTALLED AT THE SAME LOCATION ON NEW SIGN SUPPORTS.

NOTE:  
SEE STANDARD DETAIL DRAWINGS FOR ADDITIONAL INFORMATION ON PAVEMENT MARKING DETAILS NOT SHOWN HERE.

C.T.H. AP - MIDWAY ROAD

U.S. HWY. 10 - ONEIDA STREET

MIDWAY ROAD



CONSTRUCTION ZONE



PAVEMENT GAPS



SIGN ON PORTABLE OR PERMANENT SUPPORT ①



TYPE 3 BARRICADE WITH TYPE "A" WARNING LIGHTS



TYPE 3 BARRICADE WITH TYPE "A" WARNING LIGHTS AND SIGN ATTACHED



DIRECTION OF TRAFFIC



NON-METALLIC DRUMS SPACED AT 25' WITH TYPE C WARNING LIGHTS



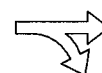
NON-METALLIC DRUMS SPACED AT 50' (TYP.)



FLEXIBLE TUBULAR MARKER POST



EXISTING PAVT MARKING, TYPE 2 ARROW



EXISTING PAVT MARKING, TYPE 3 ARROW

ONLY

EXISTING PAVT MARKING, WORDS

### TRAFFIC CONTROL NOTES

PORTABLE SUPPORTS ALLOWED FOR SIGN PLACEMENT ON PAVEMENT ONLY.

DETAILS OF TRAFFIC CONTROL DEVICES AND THEIR LOCATION NOT SHOWN ON THE FOLLOWING DETAIL DRAWINGS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD DETAIL DRAWINGS AND THE WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

SIGN AND BARRICADE LOCATIONS MAY BE ADJUSTED IN THE FIELD AS DIRECTED BY THE ENGINEER. ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS WORK SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

ALL SIGN SIZES SHALL CONFORM TO REQUIREMENTS FOR A CONVENTIONAL ROAD AS DESCRIBED IN THE MUTCD. THE MINIMUM SIZE FOR A DIAMOND SHAPED TEMPORARY TRAFFIC CONTROL SIGN SHALL BE 48" X 48".

ALL PAVEMENT MARKINGS NOT APPROPRIATE TO THE TRAVEL PATH SHALL BE REMOVED.

A MINIMUM OF 11-FOOT WIDE TRAVEL LANES SHALL BE MAINTAINED.

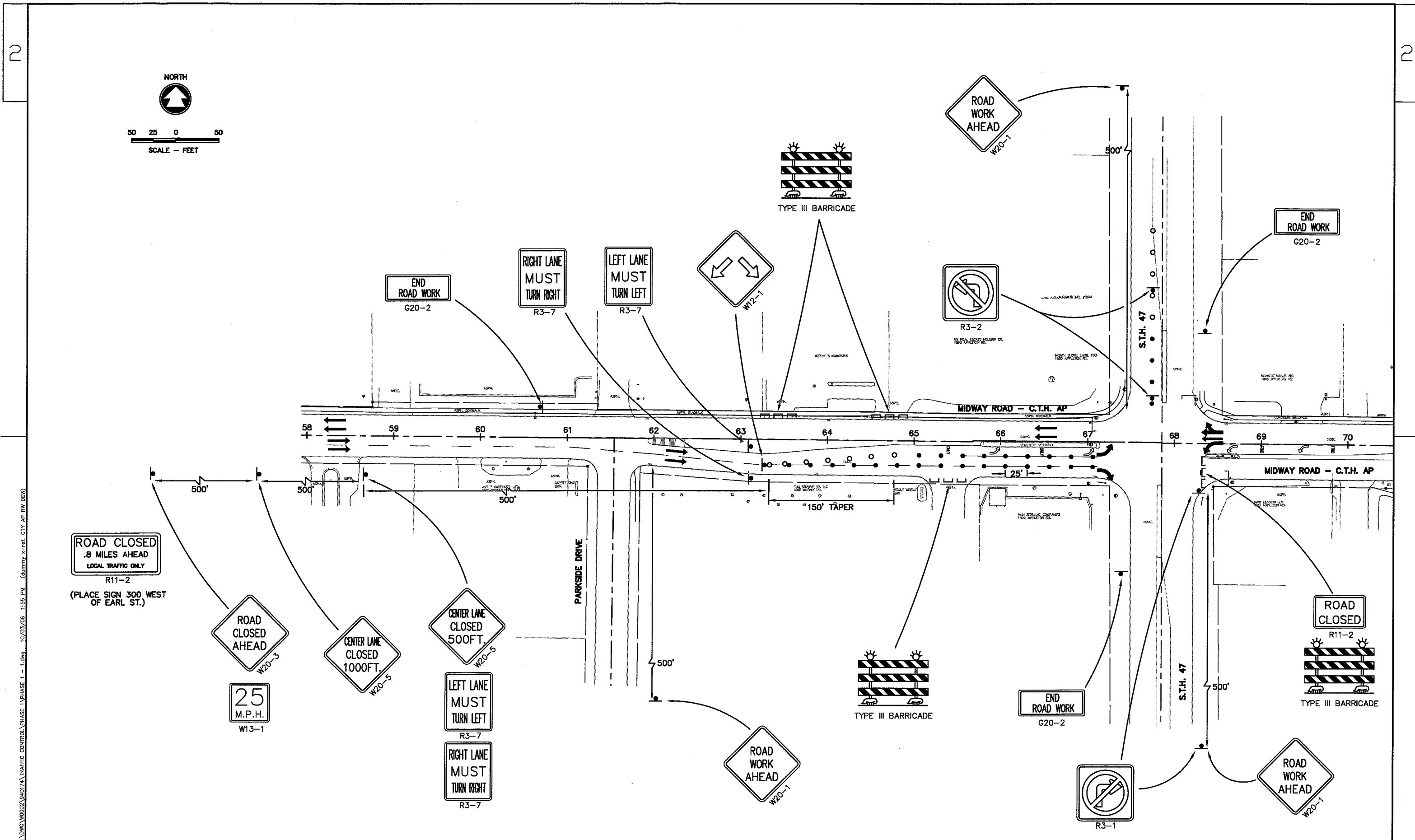
TRAFFIC SIGNALS AT STH 47 AND ONIEDA STREET ARE TO REMAIN FULLY OPERATIONAL DURING ALL PHASES OF CONSTRUCTION.

REFER TO SPECIAL PROVISIONS FOR DRIVEWAY ACCESS REQUIREMENTS.

PAVEMENT GAPS SHOWN IN THIS PLAN ARE NOT TO SCALE. GAPS TO BE SUFFICIENT SIZE TO ALLOW TRUCK ACCESS TO BUSINESSES.

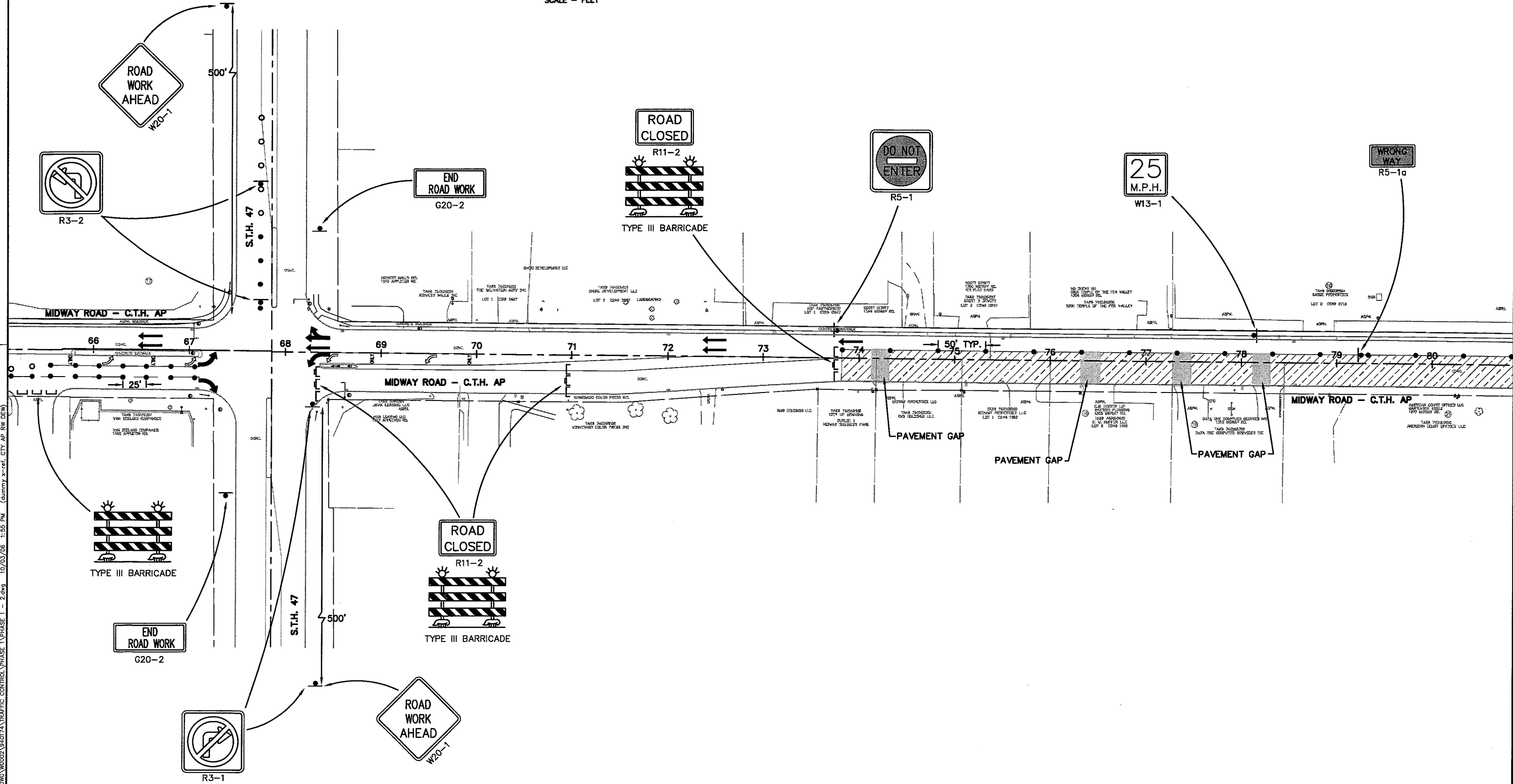
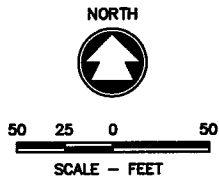
ADDITIONAL DRUMS ARE TO BE PLACED AT PRIVATE DRIVEWAYS AND SIDEROADS AT THE DIRECTION OF THE ENGINEER IN THE FIELD.

cschuh w:\DWG\W0002\940174\TRAFFIC CONTROL\TRAFFIC CONTROL LEGEND.dwg 10/03/06 1:57 PM (CTY AP MENASHA, CTY AP RW DEW)

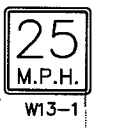
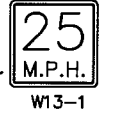
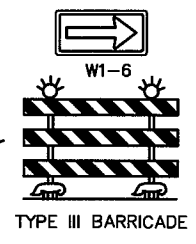
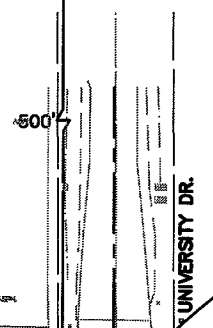
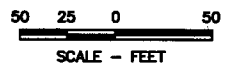


c:\chuh\w\dwg\w0002\940774\TRAFFIC CONTROL PHASE 1\PHASE 1 - 1.dwg 10/03/06 1:55 PM (duminy x-ref. CTY AP RW DEW)

WSDOT/CADD SHEET 42



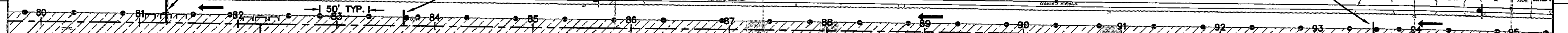
c:\chuh\w\dwg\w0002\94017A\TRAFFIC CONTROL\PHASE 1 - 2.dwg 10/05/06 11:55 PM (dummy x-ref. C.T.H. AP RW DWG)



MIDWAY ROAD - C.T.H. AP

MIDWAY ROAD - C.T.H. AP

MIDWAY ROAD - C.T.H. AP

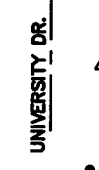


PAVEMENT GAP

PAVEMENT GAP



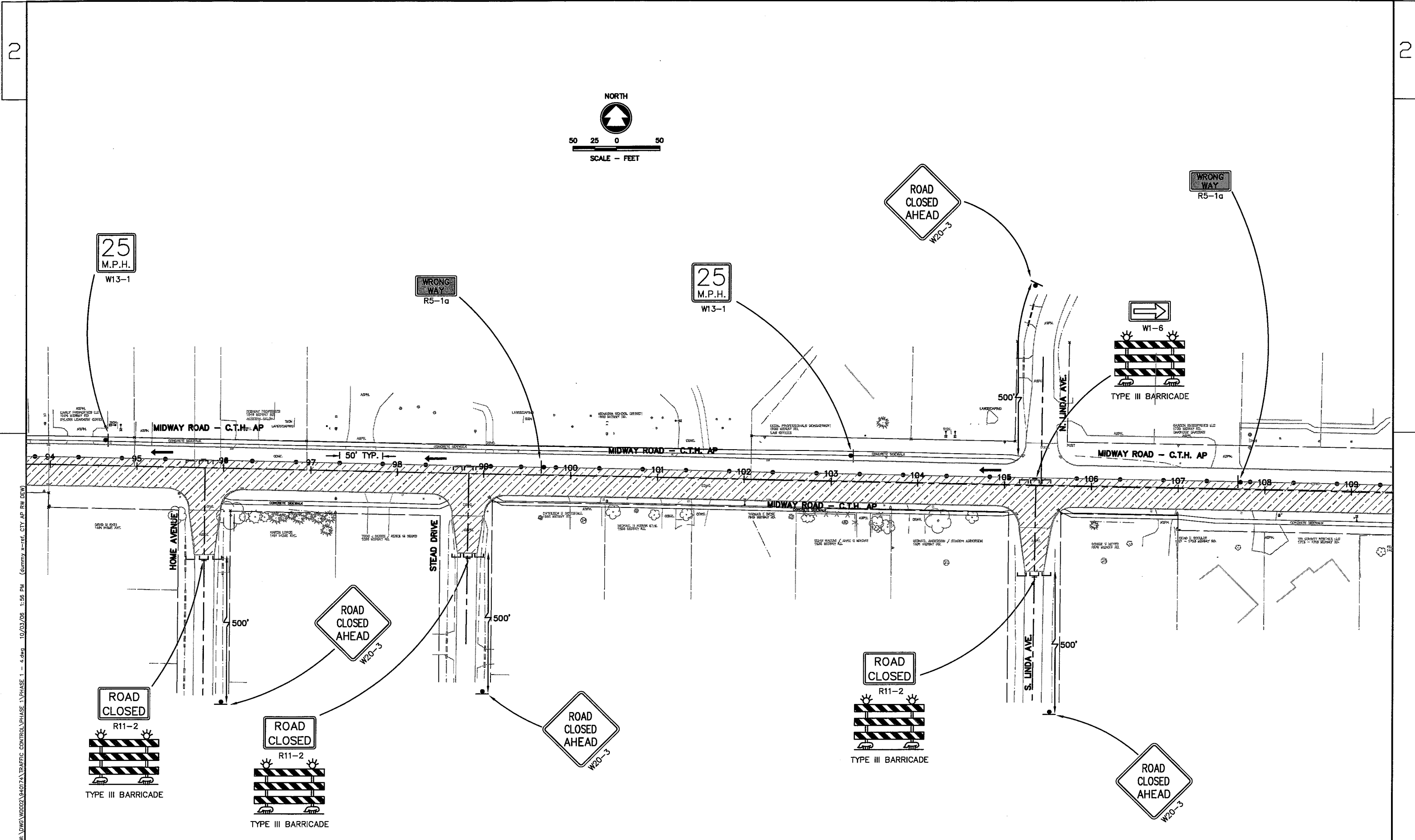
TYPE III BARRICADE



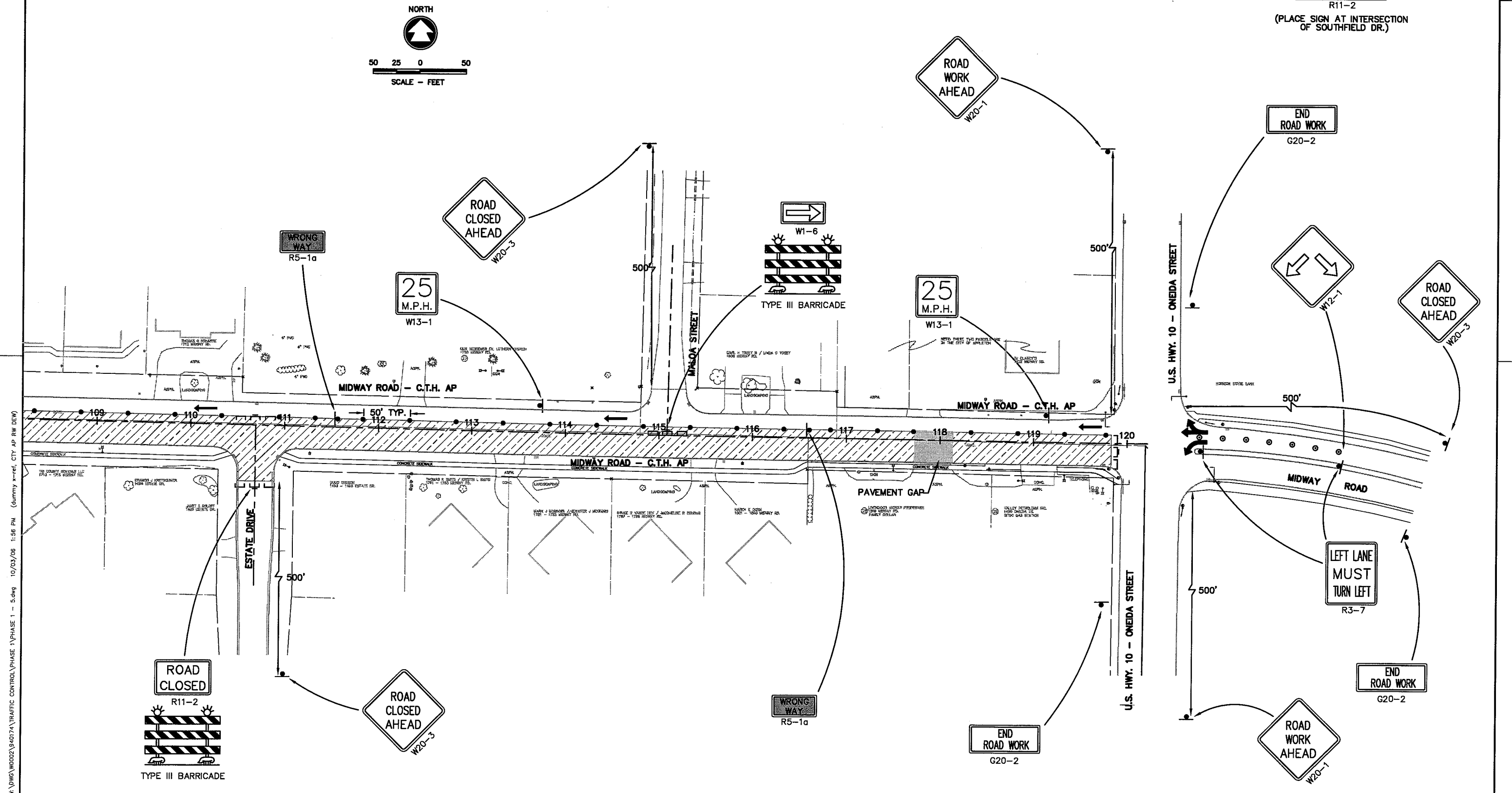
OPPORTUNITY WAY (PRIVATE ROAD)

W:\DWG\WOODS\94017A\TRAFFIC CONTROL\PHASE 1 - 3.dwg 10/03/06 1:56 PM (dummy x-ref. CTY AP RW DEV)

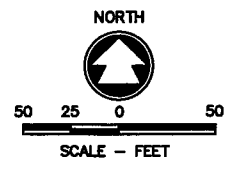




W:\DWG\W0002\940714\TRAFFIC CONTROL\PHASE 1\PHASE 1 - 4.dwg 10/03/06 1:56 PM (dumny, k-ref, C.T.H. AP RW DEV)



c:\chuck\_w\dwg\w002\940774\TRAFFIC CONTROL\PHASE 1\PHASE 1 - 5.dwg 10/03/06 1:56 PM (dummy x-ref, CITY AP RW DEV)



**ROAD CLOSED**  
 .8 MILES AHEAD  
 LOCAL TRAFFIC ONLY  
 R11-2  
 (PLACE SIGN 300' WEST  
 OF EARL ST.)

**END ROAD WORK**  
 G20-2

**ROAD WORK AHEAD**  
 W20-1

**END ROAD WORK**  
 G20-2

**RIGHT LANE MUST TURN RIGHT**  
 R3-7

**25 M.P.H.**  
 W13-1

**RIGHT LANE MUST TURN RIGHT**  
 R3-7

**ROAD CLOSED AHEAD**  
 W20-3

**ROAD WORK AHEAD**  
 W20-1

**END ROAD WORK**  
 G20-2

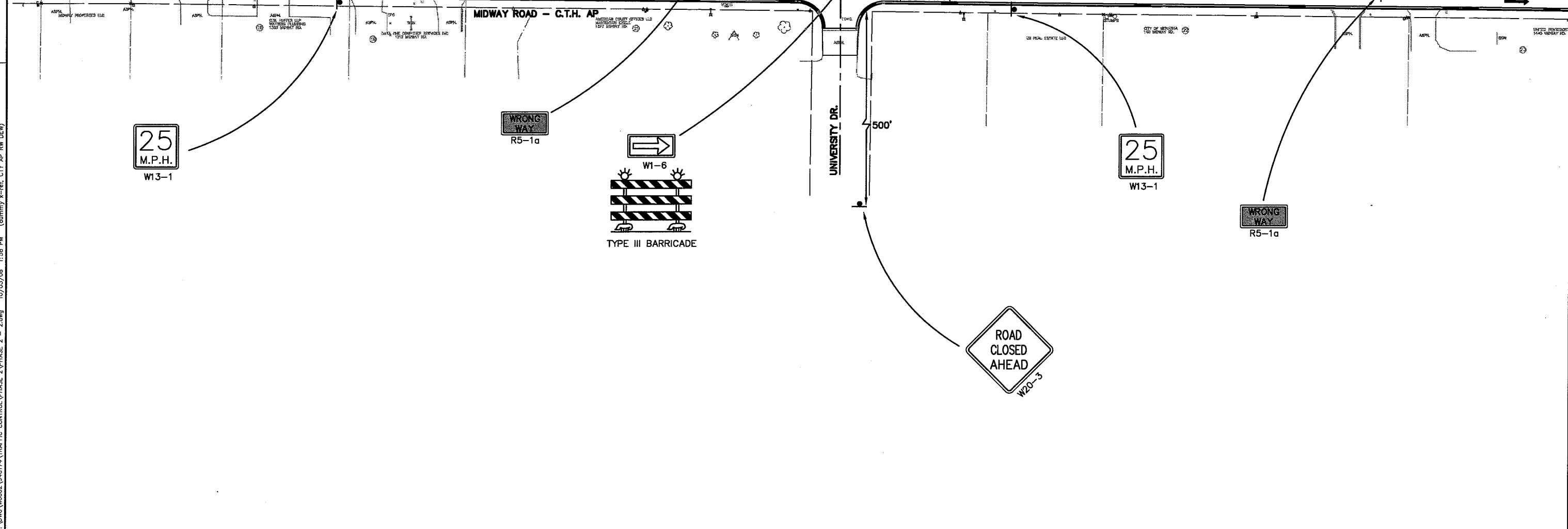
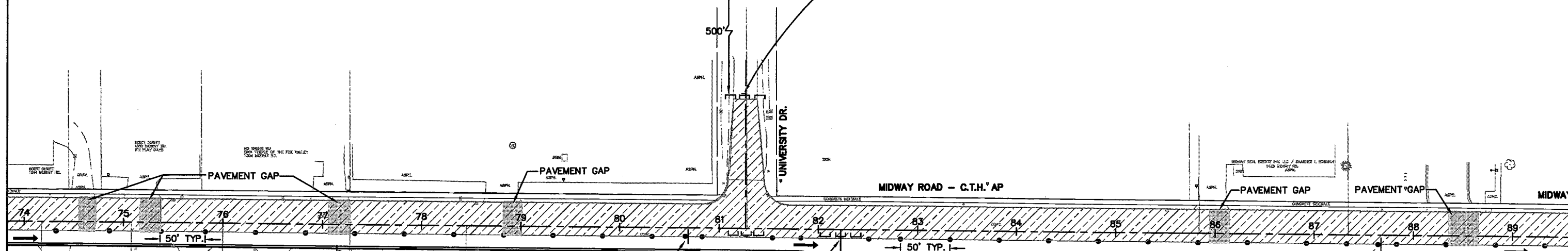
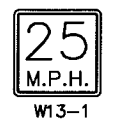
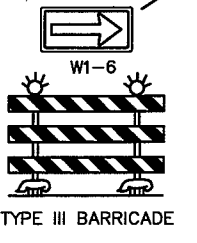
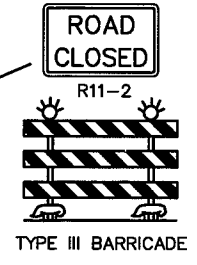
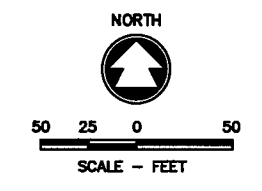
**ROAD WORK AHEAD**  
 W20-1

**WRONG WAY**  
 R5-1a

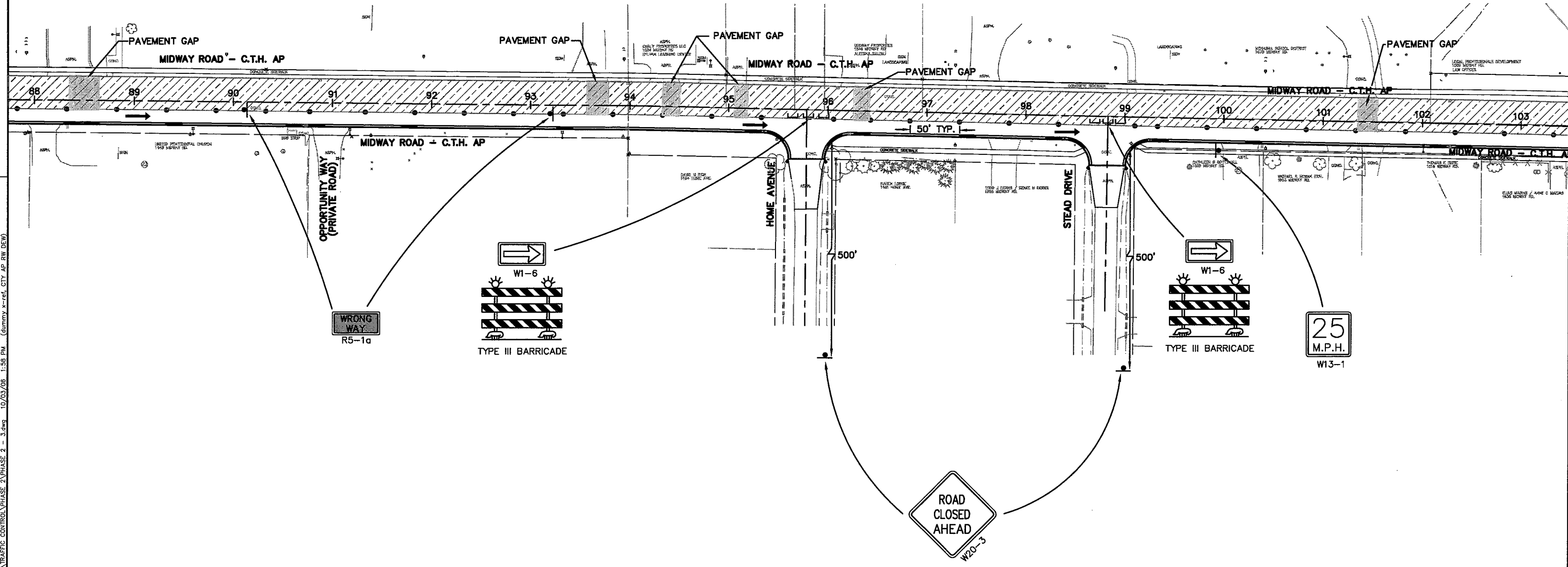
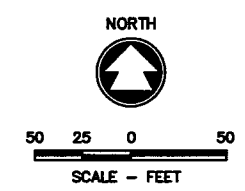
**25 M.P.H.**  
 W13-1

NOTE: REMOVE EXISTING PAVEMENT MARKING LANE LINE IN TAPER

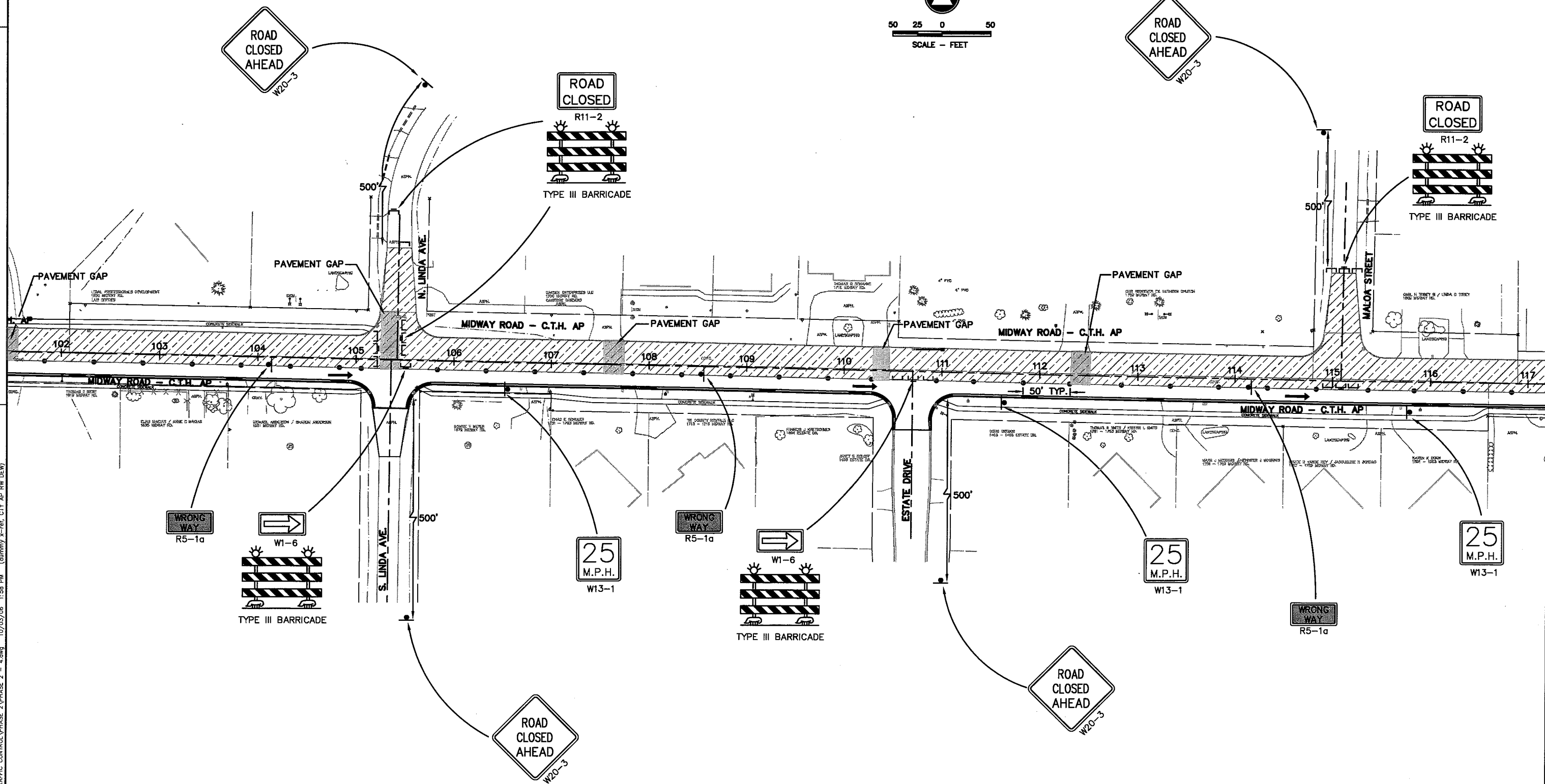
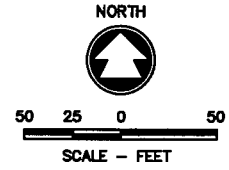
s:\chuck\_w\dwg\WOOD2\9407A TRAFFIC CONTROL\PHASE 2\PHASE 2 - 1.dwg 10/03/06 1:57 PM (dummy x-ref: CITY AP RW DEV)



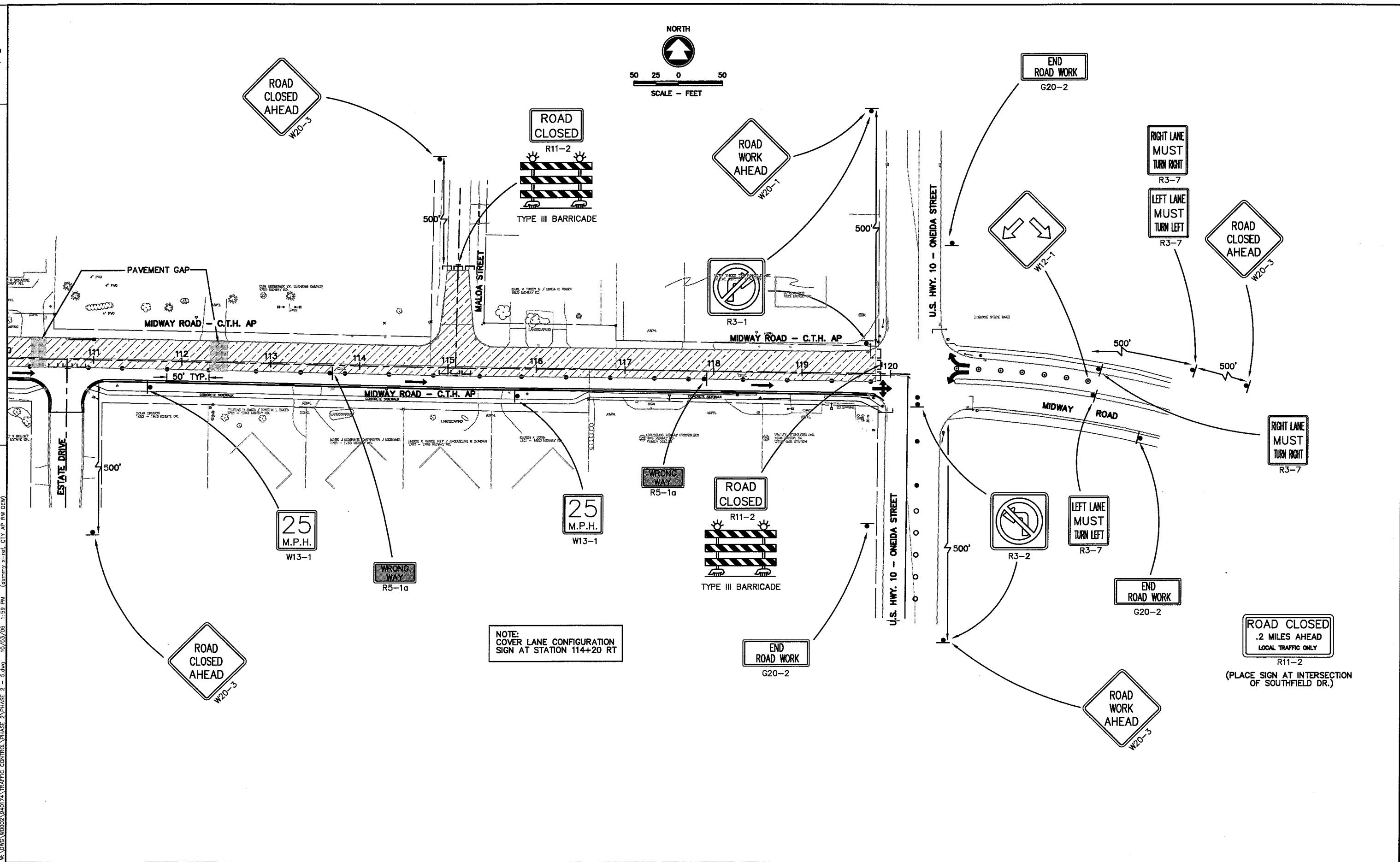
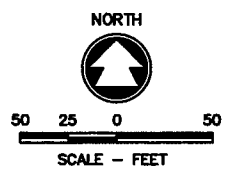
c:\schuh\w\DWG\W0002\4017A\TRAFFIC CONTROL\PHASE 2\PHASE 2 - 2.dwg 10/03/06 1:58 PM (dummy, x-ref, CITY AP RW DEW)



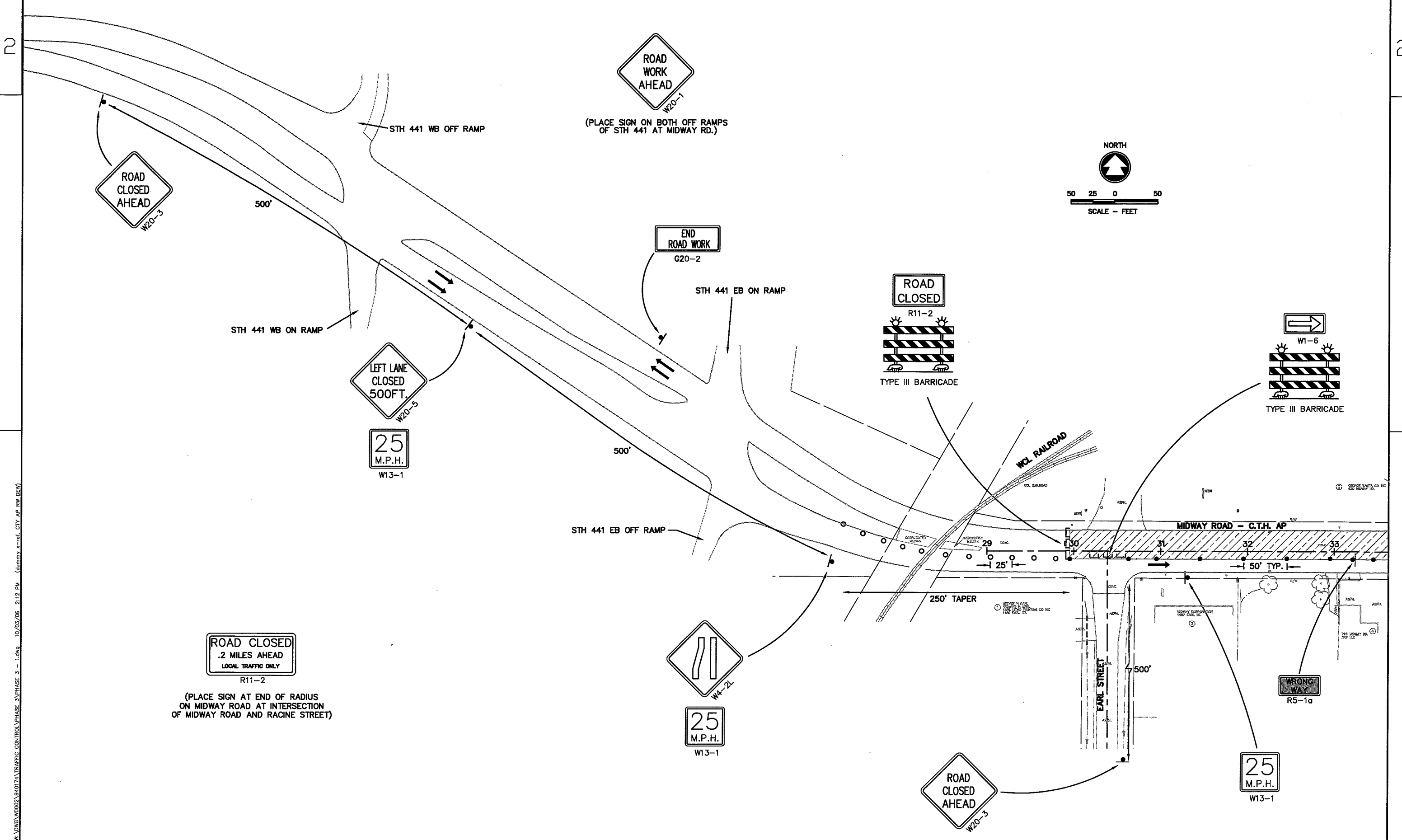
c:\dwg\w0002\940174\TRAFFIC CONTROL\PHASE 2\PHASE 2 - 3.dwg 10/03/06 1:58 PM (dummy x-ref. CTY AP RW DEW)



c:\dwg\WOOD2\940174\TRAFFIC CONTROL\PHASE 2\PHASE 2 - 4.dwg 10/03/06 1:58 PM (dummy x-ref. CTY AP RW DEW)



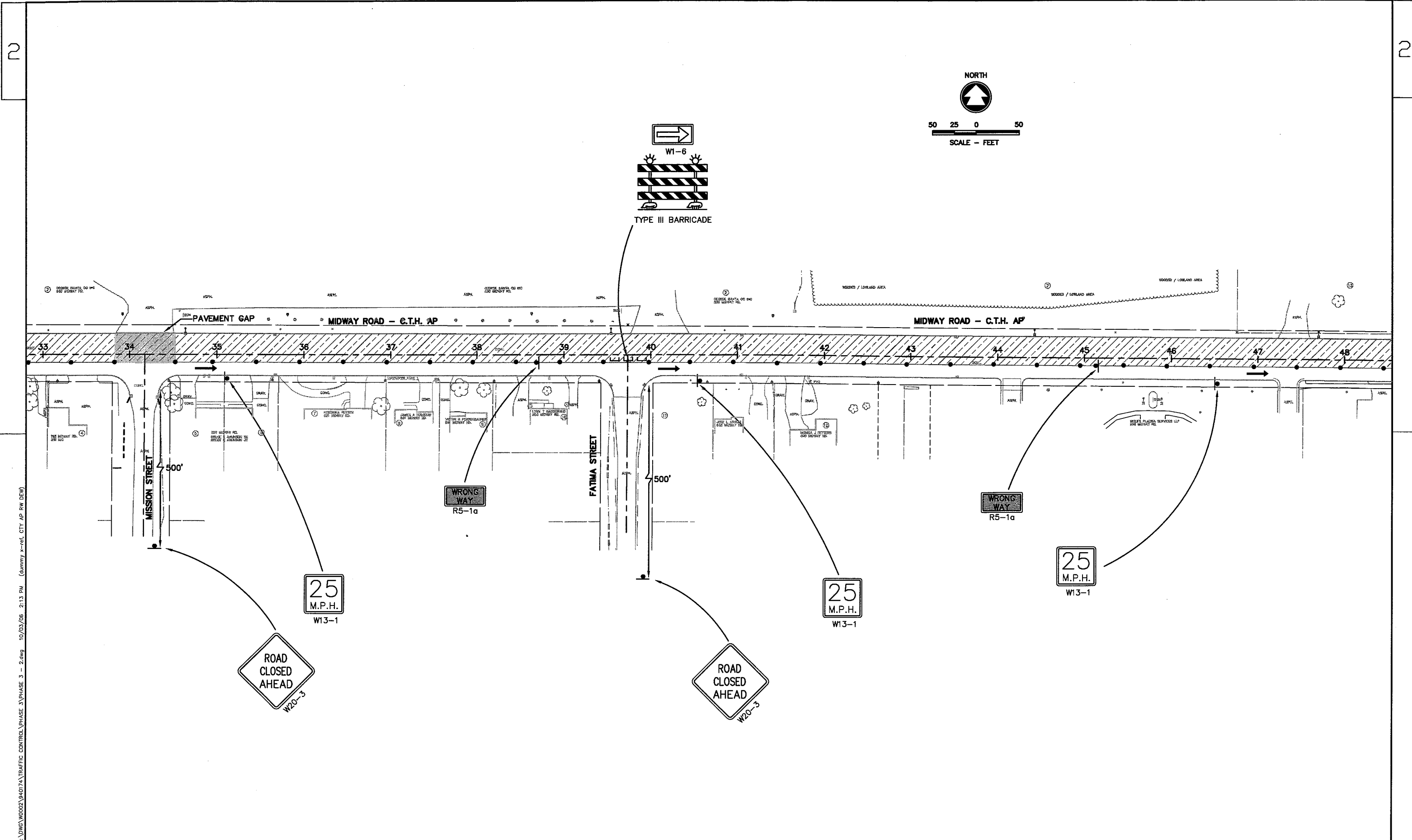
10/03/06 1:58 PM (dummy x-ref. CTY AP RW DEV) 5.5W 10/03/06 1:58 PM (dummy x-ref. CTY AP RW DEV)



c:\chup\w\dwg\w002\940171\TRAFFIC CONTROL\PHASE 3 - 1.dwg 10/23/06 2:12 PM (summary x-ref. CTY AP RW DEV)

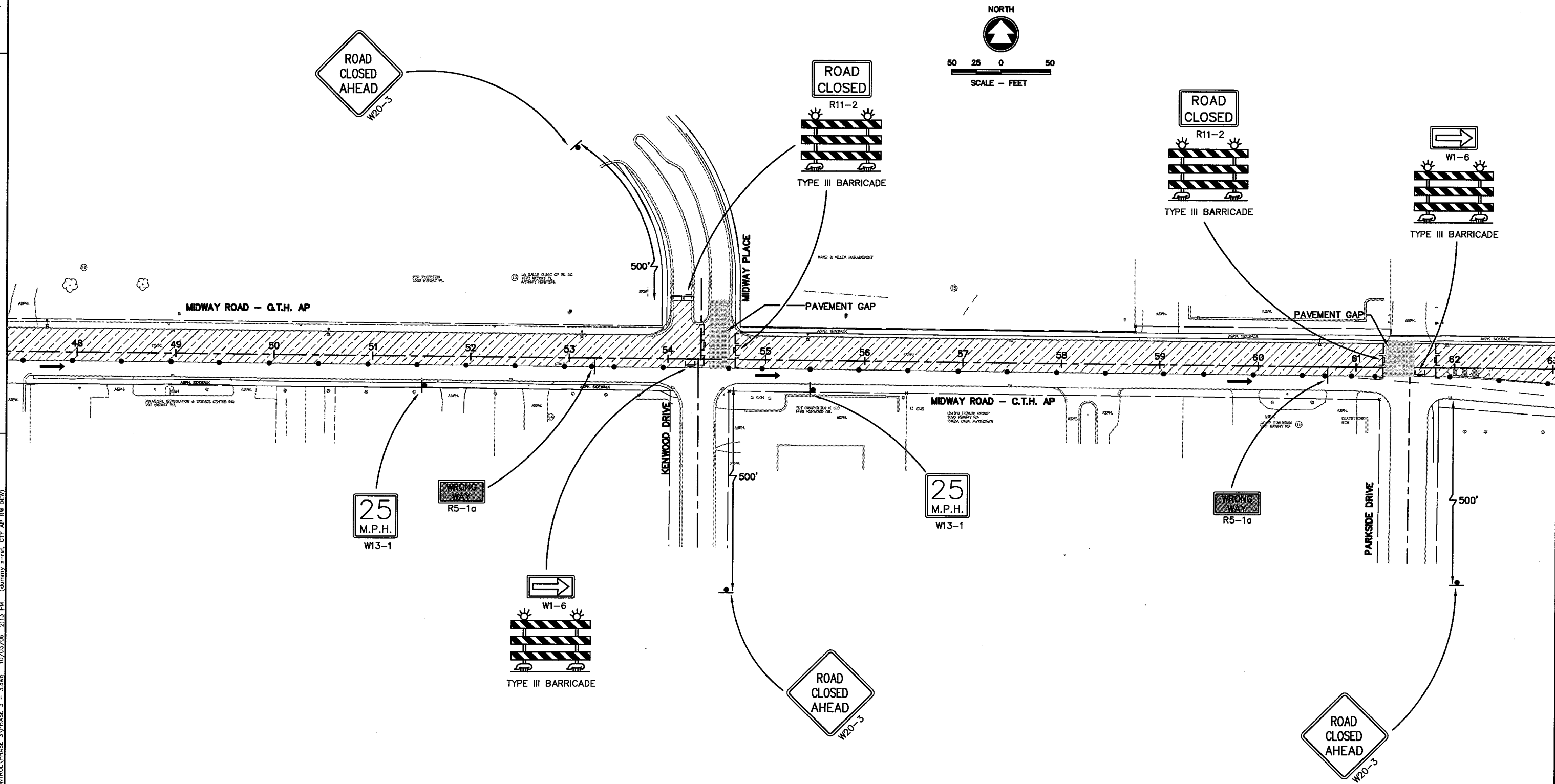
WSDOT/CADD SHEET 42



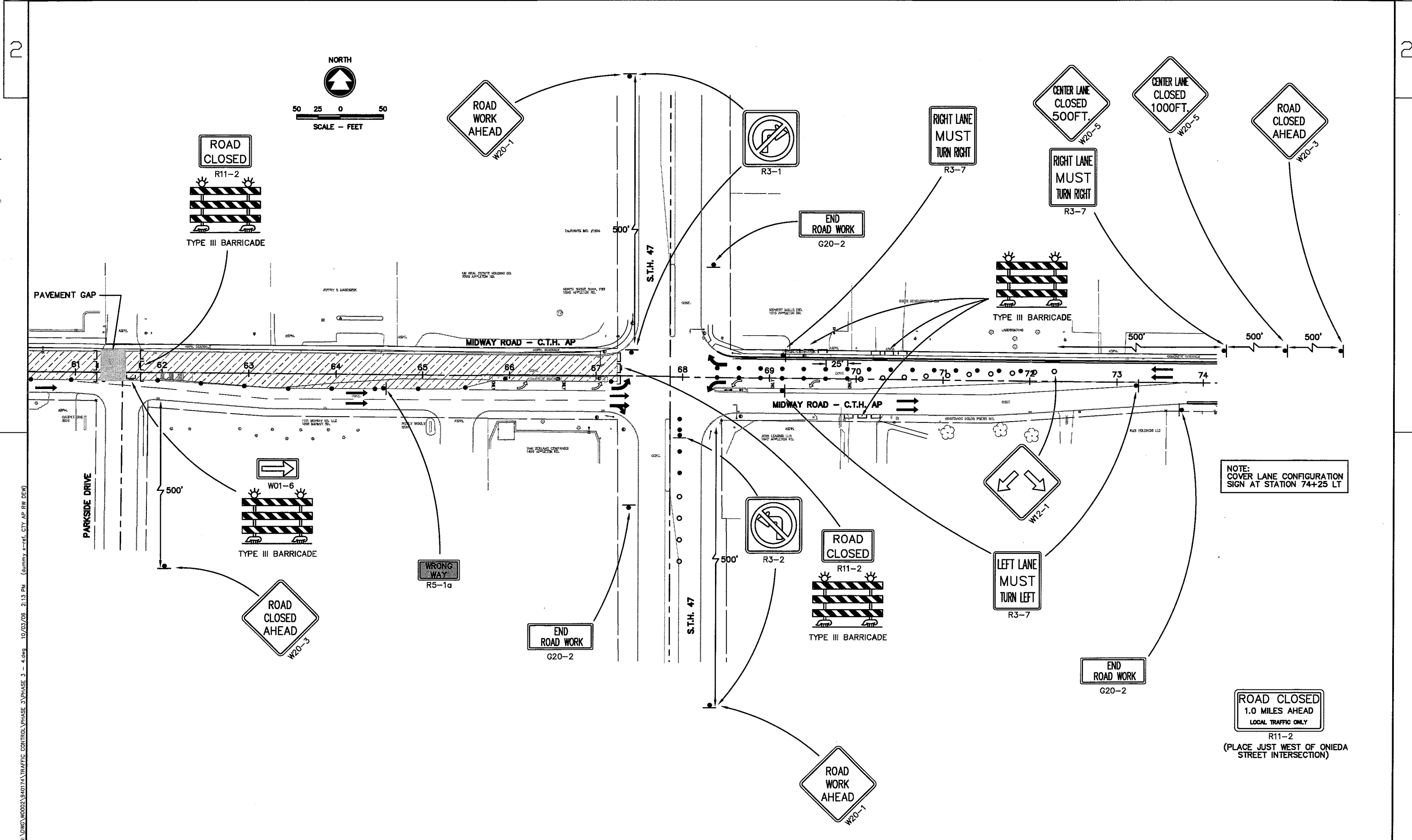


C:\projects\4984-01-30\4984-01-30\TRAFFIC CONTROL\PHASE 3 - 2.dwg 10/03/06 2:13 PM (dummy x-ref. CTY. AP. RW. DEW)

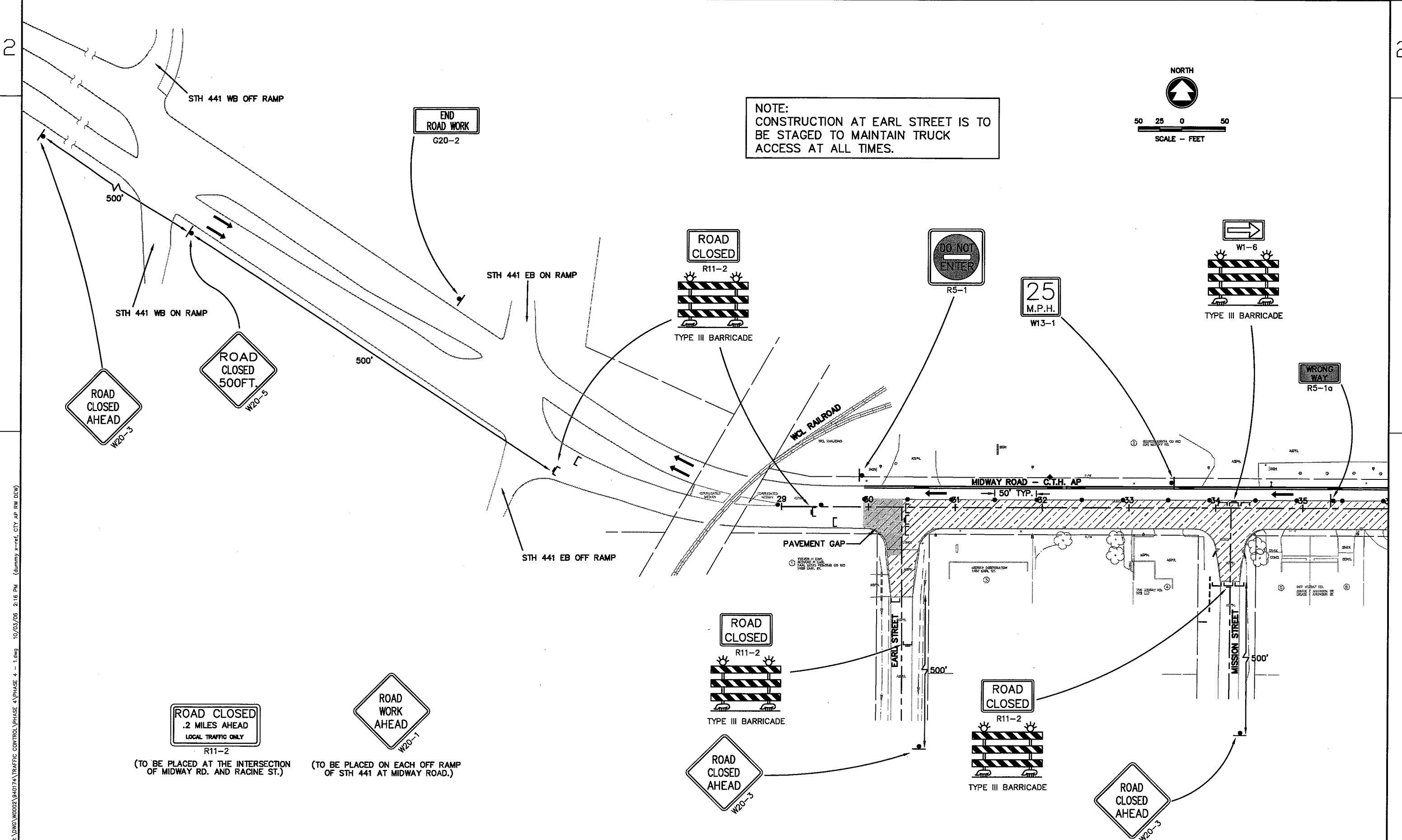
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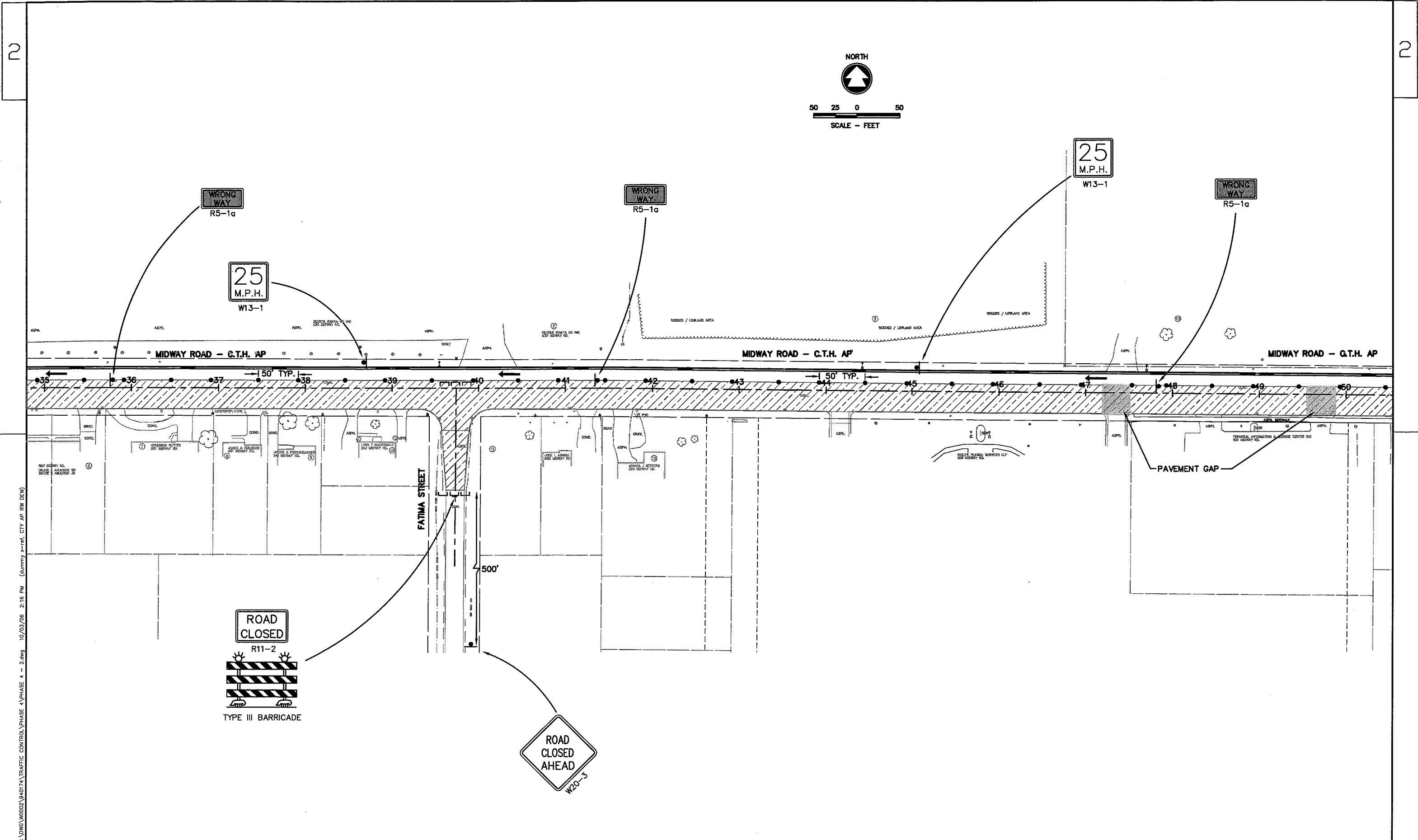
cschuh.w:\dwg\WOOD2\940174\TRAFFIC CONTROL\PHASE 3\PHASE 3 - 3.dwg 10/03/06 2:13 PM (dummy 3-ref. CITY AP RW DEW)



10/03/06 2:13 PM (dummy x-ref. CITY AP RW DEW)  
 W:\GIS\WOODS\9407A\TRAFFIC CONTROL\PHASE 3\PHASE 3 - 4.dwg



10/03/06 2:16 PM (dummy\_x-ref.ctb AP RW DEW) 1.dwg 4 PHASE 4 TRAFFIC CONTROL PHASE 4



c:\shu\w\dwg\w0002\94017A\TRAFFIC CONTROL\PHASE 4 - 2.dwg 10/03/06 2:16 PM (county -ref. CITY AP RW DEV)

STATE PROJECT NUMBER: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

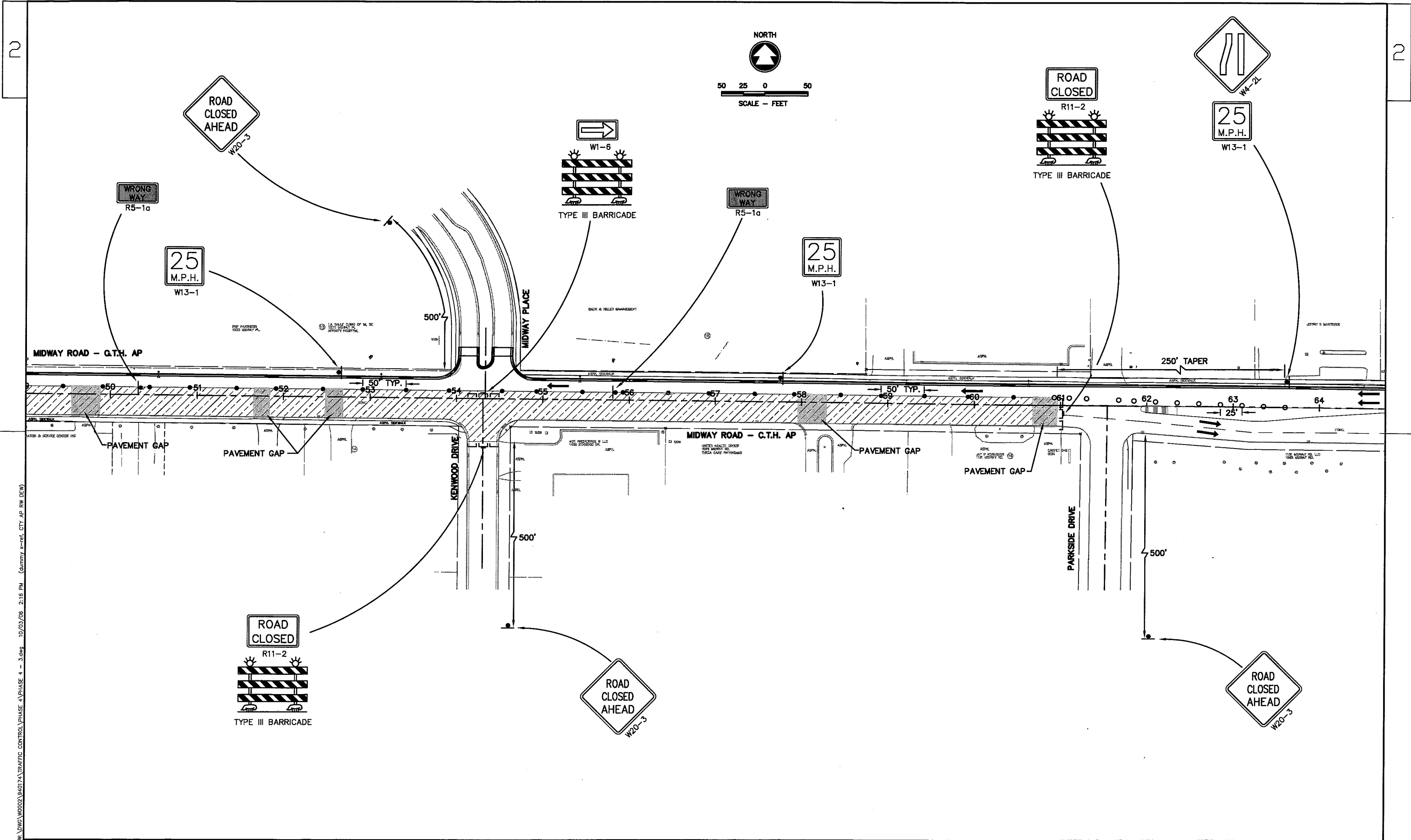
COUNTY: WINNEBAGO

TRAFFIC CONTROL DETAIL - PHASE 4

SHEET NO: 61

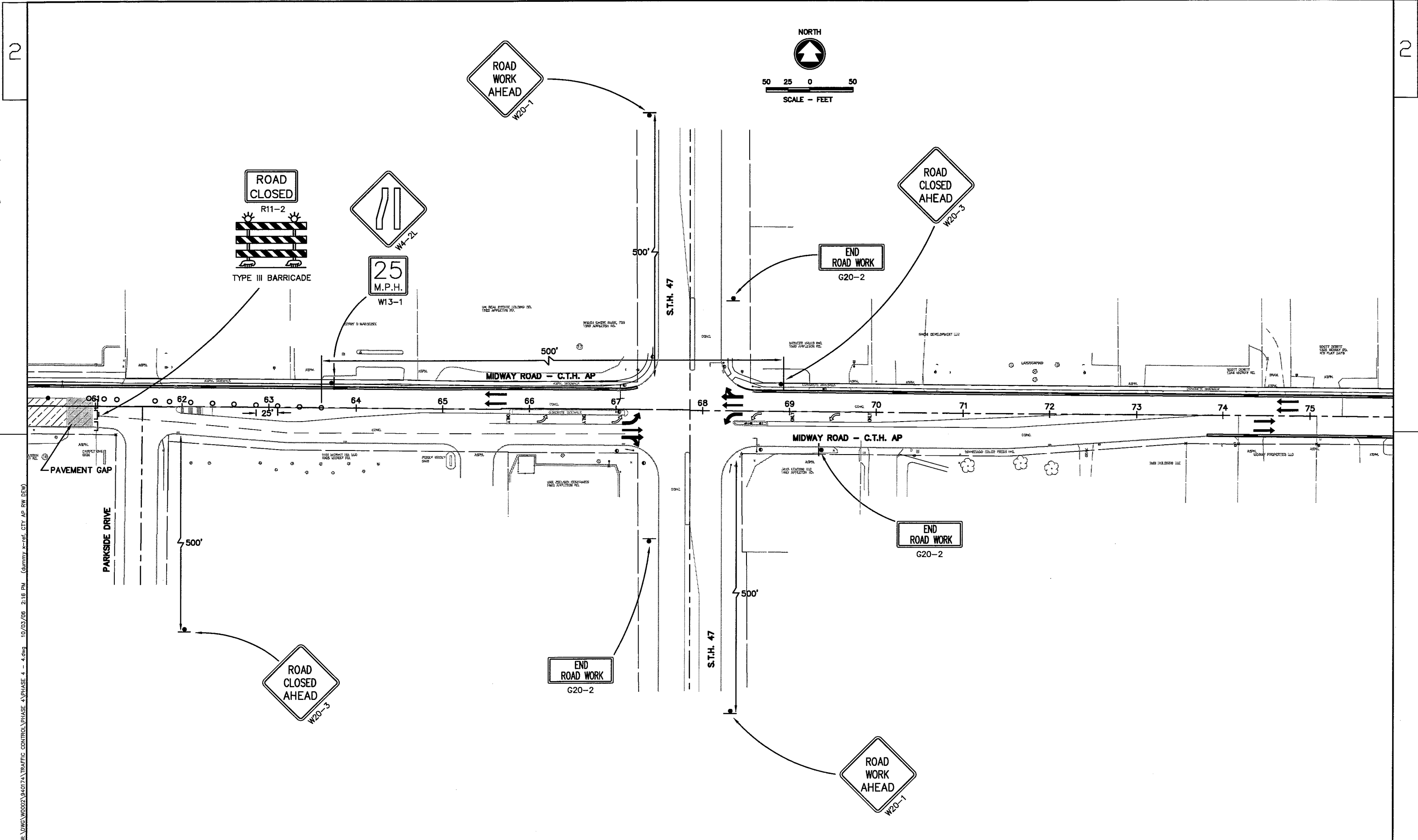
E

WSDOT/CADD SHEET 42



c:\schun\w:\DWG\W00002\44017A\TRAFFIC CONTROL\PHASE 4\PHASE 4 - 3.dwg 10/03/06 2:16 PM (clumty x-ref. CTY AP RW DEW)

MSDOT/CADD SHEET 42



eschub: W:\DMS\WOOD2\94071\TRAFFIC CONTROL\_PHASE 4\PHASE 4 - 4.dwg 10/23/08 2:18 PM (dummy x-ref: CITY AP RW DEV)

STATE PROJECT NUMBER: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

TRAFFIC CONTROL DETAIL - PHASE 4

SHEET NO: 63

E

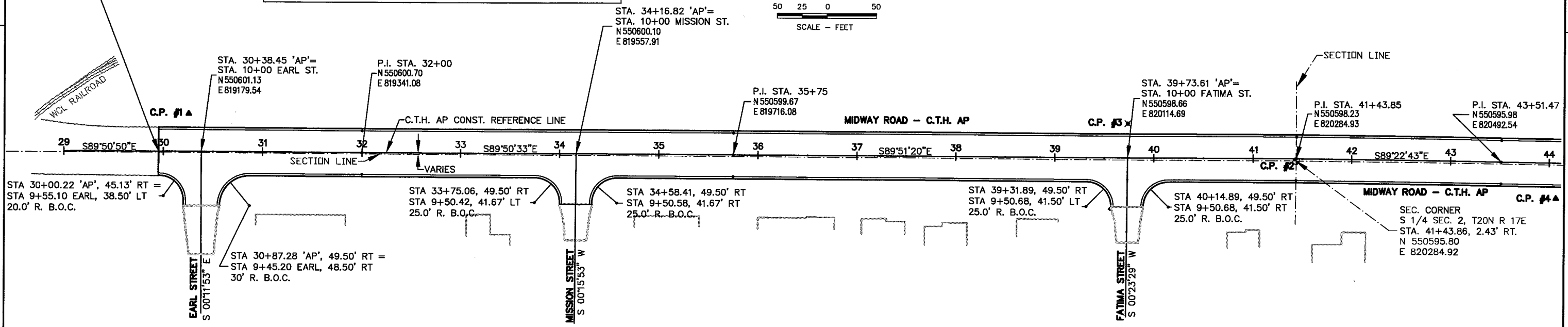
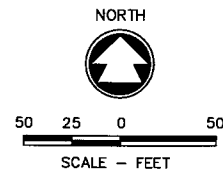
WSDOT/CADD SHEET 42

2

BEGIN PROJECT 49884-01-30  
STA. 29+95.25 C.T.H. AP  
N 550601.24  
E 819136.34

POINT #	NORTHING	EASTING	STATION	LOCATION	DESCRIPTION
C.P. #1	819166.53	550639.17	30+25.34	38.01' LT.	MAG NAIL
C.P. #2	820284.915	550595.801	41+43.77	2.30' RT.	SEC. CORNER
C.P. #3	820114.75	550633.42	39+73.57	34.76' LT.	3/4" REBAR
C.P. #4	820547.79	550559.33	44+07.07	36.10' RT.	GEAR NAIL

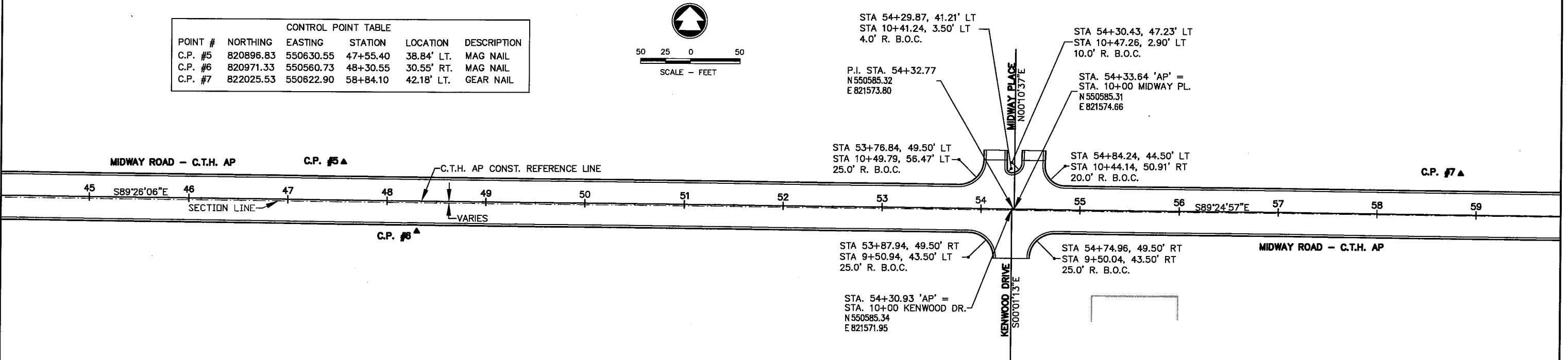
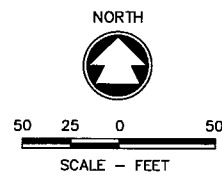
NOTE: C.T.H. AP CONSTRUCTION REFERENCE LINE IS A BEST FIT ALIGNMENT NOT BASED ON THE SECTION LINE, DISTANCES VARY BETWEEN THE REFERENCE LINE AND SECTION LINE.



2

NOTE: C.T.H. AP CONSTRUCTION REFERENCE LINE IS A BEST FIT ALIGNMENT NOT BASED ON THE SECTION LINE, DISTANCES VARY BETWEEN THE REFERENCE LINE AND SECTION LINE.

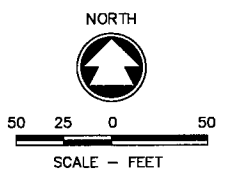
POINT #	NORTHING	EASTING	STATION	LOCATION	DESCRIPTION
C.P. #5	820896.83	550630.55	47+55.40	38.84' LT.	MAG NAIL
C.P. #6	820971.33	550560.73	48+30.55	30.55' RT.	MAG NAIL
C.P. #7	822025.53	550622.90	58+84.10	42.18' LT.	GEAR NAIL



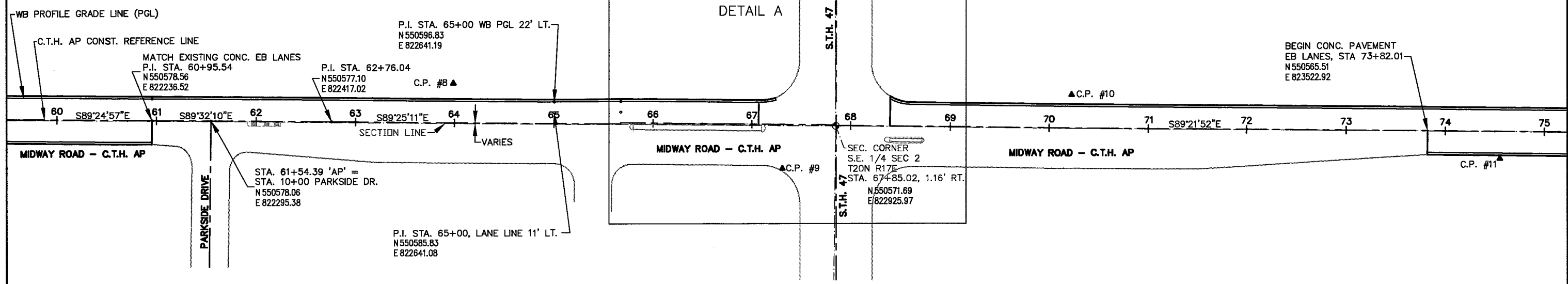
10/04/06 11:11 AM  
W:\DWG\WOOD2\94074\ALIGNMENT-01.dwg



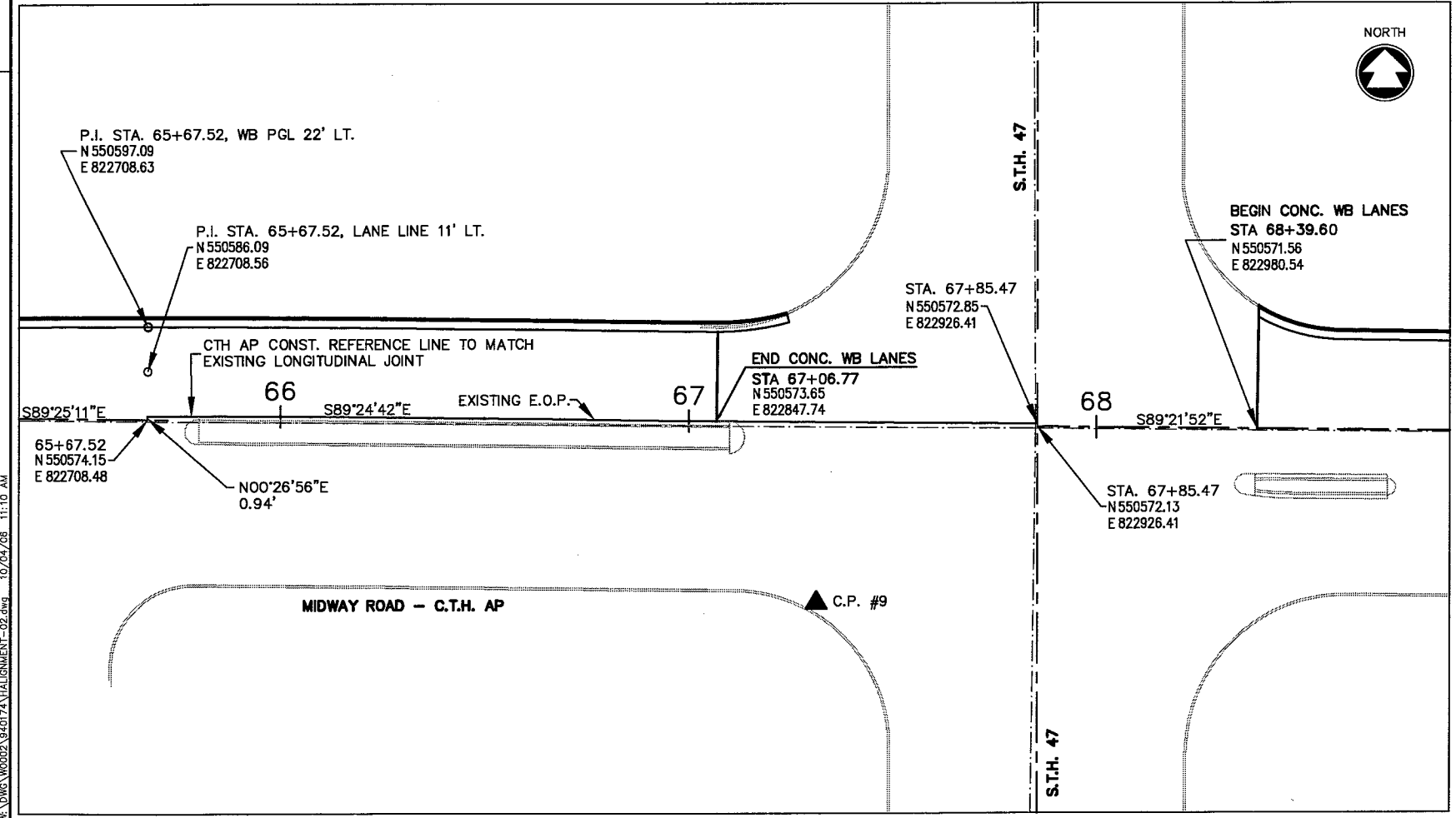
CONTROL POINT TABLE					
POINT #	NORTHING	EASTING	STATION	LOCATION	DESCRIPTION
C.P. #8	822539.26	550615.66	63+97.89	39.79' LT.	MAG NAIL
C.P. #9	822872.25	550528.81	67+31.80	44.70' RT.	MAG NAIL
C.P. #10	823163.37	550603.21	70+22.07	33.70' LT.	MAG NAIL
C.P. #11	823595.99	550537.05	74+55.50	27.65' RT.	MAG NAIL



NOTE: C.T.H. AP CONSTRUCTION REFERENCE LINE IS A BEST FIT ALIGNMENT NOT BASED ON THE SECTION LINE, DISTANCES VARY BETWEEN THE REFERENCE LINE AND SECTION LINE.



DETAIL A

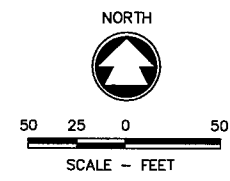


NOTE: C.T.H. AP CONSTRUCTION REFERENCE LINE FOLLOWS EXISTING JOINT LAYOUT AT STATION 65+67.52

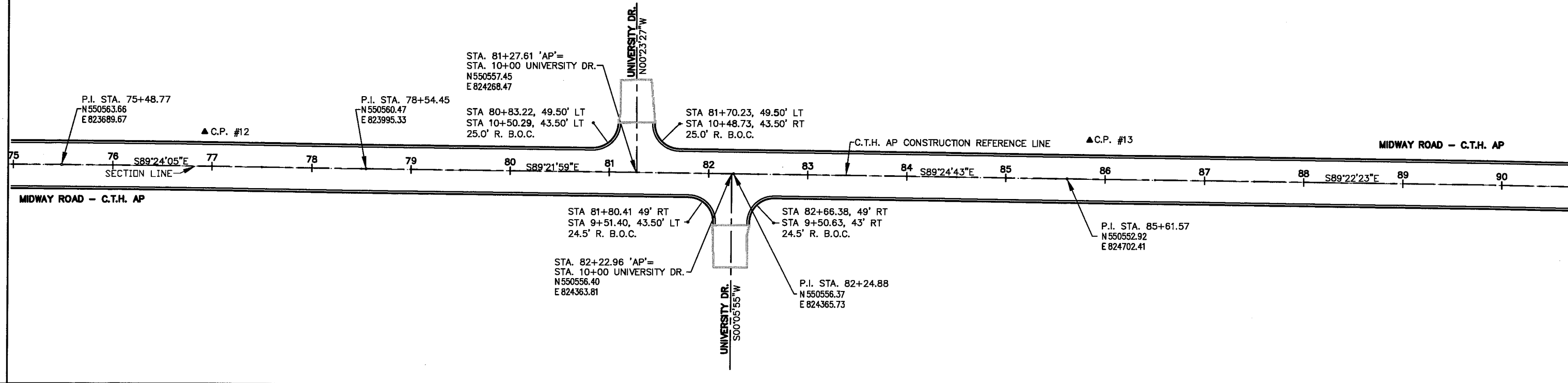
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WSDOT/CADD SHEET 42

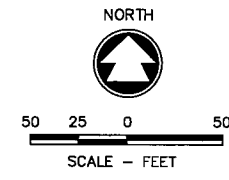
POINT #	NORTHING	EASTING	STATION	LOCATION	DESCRIPTION
C.P. #12	823833.54	550596.72	76+92.29	34.56' LT.	MAG NAIL
C.P. #13	824724.96	550591.95	85+83.69	39.28' LT.	MAG NAIL



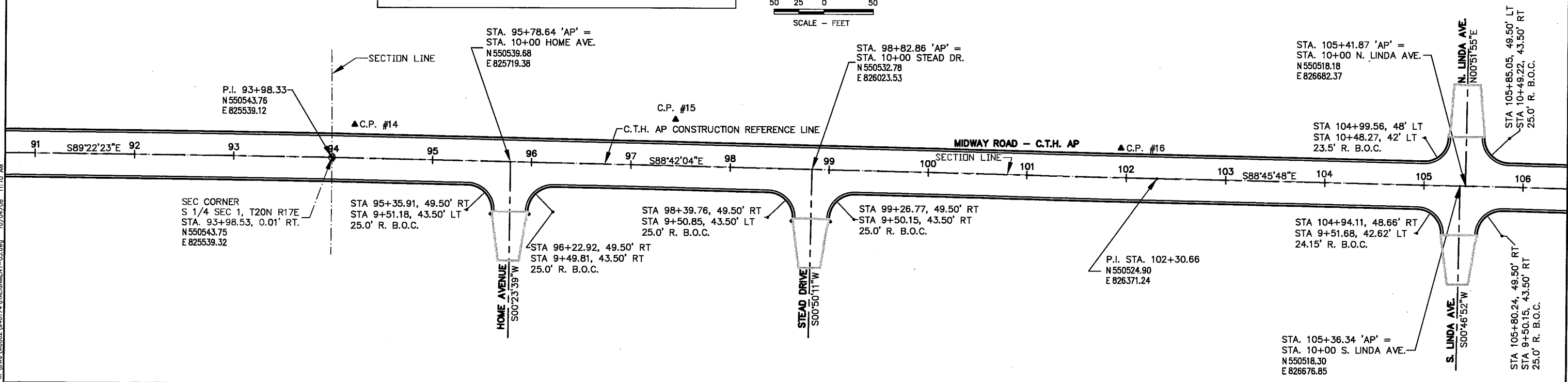
NOTE: C.T.H. AP CONSTRUCTION REFERENCE LINE IS A BEST FIT ALIGNMENT NOT BASED ON THE SECTION LINE, DISTANCES VARY BETWEEN THE REFERENCE LINE AND SECTION LINE.



POINT #	NORTHING	EASTING	STATION	LOCATION	DESCRIPTION
C.P. #14	825562.05	550577.04	94+20.5	33.79' LT.	MAG NAIL
C.P. #15	825885.60	550582.95	97+43.83	47.03' LT.	GEAR NAIL
C.P. #16	826335.13	550555.58	101+93.87	29.86' LT.	MAG NAIL

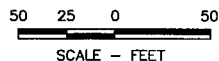


NOTE: C.T.H. AP CONSTRUCTION REFERENCE LINE IS A BEST FIT ALIGNMENT NOT BASED ON THE SECTION LINE, DISTANCES VARY BETWEEN THE REFERENCE LINE AND SECTION LINE.



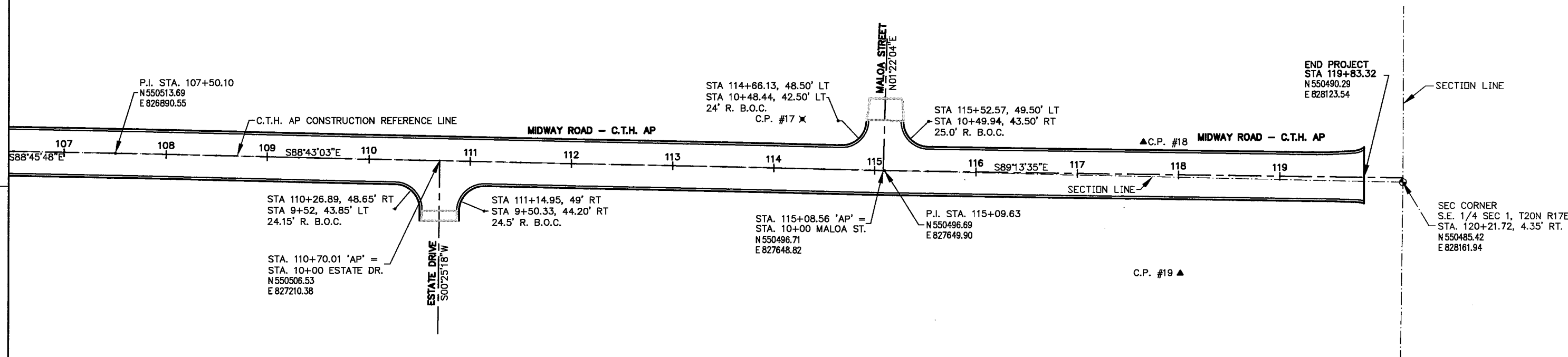
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NORTH



NOTE: C.T.H. AP CONSTRUCTION REFERENCE LINE IS A BEST FIT ALIGNMENT NOT BASED ON THE SECTION LINE, DISTANCES VARY BETWEEN THE REFERENCE LINE AND SECTION LINE.

CONTROL POINT TABLE					
POINT #	NORTHING	EASTING	STATION	LOCATION	DESCRIPTION
C.P. #17	827568.22	550527.69	114+26.83	49.16' LT.	3/4" REBAR
C.P. #18	827905.67	550525.42	117+64.99	32.18' LT.	MAG NAIL
C.P. #19	827942.20	550394.80	118+03.28	97.94' RT.	GEAR NAIL



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DATE 14FEB07

ESTIMATE OF QUANTITIES  
4984-01-30

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	1.000	1.000
0020	204.0100	REMOVING PAVEMENT	SY	47,200.000	47,200.000
0030	204.0110	REMOVING ASPHALTIC SURFACE	SY	2,950.000	2,950.000
0040	204.0150	REMOVING CURB & GUTTER	LF	220.000	220.000
0050	204.0155	REMOVING CONCRETE SIDEWALK	SY	510.000	510.000
0060	204.0220	REMOVING INLETS	EACH	8.000	8.000
0070	204.0245	REMOVING STORM SEWER (SIZE) 01. 12-INCH	LF	70.000	70.000
0080	204.0245	REMOVING STORM SEWER (SIZE) 02. 15-INCH	LF	553.000	553.000
0090	204.0245	REMOVING STORM SEWER (SIZE) 03. 18-INCH	LF	67.000	67.000
0100	205.0100	EXCAVATION COMMON	CY	48,500.000	48,500.000
0110	211.0100	PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) 01. 4984-01-30	LS	1.000	1.000
0120	213.0100	FINISHING ROADWAY (PROJECT) 01. 4984-01-30	EACH	1.000	1.000
0130	301.0100.S	QMP BASE AGGREGATE	TON	19,305.000	19,305.000
0140	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	50.000	50.000
0150	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	19,200.000	19,200.000
0160	310.0110	BASE AGGREGATE OPEN GRADED	TON	55.000	55.000
0170	312.0110	SELECT CRUSHED MATERIAL	TON	53,000.000	53,000.000
0180	320.0135	CONCRETE BASE 7-INCH	SY	175.000	175.000
0190	415.0090	CONCRETE PAVEMENT 9-INCH	SY	41,950.000	41,950.000
0200	415.1090	CONCRETE PAVEMENT HES 9-INCH	SY	225.000	225.000
0210	415.2000.S	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	9,700.000	9,700.000
0220	415.3000.S	QMP CONCRETE PAVEMENT	DAY	10.000	10.000
0230	416.0170	CONCRETE DRIVEWAY 7-INCH	SY	500.000	500.000
0240	416.0610	PAVEMENT TIES	EACH	450.000	450.000
0250	416.0620	PAVEMENT DOWEL BARS	EACH	38.000	38.000
0260	416.0710	CONCRETE PAVEMENT REPAIR	CY	3.000	3.000
0270	416.0805	CONCRETE PAVEMENT GAPS	EACH	34.000	34.000
0280	455.0120	ASPHALTIC MATERIAL PG64-28	TON	25.000	25.000
0290	455.0605	TACK COAT	GAL	50.000	50.000
0300	460.1101	HMA PAVEMENT TYPE E-1	TON	410.000	410.000
0310	460.3000	QMP HMA MIXTURE	TON	410.000	410.000
0320	465.0105	ASPHALTIC SURFACE	TON	15.000	15.000
0330	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	320.000	320.000
0340	465.0315	ASPHALTIC FLUMES	SY	14.000	14.000
0350	522.0112	CULVERT PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	68.000	68.000
0360	522.1012	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH	EACH	4.000	4.000
0370	601.0407	CONCRETE CURB & GUTTER 18-INCH TYPE D	LF	12.000	12.000
0380	601.0409	CONCRETE CURB & GUTTER 30-INCH TYPE A	LF	16,550.000	16,550.000
0390	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	60.000	60.000
0400	602.0405	CONCRETE SIDEWALK 4-INCH	SF	4,650.000	4,650.000
0410	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	112.000	112.000
0420	608.0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	99.000	99.000
0430	608.0315	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH	LF	555.000	555.000
0440	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	67.000	67.000
0450	611.0301	INLETS TYPE 1	EACH	1.000	1.000
0460	611.0303	INLETS TYPE 3	EACH	9.000	9.000

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DATE 14FEB07

## ESTIMATE OF QUANTITIES

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	4984-01-30 QUANTITY
0470	611.0420	RECONSTRUCTING MANHOLES	EACH	6.000	6.000
0480	611.0600	INLET COVERS TYPE A	EACH	1.000	1.000
0490	611.0612	INLET COVERS TYPE C	EACH	1.000	1.000
0500	611.0624	INLET COVERS TYPE H	EACH	14.000	14.000
0510	611.8110	ADJUSTING MANHOLE COVERS	EACH	27.000	27.000
0520	611.8115	ADJUSTING INLET COVERS	EACH	49.000	49.000
0530	612.0106	PIPE UNDERDRAIN 6-INCH	LF	1,070.000	1,070.000
0540	619.1000	MOBILIZATION	EACH	1.000	1.000
0550	623.0200	DUST CONTROL SURFACE TREATMENT	SY	40,400.000	40,400.000
0560	624.0100	WATER	MGAL	99.000	99.000
0570	625.0100	TOPSOIL	SY	12,900.000	12,900.000
0580	627.0200	MULCHING	SY	5,950.000	5,950.000
0590	628.1504	SILT FENCE	LF	1,000.000	1,000.000
0600	628.1520	SILT FENCE MAINTENANCE	LF	1,000.000	1,000.000
0610	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	4.000	4.000
0620	628.2006	EROSION MAT URBAN CLASS I TYPE A	SY	6,950.000	6,950.000
0630	628.7005	INLET PROTECTION TYPE A	EACH	4.000	4.000
0640	628.7015	INLET PROTECTION TYPE C	EACH	65.000	65.000
0650	628.7504	TEMPORARY DITCH CHECKS	LF	300.000	300.000
0660	628.7550	CULVERT PIPE DITCH CHECKS	EACH	8.000	8.000
0670	629.0210	FERTILIZER TYPE B	CWT	8.000	8.000
0680	630.0140	SEEDING MIXTURE NO. 40	LB	300.000	300.000
0690	630.0200	SEEDING TEMPORARY	LB	150.000	150.000
0700	634.0414	POSTS WOOD 4X4-INCH X 14-FT	EACH	22.000	22.000
0710	634.0416	POSTS WOOD 4X4-INCH X 16-FT	EACH	2.000	2.000
0720	638.2102	MOVING SIGNS TYPE II	EACH	27.000	27.000
0730	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	24.000	24.000
0740	642.5201	FIELD OFFICE TYPE C	EACH	1.000	1.000
0750	643.0100	TRAFFIC CONTROL (PROJECT) 01. 4984-01-30	EACH	1.000	1.000
0760	643.0300	TRAFFIC CONTROL DRUMS	DAYS	25,470.000	25,470.000
0770	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAYS	5,550.000	5,550.000
0780	643.0500	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	EACH	28.000	28.000
0790	643.0600	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES	EACH	28.000	28.000
0800	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAYS	8,800.000	8,800.000
0810	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAYS	2,460.000	2,460.000
0820	643.0900	TRAFFIC CONTROL SIGNS	DAYS	8,615.000	8,615.000
0830	643.0905.S	TRAFFIC CONTROL COVERING SIGNS	EACH	2.000	2.000
0840	645.0112	GEOTEXTILE FABRIC TYPE DF SCHEDULE B	SY	140.000	140.000
0850	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	18,350.000	18,350.000
0860	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	635.000	635.000
0870	646.0600	REMOVING PAVEMENT MARKINGS	LF	1,850.000	1,850.000
0880	647.0110	PAVEMENT MARKING RAILROAD CROSSINGS EPOXY	EACH	2.000	2.000
0890	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2	EACH	9.000	9.000
0900	647.0176	PAVEMENT MARKING ARROWS EPOXY TYPE 3	EACH	2.000	2.000
0910	647.0356	PAVEMENT MARKING WORDS EPOXY	EACH	8.000	8.000
0920	647.0456	PAVEMENT MARKING CURB EPOXY	LF	54.000	54.000
0930	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	315.000	315.000
0940	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY	EACH	5.000	5.000
0950	647.0716	PAVEMENT MARKING DIAGONAL EPOXY 8-INCH	LF	295.000	295.000
0960	647.0726	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	LF	440.000	440.000
0970	647.0776	PAVEMENT MARKING CROSSWALK EPOXY 12-INCH	LF	390.000	390.000

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DATE 14FEB07

ESTIMATE OF QUANTITIES  
4984-01-30

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0980	647.0856	PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY	SF	135.000	135.000
0990	647.0955	REMOVING PAVEMENT MARKINGS ARROWS	EACH	4.000	4.000
1000	647.0965	REMOVING PAVEMENT MARKINGS WORDS	EACH	6.000	6.000
1010	650.4000	CONSTRUCTION STAKING STORM SEWER SYSTEM	EACH	10.000	10.000
1020	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	9,680.000	9,680.000
1030	650.5000	CONSTRUCTION STAKING BASE	LF	485.000	485.000
1040	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	72.000	72.000
1050	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	2.000	2.000
1060	650.7000	CONSTRUCTION STAKING CONCRETE PAVEMENT	LF	9,300.000	9,300.000
1070	650.9900	CONSTRUCTION STAKING INITIAL LAYOUT	LF	10,100.000	10,100.000
1080	652.0800	CONDUIT LOOP DETECTOR	LF	345.000	345.000
1090	653.0105	PULL BOXES STEEL 12X24-INCH	EACH	4.000	4.000
1100	655.0700	LOOP DETECTOR LEAD IN CABLE	LF	900.000	900.000
1110	655.0800	LOOP DETECTOR WIRE	LF	870.000	870.000
1120	690.0100	SAWING EXISTING PAVEMENT	LF	1,780.000	1,780.000
1130	690.0200	SAWING CONCRETE PAVEMENT FULL DEPTH	LF	9,400.000	9,400.000
1140	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT \$5. 00/HR	HRS	200.000	200.000
1150	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT \$5.00/HR	HRS	1,200.000	1,200.000
1160	SPV.0060	SPECIAL 01. ADJUSTING PULL BOX COVERS	EACH	1.000	1.000
1170	SPV.0060	SPECIAL 05. LANDMARK REFERENCE MONUMENT SPECIAL	EACH	2.000	2.000
1180	SPV.0060	SPECIAL 10. ADJUSTING WATER VALVE BOXES	EACH	24.000	24.000
1190	SPV.0060	SPECIAL 15. INTERNAL RUBBER CHIMNEY SEALS INSTALLED	EACH	32.000	32.000
1200	SPV.0090	SPECIAL 05. STORM SEWER PIPE POLYVINYL CHLORIDE SDR 35 6-INCH	LF	123.000	123.000
1210	SPV.0180	SPECIAL 05. GEOGRID	SY	25,000.000	25,000.000

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**REMOVING SMALL PIPE CULVERTS**  
203.0100

STATION	LOCATION	EACH	COMMENTS
9+08.50 LT	EARL STREET	1	33' 15" RCP
<b>PROJECT TOTAL</b>		<b>1</b>	

**REMOVING PAVEMENT**  
204.0100

STATION	LOCATION	S.Y.	DESCRIPTION
29+92.25 - 67+06.77	CTH AP	19044	MAINLINE
68+39.60 - 119+83.32	CTH AP	27636	MAINLINE
35+82 RT	CTH AP	27	DRIVEWAY
36+60 RT	CTH AP	51	DRIVEWAY
37+40 RT	CTH AP	26	DRIVEWAY
37+63 RT	CTH AP	20	DRIVEWAY
41+25 RT	CTH AP	12	DRIVEWAY
69+47 LT	CTH AP	18	DRIVEWAY
70+34 LT	CTH AP	13.5	DRIVEWAY
72+95 LT	CTH AP	12	DRIVEWAY
74+56 LT	CTH AP	12	DRIVEWAY
75+19 LT	CTH AP	14.5	DRIVEWAY
77+07 LT	CTH AP	15	DRIVEWAY
78+81 LT	CTH AP	14	DRIVEWAY
85+96 LT	CTH AP	14	DRIVEWAY
88+38 LT	CTH AP	26.5	DRIVEWAY
93+57 LT	CTH AP	19	DRIVEWAY
94+34 LT	CTH AP	12	DRIVEWAY
95+07 LT	CTH AP	8	DRIVEWAY
96+27 LT	CTH AP	11.5	DRIVEWAY
97+57 LT	CTH AP	15	DRIVEWAY
97+80 RT	CTH AP	38	DRIVEWAY
101+15 RT	CTH AP	15	DRIVEWAY
101+37 LT	CTH AP	13	DRIVEWAY
101+51 RT	CTH AP	16	DRIVEWAY
119+05 RT	CTH AP	48	DRIVEWAY

PROJECT TOTAL 47151  
ROUNDED TOTAL 47200

**REMOVING CURB & GUTTER**  
204.0150

STATION	LOCATION	L.F.
44+03 RT	CTH AP	8
44+30 RT	CTH AP	8
47+22 RT	CTH AP	9.5
47+48 RT	CTH AP	9.5
54+00 LT	CTH AP	38
54+31 LT	CTH AP	54
54+69 LT	CTH AP	36
58+00 RT	CTH AP	19
58+61 RT	CTH AP	8
9+46 LT	ESTATE DRIVE	11
9+45 RT	ESTATE DRIVE	10

PROJECT TOTAL 211  
ROUNDED TOTAL 220

**REMOVING CONCRETE SIDEWALK**  
204.0155

STATION TO STATION	LOCATION	S.Y.
10+28 - 10+58 LT	MIDWAY PLACE	15.5
10+27.50 - 10+55.60 RT	MIDWAY PLACE	24
77+30 - 78+64 LT	CTH AP	74
80+71.50 - 81+02 LT	CTH AP	16.5
81+51.90 - 81+91.25 LT	CTH AP	21
90+65 RT	CTH AP	25
95+98.50 - 96+40.80 RT	CTH AP	24
98+25 - 98+62.25 RT	CTH AP	21
99+09.90 - 99+43.25 RT	CTH AP	18
99+06 LT	CTH AP	26
104+73 - 105+12.60 RT	CTH AP	21
105+64 - 106+09 RT	CTH AP	24
104+85 - 105+17.70 LT	CTH AP	17
110+02 - 110+45 RT	CTH AP	24
110+96 - 111+39 RT	CTH AP	24
116+50 - 119+75 RT	CTH AP	160

PROJECT TOTAL 535

**REMOVING INLETS**  
204.0220

STRUCTURE	STATION	LOCATION	EACH
5	9+63.72, FATIMA ST.	20.41' LT	1
27	96+21.69, CTH AP	24.50' RT	1
31	110+46.42, CTH AP	34.50' RT	1
32	110+95.15, CTH AP	34.58' RT	1
33	119+76.10, CTH AP	24.97' RT	1
37	110+70.44, CTH AP	24.50' LT	1
53	67+02.50, CTH AP	24.5' LT	1
58	53+84, CTH AP	25.55' LT	1

PROJECT TOTAL 8

**EARTHWORK SUMMARY**

LOCATION	205.0100		*EXPANDED FILL C.Y.	MASS HAUL (WASTE) C.Y.
	EXCAVATION COMMON C.Y.	FILL C.Y.		
29+95.25 - 60+95.54 MAINLINE	17021	92	120	16901
60+95.54 - 67+06.77 MAINLINE	1690	3	4	1686
68+39.60 - 73+82.01 MAINLINE	1501	1	1	1500
73+82.01 - 119+83.32 MAINLINE	26035	20	26	26009
EARL ST.	94	0	0	94
EARL ST. REDITCHING	20	0	0	20
MISSION ST.	78	0	0	78
FATIMA ST.	74	0	0	74
KENWOOD DR.	81	0	0	81
MIDWAY PLACE	126	0	0	126
UNIVERSITY DR. (SOUTH)	86	0	0	86
UNIVERSITY DR. (NORTH)	82	0	0	82
HOME AVE.	134	0	0	134
STEAD DR.	81	0	0	81
S. LINDA AVE.	81	0	0	81
N. LINDA AVE.	80	0	0	80
ESTATE DR.	83	0	0	83
MALOA ST.	80	0	0	80
EBS (UNDISTRIBUTED)	1000	0	0	1000

PROJECT TOTALS 48427 116 151 48276  
ROUNDED TOTAL 48500

\*EXPANSION FACTOR FOR FILL = 30%

**BASE AGGREGATE**

STATION TO STATION	LOCATION	305.0110	305.0120	310.0110	312.0110	301.0100.S
		BASE AGGREGATE 3/4-INCH TON	BASE AGGREGATE 1 1/4-INCH TON	BASE AGGREGATE OPEN GRADED TON	SELECT CRUSHED MATERIAL TON	QMP BASE AGGREGATE TON
29+95.25 - 60+95.54	CTH AP	-	6086	-	18258	6086
60+95.54 - 67+06.77	CTH AP	-	604	-	1812	604
9+45.20 - 9+77.64	EARL ST.	6	52	-	52	58
9+48.85 - 9+78	MISSION ST.	4	43	-	43	47
9+50.68 - 9+78	FATIMA ST.	3	40	-	40	43
10+22 - 10+49.79	MIDWAY PLACE	-	70	-	70	70
9+50.04 - 9+78	KENWOOD DR.	-	44	-	44	44
68+39.60 - 73+82.01	CTH AP	-	534	-	1602	534
73+82.01 - 119+83.32	CTH AP	-	9036	-	27108	9036
10+22 - 10+50.29	UNIVERSITY DR.	5	45	-	45	50
9+47.93 - 9+78	UNIVERSITY DR.	5	47	-	47	52
9+49.81 - 9+78	HOME AVE.	6	44	-	44	50
9+50.15 - 9+78	STEAD DR.	5	44	-	44	49
10+22 - 10+49.78	N. LINDA AVE.	5	44	-	44	49
9+50.15 - 9+78	S. LINDA AVE.	5	44	-	44	49
9+50.33 - 9+78	ESTATE DR.	-	42	-	42	42
10+22 - 10+49.94	MALOA ST.	2	44	-	44	46
65+00 - 67+00 LT	SIDEWALK	-	52	-	-	52
29+95.25 - 119+83.32	DRIVEWAYS	-	1011	-	-	1011
29+95.25 - 119+83.32	UNDISTRIBUTED (EBS AREAS)	-	1200	-	3200	1200
29+95.25 - 119+83.32	PIPE UNDERDRAIN	-	-	51	-	51

PROJECT TOTALS 46 19126 51 52583 19223  
ROUNDED TOTALS 50 19200 55 53000 19305

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**CONCRETE BASE, 7-INCH**  
320.0135

STATION TO STATION	LOCATION	S.Y.
119+50 - 119+83.32	CTH AP	171
PROJECT TOTAL		171
ROUNDED TOTAL		175

**QMP, CONCRETE PAVEMENT**  
415.3000.S

STATION TO STATION	LOCATION	DAYS
29+95.25 - 119+83.32	CTH AP	10
PROJECT TOTAL		10

**CONCRETE PAVEMENT, 9-INCH**  
415.0090

STATION TO STATION	LOCATION	S.Y.	REMARKS
29+95.25 - 60+95.54	CTH AP	14938	MAINLINE EB & WB LANES
9+45.20 - 9+77.64	EARL ST.	153	SIDEROAD
9+48.85 - 9+78	MISSION ST.	128	SIDEROAD
9+50.68 - 9+78	FATIMA ST.	121	SIDEROAD
9+50.04 - 9+78	KENWOOD DR.	136	SIDEROAD
10+22 - 10+49.79	MIDWAY PLACE	179	SIDEROAD
60+95.54 - 67+06.77	CTH AP	1505	MAINLINE WB LANES
68+39.60 - 73+82.01	CTH AP	1330	MAINLINE WB LANES
73+82.01 - 119+50	CTH AP	22333	MAINLINE EB & WB LANES
9+47.93 - 9+78	UNIVERSITY DR.	142	SIDEROAD
10+22 - 10+50.29	UNIVERSITY DR.	137	SIDEROAD
9+49.81 - 9+78	HOME AVE.	136	SIDEROAD
9+50.15 - 9+78	STEAD DR.	135	SIDEROAD
9+50.15 - 9+78	S. LINDA AVE.	135	SIDEROAD
10+22 - 10+49.78	N. LINDA AVE.	133	SIDEROAD
9+50.33 - 9+78	ESTATE DR.	140	SIDEROAD
10+22 - 10+49.94	MALOA ST.	134	SIDEROAD

PROJECT TOTAL 41915  
ROUNDED TOTAL 41950

**CONCRETE PAVEMENT HES 9-INCH**  
415.1090

STATION TO STATION	LOCATION	S.Y.	REMARKS
29+95.25 - 30+38.45	CTH AP	222	PHASE 4
PROJECT TOTAL		222	
ROUNDED TOTAL		225	

**PAVEMENT TIES**  
416.0610

STATION TO STATION	LOCATION	EACH
29+95.25	CTH AP	14
60+95.54	CTH AP	7
60+95.54 - 67+06.77	CTH AP	204
*67+06 RT	CTH AP	20
68+39.60 - 73+82.01	CTH AP	181
73+82.01	CTH AP	7
119+83.32	CTH AP	17

PROJECT TOTAL 450

\* STORM SEWER REPLACEMENT

**PAVEMENT DOWEL BARS**  
416.0620

STATION TO STATION	LOCATION	EACH
67+06.77	CTH AP	16
68+39.60	CTH AP	22
PROJECT TOTAL		38

**CONCRETE PAVEMENT REPAIR**  
416.0710

STATION TO STATION	LOCATION	C.Y.	REMARKS
67+04.50 RT - 67+11 RT	CTH AP	3	STORM SEWER REPLACEMENT
PROJECT TOTAL		3	

**CONCRETE PAVEMENT GAPS**  
416.0805

LOCATION	PHASE	EACH
CTH AP	PHASE 1	8
CTH AP	PHASE 2	16
CTH AP	PHASE 3	3
CTH AP	PHASE 4	7

PROJECT TOTAL 34

**CONCRETE DRIVEWAY, 7-INCH**  
416.0170

STATION	LOCATION	S.Y.
35+83 RT	CTH AP	27.5
36+60.5 RT	CTH AP	51
37+42 RT	CTH AP	26
37+63 RT	CTH AP	20
41+25 RT	CTH AP	12
69+46 LT	CTH AP	19
70+35 LT	CTH AP	14
72+95 LT	CTH AP	12.5
74+56 LT	CTH AP	12
75+19 LT	CTH AP	14
77+07 LT	CTH AP	15.5
78+81 LT	CTH AP	14.5
85+96 LT	CTH AP	14.5
86+91 RT	CTH AP	27
88+39 LT	CTH AP	21
93+57 LT	CTH AP	16
94+34 LT	CTH AP	12
95+07 LT	CTH AP	8.5
96+27 LT	CTH AP	11.5
97+57 LT	CTH AP	15.5
97+79 RT	CTH AP	38
101+15 RT	CTH AP	15
101+37 LT	CTH AP	13
101+51 RT	CTH AP	15
119+06 RT	CTH AP	49

PROJECT TOTAL 494  
ROUNDED TOTAL 500

**ASPHALTIC ITEMS**

STATION TO STATION	LOCATION	460.1101 HMA PAVEMENT TYPE E-1 TON	465.0105 ASPHALTIC SURFACE TON	465.0120 DRIVEWAYS AND FIELD ENTRANCES TON	455.0120 ASPHALTIC MATERIAL PG64-28 TON	455.0605 TACK COAT GAL.
8+95.98 - 9+45.20	EARL ST.	40.5	-	-	2.4	4.2
9+12.46 - 9+48.85	MISSION ST.	25.6	-	-	1.5	2.7
9+25.34 - 9+50.68	FATIMA ST.	20.6	-	-	1.2	2.1
10+49.79 - 10+59.79	MIDWAY PLACE	10.5	-	-	0.6	1.1
9+40.04 - 9+50.04	KENWOOD DR.	8.7	-	-	0.5	1
10+50.29 - 10+93.47	UNIVERSITY DR. (NORTH)	38.5	-	-	2.3	4
9+05.68 - 9+47.93	UNIVERSITY DR. (SOUTH)	39.5	-	-	2.4	4.1
8+99.18 - 9+49.81	HOME AVE.	39.2	-	-	2.4	4.1
9+07.82 - 9+50.15	STEAD DR.	33.6	-	-	2.0	3.6
10+49.78 - 11+02.62	N. LINDA ST.	44	-	-	2.6	4.6
9+00.48 - 9+50.15	S. LINDA ST.	38.5	-	-	2.3	4
9+40.33 - 9+50.33	ESTATE DR.	9.5	-	-	0.6	1
10+49.94 - 10+71.51	MALOA ST.	19.8	-	-	1.2	2.1
119+50 - 119+83.32	CTH AP	41.5	-	-	2.5	4.4
29+95.25 - 119+83.32	DRIVEWAYS / PARKING LOTS	-	-	320	-	37
53+75 - 54+02 RT	CTH AP SIDEWALK	-	1.5	-	-	-
65+00 - 67+00 LT	CTH AP SIDEWALK	-	13.5	-	-	-
PROJECT TOTALS		410	15	320	24.5	43
ROUNDED TOTALS		410	15	320	25	50



ASPHALTIC FLUMES  
465.0315

STATION	LOCATION	S.Y.
9+45.20 LT	EARL ST.	2
9+45.20 RT	EARL ST.	2
9+50.68 LT	FATIMA ST.	2
9+49.81 LT	HOME AVE.	2
9+49.81 RT	HOME AVE.	2
9+50.15 LT	STEAD DR.	2
9+50.15 RT	STEAD DR.	2
PROJECT TOTAL		14

CULVERT PIPE REINFORCED CONCRETE CLASS III

STATION	LOCATION	522.0112 12-INCH L.F.	REMARKS
9+08.76 LT	EARL STREET	68	2 X 34'
PROJECT TOTAL		68	

APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE

STATION	LOCATION	522.1012 12-INCH EACH
8+91.76 LT	EARL STREET	2
9+25.76 LT	EARL STREET	2
PROJECT TOTAL		4

CONCRETE CURB & GUTTER, TYPE A

STATION TO STATION	LOCATION	601.0409 30-INCH FT
-	SW QUADRANT CTH AP/EARL ST.	47
-	SE QUADRANT CTH AP/EARL ST.	48
29+95.25 - 53+76.84 LT	CTH AP	2382
30+87.28 - 33+75.06 RT	CTH AP	288
-	SW QUADRANT CTH AP/MISSION ST.	42
-	SE QUADRANT CTH AP/MISSION ST.	42
34+58.38 - 39+31.89 RT	CTH AP	474.5
-	SW QUADRANT CTH AP/FATIMA ST.	40
-	SE QUADRANT CTH AP/FATIMA ST.	40
40+14.89 - 53+87.94 RT	CTH AP	1373
-	SW QUADRANT CTH AP/KENWOOD DR.	41
-	SE QUADRANT CTH AP/KENWOOD DR.	40.5
54+74.96 - 60+95.54 RT	CTH AP	621
-	NW QUADRANT CTH AP/MIDWAY PLACE	40
-	NE QUADRANT CTH AP/MIDWAY PLACE	37.5
54+84.24 - 67+06.77 LT	CTH AP	1223
-	NW QUADRANT CTH AP/STH 47	17.5
68+39.60 - 80+83.22 LT	CTH AP	1245
73+82.01 - 81+80.41 RT	CTH AP	799
-	NW QUADRANT CTH AP/UNIVERSITY DR.	40.5
-	NE QUADRANT CTH AP/UNIVERSITY DR.	41
-	SW QUADRANT CTH AP/UNIVERSITY DR.	42.5
-	SE QUADRANT CTH AP/UNIVERSITY DR.	42
81+71.35 - 104+99.54 LT	CTH AP	2330
82+66.38 - 95+35.91 RT	CTH AP	1270
-	SW QUADRANT CTH AP/HOME AVE.	41
-	SE QUADRANT CTH AP/HOME AVE.	40.5
96+22.92 - 98+39.76 RT	CTH AP	217
-	SW QUADRANT CTH AP/STEAD DR.	40.5
-	SE QUADRANT CTH AP/STEAD DR.	40.5
99+26.77 - 104+93.73 RT	CTH AP	567
-	NW QUADRANT CTH AP/N. LINDA DR.	39.5
-	NE QUADRANT CTH AP/N. LINDA DR.	40.5
-	SW QUADRANT CTH AP/S. LINDA DR.	40.5
-	SE QUADRANT CTH AP/S. LINDA DR.	40.5
105+80.24 - 110+26.89 RT	CTH AP	447
105+85.05 - 114+66.13 LT	CTH AP	881
-	SW QUADRANT CTH AP/ESTATE DR.	40
-	SE QUADRANT CTH AP/ESTATE DR.	40
111+14.95 - 119+83.32 RT	CTH AP	869
-	NW QUADRANT CTH AP/MALOA ST.	40
-	NE QUADRANT CTH AP/MALOA ST.	40.5
115+52.57 - 119+83.32 LT	CTH AP	430

CONCRETE CURB & GUTTER, TYPE D

STATION TO STATION	LOCATION	601.0407 18-INCH FT	601.0411 30-INCH FT
10+49.71 - 10+59.71 LT,RT	SOUTHBOUND MIDWAY PLACE	---	20
10+49.71 - 10+59.71 LT,RT	NORTHBOUND MIDWAY PLACE	---	20
9+40.33 - 9+50.33 LT	ESTATE DR.	---	10
9+40.33 - 9+50.33 RT	ESTATE DR.	---	10
86+91 RT	CTH AP DRIVEWAY	12	
PROJECT TOTAL		12	60

CONCRETE SIDEWALK 4-INCH  
602.0405

STATION TO STATION	LOCATION	S.F.
10+31.25 - 10+58 LT	MIDWAY PLACE	120
10+25.50 - 10+55.50 RT	MIDWAY PLACE	240
77+30 - 78+64 LT	CTH AP	670
80+71.50 - 81+00.60 LT	CTH AP	140
81+52.60 - 81+91.25 LT	CTH AP	185
95+99.25 - 96+40.80 RT	CTH AP	210
98+25 - 98+61.50 RT	CTH AP	190
99+11 - 99+43.25 RT	CTH AP	160
99+06 LT	CTH AP	241
104+73 - 105+11.50 RT	CTH AP	190
105+64.40 - 106+09 RT	CTH AP	225
104+85 - 105+18 LT	CTH AP	155
110+02 - 110+44 RT	CTH AP	220
110+97 - 111+39 RT	CTH AP	215
116+50 - 119+75 RT	CTH AP	1450
PROJECT TOTAL		4611
ROUNDED TOTAL		4650

PROJECT TOTAL 16502  
ROUNDED TOTAL 16550

CURB RAMP DETECTABLE WARNING FIELD YELLOW  
602.0505

LOCATION	S.F.	
NW QUAD MIDWAY PLACE/CTH AP	8	
NE QUAD MIDWAY PLACE/CTH AP	8	
NW QUAD UNIVERSITY DR./CTH AP	8	
NE QUAD UNIVERSITY DR./CTH AP	8	
SE QUAD HOME AVE./CTH AP	8	
SW QUAD STEAD DR./CTH AP	8	
SE QUAD STEAD DR./CTH AP	8	
99+06 LT	16	
SW QUAD S. LINDA AVE./CTH AP	8	
SE QUAD S. LINDA AVE./CTH AP	8	
NW QUAD N. LINDA AVE./CTH AP	8	
SW QUAD ESTATE DR./CTH AP	8	
SE QUAD ESTATE DR./CTH AP	8	
PROJECT TOTAL		112

STORM SEWER SUMMARY

PIPE NO.	FROM STRUCTURE	TO STRUCTURE	INLET ELEVATION	OUTLET ELEVATION	204.0245.01	204.0245.02	204.0245.03	SPV.0090.05	608.0312	608.0315	608.0318	SLOPE %
					REMOVING STORM SEWER 12-INCH L.F.	REMOVING STORM SEWER 15-INCH L.F.	REMOVING STORM SEWER 18-INCH L.F.	6-INCH PVC L.F.	12-INCH L.F.	15-INCH L.F.	18-INCH L.F.	
P-1	64	MAINLINE PIPE	758.79	**		16				16		
P-2	3	STORM MH	758.12	**		86				86		
P-3	6	STORM MH	761.37	**		71				71		
P-3A	5A	5	763.20	762.20				123				0.81
P-3B	5	6	762.20	761.37		43				45		1.93
P-4	11	58A	764.46	**		71				71		
P-5	16	EXISTING PIPE	773.08	**		24				24		
P-7	48	STORM MH	778.82	**		16				16		
P-8	45	46	782.75	781.42		45				45		2.96
P-9	24	44	783.10	782.61		46				46		1.07
P-10	EXISTING PIPE	39	**	788.19		16				16		
P-11	31	32	791.03	790.79		47				47		0.50
P-12	32	37	790.79	790.48		62				62		0.50
P-13	37A	37	790.77	790.48					29			1.00
P-14	37	STORM MH	790.48	**		10				10		
P-15	35	36	791.14	790.92				43			43	0.51
P-16	EXISTING PIPE	35	**	791.14				24			24	
P-17	33	EXISTING PIPE	793.00	**	32					32		
P-18	34A	34		791.88	38					38		
PROJECT TOTALS					70	553	67	123	99	555	67	

\*\* PROPOSED STORM SEWER PIPE TO BE PLACED IN LOCATION OF EXISTING PIPE

**INLETS AND INLET COVERS**

STRUCTURE NO.	STATION	LOCATION	611.0301 TYPE 1 EACH	611.0303 TYPE 3 EACH	611.0624 TYPE H EACH	611.0600 TYPE A EACH	611.0612 TYPE C EACH	RIM ELEVATION	FLOWLINE OF STRUCTURE	STRUCTURE DEPTH
1	32+25.79, CTH AP	24.50' RT		-	1	-				
5	39+46.99, CTH AP	29.57' RT		1	1		766.8	761.37	4.43	
5A	38+25, CTH AP	30.50' RT	1				766.7	763.20	2.25	
11	9+70.72, KENWOOD DR.	27.08' LT		-	-	1				
20	78+56.42, CTH AP	24.50' RT		-	1	-				
23	82+65.62, CTH AP	24.50' RT		-	1	-				
27	96+21.69, CTH AP	24.50' RT		1	1	-				
31	110+46.42, CTH AP	34.50' RT		1	1	-	795.09	791.03	3.06	
32	110+95.15, CTH AP	34.58' RT		1	1	-	795.09	790.79	3.30	
33	119+76.10, CTH AP	24.97' RT		1	1	-				
36	10+34.51, MALOA ST.	22.45' LT		-	1	-				
37	110+70.44, CTH AP	24.50' LT		1	1	-	795.67	790.48	4.19	
37A	111+00, CTH AP	24.5' LT		1	1	-	795.58	790.77	3.81	
53	67+02.50, CTH AP	24.5' LT		1	1	-	776.08	771.30	3.78	
58	53+84, CTH AP	25.55' LT		1	1	-	770.06	766.83	2.23	
61	43+51.10, CTH AP	24.50' LT		-	1	-				
PROJECT TOTALS			1	9	14	1	1			

LOCATION IS TO CENTER BACK OF CURB FOR TYPE 3 INLETS AND TO CENTER OF STRUCTURE FOR TYPE 1 INLETS.  
FLOW LINE OF STRUCTURE = LOWEST PIPE FLOWLINE ELEVATION ENTERING STRUCTURE.

RIM ELEVATION = FINISHED EDGE OF PAVEMENT AT TYPE 3 INLETS.

STRUCTURE DEPTH = RIM ELEVATION MINUS FLOWLINE OF STRUCTURE MINUS 12" FOR STRUCTURES WITH TYPE H AND TYPE A INLET CASTINGS.  
STRUCTURE DEPTH = RIM ELEVATION MINUS FLOWLINE OF STRUCTURE MINUS 15" FOR STRUCTURES WITH TYPE C INLET CASTINGS.

**ADJUSTING MANHOLE COVERS**  
611.8110

*STRUCTURE	STATION	LOCATION	QUANTITY EACH	AVAILABLE ADJUSTMENT FT.	PROPOSED ADJUSTMENT FT.
CATEGORY 0010					
58A	10+40.38 LT	MIDWAY PLACE	1	-	-
CATEGORY 0010 TOTAL = 1					
CATEGORY 0020					
S1	30+57.86	20.6' RT, CTH AP	1	0.50	-0.19
S2	32+63.68	20.46' RT, CTH AP	1	0.33	-0.12
S3	33+97.34	21.43' RT, CTH AP	1	0.50	0.11
S4	36+96.17	21.79' RT, CTH AP	1	1.00	0.04
S5	39+51.46	21.88' RT, CTH AP	1	0.50	0.03
S6	40+92.68	21.65' RT, CTH AP	1	0.50	0.00
S7	43+46.72	21.50' RT, CTH AP	1	0.50	-0.03
S8	47+42.44	22.19' RT, CTH AP	1	0.50	-0.04
S9	51+34.41	21.48' RT, CTH AP	1	0.50	-0.03
S10	54+31.92	21.07' RT, CTH AP	1	0.17	0.10
S11	55+34.54	20.06' RT, CTH AP	1	1.00	0.04
S12	59+33.64	21.84' RT, CTH AP	1	0.50	0.06
S13	73+90.00	19.99' RT, CTH AP	1	0.50	0.15
S14	74+58.40	19.53' RT, CTH AP	1	0.33	-0.10
S15	76+81.06	20.43' RT, CTH AP	1	0.33	0.04
S16	79+59.86	20.00' RT, CTH AP	1	0.50	-0.17
S17	81+06.27	20.22' RT, CTH AP	1	0.50	0.00
S18	82+26.17	22.17' RT, CTH AP	1	1.00	-0.06
S19	85+55.73	20.37' RT, CTH AP	1	0.50	-0.19
S23	95+57.57	17.73' RT, CTH AP	1	0.17	0.13
S24	98+64.02	17.58' RT, CTH AP	1	0.67	-0.01
**S25	100+83.91	17.27' RT, CTH AP	1	1.00	0.14
S27	105+17.80	17.24' RT, CTH AP	1	0.50	-0.20
S29	110+64.58	17.31' RT, CTH AP	1	0.33	-0.01
S31	115+09.95	18.95' RT, CTH AP	1	1.33	-0.61
S32	117+61.97	19.57' RT, CTH AP	1	0.50	-0.05
CATEGORY 0020 TOTAL =				26	
PROJECT TOTAL				27	

\* S(NUMBER) = SANITARY SEWER MANHOLES  
\*\* REPLACE STORM MANHOLE COVER WITH SANITARY MANHOLE COVER TO BE FURNISHED BY THE TOWN OF MENASHA

LOCATION IS TO CENTER OF MANHOLE COVER.

AVAILABLE ADJUSTMENT = THICKNESS OF EXISTING GRADE ADJUSTMENT DEVICES.  
PROPOSED ADJUSTMENT = DIFFERENCE BETWEEN EXISTING AND FINISHED MANHOLE COVER ELEVATIONS. TO BE VERIFIED BY CONTRACTOR.

**RECONSTRUCTING MANHOLES**  
611.0420

*STRUCTURE	STATION	**LOCATION	QUANTITY EACH	REMARKS
CATEGORY 0020				
S20	88+84.47	22.19' RT, CTH AP	1	LOWER TOP OF STRUCTURE 5-INCHES TO ALLOW FOR 6-INCHES OF ADJUSTMENT.
S21	92+16.41	22.91' RT, CTH AP	1	LOWER TOP OF STRUCTURE 5-INCHES TO ALLOW FOR 6-INCHES OF ADJUSTMENT AND ROTATE CONE TO PROVIDE CLEARANCE BETWEEN THE MANHOLE COVER AND THE CURB HEAD.
S22	93+83.08	23.23' RT, CTH AP	1	LOWER TOP OF STRUCTURE 6-INCHES TO ALLOW FOR 6-INCHES OF ADJUSTMENT AND ROTATE CONE TO PROVIDE CLEARANCE BETWEEN THE MANHOLE COVER AND THE CURB HEAD.
S26	101+87.58	15.96' RT, CTH AP	1	LOWER TOP OF STRUCTURE 5-INCHES TO ALLOW FOR 6-INCHES OF ADJUSTMENT.
S28	108+65.76	19.03' RT, CTH AP	1	LOWER TOP OF STRUCTURE 7-INCHES TO ALLOW FOR 6-INCHES OF ADJUSTMENT.
S30	112+16.66	19.55' RT, CTH AP	1	LOWER TOP OF STRUCTURE 6-INCHES TO ALLOW FOR 6-INCHES OF ADJUSTMENT.
PROJECT TOTAL			6	

\* S(NUMBER) = SANITARY SEWER MANHOLES  
\*\* LOCATION IS TO CENTER OF MANHOLE COVER

**PIPE UNDERDRAIN AND GEOTEXTILE FABRIC**

STRUCTURE	STATION	LOCATION	612.0106 6-INCH L.F.	645.0112 TYPE DF SCHEDULE B S.Y.
1	32+25.79 RT	CTH AP	65	8
64	32+24.98 LT	CTH AP	65	8
7	41+04.74 RT	CTH AP	65	8
62	41+04.97 LT	CTH AP	65	8
9	48+97.25 RT	CTH AP	65	8
60	48+97 LT	CTH AP	65	8
13	57+48.64 RT	CTH AP	65	8
56	57+48.45 LT	CTH AP	65	8
50	68+59.19 LT	CTH AP	65	8
25	90+73.58 RT	CTH AP	65	8
43	90+87.06 LT	CTH AP	65	8
28	102+28.14 RT	CTH AP	65	8
40	102+27.13 LT	CTH AP	65	8
32	9+65.77 RT	CTH AP	65	8
37A	111+00 LT	CTH AP	65	8
33	119+76.10 RT	CTH AP	45	8
34	119+73.53 LT	CTH AP	45	8
PROJECT TOTALS			1065	136
ROUNDED TOTALS			1070	140

\*TRENCHES FOR PIPE UNDERDRAIN TO BE BACK FILLED WITH OPEN GRADED BASE COURSE, ITEM 310.0110. SEE BASE AGGREGATE MISC. QUANTITY TABLE FOR QUANTITIES FOR THIS ITEM.

**ADJUSTING INLET COVERS**  
611.8115

STRUCTURE	STATION	LOCATION	QUANTITY EACH	AVAILABLE ADJUSTMENT FT.	PROPOSED ADJUSTMENT FT.
1	32+25.79	24.50' RT, CTH AP	1	0.33	0.02
2	9+51.68	16.68' LT, MISSION ST.	1	0.75	0.06
3	9+50.29	16.67' RT, MISSION ST.	1	0.63	0.06
4	35+67.29	24.50' RT, CTH AP	1	0.29	0.19
6	9+64.40	20.42' RT, FATIMA ST.	1	0.63	0.10
7	41+04.74	24.50' RT, CTH AP	1	0.63	0.13
8	43+53.17	24.50' RT, CTH AP	1	0.96	1.01
9	48+97.25	24.50' RT, CTH AP	1	1.08	0.06
10	52+41.07	24.50' RT, CTH AP	1	0.50	0.11
11	9+70.72	27.08' LT, KENWOOD DR.	1	0.63	0.30
12	9+68.28	26.41' RT, KENWOOD DR.	1	0.58	0.14
13	57+48.64	24.50' RT, CTH AP	1	0.75	0.09
19	75+50.54	24.50' RT, CTH AP	1	0.33	-0.21
20	78+56.42	24.50' RT, CTH AP	1	0.75	0.07
21	9+65.45	22.98' LT, UNIVERSITY DR.	1	0.25	0.00
22	9+50.14	18.50' RT, UNIVERSITY DR.	1	1.00	0.04
23	82+65.62	24.50' RT, CTH AP	1	0.98	-0.10
24	85+48.78	24.50' RT, CTH AP	1	0.21	-0.04
25	90+73.58	24.50' RT, CTH AP	1	0.38	-0.09
26	93+97.71	24.50' RT, CTH AP	1	1.00	-0.06
28	102+28.14	24.50' RT, CTH AP	1	0.88	-0.01
29	9+65.98	23.32' LT, S. LINDA AVE.	1	0.57	0.08
30	9+65.63	23.86' RT, S. LINDA AVE.	1	0.13	0.36
34	119+73.53	26.39' LT, CTH AP	1	0.65	-0.03
35	10+34.80	23.61' RT, MALOA ST.	1	1.19	-0.03
36	10+35.23	22.45' LT, MALOA ST.	1	1.08	0.05
38	10+34.58	23.24' RT, N. LINDA AVE.	1	0.58	0.19
39	10+35.42	22.33' LT, N. LINDA AVE.	1	0.67	-0.10
40	102+27.13	24.50' LT, CTH AP	1	1.08	0.01
41	96+08.93	24.50' LT, CTH AP	1	0.25	0.23
42	93+97.55	24.50' LT, CTH AP	1	0.69	0.04
43	90+87.06	24.50' LT, CTH AP	1	0.46	0.10
44	85+51.71	24.50' LT, CTH AP	1	0.58	0.06
45	10+34.59	22.88' RT, UNIVERSITY DR.	1	0.17	0.20
46	10+34.72	23.94' RT, UNIVERSITY DR.	1	1.96	0.03
47	78+54.68	24.50' LT, CTH AP	1	0.83	0.34
48	75+50.36	24.50' LT, CTH AP	1	0.98	-0.02
49	72+00	24.50' LT, CTH AP	1	1.29	0.04
50	68+59.19	24.60' LT, CTH AP	1	0.42	0.07
54	64+01.09	24.50' LT, CTH AP	1	0.67	-0.10
55	61+92.16	24.50' LT, CTH AP	1	0.83	0.10
56	57+48.45	24.50' LT, CTH AP	1	0.46	0.17
57	54+82.92	24.54' LT, CTH AP	1	0.50	0.12
59	52+50.06	24.50' LT, CTH AP	1	0.88	0.07
60	48+97	24.50' LT, CTH AP	1	0.88	0.05
61	43+51.10	24.50' LT, CTH AP	1	0.21	0.05
62	41+04.97	24.50' LT, CTH AP	1	0.96	0.10
63	35+66.44	24.50' LT, CTH AP	1	0.71	0.12
64	32+24.98	24.50' LT, CTH AP	1	1.08	-0.08

PROJECT TOTAL 49

LOCATION IS TO CENTER BACK OF CURB.

AVAILABLE ADJUSTMENT = THICKNESS OF EXISTING GRADE ADJUSTMENT DEVICES.  
PROPOSED ADJUSTMENT = DIFFERENCE BETWEEN EXISTING AND FINISHED MANHOLE COVER ELEVATIONS. TO BE VERIFIED BY CONTRACTOR.

**EROSION MAT URBAN CLASS I TYPE A**  
628.2006

STATION	LOCATION	S.Y.
29+95.25 RT - 67+06.77 RT	CTH AP	1250
29+95.25 LT - 67+06.77 LT	CTH AP	1600
68+39.60 RT - 119+83.32 RT	CTH AP	2080
68+39.60 LT - 119+83.32 LT	CTH AP	1998
PROJECT TOTAL		6928
ROUNDED TOTAL		6950

**INLET PROTECTION, TYPE A**  
628.7005

STATION TO STATION	LOCATION	EACH
38+25	CTH AP, RT	1
48+50	CTH AP, LT	1
10+00 - 10+93.47	UNIVERSITY DR.	2
PROJECT TOTAL		4

**INLET PROTECTION, TYPE C**  
628.7015

STATION TO STATION	LOCATION	EACH
29+95.25 - 119+83.32	CTH AP	65
PROJECT TOTAL		65

**WATER AND DUST CONTROL SURFACE TREATMENT**

STATION TO STATION	LOCATION	624.0100 WATER MGAL	623.0200 DUST CONTROL SURFACE TREATMENT S.Y.
29+95.25 - 67+06.77	CTH AP	41	16500
68+39.60 - 119+83.32	CTH AP	58	23820
PROJECT TOTALS		99	40320
ROUNDED TOTALS		99	40400

**SILT FENCE**

STATION TO STATION	LOCATION	628.1504 SILT FENCE L.F.	628.1520 SILT FENCE MAINTENANCE L.F.
UNDISTRIBUTED	CTH AP	1000	1000
PROJECT TOTALS		1000	1000

**LANDSCAPING SUMMARY**

STATION	LOCATION	625.0100 TOPSOIL S.Y.	629.0210 FERTILIZER TYPE B CWT.	630.0140 SEEDING MIXTURE NO. 40 LB.	627.0200 MULCHING S.Y.	630.0200 SEEDING TEMPORARY LB.
29+95.25 RT - 67+06.77 RT	CTH AP	1700	1.1	31	450	15
29+95.25 LT - 67+06.77 LT	CTH AP	3750	2.3	68	2150	34
7+43 - 10+00	EARL ST.	408	0.3	7	408	4
9+12.46 - 10+00	MISSION ST.	153	0.1	3	153	1
8+80 - 10+00	FATIMA ST.	230	0.1	4	230	2
68+39.60 LT - 119+83.32 LT	CTH AP	2500	1.5	45	502	23
73+82.01 RT - 119+83.32 RT	CTH AP	3275	2.0	59	1195	30
9+05.68 - 10+00	UNIVERSITY DR.	80	0.1	1	80	1
10+00 - 10+93.47	UNIVERSITY DR.	90	0.1	2	90	1
8+99.18 - 10+00	HOME AVE.	145	0.1	3	145	1
9+07.82 - 10+00	STEAD DR.	155	0.1	3	155	1
9+00.48 - 10+00	S. LINDA AVE.	160	0.1	3	160	1
10+00 - 11+02.62	N. LINDA AVE.	70	0.1	1	70	2
9+40.33 - 10+00	ESTATE DR.	90	0.1	2	90	1
10+00 - 11+12	MALOA ST.	61	0.1	1	61	1
-	UNDISTRIBUTED	-	-	58	-	29
PROJECT TOTALS		12867	8.0	291	5939	147
ROUNDED TOTALS		12900	8.0	300	5950	150

**TEMPORARY DITCH CHECKS**  
628.7504

*LOCATION	L.F.	
EARL ST.	25	
MISSION ST.	20	
FATIMA ST.	25	
UNIVERSITY DR.	25	
HOME AVE.	25	
STEAD DR.	20	
S. LINDA AVE.	20	
N. LINDA AVE.	15	
MALOA ST.	25	
UNDISTRIBUTED	100	
PROJECT TOTAL		300

\*EXACT LOCATION OF TEMPORARY DITCH CHECKS TO BE DETERMINED BY ENGINEER IN THE FIELD.

**CULVERT PIPE DITCH CHECKS**  
628.7550

STATION	LOCATION	EACH
9+26	23.1' LT, EARL ST.	2
7+49	24.4' LT, EARL ST.	1
9+44	19.1' LT, MISSION ST.	1
9+42	18' RT, MISSION ST.	1
8+82	22' LT, FATIMA ST.	1
9+10	21.8' LT, HOME AVE.	1
8+97	21.6' RT, HOME AVE.	1
PROJECT TOTAL		8

**SIGN SUMMARY**

STATION	LOCATION	638.2102	638.3000	634.0414	634.0416	DESCRIPTION
		MOVING SIGNS, TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	POSTS WOOD 4X4-INCH X 14-FT EACH	POSTS WOOD 4X4-INCH X 16-FT EACH	
31+05 RT	MIDWAY RD.	1	1	1		NO PARKING 35 MPH
31+80 RT	MIDWAY RD.	1	1	1		NO PARKING 35 MPH
35+80 RT	MIDWAY RD.	1	1	1		NO PARKING 35 MPH
73+15 LT	MIDWAY RD.	1	1	1		SIGNALS AHEAD
74+15 LT	MIDWAY RD.	3	1		1	JCT, 47, LANE CONFIGURATION
83+50 LT	MIDWAY RD.	1	1	1		NO PARKING 35 MPH
87+80 LT	MIDWAY RD.	1	1	1		CROSSWALK, ARROW
99+45 LT	MIDWAY RD.	2	1		1	35 MPH
100+20 LT	MIDWAY RD.	1	1	1		NO PARKING 35 MPH
100+70 RT	MIDWAY RD.	1	1	1		ONE WAY 35 MPH
101+10 LT	MIDWAY RD.	1	1	1		30 MPH
103+65 RT	MIDWAY RD.	1	1	1		STOP
8+75 LT	EARL ST.	1	1	1		STOP
9+60 RT	EARL ST.	1	1	1		STOP
9+60 RT	MISSION ST.	1	1	1		STOP
9+60 RT	FATIMA ST.	1	1	1		STOP
10+30 LT	MIDWAY PL.	1	1	1		STOP
9+60 RT	KENWOOD DR.	1	1	1		STOP
9+55 RT	HOME AVE.	1	1	1		STOP
9+55 RT	STEAD DR.	1	1	1		STOP
9+60 RT	S. LINDA AVE.	1	1	1		STOP
10+40 LT	N. LINDA AVE.	1	1	1		STOP
9+60 RT	ESTATE DR.	1	1	1		STOP
10+60 LT	MALOA ST.	1	1	1		STOP
PROJECT TOTALS		27	24	22	2	

**GEOGRID**  
SPV.0180.05

STATION	LOCATION	S.Y.
29+95.25 - 119+83.32	CTH AP, OUTSIDE TRAVEL LANES	25000
PROJECT TOTAL		25000

**TRAFFIC CONTROL**

PHASE	LOCATION	SERVICE PERIOD (DAYS)	SIGNS (NO.)	643.0900	643.0420	643.0300	643.0705	643.0715	643.0905.S	643.0500	643.0600				
				BARRICADES TYPE III (NO.)	BARRICADES TYPE III (DAYS)		WARNING LIGHTS TYPE A (NO.)		WARNING LIGHTS TYPE C (NO.)	TRAFFIC CONTROL COVERING SIGNS EACH	FLEXIBLE TUBULAR MARKER POSTS EACH	FLEXIBLE TUBULAR MARKER BASES EACH			
PHASE 1	MIDWAY RD	40	64	2560	57	2280	183	7320	76	3040	12	480		7	7
PHASE 2	MIDWAY RD	40	68	2720	48	1920	250	10000	62	2480	18	720	1	21	21
PHASE 3	MIDWAY RD	30	61	1830	10	300	141	4230	58	1740	28	840	1		
PHASE 4	MIDWAY RD	35	43	1505	30	1050	112	3920	44	1540	12	420			
PROJECT TOTALS				8615		5550		25470		8800		2460	2	28	28

NOTE:  
DRUMS QUANTITY INCLUDES ADDITIONAL DRUMS TO BE PLACED AS NEEDED IN PAVEMENT GAP LOCATIONS

**CONSTRUCTION STAKING, STORM SEWER SYSTEM**  
650.4000

STRUCTURE	STATION	LOCATION	EACH
5	39+46.99, CTH AP	29.57' RT	1
5A	38+25, CTH AP	30.50' RT	1
27	96+21.69, CTH AP	24.50' RT	1
31	110+46.42, CTH AP	34.50' RT	1
32	110+95.15, CTH AP	34.58' RT	1
33	119+76.10, CTH AP	24.97' RT	1
37	110+70.44, CTH AP	24.50' LT	1
37A	111+00, CTH AP	24.5' LT.	1
53	67+02.50, CTH AP	24.5' LT	1
58	53+84, CTH AP	25.55' LT	1
PROJECT TOTAL			10

**CONSTRUCTION STAKING, SUBGRADE**  
650.4500

STATION TO STATION	LOCATION	L.F.
29+95.25 - 67+06.77	CTH AP	3712
68+39.60 - 119+83.32	CTH AP	5144
8+95.98 - 9+78	EARL ST.	83
9+12.46 - 9+78	MISSION ST.	66
9+25.34 - 9+78	FATIMA ST.	53
9+40.04 - 9+78	KENWOOD DR.	38
10+22 - 10+59.79	MIDWAY PLACE	38
9+05.68 - 9+78	UNIVERSITY DR.	73
10+22 - 10+93.47	UNIVERSITY DR.	72
8+99.18 - 9+78	HOME AVE.	79
9+07.82 - 9+78	STEAD DR.	71
9+00.48 - 9+78	S. LINDA AVE.	78
10+22 - 11+02.62	N. LINDA AVE.	81
9+40.33 - 9+78	ESTATE DR.	38
10+22 - 10+71.51	MALOA ST.	50
PROJECT TOTAL		9676
ROUNDED TOTAL		9680

**CONSTRUCTION STAKING, BASE**  
650.5000

STATION TO STATION	LOCATION	L.F.
119+50 - 119+83.32	CTH AP	34
8+95.98 - 9+45.20	EARL ST.	50
9+12.46 - 9+48.85	MISSION ST.	37
9+25.34 - 9+50.68	FATIMA ST.	26
9+40.04 - 9+50.04	KENWOOD DR.	10
10+49.79 - 10+59.79	MIDWAY PLACE	10
9+05.68 - 9+47.93	UNIVERSITY DR.	43
10+50.29 - 10+93.47	UNIVERSITY DR.	44
8+99.18 - 9+49.81	HOME AVE.	51
9+07.82 - 9+50.15	STEAD DR.	43
9+00.48 - 9+50.15	S. LINDA AVE.	50
10+49.78 - 11+02.62	N. LINDA AVE.	53
9+40.33 - 9+50.33	ESTATE DR.	10
10+49.94 - 10+71.51	MALOA ST.	22
PROJECT TOTAL		483
ROUNDED TOTAL		485

**CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER**  
650.5500

STATION TO STATION	LOCATION	L.F.
10+49.71 - 10+59.71 LT,RT	SOUTHBOUND MIDWAY PLACE	20
10+49.71 - 10+59.71 LT,RT	NORTHBOUND MIDWAY PLACE	20
9+40.33 - 9+50.33 LT	ESTATE DR.	10
9+40.33 - 9+50.33 RT	ESTATE DR.	10
86+91 RT	CTH AP DRIVEWAY	12
PROJECT TOTAL		72

ALL ITEMS ON THIS PAGE ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

PAVEMENT MARKING

STATION TO STATION	LOCATION	646.0106 CENTERLINE EPOXY 4-INCH L.F.	646.0106 LANE LINE EPOXY 4-INCH L.F.	646.0106 EDGE LINE EPOXY 4-INCH L.F.	646.0126 EPOXY 8-INCH L.F.	647.0456 CURB EPOXY L.F.	647.0566 STOP LINE EPOXY 18-INCH L.F.	647.0606 ISLAND NOSE EPOXY EACH	647.0166 ARROWS EPOXY TYPE 2 EACH	647.0176 ARROWS EPOXY TYPE 3 EACH	647.0356 WORDS EPOXY EACH	647.0110 RAILROAD CROSSING EPOXY EACH	647.0716 DIAGONAL 8-INCH EPOXY L.F.	647.0726 DIAGONAL 12-INCH EPOXY L.F.	647.0776 CROSSWALK 12-INCH EPOXY L.F.	647.0856 CORRUGATED MEDIAN EPOXY S.F.
29+95.25 - 67+06.77	CTH AP	5476	938	518	240	27	34	3	2	-	2	2	-	154	-	134
68+39.60 - 119+83.32	CTH AP	9979	1288	60	314	27	59	2	5	2	4	-	-	286	94	-
8+95.98 - 10+00	EARL ST.	-	-	-	-	-	26	-	-	-	-	-	-	-	-	-
9+40.04 - 10+00	KENWOOD DR.	86	-	-	41	-	21	-	1	-	1	-	-	-	-	-
10+00 - 10+59.79	MIDWAY PLACE	-	-	-	37	-	26	-	1	-	-	-	-	-	-	-
	PARKSIDE DR.	-	-	-	-	-	24	-	-	-	-	-	-	-	-	-
10+00 - 10+93.47	UNIVERSITY DR.	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-
8+99.18 - 10+00	HOME AVE.	-	-	-	-	-	17	-	-	-	-	-	-	-	-	-
9+07.82 - 10+00	STEAD DR.	-	-	-	-	-	21	-	-	-	-	-	107	-	87	-
9+00.48 - 10+00	S. LINDA AVE.	-	-	-	-	-	21	-	-	-	-	-	94	-	105	-
10+00 - 11+02.62	N. LINDA AVE.	-	-	-	-	-	21	-	-	-	-	-	-	-	-	-
9+40.33 - 10+00	ESTATE DR.	-	-	-	-	-	20	-	-	-	-	-	91	-	102	-
PROJECT TOTALS		15541	2226	578	632	54	312	5	9	2	8	2	292	440	388	134
646.0106 TOTAL PAVEMENT MARKING EPOXY 4-INCH=		18345														
ROUNDED TOTALS		18350	-	-	635	54	315	5	9	2	8	2	295	440	390	135

REMOVING PAVEMENT MARKINGS

LOCATION	646.0600 L.F.	647.0955 ARROWS EACH	647.0965 WORDS EACH	REMARKS
MIDWAY PLACE			1	
KENWOOD DR.			1	
PARKSIDE DRIVE	24			12-INCH
CTH AP, WEST APPROACH TO STH 47	799	2	2	EB LANES NOT BEING RECONSTRUCTED
CTH AP, EAST APPROACH TO STH 47	1023	2	2	WB LANES NOT BEING RECONSTRUCTED
PROJECT TOTALS	1846	4	6	
ROUNDED TOTALS	1850	4	6	

PULL BOXES STEEL

LOCATION	653.0105 12X24-INCH EACH
US 10 & CTH AP	2
STH 47 & CTH AP	2
PROJECT TOTAL	4

CONSTRUCTION STAKING, PIPE CULVERTS  
650.6000

STATION	LOCATION	EACH
9+08.76 LT	EARL ST.	2
PROJECT TOTAL		2

CONSTRUCTION STAKING CONCRETE PAVEMENT  
650.7000

STATION TO STATION	LOCATION	L.F.
29+95.25 - 67+06.77	CTH AP	3812
68+39.60 - 119+50	CTH AP	5111
9+45.20 - 9+78	EARL ST.	33
9+48.85 - 9+78	MISSIONS ST.	30
9+50.68 - 9+78	FATIMA ST.	28
9+50.04 - 9+78	KENWOOD DR.	28
10+22 - 10+49.79	MIDWAY PLACE	28
9+47.93 - 9+78	UNIVERSITY DR.	31
10+22 - 10+50.29	UNIVERSITY DR.	29
9+49.81 - 9+78	HOME AVE.	29
9+50.15 - 9+78	STEAD DR.	28
9+50.15 - 9+78	S. LINDA AVE.	28
10+22 - 10+49.78	N. LINDA AVE.	28
9+50.33 - 9+78	ESTATE DR.	28
10+22 - 10+49.94	MALOA ST.	28
PROJECT TOTAL		9299
ROUNDED TOTAL		9300

CONSTRUCTION STAKING, INITIAL LAYOUT  
650.9900

STATION TO STATION	LOCATION	L.F.
29+95.25 - 119+83.32	CTH AP	8989
8+95.98 - 10+00	EARL ST.	105
9+12.46 - 10+00	MISSION ST.	88
9+25.34 - 10+00	FATIMA ST.	75
9+40.04 - 10+00	KENWOOD DR.	60
10+00 - 10+59.79	MIDWAY PLACE	60
9+05.68 - 10+00	UNIVERSITY DR.	95
10+00 - 10+93.47	UNIVERSITY DR.	94
8+99.18 - 10+00	HOME AVE.	101
9+07.82 - 10+00	STEAD DR.	93
9+00.48 - 10+00	S. LINDA AVE.	100
10+00 - 11+02.62	N. LINDA AVE.	103
9+40.33 - 10+00	ESTATE DR.	60
10+00 - 10+71.51	MALOA ST.	72
PROJECT TOTAL		10095
ROUNDED TOTAL		10100

LOOP DETECTORS

LOCATION	LOOP NO.	652.0800 CONDUIT L.F.	655.0700 LEAD IN CABLE L.F.	655.0800 WIRE L.F.
US 10 & CTH AP	31	85	150	210
	82	90	150	190
STH 47 & CTH AP	81	85	300	260
	82	85	300	210
PROJECT TOTALS		345	900	870

ALL ITEMS ON THIS PAGE ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

**SAWING EXISTING PAVEMENT**  
690.0100

STATION	LOCATION	L.F.	DESCRIPTION
30+50 LT	CTH AP	59	DRIVEWAY
32+99 RT	CTH AP	9	DRIVEWAY
33+07 RT - 33+87 RT	CTH AP	81	PARKING LOT
34+20 LT	CTH AP	58	DRIVEWAY
38+54 RT	CTH AP	12	DRIVEWAY
39+11 RT	CTH AP	10	DRIVEWAY
40+10 LT	CTH AP	59	DRIVEWAY
41+65 RT	CTH AP	19	DRIVEWAY
44+17 RT	CTH AP	20.5	DRIVEWAY
47+36 RT	CTH AP	20	DRIVEWAY
47+43 LT	CTH AP	31	DRIVEWAY
48+43 RT	CTH AP	28	DRIVEWAY
48+57 RT - 49+58 RT	CTH AP	101	ASPHALT SIDEWALK
49+71 RT	CTH AP	27	DRIVEWAY
51+83 RT	CTH AP	32	DRIVEWAY
52+67 RT	CTH AP	31	DRIVEWAY
53+75 RT	CTH AP	5	ASPHALT SIDEWALK
54+89 LT	CTH AP	5	ASPHALT SIDEWALK
58+31 RT	CTH AP	56	DRIVEWAY
59+00 LT	CTH AP	41	DRIVEWAY
59+88 RT	CTH AP	28	DRIVEWAY
60+86 RT	CTH AP	31	DRIVEWAY
61+54 LT	CTH AP	39	DRIVEWAY
63+43 LT	CTH AP	31	DRIVEWAY
64+71 LT	CTH AP	38	DRIVEWAY
65+00 LT	CTH AP	5	ASPHALT SIDEWALK
67+00 LT	CTH AP	5	ASPHALT SIDEWALK
74+32 RT	CTH AP	28.5	DRIVEWAY
75+72 RT	CTH AP	28	DRIVEWAY
76+51 RT	CTH AP	32	DRIVEWAY
77+50 RT	CTH AP	32	DRIVEWAY
78+28.50 RT	CTH AP	25	DRIVEWAY
86+91.60 RT	CTH AP	25	DRIVEWAY
88+10 RT	CTH AP	25.5	DRIVEWAY
90+97 RT	CTH AP	32	DRIVEWAY
107+55 LT	CTH AP	31	DRIVEWAY
109+75 LT	CTH AP	28	DRIVEWAY
110+31 LT	CTH AP	26	DRIVEWAY
112+35 LT	CTH AP	26	DRIVEWAY
116+82 RT	CTH AP	36	DRIVEWAY
117+81 LT	CTH AP	34	DRIVEWAY
117+95 RT	CTH AP	48	DRIVEWAY
9+09 LT	EARL ST.	27	DRIVEWAY
8+95.98	EARL ST.	26	MATCHPOINT
9+12.46	MISSION ST.	22	MATCHPOINT
9+25.34	FATIMA ST.	29	MATCHPOINT
9+40.04	KENWOOD DR.	32	MATCHPOINT
10+59.71	MIDWAY PLACE	38	MATCHPOINT
10+93.47	UNIVERSITY DR.	31	MATCHPOINT
9+05.68	UNIVERSITY DR.	34	MATCHPOINT
8+99.18	HOME AVE.	23	DRIVEWAY
9+07.82	STEAD DR.	23	MATCHPOINT
9+00.48	S. LINDA AVE.	21.5	MATCHPOINT
11+02.62	N. LINDA AVE.	26.5	MATCHPOINT
10+86 RT	N. LINDA AVE.	33	DRIVEWAY
9+40.33	ESTATE DR.	35.5	MATCHPOINT
10+71.51	MALOA ST.	32	MATCHPOINT

PROJECT TOTAL 1772  
ROUNDED TOTAL 1780

**SAWING CONCRETE PAVEMENT, FULL DEPTH**  
690.0200

STATION	LOCATION	L.F.	DESCRIPTION
29+95.25	CTH AP	50	MATCH POINT
35+92 RT	CTH AP	11	DRIVEWAY
36+61 RT	CTH AP	29	DRIVEWAY
37+41 RT	CTH AP	15	DRIVEWAY
37+63 RT	CTH AP	12	DRIVEWAY
40+25 RT	CTH AP	20	DRIVEWAY
44+17 RT	CTH AP	4	DRIVEWAY C&G
47+36 RT	CTH AP	5	DRIVEWAY C&G
60+95.54	CTH AP	25	MATCH POINT EB LANES
29+95.25 - 67+06.77	CTH AP	3712	PHASE 3
67+06.77	CTH AP	22	MATCH POINT WB LANES
67+06 RT	CTH AP	60	STORM SEWER REPLACEMENT
67+06.77 LT - 67+24.35 LT	CTH AP	20.5	CURB & GUTTER REPLACEMENT
68+39.60	CTH AP	30	MATCH POINT WB LANES
68+39.60 - 73+82.01	CTH AP	543	PHASE 2
73+82.01 - 119+83.32	CTH AP	4602	PHASE 1
73+82.01	CTH AP	24.5	MATCH POINT EB LANES
77+30 LT	CTH AP	5	SIDEWALK
78+63.4 LT	CTH AP	5	SIDEWALK
80+71.6 LT	CTH AP	5	SIDEWALK
81+91.25 LT	CTH AP	5	SIDEWALK
86+91.60 RT	CTH AP	3	DRIVEWAY C&G
96+41 RT	CTH AP	5	SIDEWALK
98+25 RT	CTH AP	5	SIDEWALK
98+90 LT	CTH AP	5	SIDEWALK
99+06 LT	CTH AP	8	SIDEWALK
99+22 LT	CTH AP	5	SIDEWALK
99+43.50 RT	CTH AP	5	SIDEWALK
104+73.50 RT	CTH AP	5	SIDEWALK
104+85.50 LT	CTH AP	5	SIDEWALK
106+09 RT	CTH AP	5	SIDEWALK
110+02 RT	CTH AP	5	SIDEWALK
111+38.50 RT	CTH AP	5	SIDEWALK
116+50 RT	CTH AP	5	SIDEWALK
119+05.50 RT	CTH AP	40	DRIVEWAY
119+75.25 RT	CTH AP	8	SIDEWALK
119+83.32	CTH AP	56	MATCH POINT
10+58.12 LT	MIDWAY PLACE	10	SIDEWALK AND CURB & GUTTER
10+55.60 RT	MIDWAY PLACE	10	SIDEWALK AND CURB & GUTTER
9+50.04 LT, RT	KENWOOD DR.	5	CURB & GUTTER

PROJECT TOTAL 9400

**ADJUSTING WATER VALVE BOXES**  
SPV.0060.10

STATION	LOCATION	EACH
CATEGORY 0020		
30+73	26.05' LT, CTH AP	1
31+94	21.22' LT, CTH AP	1
34+45.50	26.53' LT, CTH AP	1
39+88	26.70' LT, CTH AP	1
47+43.44	28.95' LT, CTH AP	1
47+49	31.41' LT, CTH AP	1
47+54.50	28.63' LT, CTH AP	1
53+99	31.29' LT, CTH AP	1
54+01.40	33.40' LT, CTH AP	1
54+47.70	30.31' LT, CTH AP	1
54+50.75	27.60' LT, CTH AP	1
54+53.30	30.53' LT, CTH AP	1
61+66.50	31.0' LT, CTH AP	1
61+70.60	28.46' LT, CTH AP	1
10+33.72	12.89' RT, UNIVERSITY DR.	1
9+66.58	18.24' RT, HOME AVE.	1
9+69.71	1.35' RT, HOME AVE.	1
9+72.48	10.63' RT, STEAD DR.	1
9+48.16	10.03' RT, STEAD DR.	1
9+46.95	14.17' RT, S. LINDA AVE.	1
10+37.34	17.62' RT, N. LINDA AVE.	1
10+40.52	14.42' RT, N. LINDA AVE.	1
10+41.79	19.60' RT, MALOA ST.	1
119+79	24.33' LT, CTH AP	1

PROJECT TOTAL 24

**ADJUSTING PULL BOX COVERS**  
SPV.0060.01

STATION	LOCATION	EACH
69+40	25' LT, CTH AP	1
PROJECT TOTAL		1

**LANDMARK REFERENCE MONUMENT SPECIAL**  
SPV.0060.05

STATION	LOCATION	EACH	DESCRIPTION
41+43.79	2.30' RT, CTH AP	1	SOUTH ONE QUARTER CORNER SECTION 2, T20N, R17E
93+98.53	0.01' RT, CTH AP	1	SOUTH ONE QUARTER CORNER SECTION 1, T20N, R17E
PROJECT TOTAL		2	

**INTERNAL RUBBER CHIMNEY SEALS**  
SPV.0060.15

*STRUCTURE	STATION	LOCATION	QUANTITY EACH
CATEGORY 0020			
S1	30+57.86	20.6' RT, CTH AP	1
S2	32+63.68	20.46' RT, CTH AP	1
S3	33+97.34	21.43' RT, CTH AP	1
S4	36+96.17	21.79' RT, CTH AP	1
S5	39+51.46	21.88' RT, CTH AP	1
S6	40+92.68	21.65' RT, CTH AP	1
S7	43+46.72	21.50' RT, CTH AP	1
S8	47+42.44	22.19' RT, CTH AP	1
S9	51+34.41	21.48' RT, CTH AP	1
S10	54+31.92	21.07' RT, CTH AP	1
S11	55+34.54	20.06' RT, CTH AP]	1
S12	59+33.64	21.84' RT, CTH AP	1
S13	73+90.00	19.99' RT, CTH AP	1
S14	74+58.40	19.53' RT, CTH AP	1
S15	76+81.06	20.43' RT, CTH AP	1
S16	79+59.86	20.00' RT, CTH AP	1
S17	81+06.27	20.22' RT, CTH AP	1
S18	82+26.17	22.17' RT, CTH AP	1
S19	85+55.73	20.37' RT, CTH AP	1
S20	88+84.47	22.19' RT, CTH AP	1
S21	92+16.41	22.91' RT, CTH AP	1
S22	93+83.08	23.23' RT, CTH AP	1
S23	95+57.57	17.73' RT, CTH AP	1
S24	98+64.02	17.58' RT, CTH AP	1
S25	100+83.91	17.27' RT, CTH AP	1
S26	101+87.58	15.96' RT, CTH AP	1
S27	105+17.80	17.24' RT, CTH AP	1
S28	108+65.76	19.03' RT, CTH AP	1
S29	110+64.58	17.31' RT, CTH AP	1
S30	112+16.66	19.55' RT, CTH AP	1
S31	115+09.95	18.95' RT, CTH AP	1
S32	117+61.97	19.57' RT, CTH AP	1

PROJECT TOTAL 32

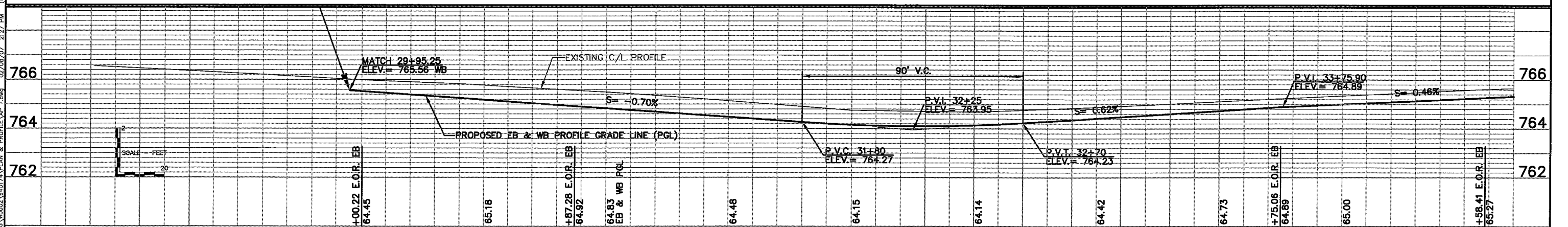
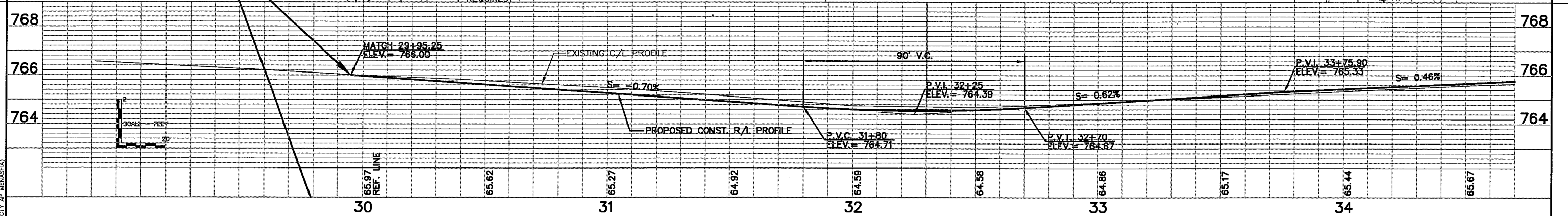
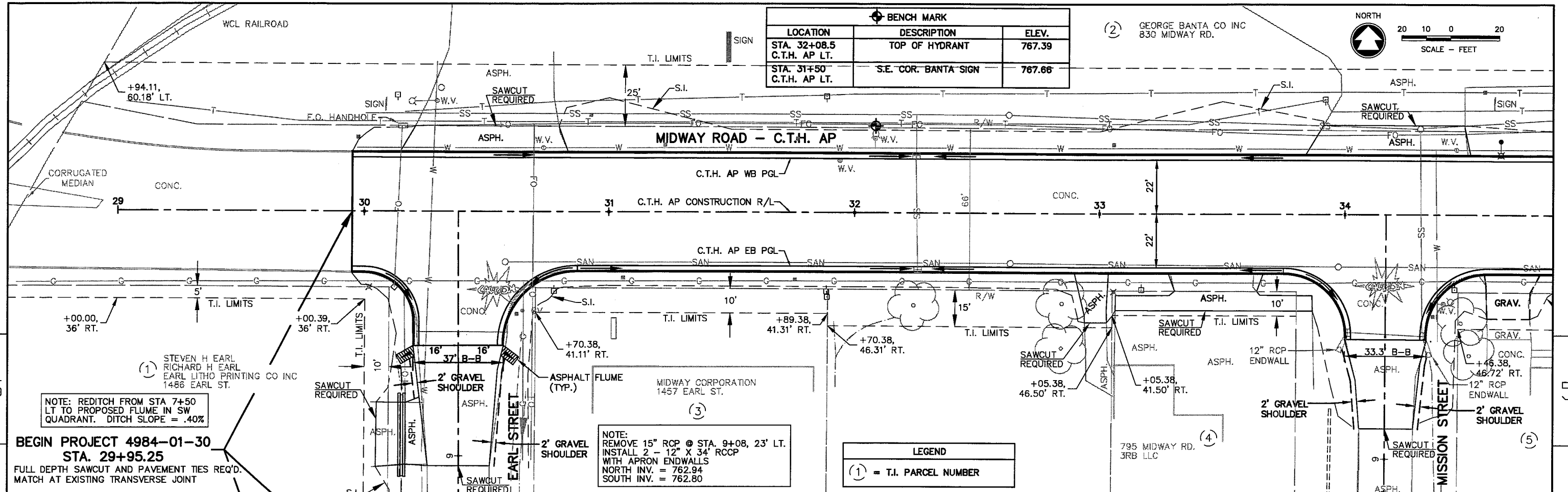
\* S(NUMBER) = SANITARY SEWER MANHOLES  
- LOCATION IS TO CENTER OF MANHOLE COVER

4

4

PARCEL NUMBER	TAX I.D. NUMBER	OWNER	INTEREST REQUIRED
1	740078400	STEVEN H EARL AND RICHARD H EARL	T.I.
2	740076800	GEORGE BANTA CO. INC.	T.I.
3	740078500	MIDWAY CORPORATION	T.I.
4	740078510	3RB LLC	T.I.
5	0081519	BRUCE E ANUNSON SR & BRUCE E ANUNSON JR	T.I.
6	0081520	BRUCE E ANUNSON SR & BRUCE E ANUNSON JR	T.I.
7	0081521	HENDRIKA RUTTEN	T.I.
8	0081523	JAMES A HOLCOMB	T.I.
9	0081524	VICTOR R PERSCHBACHER	T.I.
10	0081525	LYNN T MACDONALD	T.I.
11	0081551	JOSE L ARVIZU	T.I.
12	740078000	MONICA J BETTERS	T.I.
13	740077611	LA SALLE CLINIC OF WI, SC	T.I.
14	740078315	HOT PROPERTIES III, LLC	T.I.
15	740077605	CAPITAL CREDIT UNION	T.I.
16	740078303	JAY P KOBUSSEN	T.I.
17	740077907	SHOPKO STORES INC.	T.I.
18	760165600	C.W. HUFFER LLP	T.I.
19	760165700	DATA ONE COMPUTER SERVICES INC.	T.I.
20	008002904	SABRE PROPERTIES	T.I.
21	760165800	AMERICAN COURT OFFICES LLC	T.I.
22	760127000	CITY OF MENASHA	T.I.
23	760127100	UNITED PENTECOSTAL CHURCH	T.I.
24	008037407	CATHLEEN B GOTTSALL	T.I.
24A	760126202	MENASHA SCHOOL DISTRICT	T.I.
25	008037405	MICHAEL ANDERSON AND SHARON ANDERSON	T.I.
26	008037406	BONNIE V MEYER	T.I.
27	008003408	OUR REDEEMER EVANGELICAL LUTHERAN CHURCH	T.I.
28	760160100	LIVENGOOD MIDWAY PROPERTIES	T.I.
29	760160000	VALLEY PETROLEUM	T.I.

C:\PROJECTS\4984\4984\17A\DETAILS\DET-11.dwg 10/04/06 2:12 PM



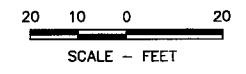
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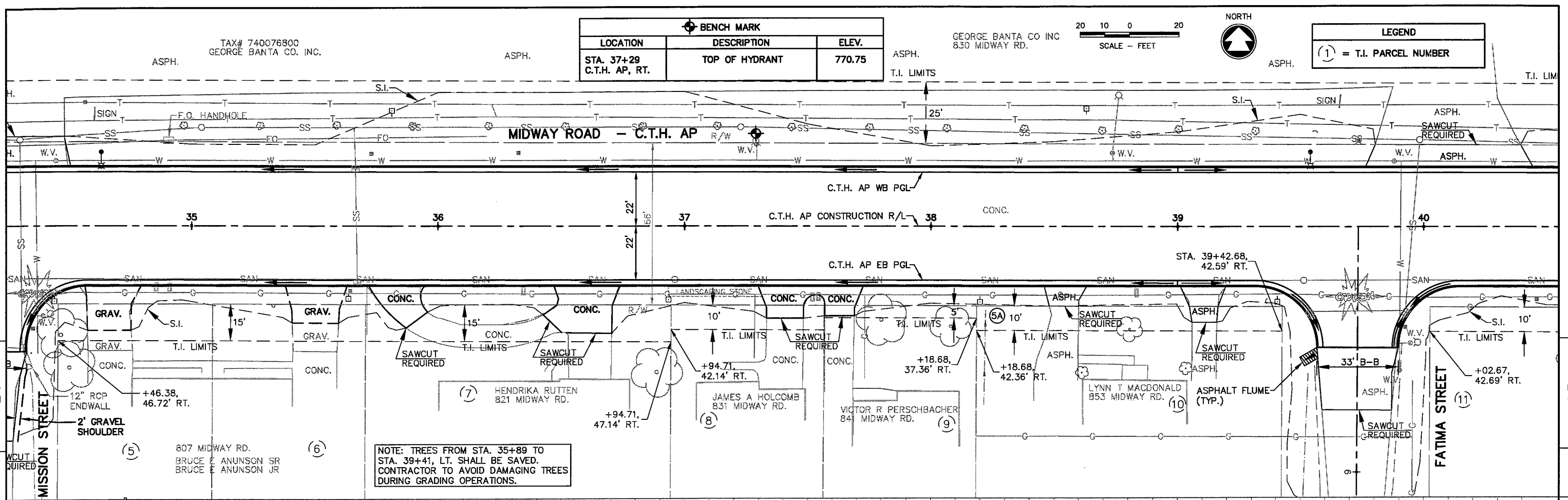
TAX# 740076800  
 GEORGE BANTA CO. INC.

BENCH MARK		
LOCATION	DESCRIPTION	ELEV.
STA. 37+29 C.T.H. AP, RT.	TOP OF HYDRANT	770.75

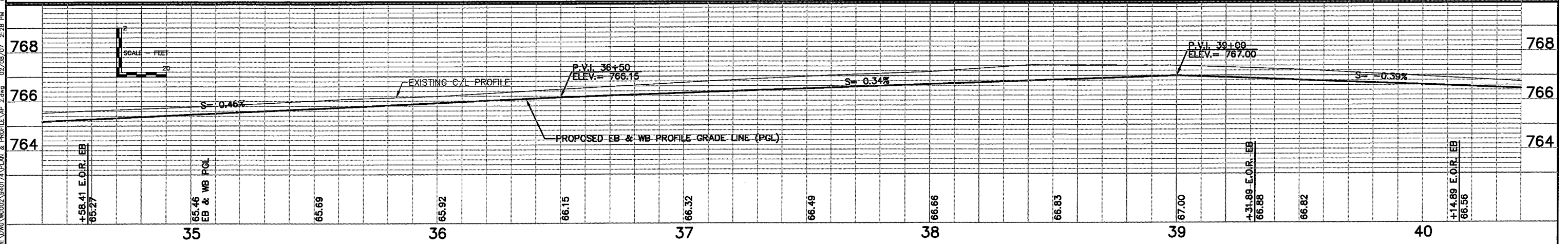
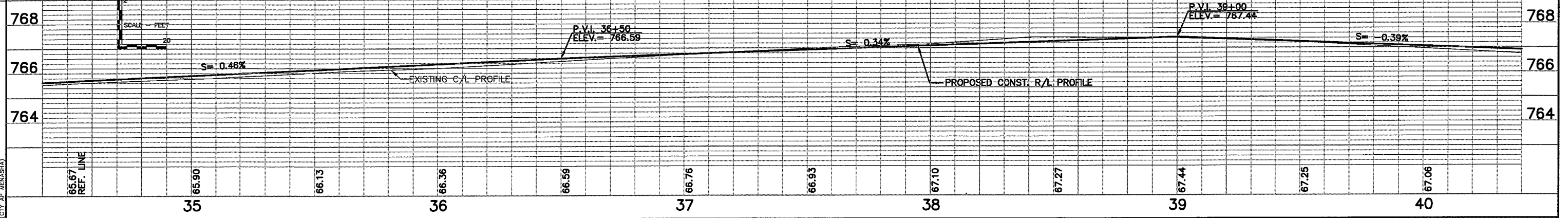
GEORGE BANTA CO INC  
 830 MIDWAY RD.



LEGEND
(1) = T.I. PARCEL NUMBER

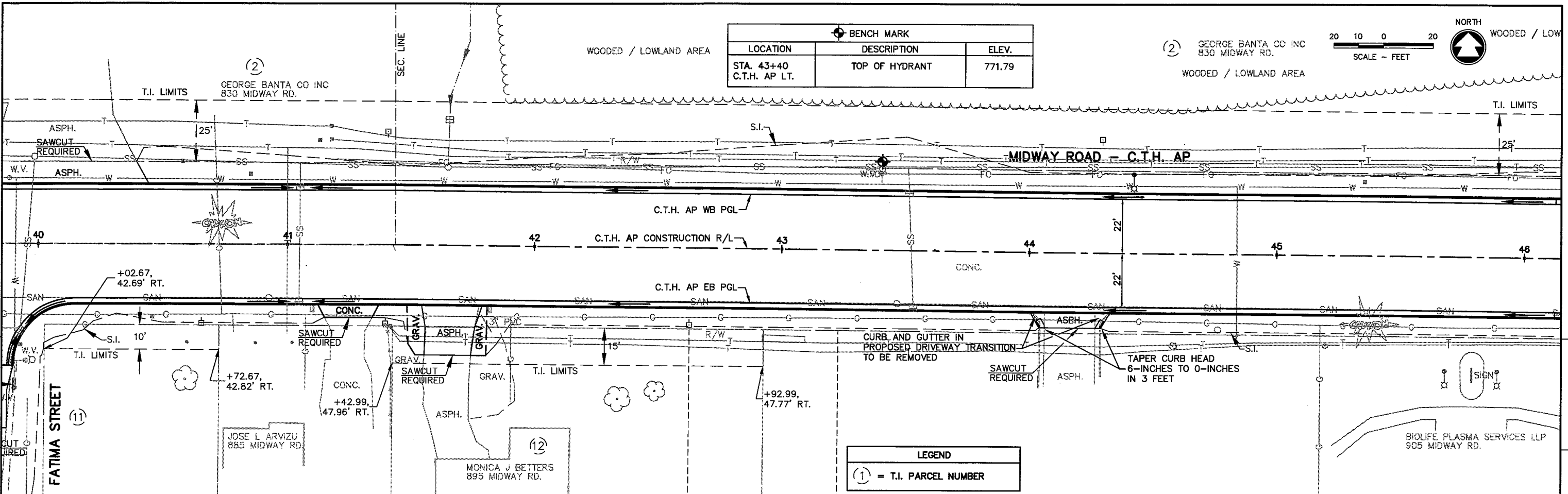
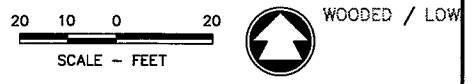


NOTE: TREES FROM STA. 35+89 TO STA. 39+41, LT. SHALL BE SAVED. CONTRACTOR TO AVOID DAMAGING TREES DURING GRADING OPERATIONS.

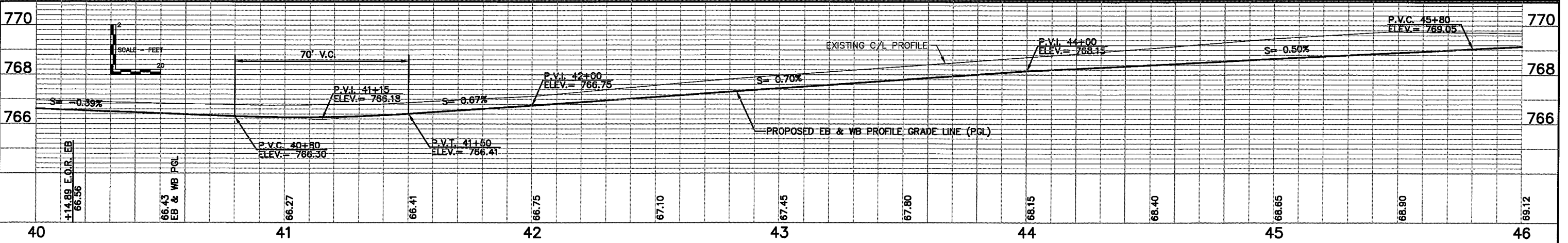
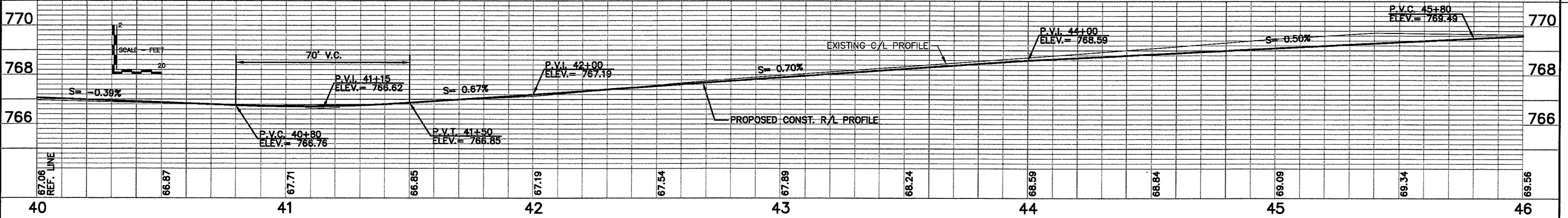


LOCATION	DESCRIPTION	ELEV.
STA. 43+40 C.T.H. AP LT.	TOP OF HYDRANT	771.79

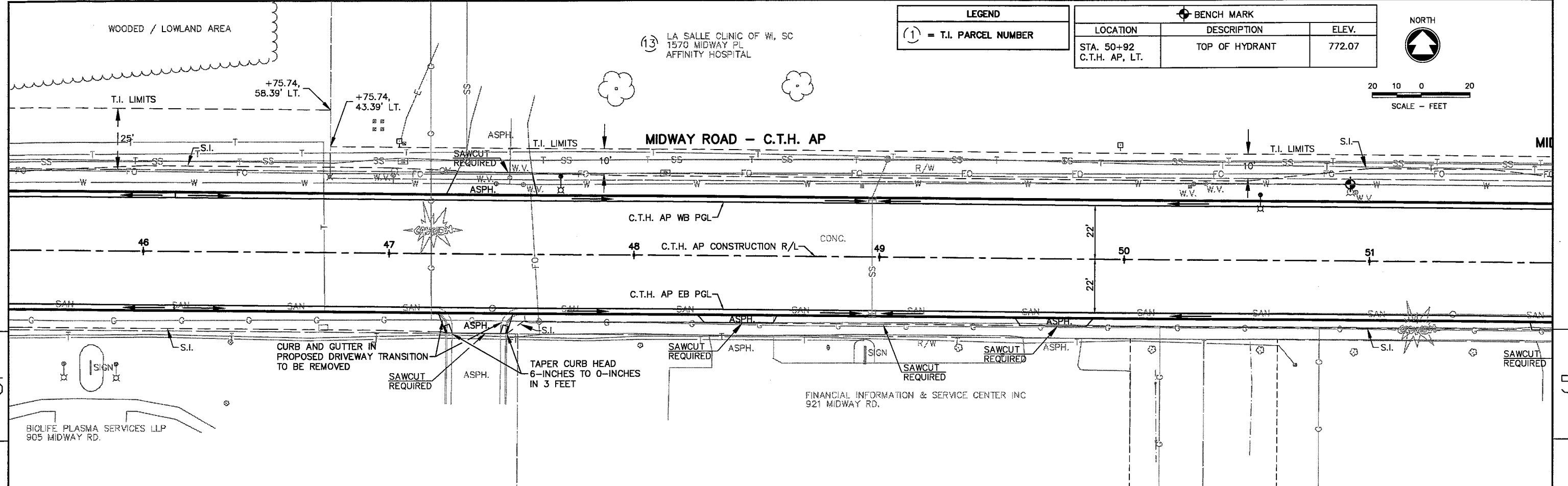
② GEORGE BANTA CO INC  
830 MIDWAY RD.  
WOODED / LOWLAND AREA



LEGEND
① = T.I. PARCEL NUMBER



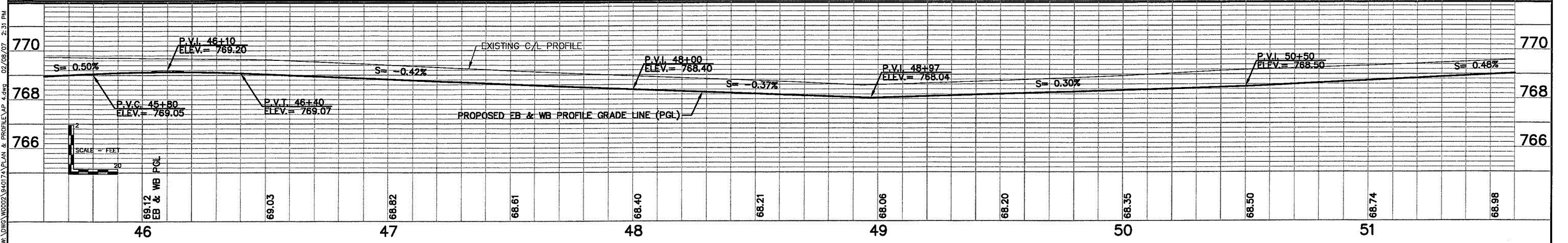
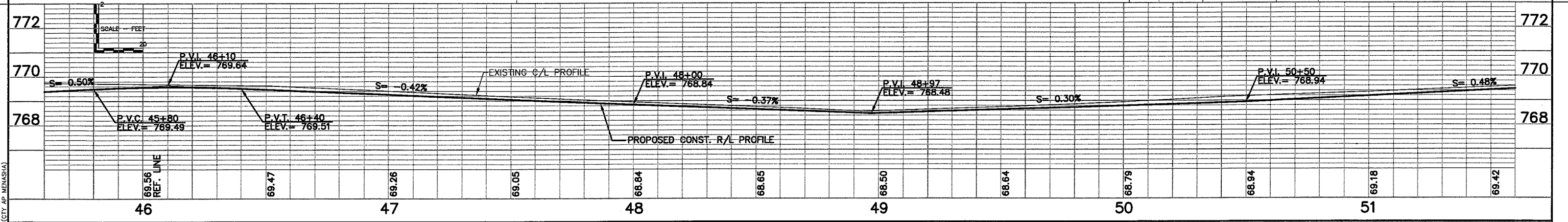
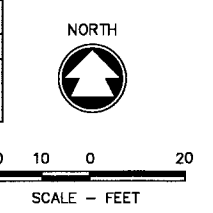
MSDOT/CADD SHEET 40

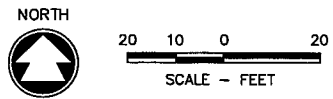


**LEGEND**

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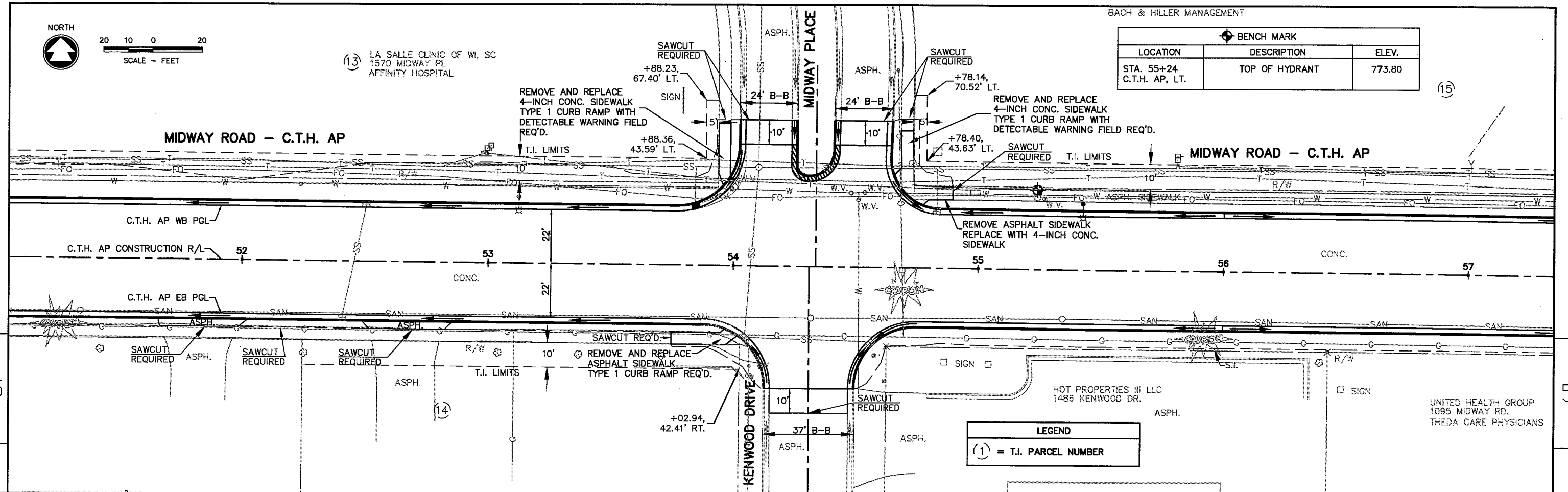
BENCH MARK		
LOCATION	DESCRIPTION	ELEV.
STA. 50+92 C.T.H. AP, LT.	TOP OF HYDRANT	772.07



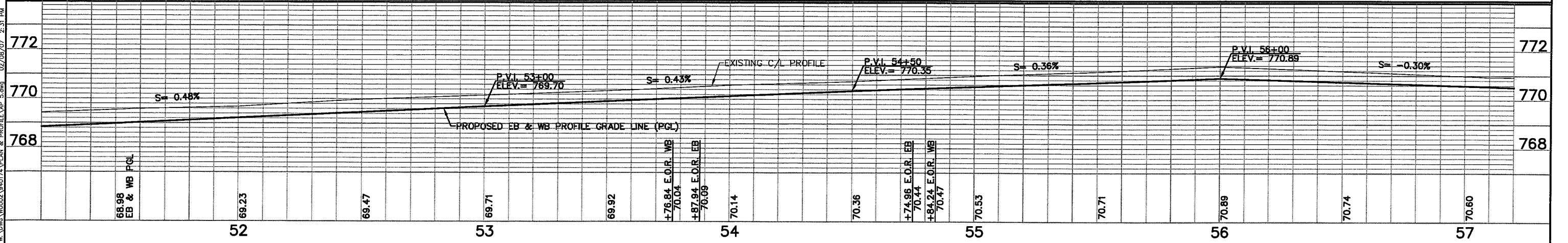
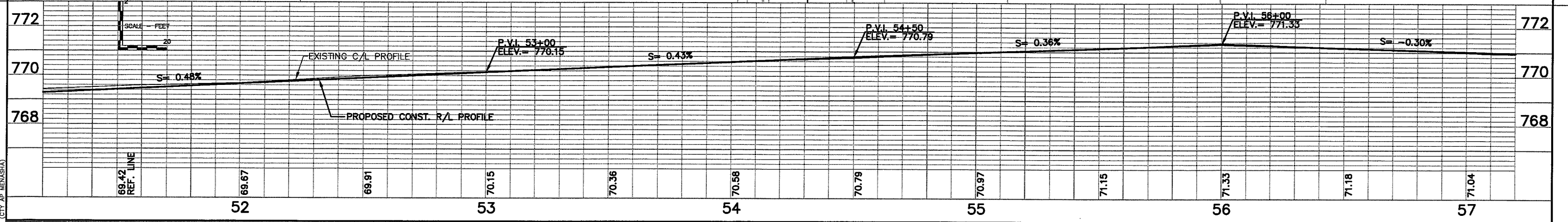


(13) LA SALLE CLINIC OF WI, SC  
1570 MIDWAY PL  
AFFINITY HOSPITAL

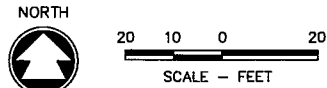
BENCH MARK		
LOCATION	DESCRIPTION	ELEV.
STA. 55+24 C.T.H. AP, LT.	TOP OF HYDRANT	773.80



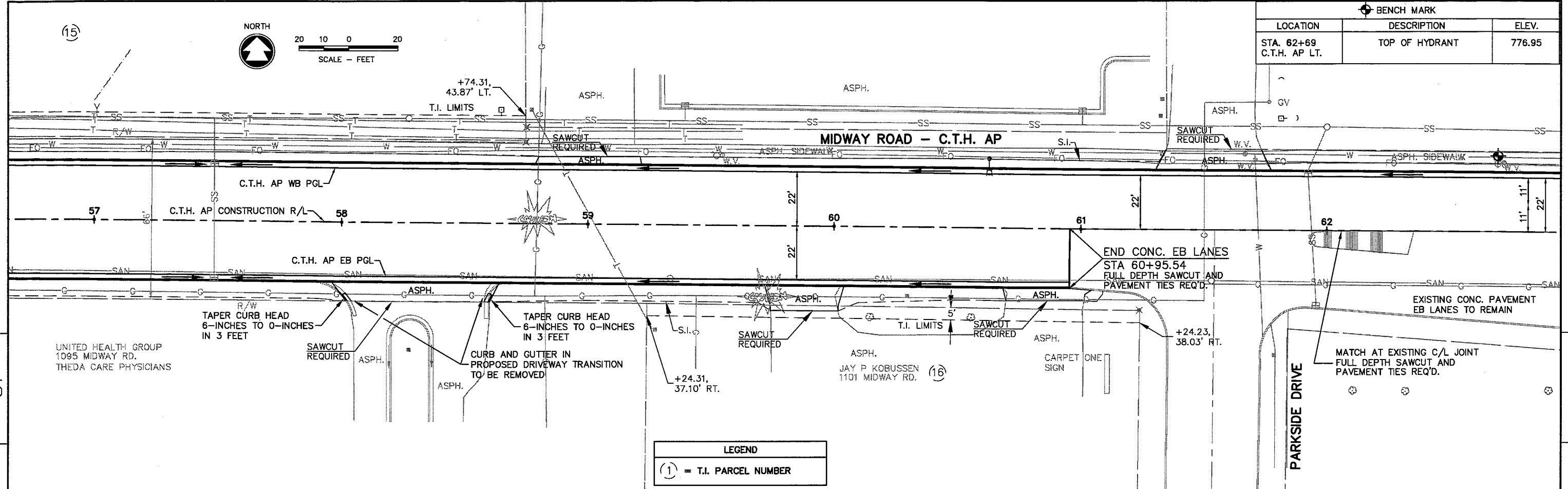
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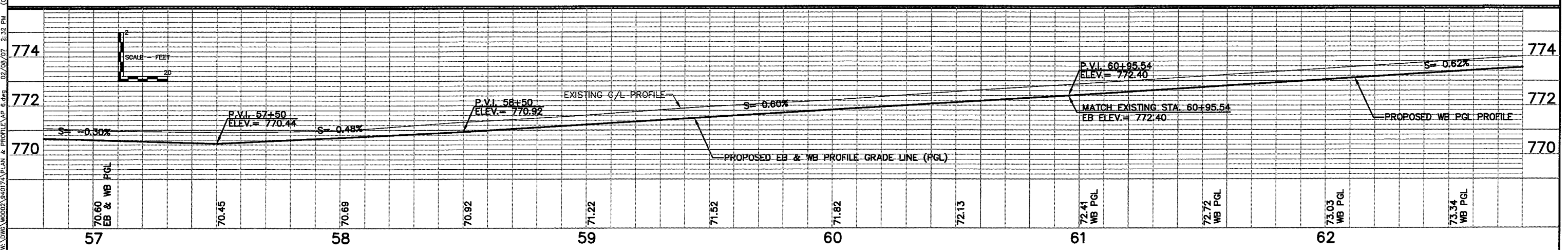
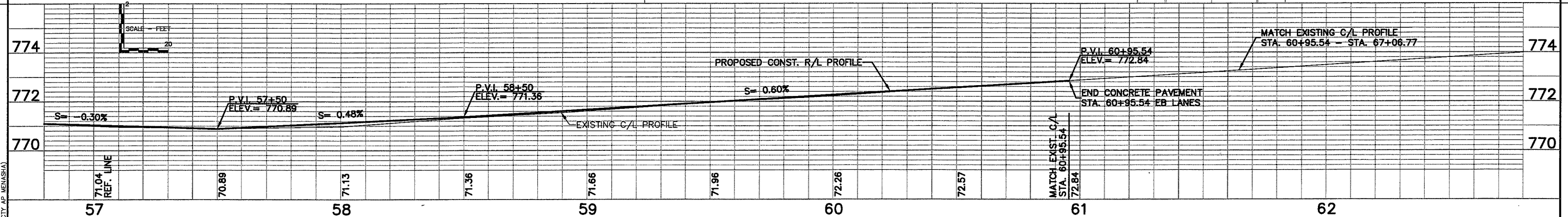
(15)



BENCH MARK		
LOCATION	DESCRIPTION	ELEV.
STA. 62+69 C.T.H. AP LT.	TOP OF HYDRANT	776.95

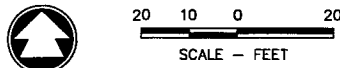


LEGEND
(1) = T.I. PARCEL NUMBER



02/09/07 2:32 PM (CTY AP MENASHA)  
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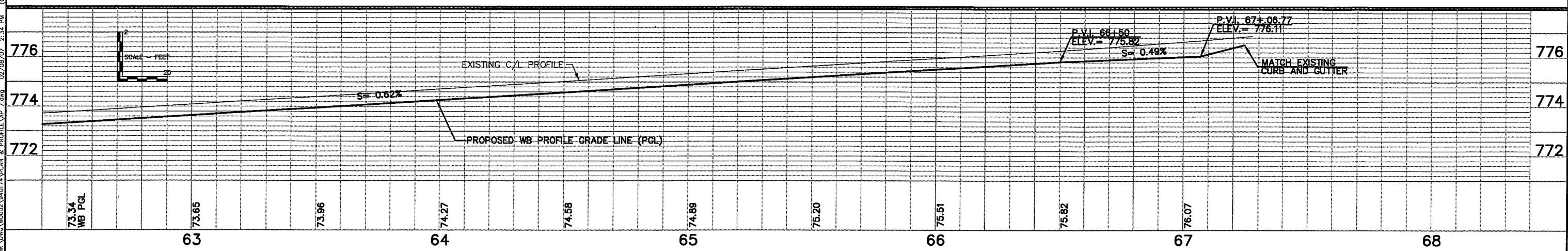
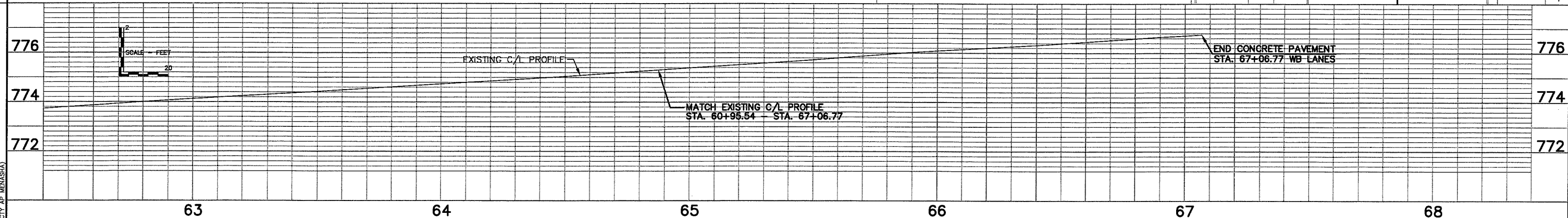
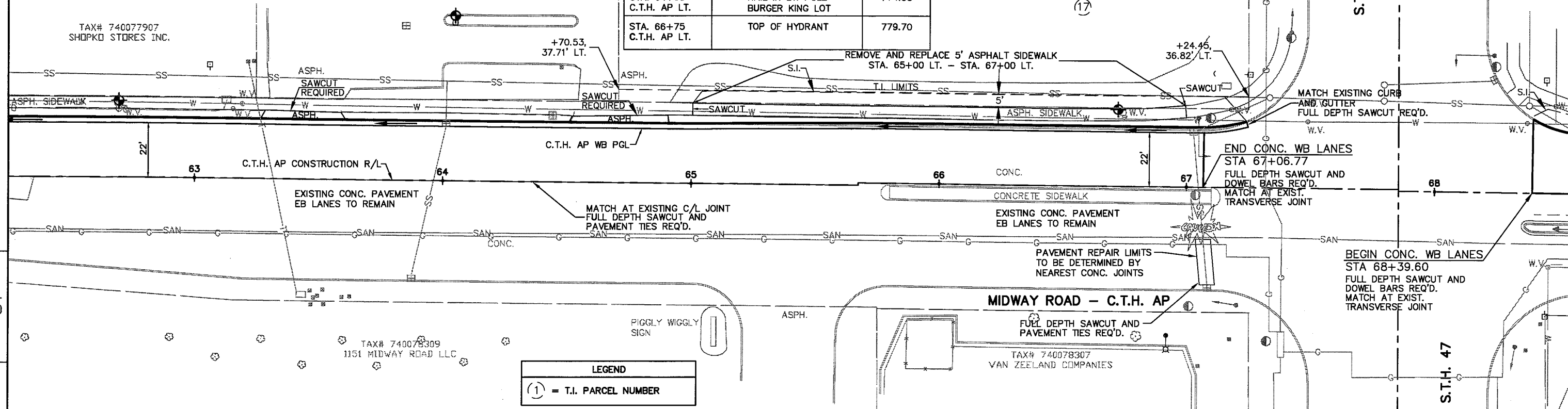
NORTH



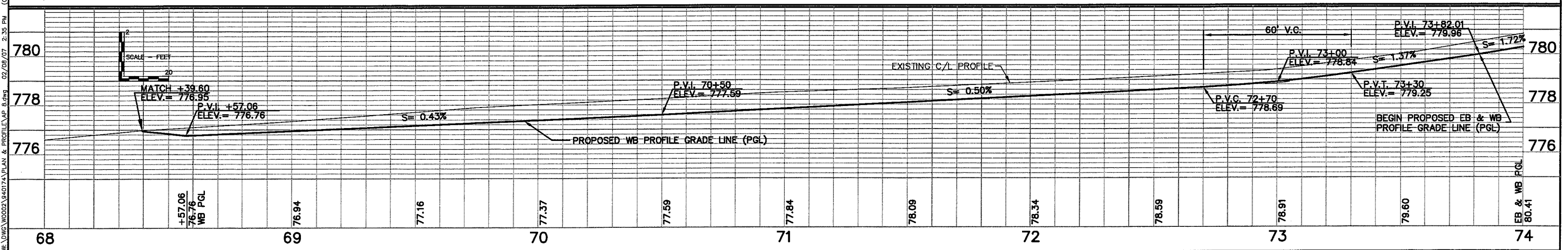
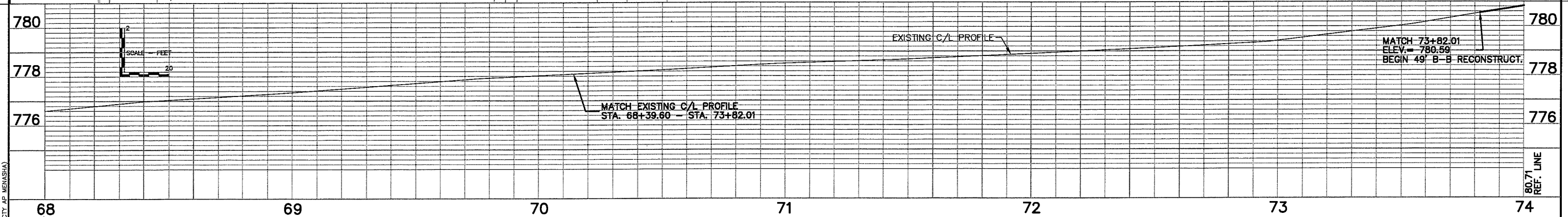
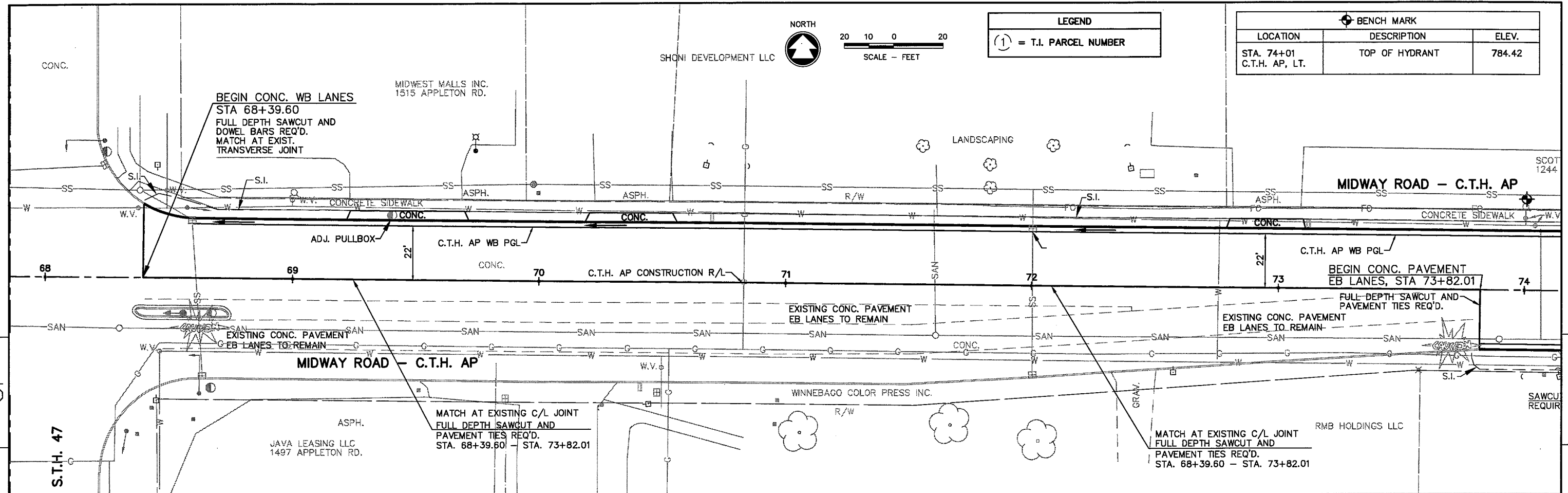
TAX# 740077904  
VK REAL ESTATE HOLDING CO.

TAX# 740077907  
SHOPKO STORES INC.

BENCH MARKS		
LOCATION	DESCRIPTION	ELEV.
STA. 62+70 C.T.H. AP LT.	TOP OF HYDRANT	776.95
STA. 64+05 C.T.H. AP LT.	NAIL IN LT. POLE BURGER KING LOT	774.35
STA. 66+75 C.T.H. AP LT.	TOP OF HYDRANT	779.70



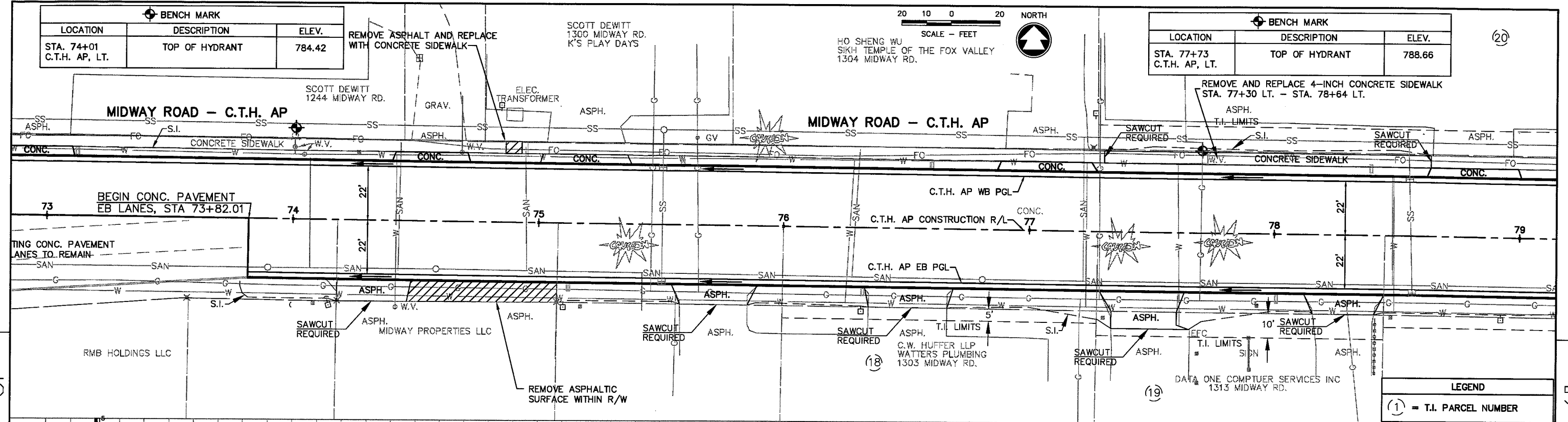
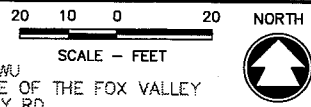
MSDOT/CADD SHEET 40



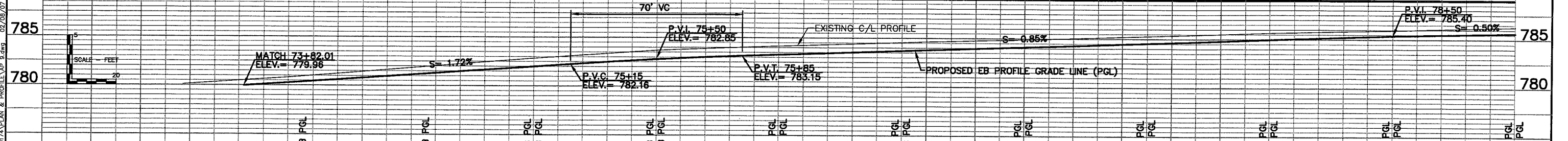
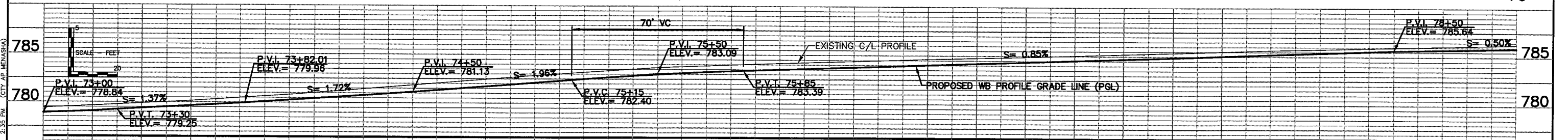
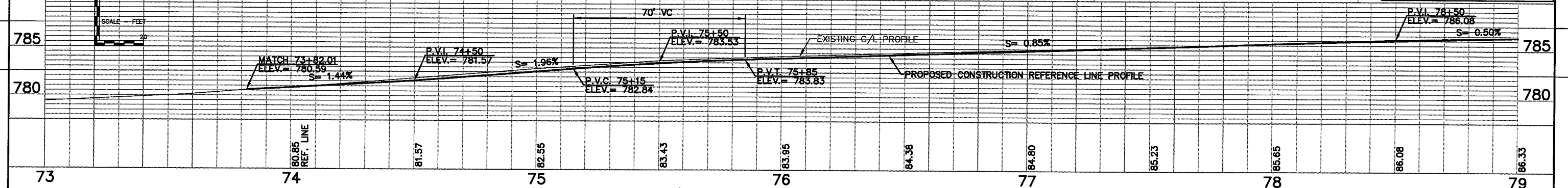
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LOCATION	DESCRIPTION	ELEV.
STA. 74+01 C.T.H. AP, LT.	TOP OF HYDRANT	784.42

LOCATION	DESCRIPTION	ELEV.
STA. 77+73 C.T.H. AP, LT.	TOP OF HYDRANT	788.66



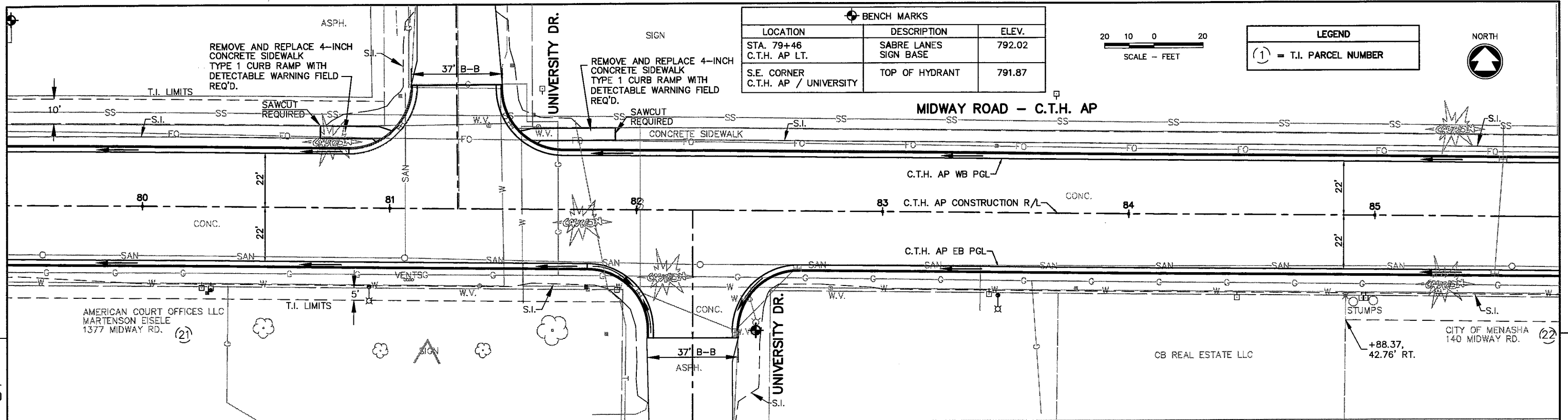
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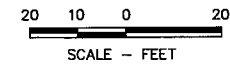
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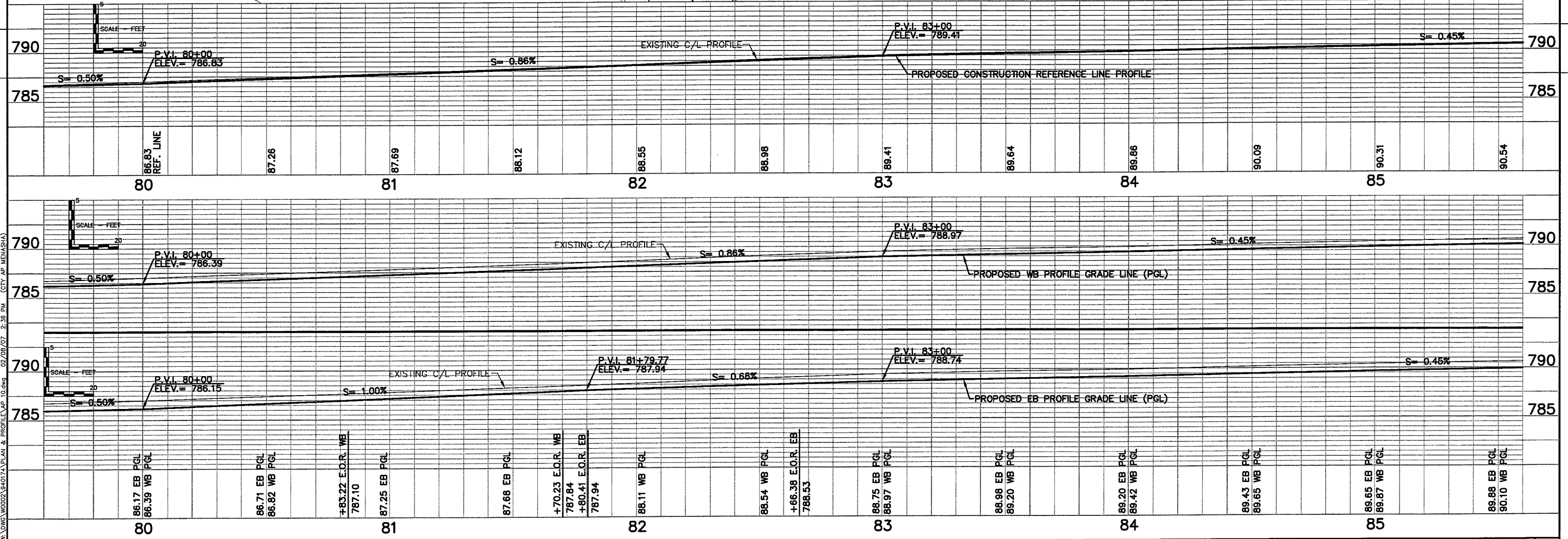




BENCH MARKS		
LOCATION	DESCRIPTION	ELEV.
STA. 79+46 C.T.H. AP LT.	SABRE LANES SIGN BASE	792.02
S.E. CORNER C.T.H. AP / UNIVERSITY	TOP OF HYDRANT	791.87



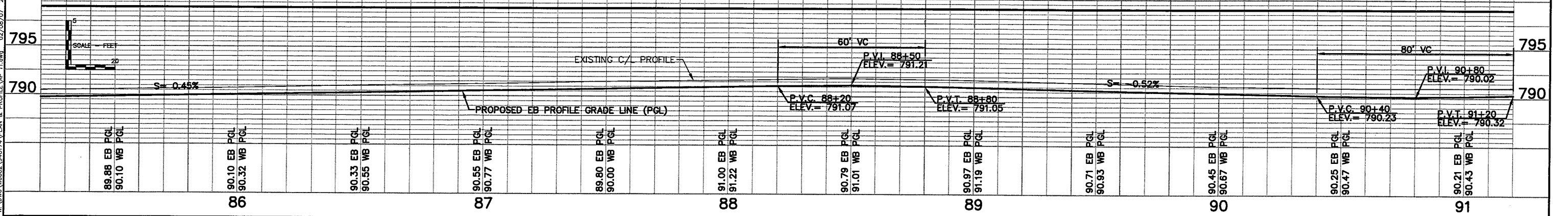
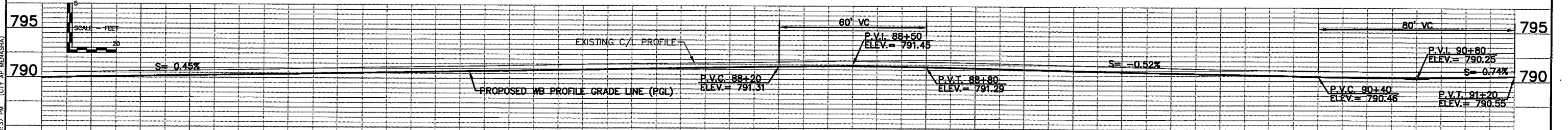
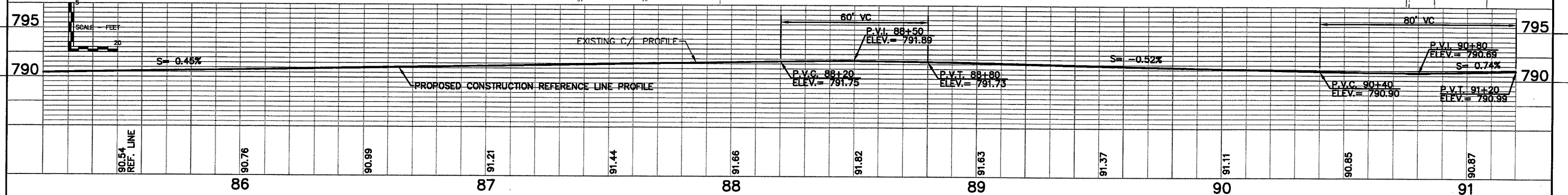
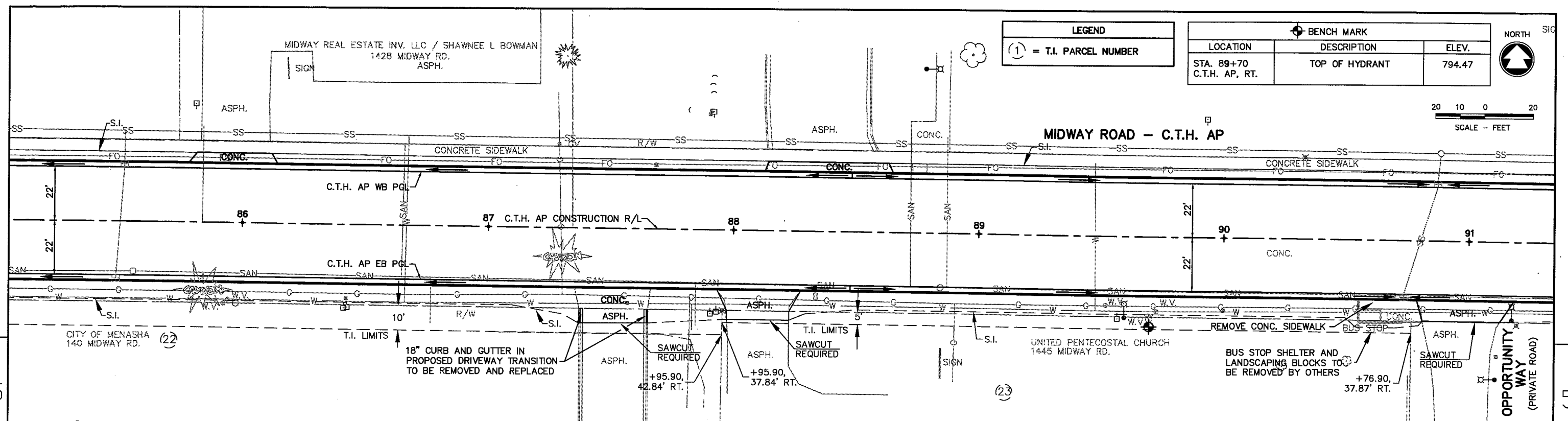
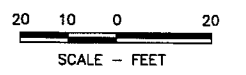
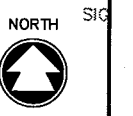
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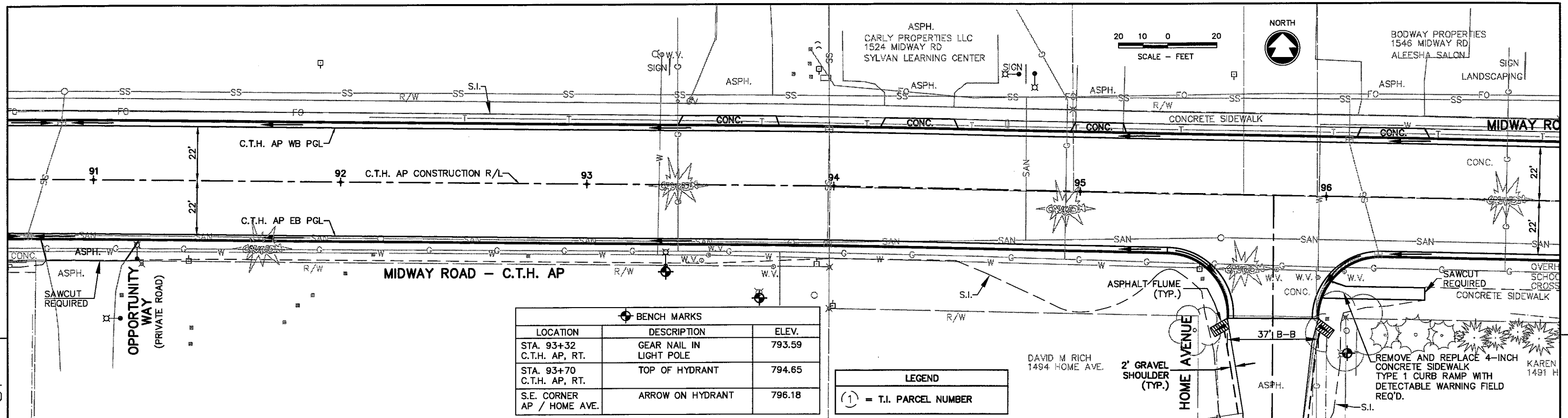


WSDOT/CADD SHEET 40

**LEGEND**  
 (1) = T.I. PARCEL NUMBER

BENCH MARK		ELEV.
LOCATION	DESCRIPTION	ELEV.
STA. 89+70 C.T.H. AP, RT.	TOP OF HYDRANT	794.47



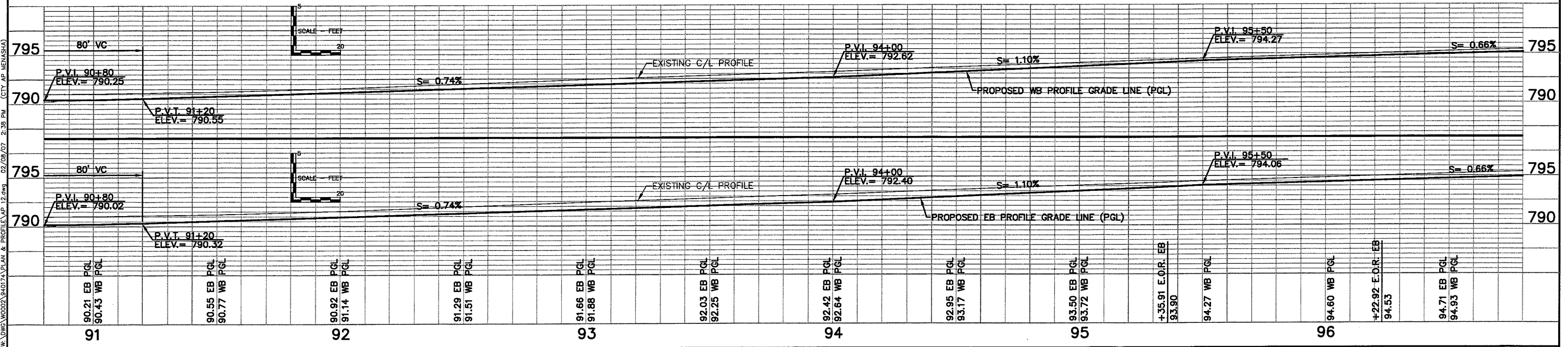
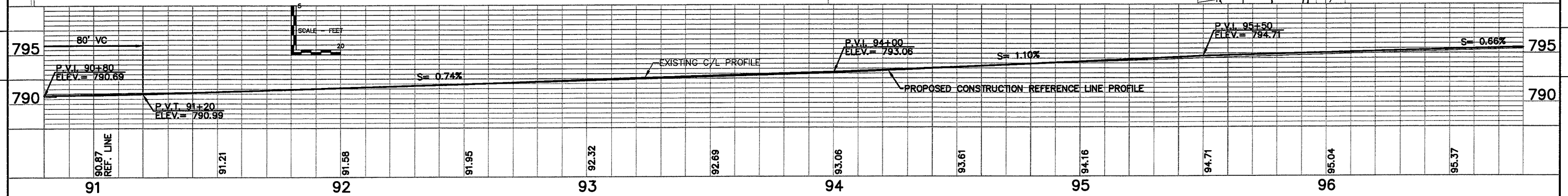


BENCH MARKS

LOCATION	DESCRIPTION	ELEV.
STA. 93+32 C.T.H. AP, RT.	GEAR NAIL IN LIGHT POLE	793.59
STA. 93+70 C.T.H. AP, RT.	TOP OF HYDRANT	794.65
S.E. CORNER AP / HOME AVE.	ARROW ON HYDRANT	796.18

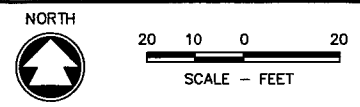
LEGEND

(1) = T.I. PARCEL NUMBER



WSDOT/CADD SHEET 40

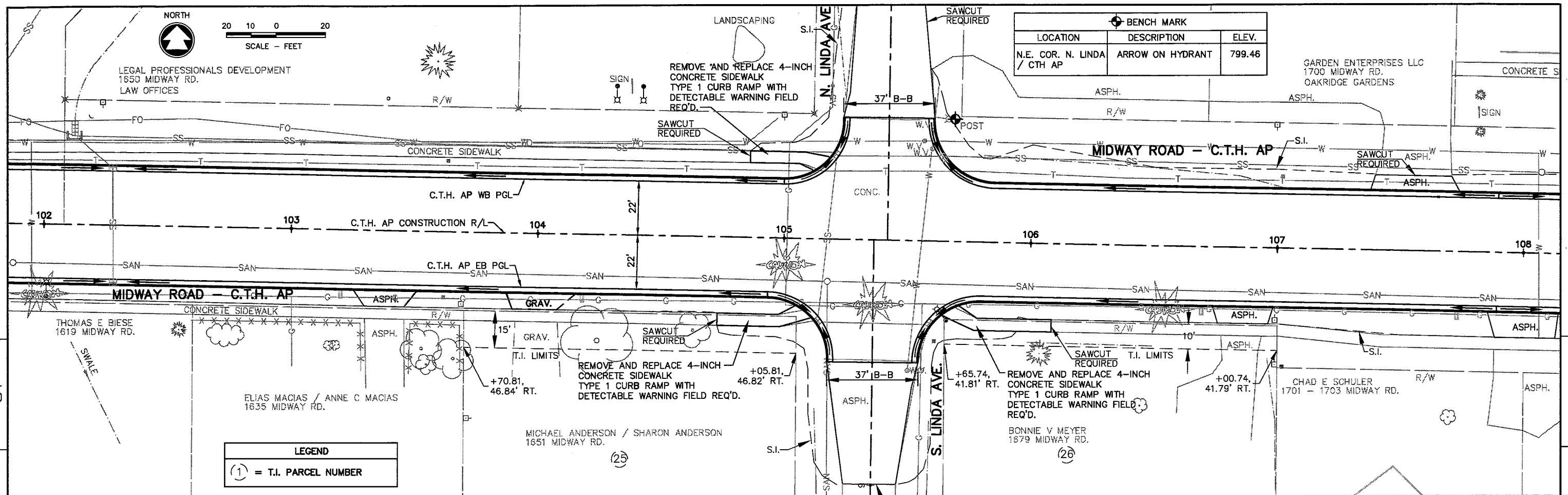




LEGAL PROFESSIONALS DEVELOPMENT  
1650 MIDWAY RD.  
LAW OFFICES

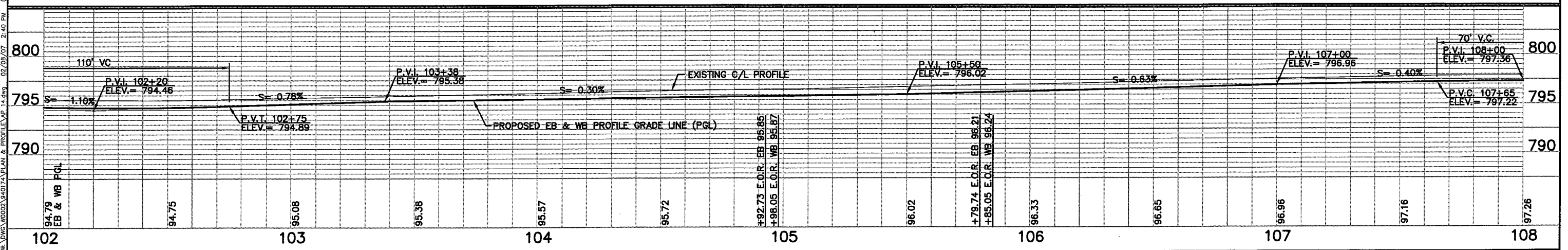
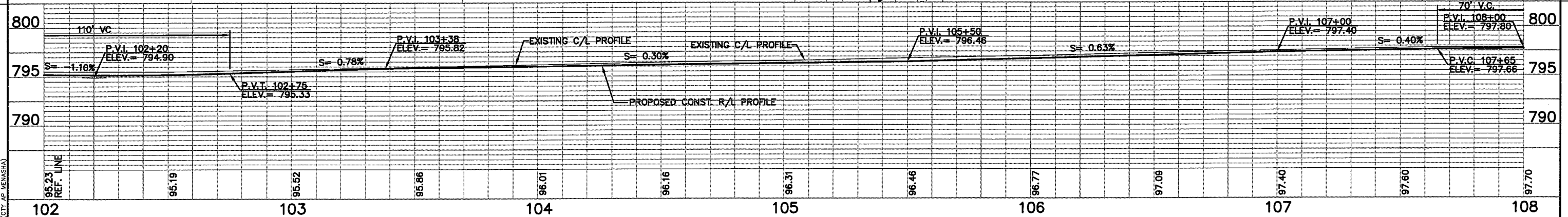
LOCATION	DESCRIPTION	ELEV.
N.E. COR. N. LINDA / CTH AP	ARROW ON HYDRANT	799.46

GARDEN ENTERPRISES LLC  
1700 MIDWAY RD.  
OAKRIDGE GARDENS

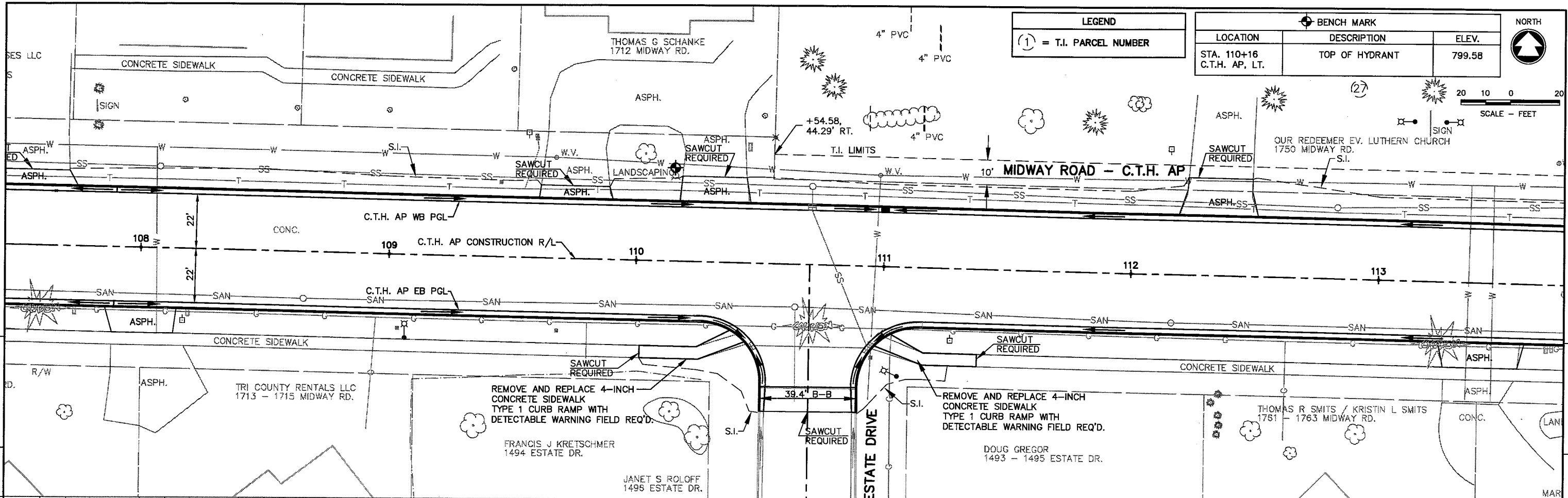


**LEGEND**

(1) = T.I. PARCEL NUMBER

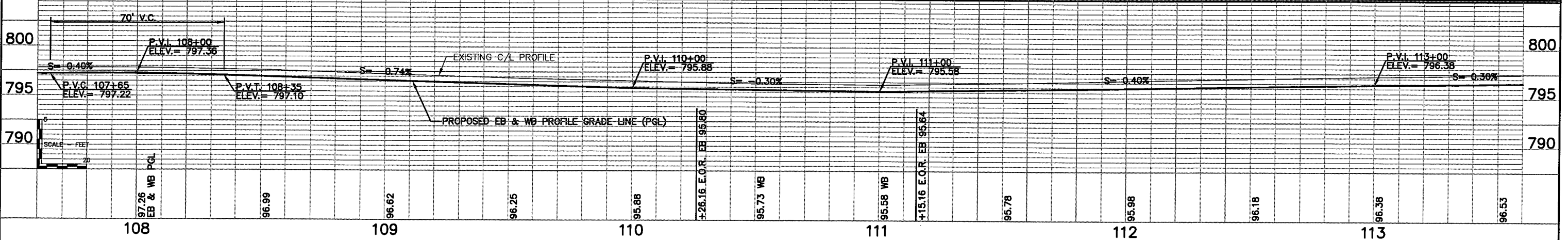
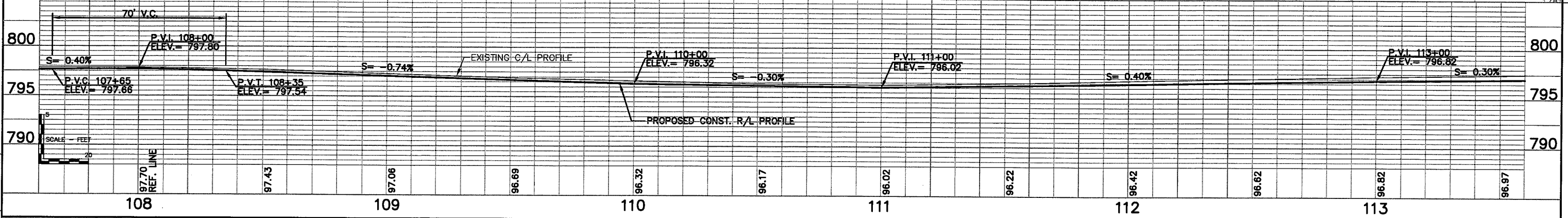
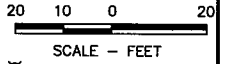


5  
 5  
 800  
 795  
 790  
 102  
 103  
 104  
 105  
 106  
 107  
 108  
 800  
 795  
 790  
 102  
 103  
 104  
 105  
 106  
 107  
 108  
 STATE PROJECT NUMBER: 4984-01-30      HWY: MIDWAY ROAD (C.T.H. AP)      COUNTY: WINNEBAGO      PLAN AND PROFILE      SHEET NO: 93      E  
 WSDOT/CADD SHEET 40

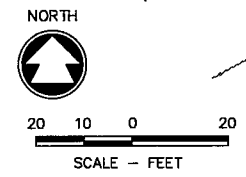


**LEGEND**  
 (1) = T.I. PARCEL NUMBER

LOCATION	DESCRIPTION	ELEV.
STA. 110+16 C.T.H. AP, LT.	TOP OF HYDRANT	799.58



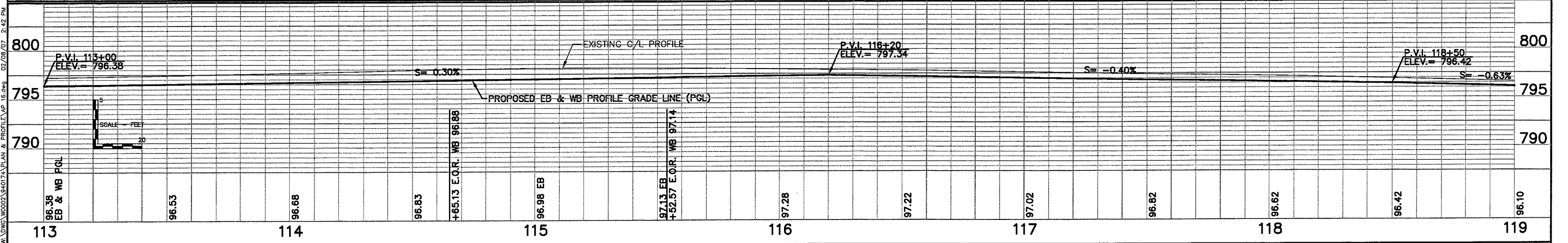
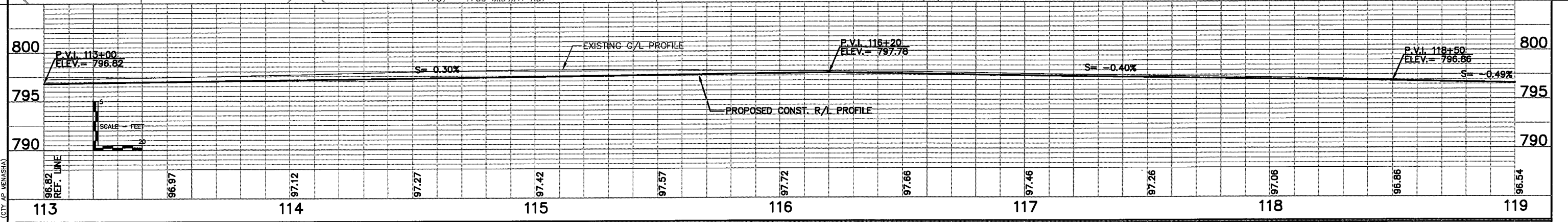
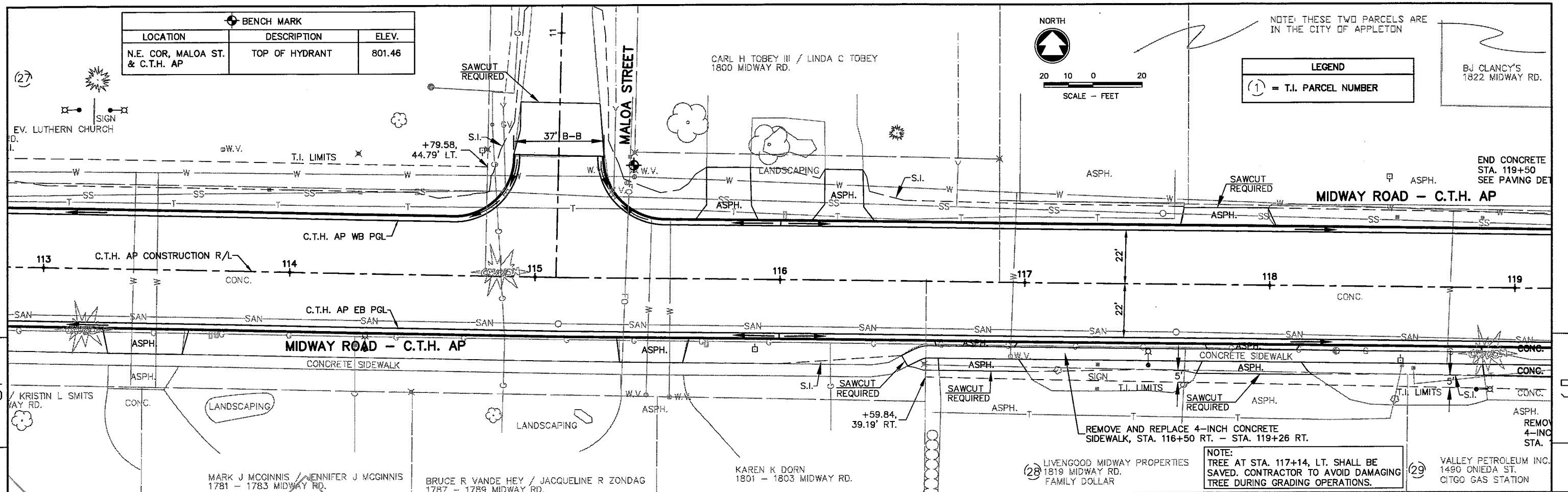
BENCH MARK		
LOCATION	DESCRIPTION	ELEV.
N.E. COR, MALOA ST. & C.T.H. AP	TOP OF HYDRANT	801.46



NOTE: THESE TWO PARCELS ARE IN THE CITY OF APPLETON

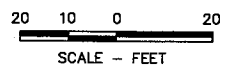
**LEGEND**  
 (1) = T.I. PARCEL NUMBER

BJ CLANCY'S  
1822 MIDWAY RD.



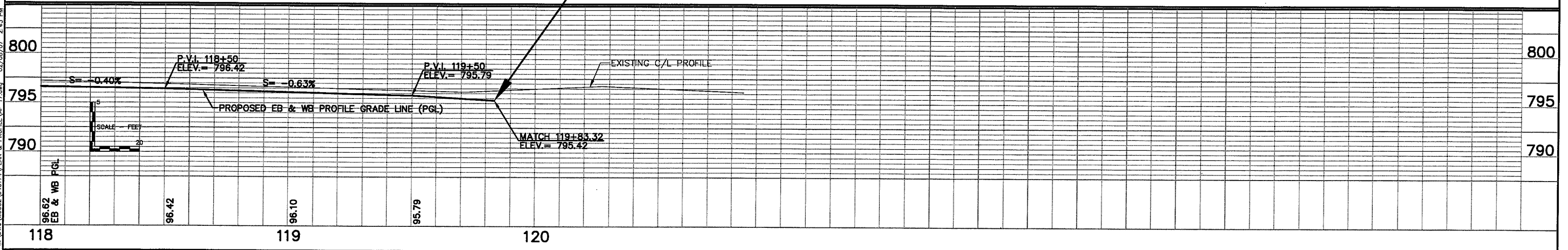
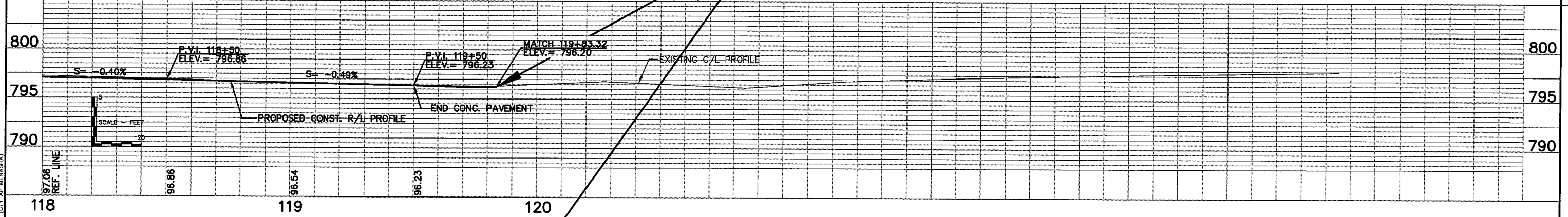
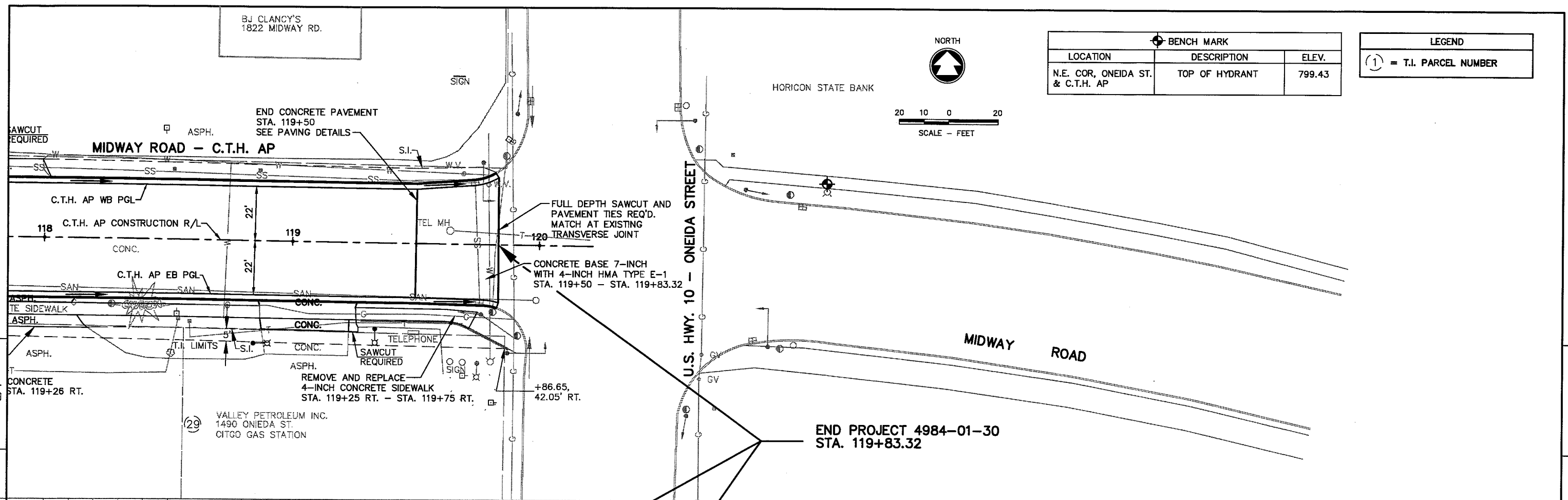
2024/08/07 2:42 PM (CITY AP MENSUSA)  
 W:\DWG\0002\9407\PLAN & PROFILE\AP 16.dwg  
 02/08/07 2:42 PM

BJ CLANCY'S  
1822 MIDWAY RD.



BENCH MARK		
LOCATION	DESCRIPTION	ELEV.
N.E. COR. ONEIDA ST. & C.T.H. AP	TOP OF HYDRANT	799.43

LEGEND	
①	= T.I. PARCEL NUMBER



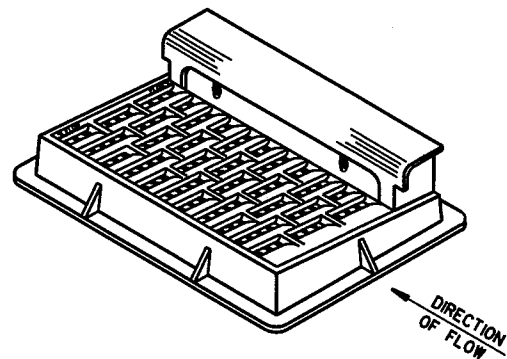
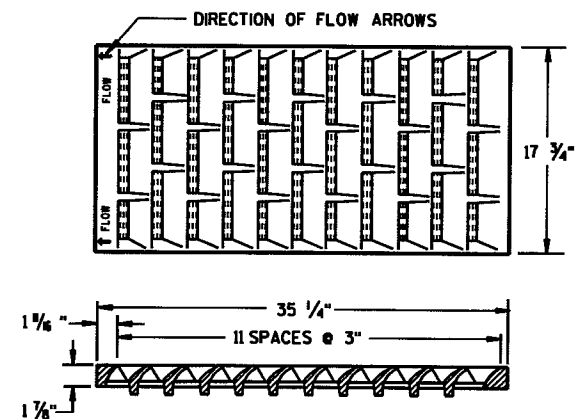
W:\DMS\W0002\94017A\PLAN & PROFILE\AP 17.dwg    02/08/07 2:43 PM    (CITY AP MENASHA)



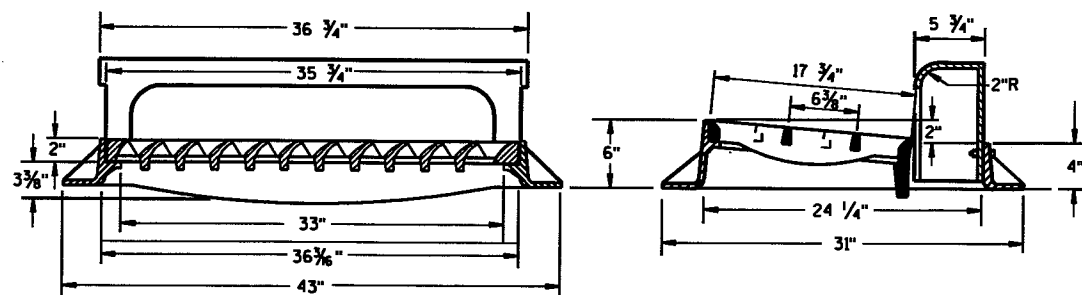
## Standard Detail Drawing List

08A5-16A	INLET COVERS TYPE A, H, A-S, & H-S
08A5-16B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08C1-5	INLETS TYPE 1, 2, 3 & 4
08D1-14	CONCRETE CURB, CONCRETE CURB AND GUTTER & PAVEMENT TIES
08D4-3	CONCRETE SURFACE DRAIN & ASPHALTIC FLUME
08D5-11A	CURB RAMPS TYPES 1 AND 1-A
08D5-11B	CURB RAMPS TYPES 2 AND 3
08D5-11C	CURB RAMPS TYPE 4A
08D5-11D	CURB RAMPS TYPE 4B
08D5-11E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E8-3	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E9-6	SILT FENCE
08E10-2	INLET PROTECTION TYPE A, B, C AND D
08F1-11	APRON ENDWALLS FOR CULVERT PIPE
09B4-9	PULL BOX
09F9-3	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)
13C1-11	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND PAVEMENT TIES
13C9-6A	CONCRETE PAVEMENT REPAIR
13C9-6B	CONCRETE PAVEMENT REPAIR & DOWEL BAR INSTALLATION DETAILS
13C13-4	URBAN DOWELED CONCRETE PAVEMENT
15C2-4A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C2-4B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C3-1	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C7-8A	PAVEMENT MARKING SYMBOLS
15C7-8B	PAVEMENT MARKING WORDS
15C8-9A	PAVEMENT MARKING (MAINLINE)
15C8-10D	PAVEMENT MARKING (LEFT TURN LANE)
15C8-10E	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)
15C9-7A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-5	FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES
15C18-1	MEDIAN ISLAND MARKING

NOTE:  
GRATE IS REVERSIBLE.



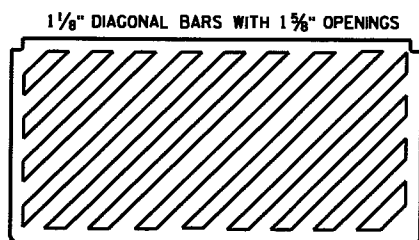
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



**TYPE "H"**

(APPROXIMATE WEIGHT 422 LBS.)

FRAME..... 175 LBS.  
GRATE..... 138 LBS.  
CURB BOX..... 109 LBS.



**SPECIAL GRATE FOR  
TYPE "H" COVER**

(MEASURES 35 1/4" X 17 3/4" X 2")  
(APPROXIMATE WEIGHT 172 LBS.)  
GRATE..... 172 LBS.

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

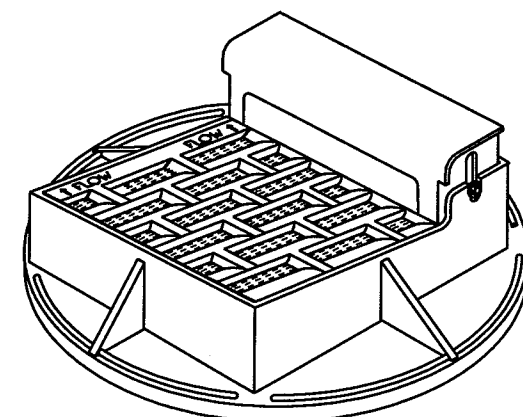
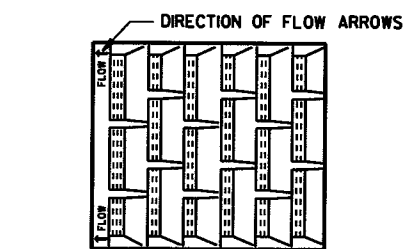
**GENERAL NOTES**

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.

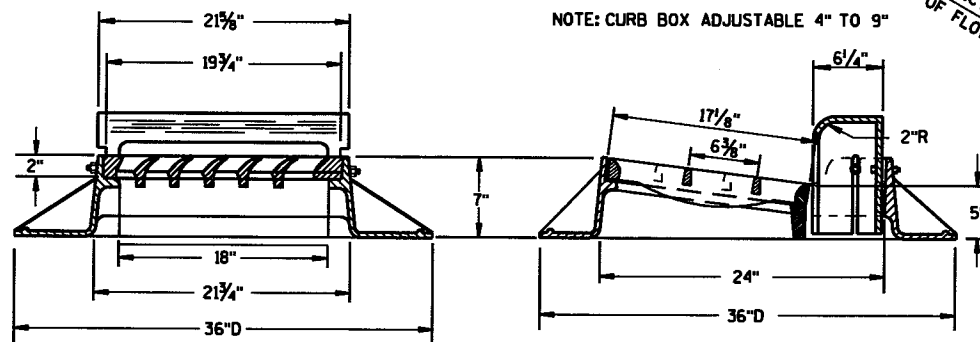
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.



NOTE: CURB BOX ADJUSTABLE 4" TO 9"



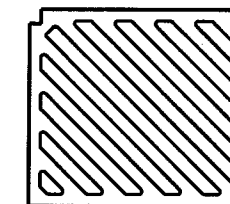
**TYPE "A"**

(APPROXIMATE WEIGHT 325 LBS.)

FRAME..... 157 LBS.  
GRATE..... 84 LBS.  
CURB BOX..... 84 LBS.

NOTE:  
GRATE IS REVERSIBLE.

1" DIAGONAL BARS  
WITH 1 1/2" OPENINGS



**SPECIAL GRATE FOR  
TYPE "A" COVER**

(MEASURES 19 3/4" X 17" X 1 1/8")

GRATE..... 84 LBS.

(NOTED AS TYPE A-S ON DRAINAGE TABLE)

**INLET COVERS  
TYPE A, H, A-S, & H-S**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
10/4/99  
DATE

*Paul J. Zimmerman*  
CHIEF ROADWAY DEVELOPMENT ENGINEER

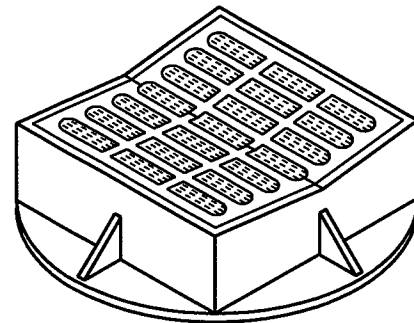
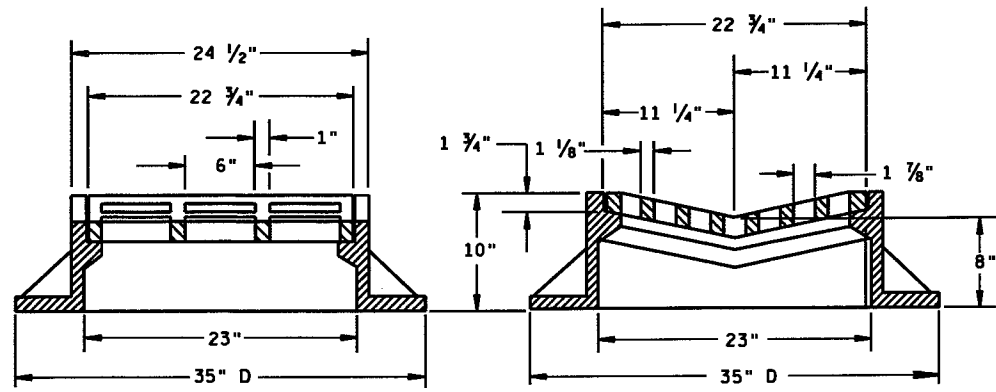
FHWA

6

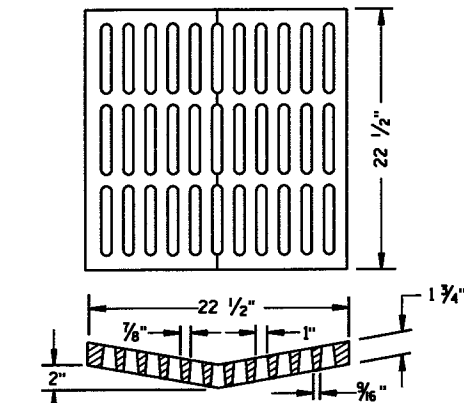
6

S.D.D. 8 A 5-160

S.D.D. 8 A 5-160

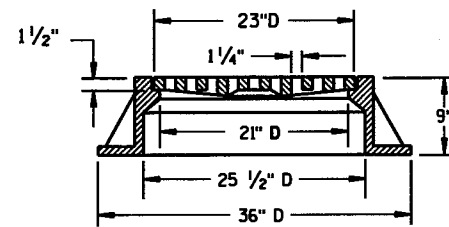
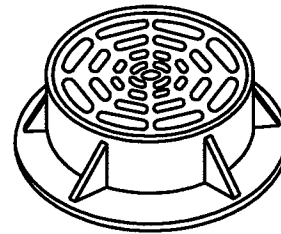


**TYPE "B"**  
(APPROXIMATE WEIGHT 395 LBS.)  
FRAME..... 285 LBS.  
GRATE..... 110 LBS.



**ALTERNATIVE GRATE FOR TYPE "B" COVER**

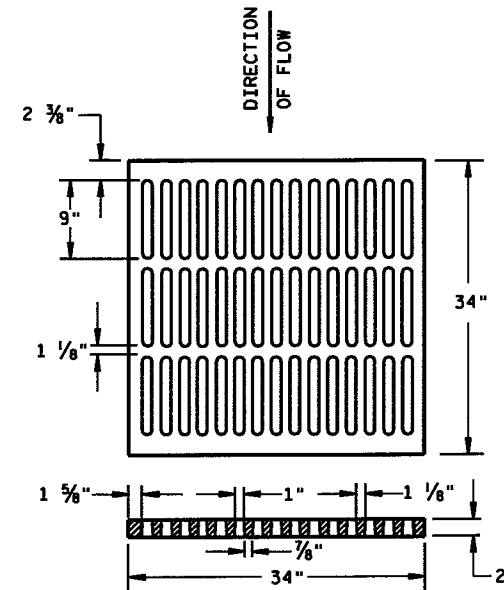
(APPROXIMATE GRATE WEIGHT 125 LBS.)  
GRATE..... 125 LBS.  
USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.  
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



**TYPE "C"**  
(APPROXIMATE WEIGHT 340 LBS.)  
FRAME..... 235 LBS.  
GRATE..... 105 LBS.

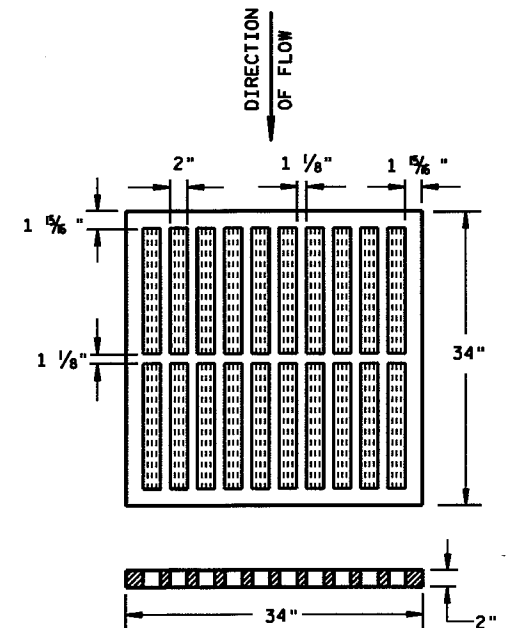
**GENERAL NOTES**

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.  
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

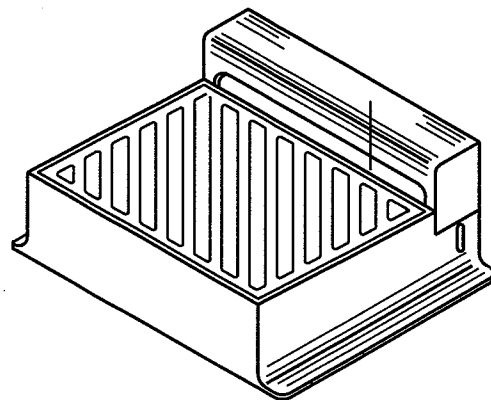


**ALTERNATIVE TYPE "MS"**  
(APPROXIMATE GRATE WEIGHT 365 LBS.)  
GRATE..... 365 LBS.

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED  
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

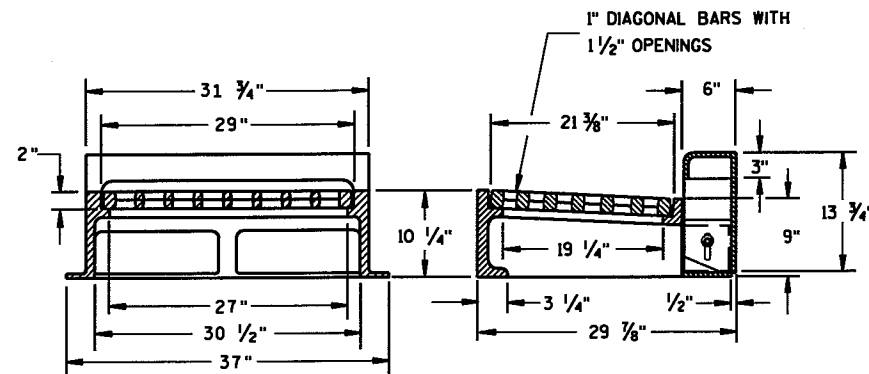


**TYPE "MS"**  
(APPROXIMATE GRATE WEIGHT 270 LBS.)  
GRATE..... 270 LBS.  
USE ON FREEWAYS AND EXPRESSWAYS  
NOTED AS TYPE MS ON DRAINAGE TABLE



DIRECTION OF FLOW

DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

**TYPE "WM"**  
(APPROXIMATE WEIGHT 670 LBS.)  
FRAME..... 360 LBS.  
GRATE..... 160 LBS.  
CURB BOX..... 150 LBS.

**INLET COVERS**  
TYPE B, B-A, C, MS, MS-A, & WM

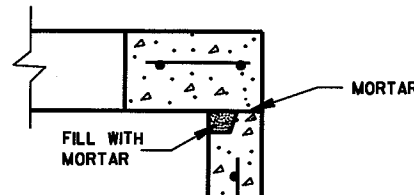
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
10/4/99  
DATE

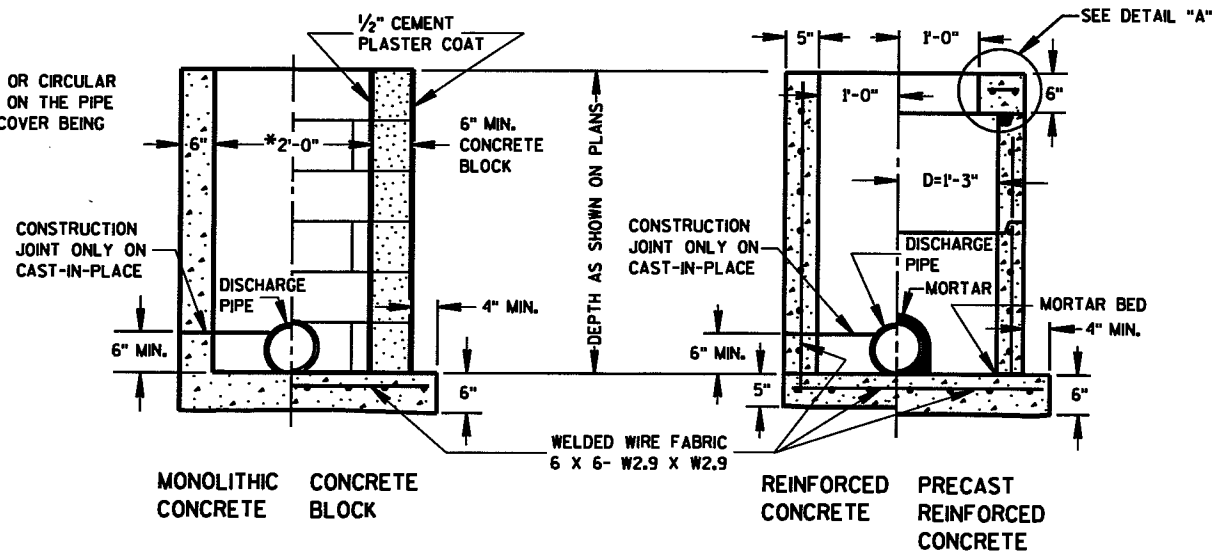
*Paul J. Hanson*  
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

\*SELECTION OF SQUARE OR CIRCULAR DESIGN WILL BE BASED ON THE PIPE SIZES AND THE INLET COVER BEING UTILIZED



DETAIL "A"



INLETS TYPE 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.

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 AASHTO DESIGNATION M 199.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 1-C", "CATCH BASINS 1-B", "INLETS 3-H", ETC. THE FIRST DIGIT DESIGNATES THE MASONRY PORTION OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

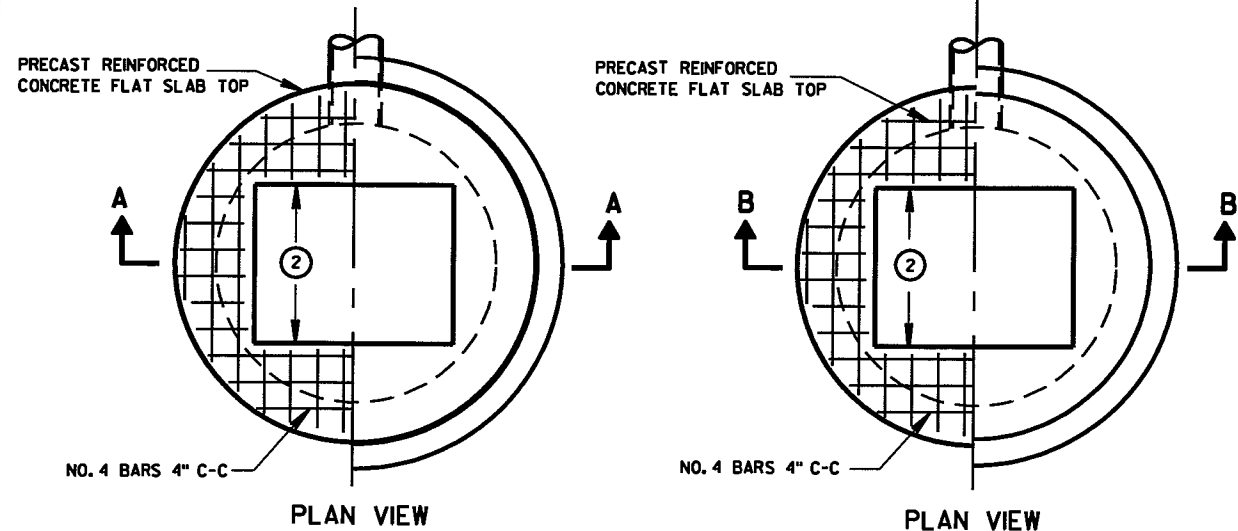
PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON THE STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

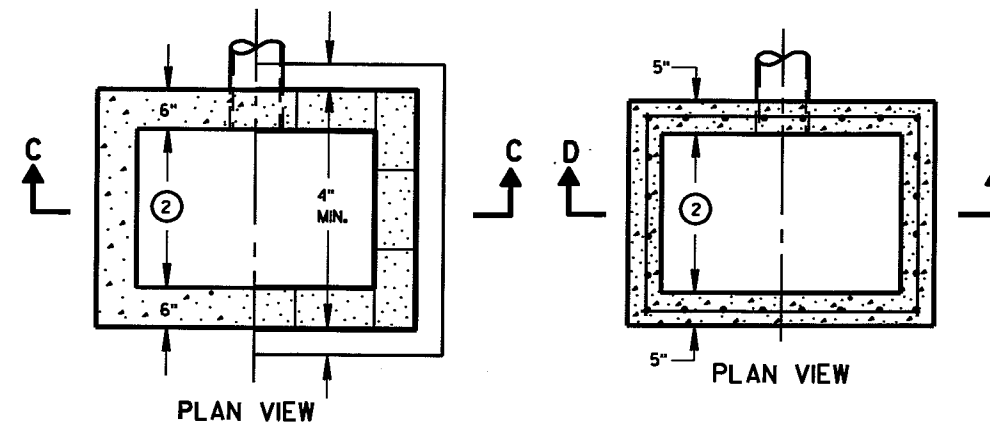
PRECAST REINFORCED CONCRETE RISERS SHALL BE PLACED WITH TONGUE DOWN.

- ① USE 2'-6" OPENING FOR TYPE 2 INLETS, 3'-0" OPENING FOR TYPE 3 INLETS, AND 2'-11" FOR TYPE 4 INLETS.
- ② USE 2'-0" OPENING FOR TYPE 1, 2 & 3 INLETS, 2'-6 1/2" OPENING FOR TYPE 4 INLETS.



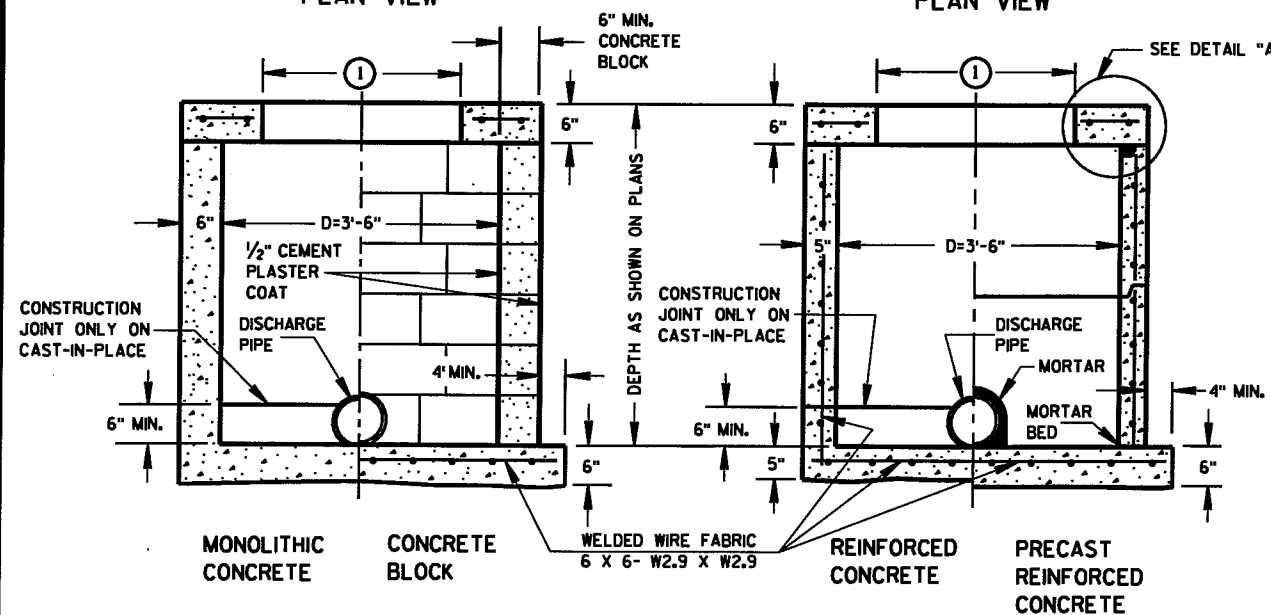
PLAN VIEW

PLAN VIEW



PLAN VIEW

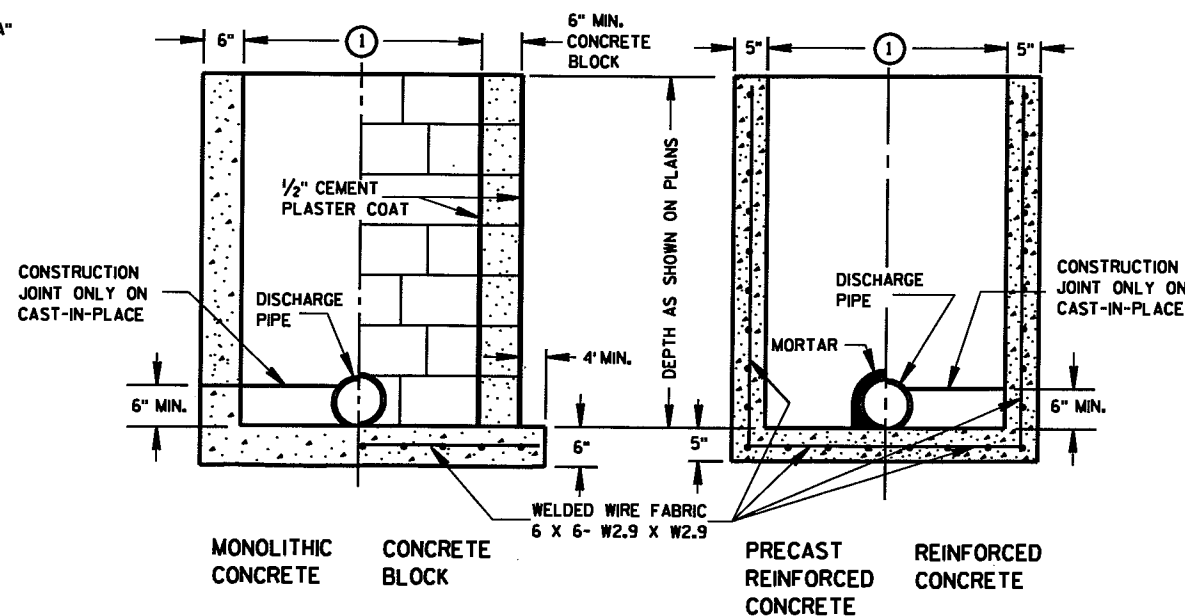
PLAN VIEW



SECTION A-A

SECTION B-B

INLETS TYPE 2, 3 & 4



SECTION C-C

SECTION D-D

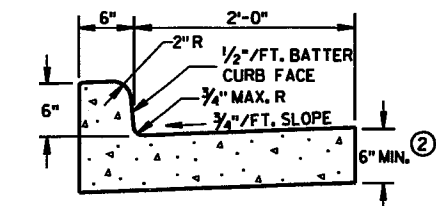
**INLETS TYPE 1, 2, 3 & 4**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

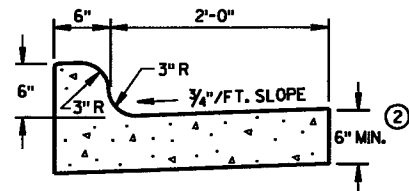
APPROVED  
8/26/94  
DATE

*[Signature]*  
CHIEF ROADWAY DEVELOPMENT ENGINEER

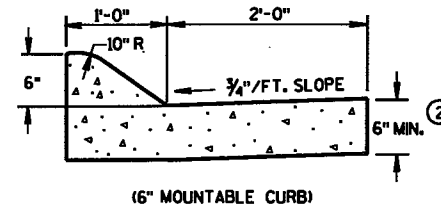
FHWA



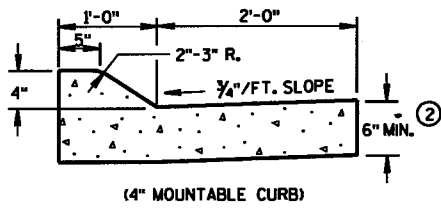
TYPES A & D ①



TYPES K & L ①

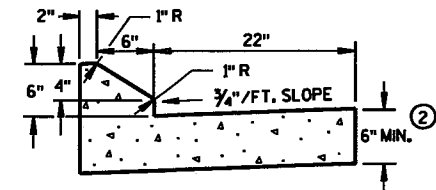


(6" MOUNTABLE CURB)

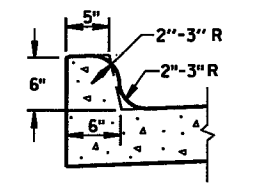


(4" MOUNTABLE CURB)

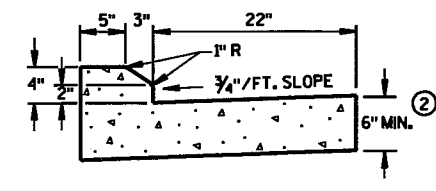
TYPES A & D ①  
CONCRETE CURB & GUTTER 36"



TYPES G & J ①

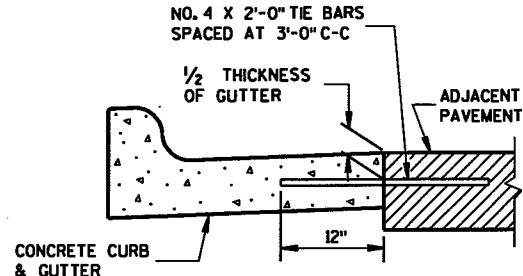


OPTIONAL CURB SHAPE  
FOR TYPES K & L ①

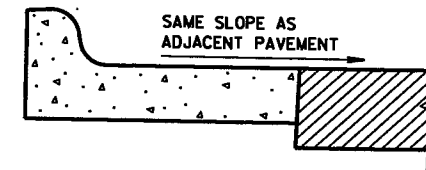


4" MOUNTABLE CURB TYPES G & J ①

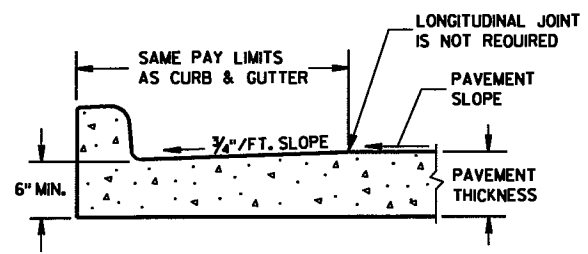
CONCRETE CURB & GUTTER 30"



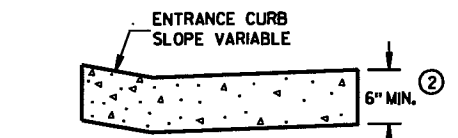
TYPICAL TIE BAR LOCATION ①



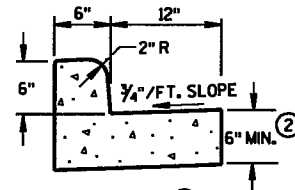
REVERSE SLOPE GUTTER ③  
(TYPICAL FOR ALL CURB & GUTTER TYPES)



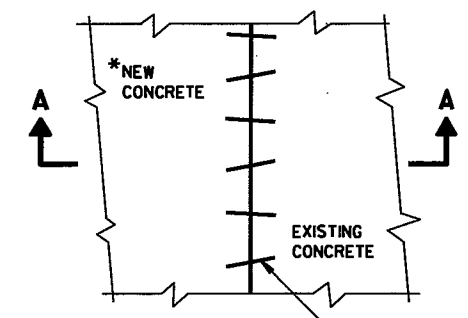
PARTIAL SECTION OF PAVEMENT  
WITH INTEGRAL CURB & GUTTER



DRIVEWAY ENTRANCE CURB  
(WHEN DIRECTED BY THE ENGINEER)



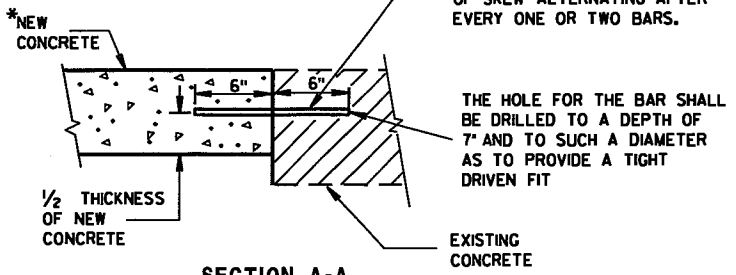
TYPES A & D  
CONCRETE CURB & GUTTER 18"



PLAN VIEW

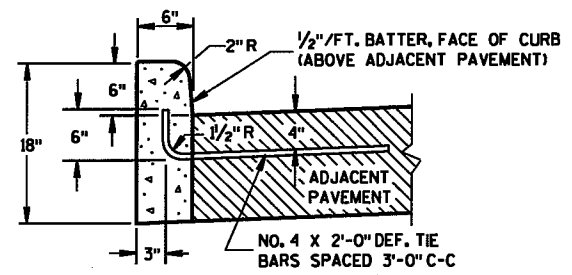
\*NEW CURB & GUTTER,  
SURFACE DRAINS,  
CONCRETE PAVEMENT  
OR OTHER NEW CONCRETE.

NO. 6 X 12" DEF. BARS  
SPACED 3'-0" C-C,  
INSTALLED ON 6:1 SKEW  
HORIZONTALLY. DIRECTION  
OF SKEW ALTERNATING AFTER  
EVERY ONE OR TWO BARS.



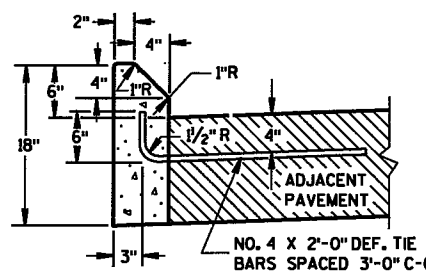
SECTION A-A  
PAVEMENT TIES

THE HOLE FOR THE BAR SHALL  
BE DRILLED TO A DEPTH OF  
7" AND TO SUCH A DIAMETER  
AS TO PROVIDE A TIGHT  
DRIVEN FIT



TYPES A & D

CONCRETE CURB



TYPES G & J

**GENERAL NOTES**

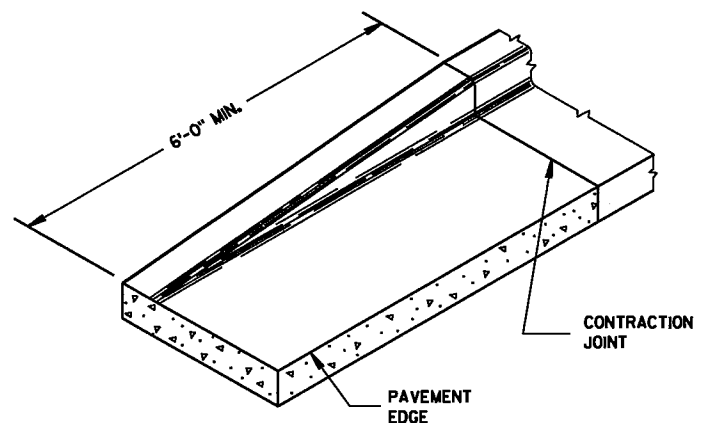
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.  
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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 COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G AND K.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



END SECTION CURB & GUTTER

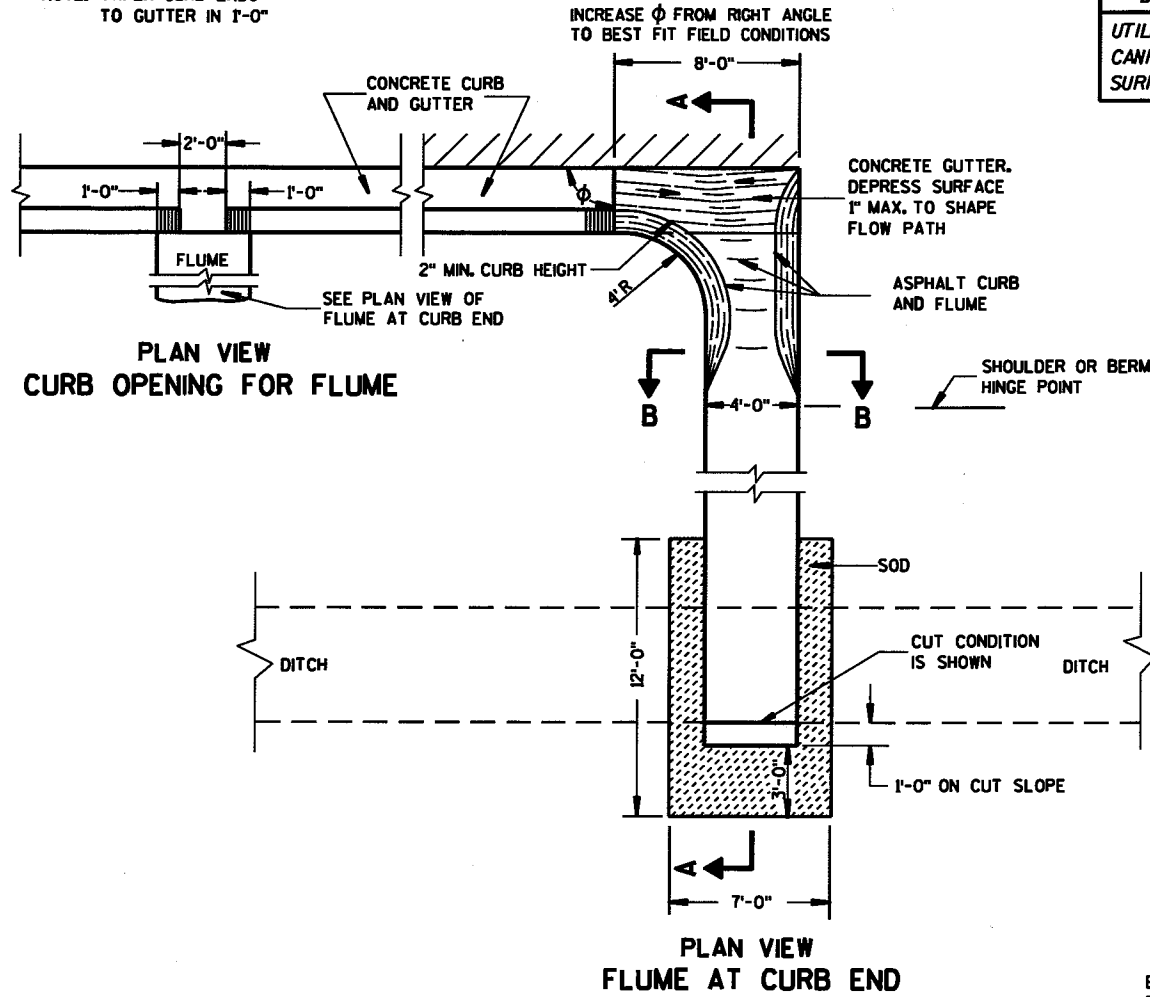
**CONCRETE CURB, CONCRETE  
CURB & GUTTER AND  
PAVEMENT TIES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
6-7-06 /s/ Jerry H. Zogg  
DATE ROADWAY STANDARDS DEVELOPMENT  
ENGINEER  
FHWA

**ASPHALTIC FLUME**

NOTE: TAPER CURB ENDS TO GUTTER IN 1'-0"



DESIGN NOTES: (WILL NOT APPEAR IN CONTRACT PLANS)  
 UTILIZE INLETS WHERE STORM WATER VOLUME AND VELOCITY CANNOT BE ACCOMODATED EFFECTIVELY WITH A FLUME OR SURFACE DRAIN.

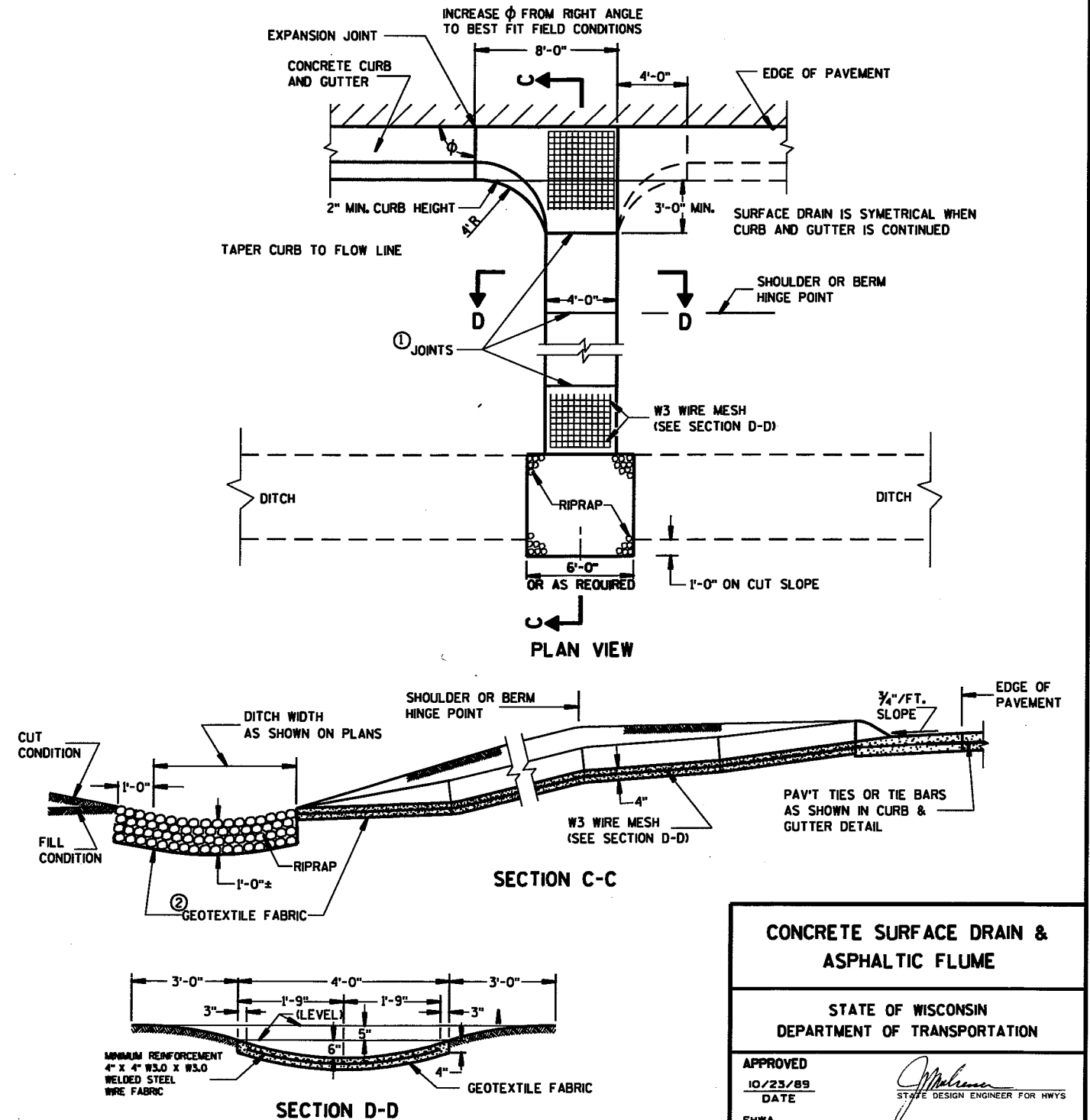
**GENERAL NOTES**

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 1/8 TO 1/4 INCH WIDE BY 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**



**CONCRETE SURFACE DRAIN & ASPHALTIC FLUME**

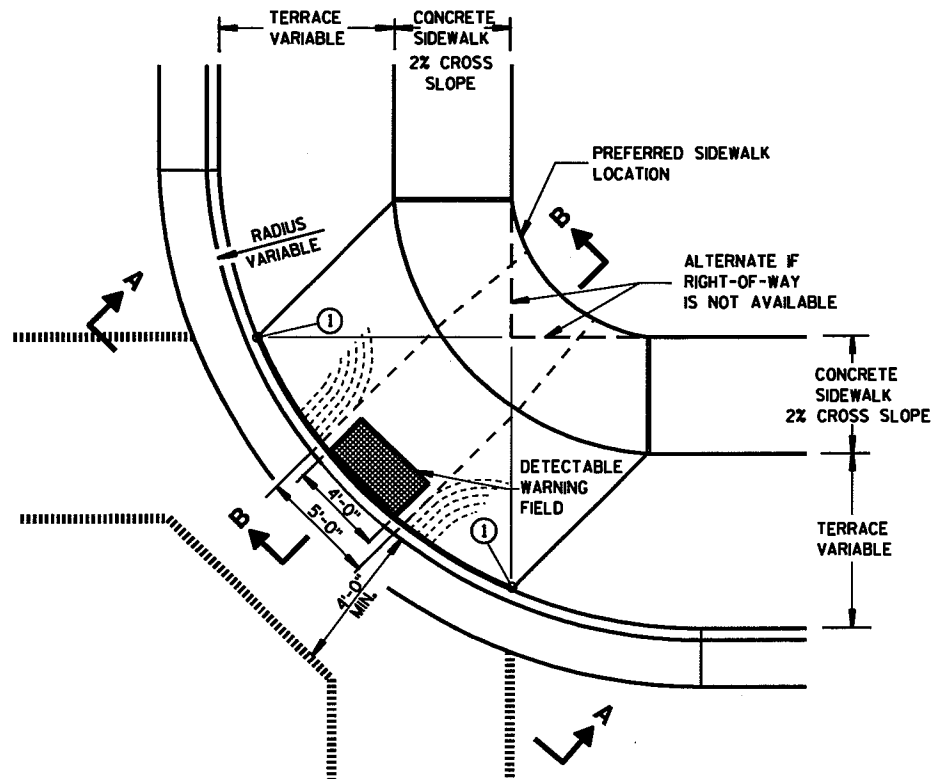
STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

APPROVED  
 10/23/89  
 DATE  
 FHWA

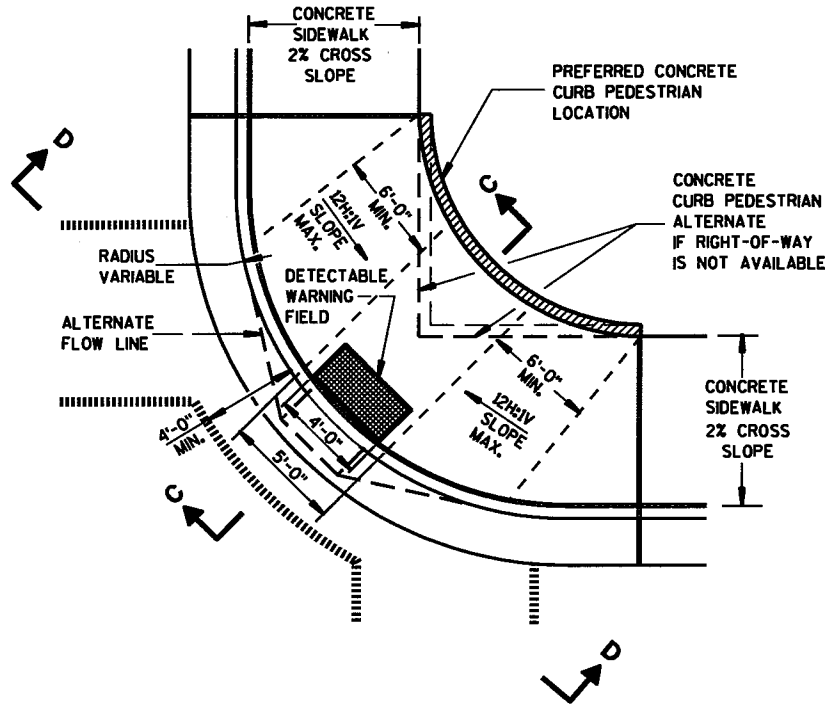
*J. Johnson*  
 STATE DESIGN ENGINEER FOR HWYS

S.D.D. 8 D 4-3

S.D.D. 8 D 4-3



**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.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. 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.

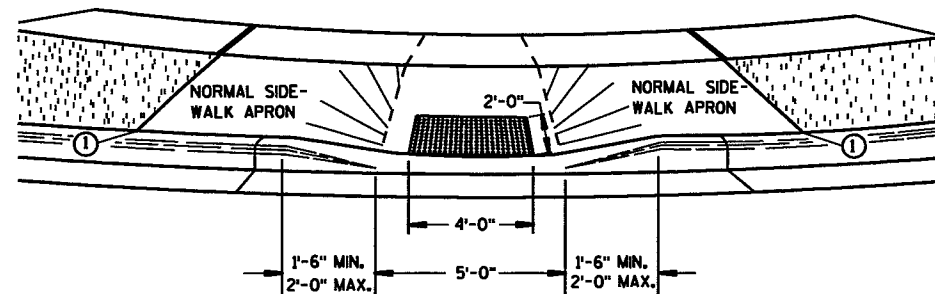
SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

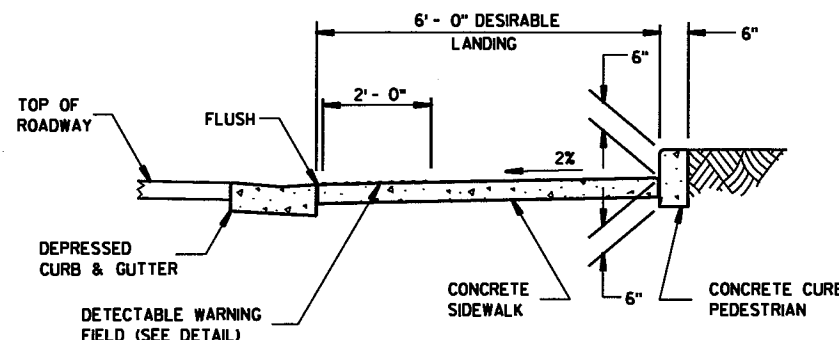
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 1:1. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

**LEGEND**

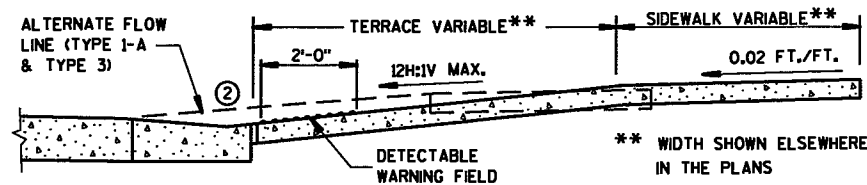
- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ▤ PAVEMENT MARKING CROSSWALK (WHITE)
- - - ALTERNATIVE LAYOUT



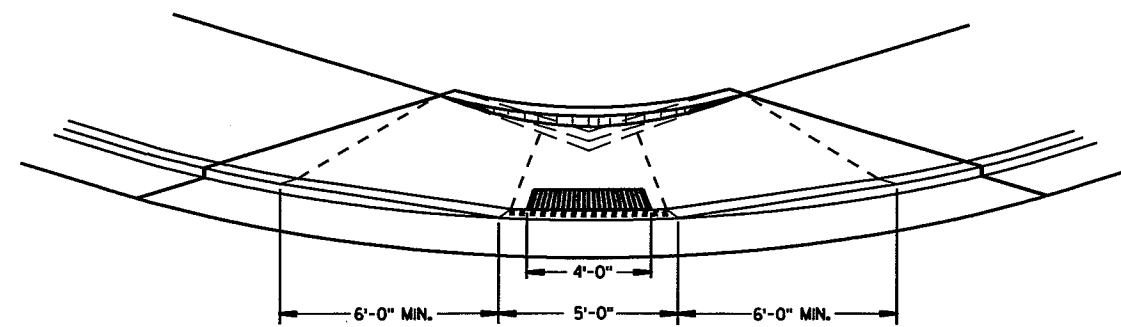
**VIEW A-A**



**SECTION C-C**



**SECTION B-B**



**VIEW D-D**

**CURB RAMPS  
TYPES 1 AND 1-A**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

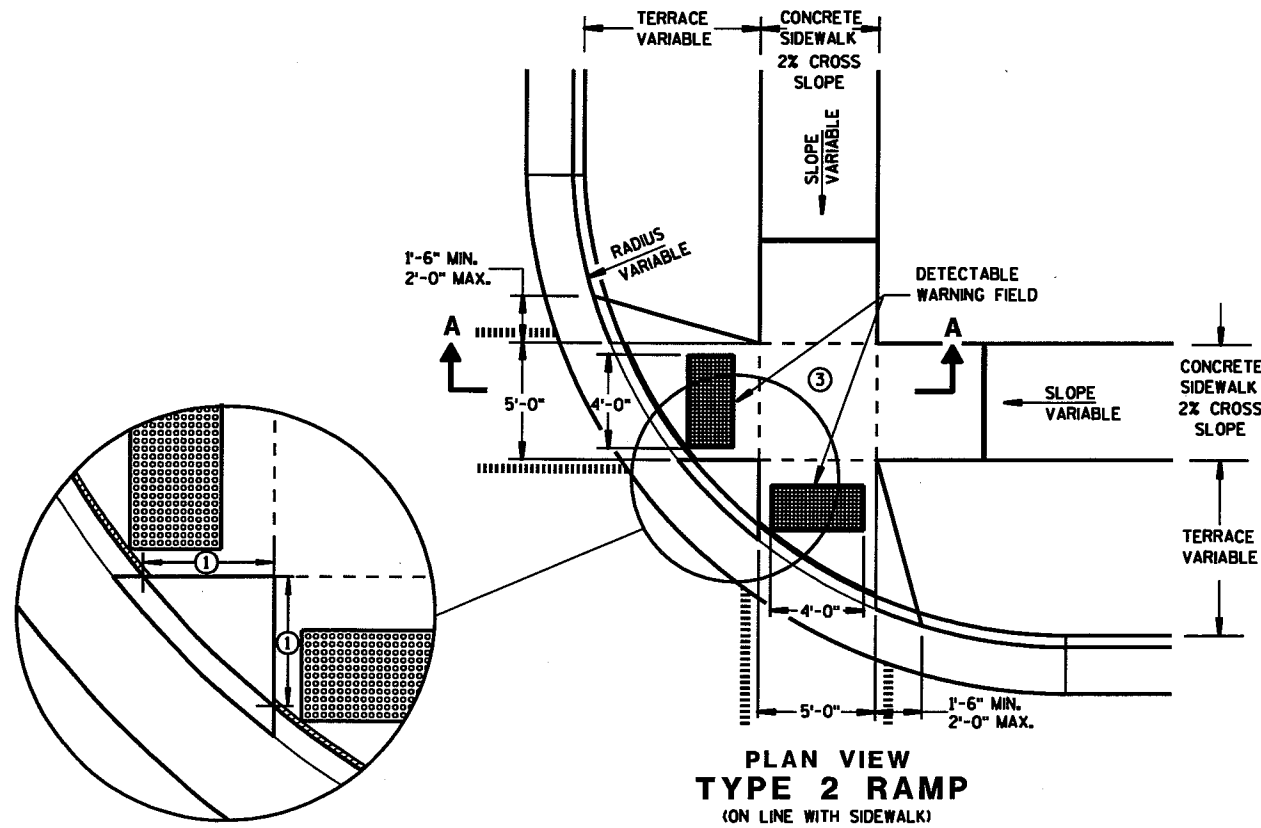
### GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

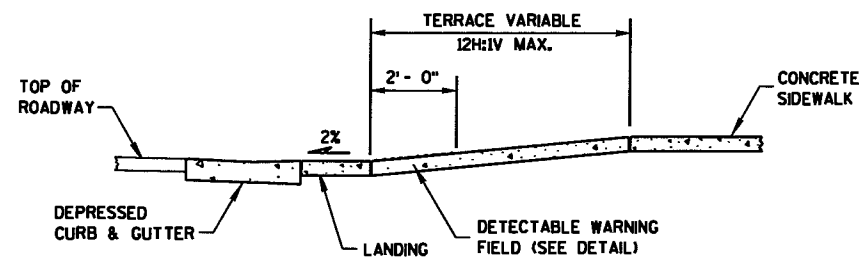
- ① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 1%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③ PROVIDE LANDING AT TOP OF RAMP WITH NO MORE THAN 2% SLOPE IN ANY DIRECTION.

### LEGEND

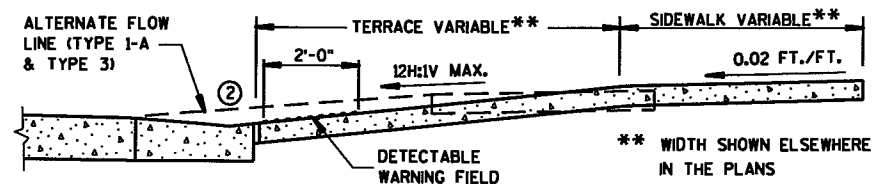
- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- - - ALTERNATIVE LAYOUT



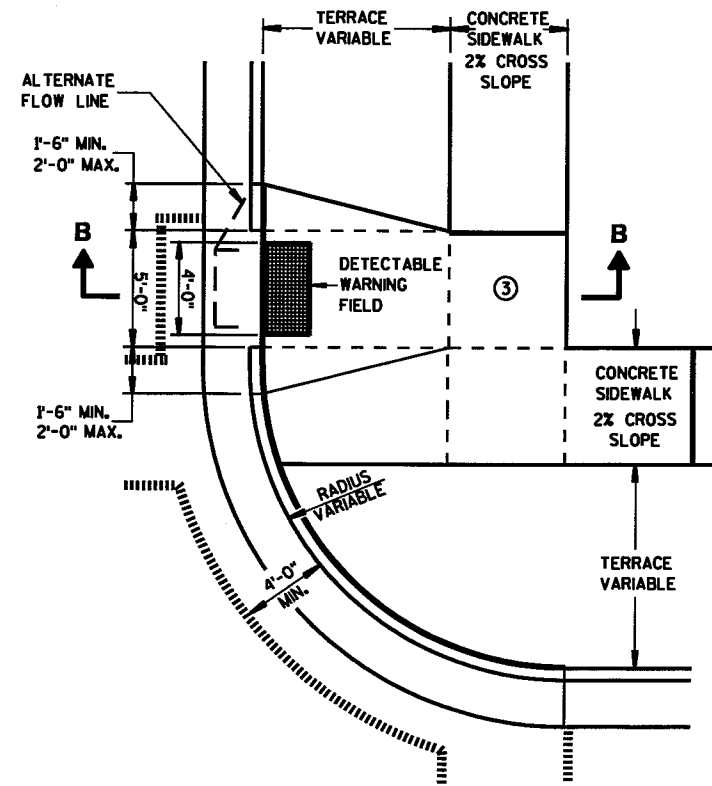
PLAN VIEW  
TYPE 2 RAMP  
(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

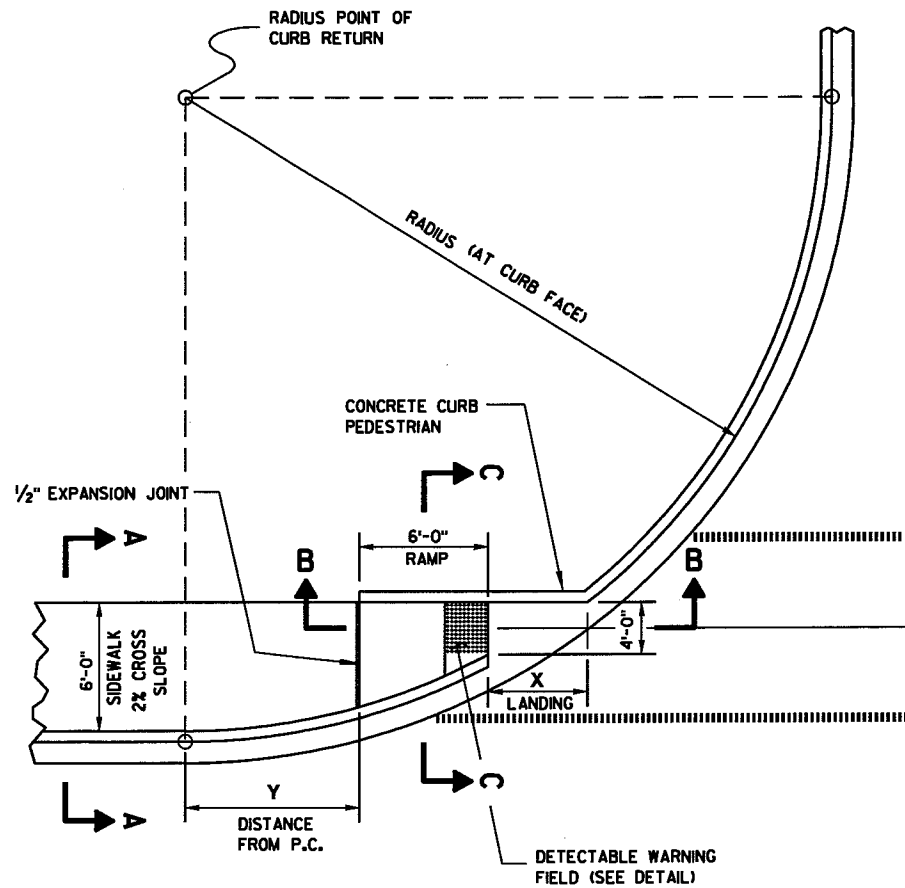


PLAN VIEW  
TYPE 3 RAMP  
(OUTSIDE OF CROSSWALK AREA)

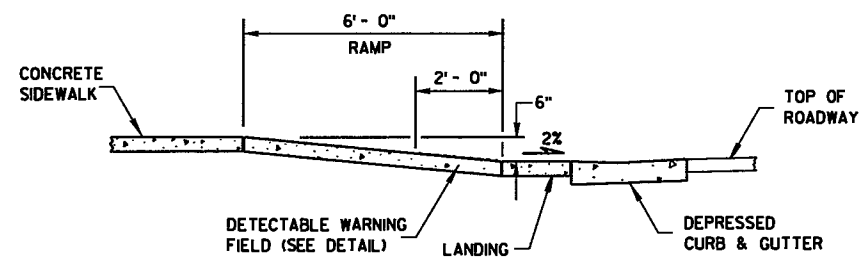
CURB RAMPS  
TYPES 2 AND 3

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION





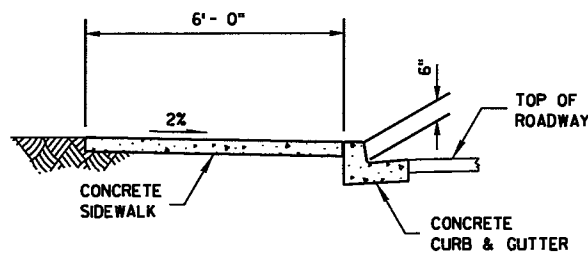
**CURB RAMP TYPE 4A  
PLAN VIEW**



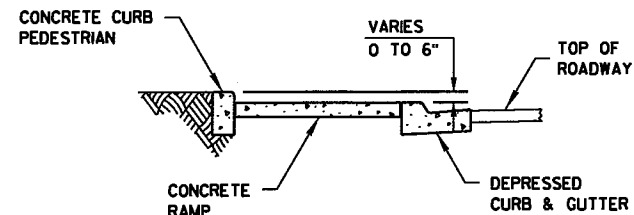
**SECTION B-B**

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1 3/4"	2'-7 1/4"
30 FEET	7'-11 3/4"	4'-8 1/4"
40 FEET	9'-5 1/4"	6'-5"
50 FEET	10'-8 3/4"	7'-11 1/4"
60 FEET	11'-10 1/4"	9'-3 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



**SECTION A-A**



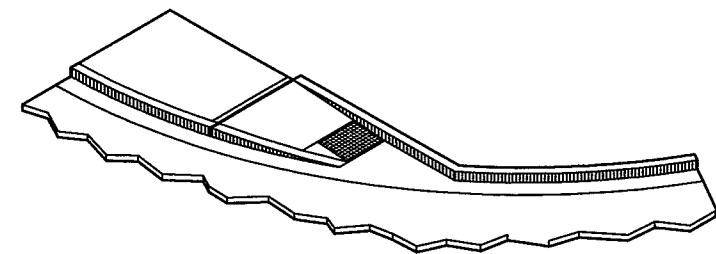
**SECTION C-C**

**GENERAL NOTES**

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.



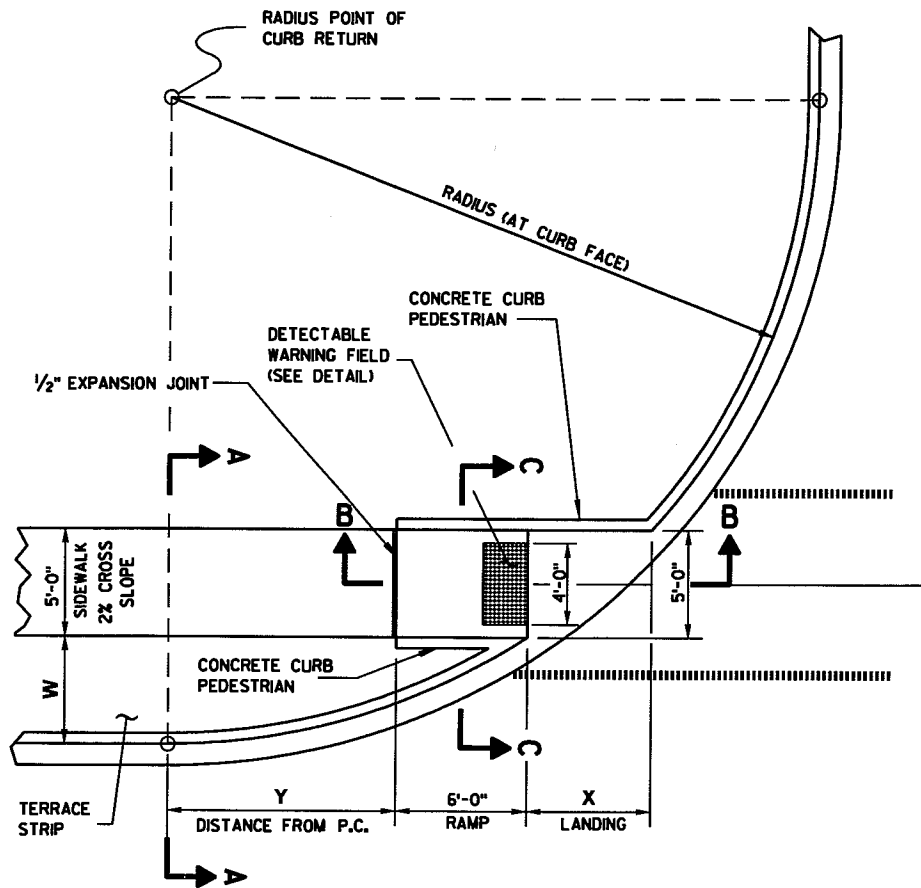
**ISOMETRIC VIEW**

**LEGEND**

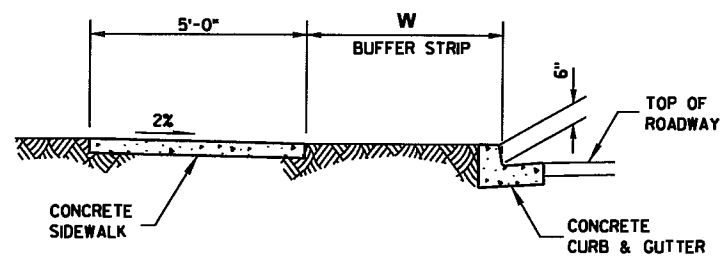
- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

**CURB RAMPS  
TYPE 4A**

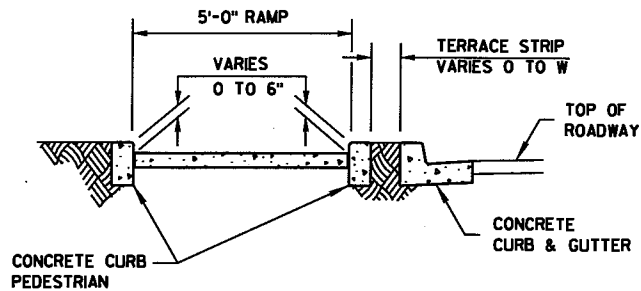
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



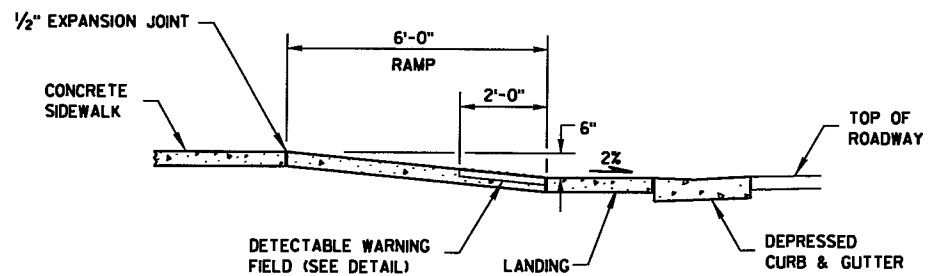
**CURB RAMP TYPE 4B  
PLAN VIEW**



**SECTION A-A**



**SECTION C-C**



**SECTION B-B**

**GENERAL NOTES**

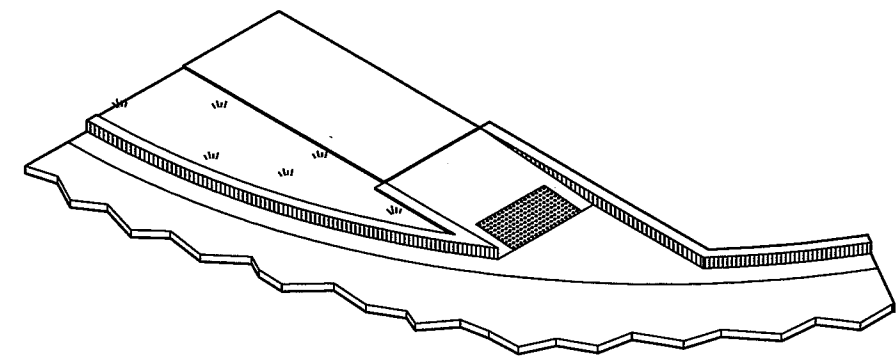
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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'-5 1/2"	4'-6 1/2"	4'-8 1/2"	6'-0"	4'-1"	7'-2 3/4"	3'-7"	8'-3 1/2"	3'-1 1/2"	9'-2 1/2"
30 FEET	7'-3 3/4"	7'-1"	6'-5 1/2"	8'-11 1/2"	5'-9 1/4"	10'-7"	5'-2 1/2"	12'-0"	4'-8 3/4"	13'-3 1/4"
40 FEET	8'-9 1/2"	9'-2 1/2"	7'-10"	11'-5 1/4"	7'-1"	13'-4 1/2"	6'-5 3/4"	15'-3 1/4"	5'-11 1/2"	16'-7 1/4"
50 FEET	10'-3 3/4"	11'-3 3/4"	9'-1 1/4"	13'-7 1/4"	8'-2 1/2"	15'-9 1/2"	7'-6 1/2"	17'-9"	6'-11 3/4"	19'-6 1/4"
60 FEET	11'-2 1/2"	12'-8 3/4"	10'-3 3/4"	15'-6 1/2"	9'-2 1/4"	17'-11 3/4"	8'-5 3/4"	20'-1 3/4"	7'-10 1/2"	22'-1 1/2"
70 FEET	12'-2 3/4"	14'-3 1/4"	11'-1 1/4"	17'-4"	10'-1"	19'-11 3/4"	9'-3 3/4"	22'-4 1/4"	8'-8 1/4"	24'-6 1/4"
80 FEET	13'-2"	15'-8 1/2"	11'-10 1/2"	18'-11 3/4"	10'-10 3/4"	21'-10"	10'-1"	24'-4 3/4"	9'-5"	26'-8 3/4"
90 FEET	14'-1 1/2"	17'-1 1/2"	12'-8 1/4"	20'-6 1/2"	11'-7 3/4"	23'-7"	10'-9 3/4"	26'-3 3/4"	10'-1 1/4"	28'-9 1/2"
100 FEET	14'-10 1/2"	18'-3 3/4"	13'-5 1/2"	22'-0"	12'-4 1/4"	25'-2 3/4"	11'-5 3/4"	28'-1 1/2"	10'-9"	30'-9"

INTERMEDIATE RADII CAN BE INTERPOLATED



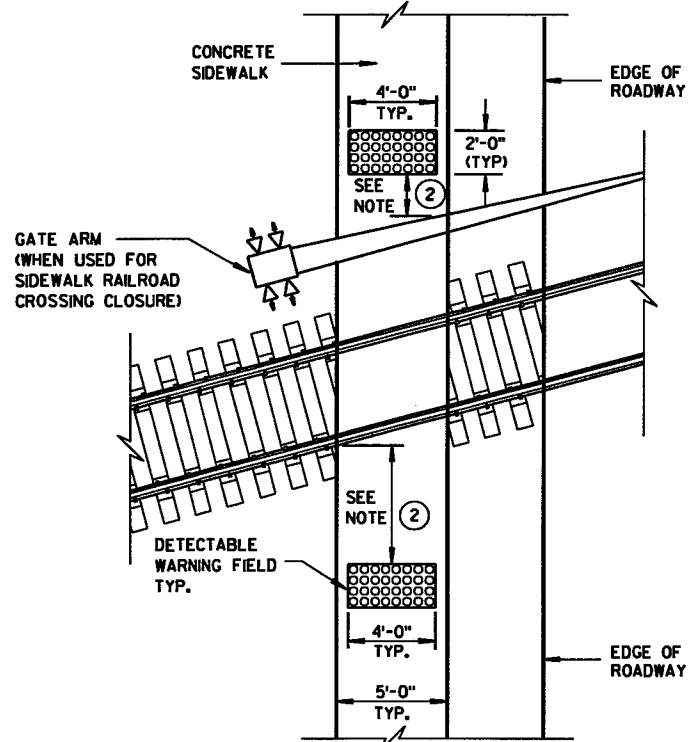
**ISOMETRIC VIEW**

**LEGEND**

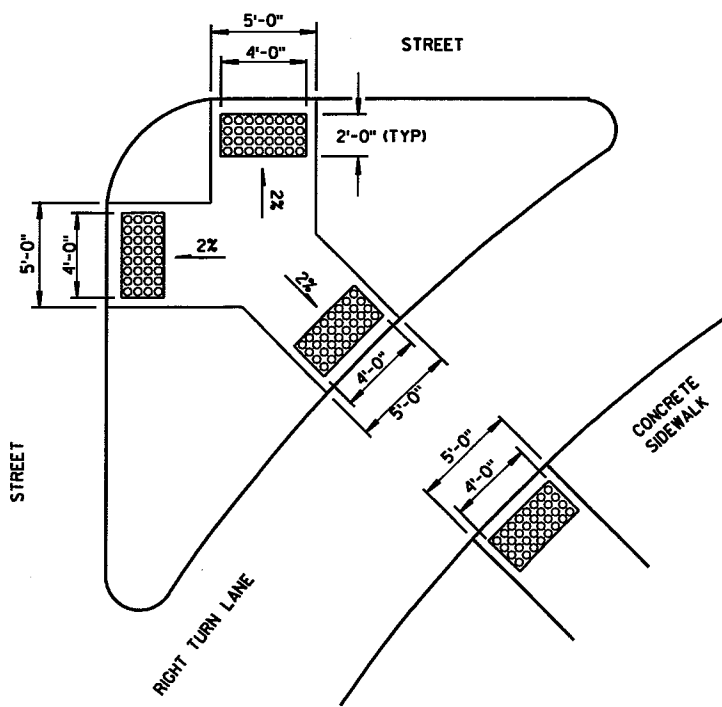
- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

**CURB RAMPS  
TYPE 4B**

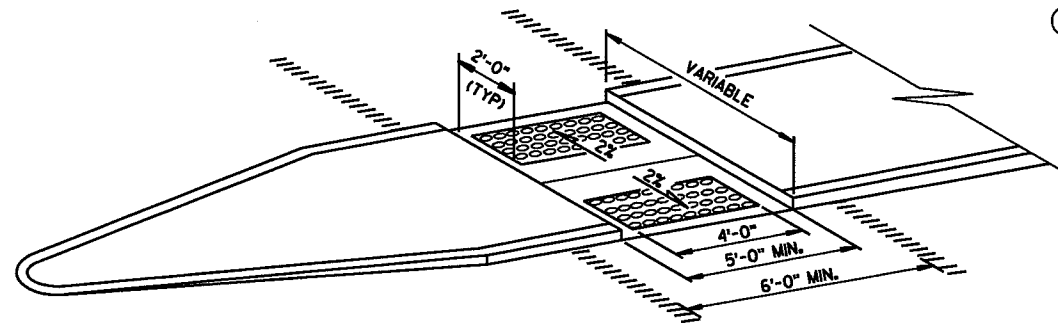
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



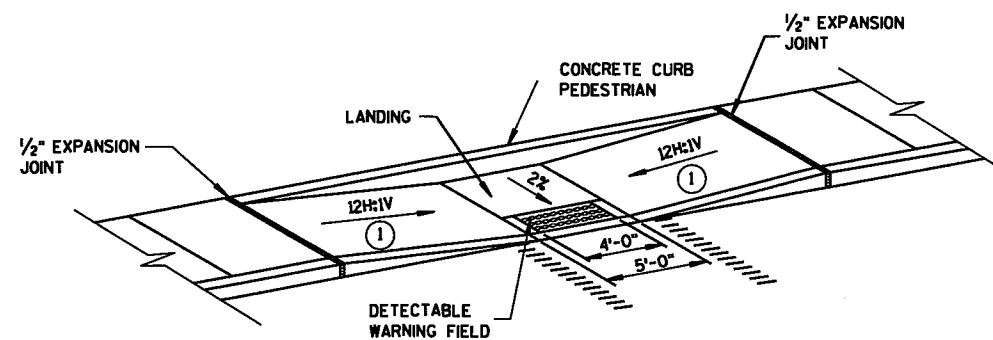
**TYPE 8  
DETECTABLE WARNINGS  
AT RAILROAD CROSSING**



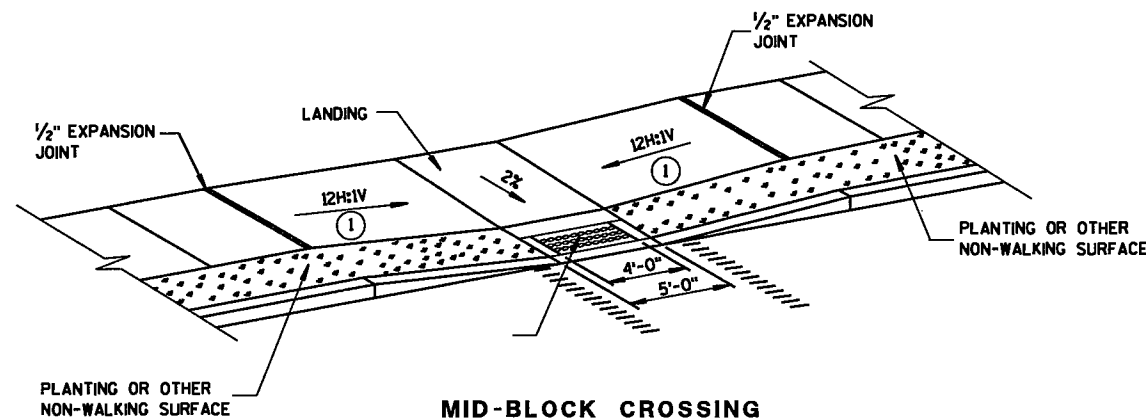
**TYPE 6  
DETECTABLE WARNING AT ISLANDS**



**MEDIAN ISLAND  
NON-ELEVATED CROSSING  
TYPE 5**



**MID-BLOCK CROSSING  
TYPE 7A**



**MID-BLOCK CROSSING  
TYPE 7B**

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

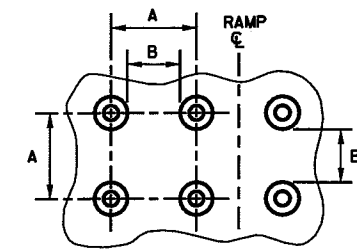
**GENERAL NOTES**

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

- ① SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ② THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 15 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.

**LEGEND**

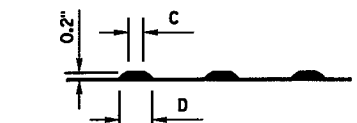
- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ▤ PAVEMENT MARKING CROSSWALK (WHITE)



**PLAN VIEW**

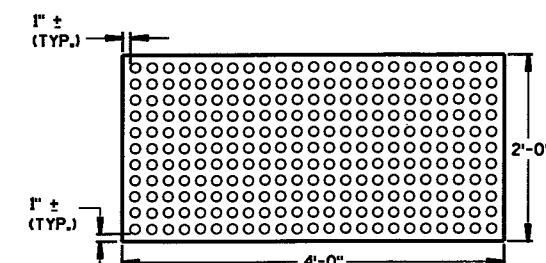
	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

\* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



**ELEVATION VIEW**

**TRUNCATED DOMES  
DETECTABLE WARNING  
PATTERN DETAIL**



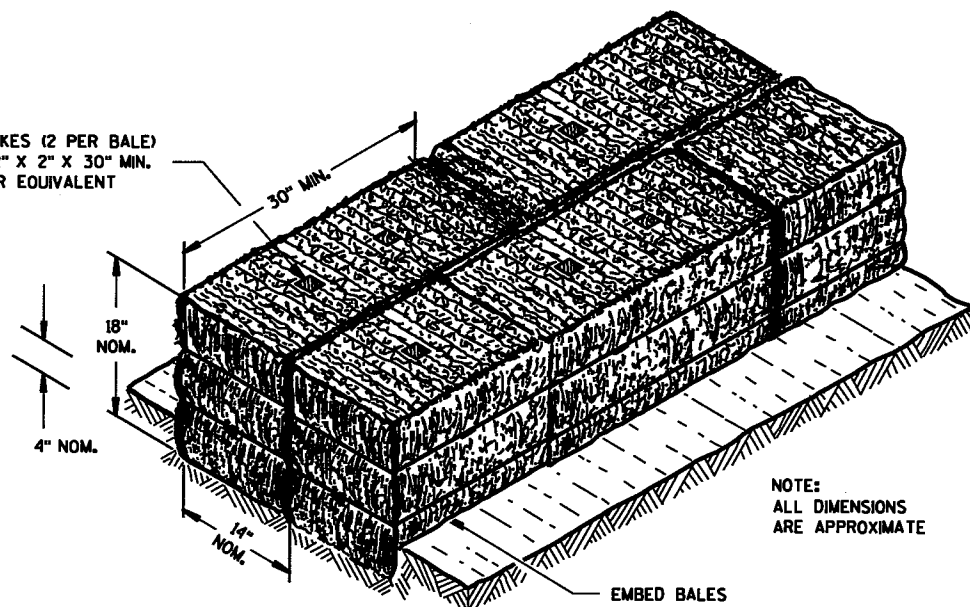
**PLAN VIEW  
DETECTABLE WARNING  
FIELD (TYPICAL)**

**CURB RAMPS  
TYPES 5, 6, 7A, 7B & 8**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
9/9/05 /S/ Jerry H. Zogg  
DATE ROADWAY STANDARDS DEVELOPMENT  
FHWA ENGINEER

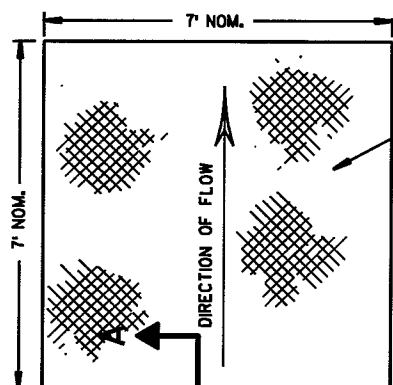
WOOD STAKES (2 PER BALE)  
NOMINAL 2" X 2" X 30" MIN.  
LENGTH OR EQUIVALENT



SECTION A-A

NOTE:  
ALL DIMENSIONS  
ARE APPROXIMATE

EMBED BALES

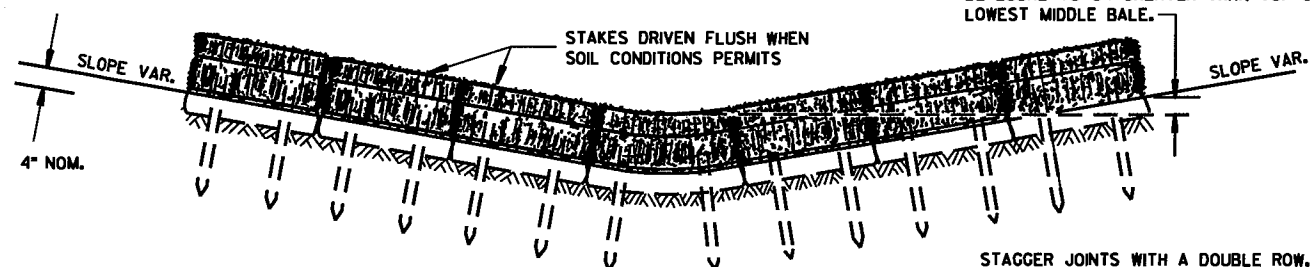


PLAN VIEW

FOR SCOUR PROTECTION USE:  
EROSION MAT FOR CHANNEL LINING.  
LAP MAT UNDER UPSTREAM BALES  
AND SECURE FABRIC WITH WOOD STAKES,  
AT 3-FOOT INTERVALS.

STAGGER JOINTS BETWEEN ADJACENT  
ROWS OF BALES.

BOTTOM ELEVATION OF END BALE SHALL  
BE EQUAL TO OR GREATER THAN TOP OF  
LOWEST MIDDLE BALE.



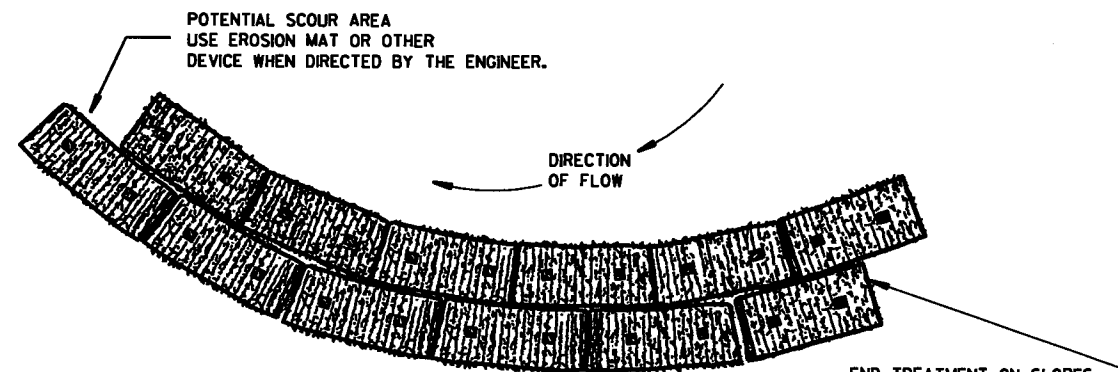
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

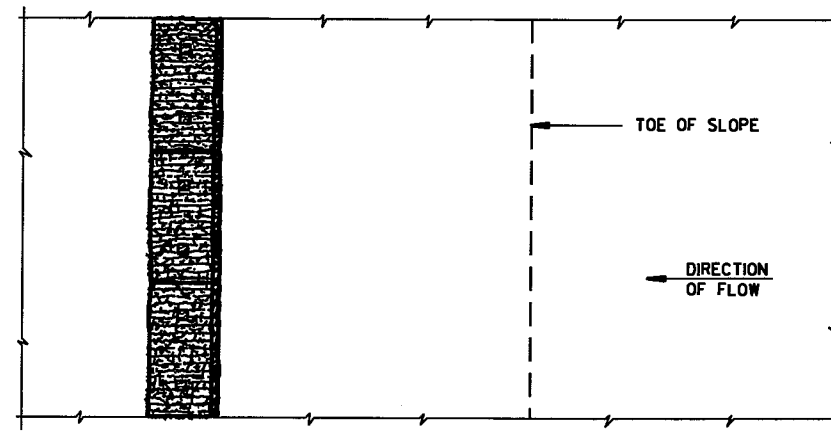
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

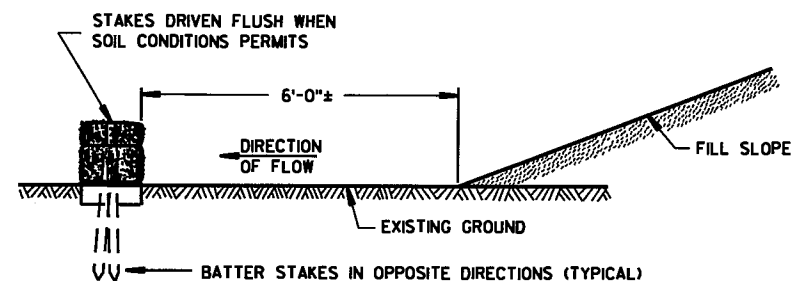


PLAN VIEW

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

*[Signature]*  
CHIEF ROADWAY DEVELOPMENT ENGINEER

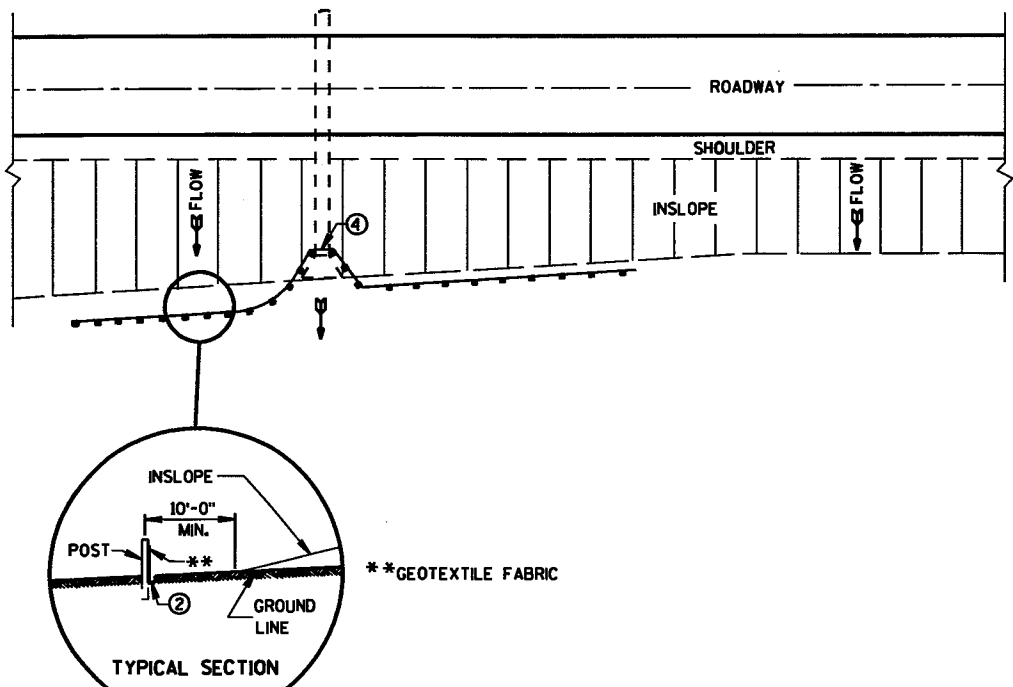
FHWA

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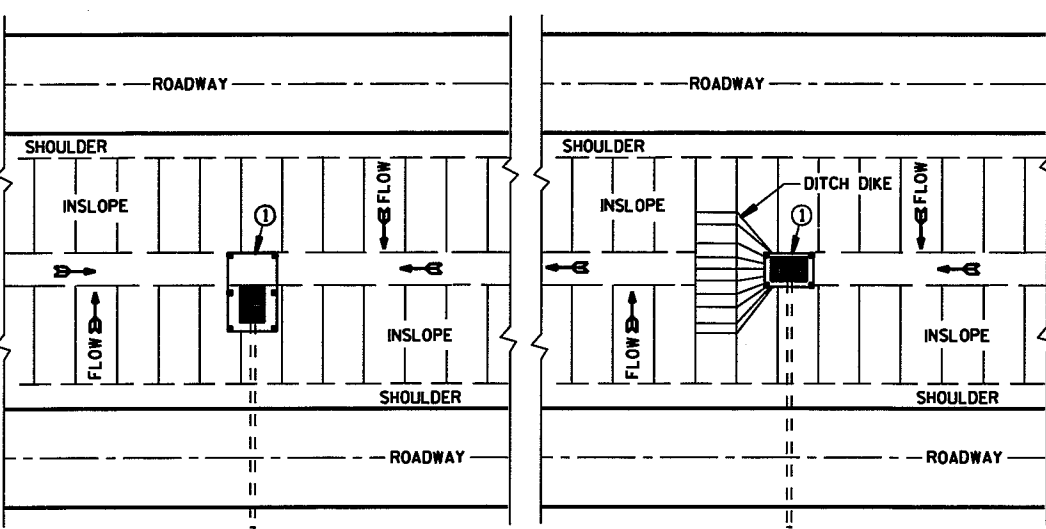
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S.D.D. 8 E 8-3

S.D.D. 8 E 8-3



PLAN VIEW  
TYPICAL APPLICATION OF SILT FENCE

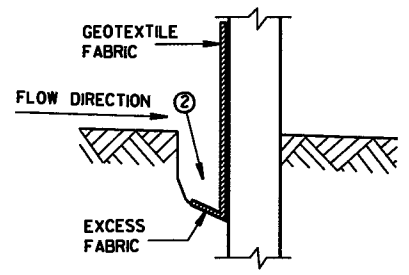


SITUATION 1      SITUATION 2  
PLAN VIEW  
SILT FENCE AT MEDIAN SURFACE DRAINS

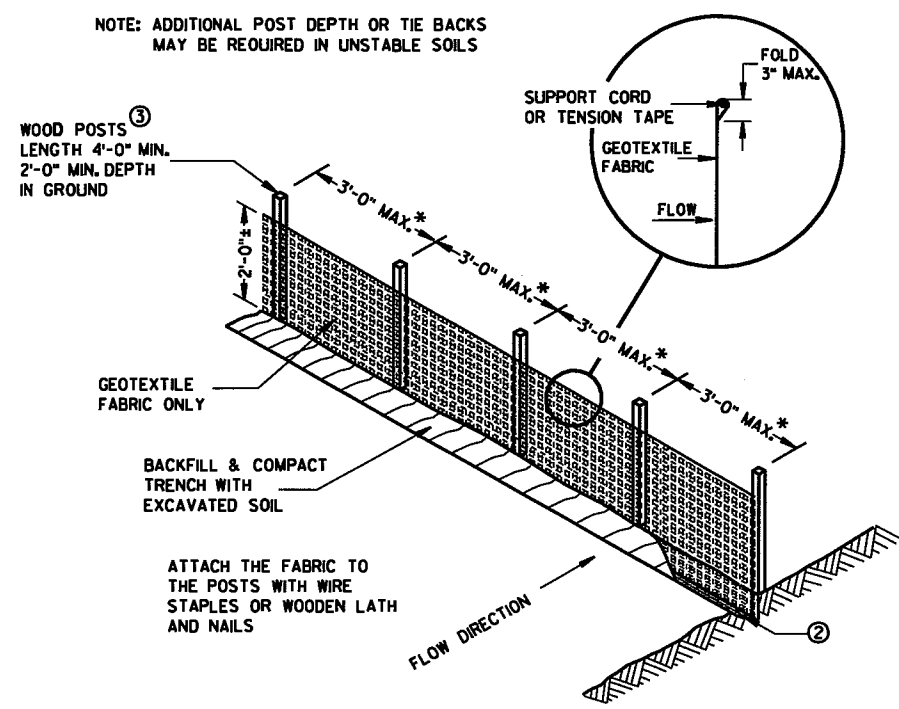
**GENERAL NOTES**

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

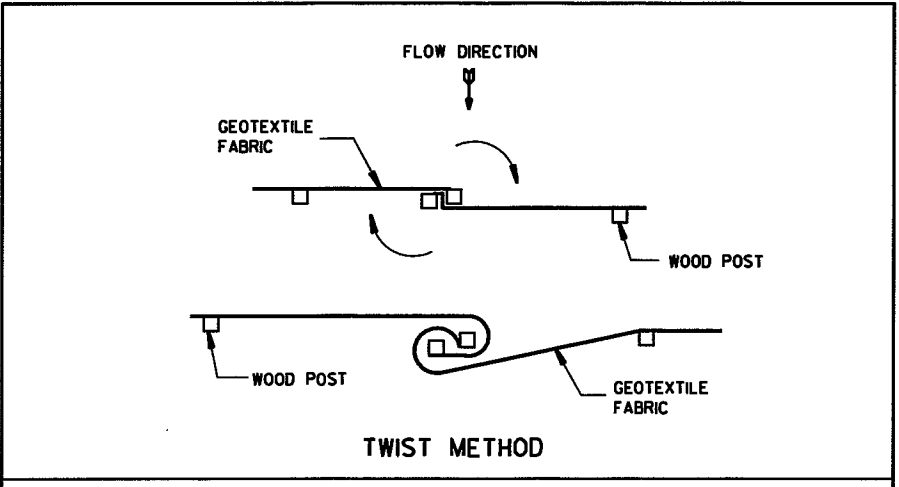
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1/8" X 1/8" 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.



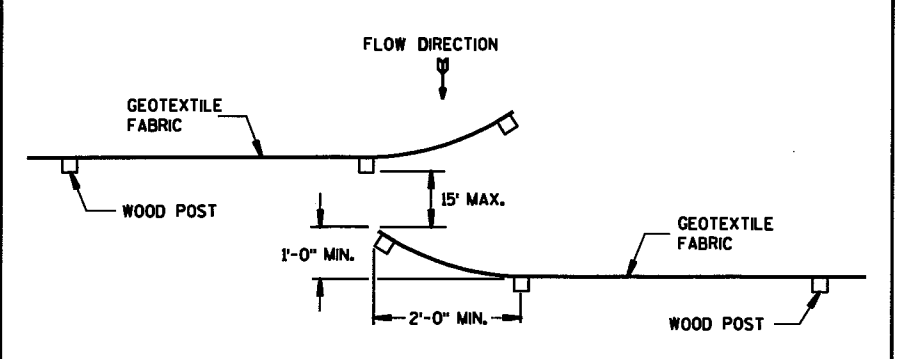
TRENCH DETAIL



SILT FENCE

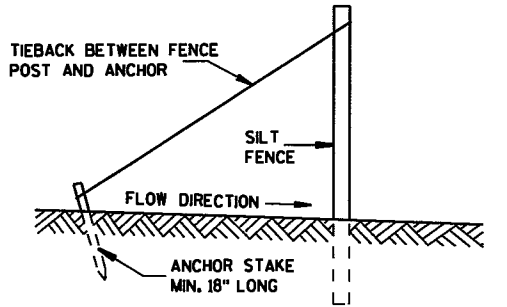


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤

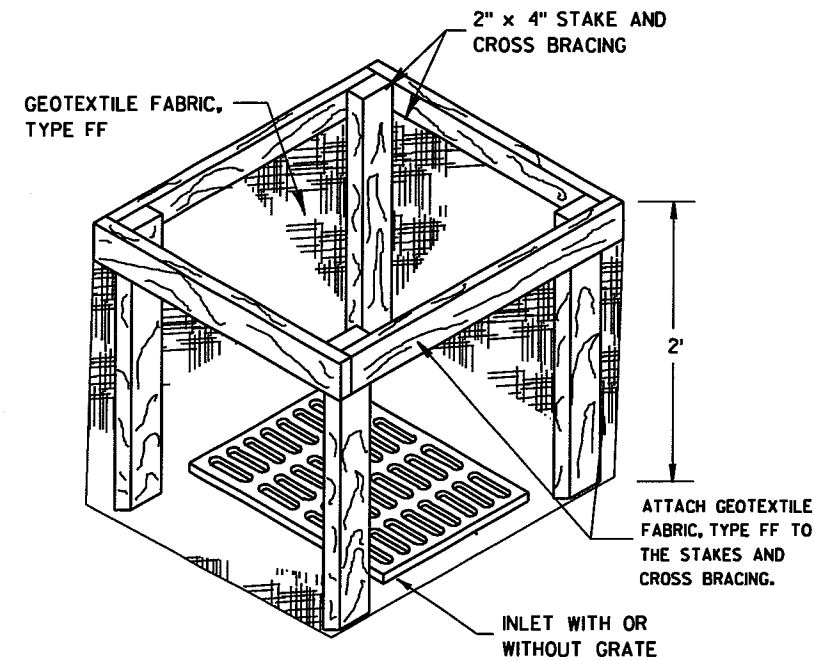
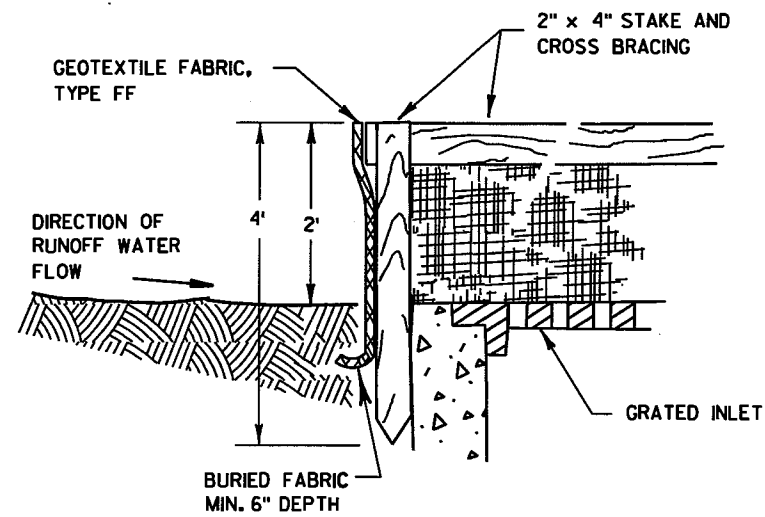


SILT FENCE TIE BACK  
(WHEN REQUIRED BY THE ENGINEER)

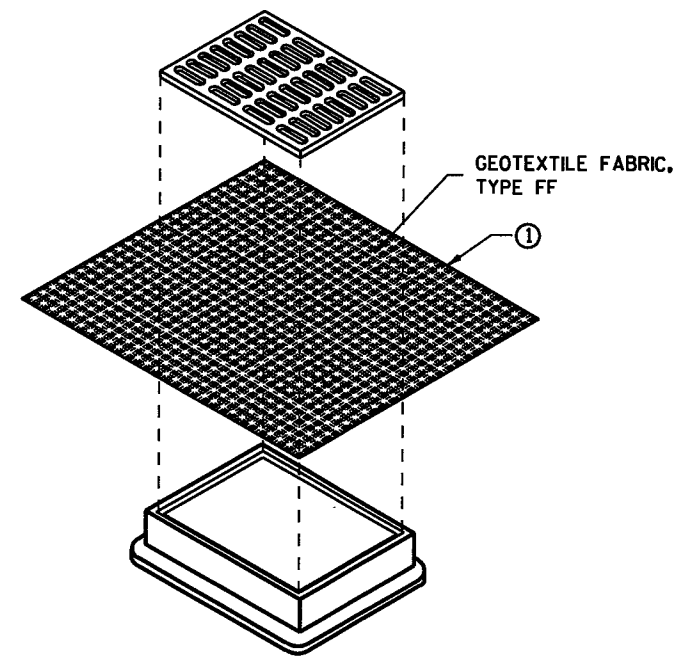
<b>SILT FENCE</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	 CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

S.D.D. 8 E 9-6

S.D.D. 8 E 9-6

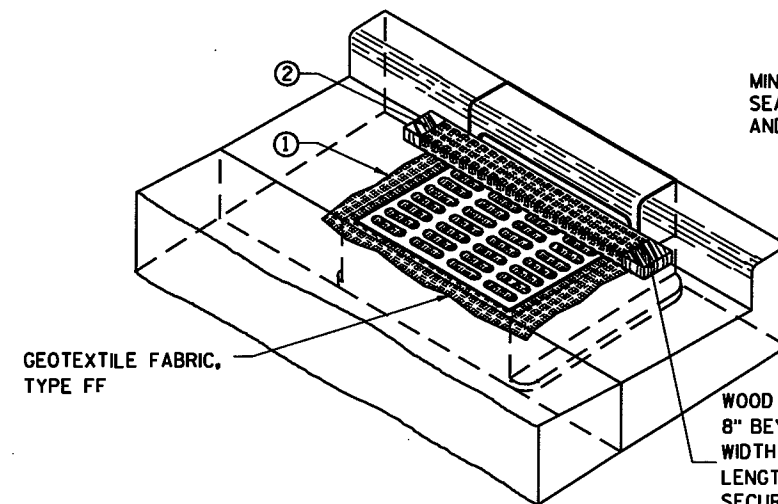


**INLET PROTECTION, TYPE A**

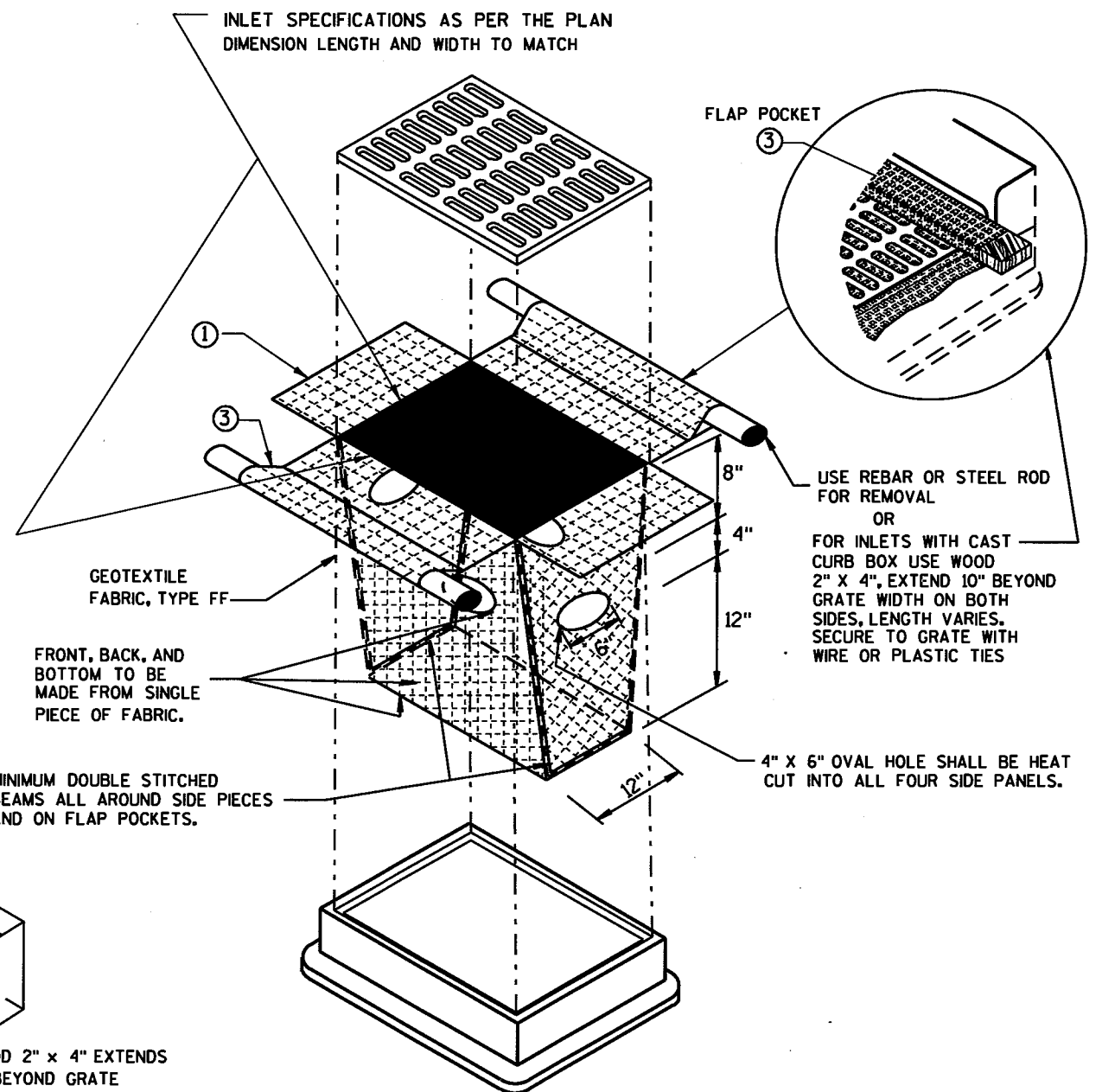


**INLET PROTECTION, TYPE B  
(WITHOUT CURB BOX)**

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



**INLET PROTECTION, TYPE C (WITH CURB BOX)**



**INLET PROTECTION, TYPE D**

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

**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.

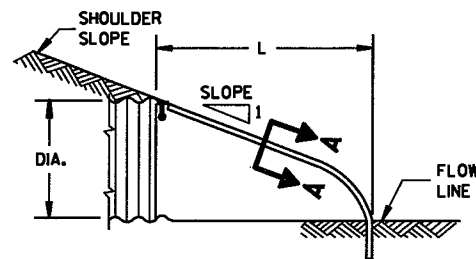
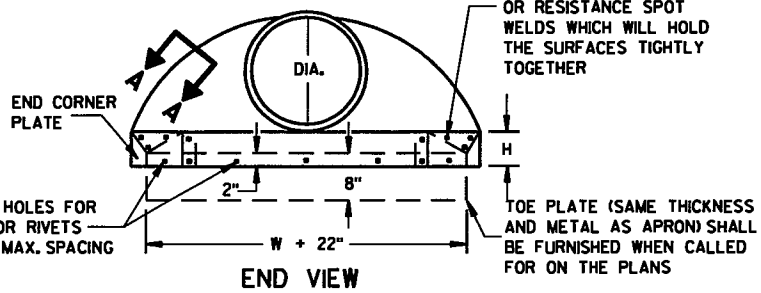
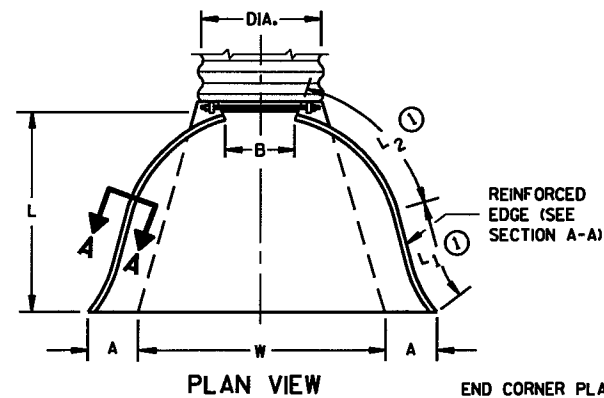
**TYPE D**

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.

<b>INLET PROTECTION TYPE A, B, C, AND D</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/16/02 DATE FHWA	 CHIEF ROADWAY DEVELOPMENT ENGINEER

METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 (±1")	L2 (±1")	W (±2")		
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 3/4	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 3/4	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/2 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/2 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

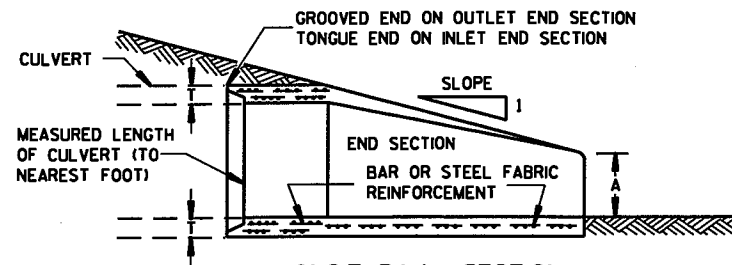
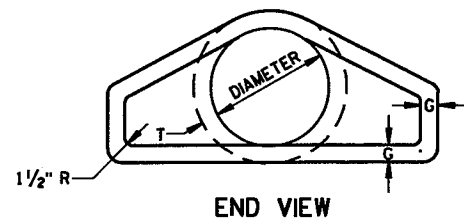
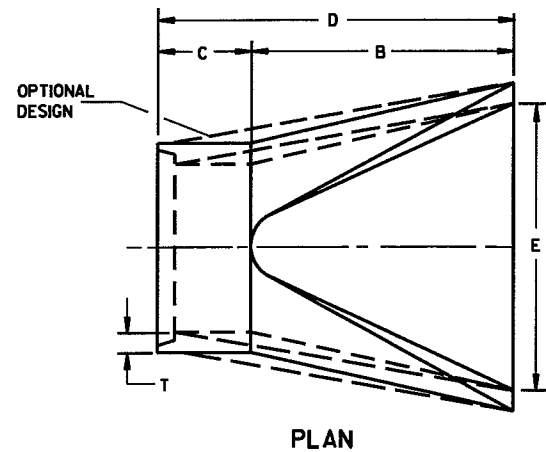
\* EXCEPT CENTER PANEL SEE GENERAL NOTES



SIDE ELEVATION METAL ENDWALLS

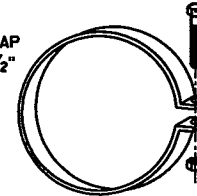
REINFORCED CONCRETE APRON ENDWALLS									
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE	
	T	A	B	C	D	E	G		
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1	
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1	
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1	
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1	
24	3	9 1/2	43 1/2	30	73 1/2	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 1/2 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



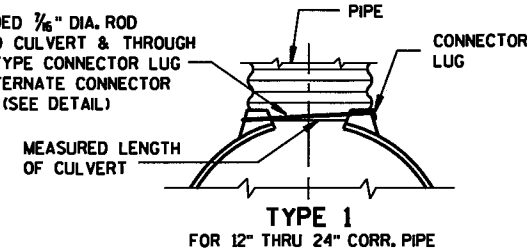
LONGITUDINAL SECTION CONCRETE ENDWALLS

1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



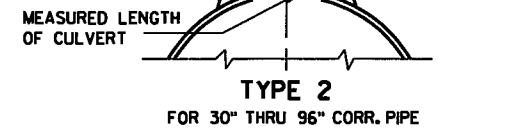
ALTERNATE FOR TYPE 1 CONNECTION END SECTION CONNECTOR STRAP

THREADED 1/8" DIA. ROD AROUND CULVERT & THROUGH TANK TYPE CONNECTOR LUG OR ALTERNATE CONNECTOR STRAP (SEE DETAIL)

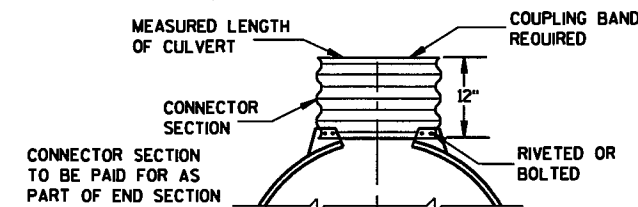


TYPE 1 FOR 12" THRU 24" CORR. PIPE

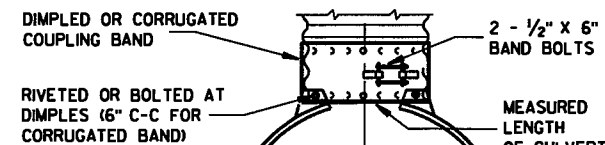
THREADED 1/8" DIA. ROD OVER TOP OF APRON, SIDE LUGS TO BE RIVETED TO APRON



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

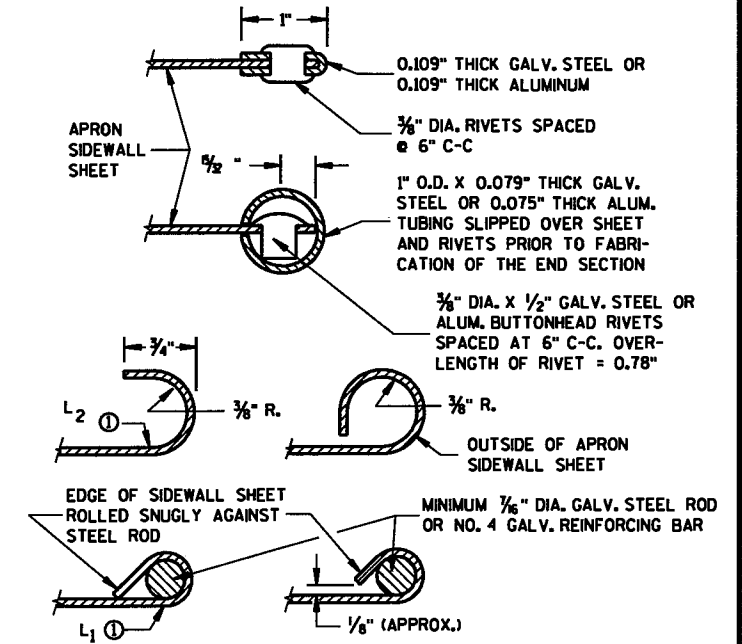
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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 VICE 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.

Ⓞ 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

*Tom J. ...*  
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

**TABLE OF NOMINAL DIMENSIONS AND WEIGHTS**

DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
		WEIGHT IN POUNDS *								
FRAME AND COVER		60	60	60	110	110	110	155	155	155

\* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

\*\* NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.

**GENERAL NOTES**

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

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.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE. THE MECHANICAL CONNECTION (INSIDE AND OUTSIDE) TO THE PULL BOX, SHALL BE TOTALLY AND PERMANENTLY SEALED WITH A SILICONE OR RUBBERIZED CAULKING COMPOUND AS APPROVED BY THE ENGINEER.

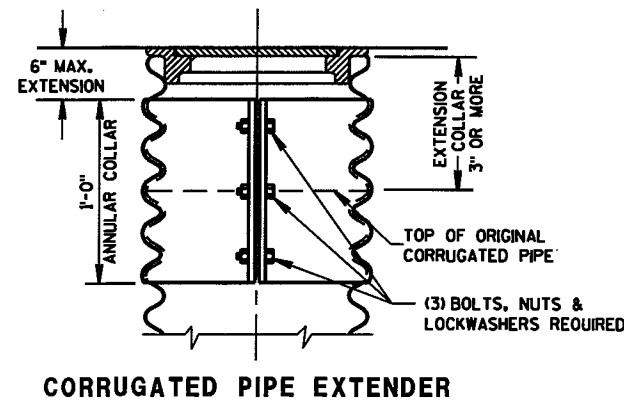
GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

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

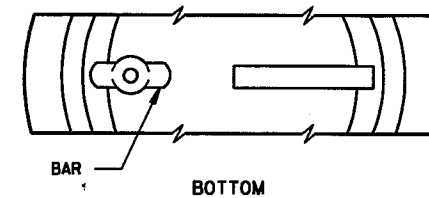
S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

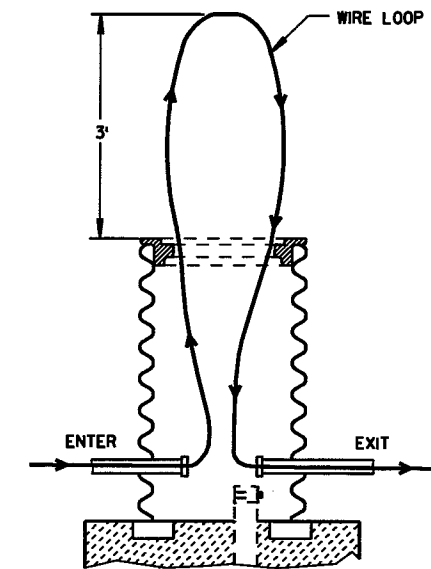
IF PULL BOX EQUIPMENT GROUNDING IS REQUIRED USING AN EQUIPMENT GROUNDING ELECTRODE IN EACH PULL BOX, THE EQUIPMENT GROUNDING ELECTRODE SHALL BE 3/8" X 8'-0", COPPERCLAD AND BE EXOTHERMICALLY WELDED TO A #4 AWG, COPPER, STRANDED WIRE (BARE OR GREEN INSULATED). THE #4 AWG WIRE SHALL BE 4 FEET IN LENGTH, NEATLY COILED, TAPED AND AVAILABLE FOR USE WHEN REQUIRED.



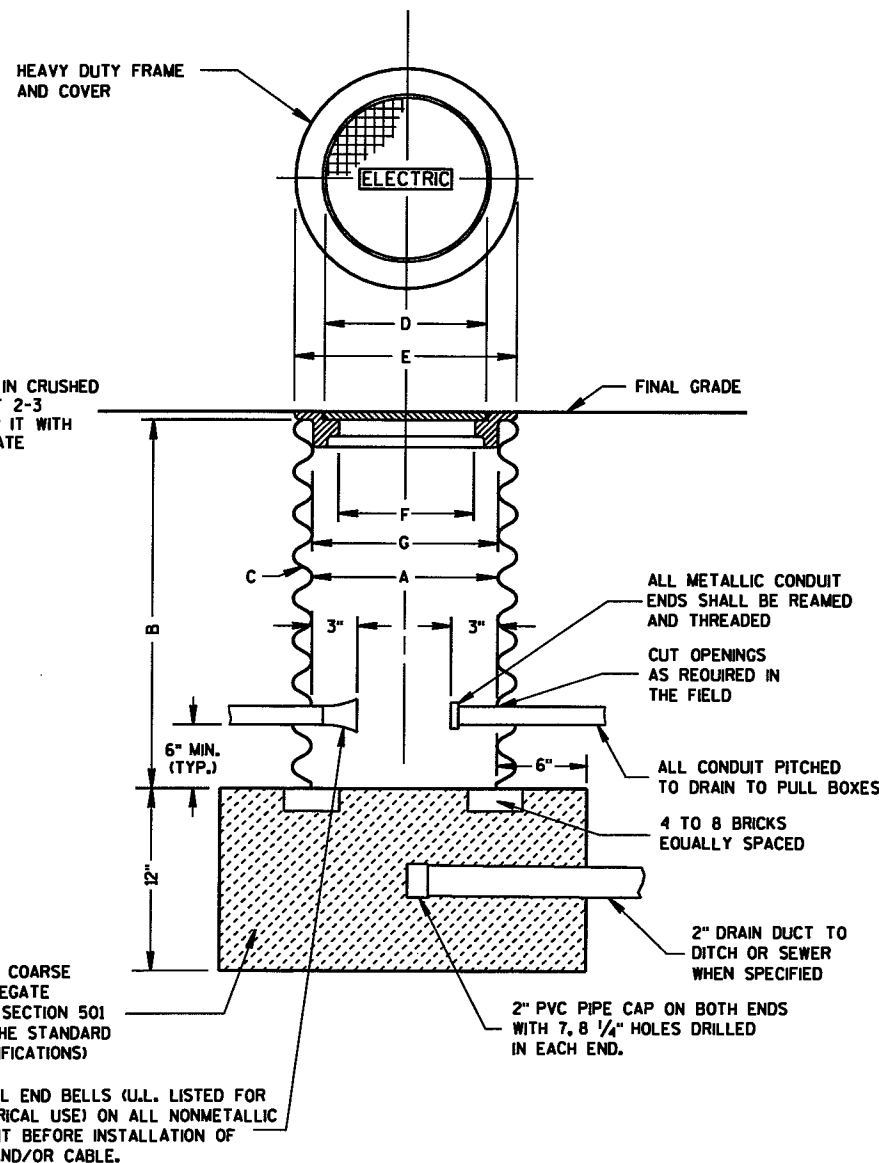
**CORRUGATED PIPE EXTENDER**



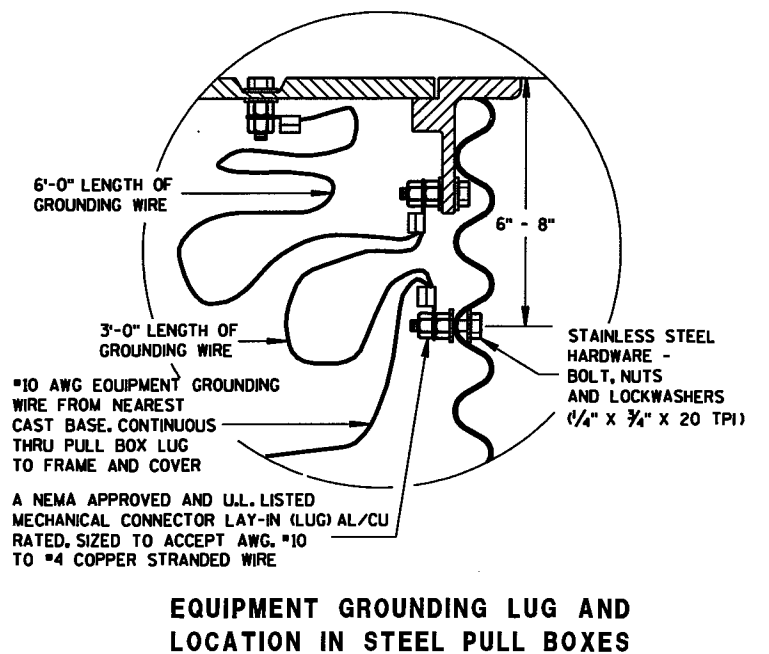
**ALTERNATE COVER (LOCKING)  
TIGHTENING BAR TYPE**



**MEASUREMENT DETAIL FOR  
WIRE/CABLE IN THE PULL BOX**



**PULL BOX**



**EQUIPMENT GROUNDING LUG AND  
LOCATION IN STEEL PULL BOXES**

<b>PULL BOX</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 9/27/06 DATE FHWA	/S/ Balu Ananthanarayanan STATE ELECTRICAL ENGINEER FOR HIGHWAYS

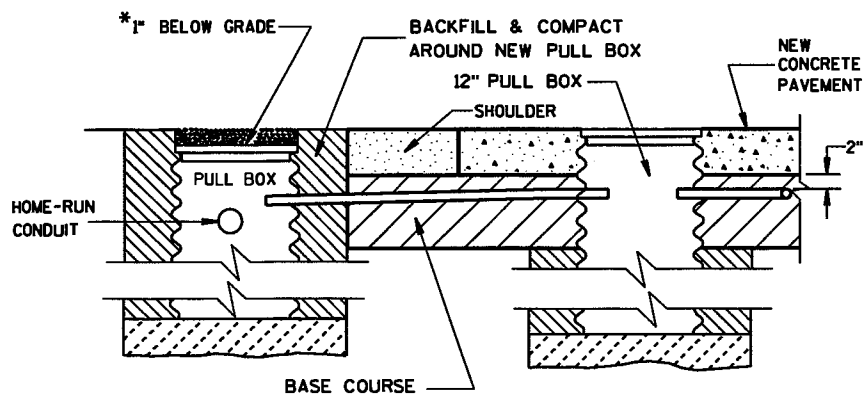
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S.D.D. 9 B 4-9

6

S.D.D. 9 B 4-9





SECTION A-A  
NO CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAILS

\*RECESS PULL 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.

GENERAL NOTES

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

LOOP SIZE, 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 BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR 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.

ANTI-SIEZE LUBRICATING MATERIAL SHALL BE USED ON ALL THREADS OF THREADED ASSEMBLIES BEFORE INSTALLATION.

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.

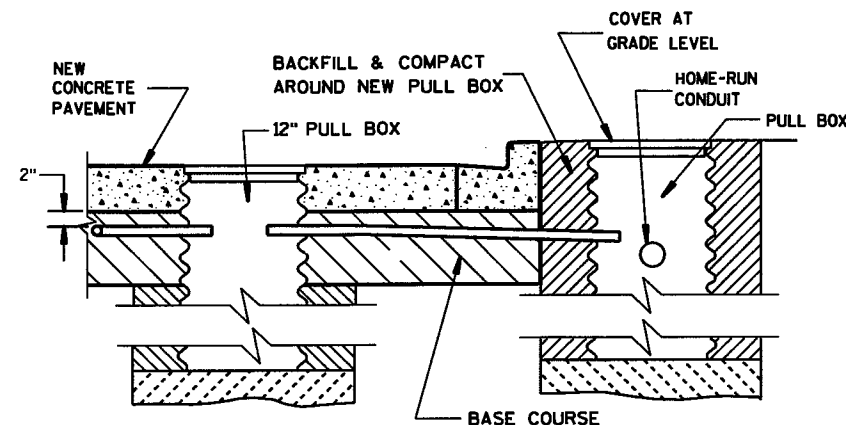
THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP DUCT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

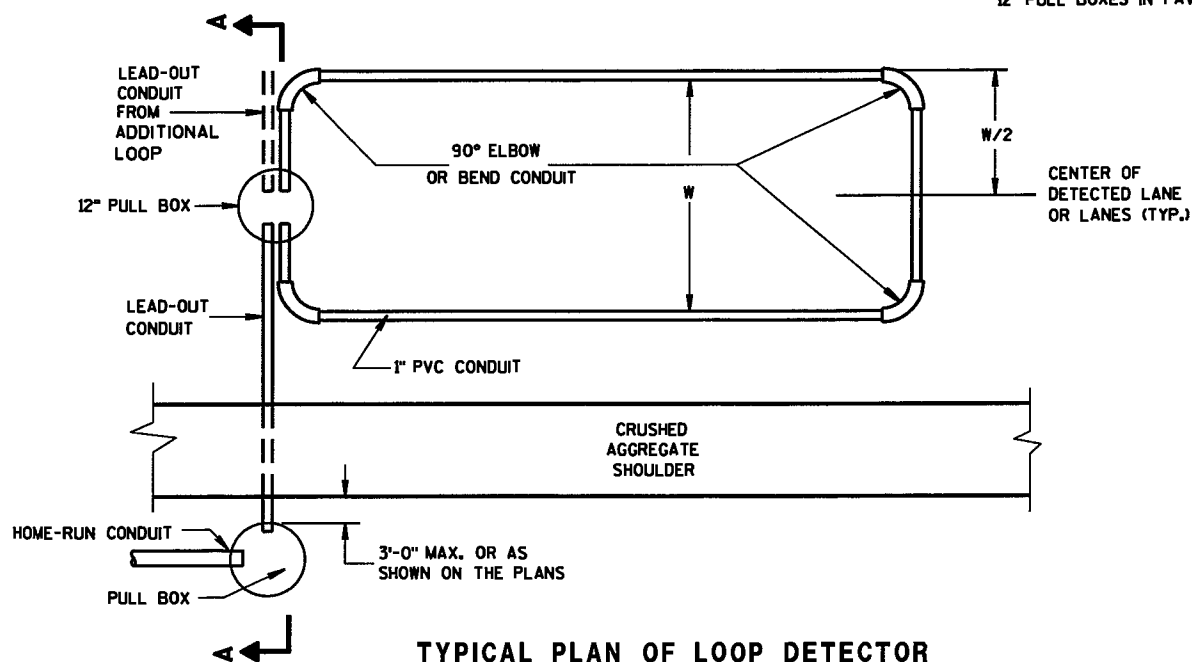
PROTECTION OF THE CONDUIT, CONDULET AND PULL BOX SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE NEW CONCRETE PAVEMENT IS PLACED.

12" PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.

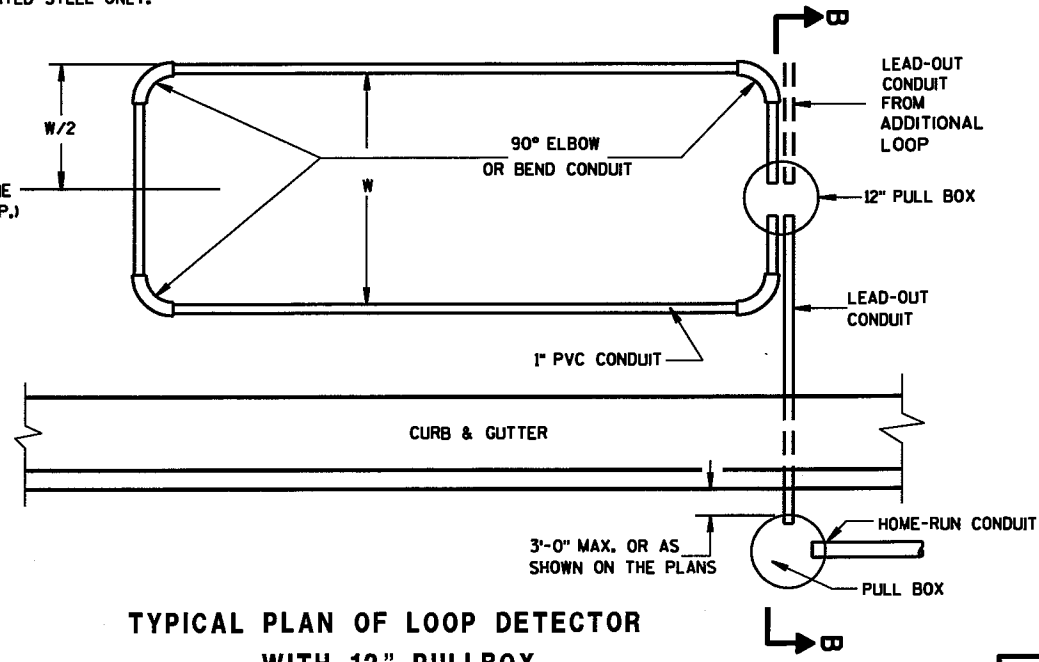


SECTION B-B  
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAILS



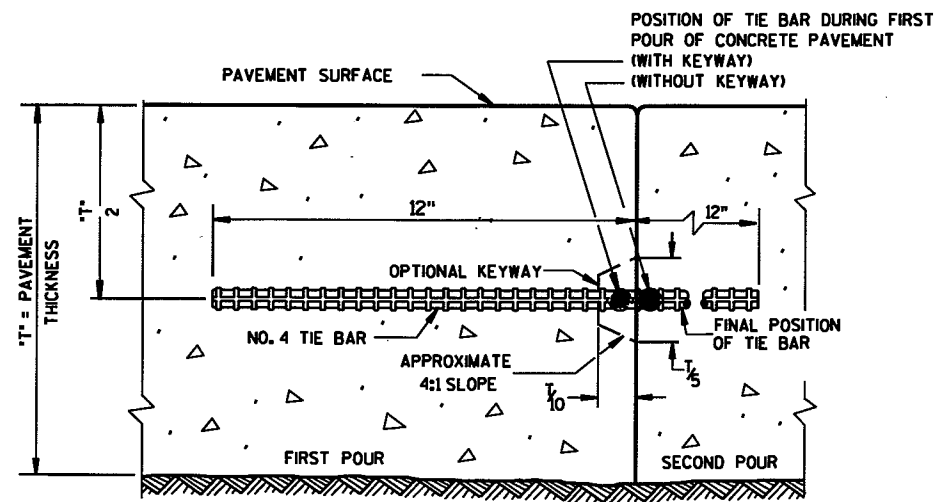
TYPICAL PLAN OF LOOP DETECTOR  
WITH 12" PULLBOX



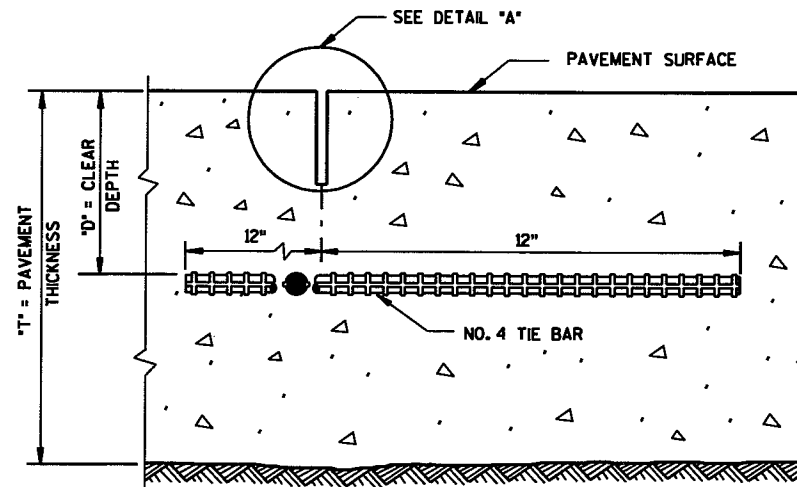
TYPICAL PLAN OF LOOP DETECTOR  
WITH 12" PULLBOX

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/7/06 DATE	/S/ Balu Ananthanarayanan STATE ELECTRICAL ENGINEER FOR HIGHWAYS
FHWA	

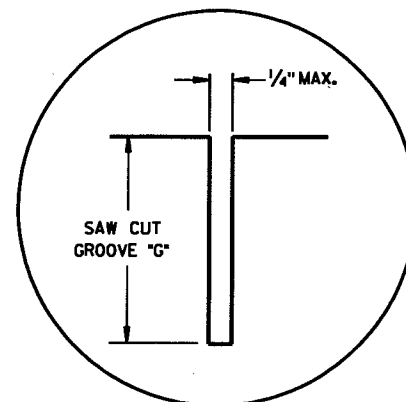
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CONSTRUCTION JOINT



SAWED JOINT



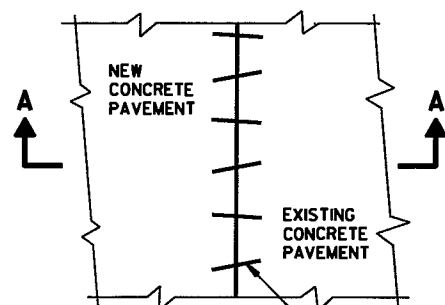
DETAIL "A"

GENERAL NOTES

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

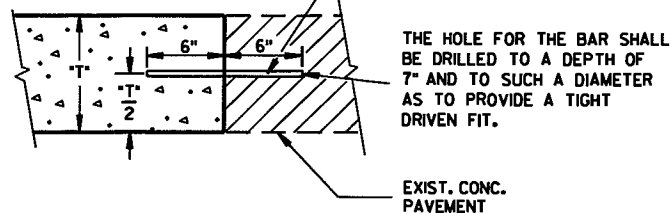
LONGITUDINAL JOINTS SHALL NOT BE SEALED OR FILLED.

TIE BAR SPACINGS ARE VALID ONLY FOR PAVEMENT WIDTHS IN THE TABLE. FOR WIDER PAVEMENTS, TIED CONCRETE SHOULDERS OR RAMPS, THE TIE BAR SPACING SHALL BE AS SHOWN ON THE PLANS.



PLAN VIEW

NO. 6 TIE BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.

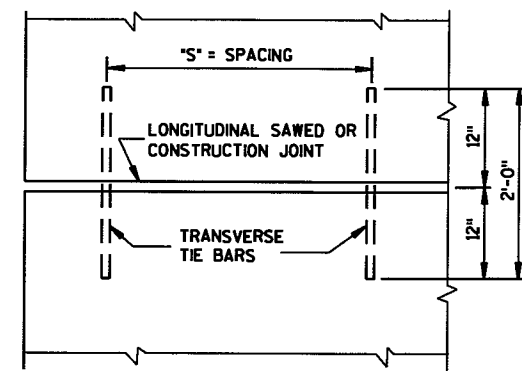


SECTION A-A PAVEMENT TIES

THE HOLE FOR THE BAR SHALL BE DRILLED TO A DEPTH OF 7" AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

EXIST. CONC. PAVEMENT

PAVEMENT THICKNESS "T"	CLEAR DEPTH "D"	SAW CUT GROOVE "G"	MAXIMUM TIE BAR SPACING "S"	
			PAVEMENT WIDTH 24' OR 26'	30'
6. 6 1/2"	3 ± 1/2"	2"	48"	42"
7. 7 1/2"	3 1/4" ± 1"	2 1/4"	45"	36"
8. 8 1/2"	3 3/4" ± 1"	2 1/2"	39"	30"
9. 9 1/2"	4 1/4" ± 1"	3"	33"	27"
10. 10 1/2"	4 3/4" ± 1"	3 1/4"	30"	24"
11. 11 1/2"	5 1/4" ± 1"	3 3/4"	27"	21"
12"	5 3/4" ± 1"	4"	24"	21"



PLAN VIEW SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND PAVEMENT TIES

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

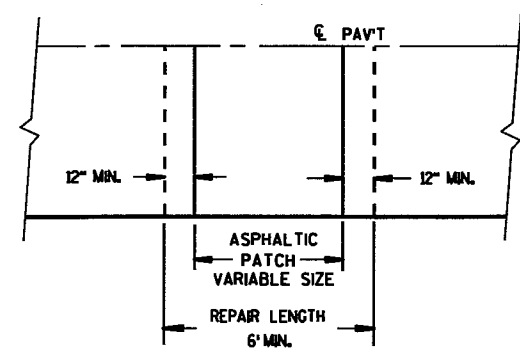
6/06/02 DATE

FHWA

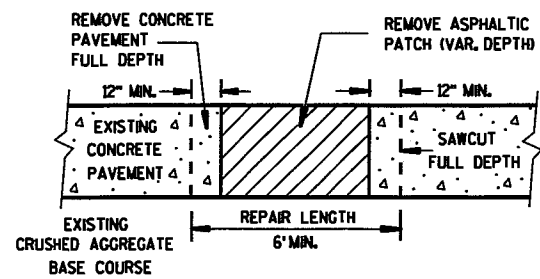
Bill Docket PAVEMENT ENGINEER

S.D.D. 13 C 1-11

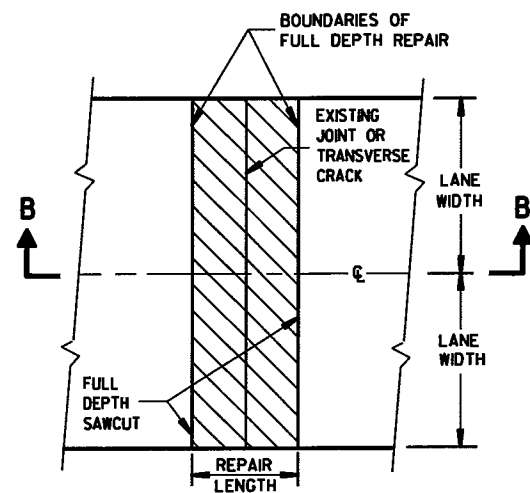
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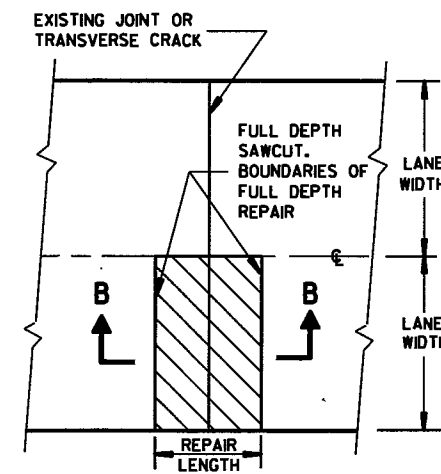
PLAN VIEW



CROSS SECTION  
PATCH REMOVAL



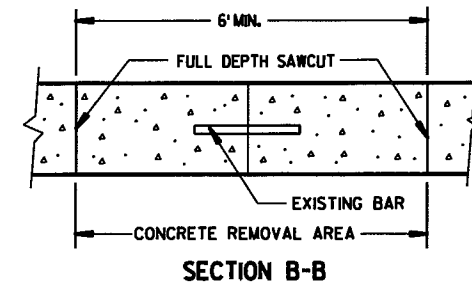
PLAN VIEW  
(DOUBLE LANE REPAIR)



PLAN VIEW  
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL

(SEE NOTE)



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.

EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS SHALL BE DRILLED AND LIFTED OUT. ADDITIONAL SAW CUTS MAY BE MADE INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES. BOUNDARIES OF CONCRETE REPAIR AREAS SHALL BE 6 FEET MINIMUM FROM REMAINING TRANSVERSE JOINT OR CRACK.

6

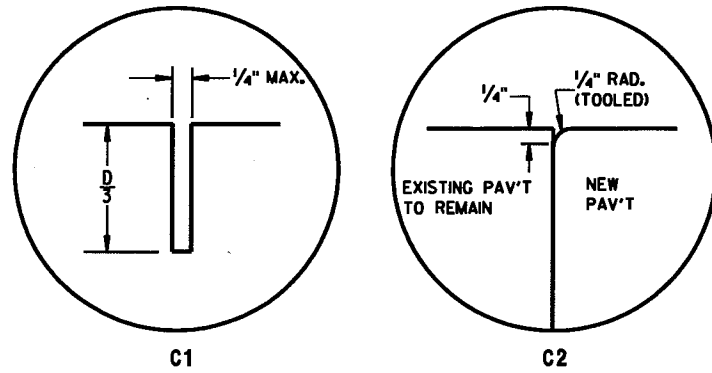
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S.D.D. 13 C 9-60

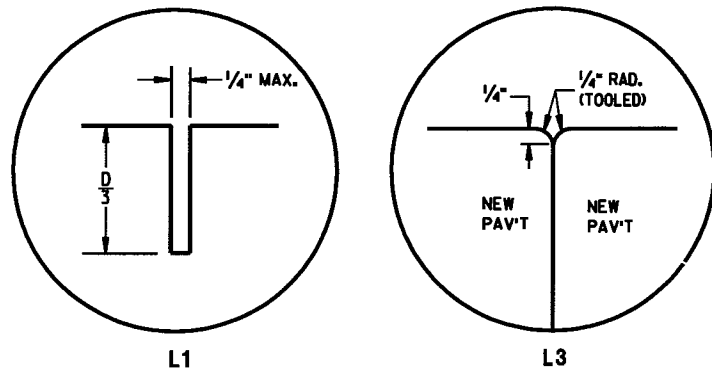
S.D.D. 13 C 9-60

CONCRETE PAVEMENT REPAIR

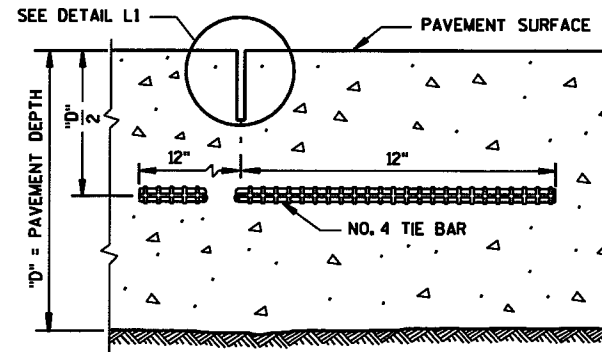
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



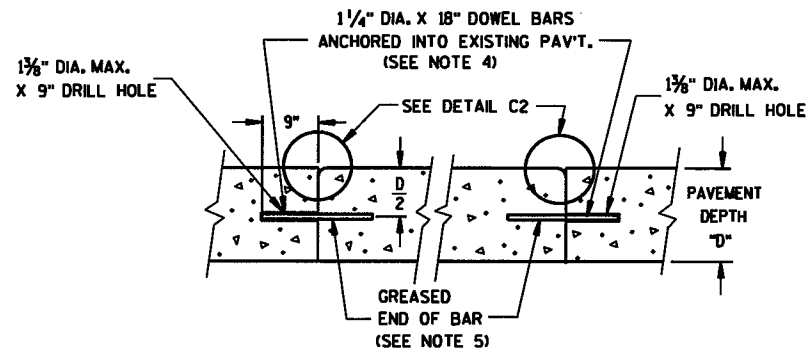
TRANSVERSE JOINTS



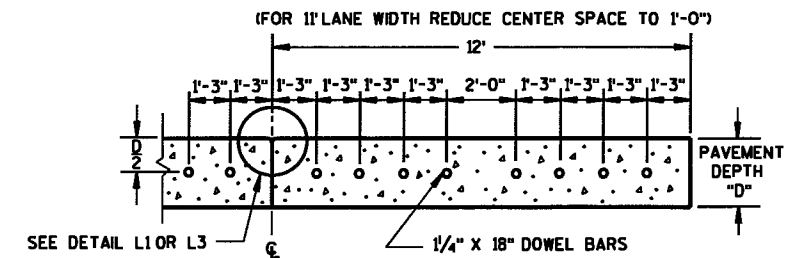
LONGITUDINAL JOINTS



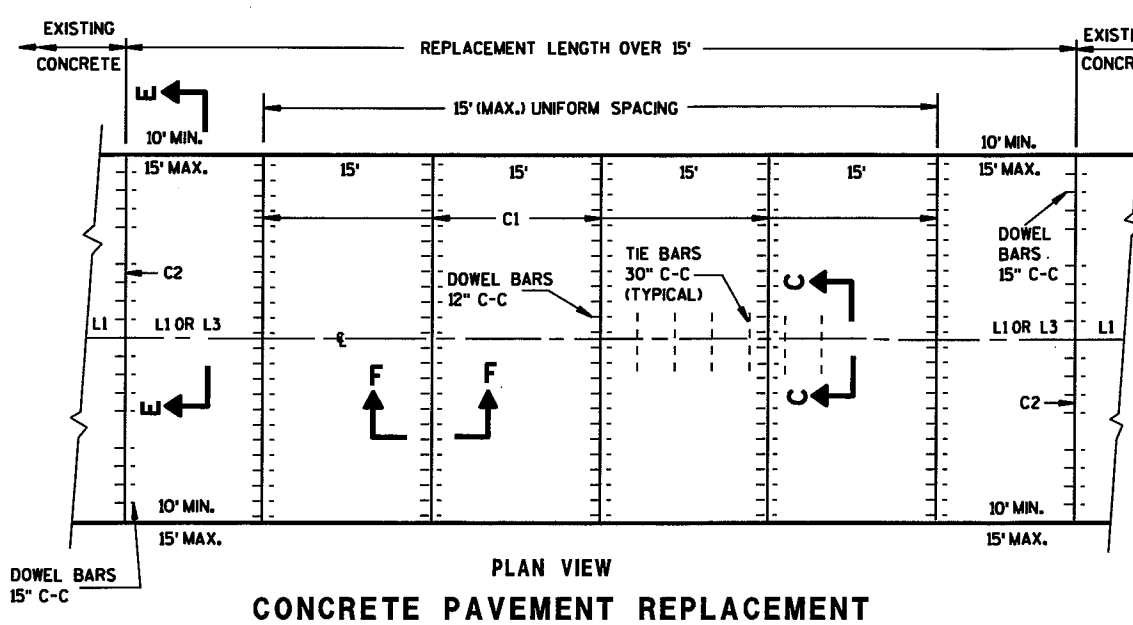
SECTION C-C  
SAWED JOINT



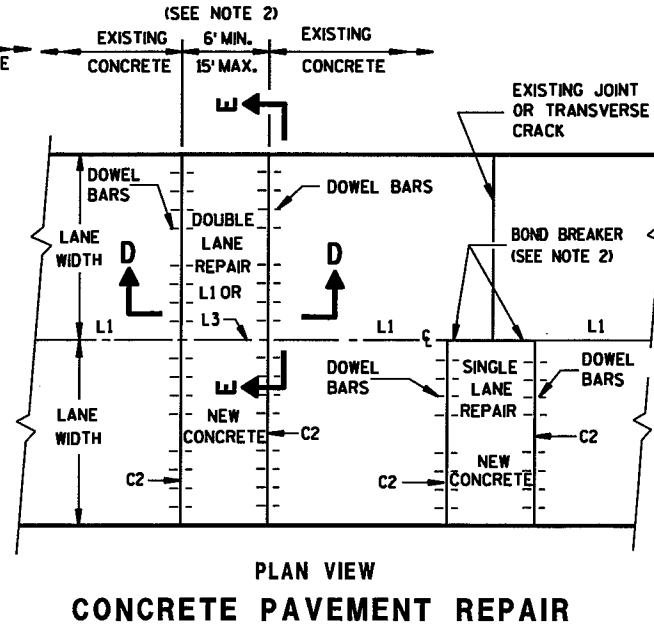
SECTION D-D



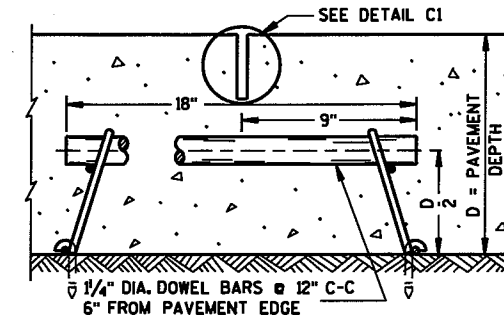
SECTION E-E  
DOWEL BAR SPACING ABUTTING  
EXISTING PAVEMENT



PLAN VIEW  
CONCRETE PAVEMENT REPLACEMENT



PLAN VIEW  
CONCRETE PAVEMENT REPAIR



SECTION F-F  
CONTRACTION JOINT

GENERAL NOTES

1. DOWEL BARS SHALL BE INSTALLED PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.
2. CONCRETE REPAIR AND CONCRETE REPLACEMENT SIZES AND LOCATIONS ARE SHOWN ELSEWHERE IN THE CONTRACT.
3. THE PREPARATION OF FOUNDATION FOR FULL DEPTH CONCRETE PAVEMENT REPAIR SHALL BE IN ACCORDANCE WITH SUBSECTION 211.4.4 OF THE STANDARD SPECIFICATIONS.
4. DOWEL BARS SHALL BE ANCHORED INTO DRILL HOLES WITH AN APPROVED EPOXY GROUT.
5. THE FREE END OF DOWEL BARS SHALL RECEIVE A THIN UNIFORM COATING OF BOND BREAKER.
6. JOINTS SHALL NOT BE SEALED OR FILLED.

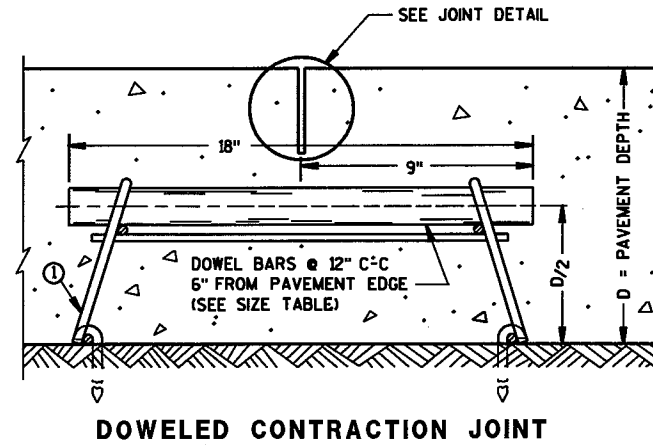
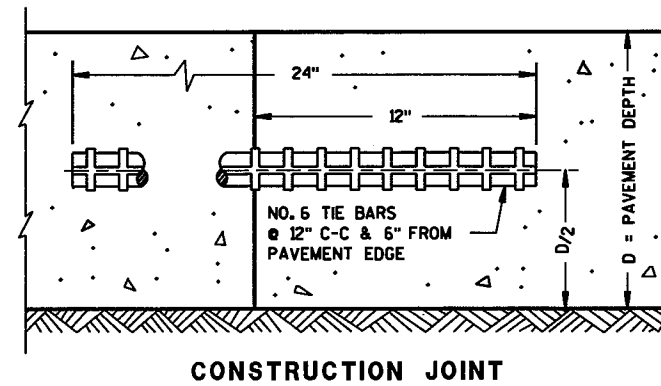
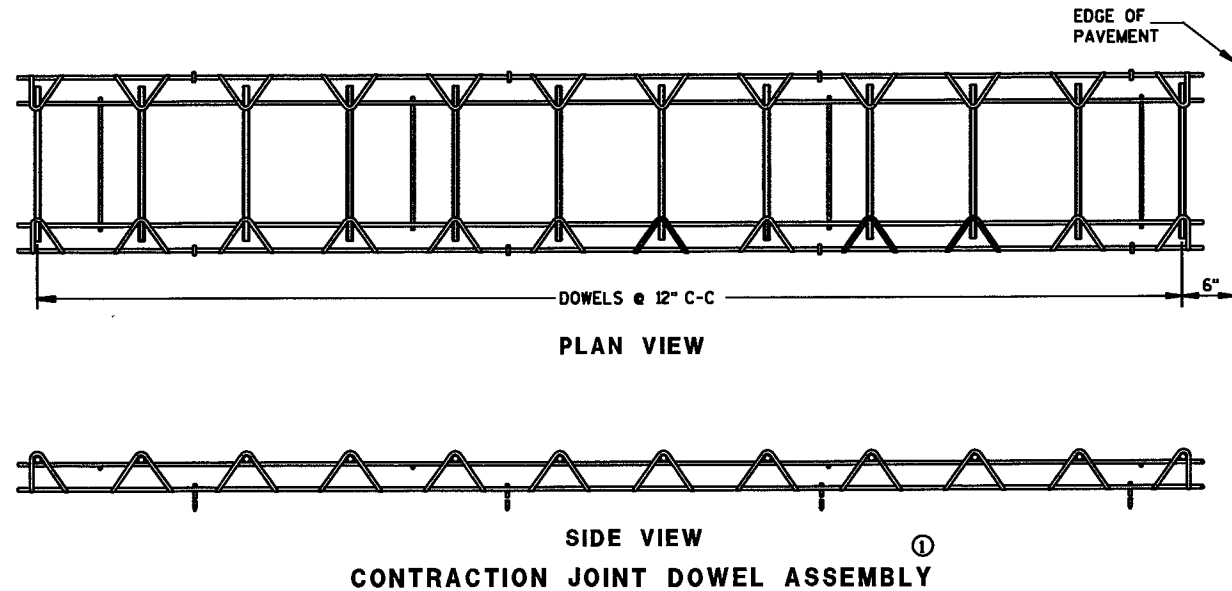
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S.D.D. 13 C 9-6B

S.D.D. 13 C 9-6B

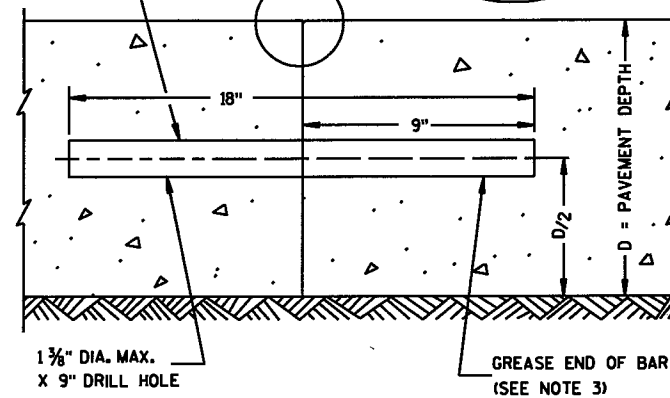
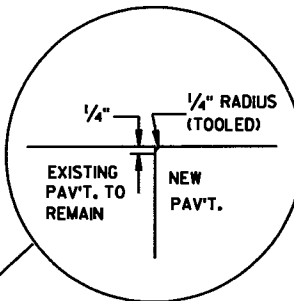
<b>CONCRETE PAVEMENT REPAIR &amp; DOWEL BAR INSTALLATION DETAILS</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/6/02 DATE	<i>Bill Duckert</i> PAVEMENT ENGINEER
FHWA	



PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

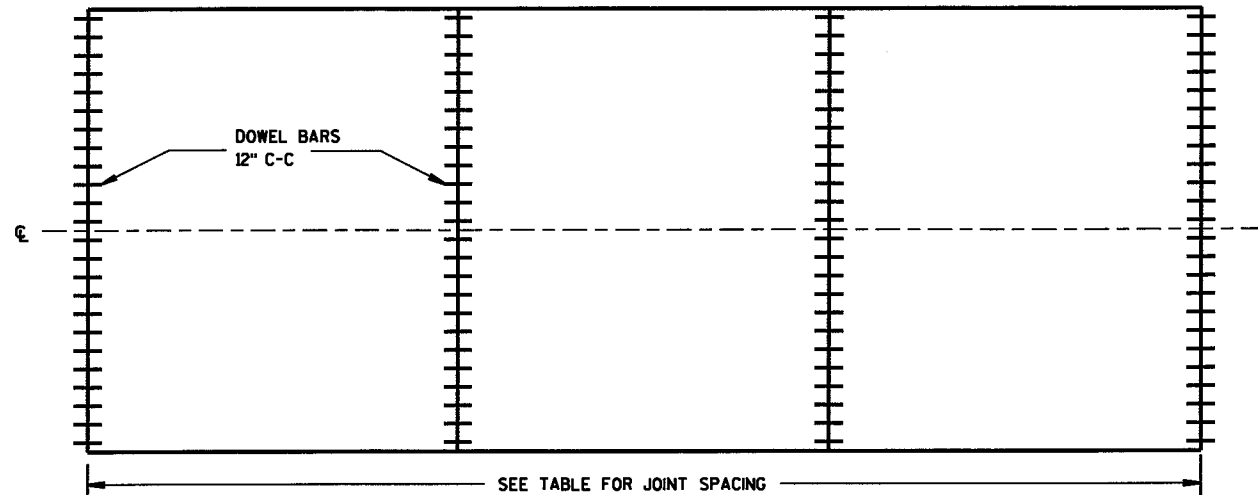
PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
6", 6 1/2"	1 1/4"	12'
7", 7 1/2"	1 1/4"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	18'

1 1/4" DIA. X 18" DOWEL BARS ANCHORED INTO EXISTING PAV'T. (SEE NOTE 2)



TRANSVERSE CONTRACTION JOINTS ABUTTING EXISTING PAVEMENT

④ DOWEL BAR DETAIL



**GENERAL NOTES**

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

**CONTRACTION JOINTS**

CONTRACTION JOINTS SHALL BE NORMAL TO THE CENTERLINE. THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS SHALL BE SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

CONTRACTION JOINTS SHALL NOT BE SEALED OR FILLED.

DOWEL BARS SHALL BE INSTALLED PARALLEL TO THE PAVEMENT CENTERLINE AND SURFACE.

**CONSTRUCTION JOINTS**

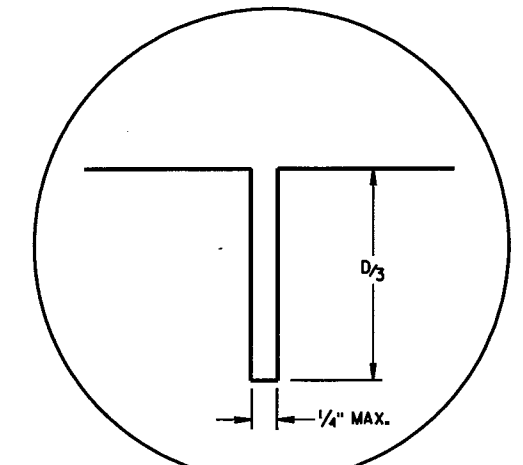
CONSTRUCTION JOINTS SHALL BE A MINIMUM OF 4 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGNED EITHER PARALLEL TO CONTRACTION JOINTS OR AT 90° TO THE CENTERLINE.

TIE BARS MAY BE INSERTED THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN PLACED.

- ① ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY MAY BE USED WHEN APPROVED BY THE ENGINEER. MECHANICAL DOWEL BAR IMPLANTERS MAY BE USED INSTEAD OF DOWEL ASSEMBLIES.
- ② DOWEL BARS SHALL BE ANCHORED INTO DRILL HOLES WITH AN APPROVED EPOXY GROUT.
- ③ THE FREE END OF DOWEL BARS SHALL RECEIVE A THIN UNIFORM COATING OF BOND BREAKING GREASE.
- ④ DOWEL BARS INSTALLED BY DRILLING SHALL BE SPACED 1'-3" ON CENTER. THE GROUPING OF DOWEL BARS SHALL BE CENTERED INSIDE THE SLAB BASED ON ALL THE FOLLOWING SITUATIONS:

BETWEEN THE EDGES OF PAVEMENTS WITHOUT LONGITUDINAL JOINTS OR BETWEEN THE EDGE OF PAVEMENT AND NEAREST LONGITUDINAL JOINT OR BETWEEN TWO ADJACENT LONGITUDINAL JOINTS.

THE CLEAR DISTANCE FROM THE EDGE OF PAVEMENT OR LONGITUDINAL JOINT TO THE NEAR EDGE OF DOWEL BAR NEAREST THAT EDGE OR JOINT SHALL BE A MINIMUM OF 6 INCHES AND A MAXIMUM OF 14 INCHES.



JOINT DETAIL

**URBAN DOWELED CONCRETE PAVEMENT**

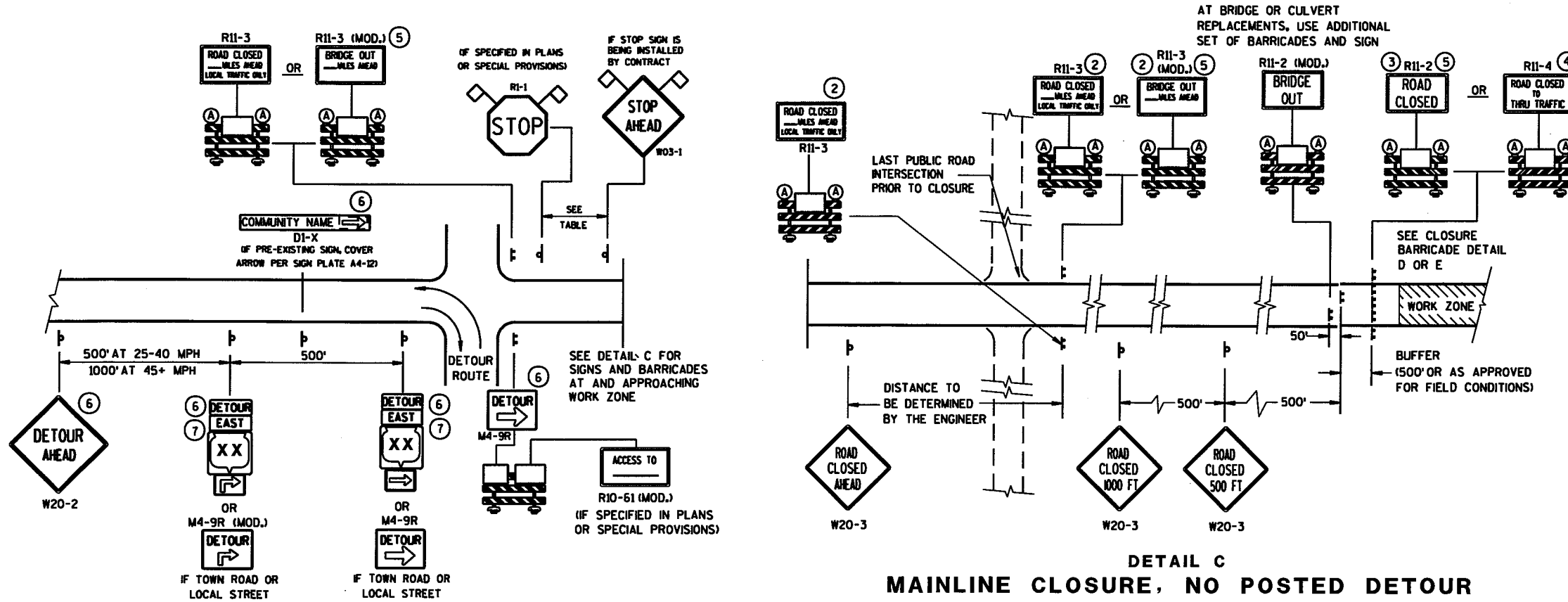
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
DATE 6/6/02  
Bill Dickett  
PAVEMENT ENGINEER

FHWA

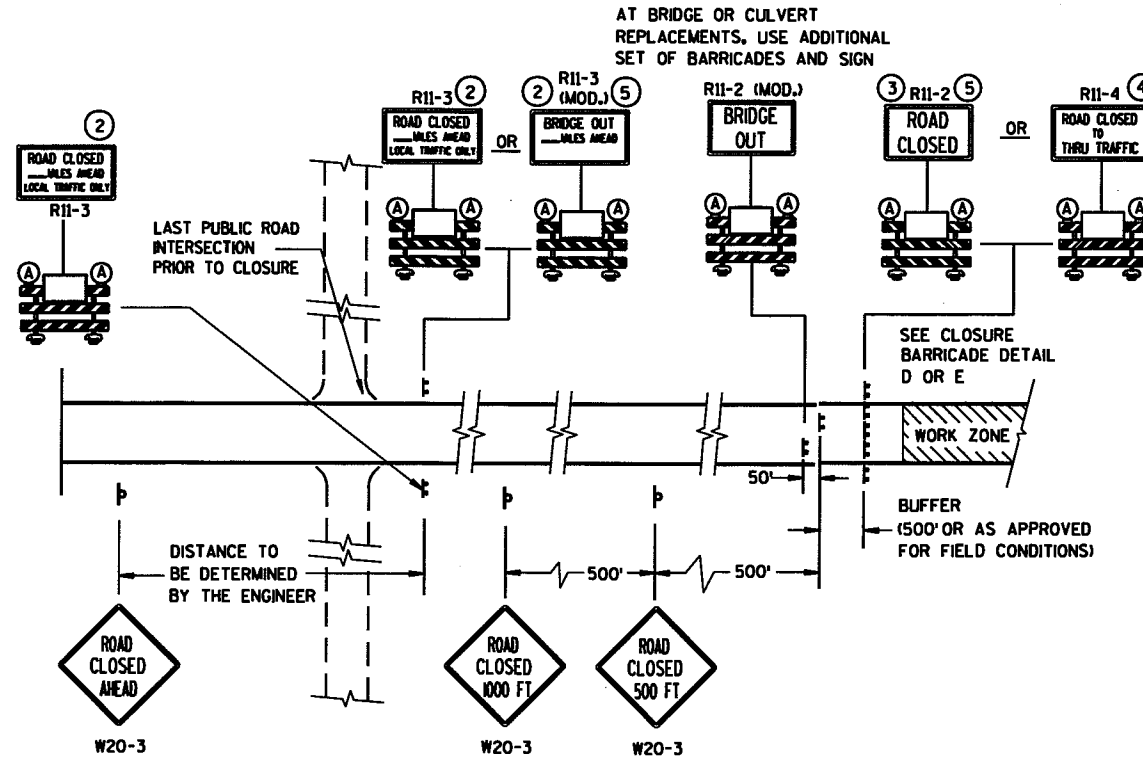
S.D.D. 13 C 13-4

S.D.D. 13 C 13-4



**DETAIL A  
MAINLINE CLOSURE WITH POSTED DETOUR**

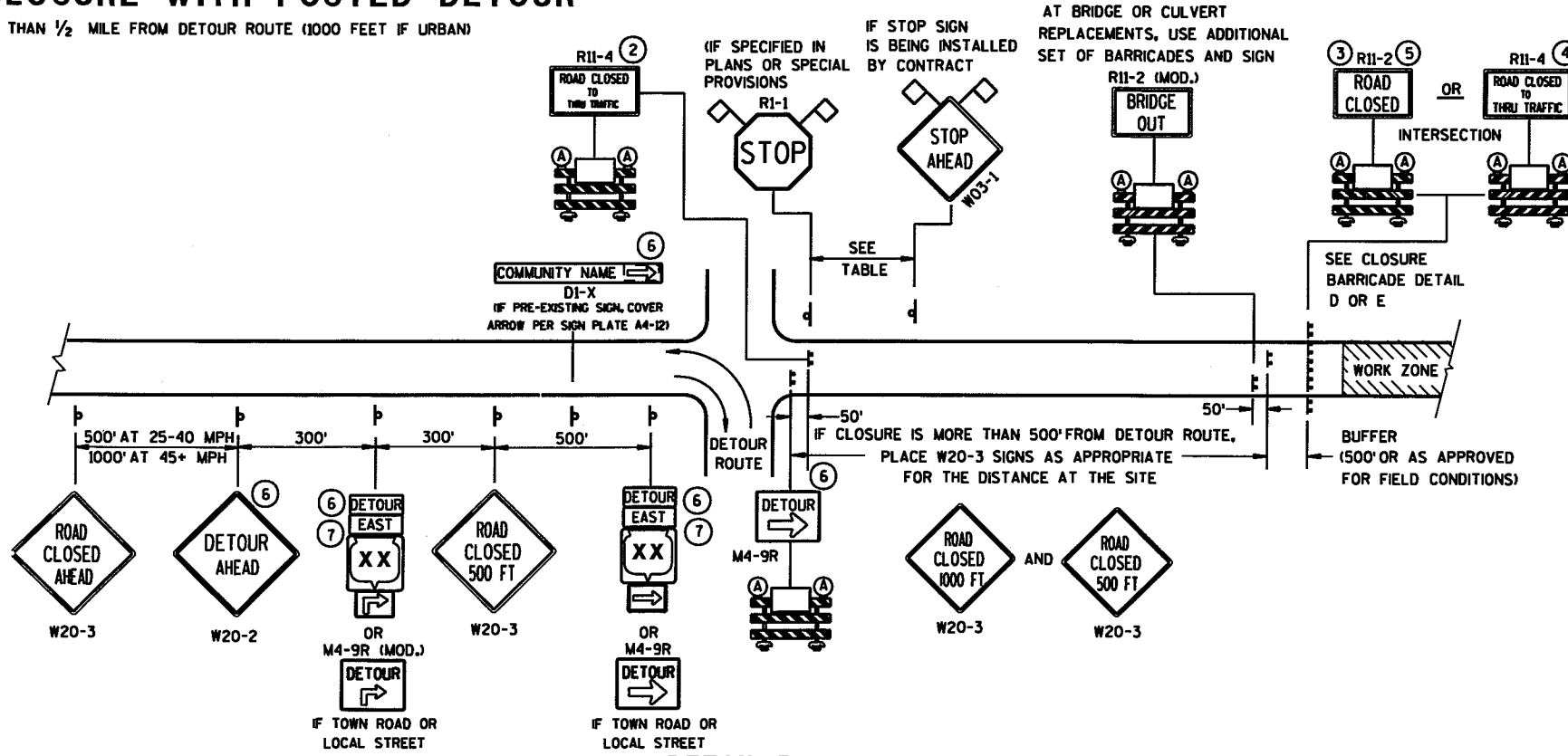
WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



**DETAIL C  
MAINLINE CLOSURE, NO POSTED DETOUR**

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-4b FOR GENERAL NOTES AND FOOTNOTES ① THROUGH ⑦



**DETAIL B  
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

**LEGEND**

- ▬ POST MOUNTED SIGN
- ▬ TYPE III BARRICADES
- Ⓐ TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- ▨ WORK ZONE
- DETOUR EAST: M4-8, M3-X
- MI-4, MI-5A, MI-6
- MOS-1, MO6-1
- ◇ FLAGS, 16" X 16" MIN., (ORANGE)

**BARRICADES AND SIGNS FOR MAINLINE CLOSURES**

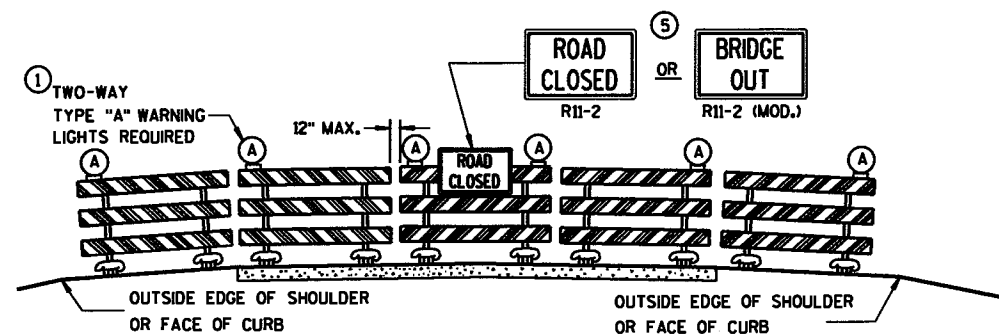
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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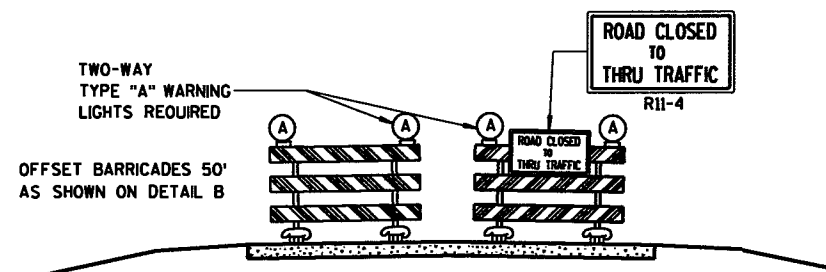
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S.D.D. 15 C 2-40

S.D.D. 15 C 2-40



**DETAIL D**  
**ROAD CLOSURE BARRICADE DETAIL**  
 APPROACH VIEW



**DETAIL E**  
**LANE CLOSURE BARRICADE DETAIL**  
 APPROACH VIEW

SEE SDD 15C2-4a FOR LEGEND

**GENERAL NOTES**

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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.

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.

BARRICADES 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.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3, R11-4, R10-61 AND R1-1 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

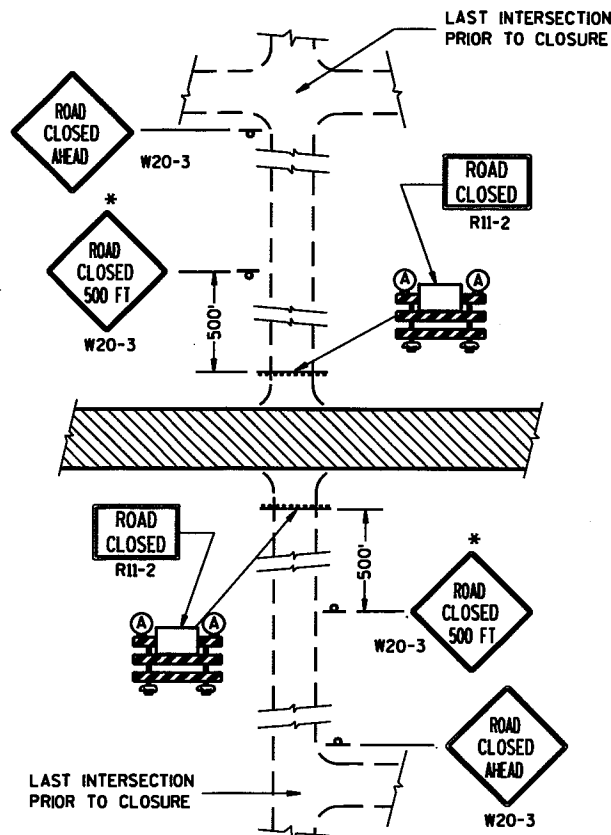
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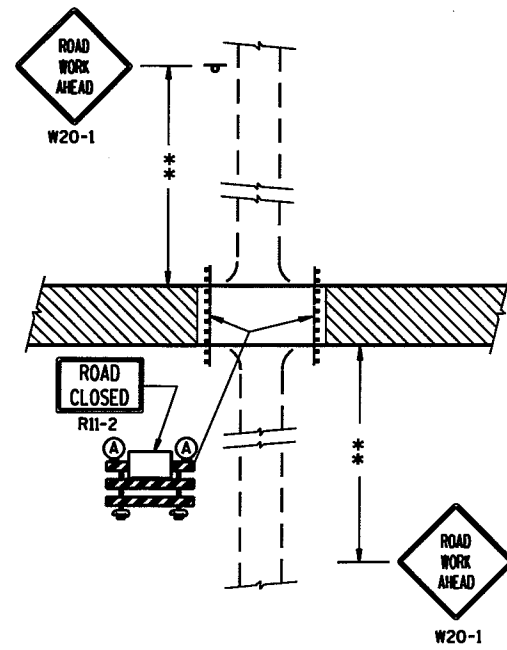
S.D.D. 15 C 2-4b

S.D.D. 15 C 2-4b

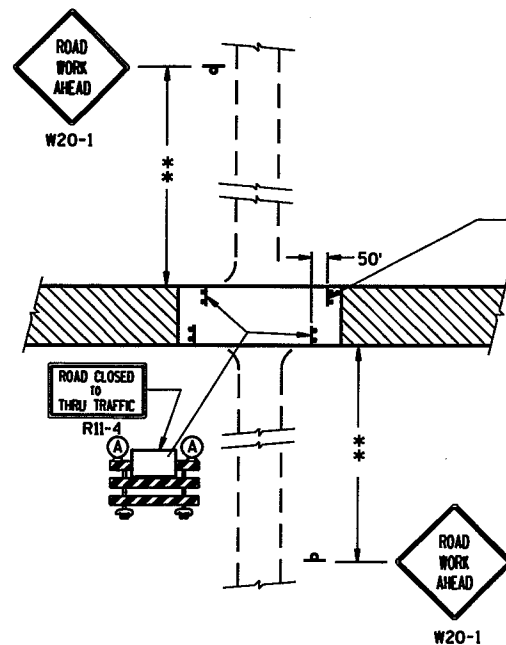
<b>BARRICADES AND SIGNS FOR MAINLINE CLOSURES</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 9/16/03 DATE	<i>Thomas N. Nattohn for</i> CHIEF SIGNS AND MARKING ENGINEER
FHWA	



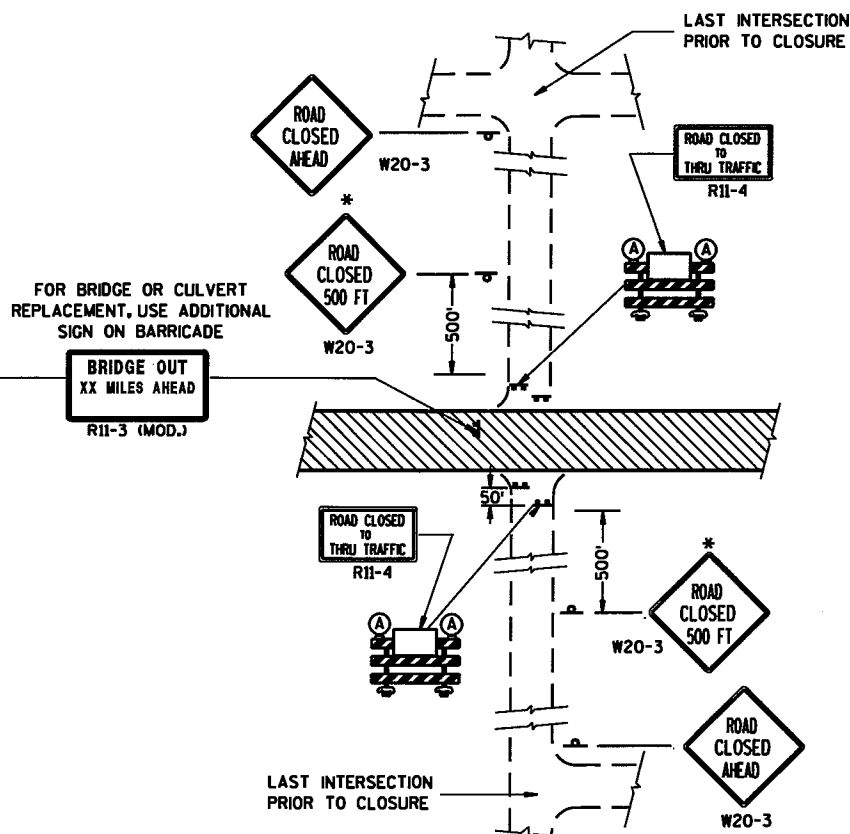
**DETAIL 1**  
(NO ACCESS TO PROJECT)



**DETAIL 2**  
(PUBLIC CROSS-TRAFFIC MAINTAINED,  
NO ACCESS TO PROJECT).



**DETAIL 3**  
(PUBLIC CROSS-TRAFFIC MAINTAINED, CONTRACTOR,  
LOCAL BUSINESS AND RESIDENT ACCESS).



**DETAIL 4**  
(CONTRACTOR, LOCAL BUSINESS AND  
RESIDENT ACCESS TO PROJECT)

**GENERAL NOTES**

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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.

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.

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.

BARRICADES 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.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3 AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3 AND R11-4 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:  
R11-2 SHALL BE 48" X 30".  
R11-4 AND R11-3 SHALL BE 60" X 30".

\*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

\*\*500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

**LEGEND**

- ⊥ POST MOUNTED WARNING SIGN
- ▬ TYPE III BARRICADES
- Ⓐ TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- ▨ WORK AREA

**BARRICADES AND SIGNS  
FOR  
SIDEROAD CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

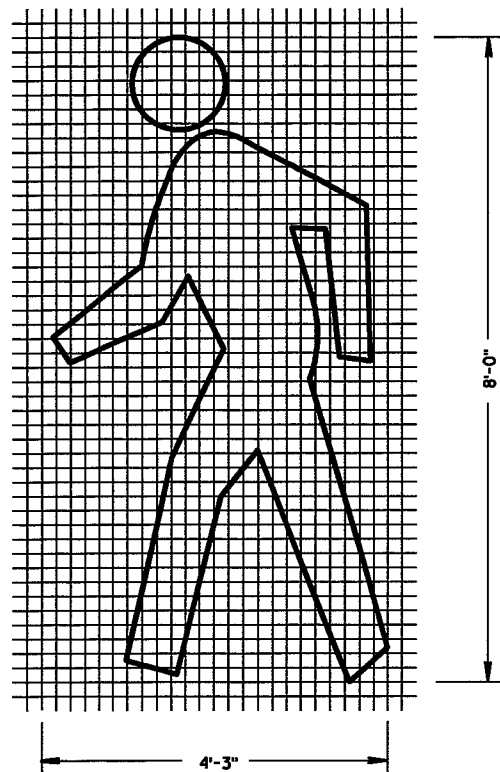
9-16-03

DATE

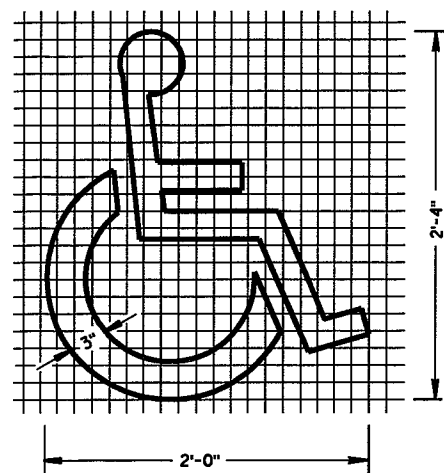
FHWA

*Thomas N. Nottbohm for*  
CHIEF SIGNS AND MARKING ENGINEER

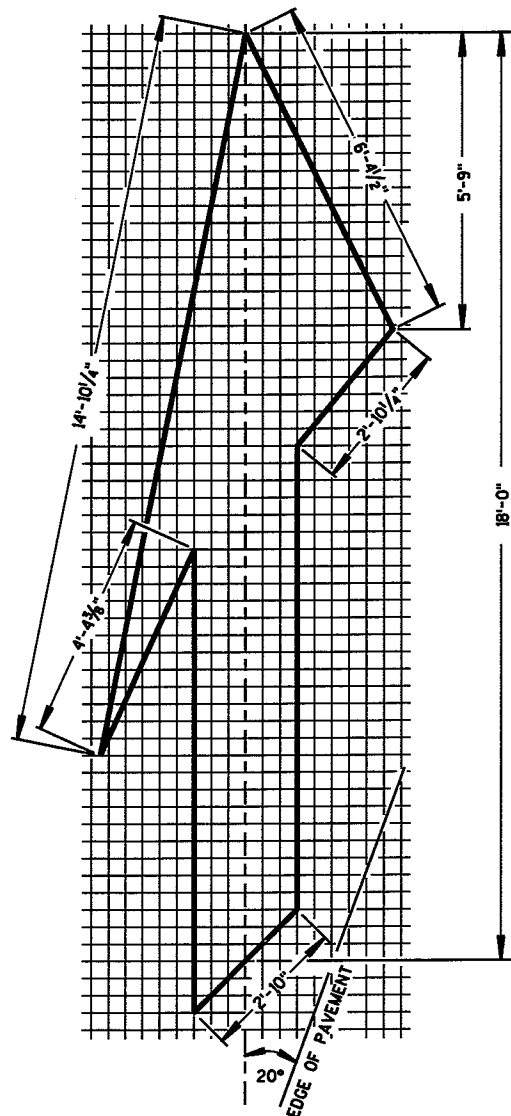




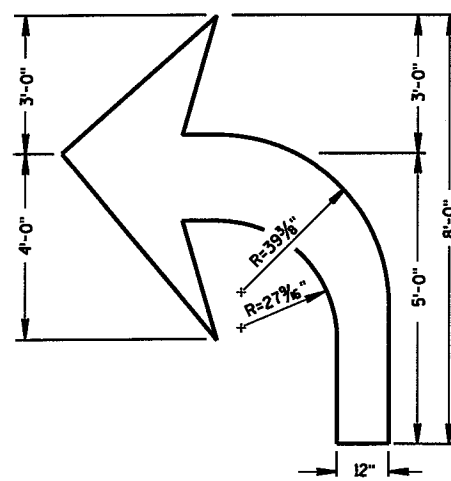
PEDESTRIAN SYMBOL



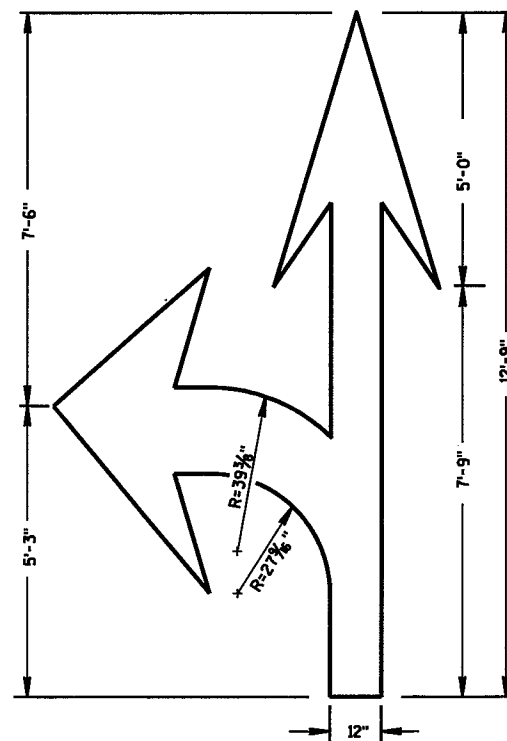
2'-0"



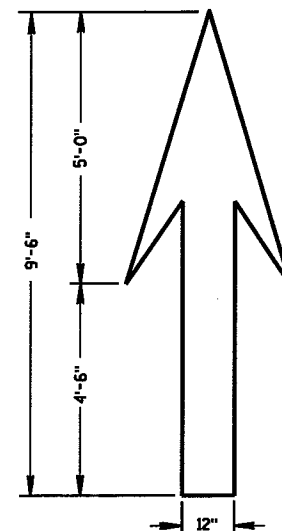
TYPE 5 LANE DROP ARROW



TYPE 2



TYPE 3



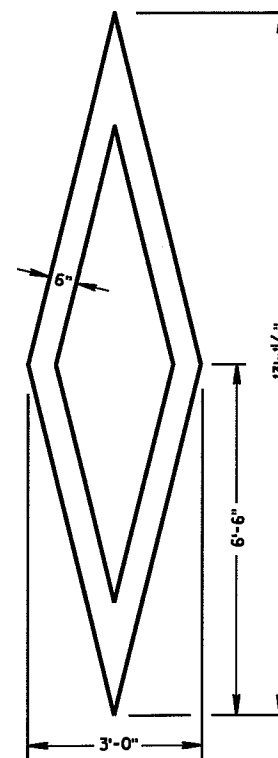
TYPE 1

GENERAL NOTES

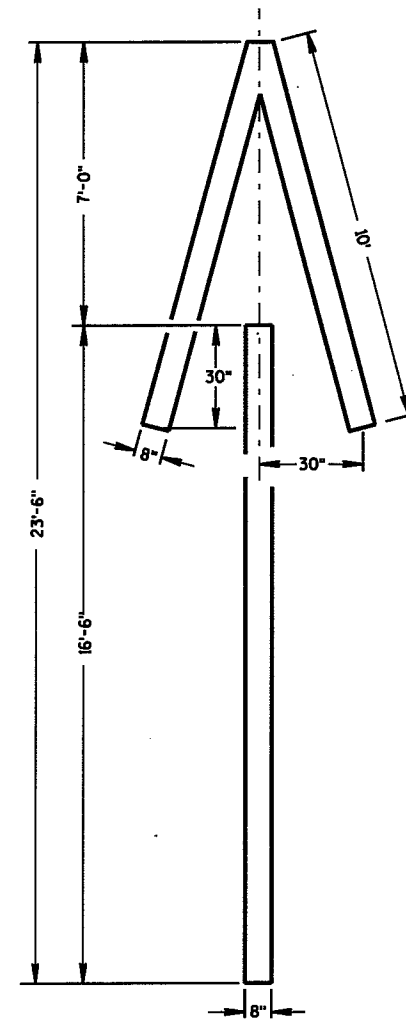
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

ALL LETTERS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED.

A DETAILED DRAWING OF THE HANDICAPPED PARKING SYMBOL IS ILLUSTRATED IN THE "STANDARD HIGHWAY SIGNS MANUAL" BY THE FEDERAL HIGHWAY ADMINISTRATION.



PREFERENTIAL LANE SYMBOL



TYPE 4

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
2/22/05  
DATE

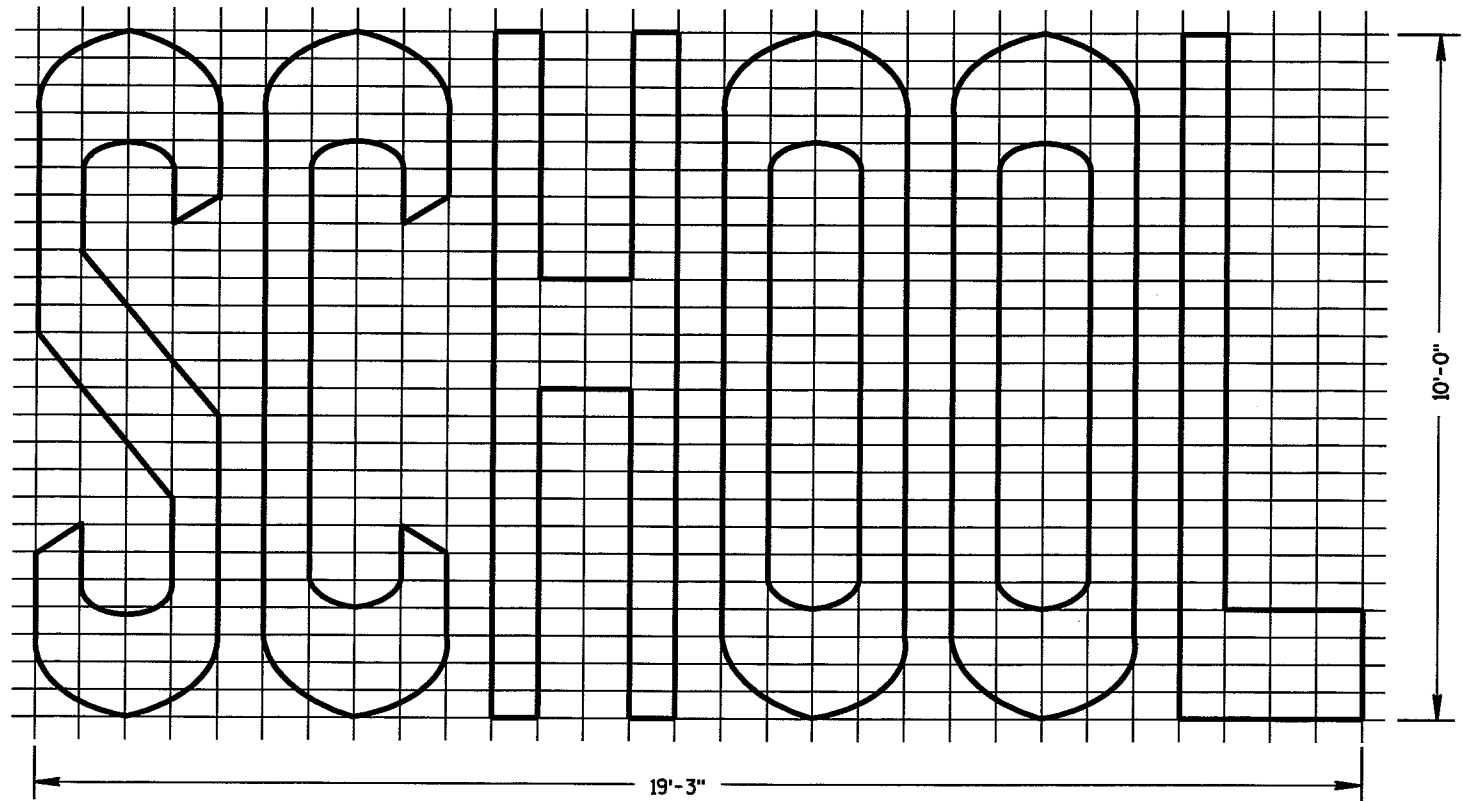
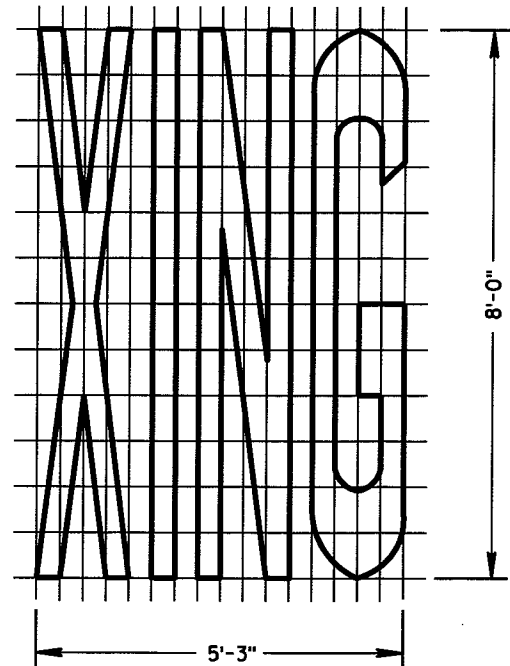
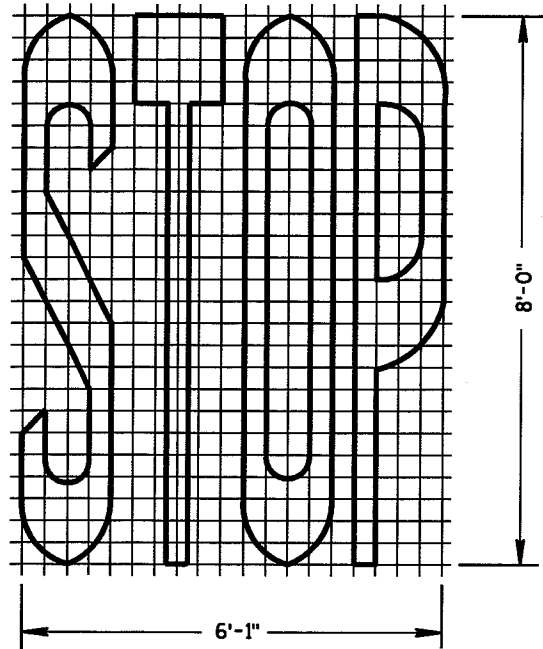
*Thomas N. Notbohm*  
STATE TRAFFIC ENGINEER OF DESIGN

FHWA

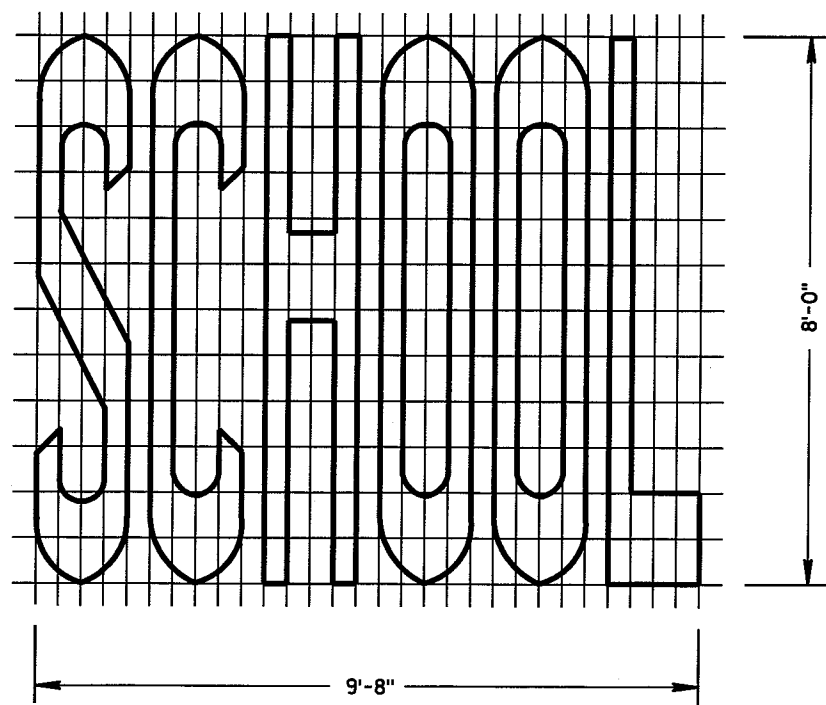
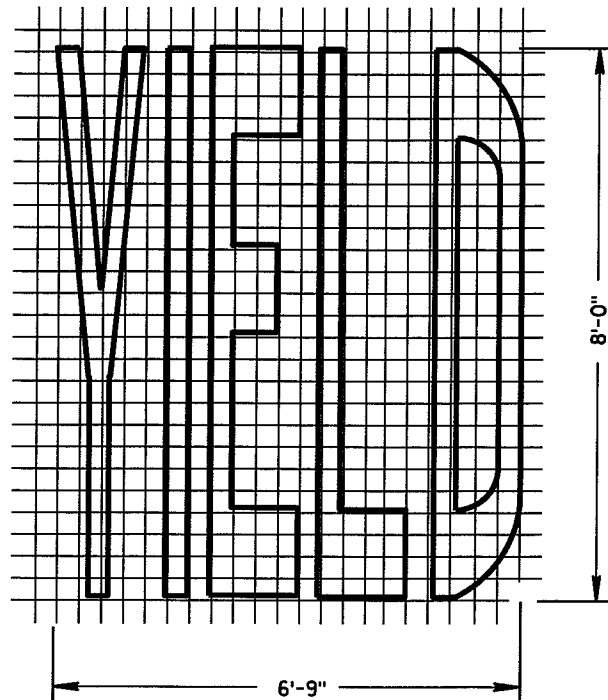
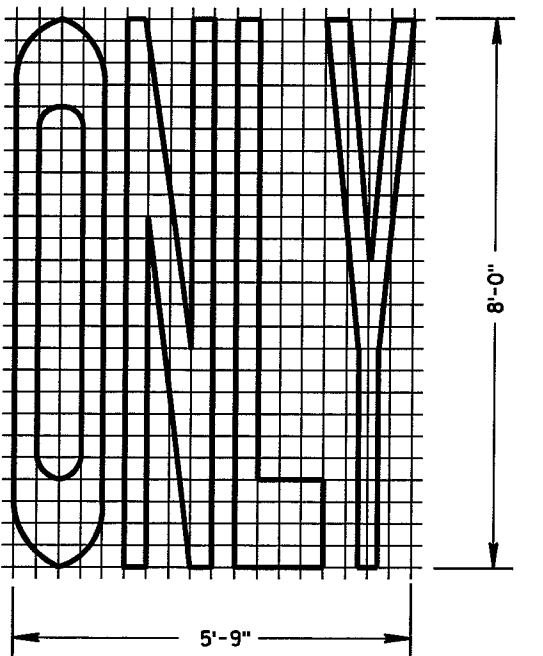
**GENERAL NOTES**

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.

ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED.



**TWO-LANE**



**SINGLE-LANE**

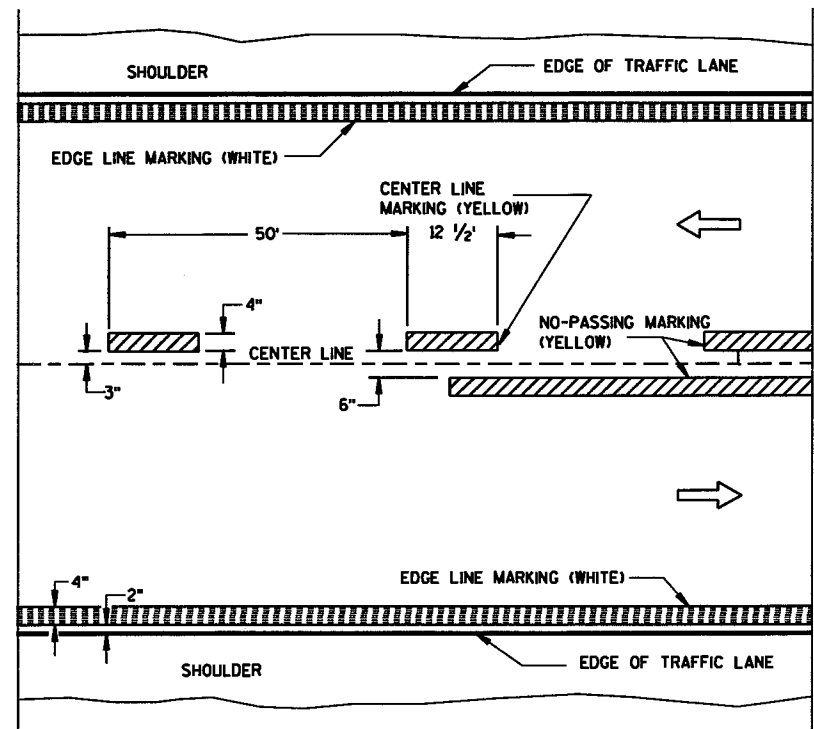
6

6

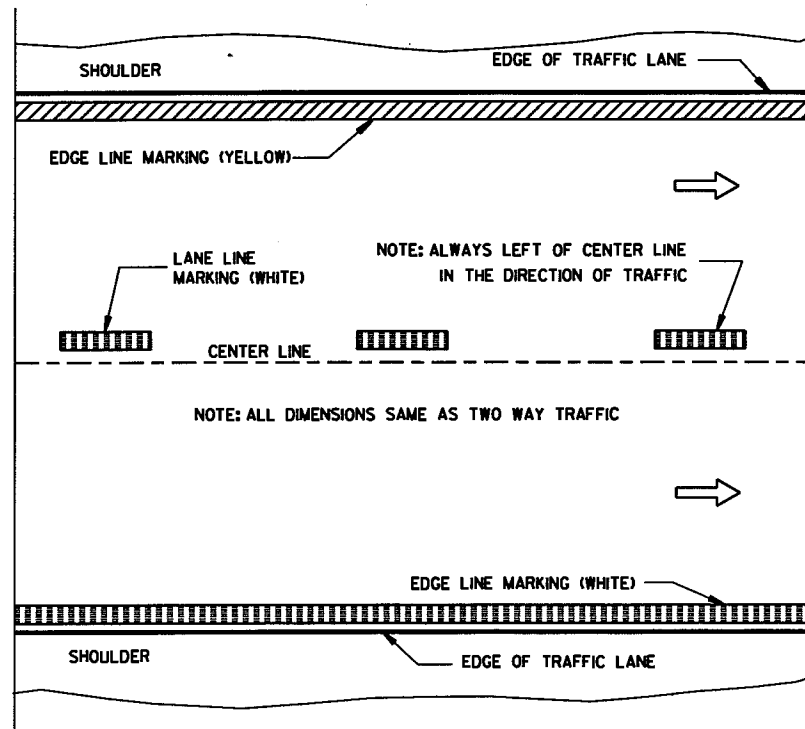
S.D.D. 15 C 7-8b

S.D.D. 15 C 7-8b

<b>PAVEMENT MARKING WORDS</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-22-05 DATE	<i>Thomas N. Notbohm</i> STATE TRAFFIC ENGINEER OF DESIGN
FHWA	

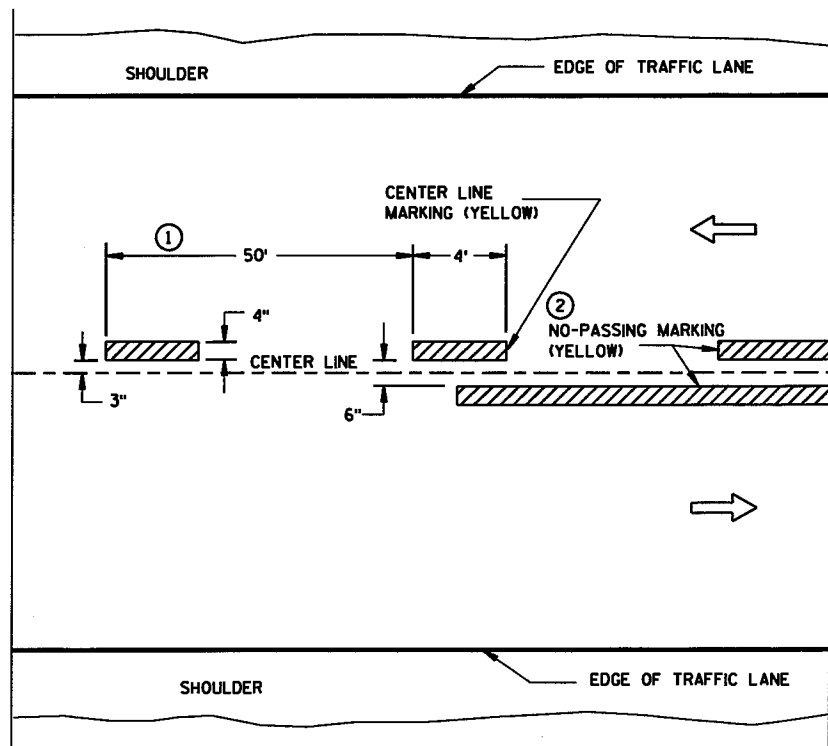


TWO WAY TRAFFIC

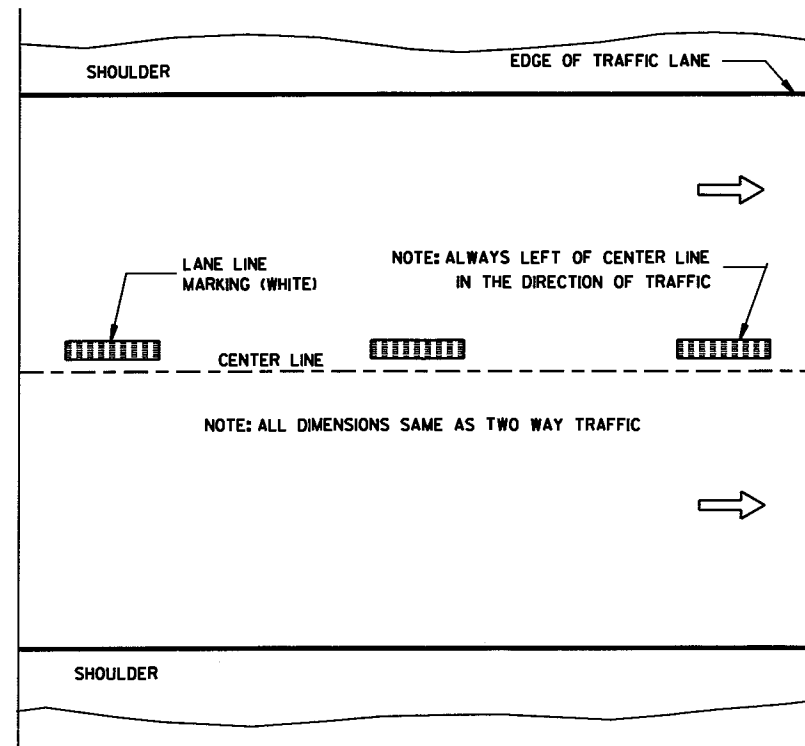


ONE WAY TRAFFIC

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.

NOTE

ARROW SYMBOL ( → ) SHOWS DIRECTION OF TRAVEL

6

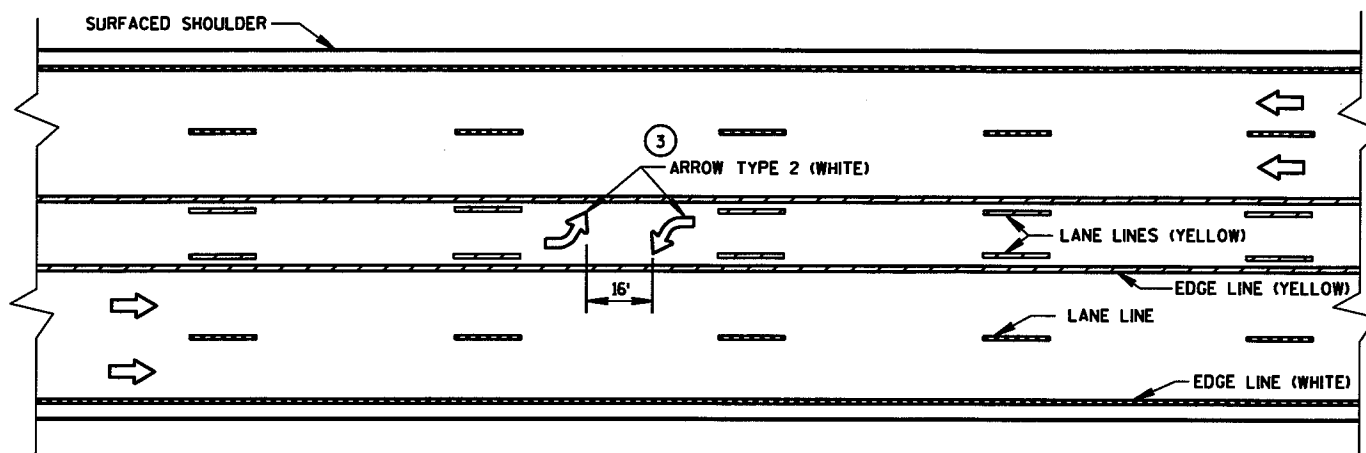
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S.D.D. 15 C 8-90

S.D.D. 15 C 8-90

PAVEMENT MARKING (MAINLINE)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/6/00 DATE	<i>Clinton J. Spang</i> CHIEF SIGNS AND MARKING ENGINEER
FHWA	

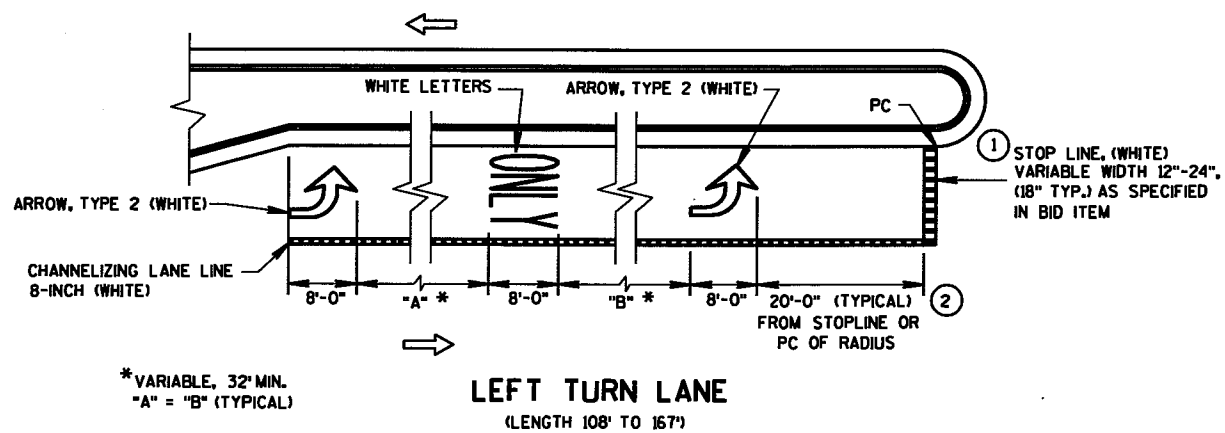
NOTE:  
ARROW SYMBOL (→)  
SHOWS DIRECTION OF TRAVEL



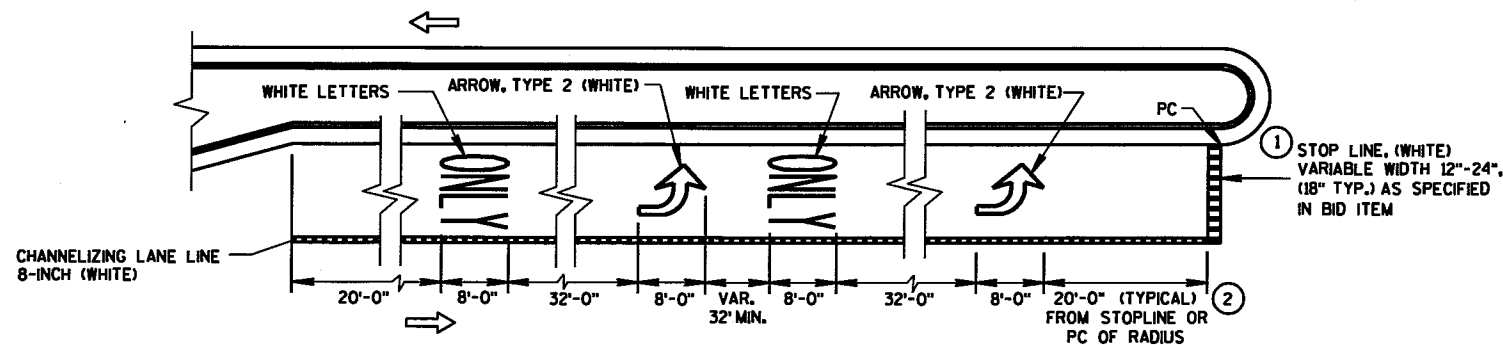
TWO WAY LEFT TURN LANE

NOTES:

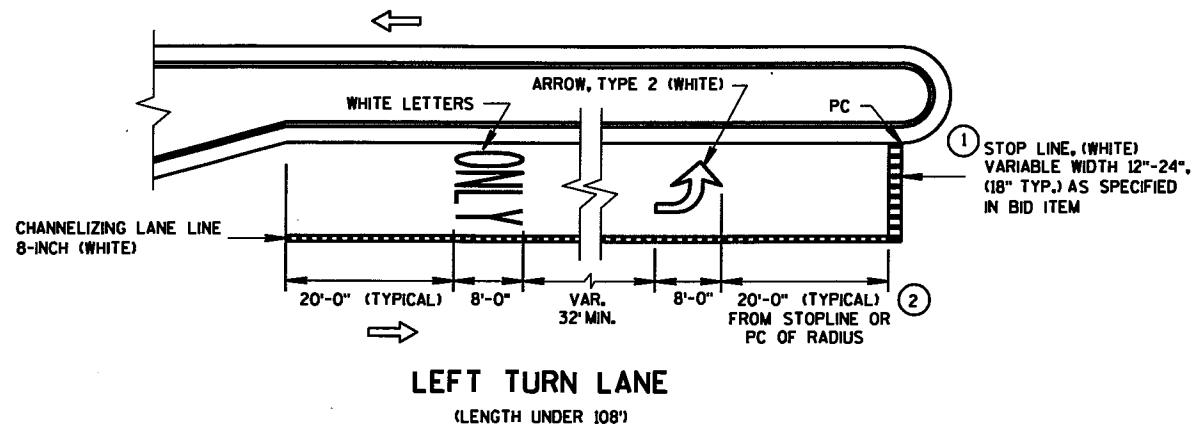
- ① STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- ② DISTANCE MAY BE ADJUSTED TO ACCOMMODATE SHORT LEFT TURN LANES, AS APPROVED BY THE ENGINEER.
- ③ A SET OF ARROWS IS REQUIRED EVERY 400' OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.



LEFT TURN LANE  
(LENGTH 108' TO 167')



LEFT TURN LANE  
(LENGTH OVER 167')



LEFT TURN LANE  
(LENGTH UNDER 108')

6

6

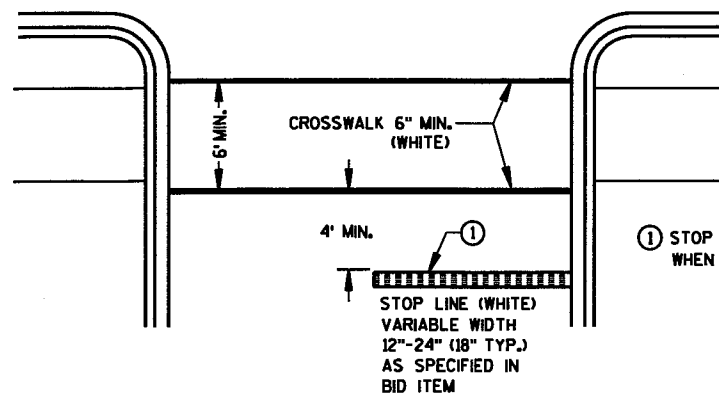
S.D.D. 15 C 8-10D

S.D.D. 15 C 8-10D

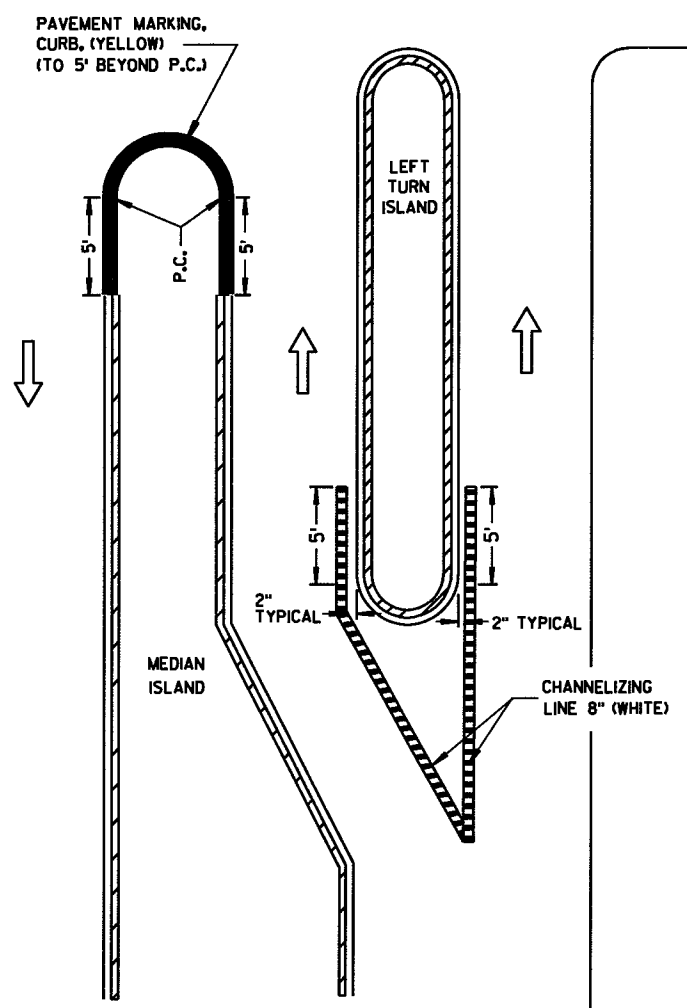
PAVEMENT MARKING  
(LEFT TURN LANE)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

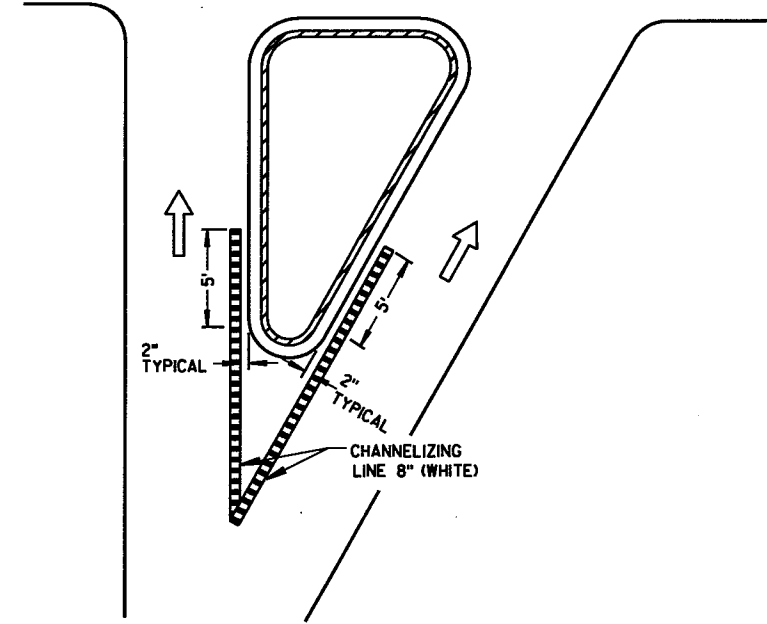
APPROVED  
8/1/05 /S/ Thomas N. Notbohm  
DATE STATE TRAFFIC ENGINEER OF DESIGN  
FHWA



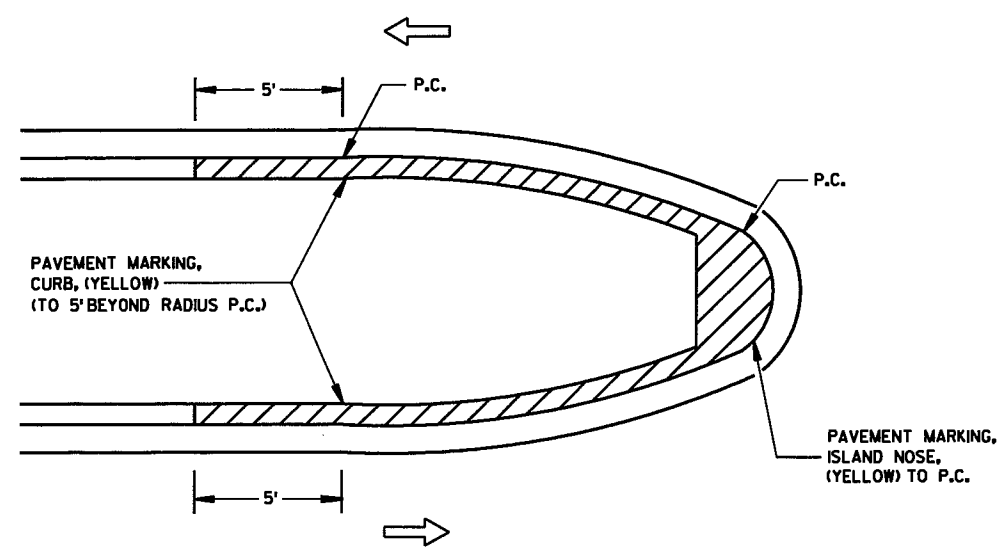
**STOP LINE AND CROSSWALK**



**LEFT TURN & MEDIAN ISLAND**



**RIGHT TURN ISLAND**



**MEDIAN ISLAND WITH SLOPED NOSE**

NOTE:  
ARROW SYMBOL (⇨)  
SHOWS DIRECTION OF TRAVEL

<b>PAVEMENT MARKING (ISLANDS, STOP LINE &amp; CROSS WALK)</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 1-16-03 DATE	<i>Deborah L. Koppel</i> CHIEF SIGNS AND MARKING ENGINEER
FHWA	

6

6

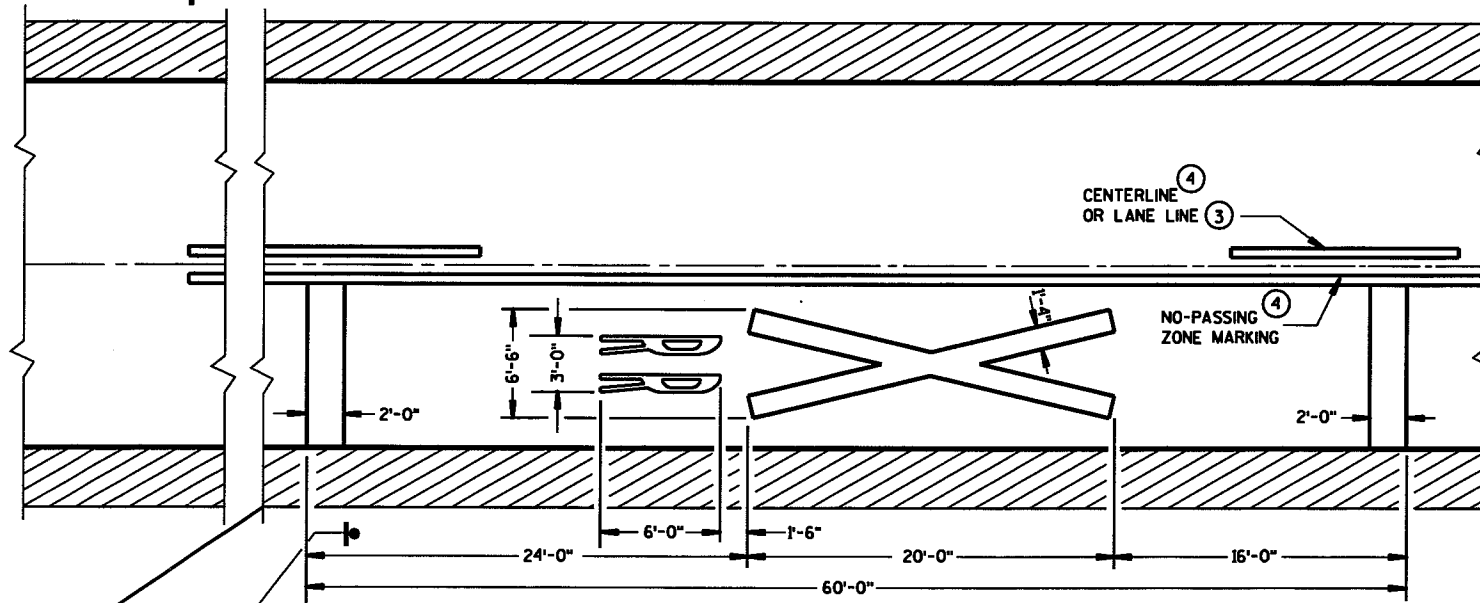
S.D.D. 15 C 8-10e

S.D.D. 15 C 8-10e



W14-3

500'

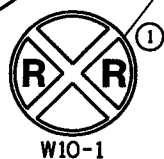


CENTERLINE OR LANE LINE (3)

NO-PASSING ZONE MARKING (4)

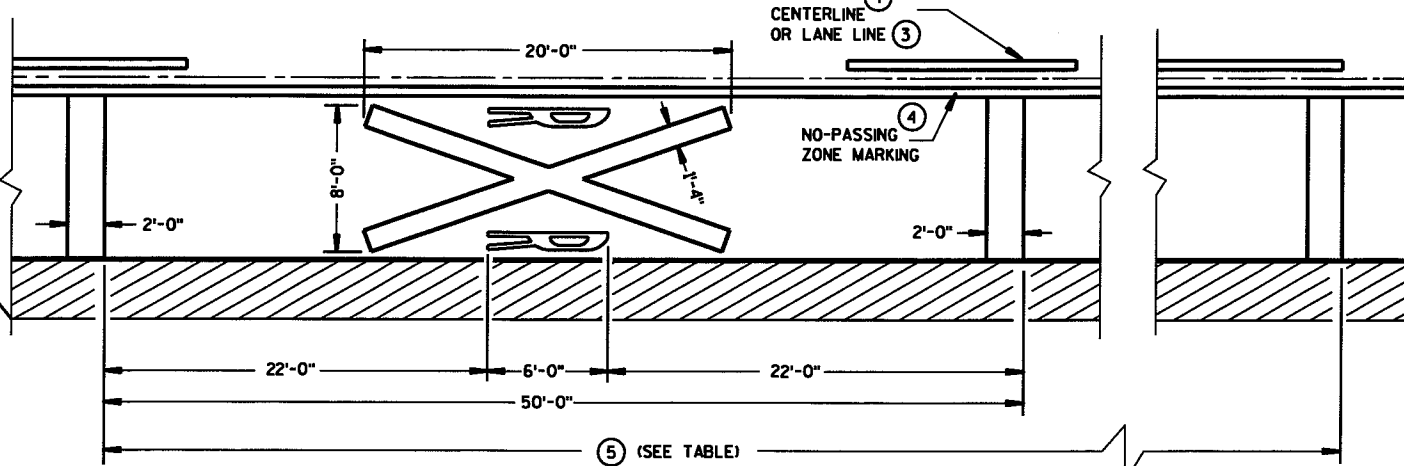
(5) (SEE TABLE)

**PREFERRED PAVEMENT MARKING** (3)



W10-1

MATCH LINE

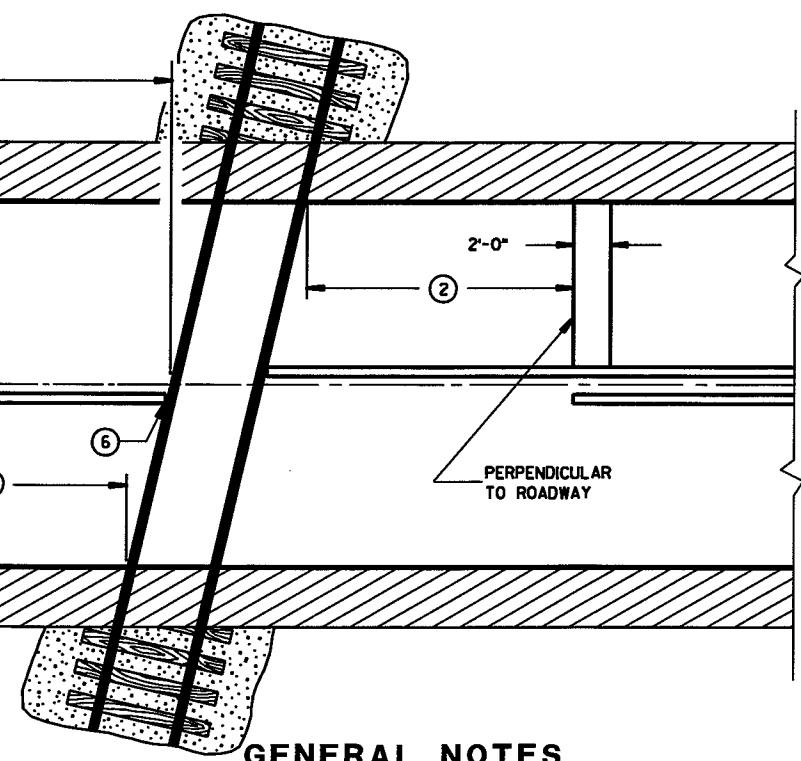


CENTERLINE OR LANE LINE (3)

NO-PASSING ZONE MARKING (4)

(5) (SEE TABLE)

**ALTERNATE PAVEMENT MARKING** (3)



PERPENDICULAR TO ROADWAY

**GENERAL NOTES**

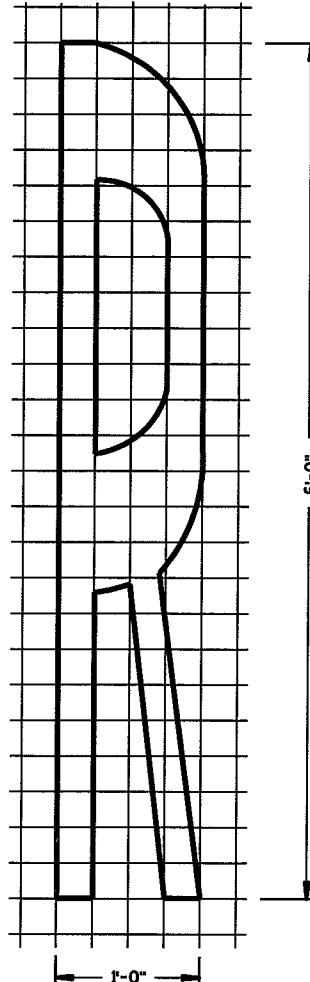
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A THREE-LANE ROADWAY SHOULD BE MARKED WITH A CENTERLINE FOR TWO-LANE APPROACH OPERATION ON THE APPROACH TO A CROSSING.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE. ALL LETTERS AND SYMBOLS SHALL BE IN CONFORMANCE WITH THE "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" (ADOPTED BY THE FEDERAL HIGHWAY ADMINISTRATION).

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

- ① A PORTION OF THE PAVEMENT MARKING SYMBOL SHOULD BE DIRECTLY OPPOSITE THE ADVANCE WARNING SIGN (W10-1).
- ② MINIMUM 8' FROM ANY RAILROAD WARNING DEVICES (SIGNALS, GATES, ETC.) OR 25' FROM THE NEAREST RAIL, WHICHEVER DISTANCE IS GREATER.
- ③ REFLECTIVE WHITE.
- ④ REFLECTIVE YELLOW 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.
- ⑤ TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- ⑥ FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.



Posted Speed (M.P.H.)	Minimum Dimension (Feet)
25	150
30	200
35	250
40	300
45	400
50	550
55	750
60	1000
65	1000

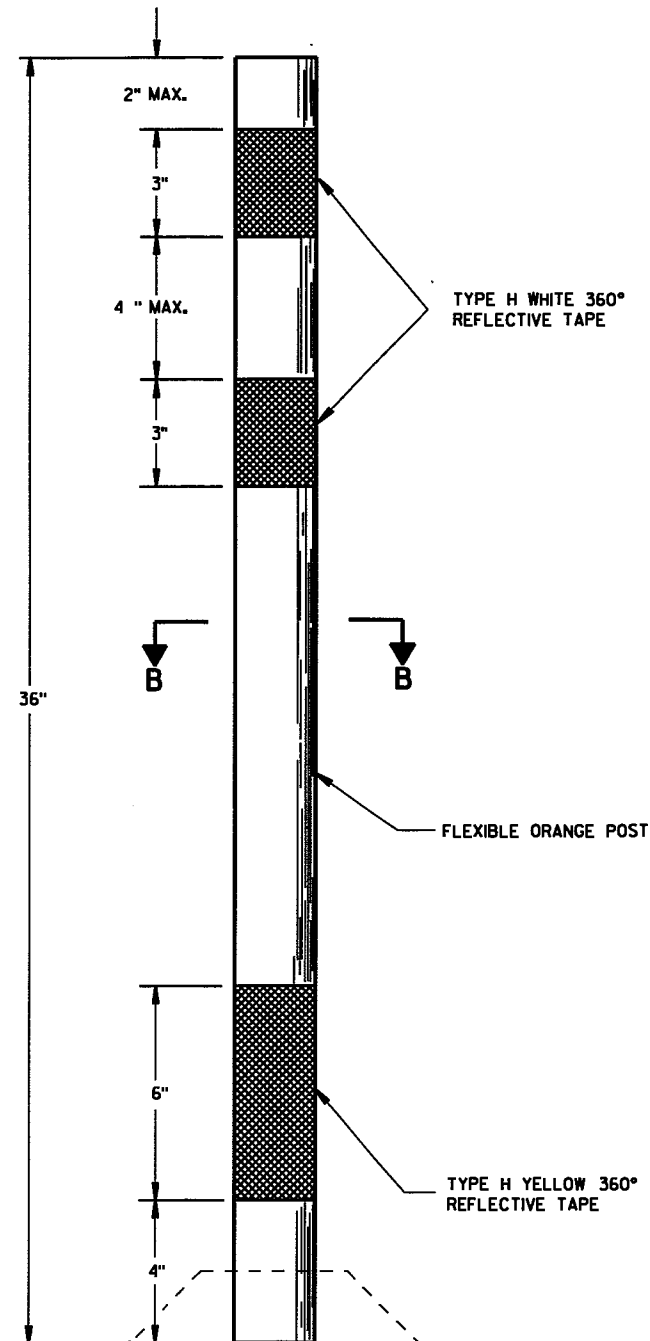
**SIGNING AND PAVEMENT MARKING  
DETAILS FOR RAILROAD-HIGHWAY  
GRADE CROSSINGS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

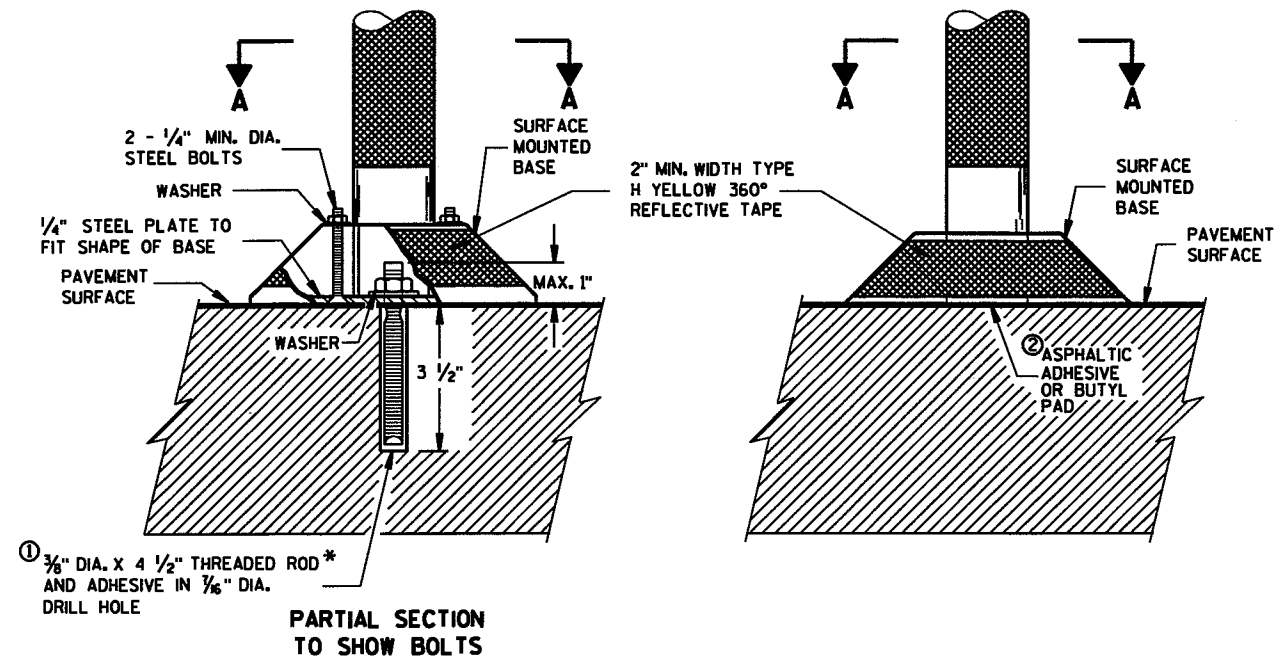
APPROVED  
6/7/06 /S/ Thomas N. Notbohm  
DATE STATE TRAFFIC ENGINEER OF DESIGN  
FHWA

S.D.D. 15 C 9-70

S.D.D. 15 C 9-70

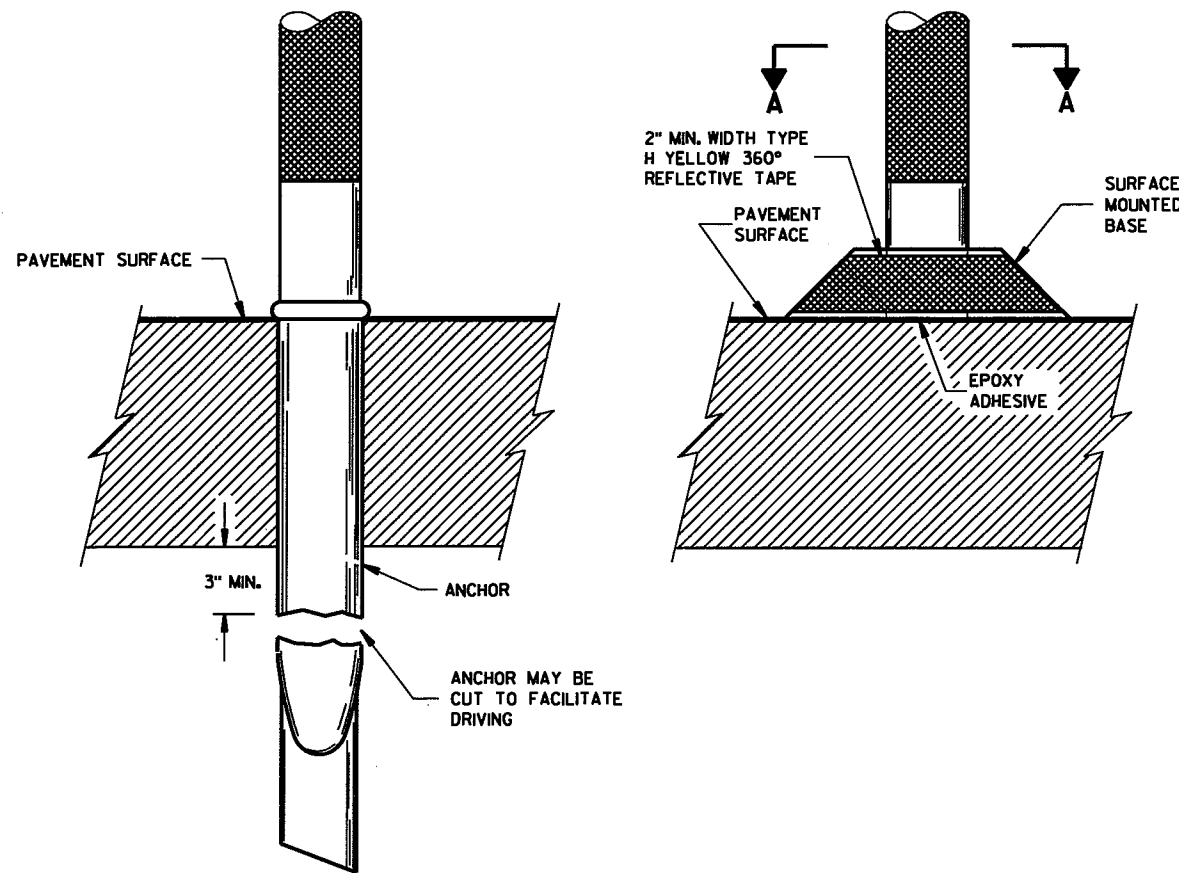


FLEXIBLE TUBULAR MARKER POST



PARTIAL SECTION TO SHOW BOLTS

POST BASES ON NEW OR EXISTING PAVEMENT



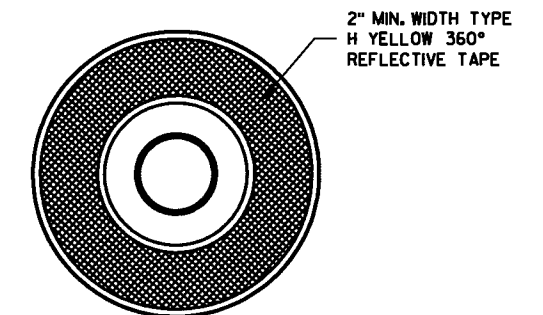
POST ANCHOR AND BASE ON PAVEMENT WHICH WILL BE REMOVED

GENERAL NOTES

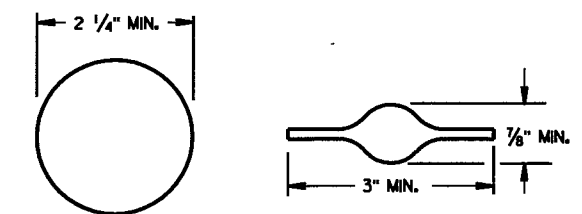
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.

- ① THREADED ROD SHALL BE MACHINED DOWN TO 0.280 INCH DIA. 1 1/4 INCHES FROM THE TOP.
- ② THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



SECTION A-A  
SURFACE MOUNTED BASE



SECTION B-B  
ALTERNATIVE SHAPES

FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

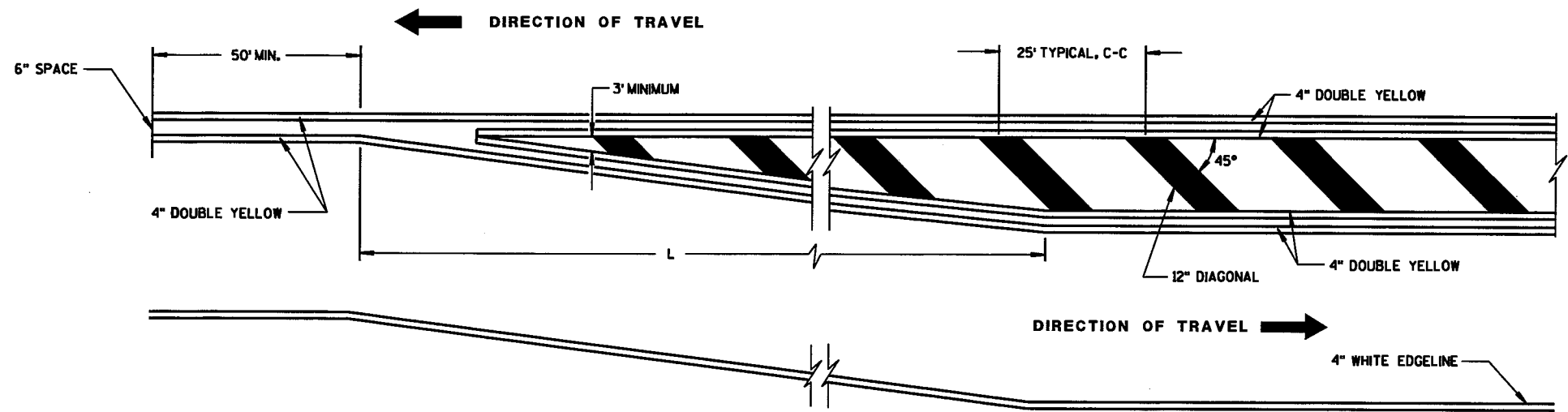
APPROVED  
2/17/94  
DATE

*Peter F. Busch*  
STATE TRAFFIC ENGINEER FOR HWYS

FHWA

S.D.D. 15 C 11-5

S.D.D. 15 C 11-5



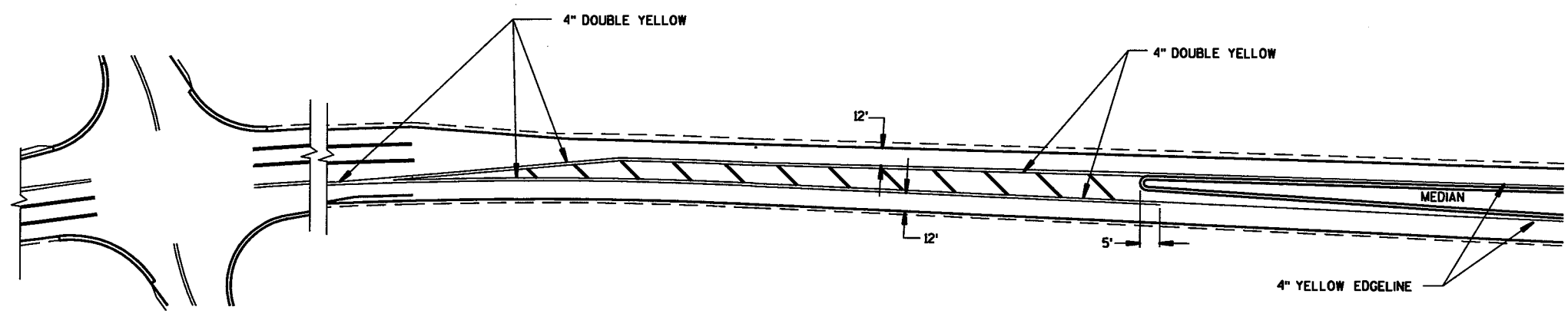
**MEDIAN ISLAND DETAIL**

**GENERAL NOTE**

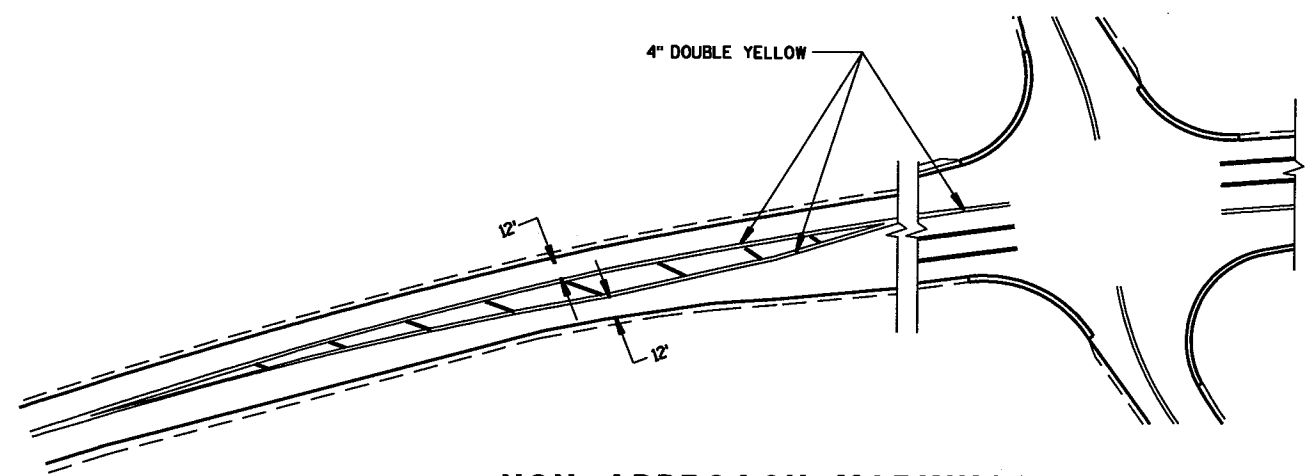
DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.

**MINIMUM SHIFTING TAPER LENGTH TABLE**

POSTED SPEED (S)	TAPER LENGTH (L)
25	100'
30	100'
35	125'
40	165'
45	270'
50	300'
55	330'
65	390'



**APPROACH MARKINGS FOR OTHER MEDIAN TYPES**



**NON APPROACH MARKINGS**

6

6

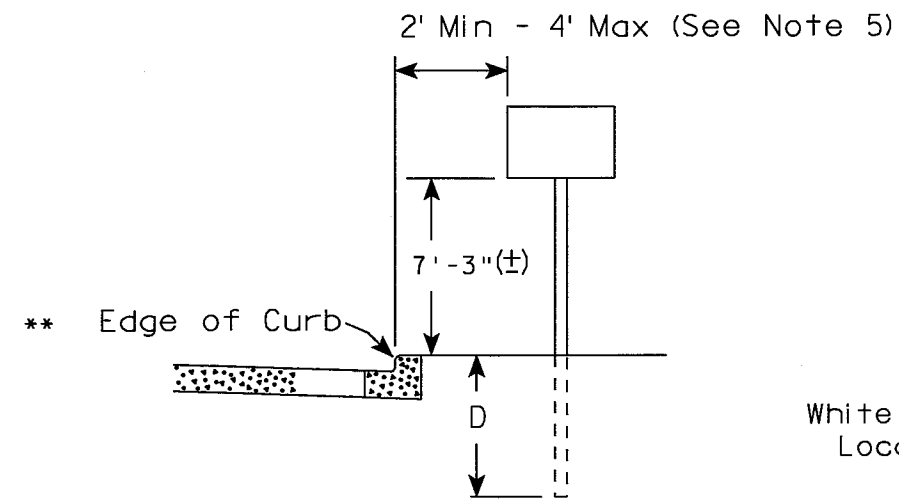
S.D.D. 15 C 18-1

S.D.D. 15 C 18-1

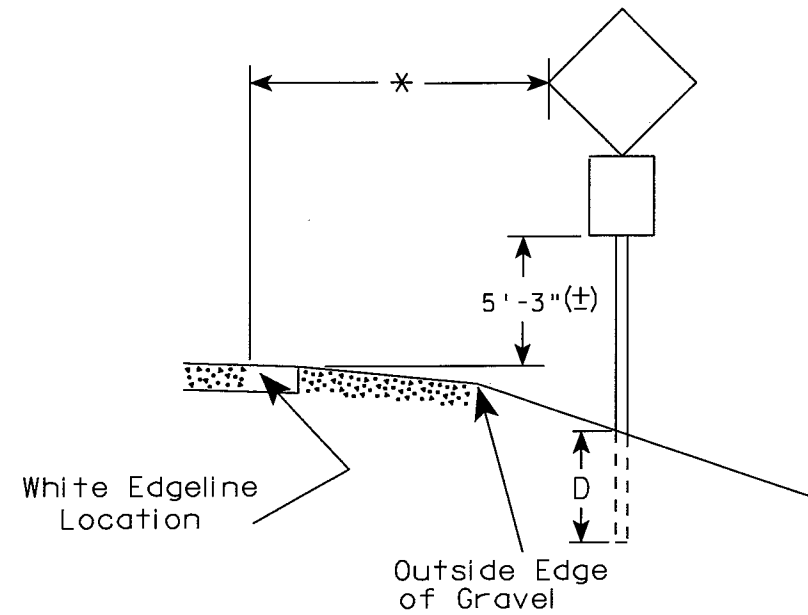
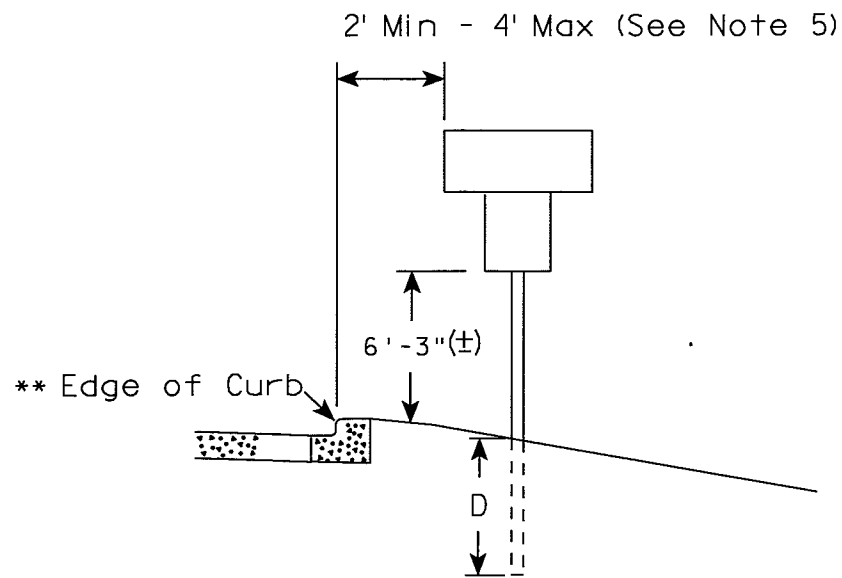
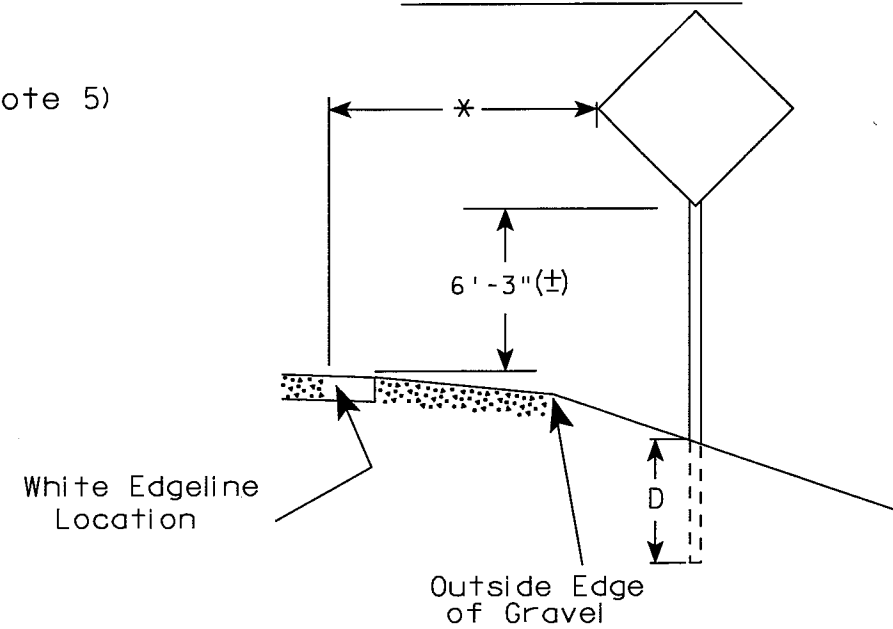
<b>MEDIAN ISLAND MARKING</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3-17-03 DATE	<i>Deborah L. Kozel</i> CHIEF SIGNS AND MARKING ENGINEER
FHWA	



URBAN AREA



RURAL AREA (See Note 2)



- GENERAL NOTES**
1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
  2. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
  3. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
  4. Minimum mounting height for signs mounted on traffic signal poles is 5'-3" (±).
  5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
  6. The (±) tolerance for mounting height is 3 inches.
  7. Folding stop signs (R1-1F) 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 (W1-8A), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) 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 where there is sidewalk adjacent to the roadway or parking is permitted. This same criteria applies to mountable curb as well and measurement shall be taken from 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.

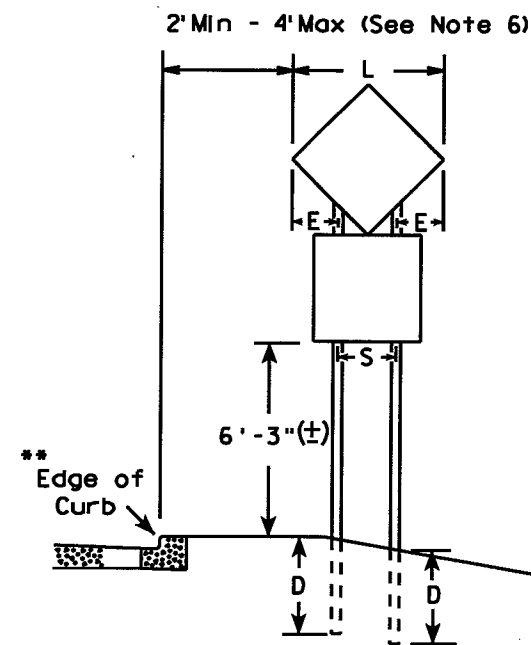
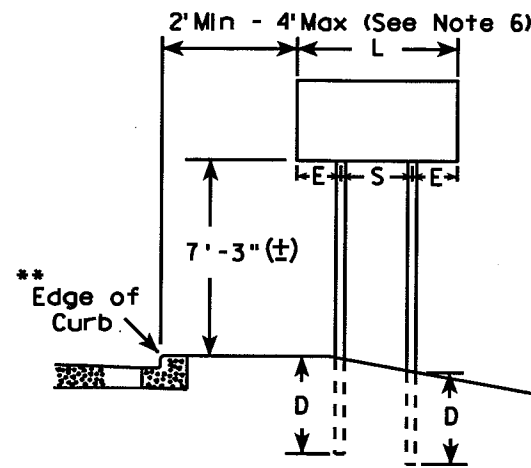
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

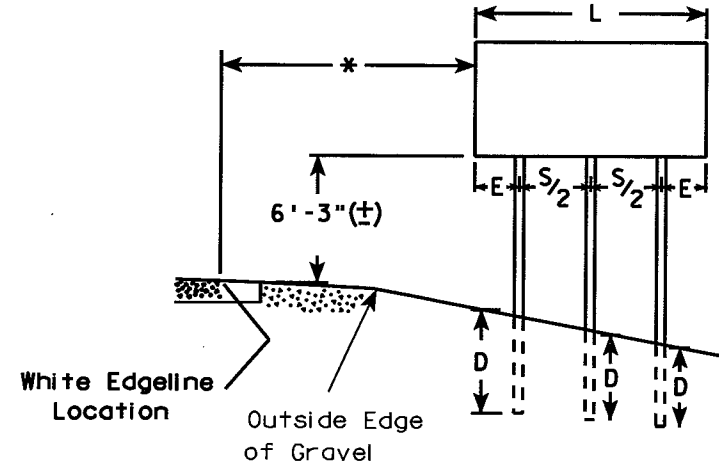
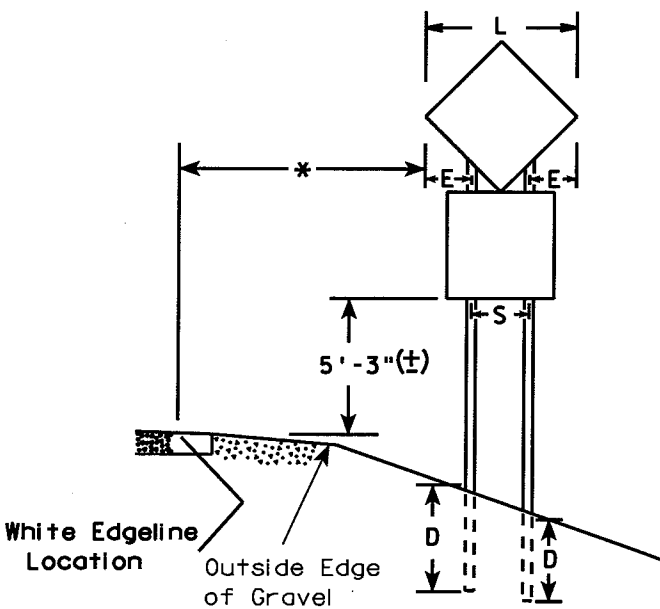
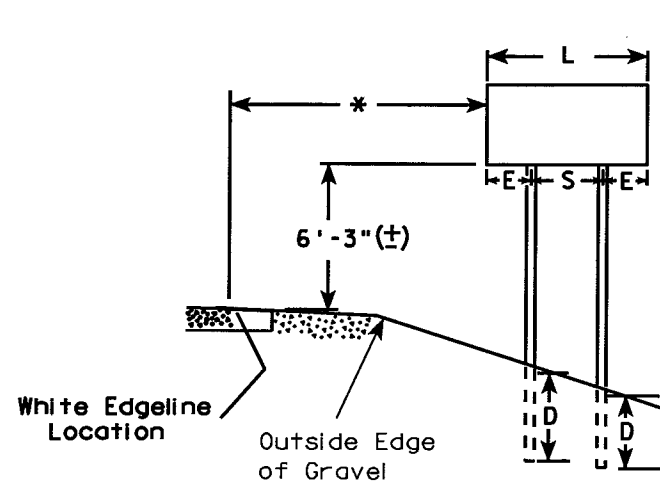
APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 10/25/05 PLATE NO. A4-3.13

**URBAN AREA**



**RURAL AREA (See Note 3)**



**GENERAL NOTES**

1. For 3 post installations, spacing is S/2 and S must be greater than 7'-0".
2. For 4 post installations, spacing is S/3 and S must be greater than 10'-6".
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 (A4-5) 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 stop signs (R1-1F) 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 (W1-8A), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) 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 where there is sidewalk adjacent to the roadway or parking is permitted. This same criteria applies to mountable curb as well and measurement shall be from the flow line.

**DIAMOND SHAPED SIGNS**

L	S	E
Less than 60"	20"	L/2 - 10
60"--72"	32"	L/2 - 16
Greater than 72"	3 L/5	L/5

**SIGN SHAPE OTHER THAN DIAMOND (Two Post Installations)**

L	S	E
Less than 60"	L-24"	12"
60" or more	3 L/5	L/5

**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 10/17/05

PLATE NO. A4-4.8

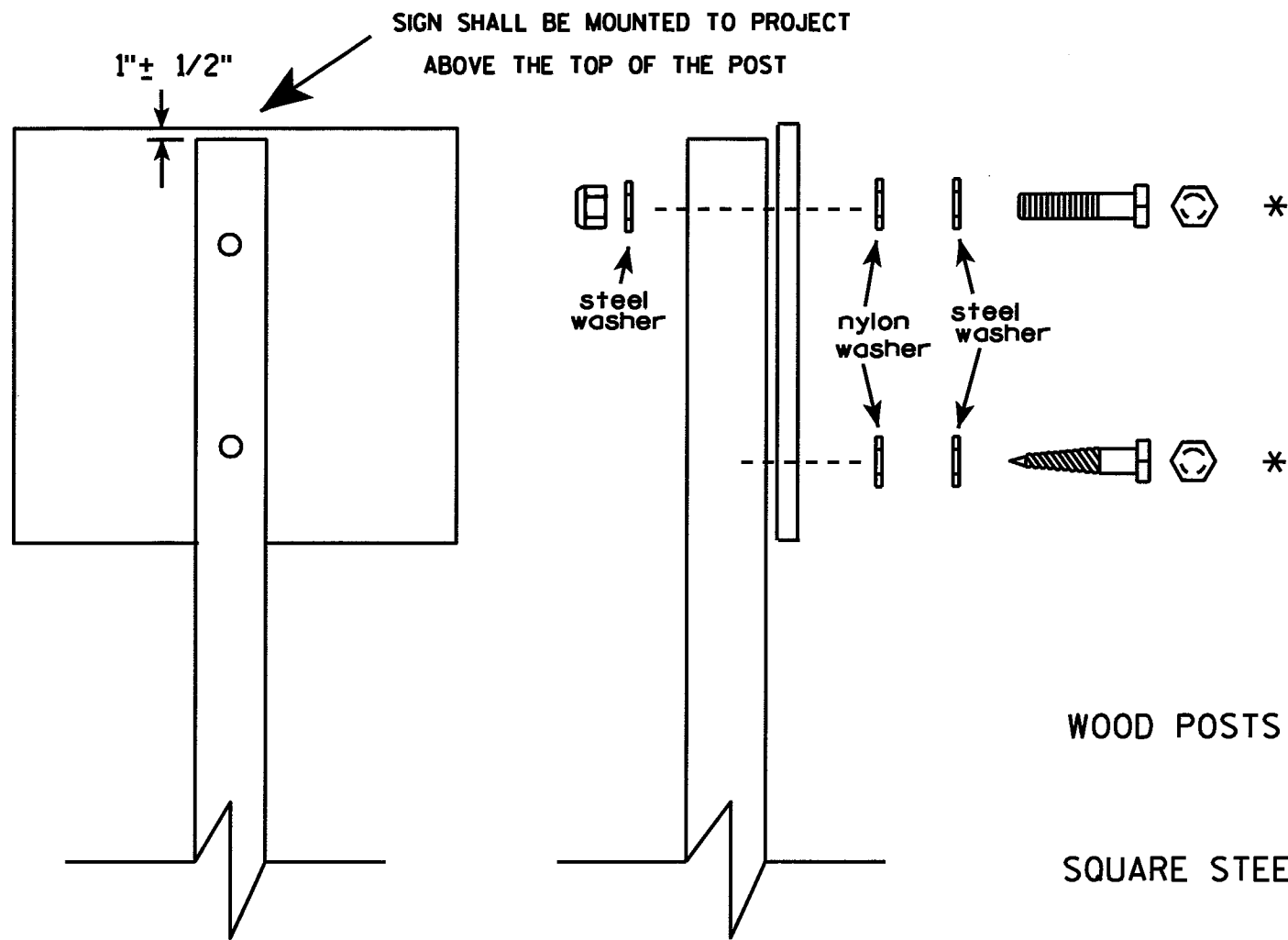
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 130

E

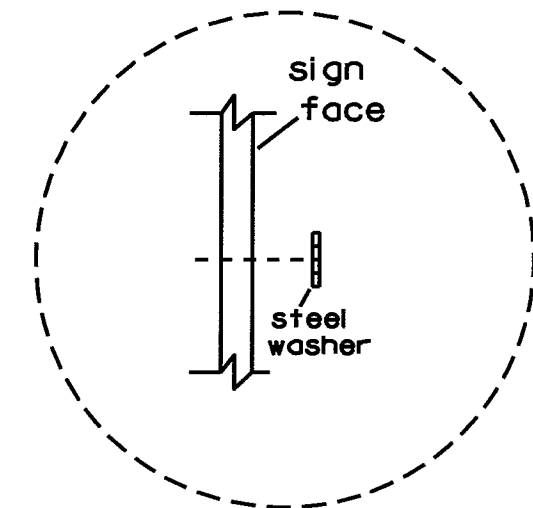


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
- Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
- 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.

- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS -  $\frac{3}{8}$ " X 3"
- MACHINE BOLTS -  $\frac{5}{16}$ " X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2" )
- MACHINE BOLTS -  $\frac{3}{8}$ " X 3-1/4" Length w/ nuts
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ " STEEL
- 1-1/4" O.D. X  $\frac{3}{8}$ " I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

\* 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 8/30/06 PLATE NO. A4-8.6

# MIDWAY ROAD EARTHWORK DATA

Station	Area Type	Area	Inc.Vol.	Cum.Vol.	MassHaul
Station 29+95.25	CUT	146.99			
	FILL	0.54			
Station 30+00.00	CUT	134.12	24.73	24.73	
	FILL	0.12	0.06	0.06	
Station 30+50.00	CUT	143.60	257.15	281.88	24.67
	FILL	0.03	0.14	0.20	
Station 31+00.00	CUT	159.77	280.90	562.78	281.68
	FILL	1.34	1.26	1.46	
Station 31+50.00	CUT	160.69	296.73	859.50	561.32
	FILL	0.00	1.24	2.70	
Station 32+00.00	CUT	156.33	293.54	1153.04	856.81
	FILL	0.00	0.00	2.70	
Station 32+50.00	CUT	154.72	288.01	1441.05	1150.34
	FILL	0.05	0.05	2.74	
Station 33+00.00	CUT	155.11	286.88	1727.93	1438.31
	FILL	0.36	0.38	3.13	
Station 33+50.00	CUT	145.51	278.35	2006.28	1724.81
	FILL	2.37	2.53	5.66	
Station 34+00.00	CUT	128.80	253.99	2260.27	2000.62
	FILL	1.45	3.54	9.20	
Station 34+50.00	CUT	128.98	238.69	2498.96	2251.08
	FILL	0.10	1.43	10.63	
Station 35+00.00	CUT	142.92	251.76	2750.73	2488.34
	FILL	0.84	0.87	11.49	
Station 35+50.00	CUT	142.57	264.35	3015.07	2739.23
	FILL	0.44	1.19	12.69	
Station 36+00.00	CUT	141.98	263.47	3278.54	3002.39
	FILL	3.68	3.82	16.50	
Station 36+50.00	CUT	148.34	268.82	3547.36	3262.04
	FILL	0.57	3.94	20.44	
Station 37+00.00	CUT	147.27	273.72	3821.08	3526.92
	FILL	1.83	2.23	22.67	
Station 37+50.00	CUT	151.46	276.61	4097.69	3798.41
	FILL	0.33	2.00	24.67	
Station 38+00.00	CUT	152.03	281.01	4378.70	4073.02
	FILL	0.01	0.31	24.98	
Station 38+50.00	CUT	152.30	281.79	4660.49	4353.72
	FILL	0.08	0.09	25.07	
Station 39+00.00	CUT	141.50	272.04	4932.53	4635.42
	FILL	0.89	0.90	25.98	
Station 39+50.00	CUT	131.67	252.94	5185.46	4906.55
	FILL	0.32	1.12	27.10	
					5158.36

Station	Area Type	Area	Inc.Vol.	Cum.Vol.	MassHaul
Station 40+00.00	CUT	131.78	243.93	5429.40	
	FILL	0.66	0.91	28.01	
Station 40+50.00	CUT	147.65	258.73	5688.13	5401.38
	FILL	1.06	1.60	29.61	
Station 41+00.00	CUT	149.09	274.76	5962.89	5658.52
	FILL	1.11	2.01	31.62	
Station 41+50.00	CUT	148.51	275.55	6238.44	5931.28
	FILL	0.46	1.46	33.07	
Station 42+00.00	CUT	146.22	272.90	6511.34	6205.37
	FILL	1.38	1.71	34.78	
Station 42+50.00	CUT	146.22	272.90	6511.34	6476.56
	FILL	1.38	1.71	34.78	
Station 43+00.00	CUT	148.30	272.70	6784.04	6745.52
	FILL	2.66	3.74	38.52	
Station 43+50.00	CUT	150.70	276.85	7060.90	7017.21
	FILL	2.91	5.16	43.68	
Station 44+00.00	CUT	151.02	279.37	7340.26	7289.30
	FILL	4.96	7.28	50.96	
Station 44+50.00	CUT	153.42	281.89	7622.15	7566.41
	FILL	0.20	4.77	55.74	
Station 45+00.00	CUT	161.20	291.32	7913.47	7857.50
	FILL	0.05	0.23	55.97	
Station 45+50.00	CUT	165.98	302.94	8216.41	8160.40
	FILL	0.00	0.04	56.01	
Station 46+00.00	CUT	167.75	309.01	8525.42	8469.41
	FILL	0.00	0.00	56.01	
Station 46+50.00	CUT	152.77	296.78	8822.20	8766.03
	FILL	0.17	0.16	56.17	
Station 47+00.00	CUT	153.20	283.30	9105.50	9048.53
	FILL	0.69	0.79	56.97	
Station 47+50.00	CUT	153.74	284.20	9389.70	9331.24
	FILL	0.93	1.50	58.46	
Station 48+00.00	CUT	153.50	284.48	9674.18	9614.47
	FILL	0.42	1.25	59.71	
Station 48+50.00	CUT	153.81	284.55	9958.73	9898.56
	FILL	0.07	0.45	60.17	
Station 49+00.00	CUT	154.57	285.54	10244.27	10183.62
	FILL	0.45	0.48	60.65	
Station 49+50.00	CUT	152.28	284.12	10528.39	10466.74
	FILL	0.63	1.00	61.65	
Station 50+00.00	CUT	154.19	283.77	10812.17	10749.86
	FILL	0.08	0.66	62.31	
					11037.98

Station	Area Type	Area	Inc.Vol.	Cum.Vol.	MassHaul
Station 50+50.00	CUT	160.37	293.96	11394.36	
	FILL	0.11	0.14	62.57	
Station 51+00.00	CUT	156.51	293.41	11687.77	11331.79
	FILL	1.98	1.93	64.50	
Station 51+50.00	CUT	152.95	286.54	11974.31	11623.27
	FILL	1.84	3.53	68.04	
Station 52+00.00	CUT	149.76	280.29	12254.60	11906.28
	FILL	0.00	1.70	69.74	
Station 52+50.00	CUT	149.49	277.08	12531.68	12184.86
	FILL	3.59	3.32	73.06	
Station 53+00.00	CUT	148.04	275.49	12807.17	12458.62
	FILL	1.95	5.13	78.19	
Station 53+50.00	CUT	147.17	273.35	13080.52	12728.99
	FILL	4.39	5.87	84.06	
Station 54+00.00	CUT	119.13	246.58	13327.10	12996.46
	FILL	0.00	4.06	88.12	
Station 54+50.00	CUT	117.79	219.38	13546.47	13238.98
	FILL	0.00	0.00	88.12	
Station 55+00.00	CUT	147.62	245.75	13792.22	13458.35
	FILL	0.05	0.05	88.17	
Station 55+50.00	CUT	149.99	275.56	14067.79	13704.06
	FILL	0.00	0.05	88.22	
Station 56+00.00	CUT	148.24	276.14	14343.93	13979.57
	FILL	0.00	0.00	88.22	
Station 56+50.00	CUT	148.91	275.14	14619.07	14255.71
	FILL	0.00	0.00	88.22	
Station 57+00.00	CUT	145.64	272.73	14891.79	14530.85
	FILL	0.00	0.00	88.22	
Station 57+50.00	CUT	146.70	270.68	15162.48	14803.58
	FILL	0.01	0.01	88.22	
Station 58+00.00	CUT	140.71	266.12	15428.60	15074.25
	FILL	1.26	1.17	89.39	
Station 58+50.00	CUT	145.80	265.29	15693.89	15339.21
	FILL	0.36	1.50	90.89	
Station 59+00.00	CUT	144.35	268.66	15962.55	15603.00
	FILL	0.00	0.34	91.23	
Station 59+50.00	CUT	145.86	268.71	16231.26	15871.32
	FILL	0.30	0.28	91.51	
Station 60+00.00	CUT	144.82	269.15	16500.41	16139.75
	FILL	0.01	0.29	91.80	
Station 60+50.00	CUT	148.23	271.34	16771.75	16408.61
	FILL	0.07	0.07	91.88	
					16679.88

MIDWAY ROAD EARTHWORK DATA CONT.

Station	Area Type	Area	Inc.Vol.	Cum.Vol.	MassHaul
60+95.54	CUT	146.41	248.48	17020.23	
	FILL	0.15	0.18	92.06	
					16928.17 ①

① STA 29+95.25 TO 60+95.54 RECONSTRUCT EASTBOUND AND WESTBOUND LANES

Station	Area Type	Area	Inc.Vol.	Cum.Vol.	MassHaul
60+95.54	CUT	74.23			
	FILL	0.00			
61+50.00	CUT	71.97	135.37	135.37	
	FILL	0.75	0.69	0.69	
					134.67
62+00.00	CUT	73.30	134.51	269.88	
	FILL	0.00	0.70	1.39	
					268.49
62+50.00	CUT	73.54	135.97	405.85	
	FILL	0.00	0.00	1.39	
					404.45
63+00.00	CUT	74.13	136.74	542.58	
	FILL	0.00	0.00	1.39	
					541.19
63+50.00	CUT	72.96	136.20	678.78	
	FILL	0.00	0.00	1.39	
					677.38
64+00.00	CUT	74.75	136.77	815.55	
	FILL	0.00	0.00	1.39	
					814.15
64+50.00	CUT	74.34	138.05	953.60	
	FILL	0.00	0.00	1.40	
					952.20
65+00.00	CUT	74.61	137.92	1091.51	
	FILL	0.01	0.01	1.41	
					1090.11
65+50.00	CUT	74.91	138.45	1229.96	
	FILL	0.00	0.00	1.41	
					1228.55
65+67.50	CUT	75.51	48.75	1278.71	
	FILL	0.00	0.00	1.41	
					1277.30 ②

② STA 60+95.54 TO 65+67.50 RECONSTRUCT WESTBOUND LANES ONLY

Station	Area Type	Area	Inc.Vol.	Cum.Vol.	MassHaul
65+67.55	CUT	75.63			
	FILL	0.60			
66+00.00	CUT	76.68	91.53	91.53	
	FILL	0.01	0.37	0.37	
					91.16
66+50.00	CUT	76.51	141.84	233.37	
	FILL	0.38	0.36	0.73	
					232.64
67+00.00	CUT	74.63	139.94	373.31	
	FILL	0.00	0.36	1.09	
					372.23
67+06.77	CUT	75.83	18.86	392.18	
	FILL	0.15	0.02	1.10	
					391.07 ③

③ STA 65+67.55 TO 67+06.77 (STH 47) RECONSTRUCT WESTBOUND LANES ONLY

Station	Area Type	Area	Inc.Vol.	Cum.Vol.	MassHaul
68+39.60	CUT	86.12			
	FILL	0.20			
68+50.00	CUT	0.00	16.59	16.59	
	FILL	0.00	0.04	0.04	
					16.55
68+57.60	CUT	69.81	9.83	26.41	
	FILL	0.48	0.07	0.10	
					26.31
69+00.00	CUT	72.93	112.08	138.49	
	FILL	0.04	0.41	0.51	
					137.98
69+50.00	CUT	72.99	135.11	273.60	
	FILL	0.00	0.04	0.55	
					273.05
70+00.00	CUT	75.72	137.70	411.30	
	FILL	0.00	0.00	0.55	
					410.75
70+50.00	CUT	72.67	137.41	548.70	
	FILL	0.04	0.04	0.59	
					548.12
71+00.00	CUT	75.13	136.85	685.56	
	FILL	0.00	0.04	0.62	
					684.93
71+50.00	CUT	74.90	138.92	824.47	
	FILL	0.01	0.01	0.64	
					823.83
72+00.00	CUT	74.39	138.23	962.70	
	FILL	0.01	0.03	0.66	
					962.04
72+50.00	CUT	74.47	137.84	1100.54	
	FILL	0.00	0.01	0.68	
					1099.87
73+00.00	CUT	70.89	134.59	1235.13	
	FILL	0.05	0.04	0.72	
					1234.41
73+50.00	CUT	73.17	133.39	1368.52	
	FILL	0.00	0.04	0.76	
					1367.76
73+82.01	CUT	149.59	132.05	1500.57	
	FILL	0.00	0.00	0.76	
					1499.80 ④

④ STA 68+39.60 (STH 47) TO 73+82.01 RECONSTRUCT WESTBOUND LANES ONLY

Station	Area Type	Area	Inc.Vol.	Cum.Vol.	MassHaul
73+82.01	CUT	149.59			
	FILL	0.00			
74+00.00	CUT	151.37	100.26	100.26	
	FILL	0.01	0.00	0.00	
					100.26
74+50.00	CUT	157.21	285.72	385.98	
	FILL	0.14	0.13	0.14	
					385.85
75+00.00	CUT	163.05	296.54	682.52	
	FILL	0.00	0.13	0.26	
					682.26
75+50.00	CUT	162.90	301.81	984.33	
	FILL	0.00	0.00	0.26	
					984.07
76+00.00	CUT	162.75	301.52	1285.86	
	FILL	0.00	0.00	0.26	
					1285.59
76+50.00	CUT	159.67	298.53	1584.39	
	FILL	0.00	0.00	0.26	
					1584.13
77+00.00	CUT	151.96	288.55	1872.94	
	FILL	0.01	0.01	0.27	
					1872.67
77+50.00	CUT	154.36	283.63	2156.58	
	FILL	0.38	0.35	0.62	
					2155.95
78+00.00	CUT	152.71	284.33	2440.90	
	FILL	0.14	0.48	1.10	
					2439.80
78+50.00	CUT	146.76	277.29	2718.19	
	FILL	0.39	0.49	1.58	
					2716.60
79+00.00	CUT	147.54	272.50	2990.69	
	FILL	0.21	0.55	2.14	
					2988.55
79+50.00	CUT	152.72	278.02	3268.70	
	FILL	0.00	0.19	2.33	
					3266.37
80+00.00	CUT	158.54	288.20	3556.91	
	FILL	0.00	0.00	2.33	
					3554.58
80+50.00	CUT	154.67	290.01	3846.92	
	FILL	0.00	0.00	2.33	
					3844.59
81+00.00	CUT	139.67	272.55	4119.47	
	FILL	0.00	0.00	2.33	
					4117.13
81+50.00	CUT	136.57	255.78	4375.25	
	FILL	0.09	0.09	2.42	
					4372.83
82+00.00	CUT	136.73	253.06	4628.30	
	FILL	0.02	0.10	2.52	
					4625.79
82+50.00	CUT	140.11	256.33	4884.63	
	FILL	0.00	0.02	2.53	
					4882.10
83+00.00	CUT	155.26	273.49	5158.13	
	FILL	0.00	0.00	2.53	
					5155.59

MIDWAY ROAD EARTHWORK DATA CONT.

Station	Area Type	Area	Inc.Vol.	Cum.Vol.	MassHaul
Station 83+50.00	CUT	154.85	287.14	5445.27	
	FILL	0.00	0.00	2.53	5442.73
Station 84+00.00	CUT	154.28	286.23	5731.50	
	FILL	0.00	0.00	2.53	5728.96
Station 84+50.00	CUT	155.97	287.27	6018.77	
	FILL	0.00	0.00	2.53	6016.24
Station 85+00.00	CUT	154.55	287.52	6306.29	
	FILL	0.00	0.00	2.53	6303.76
Station 85+50.00	CUT	152.71	284.50	6590.79	
	FILL	0.01	0.01	2.54	6588.25
Station 86+00.00	CUT	152.13	282.26	6873.05	
	FILL	0.01	0.01	2.55	6870.50
Station 86+50.00	CUT	155.65	284.98	7158.03	
	FILL	0.00	0.01	2.56	7155.47
Station 87+00.00	CUT	155.01	287.64	7445.67	
	FILL	0.00	0.00	2.56	7443.11
Station 87+50.00	CUT	155.21	287.24	7732.91	
	FILL	0.00	0.00	2.56	7730.35
Station 88+00.00	CUT	151.92	284.38	8017.29	
	FILL	0.27	0.25	2.81	8014.48
Station 88+50.00	CUT	152.56	281.93	8299.22	
	FILL	0.01	0.26	3.07	8296.15
Station 89+00.00	CUT	153.86	283.72	8582.93	
	FILL	0.00	0.01	3.08	8579.85
Station 89+50.00	CUT	154.17	285.21	8868.15	
	FILL	0.63	0.59	3.67	8864.48
Station 90+00.00	CUT	153.09	284.51	9152.65	
	FILL	0.00	0.59	4.26	9148.40
Station 90+50.00	CUT	159.40	289.35	9442.00	
	FILL	0.00	0.00	4.26	9437.74
Station 91+00.00	CUT	156.15	292.18	9734.18	
	FILL	0.14	0.13	4.38	9729.80
Station 91+50.00	CUT	151.58	284.93	10019.11	
	FILL	0.00	0.13	4.51	10014.60
Station 92+00.00	CUT	151.14	280.30	10299.41	
	FILL	0.07	0.07	4.58	10294.83
Station 92+50.00	CUT	150.10	278.93	10578.34	
	FILL	0.14	0.20	4.78	10573.56
Station 93+00.00	CUT	155.57	283.02	10861.36	
	FILL	0.00	0.13	4.91	10856.45

Station	Area Type	Area	Inc.Vol.	Cum.Vol.	MassHaul
Station 93+50.00	CUT	153.55	286.22	11147.58	
	FILL	0.39	0.36	5.27	11142.31
Station 94+00.00	CUT	156.10	286.71	11434.29	
	FILL	0.05	0.41	5.68	11428.61
Station 94+50.00	CUT	150.38	283.77	11718.06	
	FILL	0.00	0.05	5.73	11712.34
Station 95+00.00	CUT	145.91	274.34	11992.41	
	FILL	2.30	2.13	7.86	11984.55
Station 95+50.00	CUT	126.67	252.39	12244.80	
	FILL	0.06	2.19	10.04	12234.75
Station 96+00.00	CUT	127.18	235.04	12479.84	
	FILL	0.00	0.06	10.10	12469.74
Station 96+50.00	CUT	143.39	250.53	12730.37	
	FILL	0.35	0.32	10.43	12719.94
Station 97+00.00	CUT	144.20	266.28	12996.65	
	FILL	0.00	0.32	10.75	12985.90
Station 97+50.00	CUT	143.44	266.33	13262.98	
	FILL	0.11	0.10	10.85	13252.12
Station 98+00.00	CUT	144.83	266.91	13529.89	
	FILL	0.04	0.14	10.99	13518.90
Station 98+50.00	CUT	133.52	257.74	13787.63	
	FILL	0.00	0.04	11.03	13776.60
Station 99+00.00	CUT	128.83	242.92	14030.55	
	FILL	0.10	0.09	11.12	14019.43
Station 99+50.00	CUT	148.11	256.43	14286.97	
	FILL	0.14	0.22	11.34	14275.64
Station 100+00.00	CUT	148.13	274.30	14561.27	
	FILL	0.14	0.26	11.60	14549.67
Station 100+50.00	CUT	147.70	273.92	14835.19	
	FILL	0.24	0.35	11.95	14823.24
Station 101+00.00	CUT	146.87	272.75	15107.94	
	FILL	0.28	0.48	12.43	15095.51
Station 101+50.00	CUT	146.60	271.73	15379.67	
	FILL	0.07	0.33	12.76	15366.91
Station 102+00.00	CUT	156.24	280.41	15660.08	
	FILL	0.07	0.13	12.88	15647.20
Station 102+50.00	CUT	158.87	291.77	15951.86	
	FILL	0.00	0.06	12.95	15938.91
Station 103+00.00	CUT	153.25	289.00	16240.86	
	FILL	0.05	0.05	12.99	16227.86

Station	Area Type	Area	Inc.Vol.	Cum.Vol.	MassHaul
Station 103+50.00	CUT	148.90	279.76	16520.62	
	FILL	0.13	0.17	13.16	16507.46
Station 104+00.00	CUT	152.85	279.39	16800.01	
	FILL	0.00	0.12	13.28	16786.73
Station 104+50.00	CUT	157.54	287.40	17087.41	
	FILL	0.00	0.00	13.28	17074.13
Station 105+00.00	CUT	148.37	283.26	17370.67	
	FILL	0.35	0.32	13.61	17357.06
Station 105+50.00	CUT	136.08	263.39	17634.05	
	FILL	0.00	0.32	13.93	17620.13
Station 106+00.00	CUT	159.71	273.89	17907.94	
	FILL	0.61	0.56	14.49	17893.45
Station 106+50.00	CUT	155.56	291.92	18199.86	
	FILL	0.00	0.56	15.05	18184.80
Station 107+00.00	CUT	152.82	285.54	18485.39	
	FILL	0.02	0.02	15.07	18470.32
Station 107+50.00	CUT	153.58	283.71	18769.10	
	FILL	0.16	0.16	15.24	18753.87
Station 108+00.00	CUT	152.19	283.12	19052.22	
	FILL	0.00	0.15	15.38	19036.84
Station 108+50.00	CUT	155.14	284.56	19336.78	
	FILL	0.00	0.00	15.38	19321.40
Station 109+00.00	CUT	156.48	288.54	19625.32	
	FILL	0.29	0.27	15.65	19609.67
Station 109+50.00	CUT	157.19	290.43	19915.75	
	FILL	0.00	0.27	15.92	19899.83
Station 110+00.00	CUT	160.61	294.26	20210.01	
	FILL	0.00	0.00	15.92	20194.09
Station 110+50.00	CUT	139.24	277.64	20487.65	
	FILL	0.31	0.29	16.21	20471.44
Station 111+00.00	CUT	145.48	263.63	20751.28	
	FILL	0.00	0.29	16.50	20734.78
Station 111+50.00	CUT	159.54	282.43	21033.71	
	FILL	0.00	0.00	16.50	21017.21
Station 112+00.00	CUT	164.49	300.03	21333.74	
	FILL	0.00	0.00	16.50	21317.24
Station 112+50.00	CUT	164.96	305.05	21638.79	
	FILL	0.00	0.00	16.50	21622.30
Station 113+00.00	CUT	166.68	307.08	21945.87	
	FILL	0.00	0.00	16.50	21929.37

MIDWAY ROAD EARTHWORK DATA CONT.

Station	Area Type	Area	Inc.Vol.	Cum.Vol.	MassHaul
113+50.00	CUT	169.95	311.69	22257.56	22241.06
	FILL	0.00	0.00	16.50	
114+00.00	CUT	174.79	319.20	22576.76	22560.26
	FILL	0.00	0.00	16.50	
114+50.00	CUT	181.02	329.46	22906.22	22889.72
	FILL	0.00	0.00	16.50	
115+00.00	CUT	167.99	323.16	23229.38	23212.88
	FILL	0.00	0.00	16.50	
115+50.00	CUT	156.66	300.61	23529.98	23513.49
	FILL	0.00	0.00	16.50	
116+00.00	CUT	156.08	289.58	23819.56	23802.69
	FILL	0.41	0.38	16.87	
116+50.00	CUT	152.40	285.63	24105.19	24087.81
	FILL	0.14	0.51	17.38	
117+00.00	CUT	158.29	287.67	24392.87	24375.35
	FILL	0.00	0.13	17.52	
117+50.00	CUT	157.89	292.75	24685.62	24668.11
	FILL	0.00	0.00	17.52	
118+00.00	CUT	154.85	289.57	24975.19	24957.26
	FILL	0.45	0.42	17.93	
118+50.00	CUT	153.62	285.62	25260.81	25242.19
	FILL	0.29	0.69	18.62	
119+00.00	CUT	154.60	285.40	25546.20	25527.31
	FILL	0.00	0.27	18.89	
119+50.00	CUT	153.42	285.21	25831.41	25812.52
	FILL	0.00	0.00	18.89	
119+83.32	CUT	175.92	203.22	26034.63	26015.44 ⑤
	FILL	0.47	0.29	19.18	

⑤ 73+82.01 TO 119+83.32 RECONSTRUCT EASTBOUND AND WESTBOUND LANES

EARTHWORK SUMMARY

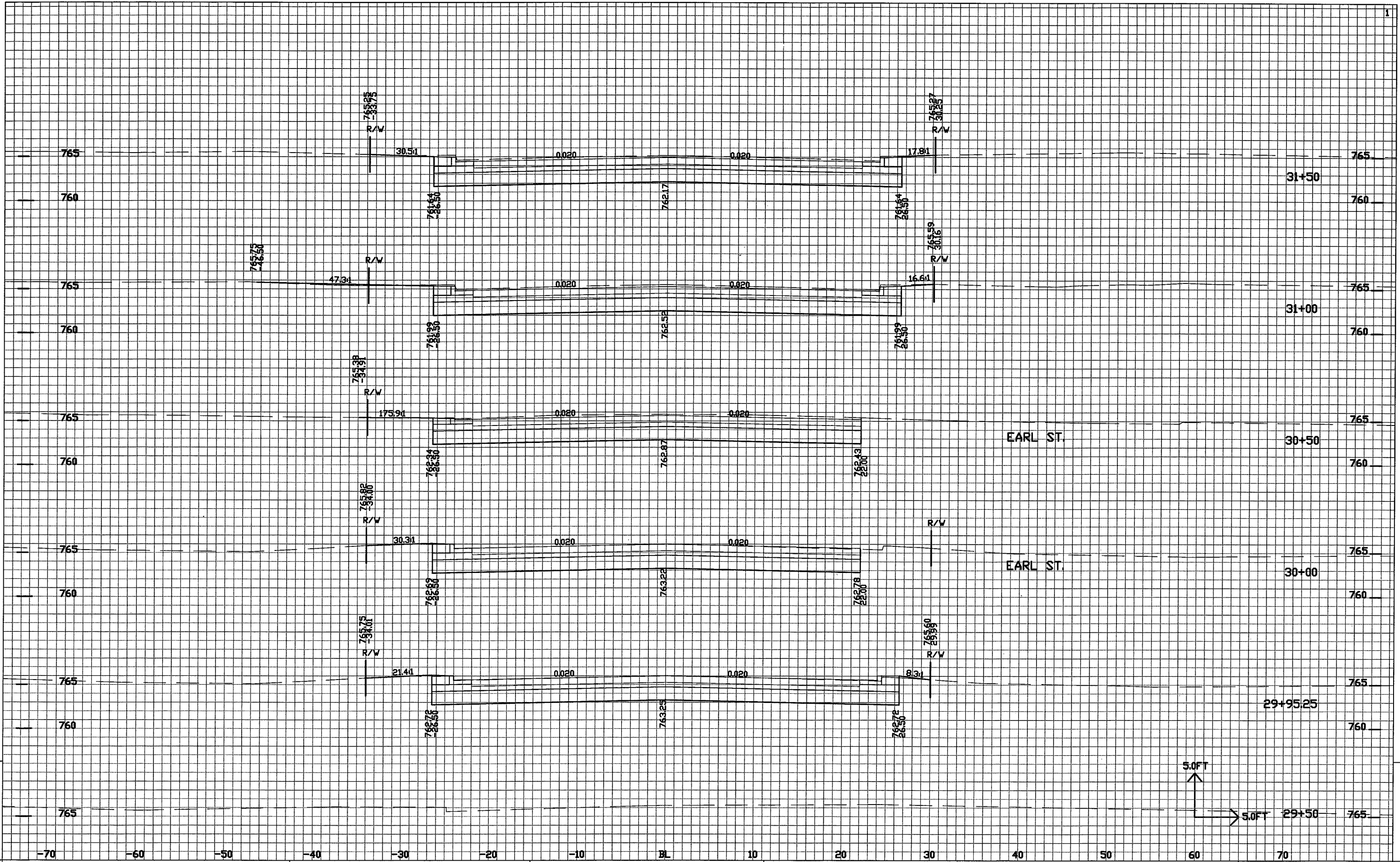
LOCATION	205.0100 EXCAVATION COMMON C.Y.	FILL C.Y.	*EXPANDED FILL C.Y.	MASS HAUL (WASTE) C.Y.
1 29+95.25 - 60+95.54 MAINLINE	17021	92	120	16901
2 60+95.54 - 67+06.77 MAINLINE	1690	3	4	1686
3 68+39.60 - 73+82.01 MAINLINE	1501	1	1	1500
4 73+82.01 - 119+83.32 MAINLINE	26035	20	26	26009
PROJECT TOTALS	46247	116	151	46096

\*EXPANSION FACTOR FOR FILL = 30%

- 1 FOUR LANE RECONSTRUCTION
- 2 WB RECONSTRUCTION ONLY FROM END OF FOUR LANE RECONSTRUCTION TO STH 47
- 3 WB RECONSTRUCTION ONLY FROM STH 47 TO FOUR LANE RECONSTRUCTION RESUMPTION
- 4 FOUR LANE RECONSTRUCTION

9

9



PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NO: 136

E

FILE NAME : \$\$\$designfile\$\$\$

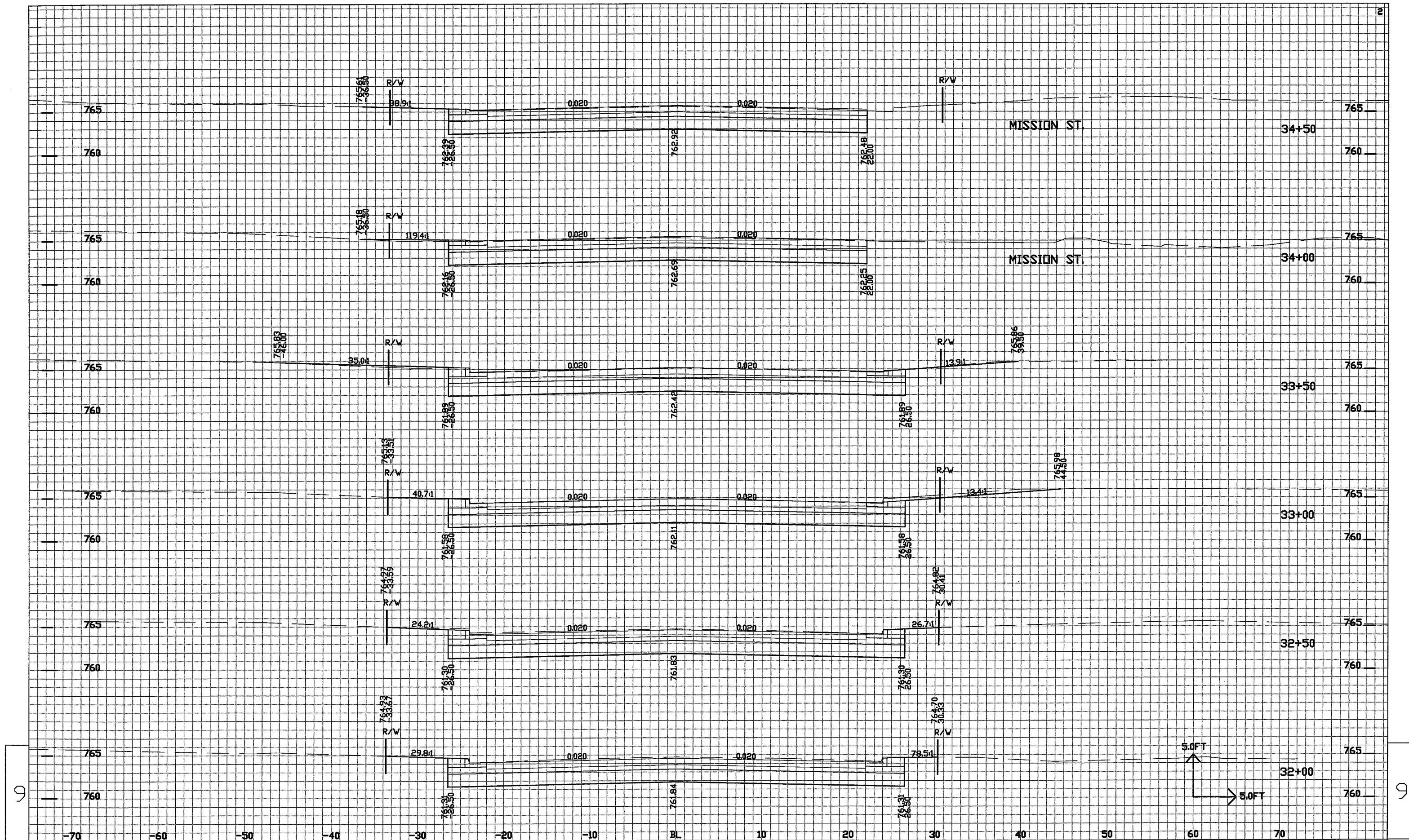
PLOT DATE : \$\$\$plottingdate\$\$\$

PLOT BY : \$\$\$plotuser\$\$\$

PLOT NAME :

PLOT SCALE : \$\$\$plotscale\$\$\$





PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NO: 137

E

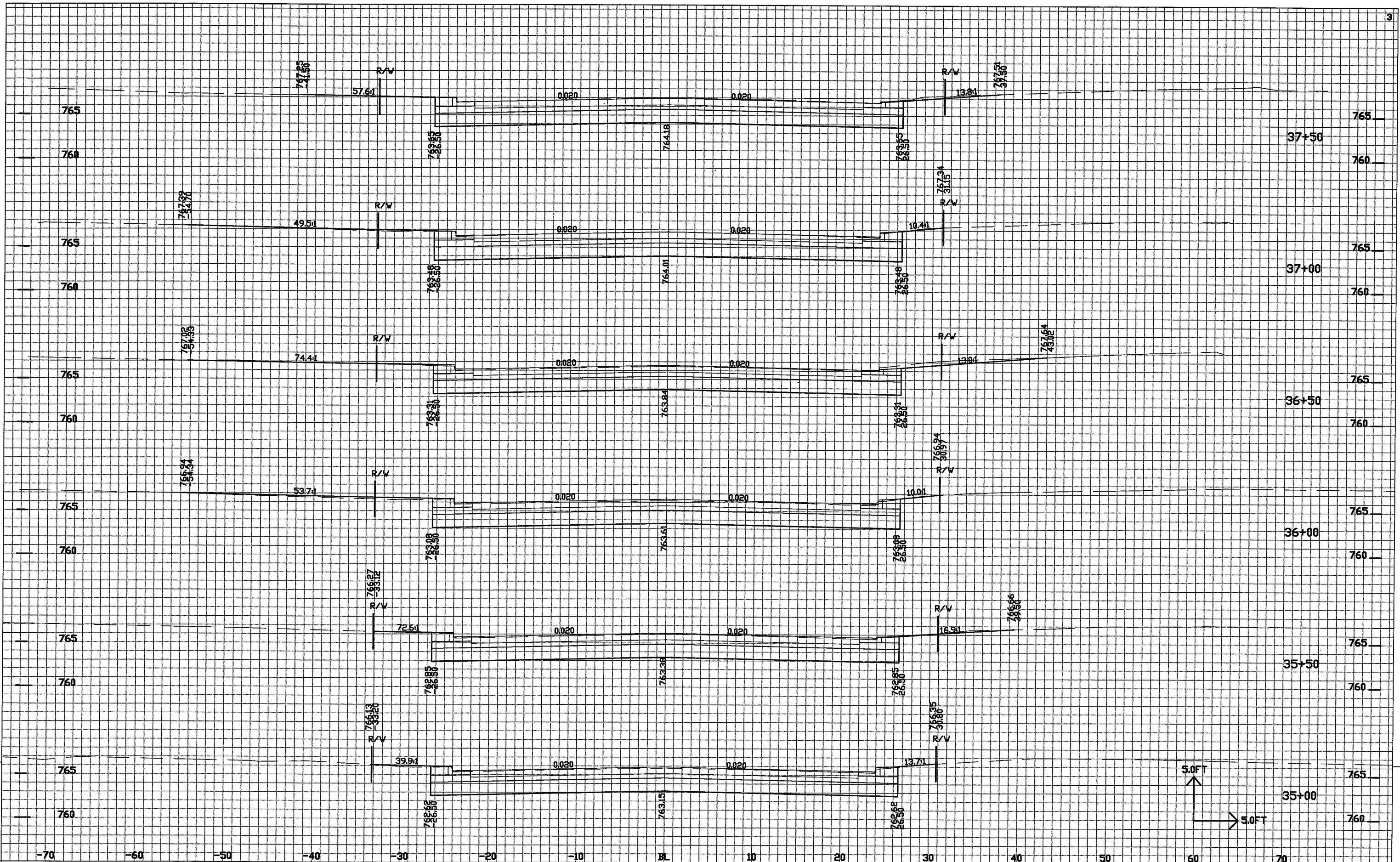
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PLOT DATE : \$\$\$plottingdate\$\$\$

PLOT BY : \$\$\$plotuser\$\$\$

PLOT NAME :

PLOT SCALE : \$\$\$plotscale\$\$\$



PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NO: 138

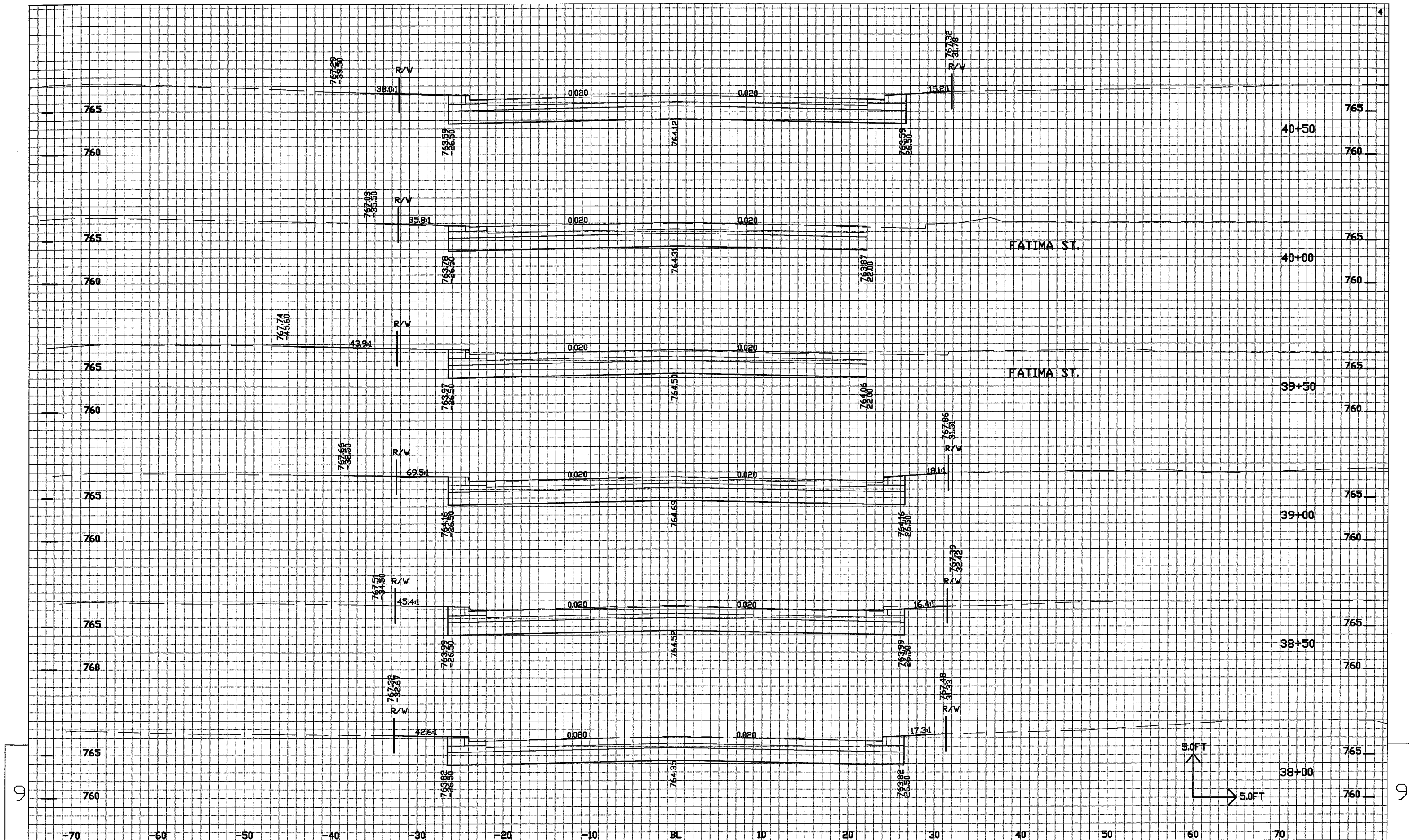
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PLOT DATE: \$\$\$plottingdate\$\$\$

PLOT BY: \$\$\$plotuser\$\$\$

PLOT NAME:

PLOT SCALE: \$\$\$plotscale\$\$\$



PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NO: 139

E

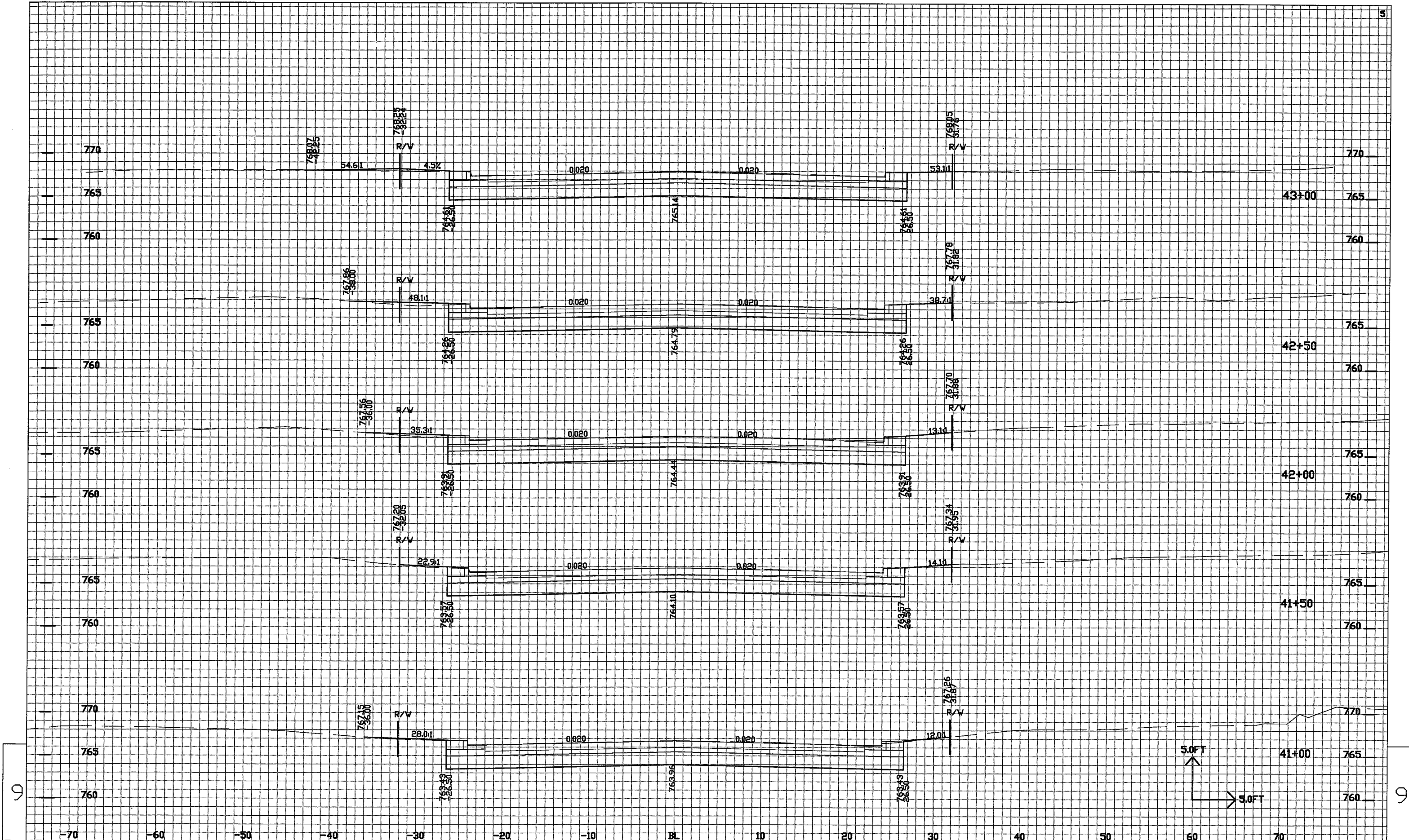
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PLOT DATE : \$\$...plottingdate...\$\$

PLOT BY : \$\$...plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$...plotscale...\$\$



PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NO: 140

FILE NAME: \$\$\$designfile\$\$\$

PLOT DATE: \$\$\$plottingdate\$\$\$

PLOT BY: \$\$\$plotuser\$\$\$

PLOT NAME:

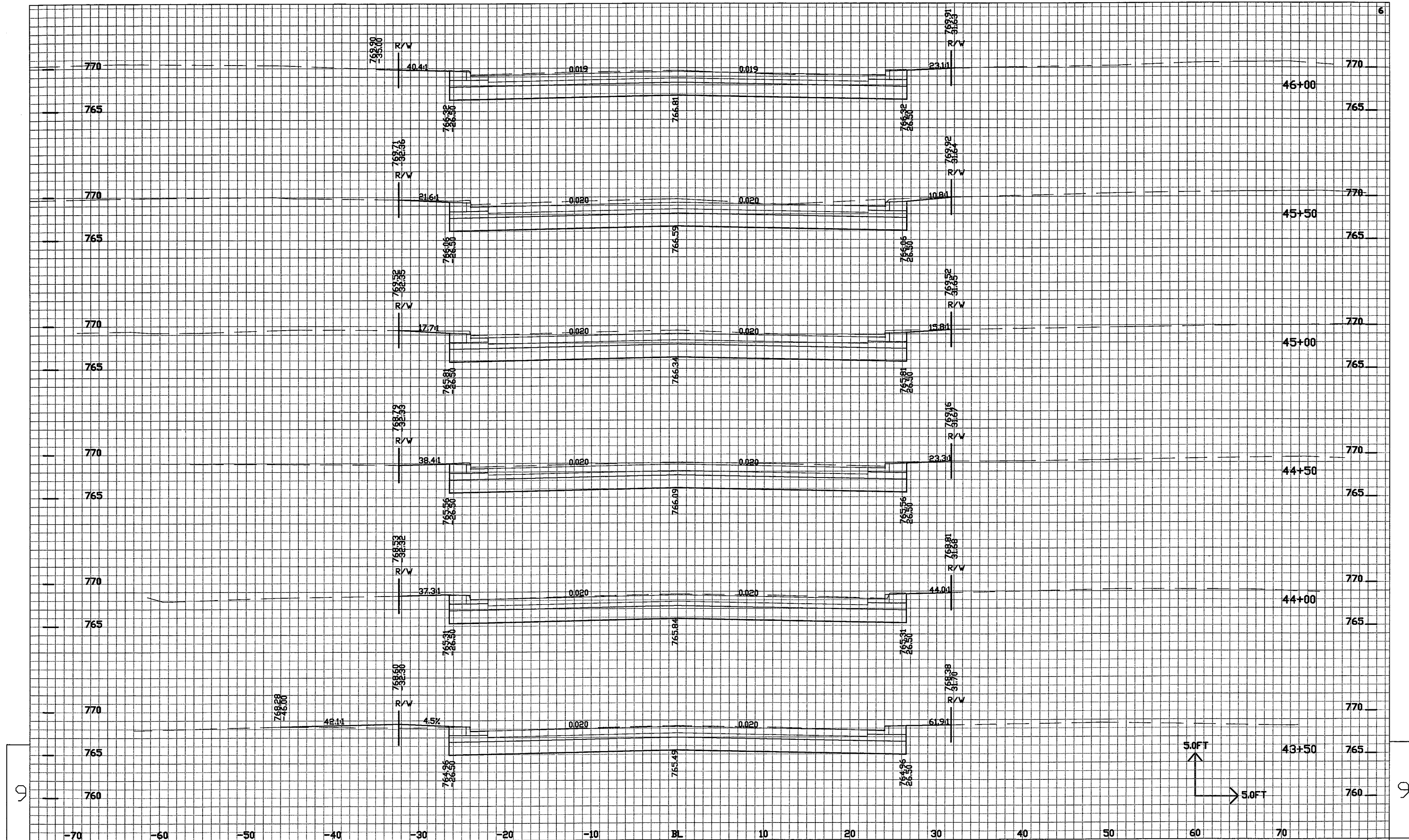
PLOT SCALE: \$\$\$plotscale\$\$\$

5

9

9

E



PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NO: 141

E

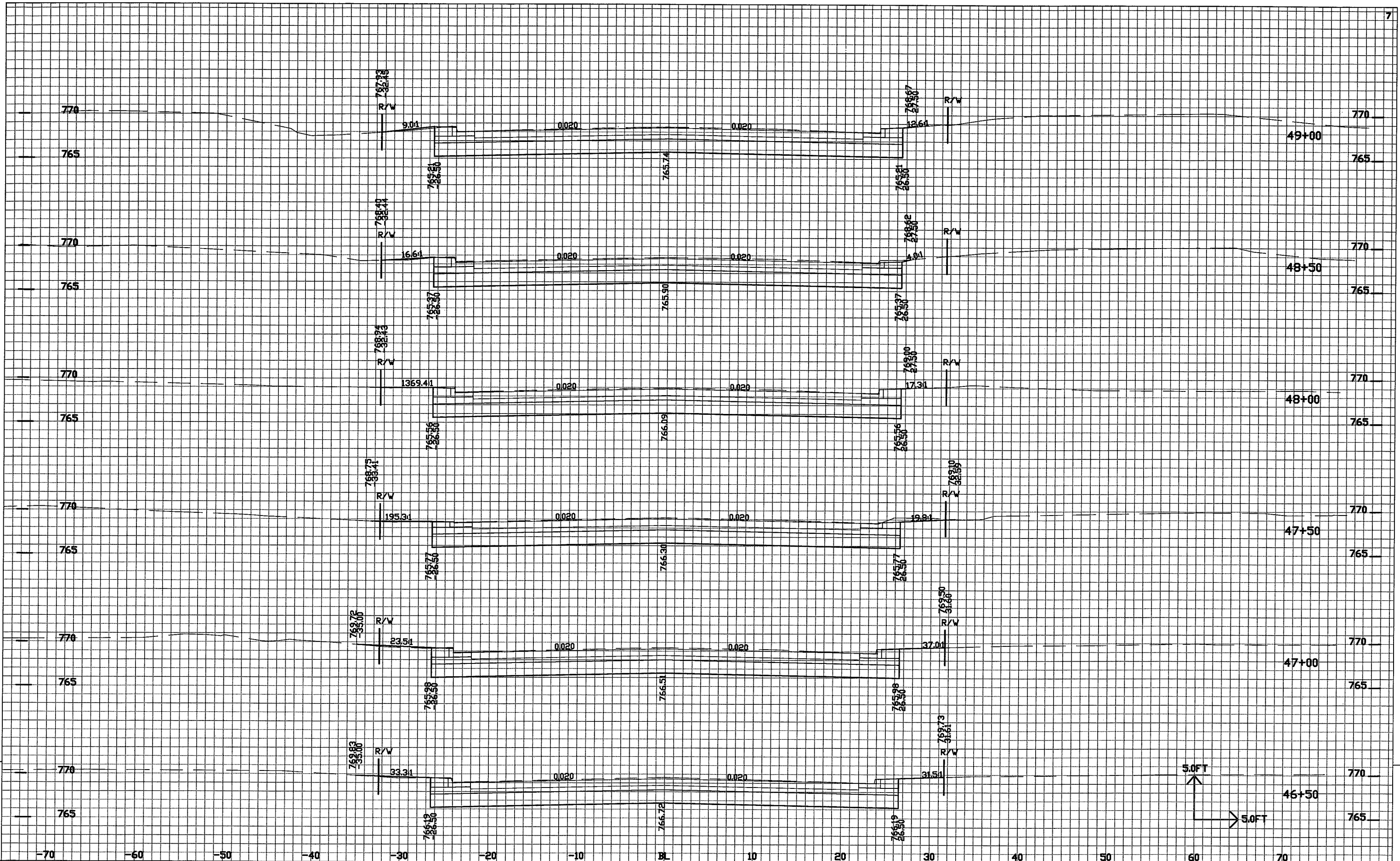
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PLOT DATE : \$\$...plottingdate...\$\$

PLOT BY : \$\$...plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$...plotscale...\$\$



PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NO: 142

E

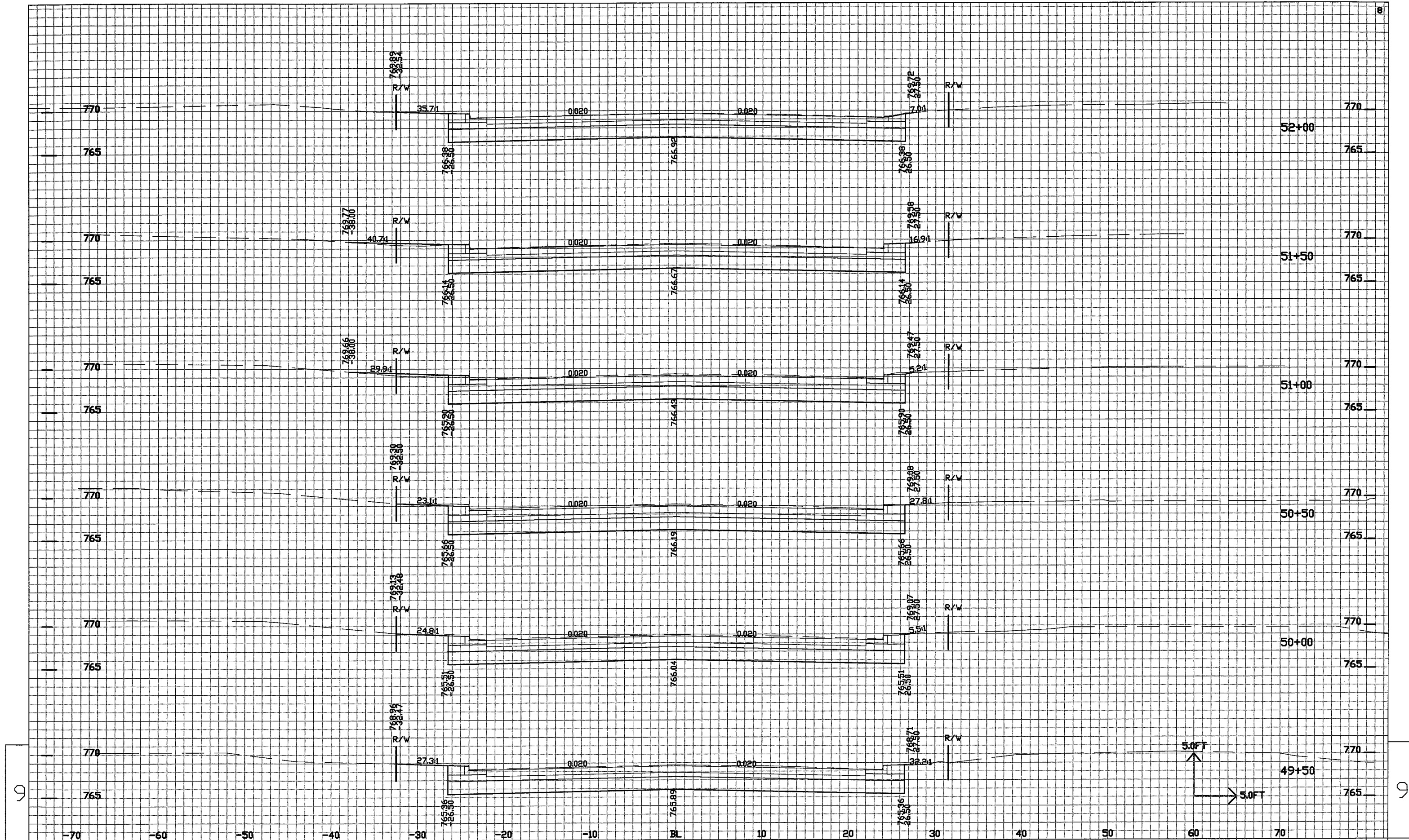
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PLOT DATE : \$\$\$plottingdate\$\$\$

PLOT BY : \$\$\$plotuser\$\$\$

PLOT NAME :

PLOT SCALE : \$\$\$plotscale\$\$\$



PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NO: 143

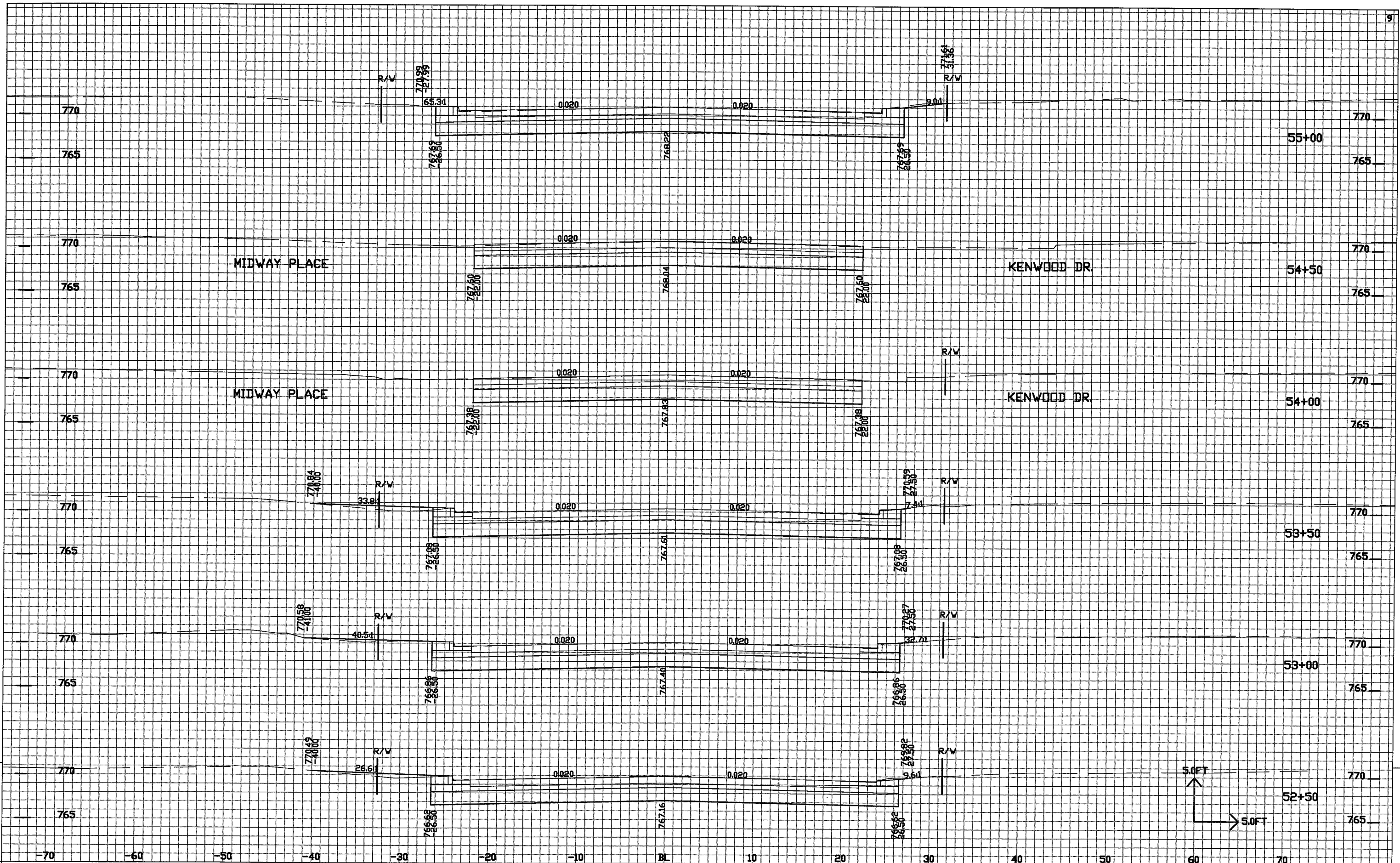
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PLOT DATE : \$\$...plottingdate...\$\$

PLOT BY : \$\$...plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$...plotscale...\$\$



PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NO: 144

E

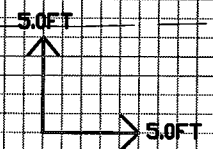
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PLOT DATE: \$\$\$plottingdate\$\$\$

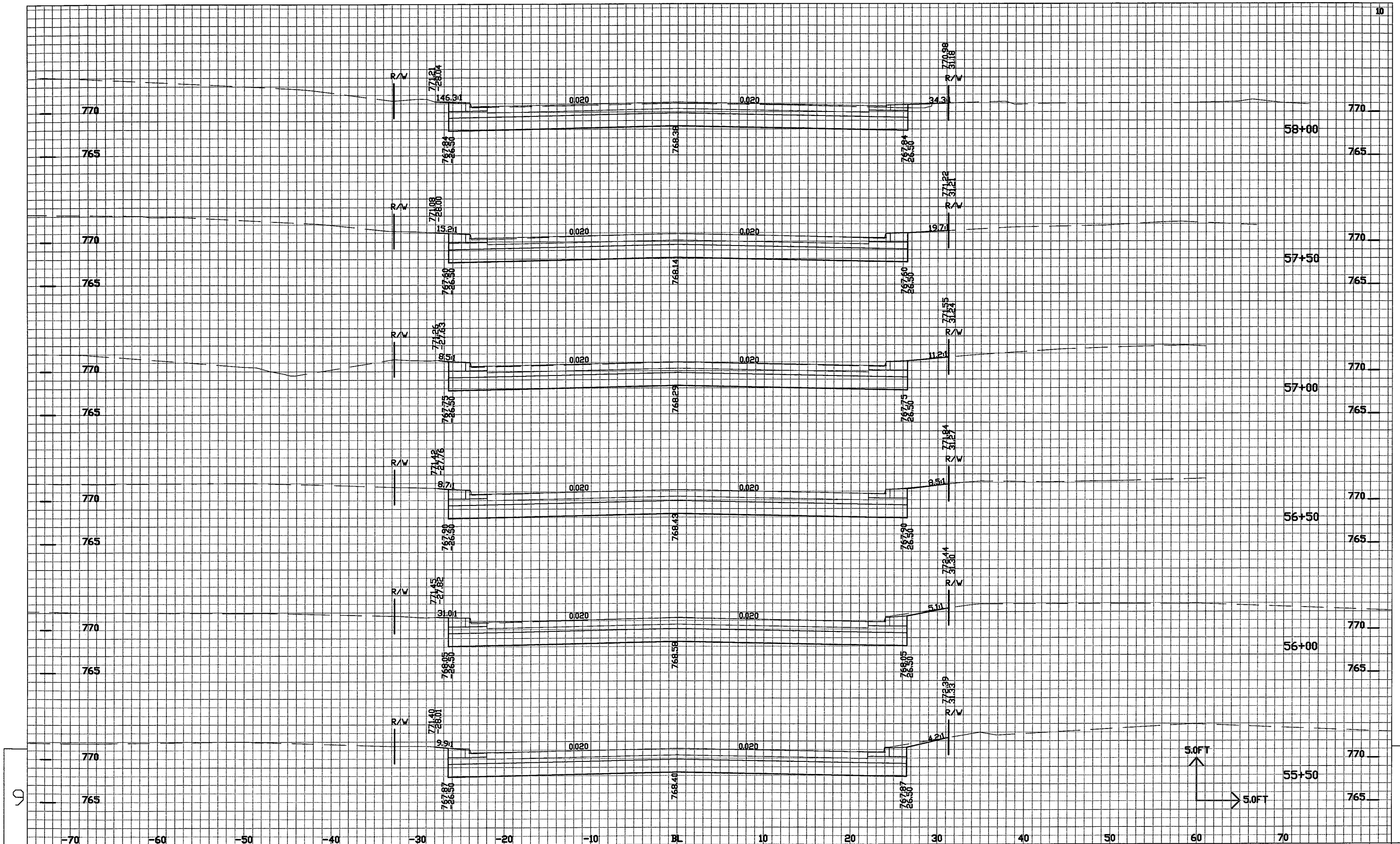
PLOT BY: \$\$\$plotuser\$\$\$

PLOT NAME:

PLOT SCALE: \$\$\$plotscale\$\$\$







PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NO: 145

E

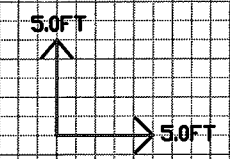
FILE NAME : \$\$\$...designfile...\$\$

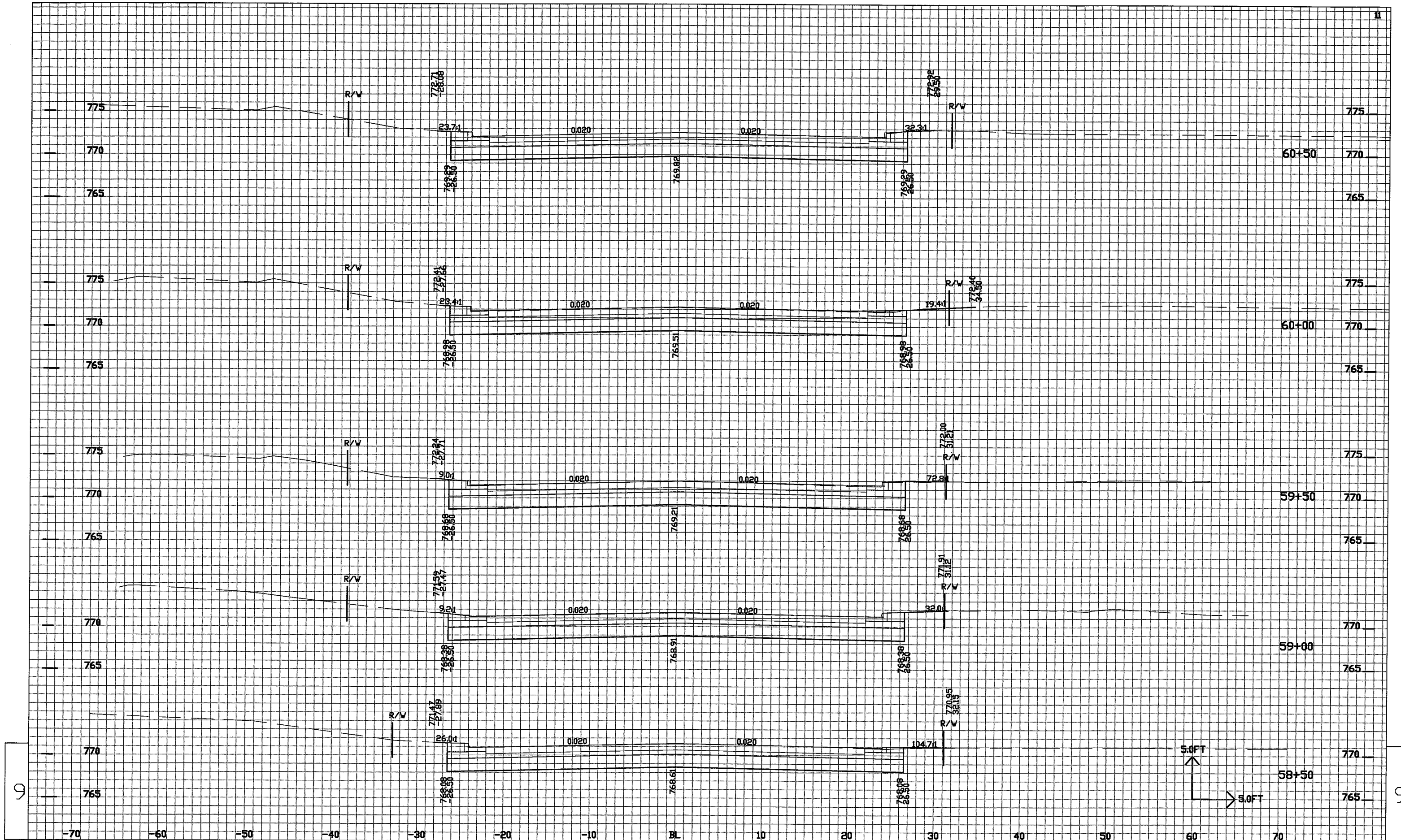
PLOT DATE : \$\$\$...plottingdate...\$\$

PLOT BY : \$\$\$...plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$\$...plotscale...\$\$





PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NO: 146

E

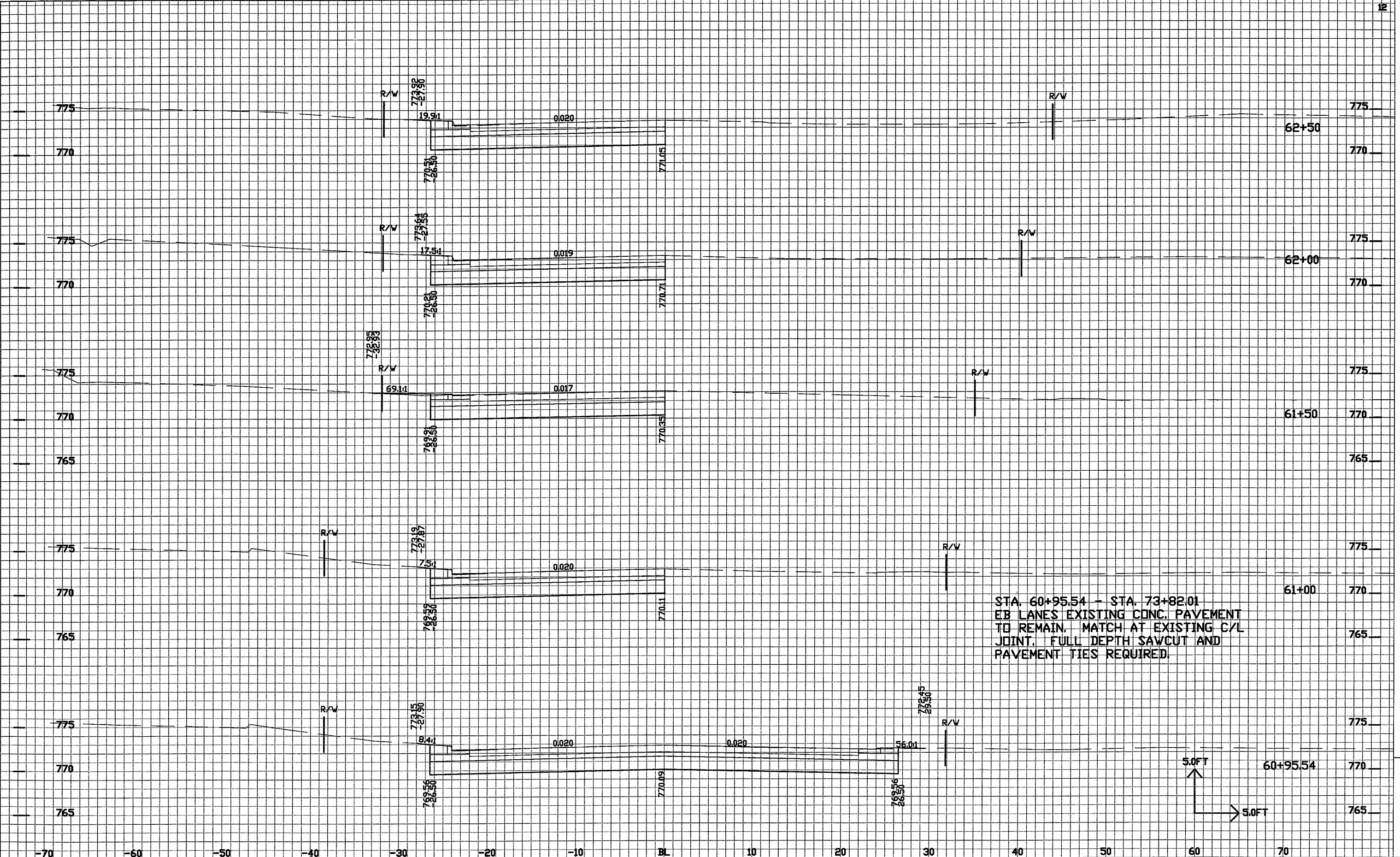
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PLOT DATE: \$\$\$plottingdate...\$\$\$

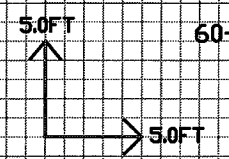
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PLOT NAME:

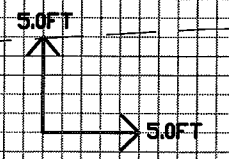
PLOT SCALE: \$\$\$plotscale...\$\$\$



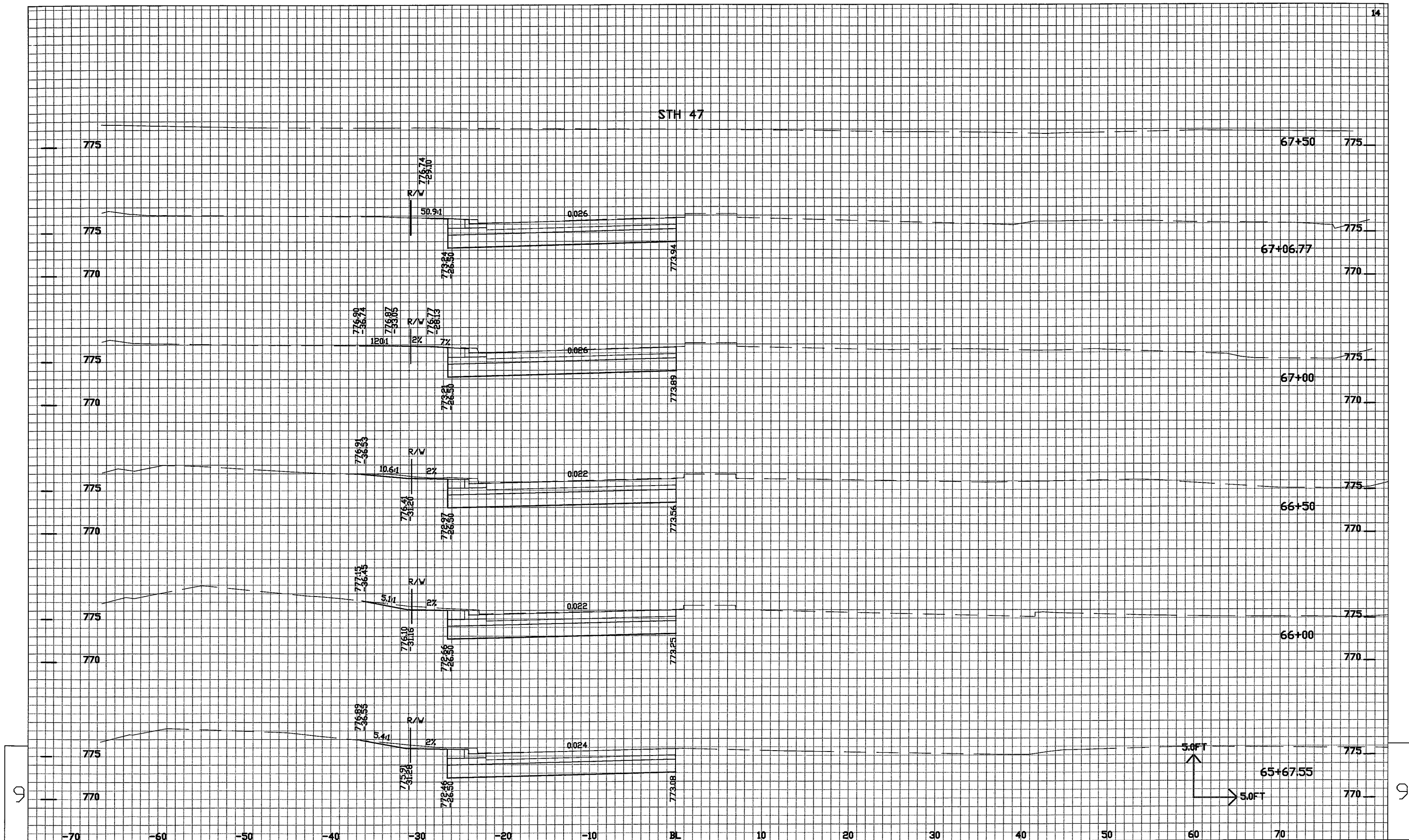
STA. 60+95.54 - STA. 73+82.01  
 EB LANES EXISTING CONC. PAVEMENT  
 TO REMAIN. MATCH AT EXISTING C/L  
 JOINT. FULL DEPTH SAWCUT AND  
 PAVEMENT TIES REQUIRED.



STA. 65+00 LT - STA. 67+00 LT  
REMOVE AND REPLACE 5' ASPHALT  
SIDEWALK. SEE TYPICAL SECTION.



STH 47



PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NO: 149

E

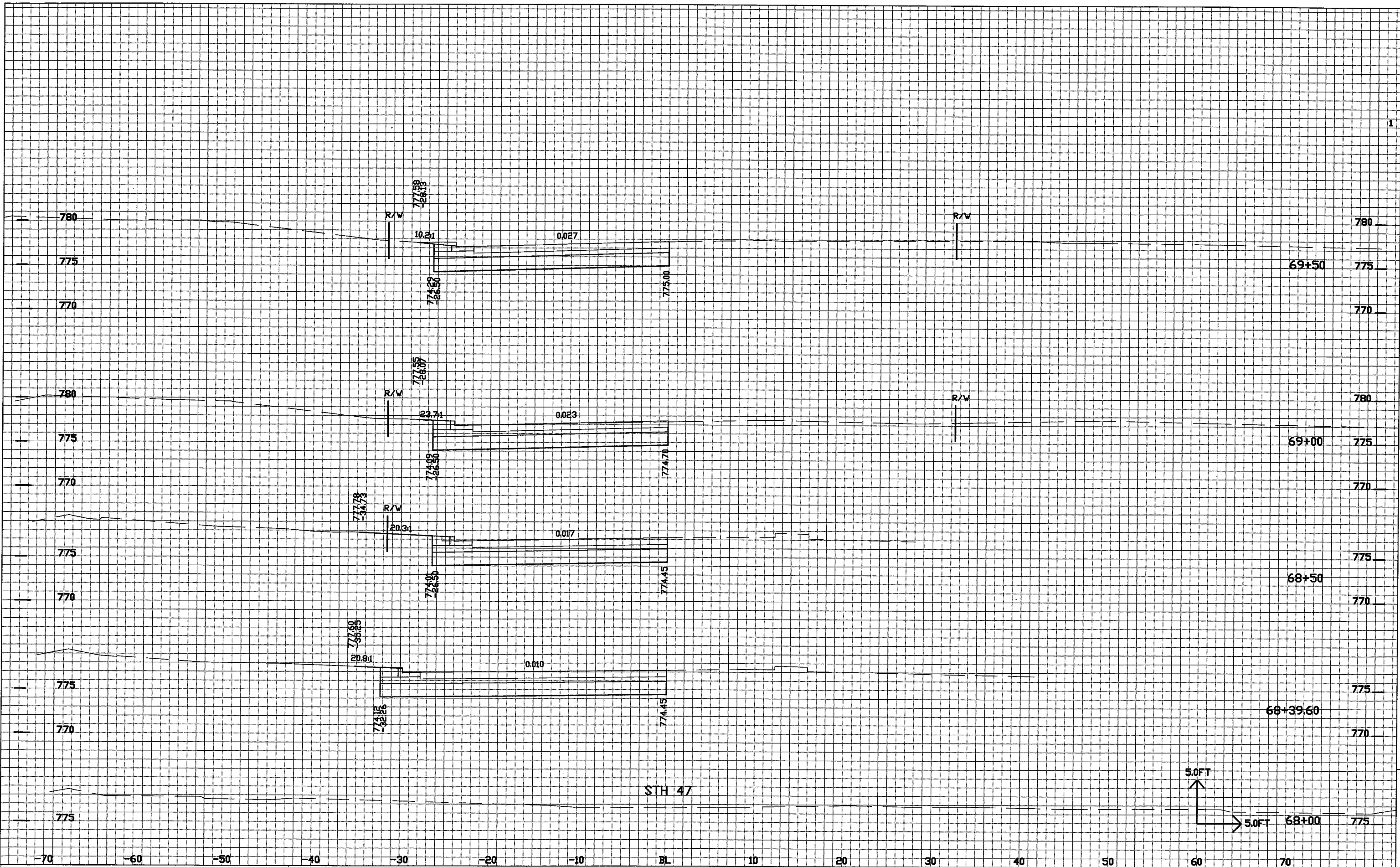
FILE NAME : \$\$...designfile...\$\$

PLOT DATE : \$\$...plottingdate...\$\$

PLOT BY : \$\$...plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$...plotscale...\$\$



PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NC 150

E

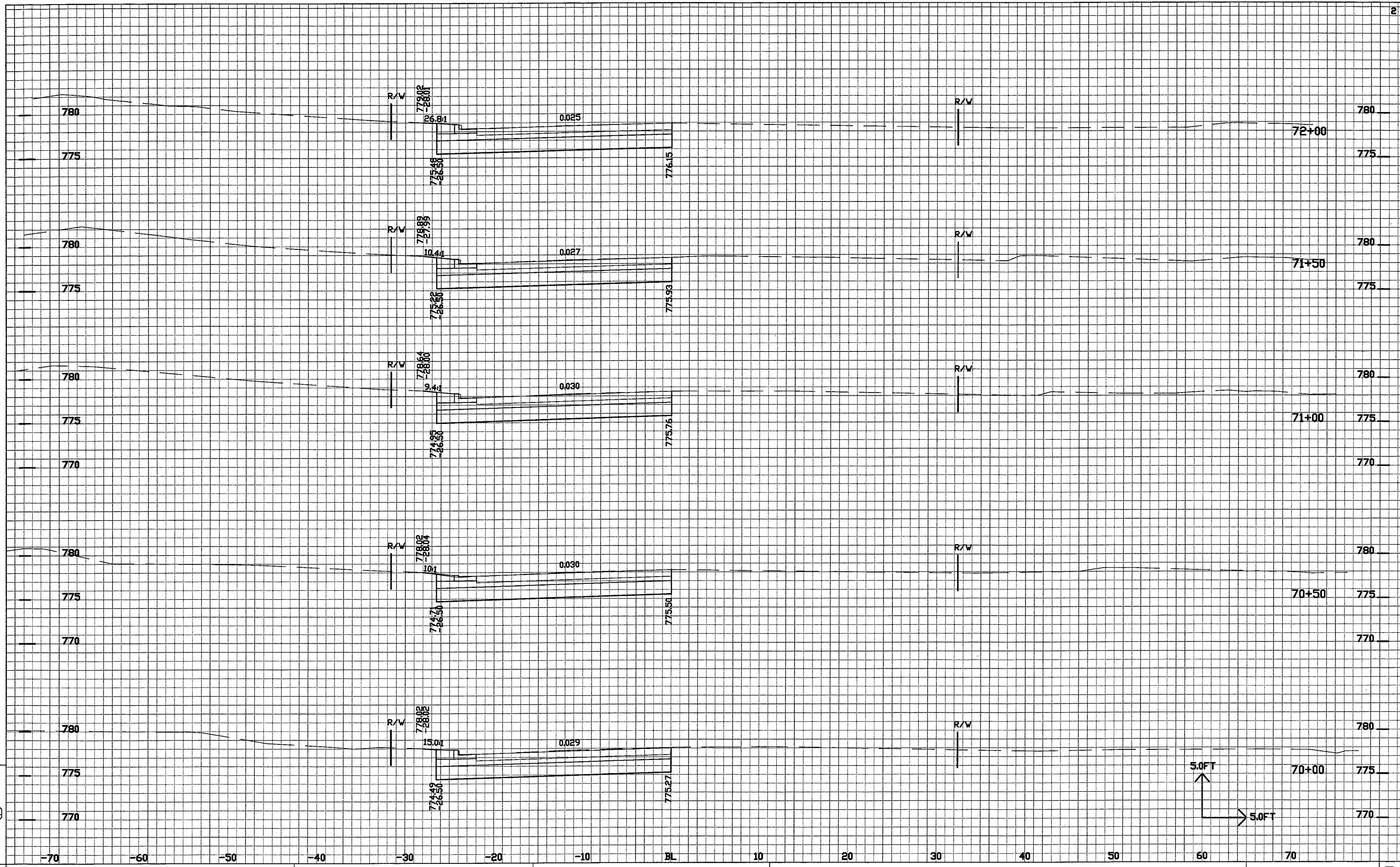
FILE NAME : \$\$...designfile...\$\$

PLOT DATE : \$\$...plottingdate...\$\$

PLOT BY : \$\$...plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$...plotscale...\$\$

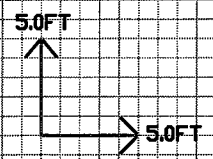


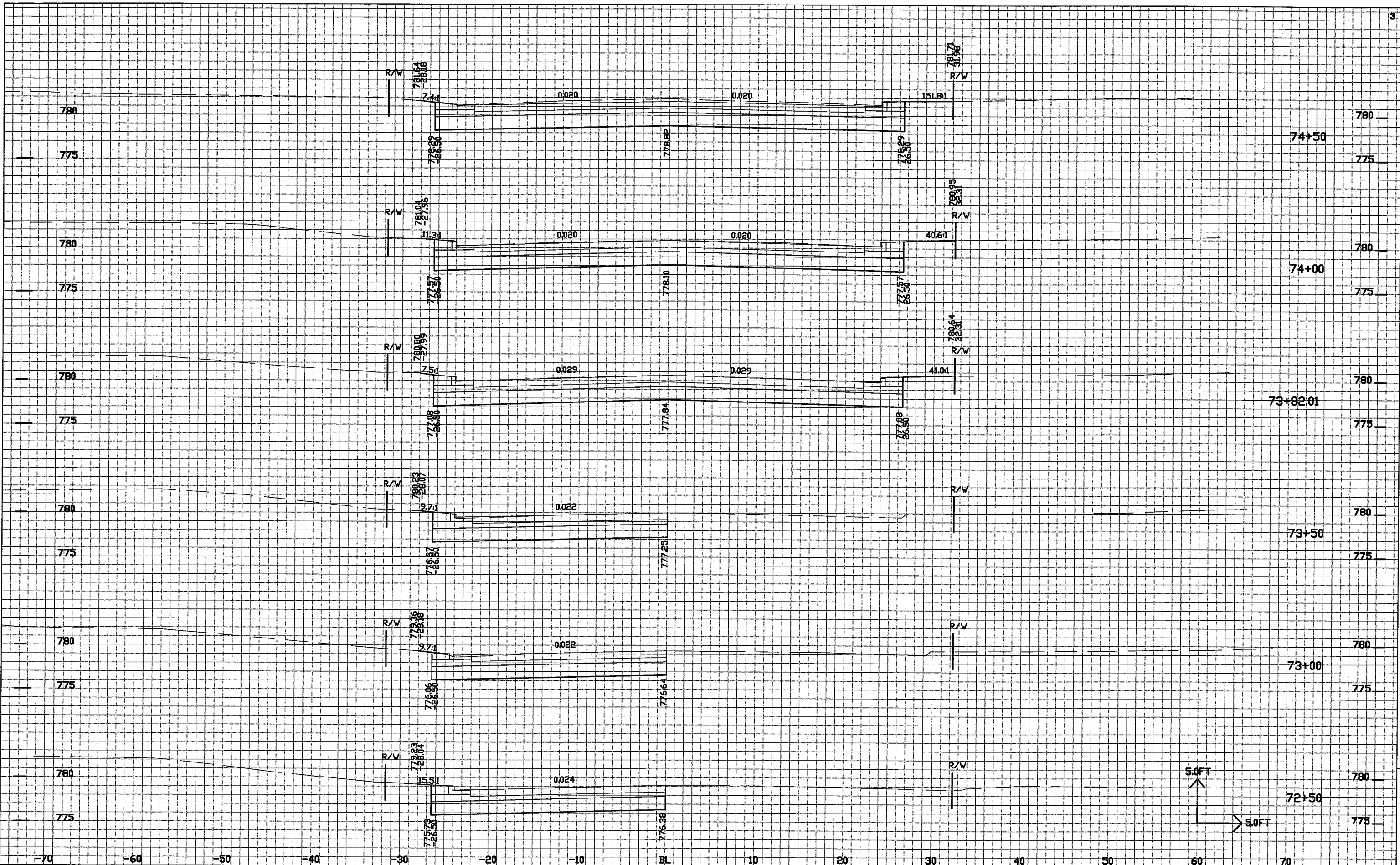
PROJECT NO: 4984-01-30      HWY: MIDWAY ROAD (C.T.H. AP)      COUNTY: WINNEBAGO      CROSS SECTIONS      SHEET NC 151      E

FILE NAME : \$\$...designfile...\$\$      PLOT DATE : \$\$...plottingdate...\$\$      PLOT BY : \$\$...plotuser...\$\$      PLOT NAME :      PLOT SCALE : \$\$...plotscale...\$\$

9

9





PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NC 152

E

FILE NAME : \$\$...designfile...\$\$

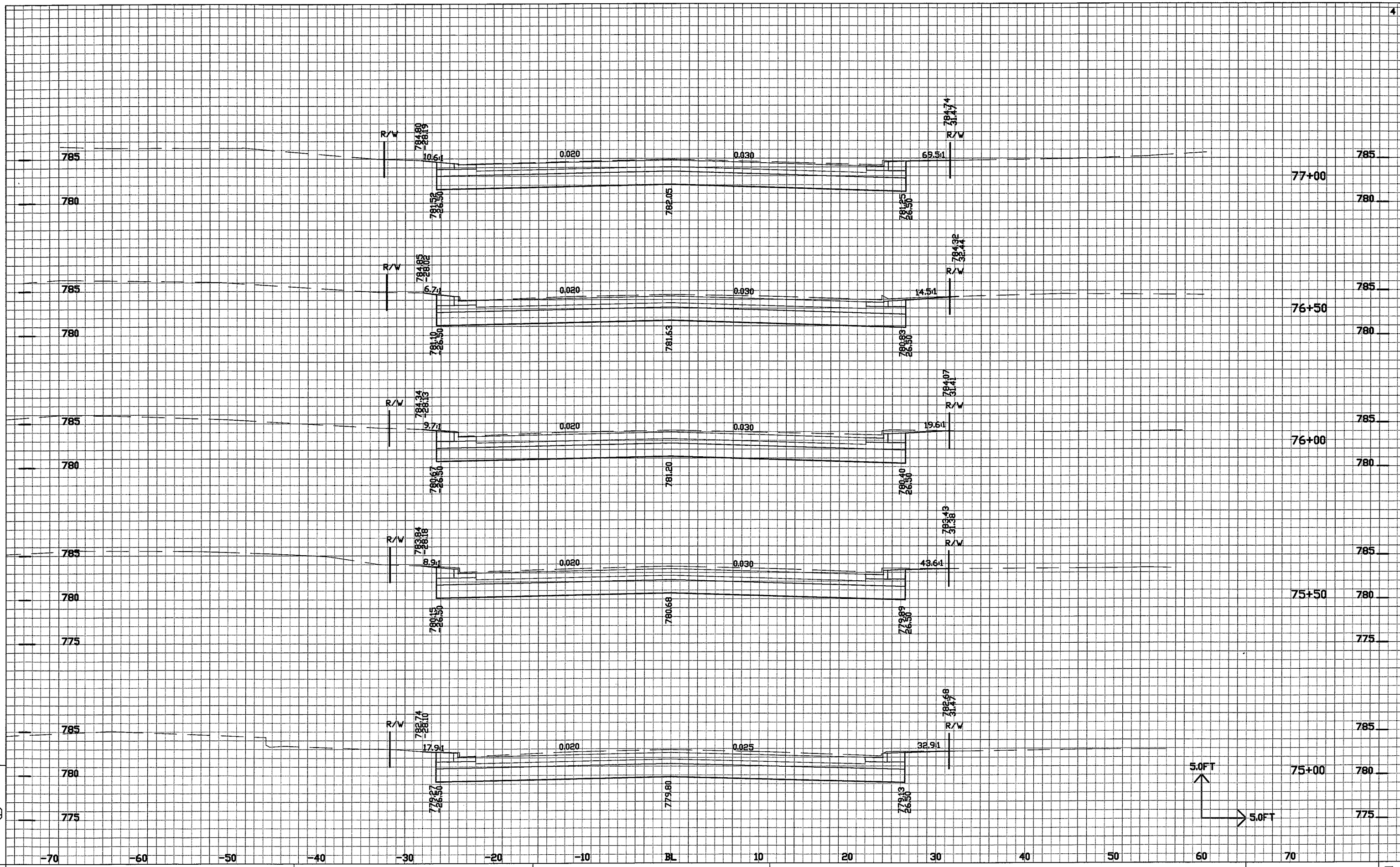
PLOT DATE : \$\$...plottingdate...\$\$

PLOT BY : \$\$...plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$...plotscale...\$\$





PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NC 153

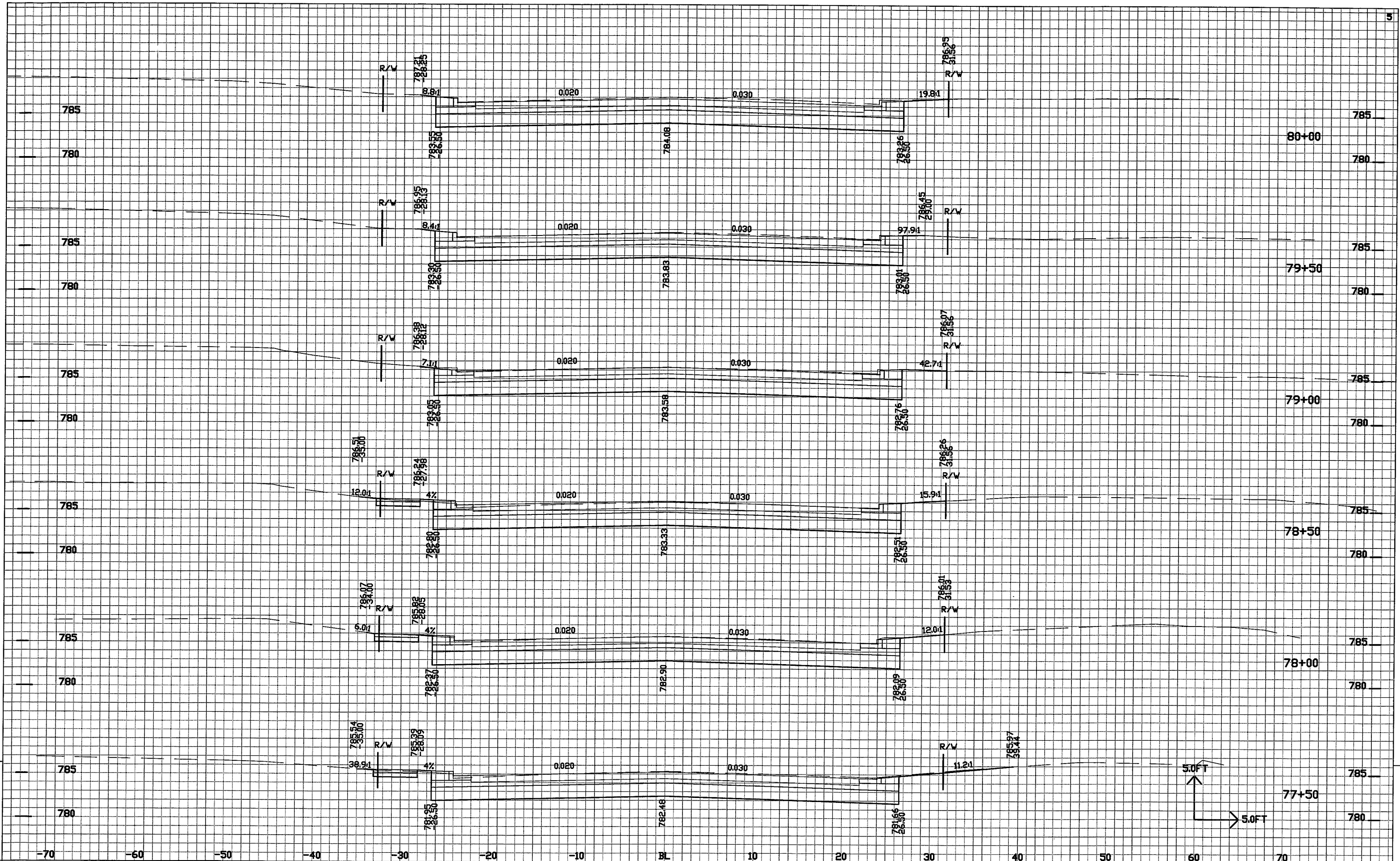
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PLOT DATE : \$\$...plottingdate...\$\$

PLOT BY : \$\$...plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$...plotscale...\$\$



PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NO 154

E

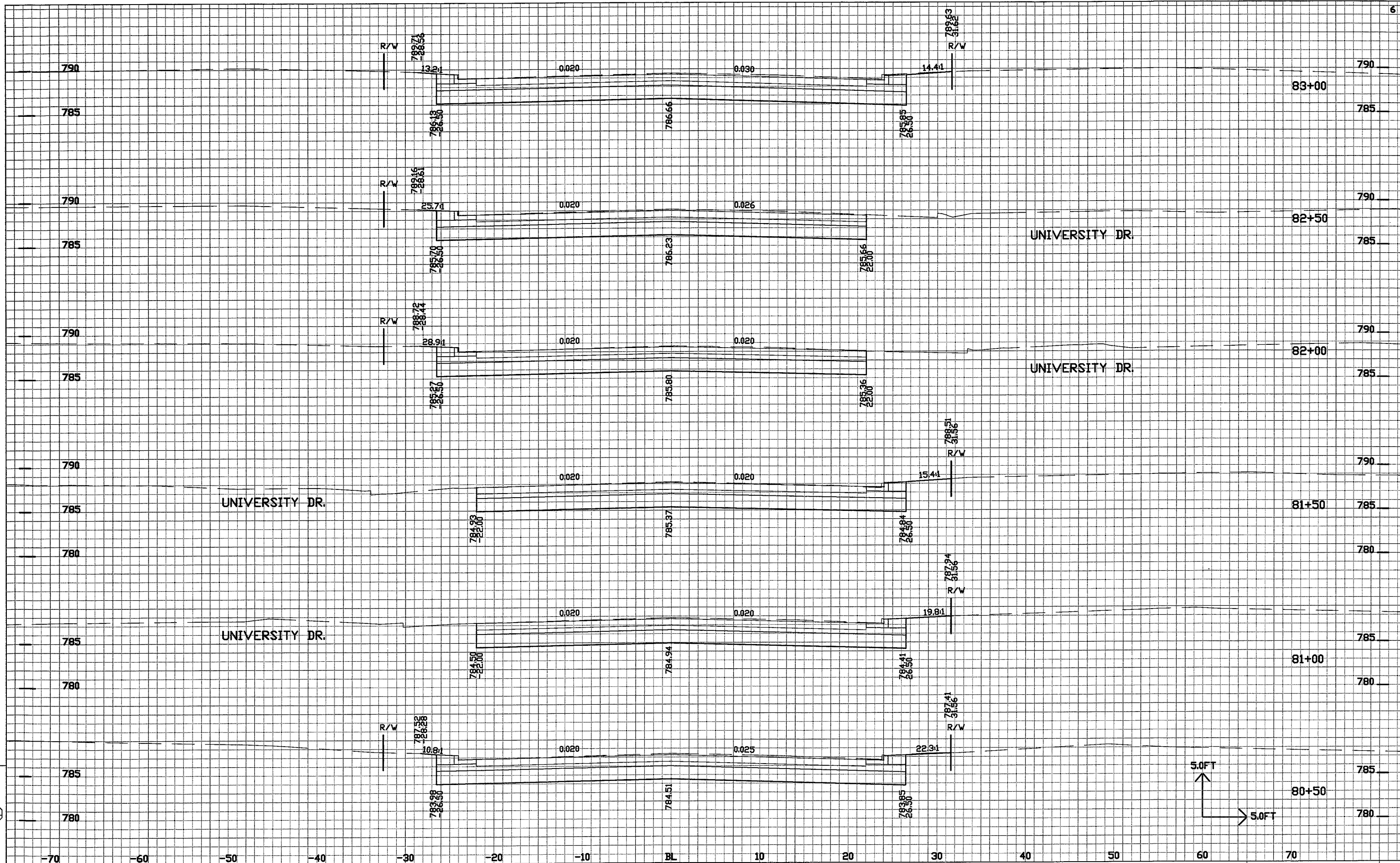
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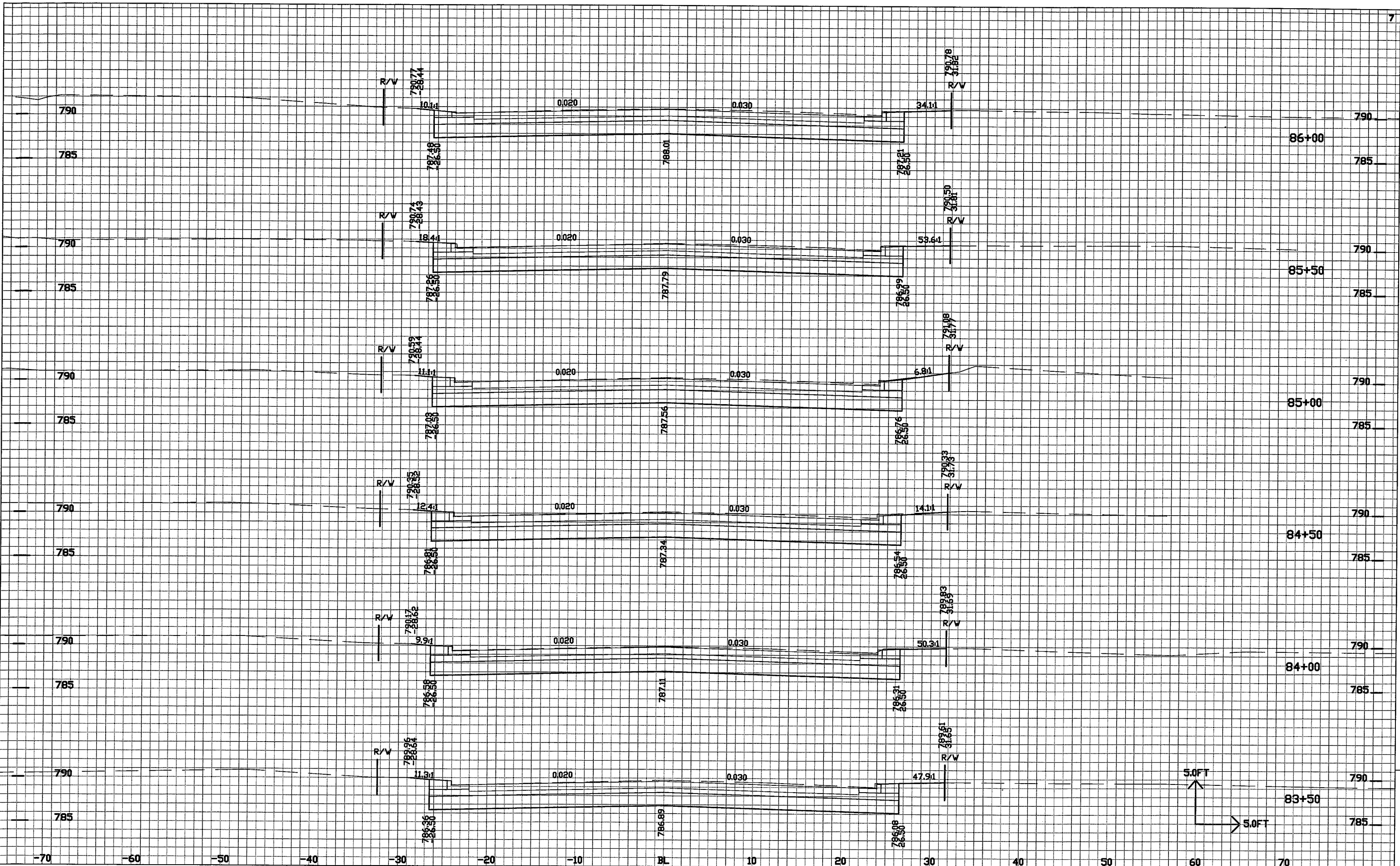
PLOT DATE : \$\$...plottingdate...\$\$

PLOT BY : \$\$...plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$...plotscale...\$\$





PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NC 156

E

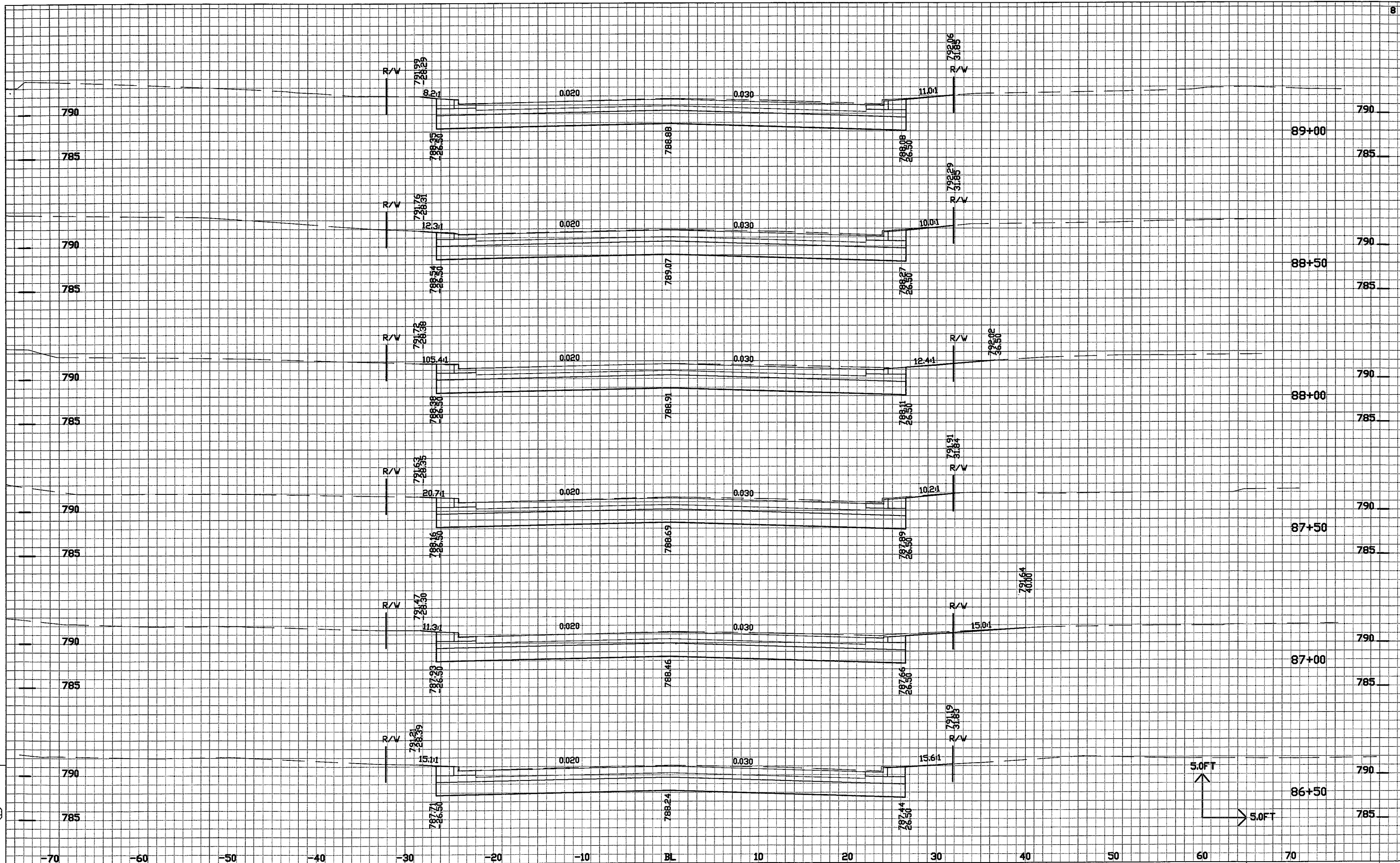
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PLOT DATE : \$\$...plottingdate...\$\$

PLOT BY : \$\$...plotuser...\$\$

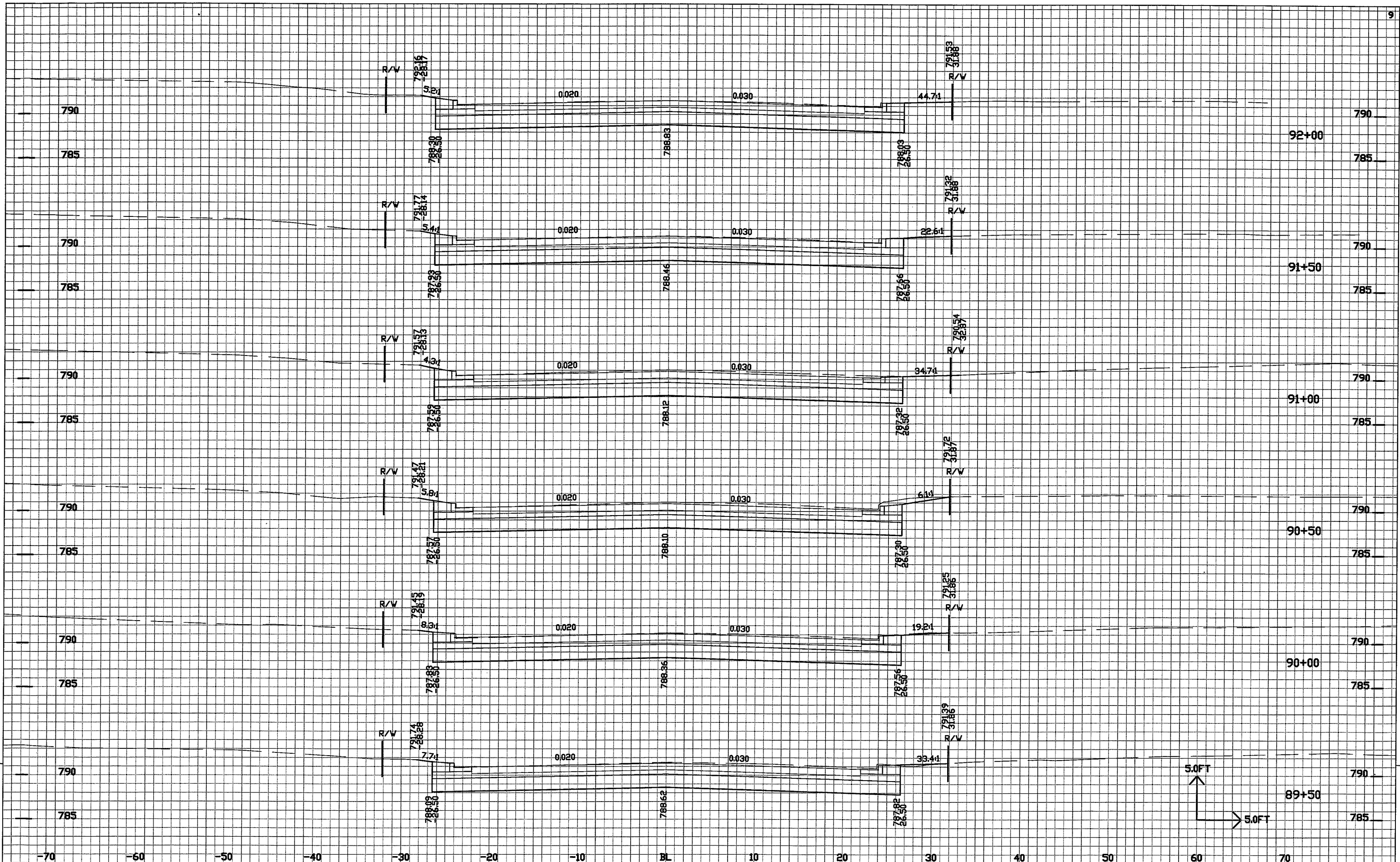
PLOT NAME :

PLOT SCALE : \$\$...plotscale...\$\$



PROJECT NO: 4984-01-30      HWY: MIDWAY ROAD (C.T.H. AP)      COUNTY: WINNEBAGO      CROSS SECTIONS      SHEET NC 157

FILE NAME : \$\$...designfile...\$\$      PLOT DATE : \$\$...plottingdate...\$\$      PLOT BY : \$\$...plotuser...\$\$      PLOT NAME :      PLOT SCALE : \$\$...plotscale...\$\$



PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NC 158

E

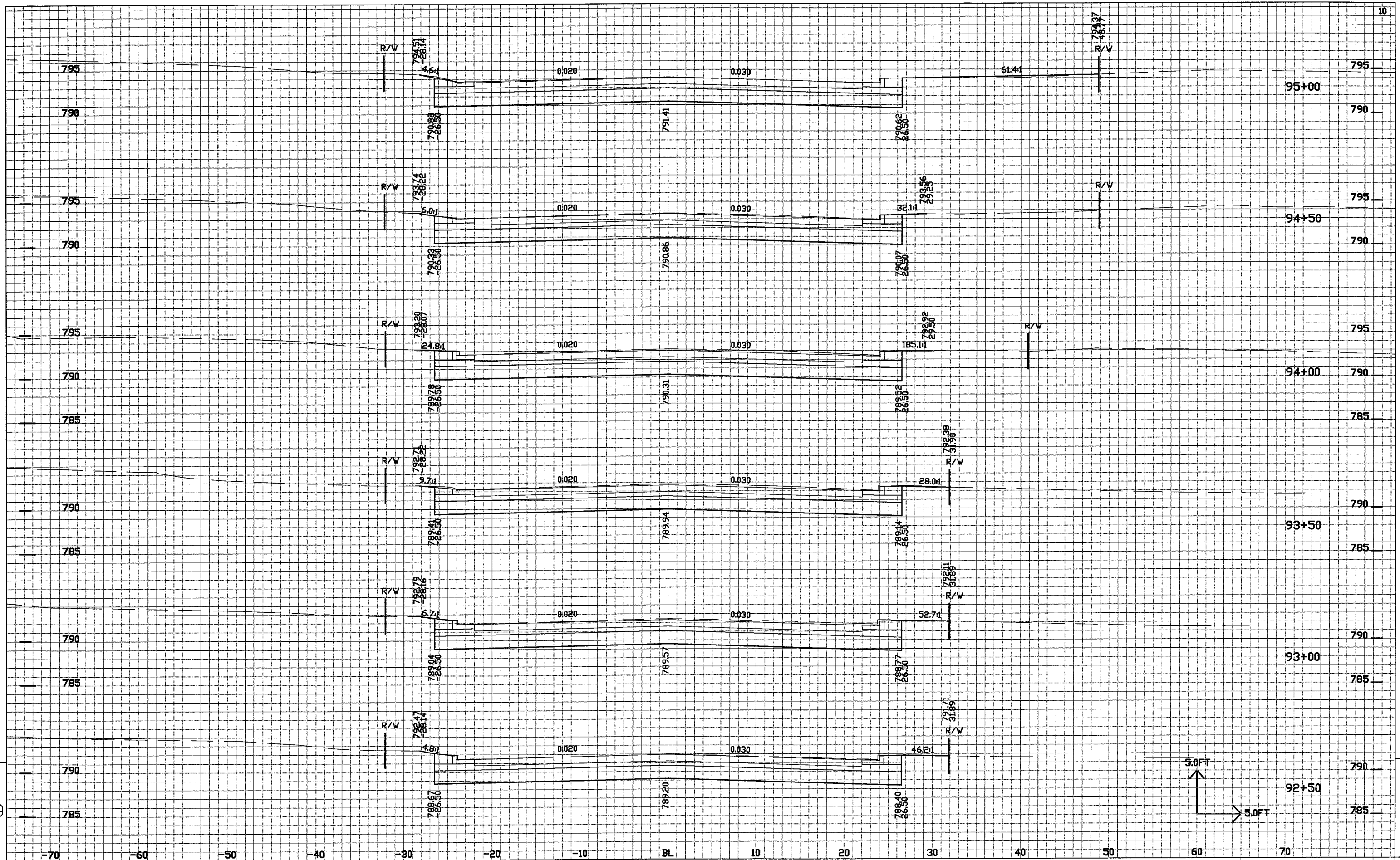
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PLOT DATE : \$\$...plottingdate...\$\$

PLOT BY : \$\$...plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$...plotscale...\$\$



PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NC 159

E

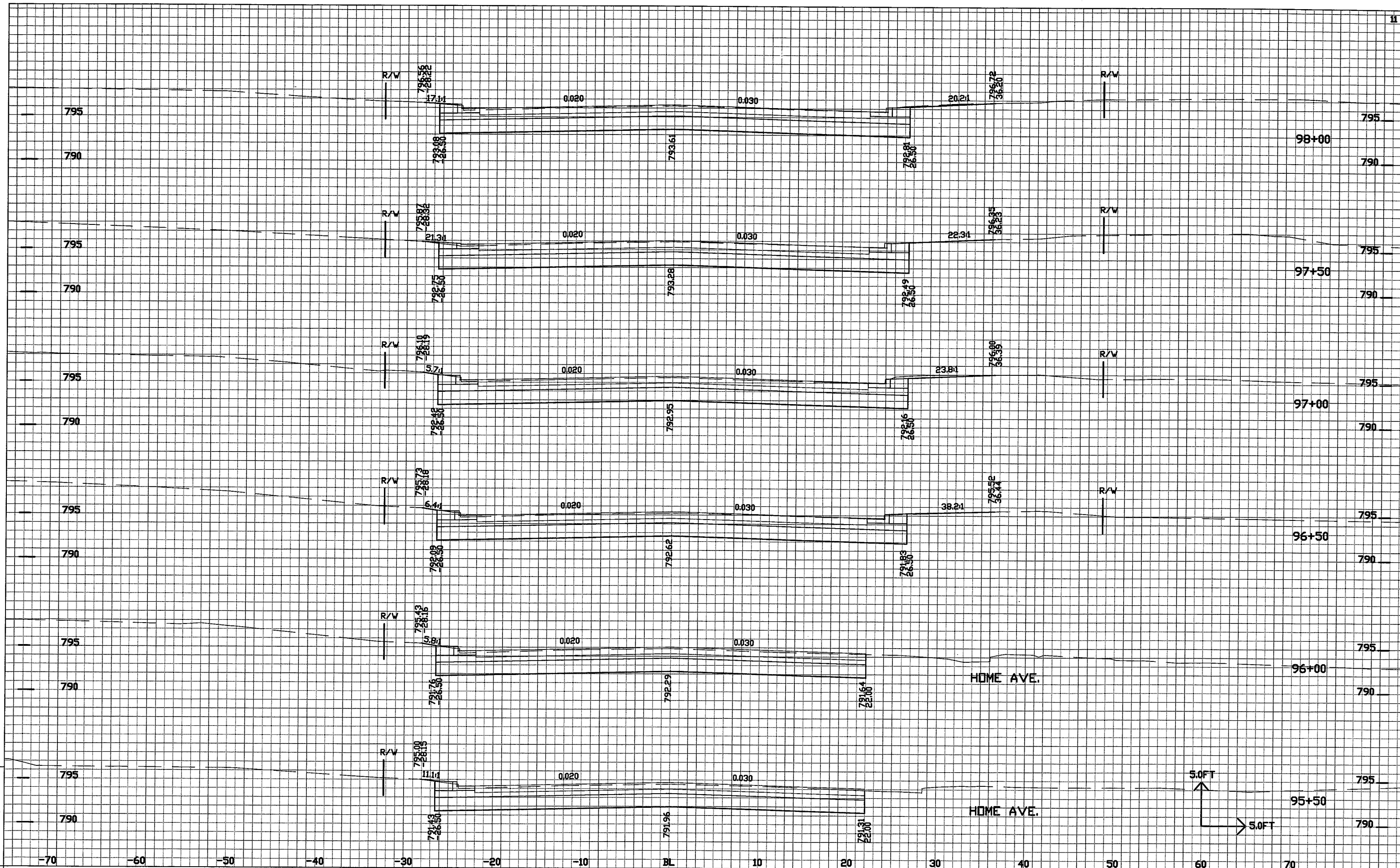
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PLOT DATE : \$\$...plottingdate...\$\$

PLOT BY : \$\$...plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$...plotscale...\$\$



PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NC 160

E

FILE NAME : \$\$...designfile...\$\$

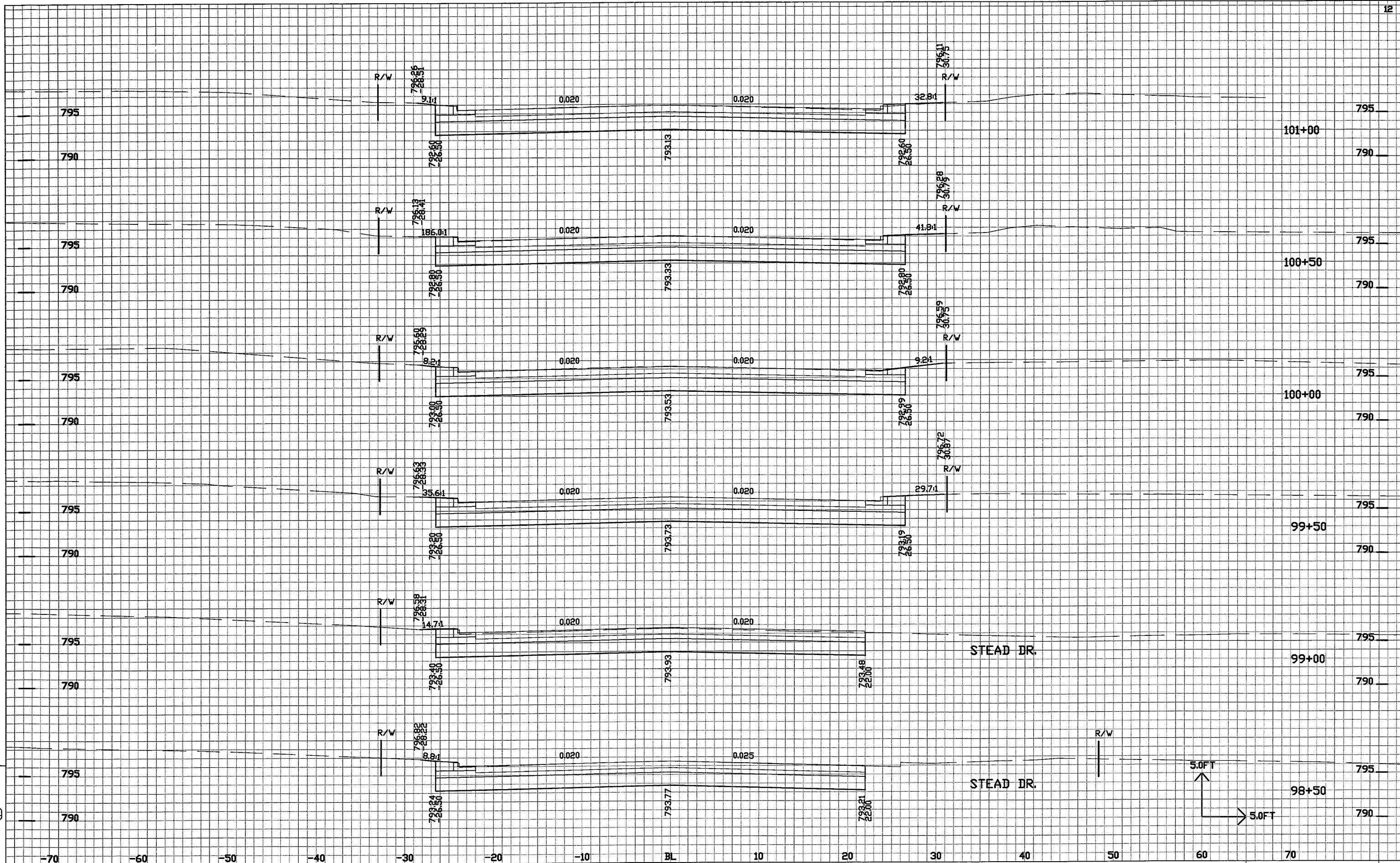
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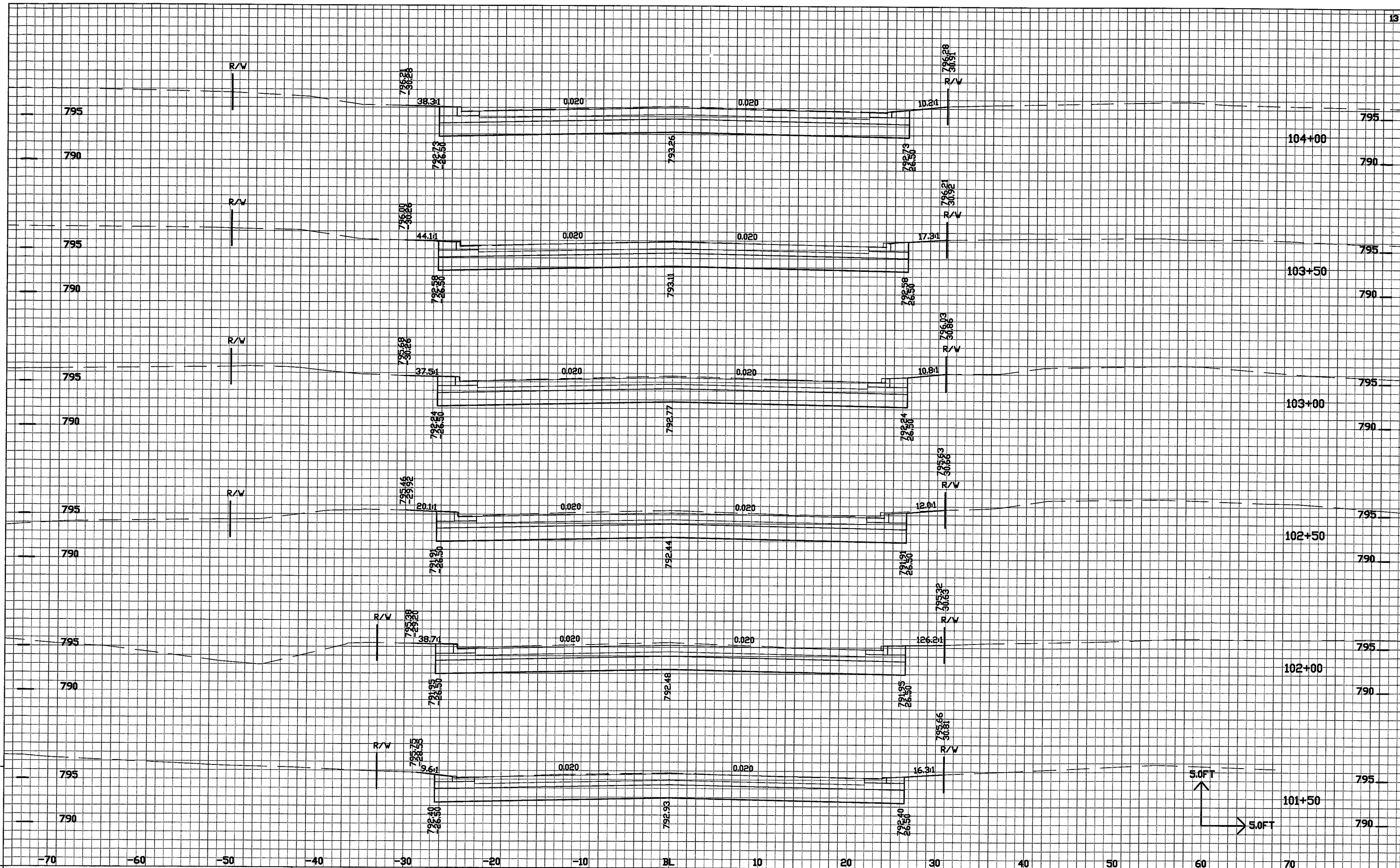
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PLOT NAME :

PLOT SCALE : \$\$...plotscale...\$\$







PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NC 162

E

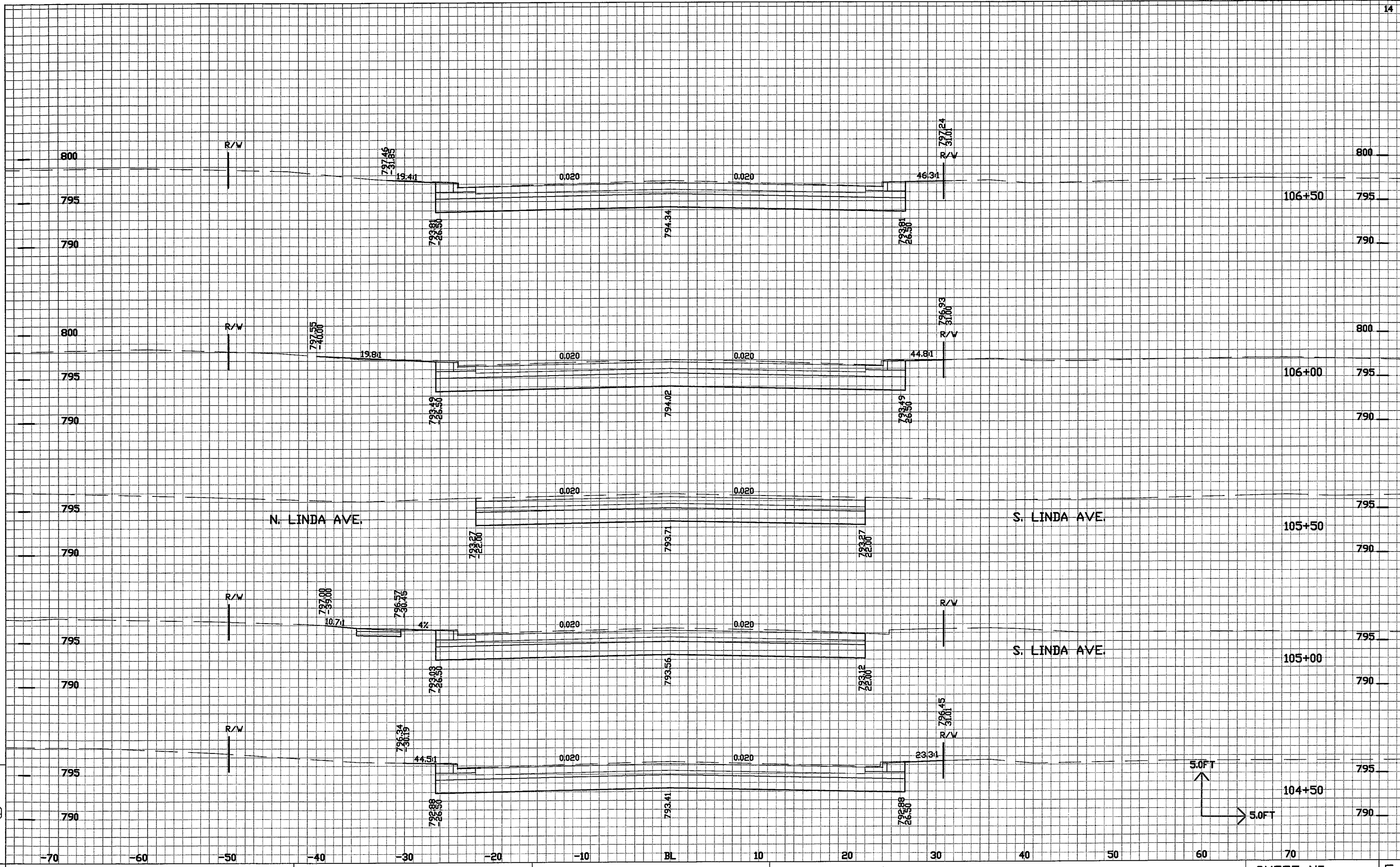
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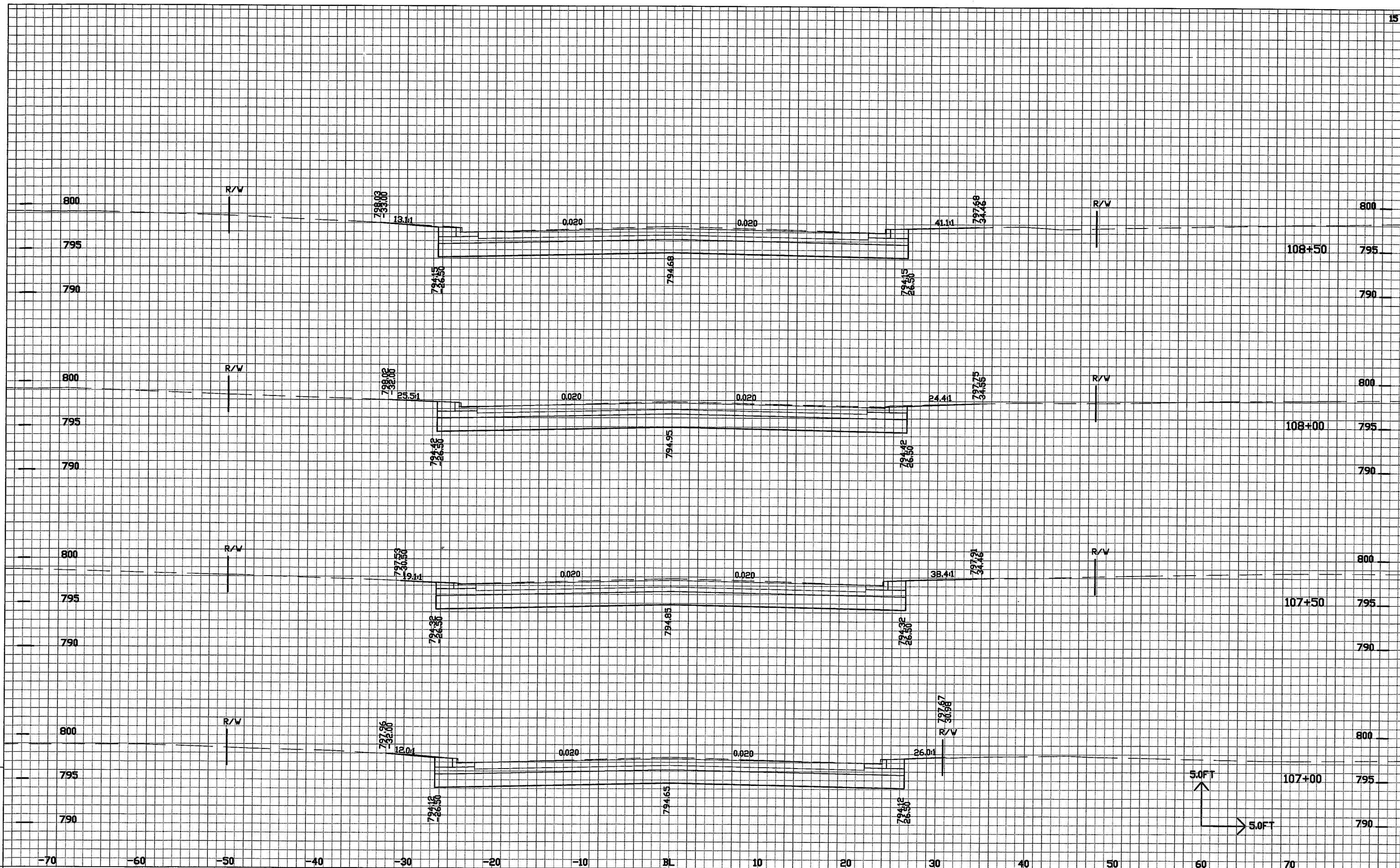
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PLOT BY : \$\$\$plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$\$plotscale...\$\$





PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NC 164

E

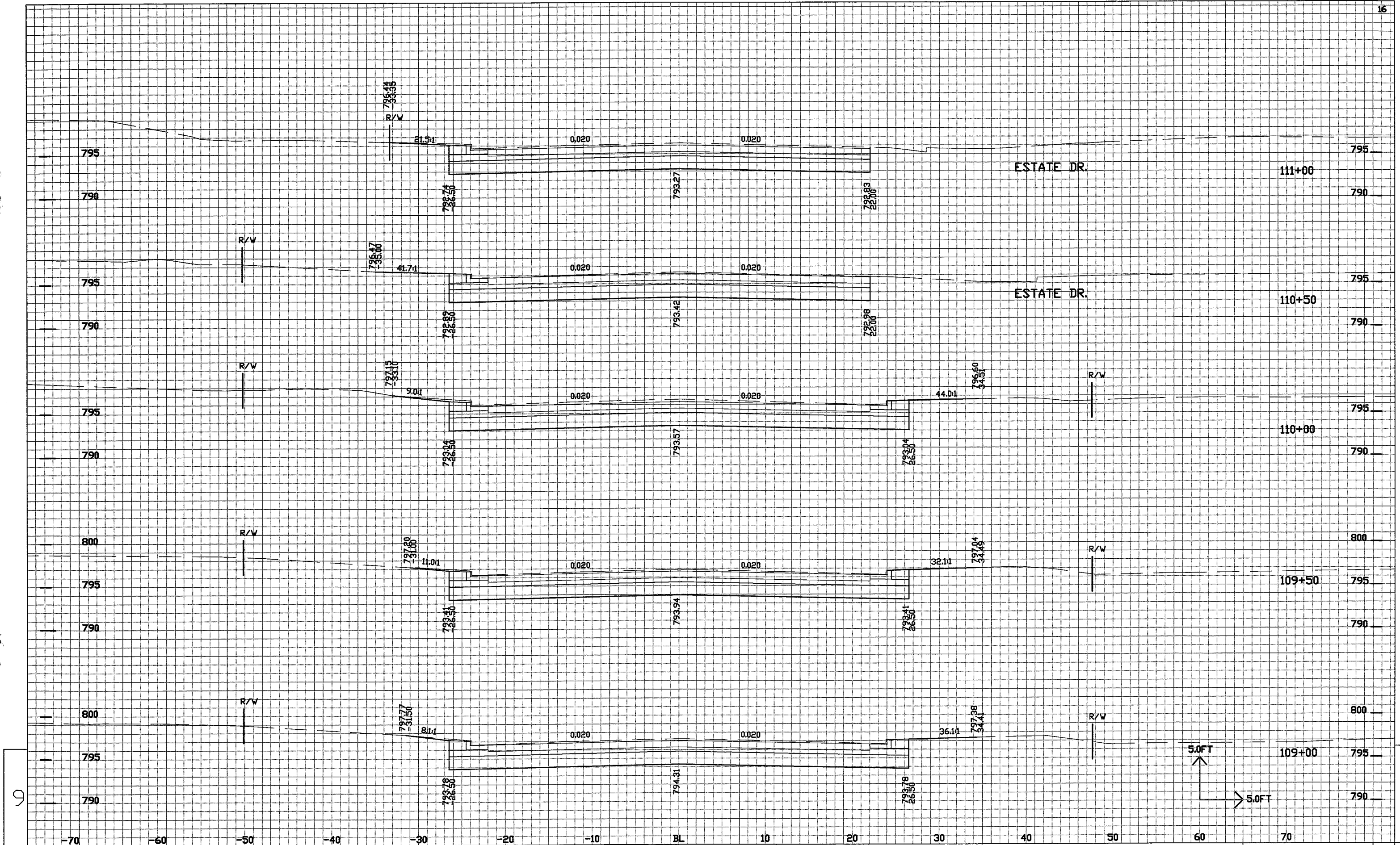
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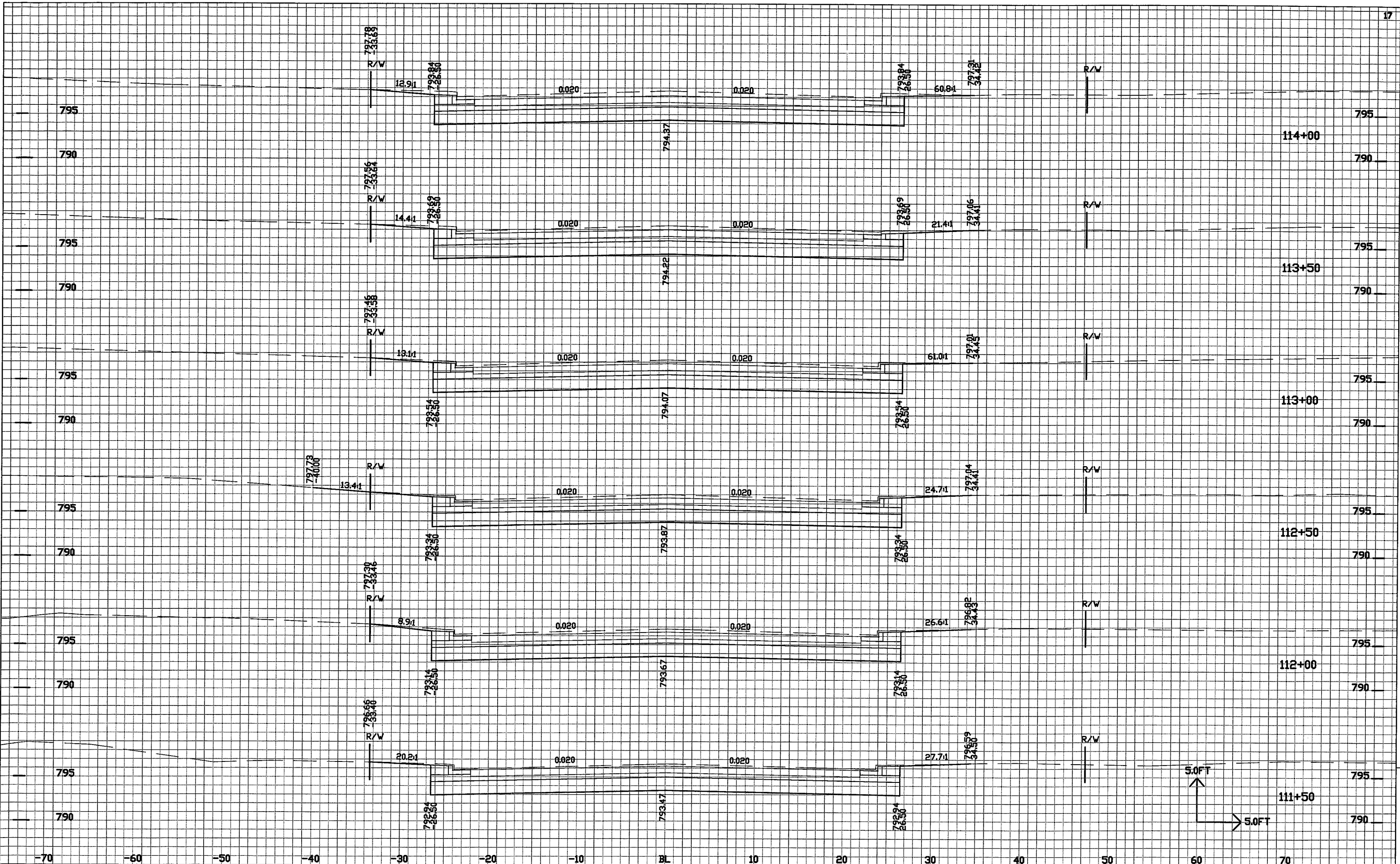
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PLOT NAME :

PLOT SCALE : \$\$...plotscale...\$\$





PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP) COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NC 166

E

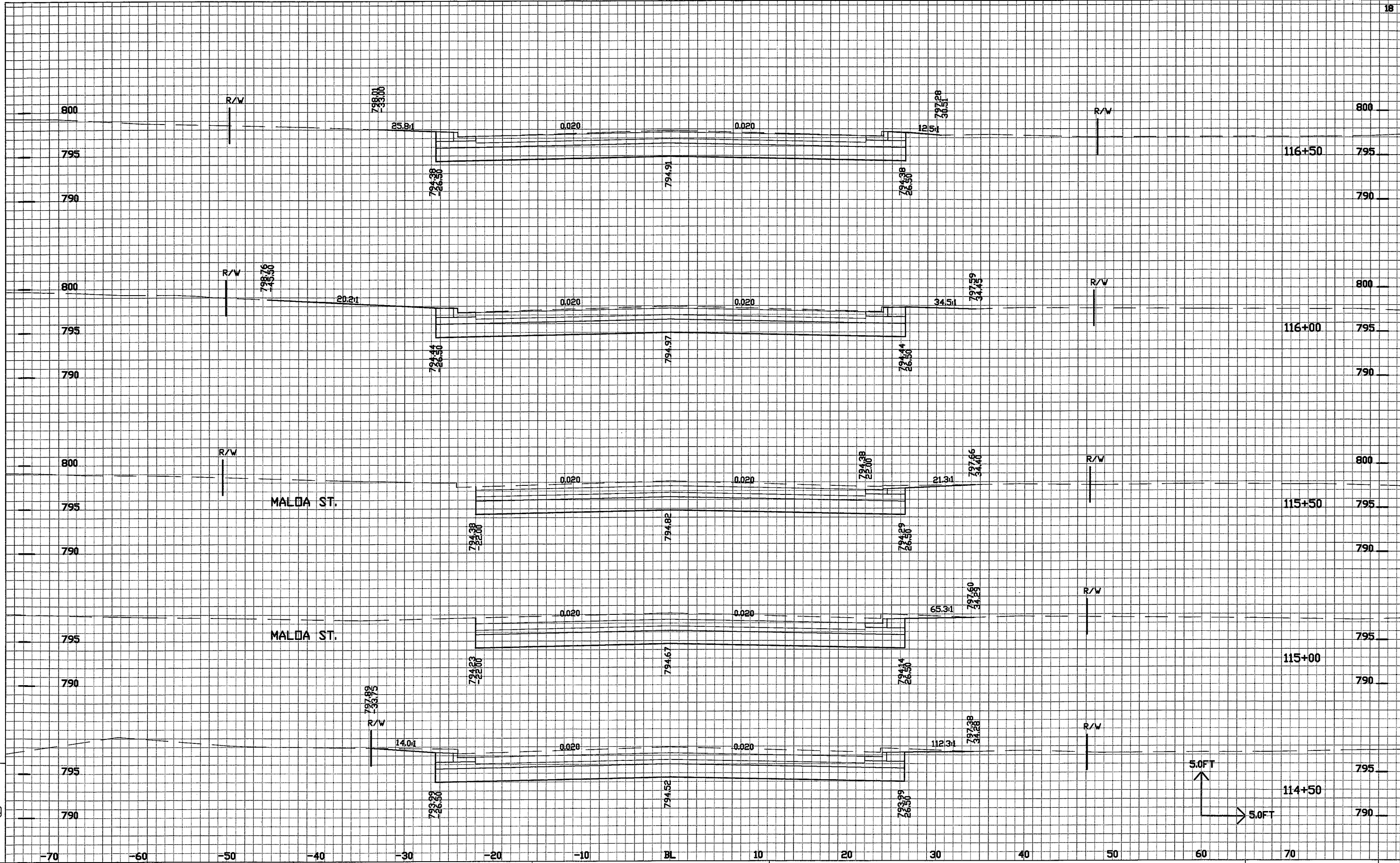
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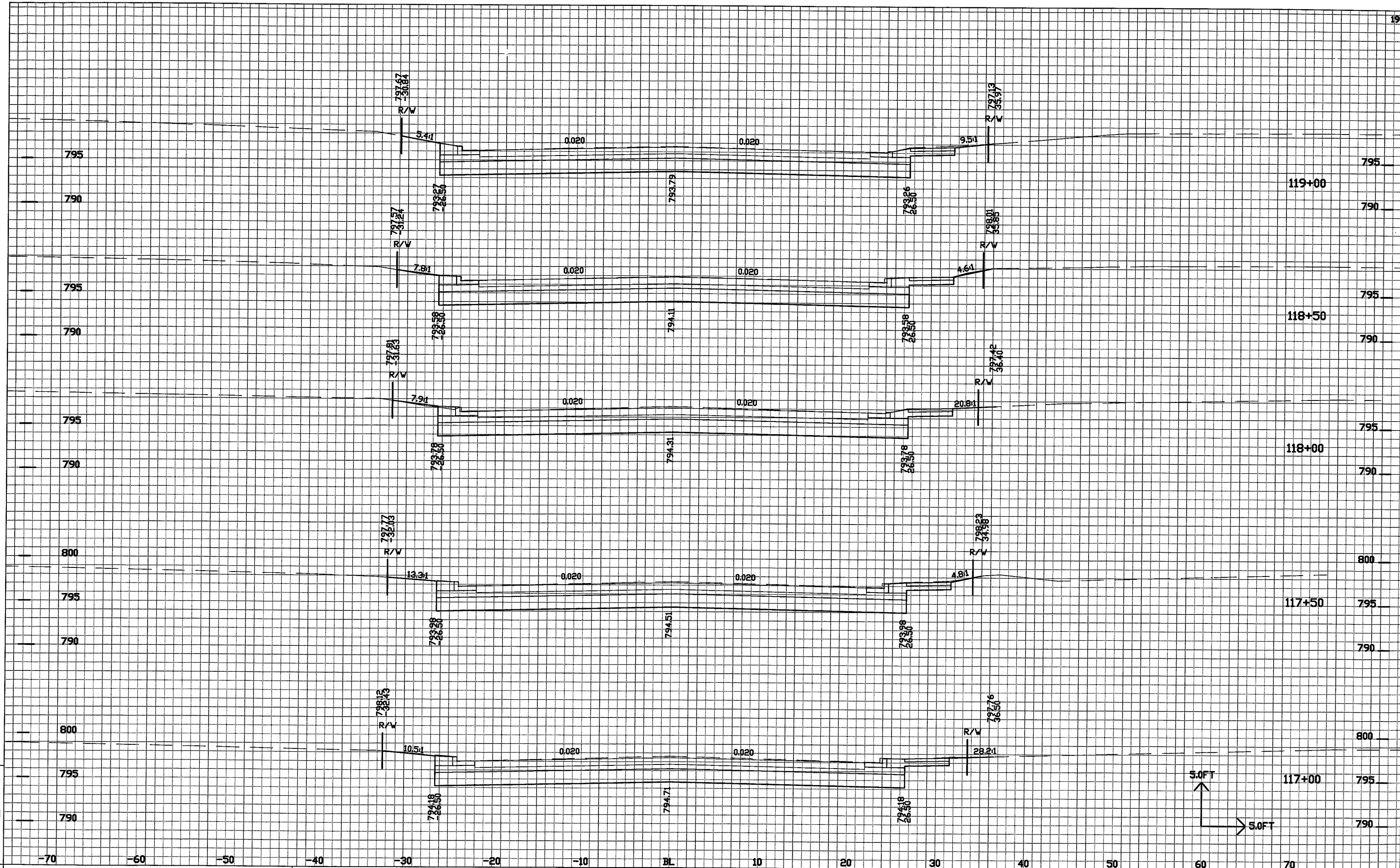
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PLOT BY : \$\$...plotuser...\$\$

PLOT NAME :

PLOT SCALE : \$\$...plotscale...\$\$





PROJECT NO: 4984-01-30

HWY: MIDWAY ROAD (C.T.H. AP)

COUNTY: WINNEBAGO

CROSS SECTIONS

SHEET NC 168

E

FILE NAME : \$\$...designfile...\$\$

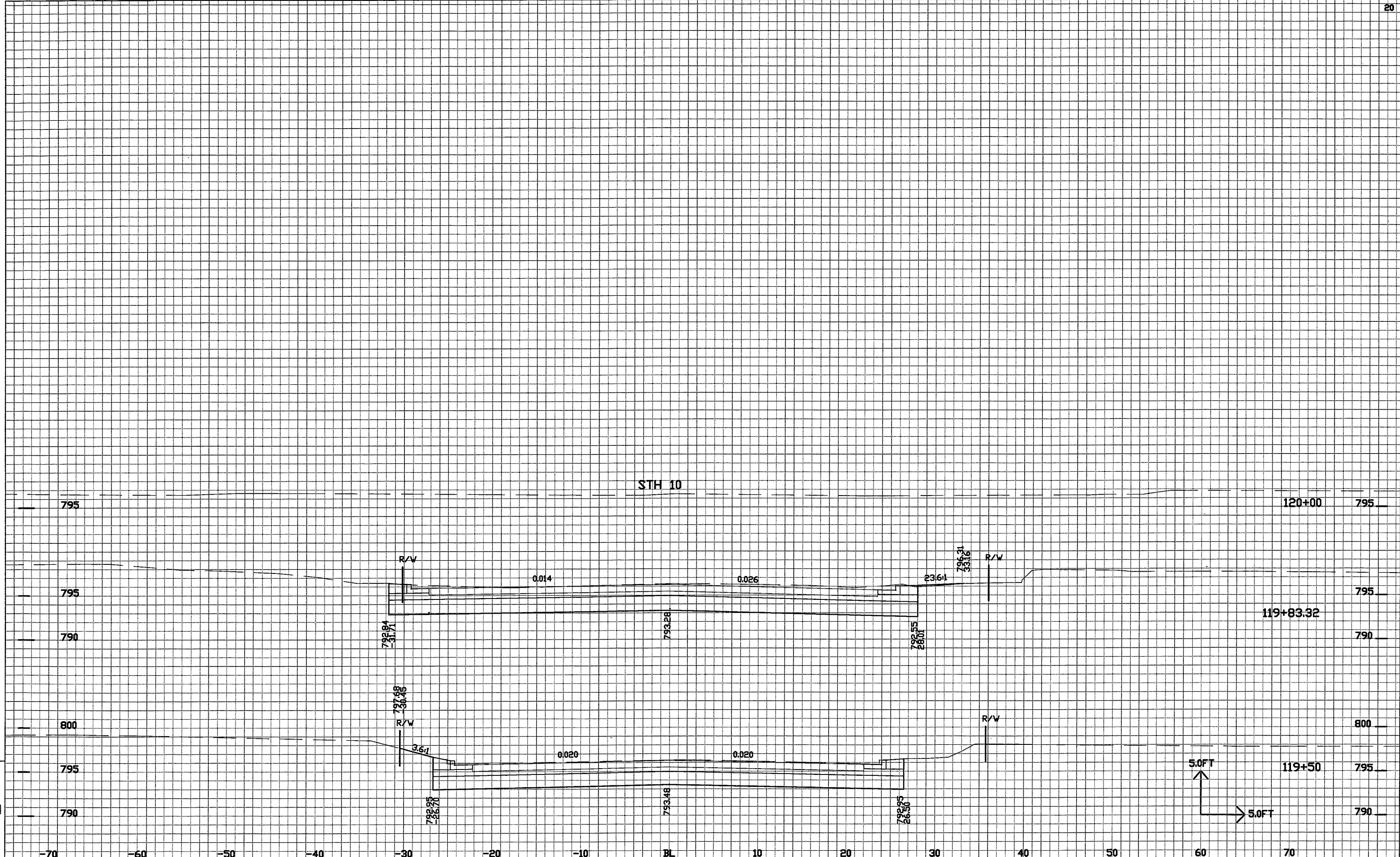
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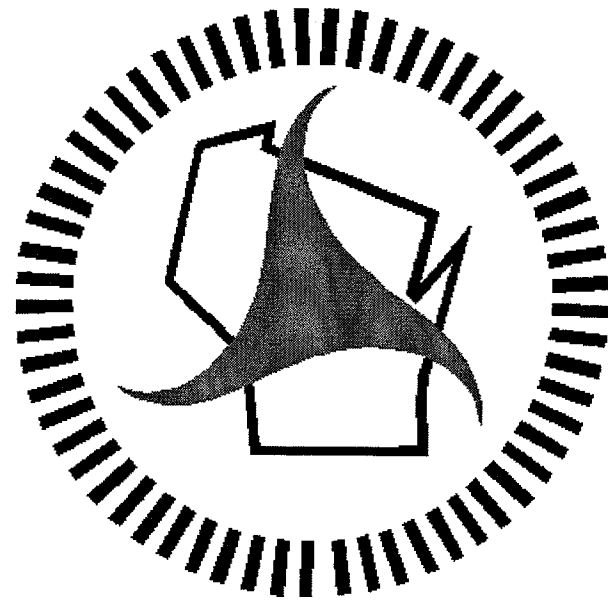
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PLOT NAME :

PLOT SCALE : \$\$...plotscale...\$\$







## ***Wisconsin Department of Transportation***

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