

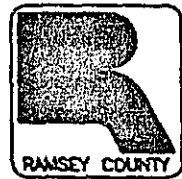
HWY 96

McMENEMY TO BRAMBLEWOOD

MINNESOTA DEPARTMENT OF TRANSPORTATION

RAMSEY COUNTY

DEPARTMENT OF PUBLIC WORKS



MINN. PROJ. NO. TEAF 6297 (358)

PLAN SYMBOLS

STATE LINE
COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
RIGHT-OF-WAY LINE
PRESENT RIGHT-OF-WAY LINE
CONTROL OF ACCESS LINE
PROPERTY LINE (Except Land Lines)
VACATED PLATTED PROPERTY
CORPORATE OR CITY LIMITS

TRUNK HIGHWAY CENTER LINE
RETAINING WALL
RAILROAD
RAILROAD RIGHT-OF-WAY LINE
RIVER OR CREEK
DRAINAGE DITCH
DRAIN TILE
CULVERT
DROP INLET
GUARD RAIL
BARBED WIRE FENCE
WOVEN WIRE FENCE
CHAIN LINK FENCE
WOODEN FENCE
STONE WALL OR FENCE
HEDGE
RAILROAD CROSSING SIGN
RAILROAD CROSSING BELL
ELECTRIC WARNING SIGN
CROSSING GATE
HATCHER CORNER
SPRINGS
WATER
TIMBER
ORCHARD
BRUSH
NURSERY
CATCH BASIN
FIRE HYDRANT
CATTLE GUARD
OVERPASS (Highway Over)
UNDERPASS (Highway Under)
SLUDGE
BUILDING (One Story Frame)
F-FRAME
S-STONE
B-BRICK
ST-STUCCO
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W/INVERT (STONE, CONCRETE, OR METAL)
WOODEN HUC
GRAVEL PIT
SAND PIT
BORROW PIT
ROCK QUARRY

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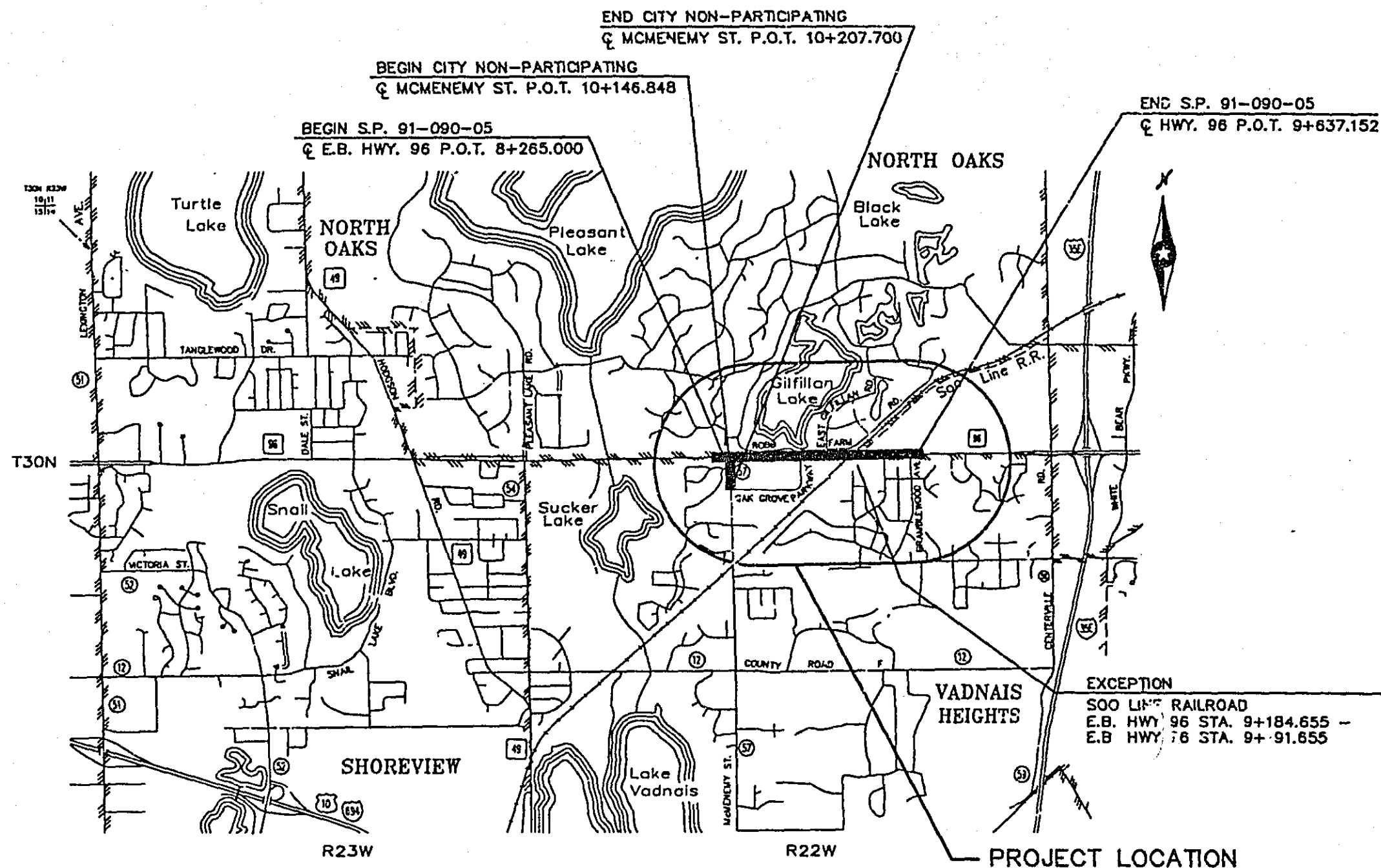
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CONSTRUCTION PLAN FOR GRADING, BITUMINOUS TRAIL, & MISC. CONSTRUCTION

LOCATED IN RAMSEY COUNTY ON HWY 96 FROM MCMENEMY ST. TO BRAMBLEWOOD AVE.
S.P. 91-090-05



LEGAL DESCRIPTION

BEGINNING AT A POINT 2 m NORTH AND 477 m WEST FROM THE NORTHEAST CORNER OF SECTION 19, TOWNSHIP 30, RANGE 22 RAMSEY COUNTY, MINNESOTA
ENDING AT A POINT 0.5 m SOUTH AND 122 m WEST FROM THE NORTHEAST CORNER OF SECTION 20, TOWNSHIP 30, RANGE 22 RAMSEY COUNTY, MINNESOTA

NOTE:

THE EXACT LOCATION OF UNDERGROUND GAS, TELEPHONE, FIBEROPTIC, ELECTRIC, CABLE TV AND PIPE LINES ARE UNKNOWN. THE CONTRACTOR SHALL CONTACT Gopher STATE ONE CALL BEFORE COMMENCING EXCAVATION.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MUTCD, INCLUDING FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS, APRIL 1995.

SCALES (FULL SIZE)
PLAN 1:500
PROFILE HORZ. 1:500
VERT. 1:50

S.P. 91-090-05

GROSS LENGTH 1372.152 m 1.372 km
BRIDGE LENGTH 0.00 m 0.000 km
EXCEPTION LENGTH 0.00 m 0.000 km
NET LENGTH 1372.152 m 1.372 km

DESIGN SPEED: 30 km/h
BASED ON: STOPPING SIGHT DISTANCE
HEIGHT OF EYE: 1400 mm HEIGHT OF OBJECT: 0 mm

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY



PROJECT LOCATION
COUNTY RAMSEY
METRO DIVISION

GOVERNING SPECIFICATIONS

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

INDEX

SHEET NO.	SHEET DESCRIPTION
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES
3	TYPICAL SECTIONS
4	DETAILS
5-10	CONSTRUCTION PLANS

THIS PLAN CONTAINS 10 SHEETS.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
ENGR. *John H. Hendrickson* Reg. No. 10612 Date 7/24/97
SHORT ELLIOTT HENDRICKSON INC.

Approved *John H. Hendrickson* 7/21/1997
RAMSEY COUNTY DIRECTOR OF PARKS AND RECREATION

Approved *Conrad A. Hendrickson* 7/31/97
RAMSEY COUNTY PROJECT MANAGER

Approved *Harold J. Urban* 8/6/97
CITY OF VADNAIS HEIGHTS

Approved for State Aid Division *John H. Hendrickson* 4/1/97
STATE AID ENGINEER

Recommended for Approval *John H. Hendrickson* 9/10/97
METRO - ASSISTANT DIVISION ENGINEER STATE AID

Approved *Paul K. Hendrickson* 11/12/97
RAMSEY COUNTY ENGINEER

ASBULT 11/99 H & B.J.
28-102

I HEREBY CERTIFY THAT THE FINAL REVISIONS, IF ANY, OF THIS PLAN WERE MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE REG. NO.

STATE PROJ. NO. 91-090-05 SHEET NO. 1 OF 10 SHEETS



STATEMENT OF ESTIMATED QUANTITIES									
ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL		S.P. 91-090-05		CITY OF VADNAIS HEIGHTS 100%		NOTES
			ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	
2021.501	MOBILIZATION	LUMP SUM	1		0.93		0.07		
2105.501	COMMON EXCAVATION	m3	1137.3		1098.3		39		
2211.503	AGGREGATE BASE CLASS 5 (CV)	m3	701		676		25		
2340.508	TYPE 41 WEARING COURSE MIXTURE	t	828		799		29		
2402.585	PIPE RAILING	m	280		280				
2531.602	PEDESTRIAN CURB RAMP	EACH	8		7		1		
2563.601	TRAFFIC CONTROL	LUMP SUM	1		0.93		0.07		
2564.602	PAVEMENT MESSAGE (RR XING) WHITE POLY PREFORMED	EACH	2		2				
2564.603	600 mm SOLID LINE WHITE, POLY PREFORMED	m	9		9				
2564.531	SIGN PANELS TYPE C	m2	0.746		0.746				
2575.505	SODDING TYPE LAWN	m2	1592		1552		40		

BASIS OF ESTIMATED QUANTITIES

2340.508 TYPE 41 WEARING COURSE 2.4 kg/mm/m2

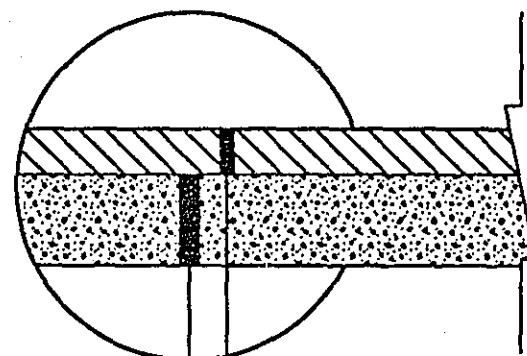
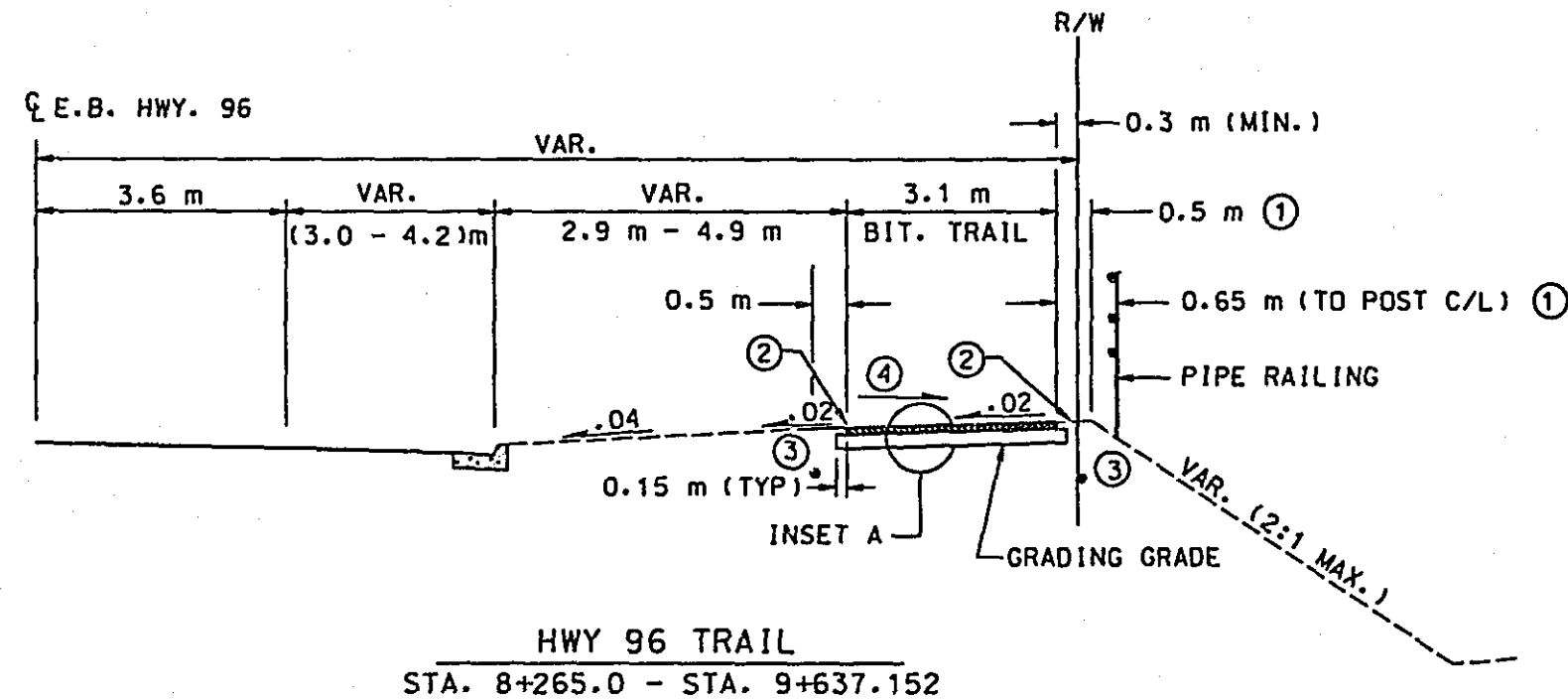
The following Standard Plates, approved by the FEDERAL HIGHWAY ADMINISTRATION, shall apply on this project.

MN/DOT STANDARD PLATES	
PLATE NO.	DESCRIPTION
M7036 D	PEDESTRIAN CURB RAMP
M80001 I	STANDARD BARRICADES

FURNISH & INSTALL TYPE "C" SIGNS							
MMUTCD CODE	QTY	EST. PANEL			TOTAL AREA	NO. OF POSTS & TYPE	SIGN LEGEND
		SIZE (IN.)	SIZE (m2)	AREA (m2)			
W10-1	2	18" DIA.	457 mm	.164	.328	1-U	R. R. ADVANCE WARNING
W10-x3	2	18"x18"	457x457	.209	.417	1-U	LOOK FOR TRAINS

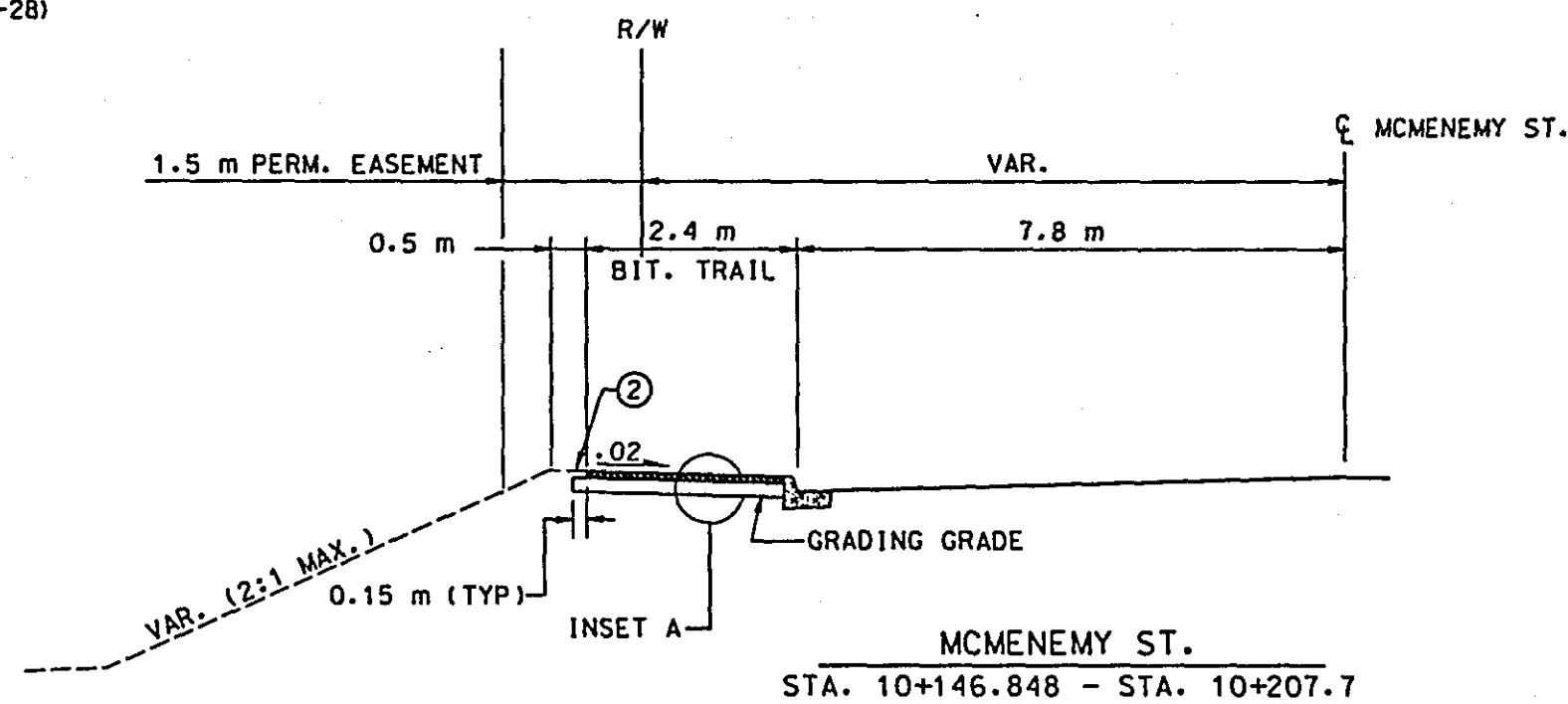
28-162

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED	I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota. <i>[Signature]</i> Date: 11/21/97 Reg. No. 18612		RAMSEY COUNTY HIGHWAY 96 S.P. 91-090-05	ESTIMATED QUANTITIES	FILE NO. RAMSE9501.01	2 10
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75 mm TYPE 41 WEARING COURSE
MIXTURE DESIGNATION 41WEA50055 (PG 58-28)
150 mm AGG BASE CLASS 5
MNDOT SPEC. 2211

INSET A



NOTES:

- ① STA. 8+490.0 - STA. 8+530.0
STA. 8+950.0 - STA. 9+090.0
STA. 9+250.0 - STA. 9+350.0
USE 0.80 m P.I. TO PROVIDE ROOM
FOR RAILING ALONG BIT. TRAIL
- ② PLACE SOD TYPE LAWN AT
EDGE OF TRAIL
- ③ CONTRACTOR TO LOCATE
IRRIGATION SYSTEM MAIN AND WIRE AND
PROTECT, COORDINATE WORK WITH GRADING
CONTRACTOR
- ④ STA. 9+155.0 - STA. 9+170.0
STA. 9+195.0 - STA. 9+215.0
USE .02 CROSS SLOPE AWAY
FROM ROADWAY.
AT STATIONS 8+490, 8+520,
8+960, 9+082, 9+322, 9+527
SLOPE CROSS SLOPE INTO CURVE

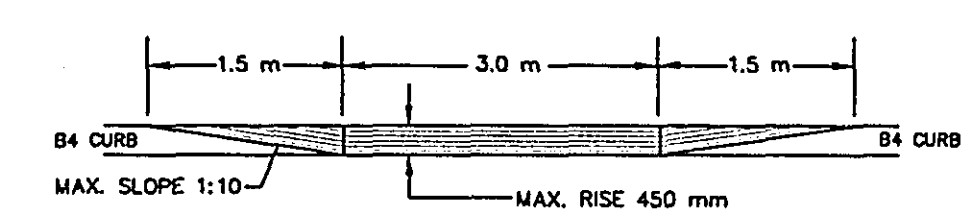
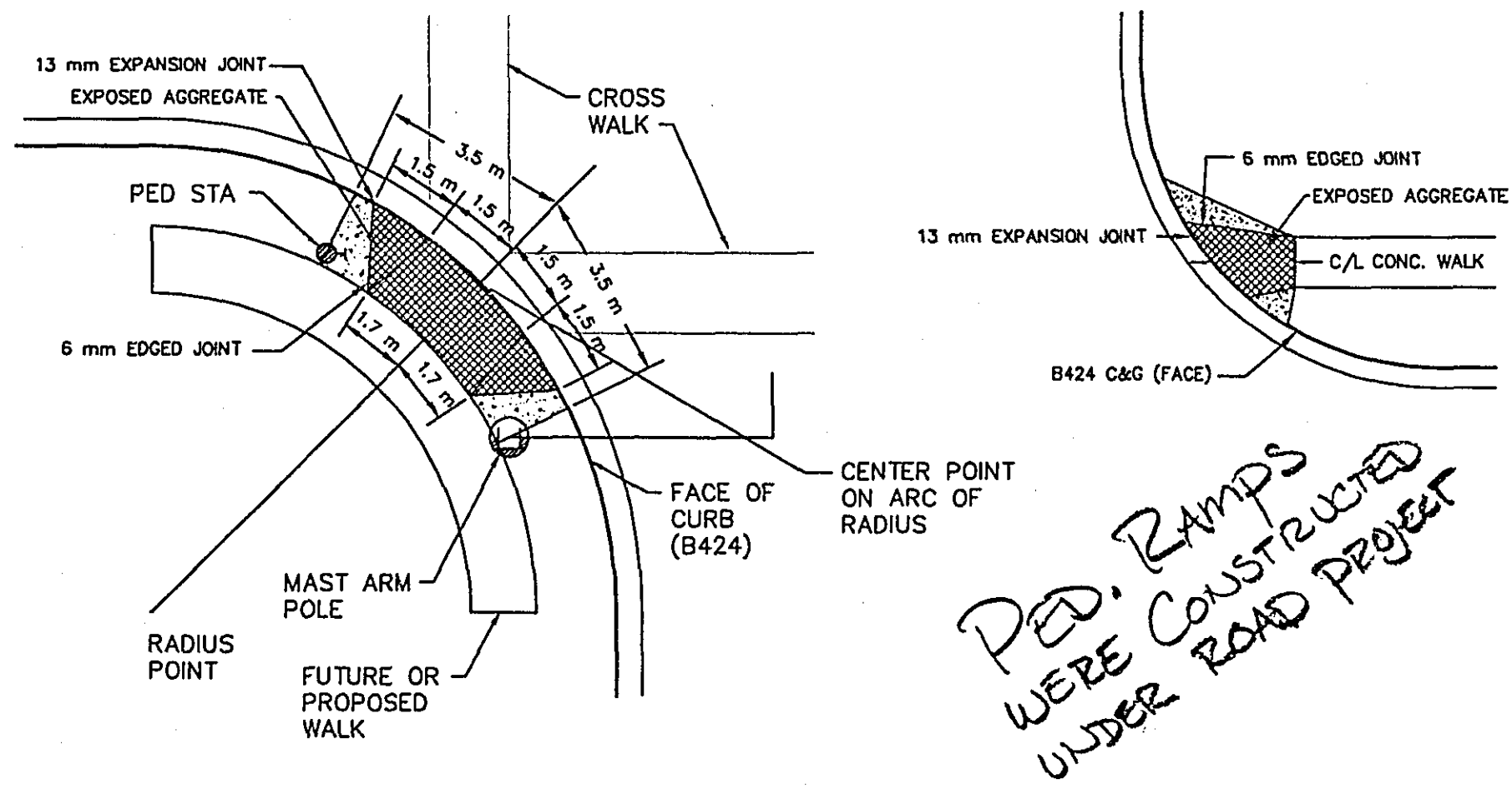
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HWY 96
STA. 8+265.0 - STA. 9+638.0
TRAIL

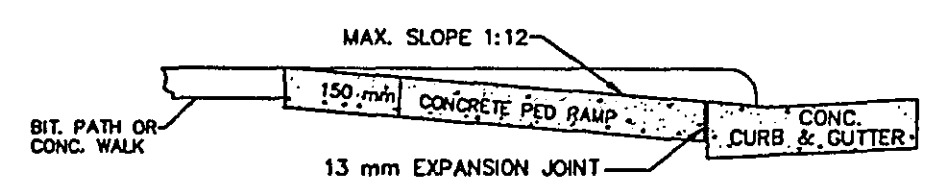
NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED	DATE	REG. NO.	18612	RAMSEY COUNTY HIGHWAY 96 S.P. 91-090-05	TYPICAL SECTIONS	FILE NO. RAMSEY9601.01	3 10

I hereby certify that this plan was prepared by me or
under my direct supervision and that I am a duly
Registered Professional Engineer under the laws of the
State of Minnesota.
Date: 7-21-97 Reg. No. 18612

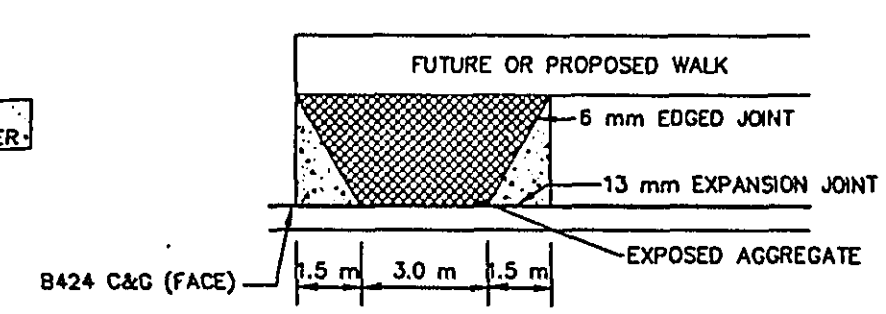
ESEH
ENGINEERS ARCHITECTS PLANNERS



TYPICAL RAMP ELEVATION



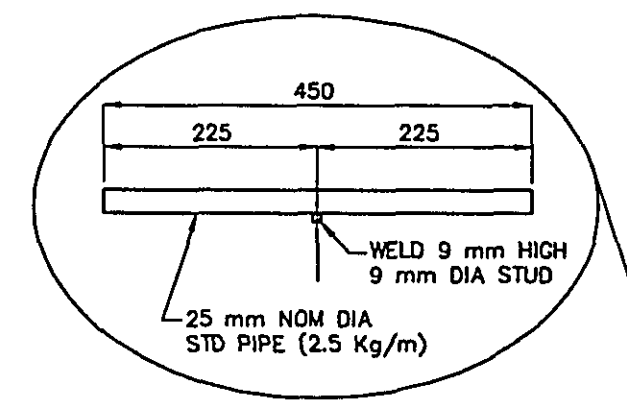
TYPICAL RAMP PROFILE



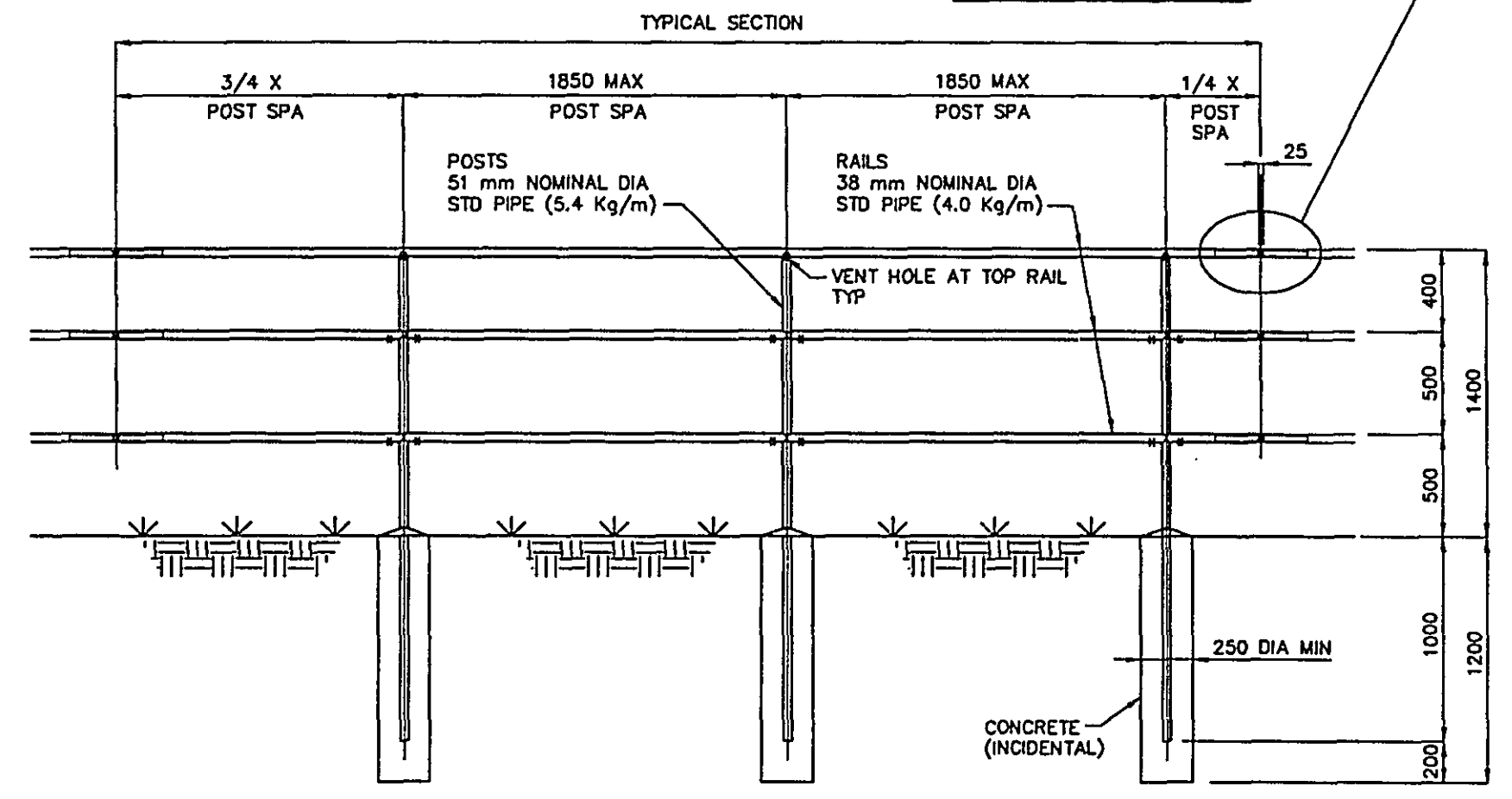
NOTES:
 CONSTRUCT PEDESTRIAN CURB RAMPS AT ALL STREET RADII AND ENTRANCES AS INDICATED IN THE PLANS.
 DESIGN OF INDIVIDUAL RAMPS SHALL BE AS SHOWN AT EACH LOCATION.
 PAYMENT SHALL BE MADE AS ITEM 2531.602, BY THE EACH.
 ALL RAMPS SHALL BE INSTALLED PER STD. PLATE M7036.
 CONCRETE CURB TO BE DROPPED UNDER SEPARATE CONTRACT.

PED RAMP

*PED. RAMPS
 WERE CONSTRUCTED
 UNDER ROAD PROJECT*



**RAIL FIELD SPLICE
 TYPICAL WHERE SHOWN**



ELEVATION

II INDICATES 13 mm VENT HOLE LOCATIONS.

*FENCE ELIMINATED
 IN THE FIELD*

NOTE:
 ALL POSTS TO BE VERTICAL.
 RAILS TO FOLLOW GRADE OF TRAIL.
 RAIL SECTIONS TO SPAN A MINIMUM OF 3 POSTS.
 TOP RAIL SHALL JOIN END POST WITH A WELDED CAP.
 CHANGES IN ALIGNMENT OR SLOPE TO BE MADE AT POSTS.
 FABRICATION TO BE IN ACCORDANCE WITH MNDOT 2402 AND 2471.
 MATERIAL FOR PIPE SHALL CONFORM TO ASTM A53.
 GALVANIZE AFTER FABRICATION IN ACCORDANCE WITH ASTM A123.
 CONCRETE SHALL BE IN ACCORDANCE WITH MNDOT 2401, MIX 3A32. (INCIDENTAL)
 SEE TYPICAL SECTION FOR RAIL LOCATION & OFFSET FROM TRAIL.
 ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE NOTED.
 PAYMENT SHALL BE MADE UNDER 2402.585 "PIPE RAILING", BY THE METER AND SHALL INCLUDE ALL ITEMS SHOWN ON DETAIL.

PIPE RAILING

31-27-97 2:21 PM JAY BUCKER, SDH

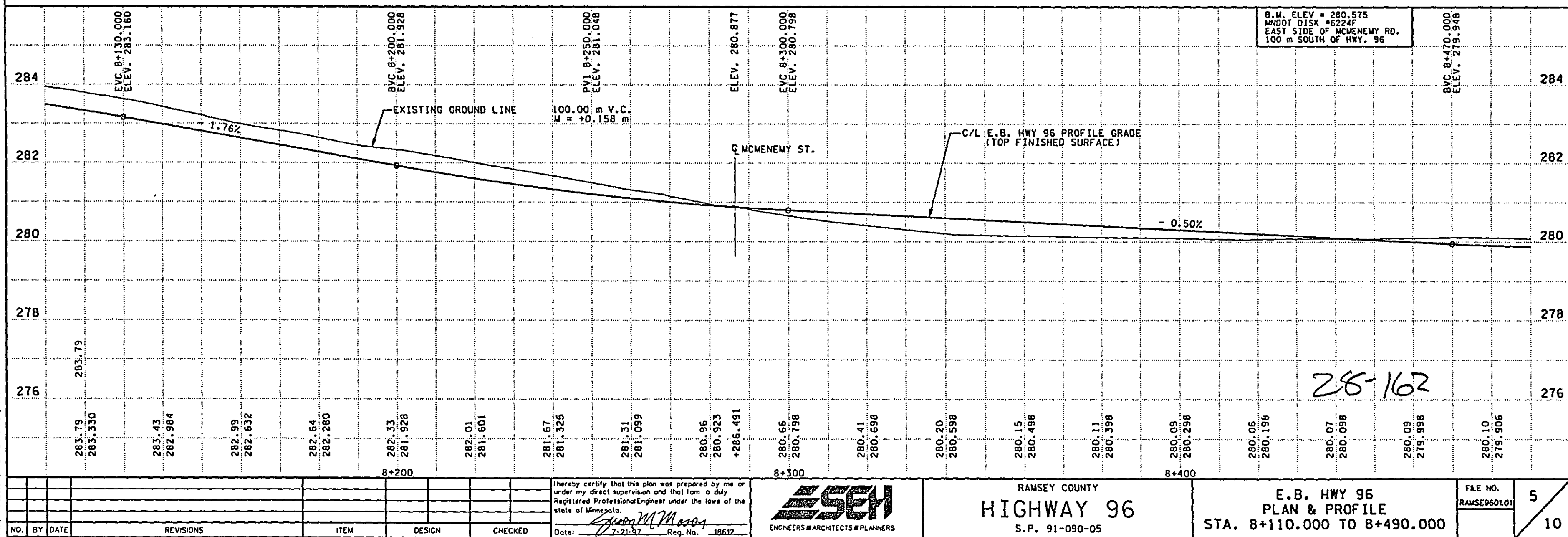
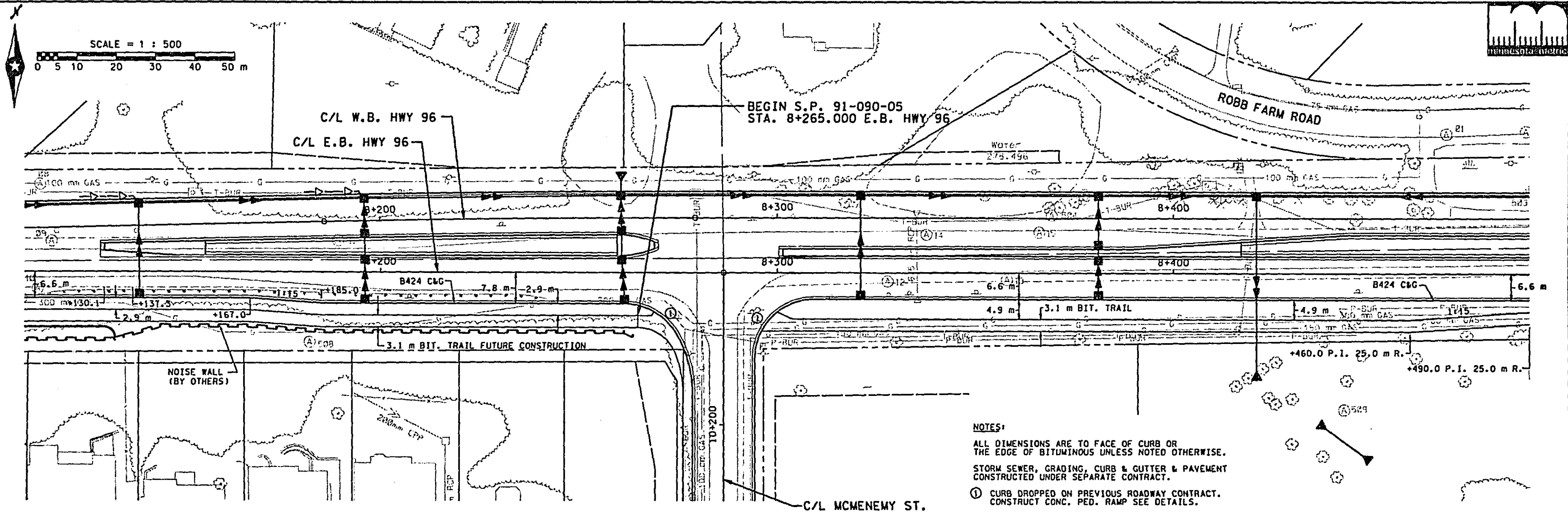
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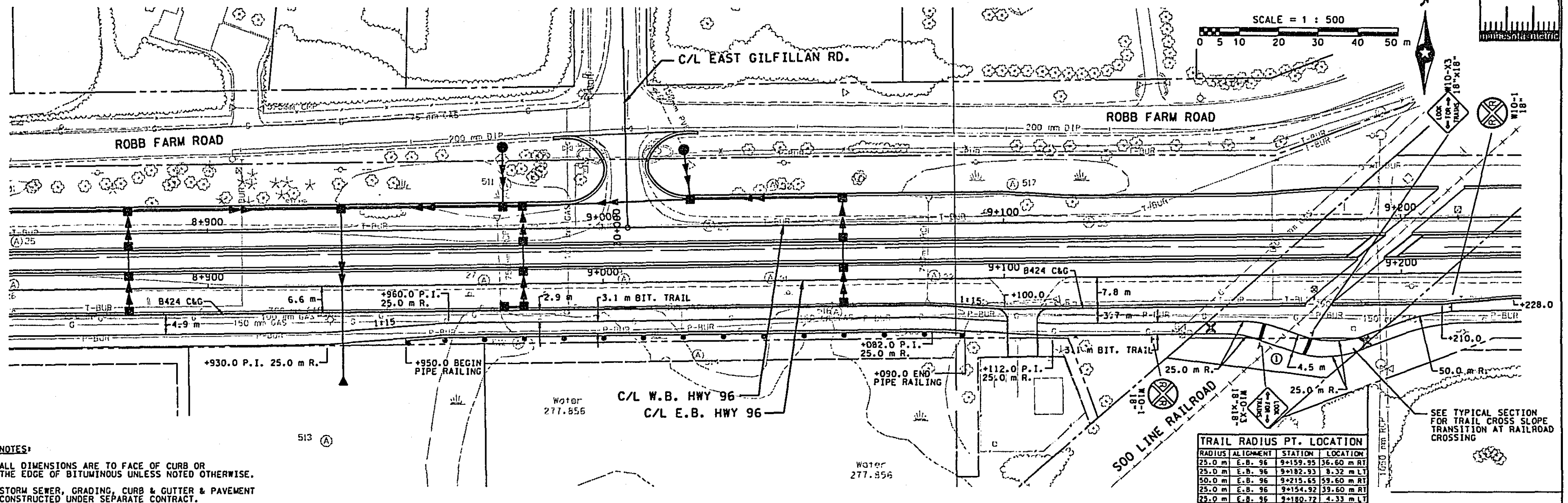


RAMSEY COUNTY
 HIGHWAY 96
 s.p. 91-090-05

28-162 DETAILS

FILE NO. RAMSEY9601.D1	4
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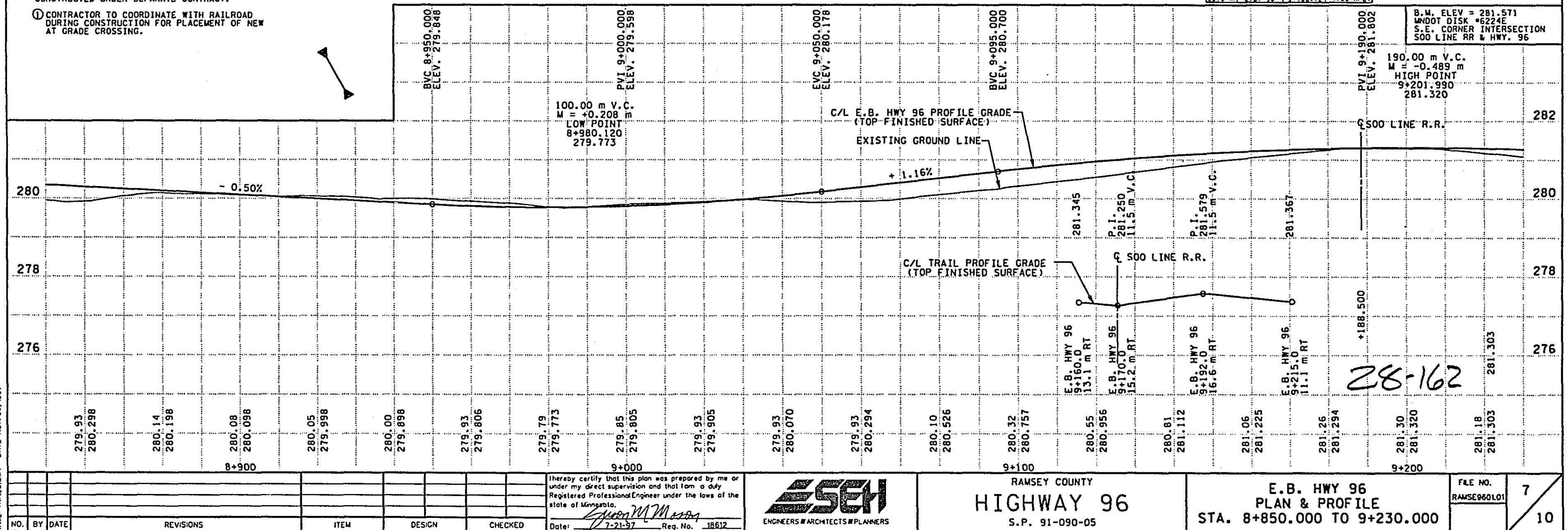


NOTES:

ALL DIMENSIONS ARE TO FACE OF CURB OR THE EDGE OF BITUMINOUS UNLESS NOTED OTHERWISE.

STORM SEWER, GRADING, CURB & GUTTER & PAVEMENT CONSTRUCTED UNDER SEPARATE CONTRACT.

① CONTRACTOR TO COORDINATE WITH RAILROAD DURING CONSTRUCTION FOR PLACEMENT OF NEW AT GRADE CROSSING.



I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.

Date: 7-21-97 Reg. No. 18612

SEH
ENGINEERS ARCHITECTS PLANNERS

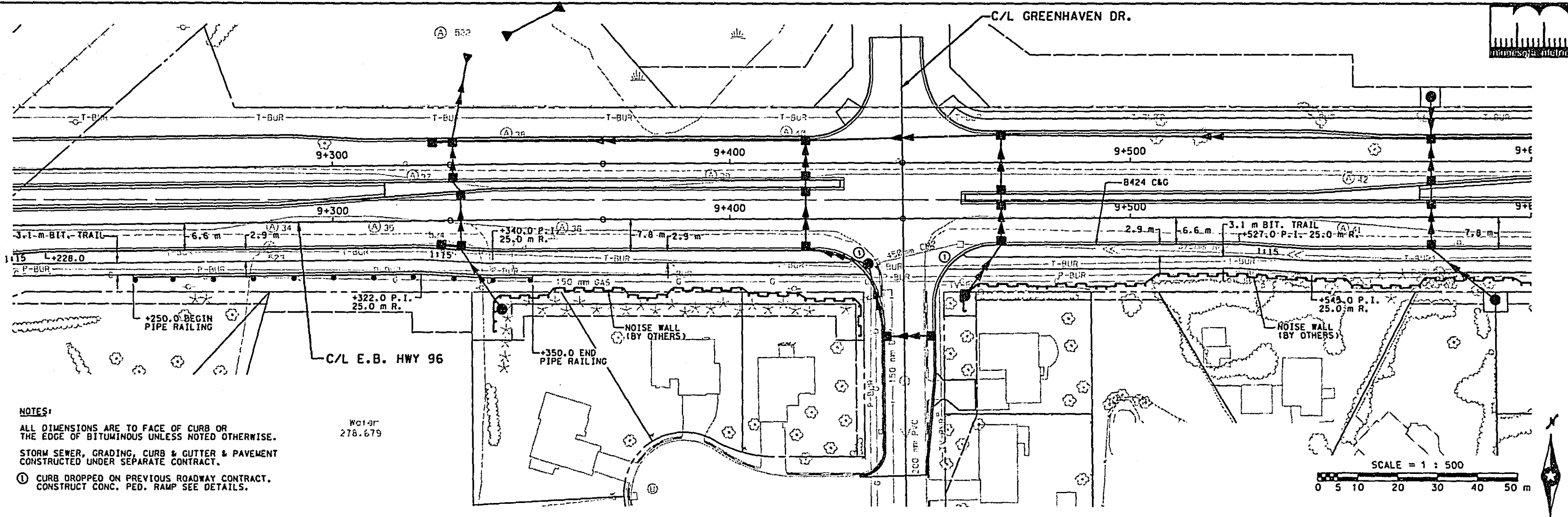
RAMSEY COUNTY
HIGHWAY 96
S.P. 91-090-05

E.B. HWY 96
PLAN & PROFILE
STA. 8+850.000 TO 9+230.000

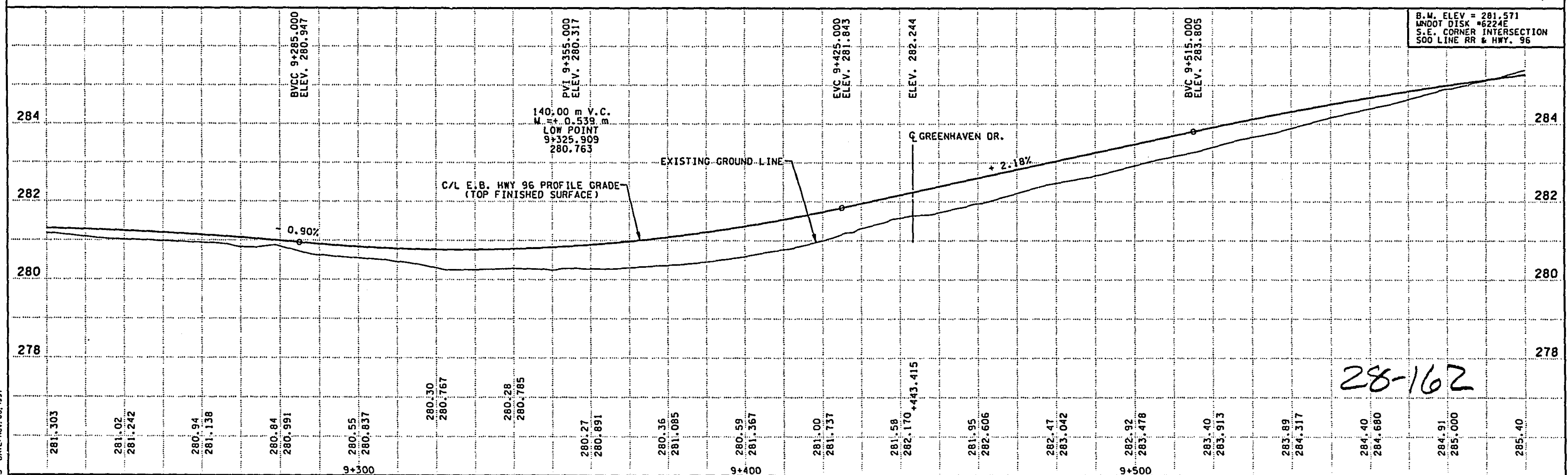
FILE NO.
RAMSE960101

7

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NOTES:
ALL DIMENSIONS ARE TO FACE OF CURB OR THE EDGE OF BITUMINOUS UNLESS NOTED OTHERWISE.
STORM SEWER, GRADING, CURB & GUTTER & PAVEMENT CONSTRUCTED UNDER SEPARATE CONTRACT.
① CURB DROPPED ON PREVIOUS ROADWAY CONTRACT. CONSTRUCT CONC. PED. RAMP SEE DETAILS.



NAME: TRAIL 6.CMS DATE: Nov. 06, 1997

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.
Date: 7-21-97 Reg. No. 18612



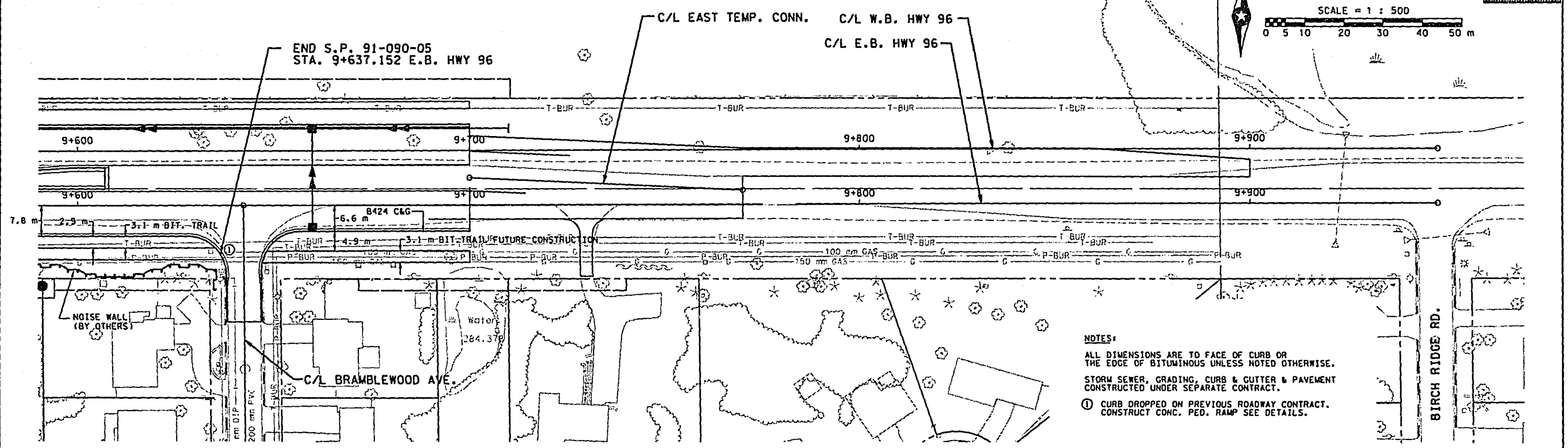
RAMSEY COUNTY
HIGHWAY 96
S.P. 91-090-05

E.B. HWY 96
PLAN & PROFILE
STA. 9+220.000 TO 9+600.000

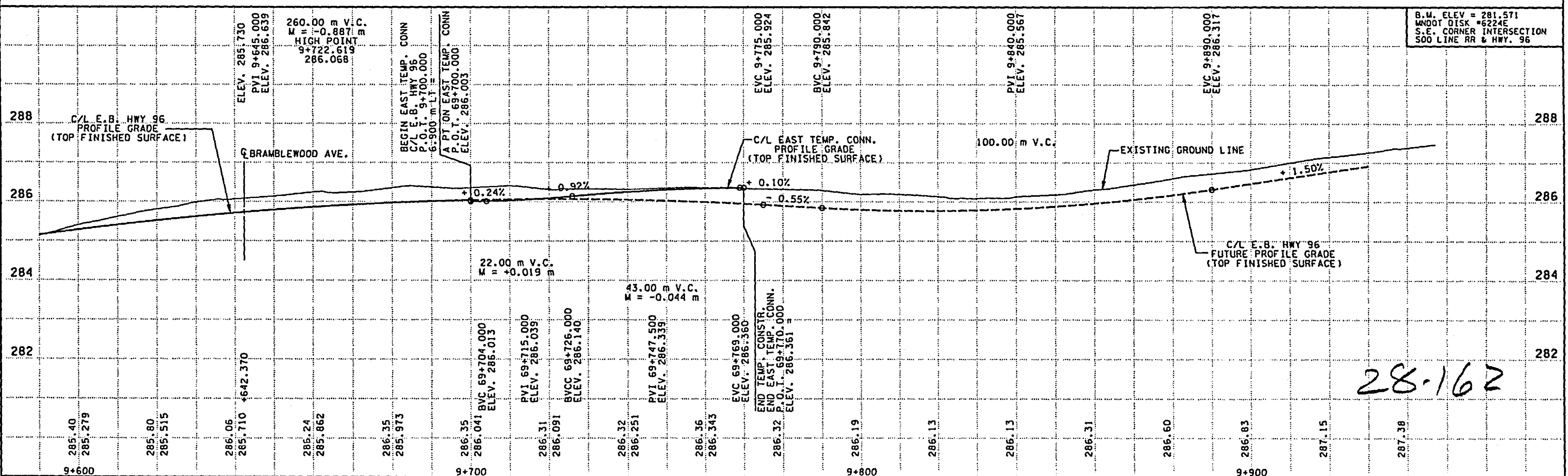
FILE NO. 8
RAMSEY9601.01
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SCALE = 1 : 500
0 5 10 20 30 40 50 m



- NOTES:
- ALL DIMENSIONS ARE TO FACE OF CURB OR THE EDGE OF BITUMINOUS UNLESS NOTED OTHERWISE.
 - STORM SEWER, GRADING, CURB & CUTTER & PAVEMENT CONSTRUCTED UNDER SEPARATE CONTRACT.
 - ① CURB DROPPED ON PREVIOUS ROADWAY CONTRACT. CONSTRUCT CONC. PED. RAMP SEE DETAILS.



28-162

NAME: TRAIL 6 CM5 DATE: Nov. 06, 1997

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED

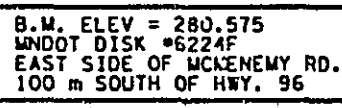
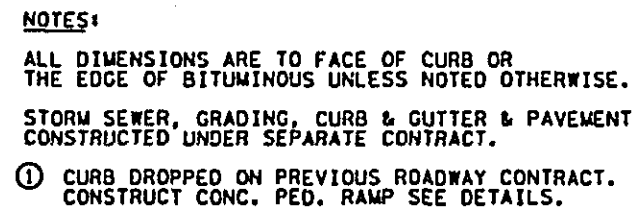
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.
Date: 7-23-97 Reg. No. 18512



RAMSEY COUNTY
HIGHWAY 96
S.P. 91-090-05

**E.B. HWY 96
PLAN & PROFILE**
STA. 9+590.000 TO 9+940.000

FILE NO.
RAMSE9601.01
9
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28-162



ENGINEERS ■ ARCHITECTS ■ PLANNERS

**MCMENEMY ST.
PLAN & PROFILE**

FILE NO.	RAMSE960101
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