

MINNESOTA DEPARTMENT OF TRANSPORTATION

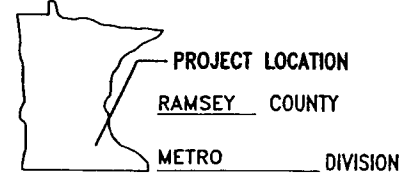
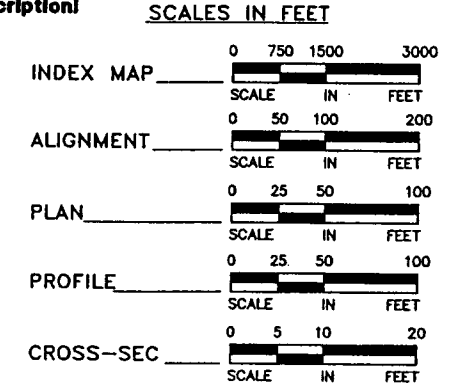
THE CITY OF MAPLEWOOD RAMSEY COUNTY

CONSTRUCTION PLAN FOR GRADING, AGGREGATE BASE, BITUMINOUS PAVEMENT, MILL AND OVERLAY, CONCRETE CURB AND GUTTER, BITUMINOUS PEDESTRIAN TRAIL, STORM SEWER, AND UTILITY IMPROVEMENTS.

LOCATED ON: COUNTY ROAD D BETWEEN HIGHRIDGE CT. AND TH 61 (Geographic Description)
 LOCATED ON: WEST COUNTY ROAD D COURT BETWEEN COUNTY ROAD D AND 392.37' EAST (Geographic Description)

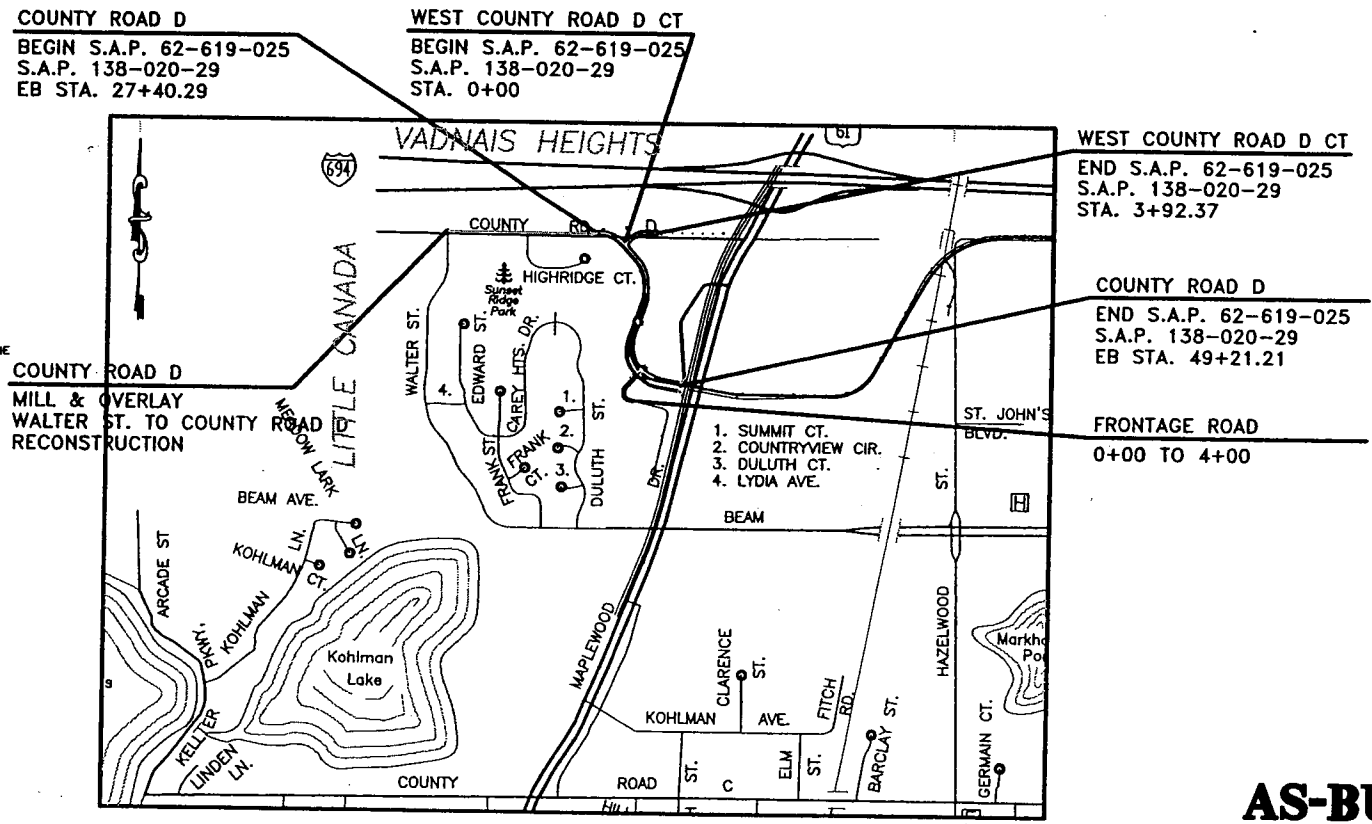
COUNTY ROAD D IMPROVEMENTS CITY IMPROVEMENT PROJECT NO. 02-08

COUNTY ROAD D - 585' EAST OF HIGHRIDGE CT TO TH 61 STATE AID PROJ. NO. <u>62-619-025</u> STATE AID PROJ. NO. <u>138-020-29</u> GROSS-LENGTH <u>2181</u> FEET <u>0.413</u> MILES BRIDGE-LENGTH <u>0</u> FEET <u>0</u> MILES EXCEPTIONS-LENGTH <u>0</u> FEET <u>0</u> MILES NET-LENGTH <u>2181</u> FEET <u>0.413</u> MILES	WEST COUNTY ROAD D COURT STATE AID PROJ. NO. <u>62-619-025</u> STATE AID PROJ. NO. <u>138-020-29</u> GROSS-LENGTH <u>392.37</u> FEET <u>0.074</u> MILES BRIDGE-LENGTH <u>0</u> FEET <u>0</u> MILES EXCEPTIONS-LENGTH <u>0</u> FEET <u>0</u> MILES NET-LENGTH <u>392.37</u> FEET <u>0.074</u> MILES
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LEGEND

	EXISTING GATE VALVE
	EXISTING HYDRANT
	EXISTING CURB BOX
	EXISTING SANITARY SEWER MANHOLE
	EXISTING STORM SEWER MANHOLE
	EXISTING CATCH BASIN
	EXISTING POWER POLE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING WATERMAIN
	EXISTING CURB AND GUTTER
	EXISTING UNDERGROUND PIPE
	EXISTING UNDERGROUND GAS MAIN
	EXISTING UNDERGROUND TELEPHONE LINE
	EXISTING UNDERGROUND POWER
	EXISTING OVERHEAD POWER
	EXISTING FENCE
	EXISTING TREE
	EXISTING TREE LINE
	EXISTING STREET SIGN
	EXISTING CONTOUR
	PROPOSED CONTOUR
	PW NUMBER
	PROPOSED REDUCER
	PROPOSED TEE
	PROPOSED GATE VALVE
	PROPOSED GATE VALVE IN MH
	PROPOSED HYDRANT
	PROPOSED MANHOLE FOR STORM AND SANITARY SEWER
	PROPOSED CATCH BASIN
	PROPOSED WATERMAIN
	PROPOSED SANITARY SEWER
	PROPOSED STORM SEWER
	PROPOSED CURB AND GUTTER



DESIGN DESIGNATION: COUNTY ROAD D (S.A.P. 62-619-025, 138-020-29)
STA. 27+40.29 (BEGIN PROJECT) TO STA. 49+21.21 (END PROJECT)

Functional Classification:	COLLECTOR
No. of Traffic Lanes	2
ADT (Current Year) 2004	5,300
ADT (Future Year) 2024	12,000
DHV (Design Hr. Vol.)	N.A.
D (Directional Distr.)	50 %
T (Heavy Commercial)	7.1 %
R-Value	50
20 YR ESALS	1,800,000
No. of Parking Lanes	0
Design Speed	30 mph
Based on STOPPING Sight Distance	
Height of eye	3.5'
Height of Object	.5'
Design Speed not achieved at	N/A
STA. TO STA.	mph N/A
STA. TO STA.	mph N/A
STA. TO STA.	mph N/A
Design Load	10 ton

AS-BUILT PLANS 1/9/07

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY

MINN. PROJ. NO. _____
 MINN. PROJ. NO. _____

GOVERNING SPECIFICATIONS AS AMENDED
 THE 2000 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.
 ALL TRAFFIC CONTROL SIGNING AND DEVICES SHALL CONFORM TO THE MMUTCD, INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS

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THIS PLAN SET CONTAINS 86 SHEETS

URS

Thresher Square
700 Third Street South
Minneapolis, MN 55415
612.370.0700 Tel
612.370.1378 Fax

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/04 MN LIC. NO. 40953

APPROVED		8-27-04
APPROVED		8-31-04
APPROVED		9/9/04
APPROVED		9/10/04
APPROVED		9/10/04

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

DATE _____ REG. NO. _____

CONTRACTOR: PALDA & SONS, INC. 28-261

PLOT DATE: Aug 10, 2004 8:19am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\008-111.dwg

PROJECT QUANTITIES

STATEMENT OF ESTIMATED QUANTITIES

CITY OF MAPLEWOOD - COUNTY ROAD D RE-ALIGNMENT (WEST)

NOTES	MNDOT ITEM NO.	CONTRACT ITEM	UNIT	TOTAL PROJECT QUANTITIES ESTIMATED QTY	COUNTY ROAD D ROADWAY			COUNTY ROAD D SANITARY & WATER		VADNAIS HEIGHTS NON-PARTICIPATING	
					100% 62-619-025	25% 62-619-025	75% 138-020-29	25% 138-020-29	NON-PARTICIPATING ITEMS ESTIMATED QTY	NON-PARTICIPATING ITEMS ESTIMATED QTY	WATERMAIN ITEMS ESTIMATED QTY
	2021.501	MOBILIZATION	LS	1.0							
	2031.501	FIELD OFFICE TYPE D	EACH	1.0	0.26	0.05	0.17	0.17	0.19	0.05	0.11
15	2101.501	CLEARING	ACRE	2.19	0.84		1.35				
15	2101.502	CLEARING	TREE	27	7		5				
15	2101.506	GRUBBING	ACRE	2.19	0.84		1.35			7	8
15	2101.507	GRUBBING	TREE	27	7		5				
	2104.501	REMOVE VCP SANITARY SEWER	LF	1275			5			7	8
	2104.501	REMOVE CIP SANITARY FORCEMAIN	LF	1275							1275
11,15	2104.501	REMOVE SEWER PIPE (STORM)	LF	15			15				1275
15	2104.501	REMOVE CONCRETE CURB AND GUTTER	LF	117							
	2104.505	REMOVE BITUMINOUS PAVEMENT	SY	3708	3155				117		
	2104.505	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SY	191	31					283	270
	2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT	SY	56					87		73
1	2104.509	REMOVE MANHOLE	EACH	5					66		
14,15	2104.513	SAWING BIT CONCRETE PAVEMENT (FULL DEPTH)	LF	22				1			4
	2104.521	SALVAGE WOOD RAIL FENCE	LF	623	99				22		
	2104.523	SALVAGE SIGN TYPE C	LF	90					213	159	152
2	2104.525	ABANDON PIPE SEWER	EACH	2	1						90
			LF	202				202	1		
14,15,16	2105.501	COMMON EXCAVATION (EV) (P)	CY	6446	2611						
15	2105.505	POND EXCAVATION (EV)	CY	230					3835		
	2105.507	SUBGRADE EXCAVATION (EV)	CY	6645	6295		230				
15	2105.522	SELECT GRANULAR BORROW (CV) (P)	CY	5563	4981				350		
15	2105.525	TOPSOIL BORROW (CV)	CY	1560					572		
	2105.601	POND GRADING	LS	1629	1104				1162	99	299
				1			1.0		371		154
	2123.610	STREET SWEEPER (WITH PICKUP BROOM)	HOUR	50	50						
	2130.501	WATER	MGAL	400	400						
3,14,15	2211.501	AGGREGATE BASE CLASS 6	TON	2683	500						
14	2211.503	AGGREGATE BASE (CV) CLASS 6 (P)	CY	3144	2416				1653	132	398
15	2232.501	MILL BITUMINOUS SURFACE (P)	SY	2500					728		
15	2331.508	BITUMINOUS WEAR TYPE 41 (A) - DRIVEWAYS	TON	65	6				2500		
	2331.508	BITUMINOUS WEAR TYPE LV WE 450308 (DRIVEWAY)	TON	9					59		
	2331.514	BITUMINOUS NON-WEAR TYPE LV NW 350308 (BASE)	TON	67							9
	2331.603	SAWED/SEALED JOINT	LF	2048	1815					34	33
15	2350.501	TYPE MV 3 WEARING COURSE MIXTURE (B)	TON	3560	2392				233		
15	2350.502	TYPE LV 3 NON WEARING COURSE MIXTURE (B)	TON	2481	1794				1168		
15	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL	1645	1087				687		
	2411.618	RECONSTRUCT SALVAGED MODULAR BLOCK RETAINING WALL	SF	60					558		
	2451.601	REPLACEMENT BACKFILL	TON	200							60
	2451.602	CRUSHED ROCK PIPE FOUNDATION	TON	80						100	100
	2451.602	GRANULAR PIPE FOUNDATION	TON	160						40	40
										80	80
	2501.515	12" RC PIPE APRON	EACH	1							
	2501.515	15" RC PIPE APRON	EACH	1							
15	2501.515	18" RC PIPE APRON	EACH	4					1		
	2501.515	24" RC PIPE APRON	EACH	2			4				
	2501.602	TRASH GUARD FOR 12" PIPE APRON	EACH	2			2				
15	2501.602	TRASH GUARD FOR 18" PIPE APRON	EACH	1							
	2502.541	4" PERF PVC PIPE DRAIN	EACH	4			4		1		
5	2503.511	4" PVC PIPE SEWER	LF	400			200				
	2503.541	12" RC PIPE SEWER DES 3006 CL V	LF	154				154	200		
15	2503.541	18" RC PIPE SEWER DES 3006 CL III	LF	524							
15	2503.541	18" RC PIPE SEWER DES 3006 CL V	LF	85			85		524		
15	2503.541	21" RC PIPE SEWER DES 3006 CL V	LF	339							
	2503.541	15" RC PIPE SEWER DES 3006 CL IV	LF	180			339				
15	2503.541	24" RC PIPE SEWER DES 3006 CL V	LF	1500			180				
	2503.601	MAINTAIN SANITARY SEWER SERVICE	LF	240			1360			140	
	2503.602	8" X 4" PVC WYE	LS	1			240				
	2503.602	CONNECT TO EXISTING STORM SEWER	EACH	20							1
	2503.602	CONNECT TO EXISTING MANHOLES (SAN)	EACH	1			1				20
	2503.602	CONNECT TO EXISTING SANITARY SEWER SERVICE	EACH	2							
15	2503.602	CONSTRUCT OUTSIDE DROP	EACH	3				1			1
	2503.602	CONSTRUCT BULKHEAD	EACH	1					3		20
6	2503.603	8" PVC PIPE SEWER (8' - 10' DEPTH)	LF	1238			1				
6	2503.603	8" PVC PIPE SEWER (10' - 12' DEPTH)	LF	302					481		
6	2503.603	8" PVC PIPE SEWER (12' - 14' DEPTH)	LF	297					302		
6	2503.603	8" PVC PIPE SEWER (14' - 16' DEPTH)	LF	297					297		757
6	2503.603	8" PVC PIPE SEWER (16' - 18' DEPTH)	LF	319					319		
	2503.603	8" PVC PIPE SEWER (18' - 20' DEPTH)	LF	335					335		
	2503.603	8" PVC PIPE SEWER (20' - 22' DEPTH)	LF	92					92		
	2503.603	8" PVC PIPE SEWER (14' - 16' DEPTH)	LF	196					196		
5	2503.603	4" PVC SANITARY SEWER SERVICE PIPE, SDR 35	LF	13					13		
	2503.603	8" PVC SANITARY SEWER, SDR 26	LF	295					154		
	2503.603	8" DIP SANITARY SEWER, CL 52	LF	554							141
	2503.603	TELEWISE NEW SANITARY SEWER	LF	18							554
			LF	1278							18
	2504.602	RELOCATE HYDRANT	EACH	1							1278
	2504.602	HYDRANT	EACH	6					1		
	2504.602	CONNECT TO EXISTING WATER MAIN	EACH	3					2		
	2504.602	1" COPPER STOP	EACH	6					1		
	2504.602	1" CURB STOP AND BOX	EACH	6					6		
	2504.603	1" COPPER SERVICE - TYPE K	LF	181					6		
	2504.602	8" GATE VALVE AND BOX	EACH	9					181		
	2504.602	8" GATE VALVE AND BOX	EACH	8					5		
	2504.602	12" BUTTERFLY VALVE AND BOX	EACH	2			4				
	2504.602	12" GATE VALVE & BOX	EACH	2			8				
	2504.603	TRENCH EXCAVATION	EACH	3			2				
12	2504.603	6" WATER MAIN DUCTILE IRON CL 52	LF	200						3	
	2504.603	8" WATER MAIN DUCTILE IRON CL 52	LF	182				200			
			LF	2403				75			
								2403		107	

28-261

PLOT DATE: Jul 30, 2004 10:27am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-est1.dwg

DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
49392-008	1	MRK	7/19/07	AS-BUILT
DRAWN BY: MRH	DESIGN BY: NCL			
CHKD. BY: NCL	DWG. NAME: EST1			
DATE: JULY 30, 2004				



Thresher Square
700 Third Street South
Minneapolis, MN 55415
612.370.0700 Tel
612.370.1378 Fax

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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D.

STATEMENT OF ESTIMATED QUANTITIES

CITY PROJECT 02-08 SHEET NO.

COUNTY PROJECT 2

S.A.P. 62-619-025

S.A.P. 138-020-29

PLOT DATE: Jul 30, 2004 10:28am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-p1h-ent\008-EST2.dwg

PROJECT QUANTITIES												
STATEMENT OF ESTIMATED QUANTITIES												
CITY OF MAPLEWOOD - COUNTY ROAD D RE-ALIGNMENT (WEST)												
NOTES	MNDOT ITEM NO.	CONTRACT ITEM	UNIT	TOTAL PROJECT QUANTITIES ESTIMATED QTY	COUNTY ROAD D ROADWAY	COUNTY ROAD D ROADWAY	COUNTY ROAD D STORM SEWER	COUNTY ROAD D SANITARY & WATER	COUNTY ROAD D ROADWAY	VADNAIS HEIGHTS NON-PARTICIPATING	VADNAIS HEIGHTS NON-PARTICIPATING	
					100% 62-619-025	25% 62-619-025	75% 138-020-29	25% 138-020-29	NON-PARTICIPATING ITEMS	NON-PARTICIPATING ITEMS	WATERMAIN ITEMS	SANITARY ITEMS
	2504.603	12" WATER MAIN DUCTILE IRON CL 52	LF	1447								
	2504.608	WATER MAIN FITTINGS	LB	2796								
								635		812		
								1894		902		
7,15	2506.501	CONST DRAINAGE STRUCTURE DESIGN SPEC 2 (48")	LF	180.63								
15	2506.516	CASTING ASSEMBLY	EACH	34			115.60		65.03			
15	2506.521	INSTALL CASTING	EACH	4			16		8			
15	2506.522	ADJUST FRAME & RING CASTING	EACH	8			4					
	2506.602	CONSTRUCT SANITARY MANHOLE	EACH	15	2		3		2			
10,15	2506.602	CONSTRUCT CONTROL STRUCTURE	EACH	2				9	1			
10,15	2506.603	MODIFY DRAINAGE STRUCTURE	EACH	1							6	
13	2506.603	CONSTRUCT SANITARY STRUCTURE	EACH	1								
15	2506.603	RECONSTRUCT SANITARY MANHOLES	LF	93.76								
	2506.602	CASTING ASSEMBLY - R1642-B W/ NEOPRENE BOOT, LETTERED "SANITARY"	EACH	1				54.06			39.7	
	2506.603	CONSTRUCT 8" SANITARY SEWER DROP CONNECTION	LF	4.9							6	
											4.9	
15	2511.501	RANDOM RIPRAP CLASS III	CY	12								
15	2511.515	GEOTEXTILE FILTER TYPE V	SY	12				12				
8	2521.501	4" CONCRETE WALK	SF	5424								
	2521.511	2" BITUMINOUS WALK	SF	16316		3364				2060		
										16316		
15	2531.501	CONCRETE CURB & GUTTER DESIGN B612	LF	66								
15	2531.501	CONCRETE CURB & GUTTER DESIGN B412	LF	55						66		
	2531.501	CONCRETE CURB & GUTTER DESIGN B618	LF	1241						55		
	2531.501	CONCRETE CURB & GUTTER DESIGN B624	LF	3585						1241		
	2531.501	CONCRETE CURB & GUTTER DESIGN B624 (MOD)	LF	2238			3291			294		
15	2531.501	BITUMINOUS CURB	LF	758			2238					
	2531.507	8" CONCRETE DRIVEWAY PAVEMENT	SY	149						758		
	2531.502	PEDESTRIAN CURB RAMP (TYPE A)	EACH	9		9				140		
	2531.604	8" CONCRETE VALLEY GUTTER	SY	37		37	8			1		
	2540.602	RELOCATE MAIL BOX	EACH	6		2						
15	2557.603	WOODEN FENCE (SPLIT RAIL)	LF	525						4		
										525		
	2563.601	TRAFFIC CONTROL	LS	1.0		0.26	0.05	0.17				
	2564.531	SIGN PANELS TYPE C	SF	161		148.75			0.19	0.05	0.11	
	2564.602	PAVEMENT MESSAGE (RT ARROW) POLY PREFORM	EACH	3					12.50			
	2564.602	PAVEMENT MESSAGE (LT ARROW) POLY PREFORM	EACH	3								
	2564.602	PVMT MESSAGE (RT THRU ARROW) POLY PREF	EACH	6								
	2564.603	4" SOLID LINE WHITE-EPOXY	LF	1								
15	2564.603	4" BROKEN LINE WHITE-EPOXY	LF	8489		4487						
15	2564.603	4" DOUBLE SOLID LINE YELLOW-EPOXY	LF	110		110			4002			
	2564.603	12" SOLID LINE YELLOW-EPOXY	LF	2624		837						
	2564.603	12" STOP LINE WHITE-EPOXY	LF	14		14			1787			
	2564.618	ZEBRA CROSSWALK-WHITE POLY PREFORM	SF	90		45				28		
										45		
10	2571.502	DECIDUOUS TREE 1" CAL	EACH	320								
15	2573.502	SILT FENCE, TYPE HEAVY DUTY	LF	3287		2000				320		
	2573.602	TEMPORARY ROCK CONSTRUCTION ENTRANCE	EACH	3.0		2						
	2573.603	BIOROLL	LF	200.0		200					647	
10,15	2575.501	SEEDING	AC	10.0								
17	2575.502	SEEDING MIXTURE 250	LB	0.5								
	2575.502	SEEDING MIXTURE WET FORBS	LB	3.25								
9,15	2575.505	SODDING TYPE LAWN	SY	14803.0		10040						
10,15	2575.511	MULCH MATERIAL TYPE 3	TON	1.0						3375		
10,15	2575.519	DISK ANCHORING	AC	0.5							1388	
10,15	2575.523	EROSION CONTROL BLANKETS CATEGORY 3	SY	6235.0								
10,15	2575.525	EROSION STABILIZATION MAT CLASS 4	SY	300.0								
	2575.601	EROSION CONTROL (CONTRACTORS PLAN)	LS	1.0								

- NOTES:
- SANITARY MAN-HOLE
 - SANITARY SEWER
 - THIS IS A CONTINGENCY ITEM USED AS DIRECTED BY ENGINEER
 - DRIVEWAY
 - SCHEDULE 40 SANITARY SEWER SERVICE
 - SDR 35
 - SEE CASTING TYPE IN "STORM SEWER DRAINAGE TABULATION" SHEET 10
 - INCLUDES CONCRETE MEDIAN, MAINTENANCE STRIP AND SIDEWALK
 - THE CONTRACTOR SHALL PLACE AND FINE GRADE 4 INCHES OF TOPSOIL OVER ALL AREAS DESIGNATED FOR SEEDING OR SODDING
 - ITEMS FOR POND GRADING OR POND CONSTRUCTION
 - 36" RCP
 - WATERMAIN TRENCH EXCAVATION
 - EXTRA DEPTH
 - INCLUDES DRIVEWAY QUANTITIES
 - INCLUDE QUANTITIES FOR MILL & OVERLAY: STA13+40 TO 28+40 AND ADDITIONAL QUANTITIES FOR STORM POND
 - BITUMINOUS REMOVAL INCIDENTAL TO COMMON EXCAVATION, MILL & OVERLAY SEGMENT
 - DRY FORBES MIXNATIVE GENERAL ROADSIDE MIX.

28-261

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
22x34bdr		49392-008				
DRAWN BY:	DESIGN BY:					
MRH	NCL					
CHECKED BY:	DWG. NAME:					
NCL	EST2					
DATE:						
JULY 30, 2004						



Thresher Square
700 Third Street South
Minneapolis, MN 55416
612.370.0700 Tel
612.370.1378 Fax

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Mark C. Landwer
MARK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

STATEMENT OF ESTIMATED QUANTITIES

CITY PROJECT 02-08 SHEET NO.

COUNTY PROJECT 3

S.A.P. 62-619-025

S.A.P. 138-020-29

CONSTRUCTION NOTES:

THE TOP OF THE GRADING GRADE ON THIS PROJECT IS DEFINED AS THE BOTTOM OF THE AGGREGATE BASE.

UNSUITABLE GRADING MATERIALS ARE TOPSOILS, OTHER ORGANIC SOILS, SILT LOAM, SILTY CLAY, CONCRETE, BITUMINOUS, ROCK DEBRIS AND OTHER RUBBLE. TOP SOIL SHALL BE STRIPPED FROM ALL AREAS TO BE DISTURBED BY CONSTRUCTION FOR REPLACEMENT AS SLOPE DRESSING.

TOPSOIL AND OTHER UNSUITABLE MATERIALS SHALL BE ELIMINATED FROM THE UPPERMOST 2 FT. BELOW THE GRADING GRADE.

SELECT GRADING MATERIALS (CONFORMING TO SPEC. 3149.2B) ENCOUNTERED IN CUT AREAS SHALL BECOME PROPERTY OF THE CONTRACTOR AND MAY BE USED IN THE COUNTY ROAD D SUBGRADE TREATMENT AREA. PAYMENT FOR USE IN THE SUBGRADE SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR SELECT GRANULAR BORROW (CV).

WATER, GAS, ELECTRIC, TELEPHONE, SEWER, AND TV CABLE LINES SHOWN ON THE DRAWINGS AND CROSS SECTIONS ARE PLOTTED FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION BUT, MAY NOT REFLECT ACTUAL LOCATIONS OR ELEVATIONS. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES BEFORE BEGINNING CONSTRUCTION WHICH MAY BE AFFECTED BY A UTILITY CONFLICT. THE CONTRACTOR SHALL GIVE 48 HOURS NOTICE TO THE UTILITY OWNERS OF ALL KNOWN UTILITIES BEFORE STARTING ANY OPERATIONS AFFECTING THOSE PROPERTIES, OR BEGINNING EXCAVATION IN THE VICINITY OF THOSE PROPERTIES. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 1507 OF THE STANDARD SPECIFICATIONS.

UTILITY COMPANIES WILL RELOCATE THEIR FACILITIES CONCURRENTLY WITH THE CONSTRUCTION OPERATIONS UNDER THIS CONTRACT. THE CONTRACTOR SHALL SCHEDULE CONSTRUCTION IN COOPERATION WITH UTILITY RELOCATION.

THE CONTRACTOR SHALL NOTIFY PROPERTY OWNERS 72 HOURS IN ADVANCE OF DISRUPTION TO SANITARY SEWER AND WATERMAIN SERVICES.

THE CONTRACTOR SHALL MINIMIZE INTERRUPTION ON SANITARY SEWER AND WATER SERVICE TO ADJACENT PROPERTIES. ANY PROPERTY OUT OF SERVICE LONGER THAN 8 HOURS MUST BE PROVIDED WITH TEMPORARY SERVICE.

NEW SANITARY SEWER AND WATER SERVICE LOCATIONS ON THE PLANS SHALL BE VERIFIED WITH THE CITY AND SAINT PAUL REGIONAL WATER SERVICES PRIOR TO CONSTRUCTION. SERVICE LOCATIONS MAY BE ADJUSTED AS REQUESTED BY THE CITY AND SAINT PAUL REGIONAL WATER SERVICES AND AS APPROVED BY THE ENGINEER.

ANY DEWATERING AND USE OF A TRENCH BOX, SHEETING OR SHORING OR OTHER METHOD OR MEANS NECESSARY TO COMPLETE CONSTRUCTION WITHIN THE CONSTRUCTION LIMITS OR SLOPE EASEMENTS SHOWN WILL BE CONSIDERED TO BE INCIDENTAL AND NO DIRECT COMPENSATION WILL BE MADE THEREFORE.

PROVIDE FOR REMOVAL AND DISPOSAL (OUTSIDE OF THE CONSTRUCTION ZONE) OF ALL INPLACE STRUCTURES THAT WILL INTERFERE WITH CONSTRUCTION. DISPOSAL OF ITEMS REMOVED UNDER THIS CONTRACT SHALL BE IN ACCORDANCE WITH SECTION 2104 OF THE SPECIFICATIONS.

EXCESS EXCAVATED AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH THE SECTIONS 2104 AND 2105 OF THE SPECIFICATIONS. COMPACTION OF GRADING ITEMS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SPECIFICATION 2105.

WHEN EXCAVATING ADJACENT TO INPLACE PAVEMENT, NO MATERIAL SHALL BE REMOVED FROM INSIDE AN APPROXIMATE 1/2:1 SLOPED LINE DRAWN DOWNWARD AND OUTWARD FROM THE BOTTOM OF THE INPLACE PAVEMENT.

WHEN ADDING TO EXISTING BITUMINOUS PAVEMENT, THE EDGE OF EXISTING PAVEMENT SHALL BE CUT TO A NEAT LINE PRIOR TO CONSTRUCTING ADDITIONAL ASPHALT SURFACING.

STABILIZING AGGREGATE SHALL BE APPLIED IF NECESSARY TO ACHIEVE SATISFACTORY SURFACE STABILITY AS DETERMINED BY THE ENGINEER. THE MATERIAL SHALL SATISFY THE REQUIREMENTS OF SECTION 3149.2C AND SHALL BE APPLIED IN ACCORDANCE WITH SECTION 2105.3G OF THE SPECIFICATIONS.

USE TACK COAT BETWEEN ALL BITUMINOUS COURSES. COMPACTION OF ALL BITUMINOUS COURSES SHALL BE ACCOMPLISHED IN ACCORDANCE WITH MNDOT 2331.

THE CONTRACTOR SHALL MAINTAIN A MINIMUM CLEARANCE OF 1 FOOT BETWEEN CROSSING OF EXISTING MINOR WATER LINES AND PROPOSED STORM SEWER LINES. WHERE CONFLICTS OCCUR, THE WATER LINE SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. COMPENSATION FOR RELOCATION WORK SHALL BE AS SET FORTH IN THE SPECIAL PROVISIONS.

ALL USES OF THE WORD "INCIDENTAL" IN THESE CONSTRUCTION DOCUMENTS SHALL BE CONSTRUED TO MEAN INCIDENTAL WORK FOR WHICH NO DIRECT COMPENSATION SHALL BE MADE.

ALL EXISTING TRAFFIC SIGNS ON THE PROJECT WILL BE SALVAGED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER. COMPENSATION FOR SALVAGE SIGN WORK SHALL BE AS SET FORTH IN THE SPECIAL PROVISIONS.

THE CONTRACTOR SHALL NOTIFY THE RAMSEY COUNTY SURVEYOR AT (651) 266-2620 IN ADVANCE OF ANY DISTURBANCE TO INPLACE MONUMENTATION. THIS NOTIFICATION MAY BE MADE THROUGH THE PROJECT ENGINEER.

MAPLEWOOD CO. RD. D UTILITY CONTACT LIST

NAME	COMPANY	ADDRESS	PHONE	NOTES
MIKE ANDERSON	CITY OF ST. PAUL WATER UTILITIES	8 EAST 4TH STREET, ST. PAUL, MN 55101	(651) 226-6264	
DOLLY LUDDEN	CITY OF ST. PAUL WATER UTILITIES	8 EAST 4TH STREET, ST. PAUL, MN 55101	(651) 917-4783	FIELD SUP. MAIN CONTACT
SCOTT MOLITOR	XCEL GAS	825 RICE STREET, ST. PAUL, MN 55117	(651) 282-5261	MAIN CONTACT
WILLIAM E. MARKA	XCEL GAS	825 RICE STREET, ST. PAUL, MN 55117	(651) 265-7036	SENIOR DESIGNER
DARREN NORDSKOG	XCEL ELECTRIC	825 RICE STREET, ST. PAUL, MN 55117	(651) 229-2329	DESIGNER ELEC.
JILLIAN SELF	QWEST		(651) 714-7540	
SCOTT SANDKAMP	COMCAST		(651) 493-5132	
KEN ANDREEN	BP		(651) 486-7701	
CHRIS CAVETT	CITY OF MAPLEWOOD	1830 EAST CO. RD. B, MAPLEWOOD, MN 55109	(651) 249-2403	ASST. CITY ENGINEER
ED NADEAU	CITY OF MAPLEWOOD	1830 EAST CO. RD. B, MAPLEWOOD, MN 55109	(651) 249-2430	UTILITY SUPERINTENDENT
MIKE KANE	CITY OF MAPLEWOOD	1830 EAST CO. RD. B, MAPLEWOOD, MN 55109	(651) 249-2420	STREET SUPERINTENDENT
GINNY GAYNOR	CITY OF MAPLEWOOD	1830 EAST CO. RD. B, MAPLEWOOD, MN 55109	(651) 249-2180	OPEN SPACE NATURALIST

MNDOT STANDARD PLATES

THESE STANDARD PLATES AS APPROVED BY THE FHWA SHALL APPLY

PLATE NO.	DESCRIPTION
3000L	REINFORCED CONCRETE PIPE (5 SHEETS)
3006G	GASKET JOINT FOR R.C. PIPE (2 SHEETS)
3007C	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES
3100G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3133C	RIPRAP AT RCP OUTLETS
3145F	CONCRETE PIPE TIES
4005L	MANHOLE OR CATCH BASIN TYPE A&B CONE SECTIONS PRECAST
4007C	PRECAST MECHANICAL JOINT SEWER MANHOLE
4010H	CONCRETE SHORT CONE AND ADJUSTING RING
4011E	PRECAST CONCRETE BASE
4018A	PRECAST MANHOLE OR CATCH BASIN REDUCER CONE SECTION
4020I	MANHOLE OR CATCH BASIN COVER
4022A	3' X 2' OPENING MANHOLE OR CATCH BASIN COVER
4026A	CONCRETE ENCASED CONCRETE ADJUSTING RINGS
4180J	MANHOLE OR CATCH BASIN STEP
7100G	CONCRETE CURB AND GUTTER
7109C	MEDIAN NOSE AND ISLAND
7111J	INSTALLATION OF CATCH BASIN CASTINGS
7113A	CONCRETE APPROACH NOSE DETAIL
8000I	STANDARD BARRICADES
9102D	TURF ESTABLISHMENT AREAS (AT PIPE CULVERT ENDS)

MAPLEWOOD STANDARD PLATES

THESE STANDARD PLATES AS APPROVED BY THE CITY OF MAPLEWOOD SHALL APPLY

PLATE NO.	DESCRIPTION
110	TYPICAL INTERSECTION
112	C.B. PLACEMENT AND C. & G. TRANSITION AT INTERSECTIONS
230	DRIVEWAYS, SIDEWALKS, AND TRAILS
236	COMMERCIAL DRIVEWAY
300	FRAME PLACEMENT DETAILS
301	MANHOLE FRAME AND LID DETAILS
302	STANDARD CATCH BASIN (REV. 3/2004)
303	STORM SEWER MANHOLE (REV. 3/2004)
304	CB FRAME-CURB TRANSITION B618 C & G (REV. 3/2004)
310	DRAIN TILE INSTALLATION (PROFILE)
311	DRAIN TILE INSTALLATION (PLAN VIEW)
320	STORM SEWER SUPPORT AT SANITARY SEWER CROSSING
330	TRASH GUARDS FOR CONCRETE APRONS
340	EMBEDMENT DETAILS FOR REINFORCED CONCRETE PIPE
350	EROSION CONTROL MEASURES (2 PAGES)
400	SANITARY SEWER MANHOLE
401	SANITARY SEWER DROP MANHOLE
403	MANHOLE CONSTRUCTION OVER EXISTING SANITARY SEWER MAIN
410	SANITARY SEWER SERVICE
411	SERVICES IN COMMON TRENCH
440	EMBEDMENT DETAILS FOR PVC OR HDPE PIPE
501	WATER SERVICE CONNECTION AND TYPICAL BOULEVARD PLACEMENT
540	EMBEDMENT DETAILS FOR DUCTILE IRON PIPE
600	CORRECT METHOD OF MAILBOX INSTALLATION FOR CITY DELIVERY
601	OFF ROAD STRUCTURE MARKERS
620	TYPICAL BOULEVARD UTILITIES

STANDARD PLATES

THESE STANDARD PLATES AS APPROVED BY THE SAINT PAUL REGIONAL WATER SERVICES SHALL APPLY

PLATE NO.	DESCRIPTION
D-1	TYPICAL INTERSECTION FOR WATER SYSTEM
D-2	GATE VALVE BOX AND INSTALLATION
D-3	HYDRANT INSTALLATION
D-4	STANDARD HYDRANT NOZZLES
D-10	TYPICAL WATER MAIN OFFSETS
D-11	RESTRAINED PIPE REQUIREMENT (1 OF 3)

WATERMAIN NOTES:

1. ALL WATERMAIN, WITH THE EXCEPTION OF VADNAIS HEIGHTS, SHALL BE INSTALLED ACCORDING TO SAINT PAUL WATER STANDARDS.
2. CONTACT DOLLY LUDDEN AT CITY OF ST. PAUL WATER UTILITIES AT LEAST 72 HOURS PRIOR TO INSTALLATION OF WATERMAIN.

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PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sh\008-pin-sh\008-TAB-01.dwg

XREF DRAWINGS	DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
2x34bdr	49392-008	1	NRH	8/4/04	REVISED STANDARD PLATE 3145F
		2	DB/ML	1/9/2007	AS-BUILT
	DRAWN BY: JCD				
	DESIGN BY: JCD				
	CHKD. BY: NCL				
	DWG. NAME: TAB-01				
	DATE: JULY 30, 2004				



28-261

Thrasher Square
700 Third Street South
Minneapolis, MN 55416
612.370.0700 Tel
612.370.1378 Fax

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

**CITY OF MAPLEWOOD
COUNTY ROAD D**

CONSTRUCTION NOTES, INDEX OF TABS,
UTILITY CONTACT LIST AND STANDARD PLATES

CITY PROJECT	02-08	SHEET NO.
COUNTY PROJECT		4
S.A.P.	62-619-025	
S.A.P.	138-020-29	

EXISTING UTILITY / DRAINAGE MODIFICATIONS

STATION		RELOCATE HYDRANT (1)	ADJUST FRAME & RING CASTING	REMOVE MANHOLE (SAN)	ABANDON PIPE SEWER (SAN)	REMOVE PIPE SEWER (36" RCP)	RECONSTRUCT SANITARY MANHOLE
		EACH	EACH	EACH	LF	LF	EACH
COUNTY ROAD D							
28+39, 23	LT		1				
28+85, 25.4	RT	1					
29+75, 46.3	LT		1				
48+73, 49.1	RT			1			
48+73 to 49+13	RT				202		
LAMETTRY'S POND AREA						15	
MILL AND OVERLAY AREA			5				1
COUNTY ROAD D TOTALS		1	7	1	202	15	1
WEST COUNTY ROAD D							
1+84	LT		.1				
WEST COUNTY ROAD D TOTALS		0	1	0	0	0	0
PROJECT TOTALS		1	8	1	202	15	1

(1) SAINT PAUL REGIONAL WATER SERVICES WILL BE RELOCATING HYDRANTS.

SAWCUT

STATION		SAWING BIT PAVEMENT (FULL DEPTH)	SAWING CONCRETE PAVEMENT (FULL DEPTH)
		LF	LF
COUNTY ROAD D			
27+40	LT-RT	31	
28+81	LT	18	
48+72	LT	27	
49+50	LT	17	
49+50	RT	6	
COUNTY ROAD D TOTALS		99	0
WEST COUNTY ROAD D COURT			
1+10	LT		22
2+67	RT	34	
3+91	LT-RT	32	
WEST COUNTY ROAD D COURT TOTALS		66	22
FRONTAGE ROAD			
4+00	LT-RT	29	
FRONTAGE ROAD TOTALS		29	0
PROJECT TOTALS		194	22

SIGN SALVAGE

STATION	SALVAGE SIGN TYPE C EACH
COUNTY ROAD D	
29+51 LT	1
COUNTY ROAD D TOTALS	1
WEST COUNTY ROAD D COURT	
2+11 LT	1
WEST COUNTY ROAD D COURT TOTALS	1
PROJECT TOTALS	2

RELOCATE MAILBOX

STATION	RELOCATE MAILBOX EACH
COUNTY ROAD D	
27+30 to 31+30	LT 2
COUNTY ROAD D TOTALS	2
WEST COUNTY ROAD D COURT	
0+00 to 3+91	LT 3
0+00 to 3+91	RT 1
WEST COUNTY ROAD D COURT TOTALS	4
PROJECT TOTALS	6

BITUMINOUS PAVEMENT REMOVAL

STATION		REMOVE BITUMINOUS PAVEMENT	REMOVE BITUMINOUS DRIVEWAY PAVEMENT
		SY	SY
COUNTY ROAD D			
27+40 TO 32+80		2448	
27+54	LT		9
28+81	LT		22
48+39 TO 49+58		707	
COUNTY ROAD D TOTALS		3155	31
WEST COUNTY ROAD D COURT			
1+10	LT		43
2+64	RT		44
WEST COUNTY ROAD D COURT TOTALS		0	87
PROJECT TOTALS		3155	118

CONCRETE PAVEMENT REMOVAL

STATION	REMOVE CONCRETE DRIVEWAY PAVEMENT SY
WEST COUNTY ROAD D COURT	
1+10	LT 66
PROJECT TOTALS	66

CLEAR AND GRUB CHART

STATION	CLEARING	GRUBBING	CLEARING	GRUBBING
	ACRE	ACRE	TREE	TREE
COUNTY ROAD D				
28+35 to 33+15	0.81	0.81	7	7
48+92 TO 49+32	0.03	0.03		
Proposed Pond	1.35	1.35	5	5
PROJECT TOTALS	2.19	2.19	12	12

28-261

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-ph-sht\008-TAB-02.dwg

XREF DRAWINGS		DESIGN FILE: 49392-008	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
2x34bdr		DRAWN BY: JCD				
		DESIGN BY: JCD				
		CHKD. BY: NCL				
		DWG. NAME: TAB-02				
		DATE: JULY 30, 2004				



Thresher Square
700 Third Street South
Minneapolis, MN 55416
612.370.0700 Tel
612.370.1378 Fax

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Nick C. Landwer
NICK C. LANDWER

CITY OF MAPLEWOOD
COUNTY ROAD D

TABULATIONS
COUNTY ROAD D

CITY PROJECT 02-08
COUNTY PROJECT
S.A.P. 62-619-025

SHEET NO.

5

86

SANITARY SEWER SUMMARY

STATION	8" PVC PIPE SEWER (0-10' DEPTH)	8" PVC PIPE SEWER (10-12' DEPTH)	8" PVC PIPE SEWER (12-14' DEPTH)	8" PVC PIPE SEWER (14-16' DEPTH)	8" PVC PIPE SEWER (16-18' DEPTH)	8" PVC PIPE SEWER (18-20' DEPTH)	8" PVC PIPE SEWER (20-22' DEPTH)	6" PVC PIPE SEWER (14-16' DEPTH)	CONSTRUCT SANITARY MANHOLES	EXTRA DEPTH SANITARY MANHOLE	CONNECT TO EXISTING MANHOLES (SAN)	CONSTRUCT OUTSIDE DROP
	LF	LF	LF	LF	LF	LF	LF	LF	EA	LF	EA	EA
COUNTY ROAD D									EA	LF	EA	EA
36+07, 40R (STUB)	40											
36+08 (MH1)												
36+08 to 37+10		15	45	47					1	1.8		
37+10 (MH2)												
37+10 to 39+63				10	245				1	6.6		
39+63 (MH3)												
39+63, 41L (STUB)									1	6.1		
39+63 to 42+61	86	60	35	90	30							
42+61 (MH4)												
42+61 to 44+98	98	40	55	40	10				1	6.75		1
44+98, 16.8R (MH5)												
44+98 to 49+15	282	47	47	45					1	9.2		1
44+98, 79R (STUB)												
49+15, 26R (MH6)				96								
49+15 to 48+95		30	37						1			
48+95, 90R (MH7)												
48+95, 90R (STUB IE)									1	4.57		1
MH7 to EXISTING		100	58									
											1	
COUNTY ROAD D TOTALS	506	292	277	328	325	0	0	13	7	35.02	1	3
FRONTAGE ROAD (VENBURG) <i>(FRONTAGE ROAD ALIGNMENT)</i>												
Co.Rd. D to MH8												
2+07 (MH8)						50	141					
2+07 to 2+66									1	10.08		
2+66 (MH9)						42	15					
2+71, 40R (STUB)							40		1	8.08		
FRONTAGE ROAD TOTALS	0	0	0	0	0	92	196	0	2	18.16	0	0
PROJECT TOTALS	506	292	277	328	325	92	196	13	9	53.18	1	3

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28-261

XREF DRAWINGS		DESIGN FILE: 49392-008	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
22-346d						
DRAWN BY: JCD	DESIGN BY: JCD					
CHKD. BY: NCL	DWG. NAME: TAB-03					
DATE: JULY 30, 2004						



Thresher Square
700 Third Street South
Minneapolis, MN 55416
612.370.0700 Tel
612.370.1378 Fax

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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40853

CITY OF MAPLEWOOD
COUNTY ROAD D

TABULATIONS
COUNTY ROAD D

CITY PROJECT	02-08	SHEET NO.
COUNTY PROJECT		6
S.A.P.	62-619-025	
S.A.P.	138-020-29	86

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-pln-sht\008-TAB-04.dwg

WATERMAIN BENDS & TEES SUMMARY											
STATION	8"	8"	12"	12"	12" X 12"	12" X 6"	8" X 8"	8" X 6"	12" X 8"	8" X 8"	WATERMAIN FITTINGS
	22 DEGREE BEND EA	45 DEGREE BEND EA	22 DEGREE BEND EA	45 DEGREE BEND EA	TEE EA	TEE EA	TEE EA	TEE EA	REDUCER EA	CROSS EA	
COUNTY ROAD D											LB
29+03, 32.6R			1								84
29+11, 27.1R						1					110
29+23, 19.4R			1								84
29+65, 8.1R			1								84
30+37, 5.5R			1								84
31+21, 10.1R					1				1		220
32+63, 12.4R								1			72
34+12, 10.2R	1										46
34+67, 17.4R							1				86
35+75, 6.5R	1										46
37+34, 10R	1										46
38+62, 11R								1			72
39+52, 11R										1	105
42+61, 28R		1									46
44+87, 7.5R	1										46
44+85, 23.34R										1	105
44+85, 33.3R	1										46
44+85, 44.3								1			72
44+99, 27R	1										46
48+62, 27R	1										46
48+76, 36R		1									46
48+77, 43R									1		60
RESIDENTIAL TIE-IN		1									46
COUNTY ROAD D TOTALS	7	3	4	0	1	1	1	3	2	2	1698
WEST COUNTY ROAD D COURT											
1+45, 20L				1							86
3+92, 5.9L						1					110
WEST COUNTY ROAD D COURT TOTALS	0	0	0	1	0	1	0	0	0	0	196
PROJECT TOTALS	7	3	4	1	1	2	1	3	2	2	1894

WEIGHTS FOR MECHANICAL JOINT FITTINGS		
8" 22 DEGREE BEND	46	LBS
8" 45 DEGREE BEND	46	LBS
8x8 TEE	86	LBS
8x6 TEE	72	LBS
8x8 CROSS	105	LBS
12x8 REDUCER	60	LBS

WEIGHTS FOR MECHANICAL JOINT FITTINGS		
12" 22 DEGREE BEND	84	LBS
12" 45 DEGREE BEND	86	LBS
12x6 TEE	110	LBS
12x12 TEE	160	LBS

28-261

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1	MAK	1/9/07	AS-BUILT



Thresher Square
700 Third Street South
Minneapolis, MN 55416
612.370.0700 Tel
612.370.1378 Fax

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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

TABULATIONS
COUNTY ROAD D

CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.

7

86

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan=shl\008-pin=shl\008-TAB-05.dwg

CONCRETE QUANTITIES SUMMARY

STATION	CONCRETE CURB & GUTTER DESIGN B624	CONCRETE CURB & GUTTER DESIGN B624 (MOD)	CONCRETE CURB & GUTTER DESIGN B618	8" CONCRETE VALLEY GUTTER	8" CONCRETE DRIVEWAY PAVEMENT	CONCRETE WALK (MAINTENANCE STRIP)	PEDESTRIAN CURB RAMP (TYPE A)
	LF	LF	LF	SY	SY	SF	EACH
COUNTY ROAD D							
28+39 to 30+91 LT	266						
28+39 to 34+41 RT	593						
28+82 RT							
31+04 RT					9		
31+77 to 39+51 LT	807						1
34+17 to 34+90 RT				7			
34+38 RT							1
34+68 to 39+51 RT	496						
34+71 RT							1
36+87 to 39+36 LT		252					
36+87 to 39+36 RT		250					
39+31 to 39+95 RT				7			
39+31 to 39+95 LT				7			
39+49 RT							1
39+75 to 44+80 LT	504						
39+75 to 44+62 RT	530						
39+78 RT							1
39+90 to 44+65 LT		462					
39+90 to 44+65 RT		479					
39+96 to 44+65						1788	
44+46 to 45+53 LT				8			
44+62 to 45+34 RT				8			
44+81 RT							1
45+15 RT							1
45+16 to 48+98 LT	380						
45+28 to 49+21 LT		394					
45+28 to 49+21 RT		401					
45+34 to 49+01 RT	391						
45+35 to 49+21						1576	
49+33 RT							1
COUNTY ROAD D TOTALS	3967	2238	0	37	9	3364	8
WEST COUNTY ROAD D COURT							
0+15 to 0+55 LT	53						
0+18 to 0+58 RT	57					2060	
0+26 LT							
0+55 to 3+57 LT			313				
0+58 to 3+57 RT			287				
0+98 LT					95		
1+68 LT					13		
2+67 RT					20		
3+43 LT					12		
FRONTAGE ROAD							
0+39 to 0+79 RT	54						
0+40 to 0+79 LT	54						
0+79 to 4+00 LT			291				
0+79 to 4+00 RT			350				
W. CTY RD D COURT/FRONTAGE ROAD TOTALS	218	0	1241	0	140	2060	1
PROJECT TOTALS	4185	2238	1241	37	149	5424	9

BITUMINOUS QUANTITIES SUMMARY

STATION	TYPE MV 3 WEARING COURSE MIXTURE (C)	TYPE LV 3 NON-WEARING COURSE MIXTURE (B)	2" BITUMINOUS WALK	BITUMINOUS WEAR TYPE 41(A) DRIVEWAYS	TACK COAT
	TONS	TONS	SF	TON	GALLON
COUNTY ROAD D					
27+40 to 28+39	63	48			29
27+55 LT					
28+39 to 30+91	217	163	1847	4	99
28+81 LT				3	
30+91 to 31+77	74	56	659		34
31+77 to 36+87	453	339	1953		206
36+87 to 39+31	235	176	1599		107
39+31 to 39+95	103	77	1985		47
39+95 to 44+65	476	357	4296		216
44+65 to 45+28	154	116			70
45+28 to 49+23	636	477	3485		289
COUNTY ROAD D TOTALS	2412	1809	15824	6	1096
WEST COUNTY RD D COURT					
0+16 to 3+57	275	138			125
0+98 LT					
1+68 LT				19	
2+67 RT				17	
3+43 LT				4	
3+57 to 3+92	23	12		1	10
FRONTAGE ROAD					
0+42 to 4+00	90	120			55
0+42 to 1+14			492		
W. CTY RD D CT/FRONTAGE ROAD TOTALS	388	269	492	42	190
PROJECT TOTALS	2800	2078	16316	48	1286

28-261

XREF DRAWINGS	DESIGN FILE: 49392-008	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
	DRAWN BY: JCD				
	DESIGN BY: JCD				
	CHECKED BY: NCL				
	DWG. NAME: TAB-05				
	DATE: JULY 30, 2004				



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700 Third Street South
Minneapolis, MN 55416
612.370.0700 Tel
612.370.1378 Fax

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Nick C. Landwer
NICK C. LANDWER

CITY OF MAPLEWOOD
COUNTY ROAD D

TABULATIONS
COUNTY ROAD D

CITY PROJECT 02-08
COUNTY PROJECT
S.A.P. 62-619-025

SHEET NO.
8
86

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-pln-sht\008-TAB-06.dwg

WATERMAIN QUANTITIES SUMMARY

STATION	6" WATERMAIN DUCTILE IRON CL 52	8" WATERMAIN DUCTILE IRON CL 52	12" WATERMAIN DUCTILE IRON CL 52	CONNECT TO EXISTING WATER MAIN	RELOCATE HYDRANT AND BOX	6" GATE VALVE AND BOX	8" GATE VALVE AND BOX	12" BUTTERFLY VALVE AND BOX	HYDRANT
	LF	LF	LF	EACH	EACH	EACH	EACH	EACH	EACH
COUNTY ROAD D									
29+03, 35.8R				1					
29+04 to 29+23			22						
29+11, 21.2R	8				1				
29+16, 24R								1	
29+23 to 31+21			200						
31+21, 1L								1	
31+21 to 32+63		133							
32+63, 22R	10								
32+63 to 38+62		578				1			1
34+80, 17R							1		
34+87, 24R							1		
34+87 (STUB)		23					1		
38+62 to 39+52		90							
39+52, 14L							1		
39+52, 16R							1		
39+52 (STUB LEFT)		65							
39+52 (STUB RIGHT)		29							
38+62, 22.3R	12					1			1
39+52 to 44+99		569							
44+82, 46R (OFF OF FRONTAGE ROAD)	30					1			1
44+75, 19.9R							1		
44+86, 52.6R							1		
44+87, 1L							1		
44+83 (STUB LEFT)		102							
44+88 (CONNECTION TO DULUTH STREET)		420							
44+99 to 48+78		394							
48+78, 50.7R				1					
COUNTY ROAD D TOTALS	60	2403	222	2	1	3	8	2	3
WEST COUNTY ROAD D COURT									
COUNTY ROAD D to 3+92			413						
3+92, 20.6R	15					1			1
WEST COUNTY ROAD D COURT TOTALS	15	0	413	0	0	1	0	0	1
PROJECT TOTALS	75	2403	635	2	1	4	8	2	4

AGGREGATE & GRANULAR BORROW SUMMARY

STATION	AGGREGATE BASE (CV) CLASS 6	SELECT GRANULAR BORROW (CV)	TEMPORARY ROCK CONSTRUCTION ENTRANCE
	CY	CY	EACH
COUNTY ROAD D			
27+40			1
27+40 to 28+39	71	146	
28+39 to 30+91	218	403	
30+91 to 31+77	73	137	
31+77 to 36+87	441	848	
36+87 to 39+31	261	518	
39+31 to 39+95	90	198	
39+95 to 44+65	544	1218	
44+65 to 45+28	122	268	
45+28 to 49+23	620	1310	
49+60			1
COUNTY ROAD D TOTAL	2439	5046	2
WEST COUNTY ROAD D COURT			
0+16 to 3+57	394	471	
3+57 to 3+92	30	47	
3+92			1
FRONTAGE ROAD			
0+42 to 4+00	281		
W. CTY RD D/FRONTAGE ROAD TOTAL	705	517	1
PROJECT TOTALS	3144	5563	3

TURF ESTABLISHMENT SUMMARY

STATION	SODDING TYPE LAWN
	SY
COUNTY ROAD D	
27+40 to 35+20 RT	1081
27+66 to 28+73 LT	197
28+89 to 31+09 LT	1748
31+57 to 39+87 LT	2598
35+49 to 39+85 RT	477
40+09 to 44+75 LT	525
40+10 to 44+75 RT	562
41+44 to 44+54	621
45+20 to 49+23 RT	463
45+25 to 48+98 LT	539
45+35 to 49+14	314
48+27 to 49+14 RT	631
FRONTAGE ROAD	283
COUNTY ROAD D TOTALS	10040
WEST COUNTY ROAD D COURT	
1+11 to 1+57 LT	401
1+74 to 3+32 LT	329
3+54 to 3+92 LT	27
3+80 to 7+97 RT	101
WEST COUNTY ROAD D COURT TOTALS	858
PROJECT TOTALS	10897

28-261

XREF DRAWINGS 22-34bdr	DESIGN FILE: 49392-008	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
	DRAWN BY: JCD				
	DESIGN BY: JCD				
	CHKD. BY: NCL				
	OWG. NAME: TAB-06				
	DATE: JULY 30, 2004				



Thresher Square
700 Third Street South
Minneapolis, MN 55416
612.370.0700 Tel
612.370.1378 Fax

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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40853

CITY OF MAPLEWOOD
COUNTY ROAD D

TABULATIONS
COUNTY ROAD D

CITY PROJECT 02-08
COUNTY PROJECT
S.A.P. 62-619-025
S.A.P. 138-020-29

SHEET NO.
9
86

DRAINAGE SUMMARY

NOTES	STRUCTURE						PIPE										
	STRUCTURE NO. [2]	LOCATION STATION/OFFSET	MH/CB DESIGN - DIAMETER PAY HEIGHT		F&I CASTING ASSEMBLY ELEVATION	INVERT ELEVATION	DRAINS TO		12-INCH RCP CL V (LF)	15-INCH RCP CL V (LF)	18-INCH RCP CL V (LF)	18-INCH RCP CL III (LF)	21-INCH RCP CL IV (LF)	24-INCH RCP CL V (LF)	4-INCH PERF PIPE (LF)	CLASS III RIPRAP (CY)	GEOTEXTILE FILTER FABRIC
			48-INCH	CASTING TYPE			STRUCTURE	%									
	COUNTY ROAD D	CENTERLINE ALIGNMENT															
	FES 100					944.00	MH101	3.75	160								
	MH 101	39+90.20, 207.2 RT	5.70	R-1642	942.00	936.30	CBMH102	2.00	165								
	CBMH102	39+73.32, 41.5 RT	5.60	R-3250-BSP	937.00	931.40	CBMH103	2.00	34								
	CBMH103	39+95.30, 19 RT	9.72	R-3250-BSP	936.42	926.70	CBMH4	2.00	165.00								
[3]	CBMH4	41+58.59, 21.21 RT	3.31	R-3250-BSP	927.72	924.41	CBMH5	0.50		55							
[3]	CBMH5	41+58.59, 34.10 LT	9.76	R-3250-BSP	927.40	917.64	STMH3	2.00		125							
[3]	STMH3	42+95.37, 24.36 LT	10.64	R-3250-BSP	919.15	908.51	CBMH2	2.00		124							
[3]	CB 1	44+32.00, 41.28 RT	4.00	R-3250-BSP	910.34	906.34	CBMH2	0.50		76							
[3]	CBMH2	44+32.00, 35.03 LT	11.17	R-3250-BSP	910.02	898.85	STMH 1	2.00		147							
[3]	STMH 1	45+93.321, 21.78 LT	10.09	R-1642	899.91	889.82	EX STUB	2.00			267						
	EX STUB	48+78.99, 30.00 LT				884.27											
	STUB	35+99.50, 40.00 RT				926.00	CBMH6	0.50		22							
[3]	CBMH6	36+18.00, 18.00 RT	4.10	R-3250-BSP	933.82	929.72	CBMH7	0.50		36							
[3]	CBMH7	36+00.00, 18.00 LT	9.07	R-3250-BSP	933.82	924.75	CBMH8	2.00		157							
[3]	CBMH8	34+48.26, 18.00 LT	12.44	R-3250-BSP	925.61	913.17	CBMH13	2.00		283							
	STUB	34+44.00, 40.00 RT				919.00	CBMH8			58							
[1],[3]	CB12	0+48.02, 16.00 RT	3.50	R-3250-BSP	908.99	905.49	CBMH13	0.50		46							
[3]	CBMH13	31+82.36, 18.00 LT	6.61	R-3250-BSP	911.77	905.16	CBMH14	1.00		36							
[3]	CBMH14	31+82.36, 18.00 RT	7.57	R-3250-BSP	911.77	904.20	FES 4	0.40					50		3		
	FES 4	31+83.00, 68.10 RT				904.00											
[4]	CB 15	30+22.00, 18.00 LT	3.50	R-3067	908.71	905.21	CBMH16	0.50		36					100		
[4]	CBMH16	30+22.00, 18.00 RT	3.74	R-3067	908.71	904.97	CBMH14	0.50		154					100		
	A1	29+86.91, 48.58 RT				905.00	A2	1.39			72						
[5]	A2	29+99.19, 22.51 LT	7.25	R-1642	910.00	902.75	A3	2.00				35					
	A3	29+64.86, 97.58 LT	12.20	R-1642	906.00	893.80	A4	0.60				50				5.9	12
[5]	A2	29+99.19, 22.51 LT			910.00	895.50	A5	1.00					180				
[1],[3]	A5	3+14.79, 16 RT	15.50	R-3067	907.00	891.50	A6	0.50						190			
[6],[5]	A7	1+29.05, 40.35 LT	7.70	R-3067	907.70	900.00	A8 & A5	2.00		49							
[1],[4]	CBMH 9	1+76.28, 16.00 LT	3.76	R-3067	906.94	903.18	A7	0.50		59							
[1],[4]	CB10	1+76.28, 16.00 RT	3.50	R-3067	906.94	903.44	CBMH9	0.50		32					100		
[1]	A6	3+15, RT	17.15	R-3067	907.70	890.55	END								100		
TOTALS - THIS SHEET			166.56	24					524	1495	339	85	180	240	400	12	12

- NOTES:
 [1] WEST COUNTY ROAD D COURT ALIGNMENT
 [2] ALL STRUCTURES SHALL HAVE AT LEAST TWO ADJUSTMENT RINGS (6" OF ADJUSTMENT).
 [3] 4020 COVER
 [4] 4022 COVER
 [5] SPECIAL SPLITTER STRUCTURE
 [6] INCLUDES QUANTITIES FOR PIPE TO A8 & A5

28-261

XREF DRAWINGS 2x34bdr	DESIGN FILE: 49392-008	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
DRAWN BY: JCD	DESIGN BY: JCD	1	MRK	1/9/07	AS-BUILT
CHECKED BY: NCL	DWG. NAME: TAB-07				
DATE: JULY 30, 2004					



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 700 Third Street South
 Minneapolis, MN 55416
 612.370.0700 Tel
 612.370.0700 Fax

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 NICK C. LANDWER
 DATE: 7/30/2004 NH LIC. NO. 40953

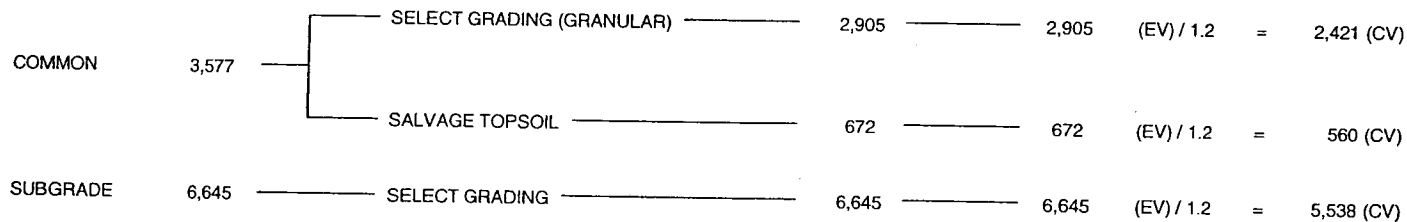
CITY OF MAPLEWOOD
 COUNTY ROAD D
 STORM SEWER
 DRAINAGE TABULATION

CITY PROJECT	02-08	SHEET NO. 10
COUNTY PROJECT		
S.A.P.	62-619-025	86
S.A.P.	138-020-29	

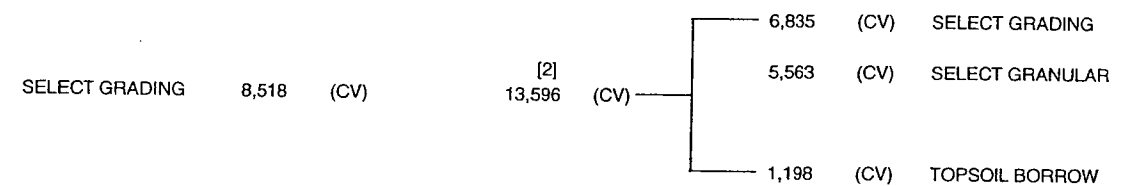
EARTHWORK SUMMARY								
LOCATION	STATION TO STATION	EXCAVATION (EV)			EMBANKMENT (CV)			
		2105.501 SALVAGE TOPSOIL (CY)	2105.501 COMMON EXCAVATION (CY)	2105.507 SUBGRADE EXCAVATION (CY)	SELECT GRADING (CY)	2105.522 AGGREGATE BASE (CY)	2105.522 SELECT GRANULAR (CY)	2105.525 TOPSOIL (CY)
COUNTY ROAD D	27+00.00 - 49+21.21	0	2,611	6,295	2,409	2,439	5,046	1,104
WEST COUNTY ROAD D COURT	0+18.00 - 3+92.37	672	90	350	4,426	424	517	94
FRONTAGE ROAD	0+42.00 - 4+00.00	0	204	0		281	0	
PROJECT TOTALS:		672	2,905	6,645	6,835	3,144	5,563	1,198

EARTHWORK BALANCE

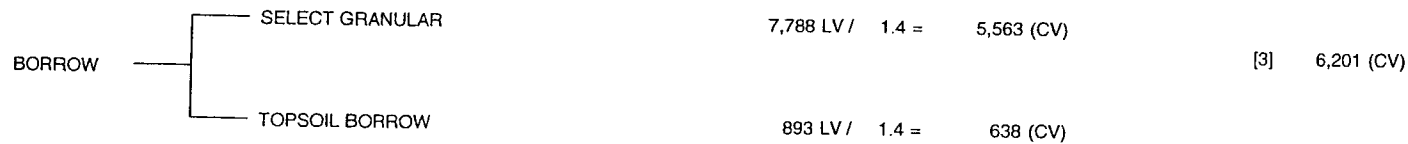
EXCAVATION (CY)



EMBANKMENT (CV)



BORROW (CY)



EXCESS (CY)

GRANULAR 1,123 (CV) SELECT GRADING

NOTES:

- [1] TOTAL EXCAVATION (CV) REQUIRED FOR THIS PROJECT
- [2] TOTAL EMBANKMENT (CV) REQUIRED FOR THIS PROJECT
- [3] TOTAL BORROW (CV) REQUIRED FOR THIS PROJECT
- [4] TOTAL EXCESS

[4] 1,123 (CV)

28-261

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-pin-sht\008-TAB-08.dwg

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	DWG. NAME: TAB-08				
	DATE: JULY 30, 2004				



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612.370.0700 Tel
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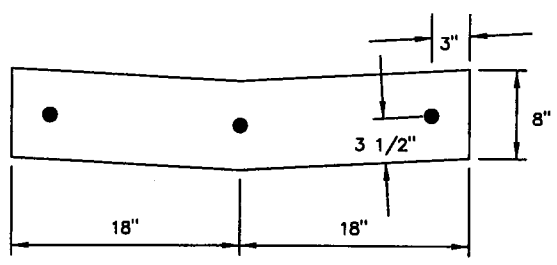
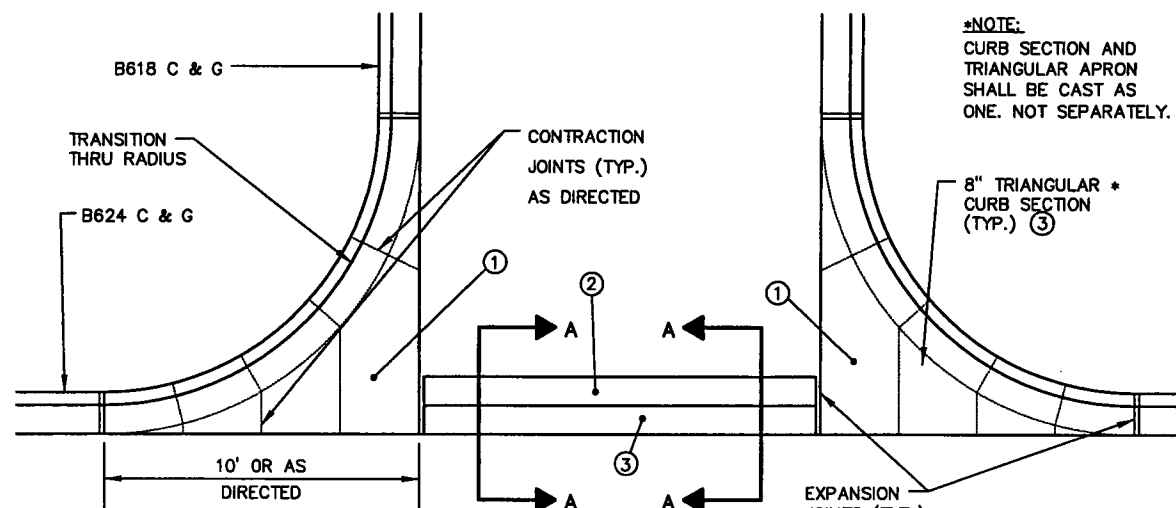
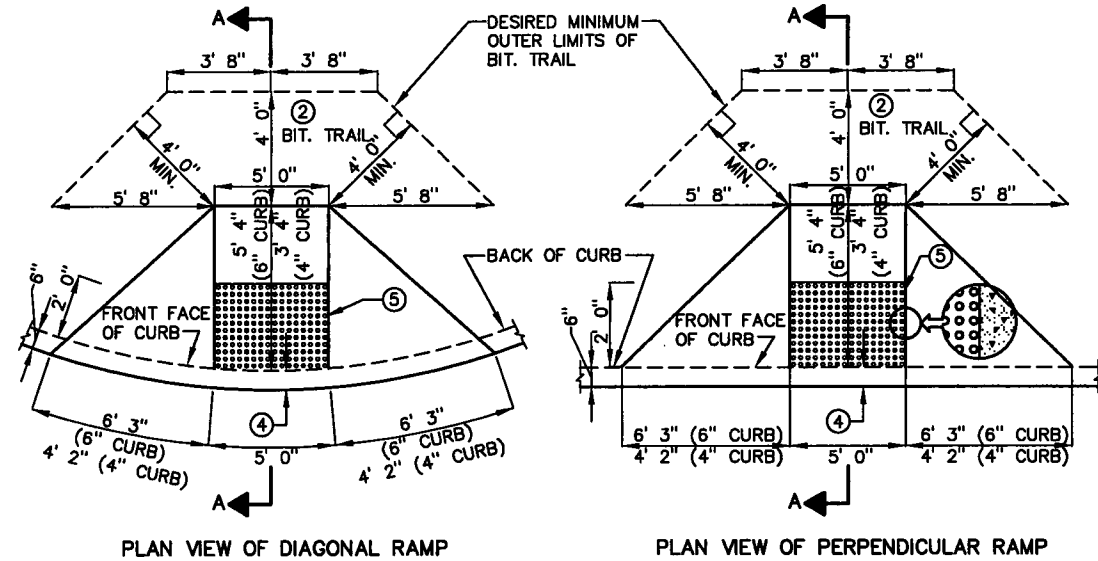
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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

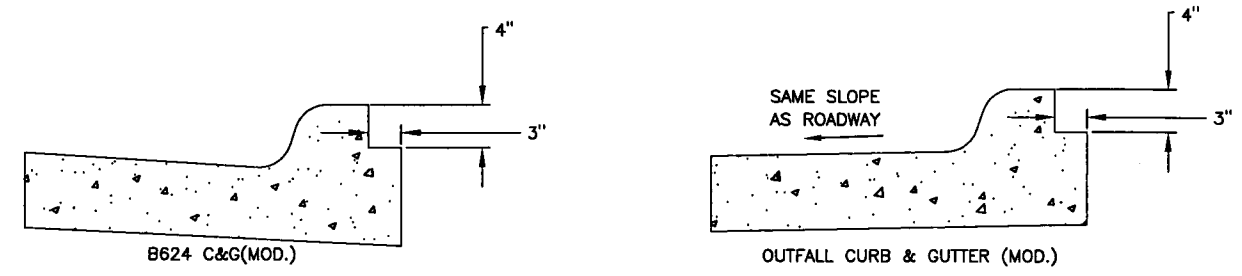
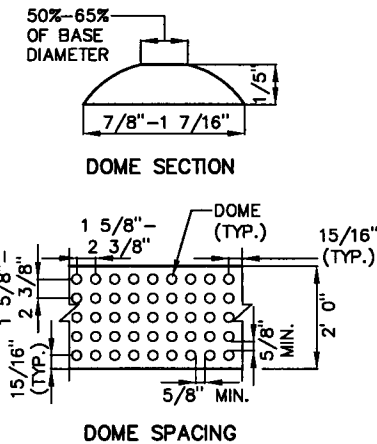
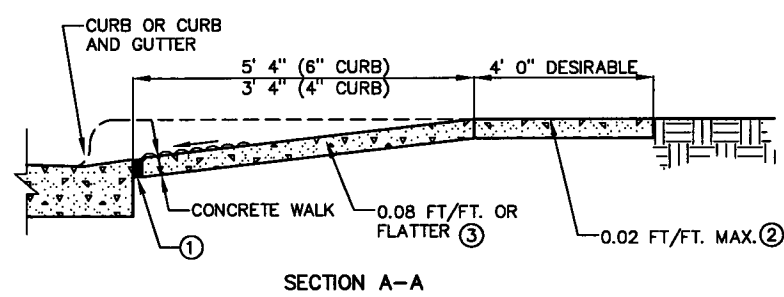
EARTHWORK
SUMMARY AND BALANCE

CITY PROJECT	02-08	SHEET NO.
COUNTY PROJECT		11
S.A.P.	62-619-025	
S.A.P.	138-020-29	

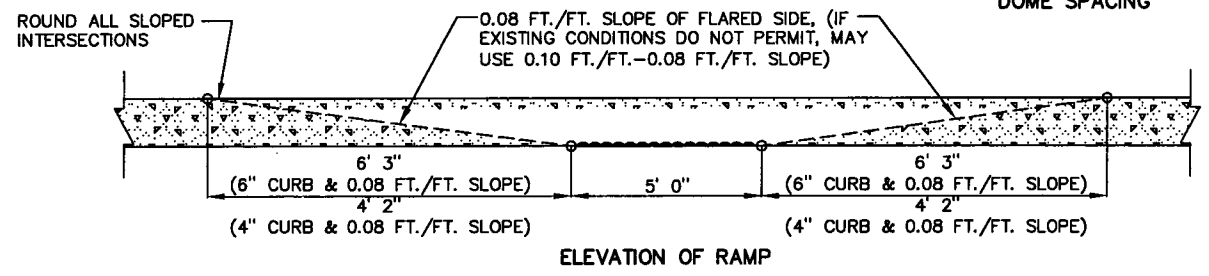


- SEE ② BELOW
SECTION A - A
- ① PAID FOR AS 8" CONCRETE DRIVEWAY PAVEMENT
 - ② PAID FOR AS CONCRETE VALLEY GUTTER
 - ③ PLACE ON MIN. 10" CLASS 6 AGGREGATE BASE

CONCRETE VALLEY GUTTER



DESIGN B CURB MODIFIED DETAILS
FOR INFORMATION NOT SHOWN,
REFER TO STANDARD PLATE 7100G.



TRUNCATED DOME PEDESTRIAN CURB RAMP

NOTES: THE CURB AND CURB TRANSITION ON THE RAMP WILL BE PAID FOR AS LINEAR FEET OF CONCRETE CURB OR CONCRETE CURB AND GUTTER. THE RAMP AREA WILL BE PAID FOR AS PEDESTRIAN CURB RAMP (TYPE A). THE TRUNCATED DOME AREA SHALL BE CONSIDERED INCIDENTAL.

- ① 1/2 INCH PREFORMED JOINT FILLER MATERIAL, AASHTO M 213.
- ② WHEN POSSIBLE, PROVIDE A PATH OF TRAVEL 4' 0" WIDE BEHIND THE PEDESTRIAN RAMP. A RELATIVELY FLAT 4' 0"x4' 0" LANDING WILL ALLOW WHEELCHAIRS TO NAVIGATE AROUND THE PEDESTRIAN RAMP.
- ③ WHEN A MEDIAN IS NOT WIDE ENOUGH FOR TWO PEDESTRIAN RAMPS AND A 48" LANDING BETWEEN THEM, THE PEDESTRIAN CROSSING SHALL BE CUT THROUGH THE MEDIAN AT STREET LEVEL.
- ④ 6" TO 8" IS THE REQUIRED OFFSET OF THE DETECTABLE WARNINGS/ TRUNCATED DOME AREA FROM THE FRONT FACE OF CURB, OR PLACE THE DETECTABLE WARNINGS AT THE BACK OF CURB.
- ⑤ ADA REQUIRED TRUNCATED DOME AREA SHALL BE 2' 0" MIN. IN DIRECTION OF TRAVEL AND SHALL EXTEND THE FULL WIDTH (5'0") OF THE CURB RAMP. THIS 2' 0" BY 5' 0" WIDTH (TYP.) TRUNCATED DOME AREA SHALL CONTRAST VISUALLY WITH THE ADJACENT WALKING SURFACE. THE ENTIRE TRUNCATED DOME AREA SHALL BE A LIGHT COLOR (LIGHT GRAY, WHITE, OR YELLOW) WHEN THE ADJACENT SIDEWALK IS A DARK COLOR. THE ENTIRE TRUNCATED DOME AREA SHALL BE A DARK COLOR (RED, BLACK, DARK GRAY, OR BRIGHT YELLOW) WHEN THE ADJACENT SIDEWALK IS A "WHITE" OR LIGHT GRAY CEMENT COLOR.
- ☼ THE TRUNCATED DOME AREA FOR THIS PROJECT SHALL BE "MESABI BLACK" GRANITE OR APPROVED EQUAL.

28-261

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-pln-sht\008-DT01.dwg

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
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DRAWN BY:	DESIGN BY:					
JCD	JCD					
CHKD. BY:	DWG. NAME:					
NCL	DT01					
DATE:						
JULY 30, 2004						



Thresher Square
700 Third Street South
Minneapolis, MN 55416
612.370.0700 Tel
612.370.1378 Fax

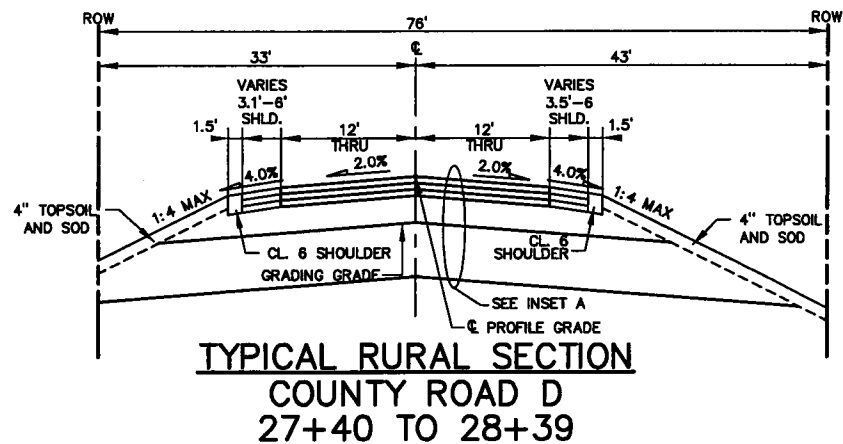
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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

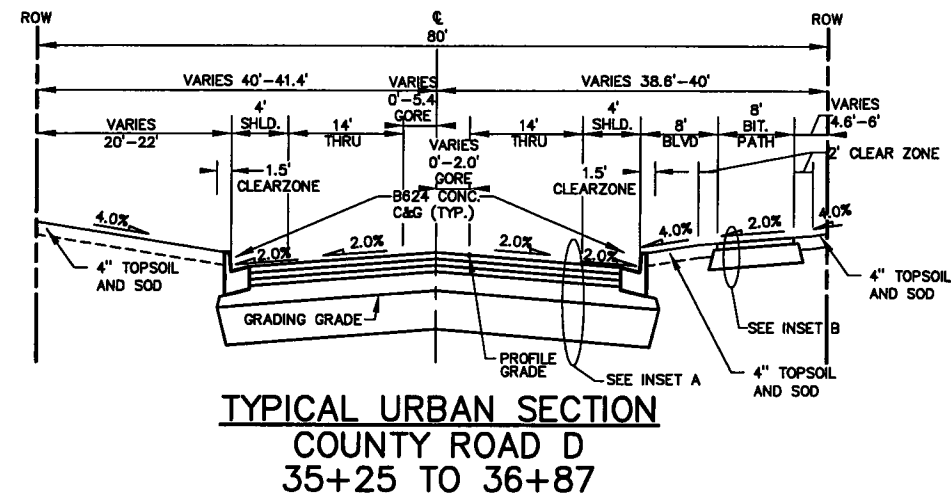
CITY OF MAPLEWOOD
COUNTY ROAD D
TYPICAL DETAILS

CITY PROJECT	02-08	SHEET NO.
COUNTY PROJECT		12
S.A.P.	62-619-025	
S.A.P.	138-020-29	

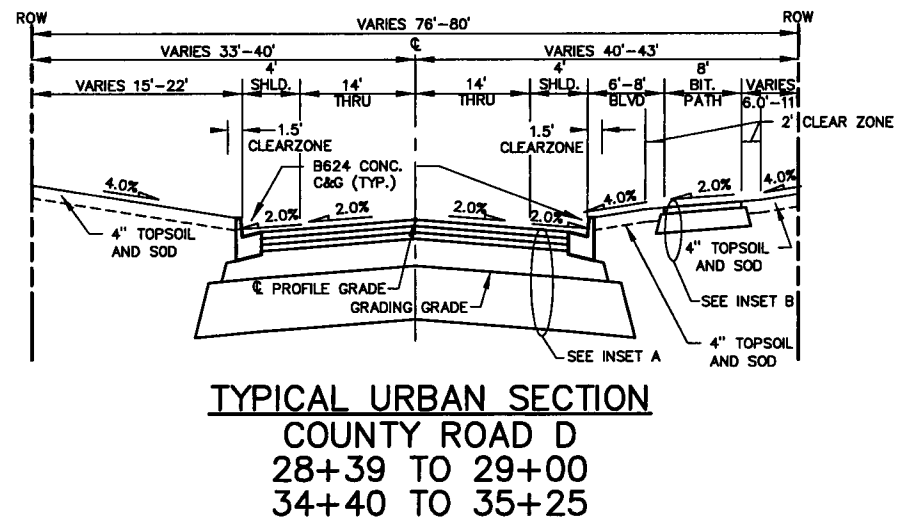
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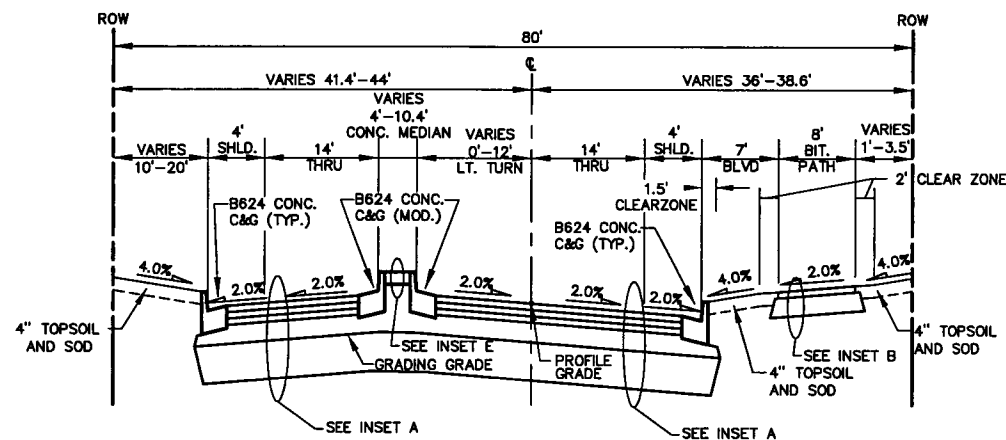
TYPICAL RURAL SECTION
COUNTY ROAD D
27+40 TO 28+39



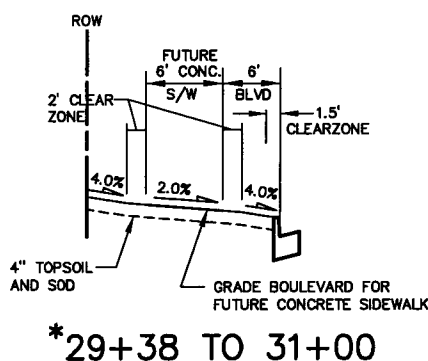
TYPICAL URBAN SECTION
COUNTY ROAD D
35+25 TO 36+87



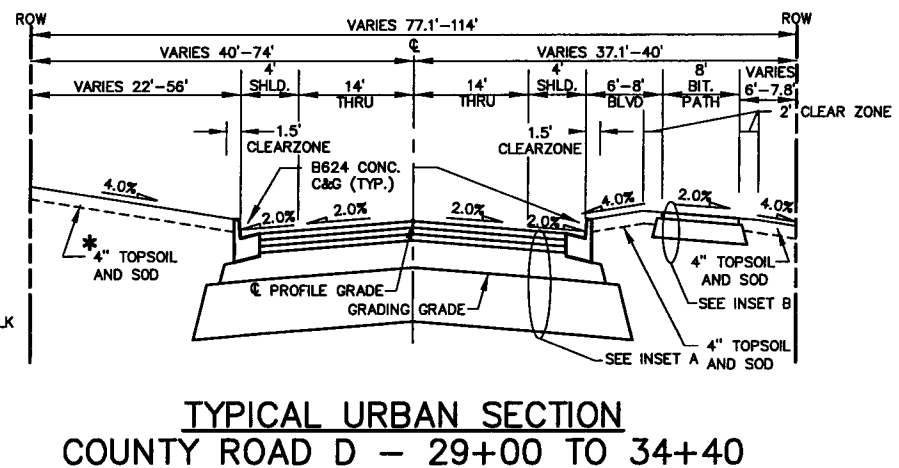
TYPICAL URBAN SECTION
COUNTY ROAD D
28+39 TO 29+00
34+40 TO 35+25



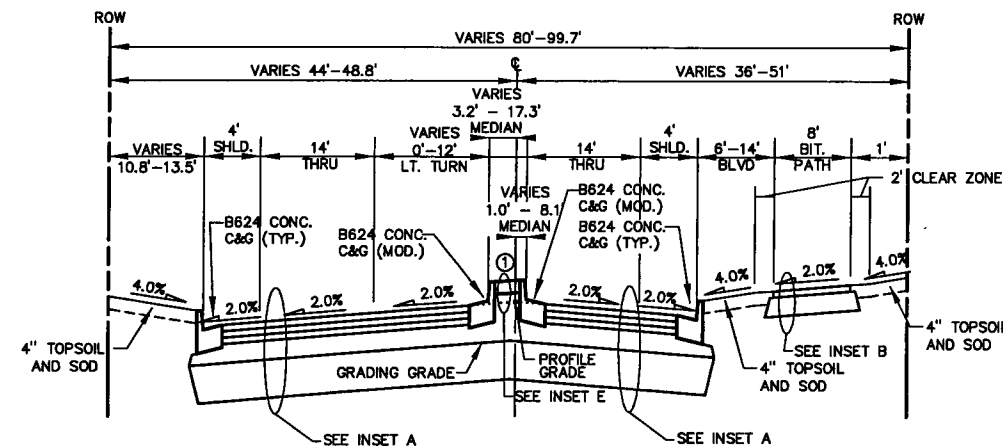
TYPICAL URBAN SECTION
COUNTY ROAD D
36+87 TO 39+36



***29+38 TO 31+00**



TYPICAL URBAN SECTION
COUNTY ROAD D - 29+00 TO 34+40



TYPICAL URBAN SECTION
COUNTY ROAD D
39+90 TO 42+70

GENERAL NOTES
 GRADING GRADE CROSS SLOPES WILL BE THE SAME AS FINISH GRADE, UNLESS SPECIFIED OTHERWISE.

- ① CONCRETE MEDIAN FROM STA. 39+96 TO 40+98;
- ② CONCRETE MAINTENANCE STRIP SURROUNDING
- ③ TOPSOIL AND SOD FROM STA. 40+98 TO 42+70

28-261

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-pln-sht\008-TYP1.dwg

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008-ESM						
008-ALI						
008-PCO						
22x34bdr						
DRAWN BY:	DESIGN BY:					
JCD	JCD					
CHKD. BY:	DWG. NAME:					
NCL	TYP1					
DATE:						
JULY 30, 2004						



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Nick C. Landwer
 NICK C. LANDWER
 DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

TYPICAL SECTIONS

CITY PROJECT 02-08

COUNTY PROJECT

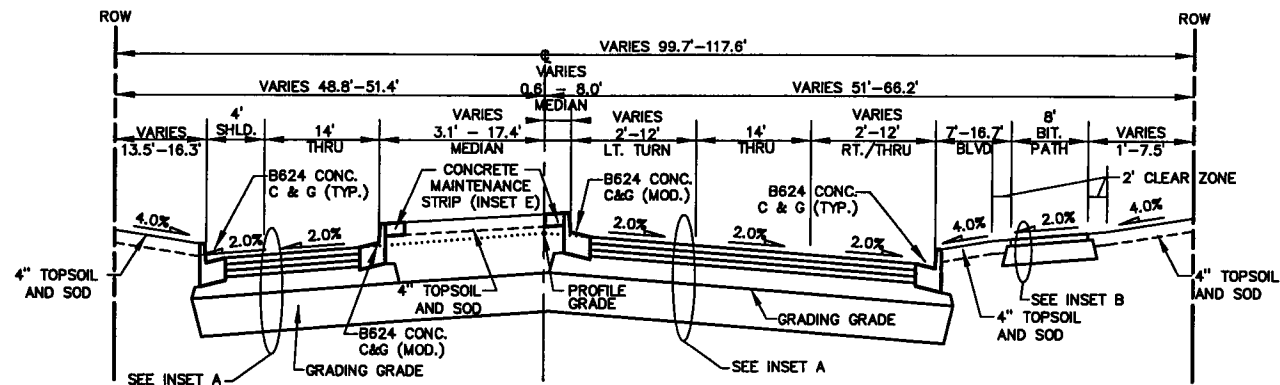
S.A.P. 62-619-025

S.A.P. 138-020-29

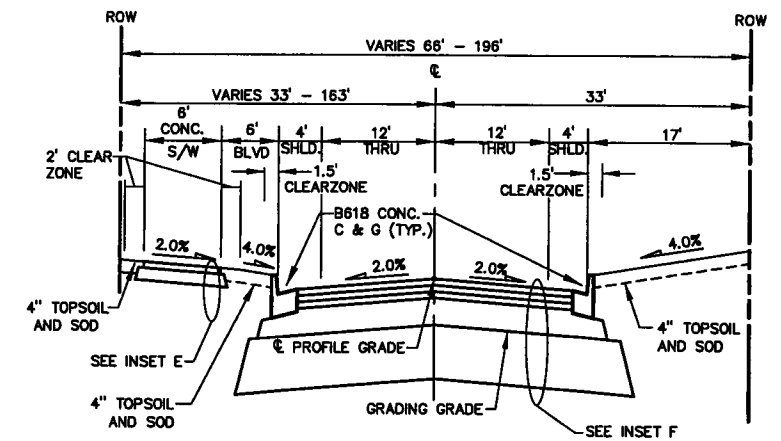
SHEET NO.

13

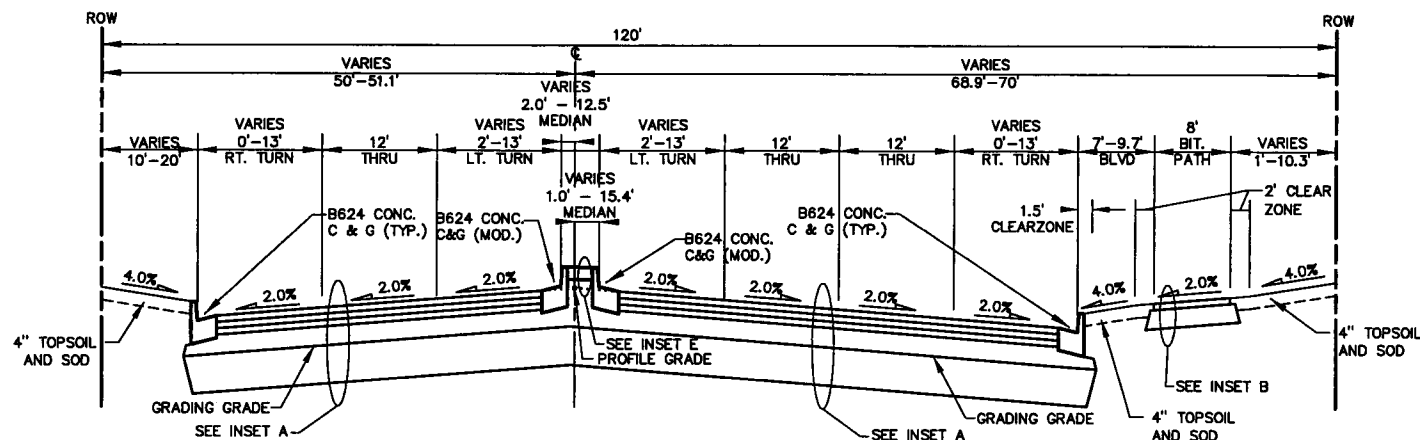
86



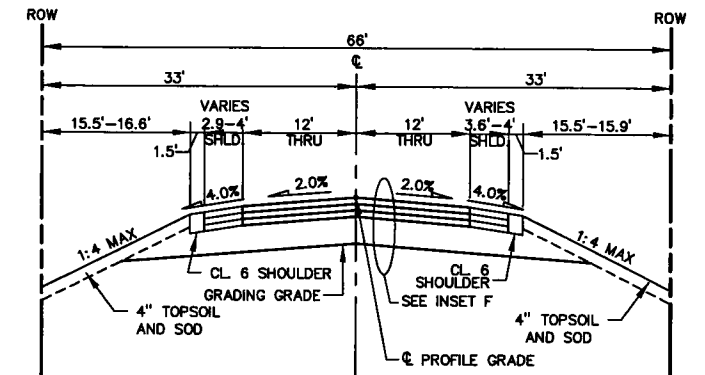
TYPICAL URBAN SECTION
COUNTY ROAD D
42+70 TO 44+65



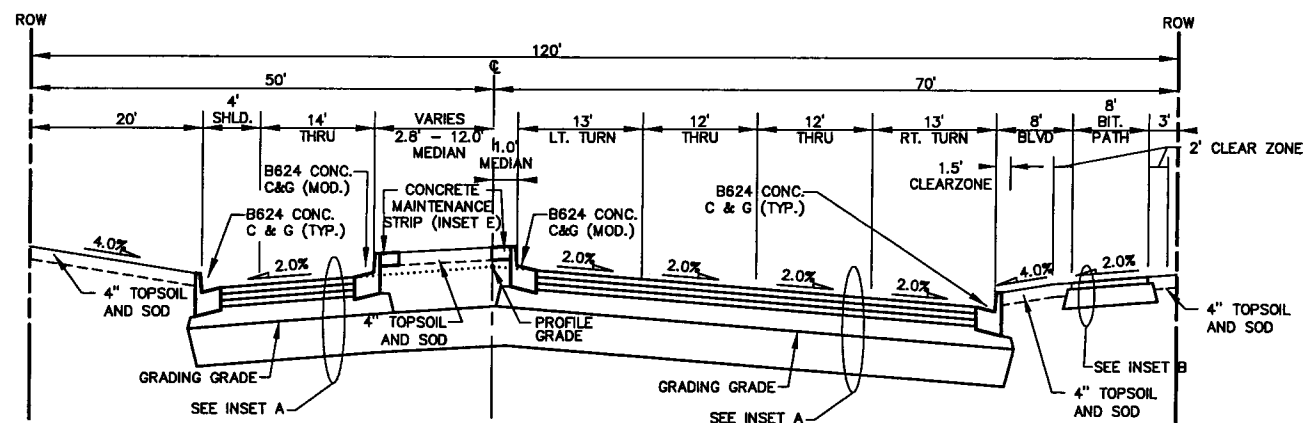
TYPICAL URBAN SECTION
WEST COUNTY ROAD D COURT
0+58 TO 3+57



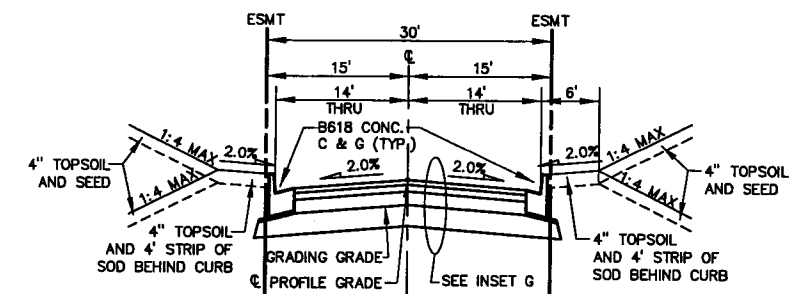
COUNTY ROAD D
45+28 TO 47+18



TYPICAL RURAL SECTION
WEST COUNTY ROAD D COURT
3+57 TO 3+92



COUNTY ROAD D
47+18 TO 49+21



TYPICAL URBAN SECTION
FRONTAGE ROAD
0+42 TO 4+00

GENERAL NOTES
GRADING GRADE CROSS SLOPES WILL BE THE SAME AS FINISH GRADE, UNLESS SPECIFIED OTHERWISE.

28-261

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-pln-sht\008-TYP2.dwg

REV. NO.	BY	DATE	REVISIONS DESCRIPTION
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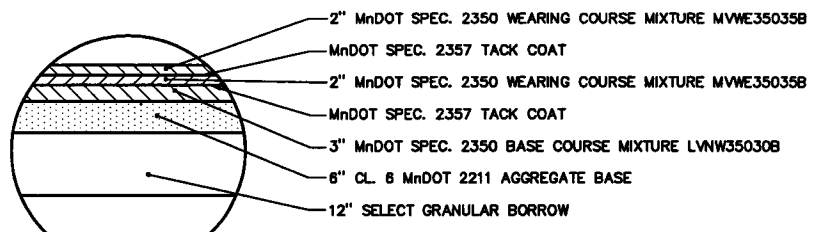
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

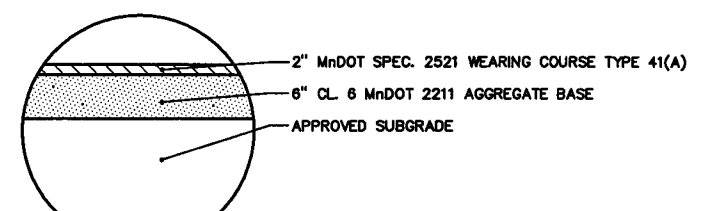
CITY OF MAPLEWOOD
COUNTY ROAD D

TYPICAL SECTIONS

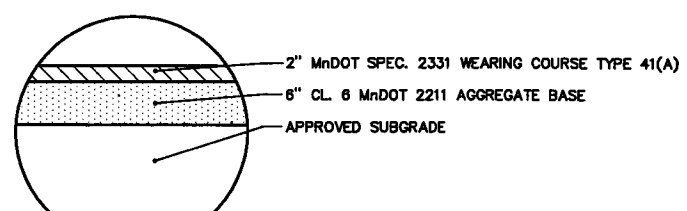
CITY PROJECT	02-08	SHEET NO.	14
COUNTY PROJECT			
S.A.P.	62-619-025		
S.A.P.	138-020-29		86



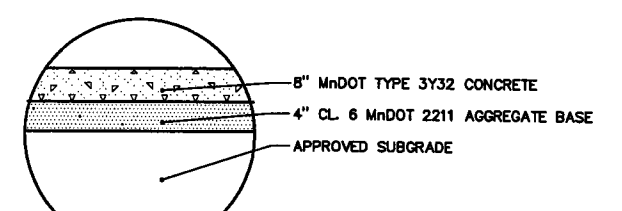
INSET A
BITUMINOUS PAVEMENT SECTION
COUNTY ROAD D



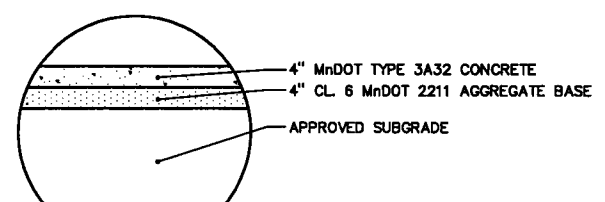
INSET B
BITUMINOUS PATHWAY
SECTION



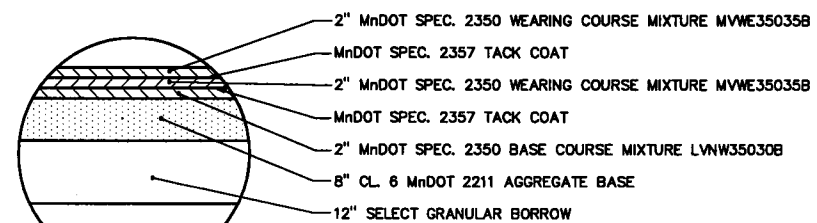
INSET C
BITUMINOUS DRIVEWAY
SECTION



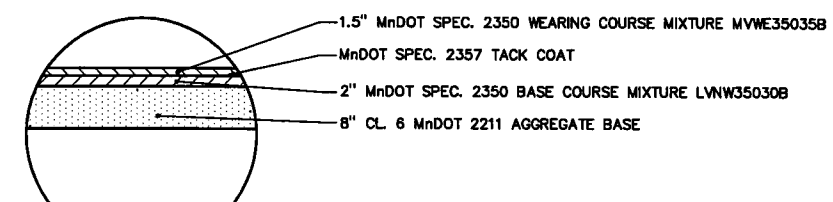
INSET D
CONCRETE DRIVEWAY
SECTION



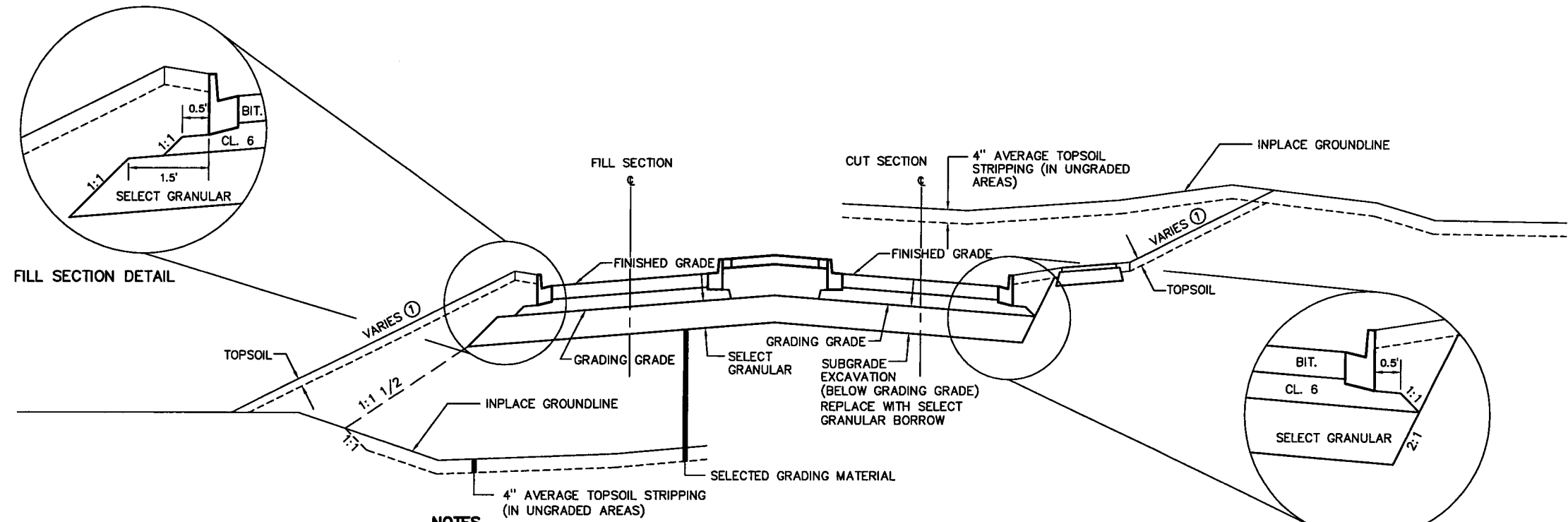
INSET E
CONCRETE SIDEWALK, MEDIAN &
MAINTENANCE STRIP SECTION



INSET F
BITUMINOUS PAVEMENT SECTION
WEST COUNTY ROAD D COURT



INSET G
BITUMINOUS PAVEMENT SECTION
FRONTAGE ROAD



NOTES
① SEE CROSS SECTIONS FOR APPROPRIATE SLOPE RATIO.

**EXCAVATION/EMBANKMENT
TYPICAL** 28-261

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-pin-sht\008-TYP3.dwg

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
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DRAWN BY: JCD		DESIGN BY: JCD	2	DB/ML	1/9/2007	AS-BUILT
CHKED. BY: NCL		DWG. NAME: TYP3				
DATE: JULY 30, 2004						



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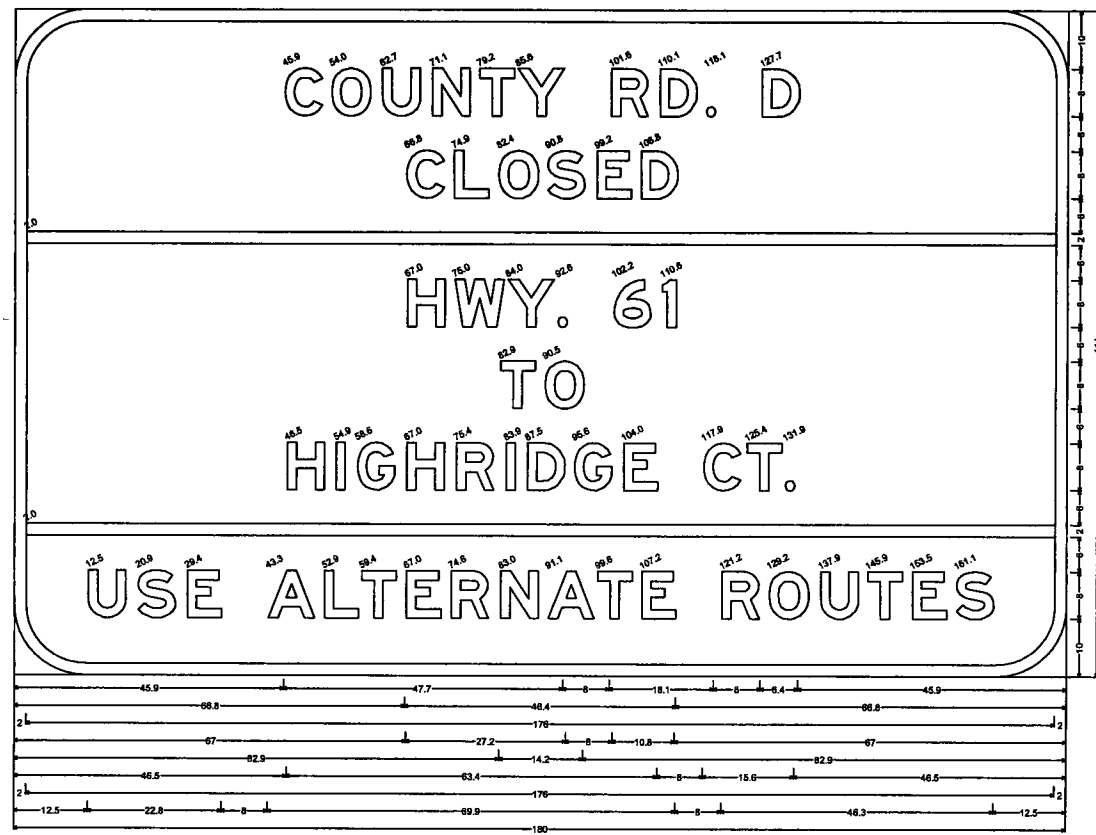
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Nick C. Landower
NICK C. LANDOWER
DATE: 7/30/2004 MN LIC. NO. 40853

CITY OF MAPLEWOOD
COUNTY ROAD D

TYPICAL SECTIONS

CITY PROJECT	02-08	SHEET NO.
COUNTY PROJECT		15
S.A.P.	62-619-025	
S.A.P.	138-020-29	

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-pin-sht\008-TR1.dwg



12.0" Radius, 2.0" Border, White on Orange;
 [COUNTY RD. D] E Mod; [CLOSED] E Mod; [HWY. 61] E Mod; [TO] E Mod; [HIGHRIDGE CT.] E Mod; [USE ALTERNATE ROUTES] E Mod;

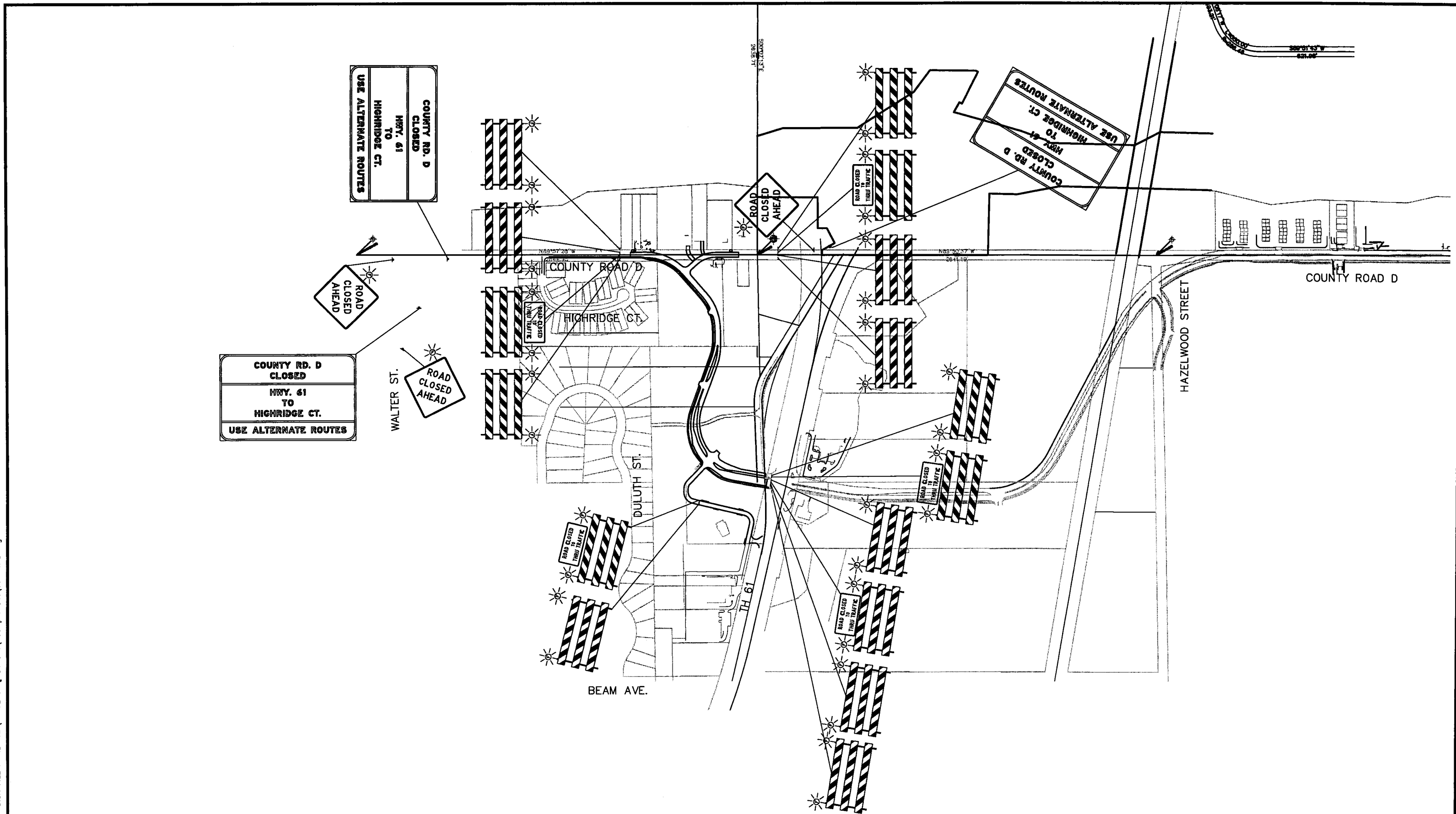
NOTES:
 1. ALL DIMENSIONS AND SIZES ARE SUBJECT TO FINAL VERIFICATION BEFORE FABRICATION BEGINS.

TRAFFIC CONTROL			
SIGN	SIGN NO.	SIZE AND COLOR	QUANTITY
	TYPE III BARRICADE	BLACK ON WHITE	15
	R11-4	60" x 30" BLACK ON WHITE	5
	W20-3	36" x 36" BLACK ON ORANGE	3
	SPECIAL	180" x 114" BLACK ON WHITE	3

28-261

XREF DRAWINGS 22x34bdr	DESIGN FILE: 49392-008	REV. NO.	BY	DATE	REVISIONS DESCRIPTION		I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. NICK C. LANDWER DATE: 7/30/2004 MN LIC. NO. 40953	CITY OF MAPLEWOOD COUNTY ROAD D TRAFFIC CONTROL DETAILS AND TABULATIONS	CITY PROJECT	02-08	SHEET NO.
	DRAWN BY: BAC	DESIGN BY: NCL	1	DB/ML	1/9/2007				AS-BUILT	COUNTY PROJECT	
CHKD. BY: NCL	DWG. NAME: TR1								S.A.P.	62-619-025	86
DATE: JULY 30, 2004									S.A.P.	138-020-29	

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\48392007\plan-sht\008-pin-sht\008-TR2.dwg



28-261

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
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007-esu-cty-d						
007-ETO						
22x34bdr						
DRAWN BY:	DESIGN BY:					
BAC	NCL					
CHKD. BY:	DWG. NAME:					
NCL	TR2					
DATE:						
JULY 30, 2004						



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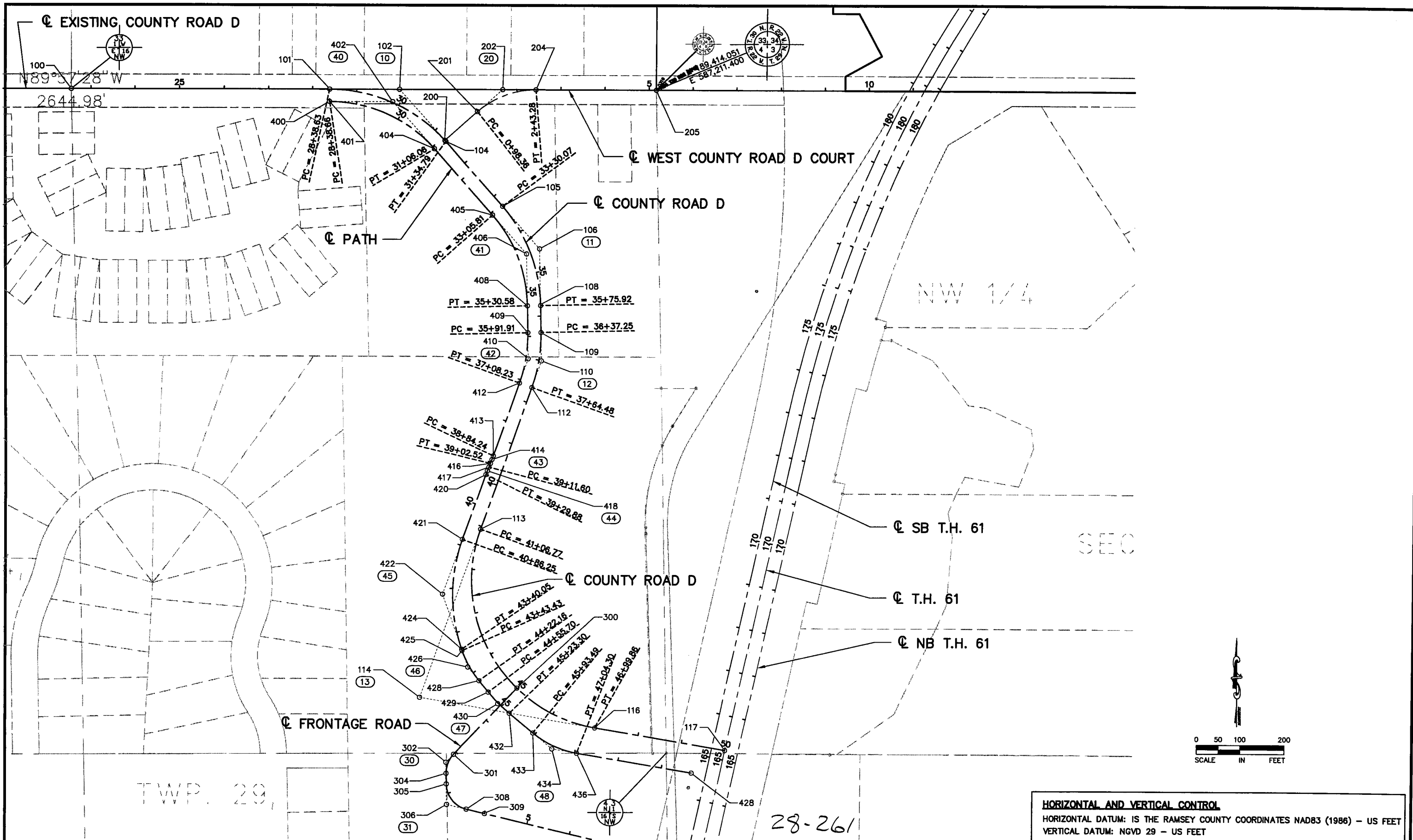
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D
DETOUR AND TRAFFIC CONTROL

CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.
17
86

PLOT DATE: Jul 30, 2004 10:27am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sh1\008-ALN-01.dwg



HORIZONTAL AND VERTICAL CONTROL
 HORIZONTAL DATUM: IS THE RAMSEY COUNTY COORDINATES NAD83 (1986) - US FEET
 VERTICAL DATUM: NGVD 29 - US FEET

XREF DRAWINGS	DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
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DRAWN BY: PMJ	DESIGN BY: NCL				
CHKD. BY: NCL	DWG. NAME: ALN-01				
DATE: JULY 30, 2004					



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 NICK C. LANDWER
 DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
 COUNTY ROAD D

ALIGNMENT LAYOUT
 COUNTY ROAD D, TRUNK HIGHWAY 61
 AND FRONTAGE ROAD

CITY PROJECT	02-08	SHEET NO.	18
COUNTY PROJECT			
S.A.P.	62-619-025		
S.A.P.	138-020-29		86

ALIGNMENT DATA

POINT NUMBER	CURVE NUMBER	ROADWAY	POINT TYPE	STATION	NOTES	CURVE DATA					COORDINATES		AZIMUTH
						DELTA	DEGREE	RADIUS (FT.)	TANGENT (FT.)	LENGTH (FT.)	NORTHING	EASTING	
100		COUNTY ROAD D (CENTERLINE)	POT	22+55.25							189,415.025	585,888.912	90°02'32"
101			PC	28+38.63							189,414.595	586,472.292	
102	(10)		PI	29+96.23		48°28'58" R	16°22'13"	350.000	157.601	296.165	189,414.479	586,629.892	PI
103			CC								189,064.595	586,472.034	
104			PT	31+34.79							189,296.398	586,734.270	138°31'30"
105			PC	33+30.07							189,150.086	586,863.601	
106	(11)		PI	34+58.31		40°14'47" R	16°22'13"	350.000	128.242	245.851	189,054.001	586,948.535	PI
107			CC								188,918.284	586,601.366	
108			PT	35+75.92							188,925.788	586,951.285	178°46'17"
109			PC	36+37.25							188,864.473	586,952.600	
110	(12)		PI	37+01.57		20°49'36" R	16°22'13"	350.000	64.321	127.222	188,800.167	586,953.979	PI
111			CC								188,856.969	586,602.681	
112			PT	37+64.48							188,739.572	586,932.405	199°35'53"
113			PC	41+06.77							188,417.110	586,817.594	
114	(13)		PI	45+11.58		99°56'44" L	16°51'06"	340.000	404.806	593.089	188,035.755	586,681.815	PI
115			CC								188,303.068	587,137.898	
116			PT	46+99.86							187,967.881	587,080.890	99°39'08"
117			POT	50+00.00							187,917.556	587,376.783	

ALIGNMENT DATA

POINT NUMBER	CURVE NUMBER	ROADWAY	POINT TYPE	STATION	NOTES	CURVE DATA					COORDINATES		AZIMUTH
						DELTA	DEGREE	RADIUS (FT.)	TANGENT (FT.)	LENGTH (FT.)	NORTHING	EASTING	
400		PATH (CENTERLINE)	POT	28+38.63							189,386.595	586,472.271	90°02'32"
401			PC	28+38.66							189,386.595	586,472.302	
402	(40)		PI	29+80.95		48°28'58" R	18°07'54"	316.000	142.291	267.395	189,386.490	586,614.593	PI
403			CC								189,070.595	586,472.069	
404			PT	31+06.06							189,279.880	586,708.831	138°31'30"
405			PC	33+05.81							189,130.217	586,841.124	
406	(41)		PI	34+23.06		40°14'47" R	17°54'18"	320.000	117.250	224.778	189,042.368	586,918.778	PI
407			CC								188,918.284	586,601.366	
408			PT	35+30.58							188,925.145	586,921.292	178°46'17"
409			PC	35+91.91							188,863.830	586,922.607	
410	(42)		PI	36+50.72		20°49'36" R	17°54'18"	320.000	58.808	116.317	188,805.036	586,923.868	PI
411			CC								188,856.969	586,602.681	
412			PT	37+08.23							188,749.635	586,904.143	199°35'53"
413			PC	38+84.24							188,583.818	586,845.105	
414	(43)		PI	38+93.39		2°05'41" R	11°27'33"	500.000	9.141	18.280	188,575.206	586,842.039	PI
415			CC								188,751.526	586,374.070	
416			PT	39+02.53							188,566.712	586,838.660	201°41'34"
417			PC	39+11.60							188,558.280	586,835.305	
418	(44)		PI	39+20.74		2°05'41" L	11°27'33"	500.000	9.141	18.280	188,549.786	586,831.926	PI
419			CC								188,373.465	587,299.895	
420			PT	39+29.88							188,541.174	586,828.860	199°35'53"
421			PC	40+86.25							188,393.867	586,776.413	
422	(45)		PI	42+18.37		39°18'11" L	15°29'07"	370.000	132.126	253.808	188,269.395	586,732.095	PI
423			CC								188,269.763	587,124.978	
424			PT	43+40.05							188,145.007	586,776.645	160°17'42"
425			PC	43+43.43							188,141.831	586,777.783	
426	(46)		PI	43+83.20		20°02'53" L	25°27'53"	225.000	39.771	78.729	188,104.389	586,791.193	PI
427			CC								188,217.696	586,989.607	
428			PT	44+22.16							188,073.813	586,816.625	140°14'49"
429			PC	44+55.70							188,048.021	586,838.078	
430	(47)		PI	44+89.61		11°03'55" L	16°22'13"	350.000	33.902	67.594	188,021.957	586,859.758	PI
431			CC								188,271.840	587,107.160	
432			PT	45+23.30							188,000.538	586,886.038	129°10'53"
433			PC	45+93.49							187,956.189	586,940.451	
434	(48)		PI	46+50.16		29°31'45" L	26°38'57"	215.000	56.663	110.807	187,920.390	586,984.374	PI
435			CC								188,122.846	587,076.284	
436			PT	47+04.30							187,910.889	587,040.235	99°39'08"
437			POT	49+68.42							187,866.605	587,300.614	

PLOT DATE: Jul 30, 2004 10:27am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\008-ALN-TAB-01.dwg

XREF DRAWINGS 22x34bdr	DESIGN FILE: 49392-008	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
	DRAWN BY: PMJ	1	DB/ML	1/9/2007	AS-BUILT
	DESIGN BY: NCL				
	CHKED BY: NCL				
	DWG. NAME: ALN-TAB01				
DATE: JULY 30, 2004					



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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

ALIGNMENT TABULATION
COUNTY ROAD D

CITY PROJECT	02-08	SHEET NO.
COUNTY PROJECT		19
S.A.P.	62-619-025	
S.A.P.	138-020-29	

86

PLOT DATE: Jul 30, 2004 10:27am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\008-ALN-TAB-02.dwg

ALIGNMENT DATA													
POINT NUMBER	CURVE NUMBER	ROADWAY	POINT TYPE	STATION	NOTES	CURVE DATA					COORDINATES		AZIMUTH
						DELTA	DEGREE	RADIUS (FT.)	TANGENT (FT.)	LENGTH (FT.)	NORTHING	EASTING	
200		WEST COUNTY ROAD D COURT	POT	0+00.00							189,298.961	586,731.982	48°31'30"
201			PC	0+98.36							189,364.101	586,805.674	
202	(20)		PI	1+74.17		41°31'02" R	28°38'52"	200.000	75.807	144.922	189,414.308	586,862.473	PI
203			CC								189,214.252	586,938.133	
204			PT	2+43.28							189,414.252	586,938.280	90°02'32"
205			POT	5+16.40							189,414.051	587,211.400	

ALIGNMENT DATA													
POINT NUMBER	CURVE NUMBER	ROADWAY	POINT TYPE	STATION	NOTES	CURVE DATA					COORDINATES		AZIMUTH
						DELTA	DEGREE	RADIUS (FT.)	TANGENT (FT.)	LENGTH (FT.)	NORTHING	EASTING	
300		FRONTAGE ROAD	POT	0+00.00							188057.295	586902.961	223°42'31"
301			PC	2+07.31							187907.437	586759.710	
302	(30)		PI	2+32.13		44°56'15" L	95°29'35"	60.000	24.814	47.058	187889.500	586742.563	PI
303			CC								187865.977	586803.082	
304			PT	2+54.37							187864.691	586743.095	178°46'16"
305			PC	2+78.16							187840.902	586743.606	
306	(31)		PI	3+24.63		75°30'37" L	95°29'35"	60.000	46.465	79.074	187794.447	586744.602	PI
307			CC								187842.189	586803.592	
308			PT	3+57.24							187783.788	586789.828	103°15'40"
309			POT	4+00.00							187773.979	586831.450	

28-261

XREF DRAWINGS 22x34bdr	DESIGN FILE: 49392-008	REV. NO.	BY	DATE	REVISIONS DESCRIPTION	
	DRAWN BY: PMJ	DESIGN BY: NCL	1	DB/ML	1/9/2007	AS-BUILT
	CHKD. BY: NCL	DWG. NAME: ALN-TAB02				
	DATE: JULY 30, 2004					



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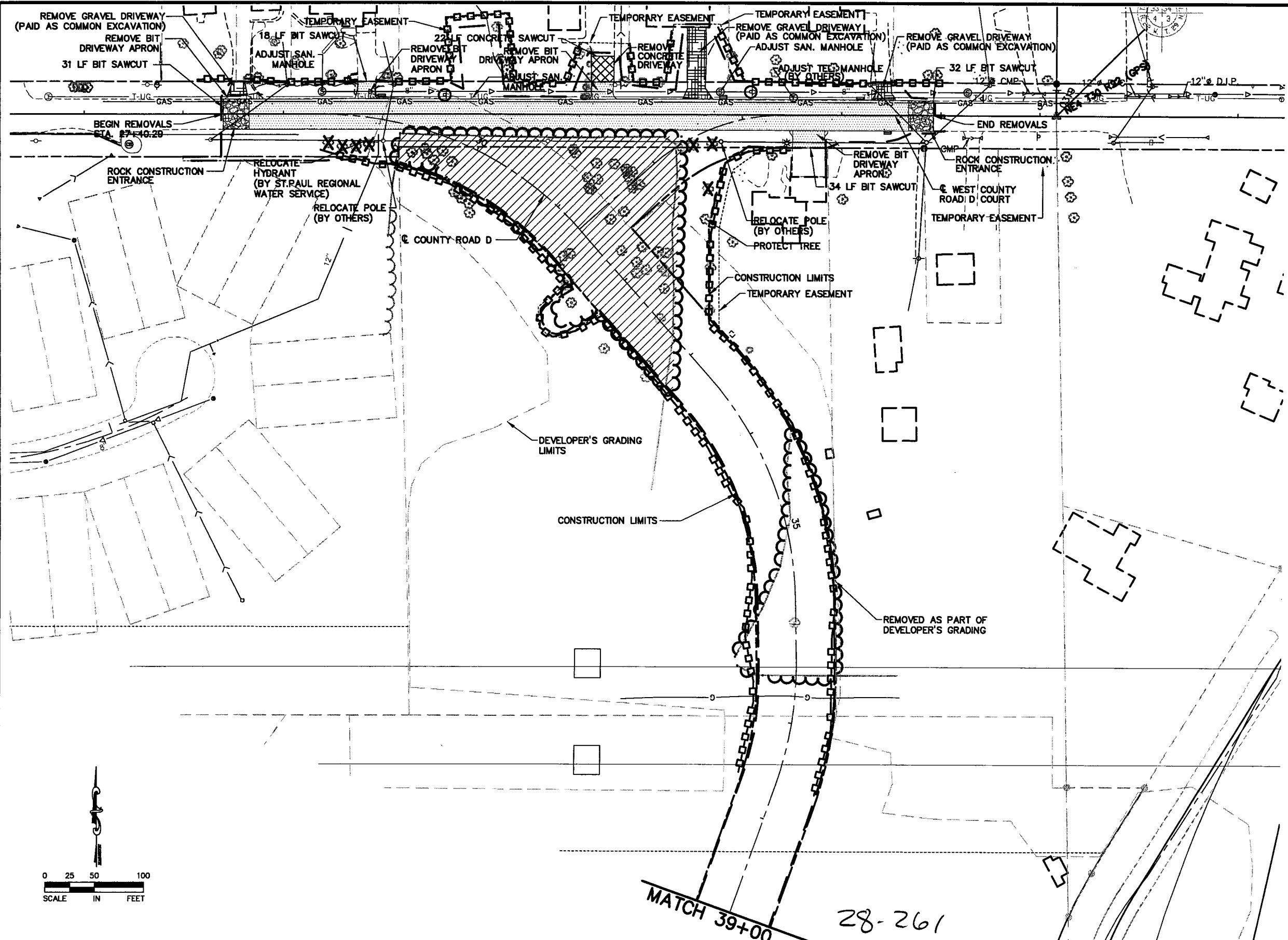
Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

ALIGNMENT TABULATION
WEST COUNTY ROAD D COURT
AND FRONTAGE ROAD

CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.
20
86

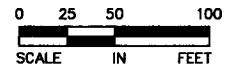


REMOVALS AND EROSION CONTROL LEGEND:

- BITUMINOUS PAVEMENT REMOVAL
- CONCRETE PAVEMENT REMOVAL
- GRAVEL DRIVEWAY REMOVAL
- LIMITS OF CONSTRUCTION
- SILT FENCE
- SAWCUT LINE
- CLEAR AND GRUB
- SALVAGE SIGN
- RELOCATE MAILBOX
- REMOVE TREE

REMOVAL NOTES:

1. THE CONTRACTOR SHALL PERFORM ALL CLEARING AND GRUBBING AS DIRECTED AND MARKED IN THE FIELD BY THE ENGINEER. THE CONTRACTOR SHALL OTHERWISE PROTECT ALL EXISTING TREES NOT SPECIFICALLY MARKED FOR REMOVAL.
2. THE CONTRACTOR SHALL INSTALL AND MAINTAIN SILT FENCE AS SHOWN AND DIRECTED BY THE ENGINEER IN FIELD.
3. THE CONTRACTOR SHALL PLACE SILT FENCE AROUND CATCH BASINS AS DIRECTED BY THE ENGINEER TO PREVENT SEDIMENT FROM ENTERING THE STORM SEWER.
4. THE CONTRACTOR SHALL CONSTRUCT ROCK CONSTRUCTION ENTRANCES AT POINTS OF EXIT FROM THE WORK AREA ONTO EXISTING BITUMINOUS PAVEMENT AS DIRECTED BY THE ENGINEER.
5. ALL PRIVATE UTILITIES TO BE RELOCATED BY OTHERS AS REQUIRED.
6. THE CONTRACTOR SHALL SALVAGE ALL EXISTING SIGNS IN WORK ZONE AS DIRECTED BY THE ENGINEER IN FIELD. SALVAGED SIGNS SHALL BE PROPERLY DISMANTLED AND DELIVERED TO THE CITY SHOP WITHIN 24 HRS. OF THEIR REMOVAL.
7. ALL MAILBOXES TO BE MAINTAINED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER IN FIELD. SALVAGING MAILBOXES AND PROVIDING TEMPORARY MAILBOXES INCIDENTAL TO MOBILIZATION PAY ITEM 2021.521. RELOCATING MAILBOXES WILL BE PAID FOR UNDER PAY ITEM 2540.602, RELOCATE MAILBOX.
8. REFER TO UTILITY PLANS AND TABS FOR MANHOLE AND HYDRANT ADJUSTMENTS.
9. THE CONTRACTOR SHALL REMOVE APRONS ON CULVERT PIPE AND STORM SEWER PIPE, INDICATED FOR REMOVAL.



PLOT DATE: Jul 30, 2004 10:30am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\008-RM02.dwg

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DRAWN BY:	DESIGN BY:					
BAC	BAC					
CHKD. BY:	DWG. NAME:					
NCL	RM02					
DATE:						
JULY 30, 2004						



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

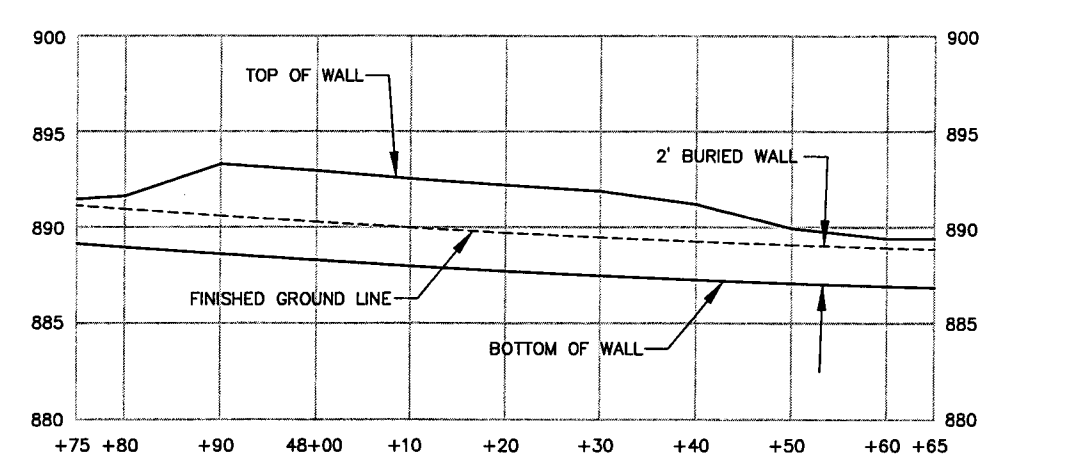
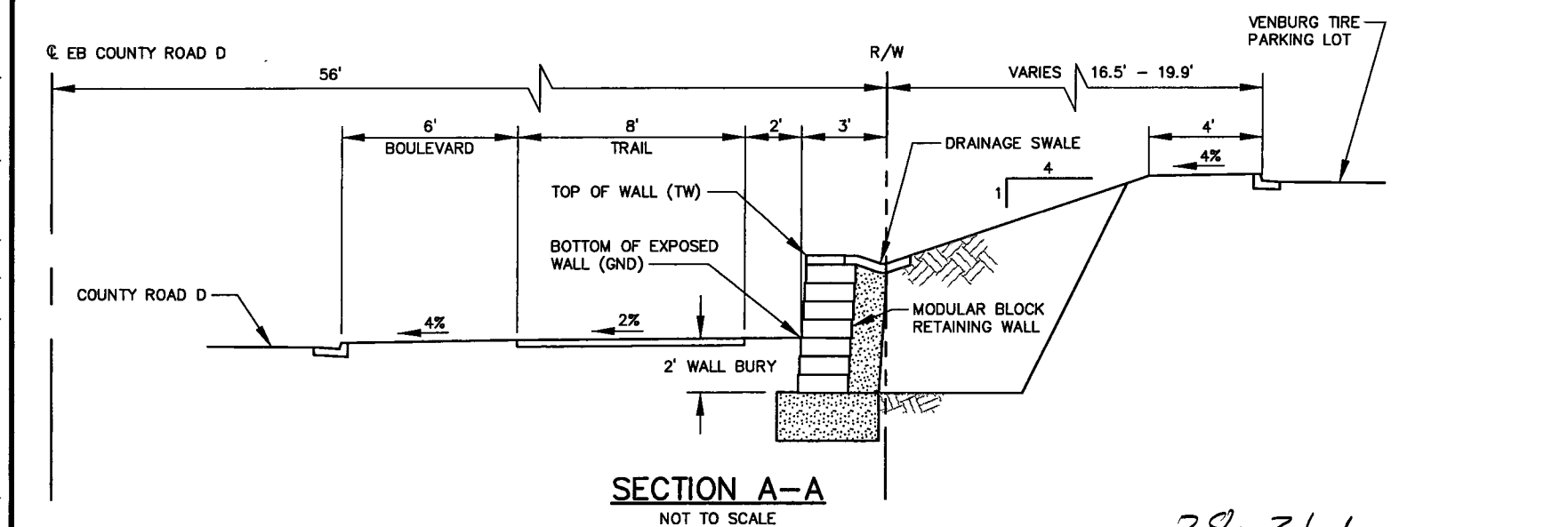
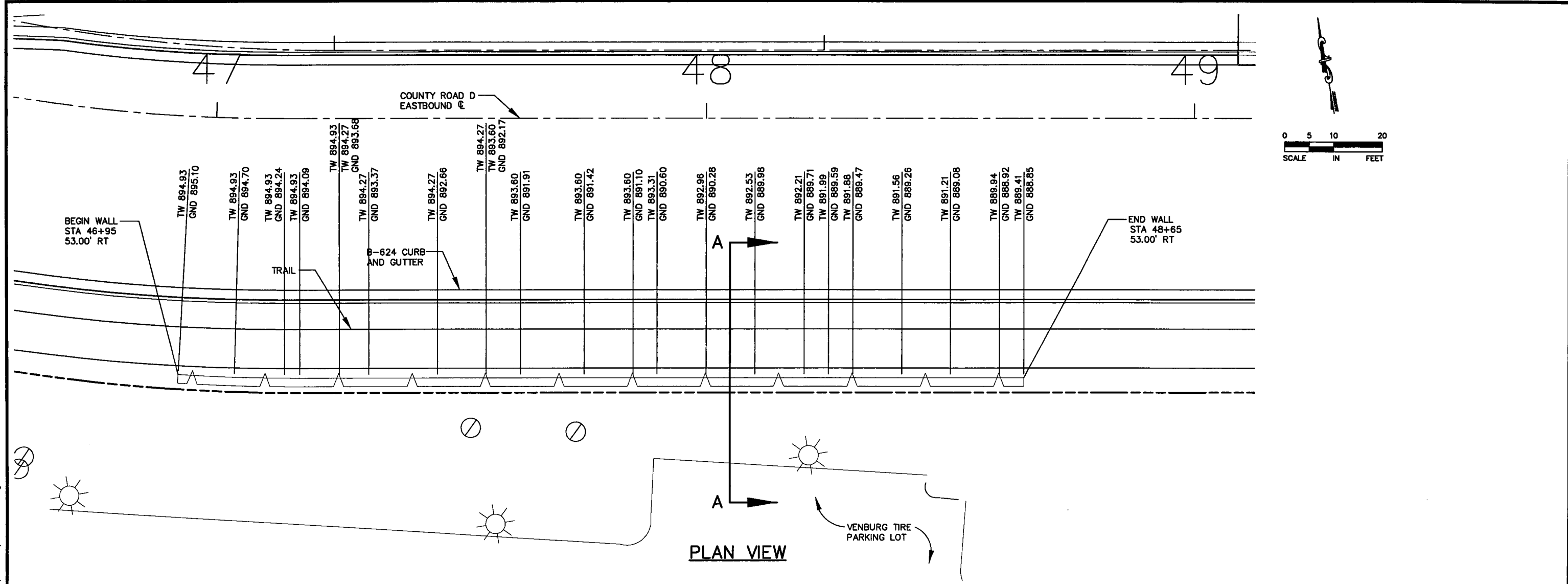
Nick C. Landwer
 NICK C. LANDWER
 DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

EXISTING CONDITIONS, REMOVALS AND EROSION CONTROL
 STATION 27+40.29 TO STATION 39+00

CITY PROJECT	02-08	SHEET NO.	21
COUNTY PROJECT			
S.A.P.	62-619-025		86
S.A.P.	138-020-29		

PLOT DATE: Jul 12, 2005 5:35pm DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-rebid\008-pln-sht\008-PNO4.dwg



WALL QUANTITY:
350 SQ. FT. WALL AREA
INCLUDING THE 2' BURIED WALL.

28-261

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
karl-keel-slg 0305P61 007-ETO 008-con-ilm 008-PRF 008-ESM 008-PCO 008-ALI 007-eut 22x34bdr		49392-008	1	PMJ	7/11/05	ADDED RETAINING WALL, REQUIRED NEW SHEET
DRAWN BY: PMJ DESIGN BY: SAW CHKD. BY: SAW DWG. NAME: PNO4 DATE: JULY 11, 2005			2	DB/ML	1/9/07	AS-BUILT



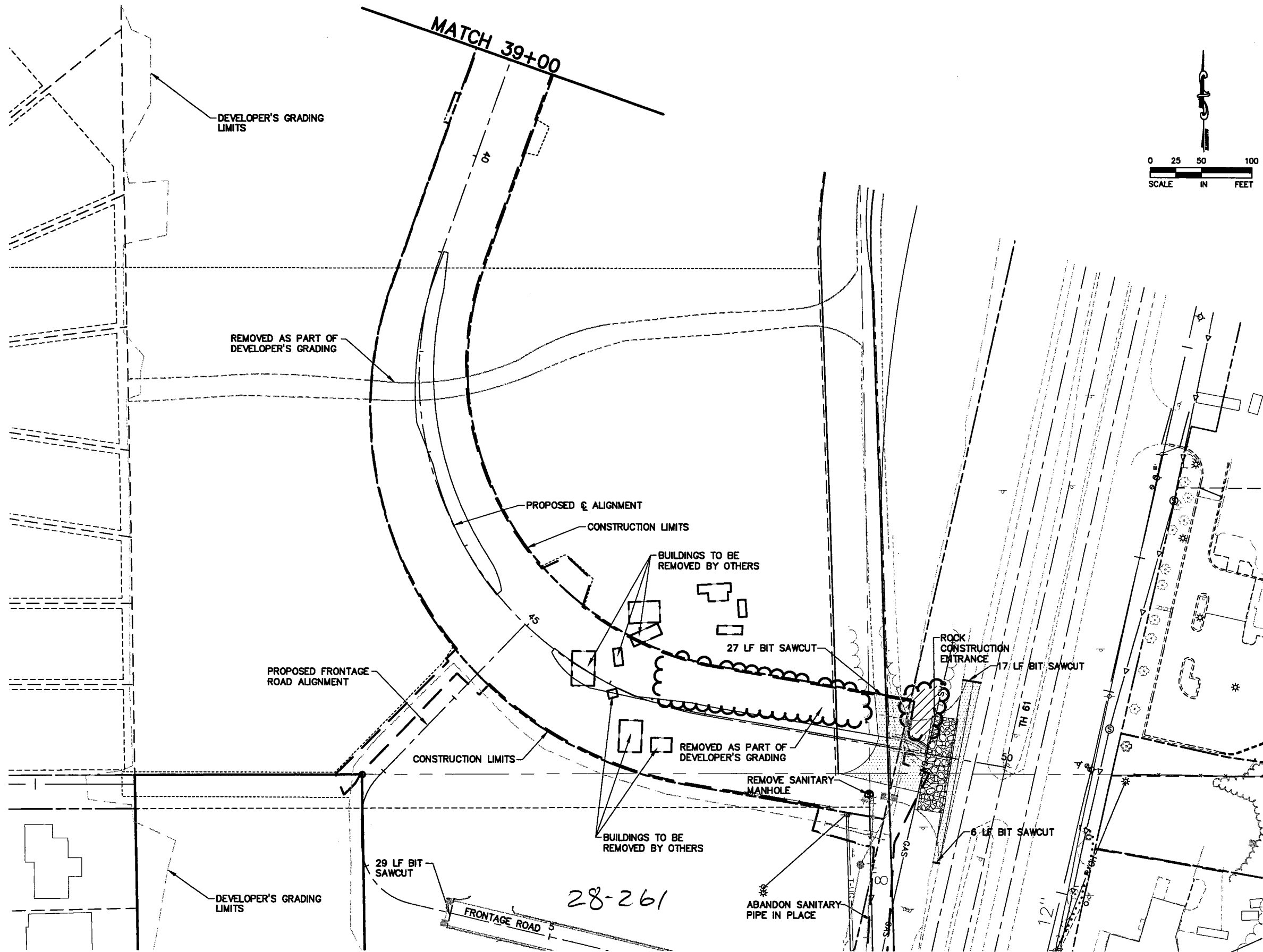
Thresher Square
700 Third Street South
Minneapolis, MN 55416
612.370.0700 Tel
612.370.1378 Fax

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Karl P. Keel
KARL P. KEEL
DATE: 7/11/2005 MN LIC. NO. 19681

CITY OF MAPLEWOOD
COUNTY ROAD D
CONSTRUCTION PLAN
COUNTY ROAD D / VENBURG TIRE
RETAINING WALL PLAN, SECTION AND PROFILE

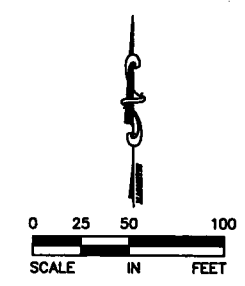
CITY PROJECT	02-08	SHEET NO.	21A
COUNTY PROJECT			
S.A.P.	62-619-025		
S.A.P.	138-020-29		86

PLOT DATE: Jul 30, 2004 10:29am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\008-RM01.dwg



REMOVALS AND EROSION CONTROL LEGEND:

- BITUMINOUS PAVEMENT REMOVAL
- CONCRETE PAVEMENT REMOVAL
- GRAVEL DRIVEWAY REMOVAL
- LIMITS OF CONSTRUCTION
- SILT FENCE
- SAWCUT LINE
- CLEAR AND GRUB
- SALVAGE SIGN
- RELOCATE MAILBOX
- REMOVE TREE



REMOVAL NOTES:

1. THE CONTRACTOR SHALL PERFORM ALL CLEARING AND GRUBBING AS DIRECTED AND MARKED IN THE FIELD BY THE ENGINEER. THE CONTRACTOR SHALL OTHERWISE PROTECT ALL EXISTING TREES NOT SPECIFICALLY MARKED FOR REMOVAL.
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3. THE CONTRACTOR SHALL PLACE SILT FENCE AROUND CATCH BASINS AS DIRECTED BY THE ENGINEER TO PREVENT SEDIMENT FROM ENTERING THE STORM SEWER.
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6. THE CONTRACTOR SHALL SALVAGE ALL EXISTING SIGNS IN WORK ZONE AS DIRECTED BY THE ENGINEER IN FIELD. SALVAGED SIGNS SHALL BE PROPERLY DISMANTLED AND DELIVERED TO THE CITY SHOP WITHIN 24 HRS. OF THEIR REMOVAL.
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8. REFER TO UTILITY PLANS AND TABS FOR MANHOLE AND HYDRANT ADJUSTMENTS.
9. THE CONTRACTOR SHALL REMOVE APRONS ON CULVERT PIPE AND STORM SEWER PIPE, INDICATED FOR REMOVAL.

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
008-PUT-VEN	008-CON-LIM	49392-008	1	DB/ML	1/9/2007	AS-BUILT
008-CON-LIM	008-PUT					
008-PUT	008-ALI					
008-ALI	008-ESM					
008-ESM	008-PCO					
008-PCO	007-ESM					
007-ESM	007-eut					
007-eut	007-esu-cty-d					
007-esu-cty-d	007-ETO					
007-ETO						



Thresher Square
700 Third Street South
Minneapolis, MN 55415
612.370.0700 Tel
612.370.1378 Fax

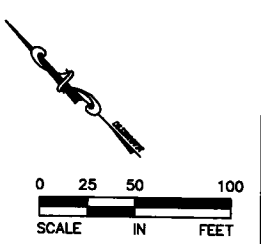
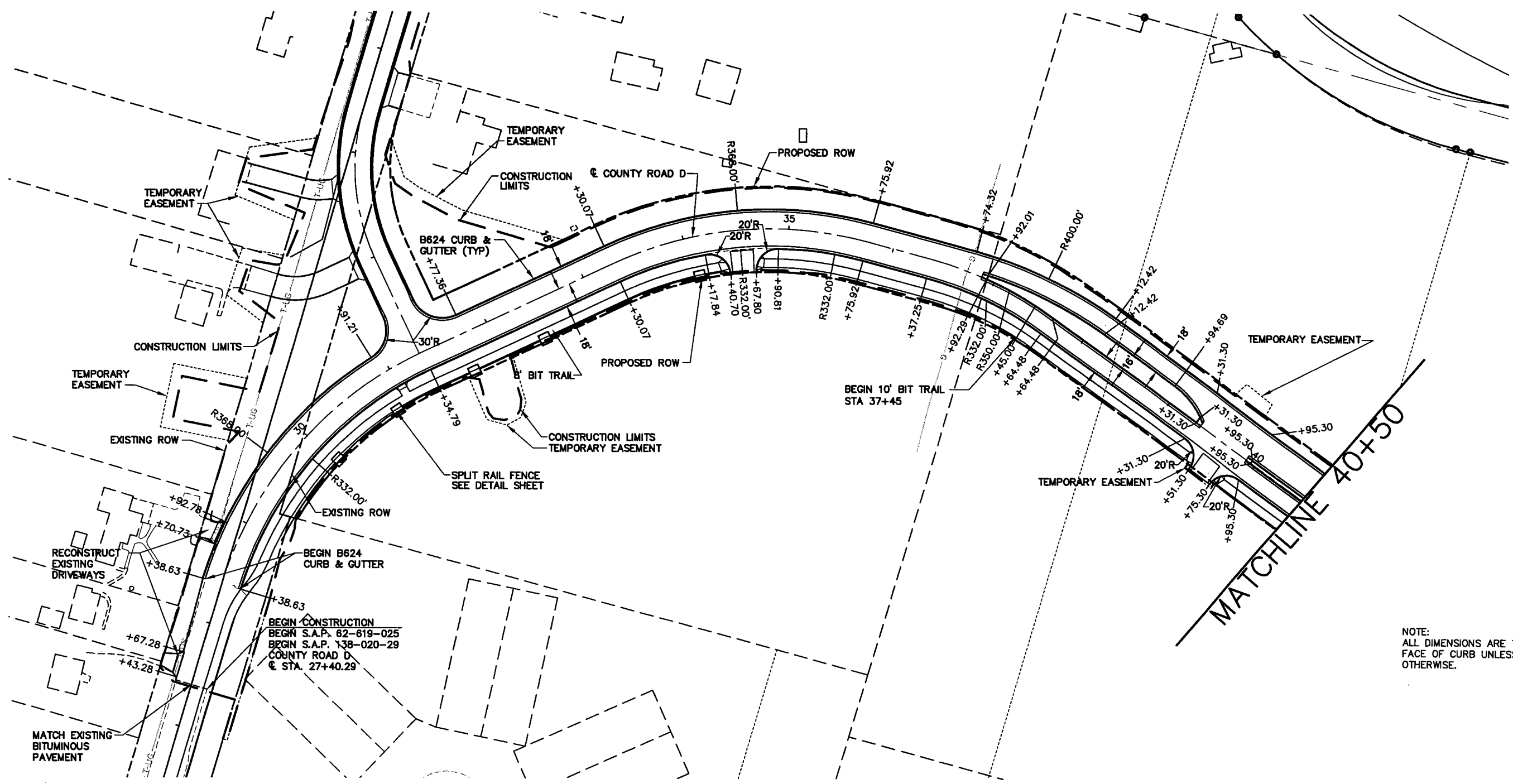
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D
EXISTING CONDITIONS, REMOVALS AND EROSION CONTROL
STATION 39+00 TO STATION 50+00

CITY PROJECT	02-08	SHEET NO.
COUNTY PROJECT		22
S.A.P.	62-619-025	86
S.A.P.	138-020-29	

PLOT DATE: Jul 30, 2004 10:28am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sh1\008-PN01.dwg



NOTE:
ALL DIMENSIONS ARE TO THE
FACE OF CURB UNLESS NOTED
OTHERWISE.

28-261

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
007-ETO	008-con-ilm	49392-008	1	FMJ	5/13/05	DELETED DRIVEWAY ENTRANCE
008-PUT	008-PRF		2	DB/ML	1/9/2007	AS-BUILT
008-ESM	008-PCO					
008-ALI	007-eut					
007-ESU-CTY-D	22x34bdr					



Thresher Square
700 Third Street South
Minneapolis, MN 55415
612.370.0700 Tel
612.370.1378 Fax

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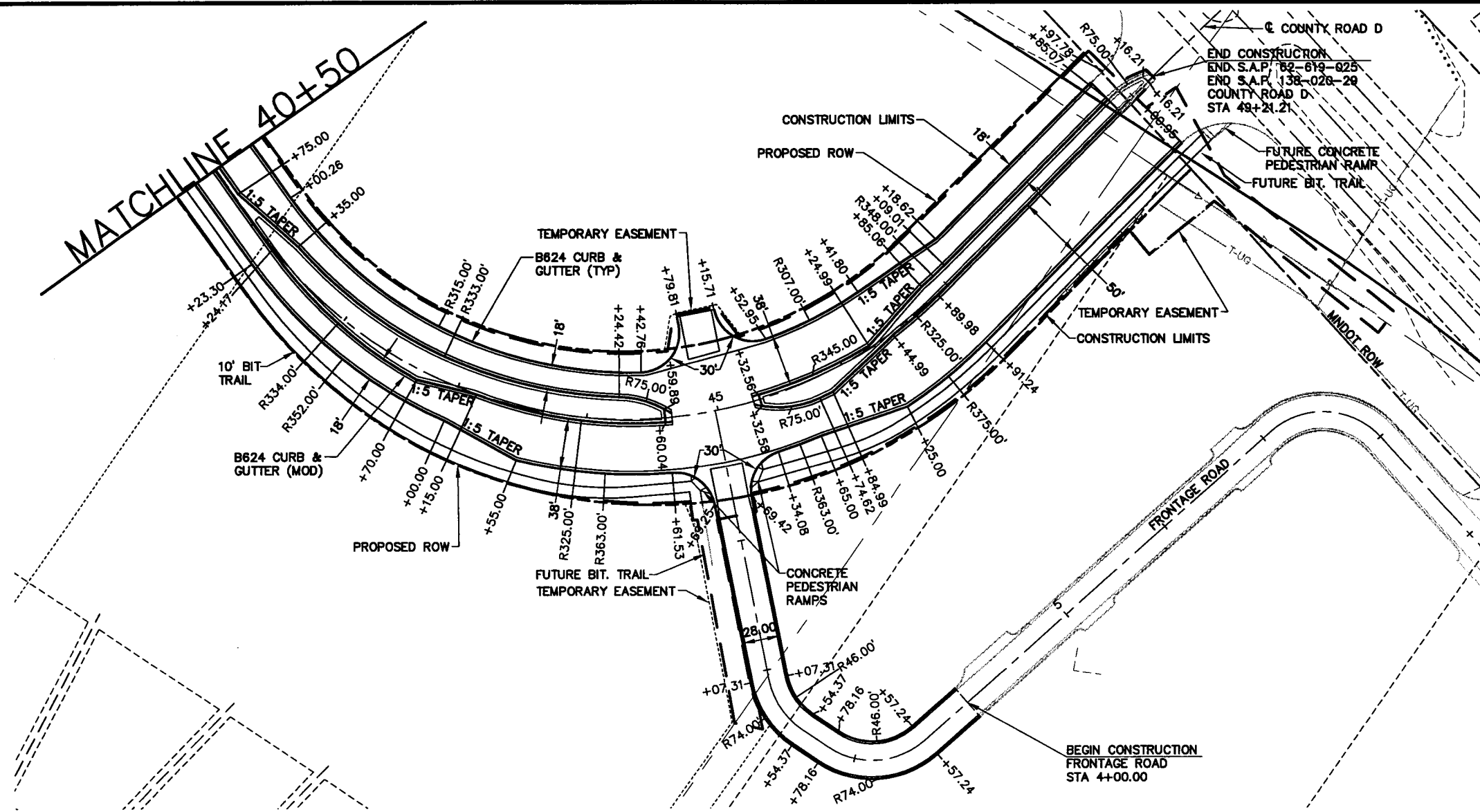
Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

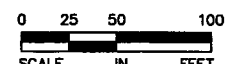
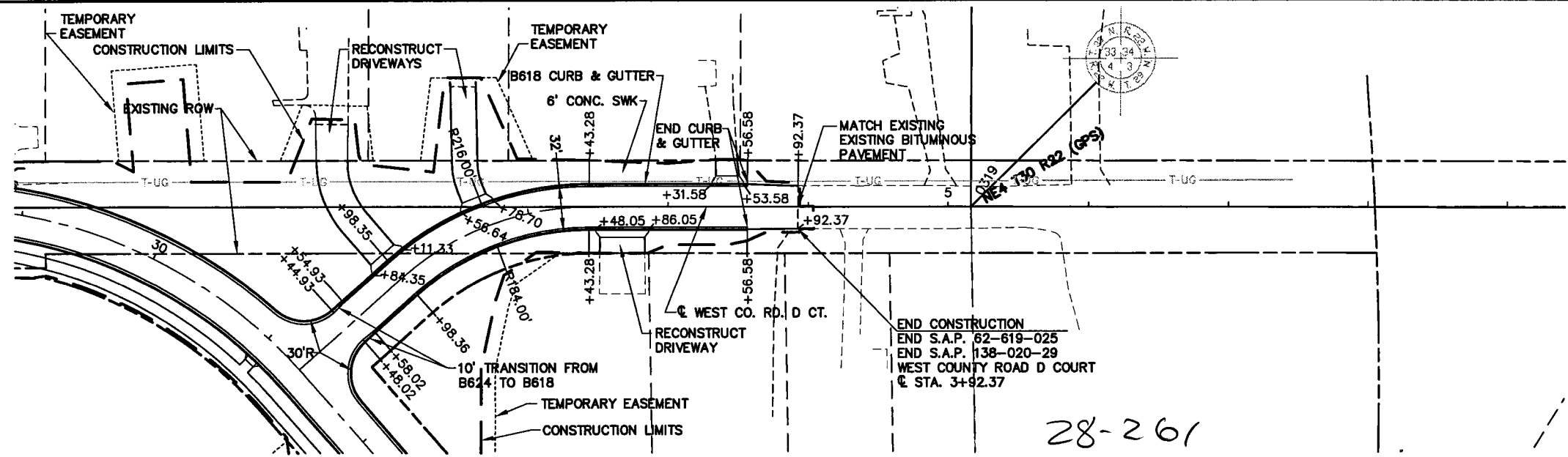
CONSTRUCTION PLAN
COUNTY ROAD D
STATION 27+40.29 TO STATION 40+50

CITY PROJECT	02-08	SHEET NO.
COUNTY PROJECT		23
S.A.P.	62-619-025	
S.A.P.	138-020-29	86

PLOT DATE: Jul 30, 2004 10:29am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\008-PN02.dwg



NOTE:
ALL DIMENSIONS ARE TO THE
FACE OF CURB UNLESS NOTED
OTHERWISE.



REV. NO.	BY	DATE	REVISIONS DESCRIPTION
1	DB/ML	1/9/2007	AS-BUILT

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008-con-ilm	DRAWN BY:	BAC
008-ALJ	DESIGN BY:	NCL
008-PRF	CHKD. BY:	NCL
008-ESM	DWG. NAME:	PN02
008-PCO	DATE:	JULY 30, 2004
007-eut		
007-ESU-CITY-D		
22x34bdr		



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700 Third Street South
Minneapolis, MN 55416
612.370.0700 Tel
612.370.1378 Fax

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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

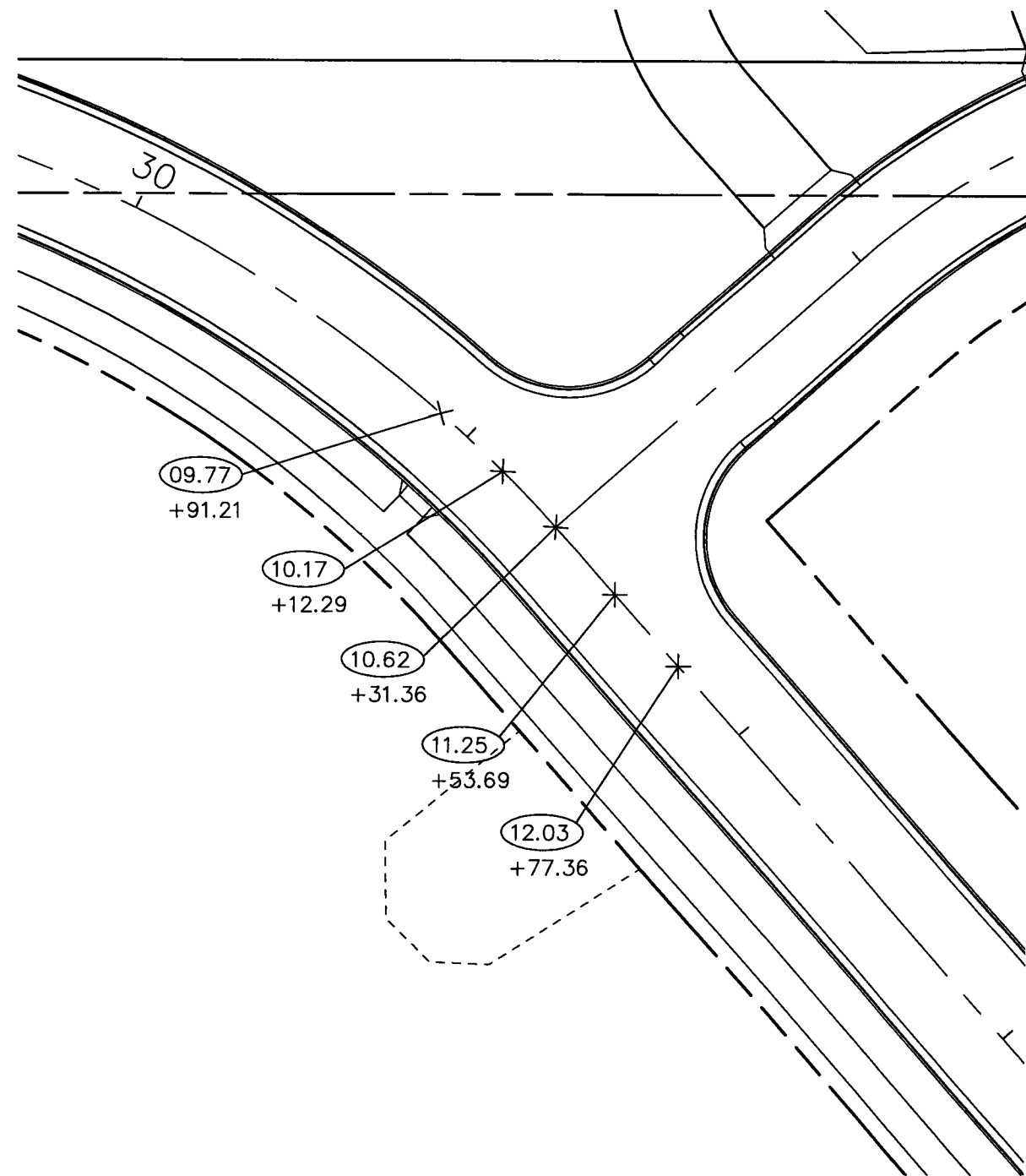
CONSTRUCTION PLAN
CTY RD D STA 40+50 TO 49+21.21, FRONTAGE RD
W CTY RD D CT STA 0+00 TO 3+92.37

CITY PROJECT 02-08
COUNTY PROJECT
S.A.P. 62-619-025
S.A.P. 138-020-29

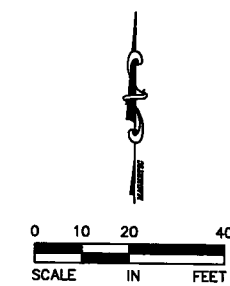
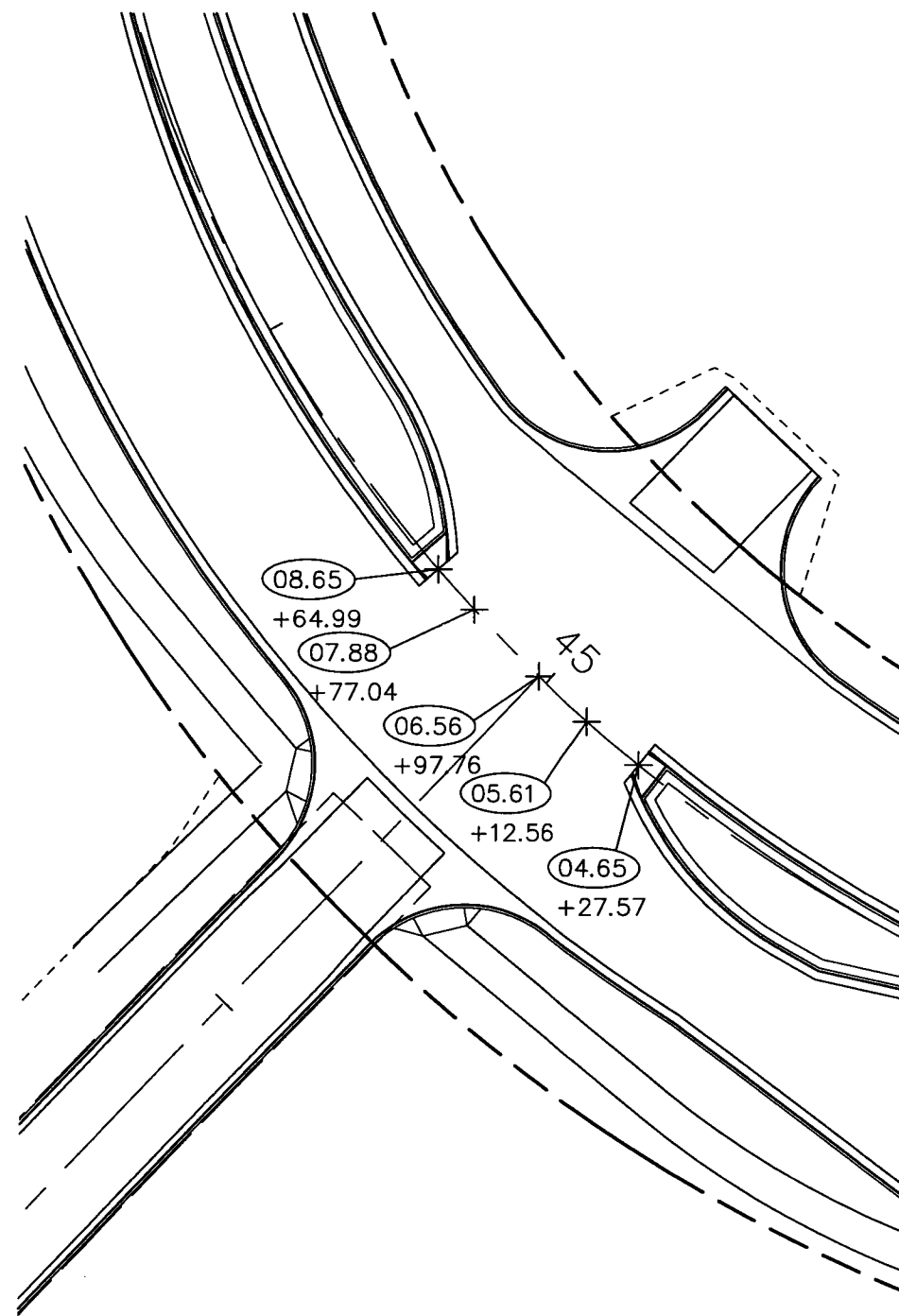
SHEET NO.
24
86

28-261

INTERSECTION OF
COUNTY ROAD D AND
WEST COUNTY ROAD D COURT



INTERSECTION OF
COUNTY ROAD D AND
FRONTAGE ROAD



NOTE:
ALL DIMENSIONS ARE TO THE
FACE OF CURB UNLESS NOTED
OTHERWISE.

73.82
+36.69
PROPOSED FINISHED GRADE
AND STATION
(ADD 900 FEET TO ELEV.)

28-261

PLOT DATE: Jul 30, 2004 10:29am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\008-PN03.dwg

XREF DRAWINGS	DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
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008-ESM					
008-PCO					
008-ALI					
007-aut					
007-ESU-CTY-D					
22x34bdr					



Thresher Square
700 Third Street South
Minneapolis, MN 55416
612.370.0700 Tel
612.370.1378 Fax

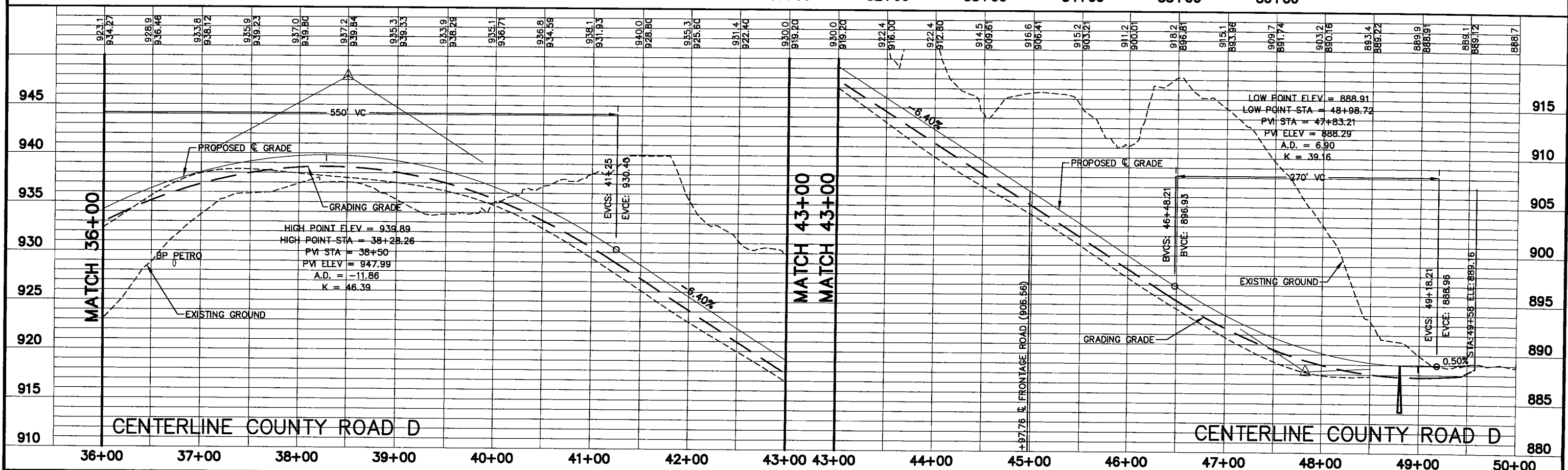
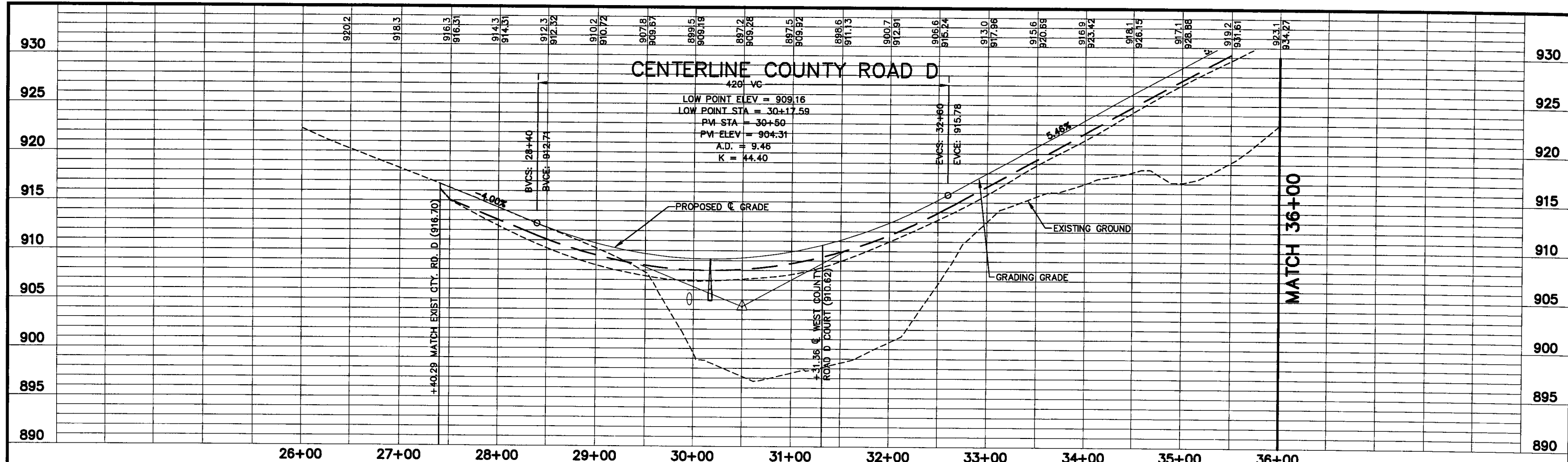
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D
INTERSECTION DETAILS
COUNTY ROAD D / WEST COUNTY RD. D CT. INTERSECTION
COUNTY ROAD D / FRONTAGE ROAD INTERSECTION

CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.
25
86

PLOT DATE: Jul 30, 2004 10:28am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pin-sht\008-PF01.DWG



REV. NO.	BY	DATE	REVISIONS DESCRIPTION
1	DB/ML	1/9/2007	AS-BUILT

DESIGN FILE: 49392-008	DESIGN BY: NCL
DRAWN BY: PMJ	CHKD. BY: NCL
DATE: JULY 30, 2004	DWG. NAME: PFD1

URS

28-261

Thresher Square
 700 Third Street South
 Minneapolis, MN 55416
 612.370.0700 Tel
 612.370.1378 Fax

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

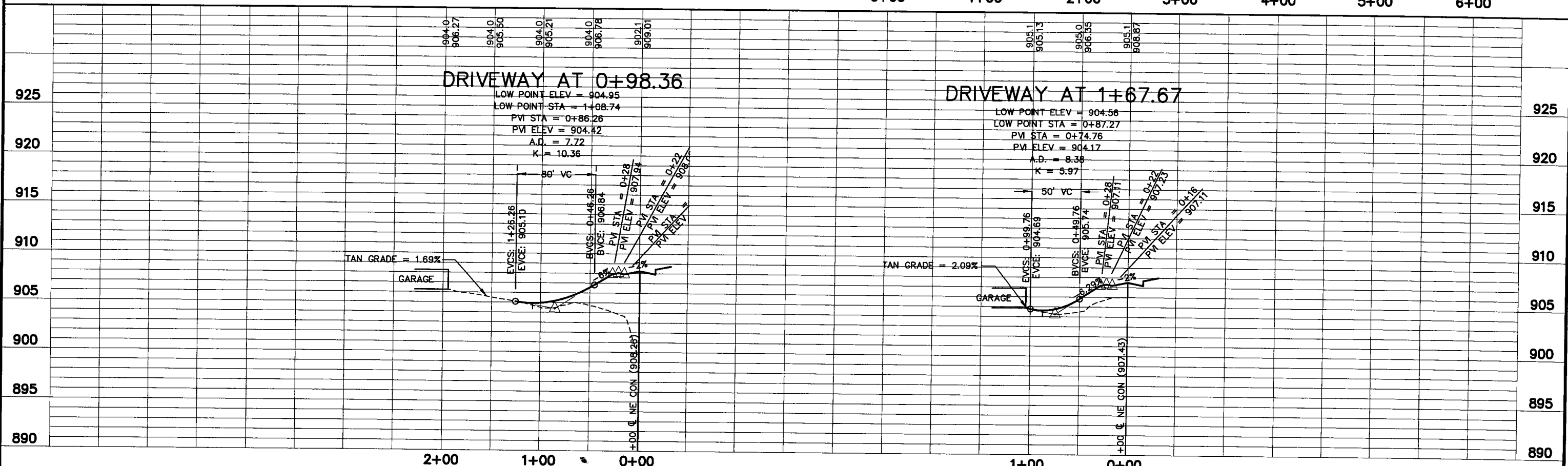
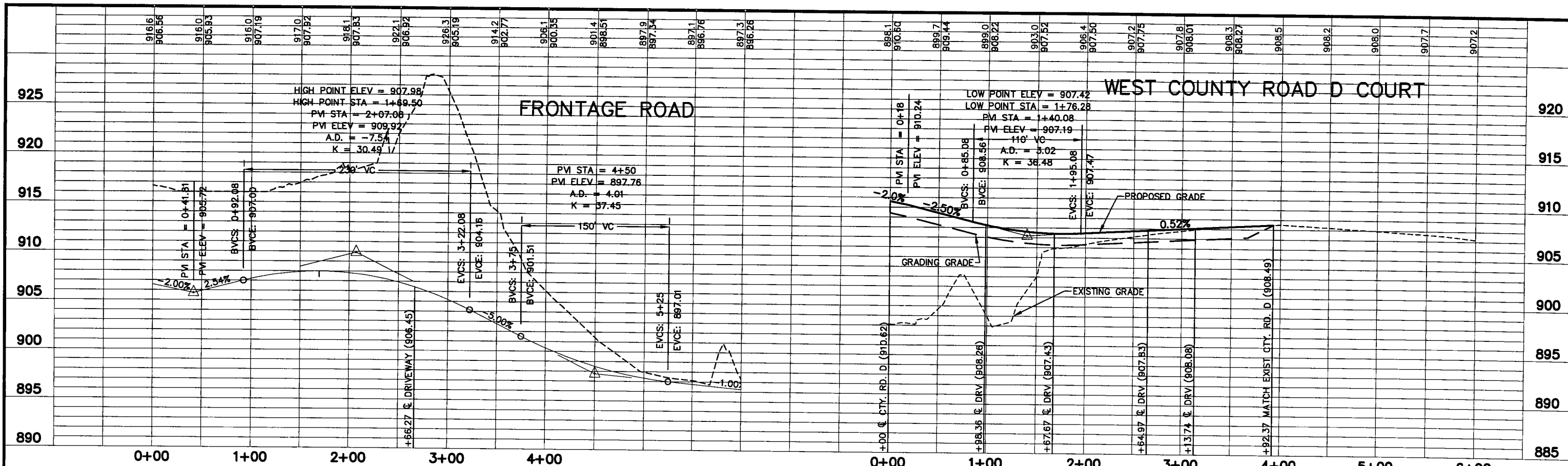
Nick G. Landwer
 NICK G. LANDWER
 DATE: 7/30/2004 MN LIC. NO. 40953

**CITY OF MAPLEWOOD
 COUNTY ROAD D**

STREET PROFILES
 COUNTY ROAD D
 STATION 27+40.29 TO STATION 49+21.21

CITY PROJECT	02-08	SHEET NO.	26
COUNTY PROJECT			86
S.A.P.	62-619-025		
S.A.P.	138-020-29		

PLOT DATE: Sep 01, 2004 4:22pm DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\008-PF02.DWG



XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
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DRAWN BY:	DESIGN BY:					
PMJ	NCL					
CHKD. BY:	DWG. NAME:					
NCL	PF03					
DATE:						
JULY 30, 2004						



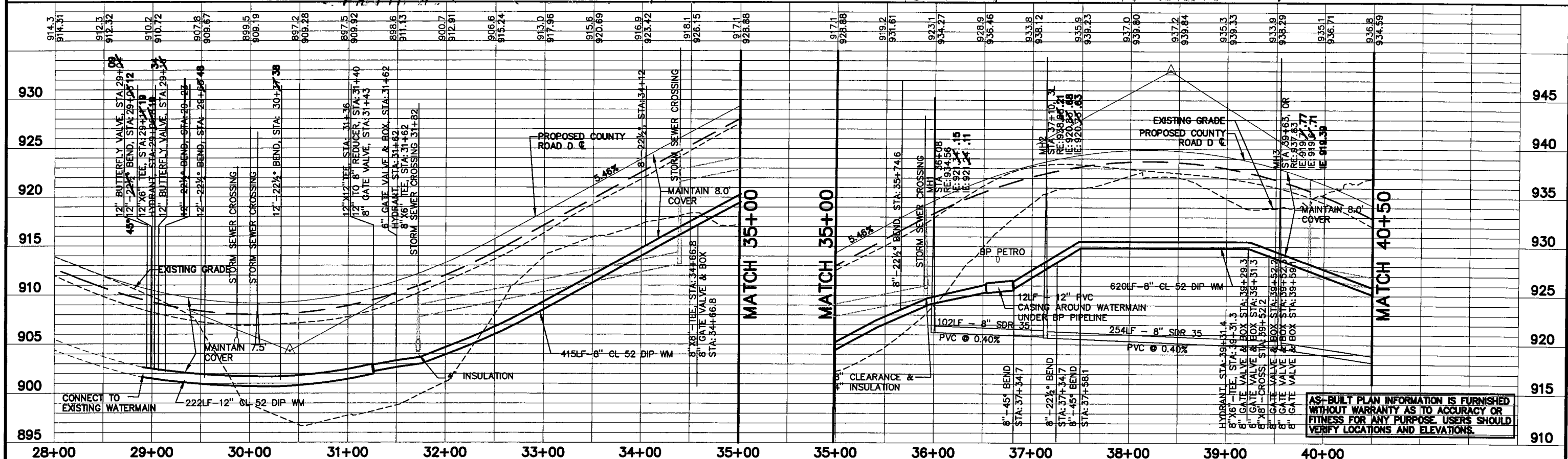
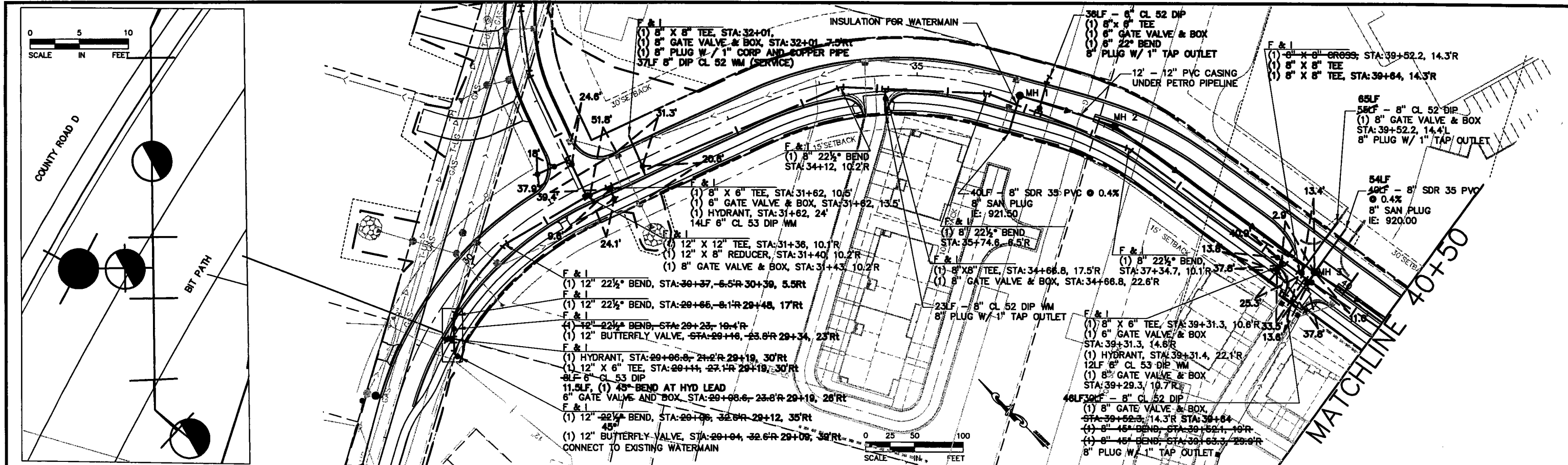
Thrasher Square
700 Third Street South
Minneapolis, MN 55415
612.370.0700 Tel
612.370.1378 Fax

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D
STREET PROFILES
FRONTAGE ROAD 0+00 TO 4+00, DRIVEWAYS
AND WEST COUNTY ROAD D COURT 0+00 TO 3+92.37

CITY PROJECT	02-08	SHEET NO.	27
COUNTY PROJECT			
S.A.P.	62-619-025		86
S.A.P.	138-020-29		

PLOT DATE: Oct 14, 2004 8:44am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sh\008-SAN02.dwg



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4062-bas				2		MRH		10/7/04		WATERMAIN REVISION	
008-con-ilm		DRAWN BY: BAC		3		PMJ		5/13/05		DELETED DRIVEWAY ENTRANCE	
22x34pgrd		DESIGN BY: NCL		4		DB/ML		1/9/2007		AS-BUILT	
008-PUT		CHKD. BY: NCL									
008-PRF		DWG. NAME: SAN02									
008-ESM		DATE: JULY 30, 2004									
008-PCO											
008-ALI											
007-eut											
007-ESU-CTY-D											



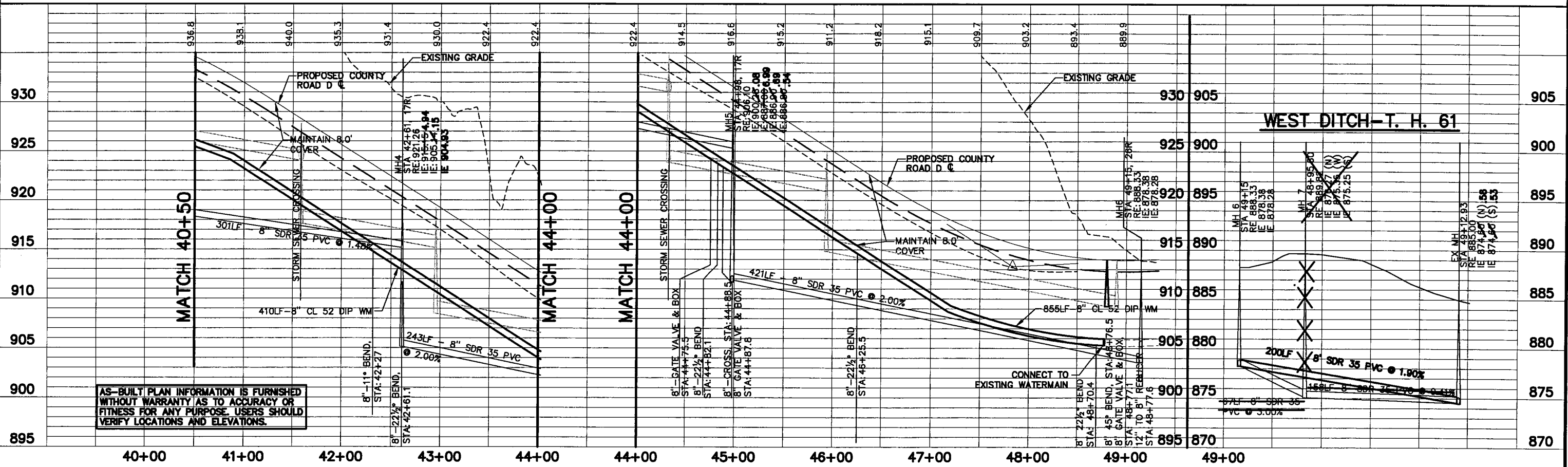
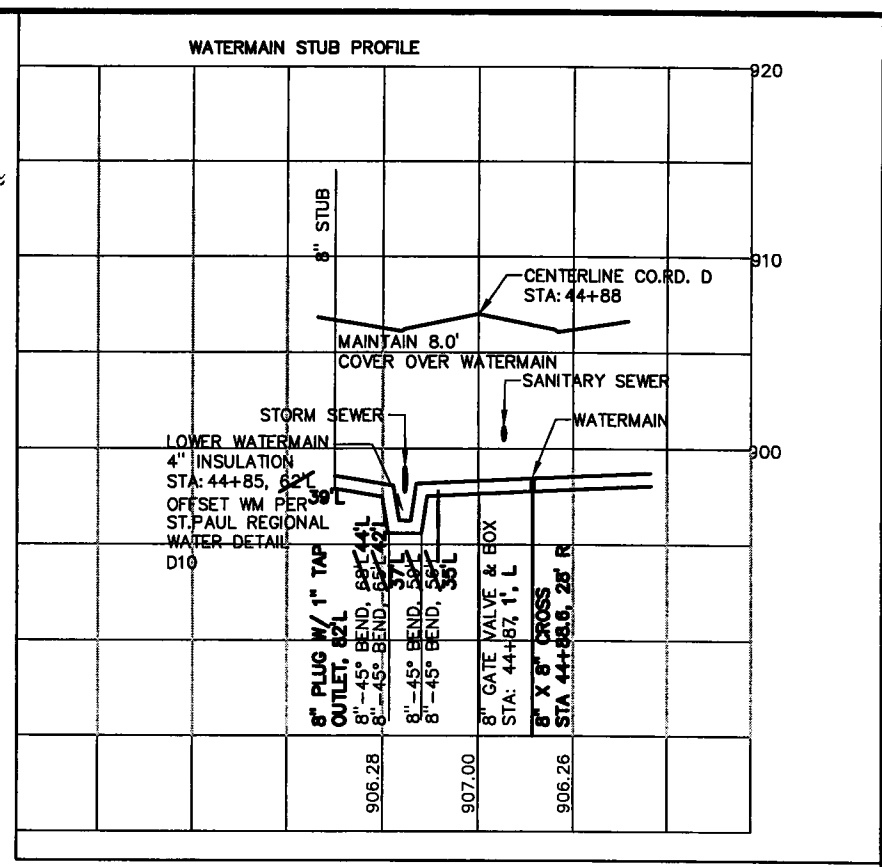
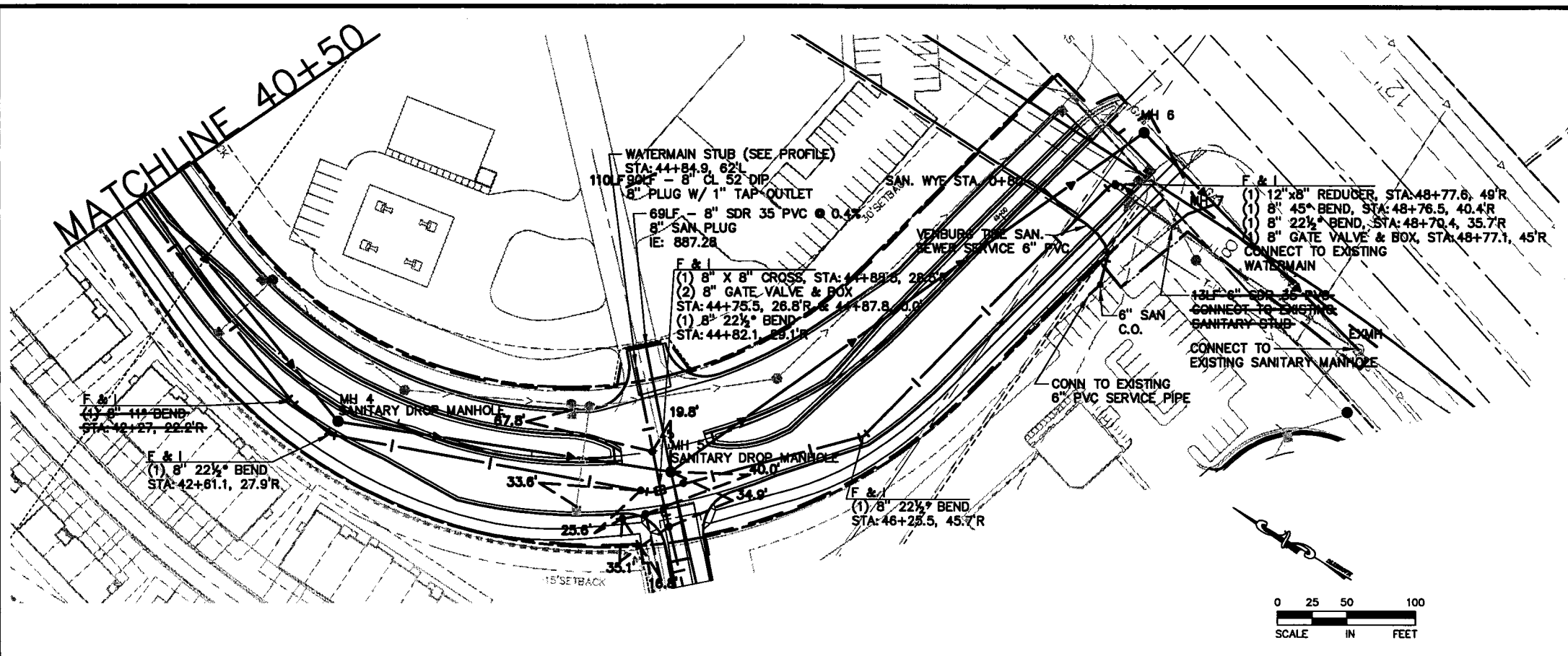
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD COUNTY ROAD D		CITY PROJECT	02-08	SHEET NO.	28
SANITARY SEWER AND WATERMAIN COUNTY ROAD D STATION 27+40.29 TO STATION 40+50		COUNTY PROJECT			
		S.A.P.	62-619-025		
		S.A.P.	138-020-29		86

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PLOT DATE: Oct 14, 2004 8:43am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\008-SAN01.dwg



YREF DRAWINGS	DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
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008-con-ilm		2	MRH	10/7/04	WATERMAIN REVISION
008-PUT-VEN		3	DCB	1/8/2007	AS-BUILT
008-ALJ					
22x34pgrd					
008-PUT					
008-PRF					
008-ESM					
008-PCD					
007-ent					
007-ESU-CTY-D					
007-ent					

URS
28-261

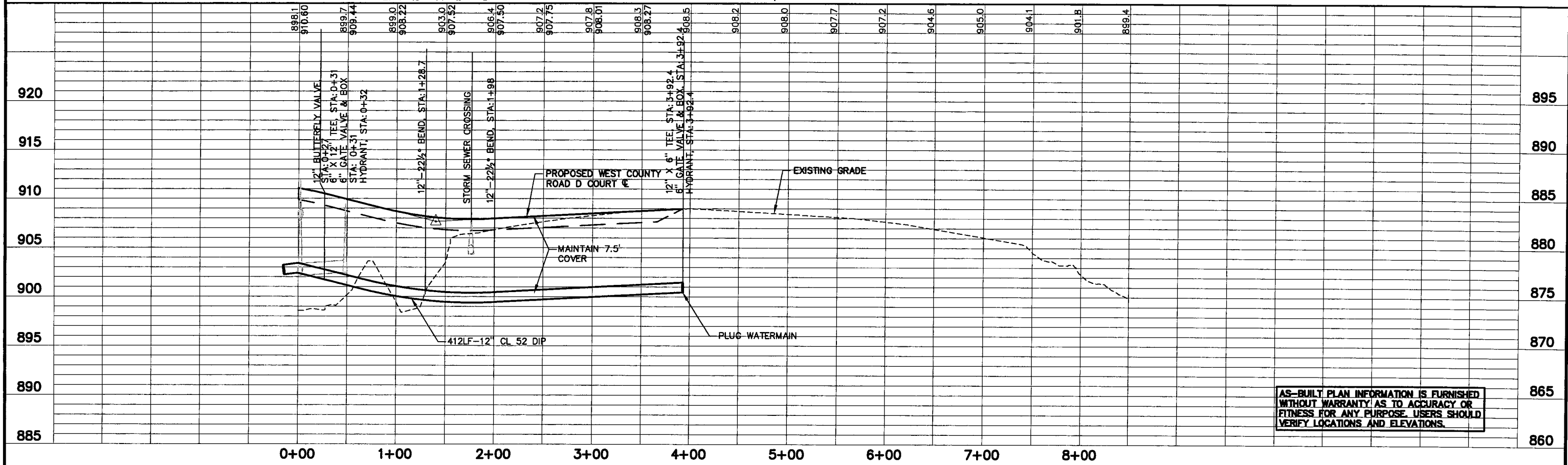
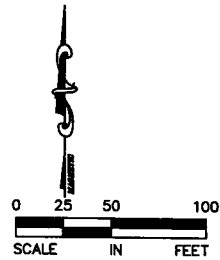
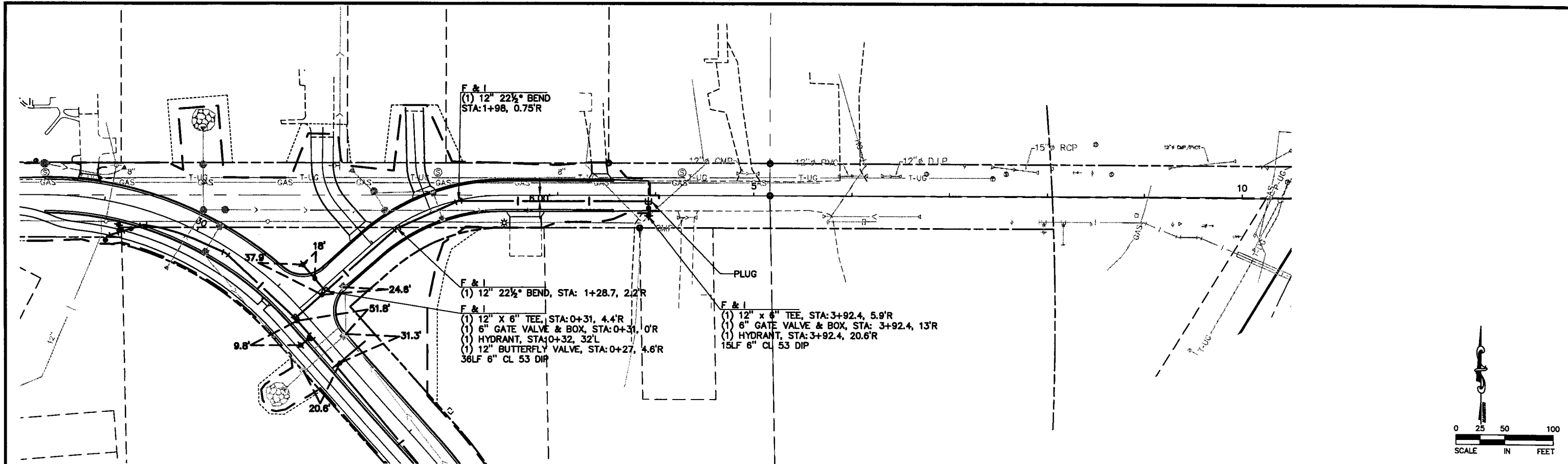
Thrasher Square
700 Third Street South
Minneapolis, MN 55416
612.370.0700 Tel
612.370.1378 Fax

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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D
SANITARY SEWER AND WATERMAIN
COUNTY ROAD D
STATION 40+50 TO STATION 50+00

CITY PROJECT	02-08	SHEET NO.	29
COUNTY PROJECT			86
S.A.P.	62-619-025		
S.A.P.	138-020-29		

PLOT DATE: Oct 14, 2004 8:44am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sh1\008-SAN03.dwg



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REV. NO.	BY	DATE	REVISIONS DESCRIPTION
1	MRH	9/16/04	WATERMAIN REVISION
2	MRH	10/7/04	WATERMAIN REVISION
3	DCB	1/9/2007	AS-BUILT

DESIGN FILE: 49392-008	DESIGN BY: NCL
DRAWN BY: BAC	DWG. NAME: SAN03
CHKD. BY: NCL	DATE: JULY 30, 2004

URS
28-261

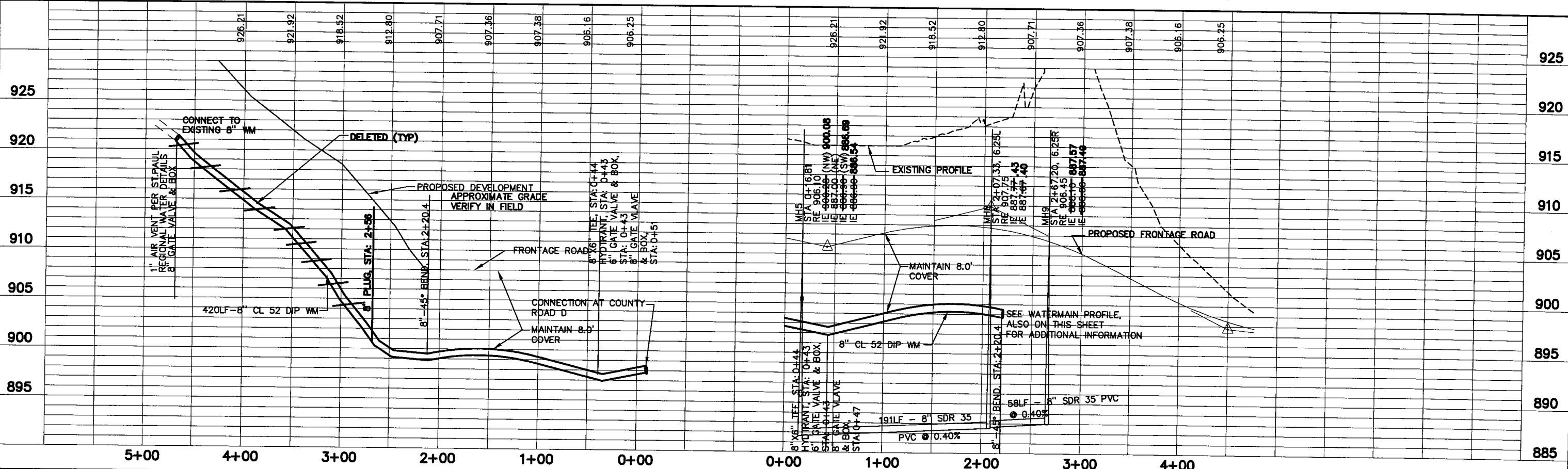
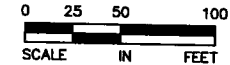
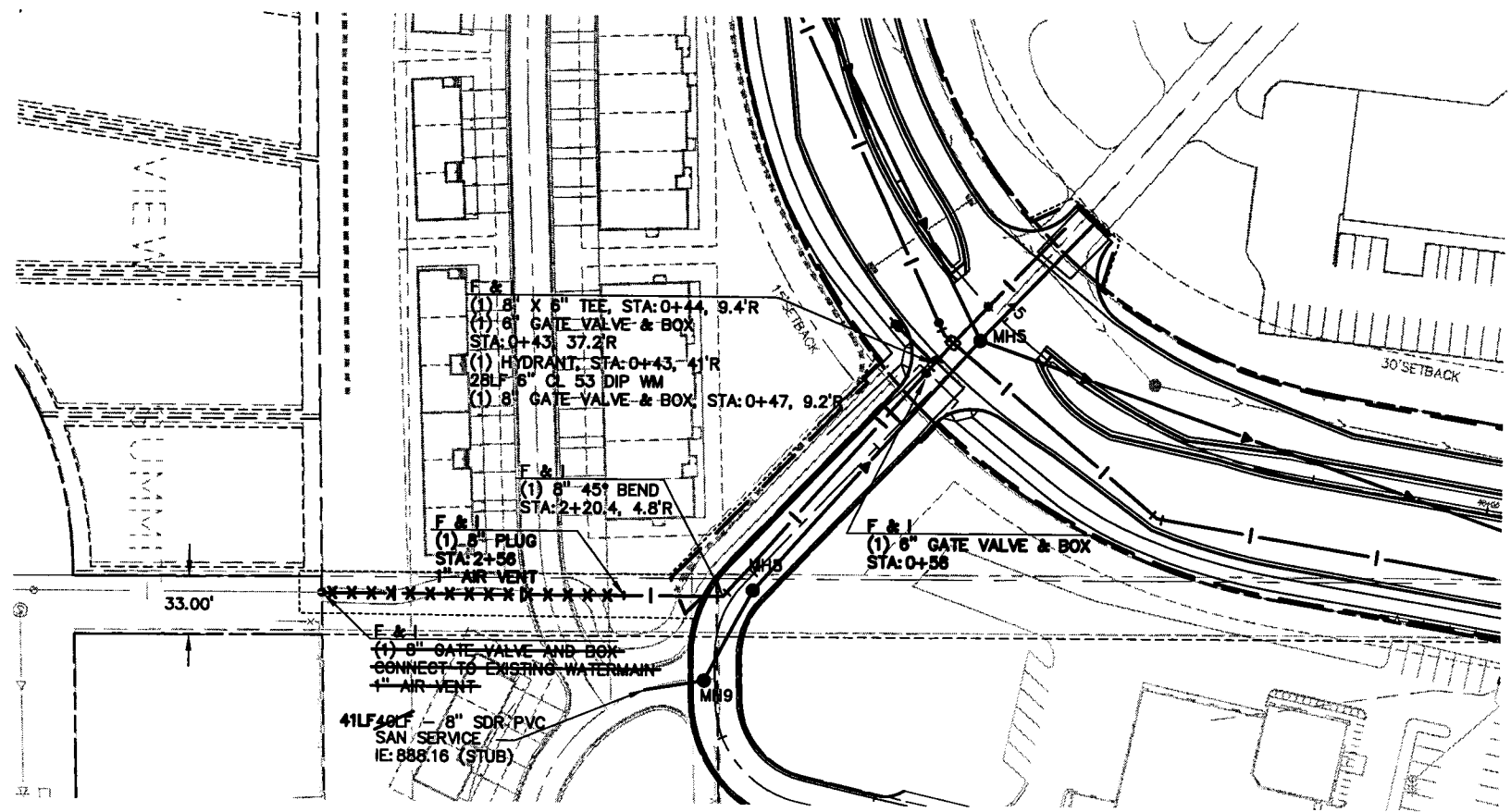
Thresher Square
700 Third Street South
Minneapolis, MN 55415
612.370.0700 Tel
612.370.1378 Fax

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D
SANITARY SEWER AND WATERMAIN
WEST COUNTY ROAD D COURT
STATION 0+00 TO STATION 7+96.89

CITY PROJECT	02-08	SHEET NO.	30
COUNTY PROJECT			86
S.A.P.	62-619-025		
S.A.P.	138-020-29		

NOTE: STATIONING IS BASED ON COUNTY RD D ALIGNMENT



PLOT DATE: Oct 14, 2004 8:45am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\008-WAT01.dwg

XREF DRAWINGS	
4062-bas	
008-con-llm	
008-ALJ	
22x34pgrd	
008-PUT	
008-PRF	
008-ESM	
008-PCD	
007-sut	
007-ESU-CTY-D	
22x34bdr	

DESIGN FILE: 49392-008	DESIGN BY: NCL
DRAWN BY: BAC	DWG. NAME: WAT01
CHKD. BY: NCL	DATE: JULY 30, 2004

REV. NO.	BY	DATE	REVISIONS DESCRIPTION
1	MRH	9/16/04	WATERMAIN REVISIONS
2	MRH	10/7/04	WATERMAIN REVISION
3	DB/ML	1/9/2007	AS-BUILT



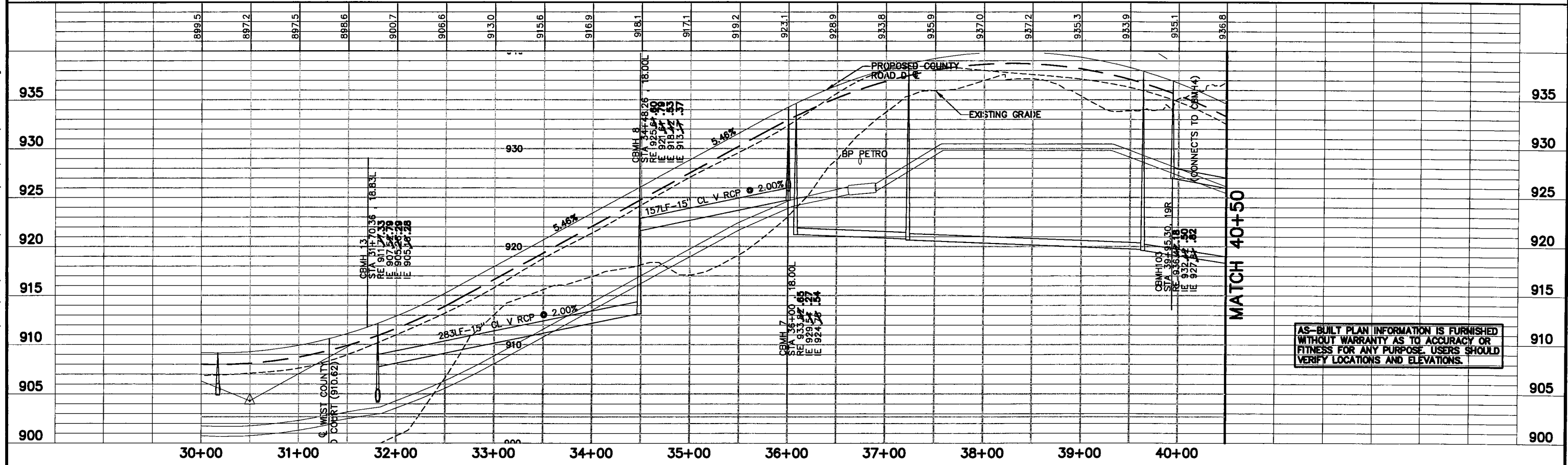
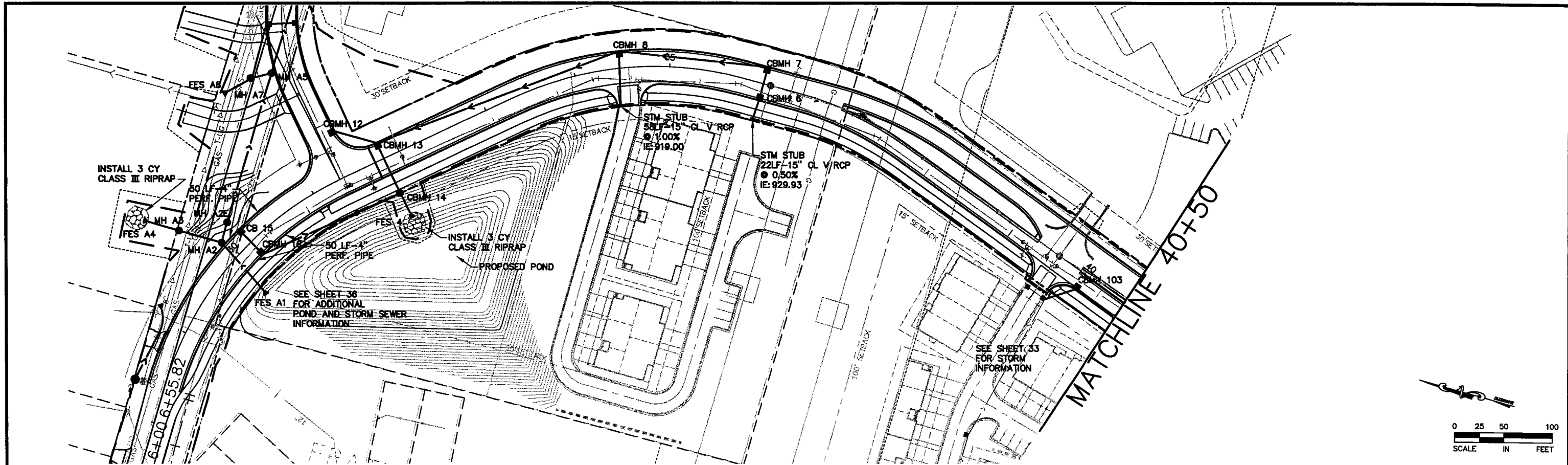
Thresher Square
700 Third Street South
Minneapolis, MN 55415
612.370.0700 Tel
612.370.1376 Fax

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 Nick C. Landwer
 DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
 COUNTY ROAD D
 SANITARY SEWER AND WATERMAIN
 FRONTAGE ROAD

CITY PROJECT	02-08	SHEET NO. 31
COUNTY PROJECT		
S.A.P.	62-619-025	86
S.A.P.	138-020-29	

PLOT DATE: Oct 11, 2004 9:45am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\008-ST02.dwg



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REV. NO.	BY	DATE	REVISIONS DESCRIPTION
1	MRH	9/29/04	CBMH 103 INVERT REVISION
2	DB/ML	1/9/2007	AS-BUILT

DESIGN FILE: 49392-008	DESIGN BY: NCL
DRAWN BY: BAC	DWG. NAME: ST02
CHKD. BY: NCL	DATE: JULY 30, 2004

URS
28-261

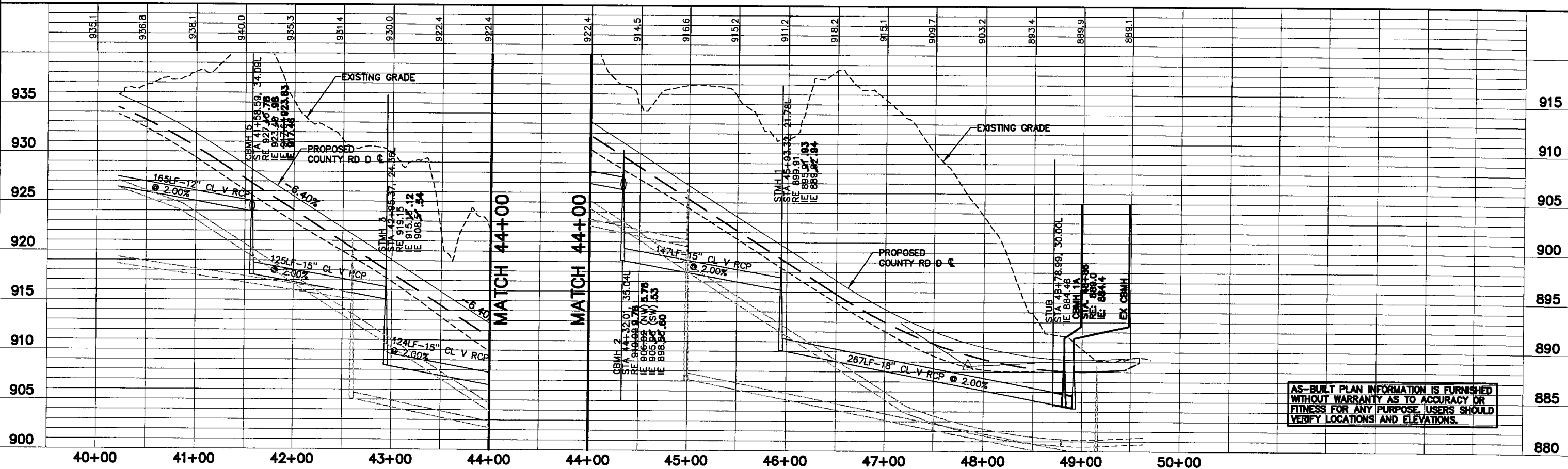
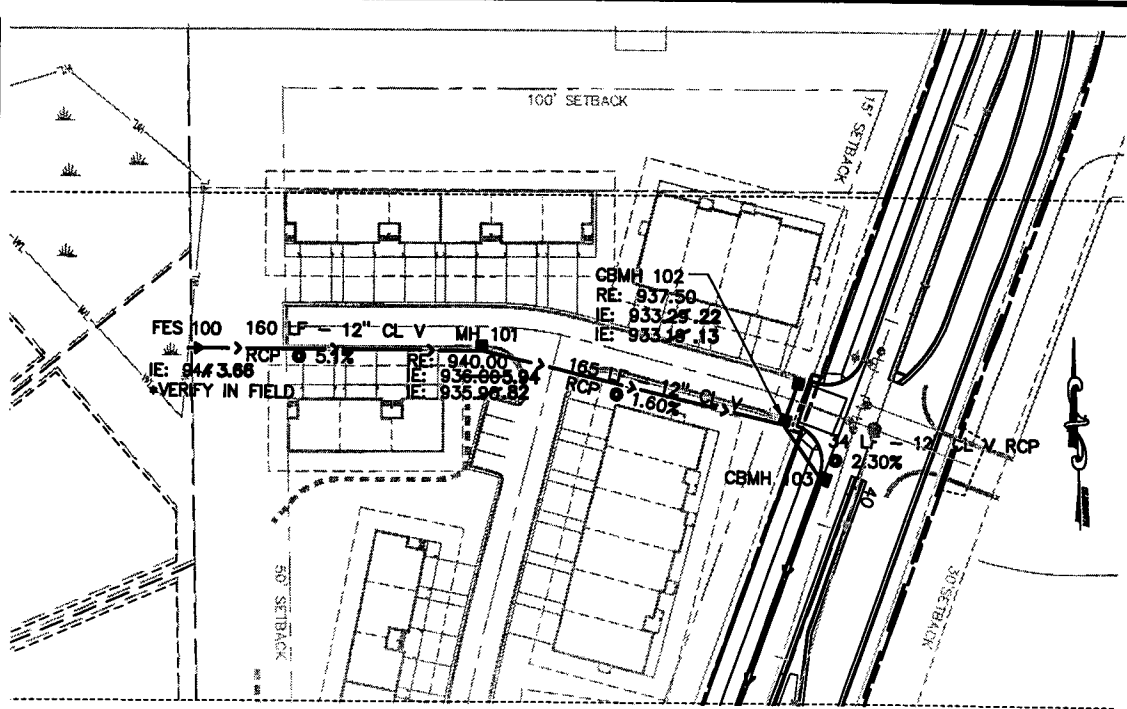
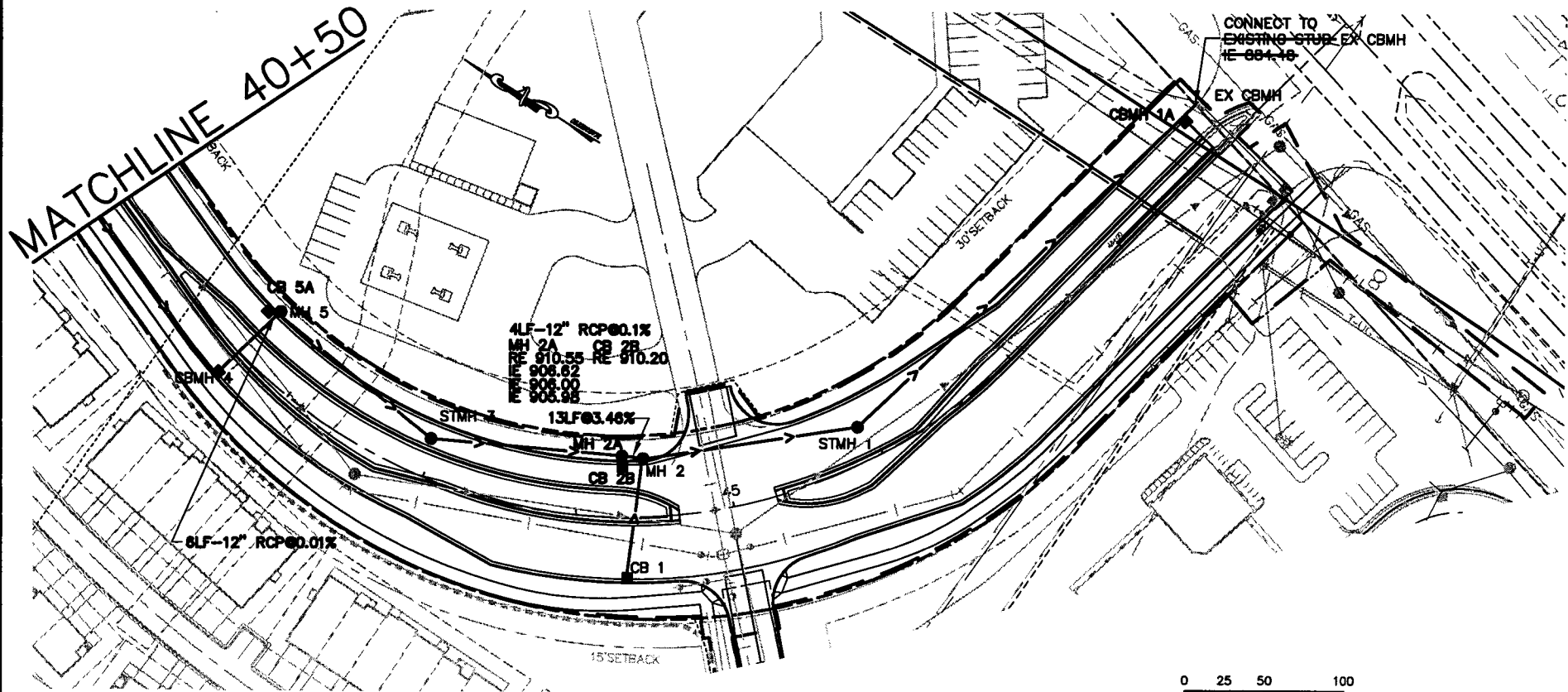
Thresher Square
700 Third Street South
Minneapolis, MN 55416
612.370.0700 Tel
612.370.1378 Fax

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Nick G. Landwer
NICK G. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

**CITY OF MAPLEWOOD
COUNTY ROAD D**
STORM SEWER PLAN AND PROFILE
COUNTY ROAD D
STATION 27+40.29 TO STATION 40+50

CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.
32
86



PLOT DATE: Oct 11, 2004 9:44am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\008-ST01.dwg

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
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007-ETO			2	DB/ML	1/9/2007	AS-BUILT
008-con-llm						
008-PUT-VEN						
008-PUT						
008-PRF						
008-ESM						
008-PCD						
008-ALI						
007-con-llm						
007-ali						
CHKD. BY:	NCL	DESIGN BY:	NCL			
DATE:	JULY 30, 2004	DWG. NAME:	ST01			



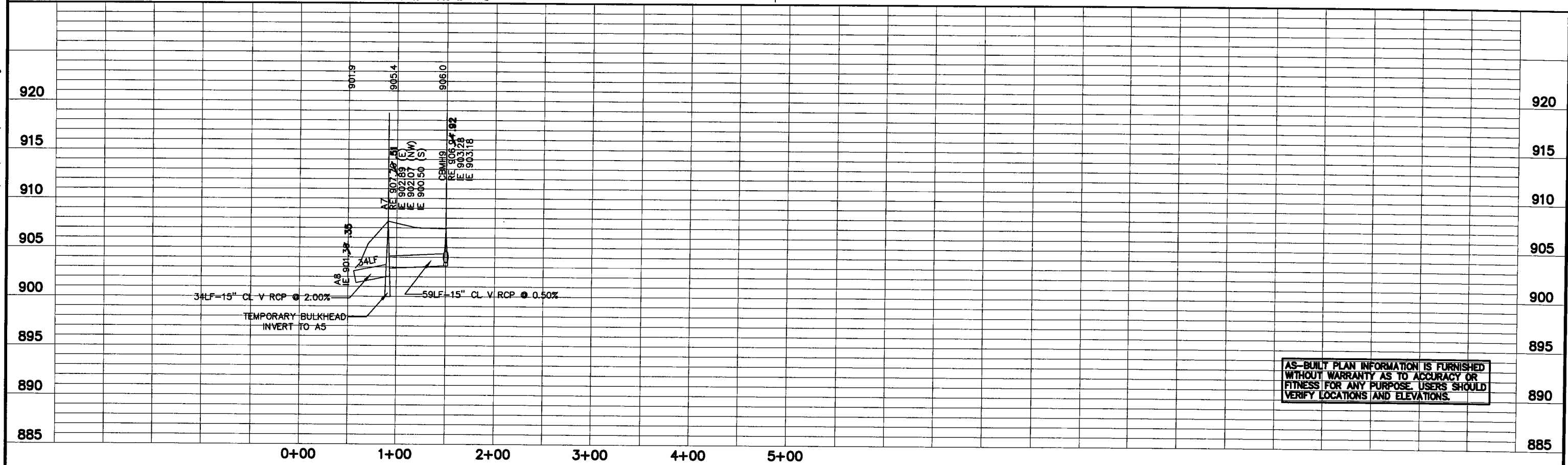
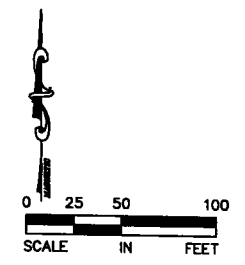
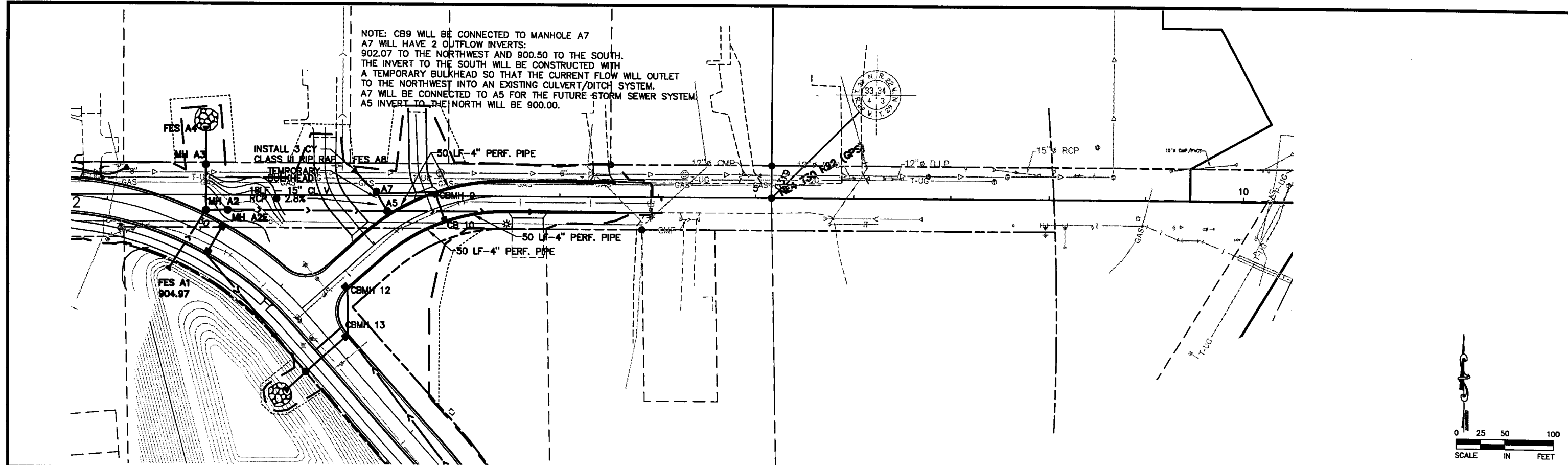
Thresher Square
 700 Third Street South
 Minneapolis, MN 55415
 612.370.0700 Tel
 612.370.1378 Fax

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Nick C. Landwer
 NICK C. LANDWER
 DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D
 STORM SEWER PLAN AND PROFILE
 COUNTY ROAD D
 STATION 40+50 TO STATION 50+00

CITY PROJECT	02-08	SHEET NO.	33
COUNTY PROJECT			86
S.A.P.	62-619-025		
S.A.P.	138-020-29		

NOTE: CB9 WILL BE CONNECTED TO MANHOLE A7
 A7 WILL HAVE 2 OUTFLOW INVERTS:
 902.07 TO THE NORTHWEST AND 900.50 TO THE SOUTH.
 THE INVERT TO THE SOUTH WILL BE CONSTRUCTED WITH
 A TEMPORARY BULKHEAD SO THAT THE CURRENT FLOW WILL OUTFLOW
 TO THE NORTHWEST INTO AN EXISTING CULVERT/DITCH SYSTEM.
 A7 WILL BE CONNECTED TO A5 FOR THE FUTURE STORM SEWER SYSTEM.
 A5 INVERT TO THE NORTH WILL BE 900.00.



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PLOT DATE: Oct 11, 2004 9:46am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pin-ant\008-ST03.dwg

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
nick.landwer\Sig		49392-008	1	MRH	8/6/04	A7 INVERT ELEVATION
POND_GRADE			2	DB/ML	1/9/2007	AS-BUILT
007-ETO						
008-con-llm						
22x34pgrd						
008-PUT						
008-PRF						
008-ESM						
008-PCO						
008-AJ						
007-aut						
DRAWN BY:	BAC	DESIGN BY:	NCL			
CHKD. BY:	NCL	DWG. NAME:	ST03			
DATE:	JULY 30, 2004					

URS
 28-261

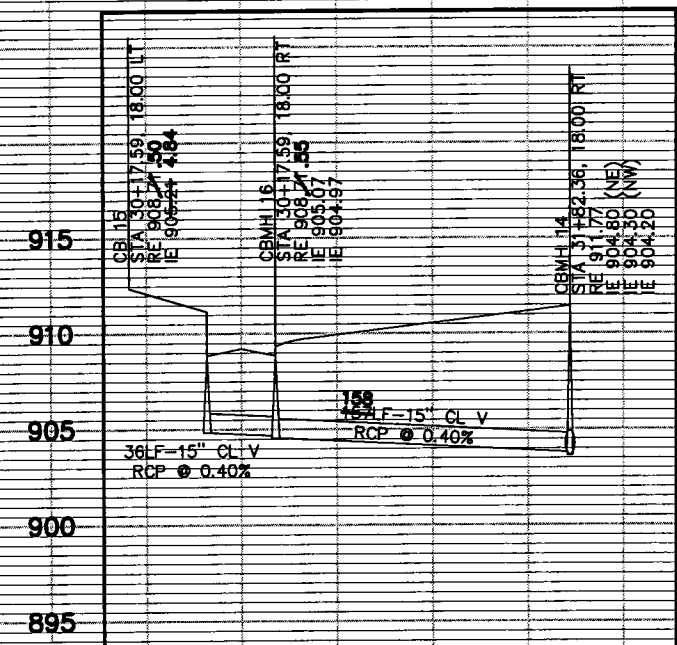
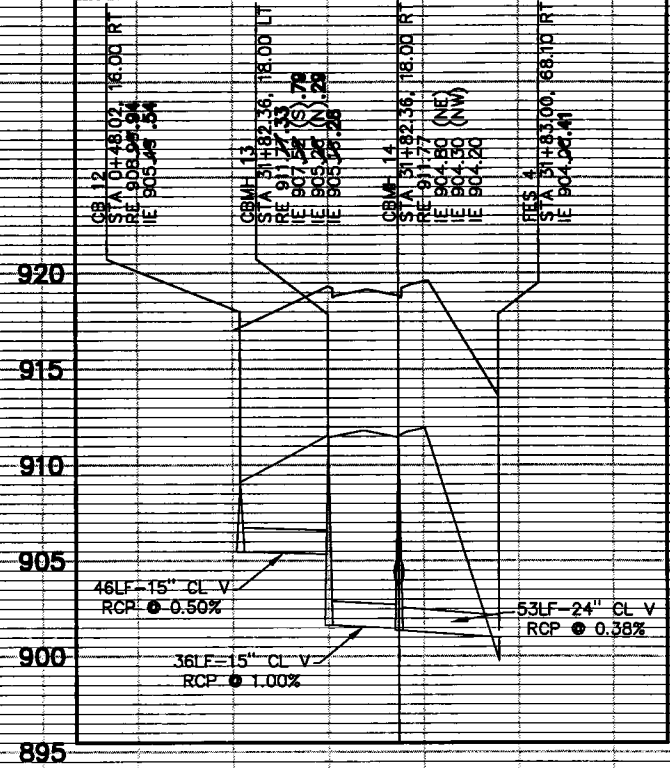
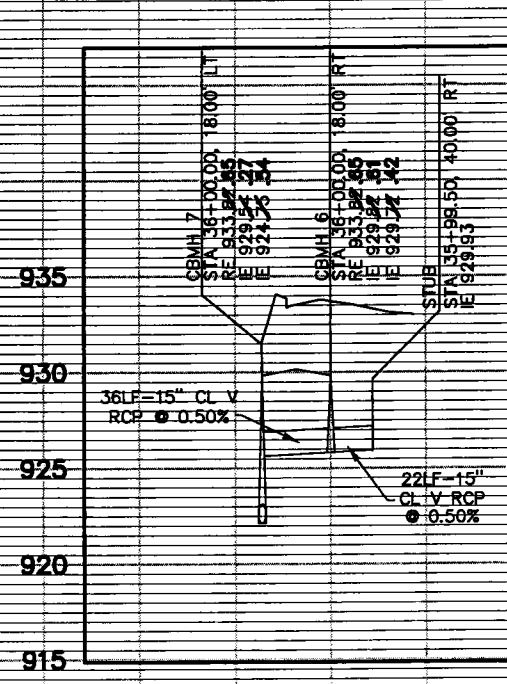
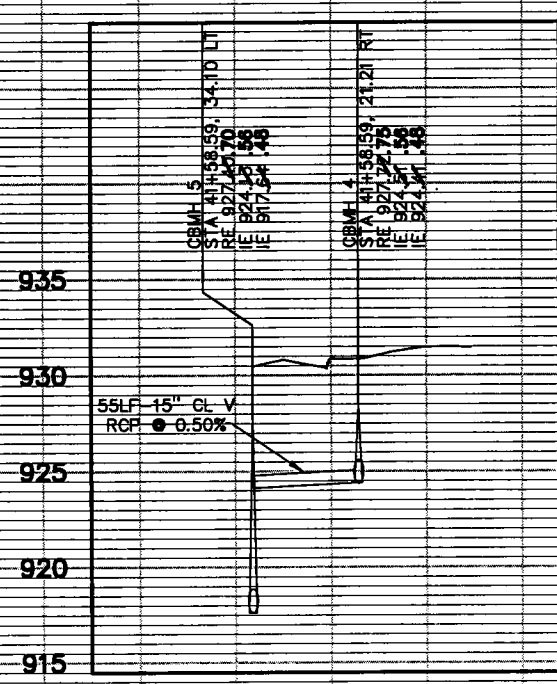
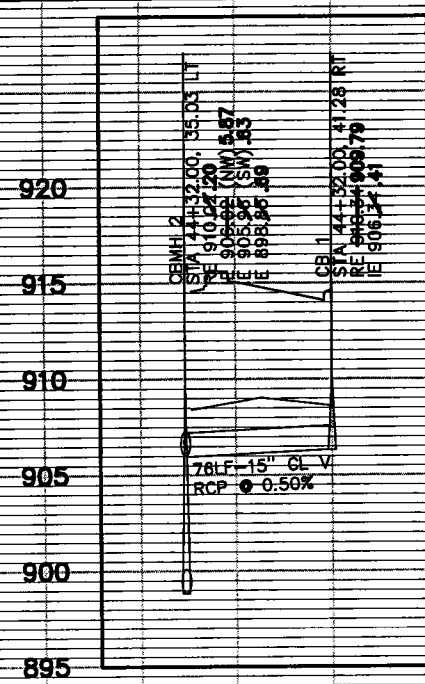
Thresher Square
 700 Third Street South
 Minneapolis, MN 55415
 612.370.0700 Tel
 612.370.1378 Fax

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 OR REPORT WAS PREPARED BY ME OR UNDER MY
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 LAWS OF THE STATE OF MINNESOTA.
Nick C. Landwer
 NICK C. LANDWER
 DATE: 7/30/2004 MN LIC. NO. 40953

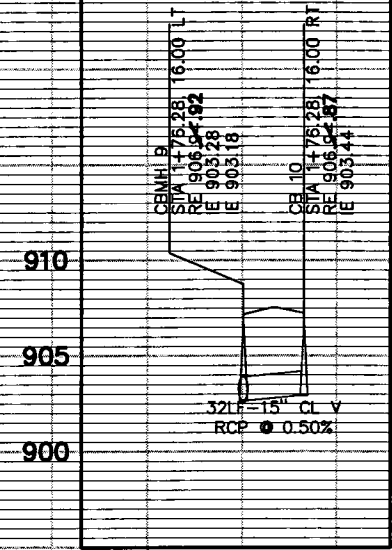
CITY OF MAPLEWOOD
COUNTY ROAD D
 STORM SEWER PLAN AND PROFILE
 WEST COUNTY ROAD D COURT
 STATION 0+00 TO STATION 3+92.37

CITY PROJECT	02-08	SHEET NO.
COUNTY PROJECT		34
S.A.P.	62-619-025	
S.A.P.	138-020-29	86

PLOT DATE: Oct 11, 2004 9:46am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pin-ant\008-STM-PRF.dwg



WEST COUNTY ROAD D COURT
STORM SEWER



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XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
D08-PRF Fl-grid-22x34 22x34bdr		49392-008	1	DB/ML	1/9/2007	AS-BUILT
DRAWN BY:	DESIGN BY:					
BAC	NCL					
CHKD. BY:	DWG. NAME:					
NCL	STM-PRF					
DATE:						
JULY 30, 2004						

URS
28-261

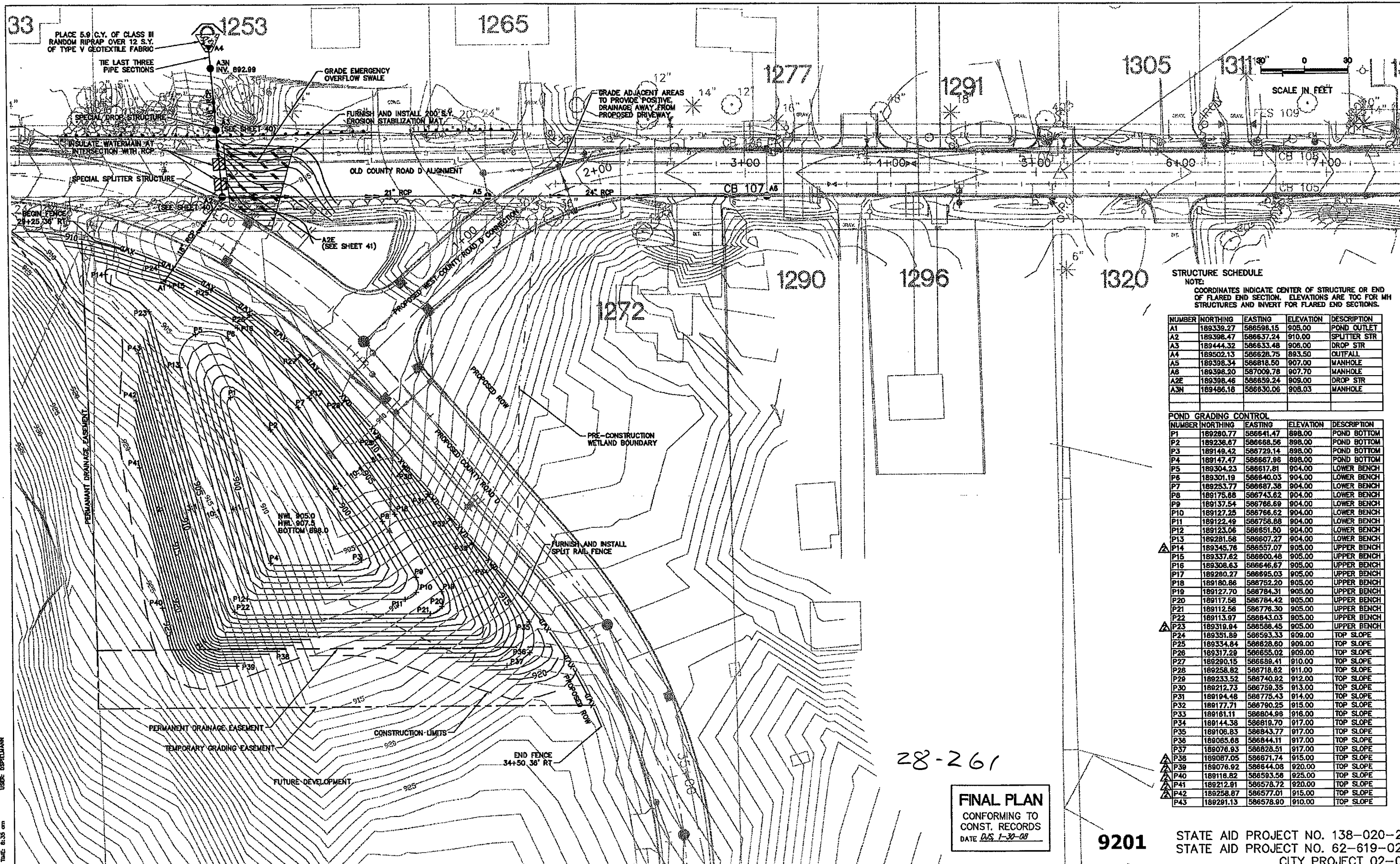
Thresher Square
700 Third Street South
Minneapolis, MN 55415
612.370.0700 Tel
612.370.1378 Fax

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40853

CITY OF MAPLEWOOD
COUNTY ROAD D
STORM SEWER LATERAL PROFILES
COUNTY ROAD D

CITY PROJECT	02-08
COUNTY PROJECT	62-619-025
S.A.P.	138-020-29

SHEET NO.
35
86



STRUCTURE SCHEDULE
NOTE:
COORDINATES INDICATE CENTER OF STRUCTURE OR END OF FLARED END SECTION. ELEVATIONS ARE TOC FOR MH STRUCTURES AND INVERT FOR FLARED END SECTIONS.

NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
A1	189339.27	586598.15	905.00	POND OUTLET
A2	189398.47	586637.24	910.00	SPLITTER STR
A3	189444.32	586633.48	908.00	DROP STR
A4	189502.13	586628.75	893.50	OUTFALL
A5	189398.34	586818.60	907.00	MANHOLE
A6	189398.20	587009.78	907.70	MANHOLE
A2E	189398.46	586659.24	909.00	DROP STR
A3N	189486.16	586630.06	908.03	MANHOLE

POND GRADING CONTROL

NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
P1	189290.77	586641.47	898.00	POND BOTTOM
P2	189238.87	586668.56	898.00	POND BOTTOM
P3	189149.42	586729.14	898.00	POND BOTTOM
P4	189147.47	586667.96	898.00	POND BOTTOM
P5	189304.23	586617.81	904.00	LOWER BENCH
P6	189301.19	586640.03	904.00	LOWER BENCH
P7	189253.77	586687.38	904.00	LOWER BENCH
P8	189175.88	586743.62	904.00	LOWER BENCH
P9	189137.54	586786.69	904.00	LOWER BENCH
P10	189127.25	586766.62	904.00	LOWER BENCH
P11	189122.49	586756.88	904.00	LOWER BENCH
P12	189123.06	586551.60	904.00	LOWER BENCH
P13	189281.68	586607.27	904.00	LOWER BENCH
P14	189345.76	586557.07	905.00	UPPER BENCH
P15	189337.62	586600.48	905.00	UPPER BENCH
P16	189308.63	586646.67	905.00	UPPER BENCH
P17	189280.27	586695.03	905.00	UPPER BENCH
P18	189180.86	586752.20	905.00	UPPER BENCH
P19	189127.70	586784.31	905.00	UPPER BENCH
P20	189117.58	586784.42	905.00	UPPER BENCH
P21	189112.58	586776.30	905.00	UPPER BENCH
P22	189113.97	586843.03	905.00	UPPER BENCH
P23	189319.84	586586.45	905.00	UPPER BENCH
P24	189351.89	586593.33	909.00	TOP SLOPE
P25	189334.84	586628.80	909.00	TOP SLOPE
P26	189317.29	586655.02	909.00	TOP SLOPE
P27	189280.15	586689.41	910.00	TOP SLOPE
P28	189258.82	586718.82	911.00	TOP SLOPE
P29	189233.52	586740.92	912.00	TOP SLOPE
P30	189212.73	586759.35	913.00	TOP SLOPE
P31	189194.48	586775.43	914.00	TOP SLOPE
P32	189177.71	586790.25	915.00	TOP SLOPE
P33	189161.11	586804.98	916.00	TOP SLOPE
P34	189144.38	586819.70	917.00	TOP SLOPE
P35	189108.83	586843.77	917.00	TOP SLOPE
P36	189085.88	586844.11	917.00	TOP SLOPE
P37	189076.93	586828.51	917.00	TOP SLOPE
P38	189087.05	586671.74	915.00	TOP SLOPE
P39	189076.92	586644.08	920.00	TOP SLOPE
P40	189116.82	586593.56	925.00	TOP SLOPE
P41	189212.91	586578.72	920.00	TOP SLOPE
P42	189258.87	586577.01	915.00	TOP SLOPE
P43	189291.13	586578.90	910.00	TOP SLOPE

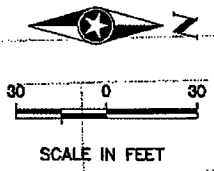
FINAL PLAN
CONFORMING TO
CONST. RECORDS
DATE 05-1-08

9201 STATE AID PROJECT NO. 138-020-29
STATE AID PROJECT NO. 62-619-025
CITY PROJECT 02-08

S:\VIA\MAPLEWOOD\ASBUILTS\PLANS WEST 91\WESTPOND1W-GRADING\2.DWG DATE: 02-08-08 TIME: 6:35 am USER: DSP/ELMANN

DRAWN BY: BRH DESIGNER: PHH CHECKED BY: RBL DESIGN TEAM	NO. BY DATE REVISIONS 1 AMG 8/25/04 REVISED POND GRADING, ADDED CONSTRUCTION LIMITS 2 AMG 8/9/04 EASEMENT & ROW REVISED	©SHORT ELLIOTT HENDRICKSON 1998. ANY USE OR REUSE OF THIS PLAN/DRAWING AND THE CORRESPONDING COMPUTER AIDED DESIGN/DRAFTING FILES WITHOUT THE EXPRESS WRITTEN CONSENT OF SEH, IS PROHIBITED. SEH SHALL NOT BE RESPONSIBLE FOR ANY UNAUTHORIZED USE OR REUSE OF THESE MATERIALS, OR DAMAGES RESULTING THEREFROM. I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. RONALD B. LEAF, P.E. Lic. No. 24411 Date: 08/30/04		MAPLEWOOD MINNESOTA	POND 1W GRADING PLAN	FILE NO. A-MAPLE0306.01 DATE 08/30/04	36 86
--	---	--	--	----------------------------	-----------------------------	--	----------------------------

DULUTH STREET



RAISE MANHOLE
(SEE SHEET 41)

REMOVE 15 LF OF 36" RCP
REMOVE, SALVAGE, AND REINSTALL
36" FES
X 866.76 X 866.46

FURNISH AND INSTALL 100 S.Y.
EROSION STABILIZATION MAT

PERMANENT DRAINAGE EASEMENT

POND GRADING CONTROL

NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
P1	186893.40	586700.82	880.00	TOP SLOPE
P2	186877.73	586672.41	880.00	TOP SLOPE
P3	186878.92	586640.71	880.00	TOP SLOPE
P4	186920.80	586605.06	880.00	TOP SLOPE
P5	186883.22	586685.67	878.00	GRADE
P6	186933.47	586699.16	874.00	GRADE
P7	186897.86	586666.19	874.00	GRADE
P8	186941.08	586619.73	874.00	GRADE
P9	186918.28	586666.53	868.00	POND BOTTOM
P10	186968.42	586627.94	868.00	POND BOTTOM
P11	187005.33	586625.86	868.00	POND BOTTOM
P12	187052.90	586629.33	868.00	POND BOTTOM
P13	187052.81	586680.47	868.00	POND BOTTOM
P14	187002.35	586684.53	868.00	POND BOTTOM
P15	186950.87	586681.85	868.00	POND BOTTOM
P16	187058.29	586625.80	870.00	TOP BENCH
P17	187056.12	586685.60	870.00	TOP BENCH
P18	187087.25	586692.42	870.00	TOP BENCH
P19	187084.11	586627.31	870.00	TOP BENCH
P20	187088.64	586631.41	868.00	POND BOTTOM
P21	187188.56	586626.59	868.00	POND BOTTOM
P22	187254.95	586614.20	868.00	POND BOTTOM
P23	187328.98	586611.93	868.00	POND BOTTOM
P24	187398.20	586623.82	868.00	POND BOTTOM
P25	187415.65	586656.32	868.00	POND BOTTOM
P26	187403.79	586687.77	868.00	POND BOTTOM
P27	187297.59	586691.85	868.00	POND BOTTOM
P28	187175.48	586692.46	868.00	POND BOTTOM
P29	187091.39	586688.07	868.00	POND BOTTOM
P30	187337.02	586595.20	872.00	GRADE
P31	187398.46	586608.41	872.00	GRADE
P32	187428.65	586653.57	872.00	GRADE
P33	187415.99	586695.32	872.00	GRADE
P34	187295.88	586705.42	872.00	GRADE
P35	187333.52	586715.09	874.00	GRADE
P36	187331.40	586726.39	878.00	GRADE

NWL 871.98
HWL 877.0

LAMETRY

28-261

FINAL PLAN
CONFORMING TO
CONST. RECORDS
DATE 06/30/04

9202

STATE AID PROJECT NO. 138-020-29
STATE AID PROJECT NO. 62-619-025
CITY PROJECT 02-08

S:\00\MAPLEWOOD\ASBUILTS\PLANS WEST 61\WESTPOND2W-CRADING.DWG
DATE: 02-04-08 TIME: 8:14 am USER: DSP/ELMANN

DRAWN BY:	BRH			
DESIGNER:	PDH			
CHECKED BY:	RBL			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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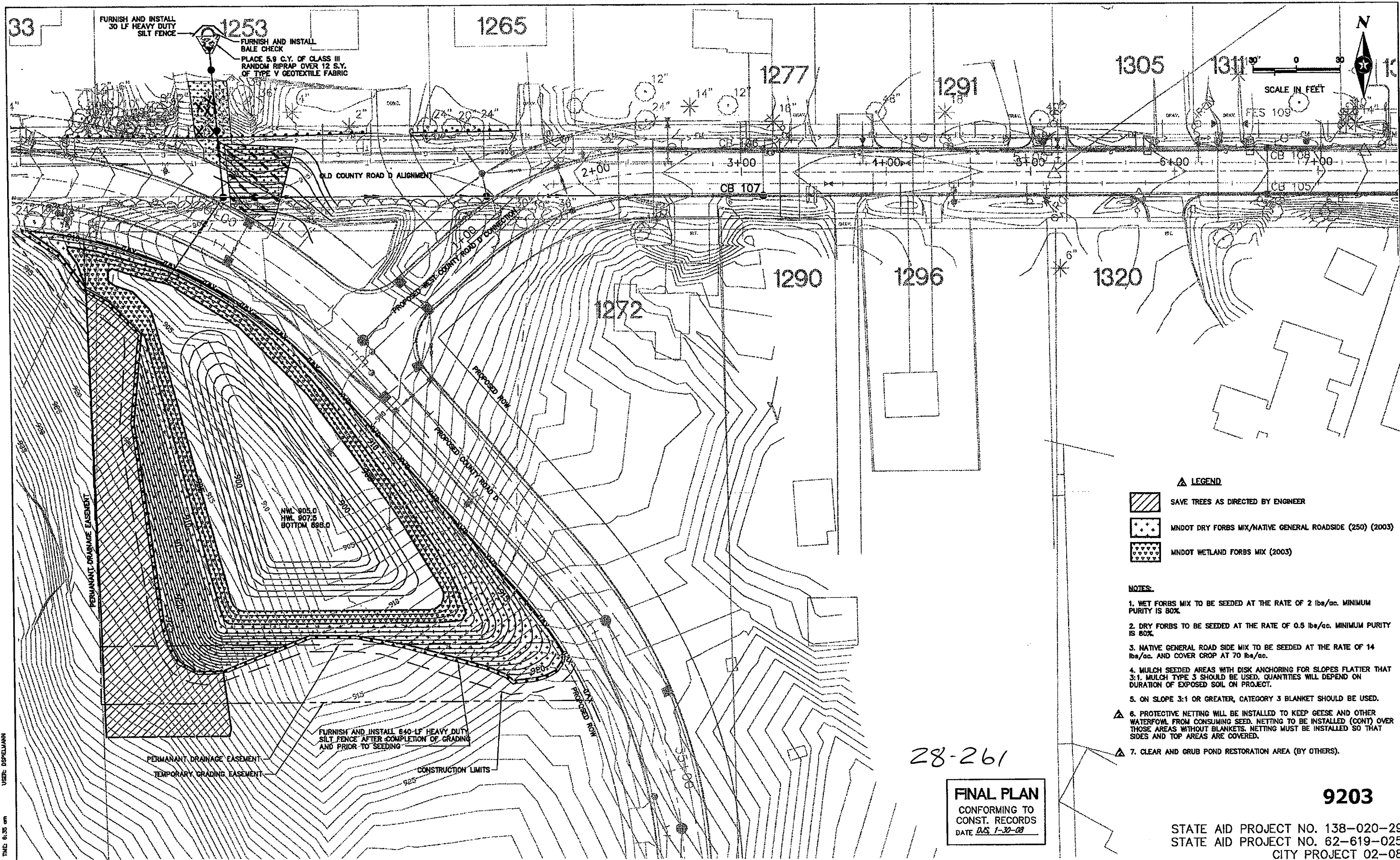
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
RONALD B. LEAF, P.E.
Lic. No. 24411
Date: 06/30/04



MAPLEWOOD
MINNESOTA

POND 2W
GRADING PLAN

FILE NO.	A-MAPLE0306.01	37
DATE	06/30/04	86



FURNISH AND INSTALL 30 LF HEAVY DUTY SILT FENCE

1253

FURNISH AND INSTALL BALE CHECK

PLACE 5.0 C.Y. OF CLASS III RANDOM RIPRAP OVER 12 S.Y. OF TYPE V GEOTEXTILE FABRIC

FURNISH AND INSTALL 640-LF HEAVY DUTY SILT FENCE AFTER COMPLETION OF GRADING AND PRIOR TO SEEDING

- LEGEND**
- SAVE TREES AS DIRECTED BY ENGINEER
 - MNDOT DRY FORBS MIX/NATIVE GENERAL ROADSIDE (250) (2003)
 - MNDOT WETLAND FORBS MIX (2003)

- NOTES:**
1. WET FORBS MIX TO BE SEEDD AT THE RATE OF 2 lbs/ac. MINIMUM PURITY IS 80%.
 2. DRY FORBS TO BE SEEDD AT THE RATE OF 0.5 lbs/ac. MINIMUM PURITY IS 80%.
 3. NATIVE GENERAL ROAD SIDE MIX TO BE SEEDD AT THE RATE OF 14 lbs/ac. AND COVER CROP AT 70 lbs/ac.
 4. MULCH SEEDD AREAS WITH DISK ANCHORING FOR SLOPES FLATTER THAT 3:1. MULCH TYPE 3 SHOULD BE USED. QUANTITIES WILL DEPEND ON DURATION OF EXPOSED SOIL ON PROJECT.
 5. ON SLOPE 3:1 OR GREATER, CATEGORY 3 BLANKET SHOULD BE USED.
 6. PROTECTIVE NETTING WILL BE INSTALLED TO KEEP GEESE AND OTHER WATERFOWL FROM CONSUMING SEED. NETTING TO BE INSTALLED (CONT) OVER THOSE AREAS WITHOUT BLANKETS. NETTING MUST BE INSTALLED SO THAT SIDES AND TOP AREAS ARE COVERED.
 7. CLEAR AND GRUB POND RESTORATION AREA (BY OTHERS).

FINAL PLAN
CONFORMING TO
CONST. RECORDS
DATE *DUS 1-30-08*

28-261

9203

STATE AID PROJECT NO. 138-020-29
STATE AID PROJECT NO. 62-619-025
CITY PROJECT 02-08

S:\NOVA\MAPLEWOOD\020801\ASBUILDS\PLANS WEST 61\WESTPOND1W-TURF2.DWG
USER: DIFELMAN
DATE: 02-09-08 TIME: 6:35 am

DRAWN BY: BRH
DESIGNER: POH
CHECKED BY: RBL
DESIGN TEAM

NO.	BY	DATE	REVISIONS
1	AMG	8/25/04	REVISED RESTORATION AREAS, ADDED S. FENCE & LIMITS
2	AMG	8/9/04	EASEMENT & ROW REVISED

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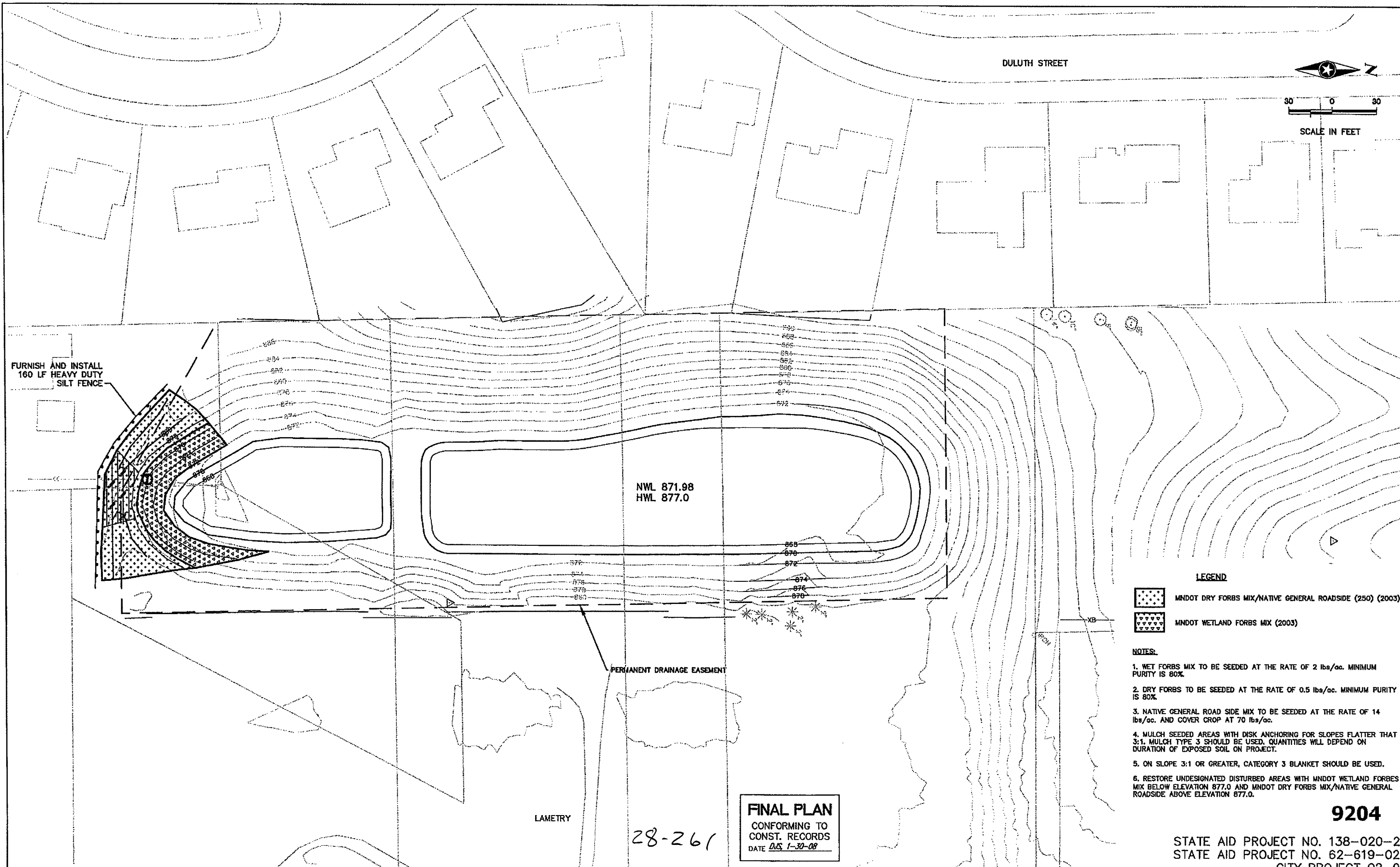
[Signature]
RONALD B. LEAF, P.E.
Lic. No. 24411
Date: 06/30/04



MAPLEWOOD MINNESOTA

POND 1W RESTORATION PLAN

FILE NO. A-MAPLE0306.01	38
DATE 06/30/04	86



FURNISH AND INSTALL
160 LF HEAVY DUTY
SILT FENCE

NWL 871.98
HWL 877.0

PERMANENT DRAINAGE EASEMENT

LAMETRY

28-261

FINAL PLAN
CONFORMING TO
CONST. RECORDS
DATE DJS, 1-30-08

- LEGEND**
- MNDOT DRY FORBS MIX/NATIVE GENERAL ROADSIDE (250) (2003)
 - MNDOT WETLAND FORBS MIX (2003)

- NOTES:**
1. WET FORBS MIX TO BE SEEDED AT THE RATE OF 2 lbs/ac. MINIMUM PURITY IS 80%.
 2. DRY FORBS TO BE SEEDED AT THE RATE OF 0.5 lbs/ac. MINIMUM PURITY IS 80%.
 3. NATIVE GENERAL ROAD SIDE MIX TO BE SEEDED AT THE RATE OF 14 lbs/ac. AND COVER CROP AT 70 lbs/ac.
 4. MULCH SEEDED AREAS WITH DISK ANCHORING FOR SLOPES FLATTER THAT 3:1. MULCH TYPE 3 SHOULD BE USED. QUANTITIES WILL DEPEND ON DURATION OF EXPOSED SOIL ON PROJECT.
 5. ON SLOPE 3:1 OR GREATER, CATEGORY 3 BLANKET SHOULD BE USED.
 6. RESTORE UNDESIGNATED DISTURBED AREAS WITH MNDOT WETLAND FORBS MIX BELOW ELEVATION 877.0 AND MNDOT DRY FORBS MIX/NATIVE GENERAL ROADSIDE ABOVE ELEVATION 877.0.

9204
STATE AID PROJECT NO. 138-020-29
STATE AID PROJECT NO. 62-619-025
CITY PROJECT 02-08

S:\V00\MAPLEWOOD\ASBULT'S PLANS WEST 61\WESTPON2W-TURF.DWG
TIME: 8:08 am
USER: DSPHJHANN
DATE: 01-31-08

DRAWN BY:	BRH				
DESIGNER:	PDH				
CHECKED BY:	RBL				
DESIGN TEAM	NO.	BY	DATE	REVISIONS	

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Ronald B. Leaf
RONALD B. LEAF, P.E.
Date: 06/30/04 Lic. No. 24411

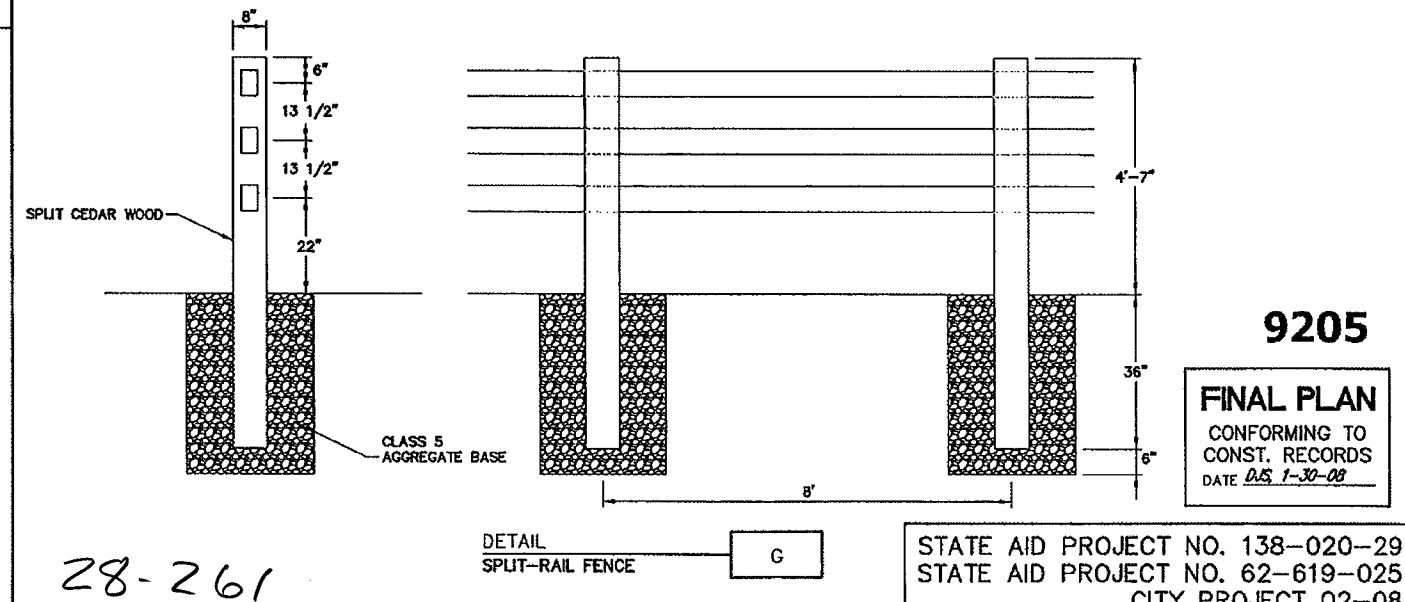
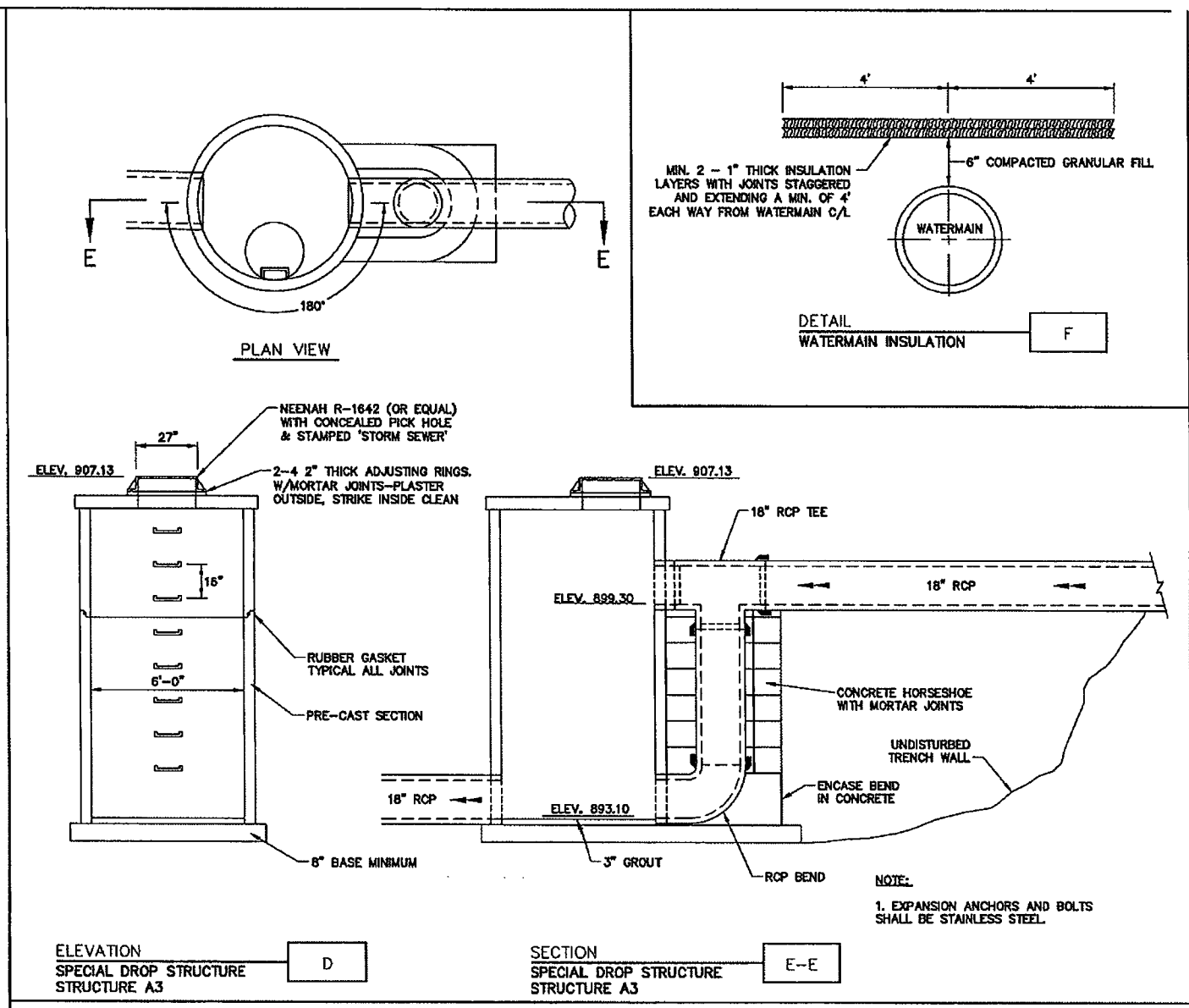
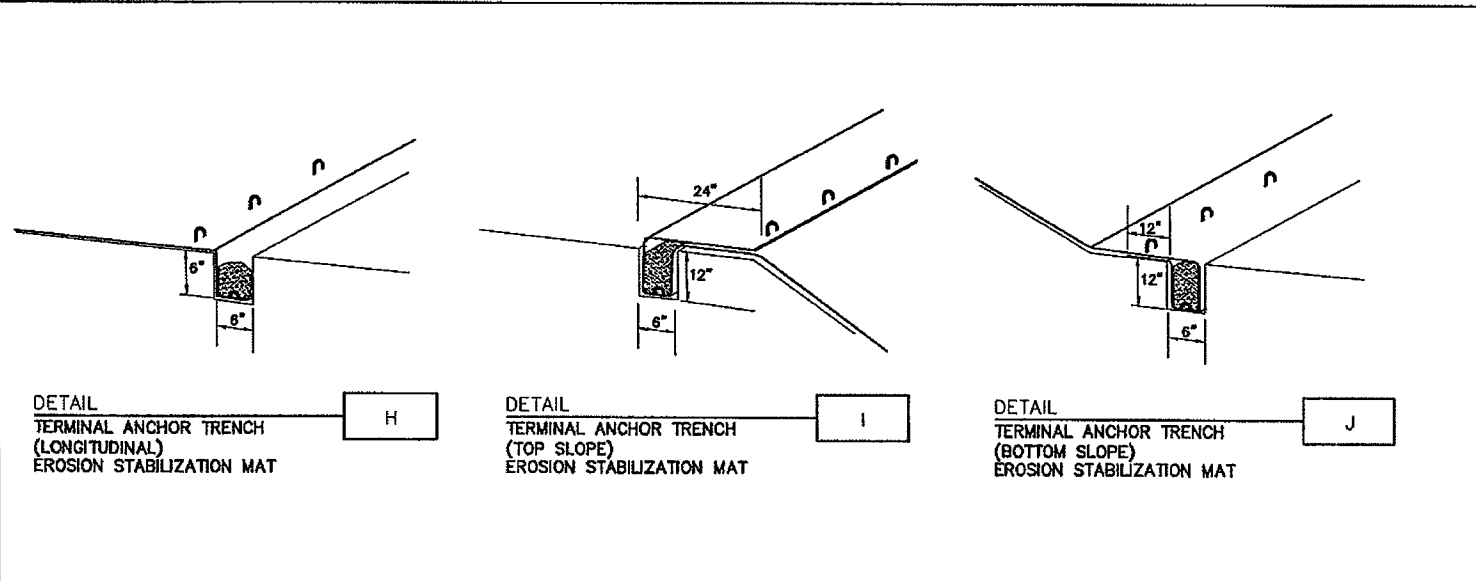
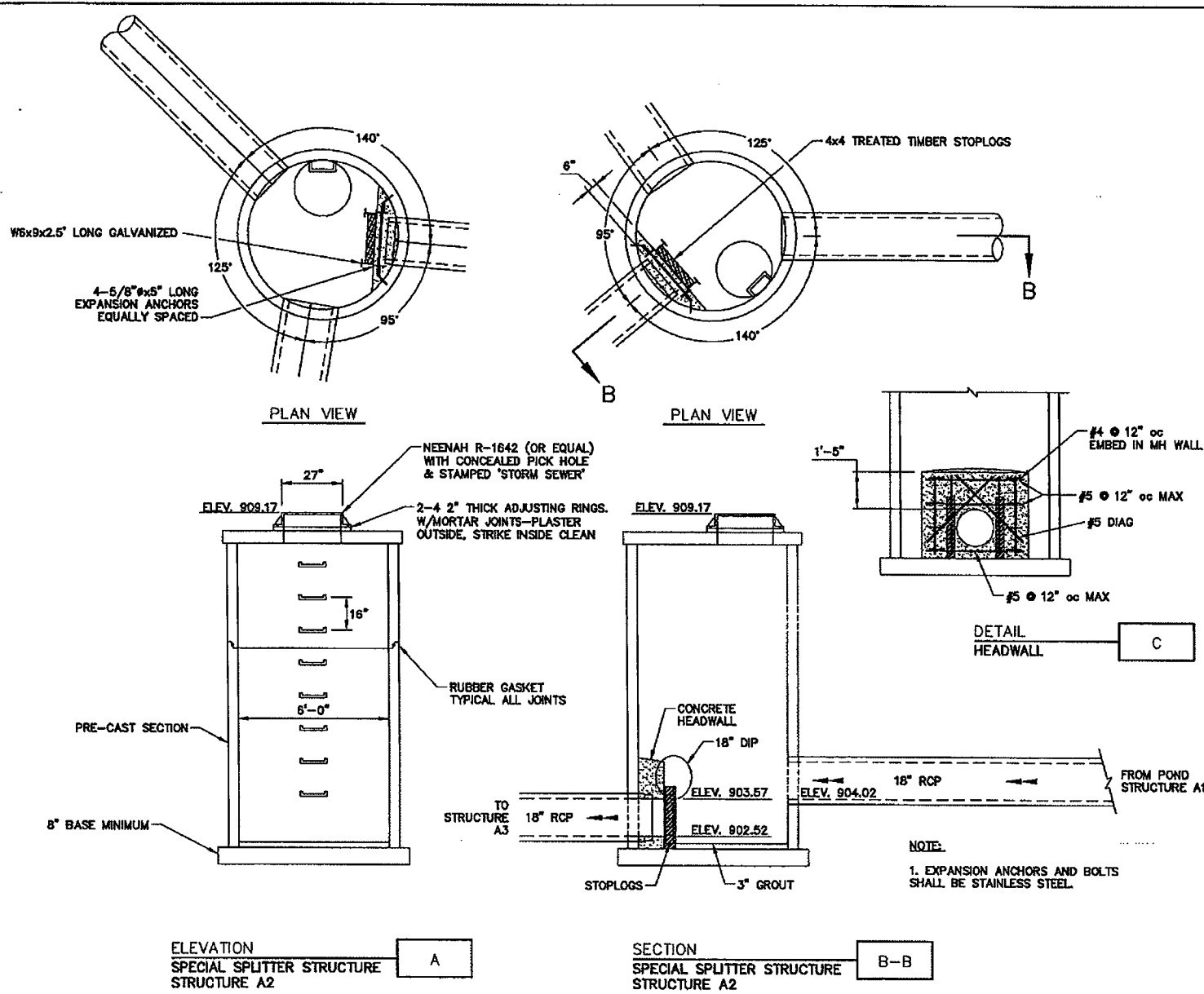


MAPLEWOOD
MINNESOTA

POND 2W
RESTORATION PLAN

FILE NO. A-MAPLE0306.01	39
DATE 06/30/04	86

DATE: 02-28-08 8:41 AM



S:\V\MAPLEWOOD\ASBULTS\PLANS WEST BI\DETAILS.DWG DATE: 02-28-08 TIME: 8:41 am USER: DSPRELMANN

DESIGNER:	BRH			
CHECKED BY:	PDH			
DESIGN TEAM				
NO.	BY	DATE	REVISIONS	

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RONALD B. LEAF, P.E.
 Lic. No. 24411
 Date: 06/30/04



MAPLEWOOD MINNESOTA

POND 1W AND MISCELLANEOUS DETAILS

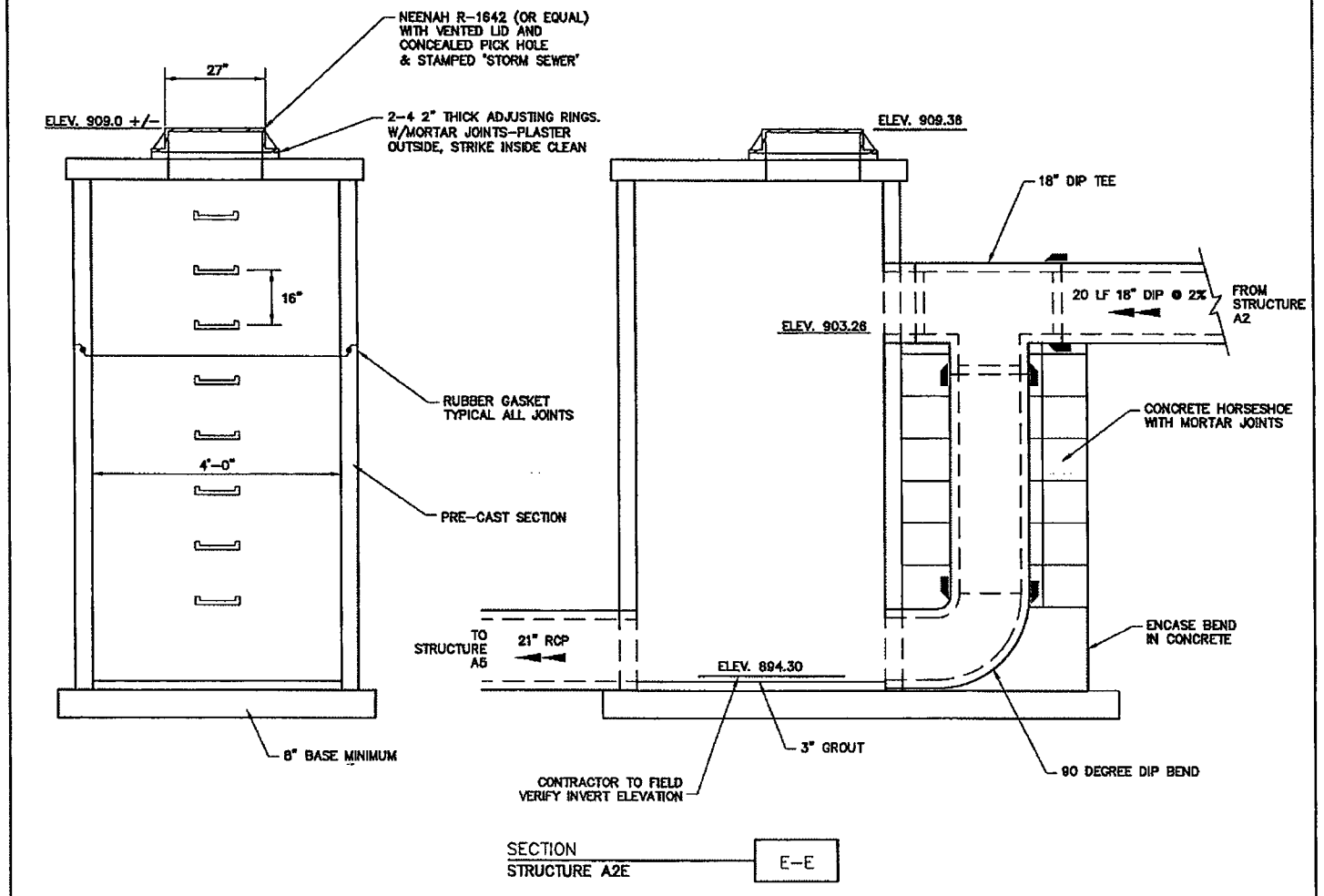
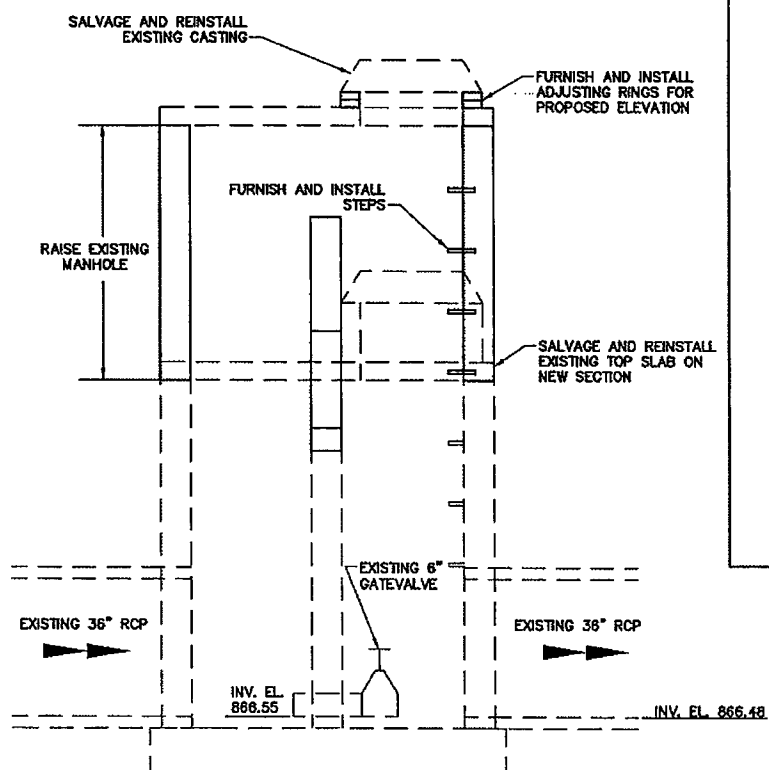
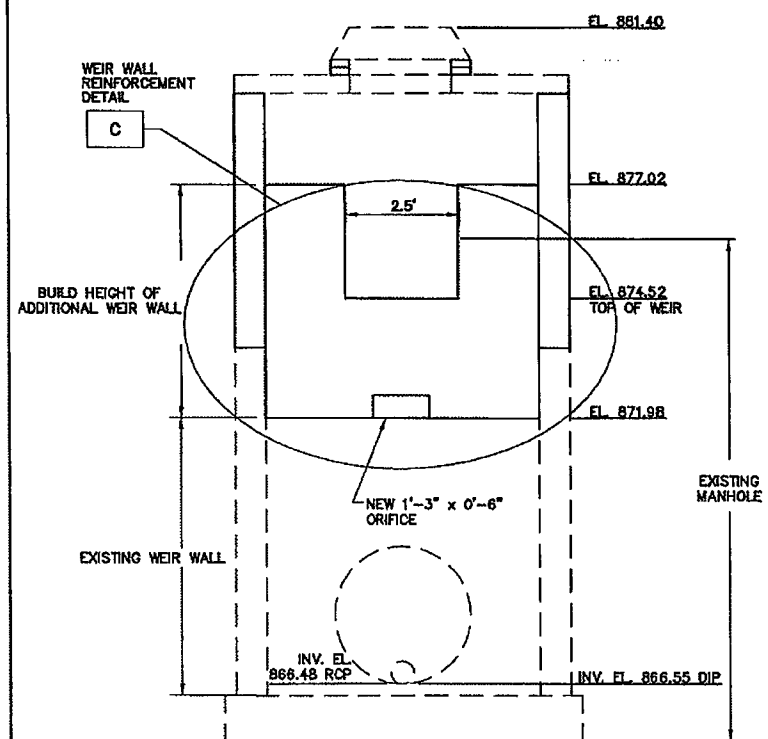
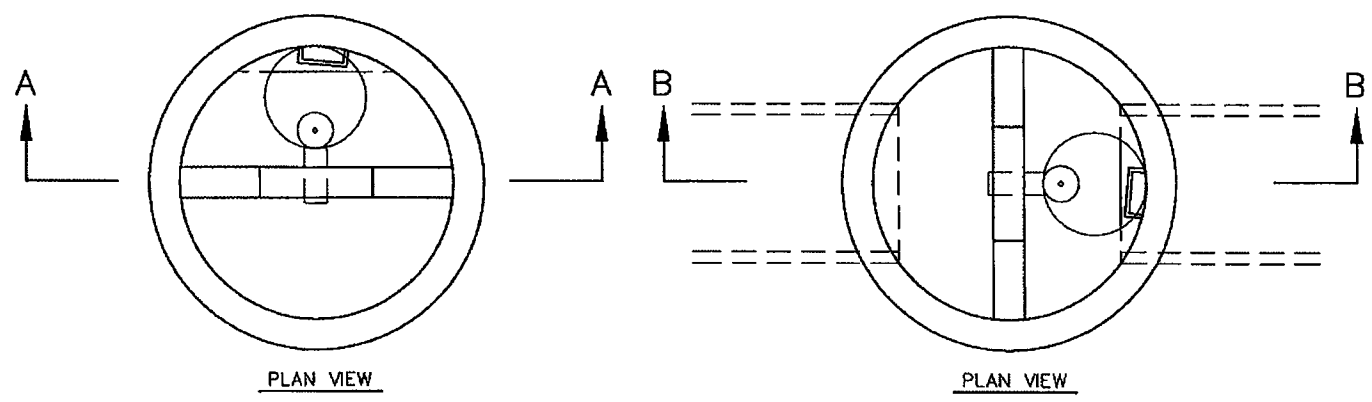
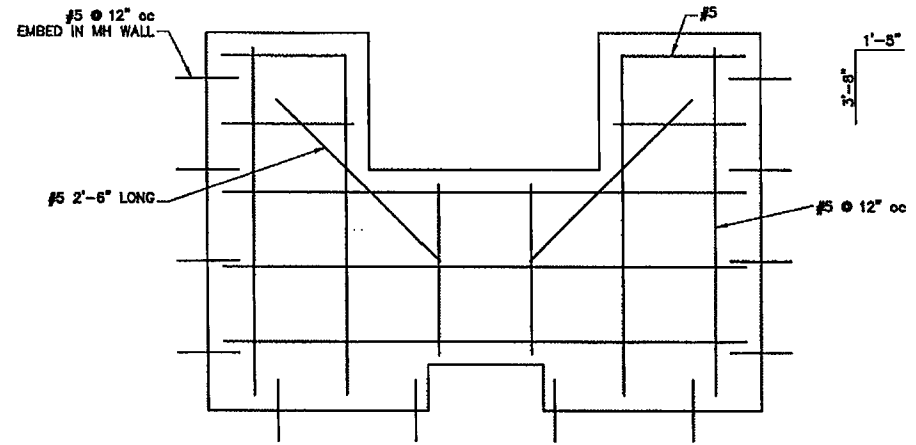
FILE NO. AMAPLED306.01
 DATE 06/30/04
 40
 86

9205
FINAL PLAN
 CONFORMING TO CONST. RECORDS
 DATE 06/30/08

STATE AID PROJECT NO. 138-020-29
 STATE AID PROJECT NO. 62-619-025
 CITY PROJECT 02-08

28-261

PLOTTED: 02-08-08 @ 8:43 AM



- NOTES:**
1. ANCHORS TO EMBED 4" IN EXISTING CONCRETE.
 2. SEAL PERIMETER OF NEW WEIR WITH WATERSTOP RX BENTONITE SEAL.
 3. CONCRETE PER MN/DOT SPEC 2401, MIX 3Y43 ($f'_c = 4000$ psi)
 4. BAR REINFORCEMENT PER MN/DOT SPEC 2401 GRADE 60 EPOXY COATED.
 5. MIN. 2" COVER ON REINFORCEMENT.

9206
FINAL PLAN
 CONFORMING TO
 CONST. RECORDS
 DATE *D.S. 1-30-08*

STATE AID PROJECT NO. 138-020-29
 STATE AID PROJECT NO. 62-619-025
 CITY PROJECT 02-08

28-261

S:\VIA\MAPLEWOOD\ASBULTS\PLANS WEST 61\DETAILS.DWG
 DATE: 02-08-08 TIME: 6:43 am
 USER: DSPHLMANN
 XREFS:

DRAWN BY:	BRH			
DESIGNER:	PDH			
CHECKED BY:	RBL			
DESIGN TEAM		NO.	BY	DATE
				REVISIONS

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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Ronald B. Leaf
 RONALD B. LEAF, P.E.
 No. 24411
 Date: 06/30/04



**MAPLEWOOD
 MINNESOTA**

POND 2W OUTLET DETAILS

FILE NO. AMAPLE0306.01	41
DATE 06/30/04	
86	

PLOT DATE: Jul 30, 2004 10:31am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pin-ht\008-SP01.dwg

SIGN TABULATION														
SIGN NO.	POST			MINIMUM MOUNTING HEIGHT [1] FT.	SIGN			S.A.P. 62-619-025 S.A.P. 138-020-29 COUNTY ROAD D		WEST CTY RD D CT FRONTAGE ROAD		TOTAL SQ. FT.	SIGN LEGEND	NOTES
	NO. AND TYPE	KNEE BRACE EACH	LENGTH [1] LIN. FT.		PANEL CODE	SIZE INCHES	EACH SQ. FT.	QTY.	SQ. FT.	QTY.	SQ. FT.			
C-1	1U		15.0	9	R2-1	24 X 30	5.00	2	10.00			10.00	SPEED LIMIT 30 M.P.H.	
				7	R8-3A	18 X 18	2.25		4.50			4.50	NO PARKING	
C-2	2U	1	13.0	7	R3-30ACA	54 X 30	11.25	1	11.25			11.25	RT. TURN ONLY/THRU ONLY/LT. TURN ONLY	
C-3	1U		13.0	7	R1-1	30 X 30	6.25	4	25.00	2	12.50	37.50	STOP SIGN	
C-4	1U		12.5	7	R4-7	24 X 30	5.00	5	25.00			25.00	KEEP RIGHT	
				5	X4-2	18 X 18	2.25		11.25			11.25	HAZARD MARKER	
C-5	1U		12.5	7	R8-3A	18 X 18	2.25	6	13.50			13.50	NO PARKING	
C-6	1U		13.0	7	R3-X2	30 X 30	6.25	4	25.00			25.00	LEFT TURN LANE	
C-7	1U		15.0	9	R3-X1	30 X 30	6.25	2	12.50			12.50	RIGHT TURN LANE	
				7	R8-3A	18 X 18	2.25		4.50			4.50	NO PARKING	
C-8	1U		13.0	7	R5-1	30 X 30	6.25	1	6.25			6.25	DO NOT ENTER	
PROJECT TOTALS:								148.75			12.50	161.25		

NOTES:

[1] MOUNTING HEIGHT IS MINIMUM; SEE DETAILS ON SHEETS 45-48 FOR TYPICAL MOUNTING.

GENERAL NOTES:

- POST LENGTHS ARE APPROXIMATE AND INCLUDE EMBEDMENT, BUT DO NOT INCLUDE ADDITIONAL LENGTH REQUIRED FOR SPLICE.
- SEE STANDARD SIGNS MANUAL FOR PUNCHING CODE AND DETAILED DRAWINGS OF TYPE C SIGN PANELS.

STRIPING TABULATION										
STATION TO STATION	NOTES	4 INCH SOLID LINE WHITE EPOXY	4 INCH BROKEN LINE WHITE EPOXY	4 INCH DOUBLE SOLID LINE YELLOW EPOXY	12 INCH SOLID LINE YELLOW EPOXY	12 INCH STOP LINE WHITE EPOXY	PAVEMENT MESSAGE (RT. ARROW) POLY PREFORM	PAVEMENT MESSAGE (LT. ARROW) POLY PREFORM	PAVEMENT MESSAGE (RT/THRU ARROW) POLY PREFORM	PED. CROSSWALK WHITE POLY PREFORM
		LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	SQ. FT.
COUNTY ROAD D										
STATION 27+40.29 TO 36+87.28		1734	0	837	14	0	0	0	0	45
STATION 36+87.28 TO 50+00.00		2753	110	0	0	47	3	6	1	0
COUNTY ROAD D TOTAL:		4487	110	837	14	47	3	6	1	45
W CTY RD D CT (STATION 0+00.00 TO 4+92.37)										
FRONTAGE ROAD		692	0	362	0	16	0	0	0	0
		0	0	0	0	12	0	0	0	45
W CTY RD D CT/FRONTAGE RD TOTAL:		692	0	362	0	28	0	0	0	0
PROJECT TOTAL:		5179	110	1199	14	75	3	6	1	90

GENERAL NOTES:

- 4-INCH BROKEN LINE WHITE OR YELLOW (10 FT. LINE, 30 FT. SPACE): TABULATED LENGTH DOES NOT INCLUDE GAP.
- DOUBLE SOLID LINES WILL BE MEASURED BY THE ACTUAL LENGTH OF BOTH 4-INCH LINES, THAT IS, A DOUBLE SOLID LINE WITH A CENTERLINE DISTANCE OF 1000 FEET WILL BE MEASURED AS 1000 FEET OF DOUBLE SOLID LINE INSTALLED

28-261

XREF DRAWINGS 22X348DR	DESIGN FILE: 49392-008	REV. NO. 1	BY DB/ML	DATE 1/9/2007	REVISIONS DESCRIPTION AS-BUILT
DRAWN BY: JCD	DESIGN BY: JCD				
CHECKED BY: NCL	DWG. NAME: SP01				
DATE: JULY 30, 2004					



Thresher Square
700 Third Street South
Minneapolis, MN 55416
612.370.0700 Tel
612.370.1378 Fax

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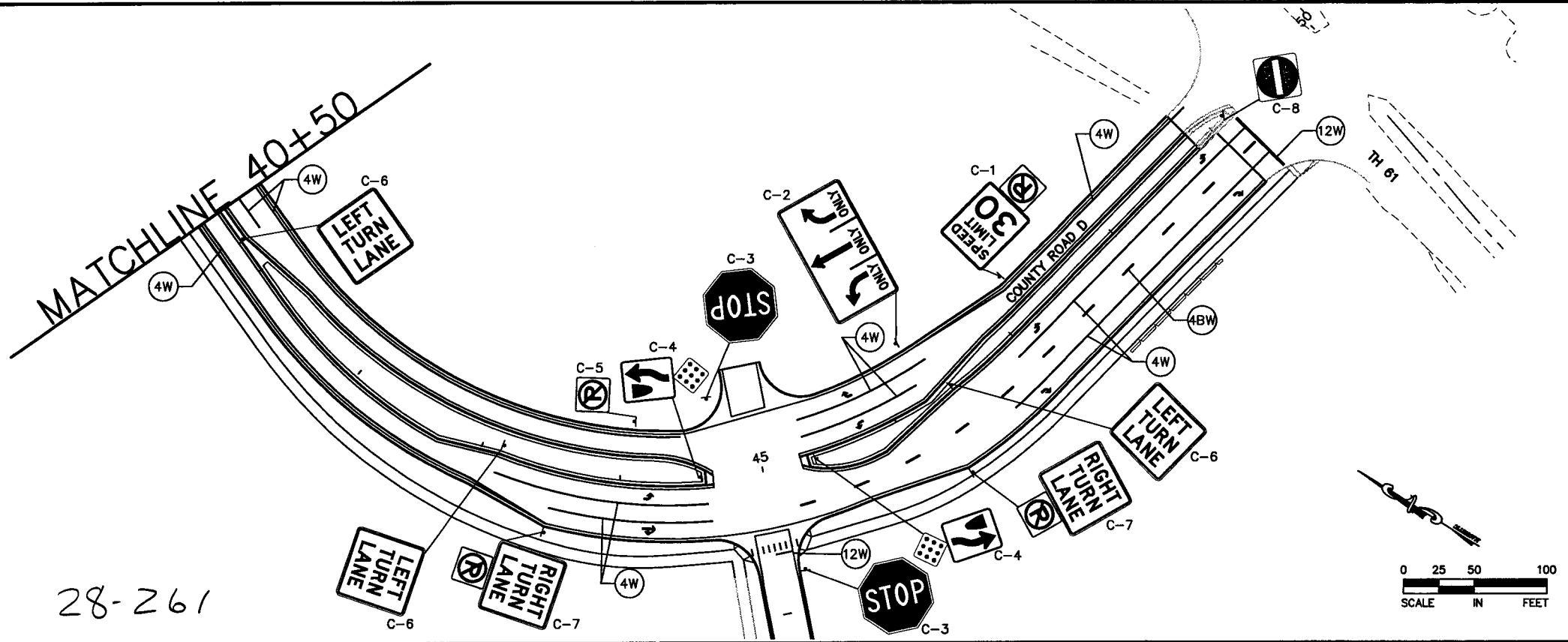
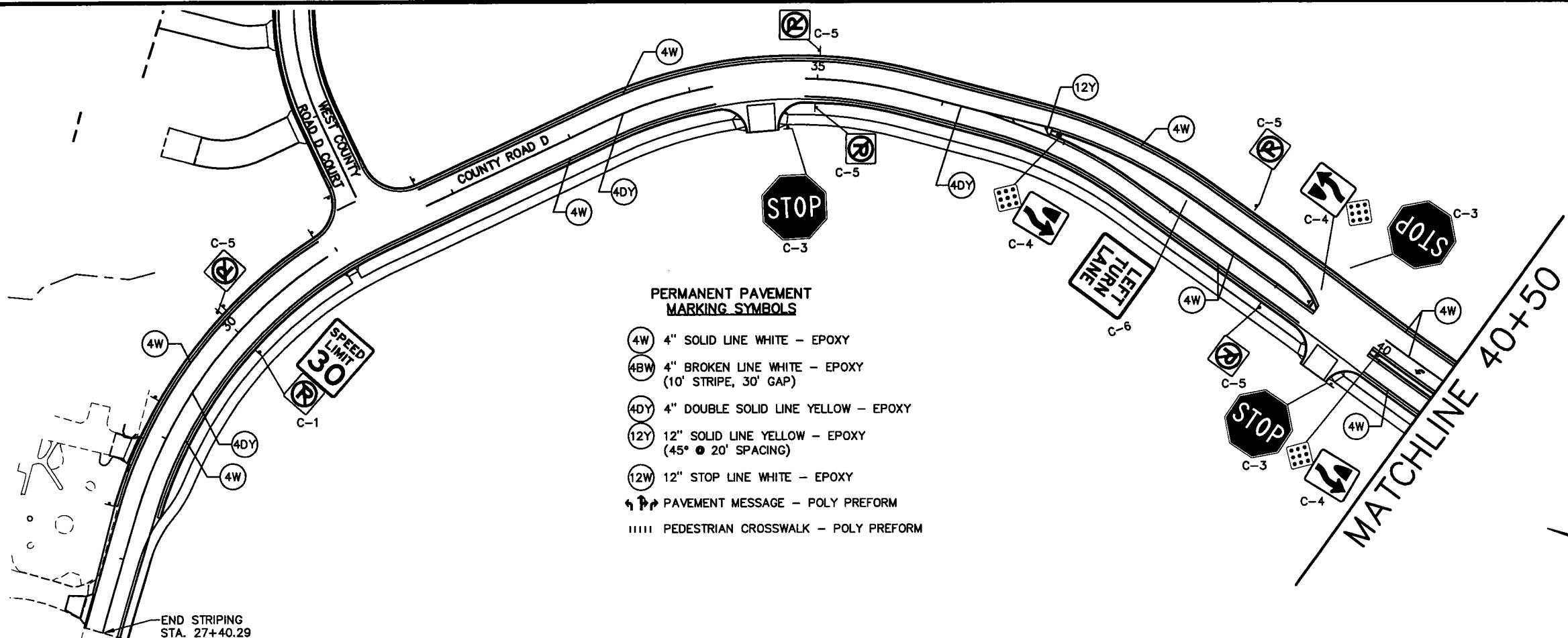
Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

SIGNING AND STRIPING TABULATIONS

CITY PROJECT	02-08	SHEET NO.
COUNTY PROJECT		42
S.A.P.	62-619-025	
S.A.P.	138-020-29	

PLOT DATE: Jul 30, 2004 10:32am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-ent\008-SP02.dwg



XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
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DRAWN BY: JCD		DESIGN BY: JCD				
CHKD. BY: NCL		DWG. NAME: SPO2				
DATE: JULY 30, 2004						



Thresher Square
700 Third Street South
Minneapolis, MN 55415
612.370.0700 Tel
612.370.1376 Fax

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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

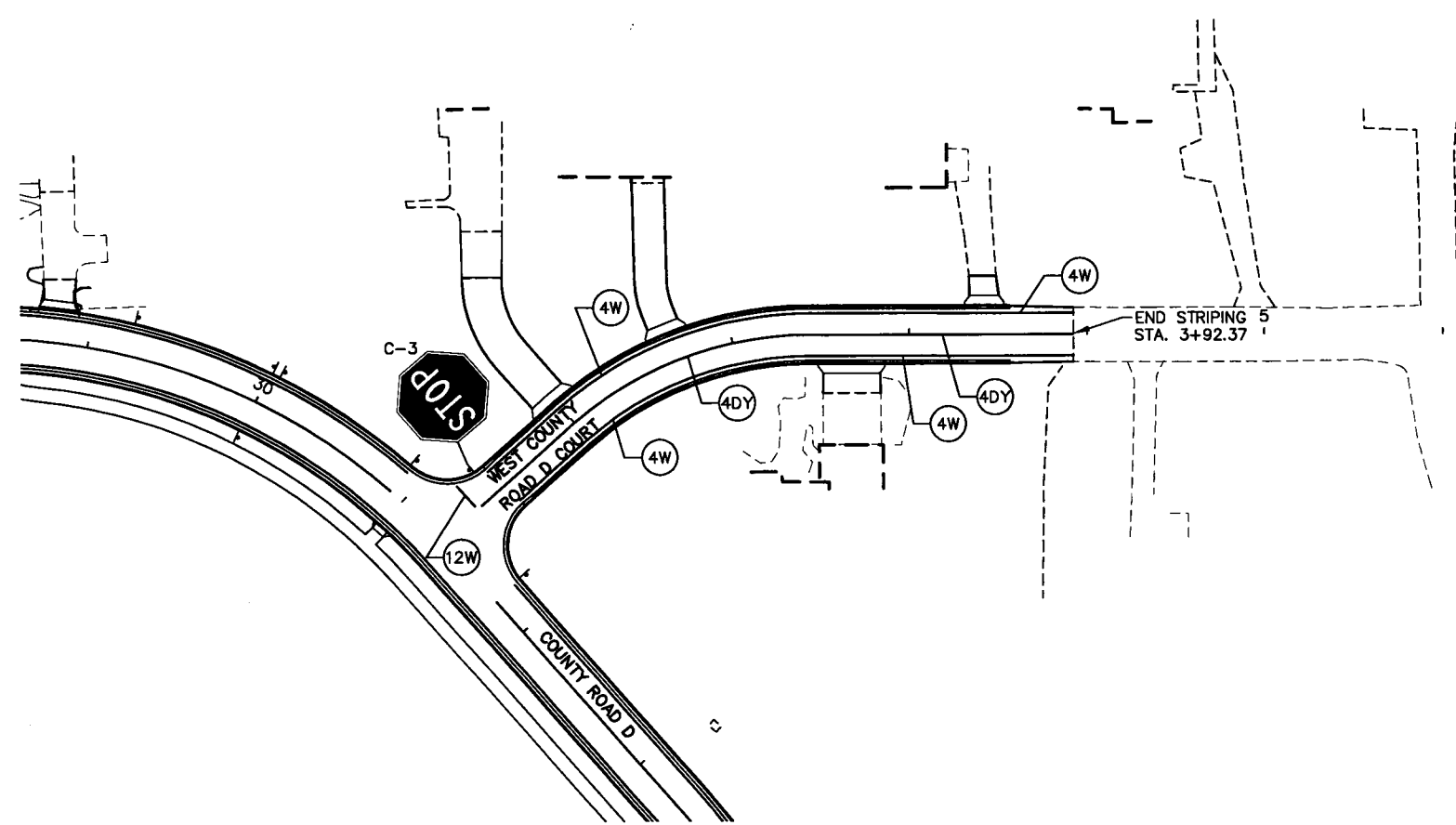
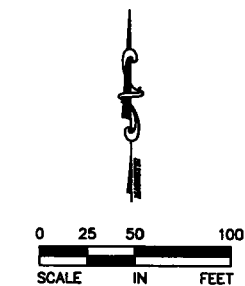
SIGNING AND STRIPING
COUNTY ROAD D
STATION 27+40.29 TO STATION 49+21.21

CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.
43

86

PLOT DATE: Jul 30, 2004 10:32am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sh1\008-SP03.dwg



PERMANENT PAVEMENT MARKING SYMBOLS

- (4W) 4" SOLID LINE WHITE - EPOXY
- (4DY) 4" DOUBLE SOLID LINE YELLOW - EPOXY
- (12W) 12" STOP LINE WHITE - EPOXY
- ||||| PEDESTRIAN CROSSWALK - POLY PREFORM

28-261

XREF DRAWINGS	DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
007-ETO 008-PSG 008-AJ 008-PCO 22x34bdr	49392-008	1	DB/ML	1/9/2007	AS-BUILT
	DRAWN BY: JCD				
	DESIGN BY: JCD				
	CHKD. BY: NCL				
	DWG. NAME: SP03				
	DATE: JULY 30, 2004				



Thresher Square
700 Third Street South
Minneapolis, MN 55416
612.370.0700 Tel
612.370.1378 Fax

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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

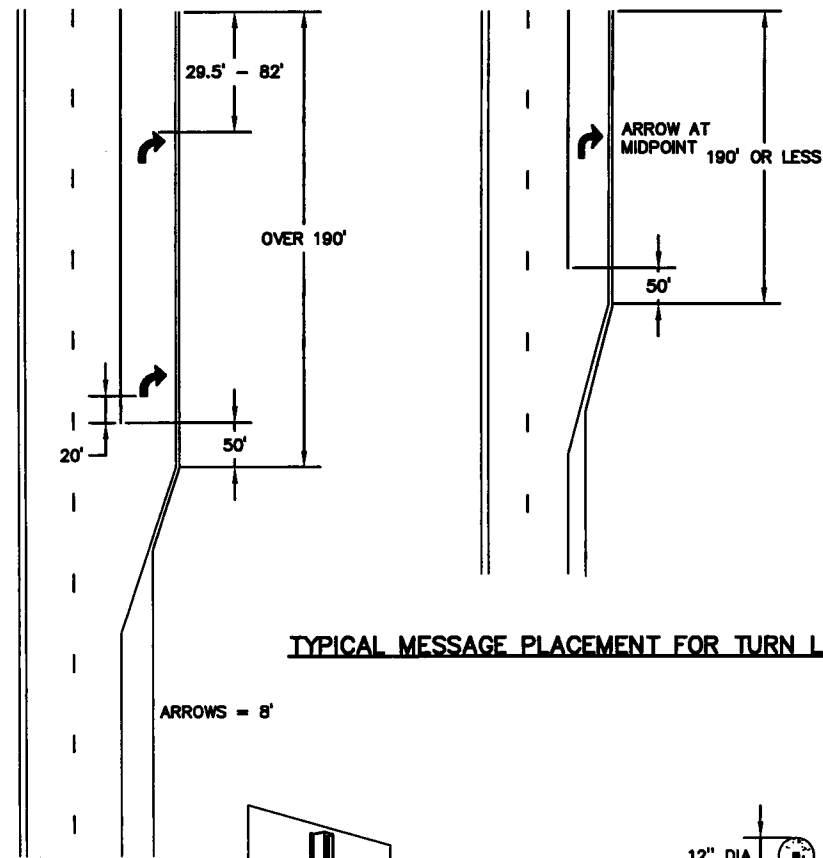
**CITY OF MAPLEWOOD
COUNTY ROAD D**

SIGNING AND STRIPING
WEST COUNTY ROAD D COURT
STATION 0+00 TO STATION 3+92.37

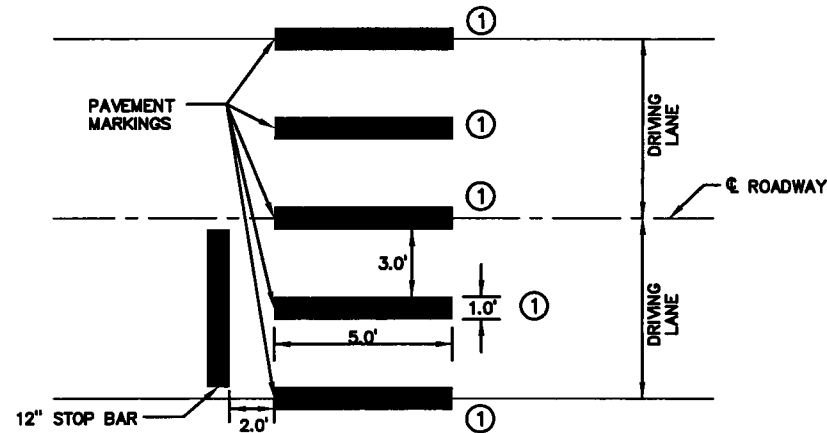
CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.
44
86

PLOT DATE: Jul 30, 2004 10:32am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sh1\008-SP04.dwg

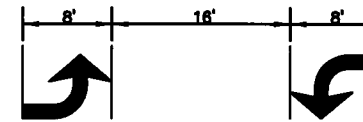


TYPICAL MESSAGE PLACEMENT FOR TURN LANES

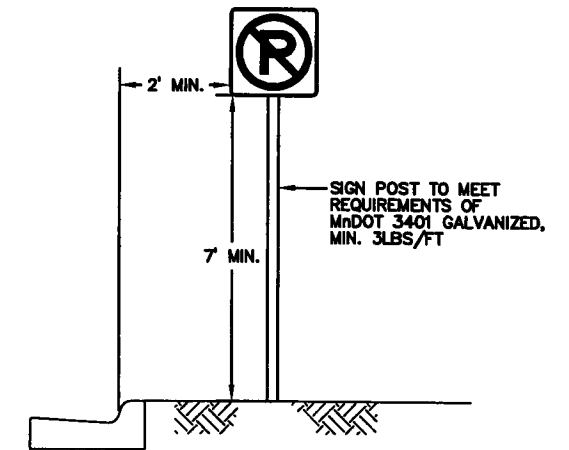


- NOTES:**
 ① POLY PREFORM IN AREAS AS SHOWN.
 ② CONTRACTOR TO PROVIDE A SAMPLE PANEL FOR APPROVAL.

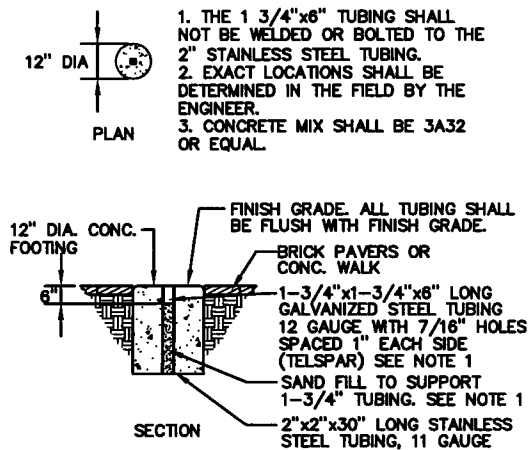
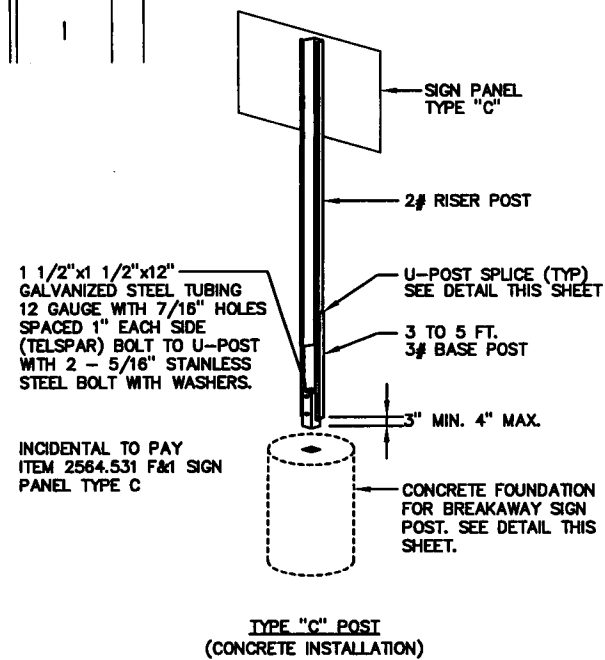
PEDESTRIAN CROSSWALK MARKING



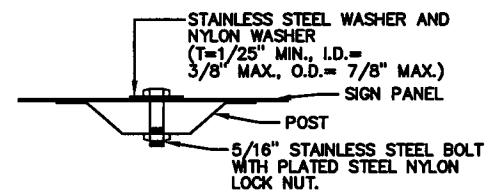
TYPICAL CENTER LEFT TURN ARROWS



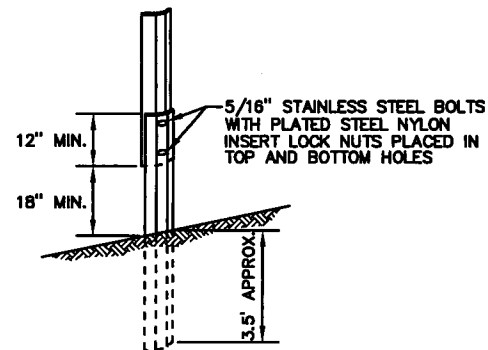
SIGN PANEL LOCATION DETAIL



BREAKAWAY SIGN POST FOUNDATION FOR TYPE "C" SIGNS INSTALLED IN MEDIANS



BREAKAWAY SIGN POST (FOR TYPE "C" SIGNS INSTALLED IN MEDIANS)



- NOTES:**
 1. USE 3# RISER STUB POST WITH 2# RISER POSTS. ALL SHALL CONFORM TO MnDOT SPECIFICATION 3401.
 2. MOUNTING (PUNCHING CODE) FOR TYPE "C" SIGN PANELS SHALL BE AS INDICATED IN THE STANDARD SIGNS MANUAL UNLESS OTHERWISE SPECIFIED.
 3. ALL RISER (VERTICAL) "U" POSTS SHALL BE SPICED. DRIVEN STUB POSTS SHALL BE AT LEAST 7" LONG.
 4. USE STAINLESS STEEL 5/16" BOLTS, WASHERS WITH PLATED STEEL NYLON INSERT LOCK NUTS AS SHOWN.
 5. STAINLESS STEEL WASHER WITH THE SAME DIMENSIONS SHALL BE PROVIDED BETWEEN ALL NYLON WASHERS AND BOLT HEADS.
 6. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".
 7. ALL TRAFFIC CONTROL DEVICES SHALL HAVE RETROREFLECTIVE SHEETING.

"U" POST SPLICE - TYPE "C" POST (GROUND INSTALLATION)

GENERAL INFORMATION

- ALL SIGNING AND STRIPING SHALL BE DONE IN ACCORDANCE WITH THE MINNESOTA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) OR AS DIRECTED BY THE ENGINEER.
- THE ENGINEER'S INVOLVEMENT IN THE APPLICATION OF THE MATERIAL SHALL BE LIMITED TO FIELD CONSULTING AND INSPECTION.
- THE MEDIAN STRIPING SHALL CONSIST OF 12-INCH SOLID YELLOW MARKINGS PLACED AT AN ANGLE OF 45-DEGREES AND SPACED AT 20-FEET ON CENTER, ALL PLACED WITHIN THE 4-INCH SOLID YELLOW MARKING
- EDGE LINES ARE TO BE BROKEN ONLY AT MAJOR INTERSECTIONS WITH PUBLIC ROADS AND AT PRIVATE ENTRANCES ONLY IF THEY ARE CONTROLLED BY A YIELD SIGN, STOP SIGN, OR TRAFFIC SIGNAL. EDGE LINES SHALL NOT BE BROKEN AT DRIVEWAY ENTRANCES TO RESIDENTIAL LOTS. THE BREAK POINT IS TO BE AT THE START OF THE RADIUS FOR THE INTERSECTION OR AT MARKED STOP LINES OR CROSS WALKS.
- LANE LINES ARE TO BE BROKEN ONLY AT MAJOR INTERSECTIONS.
- A TOLERANCE OF 1/4-INCH UNDER OR 1/4-INCH OVER THE SPECIFIED WIDTH WILL BE ALLOWED FOR STRIPING PROVIDED THE VARIATION IS GRADUAL AND DOES NOT DETRACT FROM THE GENERAL APPEARANCE. BROKEN LINE SEGMENTS MAY VARY UP TO ONE-HALF FOOT FROM THE SPECIFIED LENGTHS PROVIDED THE OVER AND UNDER VARIATIONS ARE REASONABLY COMPENSATORY. ALIGNMENT DEVIATIONS FROM THE CONTROL GUIDE SHALL NOT EXCEED 1 INCH.
- DOUBLE YELLOW LINES AND SOLID YELLOW LINES ADJACENT TO DASHED YELLOW OR SOLID YELLOW LINES SHALL HAVE A SEPARATION OF 4-INCHES.

PAINT/EPOXY

- THE ROAD SURFACE SHALL BE CLEANED AT THE DIRECTION OF THE ENGINEER JUST PRIOR TO APPLICATION. PAVEMENT CLEANING SHALL CONSIST OF AT LEAST BRUSHING WITH A ROTARY BROOM (NON METALLIC) OR AS RECOMMENDED BY THE MATERIAL MANUFACTURER AND ACCEPTABLE TO THE ENGINEER.
- THE PAINT/EPOXY MARKINGS APPLICATION SHALL IMMEDIATELY FOLLOW THE PAVEMENT CLEANING.
- PERMANENT PAVEMENT MARKINGS SHALL NOT BE PLACED OVER TEMPORARY MARKINGS.

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
22x34bdr		49392-008	1	DB/ML	1/9/2007	AS-BUILT
DRAWN BY:	DESIGN BY:					
JCD	SAW					
CHKD. BY:	DWG. NAME:					
NCL	SP04					
DATE:						
JULY 30, 2004						



Thresher Square
700 Third Street South
Minneapolis, MN 55416
612.370.0700 Tel
612.370.1378 Fax

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

SIGNING AND STRIPING DETAILS

CITY PROJECT 02-08

COUNTY PROJECT 45

S.A.P. 62-619-025

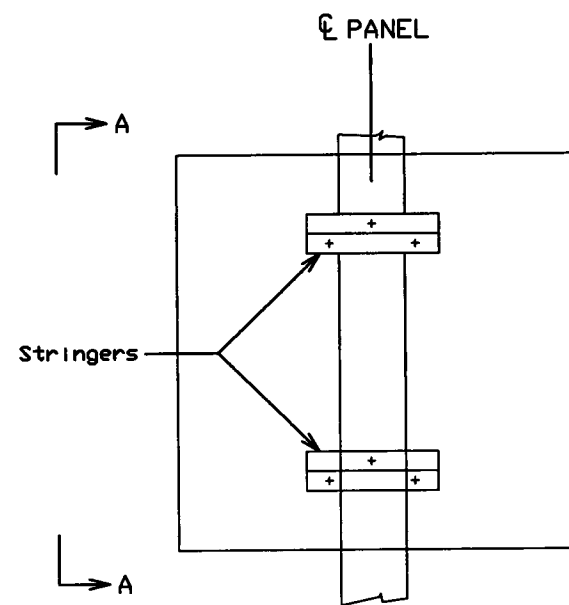
S.A.P. 138-020-29

SHEET NO.

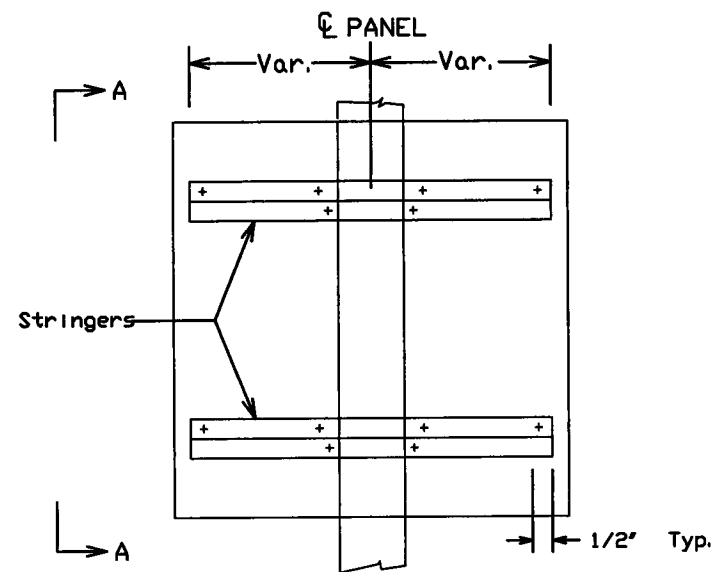
45

86

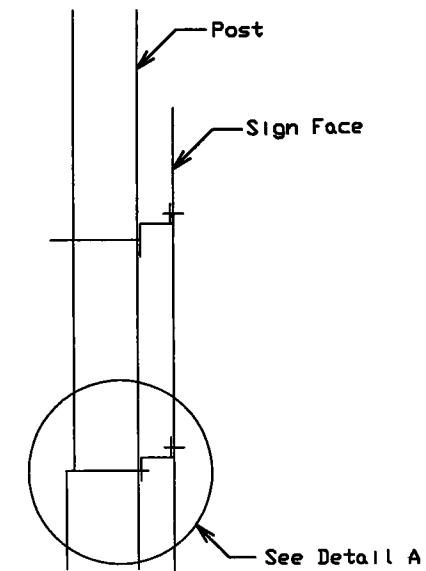
PLOT DATE: Jul 30, 2004 10:32am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pin-sht\008-SP05.dwg



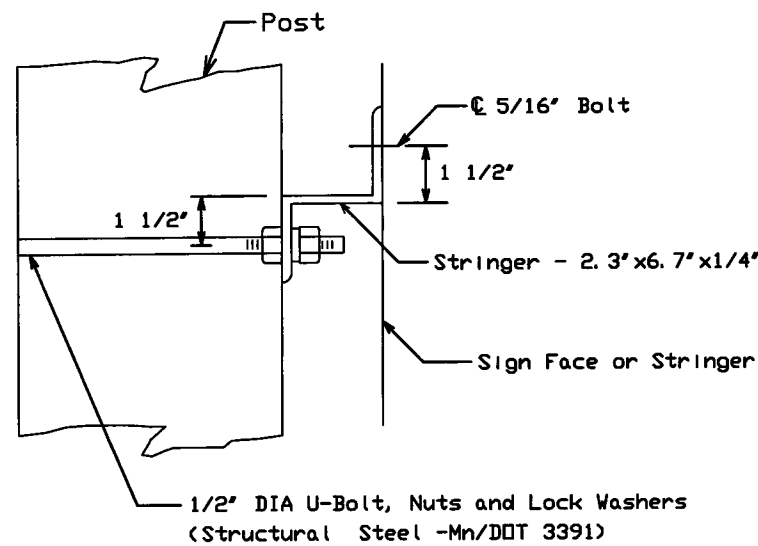
Type 'C' Signs with Single-Post Punching
ELEVATION



Type 'C' Signs with 2-Post Punching
ELEVATION

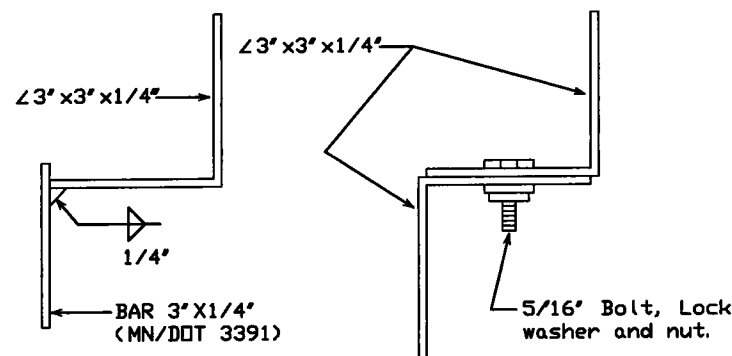


VIEW A-A



DETAIL A

Rev. 3-30-81
Rev. 1-6-94
Rev. 3-13-00



DETAIL A STRINGER ALTERNATES

NOTES:

1. FOR DETAILS AND NOTES NOT SHOWN SEE 'C' & 'D' SIGN DETAILS.
2. FOR BACK TO BACK MOUNTINGS, ROTATE STRINGERS FOR ONE PANEL 180° FROM WHAT IS SHOWN SUCH THAT PANELS CAN BE MOUNTED AT SAME ELEVATION.
3. DETAIL A STRINGER MAY BE ONE OF THE THREE DESIGNS DETAILED OR AN APPROVED EQUAL. STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH MN/DOT 3306 AND GALVANIZED IN ACCORDANCE WITH MN/DOT 3394. FASTENERS SHALL BE IN ACCORDANCE WITH MN/DOT 3391.2B AND SHALL BE GALVANIZED EITHER BY THE HOT-DIP PROCESS IN ACCORDANCE WITH ASTM A153, OR BY THE MECHANICAL PROCESS IN ACCORDANCE WITH ASTM B695, CLASS 50 OR GREATER.

TYPE 'C' SIGNS MOUNTED ON OH SIGN POSTS, O-POSTS, LIGHT STANDARDS OR SIGNAL STANDARDS

(DESIGN J)

28-261

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
22x34bdr		49392-008	1	DB/ML	1/9/2007	AS-BUILT
DRAWN BY:	DESIGN BY:					
JCD	NCL					
CHKD. BY:	DWG. NAME:					
NCL	SP05					
DATE:						
JULY 30, 2004						



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700 Third Street South
Minneapolis, MN 55415
612.370.0700 Tel
612.370.1378 Fax

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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

SIGNING DETAILS

CITY PROJECT 02-08

COUNTY PROJECT

S.A.P. 62-619-025

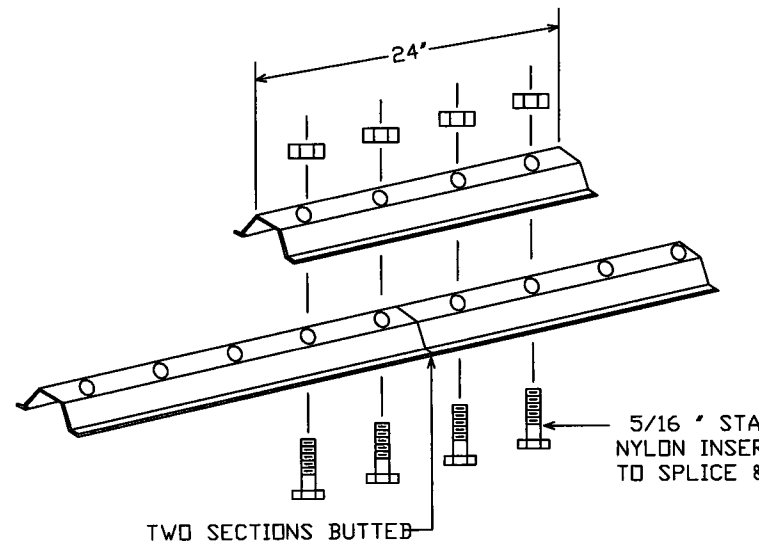
S.A.P. 138-020-29

SHEET NO.

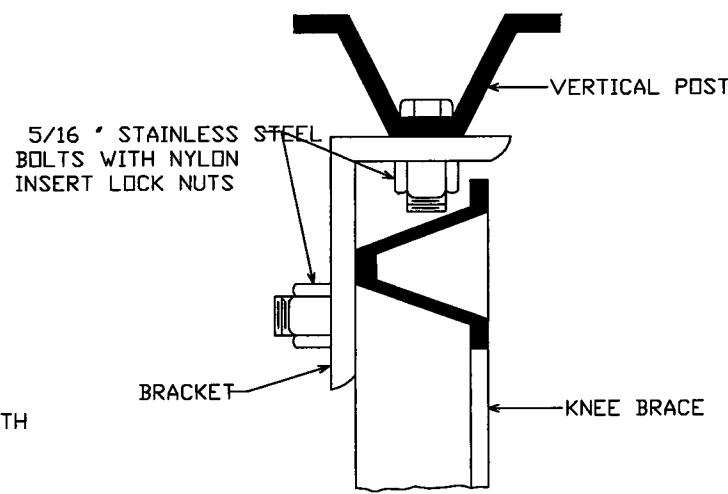
46

86

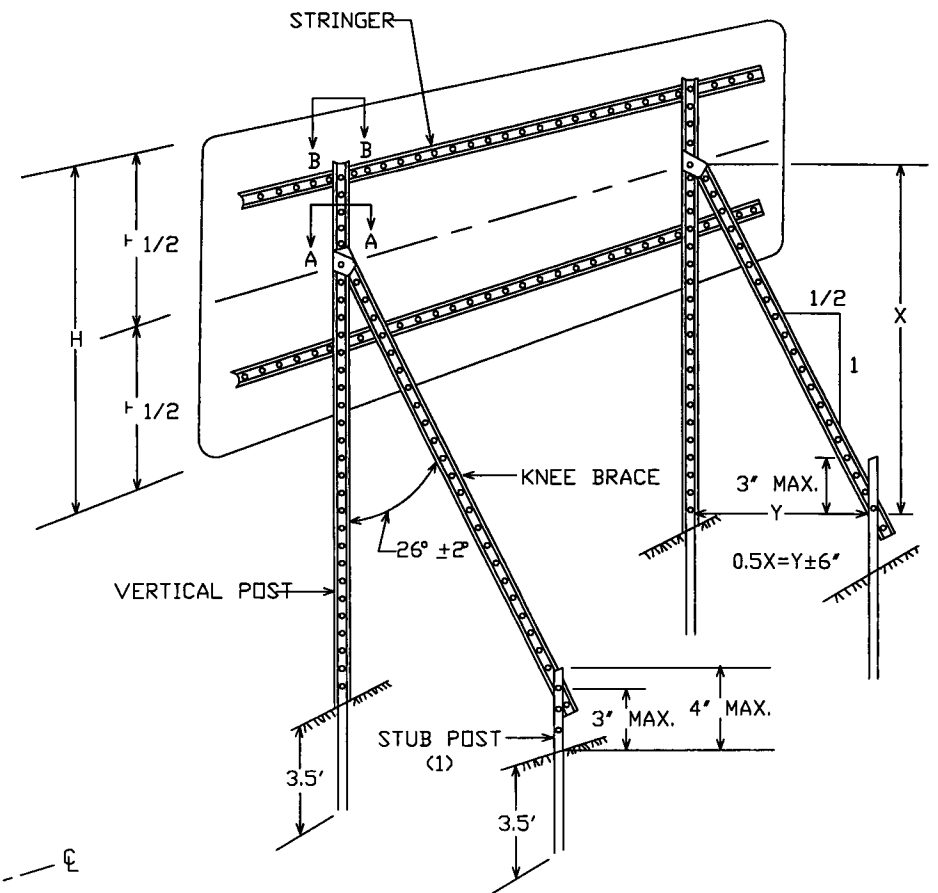
PLOT DATE: Jul 30, 2004 10:32am DISK FILE NAME: (15.06) R:\9392007\PLAN-SHT\008-pln-sh1\008-SPO6.dwg



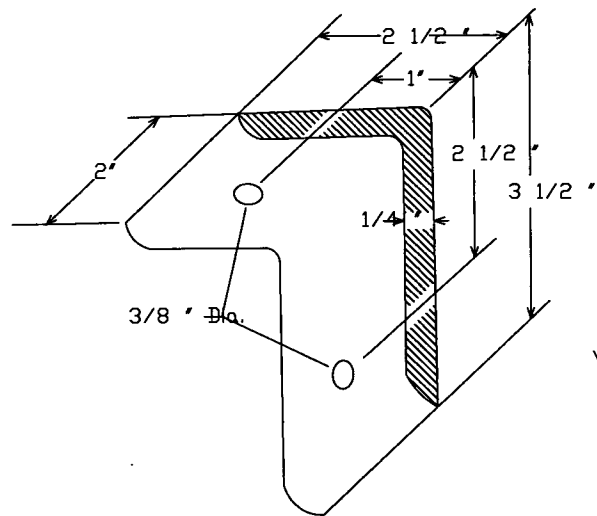
LATERAL BRACE OR STRINGER
SPLICE DETAIL (EXPLODED VIEW)



SECTION A-A

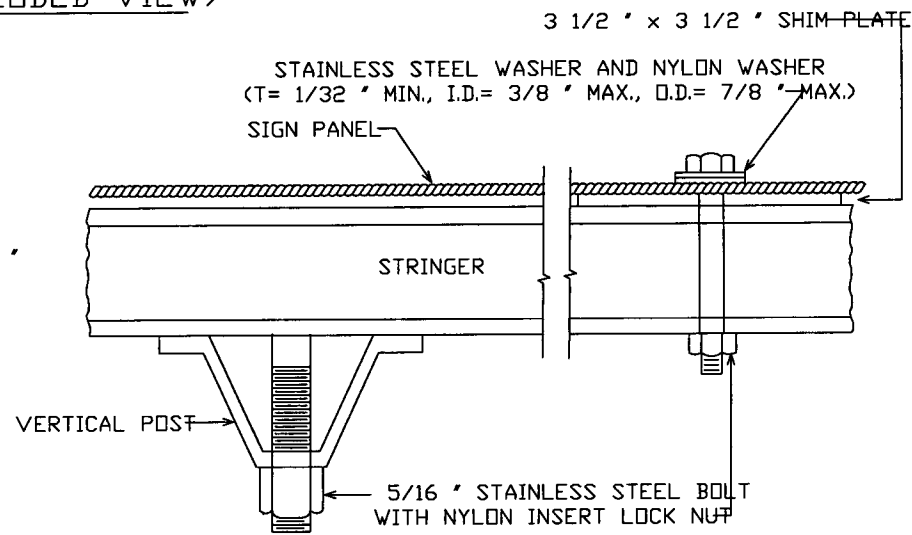


TYPICAL "A-FRAME" INSTALLATION
TYPE "D" SIGNS

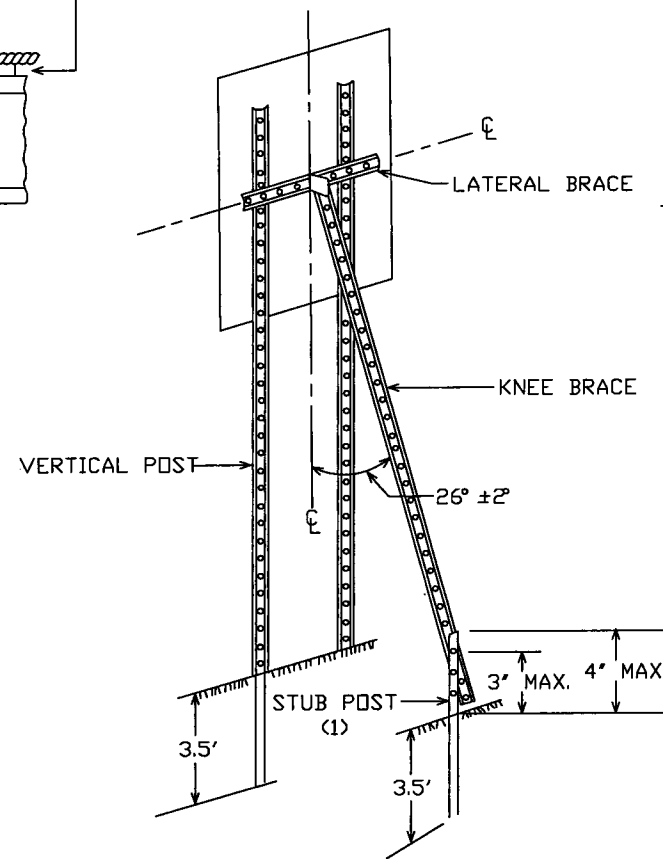


A-FRAME BRACKET

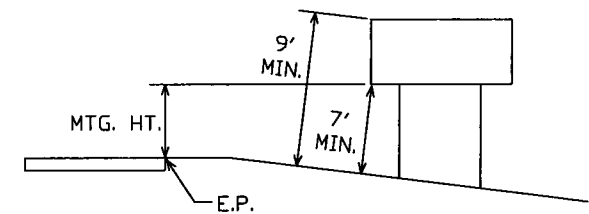
(STEEL MN/DOT 3306 GALVANIZED PER MN/DOT 3394)



SECTION B-B

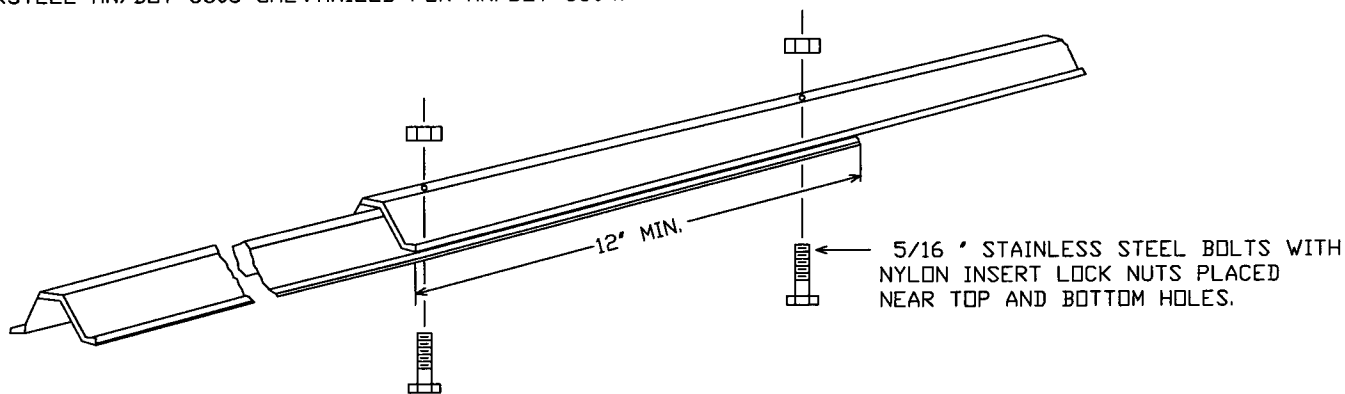


TYPICAL "A-FRAME" INSTALLATION
TYPE "C" SIGNS



TYPICAL MOUNTING

(1) OFFSET STUB POST 1' TOWARD ROADWAY
RELATIVE TO VERTICAL POST.



KNEE BRACE SPLICE

28-261

TYPICAL "A-FRAME" INSTALLATION
TYPE "C & D" SIGN
STRUCTURAL DETAILS

REV. NO.	BY	DATE	REVISIONS DESCRIPTION
1	DB/ML	1/9/2007	AS-BUILT

XREF DRAWINGS		DESIGN FILE:	49392-008
22x34bdr	DRAWN BY:	DESIGN BY:	NCL
	JCD	NCL	
	CHKD. BY:	DWG. NAME:	SPO6
	NCL		
	DATE:		JULY 30, 2004

URS

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700 Third Street South
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612.370.0700 Tel
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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40853

CITY OF MAPLEWOOD
COUNTY ROAD D

SIGNING DETAILS

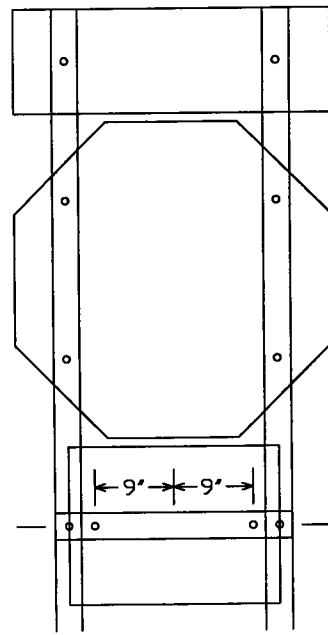
CITY PROJECT	02-08
COUNTY PROJECT	47
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.

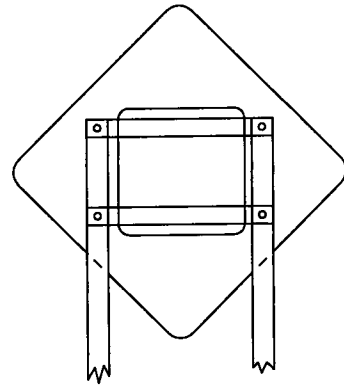
47

86

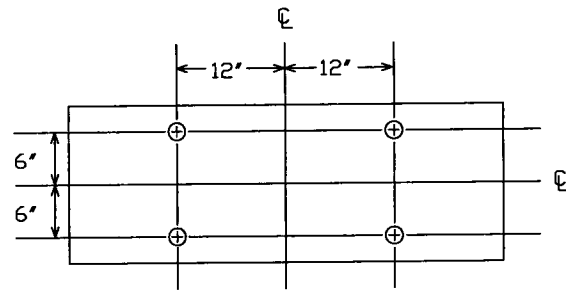
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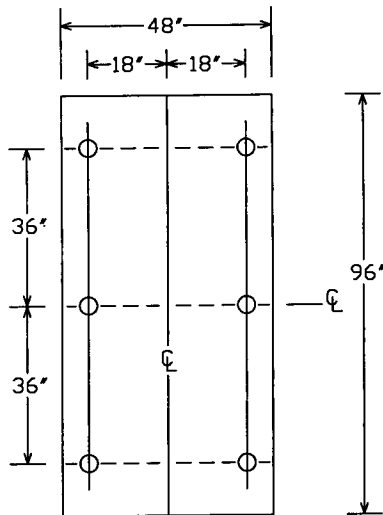
R6-1, R1-1 & (R6-3 OR R6-3a)
MOUNTING



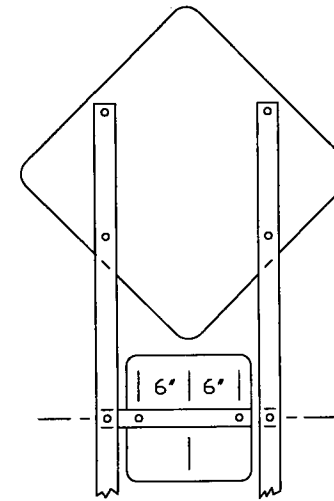
BACK TO BACK MOUNTING
OF R4-7 AND W9-2



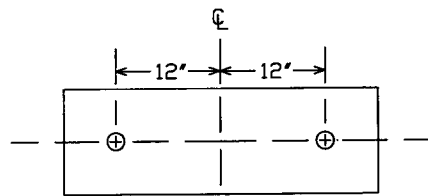
PUNCHING FOR R6-1(48"x18")



PUNCHING FOR R2-4a
SPEED LIMIT



(W1-1, W1-2, W1-3, W1-4 OR W1-5) & W13-1
MOUNTING



PUNCHING FOR R6-1(36"x12")

28-261

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
22x34bdr		49392-008	1	DB/ML	1/9/2007	AS-BUILT
DRAWN BY:	DESIGN BY:					
JCD	NCL					
CHKD. BY:	DWG. NAME:					
NCL	SP07					
DATE:						
JULY 30, 2004						

URS

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Minneapolis, MN 55415
612.370.0700 Tel
612.370.1378 Fax

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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

SIGNING DETAILS

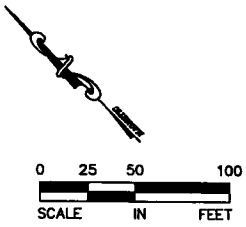
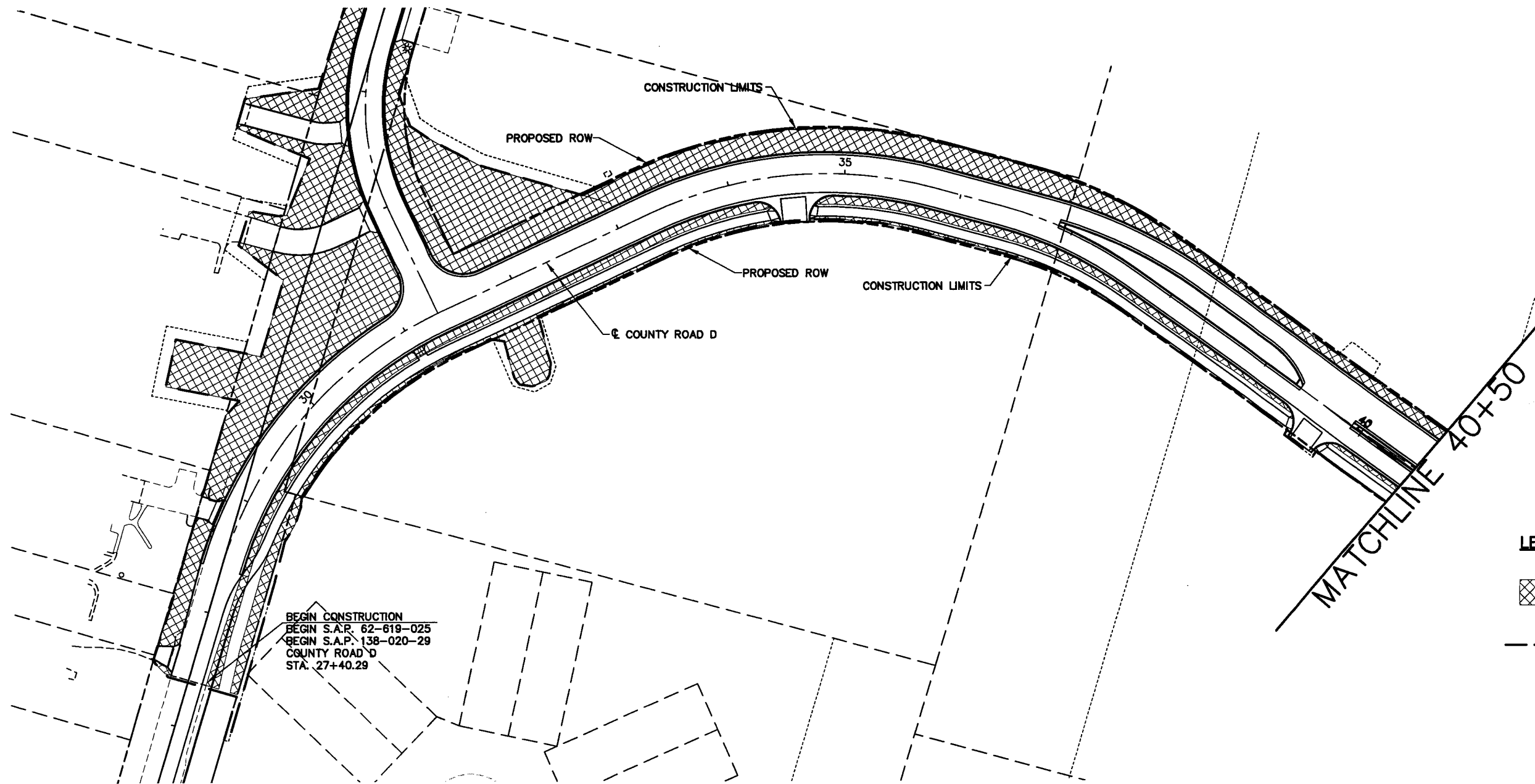
CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.

48

86

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-pin-sht\008-TE01.dwg



LEGEND

- SOD - TYPE SALT RESISTANT
- CONSTRUCTION LIMITS

BEGIN CONSTRUCTION
 BEGIN S.A.P. 62-619-025
 BEGIN S.A.P. 138-020-29
 COUNTY ROAD D
 STA. 27+40.29

28-261

XREF DRAWINGS	DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
007-ETO	49392-008	1	DB/ML	1/9/07	AS-BUILT
008-con-lim					
008-TURF					
008-ESM					
008-PCO					
008-ALI					
007-ESU-CTY-D					
22x34bdr					



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Nick C. Landwer
 NICK C. LANDWER
 DATE: 7/30/2004 MN LIC. NO. 40953

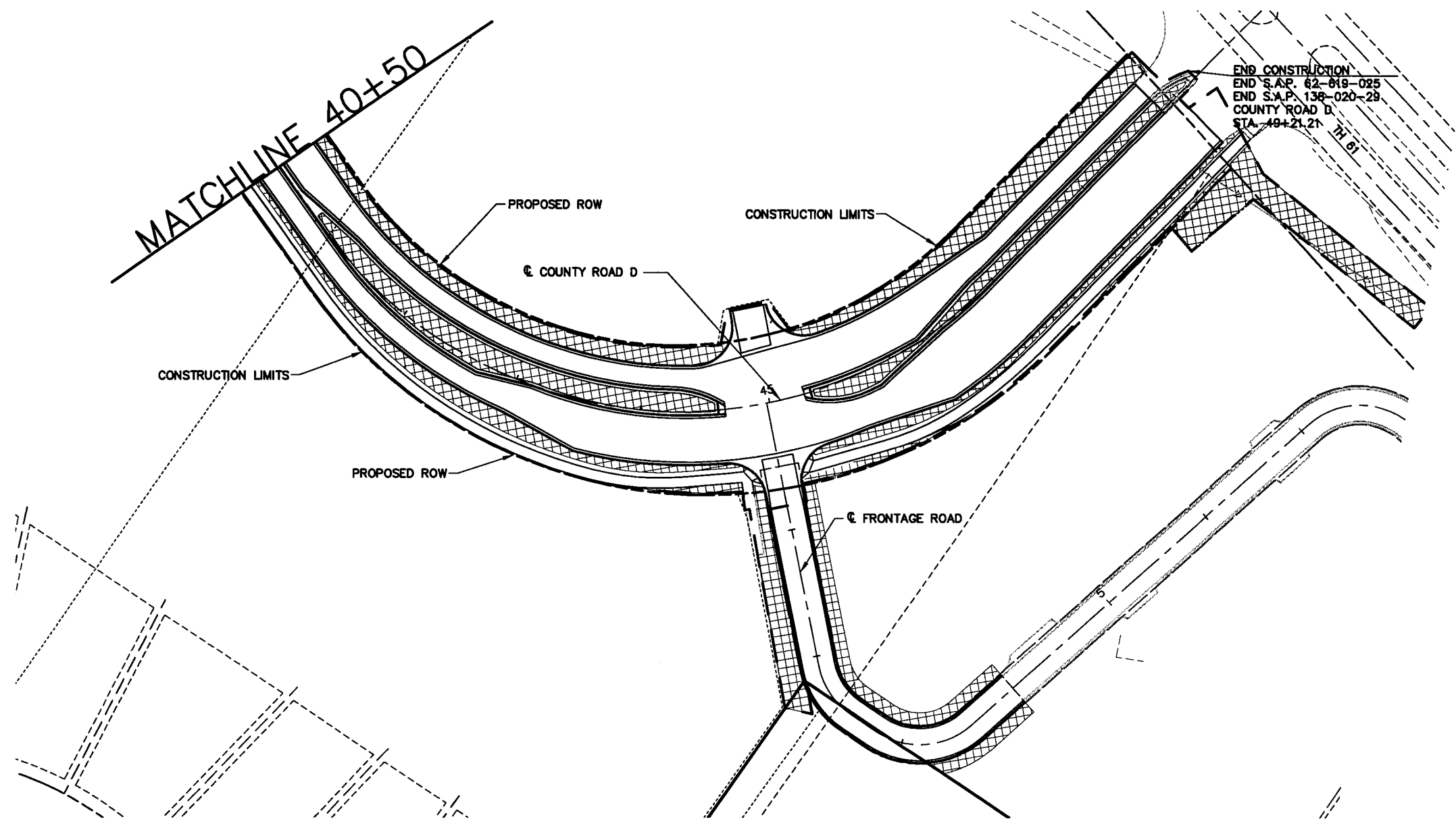
CITY OF MAPLEWOOD
COUNTY ROAD D

RESTORATION PLAN
 COUNTY ROAD D
 STATION 27+40.29 TO STATION 40+50

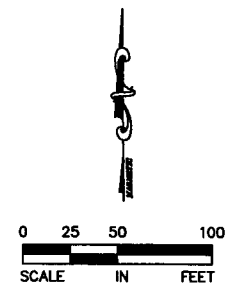
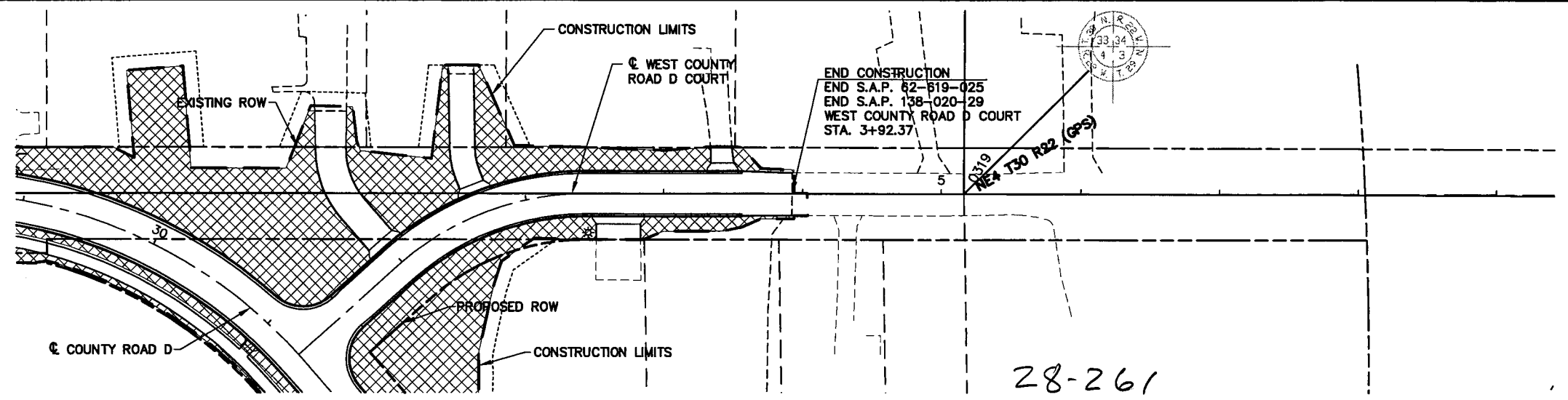
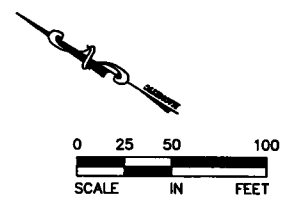
CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.
49

86



- LEGEND**
- SOD - TYPE SALT RESISTANT
 - TEMPORARY SEED
 - CONSTRUCTION LIMITS



PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-pin-sht\008-TE02.dwg

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
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008-con-llm						
008-TURF						
008-ALI						
008-FSM						
008-PCO						
007-aut						
007-ESU-CTY-D						
22x34bdr						



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Nick C. Landwer
 NICK C. LANDWER
 DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

RESTORATION PLAN
 COUNTY ROAD D STA 40+50 TO 49+21.21
 WEST COUNTY ROAD D COURT STA 0+00 TO 3+92.37

CITY PROJECT	02-08	SHEET NO.
COUNTY PROJECT		50
S.A.P.	62-619-025	
S.A.P.	138-020-29	

SHEET NO. 86

EARTHWORK TABULATION

ROADWAY	STATION	EXCAVATION						EMBANKMENT							
		SALVAGE TOPSOIL		COMMON EXCAVATION		SUBGRADE EXCAVATION		SELECT GRADING		AGGREGATE BASE		SELECT GRANULAR		TOPSOIL	
		AREA (SQ FT)	VOL (CU YD)	AREA (SQ FT)	VOL (CU YD)	AREA (SQ FT)	VOL (CU YD)	AREA (SQ FT)	VOL (CU YD)	AREA (SQ FT)	VOL (CU YD)	AREA (SQ FT)	VOL (CU YD)	AREA (SQ FT)	VOL (CU YD)
COUNTY ROAD D	27+40.29			0.00		0.00		0.00							
	27+55.28			50.81	14.1	46.11	12.8	0.00	0.0						0.0
	28+00.00			40.24	75.4	49.25	79.0	11.55	9.6						0.0
	28+50.00			39.16	73.5	53.30	95.0	45.16	52.5						0.0
	28+81.15			39.83	45.6	54.47	62.2	30.96	43.9						0.0
	29+00.00			20.66	21.1	52.33	37.3	111.96	49.9						0.0
	29+50.00			19.62	37.3	24.40	71.0	46.49	146.7						0.0
	30+00.00			40.65	55.8	39.83	59.5	80.20	117.3						0.0
	30+50.00			21.00	57.1	54.54	87.4	139.50	203.4						0.0
	31+00.00			21.00	38.9	54.54	101.0	467.38	561.9						0.0
	31+31.36			21.00	24.4	54.54	63.3	5.12	274.4						0.0
	31+50.00			21.00	14.5	54.54	37.7	5.12	3.5						0.0
	32+00.00			21.00	38.9	54.54	101.0	5.12	9.5						0.0
	32+50.00			21.00	38.9	54.54	101.0	5.12	9.5						0.0
	33+00.00			21.00	38.9	54.54	101.0	5.12	9.5						0.0
	33+50.00			21.00	38.9	54.54	101.0	5.12	9.5						0.0
	34+00.00			21.00	38.9	54.54	101.0	5.12	9.5						0.0
	34+50.00			21.00	38.9	54.54	101.0	5.12	9.5						0.0
	35+00.00			21.00	38.9	54.54	101.0	5.12	9.5						0.0
	35+34.34			21.00	26.7	54.54	69.4	10.63	10.0						0.0
	35+50.00			21.00	12.2	54.54	31.6	5.12	4.6						0.0
	36+00.00			21.00	38.9	54.54	101.0	5.12	9.5						0.0
	36+50.00			21.00	38.9	54.54	101.0	5.12	9.5						0.0
	37+00.00			23.50	41.2	62.11	108.0	11.64	15.5						0.0
	37+50.00			27.00	46.8	71.57	123.8	14.44	24.1						0.0
	38+00.00			29.00	51.9	75.33	136.0	8.60	21.3						0.0
	38+50.00			29.00	53.7	75.82	140.0	8.43	15.8						0.0
	39+00.00			29.00	53.7	75.82	140.4	24.97	30.9						0.0
	39+63.30			35.00	75.0	54.54	152.8	17.14	49.4						0.0
	40+00.00			29.00	43.5	76.86	89.3	5.12	15.1						0.0
	40+50.00			29.00	53.7	76.68	142.2	5.12	9.5						0.0
	41+00.00			29.00	53.7	78.80	144.0	5.12	9.5						0.0
	41+50.00			30.00	54.6	79.46	146.5	27.39	30.1						0.0
	42+00.00			32.00	57.4	82.10	149.6	29.92	53.1						0.0
	42+50.00			33.00	60.2	87.00	156.6	32.77	58.0						0.0
	43+00.00			34.00	62.0	89.65	163.6	27.96	56.2						0.0
	43+50.00			40.00	68.5	104.46	179.7	27.89	51.7						0.0
	44+00.00			41.00	75.0	107.09	195.9	29.17	52.8						0.0
	44+50.00			41.50	76.4	109.05	200.1	22.98	48.3						0.0
	44+97.76			44.50	76.1	117.50	200.4	5.05	24.8						0.0
	45+50.00			44.50	86.1	118.07	227.9	23.33	27.5						0.0
	46+00.00			46.00	83.8	122.79	223.0	20.46	40.5						0.0
	46+50.00			48.50	87.5	128.38	232.6	5.12	23.7						0.0
	47+00.00			45.00	86.6	119.14	229.2	20.06	23.3						0.0
	47+50.00			43.50	81.9	114.90	216.7	19.92	37.0						0.0
	48+00.00			43.50	80.6	114.27	212.2	21.58	38.4						0.0
	48+50.00			43.50	80.6	114.27	211.6	19.93	38.4						0.0
	49+00.00			44.50	81.5	117.41	214.5	17.99	35.1						0.0
	49+40.00			64.00	80.4	168.23	211.6	3.05	15.6						0.0
	49+50.00			0.00	11.9	0.00	31.2	0.00	0.6						0.0
SUBTOTAL-County Road D			0.0		2610.7		6295.3		2409.5		3254		4546		917
WEST COUNTY ROAD D COURT	00+18.00			0.00		0.00		730.96							
	00+50.00			0.00	0.0	0.00	0.0	1594.09	1377.8						0.0
	00+98.35			0.00	0.0	0.00	0.0	655.37	2014.1						0.0
	01+50.00			0.00	0.0	1.76	1.7	126.15	747.5						0.0
	01+67.67			0.00	0.0	17.62	6.3	34.42	52.5						0.0
	02+00.00			0.00	0.0	32.51	30.0	56.64	54.5						0.0
	02+50.00			2.86	2.6	49.02	75.5	24.81	75.4						0.0
	02+67.05			9.01	3.7	49.18	31.0	26.44	16.2						0.0
	03+00.00			15.84	15.2	49.18	60.0	28.06	33.3						0.0
	03+42.58			27.13	33.9	49.19	77.6	20.94	38.6						0.0
	03+56.58			25.17	13.6	49.19	25.5	20.36	10.7						0.0
	03+70.00			22.43	11.8	45.28	23.5	0.00	5.1						0.0
	03+92.37			0.00	9.3	0.00	18.8	0.00	0.0						0.0
SUBTOTAL-West County Road D Court			672.0		90.1		349.9		4425.7		416		520		93
PROJECT TOTALS			672		2701		6645		6835		3670		5066		1010

28-261

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-pin-sht\008-pin-sht\008-TAB-09.dwg

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2x34b-dr	DRAWN BY: JCD				1 MKK 1/9/07 AS-BUILT
	CHECKED BY: NCL				
	DATE: JULY 30, 2004				



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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D
EARTHWORK TABULATION

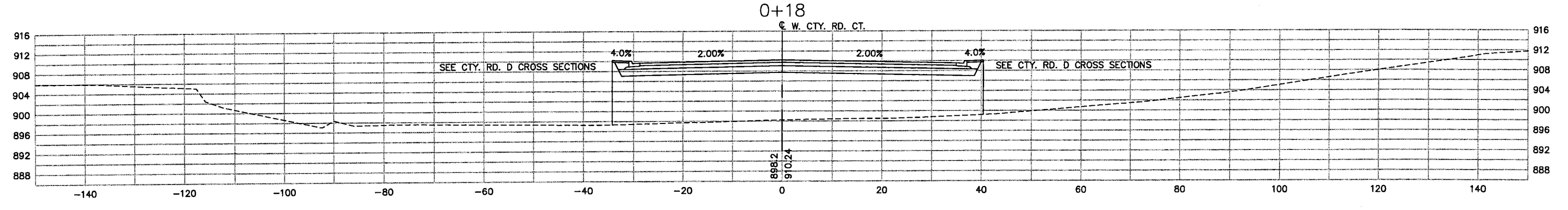
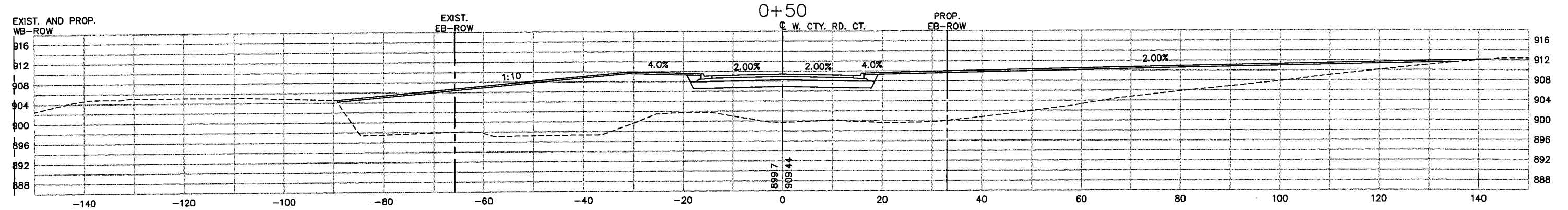
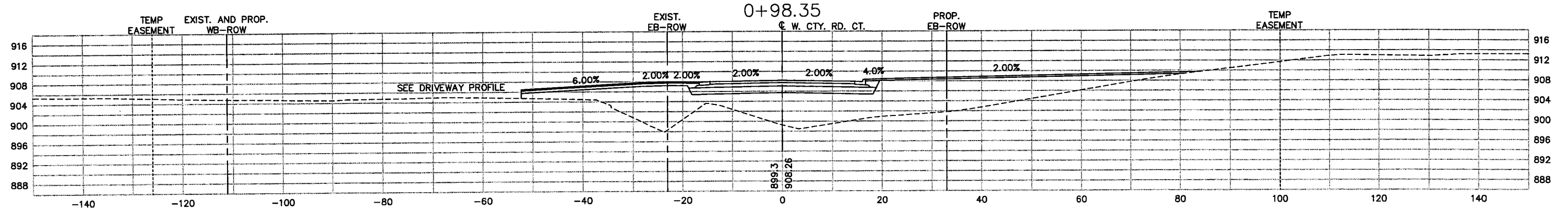
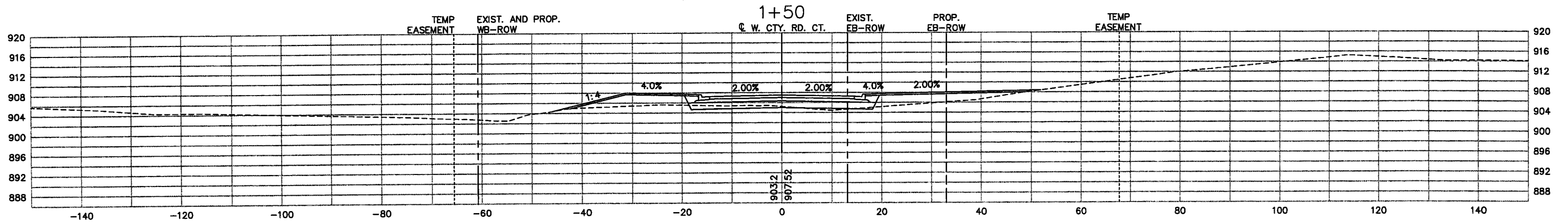
CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.

51

86

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-pln-sht\sections\008-CS01.dwg



28-261

REV. NO.	BY	DATE	REVISIONS DESCRIPTION
1	DB/ML	1/8/07	AS-BUILT

DESIGN FILE: 49392-008	DRAWN BY: PMJ	DESIGN BY: NCL
CHKD. BY: NCL	DWG. NAME: CS01	DATE: JULY 30, 2004



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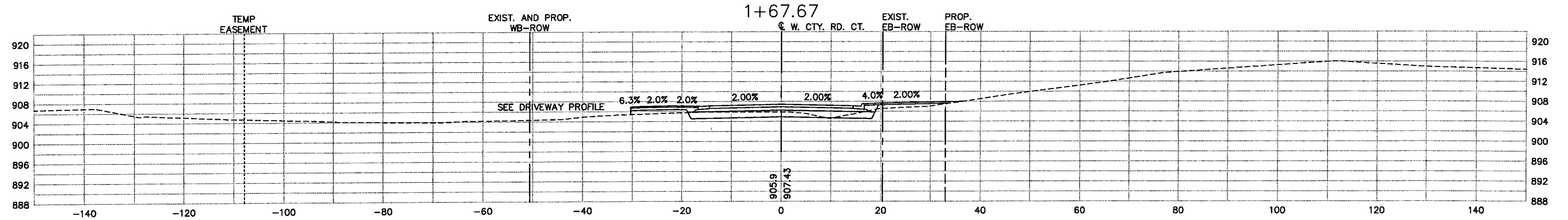
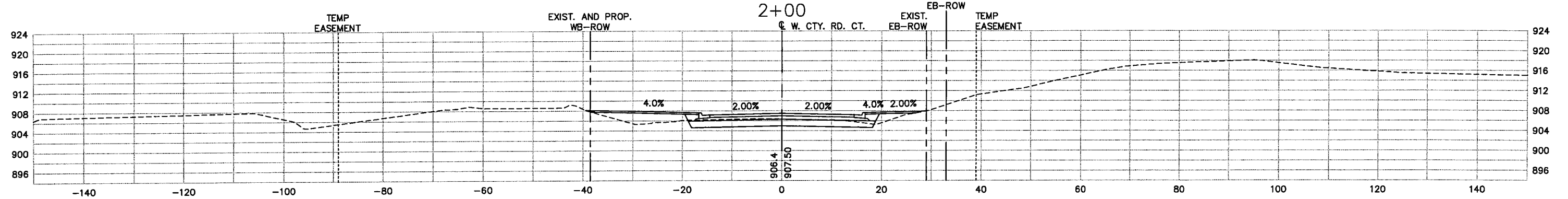
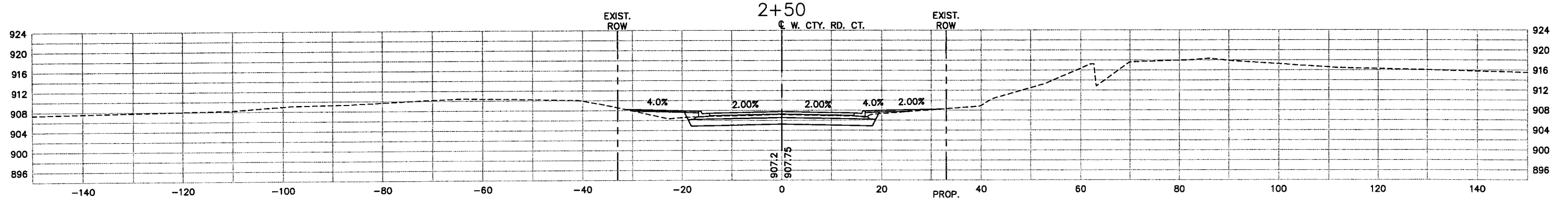
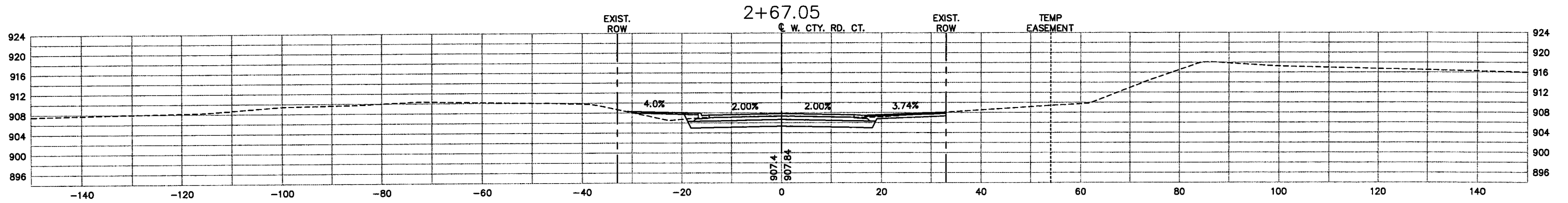
Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D
WEST COUNTY ROAD D COURT
CROSS-SECTIONS
STATION 0+18 TO STATION 1+50

CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.
52
86

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-pln-sht\sections\008-CS02.dwg



28-261

REV. NO.	BY	DATE	REVISIONS DESCRIPTION
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DESIGN FILE: 49392-008	DRAWN BY: PMJ	DESIGN BY: NCL	DATE: JULY 30, 2004
CHKD. BY: NCL	DWG. NAME: CS02		



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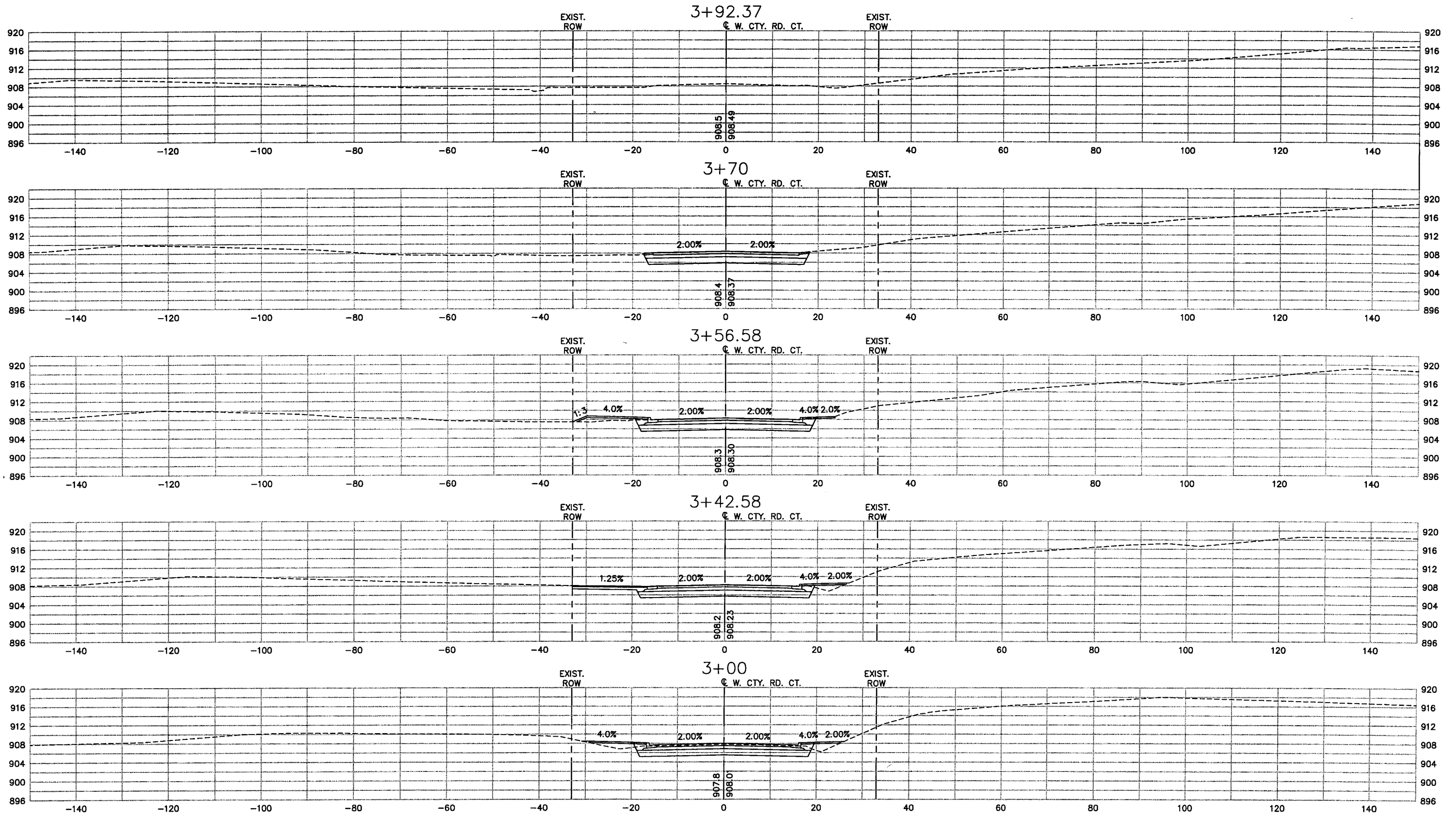
Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D
WEST COUNTY ROAD D COURT
CROSS-SECTIONS
STATION 1+67.67 TO STATION 2+67.05

CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.
53
86

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-shit\008-pin-shit\sections\008-CS03.dwg



28-261

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
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DRAWN BY:	DESIGN BY:					
PMJ	NCL					
CHKD. BY:	DWG. NAME:					
NCL	CS03					
DATE:						
JULY 30, 2004						



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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

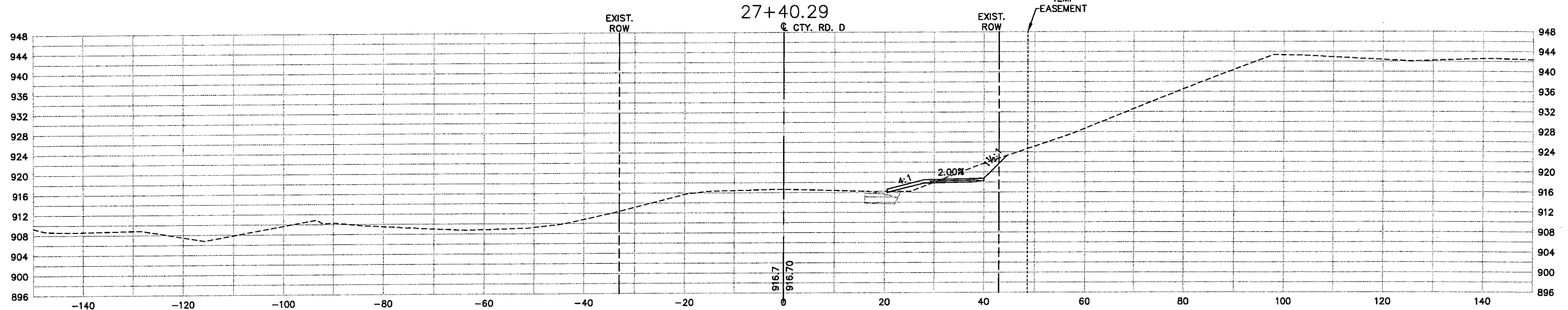
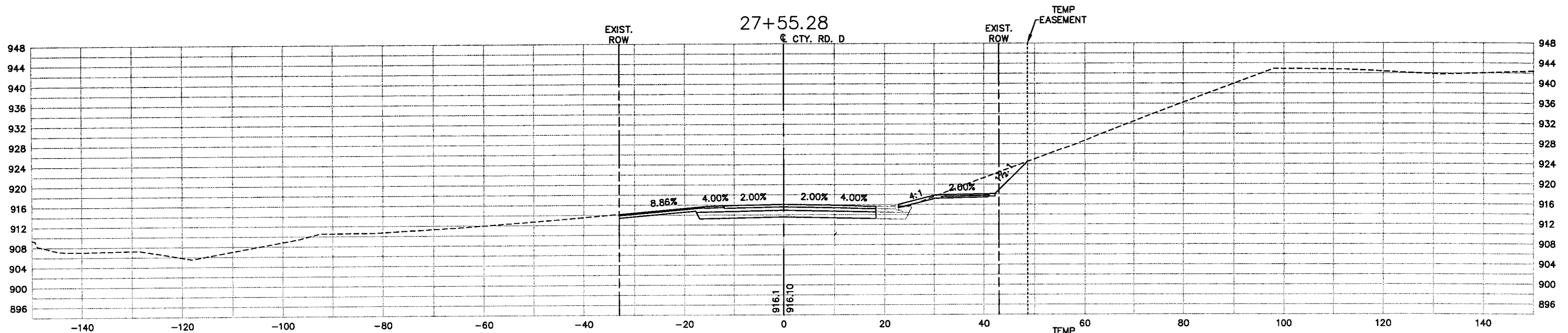
CITY OF MAPLEWOOD
COUNTY ROAD D

WEST COUNTY ROAD D COURT
CROSS-SECTIONS
STATION 3+00 TO STATION 3+92.37

CITY PROJECT	02-08	SHEET NO.
COUNTY PROJECT		54
S.A.P.	62-619-025	
S.A.P.	138-020-29	

86

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-pln-sht\sections\008-CS10.dwg



28-261

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
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DRAWN BY:	DESIGN BY:					
PMJ	NCL					
CHKD. BY:	DWG. NAME:					
NCL	CS10					
DATE:						
JULY 30, 2004						



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NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

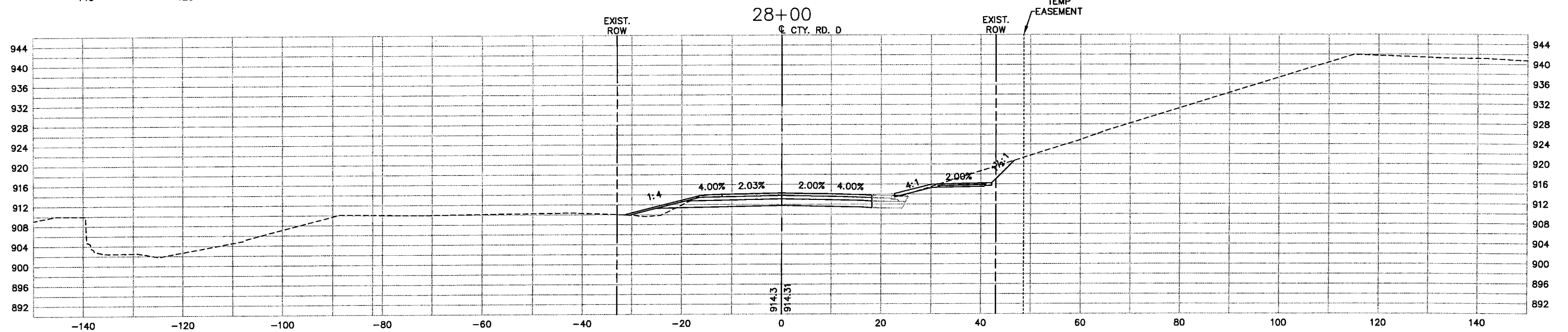
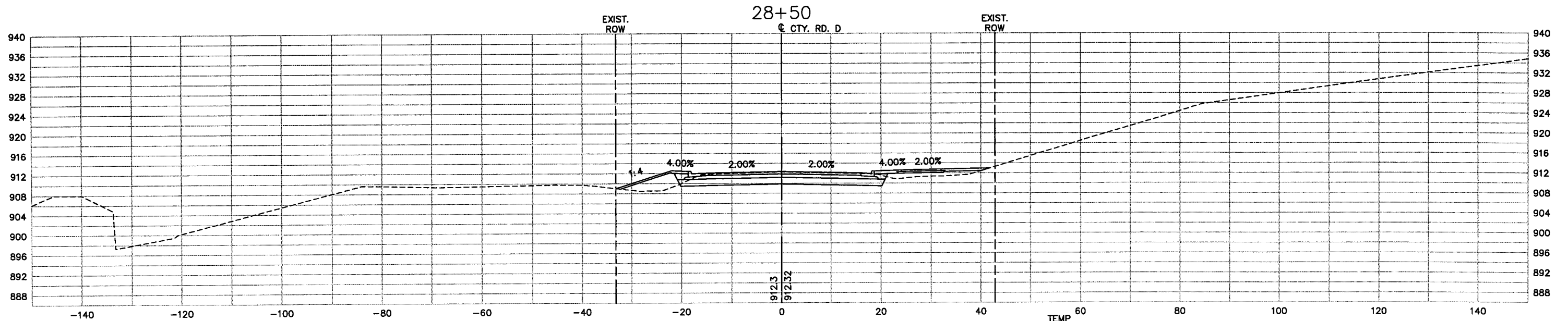
CITY OF MAPLEWOOD
COUNTY ROAD D

COUNTY ROAD D
CROSS-SECTIONS
STATION 27+40.29 TO STATION 27+55.28

CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.
55
86

PLOT DATE: Sep 02, 2004 10:48am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\sections\008-CS11.dwg



28-261

REV. NO.	BY	DATE	REVISIONS DESCRIPTION
1	DB/ML	1/9/07	AS-BUILT

XREF DRAWINGS		DESIGN FILE: 49392-008
CS-CITY-RD-D-W	22x34bdr	
DRAWN BY: PMJ	DESIGN BY: NCL	
CHKD. BY: NCL	DWG. NAME: CS11	
DATE: JULY 30, 2004		



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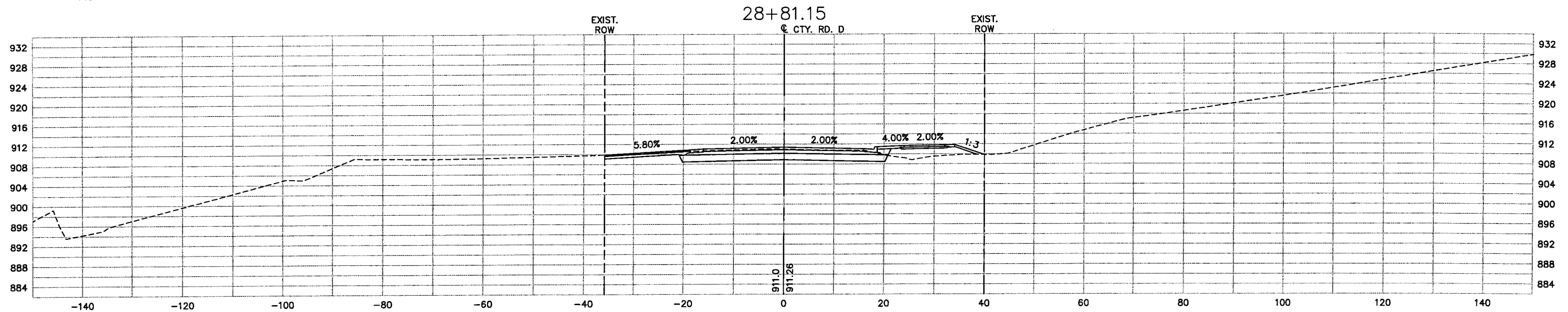
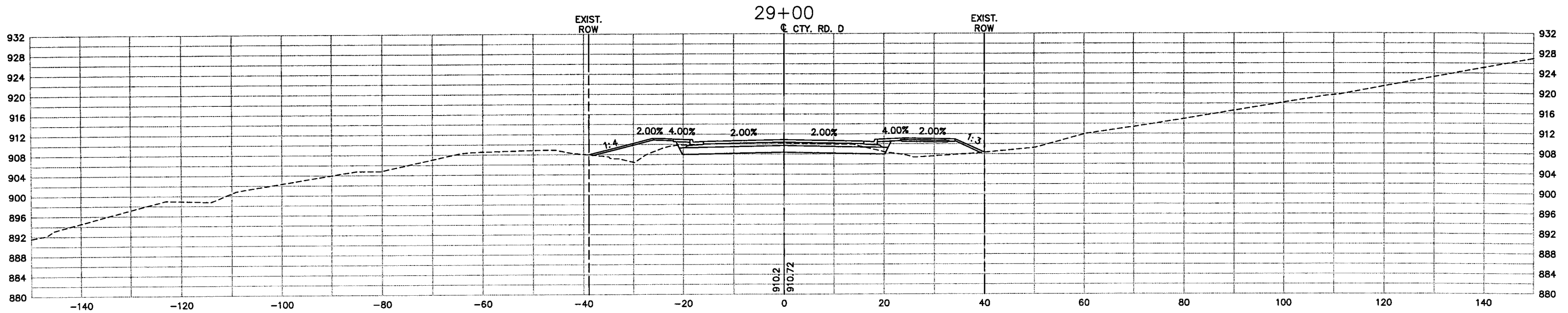
Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D
COUNTY ROAD D
CROSS-SECTIONS
STATION 28+00 TO STATION 28+50

CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.
56
86

PLOT DATE: Sep 02, 2004 10:48am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\sections\008-CS12.dwg



28-261

REV. NO.	BY	DATE	REVISIONS DESCRIPTION
1	DB/ML	7/9/07	AS-BUILT

DESIGN FILE: 49392-008	DRAWN BY: PMJ	DESIGN BY: NCL
CHKD. BY: NCL	DWG. NAME: CS12	DATE: JULY 30, 2004



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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

COUNTY ROAD D
CROSS-SECTIONS
STATION 28+81.15 TO STATION 29+00

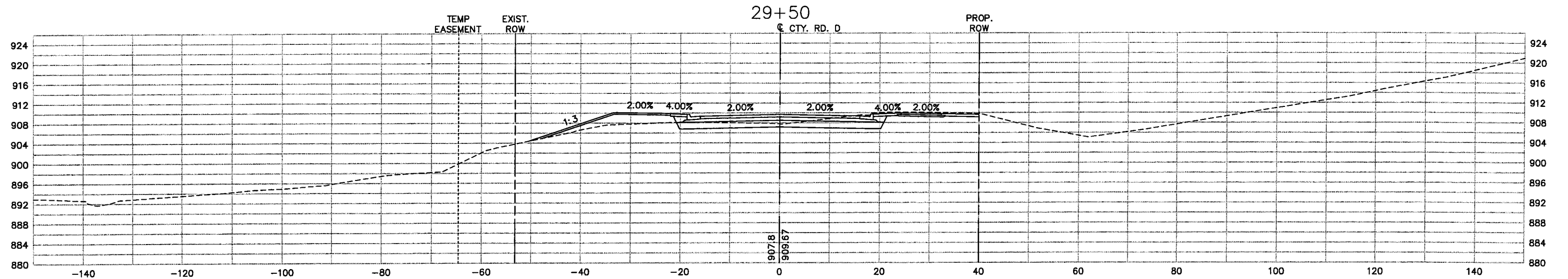
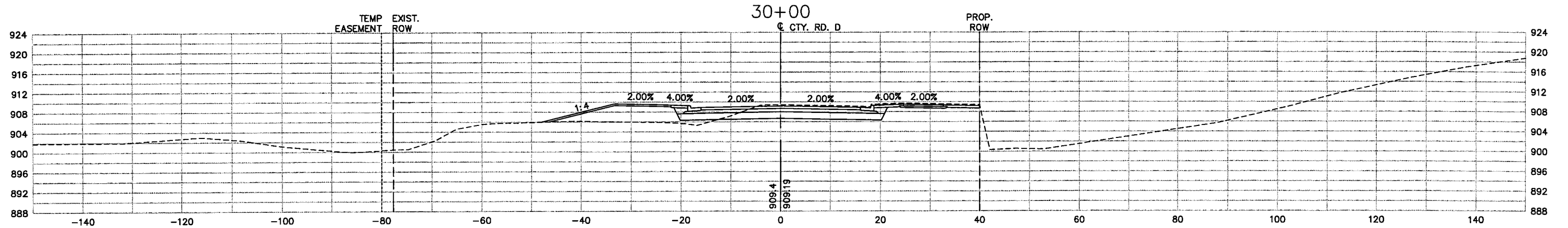
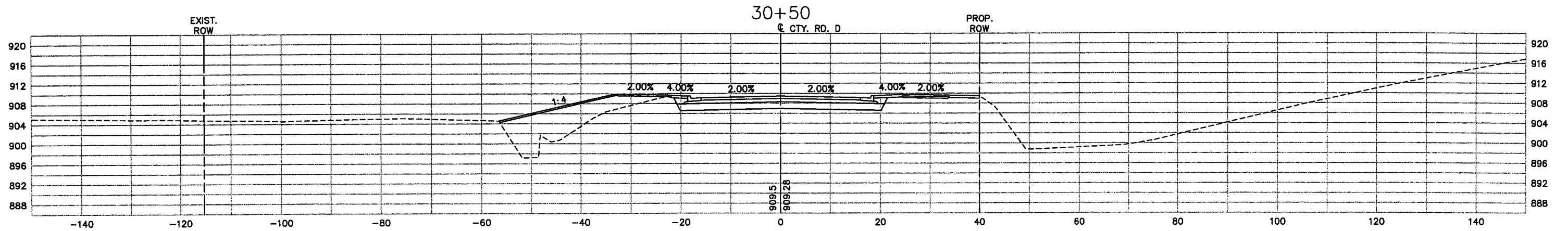
CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.

57

86

PLOT DATE: Sep 02, 2004 10:48am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\sections\008-CS13.dwg



28-261

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
NickLandwerSig CS-CITY-RD-D-W 2x34bdr		49392-008	1	DB/ML	1/9/07	AS-BUILT
DRAWN BY:	DESIGN BY:					
PMJ	NCL					
CHKD. BY:	DWG. NAME:					
NCL	CS13					
DATE:						
JULY 30, 2004						



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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40853

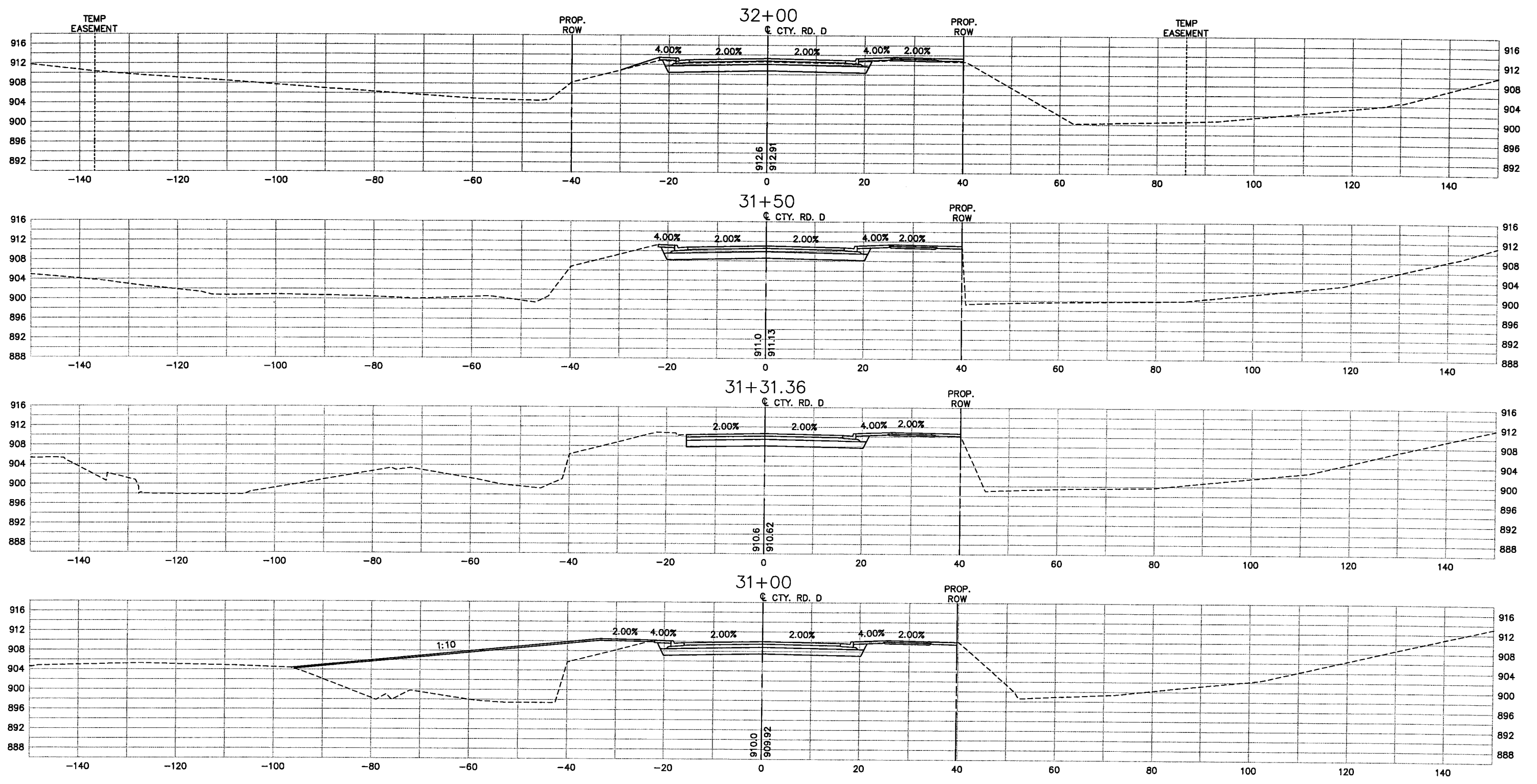
CITY OF MAPLEWOOD
COUNTY ROAD D

COUNTY ROAD D
CROSS-SECTIONS
STATION 29+50 TO STATION 30+50

CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.
58
86

PLOT DATE: Sep 02, 2004 10:49am DISK FILE NAME: (15.06) R:\49392007\PLAN-SH\008-pln-ant\sections\008-CS14.dwg



28-261

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
NickLandwerSig CS-CITY-RD-D-W 2x34bdr		49392-008	1	DB/ML	1/9/07	AS-BUILT
DRAWN BY:	DESIGN BY:					
PMJ	NCL					
CHKED. BY:	DWG. NAME:					
NCL	CS14					
DATE:						
JULY 30, 2004						



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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

COUNTY ROAD D
CROSS-SECTIONS
STATION 31+00 TO STATION 32+00

CITY PROJECT 02-08 SHEET NO.

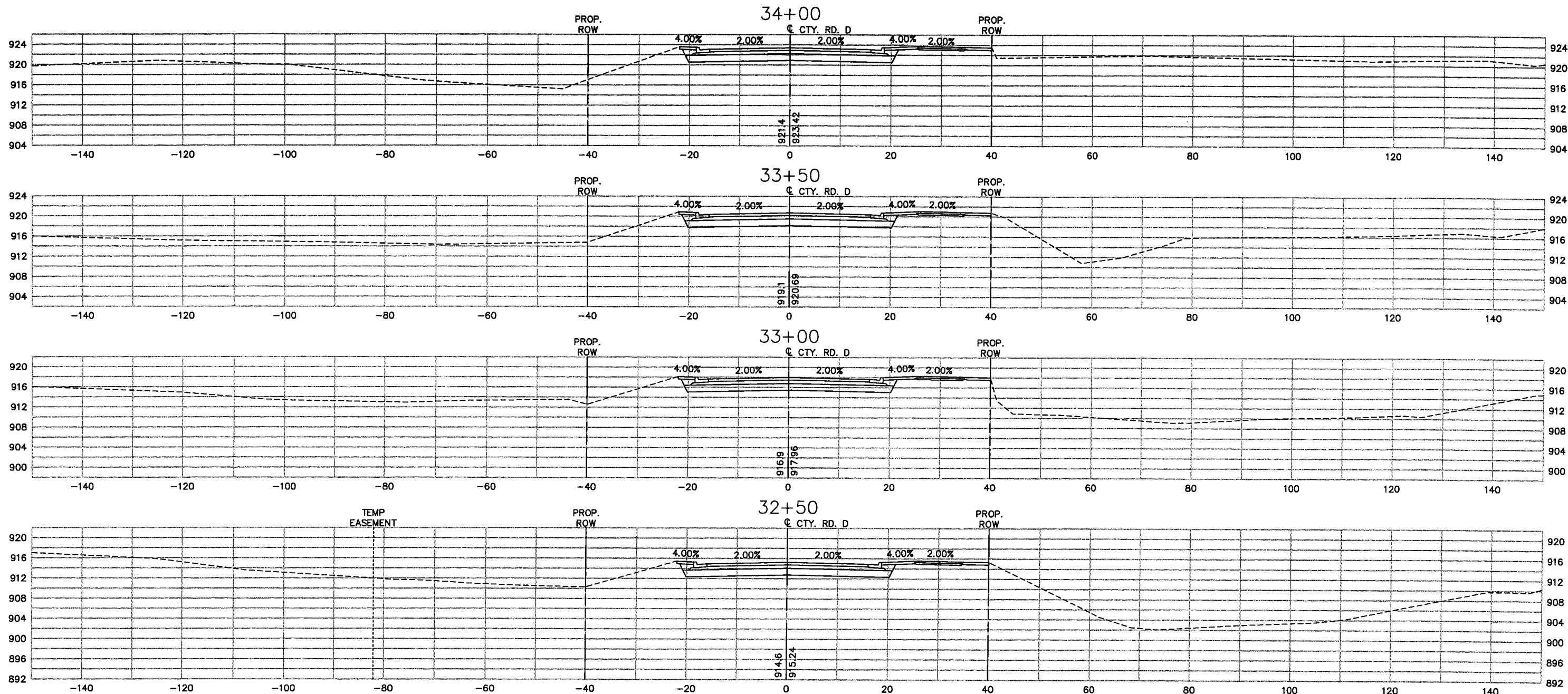
COUNTY PROJECT 59

S.A.P. 62-619-025

S.A.P. 138-020-29

86

PLOT DATE: Sep 02, 2004 10:49am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\sections\008-CS15.dwg



28-261

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
NickLandwerSig CS-CTY-RD-D-W 2x34bdr		49392-008	1	DB/ML	1/9/07	AS-BUILT
DRAWN BY:	DESIGN BY:					
PMJ	NCL					
CHKD. BY:	DWG. NAME:					
NCL	CS15					
DATE:						
JULY 30, 2004						



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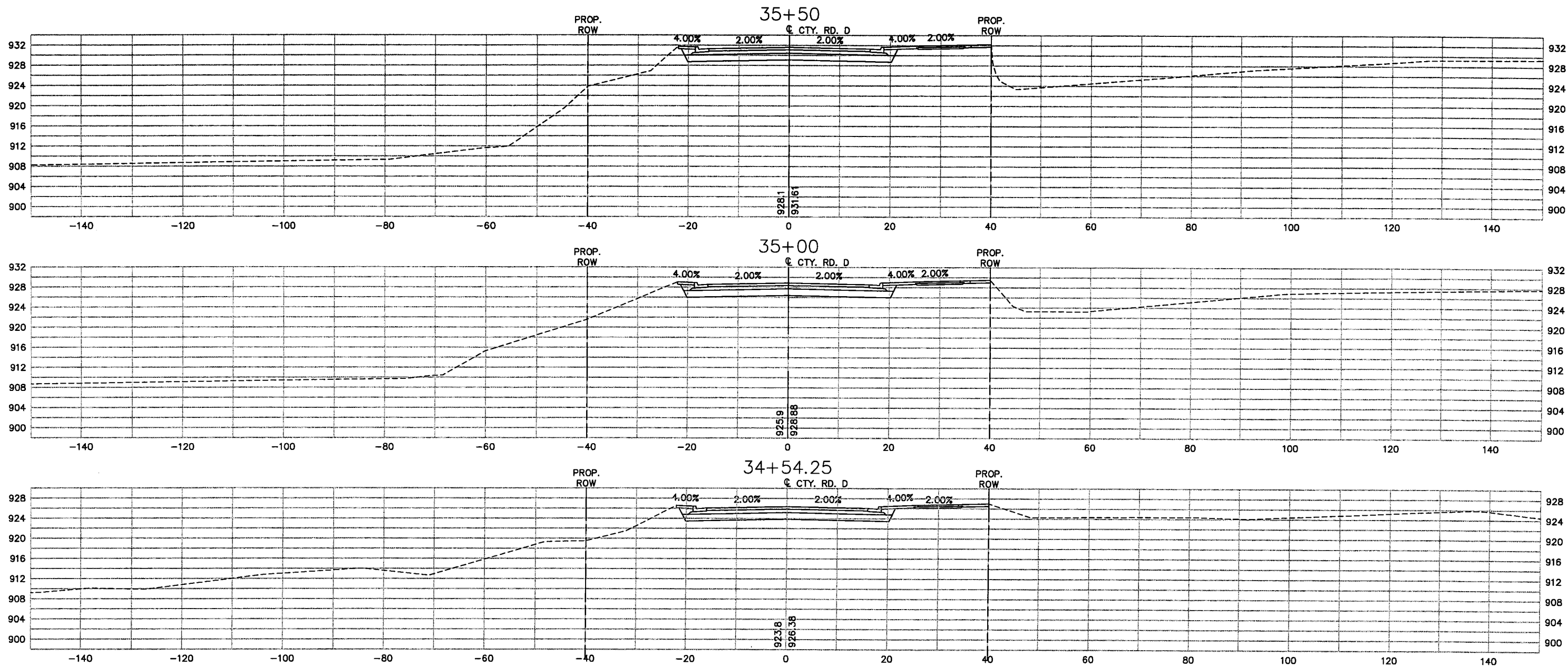
Nick C. Landwer
 NICK C. LANDWER
 DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
 COUNTY ROAD D

COUNTY ROAD D
 CROSS-SECTIONS
 STATION 32+50 TO STATION 34+00

CITY PROJECT	02-08	SHEET NO.
COUNTY PROJECT		60
S.A.P.	62-619-025	
S.A.P.	138-020-29	86

PLOT DATE: Sep 02, 2004 10:49am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\sections\008-CS16.dwg



28-261

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
NickLandwerSig CS-CITY-RD-D-W 22x34bdr		49392-008	1	DB/ML	1/9/07	AS-BUILT
DRAWN BY:	DESIGN BY:					
PMJ	NCL					
CHKD. BY:	DWG. NAME:					
NCL	CS16					
DATE:						
JULY 30, 2004						



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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

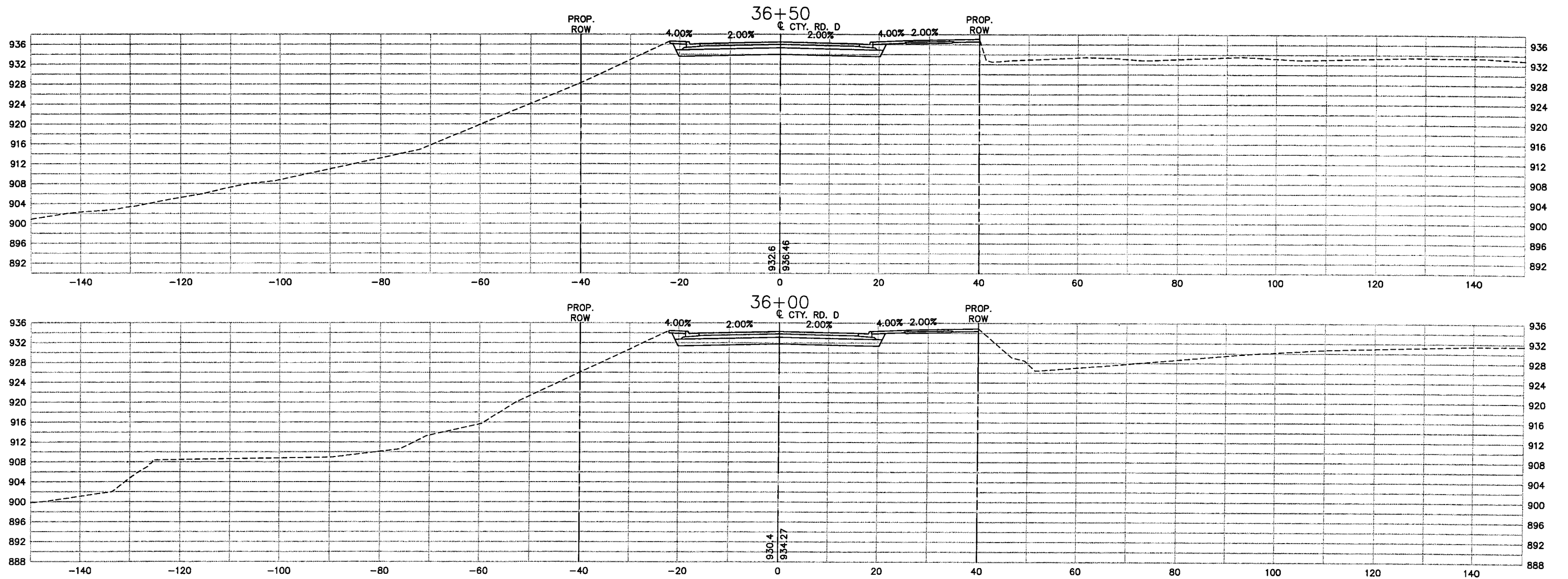
CITY OF MAPLEWOOD
COUNTY ROAD D

COUNTY ROAD D
CROSS-SECTIONS
STATION 34+50 TO STATION 35+50

CITY PROJECT	02-08	SHEET NO.
COUNTY PROJECT		61
S.A.P.	62-619-025	
S.A.P.	138-020-29	

86

PLOT DATE: Sep 02, 2004 10:49am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\sections\008-CS17.dwg



28-261

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
NickLandwerSig CS-CITY-RD-D-W 22x34bdr		49392-008	1	DB/ML	7/9/07	AS-BUILT
DRAWN BY:	DESIGN BY:					
PMJ	NCL					
CHKD. BY:	DWG. NAME:					
NCL	CS17					
DATE:						
JULY 30, 2004						



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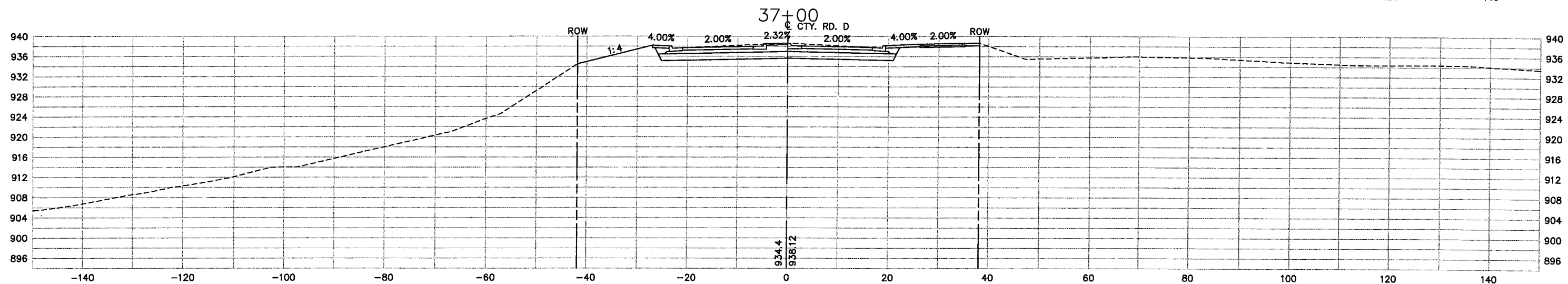
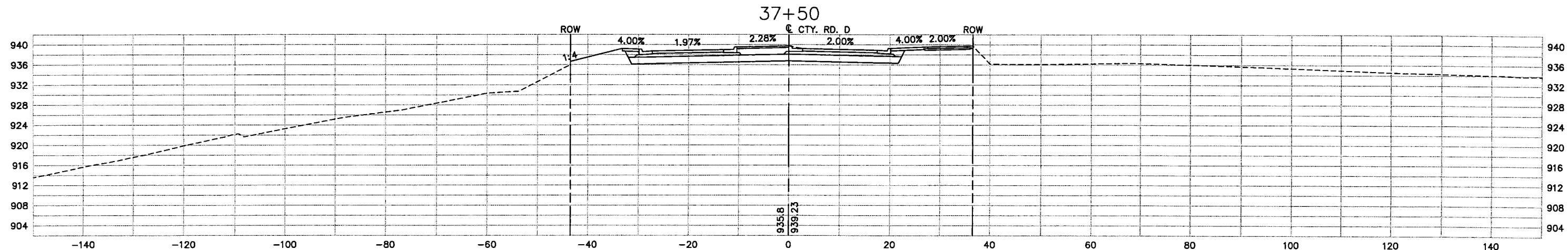
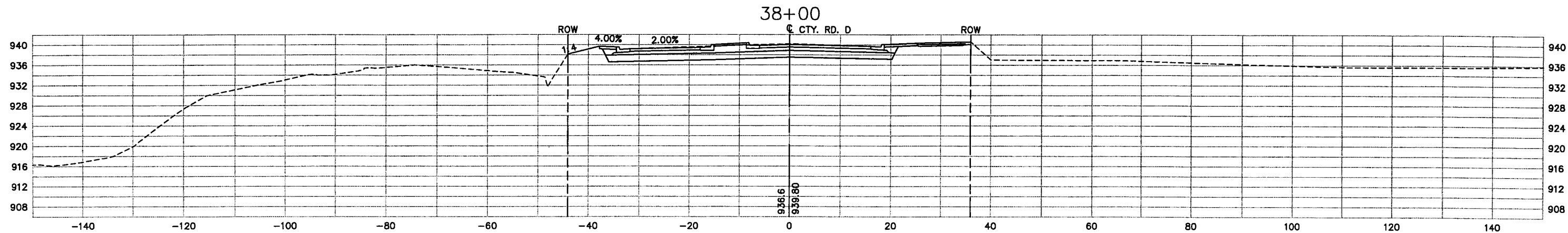
Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

COUNTY ROAD D
CROSS-SECTIONS
STATION 36+00 TO STATION 36+50

CITY PROJECT	02-08	SHEET NO.
COUNTY PROJECT		62
S.A.P.	62-619-025	
S.A.P.	138-020-29	86

PLOT DATE: Sep 02, 2004 10:50am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\sections\008-CS18.dwg



28-261

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
NickLandwerSig CS-CITY-RD-D-W 2x34bdr		49392-008	1	DB/ML	1/8/07	AS-BUILT
DRAWN BY:	DESIGN BY:					
PMJ	NCL					
CHKD. BY:	DWG. NAME:					
NCL	CS18					
DATE:						
JULY 30, 2004						



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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

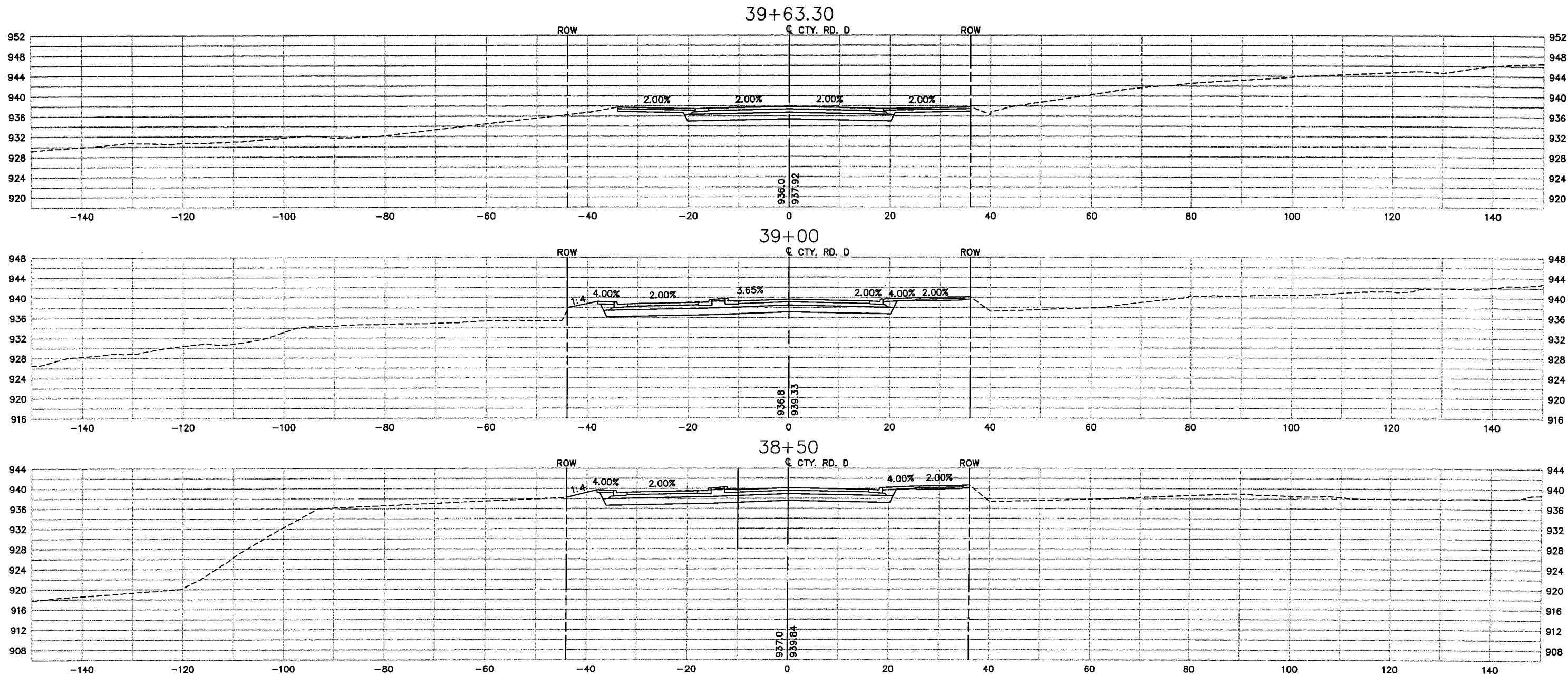
CITY OF MAPLEWOOD
COUNTY ROAD D

COUNTY ROAD D
CROSS-SECTIONS
STATION 37+00 TO STATION 38+00

CITY PROJECT 02-08
COUNTY PROJECT
S.A.P. 62-619-025
S.A.P. 138-020-29

SHEET NO.
63
86

PLOT DATE: Sep 02, 2004 10:50am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\sections\008-CS19.dwg



28-261

REV. NO.	BY	DATE	REVISIONS DESCRIPTION
1	DB/ML	1/9/07	AS-BUILT

DESIGN FILE: 49392-008	DRAWN BY: PMJ	DESIGN BY: NCL
CHKD. BY: NCL	DWG. NAME: CS19	
DATE: JULY 30, 2004		



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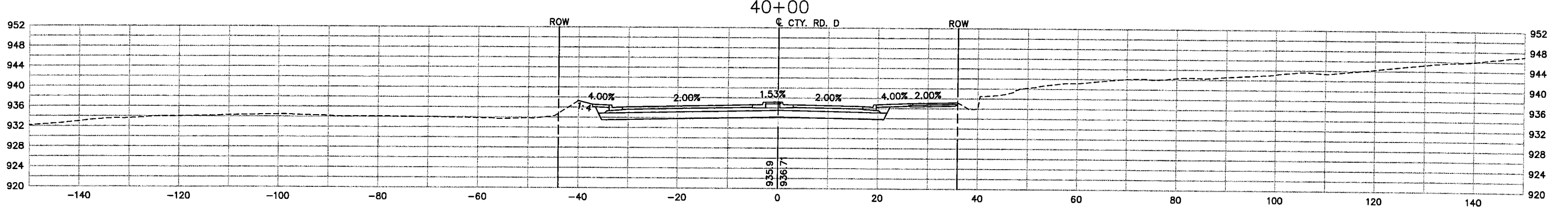
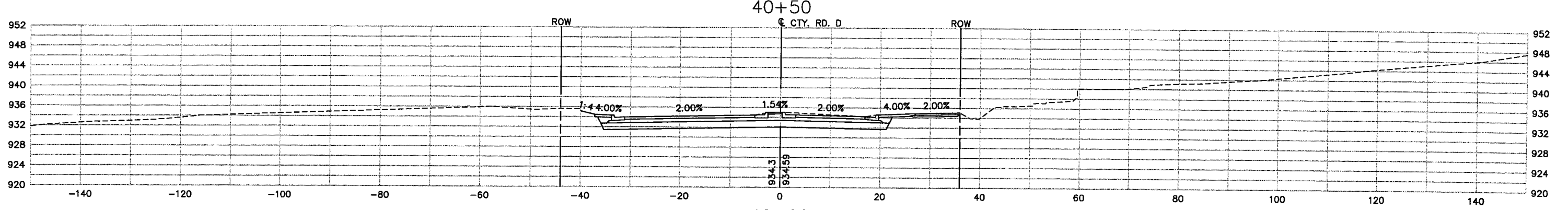
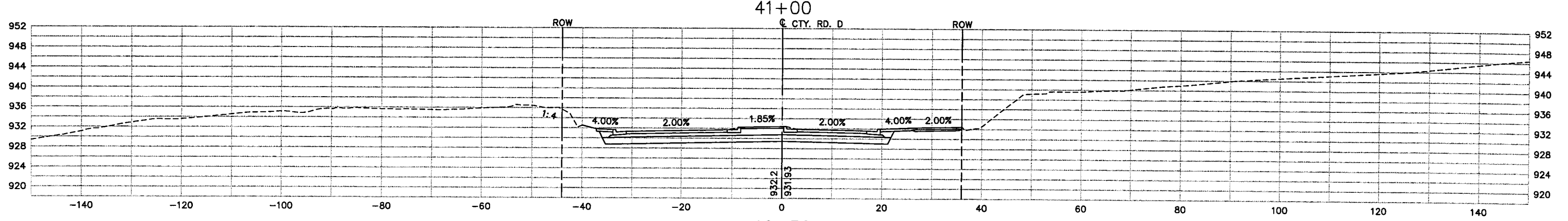
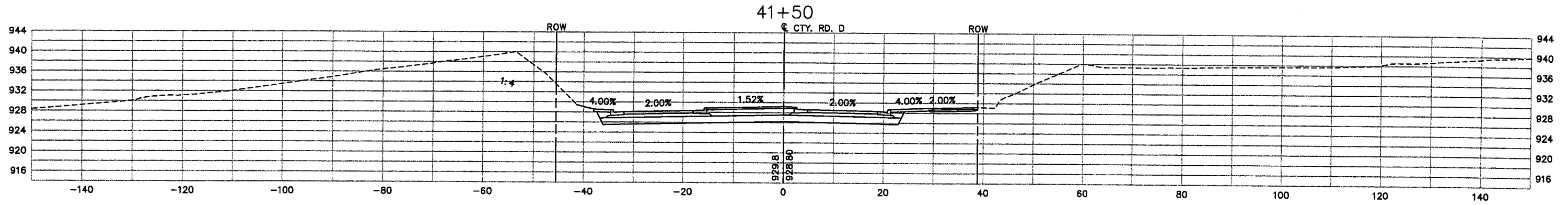
Nick C. Landwer
 NICK C. LANDWER
 DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D
 COUNTY ROAD D
 CROSS-SECTIONS
 STATION 38+50 TO STATION 39+63.30

CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.
64
86

PLOT DATE: Sep 02, 2004 10:50am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\00B-pin-sht\sections\00B-CS20.dwg



28-261

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
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DRAWN BY:	DESIGN BY:					
PMJ	NCL					
CHKD. BY:	DWG. NAME:					
NCL	CS20					
DATE:						
JULY 30, 2004						



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700 Third Street South
Minneapolis, MN 55416
612.370.0700 Tel
612.370.1378 Fax

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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40853

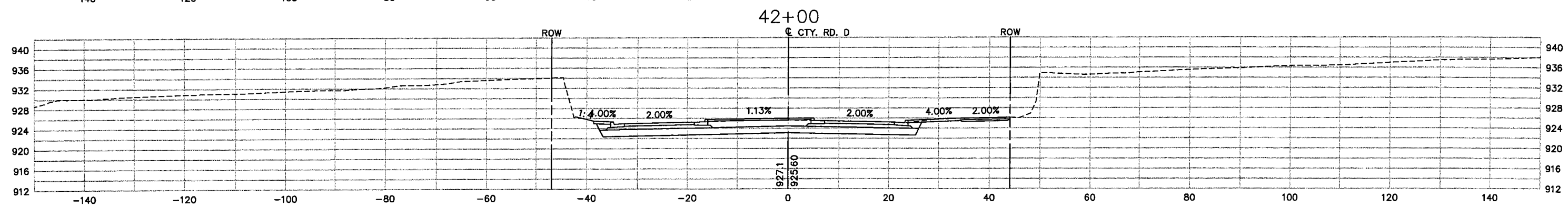
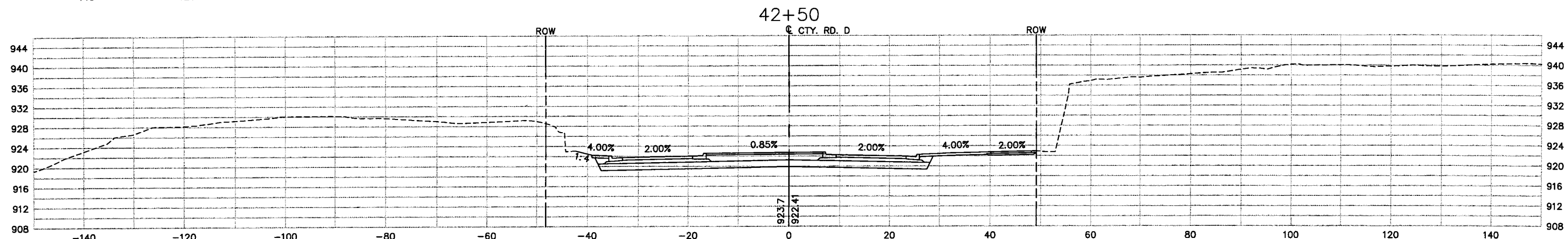
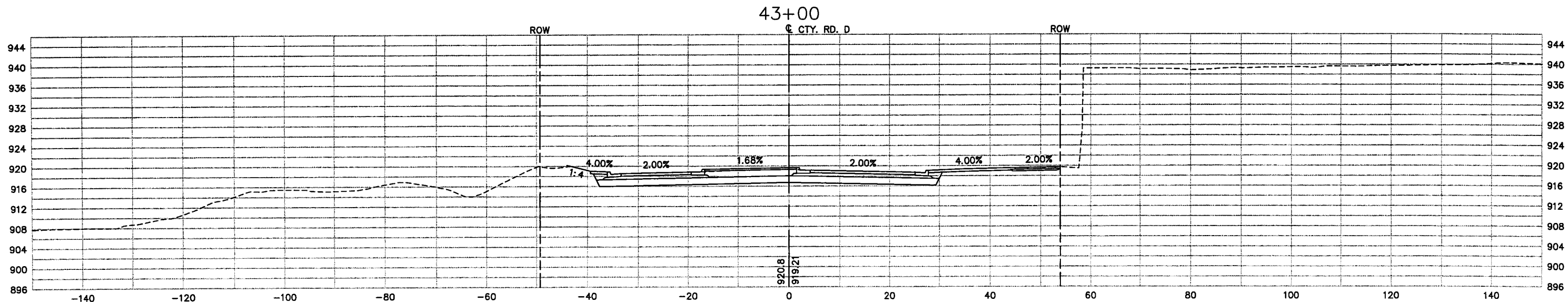
CITY OF MAPLEWOOD
COUNTY ROAD D

COUNTY ROAD D
CROSS-SECTIONS
STATION 40+00 TO STATION 41+50

CITY PROJECT	02-08	SHEET NO.
COUNTY PROJECT		65
S.A.P.	62-619-025	
S.A.P.	138-020-29	

86

PLOT DATE: Sep 02, 2004 10:50am DISK FILE NAME: (15.06) R:\49392007\PLAN-SHT\008-pln-sht\sections\008-CS21.dwg



28-261

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
NickLandwerSig CS-CITY-RD-D-W 2x34bdr		49392-008	1	DB/ML	1/9/07	AS-BUILT
DRAWN BY:	DESIGN BY:					
PMJ	NCL					
CHECKED BY:	DWG. NAME:					
NCL	CS21					
DATE:						
JULY 30, 2004						



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612.370.1378 Fax

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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

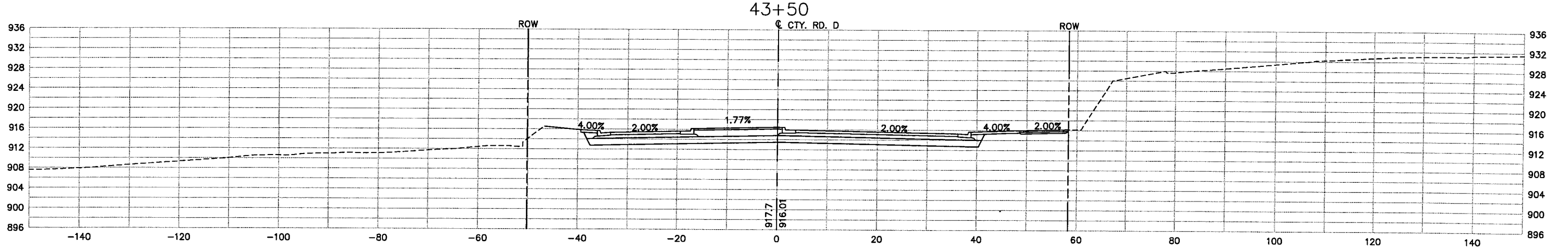
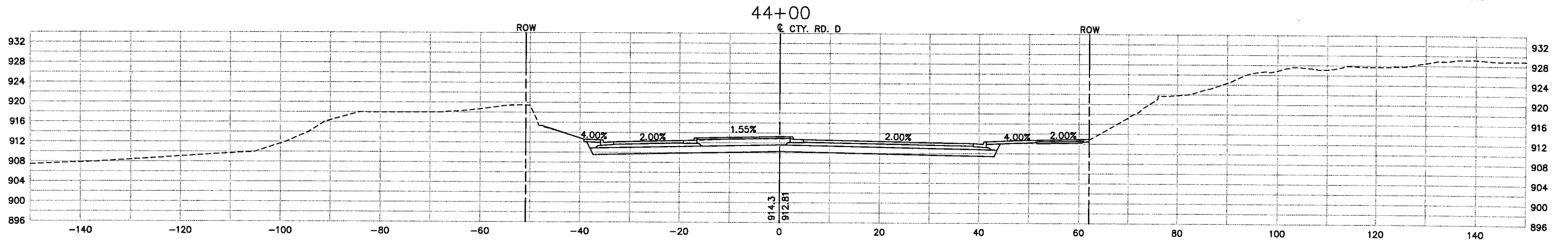
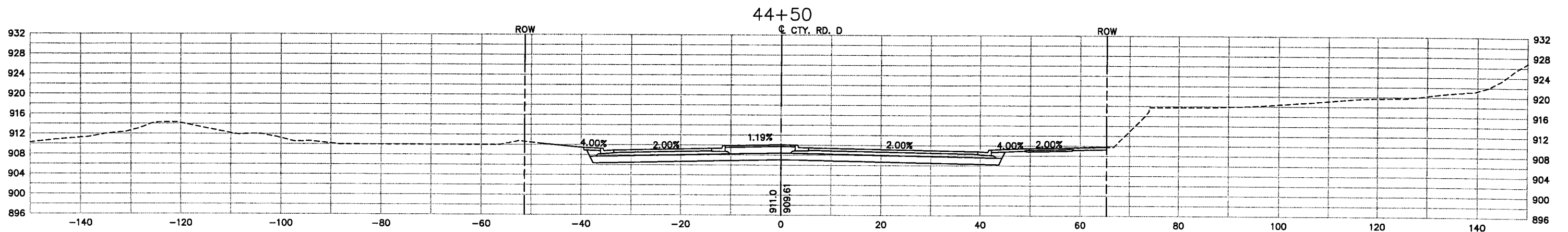
CITY OF MAPLEWOOD
COUNTY ROAD D

COUNTY ROAD D
CROSS-SECTIONS
STATION 42+00 TO STATION 43+00

CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.
66
86

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-pln-sht\sections\008-CS22.dwg



28-261

REV. NO.	BY	DATE	REVISIONS DESCRIPTION
1	DB/ML	1/8/07	AS-BUILT

DESIGN FILE: 49392-008	DRAWN BY: PMJ	DESIGN BY: NCL
CHKD. BY: NCL	DWG. NAME: CS22	DATE: JULY 30, 2004



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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

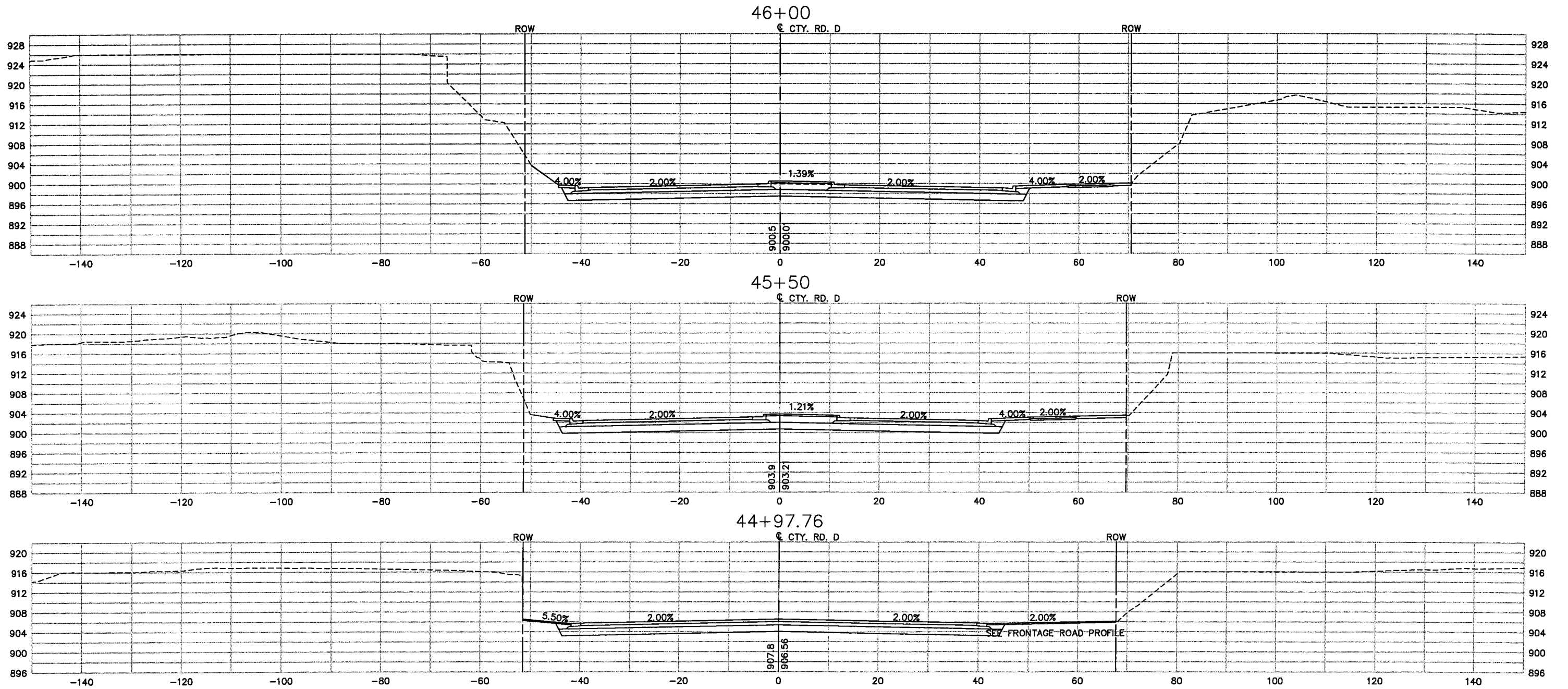
CITY OF MAPLEWOOD
COUNTY ROAD D

COUNTY ROAD D
CROSS-SECTIONS
STATION 43+50 TO STATION 44+50

CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.
67
86

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-pin-sht\sections\008-CS23.dwg



28-261

REV. NO.	BY	DATE	REVISIONS DESCRIPTION
1	DB/ML	1/9/07	AS-BUILT

XREF DRAWINGS		DESIGN FILE: 49392-008	
CS-CITY-RD-D-W	2x34bdr	DRAWN BY: PMJ	DESIGN BY: NCL
		CHKD. BY: NCL	DWG. NAME: CS23
		DATE: JULY 30, 2004	



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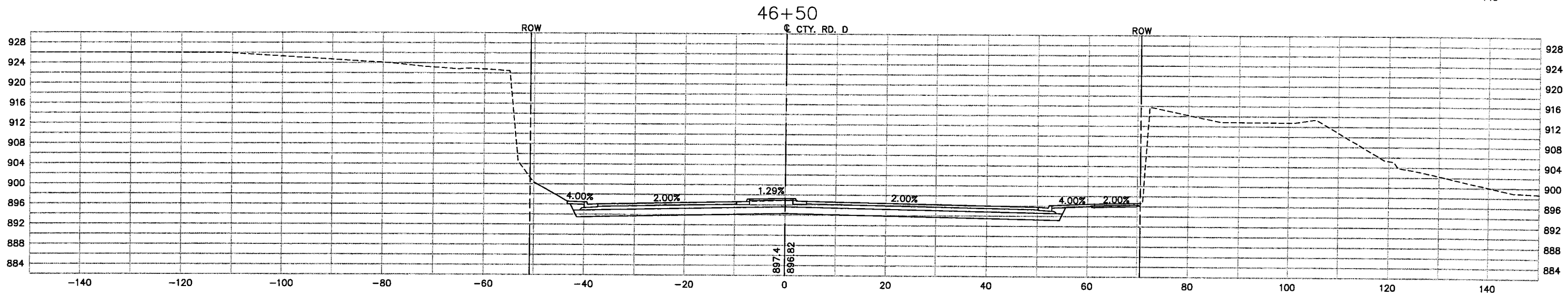
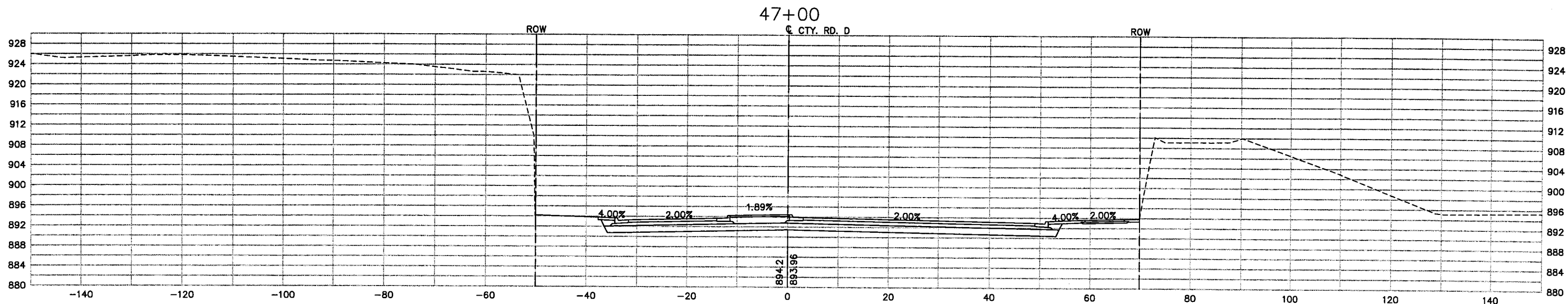
Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

COUNTY ROAD D
CROSS-SECTIONS
STATION 44+97.76 TO STATION 46+00

CITY PROJECT	02-08	SHEET NO.	68
COUNTY PROJECT			86
S.A.P.	62-619-025		
S.A.P.	138-020-29		

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-pin-sht\sections\008-CS24.dwg



28-261

REV. NO.	BY	DATE	REVISIONS DESCRIPTION
1	DB/ML	1/8/07	AS-BUILT

DESIGN FILE: 49392-008	DRAWN BY: PMJ	DESIGN BY: NCL
CHKD. BY: NCL	DWG. NAME: CS24	DATE: JULY 30, 2004



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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

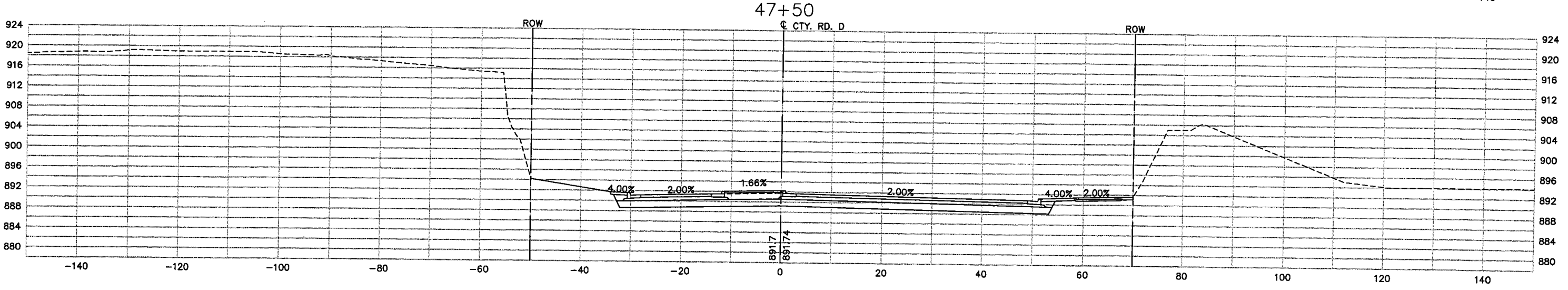
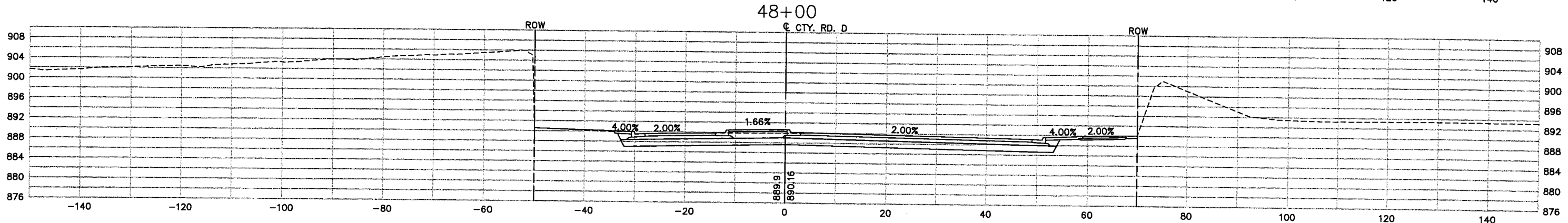
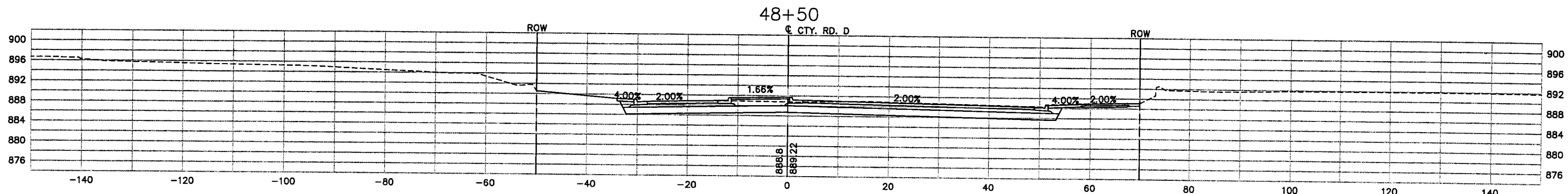
CITY OF MAPLEWOOD
COUNTY ROAD D

COUNTY ROAD D
CROSS-SECTIONS
STATION 46+50 TO STATION 47+00

CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.
69
86

PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-pin-sht\sections\008-CS25.dwg



28-261

XREF DRAWINGS		DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
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DRAWN BY:	DESIGN BY:					
PMJ	NCL					
CHKD. BY:	DWG. NAME:					
NCL	CS25					
DATE:						
JULY 30, 2004						



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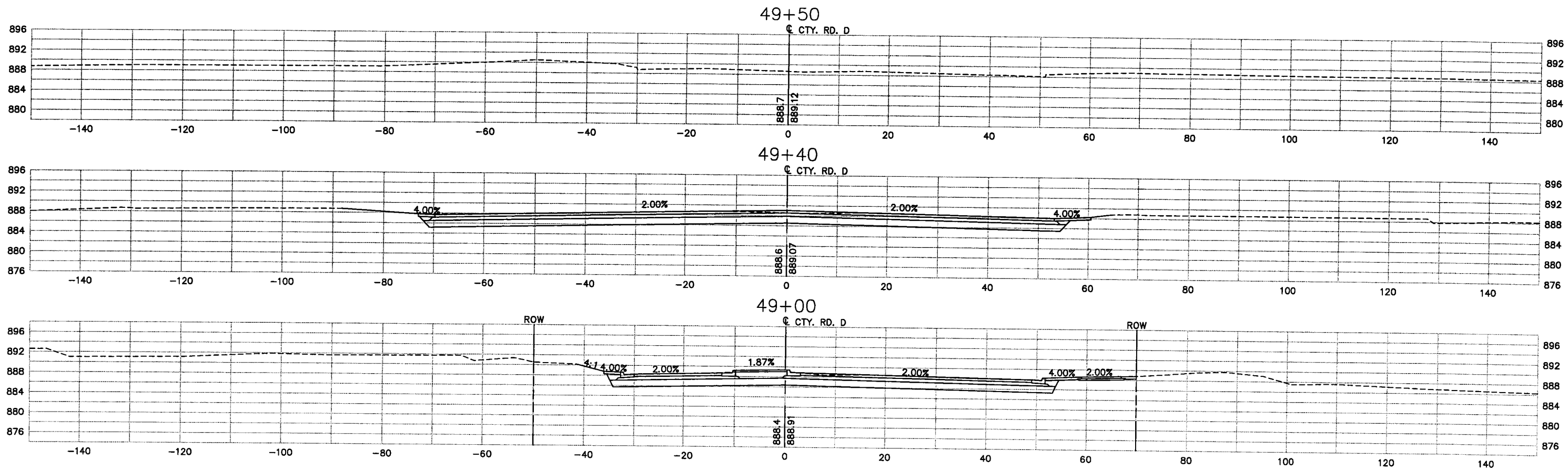
Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

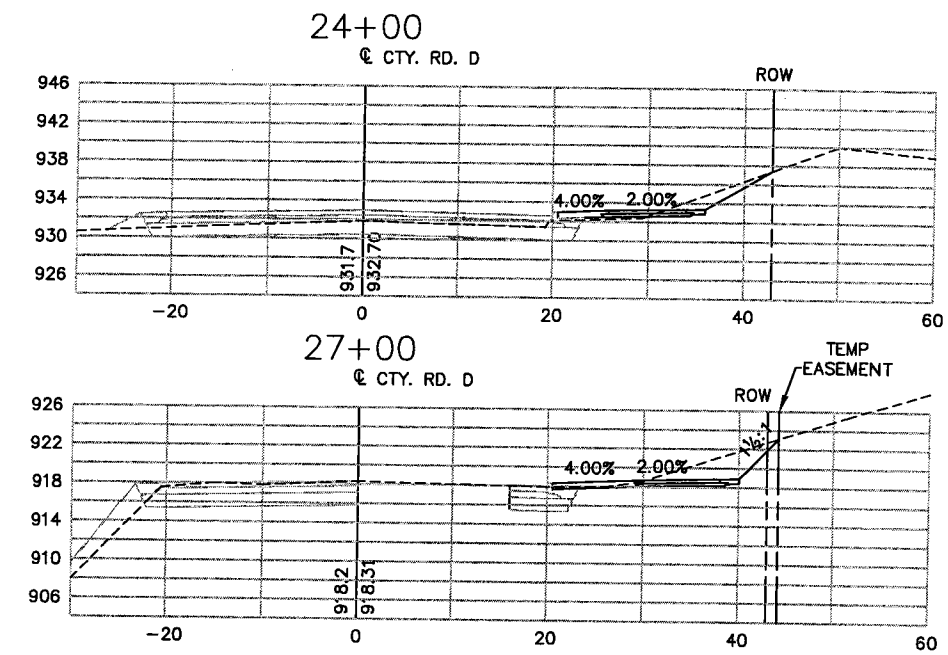
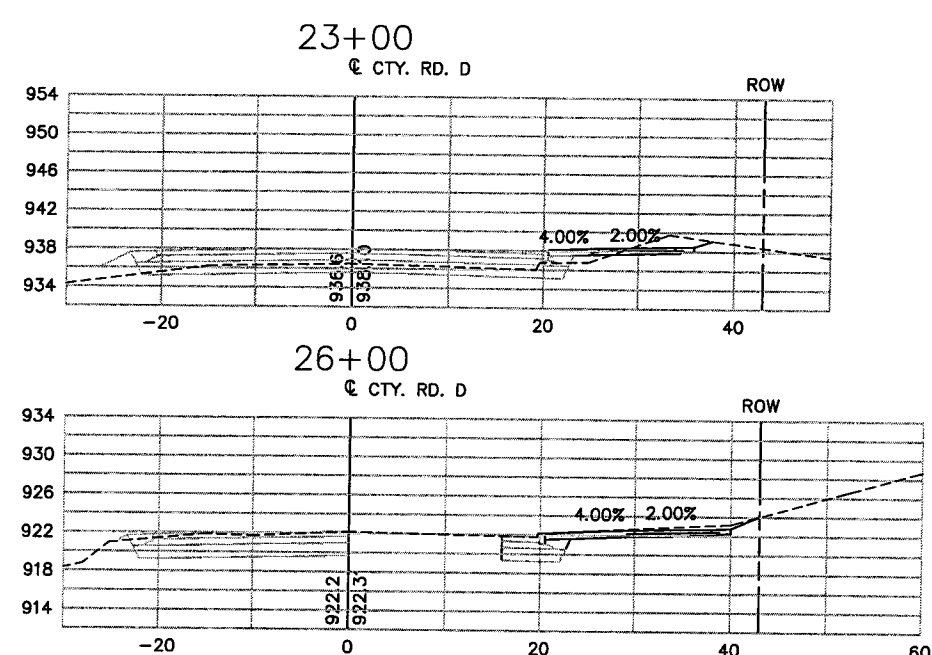
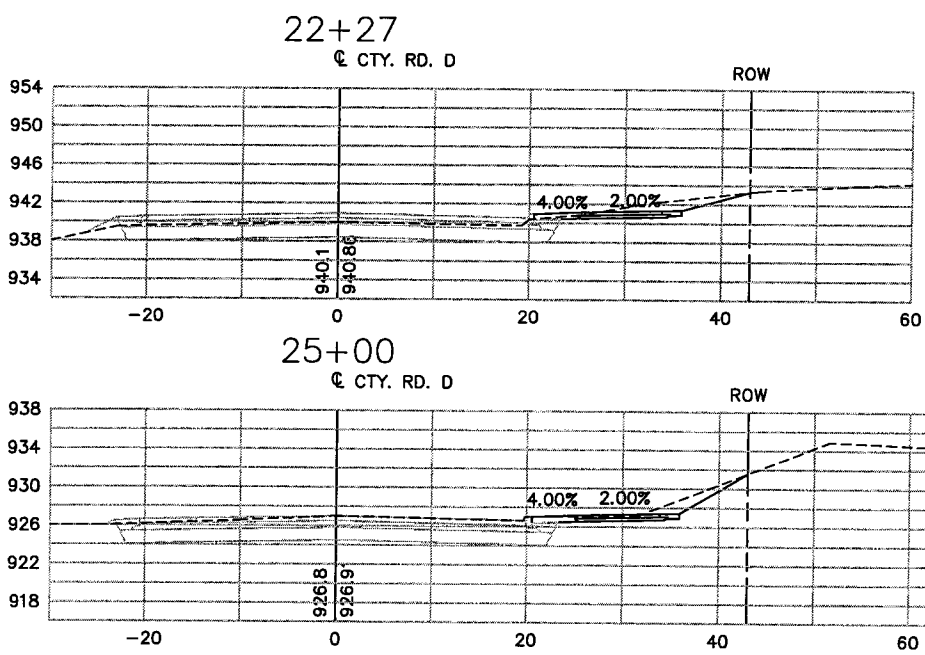
COUNTY ROAD D
CROSS-SECTIONS
STATION 47+50 TO STATION 48+50

CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.
70
86



BIT TRAIL CROSS SECTIONS
STA 22+27 TO 27+00



PLOT DATE: Mar 29, 2004 11:15am DISK FILE NAME: R:\49392007\plan-sht\008-pin-sht\sections\008-CS26.dwg

XREF DRAWINGS	DESIGN FILE:	REV. NO.	BY	DATE	REVISIONS DESCRIPTION
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	DRAWN BY: PMJ				
	DESIGN BY: NCL				
	CHKD. BY: NCL				
	DWG. NAME: CS26				
	DATE: JULY 30, 2004				

URS
28-261

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Nick C. Landwer
NICK C. LANDWER
DATE: 7/30/2004 MN LIC. NO. 40953

CITY OF MAPLEWOOD
COUNTY ROAD D

COUNTY ROAD D
CROSS-SECTIONS
STATION 49+00 TO STATION 49+50

CITY PROJECT	02-08
COUNTY PROJECT	
S.A.P.	62-619-025
S.A.P.	138-020-29

SHEET NO.
71
86

NOTES:

- EXISTING UTILITY INFORMATION AND LOCATIONS ARE BASED ON RECORD DRAWINGS AND A TOPOGRAPHIC SURVEY. CONTRACTOR TO FIELD VERIFY LOCATIONS AND DEPTHS OF EXISTING UTILITIES.
- SEWER AND WATER SERVICES ARE SHOWN IN APPROXIMATE LOCATIONS BASED ON AVAILABLE INFORMATION. CONTRACTOR TO FIELD VERIFY EXACT LOCATIONS OF ALL SANITARY AND WATER SERVICES PRIOR TO CONSTRUCTION.
- ALL PROPOSED SANITARY SERVICES ARE 4" PVC UNLESS OTHERWISE NOTED.
- ALL PROPOSED WATER SERVICES ARE 1" TYPE K COPPER, UNLESS OTHERWISE NOTED.
- ALL WATER MAIN SHALL BE DIP CL 52 AND HAVE 7.5' MINIMUM COVER, UNLESS OTHERWISE NOTED.
- ALL SANITARY SEWER SHALL BE SDR 35 UNLESS OTHERWISE NOTED.
- SAWCUT BITUMINOUS ALONG SANITARY SEWER AND WATER MAIN CONSTRUCTION LIMITS.
- MAINTAIN 1.5' MINIMUM VERTICAL CLEARANCE BETWEEN WATER MAIN AND SEWERS.
- REMOVE TREES AS DIRECTED BY ENGINEER.
- STAKE SOD ON ALL SLOPES GREATER THAN 3:1.

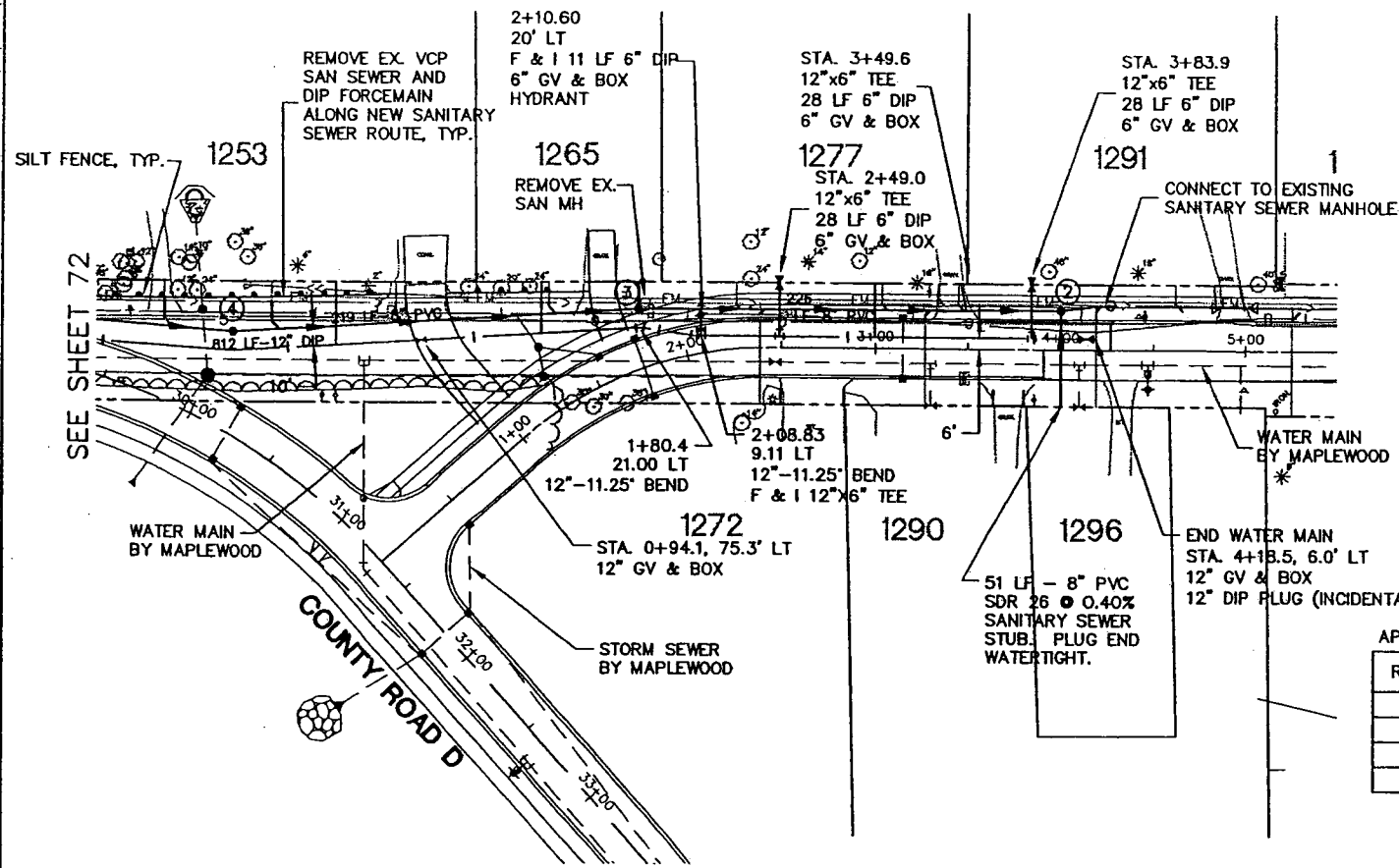
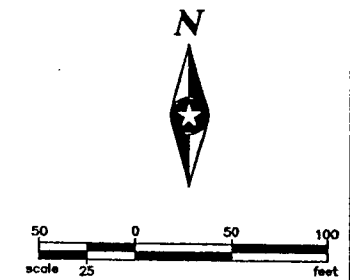
APPROXIMATE WATER SERVICE LOCATIONS ALONG ROAD CENTERLINE

ROAD STA.	OFFSET TO WYE	SERVICE DIRECTION	DESCRIPTION
1+36.8	39.2 LT	NORTH	29' - 1" COPPER, CORP STOP, CURB STOP & BOX
2+49.0	6.0 LT	NORTH	28' - 6" DIP, 12"x6" TEE, 6" GV & BOX
2+99.5	6.0 LT	NORTH	30' - 1" COPPER, CORP STOP, CURB STOP & BOX
3+83.9	6.0 LT	NORTH	28' - 6" DIP, 12"x6" TEE, 6" GV & BOX

APPROXIMATE SANITARY SEWER WYE LOCATIONS ALONG ROAD CENTERLINE

ROAD STA.	OFFSET TO WYE	SERVICE DIRECTION
0+88.9	91.3 LT	NORTH
1+44.2	47.0 LT	NORTH
2+28.1	20.9 LT	NORTH
2+39.0	20.5 LT	SOUTH
3+03.5	20.5 LT	NORTH
3+26.5	20.5 LT	SOUTH
3+44.5	20.5 LT	NORTH
4+18.8	22.6 LT	SOUTH

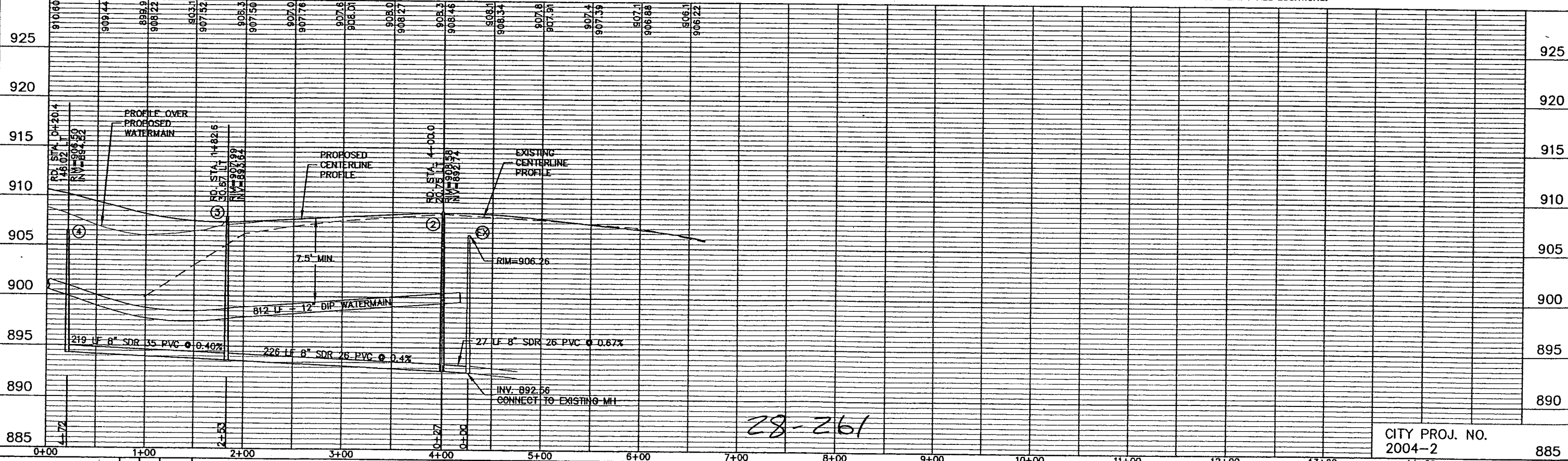
*NOTE - ALL SANITARY SERVICE LOCATIONS ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY ALL LOCATIONS.



BENCHMARK EL. 936.37
BRIDGE DISK ON SE CORNER OF
LABORE / 694 BRIDGE.

COUNTY ROAD D COURT

BENCHMARK EL. 933.43
BRIDGE DISK ON SW CORNER OF
LABORE / 694 BRIDGE.



28-261

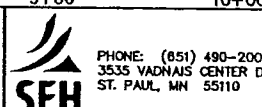
CITY PROJ. NO.
2004-2 885

DESIGNED BY:	STH
CHECKED BY:	DLB
DESIGN TEAM	

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STEFAN T. HIGGINS, PE
Date: 07/30/04 Lic. No. 41290

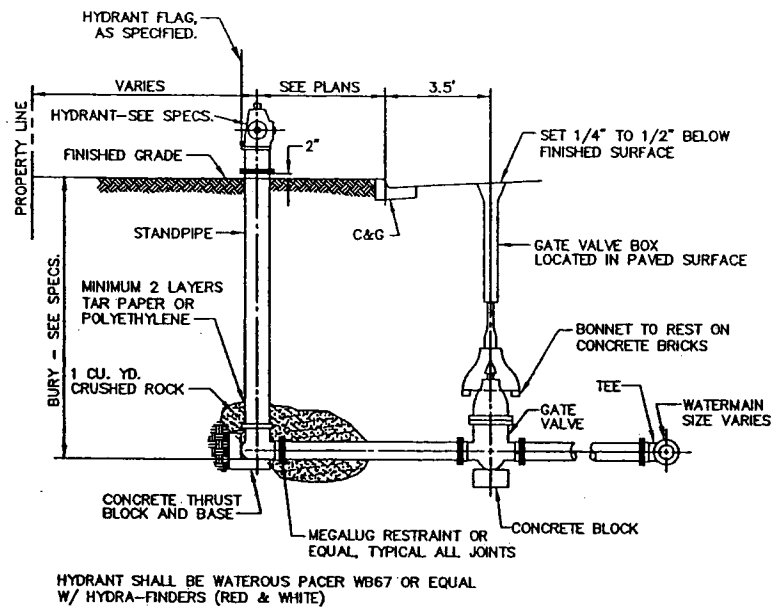


VADNAIS HEIGHTS,
MINNESOTA

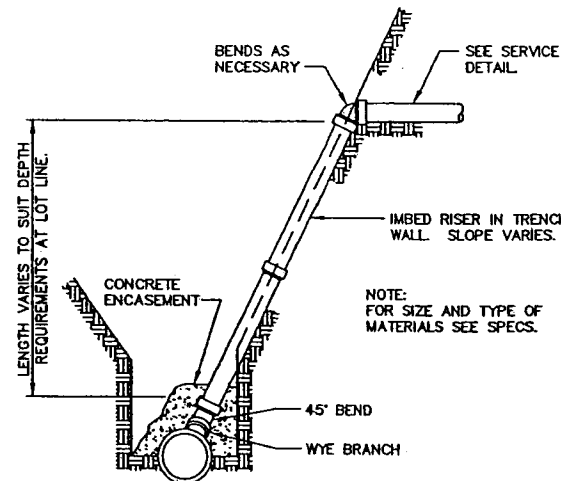
SANITARY SEWER & WATER MAIN
COUNTY ROAD D COURT
COUNTY ROAD D IMPROVEMENTS

FILE NO.
AVADNA0405
DATE
07/30/04

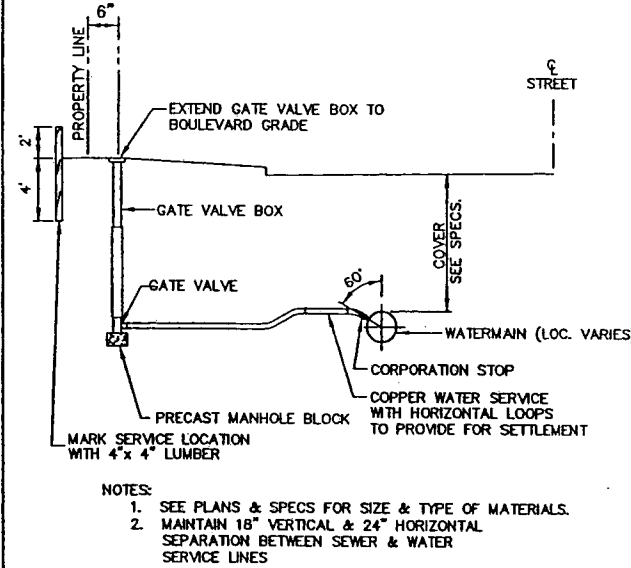
73
86



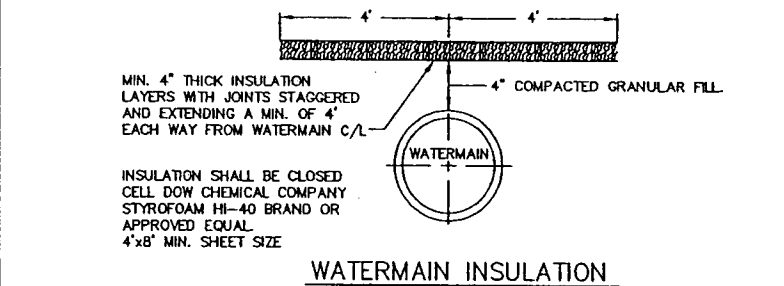
HYDRANT (& GATE VALVE) INSTALLATION



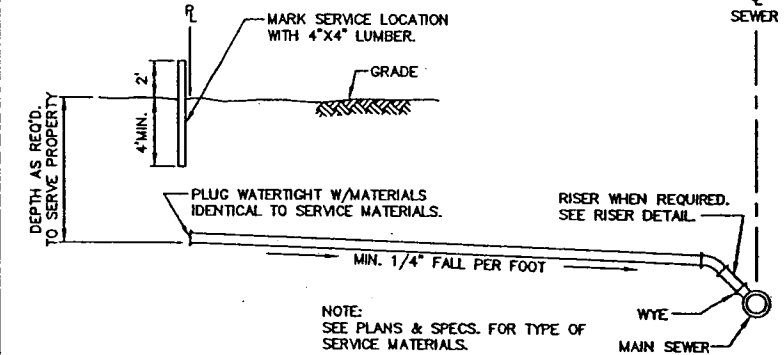
SANITARY SEWER SERVICE RISER



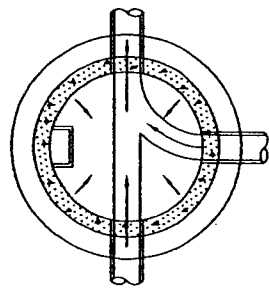
WATER SERVICE CONNECTION



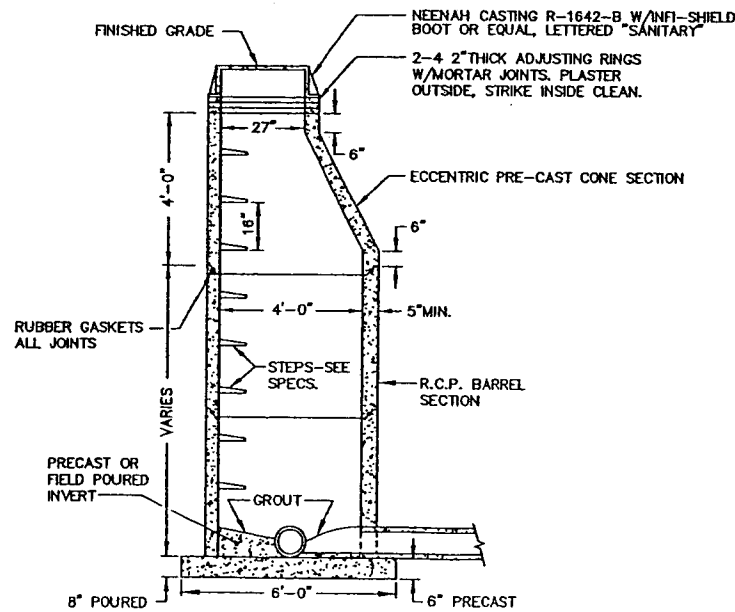
WATERMAIN INSULATION



SANITARY SEWER SERVICE

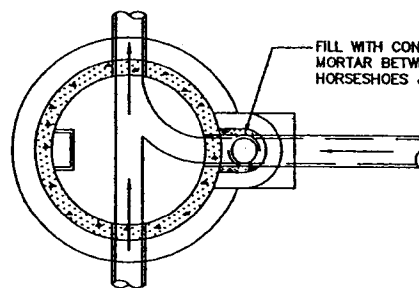


PLAN

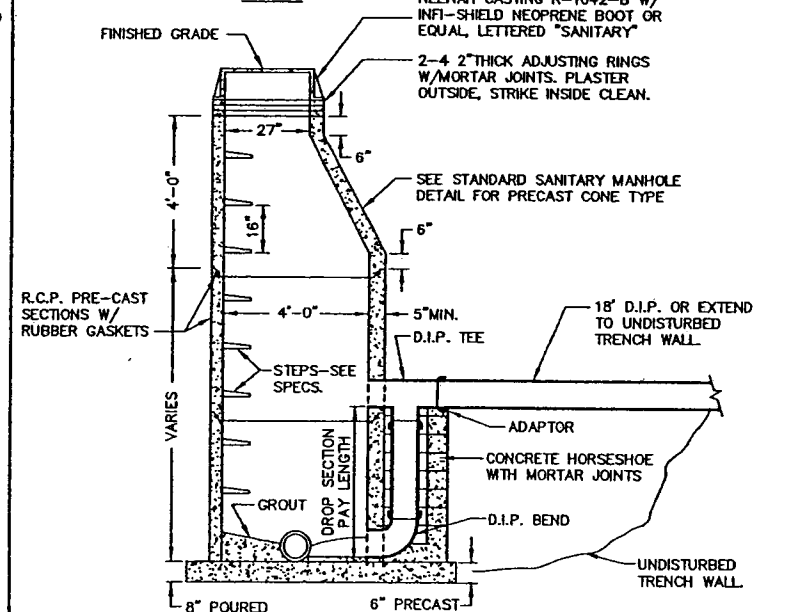


SECTION

SANITARY MANHOLE (ECCENTRIC)



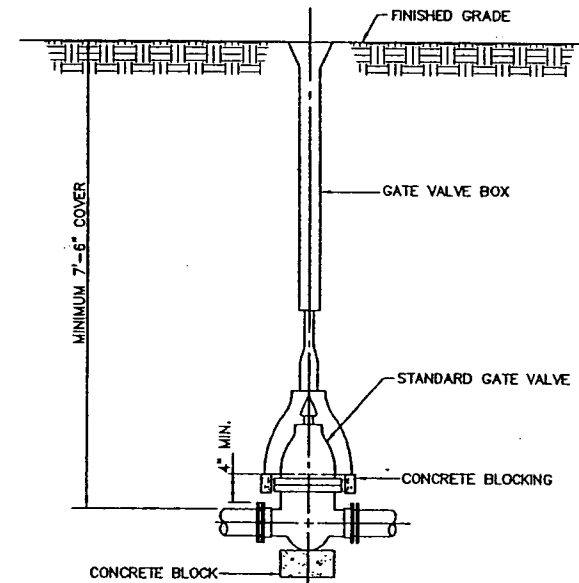
PLAN



SECTION

SANITARY DROP MANHOLE (OUTSIDE)

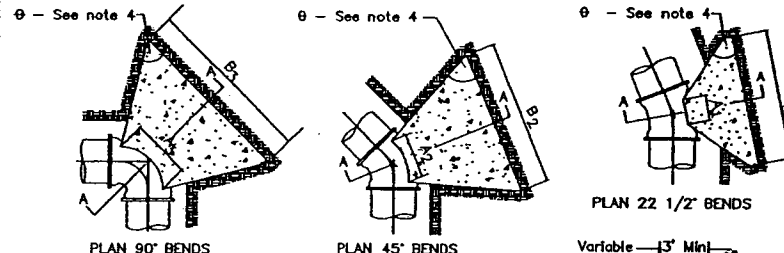
NOTE: ALL DROP SECTIONS SHALL BE 8\"/>



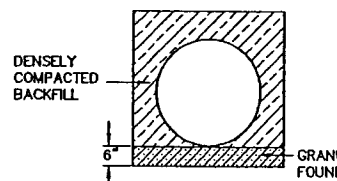
ELEVATION GATE VALVE & BOX INSTALLATION

- NOTES:
1. Shape of back of buttress may vary as long as poured against firm undisturbed earth.
 2. Dimension C1,C2,C3 should be large enough to make angle θ equal to or larger than 45°.
 3. Dimension A1,A2,A3 should be as large as possible without interfering with MJ bolts.
 4. $\theta = 45^\circ$ Minimum.
 5. Place polyethylene between concrete & pipe.

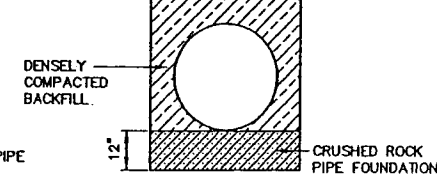
PIPE SIZE	BUTTRESS DIMENSIONS					
	B1	D1	B2	D2	B3	D3
6"	1'-5"	1'-5"	1'-5"	1'-5"	2'-1"	1'-6"
8"	1'-5"	1'-5"	2'-1"	1'-8"	2'-8"	2'-0"
12"	1'-10"	1'-10"	3'-4"	2'-0"	4'-9"	2'-6"
16"	3'-0"	2'-0"	3'-10"	3'-0"	6'-2"	3'-6"
20"	3'-6"	2'-8"	5'-6"	3'-4"	8'-4"	4'-0"
24"	4'-4"	3'-0"	6'-10"	3'-10"	9'-8"	5'-0"
30"	-	-	9'-3"	6'-0"	17'-0"	6'-0"



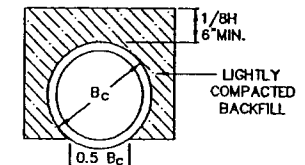
CONCRETE THRUST BLOCKING



GRANULAR PIPE FOUNDATION



CRUSHED ROCK PIPE FOUNDATION



SHAPED SUBGRADE

LEGEND
 B_c = OUTSIDE DIAMETER
 H = BACKFILL COVER OVER TOP OF PIPE

TRENCH BEDDING—CIRCULAR PIPE AS DIRECTED BY ENGINEER

28-261

DRAWN BY:	JRG			
DESIGNER:	JRG			
CHECKED BY:	STH			
DESIGN TEAM		NO.	BY	DATE
				REVISIONS

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 Stefan T. Higgins, PE
 Date: 07/30/04
 Reg. No. 41290

SEH
 PHONE: (651) 490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

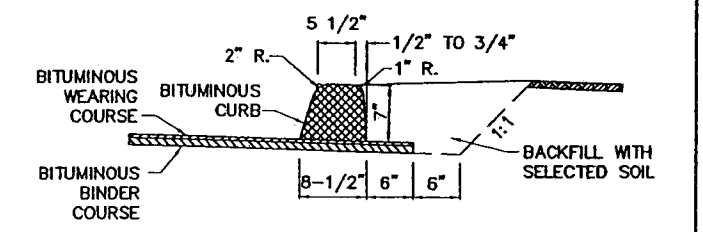
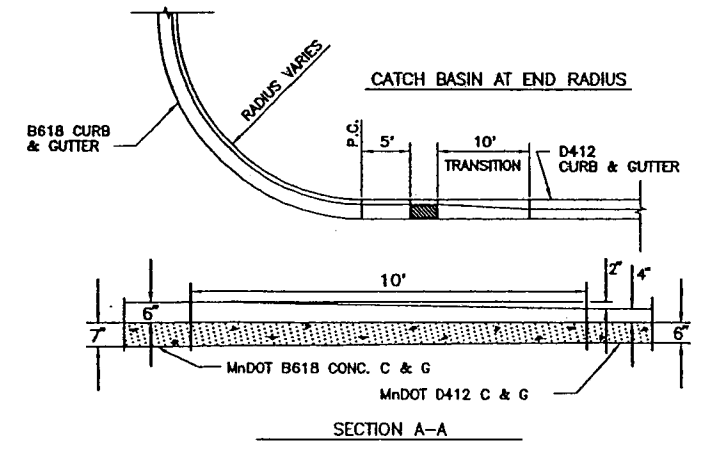
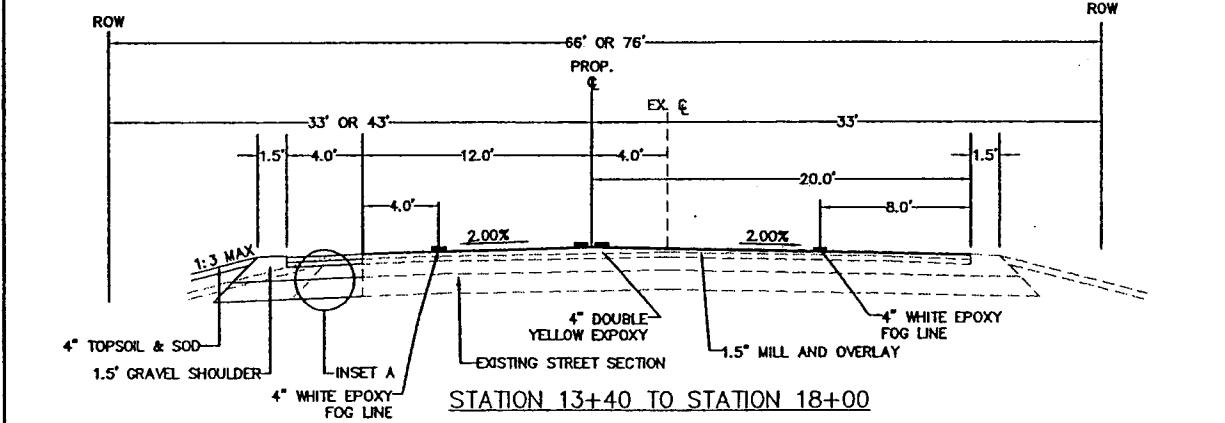
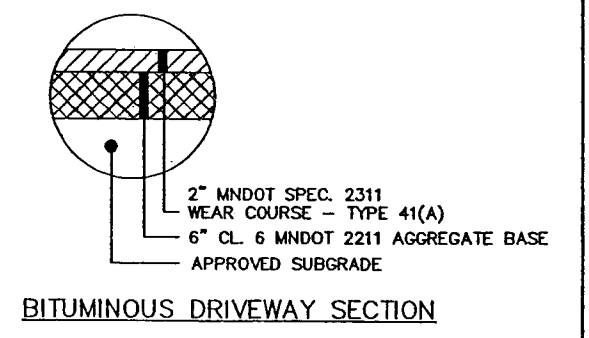
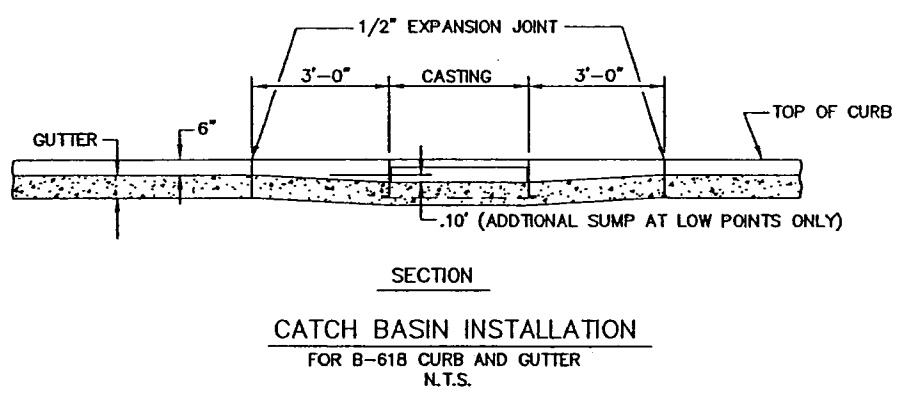
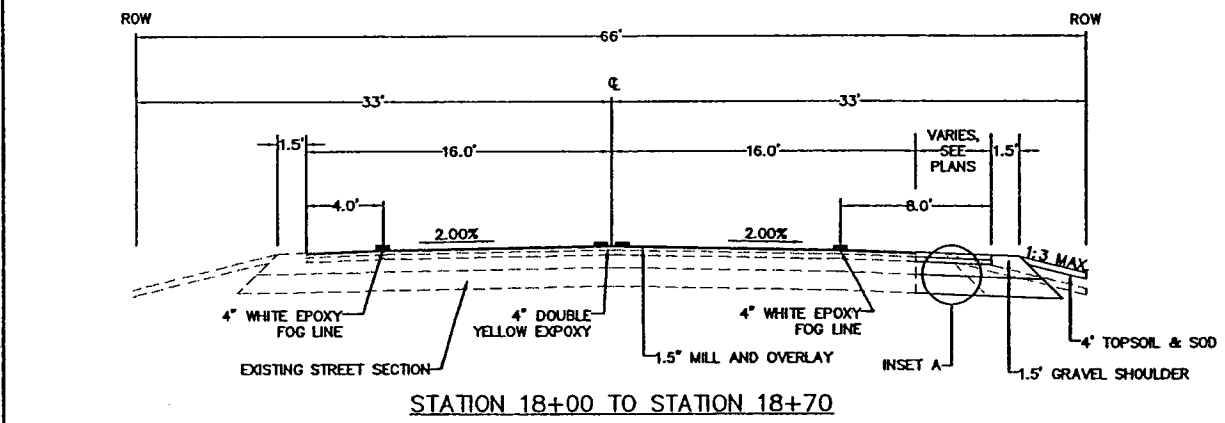
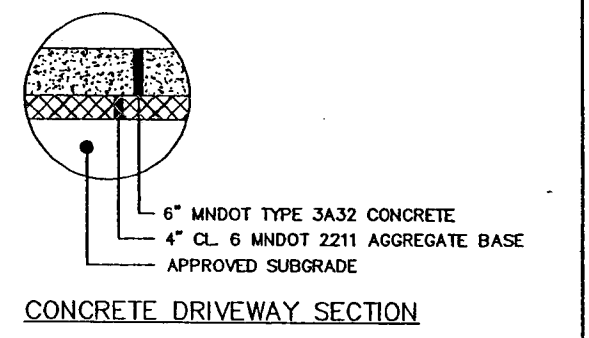
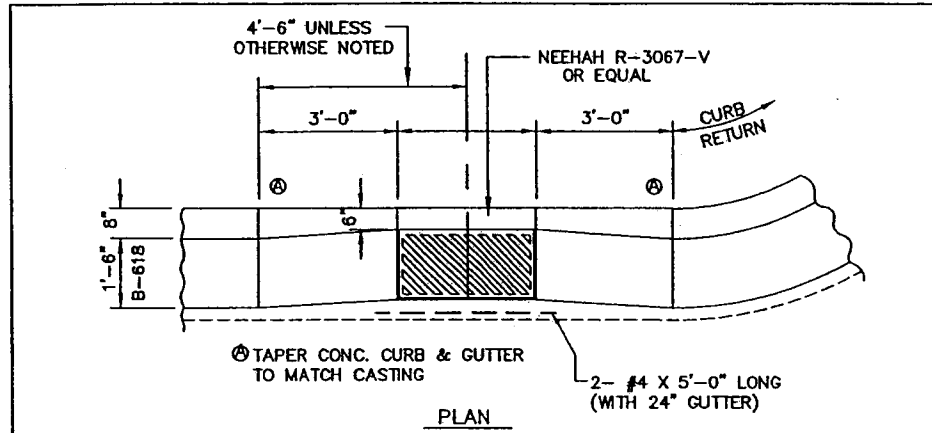
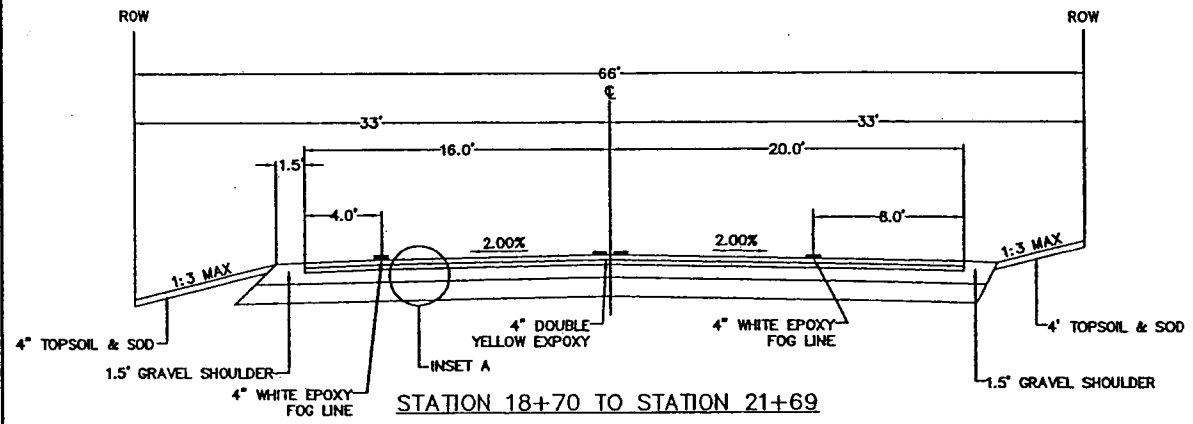
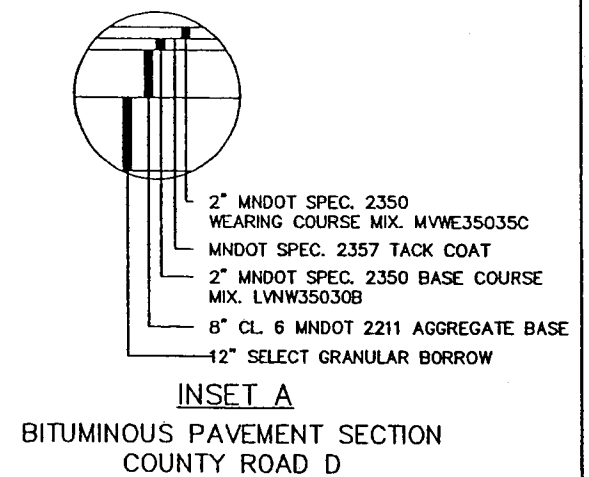
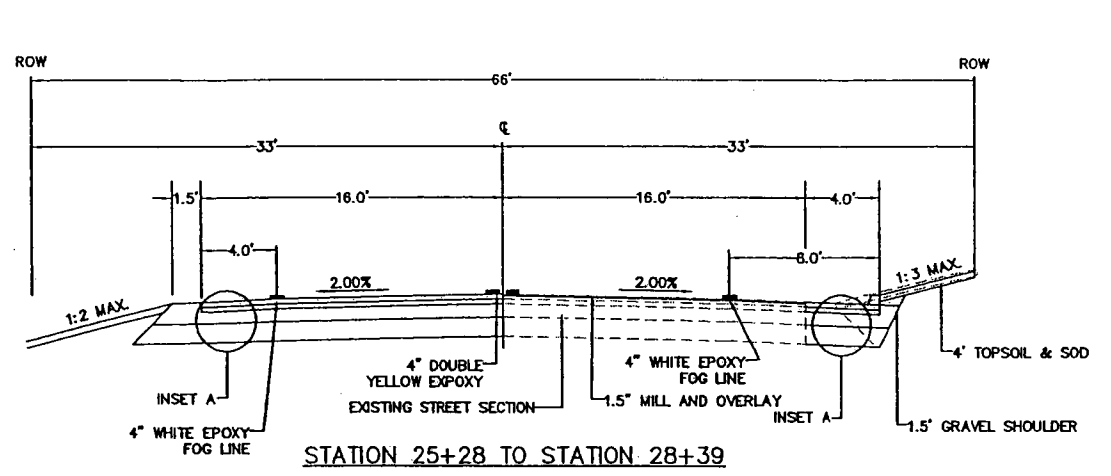
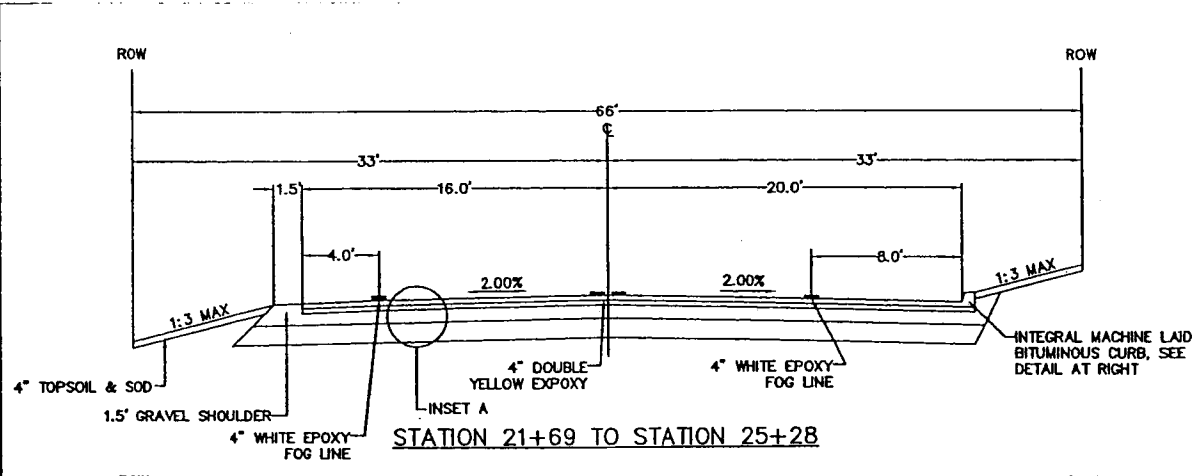
VADNAIS HEIGHTS, MINNESOTA

SANITARY SEWER & WATER MAIN STANDARD DETAILS COUNTY ROAD D IMPROVEMENTS

CITY PROJ. NO. 2004-2

FILE NO. AVADNAD405
 DATE 07/30/04
 74
 86

PLOTTED: 07-27-04 @ 2:13 PM



CROSS SECTION - BITUMINOUS CURB
 VOLUME OF CURB
 0.338 CU. FT. PER LIN. FT.

FOR CURB DETAILS
 SEE MNDOT STANDARD PLATES:
 7100G CONCRETE CURB & GUTTER
 7102I CONCRETE CURB & GUTTER

X:\V\MAPLEWOOD\PLANS\MPWD\0405\DWG USER: SHIGGINS DATE: 07-28-04 TIME: 4:42 PM

DRAWN BY:	AJB
DESIGNER:	STH
CHECKED BY:	STH
DESIGN TEAM	

NO.	BY	DATE	REVISIONS

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Stefan T. Higgins
 STEFAN T. HIGGINS, PE
 Date: 07/30/04 Lic. No. 41290

PHONE: (851) 490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110
SEH

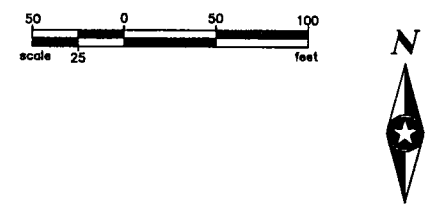
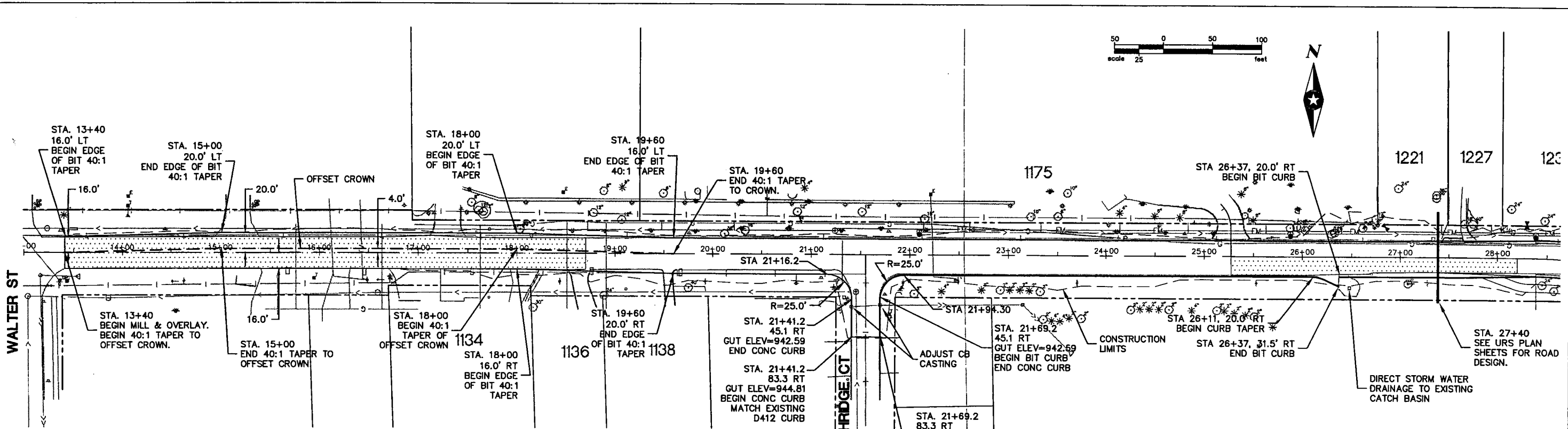
**MAPLEWOOD,
 MINNESOTA**

**TYPICAL SECTIONS
 COUNTY ROAD D
 COUNTY ROAD D IMPROVEMENTS**

FILE NO.
 AMAPLE0405.00
 DATE
 07/30/04
75
86

28-261

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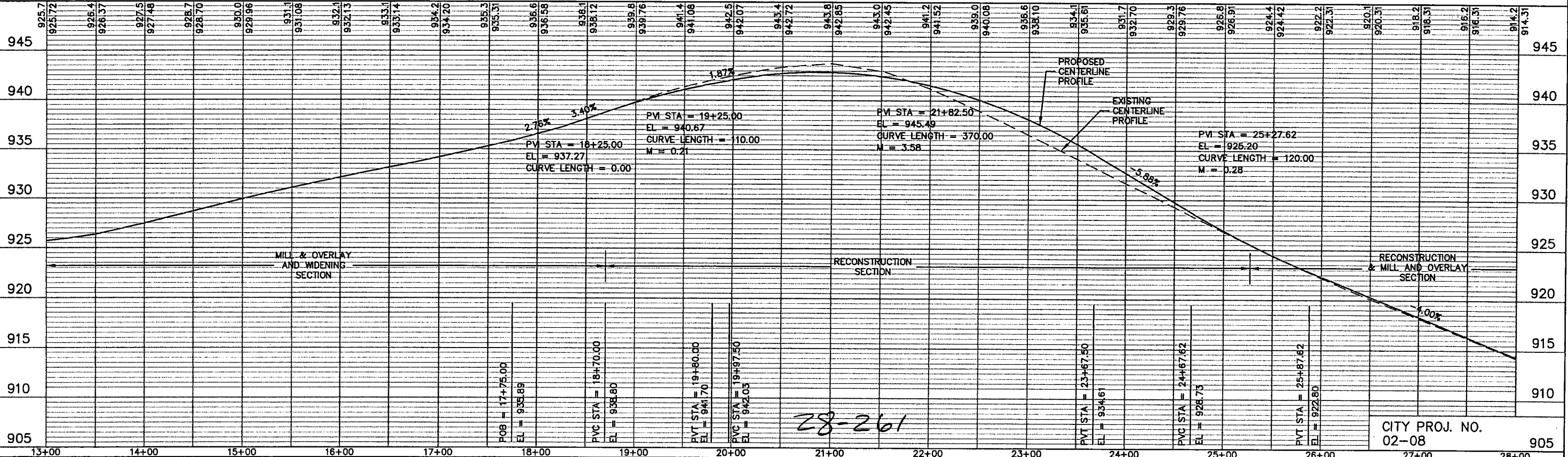


LEGEND:
 MILL AND OVERLAY PORTION
NOTES:
 1. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.

BENCHMARK EL. 936.37
 BRIDGE DISK ON SE CORNER OF
 LABORE/1 694 BRIDGE.

COUNTY ROAD D

BENCHMARK EL. 933.43
 BRIDGE DISK ON SW CORNER OF
 LABORE/1 694 BRIDGE.



DRAWN BY: STH
 DESIGNER: STH
 CHECKED BY: DLB
 DESIGN TEAM

NO.	BY	DATE	REVISIONS

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 STEFAN T. HIGGINS, PE
 Lic. No. 41290
 Date: 07/30/04

SEH
 PHONE: (651) 490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

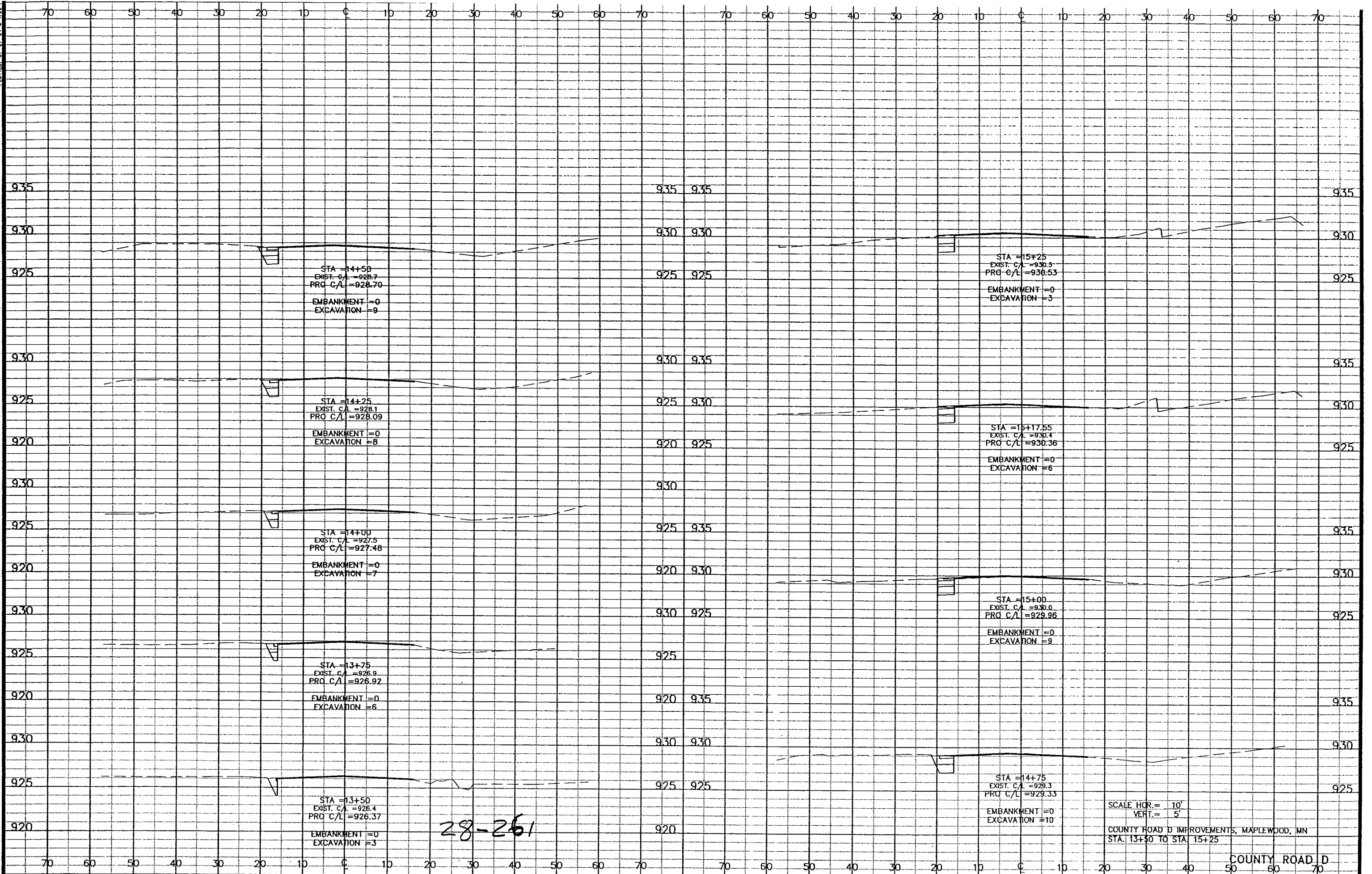
MAPLEWOOD, MINNESOTA

MILL & OVERLAY/RECONSTRUCTION COUNTY ROAD D COUNTY ROAD D IMPROVEMENTS

CITY PROJ. NO. 02-08
 FILE NO. AMAPL0405
 DATE 07/30/04
76
86

PLotted: 07-27-04 @ 4:22 P

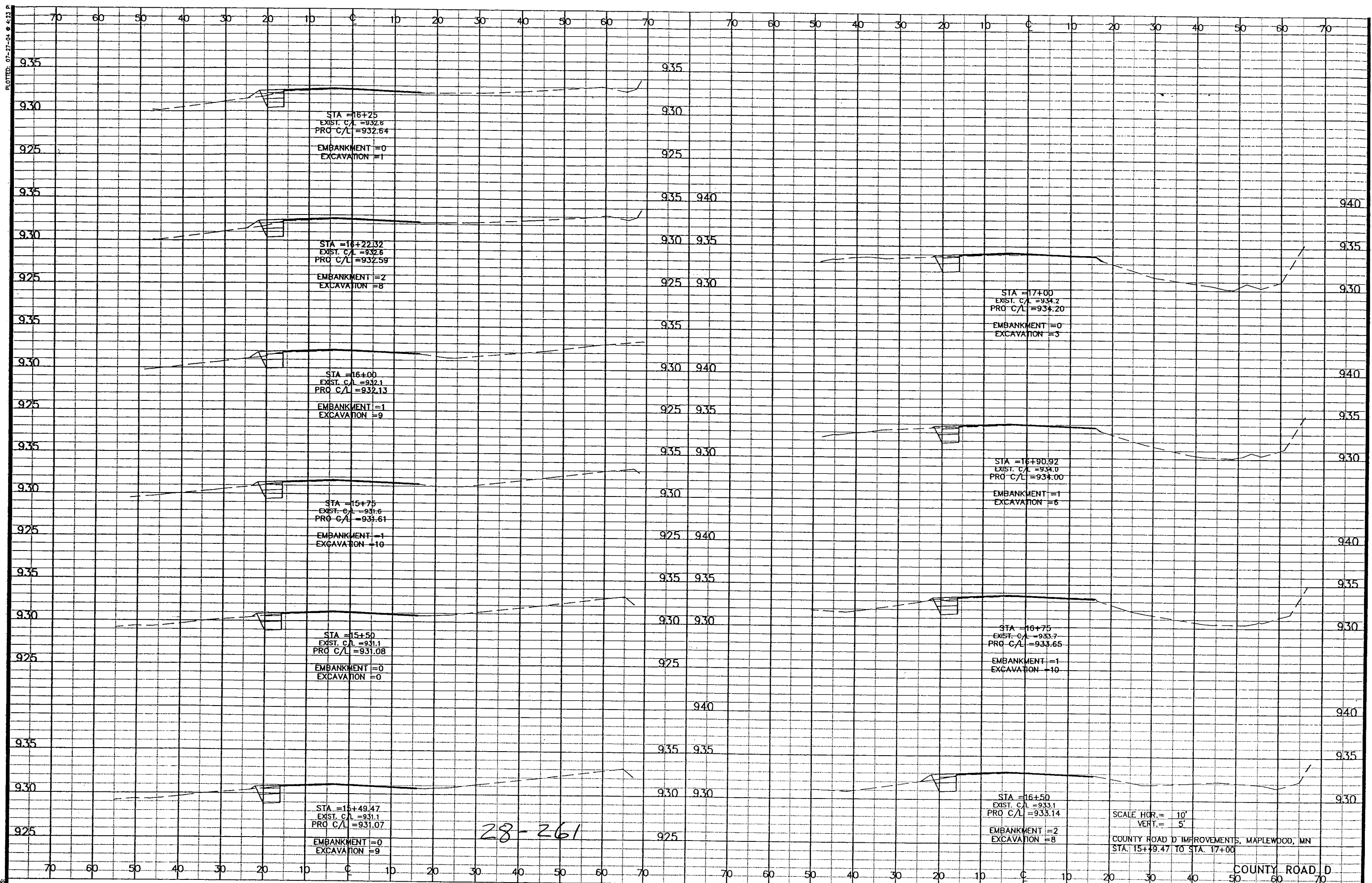
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USER: SHIGONS
XREFS:



28-251

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VERT. = 5'
COUNTY ROAD D IMPROVEMENTS, MAPLEWOOD, MN
STA. 13+50 TO STA. 15+25

PLotted: 07-27-04 @ 4:23 P



STA =16+25
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 PRO C/L =932.64
 EMBANKMENT =0
 EXCAVATION =1

STA =16+22.32
 EXIST. C/L =932.6
 PRO C/L =932.59
 EMBANKMENT =2
 EXCAVATION =8

STA =16+00
 EXIST. C/L =932.1
 PRO C/L =932.13
 EMBANKMENT =1
 EXCAVATION =9

STA =15+75
 EXIST. C/L =931.6
 PRO C/L =931.61
 EMBANKMENT =1
 EXCAVATION =10

STA =15+50
 EXIST. C/L =931.1
 PRO C/L =931.08
 EMBANKMENT =0
 EXCAVATION =0

STA =15+49.47
 EXIST. C/L =931.1
 PRO C/L =931.07
 EMBANKMENT =0
 EXCAVATION =9

STA =17+00
 EXIST. C/L =934.2
 PRO C/L =934.20
 EMBANKMENT =0
 EXCAVATION =3

STA =16+90.92
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 EMBANKMENT =1
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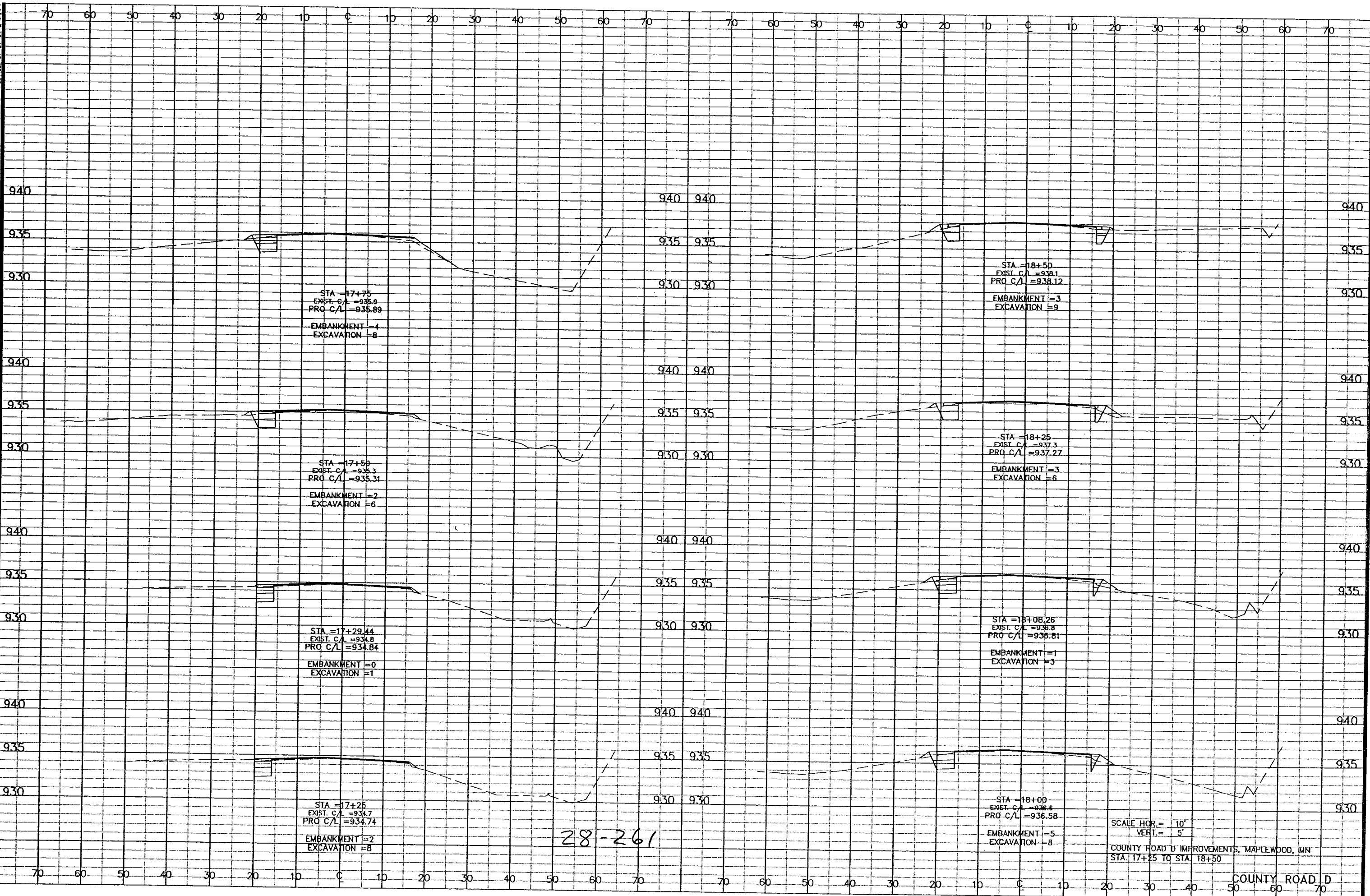
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 PRO C/L =933.65
 EMBANKMENT =1
 EXCAVATION =10

STA =16+50
 EXIST. C/L =933.1
 PRO C/L =933.14
 EMBANKMENT =2
 EXCAVATION =8

SCALE HOR. = 10'
 VERT. = 5'
 COUNTY ROAD D IMPROVEMENTS, MAPLEWOOD, MN
 STA. 15+49.47 TO STA. 17+00

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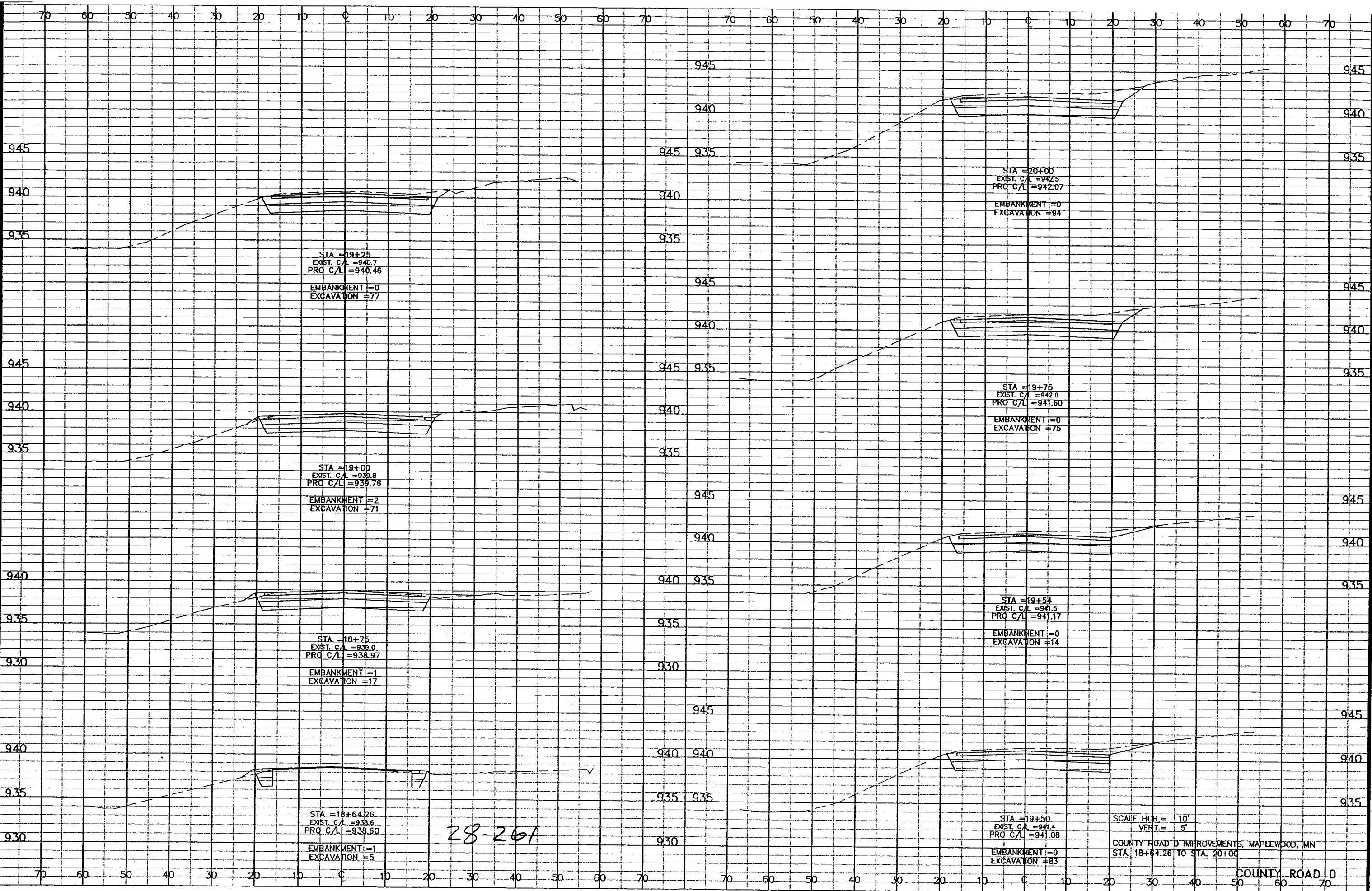
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PREFS:

SCALE HOR. = 10'
VERT. = 5'
COUNTY ROAD D IMPROVEMENTS, MAPLEWOOD, MN
STA. 17+25 TO STA. 18+50

PLOTTED: 07-27-04 @ 4:38 P



STA =19+25
 EXIST. C/L =940.7
 PRO C/L =940.46
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 EXCAVATION =77

STA =19+00
 EXIST. C/L =939.8
 PRO C/L =939.76
 EMBANKMENT =2
 EXCAVATION =71

STA =18+75
 EXIST. C/L =939.0
 PRO C/L =938.97
 EMBANKMENT =1
 EXCAVATION =17

STA =18+64.26
 EXIST. C/L =938.6
 PRO C/L =938.60
 EMBANKMENT =1
 EXCAVATION =5

28-261

STA =20+00
 EXIST. C/L =942.5
 PRO C/L =942.07
 EMBANKMENT =0
 EXCAVATION =94

STA =19+75
 EXIST. C/L =942.0
 PRO C/L =941.60
 EMBANKMENT =0
 EXCAVATION =75

STA =19+54
 EXIST. C/L =941.5
 PRO C/L =941.17
 EMBANKMENT =0
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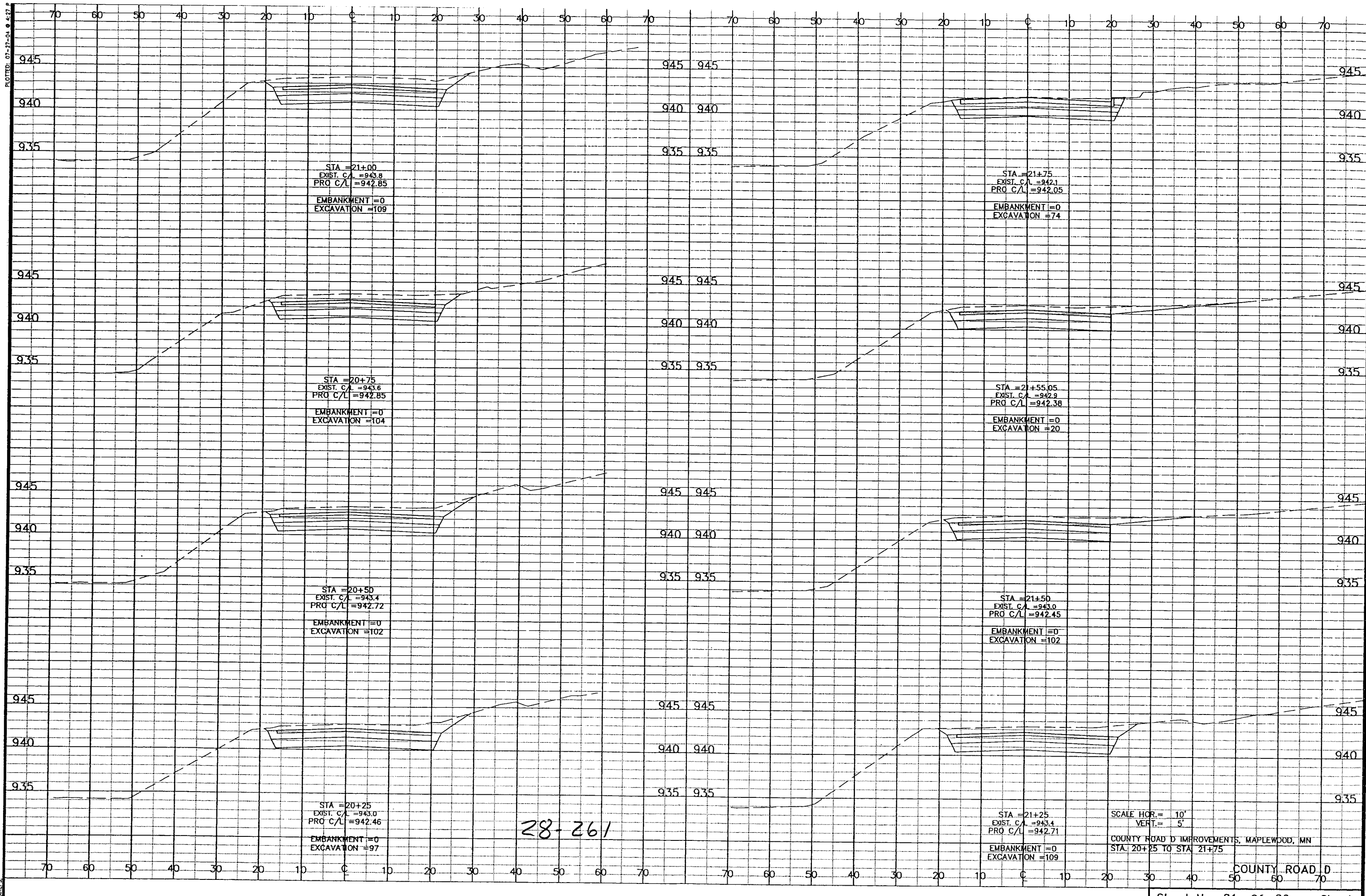
SCALE HOR. = 10'
 VERT. = 5'

COUNTY ROAD D IMPROVEMENTS, MAPLEWOOD, MN
 STA. 18+64.26 TO STA. 20+00

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 PLOTTED: 07-27-04 @ 4:38 P

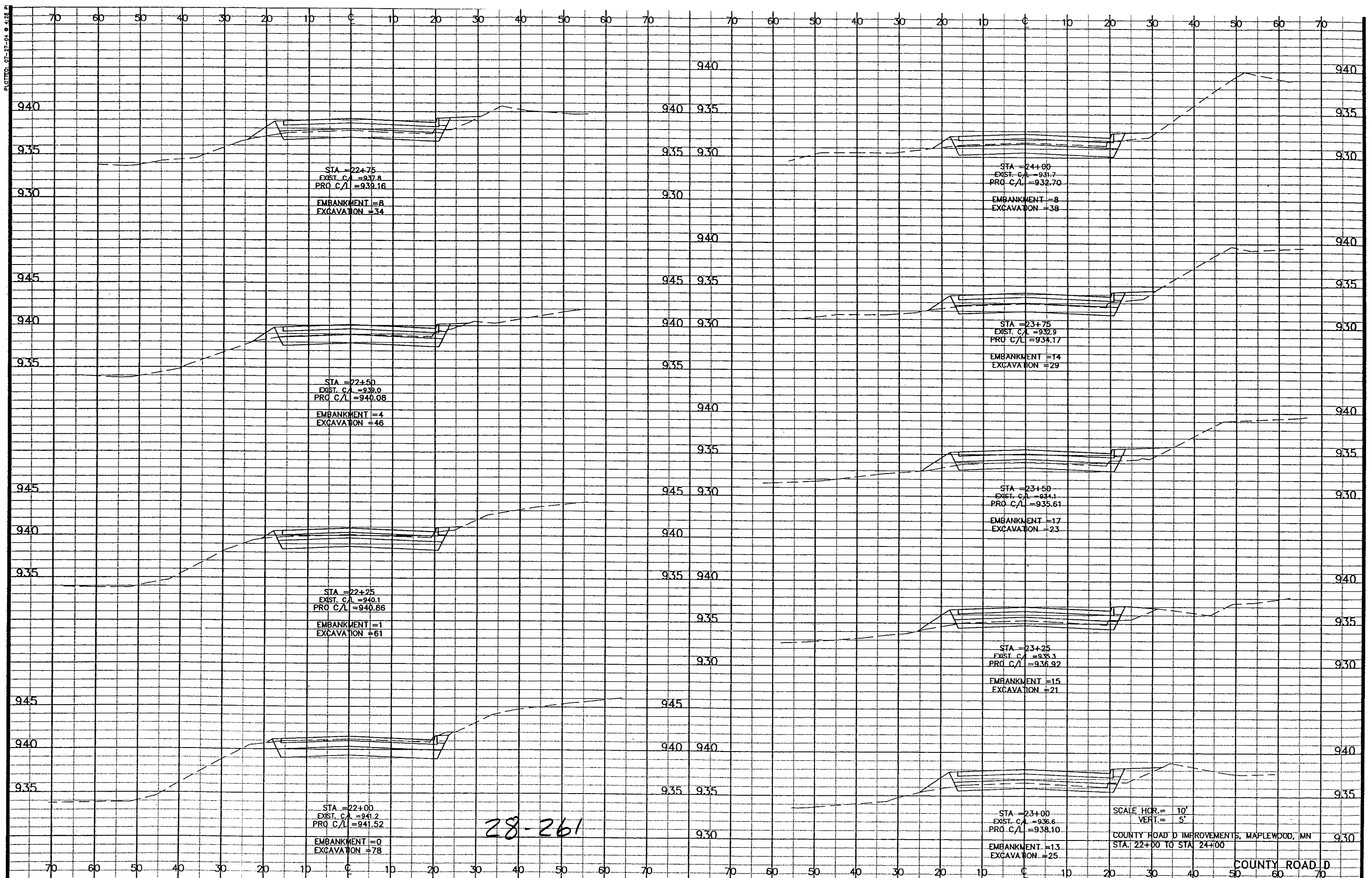
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DATE: 07-19-04 TIME: 10:27 am USER: TPLATH
XREFS:



SCALE HOR. = 10'
 VERT. = 5'
 COUNTY ROAD D IMPROVEMENTS, MAPLEWOOD, MN
 STA. 20+25 TO STA. 21+75

PLotted: 07-27-04 @ 4:28 PM

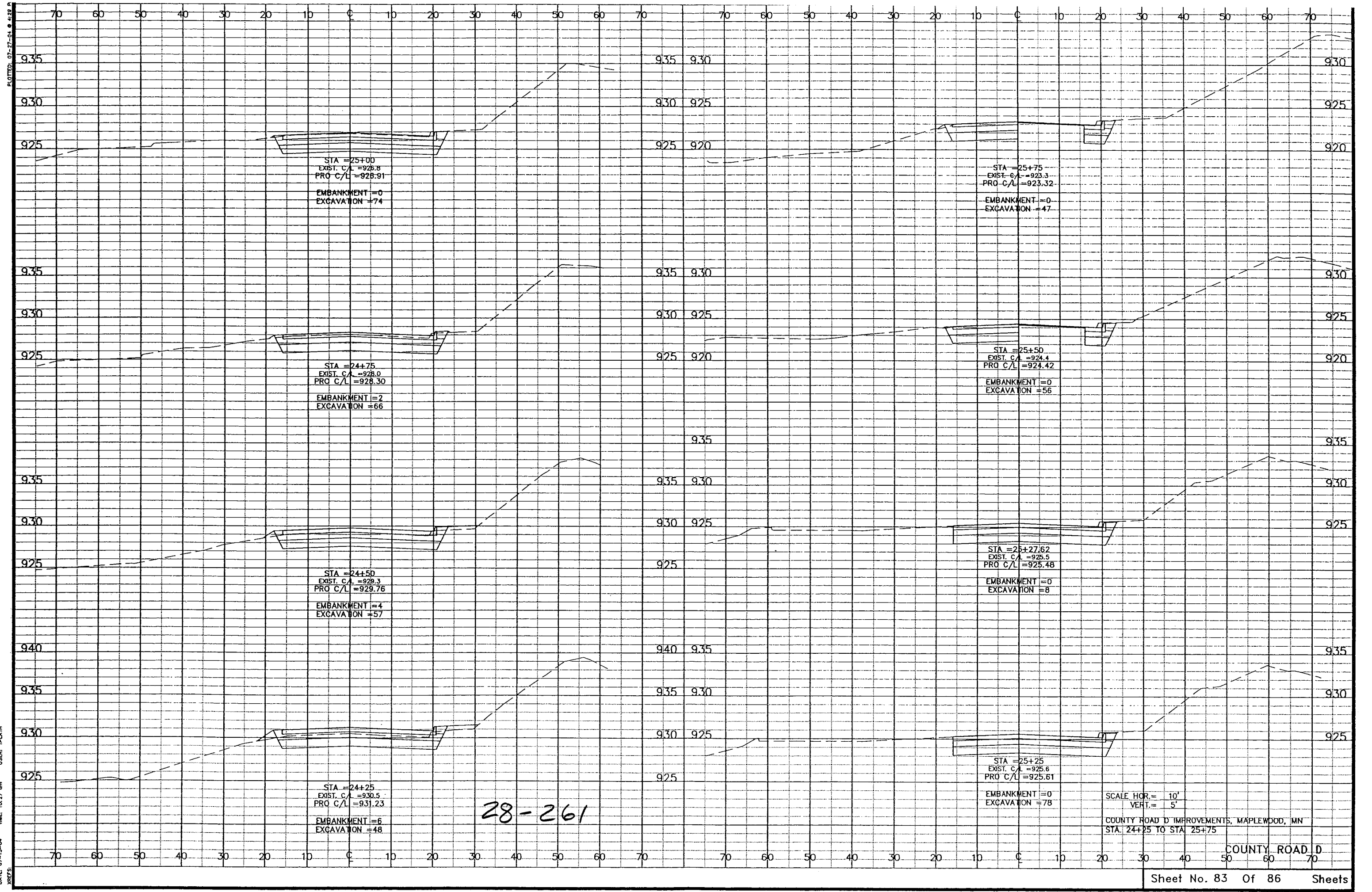


28-261

SCALE HOR. = 10'
 VERT. = 5'
 COUNTY ROAD D IMPROVEMENTS, MAPLEWOOD, MN
 STA. 22+00 TO STA. 24+00

COUNTY ROAD D

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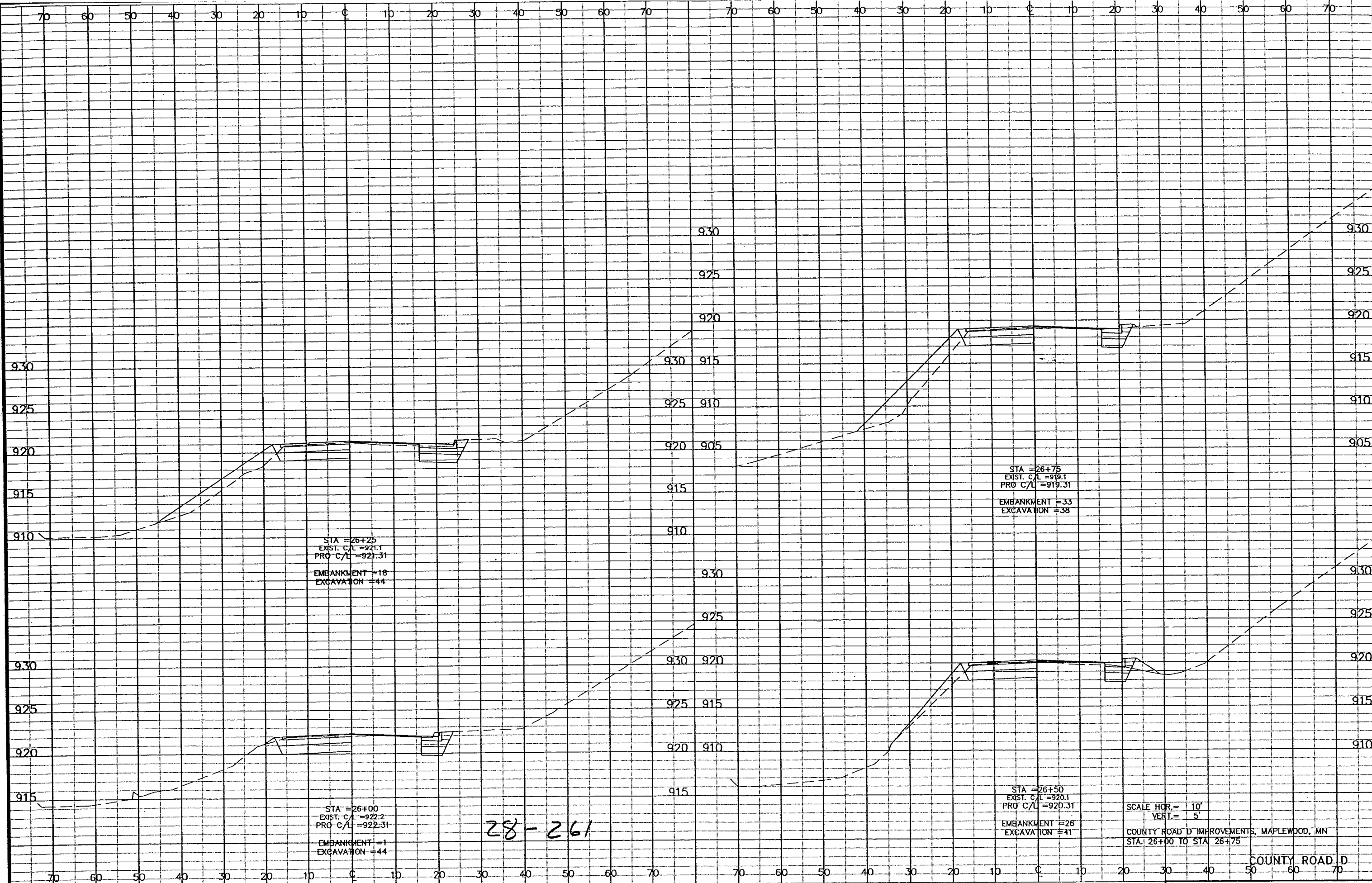
28-261

SCALE HOR. = 10'
 VERT. = 5'
 COUNTY ROAD D IMPROVEMENTS, MAPLEWOOD, MN
 STA. 24+25 TO STA. 25+75

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PLOTTED: 07-27-04 @ 4:50 PM

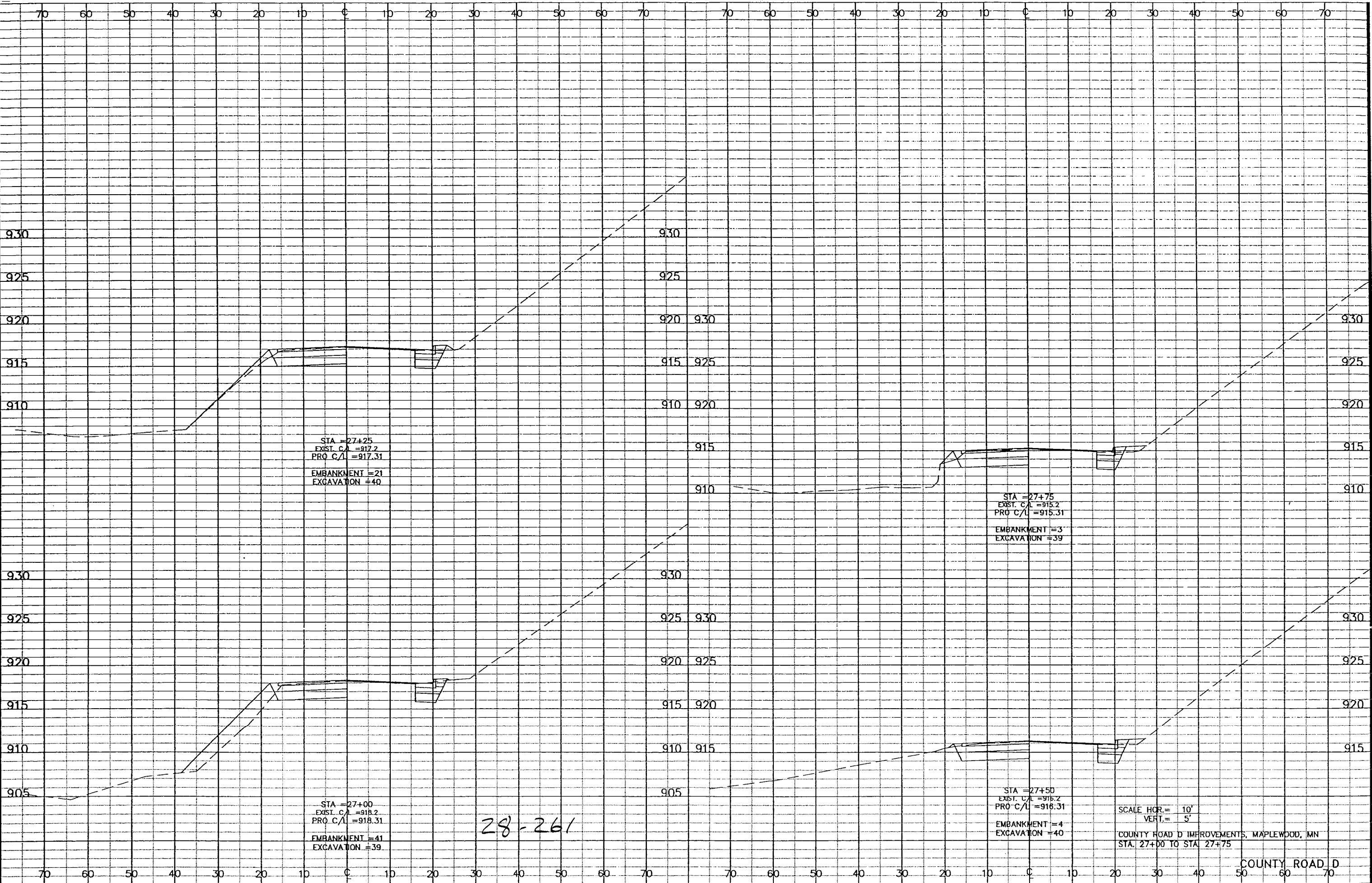
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SCALE HOR. = 10'
 VERT. = 5'
 COUNTY ROAD D IMPROVEMENTS, MAPLEWOOD, MN
 STA. 26+00 TO STA. 26+75

PLotted: 07-27-04 @ 4:31 PM

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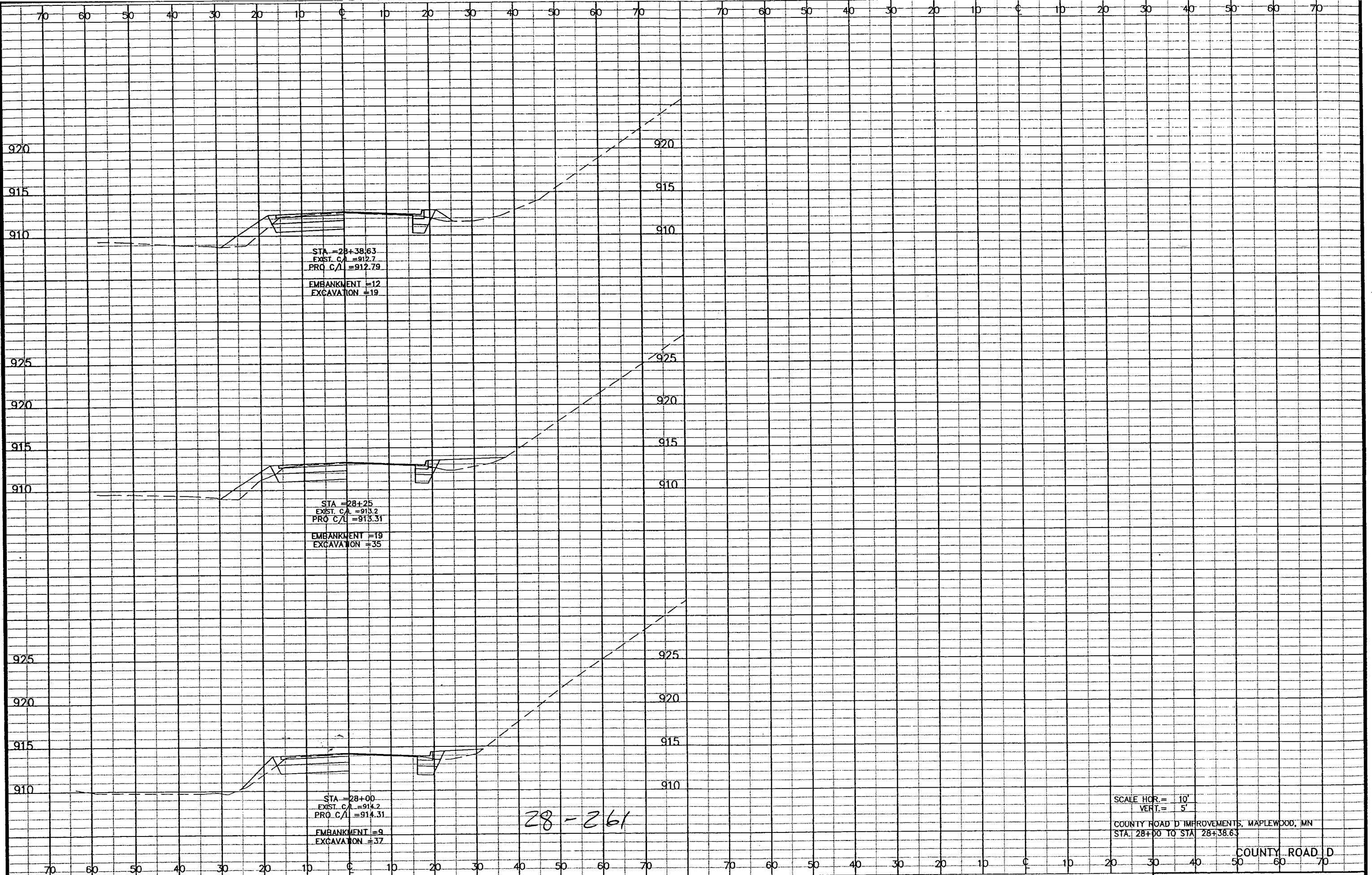
28-261

SCALE HOR. = 10'
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COUNTY ROAD D IMPROVEMENTS, MAPLEWOOD, MN
STA. 27+00 TO STA. 27+75

COUNTY ROAD D

PLOTTED: 07-27-04 @ 4:31 PM

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DATE: 07-15-04 TIME: 10:27 am USER: TPLATH
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SCALE HOR. = 10'
VERT. = 5'

COUNTY ROAD D IMPROVEMENTS, MAPLEWOOD, MN
STA. 28+00 TO STA. 28+38.63