



RAMSEY COUNTY

Department of Public Works

C.S.A.H. 12 (COUNTY ROAD F)

CONSTRUCTION PLAN FOR BITUMINOUS SURFACING, CONCRETE CURB & GUTTER, CONCRETE SIDEWALK, STORMWATER IMPROVEMENTS TRAFFIC SIGNAL IMPROVEMENTS

LOCATED ON, C.S.A.H. 12 BETWEEN STATE TRUNK HIGHWAY 61 AND McKNIGHT ROAD (Geographic Description)
TOWNSHIP 30, RANGE 22, SECTION 23, 26

C.S.A.H. 12 (COUNTY ROAD F)

STATE AID PROJ. NO. 62-612-14

STATE AID PROJ. NO. 174-020-19

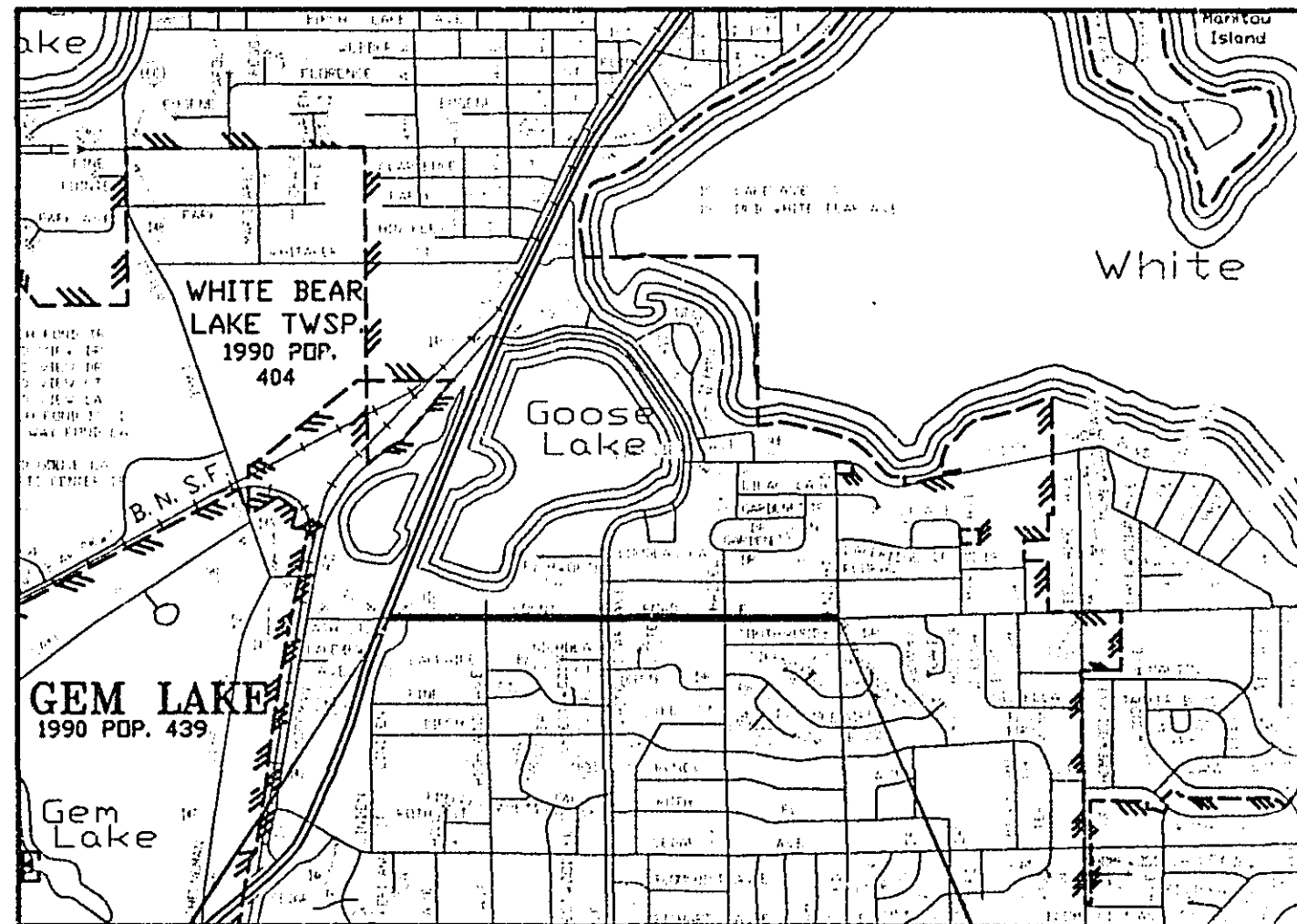
GROSS-LENGTH 5043.97 FEET 0.96 MILES

BRIDGE-LENGTH 0 FEET 0 MILES

EXCEPTIONS-LENGTH 0 FEET 0 MILES

NET-LENGTH 5043.97 FEET 0.96 MILES

LEGEND	
---	EXISTING ROAD RIGHT OF WAY
---	EXISTING SURVEY EASEMENT
---	EXISTING SURVEY PROPERTY LINE
---	EXISTING SURVEY QUARTER LINE
---	EXISTING SURVEY SECTION LINE
---	EXISTING GATE VALVE
HYD.	EXISTING HYDRANT
CS	EXISTING CURB BOX
SAN STM	EXISTING MANHOLE FOR STORM AND SANITARY SEWER
CB	EXISTING CATCH BASIN
PP	EXISTING POWER POLE
FM	EXISTING SANITARY SEWER FORCE MAIN
---	EXISTING SANITARY SEWER w/ PUMPS
---	EXISTING SANITARY SEWER
---	EXISTING STORM SEWER
---	EXISTING WATERMAIN
---	EXISTING CURB AND GUTTER
---	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
---	PROPOSED REDUCER
---	PROPOSED TEE
---	PROPOSED GATE VALVE
---	PROPOSED HYDRANT
---	PROPOSED MANHOLE FOR STORM AND SANITARY SEWER
---	PROPOSED CATCH BASIN
---	PROPOSED WATERMAIN
---	PROPOSED SANITARY SEWER
---	PROPOSED STORM SEWER
---	PROPOSED CURB AND GUTTER

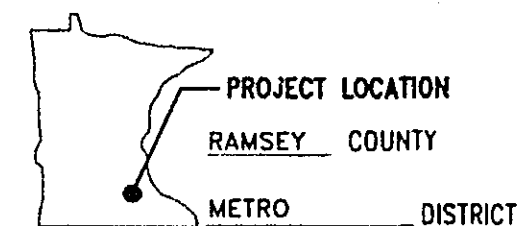
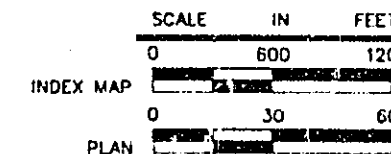


BEGIN S.A.P. 62-612-14
BEGIN S.A.P. 174-020-19
STA. 0+00.00

END S.A.P. 62-612-14
END S.A.P. 174-020-19
STA. 50+43.97

DESIGN DESIGNATION: C.S.A.H. 12 (S.A.P. 62-612-64)

Functional Classification: ARTERIAL-MINOR
No. of Traffic Lanes: 2 No. of Parking Lanes: 1
ADT (Current Year) 2002: 5000 Design Speed: 30 MPH
ADT (Future Year) 2022: 8000 Based on: 41 Stopping Site Distance
DHV (Design Hr. Vol.): N.A. Height of eye: 3.50 Height of Object: .50
D (Directional Distr.): 50 % Design Speed not achieved at: N.A.
T (Heavy Commercial): 5.90 % STA. N.A. TO STA. N.A. MPH N.A.
R-Value: 60 H18 Factor: N.A. Design Load: 9 Ton 20 Year ESAL: 767,500



ASBUILT *[Signature]*
28-200

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

2000 GOVERNING SPECIFICATIONS AS AMENDED

THE 2000 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION". ALL TRAFFIC CONTROL SIGNING AND DEVICES SHALL CONFORM TO THE MN MUTCD, INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS DATED JANUARY 2001.

INDEX

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54-65	SIGNALS
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67-109	CROSS SECTIONS

THIS PLAN SET CONTAINS 109 SHEETS

ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND WILL ORDINANCES BE COMPLIED WITHIN THE CONSTRUCTION OF THIS PROJECT.



Thresher Square
700 Third Street South
Minneapolis, MN 55410
612.370.0700 Tel
612.370.1378 Fax

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.

URS, INC.
DATE 3 October 2002 NO. 40953
ENGINEER *[Signature]* Nick C. Landwer

APPROVED *[Signature]* 1/28/03
CITY OF WHITE BEAR LAKE ENGINEER
APPROVED *[Signature]* 10/9 20 02
RAMSEY COUNTY PROJECT ENGINEER
APPROVED *[Signature]* 10/10 2002
RAMSEY COUNTY ENGINEER
Recommended For Approval *[Signature]* 2/4 20 03
METRO-ASSISTANT DIVISION ENGINEER-STATE AID:
REVIEWED FOR COMPLIANCE WITH STATE-AID RULES/POLICY
APPROVED FOR STATE AID DIVISION *[Signature]* 2/4 20 03
APPROVED FOR STATE AID FUNDING: STATE AID ENGINEER

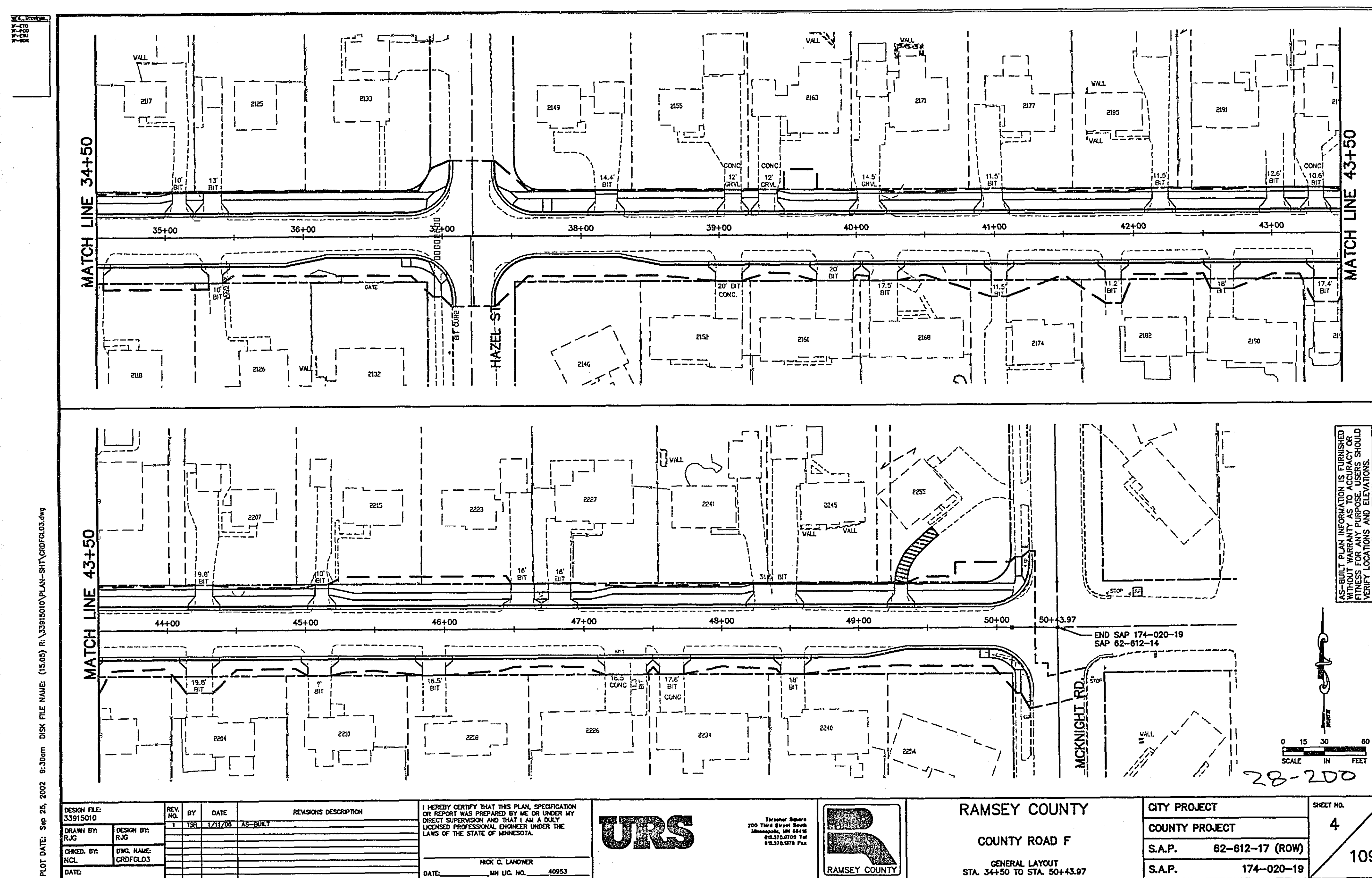
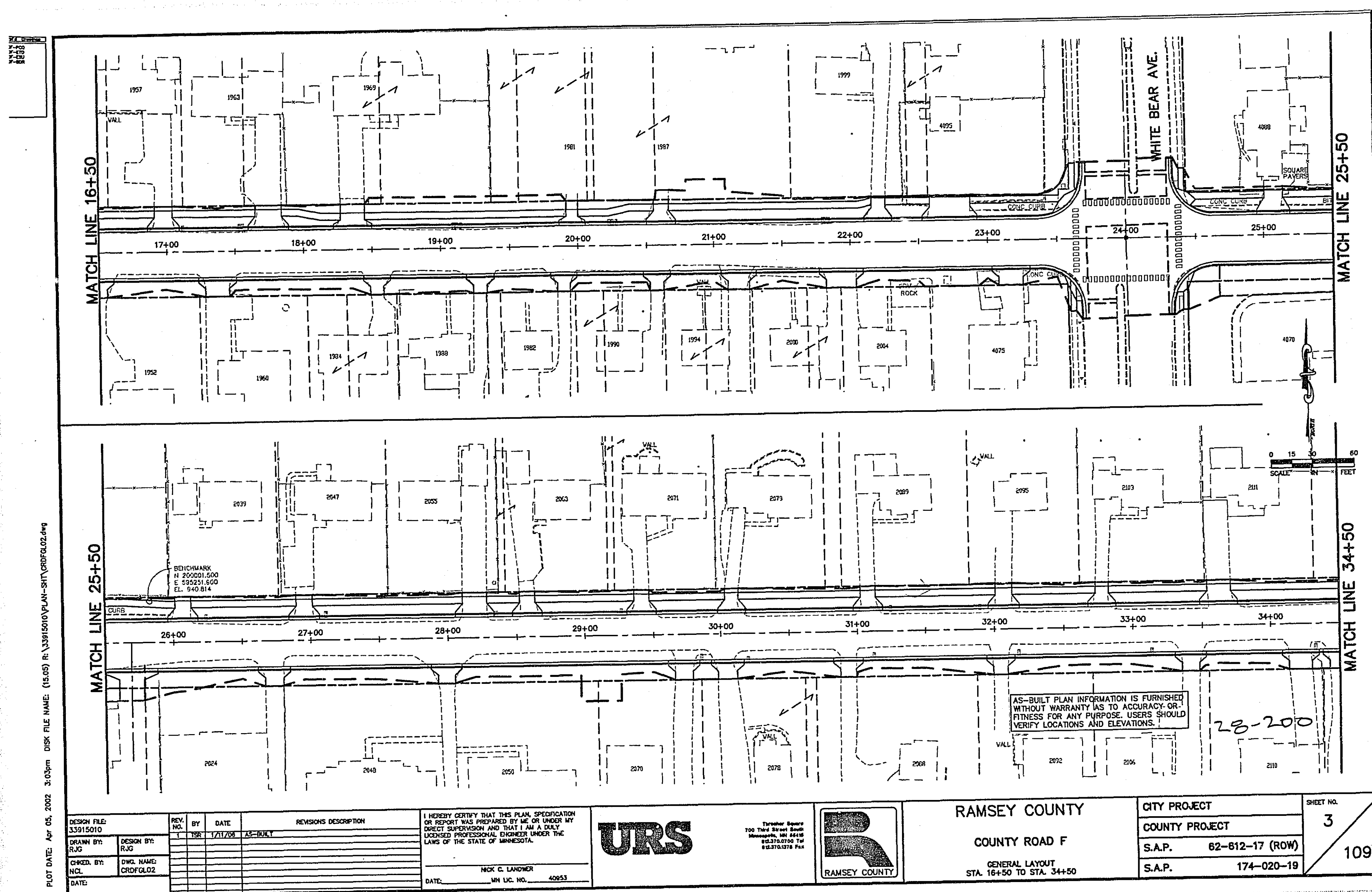
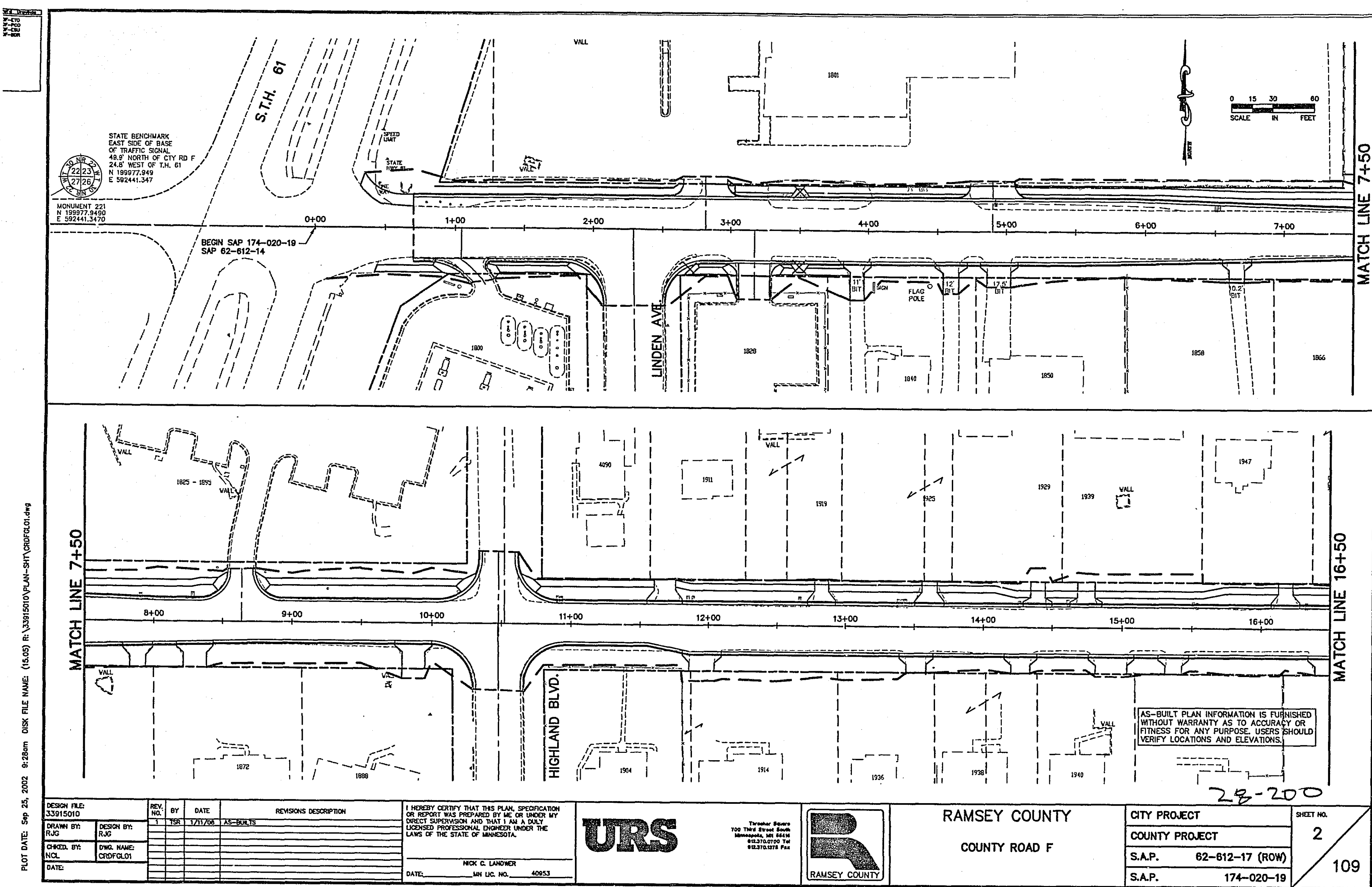
I HEREBY CERTIFY THAT THE FINAL FIELD REVISIONS, IF ANY, OF THIS PLAN WERE MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY

STATE AID PROJ. NO. 62-612-14

STATE AID PROJ. NO. 174-020-19

DATE
1 OF 109 SHEETS



ESTIMATED QUANTITIES									
RAMSEY COUNTY S.A.P. 62-612-14 CITY WHITE BEAR LAKE S.A.P. 174-020-19									
CHART	NOTE	ITEM NO.	CONTRACT ITEM	UNIT	TOTAL ESTIMATED QUANTITIES	100% RAMSEY COUNTY S&P (GROUP 1)		25% RAMSEY COUNTY S&P 75% WHITE BEAR LAKE S&P (GROUP 2)	
						ESTIMATED QUANTITIES	FINAL QUANTITIES	ESTIMATED QUANTITIES	FINAL QUANTITIES
		2021.501	MOBILIZATION	LUMP SUM	1.00	0.51	0.51		
		2031.501	FIELD OFFICE, TYPE D	EACH	1.00	0.51	0.51		
J		2101.502	CLEARING	TREE	15.00				
J		2101.507	GRUBBING	TREE	15.00				
C		2102.501	PAVEMENT MARKING REMOVAL	SF	150.00				
B		2104.501	REMOVE RCP PIPE SEWER (STORM) 12 INCH	LF	510.00				
B		2104.501	REMOVE RCP PIPE SEWER (STORM) 15 INCH	LF	75.00				
B		2104.501	REMOVE RCP PIPE SEWER (STORM) 24 INCH	LF	2935.00				
B		2104.501	REMOVE RCP PIPE SEWER (STORM) 27 INCH	LF	480.00				
G		2104.501	REMOVE CMP PIPE CULVERTS AND APRONS	LF	725.00				
E		2104.501	REMOVE 6 INCH DIP WATERMAIN	LF	107.00				
G		2104.501	REMOVE CURB & GUTTER	LF	835.00				
E		2104.501	REMOVE WOOD TIMBERS	LF	82.00				
E		2104.505	REMOVE CONCRETE PAVEMENT	SY	214.00				
D		2104.505	REMOVE CONCRETE WALK	SY	88.00				
D		2104.505	REMOVE BITUMINOUS PAVEMENT	SY	17562.00				
E		2104.505	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SY	3320.00				
A		2104.507	REMOVE RIP RAP	CY	204.00				
A		2104.509	REMOVE CATCH BASIN	EACH	10.00				
A		2104.509	REMOVE STORM MANHOLE	EACH	4.00				
A		2104.509	REMOVE SIGNAL AND FOUNDATION	EACH	6.00				
K		2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LF	3.00				
H		2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	360.00				
G		2104.521	SALVAGE WOOD FENCE	LF	1755.00				
I		2104.523	SALVAGE SIGN TYPE C	LF	215.00				
A		2104.523	SALVAGE SIGN TYPE D	EACH	34.00				
A		2104.523	SALVAGE SIGN MAST ARM	EACH	3.00				
A		2104.523	SALVAGE SIGNAL CABINET	EACH	7.00				
A		2104.523	SALVAGE LIGHT POLE AND BASE	EACH	1.00				
A		2104.523	SALVAGE MARQUEE SIGN	EACH	12.00				
		2104.601	HAUL SALVAGED MATERIAL	EACH	1.00				
			LUMP SUM		1.00				
O	1	2105.501	COMMON EXCAVATION (P)	CY	22871.00				
		2105.522	SELECT GRANULAR BORROW (CV)	CY	9425.00				
		2105.523	COMMON BORROW (LV)	CY	1020.00				
		2105.525	TOPSOIL BORROW (LV)	CY	745.00				
		2105.603	WEED TRENCH	LF	651.00				
		2123.610	STREET SWEEPER (WITH PICKUP BROOM)	HR	50.00				
		2130.501	WATER	MGAL	0.10				
O	1	2211.501	AGGREGATE BASE, CLASS 7	TON	500.00				
		2211.503	AGGREGATE BASE (CV), CLASS 7 (P)	CY	4567.00				
L		2232.501	MILL BITUMINOUS PAVEMENT	SY	256.00				
					256				
					22871				
					5838				
					1020				
					745				
					651				
					50				
					0.1				
					500				
					2877				
					1690				
					256				
					256				

DESIGN FILE: 33151010
DESIGN BY: RJD
CHECKED BY: RJD
DATE: 10/2/02

REVISIONS DESCRIPTION

1. 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.

URS

TRANSPORTATION
100 Third Street, Suite 200
Minneapolis, MN 55401
612.338.2200

RAMSEY COUNTY

CITY PROJECT
COUNTY PROJECT
S.A.P. 62-612-17 (ROW)
S.A.P. 174-020-19

SHEET NO. 5

109

ESTIMATED QUANTITIES

RAMSEY COUNTY S.A.P. 62-612-14
CITY WHITE BEAR LAKE S.A.P. 174-020-19

CHART	NOTE	ITEM NO.	CONTRACT ITEM	UNIT	TOTAL		ROADWAY 100% RAMSEY COUNTY S.A.P. (GROUP 1)		ROADWAY 25%-RAMSEY COUNTY S.A.P. 75%-WHITE BEAR LAKE S.A.P. (GROUP 2)		STORM SEWER 75%-RAMSEY COUNTY S.A.P. 25%-WHITE BEAR LAKE S.A.P. (GROUP 3)		CITY OF WHITE BEAR LAKE NON PARTICIPATING (GROUP 4)	
					ESTIMATED QUANTITIES	FINAL QUANTITIES	ESTIMATED QUANTITIES	FINAL QUANTITIES	ESTIMATED QUANTITIES	FINAL QUANTITIES	ESTIMATED QUANTITIES	FINAL QUANTITIES		
M		2301.503	CONCRETE PAVEMENT PATCH (HE)	SY	182.00									
		2301.603	PERMANENT HEADER	LF	120.00									
L		2331.604	BITUMINOUS DRIVEWAY (IN ROW)	SY	1431.00									
		2331.601	BITUMINOUS DRIVEWAY (PRIVATE RECONSTRUCTION)	SY	2000.00									
L	1	2350.501	TYPE MWW35035B WEARING COURSE MIXTURE	TON	2545.00									
L	1	2350.502	TYPE MWW35035B BINDER COURSE MIXTURE	TON	2545.00									
L	1	2350.502	TYPE LWN35035B BASE COURSE MIXTURE	TON	2545.00									
L	1	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL	2212.00									
Q		2411.618	MODULAR BLOCK RETAINING WALL	SF	722.00									
		2451.607	TRENCH STABILIZATION ROCK	CY	200.00									
R		2501.569	48" RC SAFETY APRON	EA	1.00									
R		2502.521	14 INCH PVC PIPE	LF	81.00									
R		2502.521	8 INCH PVC PIPE	LF	192.00									
R		2502.541	4 INCH PERF. PVC PIPE DRAIN	LF	651.00									
R		2503.521	58 INCH SPAN RC PIPE-ARCH SEWER DESIGN 3006 CL IIIA	LF	450.00									
R		2503.541	15 INCH RC PIPE SEWER DESIGN 3006 CL V	LF	1253.00									
R		2503.541	27 INCH RC PIPE SEWER DESIGN 3006 CL III	LF	48.00									
R		2503.541	33 INCH RC PIPE SEWER DESIGN 3006 CL III	LF	632.00									
R		2503.541	42 INCH RC PIPE SEWER DESIGN 3006 CL III	LF	1928.00									
R		2503.541	48 INCH RC PIPE SEWER DESIGN 3006 CL III	LF	1951.00									
R		2503.602	CONNECT TO EXISTING STORM SEWER	EACH	3.00									
A		2504.602	ADJUST CURB STOP BOX	EACH	70.00									
A		2504.602	ADJUST WATERMAIN VALVE BOX	EACH	9.00									
A		2504.602	POT HOLE WATER SERVICE	EACH	30.00									
Q		2504.602	LOWER WATER SERVICE	EACH	20.00									
A		2504.602	INSTALL 8 INCH GATE VALVE	EACH	2.00									
Q		2504.603	8 INCH DIP WATERMAIN DUCTILE IRON CL 52	EACH	7.00									
A		2504.604	3 INCH POLYSTYRENE INSULATION	SF	107.00									
A		2504.608	CAST IRON FITTINGS	LB	500.00									
R		2506.501	CONSTRUCT DRAINAGE STRUCTURE DSGN 48-4020	LF	33.58									
R		2506.501	CONSTRUCT DRAINAGE STRUCTURE DSGN 60-4020	LF	106.01									
R		2506.501	CONSTRUCT DRAINAGE STRUCTURE DSGN 72-4020	LF	142.00									
R		2506.501	CONSTRUCT DRAINAGE STRUCTURE DSGN 84-4020	LF	16.22									
R		2506.501	CONSTRUCT DRAINAGE STRUCTURE DSGN 96-4020	LF	9.00									
R		2506.502	CONSTRUCT DRAINAGE STRUCTURE DSGN 2X3	LF	103.30									
R		2506.516	CASTING ASSEMBLY	EACH	4.00									
A		2506.602	ADJUST CATCH BASIN	EACH	60.00									
A		2506.602	ADJUST MANHOLE RING AND CASTING	EACH	2.00									
A		2506.602	RECONSTRUCT SANITARY SEWER SERVICE DROP	EACH	13.00									
R		2511.501	RANDOM RIPRAP CLASS III	CY	20.00									

AS-BUILT PLAN INFORMATION IS FURNISHED WITHOUT WARRANTY AS TO ACCURACY OR FITNESS FOR ANY PURPOSE. USERS SHOULD VERIFY LOCATIONS AND ELEVATIONS.

28-200

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URS

RAMSEY COUNTY
COUNTY ROAD F
ESTIMATED QUANTITIES

CITY PROJECT
COUNTY PROJECT
S.A.P. 62-612-17 (ROW)
S.A.P. 174-020-19

SHEET NO. 6
109

ESTIMATED QUANTITIES

RAMSEY COUNTY S.A.P. 62-612-14
CITY WHITE BEAR LAKE S.A.P. 174-020-19

CHART	NOTE	ITEM NO.	CONTRACT ITEM	UNIT	TOTAL		ROADWAY 100% RAMSEY COUNTY S.A.P. (GROUP 1)		ROADWAY 25%-RAMSEY COUNTY S.A.P. 75%-WHITE BEAR LAKE S.A.P. (GROUP 2)		STORM SEWER 75%-RAMSEY COUNTY S.A.P. 25%-WHITE BEAR LAKE S.A.P. (GROUP 3)		CITY OF WHITE BEAR LAKE NON PARTICIPATING (GROUP 4)	
					ESTIMATED QUANTITIES	FINAL QUANTITIES	ESTIMATED QUANTITIES	FINAL QUANTITIES	ESTIMATED QUANTITIES	FINAL QUANTITIES	ESTIMATED QUANTITIES	FINAL QUANTITIES		
R		2511.501	RANDOM RIPRAP CLASS III	CY	20.00									
M		2521.501	4 INCH CONCRETE WALK	SF	20790.00									
L		2531.501	CONCRETE CURB & GUTTER DESIGN 9824	LF	10228.00									
M		2531.501	CONCRETE CURB & GUTTER DESIGN 9812	LF	70.00									
M		2531.507	6 INCH CONCRETE DRIVEWAY PAVEMENT (IN ROW)	SY	42.00									
M		2531.507	6 INCH CONCRETE DRIVEWAY PAVEMENT (PRIVATE)	SY	100.00									
M		2531.507	6 INCH CONCRETE DRIVEWAY APRON	SY	548.00									
M		2531.602	CONCRETE PEDESTRIAN RAMP TYPE A	EACH	9.00									
F		2540.602	FURNISH AND INSTALL MAILBOX AND SUPPORT	EACH	80.00									
Q		2540.602	CONSTRUCT SURVEY MONUMENT MANHOLE	EACH	1.00									
		2545.602	INSTALL SALVAGED LIGHT POLE	EACH	12.00									
		2554.603	WATER FILLED BARRIER	LF	300.00									
		2554.603	RELOCATE WATER FILLED BARRIER	LF	300.00									
G		2557.603	INSTALL SALVAGED WOOD FENCE	LF	215.00									
		2563.601	TRAFFIC CONTROL	LUMP SUM	1.00									
		2564.531	F&M SIGN PANEL TYPE C	SF	247.78									
N		2564.602	PAVEMENT MESSAGE TYPE 1 (ONLY) EPOXY	EACH	1.00									
N		2564.602	PAVEMENT MESSAGE TYPE 1 (RT ARROW) EPOXY	EACH	1.00									
N		2564.602	INSTALL SIGN TYPE D	EACH	4.00									
N		2564.603	4 INCH DOUBLE SOLID LINE YELLOW - EPOXY	LF	695.00									
N		2564.603	4 INCH SOLID LINE WHITE - EPOXY	LF	7785.00									
N		2564.603	4 INCH BROKEN LINE WHITE - EPOXY	LF	1000.00									
N		2564.603	4 INCH BROKEN LINE YELLOW - EPOXY	LF	130.00									
N		2564.618	CROSSWALK MARKING - EPOXY	SF	1638.00									
		2565.511	FULL T ACT T CONTROL SIGNAL SYSTEM B	SIG SYS	1.00									
		2565.516	REVISE SIGNAL SYSTEM A	SIG SYS	1.00									
		2565.601	EMERGENCY VEHICLE PREEMPTION SYSTEM B	LS	1.00									
		2564.531	FURNISH AND INSTALL SIGN PANEL TYPE D	SF	45.00									
P		2573.501	BALE CHECK	EACH	50.00									
P		2573.502	SILT FENCE, TYPE HEAVY DUTY	LF	80.00									
P		2573.602	ROCK CONSTRUCTION ENTRANCE	EACH	6.00									
P		2575.505	SODDING, TYPE LAWN	SY	6700.00									

NOTE: 1.) ROAD QUANTITIES ARE SPLIT WITH THROUGH LANES 100% RAMSEY COUNTY AND MAINTENANCE AND PARKING LANES SPLIT BETWEEN RAMSEY COUNTY AND WHITE BEAR LAKE
2.) SEE CHANGE ORDER # 6 FOR CHANGES TO PRIVATE DRIVE QUANTITIES

28-200

DESIGN FILE: 33915010
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CHECKED BY: RAO
DATE: 04/03/2002 4:30pm
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URS

RAMSEY COUNTY
COUNTY ROAD F
ESTIMATED QUANTITIES

CITY PROJECT
COUNTY PROJECT
S.A.P. 62-612-17 (ROW)
S.A.P. 174-020-19

SHEET NO. 7
109

CONSTRUCTION NOTES:

1) THE TOP OF THE GRADING GRADE ON THIS PROJECT IS DEFINED AS THE TOP OF SELECT GRADING MATERIAL OR THE BOTTOM OF THE AGGREGATE BASE.

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

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

4) ALL EXCAVATED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. MATERIALS WHICH MEET ITEM SPECIFICATIONS MAY BE REUSED IN PROJECT SUBGRADE OR EMBANKMENT AREAS. PAYMENT FOR MATERIALS REUSED SHALL BE AT THE CONTRACT UNIT PRICE FOR THE APPLICABLE ITEM.

5) 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.

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

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

8) 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.

9) ANY DEWATERING OR 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 THEREFOR.

10) 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 2104.3C3 OF THE SPECIFICATIONS.

11) EXCESS EXCAVATED AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH THE SECTIONS 2104.3C3 AND 2100.3D OF THE SPECIFICATIONS. COMPENSATION OF GRADING ITEMS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SPECIFICATION SECTION 2105.3F2 "QUALITY COMPACTION METHOD".

12) WHEN EXCAVATING ADJACENT TO INPLACE PAVEMENT, NO MATERIAL SHALL BE REMOVED FROM INSIDE AND APPROXIMATE 1/2-1 SLOPED LINE DRAIN DOWNWARD AND OUTSIDE FROM THE BOTTOM OF THE INPLACE PAVEMENT.

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

14) 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.

15) USE TACK COAT BETWEEN ALL BITUMINOUS COURSES. COMPACTION OF ALL BITUMINOUS COURSES SHALL BE ACCOMPLISHED IN ACCORDANCE WITH MNDOT 2105.3F2 "QUALITY COMPACTION METHOD".

16) THE CONTRACTOR SHALL MAINTAIN A MINIMUM CLEARANCE OF 1 FOOT BETWEEN CROSSING OF EXISTING UNDER 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.

17) 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.

18) 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.

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

THE FOLLOWING LISTING INCLUDES PERMITS REQUIRED TO BE OBTAINED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. REFER TO THE SPECIFICATIONS TO INFORMATION REGARDING THE CONTRACTOR'S RESPONSIBILITIES REGARDING PERMITS.

UNIT OF GOVERNMENT: VADNAIS LAKE WATERSHED MANAGEMENT ORGANIZATION
PERMITS: GRADING PERMIT
MNDOT: CONSTRUCTION WITHIN MNDOT ROW

SUMMARY OF PROJECT IMPACT TO THE SITE:
TOTAL PROJECT AREA WITHIN CONSTRUCTION LIMITS: 7.83 ACRES
FINAL IMPROVED SURFACE AREA: 5.49 ACRES
FINAL PERVIOUS SURFACE AREA: 2.34 ACRES

BASIS FOR ESTIMATED QUANTITIES
AGGREGATE BASE - 2.025 TONS PER CUBIC YARD
BITUMINOUS MIXTURES - 115 LBS. PER SQUARE YARD PER 1 INCH THICKNESS
BITUMINOUS MATERIAL FOR TACK COAT - 0.05 GAL. PER SQUARE YARD OF APPLICATION

INDEX OF TABULATION CHARTS
SHEET NO. CHART NO. DESCRIPTION
10 A, B, C EXISTING UTILITY/RAINAGE MODIFICATIONS
11 D REMOVE BITUMINOUS PAVEMENT
11 F MAIL BOX SALVAGE AND REINSTALL
11 K SAWCUT CONCRETE PAVEMENT
11 L MISCELLANEOUS REMOVALS/SALVAGE
11 E CONCRETE PAVEMENT REMOVALS
11 H SAWCUT BITUMINOUS PAVEMENT
11 J EXISTING SIGN SALVAGE
11 K CLEAR & GRUB
12 G AGGREGATE QUANTITIES SUMMARY
12 H PERMANENT PAVEMENT MARKINGS
12 M CONCRETE QUANTITIES SUMMARY
12 L BITUMINOUS QUANTITIES SUMMARY
13 P PROPOSED DRAINAGE TABULATION
12 P TURF ESTABLISHMENT & EROSION CONTROL
55 E EARTHWORK TABULATION BY STATION

STANDARD DETAIL PLATES
THE FOLLOWING STANDARD PLATES, APPROVED BY THE DEPARTMENT OF TRANSPORTATION AND FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT.
PLATE NO. DESCRIPTION
3000L REINFORCED CONCRETE PIPES
3000R GASKET JOINT FOR RC PIPES
3040F CORRUGATED METAL PIPE CULVERT
3123J METAL APRON FOR C.S. CULVERT
3124B METAL APRON CONNECTION
3133C RIP RAP AT RCP OUTLETS
3145E CONCRETE PIPE TIES
3160G CONCRETE APRON FOR RC PIPE
3221C CORRUGATED STEEL PIPE COUPLING BAND (BAND DETAILS)
4000L MANHOLE OR CATCH BASIN DESIGN A
4000R MANHOLE OR CATCH BASIN DESIGN F
4006L MANHOLE OR CATCH BASIN DESIGN H
4010H CONCRETE SHORT CONE AND ADJUSTING RING (SECTIONAL CONCRETE)
4010E PRECAST CONCRETE BASE
4018J MANHOLE OR CATCH BASIN REDUCER CONE SECTION
4020N MANHOLE OR CATCH BASIN REDUCER COVER (UNDER TRAFFIC)
7035E CONCRETE WALK & CURB RETURN AT ENTRANCES
7035R PEDESTRIAN CURB RAMP
7065E BITUMINOUS CURB
7100G CONCRETE CURB AND GUTTER
7111J INSTALLATION OF CATCH BASIN CASTINGS
7112C INSTALLATION AND REINFORCEMENT OF CB AND MH CASTINGS
8000N STANDARD BARRICADE
8150B INSTALLATION OF CULVERT MARKERS
9102D TURF ESTABLISHMENT

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URS

RAMSEY COUNTY
COUNTY ROAD F
ESTIMATED QUANTITIES

CITY PROJECT
COUNTY PROJECT
S.A.P. 62-612-17 (ROW)
S.A.P. 174-020-19

SHEET NO. 8
109

EARTHWORK SUMMARY

EXCAVATION (CU YARDS)
COMMON EXCAVATION (P) 22871 C.Y.

EMBANKMENT (CU YARDS)
COMMON BORROW 1020 C.Y.
TOPSOIL BORROW 745 C.Y.

KEY NOTES
① 4 INCHES RESPADE DEPTH (MINIMUM)

GENERAL NOTES
NOTE 1 MINERAL AND TOPSOIL EXCAVATION SHALL BE PAID FOR AS COMMON EXCAVATION WITH NO DIFFERENTIATION MADE BETWEEN THE SOIL TYPES.
NOTE 2 THE EXCAVATION VOLUME OF PIPES AND STRUCTURES IS NOT INCLUDED IN THE ABOVE SUMMARY OR IN THE CONTRACT BID ITEM FOR COMMON EXCAVATION AND IS CONSIDERED INCIDENTAL TO ITEMS FOR WHICH PAYMENT IS MADE.
NOTE 3 ALL EXCAVATED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. MATERIALS WHICH MEET ITEM SPECIFICATIONS MAY BE REUSED IN THE PROJECT SUBGRADE OR EMBANKMENT AREAS. PAYMENT FOR MATERIALS REUSED SHALL BE AT THE CONTRACT UNIT PRICE FOR THE APPLICATION.

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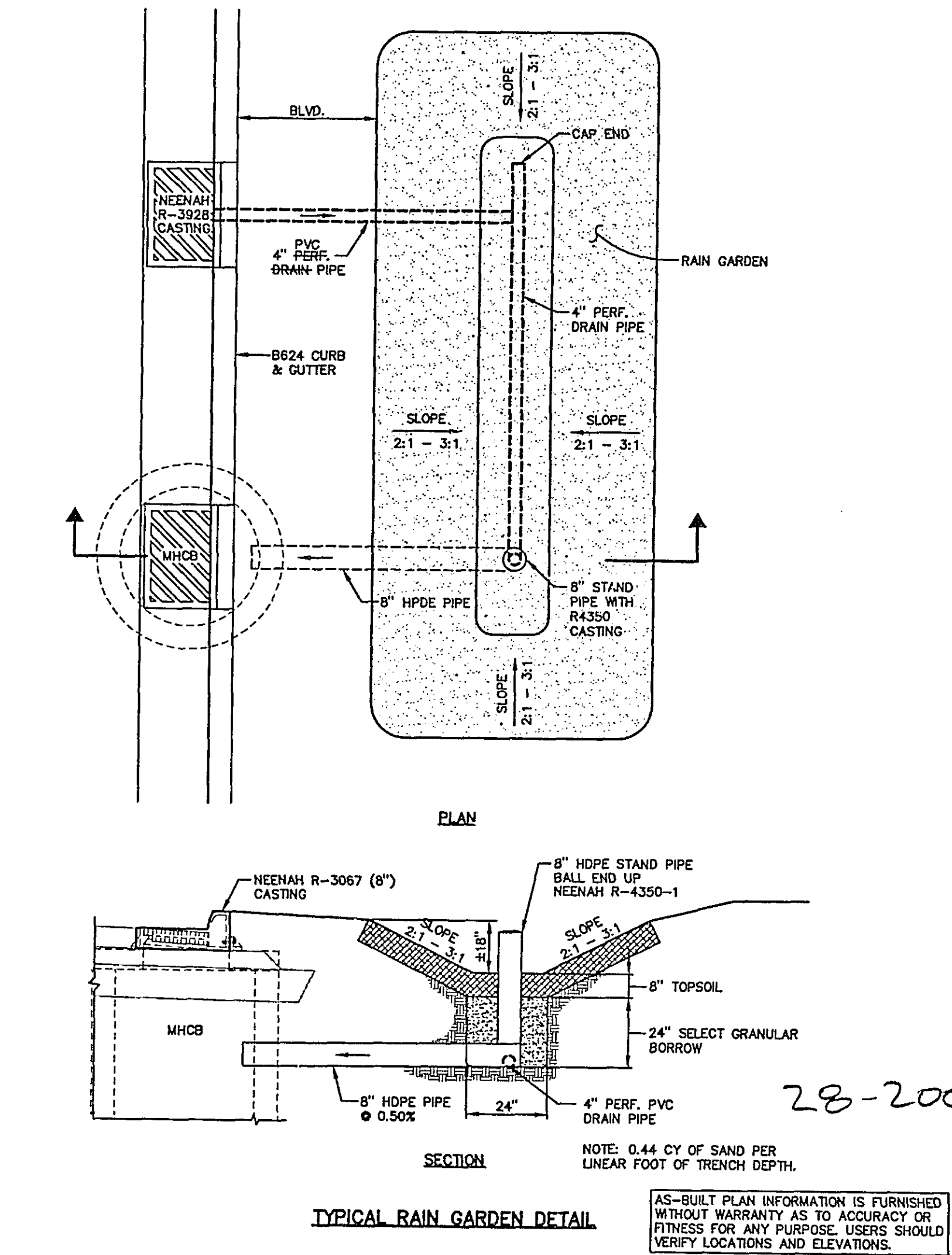
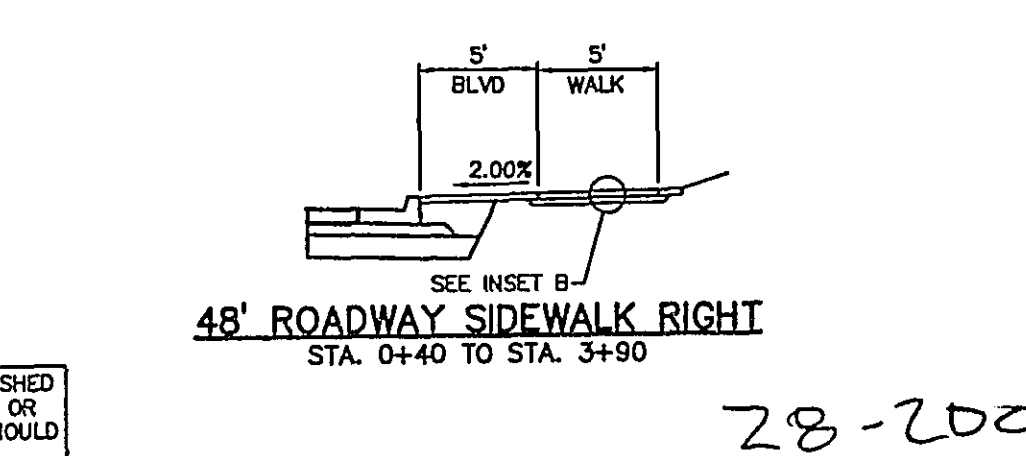
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RAMSEY COUNTY
COUNTY ROAD F
EARTHWORK SUMMARY

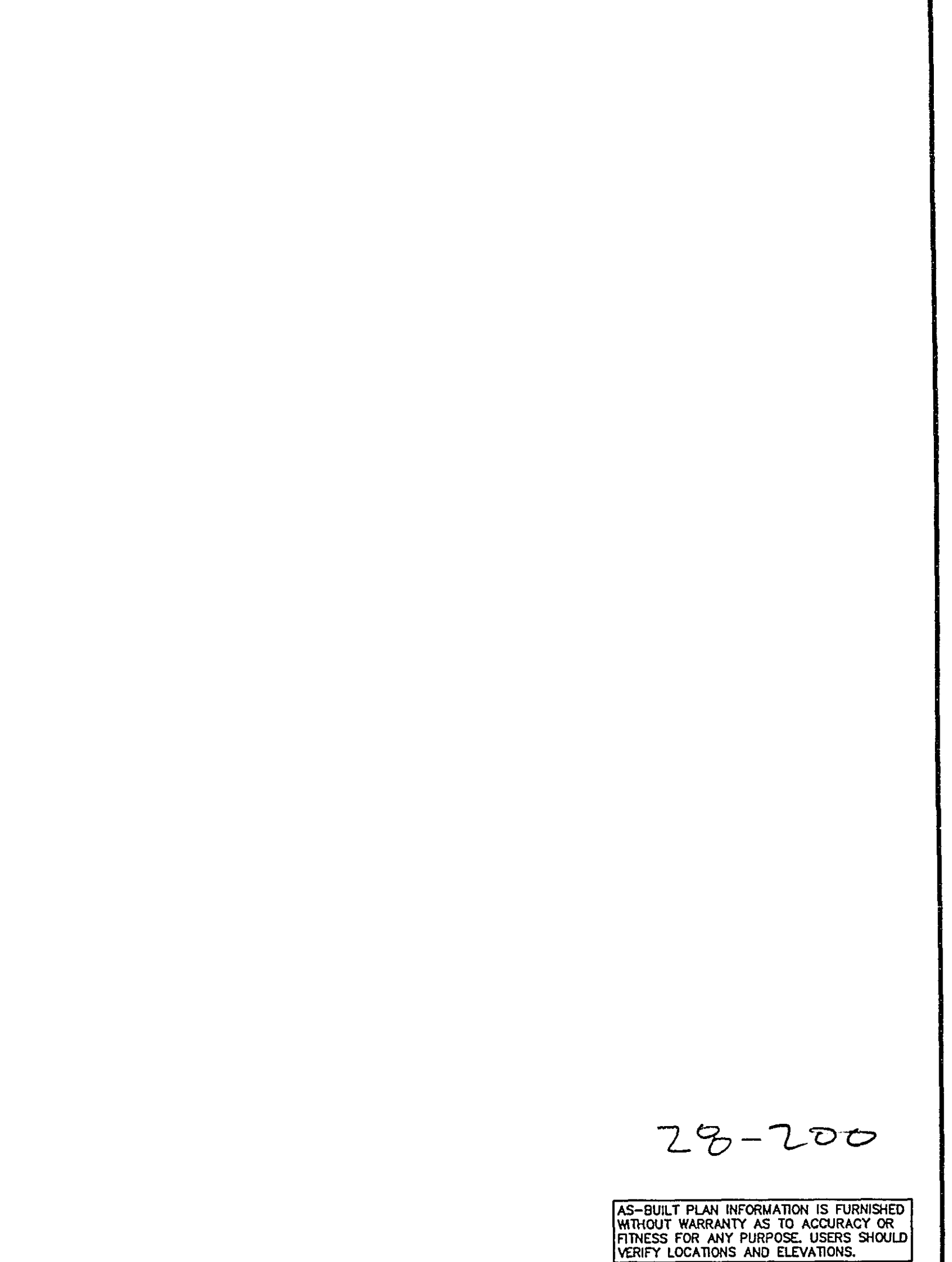
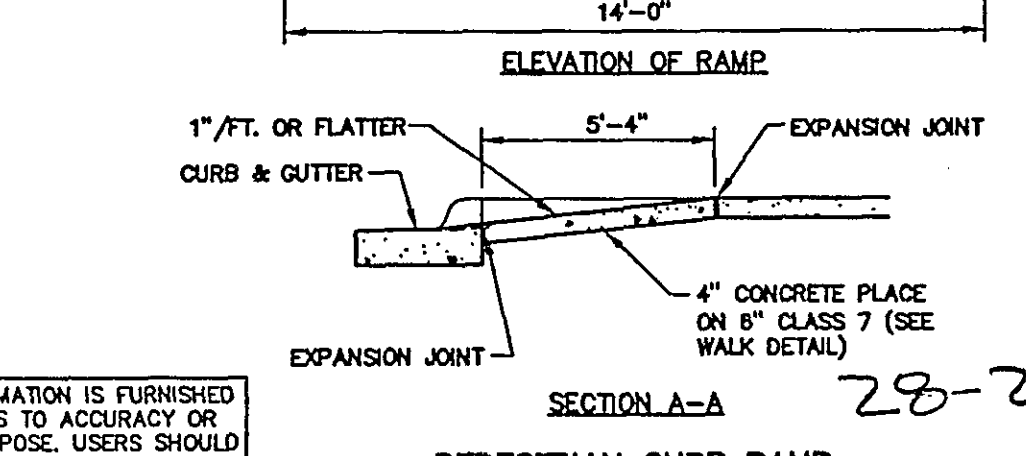
CITY PROJECT
COUNTY PROJECT
S.A.P. 62-612-17 (ROW)
S.A.P. 174-020-19

SHEET NO. 9
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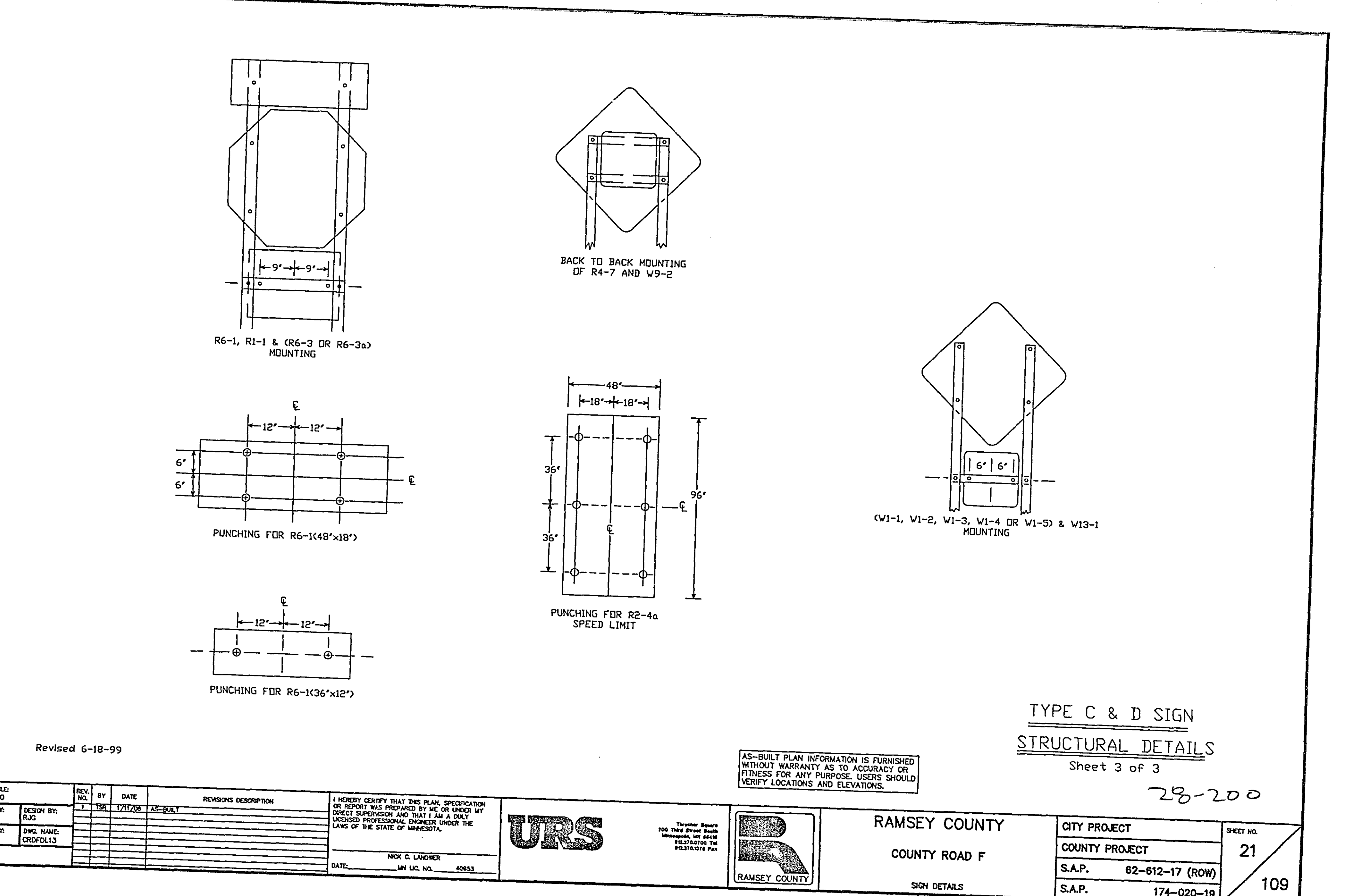
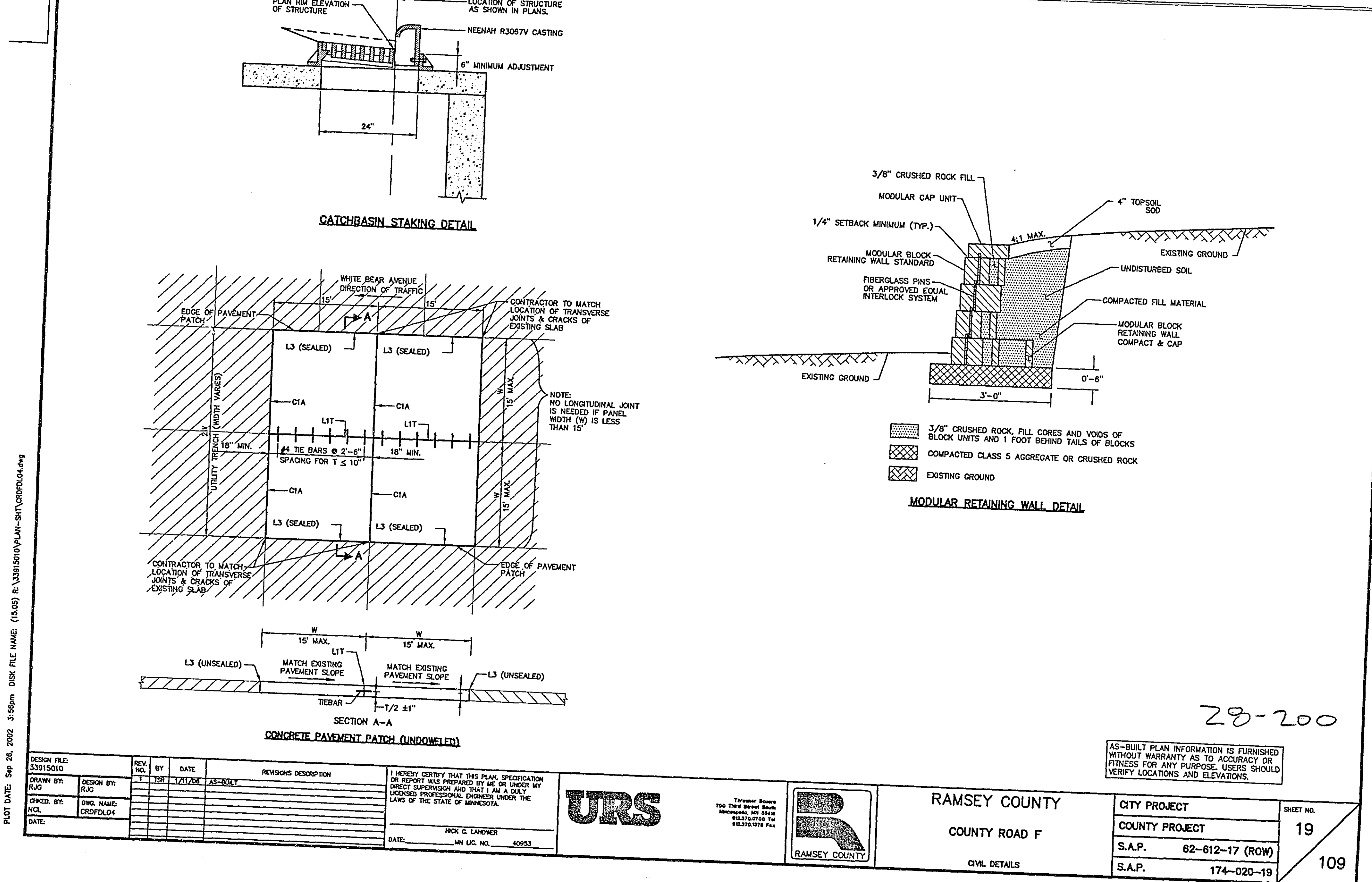
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62-612-17 (ROW)	

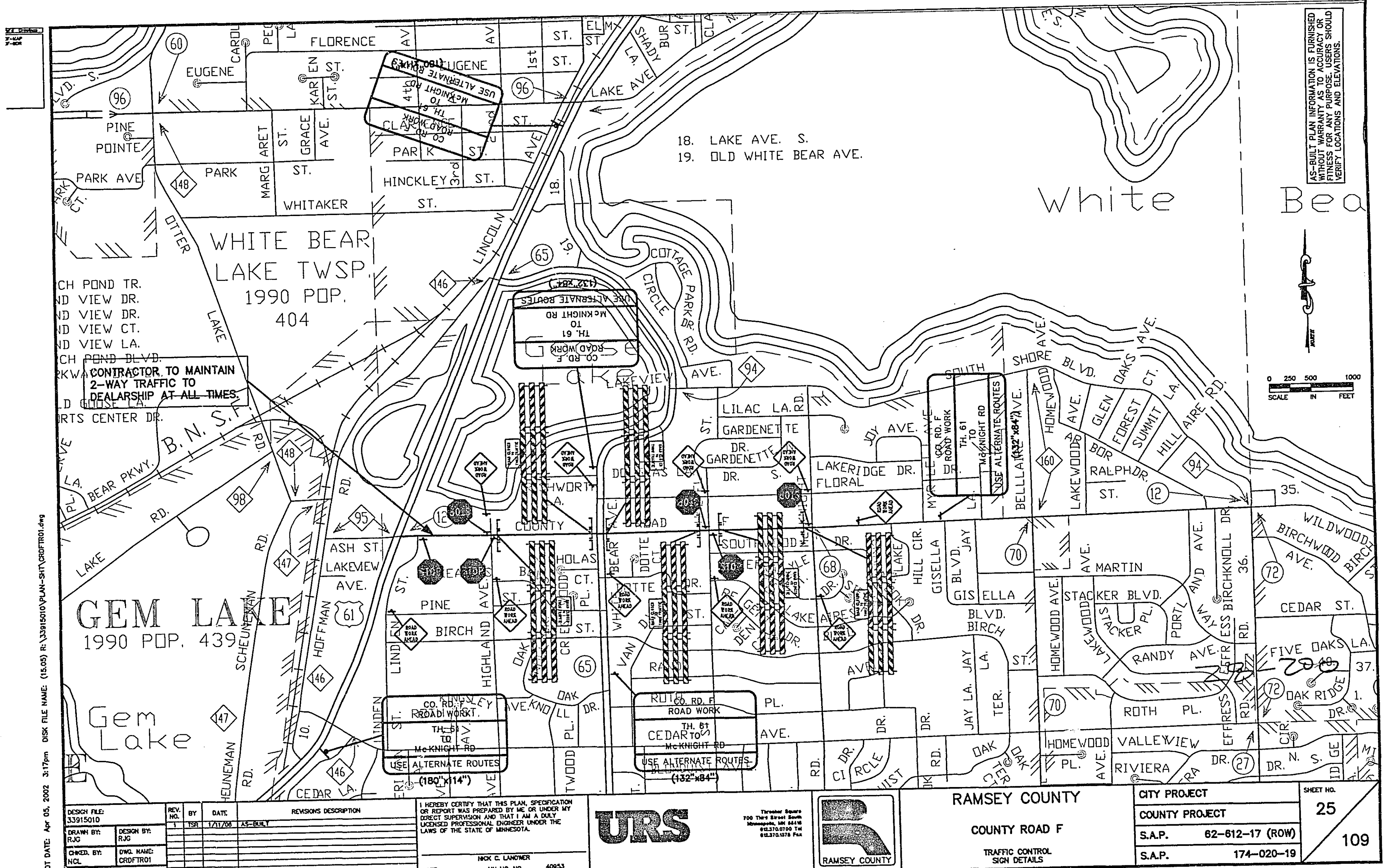
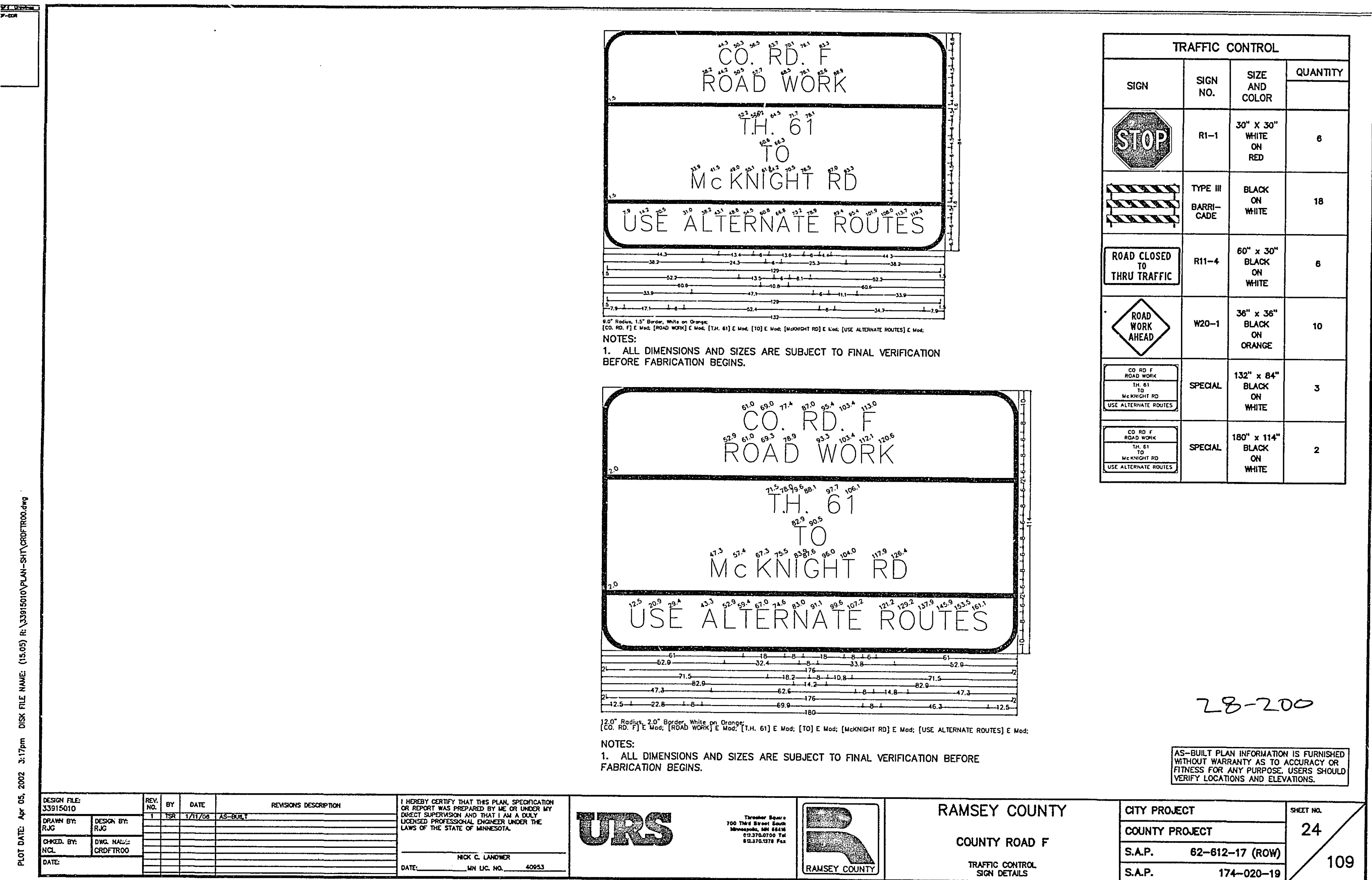
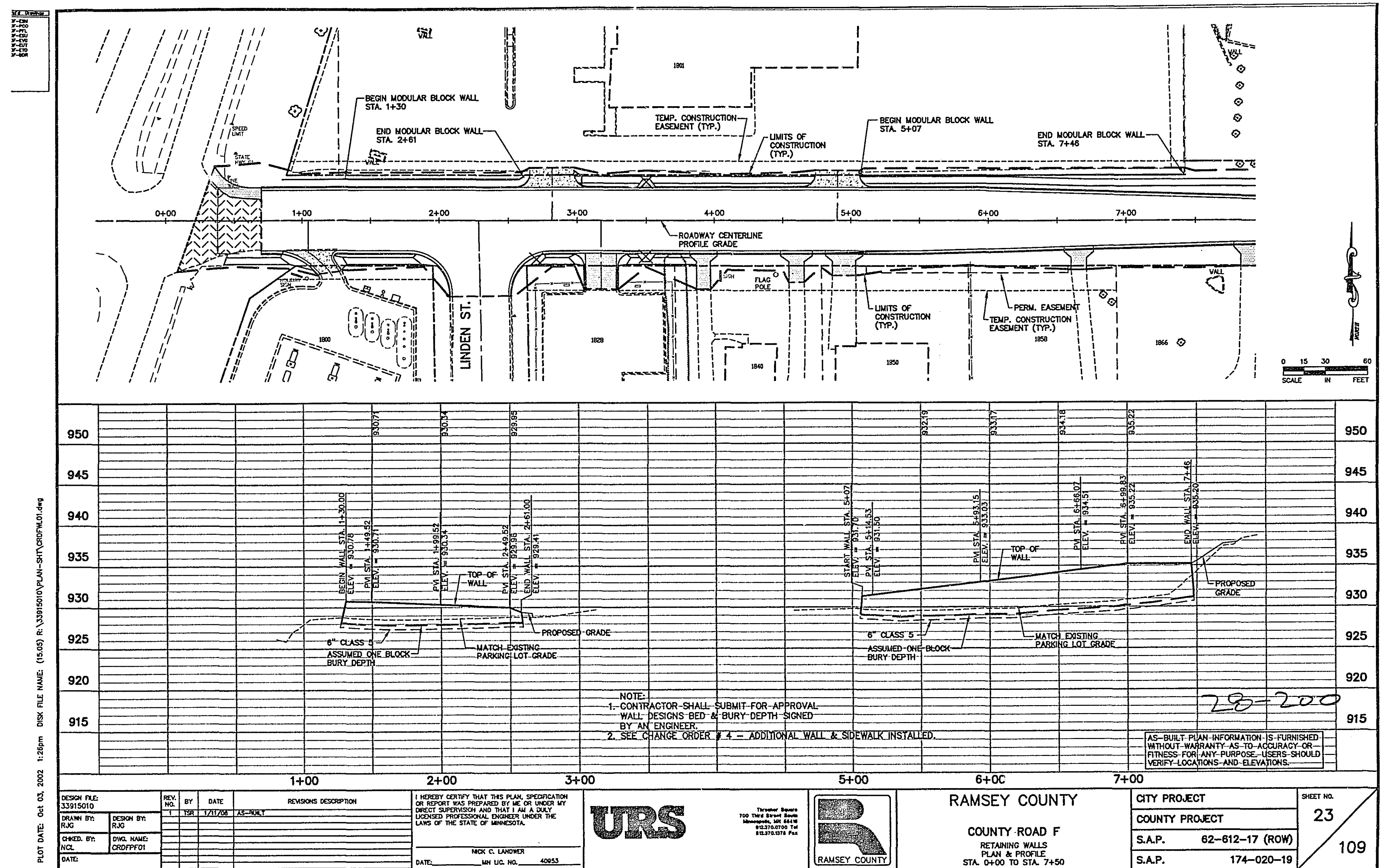
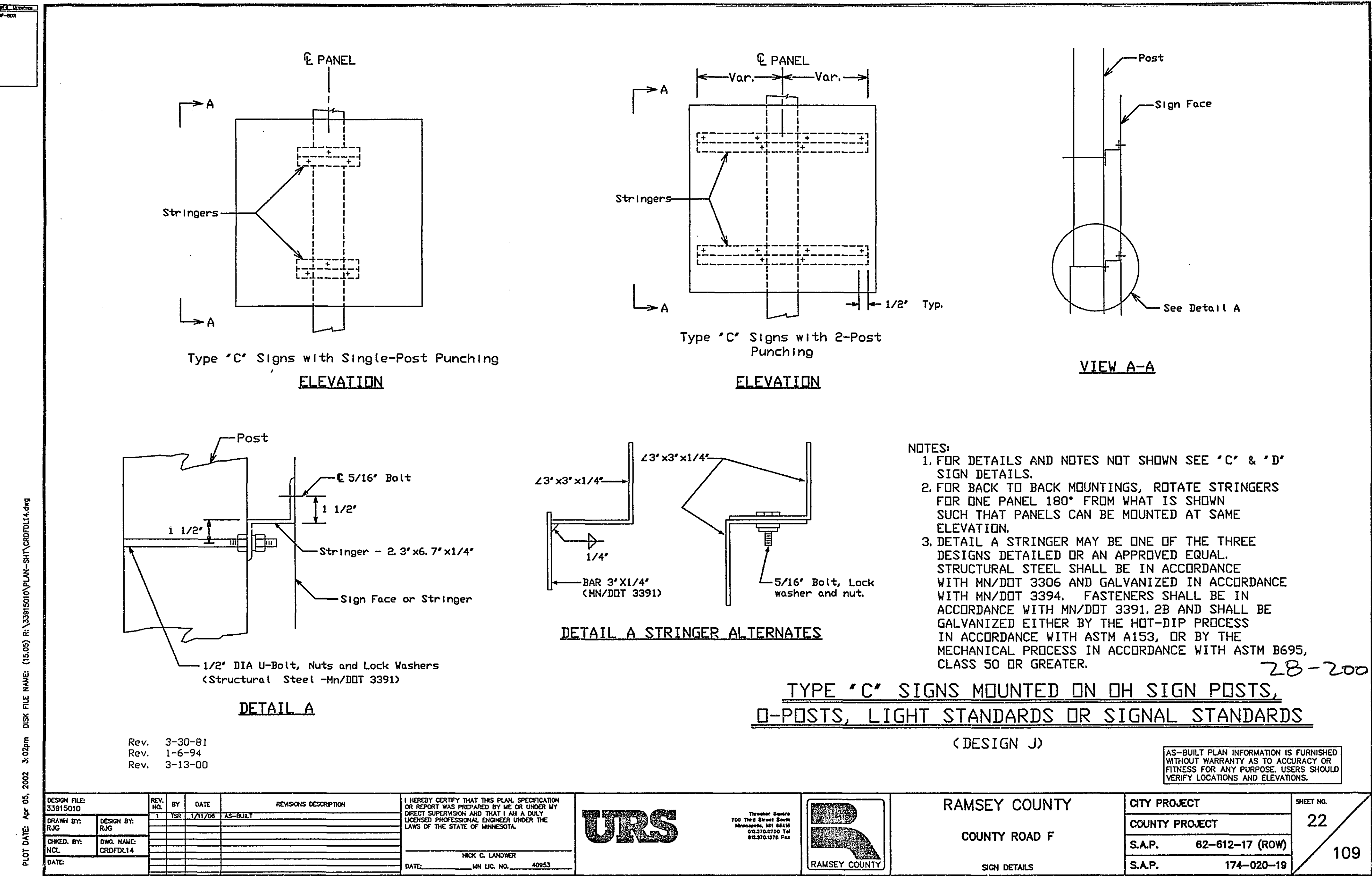


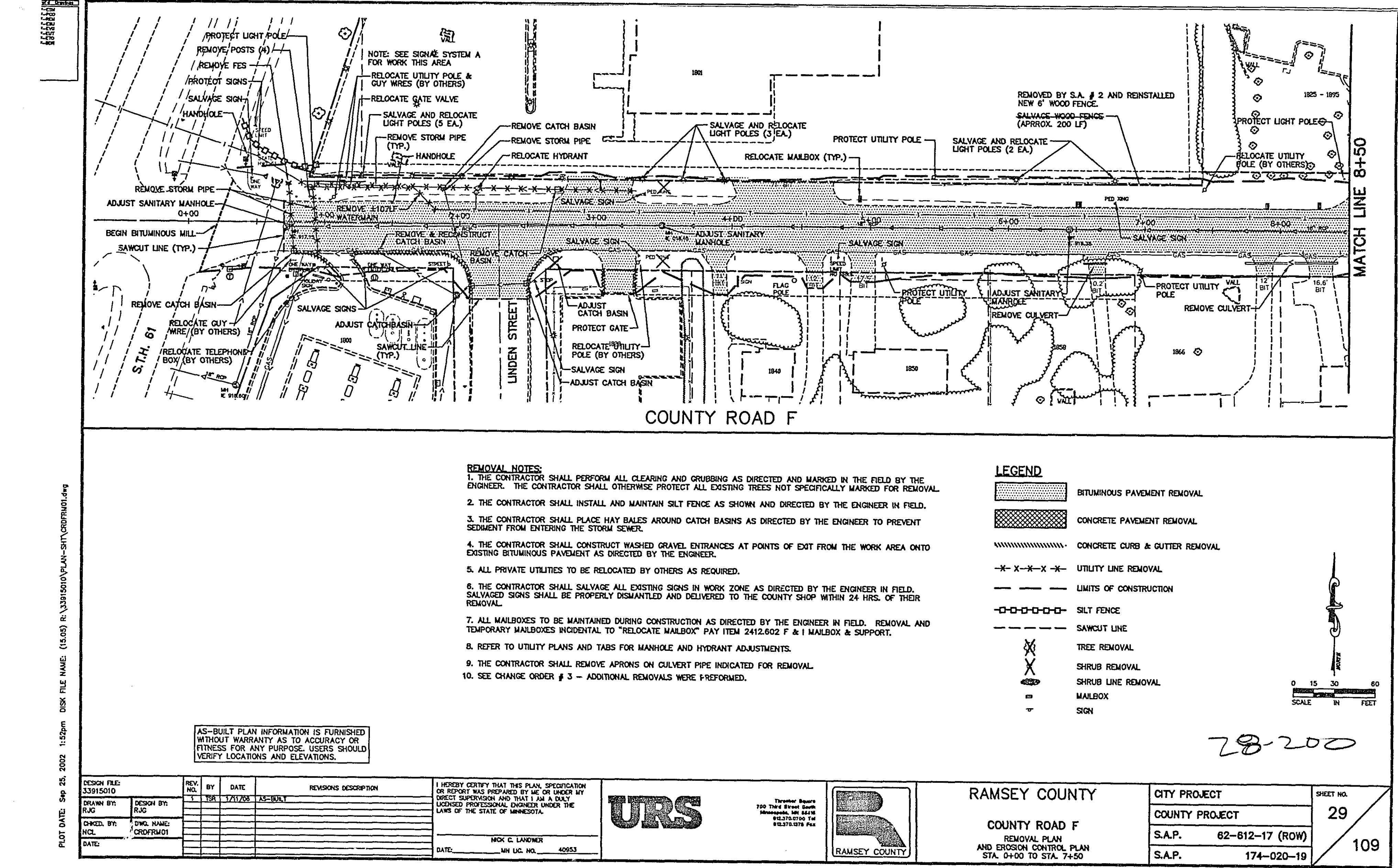
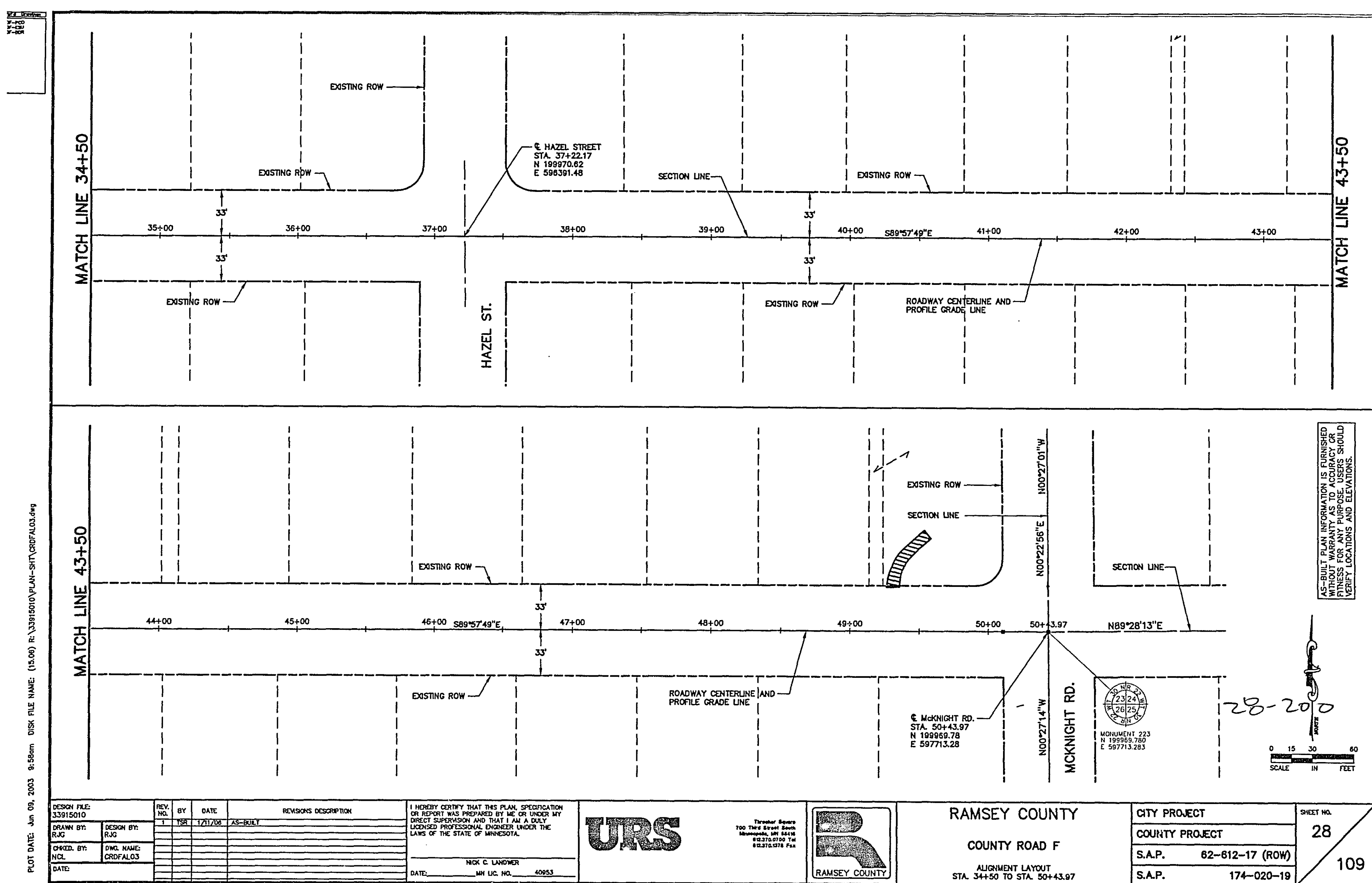
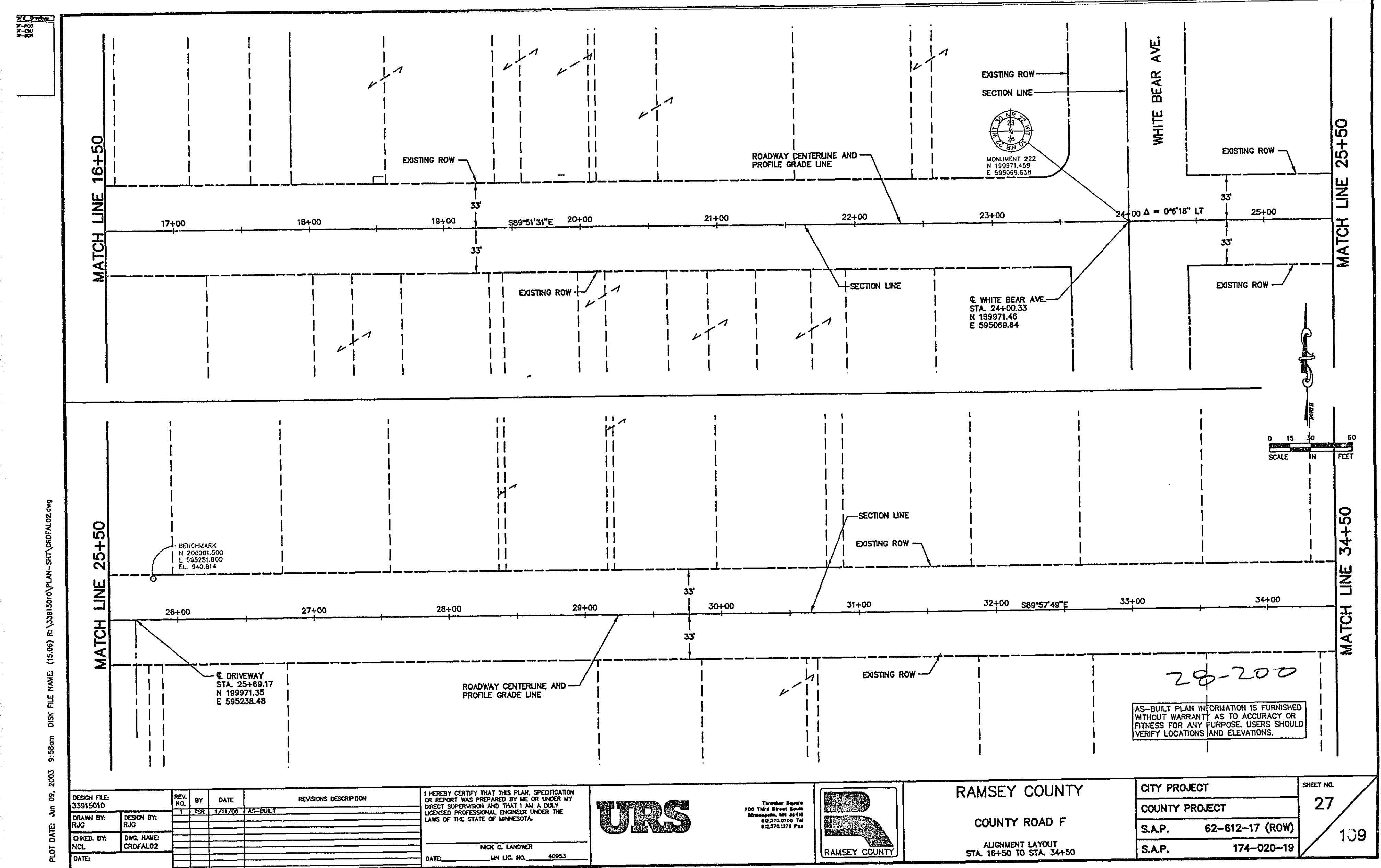
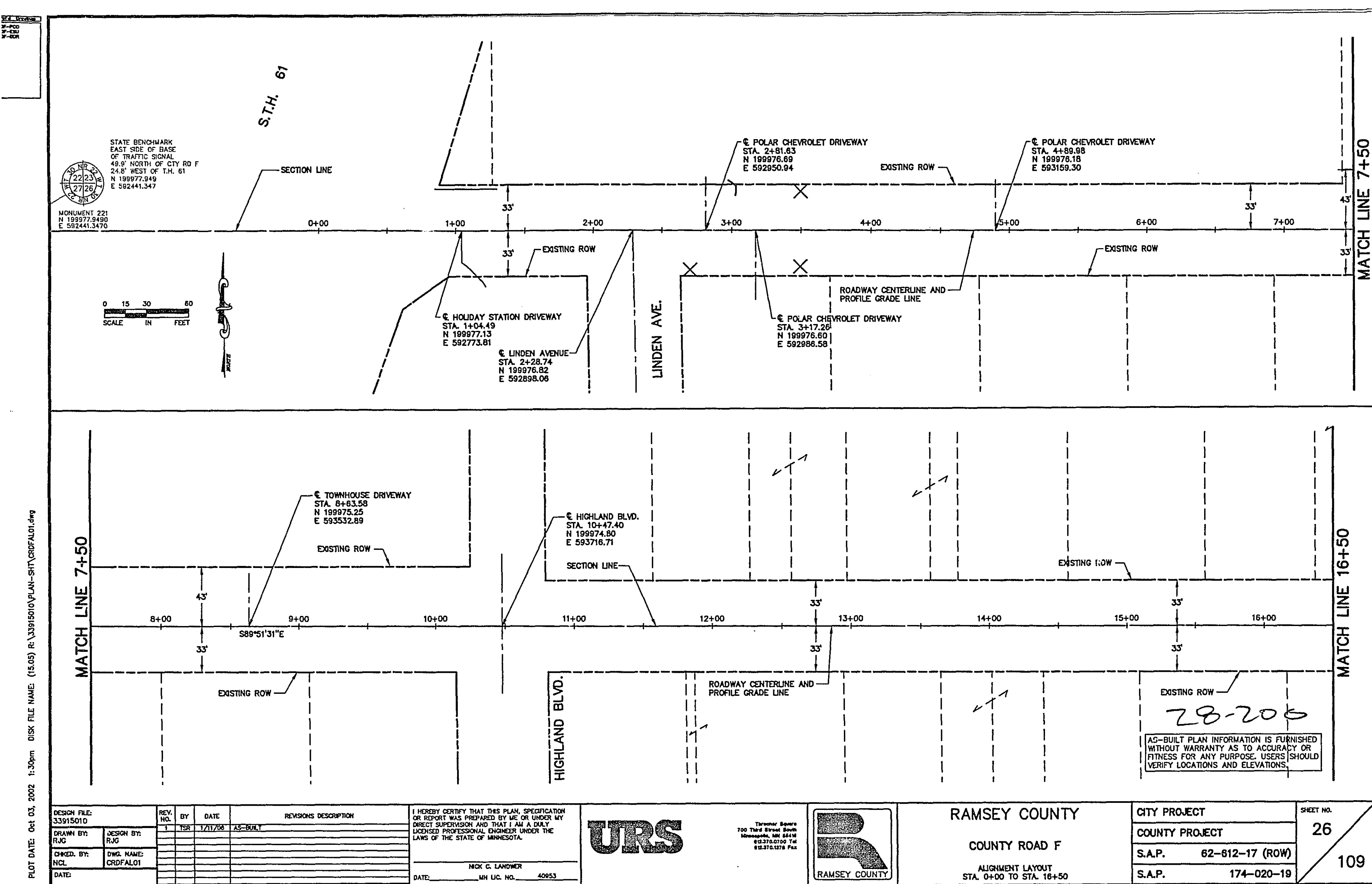
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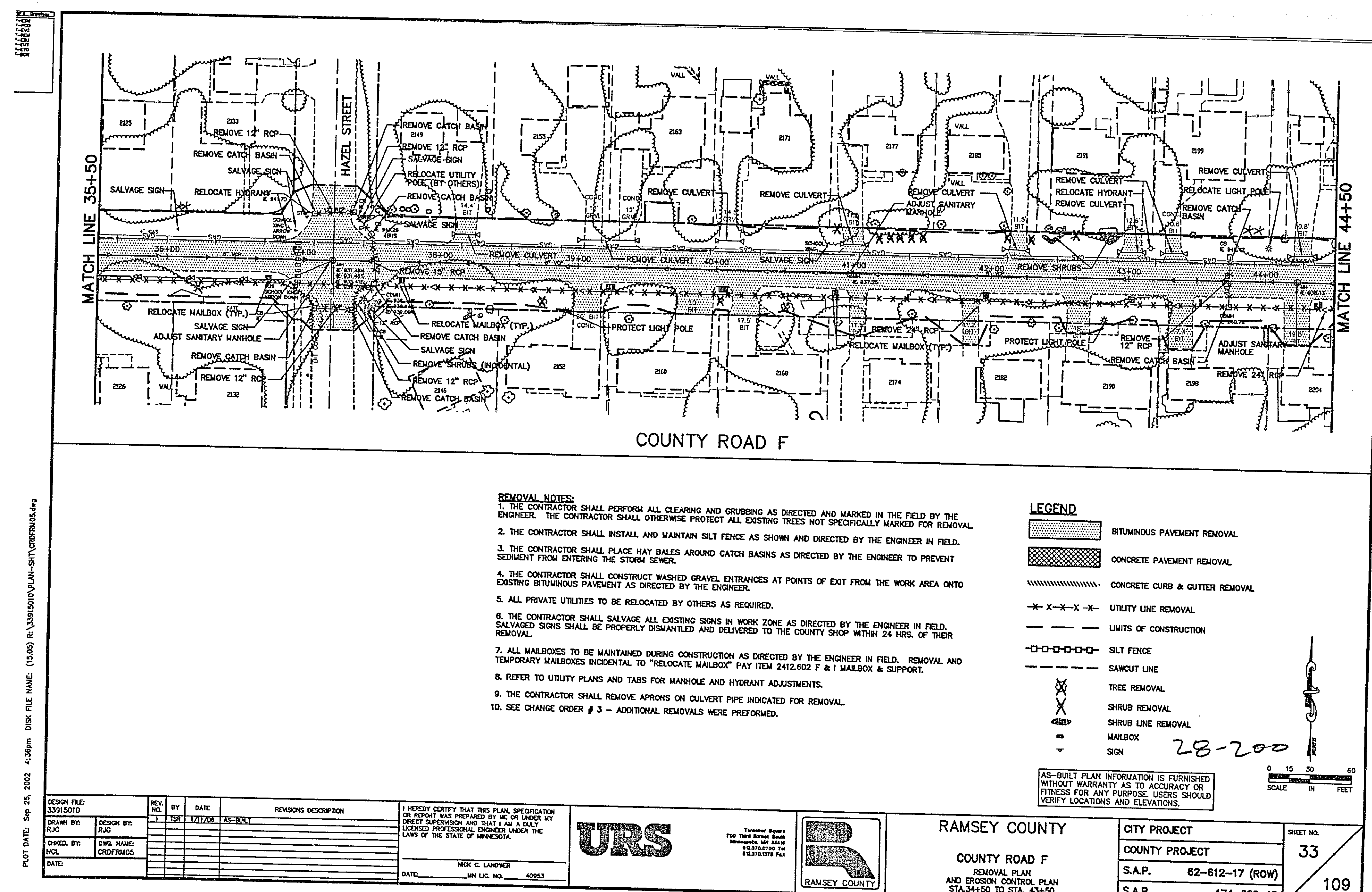
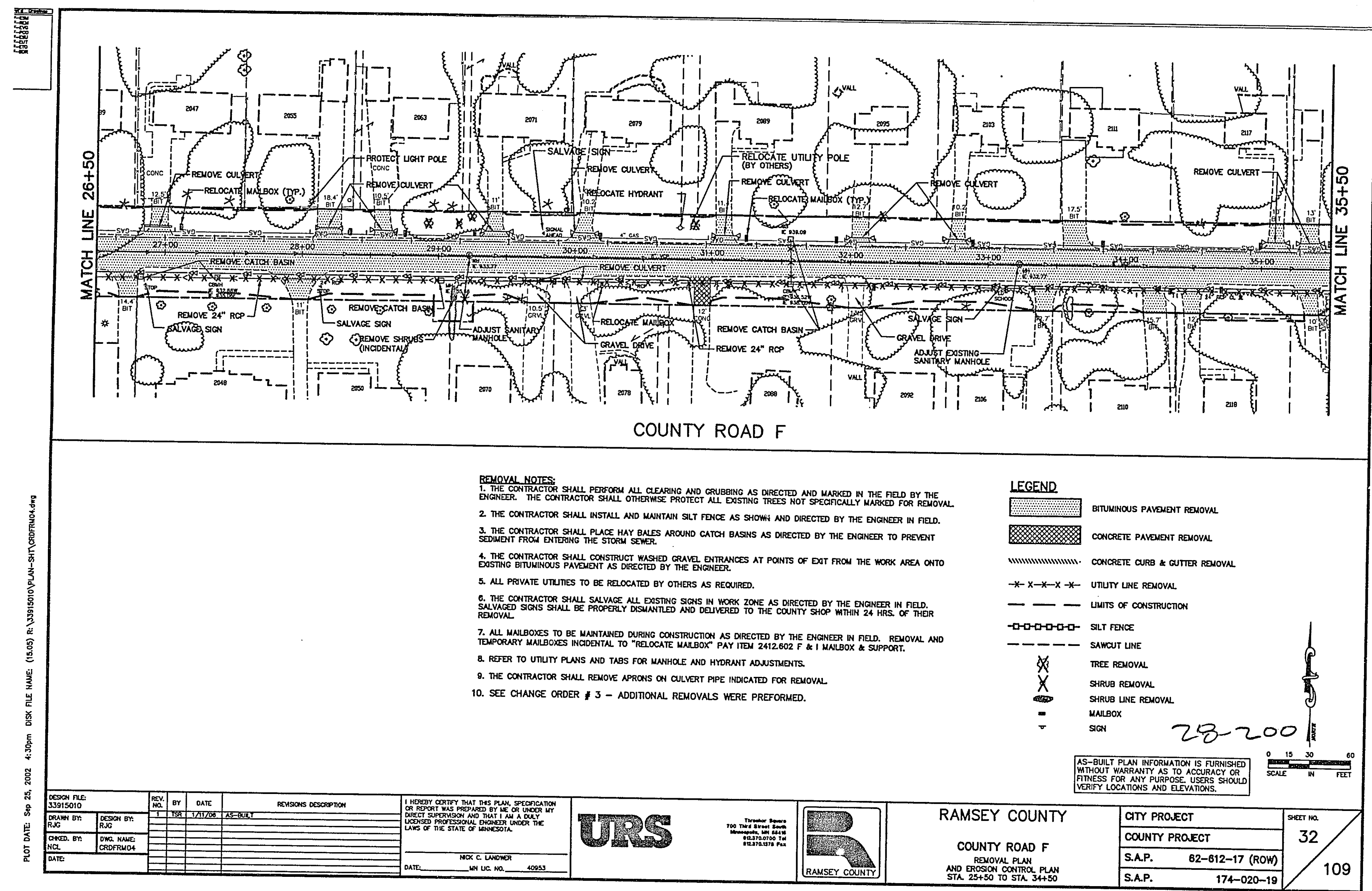
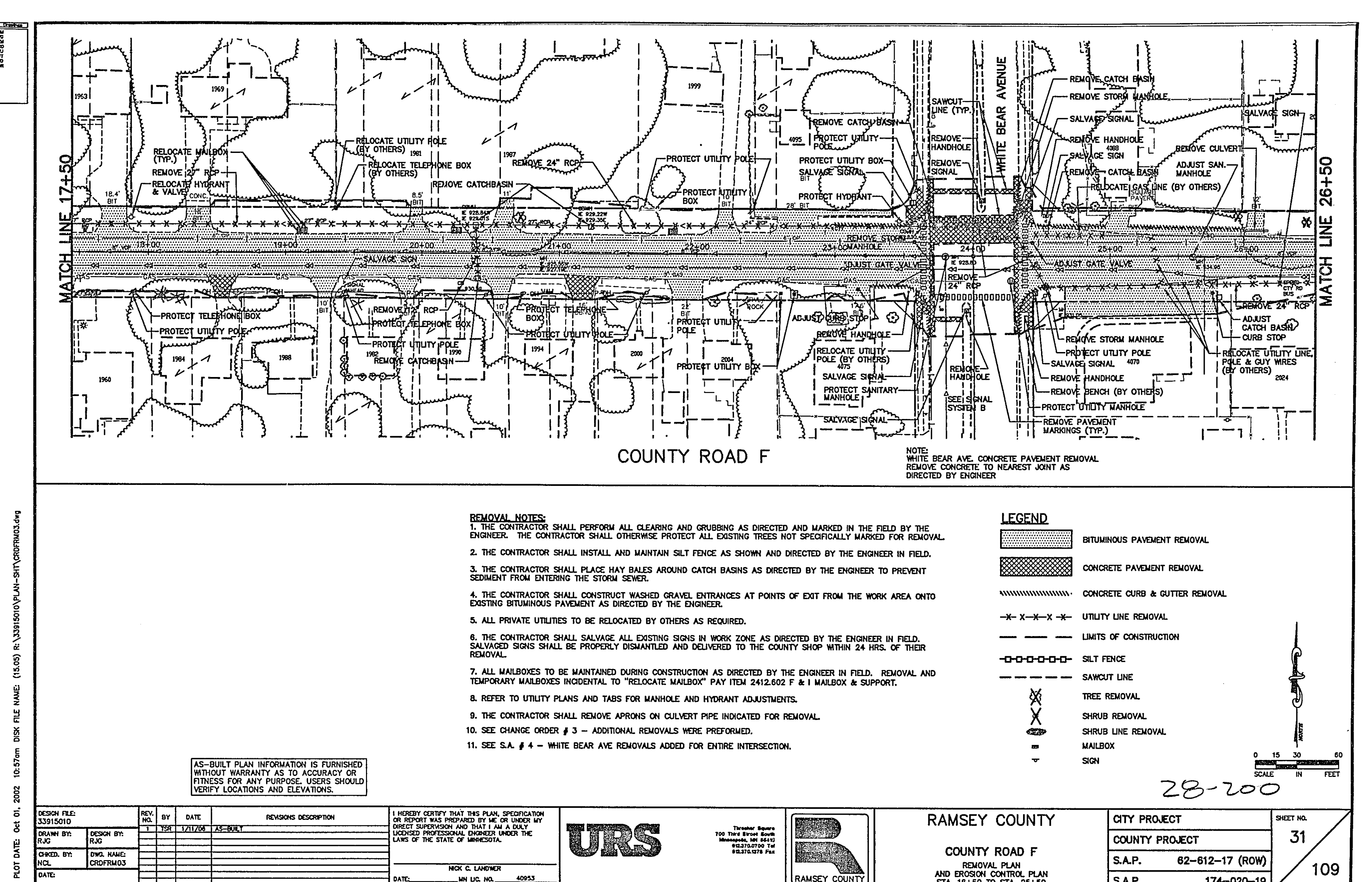
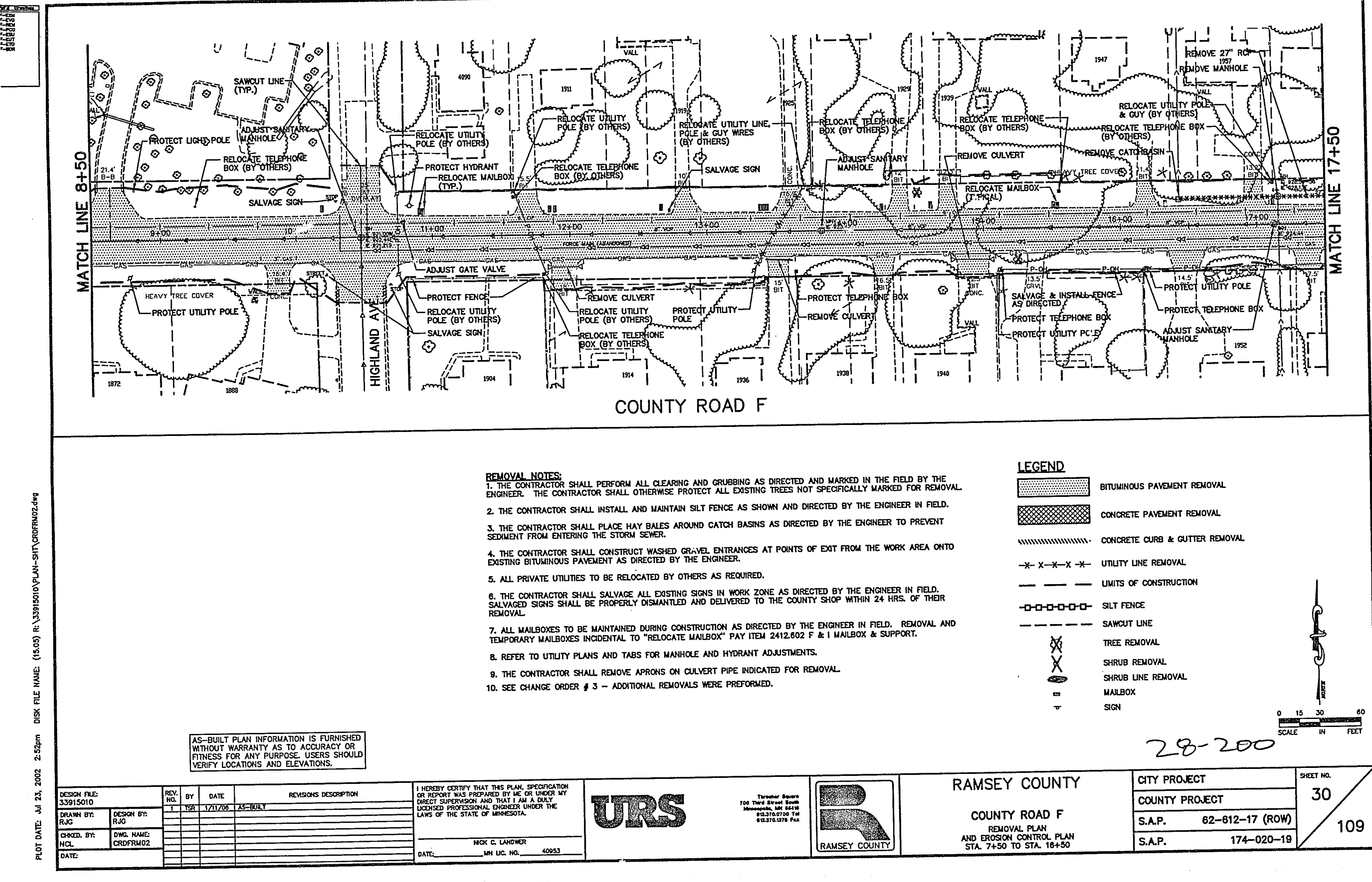


REGION FILE 33191010		NEW NO. 1	BY DATE	REVISIONS DESCRIPTION 1. I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME, OR UNDER MY DIRECT SUPERVISION AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. DATE: _____			RAMSEY COUNTY COUNTY ROAD F CIVIL DETAILS	CITY PROJECT COUNTY PROJECT S.A.P. 62-812-17 (ROW) S.A.P. 174-020-19	SHEET NO. 17 109
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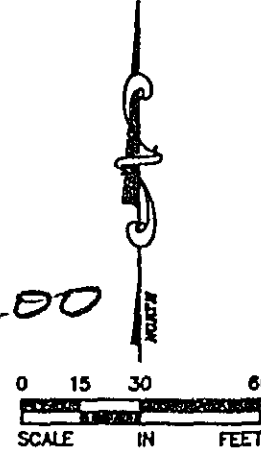




1. THE CONTRACTOR SHALL PERFORM ALL CLEANING AND GRUBBING AS DIRECTED AND MARKED IN THE FIELD BY THE ENGINEER. EXISTING TREES SHALL BE REMOVED OR EXCAVATED. EXISTING TREES NOT SPECIFICALLY MARKED FOR REMOVAL SHALL BE MAINTAINED.
2. THE CONTRACTOR SHALL INSTALL AND MAINTAIN SILT FENCE AS SHOWN AND DIRECTED BY THE ENGINEER IN FIELD.
3. THE CONTRACTOR SHALL PLACE HAY BALES AROUND CATCH BASINS AS DIRECTED BY THE ENGINEER TO PREVENT SEDIMENT FROM ENTERING THE STORM SEWER.
4. THE CONTRACTOR SHALL CONSTRUCT WASHED GRAVEL ENRICHMENTS 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 COUNTY SHOP WITHIN 24 HRS. OF THEIR REMOVAL.
7. ALL MAILBOXES TO BE MAINTAINED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER IN FIELD. REMOVAL AND TEMPORARY MAILBOXES INCIDENTAL TO "RELOCATE MAILBOX" PLAN ITEM 2412.002 & 1 MAILBOX & SUPPORT.
8. REFER TO UTILITY PLANS AND TABS FOR MANHOLE AND HYDRANT ADJUSTMENTS.
9. THE CONTRACTOR SHALL REMOVE APRONS ON CULVERT PIPE INDICATED FOR REMOVAL.
10. SEE CHANGE ORDER # 3 - ADDITIONAL REMOVALS WERE PERFORMED.

	BITUMINOUS PAVEMENT REMOVAL
	CONCRETE PAVEMENT REMOVAL
	CONCRETE CURB & GUTTER REMOVAL
	UTILITY LINE REMOVAL
	LIMITS OF CONSTRUCTION
	SILT FINE
	SAWOUT LINE
	TREE REMOVAL
	SHRUB REMOVAL
	SHRUB LINE REMOVAL

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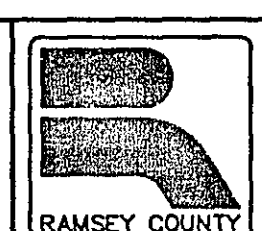


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CHECKED BY: NCL	CHKD NAME: CRDFRMOB				
DATE:					

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NICK C. LANDNER

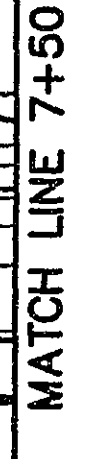
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RAMSEY COUNTY
COUNTY ROAD F
REMOVAL PLAN
AND EROSION CONTROL PLAN
STA. 43+50 TO STA. 50+43.07

CITY PROJECT
COUNTY PROJECT
S.A.P. 62-612-17 (ROW)
S.A.P. 174-020-15

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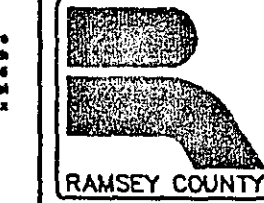


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IN THE STATE OF MINNESOTA

NICK C. LANDWEHRER

DATE: _____ MN LIC. NO. _____



RAMSEY COUNT
COUNTY ROAD F
PLAN & PROFILE
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CITY PROJECT
COUNTY PROJECT
S.A.P. 62-612-1
S.A.P. 174

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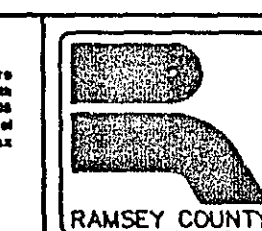


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NCL	CRDFPF02				
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NICK C. LANDNER

DATE: MM LIC. NO. 40953



RAMSEY COUNTY
COUNTY ROAD F
PLAN & PROFILE
STA 7+50 TO STA 16+50

CITY PROJECT
COUNTY PROJECT
S.A.P. 62-612-17 (RC
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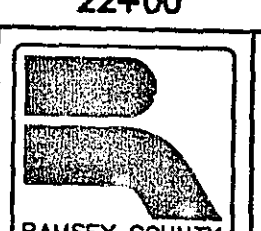
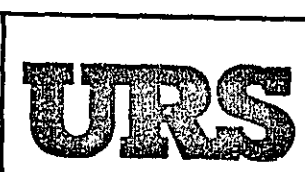


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NICK G. LANDNER

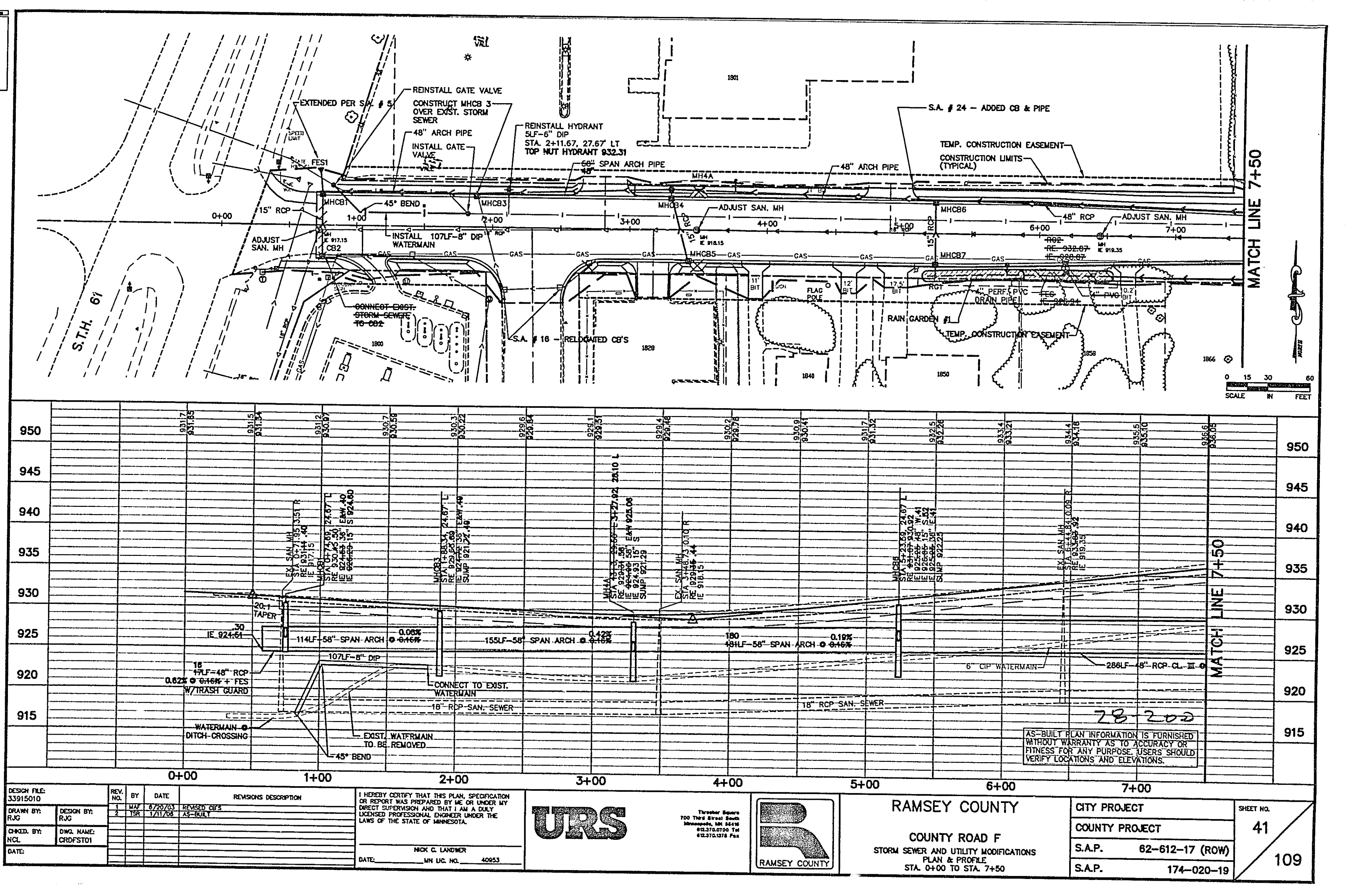
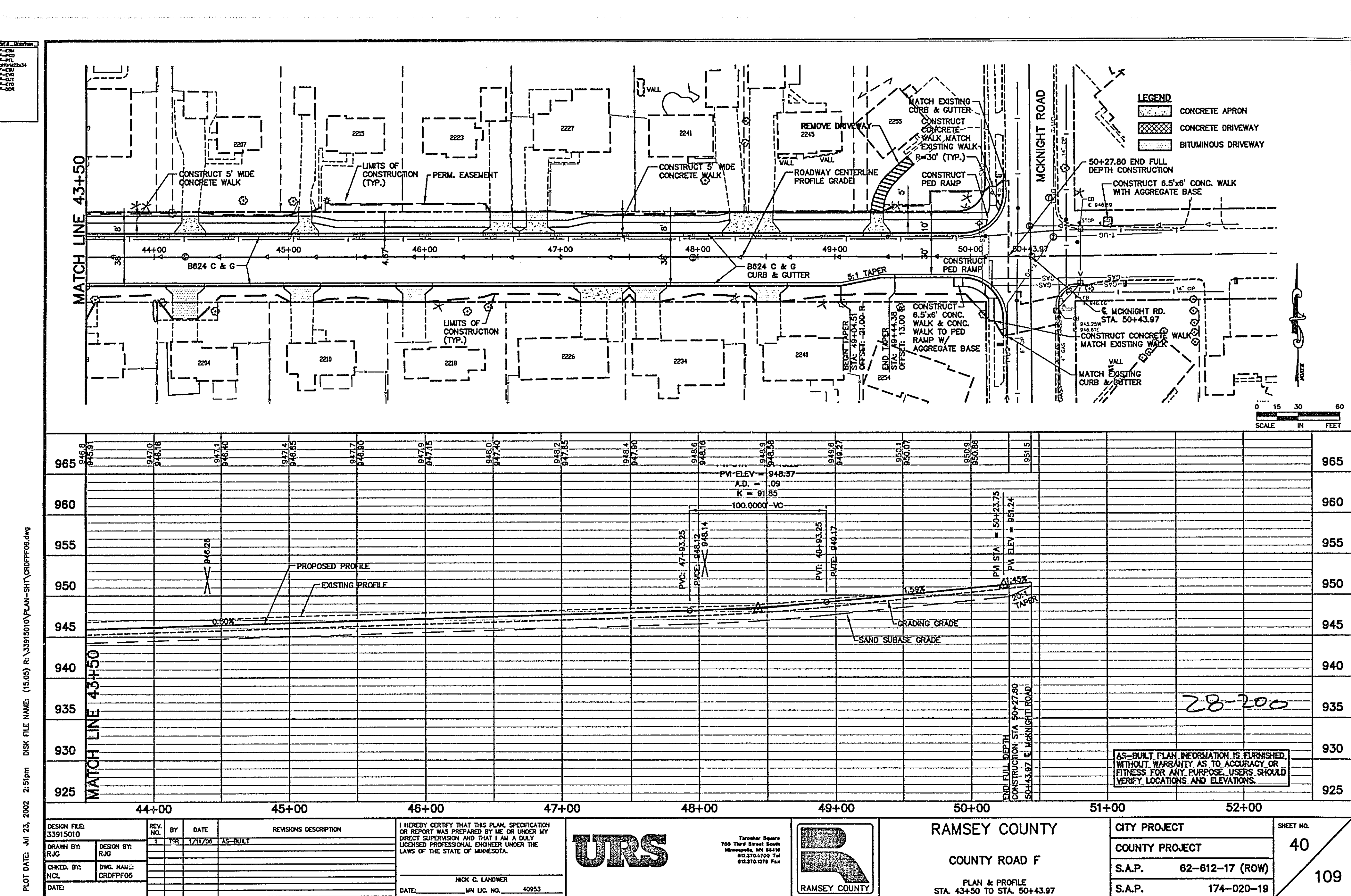
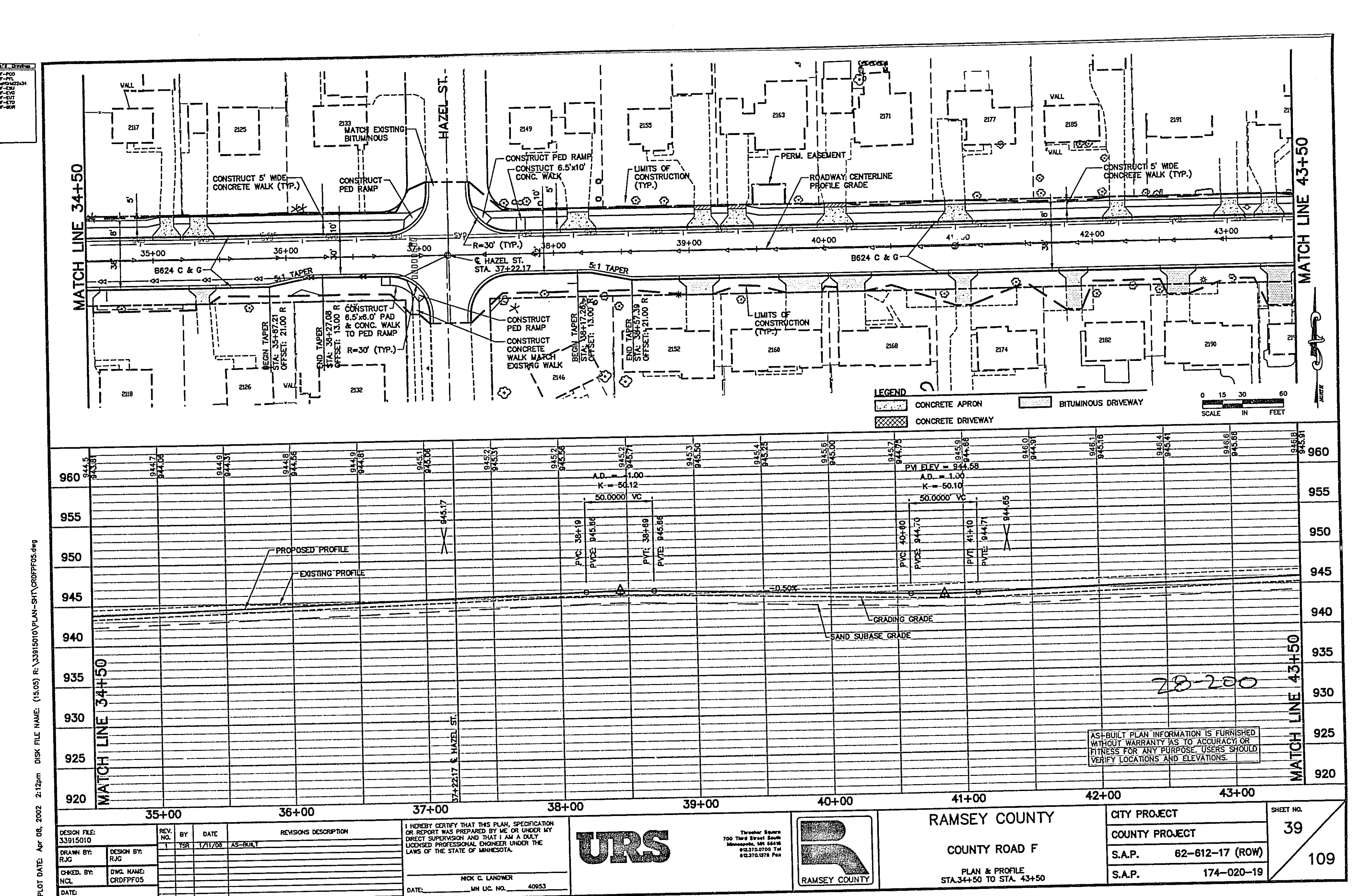
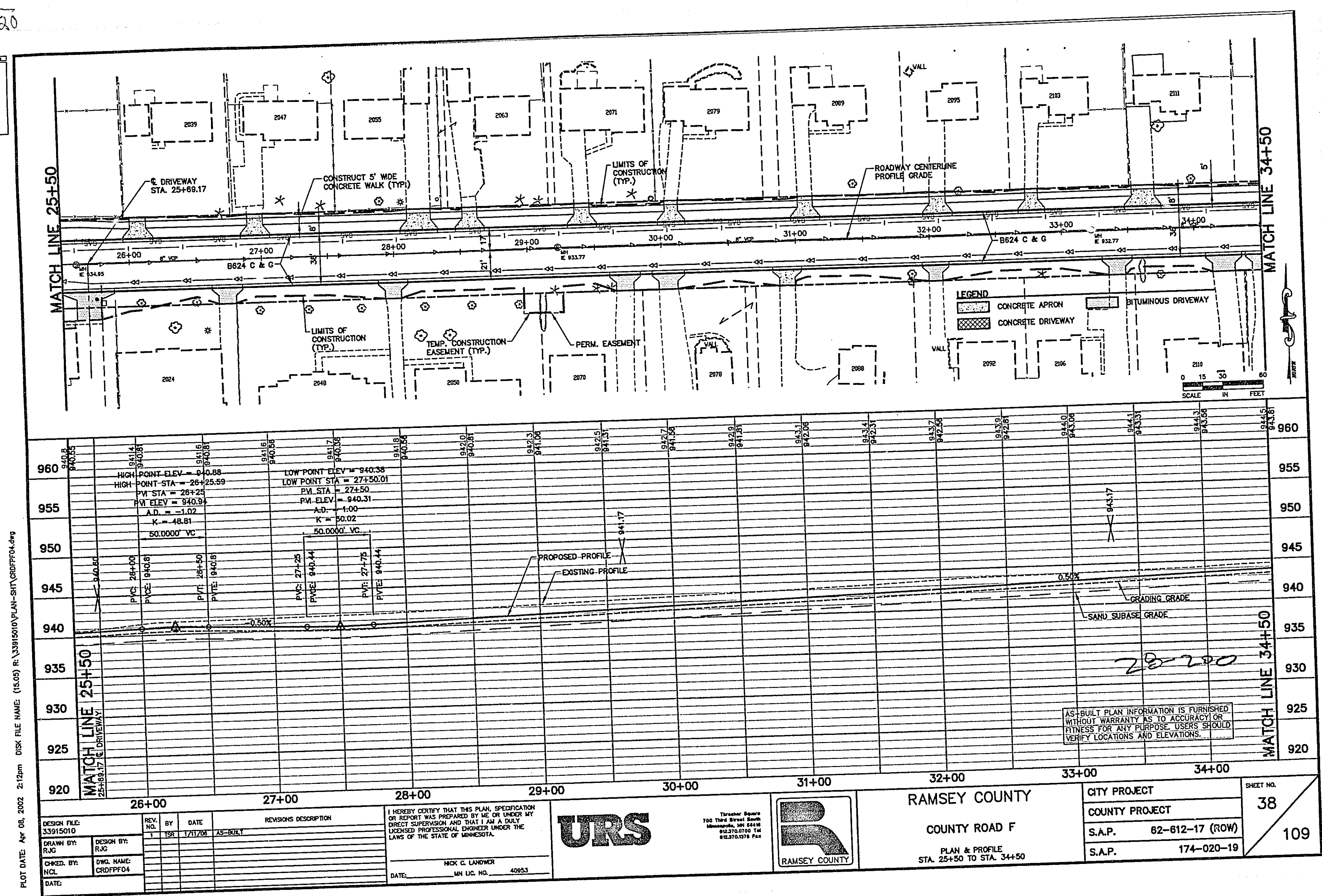
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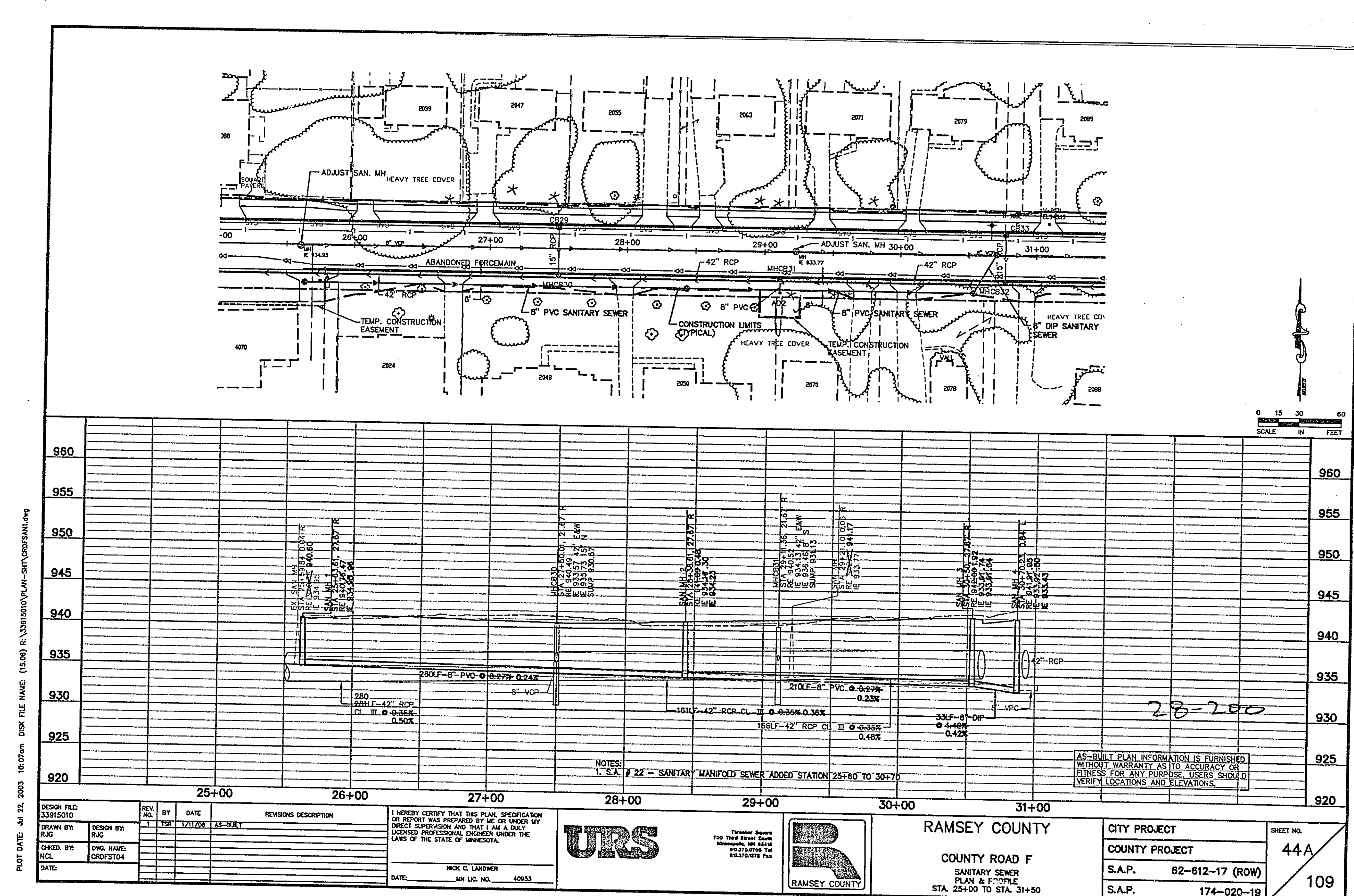
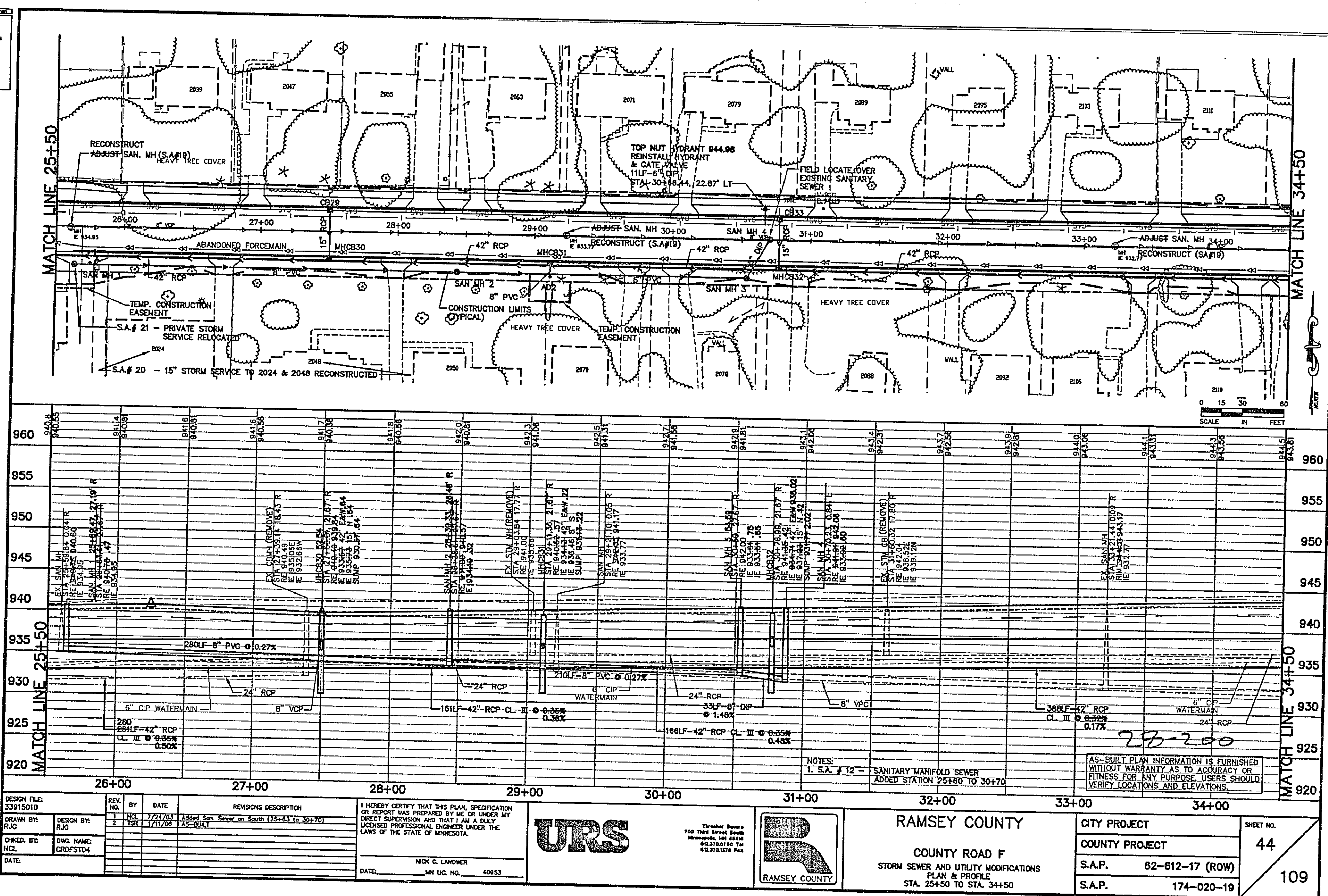
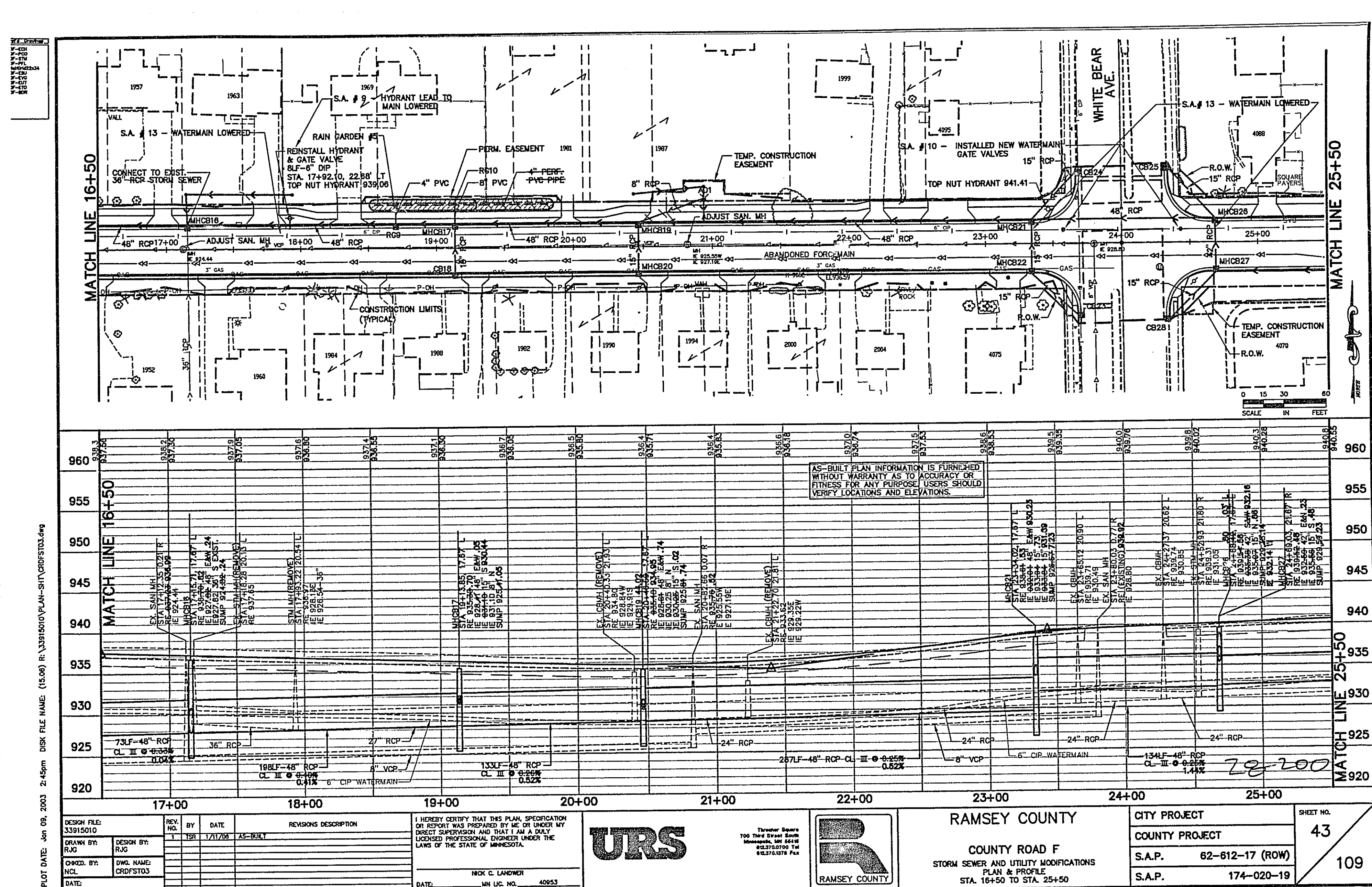
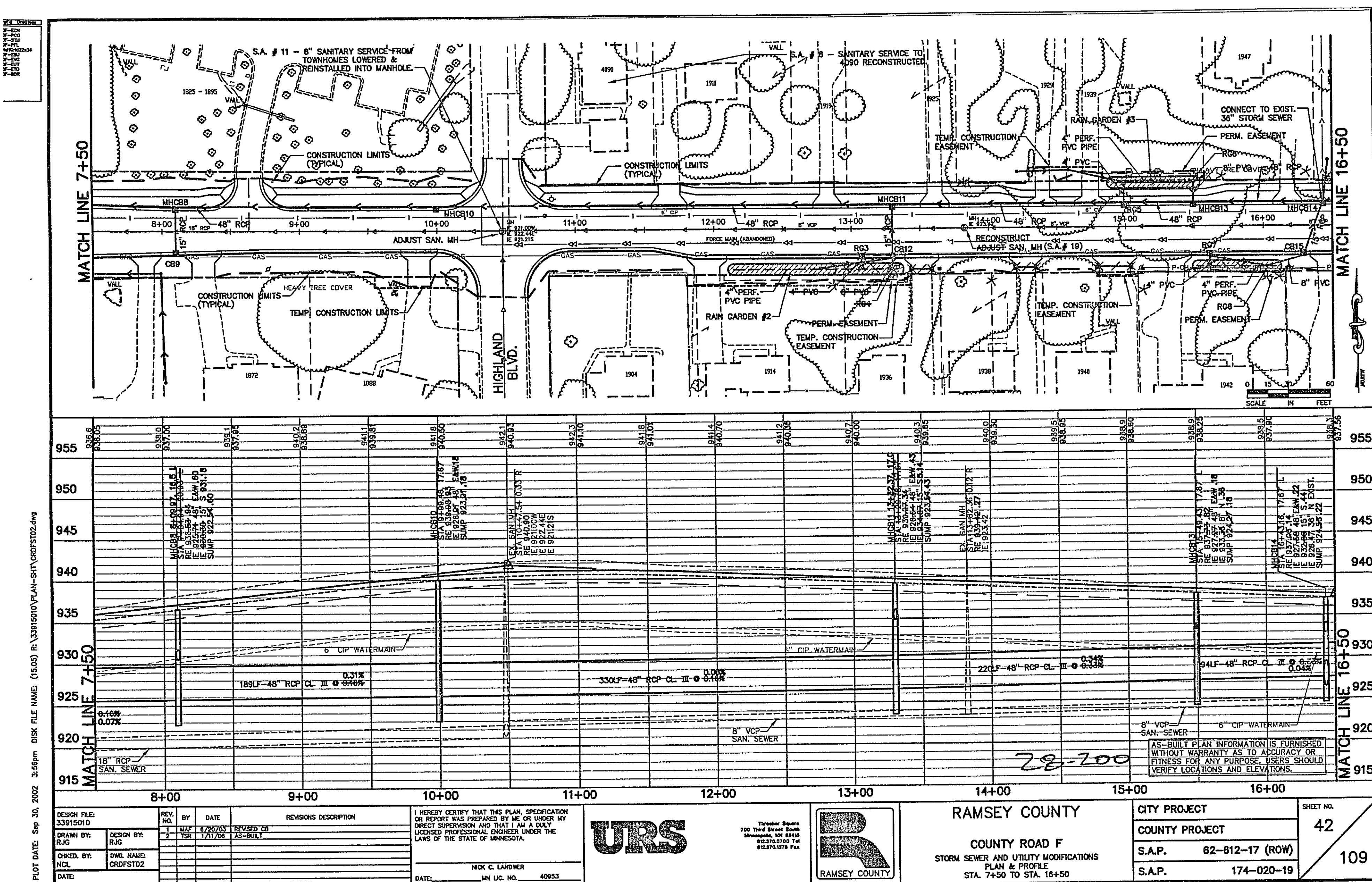


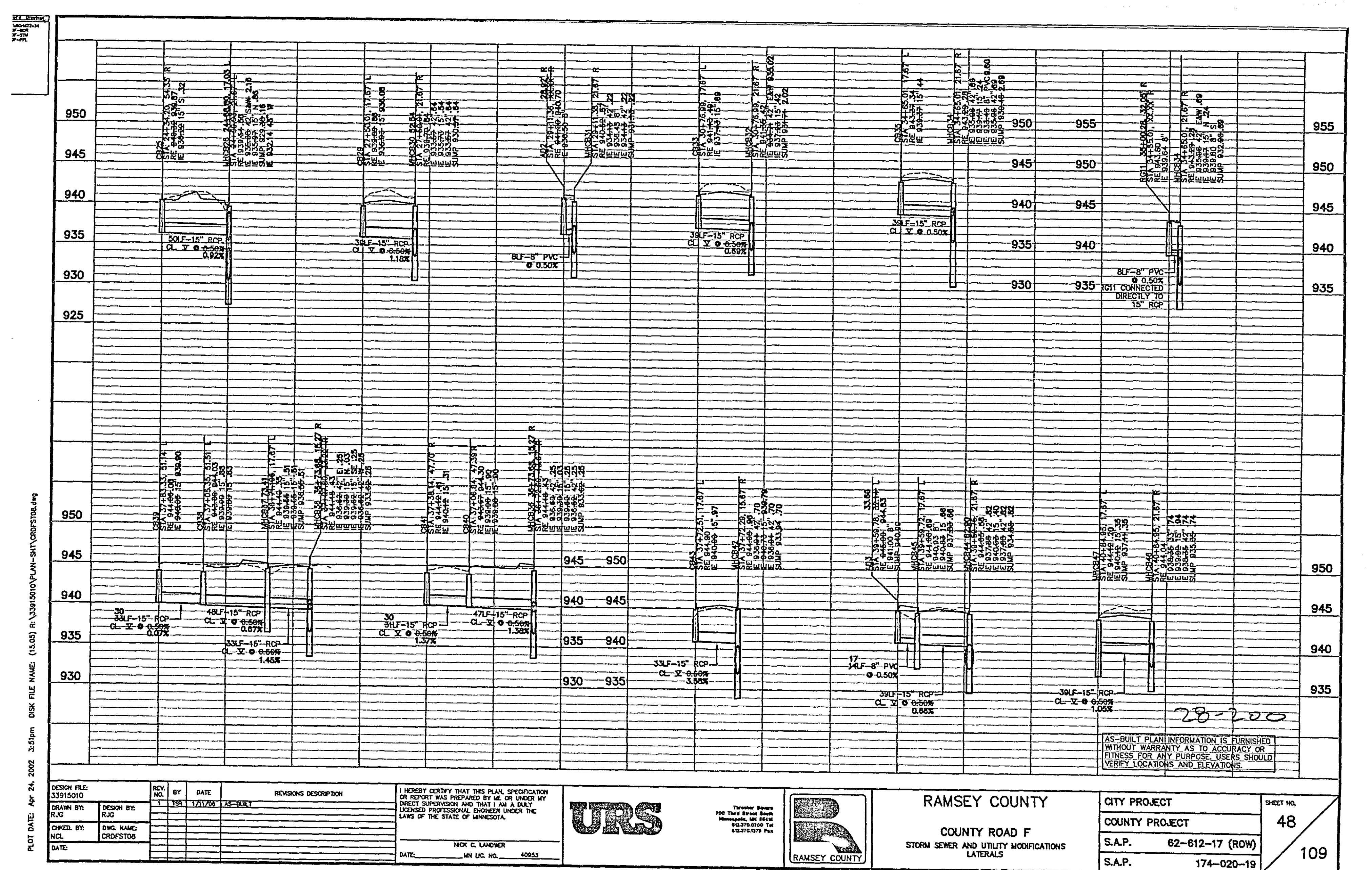
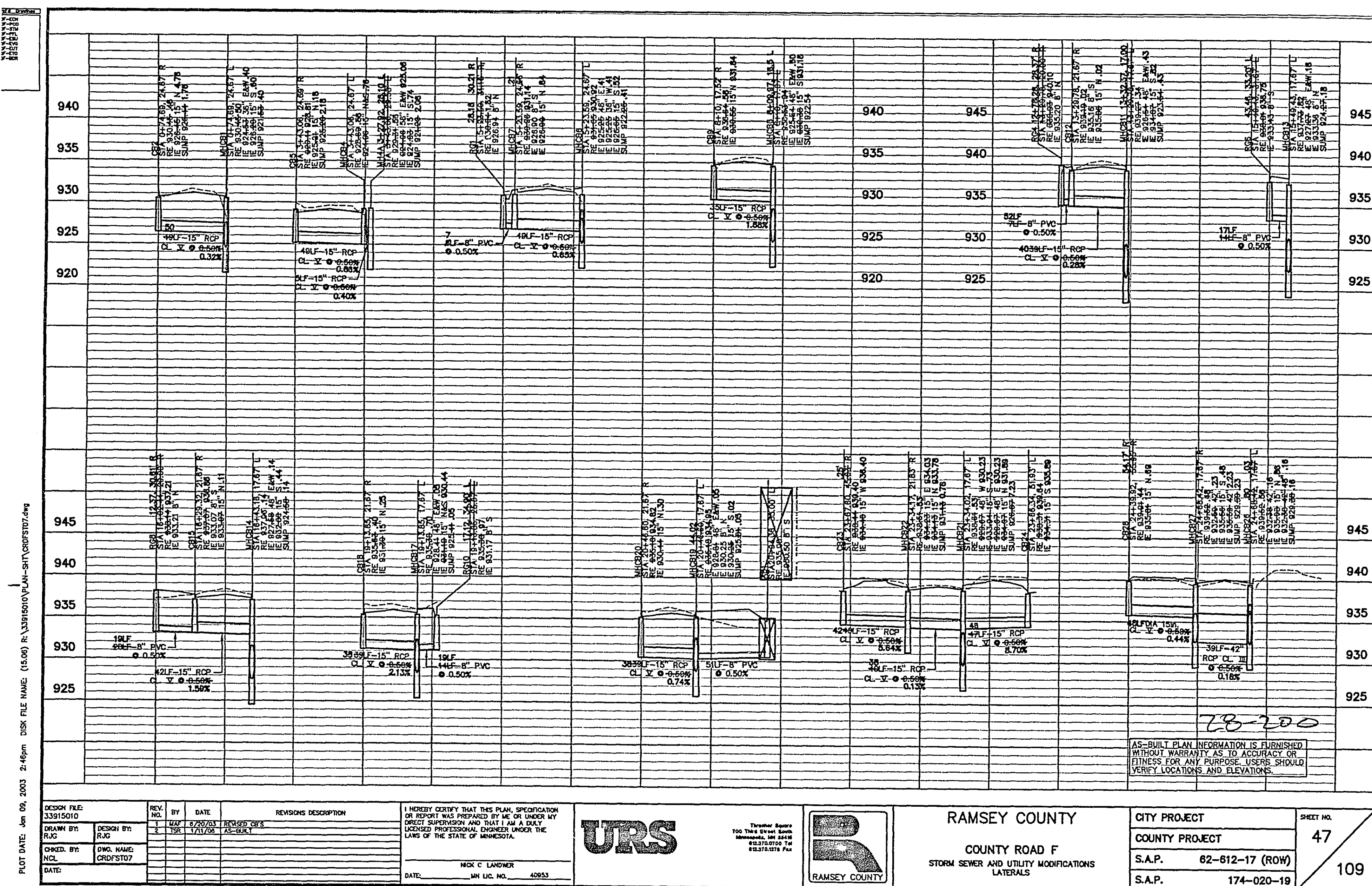
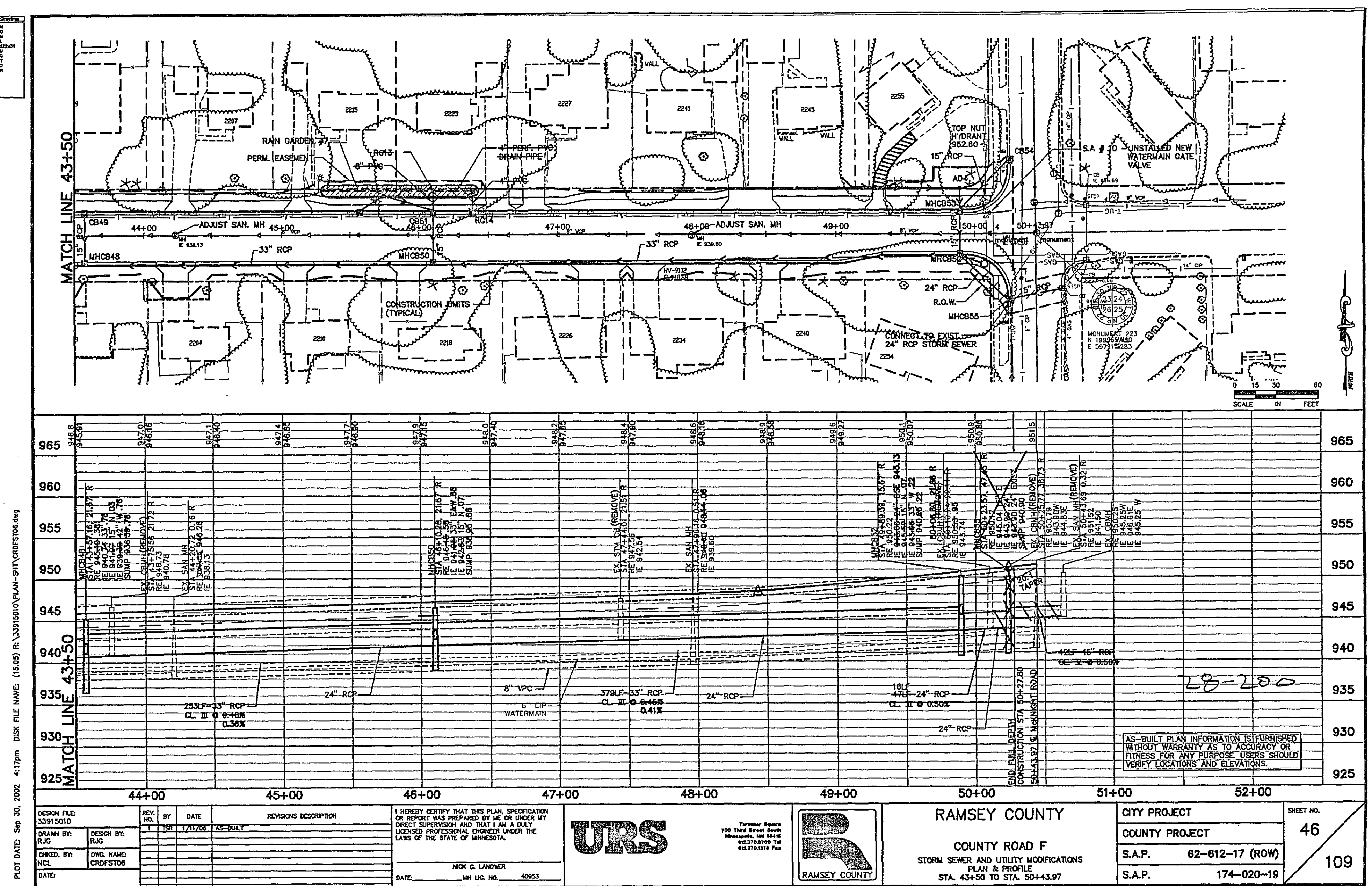
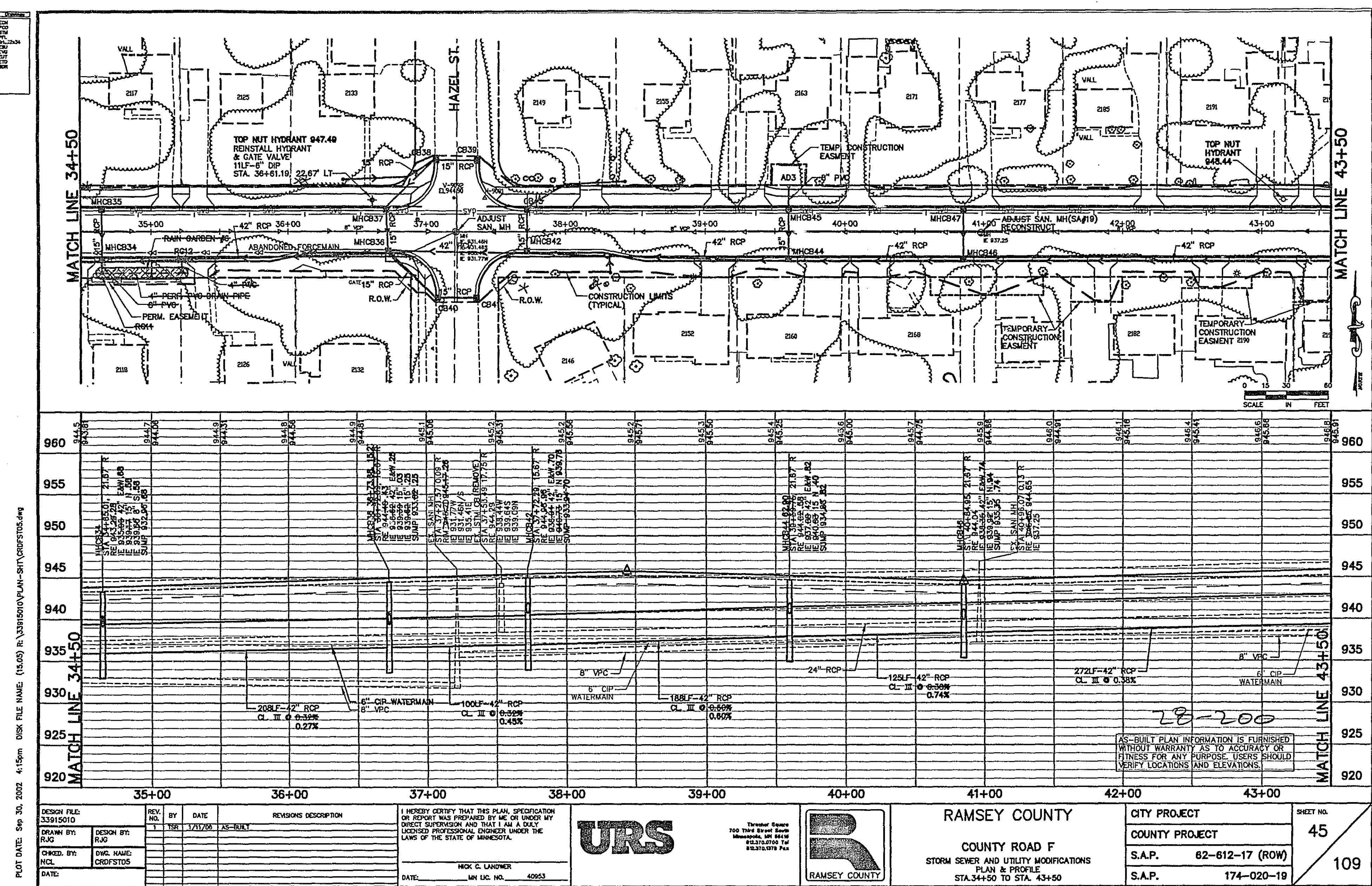
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COUNTY ROAD F
PLAN & PROFILE

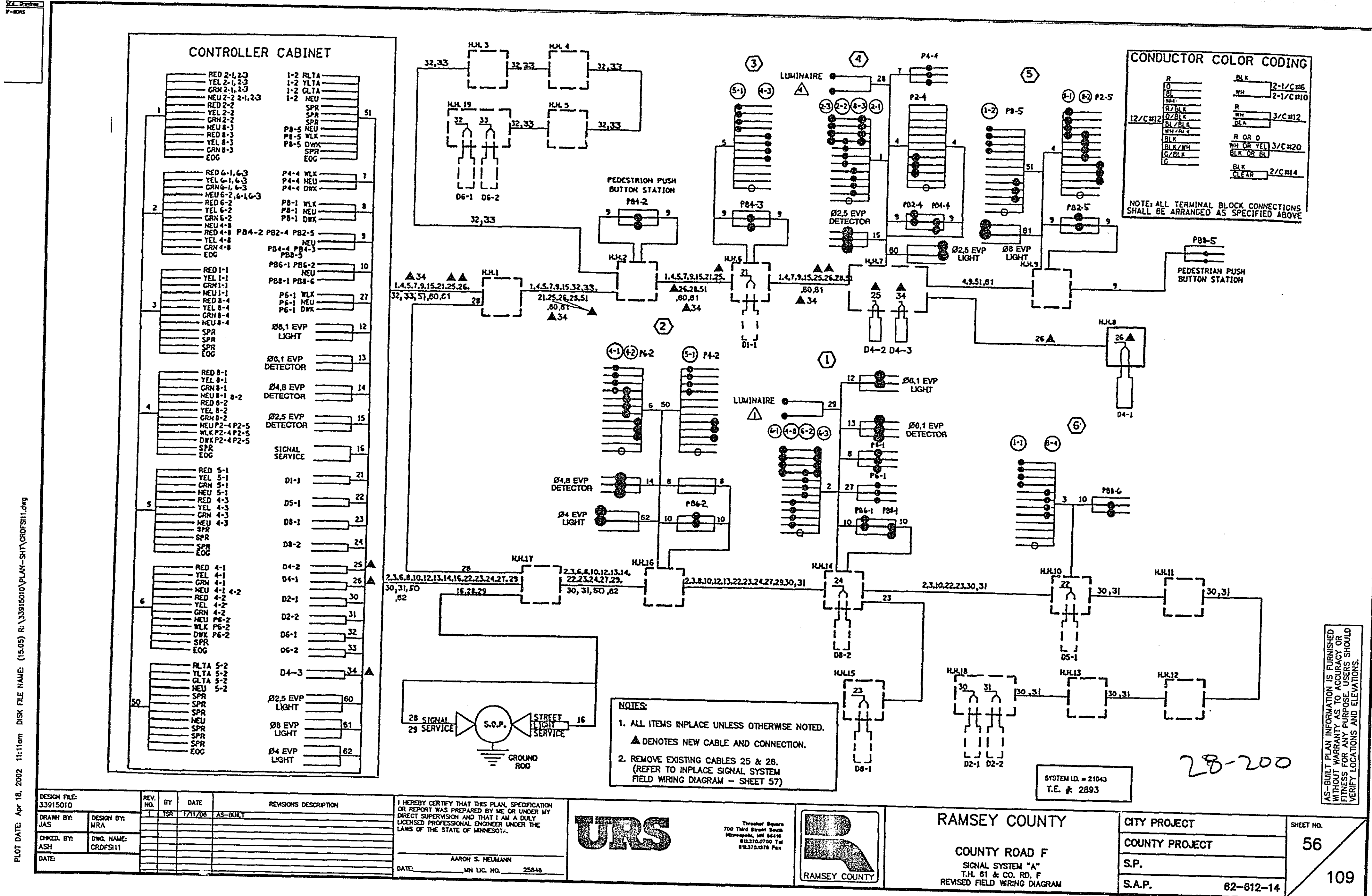
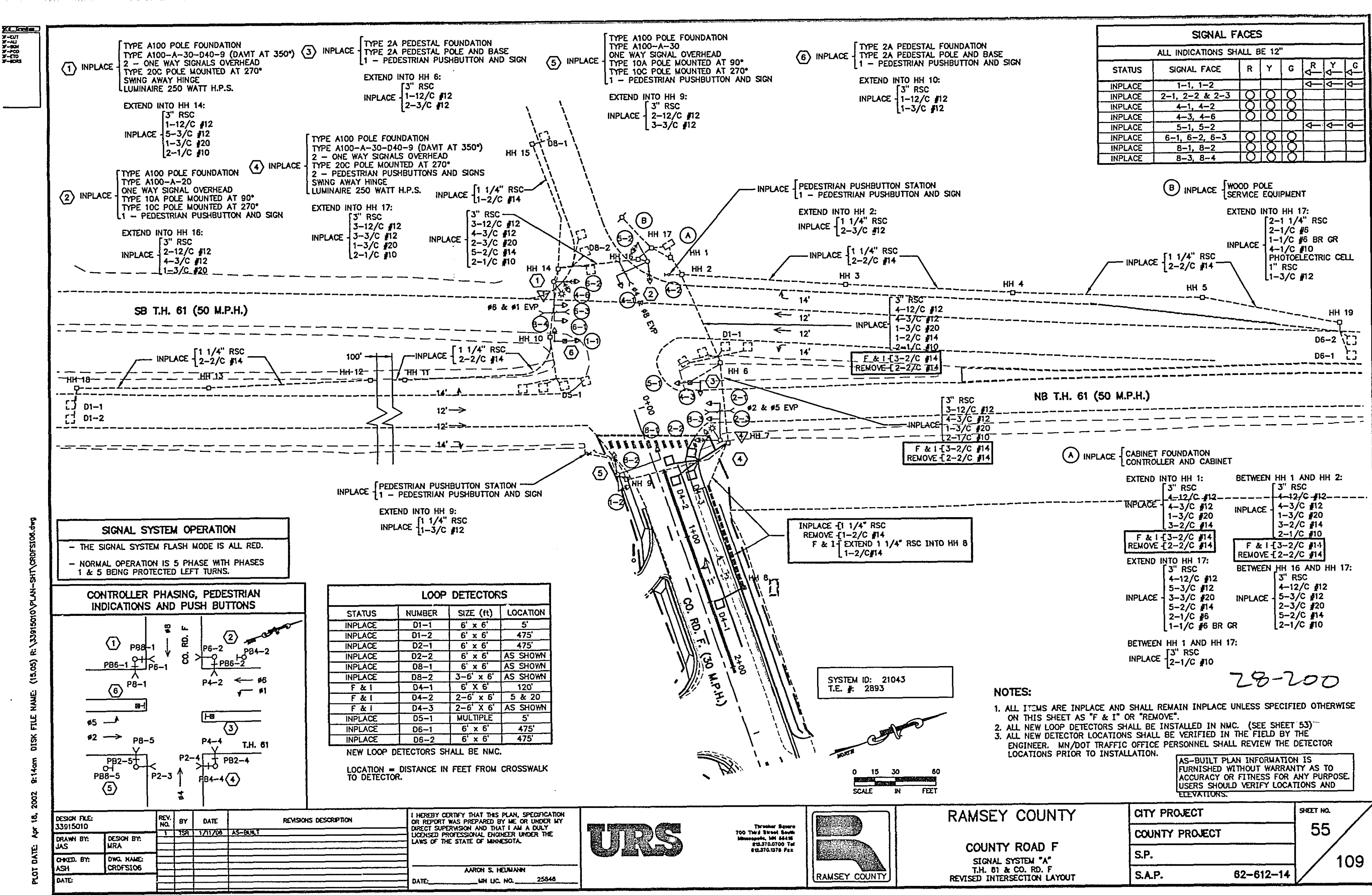
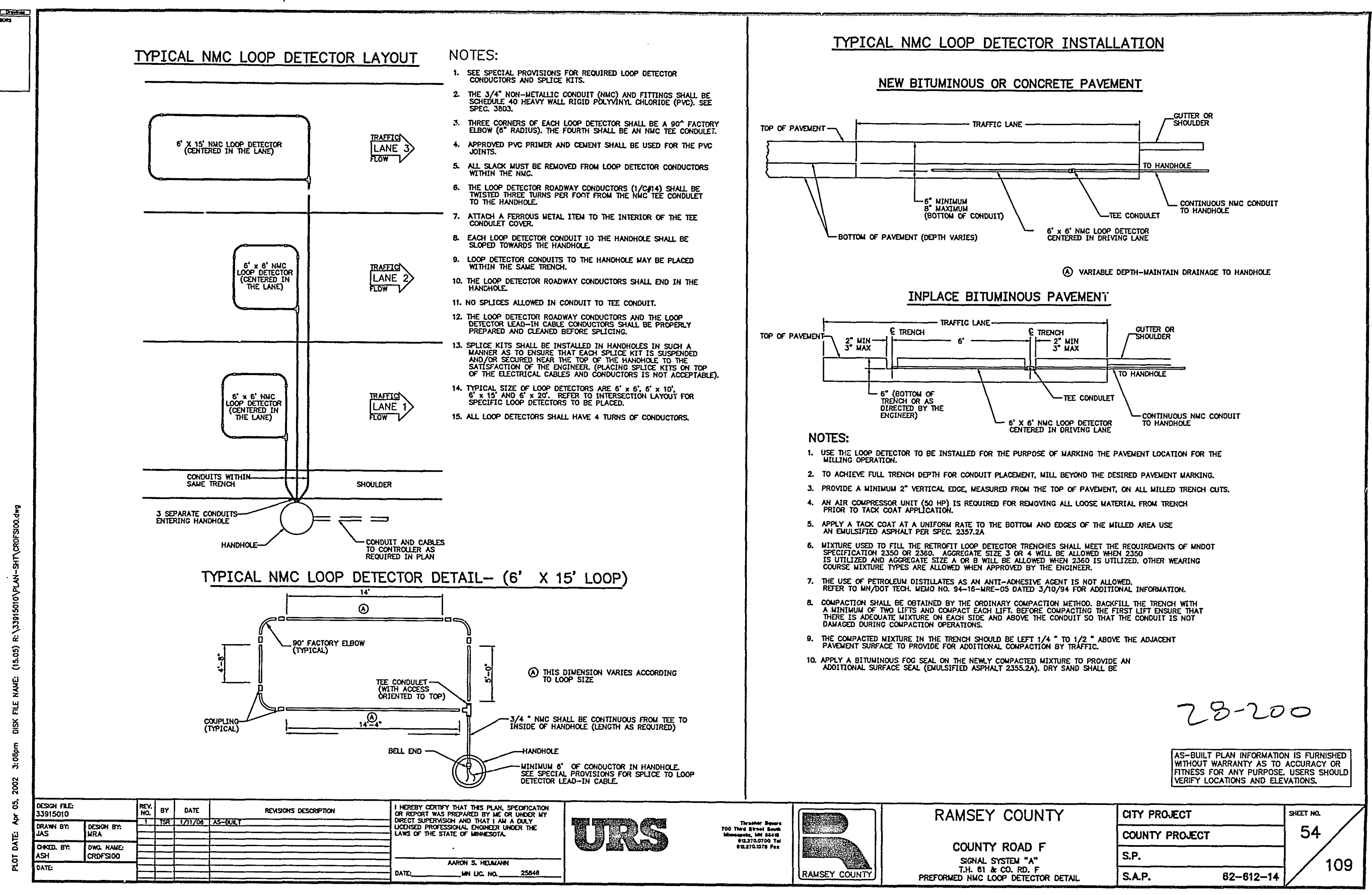
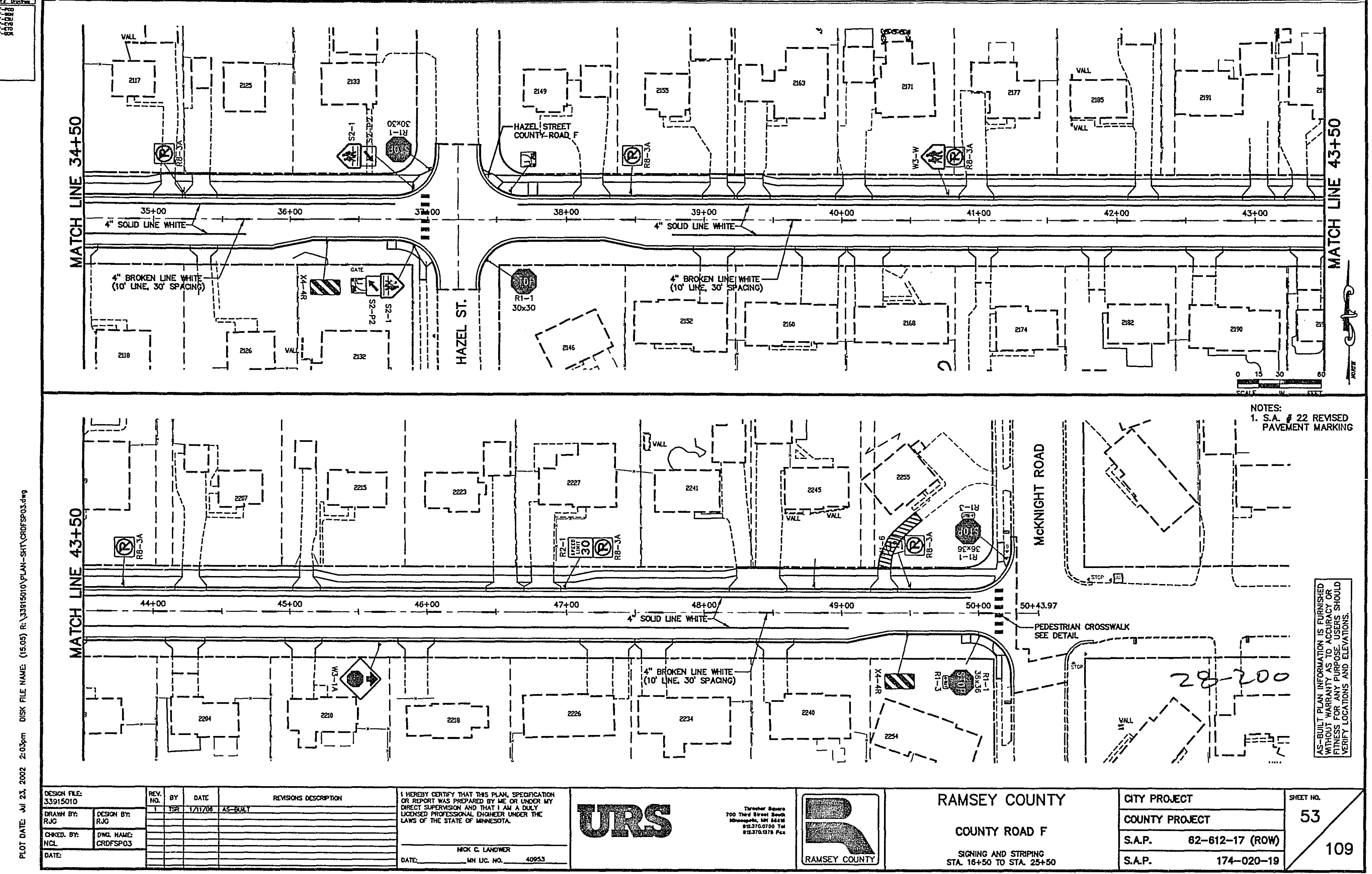
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COUNTY PROJECT	
S.A.P.	62-612-17 (ROW)

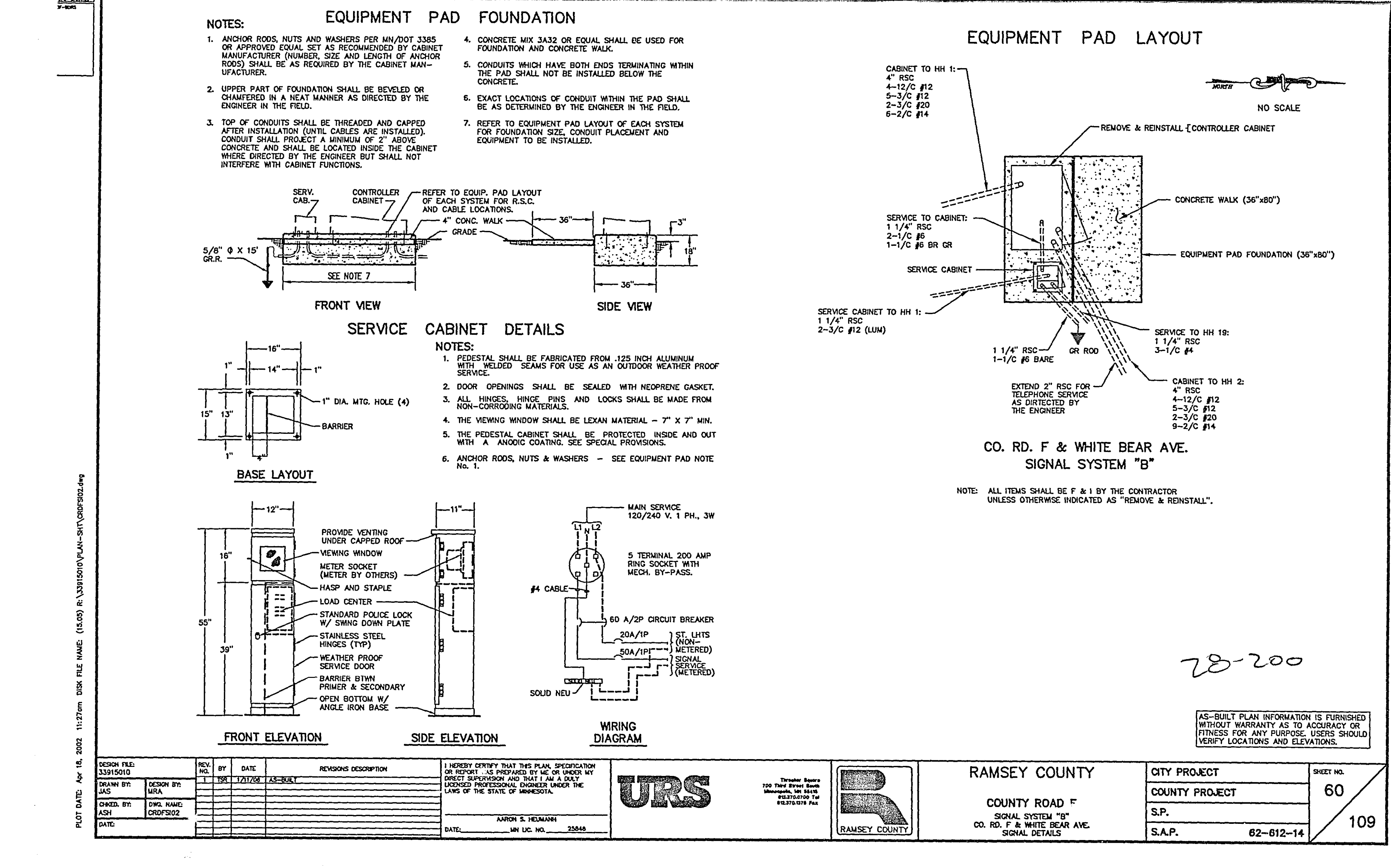
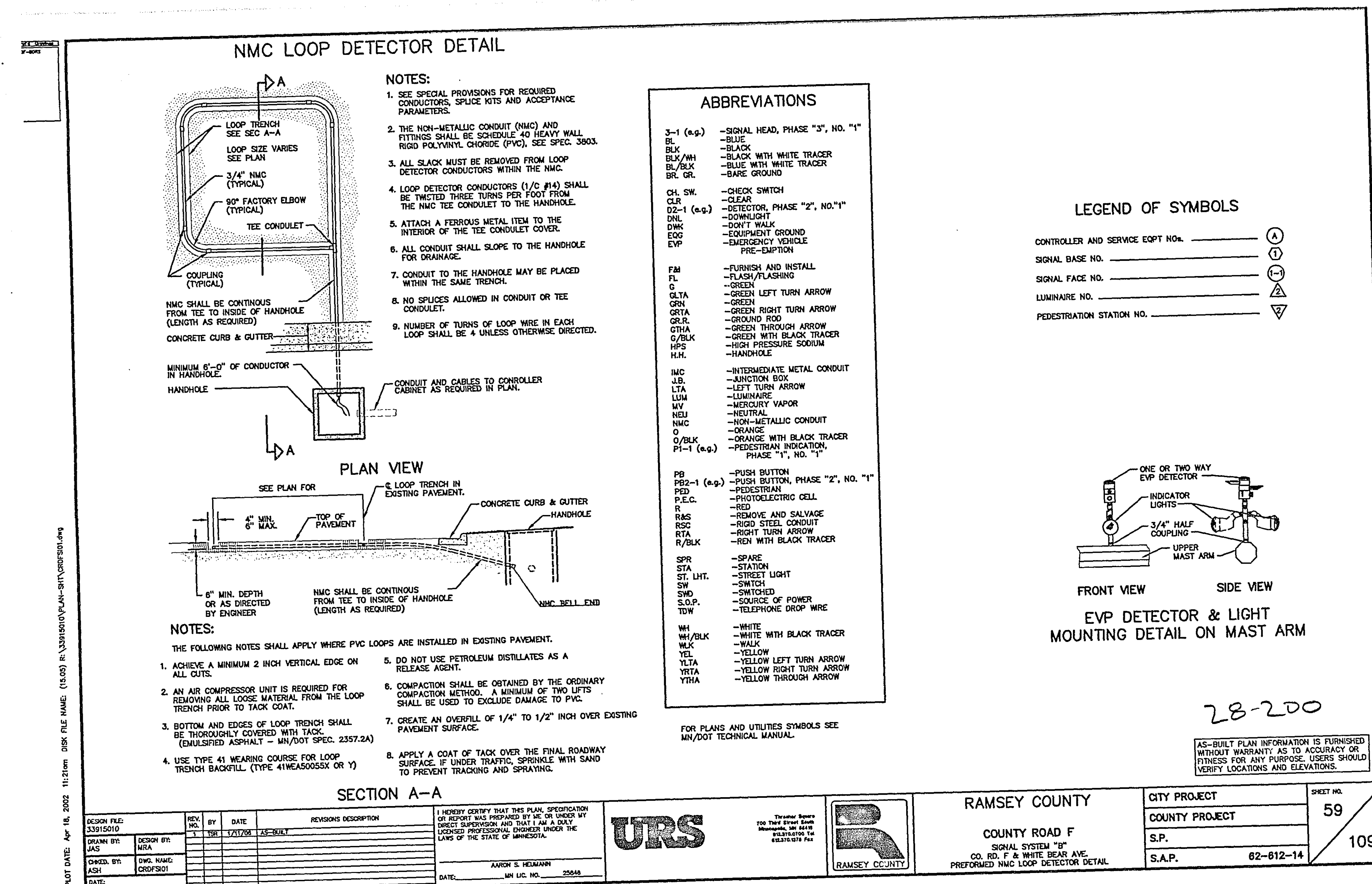
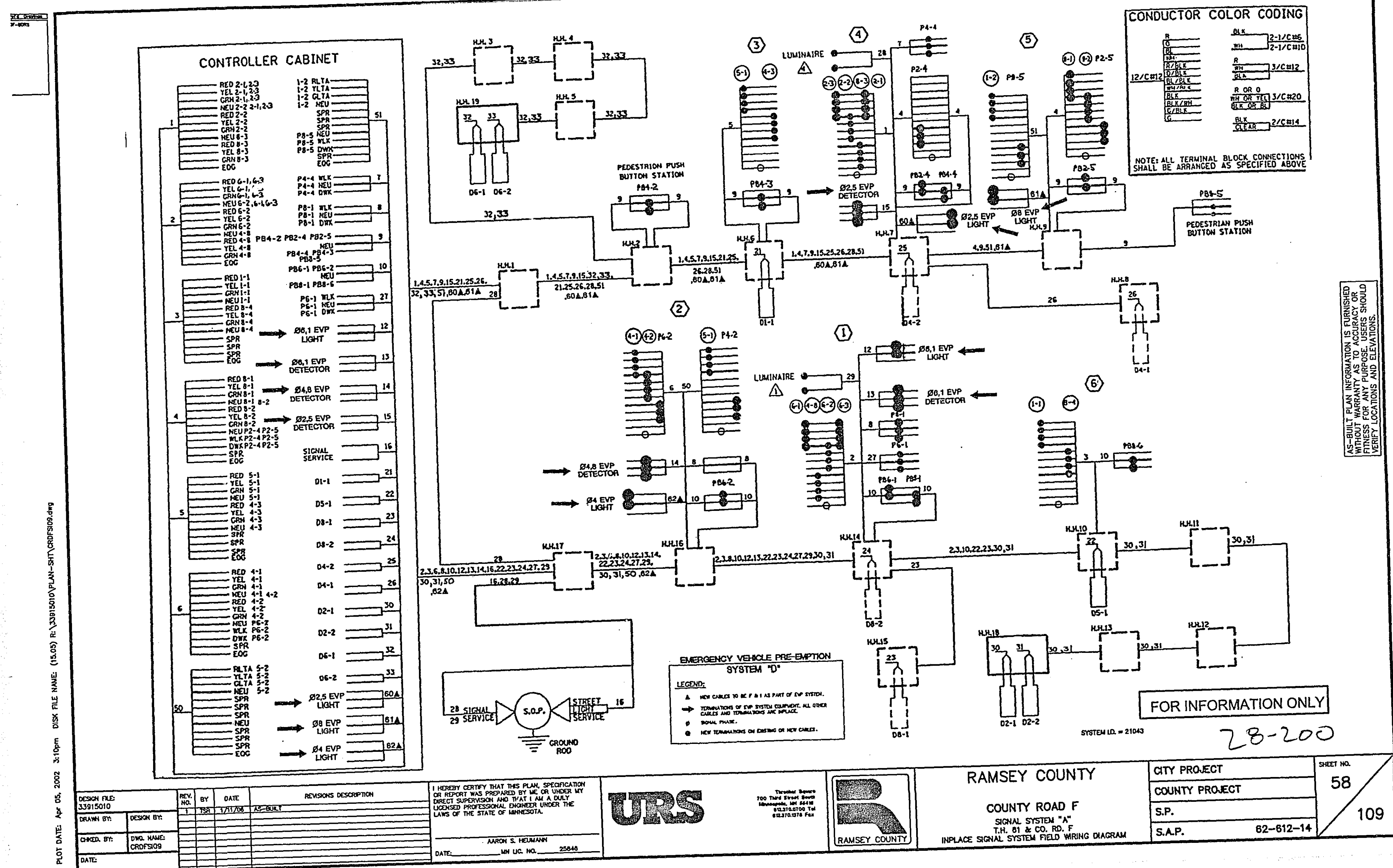
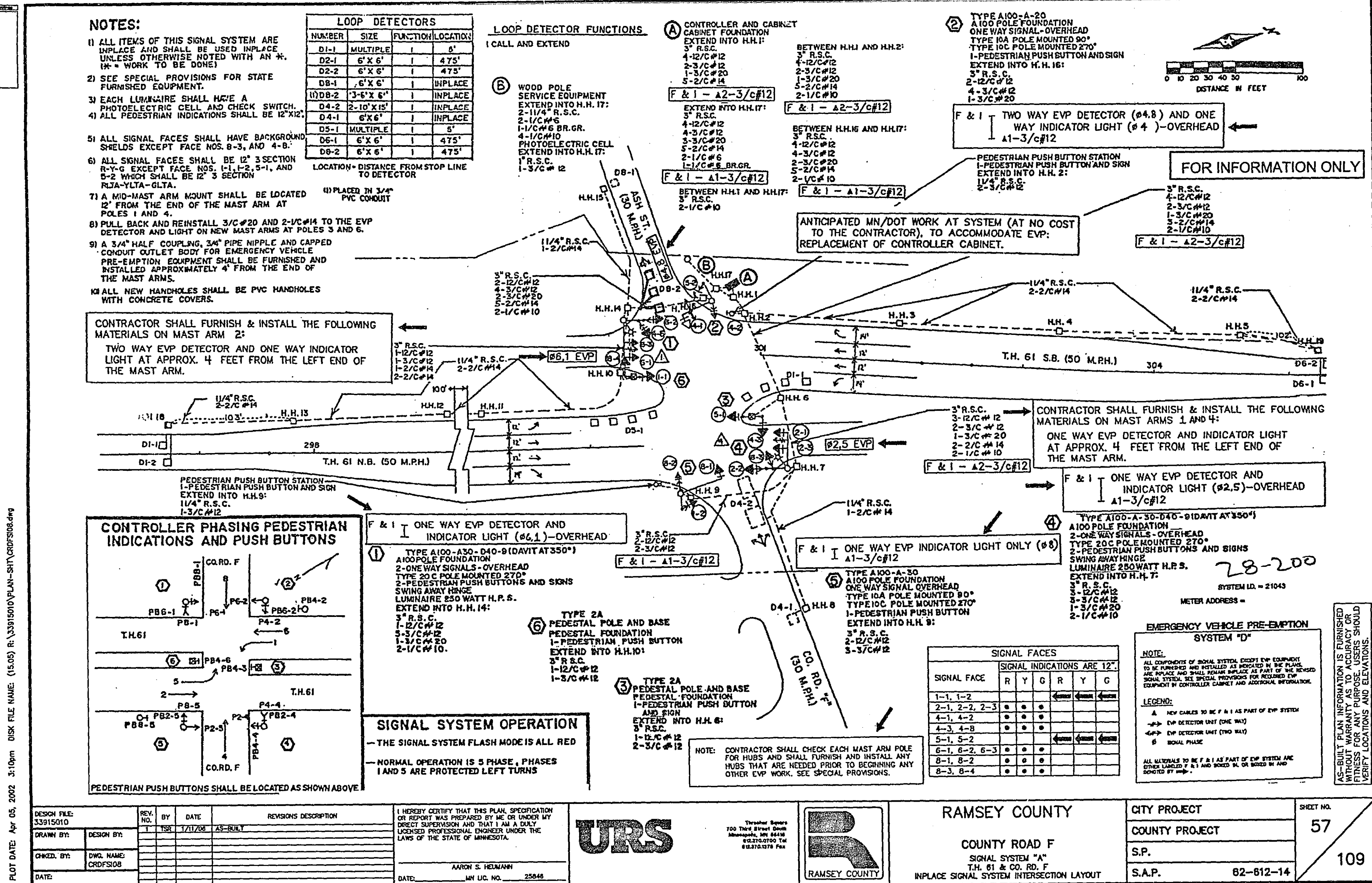
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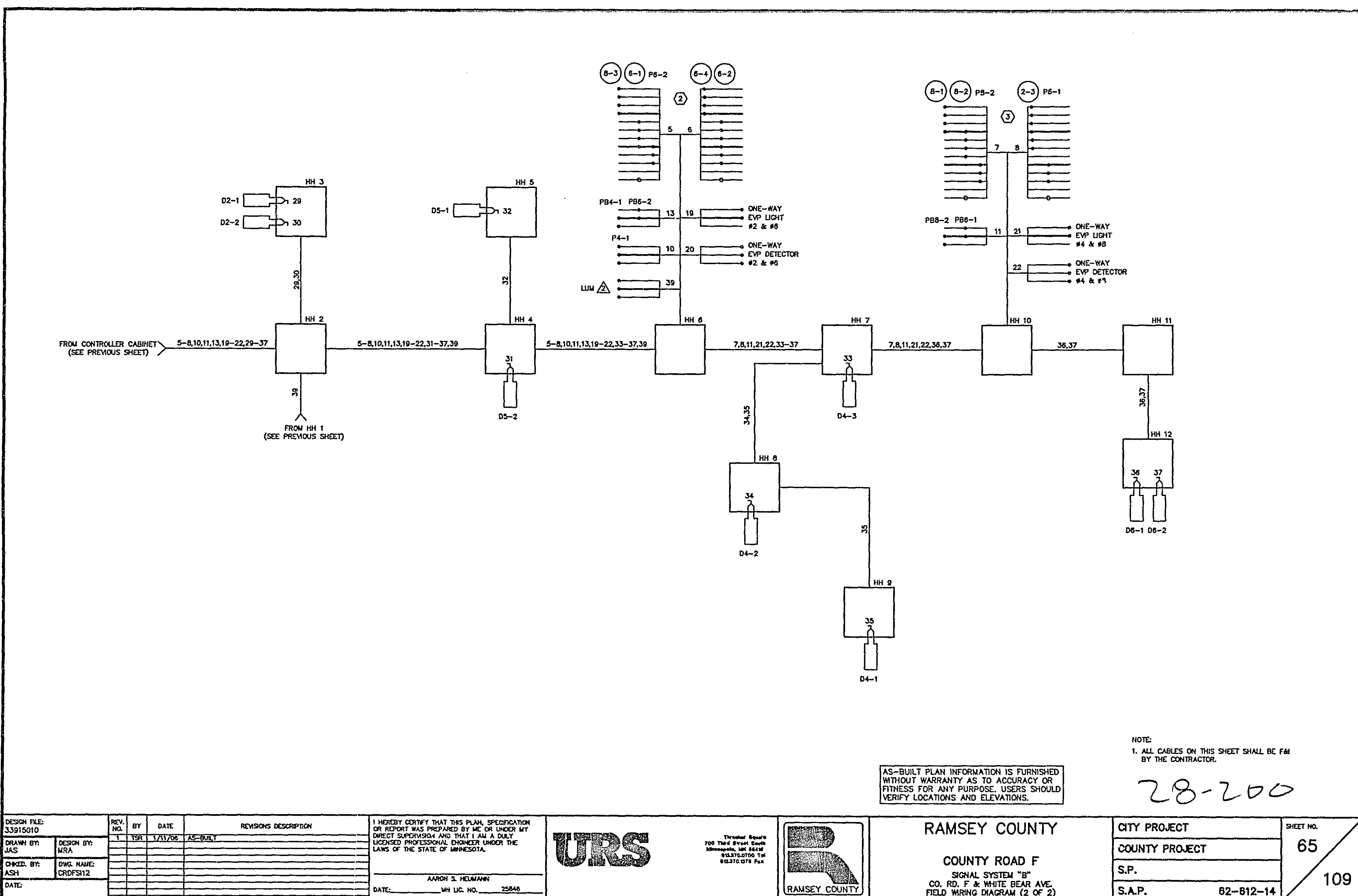




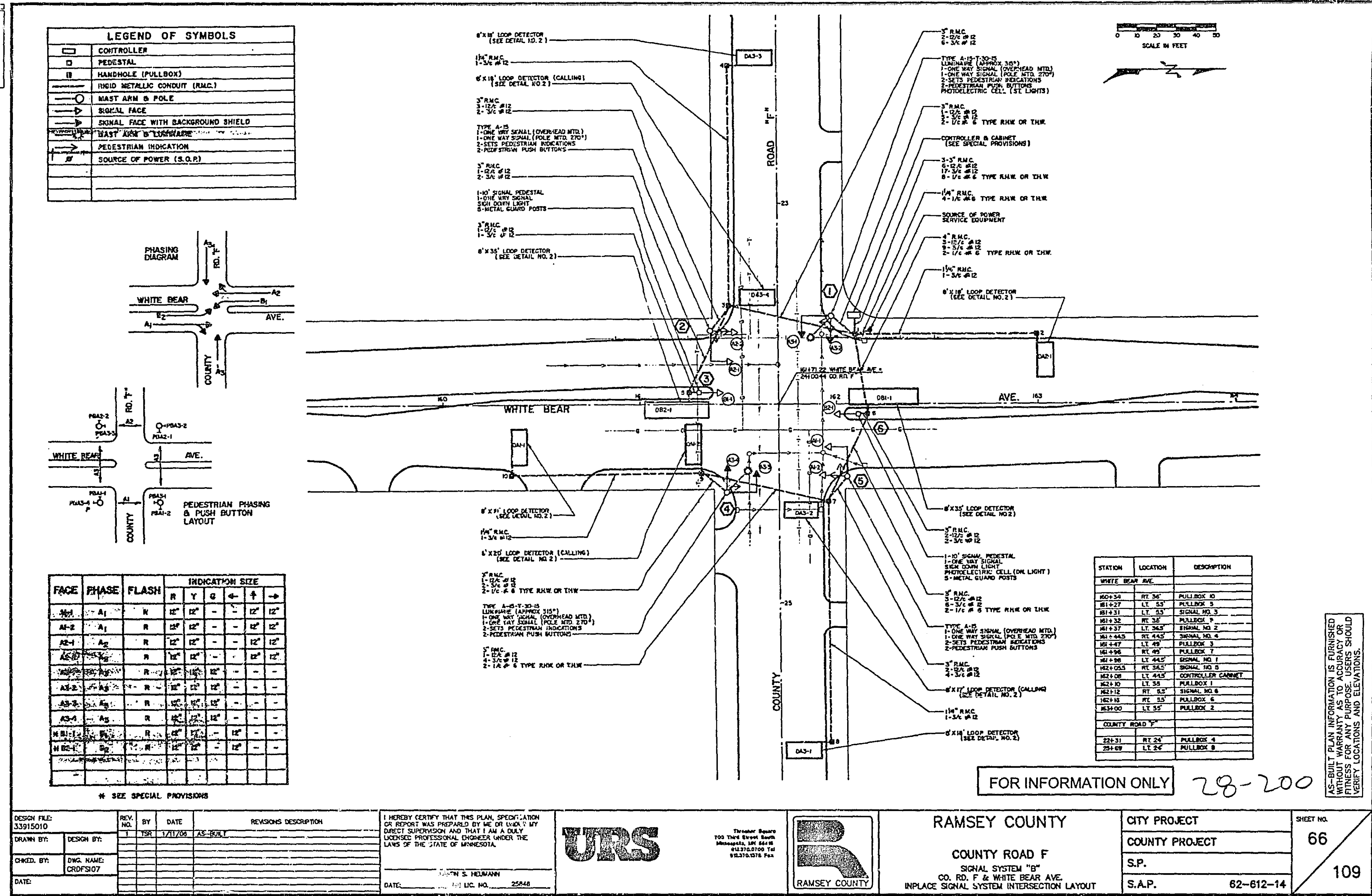




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PLOT DATE: Apr 05, 2002 3:10pm DISK FILE NAME: (15.05) R:\33915010\PLAN-SHT\CRDPS07.dwg

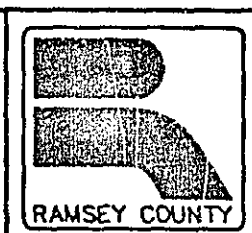


DESIGN FILE:	33915010
DRAWN BY:	JAS
CHECKED BY:	ASH
DATE:	
DESIGN BY:	MRA
DWG. NAME:	CRDPS12
DATE:	

REV. NO.	BY	DATE	REVISIONS DESCRIPTION
1	YSR	1/11/06	AS-BUILT

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.

AARON S. HELMANN
MIN. LIC. NO. 25846



RAMSEY COUNTY	CITY PROJECT	SHEET NO.
COUNTY ROAD F	COUNTY PROJECT	65
CO. RD. F & WHITE BEAR AVE.	S.P.	109
FIELD WIRING DIAGRAM (2 OF 2)	S.A.P.	62-612-14

DESIGN FILE:	33915010
DRAWN BY:	JAS
CHECKED BY:	ASH
DATE:	
DESIGN BY:	MRA
DWG. NAME:	CRDPS07
DATE:	

REV. NO.	BY	DATE	REVISIONS DESCRIPTION
1	YSR	1/11/06	AS-BUILT

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.

AARON S. HELMANN
MIN. LIC. NO. 25846



RAMSEY COUNTY	CITY PROJECT	SHEET NO.
COUNTY ROAD F	COUNTY PROJECT	66
SIGNAL SYSTEM "B"	S.P.	109
INPLACE SIGNAL SYSTEM INTERSECTION LAYOUT	S.A.P.	62-612-14