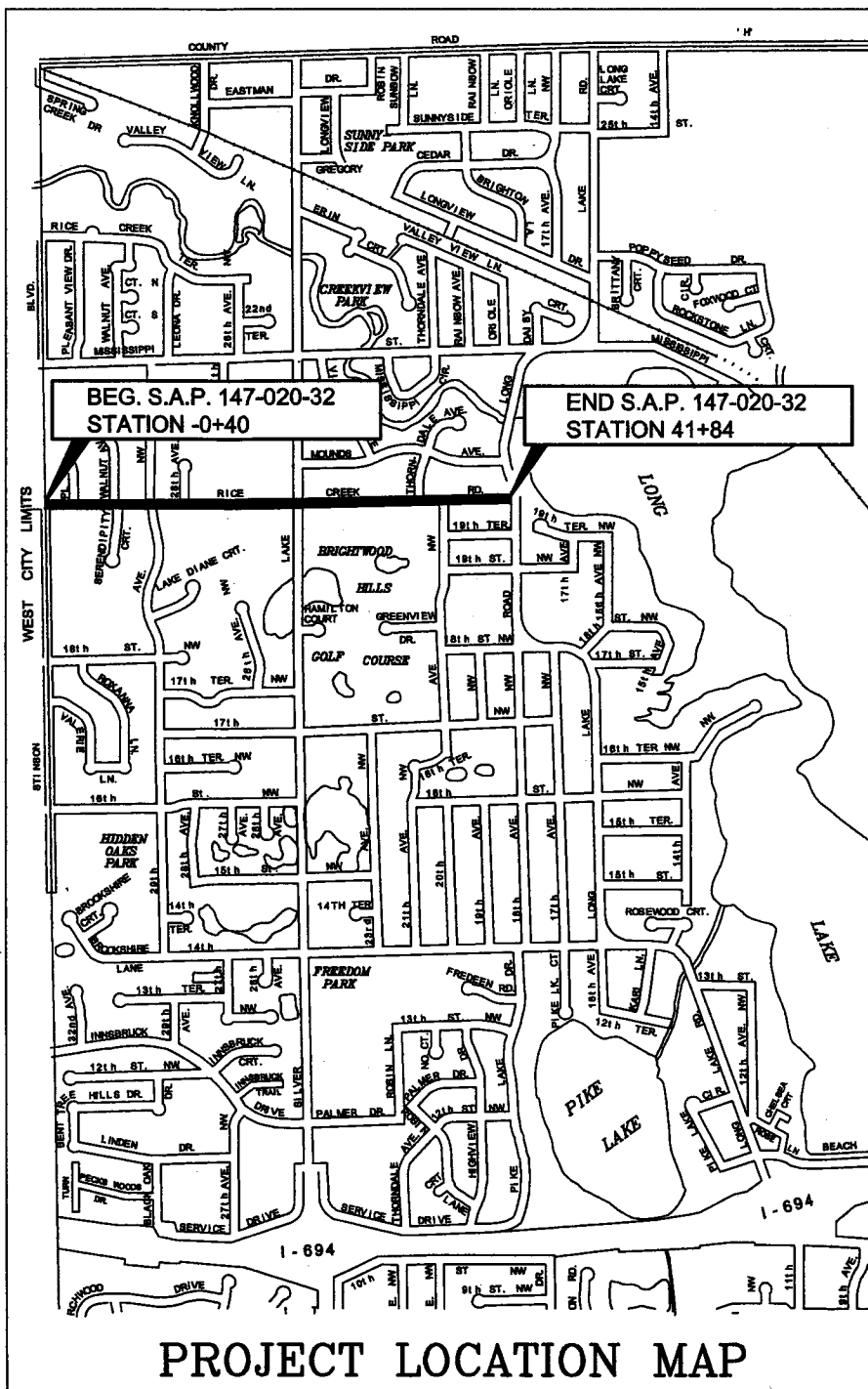


CITY OF NEW BRIGHTON RAMSEY COUNTY, MINNESOTA

CONSTRUCTION PLAN FOR GRADING, BITUMINOUS SURFACING,
CONCRETE CURB & GUTTER, STORM SEWER, & WATERMAIN REPLACEMENT

MUNICIPAL STATE AID PROJECT NO. 147-020-32
MUNICIPAL PROJECT 05-1, RICE CREEK ROAD RECONSTRUCTION

LOCATED ON: RICE CREEK ROAD (CSAH 11)
BETWEEN: STINSON BOULEVARD (WEST CITY LIMITS) AND LONG LAKE ROAD (CSAH 45)



PROJECT LOCATION MAP

GOVERNING SPECIFICATIONS AS AMENDED:

THE 2000 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" GOVERN.

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

NOTE: THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THIS PLAN IS ONLY APPROXIMATE. THE EXACT LOCATIONS OF UTILITIES ARE TO BE LOCATED BY THE INDIVIDUAL UTILITY COMPANIES THROUGH GOPHER STATE ONE CALL (651) 454-0002.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-2, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

PLAN INDEX

- SHEET 1 TITLE SHEET
- SHEET 2-3 STATEMENT OF ESTIMATED QUANTITIES, STD., PLATES, NOTES
- SHEET 4 DRAINAGE STRUCTURE SCHEDULE
- SHEET 5 TYPICAL SECTIONS & DETAILS
- SHEET 6-9 DETAILS
- SHEET 10-15 UTILITY PLAN SHEETS
- SHEET 16-21 STREET CONSTRUCTION PLANS
- SHEET 22-29 CROSS-SECTIONS

THIS PLAN CONTAINS 29 SHEETS

SCALES:

- TITLE SHEET - NO SCALE
- PLAN & PROFILE - NO SCALE
- CROSS-SECTIONS - NO SCALE

STANDARD SYMBOLS

LP	ELECTRIC BOX	GV	GAS VALVE
GP	LIGHT POLE	WF	WOOD FENCE
GP	GUARD POST	CLF	CHAIN LINK FENCE
CMF	CORRUGATED METAL PIPE	BL	BUILDING LINE
6804	HOUSE MARKER	BL	BLINDS OUTSIDE BUILDING LINE
□	CONCRETE SURFACING	PP	POWER POLE
△	SIGN	CO	SEWER CLEANOUT
TR	TELEPHONE RISER	MH	MAN HOLE
⊙	CIRCULAR CATCH BASIN	FR	FIRE HYDRANT
⊞	RECTANGULAR CATCH BASIN	CB	CATV BOX
W	WATER VALVE	PL	PROPERTY LINE
—	OVER HEAD WIRES	SD	STORM DRAIN PIPE
□	BITUMINOUS SURFACING	WM	WATER MAIN
—	SANITARY SEWER		
—	GAS LINE		
—	UNDER GROUND ELECTRIC		

RICE CREEK ROAD (CSAH 11)

	FEET	MILES
GROSS LENGTH	4,224	0.80
BRIDGE LENGTH	0	0
EXCEPTIONS	0	0
NET LENGTH	4,224	0.80
A.D.T. 2005		4,750
A.D.T. 2025		7,125
DESIGN LOAD - ton		9
PROJECTED HCADT		142
SOIL FACTOR %		100
DESIGN SPEED - MPH		30
URBAN CLASS.		MINOR ART.
TRAFFIC LANES		2
PARKING LANES		0
"R" VALUE		20
20 YEAR DESIGN LANE FLEXIBLE EASALS		= 700,958

STOPPING SIGHT DISTANCE BASED ON:
HEIGHT OF EYE - 3.5 FT HEIGHT OF OBJECT - 2.0 FT

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

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.

Leslie J. Proper REG. NO. 10491 DATE 4-11-05
LESLIE J. PROPER, P.E.
NEW BRIGHTON CITY ENGINEER

[Signature] DATE 5/10/05
APPROVED: RAMSEY COUNTY ENGINEER

[Signature] DATE 5/9/05
APPROVED: CITY OF FRIDLEY CITY ENGINEER

[Signature] DATE 5/10/05
APPROVED: ANOKA COUNTY ENGINEER

RECOMMENDED FOR APPROVAL BY *[Signature]* DATE 5-10-05
METRO-ASSISTANT DISTRICT ENGINEER-STATE AID: REVIEWED FOR COMPLIANCE WITH STATE AID RULES/POLICY

28-282 *[Signature]* DATE 5-10-05
APPROVED FOR STATE AID FUNDING: STATE AID ENGINEER

STATEMENT OF ESTIMATED QUANTITIES				S.A.P. 147-020-32 PARTICIPATING		MUNICIPAL PROJECT 05-1 NON-PARTICIPATING	GRAND TOTAL
NOTE	SPEC. NO.	ITEM	UNIT	STREET ESTIMATED QUANTITY	STORM SEWER ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY
	2021.501	MOBILIZATION	LUMP SUM	0.66	0.18	0.16	1
1	2104.501	REMOVE CURB & GUTTER	LIN FT	1,100			1,100
	2104.501	REMOVE SEWER PIPE STORM	LIN FT	536			536
	2104.501	REMOVE WATERMAIN	LIN FT			1,970	1,970
1	2104.503	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SQ FT	9,560			9,560
1 - 9	2104.503	REMOVE CONCRETE WALK	SQ FT	1,600		650	2,250
1	2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ YD	325			325
1	2104.505	REMOVE BITUMINOUS SURFACING (P)	SQ YD	13,500			13,500
	2104.509	REMOVE MANHOLE OR CATCH BASIN	EACH	10			10
	2104.509	REMOVE HYDRANT	EACH			3	3
	2104.525	ABANDON WATERMAIN	EACH			2	2
	2105.501	COMMON EXCAVATION (P)	CU YD	12,000			12,000
	2105.522	SELECT GRANULAR BORROW (CV) (P)	CU YD	4,700			4,700
	2105.607	EXCAVATION SPECIAL (POND DREDGING) (LV)	CU YD		90		90
2	2211.501	AGGREGATE BASE CLASS 5	TON	6,500			6,500
2	2360.501	WEARING COURSE - SPWEA340C	TON	3,580			3,580
	2360.502	NON-WEARING COURSE - SPNWB340B	TON	1,690			1,690
	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL	2,300			2,300
3	2501.515	12" GS APRON W/RIP-RAP	EACH		2		2
4	2502.541	4" PERFORATED PE PIPE DRAIN	LIN FT	400			400
4	2503.511	8" PVC PIPE SEWER, SDR 35	LIN FT		181		181
	2503.511	12" PVC PIPE SEWER, SDR 35	LIN FT		823		823
	2503.511	15" PVC PIPE SEWER, SDR 35	LIN FT		1,079		1,079
5	2503.603	SANITARY SEWER SERVICE	LIN FT			33	33
	2504.601	TEMPORARY WATER SYSTEM	LUMP SUM			1	1
	2504.602	HYDRANT	EACH			3	3
	2504.602	CONNECT TO EXISTING WATERMAIN	EACH			6	6
	2504.602	ADJUST GATE VALVE	EACH	12			12
	2504.602	1" CORPORATION STOP WITH SADDLE	EACH			33	33
6	2504.602	6" GATE VALVE & BOX	EACH			7	7
	2504.602	10" GATE VALVE & BOX	EACH			3	3
	2504.602	1" CURB STOP & BOX	EACH			33	33
	2504.603	6" WATERMAIN PVC C900	LIN FT			110	110
	2504.603	10" WATERMAIN PVC C900	LIN FT			1,860	1,860
	2504.603	1" TYPE K COPPER PIPE	LIN FT			1,150	1,150
7	2504.608	WATERMAIN FITTINGS	POUND			1,750	1,750
8	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN F	EACH		1		1
8	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN G	EACH		1		1
8	2506.502	CONSTRUCT DRAINAGE STRUCTURE SPEC 1	EACH		12		12
8	2506.502	CONSTRUCT DRAINAGE STRUCTURE SPEC 2	EACH		15		15
8	2506.502	CONSTRUCT DRAINAGE STRUCTURE SPEC 3 V2B1	EACH		1		1
8	2506.502	CONSTRUCT DRAINAGE STRUCTURE SPEC 4 V2B1	EACH		1		1

STATEMENT OF ESTIMATED QUANTITIES				S.A.P. 147-020-32 PARTICIPATING		MUNICIPAL PROJECT 05-1 NON-PARTICIPATING	GRAND TOTAL
ITEM		UNIT	STREET ESTIMATED QUANTITY	STORM SEWER ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	
8	2506.502	CONSTRUCT DRAINAGE STRUCTURE SPEC 5	EACH		2		2
8	2506.502	CONSTRUCT DRAINAGE STRUCTURE SPEC 6	EACH		2		2
	2506.522	ADJUST FRAME & RING CASTING	EACH	6			6
	2506.602	CONNECT TO EXISTING STORM SEWER	EACH		11		11
	2506.602	EXTERNAL SEALING SYSTEM FOR CASTING & RINGS	EACH	33			33
9	2521.501	4" CONCRETE WALK	SQ FT	1,600		650	2,250
	2531.501	CONCRETE CURB & GUTTER DESIGN B624	LIN FT	8,000			8,000
	2531.507	6" CONCRETE DRIVEWAY PAVEMENT	SQ YD	577			577
	2531.602	PEDESTRIAN CURB RAMP	EACH	9			9
	2563.601	TRAFFIC CONTROL	LUMP SUM	0.66	0.18	0.16	1
	2564.602	PAVEMENT MESSAGE (RIGHT ARROW) EPOXY	EACH	5			5
	2564.603	4" SOLID LINE WHITE - EPOXY	LIN FT	7,400			7,400
	2564.603	4" DOUBLE SOLID LINE YELLOW - EPOXY	LIN FT	3,700			3,700
	2565.602	NMC LOOP DETECTOR 6' X 6'	EACH	14			14
	2573.502	SILT FENCE, TYPE	LIN FT	100			100
	2573.601	EROSION CONTROL SUPERVISOR	LUMP SUM	1			1
	2573.602	INLET PROTECTION	EACH	34			34
	2575.505	SODDING W/TOPSOIL	SQ YD	6,200			6,200
	2575.601	EROSION CONTROL	LUMP SUM	1			1

STANDARD PLATES THESE STANDARD PLATES AS APPROVED BY THE FHWA SHALL APPLY	
PLATE NO.	DESCRIPTION
3123J	METAL APRON FOR C.S. PIPE
3134C	RIPRAP AT CMP OUTLETS
4005L	MANHOLE OR CATCH BASIN
4006L	MANHOLE OR CATCH BASIN - DESIGN G
4010H	CONCRETE SHORT CONE AND ADJUSTING RING
4011E	PRECAST CONCRETE BASE
4101D	RING CASTING FOR MANHOLE OR CATCH BASIN
4126F	CATCH BASIN FRAME CASTING
4149C	GRATE CASTING FOR CATCH BASIN
4161F	CURB BOX CASTING FOR CATCH BASIN
7035M	CONCRETE WALK & CURB RETURNS AT ENTRANCES
7036F	PEDESTRIAN CURB RAMP FOR THE HANDICAPPED (2 PLATES)
7100G	CONCRETE CURB AND GUTTER, DESIGN B (2 PLATES)
7111J	INSTALLATION OF CATCH BASIN CASTINGS
8000I	STANDARD BARRICADES

QUANTITY NOTES:

1. THE LOCATION OF ALL REMOVALS WILL BE MARKED IN THE FIELD BY THE PROJECT INSPECTOR PRIOR TO REMOVAL.
PRIOR TO REMOVALS, THE CONCRETE OR BITUMINOUS WILL BE SAW CUT TO PRODUCE A CLEAN, STRAIGHT EDGE.
SAW CUTTING SHALL BE INCIDENTAL
2. INCLUDES INTERSECTIONS & BITUMINOUS DRIVEWAYS
3. INCLUDES 4.7 C.Y CLASS III RIP-RAP 18" DEEP
4. CONNECTION TO CATCH BASIN IS CONSIDERED INCIDENTAL.
5. INCLUDES CONNECTION TO EXISTING SAN. SEWER.
6. INCLUDES 3 - 6" GATE VALVES INSTALLED ON HYD LEADS.
7. WATERMAIN FITTINGS = 7 - 10" X 10" X 6" TEES @ 250# EACH
8. COMPLETE AND IN-PLACE INCLUDING CASTINGS
9. INCLUDES 650 SQ. FT. FOR WATER SERVICE REPLACEMENT.

BASIS OF PLAN QUANTITIES:

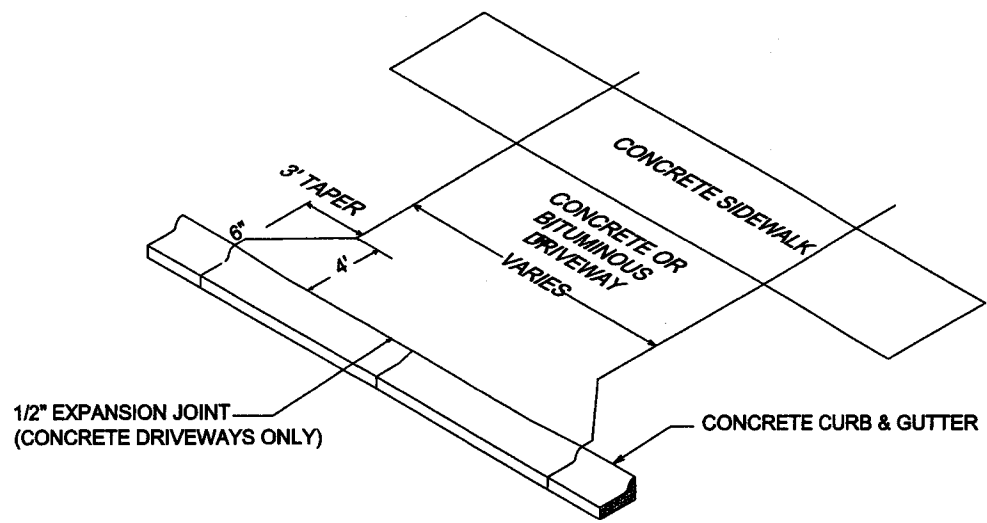
BITUMINOUS MIXTURE -
BITUMINOUS WEARING COURSE - 115 LB./S.Y./IN.
BITUMINOUS NON-WEARING COURSE - 110 LB./S.Y./IN.
AGGREGATE BASE, CLASS 5 - 110 LB/S.Y./IN
TACK COAT - 0.05 GAL./S.Y.

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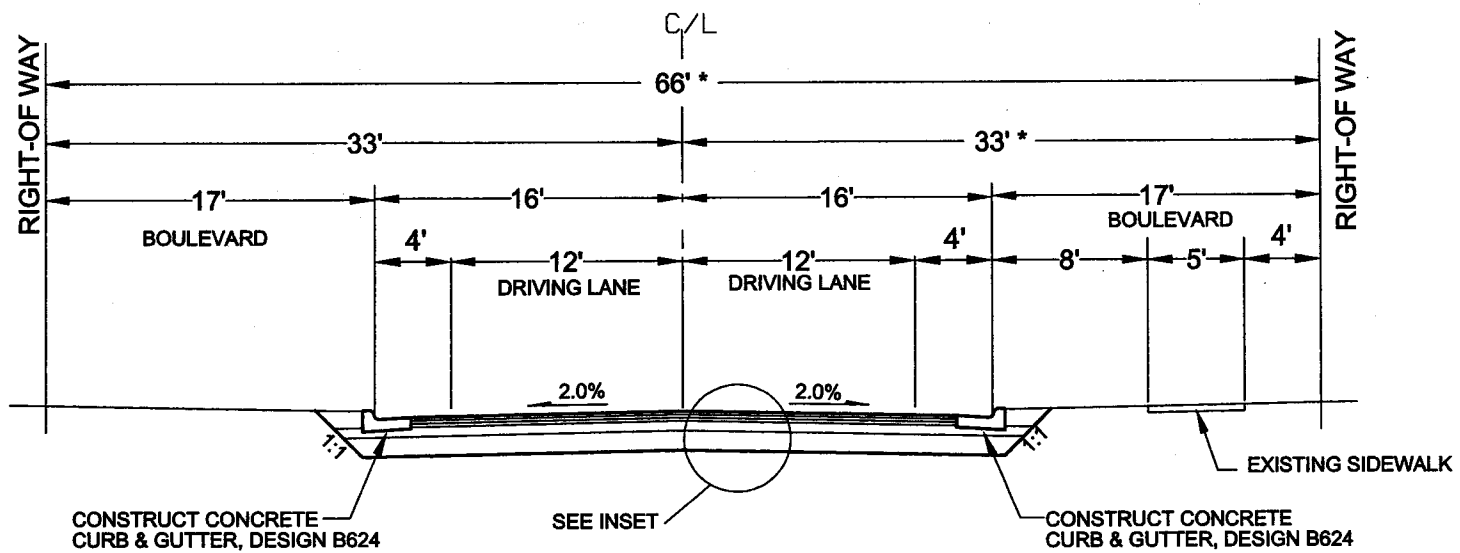
DRAINAGE STRUCTURE SCHEDULE

STA	LOC	STRUCTURE	REMOVALS		8" PIPE SEWER	12" PIPE SEWER	15" PIPE SEWER	4" PERF DRAIN PIPE	REMARKS
			STRUCTURE	SEWER PIPE					
-0+20	RT	SPEC 1-2				32'			
0+00	LT	SPEC 1-1				38'			
0+22	RT	SPEC 2-1					32'		
0+22	RT	MH G					263'		
2+78	RT	SPEC 2-2	CB						CONNECT TO EXIST STORM SEWER
4+32	RT	SPEC 1-3	CB						CONNECT TO EXIST STORM SEWER
5+56	LT	SPEC 1-4				30'			
5+56	RT	SPEC 2-3				30'			
5+77	RT	EXIST CB							CONNECT TO EXIST STORM SEWER
7+53	LT	SPEC 1-5						40'	
7+53	RT	SPEC 2-4	CB			30'		40'	CONNECT TO EXIST STORM SEWER
9+40	RT	SPEC 2-5	CB			10'			CONNECT TO EXIST STORM SEWER
9+50	LT	SPEC 1-6				30'			
9+50	RT	SPEC 2-6				20'			
17+00	LT	SPEC 1-7				37'		40'	
17+00	RT	SPEC 2-7					36'	40'	
17+43	RT	SPEC 3 V2B1					43'		CONNECT TO EXIST STORM SEWER
17+73	LT	SPEC 2-8	CB						CONNECT TO EXIST STORM SEWER
20+00	RT	EXIST CB		85'					
20+86	RT	EXIST CB	CB						CONNECT TO EXIST STORM SEWER
24+64	LT	SPEC 1-8				30'		40'	
24+64	RT	SPEC 2-9				15'		40'	
24+64	RT	12" APRON							
25+87	RT	EXIST CB		58'					CONNECT TO EXIST STORM SEWER
25+97	LT	EXIST CB	CB						
26+29	LT	MH F-2	CB	30'			70'		CONNECT TO EXIST STORM SEWER
27+06	RT	12" APRON				25'			
27+14	RT	SPEC 2-10				134'			
28+17	RT			30'					
28+50	RT	SPEC 2-11				30'		40'	
28+50	LT	SPEC 1-9						40'	
28+50	RT	SPEC 6-1			8'				
28+75	LT		CB	53'					
28+95	RT			26'					
29+45	RT	SPEC 5-1			95'				
33+22	LT	SPEC 1-10				30'			
33+22	RT	SPEC 2-12				230'			
33+55	LT			42'					
35+35	LT			25'					
35+50	RT	SPEC 2-13					340'		
35+75	LT			25'					
36+90	LT			20'					
37+65	LT			20'					
38+20	LT	SPEC 5-2			8'				
38+40	LT			20'					
38+91	LT	SPEC 1-11				30'			
38+91	RT	SPEC 2-14					253'		
38+91	LT	SPEC 6-2			70'				
39+15	LT			20'					
39+43	LT			20'					
40+70	LT			28'					
41+44	LT	SPEC 1-12				42'		40'	
41+44	RT	SPEC 2-15					22'	40'	
41+46	LT		CB	34'					
41+65	RT	SPEC 4 V2B1					20'		CONNECT TO EXIST STORM SEWER

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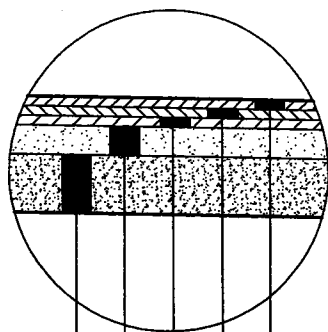


CONCRETE - 6" NON-REINFORCED
 BITUMINOUS - 6" CL. 5 & 2" WEARING COURSE MIXTURE
TYPICAL DRIVEWAY INSTALLATION



TYPICAL SECTION
 STA. 0+00 TO 13+45 STA. 23+10 TO 42+00

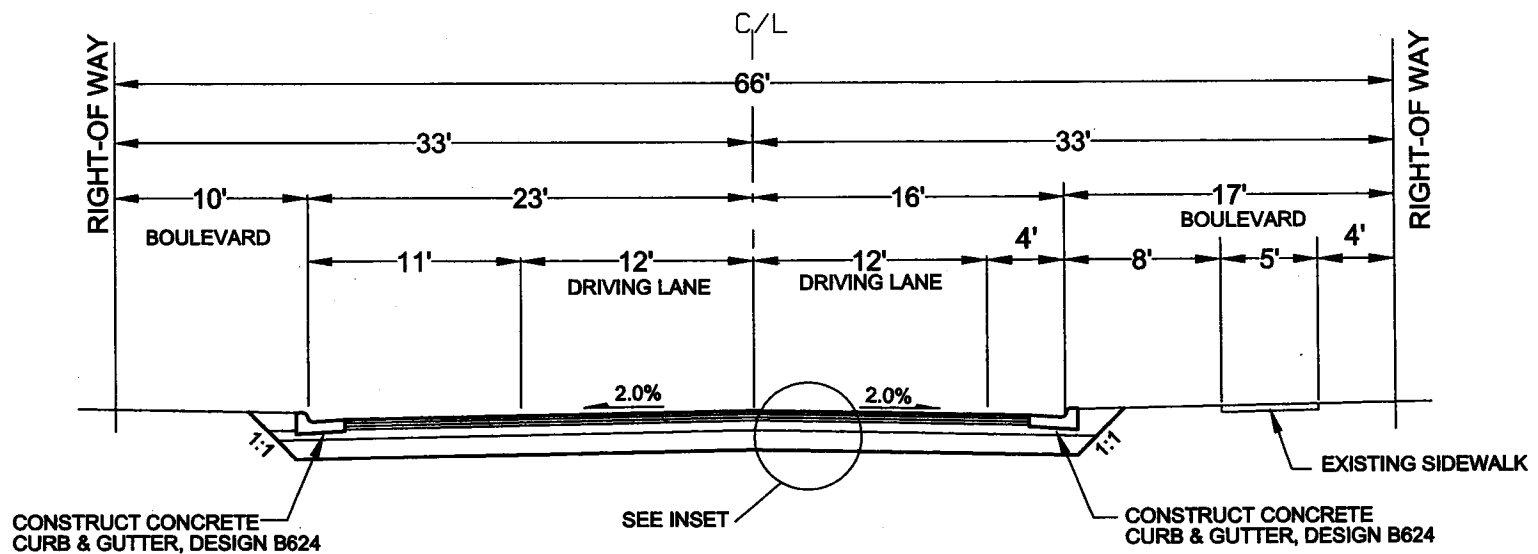
* 76' TOTAL RIGHT-OF-WAY WIDTH
 WITH 43' RIGHT-OF-WAY (RT)
 FROM STA. 22+90 TO 28+80 AND
 FROM STA. 36+14 TO 41+84



- 2" WEARING COURSE MIXTURE SPWEA340C
- 2" WEARING COURSE MIXTURE SPWEA340C
- 2" NON-WEARING COURSE MIXTURE SPNWB340B
- 6" AGGREGATE BASE, CLASS 5 (3138.2A1)
- 12" SELECT GRANULAR BASE (3149.2B2)

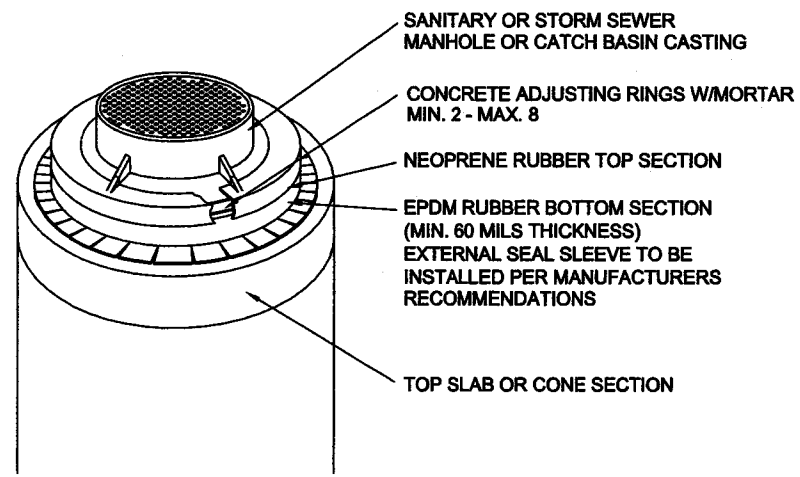
TOTAL GE = 25

INSET

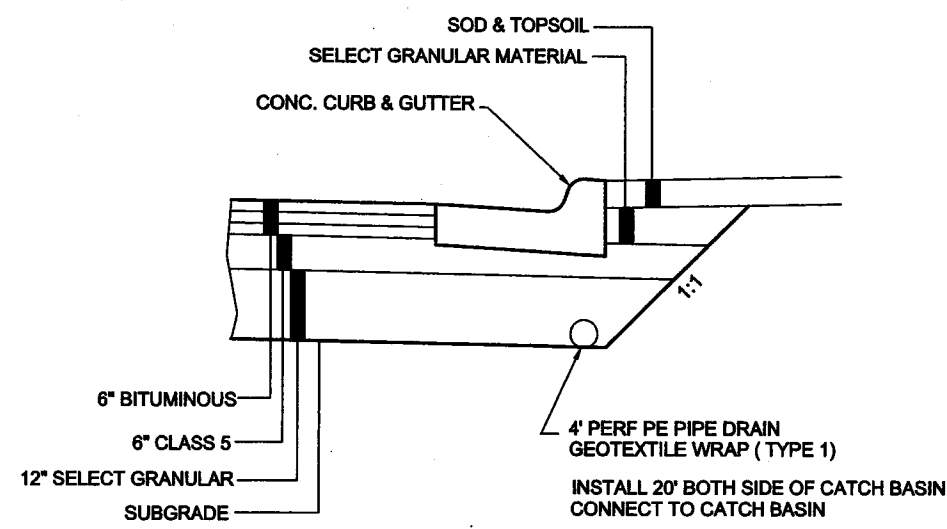


TYPICAL SECTION
 STA. 13+45 TO 21+85

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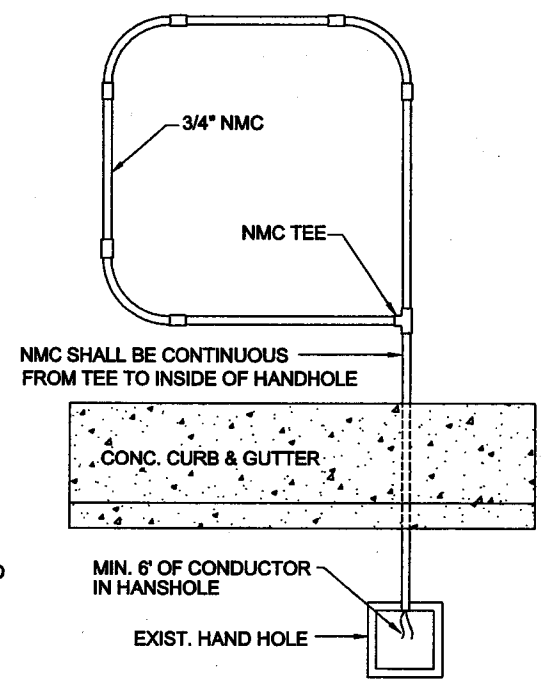


CATCH BASIN AND MANHOLE EXTERNAL SEAL

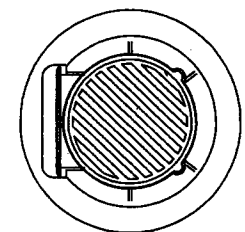


TYPICAL DRAIN AT CURBS

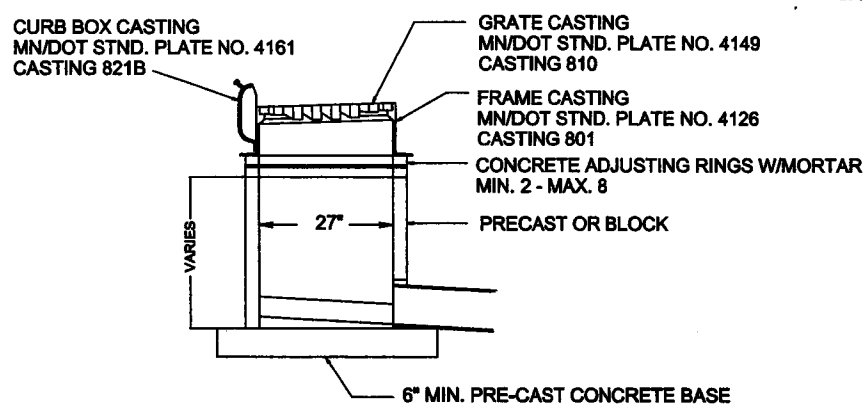
- NOTES:**
1. THE NON-METALLIC CONDUIT (NMC) & FITTINGS SHALL BE SCHEDULE 40 HEAVY WALL POLYVINYL CHLORIDE (PVC)
 2. ALL SLACK MUST BE REMOVED FROM LOOP DETECTORS CONDUCTORS WITHIN THE NMC
 3. LOOP DETECTOR CONDUCTORS (1/C #14) SHALL BE TWISTED 3 TURNS PER FOOT FROM THE NMC TEE TO HANDHOLE
 4. ALL CONDUIT SHALL SLOPE TO THE HANDHOLE FOR DRAINAGE
 5. NO SPLICES ARE ALLOWED IN CONDUIT OR TEE CONDULET
 6. NUMBER OF TURNS OF LOOP WIRE IN EACH LOOP SHALL BE 4 UNLESS OTHERWISE DIRECTED
 7. ATTACH A FERROUS METAL ITEM TO THE INTERIOR OF THE TEE CONDULET COVER
 8. THE LOOP DETECTOR ASSEMBLY SHALL BE PLACED ON TOP OF THE AGGREGATE BASE PRIOR TO PLACEMENT OF THE FIRST BITUMINOUS COURSE



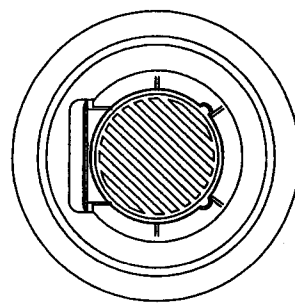
NMC LOOP DETECTOR DETAIL



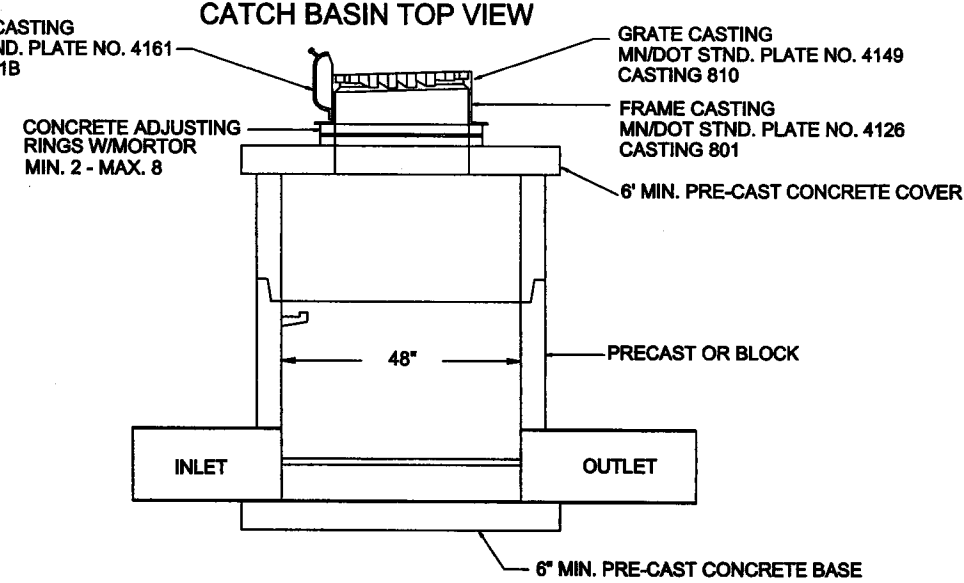
CATCH BASIN TOP VIEW



SPEC - 1 (27")

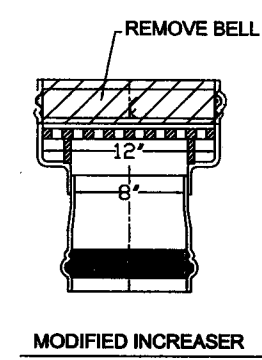


CATCH BASIN TOP VIEW

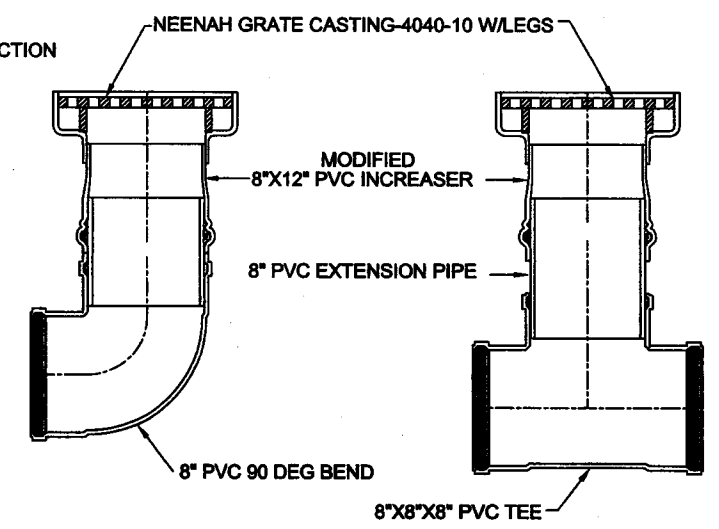


SPEC - 2 (48")

DRAINAGE STRUCTURES (CATCH BASINS)



MODIFIED INCREASER

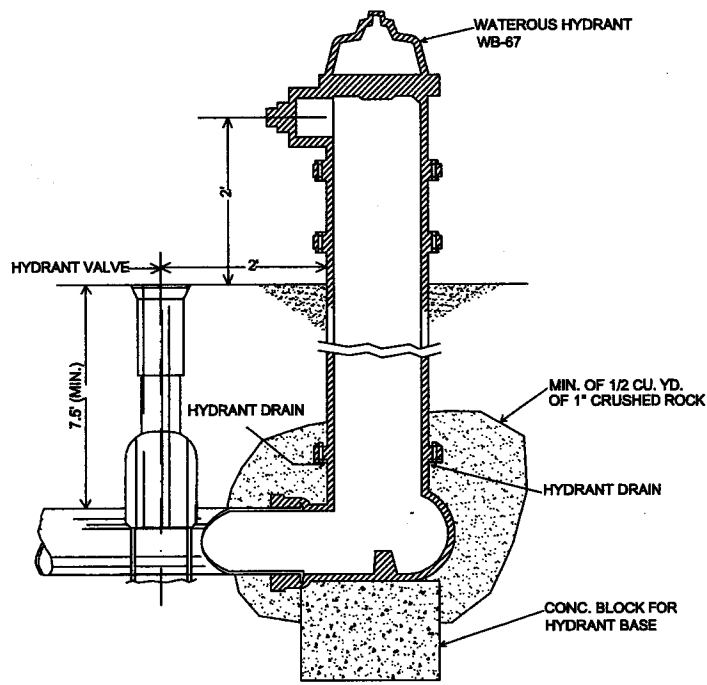


SPEC - 5

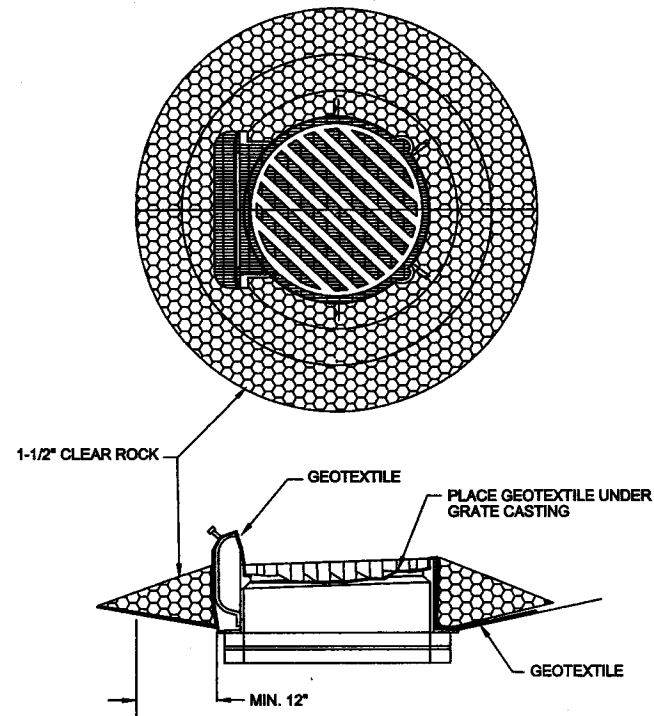
SPEC - 6

**SURFACE DRAIN ASSEMBLY
YARD DRAIN**

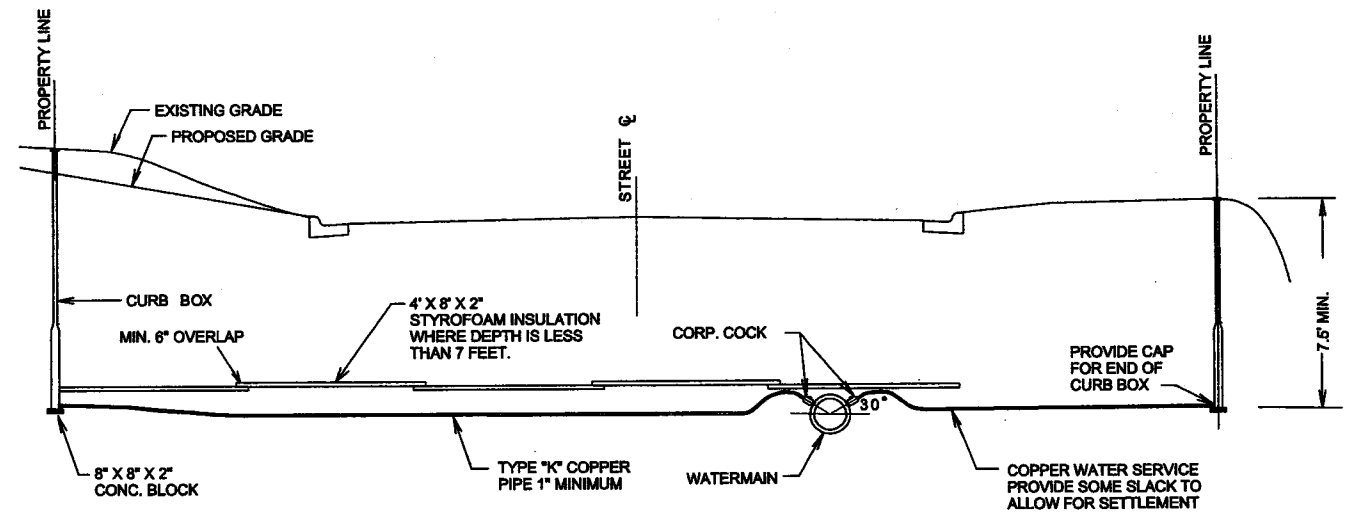
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TYPICAL HYDRANT INSTALLATION

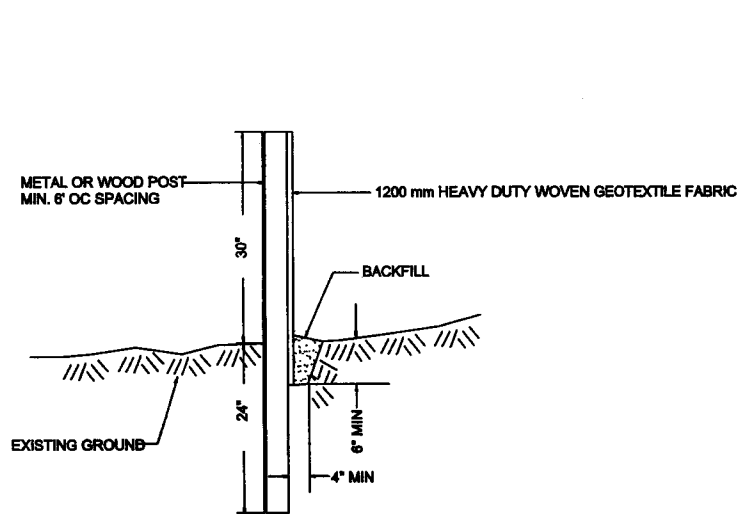


INLET PROTECTION WITHOUT CURBING



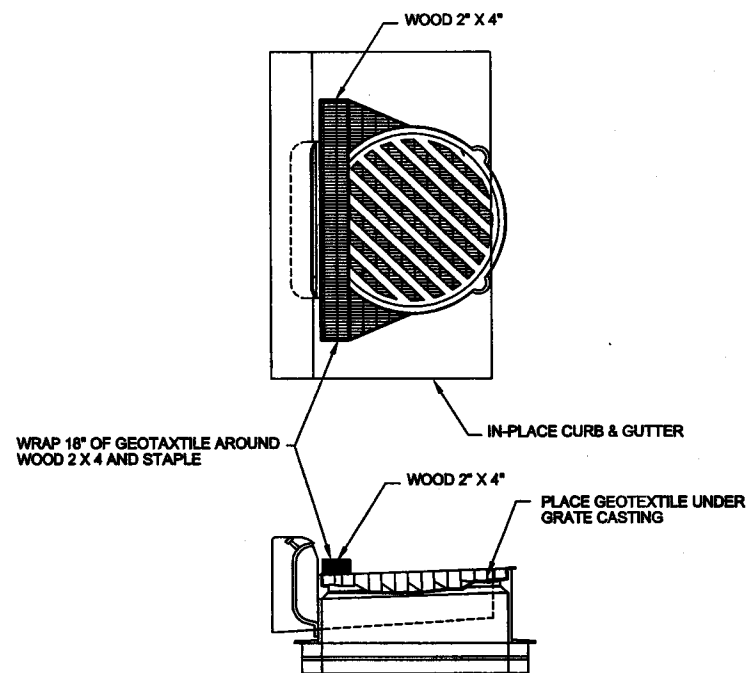
TYPICAL WATER SERVICE INSTALLATION

NO SCALE

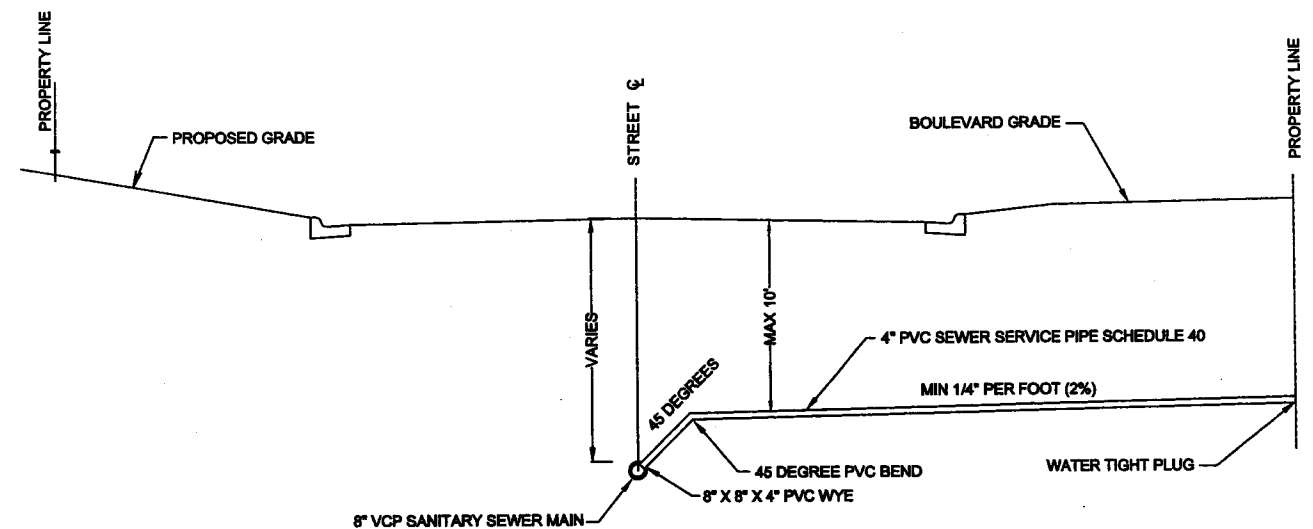


NOTE: CONTRACTOR SHALL MAINTAIN EROSION CONTROL DURING CONSTRUCTION AND REMOVE MATERIALS FOLLOWING TURF ESTABLISHMENT

SILT FENCE DETAIL



INLET PROTECTION WITH CURBING



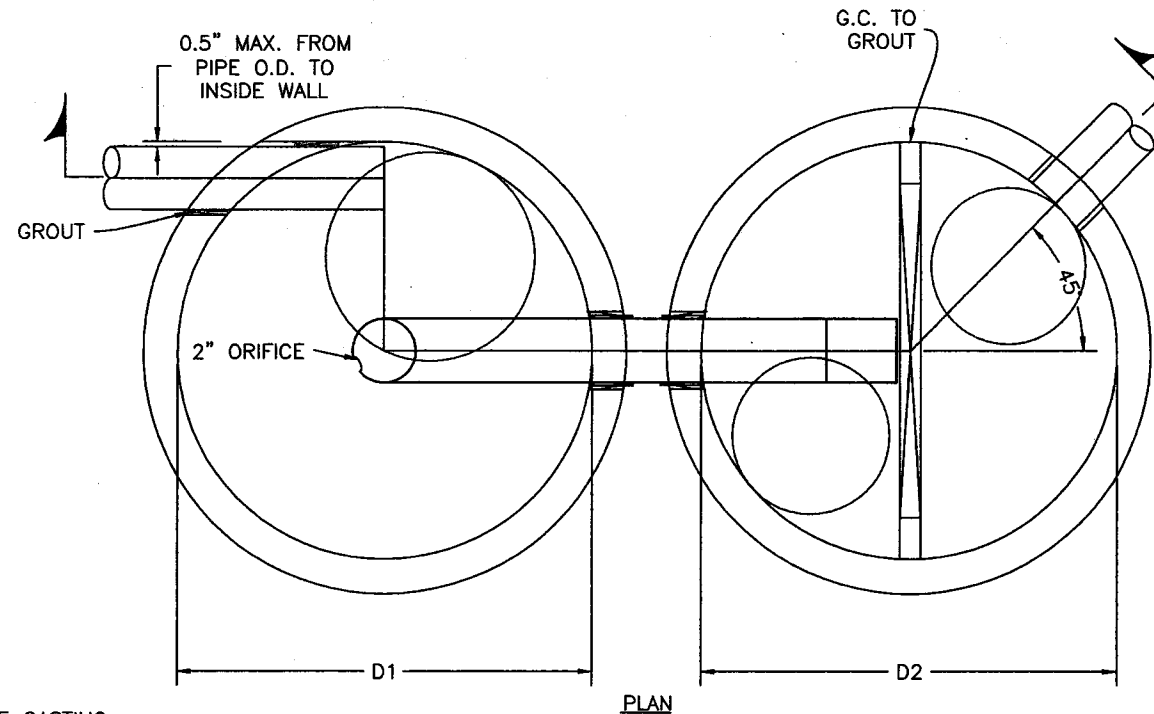
TYPICAL SANITARY SEWER SERVICE INSTALLATION

NO SCALE

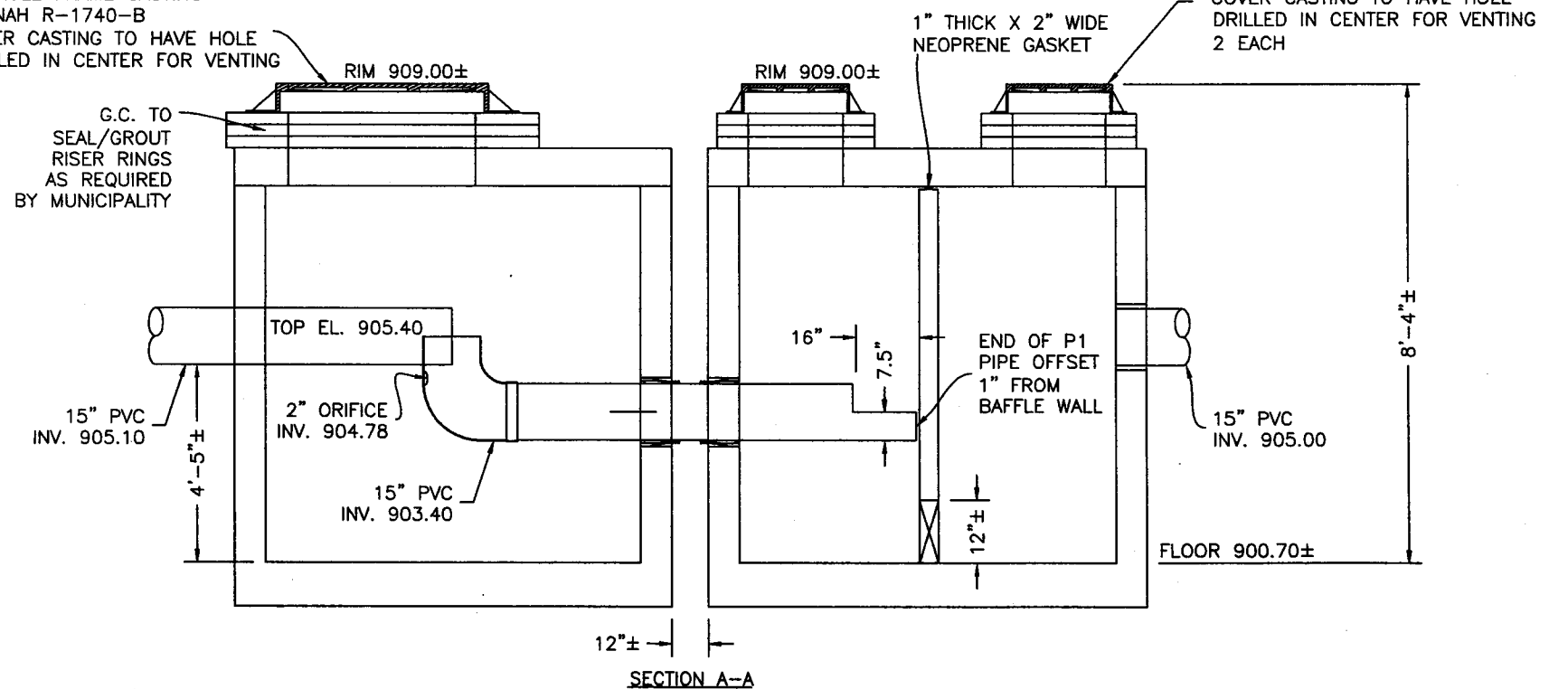
28-282

STRUCTURE NO.	AREA 2	
V2 B1 MODEL NO.	4	
	D1	D2
Manhole diam., ft.	5	5
Roof opening diam., in.	30	24

SITE ENGINEER SPECIFICATIONS FOR DESIGN STORM HYDROLOGY			
Return Interval, yrs	10	A = area, acres	1.8
Intensity, in/hr	4.6±	% paved	48
Peak Runoff, cfs	3.7±	% roof	2
Flow to V2B1, cfs	3.7±	% vegetation	50



MANHOLE FRAME CASTING
NEENAH R-1740-B
COVER CASTING TO HAVE HOLE
DRILLED IN CENTER FOR VENTING



MANHOLE FRAME CASTING
NEENAH R-1733
COVER CASTING TO HAVE HOLE
DRILLED IN CENTER FOR VENTING
2 EACH

GENERAL NOTES:
MANHOLE DESIGN SPECIFICATIONS CONFORM TO LATEST A.S.T.M. C478
SPEC. FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS.
DESIGN LOADING: AASHTO HS20-44

NOTE: G.C. TO GROUT INLET AND OUTLET PIPES.
PIPE CONNECTING MANHOLES TO BE BOOTED

NOTES:
1) DESIGN OF INTERNAL PVC PIPING PROVIDED TO
LICENSED MANUFACTURER BY ENVIRONMENT 21, LLC.
2) LOCATION AND SIZE OF MANHOLE OPENINGS MAY BE
ADJUSTED BY LICENSED MANUFACTURER.
3) SITE PLAN VALUES USED FOR (1) RIM ELEVATIONS, AND (2)
INLET AND OUTLET PIPE MATERIALS, DIAMETERS AND INVERTS.

SPEC - 3 V2B1

28-282

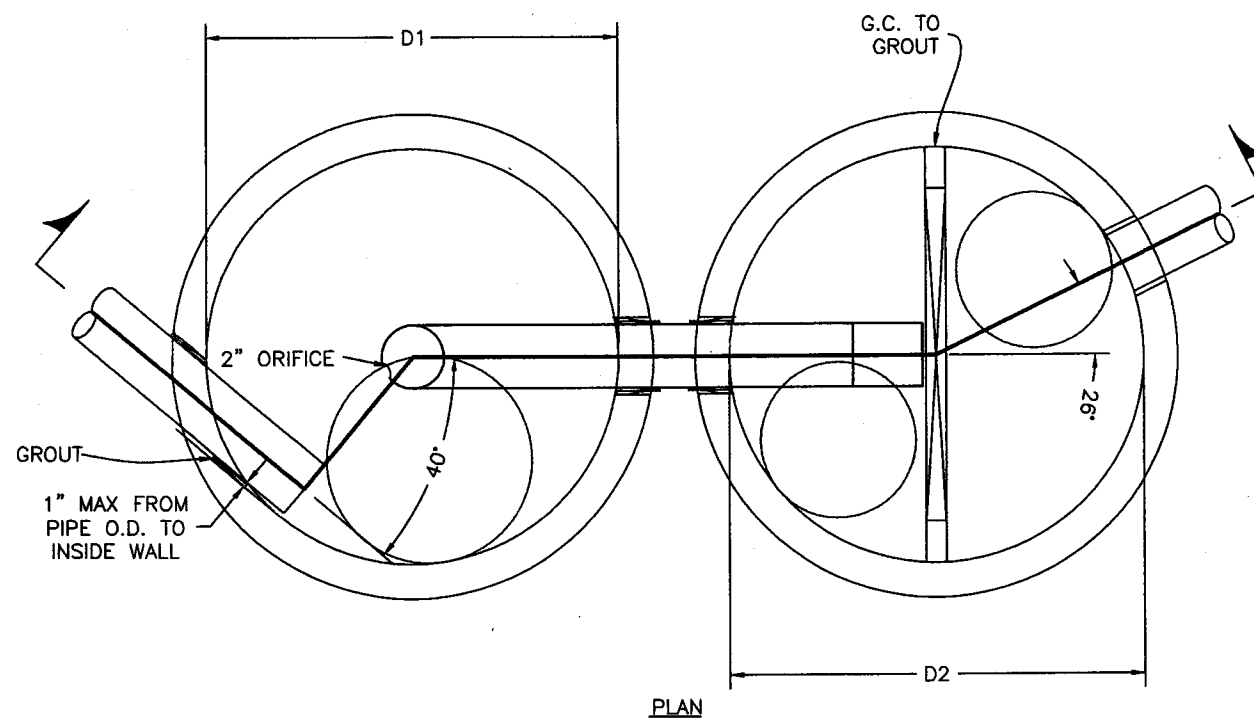
STRUCTURE NO.	AREA 4	
V2 B1 MODEL NO.	4	
	D1	D2
Manhole diam., ft.	5	5
Roof opening diam., in.	30	24

SITE ENGINEER SPECIFICATIONS FOR DESIGN STORM HYDROLOGY			
Return Interval, yrs	10	A = area, acres	4.2
Intensity, in/hr	4.6±	% paved	36
Peak Runoff, cfs	6.7±	% roof	9
Flow to V2B1, cfs	6.7±	% vegetation	55

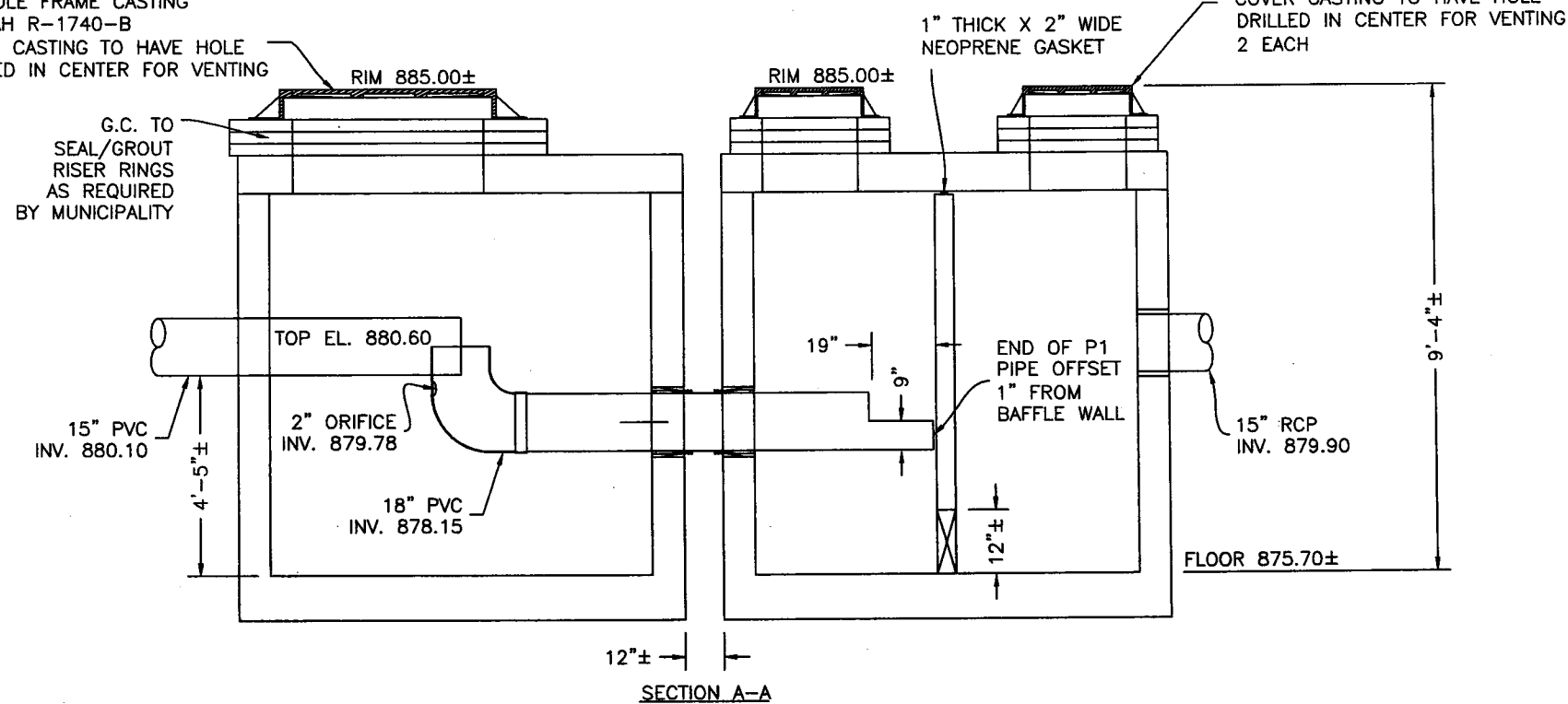
GENERAL NOTES:
 MANHOLE DESIGN SPECIFICATIONS CONFORM TO LATEST A.S.T.M. C478
 SPEC. FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS.
 DESIGN LOADING: AASHTO HS20-44

NOTE: G.C. TO GROUT INLET AND OUTLET PIPES.
 PIPE CONNECTING MANHOLES TO BE BOOTED

NOTES:
 1) DESIGN OF INTERNAL PVC PIPING PROVIDED TO
 LICENSED MANUFACTURER BY ENVIRONMENT 21, LLC.
 2) LOCATION AND SIZE OF MANHOLE OPENINGS MAY BE
 ADJUSTED BY LICENSED MANUFACTURER.
 3) SITE PLAN VALUES USED FOR (1) RIM ELEVATIONS, AND (2)
 INLET AND OUTLET PIPE MATERIALS, DIAMETERS AND INVERTS.

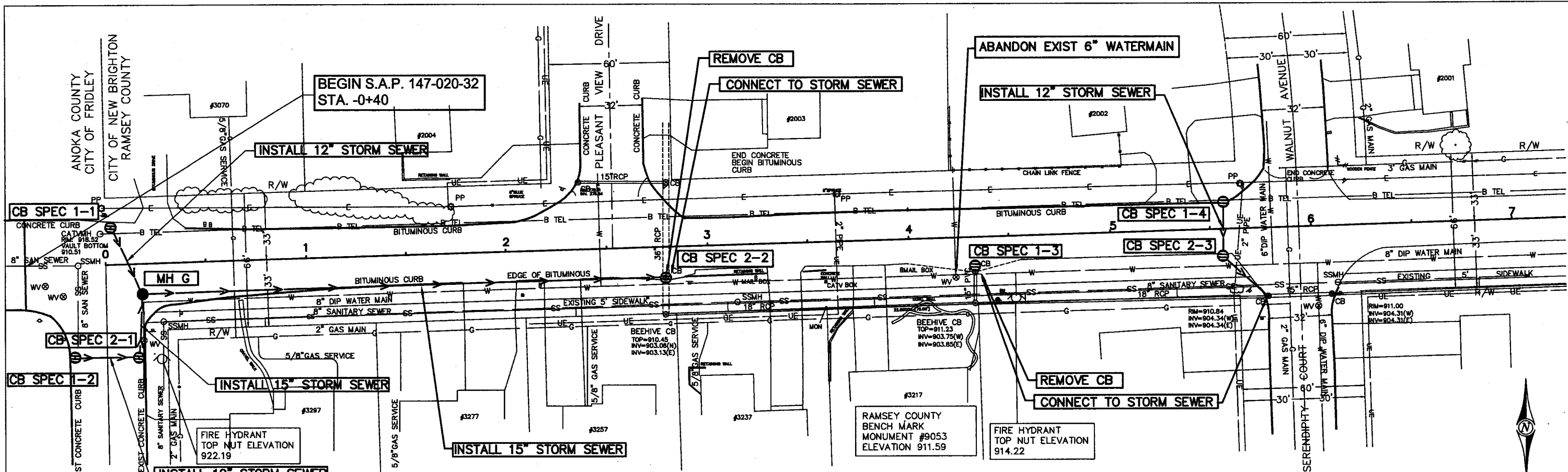


MANHOLE FRAME CASTING
 NEENAH R-1740-B
 COVER CASTING TO HAVE HOLE
 DRILLED IN CENTER FOR VENTING

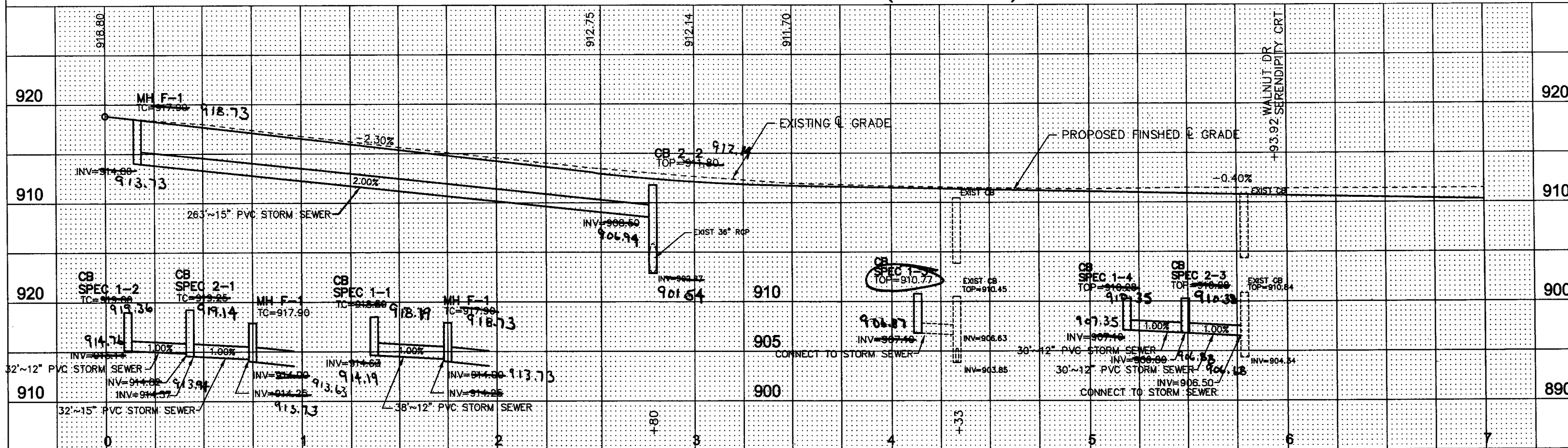


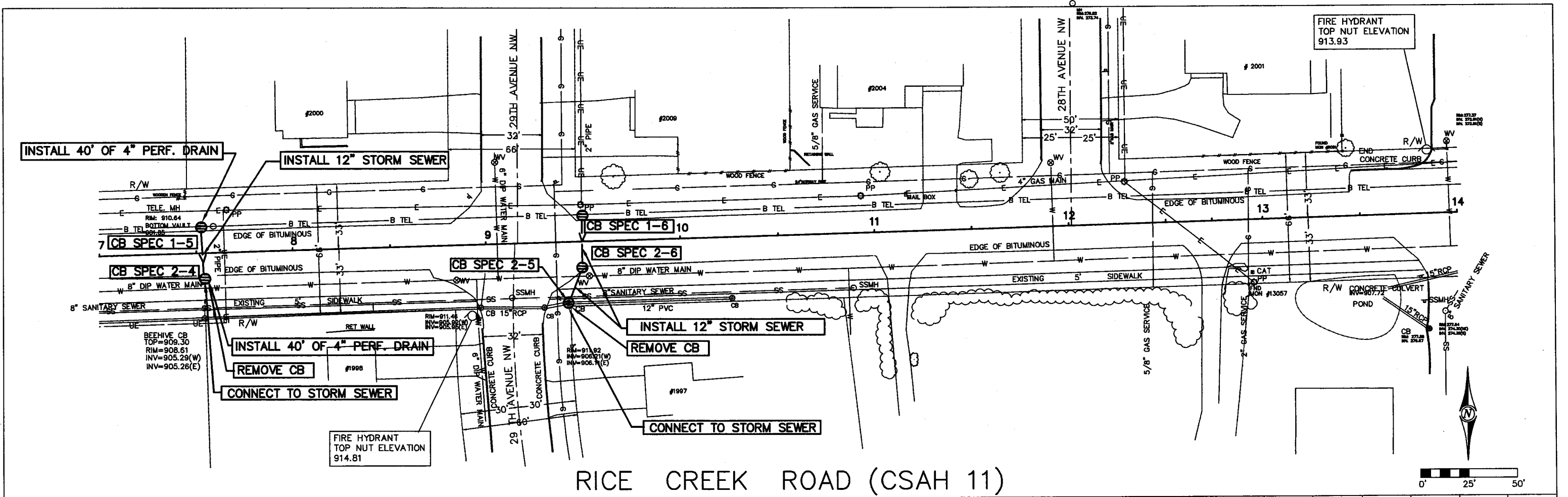
SPEC - 4 V2B1

28-282

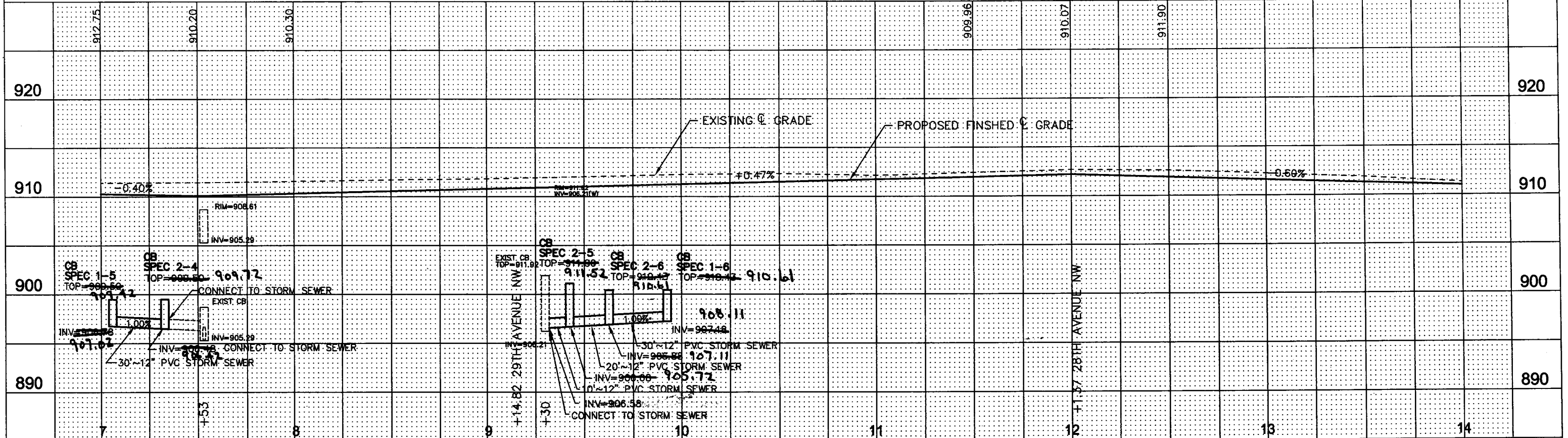


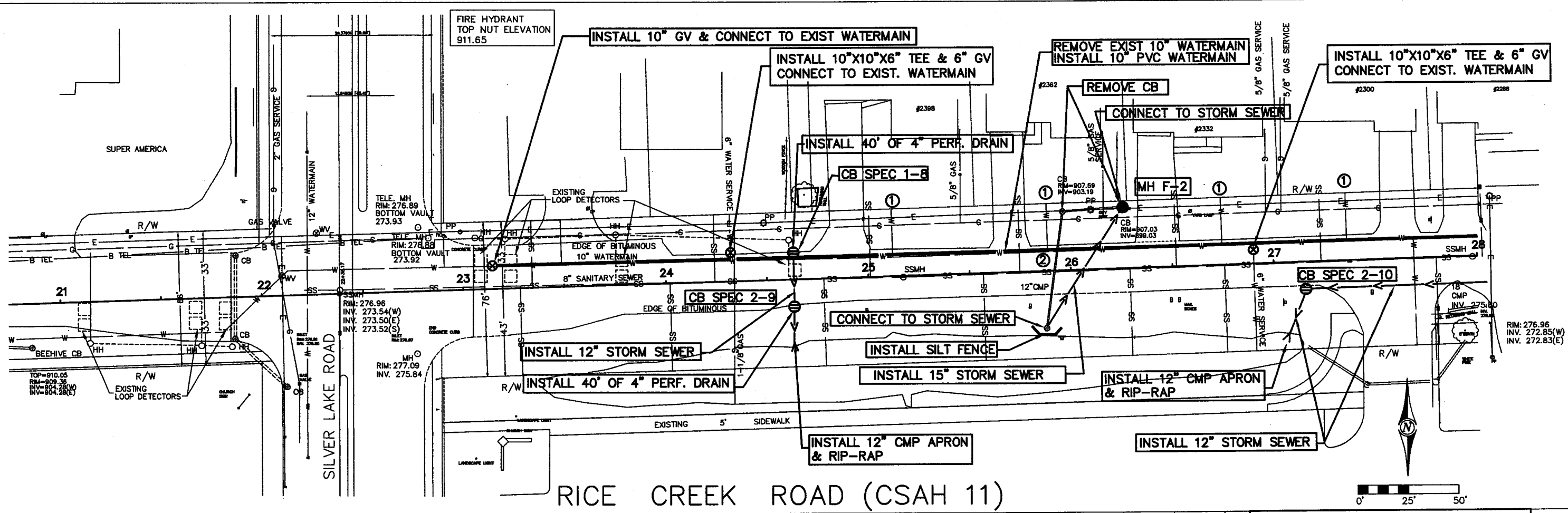
RICE CREEK ROAD (CSAH 11)





RICE CREEK ROAD (CSAH 11)

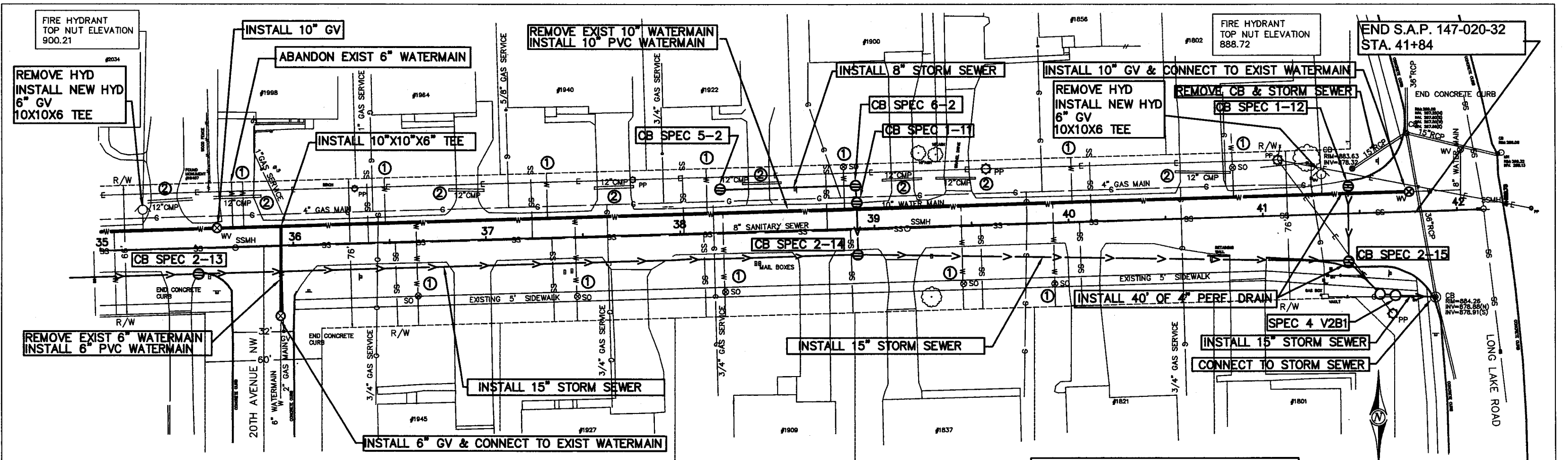




RICE CREEK ROAD (CSAH 11)

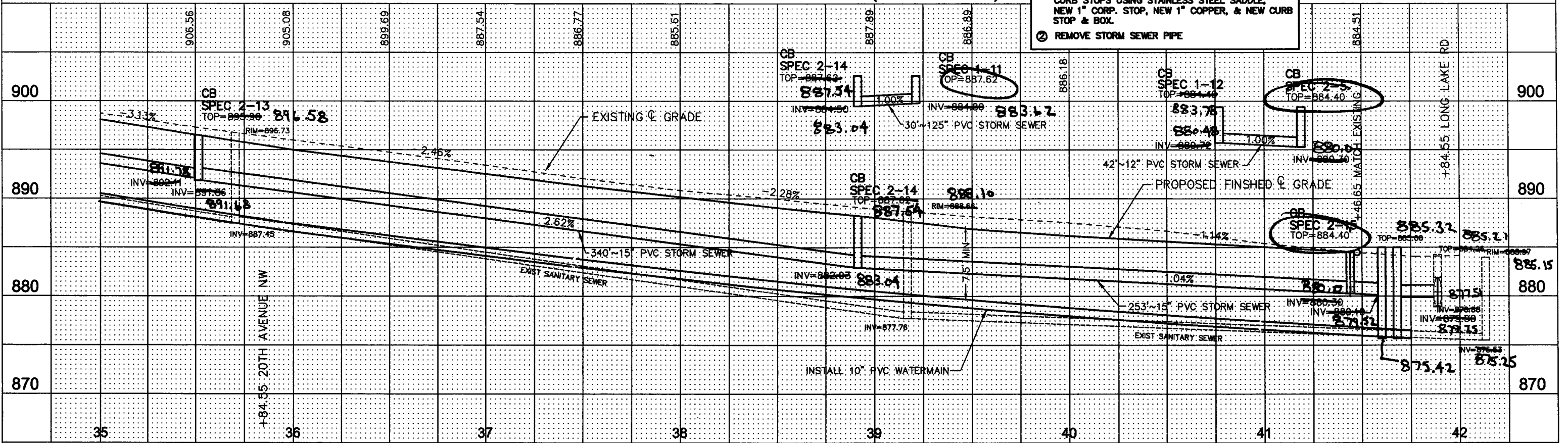
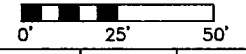
920	909.69	909.65	908.96	907.70	907.26	907.27	907.89	920
910	-0.40%	EXIST CB	-1.32%	906.75	906.74	903.44	907.21	910
900		INV=897.35	INV=897.35	903.64	903.07	902.73	902.91	900
890		+86	+86					890
	21	22	23	24	25	26	27	28

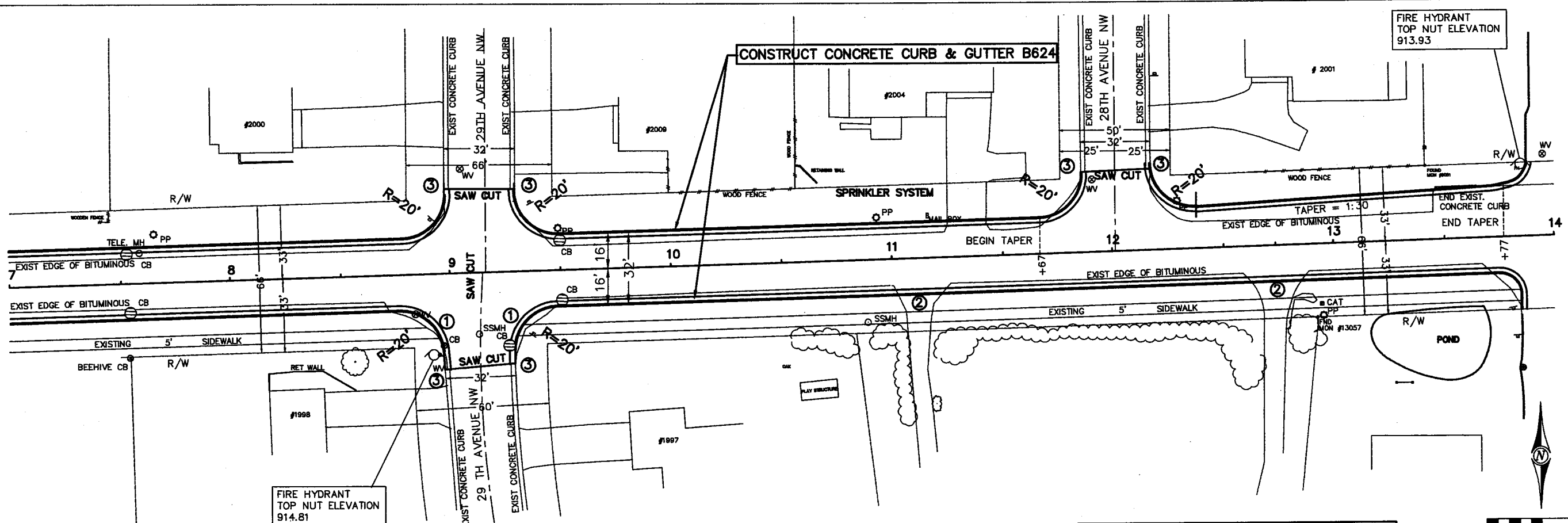
- NOTES:
- ① INSTALL NEW WATER SERVICE BETWEEN MAIN & CURB STOPS USING STAINLESS STEEL SADDLE, NEW 1" COPR. STOP, NEW 1" COPPER, & NEW CURB STOP & BOX.
 - ② REMOVE STORM SEWER PIPE



RICE CREEK ROAD (CSAH 11)

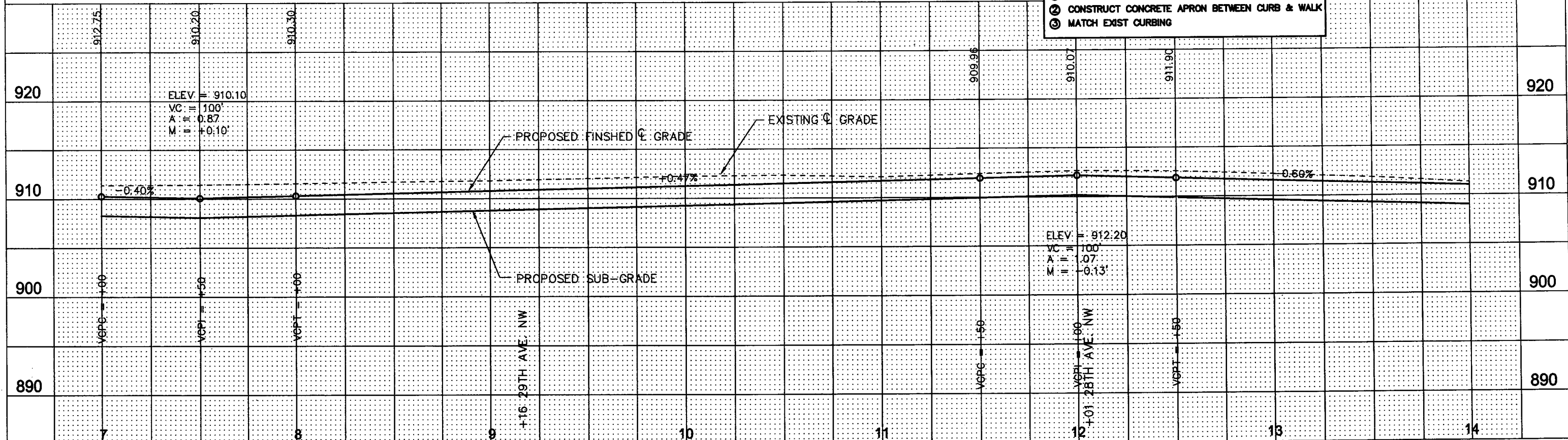
- NOTES:
- ① INSTALL NEW WATER SERVICE BETWEEN MAIN & CURB STOPS USING STAINLESS STEEL SADDLE, NEW 1" CORP. STOP, NEW 1" COPPER, & NEW CURB STOP & BOX.
 - ② REMOVE STORM SEWER PIPE





RICE CREEK ROAD (CSAH 11)

- NOTES:
- ① PEDESTRIAN RAMP PER STANDARD PLATE 7038
 - ② CONSTRUCT CONCRETE APRON BETWEEN CURB & WALK
 - ③ MATCH EXIST CURBING

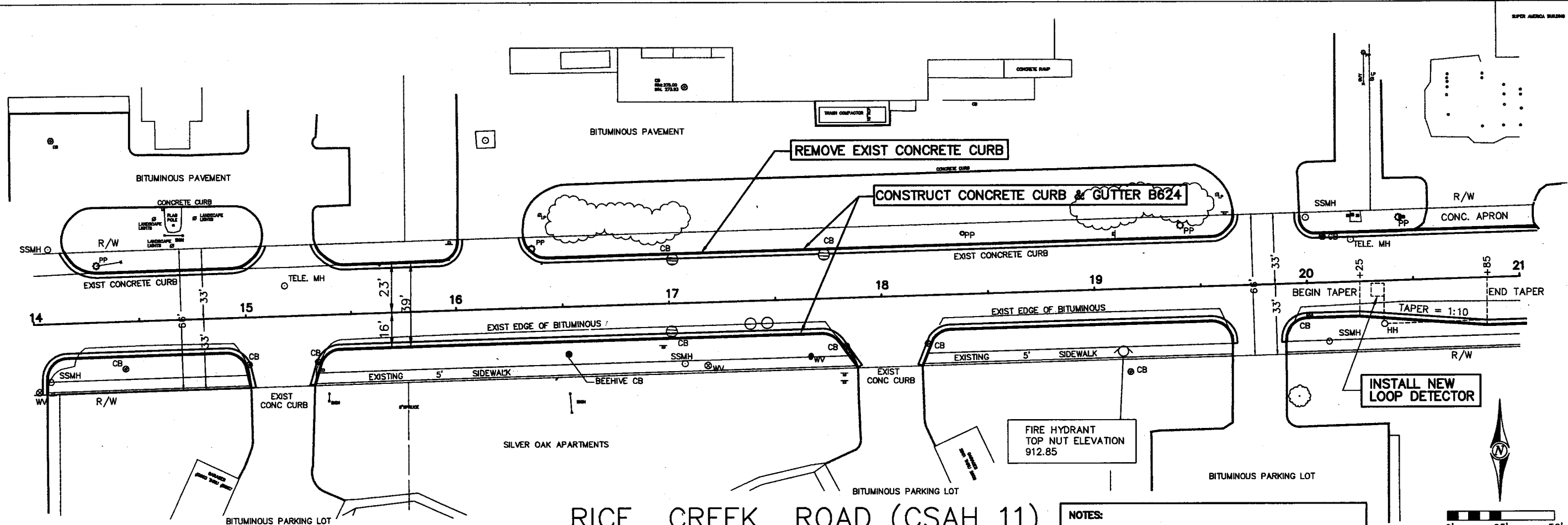


CITY OF NEW BRIGHTON

803 OLD HIGHWAY 8 NW
NEW BRIGHTON, MN 55112

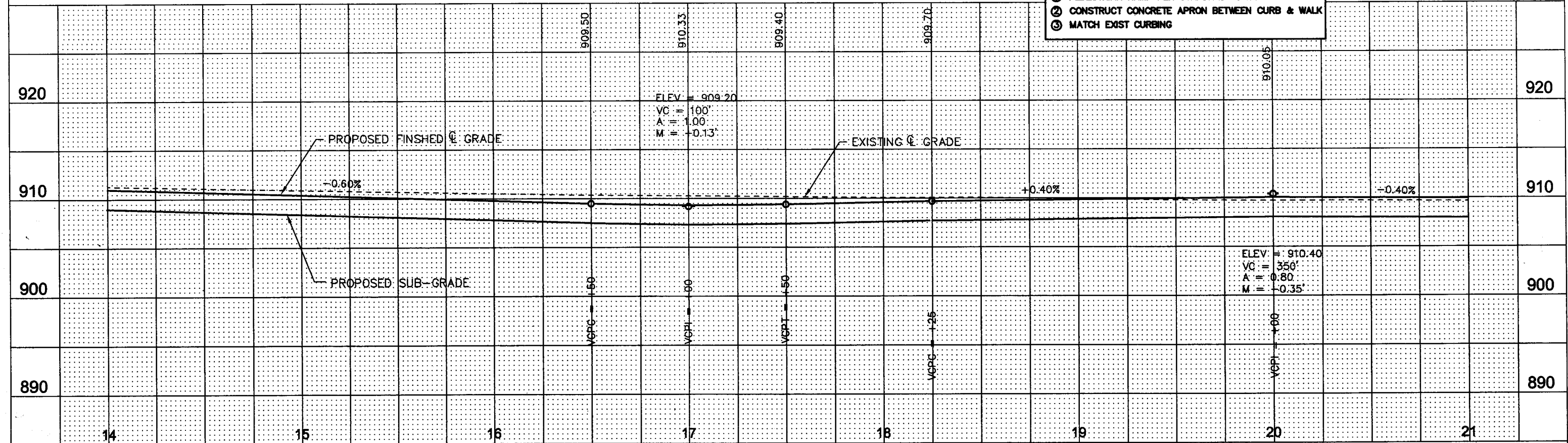
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Leslie J. Proper
LESLIE J. PROPER, P.E.
NEW BRIGHTON CITY ENGINEER
REG. NO. 10481 DATE 4-11-05

28-282 STREET CONSTRUCTION PLAN SHEET (2 OF 6)
S.A.P. 147-020-32 SHEET 17 OF 29 SHEETS



RICE CREEK ROAD (CSAH 11)

- NOTES:
- ① PEDESTRIAN RAMP PER STANDARD PLATE 7036
 - ② CONSTRUCT CONCRETE APRON BETWEEN CURB & WALK
 - ③ MATCH EXIST CURBING

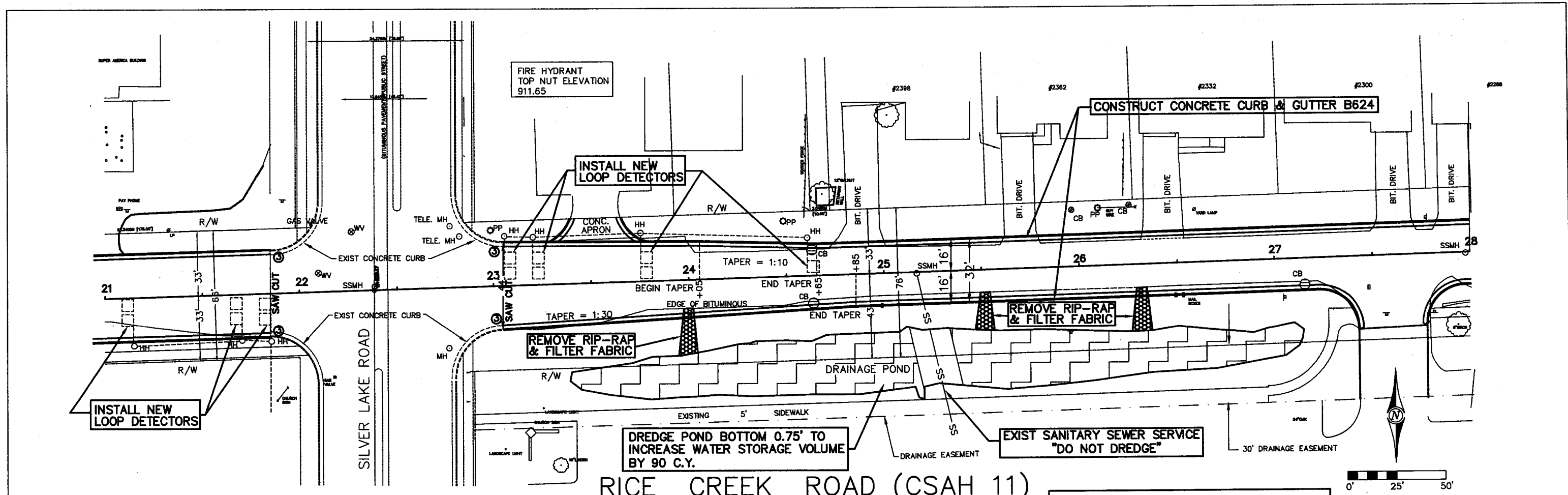


CITY OF NEW BRIGHTON

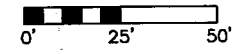
803 OLD HIGHWAY 8 NW
NEW BRIGHTON, MN 55112

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Leslie J. Propper
LESLIE J. PROPPER, P.E.
NEW BRIGHTON CITY ENGINEER
REG. NO. 10491 DATE 4-11-05

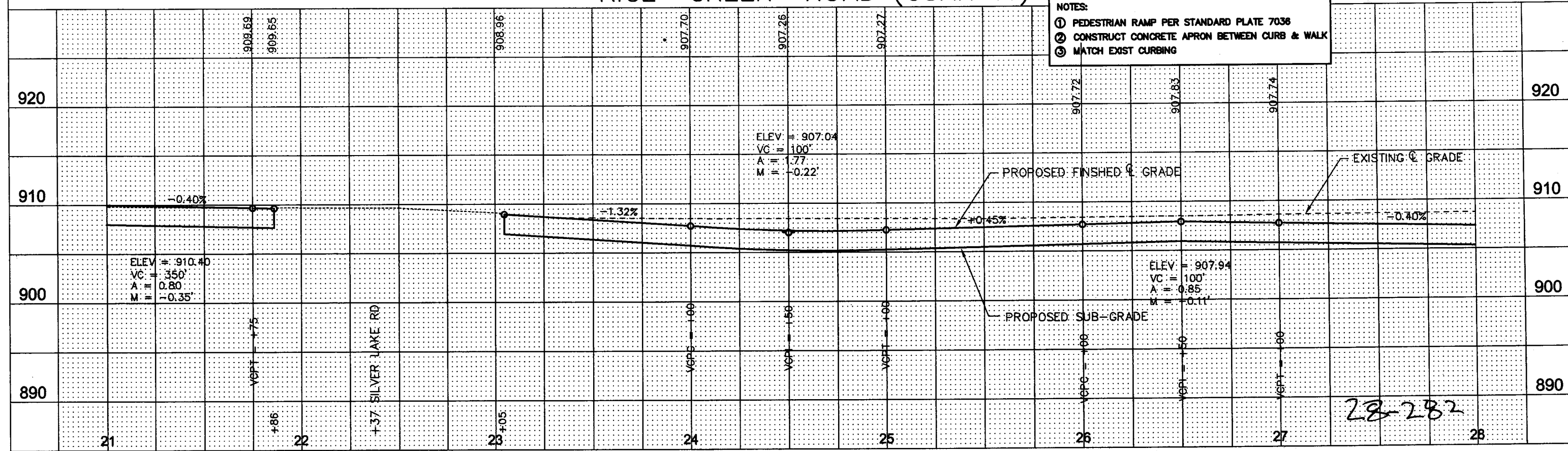
28-282 STREET CONSTRUCTION PLAN SHEET (3 OF 6)
S.A.P. 147-020-32 SHEET 18 OF 29 SHEETS

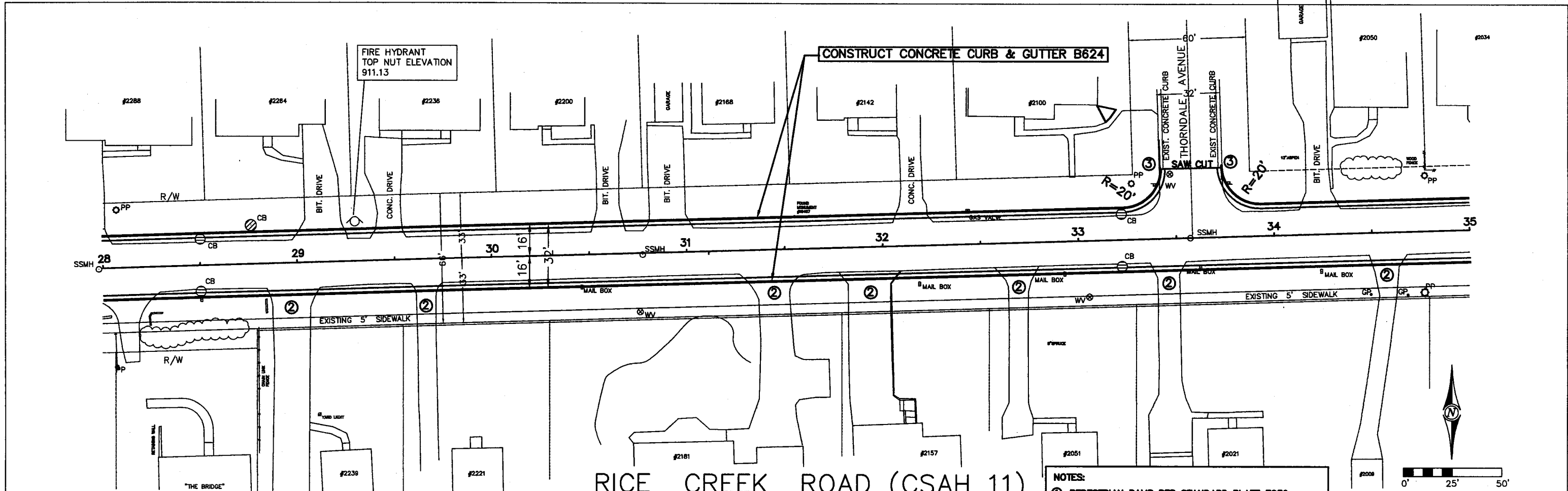


RICE CREEK ROAD (CSAH 11)



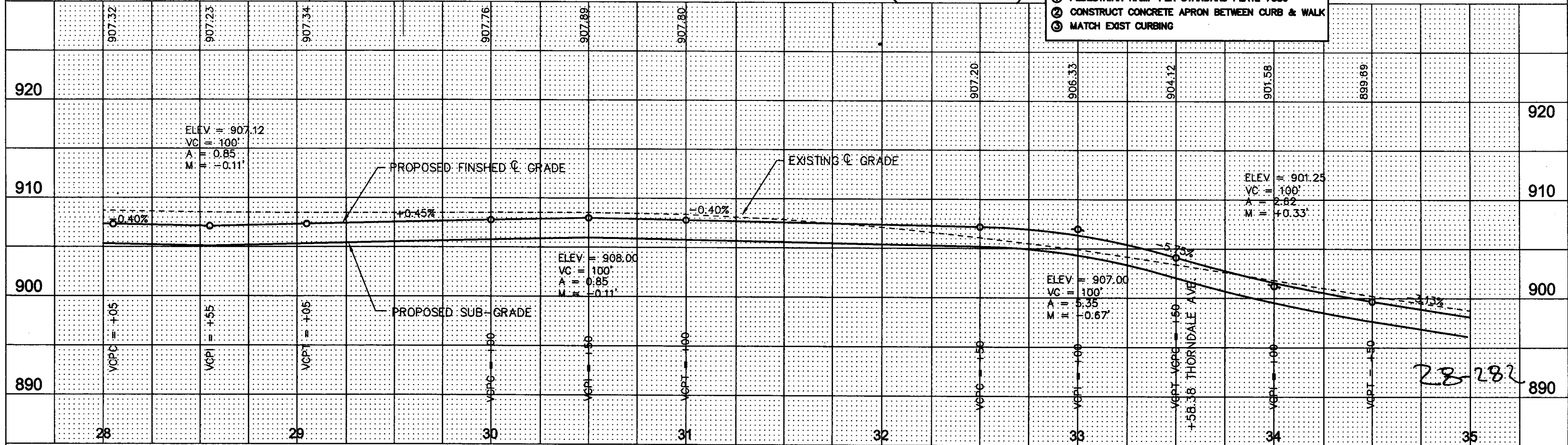
- NOTES:
- ① PEDESTRIAN RAMP PER STANDARD PLATE 7036
 - ② CONSTRUCT CONCRETE APRON BETWEEN CURB & WALK
 - ③ MATCH EXIST CURBING





RICE CREEK ROAD (CSAH 11)

- NOTES:
- ① PEDESTRIAN RAMP PER STANDARD PLATE 7036
 - ② CONSTRUCT CONCRETE APRON BETWEEN CURB & WALK
 - ③ MATCH EXIST CURBING

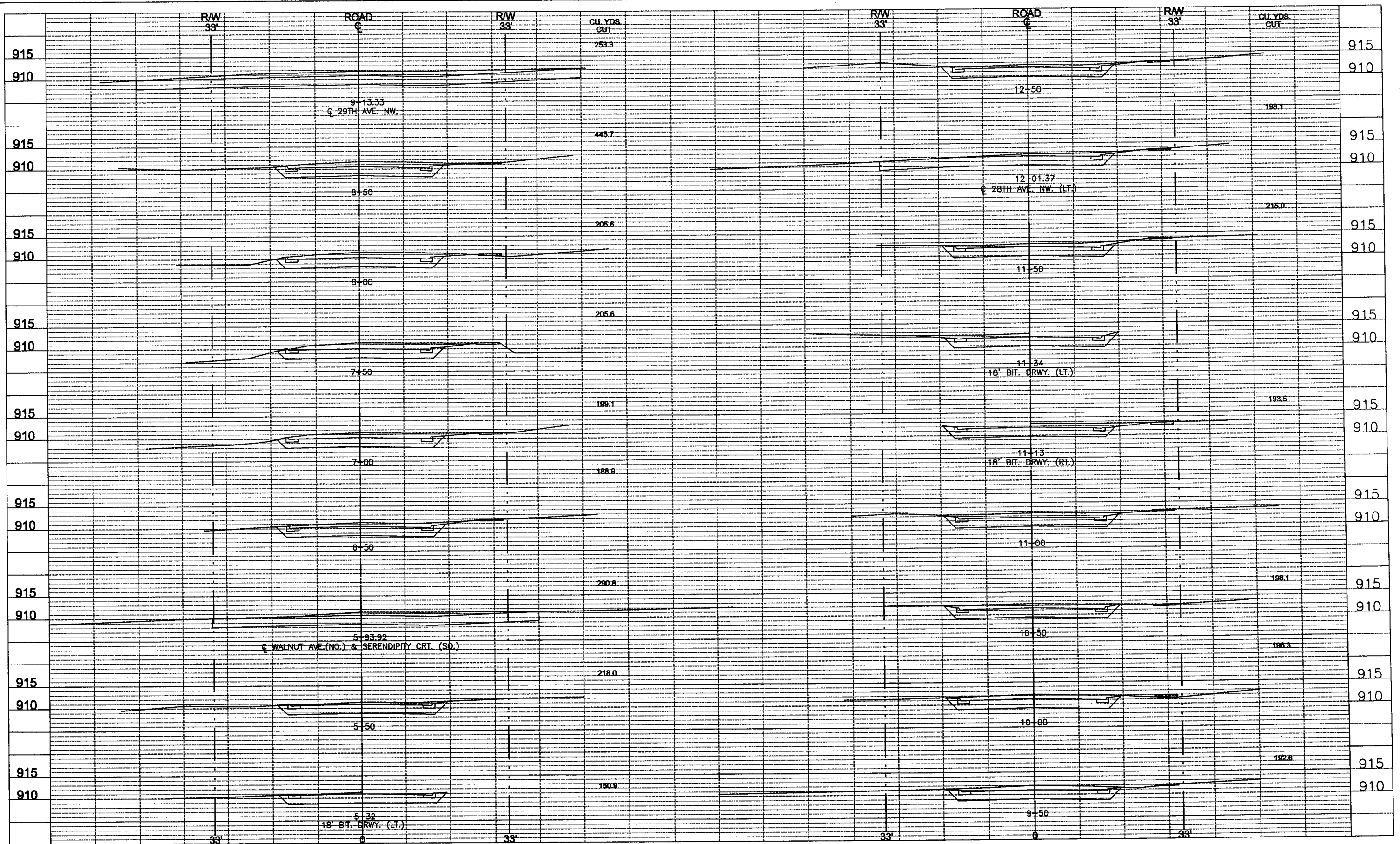


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Leslie J. Propper REG. NO. 10491 DATE 4-11-05
 LESLIE J. PROPPER, P.E.
 NEW BRIGHTON CITY ENGINEER

STREET CONSTRUCTION PLAN SHEET (5 OF 6)
S.A.P. 147-020-32 SHEET 20 OF 29 SHEETS



CITY OF NEW BRIGHTON

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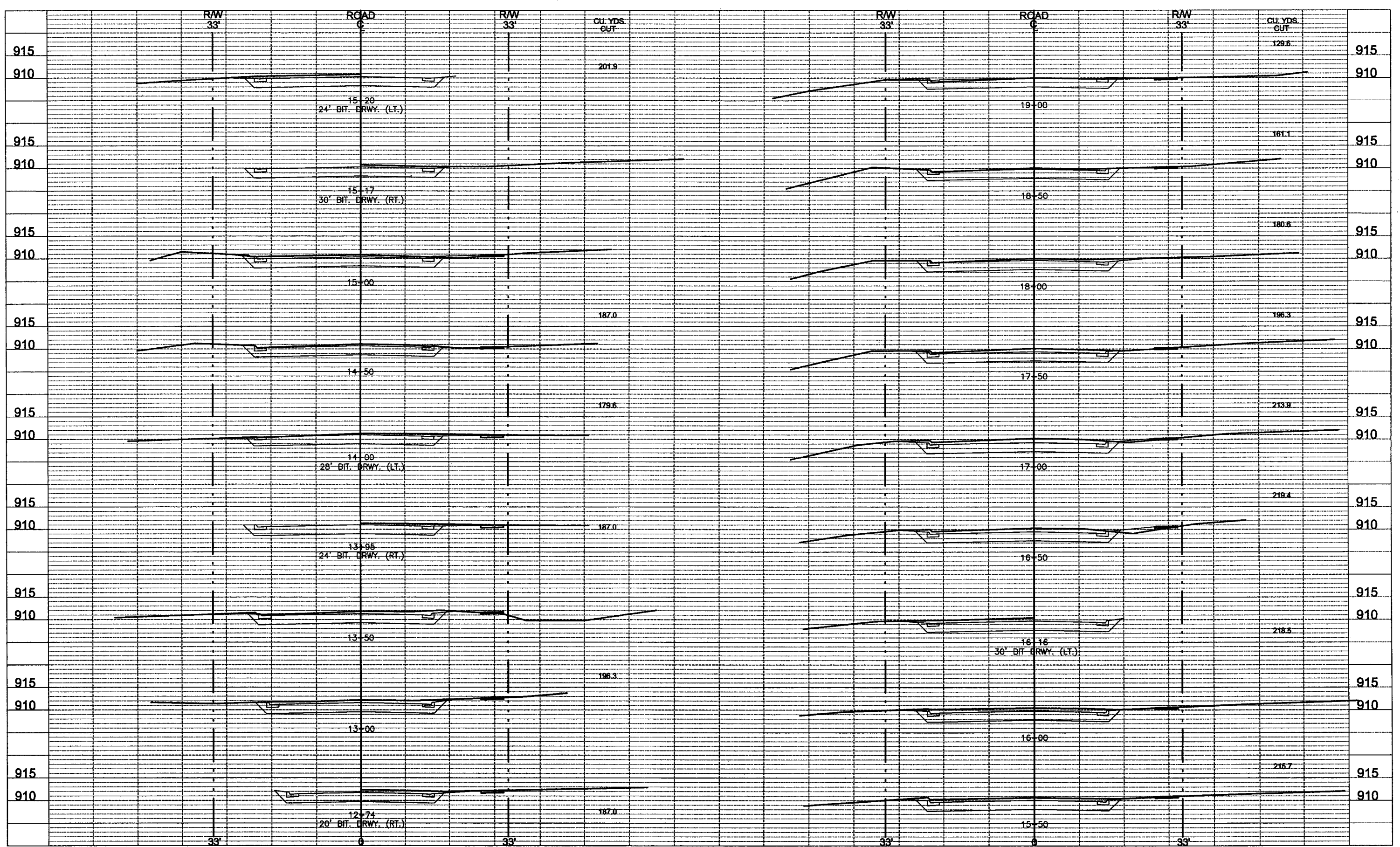
REG. NO. 10491

DATE 4.11.05

28-282

CROSS-SECTIONS (2 OF 8)

S.A.P. 147-020-32 SHEET 23 OF 29 SHEETS



CITY OF NEW BRIGHTON

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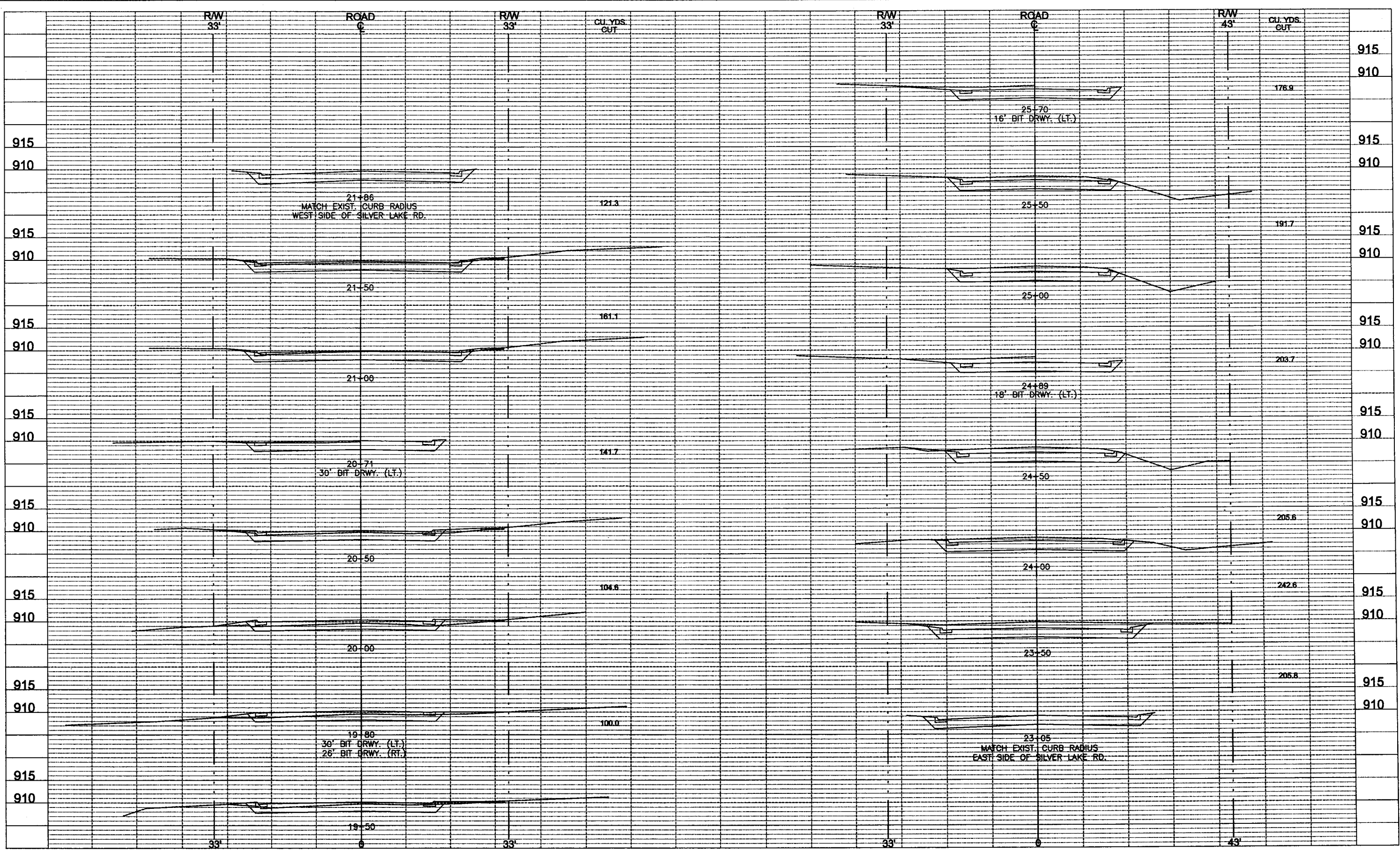
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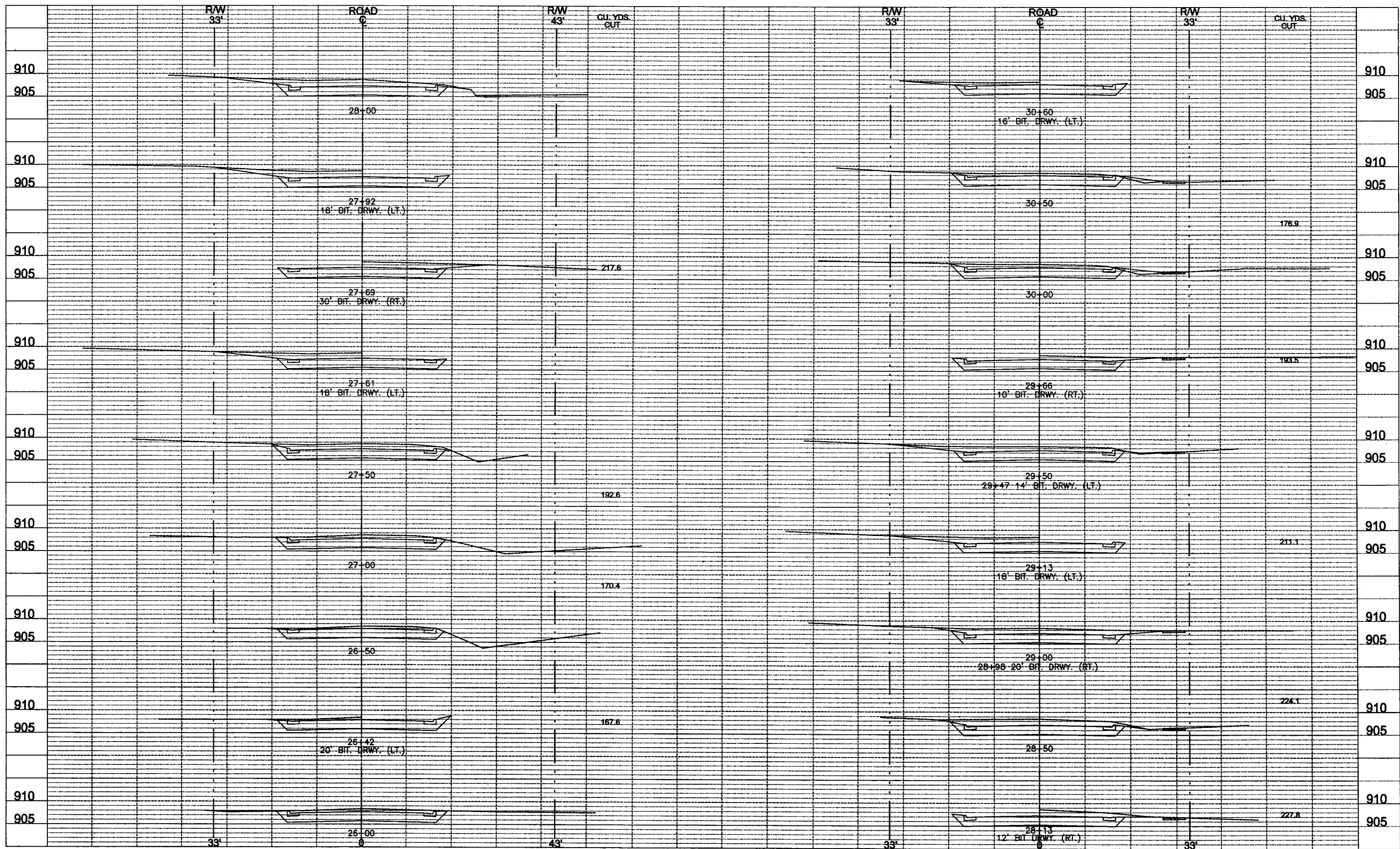
28 282

S.A.P. 147-020-32

CROSS-SECTIONS (3 OF 8)

SHEET 24 OF 29 SHEETS





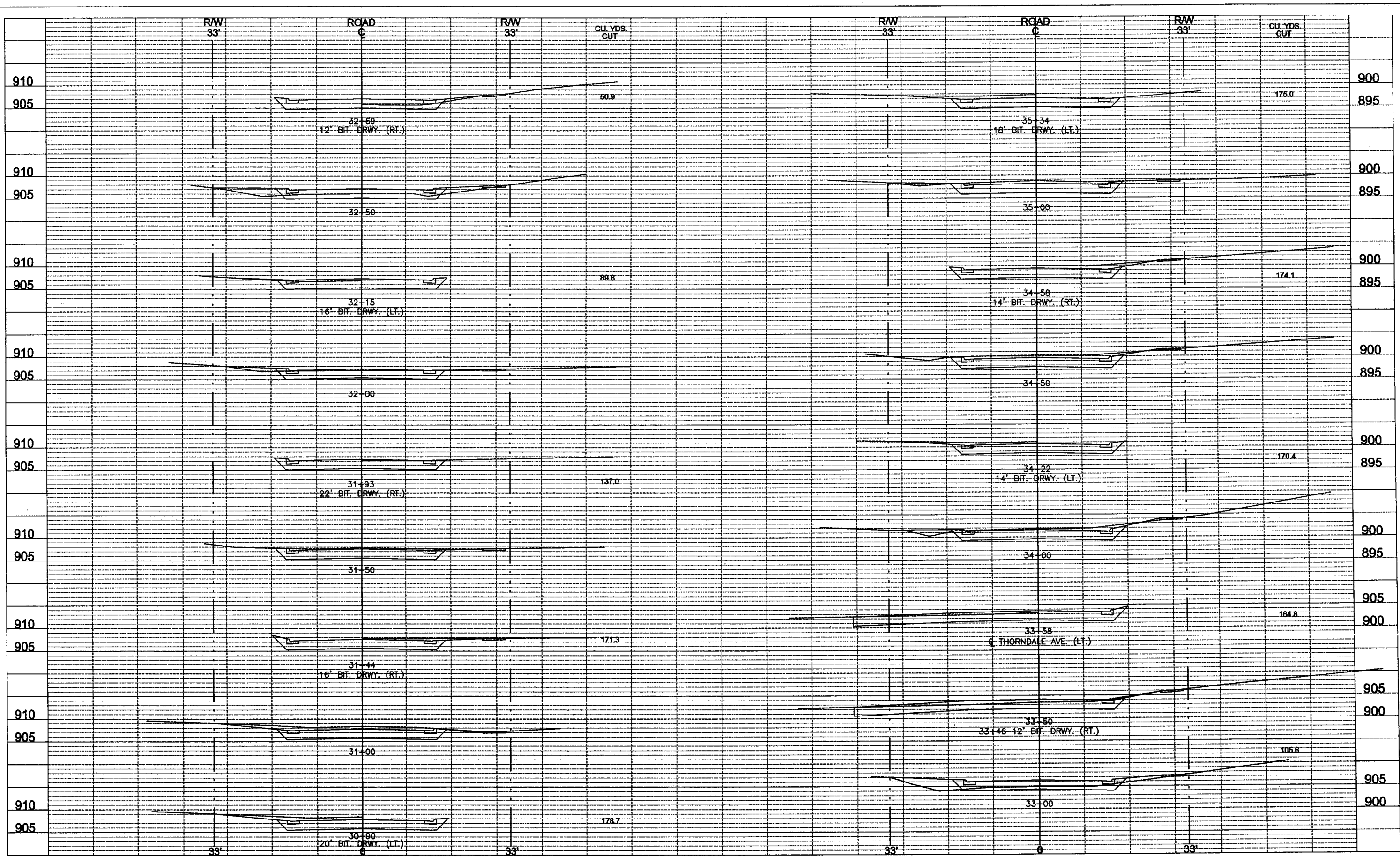
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28-282 CROSS-SECTIONS (5 OF 8)
S.A.P. 147-020-32 SHEET 26 OF 29 SHEETS

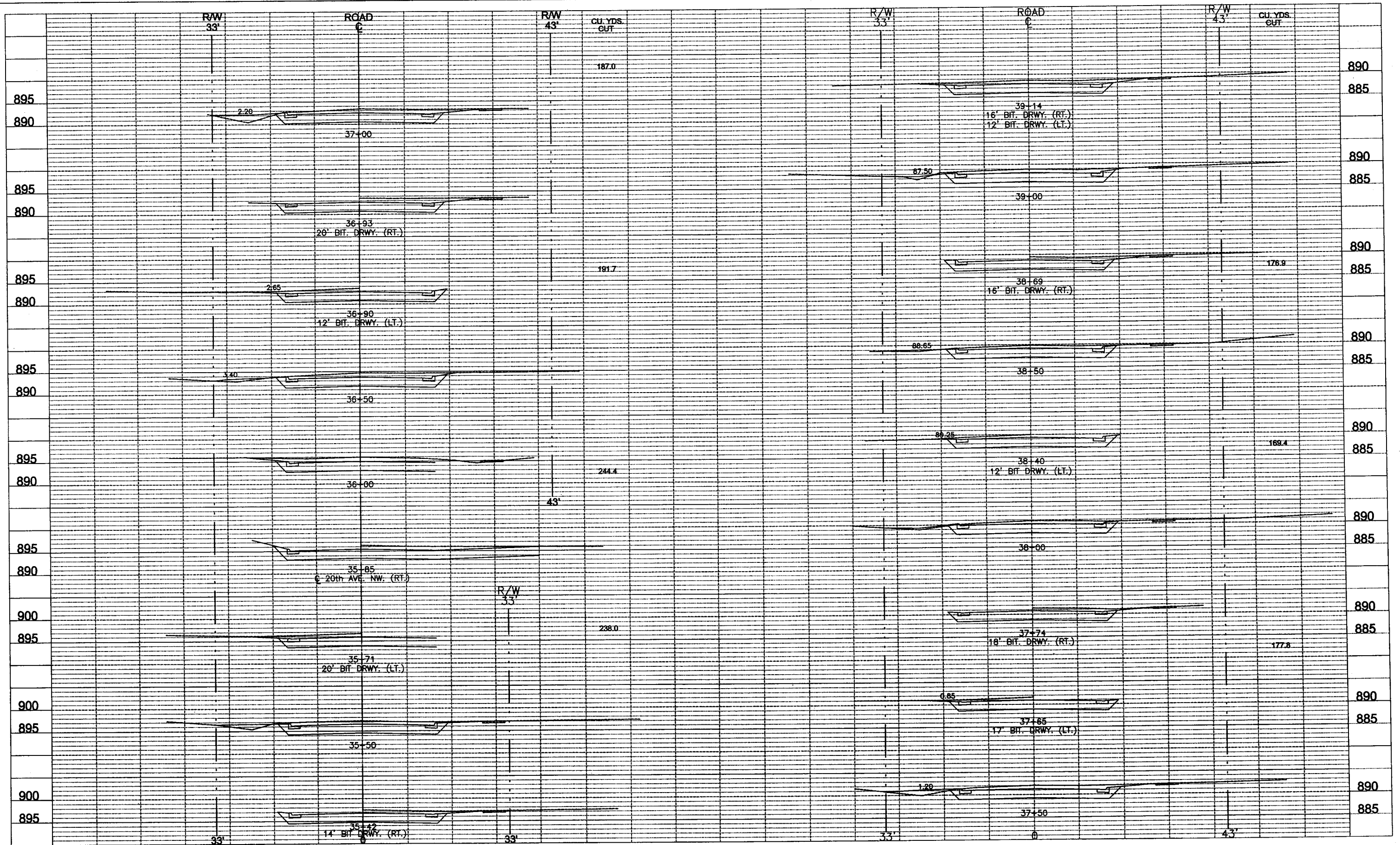


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28-282 CROSS-SECTIONS (6 OF 8)
S.A.P. 147-020-32 SHEET 27 OF 29 SHEETS

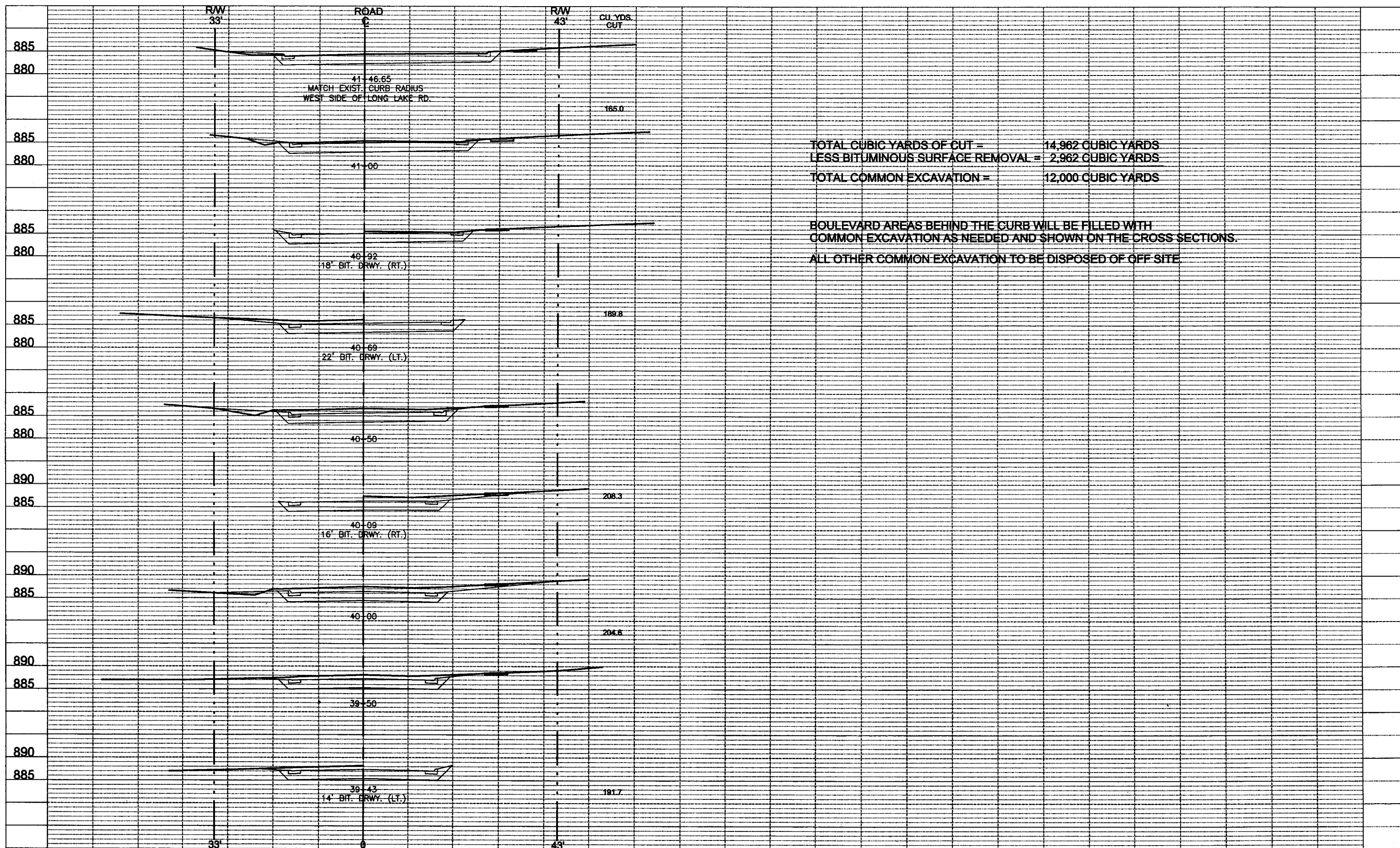


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Leslie J. Proper REG. NO. 10491 DATE 4.11.05
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28-282 CROSS-SECTIONS (7 OF 8)
S.A.P. 147-020-32 SHEET 28 OF 29 SHEETS



TOTAL CUBIC YARDS OF CUT = 14,962 CUBIC YARDS
 LESS BITUMINOUS SURFACE REMOVAL = 2,962 CUBIC YARDS
 TOTAL COMMON EXCAVATION = 12,000 CUBIC YARDS

BOULEVARD AREAS BEHIND THE CURB WILL BE FILLED WITH
 COMMON EXCAVATION AS NEEDED AND SHOWN ON THE CROSS SECTIONS.
 ALL OTHER COMMON EXCAVATION TO BE DISPOSED OF OFF SITE