

ANOKA COUNTY, MN LINWOOD TOWNSHIP

CP 93-11-26

CONSTRUCTION PLANS FOR CSAH 26 BETWEEN COUNTY ROAD 85 (TYPO CREEK DRIVE) AND MARTIN LAKE ROAD

IN LINWOOD TOWNSHIP

ROADWAY RECONSTRUCTION WITH AGGREGATE BASE, BITUMINOUS SURFACING AND STORM SEWER

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

- TRUNK HIGHWAY CENTER LINE
- RETAINING WALL

- RAILROAD
- RAILROAD RIGHT-OF-WAY LINE

- RIVER OR CREEK

- DRY RUN

- DRAINAGE DITCH
- DRAIN TILE
- CULVERT
- DROP INLET
- GUARD RAIL
- BARBED WIRE FENCE
- WOVEN WIRE FENCE
- CHAIN LINK FENCE
- RAILROAD SNOW FENCE
- STONE WALL OR FENCE
- HEDGE
- RAILROAD CROSSING SIGN
- RAILROAD WARNING SIGN
- MEANDER CORNER
- SPRINGS
- MARSH
- TIMBER
- ORCHARD
- BRUSH
- NURSERY
- CURB INLET
- FIRE HYDRANT
- CATTLE GUARD
- OVERPASS (Highway Over)
- UNDERPASS (Highway Under)
- BRIDGE
- BUILDING (One Story Frame)
- F-FRAME
- S-STONE
- B-BRICK
- IRON PIPE OR ROD
- MONUMENT(Stone, Concrete or Metal)
- WOODEN HUB
- GRAVEL PIT
- SAND PIT
- BORROW PIT
- ROCK QUARRY
- SLOPE EASEMENT

- UTILITIES SYMBOLS
- POWER POLE LINE
- TELEPHONE OR TELEGRAPH POLE LINE
- JOINT TELEPHONE & POWER ON POWER POLES
- ON TELEPHONE POLES
- ANCHOR
- STEEL TOWER
- STREET LIGHT
- PEDESTAL TELEPHONE CABLE (TERMINAL)
- GAS MAIN
- WATERMAIN
- CONDUIT
- TELEPHONE CABLE IN CONDUIT
- ELECTRIC CABLE IN CONDUIT
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- BURIED TELEPHONE CABLE
- BURIED ELECTRIC CABLE
- AERIAL TELEPHONE CABLE
- SANITARY SEWER
- SANITARY SEWER MANHOLE
- STORM SEWER
- STORM SEWER MANHOLE

SPECIFICATIONS
THE 1988 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATION FOR CONSTRUCTION" AS AMENDED BY THE JANUARY 2, 1991 SUPPLEMENTAL SPECIFICATION SHALL GOVERN.

INDEX

SHEET NO	DESCRIPTION
1	TITLE SHEET
2	QUANTITY SHEET, SCHEDULES
3	TYPICAL SECTION, DETAILS, TRAFFIC CONTROL
4	STREET OVERLAY (STATION 0+00-12+48)
5-7	STREET PLAN AND PROFILE
8	STORM SEWER
9-11	CROSS SECTIONS
12	SIGNAGE AND STRIPING DESIGN DESIGNATION

ADT (Current Year) 1993 = 1100
adt (Future Year) 2013 = 1870

T (Heavy Commercial) = 140
Design Loading = 9 Ton
Project Soil Factor = 50%
Roadway Classification
No. Traffic Lanes = 2
No. Parking Lanes = 0

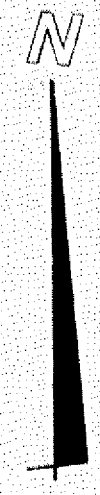
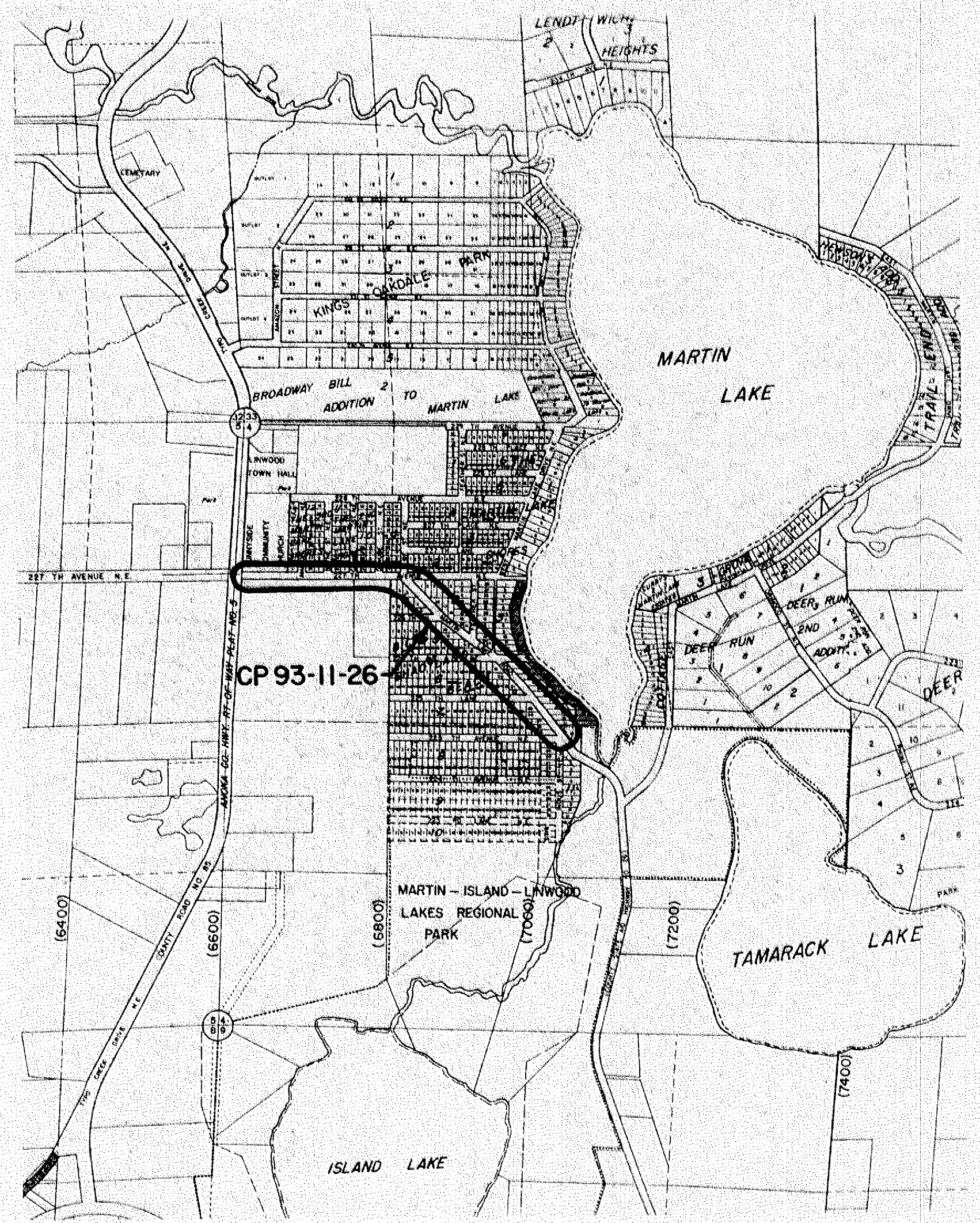
Design Speed 30 MPH
Based on Stopping Sight Distance
Height of Eye: 3.5' Height of Object: 0.5'
Design Speed not achieved at STA. 31+50 to STA. 32+50 meets 25 MPH
STA. 13+57 to STA. 14+79 meets 25 MPH

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly registered Professional Engineer under State of Minnesota Statutes Section 326.02 to 326.16

Lawrence E. Hoshak
Date 6/18/93 Reg. No. 11261

LINWOOD TOWNSHIP
COUNTY OF ANOKA APPROVAL

Joseph E. ... 3/16/1994
Case R. ... 3/21/1994
COUNTY ENGINEER



STATEMENT OF ESTIMATED QUANTITIES

Item No.	Spec. Reference Description	Est. Quantity	
1.	2101.502 Clearing	4	Tree
2.	2101.507 Grubbing	4	Tree
3.	2104.501 Remove Catchbasin	1	Each
4.	2104.505 Remove Bituminous Pavement	5,500	Sq. Yd.
5.	2104.511 Sawing Bituminous Pavement	550	Lin. Ft.
6.	2105.501 Common Excavation	2,200	Cu. Yd.
7.	2211.501 Aggregate Base CL5	2,800	Ton
8.	0331.606 Crack Repair Special	550	Pound
9.	2340.508 Type 41 Wearing Course Mixture	2,272	Ton
10.	2340.512' Type 31 Leveling Course Mixture	166	Ton
11.	2340.518 Type 31 Bit. Mixture for Patching	65	Ton
12.	2357.502 Bituminous Material for Tack Coat	1,400	Gal.
13.	2503.541 12" RC Pipe Sewer Design 3006 CLV	270	Lin.Ft.
14.	2503.541 15" RC Pipe Sewer Design 3006 CLV	85	Lin.Ft.
15.	2503.573 Concrete Apron (15" RC Pipe)	1	Ea.
16.	2503.573 Concrete Apron (12" RC Pipe)	1	Ea.
17.	0506.602 Construct Manholes	2	Ea.
18.	0506.602 Construct Catchbasin	9	Ea.
19.	0563.601 Traffic Control	1	Lump Sum
20.	0564.602 F&I Sign Panel (25 mph sign)	2	Each
21.	0564.603 4" Solid Line White - Paint	7,430	Lin.Ft.
22.	0564.603 4" Double Solid Line Yellow - Paint	3,465	Lin.Ft.
23.	0564.603 24" Solid Line White - Paint	33	Lin.Ft.
24.	2573.501 Bale Check	36	Each
25.	2573.503 Silt Fence Pre-assembled	100	Lin.Ft.
26.	2575.501 Seeding	2	Acre
27.	2575.502 Seed, Mixture 700	100	Pound
28.	2575.505 Sodding, Type Lawn & Blvd.	1,800	Sq.Yd.
29.	2575.511 Mulch Material, Type 1	4	Ton
30.	2575.519 Disk Anchoring	2	Acre
31.	2575.531 Commercial Fert. Analysis 10-10-10	0.5	Ton

SCHEDULE OF CRACK SEALING AND FILLING

Location	Approx. Length
0+50± to 4+50±	442
7+30±	60
9+25±	115
9+25±	225
9+75±	24
10+00±	40
11+00±	14
11+25±	33
16+00±	40
16+00±	106

SCHEDULE OF BITUMINOUS REMOVALS

	Dimension	Bit. Patch Replacement
1.	Sta. 2+00	1 ea. @ 7'x10' yes
2.	Sta. 3+70	3 ea. @ 3'x4' yes
3.	Sta. 5+75	1 ea. @ 11'x90' yes
4.	Sta. 7+75	1 ea. @ 4'x4' yes
5.	Sta. 8+10	1 ea. @ 3'x10' yes
6.	Sta. 8+45	1 ea. @ 4'x4' yes
7.	Sta. 12+32 - 16+00	entirely no
8.	Sta. 17+40	1 ea. @ 6'x12' yes
9.	Sta. 17+50 - 34+50	entirely no

SCHEDULE OF STORM SEWER PIPE AND STRUCTURES

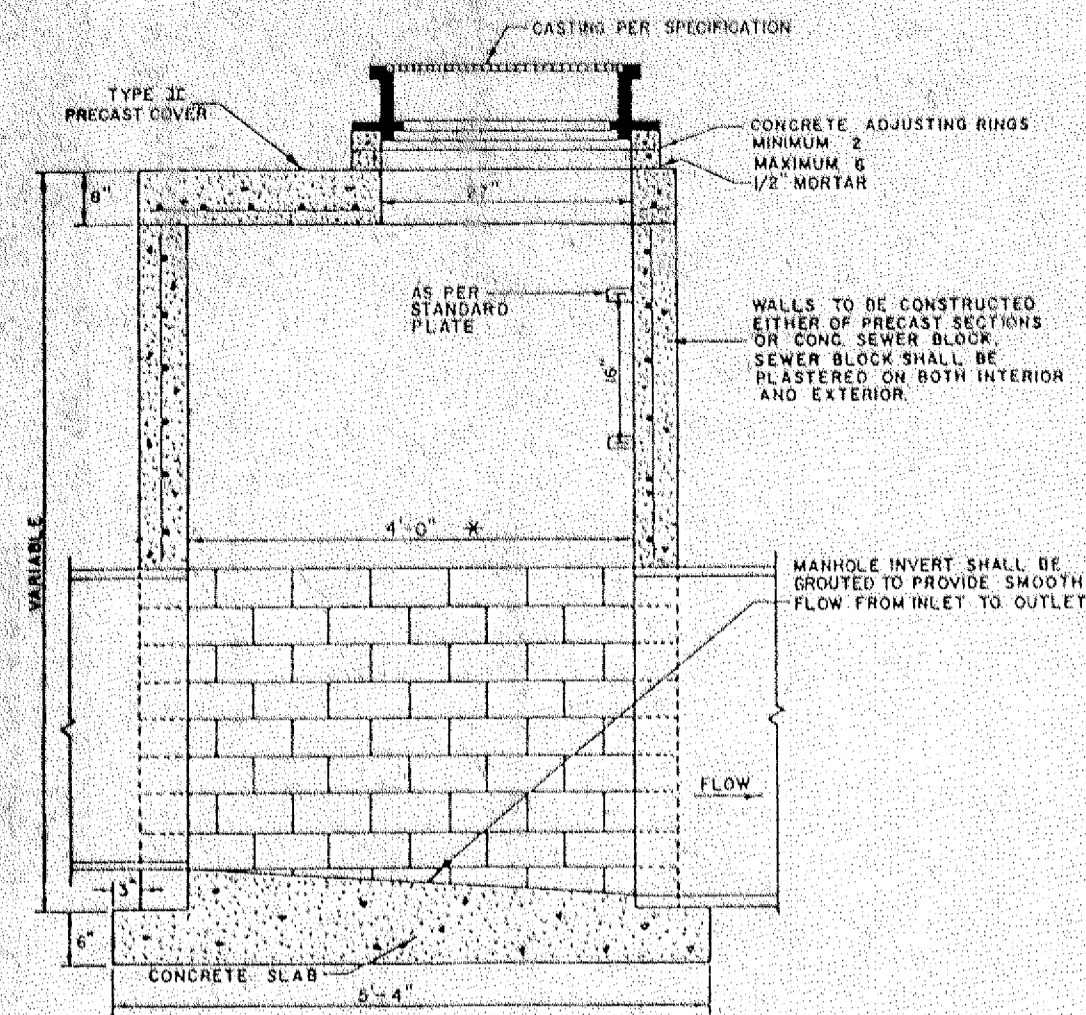
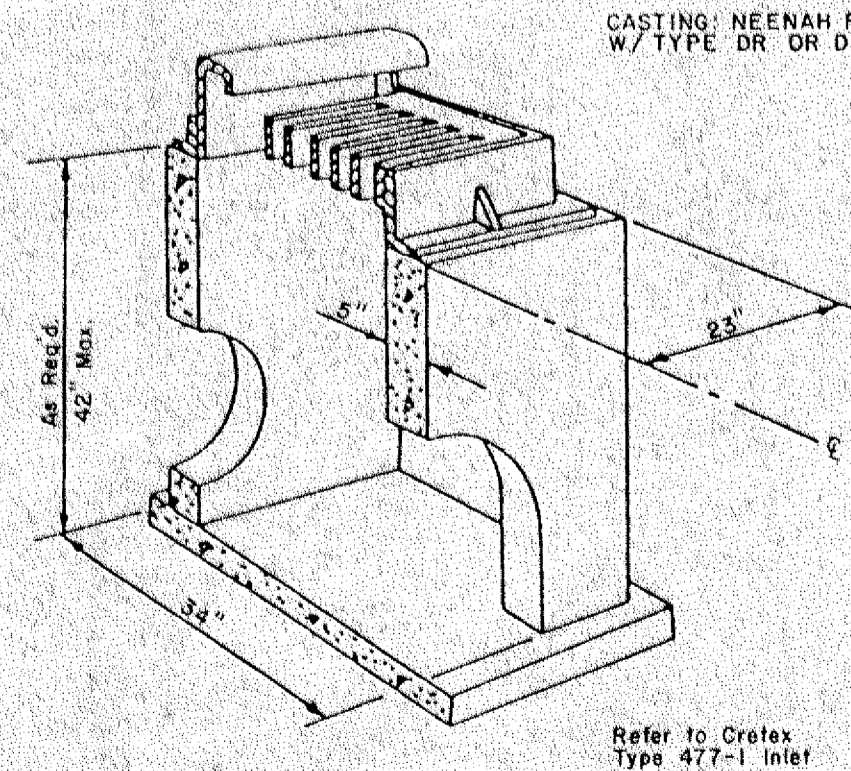
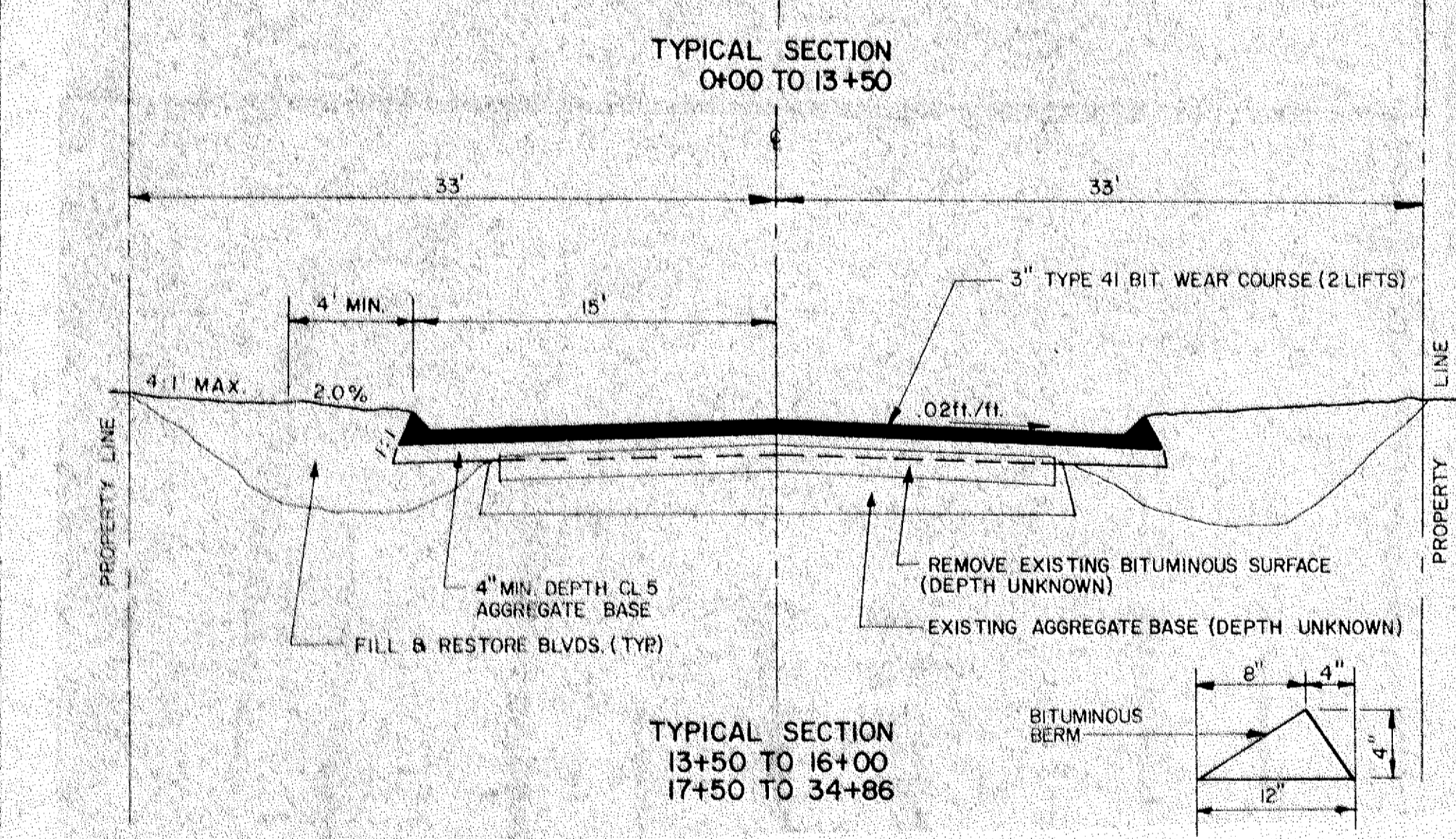
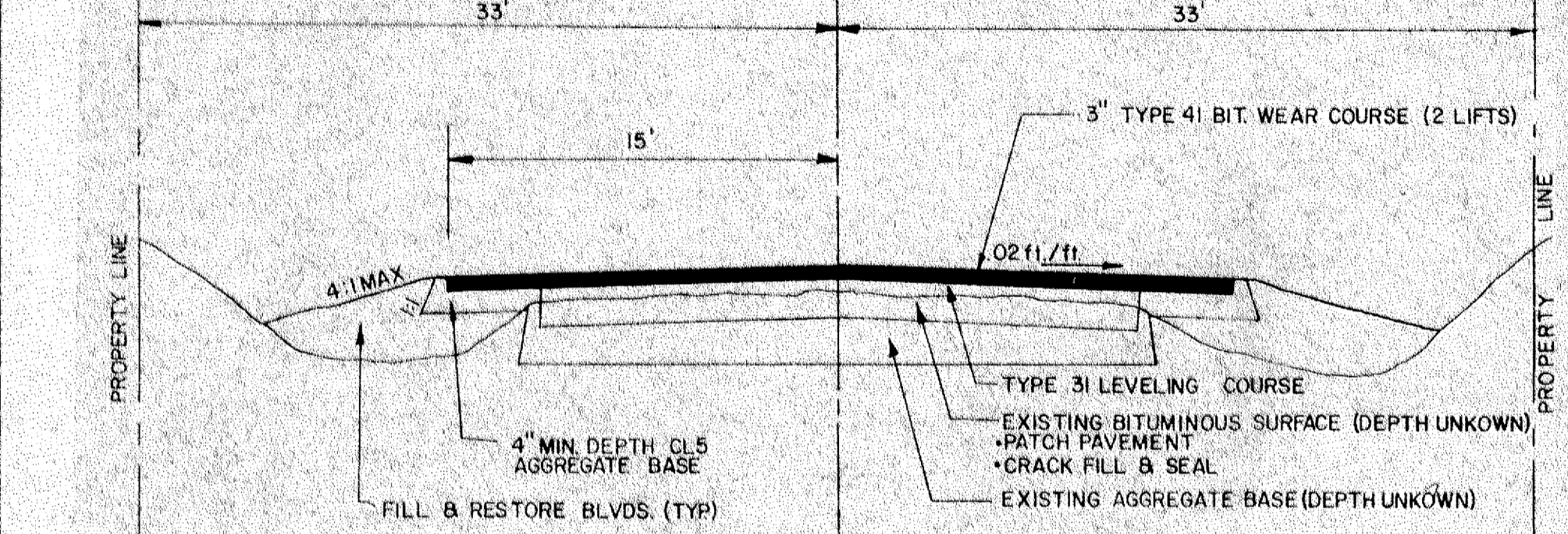
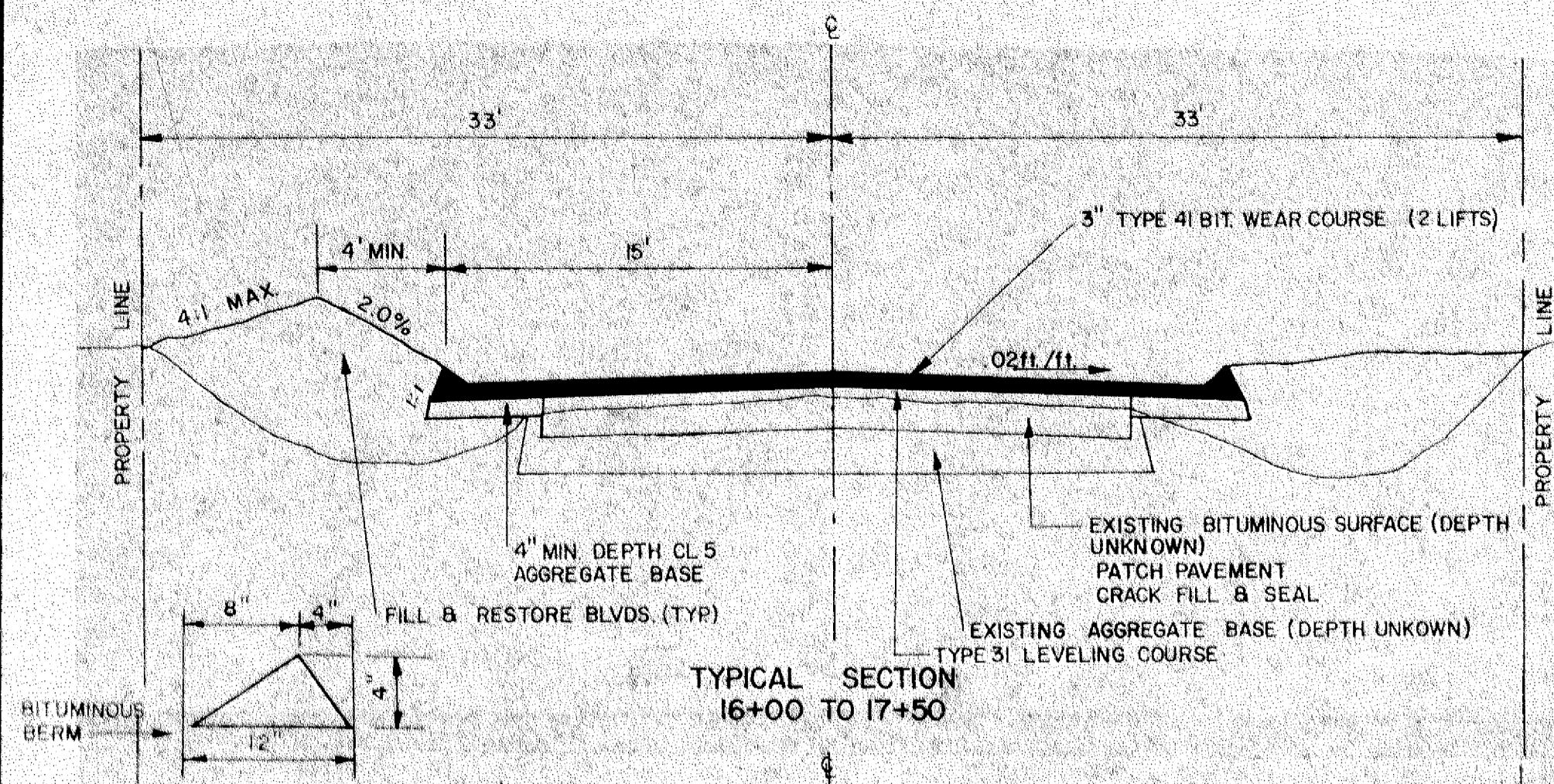
LINE	STRUCTURE NUMBER	STATION	LOCATION	STRUCTURE		TOP OF CASTING OR INLET	STRUCTURE INVERT	FURNISH & INSTALL PIPE SEWER			DRAINS TO NO.	GRADE %
				DESIGN	PAY HEIGHT			12" CL.V	15" CL.V	18" CL.V		
1	CBMH1	30+47	21' left	2'x3'	2.23	917.36	915.13	--			Lake	
2	CB2	30+47	15' right	2'x3'	2.13	917.36	915.23	35			CBMH1	0.60%
3	MH4	Feather St.	15' left	48-4020	5.00	915.20	910.20	16			Flared End Section	0.20%
4	CB5	22+75	15' left	2'x3'	3.00	915.86	912.86	67			MH4	3.67%
5	CBMH6	21+85	15' right	2'x3'	3.69	915.37	911.68	29			MH4	4.41%
6	CB7	22+04	15' right	2'x3'	3.00	915.27	912.27	38			CBMH6	1.55%
7	CBMH9	227th Ave.	15' right	48-4020	4.06	911.06	907.00	--			--	
8	CBMH10	14+33	15' right	2'x3'	3.00	910.80	907.80		85		CBMH9	0.70%
9	CB 10A	14+33	15' right	2'x3'	2.75	910.80	909.05	8			CBMH10	0.60%
10	CBMH11	Elbe St.	End rad.	2'x3'	3.18	910.93	907.83	43			CBMH9	1.00%
11	CB 12	Elbe St.	End rad.	2'x3'	3.00	910.93	907.83	26			CBMH11	0.40%
12	Flared End Section	14+33	--	--	--	--	908.00		8		CBMH10	1.25%

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Staurmo S. Koschak
 Date 6/18/93, Reg. No. 112261

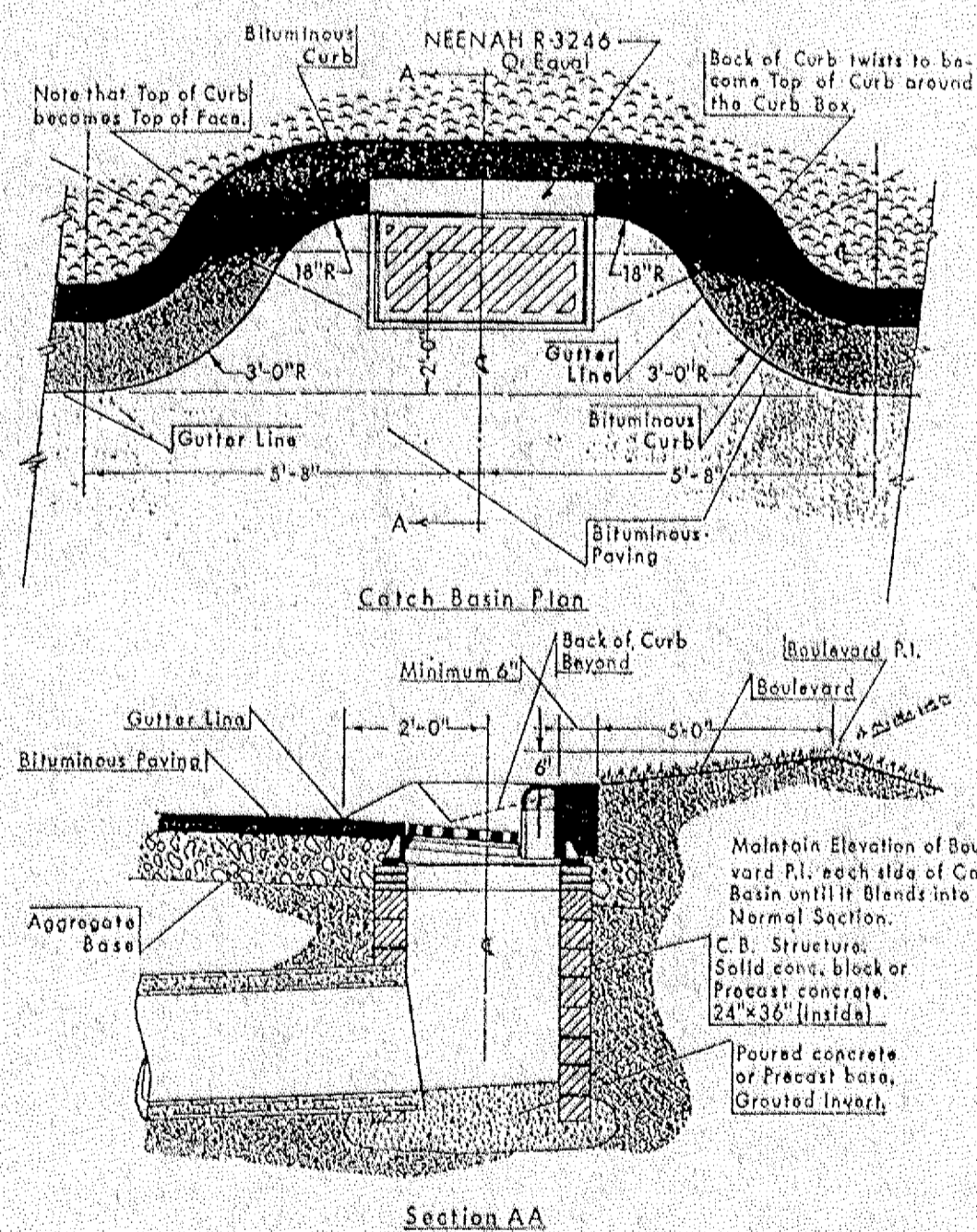
DATE	REVISION	DESIGNED BY	SCALE
8-17-93	AS PER COUNTY REVIEW	RDA	HORIZ.
10-27-93	AS PER COUNTY REVIEW	JAZ	VERT.
3-18-94	AS PER COUNTY REVIEW	LGK	BOOK
			PAGE

Hakanson Anderson Assoc., Inc.
 Engineers, Surveyors & Landscape Architects
 222 Monroe Street, Anoka, Minnesota 55303
 612/427-5860

QUANTITY SHEET, SCHEDULES CSAH #26 BETWEEN CR#85 AND MARTIN LAKE DRIVE ANOKA COUNTY CP 93-11-26
 DATE 6/14/93 FILE NO. 1251.06



**SLAB-TOP MANHOLE
TYPICAL FOR STORM SEWER**
NO SCALE



**OFFSET CATCH BASIN INLET
for Rectangular Castings**
NO SCALE

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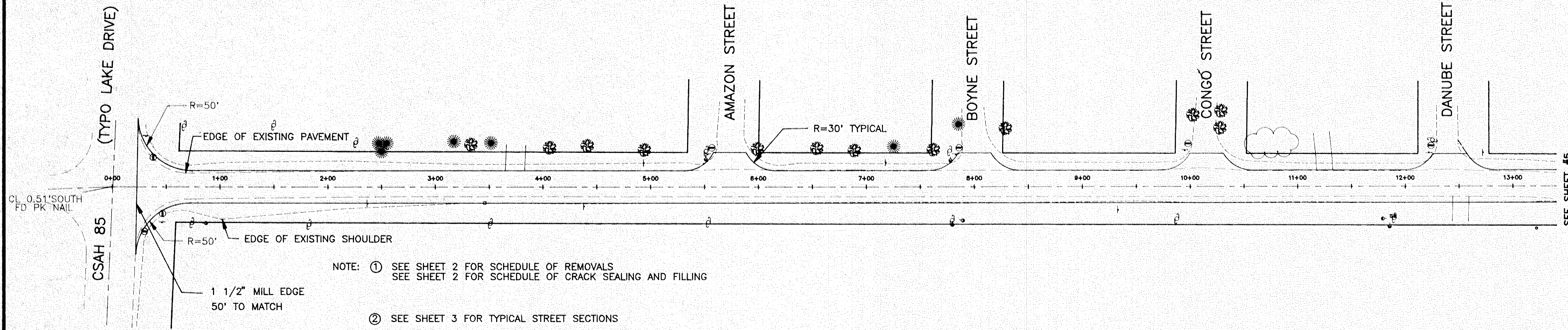
Lawrence A. Koshak
Date: 6/14/93 Reg. No. 1261

DATE	REVISION	DESIGNED BY	SCALE
8-17-93	AS PER COUNTY REVIEW	RDA	HORIZ.
10-27-93	AS PER COUNTY REVIEW	JAZ	VERT.
		LGK	BOOK
			PAGE

**Hakanson
Anderson
Assoc., Inc.**
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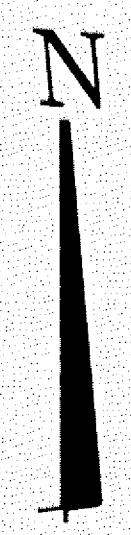
TYPICAL SECTIONS, DETAILS,
TRAFFIC CONTROL
CSAH #26 BETWEEN CR#85
AND MARTIN LAKE DRIVE
ANOKA COUNTY, CP 93-11-26

SHEET
3
OF
12
SHEETS

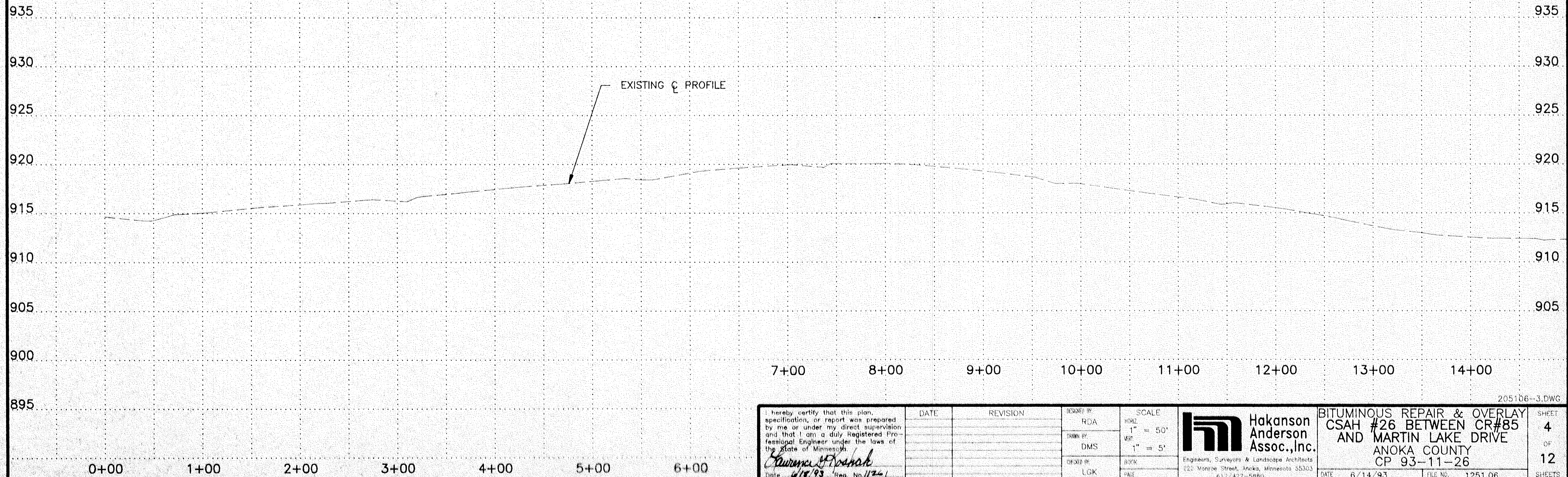


NOTE: ① SEE SHEET 2 FOR SCHEDULE OF REMOVALS
 SEE SHEET 2 FOR SCHEDULE OF CRACK SEALING AND FILLING

② SEE SHEET 3 FOR TYPICAL STREET SECTIONS

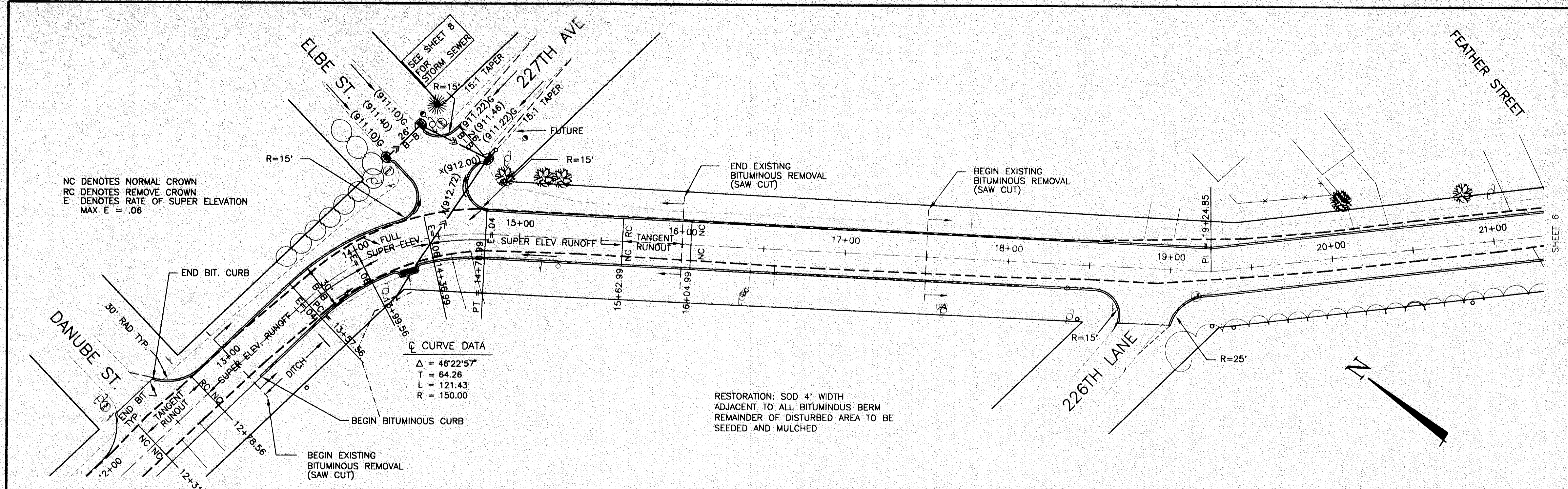


CSAH 26 (227TH AVE.)



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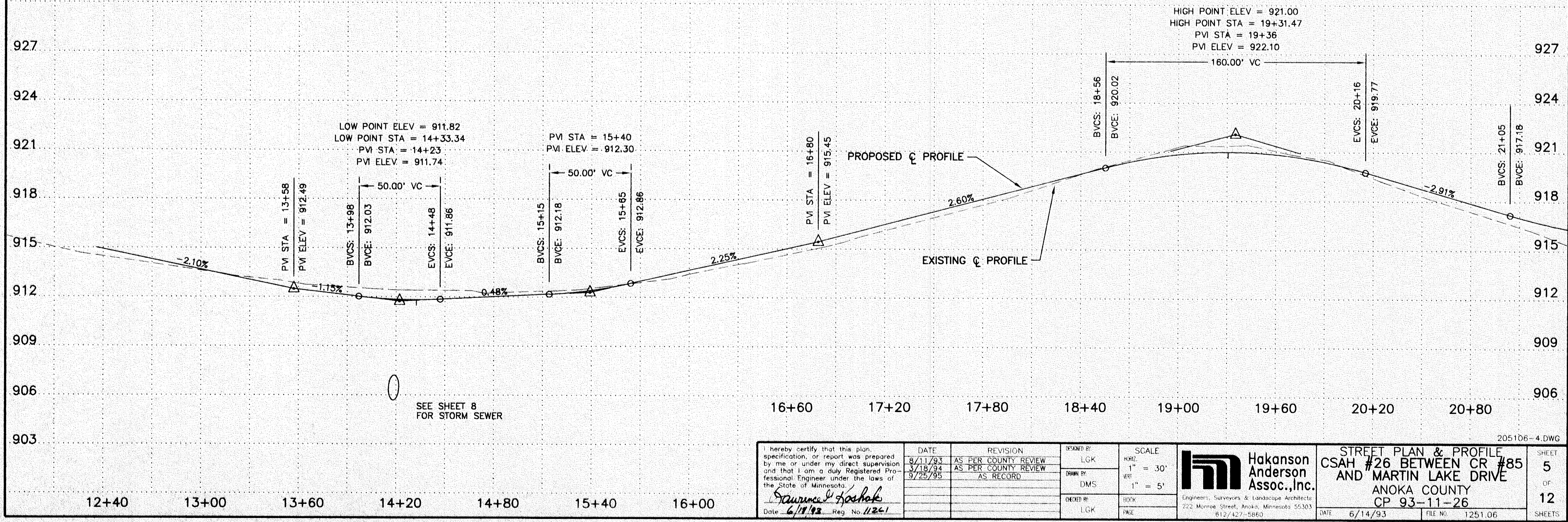
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota. <i>Lawrence J. Koskela</i> Date 6/18/93 Reg. No. 11261	DATE	REVISION	DESIGNED BY RDA	SCALE HORIZ. 1" = 50'	Hakanson Anderson Assoc., Inc. Engineers, Surveyors & Landscape Architects 822 Monroe Street, Anoka, Minnesota 55303 612/427-5883	BITUMINOUS REPAIR & OVERLAY CSAH #26 BETWEEN CR#85 AND MARTIN LAKE DRIVE ANOKA COUNTY CP 93-11-26	SHEET 4		
			DRAWN BY DMS	VERT. 1" = 5'			OF 12		
			CHECKED BY LGK	NO. OF PAGE			DATE 6/14/93	FILE NO. 1251.06	SHEETS



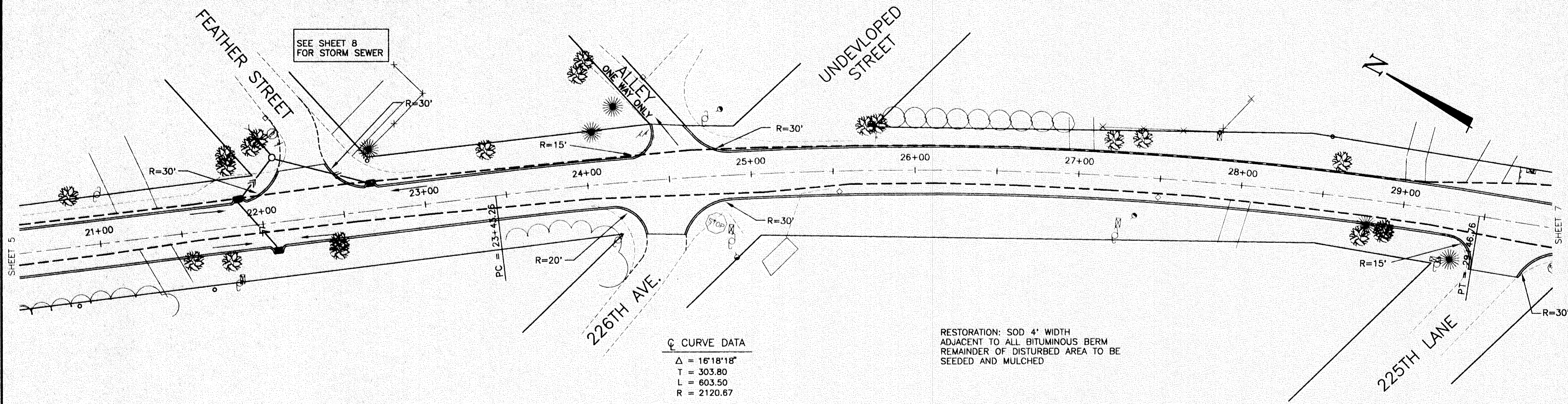
CURVE DATA

Δ	= 46°22'57"
T	= 64.26
L	= 121.43
R	= 150.00

MARTIN LAKE DRIVE



I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota. <i>Lawrence J. Koschak</i> Date 6/11/93 Reg. No. 11261	DATE	REVISION	DESIGNED BY	SCALE	Hakanson Anderson Assoc., Inc. Engineers, Surveyors & Landscape Architects 222 Monroe Street, Anoka, Minnesota 55303 612/427-5860	STREET PLAN & PROFILE CSAH #26 BETWEEN CR #85 AND MARTIN LAKE DRIVE ANOKA COUNTY CP 93-11-26	SHEET 5 OF 12 SHEETS
	8/11/93	AS PER COUNTY REVIEW	LCK	HORIZ. 1" = 30'			
	3/18/94	AS PER COUNTY REVIEW	DMS	VERT. 1" = 5'			
	9/25/95	AS RECORD	LCK	BOOK PAGE			
DATE 6/14/93		FILE NO. 1251.06		205106-4.DWG			

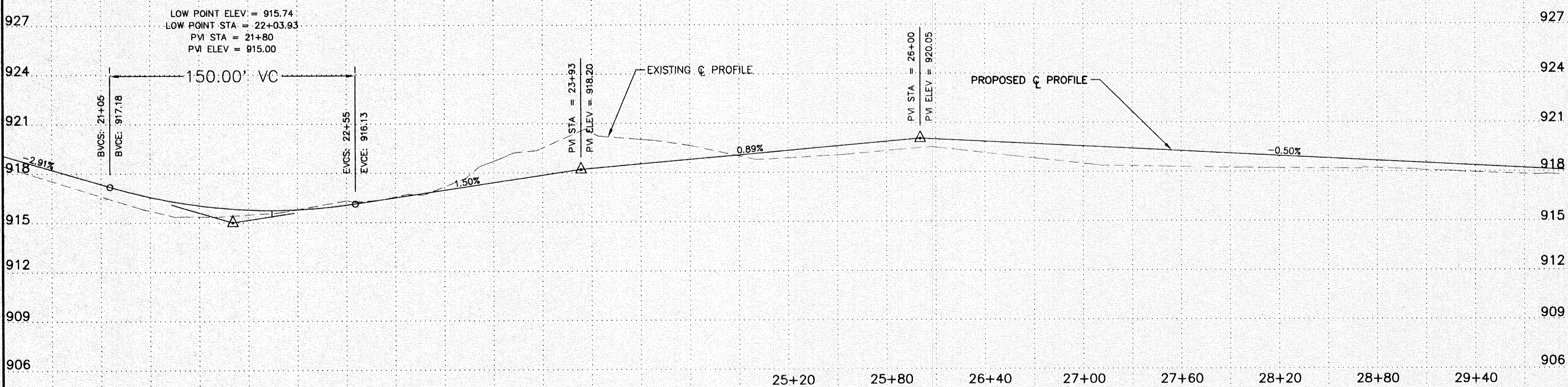


☉ CURVE DATA

Δ	= 16°18'18"
T	= 303.80
L	= 603.50
R	= 2120.67

RESTORATION: SOD 4' WIDTH
ADJACENT TO ALL BITUMINOUS BERM
REMAINDER OF DISTURBED AREA TO BE
SEEDED AND MULCHED

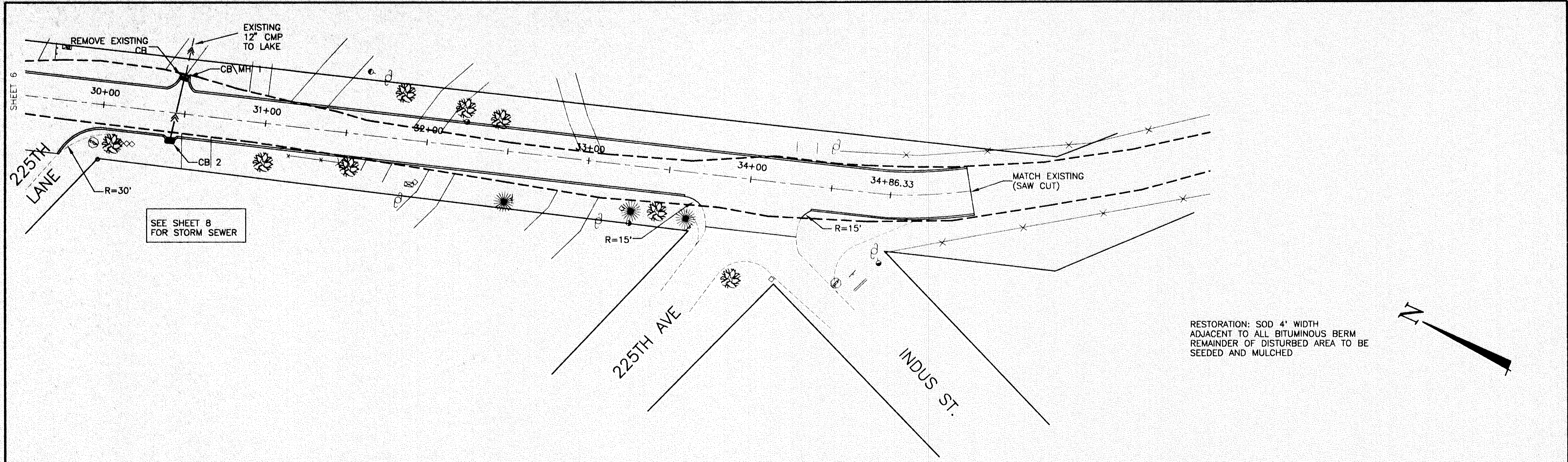
MARTIN LAKE DRIVE



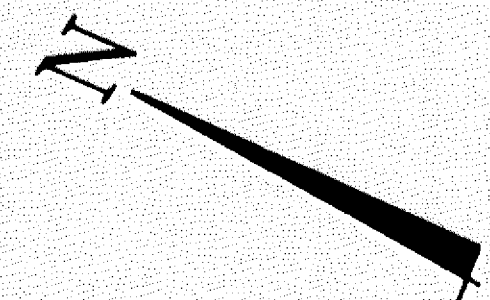
21+00 21+60 22+20 22+80 23+40 24+00 24+60

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota. <i>Gaurence E. Spada</i> Date: 6/12/93 Reg. No. 1126	DATE	8/11/93	REVISION	AS PER COUNTY REVIEW	DESIGNED BY	LGK	SCALE	Engineers, Surveyors & Landscape Architects 222 Monroe Street, Anoka, Minnesota 55203 612/427-5860	STREET PLAN & PROFILE CSAH #26 BETWEEN CR #85 AND MARTIN LAKE DRIVE ANOKA COUNTY CP 93-11-26	SHEET 6 OF 12 SHEETS	
		3/18/94		AS PER COUNTY REVIEW	DRAWN BY	DMS	HORIZ 1" = 30'				
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							BOOK				
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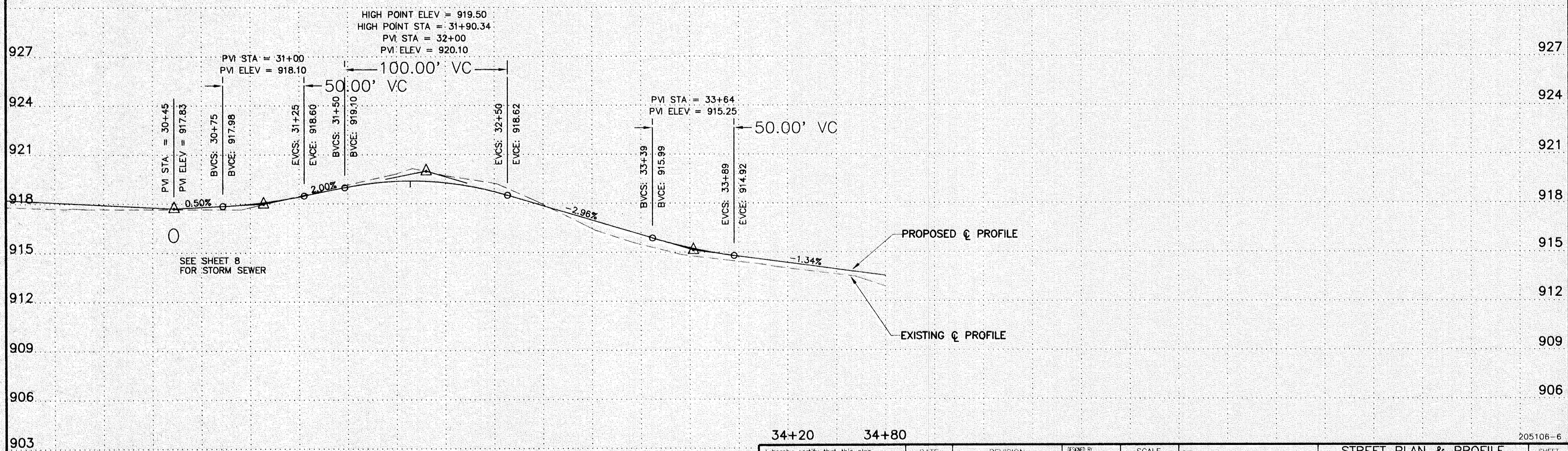
205106-5.DWG



RESTORATION: SOD 4' WIDTH
 ADJACENT TO ALL BITUMINOUS BERM
 REMAINDER OF DISTURBED AREA TO BE
 SEEDED AND MULCHED



MARTIN LAKE DRIVE



205106-6

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Sturman P. Koschok
 Date 6/18/93 Reg. No. 11261

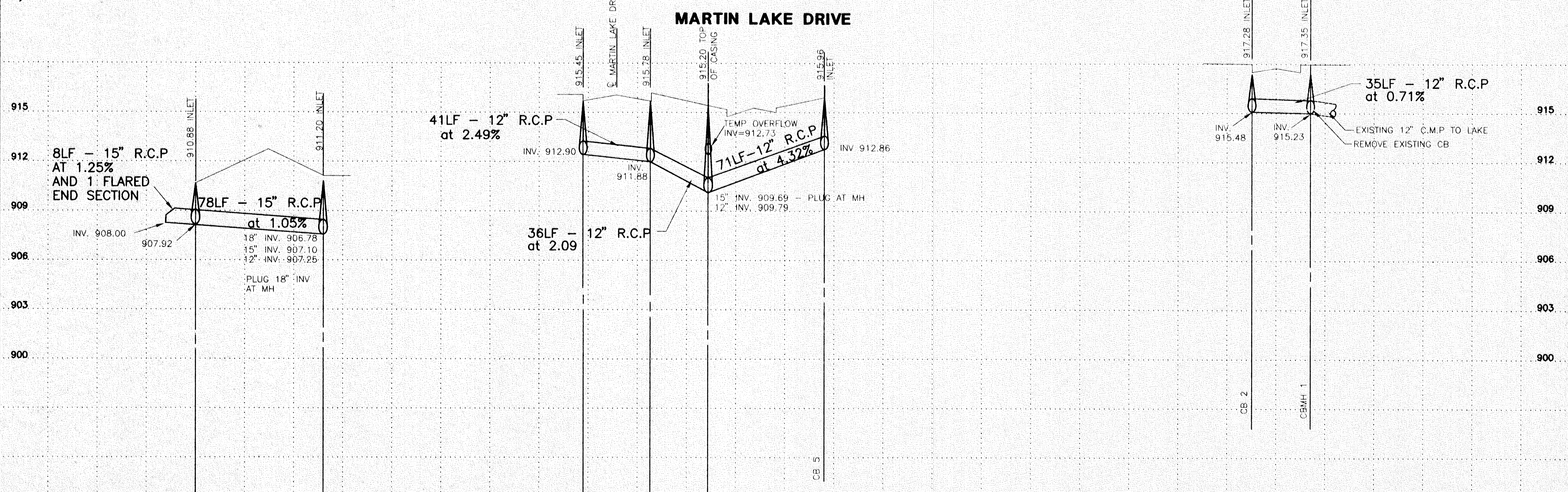
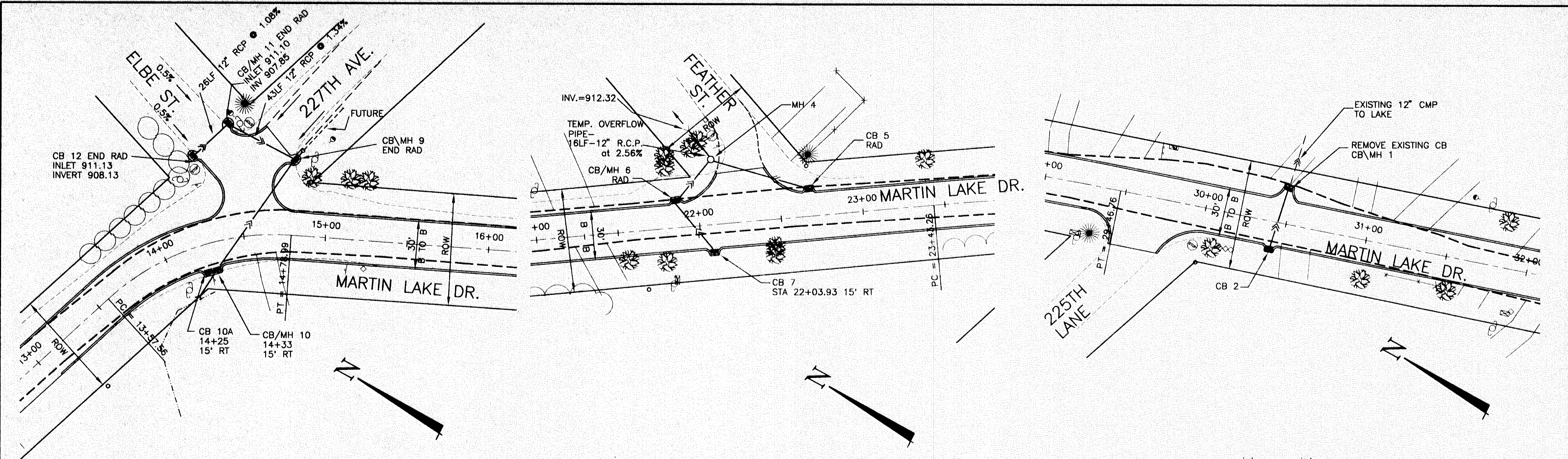
DATE	REVISION
8/11/93	AS PER COUNTY REVIEW
9/25/95	AS RECORD

DESIGNED BY	SCALE
LGK	HORIZ. 1" = 30'
DMS	VERT. 1" = 5'
LGK	BOOK
	PAGE

Hakanson Anderson Assoc., Inc.
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 222 Monroe Street, Anoka, Minnesota 55303
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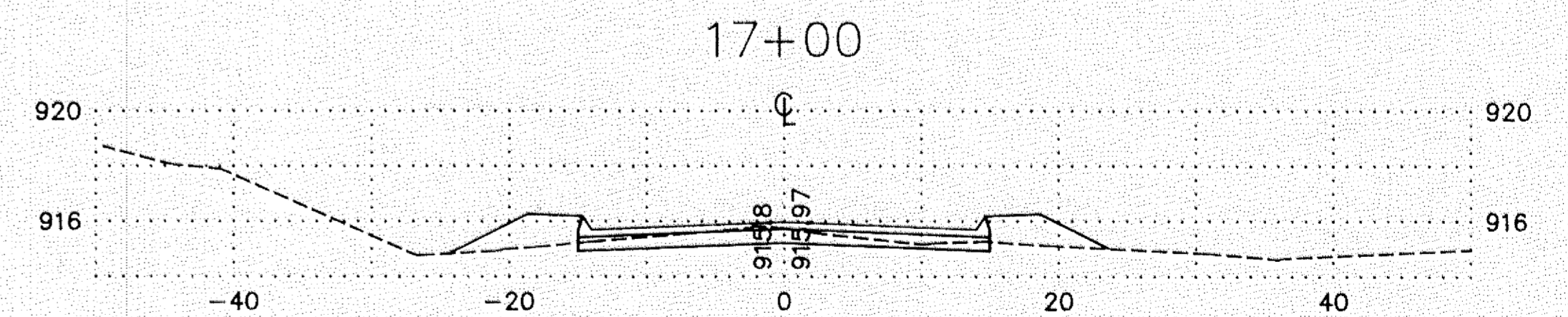
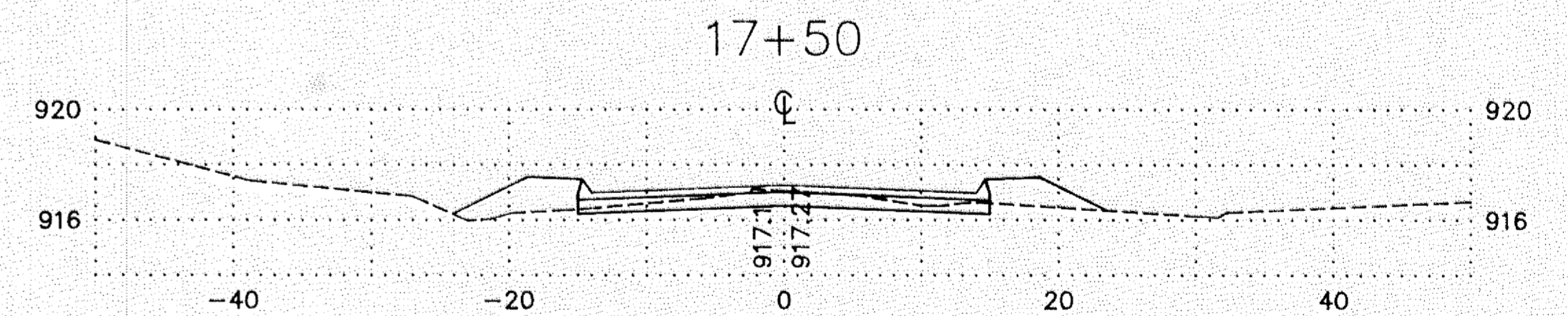
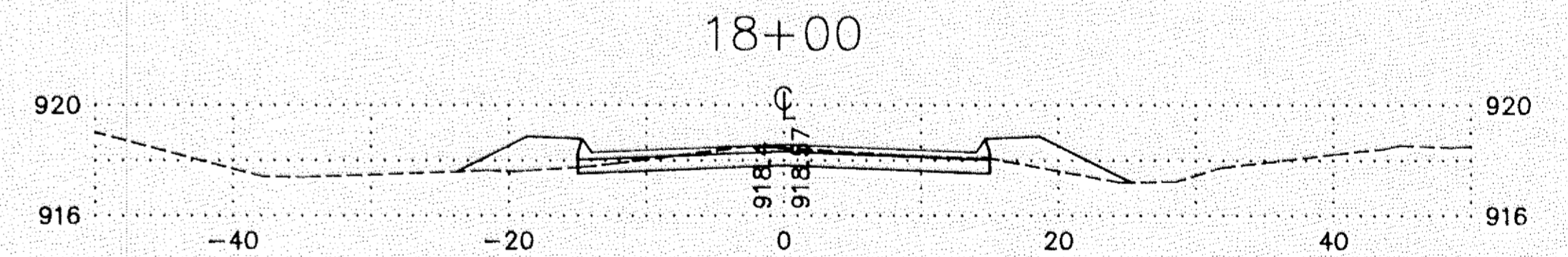
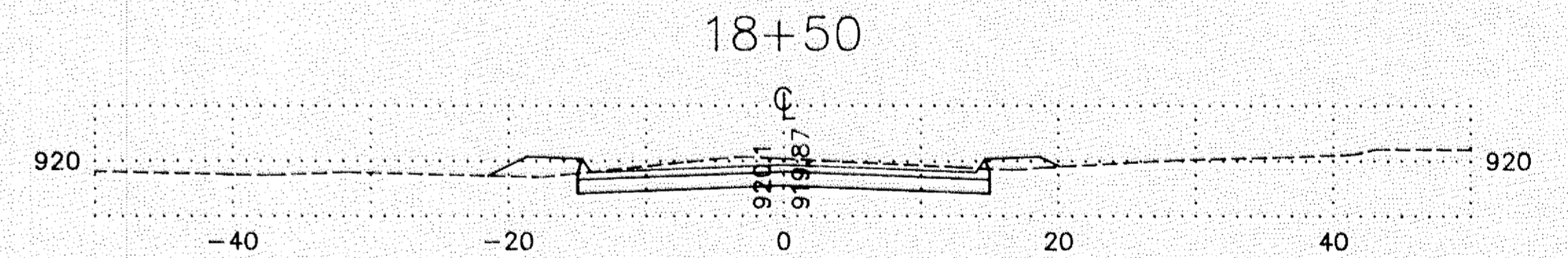
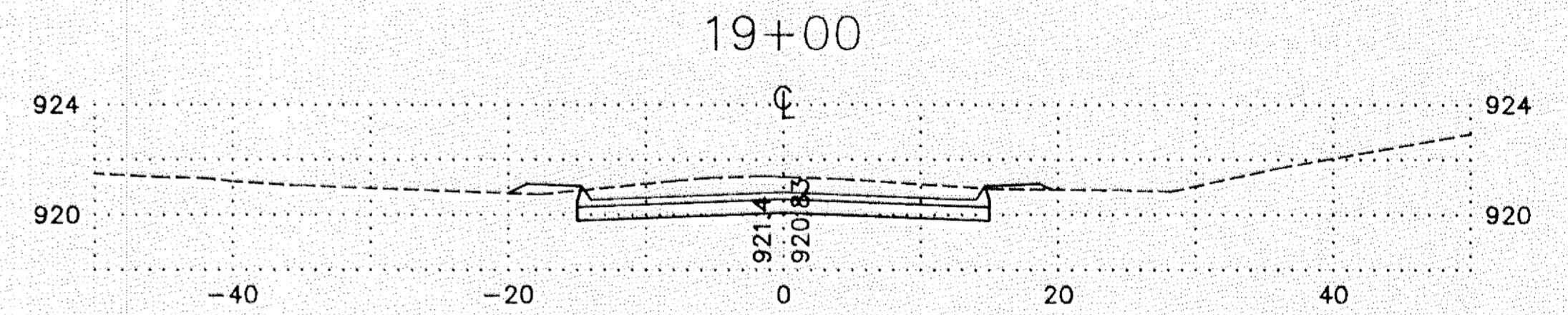
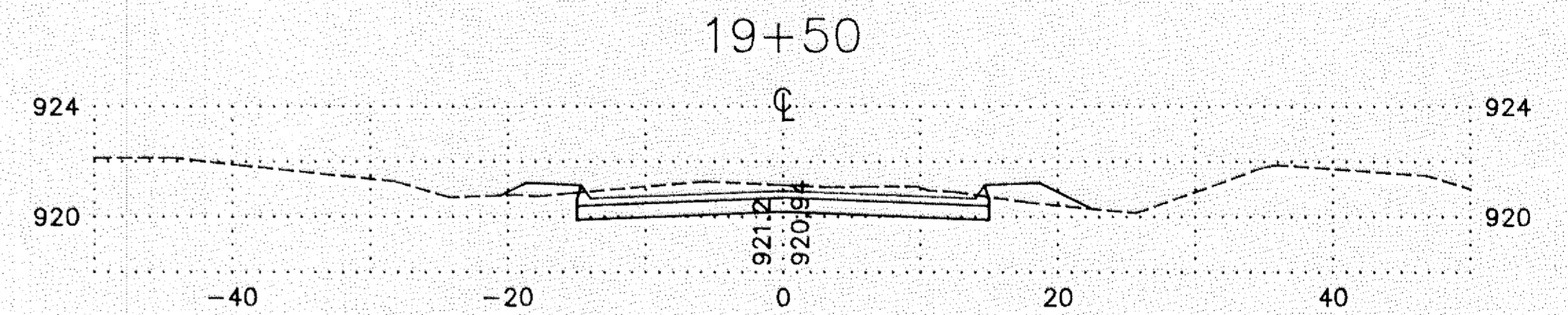
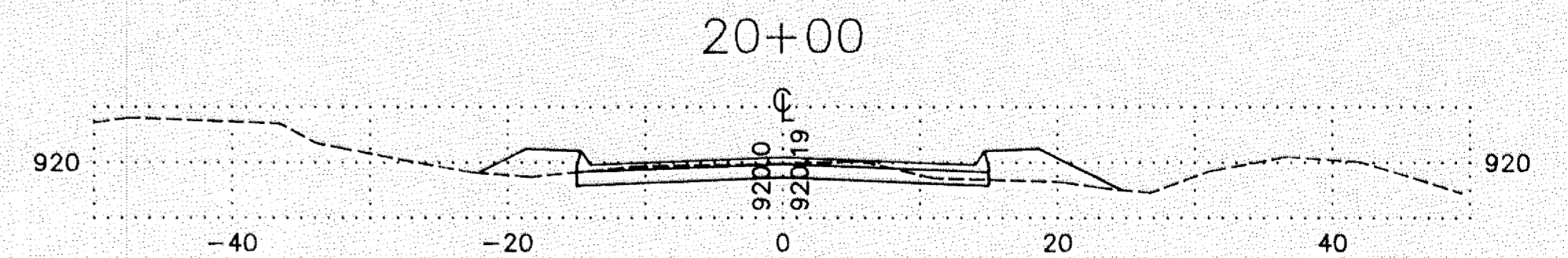
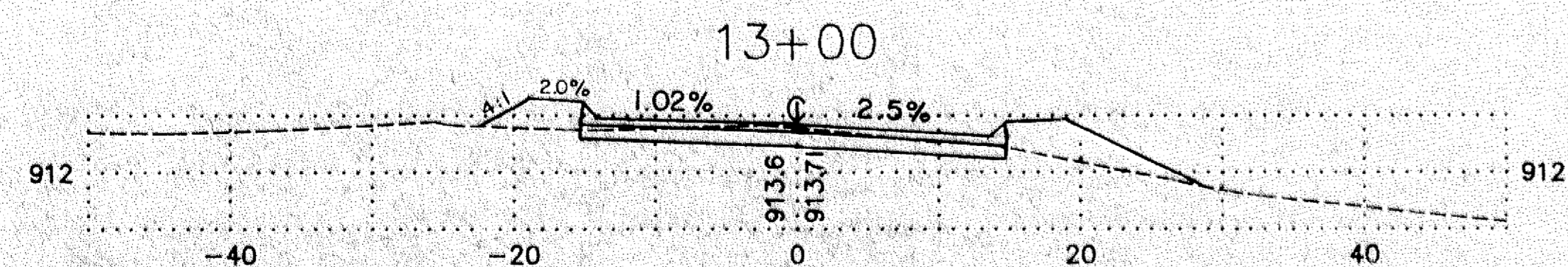
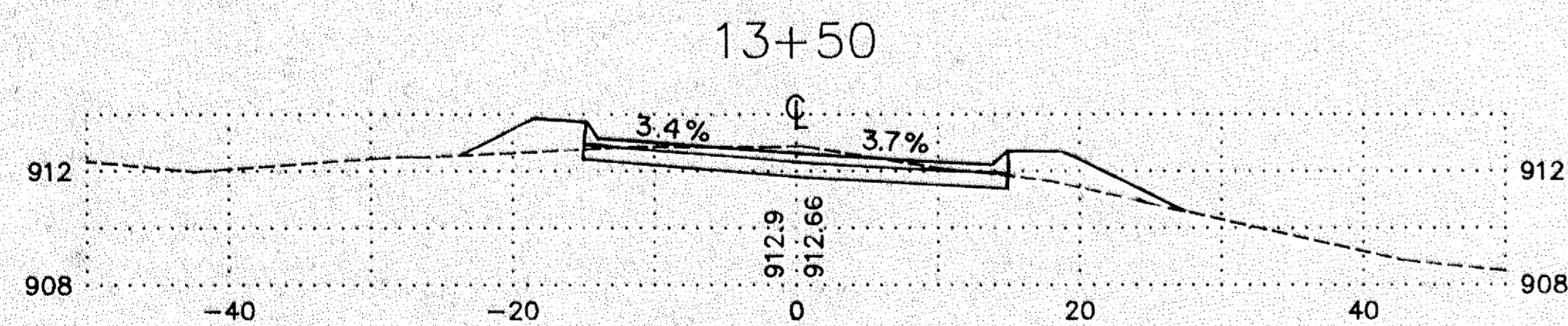
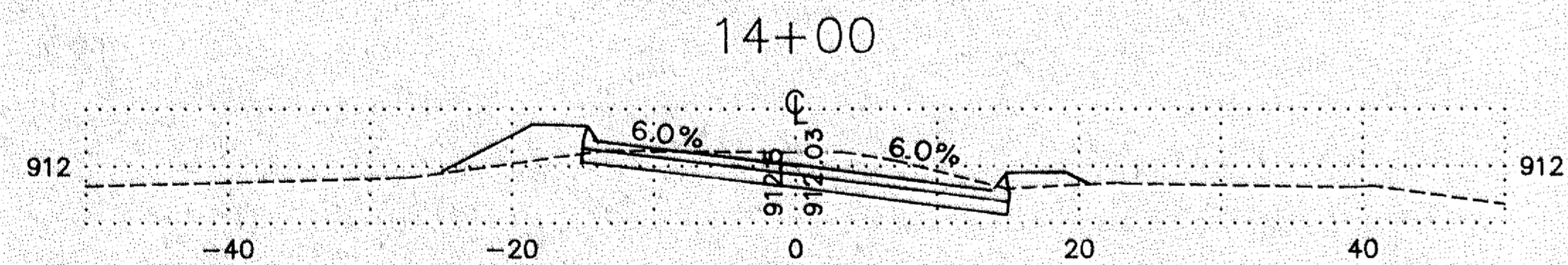
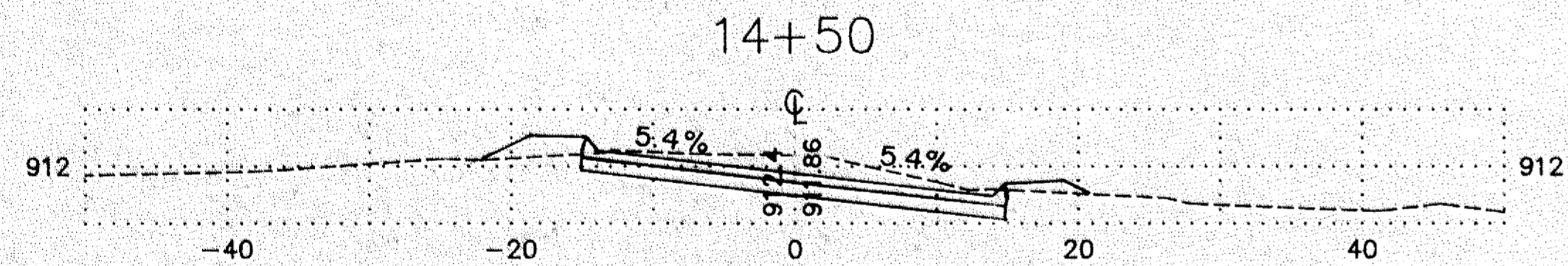
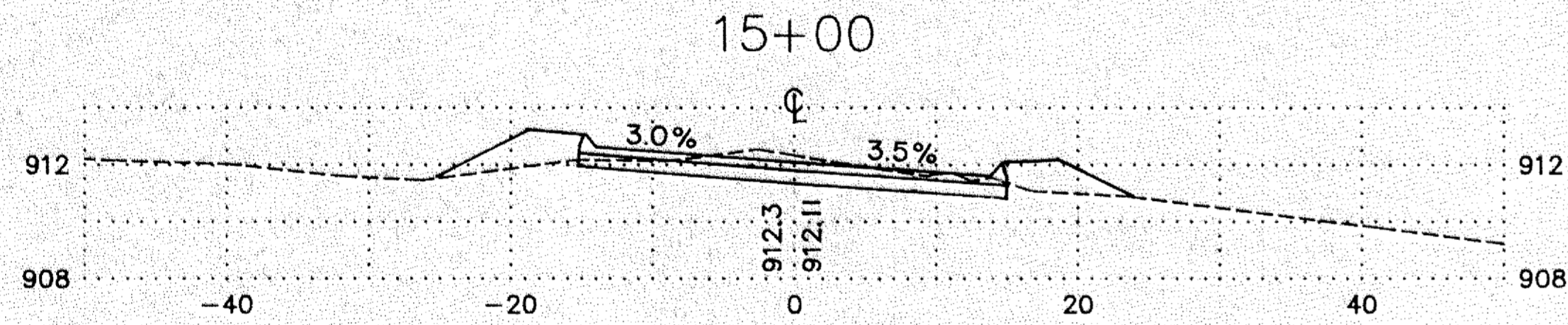
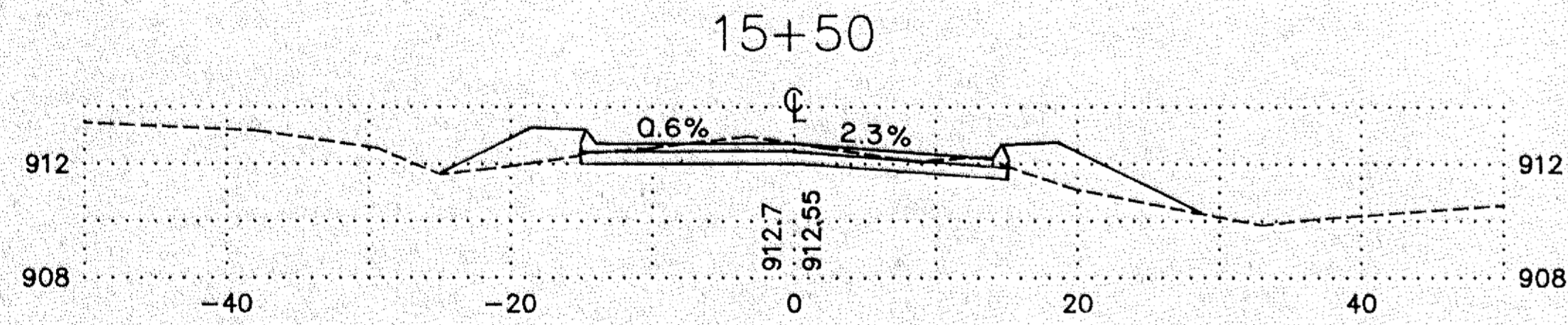
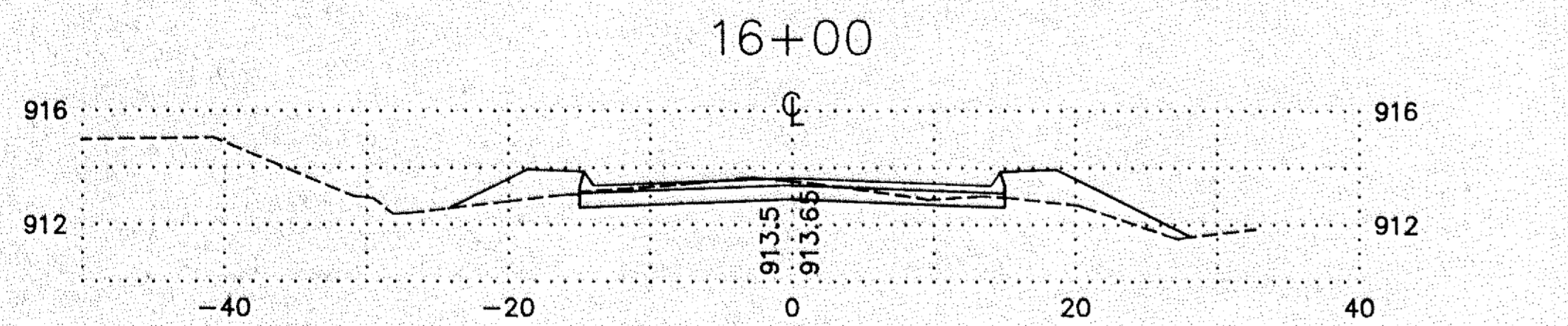
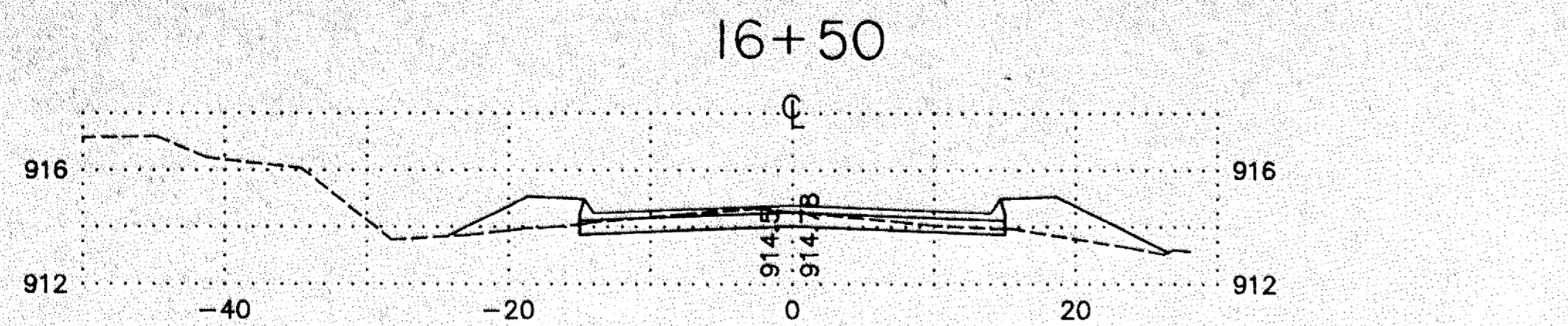
STREET PLAN & PROFILE
CSAH #26 BETWEEN CR #85 AND MARTIN LAKE DRIVE
 ANOKA COUNTY
 CP 93-11-26
 DATE 6/14/93 FILE NO. 1251.06

SHEET 7 OF 12 SHEETS



I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota. <i>Signature of Engineer</i> Date: 6/18/93 Reg. No. 11261	DATE	REVISION	DESIGNED BY	SCALE	Engineers, Surveyors & Landscape Architects 222 Marjorie Street, Anoka, Minnesota 55303 612/427-5800	STREET PLAN & PROFILE CSAH #26 BETWEEN CR #85 AND MARTIN LAKE DRIVE ANOKA COUNTY CP 93-11-26	SHEET 8 OF 12 SHEETS
	8/11/93	AS PER COUNTY REVIEW	LCK	HORIZ. 1" = 30'			
	3/18/94	AS PER COUNTY REVIEW	DMS	VERT. 1" = 3'			
			CHECKED BY	BOOK			
			LCK	FIG.		DATE: 6/14/93	FILE NO: 1251.06

205106-7.DWG



I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Lawrence J. Spisak
 Date: 6/18/93 Reg. No. 11241

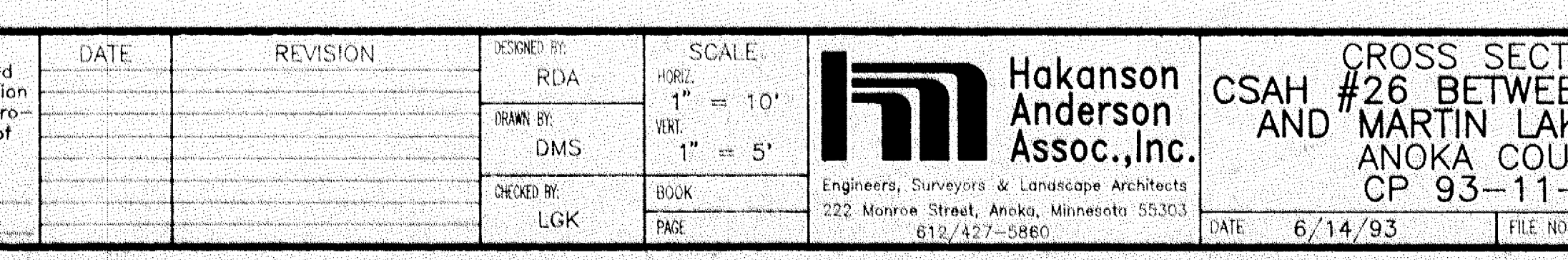
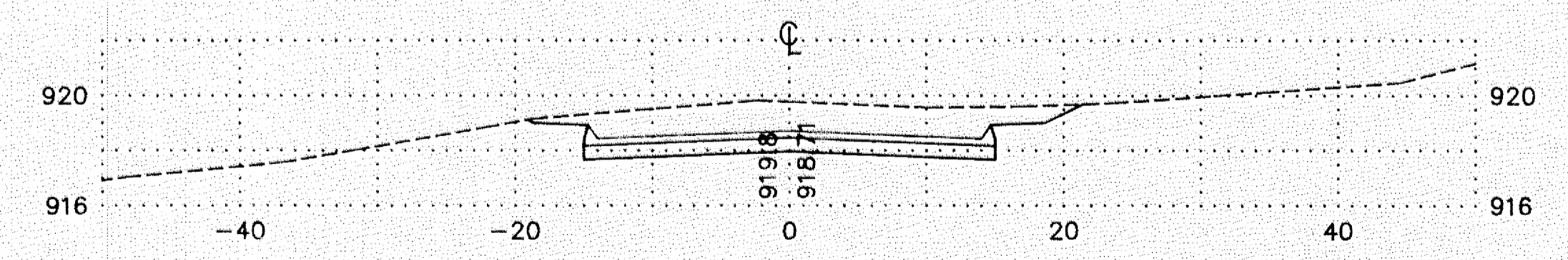
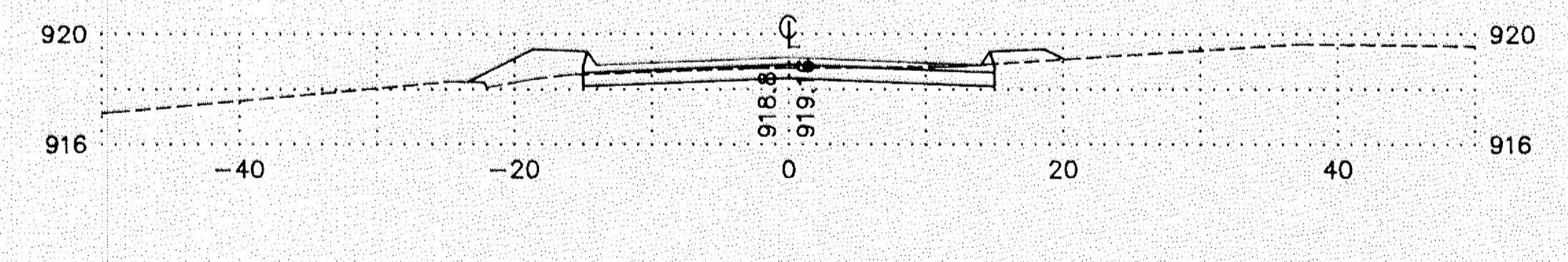
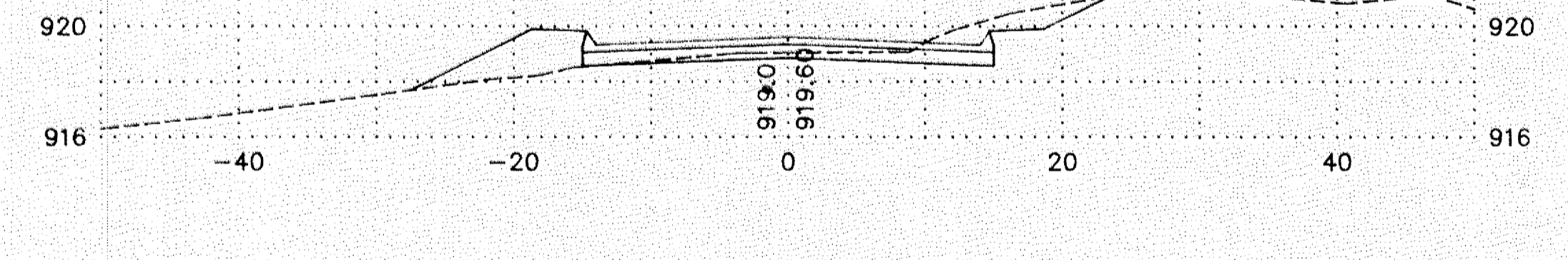
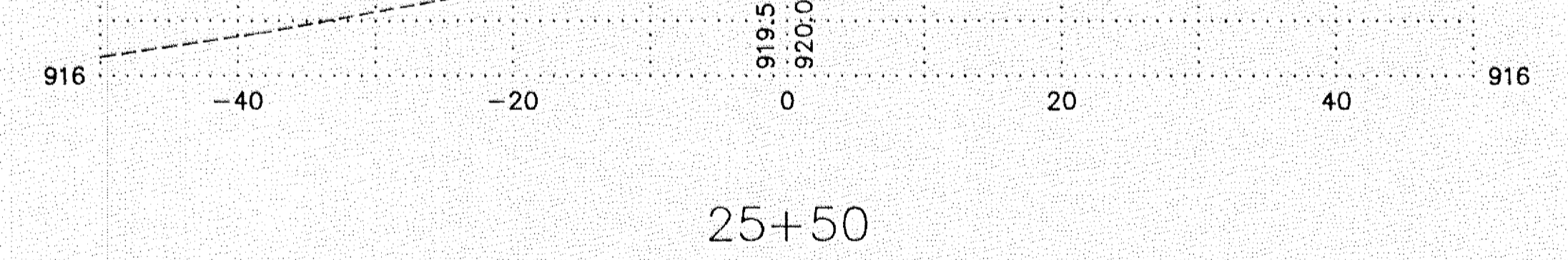
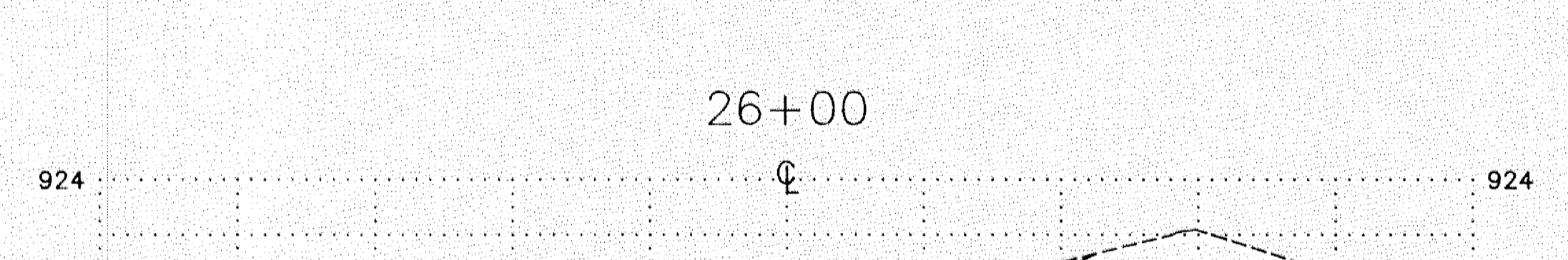
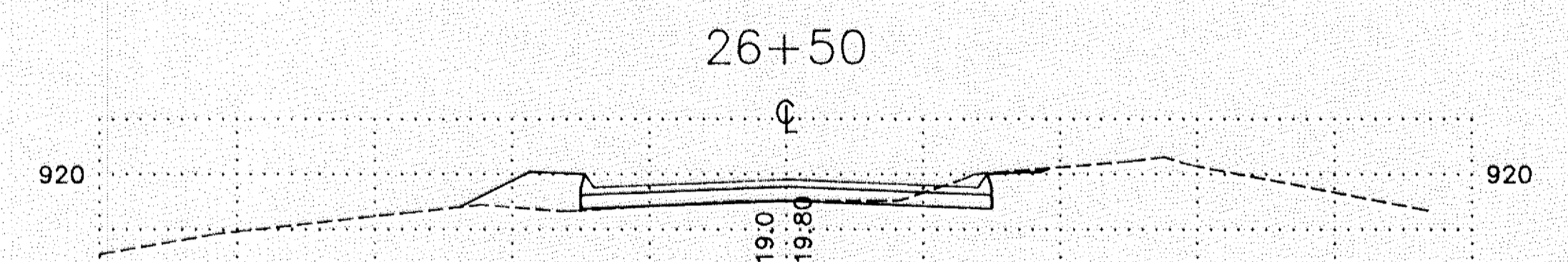
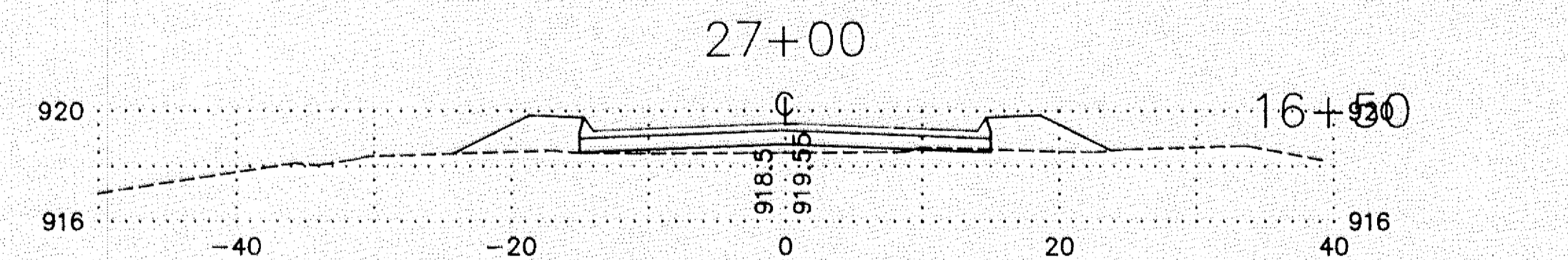
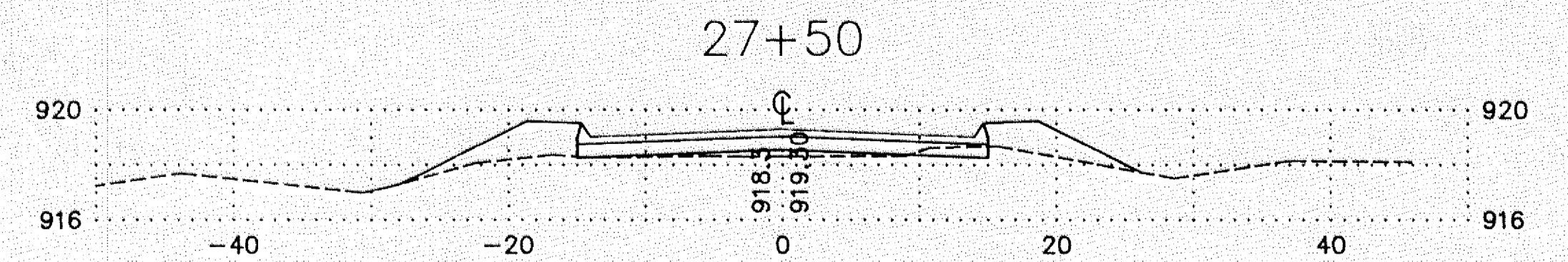
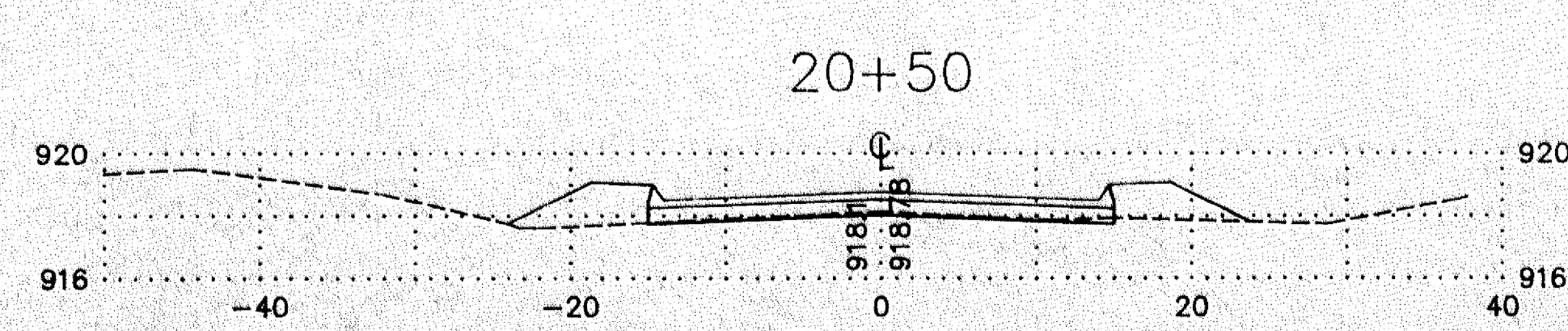
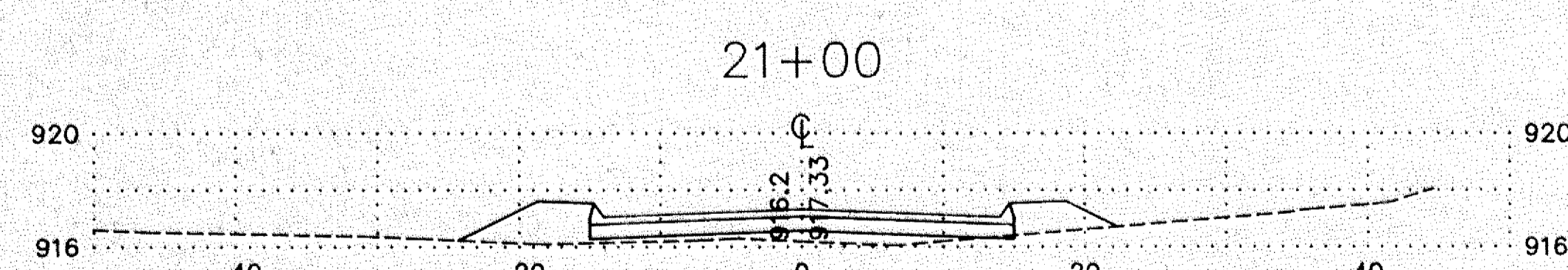
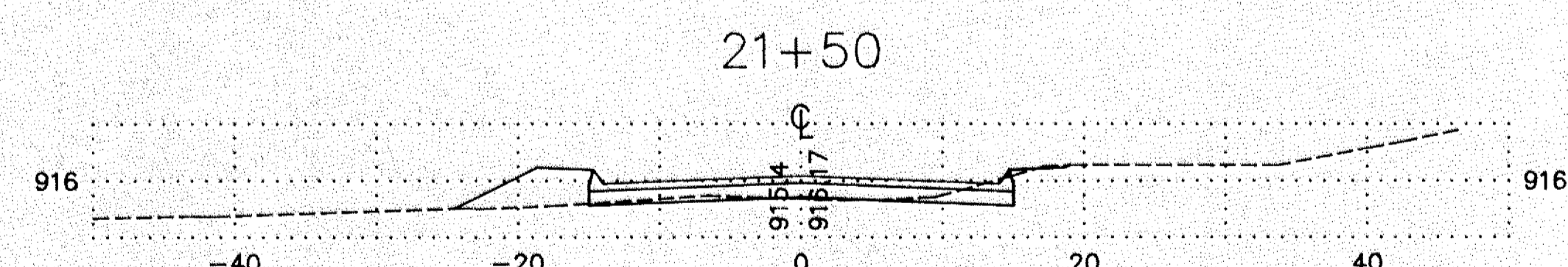
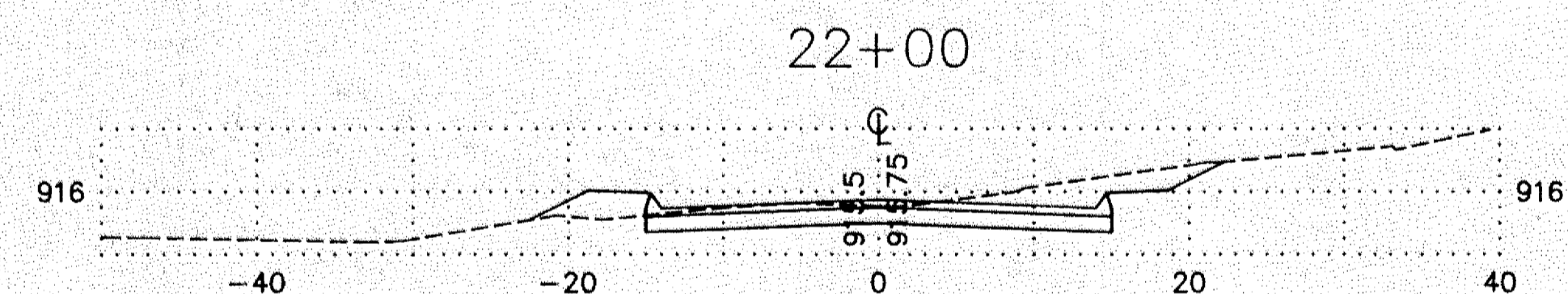
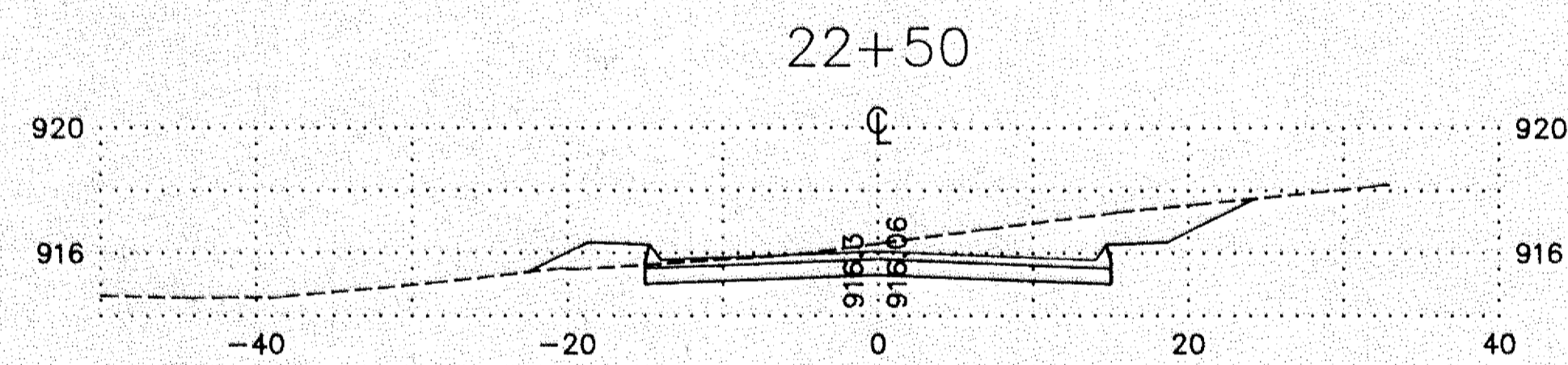
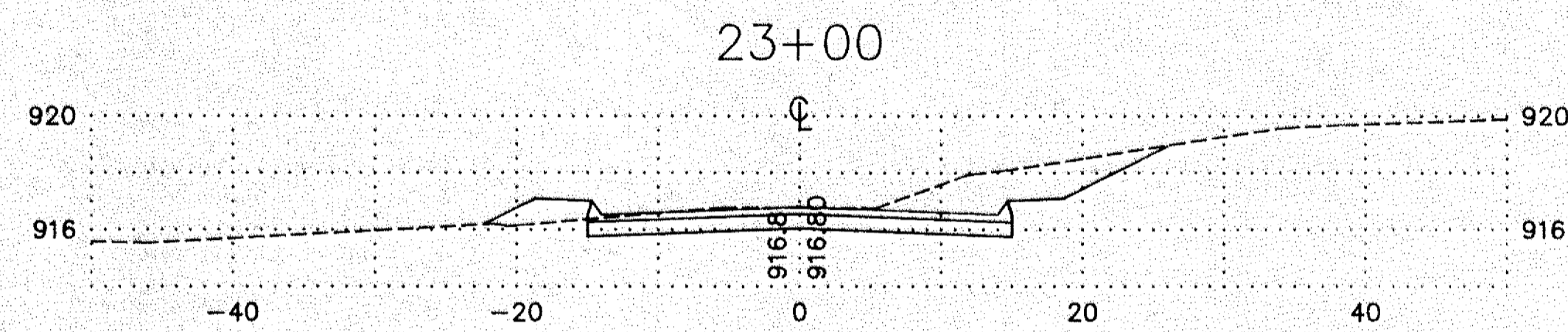
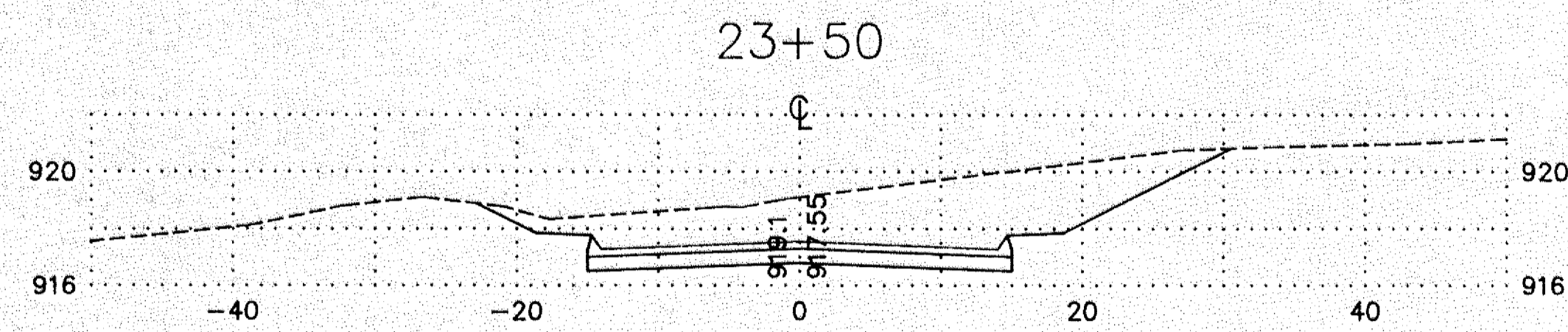
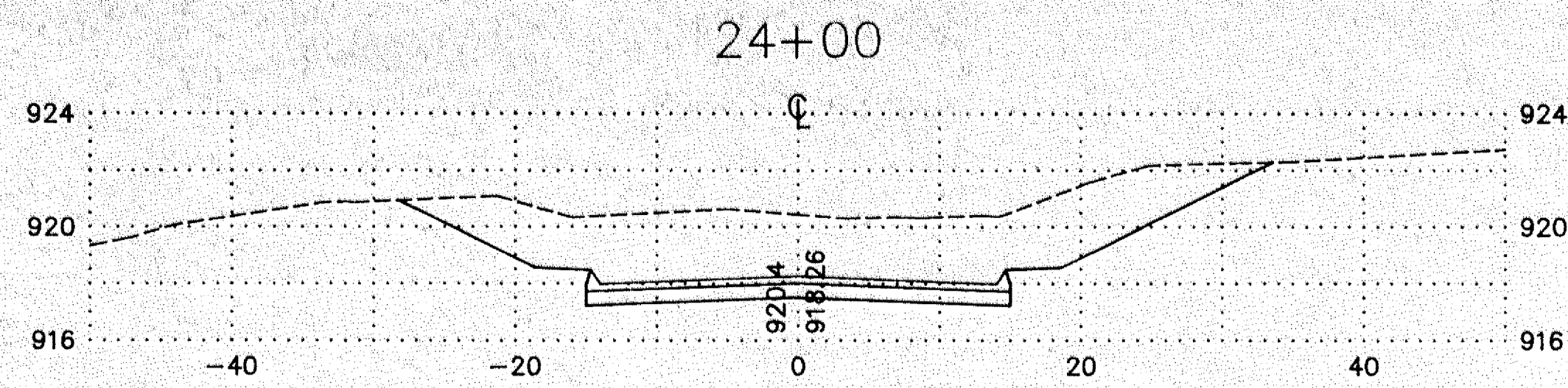
DATE	REVISION

DESIGNED BY: RDA	SCALE: HORIZ. 1" = 10' VERT. 1" = 5'
DRAWN BY: DMS	BOOK
CHECKED BY: LGK	PAGE

Hakanson Anderson Assoc., Inc.
 Engineers, Surveyors & Landscape Architects
 222 Monroe Street, Anoka, Minnesota 55303
 612/427-5860

CROSS SECTIONS
 AND #26 BETWEEN CR #85
 AND MARTIN LAKE DRIVE
 ANOKA COUNTY
 CP 93-11-26
 DATE: 6/14/93 FILE NO. 1251.06

205106-9
 SHEET 9 OF 12 SHEETS



205106-9.DWG

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Lawrence J. Koschak
 Date 6/18/93 Reg. No. 11261

DATE	REVISION

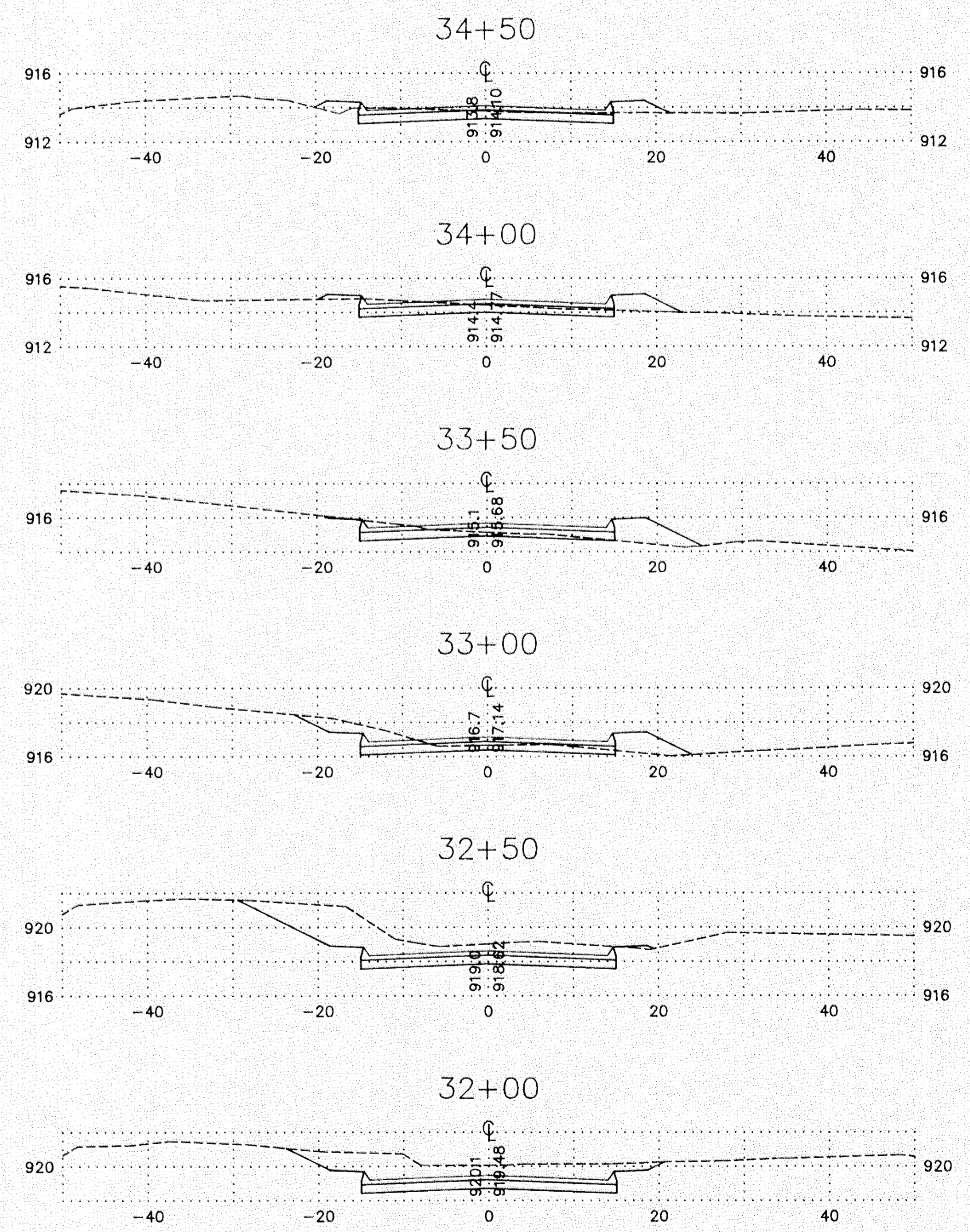
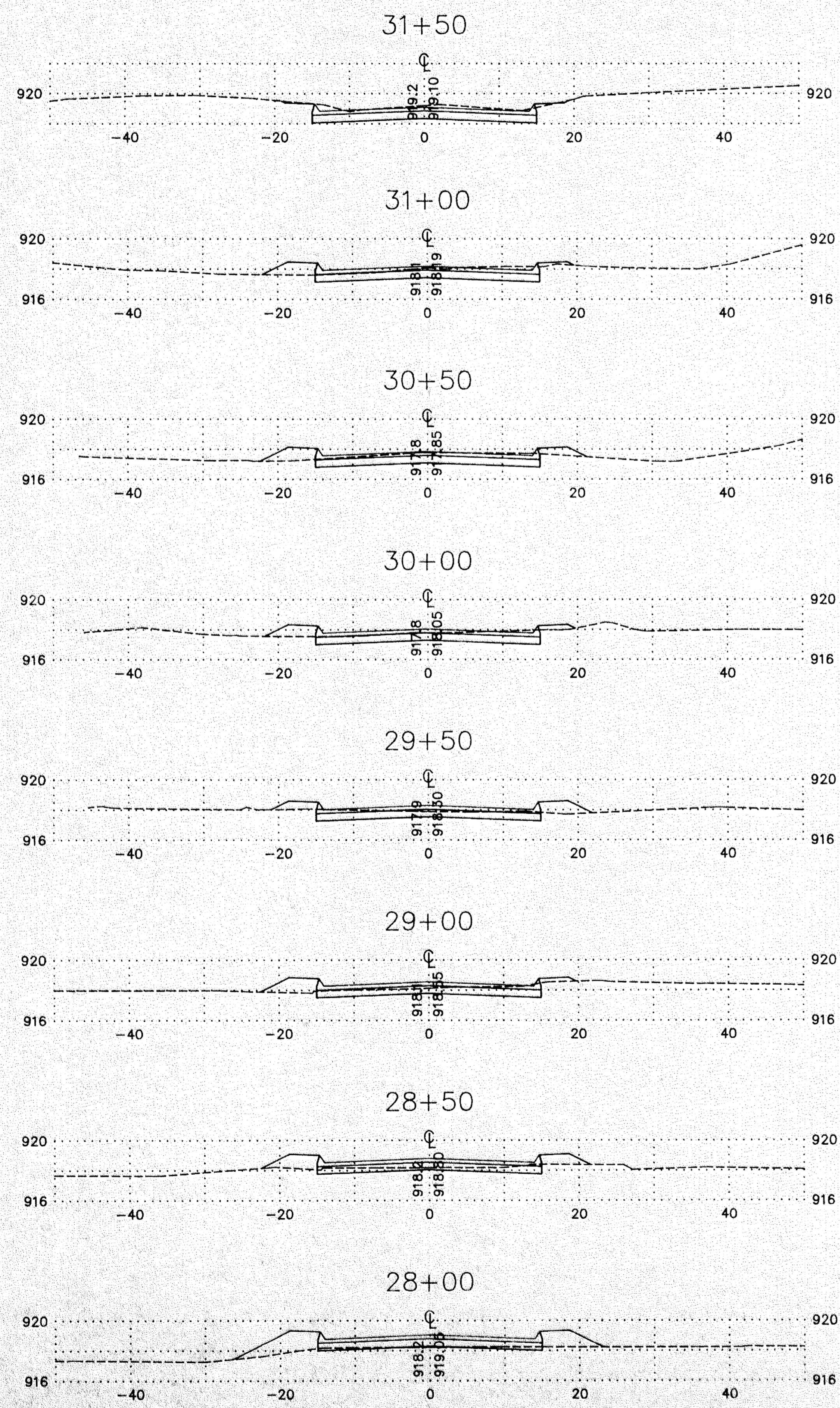
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DRAWN BY: DMS	BOOK
CHECKED BY: LGK	PAGE

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CROSS SECTIONS
 CSAH #26 BETWEEN CR #85
 AND MARTIN LAKE DRIVE
 ANOKA COUNTY
 CP 93-11-26

SHEET	10
OF	12
SHEETS	

DATE 6/14/93 FILE NO. 1251.06



205106-9.DWG

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Shirley J. Koshak
Date 6/18/93 Reg. No. 11201

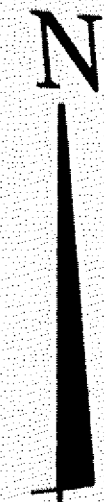
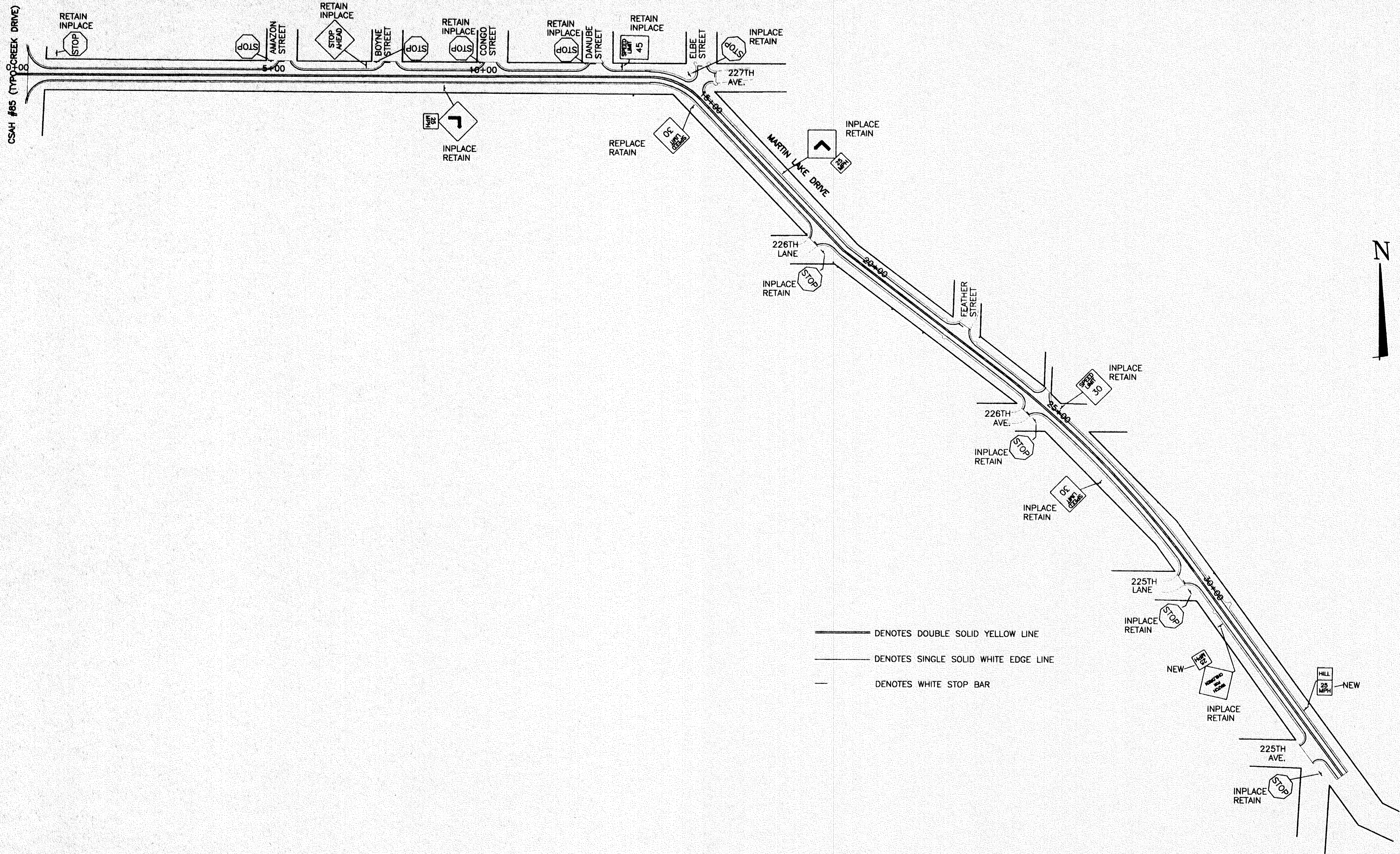
DATE	REVISION

DESIGNED BY: RDA	SCALE HORIZ. 1" = 10' VERT. 1" = 5'
DRAWN BY: DMS	BOOK
CHECKED BY: LGK	PAGE

Hakanson Anderson Assoc., Inc.
Engineers, Surveyors & Landscape Architects
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612/427-5860

CROSS SECTIONS
CSAH #26 BETWEEN CR #85
AND MARTIN LAKE DRIVE
ANOKA COUNTY
CP 93-11-26
DATE 6/14/93 FILE NO. 1251.06

SHEET 11 OF 12 SHEETS



- DENOTES DOUBLE SOLID YELLOW LINE
- DENOTES SINGLE SOLID WHITE EDGE LINE
- DENOTES WHITE STOP BAR

20516-13.DWG

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Thomas G. Koskove
 Date 6/14/93 Reg. No. 11261

DATE	REVISION	DESIGNED BY
10/27/93	AS PER COUNTY REVIEW	RDA
		DMS
		LGK

SCALE	BOOK	PAGE
HORIZ 1" = 100'		
VERT		

Hakanson Anderson Assoc., Inc.
 Engineers, Surveyors & Landscape Architects
 222 Monroe Street, Anoka, Minnesota 55303
 612/427-5860

SIGNAGE AND STRIPING
 CSAH #26 BETWEEN CR #85
 AND MARTIN LAKE DRIVE
 ANOKA COUNTY
 CP 93-11-26
 DATE: 6/14/93 FILE NO. 1251.06

SHEET	OF	SHEETS
12	12	12