

PLAN SYMBOLS

- COUNTY LINE
- TOWNSHIP OR RANGE LINE
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- RIGHT OF WAY LINE
- SLOPE CASSEMENT
- PRESENT RIGHT OF WAY
- PROPERTY LINE
- CORPORATE OR CITY LIMITS
- RETAINING WALL
- RAILROAD
- RAILROAD RIGHT OF WAY
- RIVER OR CREEK
- DRAINAGE DITCH
- CULVERT
- DROP INLET
- GAULD RAIL
- BARBED WIRE FENCE
- WOVEN WIRE FENCE
- CHAIN LINK FENCE
- WOOD FENCE
- STONE WALL OR FENCE
- HEDGE

- LOWLAND
- TIMBER
- ORCHARD
- BRUSH
- NURSERY

CATTLE GUARD

OVERPASS (Highway Over)

UNDERPASS (Highway Under)

BRIDGE

BUILDING (One Story Frame)

- F-FRAME C-CONCRETE
- S-STONE T-TILE
- B-BRICK ST-STUCCO

RAILROAD CROSSING BELL

RAILROAD CROSSING GATE

MANHOLE

CATCH BASIN

FIRE HYDRANT

CAST IRON MONUMENT

IRON PIN

GRAVEL PIT

SAND PIT

BORROW PIT

ROCK QUARRY

UTILITY SYMBOLS

POWER POLE LINE

TELEPHONE OR TELEGRAPH POLE LINE

JOINT TELEPHONE & POWER ON POWER POLES

ON TELEPHONE POLES

ANCHOR

STEEL TOWER

STREET LIGHT

PEDESTAL (Cable Terminal)

GAS MAIN

WATER MAIN

TELEPHONE CABLE IN CONDUIT

ELECTRIC CABLE IN CONDUIT

TELEPHONE MANHOLE

ELECTRIC MANHOLE

BURIED TELEPHONE CABLE

BURIED ELECTRIC CABLE

AERIAL TELEPHONE CABLE

SEWER (Sanitary or Storm)

SEWER MANHOLE

SCALES

(IN METERS)

PLAN

PROFILE

HORIZONTAL

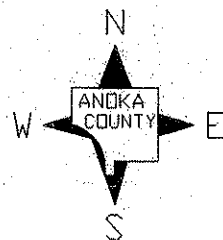
VERTICAL

X-SECTIONS

HORIZONTAL

VERTICAL

INDEX MAP



ANOKA COUNTY HIGHWAY DEPARTMENT

CONSTRUCTION PLAN FOR GRADING, DRAINAGE, AGGREGATE BASE, AND BITUMINOUS SURFACING.

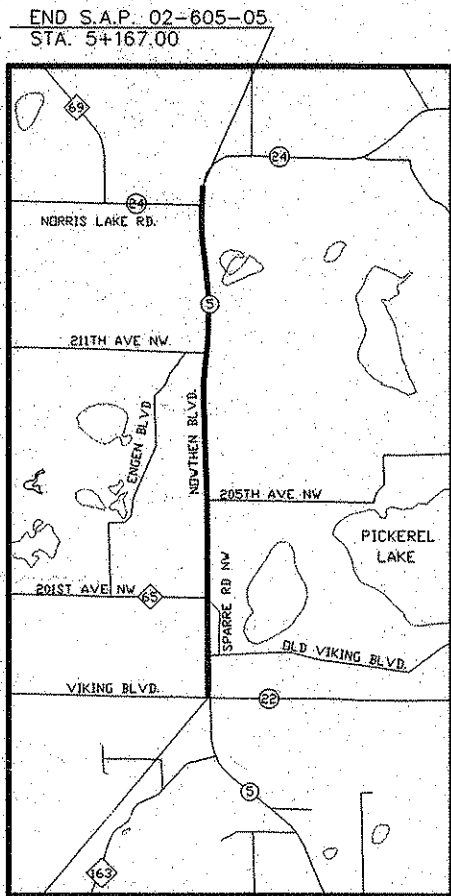
LOCATED ON C.S.A.H. 5 (NOWTHEN BLVD.) BETWEEN C.S.A.H. 22 (VIKING BLVD.) AND C.S.A.H. 24 (NORRIS LAKE BLVD.) (Geographic Description)

FROM A POINT BEING THE N.W. COR. SEC. 28, T.33 N., R.25 W. TO A POINT 151.087 m N. & 0.742 m E. OF THE W.1/4 COR. OF SEC. 9, T.33 N., R.25 W. (Legal Description)

CONSTRUCTION

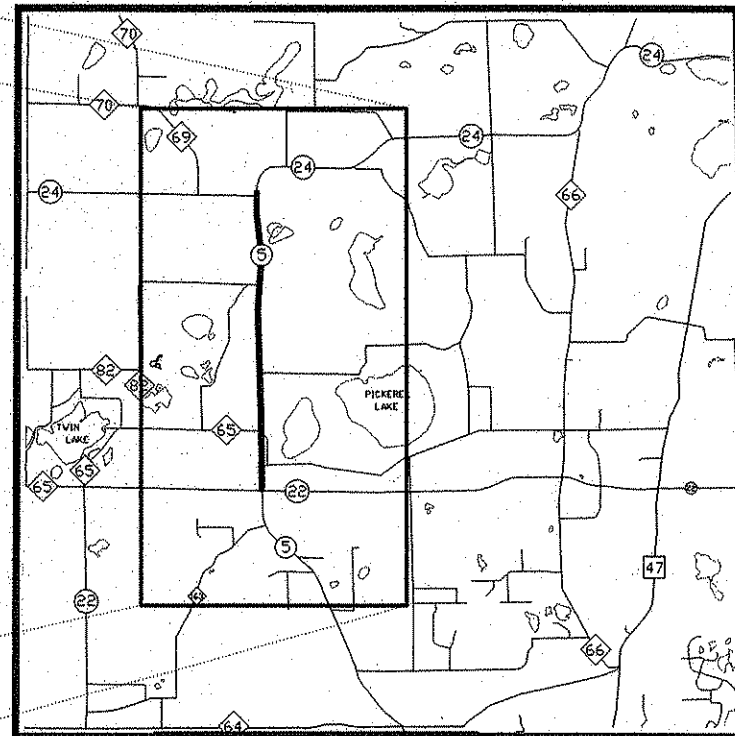
STATE AID PROJ. NO. 02-605-05

GROSS LENGTH	4161.00	m	4.161	km
BRIDGES-LENGTH		m		km
EXCEPTIONS-LENGTH		m		km
NET LENGTH	4161.00	m	4.161	km



BEGIN S.A.P. 02-605-05 STA. 1+006.00

VICINITY MAP



INDEX MAP

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

GOVERNING SPECIFICATIONS

THE 1995 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.
ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MMUTCD, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS-APRIL 1995"

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES
3 - 5	TABULATION CHARTS
6	EARTHWORK SUMMARY & CONSTRUCTION NOTES
7 - 8	EROSION CONTROL DETAILS
9 - 10	TYPICAL SECTIONS
11 - 16	EXISTING CONDITIONS AND REMOVAL PLAN
17	SUPERELEVATION CHARTS
18 - 29	PLAN AND PROFILE
30	DETENTION POND
31 - 33	EARTHWORK QUANTITIES
34 - 51	CROSS-SECTION
52	SHORT TERM ROAD CLOSURES
53 - 54	DETOUR PLANS

THIS PLAN CONTAINS 54 SHEETS

DESIGN DESIGNATION

EN1820 420,412
R VALUE 55
ADT (1998) = 1955
Proj. ADT (2018) = 3324
Proj. HCADT (2018) = 250
Soil Factor
9.1 METRIC TON DESIGN
Shoulder Width 2.4 m
Functional Classification ARTERIAL (LOW DENSITY)
No. of Traffic Lanes 2 No. of Parking Lanes 0
Design Speed 90 km/h
Based on Stopping Sight Distance 170 m
Height of eye 1070mm Height of object 150mm
Design Speed not achieved at: N/A
STA. TO STA. MPH
STA. TO STA. MPH
STA. TO STA. MPH

Approved 5/4/98 [Signature] ANOKA COUNTY ENGINEER

Recommended for Approval [Signature] METRO-ASSISTANT DIVISION ENGINEER-STATE AID DATE: 5/5/98
REVIEWED FOR COMPLIANCE WITH STATE AID RULES/POLICY.

Approved [Signature] APPROVED FOR STATE AID FUNDING: STATE AID ENGINEER DATE: 5/5/98

NO	DATE	BY	CHKD	APPR	REVISION



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
[Signature]
DATE 5/1/98 REG. NO. 20235

DRAWN BY _____ DATE _____
DESIGN BY _____ DATE _____
CHECKED BY _____ DATE _____



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

TITLE SHEET
Sheet 1 of 54 Sheets

CLEARING AND GRUBBING (A)						
STATION - STATION	LOCATION	CLEARING		GRUBBING		
		TREE	ha	TREE	ha	
1+374 - 1+398	13 m-18.25 m LT.		0.04		0.04	
1+468	11m RT.	3		1		
1+476	11m RT.	1		1		
1+478	13m RT.	1		1		
1+467 - 1+499	11 m-18.25 m LT.		0.02		0.02	
1+524 - 1+564	14 m-18.25 m LT.		0.04		0.04	
1+522 - 1+604	13 m-18.25 m RT.		0.10		0.10	
1+692 - 1+761	10 m-18.25 m RT.		0.10		0.10	
1+777	17 m RT.	1		1		
1+779	16 m RT.	1		1		
1+782	17 m RT.	1		1		
1+786	16 m RT.	1		1		
1+789	16 m RT.	1		1		
1+790	13 m RT.	1		1		
1+791	11 m RT.	1		1		
1+792	16 m RT.	1		1		
1+794	15 m RT.	1		1		
1+795	11 m RT.	1		1		
1+796	11 m RT.	1		1		
1+797	16 m RT.	1		1		
1+799	13 m RT.	1		1		
1+797 - 1+822	10 m-18.25 m RT.		0.04		0.04	
2+299 - 2+311	12 m-18.25 m LT.		0.02		0.02	
2+324 - 2+333	11 m-18.25 m LT.		0.02		0.02	
2+420	15 m LT.	4		1		
2+542	17 m RT.	1		1		
2+543	13 m RT.	1		1		
2+545	15 m RT.	1		1		
2+547	13 m RT.	1		1		
2+552	17 m RT.	4		1		
2+557	17 m RT.	1		1		
2+559	11 m RT.	1		1		
2+569	11 m RT.	1		1		
2+574	11 m RT.	1		1		
2+579	11 m RT.	1		1		
2+586	11 m RT.	3		1		
2+590	14 m RT.	1		1		
2+876 - 2+946	15 m-18.25 m LT.		0.02		0.02	
3+249	12 m LT.	1		1		
3+251	12 m LT.	1		1		
3+253	12 m LT.	1		1		
3+317	17 m LT.	4		1		
3+376 - 3+394	15 m-18.25 m LT.		0.02		0.02	
3+385 - 3+395	17 m-18.25 m RT.		0.02		0.02	
3+424 - 3+457	15 m-18.25 m LT.		0.04		0.04	
3+403	14 m RT.	1		1		
3+534	13 m LT.	1		1		
3+537	12 m LT.	1		1		
3+545	11 m LT.	1		1		
3+555	10 m LT.	1		1		
3+563	10 m LT.	1		1		
3+572	10 m LT.	1		1		
3+578	11 m LT.	1		1		
3+590	10 m LT.	1		1		
3+601	11 m LT.	1		1		
3+609	11 m LT.	1		1		
3+621	11 m LT.	1		1		
3+629	11 m LT.	1		1		
3+645	11 m LT.	1		1		
3+654	12 m LT.	1		1		
3+671	11 m LT.	1		1		
3+679 - 3+697	10 m-13 m LT.	10		10		
3+707 - 3+738	12 m-14 m LT.		0.02		0.02	
3+754	13 m LT.	5		1		
3+776	13 m LT.	1		1		
3+782 - 3+796	15 m-17 m LT.	7		7		
3+837	17 m LT.	0		1		
3+858	15 m LT.	1		1		
3+858 - 3+880	15 m-18.25 m LT.		0.02		0.02	
3+887 - 3+926	13 m-18.25 m RT.		0.04		0.04	
3+945	16 m LT.	1		1		
3+957	12 m-14 m RT.	3		3		
3+987	13 m RT.	1		1		
3+960 - 3+984	14 m-18.25 m RT.		0.02		0.02	
3+966	14 m LT.	0		1		
3+998	11 m RT.	0		1		
4+002 - 4+037	14 m-18.25 m RT.		0.04		0.04	
4+046 - 4+121	8 m-18.25 m RT.		0.10		0.10	
4+139	11 m RT.	1		1		
4+169	12 m RT.	1		1		
4+175	13 m RT.	0		1		
4+213 - 4+276	10 m-18.25 m RT.		0.10		0.10	
4+414	11 m RT.	1		1		
4+433 - 4+477	8 m-12 m RT.	31		34		
4+448	14 m LT.	0		1		

CLEARING AND GRUBBING (A)						
STATION - STATION	LOCATION	CLEARING		GRUBBING		
		TREE	ha	TREE	ha	
4+453	13 m LT.	0		1		
4+457	17 m LT.			1		
4+460	13 m LT.	1		1		
4+462	13 m LT.	1		1		
4+463	17 m LT.	1		1		
4+466	13 m LT.	3		1		
4+481	17 m RT.	1		1		
4+485	11 m RT.	1		1		
4+487 - 4+499	11 m-18.25 m LT.		0.02		0.02	
4+497 - 4+509	14 m-17 m RT.	7		8		
4+551	11 m RT.	6		1		
4+561	10 m RT.	6		1		
4+567	10 m RT.	6		1		
4+576	11 m RT.	6		1		
4+598	10 m RT.	6		1		
4+807	14 m RT.	1		1		
4+837	12 m RT.	1		1		
4+845	10 m RT.	1		1		
4+847	10 m RT.	2		1		
4+854 - 4+921	10 m-18.25 m RT.		0.10		0.10	
TOTAL		176	0.94	141	0.94	

BITUMINOUS REMOVAL (D)			
STATION-STATION	LOCATION	DESCRIPTION	m ²
1+377.30 - 1+710	3.65 m LT & RT	MAINLINE	2617.94
1+710 - 2+070	3.65 m LT & RT	MAINLINE	2679.45
2+070 - 2+430	3.65 m LT & RT	MAINLINE	2710.18
2+430 - 2+790	3.65 m LT & RT	MAINLINE	2651.68
2+790 - 3+150	3.65 m LT & RT	MAINLINE	2595.28
3+150 - 3+510	3.65 m LT & RT	MAINLINE	2640.68
3+510 - 3+870	3.65 m LT & RT	MAINLINE	2579.16
3+870 - 4+230	3.65 m LT & RT	MAINLINE	2562.77
4+230 - 4+590	3.65 m LT & RT	MAINLINE	2534.98
4+590 - 4+950	3.65 m LT & RT	MAINLINE	2515.21
4+950 - 5+027.245	3.65 m LT & RT	MAINLINE	558.16
1+803.000	LT	C.S.A.H. 65	304.89
5+006.335	LT	C.S.A.H. 24	244.61
TOTAL			27194.99

MILL BITUMINOUS SURFACE (B)			
STATION	LOCATION	REMARKS	m ²
5+164.000 - 5+167.000	LT - RT	MATCH EXISTING	21.60
1+006.000 - 1+377.000	LT - RT	MILL EDGE	2411.00
TOTAL			2432.60

SAWING BITUMINOUS PAVEMENT (E)			
STATION	LOCATION	REMARKS	m.
1+377.000	LT & RT	MAINLINE	13.44
1+803.654	LT	C.A.S.H. 65	8.74
3+322.123	LT	ENT.	6
5+006.335	LT	C.S.A.H. 24	8
5+027.422 - 5+082.241	RT	MAINLINE	54.82
5+027.422 - 5+157.241	LT	MAINLINE	129.82
TOTAL			220.82

SAWED/SEALED JOINT (C)			
STATION	LOCATION	REMARKS	m
1+377.000 - 5+160.000	LT - RT	EVERY 10 m	4348
TOTAL			4348

SILT FENCE (F)			
STATION	LOCATION	REMARKS	m.
1+408 - 1+653	9m to 16m LT		245
1+950 - 2+011	14m RT		61
1+951 - 2+116	15m LT		65
2+171 - 2+293	15m RT		160
2+185 - 2+344	15m LT		122
2+406 - 2+453	17m LT		47
2+769 - 2+916	14m LT		148
3+318 - 3+532	15m RT		214
3+326 - 3+543	15m LT		217
3+888 - 3+964	13m to 18m LT		74
4+073 - 4+112	17m RT		43
4+076 - 4+121	17m LT		48
4+326 - 4+393	17m LT		67
TOTAL			1511

NO	DATE	BY	CKD	APPR	REVISION



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

Douglas W. Finch
 DATE 5/1/98 REG. NO. 20235

DRAWN BY _____ DATE _____
 DESIGN BY _____ DATE _____
 CHECKED BY _____ DATE _____

ANOKA COUNTY HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

TABULATION CHARTS
 Sheet 3 of 54

BASE AND BITUMINOUS QUANTITIES CHART

STATION - STATION	LOCATION	DESCRIPTION	BIT. SURFACE CONSTRUCTION		BITUMINOUS				AGGREGATE	
			m ²	DEPTH	WEAR DEPTH	BINDER (1) DEPTH	BASE (1) DEPTH	TACK COAT liter	BASE CL-5A m ³	
1+377.266 - 1+484.115	3.6 m LT & RT	MAINLINE	769.31	74		87	110	376	85	
1+377.266 - 1+484.115	7.2 m LT	BY-PASS LANE	384.66	37		42	51	177	58	
1+377.266 - 1+484.115	6 m RT	SHOULDER	256.44	25					60	
1+484.115 - 1+695.221	3.6 m LT & RT	MAINLINE	1519.96	146		171	218	743	167	
1+484.115 - 1+695.221	6 m RT	SHOULDER	506.65	49					118	
1+484.115 - 1+695.221	6 m LT	SHOULDER	506.65	49					118	
1+695.221 - 1+804.162	3.6 m LT & RT	MAINLINE	784.37	75		88	112	368	86	
1+695.221 - 1+804.162	7.2 m RT	BY-PASS LANE	392.19	38		43	52	90	59	
1+695.221 - 1+804.162	6 m LT	SHOULDER	261.46	25		7	8	28	61	
1+804.162 - 1+880.197	3.6 m LT & RT	MAINLINE	547.45	53		62	78	257	60	
1+804.162 - 1+880.197	7.2 m LT	RT TURN LANE	273.73	26		29	36	126	41	
1+804.162 - 1+880.197	7.2 m RT	BY-PASS LANE	273.73	26		29	36	126	41	
1+880.197 - 1+955.197	3.6 m LT & RT	MAINLINE	540.00	52		61	77	254	59	
1+880.197 - 1+955.197	7.2 m LT	RT TURN LANE	270.00	26		29	35	124	41	
1+880.197 - 1+955.197	6 m RT	SHOULDER	180.00	17					42	
1+955.197 - 2+458.031	3.6 m LT & RT	MAINLINE	3620.41	348		407	518	1700	398	
1+955.197 - 2+458.031	6 m RT	SHOULDER	1206.80	116					281	
1+955.197 - 2+458.031	6 m LT	SHOULDER	1206.80	116					281	
2+458.031 - 2+536.689	3.6 m LT & RT	MAINLINE	566.34	54		63	81	266	62	
2+458.031 - 2+536.689	7.2 m RT	RT TURN LANE	283.17	27		30	37	130	43	
2+458.031 - 2+536.689	6 m LT	SHOULDER	188.78	18					44	
2+536.689 - 2+606.706	3.6 m LT & RT	MAINLINE	566.34	48		56	73	237	55	
2+536.689 - 2+606.706	7.2 m RT	RT TURN LANE	188.78	24		27	33	116	38	
2+536.689 - 2+606.706	7.2 m LT	BY-PASS LANE	566.34	24		27	33	116	38	
2+606.706 - 2+718.017	3.6 m LT & RT	MAINLINE	801.44	77		90	114	376	88	
2+606.706 - 2+718.017	7.2 m LT	BY-PASS LANE	400.72	38		43	53	184	60	
2+606.706 - 2+718.017	6 m RT	SHOULDER	267.146	26		5	6	9	62	
2+718.017 - 2+790	3.6 m LT & RT	MAINLINE	518.28	50		58	73	243	57	
2+718.017 - 2+790	6 m RT	SHOULDER	172.76	17					40	
2+718.017 - 2+790	6 m LT	SHOULDER	172.76	17					40	
2+790 - 3+150	3.6 m LT & RT	MAINLINE	2592.00	249		291	371	1217	285	
2+790 - 3+150	6 m RT	SHOULDER	864.00	83		8	10	17	202	
2+790 - 3+150	6 m LT	SHOULDER	864.00	83					202	
3+150 - 3+510	3.6 m LT & RT	MAINLINE	2592.00	249		291	371	1217	285	
3+150 - 3+510	6 m RT	SHOULDER	864.00	83					202	
3+150 - 3+510	6 m LT	SHOULDER	864.00	83					202	
3+510 - 3+701.674	3.6 m LT & RT	MAINLINE	1380.06	132		155	197	648	152	
3+510 - 3+701.674	6 m RT	SHOULDER	460.02	44					107	
3+510 - 3+701.674	6 m LT	SHOULDER	460.02	44					107	
3+701.674 - 3+807.829	3.6 m LT & RT	MAINLINE	764.32	73		85	109	359	84	
3+701.674 - 3+807.829	7.2 m RT	BY-PASS LANE	382.16	37		42	51	176	58	
3+701.674 - 3+807.829	6 m LT	SHOULDER	254.77	24		5	6	18	59	
3+807.829 - 3+891.775	3.6 m LT & RT	MAINLINE	604.41	58		67	86	283	66	
3+807.829 - 3+891.775	7.2 m LT	RT TURN LANE	302.21	29		33	40	139	46	
3+807.829 - 3+891.775	7.2 m RT	BY-PASS LANE	302.21	29		33	40	139	46	
3+891.775 - 3+966.878	3.6 m LT & RT	MAINLINE	540.74	52		61	62	254	59	
3+891.775 - 3+966.878	7.2 m LT	RT TURN LANE	270.37	26		29	35	124	41	
3+891.775 - 3+966.878	6 m RT	SHOULDER	180.25	17					42	
3+966.878 - 4+230	3.6 m LT & RT	MAINLINE	1894.48	182		213	271	890	208	
3+966.878 - 4+230	6 m RT	SHOULDER	631.49	61					147	
3+966.878 - 4+230	6 m LT	SHOULDER	631.49	61					147	
4+230 - 4+590	3.6 m LT & RT	MAINLINE	2592.00	249		291	371	1217	285	
4+230 - 4+590	6 m RT	SHOULDER	864.00	83					202	
4+230 - 4+590	6 m LT	SHOULDER	864.00	83					202	
4+590 - 4+897.210	3.6 m LT & RT	MAINLINE	2211.92	212		249	316	1038	243	
4+590 - 4+897.210	6 m RT	SHOULDER	737.30	71					172	
4+590 - 4+897.210	6 m LT	SHOULDER	737.30	71					172	
4+897.210 - 5006.335	3.6 m LT & RT	MAINLINE	785.70	75		88	112	369	86	
4+897.210 - 5006.335	7.2 m RT	BY-PASS LANE	392.85	38		43	52	180	59	
4+897.210 - 5006.335	6 m LT	SHOULDER	261.90	25		7	8	27	61	
5+006.335 - 5+027.242	3.6 m LT & RT	MAINLINE	150.55	14		17	22	71	17	
5+006.335 - 5+027.242	7.2 m RT	BY-PASS LANE	75.28	7		8	10	35	11	
5+006.335 - 5+027.242	7.2 m LT	RT TURN LANE	75.28	7		8	10	35	12	
5+027.242 - 5+082.241	7.2 m RT	BY-PASS LANE	197.99	19		22	29	92	31	
5+027.242 - 5+082.241	7.2 m LT	RT TURN LANE	197.99	19		22	29	92	31	
5+082.241 - 5+157.241	7.2 m RT	RT TURN LANE	270.00	26		30	39	126	41	
5+082.241 - 5+157.241	6 m LT	SHOULDER	180.00	17					42	
5+157.241 - 5+167.000	6 m RT	SHOULDER	23.42	2					5	
5+157.241 - 5+167.000	6 m LT	SHOULDER	23.42	2					5	
1+803.65	22 m LT	CSAH 65	293.00	12		13	14	138	38	
1+689.00	12 m RT	SPARRE RD	114	4		6	7	52	16	
2+607.13	10 m RT	205th AVE	120.00	5		6	8	57	18	
3+007.73	10 m RT	207th AVE	78.00	3		4	5	37	12	
3+807.83	10 m LT	211th AVE	120.00	5		6	8	57	17	
5+006.33	20 m LT	CSAH 24	285.00	11		13	18	134	37	
1+006.00 - 1+377.00	7 m RT & LT	MAINLINE OVERLAY	5363.00	579					5	
5+157.241 - 5+167.000	3.6 m LT & RT	MAINLINE OVERLAY	1000.00	108					5	
TOTALS			47532	5164		3600	4541	15284	7245	

① INCLUDES AN ADDITIONAL 5 mm THICKNESS TO THE PLANNED QUANTITY.

CULVERT TABULATION

STATION	LOC	INPLACE	REMARKS	REMOVE CULV. PIPE	FURNISH AND INSTALL						EROSION BLANKET CULV. PIPE		
					375mm CMP	450mm CMP	600mm RCP	1500mm RCP	m ²				
1+400	LT	375 mm X 12.35 m CMP	FIELD ENTRANCE	12.35	14	2				14			
1+614	C/L	450 mm X 18.83 m CMP	C/L PIPE CROSSING	18.83			19	2		24			
1+689	RT		SPARRE RD.			16	2						
1+773	LT	300 mm X 9.54 m CMP	FIELD ENTRANCE	9.54									
1+826	RT	375 mm X 7.41 m CMP	FIELD ENTRANCE	7.41	14	2				14			
1+859	RT	375 mm X 9.47 m CMP	FIELD ENTRANCE	9.47	14	2				14			
1+983	C/L	450 mm X 14.25 m CMP	C/L PIPE CROSSING	14.25			19	2		24			
2+037	RT	300 mm X 6.93 m CMP	FIELD ENTRANCE	6.93	14	2				14			
2+062	LT	375 mm X 9.19 m CMP	FIELD ENTRANCE	9.19	14	2				14			
2+203	C/L	300 mm X 15.75 m CMP	C/L PIPE CROSSING	15.75			19	2		24			
2+293	RT	375 mm X 5.56 m CMP	FIELD ENTRANCE	5.56	14	2				14			
2+472	RT	375 mm X 8.97 m CMP	FIELD ENTRANCE	8.97	14	2				14			
2+757	LT	375 mm X 9.24 m CMP	DRIVEWAY	9.24	15	2				14			
2+872	C/L	450 mm X 15.75 m CMP	C/L PIPE CROSSING	15.75			19	2		24			
2+976	LT	375 mm X 7.72 m CMP	FIELD ENTRANCE	7.72	14	2				14			
3+009	LT	375 mm X 17.70 m CMP	DRIVEWAY	17.70									
3+145	RT	375 mm X 12.56 m CMP	FIELD ENTRANCE	12.56	14	2				14			
3+225	LT		FIELD ENTRANCE		14	2							
3+322	LT		FIELD ENTRANCE		14	2							
3+408	C/L	450 mm X 13.98 m CMP	C/L PIPE CROSSING	13.98			20	2		24			
3+552	RT	375 mm X 11.81 m CMP	FIELD ENTRANCE	11.81	14	2				14			
3+674	RT		FIELD ENTRANCE		18	2							
3+763	LT		FIELD ENTRANCE		14	2				14			
3+952	RT	300 mm X 12.90 m CMP	DRIVEWAY	12.90	15	2				14			
3+957	RT		FIELD ENTRANCE		14	2				14			
3+992	RT	300 mm X 12.31 m CMP	DRIVEWAY	12.31	14	2				14			
4+042	RT	375 mm X 12.35 m CMP	DRIVEWAY	12.35	14	2				14			
4+102	C/L	1525 mm X 31.00 m CMP	C/L PIPE CROSSING	31.00					26.8	2			
4+104	C/L	1825 mm X 33.36 m CMP	C/L PIPE CROSSING	33.36					26.8	2			
4+132	RT		FIELD ENTRANCE		14	2				14			
4+195	RT		DRIVEWAY		15	2				14			
4+243	LT	375 mm X 11.83 m CMP	FIELD ENTRANCE	11.83	14	2				14			
4+259	RT	375 mm X 12.50 m CMP	DRIVEWAY	12.50									
4+379	RT	375 mm X 16.40 m CMP	DRIVEWAY	16.40	16	2				14			
4+391	LT	300 mm X 10.71 m CMP	FIELD ENTRANCE	10.71	14	2				14			
4+428	RT		FIELD ENTRANCE		14	2				14			
4+489	RT	300 mm X 11.33 m CMP	DRIVEWAY	11.33									
4+500	LT	300 mm X 11.56 m CMP	DRIVEWAY	11.56	14	2				14			
4+517	RT		FIELD ENTRANCE		18	2				14			
4+526	C/L	450 mm X 21.86 m CMP	C/L PIPE CROSSING	21.86			25	2		24			
4+611	RT	300 mm X 9.44 m CMP	FIELD ENTRANCE	9.44	14	2				14			
4+843	RT		FIELD ENTRANCE		14	2				14			
4+935	RT	300 mm X 9.25 m CMP	DRIVEWAY	9.25	14	2				14			
TOTALS				423.81	433	60	16	2	121	12	53.6	4	536

FENCE CONSTRUCTION AND REMOVAL

STATION-STATION	LOCATION	SALVAGE	REMOVE	INSTALL	TEMPORARY	REMARKS
2+616 - 2+790	14.80 m - 13.47 m RT	174	10	174		
2+790 - 2+829	13.47 m - 15.39 m RT	39	3	39		
2+829 - 3+003	15.39 m - 15.11 m RT	174	6	174		
3+408 - 3+699	15.39 m - 15.11 m RT	291	6	285		
3+540 - 3+700	15.00 m - 15.00 m LT	160	6	160		
3+699 - 3+759	16.37 m - 16.83 m LT	60	3	60		
3+765 - 3+796	17.11 m - 18.94 m LT	31	1	31		
3+820 - 3+986	16.23 m - 12.78 m LT	166	7.5	166		
3+996 - 4+061	12.71 m - 11.78 m LT					

ENTRANCES REMOVAL AND CONSTRUCTION CHART (J)

STATION	ADDRESS	LOCATION	DESCRIPTION	REMOVAL		REPLACEMENT		REMOVAL			REPLACEMENT			
				LENGTH	WIDTH	LENGTH	WIDTH	CONC.	BIT.	AGREGATE	CONC.	BIT.	100mm	AGREGATE
				m	m	m	m	m ²	m ²	m ²	m ²	m ²	m ²	m ²
1+400	PARCEL 1	LT.	FIELD ENT.	3	3	11	3.6							
1+773	PARCEL 2	LT.	FIELD ENT.	3	3	12	3.6							
1+826	PARCEL 8	RT.	DRIVEWAY	3	3	10	3.6					29	27	2.7
1+859	PARCEL 8	RT.	DRIVEWAY	3	3	10	3.6					29	27	2.7
2+037	PARCEL 10	RT.	FIELD ENT.	3	3	10	3.6						48	4.8
2+062	PARCEL 3	LT.	FIELD ENT.	3	3	10	3.6						50	5
2+301	PARCEL 11	RT.	FIELD ENT.	3	3	10	3.6						50	5
2+472	PARCEL 11	RT.	FIELD ENT.	3	3	10	5.5						50	5
2+757	20580	LT.	DRIVEWAY	10	4	7	3.6			50		29	27	5
2+776	PARCEL 15	LT.	FIELD ENT.	3	3	10	3.6						50	5
3+009	PARCEL 16	LT.	DRIVEWAY	10	5	10	4.0			12		29	30	3
3+145	PARCEL 25	RT.	FIELD ENT.	3	3	10	3.6						44	4.4
3+225	PARCEL 16	LT.	FIELD ENT. NEW	3	3	10	3.6						30	3
3+322	PARCEL 17	LT.	DRIVEWAY	7	6	5	4.5					29	34	3.4
3+552	PARCEL 27	LT.	FIELD ENT.	3	3								50	5
3+670	PARCEL 27	RT.	FIELD ENT.			10	8.0						80	8
3+763	PARCEL 19	LT.	DRIVEWAY	8	5	5	3.6			12		29	27	2.7
3+952	21141	RT.	DRIVEWAY	8	5	5	3.6			12		29	27	2.7
3+990	PARCEL 21	LT.	DRIVEWAY	8	5	5	3.6			12		29	27	2.7
3+992	21155	RT.	DRIVEWAY	8	5	5	3.6			12		29	27	2.7
4+042	PARCEL 30	RT.	DRIVEWAY	8	5	5	3.6			12		29	27	2.7
4+133	PARCEL 30	RT.	FIELD ENT.	3	3	10	3.6						44	4.4
4+195	PARCEL 32	RT.	DRIVEWAY	8	5	5	3.6			12		29	30	3
4+243	PARCEL 33	LT.	FIELD ENT.	3	3	10	3.6						50	5
4+258	PARCEL 39	RT.	DRIVEWAY	8	5	5	3.6			12		29	26	2.6
4+379	PARCEL 40	RT.	DRIVEWAY	8	5	5	3.6			12		29	38	3.8
4+391	PARCEL 34	LT.	FIELD ENT.	3	3	10	3.6						50	5
4+427	21413	RT.	DRIVEWAY	8	5	5	3.6			12		29	34	3.4
4+430	21414	LT.	DRIVEWAY	8	10	5	8.5			40		39	55	5.5
4+489	PARCEL 41	RT.	DRIVEWAY	8	5	5	3.6			12		29	26	2.6
4+500	21414	LT.	DRIVEWAY	8	5	5	3.6			12		29	28	2.8
4+518	PARCEL 42	RT.	DRIVEWAY	8	5	5	3.6			12		29	26	2.6
4+611	PARCEL 42	RT.	DRIVEWAY	8	5	5	3.6			12		29	27	2.7
4+742	PARCEL 37	LT.	FIELD ENT.	3	3	10	3.6						29	2.8
4+843	21611	RT.	DRIVEWAY	8	5	5	3.6			12		29	27	2.7
4+935	PARCEL 44	RT.	DRIVEWAY	8	5	5	3.6			12		29	27	2.7
5+120	PARCEL 45	RT.	FIELD ENT.	3	3	10	3.6						36	3.6
								262			648	1357	136	

TURF ESTABLISHMENT (K)

STA. TO STA.	LOCATION	SOD	BLANKET	SEEDING	SEED	MULCH	FERTILIZER
		m ²	m ²	ho	kg	t	kg
1+377.00 - 5+167.00	RT & LT		536	7.18	360	33	3590
2+535.00 - 2+595.00	RT	660					
2+720.00 - 2+770.00	LT	540					
3+880.00 - 3+920.00	RT	480					
3+960.00 - 3+990.00	RT	360					
4+200.00 - 4+250.00	RT	600					
4+385.00 - 4+425.00	RT	480					
4+430.00 - 4+480.00	RT	600					
4+390.00 - 4+425.00	LT	420					
4+435.00 - 4+485.00	LT	600					
4+490.00 - 4+410.00	RT	240					
4+800.00 - 4+855.00	RT	660					
TOTAL		5640	536	7.18	360	33	3590

* SEE CULVERT TABULATION CHART (H)

RIGHT TURN LANE AND BYPASS LOCATION (L)

STA. TO STA.	LOCATION	REMARKS
1+377.000 - 1+484.115	LT.	BY-PASS LANE
1+705.000 - 1+883.042	RT.	BY-PASS LANE
1+822.901 - 1+955.197	LT.	RIGHT TURN LANE
2+458.032 - 2+593.335	RT.	RIGHT TURN LANE
2+536.689 - 2+718.017	LT.	BY-PASS LANE
3+701.674 - 3+891.775	RT.	BY-PASS LANE
3+794.356 - 3+966.878	LT.	RIGHT TURN LANE
4+897.210 - 5+082.242	RT.	BY-PASS LANE
4+987.250 - 5+157.242	LT.	RIGHT TURN LANE

NO	DATE	BY	CKD	APPR	REVISION



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

Douglas M. [Signature]
DATE 5/1/98 REG. NO. 20235

DRAWN BY _____ DATE _____
DESIGN BY _____ DATE _____
CHECKED BY _____ DATE _____



**ANOKA COUNTY
HIGHWAY DEPT.**

STATE PROJECT NO. _____
STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

TABULATION CHARTS
Sheet 5 of 54 Sheets

EARTHWORK SUMMARY ^(N)

EXCAVATION (EV)

① COMMON EXCAVATION	17,813 m ³	REGULAR	3,346 m ³
		SUBCUT	5,390 m ³
		TOPSOIL	9,158 m ³
② SPECIAL EXCAVATION	11,241 m ³	SEDIMENTATION POND EXCAVATION	10,473 m ³
		SEDIMENTATION POND TOPSOIL REMOVAL	768 m ³
MUCK EXCAVATION	12,577 m ³		

EMBANKMENT (CV)

REGULAR FILL	10,168 m ³
SUBCUT	14,859 m ³
SELECT GRANULAR FILL	12,577 m ³
TOPSOIL	7,187 m ³
MUCK FILL (ROADWAY)	3,265 m ³
MUCK FILL (SEDIMENTATION POND)	2,602 m ³

BALANCE

TOPSOIL

TOPSOIL DRESSING (CV) - [SED. POND TOPSOIL STRIPPING (EV) + REG. TOPSOIL (EV) x SHRINKAGE FACTOR] = EXCESS(-) OR SHORTAGE(+)

7,187 m³ - [9,158 m³ x 0.80] = - 139 m³ (EXCESS)

MUCK

MUCK FILL (CV) - [MUCK EXCAVATION (EV) x SHRINKAGE FACTOR] = EXCESS (-) OR SHORTAGE (+)

5867 m³ - [12,577 m³ x 0.70] = -2973 m³ (EXCESS)

GRANULAR

[REGULAR FILL (CV) + SUBCUT (CV)] - [REGULAR EXCAVATION (EV) x SHRINKAGE FACTOR] - [SUBCUT EXCAVATION (EV) x SHRINKAGE FACTOR] - [SED. POND EXCAVATION (EV) x SHRINKAGE FACTOR] = EXCESS (-) OR SHORTAGE (+)

[10,168 m³ + 14,859 m³] - [3,346 m³ x 0.70] - [5,390 m³ x 0.70] - [10,473 m³ x 0.70] = 25,027 m³ - 2,342 m³ - 3,773 m³ - 7,331 m³ = +11,581 m³ (SHORTAGE)

NOTE:

- EXCAVATION QUANTITIES ARE BASED ON ALL EXISTING BITUMINOUS OR CONCRETE AND BASE MATERIAL (TOTAL BIT. OR CONCRETE & BASE THICKNESS OF 150 mm) (4,173 m³) HAVE BEEN REMOVED DURING REMOVAL OF THE EXISTING ROAD SURFACE AND THEY ARE NOT INCLUDED IN THE EXCAVATION QUANTITIES.
- LIMITS OF SPECIAL EXCAVATION SUBJECT TO BE INCREASED AS DIRECTED BY THE ENGINEER, CONSEQUENTLY REDUCING THE SELECT GRANULAR BORROW QUANTITY.

SOIL FACTORS:

- REGULAR GRADING AND TOPSOIL DRESSING (EV TO CV): 70% SHRINKAGE
- SUBCUT COMPACTION (EV TO CV): 70% SHRINKAGE
- MUCK FILL COMPACTION (EV TO CV): 70% SHRINKAGE
- SELECT GRANULAR BORROW (CV TO LV): 130% SWELL

SOILS AND CONSTRUCTION NOTES

- TOP OF PROFILE GRADE IS DEFINED AS THE TOP OF THE BITUMINOUS WEARING COURSE.
- IN FILL AREAS, THE SUBGRADE SHALL BE CONSTRUCTED WITH SELECTED GRADING MATERIAL.
- SELECTED GRADING MATERIALS SHALL CONSIST OF SELECT GRANULAR MATERIALS.
- GRANULAR MATERIAL, REGARDLESS OF SOURCE, SHALL MEET THE REQUIREMENTS OF SPEC. 3149.2B1.
- SELECT GRANULAR MATERIAL SHALL MEET THE REQUIREMENTS OF SPEC 3149.2B2.
- COMPACTION OF THE GRADING PORTION OF THIS PROJECT SHALL BE BY THE "SPECIFIED DENSITY METHOD".
- TEST ROLLING WILL NOT BE REQUIRED.
- BITUMINOUS AND/OR CONCRETE ITEMS REMOVED BY CONSTRUCTION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL EITHER BE RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF 2104.3C3 WITH NO DIRECT COMPENSATION MADE THEREFORE.
- DISPOSITION OF EXCAVATED MATERIAL SHALL BE IN ACCORDANCE WITH SPEC. 2105.3D WITH NO DIRECT COMPENSATION MADE THEREFORE.
- WHERE MATCHING INTO THE INPLACE ROADWAY AT THE ENDS OF CONSTRUCTION, CUT VERTICALLY TO THE TOP OF THE GRADING SUBGRADE AND THEN AT A 20:1 TAPER TO THE BOTTOM OF THE RECOMMENDED SUBGRADE EXCAVATION.
- WHERE CONNECTING NEW SURFACING TO AN INPLACE PAVEMENT, THE EXCAVATION SHALL BE BACKFILLED PROMPTLY TO AVOID UNDERMINING THE INPLACE PAVEMENT.
- USE TACK COAT BETWEEN ALL BITUMINOUS MIXTURES PRIOR TO PLACING BITUMINOUS MIXTURES AND PRIOR TO PLACING ANY BITUMINOUS MIXTURES ON EXISTING CONCRETE OR BITUMINOUS SURFACES. THE BITUMINOUS TACK COAT MATERIAL SHALL BE APPLIED AT A UNIFORM RATE OF 0.23 L/m² BETWEEN BITUMINOUS LAYERS. THE APPLICATION RATES ARE FOR UNDILUTED EMULSIONS (AS SUPPLIED FROM THE REFINERY); ASPHALT EMULSION MAY BE FURTHER DILUTED IN THE FIELD IN ACCORDANCE WITH SPEC. 2357.
- COMPACTION OF THE BITUMINOUS BASE, BINDER, AND WEAR SHALL BE BY THE "MODIFIED SPECIFIED DENSITY METHOD".
- COMPACTION OF THE AGGREGATE BASE LAYERS SHALL BE BY THE "SPECIFIED DENSITY METHOD".
- IN AREAS TO BE DISTURBED BY CONSTRUCTION, STRIP AND RE-USE AS SLOPE DRESSING ALL TOPSOIL AND INPLACE SLOPE DRESSING. REFER TO THE CROSS-SECTIONS FOR THE LIMITS OF TOPSOIL STRIPPING. GENERAL DEPTHS OF TOPSOIL LAYER ARE ASSUMED TO BE 100 mm.
- SLOPE DRESSING ON THIS PROJECT IS DEFINED AS THE TOPSOIL OR OTHER SOIL PLACED DURING CONSTRUCTION TO PROVIDE A MEDIUM FOR ESTABLISHING TURF.
- PLACE A MINIMUM OF 100 mm TOPSOIL OR SLOPE DRESSING ON ALL AREAS DISTURBED BY CONSTRUCTION AND SCHEDULED FOR PERMANENT TURF ESTABLISHMENT. FERTILIZE WITH COMMERCIAL FERTILIZER, ANALYSIS 10-10-10, AT A RATE OF 500 kg/ha OR EQUIVALENT.
- ON ALL DISTURBED AREAS, USE MIXTURE 90A SEED WITH TYPE 1 MULCH, AND DISK ANCHORING, UNLESS SPECIFIED FOR SOD.
- SOD ALL PERMANENT BOULEVARD AREAS, AND DISTURBED LAWNS.
- ALL SOD UTILIZED WITHIN THE PROJECT LIMITS SHALL MEET THE REQUIREMENTS OF SPEC. 3878.2A (LAWN SOD).
- EXCESS TOPSOIL AND MUCK EXC. MAY BE USED IN EMBANKMENT CONSTRUCTION IN AREAS OUTSIDE OF A 1:1 1/2 SLOPE FROM THE GRADING SHOULDER P.I.
- EXISTING STABILIZED SUBGRADE MUST BE PULVERIZED PRIOR TO USE AS EMBANKMENT MATERIAL.
- GEOTEXTILE FABRIC SHALL BE UTILIZED, WHEN DIRECTED BY THE ENGINEER, IN AREAS WHERE THE SUBCUT AND SUBGRADE EXCAVATION OPERATIONS ENCOUNTER UNSUITABLE UNDERLYING SUBSOILS. THE FABRIC SHALL BE PLACED AND MEET THE REQUIREMENTS AS PROVIDED IN THE SPECIAL PROVISIONS.
- EXCESS MUCK EXCAVATION TO BE DISPOSED OF BY THE CONTRACTOR OUTSIDE OF THE RIGHT-OF-WAY LIMITS AS APPROVED BY THE ENGINEER.
- BITUMINOUS REMOVAL QUANTITY BASED ON 150 mm BITUMINOUS SURFACING. CONTRACTOR SHALL INVESTIGATE AND MAKE THEIR OWN DETERMINATION OF ACTUAL PAVEMENT DEPTH.

② SELECT GRANULAR BORROW = [SELECT GRANULAR FILL (CV) + GRANULAR SHORTAGE (CV)] x SWELL FACTOR

[12,577 m³ + 11,581 m³] x 1.3 = 31,405 m³(LV)

1	4-24-98	PL	KJ	DF	EARTHWORK QUAN.
NO	DATE	BY	CKD	APPR	REVISION



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

Douglas M. Jensen
DATE 5/1/98 REG. NO. 20235

DRAWN BY _____ DATE _____
DESIGN BY _____ DATE _____
CHECKED BY _____ DATE _____

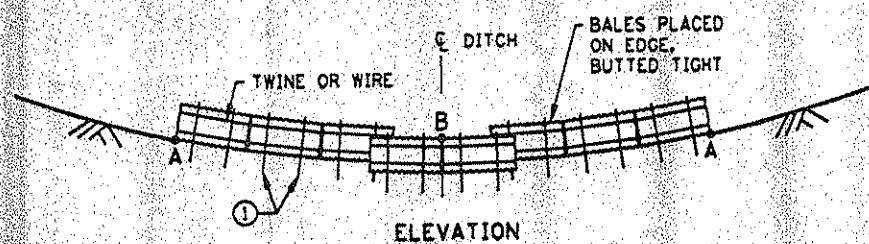
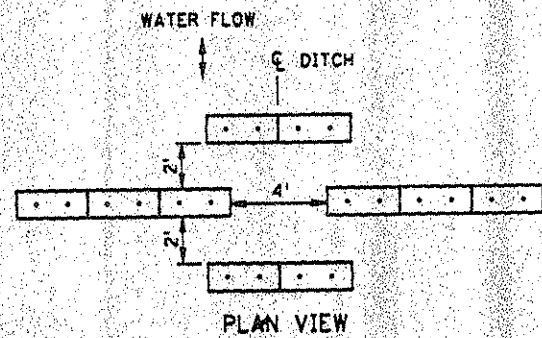


**ANOKA COUNTY
HIGHWAY DEPT.**

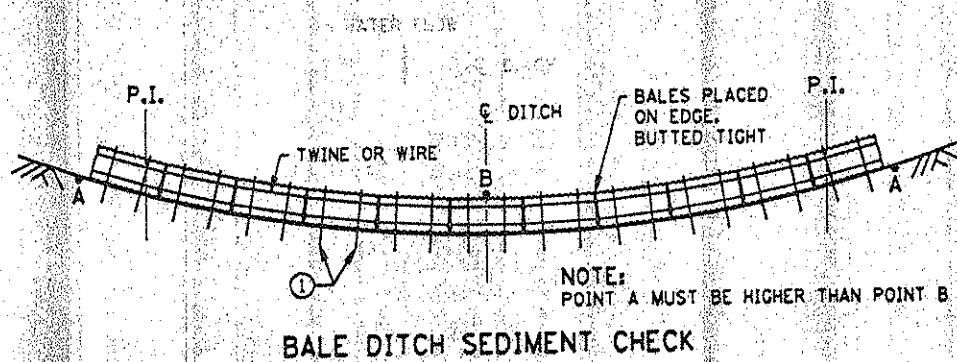
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STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

**EARTHWORK
SUMMARY AND
CONSTRUCTION NOTES**

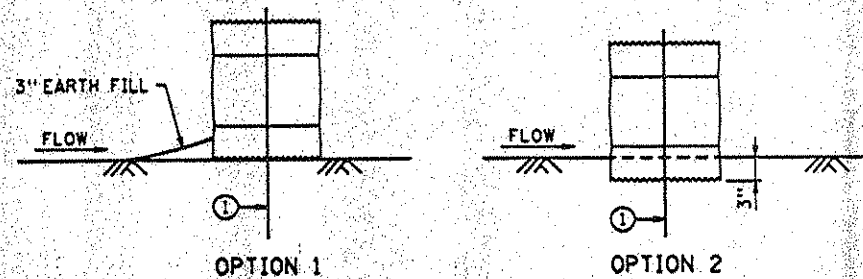
Sheet 6 of 54 Sheets



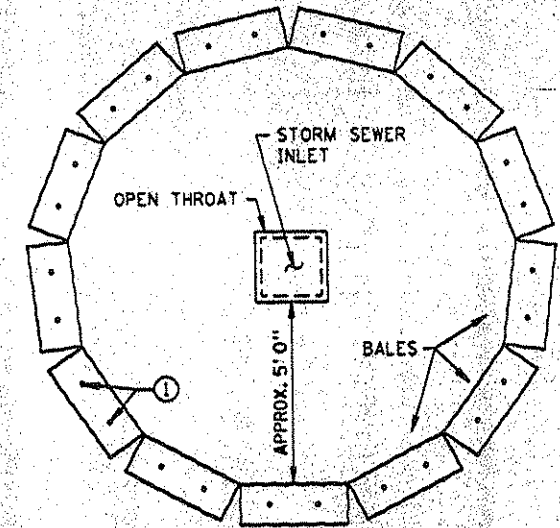
NOTE:
POINT A MUST BE HIGHER THAN POINT B
BALE DITCH VELOCITY CHECKS
(WILL REQUIRE A MINIMUM OF 10 BALES PER SITE)



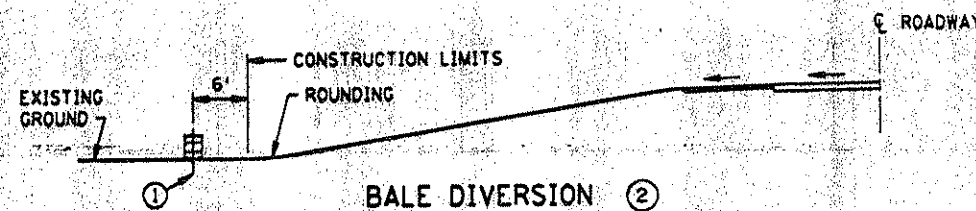
NOTE:
POINT A MUST BE HIGHER THAN POINT B
BALE DITCH SEDIMENT CHECK



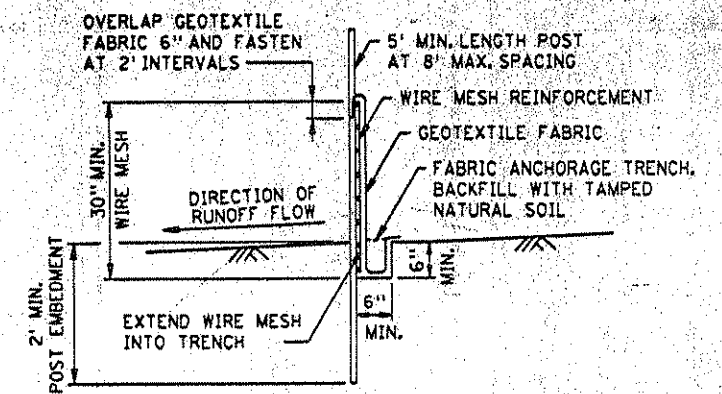
BALE CHECK DETAILS



BALE CHECK TO PROTECT STORM SEWER INLETS



BALE DIVERSION ②



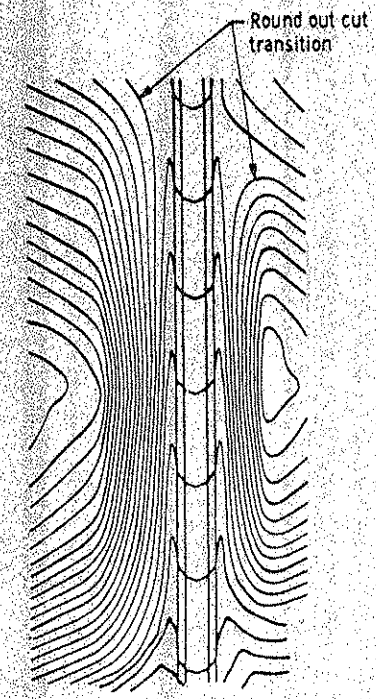
SILT FENCE DETAIL

RECOMMENDED SPACING BETWEEN BALE DITCH CHECKS	
DITCH GRADE (%)	SPACING (FT.)
2	100
4	75
6	50
8	40
10	25

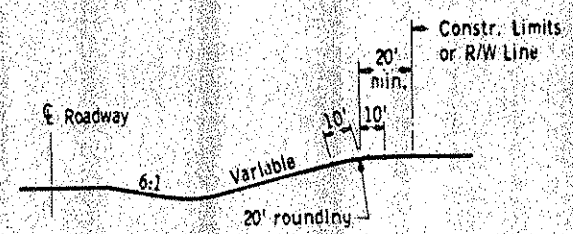
NOTE:
① TWO 2" X 2" WOOD STAKES OR REINFORCING BARS IN EACH BALE AND EMBEDDED IN THE GROUND 10" MINIMUM.
② SILT FENCE MAY ALSO BE USED AS A DEVIATION DEVICE.

FILE NAME: S4052493.SPN

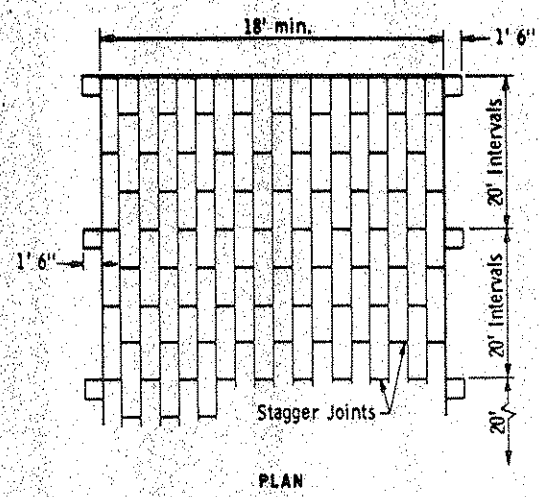
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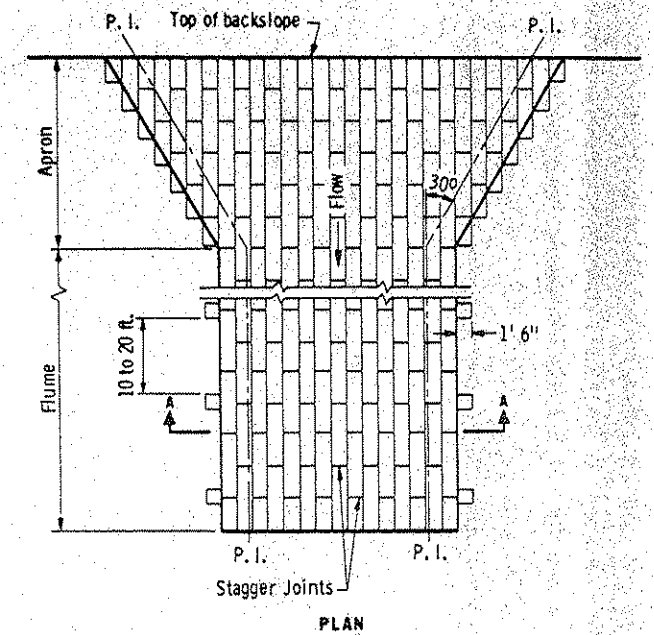
CONTOURING ROAD CUTS



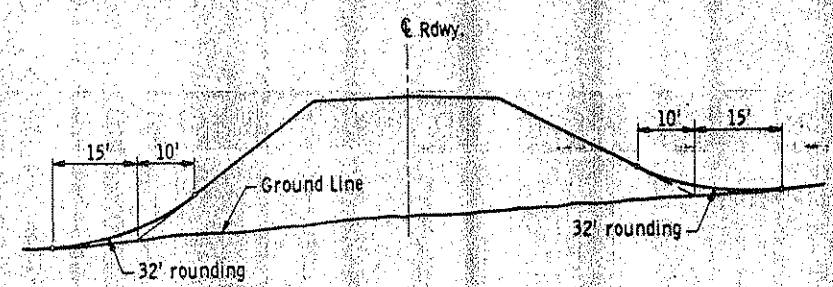
ROUNDING BACK SLOPES



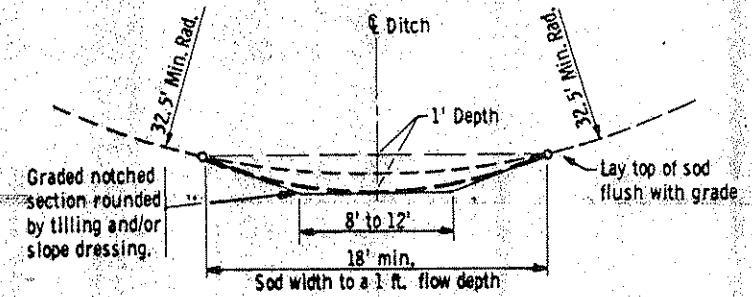
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PLAN

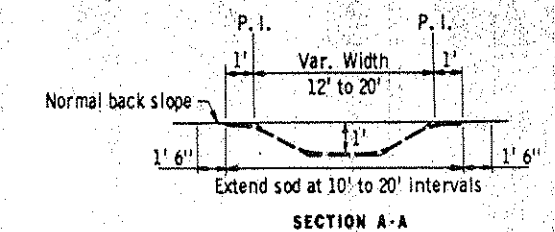


SHAPING FOR DRAINAGE ALONG THE TOE OF FILL SLOPES

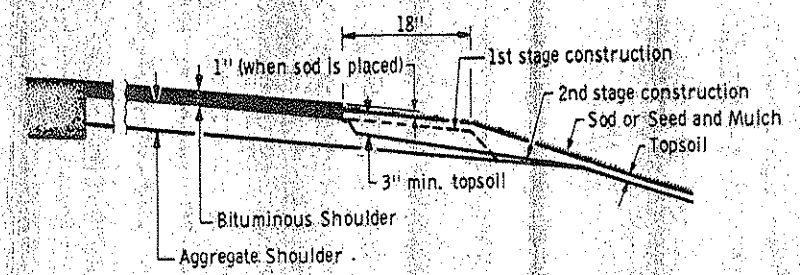


SODDED DITCH CROSS SECTION

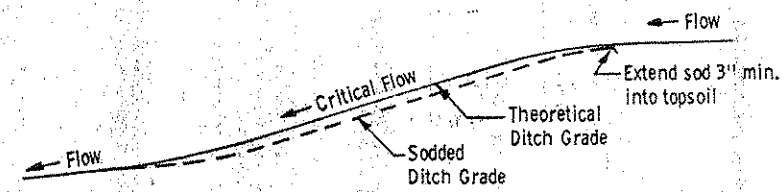
Ditches having a minimum radius of 32.5 feet and requiring sod shall be constructed according to the above details. Where ditch radius is less than 32.5 feet, notching is not required. Sod a minimum of 18 feet in width.



SECTION A-A



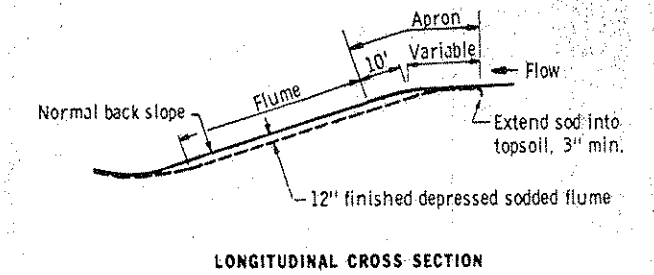
SHAPING AND TOPSOILING INSLOPES



DITCH PROFILE

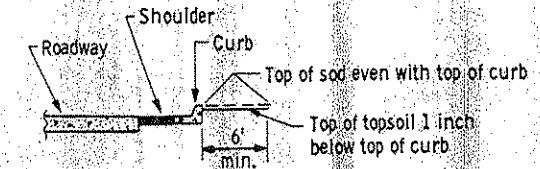
NOTE: APPLIES TO DITCH GRADES 2.0% OR GREATER.

SODDED DITCH DETAILS



LONGITUDINAL CROSS SECTION

SODDED FLUME DETAILS



SHAPING ADJACENT TO CURBS WHEN SOD IS PLACED

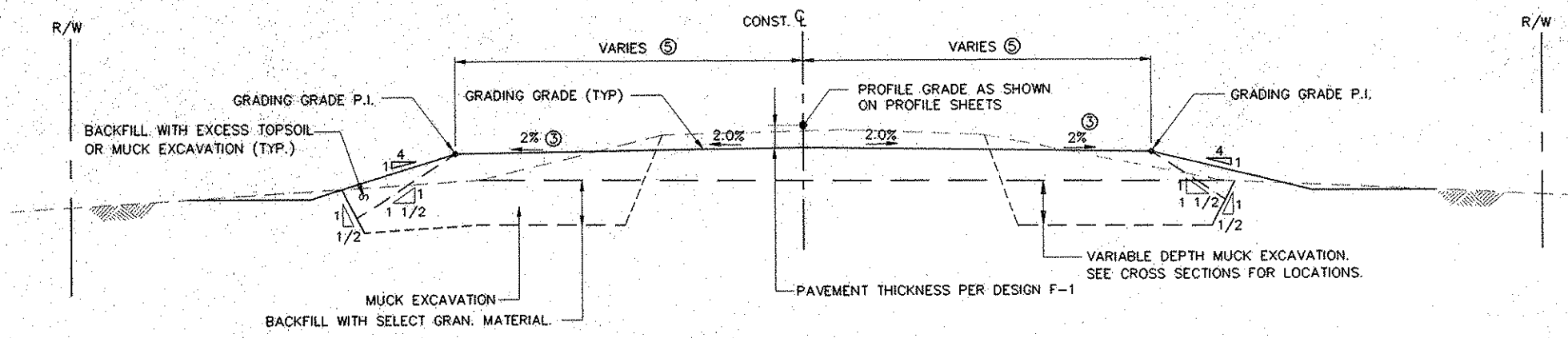
APPROVED Dec. 17, 1974
Donald E. Eitel
Engineering Standards Engineer
MATERIALS RESEARCH AND STANDARDS DIVISION

CERTIFIED BY: *Donald E. Eitel* FE. REG. No. 20235

5/1/98

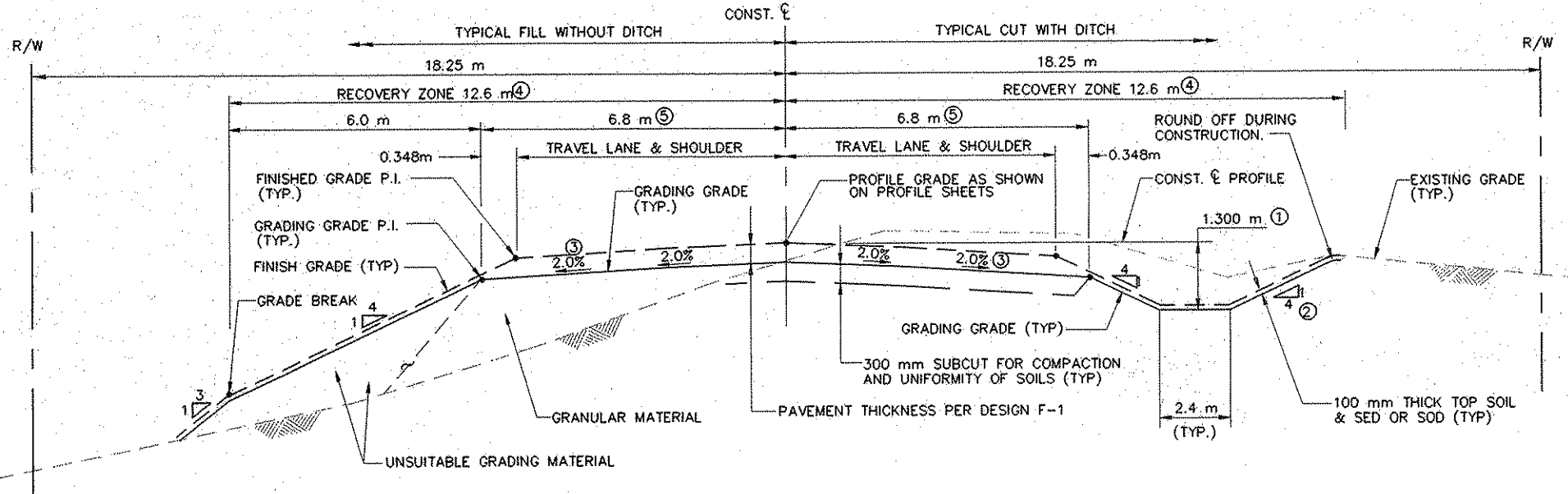
- ① FOR SPECIAL DITCHES SEE PROFILE SHEETS AND CROSS SECTIONS
- ② SEE CROSS SECTIONS FOR MODIFIED BACK SLOPE
- ③ GRADING SLOPE IN RIGHT TURN / BY-PASS LANE TO MATCH FINISH LANE SLOPE
- ④ ALL UTILITY POLES AND UNYIELDING OBJECTS SHALL BE REMOVED AND RELOCATED OUTSIDE THE RECOVERY AREA.
- ⑤ 7.85 m IN RIGHT TURN / BY-PASS LANE

MUCK EXCAVATION

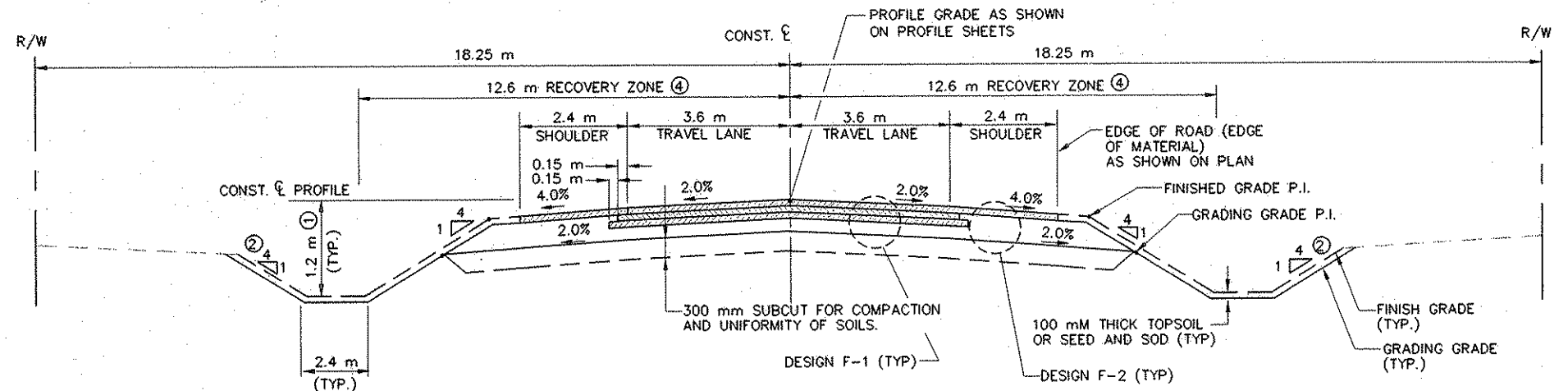


TYPICAL GRADING SECTION

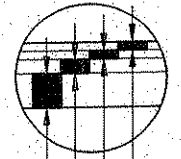
STA. 1+377 TO STA. 5+027



**BASE AND BITUMINOUS SECTION
TYPICAL TWO LANES WITH SHOULDERS**

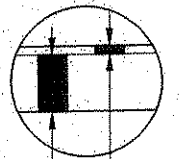


**DESIGN F-1
(ALL TRAVEL LANES)**



40 mm TYPE MV 4 WEARING COURSE MIXTURE-SPEC. 2350
BITUMINOUS MIXTURE DESIGNATION: MVWE45035B
40 mm TYPE MV 3 NON WEARING COURSE MIXTURE-SPEC. 2350
BITUMINOUS MIXTURE DESIGNATION: MVNW35035B
50 mm TYPE LV 3 NON WEARING COURSE MIXTURE-SPEC. 2350
BITUMINOUS MIXTURE DESIGNATION: LVNW35030B
110 mm AGGREGATE BASE CLASS 5A-SPEC. 2211
TACK COAT-SPEC. 2357, TO BE APPLIED BETWEEN ALL BITUMINOUS LIFTS.

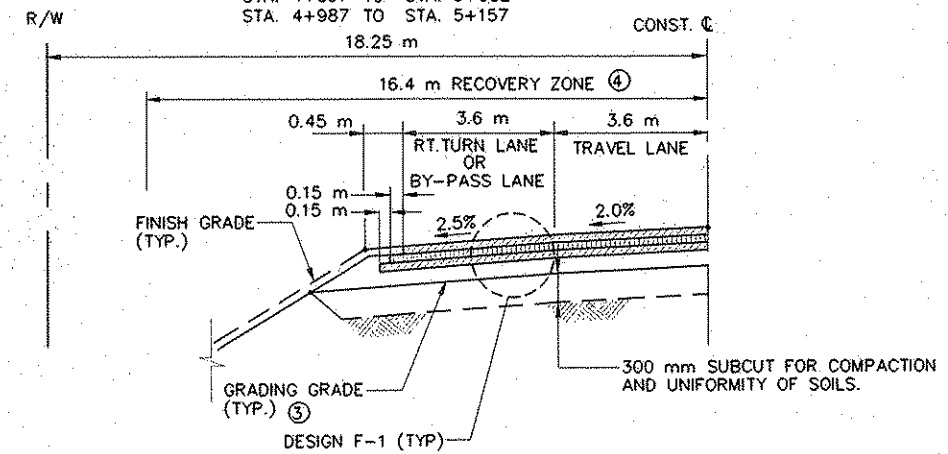
**DESIGN F-2
(ALL SHOULDERS)**



40 mm TYPE MV 4 WEARING COURSE MIXTURE-SPEC. 2350
BITUMINOUS MIXTURE DESIGNATION: MVWE45035B
VARIABLE DEPTH AGGREGATE BASE CLASS 5A
SPEC. 2211

**BASE AND BITUMINOUS SECTION
TYPICAL TURN LANE / BY-PASS**

- STA. 1+377 TO STA. 1+484
- STA. 1+705 TO STA. 1+883
- STA. 1+823 TO STA. 1+955
- STA. 2+458 TO STA. 2+593
- STA. 2+537 TO STA. 2+718
- STA. 3+701 TO STA. 3+892
- STA. 3+794 TO STA. 3+967
- STA. 4+897 TO STA. 5+082
- STA. 4+987 TO STA. 5+157



NO	DATE	BY	CHKD	APPR	REVISION

NAME: S:\SDSKPROJ\0260505\PLAN\CROSS08A.DWG



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

Douglas M. [Signature]
DATE: 5/1/98 REG. NO. 20235

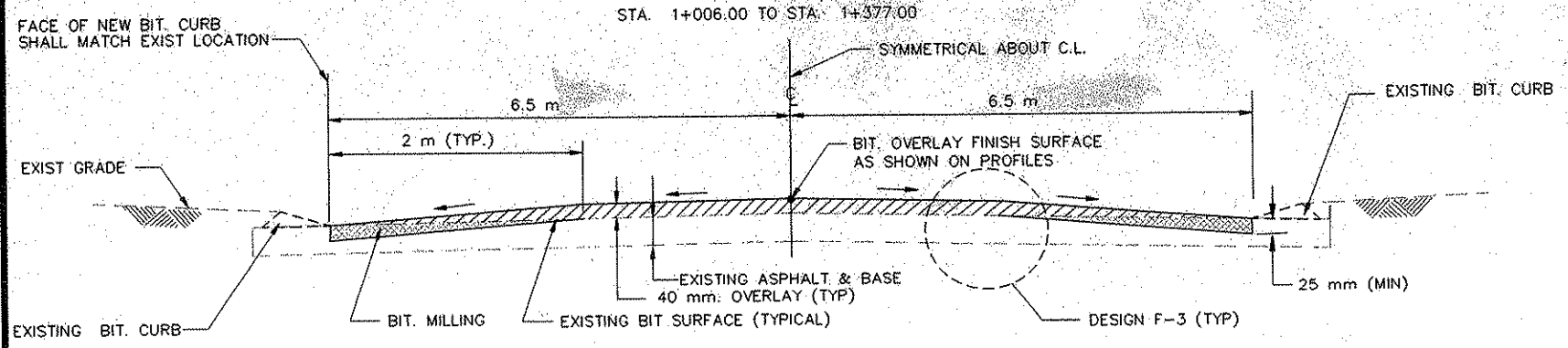
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DESIGN BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____



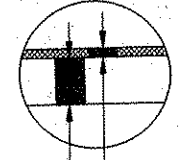
**ANOKA COUNTY
HIGHWAY DEPT.**

STATE PROJECT NO. _____
STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

TYPICAL OVERLAY SECTION WITH BIT. CURB



DESIGN F-3
(BITUMINOUS OVERLAY)



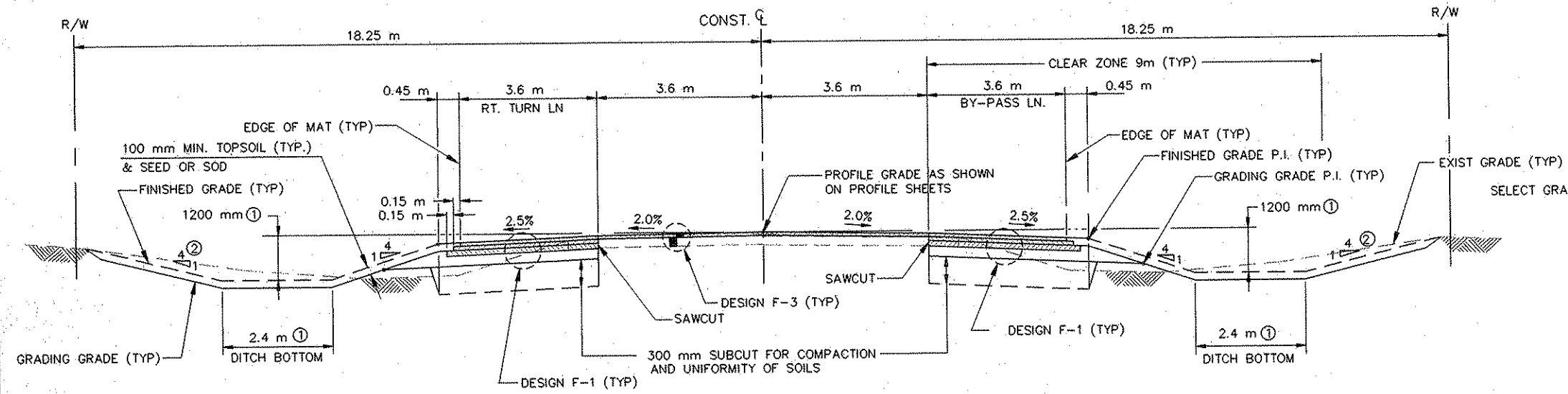
40 mm TYPE MV 4 WEARING COURSE MIXTURE—SPEC. 2350
BITUMINOUS MIXTURE DESIGNATION: MVWE45035B
INPLACE BASE AND BITUMINOUS SURFACE
TACK COAT—SPEC. 2357, TO BE APPLIED BETWEEN ALL BITUMINOUS LIFTS.

NOTES:

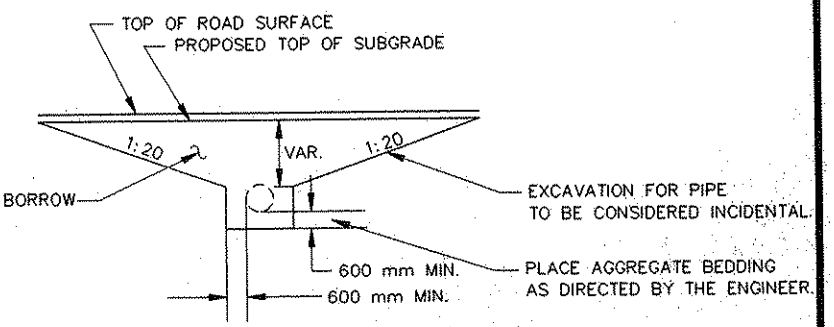
- ① FOR SPECIAL DITCHES SEE PROFILE SHEETS AND CROSS SECTIONS
- ② SEE CROSS SECTIONS FOR MODIFIED BACK SLOPE
- ③ GRADING SLOPE IN RIGHT TURN / BY-PASS LANE TO MATCH FINISH LANE SLOPE

BITUMINOUS OVERLAY SECTION & LANE WIDENING

STA. 5+027 TO STA. 5+167

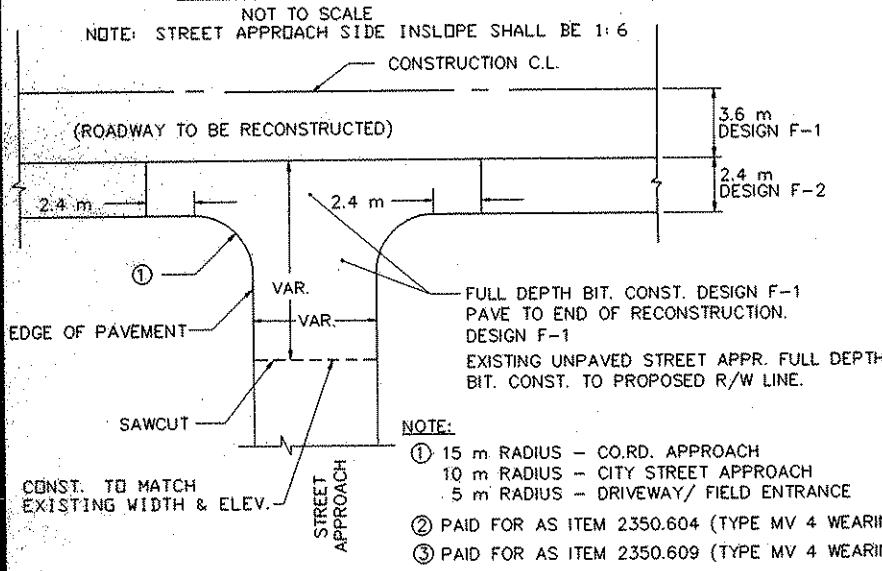


CENTERLINE CULVERT INSTALLATION



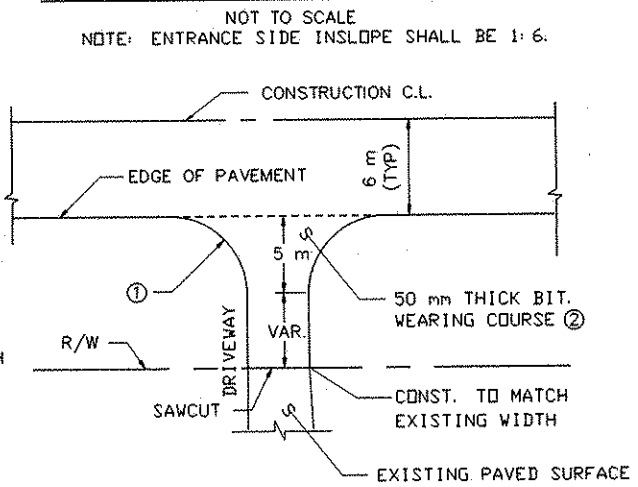
- NOTE: 1. FILL AND COMPACT GRANULAR TO 50 mm ABOVE FLOWLINE BEFORE PLACING CULVERT.
2. EXCAVATION TO EXTEND 1 m BEYOND END OF APRON.

STREET APPROACHES

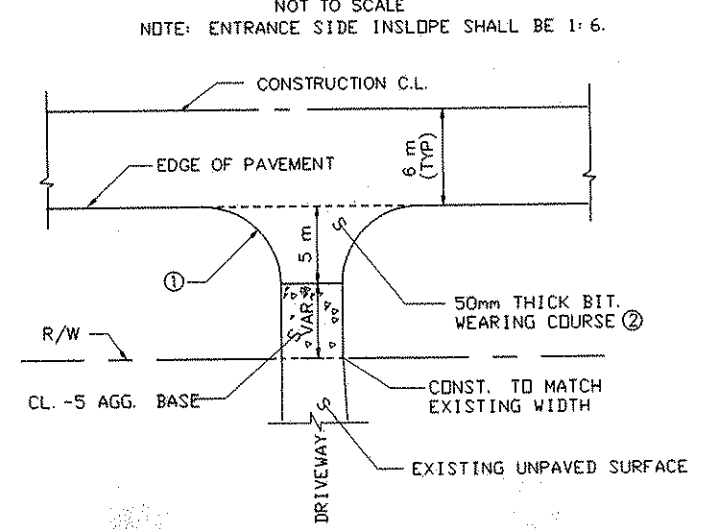


- NOTE:
- ① 15 m RADIUS - CO.RD. APPROACH
10 m RADIUS - CITY STREET APPROACH
5 m RADIUS - DRIVEWAY/ FIELD ENTRANCE
 - ② PAID FOR AS ITEM 2350.604 (TYPE MV 4 WEARING COURSE MIXTURE, 50 mm THICKNESS)
 - ③ PAID FOR AS ITEM 2350.609 (TYPE MV 4 WEARING COURSE MIXTURE)

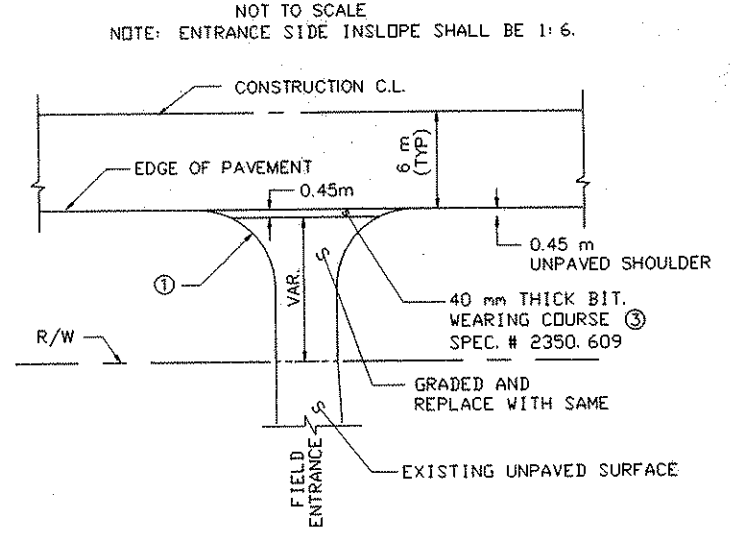
TYPICAL PAVED ENTRANCE



TYPICAL UNPAVED ENTRANCE



TYPICAL FIELD ENTRANCE



NO	DATE	BY	CHKD	APPR	REVISION



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Douglas M. Joch
DATE 5/14/08 REG. NO. 20235

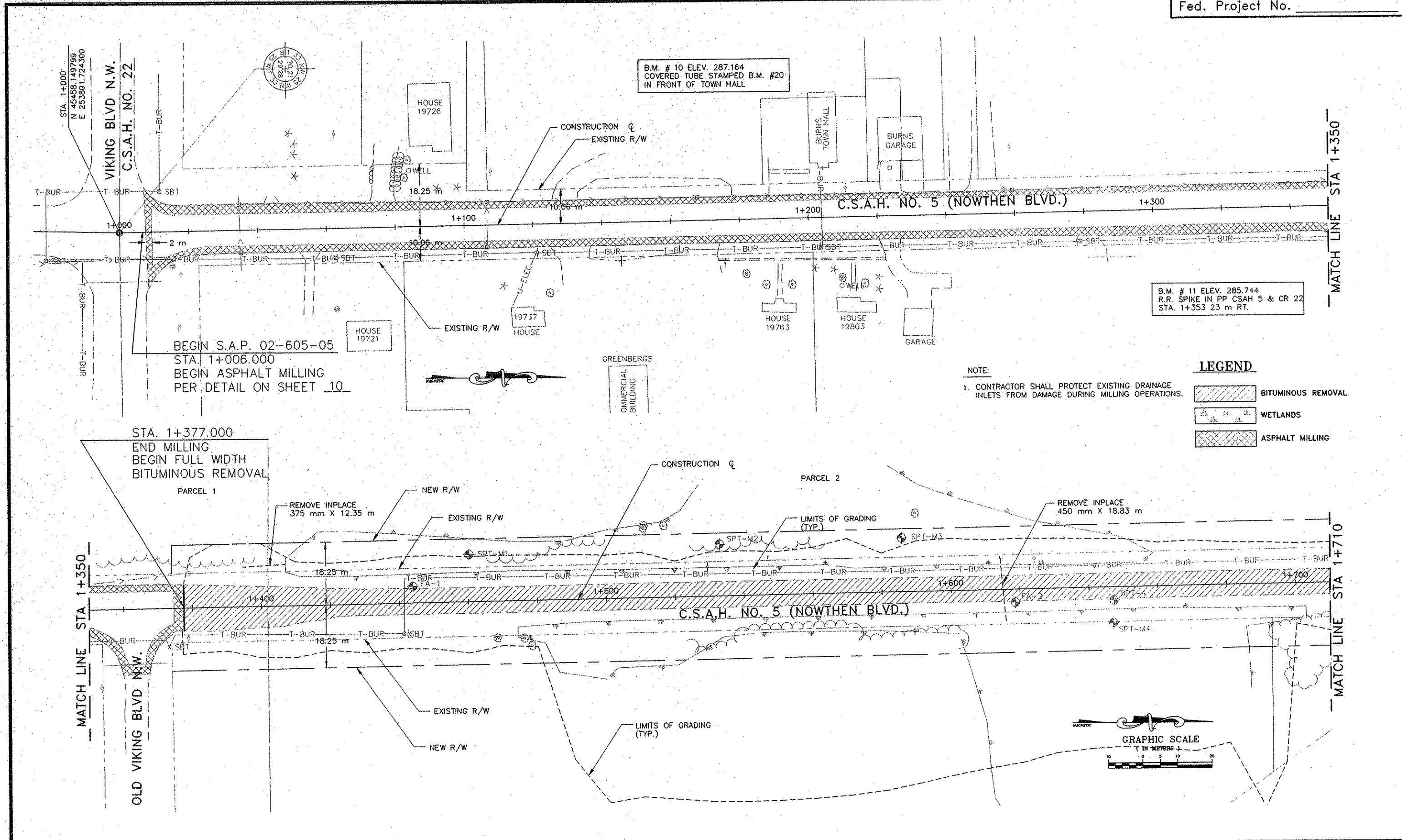
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DESIGN BY: _____ DATE _____
CHECKED BY: _____ DATE _____



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

TYPICAL SECTIONS
Sheet 10 of 54 Sheets



BEGIN S.A.P. 02-605-05
 STA. 1+006.000
 BEGIN ASPHALT MILLING
 PER DETAIL ON SHEET 10

STA. 1+377.000
 END MILLING
 BEGIN FULL WIDTH
 BITUMINOUS REMOVAL

NOTE:
 1. CONTRACTOR SHALL PROTECT EXISTING DRAINAGE
 INLETS FROM DAMAGE DURING MILLING OPERATIONS.

LEGEND

- BITUMINOUS REMOVAL
- WETLANDS
- ASPHALT MILLING

NO	DATE	BY	CKD	APPR	REVISION

NAME: SA\SDSKPROA\0260505.PLAN\CR05C09.DWG



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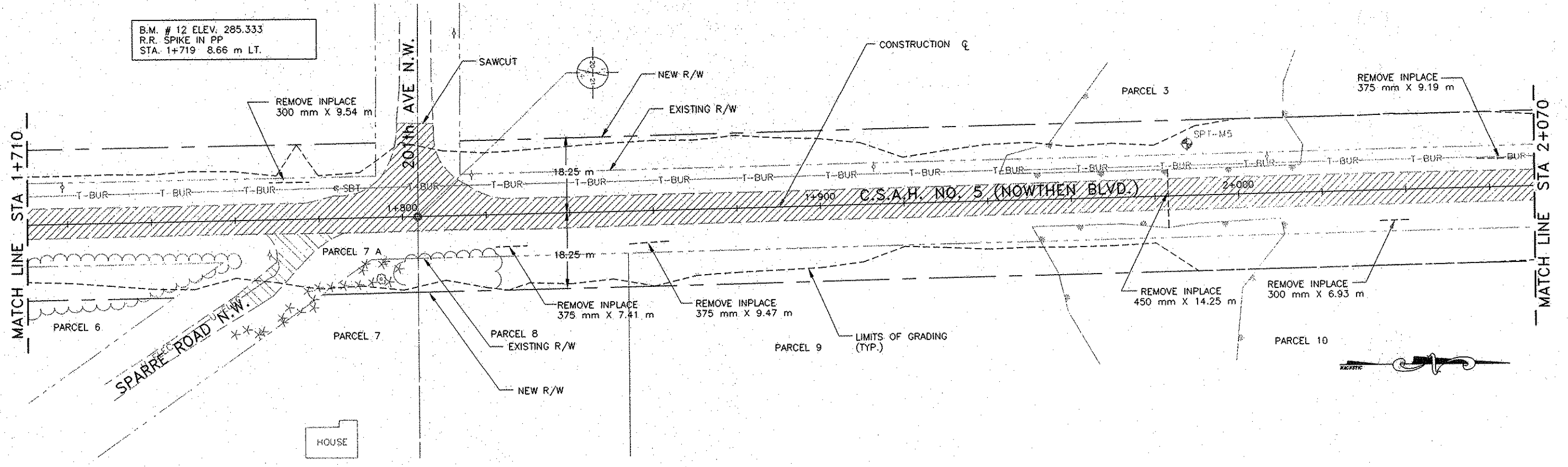
Douglas M. Johnson
 DATE 5/1/98 REG. NO. 20235

DRAWN BY _____ DATE _____
 DESIGN BY _____ DATE _____
 CHECKED BY _____ DATE _____

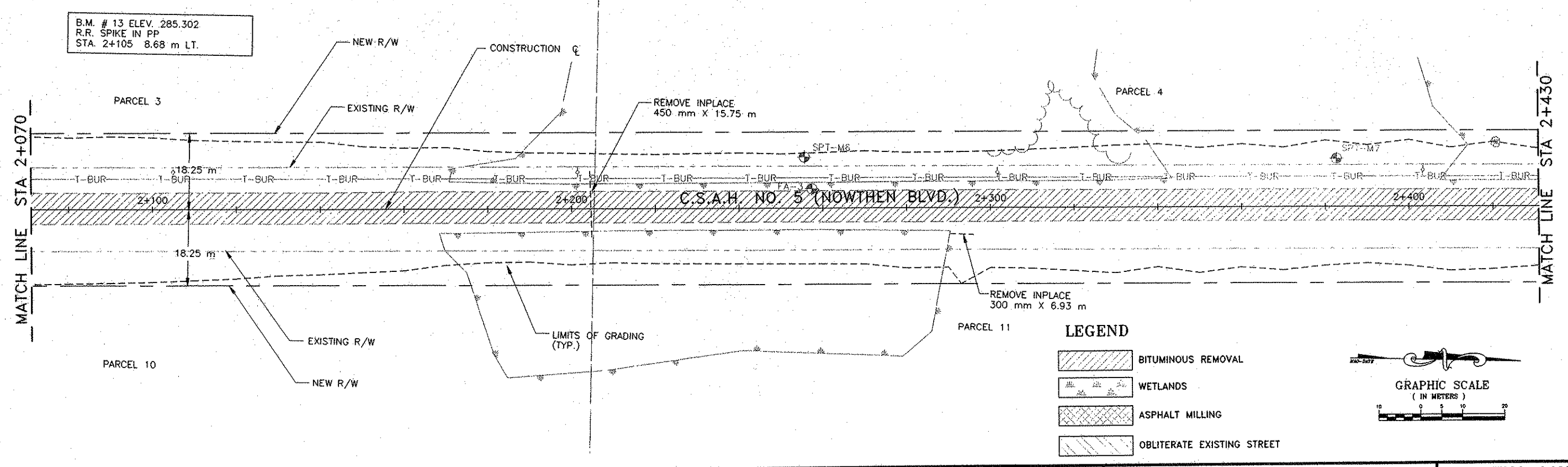
ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

EXISTING CONDITION AND REMOVAL PLAN
 STA. 1+000 TO STA. 1+710
 Sheet 11 of 54 Sheets

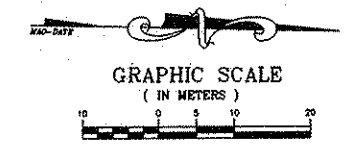


B.M. # 12 ELEV. 285.333
R.R. SPIKE IN PP
STA. 1+719 8.66 m LT.



B.M. # 13 ELEV. 285.302
R.R. SPIKE IN PP
STA. 2+105 8.68 m LT.

- LEGEND**
- BITUMINOUS REMOVAL
 - WETLANDS
 - ASPHALT MILLING
 - OBLITERATE EXISTING STREET



NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPROJ\0260505\PLAN\CR05C10.DWG



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Douglas M. [Signature]
DATE 5/1/98 REG. NO. 20235

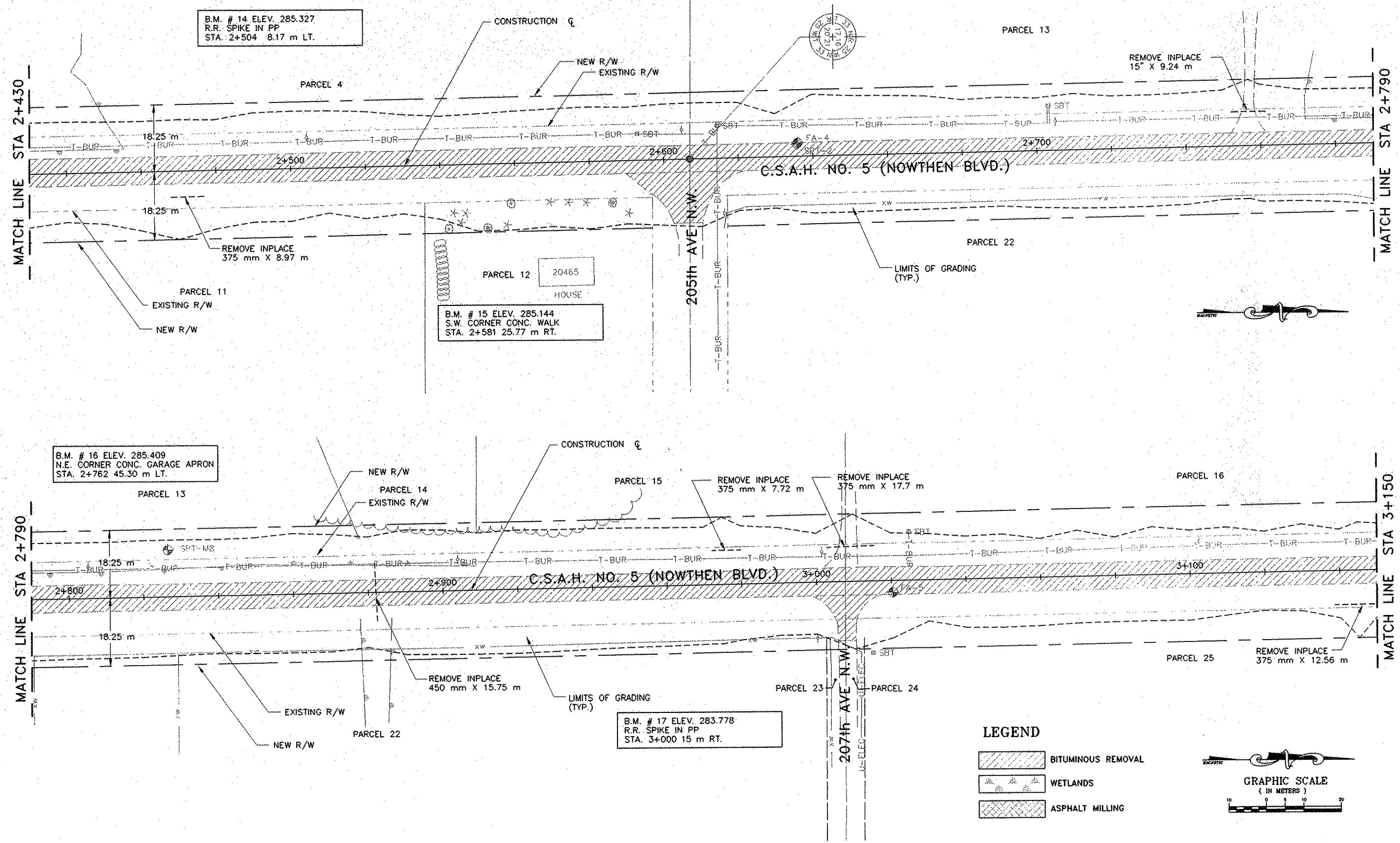
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CHECKED BY _____ DATE _____



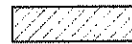
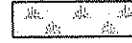

**ANOKA COUNTY
HIGHWAY DEPT.**

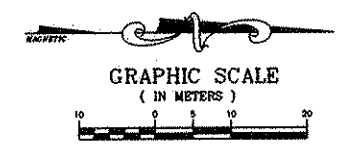
STATE PROJECT NO. _____
STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

**EXISTING CONDITION
AND REMOVAL PLAN**
STA. 1+710 TO STA. 2+430
Sheet 12 of 54 Sheets

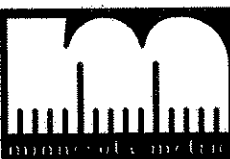


LEGEND

-  BITUMINOUS REMOVAL
-  WETLANDS
-  ASPHALT MILLING



NO.	DATE	BY	CKD	APPR	REVISION



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

Douglas McCarroll
 DATE 5/1/98 REG. NO. 20235

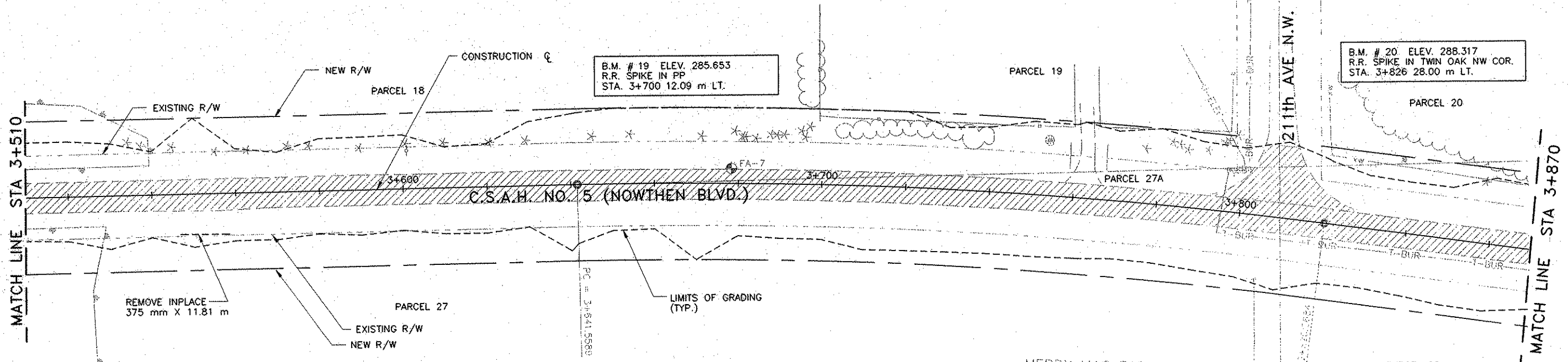
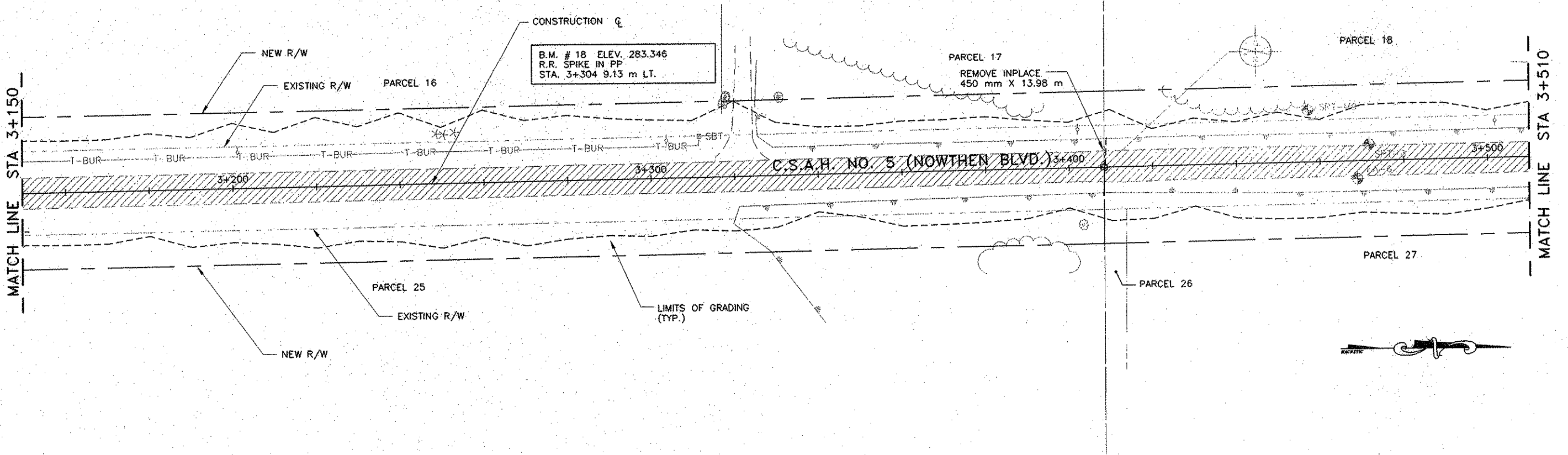
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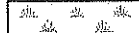





**ANOKA COUNTY
 HIGHWAY DEPT.**

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

**EXISTING CONDITION
 AND REMOVAL PLAN**
 STA. 2+430 TO STA. 3+150
 Sheet 13 of 54 Sheets



MERRY MAC FARM
LEGEND
 BITUMINOUS REMOVAL
 WETLANDS
 ASPHALT MILLING


GRAPHIC SCALE
 (IN METERS)


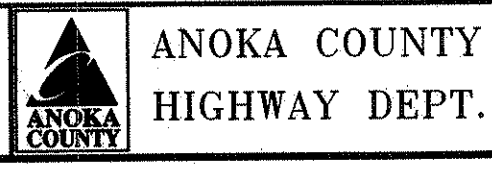
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NAME: S:\SDSKPROJ\0260505\PLAN\CR05C12.DWG



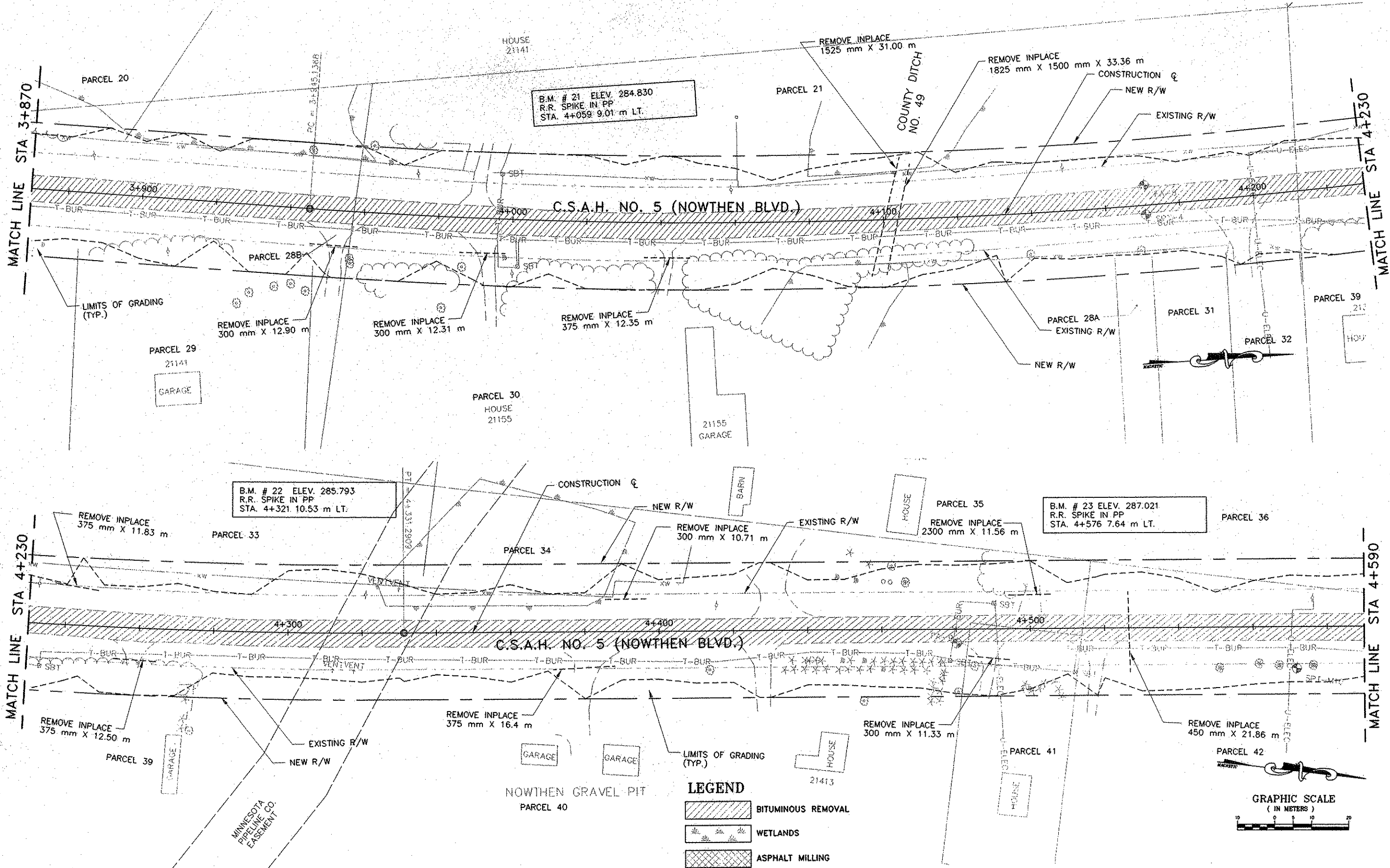
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Douglas M. Jensen
 DATE 5/1/99 REG. NO. 20235

DRAWN BY _____ DATE _____
 DESIGN BY _____ DATE _____
 CHECKED BY _____ DATE _____



STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

**EXISTING CONDITION
 AND REMOVAL PLAN**
 STA. 3+150 TO STA. 3+870
 Sheet 14 of 54 Sheets



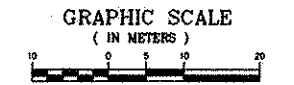
B.M. # 21 ELEV. 284.830
R.R. SPIKE IN PP
STA. 4+059.9.01 m LT.

B.M. # 22 ELEV. 285.793
R.R. SPIKE IN PP
STA. 4+321.10.53 m LT.

B.M. # 23 ELEV. 287.021
R.R. SPIKE IN PP
STA. 4+576.7.64 m LT.

LEGEND

- BITUMINOUS REMOVAL
- WETLANDS
- ASPHALT MILLING



NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPROJ\0260505\PLAN\CR05C13.DWG



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Douglas M. Jensen
DATE 5/1/98 REG. NO. 2235

DRAWN BY _____ DATE _____
DESIGN BY _____ DATE _____
CHECKED BY _____ DATE _____

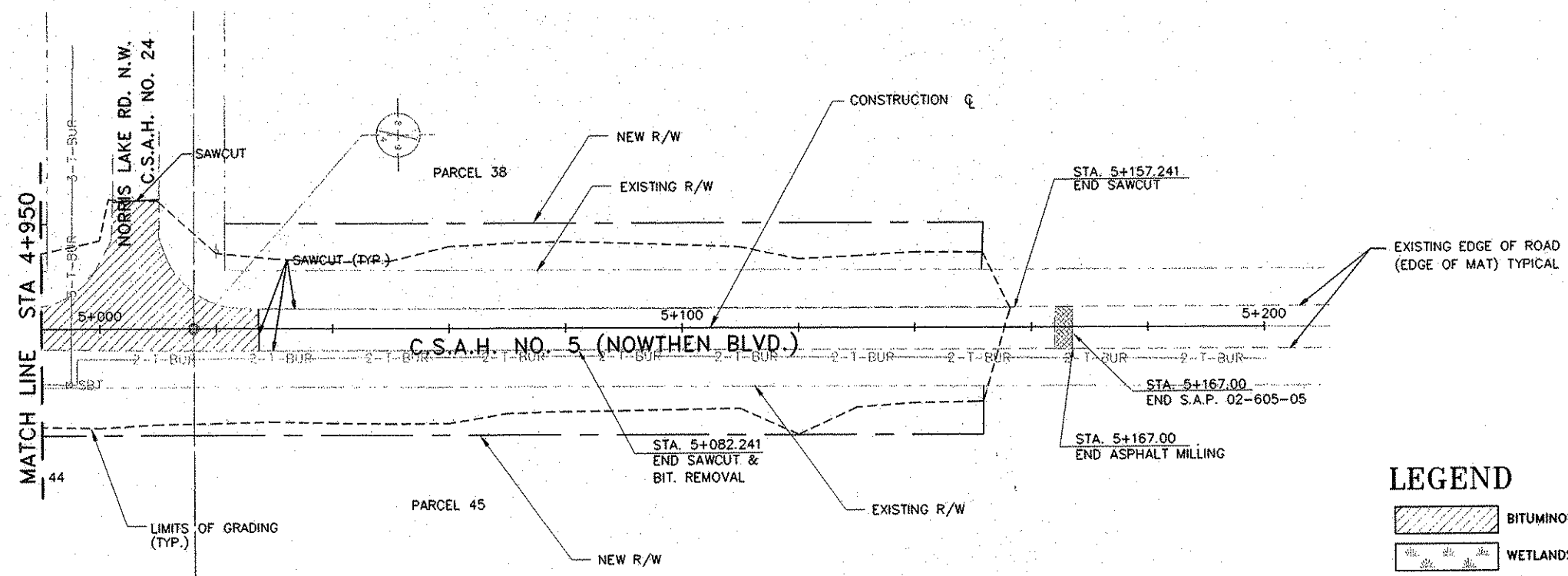
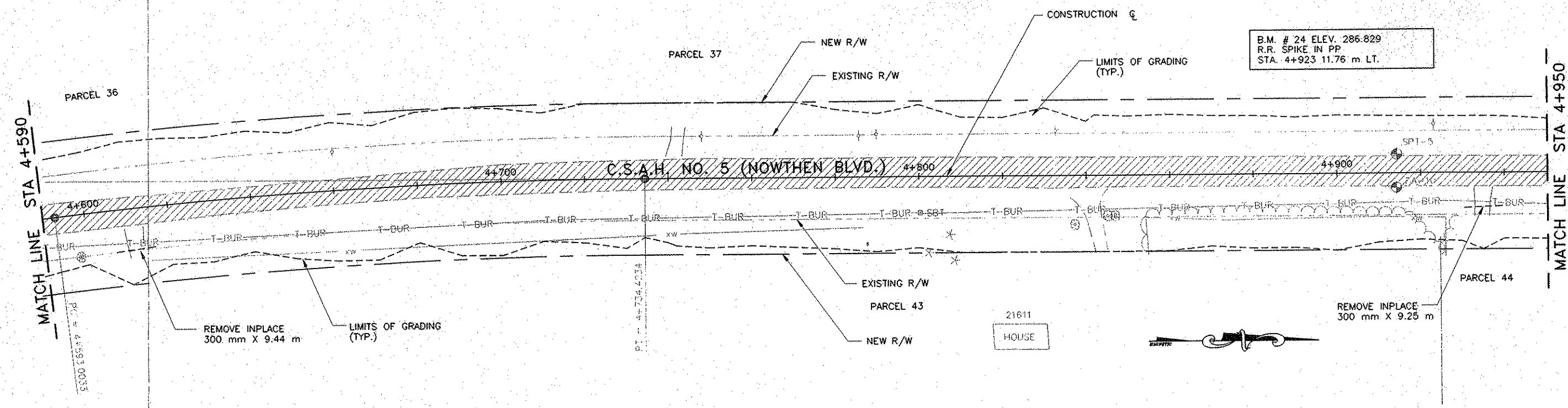


**ANOKA COUNTY
HIGHWAY DEPT.**

STATE PROJECT NO. _____
STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

**EXISTING CONDITION
AND REMOVAL PLAN**
STA. 3+870 TO STA. 4+590
Sheet 15 of 54 Sheets

B.M. # 24 ELEV. 286.829
R.R. SPIKE IN PP.
STA. 4+923 11.76 m LT.



LEGEND

- BITUMINOUS REMOVAL
- WETLANDS
- ASPHALT MILLING

NO	DATE	BY	CKD	APPR	REVISION



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

David M. [Signature]
DATE 5/1/98 REG. NO. 20235

DRAWN BY _____ DATE _____
DESIGN BY _____ DATE _____
CHECKED BY _____ DATE _____



**ANOKA COUNTY
HIGHWAY DEPT.**

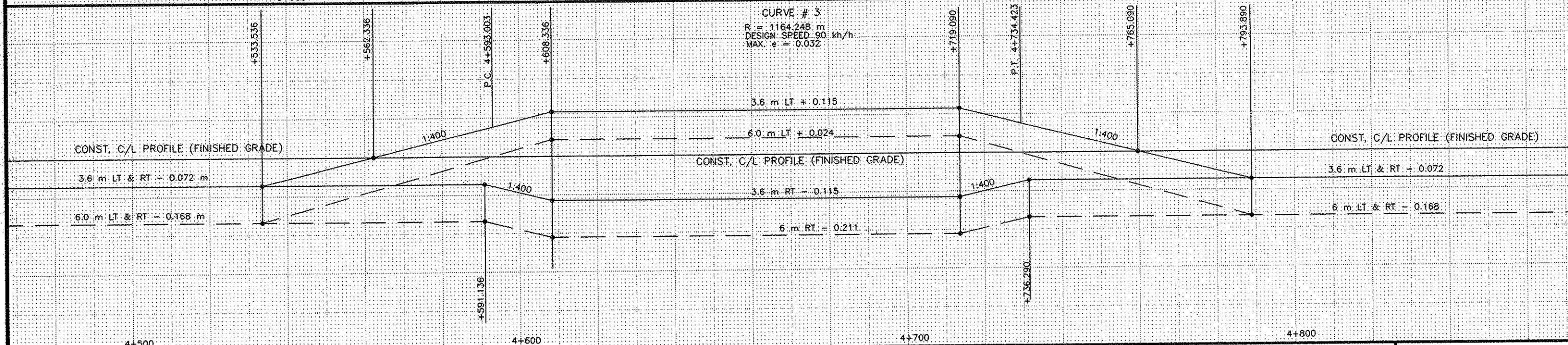
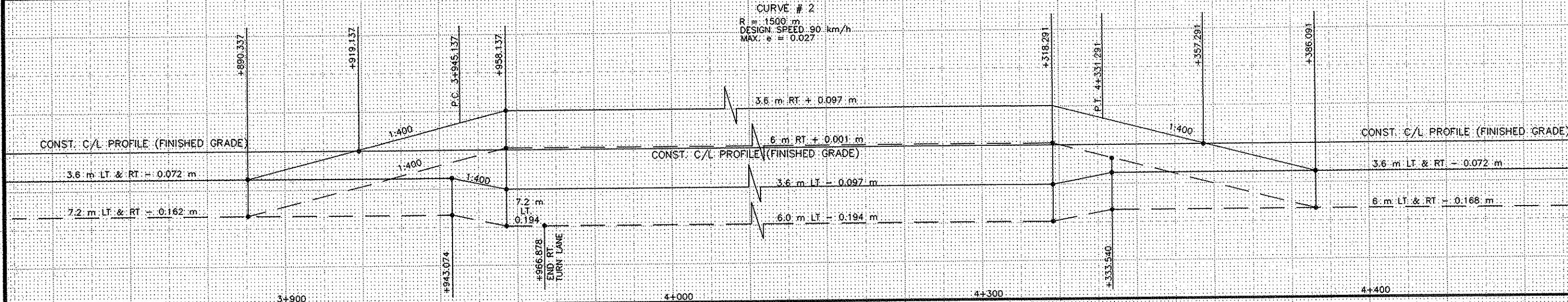
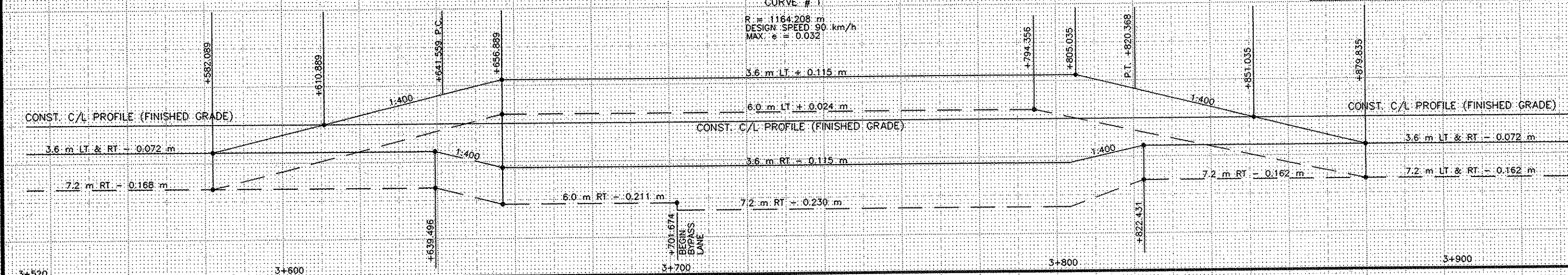
STATE PROJECT NO. _____
STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

**EXISTING CONDITION
AND REMOVAL PLAN**
STA. 4+590 TO STA. 5+167.242
Sheet 16 of 54 Sheets

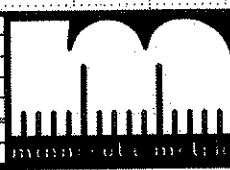
CURVE # 1
 R = 1164.208 m
 DESIGN SPEED 90 km/h
 MAX. e = 0.032

CURVE # 2
 R = 1500 m
 DESIGN SPEED 90 km/h
 MAX. e = 0.027

CURVE # 3
 R = 1164.248 m
 DESIGN SPEED 90 km/h
 MAX. e = 0.032



NO	DATE	BY	CKD	APPR	REVISION



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

Douglas M. Erickson
 DATE 5/1/98 REG. NO. 20235

DRAWN BY: _____ DATE: _____
 DESIGN BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____

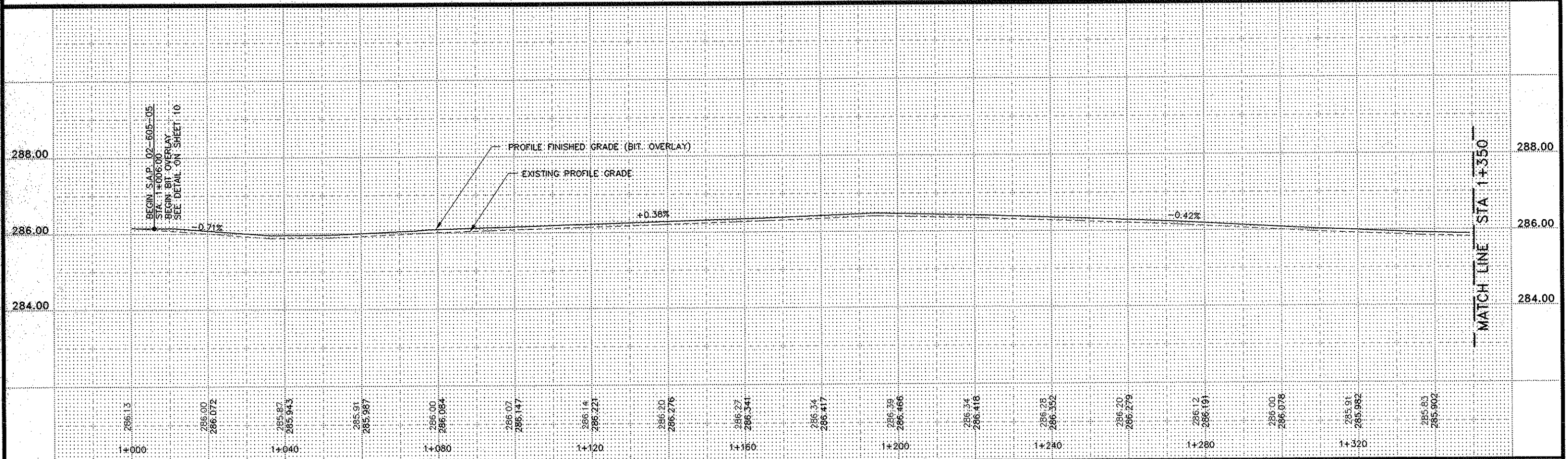
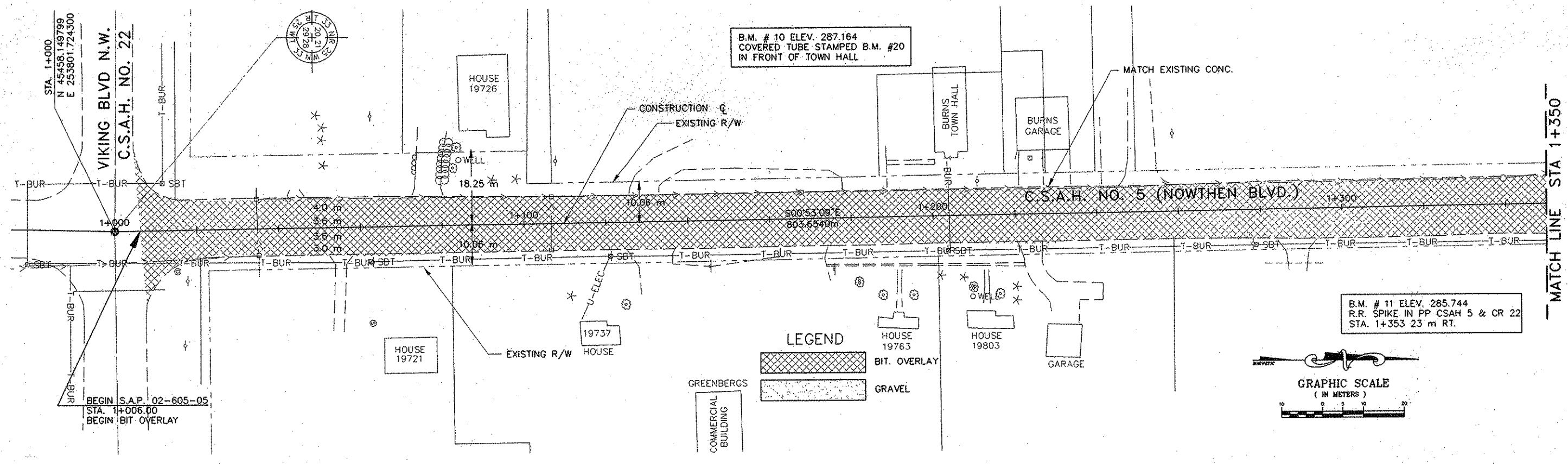


ANOKA COUNTY HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

SUPERELEVATION CHARTS

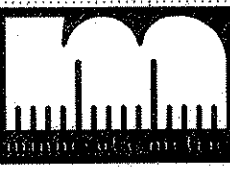
Sheet 17 of 54 Sheets



CR05C15.dwg 4298 14351

NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPRO\0260505\PLAN\CR05C15.DWG



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

Douglas McT...
 DATE 5/1/98 REG. NO. 20235

DRAWN BY _____ DATE _____
 DESIGN BY _____ DATE _____
 CHECKED BY _____ DATE _____

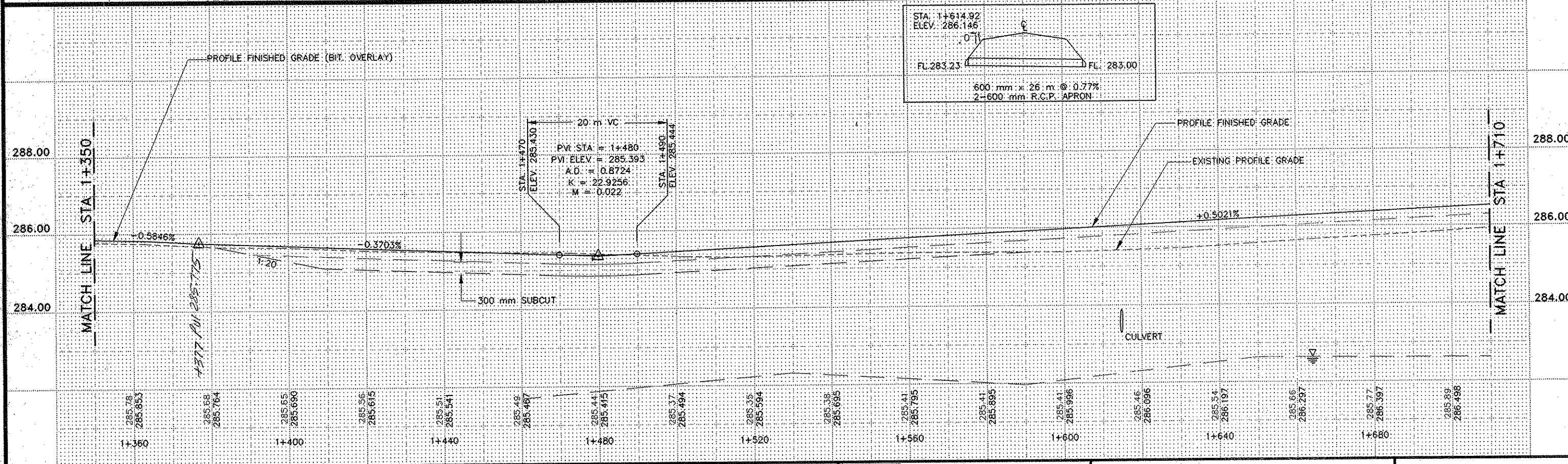
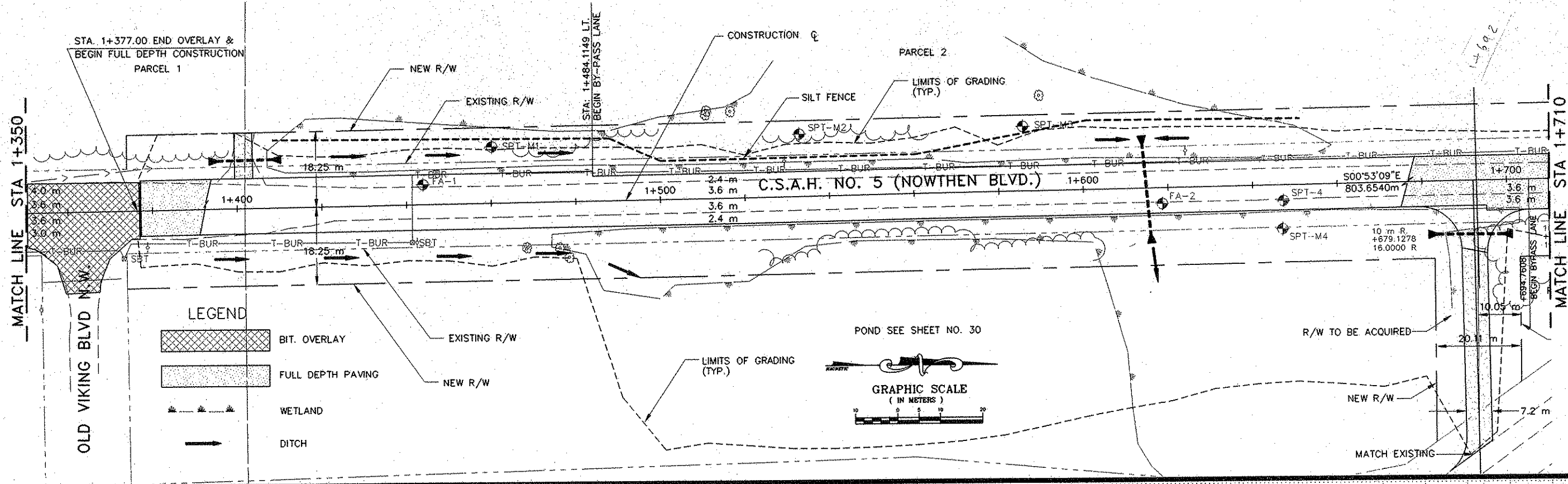


ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

PLAN AND PROFILE
 STA. 1+000 TO STA. 1+350

Sheet 18 of 54 Sheets



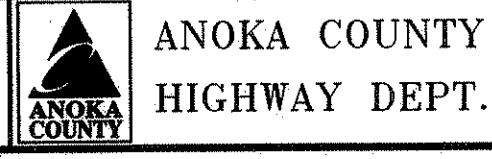
NO	DATE	BY	CKD	APPR	REVISION



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

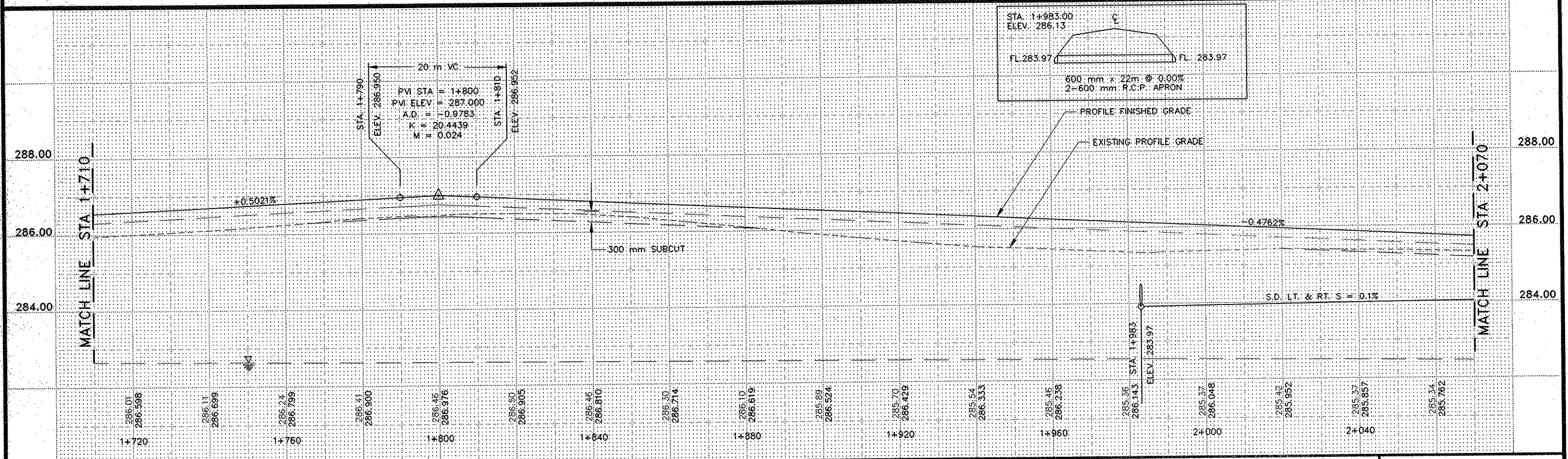
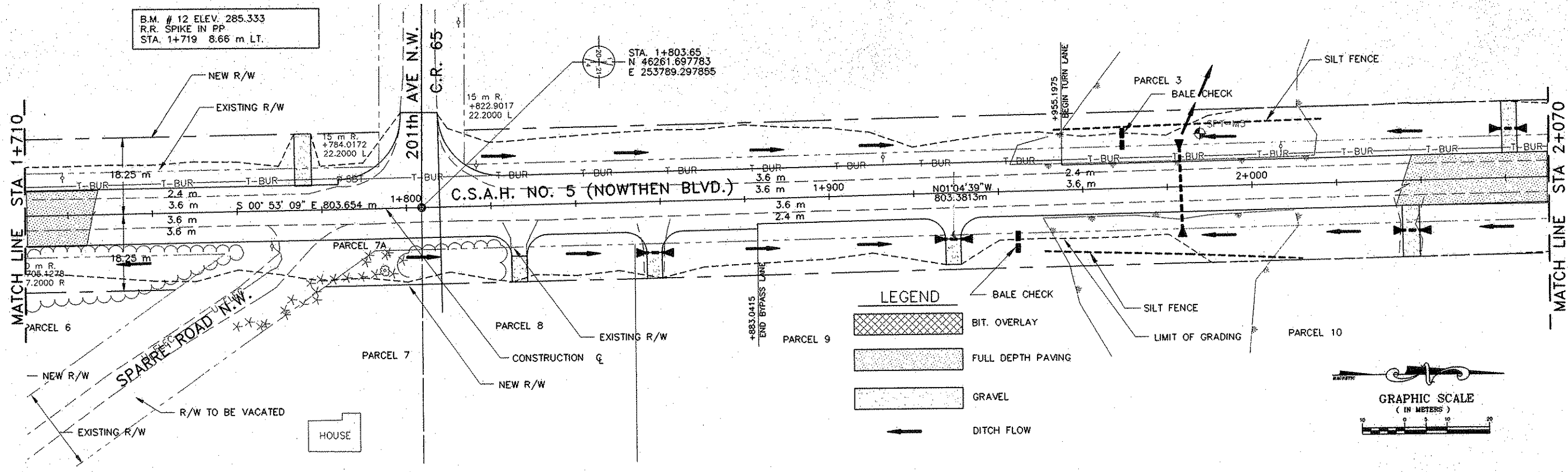
Roughly M. Finch
 DATE 5/1/98 REG. NO. 20235

DRAWN BY _____ DATE _____
 DESIGN BY _____ DATE _____
 CHECKED BY _____ DATE _____

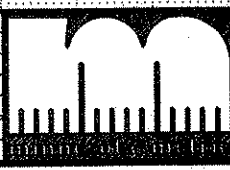


STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

PLAN AND PROFILE
 STA. 1+350 TO STA. 1+710
 Sheet 19 of 54 Sheets



NO	DATE	BY	CKD	APPR	REVISION



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

Douglas M. Finch
 DATE 5/1/98 REG. NO. 20255

DRAWN BY _____ DATE _____
 DESIGN BY _____ DATE _____
 CHECKED BY _____ DATE _____

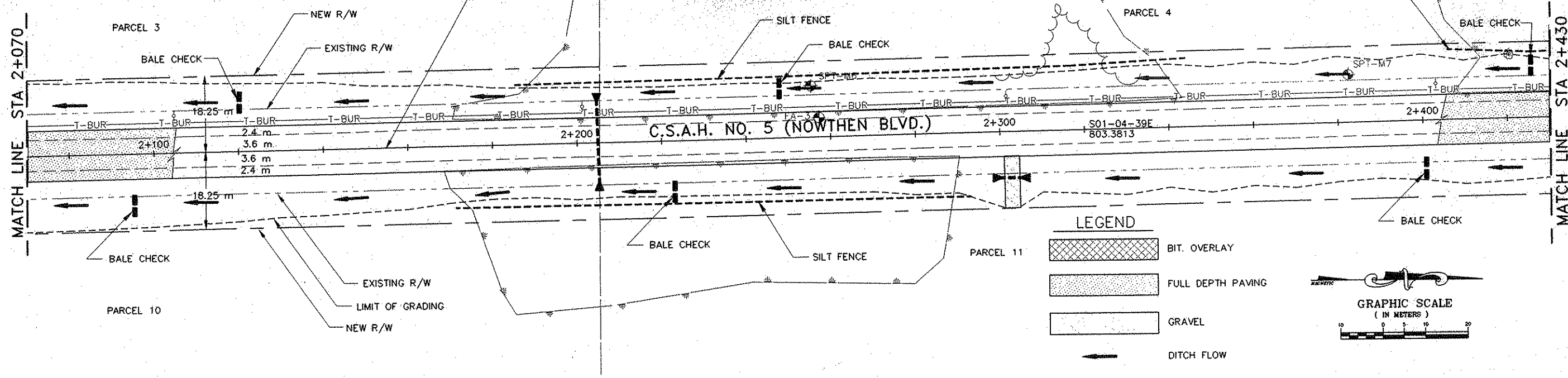
ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

PLAN AND PROFILE
 STA. 1+710 TO STA. 2+070

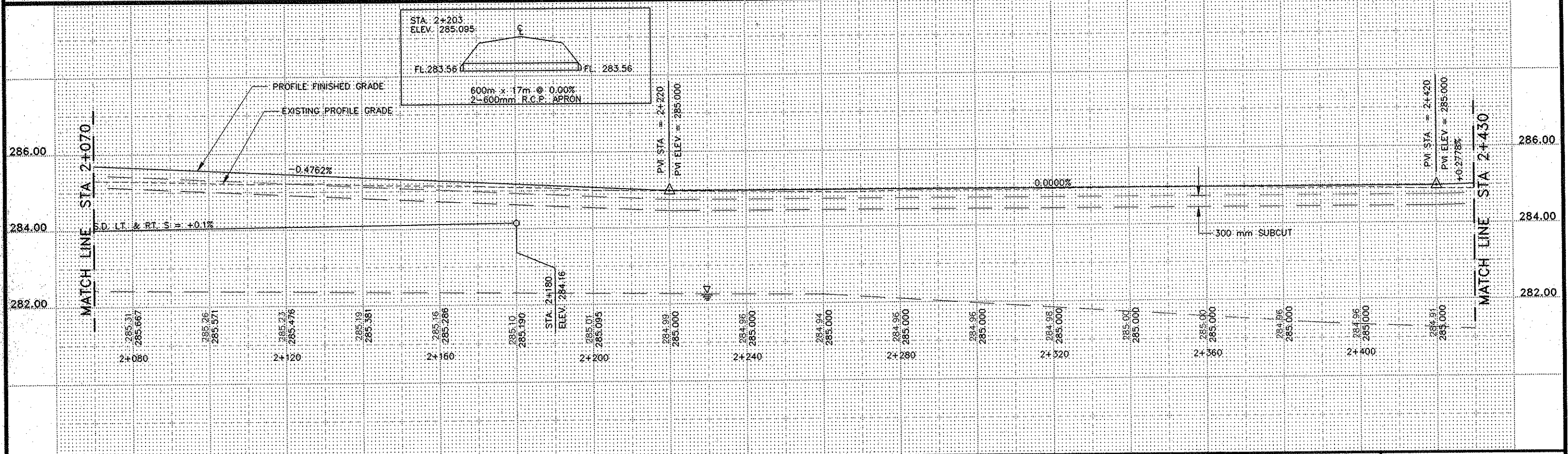
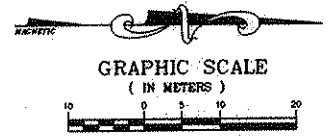
Sheet 20 of 54 Sheets

B.M. # 13 ELEV. 285.302
R.R. SPIKE IN PP
STA. 2+105 8.68 m LT.



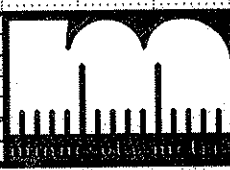
LEGEND

- BIT. OVERLAY
- FULL DEPTH PAVING
- GRAVEL
- DITCH FLOW



NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPROJ\0260505\PLAN\CR05C18.DWG



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

Roger M. Ditch
DATE 5/1/98 REG. NO. 20235

DRAWN BY _____ DATE _____
DESIGN BY _____ DATE _____
CHECKED BY _____ DATE _____

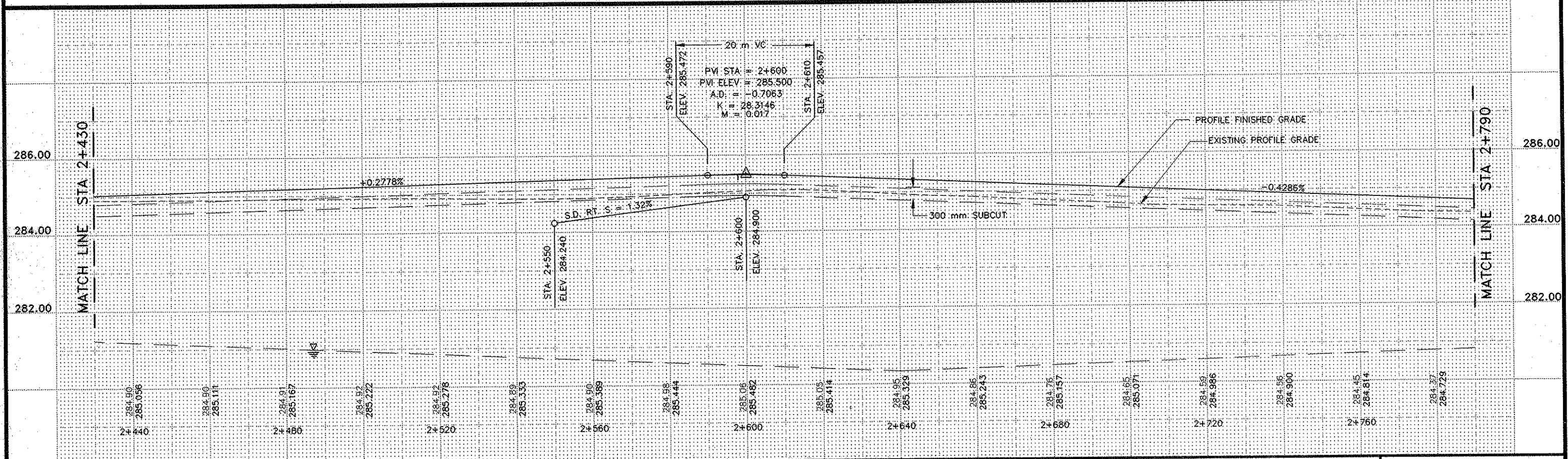
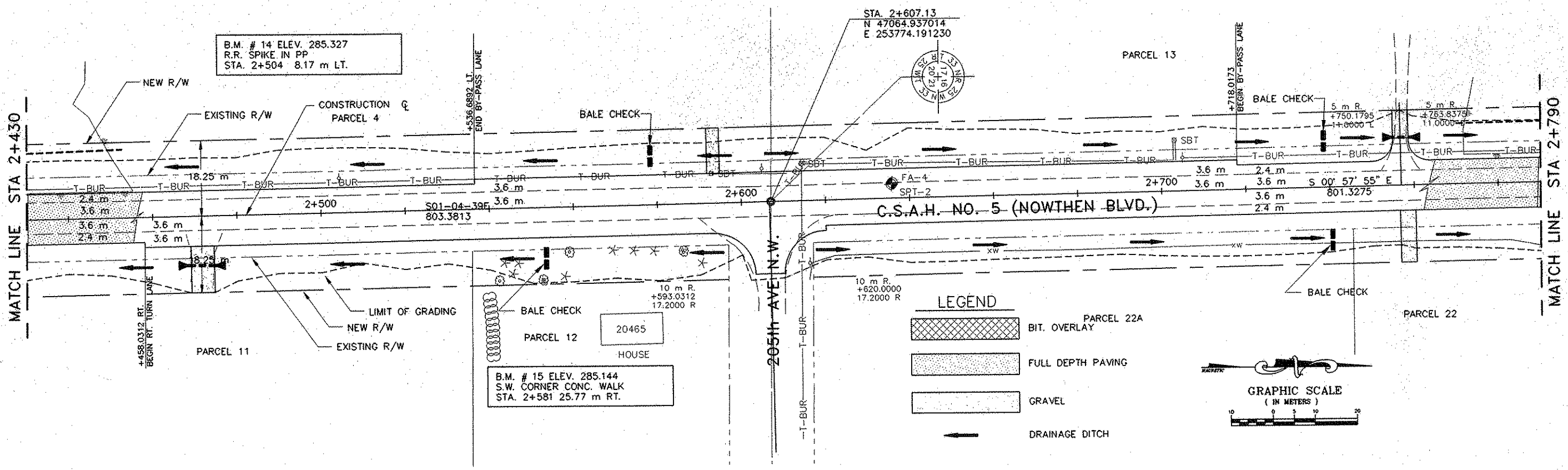


**ANOKA COUNTY
HIGHWAY DEPT.**

STATE PROJECT NO. _____
STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

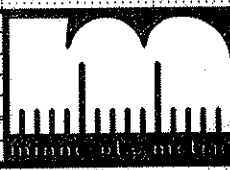
PLAN AND PROFILE
STA. 2+070 TO STA. 2+430

Sheet 21 of 54 Sheets



NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPRO\0260505\PLAN\CR05C19.DWG



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

Douglas J. Erich
 DATE 5/1/98 REG. NO. 20235

DRAWN BY _____ DATE _____
 DESIGN BY _____ DATE _____
 CHECKED BY _____ DATE _____

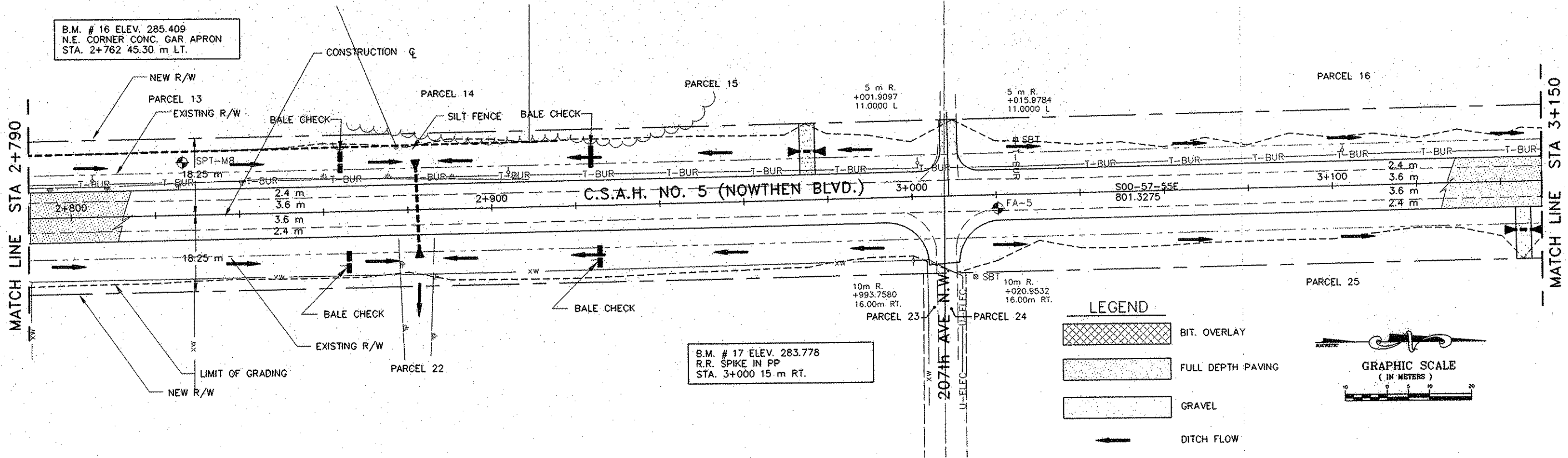


ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

PLAN AND PROFILE
 STA. 2+430 TO STA. 2+790

Sheet 22 of 54 Sheets



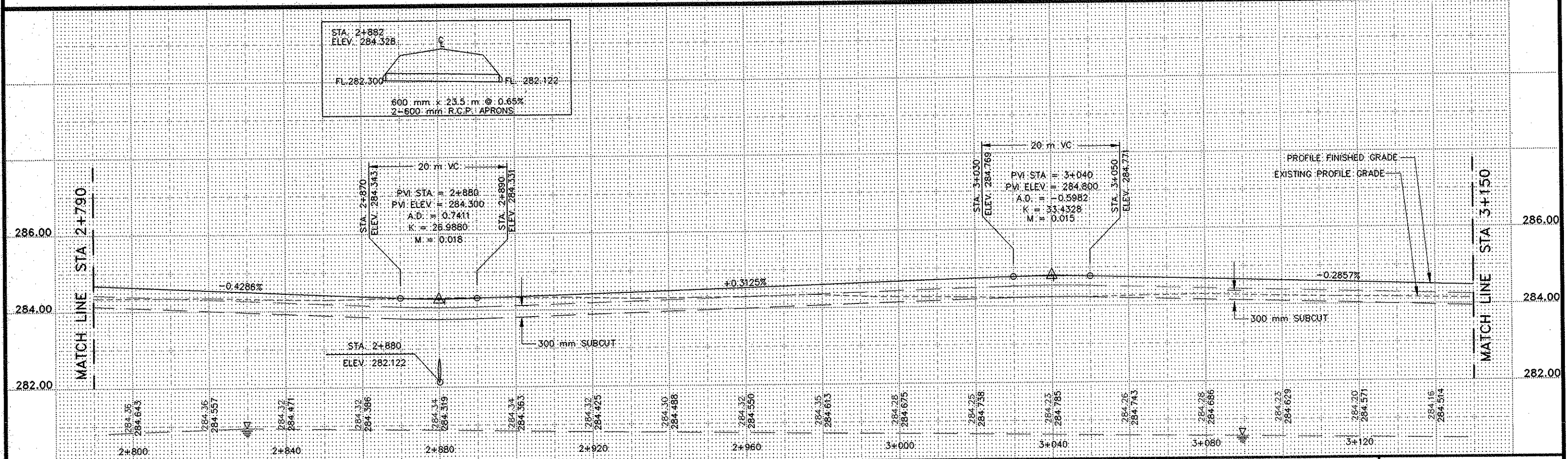
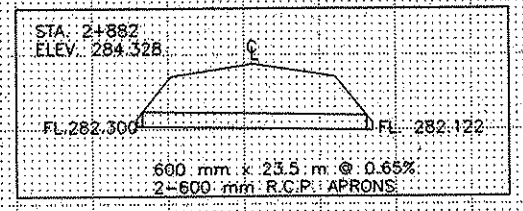
B.M. # 16 ELEV. 285.409
N.E. CORNER CONC. GAR APRON
STA. 2+762 45.30 m LT.

B.M. # 17 ELEV. 283.778
R.R. SPIKE IN PP
STA. 3+000 15 m RT.

LEGEND

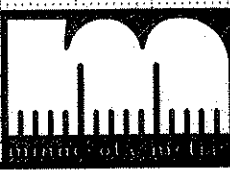
- BIT. OVERLAY
- FULL DEPTH PAVING
- GRAVEL
- DITCH FLOW

GRAPHIC SCALE
(IN METERS)



NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPRO\0260505\PLAN\CR05C20.DWG



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

Douglas W. Jensen
DATE 7/1/98 REG. NO. 20235

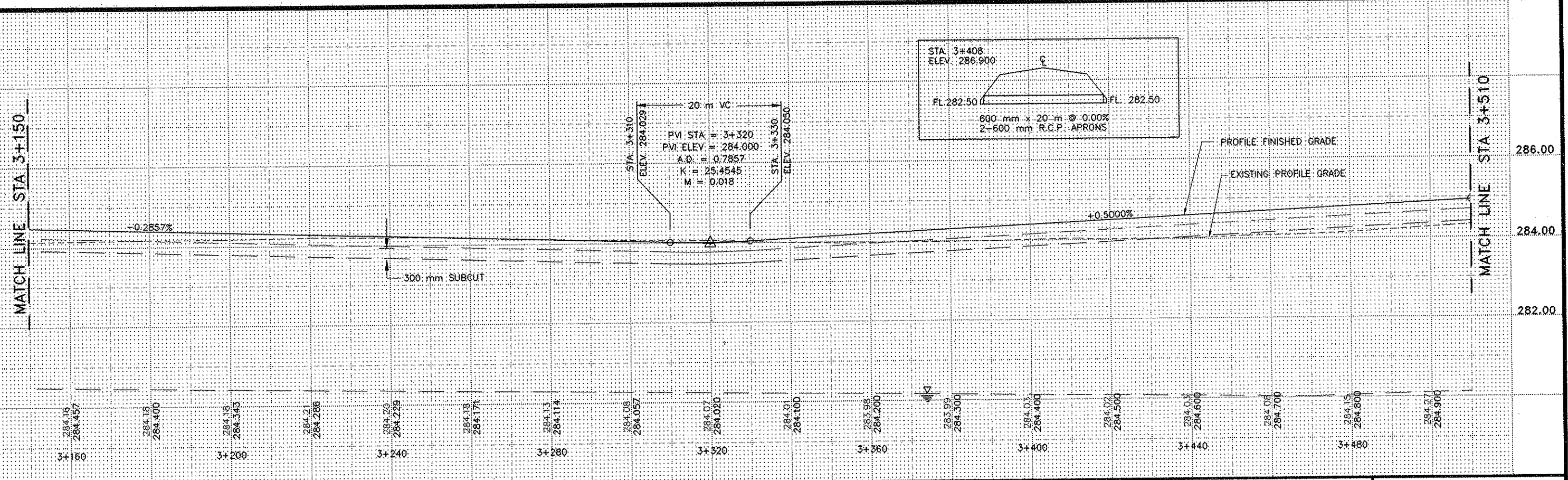
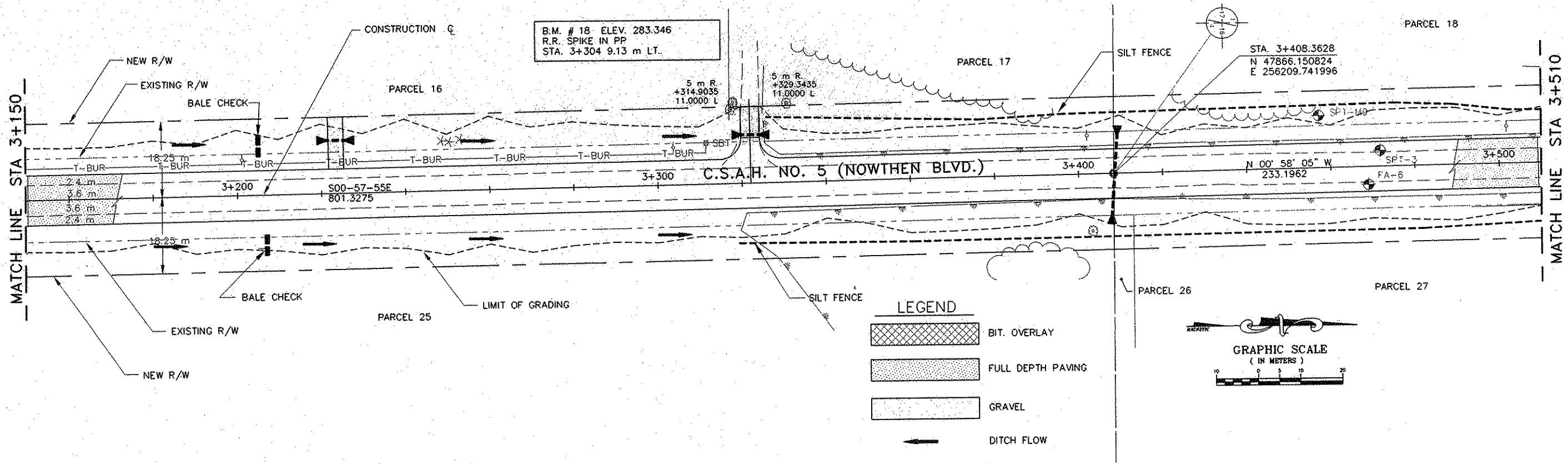
DRAWN BY _____ DATE _____
DESIGN BY _____ DATE _____
CHECKED BY _____ DATE _____

ANOKA COUNTY
HIGHWAY DEPT.

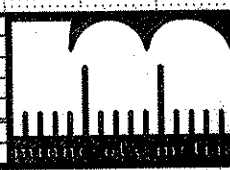
STATE PROJECT NO. _____
STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

PLAN AND PROFILE
STA. 2+790 TO STA. 3+150

Sheet 23 of 54 Sheets



NO	DATE	BY	CHKD	APPR	REVISION



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

Douglas W. Jacob
 DATE: 5/1/98 REG. NO. 20235

DRAWN BY: _____ DATE: _____
 DESIGN BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____

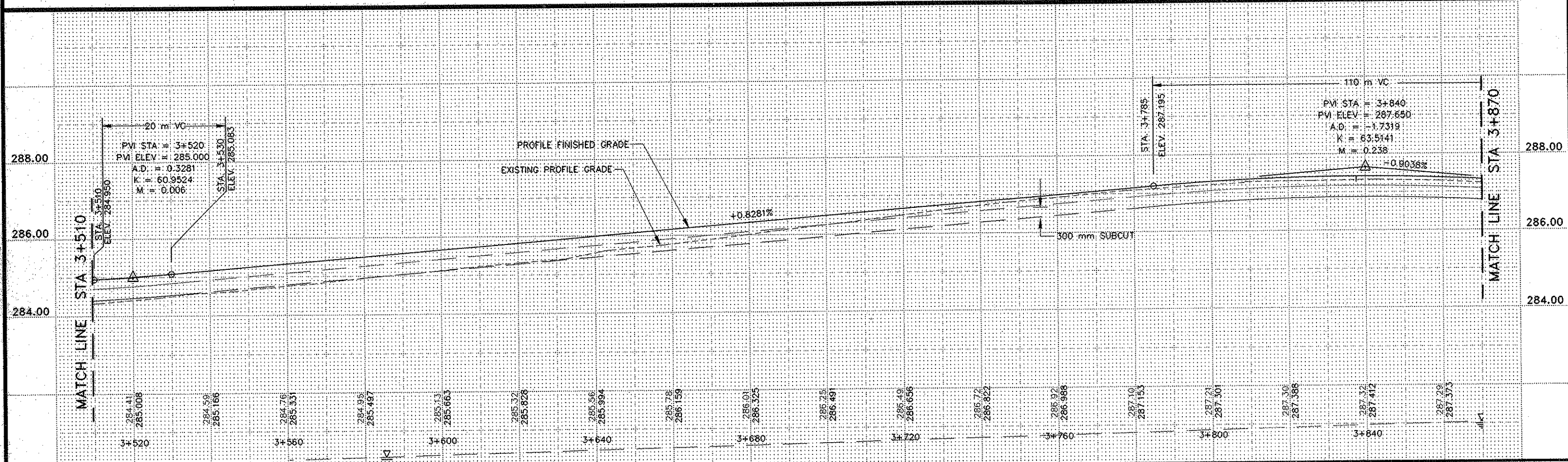
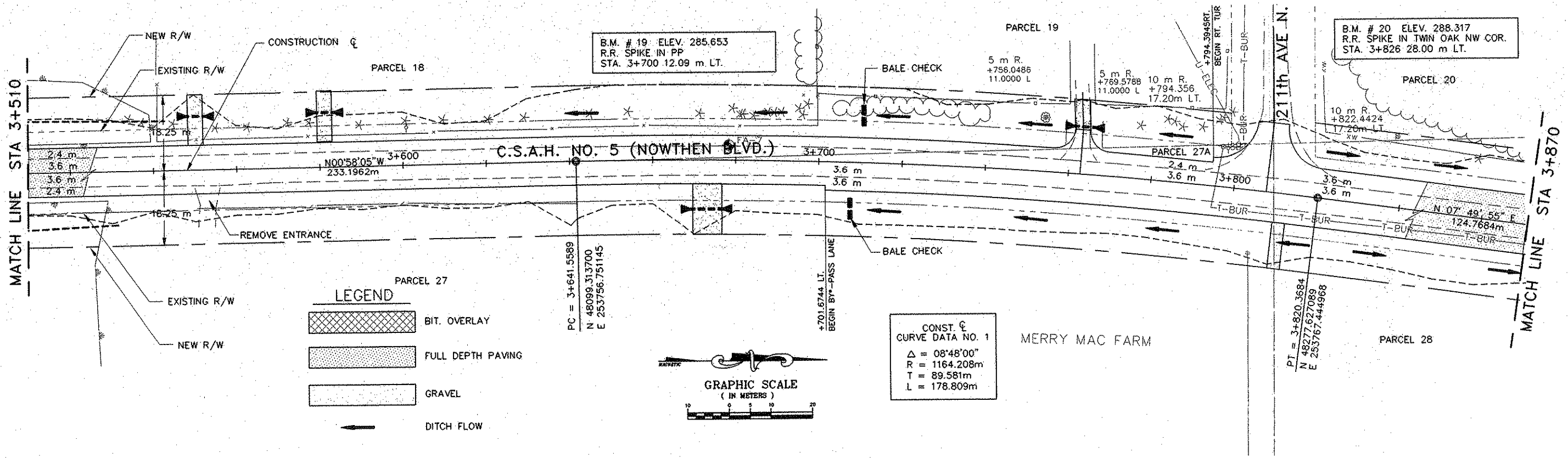


ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

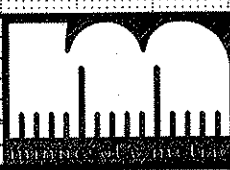
PLAN AND PROFILE
 STA. 3+150 TO STA. 3+510

Sheet 24 of 54 Sheets



NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPRO\0260505\PLAN\CRO5C22.DWG



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

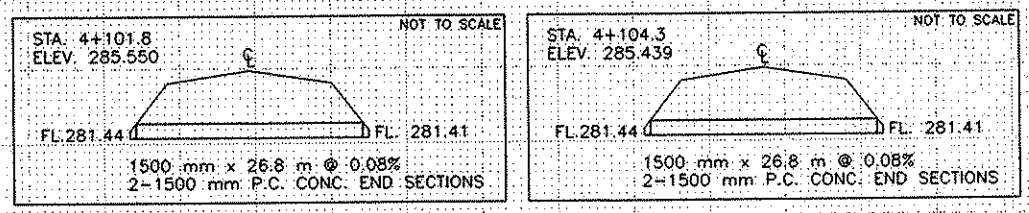
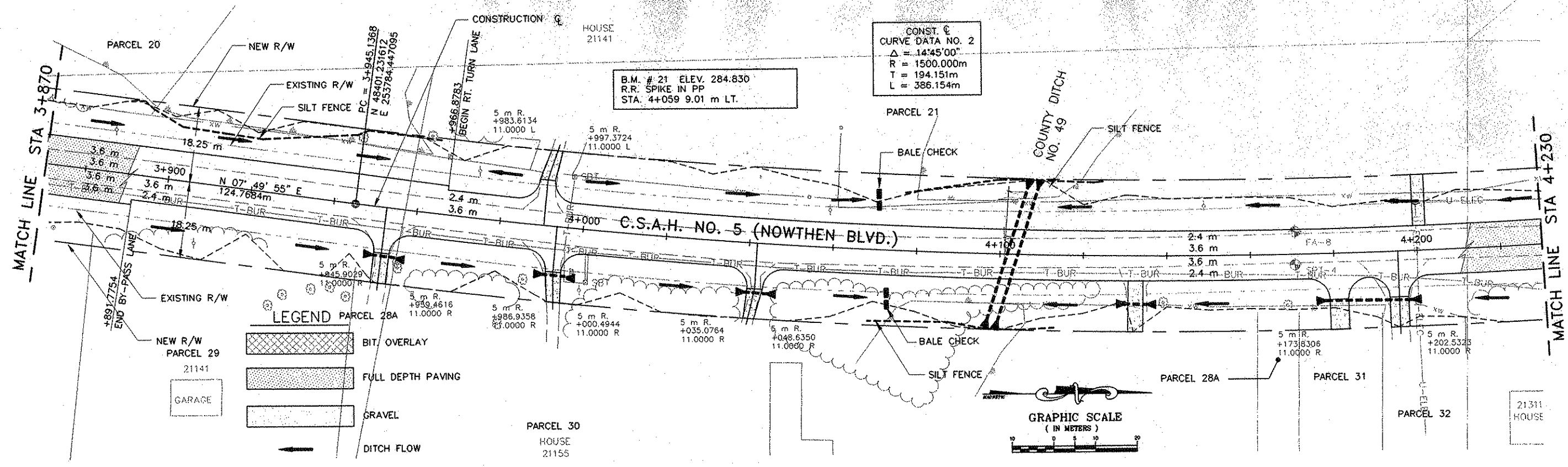
Donald W. [Signature]
DATE: 5/1/98 REG. NO. 20235

DRAWN BY: _____ DATE: _____
 DESIGN BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____

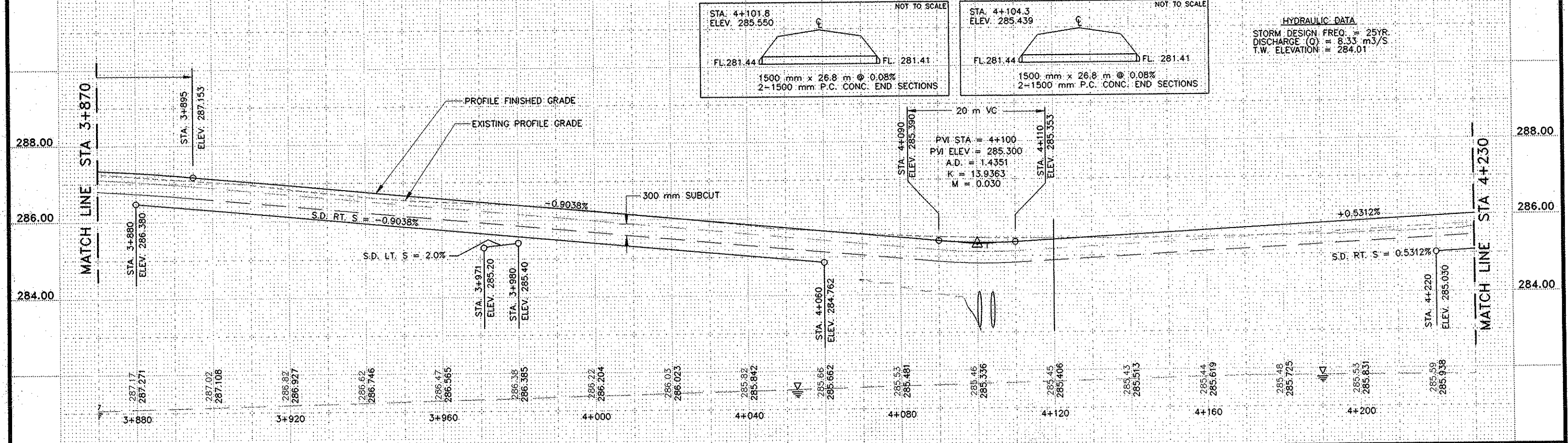
ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

PLAN AND PROFILE
 STA. 3+510 TO STA. 3+870
 Sheet 25 of 54 Sheets



HYDRAULIC DATA
 STORM DESIGN FREQ. = 25YR.
 DISCHARGE (Q) = 8.33 m³/S
 T.W. ELEVATION = 284.01



NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPROJ\0260505\PLAN\CROSSC23.DWG



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

Douglas W. Jensen
 DATE 5/4/98 REG. NO. 20235

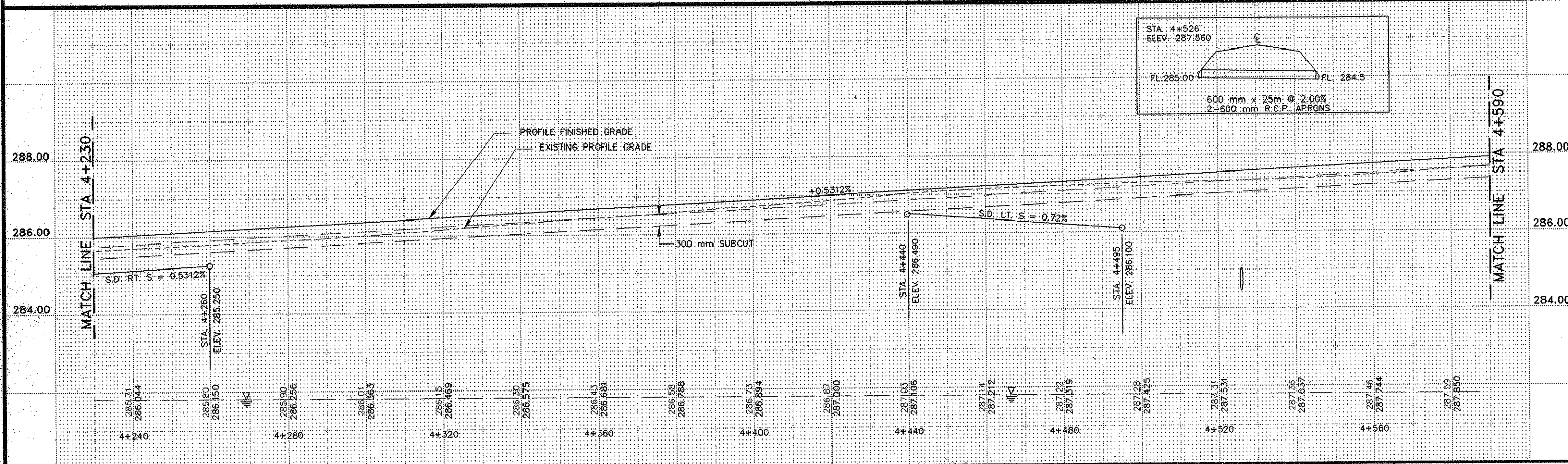
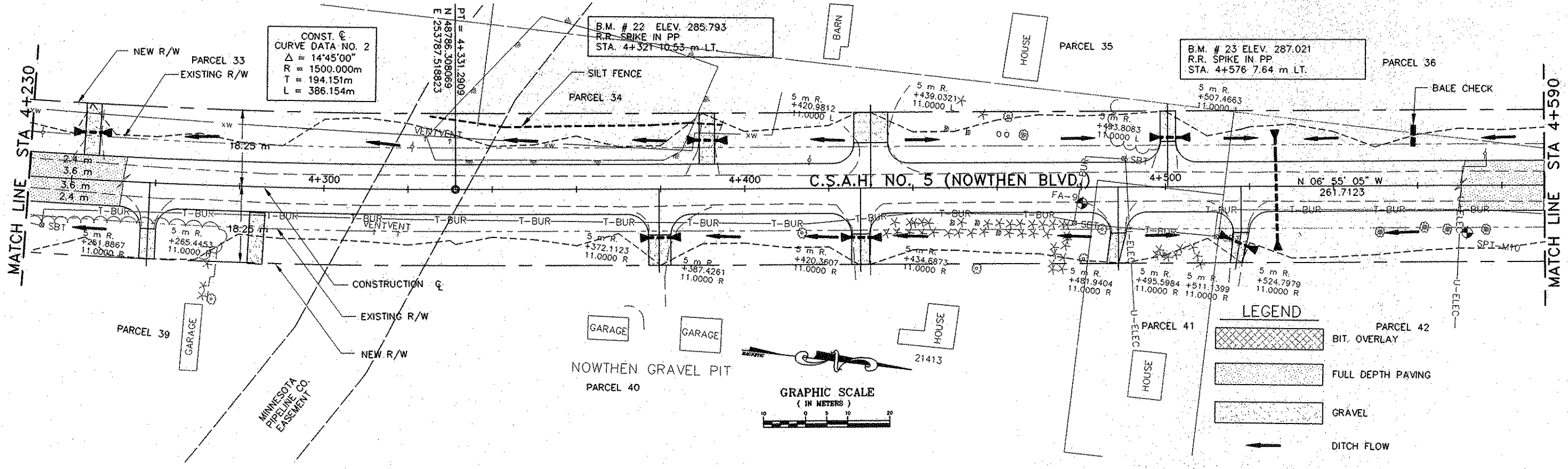
DRAWN BY: _____ DATE: _____
 DESIGN BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____



ANOKA COUNTY HIGHWAY DEPT.

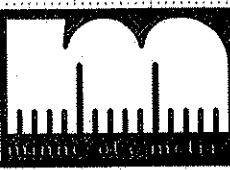
STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

PLAN AND PROFILE
 STA. 3+870 TO STA. 4+230
 Sheet 26 of 54 Sheets



NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPROJ\0260505\PLAN\CR05C24.DWG



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

Douglas W. Jones
 DATE 5/1/98 REG. NO. 20235

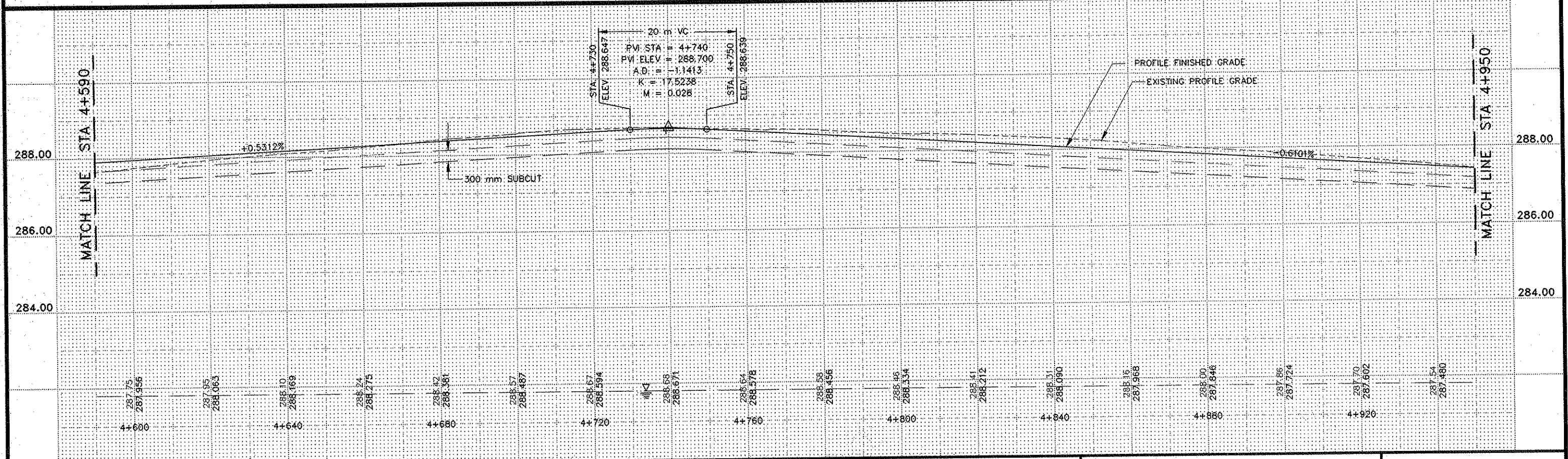
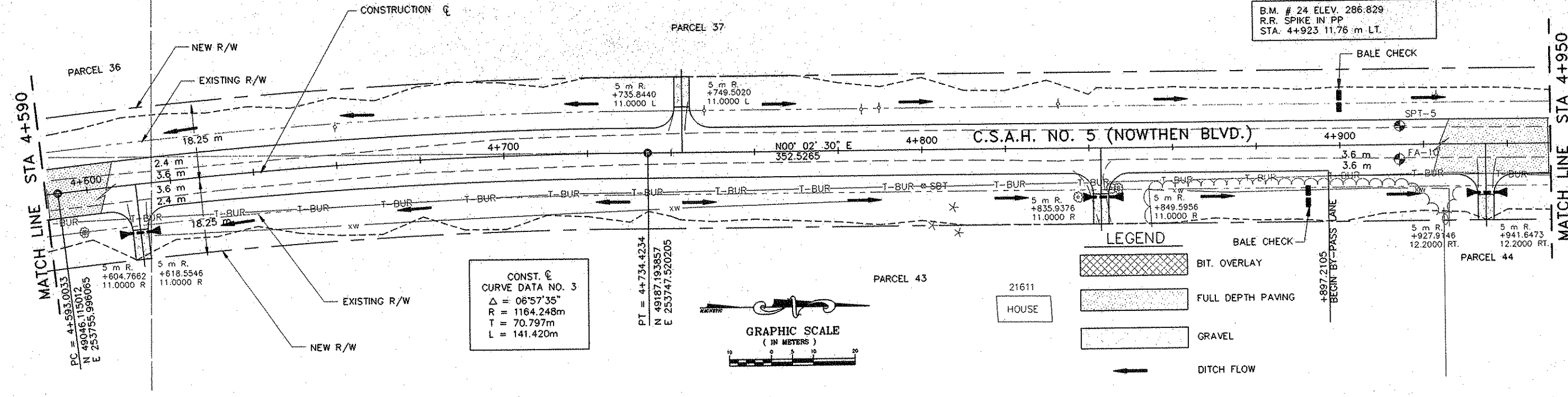
DRAWN BY _____ DATE _____
 DESIGN BY _____ DATE _____
 CHECKED BY _____ DATE _____

ANOKA COUNTY HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

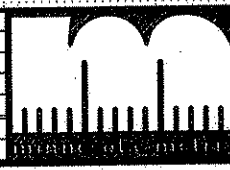
PLAN AND PROFILE
 STA. 4+230 TO STA. 4+590
 Sheet 27 of 54 Sheets

B.M. # 24 ELEV. 286.829
R.R. SPIKE IN PP
STA. 4+923 11.76 m LT.



NO	DATE	BY	CKD	APPR	REVISION

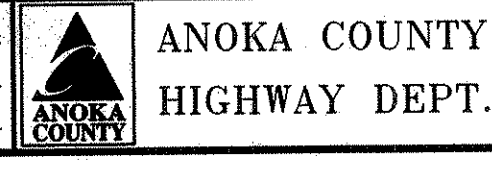
NAME: S:\SDSKPRO\0260505\PLAN\CRO5C25.DWG



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

Douglas M. Zwick
 DATE 6/1/98 REG. NO. 20235

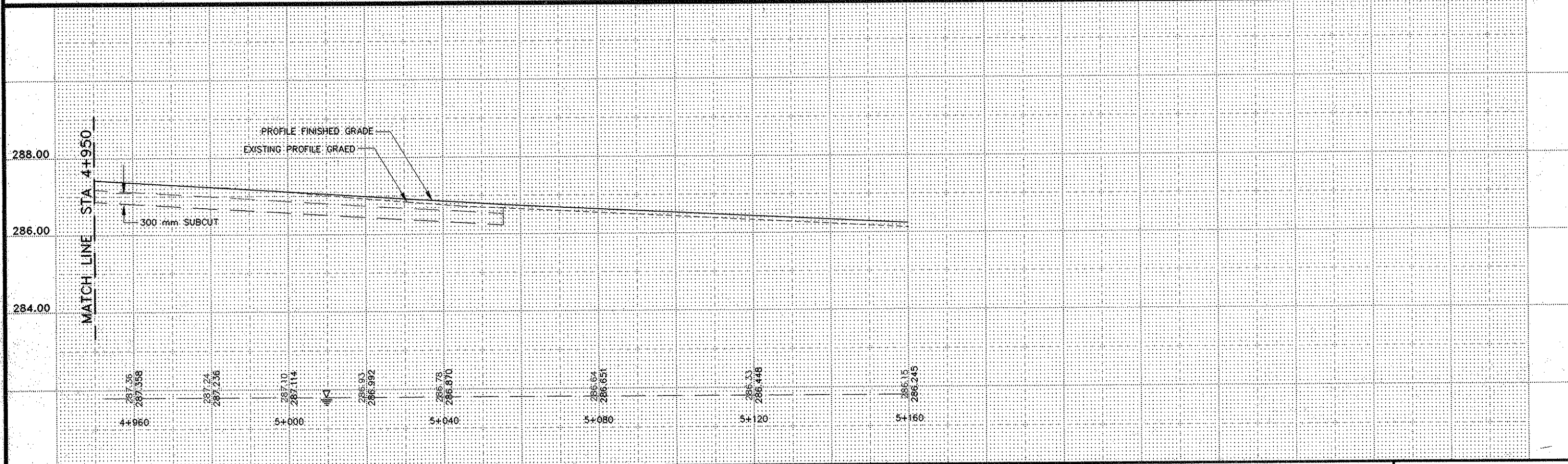
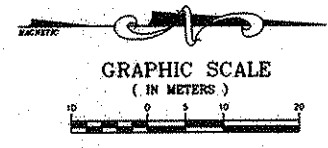
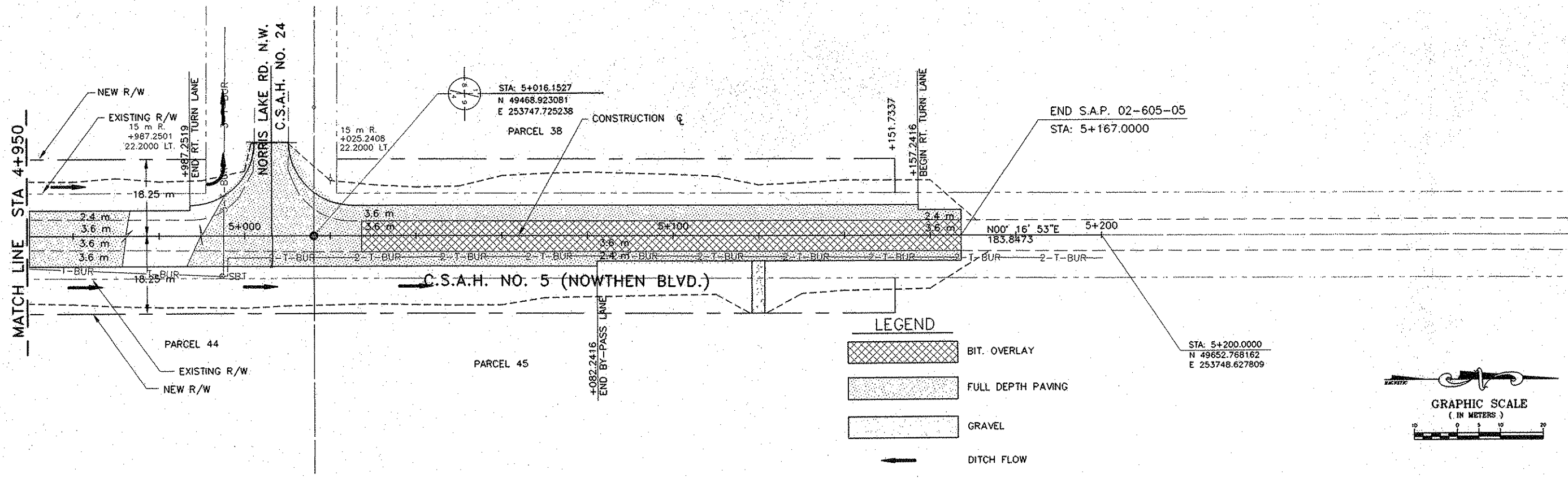
DRAWN BY _____ DATE _____
 DESIGN BY _____ DATE _____
 CHECKED BY _____ DATE _____



STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

PLAN AND PROFILE
 STA. 4+590 TO STA. 4+950

Sheet 28 of 54 Sheets



NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPRO\0260505\PLAN\CROSSC26.DWG



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

Douglas M. Finch

DATE 5/1/98 REG. NO. 20235

DRAWN BY _____ DATE _____

DESIGN BY _____ DATE _____

CHECKED BY _____ DATE _____



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____

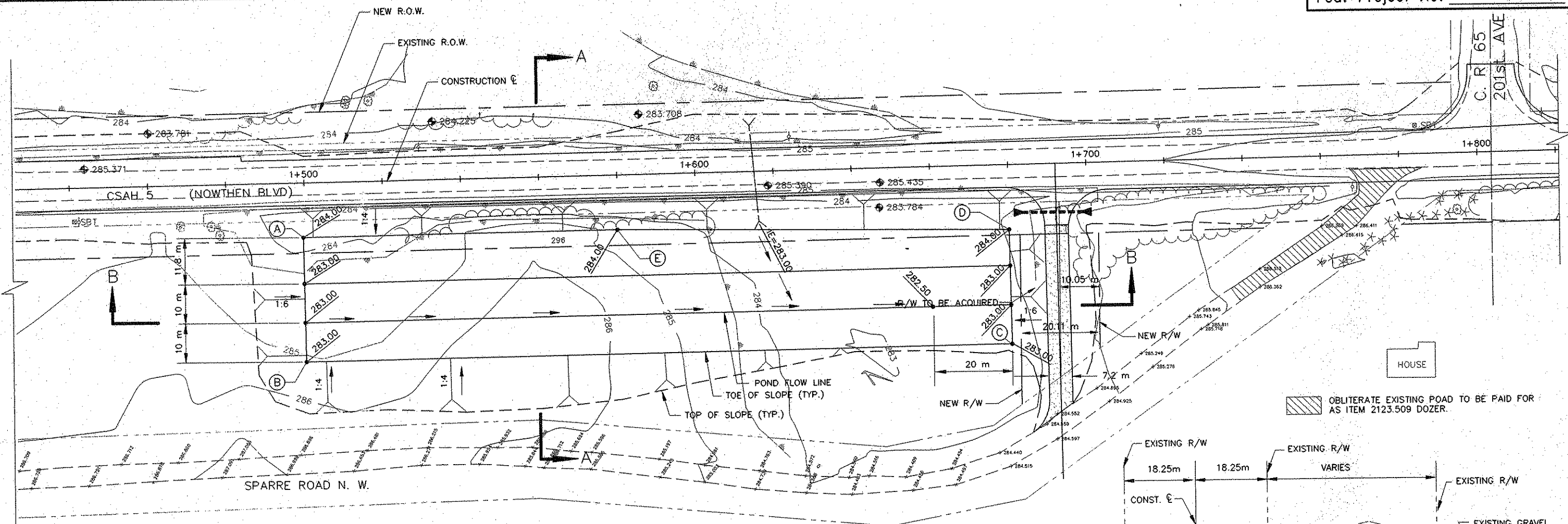
STATE AID PROJECT NO. 02-605-05

STATE AID PROJECT NO. _____

COUNTY PROJECT NO. _____

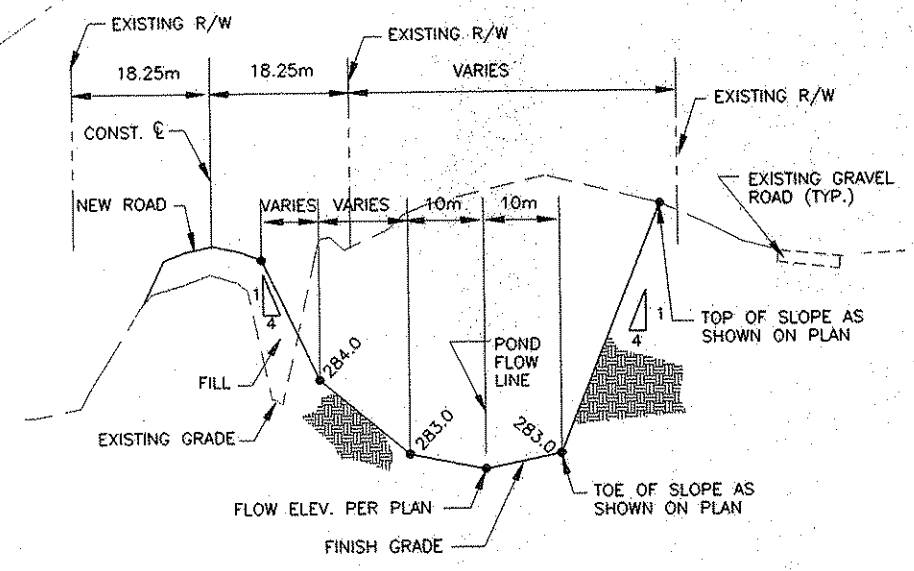
PLAN AND PROFILE
STA. 4+950 TO STA. 5+167.242

Sheet 29 of 54 Sheets

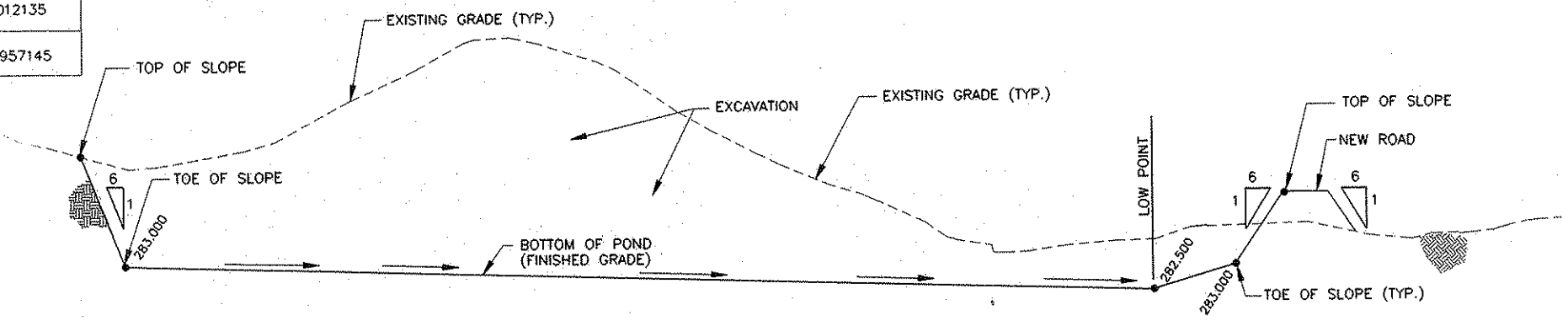


COORDINATE TABLE		
I.D.	NORTHING	EASTING
(A)	N 45957.824400	E 253808.198736
(B)	N 45958.316105	E 253839.994934
(C)	N 46138.769305	E 253837.204356
(D)	46138.317868	E 253808.012135
(E)	N 46038.112055	E 253806.957145

NOTE: CONTRACTOR SHALL PLACE 300mm MUCK EXCAVATION OVER ENTIRE POND AREA FOR TOPSOIL DRESSING.



SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE

NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPRO\A\0260505\PLAN\605POND1.DWG



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

David M. [Signature]
DATE 5/1/98 REG. NO. 20235

DRAWN BY: _____ DATE _____
DESIGN BY: _____ DATE _____
CHECKED BY: _____ DATE _____



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

STATION	AREAS		VOLUMES		CUMULATIVE VOLUMES	
	Square Meters		Cubic Meters		Cubic Meters	
	CUT	FILL	CUT	FILL	CUT	FILL
1+377	12.30	0.12	35.11	0.71	35.11	0.71
1+380	11.10	0.35	102.72	1.77	137.83	2.48
1+390	9.44	0.00	96.03	24.39	233.86	26.87
1+400	9.76	4.88	97.27	35.11	331.13	61.98
1+410	9.69	2.14	70.71	23.41	401.83	85.39
1+420	4.45	2.54	55.60	16.73	457.44	102.12
1+430	6.67	0.81	55.02	20.61	512.46	122.73
1+440	4.33	3.31	44.95	33.93	557.41	156.66
1+450	4.66	3.47	71.25	19.45	628.66	176.11
1+460	9.59	0.42	77.46	10.98	706.11	187.09
1+470	5.90	1.78	66.80	15.00	772.91	202.09
1+480	7.46	1.22	70.54	18.17	843.45	220.26
1+490	6.65	2.41	340.61	20.88	1184.07	241.14
1+500	61.48	1.76	610.88	58.75	1794.94	299.89
1+510	60.70	9.99	649.20	58.46	2444.14	358.35
1+520	69.14	1.71	783.30	38.65	3227.45	397.00
1+530	87.52	6.02	955.09	74.31	4182.54	471.30
1+540	103.50	8.84	1135.58	65.70	5318.12	537.01
1+550	123.62	4.30	1306.35	37.27	6624.47	574.28
1+560	137.65	3.15	1282.16	163.29	7906.63	737.57
1+570	118.78	29.51	1064.63	177.33	8971.26	914.90
1+580	94.15	5.96	828.33	102.70	9799.59	1017.61
1+590	71.52	14.58	623.43	165.39	10423.03	1183.00
1+600	53.17	18.50	459.14	193.60	10882.17	1376.60
1+610	38.66	20.22	325.41	254.88	11207.58	1631.48
1+620	26.42	30.75	201.03	261.59	11408.61	1893.07
1+630	13.78	21.57	116.67	225.69	11525.28	2118.76
1+640	9.55	23.57	104.37	255.03	11629.65	2373.79
1+650	11.33	27.43	128.18	241.23	11757.82	2615.02
1+660	14.31	20.81	159.08	202.10	11916.90	2817.12
1+670	17.51	19.61	95.94	183.00	12012.83	3000.12
1+680	1.68	16.99	8.73	384.80	12021.56	3384.92
1+690	0.06	59.97	0.32	351.77	12021.89	3736.69
1+700	0.00	10.38	0.00	112.62	12021.89	3849.31
1+710	0.00	12.14	0.76	120.02	12022.65	3969.32
1+720	0.15	11.86	13.03	99.05	12035.68	4068.37
1+730	2.45	7.95	17.05	89.20	12052.73	4157.58
1+740	0.95	9.89	12.45	101.29	12065.17	4258.87
1+750	1.54	10.36	8.47	90.46	12073.65	4349.33
1+760	0.16	7.73	14.30	51.68	12087.94	4401.02
1+770	2.70	2.61	16.35	16.64	12104.29	4417.65
1+775	3.84	4.05	15.15	19.01	12119.44	4436.67
1+780	2.22	3.56	21.91	29.66	12141.34	4466.33
1+790	2.16	2.37	36.43	21.72	12177.78	4488.05
1+800	5.13	1.97	51.17	23.32	12228.95	4511.37
1+810	5.11	2.69	70.20	21.77	12299.14	4533.14
1+820	8.93	1.66	32.78	7.52	12331.93	4540.66

STATION	AREAS		VOLUMES		CUMULATIVE VOLUMES	
	Square Meters		Cubic Meters		Cubic Meters	
	CUT	FILL	CUT	FILL	CUT	FILL
1+825	4.18	1.35	31.00	8.80	12362.92	4549.47
1+830	8.22	2.17	99.22	10.90	12462.15	4560.37
1+840	11.63	0.01	103.53	6.27	12565.68	4566.64
1+850	9.08	1.25	77.65	15.84	12643.32	4582.48
1+860	6.45	1.92	66.75	15.03	12710.07	4597.51
1+870	6.90	1.08	85.64	11.71	12795.71	4609.22
1+880	10.23	1.26	109.77	6.30	12905.49	4615.52
1+890	11.73	0.00	87.01	15.39	12992.49	4630.91
1+900	5.67	3.08	39.73	52.42	13032.22	4683.33
1+910	2.27	7.41	11.36	81.83	13043.59	4765.16
1+920	0.00	8.96	0.00	102.91	13043.59	4868.06
1+930	0.00	11.62	0.00	140.58	13043.59	5008.64
1+940	0.00	16.49	0.00	149.26	13043.59	5157.91
1+950	0.00	13.36	0.00	141.59	13043.59	5299.50
1+960	0.00	14.96	0.00	153.80	13043.59	5453.29
1+970	0.00	15.80	0.00	149.12	13043.59	5602.41
1+980	0.00	14.02	15.58	126.87	13059.16	5729.28
1+990	3.12	11.35	50.15	85.15	13109.31	5814.43
2+000	6.91	5.68	82.04	72.61	13191.35	5887.04
2+010	9.50	8.84	82.71	74.38	13274.06	5961.42
2+020	7.05	6.04	77.93	62.70	13351.99	6024.13
2+030	8.54	6.51	57.69	42.29	13409.68	6066.42
2+037	7.94	5.58	28.62	13.72	13438.30	6080.14
2+040	11.14	3.57	106.24	43.00	13544.55	6123.14
2+050	10.11	5.03	183.96	31.89	13728.50	6155.03
2+060	26.68	1.35	169.14	31.59	13897.64	6186.63
2+070	7.15	4.97	76.80	33.12	13974.44	6219.74
2+080	8.21	1.65	102.76	10.19	14077.20	6229.93
2+090	12.34	0.38	98.02	28.43	14175.21	6258.37
2+100	7.27	5.30	87.50	29.77	14262.72	6288.13
2+110	10.24	0.65	86.36	12.94	14349.08	6301.07
2+120	7.04	1.94	77.74	17.27	14426.82	6318.34
2+130	8.51	1.52	105.36	8.01	14532.17	6326.35
2+140	12.56	0.09	92.09	5.36	14624.26	6331.71
2+150	5.86	0.99	73.00	9.13	14697.26	6340.84
2+160	8.75	0.84	85.16	8.39	14782.43	6349.23
2+170	8.29	0.84	61.95	7.31	14844.38	6356.55
2+180	4.10	0.62	36.11	14.94	14880.49	6371.48
2+190	3.12	2.36	48.98	19.60	14929.47	6391.08
2+200	6.68	1.56	59.47	16.38	14988.95	6407.46
2+210	5.22	1.72	62.04	10.64	15050.99	6418.11
2+220	7.19	0.41	48.65	11.93	15099.64	6430.04
2+230	2.54	1.98	41.90	21.99	15141.54	6452.03
2+240	5.84	2.42	57.17	19.98	15198.71	6472.01
2+250	5.60	1.58	50.72	13.70	15249.43	6485.70
2+260	4.55	1.16	51.83	12.55	15301.26	6498.26
2+270	5.82	1.35	66.42	6.73	15367.68	6504.99
2+280	7.47	0.00	68.08	8.94	15435.76	6513.93

STATION	AREAS		VOLUMES		CUMULATIVE VOLUMES	
	Square Meters		Cubic Meters		Cubic Meters	
	CUT	FILL	CUT	FILL	CUT	FILL
2+290	6.15	1.79	17.07	5.23	15452.83	6519.16
2+293	5.23	1.70	45.95	8.77	15498.78	6527.93
2+300	7.90	0.81	63.77	15.26	15562.55	6543.19
2+310	4.85	2.25	82.49	11.38	15645.04	6554.58
2+320	11.65	0.03	109.93	4.01	15754.97	6558.58
2+330	10.34	0.77	111.29	6.93	15866.26	6565.51
2+340	11.92	0.61	122.40	3.77	15988.66	6569.28
2+350	12.56	0.14	120.35	6.32	16109.01	6575.60
2+360	11.51	1.12	111.12	7.11	16220.13	6582.71
2+370	10.72	0.30	123.03	2.05	16343.16	6584.76
2+380	13.89	0.11	98.16	6.72	16441.32	6591.47
2+390	5.74	1.23	91.46	6.63	16532.78	6598.10
2+400	12.55	0.10	107.93	0.63	16640.71	6598.73
2+410	9.03	0.03	81.32	3.40	16722.03	6602.13
2+420	7.23	0.65	75.38	3.77	16797.41	6605.90
2+430	7.85	0.10	68.77	7.53	16866.17	6613.43
2+440	5.91	1.40	61.80	10.66	16927.97	6624.08
2+450	6.45	0.73	64.62	15.08	16992.59	6639.16
2+460	6.47	2.29	52.89	49.32	17045.48	6688.48
2+470	4.11	7.58	52.01	42.65	17097.50	6731.14
2+480	6.30	0.95	63.17	16.52	17160.66	6747.66
2+490	6.34	2.35	67.83	19.80	17228.50	6767.46
2+500	7.23	1.61	64.70	29.05	17293.19	6796.51
2+510	5.71	4.20	52.93	28.82	17346.12	6825.32
2+520	4.88	1.56	35.81	57.28	17381.94	6882.60
2+530	2.29	9.90	25.63	59.67	17407.56	6942.27
2+540	2.84	2.04	59.81	24.34	17467.37	6966.61
2+550	9.12	2.83	69.84	23.76	17537.21	6990.37
2+560	4.85	1.92	74.22	14.27	17611.43	7004.64
2+570	10.00	0.93	125.40	11.82	17736.83	7016.45
2+580	15.08	1.43	125.42	13.87	17862.25	7030.33
2+590	10.00	1.34	70.90	7.78	17933.15	7038.11
2+600	4.18	0.21	52.76	1.93	17985.91	7040.04
2+610	6.37	0.17	50.68	9.15	18036.59	7049.18
2+620	3.76	1.66	29.21	23.95	18065.80	7073.14
2+630	2.08	3.13	35.73	41.89	18101.53	7115.02
2+640	5.07	5.24	57.29	38.80	18158.82	7153.82
2+650	6.39	2.52	48.49	31.28	18207.30	7185.10
2+660	3.31	3.74	32.64	39.88	18239.94	7224.98
2+670	3.22	4.24	42.75	24.04	18282.69	7249.02
2+680	5.33	0.57	42.94	20.65	18325.63	7269.67
2+690	3.26	3.56	27.47	42.53	18353.10	7312.20
2+700	2.24	4.95	23.66	41.34	18376.76	7353.54
2+710	2.50	3.32	33.34	34.74	18410.10	7388.28
2+720	4.17	3.63	42.36	25.39	18452.46	7413.67
2+730	4.30	1.45	39.87	25.57	18492.33	7439.24
2+740	3.67	3.66	34.22	37.37	18526.56	7476.60
2+750	3.17	3.81	21.20	16.90	18547.76	7493.50
2+757	2.89	1.02	14.68	2.10	18562.44	7495.60

NO	DATE	BY	CKD	APPR	REVISION



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

Douglas W. [Signature]
 DATE 5/1/98 REG. NO. 20235

DRAWN BY _____ DATE _____
 DESIGN BY _____ DATE _____
 CHECKED BY _____ DATE _____

STATION	AREAS		VOLUMES		CUMULATIVE VOLUMES	
	Square Meters		Cubic Meters		Cubic Meters	
	CUT	FILL	CUT	FILL	CUT	FILL
2+760	6.90	0.38	46.33	31.70	18608.77	7527.30
2+770	2.36	5.96	34.41	42.15	18643.18	7569.45
2+780	4.52	2.47	58.68	15.75	18701.87	7585.20
2+790	7.22	0.68	82.97	3.83	18784.84	7589.03
2+800	9.38	0.09	78.72	9.87	18863.56	7598.90
2+810	6.37	1.88	75.39	11.51	18938.95	7610.41
2+820	8.71	0.42	68.92	13.14	19007.87	7623.54
2+830	5.07	2.21	58.92	17.36	19066.79	7640.90
2+840	6.71	1.26	73.36	9.76	19140.15	7650.66
2+850	7.96	0.69	87.07	9.16	19227.22	7659.83
2+860	9.46	1.14	79.90	18.30	19307.13	7678.12
2+870	6.53	2.52	55.04	49.45	19362.16	7727.57
2+880	4.48	7.37	68.01	46.85	19430.18	7774.42
2+890	9.12	2.00	90.80	16.16	19520.98	7790.58
2+900	9.04	1.23	80.36	25.25	19601.34	7815.83
2+910	7.03	3.81	79.52	33.35	19680.86	7849.18
2+920	8.87	2.86	74.22	32.14	19755.08	7881.31
2+930	5.97	3.57	62.56	24.90	19817.64	7906.22
2+940	6.54	1.41	58.64	26.35	19876.28	7932.57
2+950	5.19	3.86	50.63	39.34	19926.92	7971.91
2+960	4.94	4.01	47.34	37.87	19974.26	8009.78
2+970	4.53	3.56	30.69	9.47	20004.95	8019.25
2+975	7.75	0.23	32.25	8.24	20037.20	8027.49
2+980	5.16	3.07	53.45	29.23	20090.65	8056.72
2+990	5.53	2.77	33.01	37.24	20123.65	8093.96
3+000	1.07	4.67	15.44	33.02	20139.10	8126.98
3+010	2.02	1.93	10.97	45.67	20150.06	8172.66
3+020	0.17	7.20	0.86	69.76	20150.92	8242.42
3+030	0.00	6.75	0.40	81.33	20151.33	8323.75
3+040	0.08	9.52	0.92	76.27	20152.25	8400.02
3+050	0.10	5.73	2.40	48.33	20154.65	8448.35
3+060	0.38	3.93	6.44	41.65	20161.09	8489.99
3+070	0.91	4.40	8.35	30.19	20169.44	8520.19
3+080	0.76	1.64	8.94	34.90	20178.38	8555.08
3+090	1.03	5.34	7.36	53.34	20185.73	8608.43
3+100	0.44	5.33	4.59	46.26	20190.32	8654.69
3+110	0.48	3.92	7.59	39.78	20197.91	8694.47
3+120	1.04	4.03	16.68	29.77	20214.59	8724.24
3+130	2.29	1.92	18.54	26.92	20233.13	8751.16
3+140	1.42	3.46	11.12	13.71	20244.25	8764.88
3+145	3.03	2.02	15.85	10.26	20260.10	8775.14
3+150	3.31	2.08	21.56	33.99	20281.66	8809.13
3+160	1.01	4.72	18.76	36.96	20300.42	8846.09
3+170	2.75	2.67	43.68	23.09	20382.58	8893.88
3+180	4.95	2.27	42.59	18.42	20425.18	8912.31
3+190	3.78	2.35	43.47	18.89	20468.65	8931.20
3+200	4.73	1.33	69.13	15.05	20537.78	8946.25
3+210	3.96	2.45	93.71	3.10	20631.49	8949.35
3+220	9.87	0.56				

STATION	AREAS		VOLUMES		CUMULATIVE VOLUMES	
	Square Meters		Cubic Meters		Cubic Meters	
	CUT	FILL	CUT	FILL	CUT	FILL
3+230	8.88	0.06	90.09	10.68	20721.57	8960.02
3+240	9.14	2.08	105.15	10.60	20826.72	8970.63
3+250	11.89	0.04	105.49	2.43	20932.20	8973.06
3+260	9.21	0.44	72.20	13.46	21004.40	8986.52
3+270	5.23	2.25	86.14	11.27	21090.54	8997.78
3+280	12.00	0.00	104.49	4.01	21195.03	9001.79
3+290	8.90	0.80	93.60	4.03	21288.63	9005.82
3+300	9.82	0.01	89.59	2.32	21378.22	9008.14
3+310	8.10	0.46	83.89	8.18	21462.11	9016.32
3+320	8.68	1.18	83.04	5.97	21545.15	9022.29
3+330	7.93	0.01	56.59	14.58	21601.74	9036.87
3+340	3.39	2.90	34.18	28.21	21635.92	9065.08
3+350	3.45	2.74	28.56	36.03	21664.49	9101.12
3+360	2.27	4.47	16.50	67.21	21680.98	9168.33
3+370	1.03	8.98	21.77	47.88	21702.76	9216.20
3+380	3.32	0.60	16.60	69.83	21719.36	9286.03
3+390	0.00	13.37	6.79	77.68	21726.14	9363.71
3+400	1.36	2.17	6.79	107.53	21732.93	9471.24
3+410	0.00	19.34	2.04	122.05	21734.97	9593.29
3+420	0.41	5.07	2.28	49.03	21737.26	9642.31
3+430	0.05	4.73	0.46	52.91	21737.71	9695.23
3+440	0.04	5.85	0.21	68.03	21737.93	9763.26
3+450	0.00	7.75	0.00	75.84	21737.93	9839.10
3+460	0.00	7.41	0.00	75.19	21737.93	9914.29
3+470	0.00	7.62	0.00	95.99	21737.93	10010.28
3+480	0.00	11.58	0.00	106.44	21737.93	10116.72
3+490	0.00	9.71	0.00	99.07	21737.93	10215.79
3+500	0.00	10.10	19.94	50.51	21757.87	10266.30
3+510	3.99	0.00	44.88	0.00	21802.75	10266.30
3+520	4.99	0.00	35.79	4.02	21838.54	10270.31
3+530	2.17	0.80	11.10	22.71	21849.65	10293.03
3+540	0.05	3.74	3.41	55.36	21853.05	10348.39
3+550	0.63	7.33	3.16	67.58	21856.22	10415.97
3+560	0.00	6.18	0.00	62.21	21856.22	10478.18
3+570	0.00	6.26	0.42	46.23	21856.64	10524.41
3+580	0.08	2.99	2.01	37.13	21858.65	10561.54
3+590	0.32	4.44	2.49	38.42	21861.14	10599.95
3+600	0.18	3.24	2.18	39.56	21863.32	10639.52
3+610	0.25	4.67	1.55	42.02	21864.87	10681.54
3+620	0.06	3.74	3.57	31.17	21868.43	10712.71
3+630	0.66	2.50	10.98	67.12	21879.41	10779.83
3+640	1.54	10.93	2.73	13.19	21882.14	10793.02
3+641.56	1.96	6.00	19.11	42.06	21901.26	10835.09
3+650	2.52	4.00	28.85	34.05	21930.10	10869.13
3+660	3.19	2.82	32.07	46.24	21962.17	10915.37
3+670	3.16	6.46	28.70	47.26	21990.87	10962.63
3+680	2.53	3.01	53.77	20.80	22044.64	10983.43
3+690	8.15	1.15	79.25	12.73	22123.88	10996.16
3+700	7.59	1.40	76.08	23.40	22199.97	11019.56

STATION	AREAS		VOLUMES		CUMULATIVE VOLUMES	
	Square Meters		Cubic Meters		Cubic Meters	
	CUT	FILL	CUT	FILL	CUT	FILL
3+710	7.53	3.29	91.80	21.82	22291.76	11041.38
3+720	10.71	1.09	81.67	16.80	22373.44	11058.19
3+730	5.54	2.29	56.94	20.98	22430.38	11079.16
3+740	5.81	1.92	78.62	14.38	22509.00	11093.55
3+750	9.84	0.97	118.66	5.82	22627.66	11099.36
3+760	13.76	0.20	21.48	0.33	22649.14	11099.70
3+762	7.66	0.13	57.00	6.26	22706.14	11105.95
3+770	6.57	1.43	58.87	18.54	22765.01	11124.49
3+780	5.19	2.26	69.89	12.92	22834.90	11137.40
3+790	8.77	0.32	94.06	2.95	22928.96	11140.35
3+800	10.01	0.27	85.76	44.60	23014.73	11184.95
3+810	7.10	8.73	71.88	44.41	23086.61	11229.37
3+820	7.25	0.20	2.57	0.10	23089.18	11229.47
3+820.37	6.73	0.34	47.81	26.39	23136.99	11255.86
3+830	3.19	5.14	40.05	42.81	23177.04	11298.67
3+840	4.82	3.42	45.39	32.74	23222.43	11331.41
3+850	4.26	3.13	47.02	32.73	23269.45	11364.14
3+860	5.14	3.42	42.34	37.77	23311.79	11401.91
3+870	3.32	4.14	35.43	45.25	23347.22	11447.16
3+880	3.76	4.91	31.74	66.51	23378.97	11513.67
3+890	2.59	8.39	46.57	57.19	23425.54	11570.86
3+900	6.73	3.05	53.62	84.37	23479.15	11655.23
3+910	4.00	13.83	37.57	82.58	23516.72	11737.81
3+920	3.52	2.69	32.95	87.20	23549.68	11825.01
3+930	3.07	14.75	33.29	103.69	23582.97	11928.70
3+940	3.59	5.99	18.16	47.30	23601.13	11976.00
3+945.14	3.49	12.43	30.31	59.08	23631.44	12035.08
3+950	8.97	12.04	13.92	25.44	23645.36	12060.52
3+952	4.91	13.58	35.81	99.68	23681.17	12160.19
3+960	4.03	11.50	46.71	84.12	23727.87	12244.31
3+970	5.28	5.41	76.98	31.56	23804.86	12275.88
3+980	10.11	0.90	126.54	4.50	23931.40	12280.38
3+990	15.23	0.00	49.96	0.00	23981.36	12280.38
3+993	18.11	0.00	122.97	1.55	24104.34	12281.92
4+000	17.09	0.44	137.65	7.87	24241.99	12289.79
4+010	10.49	1.13	130.88	5.76	24372.87	12295.55
4+020	15.74	0.02	125.52	5.55	24498.39	12301.10
4+030	9.35	1.09	107.55	5.53	24605.94	12306.63
4+040	12.18	0.02	108.20	8.26	24714.14	12314.90
4+050	9.48	1.63	92.55	19.73	24806.69	12334.62
4+060	9.00	2.31	66.49	27.05	24873.18	12361.68
4+070	4.29	3.09	44.02	48.88	24917.21	12410.56
4+080	4.51	6.69	40.90	96.33	24958.10	12506.89
4+090	3.67	12.56	36.11	162.12	24994.22	12669.01
4+100	3.56	19.81	24.95	163.57	25019.17	12832.59
4+110	1.43	12.92	26.52	104.88	25045.69	12937.46
4+120	3.87	8.04	42.40	53.36	25088.08	12990.83
4+130	4.61	2.63	8.81	6.93	25096.89	12997.76
4+132	4.20	4.31	30.31	46.90	25127.20	13044.66

NO	DATE	BY	CKD	APPR	REVISION

STATION	AREAS		VOLUMES		CUMULATIVE VOLUMES	
	Square Meters		Cubic Meters		Cubic Meters	
	CUT	FILL	CUT	FILL	CUT	FILL
4+140	3.38	7.40	25.80	88.65	25153.00	13133.31
4+150	1.79	10.29	19.72	91.07	25172.72	13224.38
4+160	2.16	7.87	22.41	64.17	25195.13	13288.55
4+170	2.32	4.92	24.76	48.76	25219.89	13337.31
4+180	2.63	4.80	44.22	25.97	25264.11	13363.28
4+190	6.20	0.37	21.58	7.16	25285.68	13370.44
4+195	2.41	2.48	20.50	8.65	25306.19	13379.09
4+200	5.76	0.98	39.21	50.85	25345.40	13429.94
4+210	2.05	9.20	19.57	76.20	25364.97	13506.14
4+220	1.86	6.05	31.77	62.62	25396.75	13568.75
4+230	4.47	6.48	28.82	57.07	25425.57	13625.83
4+240	1.27	4.91	5.31	22.99	25430.87	13648.82
4+244	1.38	6.57	10.88	31.27	25441.76	13680.08
4+250	2.24	3.85	18.36	43.09	25460.11	13723.18
4+260	1.42	4.77	16.86	61.23	25476.98	13784.41
4+270	1.94	7.48	11.06	56.36	25488.04	13840.77
4+280	0.27	3.78	6.57	47.01	25494.61	13887.77
4+290	1.05	5.60	19.98	52.61	25514.59	13940.38
4+300	2.96	4.89	35.27	41.57	25549.86	13981.95
4+310	4.13	3.39	38.73	40.09	25588.59	14022.04
4+320	3.66	4.59	26.90	46.79	25615.49	14068.83
4+330	1.74	4.74	2.20	6.60	25617.70	14075.43
4+331.29	1.68	5.46	15.59	40.93	25633.29	14116.36
4+340	1.90	3.94	11.84	63.36	25645.12	14179.72
4+350	0.47	8.73	17.26	68.63	25662.38	14248.35
4+360	2.99	4.99	26.03	41.53	25688.41	14289.88
4+370	2.22	3.31	24.92	26.56	25713.32	14316.44
4+380	2.76	2.00	42.22	14.85	25755.54	14331.30
4+390	5.68	0.97	54.05	7.80	25809.59	14339.09
4+400	5.13	0.59	56.52	11.44	25866.12	14350.53
4+410	6.18	1.70	68.83	16.60	25934.95	14367.13
4+420	7.59	1.62	52.24	5.68	25987.19	14372.81
4+427	7.34	0.00	21.88	0.00	26009.07	14372.81
4+430	7.25	0.00	79.99	1.13	26089.05	14373.94
4+440	8.74	0.23	85.83	56.98	26174.88	14430.92
4+450	8.42	11.17	132.29	55.86	26307.17	14486.78
4+460	18.04	0.00	165.71	0.58	26472.88	14487.35
4+470	15.10	0.12	148.57	5.05	26621.45	14492.40
4+480	14.61	0.89	121.35	15.46	26742.79	14507.86
4+490	9.66	2.20	82.81	20.79	26825.60	14528.65
4+500	6.90	1.96	45.58	48.50	26871.18	14577.15
4+510	2.21	7.74	18.24	63.54	26889.41	14640.69
4+518	2.35	8.15	5.86	15.54	26895.27	14656.23
4+520	3.51	7.39	24.95	124.32	26920.22	14780.55
4+530	1.48	17.47	13.78	140.94	26934.00	14921.49
4+540	1.28	10.71	17.53	94.00	26951.53	15015.50
4+550	2.23	8.09	21.65	89.45	26973.18	15104.95
4+560	2.10	9.80	25.21	79.34	26998.39	15184.29

STATION	AREAS		VOLUMES		CUMULATIVE VOLUMES	
	Square Meters		Cubic Meters		Cubic Meters	
	CUT	FILL	CUT	FILL	CUT	FILL
4+570	2.94	6.07	23.51	72.33	27021.90	15256.62
4+580	1.76	8.40	32.79	65.28	27054.69	15321.90
4+590	4.80	4.66	10.64	15.56	27065.33	15337.45
4+593	2.29	5.70	27.46	32.25	27092.79	15369.70
4+600	5.54	3.57	62.90	25.82	27155.69	15395.52
4+610	6.99	1.63	73.51	16.99	27229.19	15412.51
4+620	7.65	1.78	72.92	15.63	27302.11	15428.14
4+630	6.88	1.36	60.79	10.15	27362.90	15438.30
4+640	5.24	0.68	67.82	10.30	27430.72	15448.59
4+650	8.33	1.37	97.36	15.79	27528.07	15464.38
4+660	11.19	1.77	121.19	15.60	27649.27	15479.98
4+670	13.12	1.34	139.27	9.82	27788.54	15489.81
4+680	14.73	0.63	151.32	3.92	27939.86	15493.72
4+690	15.44	0.16	188.80	0.80	28128.66	15494.52
4+700	22.31	0.00	173.16	0.38	28301.82	15494.90
4+710	12.32	0.08	157.66	0.85	28459.48	15495.75
4+720	19.19	0.09	174.30	1.81	28633.78	15497.56
4+730	15.63	0.27	62.84	1.47	28696.62	15499.03
4+734.42	12.71	0.40	88.75	1.14	28785.37	15500.17
4+740	19.12	0.01	31.26	0.11	28816.63	15500.28
4+742	12.13	0.10	117.19	1.71	28933.82	15502.00
4+750	17.16	0.33	210.71	1.63	29144.53	15503.63
4+760	24.98	0.00	237.16	0.03	29381.69	15503.66
4+770	22.46	0.01	200.14	1.78	29581.83	15505.44
4+780	17.57	0.35	167.42	2.67	29749.24	15508.10
4+790	15.91	0.18	177.03	1.22	29926.28	15509.33
4+800	19.50	0.06	190.73	0.33	30117.00	15509.65
4+810	18.65	0.00	167.22	1.71	30284.23	15511.37
4+820	14.79	0.34	164.29	14.43	30448.52	15525.79
4+830	18.06	2.55	190.42	12.77	30638.95	15538.57
4+840	20.02	0.01	34.39	0.39	30673.34	15538.96
4+842	14.37	0.39	129.53	2.11	30802.86	15541.07
4+850	18.01	0.14	176.31	0.80	30979.17	15541.87
4+860	17.25	0.02	164.83	0.09	31144.00	15541.96
4+870	15.72	0.00	150.74	3.25	31294.75	15545.21
4+880	14.43	0.65	152.04	4.56	31446.79	15549.77
4+890	15.98	0.26	132.12	7.10	31578.91	15556.87
4+900	10.45	1.16	103.52	7.39	31682.43	15564.26
4+910	10.26	0.32	97.83	3.96	31780.27	15568.22
4+920	9.31	0.47	98.75	7.09	31879.02	15575.31
4+930	10.44	0.95	51.69	3.85	31930.71	15579.16
4+935	10.24	0.59	48.28	3.51	31978.99	15582.67
4+940	9.07	0.81	93.23	4.07	32072.22	15586.74
4+950	9.57	0.00	79.31	1.14	32151.53	15587.88
4+960	6.29	0.23	90.44	1.66	32241.97	15589.54
4+970	11.80	0.10	89.07	6.84	32331.04	15596.38
4+980	6.02	1.26	78.35	7.50	32409.39	15603.88
4+990	9.65	0.24	112.61	2.65	32522.00	15606.53

STATION	AREAS		VOLUMES		CUMULATIVE VOLUMES	
	Square Meters		Cubic Meters		Cubic Meters	
	CUT	FILL	CUT	FILL	CUT	FILL
5+000	12.87	0.29	122.59	3.80	32644.59	15610.33
5+010	11.65	0.47	100.58	3.10	32745.17	15613.43
5+020	8.47	0.16	62.03	14.24	32807.20	15627.67
5+030	3.94	2.69	40.50	24.05	32847.70	15651.72
5+040	4.16	2.12	42.17	28.48	32889.87	15680.20
5+050	4.28	3.58	43.29	35.09	32933.16	15715.30
5+060	4.38	3.44	42.36	32.40	32975.52	15747.69
5+070	4.09	3.04	41.50	28.28	33017.01	15775.98
5+080	4.21	2.62	38.97	22.49	33055.99	15798.47
5+090	3.59	1.88	33.78	21.92	33089.77	15820.39
5+100	3.17	2.50	27.35	30.22	33117.11	15850.61
5+110	2.30	3.54	20.89	30.44	33138.01	15881.04
5+120	1.88	2.54	21.32	30.56	33159.33	15911.60
5+130	2.39	3.57	23.24	38.86	33182.57	15950.46
5+140	2.26	4.20	22.34	42.09	33204.91	15992.55
5+150	2.21	4.21	22.18	42.78	33227.10	16035.33
5+160	2.23	4.34	0.00	0.00	33227.10	16035.33

NOTE: SUBCUT FILL NOT REFLECTED IN FILL QUANTITY.
 SUBCUT FILL CALCULATION BASED ON LENGTH & WIDTH.
 (CALC. IS 14,859 m3)

1	4-24-98	PL	KJ	DF	NOTE FOR CUT & FILL
NO	DATE	BY	CKD	APPR	REVISION



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 Douglas M. J...
 DATE 5/1/98 REG. NO. 20235

DRAWN BY _____ DATE _____
 DESIGN BY _____ DATE _____
 CHECKED BY _____ DATE _____

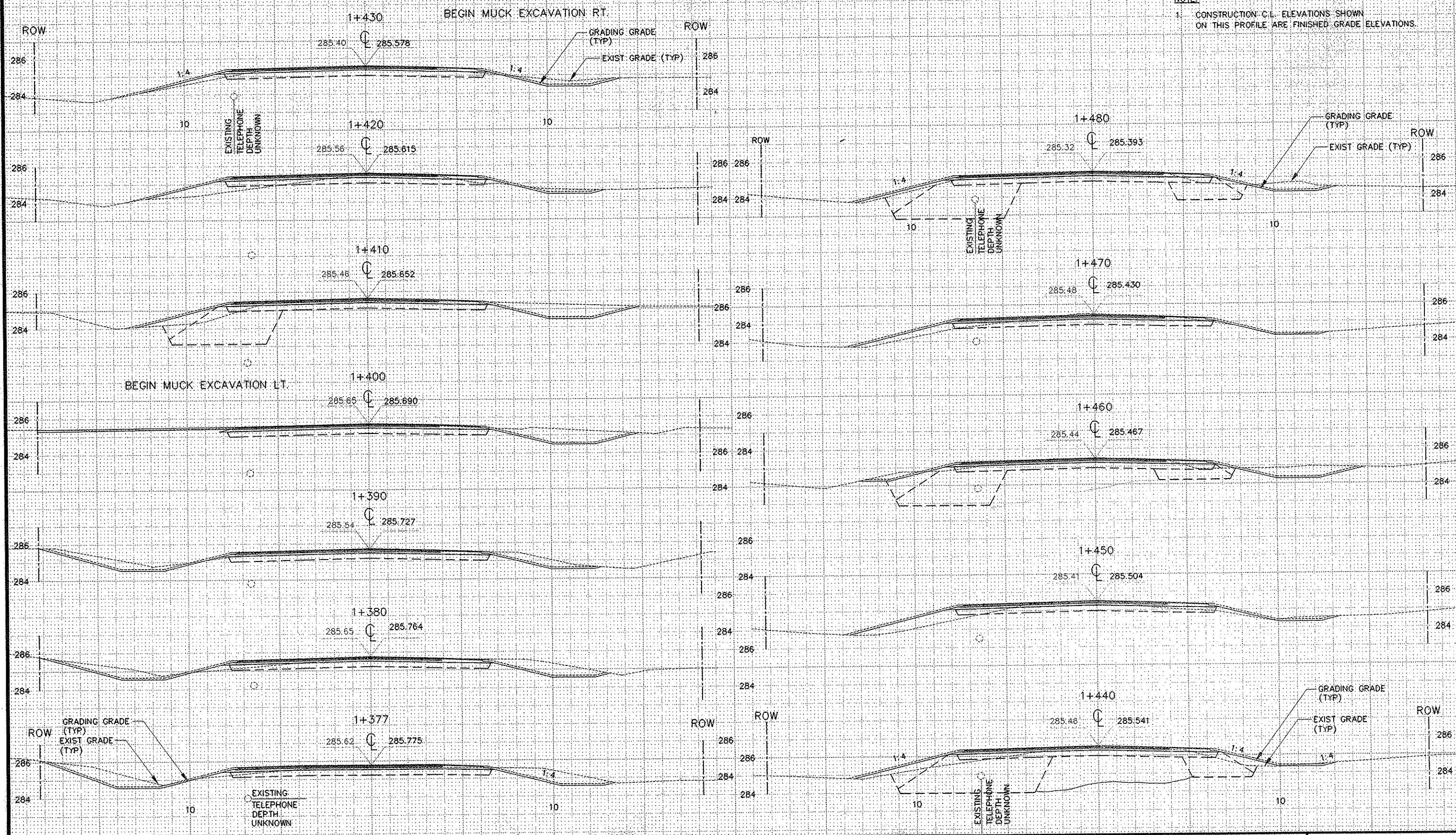


ANOKA COUNTY
 HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

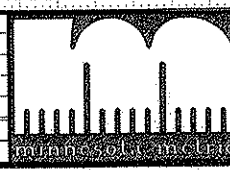
EARTHWORK QUANTITY CHARTS
 Sheet 33 of 54 Sheets

NOTE:
 1. CONSTRUCTION C.L. ELEVATIONS SHOWN ON THIS PROFILE ARE FINISHED GRADE ELEVATIONS.



NO	DATE	BY	CHKD	APPR	REVISION

NAME: S:\SDSKPROJ\0260505\PLAN\CROSSX01.DWG



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

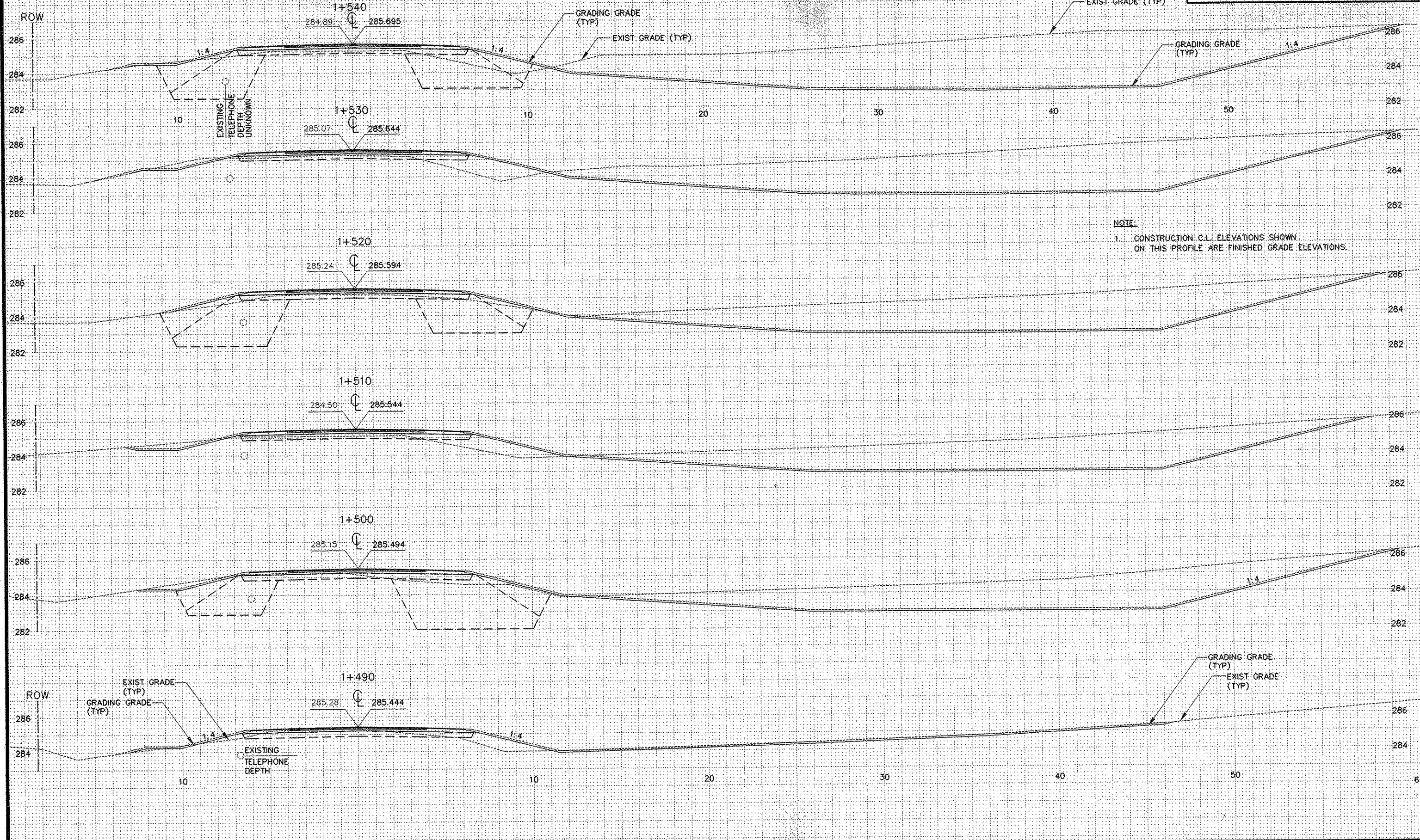
Douglas W. Smith
 DATE 5/1/98 REG. NO. 20235

DRAWN BY _____ DATE _____
 DESIGN BY _____ DATE _____
 CHECKED BY _____ DATE _____

ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

CROSS-SECTION
 STA. 1+377.00 TO 1+480.00
 Sheet 34 of 54 Sheets



NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPROJ\0260505\PLAN\CROSS02.DWG



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

Douglas W. Enns
DATE 5/1/98 REG. NO. 20235

DRAWN BY: _____ DATE _____
DESIGN BY: _____ DATE _____
CHECKED BY: _____ DATE _____

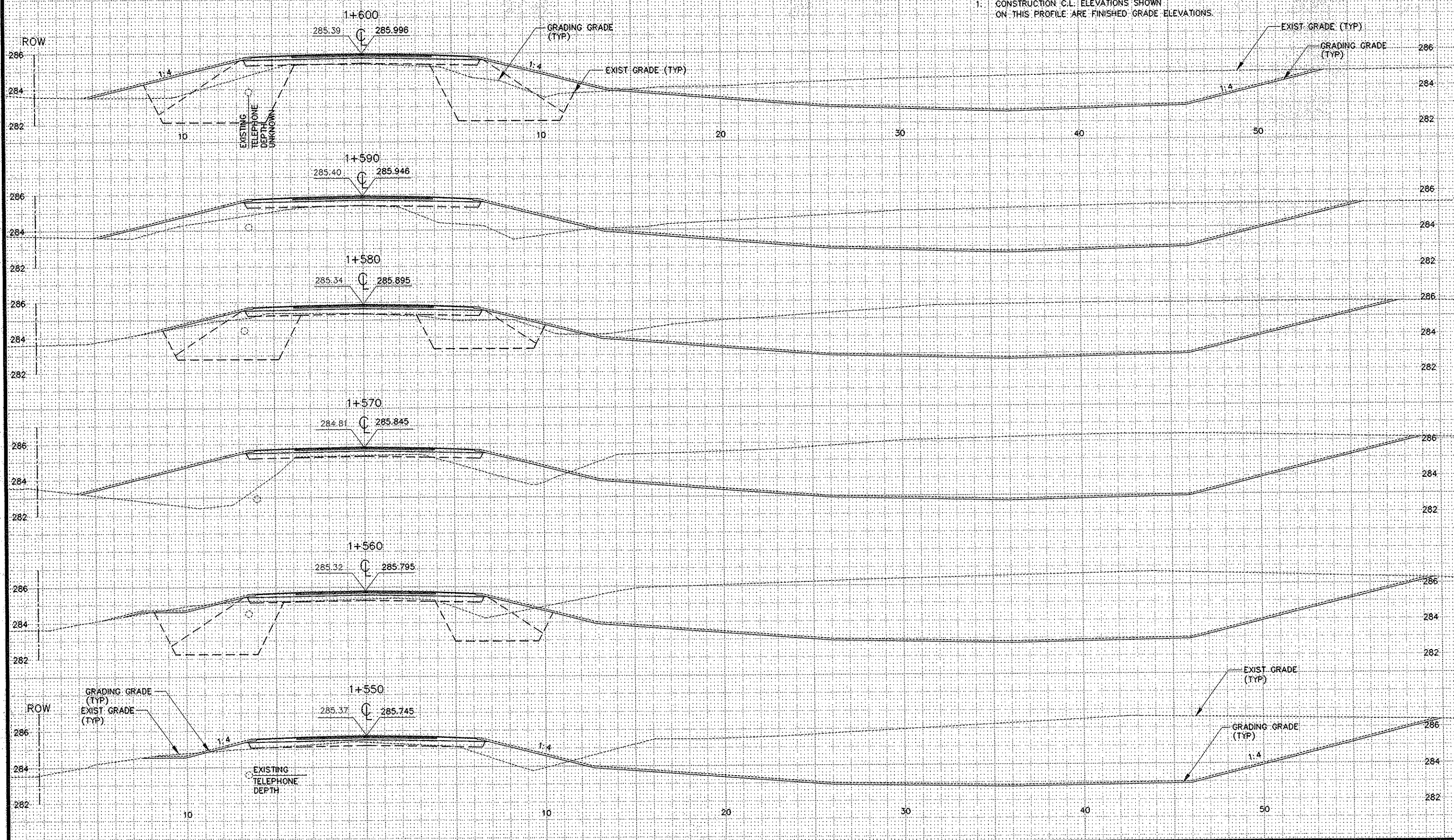


**ANOKA COUNTY
HIGHWAY DEPT.**

STATE PROJECT NO. _____
STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

CROSS-SECTION
STA. 1+490.00 TO 1+540.00
Sheet 35 of 54 Sheets

NOTE:
1. CONSTRUCTION C.L. ELEVATIONS SHOWN ON THIS PROFILE ARE FINISHED GRADE ELEVATIONS.



NO.	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPROJ\0260505\PLAN\CROSS03.DWG



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

Douglas W. J... [Signature]
DATE 5/1/98 REG. NO. 20235

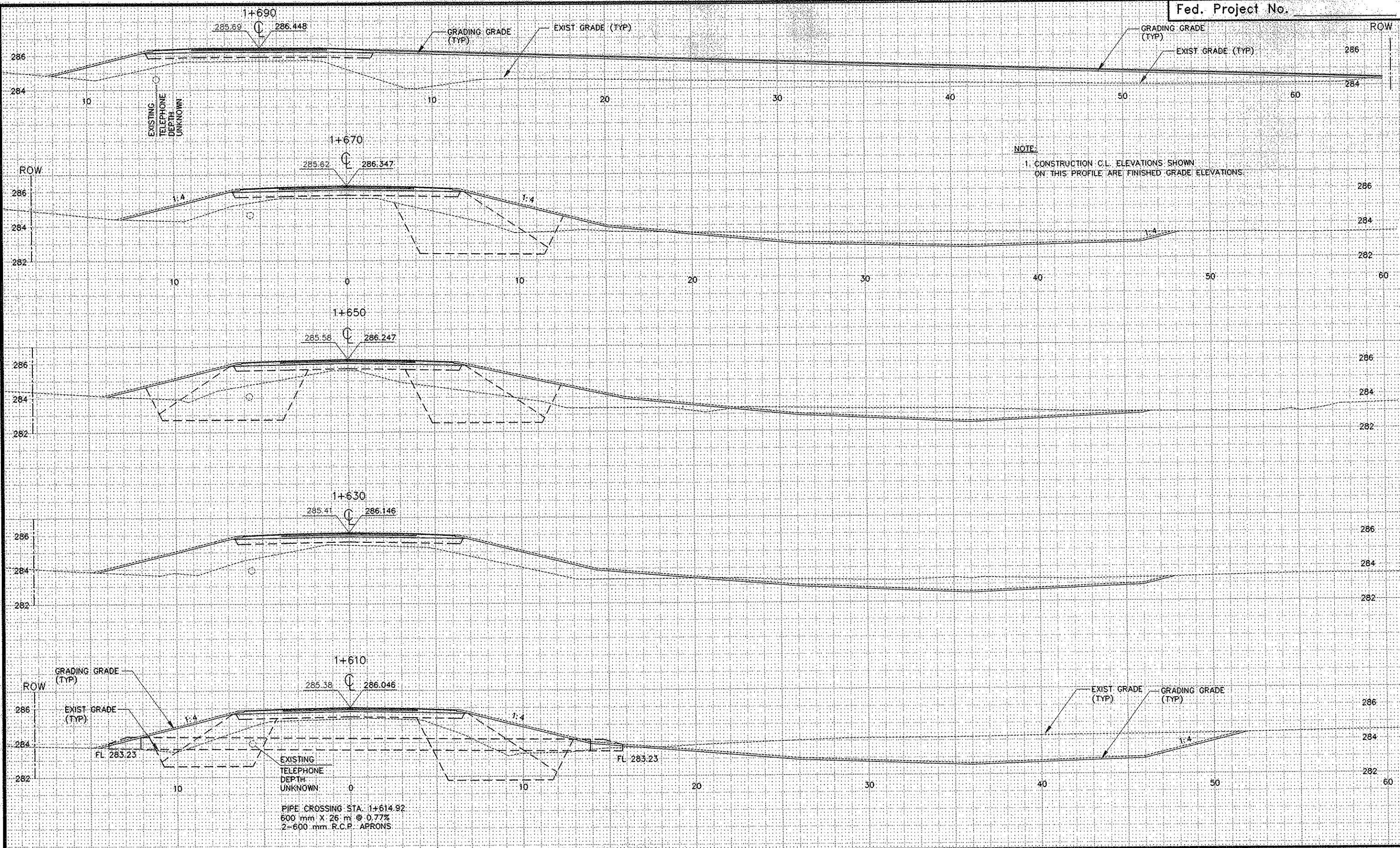
DRAWN BY _____ DATE _____
DESIGN BY _____ DATE _____
CHECKED BY _____ DATE _____



ANOKA COUNTY
HIGHWAY DEPT.

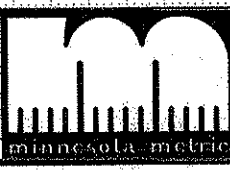
STATE PROJECT NO. _____
STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

CROSS-SECTION
STA. 1+550.00 TO 1+600.00
Sheet 36 of 54 Sheets



NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPROJ\0260505\PLAN\CROSS04.DWG



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

Daugherty, W. J.
 DATE 5/1/98 REG. NO. 20235

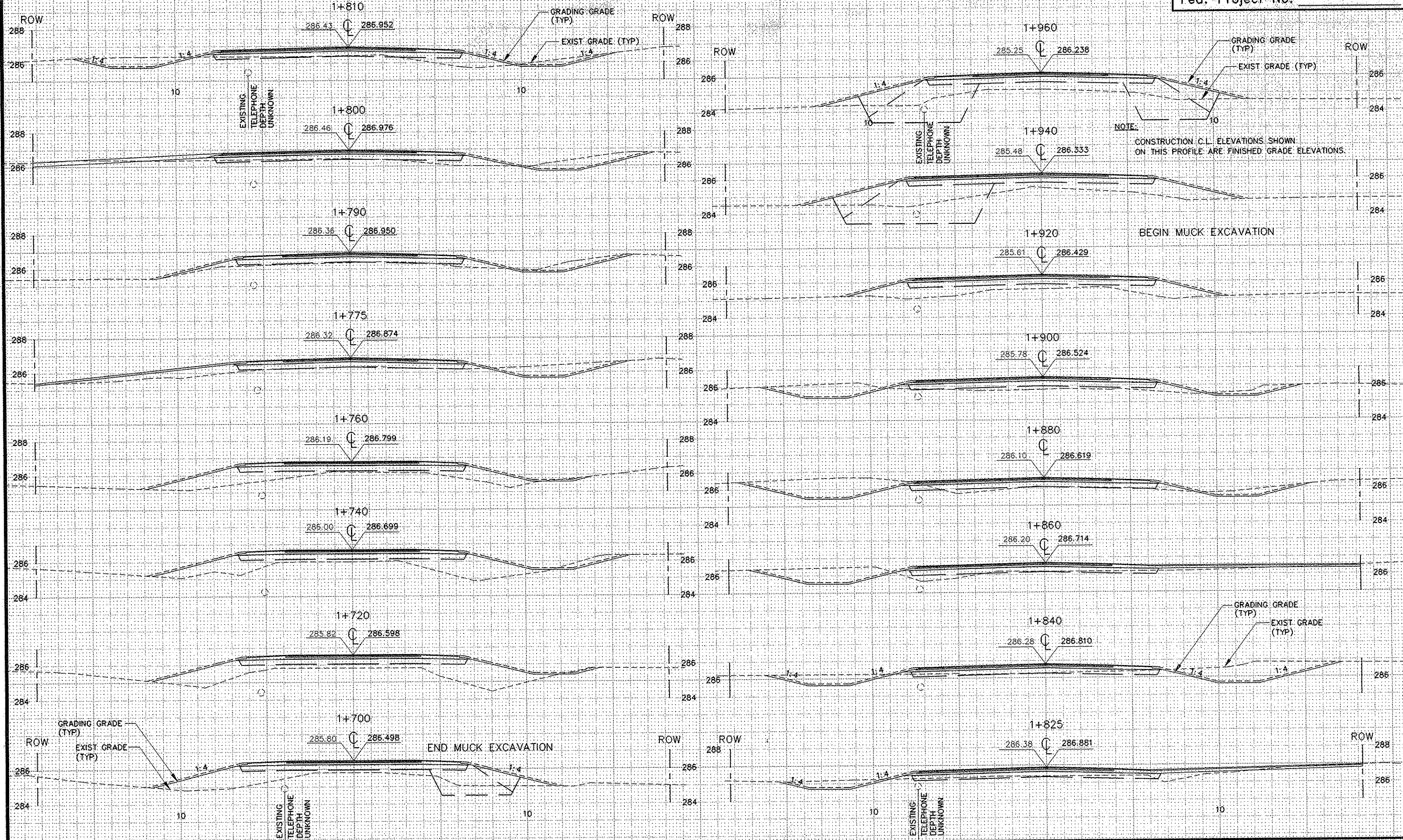
DRAWN BY _____ DATE _____
 DESIGN BY _____ DATE _____
 CHECKED BY _____ DATE _____



**ANOKA COUNTY
 HIGHWAY DEPT.**

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

CROSS-SECTION
 STA. 1+610.00 TO 1+690.00
 Sheet 37 of 54 Sheets



NO	DATE	BY	CKD	APPR	REVISION

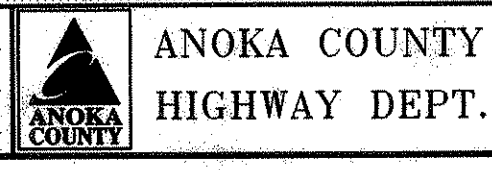
NAME: S:\SDSKPRO\A\0260505\PLAN\CRO5X05.DWG



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

Douglas M. Jank
 DATE 5/1/98 REG. NO. 20235

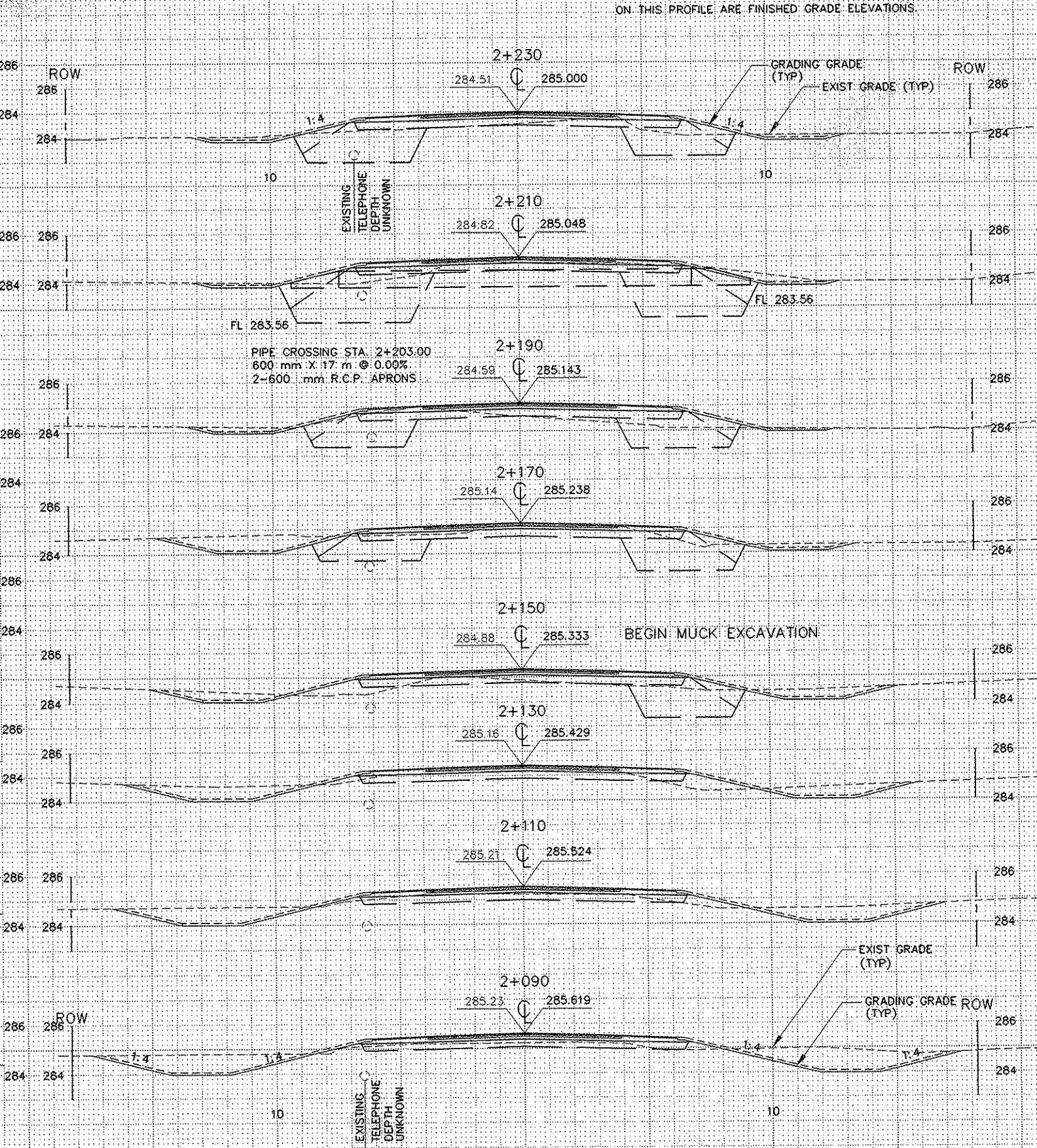
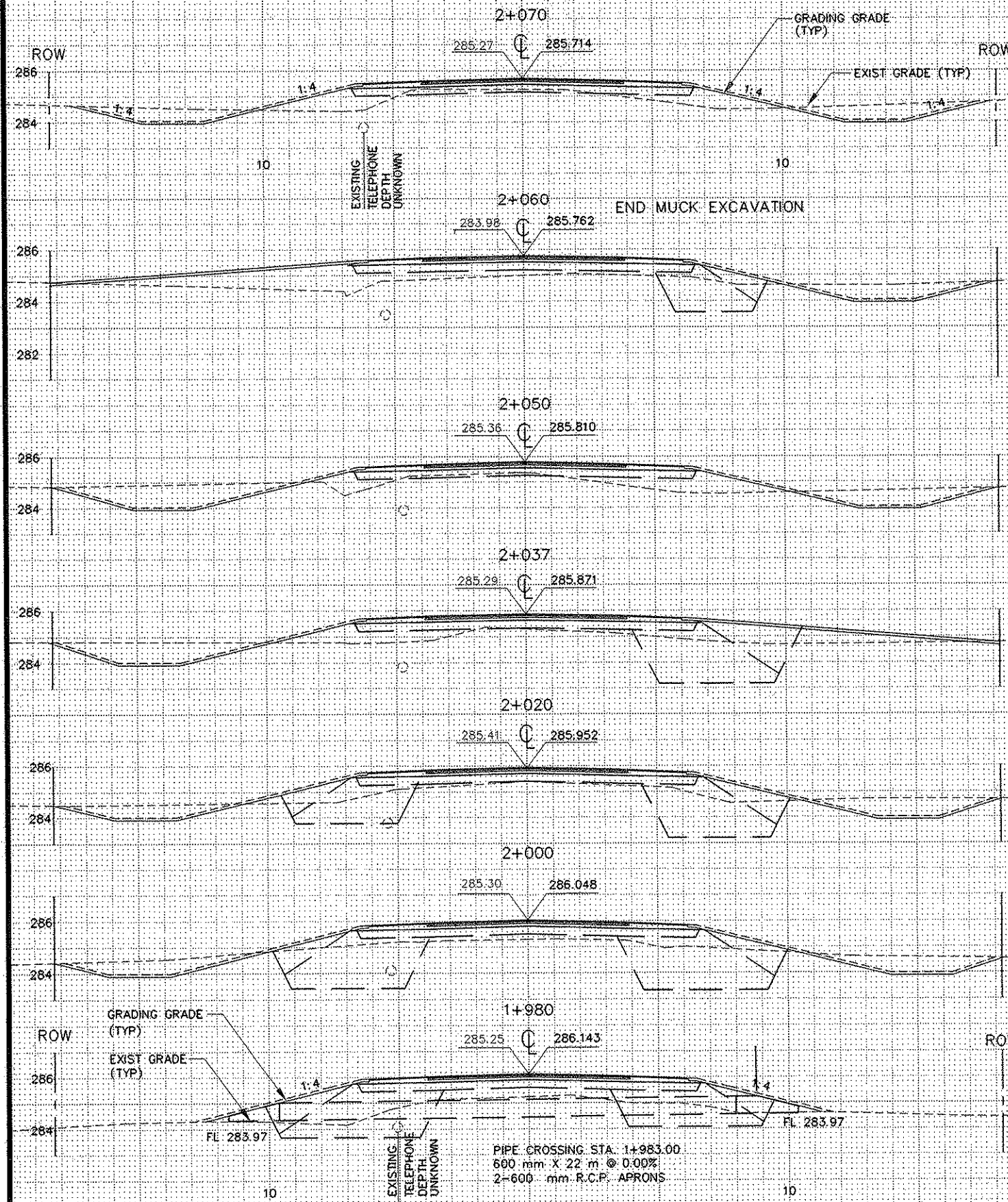
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 DESIGN BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____



STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

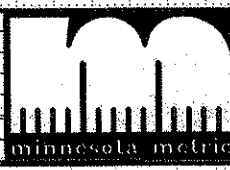
CROSS-SECTION
 STA. 1+700.00 TO 1+960.00
 Sheet 38 of 54 Sheets

NOTE:
1. CONSTRUCTION CL. ELEVATIONS SHOWN ON THIS PROFILE ARE FINISHED GRADE ELEVATIONS.



NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPROJ\0260505\PLAN\CRO5X06.DWG



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

Douglas W. Tombl
 DATE 5/1/98 REG. NO. 20235

DRAWN BY: _____ DATE _____
 DESIGN BY: _____ DATE _____
 CHECKED BY: _____ DATE _____

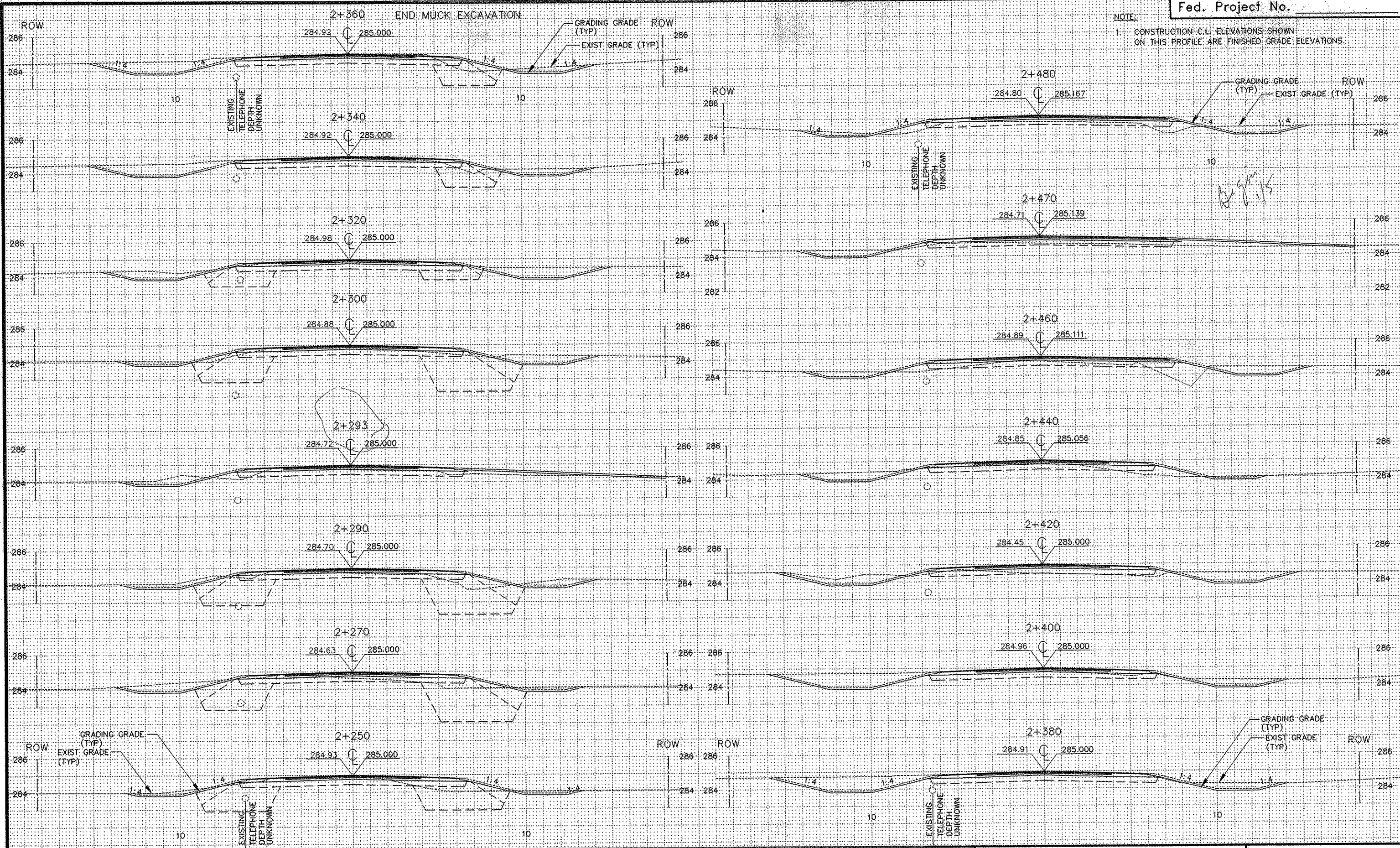


ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

CROSS-SECTION
 STA. 1+980.00 TO 2+230.00
 Sheet 39 of 54 Sheets

NOTE: CONSTRUCTION C.I. ELEVATIONS SHOWN ON THIS PROFILE ARE FINISHED GRADE ELEVATIONS.



NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPROJ\0260505\PLAN\CROSS07.DWG



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

Donald W. Fernald
 DATE 5/1/98 REG. NO. 20335

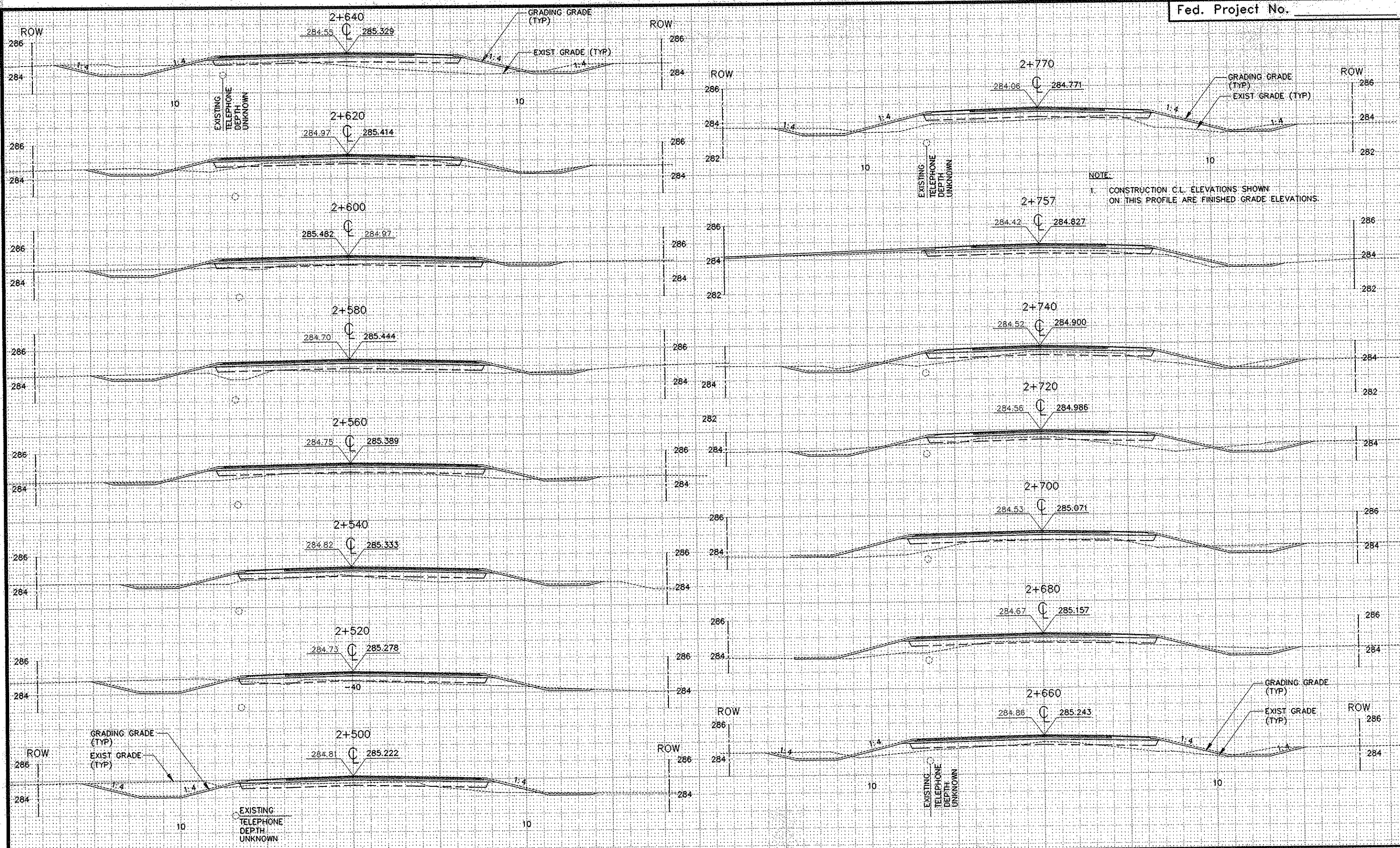
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 DESIGN BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____



ANOKA COUNTY
 HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

CROSS-SECTION
 STA. 2+250.00 TO 2+470.00
 Sheet 40 of 54 Sheets



NOTE:
1. CONSTRUCTION C.L. ELEVATIONS SHOWN ON THIS PROFILE ARE FINISHED GRADE ELEVATIONS.

NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPRO\A\0260505\PLAN\CROSS08.DWG



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

Wendell J. Trench
DATE: 5/1/98 REG. NO. 20235

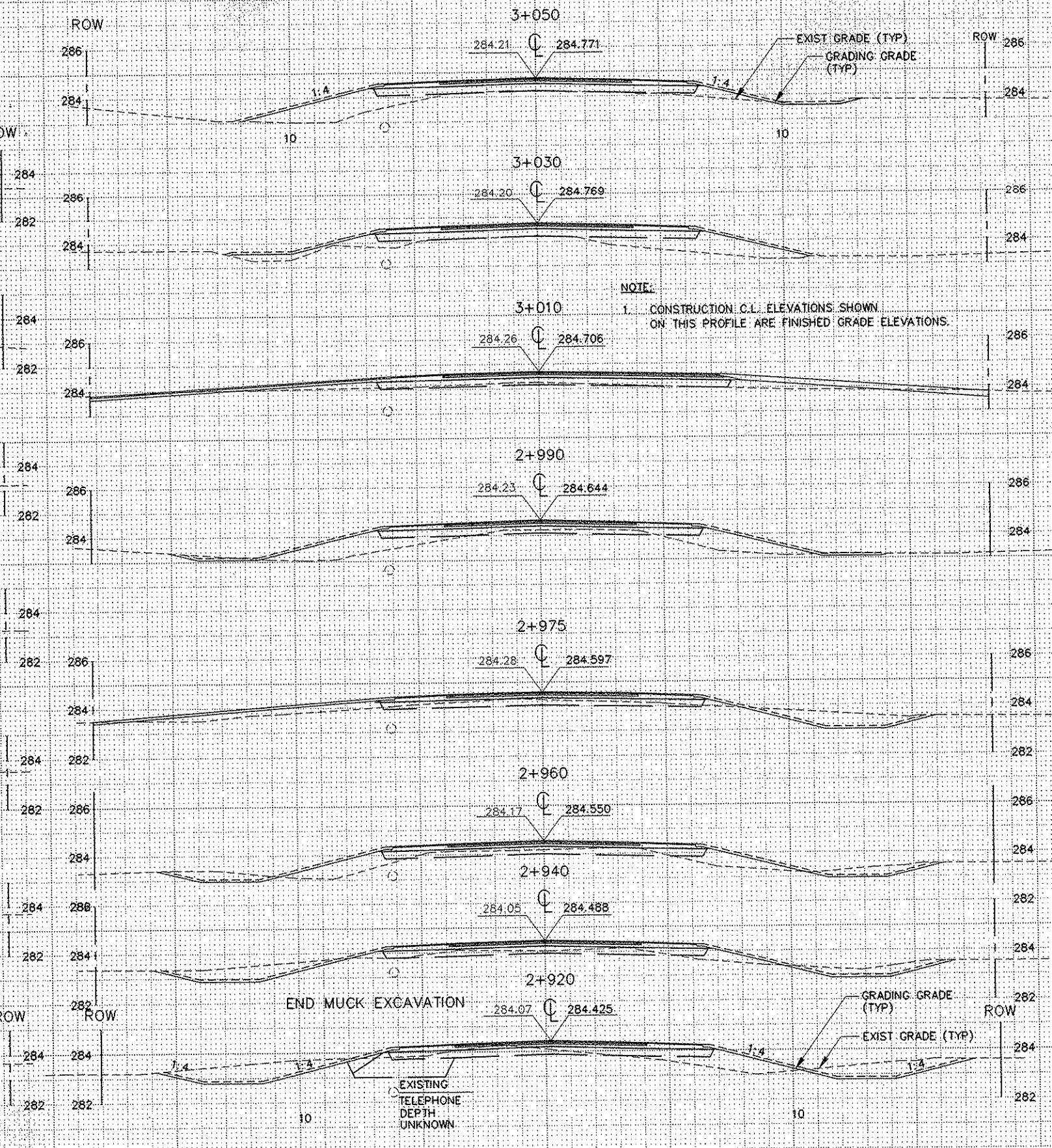
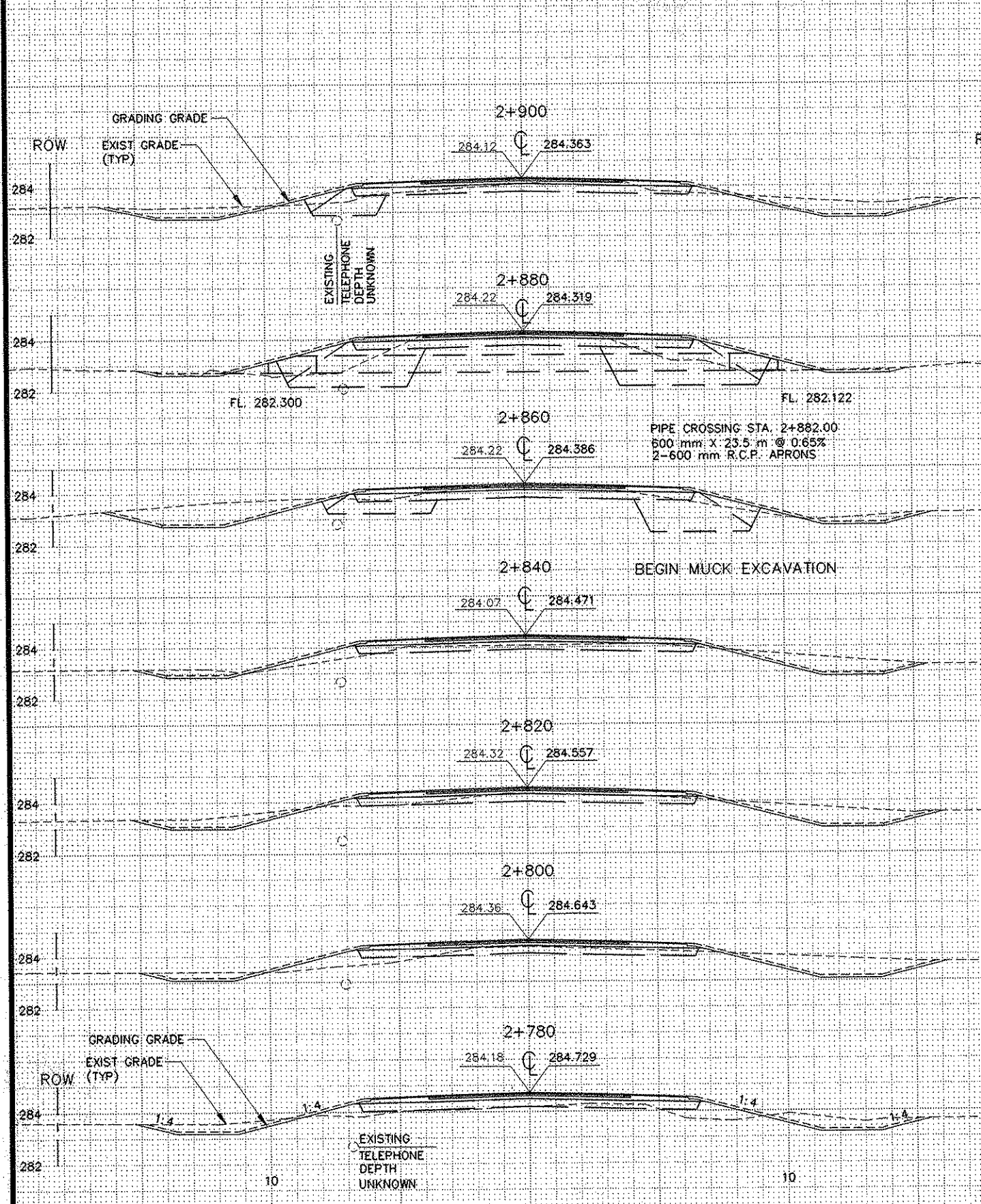
DRAWN BY: _____ DATE: _____
DESIGN BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____



ANOKA COUNTY HIGHWAY DEPT.

STATE PROJECT NO. _____
STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

CROSS-SECTION
STA. 2+500.00 TO 2+770.00
Sheet 41 of 54 Sheets



NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPROJ\0260505\PLAN\CROSS09.DWG



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

Douglas M. Funch
 DATE 5/1/98 REG. NO. 20235

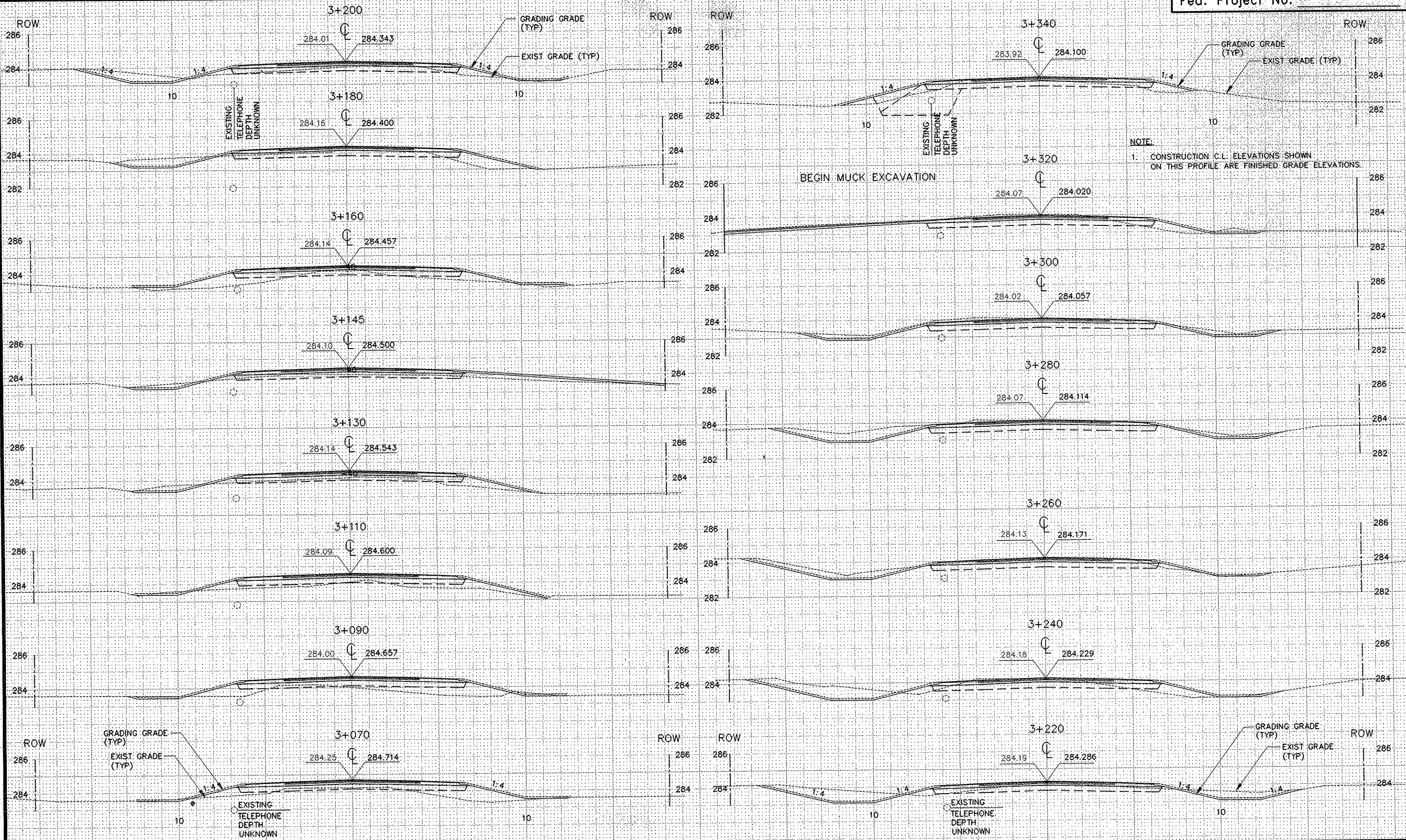
DRAWN BY: _____ DATE: _____
 DESIGN BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

CROSS-SECTION
 STA. 2+780.00 TO 3+050.00
 Sheet 42 of 54 Sheets

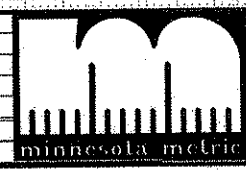


BEGIN MUCK EXCAVATION

NOTE:
1. CONSTRUCTION I.C.L. ELEVATIONS SHOWN ON THIS PROFILE ARE FINISHED GRADE ELEVATIONS.

NO	DATE	BY	CKD	APPR	REVISION

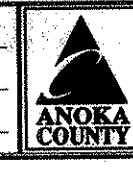
NAME: S:\SDSKPROJ\0260505\PLAN\CROSS10.DWG



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

Douglas W. Birch
DATE: 5/1/98 REG. NO. 20235

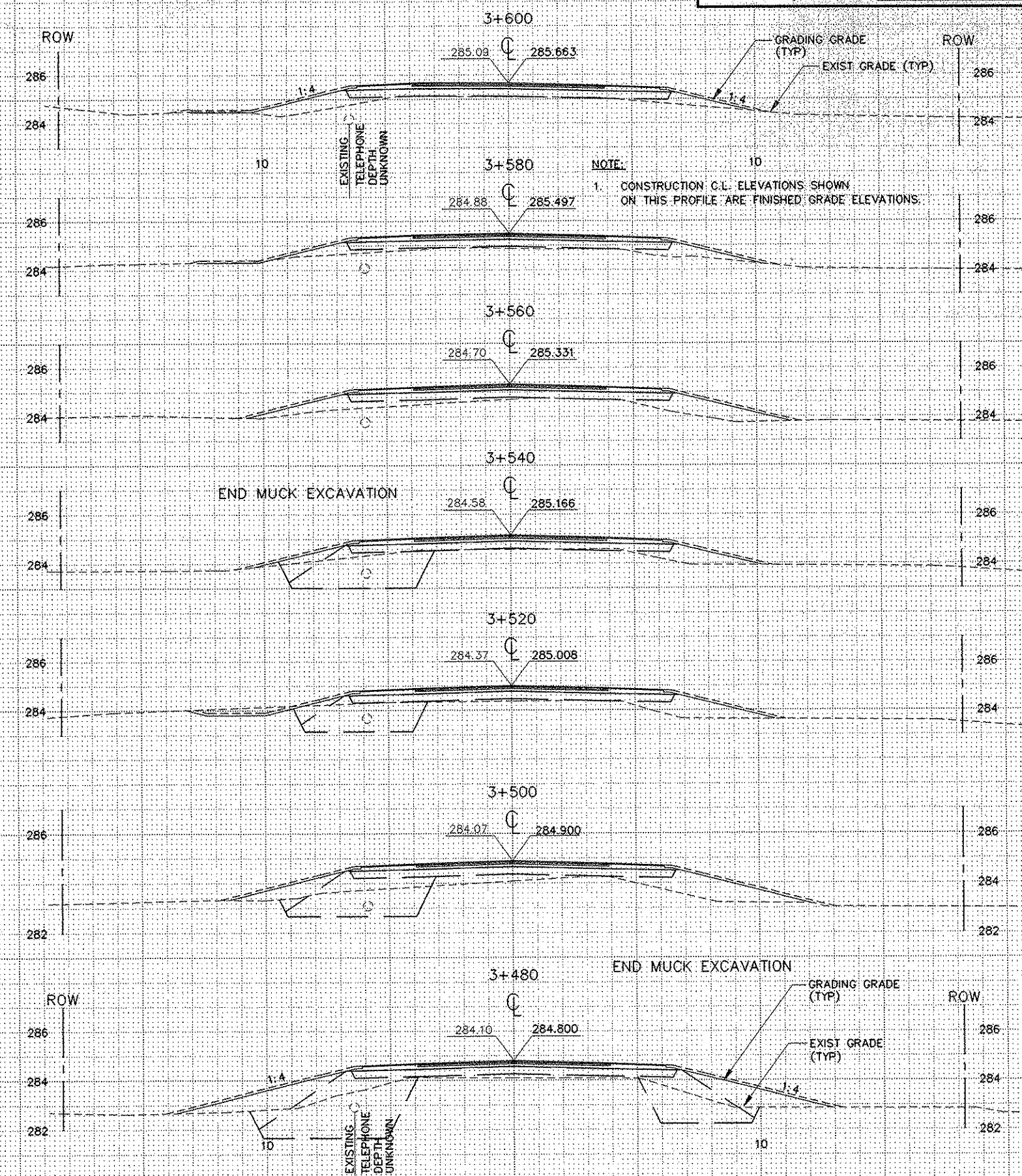
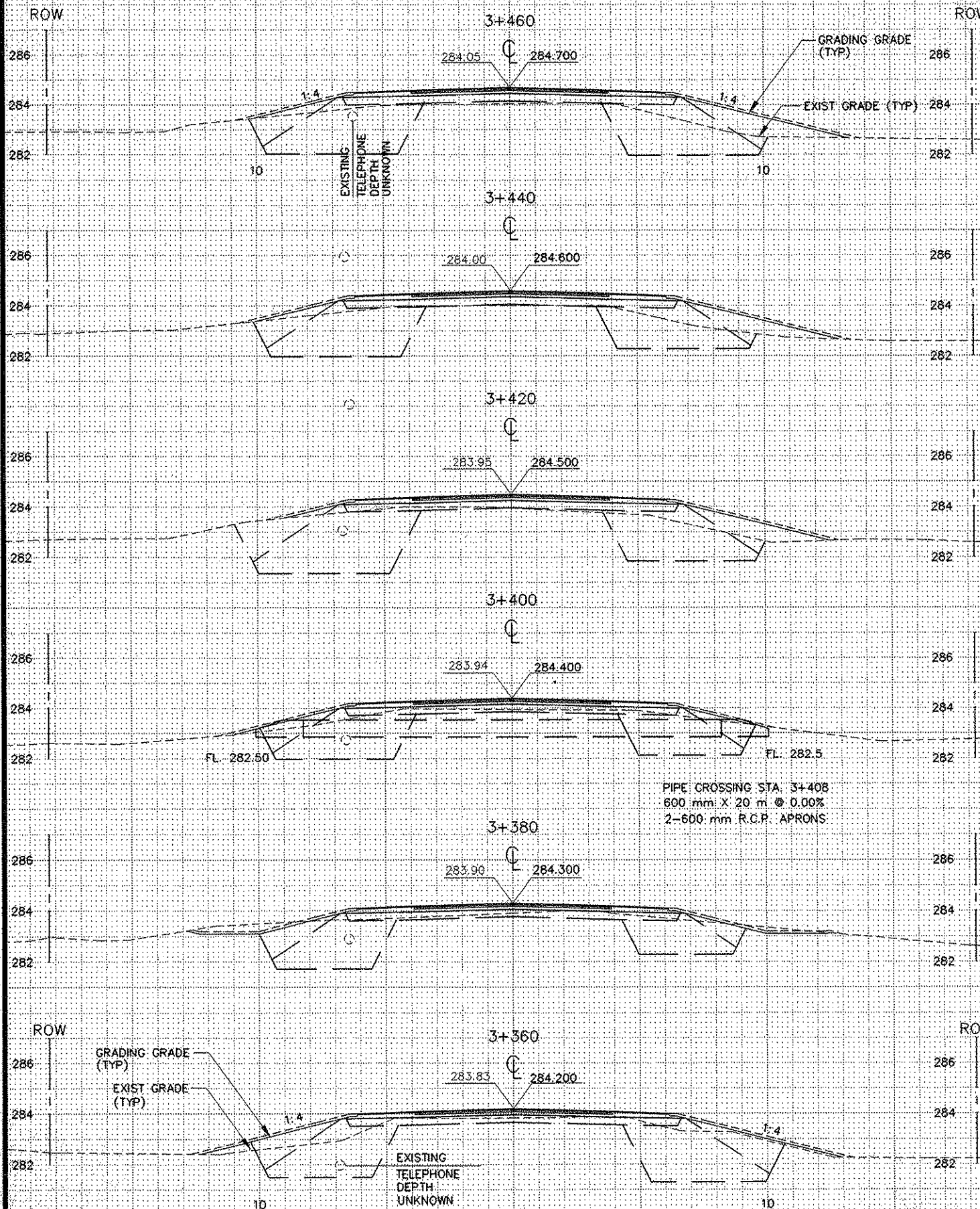
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DESIGN BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

CROSS-SECTION
STA. 3+070.00 TO 3+340.00
Sheet 43 of 54 Sheets



NOTE:
1. CONSTRUCTION C.L. ELEVATIONS SHOWN ON THIS PROFILE ARE FINISHED GRADE ELEVATIONS.

PIPE CROSSING STA. 3+408
600 mm x 20 m R.C.P. @ 0.00%
2-600 mm R.C.P. APRONS

NO	DATE	BY	CKD	APPR	REVISION



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

Douglas M. [Signature]
DATE 5/1/98 REG. NO. 20235

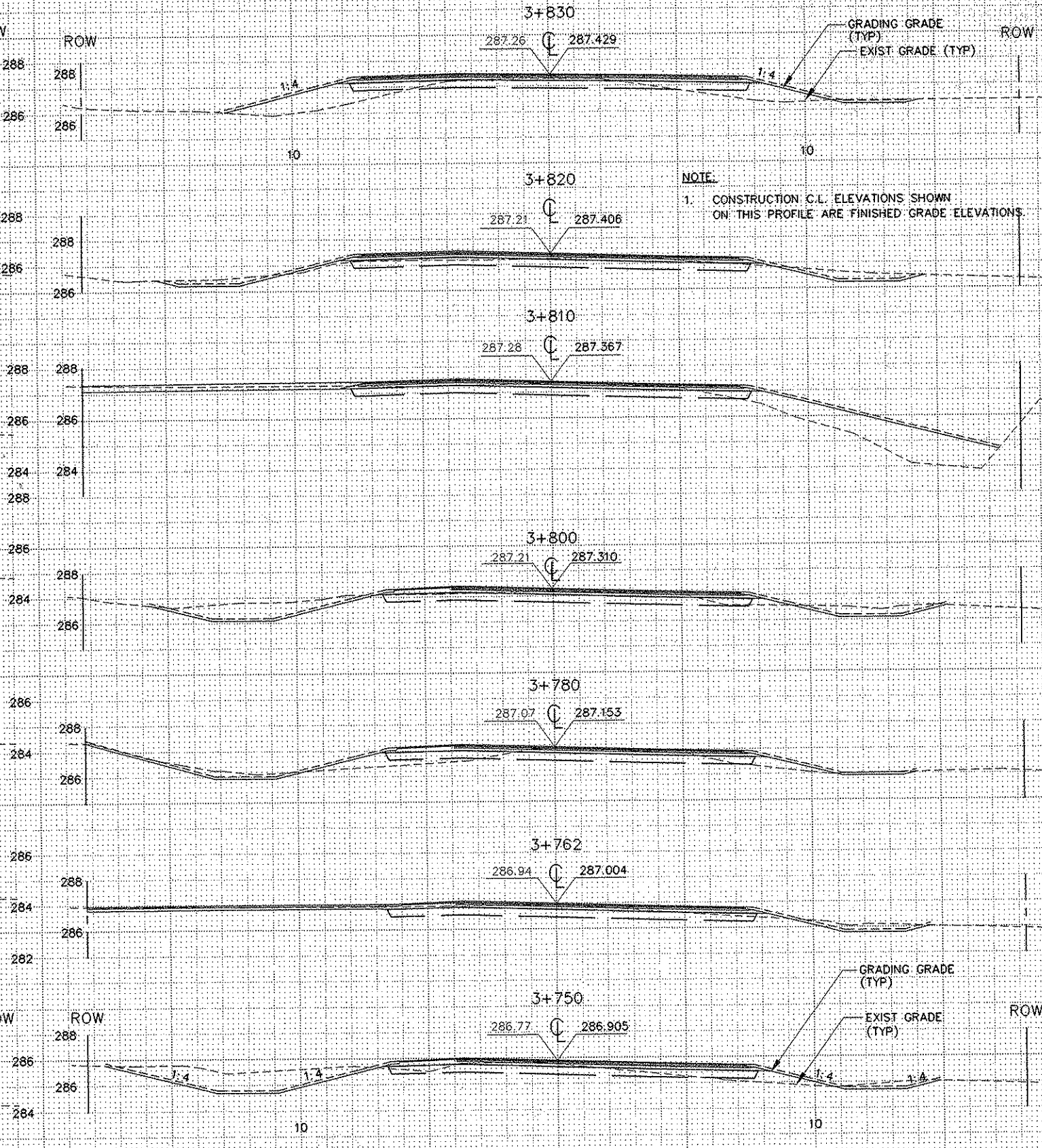
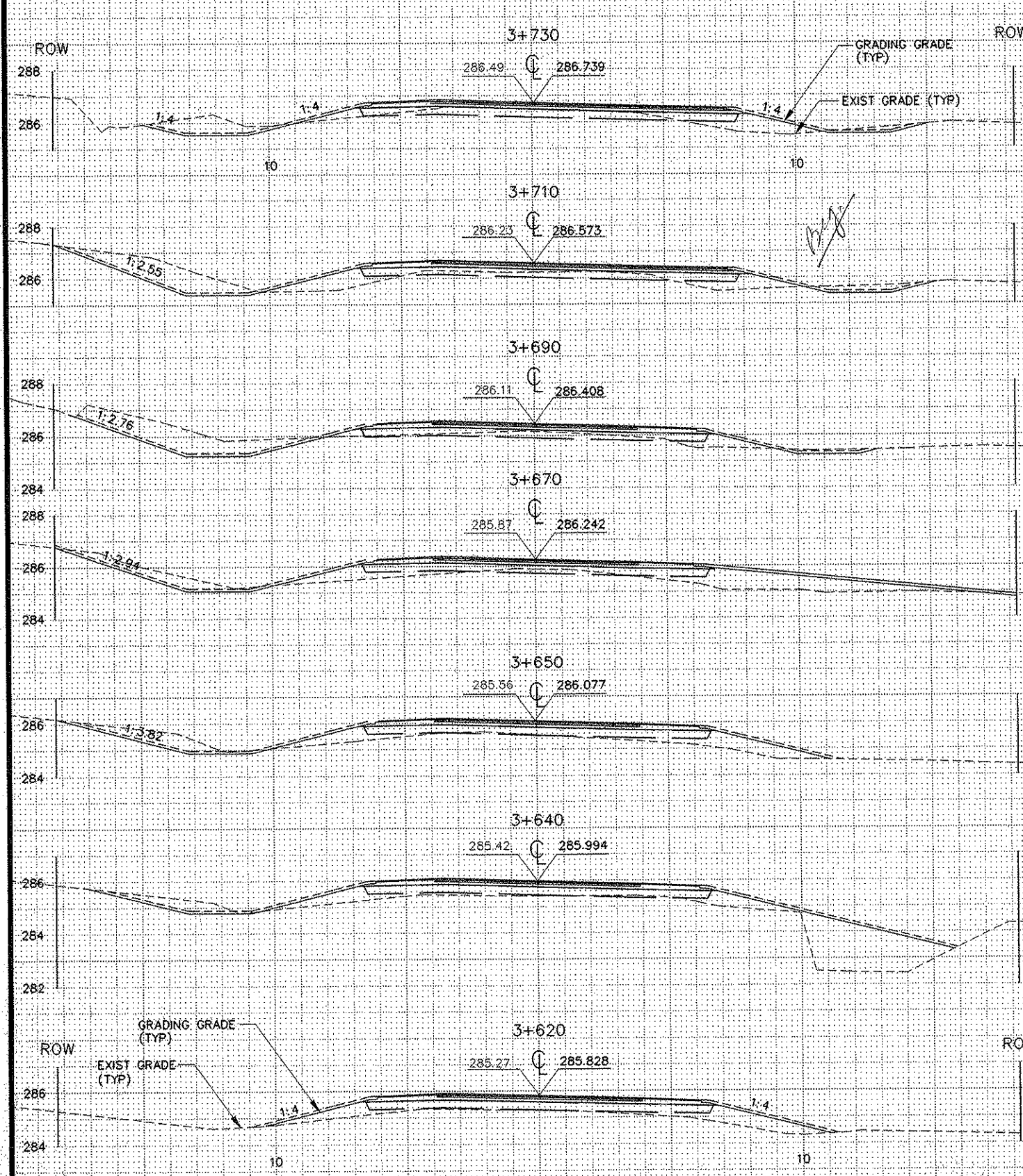
DRAWN BY: _____ DATE: _____
DESIGN BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

CROSS-SECTION
STA. 3+360.00 TO 3+600.00
Sheet 44 of 54 Sheets



NOTE:
1. CONSTRUCTION C.I. ELEVATIONS SHOWN ON THIS PROFILE ARE FINISHED GRADE ELEVATIONS

NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPROJ\0260505\PLAN\CROSS12.DWG



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

Douglas W. Ersk
DATE 5/1/98 REG. NO. 20235

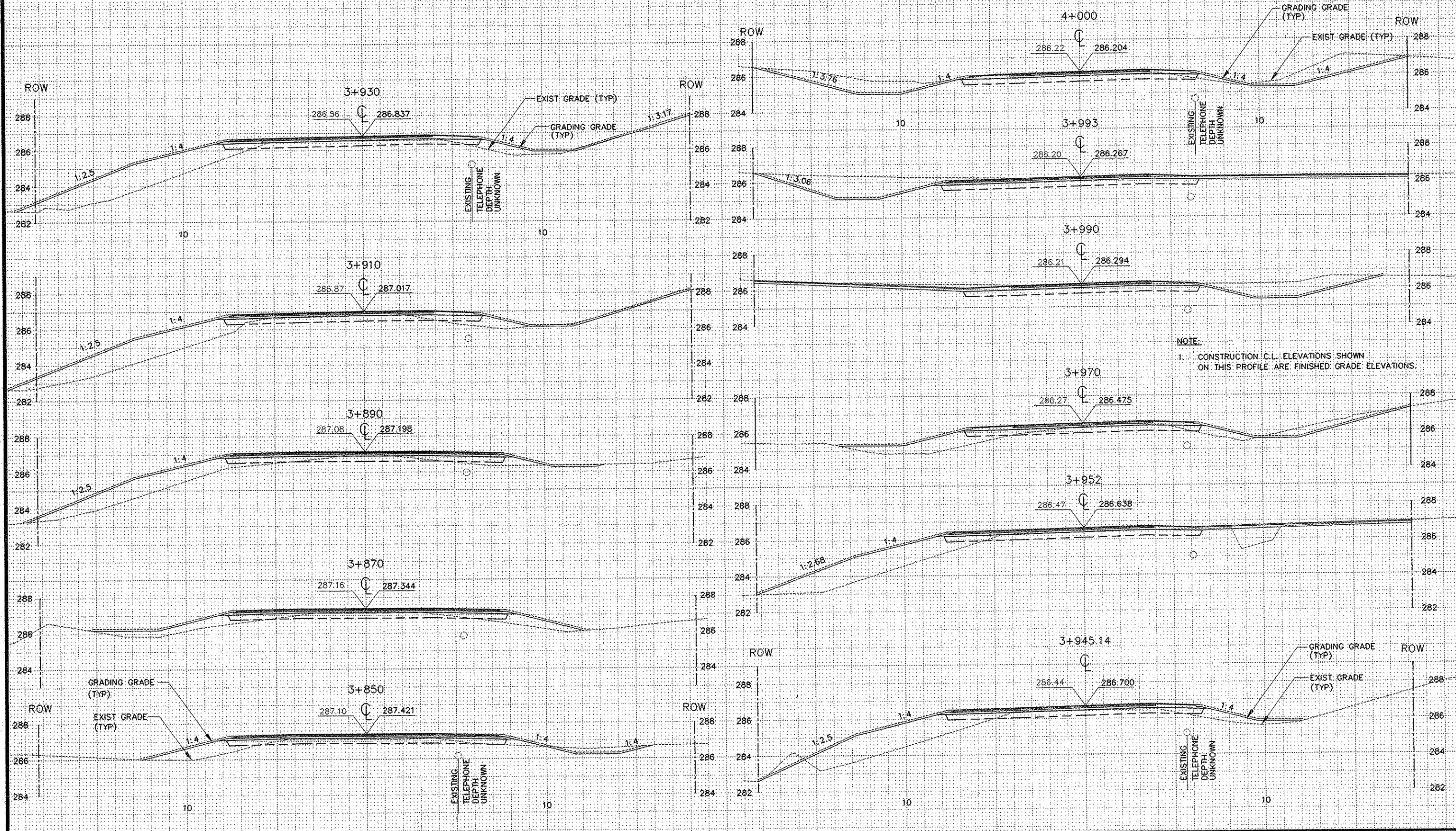
DRAWN BY: _____ DATE _____
DESIGN BY: _____ DATE _____
CHECKED BY: _____ DATE _____



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

CROSS-SECTION
STA. 3+620.00 TO 3+830.00
Sheet 45 of 54 Sheets



NOTE:
1. CONSTRUCTION C.L. ELEVATIONS SHOWN ON THIS PROFILE ARE FINISHED GRADE ELEVATIONS.

NO.	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPROJ\0260505\PLAN\CROSS13.DWG



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

Douglas M. J...
DATE: 5/1/98 REG. NO. 20235

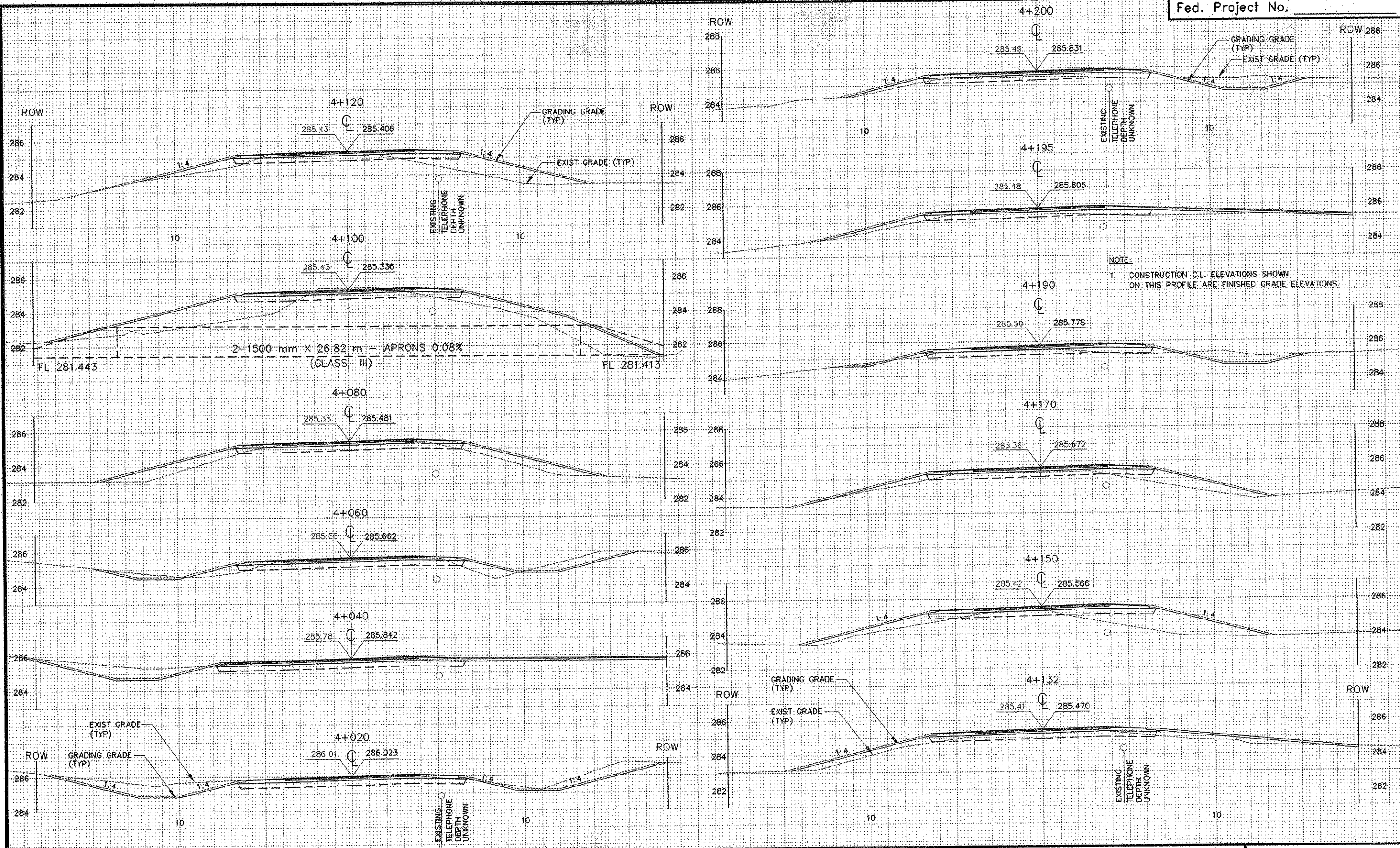
DRAWN BY: _____ DATE: _____
DESIGN BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____



**ANOKA COUNTY
HIGHWAY DEPT.**

STATE PROJECT NO. _____
STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

CROSS-SECTION
STA. 3+850.00 TO 4+000.00
Sheet 46 of 54 Sheets



NO	DATE	BY	CKD	APPR	REVISION



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

Douglas M. Smith
 DATE 5/1/98 REG. NO. 20235

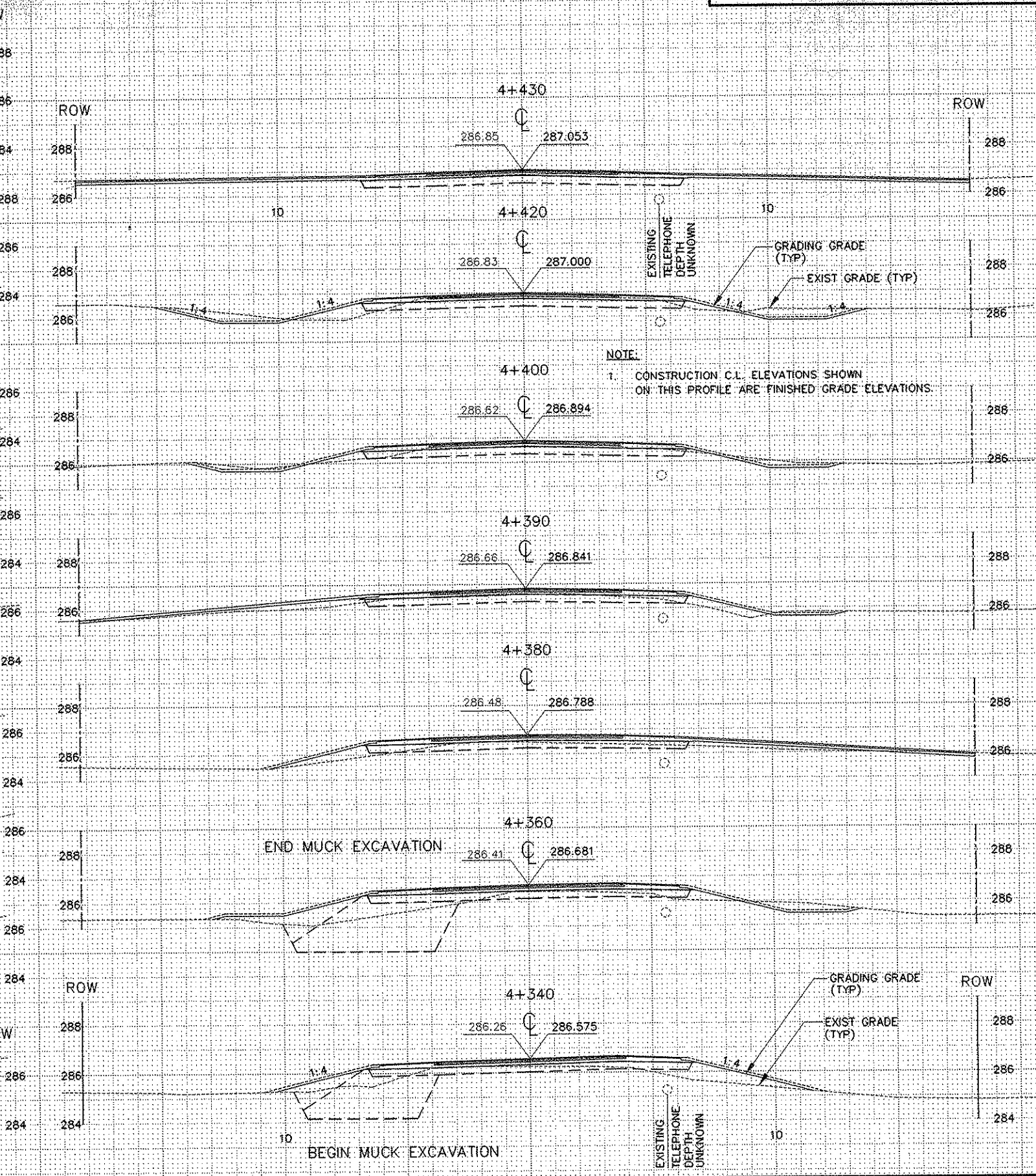
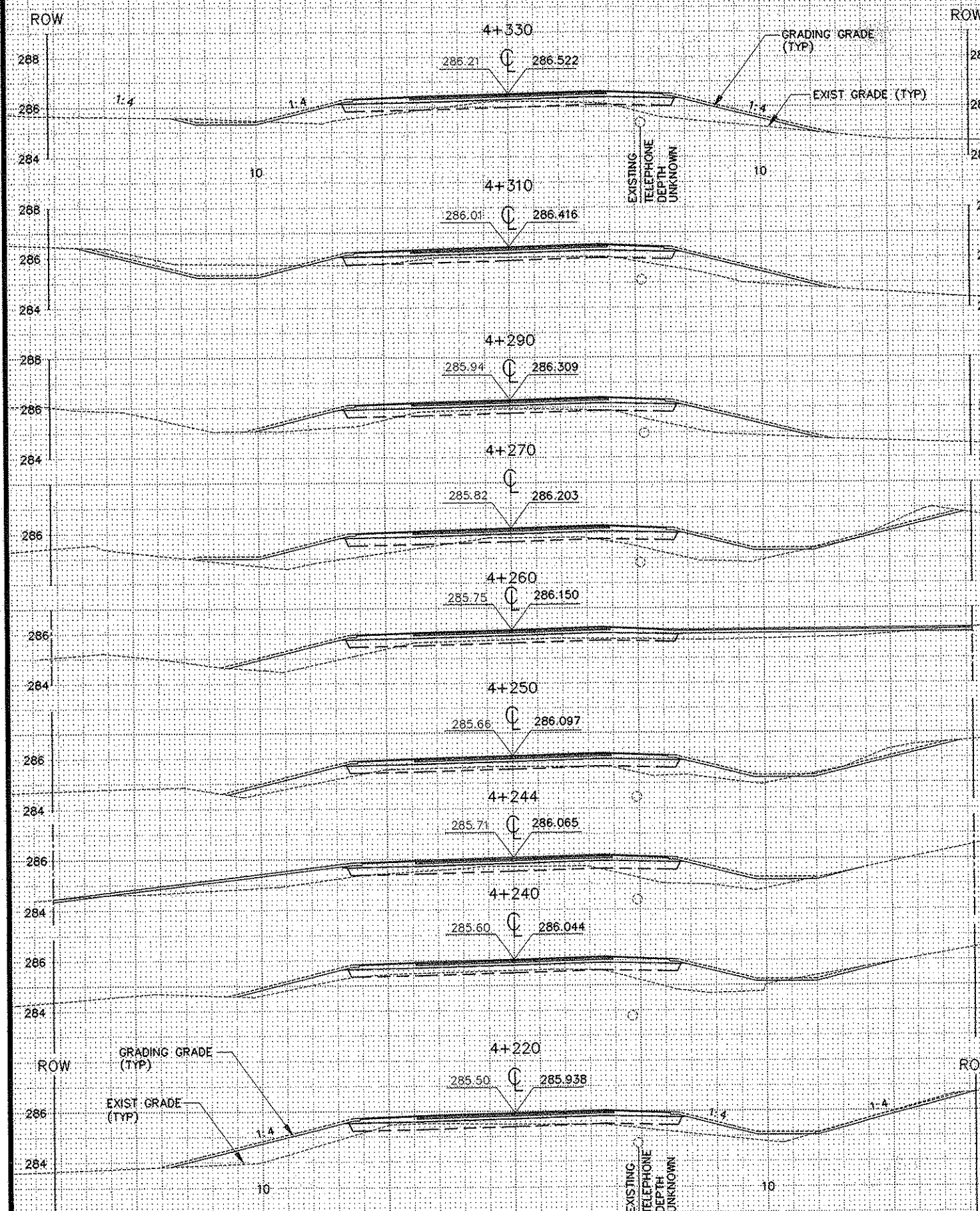
DRAWN BY _____ DATE _____
 DESIGN BY _____ DATE _____
 CHECKED BY _____ DATE _____



**ANOKA COUNTY
 HIGHWAY DEPT.**

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

CROSS-SECTION
 STA. 4+020.00 TO 4+200.00
 Sheet 47 of 54 Sheets



NO	DATE	BY	CKD	APPR	REVISION



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

Douglas M. [Signature]
 DATE 5/1/98 REG. NO. 20235

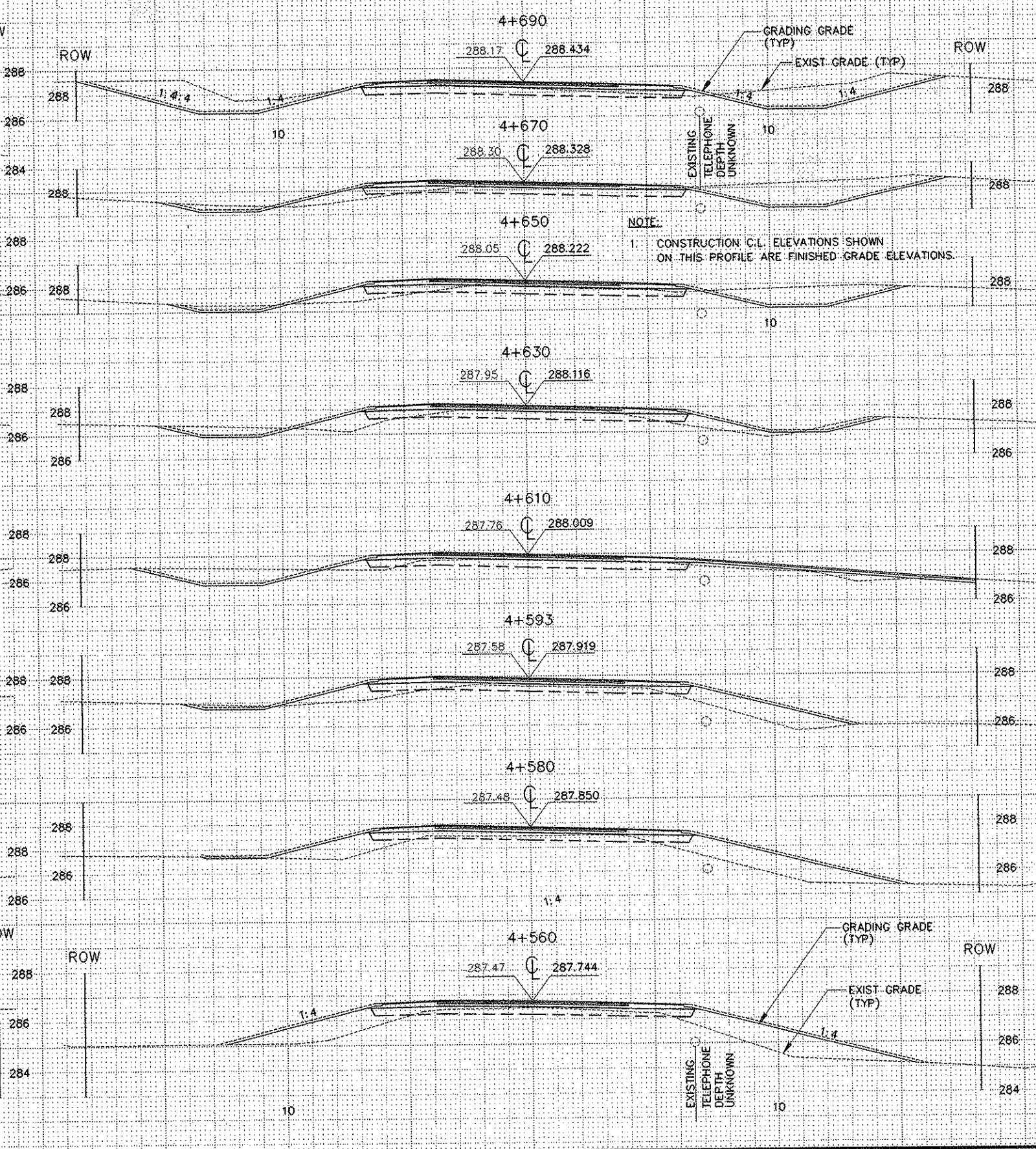
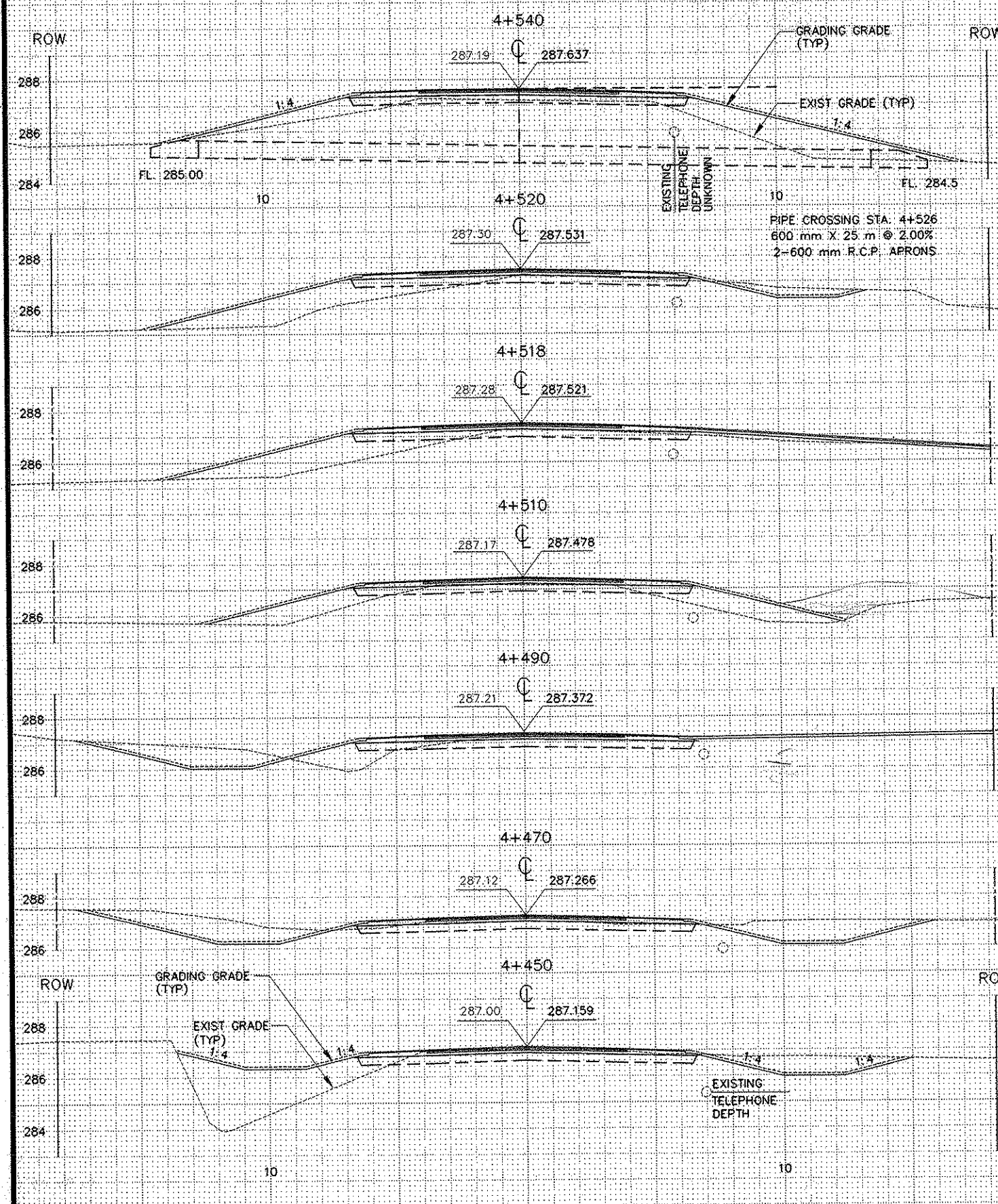
DRAWN BY _____ DATE _____
 DESIGN BY _____ DATE _____
 CHECKED BY _____ DATE _____



ANOKA COUNTY HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

CROSS-SECTION
 STA. 4+220.00 TO 4+430.00
 Sheet 48 of 54 Sheets



NOTE:
1. CONSTRUCTION C.L. ELEVATIONS SHOWN ON THIS PROFILE ARE FINISHED GRADE ELEVATIONS.

NO	DATE	BY	CKD	APPR	REVISION

NAME: SA\SDSKPROJ\0260505\PLAN\CROSS16.DWG



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

Charles M. Jurek
DATE: 5/1/98 REG. NO. 20235

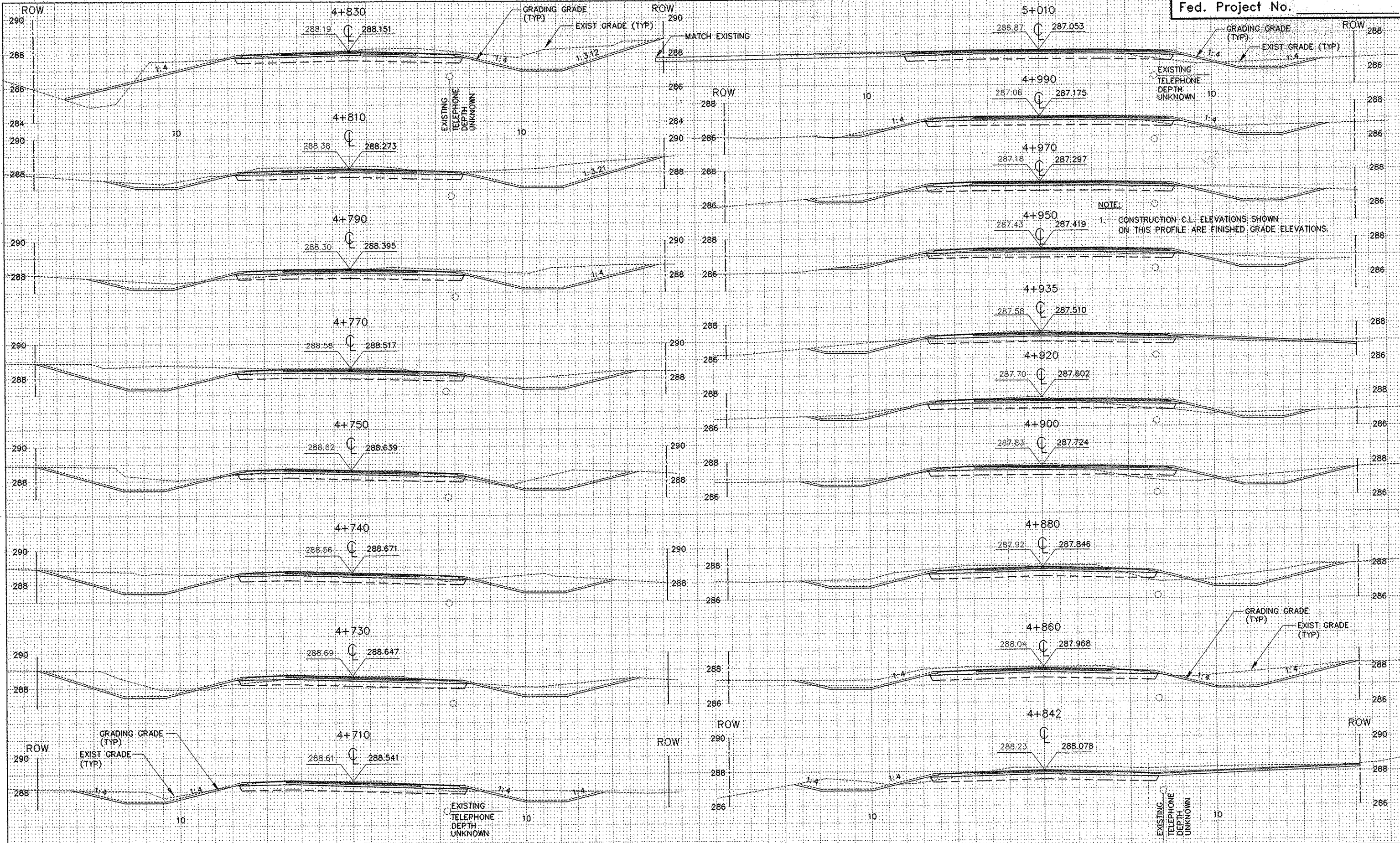
DRAWN BY: _____ DATE: _____
DESIGN BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____



**ANOKA COUNTY
HIGHWAY DEPT.**

STATE PROJECT NO. _____
STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

CROSS-SECTION
STA. 4+450.00 TO 4+690.00
Sheet 49 of 54 Sheets



NO	DATE	BY	CKD	APPR	REVISION

NAME: S:\SDSKPRO\0260505\PLAN\CROSS17.DWG



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

Donald M. Finch
 DATE: 5/1/98 REG. NO. 20235

DRAWN BY: _____ DATE: _____
 DESIGN BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____

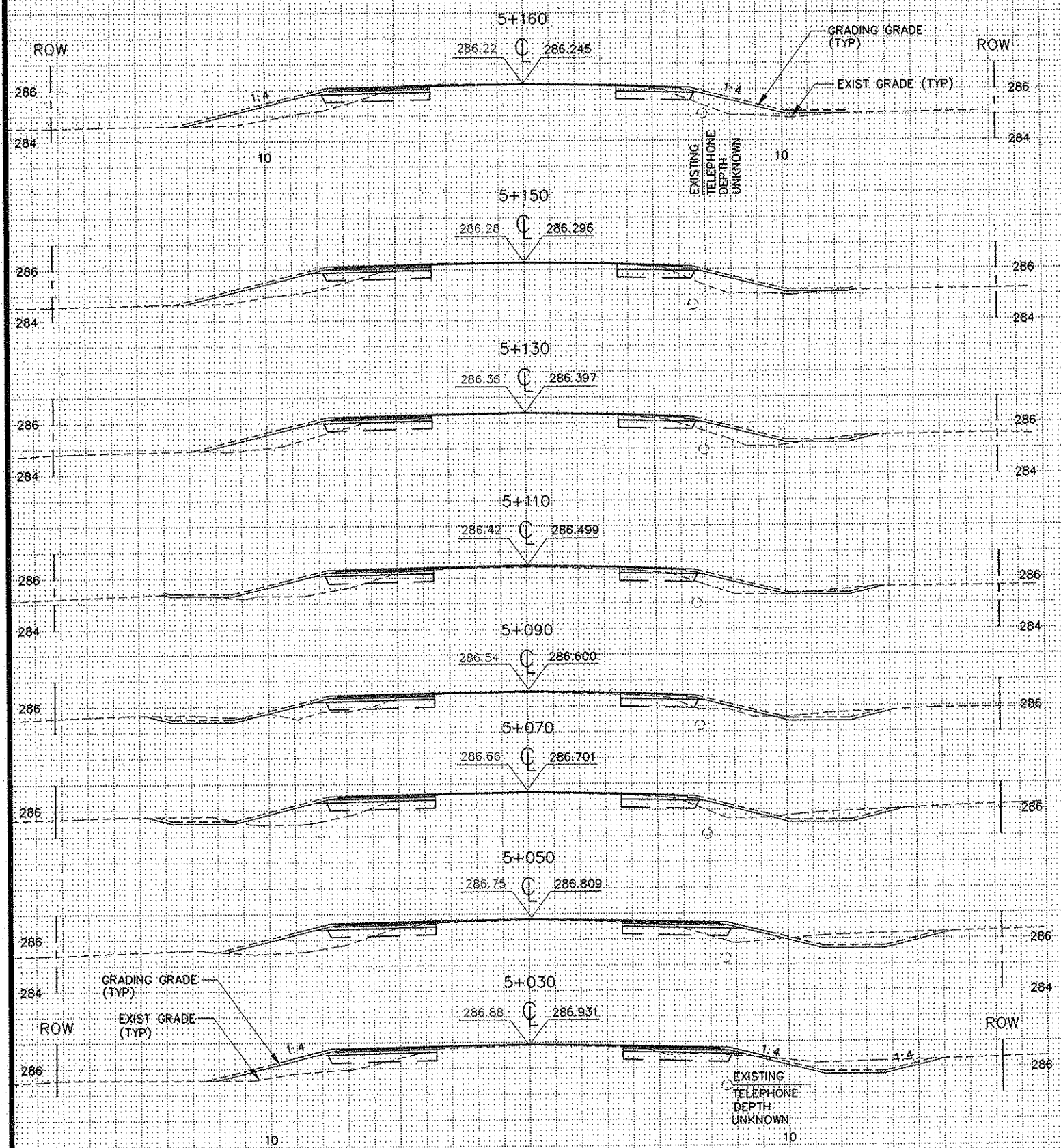


**ANOKA COUNTY
 HIGHWAY DEPT.**

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

CROSS-SECTION
 STA. 4+710.00 TO 5+010.00
 Sheet 50 of 54 Sheets

NOTE:
 1. CONSTRUCTION C.L. ELEVATIONS SHOWN ON THIS PROFILE ARE FINISHED GRADE ELEVATIONS.



C:\SDSKPROJ\0260505\WORK\CROSS18 3-9-98 158:13 pm EST

NO	DATE	BY	CKD	APPR	REVISION

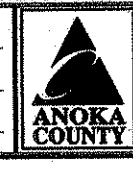
NAME: S:\SDSKPROJ\0260505\PLAN\CROSS18.DWG



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

Douglas A. Jurek
 DATE 5/1/98 REG. NO. 20235

DRAWN BY _____ DATE _____
 DESIGN BY _____ DATE _____
 CHECKED BY _____ DATE _____

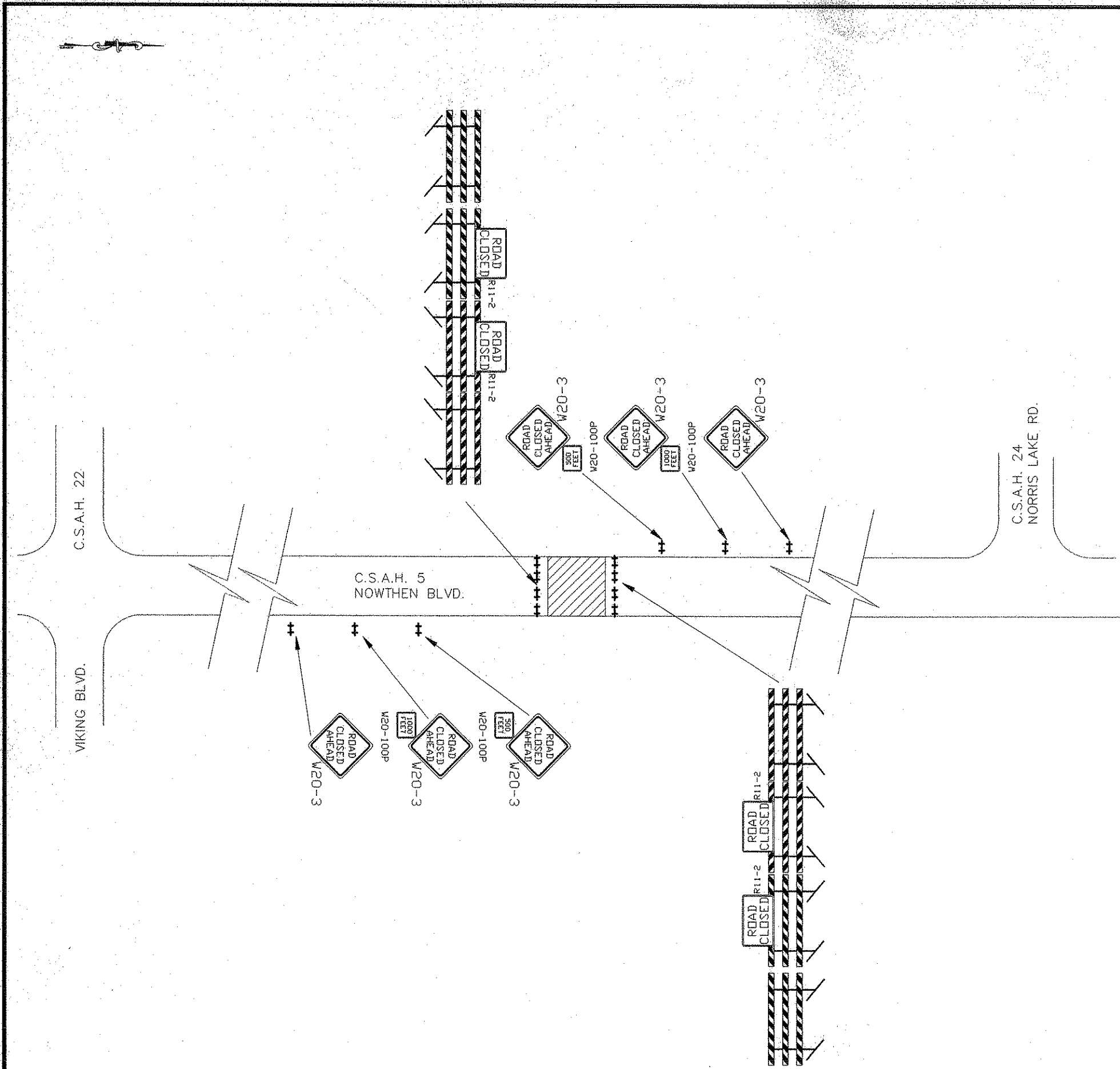


ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

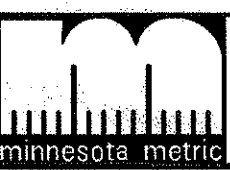
CROSS-SECTION
 STA. 5+030.00 TO 5+160.00
 Sheet 51 of 54 Sheets

M. U. T. C. D. CODE	SIZE	PANEL AREA		INSERT	QTY
		FT. ²	M ²		
W20-3	48" x 48"	16.00	1.472		6
W20-100P	24" x 18"	3.00	.276		2
W20-100P	24" x 18"	3.00	.276		2
TYPE III	8 FOOT				4
R11-2	48" x 30"	10.0	.920		4
TYPE III	8 FOOT				4



SHORT TERM CLOSURE No.	LOCATION OF CLOSURE C.S.A.H. 5 NOWTHEN BLVD.
1	STA. 1+584 TO STA. 1+645
2	STA. 1+952 TO STA. 2+013
3	STA. 2+172 TO STA. 2+264
4	STA. 2+851 TO STA. 2+912
5	STA. 3+017 TO STA. 3+078
6	STA. 4+069 TO STA. 4+130
7	STA. 4+495 TO STA. 4+556

NO	DATE	BY	CHKD	APPR	REVISION



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

Douglas M. French
 DATE 5/1/98 REG. NO. 22235

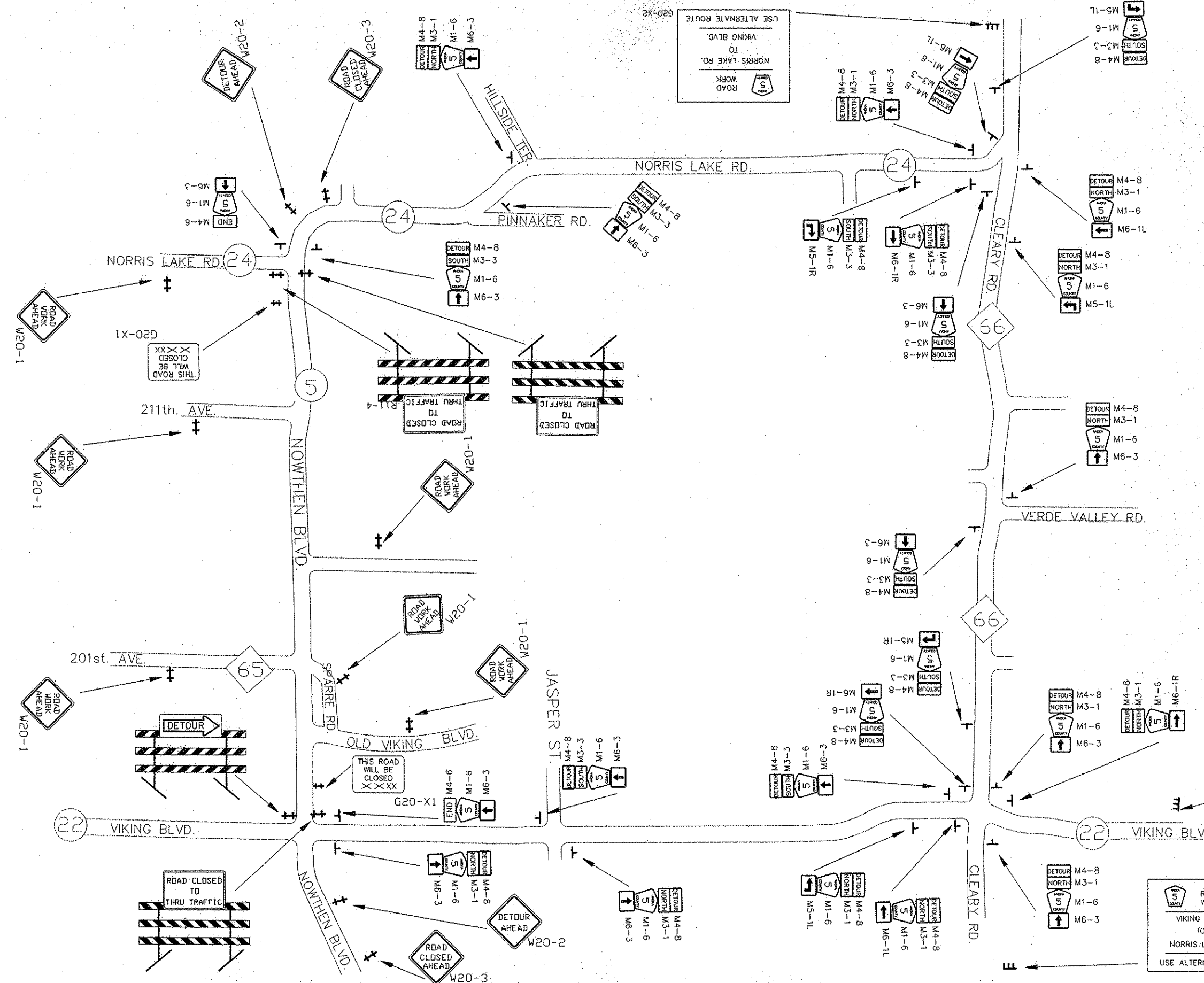
DRAWN BY _____ DATE _____
 DESIGN BY _____ DATE _____
 CHECKED BY _____ DATE _____

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____



ANOKA COUNTY
HIGHWAY DEPT.

SHORT TERM ROAD CLOSURES
 Sheet 52 of 54 Sheets



NO.	DATE	REVISION



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

Douglas M. Zisch
 DATE 5/1/98 REG. NO. 20235

DRAWN BY D.M. DATE 4/98
 DESIGN BY D.M. DATE 4/98
 CHECKED BY DATE



ANOKA COUNTY
 HIGHWAY DEPT.

STATE PROJECT NO. _____
 STATE AID PROJECT NO. 02-605-05
 STATE AID PROJECT NO. _____
 COUNTY PROJECT NO. _____

DETOUR
 C.S.A.H. 5
 Sheet 53 of 54 Sheets

M. U. T. C. D. CODE	SIZE		PANEL AREA		INSERT	QTY	M. U. T. C. D. CODE	SIZE		PANEL AREA		INSERT	QTY	
	INCHES	mm	FT ²	M ²				INCHES	mm	FT ²	M ²			
W20-1	48" x 48"	1.219mm X 1.219mm	16.00	1.486		6	G20-X1	60" x 48"	1.524mm X 1.219mm	20.00	1.858		2	
W20-2	48" x 48"	1.219mm X 1.219mm	16.00	1.486		2	M4-8	24" x 12"	1.219mm X 1.219mm	16.00	1.486	 	11	
						M3-1	24" x 12"	1.219mm X 1.219mm	16.00	1.486				
						M1-6	24" x 24"	610mm X 610mm	4.00	0.368				
W20-3	48" x 48"	1.219mm X 1.219mm	16.00	1.486		2	M5-1L	21" x 15"	530mm x 380mm	2.18	0.200	 	2	
						M6-1L	21" x 15"	530mm x 380mm	2.18	0.200				
						M6-3	21" x 15"	530mm x 380mm	2.18	0.200				
R11-4	48" x 48"	1.219mm X 1.219mm	12.50	1.161	 	3	M4-8	24" x 12"	1.219mm X 1.219mm	16.00	1.486	 	12	
		TYPE III 8 FOOT				M3-3	24" x 12"	1.219mm X 1.219mm	16.00	1.486				
						M1-6	24" x 24"	610mm X 610mm	4.00	0.368				
M4-10R	48" x 18"	1.219 mm X .457mm	6.00	.557	 	1	M5-1L	21" x 15"	530mm x 380mm	2.18	0.200	 	1	
		TYPE III 8 FOOT				M5-1R	21" x 15"	530mm x 380mm	2.18	0.200				
						M6-1L	21" x 15"	530mm x 380mm	2.18	0.200				
G20-X2	96" x 84"	1.219 mm X .457mm	56.00	5.202	 VIKING BLVD. TO NORRIS LAKE RD. FOLLOW DETOUR	2	M6-1R	21" x 15"	530mm x 380mm	2.18	0.200	 	2	
						M6-3	21" x 15"	530mm x 380mm	2.18	0.200				
						M4-6	24" x 12"	1.219mm X 1.219mm	16.00	1.486				
G20-X2	96" x 84"	1.219 mm X .457mm	56.00	5.202	 NORRIS LAKE RD. TO VIKING BLVD. FOLLOW DETOUR	1								

SIGN TO BE INSTALLED A MINIMUM OF SEVEN DAYS PRIOR TO ACTUALL CLOSING DATE OF ROAD CLOSURE AND IMPLEMENTATION OF DETOUR SIGNING SIGNS TO BE REMOVED ATIME OF DETOUR INSTALLATION.

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE FIELD MANUAL DATED APRIL 1995.

APPR	REVISION

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

Douglas M. Juch
DATE 5/1/98 REG. NO. 20235

DRAWN BY D.M. DATE 4/98
DESIGN BY D.M. DATE 4/98
CHECKED BY DATE



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____
STATE AID PROJECT NO. 02-605-05
STATE AID PROJECT NO. _____
COUNTY PROJECT NO. _____

SIGN QUANTITIES
Sheet 54 of 54 Sheets