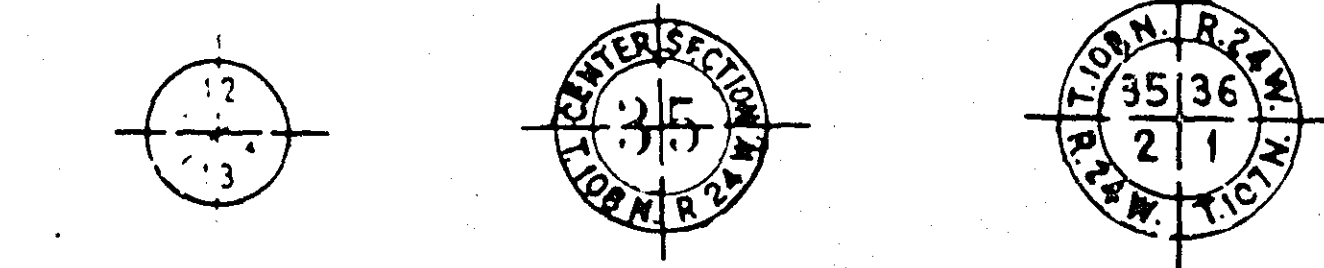


PLANS SYMBOLS

STATE LINE		SPRINGS	
COUNTY LINE		MARSH	
TOWNSHIP OR RANGE LINE		TIMBER	
SECTION LINE		ORCHARD	
QUARTER LINE		BRUSH	
SIXTEENTH LINE		NURSERY	
RIGHT OF WAY LINE		CATCH BASIN	
PRESENT RIGHT OF WAY LINE		FIRE HYDRANT	
CONTROL OF ACCESS LINE		CATTLE GUARD	
PROPERTY LINE (Except Land Lines)		OVERPASS (Highway Over)	
VACATED PLATTED PROPERTY		UNDERPASS (Highway Under)	
CORPORATE OR CITY LIMITS		BRIDGE	
TRUNK HIGHWAY CENTER LINE		BUILDING (One Story Frame)	
RETAINING WALL		F FRAME C CONCRETE	
RAILROAD		S STONE T TILE	
RAILROAD RIGHT OF WAY LINE		B BRICK ST STUCCO	
RIVER OR CREEK		IRON PIPE OR ROD	
DRY RUN		MONUMENT (STONE, CONCRETE, OR METAL)	
DRAINAGE DITCH		WOODEN HUB	
DRAIN TIE		GRAVEL PIT	
CULVERT		SAND PIT	
DROP INLET		BORROW PIT	
GUARD RAIL		ROCK QUARRY	
BARBED WIRE FENCE			
WOVEN WIRE FENCE			
CHAIN LINK FENCE			
RAILROAD SNOW FENCE			
STONE WALL OR FENCE			
HEDGE			
RAILROAD CROSSING SIGN			
RAILROAD CROSSING BELL			
ELECTRIC WARNING SIGN			
CROSSING GATE			
MEANDER CORNER			

UTILITIES SYMBOLS

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



PIT DATA

PIT NO. _____ Located in Dead Haul

PIT NO. _____ Located in Dead Haul

HOFFMAN ROAD BIKEWAY

GROSS LENGTH	4,808 FEET = 0.9106 MILES
BRIDGES - LENGTH	FEET = MILES
EXCEPTIONS - LENGTH	FEET = MILES
NET LENGTH	4,808 FEET = 0.9106 MILES

PLAN
CROSS SECTIONS
LAYOUT

25
0 50
0 5
5,280'

OFFICE OF COUNTY ENGINEER RAMSEY COUNTY

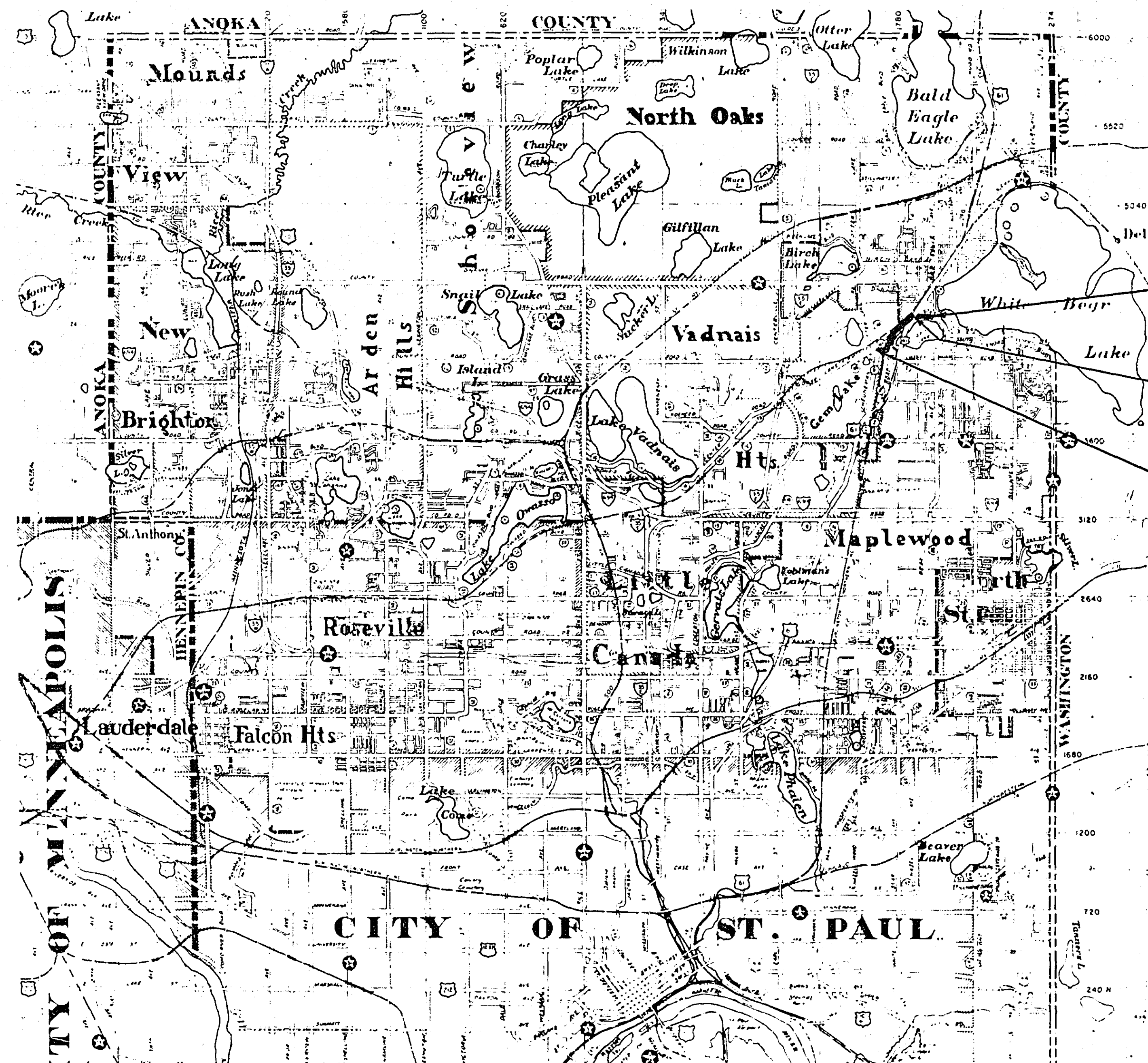
HOFFMAN ROAD BIKEWAY

CONSTRUCTION PLAN FOR: BITUMINOUS BIKEWAY

SCHUENEMAN ROAD - BETWEEN OTTER LAKE RD. AND HOFFMAN RD.
HOFFMAN ROAD - BETWEEN SCHUENEMAN ROAD AND T.H. 61
WHITE BEAR AVE. - BETWEEN T.H. 61 AND WHITE BEAR LAKE

TRAFFIC VOLUMES

Schueneman Rd. - Otter Lake Rd. to Hoffman Rd. 1300 ADT 1977
Hoffman Rd. - Schueneman Rd. to T.H. 61 600 ADT 1977
White Bear Ave. - T.H. 61 to White Bear Lake 8000 ADT 1977



BEGIN PROJECT 62-665-13 STA. 206+50
END PROJECT 62-665-15 STA. 215+10
END PROJECT 62-590-01 STA. 39+48
BEGIN PROJECT 62-590-01 STA. 0+00

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ESTIMATED QUANTITIES & TYPICAL SECTIONS
3 & 4	PLAN SHEETS

RECOMMENDED FOR APPROVAL *PLK* DATE 5-24-78
TRAFFIC ENGR
RECOMMENDED FOR APPROVAL *PLK* DATE 6-2-78
ENV ENGR
RECOMMENDED FOR APPROVAL *MSX* DATE 6-2-78
MUNY ENGR
RECOMMENDED FOR APPROVAL *QOP* DATE 6-2-78
CONST ENGR
RECOMMENDED FOR APPROVAL *LXF* DATE 6-2-78
DESIGN ENGR
RECOMMENDED FOR APPROVAL *QOP* DATE 6-2-78
ROW ENGR
APPROVED *Ways* DATE 6-2-78
COORDINATING ENGR

RECOMMENDED FOR APPROVAL *Wm. Schok* DATE 6-2-78
COUNTY ENGINEER
APPROVED *Wm. Schok* DATE _____
CHAIRMAN OF THE RAMSEY COUNTY BOARD
APPROVED _____ DATE _____
APPROVED _____ DATE _____
MINNESOTA STATE HIGHWAY DEPARTMENT
RECOMMENDED FOR APPROVAL *Delbert O. Oteval* DATE 7-26-78
DISTRICT STATE AID ENGINEER
RECOMMENDED FOR APPROVAL *Wm. Schok* DATE 6/5/78
DISTRICT STATE AID ENGINEER
APPROVAL *Wm. Schok* DATE 7/24/78
STATE AID ENGINEER

THE 1978 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION
"STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" SHALL GOVERN.

REVISED	DATE	DESIGNED BY	CHECKED BY
	7-10-78		

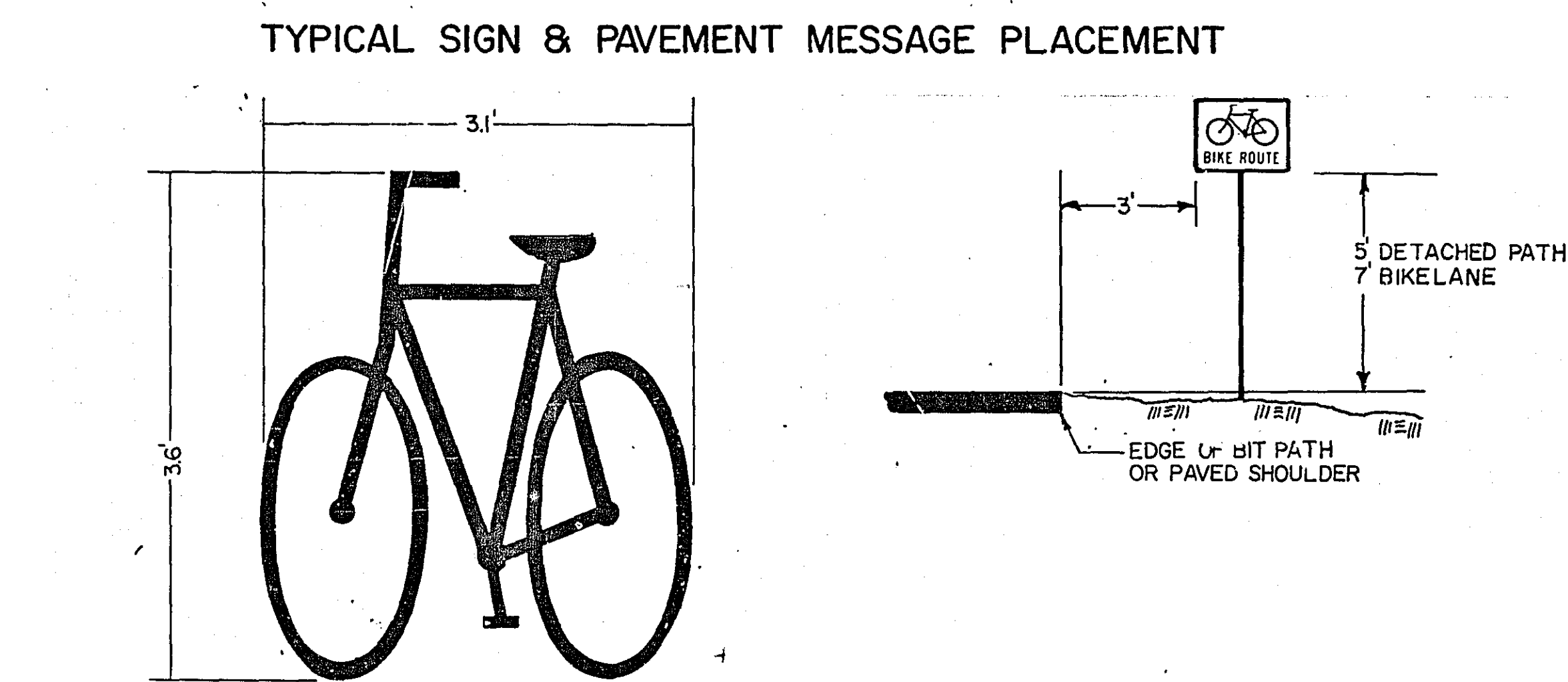
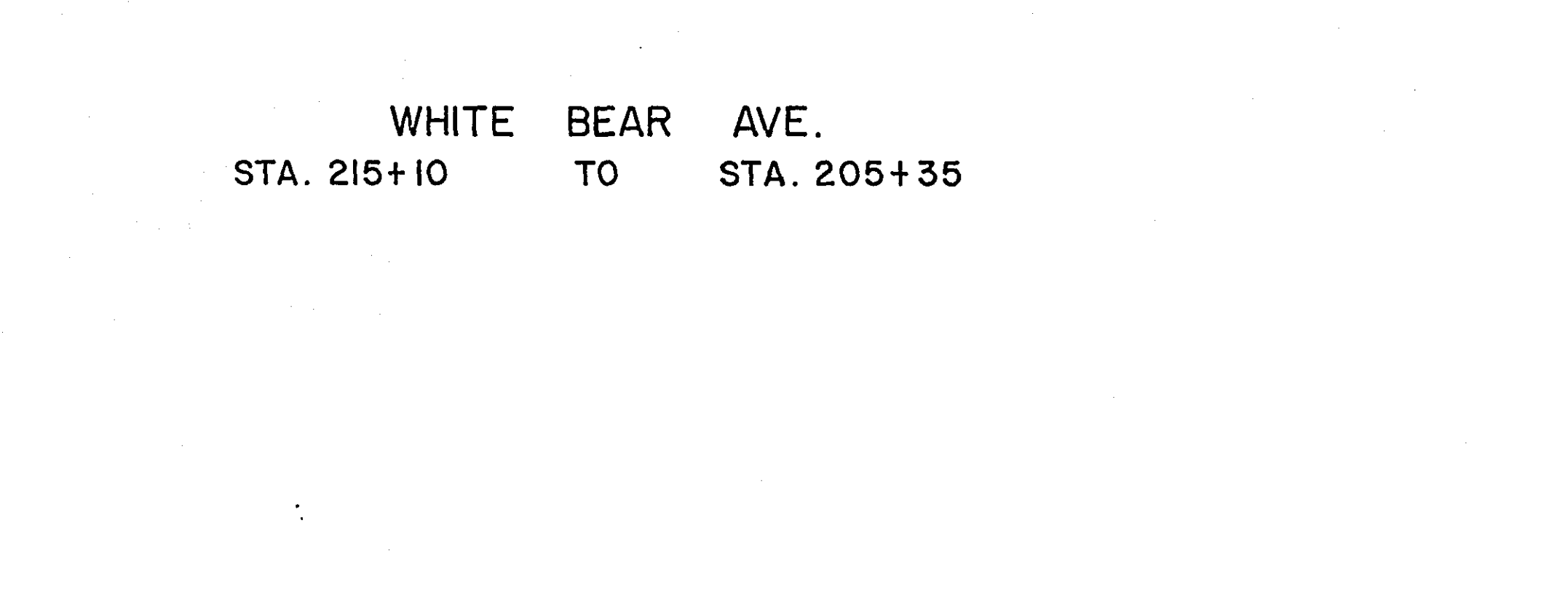
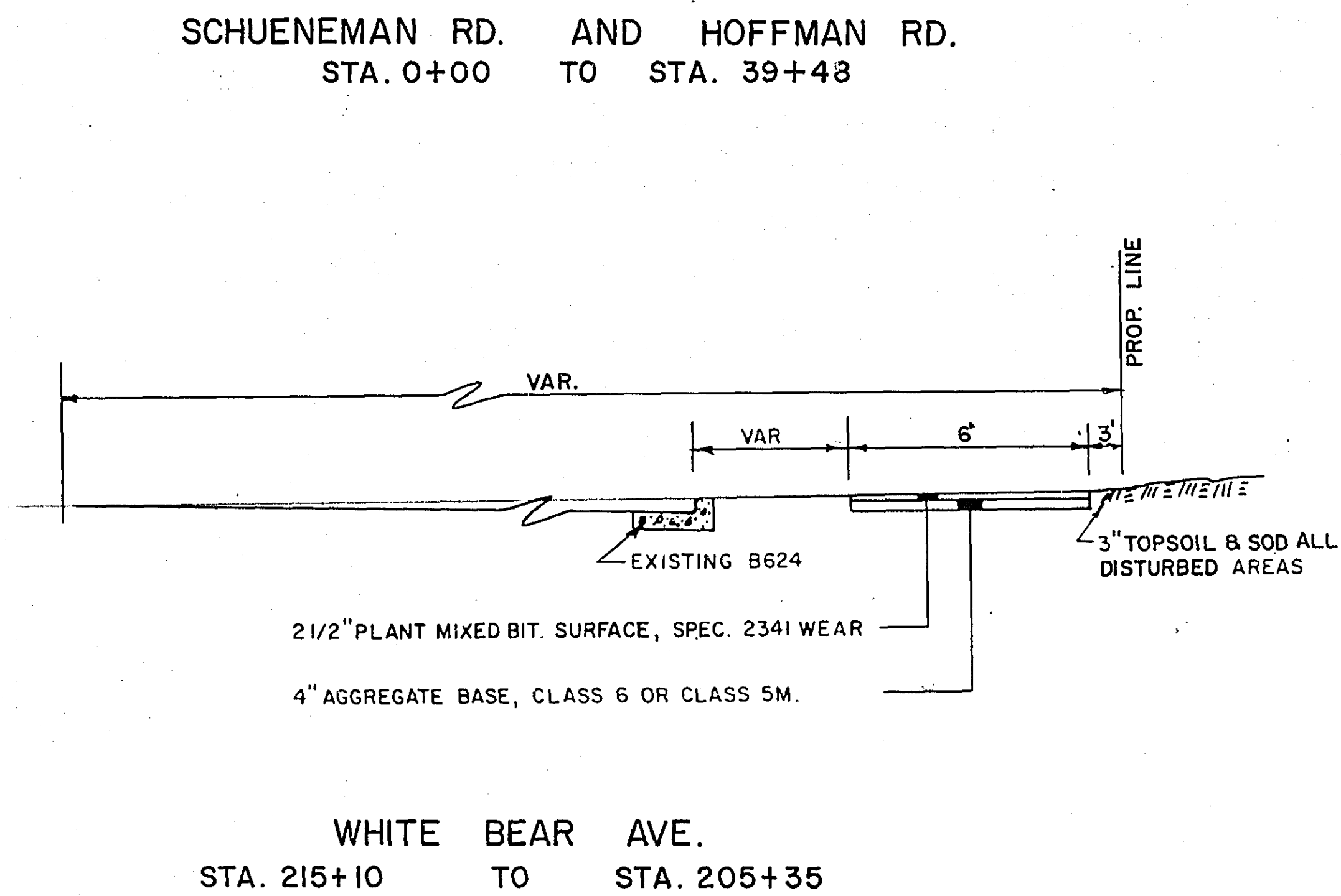
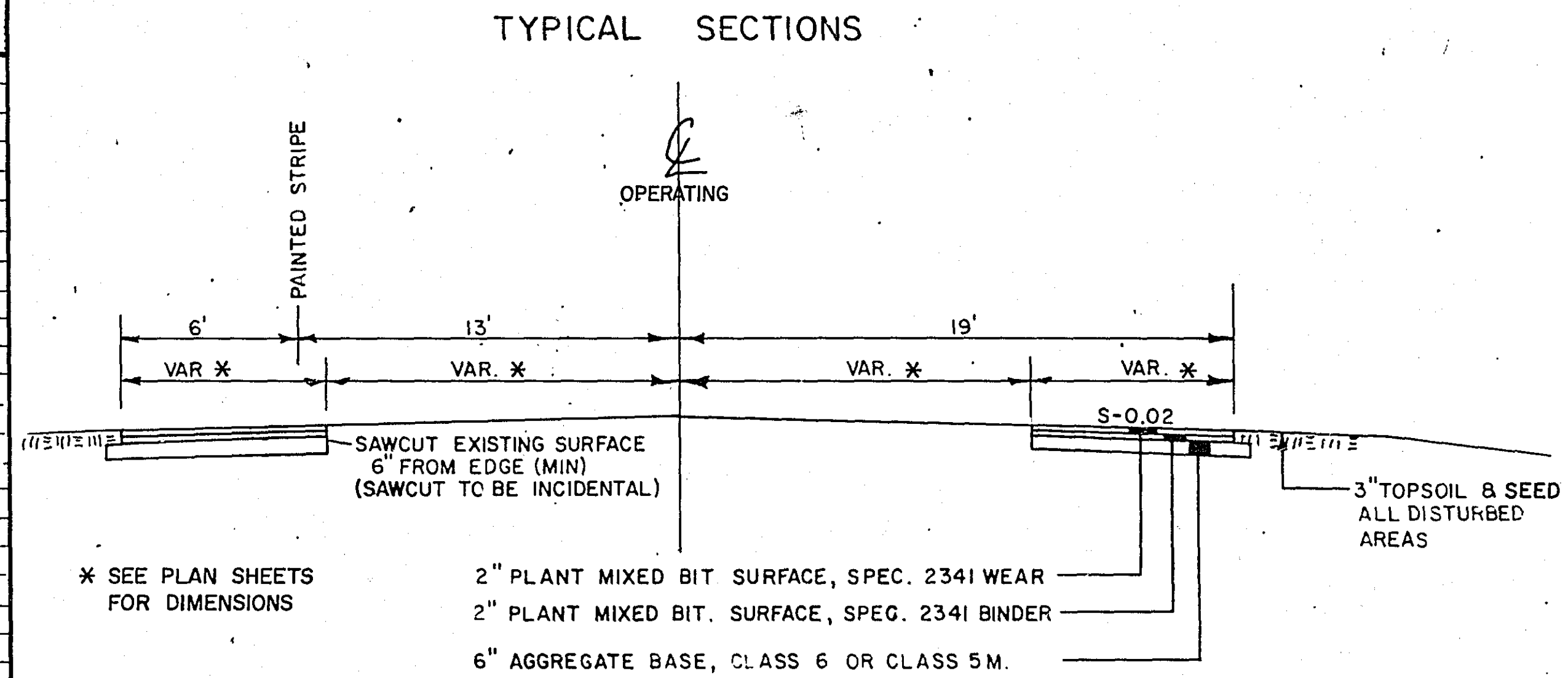
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Paul Schok
Date 5-24-78 Reg. No. 12763

S.A.P. No. 62-590-01 & 62-665-15

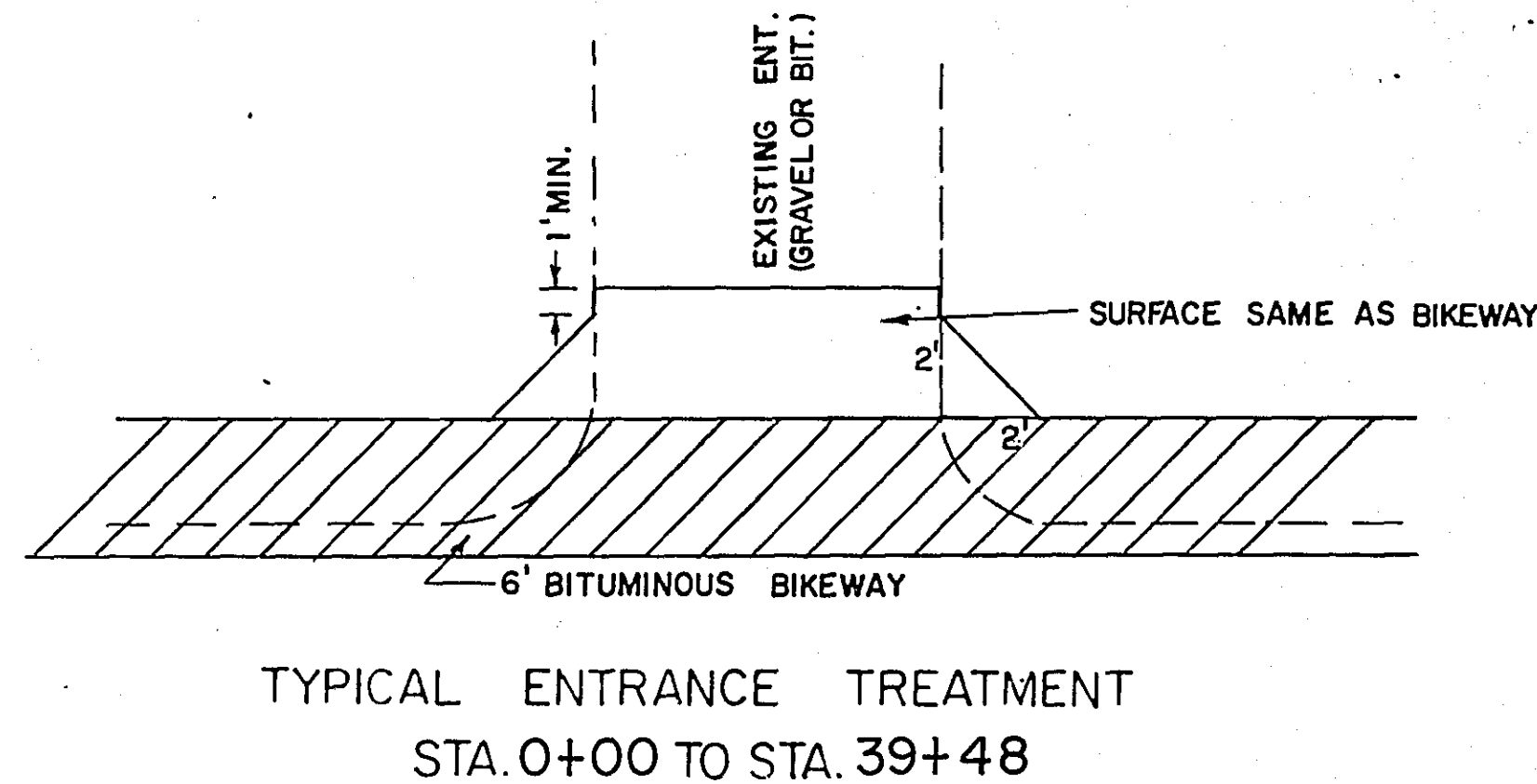
Sheet No. 1 of 4 Sheets

25-120

STATEMENT OF ESTIMATED QUANTITIES				
ITEM NO.	ITEM	UNIT	ESTIMATED QUANTITIES	FINAL ESTIMATED QUANTITIES
SCHUENEMAN RD. AND HOFFMAN RD. S.A.P. No. 62-590-01				
2104.501	REMOVE CONCRETE CURB AND GUTTER	L.F.	25	
2104.503	REMOVE CONCRETE WALK	S.F.	50	
2105.501	COMMON EXCAVATION	C.Y.	1,700	
2105.525	TOPSOIL BORROW (L.V.)	C.Y.	400	
2211.501	AGGREGATE BASE, CLASS 6 OR 5M	TON	2,180	
2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	78	
2341.508	WEARING COURSE MIXTURE FOR BIKEWAY	TON	671	
2341.510	BINDER COURSE MIXTURE FOR BIKEWAY	TON	671	
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	305	
2358.501	BITUMINOUS MATERIAL FOR PRIME COAT	GAL.	1,830	
2521.501	4" CONCRETE WALK	S.F.	50	
2531.501	CONCRETE CURB AND GUTTER, DESIGN B624	L.F.	25	
2575.501	ROADSIDE SEEDING (MIXTURE 6)	ACRE	1.0	
2575.505	SODDING	S.Y.	250	
2575.531	COMMERICAL FERTILIZER, ANALYSIS 12-12-12	TON	0.3	
563.640	FURNISH AND INSTALL TRAFFIC SIGN (D11-1)	SIGN	10	
569.602	4" WIDE WHITE EDGE LINE	L.F.	7,880	
569.614	PAVEMENT MESSAGE (BICYCLE SYMBOLS)	EACH	14	
WHITE BEAR AVE. S.A.P. No. 62-665-15				
2104.501	REMOVE CONCRETE CURB AND GUTTER	L.F.	100	
2104.503	REMOVE CONCRETE WALK	S.F.	80	
2105.501	COMMON EXCAVATION	C.Y.	102	
2105.525	TOPSOIL BORROW (L.V.)	C.Y.	32	
2211.501	AGGREGATE BASE, CLASS 6 OR 5M	TON	120	
2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	5	
2341.508	WEARING COURSE MIXTURE FOR BIKEWAY	TON	78	
2341.510	BINDER COURSE MIXTURE FOR BIKEWAY	TON	0	
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	0	
2358.501	BITUMINOUS MATERIAL FOR PRIME COAT	GAL.	170	
2521.501	4" CONCRETE WALK	S.F.	80	
2531.501	CONCRETE CURB AND GUTTER, DESIGN B624	L.F.	100	
2575.505	SODDING	S.Y.	380	
2575.531	COMMERICAL FERTILIZER, ANALYSIS 12-12-12	TON	0.25	
563.640	FURNISH AND INSTALL TRAFFIC SIGN (D11-1)	SIGN	2	
569.602	4" WIDE WHITE EDGE LINE	L.F.	0	
569.614	PAVEMENT MESSAGE (BICYCLE SYMBOLS)	EACH	4	



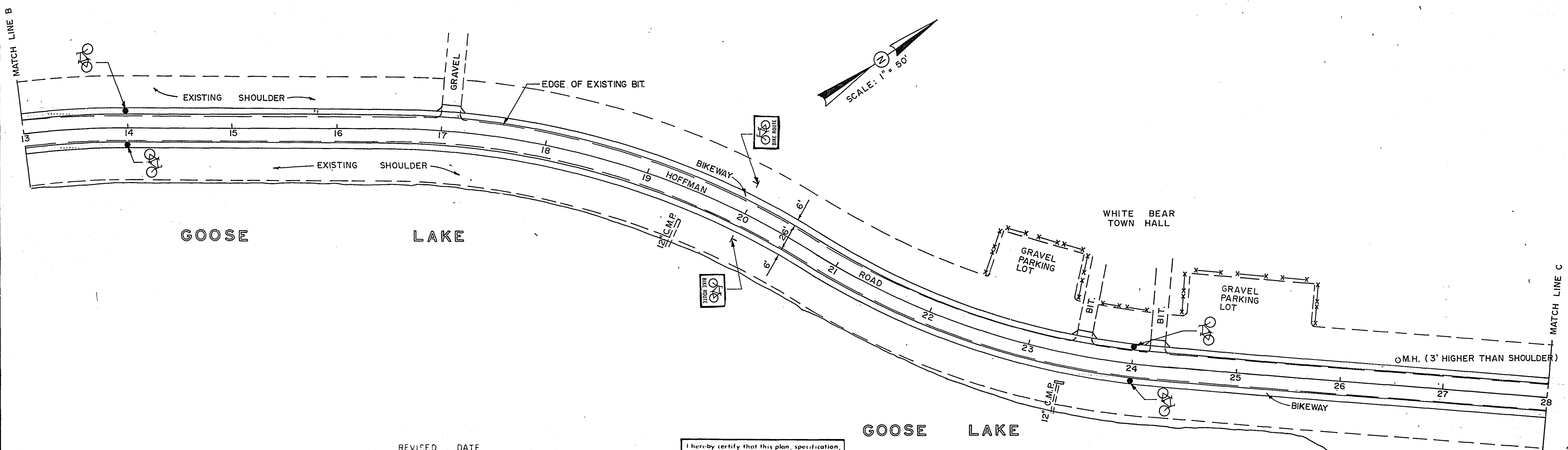
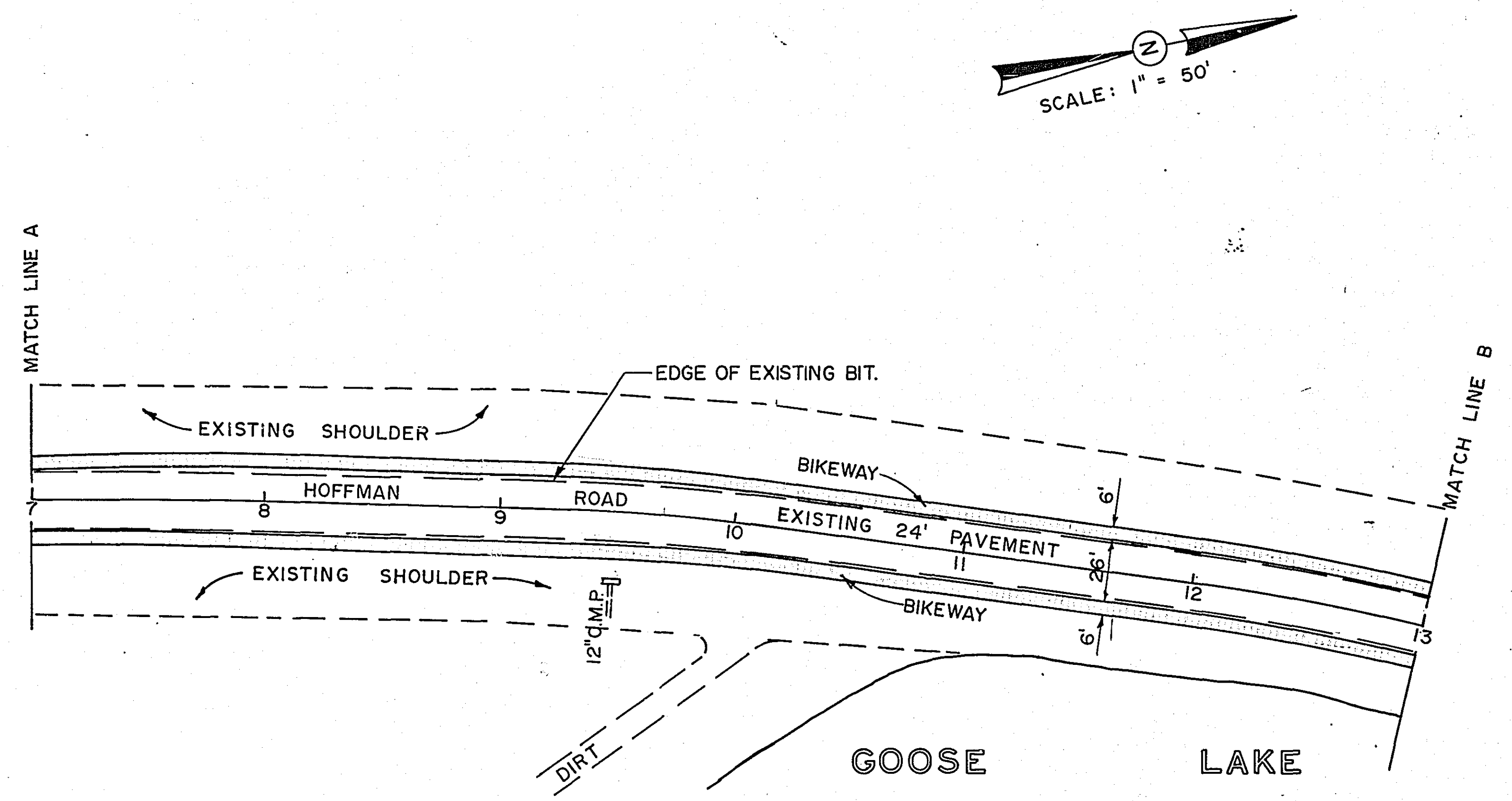
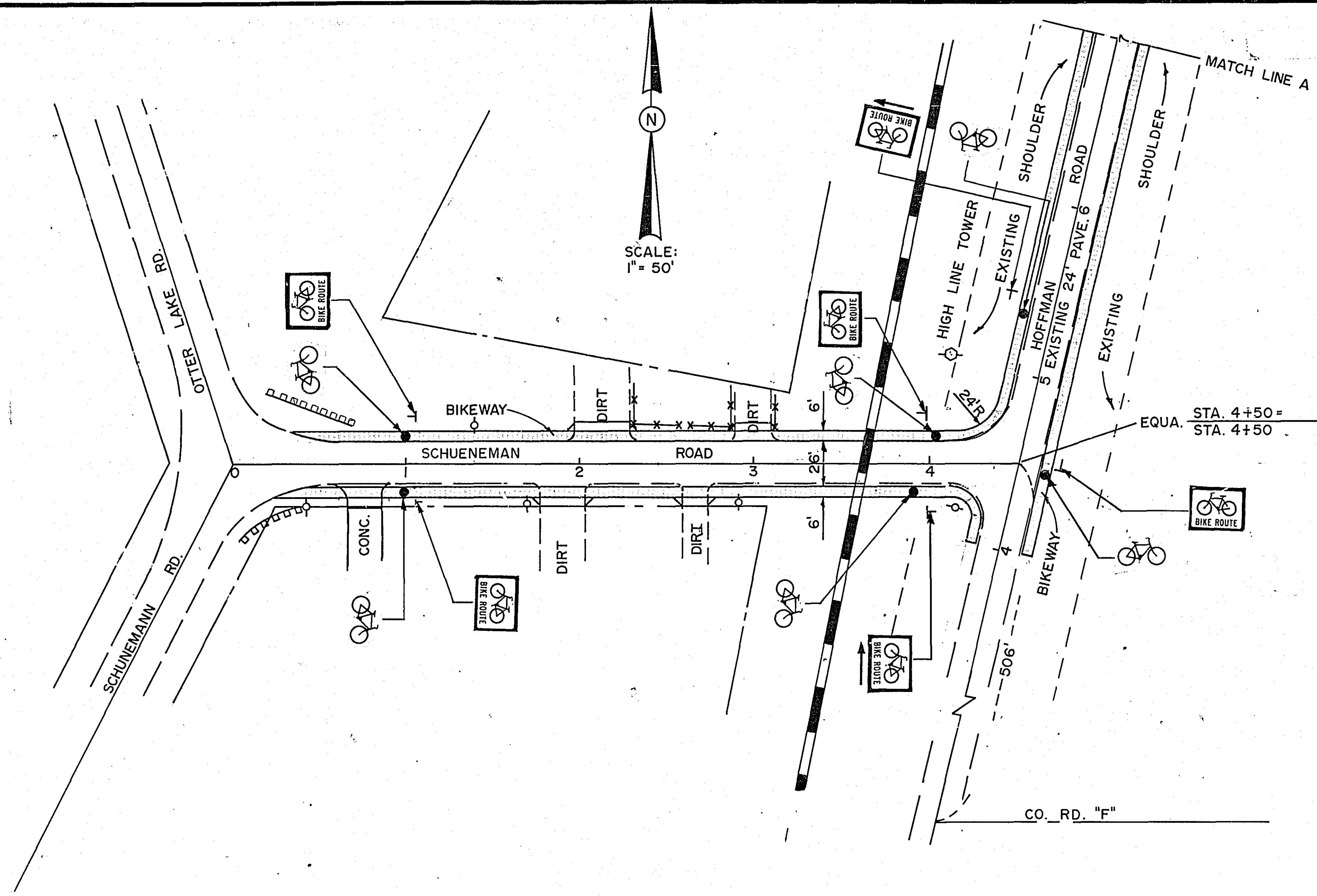
STANDARD DETAIL PLATES	
0002 A	SPECIFICATION REFERENCE TO STANDARD PLATE
7036 B	PEDESTRIAN CURB RAMPS
7100 E	CONCRETE CURB AND GUTTERS
8000 F	STANDARD BARRICADES



REVISED	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
	7-10-78			

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

Paul R. Rasmussen
Date 5-2-78 Reg. No. 12703



REVISED	DATE	DESIGNED BY	DRAWN BY	CHECKED BY

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

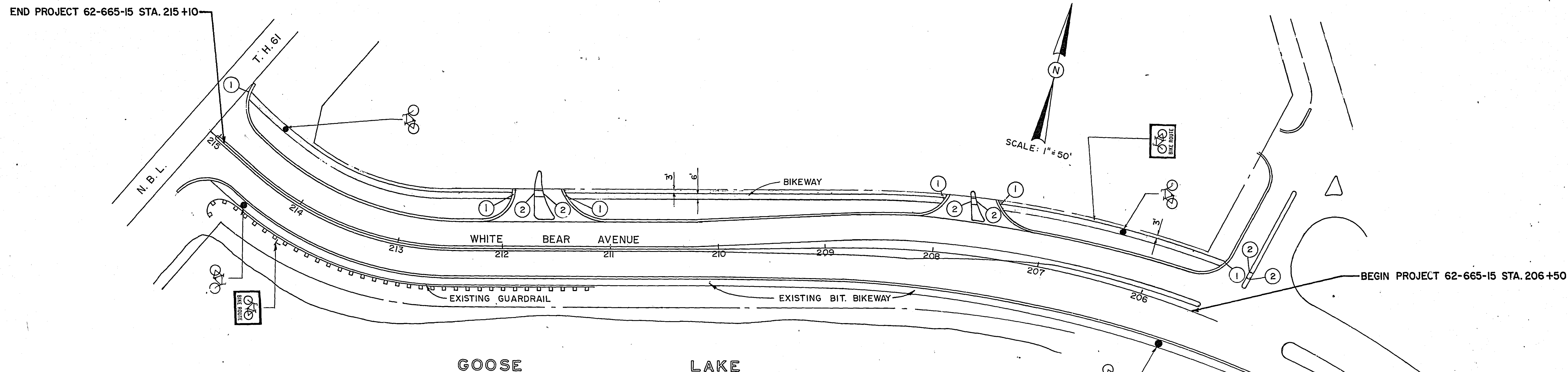
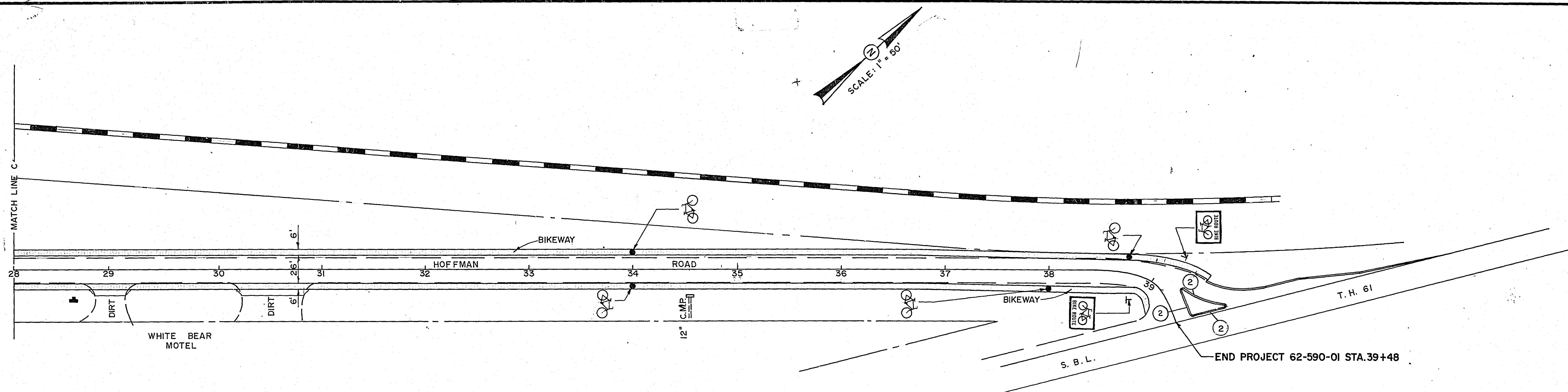
Paul K. Schuch

Date 5-24-78 Reg. No. 12703

S.A.P. No. 62-590-01 & 62-665-15

Sheet No. 3 of 4 Sheets

25-120



① REMOVE INPLACE CONCRETE CURB AND GUTTER. CONSTRUCT CONCRETE CURB AND GUTTER WITH PEDESTRIAN CURB RAMP (STD. PLATE NO. 7036 B)

② REMOVE INPLACE CONCRETE CURB AND GUTTER AND CONCRETE WALK AS DIRECTED BY THE ENGINEER. CONSTRUCT CONCRETE CURB AND GUTTER WITH PEDESTRIAN CURB RAMP (STD. PL. NO. 7036 B) AND 4" CONCRETE WALK.

REVISED	DATE	DESIGNED BY
		DRAWN BY
		CHECKED BY

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
 Date 5-24-78 Reg. No. 12703