

CONVENTIONAL SIGNS	
STATE LINE	
COUNTY LINE	
TOWNSHIP OR RANGE LINE	
SECTION LINE	
QUARTER LINE	
SIXTEENTH LINE	
RIGHT-OF-WAY LINE	
PRESENT RIGHT-OF-WAY LINE	
CONTROL OF ACCESS LINE	
PROPERTY LINE (Except Land Lines)	
VACATED PLATTED PROPERTY	
CORPORATE OR CITY LIMITS	
TRUNK HIGHWAY CENTER LINE	
RETAINING WALL	
RAILROAD	
RAILROAD RIGHT-OF-WAY LINE	
RIVER OR CREEK	
DRY RUN	
DRAINAGE DITCH	
ELECTRIC POWER LINE	
TELEPHONE OR TELEGRAPH LINE	
JOINT TELEPHONE AND POWER CONDUIT	
TELEPHONE CABLE-AERIAL	
TELEPHONE CABLE UNDERGROUND	
FIBER-OPTIC CABLE	
POWER CABLE UNDERGROUND	
GAS MAIN	
CULVERT	
DROP INLET	
GUARD RAIL	
BARBED WIRE FENCE	
WOVEN WIRE FENCE	
CHAIN LINK FENCE	
RAILROAD SNOW FENCE	
STONE WALL OR FENCE	
HEDGE	
WATER PIPE	
SEWER PIPE	
DRAIN TILE	
SPRINGS	
MARSH	
TIMBER	
ORCHARD	
BRUSH	
NURSERY	
TREE	
EVERGREEN	
BENCH MARK	
POWER BOX	
POWER PED.	
TELEPHONE PED.	
FIBER-OPTIC PED.	
TILE INLET	
CATCH BASIN	
MANHOLE	
FIRE HYDRANT	
STREET LIGHT	
RAILROAD CROSSING SIGN	
RAILROAD CROSSING BELL	
ELECTRIC WARNING SIGN	
CROSSING GATE	
CATTLE GUARD	
OVERPASS (Highway Over)	
UNDERPASS (Highway Under)	
BRIDGE	
BUILDING (One Story Frame)	
F-FRAME	
S-STONE	
B-BRICK	
C-CONCRETE	
T-TILE	
ST-STUCCO	
IRON PIPE OR ROD	
MONUMENT (STONE, CONCRETE, OR METAL)	
WOODEN HUB	
GRAVEL PIT	
SAND PIT	
ROCK QUARRY	
BORROW PIT	
MEANDER CORNER	



THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-22, ENTITLED, "STANDARD GUIDELINES FOR INVESTIGATING AND DOCUMENTING EXISTING UTILITIES".

MINNESOTA DEPARTMENT OF TRANSPORTATION

— TRAVERSE COUNTY —

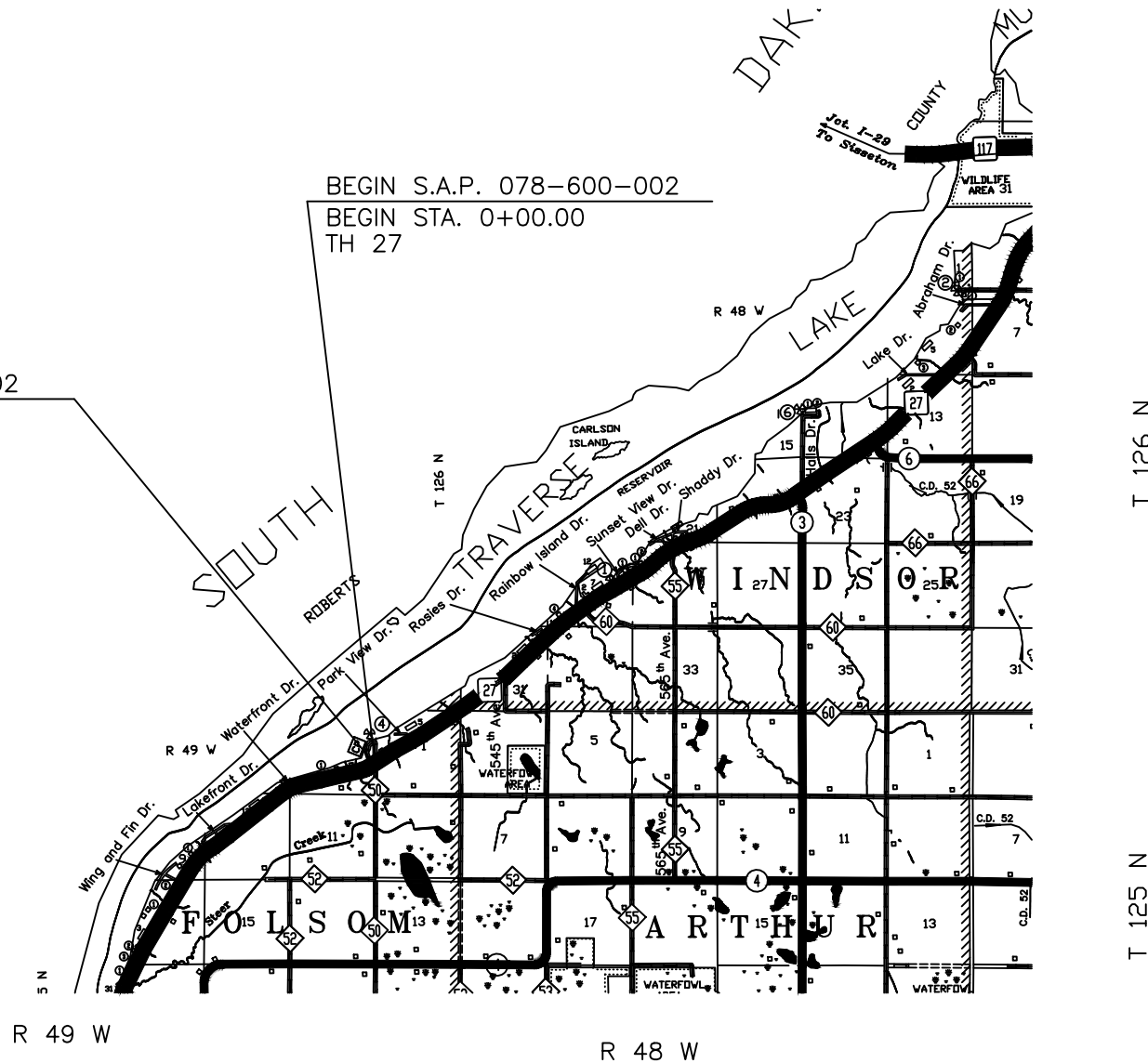
CONSTRUCTION PLAN FOR BITUMINOUS SURFACING, AGGREGATE BASE, & AGGREGATE SHOULDERS

LOCATED ON Co Rd 42 FROM TH 27 TO TH 27 (Geographic Description) AT TRAVERSE COUNTY PARK, 6.05 MILES NE OF BROWNS VALLEY FROM 1,925 FT North of S.W. COR. SEC. 1, T125N, R49W. TO 1,925 FT North of S.W. COR. SEC. 1, T125N, R49W. (Legal Description)

GROSS LENGTH 2,768.00 FEET 0.524 MILES
BRIDGES LENGTH 0.00 FEET 0.000 MILES
EXCEPTIONS LENGTH 0.00 FEET 0.000 MILES
NET LENGTH 2,768.00 FEET 0.524 MILES



END S.A.P. 078-600-002
END STA. 27+68.00
TH 27



STATE PROJECT NO. _____
STATE AID PROJECT NO. 078-600-002 Sheet 1 of 6 Sheets

MINN. PROJECT NO. _____

GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATION FOR CONSTRUCTION" SHALL GOVERN.

INDEX

SHEET NO. 1 TITLE SHEET
SHEET NO. 2 EST. QUANTITIES & TYPICAL SECTION
SHEET NO. 3 TYPICAL SECTION
SHEET NO. 4 GENERAL LAYOUT
SHEET NO. 5 PROFILE
SHEET NO. 6 TRAFFIC CONTROL PLAN

THIS PLAN CONTAINS 6 SHEETS

DESIGN DESIGNATION

N18₂₀ _____
R Value _____
ADT (2025) = < 100
Proj. ADT (2045) = < 100
Proj. HCADT (20) = < 50
Soil Factor 130%
7 Ton Design
Shoulder Width 4'

Functional Classification LOCAL
No. of Traffic Lanes 2 & 1
No. of Parking Lanes 0

Design Speed 30 MPH
Based on Stopping Sight Distance _____
Height of eye 3.5' Height of object 2.0'
Design Speed not achieved from: _____
15+16.73 - STOP CONDITION
Horizontal Curve Design Speed not met at curve numbers 1, 2, 3, 4, 5, 6, 7, 8, 10, 11 & 13.

VARIANCE: THIS PROJECT HAS BEEN GRANTED A VARIANCE FROM PARK ROAD ACCOUNT MINIMUM GEOMETRIC STANDARDS TO PERMIT REDUCED HORIZONTAL CURVES.

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

Approved Chad Gillespie CHAD GILLESPIE Traverse County Engineer
Lic. No. 54560 Date 3-10-25

Nathan M.R. Gamm 4/10 2025
DISTRICT STATE AID ENGINEER: REVIEWED FOR COMPLIANCE WITH STATE-AID RULES/POLICY

Nathan M.R. Gamm 4/10 2025
APPROVED FOR STATE-AID FUNDING: STATE-AID ENGINEER

ESTIMATED QUANTITIES

SPEC. NO.	ITEM	UNIT	S.A.P. 078-600-002 QUANTITIES
2021.501	MOBILIZATION	LUMP SUM	1.0
2051.501	MAINTENENCE & RESTORATION OF HAUL ROADS	LUMP SUM	1.0
2118.509	AGGREGATE SURFACING, CLASS 5	TON	272.0
2111.509	AGGREGATE BASE, CLASS 5	TON	680.0
2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	373.0
① 2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C)	TON	1,180.0
2563.601	TRAFFIC CONTROL	LUMP SUM	1.0
② 2582.503	6" SOLID LINE - PAINT	LIN. FT.	2,568.0
③ 2582.503	4" DBLE SOLID LINE - PAINT	LIN. FT.	200.0

BASIS FOR PLANNED QUANTITIES

BITUMINOUS MATERIAL	PG 58H-34
WEARING COURSE MIXTURES	110 LBS./SQ. YD./1" DEEP
BITUMINOUS MATERIAL FOR TACK COAT (NEW)	0.05 GALS./SQ. YD.
BITUMINOUS MATERIAL FOR TACK COAT (OLD)	0.11 GALS./SQ. YD.

STANDARD PLATES

THE FOLLOWING STANDARD PLATES, APPROVED BY THE DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION SHALL APPLY ON THIS PROJECT.

PLATE NO.	DESCRIPTION
8000K	TEMPORARY CHANNELIZERS
9000E	APPROACHES AND ENTRANCES

CONSTRUCTION NOTES

- ① CONTRACTOR MAY PRESENT A SUBSTITUTION FOR APPROVAL. SUBSTITUTION MUST BE A MNDOT APPROVED MIX DESIGN WITH "C" OIL PG 58H-34.
- ② WHITE PAINT - THIS WILL BE PAINTED ON THE DIVIDING LINE BETWEEN THE LANE AND SHOULDER. SEE SHEET 3.
- ③ YELLOW PAINT

CERTIFIED BY



CHAD GILLESPIE

Traverse County Engineer

54560

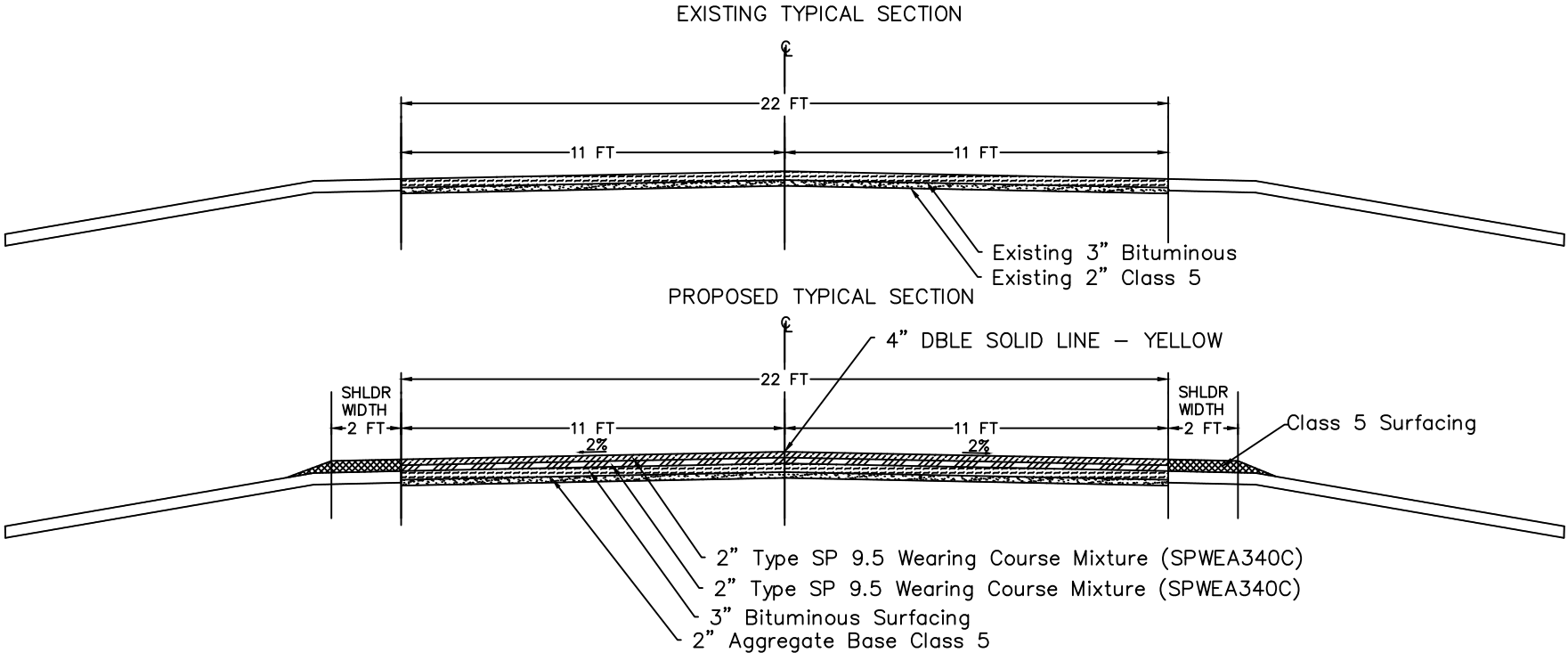
Lic. No.

3-10-25

Date

TRAVERSE COUNTY – COUNTY ROAD 42 WITHIN COUNTY PARK

STA 0+00.00 TO 2+00.00 (TWO-WAY)



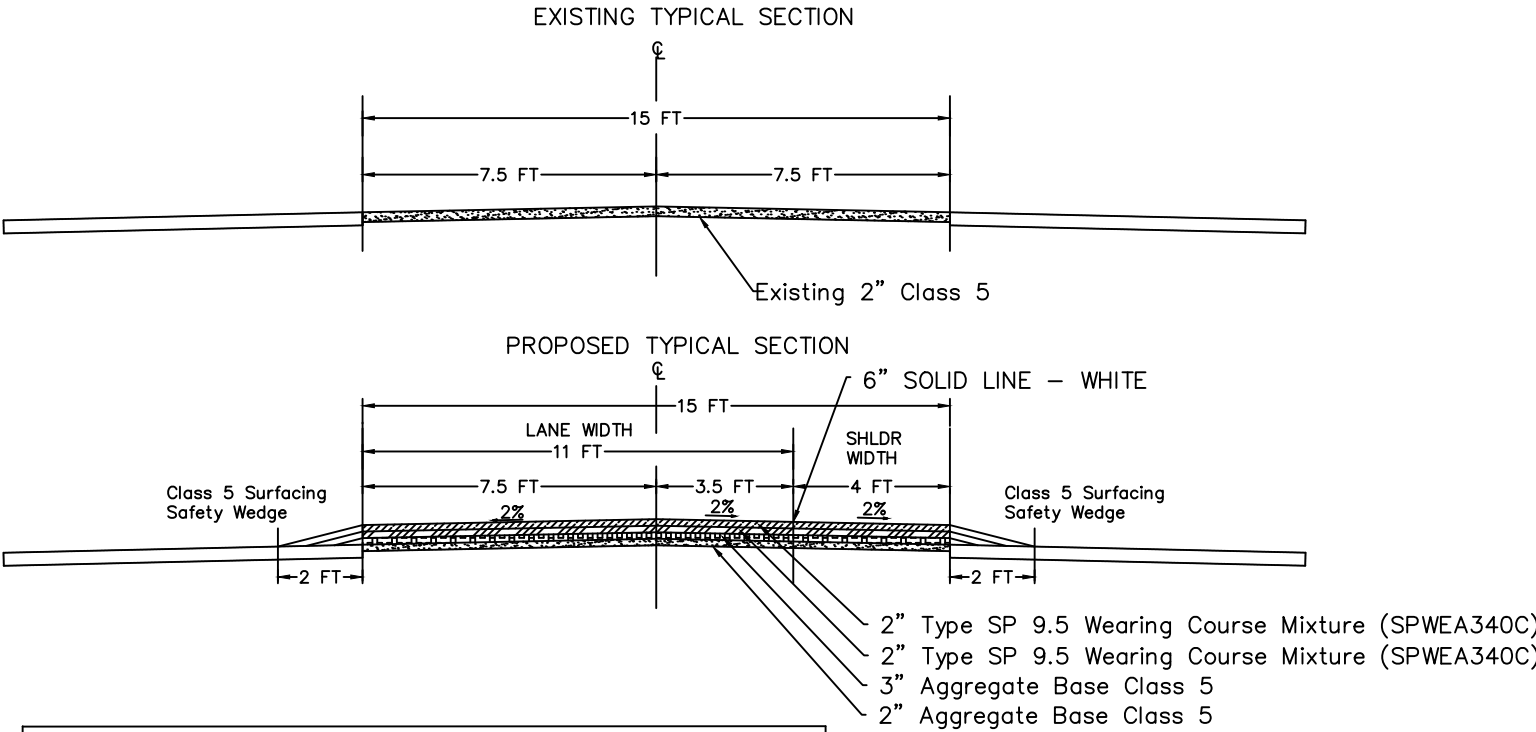
Current GE Design

< 5 ton	
ADT = <100	
Soil Factor = 130	
Required GE = NA	
2" Aggregate Surfacing	= 2
3" Bituminous	= 5.25
Total GE	= 7.25

Proposed GE Design

7 ton	
ADT = <100	
Soil Factor = 130	
Required GE = 14.0	
2" Aggregate Surfacing	= 2
3" Bituminous	= 5.25
4" Bituminous	= 9
Total GE	= 16.25

STA 2+00.00 TO 27+68.00 (ONE-WAY)



Current GE Design

< 5 ton	
ADT = <100	
Soil Factor =	
Required GE = NA	
2" Aggregate Surfacing	= 2
Total GE	= 2

Proposed GE Design

7 ton	
ADT = <100	
Soil Factor = 130	
Required GE = 14.0	
4" Bituminous	= 9
5" Aggregate Surfacing	= 5
Total GE	= 14.0

CERTIFIED BY

Chad Gillespie

CHAD GILLESPIE Traverse County Engineer

54560

Lic. No.

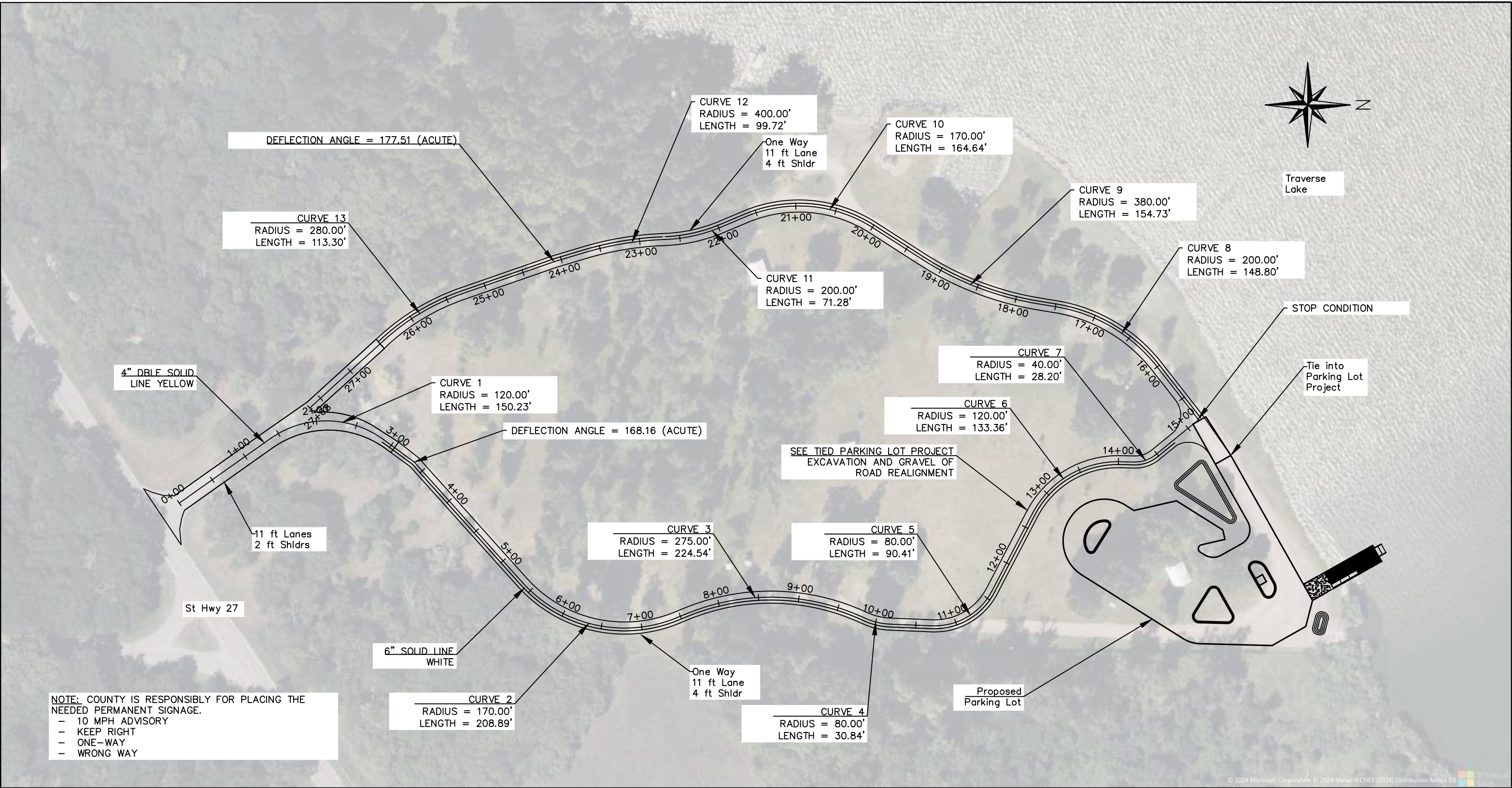
3-10-25

Date

PROJECT NO.

STATE AID PROJECT NO. 078-600-002

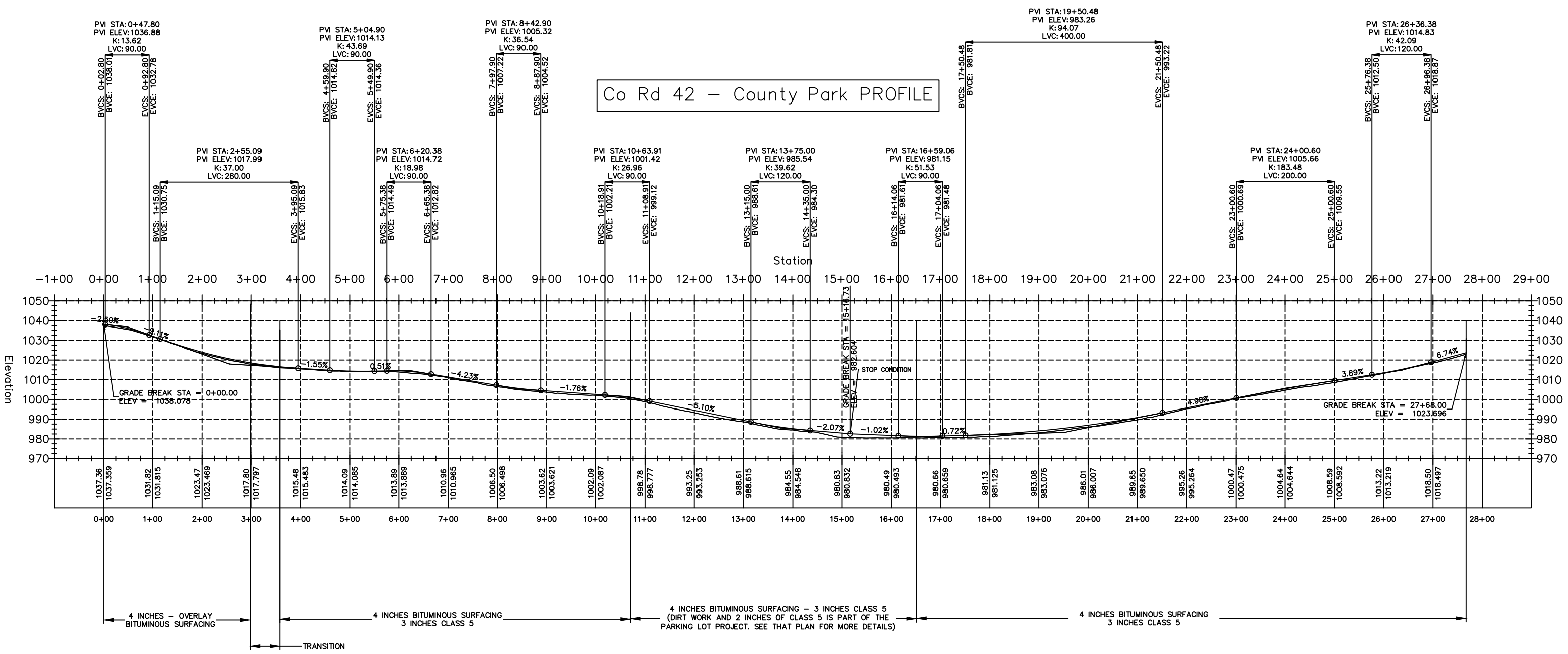
SHEET 3 OF 6 SHEETS



NOTE: HORIZONTAL DESIGN SPEED OF 30 MPH NOT MET AT CURVE NUMBERS 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, & 13.

VARIANCE: THIS PROJECT HAS BEEN GRANTED A VARIANCE FROM PARK ROAD ACCOUNT MINIMUM GEOMETRIC STANDARDS TO PERMIT REDUCED HORIZONTAL CURVES.

LAYOUT	CERTIFIED BY CHAD GILLESPIE - Traverse County Engineer 54560 Lic. No. 3-10-25 Date	PROJECT NO. _____	SHEET <u>4</u> OF <u>6</u> SHEETS
		STATE AID PROJECT NO. <u>078-600-002</u>	

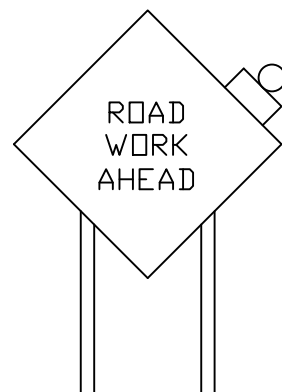


PROFILE

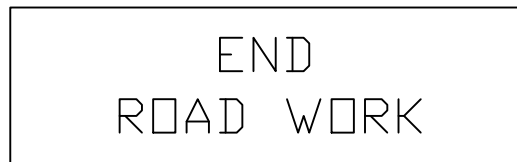
CERTIFIED BY
Chad Gillespie
CHAD GILLESPIE Traverse County Engineer
54560 3-10-25
Lic. No. Date

PROJECT NO. _____
STATE AID PROJECT NO. 078-600-002

SHEET 5 OF 6 SHEETS



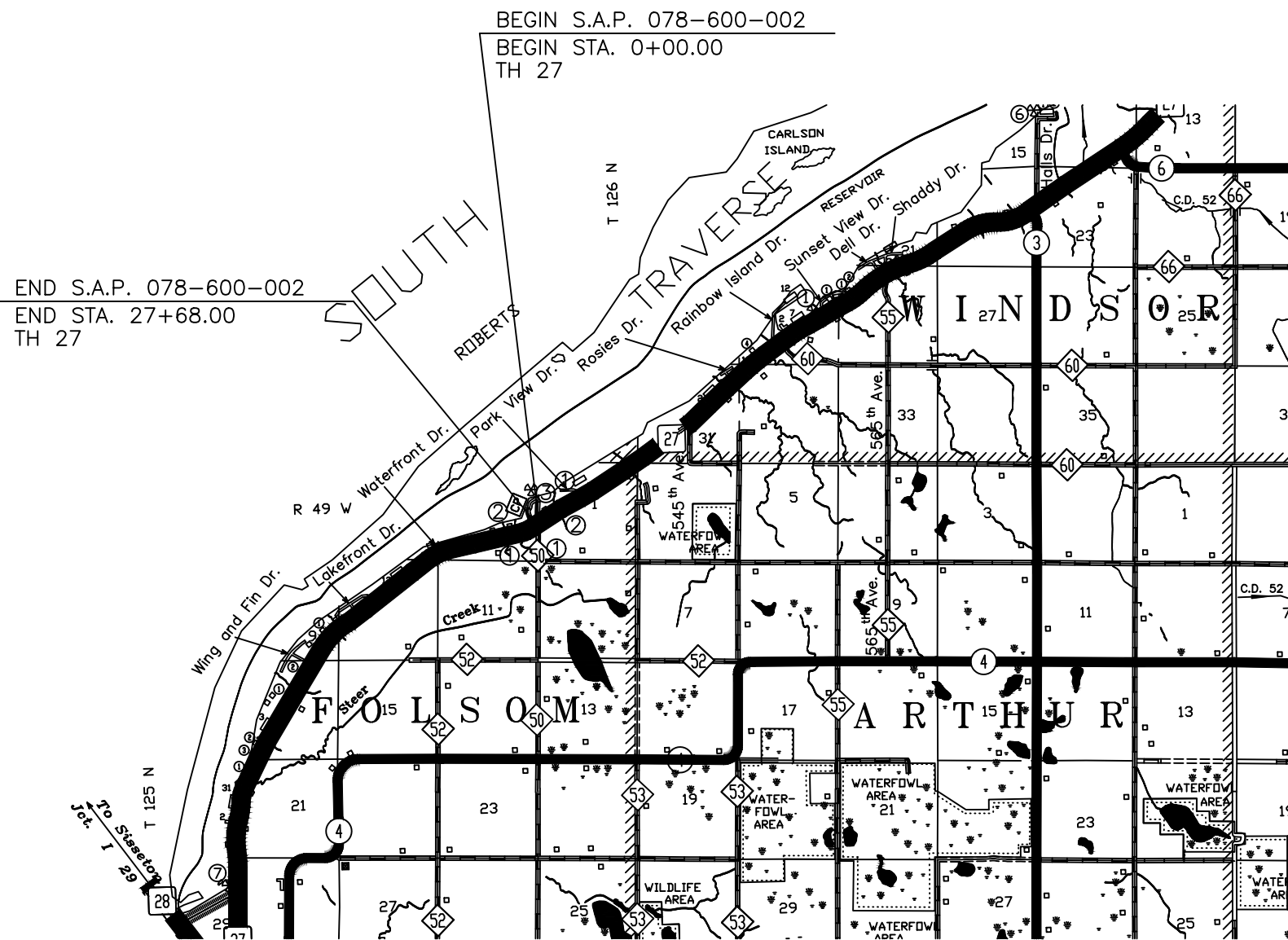
①



②



③



SIGN SCHEDULE

SIGN OR DEVICE	SIGN NO./ TYPE	COLOR	SIZE	EST. QUANTITY
	W20-1	BLACK ON ORANGE	36"X36"	3
	G20-1	BLACK ON ORANGE	60"X24"	1
	TYPE III	BLACK ON ORANGE	69"X8" MINIMUM	3
	G20-2	BLACK ON ORANGE	48"X24"	2
	TYPE A			11

NOTE: ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".

TRAFFIC CONTROL

CERTIFIED BY

CHAD GILLESPIE Traverse County Engineer
54560 3-10-25
Lic. No. Date

STATE PROJECT NO. _____
STATE AID PROJECT NO. 078-600-002

SHEET 6 OF 6 SHEETS