

PLANS SYMBOLS

STATE LINE	.....
COUNTY LINE	.....
TOWNSHIP OR RANGE LINE	.....
SECTION LINE	.....
QUARTER LINE	.....
SIXTEENTH LINE	.....
RIGHT OF WAY LINE	.....
SLOPE EASEMENT	.....
PRESERVE 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	.....
GRAIN TIE	.....
CULVERT	.....
DROP VALET	.....
GUARD RAIL	.....
BARBED WIRE FENCE	.....
WOVEN WIRE FENCE	.....
CHAIN LINK FENCE	.....
RAILROAD CROSSING SIGN	.....
RAILROAD CROSSING BELL	.....
ELECTRIC WARNING SIGN	.....
CROSSING GATE	.....
MEANDER COVER	.....
STRINGS	.....
MARSH	.....
TIMBER	.....
ORCHARD	.....
BRUSH	.....
NURSERY	.....
CATCH BASIN	.....
FEYE HYDRANT	.....
CATTLE GUARD	.....
OVERPASS (Highway Over)	.....
UNDERPASS (Highway Under)	.....
BRIDGE	.....
BUILDING (One Story Frame)	.....
F- FRAME	.....
S- STONE	.....
B- BRICK	.....
C- CONCRETE	.....
T- TIE	.....
ST- STUCCO	.....
IRON PIPE OR ROD	.....
MONUMENT (STONE, CONCRETE, OR METAL)	.....
WOODEN PUB	.....
GRAVEL PIT	.....
SAND PIT	.....
BORROW PIT	.....
ROCK QUARRY	.....

UTILITIES SYMBOLS

POWER POLE LINE	.....
TELEPHONE OR TELEGRAPH	.....
POLE LINE	.....
JOINT TELEPHONE AND POWER ON POWER POLES	.....
ON TELEPHONE POLES	.....
ANCHOR	.....
STEEL TOWER	.....
STREET LIGHT	.....
PEDESTAL (TELEPHONE CABLE TERMINAL)	.....
CAS MAIN	.....
WATER MAIN	.....
CONDUIT	.....
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

PLAN	.....
PROFILE	.....
INDEX MAP	.....
GENERAL LAYOUT	.....

MINNESOTA DEPARTMENT OF TRANSPORTATION

ANOKA COUNTY

CONSTRUCTION PLAN FOR C.S.A.H. 11 (NORTHDALE BLVD.)

LOCATED ON **C.S.A.H. 11** BETWEEN **EAGLE STREET** AND **XEON STREET** (Geographic Description)FROM **342.35' EAST OF S.W. CORNER OF SEC. 11** TO **642.35' EAST OF S.W. CORNER OF SEC. 11** (Legal Description)**COUNTY PROJ. NO. 02-611-24****STATE AID PROJ. NO. 02-611-24**GROSS LENGTH **300.00** FEET **0.057** MILES
BRIDGES-LENGTH **44.08** FEET **0.009** MILES
EXCEPTIONS-LENGTH **FEET** **MILES**
NET LENGTH **255.58'** FEET **0.048** MILESGROSS LENGTH **FEET** **MILES**
BRIDGES-LENGTH **FEET** **MILES**
EXCEPTIONS-LENGTH **FEET** **MILES**
NET LENGTH **FEET** **MILES**THIS PLAN CONTAINS **7** SHEETS

INDEX

SHEET NO. 1	TITLE SHEET
2	ESTIMATED QUANTITIES, TYPICAL SECTIONS,
3	DETAILS
4	PLAN & PROFILE
5	EROSION CONTROL
6-7	CROSS SECTION
7a -7b	TRAFFIC CONTROL

THIS PLAN CONTAINS **7** SHEETS

DESIGN DESIGNATION

SN18₂₀ 1,334,000
R Value 70
ADT (1989) = 13,804
Proj. ADT (2010) = 19265
Proj. HCADT (2010) = 1600
Soil Factor A-3
9 Ton Design
Shoulder Width

Design Speed 50 MPH
Based on Stopping Sight Distance
Height of eye 3.5' **Height of object** 0.5'
Design Speed not achieved at:

STA. TO STA. MPH
 STA. TO STA. MPH
 STA. TO STA. MPH

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.

DATE **10/23/89** REG. NO. **18612** ENGR. **Lester Green Mean**
COUNTY

Recommended for Approval 19 DISTRICT STATE AID ENGINEER

Recommended for Approval 19 STATE AID PLANS AND SPECS ENGINEER

Approved 19 STATE AID ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

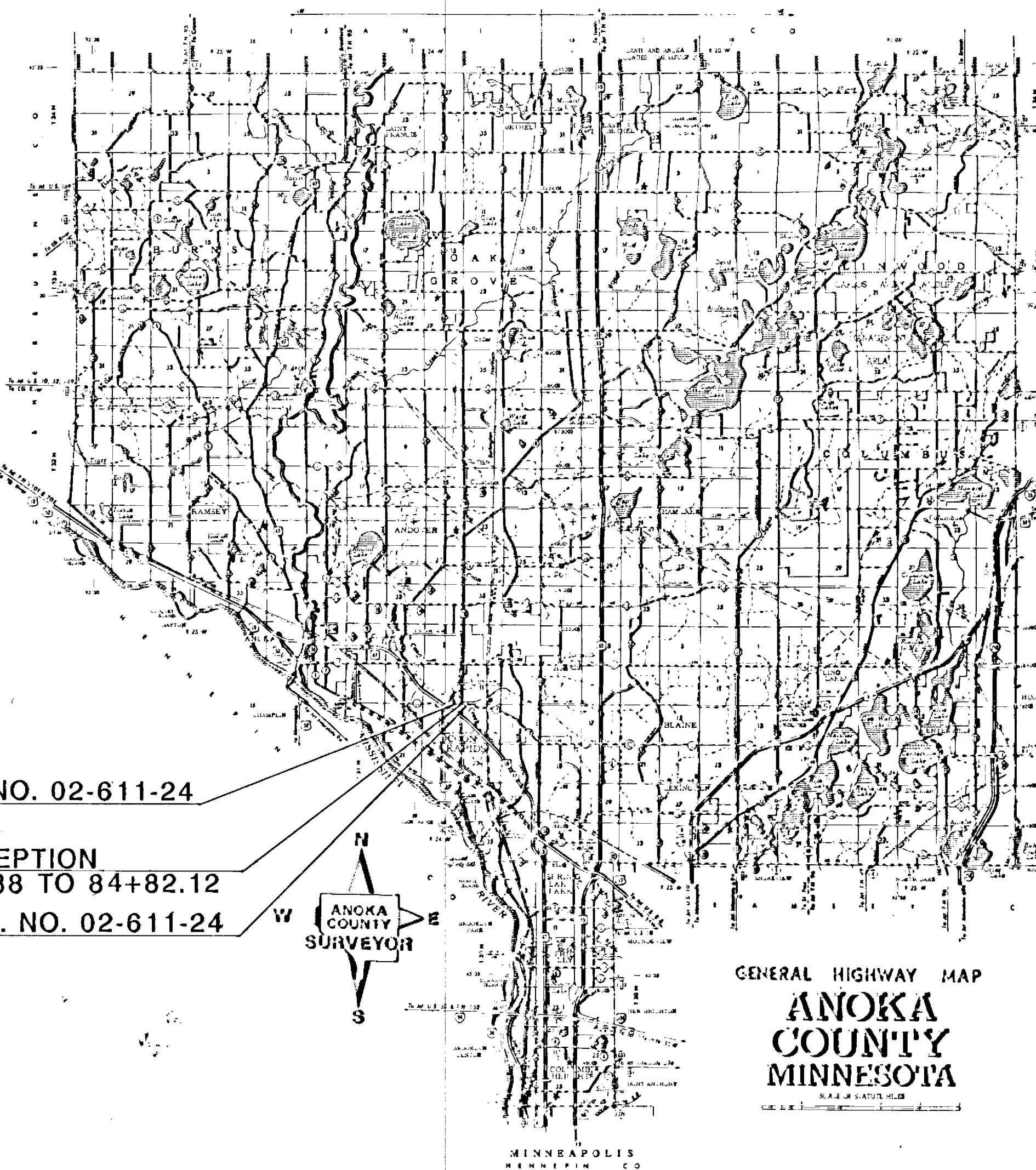
APPROVED DATE

DIVISION ADMINISTRATOR DATE

COUNTY PROJ. NO. 02-611-24

STATE PROJ. NO. 02-611-24

SHEET NO. 1 OF 7 SHEETS



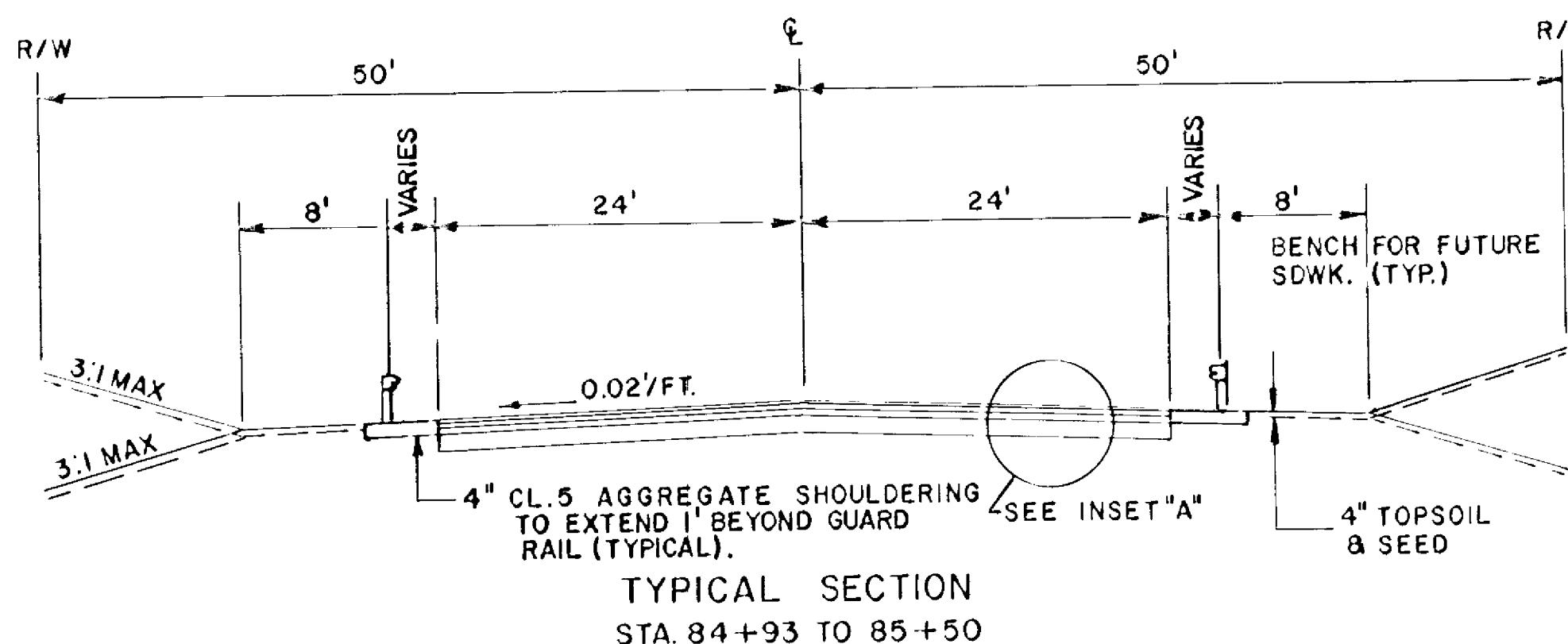
STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL	
			ESTIMATED QUANTITIES	FINAL QUANTITIES
2031.501	FIELD OFFICE, TYPE D	EACH	1.00	
2101.502	CLEARING	TREE	10.00	
2101.507	GRUBBING	TREE	10.00	
2105.501	COMMON EXCAVATION (P)	C.Y.	238.00	
2105.523	COMMON BORROW (L.V.)	C.Y.	2100.00	
2105.525	TOPSOIL BORROW (L.V.)	C.Y.	154.00	
2123.503	MOTOR GRADER	HOUR	40.00	
2130.501	WATER	1000(M)GAL	10	
2211.503	AGG. BASE CL. 5 PLACED (P) (1)	C.Y.	143.00	
2331.510	TYPE 3I BINDER COURSE MIXTURE	TON	82.00	
2331.514	TYPE 3I BASE COURSE	TON	82.00	
2331.508	TYPE 4I WEARING COURSE MIXTURE (2)	TON	72.00	
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	37.00	
2531.501	CONCRETE CURB & GUTTER, DES B618	L.F.	119.00	
2554.501	TRAFFIC BARRIER, DESIGN 8307N	L.F.	312.50	
2554.521	ANCHORAGE ASSEMBLIES, DESIGN 8318C	EACH	4.00	
2554.523	TWISTED END TREATMENT	EACH	3.00	
0554.602	BREAKAWAY CABLE TERMINAL	EACH	1.00	
2564.532	TRAFFIC CONTROL	L.S.	1.00	
2573.501	BALE CHECK	EACH	6.00	
2573.503	SILT FENCE, PREASSEMBLED	L.F.	500	
2575.501	SEEDING (P)	ACRE	0.22	
2575.502	SEED MIXTURE 500	LBS.	11.00	
2575.511	MULCH MATERIAL, TYPE 1	TON	0.44	
2575.519	DISC ANCHORING (P)	ACRE	0.22	
2575.531	COMMERCIAL FERT. ANALYSIS 10-10-10	LBS.	110.00	
2575.505	SODDING TYPE EROSION CONTROL	S.Y.	200.00	

(1) INCLUDES 26 C.Y. FOR AGGREGATE SHOULDERING

(2) INCLUDES 14 TON FCR BITUMINOUS SPILLWAYS

The following Standard Plates, approved by the FEDERAL HIGHWAY ADMINISTRATION, shall apply on this project.



BASIS OF ESTIMATED QUANTITIES

- 2331 TYPE 4I PLANT MIXED WEARING COURSE
BITUMINOUS MIXTURE 110 LBS./S.Y./1" THICKNESS
BITUMINOUS MATERIAL FOR MIXTURE 5.8% BY WEIGHT.

2331 TYPE 3I PLANT MIXED BASE & BINDER COURSE
BITUMINOUS MIXTURE 110 LBS./S.Y./1" THICKNESS
BITUMINOUS MATERIAL FOR MIXTURE 5.3% BY WEIGHT

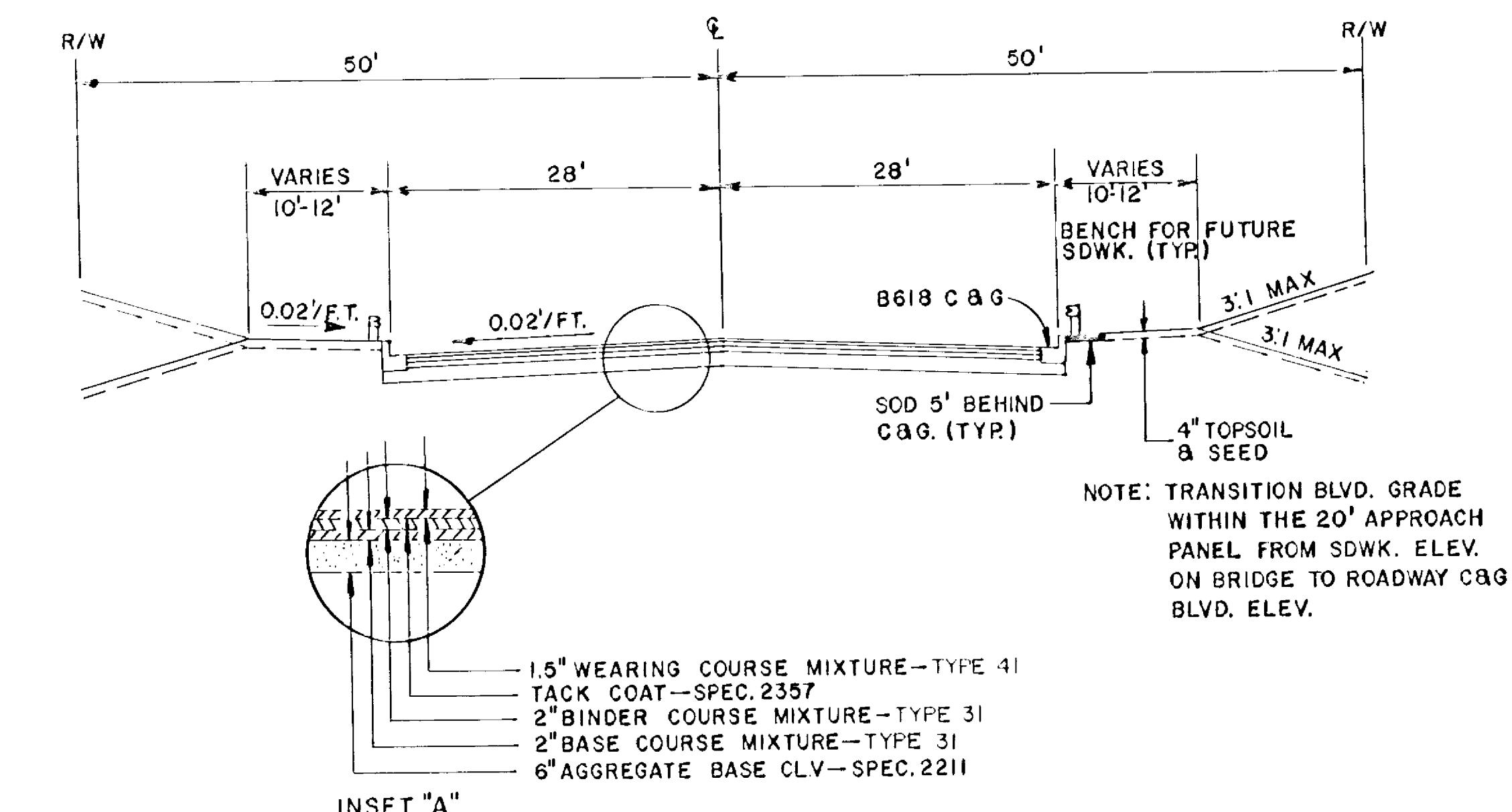
2357 BITUMINOUS MATERIAL FOR TACK COAT
0.05 GALLONS PER SQ. YD.

2575 MULCH MATERIAL TYPE I, 2 TONS PER ACRE.

2575 COMMERCIAL FERTILIZER, ANALYSIS 10-10-10
500 LBS./ACRE ON ALL SEED AND SOD AREAS.

2575 ROADSIDE SEEDING BASED ON HORIZONTAL
MEASUREMENT PLUS 10%.

2575 SEED MIXTURE NO. 500, 50 LBS. PER ACRE.



STA 83+50 TO 83+97.88, STA 84+82.12 TO 84+93

1	AER	2-12-90	STATE EST. PLAN 3 - BASIS OF EST. QUANTITY						I hereby certify that this plan was prepared by me under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.
2	AER	2-12-90	TYPICAL SECTION - INSERT "A"						<i>Buren Gien Nelson</i>
3	MN	2-28-90	STATE EST. PLAN						Date: 10/23/89 Reg. No. 18612
NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED			

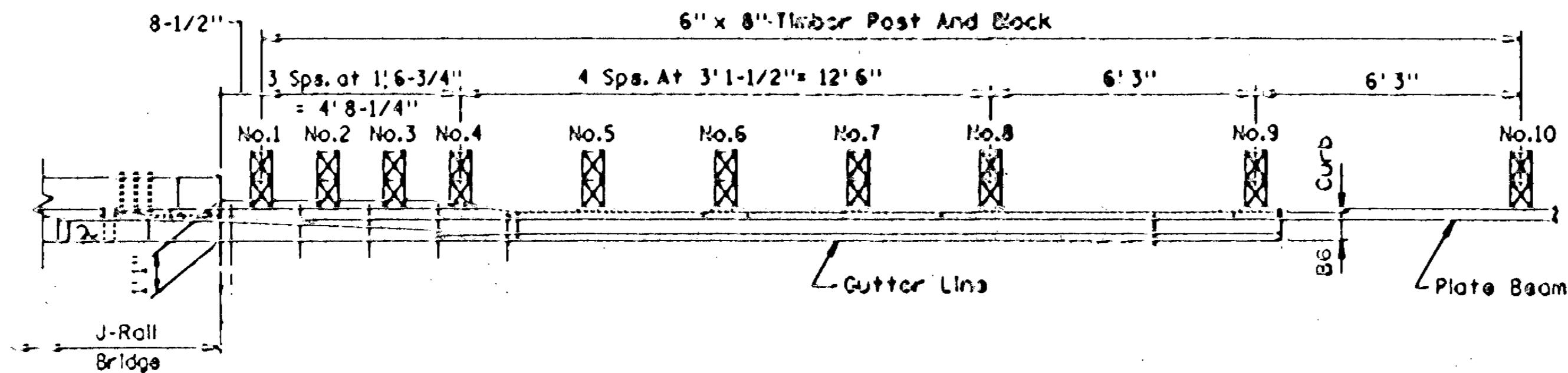


ANOKA COUNTY, MN

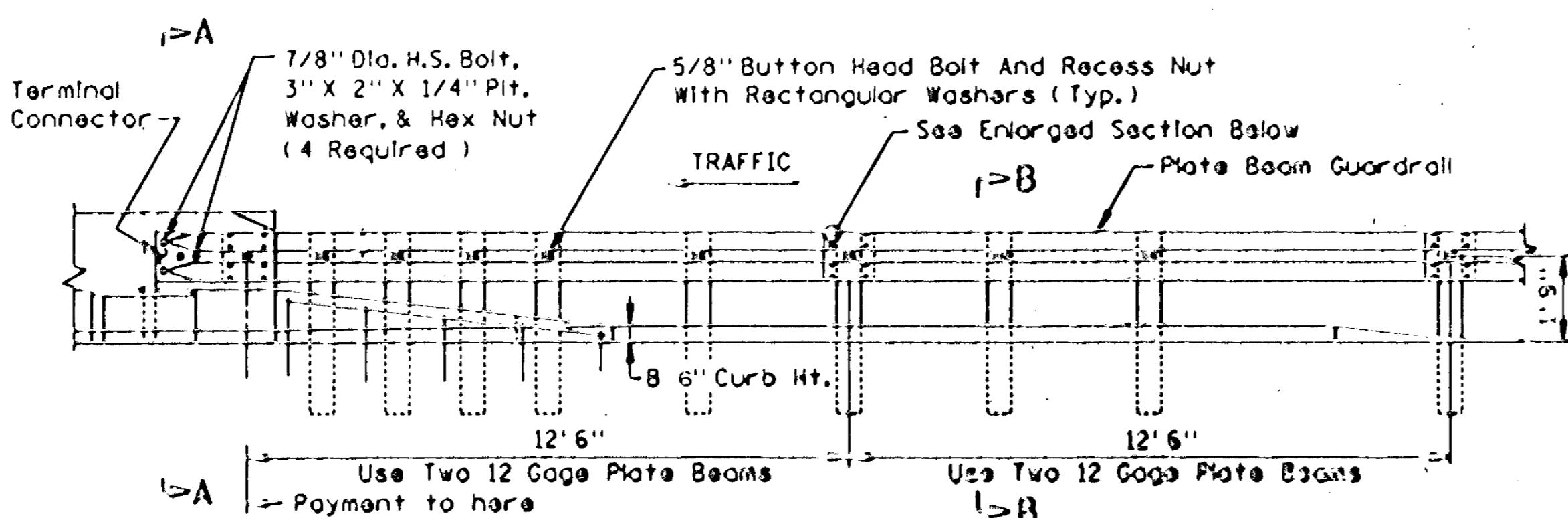
ESTIMATED QUANTITIES TYPICAL SECTIONS

FILE NO.
89129
DATE
10/23/89

02-611-24

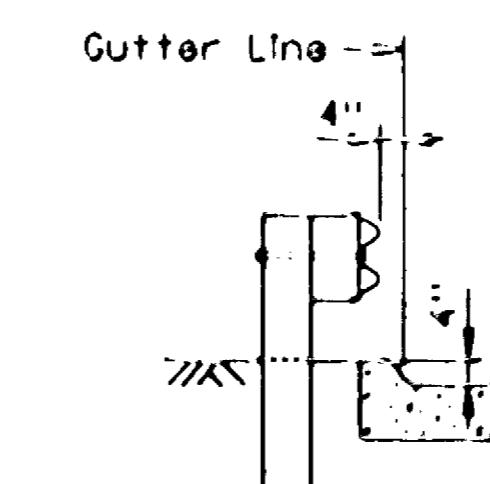
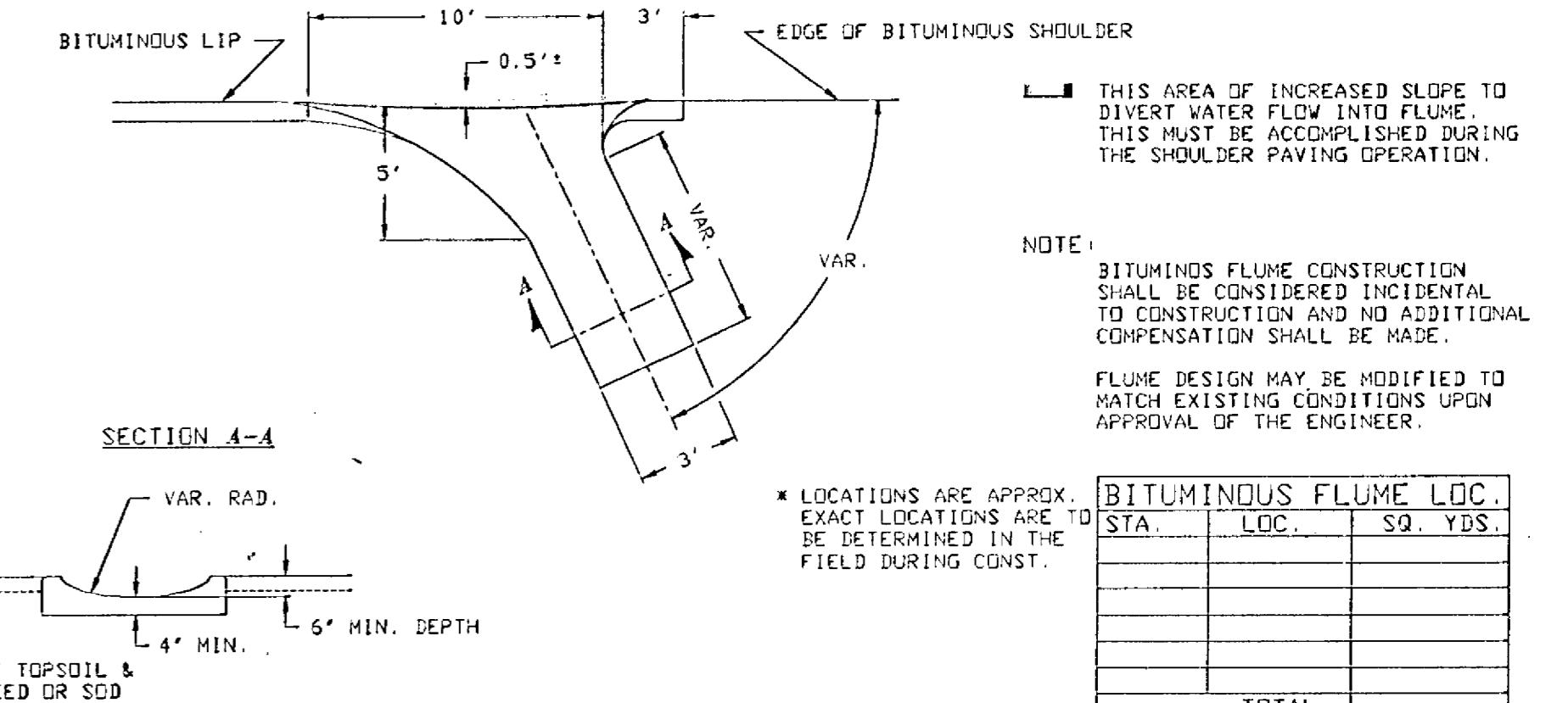


PLAN

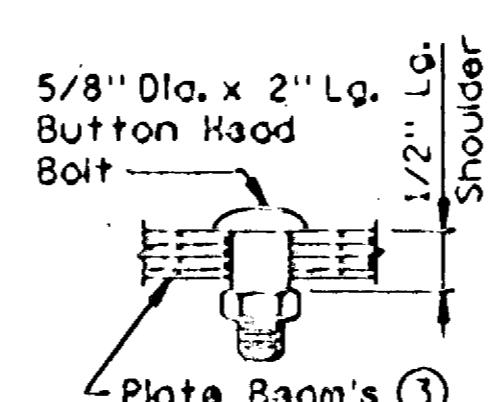


ELEVATION

TYPICAL BITUMINOUS FLUME



SECTION B-B



ENLARGED SECTION

- ① End of transition to match Bridge Rail surface.
- 2. Pay length is 25 feet.
- ③ Use at splice locations when more than two plates are lapped together.

BITUMINOUS FLUME DETAIL
GUARDRAIL TRANSITION FOR NEW RAILING

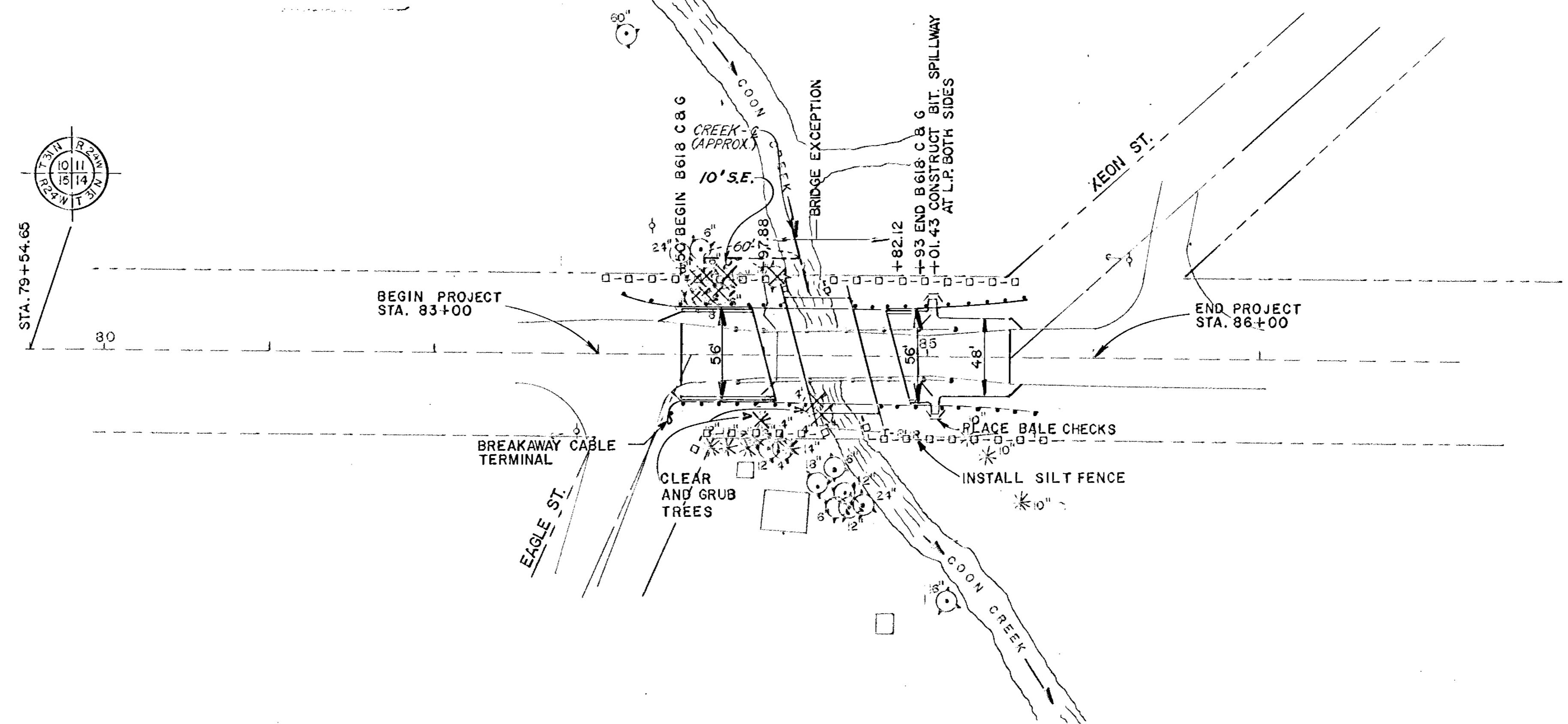
Rev 3/15/90 M.R.

8-31-89

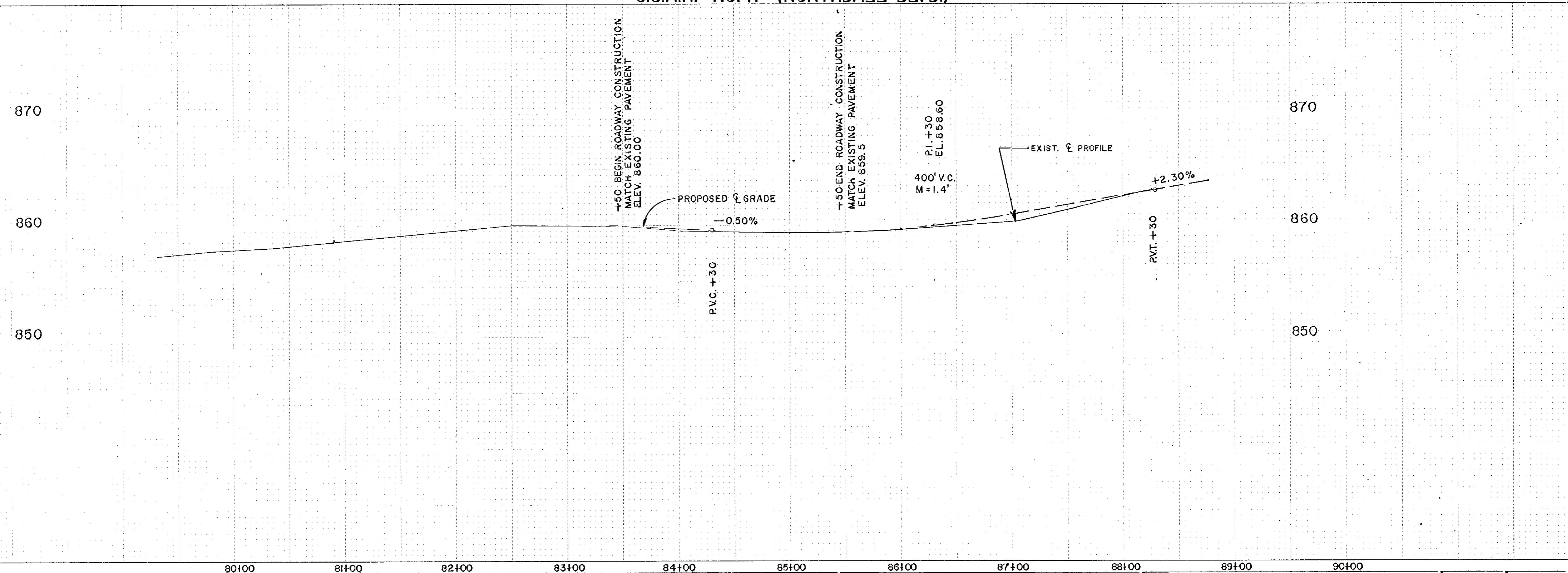
STATE PROJ NO 02-611-24

SHEET NO 3 OF 7 SHEETS

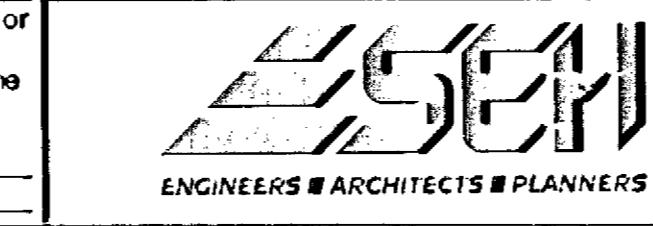
RASF OVERLAY DRG NO. 1



C.S.A.H. NO. 11 (NORTHDALE BLVD.)



NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED



ANOKA CO., MINNESOTA

PLAN & PROFILE

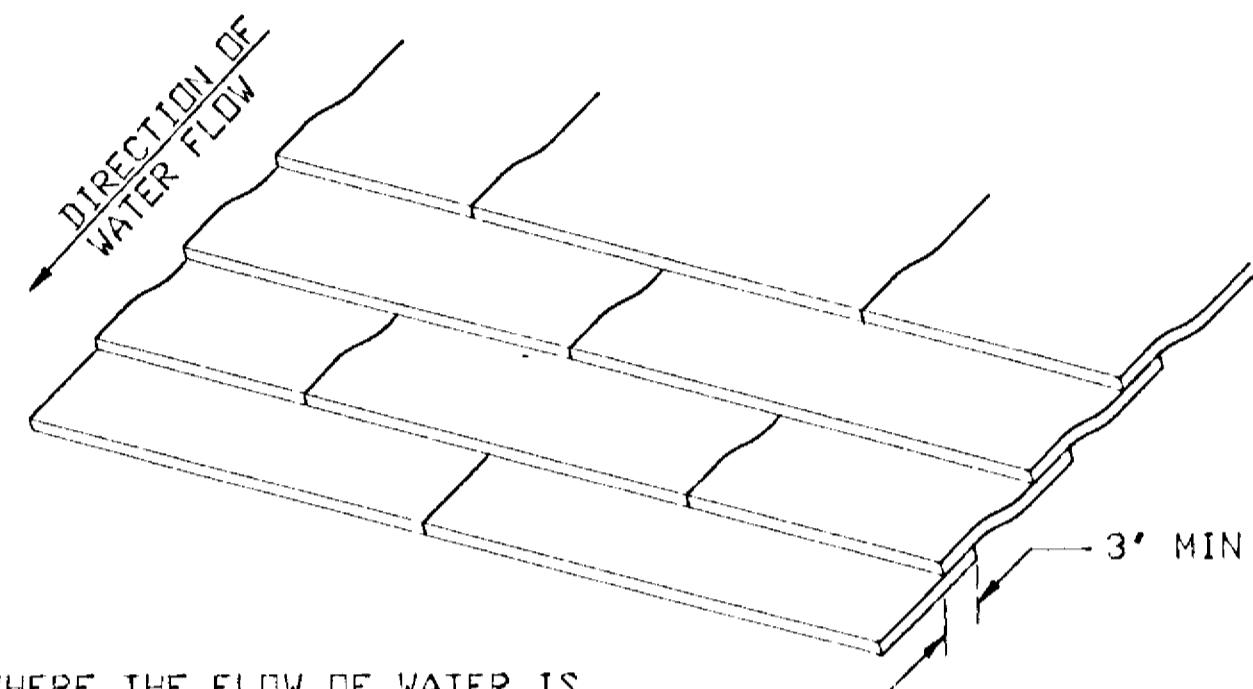
FILE NO.
89129
DATE
10/23/89

SODDED DITCH DETAILS

SPECIAL SOD PLACEMENT TECHNIQUES

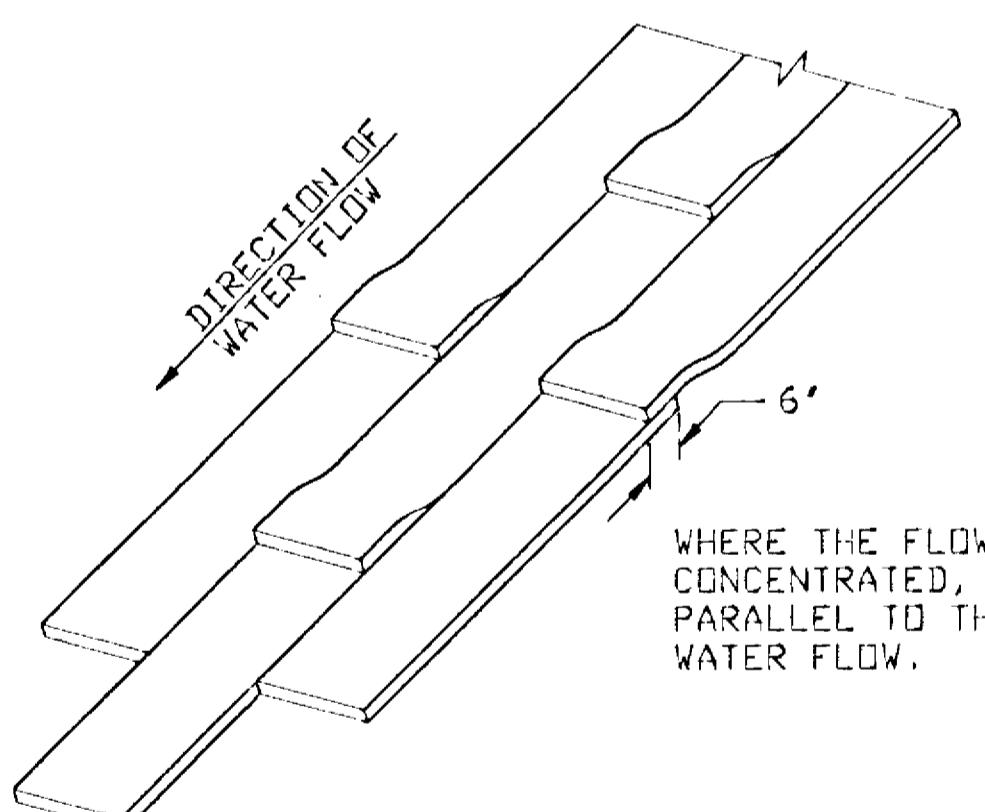
SOD DITCH CROSS SECTION

SHINGLING SOD



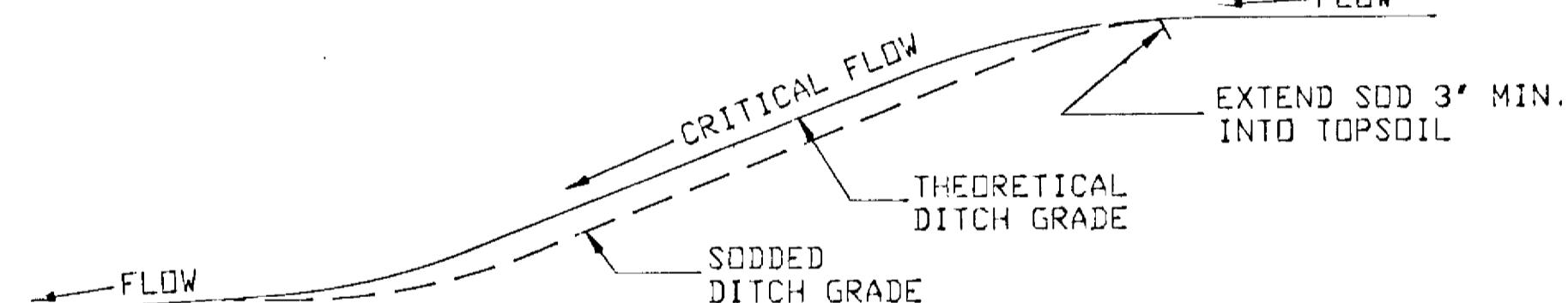
WHERE THE FLOW OF WATER IS SHEETING, PLACE SOD STRIPS PERPENDICULAR TO THE DIRECTION OF WATER FLOW.

OVERLAPPING SOD



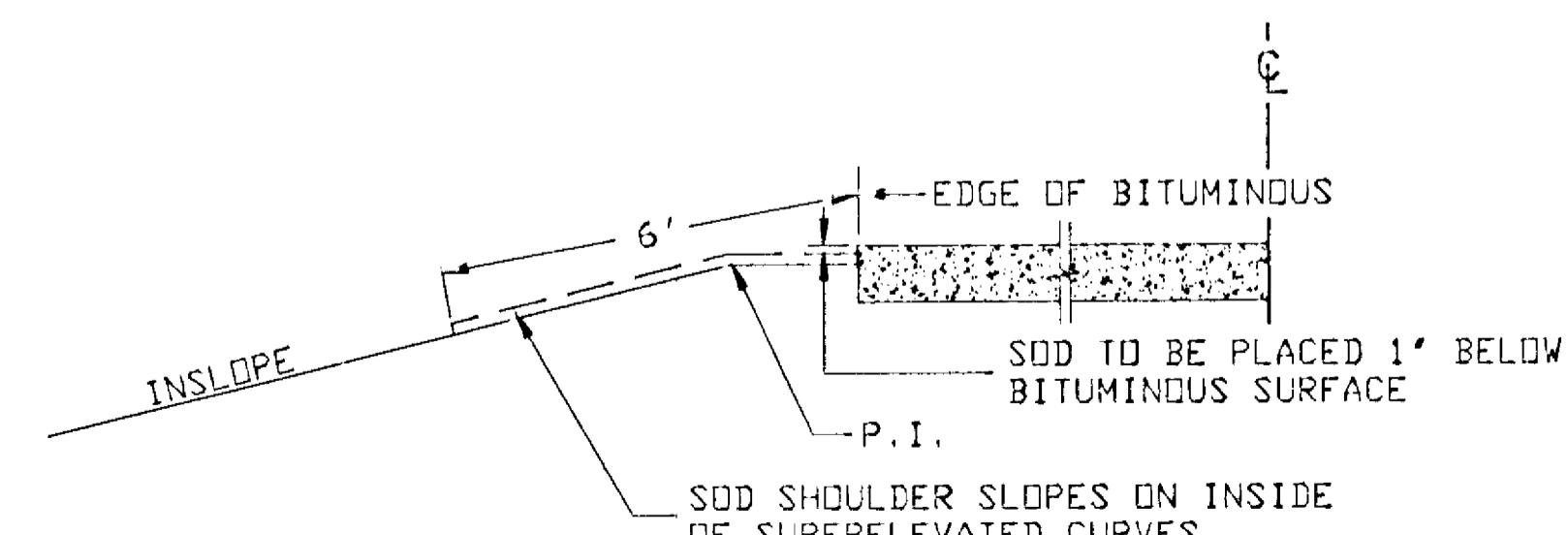
WHERE THE FLOW OF WATER IS CONCENTRATED, PLACE SOD STRIPS PARALLEL TO THE DIRECTION OF WATER FLOW.

DITCH PROFILE



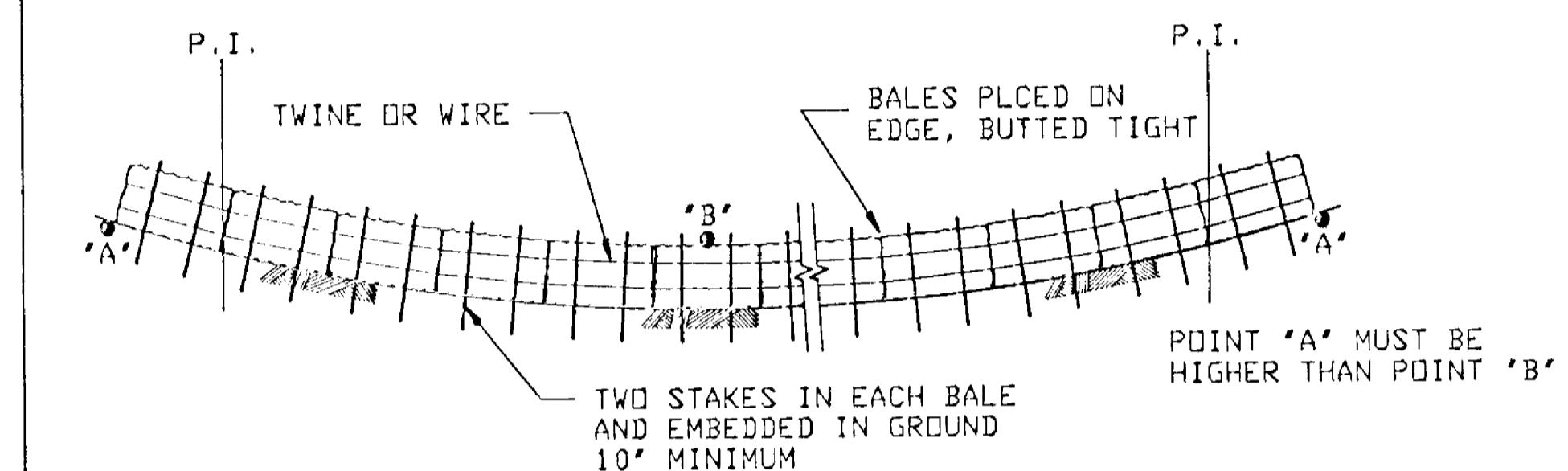
NOTE: APPLIES TO DITCH
GRADE 2.0% OR
GREATER.

SOD INSLOPES OF SUPPERELEVATED CURVES

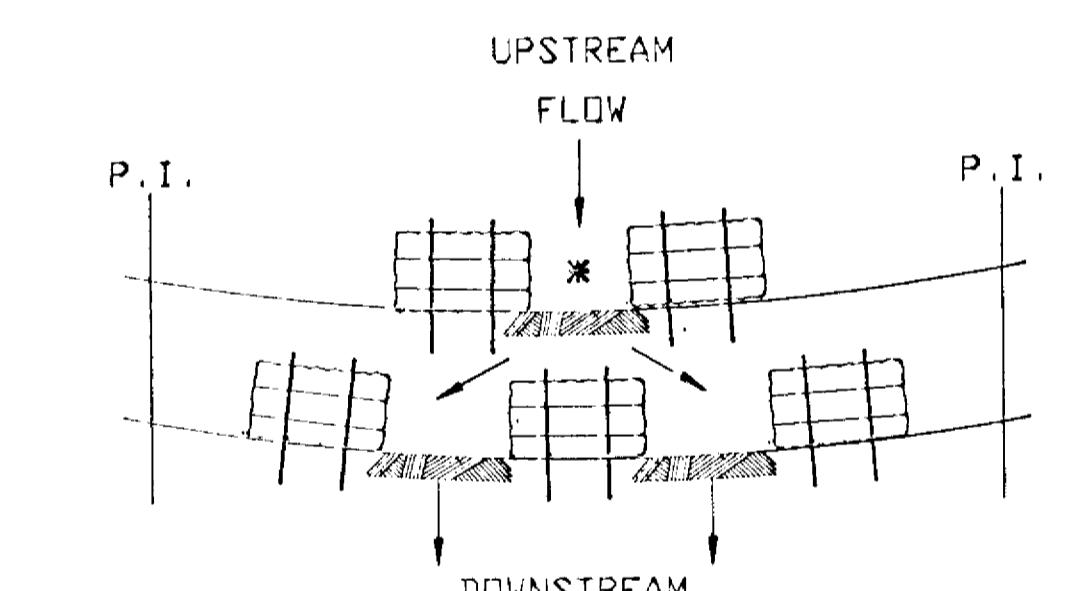


SILT FENCE			
STATION TO STATION	LIN. FT.	LT.	RT.
TOTAL			

BALE HAY OR STRAW DITCH CHECK



ALTERNATE BALE CHECK

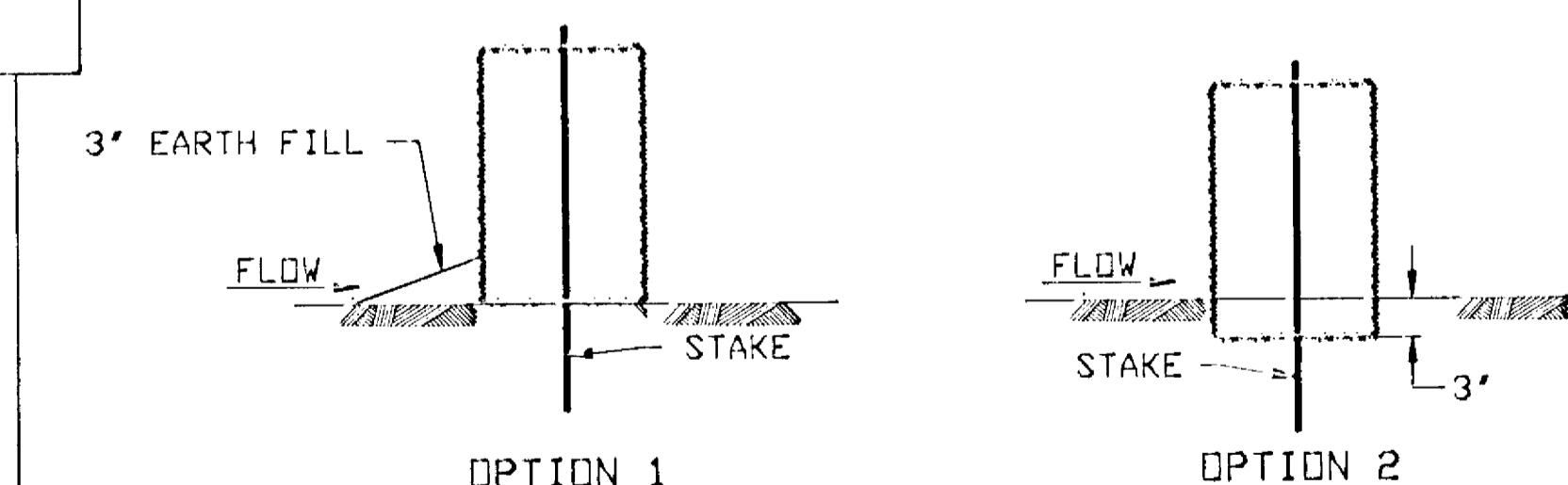


NOTES: PLACEMENT OF BALES WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

WHEN USING THE ALTERNATE BALE CHECK, THE TWIN BALES WILL BE ON THE UPSTREAM SIDE.

* THE DISTANCE BETWEEN BALES SHALL BE 1 FT. (TYP.)

DITCH CHECK SECTION

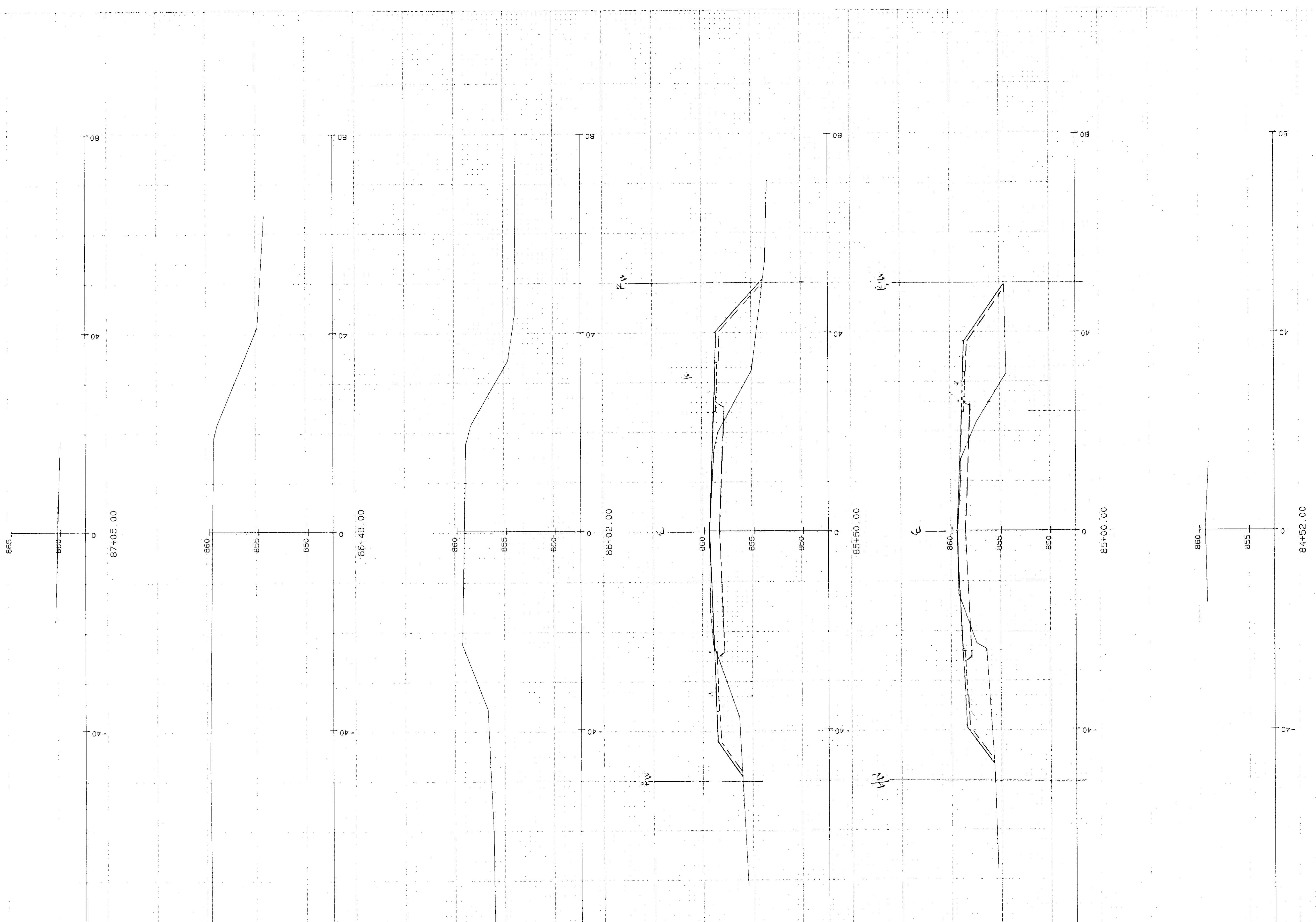


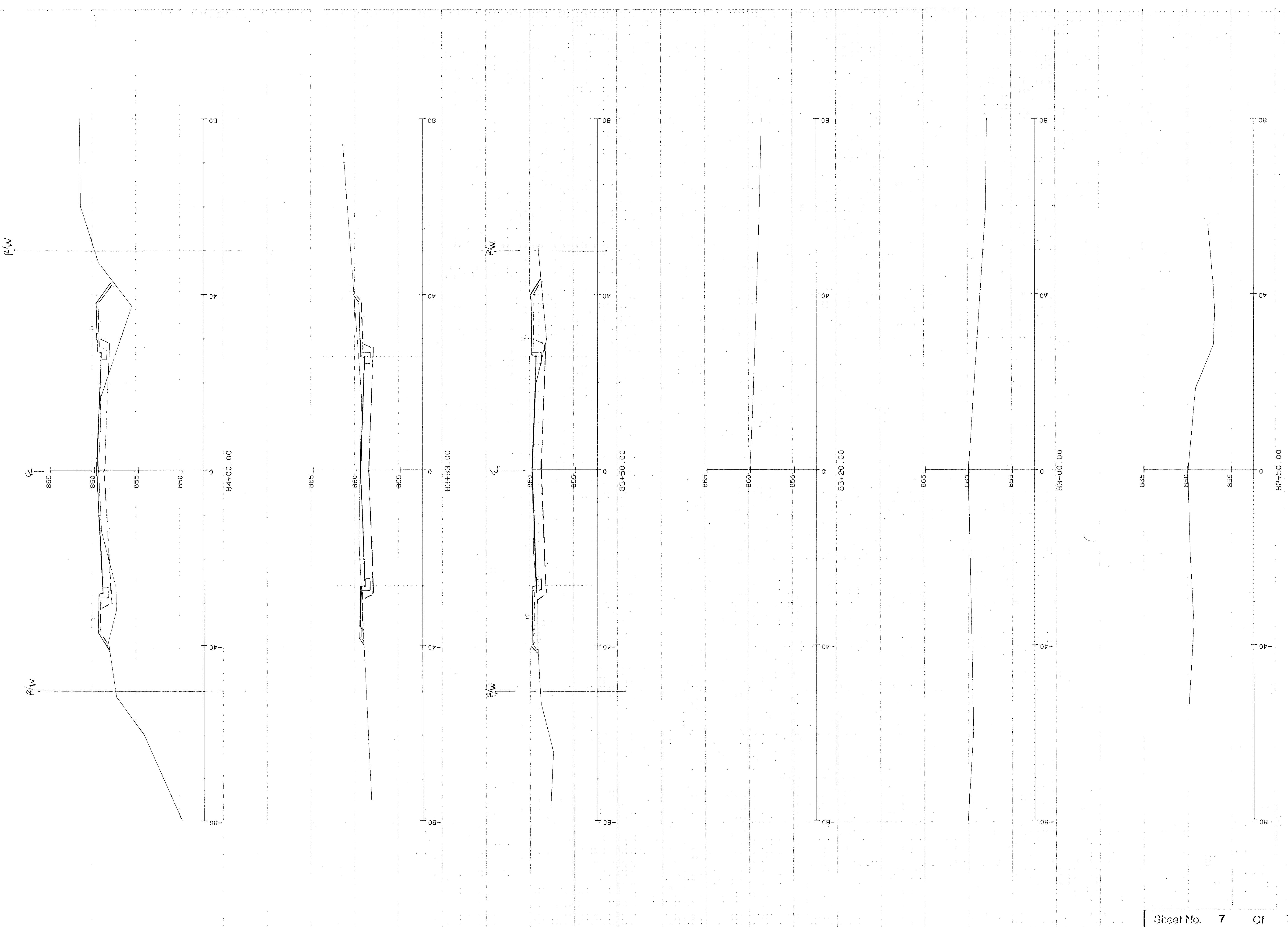
EROSION CONTROL DETAILS

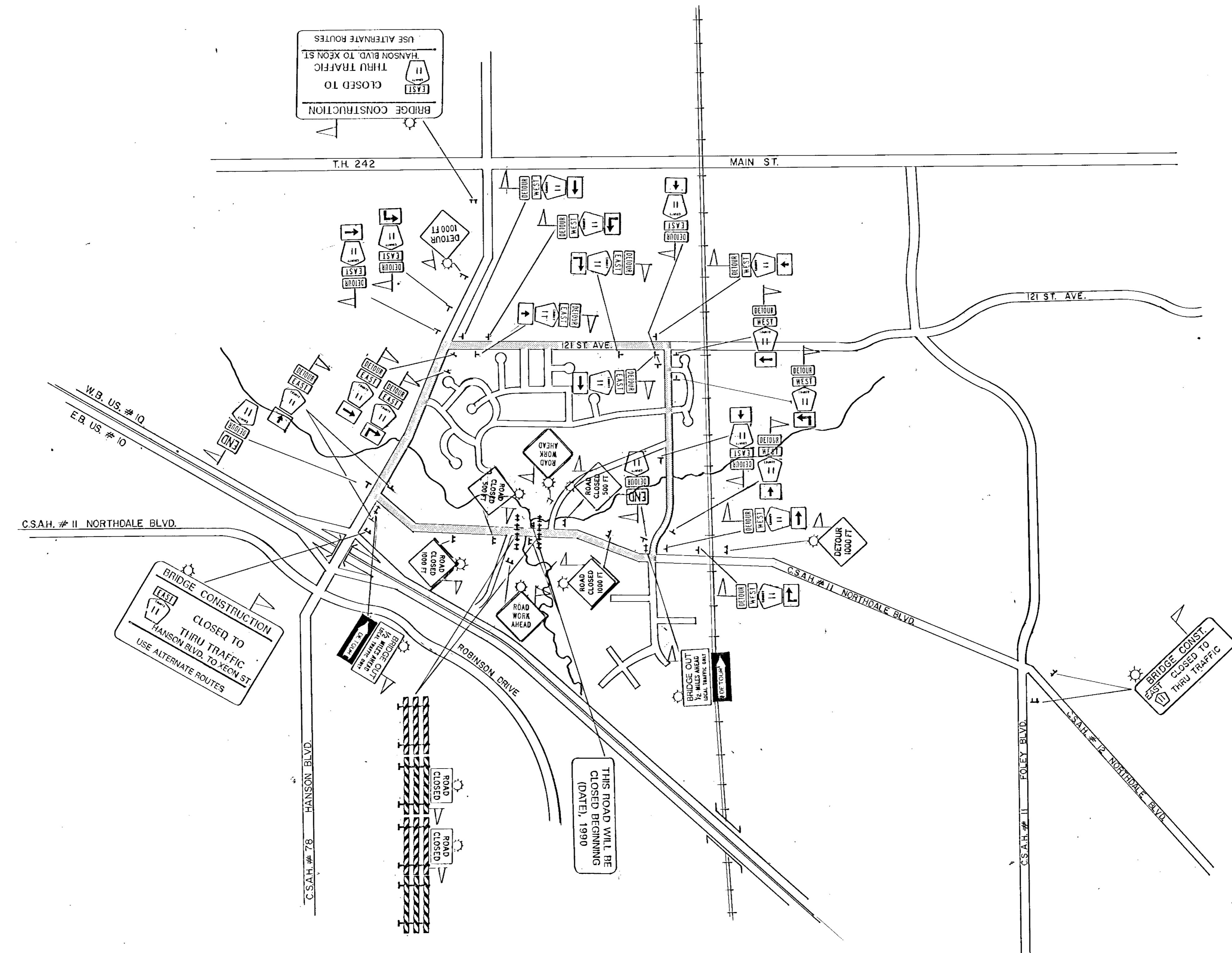
REVISIONS		
DATE	BY	DATE

S.A.P. _____ S.P. _____ C.P. _____

Sheet No. 5 of 7 Sheets







M.U.T.C.D. CODE	SIZE	INSERT	CODE	QTY.	M.U.T.C.D. CODE	SIZE	INSERT	CODE	QTY.
FLASHER W20-2	48" x 48"	AHEAD 500 FT 1000 FT 1500 FT	DETOUR	2	M4-8 M3-4 M1-6	24" x 12" 24" x 12" 24" x 24" 21" x 15"	DETOUR WEST 11	M5-1(L) M5-1(R) M6-1(L) M6-1(R) M6-3	2 1 2 1 1
FLASHER W20-3	48" x 48"	AHEAD 500 FT 1000 FT 1500 FT	ROAD CLOSED	2	M4-8 M3-4 M1-6	24" x 12" 24" x 12" 24" x 24" 21" x 15"	DETOUR EAST 11	M5-1(L) M5-1(R) M6-1(L) M6-1(R) M6-3	1 2 1 2 5
FLASHER W21-4	36" x 36"	ROAD WORK AHEAD		2	M4-6 M4-8 M1-6	24" x 12" 24" x 12" 24" x 24"	END DETOUR 11		2
TYPE III (L) 8 FT				2					
TYPE III (R) 8 FT				2					
YELLOW FLASHER R11-2	48" x 30"			2					
TYPE III (L) 8 FT				2					
YELLOW FLASHER R11-2	48" x 30"			2					
TYPE III (R) 8 FT				2					
YELLOW FLASHER R11-3(MODIFIED)	60" x 30"	BRIDGE OUT 1/2 MILES EAST USE ALTERNATE		1					
M4-10 (R)	48" x 18"	DETOUR		1					
YELLOW FLASHER R11-3(MODIFIED)	60" x 30"	BRIDGE OUT 1/2 MILES EAST USE ALTERNATE		1					
M4-10 (L)	48" x 18"	DETOUR		1					

NOTES:

LOCATIONS OF ALL SIGNS ARE APPROXIMATE, EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

ALL SIGNS AND BARRICADES WILL BE PROPERLY WEIGHTED WITH SANDBAGS.

ALL BARRICADES WILL HAVE REFLECTIVE MATERIAL ON BOTH SIDES.

ALL BARRICADE MARKINGS WILL BE SLANTED IN ACCORDANCE WITH THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING APPENDIX 'B', DATED SEPTEMBER, 1965.

ADDITIONS OR CHANGES TO THIS PLAN MAY BE MADE AT ANYTIME AS DETERMINED BY THE ENGINEER.