PLANS SYMBOLS

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 Lane Lines)
VACATED PLATTED PROPERTY
CORPORATE OR CITY LIMITS
TRUNK HIGHWAY CENTER LINE
RETAINING WALL
RAILROAD
RAILROAD RIGHT OF WAY LINE
RIVER OR CREEK
DRY RUN
DRAINAGE DITCH
DRAIN TILE
CULVERT
DROP INLET
GUARD RAIL
BARBED WIRE FENCE
WOVEN WIRE FENCE
CHAIN LINK FENCE
RAILROAD SNOW FENCE
STONE WALL OR FENCE
HEDGE
RAILROAD CROSSING SIGN
RAILROAD CROSSING BELL
ELECTRIC WARNING SIGN
CROSSING GATE
MEANDER CORNER
SLOPE EASEMENT (CONST. LIMITS)

SPRINGS
MARSH
TIMBER
ORCHARD
BRUSH
NURSERY
CATCH BASIN
FIRE HYDRANT
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
IRON PIPE OR ROD
MONUMENT (STONE, CONCRETE, OR METAL)
WOODEN HUB
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)
GAS 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

NOTE: SECTION NUMBERS READ FROM THE SOUTH

PIT DATA

PIT NO. _____ Located in Dead Haul

PIT NO. _____ Located in Dead Haul

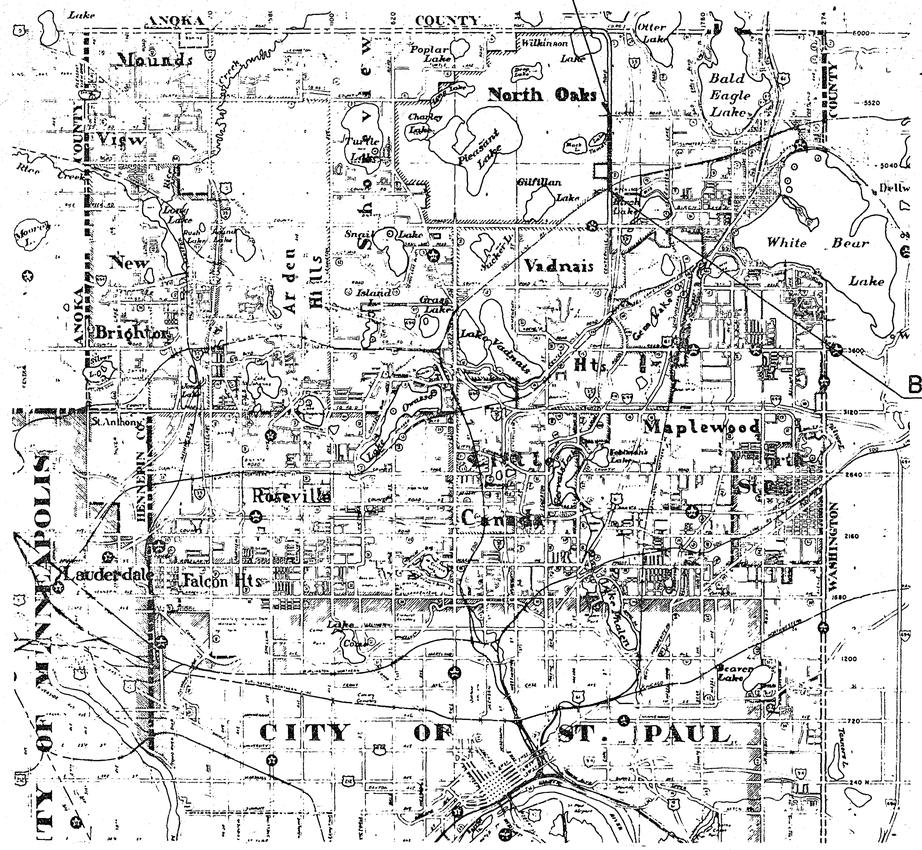
THE 1988 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AS AMENDED BY THE JANUARY 2, 1991 SUPPLEMENTAL SPECIFICATIONS SHALL GOVERN.

PLAN 0 25 50 100
PROFILE - HORIZ. 0 25 50 100
PROFILE - VERT 0 5 10
CROSS SECTIONS - HORIZ. 0 5 10 20
CROSS SECTIONS - VERT. 0 5 10 20

S.A.P. NO. 62-659-09

	FEET	MILES
PROJECT GROSS LENGTH	6327.0	1.20
EXCEPTION	0	0
NET LENGTH	6327.0	1.20

END S.A.P. NO. 62-659-09
STA. 92+00.00


ANOKA COUNTY
RAMSEY COUNTY
CITY OF MINNEAPOLIS
CITY OF ST. PAUL
Mounds View
New Brighton
North Oaks
Vadnais Heights
Arden Hills
Roseville
Lauderdale
Falcon Hts.
Maplewood
Gem Lake
White Bear Lake
Bald Eagle Lake
Otter Lake
Poplar Lake
Wilkinson Lake
Pleasant Lake
Gilfillan Lake
Snail Lake
Island Lake
Grass Lake
Turtle Lake
Lake Owasso
Lake Josephine
Beaver Lake
Lake Phalen
Lake Como
Lake Johanna
Rice Creek
Long Lake
Lake Valentine
Lake Gervais
Lake Wabasso
Lake Emma
Lake Vadnais
Lake Gilfillan
Lake Charley
Lake Pleasant
Lake Snail
Lake Island
Lake Grass
Lake Turtle
Lake Owasso
Lake Josephine

Fed. Proj. No.

STATEMENT OF ESTIMATED QUANTITIES

CHART LETTER	ITEM NO.	ITEM	UNIT	TOTALS		S.A.P. NO. 62-659-09			
						CITY OF NORTH OAKS		WHITE BEAR TOWNSHIP	
				ESTIMATED QUANTITIES	FINAL QUANTITIES	ESTIMATED QUANTITIES	FINAL QUANTITIES	ESTIMATED QUANTITIES	FINAL QUANTITIES
	2021.501	MOBILIZATION	LUMP SUM	1		0.5		0.5	
	2031.501	FIELD OFFICE, TYPE D	EACH	1		0.5		0.5	
F	2101.501	CLEARING (P)	ACRE	0.15		0.15			
F	2101.502	CLEARING	TREE	105		65		40	
F	2101.506	GRUBBING (P)	ACRE	0.15		0.15			
F	2101.507	GRUBBING	TREE	105		65		40	
B	2104.501	REMOVE FENCE	LIN FT	1645		1645			
B	2104.501	REMOVE PIPE CULVERTS	LIN FT	357		108		249	
B	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	16418		8461		7957	
B	2104.505	REMOVE DRIVEWAY PAVEMENT	SQ YD	236		60		176	
B	2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ YD	33		33			
B	2104.511	SAWING CONCRETE PAVEMENT	LIN FT	20		20			
B	2104.513	SAWING BITUMINOUS PAVEMENT	LIN FT	282		77		205	
B	2104.521	SALVAGE PIPE-ARCH CULVERT	LIN FT	120		60		60	
A	2105.501	COMMON EXCAVATION (CENTERVILLE RD) (P)	CU YD	46172		23086		23086	
L	2105.501	COMMON EXCAVATION (MITIGATION AREA) (P)	CU YD	12406				12406	
A	2105.505	MUCK EXCAVATION	CU YD	28024		14012		14012	
A	2105.507	SUBGRADE EXCAVATION (P)	CU YD	2930		1465		1465	
A	2105.522	SELECT GRANULAR BORROW MOD 10% (LV)	CU YD	54944		27472		27472	
A	2105.523	COMMON BORROW (LV)	CU YD	3760		1880		1880	
A	2105.525	TOPSOIL BORROW (LV)	CU YD	800		400		400	
H	2118.502	AGGREGATE SURFACING, CLASS 2	CU YD	12				12	
	2130.501	WATER	MGAL	400		200		200	
H	2211.503	AGGREGATE BASE PLACED, CLASS 6 (P)	CU YD	5203		2583		2620	
H	2331.508	TYPE 41 WEARING COURSE MIXTURE	TON	2239		1098		1141	
H	2331.510	TYPE 31 BINDER COURSE MIXTURE	TON	2951		1457		1494	
H	2331.514	TYPE 31 BASE COURSE MIXTURE	TON	4287		2169		2118	
H	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLONS	2641		1315		1326	
C	2501.511	15" CM PIPE CULVERT	LIN FT	267				267	
C	2501.515	15" CM PIPE APRON	EACH	4				4	
C	2501.515	15" RC PIPE APRON	EACH	3		1		2	
C	2501.515	24" RC PIPE APRON	EACH	4		2		2	
C	2501.515	30" RC PIPE APRON	EACH	2				2	
C	2501.521	44" SPAN RC PIPE-ARCH CULVERT CL IIA	LIN FT	125		82		43	
C	2501.525	44" SPAN RC PIPE-ARCH APRON	EACH	4		2		2	
C	2501.561	15" RC PIPE CULVERT DES 3006, CL III	LIN FT	45				45	
C	2501.561	24" RC PIPE CULVERT DES 3006, CL III	LIN FT	108		54		54	
C	2501.561	30" RC PIPE CULVERT DES 3006, CL III	LIN FT	35				35	
C	2501.567	15" CS SAFETY APRON AND GRATE, DES. 3128	EACH	7		1		6	
C	2501.569	SAFETY GRATE 44" SPAN RCP-A APRON	EACH	4		1		3	
C	2501.571	INSTALL SALVAGED PIPE-ARCH CULVERT	LIN FT	120		60		60	
C	0501.602	TRASH GUARD FOR 15" PIPE APRON	EACH	1		1			
C	0501.602	TRASH GUARD FOR 24" PIPE APRON	EACH	4		2		2	
C	0501.602	TRASH GUARD FOR 44" SPAN ARCH PIPE APRON	EACH	1		1			
	0501.607	CONTROL STRUCTURE	LUMP SUM	1				1	
D	2502.541	4" PERF PE CORR PIPE DRAIN (CURB SECTION)	LIN FT	1174		841		333	
E	2502.541	4" PERF PE CORR PIPE DRAIN (DITCH SECTION)	LIN FT	2345		550		1795	
C	2503.541	15" RC PIPE SEWER, DES 3006, CL III	LIN FT	320		172		148	
	0504.602	RELOCATE EXISTING HYDRANT	EACH	1				1	
	0504.602	ADJUST VALVE BOX	EACH	4				4	
	0504.603	6" WATERMAIN DUCTILE IRON CL 52	LIN FT	30				30	
	0504.603	12" WATERMAIN DUCTILE IRON CL 52	LIN FT	24				24	
	0504.620	DIP FITTINGS	POUND	675				675	
C	2506.507	CONSTRUCT CB DESIGN C OR G	LIN FT	20.5		9.6		10.9	
C	2506.507	CONSTRUCT CB DESIGN H	LIN FT	7.17				7.17	
C	2506.516	CASTING ASSEMBLIES	EACH	7		3		4	
B	2506.522	ADJUST FRAME AND RING CASTING	EACH	1				1	
C	0506.602	CONNECT INTO EXISTING CATCH BASIN	EACH	2		2			
J	2511.501	RANDOM RIPRAP, CL III	CU YD	93		42		51	
G	2531.501	CONCRETE CURB AND GUTTER, DES D424	LIN FT	1155		820		335	
G	2531.501	CONCRETE CURB AND GUTTER, DES B624	LIN FT	171		86		85	
G	2531.507	6" CONCRETE DRIVEWAY PAVEMENT	SQ YD	47		47			
H	2535.501	BITUMINOUS CURB	LIN FT	170		170			
K	2557.501	WIRE FENCE DESIGN 9324	LIN FT	1623		1623			
	0563.601	TRAFFIC CONTROL	LUMP SUM	1		0.5		0.5	
	0563.602	TYPE I BARRICADES	UNIT DAY	100		50		50	
	0563.602	TYPE III BARRICADES	UNIT DAY	100		50		50	
	0563.602	FLASHER TYPE A (LOW INTENSITY)	UNIT DAY	100		50		50	
	0563.602	48"X48" SIGN	UNIT DAY	100		50		50	
	0563.602	48"X48" SIGN WITH SUPPORTS	UNIT DAY	100		50		50	
F	2571.541	TRANSPLANT TREE (2"-6" DIAMETER)	TREE	9		9			
J	2573.501	BALE CHECK	EACH	50		4		46	
J	2573.502	SILT FENCE, HEAVY DUTY	LIN FT	1985		800		1185	
I	2575.501	SEEDING (CENTERVILLE RD)	ACRE	9.22		3.43		5.79	
L	2575.501	SEEDING (MITIGATION AREA)	ACRE	7.07				7.07	
I	2575.502	SEED, MIXTURE 600 (CENTERVILLE RD)	POUND	692		258		434	
L	2575.502	SEED, MIXTURE 600 (MITIGATION AREA)	POUND	530				530	
I	2575.505	SODDING, TYPE LAWN	SQ YD	1604		1356		248	
I	2575.505	SODDING, TYPE EROSION	SQ YD	5575		1749		3826	
I	2575.511	MULCH MATERIAL, TYPE I (CENTERVILLE RD)	TON	18.44		6.86		11.58	
L	2575.511	MULCH MATERIAL, TYPE I (MITIGATION AREA)	TON	14.1				14.1	
I	2575.531	COMMERCIAL FERT 12-12-12 (CENTERVILLE RD)	TON	1.9		0.7		1.2	
L	2575.531	COMMERCIAL FERT 12-12-12 (MITIGATION AREA)	TON	1.2				1.2	

THE FOLLOWING STANDARD PLATES AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION SHALL APPLY ON THIS PROJECT:

STANDARD [illegible] PLATES

ITEM	DESCRIPTION
0005A	SPECIFICATION REFERENCE TO STANDARD PLATES
3003L	REINFORCED CONCRETE PIPE
3006F	GASKET JOINT FOR REINFORCED PIPE
3014J	REINFORCED CONCRETE PIPE-ARCH DETAIL
3040F	CORRUGATED METAL PIPE CULVERT
3100G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3110G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE-ARCH
3123J	METAL APRON FOR C.S. PIPE
3124B	METAL APRON CONNECTION
3128D	SAFETY APRON
3131A	PRECAST CONCRETE HEADWALL FOR SUBSURFACE DRAINS
3133B	RIPRAP AT RCP OUTLETS
3145E	CONCRETE PIPE TIES
3221C	CORRUGATED STEEL PIPE COUPLING BAND
4002E	MANHOLE OR CATCH BASIN
4006K	MANHOLE OR CATCH BASIN
4010G	CONCRETE SHORT CONE & ADJUSTING RING
4011D	PRECAST CONCRETE BASE
4101C	RING CASTING FOR MANHOLE OR CATCH BASIN
4129F	CATCH BASIN FRAME CASTING
4132E	CATCH BASIN FRAME CASTING
4142D	BEEHIVE GRATE CASTING FOR CATCH BASIN
4154B	CATCH BASIN GRATE CASTING
4180H	MANHOLE OR CATCH BASIN STEP
7036D	PEDESTRIAN CURB RAMP
7065C	BITUMINOUS CURB
7100F	CONCRETE CURB AND GUTTERS
7102H	CONCRETE CURB AND GUTTER
7111G	INSTALLATION & REINFORCEMENT OF CATCH BASIN CASTINGS
8000I	STANDARD BARRICADES
8150B	INSTALLATION OF CULVERT MARKERS
9102C	SODDING AT PIPE CULVERT ENDS
9324C	BARBED WIRE FENCE - STEEL POST

INDEX OF TABULATION CHARTS

CHART LETTER	SHEET NO.	DESCRIPTION
A	3	EARTHWORK SUMMARY
B	7	REMOVALS, SALVAGES, AND RELOCATIONS
C	8	DRAINAGE CHART
D	8	4" PE PERFORATED PIPE DRAIN (CURB SECTIONS)
E	8	4" PE PERFORATED PIPE DRAIN (DITCH SECTIONS)
F	9	CLEARING AND GRUBBING
G	9	CONCRETE SUMMARY
H	9	AGGREGATE AND BITUMINOUS SUMMARY
I	10	TURF ESTABLISHMENT
J	10	EROSION CONTROL
K	10	FENCE SUMMARY
L	25	SUMMARY OF QUANTITIES FOR MITIGATION AREA

NOTE

WITHIN THE QUANTITY TABULATIONS, ALL USES OF THE DESIGNATION RT SHALL REPRESENT QUANTITIES FOR WHITE BEAR TOWNSHIP AND LT SHALL REPRESENT ALL QUANTITIES FOR THE CITY OF NORTH OAKS.

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

28-136

STATEMENT OF ESTIMATED QUANTITIES, STD. PLATES AND INDEX OF TABULATIONS

S.A.P. NO. 62-659-09 Sheet No. 2 of 69 Sheets

SEQ

Fed. Proj. No.

EARTHWORK SUMMARY ① Ⓐ

LOCATION	EXCAVATION (E.V.)					EMBANKMENT (C.V.)		
	COMMON	COMMON SURCHARGE	SUBGRADE	MUCK	TOPSOIL ②	COMMON	GRANULAR	TOPSOIL
	CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.
28+73 TO 53+00	9075		1650	24185	2959	1402!	50849 ⑨	1797
53+00 TO 75+50	2995	22787			1797	642	3053 ⑨	2163
50+00 TO 73+00 (WETLAND MITIGATION)	12406 ③				5702 ④	456 ③		3801
75+50 TO 81+00	4884		961	3839	326	654	7101 ⑨	547
81+00 TO 92+00	888	5533	319		851	3175	1372	1157
TOTALS	30,258	28320	2930	28024	11615	18948	62375	9465

① SIDE STREET QUANTITIES ARE INCLUDED IN THE ADJACENT MAINLINE STATION SECTIONS.

② TOPSOIL EXCAVATION SHALL BE INCIDENTAL AND SHALL BE INCLUDED IN ITEM 2105.501, COMMON EXCAVATION, FOR PAYMENT.

③ EXCESS COMMON MATERIAL FROM MITIGATION AREA SHALL BE PLACED ON THE TEMPORARY SLOPE EASEMENTS ACQUIRED AND GRADED TO DRAIN. ADDITIONAL EXCESS MATERIALS SHALL BE DISPOSED OF OFF THE PROJECT LIMITS.

④ EXCESS TOPSOIL FROM MITIGATION AREA SHALL BE STOCKPILED AND USED FOR OTHER AREAS OF PROJECT 11 AS NECESSARY.

⑤ SHRINKAGE FACTOR OF 110% USED FOR GRANULAR MATERIAL (EV TO CV).

⑥ SHRINKAGE FACTOR OF 130% USED FOR COMMON MATERIAL (EV TO CV).

⑦ ADJUSTMENT FACTOR OF 150% USED FOR TRUCK HAUL BORROW (LV TO CV).

⑧ ALL EXCESS MATERIAL NOT USED FOR PROJECT 11 CONSTRUCTION SHALL BE DISPOSED OF OFF THE PROJECT LIMITS IN ACCORDANCE WITH A DISPOSAL PLAN APPROVED BY THE ENGINEER.

⑨ ADJUSTMENT FACTOR OF 130% FOR GRANULAR BACKFILL WITHIN MUCK AREAS.

ASSUMED MATERIAL BREAKDOWN ⑤⑥⑦

COMMON MATERIAL:

REQUIRED - (18,948 CY - 456 CY (MITIGATION))(1.3)		= 24,040 CY
AVAILABLE - 30,258 CY (COMMON) - 12,406 CY (MITIGATION) COMMON) + 2,930 CY (SUBGRADE)		= 20,782 CY
	DIFFERENCE	= 3,258 CY
COMMON BORROW REQUIRED - 3,258 CY (1/1.3)(1.5)		= 3,760 CY (LV)

MITIGATION AREA:

AVAILABLE - 12,406 CY		= 12,406 CY
REQUIRED - 456 CY (1.3)		= 593 CY
	DIFFERENCE	= 11,813 CY (EV) ③ EXCESS

GRANULAR MATERIAL:

REQUIRED - 62,375 CY (1.1)		= 68,612 CY
AVAILABLE - 28,320 CY (SURCHARGE MATERIAL)		= 26,320 CY
	DIFFERENCE	= 40,292 CY
SELECT GRANULAR MOD. 10% BORROW REQUIRED - 40,292 CY (1/1.1)(1.5)		= 54,944 CY (LV)

TOPSOIL MATERIAL:

REQUIRED - 9,465 CY (1.3)		= 12,305 CY
AVAILABLE - 11,615 CY		= 11,615 CY
	DIFFERENCE	= 690 CY
TOPSOIL BORROW REQUIRED - 690 CY (1/1.3)(1.5)		= 800 CY (LV)

CONSTRUCTION NOTES

(1) ALL USES OF THE WORD "INCIDENTAL" IN THESE CONSTRUCTION DOCUMENTS SHALL BE CONSTRUED TO MEAN INCIDENTAL WORK FOR WHICH NO DIRECT COMPENSATION WILL BE MADE.

(2) CENTERVILLE ROAD WILL BE MAINTAINED FOR LOCAL TRAFFIC DURING CONSTRUCTION, EXCEPT DURING DEEP EXCAVATIONS. SEE SPECIAL PROVISIONS.

(3) WATER, GAS, ELECTRIC, TELEPHONE, SEWER AND T.V. CABLE LINES SHOWN ON THE PLANS ARE PLOTTED FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION, BUT MAY NOT REFLECT ACTUAL LOCATIONS OR ELEVATIONS. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES BEFORE COMMENCING CONSTRUCTION. SEE SPECIAL PROVISIONS AND SECTION 1507 IN THE STANDARD SPECIFICATIONS.

(4) THE CONTRACTOR SHALL SCHEDULE HIS CONSTRUCTION OPERATIONS IN COOPERATION WITH UTILITY COMPANIES. SEE SPECIAL PROVISIONS.

(5) CONTRACTOR SHALL NOTIFY PROPERTY OWNERS 72 HOURS IN ADVANCE OF DISRUPTION TO SANITARY SEWER, WATER AND OTHER SERVICES.

(6) ANY USE OF TRENCH BOX, SHEETING, SHORING OR OTHER METHODS OR MEANS OF CONSTRUCTION NECESSARY TO COMPLETE THE CONSTRUCTION WITHIN THE CONSTRUCTION LIMITS OR SLOPE EASEMENTS SHOWN IS INCIDENTAL TO COMMON EXCAVATION.

(7) WHEN EXCAVATING ADJACENT TO AN INPLACE PAVEMENT, NO MATERIAL SHALL BE REMOVED FROM INSIDE AN APPROXIMATE 1/2:1 SLOPED LINE DRAWN DOWNWARD AND OUTWARD FROM THE BOTTOM OF THE INPLACE PAVEMENT. THESE EXCAVATIONS SHALL BE BACKFILLED PROMPTLY TO AVOID UNDERMINING.

(8) SOME EXCAVATED MATERIAL ON THIS PROJECT MAY BE UNSUITABLE FOR USE IN NEW CONSTRUCTION AS DETERMINED BY THE ENGINEER. UNSUITABLE MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN UNDESIGNATED WASTE AREA. PAYMENT FOR THIS WORK SHALL BE INCIDENTAL TO EXCAVATION ITEMS.

(9) MUCK MATERIALS EXCAVATED FROM WETLAND AREAS WILL BE CONSIDERED UNSUITABLE FOR USE AS COMMON EMBANKMENT OR TOPSOIL MATERIALS ON THE PROJECT.

(10) ANY DEWATERING REQUIRED FOR CONSTRUCTION IS INCIDENTAL TO THE WORK OF THE PROJECT.

(11) ALL CONCRETE AND BITUMINOUS PAVEMENTS REMOVED ON THE PROJECT SHALL BE HAULED TO AN AGGREGATE RECYCLING PLANT FOR FURTHER PROCESSING INTO REUSEABLE MATERIAL.

(12) WHEN CONNECTION TO EXISTING BITUMINOUS PAVEMENT IS REQUIRED, THE EDGE OF THE EXISTING PAVEMENT SHALL BE CUT TO A NEAT LINE PRIOR TO CONSTRUCTING ASPHALT SURFACING.

(13) COMMON EMBANKMENT MATERIAL EXCAVATED ON THIS PROJECT SHALL CONSIST OF MATERIAL THAT IS APPROVED BY THE ENGINEER FOR USE IN EMBANKMENT CONSTRUCTION AND SHALL EXCLUDE TOPSOIL, DEBRIS, ORGANIC SOIL, AND OTHER UNSTABLE SOILS.

(14) SELECTED GRANULAR MATERIAL EXCAVATED ON THIS PROJECT SHALL CONSIST OF ONLY GRANULAR MATERIAL THAT IS APPROVED BY THE ENGINEER FOR USE IN EMBANKMENT CONSTRUCTION AND SHALL EXCLUDE TOPSOIL, DEBRIS, ORGANIC SOILS, AND ANY COMMON TYPE MATERIALS.

(15) SELECT GRANULAR BORROW MODIFIED (10%) SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISIONS.

(16) COMPACTION ON GRADING ITEMS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SPEC. 2105.3F2 "ORDINARY COMPACTION METHOD". THE BOTTOM OF ALL EXCAVATIONS SHALL BE COMPACTED WITH A MINIMUM OF FOUR PASSES OF AN APPROVED COMPACTING DEVICE EXCEPT IN SUBGRADE CORRECTION TYPE I AND TYPE III AREAS.

(17) USE TACK COAT BETWEEN ALL BITUMINOUS PAVEMENT LIFTS.

(18) COMPACTION OF ALL BITUMINOUS ITEMS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE "SPECIFIED DENSITY METHOD".

(19) STRIP AND REUSE TOPSOIL WHERE PRESENT IN AREAS TO BE DISTURBED BY CONSTRUCTION, AS DIRECTED BY THE ENGINEER.

(20) FENCE SHALL BE CONSTRUCTED ALONG PROPOSED RIGHT-OF-WAY AS DIRECTED BY THE ENGINEER.

(21) NO TREES SHALL BE REMOVED UNTIL CONTRACTOR HAS VERBALLY BEEN TOLD TO DO SO BY THE ENGINEER. TREES SHALL BE MARKED FOR REMOVAL BY THE ENGINEER. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT TREES DESIGNATED BY THE ENGINEER.

(22) ALL STREET SIGNS ON THE PROJECT WILL BE REMOVED BY OTHERS.

(23) PERMANENT STRIPING AND LOCATING OF PERMANENT STREET SIGNING WILL BE DONE BY OTHERS.

(24) ELEVATIONS OF SPECIAL DITCH GRADES ARE SHOWN FOR PROPOSED TOP OF TOPSOIL.

(25) TIMBER BLOCKING OF WATERMAIN WILL NOT BE PERMITTED.

(26) TWO TYPES OF SOD ARE TO BE USED. LAWN SOD IS TO BE PLACED ADJACENT TO EXISTING LAWNS AND EROSION SOD IS TO BE PLACED IN DITCH AREAS AND A TWO FOOT STRIP ALONG BOTH SIDES OF THE ROADWAY. FOR SOD DESCRIPTION SEE STANDARD SPECIFICATION SECTION 3878.

(27) LOCATION OF DRIVEWAY ENTRANCES SHALL BE VERIFIED WITH THE ENGINEER PRIOR TO CONSTRUCTION.

(28) THE MINNEAPOLIS, ST. PAUL, SAULT STE. MARIE RAILROAD CO. AT-GRADE CROSSING WILL BE RECONSTRUCTED BY OTHERS. THE BUNGALOW AND RAILROAD SIGNALS WILL ALSO BE RELOCATED BY OTHERS.

(29) THE PEDESTRIAN CURB RAMP ON THE BIKEWAY SHALL BE OF BITUMINOUS CONSTRUCTION AND SHALL CONFORM TO THE REQUIREMENTS OF STANDARD PLATE 7036 WHERE APPLICABLE. THE PEDESTRIAN CURB RAMP SHALL BE INCIDENTAL TO THE CONCRETE CURB AND GUTTER CONSTRUCTION.

(30) ALL TRAFFIC CONTROL SIGNING AND DEVICES SHALL CONFORM TO THE MMUTCD, INCLUDING APPENDIX B, DATED MARCH, 1990.

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

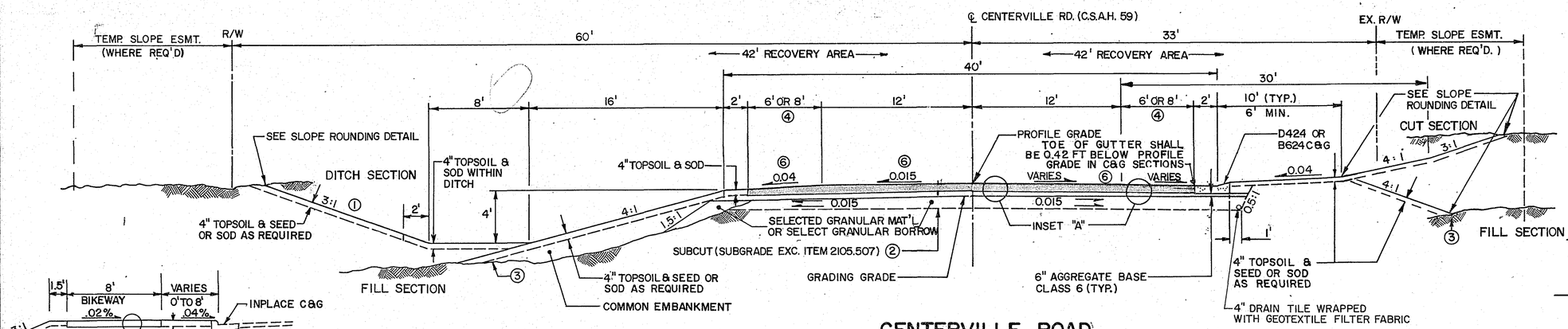
28-136

EARTHWORK SUMMARY AND CONSTRUCTION NOTES

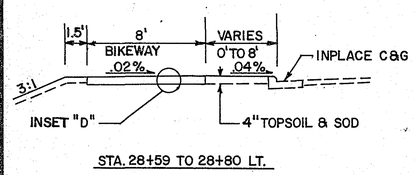
S.A.P. NO. 62-659-09 Sheet No. 3 of 69 Sheets

NOTES

Fed. Proj. No.



SEE SHEET 41 FOR TYPICAL SECTION
STA 56+65 TO 74+00

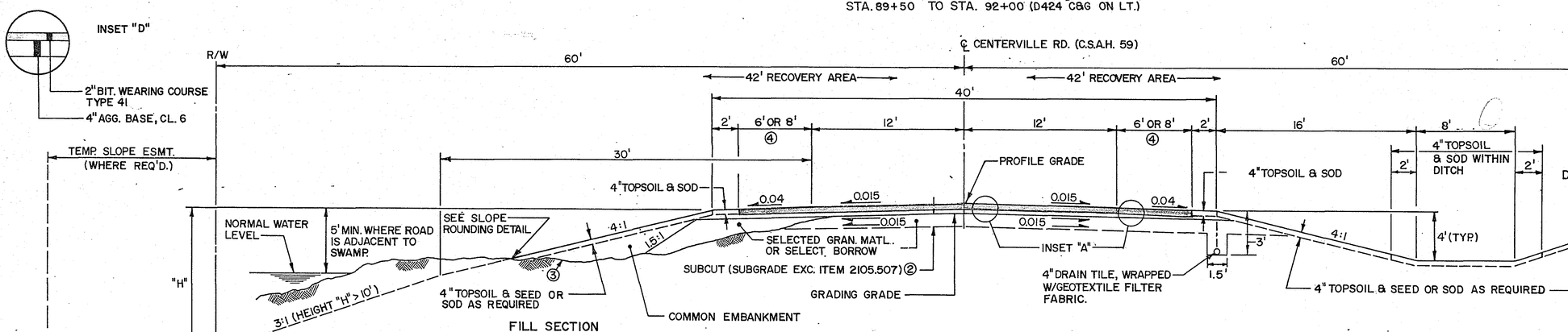


STA. 28+59 TO 28+80 LT.

CENTERVILLE ROAD

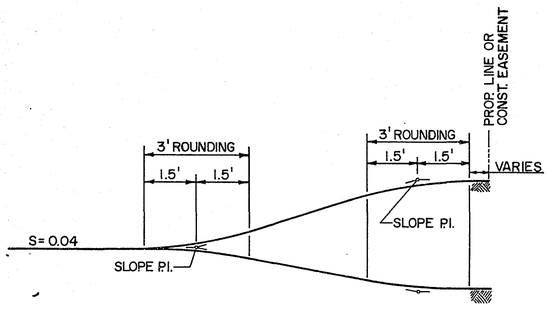
STA. 28+73 TO STA. 29+89 (B624 C&G ON LT.)
STA. 29+00 TO STA. 30+15 (B624 C&G ON RT.)
STA. 44+90 TO STA. 50+40 (D424 C&G ON LT.)

STA. 89+00 TO STA. 92+15 (D424 C&G ON RT.)
STA. 89+50 TO STA. 92+00 (D424 C&G ON LT.)

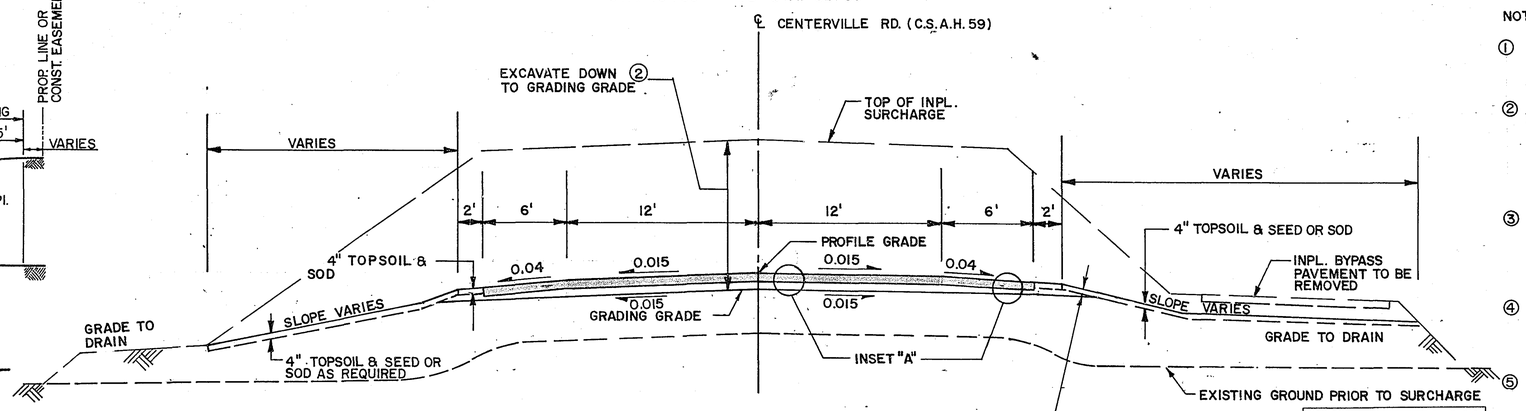


CENTERVILLE ROAD

STA. 30+15 TO STA. 44+90
STA. 50+40 TO STA. 55+50
STA. 75+00 TO STA. 82+00



SLOPE ROUNDING DETAIL



CENTERVILLE ROAD

STA. 55+50 TO STA. 75+00
STA. 82+00 TO STA. 90+50

NOTE: DETAILS SHOWN RIGHT OR LEFT SIDE OF SECTION ARE NOT INTENDED TO APPLY EXCLUSIVELY TO THE SIDE OF ROADWAY SHOWN; BUT MAY BE APPLICABLE TO OTHER SIDE OF ROADWAY. SEE PLAN SHEETS AND CROSS SECTIONS.

NOTE: CROWN SLOPES ON THE TYPICAL SECTIONS ARE EXPRESSED IN FEET PER FOOT.

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

NOTES:

① AT MAINLINE DITCH LOCATIONS, SIDESLOPES SHALL BE 4:1 UP TO A POINT 42' FROM ℄, 3:1 SLOPES SHOULD BE USED BEYOND THIS POINT.

② SUBCUT IN FILL AREAS SHALL BE 1.0' BELOW ORIGINAL GRADE. SUBCUT IN CUT AREAS W/O SURCHARGE SHALL BE 3.0' BELOW GRADING GRADE.
IN AREAS THAT HAVE PREVIOUSLY BEEN SURCHARGED, THE REMOVAL OF THE SURCHARGE MATERIAL DOWN TO THE GRADING GRADE WILL BE INCLUDED IN COMMON EXC. ITEM 2105.501.

③ REMOVE EXISTING TOPSOIL AND VEGETATION BEFORE PLACING EMBANKMENT. TOPSOIL SHALL BE SALVAGED AND USED AS SLOPE DRESSING TO THE EXTENT THAT IT IS AVAILABLE. PLACEMENT OF SALVAGED TOPSOIL SHALL BE INCIDENTAL TO ITEM 2021.501, MOBILIZATION.

④ SHOULDER WIDTH IS 8' FOR CENTERVILLE ROAD FROM STATIONS 28+86 TO 30+50, FROM STATIONS 30+50 TO 31+50 A 50:1 TAPER, AND FROM STATIONS 31+50 TO END OF PROJECT A SHOULDER WIDTH OF 6'.

⑤ ALL UTILITY POLES AND OTHER UNYIELDING OBJECTS SHALL BE REMOVED AND RELOCATED OUTSIDE THE RECOVERY AREA.

⑥ PAVEMENT CROSS SLOPES NEAR THE RAILROAD TRACK SHALL VARY TO MATCH PROPOSED RAILROAD CROSSING.

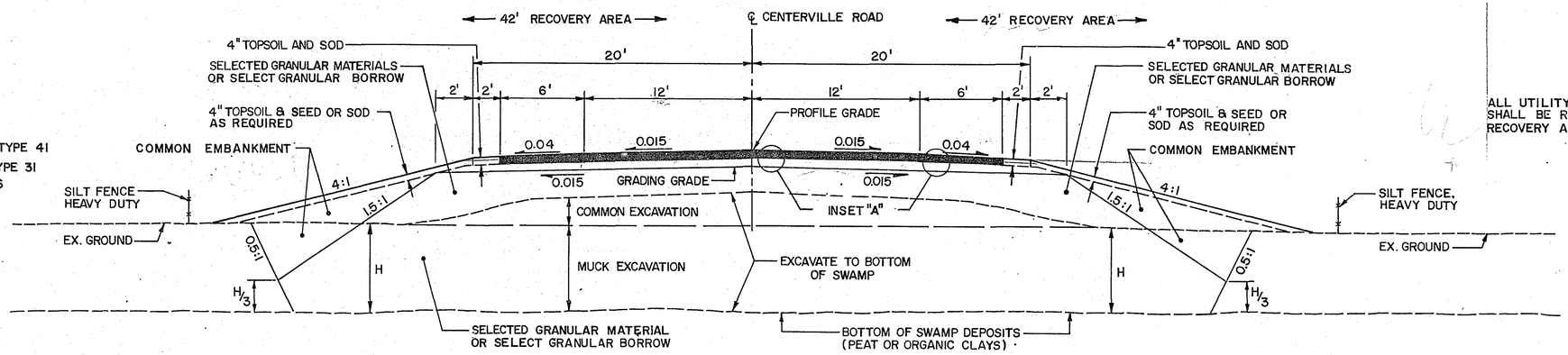
28-136

TYPICAL SECTIONS

S.A.P. No. 62-659-09

Sheet No. 4 of 69 Sheets

Fed. Proj. No.



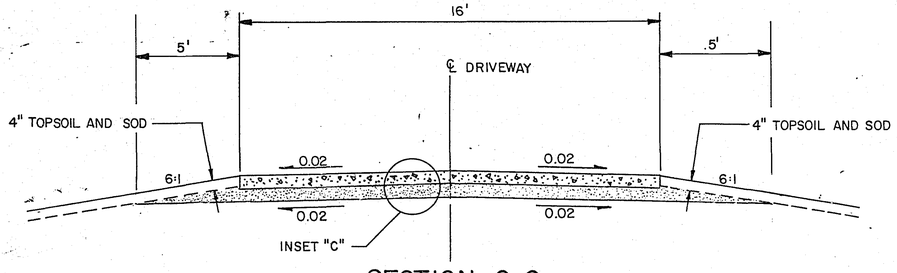
ALL UTILITY POLES AND OTHER UNYIELDING OBJECTS SHALL BE REMOVED AND RELOCATED OUTSIDE THE RECOVERY AREA.

NOTE: DETAILS SHOWN RIGHT OR LEFT SIDE OF SECTION ARE NOT INTENDED TO APPLY EXCLUSIVELY TO THE SIDE OF ROADWAY SHOWN, BUT MAY BE APPLICABLE TO OTHER SIDE OF ROADWAY. SEE PLAN SHEETS AND CROSS SECTIONS.

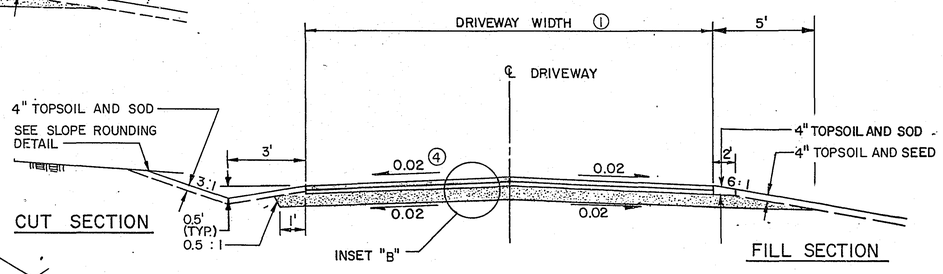
NOTE: CROWN SLOPES ON THE TYPICAL SECTIONS ARE EXPRESSED IN FEET PER FOOT.

SUBGRADE CORRECTION TYPE I
(EXCAVATE SWAMP & BACKFILL)

STA. 36+25 TO STA. 47+00
STA. 50+00 TO STA. 53+40
STA. 75+00 TO STA. 78+90

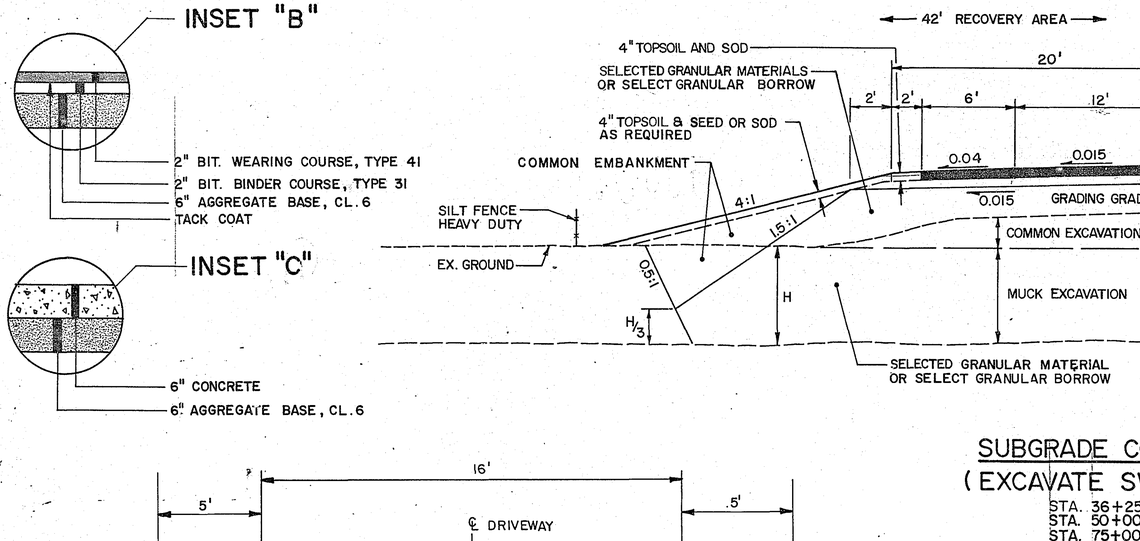


SECTION C-C
TYP. @ CENTERVILLE ROAD, STA. 49+02 ONLY



CUT SECTION

FILL SECTION



SECTION B-B

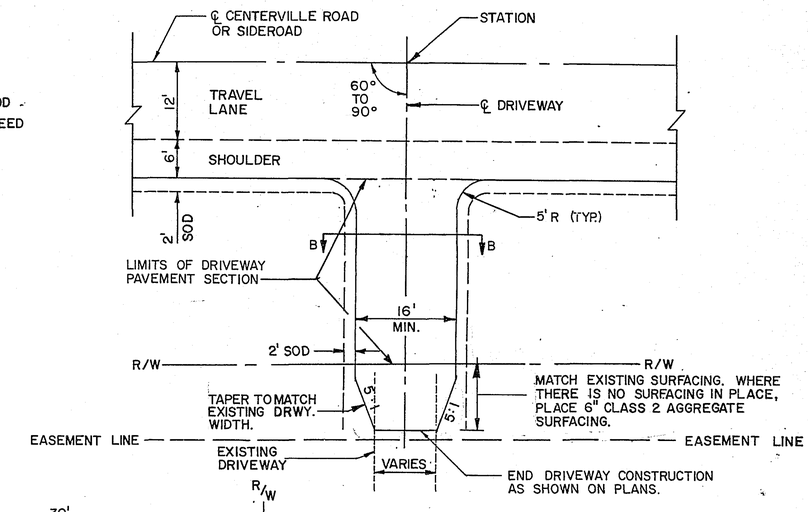
① DRIVEWAY WIDTHS:
RESIDENTIAL - 16' MIN.
22' MAX.
COMMERCIAL - 32' MAX. AT 90°
- 26' MAX. AT 60°

② 1/2" EXPANSION JOINT.

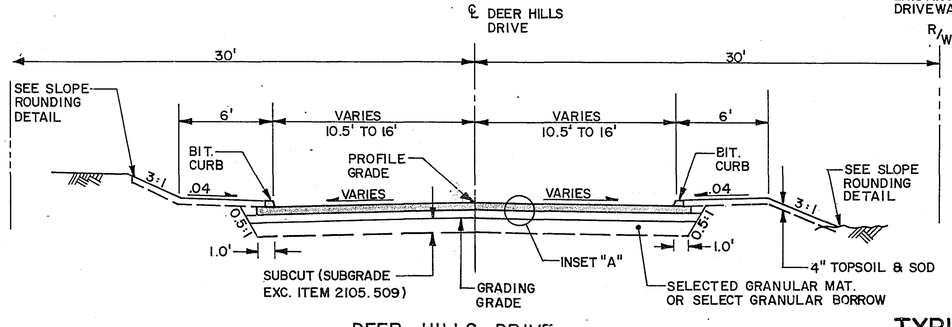
③ PLACE JOINTS AS REQUIRED FOR CONCRETE CURB & GUTTER CONST.

④ VARY SLOPE TO PROVIDE DRAINAGE ACROSS DRIVEWAY WHEN NECESSARY

DRIVEWAY ENTRANCE DETAIL
(WITH CURB & GUTTER)



DRIVEWAY DETAIL
(W/O CURB & GUTTER)



DEER HILLS DRIVE
STA. 8+62.50 TO STA. 9+45

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

TYPICAL SECTIONS AND DETAILS 28-136

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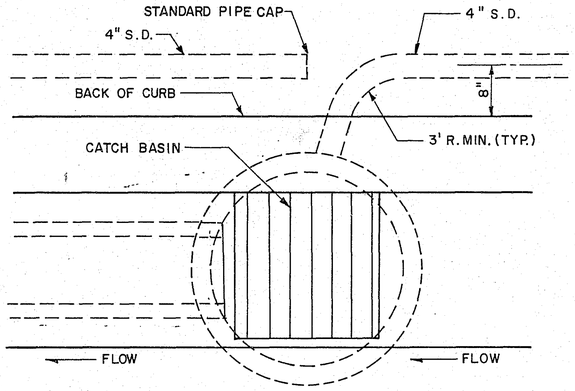
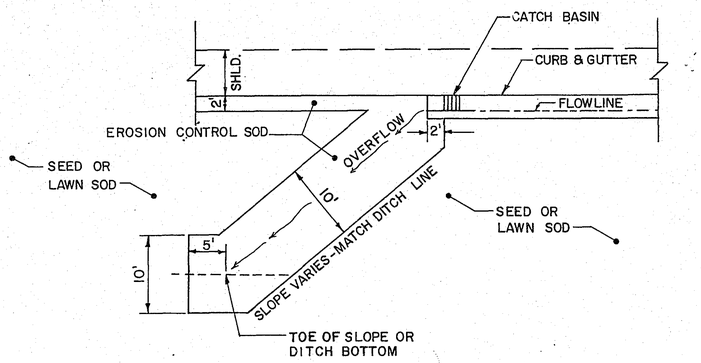
Sheet No. 5 of 69 Sheets

Fed. Proj. No.

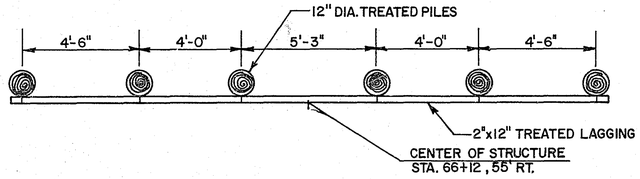


NOTE :
CATCH BASIN LAYOUTS VARY.
SUBDRAIN CONNECTION SHALL NOT INTERFERE W/ STORM SEWER PIPING.

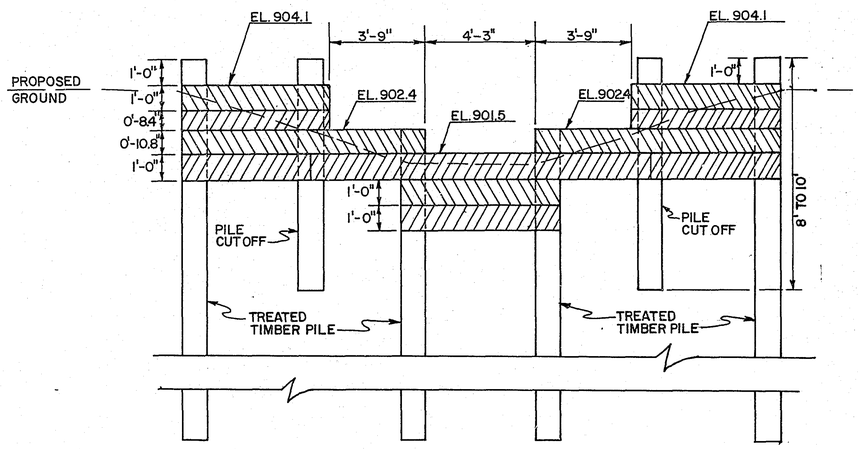
SUBDRAIN CONNECTION AT CATCH BASIN



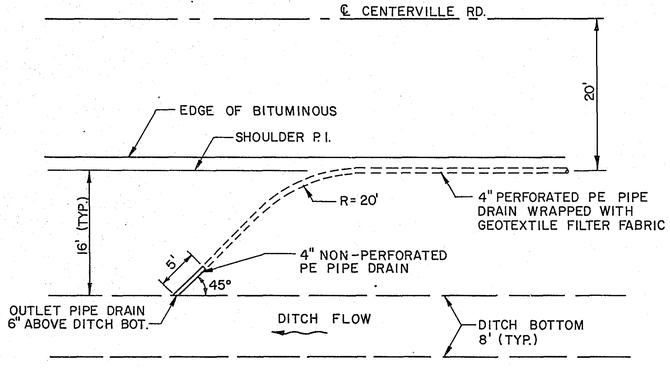
SODDING DETAIL AT END OF CURB & GUTTER



TOP VIEW



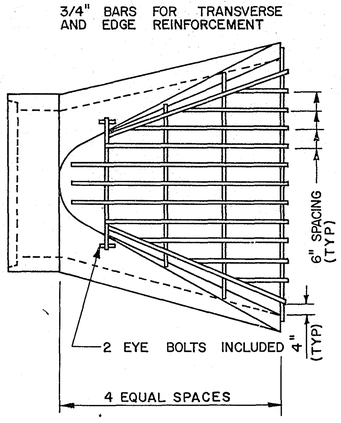
FRONT VIEW

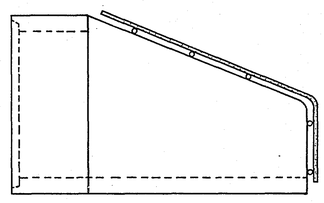


PLAN

NOTE: – SEE TYPICAL SECTION FOR SECTIONAL VIEW
– SUBDRAIN LOCATIONS VARY, SEE TABULATION CHART FOR LOCATIONS

SUBDRAIN DETAIL FOR DITCH SECTIONS

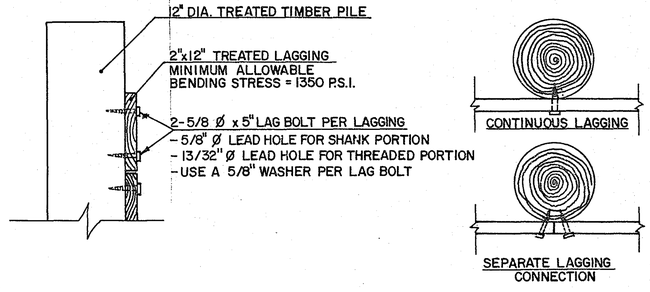




1/2" BARS FOR LONGITUDINAL INTERIOR BARS, WELD EACH INTERSECTION.

CONTRACTOR SHALL FURNISH SUITABLE LOCKING DEVICE APPROVED BY ENGINEER.

TRASH GUARD (GALVANIZED)
(FOR CONCRETE APRON)



FASTENERS

WEIR CONTROL STRUCTURE

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: A.R.
DATE: 2-1-94

DETAILS 28-136

COPY EQUIPMENT FORM #1
83212

Fed. Proj. No.

REMOVALS, SALVAGES, AND RELOCATIONS ⑧

LOCATION	REMOVE BIT. PVMT. SQ. YD.		REMOVE DRWY. PVMT. SQ. YD.		REMOVE CONC. DRWY. PVMT SQ. YD.		REMOVE FENCE LIN. FT.		REMOVE PIPE CULV. LIN. FT.		SALVAGE ④ PIPE CULV. LIN. FT.		SAW BIT. PVMT. LIN. FT.		SAW CONC. PVMT. LIN. FT.		ADJUST CASTING EACH		REMARKS
	LT.	RT.	LT.	RT.	LT.	RT.	LT.	RT.	LT.	RT.	LT.	RT.	LT.	RT.	LT.	RT.	LT.	RT.	
28+73 TO 29+00	63.6												36						INCLUDES 18 SQ YD BIKEWAY BITUMINOUS REMOVAL.
29+00 TO 30+00	129.0	142.0												36					
30+00 TO 31+00	122.2	122.2					86												
31+00 TO 32+00	111.1	111.1					100												
32+00 TO 33+00	111.1	111.1					100												
33+00 TO 34+00	111.1	111.1					100												
34+00 TO 35+00	111.1	111.1					100												
35+00 TO 36+00	111.1	111.1					100												
36+00 TO 37+00	111.1	111.1					100												
37+00 TO 38+00	111.1	111.1					100												
38+00 TO 39+00	111.1	111.1					100												
39+00 TO 40+00	111.1	111.1					89												
40+00 TO 41+00	111.1	111.1																	
41+00 TO 42+00	111.1	111.1																	
42+00 TO 43+00	111.1	111.1																	
43+00 TO 44+00	111.1	111.1																	
44+00 TO 45+00	111.1	111.1																	
45+00 TO 46+00	111.1	111.1																	
46+00 TO 47+00	554.1	111.1	26.7						23	23			41						PIPE REMOVAL IS A 12" RCP AT STA. 46+00.
47+00 TO 48+00	138.0	111.1																	
48+00 TO 49+00	111.1	111.1								20									PIPE REMOVAL IS AN 18" CMP BENEATH DRWY AT STA. 48+70.
49+00 TO 50+00	111.1	111.1	33.3		33.3										20				DRIVEWAY IS AT APPROXIMATE STA. 49+05.
50+00 TO 51+00	122.2	122.2																	
51+00 TO 52+00	122.2	122.2																	
52+00 TO 53+00	122.2	122.2							25	25									PIPE REMOVAL IS A 36" CMP AT STA. 52+60.
53+00 TO 54+00	133.3	133.3																	
54+00 TO 55+00	133.3	133.3																	
55+00 TO 56+00	133.3	133.3																	
56+00 TO 57+00	133.3	133.3		25.0						25				15					PIPE REMOVAL IS A 15" CMP BENEATH DRWY AT STA. 56+60.
57+00 TO 58+00	133.3	133.3																	
58+00 TO 59+00	133.3	133.3																	
59+00 TO 60+00	133.3	133.3																	
60+00 TO 61+00	133.3	133.3																	
61+00 TO 62+00	133.3	133.3																	
62+00 TO 63+00	133.3	133.3																	
63+00 TO 64+00	133.3	133.3																	
64+00 TO 65+00	133.3	133.3																	
65+00 TO 66+00	133.3	133.3					100												
66+00 TO 67+00	133.3	133.3					100		60	60	60	60							SALVAGE 27"X44" TO BE REUSED, REMOVE 15" CMP.
67+00 TO 68+00	133.3	133.3																	
68+00 TO 69+00	133.3	133.3																	
69+00 TO 70+00	133.3	133.3																	
70+00 TO 71+00	133.3	133.3																	
71+00 TO 72+00	133.3	133.3																	
72+00 TO 73+00	133.3	133.3																	
73+00 TO 74+00	133.3	133.3		33.3						23				15					PIPE REMOVAL IS A 15" CMP BENEATH DRWY AT STA. 73+40.
74+00 TO 75+00	133.3	133.3																	
75+00 TO 76+00	133.3	133.3																	
76+00 TO 77+00	133.3	133.3																	
77+00 TO 78+00	133.3	133.3		25.0						23				15					PIPE REMOVAL IS A 15" CMP BENEATH DRWY AT STA. 77+55.
78+00 TO 79+00	133.3	133.3		20.0										15					
79+00 TO 80+00	133.3	133.3																	
80+00 TO 81+00	133.3	133.3		22.0						25				15					PIPE REMOVAL IS A 15" CMP BENEATH DRWY AT STA. 80+75.
81+00 TO 82+00	133.3	133.3																	
82+00 TO 83+00	133.3	133.3																	
83+00 TO 84+00	133.3	133.3																	
84+00 TO 85+00	133.3	133.3																	
85+00 TO 86+00	133.3	133.3																	
86+00 TO 87+00	133.3	133.3																	
87+00 TO 88+00	133.3	133.3					50												
88+00 TO 89+00	133.3	133.3		51.0			100			25				17					PIPE REMOVAL IS A 15" CMP BENEATH DRWY AT STA. 88+85.
89+00 TO 90+00	133.3	133.3					100											1	ADJUST SANITARY SEWER CASTING AT STA. 89+61, 15' RT.
90+00 TO 91+00	133.3	133.3					120												
91+00 TO 92+00	133.3	139.9					100							32					
92+00 TO 93+00		10.0												45					
TOTALS	8460.9	7957.0	60.0	176.3	33.3	0	1645	0	108	249	60	60	77	205	20	0	0	1	

NOTES

① BITUMINOUS CURB REMOVAL IS INCIDENTAL TO BITUMINOUS PAVEMENT REMOVAL.

② BITUMINOUS REMOVAL IS 50% LT AND 50% RT FOR CENTERVILLE ROAD.

③ BITUMINOUS REMOVAL FOR DEER HILLS DRIVE IS INCLUDED IN MAINLINE REMOVAL STA. 46+00 TO 47+00.

④ THE TRASH GUARD AND APRONS ARE CONSIDERED INCIDENTAL TO THE SALVAGE OF THE 27"X44" SPAN ARCH CULVERT PIPE.

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

28-136

REMOVAL, SALVAGE, AND RELOCATION TABULATION

S.A.P. NO. 62-659-09 Sheet No. 7 of 69 Sheets

RSR

Fed. Proj. No.

SEE SHEET 24 FOR STORM SEWER ASBUILTS

DRAINAGE CHART ©

STRUCTURE NO.	STATION	LOCATION ①	TYPE	DESIGN	CASTING ASSEMBLY TYPE ②	TOP CASTING ELEV ③	INV. ELEV. OUT	PAY HEIGHT LIN. FT.	PIPE SLOPE %	PIPE LENGTH OUT (FT.) 15" RCP CL. III	24" RCP CL. III	30" RCP CL. III	27"X44" RC ARCH CL. IIA	15" CMP	APRON (EA.) 15" RCP	24" RCP	30" RCP	27"X44" RC ARCH	15" CMP	DRAINS TO	INVERT ELEV.	NOTES
CB1-2	29+13	21.0' LT	CB	C OR G	1	944.54	938.79	5.67	0.50	54										EX CB1-1	938.52	(11)
CB1-3	29+38	21.0' RT	CB	C OR G	1	944.48	939.13	5.27	0.50	49										CB1-2	938.89	
CB1-4	29+59	72.0' RT	CB	H	2	943.00	939.50	3.62	0.50	55										CB1-3	939.23	
	33+75	60.0' RT	CULVERT				917.70		4.00					82					2		921.00	(7)(8)
AP2-1	44+50	34.9' RT	APRON	OUTLET												1				NAT GRD		(5)
AP2-2	44+50	33.3' LT	APRON	INLET			906.90		0.59		56					1				AP2-1	906.50	(6)
	48+70	45.0' RT	CULVERT				904.28		0.50			35					2				904.51	(7)(8)
AP3-1	51+00	40.0' LT	APRON	OUTLET																NAT GRD		(8)(21)
CB3-2	50+37	19.0' LT	CB	C OR G	3	908.71	904.70	3.93	1.82	60										AP3-1	903.50	
AP3-3	50+40	45.0' LT	APRON	INLET			905.00		0.50	20					1					CB3-2	904.87	(6)
AP4-1	53+00	37.3' LT	APRON	OUTLET														1		NAT GRD		(4)(22)
AP4-2	52+40	36.1' RT	APRON	INLET			902.50		0.63				79					1		AP4-1	901.90	(22)
	52+89	45.0' RT	CULVERT				904.33		0.35	45					2						904.54	(7)(8)(20)
	56+58	55.0' RT	CULVERT				903.09		0.35					28					2		903.20	(7)(8)
AP5-1	66+07	59.0' LT	APRON	OUTLET														1		NAT GRD		(5)
AP5-2	66+07	40.0' RT	APRON	INLET			900.10		0.81				83					1		AP5-1	899.30	(4)(22)
AP5-3	66+16	59.0' LT	APRON	OUTLET														1		NAT GRD		(4)(12)
AP5-4	66+16	40.0' RT	APRON	INLET			900.10		0.81				83					1		AP5-3	899.30	(4)(13)
AP6-1	75+00	33.0' LT	APRON	OUTLET												1				NAT GRD		(5)
AP6-2	75+00	31.4' RT	APRON	INLET			900.30		0.62		52					1				AP6-1	899.90	(6)
	77+58	40.0' RT	CULVERT				901.01		0.50					47						DITCH	901.25	(8)(23)(24)
	78+72	40.0' RT	CULVERT				901.56		0.50					54						DITCH	901.83	(8)(23)(24)
	80+75	40.0' RT	CULVERT				902.53		0.50					56						DITCH	902.85	(8)(23)(24)
EX CB7-1	89+53	19.0' LT			3	920.36														EX APRON		(16)
CB7-2	89+53	19.0' RT	CB	C OR G	3	920.36	914.65	5.63	3.03	32										EX CB7-1	913.50	(11)(17)
CB7-3	89+03	19.0' RT	CB	H	3	918.63	915.00	3.55	0.50	50										CB7-2	914.75	
TOTALS					7			27.67		365	108	35	245	267	3	4	2	6	4			
					(9)			(10)		(18)	(19)	(19)	(14)(19)	(19)				(15)				

NOTES

① LOCATION IS TO CENTER OF CASTING OR TO CENTER OF END OF APRON.

② CASTING ASSEMBLIES

TYPE 1	TYPE 2	TYPE 3
GRATE FRAME NO. 802A GRATE NO. 816	RING CASTING NO. 700-7 GRATE NO. 730-6	GRATE FRAME NO. 805 GRATE NO. 816

③ TOP OF CASTING ELEVATION IS LOCATED AT CENTER OF GRATE.

④ WITH RIPRAP

⑤ WITH TRASH GUARD AND RIPRAP

⑥ WITH TRASH GUARD

⑦ FLOW FROM SOUTH TO NORTH

⑧ WITH RIPRAP AT OUTLET

⑨ TWO TYPE 1
ONE TYPE 2
FOUR TYPE 3

⑩ 20.50' - CB DESIGN C OR G
7.17' - CB DESIGN H

⑪ CONNECT TO EXISTING CATCH BASIN.

⑫ INSTALL SALVAGED APRON AND SALVAGED TRASH GUARD.

⑬ INSTALL SALVAGED APRON, AND FURNISH AND INSTALL SAFETY GRATE. (SEE SPECIAL PROVISIONS).

⑭ INCLUDES 120' SALVAGED AND 125' NEW 27"X44" RC PIPE ARCH.

⑮ INCLUDES TWO SALVAGED AND FOUR NEW 27"X44" RC PIPE ARCH APRONS.

⑯ CATCH BASIN WAS BUILT IN PRIOR PROJECT. CASTING ASSEMBLY WILL NEED TO BE FURNISHED AND INSTALLED IN THIS PROJECT.

⑰ LENGTH OF PIPE DOES NOT INCLUDE INPLACE 6" STUB OUT PIPE WHICH WILL BE ADJUSTED TO MEET PROPOSED PROFILE.

⑱ 320 LF INCLUDED AS PIPE SEWER AND 45 LF INCLUDED AS PIPE CULVERT IN PAY ITEMS.

⑲ INCLUDED AS CULVERT IN PAY ITEMS.

⑳ OVERFLOW CULVERT.

㉑ WITH 15" ROUND SAFETY APRON AND GRATE.

㉒ WITH SAFETY GRATE (SEE SPECIAL PROVISIONS)

㉓ FLOW FROM NORTH TO SOUTH.

㉔ WITH TWO 15" ROUND SAFETY APRONS AND GRATES.

PERFORATED PIPE DRAIN (CURB SECTIONS) Ⓓ

DRAINS FROM STRUCT./STA.	DRAINS TO STRUCT./STA.	LOCATION LT./RT.	4" PERFORATED PIPE (LIN. FT.)
44+90	CB3-2	LT	547
92+30	EX CB7-1	LT	294
92+15	CB7-3	RT	333
		LT	841
TOTALS		RT	333

PERFORATED PIPE DRAIN (DITCH SECTIONS) Ⓔ

DRAINS FROM STA.	DRAINS TO STA.	LOCATION LT./RT.	4" PERFORATED PIPE (LIN. FT.)
45+50	52+00	RT	650
53+50	57+00	RT	350
74+00	74+85	RT	85
79+50	75+15	RT	435
81+25	75+79	LT	550
82+25	79+50	RT	275
		LT	550
TOTALS		RT	1795

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

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DRAINAGE AND PERFORATED DRAIN TABULATION

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DRAIN

Fed. Proj. No.

CLEAR AND GRUB ⑥

LOCATION	DESCRIPTION	CLEAR				GRUB			
		TREE		ACRE		TREE		ACRE	
		LT.	RT.	LT.	RT.	LT.	RT.	LT.	RT.
30+00 TO 31+00	4-4", 3-6", 1-8"	8				8			
31+00 TO 32+00	5-4"		5				5		
33+00 TO 34+00	1-6", 3-8"		4				4		
34+00 TO 35+00	10-4", 2-6", 2-7"	9	5			9	5		
35+00 TO 36+00	2-4", 12-6", 2-10"	6	10			6	10		
36+00 TO 37+00				0.02				0.02	
37+00 TO 38+00	1-12"	1				1			
41+00 TO 42+00				0.05				0.05	
42+00 TO 43+00				0.02				0.02	
46+00 TO 47+00	4-4", 3-6"		7				7		
47+00 TO 48+00	8-4", 3-5", 2-6"	4	9			4	9		
49+00 TO 50+00	1-3"	1				1			
50+00 TO 51+00	4-4", 1-48"	5				5			
51+00 TO 52+00	1-5", 3-6", 1-8", 4-10", 1-30"	10				10			
53+95 TO 55+00	2-4", 3-6", 1-10"	6				6			
73+00 TO 74+00	1-5'	1				1			
75+00 TO 76+00	1-8", 2-10"	3				3			
78+80 TO 80+00	2-4", 1-6"	3		0.06		3		0.06	
80+00 TO 81+00	1-4", 2-5"	3				3			
81+00 TO 82+00	1-8"	1				1			
82+00 TO 83+00	3-6"	3				3			
90+00 TO 91+00	1-15"	1				1			
TOTALS		65	40	0.15	0	65	40	0.15	0

NOTE: 9 TREES (7-2", 1-4", 1-6") LOCATED BETWEEN STA. 46+00 AND STA. 47+00 LT. SHALL BE SALVAGED AND TRANSPLANTED AS DIRECTED BY THE ENGINEER.

AGGREGATE AND BITUMINOUS SUMMARY ⑥

LOCATION	DESCRIPTION	AGGREGATE SURFACING CLASS 2		AGGREGATE BASE CLASS 6		WEARING COURSE MIXTURE TYPE 41		BINDER COURSE MIXTURE TYPE 31		BASE COURSE MIXTURE TYPE 31		BITUMINOUS MATERIAL FOR TACK COAT		BITUMINOUS CURB	
		CU. YD.		CU. YD.		TON		TON		TON		GALLONS		LIN. FT.	
		LT.	RT.	LT.	RT.	LT.	RT.	LT.	RT.	LT.	RT.	LT.	RT.	LT.	RT.
28+73 TO 30+50	MAINLINE			77.9	63.7	34.4	27.0	42.7	36.1	63.9	54.1	38.8	32.8		
30+50 TO 31+50	MAINLINE			41.0	41.0	17.4	17.4	23.3	23.3	34.8	34.8	21.1	21.1		
31+50 TO 46+30	MAINLINE			575.6	575.6	244.2	244.2	325.6	325.6	488.4	488.4	296.0	296.0		
33+75	DRIVEWAY		11.9		12.7		8.4		8.4				3.8		
46+30 TO 47+35	MAINLINE			127.9	40.8	54.3	17.3	72.4	23.1	108.6	34.7	65.8	21.0	170	
9+17 DEER HILLS DR	DRIVEWAY			3.6		2.4		2.4					1.1		
47+35 TO 52+35	MAINLINE			194.4	194.4	82.5	82.5	110.0	110.0	165.0	165.0	100.0	100.0		
48+70	DRIVEWAY				13.0		8.6		8.6				3.9		
49+03	DRIVEWAY			7.9											
50+60	DRIVEWAY			12.4		8.2		8.2					3.7		
52+35 TO 53+40	MAINLINE			40.8	76.9	17.3	32.6	23.1	43.5	34.7	65.2	21.0	39.5		
53+40 TO 60+00	MAINLINE			256.7	256.7	108.9	108.9	145.2	145.2	217.8	217.8	132.0	132.0		
56+58	DRIVEWAY			16.0	16.0		10.6		10.6				4.8		
60+00 TO 70+00	MAINLINE			388.9	388.9	165.0	165.0	220.0	220.0	330.0	330.0	200.0	200.0		
70+00 TO 80+00	MAINLINE			388.9	388.9	165.0	165.0	220.0	220.0	330.0	330.0	200.0	200.0		
73+40	DRIVEWAY				16.6		10.9		10.9				5.0		
77+58	DRIVEWAY				15.1		10.0		10.0				4.5		
78+73	DRIVEWAY				13.3		8.8		8.8				4.0		
80+00 TO 90+00	MAINLINE			388.9	388.9	165.0	165.0	220.0	220.0	330.0	330.0	200.0	200.0		
80+75	DRIVEWAY				16.0		10.6		10.6				4.8		
88+88	DRIVEWAY				21.3		14.1		14.1				6.4		
90+00 TO 92+00	MAINLINE			77.8	79.8	33.0	33.9	44.0	45.2	66.0	67.7	40.0	41.1		
TOTALS		0	11.9	2582.7	2619.6	1097.6	1140.8	1456.9	1494.0	2169.2	2117.7	1314.7	1325.5	170	0

① SIDE ROAD QUANTITIES ARE INCLUDED IN THE ADJACENT MAINLINE QUANTITIES.

② BASIS OF PLAN QUANTITIES
BITUMINOUS MIXTURE = 110 LBS/SQ YD/INCH OF DEPTH
BITUMINOUS MATERIAL FOR TACK COAT = 0.05 GAL/SQ YD
DEPTH OF AGGREGATE BASE CLASS 6 = 7"
DEPTH OF AGGREGATE SURFACING CLASS 2 = 6"

③ BITUMINOUS CURB IS LOCATED AT DEER HILLS DRIVE.

④ QUANTITIES FOR BITUMINOUS BIKEWAY ARE INCLUDED IN MAINLINE STA. 28+73 TO 30+50 (LT).

CONCRETE SUMMARY ⑥

LOCATION	CURB AND GUTTER (LIN. FT.)				DRIVEWAY (SQ. YD.)	
	D424		B624		6"	
	LT.	RT.	LT.	RT.	LT.	RT.
28+73 TO 29+89			86			
29+00 TO 30+15				85		
44+90 TO 50+40	570					
49+03					47	
89+00 TO 92+15		335				
89+50 TO 92+00	250					
TOTALS	820	335	86	85	47	0

① SIDE ROAD QUANTITIES ARE INCLUDED IN MAINLINE QUANTITIES.

② A CURB DEPRESSION SHALL BE LOCATED AT APPROXIMATE STA. 28+75 TO PROVIDE PEDESTRIAN RAMP FOR BIKEWAY.

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

28-136

AGGREGATE, BITUMINOUS, AND CONCRETE TABULATION

S.A.P. NO. 62-659-09 Sheet No. 9 of 69 Sheets

AGG

Fed. Proj. No.

TURF ESTABLISHMENT ①

LOCATION	ROADSIDE SEEDING (ACRE)		SEED MIXT. 600 (LB) ①		SODDING LAWN (SQ. YD.)		SODDING EROSION (SQ. YD.) ⑤		MULCH TYPE 1 (TON) ②		FERTILIZER 12-12-12 (LB) ③④		NOTES
	LT.	RT.	LT.	RT.	LT.	RT.	LT.	RT.	LT.	RT.	LT.	RT.	
28+55 TO 30+50	0.12	0.03	9.0	2.3	153.0	248.0	108.0	31.1	0.24	0.06	60.9	30.7	LAWN SOD SHALL BE PLACED ON ALL CONST. AREAS SOUTH OF RR TRACKS
30+50 TO 43+00	0.90	0.90	67.5	67.5			278.0	316.7	1.80	1.80	335.1	337.9	
43+00 TO 44+90	0.11	0.12	8.3	9.0			42.2	42.2	0.22	0.24	41.6	45.1	
44+90 TO 45+50		0.05		3.8	170.5			6.7		0.10	12.3	18.0	LAWN SOD SHALL START ON LT SIDE AT STA. 44+90
45+50 TO 51+20		0.35		26.3	1032.8			886.5		0.70	74.7	186.6	EROSION SOD SHALL BE USED IN DITCH EAST OF ROADWAY
51+20 TO 52+00	0.05	0.04	3.8	3.0			17.8	124.4	0.10	0.08	18.8	23.0	LAWN SOD SHALL END ON LT SIDE AT STA. 51+20
52+00 TO 58+00	0.28	0.43	21.0	32.3			133.3	605.5	0.56	0.86	107.6	194.3	
58+00 TO 73+00	0.81	1.96	60.8	147.0			333.3	333.3	1.62	3.92	307.6	710.1	
73+00 TO 74+90	0.11	0.16	8.3	12.0			42.2	64.4	0.22	0.32	41.6	60.7	
74+90 TO 78+20	0.21	0.21	15.8	15.8			73.3	504.4	0.42	0.42	78.8	110.0	EROSION SOD SHALL BE USED IN DITCH EAST OF ROADWAY
78+20 TO 81+20	0.15	0.21	11.3	15.8			466.7	457.7	0.30	0.42	86.2	106.6	EROSION SOD SHALL BE USED IN DITCH BOTH EAST AND WEST OF ROADWAY
81+20 TO 88+00	0.37	0.91	27.8	68.3			152.2	258.7	0.74	1.82	140.5	337.2	EROSION SOD SHALL BE USED IN DITCH EAST OF ROADWAY
88+00 TO 92+15	0.32	0.42	24.0	31.5			88.9	122.2	0.64	0.84	118.4	155.8	
CULVERT APRONS ⑥							13.0	72.0			0.9	5.2	
TOTALS	3.43	5.79	257.6	434.6	1356.3	248.0	1748.9	3825.8	6.86	11.58	1425.0	2321.2	

NOTES

① SEED MIXTURE 600 APPLICATION RATE = 75 LBS/ACRE.

② MULCH APPLICATION RATE = 2 TONS/ACRE.

③ FERTILIZER APPLICATION RATE = 350 LBS/ACRE.

④ TOTAL FERTILIZER EQUALS 3746.2 LBS, OR 1.8 TONS.

⑤ A TWO FOOT WIDE STRIP OF EROSION SOD SHALL BE PLACED ADJACENT TO BACK OF CURB OR EDGE OF BITUMINOUS, UNLESS OTHERWISE NOTED. EROSION SOD SHALL ALSO BE PLACED IN DITCH AREAS AND CURB OVERFLOW CHANNELS (SEE DETAIL).

⑥ PLACE EROSION SOD ADJACENT TO ALL CULVERT APRONS NOT DESIGNATED TO RECEIVE RIPRAP. SEE STANDARD PLATE 9102C.

⑦ SIDE ROAD QUANTITIES ARE INCLUDED IN THE MAINLINE QUANTITIES.

⑧ SEE MITIGATION PLAN FOR MITIGATION TURF ESTABLISHMENT QUANTITIES.

EROSION CONTROL ⑨

LOCATION	RANDOM RIPRAP CLASS 3 (CU. YD.)		SILT FENCE HEAVY DUTY (LIN. FT.)		BALE CHECK (EACH)	
	LT.	RT.	LT.	RT.	LT.	RT.
CBI-4 STA. 29+59 RT						6
32+70 TO 34+00			130			
APRON STA. 33+42 RT						4
APRON STA. 34+28 RT		2.9				
36+20 TO 38+00				180		
38+00 TO 40+90			290	290		
40+90 TO 42+50				160		
42+50 TO 45+00			250	250		
AP2-1 STA. 44+50 RT		5.8				
AP2-2 STA. 44+50 LT						4
45+00 TO 46+35				135		
APRON STA. 48+47 RT						4
APRON STA. 48+94 RT		8.3				
AP3-3 STA. 50+40 LT					4	
50+90 TO 52+60				170		
AP3-1 STA. 51+00 LT	2.9					
AP4-2 STA. 52+40 RT						4
52+20 TO 53+50			130			
AP4-1 STA. 53+00 LT	11.0					
APRON STA. 52+61 RT						4
APRON STA. 53+18 RT		2.9				
APRON STA. 56+42 RT						4
APRON STA. 56+74 RT		2.9				
AP5-1 STA. 66+07 LT	11.0					
AP5-3 STA. 66+16 LT	11.0					
AP5-2, AP5-4 WEIR STA. 66+11 RT		19.8				
AP6-1 STA. 75+00 LT	5.8					
AP6-2 STA. 75+00 RT						4
APRON STA. 77+34 RT		2.9				
APRON STA. 77+85 RT						4
APRON STA. 78+47 RT		2.9				
APRON STA. 79+05 RT						4
APRON STA. 80+50 RT		2.9				
APRON STA. 81+10 RT						4
TOTALS	41.7	51.3	800	1185	4	46

NOTES

① GRANULAR FILTER MATERIAL WILL BE CONSIDERED INCIDENTAL TO RIPRAP CONSTRUCTION.

② LOCATION OF SILT FENCE SHALL BE APPROVED BY ENGINEER IN THE FIELD.

FENCE SUMMARY ⑧

LOCATION	WIRE FENCE (LIN. FT.)	
	LT.	RT.
30+15 TO 39+64	949	
65+15 TO 67+15	200	
87+50 TO 92+00	474	
TOTALS	1623	0

NOTES

① LOCATION AND OFFSET OF ALL FENCES WILL BE DETERMINED BY FIELD ENGINEER. INSTALLATION OF GATES SHALL BE INCIDENTAL TO FENCE INSTALLATION.

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: MR
DATE: 2-1-94

28-136

TURF ESTABLISHMENT, EROSION CONTROL, AND FENCE TABULATION

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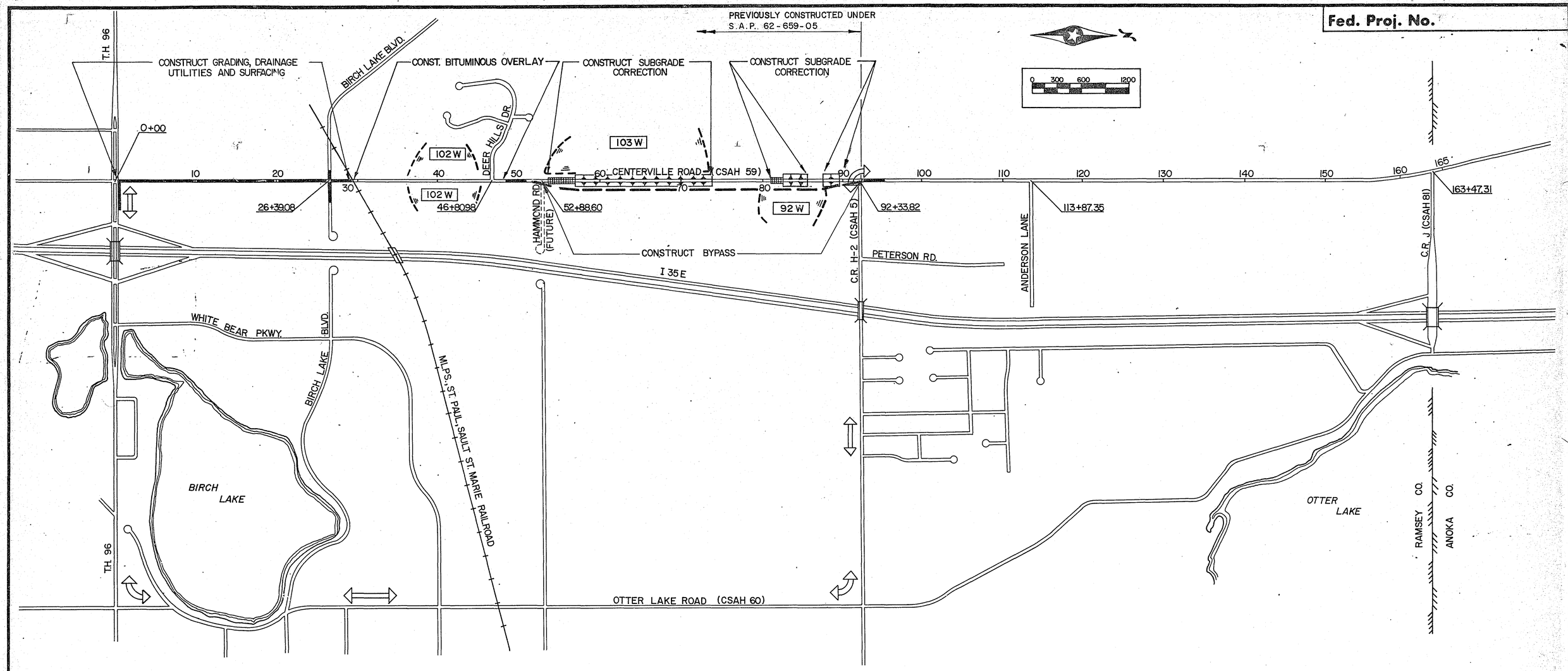
TURF

Fed. Proj. No.



102W -------- PROTECTED WETLAND WITH IDENTIFICATION NUMBER

-------- SUBGRADE CORRECTION, TYPE I, EXCAVATE SWAMP & BACKFILL

-------- SUBGRADE CORRECTION, TYPE II, SURCHARGE

-------- DETOUR ROUTE

-------- BYPASS (TOE ROAD EMBANKMENT)

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CONSTRUCTION PLAN
PROJECT I
UNDER CONTRACT 28-136
"FOR INFORMATION ONLY"

S.A.P. No. 62-659-09

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COPY EQUIPMENT FORM #1
83212

Fed. Proj. No.

S.A.P. 62-659-09

CONSTRUCT GRADING, DRAINAGE
UTILITIES AND SURFACING

0 300 600 1200

T.H. 96

BIRCH LAKE BLVD.

0+00

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 165

102 W

46+80.98

CONST. SUBGRADE CORRECTION, TYPE I

26+39.08

DEER HILLS DR.

REMOVE SURCHARGE

103 W

HAMMOND RD.

52+88.60

PROPOSED WETLAND MITIGATION AREA

CENTERVILLE ROAD (CSAH 59)

REMOVE BYPASS

REMOVE SURCHARGE

92 W

CONST. SUBGRADE CORRECTION, TYPE I

C.R. H-2 (CSAH 5)

92+33.82

PETERSON RD.

ANDERSON LANE

113+87.35

C.R. J (CSAH 81)

163+47.31

I 35 E

WHITE BEAR PKWY.

BIRCH LAKE BLVD.

MPLS., ST. PAUL, SAULT ST. MARIE RAILROAD

BIRCH LAKE

OTTER LAKE

RAMSEY CO.

ANOKA CO.

OTTER LAKE ROAD (CSAH 60)

NOTE: SEE TRAFFIC CONTROL PLANS

102W -------- PROTECTED WETLAND WITH IDENTIFICATION NUMBER

-------- SUBGRADE, CORRECTION, TYPE I, EXCAVATE SWAMP & BACKFILL

-------- SUBGRADE CORRECTION, TYPE II, SURCHARGE

-------- DETOUR ROUTE

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CONSTRUCTION PLAN
PROJECT II

28-136

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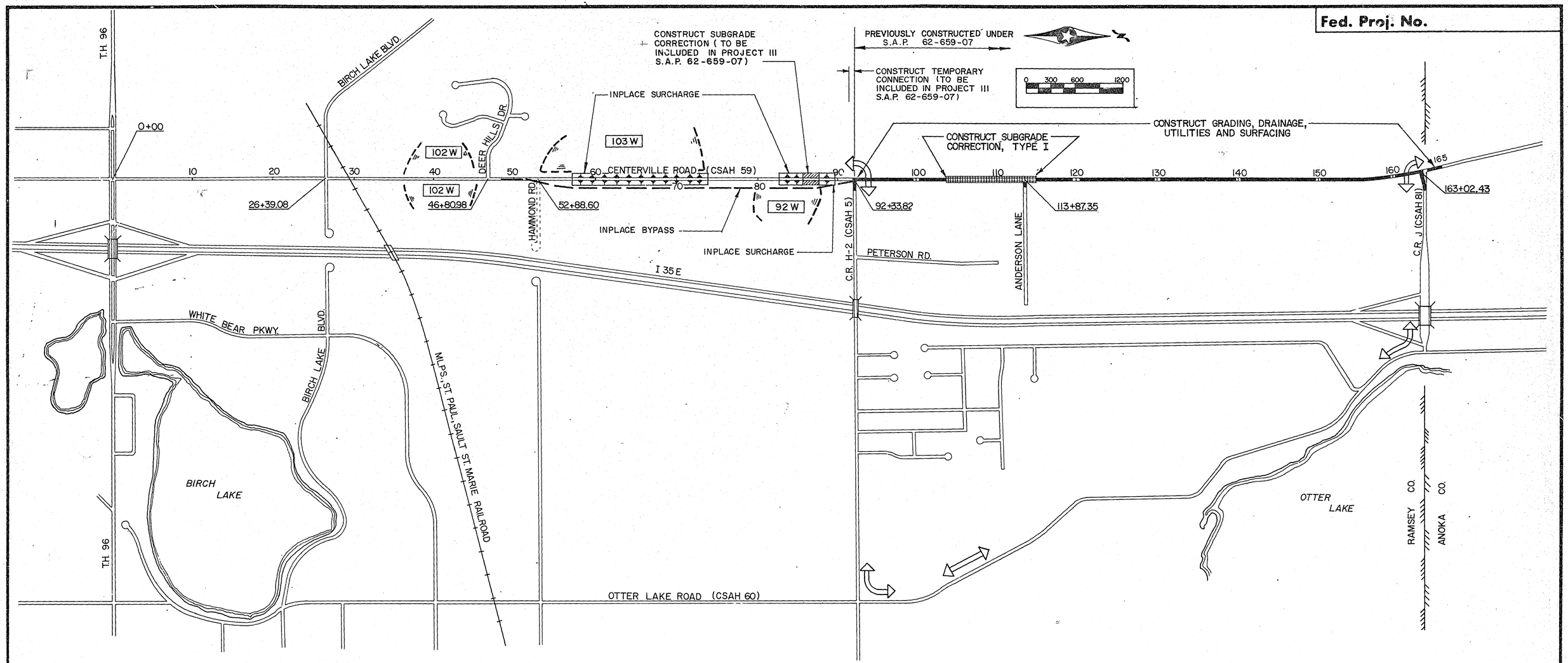
Fed. Proj. No.



102W ------- PROTECTED WETLAND WITH IDENTIFICATION NUMBER

------- SUBGRADE CORRECTION, TYPE I, EXCAVATE SWAMP & BACKFILL

------- SUBGRADE CORRECTION, TYPE II, SURCHARGE

------- SUBGRADE CORRECTION, TYPE III, EXCAVATE AND BACKFILL WITH LIGHT WEIGHT FILL

------- DETOUR ROUTE

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CONSTRUCTION PLAN

PROJECT III 28-136

"FOR INFORMATION ONLY"

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CONSTRUCTION UNDER PRIOR PROJECT (S.A.P. 62-659-05)

BEGIN RECONSTRUCTION (S.A.P. 62-659-09)

NORTH OAKS

WHITE BEAR TOWNSHIP

MPLS. ST. PAUL, SAULT ST. MARIE RAILROAD CO.

STA. 29+45 CENTERVILLE RD. = ℄ SAULT ST. MARIE RAILWAY

20' PERMANENT DRAINAGE EASEMENT

BEGIN B624 C+G STA. 28+73 22' LT. MATCH EXISTING

END B624 C&G STA. 29+89 22' LT

STA. 30+50 BEGIN TAPER 20' LT. AND RT.

STA. 31+50 END TAPER 18' LT. AND RT.

CONSTRUCTION LIMITS

PROVIDE PED. RAMP FOR BIKEWAY

BEG. C&G 29+48

8' BIKEWAY

EX. CBI-1

END C&G 29+18

BEG. BIT. PAVEMENT

CBI-2

CBI-3

CBI-4

BEG. C&G 29+73

END C&G 29+43

GARDEN

TEL.

END B624 C&G STA. 30+15 22' RT.

BEGIN B624 C+G STA. 29+00.22' RT. MATCH EXISTING

PROTECT TREES

CONSTRUCTION LIMIT

PROTECT TREE

GRADE TO DRAIN ALONG TOE OF SLOPE

EXTEND WATERMAIN STUB INSTALL 15'-6" DIP CL 52 WM ADJUST VALVE BOX.

29+45 RAILWAY AT-GRADE CROSSING; SIGNAL GATES AND RAILROAD BUNGALOW WILL BE CONSTRUCTED BY OTHERS. CONTRACTOR TO MATCH CROSSING WITH NEW PAVEMENT CONSTRUCTION

RELOCATE HYDRANT INSTALL 15'-6" DIP CL 52 WM ADJUST VALVE BOX

EXTEND 12" WATERMAIN INSTALL 3-12" 45° BENDS 24'-12" DIP CL 52 WM ADJUST 2 VALVE BOXES

ADJUST 2 VALVE BOXES

CONSTRUCTION LIMITS

FOR INFO. ONLY

NOTE: USE 5FT. SEGMENT LENGTH TO TRANSITION CURB BEGINNINGS AND ENDINGS FROM 0" TO 6" NEAR RAILROAD TRACKS

NOTE: TRANSITIONING OF CROSS. SLOPES TO MATCH PROPOSED RAILWAY CROSSING SHALL BEGIN AT STA. 29+00 AND END AT STA. 30+00, BOTH LT. AND RT.

℄ RAILROAD 29+45

150' V.C. M=0.19'

P.V.T. 29+05 EL. 945.17

-1.00 %

P.V.I. 28+30 EL. 945.92

15" RCP

P.V.C. 29+50 EL. 944.72

320' V.C. M=1.60'

P.V.I. 31+10 EL. 943.12

P.V.T. 32+70 EL. 935.12

-5.00%

P.V.C. 34+31 EL. 927.07

EXISTING GROUND @ ℄

PROFILE GRADE

SUBCUT

EXISTING 12" DIP WATERMAIN

12" DIP CL 52 WM

600' V.C. M=3.75'

P.V.I. 37+31 EL. 912.07

P.V.T. 40+31 EL. 912.07

0.00%

INPLACE FILL

+50 907.40

DITCH GRADE (LT) + 0.50 %

+50 907.90

-0.5 %

+50 907.40

SWAMP DEPOSITS

EXCAVATE TO BOTTOM OF SWAMP

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.F.
DATE: 2-1-94

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945 940 935 930 925 920 915 910 905 900

28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43

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Fed. Proj. No.

INPLACE SAN. SEW. ON PILING

CONSTRUCTION LIMITS

BEGIN CURB & GUTTER STA. 44+90 LT.

STA. 9+45 END BIT. CURB AND BEGIN D424 CONC. C+G 16' LT. AND RT.

DEER HILLS DRIVE

STA. 8+62.5 BEGIN BIT. CURB LT AND RT MATCH EXISTING, BEGIN 5:1 TAPER

STA. 46+80.98 CENTERVILLE RD. = STA. 10+00 DEER HILLS DR.

℄ 10' PERMANENT DRAINAGE EASEMENT (10'x15')

STA. 50+34.7

END CURB & GUTTER STA. 50+40 LT.

NORTH OAKS

NOTE: GRADE TO DRAIN ALONG TOE OF SLOPE

STA. 52+88.60 CENTERVILLE RD. = STA. 0+00 HAMMOND RD.

CONSTRUCTION LIMITS

INPLACE BYPASS

CONSTRUCTION LIMITS

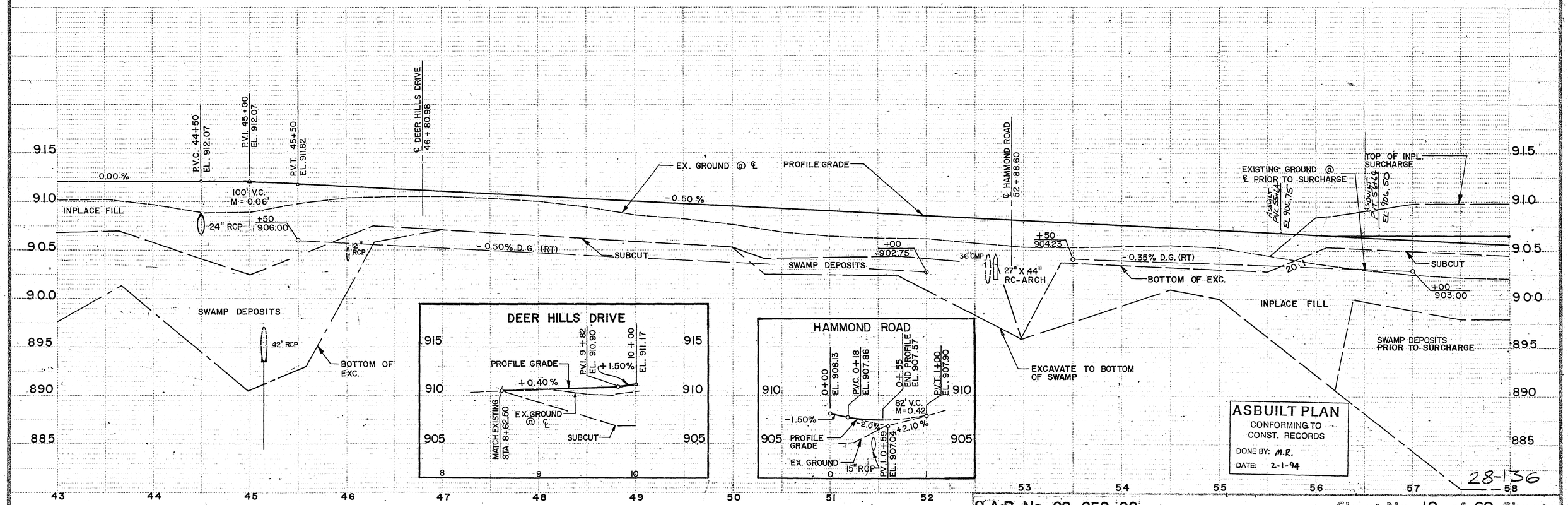
CONSTRUCTION LIMITS

SALVAGE AND TRANSPLANT THESE TREES TO A LOCATION DESIGNATED BY THE ENGINEER.

WHITE BEAR TOWNSHIP

HAMMOND ROAD ½ (FUTURE)

0 50 100



ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

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Fed. Proj. No.

NORTH OAKS

CONSTRUCTION LIMITS

60+00

MARSH ELEV. 897.95

4",2-5",2-6",2-14",10"

2-4",4-5",1-6"

4-12",6",8",16"

5-5",2-7",4",7"

INPL. INV. 901.34

INV. 899.3 (INPL)

AP5-1

AP 5-3

AP5-2

AP 5-4

INPL. 27"x 44" PA

INPL. 15" CMP

CONTROL WEIR (SEE DETAIL)

INV. 902.06

INV. 900.0

INPL.

INPLACE BYPASS

69+00

72+90

CONSTRUCTION LIMITS

S.E.

PP

25'

30'

35'

20'

18'

33'

60'

60

65

70

CONSTRUCTION LIMITS

59+50

WHITE BEAR TOWNSHIP

WETLAND MITIGATION AREA

(SEE MITIGATION PLAN)

0 50 100

TOP OF INPL. SURCHARGE

EX. GROUND ℄ PRIOR TO SURCHARGE

ASBUILT PROFILE GRADE

906.50

PVC 59+64 EL. 905.25

100' V.C. M=0.06'

PVT 59+64 EL. 905.00

PVI 59+14 EL. 905.00

-0.50 %

0.00 %

SUBCUT

SALVAGE AND LOWER 27"X 44" RCPA

27" X 44" RCPA'S

15" CMP

INPLACE FILL PRIOR TO SURCHARGE

SWAMP DEPOSITS PRIOR TO SURCHARGE

915 910 905 900 895 890 885 880 875

58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
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NORTH OAKS

WHITE BEAR TOWNSHIP

LOW & GRASSY BETWEEN SWAMP AREAS

CONSTRUCTION LIMITS

AP6-1

AP6-2

INPLACE BYPASS

24" CP PIPE (PLASTIC)

POND

ASBUILT INV. 899.24 (INPL.)

ASBUILT INV. 899.89 (INPL.)

INV. 900.53 15" CMP (INPL.)

INV. 900.55

INV. 901.78

15" CMP (INPL.) INV. 902.85

(INPL.) INV. 904.77

INV. 904.88 15" CMP (INPL.)

PP & TEL

PP

GRAV.

S.E.

73+80

82+50

84+30

84+00

0 50 100

TOP OF INPL. SURCHARGE

EX. GROUND ℄

PROFILE GRADE

100' V.C. M=0.06

340' V.C. M=1.40'

0.00%

+0.50%

-0.70% DG (RT)

+0.27% DG (RT)

20:1

24" RCP

SUBCUT

SWAMP DEPOSITS

EXCAVATION TO BOTTOM OF SWAMP

EX. GROUND PRIOR TO SURCHARGE

SWAMP DEPOSITS PRIOR TO SURCHARGE

INPL. FILL PRIOR TO SURCHARGE

INPL. LIGHT WEIGHT FILL

P.V.C. 76+82 EL. 905.00

P.V.T. 76+82 EL. 905.25

P.V.I. 76+32 EL. 905.00

P.V.C. 84+90 EL. 909.25

P.V.I. 86+60 EL. 910.14

Asbuilt P.V.C. 78+82 EL. 906.50

Asbuilt P.V.T. 79+82 EL. 906.75

+00 901.0

+00 900.30

+00 900.84

915 910 905 900 895 890 885 880

73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88

ASBUILT PLAN
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Copy Equipment Form #2

END RECONSTRUCTION
(S.A.P 62-659-09)

CONSTRUCTION UNDER
PRIOR PROJECT (S.A.P. 62-659-07)
FOR INFORMATION ONLY

Fed. Proj. No.

℄ 40' PERMANENT DRAINAGE ESMT.
STA. 89+53.00

CONSTRUCTION LIMITS

BEGIN C & G
STA. 89+50 LT.

INPLACE
6' LONG STUB-OUT

EX CB7-1

CB7-3 CB7-2

INPL. 15" CMP

BEGIN C & G
STA. 89+00 RT.

40' S.E.

DIR.

INPLACE SANITARY

INPLACE BYPASS

CONSTRUCTION LIMITS

ADJUST SANITARY CASTING
PROPOSED T/CSTG. = 920.96

END C & G
AT END OF
RADIUS

MATCH INTO INPL.
BITUMINOUS, STA.
92+00

MATCH INTO INPLACE C & G
STA. 92+00 LT

STA. 92+33.82 CENTERVILLE RD. =
STA. 0+00 COUNTY RD. H-2

CO. RD. H-2

STA. 0+90

SAWCUT, REMOVE AND REPLACE
BITUMINOUS AS NECESSARY TO
PLACE PROPOSED CURB &
GUTTER.

STEEL PLATE BEAM
GUARDRAIL-DESIGN "B"
(STD. PLATE 8307)

NORTH OAKS

WHITE BEAR TOWNSHIP

STA. 90+35
STA. 90+83
STA. 94+50
STA. 97+80
STA. 98+00
STA. 98+40
STA. 100+00
STA. 100+70
STA. 101+30
STA. 101+45
STA. 101+60
STA. 101+70
STA. 102+50

0 50 100

FOR INFORMATION ONLY

PVI. 96+65
EL 938.80

CENTERVILLE RD PROFILE GRADE

TOP OF SURCHARGE
(INPLACE)

PVI. 90+30
EL. 924.20

+3.80% +2.30%

SUBCUT

PVC. 88+45
EL. 917.17

PVT. 88+30
EL. 916.60

15" RCP

370' V.C.
M = 0.69'

INPLACE FILL
PRIOR TO
SURCHARGE

EXISTING GROUND ℄
PRIOR TO PLACEMENT
OF SURCHARGE.

SWAMP DEPOSITS
PRIOR TO
SURCHARGE

INPLACE
21" PVC SAN. SEWER
ON ℄

PVC. 92+15
EL. 928.45

15" RCP

INPL.
16" DIP WM
@ 25' RT.

CO. RD. H-2
FOR INFORMATION ONLY

0+00
EL. 928.86
PVC. 0+18
EL. 928.61

50' V.C.
M = 0.09'

+2.46%

PVT. 0+68
EL. 929.47

EX. GROUND @ ℄

+1.0%
-1.50%

PVI. 0+43
EL. 928.86

MATCH EXISTING
STA. 1+15
EL. 930.63

15" RCP

PROFILE GRADE

16" W.M.

+2.30%

PROFILE GRADE

EX. GROUND @ ℄

900' V.C.
M = 5.40'

-2.50%

15" RCP

16" DIP W.M.
@ 25' RT.

PVT. 101+15
EL. 927.54

21" PVC SAN. SEWER
@ 5' RT.

ASBUILT PLAN
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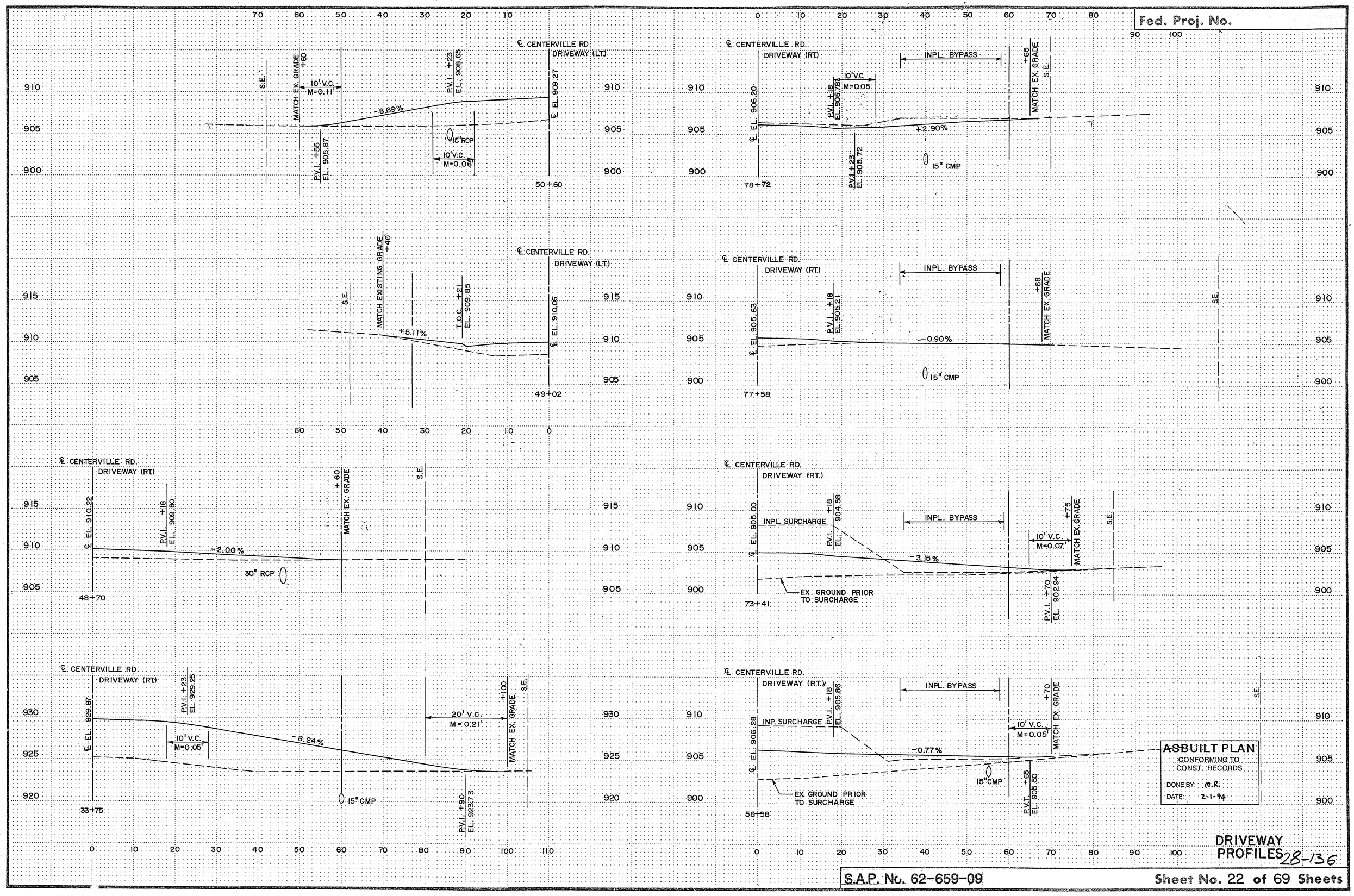
Fed. Proj. No.



ASBUILT PLAN
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DRIVEWAY PROFILES 28-136

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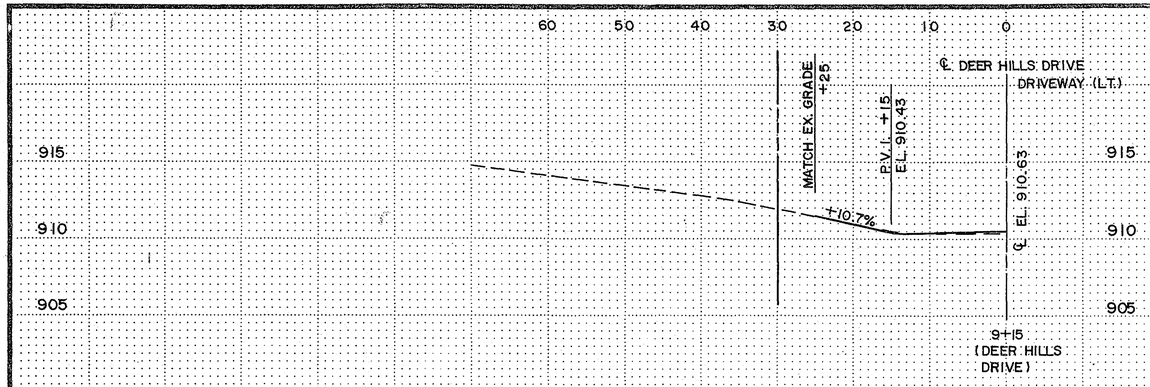
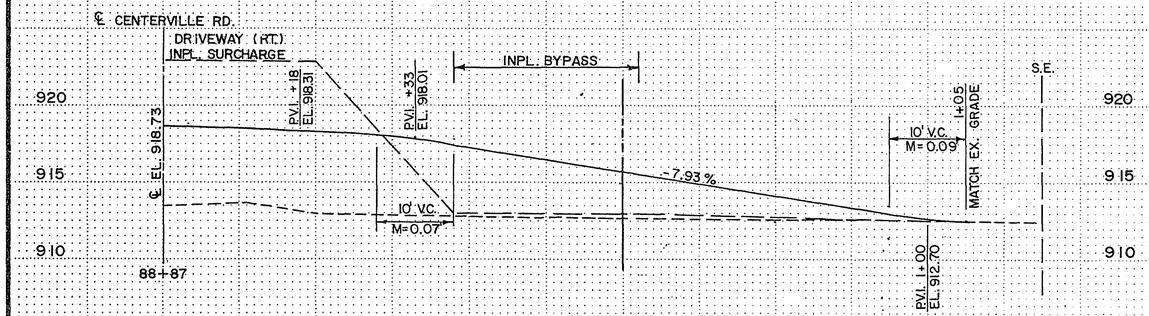
COPY EQUIPMENT FORM #1

Fed. Proj. No.





S.E.

S.E.

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
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DRIVEWAY PROFILES
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COPY EQUIPMENT FORM #1

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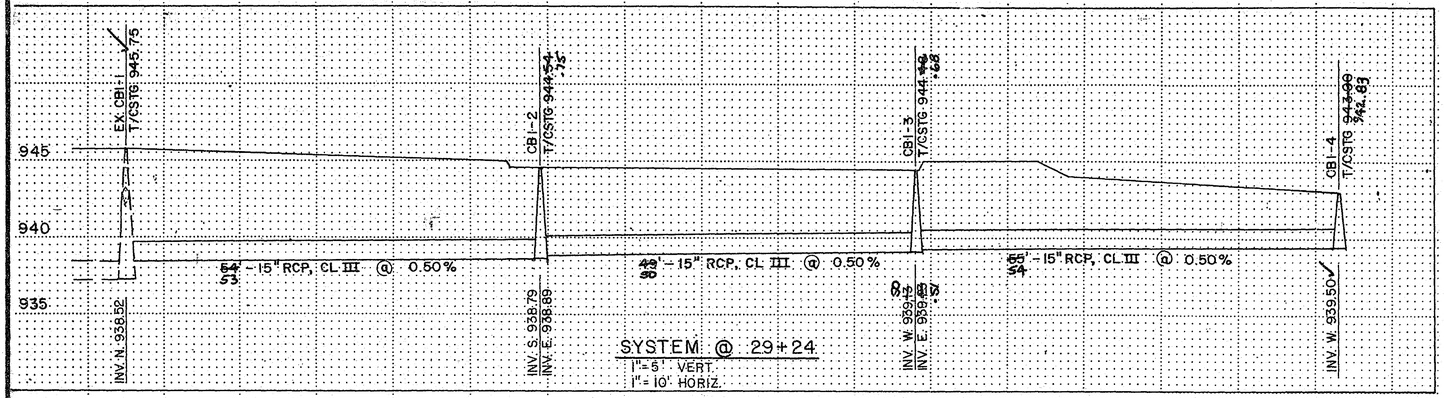
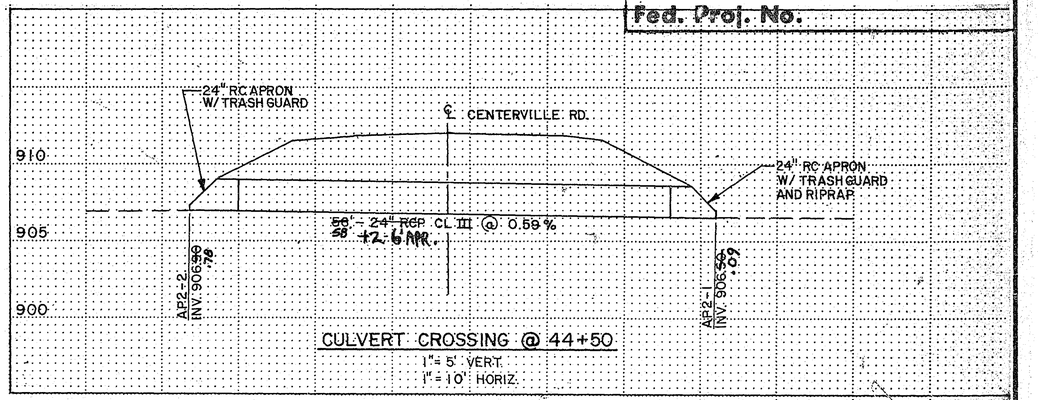
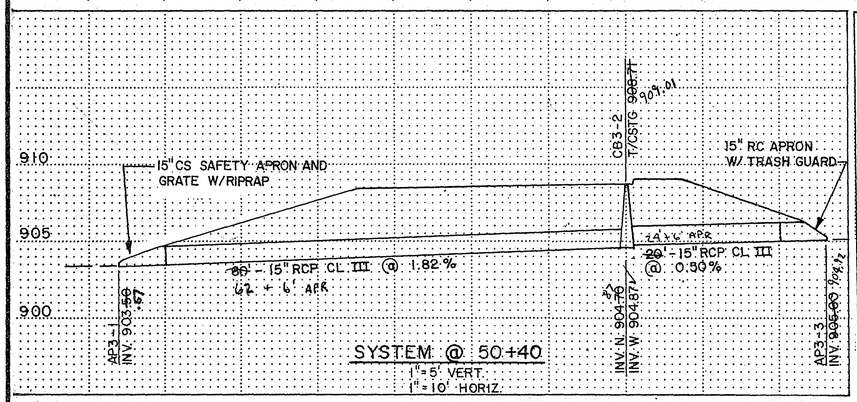


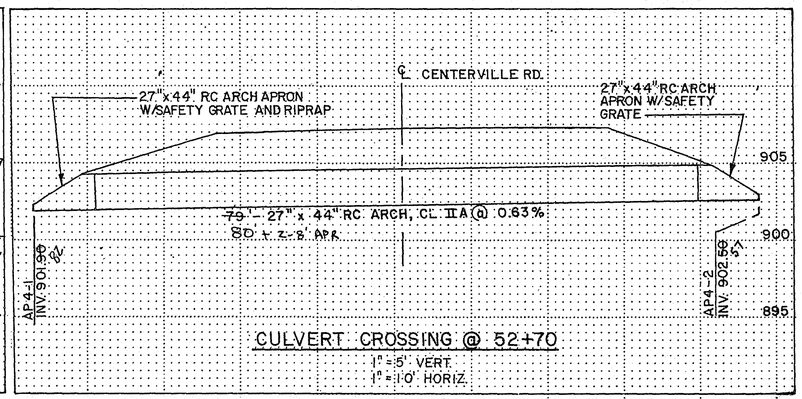
SYSTEM @ 29+24
1"=5' VERT.
1"=10' HORIZ.



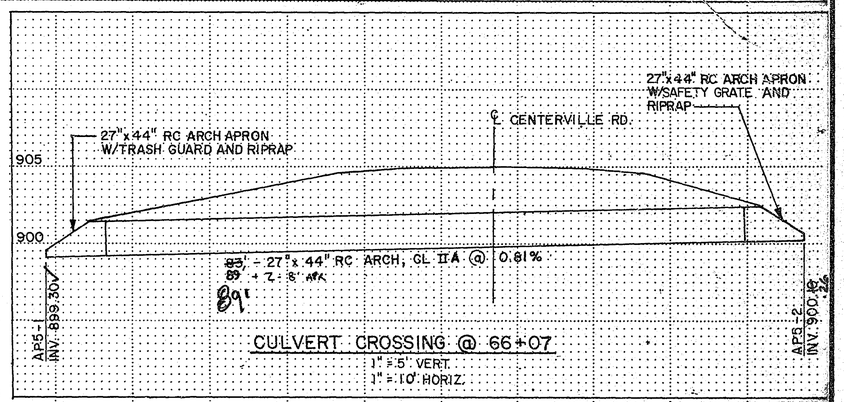
CULVERT CROSSING @ 44+50
1"=5' VERT.
1"=10' HORIZ.



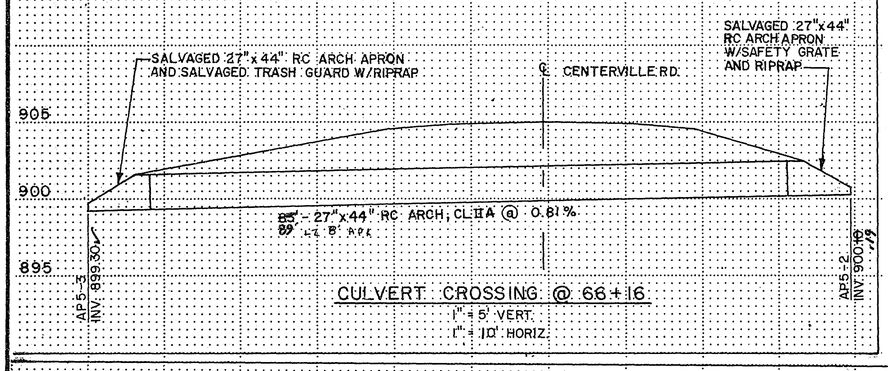
SYSTEM @ 50+40
1"=5' VERT.
1"=10' HORIZ.



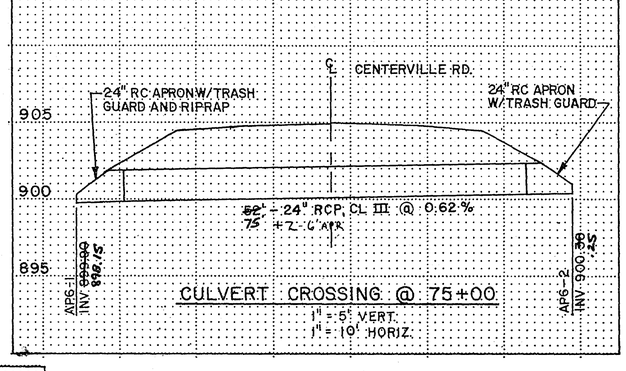
CULVERT CROSSING @ 52+70
1"=5' VERT.
1"=10' HORIZ.



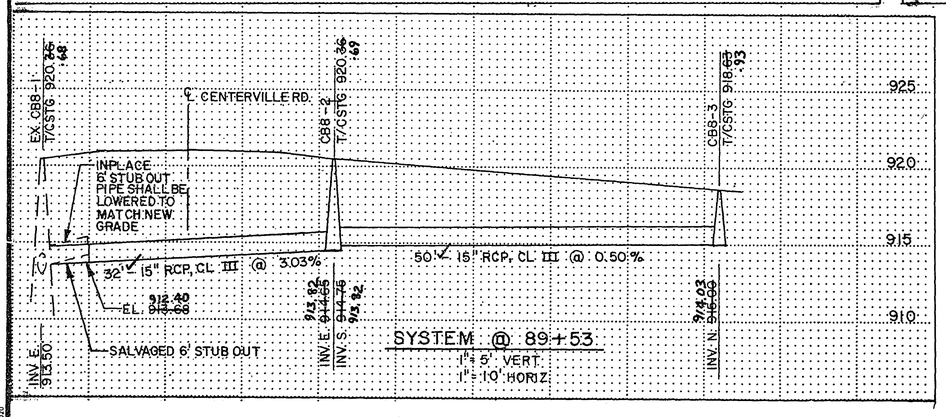
CULVERT CROSSING @ 66+07
1"=5' VERT.
1"=10' HORIZ.



CULVERT CROSSING @ 66+16
1"=5' VERT.
1"=10' HORIZ.



CULVERT CROSSING @ 75+00
1"=5' VERT.
1"=10' HORIZ.



SYSTEM @ 89+53
1"=5' VERT.
1"=10' HORIZ.

ASBUILT PLAN
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STORM SEWER PROFILES

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SUMMARY OF QUANTITIES FOR THIS SHEET (L)

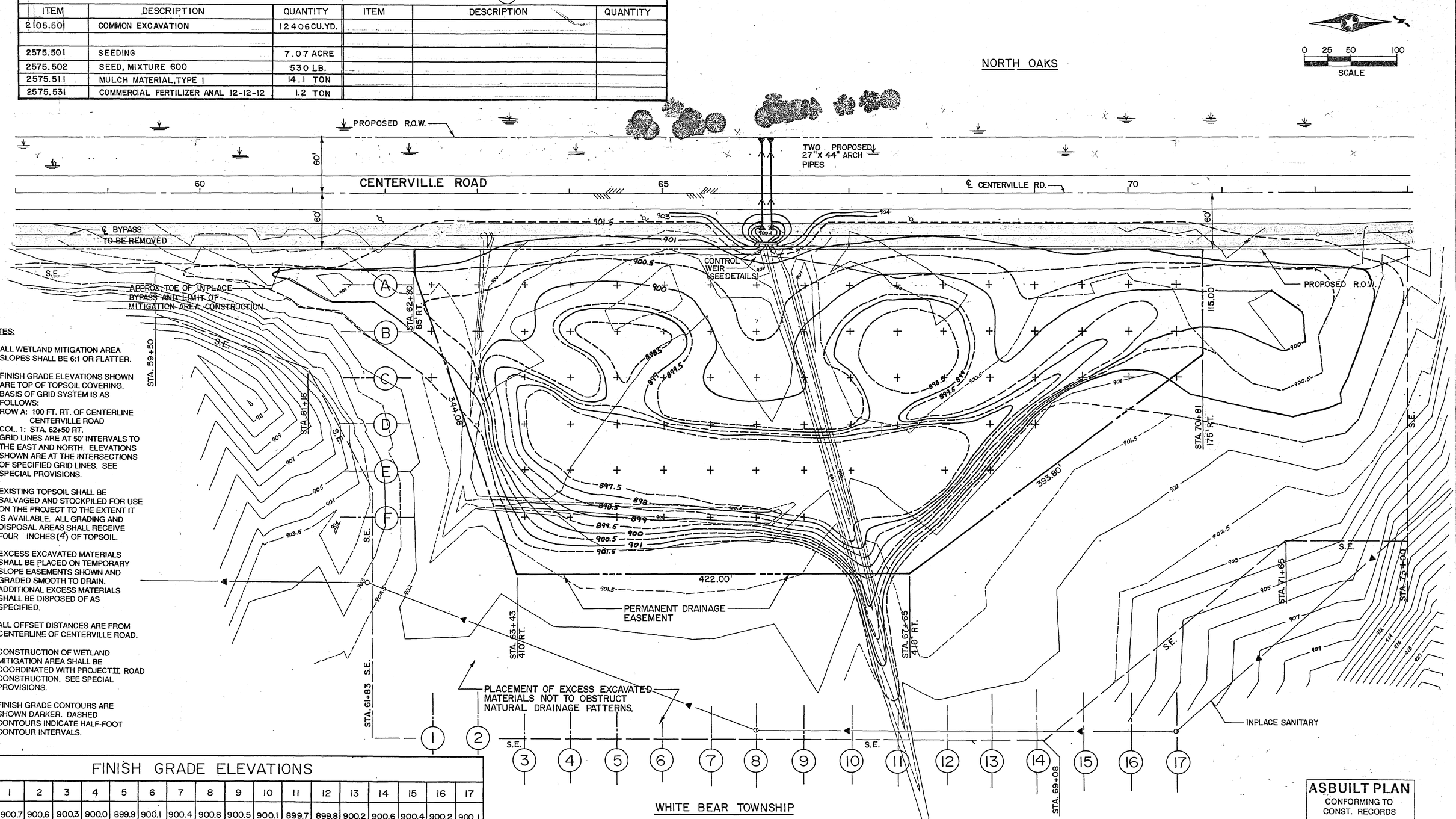
ITEM	DESCRIPTION	QUANTITY	ITEM	DESCRIPTION	QUANTITY
2105.501	COMMON EXCAVATION	12406 CU.YD.			
2575.501	SEEDING	7.07 ACRE			
2575.502	SEED, MIXTURE 600	530 LB.			
2575.511	MULCH MATERIAL, TYPE 1	14.1 TON			
2575.531	COMMERCIAL FERTILIZER ANAL 12-12-12	1.2 TON			

NOTES:

1. ALL WETLAND MITIGATION AREA SLOPES SHALL BE 6:1 OR FLATTER.
2. FINISH GRADE ELEVATIONS SHOWN ARE TOP OF TOPSOIL COVERING. BASIS OF GRID SYSTEM IS AS FOLLOWS:
   ROW A: 100 FT. RT. OF CENTERLINE CENTERVILLE ROAD
   COL. 1: STA. 62+50 RT.
   GRID LINES ARE AT 50' INTERVALS TO THE EAST AND NORTH. ELEVATIONS SHOWN ARE AT THE INTERSECTIONS OF SPECIFIED GRID LINES. SEE SPECIAL PROVISIONS.
3. EXISTING TOPSOIL SHALL BE SALVAGED AND STOCKPILED FOR USE ON THE PROJECT TO THE EXTENT IT IS AVAILABLE. ALL GRADING AND DISPOSAL AREAS SHALL RECEIVE FOUR INCHES (4") OF TOPSOIL.
4. EXCESS EXCAVATED MATERIALS SHALL BE PLACED ON TEMPORARY SLOPE EASEMENTS SHOWN AND GRADED SMOOTH TO DRAIN. ADDITIONAL EXCESS MATERIALS SHALL BE DISPOSED OF AS SPECIFIED.
5. ALL OFFSET DISTANCES ARE FROM CENTERLINE OF CENTERVILLE ROAD.
6. CONSTRUCTION OF WETLAND MITIGATION AREA SHALL BE COORDINATED WITH PROJECT II ROAD CONSTRUCTION. SEE SPECIAL PROVISIONS.
7. FINISH GRADE CONTOURS ARE SHOWN DARKER. DASHED CONTOURS INDICATE HALF-FOOT CONTOUR INTERVALS.

FINISH GRADE ELEVATIONS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
A	900.7	900.6	900.3	900.0	899.9	900.1	900.4	900.8	900.5	900.1	899.7	899.8	900.2	900.6	900.4	900.2	900.1
B	900.7	900.3	900.1	898.7	898.5	898.5	899.9	900.6	900.0	898.8	898.5	898.5	899.9	900.0	899.5	899.3	900.0
C	901.4	900.4	898.4	899.6	898.6	899.4	900.0	900.2	900.0	899.5	898.5	898.5	899.8	899.0	900.0	901.1	900.8
D	–	901.5	897.7	897.5	897.5	898.0	899.7	899.5	899.6	899.5	898.5	897.8	897.8	901.5	–	–	–
E	–	–	898.9	897.5	897.5	897.5	897.5	897.5	897.5	897.5	897.5	897.5	901.5	–	–	–	–
F	–	–	900.7	899.4	899.0	898.8	898.7	898.5	897.5	897.5	897.6	901.0	–	–	–	–	–



ASBUILT PLAN
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WETLAND MITIGATION AREA GRADING PLAN

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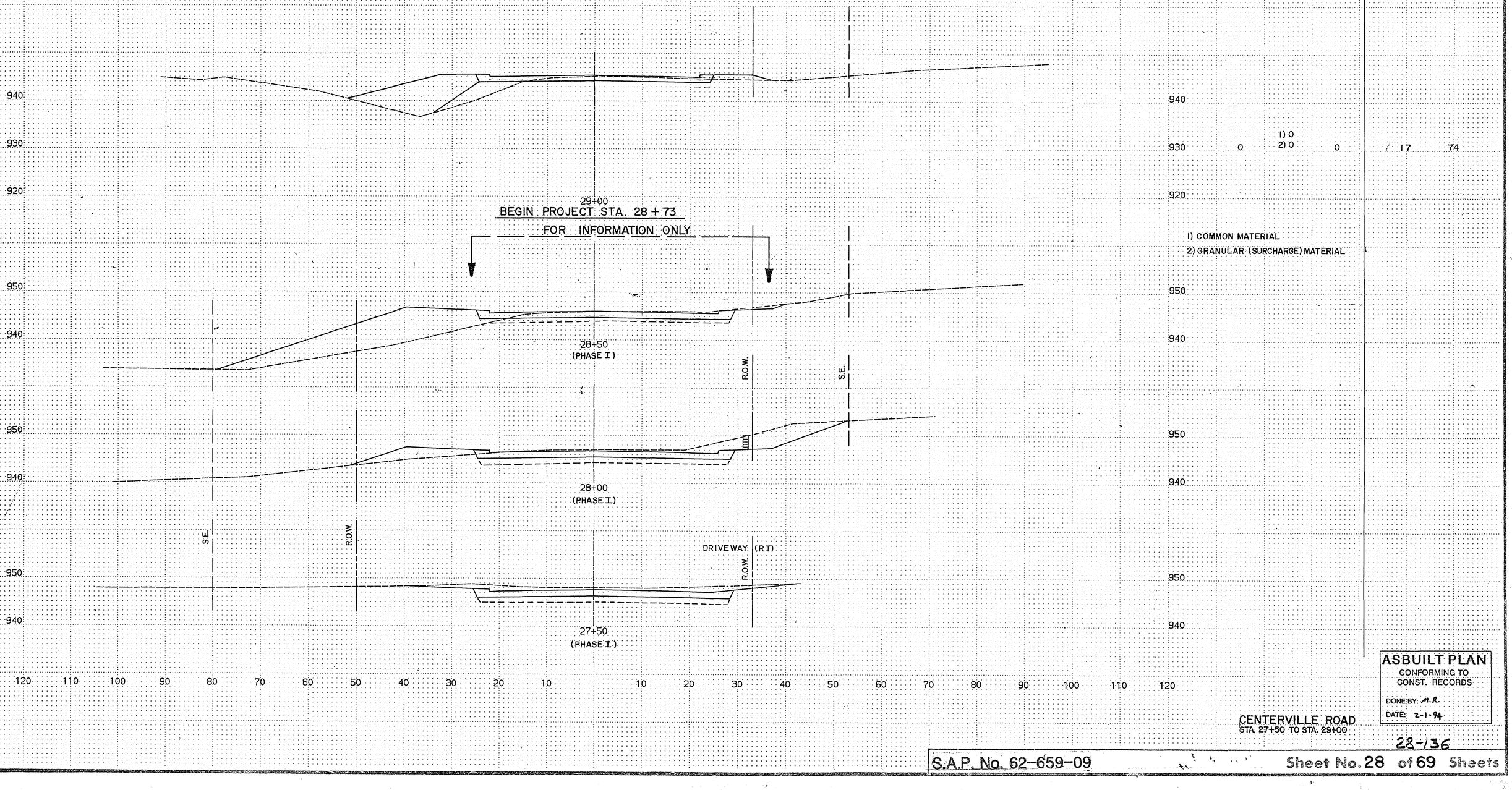
EXCAVATION			EMBANKMENT	
MUCK (CU. YDS.)	COM. (CU. YDS.)	SUB.	GRAN. (CU. YDS.)	COM. (CU. YDS.)
1) 0 2) 0	0	0	17	74

1) COMMON MATERIAL
2) GRANULAR (SURCHARGE) MATERIAL



ASBUILT PLAN
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CENTERVILLE ROAD
STA. 27+50 TO STA. 29+00

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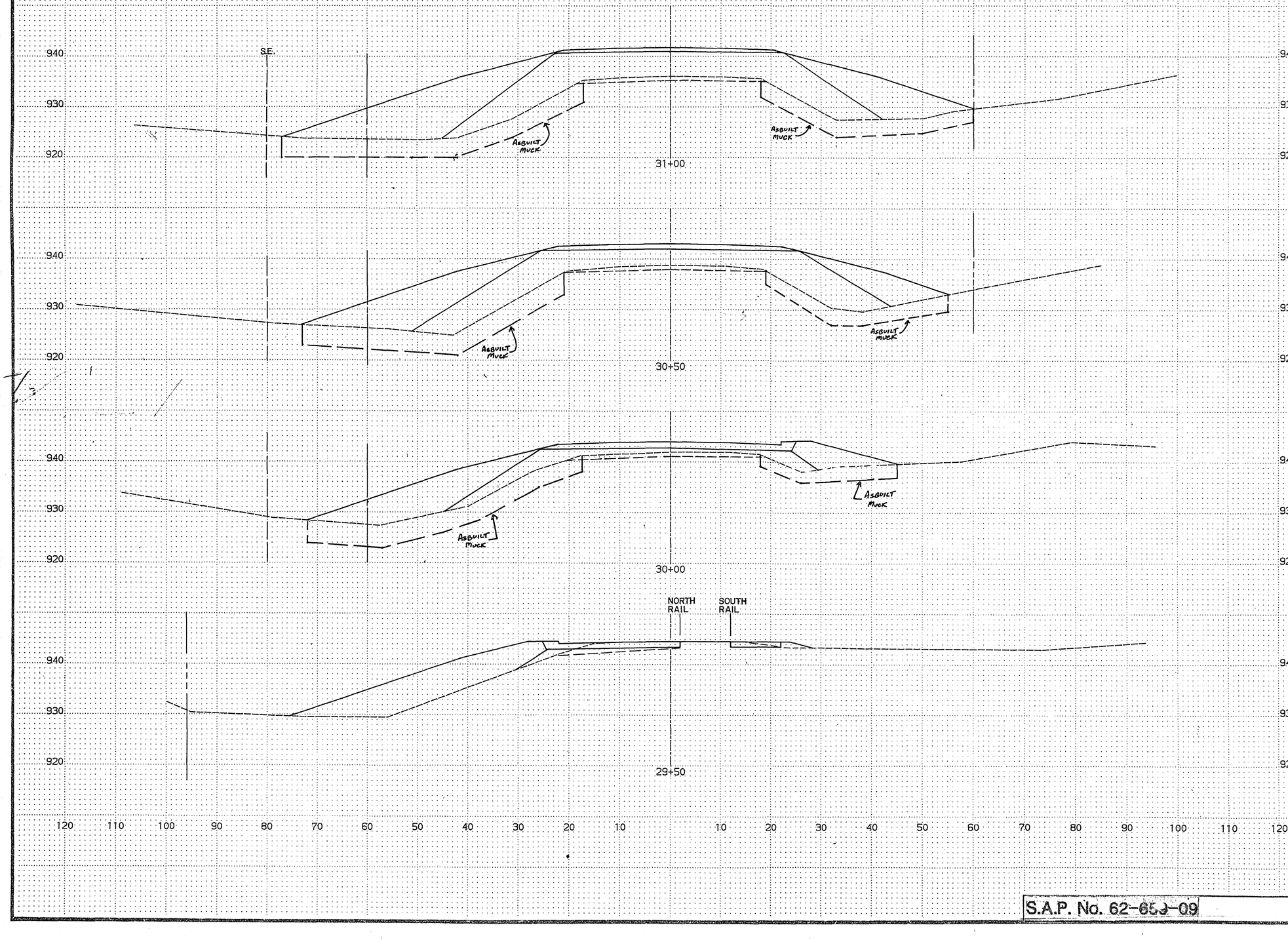

	EXCAVATION			EMBANKMENT	
	MUCK	COM. (CU. YDS.)	SUB.	GRAN.	COM. (CU. YDS.)
940					
930					
920	0	1) 0 2) 0	42	896	733
940					
930					
920	0	1) 0 2) 0	37	582	555
940					
930					
920	0	1) 30 2) 0	27	160	499
940					
930	0	1) 6 2) 0	4	49	382
920					

ASBUILT PLAN
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CENTERVILLE ROAD
STA. 29+50 TO STA. 31+00

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COPY EQUIPMENT FORM #1

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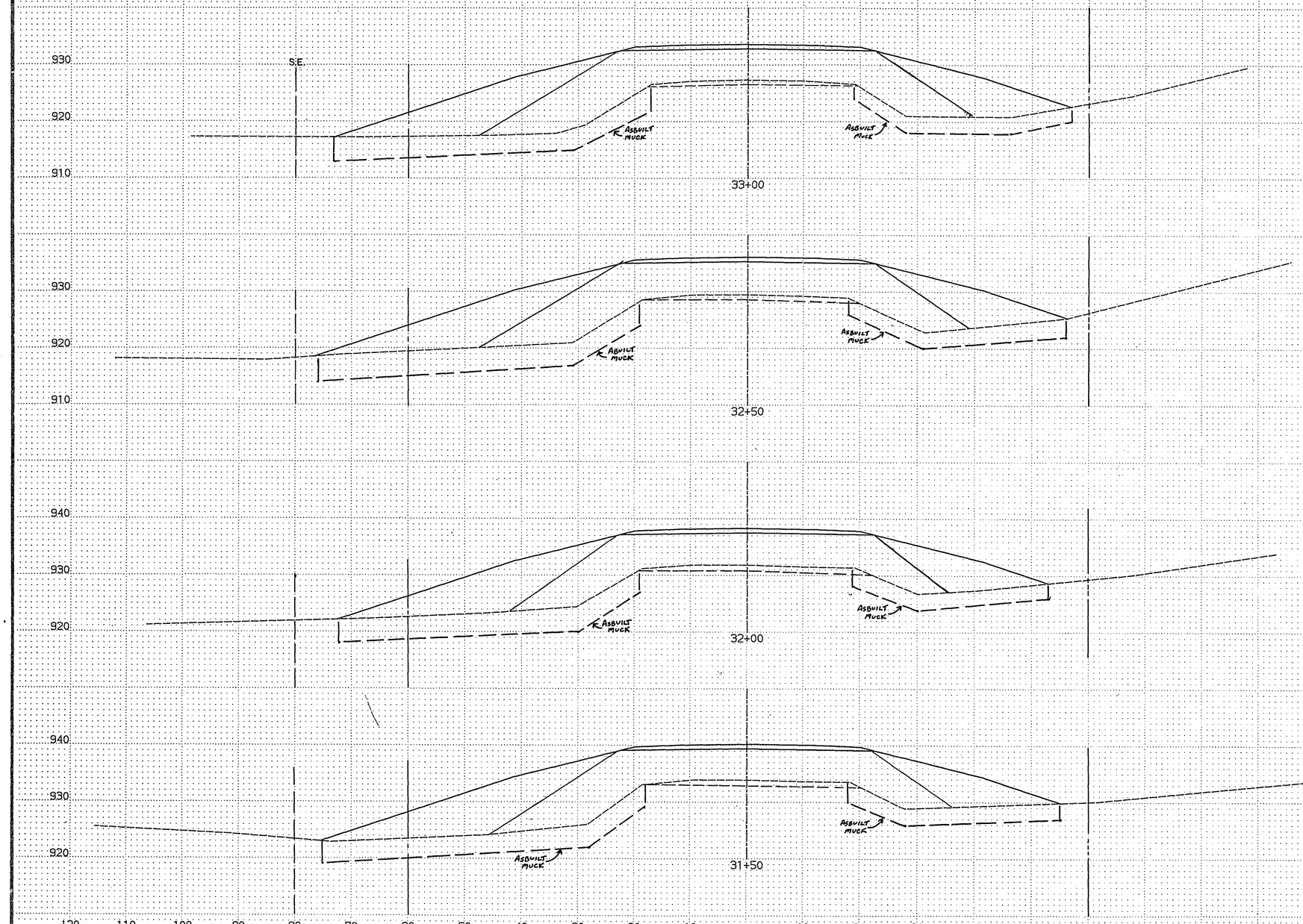

EXCAVATION			EMBANKMENT	
MUCK	COM. (CU. YDS.)	SUB.	GRAN	COM. (CU. YDS)
0	1) 0 2) 0	31	1019	638
0	1) 0 2) 0	45	948	629
0	1) 0 2) 0	53	906	633
0	1) 0 2) 0	48	921	757

ASBUILT PLAN
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CENTERVILLE ROAD
STA. 31+50 TO STA. 33+00

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COPY EQUIPMENT FORM #1

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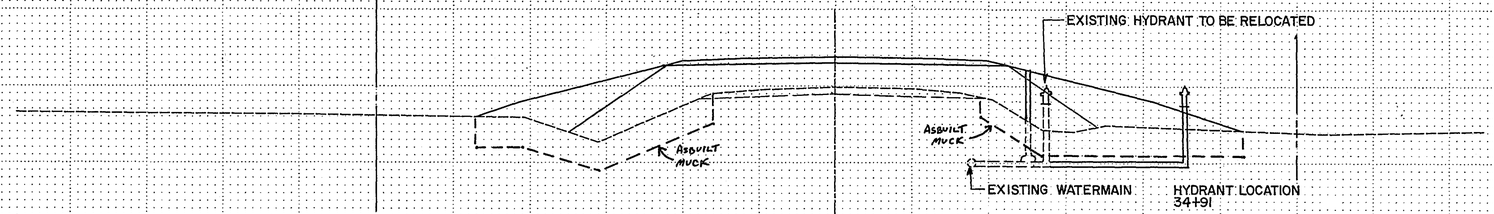

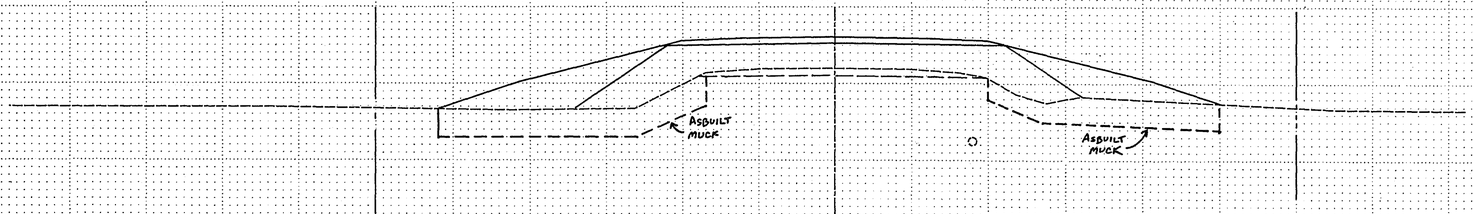

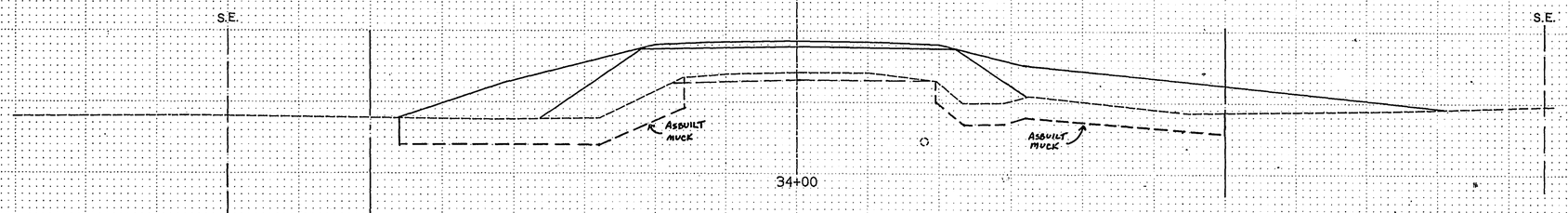

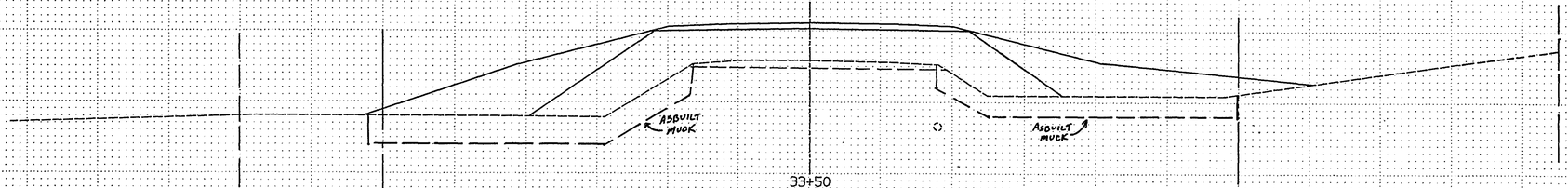

	EXCAVATION			EMBANKMENT	
	MUCK	COM. (CU. YDS.)	SUB.	GRAN.	COM. (CU. YDS.)
35+00	0	1) 0 2) 0	42	531	273
34+50	0	1) 0 2) 0	41	556	425
34+00	0	1) 0 2) 0	40	669	583
33+50	0	1) 0 2) 0	36	883	614

ASBUILT PLAN
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CENTERVILLE ROAD
STA. 33+50 TO STA. 35+00

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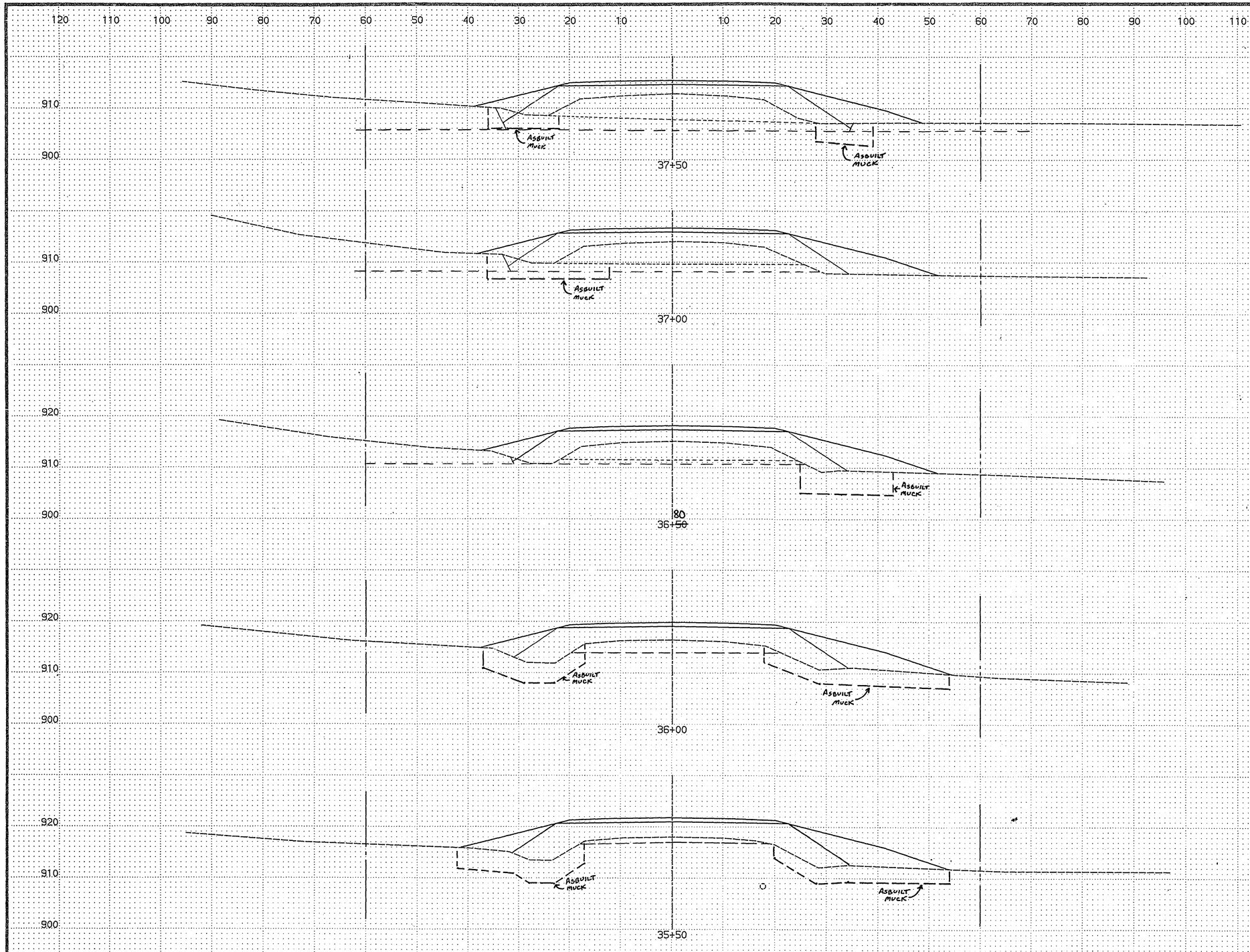
COPY EQUIPMENT FORM #1

Fed. Proj. No.



EXCAVATION			EMBANKMENT	
MUCK (CU. YDS.)	COM. (CU. YDS.)	SUB.	GRAN. (CU. YDS.)	COM. (CU. YDS.)
229	1) 318 2) 0	0	872	184
126	1) 262 2) 0	0	741	190
36	1) 185 2) 0	0	620	201
0	1) 82 2) 0	3	538	218
0	1) 0 2) 0	42	530	250

ASBUILT PLAN
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CENTERVILLE ROAD
STA. 35+50 TO STA. 37+50

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COPY EQUIPMENT FORM #1

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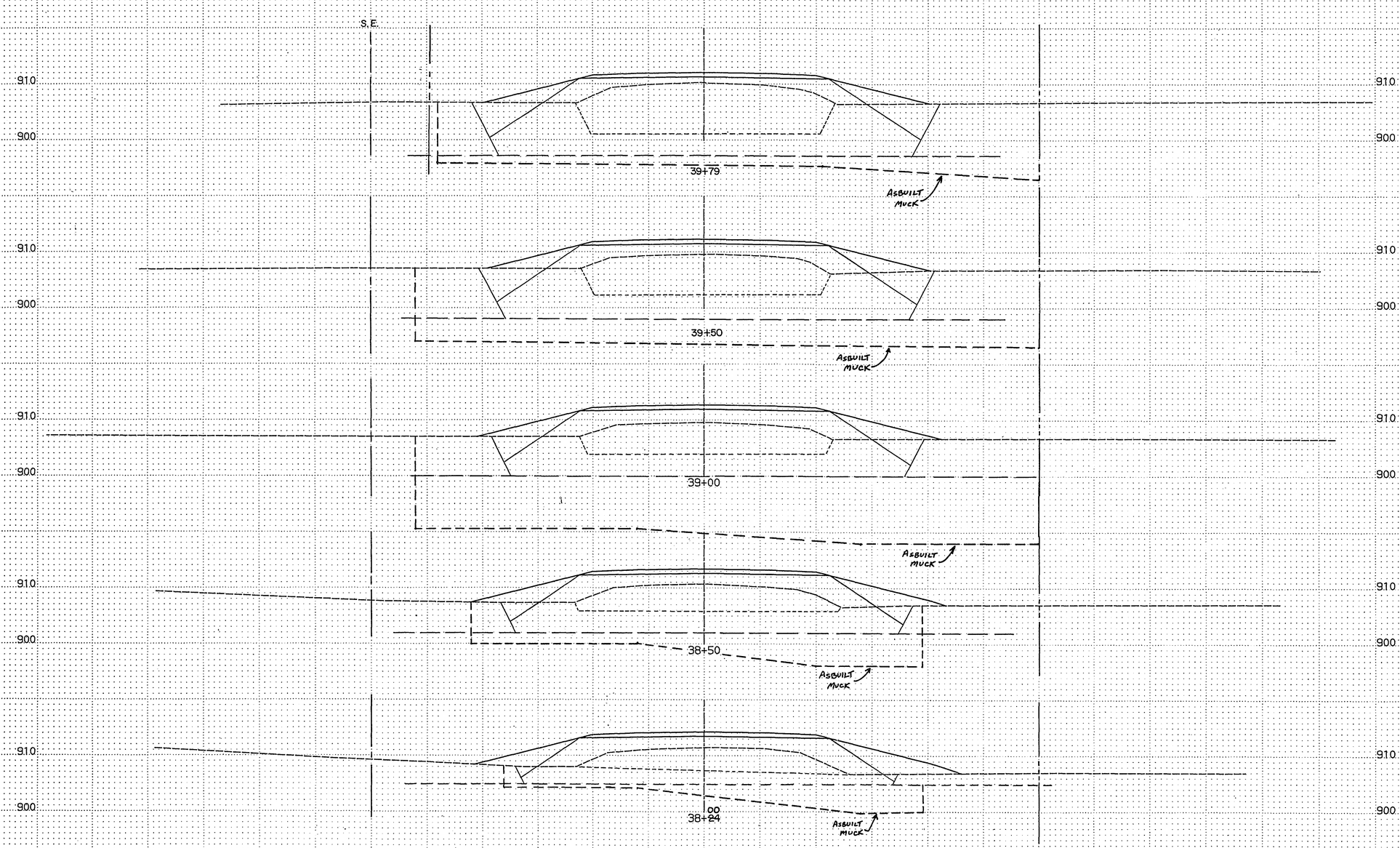

EXCAVATION				EMBANKMENT	
MUCK (CU. YDS.)	COM. (CU. YDS.)		SUB.	GRAN. (CU. YDS.)	COM. (CU. YDS.)
546	1) 349 2) 0		0	945	139
817	1) 467 2) 0		0	1477	217
655	1) 371 2) 0		0	1269	200
239	1) 158 2) 0		0	534	88
445	1) 456 2) 0		0	1355	255

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

28-136

CENTERVILLE ROAD
STA. 38+24 TO STA. 39+79

S.A.P. No. 62-659-09

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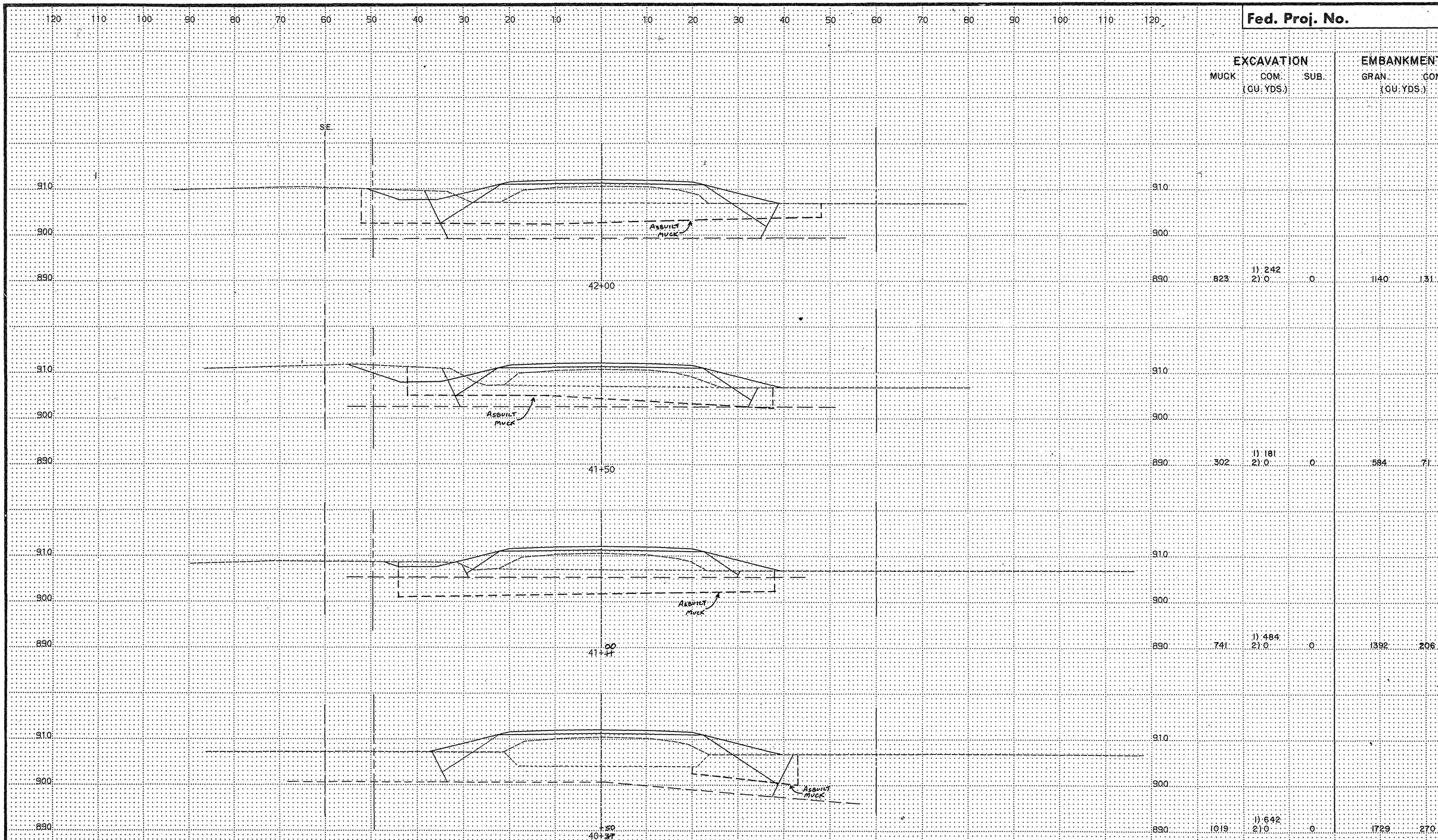

EXCAVATION				EMBANKMENT	
MUCK (CU. YDS.)	COM.	SUB.		GRAN. (CU. YDS.)	COM.
823	1) 242 2) 0	0		1140	131
302	1) 181 2) 0	0		584	71
741	1) 484 2) 0	0		1392	206
1019	1) 642 2) 0	0		1729	270

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 40+37 TO STA. 42+00

28-136

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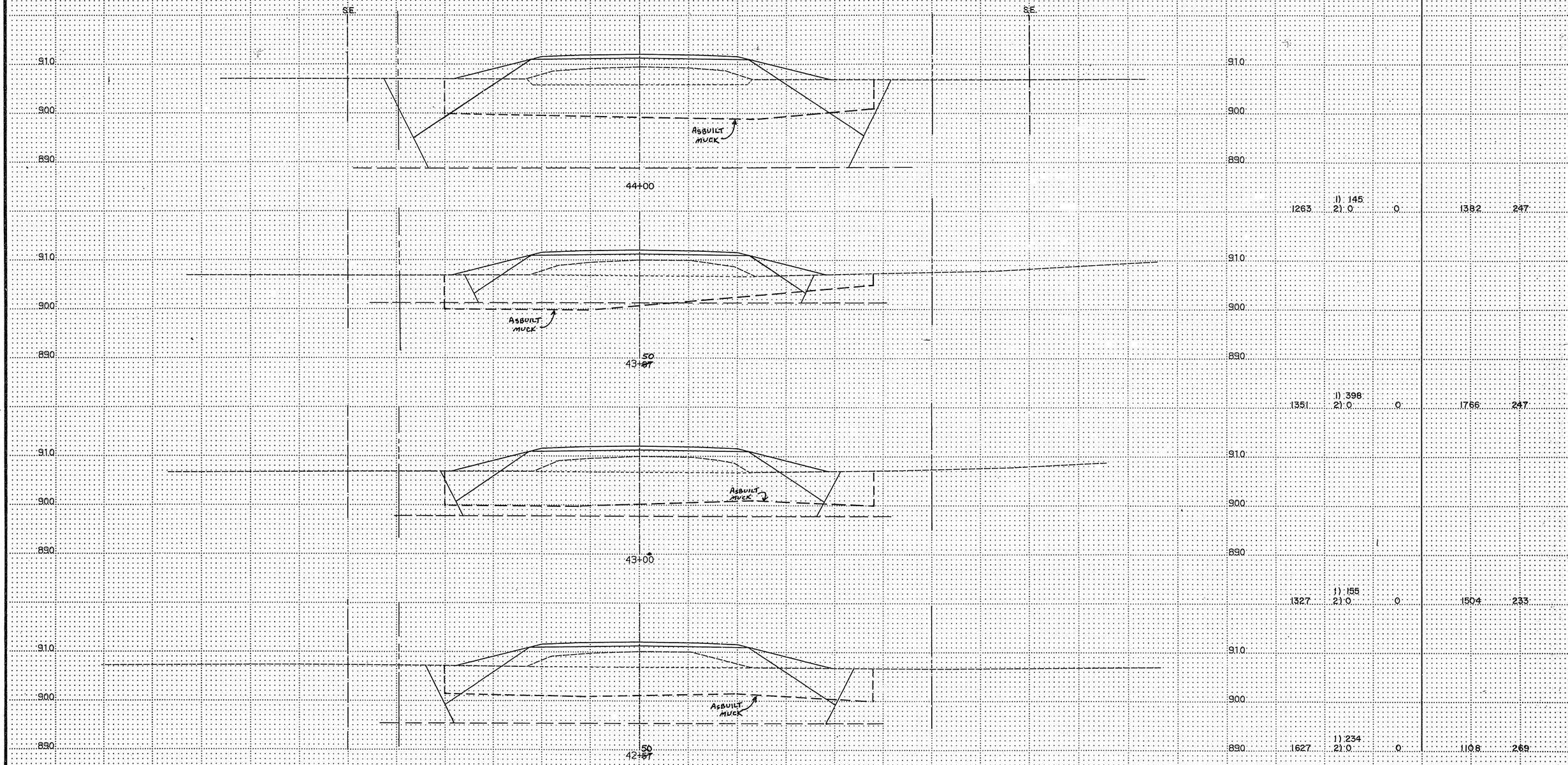

EXCAVATION			EMBANKMENT	
MUCK (CU. YDS.)	COM. (CU. YDS.)	SUB.	GRAN. (CU. YDS.)	COM. (CU. YDS.)
1263	1) 145 2) 0	0	1382	247
1351	1) 398 2) 0	0	1766	247
1327	1) 155 2) 0	0	1504	233
1627	1) 234 2) 0	0	1108	269

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 42+57 TO STA. 44+00

28-136

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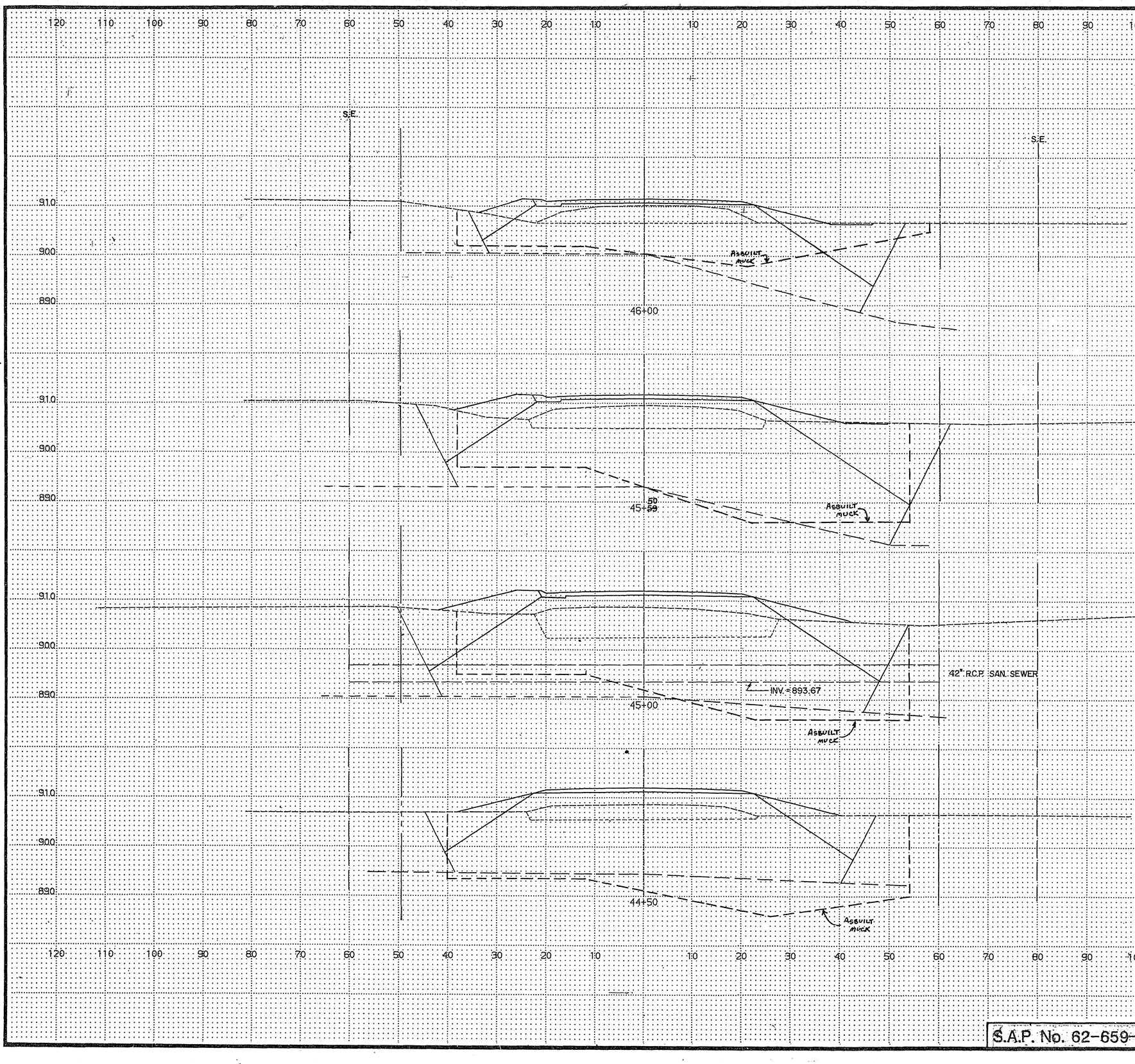

EXCAVATION MUCK (CU.YDS.)	EXCAVATION COM.	EXCAVATION SUB.	EMBANKMENT GRAN. (CU.YDS.)	EMBANKMENT COM. (CU.YDS.)
1910	1) 228 2) 0	0	1828	518
3371	1) 489 2) 0	0	3387	909
2289	1) 356 2) 0	0	2512	526
2523	1) 233 2) 0	0	2628	480

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 44+50 TO STA. 46+00

28-136

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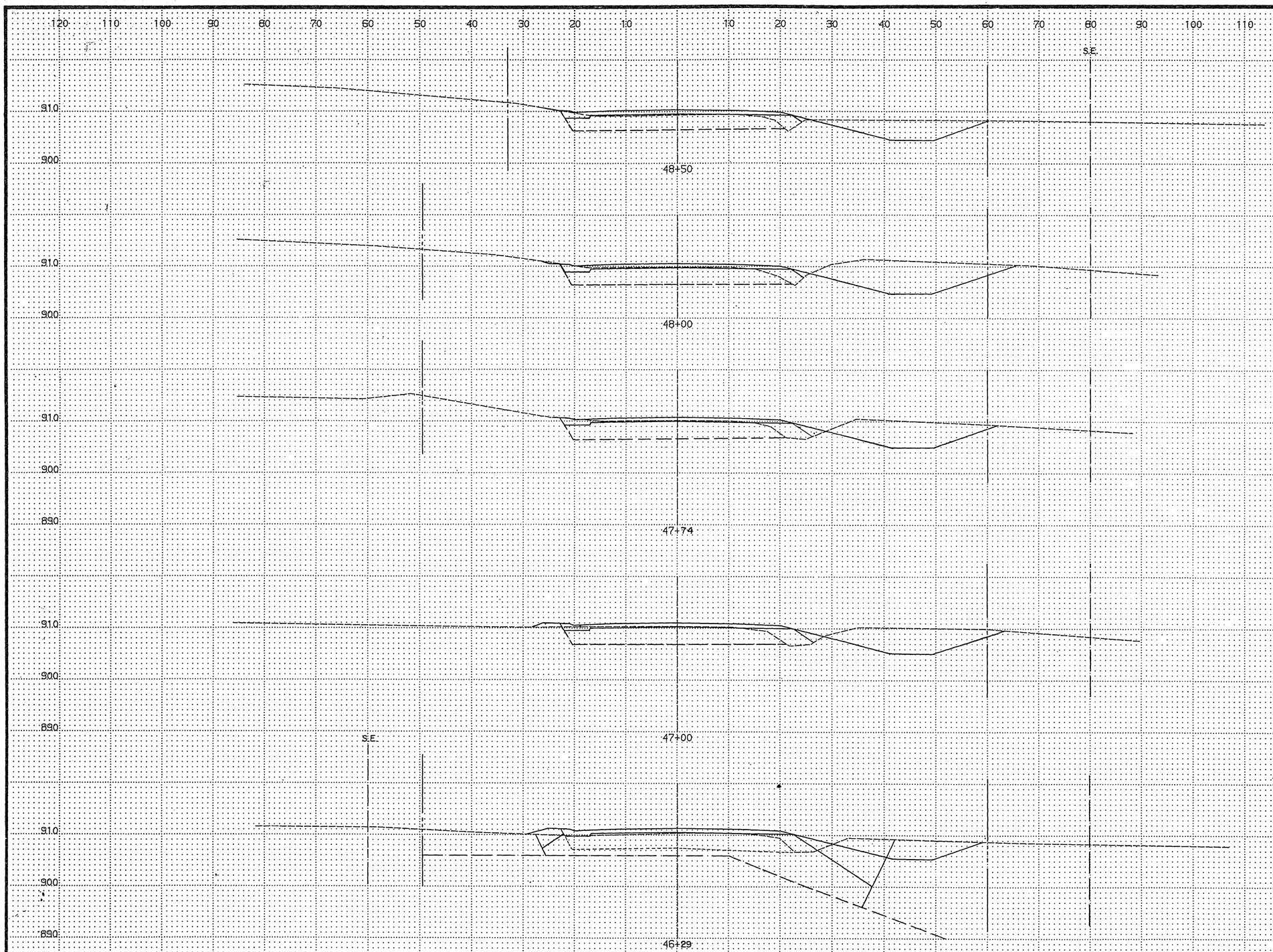

	EXCAVATION			EMBANKMENT	
	MUCK	COM. (CU. YDS.)	SUB.	GRAN.	COM (CU. YDS.)
48+50	0	1) 231 2) 0	202	246	6
48+00	0	1) 140 2) 0	109	133	7
47+74	0	1) 347 2) 0	313	397	38
47+00	318	① 1) 607 2) 0	① 108	① 752	① 141
46+29	594	1) 169 2) 0	0	645	160

① CONTAINS QUANTITY FROM DEER HILLS DRIVE

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 46+29 TO STA. 48+50

28-136

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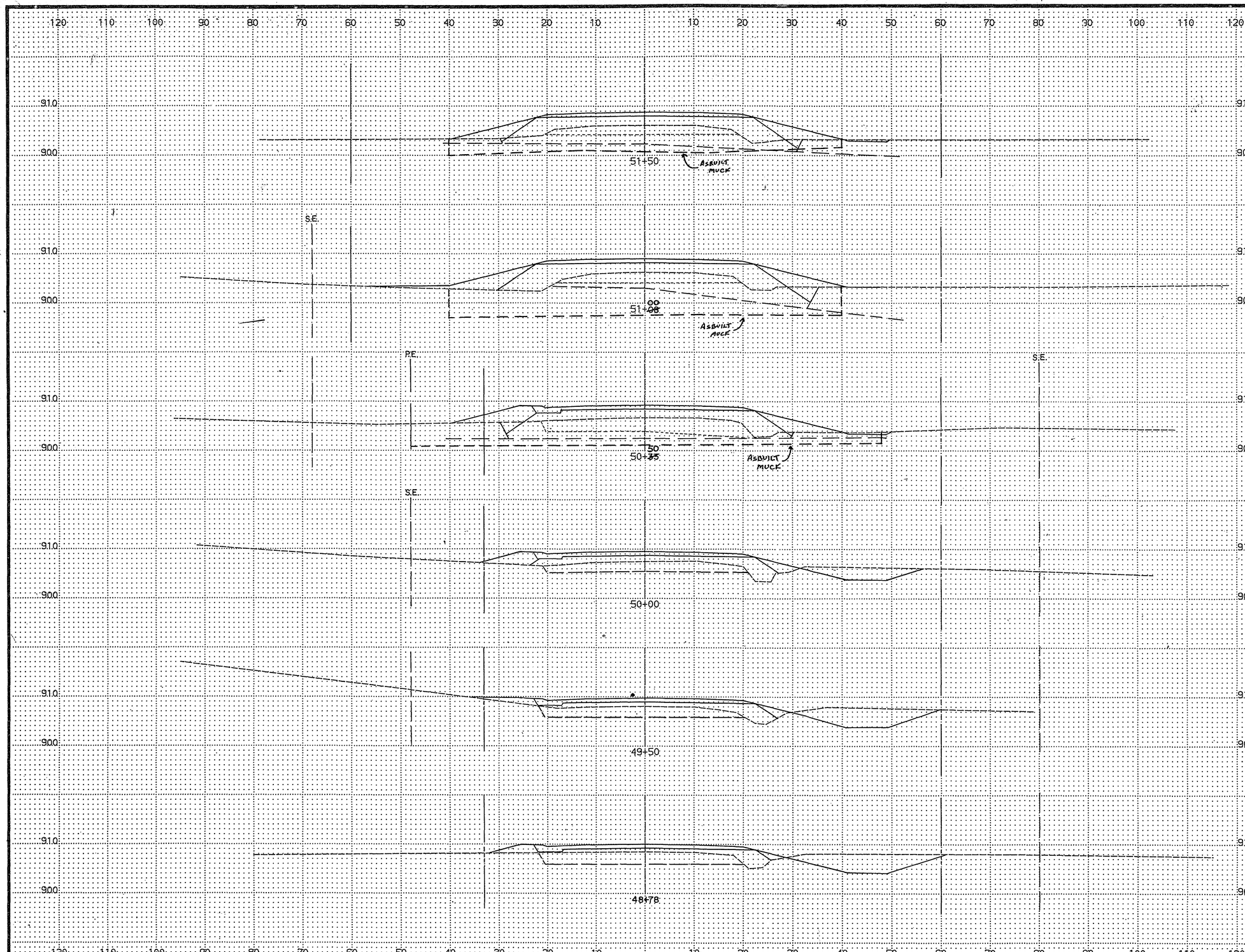

	EXCAVATION			EMBANKMENT	
	MUCK	COM. (CU. YDS.)	SUB.	GRAN.	COM. (CU. YDS.)
51+50	187	1) 85 2) 210	0	501	104
51+00	263	1) 231 2) 0	0	879	192
50+35	45	1) 141 2) 0	0	282	56
50+00	0	1) 119 2) 0	127	278	44
49+50	0	1) 225 2) 0	203	389	49
48+78	0	1) 89 2) 0	100	145	12

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 48+78 TO STA. 51+50

28-136

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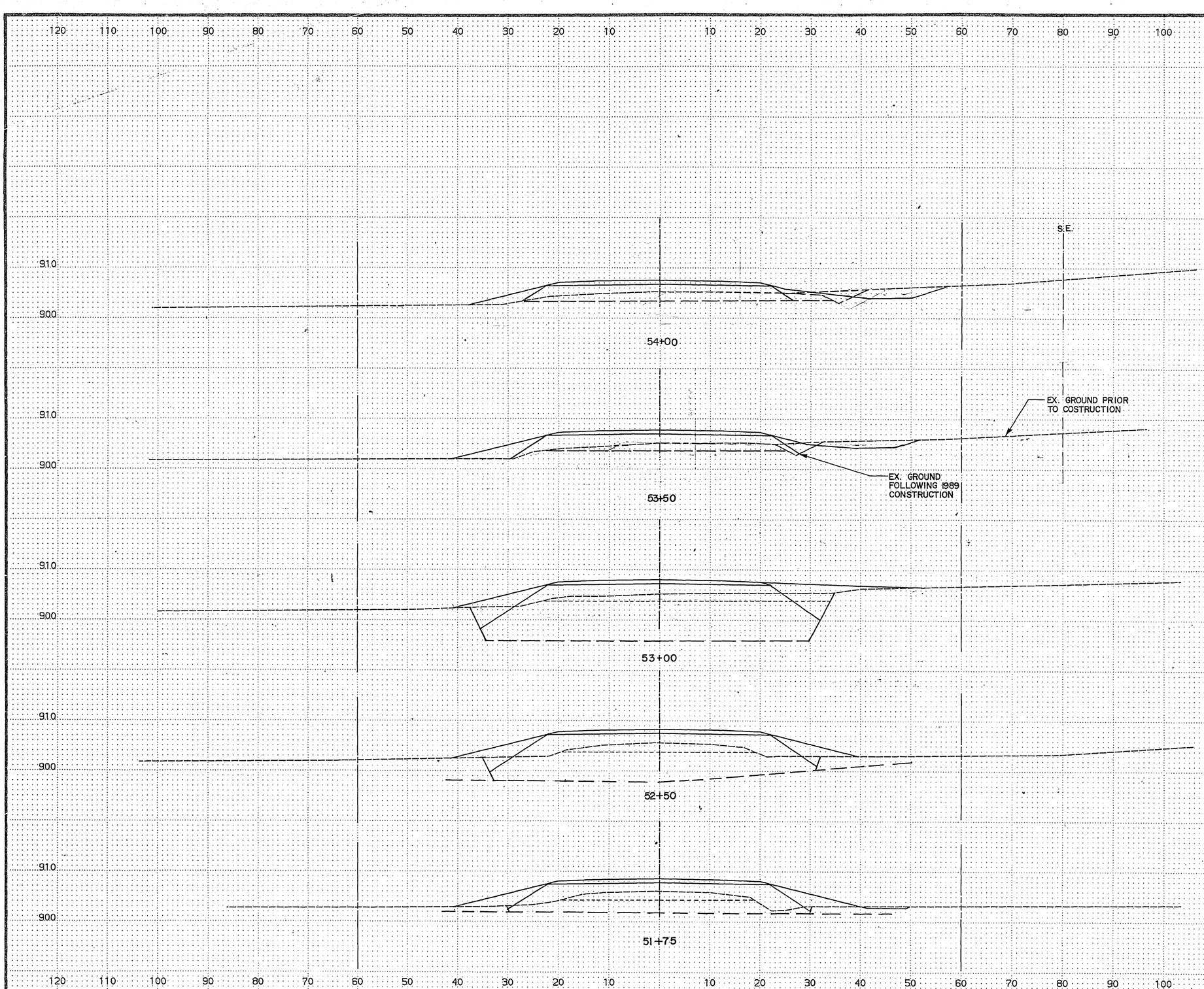

	EXCAVATION			EMBANKMENT	
	MUCK (CU. YDS.)	COM.	SUB.	GRAN. (CU. YDS.)	COM.
54+00		1) 52			
	0	2) 106	0	293	65
53+50		1) 29			
	0	2) 584	0	756	132
53+00		1) 53			
	301	2) 531	0	1076	161
52+50		1) 124			
	700	2) 0	0	1138	161
51+75		1) 46			
	140	2) 0	0	289	50

1) COMMON MATERIAL
2) GRANULAR (SURCHARGE) MATERIAL

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 51+75 TO STA. 54+00

28-136

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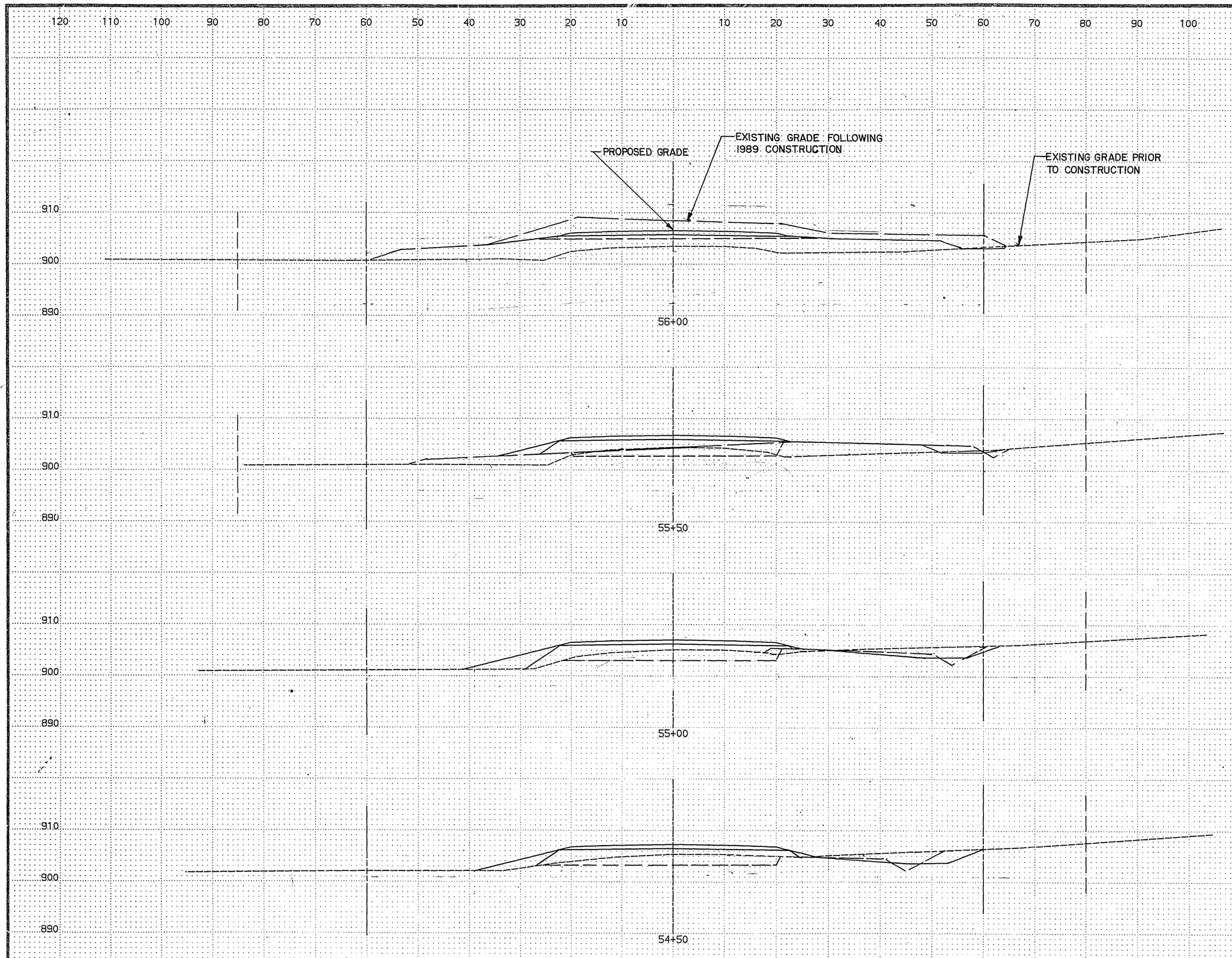

	EXCAVATION			EMBANKMENT	
	MUCK	COM.	SUB.	GRAN.	COM.
	(CU. YDS.)			(CU. YDS.)	
56+00	0	1) 22 2) 247	0	131	98
55+50	0	1) 9 2) 129	0	269	50
55+00	0	1) 18 2) 136	0	275	62
54+50	0	1) 34 2) 123	0	278	60

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R
DATE: 2-1-94

CENTERVILLE ROAD
STA. 54+50 TO STA. 56+00

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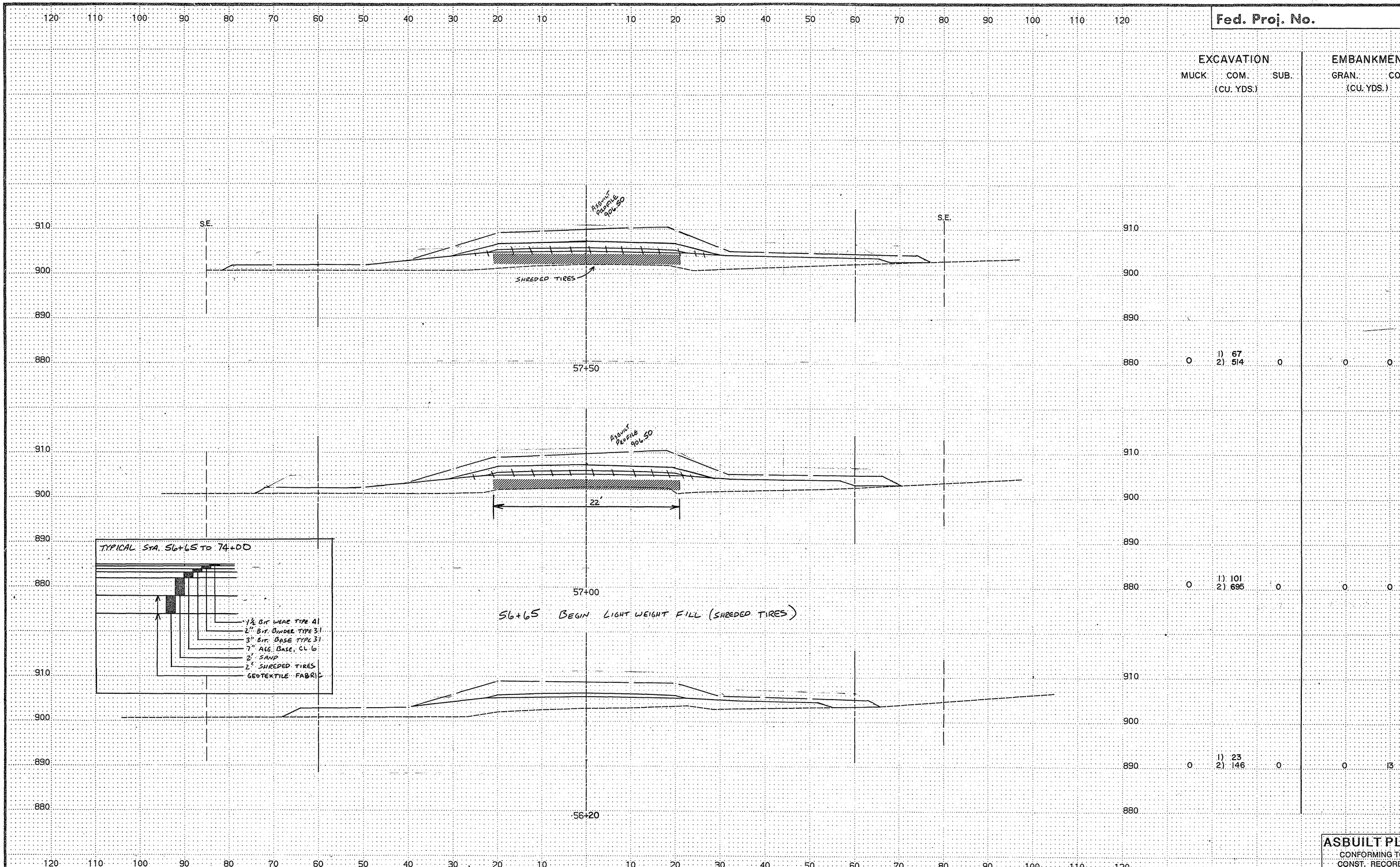

EXCAVATION			EMBANKMENT	
MUCK (CU. YDS.)	COM.	SUB.	GRAN. (CU. YDS.)	COM.
	1) 67			
0	2) 514	0	0	0
	1) 101			
0	2) 695	0	0	0
	1) 23			
0	2) 146	0	0	13

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 56+20 TO STA. 57+50

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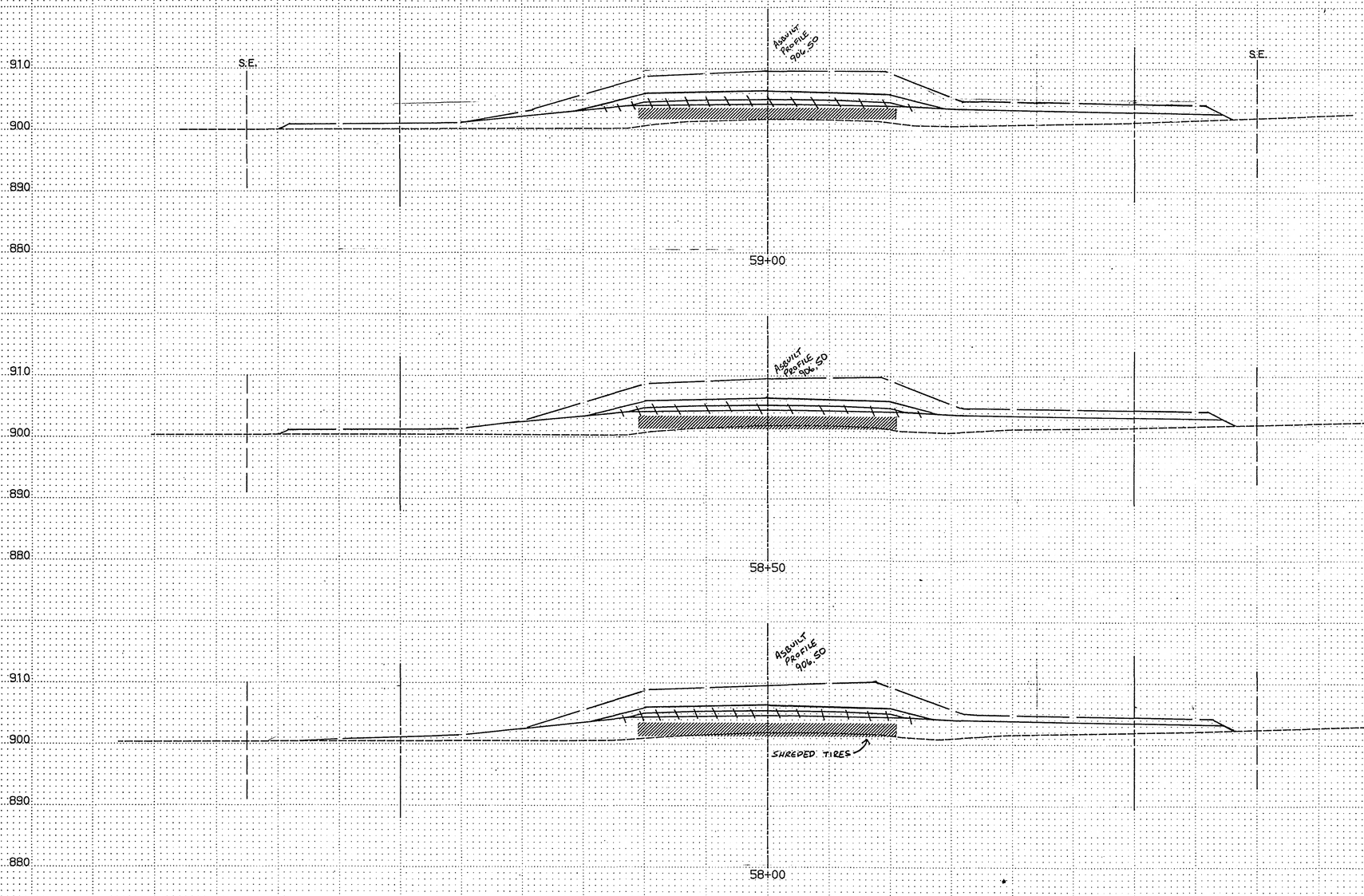

	EXCAVATION			EMBANKMENT	
	MUCK	COM. (CU. YDS.)	SUB.	GRAN. (CU. YDS.)	COM
59+00	0	1) 72 2) 565	0	0	0
58+50	0	1) 58 2) 540	0	0	0
58+00	0	1) 57 2) 524	0	0	0

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 58+00 TO STA. 59+00

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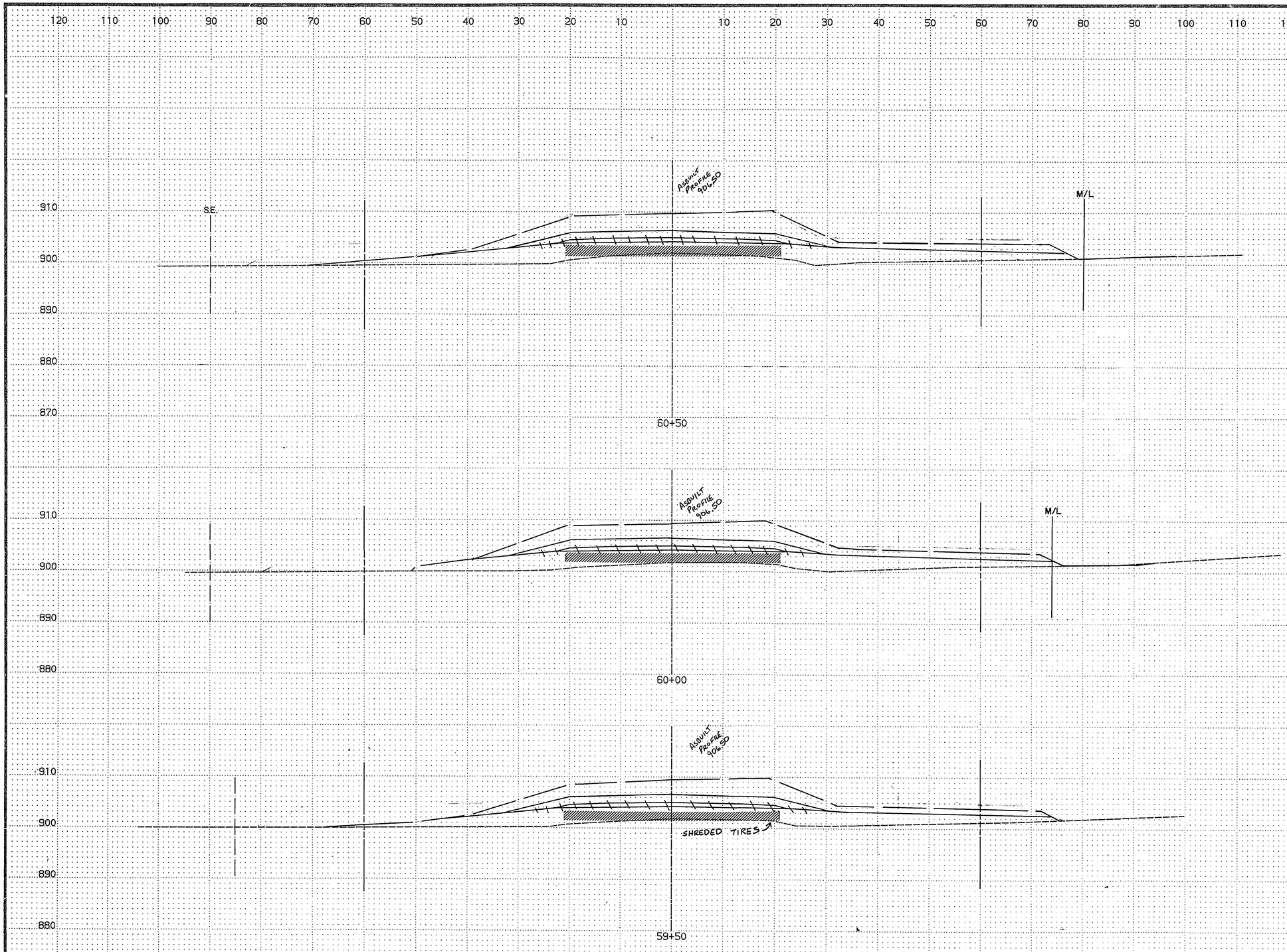

EXCAVATION			EMBANKMENT	
MUCK (CU. YDS.)	COM.	SUB.	GRAN. (CU. YDS.)	COM.
	1) 79 2) 589	0	0	0
0	1) 68 2) 560	0	0	0
0	1) 72 2) 568	0	0	0

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 59+50 TO STA. 60+50

28-136

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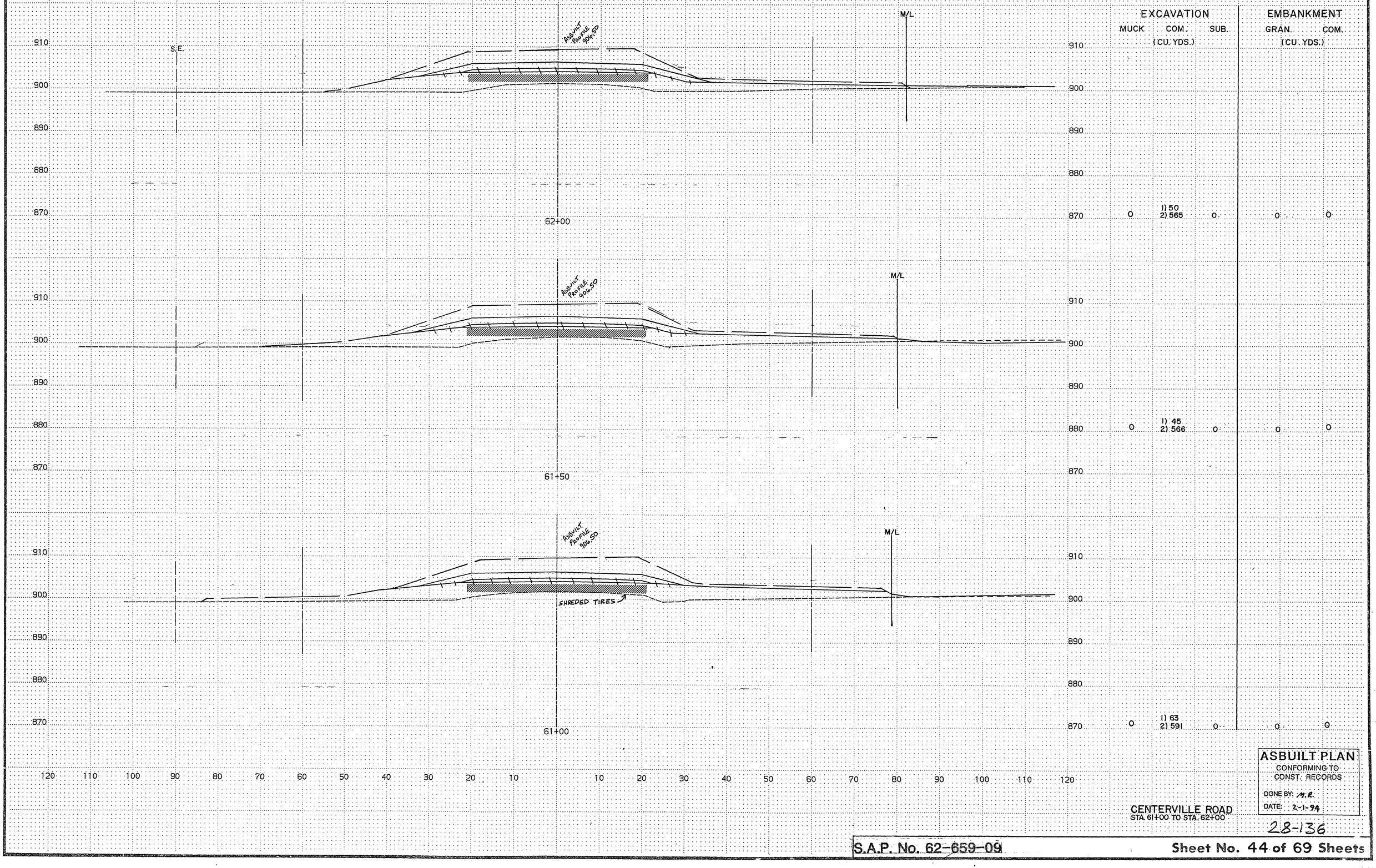

EXCAVATION			EMBANKMENT	
MUCK	COM.	SUB.	GRAN.	COM.
(CU. YDS.)			(CU. YDS.)	
0	1) 50 2) 565	0	0	0
0	1) 45 2) 566	0	0	0
0	1) 63 2) 591	0	0	0

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 61+00 TO STA. 62+00

28-136

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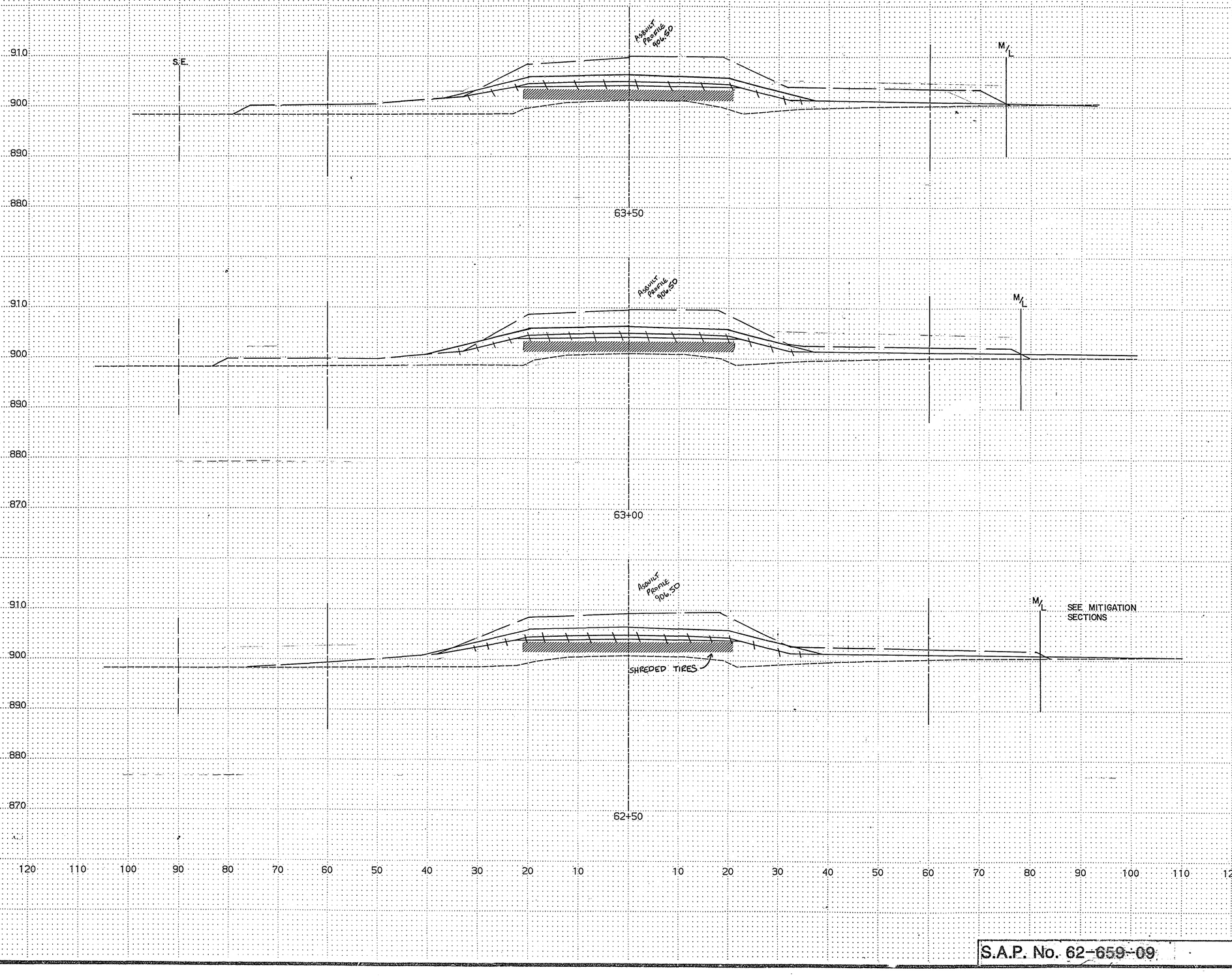

	EXCAVATION			EMBANKMENT	
	MUCK (CU. YDS.)	COM.	SUB.	GRAN (CU. YDS.)	COM.
63+50	0	1) 123 2) 540	0	0	0
63+00	0	1) 87 2) 522	0	0	0
62+50	0	1) 71 2) 549	0	0	0

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 62+50 TO STA. 63+50

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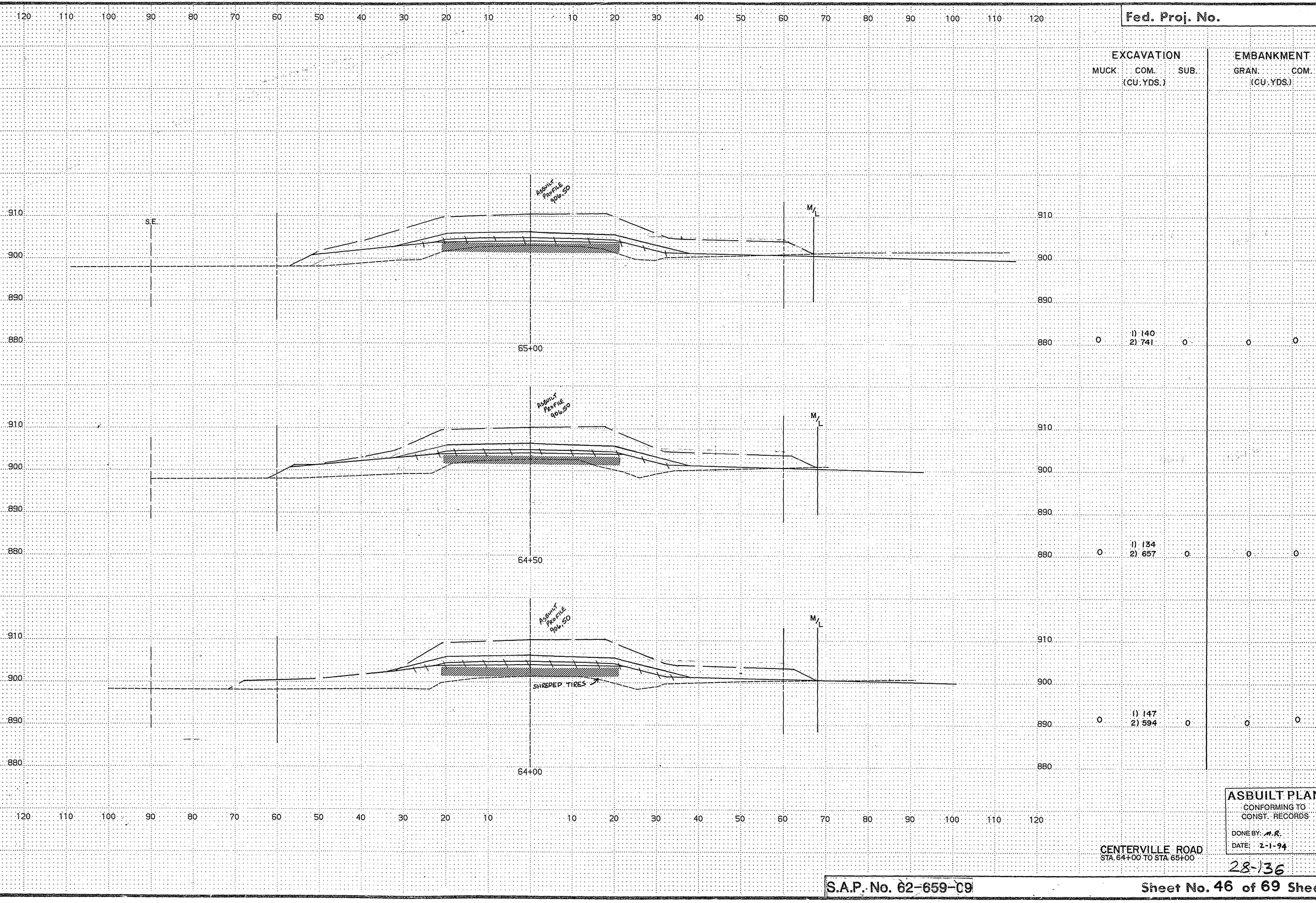

	EXCAVATION			EMBANKMENT	
	MUCK	COM.	SUB.	GRAN.	COM.
	(CU. YDS.)			(CU. YDS.)	
65+00	0	1) 140 2) 741	0	0	0
64+50	0	1) 134 2) 657	0	0	0
64+00	0	1) 147 2) 594	0	0	0

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 64+00 TO STA. 65+00

28-136

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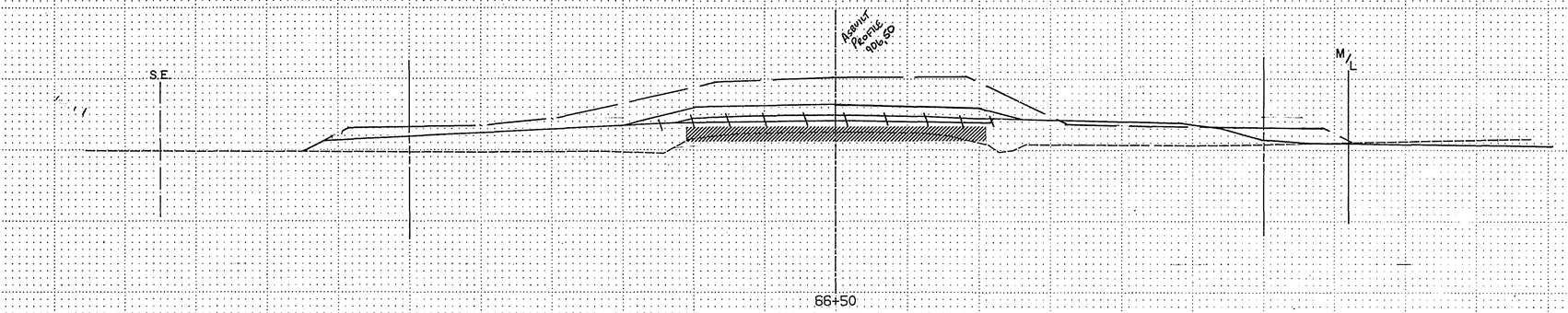
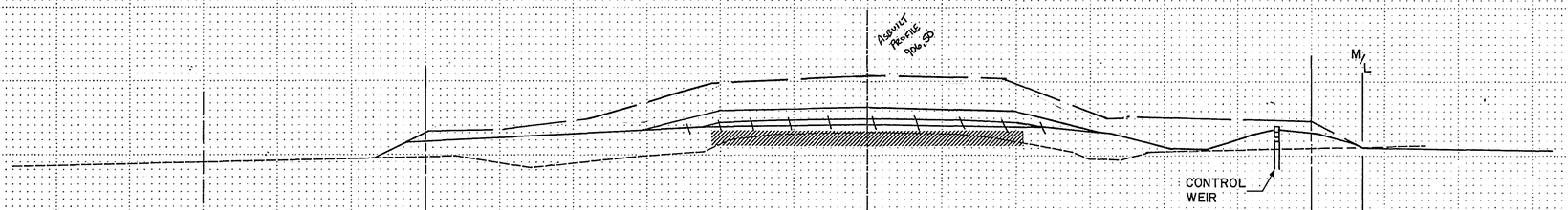
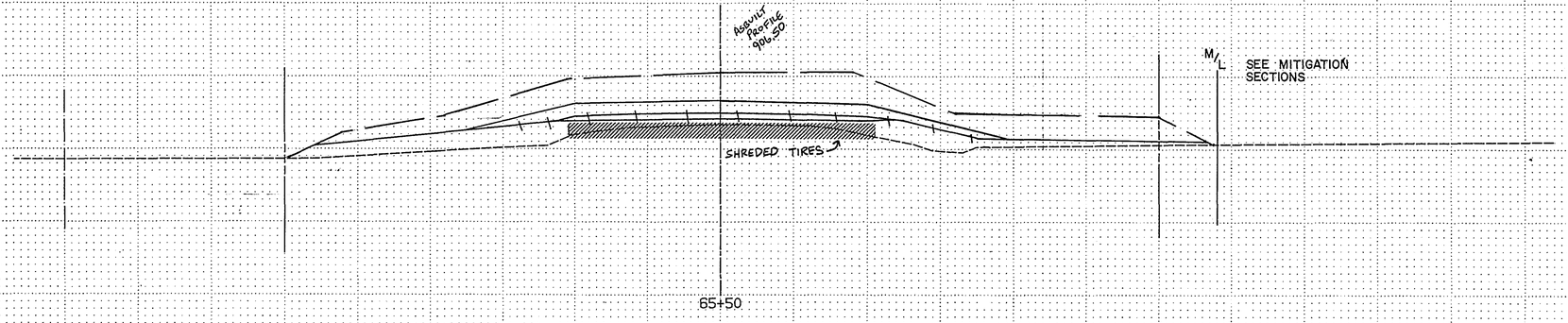
120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120



66+50



66+00



65+50

EXCAVATION			EMBANKMENT	
MUCK (CU. YDS.)	COM.	SUB.	GRAN. (CU. YDS.)	COM.
	1) 73 2) 744	0	0	10
	1) 135 2) 775	0	0	0
	1) 147 2) 779	0	0	0

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 65+50 TO STA. 66+50

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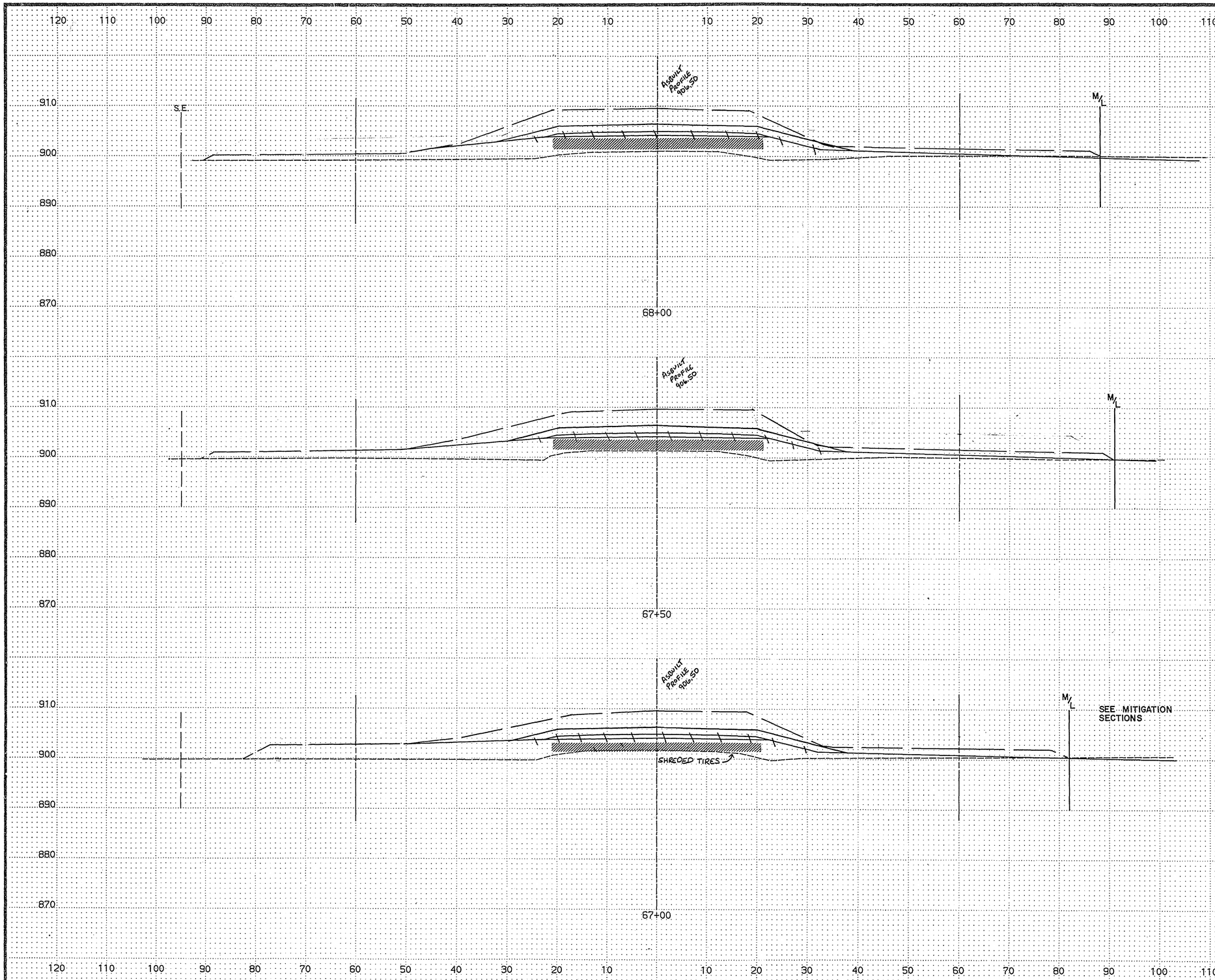

EXCAVATION			EMBANKMENT	
MUCK (CU. YDS.)	COM.	SUB.	GRAN. (CU. YDS.)	COM.
	1) 82 2) 578	0	0	0
	1) 92 2) 575	0	0	0
	1) 61 2) 636	0	0	10

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

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CENTERVILLE ROAD
STA. 67+00 TO STA. 68+00

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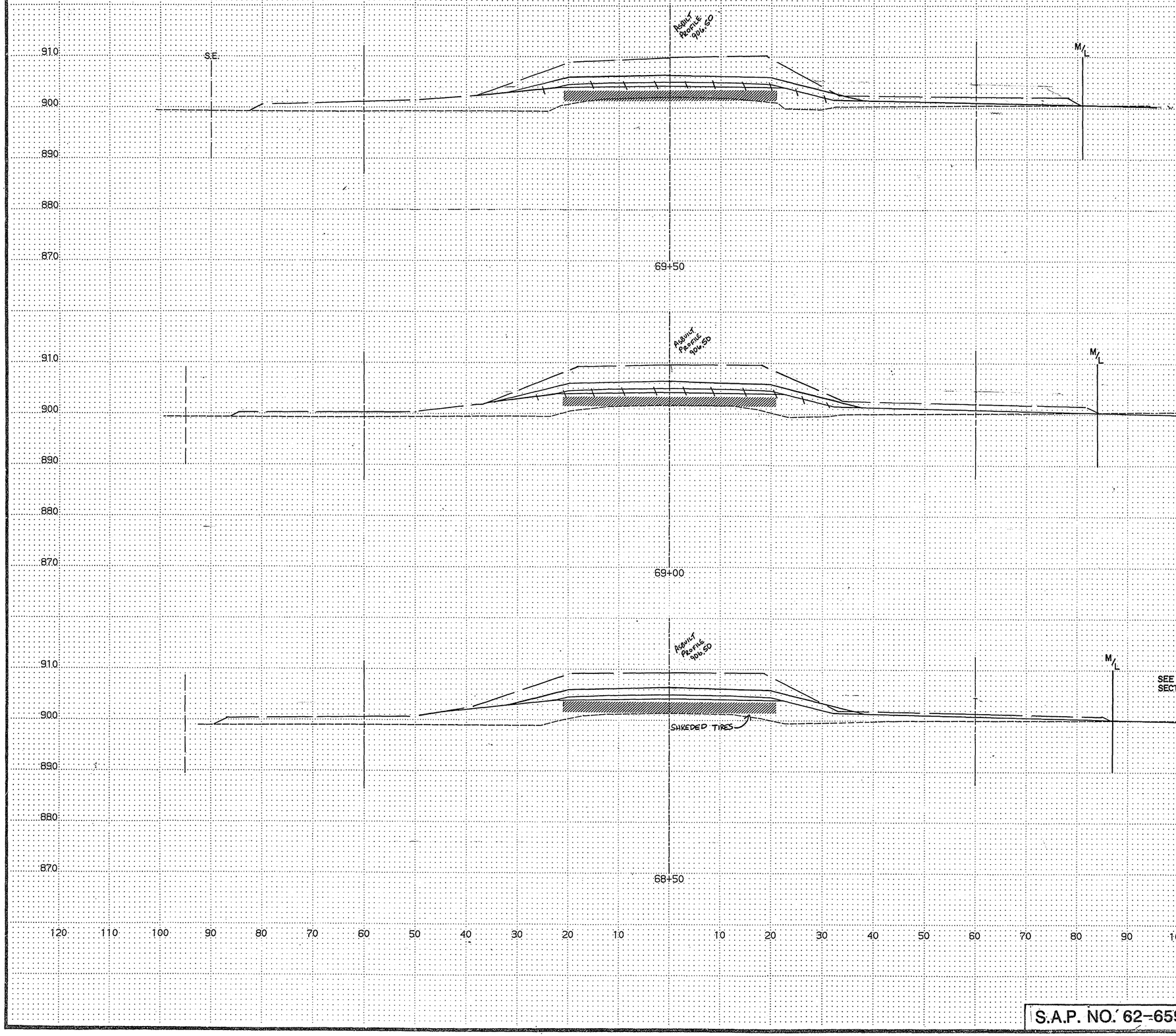

EXCAVATION			EMBANKMENT	
MUCK (CU. YDS.)	COM.	SUB.	GRAN. (CU. YDS.)	COM.
	1) 76 2) 1564	0	0	0
	1) 57 2) 556	0	0	0
	1) 53 2) 566	0	0	0

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

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CENTERVILLE ROAD
STA. 68+50 TO STA. 69+50

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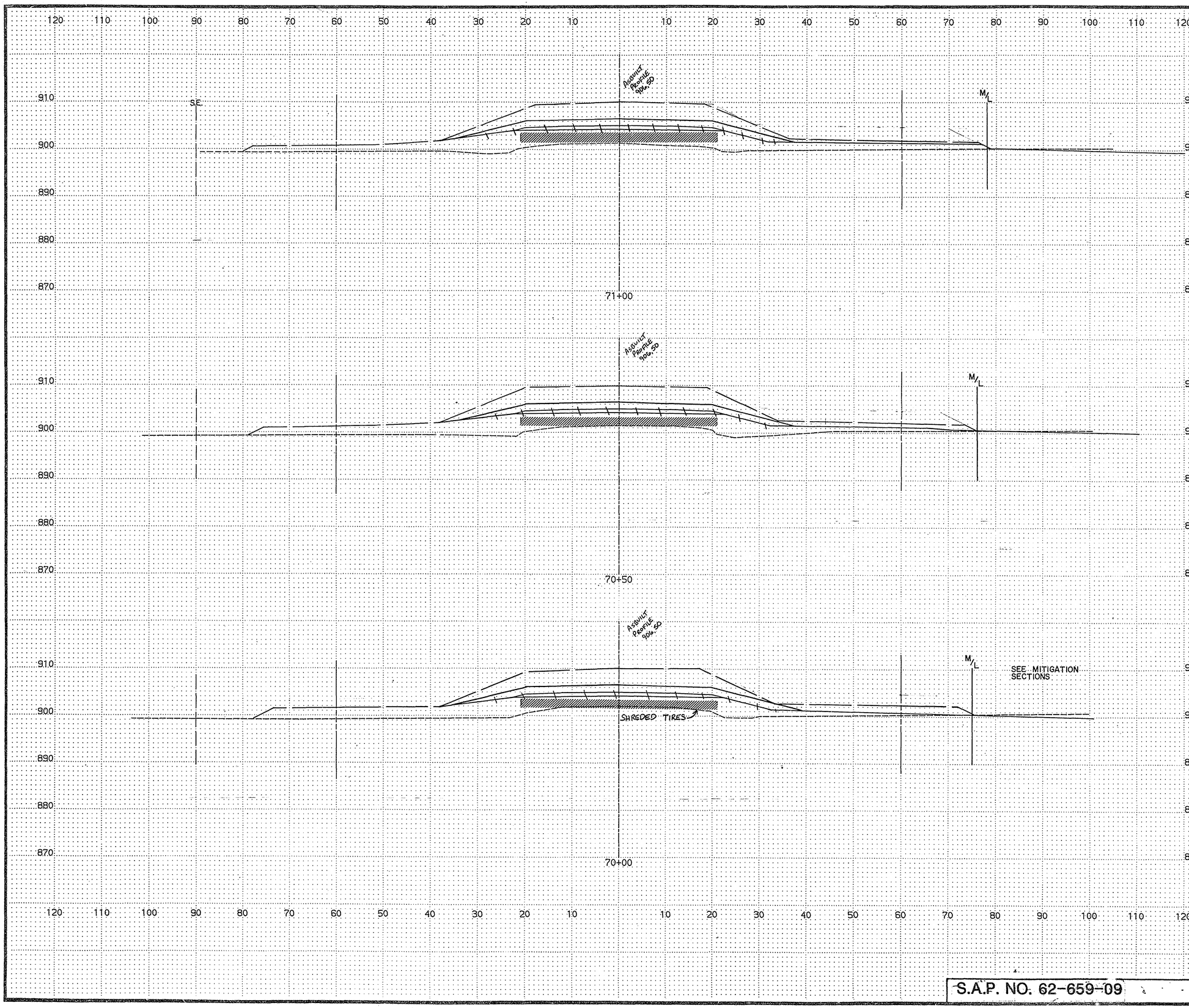

	EXCAVATION			EMBANKMENT	
	MUCK	COM.	SUB.	GRAN.	COM
		(CU. YDS.)		(CU. YDS.)	
1) 33 2) 581	0	0	0	0	0
1) 70 2) 582	0	0	0	0	0
1) 82 2) 580	0	0	0	0	0

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M. R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 70+00 TO STA. 71+00

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EXCAVATION			EMBANKMENT	
MUCK (CU. YDS.)	COM.	SUB.	GRAN. (CU. YDS.)	COM.
		1) 30		
0	2) 569	0	0	0
		1) 36		
0	2) 591	0	0	0
		1) 21		
0	2) 583	0	0	0

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 71+50 TO STA. 72+50

28-136

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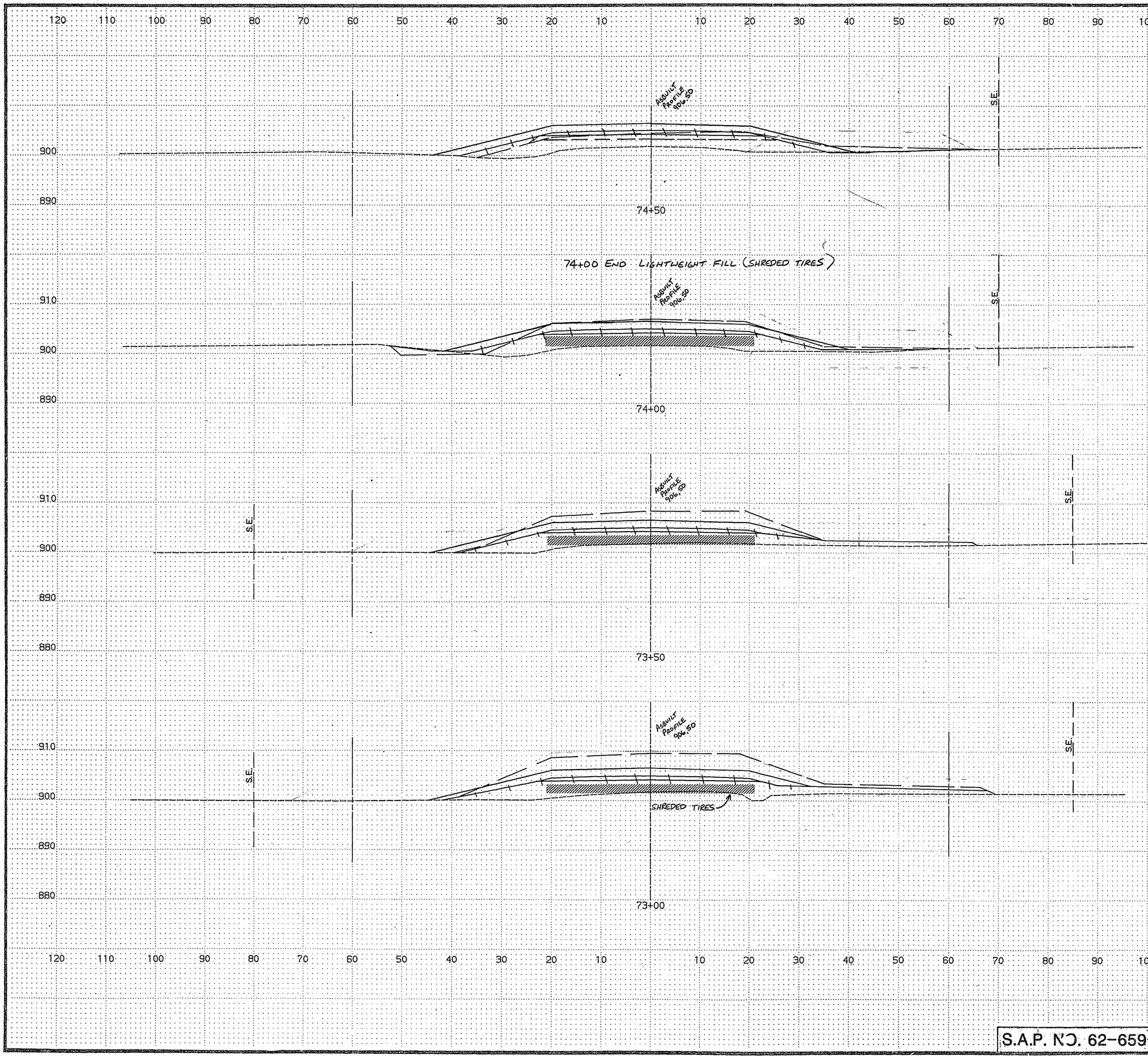

	EXCAVATION			EMBANKMENT	
	MUCK	COM.	SUB.	GRAN.	COM.
	(CU. YDS.)			(CU. YDS.)	
74+50	0	1) 24 2) 173	0	38	34
74+00	0	1) 0 2) 321	0	0	21
73+50	0	1) 3 2) 469	0	0	0
73+00	0	1) 19 2) 548	0	0	0

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 73+00 TO STA. 74+50

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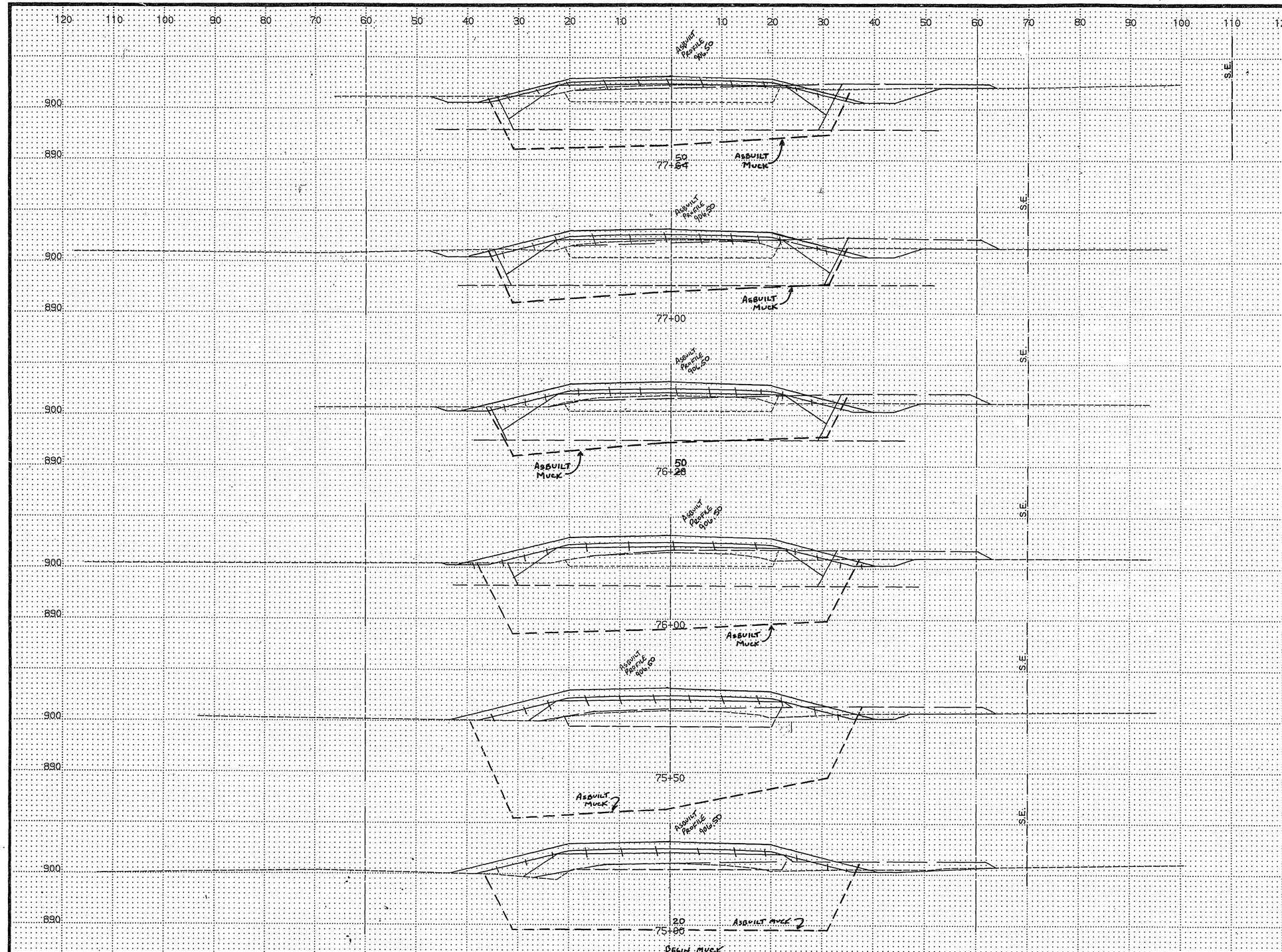

	EXCAVATION			EMBANKMENT	
	MUCK	COM.	SUB.	GRAN.	COM.
		(CU. YDS.)			(CU. YDS.)
77+64 to 77+00	945	1) 496 2) 0	0	1194	113
77+00 to 76+28	1217	1) 576 2) 0	0	1369	131
76+28 to 76+00	402	1) 206 2) 0	0	482	44
76+00 to 75+50	242	1) 349 2) 0	0	599	51
75+50 to 75+00	0	1) 216 2) 45	0	359	44
75+00 to BEGIN MUCK	0	1) 65 2) 92	0	182	40

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 75+00 TO STA. 77+64

28-136

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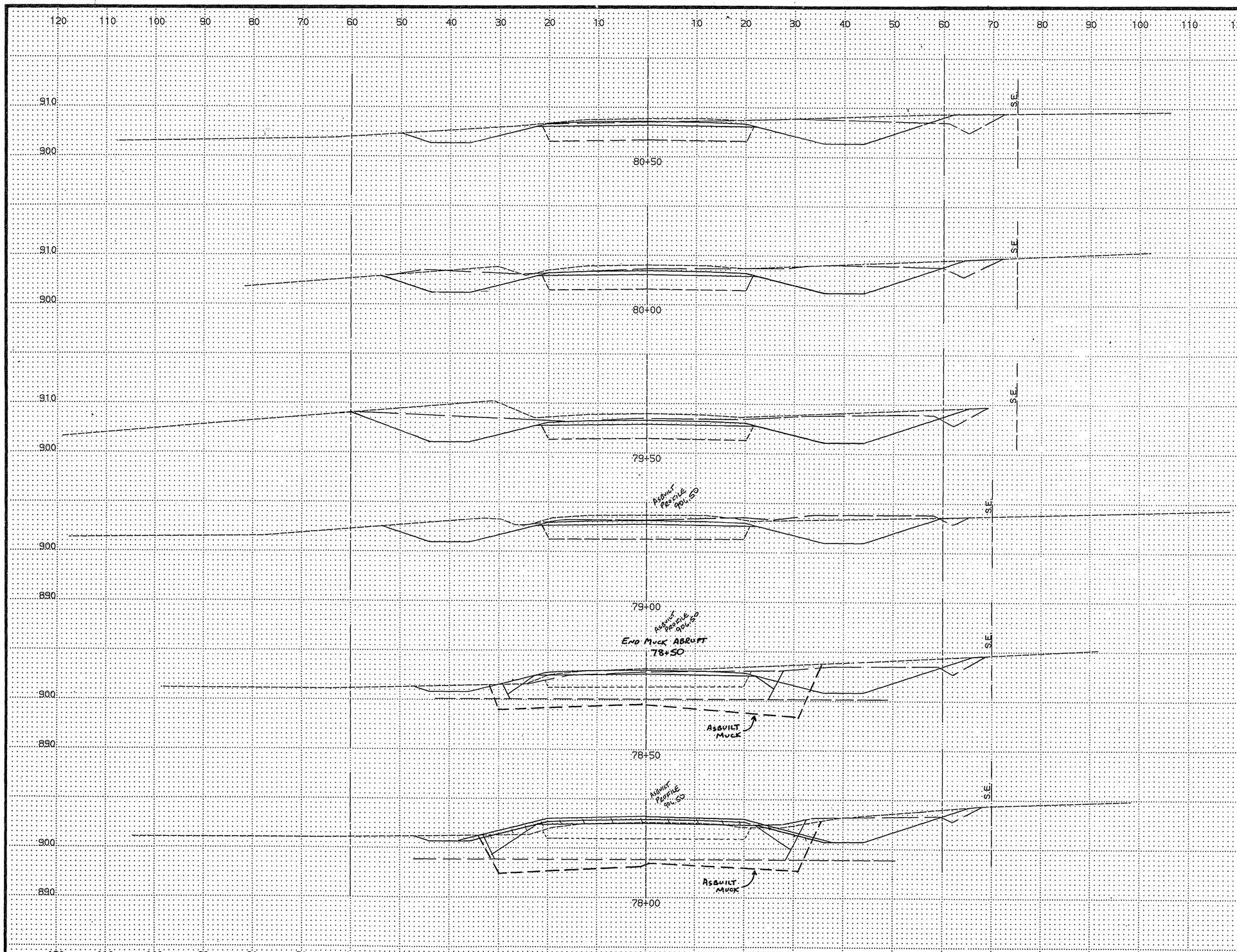

	EXCAVATION			EMBANKMENT	
	MUCK	COM. (CU. YDS.)	SUB.	GRAN.	COM. (CU. YDS.)
80+50	0	1) 430 2) 0	231	231	45
80+00	0	1) 557 2) 0	224	224	33
79+50	0	1) 734 2) 0	213	213	21
79+00	144	1) 416 2) 0	62	338	40
78+50	422	1) 451 2) 0	0	598	77
78+00	466	1) 287 2) 0	0	592	61

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 78+00 TO STA. 80+50

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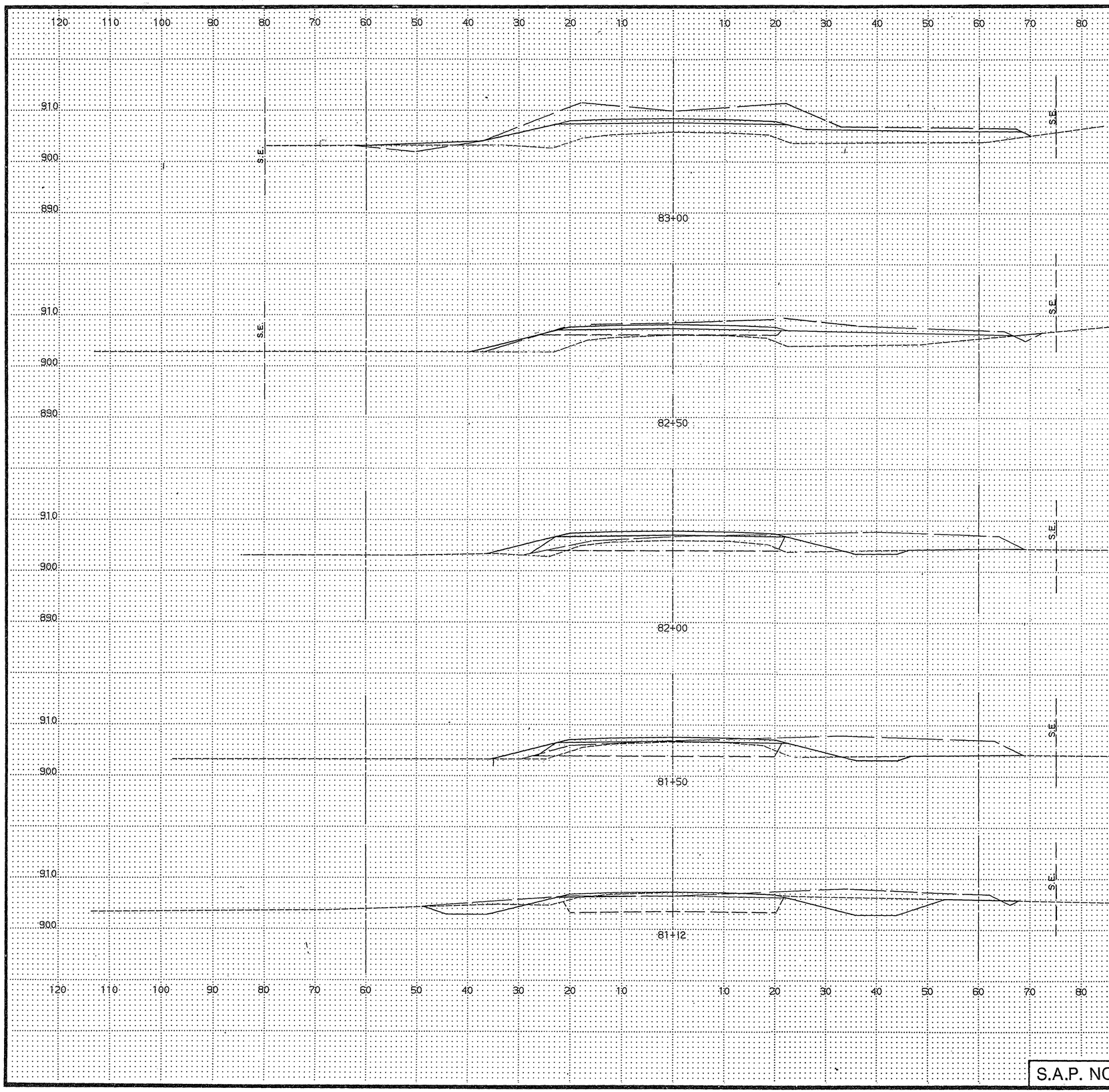

EXCAVATION			EMBANKMENT	
MUCK	COM. (CU. YDS.)	SUB.	GRAN.	COM. (CU. YDS.)
	1) 56			
0	2) 281	0	46	31
	1) 154			
0	2) 202	0	176	26
	1) 242			
0	2) 219	0	244	26
	1) 204			
0	2) 109	0	180	11
	1) 392			
0	2) 60	232	296	38

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 81+12 TO STA. 83+00

28-136

S.A.P. NO. 62-659-09

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	EXCAVATION			EMBANKMENT	
	MUCK	COM. (CU. YDS.)	SUB.	GRAN.	COM. (CU. YDS.)
1) 5 2) 529	0	0		0	0
1) 24 2) 507	0	0		0	0
1) 22 2) 406	0	0		0	19

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 83+50 TO STA. 84+50

28-136

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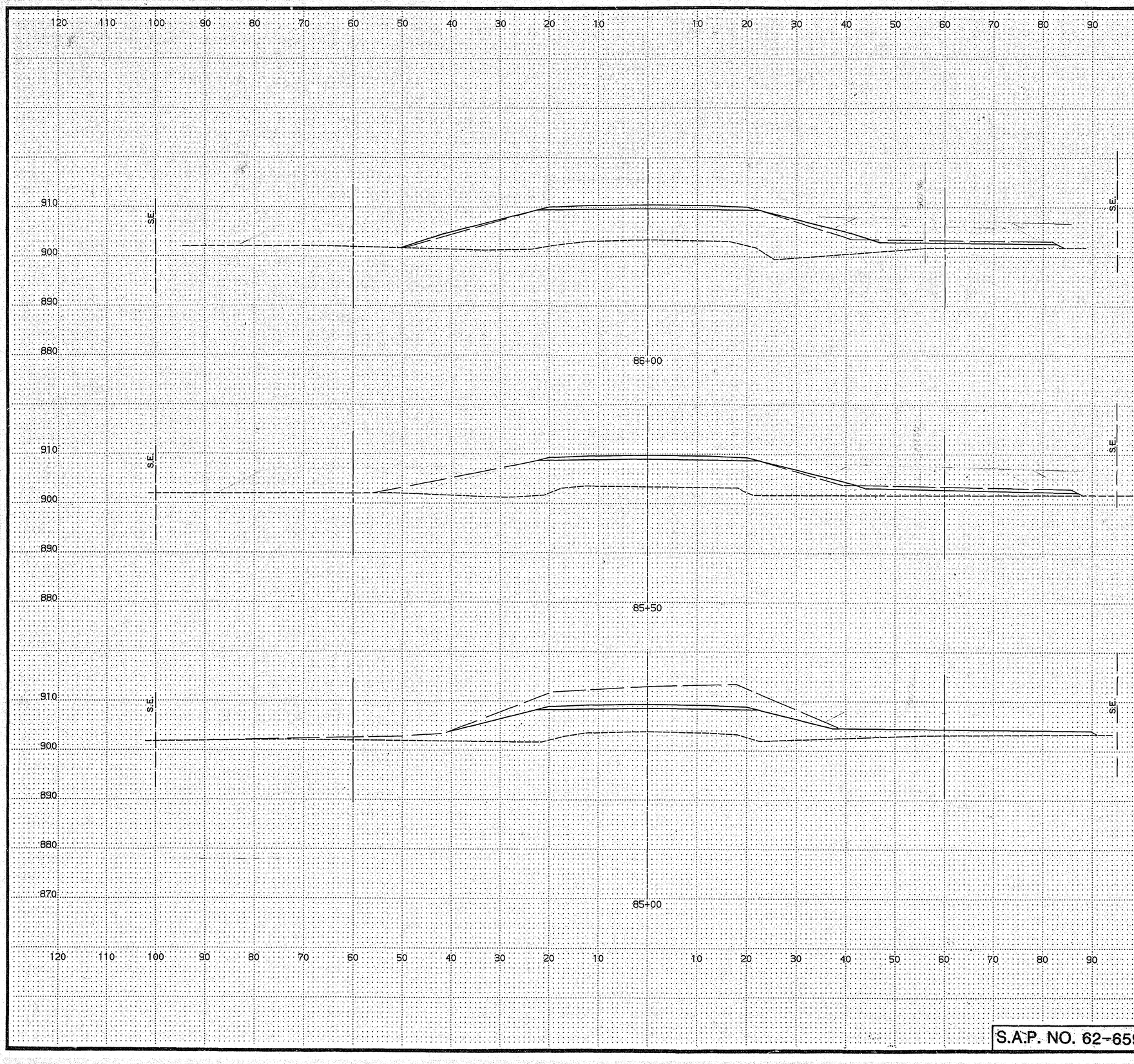

EXCAVATION			EMBANKMENT	
MUCK (CU. YDS.)	COM.	SUB.	GRAN. (CU. YDS.)	COM.
	1) 25			
0	2) 0	0	0	32
	1) 29			
0	2) 232	0	0	10
	1) 0			
0	2) 478	0	0	0

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: M. R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 85+00 TO STA. 86+00

28-136

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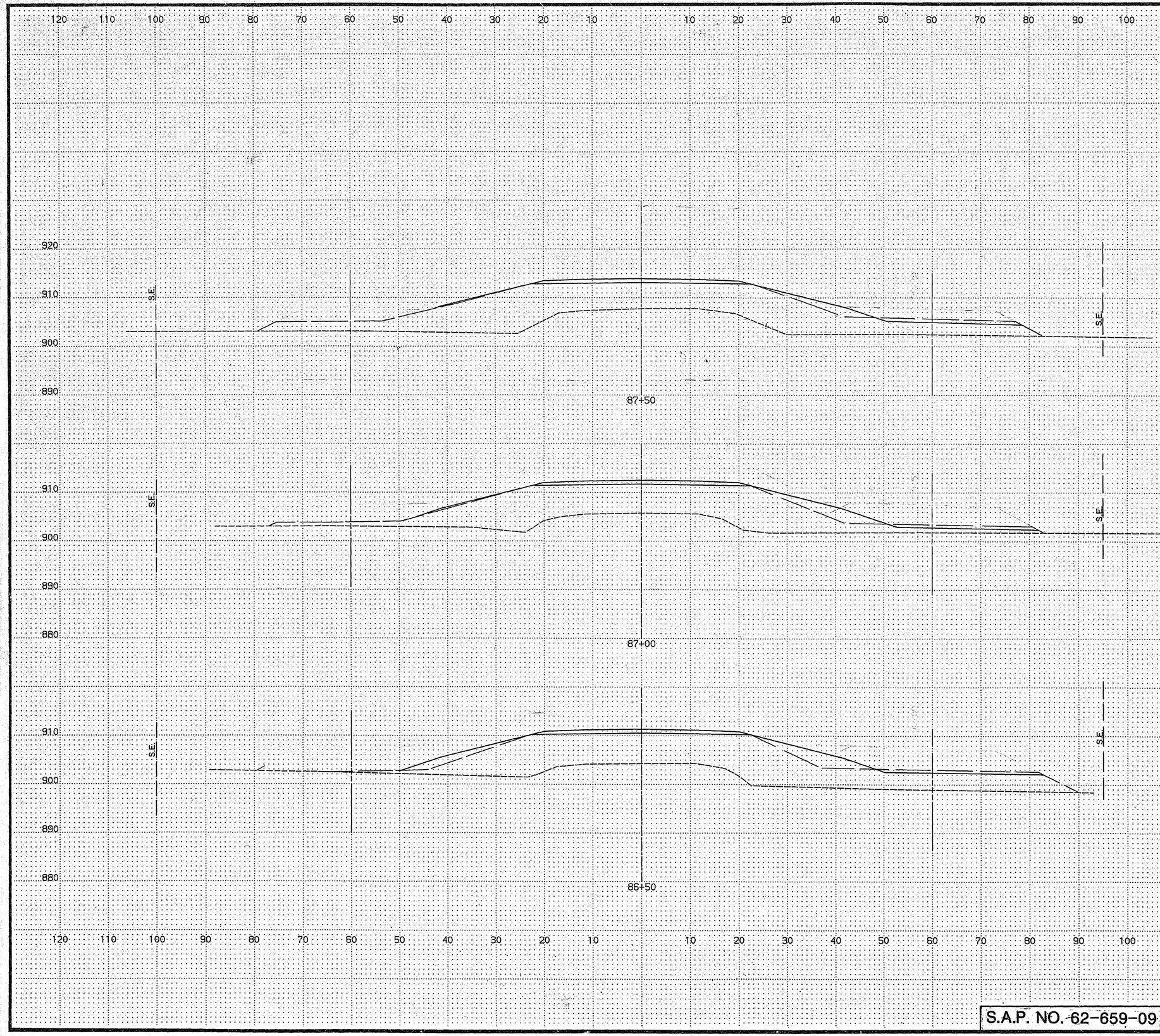

	EXCAVATION			EMBANKMENT	
	MUCK	COM.	SUB.	GRAN.	COM.
	(CU. YDS.)			(CU. YDS.)	
1) 22					
2) 0	0	0		0	66
1) 18					
2) 0	0	0		0	103
1) 15					
2) 0	0	0		0	83

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 86+50 TO STA. 87+50

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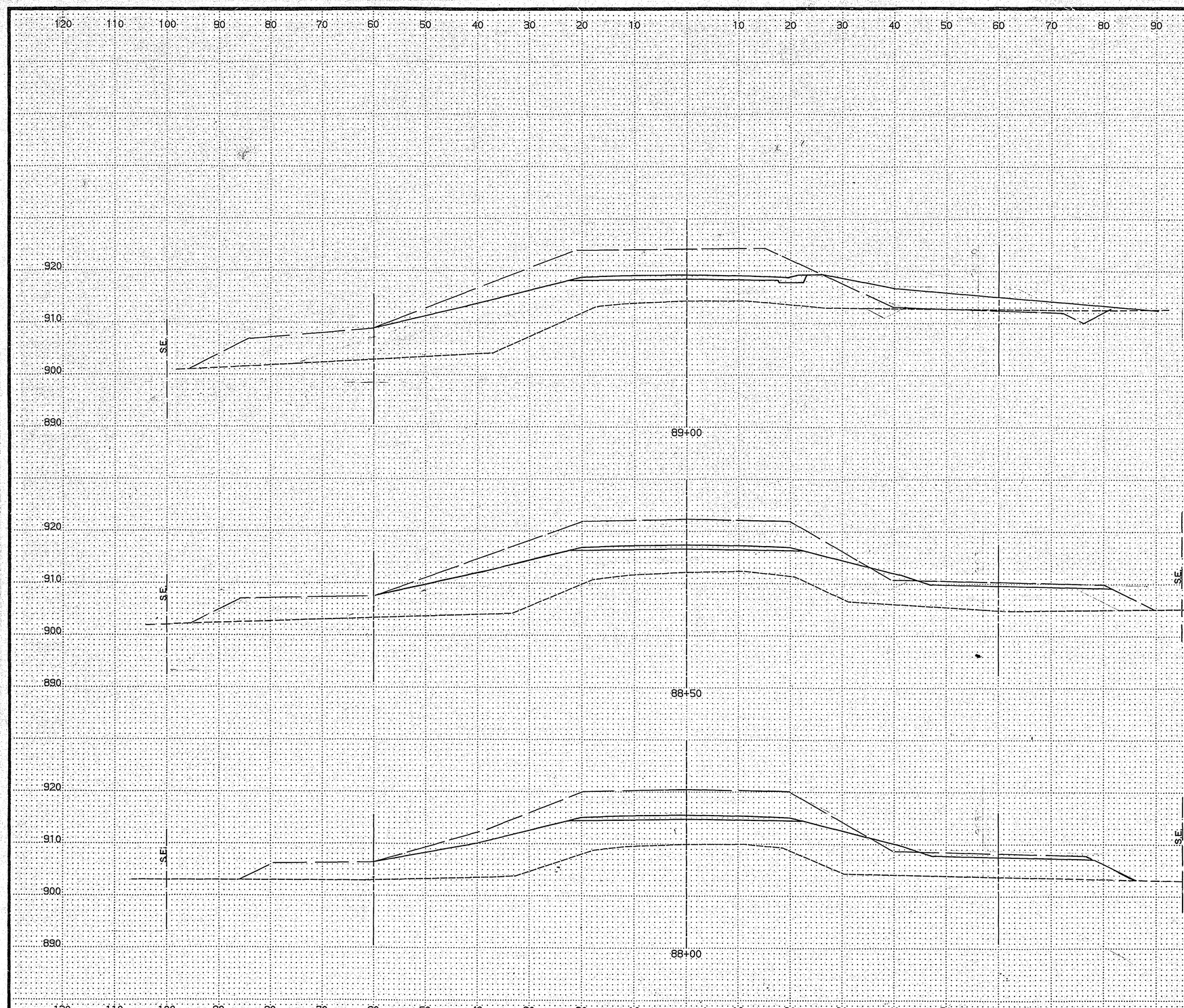

EXCAVATION			EMBANKMENT
MUCK	COM. (CU. YDS.)	SUB.	GRAN. COM. (CU. YDS.)
0	1) 24 2) 687	0	0 146
0	1) 25 2) 686	0	0 16
0	1) 24 2) 337	0	0 33

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: m.e.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 88+00 TO STA. 89+00

28-136

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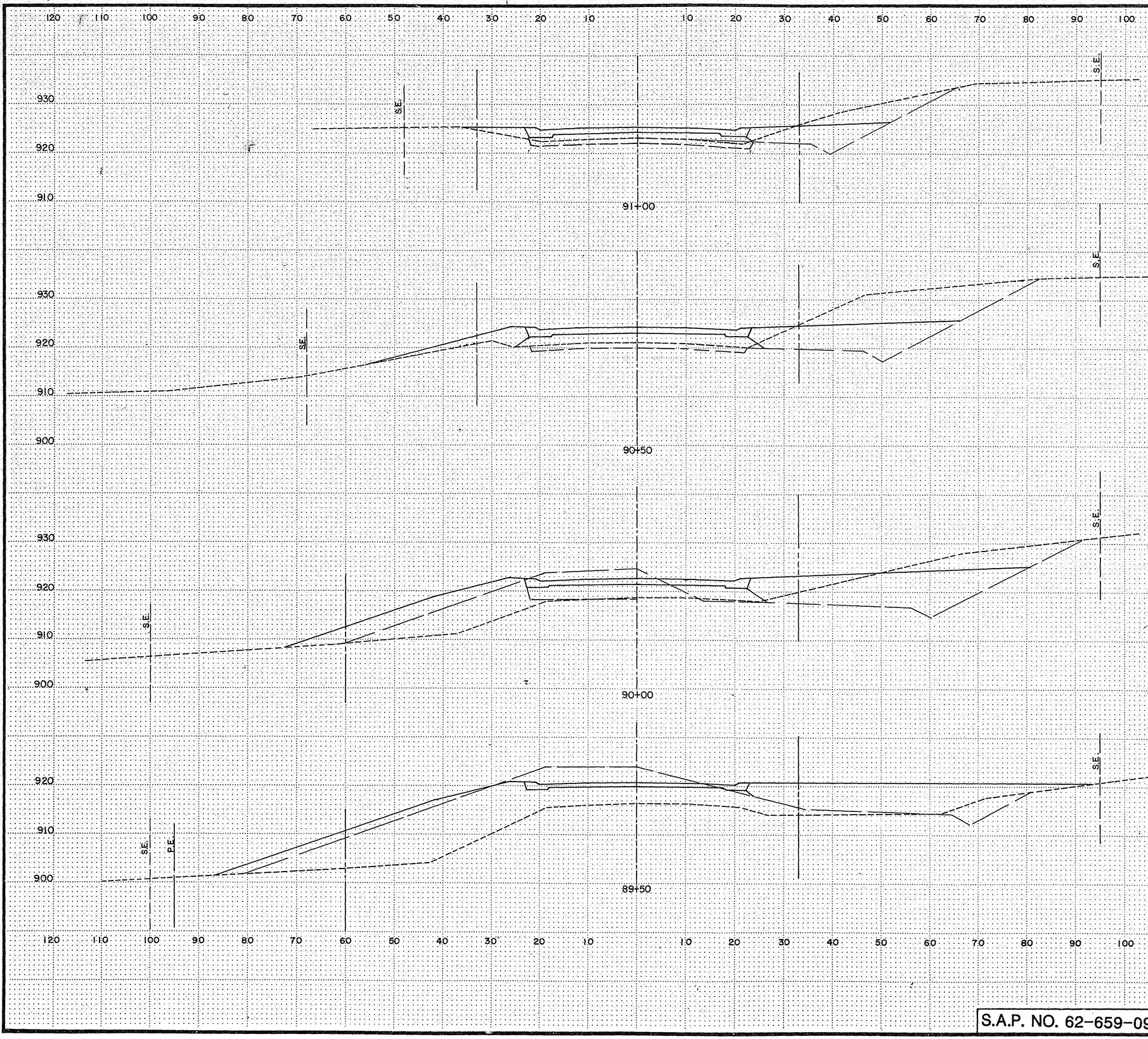

EXCAVATION			EMBANKMENT	
MUCK	COM	SUB	GRAN	COM
	(CU. YDS)		(CU. YDS)	
	1) 0			
0	2) 0	100	229	349
	1) 0			
0	2) 66	48	177	665
	1) 0			
0	2) 191	0	44	797
	1) 0			
0	2) 463	0	2	507

ASBUILT PLAN
CONFORMING TO CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 89+50 TO STA 91+00
28-136

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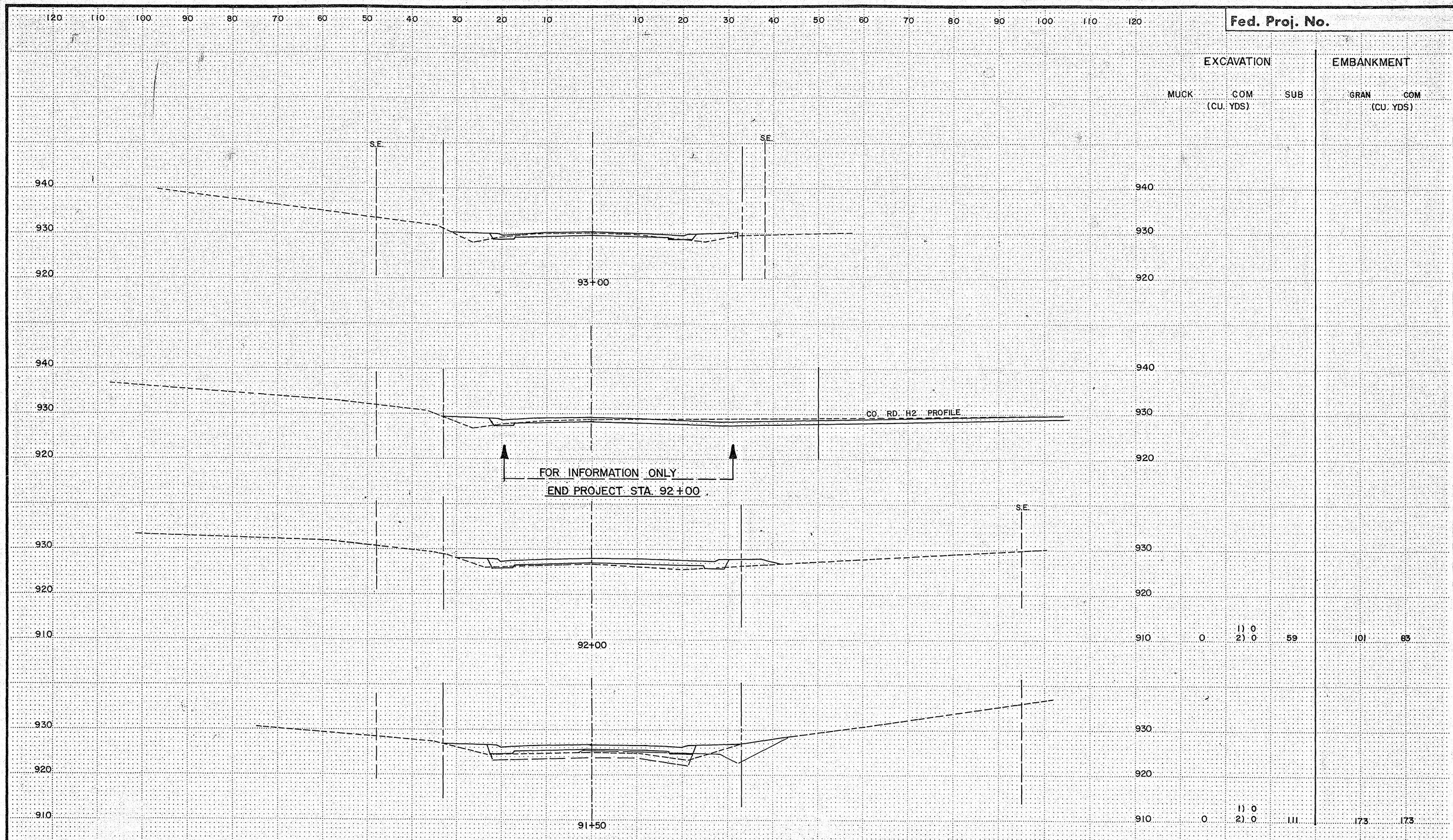

	EXCAVATION			EMBANKMENT	
	MUCK (CU. YDS)	COM	SUB	GRAN	COM (CU. YDS)
1)	0				
2)	0	59	101	83	
1)	0				
2)	0	111	173	173	

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

CENTERVILLE ROAD
STA. 91+50 TO STA. 93+00
28-136

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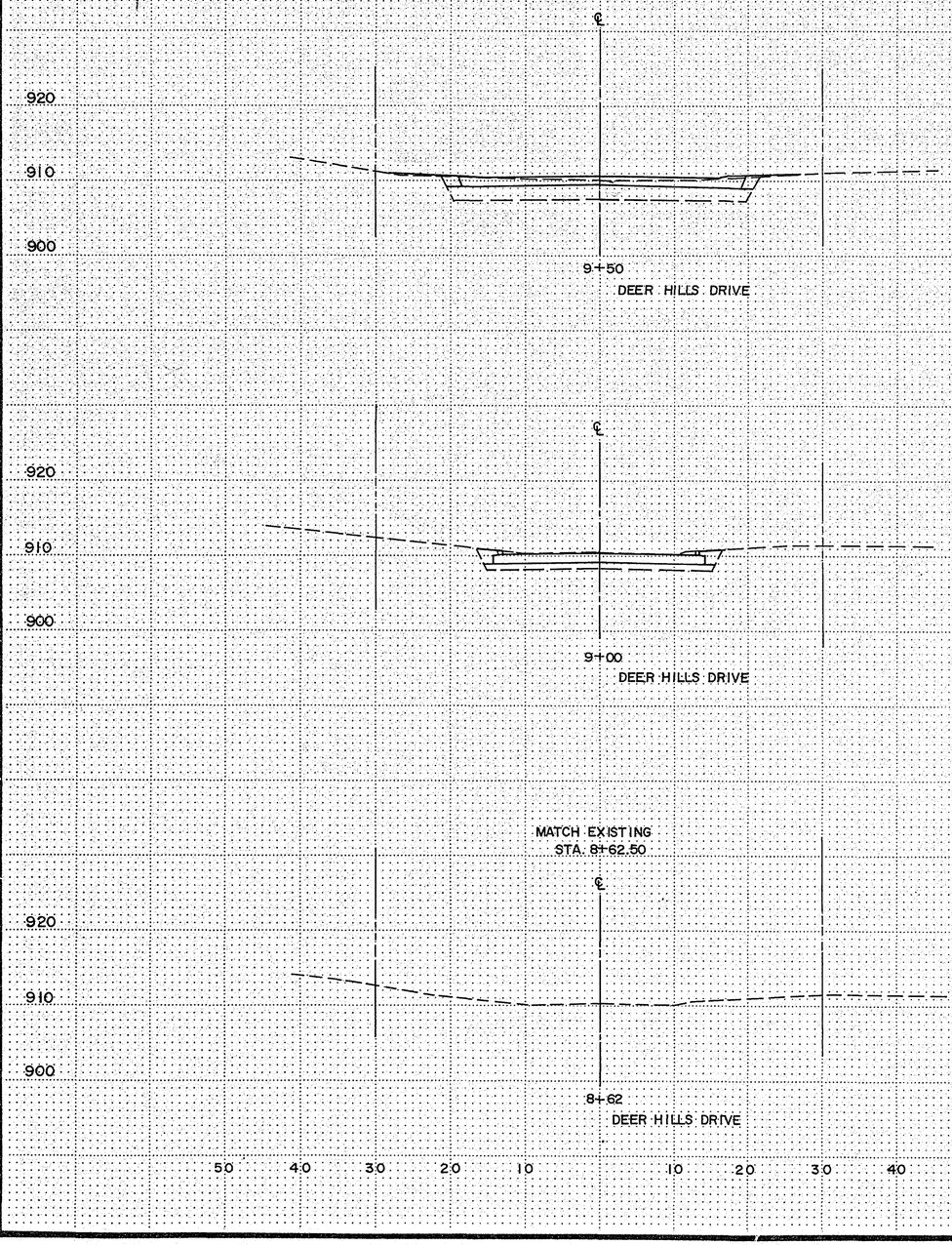

920
910
900
920
910
900
920
910
900

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

DEER HILLS DRIVE
STA. 8+62 TO STA. 9+50

28-136

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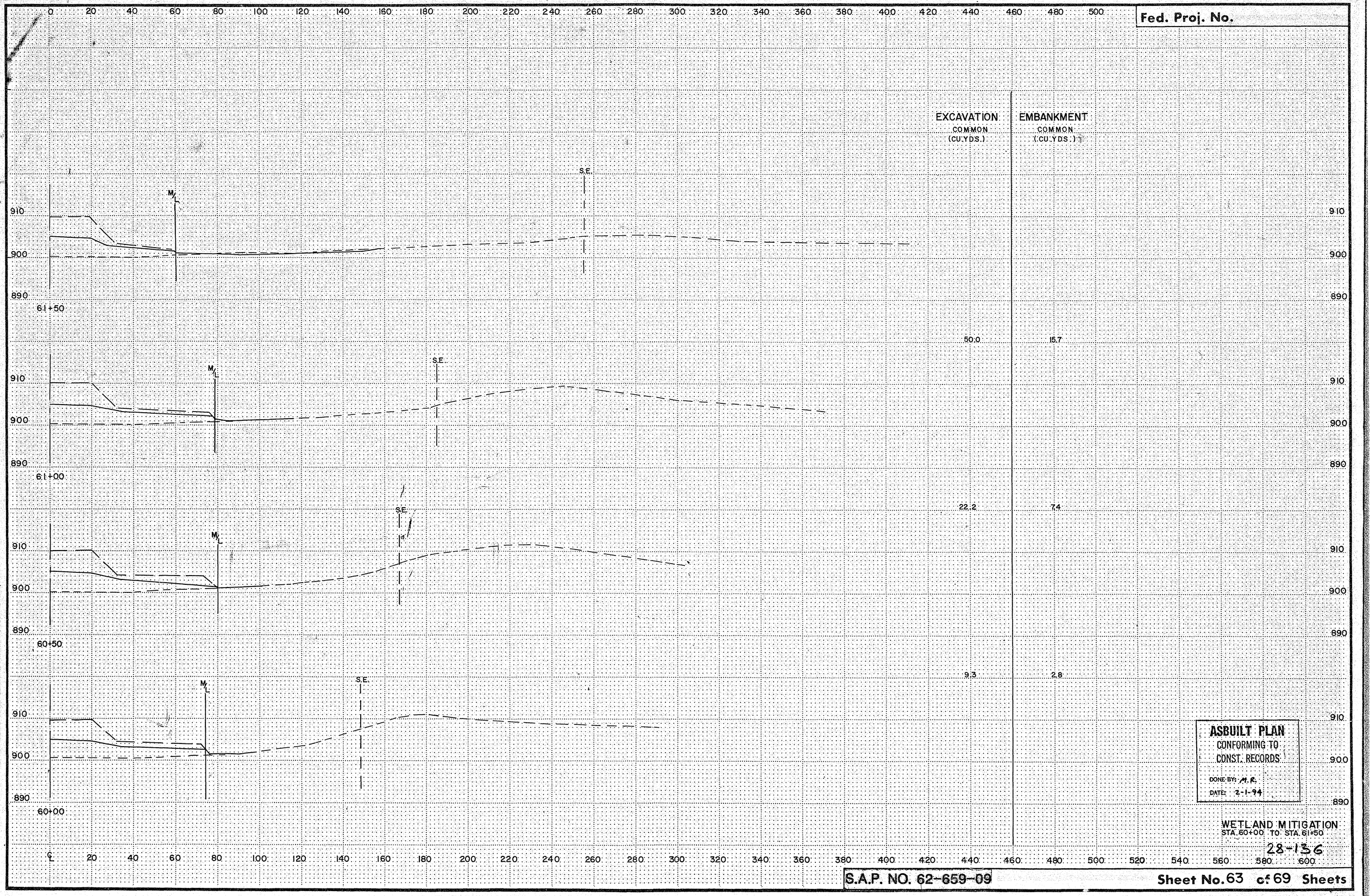

	EXCAVATION COMMON (CU.YDS.)	EMBANKMENT COMMON (CU.YDS.)
	50.0	15.7
	22.2	7.4
	9.3	2.8

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

WETLAND MITIGATION
STA. 60+00 TO STA. 61+50

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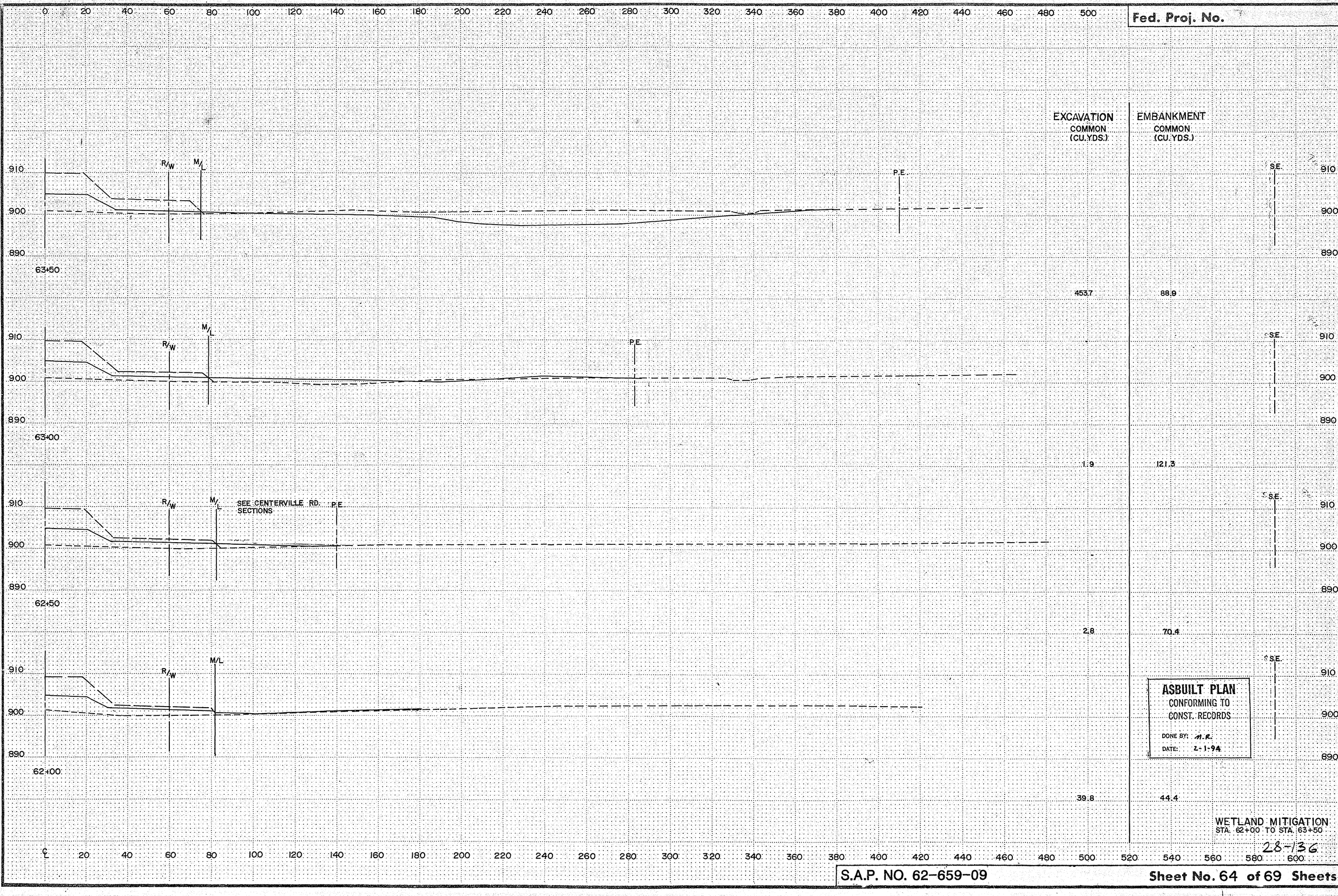

	EXCAVATION COMMON (CU.YDS.)	EMBANKMENT COMMON (CU.YDS.)
63+50	453.7	88.9
63+00	1.9	121.3
62+50	2.8	70.4
62+00	39.8	44.4

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

WETLAND MITIGATION
STA. 62+00 TO STA. 63+50

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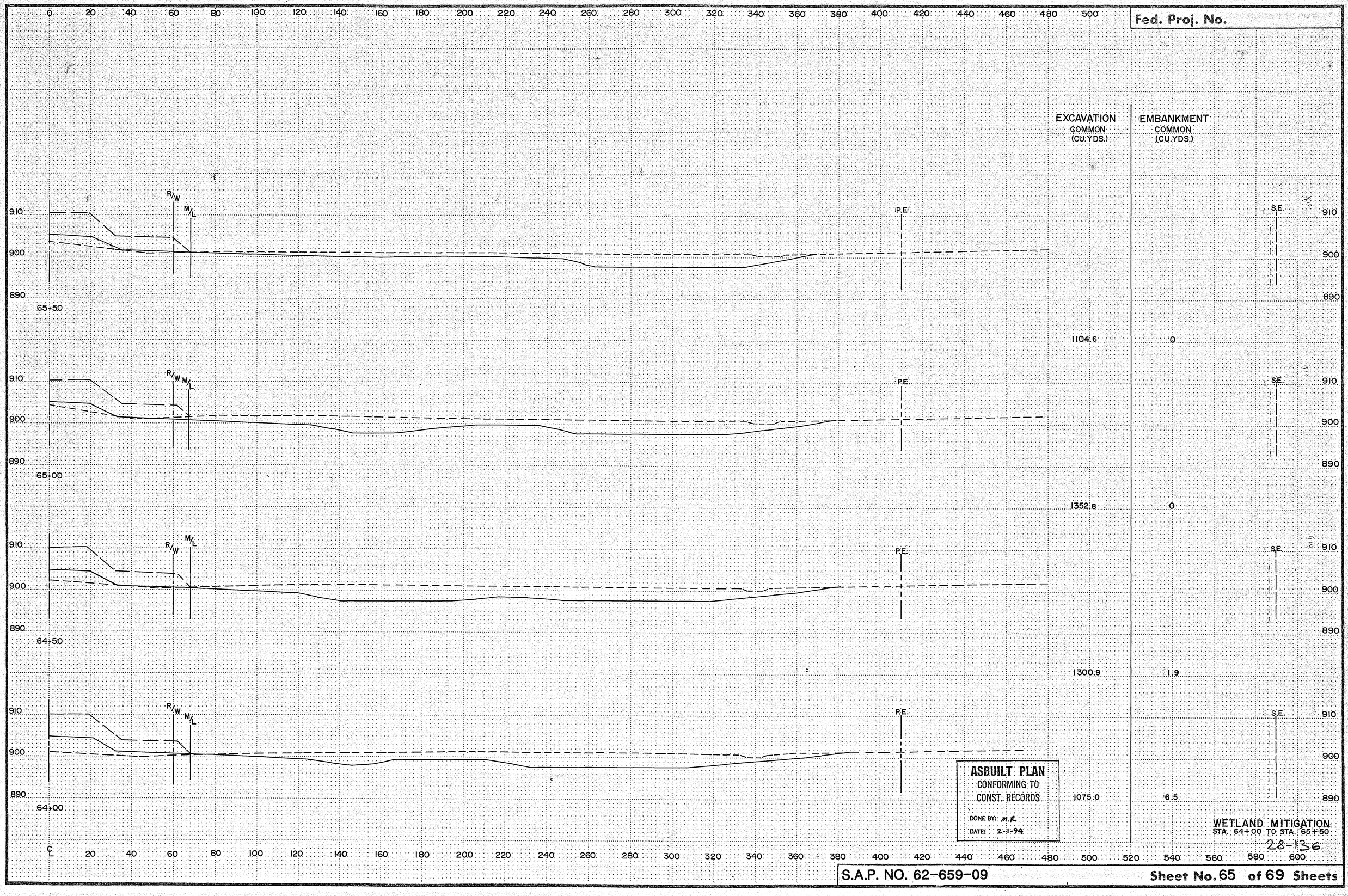

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: M.K.
DATE: 2-1-94

WETLAND MITIGATION
STA. 64+00 TO STA. 65+50

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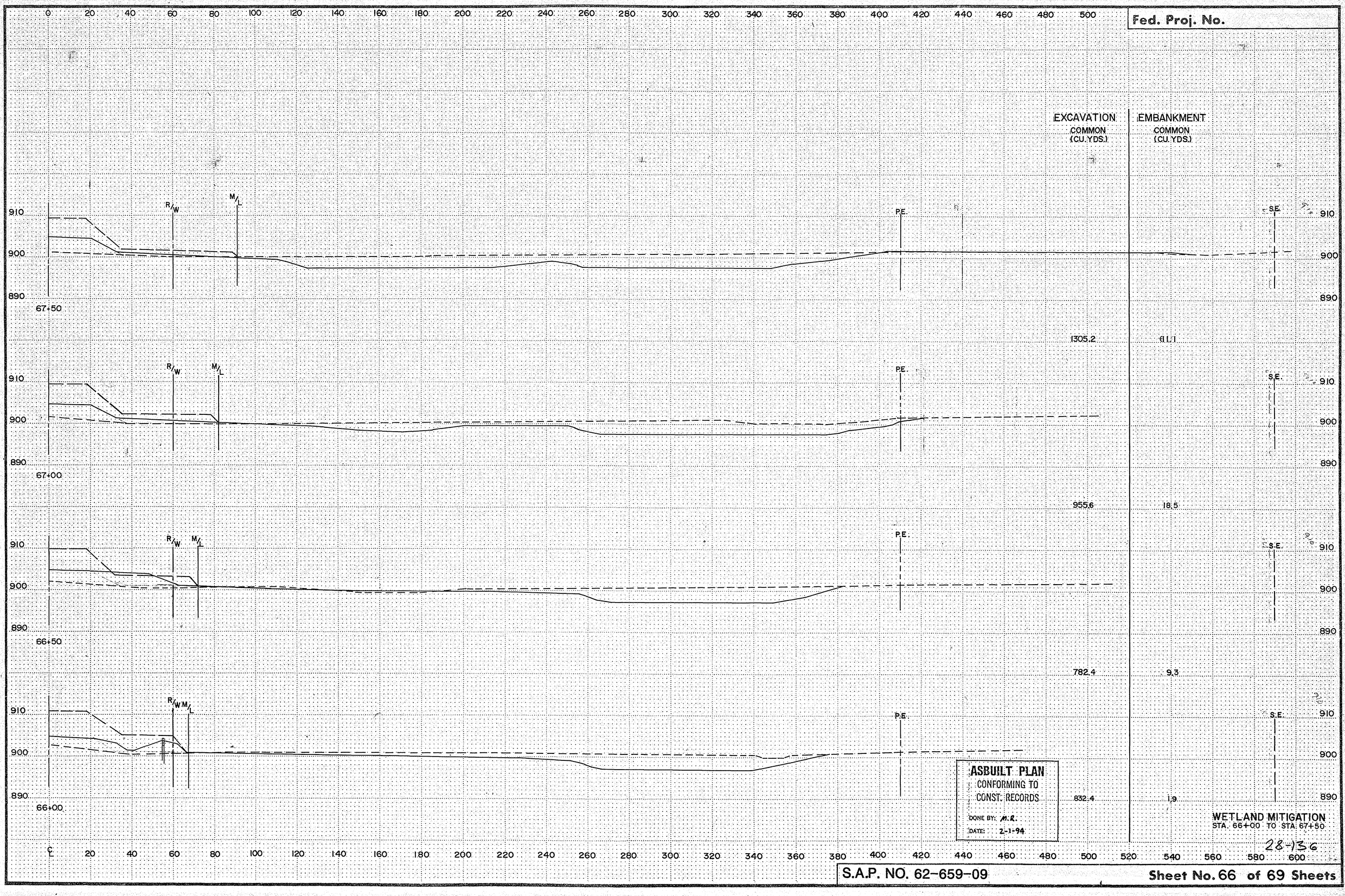

	EXCAVATION COMMON (CU.YDS.)	EMBANKMENT COMMON (CU.YDS.)
67+50	1305.2	41.1
67+00	955.6	18.5
66+50	782.4	9.3
66+00	832.4	1.9

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

WETLAND MITIGATION
STA. 66+00 TO STA. 67+50

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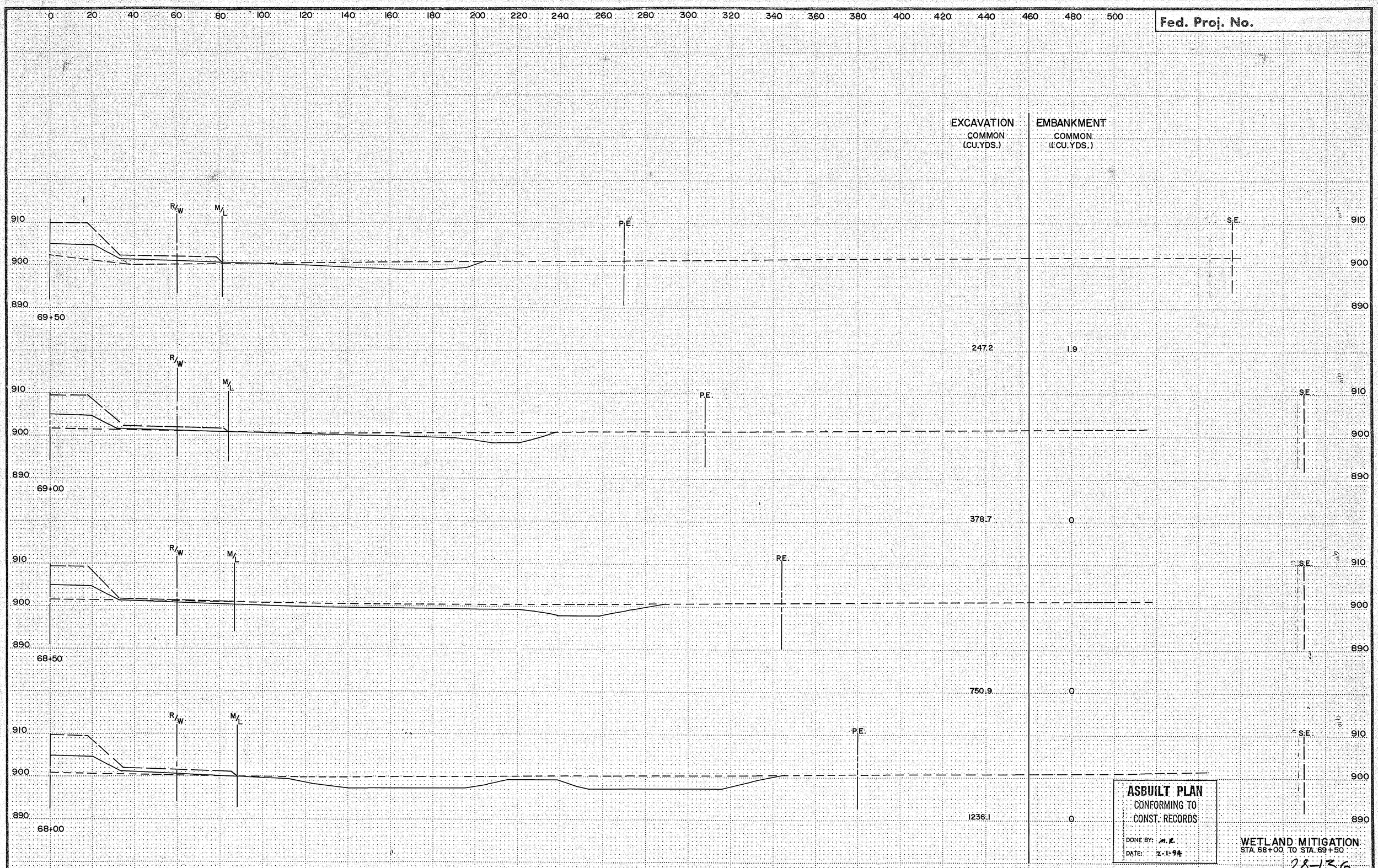

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

WETLAND MITIGATION
STA. 68+00 TO STA. 69+50

28-136

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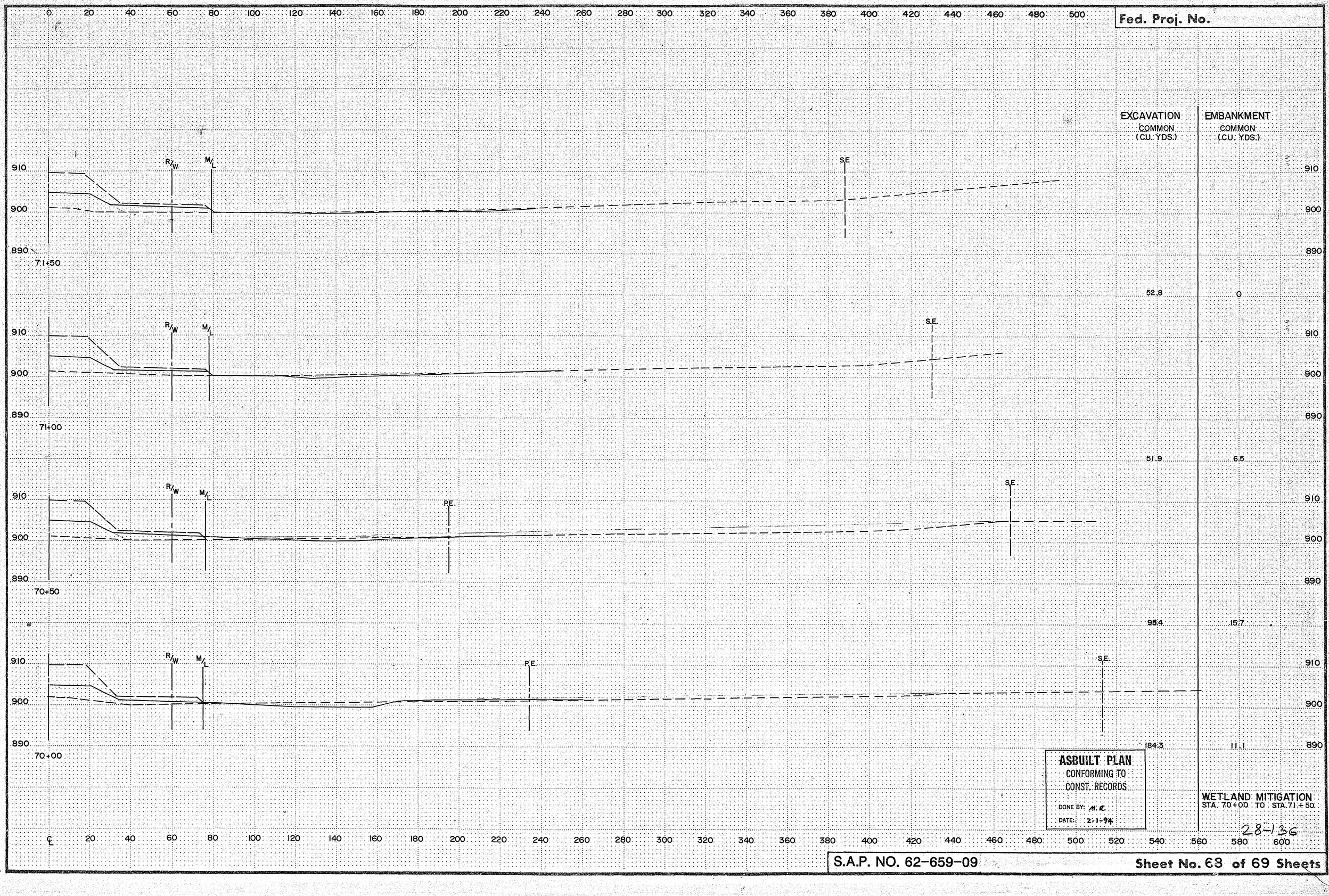

EXCAVATION COMMON (CU. YDS.)	EMBANKMENT COMMON (CU. YDS.)
52.8	0
51.9	6.5
95.4	15.7
184.3	11.1

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

WETLAND MITIGATION
STA. 70+00 TO STA. 71+50

2-8-136

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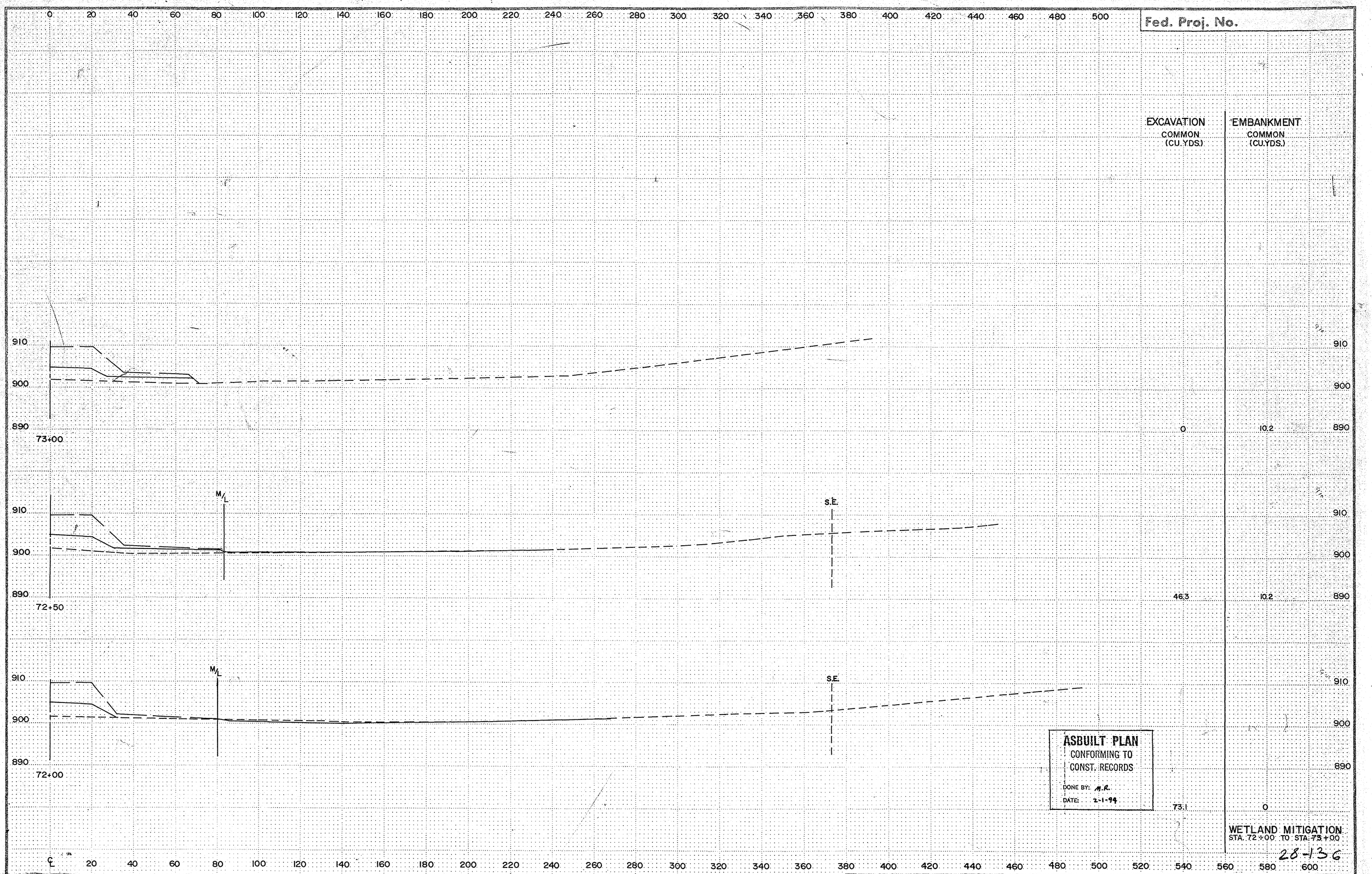

EXCAVATION COMMON (CU.YDS.)	EMBANKMENT COMMON (CU.YDS.)
0	10.2
46.3	10.2
73.1	0

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: M.R.
DATE: 2-1-94

WETLAND MITIGATION
STA. 72+00 TO STA. 73+00

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