

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
STA - 21-17.80; WAY - 21-0.00; SUM - 21-0.00

F-1010(3)

**GRADE SEPARATION WITH
THE PENNSYLVANIA RAILROAD AND
THE BALTIMORE & OHIO RAILROAD**

LIMITED ACCESS

This improvement is especially designed for through and has been declared a limited access highway or fre by action of Director of Highways in accordance with provisions of Section 5511.02 of the Revised Code of Oh.

STARK COUNTY WAYNE COUNTY SUMMIT COUNTY
LAWRENCE TOWNSHIP CHIPPEWA TOWNSHIP NORTON TOWNSHIP

CONVENTIONAL SIGNS

CENTER LINE	—————
COUNTY LINE	-----
TOWNSHIP LINE	-----
SECTION LINE	-----
CORPORATION LINE	-----
PROPERTY LINE	-----
POLE LINE	Tel. $\phi\phi$ Elect. $\phi\phi$
FENCE LINE	-----
RAILROADS	—————
GUARD RAIL	New ----- Old -----
DRAIN PIPE	New ----- Old -----

ROADWAY SYMBOLS

PORTION TO BE IMPROVED	=====
FEDERAL HIGHWAYS	=====
STATE HIGHWAYS	=====
OTHER ROADS	=====

SCALES

PLAN	1" = 50'
PROFILE - HORIZONTAL	1" = 50'
PROFILE - VERTICAL	1" = 5' & 1" = 10'
CROSS SECTIONS	
APPROACHES & INTERSECTIONS	

INDEX OF SHEETS

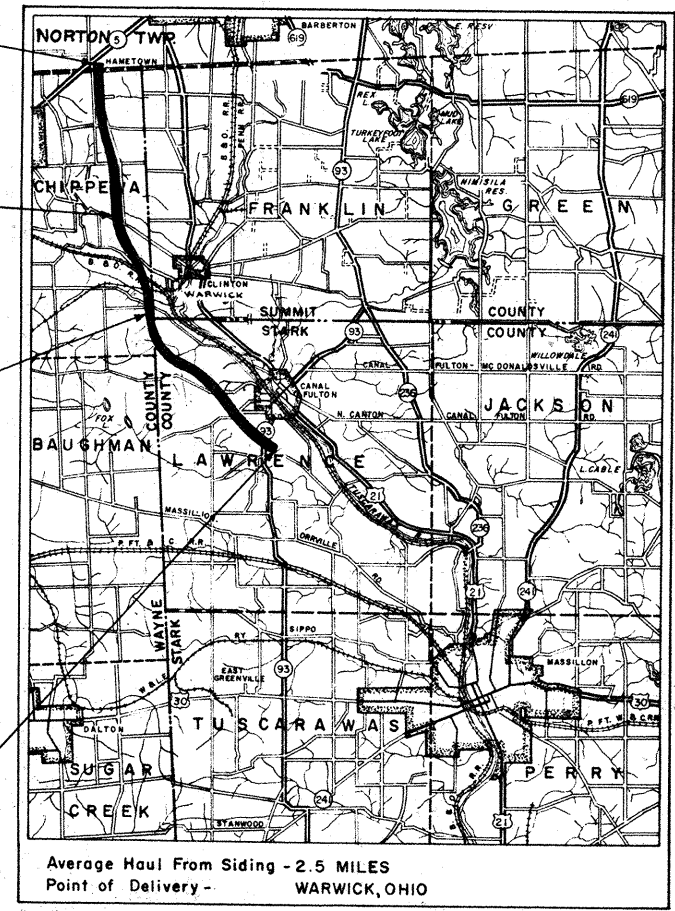
TITLE SHEET	1	CHIPPEWA CREEK & B.&O. ACCESS ROAD	234-235
TYPICAL SECTIONS	2-4	T.R. 172	236-237
NOTES & DETAILS	5-8	C.H. 100 & C.H. 5	238-241
RELOCATION PLAN	9	C.H. 206 & SERVICE ROAD	242-249
SUMMARIES	10-13	T.R. 63	250-251
U.S. 21:		T.R. 453	252
LINE SHEETS	14-62	C.H. 55 & SERVICE ROAD	253-261
SUPERELEVATION TABLES	63-66	INTERSECTION PLANS	262-265
X-SECTIONS	67-209	SUPERELEVATION TABLES	266-267
CROSSROADS:		STRUCTURES, 20' SPAN & UNDER	268-269
S.R. 93	210-214	STRUCTURES, OVER 20' SPAN	270-329
T.R. 404 - T.R. 364	215-218		
C.H. 365 & SERVICE ROAD	219-224		
C.H. 103 & SERVICE ROAD	225-230		
T.R. 352 & C.H. 116	231-233		

LINE DATA

BEGIN F-1010(3) STA. 35+00 WAYNE COUNTY	
END F-1010(3) STA. 145+00 WAYNE COUNTY	
TOTAL LENGTH F-1010(3)	11,000 L.F. OR 2.083 MI.
ADD FOR APPROACHES	
C.H. 116 STA. 46+00 TO STA. 54+50	850.00 L.F.
T.R. 352 STA. 46+00 TO STA. 52+38.25	638.25 L.F.
T.R. 172 STA. 48+00 TO STA. 52+50	450.00 L.F.
TOTAL WORK F-1010(3)	12,938.25 L.F. OR 2.450 MI.
BEGIN PROJECT - STARK COUNTY - STA. 940+00	
1. STATION EQUATION - WAYNE COUNTY LINE	
STA. 1129+94.09 BACK = STA. 0+00 COUNTY LINE =	
STA. 0+12.64 AHEAD	18,994.09 L.F.
2. STATION EQUATION - SUMMIT COUNTY LINE	
STA. 311+78.96 BACK = 0+00 AHEAD	31,166.32 L.F.
END PROJECT - SUMMIT COUNTY - STA. 12+00	
TOTAL LENGTH OF PROJECT	1,200.00 51,360.41 L.F. OR 9.727 MI.

ADD FOR APPROACHES:

S.R. 93	STA. 38+00 TO STA. 58+00	2000.00 L.F.
T.R. 404	STA. 42+00 TO STA. 57+50	1550.00 L.F.
T.R. 364	STA. 0+00 TO STA. 8+00	800.00 L.F.
C.H. 365	STA. 44+50 TO STA. 60+00	1550.00 L.F.
C.H. 103	STA. 0+00 TO STA. 24+00	2400.00 L.F.
C.H. 116	STA. 46+00 TO STA. 54+50	850.00 L.F.
T.R. 352	STA. 46+00 TO STA. 52+38.25	638.25 L.F.
T.R. 172	STA. 48+00 TO STA. 52+50	450.00 L.F.
C.H. 100	STA. 47+70 TO STA. 53+25	555.00 L.F.
C.H. 5	STA. 0+00 TO STA. 7+25	725.00 L.F.
C.H. 206	STA. 45+90 TO STA. 51+90	600.00 L.F.
T.R. 63	STA. 46+80 TO STA. 52+00	520.00 L.F.
C.H. 55	STA. 44+50 TO STA. 54+50	1000.00 L.F.
U.S. 21	STA. 939+50 TO STA. 940+00	50.00 L.F.
TOTAL LENGTH OF WORK		65,048.66 L.F. OR 12.319 MI.



LOCATION PLAN

SCALE IN MILES

Approved _____
Date: _____ Engineer of Traffic.

Approved _____
Date: _____ The Baltimore and Ohio Railroad Company

Approved _____
Date: _____ The Pennsylvania Railroad

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS					
DWG. NO.	DATE	DWG. NO.	DATE	DWG. NO.	DATE
T.J.	5-1-56	I-12	7-1-54	I-8 M.H.N.1	5-1-52
I-21-23	10-17-55	I-14G	1-22-52	I-8 C.B.1-2A&B	5-1-52
L-1	4-1-50	I-15 No.1	8-1-55		
L-3	4-1-50	I-15 No.2	12-1-54		
L-3A	4-1-50	I-15 No.4	12-1-54		
DR-1	1-3-55				
RI-1	1-8-55	G-707	4-2-56		
T-35	1-2-56	B-T-50-71-71E.M.I	10-1-47		
B-T-71R	3-2-53				
LJ No.1	7-1-55	OS-2	7-1-55		
		AS-1-54	12-1-54		
S-27-P.C.3	2-20-45	SP-53	7-21-53		
S-27-P.C.4	1-4-54	RB-1-55	3-1-55		
I-1,2,3,4&5	2-20-45				
I-8 C.B. No.6	5-1-52				

SUPPLEMENTAL SPECIFICATIONS			
NUMBER	DATE	NUMBER	DATE
M-109.23	R-4-20-56	5	6-8-55
L-209.12	7-17-54	6	12-28-55
S-114	8-30-55		
18	R-9-7-55		
M-106.6(d)	11-30-54	I-124	1-11-56
M-110.27	9-9-52		
B-119	R-12-14-55		

**DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS**

APPROVED: _____

DISTRICT ENGINEER

DATE

PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

FILE NO.	DATE OF LETTING _____
CONTRACT NO.	NO. _____

TYPICAL SECTIONS

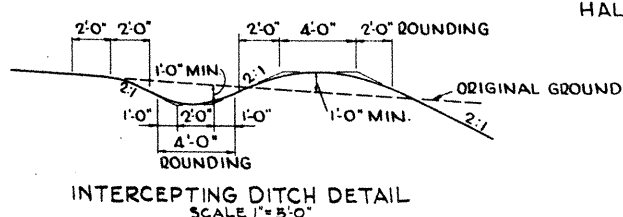
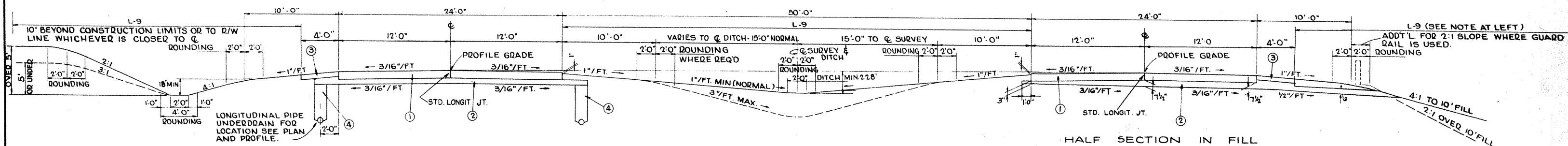
TYPE T-71
 SCALES-AS SHOWN
 TYPE CODE 7221

DESIGN SPEED 70 M.P.H.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F. 1010 (3)	

2
329

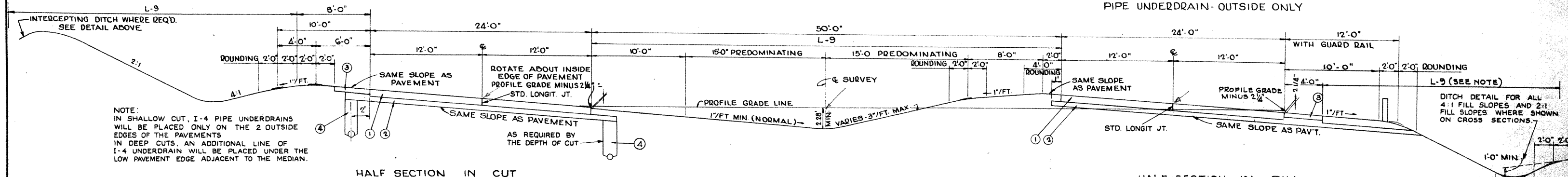
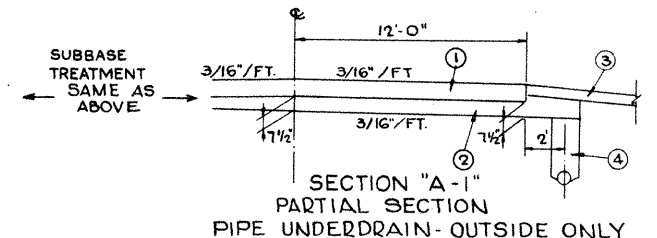
STA. 21- 17.60
 WAY 21- 0.00
 SUM 21- 0.00



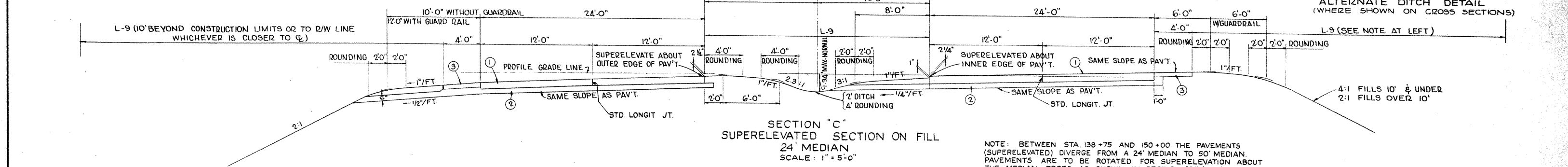
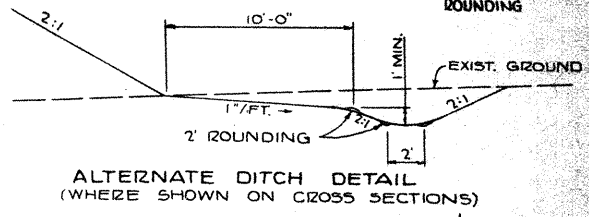
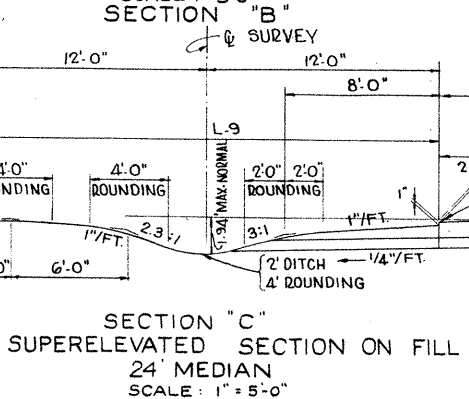
HALF SECTION IN CUT

IN DEEP CUTS, I-4 PIPE UNDERDRAINS ARE TO BE PLACED ON EACH SIDE OF THE PAVEMENT AS SHOWN ABOVE THESE LOCATIONS ARE SHOWN ON PLAN SHEETS. IN SHALLOW CUTS I-4 PIPE UNDERDRAINS WILL BE PLACED ONLY ON EACH OUTSIDE PAVEMENT EDGE AS SHOWN AT RIGHT IN SECTION "A-1" THESE LOCATIONS ARE ALSO SHOWN ON THE PLAN SHEETS.

SECTION "A"
 NORMAL SECTION-50' MEDIAN
 SCALE 1" = 5'-0"



SUPERELEVATED SECTION-50' MEDIAN
 SCALE 1" = 5'-0"



- ① T-71 9" REINFORCED CONCRETE PAVEMENT
- ② I-22 6" SUBBASE EXCEPT AS OTHERWISE SHOWN
- ③ I-18 6" STABILIZED SHOULDERS
- ④ I.4 6" PIPE UNDERDRAINS FOR LOCATION, SEE PLAN & PROFILE SHEETS

PREPARED AND RECOMMENDED BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

TYPICAL SECTIONS (CONT.)

STA 21 - 17.80
WAY 21 - 0.00
SUM 21 - 0.00

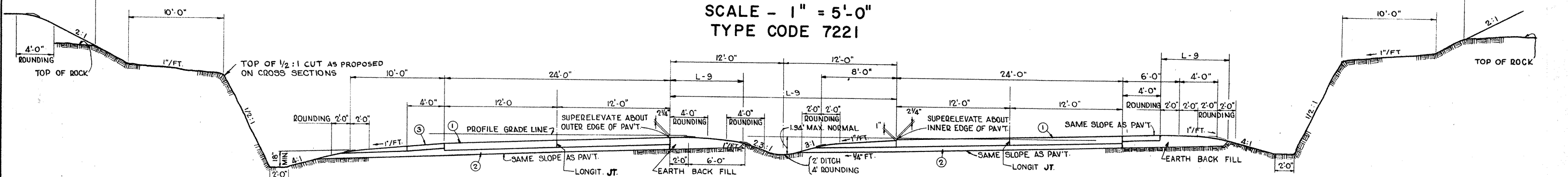
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

3
329

TYPE T-71 SCALE - 1" = 5'-0" TYPE CODE 7221

L-9 (10' BEYOND CONSTRUCTION LIMITS OR TO R/W LINE WHICHEVER IS CLOSER TO C.)

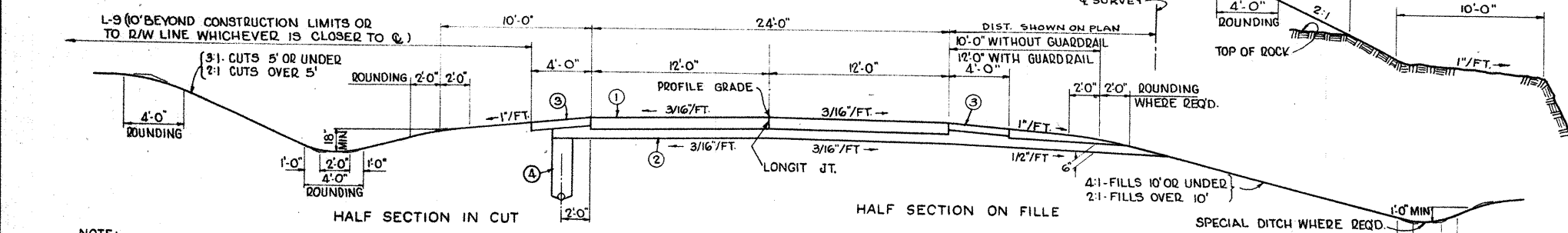
L-9 (SEE NOTE AT LEFT)



- ① T-71 9" REINFORCED CONCRETE PAVEMENT
- ② 1-22 G" SUBBASE EXCEPT AS OTHERWISE SHOWN
- ③ 1-18 G" STABILIZED SHOULDERS
- ④ 1-4 G" PIPE UNDERDRAINS FOR LOCATION, SEE PLAN & PROFILE SHEETS
- ⑤ 1-12 CURB TYPE 2-A

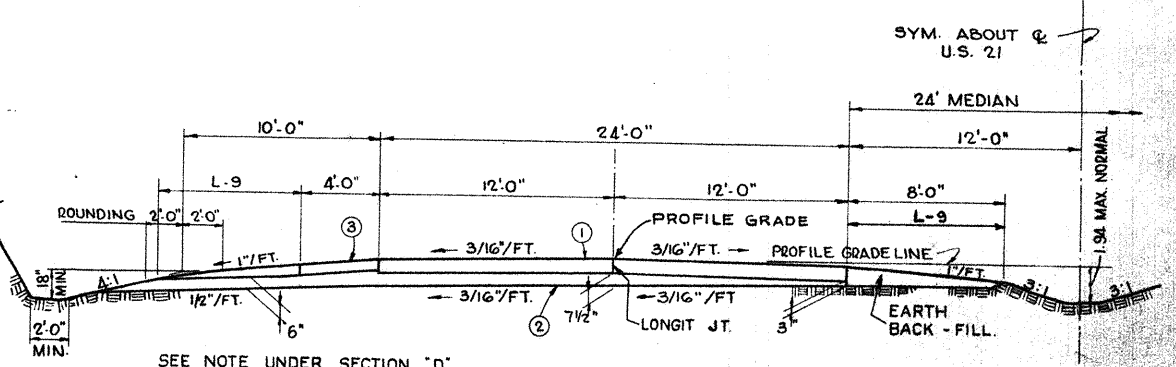
SECTION "D"
TYPICAL SUPERELEVATED SECTION - 24' MEDIAN
IN ROCK CUT

NOTE: BORINGS OBTAINED BY THE STATE INDICATE THAT ROCK OF SUCH NATURE AS TO ALLOW USE OF 1/2-1 SIDE SLOPES IN CUT WILL BE ENCOUNTERED BETWEEN APPROXIMATELY STA. 105 AND STA. 136. THIS SECTION WILL APPLY TO THE SUPERELEVATED SECTIONS WITHIN THOSE LIMITS WHERE SHOWN ON CROSS SECTIONS OR AS DIRECTED BY THE ENGINEER. AT THE EXTREMITIES OF THE ROCK CUT, SUITABLE TRANSITIONS ARE TO BE MADE BACK TO THE NORMAL CUT SLOPE DETAIL AS SHOWN ON SECTION "A". THE TRANSITIONS ARE SHOWN ON THE CROSS SECTIONS.

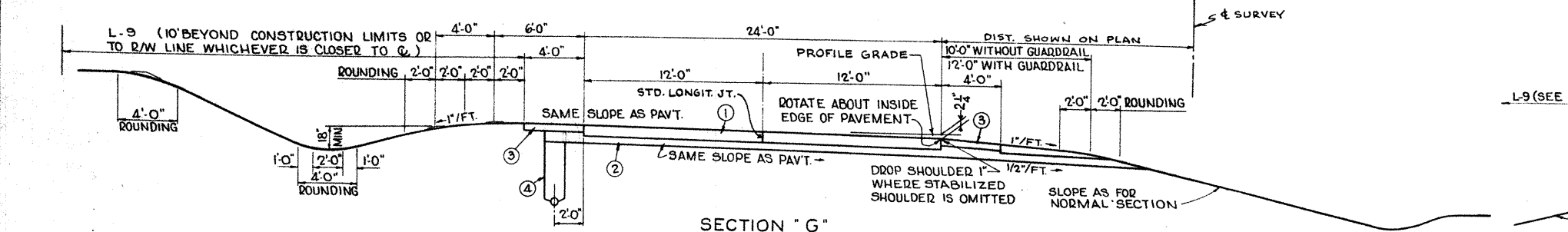


NOTE: 1-4 PIPE UNDERDRAINS ARE TO BE PLACED UNDER BOTH EDGES OF PAVEMENTS IN CUTS.

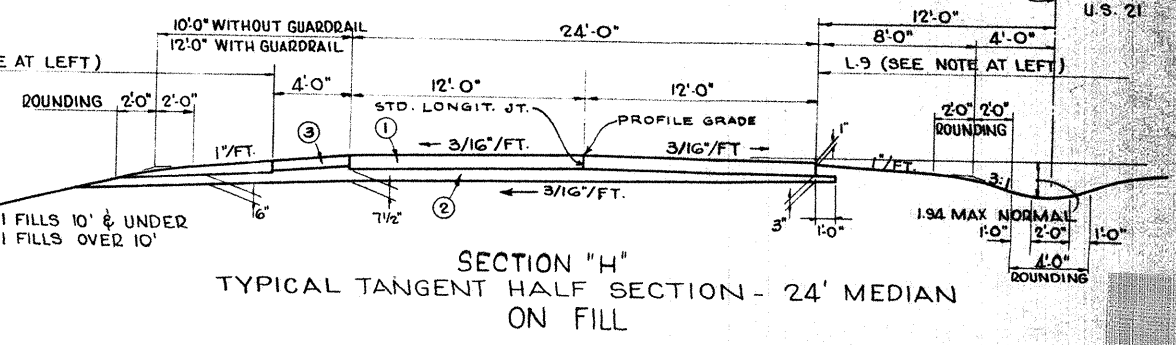
SECTION "F"
TYPICAL TANGENT SECTION
SINGLE LANE PAVEMENT



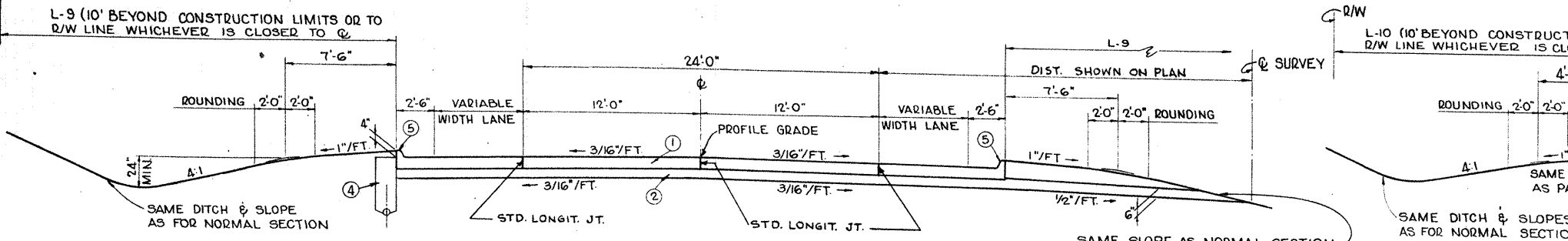
SECTION "E"
TYPICAL TANGENT HALF SECTION - 24' MEDIAN
IN ROCK CUT



SECTION "G"
TYPICAL SUPERELEVATED SECTION
SINGLE LANE PAVEMENT

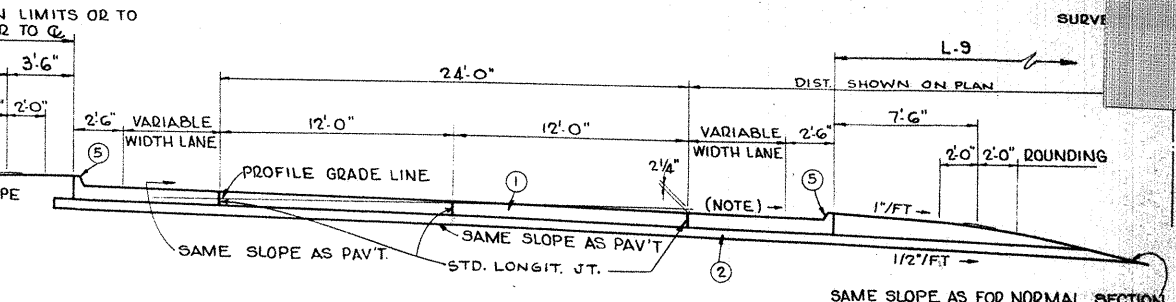


SECTION "H"
TYPICAL TANGENT HALF SECTION - 24' MEDIAN
ON FILL



SECTION "J"
TYPICAL TANGENT SECTION AT GRADE CROSSING
SINGLE LANE PAVEMENT

NOTE: WHERE 4-LANES OF PAVEMENT PASS THRU A GRADE INTERSECTION WITH 50' MEDIAN CROSS SLOPES SHOWN ON SECTION "A" WILL APPLY EXCEPT AS MODIFIED TO PERMIT DRAINAGE OF THE MEDIAN, WHERE CURBS ARE OMITTED ALONG THE ADDITIONAL LANES. THE NORMAL SHOULDER DETAILS WILL GOVERN.



SECTION "K"
TYPICAL SUPERELEVATED SECTION AT GRADE CROSSING
SINGLE LANE PAVEMENT

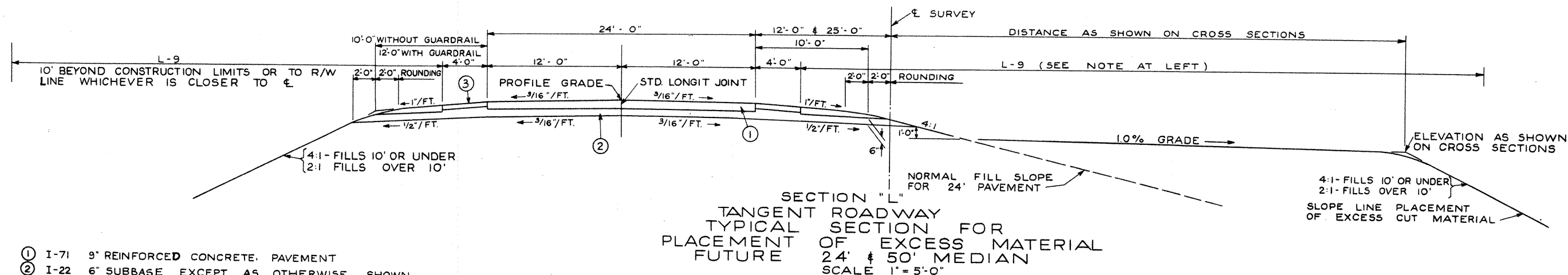
PREPARED AND RECOMMENDED BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

TYPICAL SECTIONS (CONT.)

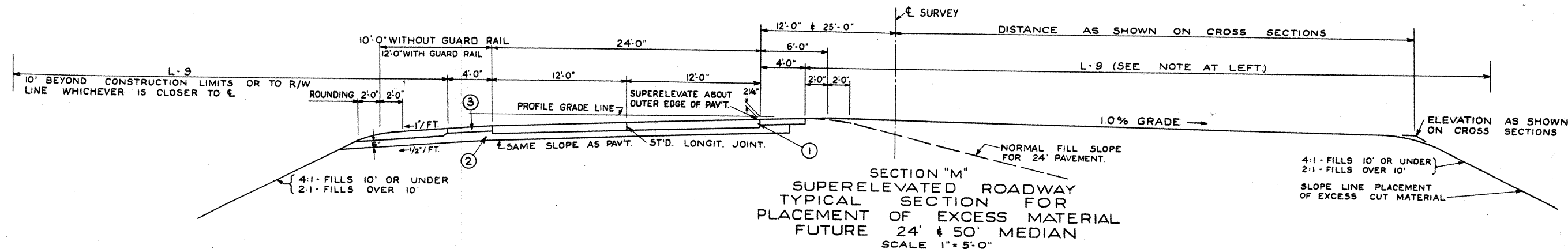
TYPE T-71
SCALE - 1" = 5'-0"
TYPE CODE 7221

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	4 329

STA - 21-17.80
WAY - 21-0.00
SUM - 21-0.00



- ① I-71 9" REINFORCED CONCRETE PAVEMENT
- ② I-22 6" SUBBASE EXCEPT AS OTHERWISE SHOWN
- ③ I-18 6" STABILIZED SHOULDERS



FROM	TO	STATE LIN. FT.	F-1010(1) LIN. FT.
NORMAL SECTION - 50' MED. SECTION "A"			
940+00	963+25	2,325	
979+00	1013+80	3,480	
1068+63.67	1090+85	2,221.13	
TOTAL		8,026.13	
SUPERELEVATED SECTION - 50' MEDIAN SECTION "B"			
963+25	979+00	1,575	
SUMMIT COUNTY			
2+00	12+00	1,000	
TOTAL		2,575	

FROM	TO	STATE LIN. FT.	F-1010(3) LIN. FT.
SUPERELEVATED SECTION - 24' MED. SECTIONS "C" & "D"			
91+00	95+62.5		462.5
114+25	138+75		2,450
TOTAL			2,912.5
NORMAL SECTION - 24' MED. SECTIONS "E" & "H"			
95+62.5	95+77.68		15.18
98+30.86	114+25		1,594.14
TOTAL			1,609.32

FROM	TO	STATE LIN. FT.	F-1010(3) LIN. FT.
NORMAL SINGLE LANE PAV'T. SECTION "F"			
1024+68.67	1036+25	1,156.33	
1101+73.87	1108+49.09	675.22	
12+01.91	35+00	2,298.09	
35+00	46+38.59		1,138.59
48+03.53	49+94.11		190.58
52+75.09	63+25		1,049.11
160+13.87	168+75	861.13	
182+00	287+50	10,550	
298+00	298+75	75	
TOTAL		15,615.77	2,378.28

FROM	TO	STATE LIN. FT.	F-1010(3) LIN. FT.
SUPERELEVATED SINGLE LANE PAV'T. SECTION "G"			
1036+25	1057+75	2,150	
1108+49.09	1129+94.09	2,145	
0+12.64	12+01.91	1,189.27	
63+25	65+58.37		233.37
67+48.91	74+32.23		683.32
78+16.53	80+41.83		225.30
168+75	182+00	1325	
287+50	298+00	1050	
TOTAL		7,859.27	1,141.99
SUPERELEVATED SECTION VARYING - MED. SECTIONS "C" & "D"			
138+75	145+00		625
145+00	149+25	425	
TOTAL		425	625

FROM	TO	STATE LIN. FT.	F-1010(3) LIN. FT.
TRANSITION 1			
1013+80	1024+68.67	1088.67	
TRANSITION 2			
1057+75	1068+63.87	1088.87	
TRANSITION 3			
1090+85	1101+73.87	1088.87	
TRANSITION 4			
80+41.83	91+00		1058.17
TRANSITION 5			
149+25	160+13.87	1088.87	
TRANSITION 6			
298+75	311+78.96	1303.96	
0+00	2+00	200	
SUB-TOTAL		1503.96	
TOTAL		7363.20	1058.17

PREPARED AND RECOMMENDED
BY
CHARLES E. DELEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010-3	

STA. 21 - 17.80
WAY. 21 - 0.00
SUM 21 - 0.00

GENERAL NOTES

CONTRACTION JOINTS:

In addition to the the pavement joints detailed for approaches and intersections the maximum distance between contraction joints shall in all cases be in accordance with Standard Drawing T. J.

FIELD OFFICE:-

The Contractor shall provide a suitable field office in accordance with section 50.01b having a minimum floor area of 500 sq. ft.
The Contractor shall have a telephone installed and maintained during the life of the Contract.

DESIGN SPEED:-

The geometrics for the main roadway of U.S. 21 on this project have been planned for a design speed of 70 miles per hour.

SEEDING QUANTITIES:-

Quantities for seeding are calculated for the soil areas between lines ten feet (10') outside the construction limits as shown on the cross sections or to the R/W line if such line is less than 10 feet from the construction limits. All areas outside these limits where the vegetative growth has been injuriously disturbed or destroyed by the Contractor shall be re-stored and seeded in accordance with the provisions of section L-9 by the Contractor at his own expense.

EXISTING PAVEMENT REMOVAL:-

In areas where the existing roadway is being relocated and the abandoned pavement is removed, the old roadway shall be plowed, harrowed and dragged to a smooth grade, the old ditches filled, and the entire area left in a neat condition. Cost of this work shall be included in the price bid for pavement removal, Item E-8. Areas shall then be seeded and mulched, Item L-9.

SUBBASE COURSE:-

In the final finishing of slopes and ditches, care shall be exercised to assure that the exposed ends of the I-22 subbase or I-9 subdrains as the case may be are left free of earth cover that would impede free drainage.

BERMS AND SLOPES:-

Berms and slopes shall be finished in accordance with the typical sections except where shown otherwise on the cross sections. While the cross sections as drawn show straight lines and angles, the work shall be so constructed that all corners be rounded as per typical sections.

All transitions from cut to fill slopes shall be blended with the surrounding terrain as directed by the Engineer.

SMALL DRAINS:-

Where drains from downspouts, field drains etc. are encountered and not shown on the plans, they shall be given an unobstructed outlet as directed by the Engineer.

No drainage carrying domestic wastes shall be connected to any proposed drainage facility.

WORK AT ABANDONED SITES:-

The following work within the right-of-way shall be performed by the Contractor at location where buildings have been removed from the right-of-way. Foundations, buildings, cisterns, wells and septic tanks shall be removed to a line at least 3 feet below pavement subgrade or 3 feet below the proposed finished grade outside pavement areas and the concrete floors broken up into pieces in which the area does not exceed one square foot, and the entire hole filled with acceptable material according to Sec. E-1.08 as directed by the Engineer. All the work described above is included in the unit price bid per cubic yard for E-1, Roadway Excavation.

E-1:-

The removal and disposal of all pipe and miscellaneous masonry not specifically listed under a separate item paid for under Item E-1 Roadway Excavation.

L-9 COMMERCIAL FERTILIZER:-

All areas to be seeded or sodded shall have commercial fertilizer (10-6-4) applied at the rate of twenty (20) pounds per 1,000 sq. ft.

SPECIAL DITCHES:-

For special ditch grades, see Cross Sections.

I-14 SPECIAL PAVED GUTTERS:-

Special Paved Gutters shall be constructed according to note on Standard Dwg. I-14G for Standard Paved Gutters. The cost for the cut off walls shall be included in the unit price bid for the I-14 Special Paved Gutters.

SURPLUS EXCAVATION:-

All surplus excavation from driveway pipe, drainpipe, culvert and channel excavation, when suitable, shall be used in lieu of borrow.

CO-OPERATION WITH ADJOINING CONTRACTORS:-

Contracts for construction of sections of relocated U.S. Route 21 North of this project have been awarded and further contracts for construction of a section of U.S. Route 21 South of this project may be awarded while work on this project is under way. The Contractor shall arrange his work and material so as not to interfere with other Contractors, and shall join his work to that of other Contractors in a proper and workmanlike manner. The Contractor shall be held responsible for any damage done by him or his agents to the work of another contractor.

I-4 SUBDRAIN WYE CONNECTIONS:-

The connections for I-4 Subdrains have been designed predominantly for 60° wyes. In cases where the layout calls for an angle other than 60° and wye with this angle is not available for the kind of pipe chosen by the Contractor, the connection may be made by any wye plus a supplementary bend. However, the Contractor shall be paid for only the wye called for on the Plans.

I-5 PIPE SPECIALS:-

Deductions for pipe specials shown on the plans and in the quantity boxes are as follows:

Size	Wyes	Bends	Increasers
4" - 6"	1' - 1'	1'	1'
8"	3' - 1'	1'	1'
15" & Over	4' - 1'	1'	1'

E-12:-

Pipe removals are listed under Item "Pipe removed for re-use or storage" Quantities for Item "Pipe Removed are estimated and shall be used where existing pipe to be removed is not, in the opinion of the Engineer, worth salvaging. Payment shall be based on final measurements.

UTILITY NOTE:-

Any and all work required for removing, relocating and construction of new facilities for private or public utilities will be done by and at the expense of the respective owners unless otherwise noted on the Plans.

The locations of the underground utilities shown on the plans have been obtained by diligent field checks. It is believed they are essentially correct, but the State of Ohio makes no guarantee as to their accuracy or completeness.

I-10 DUMPED ROCK:-

All dumped rock used at the outlet of culverts shall be uniformly placed so that at least 50% of the pieces will weigh at least 75 pounds.

Dumped rock shall be placed 30 inches thick and shall be extended 2 feet under the end of culvert, measured along the centerline of culvert. The unit price bid for Dumped Rock Fill shall include payment for necessary excavation and backfill.

I-4 OUTLET:-

I-4 Underdrains with an open outlet shall be provided with a "Pipe Underdrain Outlet" according to Standard Drawing No. I-1, 2, 3, 4 and 5, except in cases where the pipe outlets into a ditch with rip-rap or dumped rock lining or into a paved gutter.

PROPERTY MARKERS:-

All iron pins or markers within the limits of work of the project shall be saved and adjusted to new grades by the Contractor as directed by the Engineer. Cost of adjusting or resetting markers shall be included in the price bid for E-1 Roadway Excavation.

REMOVAL OF TREES AND STUMPS:-

Trees or stumps shall be removed or preserved as indicated on the plans by the following symbols:

- Trees or stumps to be removed X
- Trees to be preserved ()

The number of trees or stumps to be removed, as indicated by the above symbol is approximate and the State of Ohio reserves the right to order the removal of additional trees or stumps, even though these trees or stumps are not indicated on the plans or are indicated to be preserved. Payment for the removal of these additional trees or stumps is included in the Lump Sum bid for removal of Trees and Stumps.

SUBGRADE COMPACTION:-

Subgrade under B-119 used on Service roads or drives shall be compacted for a depth of six inches to the density requirements in Table III Item E-1. Payment for Subgrade compaction, as specified above shall be included in the unit price bid for Item E-1, Roadway Excavation.

I-4 UNDERDRAINS:-

Underdrains under Pavement at the center of Intersections at Grade shall be M-G-4 (h) pipe. The trench backfill shall be granulated slag or aggregate No. G or G_a for the full depth of the trench. The trench backfill shall be well compacted.

I-14 PAVED GUTTERS:-

The cost for the flared entrance for a paved gutter according to detail on Sheet No. 8. Miscellaneous Details shall be included in the unit price bid per lineal foot of paved gutter.

S-27:-

Endwalls for Culverts that will have to be extended when future N.B. Lanes are built: at the right end of all culverts under 2 Lane construction the end of pipe shall extend 6" from face of endwall to facilitate future extension of culvert.

MAINTENANCE OF TRAFFIC:-

During construction of grade separation structure on S.R. 93 two way traffic shall be maintained on said route by use of item S-15 temporary run arounds as detailed on sheet No. 210. On all intersecting and relocated county and township roads, except those for which separate provision is made below, traffic shall be maintained by use of existing pavement, proposed pavement, or temporary roadway surfaced with aggregate and stabilized with chloride. Payment for construction, maintenance and subsequent removal, where required of temporary roadways other than those separately itemized on the plans, under item S-15, shall be included in the lump sum bid for "Maintaining Traffic." Aggregate and chloride required shall be paid for at the unit prices bid for the respective S-15 items.

During the construction of the proposed structures over C.H. 116 and T.R. 172 the contractor shall safe guard the traveling public on both roads by providing platforms, nets or other suitable protection above the travel lanes.

TR 453 may be closed to traffic immediately after completion of the proposed service road east of relocated USR 21 from approximate station 276+00 to approximate station 312+00.

C.H. 103 may be closed for a period of time not exceeding seven (7) calendar days.

ITEM I-124.07 WATER PIPE:-

At station 100+50 a water pipe is to be replaced between two cisterns, one on either side of the roadway. This pipe shall be 1 1/2" copper Type "K" with soldered sweat fittings ASTM B-88. Pipe to be placed at direction of Engineer.

TEMPORARY BARRICADES:- (See note in proposal).

CONNECTION BETWEEN I-5 PIPE SPECIAL & I-2 STORM SEWER:-

A collar (Class E Concrete), 12" wide by 6" minimum thickness shall be placed as shown on plans at the following locations; Sta. 83+21, Sta. 86+00, Sta. 154+45, Sta. 157+61 & Sta. 952+00. Cost of labor and materials required to make connection shall be included in unit price bid for storm sewer.

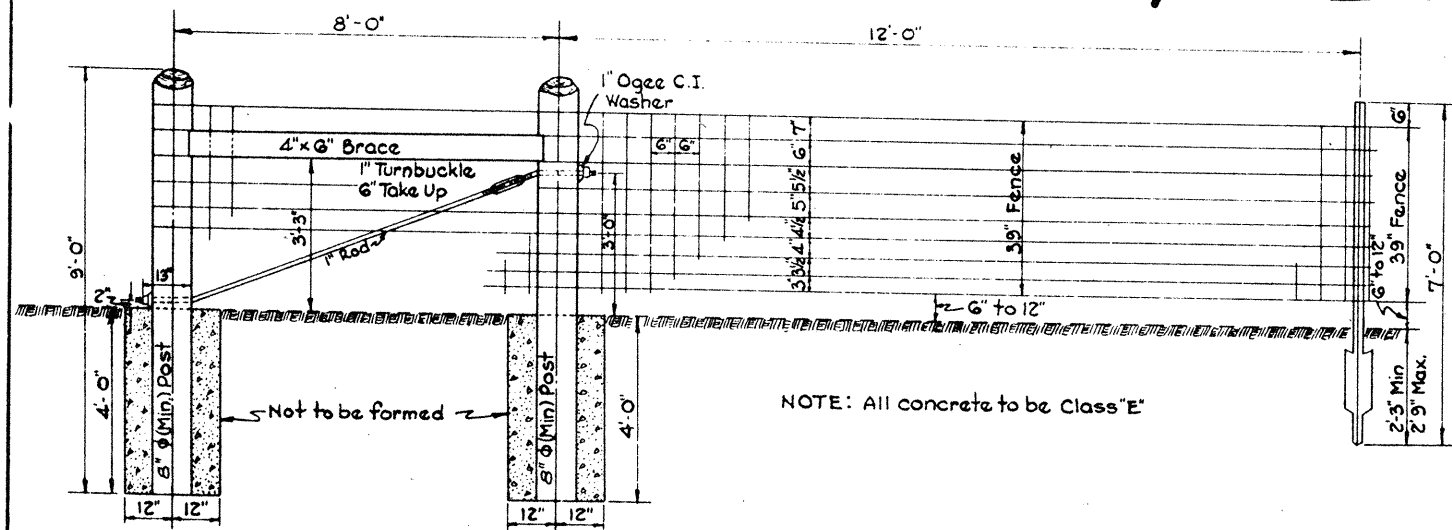
EMBANKMENT FOR FUTURE DEVELOPMENT:-

The cross-sections as plotted and unclassified excavation as calculated indicate a volume of material sufficient to build embankment for pavement construction proposed under this contract and grade for future construction as identified by dashed line embankment sections from Sta. 1046+00 to Sta. 1059+00 and from Sta. 40+00 to Sta. 90+00. The contractor shall so schedule his operations to assure that all embankment construction on this project, except that indicated for future pavement lanes as indicated above, will be completed from excavation material. Excavation material in excess of this requirement shall be used to construct embankment for the future lanes as indicated in so far as quantities will permit. In no case shall borrow lanes or for the use in embankment elsewhere in lieu of material placed for the future pavement lanes.

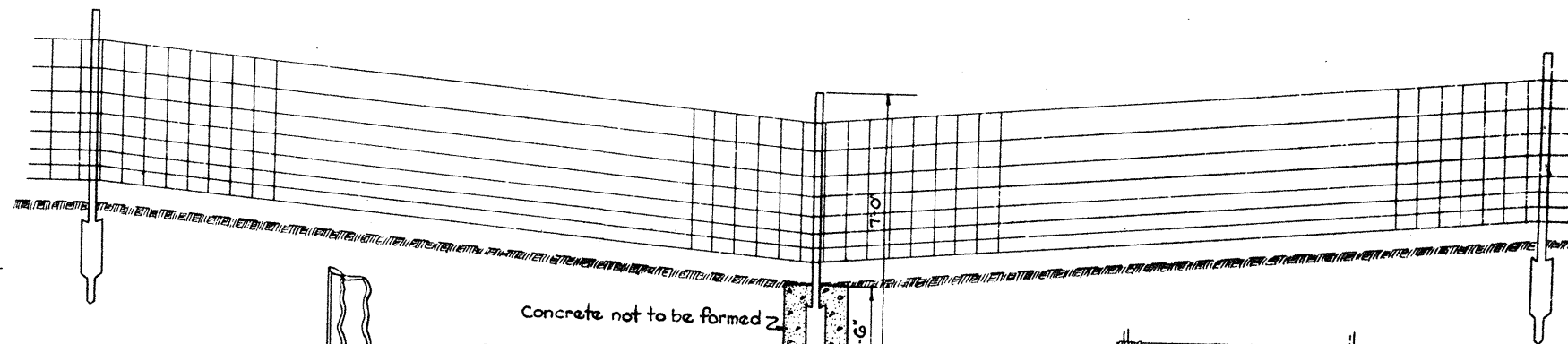
R/W FENCE DETAIL

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

STA-21-17.80
WAY-21-0.00
SUM-21-0.00

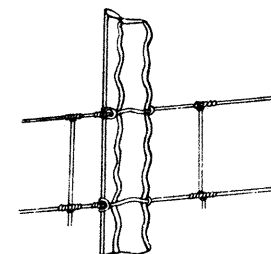


CORNER OR END POST ASSEMBLY

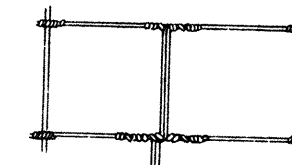


Concrete not to be formed

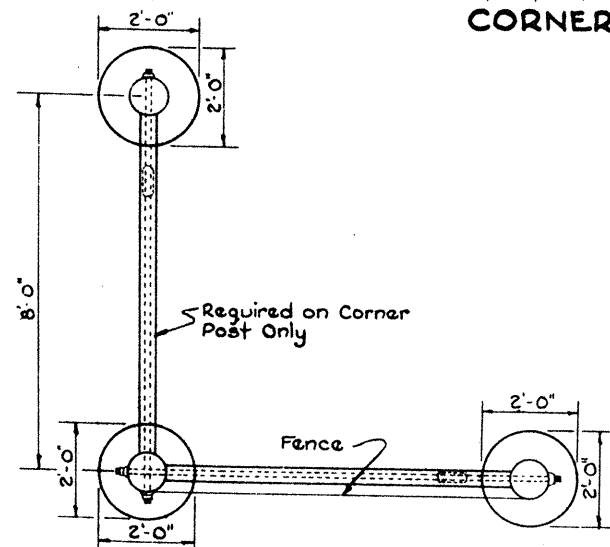
LINE POST IN DIP SECTION



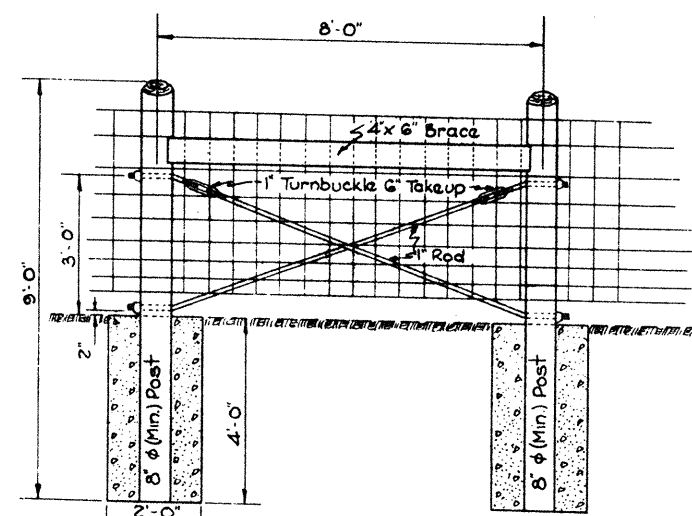
METHOD OF FASTENING FENCE AT LINE POST



SPLICE DETAIL

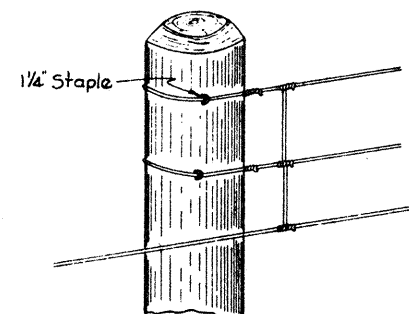


PLAN OF CORNER OR END POST ASSEMBLY

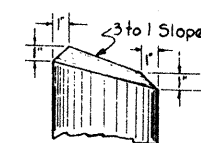


To be placed at locations shown on Plan or shifted if directed by the Engineer.

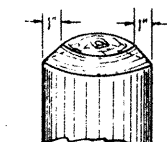
INTERMEDIATE ANCHOR POST ASSEMBLY



METHOD OF FASTENING FENCE AT END, CORNER POST AND ONE POST OF INTERMEDIATE ANCHOR POST ASSEMBLY

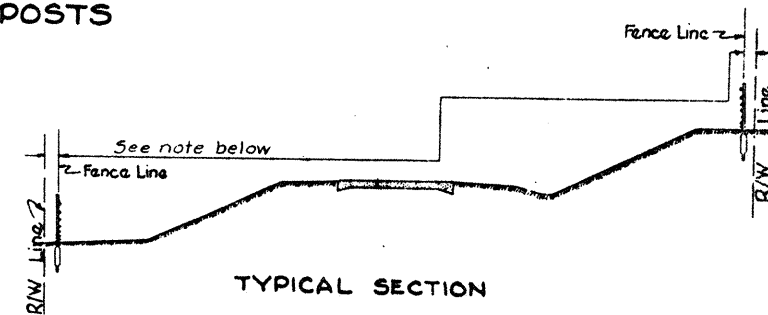


Side View

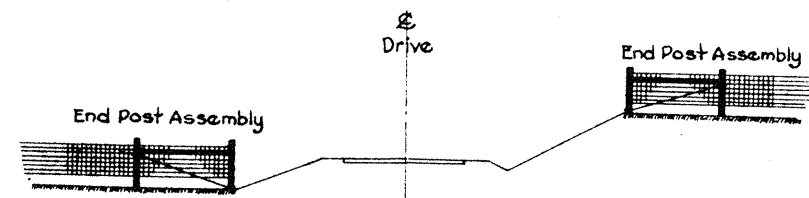


Front View

TOP OF POSTS



TYPICAL SECTION



R/W FENCE TREATMENT AT DRIVES



R/W FENCE TREATMENT AT CULVERTS

Notes:

Maximum spacing between intermediate anchor post assemblies or between end post assemblies and intermediate post assemblies shall be 660 Lin. Ft.
At points where individual spans of fence change alignment in excess of 4 degrees and less than 30 degrees, an intermediate anchor post assembly shall be built. If the change in alignment is 30 degrees or more a corner post assembly shall be built at the point of change.

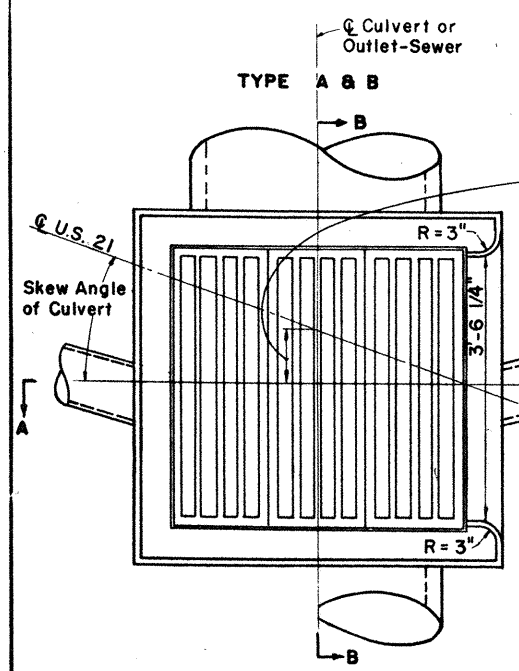
In lieu of the requirement of Supplemental Specification No. 18 the End Posts, Corner Posts, and Intermediate Anchor Posts or Pull Posts shall be placed so that the side of the posts toward the highway is two feet from the Right-of-Way line.

MEDIAN DITCH INLETS

Scale $\frac{3}{4}'' = 1'-0''$

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F. 1010 (3)	

STA	21 - 17.80
WAY	21 - 0.00
SUM	21 - 0.00



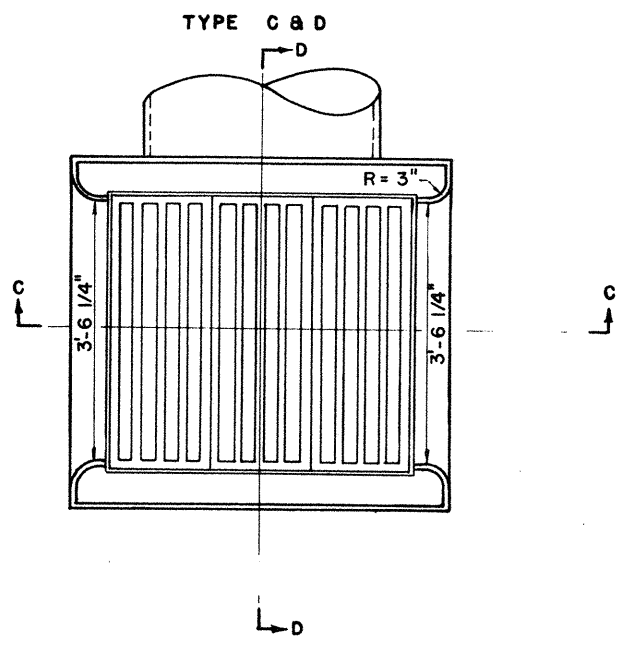
Where Culvert in skew passes through Inlet, Inlet must be offset from \odot U.S. 21 to allow for centric access of Median flow. For amount of offset, measured along \odot Culvert, See Culvert Summary Sheet, Column "Remarks"

NOTE:
Finish bottom in accordance with standard Drawing 1-8 M.H. No. 1 when culvert structure passes through basin. Otherwise shape bottom to drain towards outlet pipe.

NOTE:
Outlet pipe to be placed at the direction of the Engineer.

NOTE:
Flowline to be 4' below normal ditch returning to normal 10' each side of basin.

NOTE:
The Median ditch on the low side of a basin on a down grade shall rise at a rate of $\frac{1}{2}$ per ft. to a point that places it 18" below the profile grade and then sloped back down to meet the proposed ditch elevation.



CASTINGS:

Castings shall be of cast iron in accordance with Material Details. The design shall be essentially the same and equally as strong as those shown hereon and shall be given one coat of asphaltum paint as per specifications.

Weights minimum are:
Grate 104 lbs. each
Frame (A or C) 149 lbs. each
Frame (B or D) 179 lbs. each

BEARING AREAS:

Bearing areas of frame and grate shall be so fitted and finished as to provide a firm and even seat for all portions of the grate in the frame. No projections shall exist on bearing areas of either casting and the grate shall seat in its frame without rocking. Frame and grate shall be fitted, matched and marked before delivery to the project.

CONCRETE:

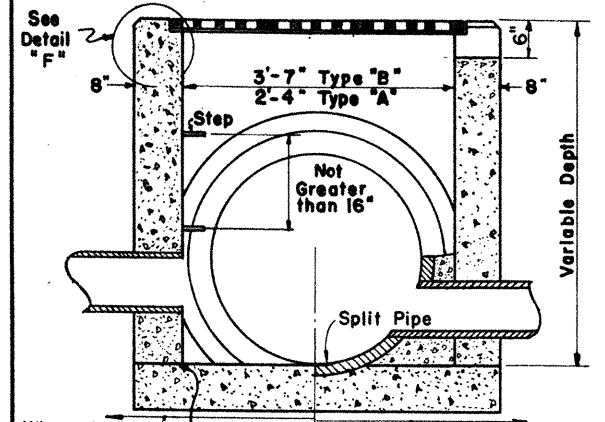
Concrete to be class "C".

BRICK:

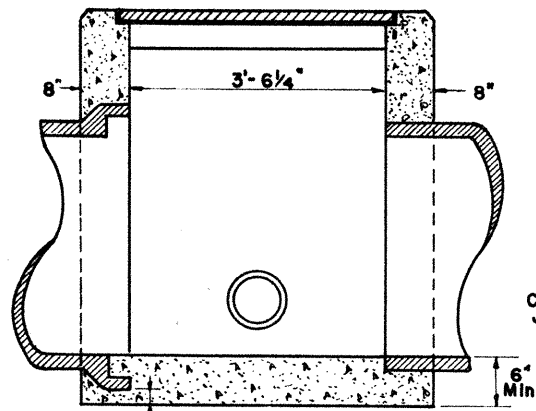
Brick side walls, when used in place of concrete shall be 8" inches in thickness. Every sixth course shall be a stretcher course.

STEPS:

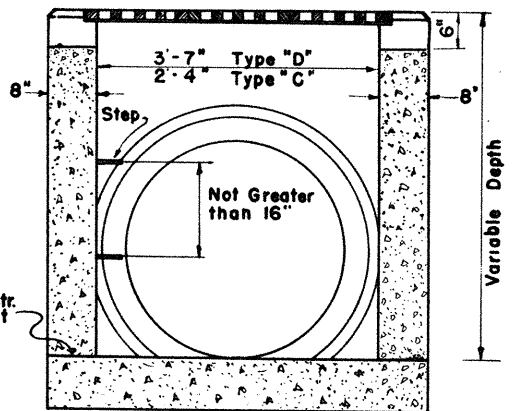
Steps shall be installed on inlets with a depth of more than 3'. Steps shall be $\frac{3}{4}$ " round wrought iron free from cracks and painted with one coat of asphaltum paint as per specifications, spaced not greater than 16" inches center to center.



SECTION - A-A

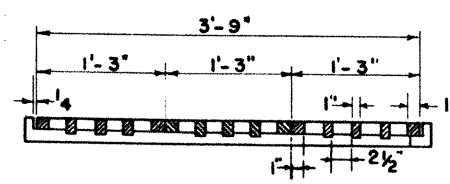


SECTION - B-B & D-D



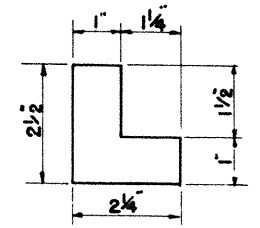
SECTION - C-C

Where Storm Sewer originates at Inlet
Construction Joint
Where Culvert passes through Inlet

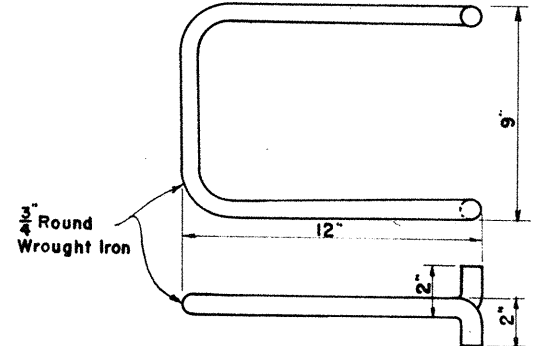


DETAIL OF CASTING
Scale $1'' = 1'-0''$

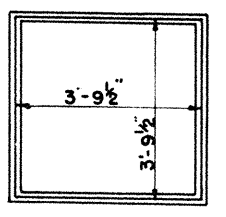
Note:
For detail of "Median Inlet Base", see sheet No. 8.



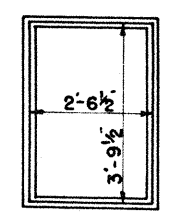
SECTION OF FRAME
Scale $6'' = 1'-0''$



DETAIL OF INLET STEP
Scale $3'' = 1'-0''$

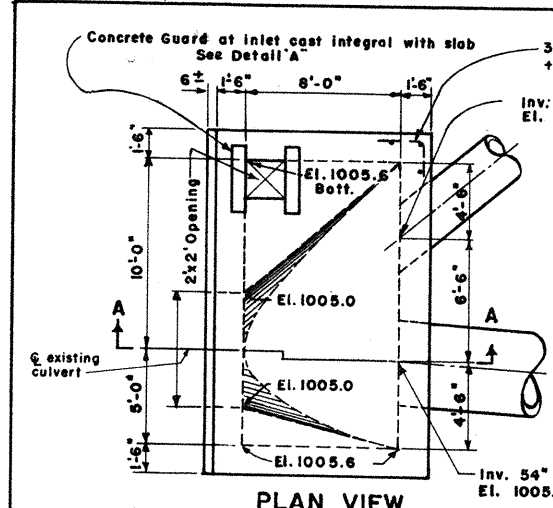


TYPES "B" & "D"



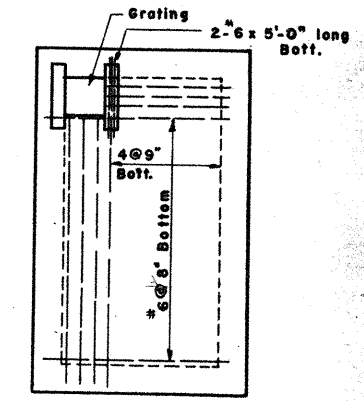
TYPES "A" & "C"

GRATING FRAMES
Scale $\frac{1}{2}'' = 1'-0''$

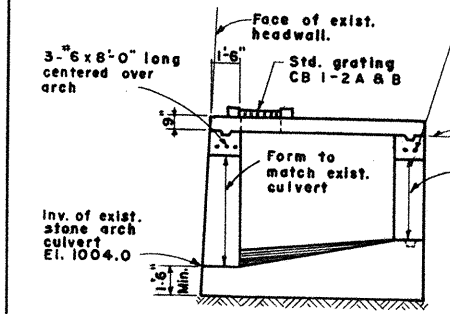


PLAN VIEW

NOTE:
Cross hatch section denotes concrete fill to provide smooth transition into arch culvert.



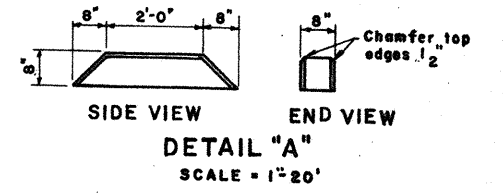
CEILING SLAB REINF.
(2" clearance to #6 bars)



SECTION - A-A

SPECIAL JUNCTION CHAMBER STA. 99+10

SCALE: $1'' = 5'$ (EXCEPT WHERE SHOWN)

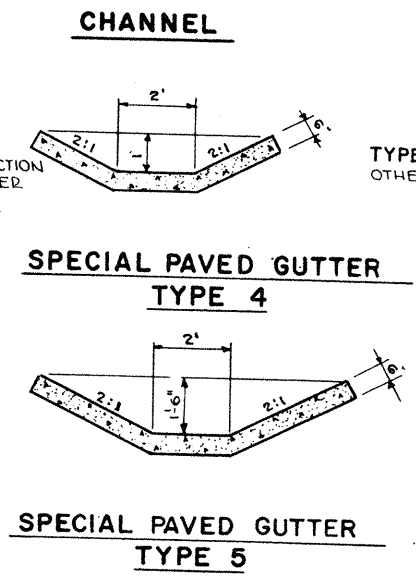
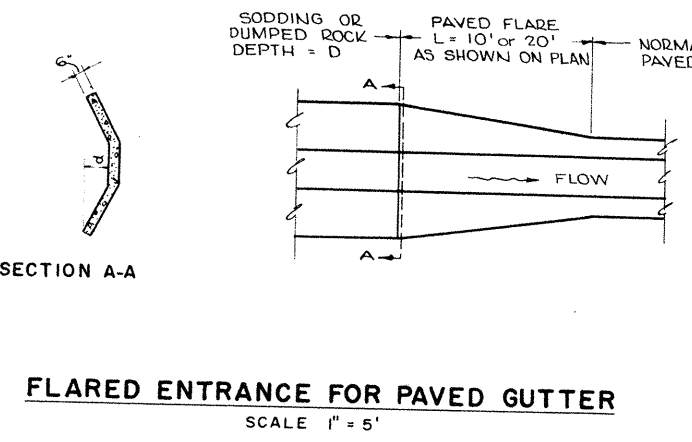
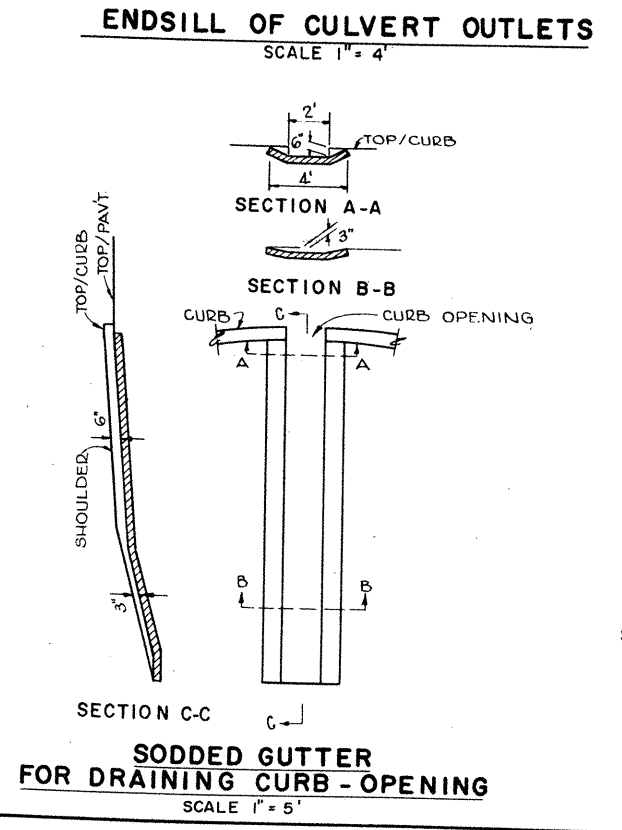
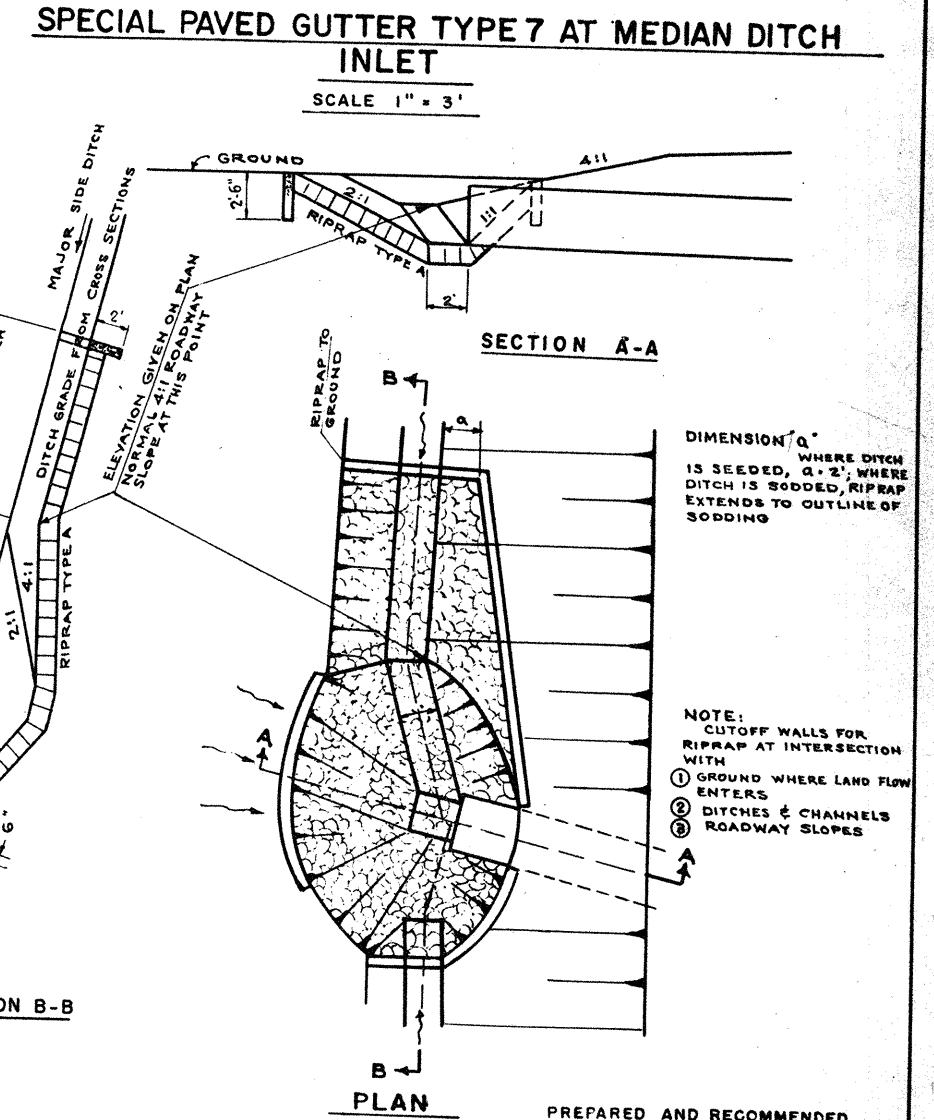
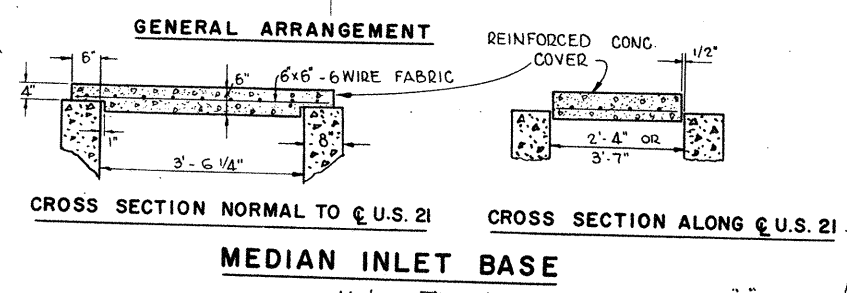
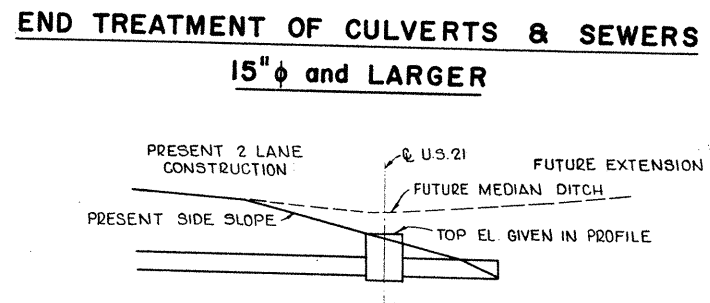
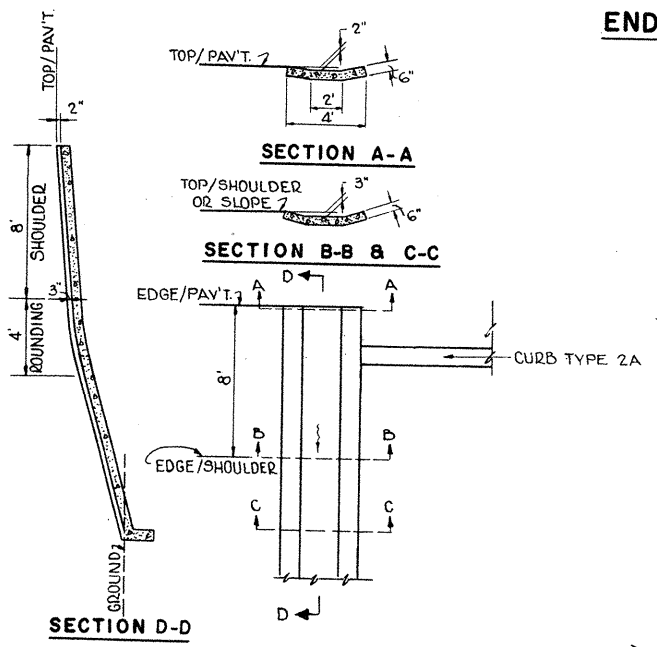
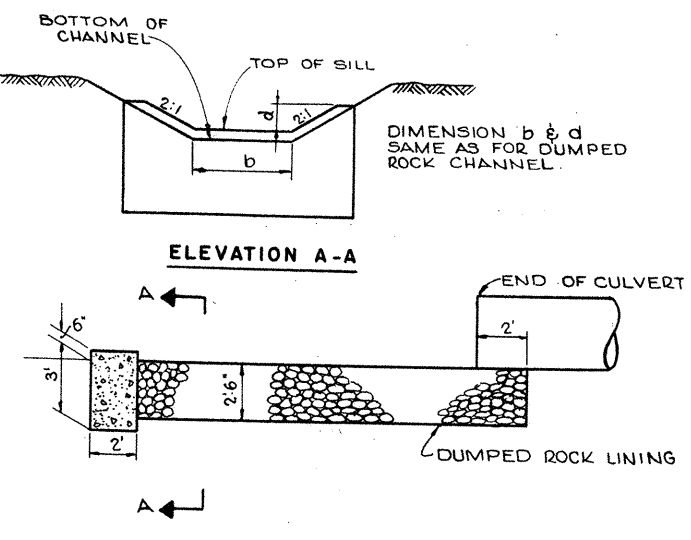
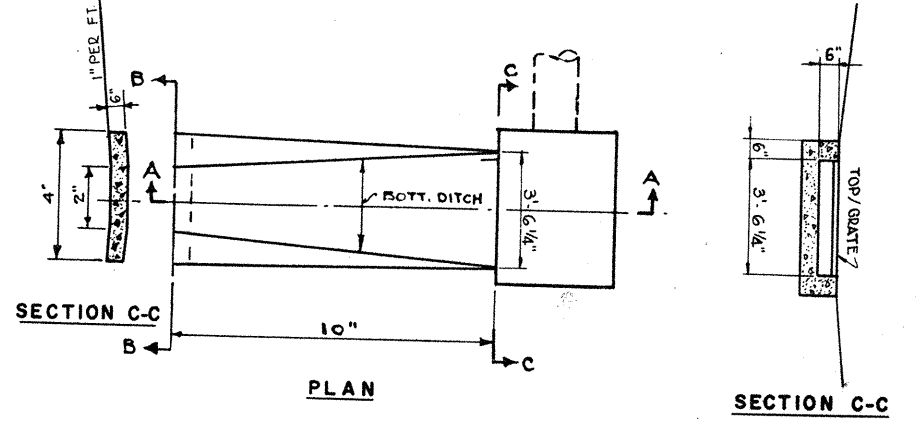
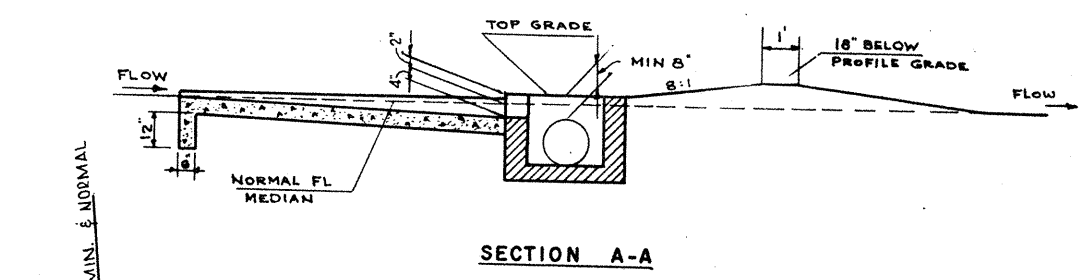
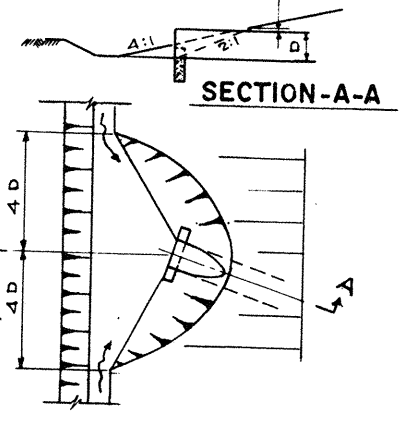
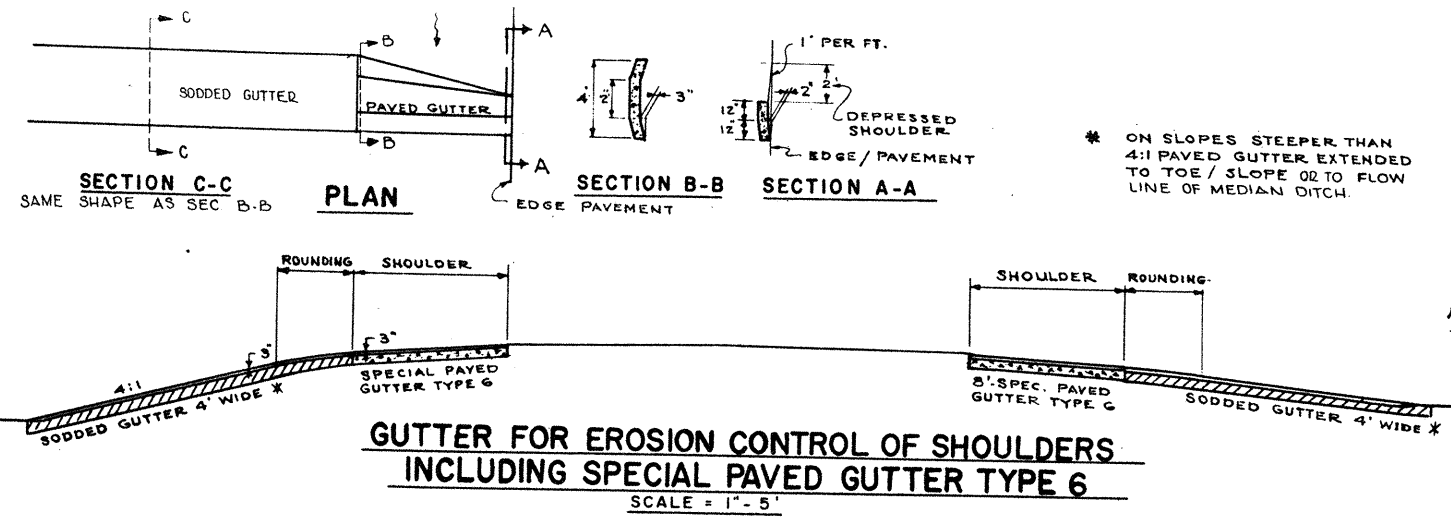


SIDE VIEW

END VIEW

DETAIL "A"
SCALE $1'' = 20'$

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	



PREPARED AND RECOMMENDED BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

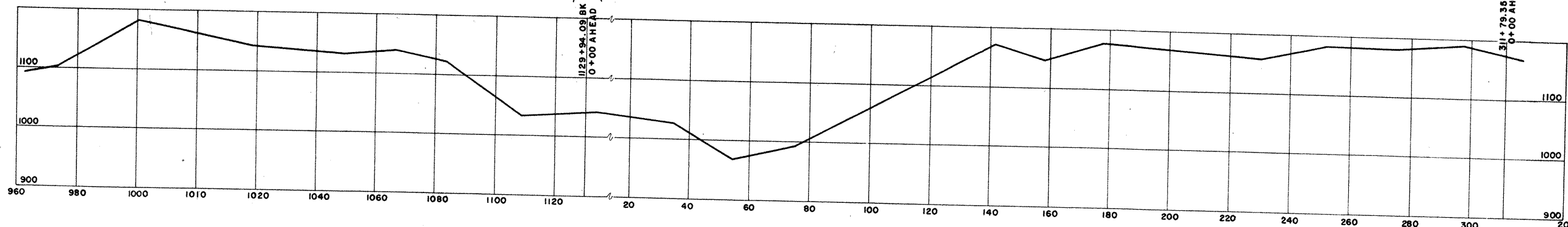
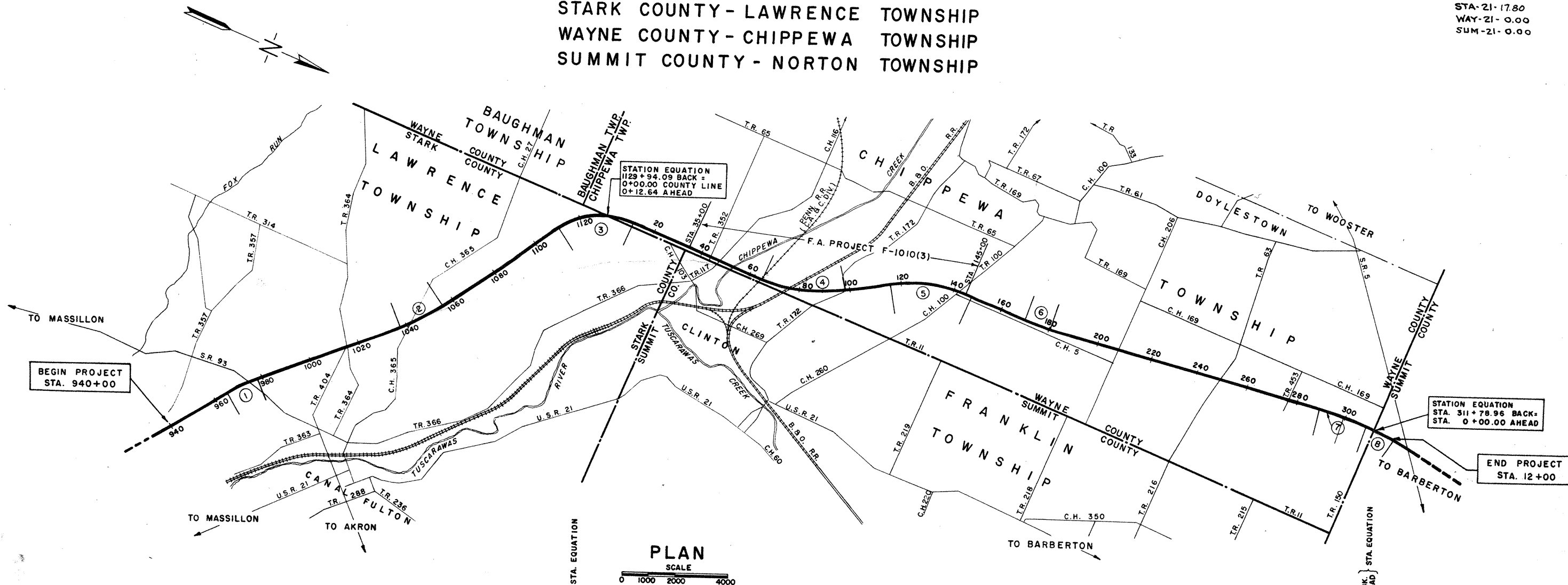
PLAN OF PROPOSED RELOCATION U.S. ROUTE 21

STARK COUNTY - LAWRENCE TOWNSHIP
 WAYNE COUNTY - CHIPPEWA TOWNSHIP
 SUMMIT COUNTY - NORTON TOWNSHIP

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

9
329

STA-21-17.80
 WAY-21-0.00
 SUM-21-0.00



CURVE NO. 1

Δ	9° 54' 30" RT.
D	0° 45' 00"
R	7639.44
T	662.21
L	1321.11
E	28.65
P.C.	964+52.73
P.I.	971+14.94
P.T.	977+73.84

CURVE NO. 2

Δ	14° 16' 35" LT.
D	0° 45' 00"
R	7639.44
T	956.72
L	1903.52
E	61.07
P.C.	1037+49.30
P.I.	1047+06.02
P.T.	1056+52.82

CURVE NO. 3

Δ	58° 22' 00"
Dc	2° 00' 00"
Rc	2864.79'
Lc	2618.34'
Ls	300.00'
Ts	1750.70
Xc	299.92
Yc	5.24
gs	3°00'
L.T.	200.03
S.T.	100.03

CURVE NO. 4

Δ	31° 35' 50"
D	1° 00' 00"
R	5729.58
T	1621.16
L	3159.72
E	224.93
P.C.	65+33.86
P.I.	81+55.02
P.T.	96+93.58

CURVE NO. 5

Δ	31° 51' 38" LT.
D	1° 00' 00"
R	5729.58
T	1635.39
L	3186.06
E	228.82
P.C.	115+71.31
P.I.	132+06.70
P.T.	147+57.37

CURVE NO. 6

Δ	8° 03' 30" LT.
D	0° 45' 00"
R	7639.44
T	538.11
L	1074.44
E	18.93
P.C.	169+98.32
P.I.	175+36.43
P.T.	180+72.76

CURVE NO. 7

Δ	6° 01' 30" RT.
D	0° 45' 00"
R	7639.44
T	402.04
L	803.33
E	10.58
P.C.	288+85.65
P.I.	292+87.69
P.T.	296+88.98

CURVE NO. 8

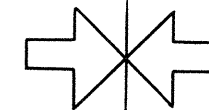
Δ	10° 49' 23"
D	0° 45' 00"
R	7639.44
T	723.69
L	1443.07
E	34.20
P.C.	308+00.39
P.I.	315+24.08
P.T.	10+64.50

RELATIVE DATA - PHASE 2

NO. OF CURVES - EXISTING LINE	
NO. OF CURVES - PROPOSED LINE	5
MAX. CURVE - EXISTING LINE	6°
MAX. CURVE - PROPOSED LINE	2° 00'
LENGTH OF EXISTING LINE	6.77 MILES
LENGTH OF PROPOSED LINE	5.41 MILES
DIFFERENCE IN LENGTH	0.36 MILES
MAX. GRADE - EXISTING LINE	5%
MAX. GRADE - PROPOSED LINE	3%
EXISTING ROUTE DEFLECTIONS	

PREPARED AND RECOMMENDED
 BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

ANOTHER PROJECT



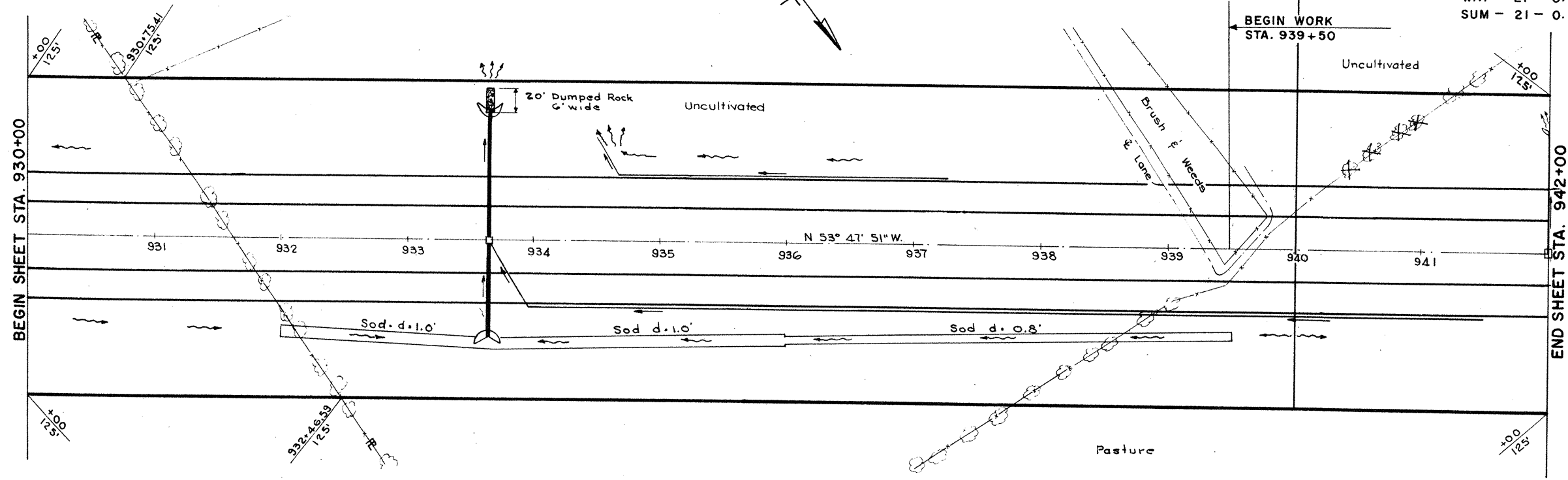
BEGIN PROJECT-STA.940+00

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

14
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

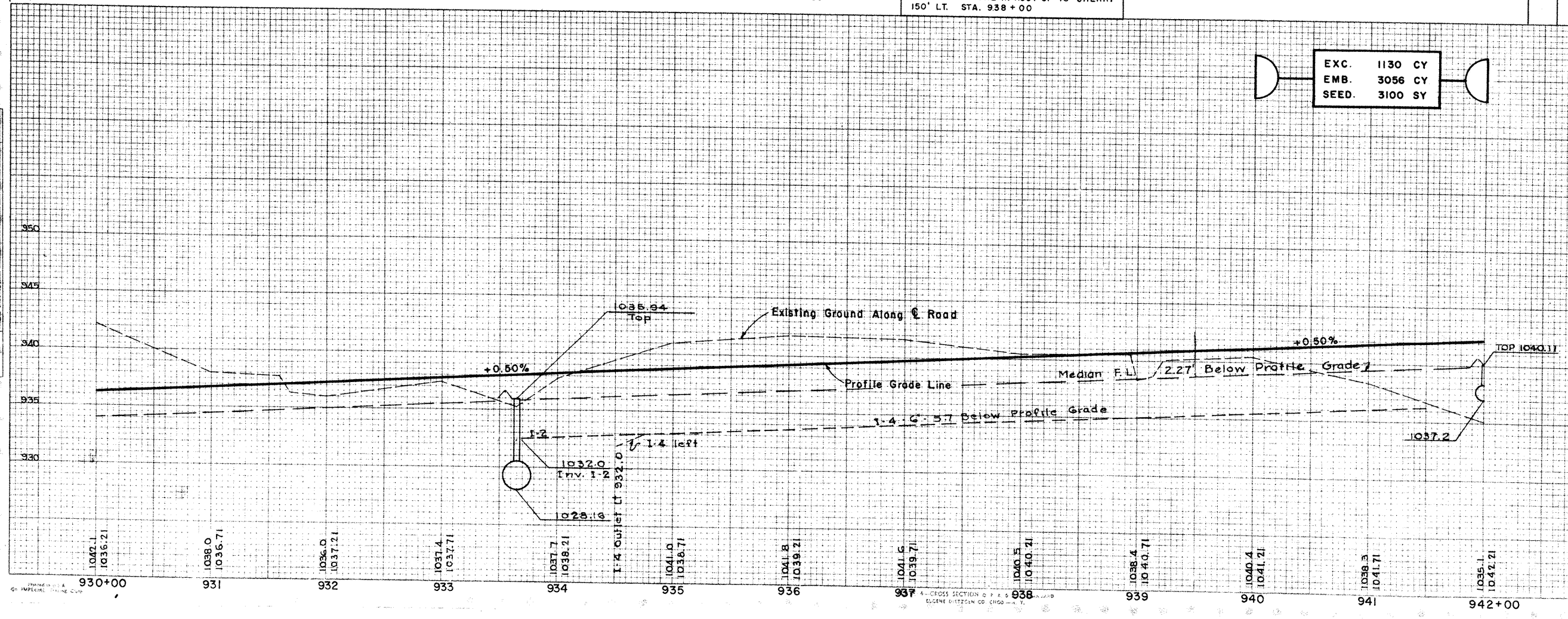


ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
I-22	Subbase	CY				211
55-18	Fence	LF	940+00/123	942+00/123	R	200
55-18	Fence	LF	940+00/123	942+00/123	L	200
I-4	DRAINAGE	LF	940+00	941+50	R	150
	6' Underdrains					

PLAN
SCALE: 1"=50'

B.M.# 332 ELEV. 1027.96
RAILROAD SPIKE IN ROOT OF 18" CHERRY
150' LT. STA. 938+00

EXC. 1130 CY
EMB. 3056 CY
SEED. 3100 SY

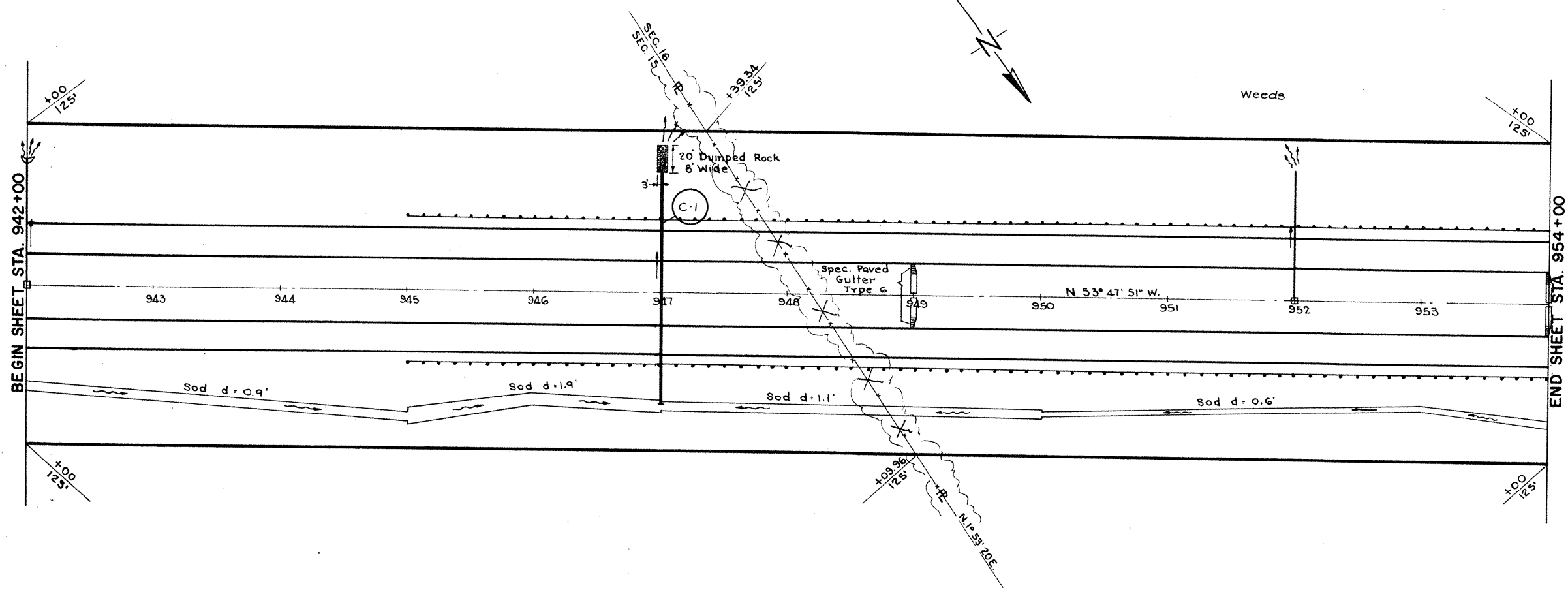


PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

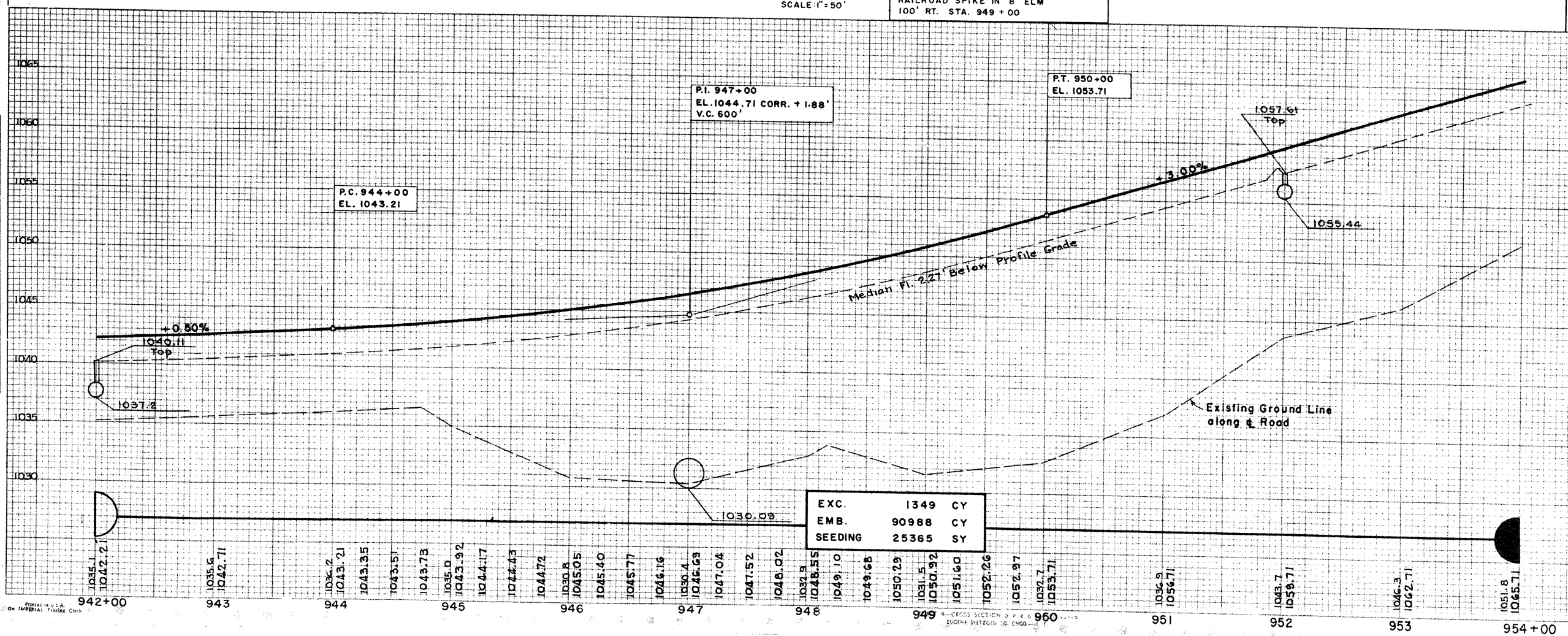
STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-1	947+00	Pipe Culvert	30' x 18"	263

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
I-15	ROADWAY					
	Guard Rail	LF	945+00	954+00	L & R	1800
I-22	Subbase	CY				1840
L-10	Sodding 8' Wide	SY	942+00	945+00	R	270
L-10	Sodding 11' Wide (Ave.)	SY	945+00	947+00	R	250
L-10	Sodding 7' Wide	SY	947+00	950+00	R	230
L-10	Sodding 5' Wide	SY	950+00	954+00	R	220
L-10	Pipe End Treatment	SY	942+00		L	2
L-10	Sodding 4' Wide	SY	949+00		L	20
S5-18	Fence	LF	942+00/123	954+00/123	L & R	1200
S5-18	Fence	LF	942+00/123	954+00/123	L	1200
	DRAINAGE					2400
I-2	15" Storm Sewer A Under Pavt.	LF	942+00		L	94
I-2	15" Storm Sewer A Under Pavt.	LF	952+00		L	58
I-2	15" Storm Sewer A, M-6.4(6)	LF	952+00		L	42
I-5 or I-2	30° Bend 15", M-6.4(6)	Ea	952+00		L	2
I-8	Spec. Median Inlet Type A	Ea	942+00		L & R	1
I-8	Spec. Median Inlet Type A	Ea	952+00		L & R	1
I-14	Spec. Paved Gutter Type 6	LF	949+00		L & R	2



PLAN
SCALE: 1" = 50'
B.M. # 333 ELEV. 1038.28
RAILROAD SPIKE IN 8" ELM
100' RT. STA. 949+00



PREPARED AND RECOMMENDED BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

OVERHEAD SIGNSTRUCTURE
 Station: 957+00 (northbound lane)
 Type: OS-2-A
 Span: 44'
 H: 3'
 2 Signs: 3x6'
 4 Sign Supports: 3,3,9,9 from beam splice

RAMP "D" RT. EDGE
 P.I. 9+66.68
 $\Delta = 8^\circ 14' 48''$
 $D = 4^\circ 00' 00''$
 $R = 1432.39$
 $T = 103.26$
 $L = 206.17$

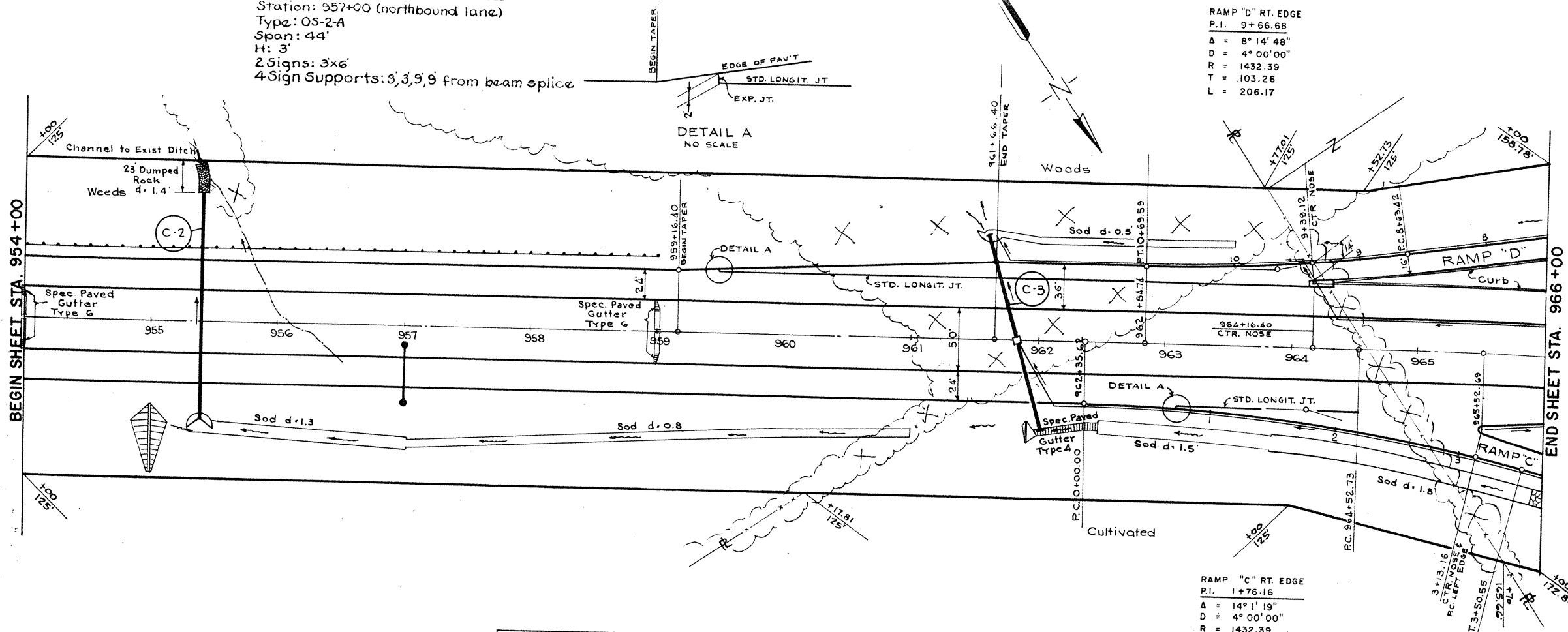
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

STA - 21 - 17.80
 WAY - 21 - 0.00
 SUM - 21 - 0.00

16
329

STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-2	955+40	Pipe Culvert	30" x 180"	268
C-3	961+82	Pipe Culvert	36" x 160"	268

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
E-1	Compacted Subgr. Add. Lane	SY	954+00	959+00	L	1555
I-15	Guard Rail	L.F.	954+00	959+00	L	500
I-18	Stab. Shldr. - Add. Lanes	C.Y.				24
I-22	Subbase - Add. Lanes	C.Y.				263
I-22	Subbase - Main Rdwy.	C.Y.				948
L-10	4' Wide Sodding	SY	954+00		L & R	20
L-10	10' Wide Sodding	SY	955+40	957+00	R	180
L-10	7' Wide Sodding	SY	957+00	961+00	R	320
L-10	4' Wide Sodding	SY	959+00		L & R	20
L-10	5' Wide Sodding	SY	961+60	963+55	R	110
L-10	12' Wide Sodding	SY	0+100'	1+500'	R	190
L-10	13' Wide Sodding	SY	1+500'	3+650'	R	310
SS-18	Fence	L.F.	954+09/123	964+52.73/2	L	1053
SS-18	Fence	L.F.	964+52.73/2	964+09/123	R	147
SS-18	Fence	L.F.	964+09/123	964+09/123	R	1000
SS-18	Fence	L.F.	964+09/123	964+09/123	R	200
Spec.	Overhead Bridge Sign Assembly	Each	957+00		R	2400
PAVEMENT						
T-71	9" RC Pav't Add. Lanes	SY				1412
I-12	Type 2A Curb	L.F.	964+31	966+00	L	360
I-21	P.C.C. Median Pav't	C.Y.	964+15	964+55	L	35
DRAINAGE						
I-2	6" Storm Sewer 'A' Under Pav't	L.F.	961+82	962+12	R	56
I-2	6" Storm Sewer 'A' Under Pav't	L.F.	964+08	964+35	R	52
I-4	6" Underdrain	L.F.	961+65	966+00	L	390
I-4	6" Underdrain	L.F.	7+50'D	9+46'D	R	244
I-4	6" Underdrain	L.F.	962+12	3+75'C	R	388
I-4	6" Underdrain	L.F.	965+52	966+00	R	48
I-4	6" Outlet	L.F.	961+65		L	10
I-4	6" 60° Bend	Ea	961+75		L	1
I-4	6" 60° Bend	Ea	962+12		L	1
I-4	6" 60° Bend	Ea	964+16		L	1
I-4	6" Wye	Ea	964+08		L	1
I-14	Spec. Pav't Gutter Type 6	L.F.	954+00		L & R	16
I-14	Spec. Pav't Gutter Type 6	L.F.	959+00		L & R	16
I-14	Spec. Pav't Gutter Type 4	L.F.	962+00	962+46	R	32



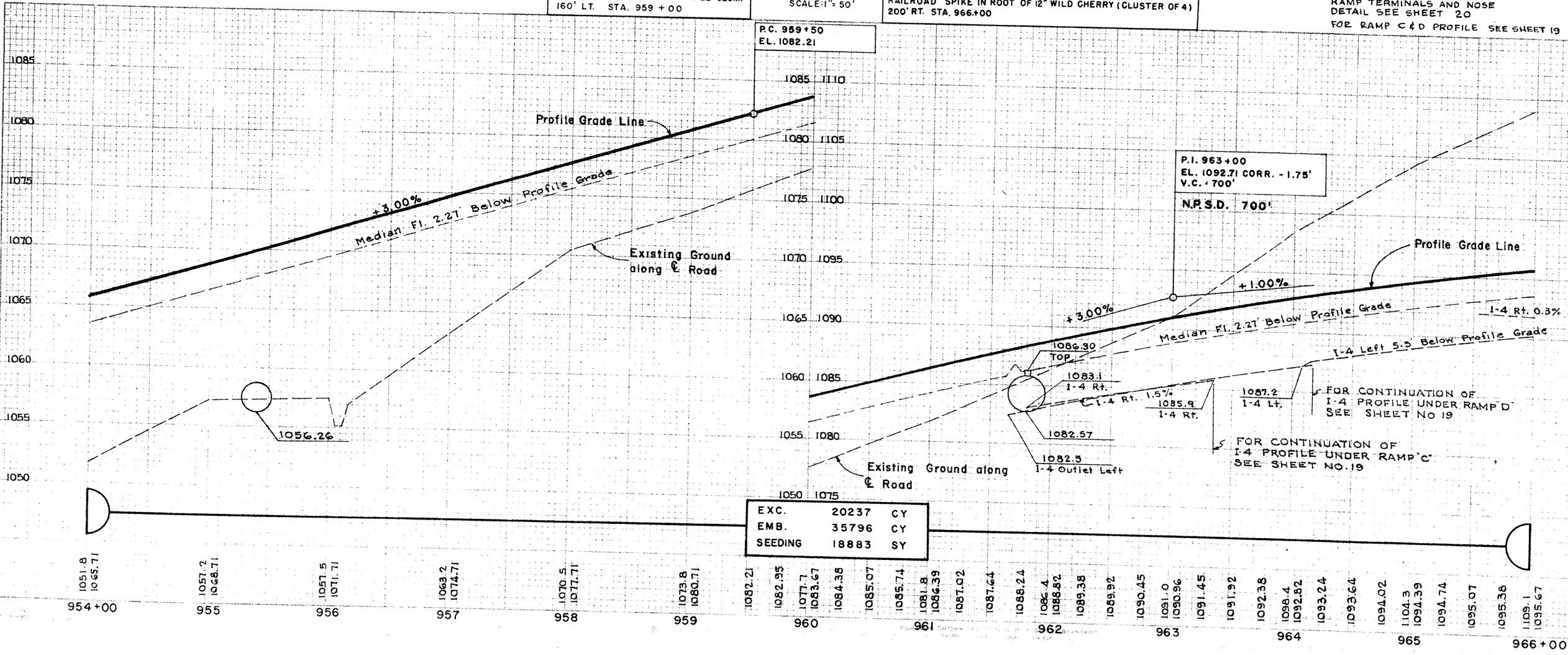
PLAN
 SCALE: 1" = 50'

B.M. # 334 ELEV. 1063.53
 RAILROAD SPIKE IN 18" MAPLE CLUMP
 160' LT. STA. 959+00

B.M. # 335 ELEV. 1112.19
 RAILROAD SPIKE IN ROOT OF 12" WILD CHERRY (CLUSTER OF 4)
 200' RT. STA. 966+00

RAMP "C" RT. EDGE
 P.I. 1+76.16
 $\Delta = 14^\circ 1' 19''$
 $D = 4^\circ 00' 00''$
 $R = 1432.39$
 $T = 176.16$
 $L = 350.55$

FOR JOINTING DETAIL AT RAMP TERMINALS AND NOSE DETAIL SEE SHEET 20
 FOR RAMP C & D PROFILE SEE SHEET 19



EXC.	20237	CY
EMB.	35796	CY
SEEDING	18883	SY

PREPARED AND RECOMMENDED BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

LINE SHEET STA. 954+00 TO STA. 966+00

Note: Between 966+00 & 972+00, 8.11% of Form Drain is from East to West. All Lines Originate within 1/2 W Limits and are to be Abandoned within 1/2 W Limits. For reasons of clarity, only the Outlet End of the Drain is shown on this Plan.

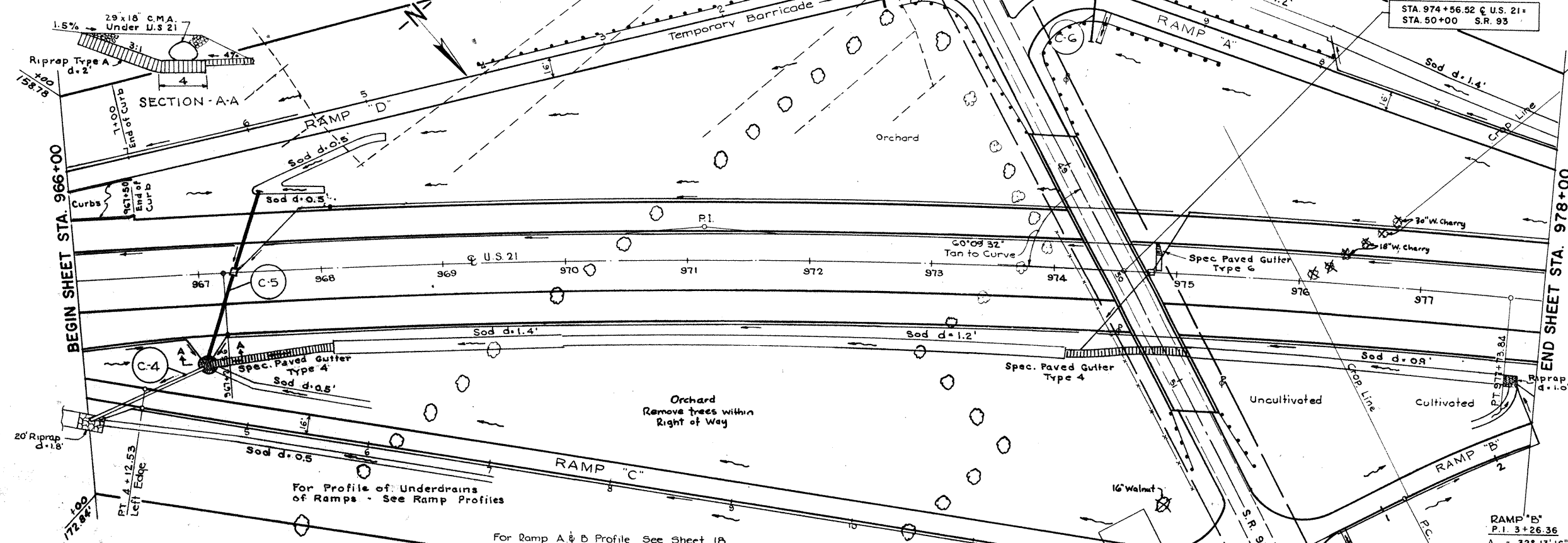
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

STA. 21-17.80
WAY-21-0.00
SUM-21-0.00

STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-4	967+31	Pipe Arch Culvert	45' x 27' x 106'	268
C-5	967+31	Pipe Arch Culvert	29' x 18' x 150'	268
C-6	RAMP "A"	Pipe Culvert	15' x 8G'	268

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB TOTAL	TOTAL
ROADWAY							
E-1	Comp Subgr Ramp Lanes	SY.					7527
I-15	Guard Rail Ramp Lanes	LF.					
I-15	Guard Rail Ramp Lanes	LF.					
I-15	Guard Rail Ramp Lanes	LF.					
I-15	Guard Rail Ramp Lanes	LF.					
I-15	Guard Rail Ramp Lanes	LF.					
I-15	Guard Rail Ramp Lanes	LF.					
I-18	Stab Shldr. Ramp Lanes	CY.					332
I-22	Subbase Ramp Lanes	CY.					1085
I-22	Subbase Main Rdwy.	CY.					1775
L-10	Sodding 5' Wide	SY.	3+75 "C"	7+00 "C"	R	180	
L-10	Sodding 5' Wide	SY.	4+65 "C"	6+00 "C"	L	75	
L-10	Sodding 11' Wide	SY.	968+10	970+00	R	230	
L-10	Sodding 10' Wide	SY.	970+00	974+13	R	460	
L-10	Sodding 8' Wide	SY.	975+13	977+78	R	235	
L-10	Sodding 5' Wide	SY.	967+55	968+10	R	30	
L-10	Sodding 5' Wide	SY.	4+90 "D"	6+00 "D"	R	60	
L-10	Sodding 11' Wide	SY.	6+00 "A"	8+00 "A"	R	240	
L-10	Sodding 10' Wide	SY.	8+00 "A"	10+00 "A"	R	220	
L-10	Sodding 4' Wide	SY.	974+85		R	30	
L-10	Sodding 5' Wide	SY.	1+90 "B"	2+40 "B"	L	30	
L-10	Sodding 4' Wide	SY.	9+76 "A"		R	5	
L-10	Sodding 4' Wide	SY.	0+65 "B"		L	5	
L-10	Sodding 4' Wide	SY.	0+79 "D"		R	15	1820
SS-18	Fence	LF.	973+50/9875	973+50/9875	R	644	
SS-18	Fence	LF.	973+50/9875	978+00/191	R	473	
SS-18	Fence	LF.	966+00/17084	975+00/6758	R	977	
SS-18	Fence	LF.	976+8734/254.87	978+00/201.8	R	126	2220
	Spec. Temporary Barricade	LF.	0+70 Ramp D		R	55	
PAVEMENT							
T-71	9" RC Pavt Ramp Lanes	SY.					4195
I-12	Type 2A Curb Ramp "A"	LF.	9+80	11+00	R/L	320	
I-12	Type 2A Curb Ramp "B"	LF.	0+10	0+60	R/L	150	
I-12	Type 2A Curb Ramp "C"	LF.	12+50	13+40	R/L	200	
I-12	Type 2A Curb Ramp "D"	LF.	0+10	0+80	R/L	180	
I-12	Type 2A Curb Ramp "D"	LF.	7+00	7+50	L	100	950
DRAINAGE							
I-2	8" Storm Sewer "A"	LF.	967+31	967+56	L	25	28
	6" Storm Sewer "A" Under Pavt	LF.	967+57	967+83	L	36	
	6" Storm Sewer "A" Under Pavt	LF.	974+80	975+10	L	40	76
	15" Storm Sewer "A" Under Pavt	LF.	974+23	974+80	R	57	88
I-4	6" Underdrain	LF.	5+50 "D"	7+52 "D"	R	252	
	6" Underdrain	LF.	966+00	967+00	R	112	
	6" Underdrain	LF.	967+09	974+20	R	720	
	6" Underdrain	LF.	974+36	978+00	R	364	
	6" Underdrain	LF.	966+00	967+30	L	130	
	6" Underdrain	LF.	967+56	974+80	L	1420	
	6" Underdrain	LF.	974+93	978+00	L	596	
	6" Underdrain	LF.	3+80 "C"	13+00 "C"	R	922	
	6" Underdrain	LF.	6+00 "A"	7+94 "A"	R	206	
	6" Underdrain	LF.	0+50 "B"	2+30 "B"	R	180	
	6" Underdrain	LF.	5+50 "D"	7+50 "D"	R	200	5102
	6" Outlet	LF.	7+94 "A"	8+00 "A"	R	10	
I-5 for I-2	6" Wye	Ea	967+56		L	1	
	6" Wye	Ea	974+93		L	1	
	6" 8" Increaser	Ea	967+57		L	1	
I-5 for I-4	6" 60° Bend	Ea	966+86		L	1	
	6" 60° Bend	Ea	967+22		L	1	
	6" 60° Bend	Ea	975+10		L	1	
	6" 45° Bend	Ea	7+85 "A"		L	1	
	6" 30° Bend	Ea	967+83		L	1	
I-8	Spec Median Inlet A	Ea	4+06 "C"		L	1	
I-10	Riprap Included in Culvert Quantities	Ea	974+80		C	1	
I-14	Spec Paved Gutter Type 4	LF.	967+10	968+10	R	100	
I-14	Spec Paved Gutter Type 4	LF.	974+13	975+13	R	100	200
I-14	Spec Paved Gutter Type 6	LF.	974+85		R	8	
I-14	Spec Paved Gutter Type 8	LF.	12+50 "C"		R	14	



PROPOSED BRIDGE DATA - STA. 21-1846
 TYPE - Cont. Steel Beam with Reinf. Conc. Deck and Substructure
 SPAN - 56'-0", 70'-0", 70'-0", 56'-0" c/c Brds.
 ROADWAY - 28'-0" +/- 2'-0" Safety Curbs
 LOAD FREQ. RATING - C.F. = 400 (Cont'd below)

For Ramp A & B Profile See Sheet 18
 For Ramp C & D Profile See Sheet 19
 For Interchange Details See Sheet 20

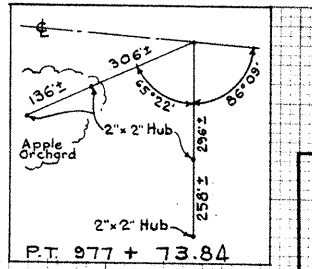
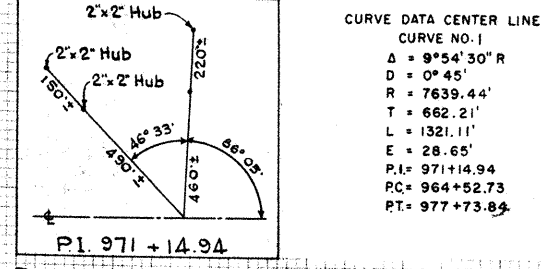
PLAN
SCALE: 1"=50'

For Plan and Profile of S.R. 93 See Sheet No. 211 & 212

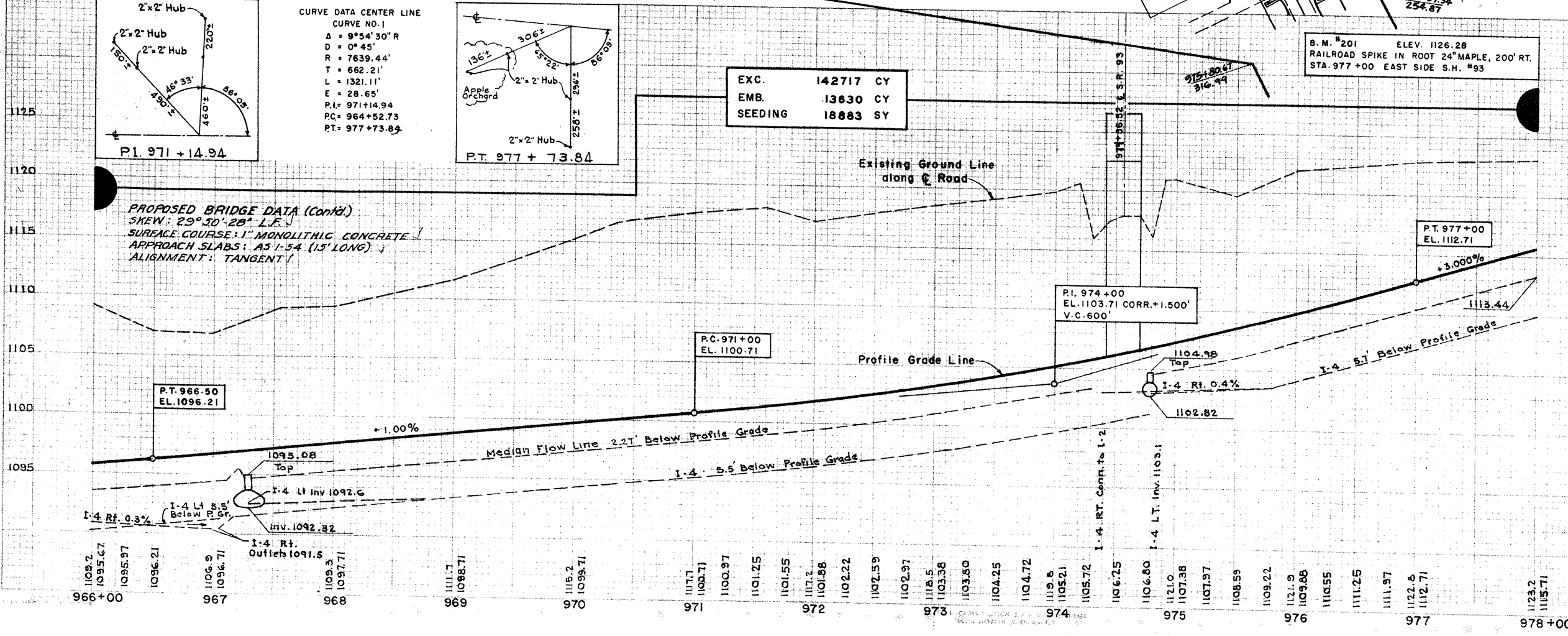
RAMP "B"
P.I. 3+26.36
Δ = 32° 13' 16"
D = 08° 00' 00"
R = 716.20
T = 206.86
L = 402.76
E =

B.M. #201 ELEV. 1126.28
RAILROAD SPIKE IN ROOT 24" MAPLE, 200' RT.
STA. 977+00 EAST SIDE S.H. #93

EXC. 142717 CY
EMB. 13630 CY
SEEDING 18883 SY



PROPOSED BRIDGE DATA (Cont'd.)
 SKEW: 29° 30' 28" L.F.
 SURFACE COURSE: 1" MONOLITHIC CONCRETE
 APPROACH SLABS: AS 1'-54" (15' LONG)
 ALIGNMENT: TANGENT



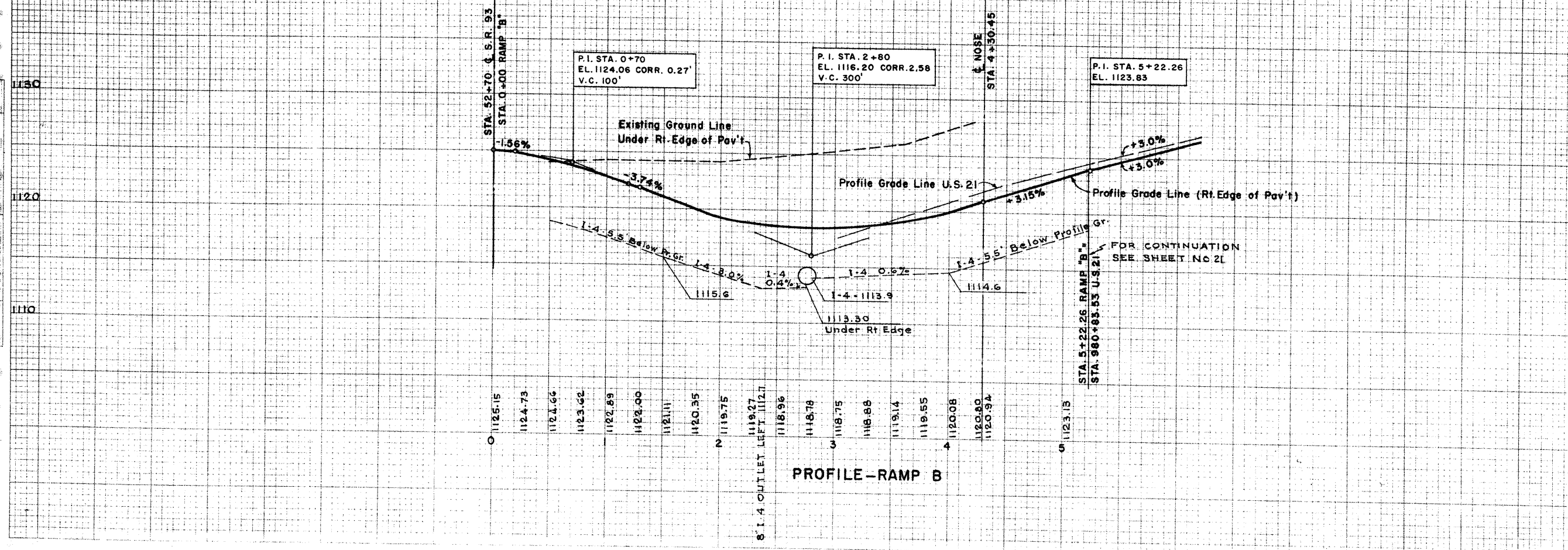
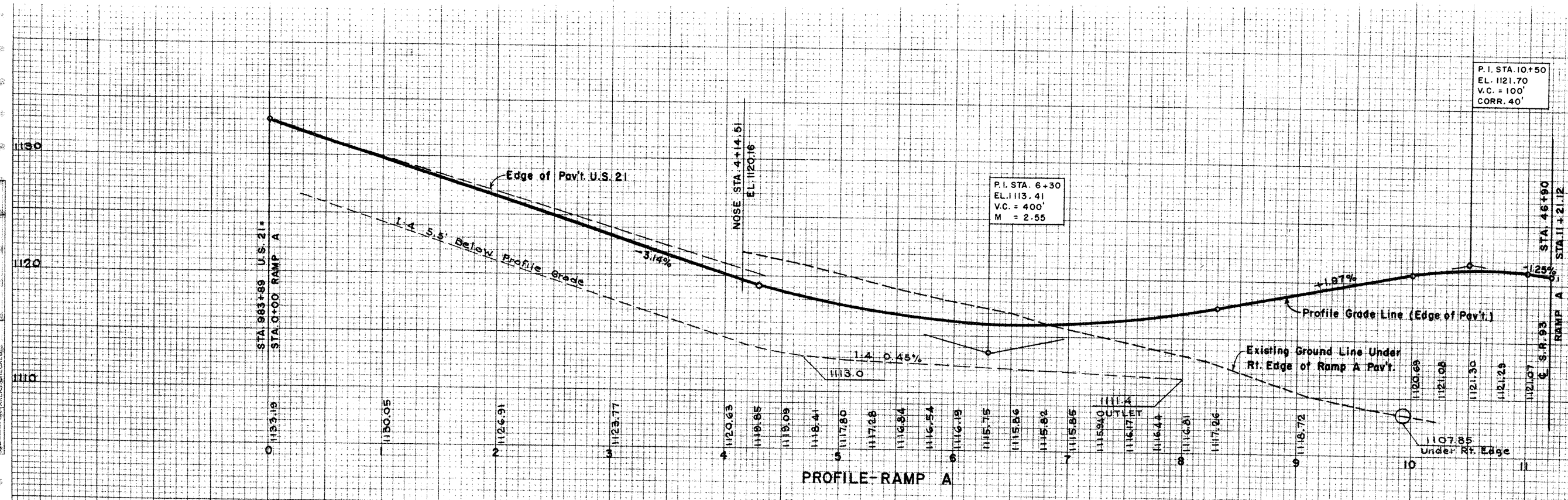
PREPARED AND RECOMMENDED BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

P. I. STA. 10+50
EL. 1121.70
V.C. = 100'
CORR. 40'

STA. 21 - 17.60
WAY 21 - 0.00
SUM 21 - 0.00

FINAL SURVEY PLOTTED
NOTE BOOK TEMPLATE
NO. AREAS CHECKED

ORIGINAL SURVEY PLOTTED
NOTE BOOK TEMPLATE
NO. AREAS CHECKED

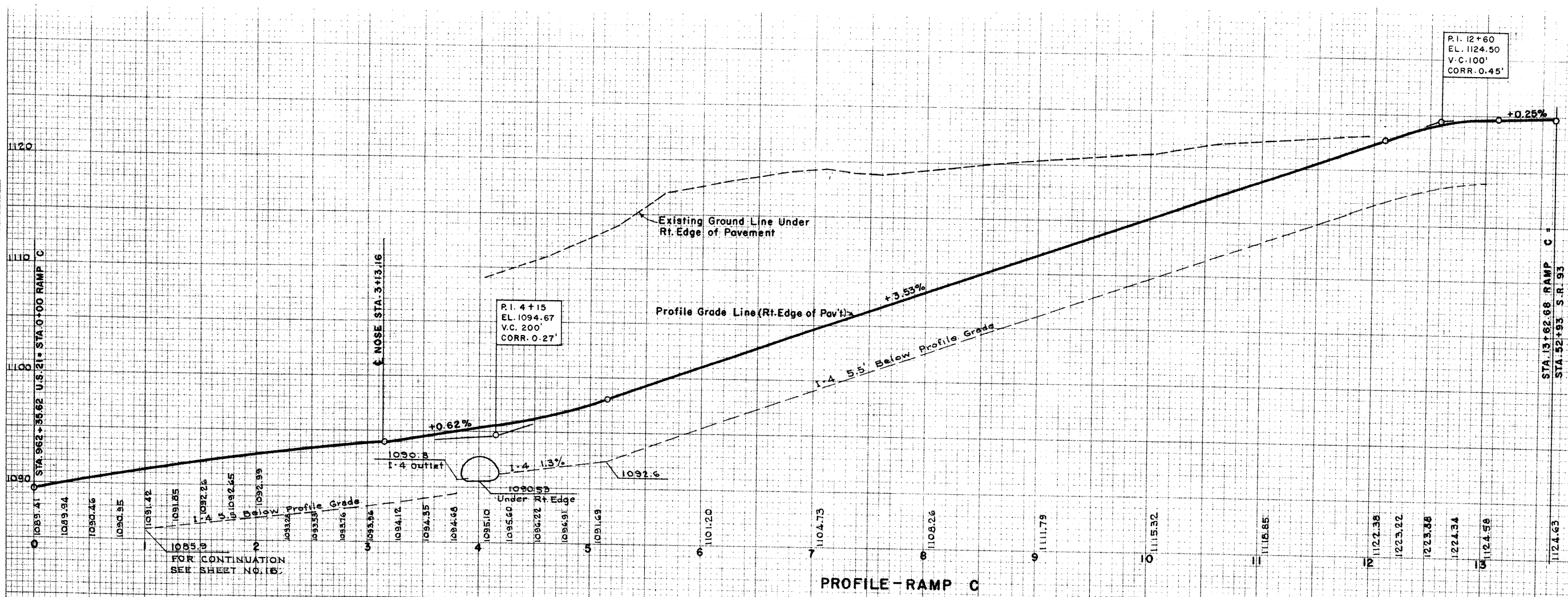


PREPARED AND RECOMMENDED BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

19
329

STA 21 - 117.50
WAT 21 - 0.00
SUM 21 - 0.00



FINAL SURVEY
NOTE BOOK NO. 1000
AREAS CHECKED

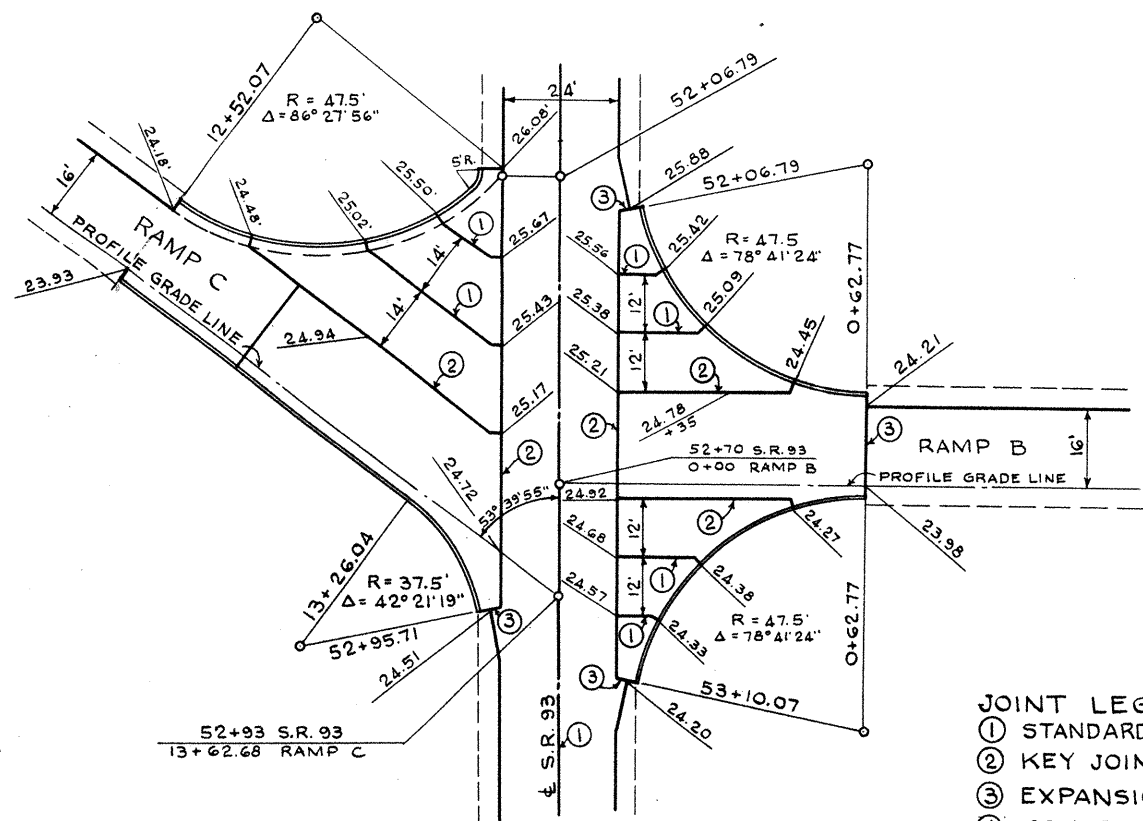
ORIGINAL SURVEY
NOTE BOOK NO. 1000
DATE

FOR CONTINUATION
SEE SHEET NO. 16

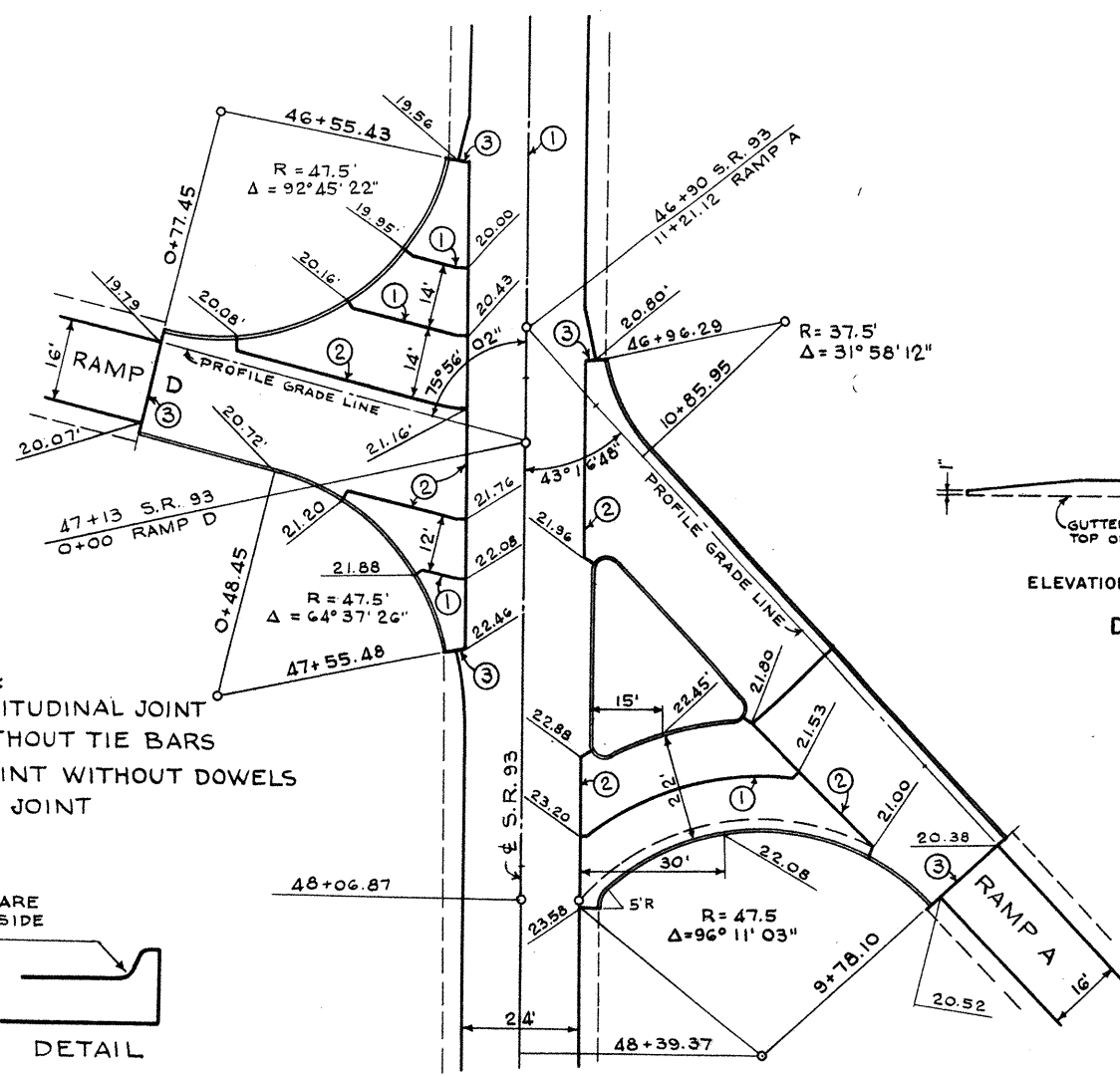
FOR CONTINUATION
SEE SHEET NO. 16

PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA. 21 - 17.80
WAY 21 - 0.00
SUM 21 - 0.00



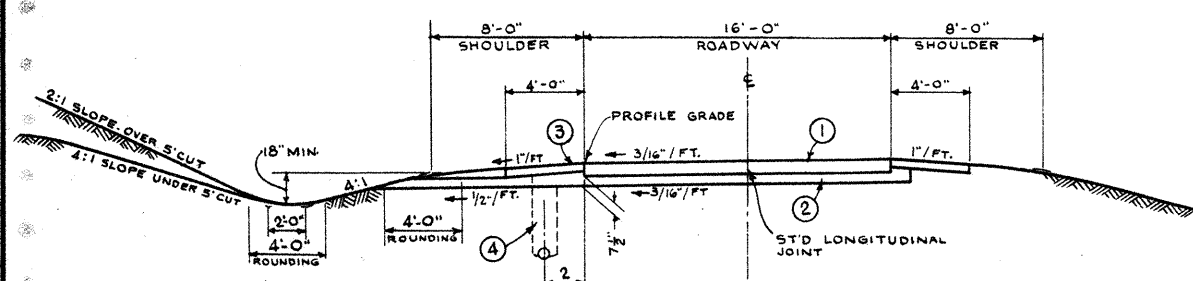
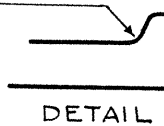
PLAN AT RAMP B AND INTERSECTION
S.R. 93
SCALE: 1" = 20'



PLAN AT RAMP A AND D INTERSECTION
S.R. 93
SCALE: 1" = 20'

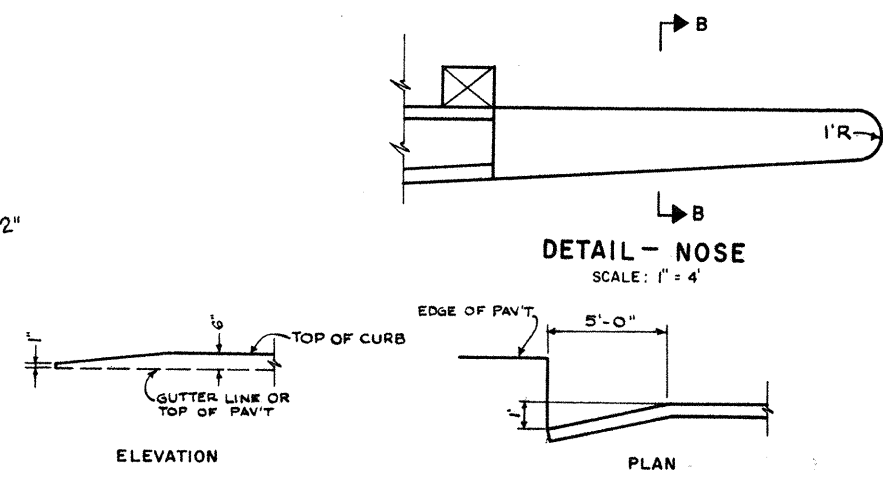
- JOINT LEGEND:
- ① STANDARD LONGITUDINAL JOINT
 - ② KEY JOINT WITHOUT TIE BARS
 - ③ EXPANSION JOINT WITHOUT DOWELS
 - ④ CONTRACTION JOINT

ALL ELEVATIONS ARE GIVEN ON THE INSIDE FACE OF CURB.

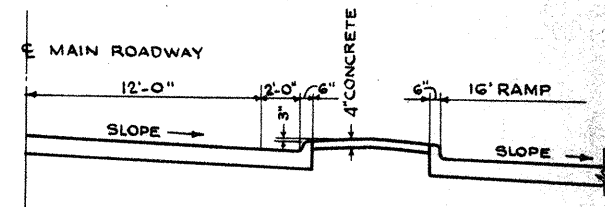


TYPICAL SECTION
INTERCHANGE RAMPS
SCALE: 1" = 16'

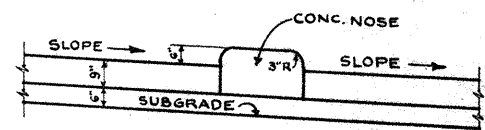
- ① 1 - 71 9" REINFORCED CONCRETE PAV'T
- ② 1 - 22 6" SUBBASE
- ③ 1 - 18 6" STABILIZED SHOULDERS
- ④ 1 - 4 6" SUBDRAINS, WHERE SHOWN ON PLAN & PROFILE SHEETS



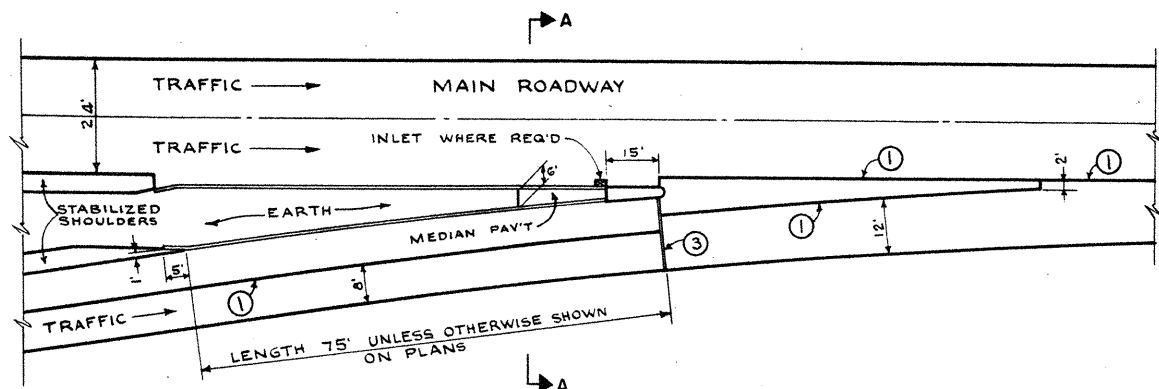
DETAIL - TYPICAL CURB FLARE
SCALE: 1" = 4'



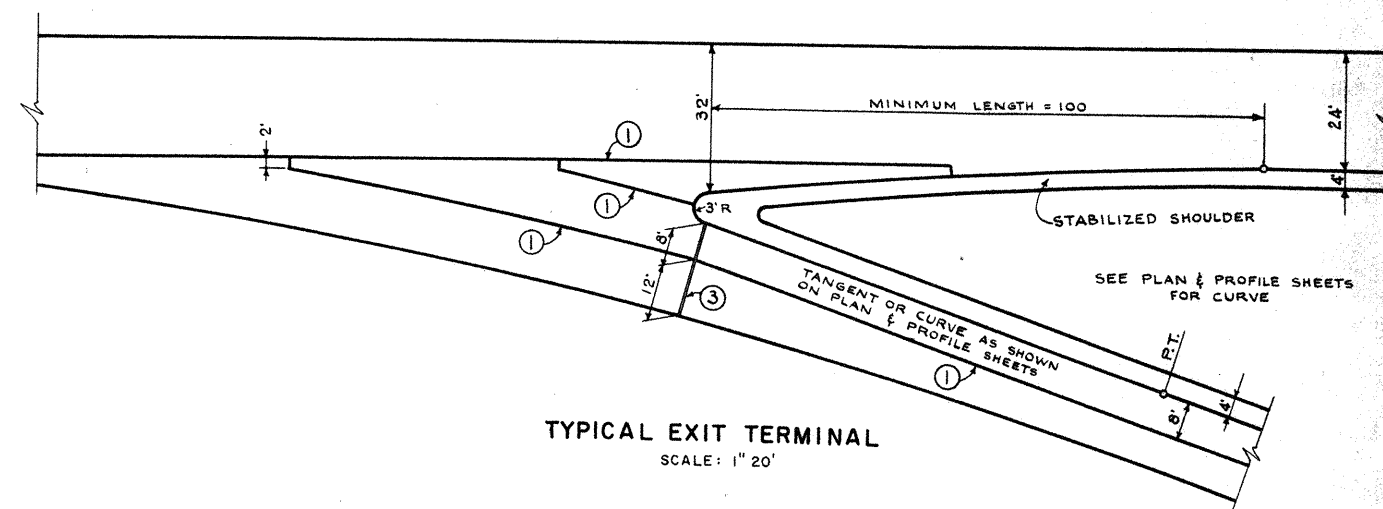
SECTION A-A
SCALE: 1" = 5'



SECTION B-B
SCALE: 1" = 3'



TYPICAL ENTRANCE TERMINAL
SCALE: 1" = 20'



TYPICAL EXIT TERMINAL
SCALE: 1" = 20'

PREPARED AND RECOMMENDED BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

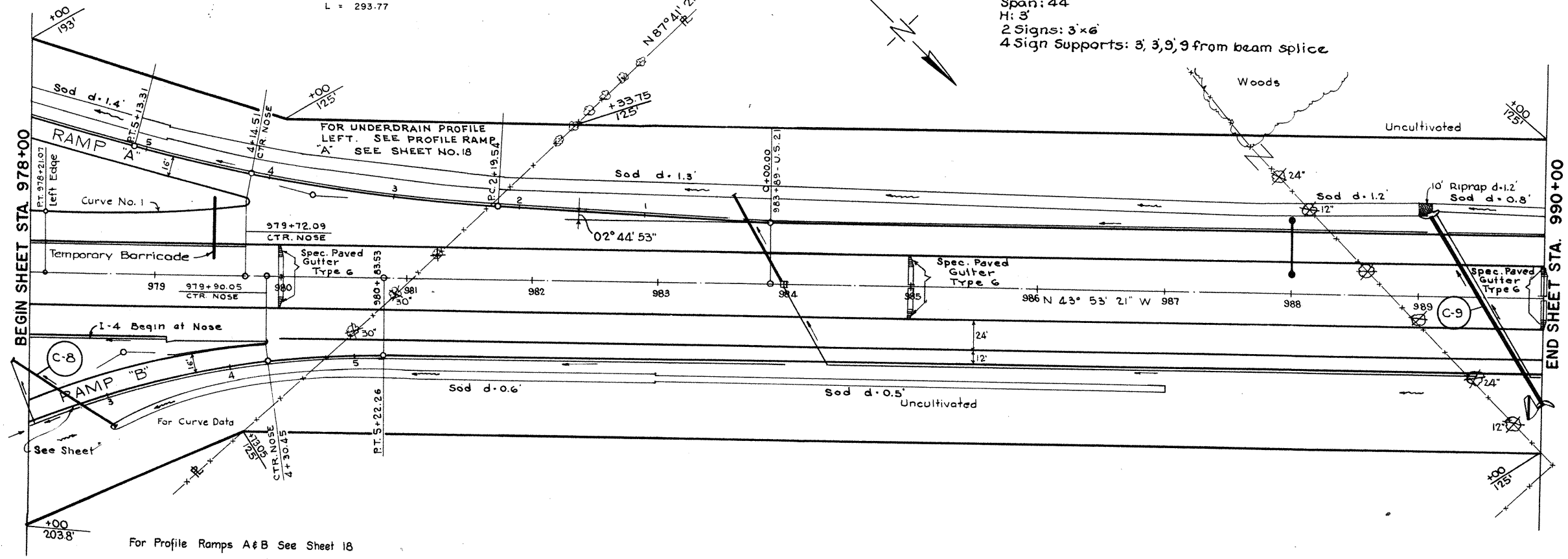
CURVE NO. 1
 Δ = 6°03'53"
 D = 4°00'
 R = 1432.39
 Δ = 11°45'03"
 D = 04°00'00"
 R = 1432.39
 T = 147.40
 L = 293.77

OVERHEAD SIGN STRUCTURE
 Station 988+00 (Southbound lane)
 Type: OS-2-A
 Span: 44'
 H: 3'
 2 Signs: 3'x6'
 4 Sign Supports: 3, 3, 9, 9 from beam splice

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

STA. 21 - 17.80
 WAY 21 - 0.00
 SUM 21 - 0.00

21/329



STRUCTURES - 20' SPAN AND UNDER

MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-8	988+00	Pipe Culvert	18" x 100'	26E
C-9	989+47	Pipe Arch Culvert	36"x22"x176"	26E

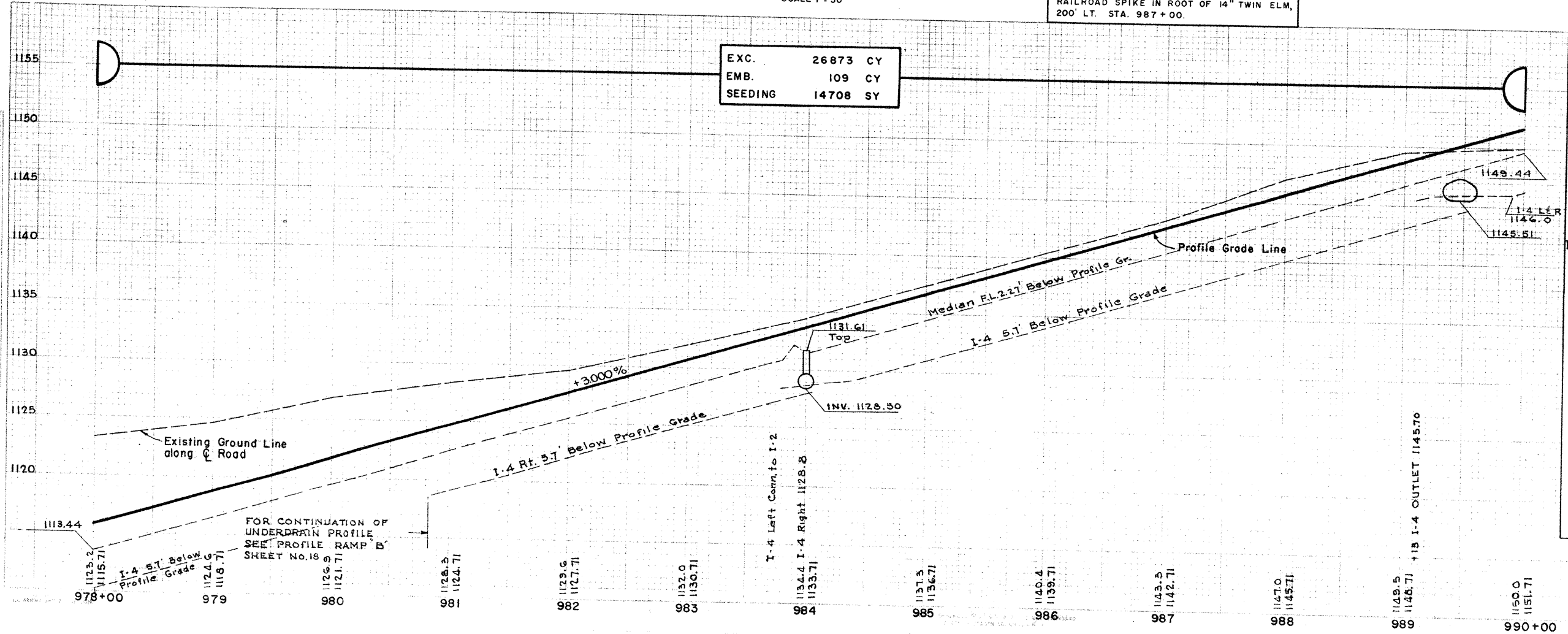
ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB TOTAL	TOTAL
ROADWAY							
E-1	Compacted Subgr. Add. Lanes	SY					3082
I-18	Stab. Shldr. Add. Lanes	CY					50
I-22	Subbase Add. Lanes	CY					575
I-22	Subbase Main Rdwy.	CY					1270
L-10	Sodding 6' Wide	SY	3+00 "B"	983+00	R	290	
L-10	Sodding 11' Wide	SY	4+80 "A"	6+00 "A"	R	145	
L-10	Sodding 10' Wide	SY	4+80 "A"	989+00	L	1100	
L-10	Sodding 5' Wide	SY	983+00	987+00	R	220	
L-10	Sodding 8' Wide	SY	989+10	990+00	L	80	
L-10	Sodding 4' Wide	SY	980+00		L&R	15	
L-10	Sodding 4' Wide	SY	985+00		L&R	15	
L-10	Sodding 4' Wide	SY	990+00		L&R	15	
SS-18	Fence	LF	978+00/191	980+00/123	L	210	1880
SS-18	Fence	LF	980+00/123	982+33.75/121	R	234	
SS-18	Fence	LF	982+33.75/121	990+00/123	L	766	
SS-18	Fence	LF	978+00/2018	979+73.05/123	R	188	
SS-18	Fence	LF	979+73.05/123	990+00/123	R	1027	
Spec.	Temporary Barricade	L.F.	979+50		L		2425
Spec.	Overhead Bridge Sign Assembly	Ea.	988+00		L		50
PAVEMENT							
T-71	9" RC Pav't Add Lanes	SY					2669
I-12	Type 2A Curb	L.F.	979+20	979+80	R		120
I-21	P.C.C. Median Pav't	CY	979+55	979+90	R		38
DRAINAGE							
I-2	6" Storm Sewer A Under Pav't	L.F.	2+38 "B"		Across	48	
I-2	6" Storm Sewer A Under Pav't	L.F.	984+00	984+35	R	68	
I-2	6" Storm Sewer A Under Pav't	L.F.	989+24	989+90	Across	126	242
I-2	8" Storm Sewer A Under Pav't	L.F.	989+19	989+23	L		8
I-2	15" Storm Sewer A Under Pav't	L.F.	983+60	984+00	L		82
S-1	Class E. Conc. Endwall	C.Y.	983+60		L		025
E-2	Struct. Excav. Endwall	C.Y.	983+60		L		
"	6" Wye	Ea.	2+38 "B"		R		
"	8" Wye	Ea.	289+23		L		
"	15" x 6" Wye	Ea.	283+72		L		
"	Increaser 6"-8"	Ea.	989+24		L		
I-4	6" Underdrain	L.F.	978+00	979+90	R	190	
I-4	6" Underdrain	L.F.	2+30 "B"	2+78 "B"	R	44	
I-4	6" Underdrain	L.F.	2+80 "B"	984+00	R	558	
I-4	6" Underdrain	L.F.	984+35	989+50	R	516	
I-4	6" Underdrain	L.F.	989+90	990+00	R	10	
I-4	6" Underdrain	L.F.	0+30	6+00 "A"	R	570	
I-4	6" Underdrain	L.F.	983+70	989+06	L	536	
I-4	6" Underdrain	L.F.	983+25	990+00	L	74	
I-4	6" Underdrain	L.F.	978+00	979+72	L	172	2670
I-4	8" Outlet	L.F.	989+13		L		10
"	60° Bend 6"	Ea.	984+35		R		1
"	30° Bend 6"	Ea.	989+90		R		2
"	90° Bend 6"	Ea.	2+36 "B"		R		1
"	90° Bend 6"	Ea.	2+38 "B"		R		1
I-8	Spec. Median Inlet Type "A"	L.F.	984+00		E		1
I-10	Riprap Incl. in Culv. Quantities	L.F.					
I-14	Spec. Paved Gutter Type G	L.F.	985+00		L&R	16	
I-14	Spec. Paved Gutter Type G	L.F.	990+00		L&R	16	
I-14	Spec. Paved Gutter Type G	L.F.	980+00		L&R	16	48

PLAN
SCALE: 1" = 50'

B.M. # 202 ELEV. 1143.24
 RAILROAD SPIKE IN ROOT OF 14" TWIN ELM,
 200' LT. STA. 987+00.

EXC. 26873 CY
 EMB. 109 CY
 SEEDING 14708 SY



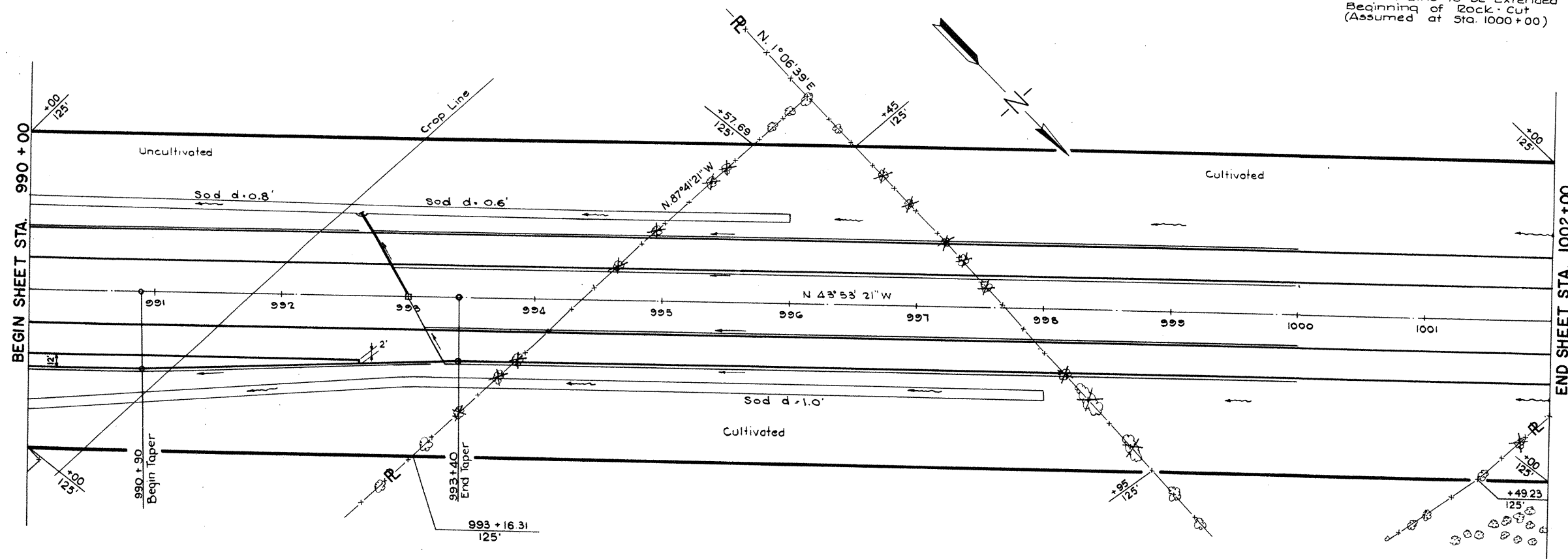
PREPARED AND RECOMMENDED
 BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

Note: Underdrains to be Extended to Beginning of Rock-Cut (Assumed at Sta. 1000+00)

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

22
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

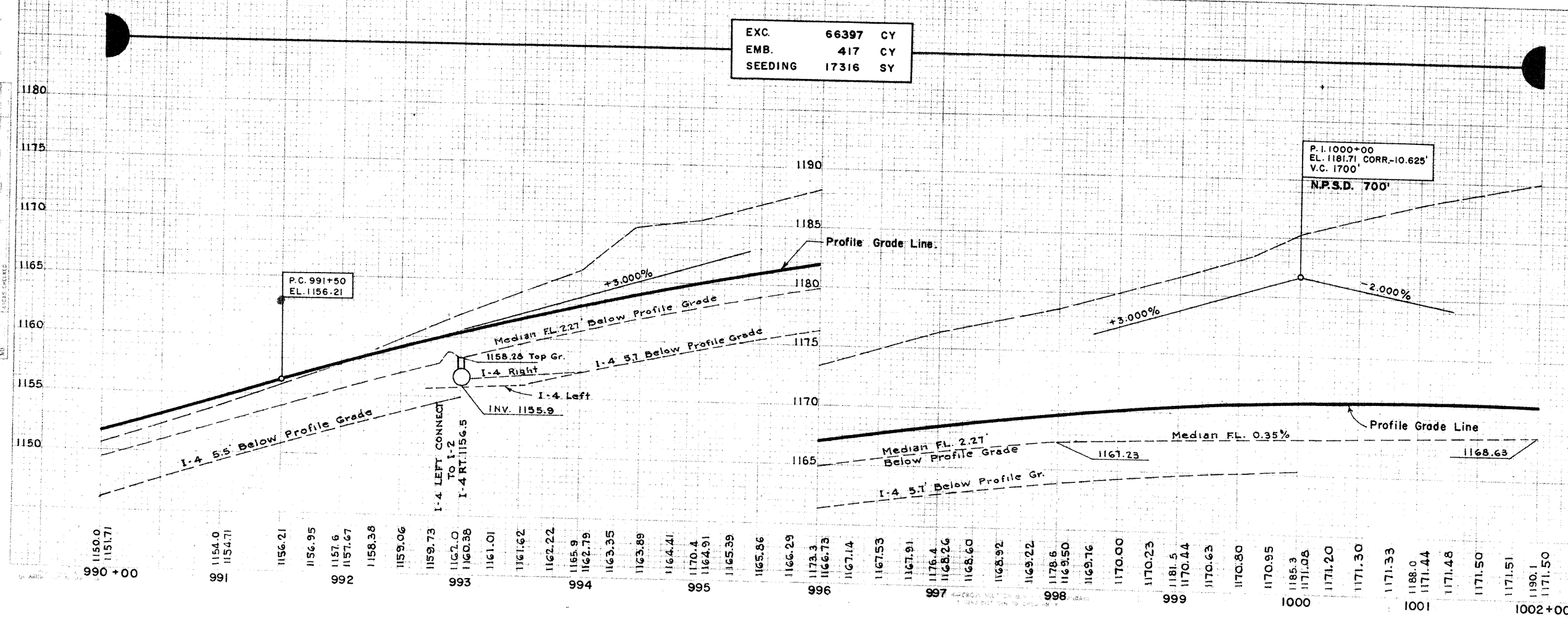


B.M. #203 ELEV. 1172.06
RAILROAD SPIKE IN ROOT OF 12\"/>

PLAN
SCALE: 1\"/>

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
E.1	Compacted Subgrade Add'l Lane	S.Y.				287
I.22	Subbase - Main Roadway	C.Y.				1445
I.22	Subbase - Add'l Lane	C.Y.				
L.10	Sodding 7' Wide	S.Y.	990+00	992+60	L	200
L.10	Sodding 6' Wide	S.Y.	992+60	998+00	L	230
L.10	Sodding 8' Wide	S.Y.	990+00	998+00	R	720
SS.18	Fence	L.F.	990+00/123	1002+00/123	L	1200
SS.18	Fence	L.F.	990+00/123	1002+00/123	R	1200
PAVEMENT						
T.71	9\"/>	S.Y.				287
DRAINAGE						
I.2	15\"/>	L.F.	992+60	993+00	L	68
I.2	8\"/>	L.F.	993+00	993+10	R	24
I.2	6\"/>	L.F.	993+10	993+30	R	30
S.1	Excav. for Endwall	C.Y.	992+60			0.75
E.2	Excav. for Endwall	C.Y.	992+60			1
I.5 for I.2	Y. 15\"/>	Ea.	992+70	992+90	L	2
I.5 for I.2	Y. 8\"/>	Ea.	993+10		R	1
I.5 for I.2	Increases 6\"/>	Ea.	993+10		R	1
I.4	6\"/>	L.F.	990+00	992+60	L	260
I.4	6\"/>	L.F.	990+00	993+20	R	320
I.4	6\"/>	L.F.	992+70	1000+00	L	1440
I.4	6\"/>	L.F.	993+10	1000+00	R	1350
I.5 for I.4	60\"/>	Ea.	993+30		R	1
I.8	Spec. Median Inlet Type A	Ea.	993+00		C	1

EXC. 66397 CY
EMB. 417 CY
SEEDING 17316 SY



PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

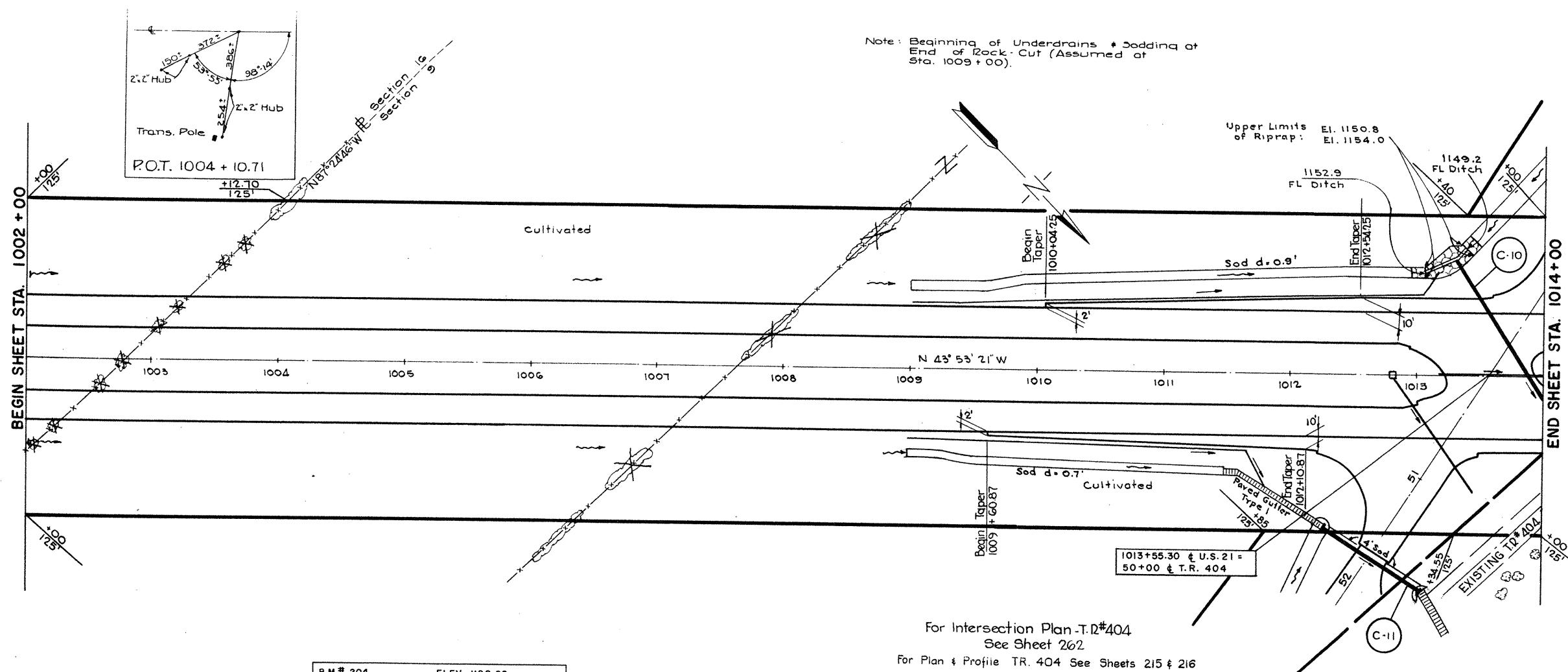
LINE SHEET STA. 990+00 TO STA. 1002+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

23
329

STA. 21-17.80
WAY- 21-00.00
SUM- 21-00.00

Note: Beginning of Underdrains & Sodding at End of Rock-Cut (Assumed at Sta. 1009+00).



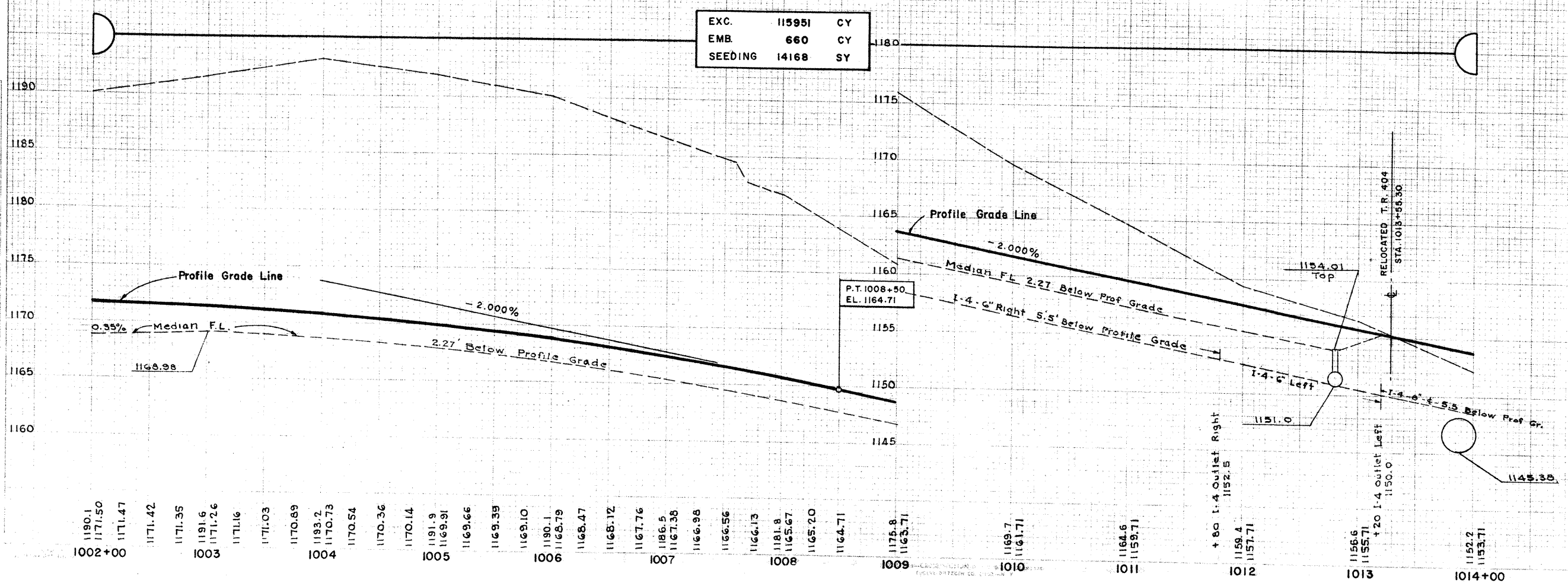
STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-10	1013+87	Pipe Culvert	36" x 218"	268
C-11	1012+45	Pipe Arch Culvert	36" x 22' x 94"	268

ESTIMATED QUANTITIES							
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB TOTAL	TOTAL
ROADWAY							
E-1	Comp Subgr Add Lane	S.Y.					865
I-22	Subbase Add Lane	C.Y.					160
I-22	Subbase Main Rdwy	C.Y.					1653
L-10	Sodding 8' Wide	S.Y.	1009+00	1012+95	L	350	
L-10	Sodding 6' Wide	S.Y.	1009+00	1011+45	R	160	510
SS-18	Fence	L.F.	1002+00/123	1014+00/123	L	1200	
SS-18	Fence	L.F.	1002+00/123	1011+85/123	R	985	
SS-18	Fence	L.F.	1013+78.49/123	1014+00/123	R	22	2207
PAVEMENT							
T-71	9" R.C. Pavt. Add Lane	S.Y.					865
DRAINAGE							
I-2	15" Storm Sewer "A" Under Pavt.	L.F.	1012+80	1013+45	R	420	110
I-4	6" Underdrain	L.F.	1009+00	1013+20	L	290	
I-4	6" Underdrain	L.F.	1009+00	1011+80	R		710
I-4	6" Underdrain M-6.46	L.F.	1013+20	1014+00	R		80
I-4	6" Outlet	L.F.	1011+80				10
I-5/14	60° Bend 6"	Ea.	1011+65				
"	60° Bend 6"	Ea.	1013+05			1	2
I-8	Spec Median Inlet Type "C"	Ea.	1012+80				1
I-10	Riprap Incl. in Culv. Quantities						
I-14	Paved Gutter Type 1	L.F.	1011+45	1012+25	R		95

B.M.# 204 ELEV. 1189.00
RAILROAD SPIKE IN ROOT OF 18" WILD CHERRY,
200' LT. STA. 1005+25.

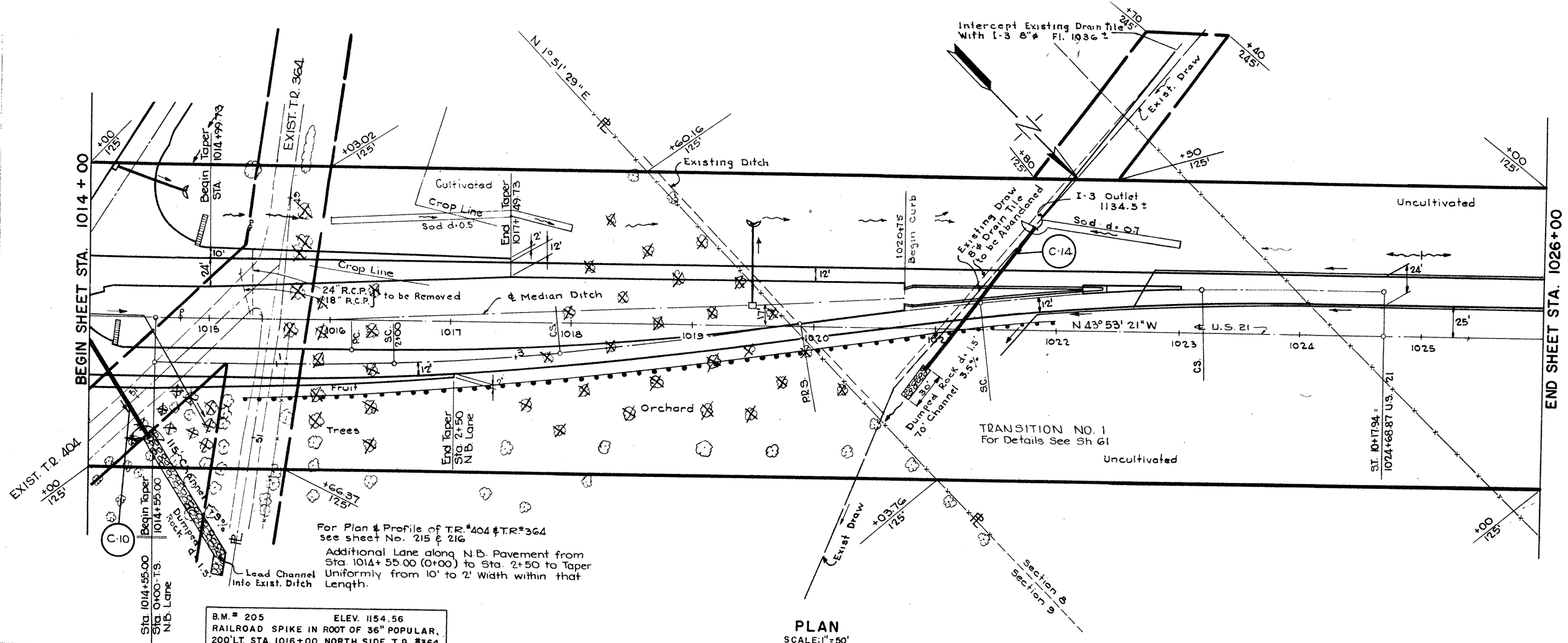
PLAN
SCALE: 1"=50'

For Intersection Plan-T.R.#404
See Sheet 262
For Plan & Profile TR. 404 See Sheets 215 & 216



PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA. 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

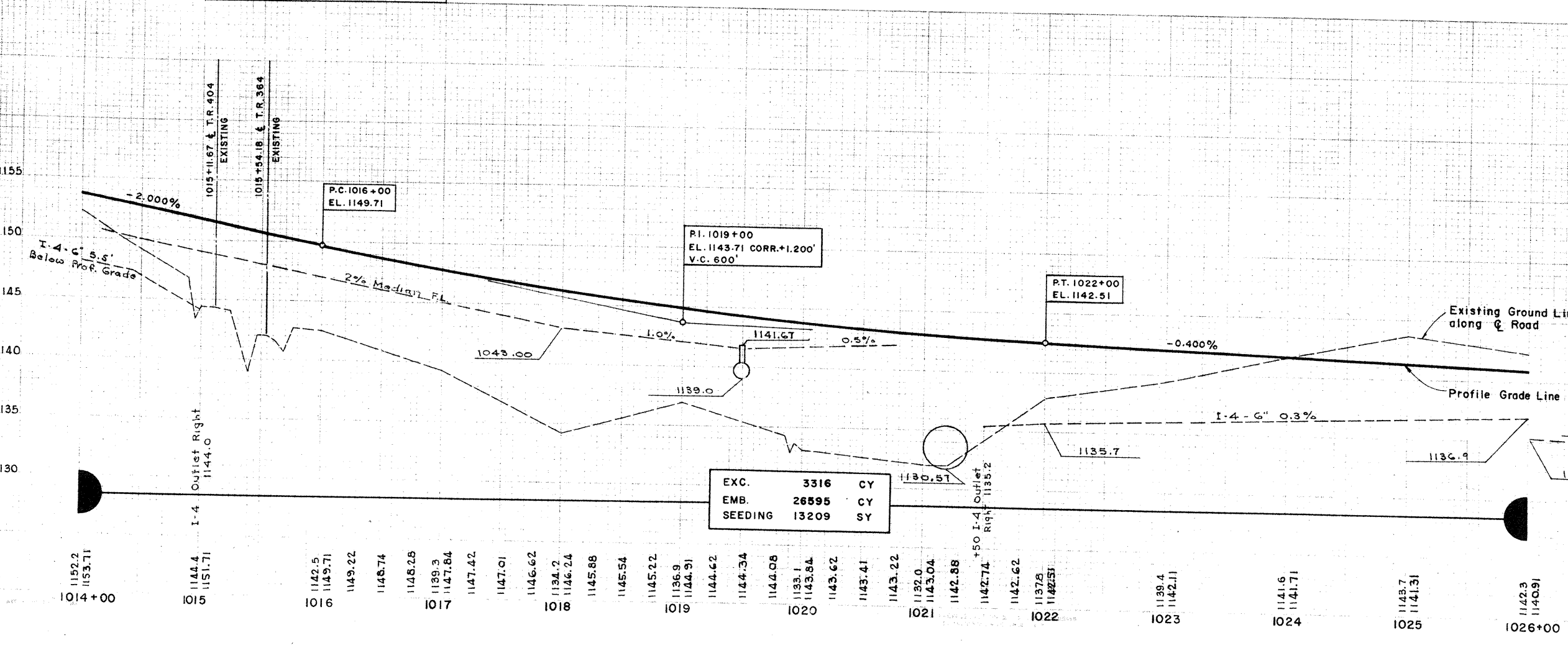


STRUCTURES - 20' SPAN AND UNDER

MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-10	1013+87	Pipe Culvert	36" x 218'	268
C-14	1021+19	Pipe Culvert	42" x 148'	268

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB TOTAL	TOTAL
ROADWAY							
E-1	Comp Subgr Main Rdwy	SY	1014+55	1025+00			464.7
E-1	Comp Subgr Add Lanes	SY					61.8
I-15	Guard Rail	LF	1015+30	1022+00	R		67.5
I-22	Subbase Main Rdwy	CY	1014+00	1026+00			1180
L-10	Subbase Add. Lanes	CY					115
L-10	Sodding 5' Wide	SY	1016+00	1018+00	L	110	
L-10	Sodding 6' Wide	SY	1021+80	1023+00	L	80	
L-10	Pipe End Treatment	SY	1019+50			2	192
SS-18	Fence	LF	1014+00/123	1026+00/123	R	1200	2228
SS-18	Fence	LF	1015+72/123	1026+00/123	L	1028	
PAVEMENT							
B-70	7" P.C. Base Course	SY	1022+42	1023+00			27
T-35	2" Asph Conc. Surf.	CY	1022+42	1023+00			02
T-71	8" R.C. Pavt. Main Rdwy	SY	1014+55	1025+00			3520
T-71	9" R.C. Pavt. Add Lanes	SY					618
I-12	Type 2A Curb	LF	1020+80	1022+20			290
I-21	P.C.C. Median Pav't	CY	1022+80	1022+42			4
I-23	Precast Traf. Div.	Ea.	1022+42	1023+00			5
DRAINAGE							
E-2	Excav for Endwall	CY	1019+50		L		1
E-12	18" R.C. Pipe Removed for Storage	LF	1015+30		L & R		35
E-12	24" R.C. Pipe Removed for Storage	LF	1015+35		L & R		55
S-1	S. 27 PC 4' Endwall	CY	1019+50		L & R		0.25
I-2	6" Storm Sewer A Under Pav't	LF	1014+45	1015+00	R	94	
I-2	6" Storm Sewer A Under Pav't	LF	1022+65	1022+80	R	36	130
I-2	15" Storm Sewer A Under Pav't	LF	1019+50		L		68
I-4	6" Underdrains M-6.4(n)	LF	1014+00	1014+45	L		45
I-4	6" Underdrains	LF	1021+50	1026+00	L & R		865
I-4	6" Outlet	LF	1015+00		R	10	
I-4	6" Outlet	LF	1021+50		R	10	20
I-5	60" Bend 6" M-6.4(h)	Ea.	1014+45		L	1	1
I-5	60" Bend 6"	Ea.	1022+80		L	1	1
I-5	45" Bend 6"	Ea.	1021+85		R	1	1
I-5	Y-G	Ea.	1022+65		R	1	1
I-14	Spec Paved Gutter Type 8	LF	1014+20		R	20	
I-14	Spec Paved Gutter Type 8	LF	1014+88		R	25	45
I-3	8" Rdwy Drainage	LF	1021+80	1022+90	L		170
I-3	8" Outlet	LF	1021+80		L		10
I-8	Spec. Median Inlet Type C	Ea.	1019+50		L		1



PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

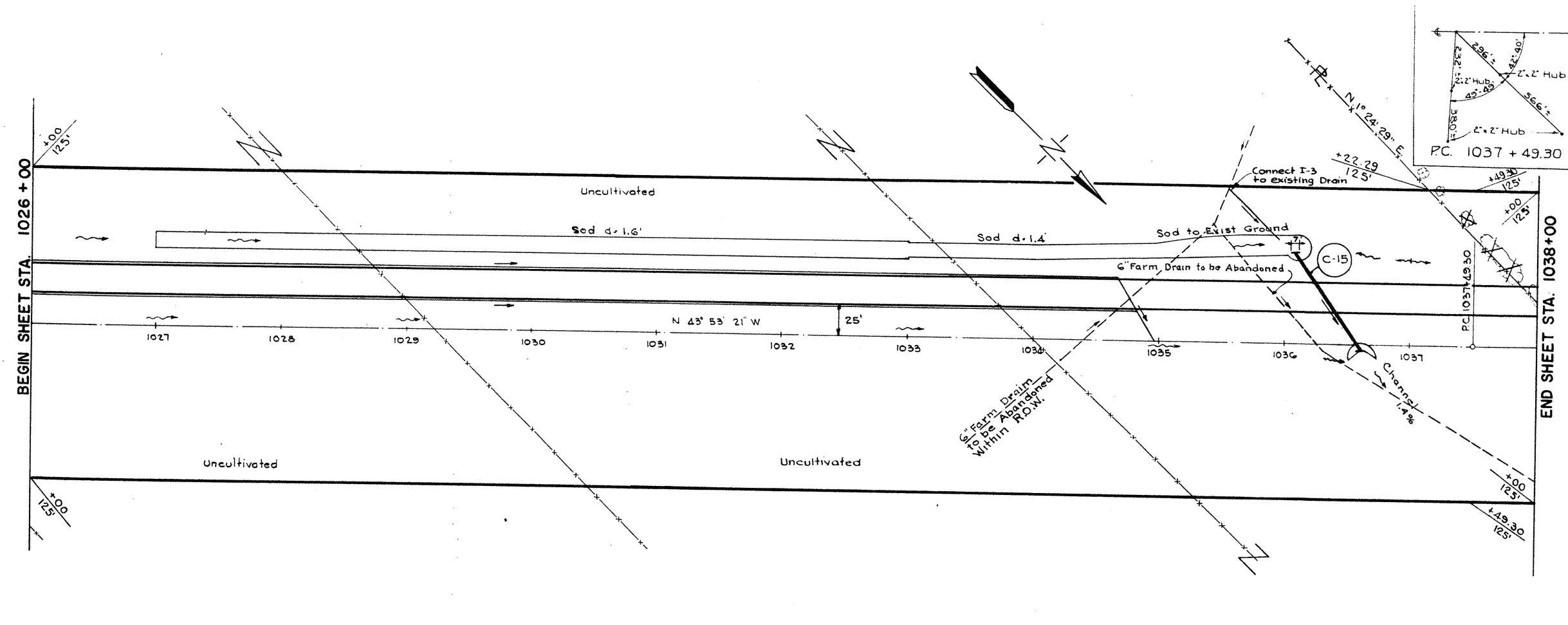
STA- 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

STRUCTURES - 20' SPAN AND UNDER

MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-15	1036+60	Pipe Culvert	36" x 96"	268

ESTIMATED QUANTITIES

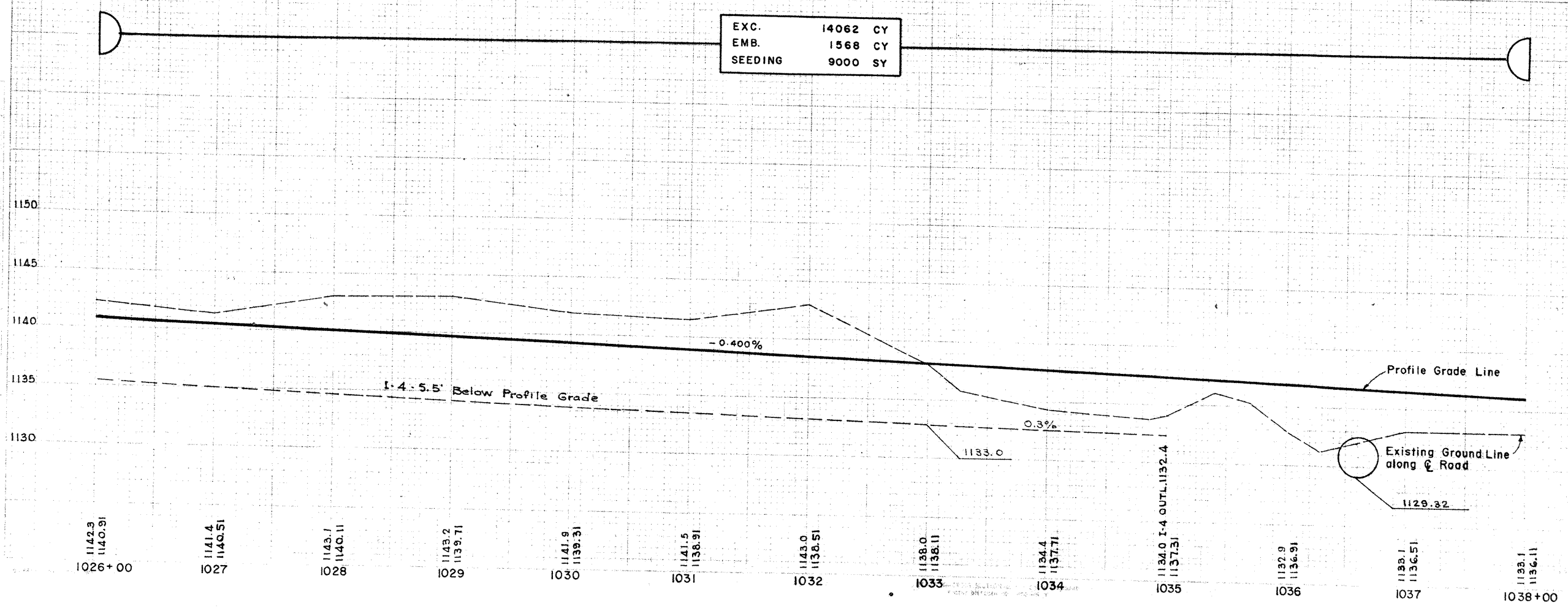
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB TOTAL	TOTAL
ROADWAY							
I-22	Subbase	CY					825
L-10	Sodding 12' Wide	SY	1027+00	1033+00	L	800	
L-10	Sodding 11' Wide	SY	1033+00	1035+00	L	240	
L-10	Sodding to Orig Ground	SY	1035+00	1036+11	L	190	1230
SS-18	Fence	LF	1026+00/123	1038+00/123	L	1200	
SS-18	Fence	LF	1026+00/123	1038+00/123	R	1200	2400
DRAINAGE							
I-2	6" Storm Sewer A Under Pavt	LF	1034+67	1034+82	L	30	
I-2	8" Storm Sewer A Under Pavt	LF	1034+85	1034+94	R	18	
I-3	6" Roadway Drainage	LF	1035+55	1035+95	L	50	
I-3	6" Outlet	LF	1035+95	1036+00	L	10	
I-4	6" Underdrains	LF	1026+00	1035+00	L & R	1780	
I-4	8" Outlet	LF	1035+00		R	10	
15&12	Increaser 6" - 8"	Ea	1034+85		R	1	
15&13	Y 8" - 6"	Ea	1034+85		R	1	
15&13	60° Bend 6"	Ea	1035+55		L	1	
15&14	60° Bend 6"	Ea	1034+70		L	1	



PLAN
SCALE: 1"=50'

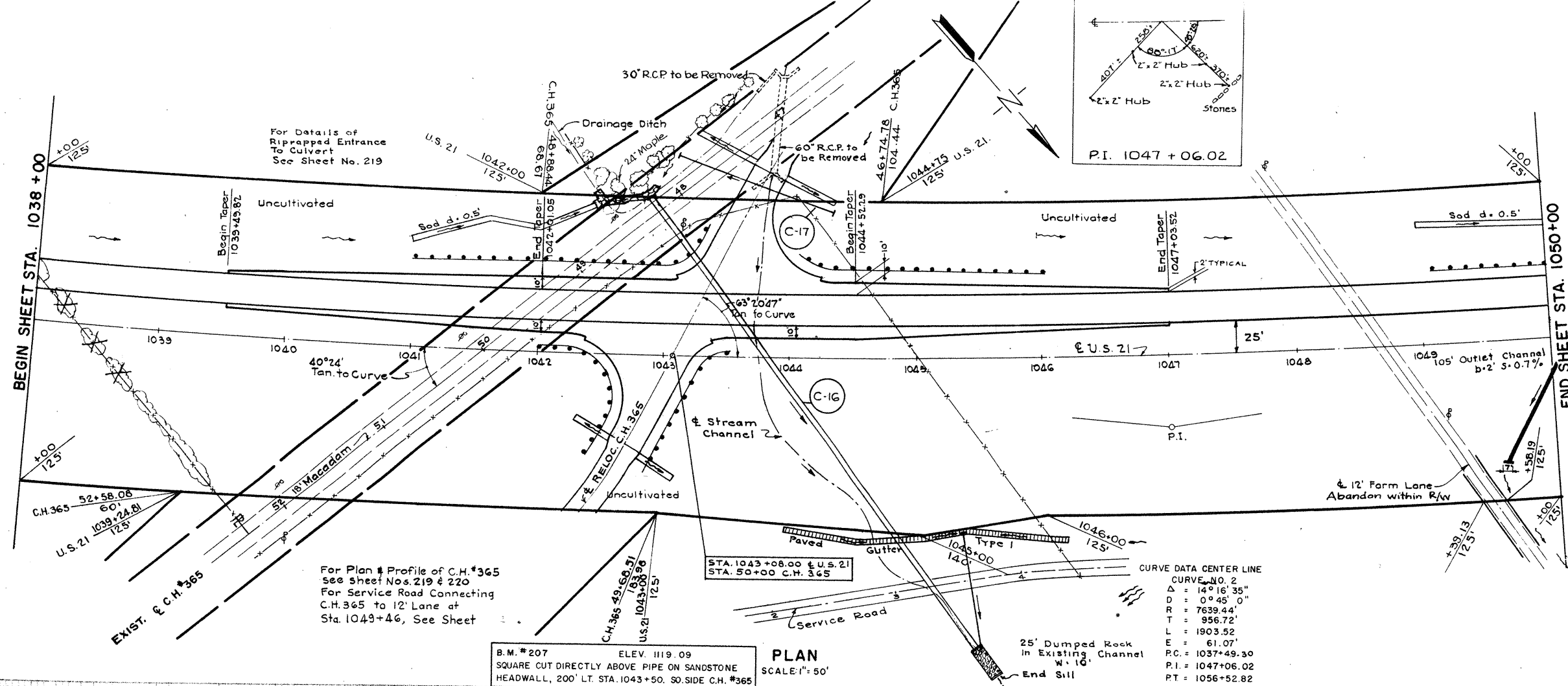
B.M. # 206 ELEV. 1141.86
RAILROAD SPIKE IN ROOT OF 18" CHERRY,
300' LT. STA. 1034+60.

EXC. 14062 CY
EMB. 1568 SY
SEEDING 9000 SY



PREPARED AND RECOMMENDED
BY
CHARLES E. DELEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



STRUCTURES - 20' SPAN AND UNDER

MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-16	1043+82	Pipe Culvert, Sec. M-6.4(d)	54" x 440'	268
C-17	1044+52.25	Pipe Culvert	15" x 132'	268

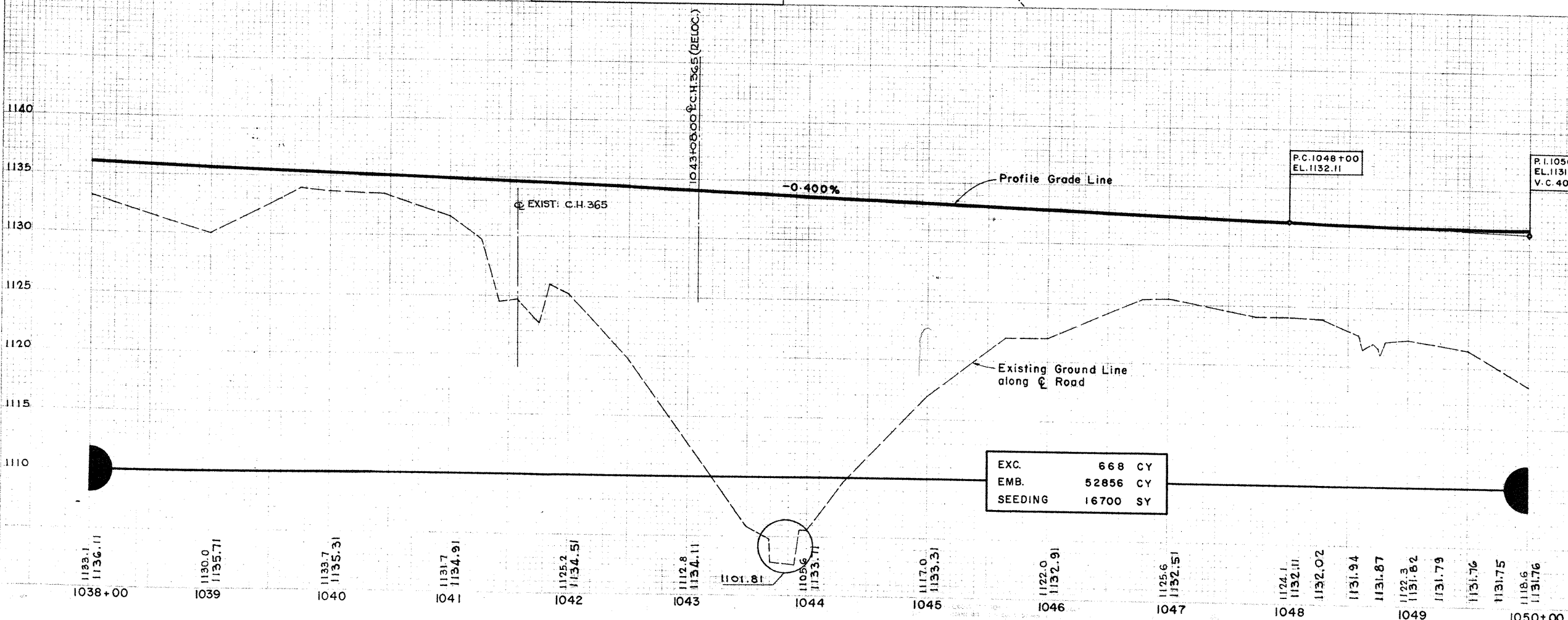
Note: The 54" Corrugated Metal Pipe shall be shop struffed by use of horizontal wires to produce and maintain a 5% vertical elongation. The wire struts shall be satisfactorily removed from the inside of the pipe immediately after completion of the overlying embankment construction.

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB TOTAL	TOTAL
ROADWAY							
E-1	Comp Subgr Add Lanes	SY					1532
I-15	Guard Rail	L.F.	1049+11.83	1050+00	L	87.50	
I-15	Guard Rail	L.F.	1041+00	1042+99.41	L	197.91	
I-15	Guard Rail	L.F.	1044+34.49	1046+00	L	165.51	450.92
I-22	Subbase	C.Y.					1470
L-10	Shoulder 5' Wide	SY	1041+00	1042+40	L	80	
L-10	Shoulder 5' Wide	SY	1049+00	1050+00	L	55	135
SS-18	Fence		1038+00/123	1042+00/123	L	400	
SS-18	Fence		1044+79/123	1050+00/123	L	525	
SS-18	Fence		1038+09/123	1039+24/123	R	125	
SS-18	Fence		1043+00/123	1045+00/138	R	200	
SS-18	Fence		1045+00/138	1046+00/123	R	102	
SS-18	Fence		1046+09/123	1050+00/123	R	400	1752
PAVEMENT							
T-71	9" RC Pavt Add Lanes	SY					1532
DRAINAGE							
E-2	Excav. for Cut-Off Walls	C.Y.	1042+40	1042+95	L		6
I-10	Riprap Class A	SY	1042+40	1042+94	L		40
S-1	Class E Conc. for Cut-Off Walls	C.Y.	1042+40	1042+94	L		0.7

B.M. #207 ELEV. 1119.09
SQUARE CUT DIRECTLY ABOVE PIPE ON SANDSTONE
HEADWALL, 200' LT. STA. 1043+50. SO. SIDE C.H. #365

PLAN
SCALE: 1" = 50'

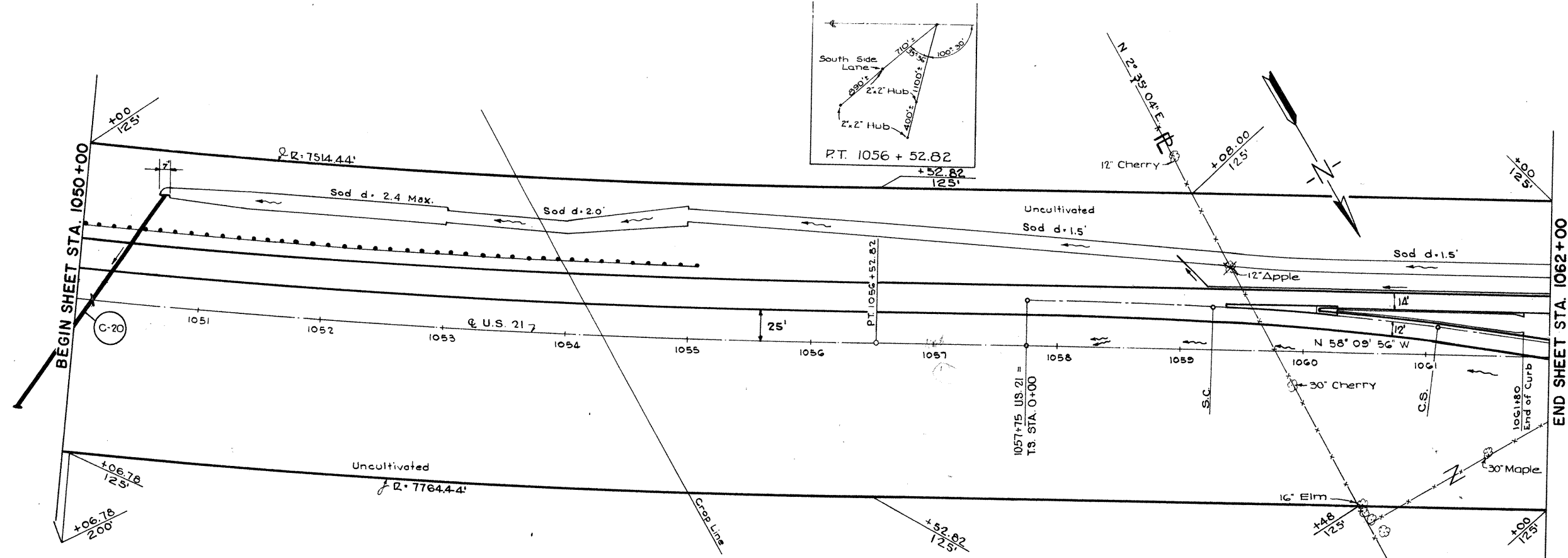


PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-20	1050+14	Pipe Culvert	36" x 212"	26B

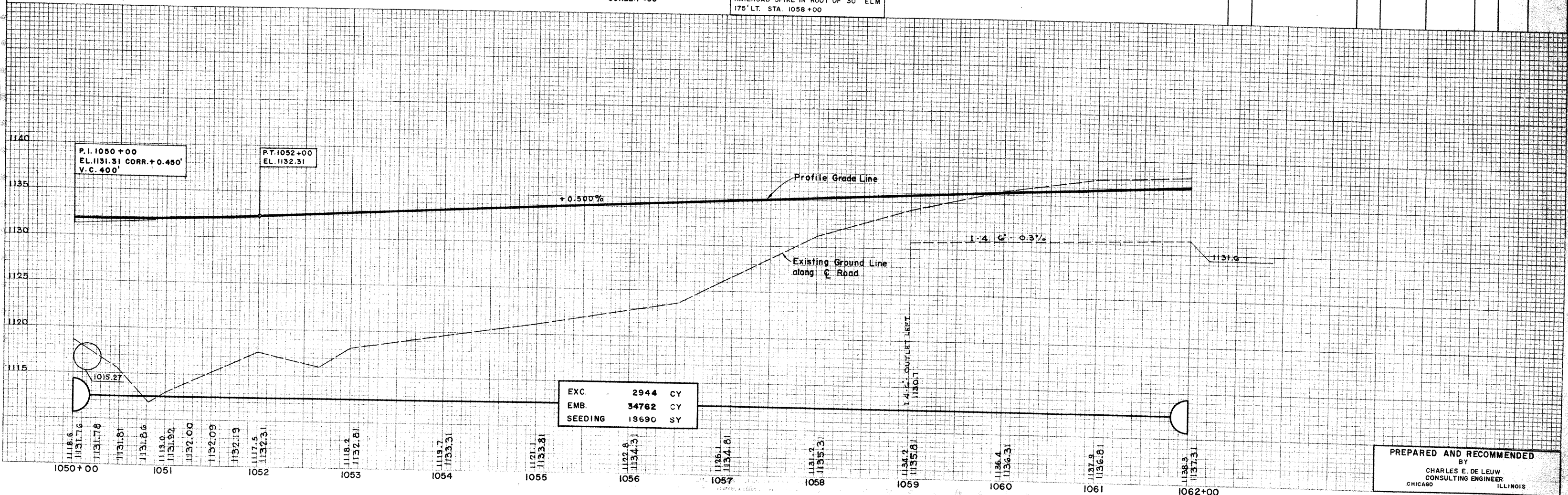
ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
E.1	Comp Subgrade	SY	1057+00	1062+00		2651
I-15	Guard Rail	LF	1050+00	1055+03.38	R	500
I-22	Subbase	CY	1050+00	1062+00		1080
L-10	Sodding Av. Width 12'	SY	1050+66	1053+00	L	310
L-10	Sodding Av. Width 12'	SY	1053+00	1055+00	L	270
L-10	Sodding 12' Wide	SY	1055+00	1062+00	L	940
SS-18	Fence	LF	1050+09/123	1062+09/123	R	1200
SS-18	Fence	LF	1050+09/123	1062+09/123	L	1200
PAVEMENT						
B-70	7" P.C.C. Base Course	SY	1059+35	1060+10		28
T-35	2" Asp. Conc. Surf.	CY	1059+35	1060+10		0.2
T-71	9" R.C. Pavt.	SY	1057+00	1062+00		1873
I-12	Type 2A Curb	LF	1060+30	1061+80		300
I-21	P.C.C. Median Pavt.	CY	1060+12	1060+30		4
I-23	Precast Traf. Div.	Eq.	1059+35	1060+10		5
DRAINAGE						
I-4	6" Underdrain	LF	1059+00	1062+00	L	300
I-4	6" Outlet	LF	1059+00		L	10
I-5/14	45° Bend 6"	Eq.	1059+20		L	1



TRANSITION NO. 2
For Details See Sh. 61 & 62

PLAN
SCALE: 1"=50'

B.M. #208 ELEV. 1142.46
RAILROAD SPIKE IN ROOT OF 30" ELM
175' LT. STA. 1058+00



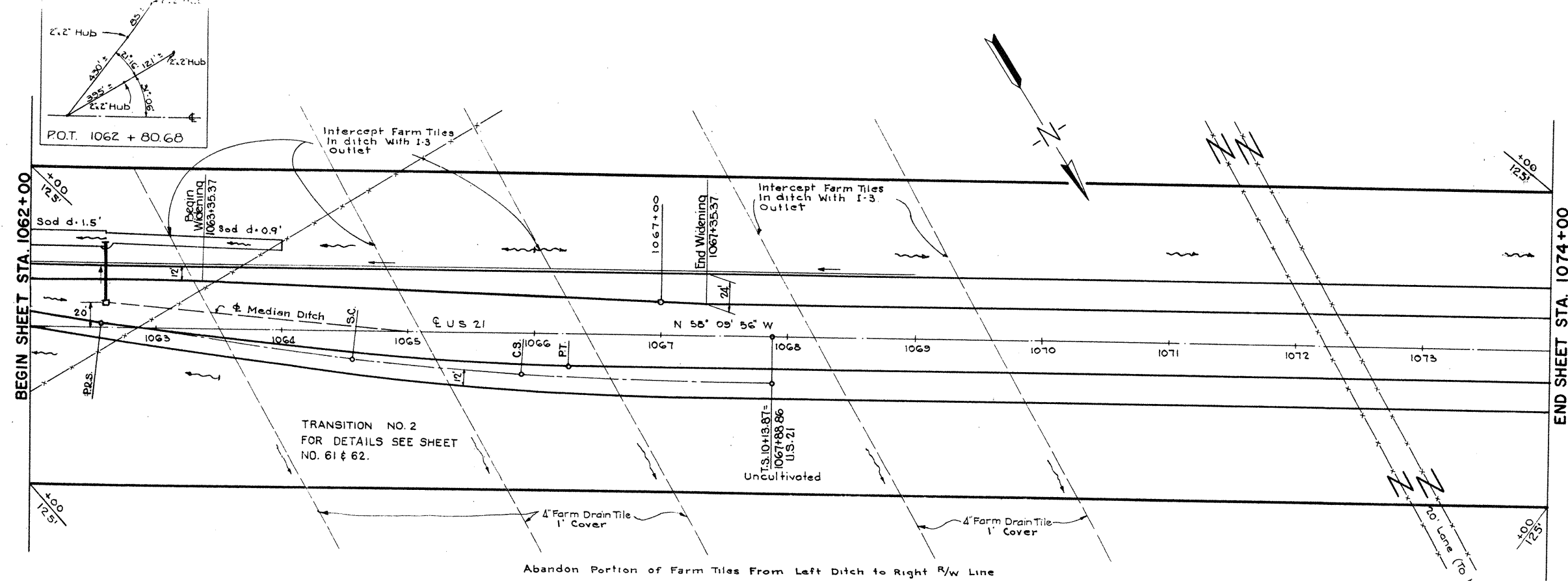
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

DATE: _____ BY: _____
FINAL SURVEY PLOTTED _____
NOTE BOOK NO. _____
AREA CHECKED _____

DATE: _____ BY: _____
ORIGINAL SURVEY PLOTTED _____
NOTE BOOK NO. _____
AREA CHECKED _____

STA. 21 - 17.80
STA. 21 - 0.00
SUM. 21 - 0.00

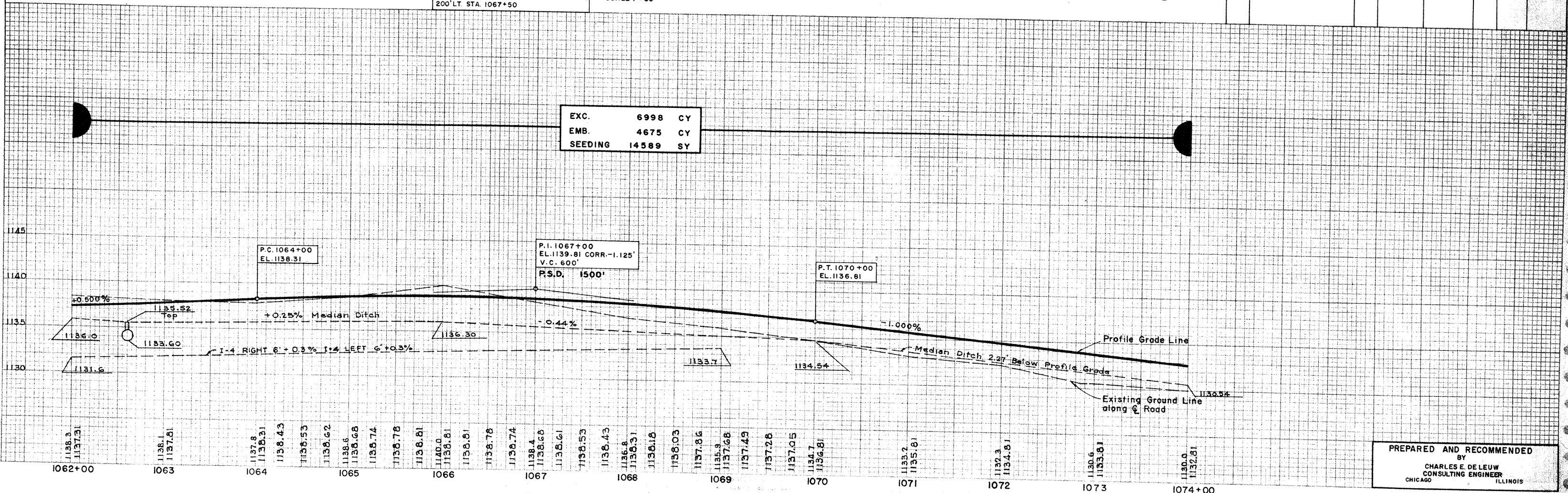
DATE
BY
NO.
FINAL SURVEY PLOTTED
NOTE BOOK AREAS
LINES, CENTERLINE



B.M. # 209 ELEV. 1146.51
CROSSED NAILS IN BROAD FENCE POST,
200' LT. STA. 1067+50
PLAN
SCALE: 1" = 50'

ESTIMATED QUANTITIES							
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB TOTAL	TOTAL
ROADWAY							
E-1	Comp Subgrade	SY.	1062+00	1067+89			3253
I-22	Subbase	CY.	1062+00	1074+00			1505
L-10	Sodding 12' Wide	SY.	1062+00	1062+60	L	80	200
L-10	Sodding 8' Wide	SY.	1062+60	1064+00	L	120	
SS-18	Fence	L.F.	1050+00/123	1062+00/123	L	1200	2400
SS-18	Fence	L.F.	1050+00/123	1062+00/123	R	1200	
PAVEMENT							
T-71	9" RC Pav't	SY.	1062+00	1067+89			2302
DRAINAGE							
I-2	15" Storm Sewer "A" Under Pav't	L.F.	1062+60		L	58'	
E-2	Excav. for Endwall	CY.	1062+60		L	1	0.25
S-1	Endwall	C.Y.	1062+60		L		50
I-3	4" Outlets	L.F.	1063		L		100
I-4	6" Underdrains	L.F.	1062+00	1069+00	L		
I-8	Spec Median Inlet Type C	Ea.	1062+60		L		1

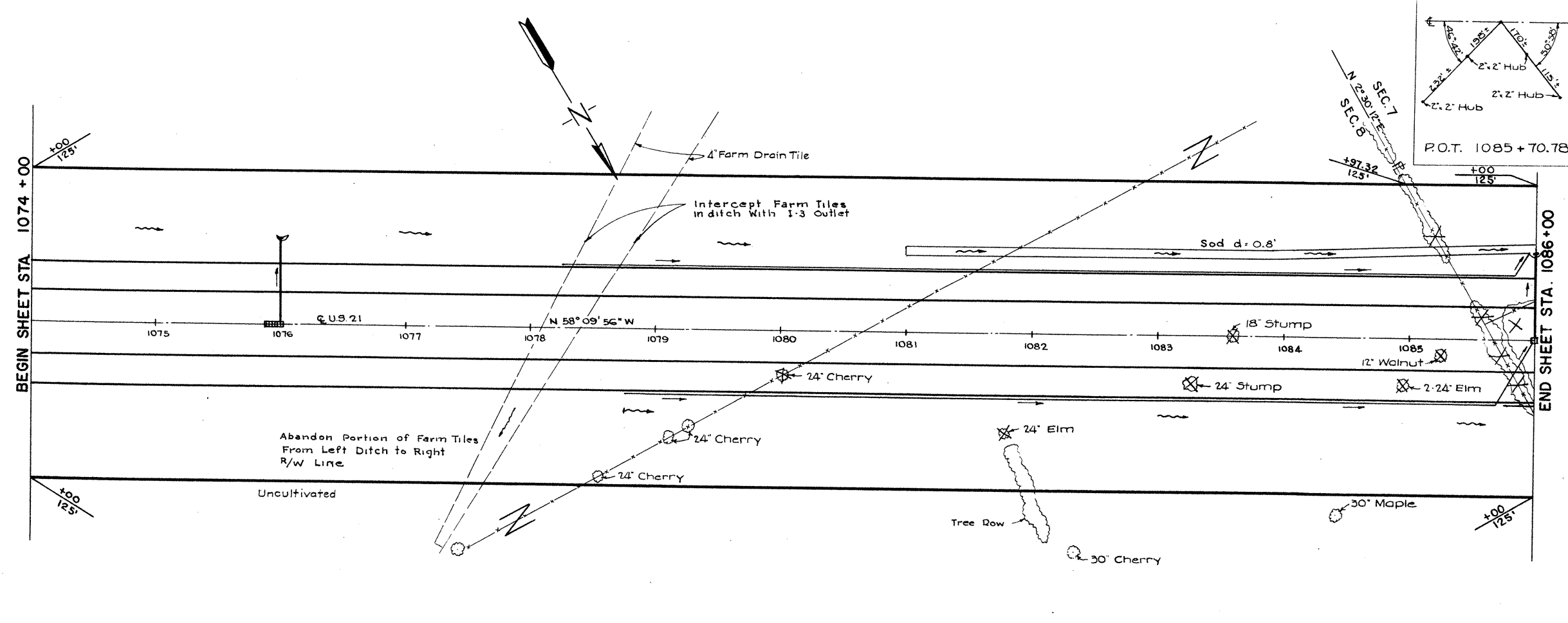
DATE
BY
NO.
ORIGINAL SURVEY PLOTTED
NOTE BOOK AREAS
LINES, CENTERLINE



PREPARED AND RECOMMENDED
BY
CHARLES E. DELEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA. - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

P.O.T. 1085 + 70.78

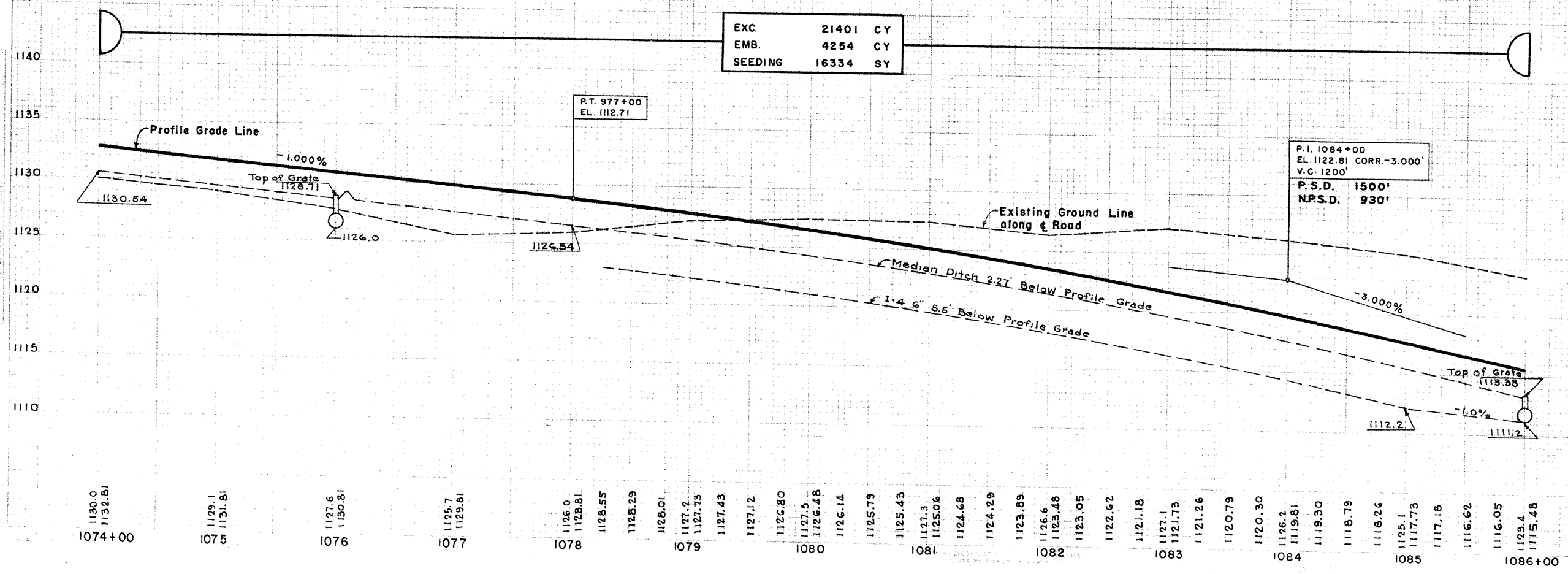


B.M. #210 ELEV. 1122.62
RAILROAD SPIKE IN 30" WILD CHERRY,
160' RT. STA. 1077+50

PLAN
SCALE 1" = 50'

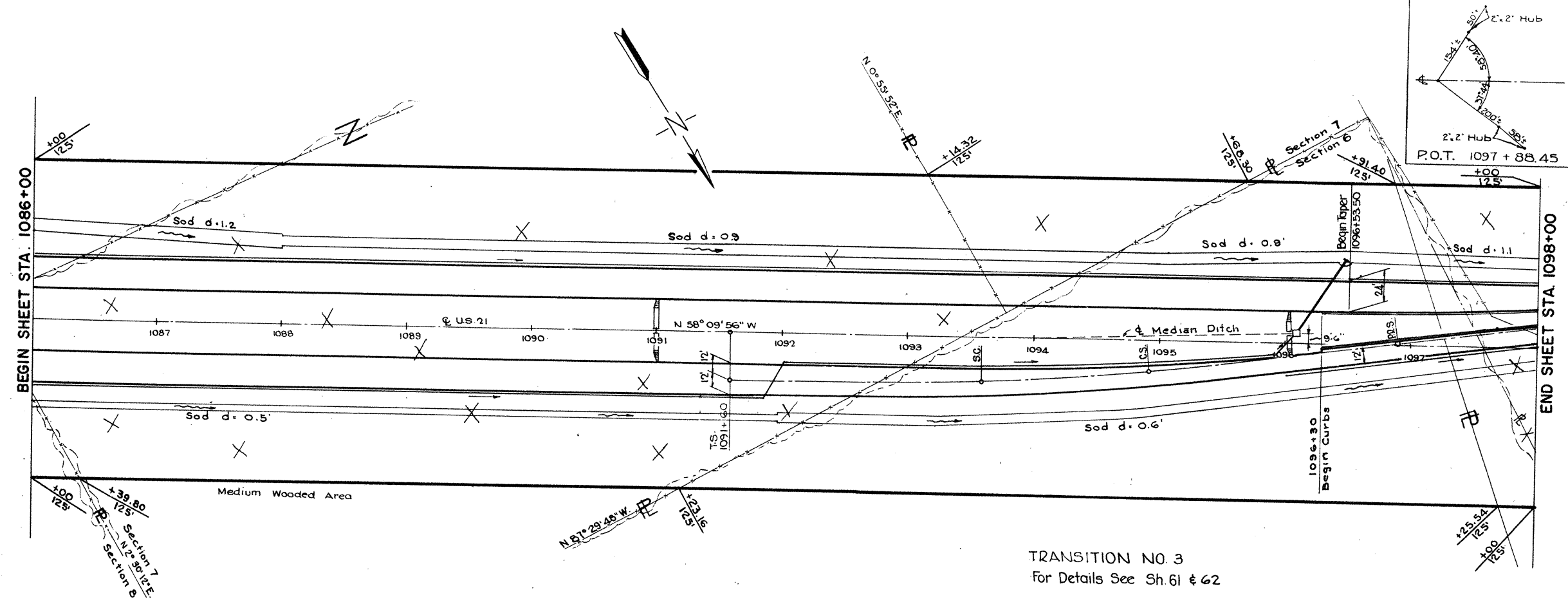
ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
I-22	Subbase	CY				1465
L-10	Sodding 7' Wide	S.Y.	1081+00	1086+00	L	390
L-10	Pipe end Treatment	S.Y.	1074+00	1086+00	L	2
L-10	Pipe end Treatment	S.Y.	1086+00		L	2
SS-18	Fence	LF	1074+00/123	1086+00/123	L	1200
SS-18	Fence	LF	1074+00/123	1086+00/123	R	1200
DRAINAGE						
I-2	15" Storm Sewer 'A' Under Pavt	LF	1076+00		L	70
I-2	15" Storm Sewer 'A' Under Pavt	LF	1086+00		L	70
I-2	6" Storm Sewer 'A' Under Pavt	LF	1085+70	1086+00	L	140
E-2	Excav. for Endwall	CY	1086+00		L	56
S-1	Endwall	CY	1086+00		L	1
I-3	4" Outlet	LF	1078	1079	L	0.25
I-4	6" Underdrains	LF	1078+25	1085+95	L	20
I-4	6" Underdrains	LF	1078+75	1086+00	R	710
I-4	6" Outlet	LF	1085+95		L	1480
I-5a/14	60" Bend C"	Ea	1085+85		L	10
I-5b/14	60" Bend C"	Ea	1085+70		L	10
I-8	Spec. Median Inlet Type 'A'	Ea	1076+00		L	2
I-8	Spec. Median Inlet Type 'A'	Ea	1086+00		R	2
I-14	Spec. Paved Gutter Type 7	LF	1075+88	1075+98	E	10

EXC. 21401 CY
EMB. 4254 CY
SEEDING 16334 SY



PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21-17.80
WAY - 21-0.00
SUM - 21-0.00



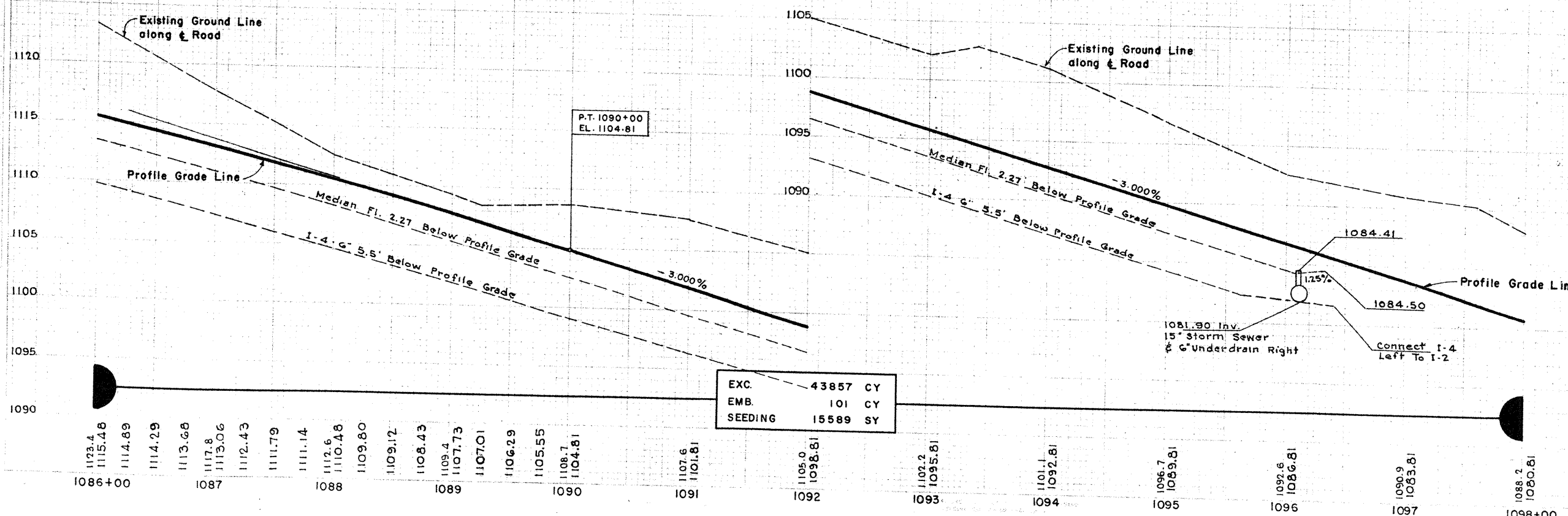
TRANSITION NO. 3
For Details See Sh. 61 & 62

PLAN
SCALE: 1"=50'

B.M. #211 ELEV. 1103.42
RAILROAD SPIKE IN ROOT OF 16" BLACK OAK,
300' LT. STA. 1089+00

B.M. #212 ELEV. 1062.66
RAILROAD SPIKE IN ROOT OF 6" TWIN WILD
CHERRY, 275' LT. STA. 1096+00

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
E-1	Comp. Subgr.	SY.	1091+60	1098+00		3724
I-22	Subbase	C.Y.	1086+00	1098+00		1715
L-10	Sodding 10' Wide	SY.	1086+00	1088+00	L	220
L-10	Sodding 8' Wide	SY.	1088+00	1096+50	L	760
L-10	Sodding 9' Wide	SY.	1096+50	1098+00	R	150
L-10	Sodding 5' Wide	SY.	1086+00	1092+00	L	330
L-10	Sodding 6' Wide	SY.	1092+00	1098+00	R	400
L-10	Sodding 4' Wide	SY.	1091+00	1098+00	L	15
L-10	Sodding 4' Wide	SY.	1096+05	1098+00	R	5
SS-18	Fence	L.F.	1086+00/125	1098+00/125	L	1200
SS-18	Fence	L.F.	1086+00/125	1098+00/125	R	1200
PAVEMENT						
T-71	9" R.C. Pavt.	SY.	1091+60	1098+00		2853
I-12	Type 2A Curb	L.F.	1096+00	1098+00		400
DRAINAGE						
I-2	15" Storm Sewer A Under Pavt.	L.F.	1096+10	1096+50	L	66
I-2	6" Storm Sewer A Under Pavt.	L.F.	1091+90	1092+00	R	30
E-2	Excav. for Endwall	C.Y.	1096+50			1
S-1	Endwall	C.Y.	1096+50			0.25
15" x 12"	Y. 15" - 6"	Ea.	1096+40			1
15" x 14"	45° Bend 6"	Ea.	1095+90			1
15" x 14"	60° Bend 6"	Ea.	1091+90			1
15" x 14"	60° Bend 6"	Ea.	1092+00			2
I-4	6" Underdrains	L.F.	1086+00	1096+40	L	1040
I-4	6" Underdrains	L.F.	1086+00	1096+10	R	1000
I-4	6" Underdrains	L.F.	1096+40	1098+00	L	160
I-4	6" Underdrains	L.F.	1096+00	1098+00	R	200
I-8	Spec. Median Inlet Type C	Ea.	1096+10			1
I-14	Spec. Paved Gutter Type G	L.F.	1091+00		L	16
I-14	Spec. Paved Gutter Type G	L.F.	1096+05		R	16



EXC. 43857 CY
EMB. 101 CY
SEEDING 15589 SY

PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

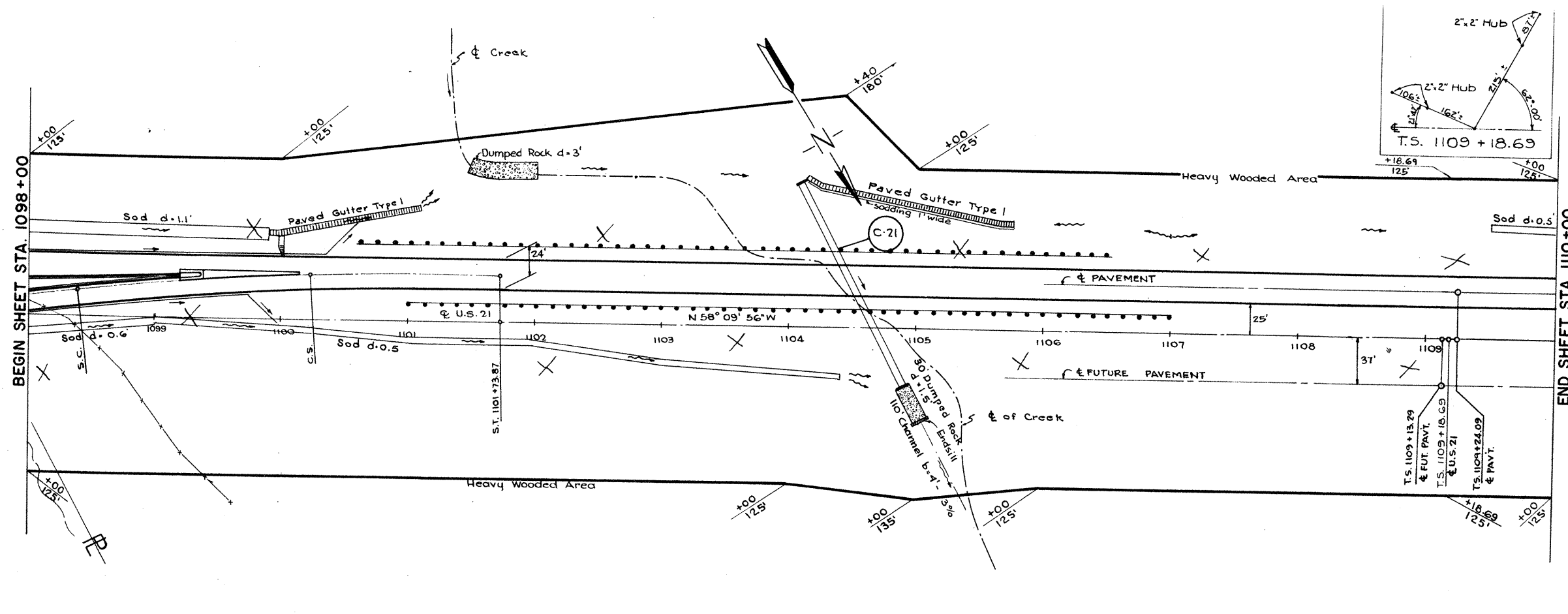
31
329

STA. 21 - 17.80
WAY 21 - 0.00
SUM 21 - 0.00

STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-21	1104+68	Pipe Culvert	60" x 180"	268

ESTIMATED QUANTITIES

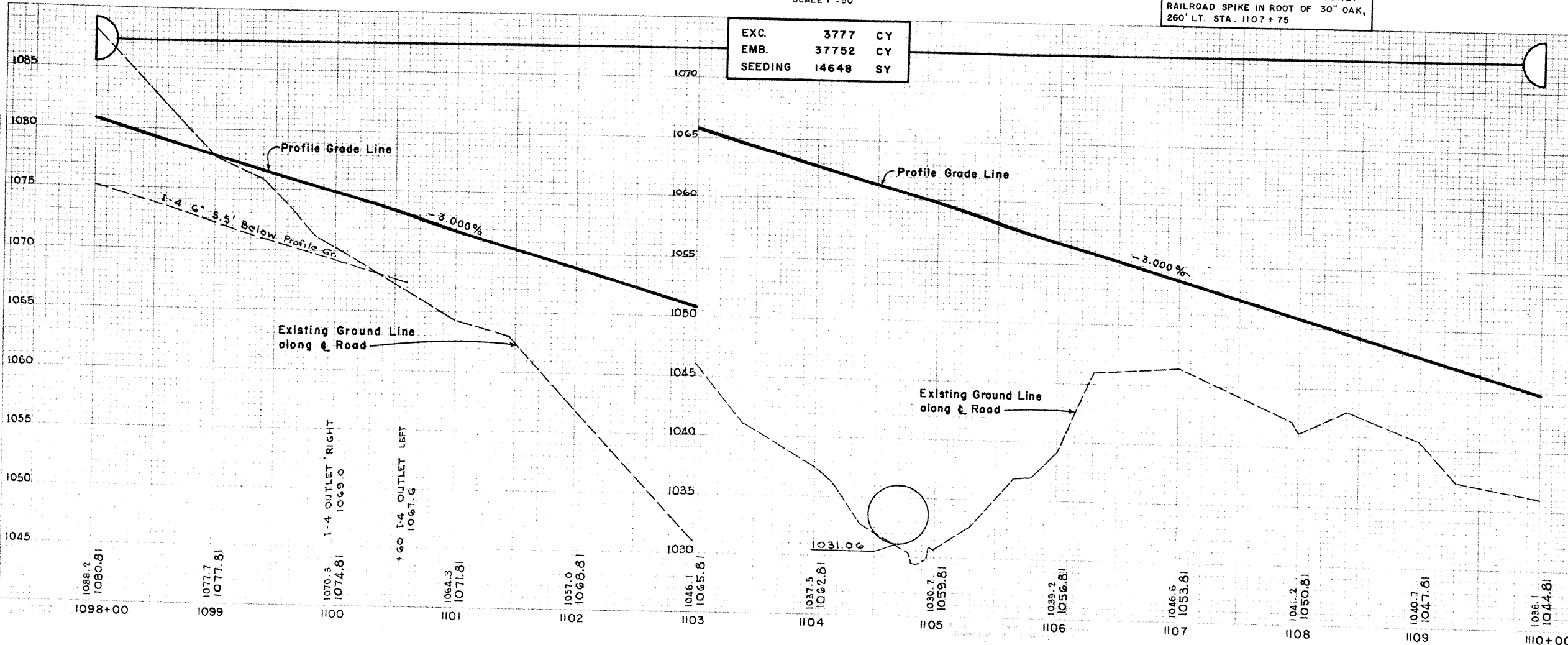
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB TOTAL	TOTAL
ROADWAY							
E-1	Comp. Subgrade	SY	1098+00	1102+00			1899
I-15	Guard Rail	L.F.	1101+00	1107+00	R	600	187.5
I-15	Guard Rail	L.F.	1100+62.5	1106+50	L	587.5	1122
I-22	Subbase	CY	1098+00	1110+00			70
L-10	Sodding 6' Wide	SY	1098+00	1099+00	R	70	300
L-10	Sodding 5' Wide	SY	1099+00	1104+40	R	190	5
L-10	Sodding 9' Wide	SY	1098+00	1099+90	L	300	25
L-10	Sodding 4' Wide	SY	1100+00	1100+00	L	190	590
L-10	Sodding 5' Wide	SY	1109+50	1110+00	L	5	
SS-18	Fence	L.F.	1098+00/125	1105+00/125	L	200	440
SS-18	Fence	L.F.	1100+00/125	1104+00/125	L	200	85
SS-18	Fence	L.F.	1104+40/125	1105+00/125	L	440	500
SS-18	Fence	L.F.	1105+00/125	1104+00/125	L	85	600
SS-18	Fence	L.F.	1098+00/125	1104+00/125	R	500	600
SS-18	Fence	L.F.	1104+00/125	1105+00/125	R	600	100
SS-18	Fence	L.F.	1105+00/125	1106+00/125	R	100	100
SS-18	Fence	L.F.	1106+00/125	1110+00/125	R	100	400
PAVEMENT							
B-70	7" P.C.C. Base Course	SY	1099+40	1100+10			33
T-35	2" Asph. Conc. Surf.	CY	1099+40	1100+10			02
T-71	9" R.C. Pavt.	SY	1098+00	1102+00			1277
I-12	Type 2A Curb	L.F.	1098+00	1099+20			240
I-21	P.C.C. Median Pavt.	CY	1099+20	1099+40			4
I-23	Precast Traf. Div.	Ea.	1099+40	1100+10			6
DRAINAGE							
I-4	6" Underdrains	L.F.	1098+00	1100+00	R	200	460
I-4	6" Underdrains	L.F.	1098+00	1100+60	L	260	10
I-4	6" Outlet	L.F.	1100+00		R	10	20
I-4	6" Outlet	L.F.	1100+60		L	10	1
I-56-14	45° Bend 6"	Ea.	1099+75		R	10	
I-10	Dumped Rock 3' Deep	CY	1101+50	1102+00	L	155	56
I-14	Paved Gutter Type 1	L.F.	1104+20	1105+75	L	155	275
I-14	Paved Gutter Type 1	L.F.	1099+90	1101+10	L	120	8
I-14	Spec. Paved Gutter Type 6	L.F.	1100+00		L		



PLAN
SCALE 1"=50'

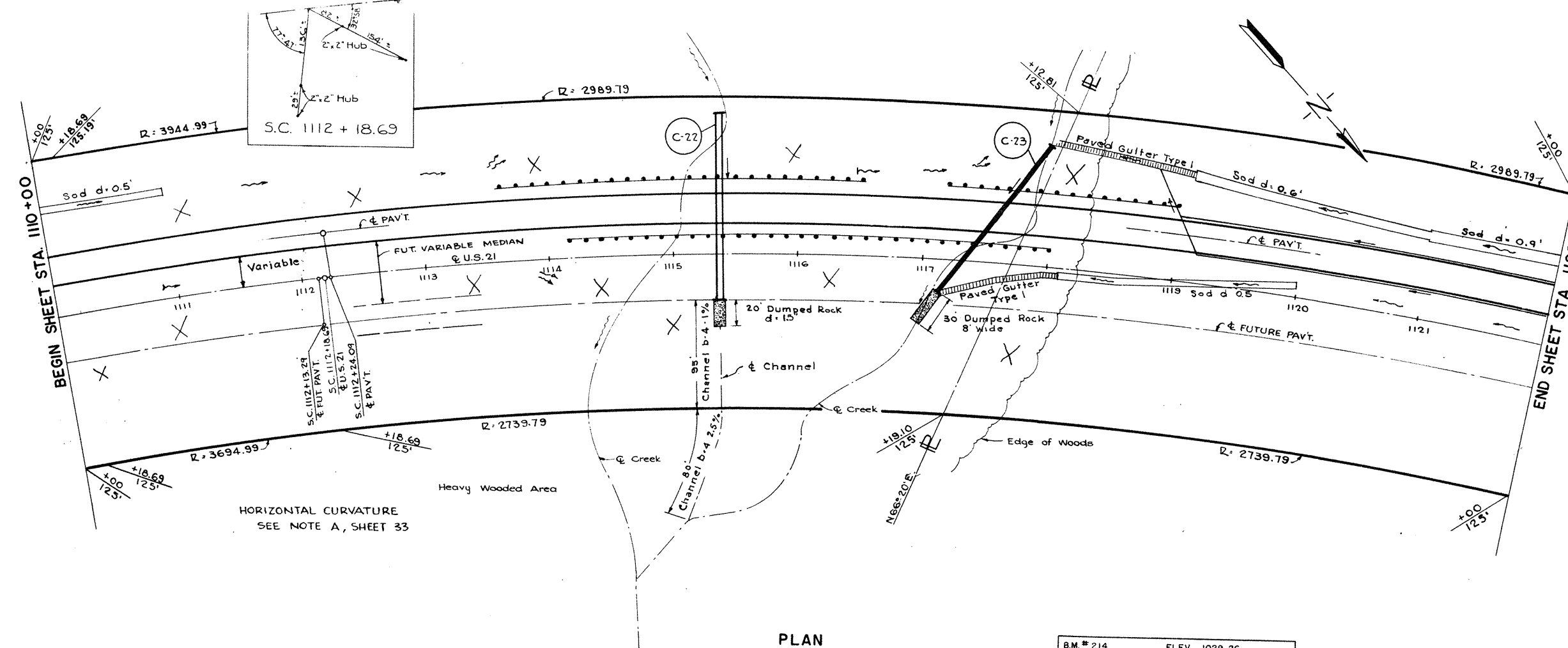
B.M.#213 ELEV. 1051.27
RAILROAD SPIKE IN ROOT OF 30" OAK,
260' LT. STA. 1107+75

EXC.	3777	CY
EMB.	37752	CY
SEEDING	14648	SY



PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA. 21 - 17.80
WAY 21 - 0.00
SUM 21 - 0.00



STRUCTURES - 20' SPAN AND UNDER

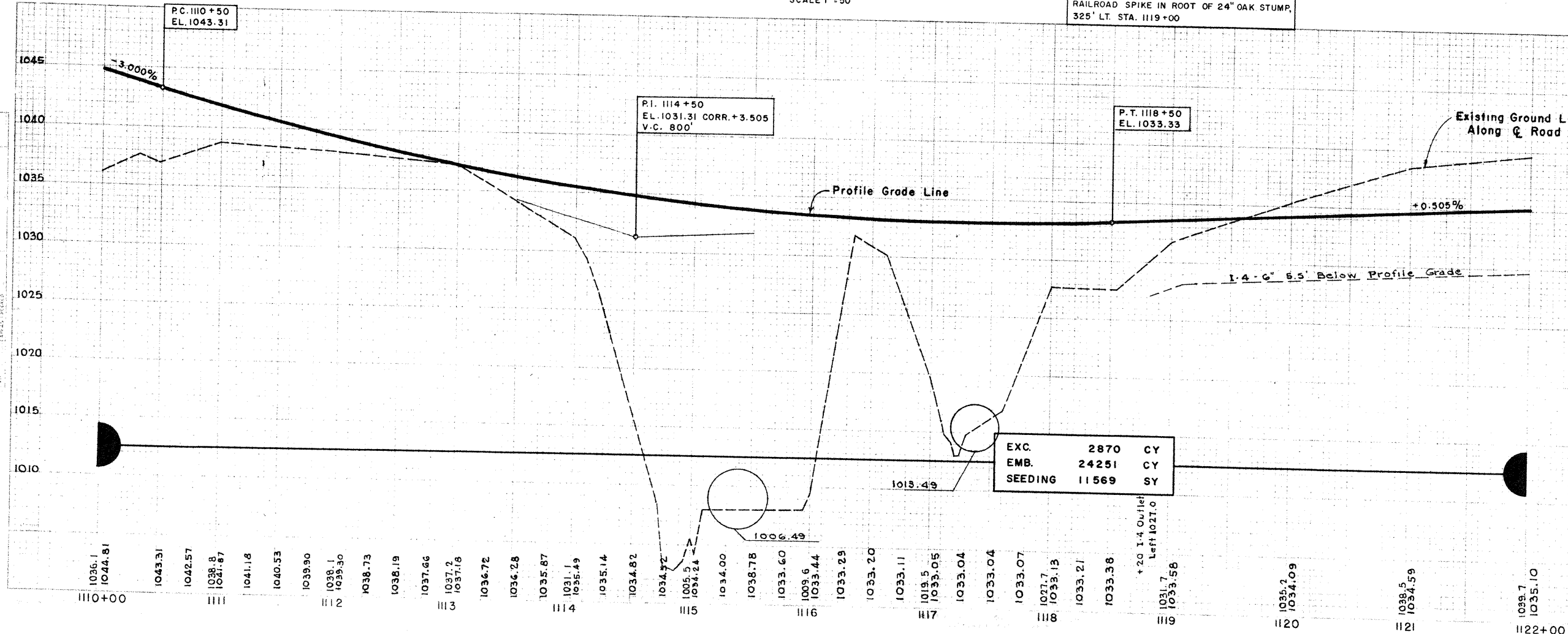
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-22	1115+37	Pipe Culvert	60' x 152'	268
C-23	1117+32	Pipe Culvert	48' x 150'	268

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB TOTAL	TOTAL
ROADWAY							
I-15	Guard Rail	L.F.	1113+50	1116+50	L	300	
I-15	Guard Rail	L.F.	1117+15	1118+99.82	L	187.5	
I-15	Guard Rail	L.F.	1114+14.79	1118+00	R	387.50	675.0
I-22	Subbase	C.Y.					1150
L-10	Sodding 5' Wide	S.Y.	1110+00	1111+00	L	60	
L-10	Sodding 6' Wide	S.Y.	1119+10	1121+00	L	130	
L-10	Sodding 8' Wide	S.Y.	1121+00	1122+00	L	90	
L-10	Sodding 5' Wide	S.Y.	1118+10	1120+00	R	110	390
SS-18	Fence	L.F.	1110+00/125	1122+00/125	L	1200	
SS-18	Fence	L.F.	1110+00/125	1122+00/125	R	1200	2400
DRAINAGE							
I-2	6" Storm Sewer A Under Pavt.	L.F.	1119+00	1119+15	Across	30	
I-2	8" Storm Sewer A Under Pavt.	L.F.	1118+80	1119+00	L	30	
I-4	6" Underdrain	L.F.	1119+00	1122+00	L & R	590	
I-4	8" Outlet	L.F.	1118+80		L	10	
I-14	60" Bend G"	Ea.	1119+10		L	1	
I-14	Paved Gutter Type I	L.F.	1118+00	1119+10	L	110	
I-14	Paved Gutter Type I	L.F.	1117+15	1118+10	R	95	205
I-15	8"-6"	Ea.	1119+00			1	
I-15	1.4-6"	Ea.	1119+00			1	

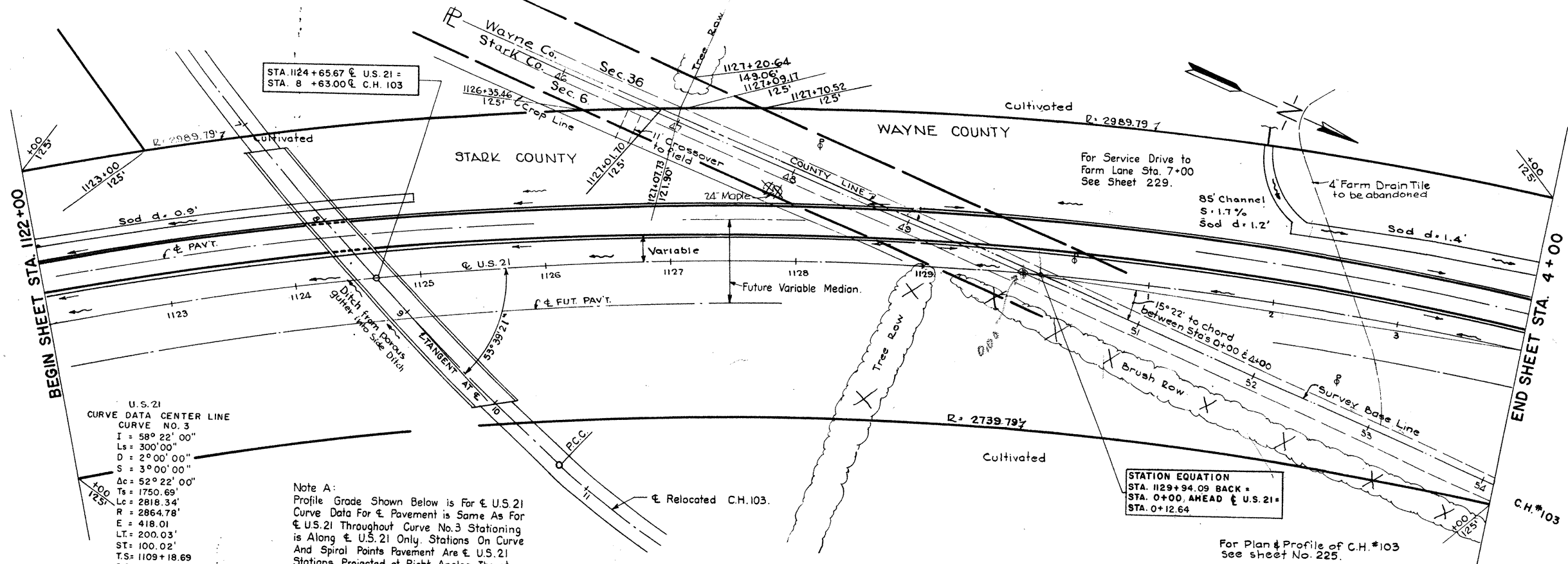
PLAN SCALE 1" = 50'

B.M. # 214 ELEV. 1029.26
RAILROAD SPIKE IN ROOT OF 24" OAK STUMP,
325' LT. STA. 1119+00



PREPARED AND RECOMMENDED BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.60
WAY - 21 - 0.00
SUM - 21 - 0.00



U.S. 21
CURVE DATA CENTER LINE
CURVE NO. 3
I = 58° 22' 00"
Ls = 300' 00"
D = 2° 00' 00"
S = 3° 00' 00"
Ac = 52° 22' 00"
Ts = 1750.69'
Lc = 2818.34'
R = 2864.78'
E = 418.01'
LT = 200.03'
ST = 100.02'
T.S. = 1109 + 18.69
S.C. = 1112 + 18.69
P.L. = 1126 + 69.38
C.S. = 8 + 55.58
S.T. = 11 + 55.58

Note A:
Profile Grade Shown Below is for U.S. 21
Curve Data for Pavement is Same as for
U.S. 21 Throughout Curve No. 3
Stationing is Along U.S. 21 Only. Stations on Curve
and Spiral Points Pavement are U.S. 21
Stations Projected at Right Angles Thereto.

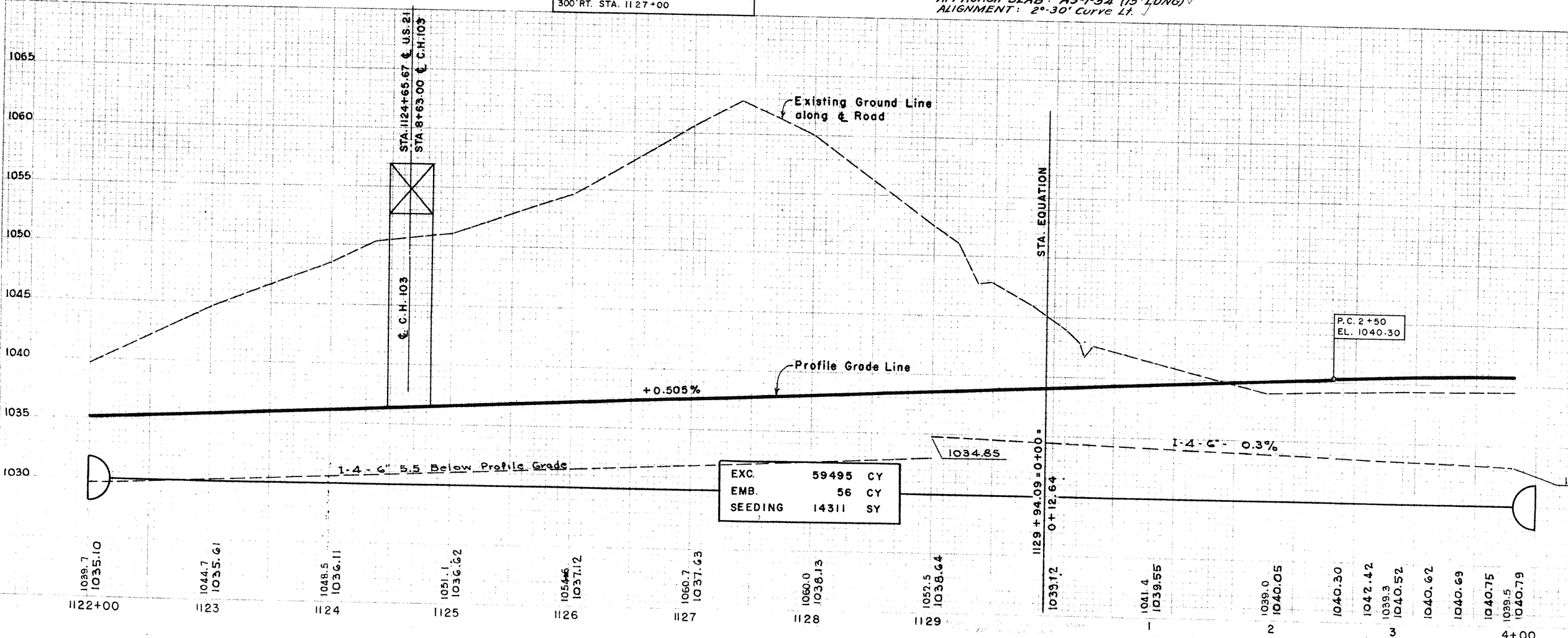
STATION EQUATION
STA. 1129+94.09 BACK =
STA. 0+00 AHEAD U.S. 21 =
STA. 0+12.64

PROPOSED BRIDGE DATA - STA. 21-2130
TYPE - Cont. Steel Beams with Reinf. Conc. Deck and Substructure
SPAN - 60'-0", 75'-0", 75'-0", 60'-0" c/c Brqs.
ROADWAY - 24'-0" f/f, 2'-0" Safety Curbs
LOAD - FREQ. 12000 L.F.
SKEW - 36° 20' 39" L.F.
SURFACE COURSE - ASPHALTIC CONCRETE
APPROACH SLAB - A5-1-5A (15' LONG)
ALIGNMENT - 2° 30' Curve Lt.

B.M. #215 ELEV. 1048.91
RAILROAD SPIKE IN 10" WILD CHERRY,
300' RT. STA. 1127+00

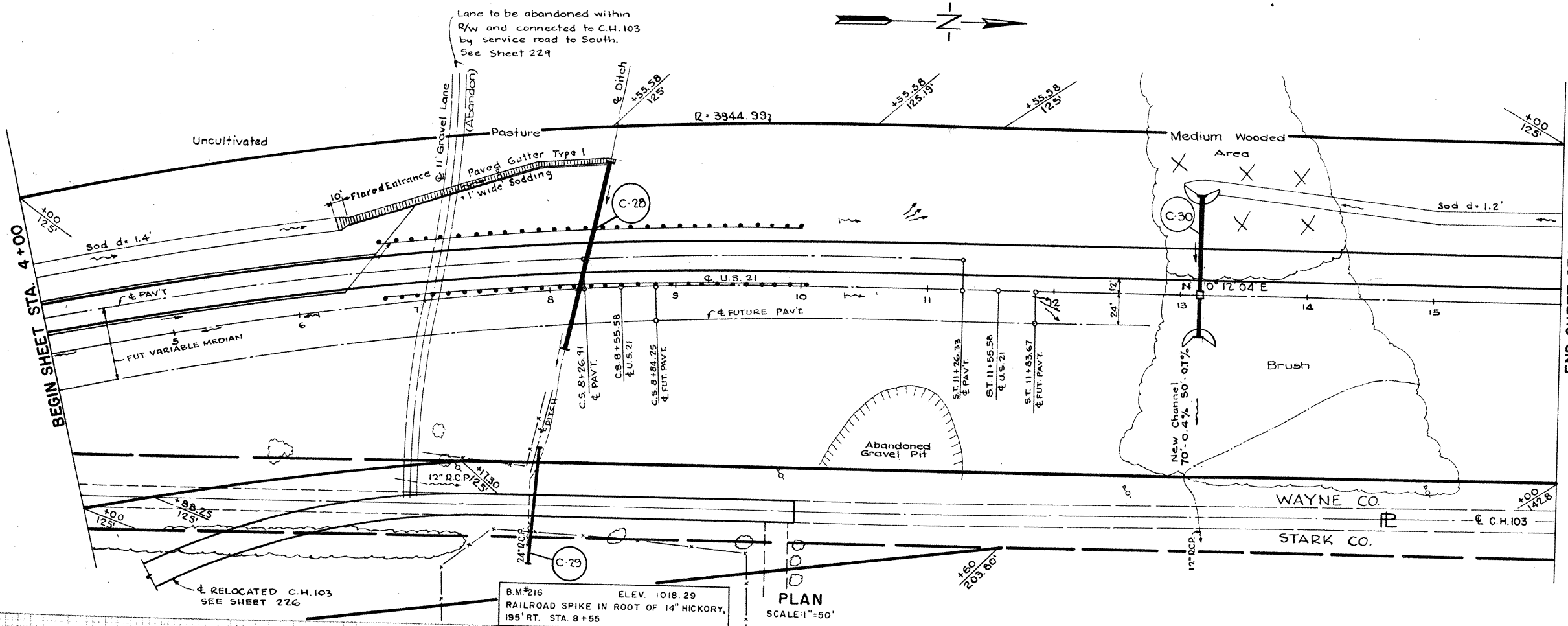
PLAN
SCALE: 1" = 50'

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
I-22	Subbase	CY				940
L-10	Sodding 8' Wide	SY	1122+00	1125+00	L	270
L-10	Sodding 11' Wide	SY	2+05	4+00	L	250
SS-18	Fence	LF	1122+00/23	4+00/123		1181
SS-18	Fence	LF	1122+00/23	4+00/123		1181
DRAINAGE						
I-4	6" Underdrains	LF	1122+00	4+00	L&R	2360



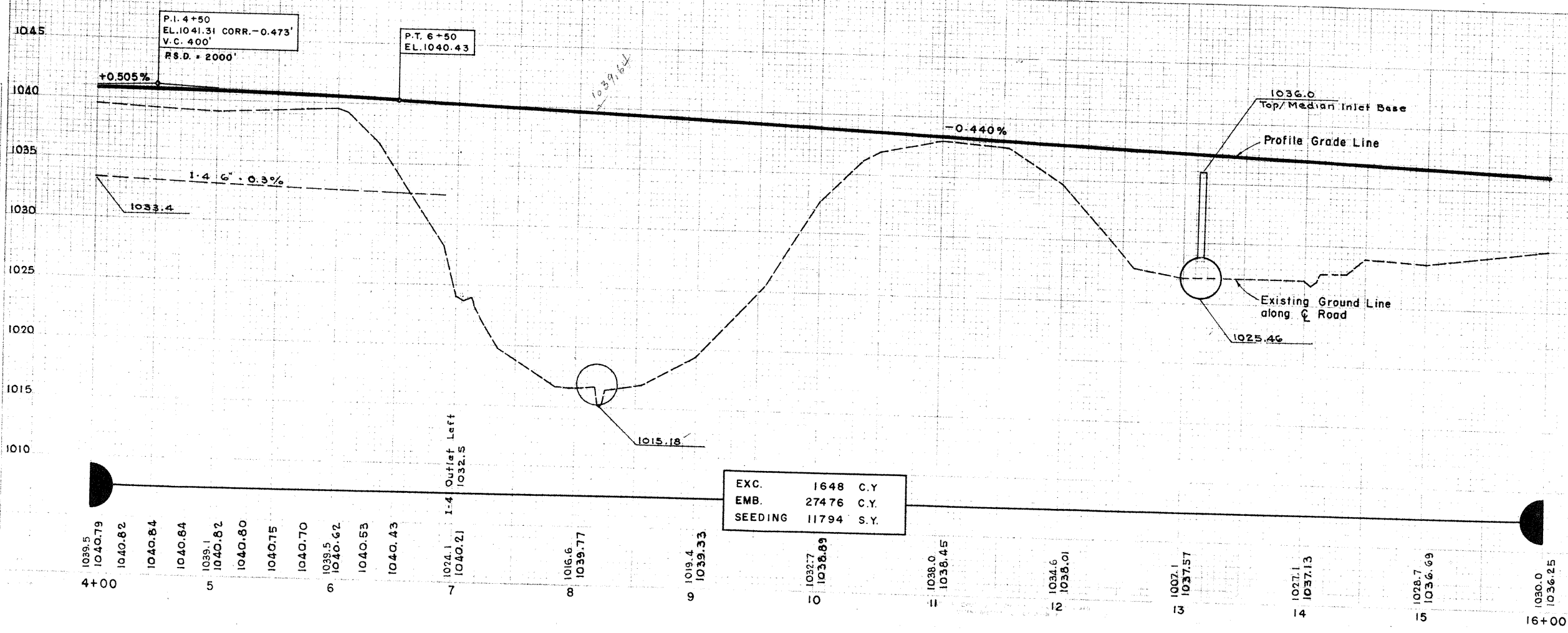
EXC. 59495 CY
EMB. 56 CY
SEEDING 14311 SY

PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS



MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-28	8+23	Pipe Culvert	48" x 152'	268
C-29	21+18	Pipe Culvert	48" x 96'	268
C-30	13+15	Pipe Culvert	42" x 112'	268

ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB TOTAL	TOTAL
ROADWAY							
I-15	Guard Rail	LF	6+70	10+01.89	L	337.50	675.0
I-15	Guard Rail	LF	6+70	10+05.80	R	337.50	
I-22	Subbase	C.Y.	4+00	6+45	L	300	1170
L-10	Sodding 11' Wide	S.Y.	6+50	8+52	L	25	
L-10	Sodding 1' Wide	S.Y.	13+15	16+00	L	320	
SS-18	Fence	LF	4+00/123	16+00/123	L	1200	2400
SS-18	Fence	LF	4+00/123	16+00/123	R	1200	
DRAINAGE							
I-2	6" Storm Sewer A Under Pavt.	LF	6+42	6+70	L	34	34
I-2	8" Storm Sewer A Under Pavt.	LF	6+70	6+93	L	34	
I-12	6" 8" Increaser	Eq	6+68	6+70	L	1	1
I-4	6" Underdrains	LF	4+00	6+70	L	512	
I-4	6" Underdrains	LF	6+93	7+00	L	10	10
I-4	60° Bend 6"	Eq	6+42	6+40	L	1	
I-14	Paved Gutter Type I	LF	6+40	8+54	L	214	214
I-4	8" Underdrains	LF	6+70	6+90	L	38	

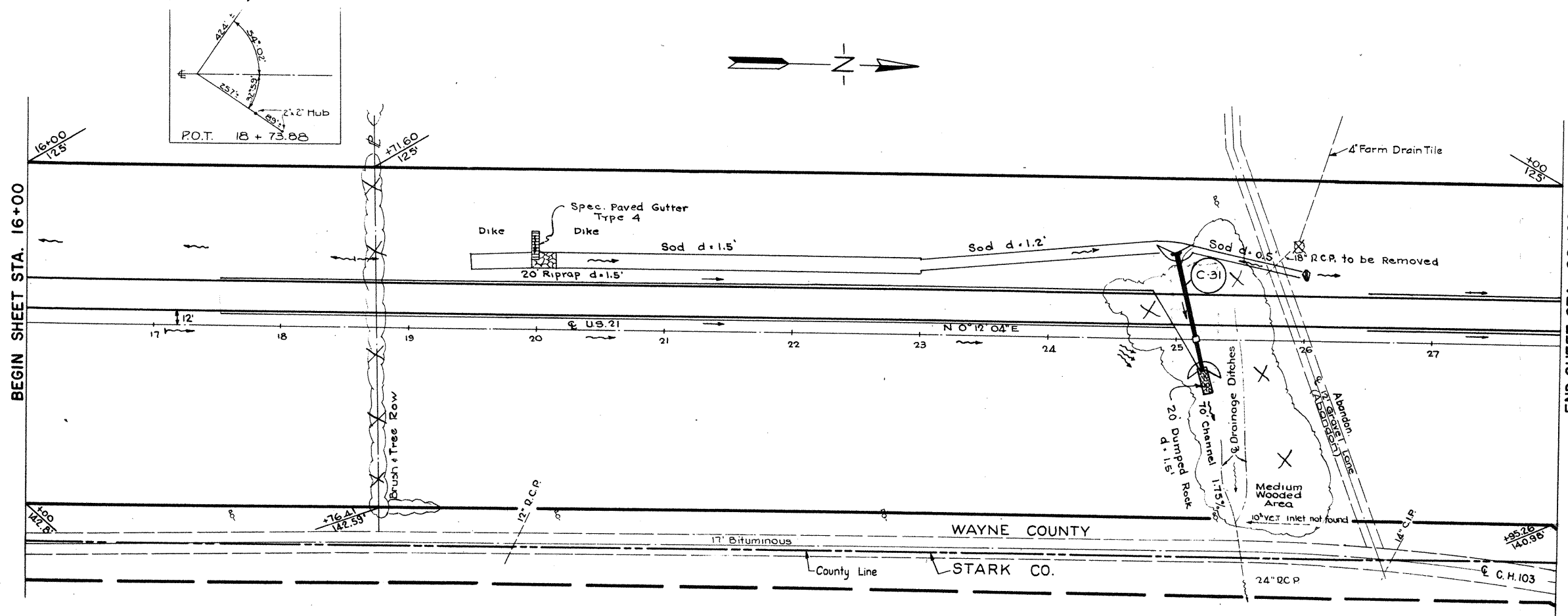


PREPARED AND RECOMMENDED BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-31	25+15	Pipe Culvert	42" x 94'	268

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
I-22	Subbase	CY				850
L-10	Sodding 5' Wide	SY	25+00	26+00	L	60
L-10	Sodding 12' Wide	SY	19+50	23+00	L	440
L-10	Sodding 10' Wide	SY	23+00	25+00	L	220
SS-18	Fence	LF	16+00/123	28+00/123	L	1200
SS-18	Fence	LF	16+00/142.8	18+76.4/140.59	L	276
SS-18	Fence	LF	18+76.4/142.59	28+00/140.98	R	924
DRAINAGE						
E-12	18" Pipe Removed for Storage	LF	25+70	25+90	L	25
I-4	6" Underdrains	LF	17+50	25+00	L	1500
I-4	6" Underdrains	LF	26+50	28+00	R	300
I-4	8" Outlet	LF	25+20		R	10
I-4	60° Bend 6"	Ea	24+80		R	1
I-4	Increaser 6"-8"	Ea	25+00		R	1
I-4	Y - 8"-6"	Ea	25+00		R	1
I-10	Riprap Class A	SY	19+96	20+16	L	25
I-14	Spec. Paved Gutter Type 4	LF	20+00		L	24
I-2	6" Storm Sewer A	LF	24+85	25+00	Across	30
I-2	8" Storm Sewer A	LF	25+00	25+20	R	30

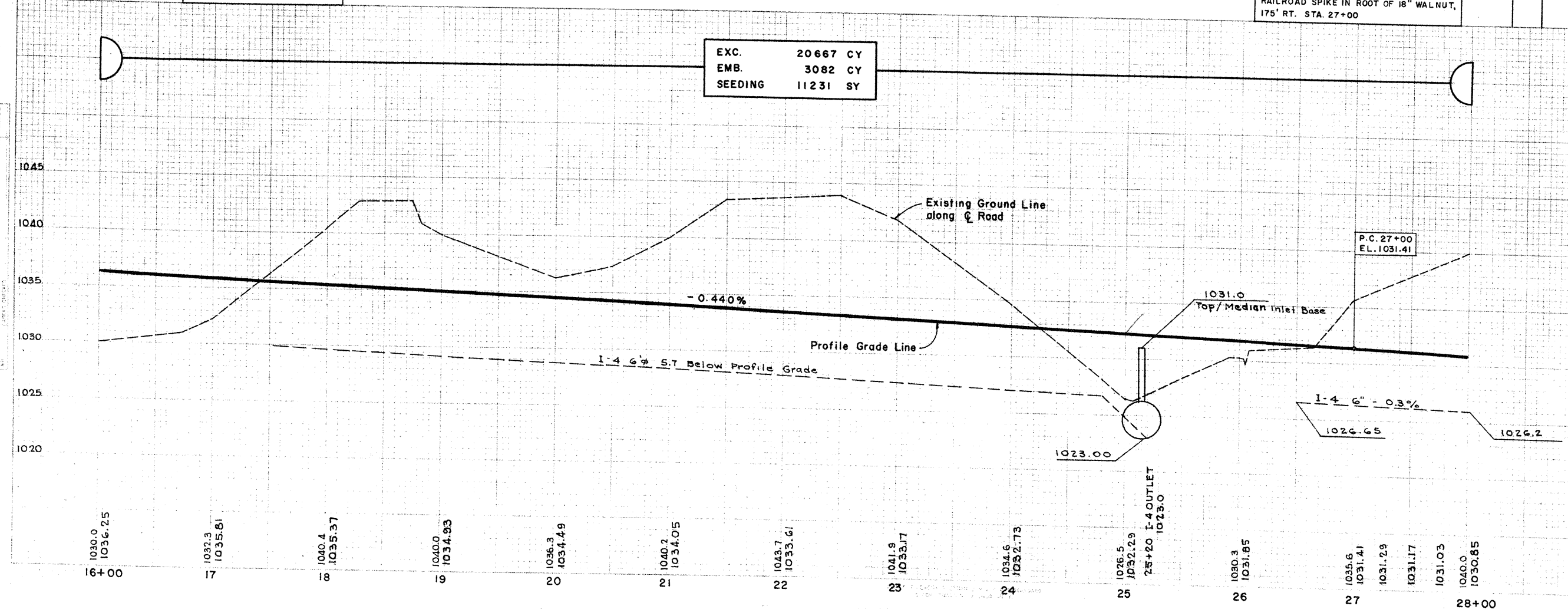


B.M. #217 ELEV. 1039.77
RAILROAD SPIKE IN POWER POLE,
150' RT. STA. 17+50

PLAN
SCALE: 1" = 50'

B.M. #218 ELEV. 1024.03
RAILROAD SPIKE IN ROOT OF 18" WALNUT,
175' RT. STA. 27+00

EXC. 20667 CY
EMB. 3082 CY
SEEDING 11231 SY

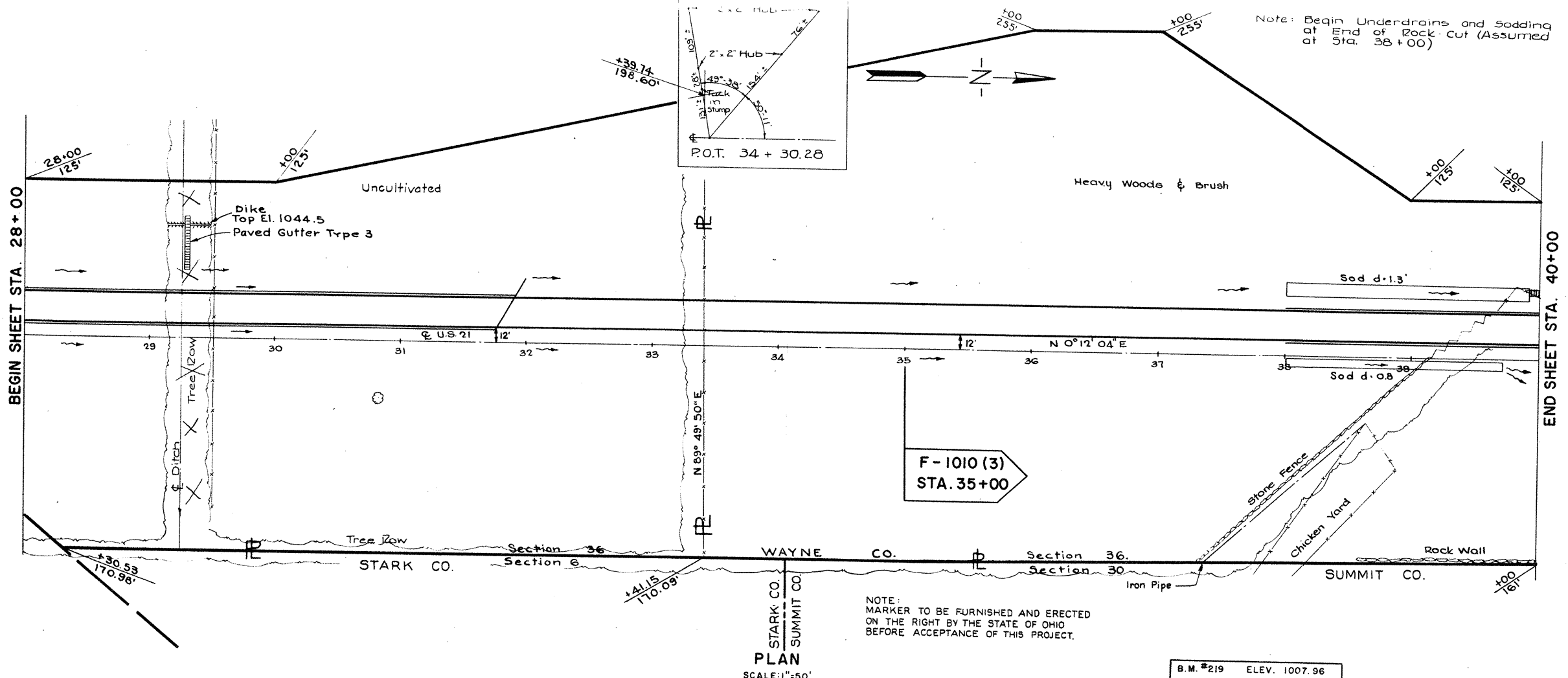


PREPARED AND RECOMMENDED
BY
CHARLES E. DELEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

FED. NO. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	

36
329

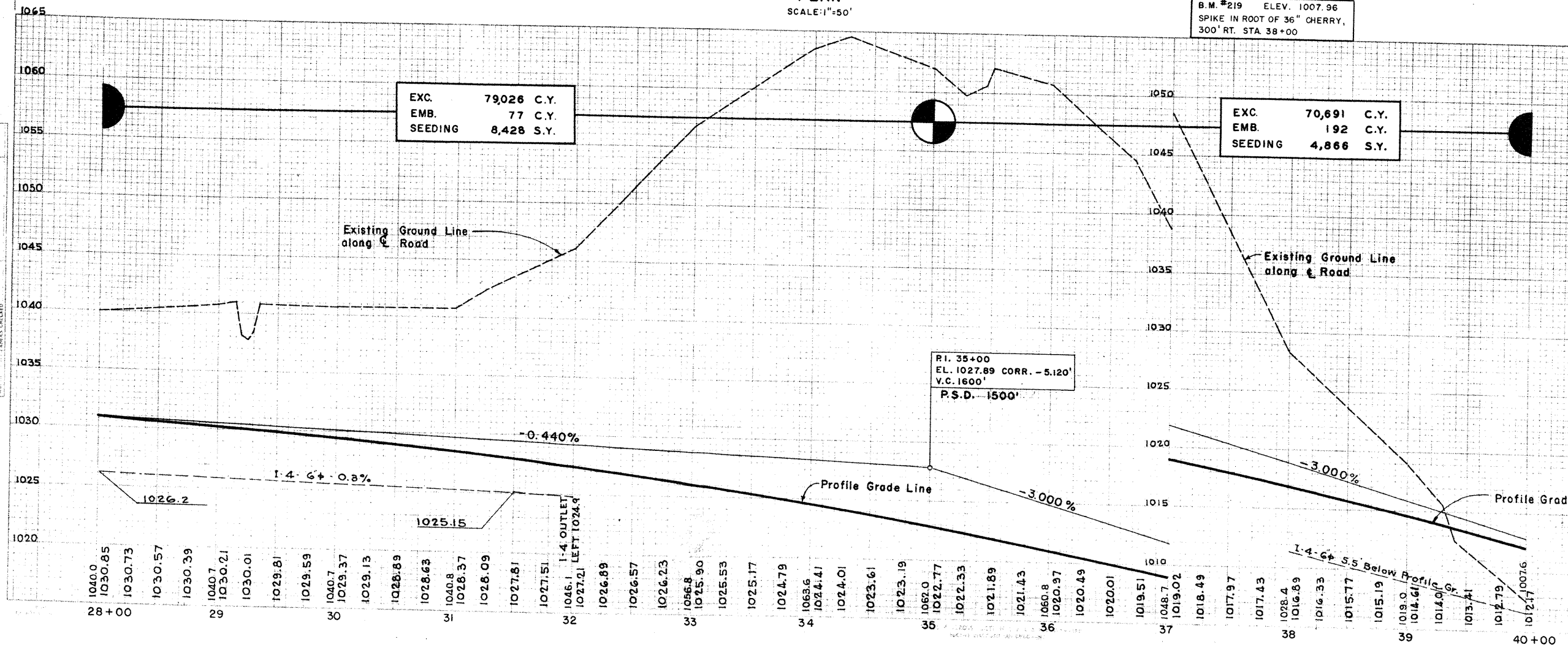
STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
STATE						
1-22	Subbase	C.Y.	28+00/125'	28+30.53/125'	R	535
55-18	Fence	L.F.	28+00/125'	30+00/125'	L	39
55-18	Fence	L.F.	28+00/125'	30+00/125'	R	663
55-18	Fence	L.F.	30+00/125'	35+00/125'	L	200
55-18	Fence	L.F.	30+00/125'	35+00/125'	R	505
FEDERAL AID F-1010 (3)						
1-22	Subbase	C.Y.	38+00	39+90	L	420
L-10	Sodding 10' Wide	S.Y.	38+00	39+70	R	210
L-10	Sodding 7' Wide	S.Y.	38+00	39+70	L	130
55-18	Fence	L.F.	35+00/125'	40+00/125'	R	500
55-18	Fence	L.F.	35+00/125'	36+00/253'	L	109
55-18	Fence	L.F.	36+00/253'	37+00/253'	L	100
55-18	Fence	L.F.	37+00/253'	39+00/125'	L	236
55-18	Fence	L.F.	39+00/125'	40+00/125'	L	100
DRAINAGE						
STATE						
I-2	6" Storm Sewer A Under Pavt.	L.F.	31+75	32+00	L	40
I-4	6" Underdrains	L.F.	28+00	32+00	L	760
I-4	6" Outlet	L.F.	32+00		L	10
I-4	6" Wye	EO.	31+90		L	1
I-4	6" 60' Bend	EO.	31+75		L	1
I-14	Paved Gutter Type 3	L.F.	29+30		L	46
FEDERAL AID F-1010 (3)						
I-4	6" Underdrains	L.F.	38+00	40+00	L	400
I-14	Paved Gutter Type 1	L.F.	39+90	40+00	L	10

NOTE: MARKER TO BE FURNISHED AND ERRECTED ON THE RIGHT BY THE STATE OF OHIO BEFORE ACCEPTANCE OF THIS PROJECT.

B.M. #219 ELEV. 1007.96
SPIKE IN ROOT OF 36" CHERRY,
300' RT. STA. 38+00

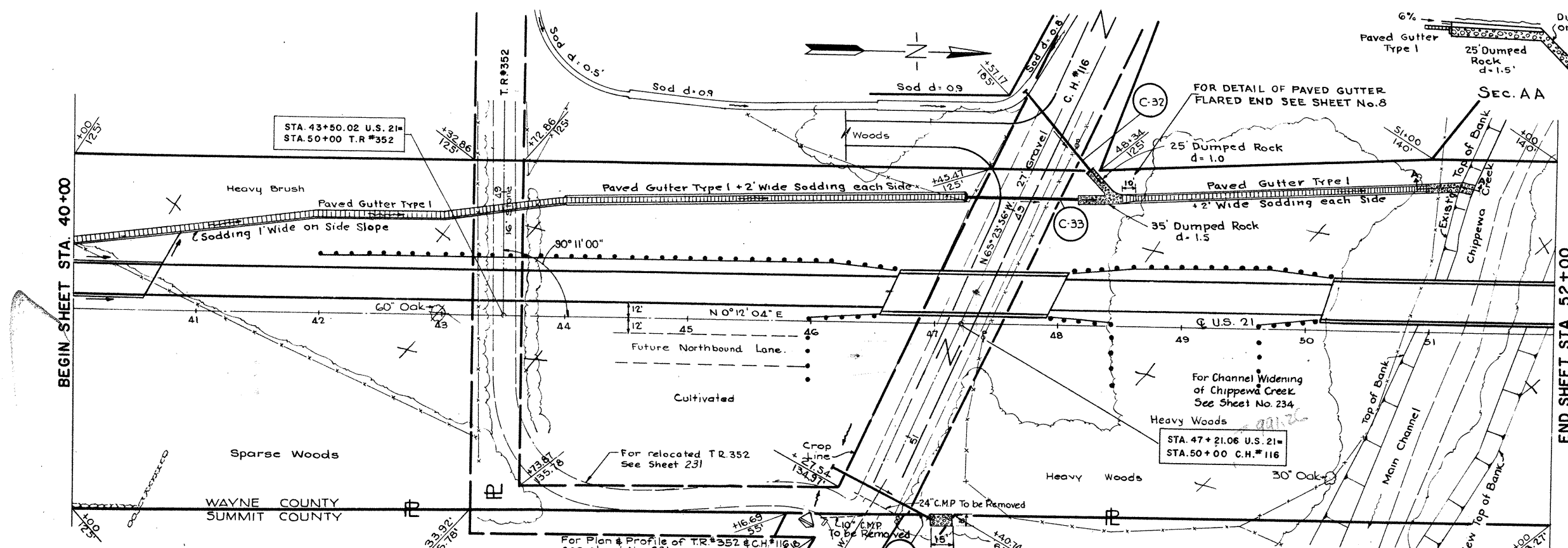


PREPARED AND RECOMMENDED BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA. 21 - 17.80
WAY 21 - 0.00
SUM 21 - 0.00

STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-32	48+21	Pipe Culvert	24" x 84"	269
C-33	48+25	Pipe Culvert	30" x 92"	269
C-34	48+26	Pipe Culvert	18" x 24"	269

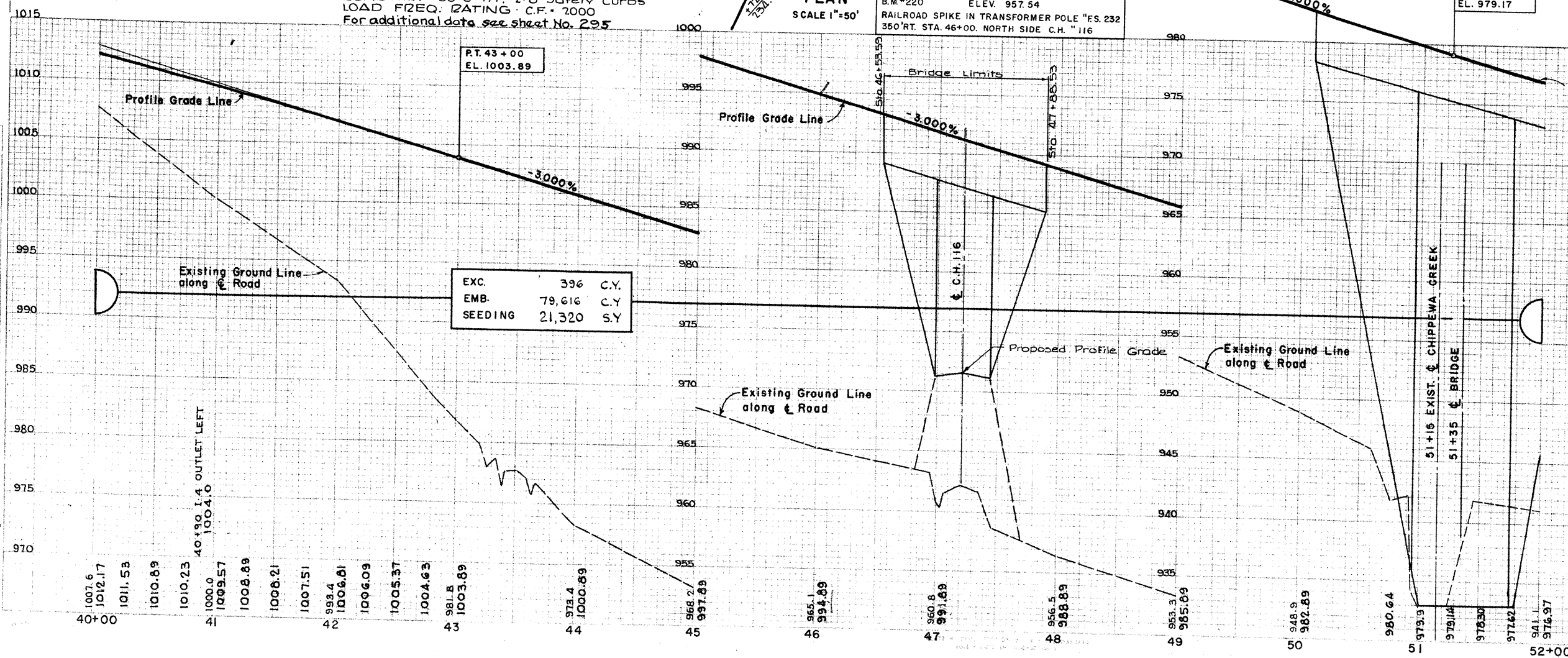
ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
I-15	Guard Rail	L.F.	42+02.5	46+65	L	462.5
I-15	Guard Rail	L.F.	48+10	50+22.5	R	212.5
I-15	Guard Rail	L.F.	45+98	46+48	R	50.0
I-15	Guard Rail	L.F.	47+95	48+45	R	50.0
I-15	Guard Rail	L.F.	49+57	50+07	R	50.0
I-22	Subbase	C.Y.				825.0
L-10	Sodding 1' Wide	S.Y.	40+00	44+00	L	45
L-10	Sodding 2x2' Wide	S.Y.	44+00	47+23	L	140
L-10	Sodding 2x2' Wide	S.Y.	48+50	51+00	L	110
SS-18	Fence	L.F.	40+00/123	47+45/123	L	145
SS-18	Fence	L.F.	48+34/123	51+30/138	L	296
SS-18	Fence	L.F.	40+00/159	43+33/92	R	334
SS-18	Fence	L.F.	43+33/92	46+10/153	R	276
SS-18	Fence	L.F.	47+19/152.78	50+15/152	R	296
SS-18	Fence	L.F.	51+24/151.50	52+09/153.27	R	76
I-15	Guard Posts	EA	46+00			4
I-15	Guard Posts	EA	48+45			4
I-15	Guard Posts	EA	49+57			4
PAVEMENT						
I-7	R.C. Appr. Slabs T-10"	S.Y.	46+38.59	46+53.59		4.0
I-7	R.C. Appr. Slabs T-10"	S.Y.	47+88.53	48+03.53		4.0
I-7	R.C. Appr. Slabs T-10"	S.Y.	49+94.11	50+09.11		4.0
DRAINAGE						
I-2	6" Storm Sewer A Under Pavt.	L.F.	40+55	40+90	Across	50
I-4	6" Underdrains	L.F.	40+00	40+75	L	128
I-4	6" Outlet	L.F.	40+90		R	10
I-14	60" Bend 6"	Eq	40+55		L	1
I-14	Y 6"	Eq	40+70		L	1
I-10	Dumped Rock	C.Y.	50+98	51+35	L	30
I-14	Paved Gutter Type 1	L.F.	40+00	47+23	L	723
I-14	Paved Gutter Type 1	L.F.	48+15	51+20	L	305
						1028



PROPOSED BRIDGE DATA - WAY 21-0089 (C.H. 116)
 TYPE - Cont. Steel Beam with Rein. Conc. Deck and Substructure
 SPAN - 40'-0", 50'-0", 40'-0" c/c Brgs.
 ROADWAY - 30'-0" f/f, 2'-0" Safety Curbs
 LOAD FREQ. RATING - C.F. - 2000
 For additional data see sheet No. 287

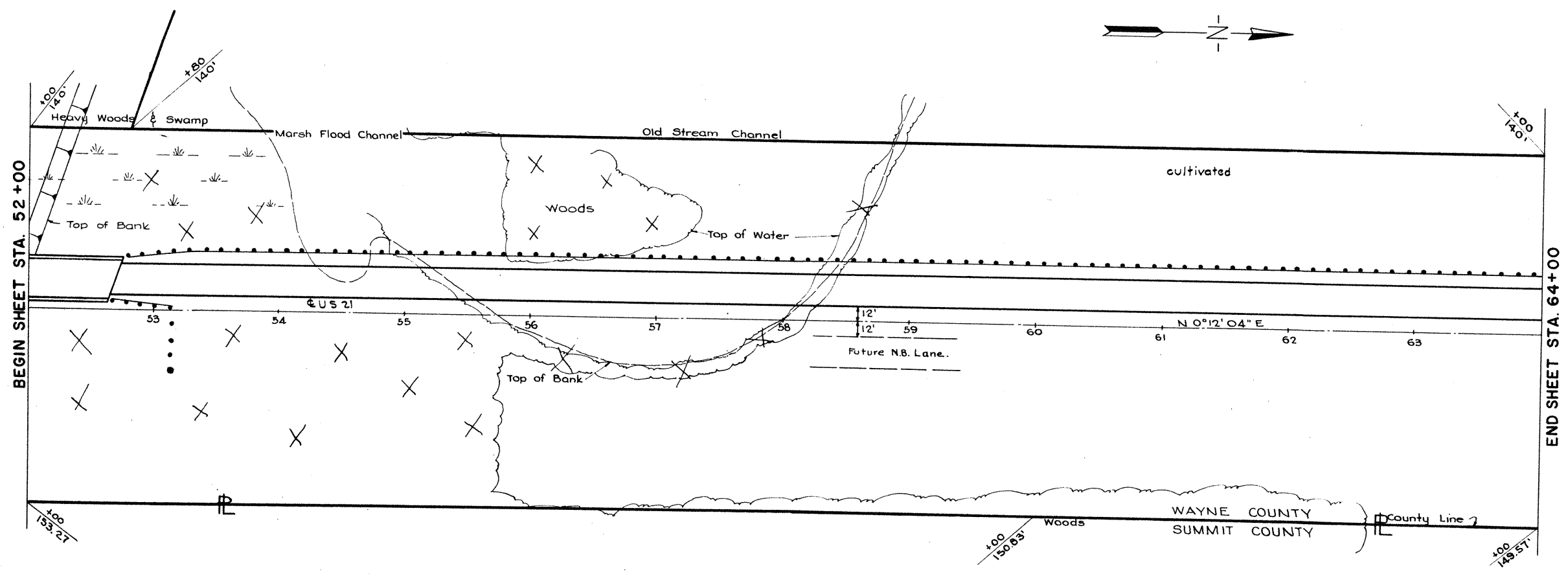
PROPOSED BRIDGE DATA - WAY 21-0095 (CHIPPEWA CR.)
 TYPE - Cont. Steel Beam with Rein. Conc. Deck and Substructure
 SPAN - 16'-0", 95'-0", 16'-0" c/c Brgs.
 ROADWAY - 30'-0" f/f, 2'-0" Safety Curbs
 LOAD FREQ. RATING - C.F. - 2000
 For additional data see sheet No. 295

PLAN SCALE 1"=50'
 B.M.#220 ELEV. 957.54
 RAILROAD SPIKE IN TRANSFORMER POLE "FS. 232
 350' RT. STA. 46+00. NORTH SIDE C.H. "116

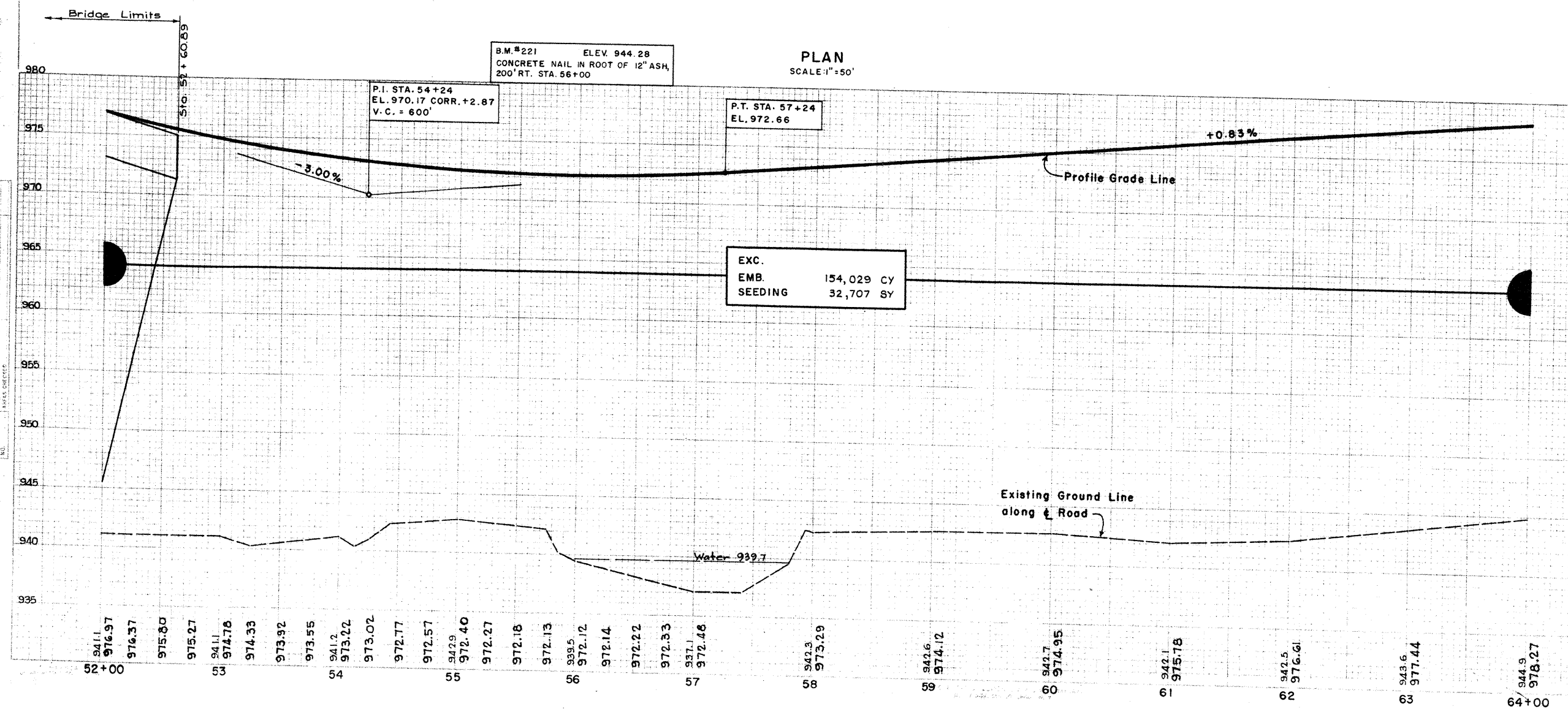


PREPARED AND RECOMMENDED
 BY
 CHARLES E. DELEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

STA-21- 17.80
WAY-21- 0.00
SUM-21- 0.00



ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
1-15	Guard Rail	L.F.	52+79.50	64+00	L	1120.50
1-15	Guard Rail	L.F.	52+69.17	53+19.17	R	500
1-22	Subbase	C.Y.				1150
33-18	Fence	L.F.	52+40/138	64+00/138	L	1160
33-18	Fence	L.F.	52+00/151.27	64+00/151.27	R	1200
1-15	GUARD POSTS	E.A.	53+19.17			4
PAVEMENT						
1-7	R.C. Appr. Slab 10"	S.Y.	52+60.89	52+75.89		40



PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

PROPOSED BRIDGE DATA WA 21 0125 (PENN. 1212)
 TYPE: Light Steel Beams with Rein. Conc Deck and Substructure
 SPAN: 48'-0", 60'-0", 48'-0" c/c Brags.
 ROADWAY: 30'-0" f/f, 2'-0" Safety Curb
 LOAD FREQ. DATING: CF = 2000
 For additional data see sheet No. 303

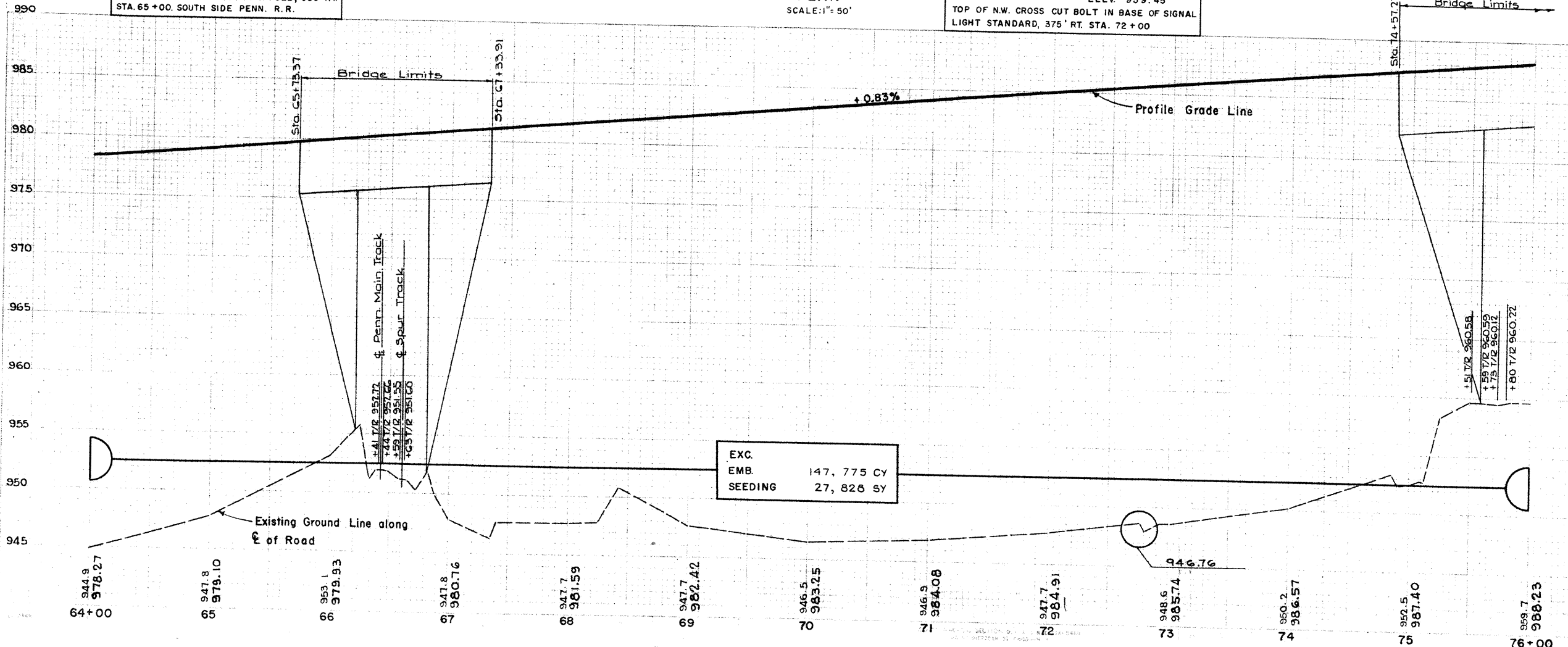
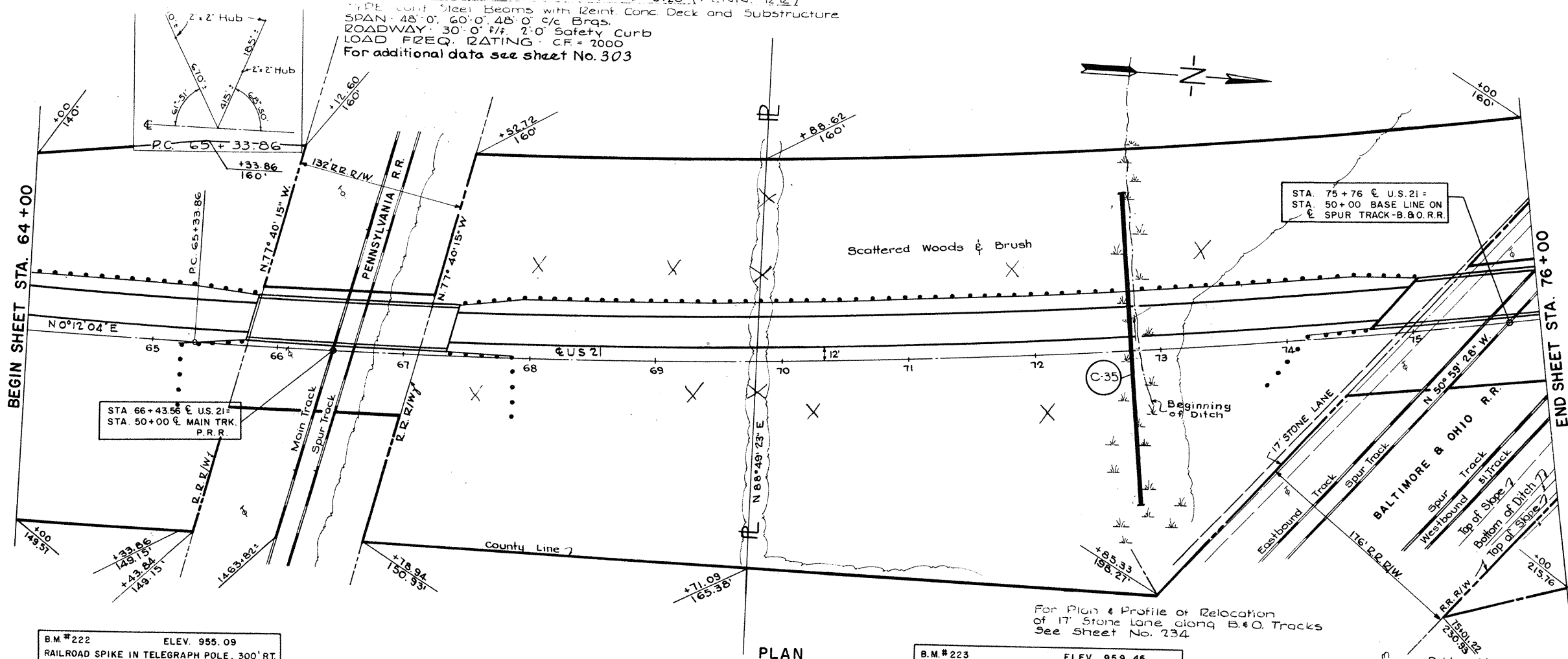
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

STA. 21-17.80
 WAY- 21- 0.00
 SUM- 21- 0.00

STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-35	72+77	Pipe Culvert	36" x 750'	269

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB-TOTAL	TOTAL
ROADWAY							
I-15	Guard Rail	L.F.	64+00	65+78.50	L	179.5	1079.5 915
I-15	Guard Rail	L.F.	65+19.17	65+69.17	R	50.0	
I-15	Guard Rail	L.F.	67+47.64	75+03.66	L	750.00	
I-15	Guard Rail	L.F.	67+40.00	67+90.00	R	50.0	
I-15	Guard Rail	L.F.	74+17	74+67	L	50.0	
I-22	Subbase	C.Y.					
55-18	Fence	L.F.	64+00/158'	65+33.84/158'	L	136	
55-18	Fence	L.F.	65+33.84/158'	66+12.60/158'	L	79	
55-18	Fence	L.F.	64+00/148'	65+43.84/141.15'	R	144	
55-18	Fence	L.F.	66+12.60/140.53'	72+77/136.21'	R	598	
55-18	Fence	L.F.	67+52.11/158'	76+00/158'	L	827	
55-18	Fence	L.F.	75+01.73/120.33'	76+00/215.16'	R	99	
PAVEMENT							
I-7	2C Appr. Slab-10'	S.Y.	65+58.37	65+73.37		40	60 67
I-7	2C Appr. Slab-10'	S.Y.	67+33.91	67+48.91		40	
I-7	2C Appr. Slab-15'	S.Y.	74+32.23	74+57.23		67	
ROADWAY (Cont.)							
I-15	Guard Posts	Ea	65+19.17		R	4	12
I-15	Guard Posts	Ea	67+90		R	4	
I-15	Guard Posts	Ea	74+17		R	4	



FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	

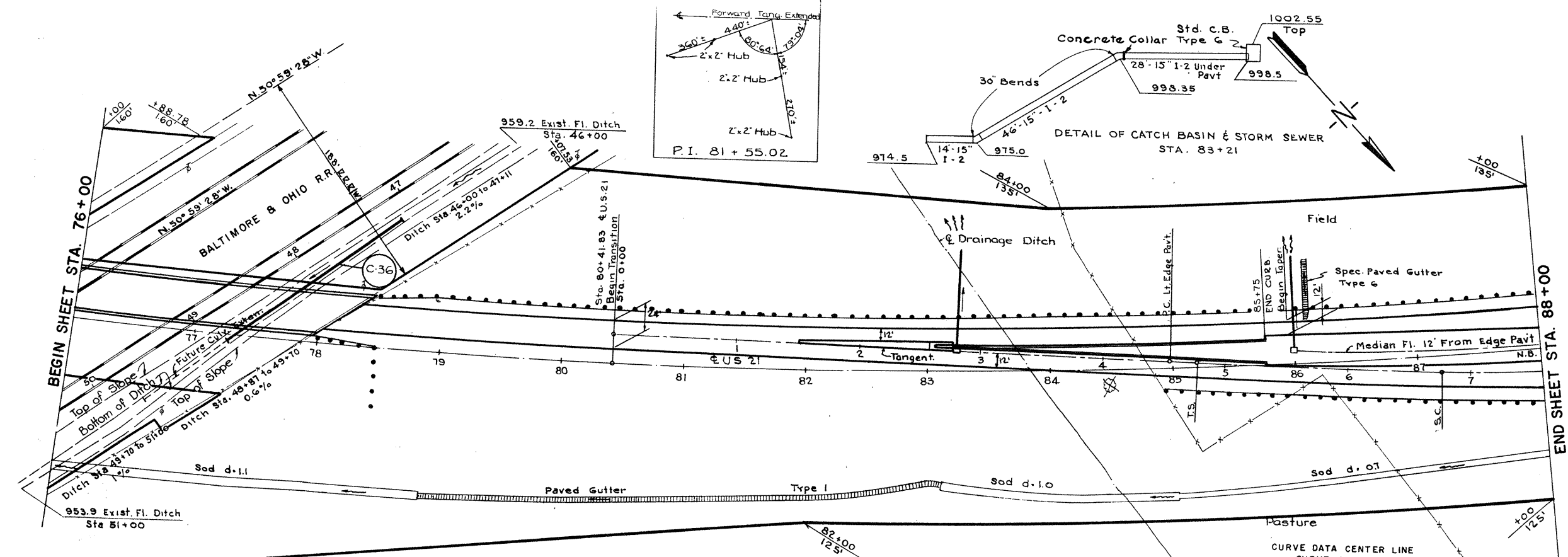
40
329

STA. 21-17.80
WAY. 21-000
SUM. 21-000

STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-36	83+21	Pipe Culvert	30" x 176'	269

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB TOTAL	TOTAL
ROADWAY							
E-1	Comp Subgrade	SY	81+00	88+00			3319
I-15	Guard Rail	LF	78+47.16	88+00		943.91	50.0
I-15	Guard Rail	LF	78+03	78+53			310.00
I-22	Subbase	CY	76+00	88+00			1080
I-10	Sodding 7' Wide	SY	76+00	78+90	R	230	
I-10	Sodding 6' Wide	SY	83+10	85+00	R	130	
I-10	Sodding 5' Wide	SY	85+00	88+00	R	170	530
S5-18	Fence	LF	80+07.53/158	84+00/133	L	392	
S5-18	Fence	LF	84+00/133	88+00/133	L	400	
S5-18	Fence	LF	76+00/133	82+00/123	R	630	
S5-18	Fence	LF	82+00/123	88+00/123	R	600	2122
I-15	Guard Posts	Ea.	78+53		R	4	
PAVEMENT							
B-70	7" P.C.C. Base Course	SY	81+95	83+00			49
T-35	2" Asp. Conc. Surf.	CY	81+95	83+00			0.3
T-71	9" R.C. Pavt.	SY	81+00	88+00			2119
I-7	R.C. Appr. Slab - 13"	SY	77+91.27	78+16.27			67
I-12	Type 2A Curb	LF	83+22	85+78			510
I-21	P.C.C. Median Pavt.	CY	83+00	83+20			4
I-23	Precast Traf. Div.	Ea.	81+95	83+00			8
DRAINAGE							
I-2	15" Storm Sewer Under Pavt.	LF	83+21		L		28
I-2	15" Storm Sewer A Under Pavt.	LF	86+00		L		34
I-2	15" Storm Sewer B	LF	83+21		L		60
I-2	15" Storm Sewer A	LF	86+00		L		38
I-5	15" 30° Bend	Ea.	83+21		L	2	
I-5	15" 30° Bend	Ea.	86+00		L	2	
I-8	Std. C.B. Type 6	Ea.	83+21		L		4
I-8	Spec. Median Inlet Type A	Ea.	86+00		L		1
I-14	Paved Gutter Type 1	LF	78+90	83+10	R		420
I-14	Paved Gutter Type 6	LF	86+10		L		56

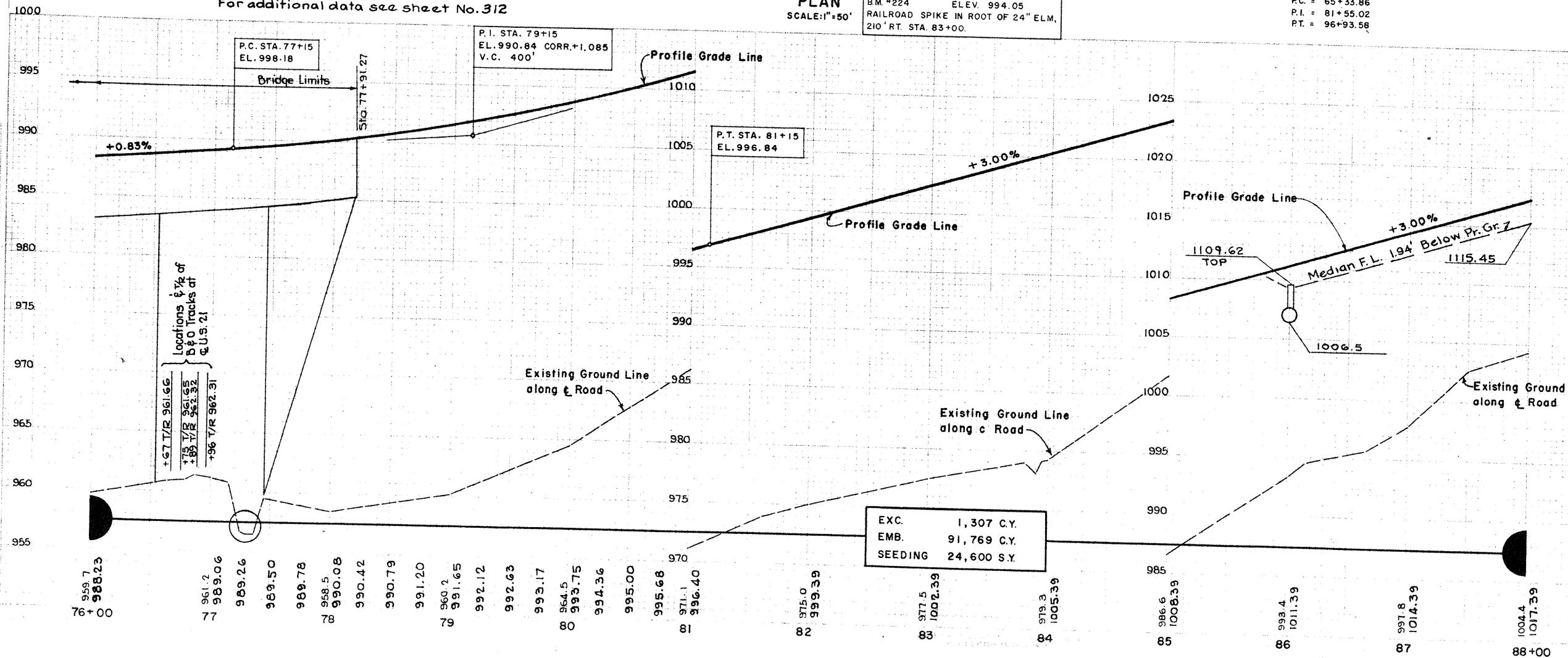


PROPOSED BRIDGE DATA - WAY-21-0143 (B&O R.R.)
 TYPE - Cont. Steel Beam with Reinf. Deck & Substructure
 SPAN - 13'-0" 91'-6" 91'-6" 73'-0" c/c Brgs.
 ROADWAY - 30'-0" f/f, 2'-0" Safety Curbs
 LOAD FREQ. RATING - C.F. 2000
 For additional data see sheet No. 312

TRANSITION NO. 4
See Sheet 62 for Details

CURVE DATA CENTER LINE
 CURVE NO. 4
 A = 31° 35' 50"
 D = 1° 00' 00"
 R = 5729.58'
 T = 1621.16'
 L = 3159.72'
 P.C. = 65+33.86
 P.I. = 81+55.02
 P.T. = 96+93.58

PLAN
 SCALE: 1" = 50'
 B.M. #224 ELEV. 994.05
 RAILROAD SPIKE IN ROOT OF 24" ELM,
 210' RT. STA. 83+00.



PREPARED AND RECOMMENDED
 BY
 CHARLES E. DE LEW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

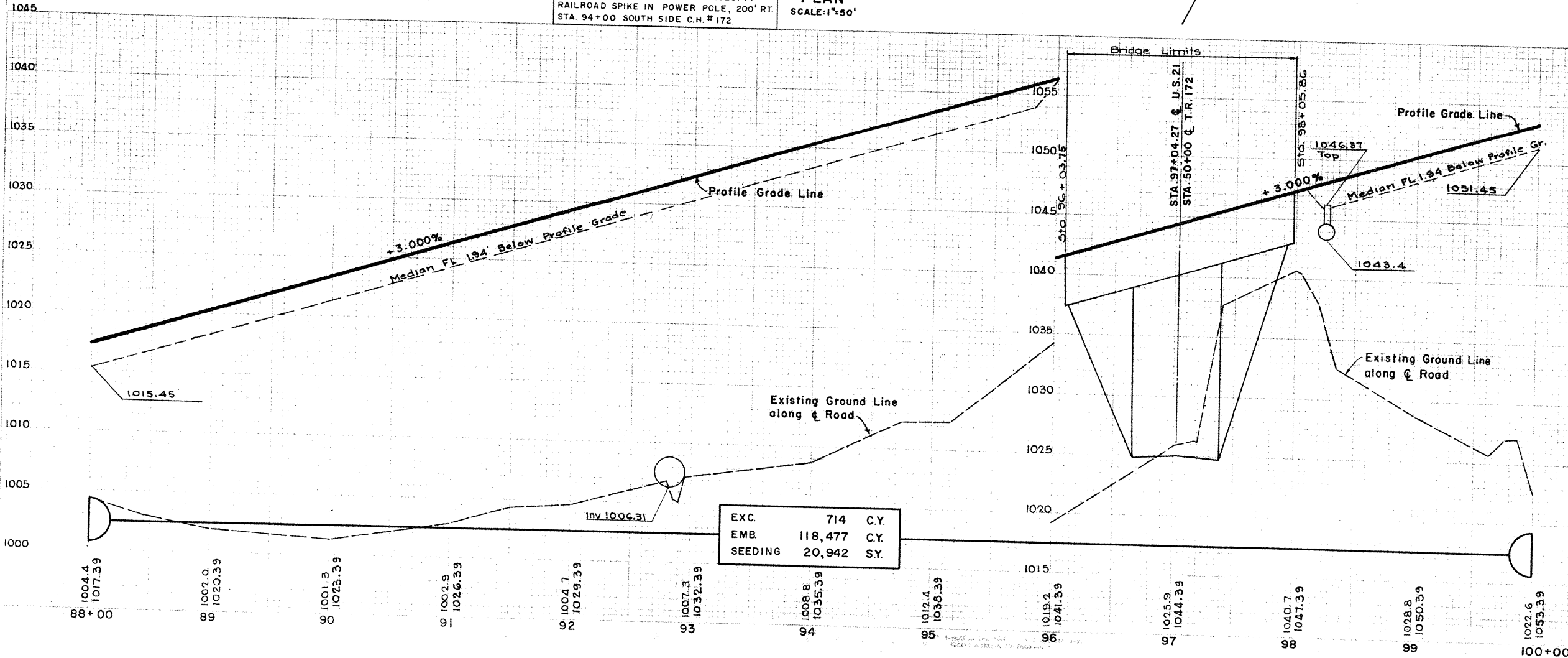
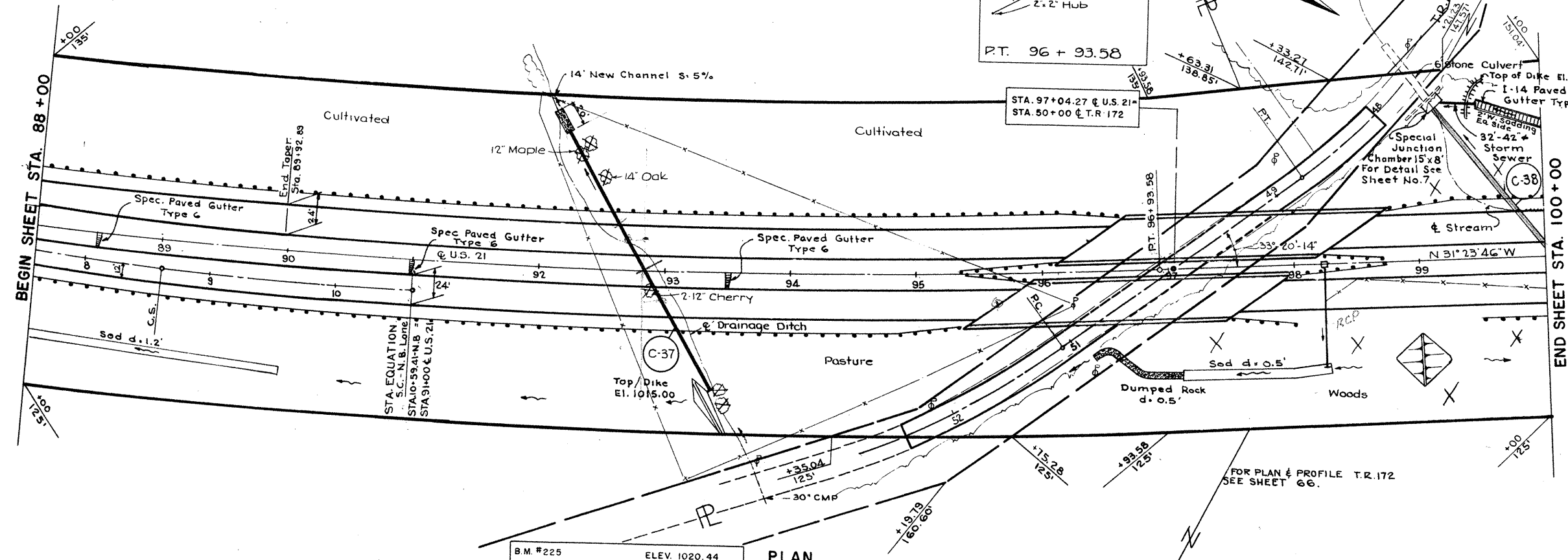
PROPOSED BRIDGE DATA W-21-0122
 TYPE - Cont. Steel Beams with Reint. Conc Deck and Substructure
 SPAN - 59'-0", 74'-0", 59'-0" c/c Brqs.
 ROADWAY - 30'-0" F/F, 2'-0" Safety Curb
 LOAD FREQ. 12 FTING. C.F. = 2000
 For additional data see sheet No. 321

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	

STA. 21-17.80
 WAY - 21-0.00
 SUM - 21-0.00

STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-37	97+85	Pipe Culvert	30" x 230"	269
C-38	100+08	Pipe Culvert	54" x 260"	269

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
E-1	Comp. Subgr	SY	88+00	91+00		1989
I-15	Guard Rail	L.F.	88+00	95+34	R	740
I-15	Guard Rail	L.F.	95+39	95+89	R	50
I-15	Guard Rail	L.F.	98+01	98+76	R	75
I-15	Guard Rail	L.F.	97+46	97+96	R	50
I-15	Guard Rail	L.F.	88+00	96+63	L	856.09
I-15	Guard Rail	L.F.	95+32	96+07	L	75
I-15	Guard Rail	L.F.	98+19	98+69	L	50
I-15	Guard Rail	L.F.	98+74	100+00	L	126
I-22	Subbase	CY	88+00	100+00		1350
L-10	Sodding 7' Wide	SY	88+00	90+00	R	160
L-10	Sodding 5' Wide	SY	97+10	98+25	R	60
L-10	Sodding 4' Wide	SY	99+50	100+00	R	25
SS-18	Fence	L.F.	88+00/153	96+93.59/153	L	894
SS-18	Fence	L.F.	96+93.59/153	98+33.27/153	L	140
SS-18	Fence	L.F.	99+21.23/123	100+09/149.04	L	79
SS-18	Fence	L.F.	88+00/123	94+35.04/123	R	635
SS-18	Fence	L.F.	95+75.29/123	100+09/123	R	425
I-15	Guard Rail	L.F.	99+50	100+00	R	50
PAVEMENT						
I-7	R.C. Appr. Slabs - 13"	SY	95+43.76	95+68.76	R	67
I-7	R.C. Appr. Slabs - 13"	SY	96+14.32	96+39.32	R	67
I-7	R.C. Appr. Slabs - 13"	SY	97+69.38	97+94.38	R	67
I-7	R.C. Appr. Slabs - 13"	SY	98+42.34	98+67.34	L	67
T-11	9" R.C. Pavt.	SY	88+00	91+00		266
DRAINAGE						
E-2	Excav. for Endwall	CY	98+25			4
E-2	Excav. for Endwall	CY	99+50			1.00
S-1	Class E Conc. for Endwall	CY	98+25			0.75
S-1	Class E Conc. for Endwall	CY	98+50			1.00
I-2	15" Storm Sewer Und. Pav.	L.F.	98+25			82
I-8	Spec. Median Inlet Type A	Ea	98+25			1
I-10	Dumped Rock Lining	CY	96+40	97+10		30
I-14	Paved Gutter Type 1	L.F.	99+50	100+00		54
I-14	Spec. Paved Gutter Type 6	L.F.	88+50			11
I-14	Spec. Paved Gutter Type 6	L.F.	91+00			11
I-14	Spec. Paved Gutter Type 6	L.F.	93+50			11
I-2	42" Storm Sewer A	L.F.	99+18	99+50		33
I-8	Spec. Junction Chamber	Ea	99+10			1



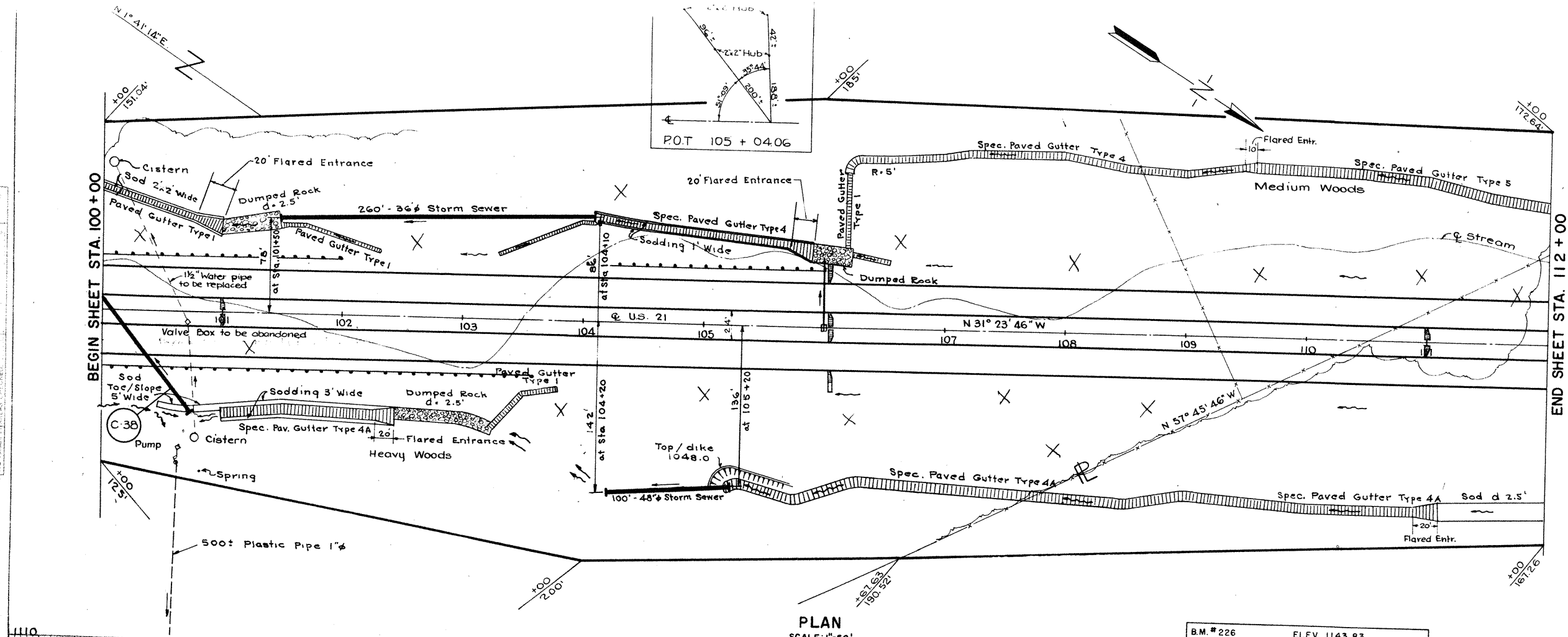
PREPARED AND RECOMMENDED
 BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

STA- 21- 17.80
WAY- 21- 0.00
SUM- 21- 0.00

STRUCTURES - 20' SPAN AND UNDER			
MARK	STA.	TYPE	SIZE
C 38	100+08	Pipe Culvert, Sec. M-6.4(d)	54" x 260'

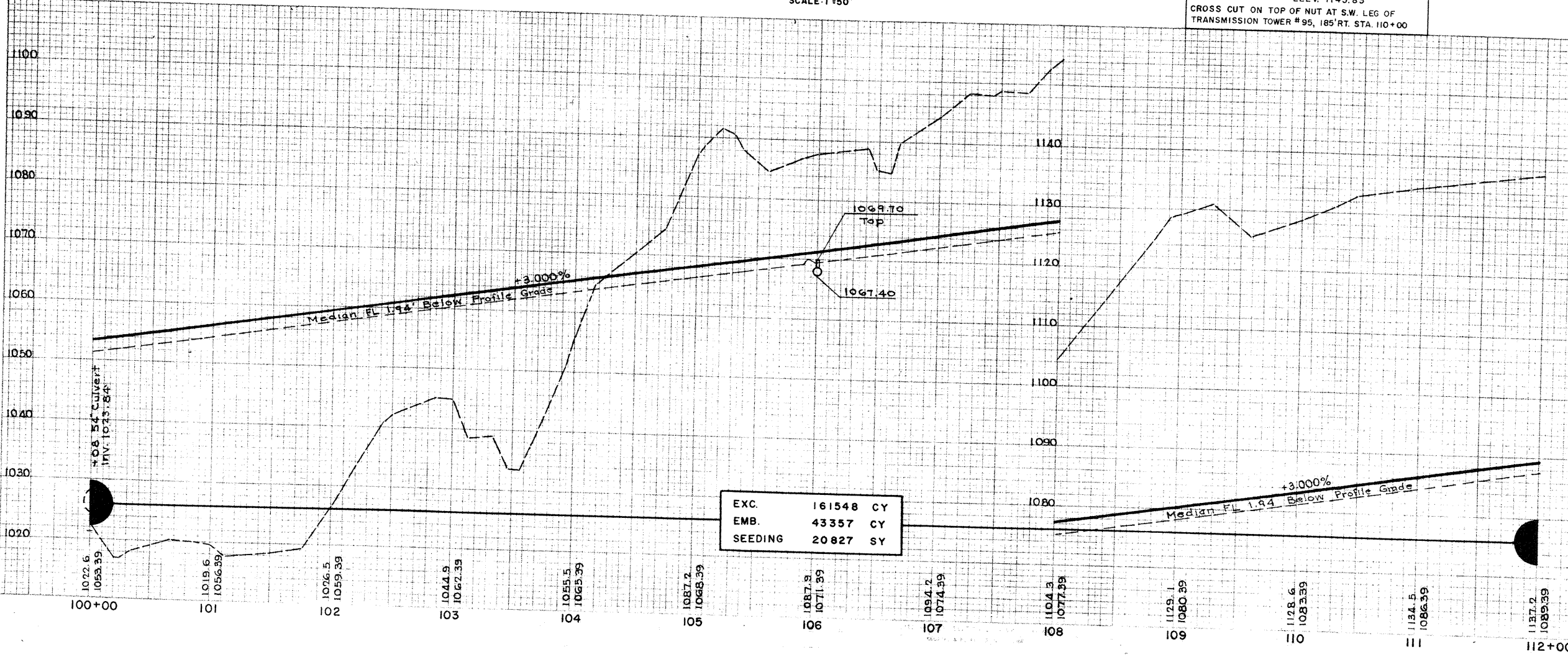
(*) For shop elongation note, see sheet No. 26.
*Temp. paved inverts
bit coated*

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
I-15	Guard Rail	L.F.	100+00	101+99	L	199
I-15	Guard Rail	L.F.	104+00	106+00	L	200
I-15	Guard Rail	L.F.	100+00	103+50	R	350
I-22	Subbase	CY				1710
L-10	Sodding 2x2' Wide	SY	100+00	101+00	L	45
L-10	Sodding 5' Wide	SY	100+60	101+00	R	25
L-10	Sodding 2x3' Wide	SY	101+00	102+50	R	100
L-10	Sodding 2x1' Wide	SY	104+10	105+90	L	40
SS-18	Fence	L.F.	100+00/149.04	106+00/183	L	600
SS-18	Fence	L.F.	106+00/183	112+00/198.64	R	600
SS-18	Fence	L.F.	100+00/123	104+00/198	R	406
SS-18	Fence	L.F.	104+00/198	106+67.43/188.52	R	268
SS-18	Fence	L.F.	106+67.43/188.52	112+00/165.26	R	533
PAVEMENT						
DRAINAGE						
I-2	36" Storm Sewer "A" M-6.6(c) or M-6.4(d)	L.F.	101+50	104+10	L	260
I-2	48" Storm Sewer "A" M-6.6(b) or M-6.4(d)	L.F.	104+20	105+20	R	100
I-2	15" Storm Sewer "A" Under Pav	L.F.	106+00			
E-2	Excav. for Endwalls	C.Y.	101+50	104+10	L	5
E-2	Excav. for Endwalls	C.Y.	104+20	105+20	R	6
S-1	Class E Conc. for Edwls	C.Y.	101+50	104+10	L	1.5
S-1	Class E Conc. for Edwls	C.Y.	104+20	105+20	R	1.7
I-8	Spec. Median Inlet Type A	Ea	106+00			32
I-10	Dumped Rock d=2.5'	CY	101+00	101+50	L	65
I-10	Dumped Rock d=2.5'	CY	102+50	103+20	R	70
I-14	Paved Gutter Type 1	L.F.	105+90	106+25	L	50
I-14	Paved Gutter Type 1	L.F.	100+00	101+00	L	100
I-14	Paved Gutter Type 1	L.F.	100+23	100+76	L	55
I-14	Paved Gutter Type 1	L.F.	101+50	102+35	L	85
I-14	Paved Gutter Type 1	L.F.	103+30	104+10	L	90
I-14	Paved Gutter Type 1	L.F.	103+20	103+80	L	70
I-14	Paved Gutter Type 1	L.F.	106+20		L	70
I-14	Paved Gutter Type 1	L.F.	106+25	106+55	L	30
I-14	Spec. Paved Gutter Type 4	L.F.	104+10	105+90	L	180
I-14	Spec. Paved Gutter Type 4	L.F.	106+20	109+60	L	350
I-14	Spec. Paved Gutter Type 4A	L.F.	101+00	102+50	R	150
I-14	Spec. Paved Gutter Type 5	L.F.	105+20	111+10	R	600
I-14	Spec. Paved Gutter Type 6	L.F.	109+60	112+00	R	240
I-14	Spec. Paved Gutter Type 6	L.F.	101+00		L	22
I-14	Spec. Paved Gutter Type 6	L.F.	106+05		L	31
I-14	Spec. Paved Gutter Type 6	L.F.	106+05		R	19
I-14	Spec. Paved Gutter Type 6	L.F.	111+00		R	22
I-14.07	1/2" Copper Pipe	L.F.	100+18	100+76	Across	250



PLAN
SCALE: 1"=50'

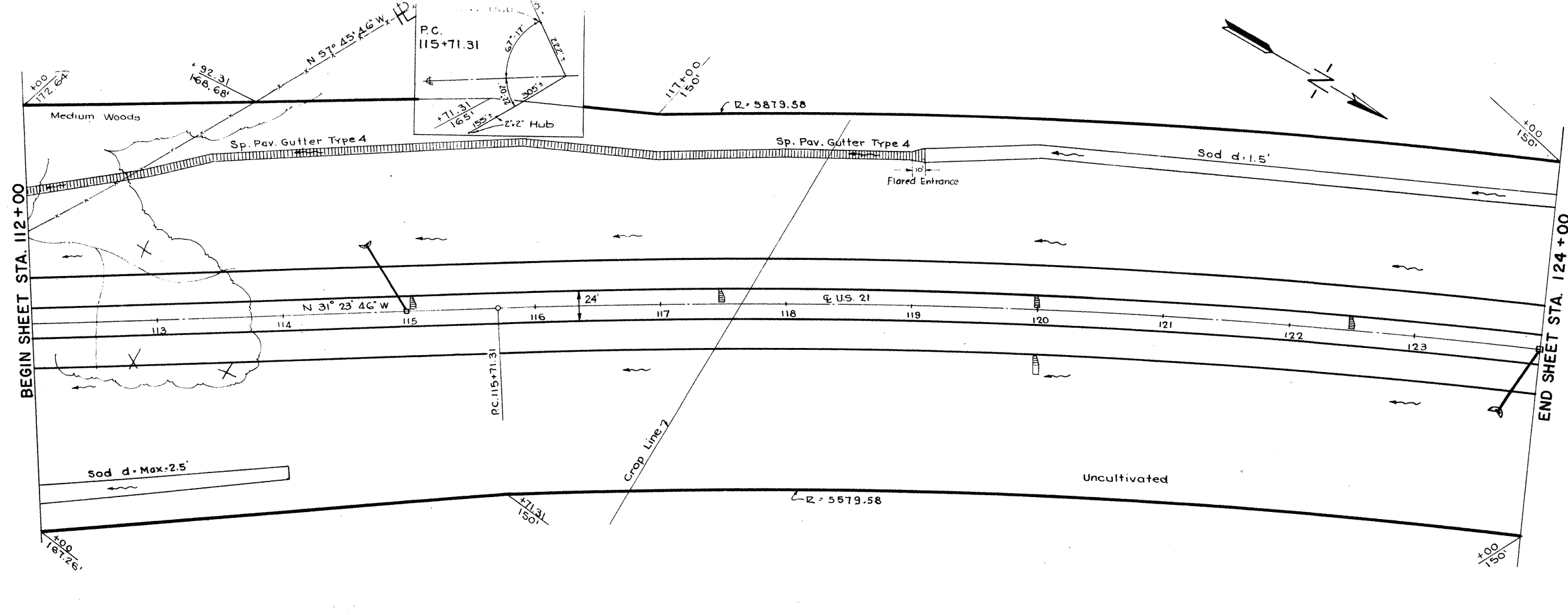
B.M. # 226 ELEV. 1143.83
CROSS CUT ON TOP OF NUT AT S.W. LEG OF
TRANSMISSION TOWER # 95, 185' RT. STA. 110+00



EXC. 161548 CY
EMB. 43357 CY
SEEDING 20827 SY

PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA. 21- 17.80
WAY. 21- 000
SUM. 21- 000

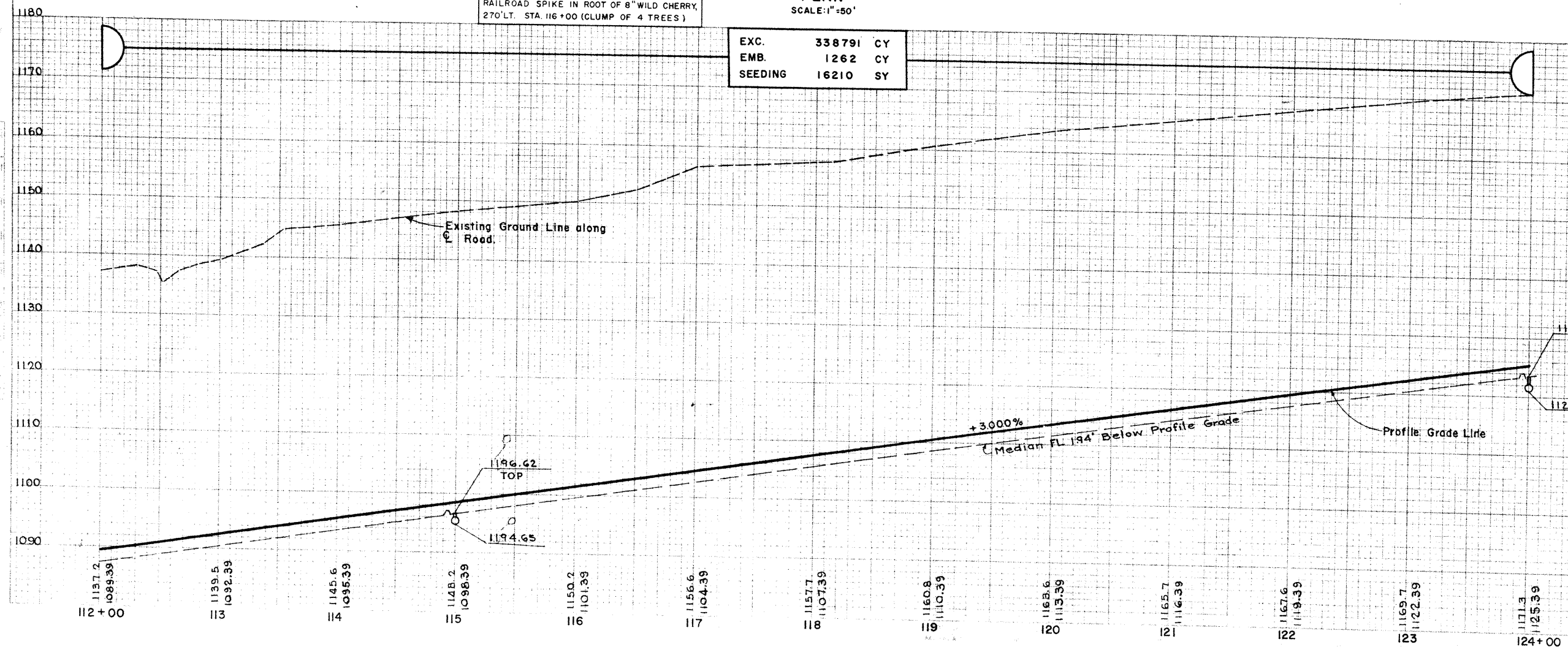


ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
I-22	Subbase	C.Y.				1700
L-10	Sodding 10' Wide	S.Y.	112+00	114+00	R	270
L-10	Sodding 10' Wide	S.Y.	119+10	124+00	L	540
L-10	Sodding 4' Wide	S.Y.	120+00			3
L-10	Pipe End Treatment	S.Y.	115+70			2
L-10	Pipe End Treatment	S.Y.	123+70			2
55-18	Fence	L.F.	112+00/110.64	113+92.3/166.66	R	192
55-18	Fence	L.F.	113+92.3/166.66	115+71.3/163	L	179
55-18	Fence	L.F.	115+71.3/163	117+00/148	L	179
55-18	Fence	L.F.	117+00/148	124+00/148	R	700
55-18	Fence	L.F.	112+00/165.76	115+71.3/148	L	371
55-18	Fence	L.F.	115+71.3/148	124+00/148	R	829
DRAINAGE						
E-2	Excav. for Endwall	C.Y.	114+70			1
E-2	Excav. for Endwall	C.Y.	123+70			1
S-1	Endwall	C.Y.	114+70			0.25
S-1	Endwall	C.Y.	123+70			0.25
I-2	15' Storm Sewer A Under Pavt.	L.F.	115+00	114+70	L	62
I-2	15' Storm Sewer A Under Pavt. M.G.4(d)	L.F.	124+00	123+70	R	60
I-8	Spec Median Inlet Type A	Ea.	115+00			1
I-8	Spec Median Inlet Type A	Ea.	124+00			1
I-14	Spec. Paved Gutter Type 4	L.F.	112+00	119+10	L	710
I-14	Spec. Paved Gutter Type 6	L.F.	115+05			11
I-14	Spec. Paved Gutter Type 6	L.F.	117+50			11
I-14	Spec. Paved Gutter Type 6	L.F.	120+00			11
I-14	Spec. Paved Gutter Type 6	L.F.	120+00			8
I-14	Spec. Paved Gutter Type 6	L.F.	122+50			11

B.M. #227 ELEV. 1158.54
RAILROAD SPIKE IN ROOT OF 8" WILD CHERRY,
270' LT. STA. 116+00 (CLUMP OF 4 TREES)

PLAN
SCALE: 1"=50'

EXC.	338791	CY
EMB.	1262	CY
SEEDING	16210	SY

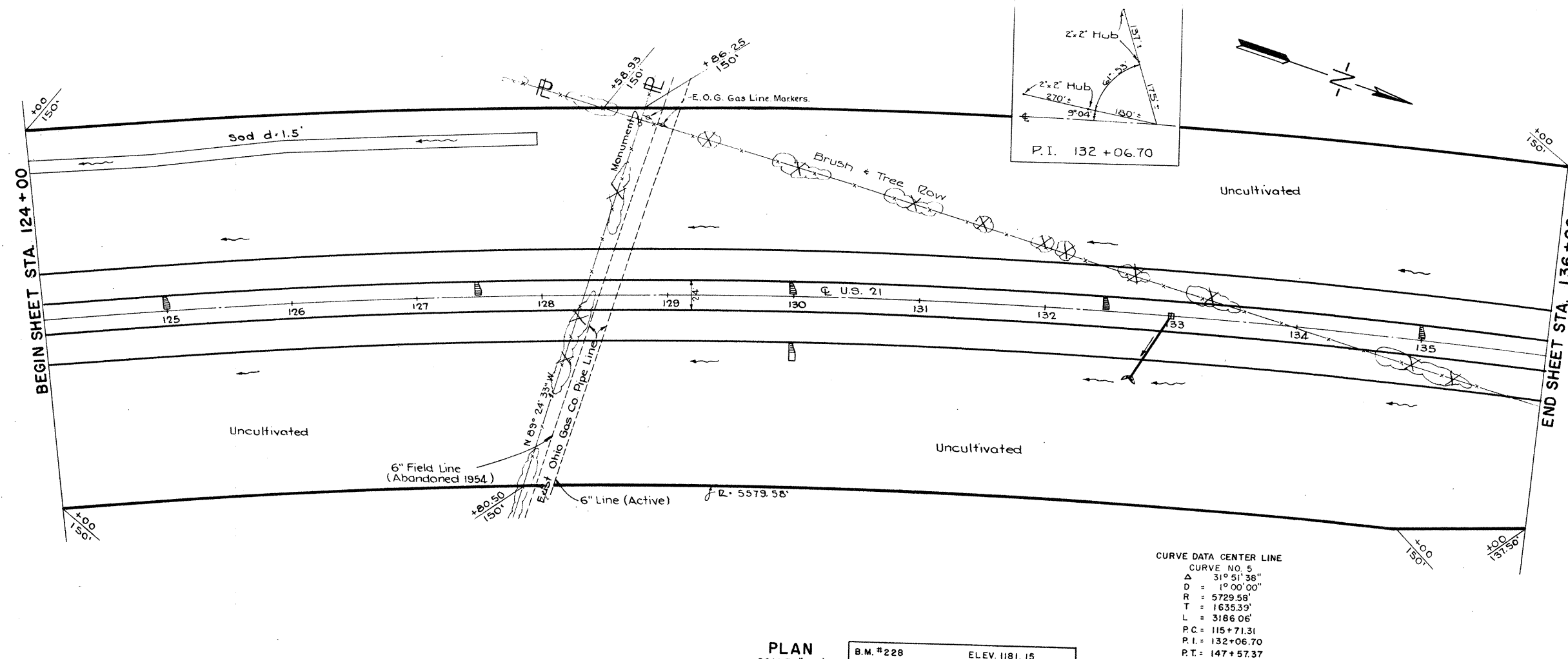


PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	

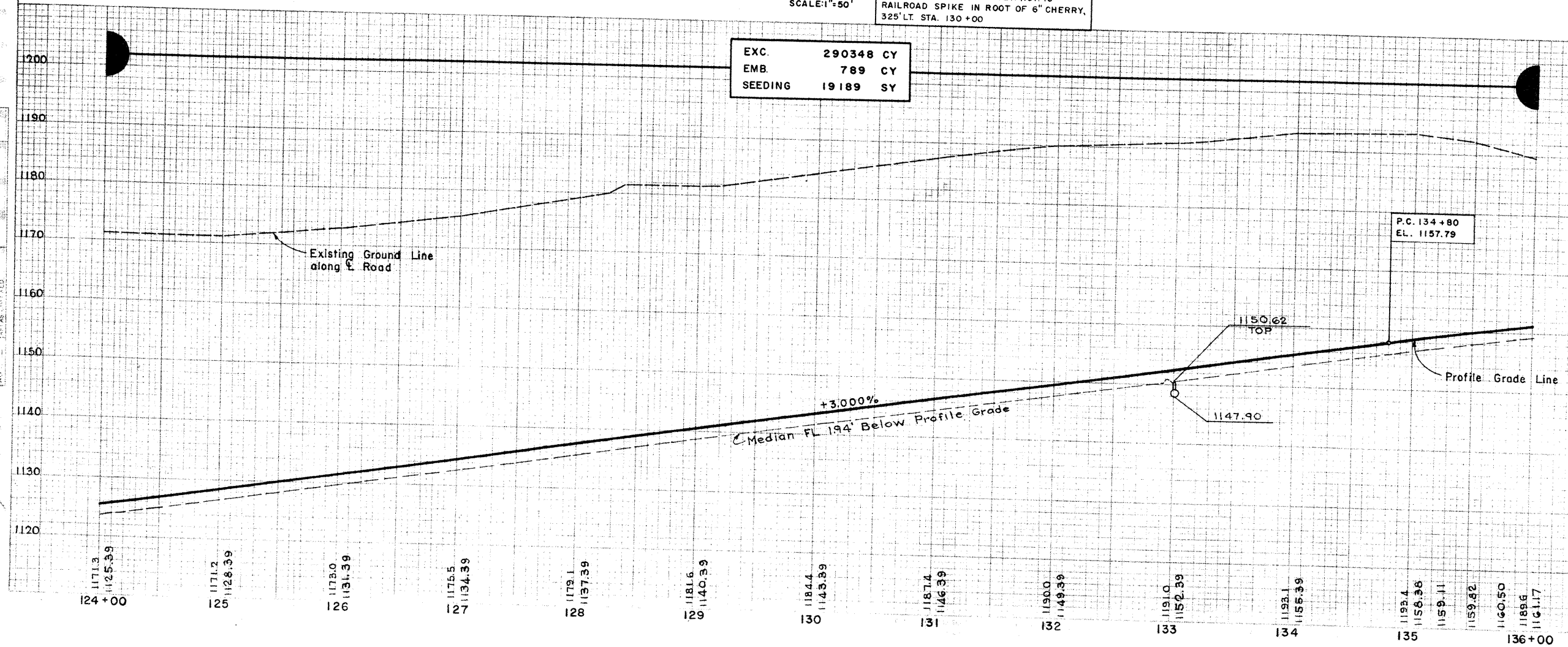
44
329

STA. 21- 17.80
WAY- 21- 0 00
SUM- 21- 0 00



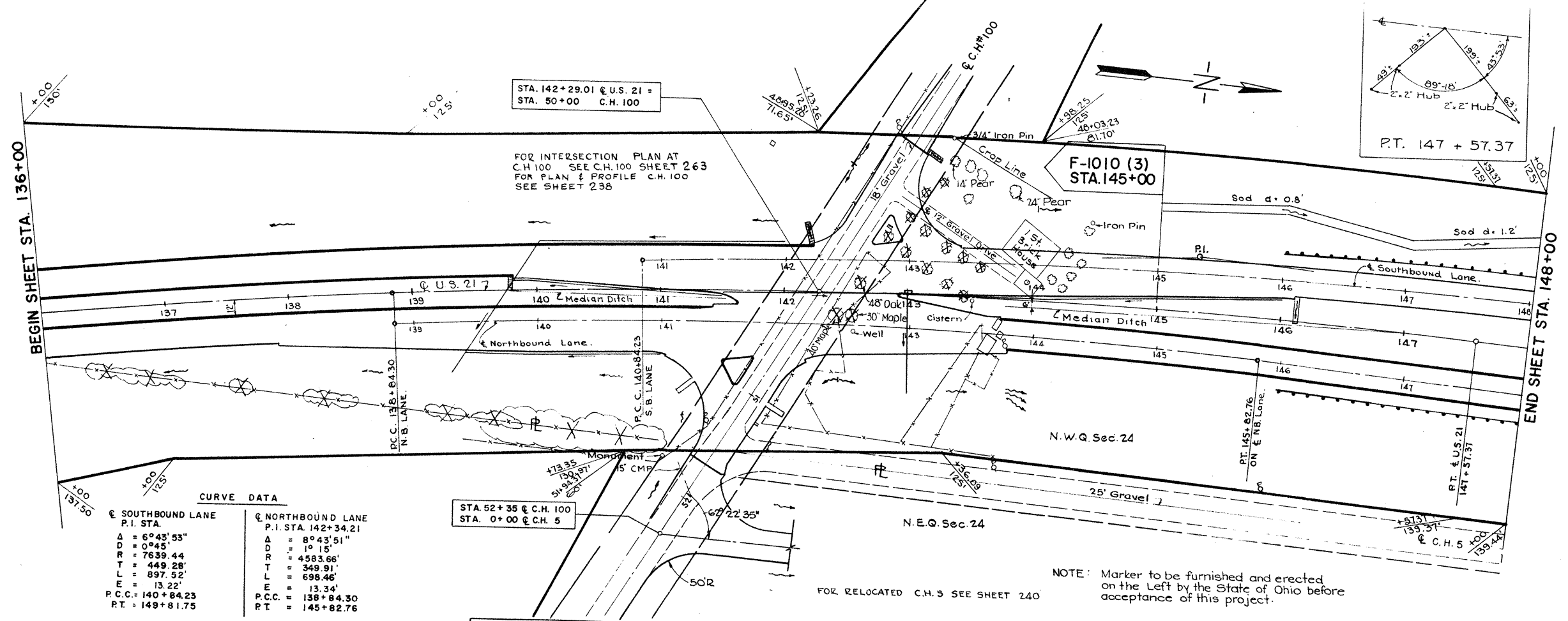
ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
1-72	Subbase	C.Y.				1750
L-10	Sodding 10' Wide	S.Y.	124+00	128+00	R	445
L-10	Sodding 4' Wide	S.Y.	130+00		L	3
L-10	Pipe End Treatment	S.Y.	132+70		R	2
55-18	Fence	L.F.	124+00/148	136+00/148	R	1200
55-18	Fence	L.F.	124+00/148	135+00/148	L	1100
55-18	Fence	L.F.	135+00/148	136+00/135	R	100
DRAINAGE						
E-2	Excav. for Endwall	C.Y.	132+70			1
S-1	Endwall	C.Y.	132+70			0.25
I-2	15" Storm Sewer A Under Pav't. M-G.4(d)	L.F.	133+00	132+70		60
I-8	Spec. Median Inlet Type A	EA.	133+00			1
I-14	Spec. Paved Gutter Type G	L.F.	125+00			11
I-14	Spec. Paved Gutter Type G	L.F.	127+50			11
I-14	Spec. Paved Gutter Type G	L.F.	130+00			8
I-14	Spec. Paved Gutter Type G	L.F.	132+50			11
I-14	Spec. Paved Gutter Type G	L.F.	135+00			11

EXC.	290348 CY
EMB.	789 CY
SEEDING	19189 SY

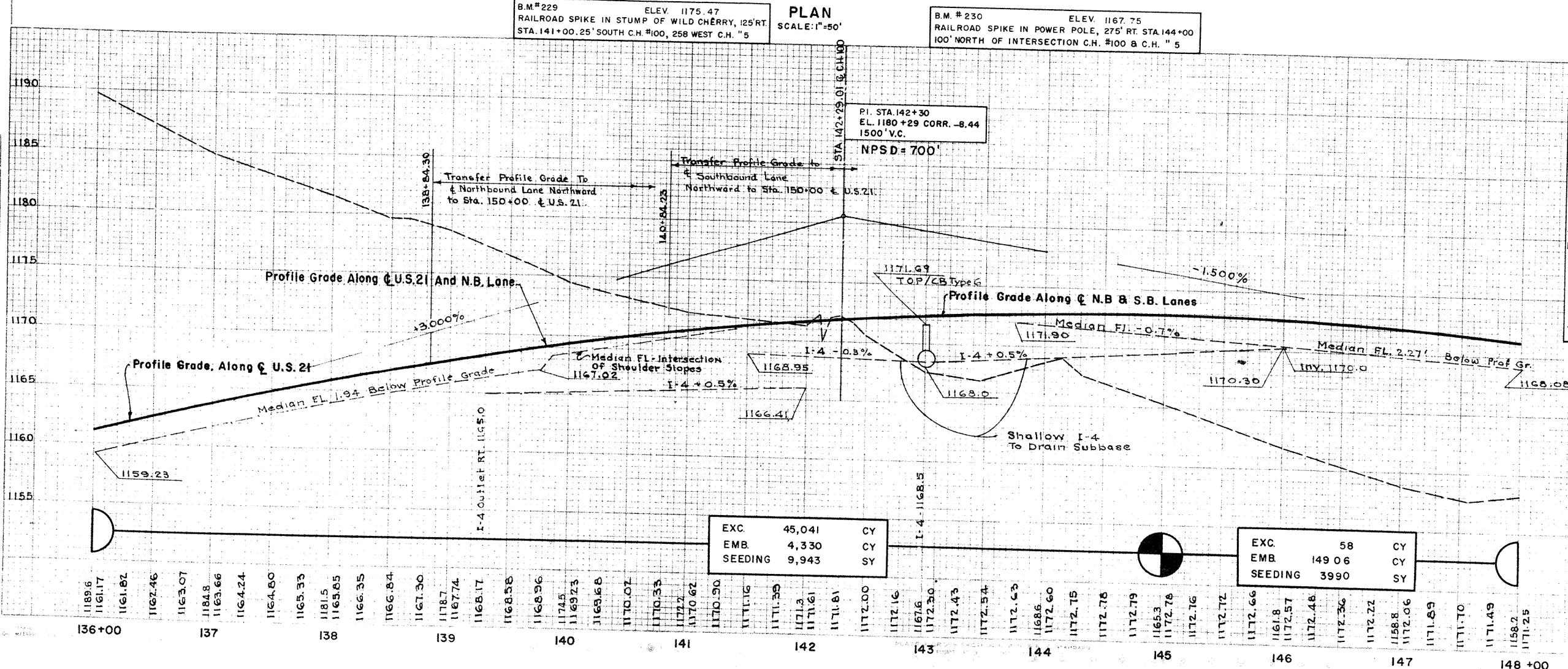


PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

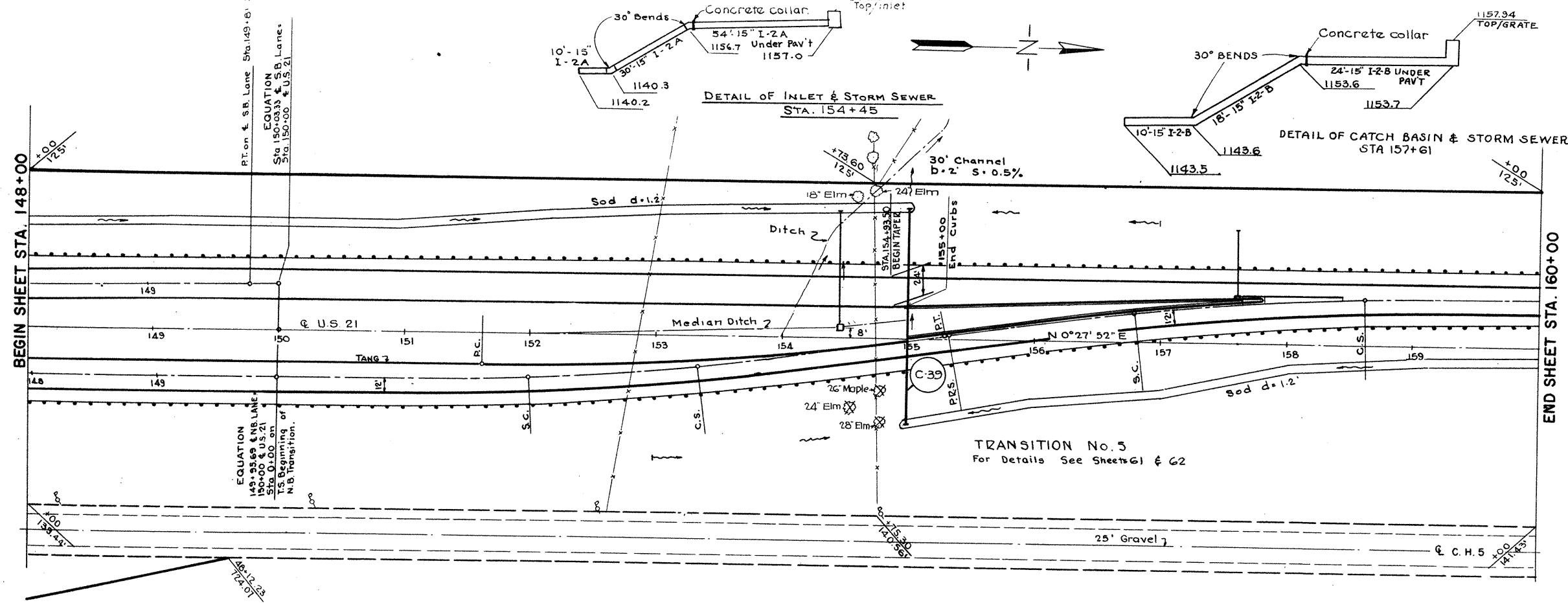


ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
I-22	FEDERAL AID F1010 (3)					
I-22	Subbase Main Rdwy.	C.Y.				1200
I-22	Subbase Add'l. Lanes	C.Y.				305
55-18	Fence	L.F.	136+09/148	135+09/125	L	300
55-18	Fence	L.F.	139+09/125	142+23/6/125	L	323
55-18	Fence	L.F.	143+98/75	145+00/125	L	102
55-18	Fence	L.F.	136+09/125	137+09/125	R	100
55-18	Fence	L.F.	137+09/125	140+13/59/125	R	374
55-18	Fence	L.F.	141+86/125	143+36/09/125	R	147
55-18	Fence	L.F.	143+36/09/125	145+00/125.10	R	164
L-10	Sodding 4' wide	S.Y.	141+30	145+00/125.10		1510
STATE						
I-15	Guard Rail	L.F.	146+00	148+00	L	200
I-15	Guard Rail	L.F.	146+00	148+00	R	200
I-22	Subbase Main Rdwy.	C.Y.				400
I-22	Subbase Add'l. Lanes	C.Y.				560
L-10	Sodding 6' Wide	S.Y.	145+00	147+00	L	135
L-10	Sodding 7' Wide	S.Y.	147+00	148+00	L	75
L-10	Sodding 4' Wide	S.Y.	146+12		L	5
55-18	Fence	L.F.	145+00/125	148+00/125	L	300
55-18	Fence	L.F.	145+00/125.10	148+00/125.10	R	300
PAVEMENT						
T-71	FEDERAL AID F-1010 (3)					
I-12	9" RC Pav't Add'l. Lanes	S.Y.				1639
I-12	Type 2A Curb	L.F.	139+80	141+02		205
I-12	Type 2A Curb	L.F.	142+90	145+00		300
I-21	P.C.C. Median Pav't.	C.Y.	142+70	142+90		505
STATE						
T-71	9" RC Pav't Add'l. Lanes	S.Y.				40
I-12	Type 2A Curb	L.F.	145+00	146+10		110
DRAINAGE						
FEDERAL AID F-1010 (3)						
I-2	6" Storm Sewer A Under Pav't	L.F.	139+35	140+00	L+R	106
I-2	15" Storm Sewer B Under Pav't	L.F.	143+00		R	74
I-4	6" Underdrain	L.F.	139+40	142+00	L+R	524
I-4	6" Underdrain M-6.4(h)	L.F.	141+50	143+00	L	150
I-4	6" Underdrain M-6.4(h)	L.F.	143+00	145+00	L	200
I-4	6" Outlet	L.F.	139+30		R	10
I-4	6" Wye	EO.	139+40		R	1
I-4	6" 60° Bend	EO.	139+80		L	2
I-4	6" Std Catch Basin No. 6	EO.	143+00		L	1
I-14	Spec. Paved Gutter Type B	L.F.	139+78		L	10
I-14	Spec. Paved Gutter Type B	L.F.	142+23		L	16
STATE						
I-4	6" Underdrain M-6.4 (b)	L.F.	145+00	146+00	L	100



PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA. 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



STRUCTURES - 20' SPAN AND UNDER

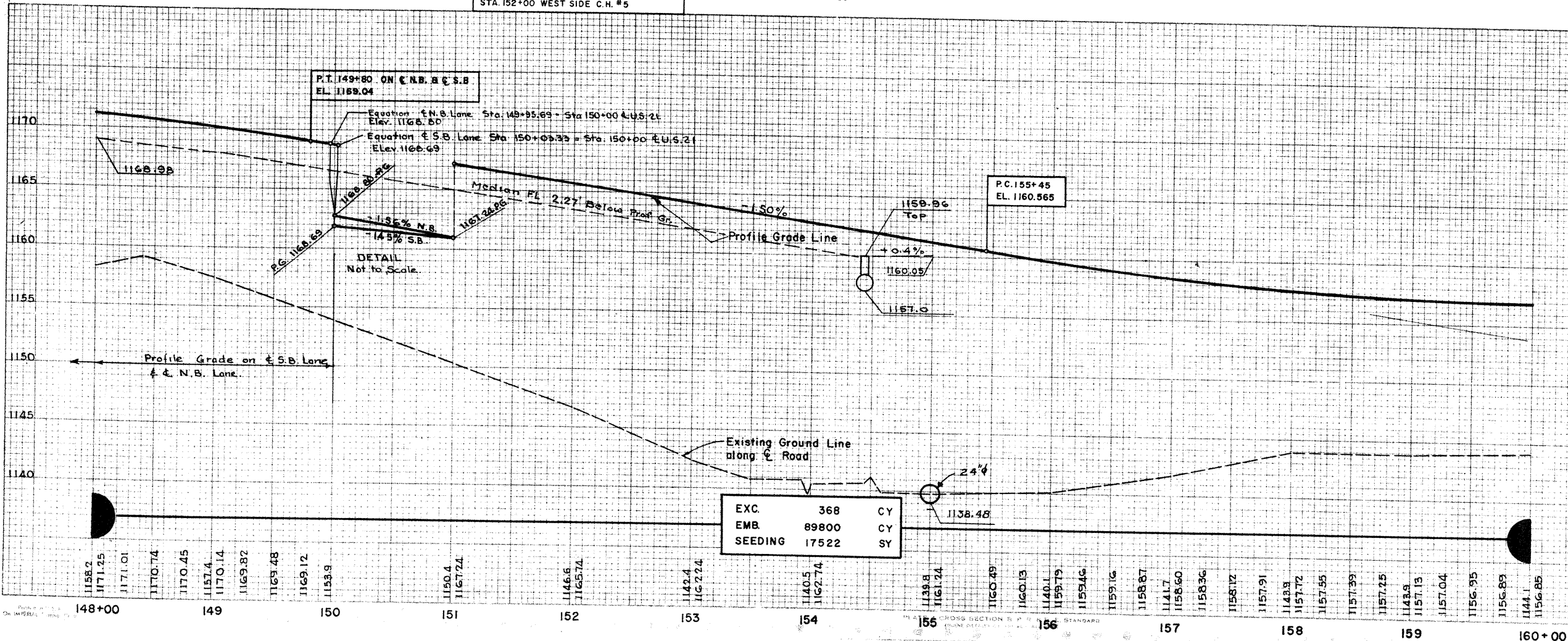
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-39	155+00	Pipe Culvert	24' x 174'	269

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB TOTAL	TOTAL
ROADWAY							
E-1	Comp. Subgrade	S.Y.	150+00	159+00			5474
I-15	Guard Rail	L.F.	148+00	160+00	L	1200	1200
I-22	Subbase	C.Y.	148+00	160+00			1505
L-10	Sodding 7' Wide	S.Y.	148+00	155+00	L	550	550
L-18	Sodding 7' Wide	S.Y.	155+00	160+00	L	390	390
55-18	Fence	L.F.	148+00/125	160+00/125	L	1200	1200
55-18	Fence	L.F.	148+00/125	160+00/125	R	1200	1200
PAVEMENT							
B-70	7" P.C.C. Base Course	S.Y.	157+82	158+45			28
T-35	2" Asph. Conc. Surface	C.Y.	157+82	158+45			02
T-71	3" R.C. Pav't	S.Y.	150+00	159+00			4074
I-12	Type 2A Curb	L.F.	155+00	157+65			530
I-21	P.C.C. Median Pav't	C.Y.	157+65	157+82			4
I-23	Precast Traf. Div.	Ea.	157+82	158+45			5
DRAINAGE							
I-2	15' Storm Sewer A Under Pav't.	L.F.	154+45		L		54
I-2	15' Storm Sewer A	L.F.	154+45		L		40
I-8	15' 30" Bend	Ea.	154+45		L		2
I-8	Spec. Median Inlet Type C	Ea.	154+45		L		1
I-2	15' Storm Sewer B Under Pav't.	L.F.	157+61		L		24
I-2	15' Storm Sewer B	L.F.	157+61		L		28
I-8	15' 30" Bend	Ea.	157+61		L		2
I-8	STD. CATCH BASIN No. 6	Ea.	157+61		L		1

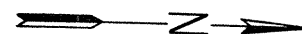
B.M.# 231 ELEV. 1143.93
RAILROAD SPIKE IN POWER POLE, 125' RT.
STA. 152+00 WEST SIDE C.H. #5

PLAN
SCALE: 1" = 50'

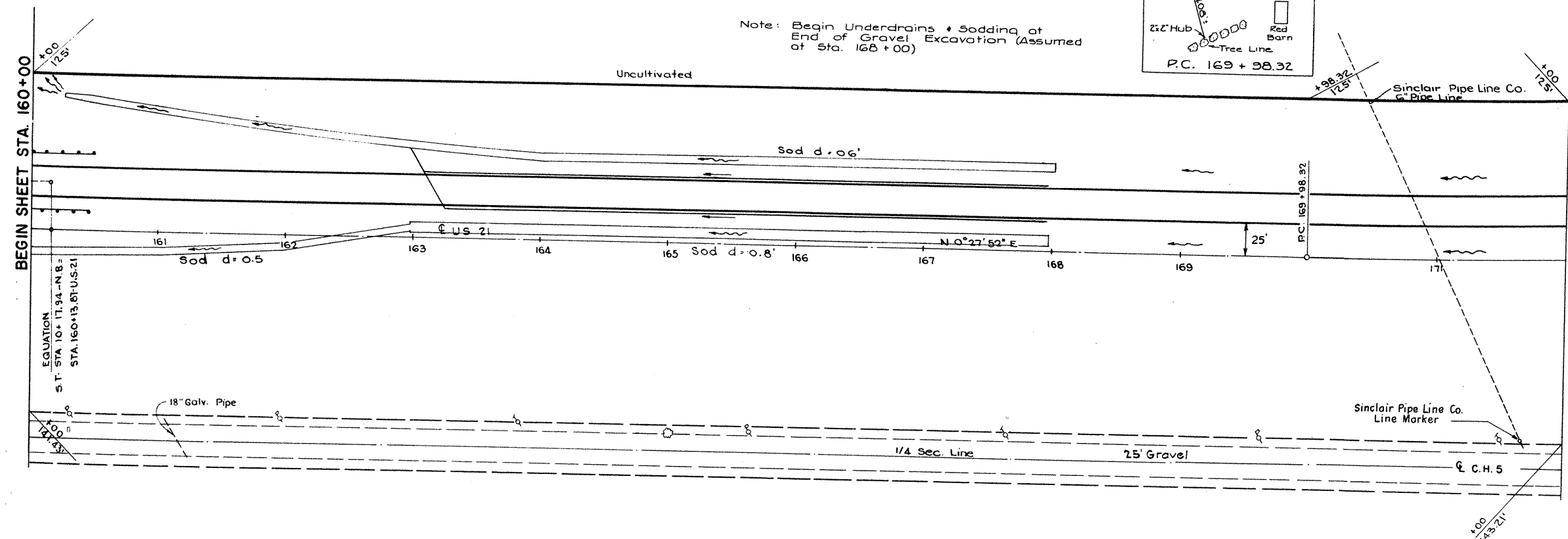
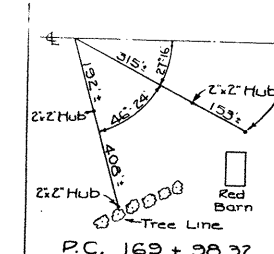


PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



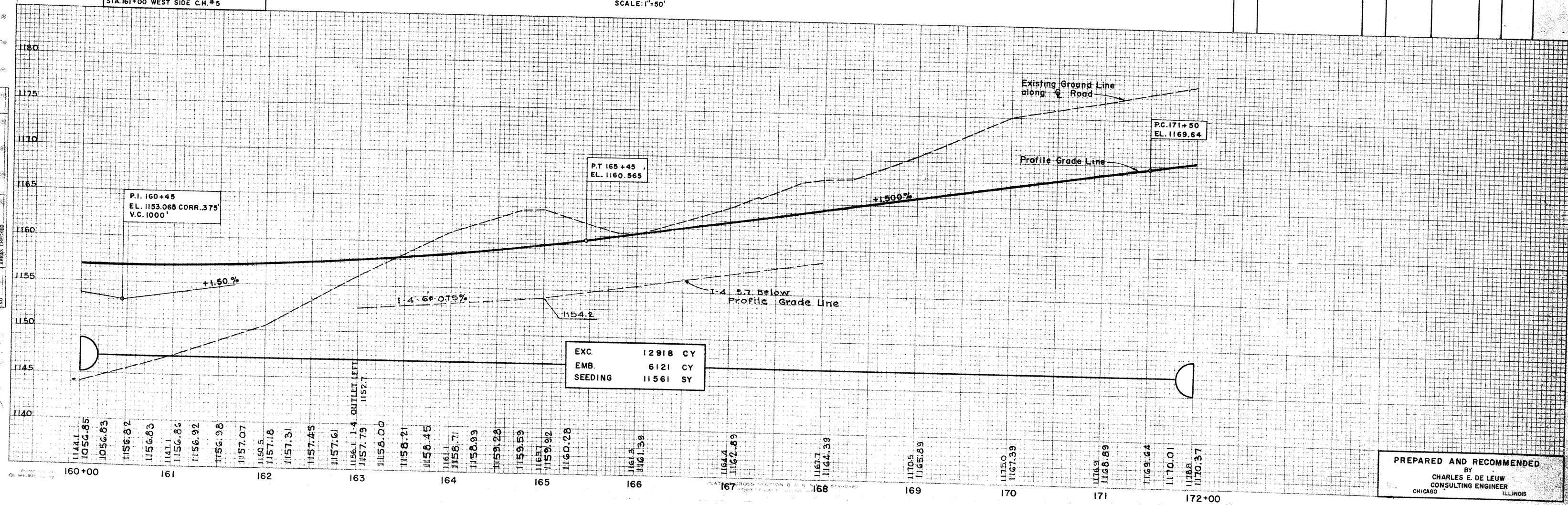
Note: Begin Underdrains + Sodding at End of Gravel Excavation (Assumed at Sta. 168+00)



ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
I-15	Guard Rail	L.F.	160+00	160+50	L	50
I-15	Guard Rail	L.F.	160+00	160+46	R	46
I-22	Subbase	C.Y.				96
L-10	Sodding 6' Wide	S.Y.	160+20	168+00	L	480
L-10	Sodding 5' Wide	S.Y.	160+00	163+00	R	170
L-10	Sodding 7' Wide	S.Y.	163+00	168+00	L	390
55-18	Fence	L.F.	160+00/123	172+00/123	L	1200
55-18	Fence	L.F.	160+09/123	172+00/121	R	1200
DRAINAGE						
I-2	6" Storm Sewer A Under Pav't	L.F.	163+00	163+25	L	40
I-4	6" Underdrain	L.F.	163+00	168+00	R	960
I-4	6" Outlet	L.F.	163+00		L	10
I-4	6" Wye	EA.	163+10		L	1
I-4	6" 90° Bend	EA.	163+25		R	1

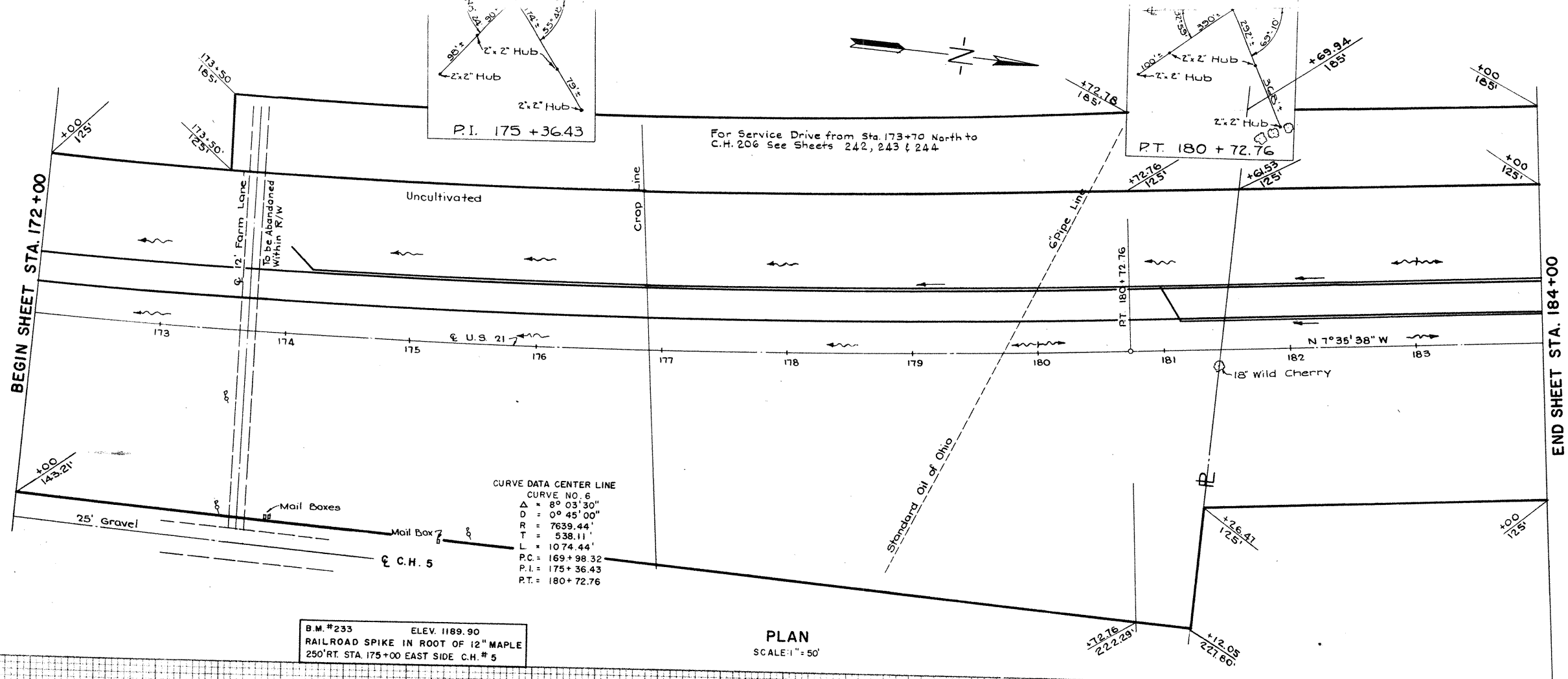
B.M. # 232 ELEV. 1155.22
RAILROAD SPIKE IN POWER POLE, 145' RT.
STA. 161+00 WEST SIDE C.H. # 5

PLAN
SCALE: 1"=50'



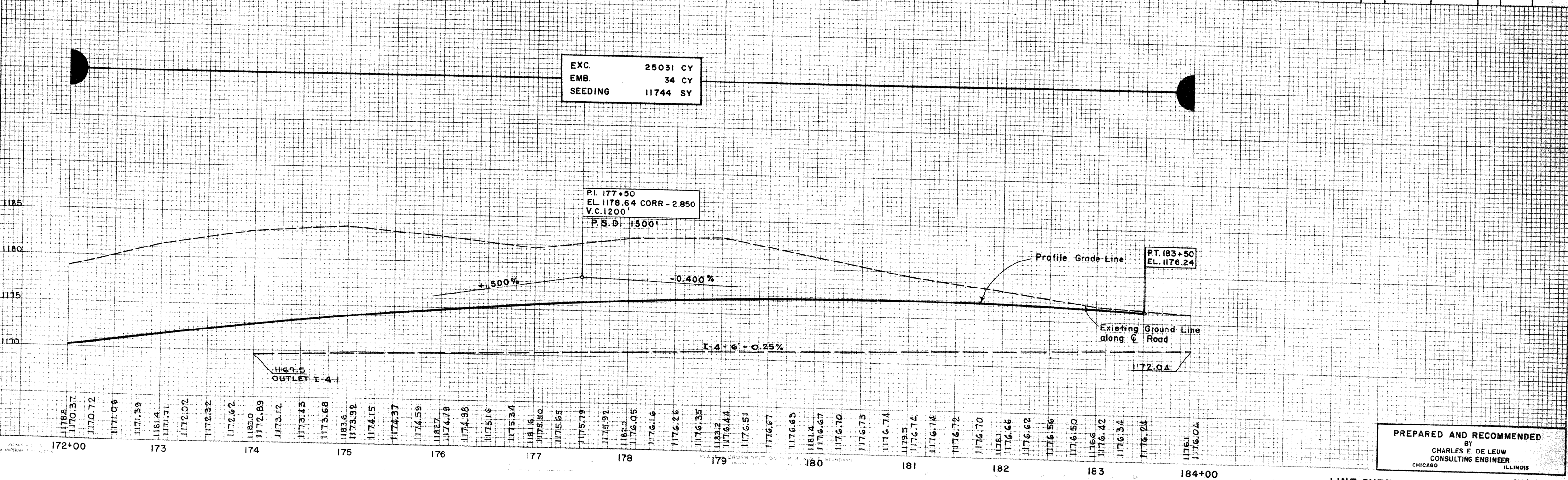
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



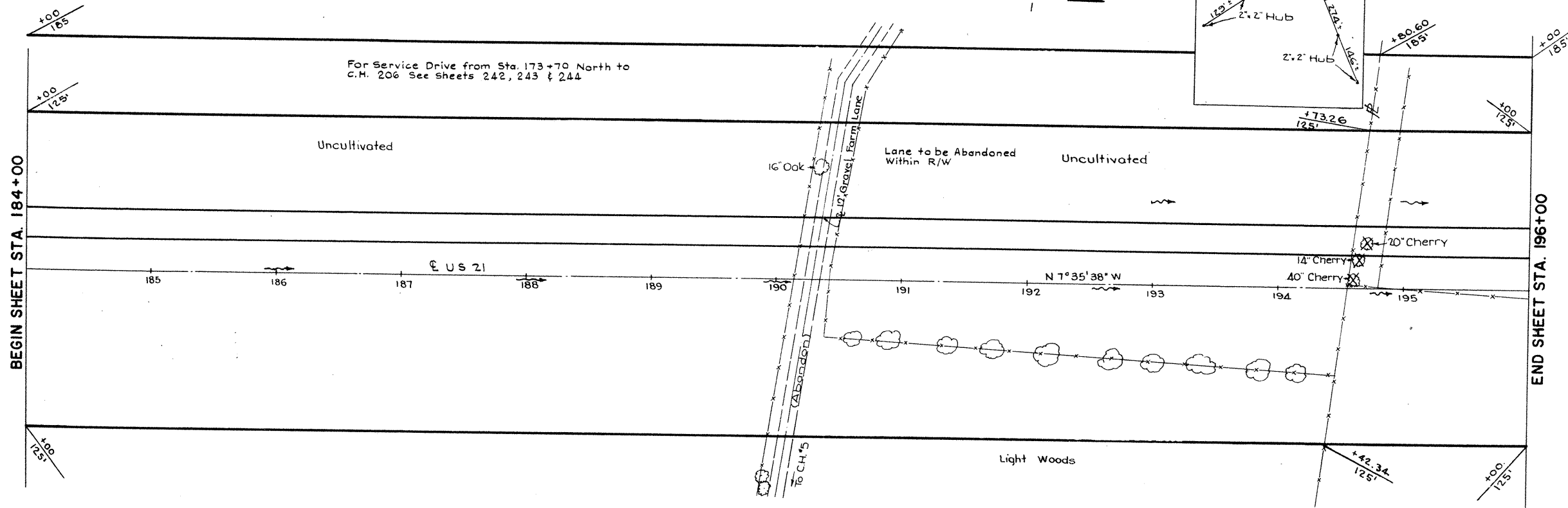
ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
I-22	Subbase	C.Y.				930
55-18	Fence	L.F.	172+00/125'	184+00/125'	L R	1200
55-18	Fence	L.F.	172+00/125'	181+20/225.80	L R	917
55-18	Fence	L.F.	181+20/225.80	181+26.47/125'	L R	103
55-18	Fence	L.F.	181+26.47/125'	184+00/125'	L R	274
DRAINAGE						
I-2	6" Storm Sewer A Under Pav't	L.F.	181+00	181+20	L+R	30
I-4	8" Underdrains	L.F.	174+00	181+00	L	690
I-4	8" Outlet	L.F.	174+00		L	10
I-4	6" Underdrains	L.F.	181+00	184+00	L+R	580
15 for 14	8" 45° Bend	EQ.	174+20		L	-
15 for 14	8" C Wye	EQ.	181+00		L	-
15 for 14	6" 8" Increaser	EQ.	181+05		L	-
15 for 14	6" 60° Bend	EQ.	181+10		R	-

B.M. #233 ELEV. 1189.90
RAILROAD SPIKE IN ROOT OF 12" MAPLE
250' RT. STA. 175+00 EAST SIDE C.H. #5



PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

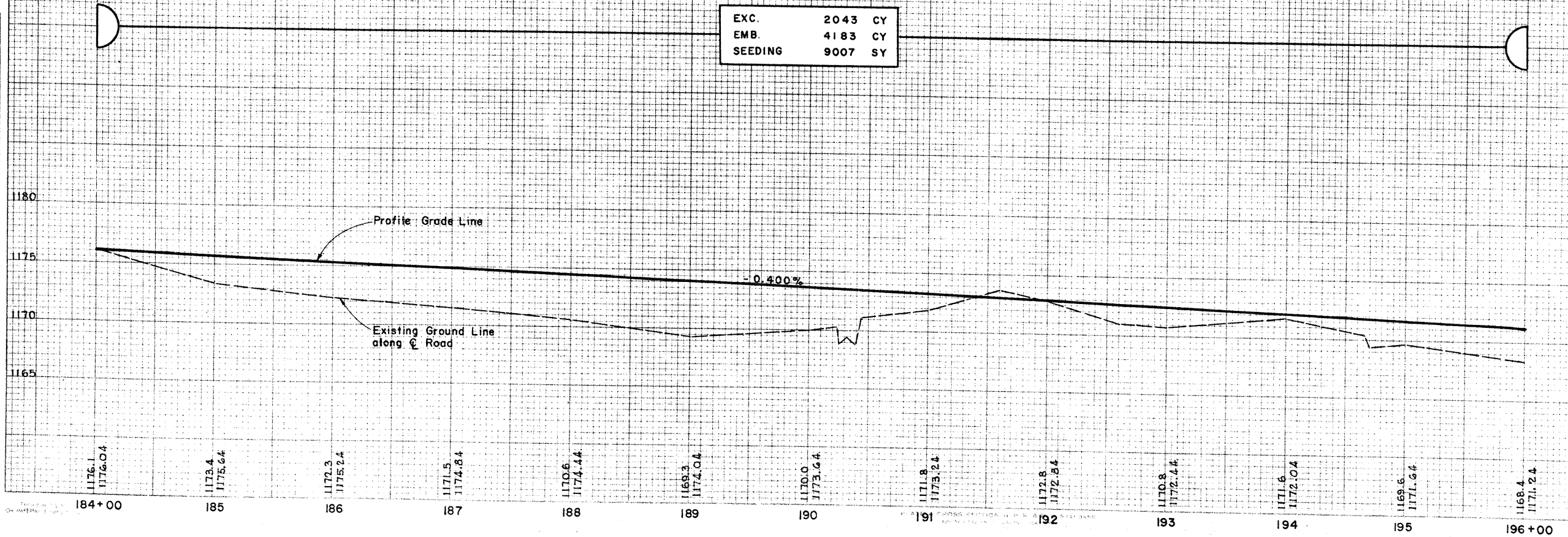


ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
1-22	Subbase	C.Y.				1220
55-18	Fence	L.F.	184+00/125'	196+00/125'	L	1200
55-18	Fence	L.F.	184+00/125'	196+00/125'	R	1200
						2400

B.M.#234 ELEV. 1175.34
RAILROAD SPIKE IN TRANSFORMER POLE,
130' RT. STA. 185+00

PLAN
SCALE: 1" = 50'

B.M.#235 ELEV. 1174.07
RAILROAD SPIKE IN POWER POLE,
130' RT. STA. 193+00



PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

BY: [Signature]
DATE: [Blank]
SURVEYED: [Blank]
PLOTTED: [Blank]
TEMPLATE: [Blank]
AREAS CHECKED: [Blank]

ORIGINAL SURVEY BOOK NO. [Blank]
DATE: [Blank]
BY: [Blank]
SURVEYED: [Blank]
PLOTTED: [Blank]
TEMPLATE: [Blank]
AREAS CHECKED: [Blank]

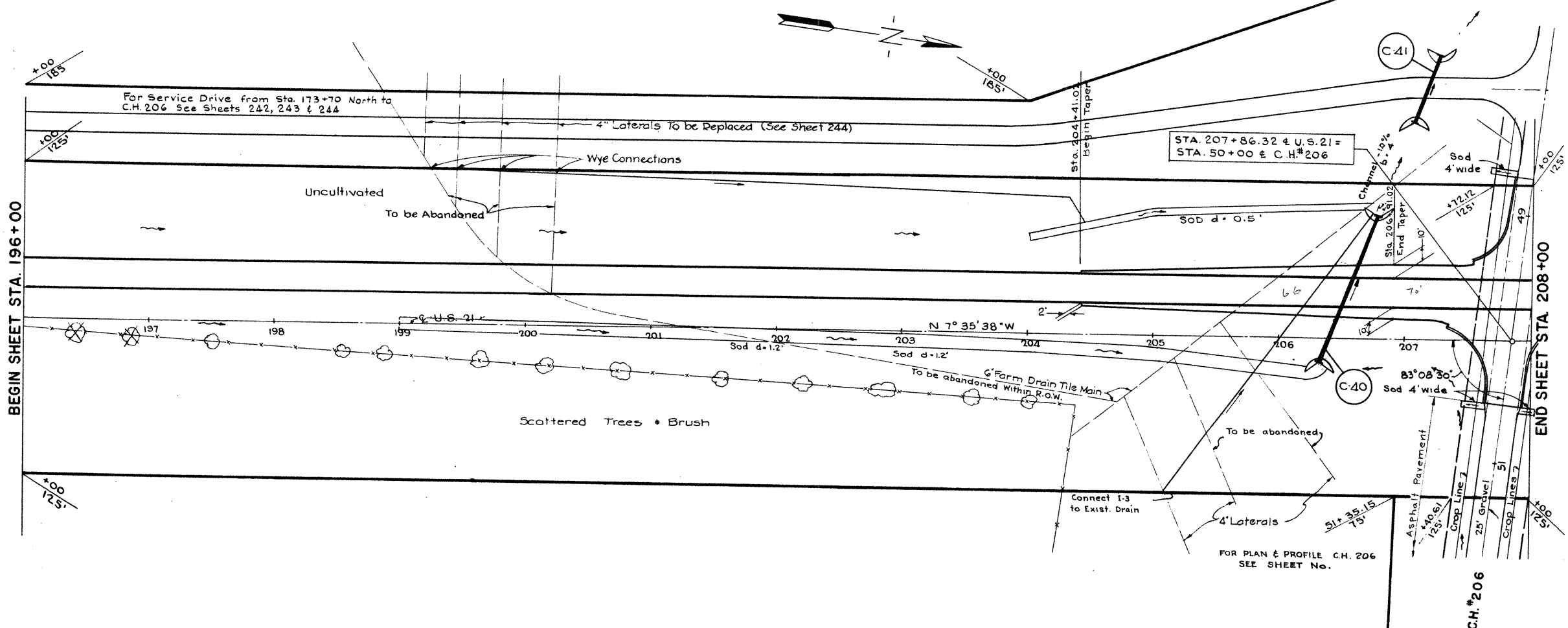
STA. 21-17.80
WAY - 21- 0.00
SUM - 21- 0.00

STRUCTURES - 20' SPAN AND UNDER

MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-40	206+41	Pipe Culvert	36" x 124'	269
C-41	207+15	Pipe Culvert	36" x 58'	269

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB TOTAL	TOTAL
ROADWAY							
E-1	Comp Subgrade	S.Y.					725
I-15	Guard Rail	L.F.					
I-15	Guard Rail	L.F.					
I-22	Subbase Main Rdwy	C.Y.					1220
I-22	Subbase Add'l. Lanes	C.Y.					135
L-10	Sodding 10' Wide	S.Y.	199+00	206+34	R	810	970
L-10	Sodding 5' Wide	S.Y.	204+00	206+78	L	160	1172
55-18	Fence	L.F.	196+00/125	207+12/125			
35-18	Fence	L.F.	196+00/125	207+40/125			
PAVEMENT							
T-71	9" RC Pav't. Add'l. Lane	S.Y.					725
DRAINAGE							
I-3	6" Rdwy Drainage	L.F.	199+22	204+41	L		510
I-3	4" Rdwy Drainage Under Pav't.	L.F.	205+10	206+70	Across		278
I-3	6" Outlet	L.F.	204+50				10
I-3	4" Outlet	L.F.	206+70				10
15 for 13	6" 60° Bend	EQ.	199+22				
15 for 13	6" 60° Bend	EQ.	204+33				2
15 for 13	4" 60° Bend	EQ.	205+10				1
15 for 13	4" 30° Bend	EQ.	199+38				
15 for 13	4" 30° Bend	EQ.	199+78				
15 for 13	4" 30° Bend	EQ.	200+23				
15 for 13	6" 4" Wye	EQ.	199+38				5
15 for 13	6" 4" Wye	EQ.	199+78				
15 for 13	6" 4" Wye	EQ.	200+23				3



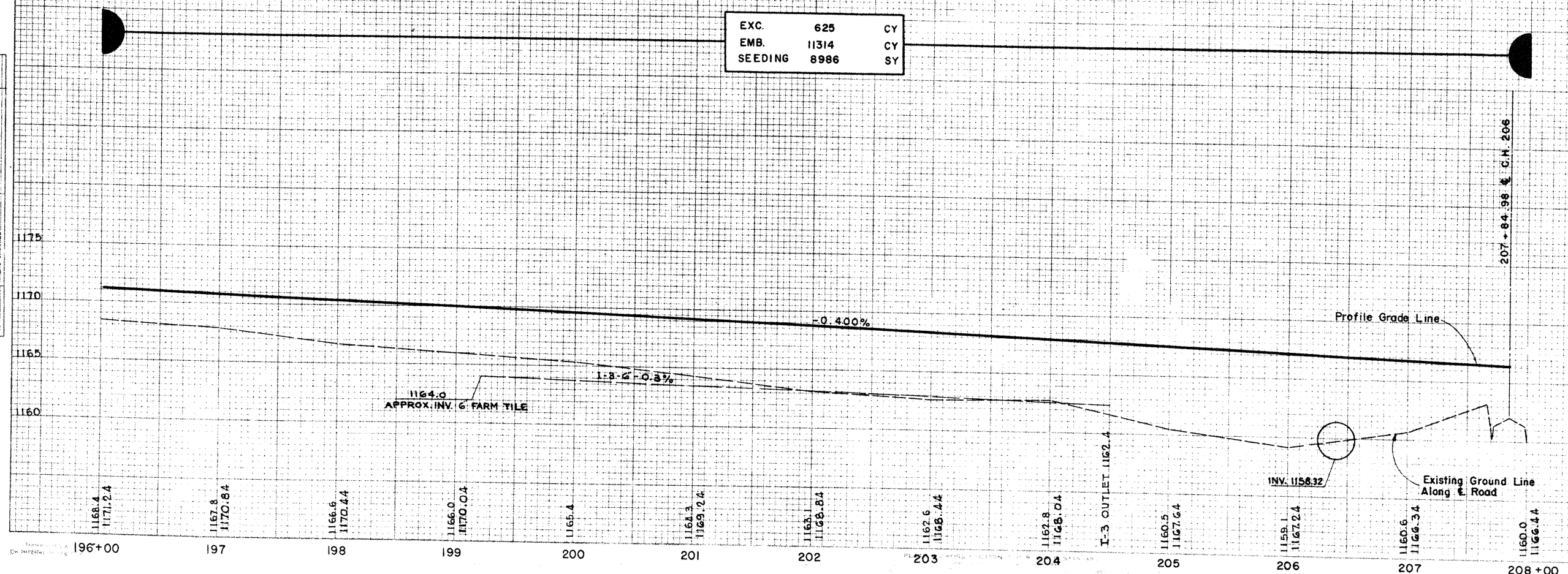
PLAN

SCALE: 1" = 50'

B.M. #236 ELEV. 1167.10
RAILROAD SPIKE IN ROOT OF 24" ELM.,
140' RT. STA. 202+15 (WEST SIDE C.H.#5)

B.M. #237 ELEV. 1184.01
RAILROAD SPIKE IN ROOT OF 28" MAPLE, 150' EAST
OF C.H.#5 @ INTERSECTION OF C.H.#5 & C.H.#206

EXC.	625	CY
EMB.	11314	CY
SEEDING	8986	SY



PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

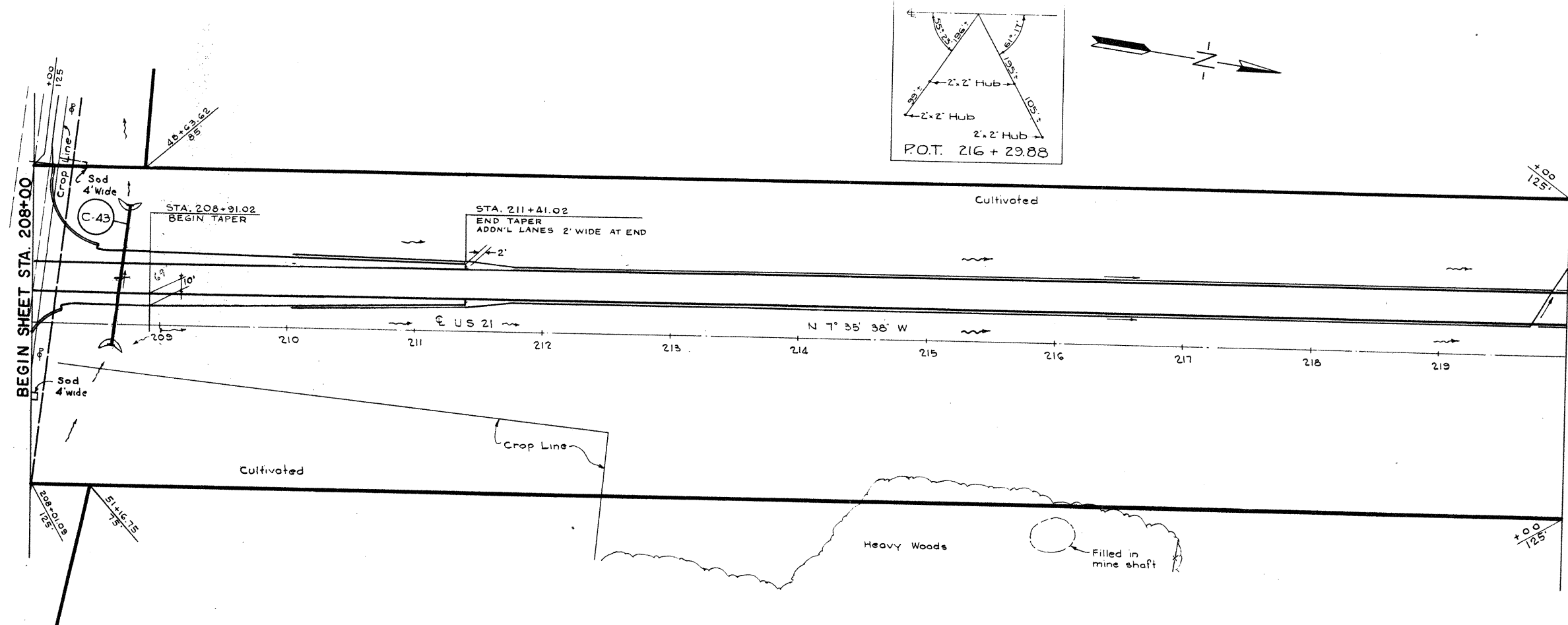
FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

51
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-43	208+64	Pipe Culvert	24" x 108"	265

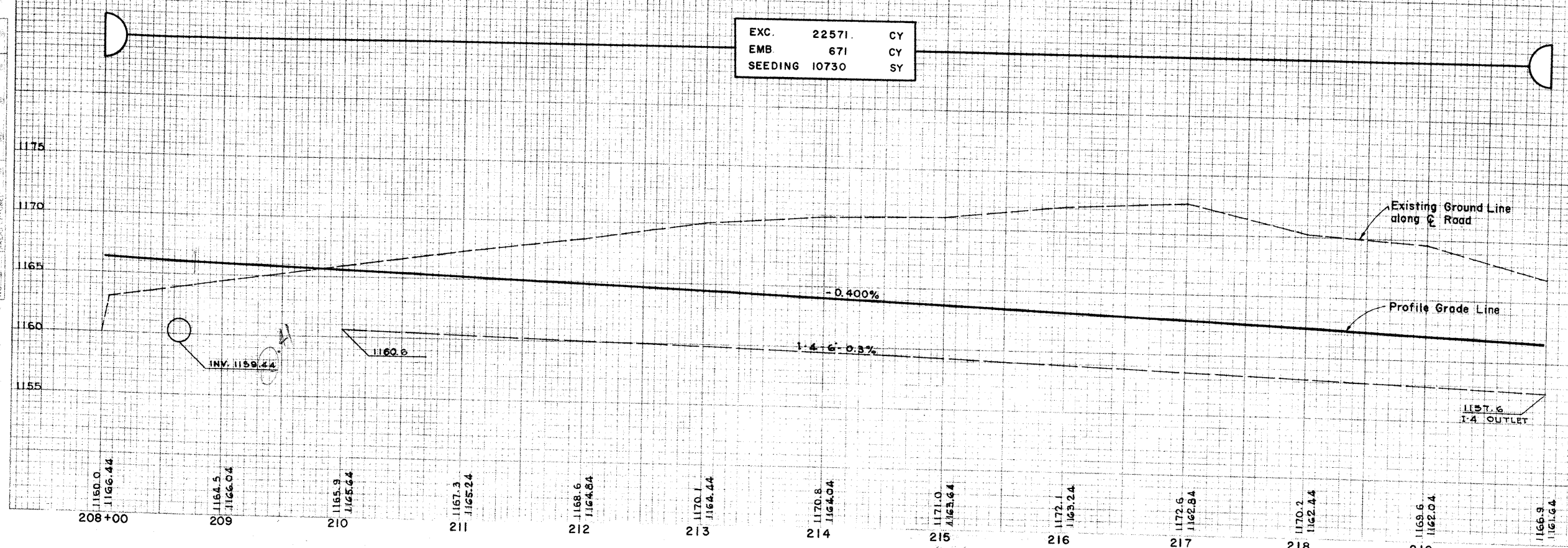
ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
E-1	Comp Subgr. Add'l. Lanes	S.Y.				675
I-22	Subbase Main Rdwy.	C.Y.				780
I-22	Subbase Add'l. Lanes	C.Y.				125
55-18	Fence	L.F.	208+32.58/125	220+00/125	L	1167
55-18	Fence	L.F.	208+01.09/125	220+00/125	R	1199
PAVEMENT						
T-71	9" RC Pav't. Add'l. Lanes	S.Y.				675
DRAINAGE						
I-2	6" Storm Sewer A Under Pav't.	L.F.	219+70	219+90	L+R	22
I-2	8" Storm Sewer A	L.F.	219+90	220+00	L	10
I-4	6" Underdrains	L.F.	210+00	219+90	L+R	1950
I-4	6" Underdrains	L.F.	219+80	220+00	L+R	30
I-4	8" Outlet	L.F.	220+00		L	10
15 for 12	6" 8' Increaser	Eq.	219+90		L	1
15 for 12	8" 6' Wye	Eq.	219+90		L	1
15 for 14	6" 60° Bend	Eq.	219+70		R	1



PLAN
SCALE: 1"=50'

B.M. #238 ELEV. 1173.02
RAILROAD SPIKE IN ROOT OF 18" ELM,
300' RT. STA. 214+00

EXC.	22571.	CY
EMB.	671	CY
SEEDING	10730	SY

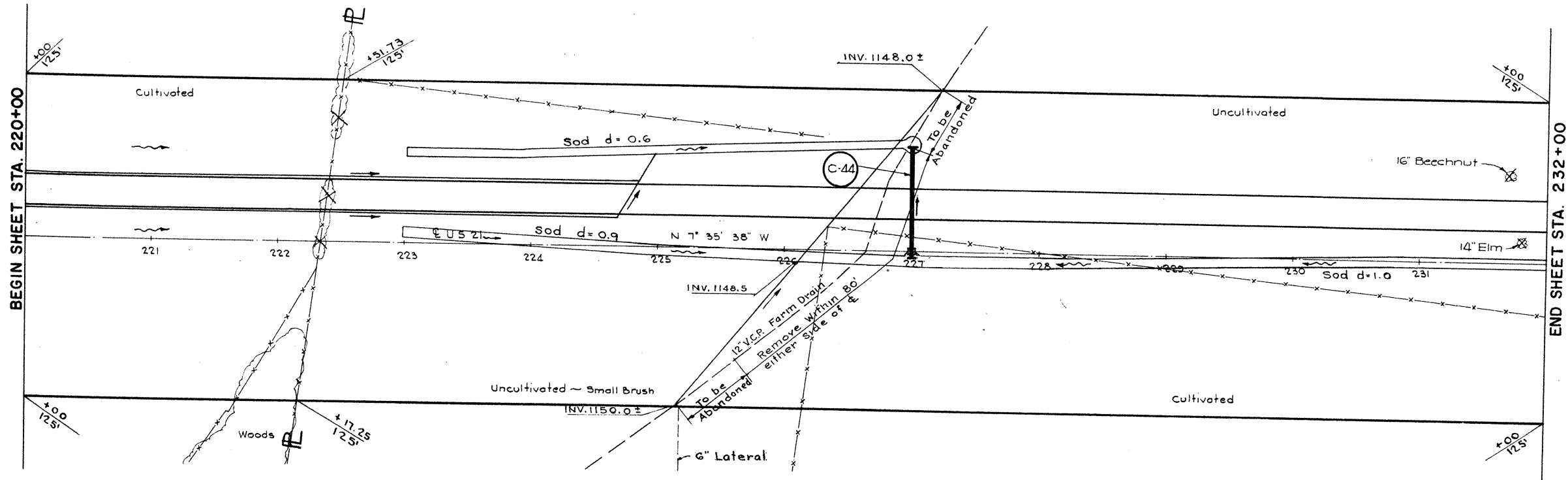


PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

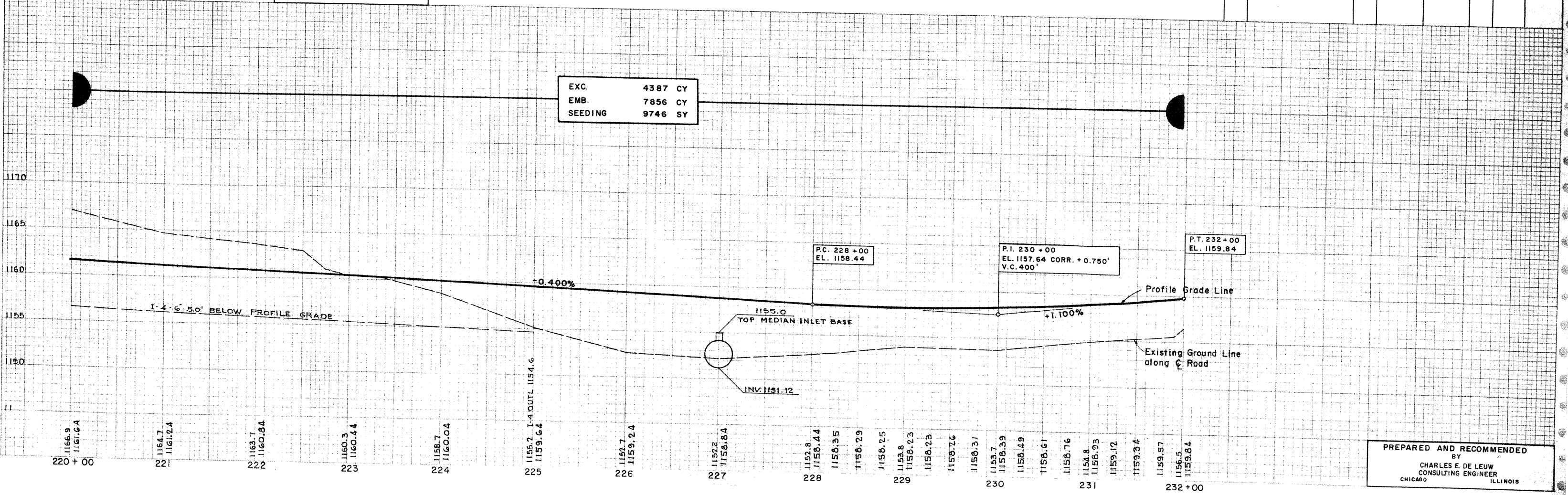
STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-44	227+00	Pipe Culvert	36" x 88"	265

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
I-15	Guard Rail	L.F.				
I-15	Guard Rail	L.F.				
I-22	Subbase	C.Y.				
L-10	Sodding 8' Wide	S.Y.	223+00	232+00	R	800
L-10	Sodding 6' Wide	S.Y.	223+00	227+00	R	270
55-18	Fence	L.F.	220+00/125'	232+00/125'	R	1200
55-18	Fence	L.F.	220+00/125'	232+00/125'	R	1200
DRAINAGE						
E-12	12" Pipe Removed for Storm Drainage	L.F.	225+60	227+00	L/R	200
I-2	6" Storm Sewer Under Pav't	L.F.	224+70	225+00	L/R	50
I-3	12" Rdwy Drainage Under Pav't	L.F.	225+15	227+25	L/R	320
I-4	6" Underdrains	L.F.	220+00	225+00	L/R	960
I-4	6" Outlet	L.F.	225+00			10
15fr12	6" Wye	EQ.	224+90			1
15fr13	12" 6" Wye	EQ.	225+15			1
15fr14	6" 60" Bend	EQ.	224+70			1



B.M.#239 ELEV. 1171.34
RAILROAD SPIKE IN ROOT OF 36" OAK,
350' RT. STA. 223+00

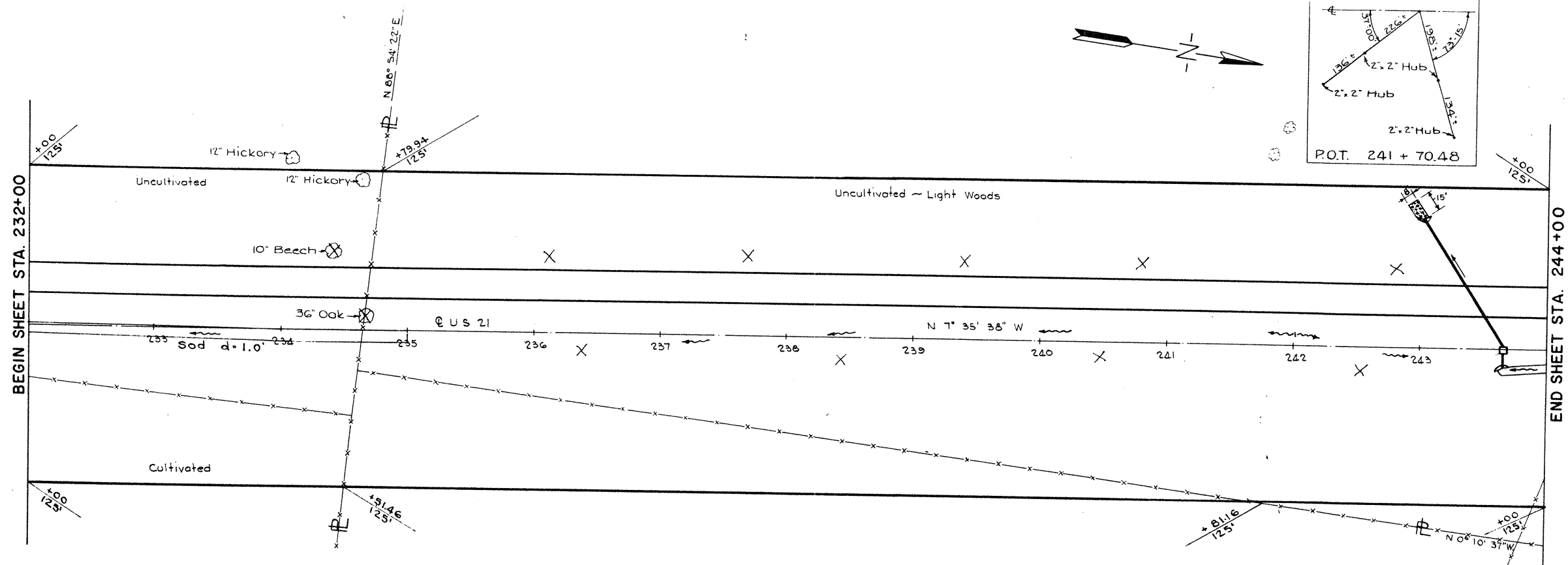
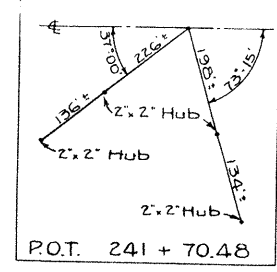
PLAN
SCALE: 1"=50'



EXC. 4387 CY
EMB. 7856 CY
SEEDING 9746 SY

PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA. 21- 17.80
WAY- 21- 0.00
SUM- 21- 0.00



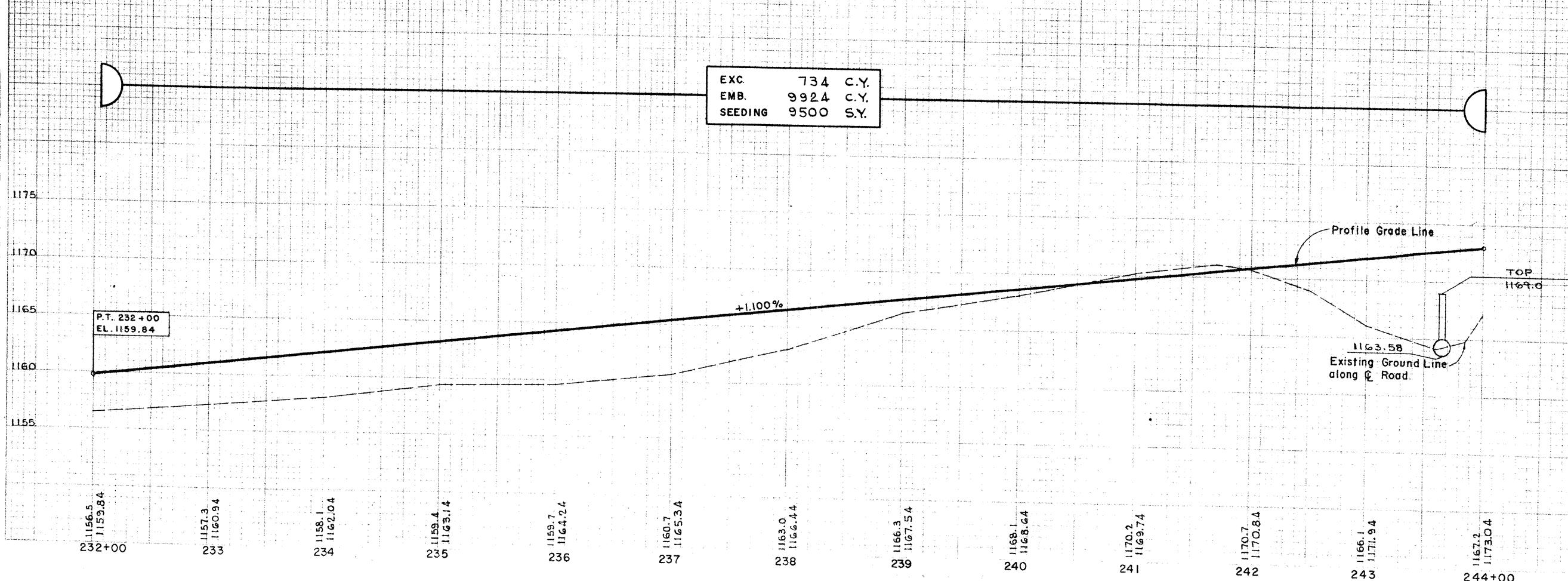
ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
I-15	Guard Rail	L.F.				
I-15	Guard Rail	L.F.				
I-22	Subbase	C.Y.				
L-10	Sodding 8' Wide	S.Y.	232+00	235+00	R	270
L-10	Sodding 6' Wide	S.Y.	243+65	244+00	L	20
55-18	Fence	L.F.	232+00/123	244+00/123	L	1200
55-18	Fence	L.F.	232+00/123	244+00/123	R	1200
DRAINAGE						
E-2	Excav. for Endwall	C.Y.	243+65		R	1
I-2	18" Storm Sewer A Under Pav't.	L.F.	243+02	243+65	L+R	130
I-8	Median Inlet Base Type A	Ea.	243+65		℄	1
I-10	Dumped Rock	C.Y.	242+94	243+02	L	11
S-1	Class E Conc. for Endwall	C.Y.	243+65		R	0.25

B.M. #240 ELEV. 1155.43
RAILROAD SPIKE IN ROOT OF 24" ASH,
185' LT. STA. 234 + 25

PLAN
SCALE: 1" = 50'

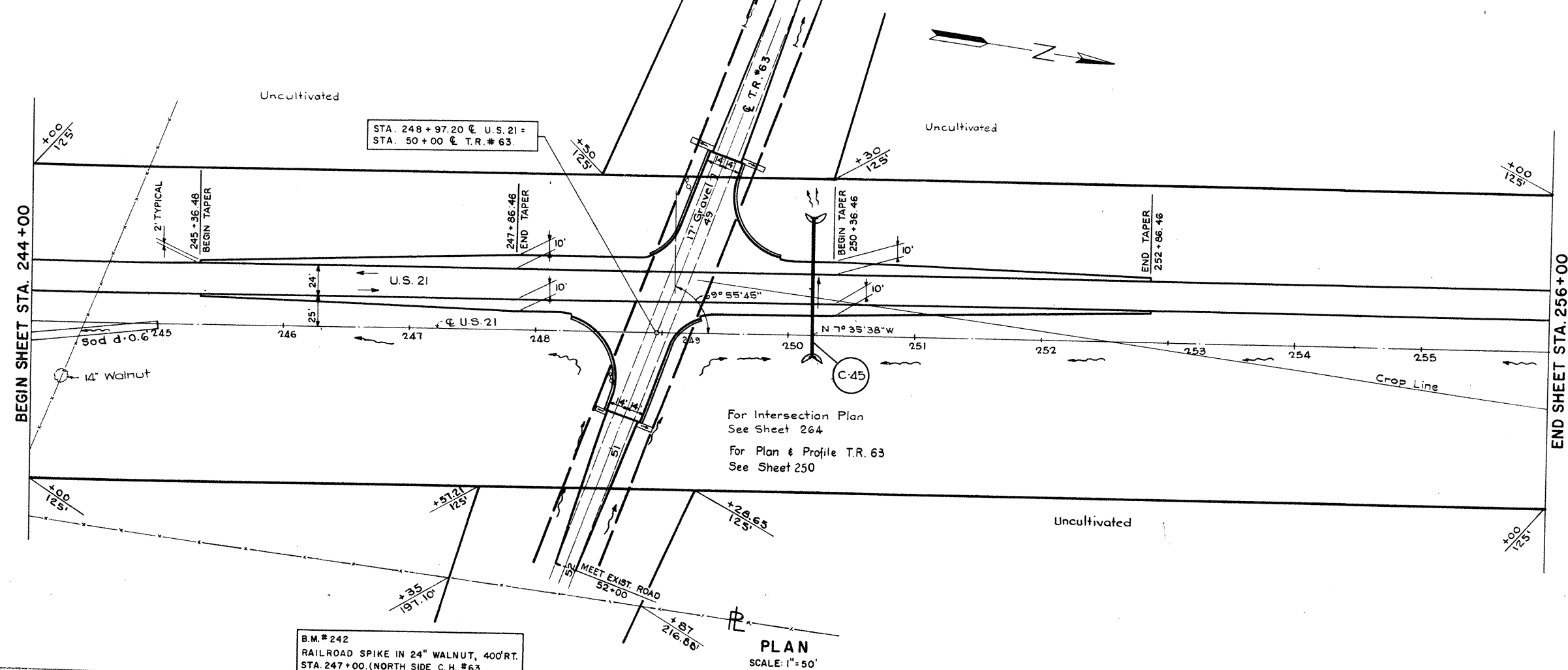
B.M. #241 ELEV. 1173.84
RAILROAD SPIKE IN ROOT OF 30" DEAD
MAPLE, 325' RT. STA. 241 + 00

EXC. 734 C.Y.
EMB. 9924 C.Y.
SEEDING 9500 S.Y.



PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA. 21-17.80
WAY- 21-000
SUM 21-000

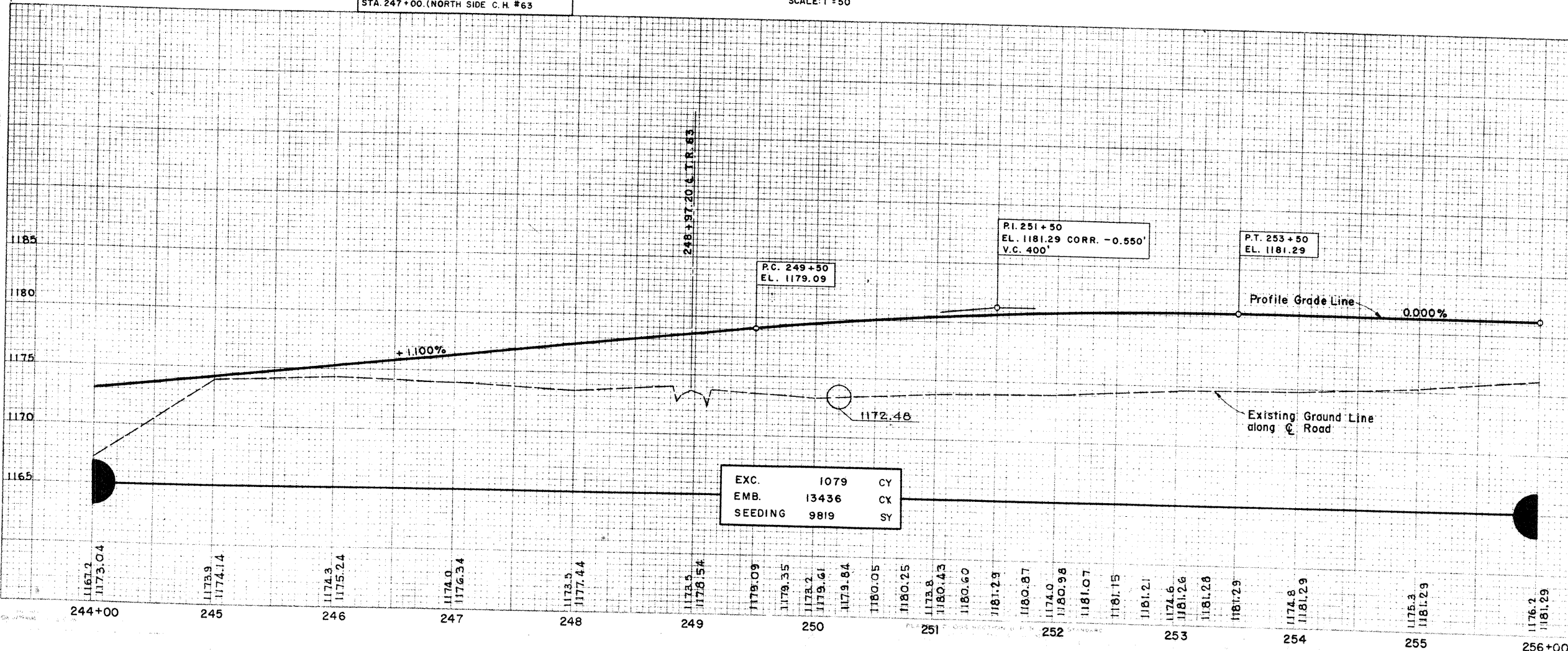


B.M.# 242
RAILROAD SPIKE IN 24" WALNUT, 400' RT.
STA. 247+00 (NORTH SIDE C.H. #63)

PLAN
SCALE: 1" = 50'

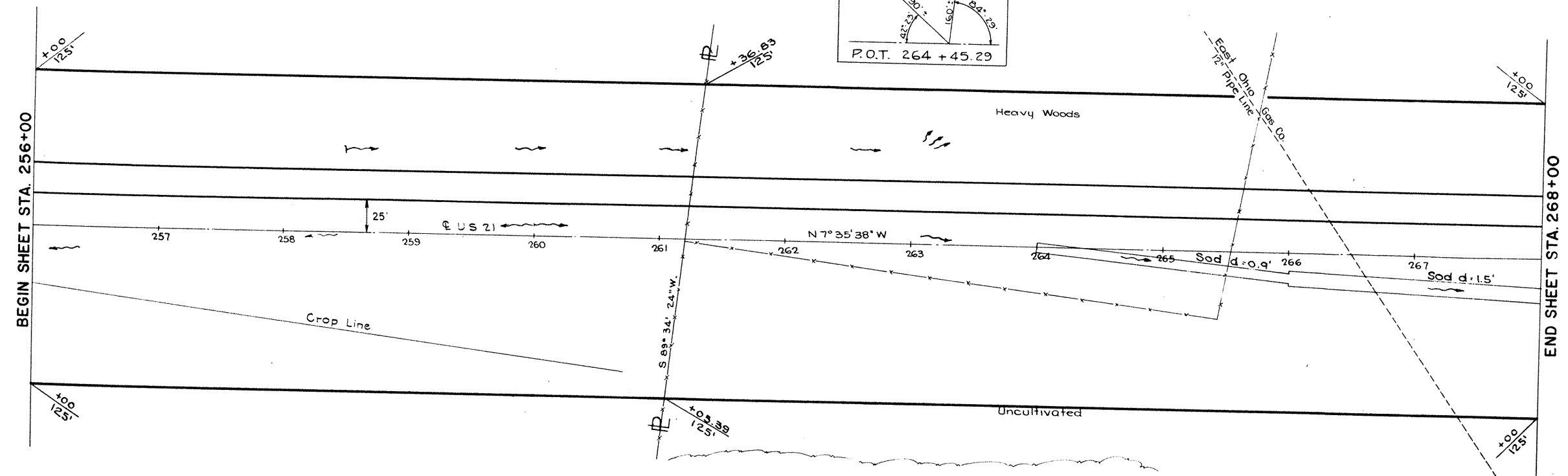
STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	TOTAL
C-45	250+70	Pipe Culvert	24' x 108'	269

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
E-1	Camp Subar Add Lane	SY				1509
I-22	Subbase Main Rdwy	CY				1220
L-10	Subbase Add Lane	CY				280
S-5-18	Sodding 6' Wide	SY	244+00	245+00	R	70
S-5-18	Fence	LF	244+00/123	248+50/173	L	450
S-5-18	Fence	LF	250+30/123	256+00/1	R	570
S-5-18	Fence	LF	244+00/123	247+57.2/123	R	357
S-5-18	Fence	LF	249+28.6/123	256+00/123	R	671
PAVEMENT						
T-71	9" 2C. Pavt Add Lane.	SY				1509



EXC. 1079 CY
EMB. 13436 CX
SEEDING 9819 SY

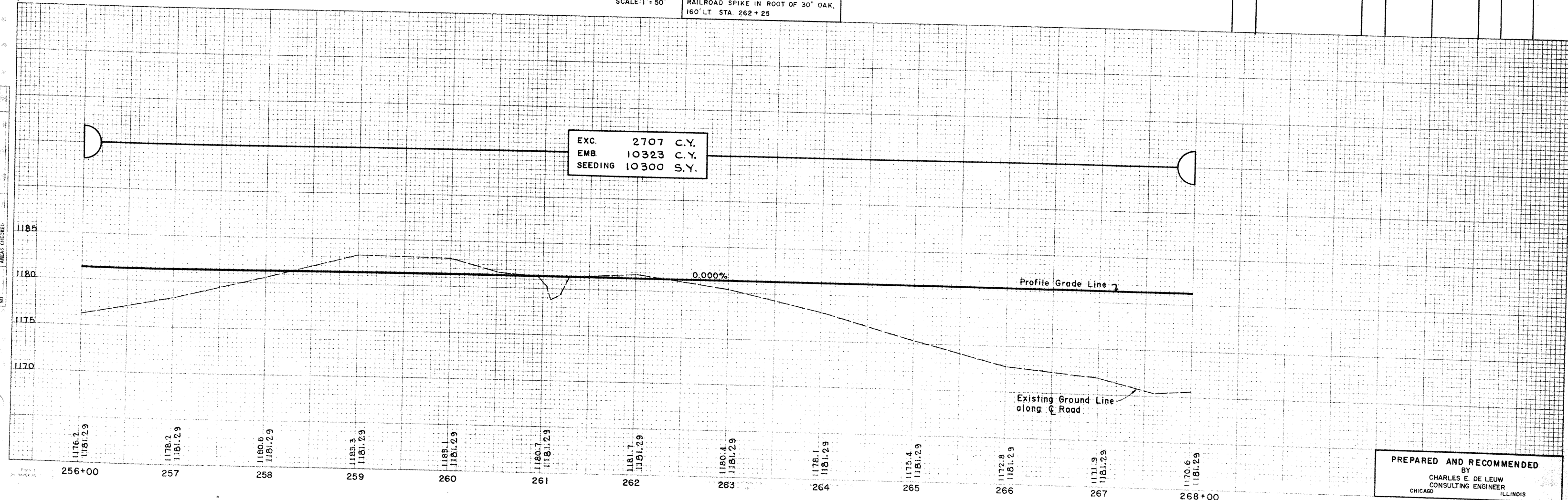
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS



ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
I-22	Subbase	C.Y.				1220
L-10	Sodding 8' Wide	S.Y.	264+00	266+00		180
L-10	Sodding 12' Wide	S.Y.	266+00	268+00		450
SS-18	Fence	L.F.	256+00/123	268+00/123	L	1200
SS-18	Fence	L.F.	256+00/123	268+00/123	R	1200
						2400

PLAN
SCALE: 1" = 50'

B.M. # 243 ELEV. 1177.18
RAILROAD SPIKE IN ROOT OF 30" OAK,
160' LT. STA. 262+25



PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

DATE
BY
SURVEY
NOTE BOOK
NO.

DATE
BY
SURVEY
NOTE BOOK
NO.

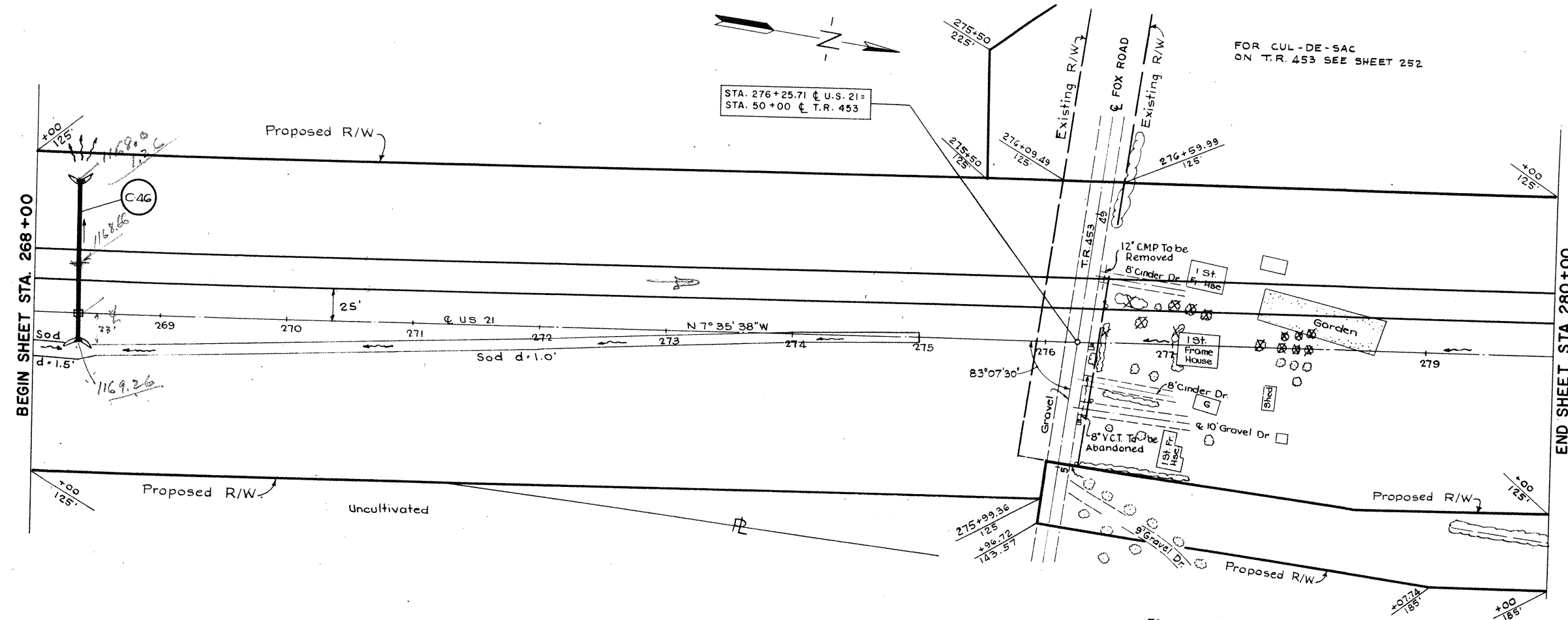
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

56
329

STA. 21 - 17.80
WAY - 21 - 000
SUM - 21 - 000

STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-4G	268+35	Pipe Culvert	30' x 12G'	269

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
I-15	Guard Rail	LF				
I-22	Subbase	CY				
L-10	Sodding 12' Wide	S.Y.	268+00	268+35	R	50
L-10	Sodding 8' Wide	S.Y.	268+35	275+00	L	590
SS-18	Fence	LF	268+00/123	280+00/123	R	1200
SS-18	Fence	LF	268+00/123	276+09.30	R	809.30
SS-18	Fence	LF	276+09.30/123	276+13.67/92	R	30'
SS-18	Fence	LF	276+13.67/92	280+00/123	R	221.20
SS-18	Fence	LF	276+13.67/92	280+00/123	R	166
DRAINAGE						
E-12	12" Pipe Removed for Storage	LF	276+45		L	20

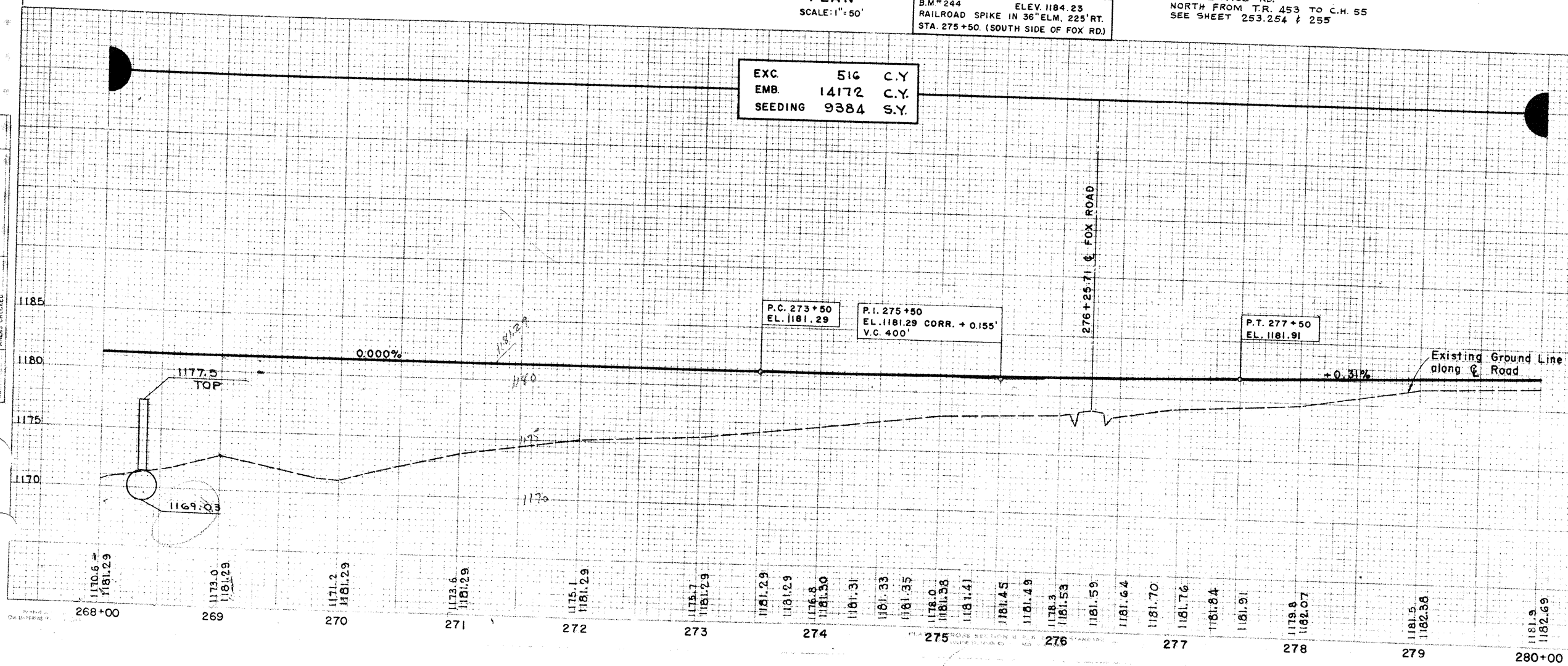


PLAN
SCALE: 1" = 50'

B.M.# 244 ELEV. 1184.23
RAILROAD SPIKE IN 36" ELM. 225' RT.
STA. 275+50. (SOUTH SIDE OF FOX RD.)

FOR PLAN & PROFILE T.R. 453
SEE SHEET 252
FOR SERVICE RD.
NORTH FROM T.R. 453 TO C.H. 55
SEE SHEET 253, 254 & 255

EXC. 516 C.Y.
EMB. 14172 C.Y.
SEEDING 9384 S.Y.



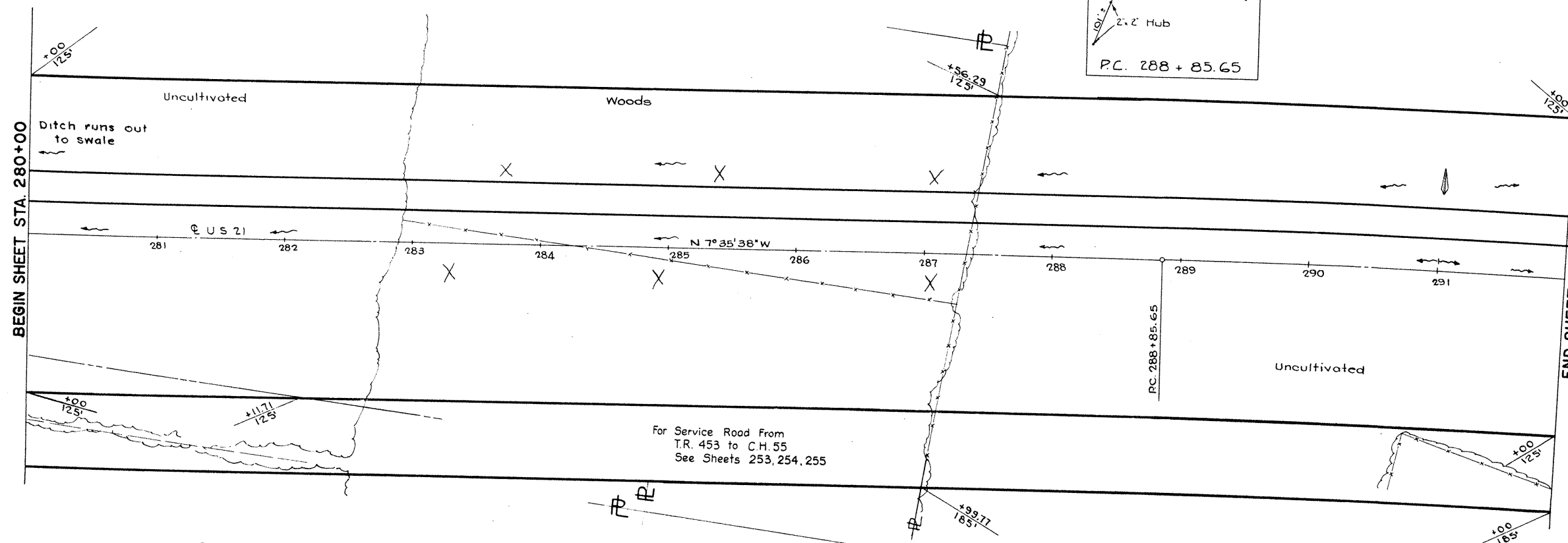
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

LINE SHEET STA. 268+00 TO STA. 280+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

57
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



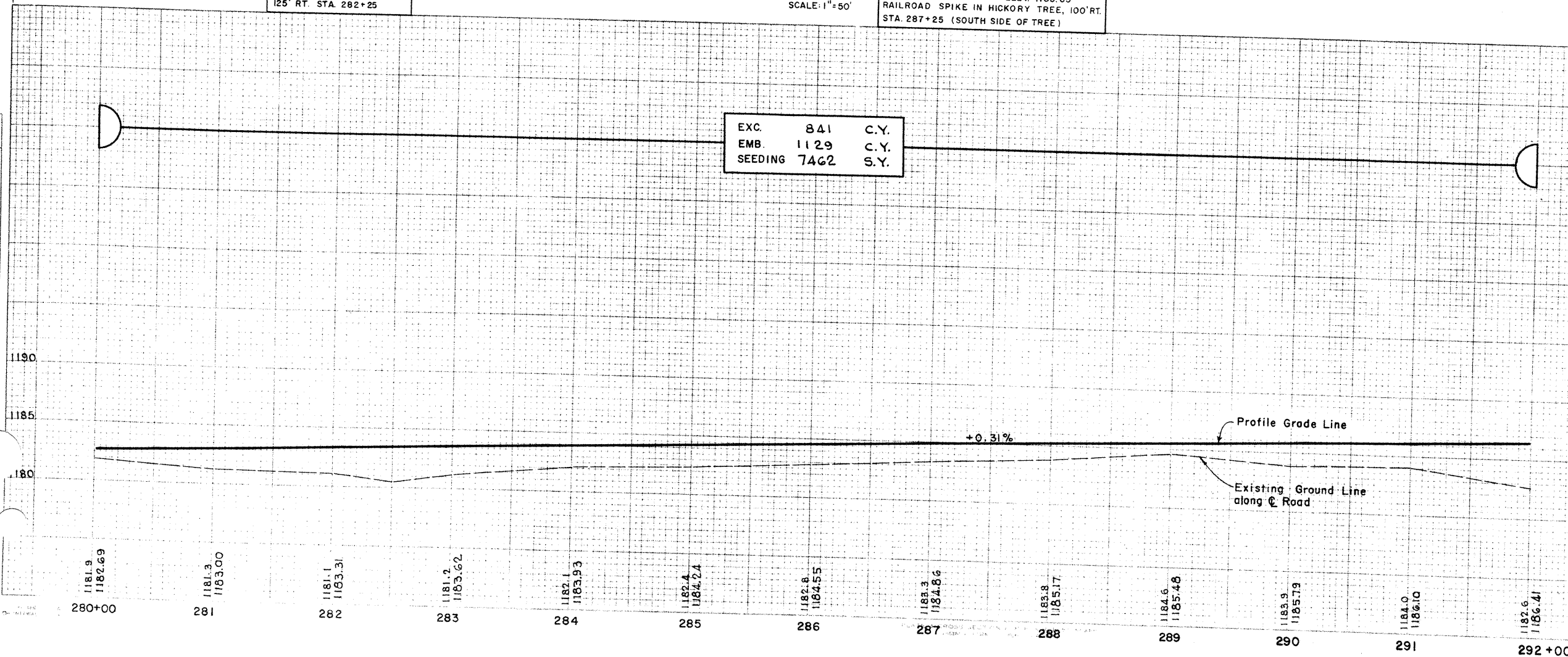
ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
1-22	Subbase	C.Y.				1220
55-18	Fence	L.F.	280+00/125'	292+00/125'	L	1200
55-18	Fence	L.F.	280+00/125'	292+00/125'	R	1200
						2400

B.M. #245 ELEV. 1181.36
SPIKE IN ROOT OF 18" ELM,
125' RT. STA. 282+25

PLAN
SCALE: 1"=50'

B.M. #246 ELEV. 1183.63
RAILROAD SPIKE IN HICKORY TREE, 100' RT.
STA. 287+25 (SOUTH SIDE OF TREE)

EXC. 841 C.Y.
EMB. 1129 C.Y.
SEEDING 7462 S.Y.

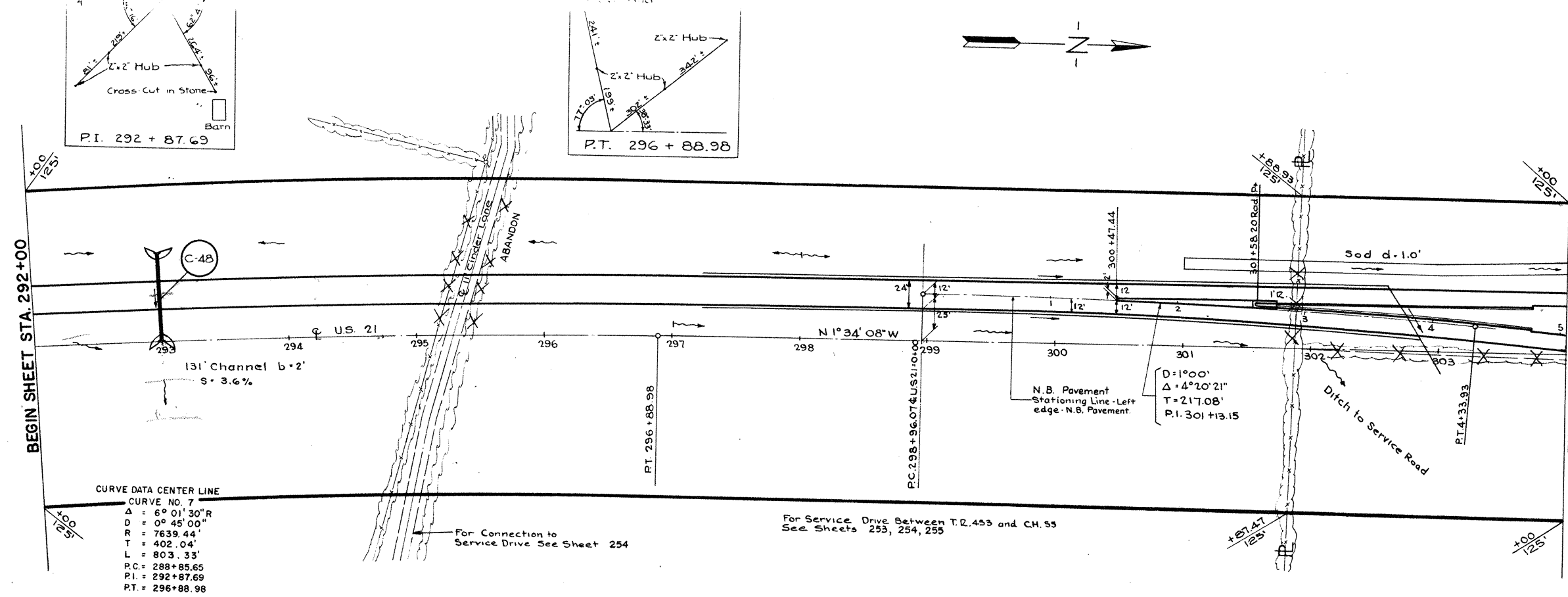


PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA. 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-48	293+00	Pipe Culvert	30" x 72"	269

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
E-1	Comp. Subgrade	S.Y.	299+00	304+00		2135
T-22	Subbase	C.Y.	292+00	304+00		950
L-10	Sodding 10' Wide	S.Y.	301+00	304+00		330
S5-18	Fence	L.F.	292+00/123	304+00/123	L	1200
S5-18	Fence	L.F.	292+00/123	304+00/123	R	1200
PAVEMENT						
B-70	7" PCC Base Course	S.Y.	300+40	301+55		48
T-35	2" Asph. Conc Surface	C.Y.	300+40	301+55		0.3
T-71	3" R.C. Pav't	S.Y.	299+00	304+00		1413
I-12	Type 2A Curb	L.F.	301+75	303+75		400
T-21	P.C. Median Pav't	C.V.	301+55	301+75		4
I-23	Precast Traf. Div.	EA.	300+40	301+55		8
DRAINAGE						
I-2	6" Storm Sewer A Under Pav't	L.F.	302+65	302+80	L+R	44
I-2	8" Storm Sewer A	L.F.	302+80	302+90	R	20
I-4	6" Underdrains	L.F.	297+25	302+80	L+R	1090
I-4	8" Outlet	L.F.	303+00		R	10
15 for 12	6"-8" Inlet	EA.	302+80			1
15 for 12	8"-6" Wye	EA.	302+80			1
15 for 12	6"-60" Bend	EA.	302+65			1



CURVE DATA CENTER LINE
CURVE NO. 7
Δ = 6° 01' 30" R
D = 0° 45' 00"
R = 7639.44'
T = 402.04'
L = 803.33'
P.C. = 288+85.65
P.I. = 292+87.69
P.T. = 296+88.98

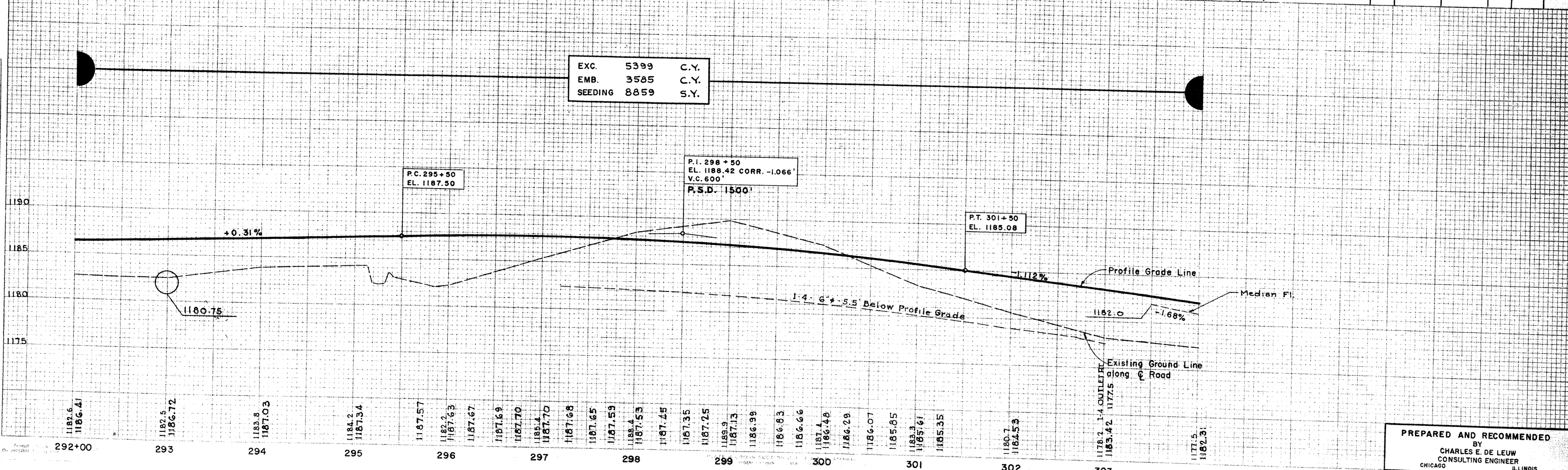
B.M.#247 ELEV. 1180.69
SPIKE IN POWER POLE #C.H. - 1686,
200' RT. STA. 294+50

B.M.#248 ELEV. 1169.54
SPIKE IN ROOT OF 18" WALNUT,
200' RT. STA. 297+00

PLAN
SCALE: 1" = 50'

Transition No. 6
For Details See Sheet 62

EXC. 5399 C.Y.
EMB. 3585 C.Y.
SEEDING 8859 S.Y.

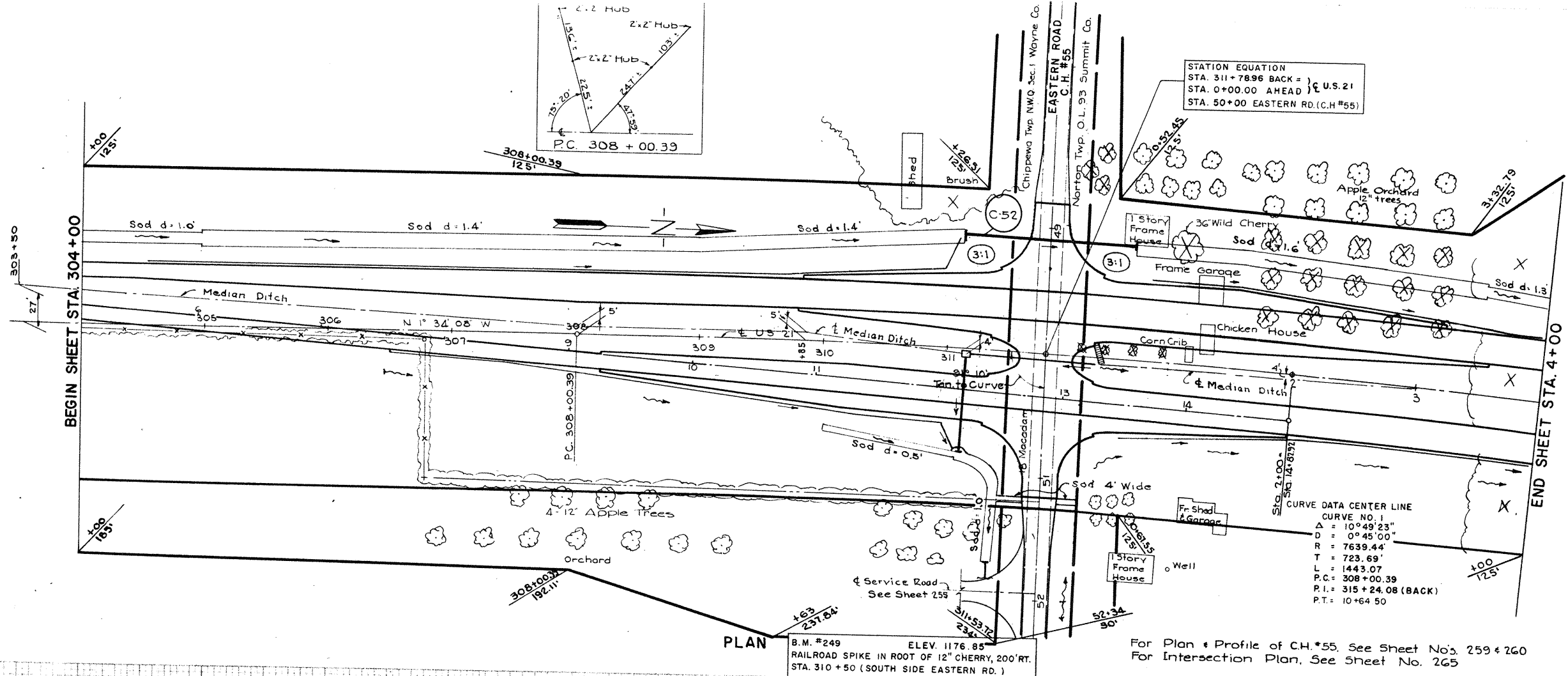


PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

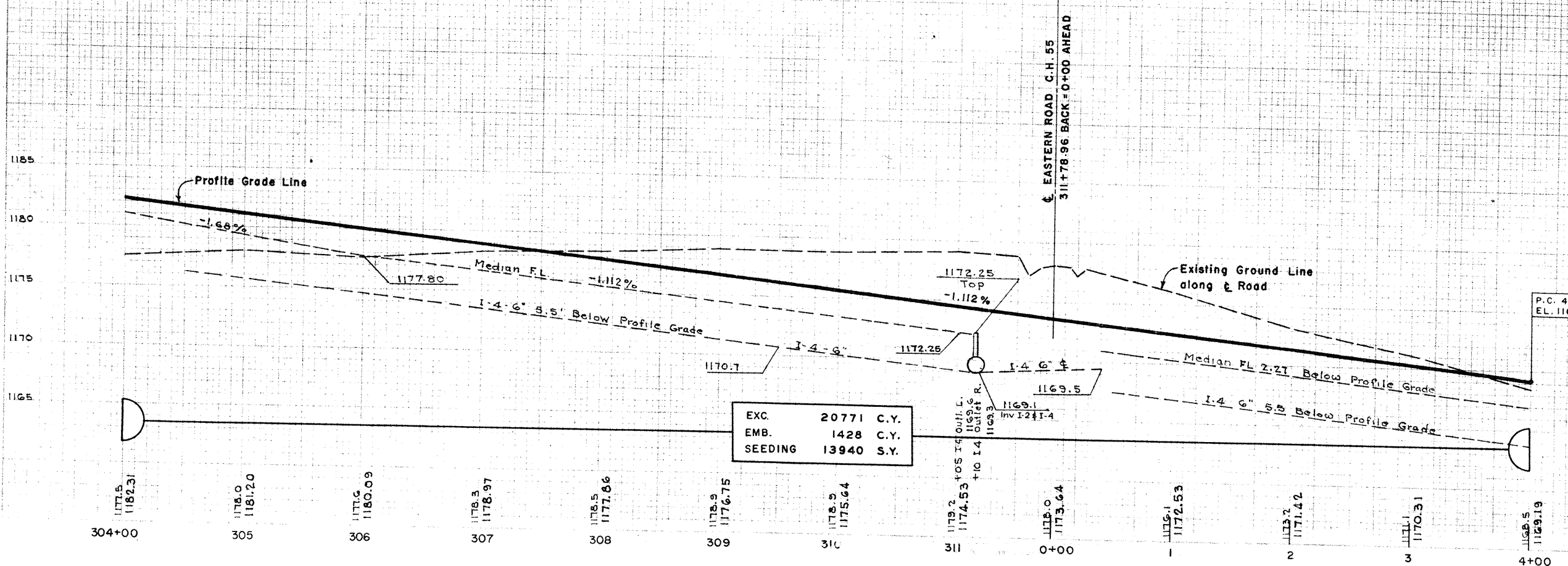
STA. 21 - 17.80
WAY. 21 - 0.00
SUM. 21 - 0.00

STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-52	304+00	Pipe Culvert	30' x 140'	269

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SUB TOTAL	TOTAL
ROADWAY						
E-1	Comp Subgr. Main Rdwy.	S.V.	304+00	2+00		5435
E-1	Comp Subgr. Add'l. Lanes	S.V.				1867
I-22	Subbase Main Rdwy.	C.Y.	304+00	4+00		1610
I-22	Subbase Add'l. Lanes	C.Y.	304+00			350
L-10	Sodding 8' Wide	S.Y.	304+00	305+00	L	90
L-10	Sodding 12' Wide	S.Y.	305+00	309+00	L	530
L-10	Sodding 11' Wide	S.Y.	309+00	311+10	L	260
L-10	Sodding 5' Wide	S.Y.	310+00	311+15	L	65
L-10	Sodding 7' Wide	S.Y.	311+15	311+15	L	80
L-10	Sodding 12' Wide	S.Y.	00+70	3+50	L	370
L-10	Sodding 10' Wide	S.Y.	3+50	4+00	L	55
55-18	Fence	L.F.	304+00/125	311+26.5/125	L	177
55-18	Fence	L.F.	00+52.45/125	3+32.79/125	L	280
55-18	Fence	L.F.	304+00/125	311+51.7/125	L	152
55-18	Fence	L.F.	00+61.55/125	4+00/125	L	332
55-18	Fence	L.F.	3+32.79/125	4+00/116'	L	86'
PAVEMENT						
T-71	9" RC Pavt. Main Rdwy.	S.Y.	304+00	2+00		3912
T-71	9" RC Pavt. Add'l. Lanes	S.Y.				1867
DRAINAGE						
E-2	Excav. for Endwall	C.Y.	311+15			1
I-2	15" Storm Sewer A Under Pavt.	L.F.	311+15			76
S-1	Class E Conc. for Endwall	C.Y.	311+15			0.25
I-4	6" Underdrains	L.F.	304+50	311+05	L	660
I-4	6" Underdrains	L.F.	306+50	311+10	L	470
I-4	6" Underdrains	L.F.	00+90	4+00	L	310
I-4	6" Underdrains	L.F.	00+60	4+00	L	340
I-4	6" Outlet	L.F.	311+05		L	10
I-4	6" Outlet	L.F.	311+10		L	10
I-4	6" 60° Bend	Eq.	310+95		L	1
I-4	6" 60° Bend	Eq.	311+00		L	1
I-8	Spec Median Inlet Type A	Eq.	311+15		L	1
I-14	Paved Gutter Type 8	L.F.	00+40		L	14
I-4	6" Underdrains M-6.4(h)	L.F.	311+15	0+40	L	100



For Plan & Profile of C.H.#55. See Sheet No's. 259 & 260
For Intersection Plan. See Sheet No. 265

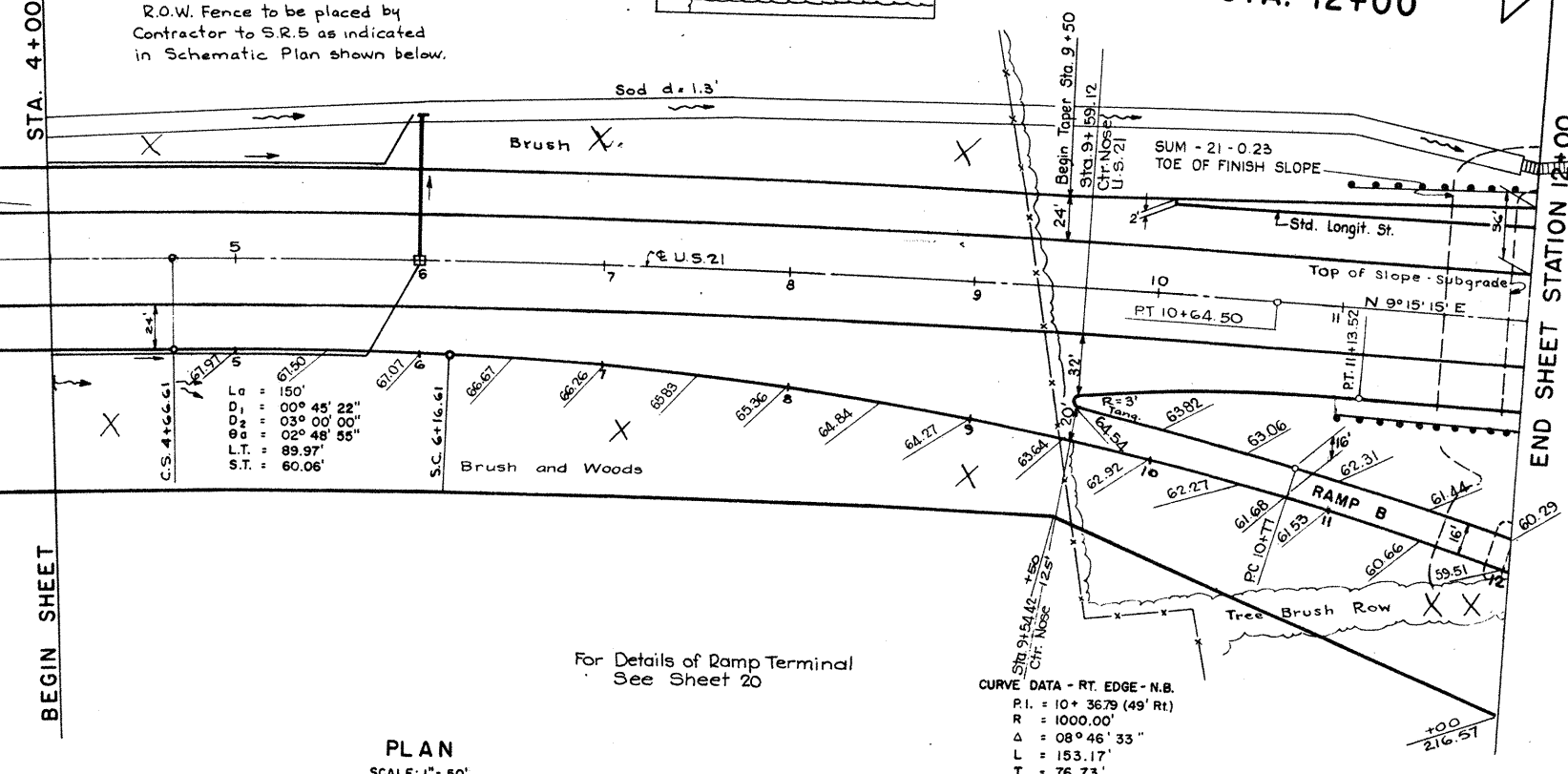
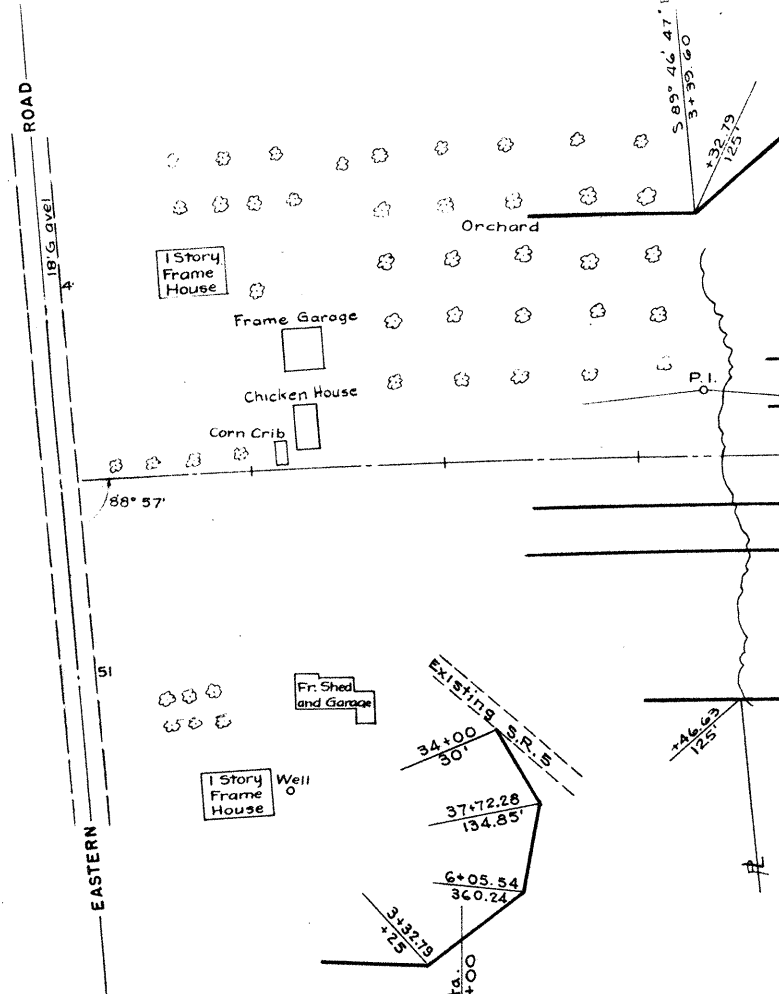
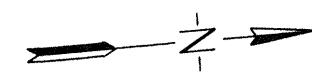
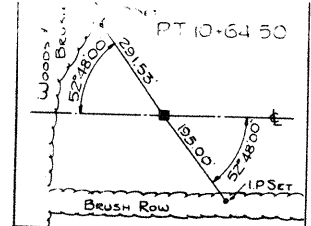


PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

END PROJECT
STA. 12+00

ANOTHER PROJECT
SUM. 21-0.23

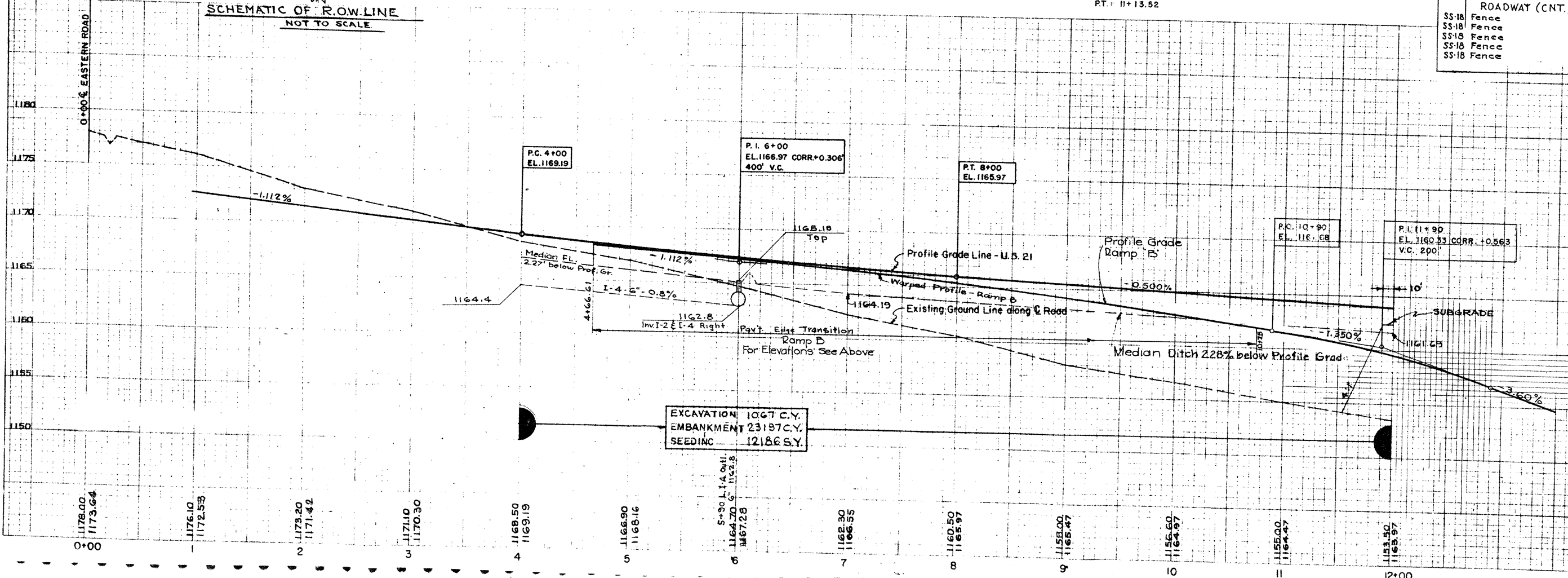
VE DATA CENTER LINE
P.I. = 3+45.12
Δ = 10°-49'-23"
D = 0°-45'
R = 7639.44'
T = 723.69'
L = 1443.07'
E = 34.20
P.T. = 10+64.50



PLAN
SCALE: 1" = 50'

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
E-1	Comp. Subgr. Add. Lane	SY				1568
I-15	Guard Rail	LF	11+00	12+00	L & R	200
I-18	Stab. Shldr. Add. Lane	LF				40
I-22	Subbase Add. Lane	CY				230
I-22	Subbase Main Rdwg.	CY				1200
I-10	Sodding	SY	4+00	11+90	L	880
PAVEMENT						
T-71	9" RC Pvm't Add. Lanes	SY				1238
DRAINAGE						
E-2	Excav. for Endwall	CY	6+00		L	1
S-1	Endwall	CY	6+00		L	0.25
I-2	15" Storm Sewer A Under Pav't.	LF	6+00	6+00	L	74
I-2	6" Storm Sewer A Under Pav't.	LF	5+70	6+00	R	60
I-4	6" Underdrains	LF	4+00	5+90	L	200
I-4	6" Underdrains	LF	4+00	5+70	R	170
I-4	6" Outlet	LF	5+90		L	370
I-4	60" Bend 6"	Ea.	5+75		L	10
I-4	60" Bend 6"	Ea.	5+70		R	1
I-8	Spec Median Inlet Type A	Ea.	6+00		L	2
I-14	Spec Paved Gutter Type 4	LF	11+90	13+50	L	160
I-14	Paved Gutter Type 3	LF	13+50	13+60	L	40
ROADWAY (CNT.)						
SS-18	Fence	LF	4+00-123'	9+50-123'	R	550'
SS-18	Fence	LF	9+50-123'	12+00-214.57'	R	262
SS-18	Fence	LF	4000-176'	6+06-360'	L	284
SS-18	Fence	LF	40+03-418'	37+73-133'	L	365
SS-18	Fence	LF	37+73-133'	34+00-28'	L	390

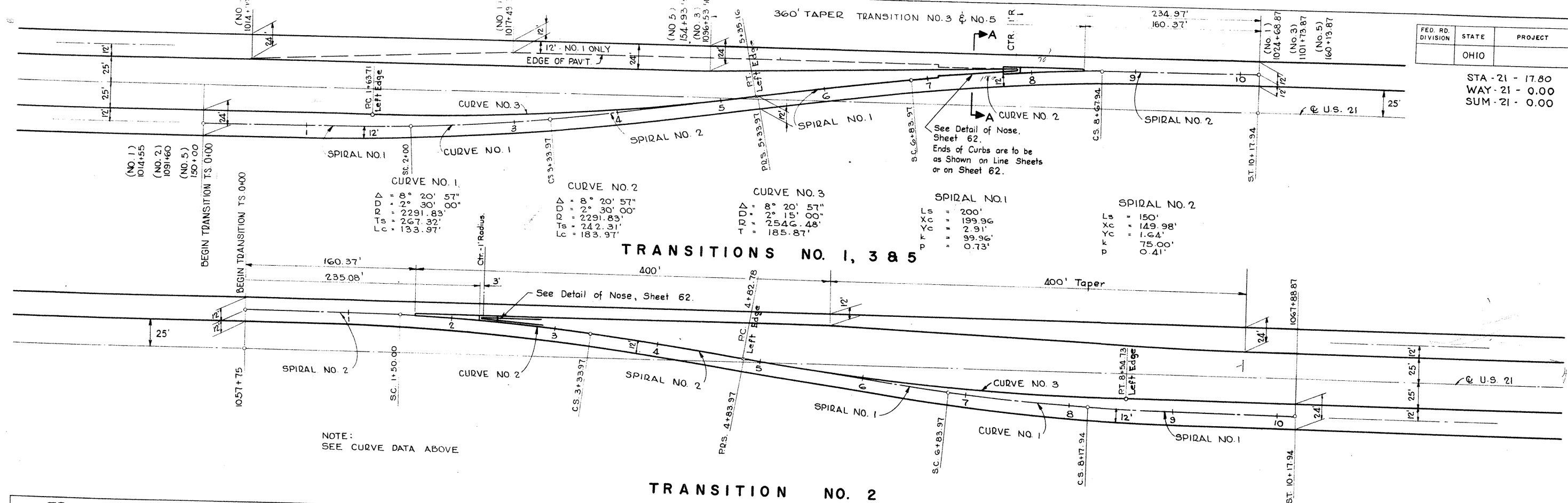
Schematic of R.O.W. Line
NOT TO SCALE



EXCAVATION 1067 C.Y.
EMBANKMENT 23197 C.Y.
SEEDING 12186 S.Y.

PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



TRANSITIONS NO. 1, 3 & 5

TRANSITION NO. 2

TRANSITION SUPERELEVATION
TRANSITION NO. #2

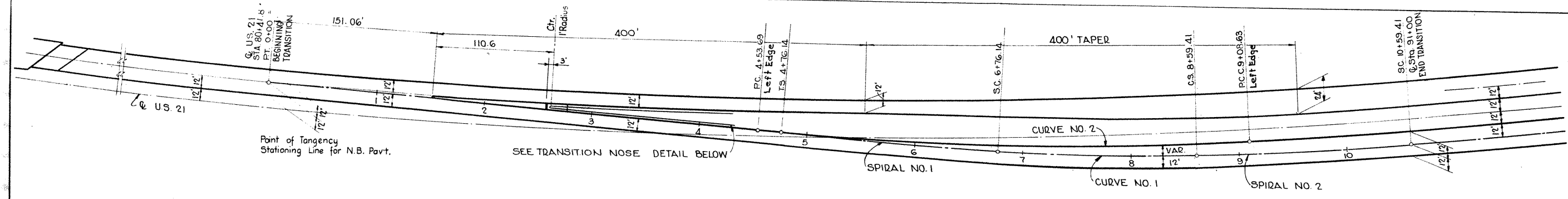
DISTANCE FROM T.S. IN STATION	RIGHT EDGE FROM PROFILE GRADE	LEFT EDGE FROM PROFILE GRADE	SUPERELEVATION STA 1057+75.00 To STA 1067+88.86		
			ELEVATION LT. EDGE	PROFILE GRADE	ELEVATION RT. EDGE
T.S. 0+00	-0.19	0		1135.19	1135.00
0+30	-0.19	0		1135.33	1135.14
0+60	-0.28	0		1135.48	1135.20
0+90	-0.43	0		1135.63	1135.20
1+20	-0.57	0		1135.78	1135.21
SC 1+50	-0.71	0		1135.93	1135.22
2+00	-0.71	0		1136.18	1135.47
2+50	-0.71	0		1136.43	1135.72
3+00	-0.71	0		1136.68	1135.97
CS 3+33.97	-0.71	0		1136.85	1136.14
3+63.97	-0.59	0		1137.00	1136.41
3+93.97	-0.47	0		1137.15	1136.68
4+23.97	-0.34	0		1137.30	1136.96
4+53.97	-0.22	0		1137.44	1137.22
PRS 4+83.97	-0.10	0	1137.59	1137.59	1137.49
5+03.97	-0.02	0	1137.69	1137.69	1137.67
5+23.97	+0.06	0	1137.79	1137.79	1137.85
5+43.97	+0.14	-0.01	1137.88	1137.89	1138.03
5+63.97	+0.22	-0.02	1137.97	1137.99	1138.21
5+83.97	+0.30	-0.04	1138.05	1138.09	1138.39
6+03.97	+0.39	-0.07	1138.12	1138.19	1138.58
6+23.97	+0.47	-0.11	1138.18	1138.29	1138.76
6+43.97	+0.55	-0.17	1138.22	1138.39	1138.94
6+63.97	+0.63	-0.23	1138.24	1138.47	1139.10
SC 6+83.97	+0.71	-0.30	1138.25	1138.55	1139.26
7+00	+0.71	-0.33	1138.28	1138.61	1139.32
7+25	+0.71	-0.38	1138.30	1138.68	1139.39
7+50	+0.71	-0.43	1138.31	1138.74	1139.45
7+75	+0.71	-0.48	1138.30	1138.78	1139.49
8+00	+0.71	-0.52	1138.28	1138.80	1139.51
CS 8+17.94	+0.71	-0.55	1138.26	1138.81	1139.52
8+37.94	+0.64	-0.53	1138.28	1138.81	1139.45
8+57.94	+0.57	-0.50	1138.30	1138.80	1139.37
8+77.94	+0.50	-0.46	1138.32	1138.78	1139.28
8+97.94	+0.43	-0.40	1138.35	1138.75	1139.18
9+17.94	+0.36	-0.34	1138.37	1138.71	1139.07
9+37.94	+0.28	-0.28	1138.38	1138.66	1138.94
9+57.94	+0.21	-0.21	1138.39	1138.60	1138.81
9+77.94	+0.14	-0.19	1138.34	1138.53	1138.67
9+97.94	+0.07	-	1138.26	1138.45	1138.52
ST 10+17.94	0	-	1138.17	1138.36	1138.36
10+42.94	-0.06	-	1138.05	1138.24	1138.18
10+67.94	-0.13	-	1137.91	1138.10	1137.97
10+92.94	-0.19	-0.19	1137.75	1137.94	1137.75

TRANSITION SUPERELEVATION
TRANSITIONS NO. #1, 3 & 5

DISTANCE FROM T.S. IN STATION	RIGHT EDGE FROM PROFILE GRADE	LEFT EDGE FROM PROFILE GRADE	TRANSITION NO. 1 STA 1014+55 TO STA. 1024+68.87			TRANSITION NO. 3 STA 1091+60 To STA. 1101+73.87			TRANSITION NO. 5 STA. 150+00 To STA. 160+13.87		
			ELEVATION LT. EDGE	PROFILE GRADE	ELEVATION RT. EDGE	ELEVATION LT. EDGE	PROFILE GRADE	ELEVATION RT. EDGE	ELEVATION LT. EDGE	PROFILE GRADE	ELEVATION RT. EDGE
-0+75	-0.19	-0.19	1153.92	1154.11	1153.92	1102.07	1102.26	1102.07	1169.69	1169.88	1169.69
-0+50	-0.13	-0.19	1153.42	1153.61	1153.48	1101.32	1101.51	1101.38	1169.35	1169.54	1169.41
-0+25	-0.06	-0.19	1152.92	1153.11	1153.05	1100.57	1100.76	1100.70	1168.99	1169.18	1169.12
T.S. 0+00	0	-0.19	1152.42	1152.61	1152.61	1099.82	1100.01	1100.01	1168.61	1168.80	1168.80
0+20	+0.07	-0.19	1152.05	1152.21	1152.28	1099.22	1099.41	1099.48	1168.30	1168.49	1168.56
0+40	+0.14	-0.19	1151.62	1151.81	1151.95	1098.63	1098.82	1098.96	1167.99	1168.18	1168.32
0+60	+0.21	-0.21	1151.20	1151.41	1151.62	1098.01	1098.22	1098.43	1167.65	1167.86	1168.07
0+80	+0.28	-0.28	1150.73	1151.01	1151.29	1097.34	1097.62	1097.90	1167.33	1167.55	1167.77
1+00	+0.36	-0.34	1150.27	1150.61	1150.97	1096.68	1097.02	1097.38	1167.00	1167.24	1167.60
1+20	+0.43	-0.40	1149.81	1150.21	1150.64	1096.03	1096.43	1096.86	1166.64	1166.94	1167.37
1+40	+0.50	-0.46	1149.35	1149.81	1150.31	1095.37	1095.83	1096.33	1166.28	1166.64	1167.14
1+60	+0.57	-0.50	1148.91	1149.41	1149.98	1094.73	1095.23	1095.80	1165.91	1166.34	1166.91
1+80	+0.64	-0.53	1148.50	1149.03	1149.67	1094.11	1094.64	1095.28	1165.51	1166.04	1166.68
SC 2+00	+0.71	-0.55	1148.10	1148.65	1149.36	1093.49	1094.04	1094.75	1165.19	1165.74	1166.45
2+25	+0.71	-0.51	1147.69	1148.20	1148.91	1092.78	1093.29	1094.00	1164.86	1165.37	1166.08
2+50	+0.71	-0.46	1147.30	1147.76	1148.47	1092.09	1092.55	1093.26	1164.53	1164.99	1165.70
2+75	+0.71	-0.42	1146.92	1147.34	1148.05	1091.38	1091.80	1092.51	1164.20	1164.62	1165.33
3+00	+0.71	-0.37	1146.56	1146.93	1147.64	1090.68	1091.05	1091.76	1163.87	1164.24	1164.95
3+25	+0.71	-0.32	1146.22	1146.54	1147.25	1089.99	1090.31	1091.02	1163.55	1163.87	1164.44
CS 3+33.97	+0.71	-0.30	1145.86	1146.09	1146.72	1089.34	1089.61	1090.27	1163.20	1163.43	1164.06
3+53.97	+0.63	-0.23	1145.47	1145.80	1146.35	1088.67	1088.84	1089.39	1162.87	1163.14	1163.69
3+73.97	+0.47	-0.11	1145.02	1145.33	1146.00	1088.01	1088.25	1088.72	1162.53	1162.84	1163.31
3+93.97	+0.39	-0.07	1144.59	1144.85	1145.65	1087.36	1087.58	1088.04	1162.22	1162.55	1162.94
4+13.97	+0.30	-0.04	1144.17	1144.51	1145.31	1086.71	1086.95	1087.35	1161.91	1162.22	1162.56
4+33.97	+0.22	-0.02	1143.78	1144.10	1145.02	1086.04	1086.26	1086.68	1161.61	1161.96	1162.18
4+53.97	+0.14	-0.01	1143.41	1143.78	1144.72	1085.38	1085.56	1086.00	1161.31	1161.66	1161.81
4+73.97	+0.06	0	1143.06	1143.42	1144.13	1084.71	1084.86	1085.32	1161.01	1161.37	1161.43
4+93.97	-0.02	0	1142.71	1143.06	1143.72	1084.04	1084.16	1084.64	1160.71	1161.08	1161.06
5+13.97	-0.10	0	1142.36	1142.71	1143.36	1083.37	1083.47	1083.97	1160.41	1160.79	1160.69
PRS 5+33.97	-0.10	0	1142.01	1142.36	1142.96	1082.70	1082.78	1083.28	1160.11	1160.49	1160.47
5+53.97	-0.22	-	1141.66	1141.96	1142.56	1082.03	1082.10	1082.60	1159.81	1159.92	1159.58
5+73.97	-0.34	-	1141.31	1141.56	1142.16	1081.36	1081.41	1081.91	1159.51	1159.53	1159.06
6+23.97	-0.47	-	1140.96	1141.16	1141.76	1080.69	1080.73	1081.23	1159.21	1159.21	1158.57
6+43.97	-0.59	-	1140.61	1140.76	1141.31	1080.02	1080.05	1080.55	1158.91	1158.91	1158.10
6+53.97	-0.59	-	1140.26	1140.41	1140.96	1079.35	1079.38	1079.88	1158.61	1158.61	1157.93
SC 6+83.97	-0.71	-	1139.91	1140.06	1140.61	1078.68	1078.71	1079.21	1158.31	1158.31	1157.45
7+00	-0.71	-	1139.56	1139.71	1140.26	1078.01	1078.04	1078.54	1158.01	1158.01	1157.04
7+50	-0.71	-	1139.21	1139.36	1139.91	1077.34	1077.37	1077.84	1157.71	1157.71	1156.70
8+00	-0.71	-	1138.86	1138.96	1139.51	1076.67	1076.70	1077.17	1157.41	1157.41	1156.60
CS 8+17.94	-0.71	-	1138.51	1138.56	1139.11	1076.00	1076.03	1076.50	1157.11	1157.11	1156.59
8+37.94	-0.57	-	1138.16	1138.21	1138.71	1075.33	1075.36	1075.83	1156.81	1156.81	1156.59
8+57.94	-0.43	-	1137.81	1137.86	1138.41	1074.66	1074.69	1075.16	1156.51	1156.51	1156.59
8+77.94	-0.28	-	1137.46	1137.51	1138.01	1074.00	1074.03	1074.50	1156.21	1156.21	1156.59
8+97.94	-0.14	-	1137.11	1137.16	1137.61	1073.33	1073.36	1073.83	1155.91	1155.91	1156.59
9+17.94	0	-	1136.76	1136.81	1137.31	1072.66	1072.69	1073.16	1155.61	1155.61	1156.59
9+37.94	0	-	1136.41	1136.46	1136.91	1072.00	1072.03	1072.50	1155.31	1155.31	1156.59
9+57.94	0	-	1136.06	1136.11	1136.51	1071.33	1071.36	1071.83	1155.01	1155.01	1156.59
9+77.94	0	-	1135.71	1135.76	1136.21	1070.66	1070.69	1071.16	1154.71	1154.71	1156.59
9+97.94	0	-	1135.36	1135.41	1135.81	1070.00	1070.03	1070.50	1154.41	1154.41	1156.59
ST 10+17.94	0	-	1135.01	1135.06	1135.51	1069.33	1069.36	1069.83	1154.11	1154.11	1156.59
10+42.94	-0.06	-	1134.66	1134.71	1135.11	1068.66	1068.69	1069.16	1153.81	1153.81	1156.59
10+67.94	-0.13	-	1134.31	1134.36	1134.71	1068.00	1068.03	1068.50	1153.51	1153.51	1156.59
10+92.94	-0.19	-0.19	1133.96	1134.01	1134.41	1067.33	1067.36	1067.83	1153.21	1153.21	1156.59

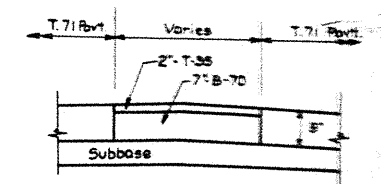
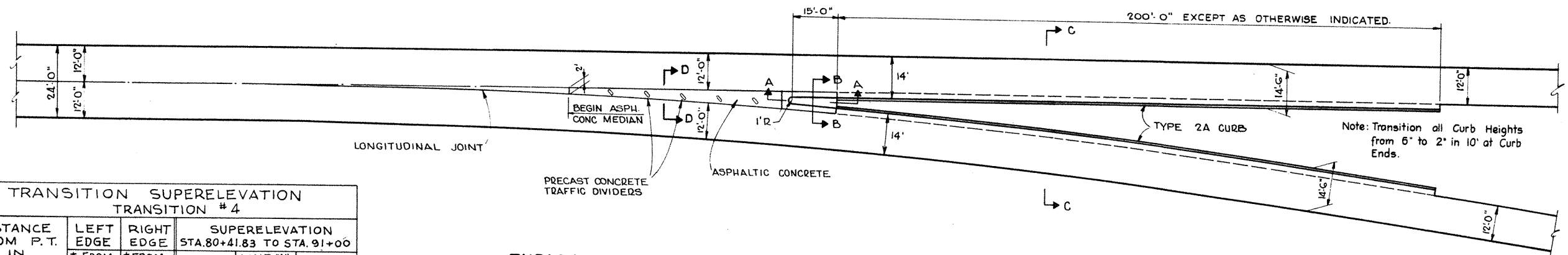
PREPARED AND RECOMMENDED BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA 21 - 17.80
WAY 21 - 0.00
SUM 21 - 0.00



CURVE NO. 1	CURVE NO. 2	SPIRAL NO. 1	SPIRAL NO. 2
Δ = 4° 34' 54"	Δ = 9° 04' 26"	θs = 2° 30'	θs = 1° 30' 15"
D = 2° 30'	D = 2° 00' 00"	P = 0.73	Ls = 200'
T = 91.68'	T = 227.32'	k = 99.99	Δ = 3° 29' 45"
L = 183.27'	R = 2864.79'	Xc = 199.96	p = 0.44'
R = 2291.83'		Yc = 2.91	L.T. = 115.28'
		L.T. = 133.35	S.T. = 84.78'
		S.T. = 66.68	

TRANSITION NO. 4
SCALE 1" = 50'-0"

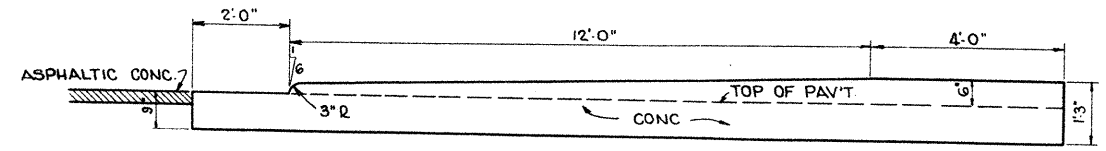


SECTION D-D
SCALE 1" = 2'-0"

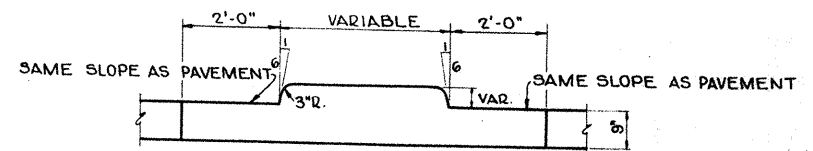
TRANSITION SUPERELEVATION
TRANSITION # 4

DISTANCE FROM P.T. IN STATION	LEFT EDGE ± FROM PROFILE GRADE	RIGHT EDGE ± FROM PROFILE GRADE	SUPERELEVATION STA. 80+41.83 TO STA. 91+00	
			ELEVATION LT. EDGE	ELEVATION RT. EDGE
P.T. 0+00		+0.38	994.21	994.59
0+25		+0.36	994.90	995.26
0+50		+0.34	995.22	995.96
0+75		+0.32	995.38	996.70
1+00		+0.30	997.09	997.39
1+50		+0.26	998.69	998.95
2+00		+0.22	1000.23	1000.45
2+50		+0.19	1001.76	1001.95
3+00		+0.19	1003.29	1003.48
4+00		+0.19	1006.36	1006.55
4+53.69		+0.19	1008.01	1008.20
P.C. (LT. EDGE PAV'T) 4+76.14	-0.01	+0.19	1008.68	1008.69
T.S. (LINE 'A') 4+96.14	-0.01	+0.25	1009.30	1009.31
5+16.14	-0.02	+0.31	1009.90	1009.92
+36.14	-0.02	+0.36	1010.50	1010.53
+56.14	-0.04	+0.42	1011.11	1011.15
+76.14	-0.05	+0.48	1011.71	1011.76
+96.14	-0.08	+0.54	1012.29	1012.37
6+16.14	-0.10	+0.60	1012.89	1012.99
+36.14	-0.13	+0.65	1013.47	1013.60
+56.14	-0.16	+0.71	1014.05	1014.21
S.C. 6+76.14	-0.21	+0.77	1014.62	1014.83
7+00	-0.26	+0.77	1015.30	1015.56
+25	-0.32	+0.77	1016.01	1016.33
+50	-0.38	+0.77	1016.71	1017.09
+75	-0.46	+0.77	1017.40	1017.86
8+00	-0.53	+0.77	1018.10	1018.63
+25	-0.58	+0.77	1018.81	1019.39
+50	-0.64	+0.77	1019.52	1020.16
C.S. 8+59.41	-0.65	+0.77	1019.80	1020.45
+79.41	-0.67	+0.74	1020.39	1021.06
+99.41	-0.67	+0.70	1021.00	1021.67
9+19.41	-0.66	+0.66	1021.63	1022.29
+39.41	-0.62	+0.62	1022.28	1022.90
+59.41	-0.59	+0.59	1022.92	1023.51
+79.41	-0.55	+0.55	1023.58	1024.13
+99.41	-0.51	+0.51	1024.23	1024.74
10+19.41	-0.45	+0.47	1024.90	1025.35
+39.41	-0.43	+0.43	1025.54	1025.97
S.C. 10+59.41	-0.39	+0.39	1026.19	1026.97

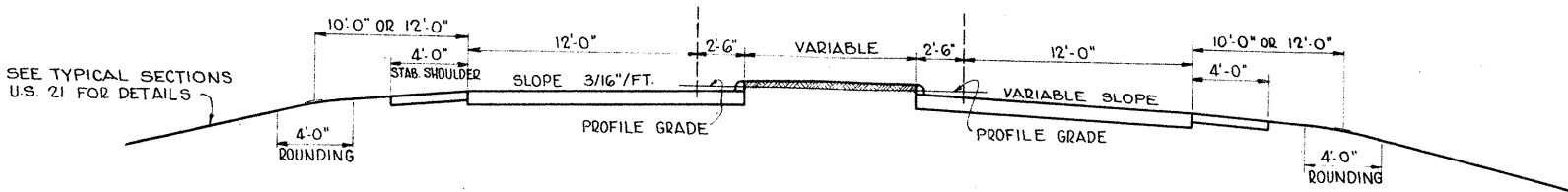
TYPICAL PLAN NOSE AT TRANSITION
SCALE 1" = 20'-0"



SECTION A-A
SCALE 1" = 2'-0"



SECTION B-B
SCALE 1" = 2'-0"



SECTION C-C
SCALE 1" = 5'-0"

PROFILE GRADE LINE 'A' = E N. BOUND PAVEMENT U.S. 21 STA. 91+00

PREPARED AND RECOMMENDED BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

SUPERELEVATION TABLES

STA- 21- 17.80
WAY- 21- 0.00
SUM- 21- 0.00

Dc = 0° 45'

NORTHBOUND & SOUTHBOUND LANES
50' MEDIAN
P. I. STA. 971 + 14.94

STATION	NORMAL PROFILE GRADE	LEFT		CENTERLINE		RIGHT	
		+OR -FROM PROFILE	ELEVATION LEFT EDGE	+OR -FROM PROFILE	ELEVATION ACTUAL €	+OR -FROM PROFILE	ELEVATION RIGHT EDGE
963+25	1091.45	-0.19	1091.26	0	1091.45	-0.19	1091.26
963+50	1091.92	-0.13	1091.79		1091.92		1091.73
963+75	1092.38	-0.07	1092.31		1092.38		1092.19
964+00	1092.82	0	1092.82		1092.82		1092.63
964+25	1093.23	+0.10	1093.33	0	1093.23		1093.04
964+50	1093.64	+0.19	1093.83	+0.04	1093.68		1093.45
964+75	1094.02	+0.29	1094.31	+0.05	1094.07		1093.83
965+00	1094.39	+0.39	1094.78	+0.10	1094.49		1094.20
965+25	1094.74		1095.13		1094.84		1094.55
965+50	1095.07		1095.46		1095.17		1094.88
965+75	1095.38		1095.77		1095.48		1095.19
966+00	1095.67		1096.06		1095.77		1095.48
966+25	1095.95		1096.34		1096.05		1095.76
966+50	1096.21		1096.60		1096.31		1096.02
967+00	1096.71		1097.10		1096.81		1096.52
968+00	1097.71		1098.10		1097.81		1097.52
969+00	1098.71		1099.10		1098.81		1098.52
970+00	1099.71		1100.10		1099.81		1099.52
971+00	1100.71		1101.10		1100.81		1100.52
971+25	1100.95		1101.34		1101.05		1100.76
971+50	1101.25		1101.64		1101.35		1101.06
971+75	1101.55		1101.94		1101.65		1101.36
972+00	1101.88		1102.27		1101.98		1101.69
972+25	1102.22		1102.61		1102.32		1102.03
972+50	1102.59		1102.98		1102.69		1102.40
972+75	1102.97		1103.36		1103.07		1102.78
973+00	1103.38		1103.77		1103.48		1103.19
973+25	1103.81		1104.20		1103.91		1103.62
973+50	1104.26		1104.65		1104.36		1104.07
973+75	1104.72		1105.11		1104.82		1104.53
974+00	1105.21		1105.60		1105.31		1105.02
974+25	1105.72		1106.11		1105.82		1105.53
974+50	1106.26		1106.65		1106.36		1106.07
974+75	1106.81		1107.20		1106.91		1106.62
975+00	1107.38		1107.77		1107.48		1107.19
975+25	1107.97		1108.36		1108.07		1107.78
975+50	1108.59		1108.98		1108.69		1108.40
975+75	1109.22		1109.61		1109.32		1109.03
976+00	1109.88		1110.27		1109.98		1109.69
976+25	1110.55		1110.94		1110.65		1110.36
976+50	1111.25		1111.64		1111.35		1111.06
976+75	1111.97		1112.36		1112.07		1111.78
977+00	1112.71		1113.10		1112.81		1112.52
977+25	1113.46	+0.39	1113.85	+0.10	1113.56		1113.27
977+50	1114.21	+0.29	1114.50	+0.05	1114.26		1114.02
977+75	1114.96	+0.19	1115.15	+0.04	1115.00		1114.77
978+00	1115.71	0	1115.80	0	1115.71		1115.52
978+25	1116.46	0	1116.46	0	1116.46		1116.27
978+50	1117.21	-0.07	1117.14	0	1117.21		1117.02
978+75	1117.96	-0.13	1117.83	0	1117.96		1117.77
979+00	1118.71	-0.19	1118.52	0	1118.71	-0.19	1118.52

Dc = 0° 45'

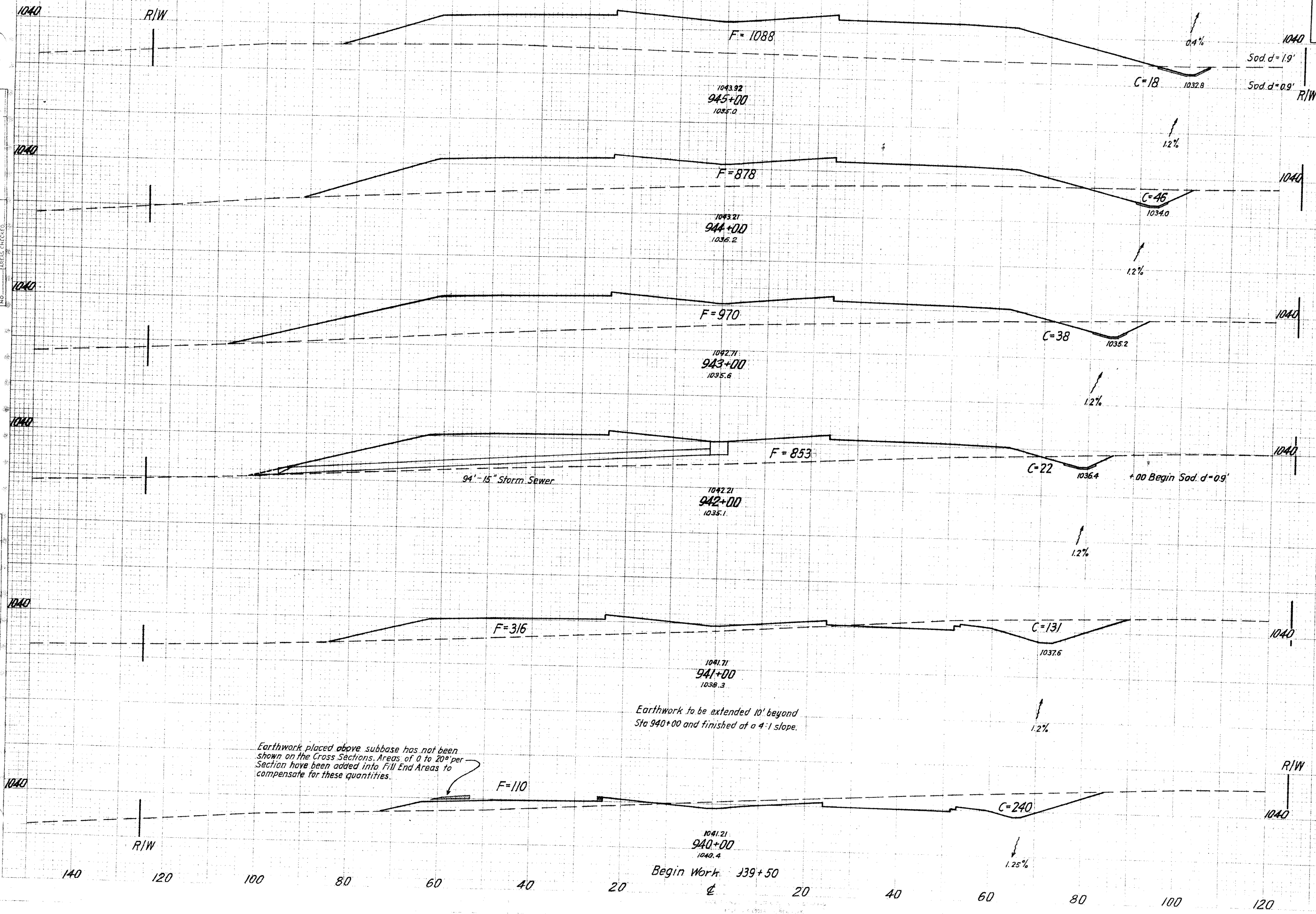
SINGLE LANE
P. I. STA. 1047+06.02

STATION	NORMAL PROFILE GRADE	LEFT		CENTERLINE		RIGHT	
		+OR -FROM PROFILE	ELEVATION LEFT EDGE	+OR -FROM PROFILE	ELEVATION ACTUAL €	+OR -FROM PROFILE	ELEVATION RIGHT EDGE
1036+25	1136.81	-0.19	1136.62	0	1136.81	-0.19	1136.62
1036+50	1136.71		1136.52		1136.71	-0.13	1136.58
1036+75	1136.61		1136.42		1136.61	-0.06	1136.55
1037+00	1136.51		1136.32		1136.51	0	1136.51
1037+25	1136.41		1136.22	0	1136.41	+0.10	1136.51
1037+50	1136.31		1136.12	+0.04	1136.35	+0.19	1136.50
1037+75	1136.21		1136.02	+0.05	1136.26	+0.29	1136.50
1038+00	1136.11		1135.92	+0.10	1136.21	+0.39	1136.50
1039+00	1135.71		1135.52		1135.81		1136.10
1040+00	1135.31		1135.12		1135.41		1135.70
1041+00	1134.91		1134.72		1135.01		1135.30
1042+00	1134.51		1134.32		1134.61		1134.90
1043+00	1134.11		1133.92		1134.21		1134.50
1044+00	1133.71		1133.52		1133.81		1134.10
1045+00	1133.31		1133.12		1133.41		1133.70
1046+00	1132.91		1132.72		1133.01		1133.30
1047+00	1132.51		1132.32		1132.61		1132.90
1048+00	1132.11		1131.92		1132.21		1132.50
1048+25	1132.02		1131.83		1132.12		1132.41
1048+50	1131.94		1131.75		1132.04		1132.33
1048+75	1131.87		1131.68		1131.97		1132.26
1049+00	1131.82		1131.63		1131.92		1132.21
1049+25	1131.78		1131.59		1131.88		1132.17
1049+50	1131.76		1131.57		1131.86		1132.15
1049+75	1131.75		1131.56		1131.85		1132.14
1050+00	1131.76		1131.57		1131.86		1132.15
1050+25	1131.78		1131.59		1131.88		1132.17
1050+50	1131.81		1131.62		1131.91		1132.20
1050+75	1131.87		1131.68		1131.97		1132.26
1051+00	1131.92		1131.73		1132.02		1132.31
1051+25	1132.00		1131.81		1132.10		1132.39
1051+50	1132.09		1131.90		1132.19		1132.48
1051+75	1132.20		1132.01		1132.30		1132.59
1052+00	1132.31		1132.12		1132.41		1132.70
1053+00	1132.81		1132.62		1132.91		1133.20
1054+00	1133.31		1133.12		1133.41		1133.70
1055+00	1133.81		1133.62		1133.91		1134.20
1056+00	1134.31		1134.12	+0.10	1134.41	+0.39	1134.70
1056+25	1134.44		1134.25	+0.05	1134.49	+0.29	1134.73
1056+50	1134.56		1134.37	+0.04	1134.60	+0.19	1134.75
1056+75	1134.69		1134.50	0	1134.69	+0.10	1134.79
1057+00	1134.81		1134.62		1134.81	0	1134.81
1057+25	1134.94		1134.75		1134.94	-0.07	1134.87
1057+50	1135.06		1134.87		1135.06	-0.13	1134.93
1057+75	1135.19	-0.19	1135.00	0	1135.19	-0.19	1135.00

Dc = 2° 00'

SINGLE LANE
P. I. STA. 1126 + 69.38

STATION	NORMAL PROFILE GRADE	LEFT		CENTERLINE		RIGHT	
		+OR -FROM PROFILE	ELEVATION LEFT EDGE	+OR -FROM PROFILE	ELEVATION ACTUAL €	+OR -FROM PROFILE	ELEVATION RIGHT EDGE
1108+49.09	1049.34	-0.19	1049.15	0	1049.34	-0.19	1049.15
1108+74.09	1048.59	-0.13	1048.46		1048.59		1048.40
1108+99.09	1047.84	-0.06	1047.78		1047.84		1047.65
TS 1109+24.09	1047.09	0	1047.09		1047.09		1046.90
1109+54.09	1046.19	+0.14	1046.33		1046.19		1046.00
1109+84.09	1045.29	+0.27	1045.56	+0.04	1045.33		1045.10
1110+14.09	1044.39	+0.41	1044.80	+0.11	1044.50		1044.20
1110+44.09	1043.49	+0.54	1044.03	+0.18	1043.67		1043.30
1110+74.09	1042.60	+0.68	1043.28	+0.24	1042.84		1042.41
1111+04.09	1041.75	+0.81	1042.56	+0.31	1042.06		1041.56
1111+34.09	1040.95	+0.95	1041.90	+0.38	1041.33		1040.76
1111+64.09	1040.18	+1.08	1041.26	+0.45	1040.63		1039.99
1111+94.09	1039.45	+1.22	1040.67	+0.51	1039.96		1039.26
SC 1112+24.09	1038.76	+1.35	1040.11	+0.58	1039.34		1038.57
1112+25	1038.73		1040.08		1039.31		1038.54
1112+50	1038.19		1039.54		1038.77		1038.00
1112+75	1037.67		1039.02		1038.25		1037.48
1113+00	1037.18		1038.53		1037.76		1037.00
1113+25	1036.73		1038.08		1037.31		1036.54
1113+50	1036.29		1037.64		1036.87		1036.10
1113+75	1035.88		1037.23		1036.46		1035.69
1114+00	1035.49		1036.84		1036.07		1035.30
1114+25	1035.14		1036.49		1035.72		1034.95
1114+50	1034.82		1036.17		1035.40		1034.63
1114+75	1034.52		1035.87		1035.10		1034.33
1115+00	1034.24		1035.59		1034.82		1034.05
1115+25	1034.01		1035.36		1034.59		1033.82
1115+50	1033.80		1035.15		1034.38		1033.61
1115+75	1033.60		1034.95		1034.18		1033.41
1116+00	1033.44		1034.79		1034.02		1033.25
1116+25	1033.30		1034.65		1033.88		1033.11
1116+50	1033.20		1034.55		1033.78		1033.01
1116+75	1033.12		1034.47		1033.70		1032.93
1117+00	1033.06		1034.41		1033.64		1032.87
1117+25	1033.04		1034.39		1033.62		1032.85
1117+50	1033.04		1034.39		1033.62		1032.85
1117+75	1033.07		1034.42		1033.65		1032.88
1118+00	1033.13		1034.48		1033.71		1032.94
1118+25	1033.21		1034.56		1033.79		1033.02
1118+50	1033.33		1034.68		1033.91		1033.14
1119+00	1033.58		1034.93		1034.16		1033.39
1120+00	1034.09		1035.44		1034.67		1033.90
1121+00	1034.59		1035.94		1035.17		1034.40
1122+00	1035.10		1036.45		1035.68		1034.91
1123+00	1035.60		1036.95		1036.18		1035.41
1124+00	1036.10		1037.45		1036.68		1035.91
112							



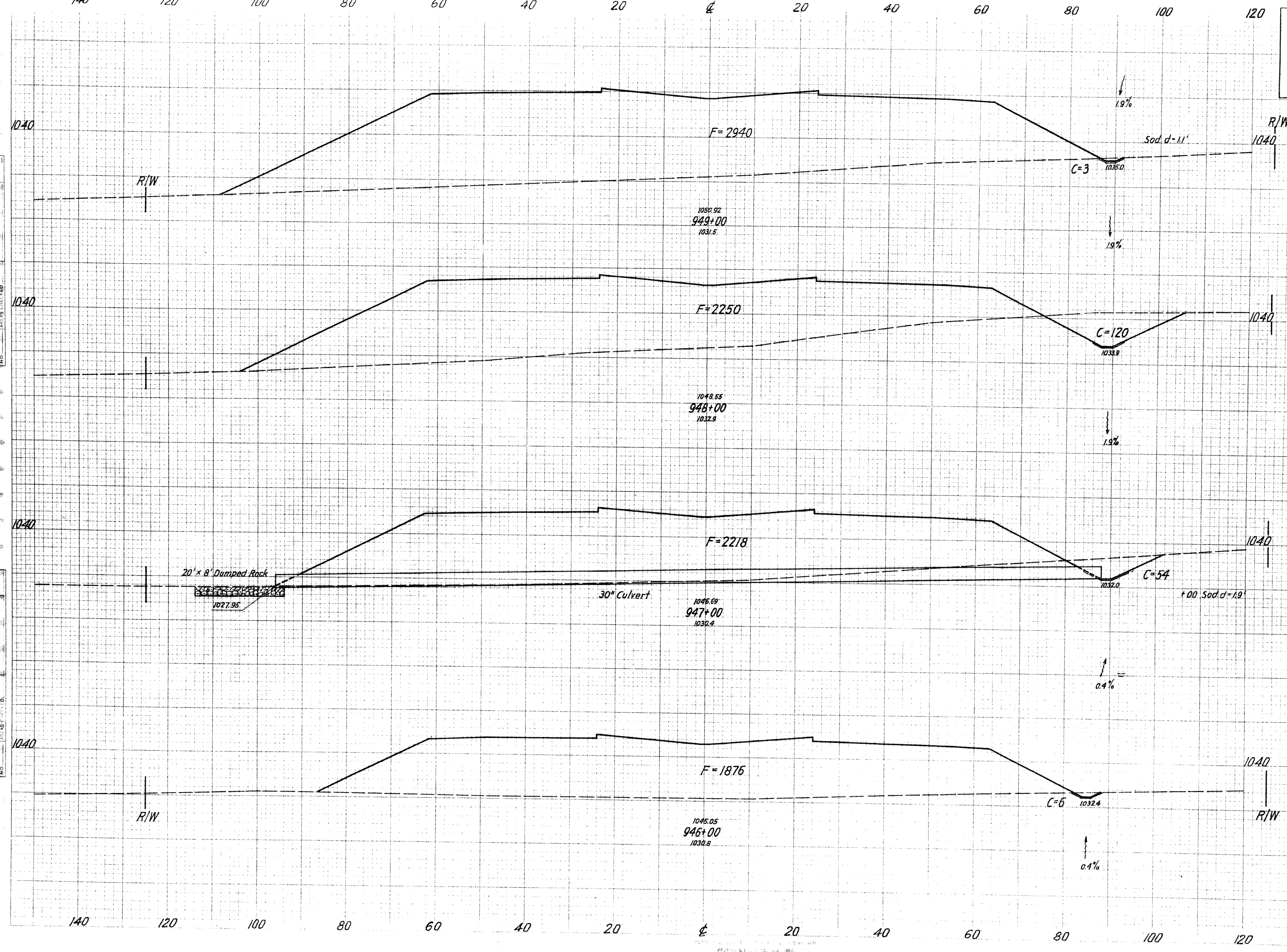
Ln. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
154	18	1096				
1750				119	3670	
161	46	886				
1839				156	3452	
170	38	978				
1800				111	3406	
154	22	861				
1633				283	2189	
140	131	321				
1467				687	807	
124	240	115				
				160	60	

EXC. 1,130 CY
EMB. 3,056 CY
SEEDING 3,700 S.Y.

Earthwork placed above subbase has not been shown on the Cross Sections. Areas of 0 to 20^{sq} per Section have been added into Fill End Areas to compensate for these quantities.

Earthwork to be extended 10' beyond Sta 940+00 and finished at a 4:1 slope.

STA - 21 = 17.80
WAY - 21 = 0.00
SUM - 21 = 0.00



Sta.	SEEDING		END AREA		CU. YDS.	
	Ln. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
949+00	174	3	2948			
948+00	184	120	2258		228	9641
947+00	170	54	2226		322	8304
946+00	1750			111		7611
945+00	145	6	1884			
944+00	1661			44		5519

EXC. 1,349 C.Y.
EMB. 90,988 C.Y.
SEEDING 25,365 S.Y.

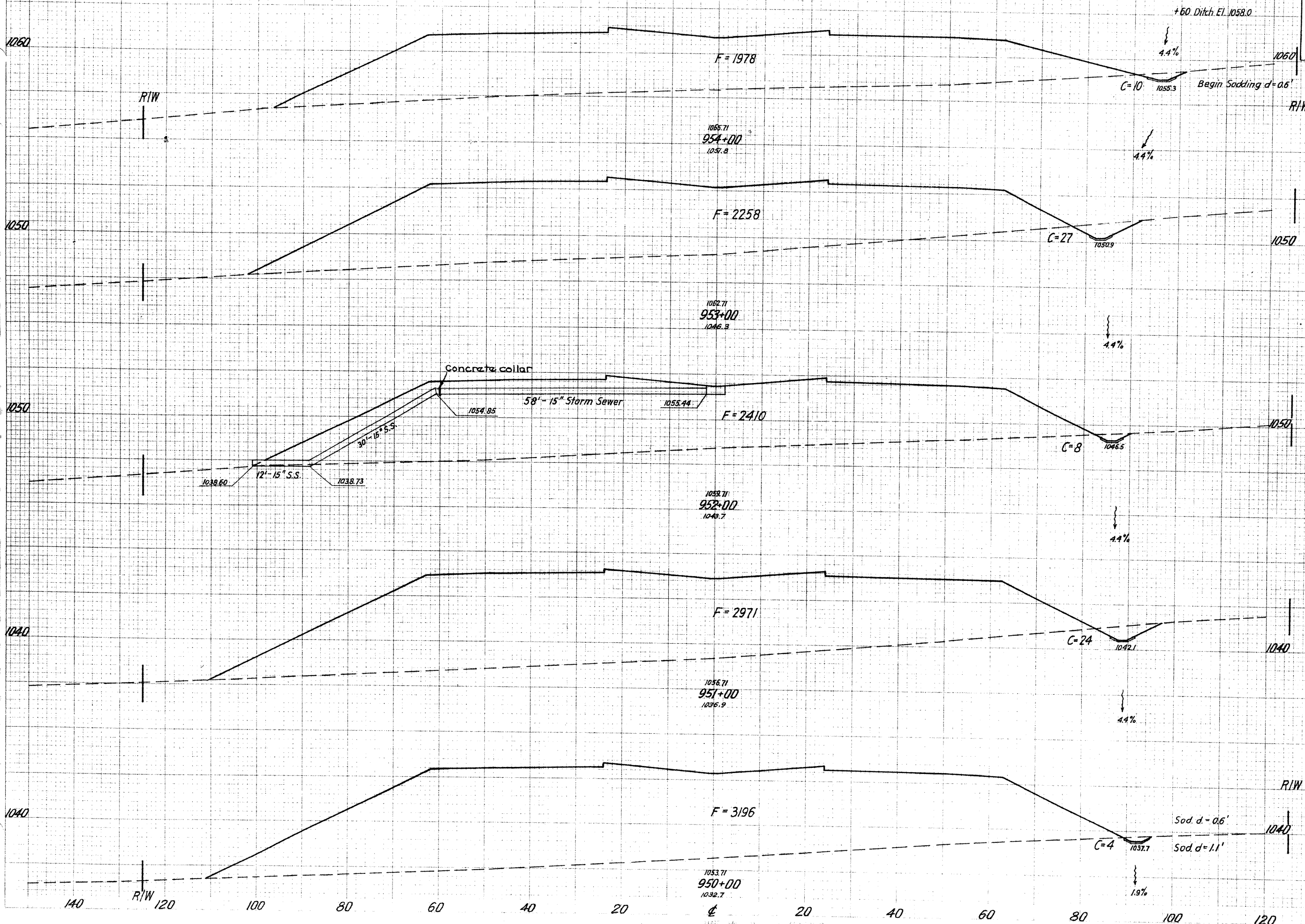
FINAL SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

ORIGINAL SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

STA - 21 - 17.80
 WAY - 21 - 0.00
 SUM - 21 - 0.00



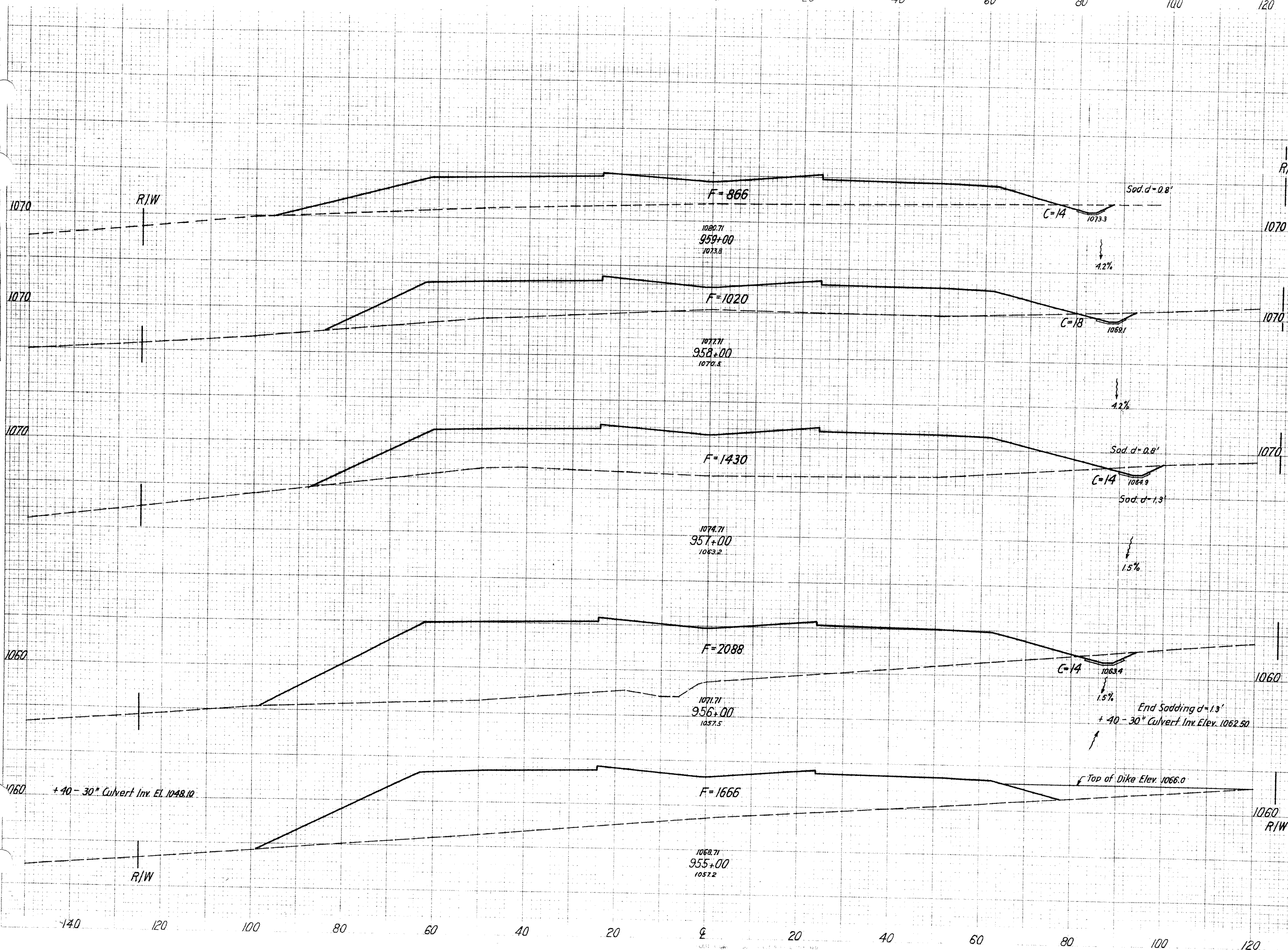
Ln. Ft.	Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
168	10	1986			
1878				69	7874
170	27	2266			
1850				65	8674
163	8	2418			
1917				59	9994
182	24	2979			
2017				52	11450
180	4	3204			
1967				13	11393

FINAL SURVEY
 SURVEYED BY
 DATE
 NO.

ORIGINAL SURVEY
 SURVEYED BY
 DATE
 NO.

Sta. 950+00 to Sta. 954+00

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Lin. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
140		14	874			
1606				65	3522	
149		18	1028			
1706				59	4567	
158		14	1438			
1783				52	6544	
163		14	2096			
1711				26	6981	
145		16	1674			
1739		18	6778			

Sta 955+00 to Sta 959+00

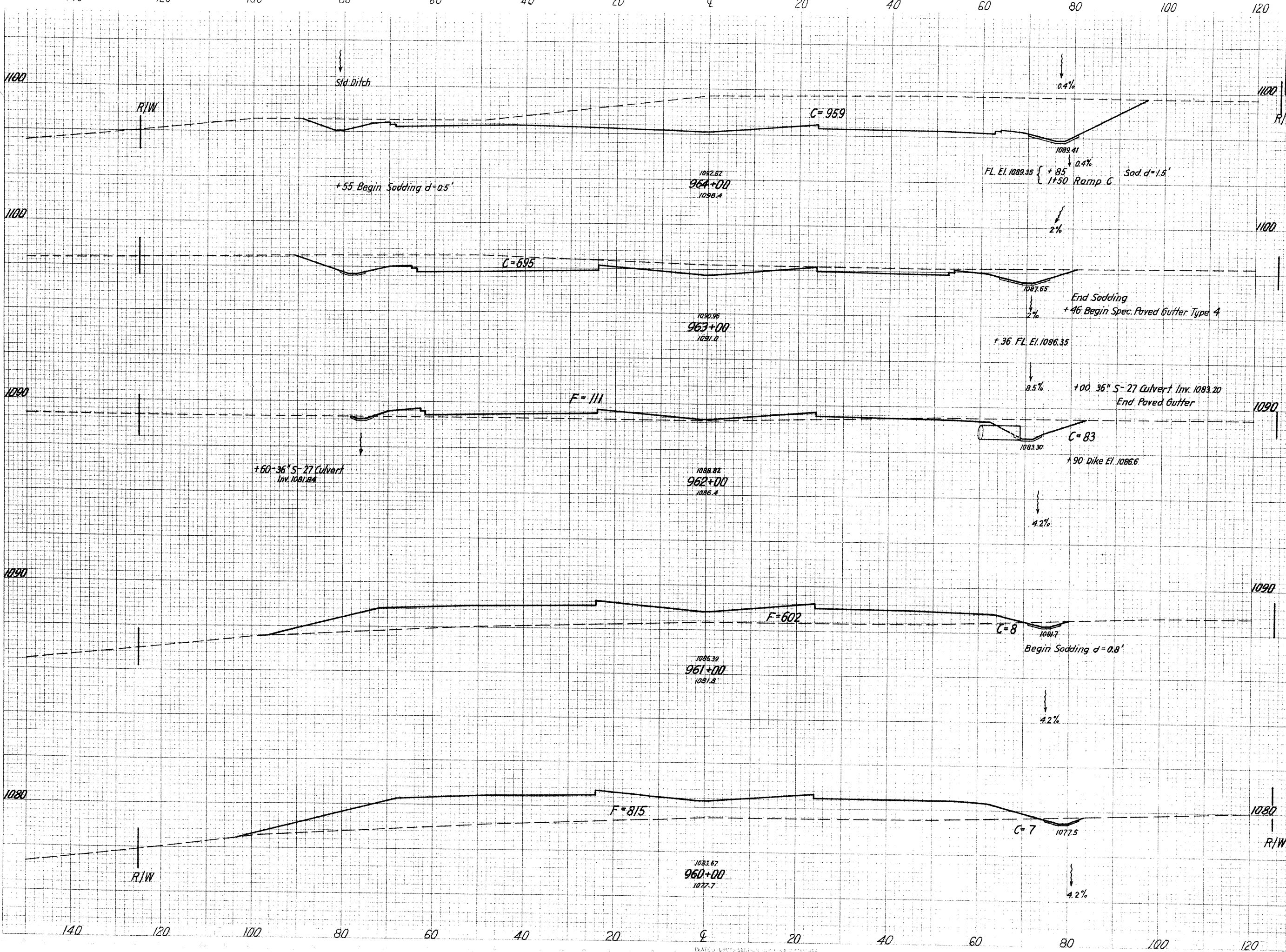
DATE: _____
BY: _____
NO. _____
FINAL SURVEY PLOTTED AREAS CHECKED

DATE: _____
BY: _____
NO. _____
ORIGINAL SURVEY PLOTTED AREAS CHECKED

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

71
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Sta.	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
124			959	5		
1367					3063	13
122			695	2		
1311					1441	220
114			83	117		
1367					169	1346
132			8	610		
1550					41	2654
147			7	823		
1594					57	3143

Exc. 20,737 C.Y.
Emb. 35,796 C.Y.
Seeding 18,883 S.Y.

DATE _____ BY _____
 ORIGINAL SURVEY PLOTTED _____
 SURVEY RE-PLATED _____
 NOTE BOOK AREAS CHECKED _____
 NO. _____

DATE _____ BY _____
 ORIGINAL SURVEY PLOTTED _____
 SURVEY RE-PLATED _____
 NOTE BOOK AREAS CHECKED _____
 NO. _____

Sta 11+21.12 Ramp A =
Sta 46+90 S.R. 93

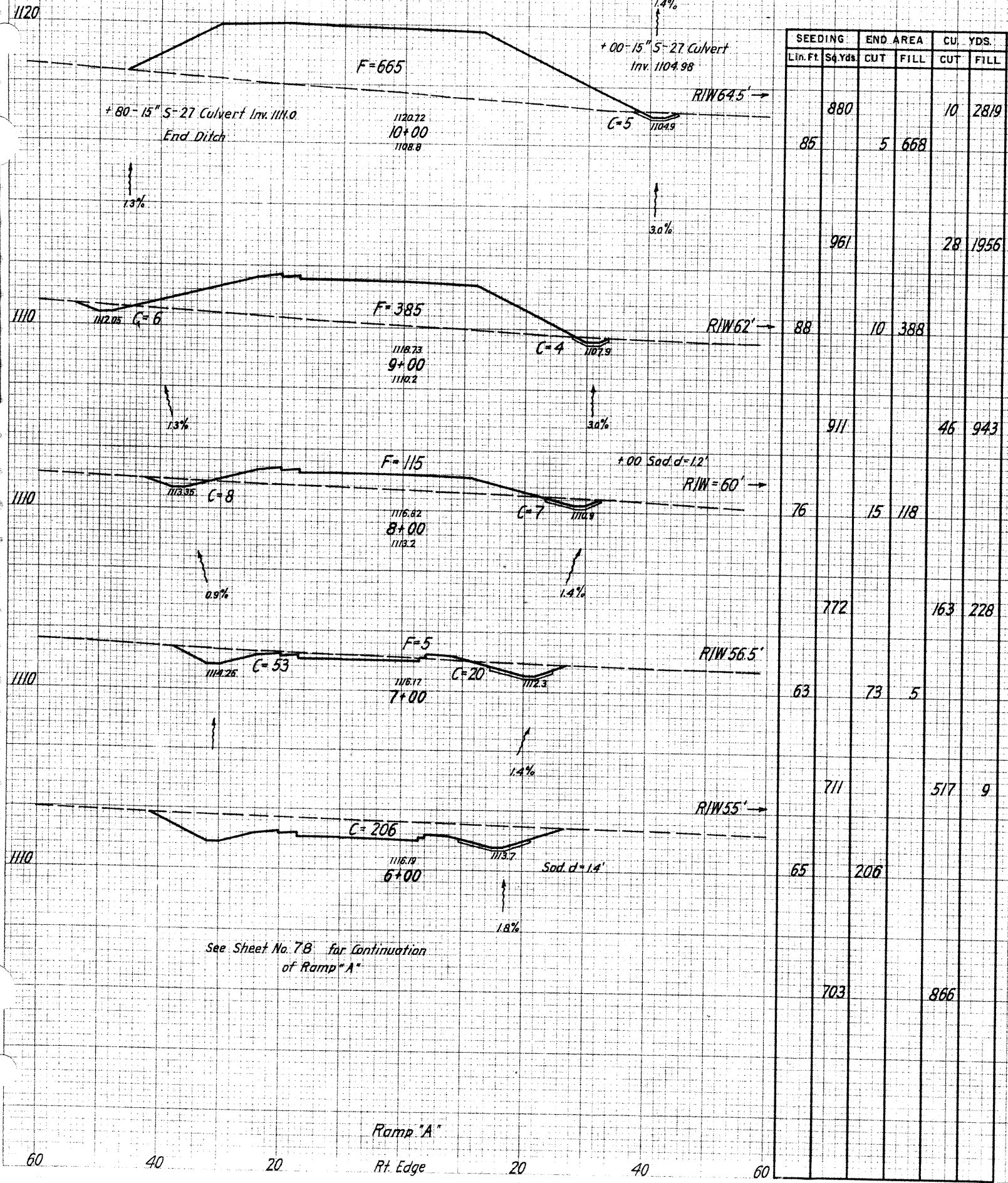
Totals Ramp "A" Sta 4+58 to Sta 10+90

EXC.	1630	C.Y.
EMB.	5955	C.Y.
SEEDING	4480	S.Y.

FED RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

72
329



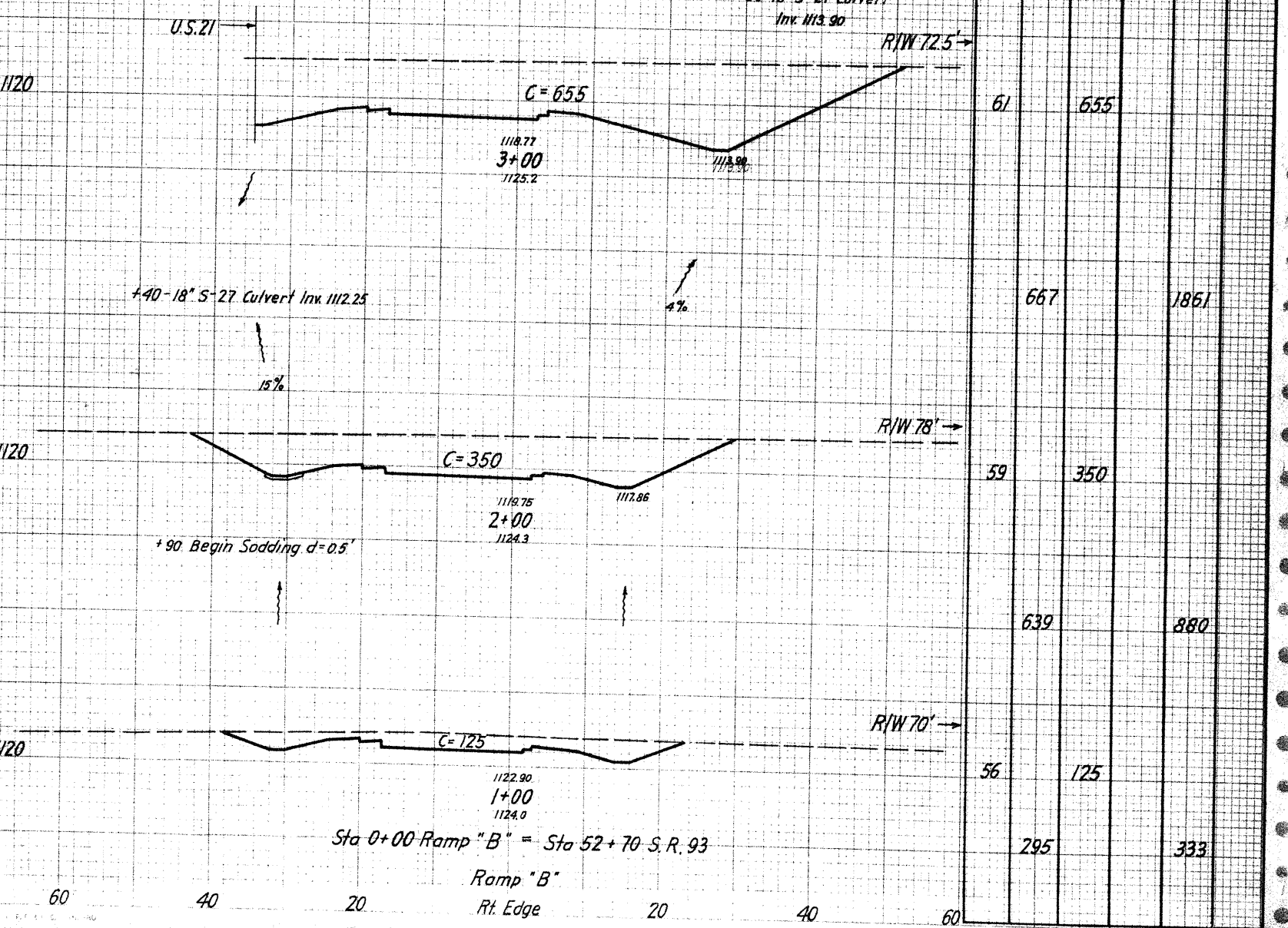
Sta	SEEDING		END AREA		CU. YDS.	
	Ln. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
8+80	85	5	668		10	2819
9+00	961			28	1956	
9+11	911		46	943		
8+76	76	15	118		1120	
8+77	772		163	228		
8+63	63	73	5			
8+71	711		517	9		
8+65	65	206				
8+70	703		866			

Totals for Ramp "A" and "B" included
in Totals for Line Sheet 966+00-978+00

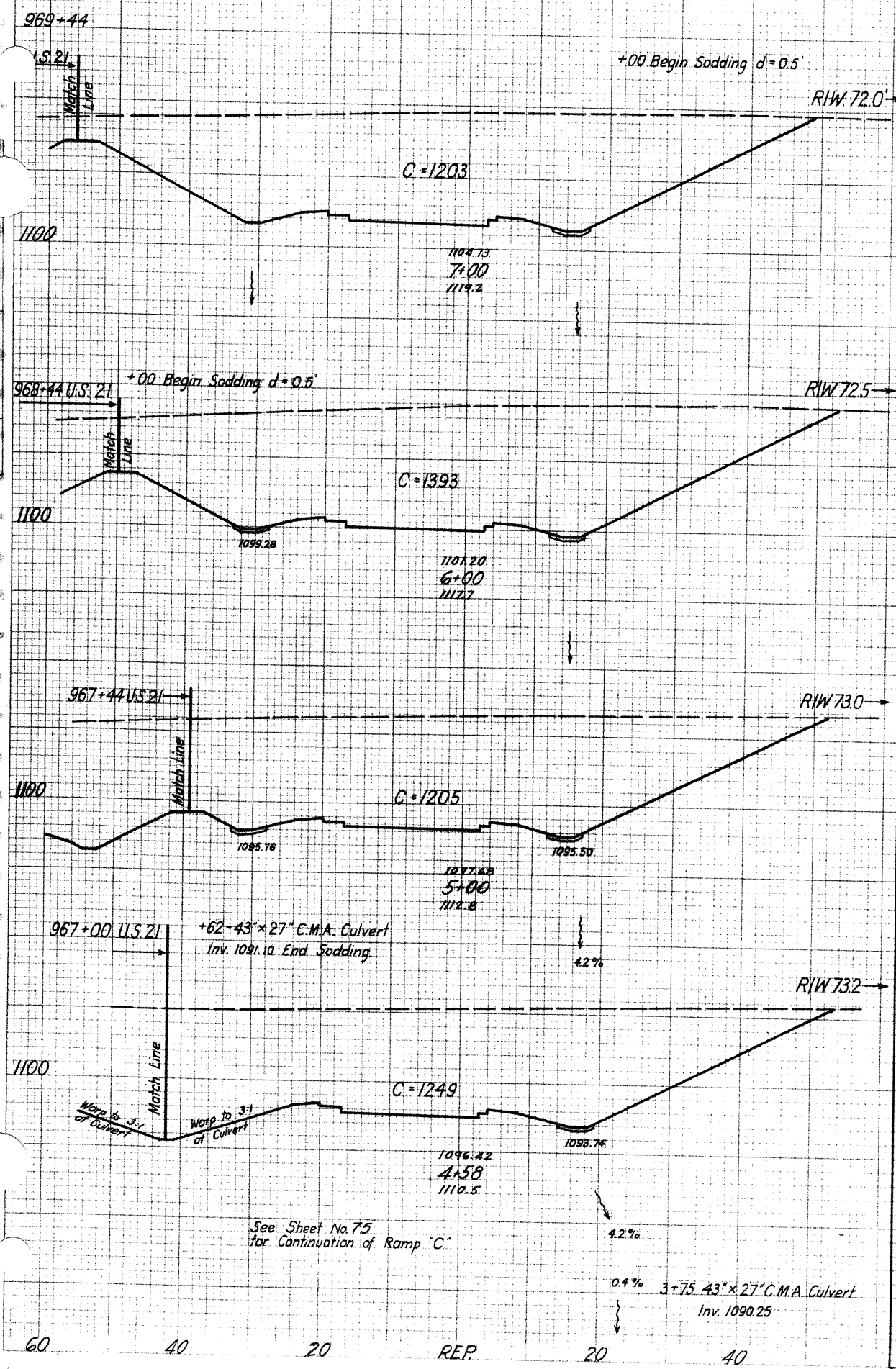
Totals Ramp "B" Sta 0+20 to Sta 3+48

EXC.	4046	C.Y.
EMB.		
SEEDING	1880	S.Y.

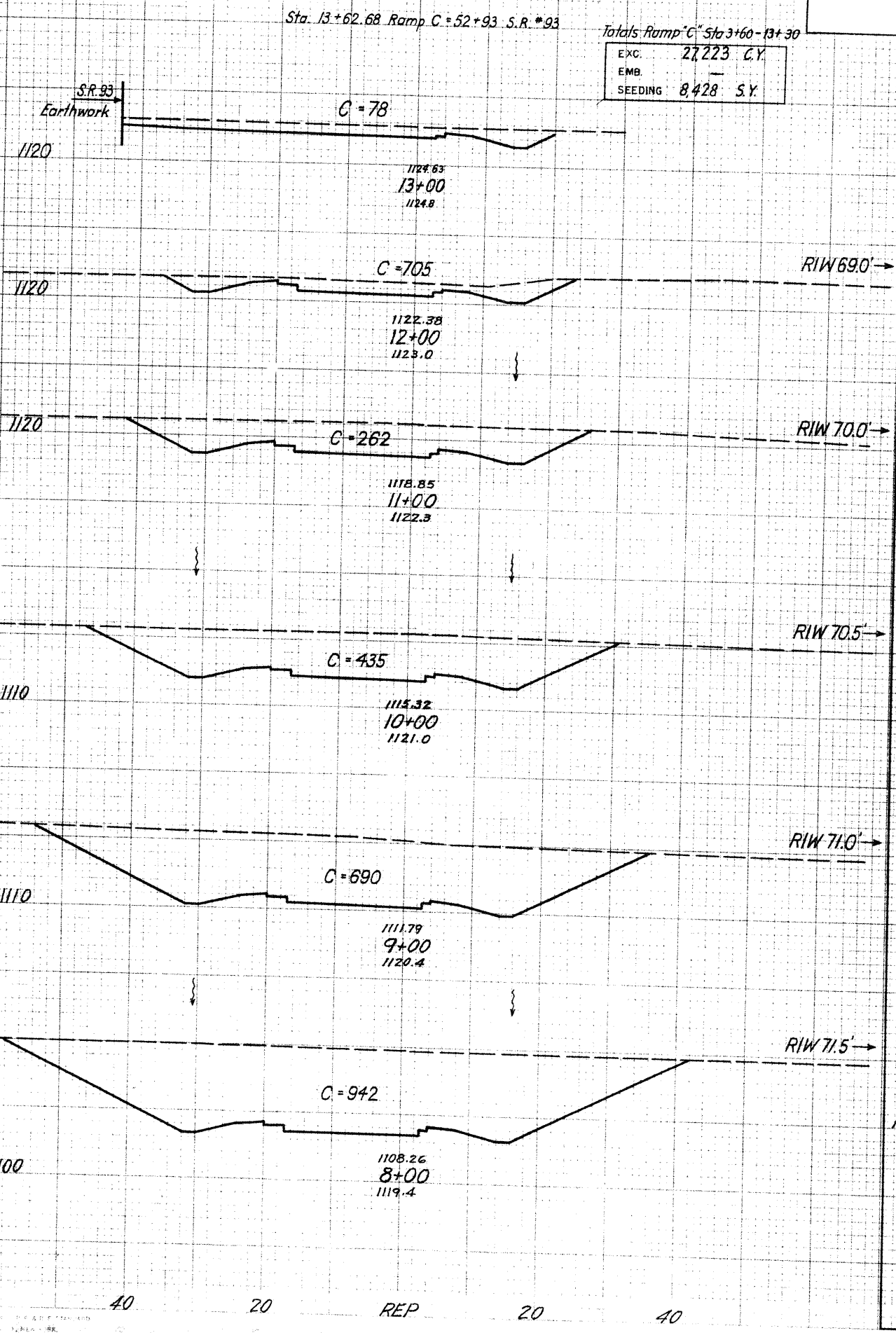
See Sheet No. 78 for Continuation
of Ramp "B"



Sta	SEEDING		END AREA		CU. YDS.	
	Ln. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
3+09	309				972	
3+61	61		655			
3+67	667				1861	
3+59	59		350			
3+63	639				880	
3+56	56		125			
3+295	295				333	



SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
100		1203		
1089		1393	4807	
96		1393		
994		1205	4811	
83		1205		
397		1249	1909	
87		1249		
920		1249	4272	



Totals Ramp "C" Sta 3+60 - 13+30

Exc.	27,223 C.Y.
Emb.	-
Seeding	8,428 S.Y.

SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
107				37
36		583	339	
60		105		
700		700	680	
66		262		
794		794	1291	
77		435		
933		933	2083	
91		690		
1083		1083	3022	
104		942		
1133		1133	3972	

See Sheet No. 75 for Continuation of Ramp "C"

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

74
329

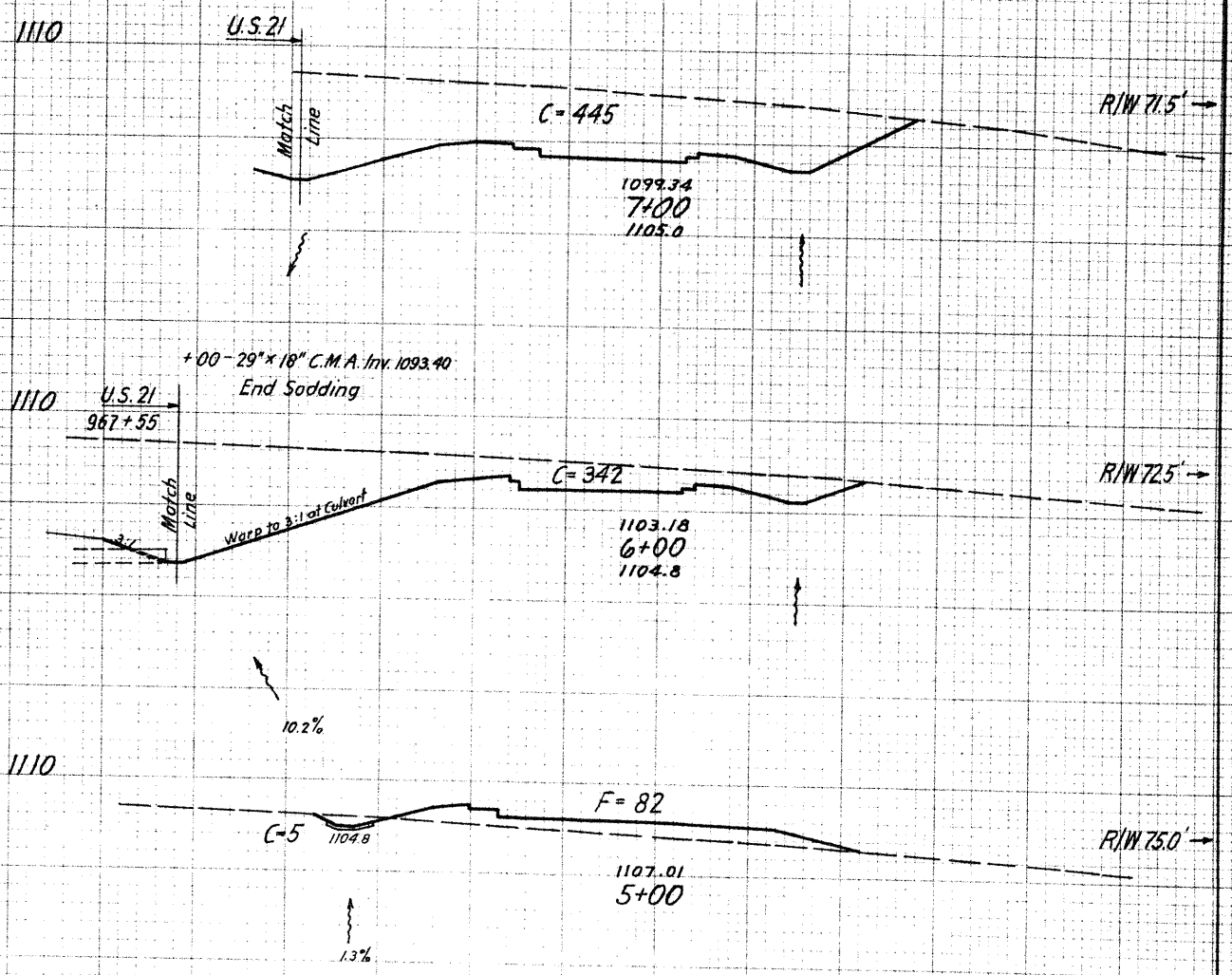
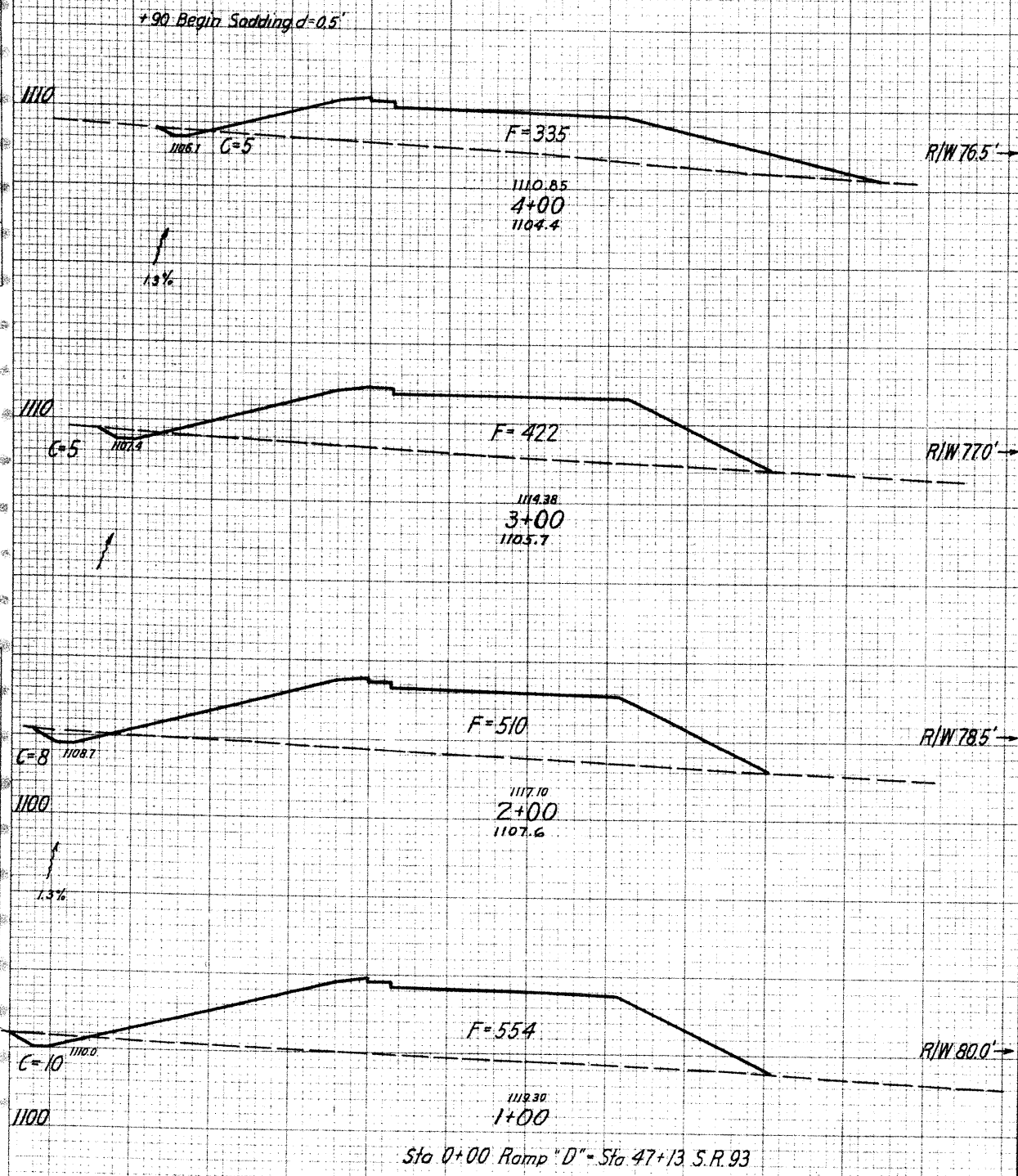
STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

ORIGINAL SURVEYED BY
SURVEY PLOTTED BY
NOTE BOOK NO.
AREAS CHECKED

ORIGINAL SURVEYED BY
SURVEY PLOTTED BY
NOTE BOOK NO.
AREAS CHECKED

SEEDING		END AREA		CU. YDS.	
Lin. Ft.	Sq. Ft.	CUT	FILL	CUT	FILL
90		5	338		
989		19	1413		
88		5	425		
1017		24	1737		
95		8	513		
1067		33	1981		
97		10	557		
700		5	1488		

SEEDING		END AREA		CU. YDS.	
Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
837					
59		445			
700					
67		342			
700					
59		5	85		
828					
				19	772



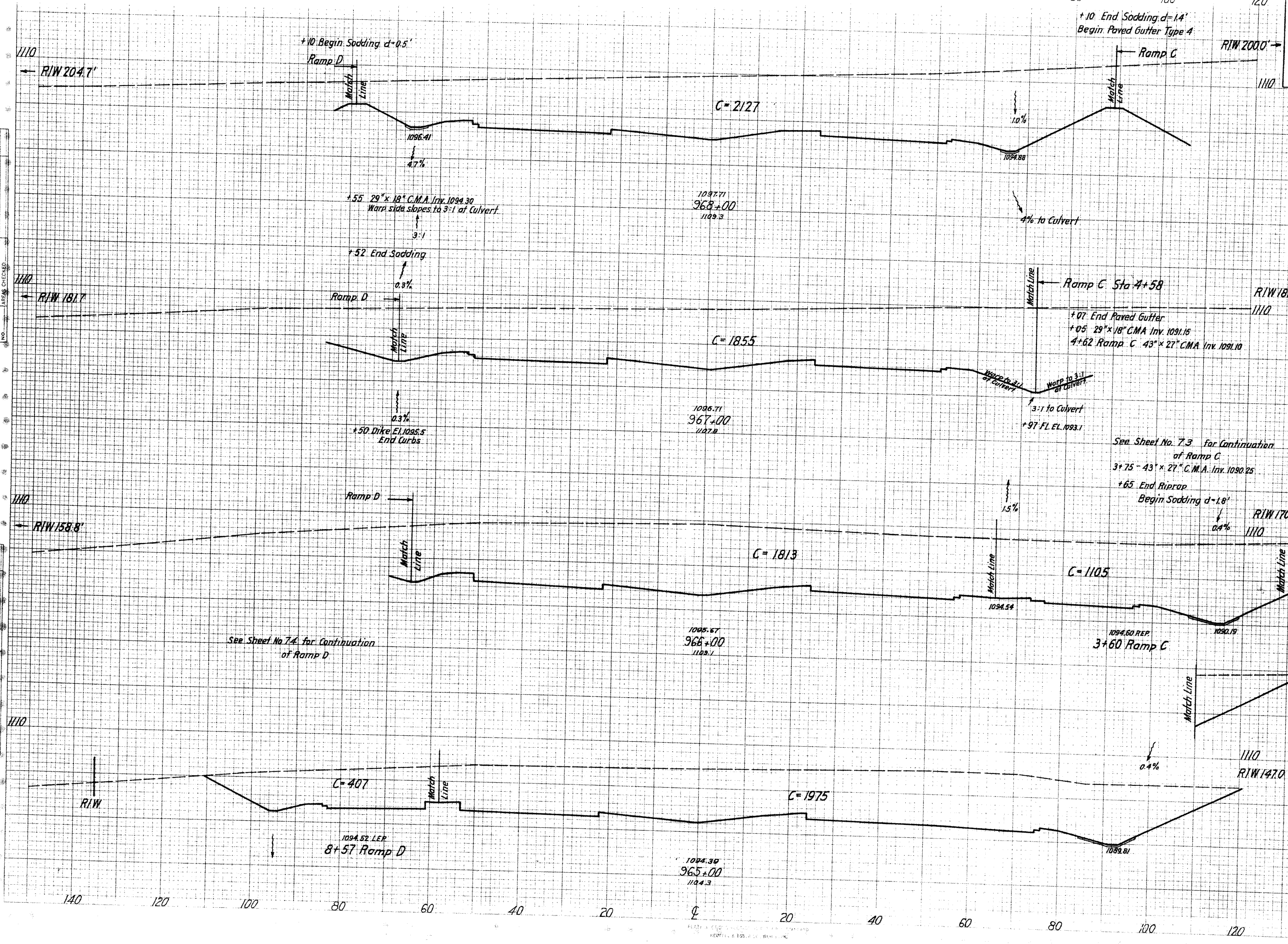
Totals Ramp "D" Sta 0+80 to Sta 8+57 included in
Totals for Line Sheet Sta 966+00 - 978+00

EXC.	4.677	C.Y.
EMB.	7.543	C.Y.
SEEDING	6.778	S.Y.

See Sheet No. 75 for Continuation
of Ramp "D"

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 = 0.00



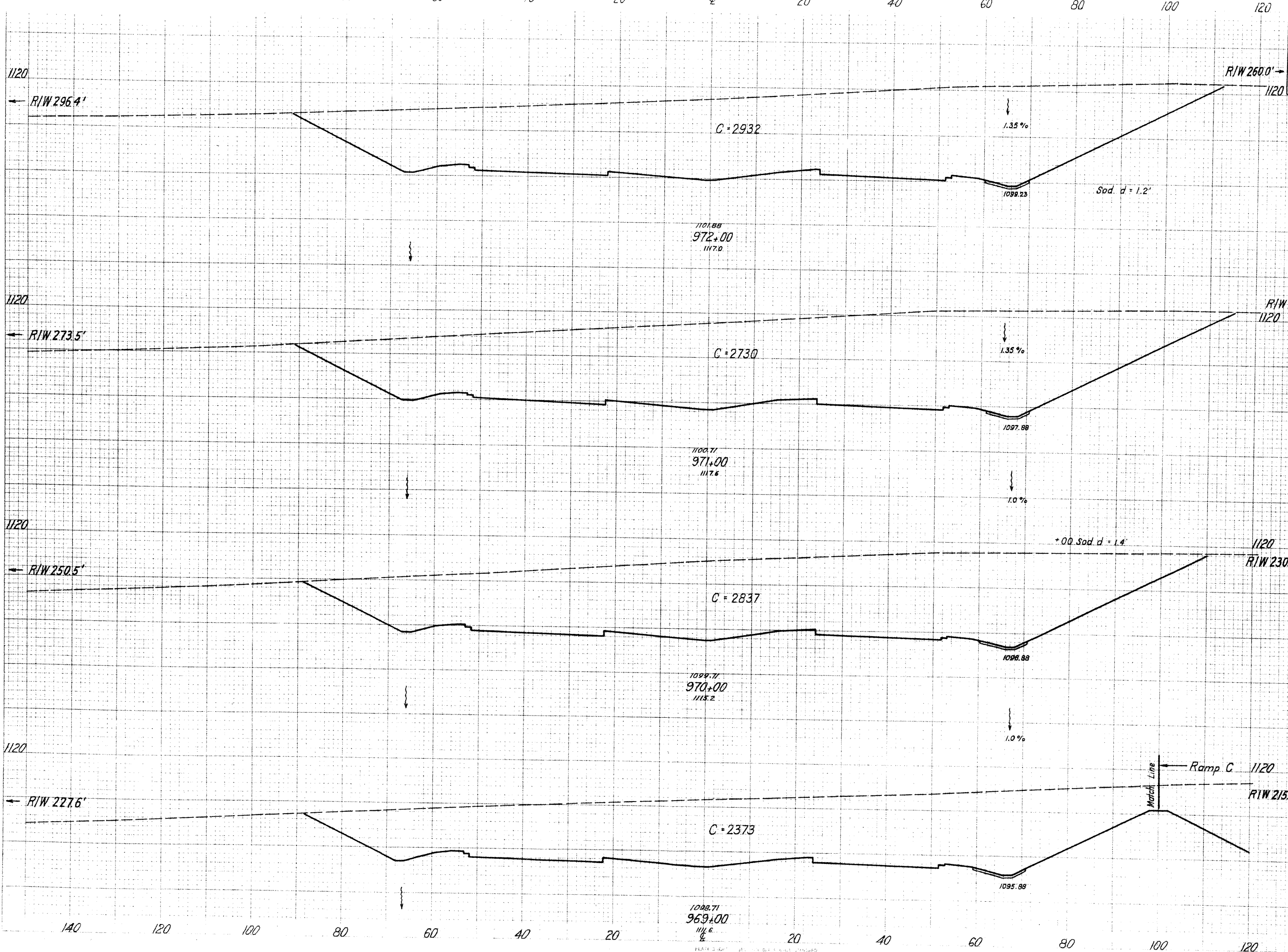
Sta.	SEEDING		END AREA		CU. YDS.	
	Ln. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
114			2127	3		
1122					7374	11
88			1855	3		
883					6793	11
71 (153)			1813 (2918)	3 (3)		
1472					9061	11
112 (152)			1975 (2383)	3 (3)		

Sta. 965+00 to Sta. 968+00

DATE: _____ BY: _____
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
 NO. _____

DATE: _____ BY: _____
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
 NO. _____

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



EXC. 104,609 C.Y.
EMB. 84 C.Y.
SEEDING 18,668 S.Y.

Lin. Ft.	Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
176		2932	3		
1983				10,485	
181		2730	3		
1967				10,309	
173		2837	3		
1844				9648	
159		2373	3		
1517				8333	

Sta 969+00 to Sta. 972+00.

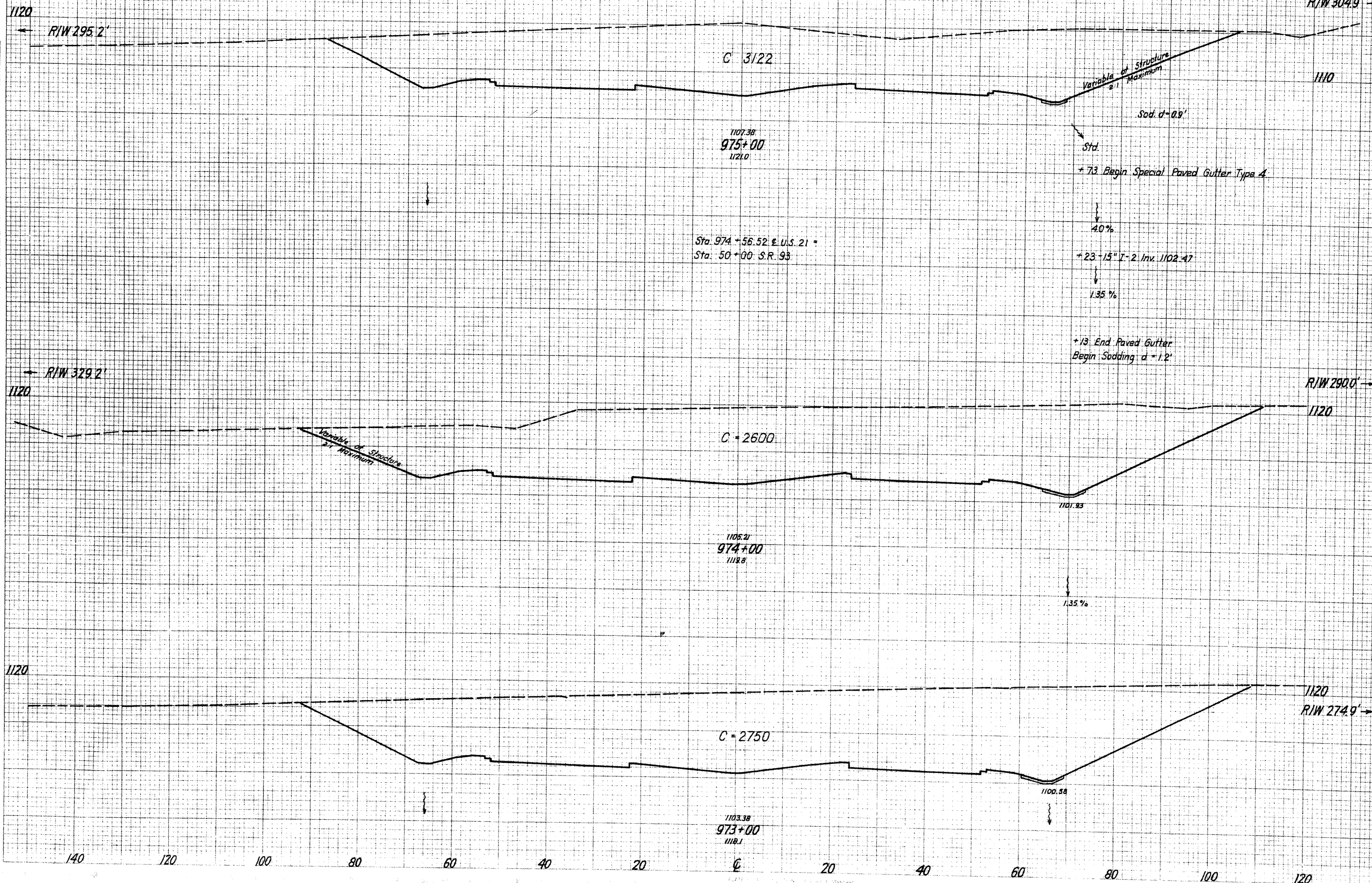
FINAL SURVEY
SURVEYED BY
NOTED BOOK
REMARKS
REAS. CHECKED

ORIGINAL SURVEY
SURVEYED BY
NOTED BOOK
REMARKS
REAS. CHECKED

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

77
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 = 0.00



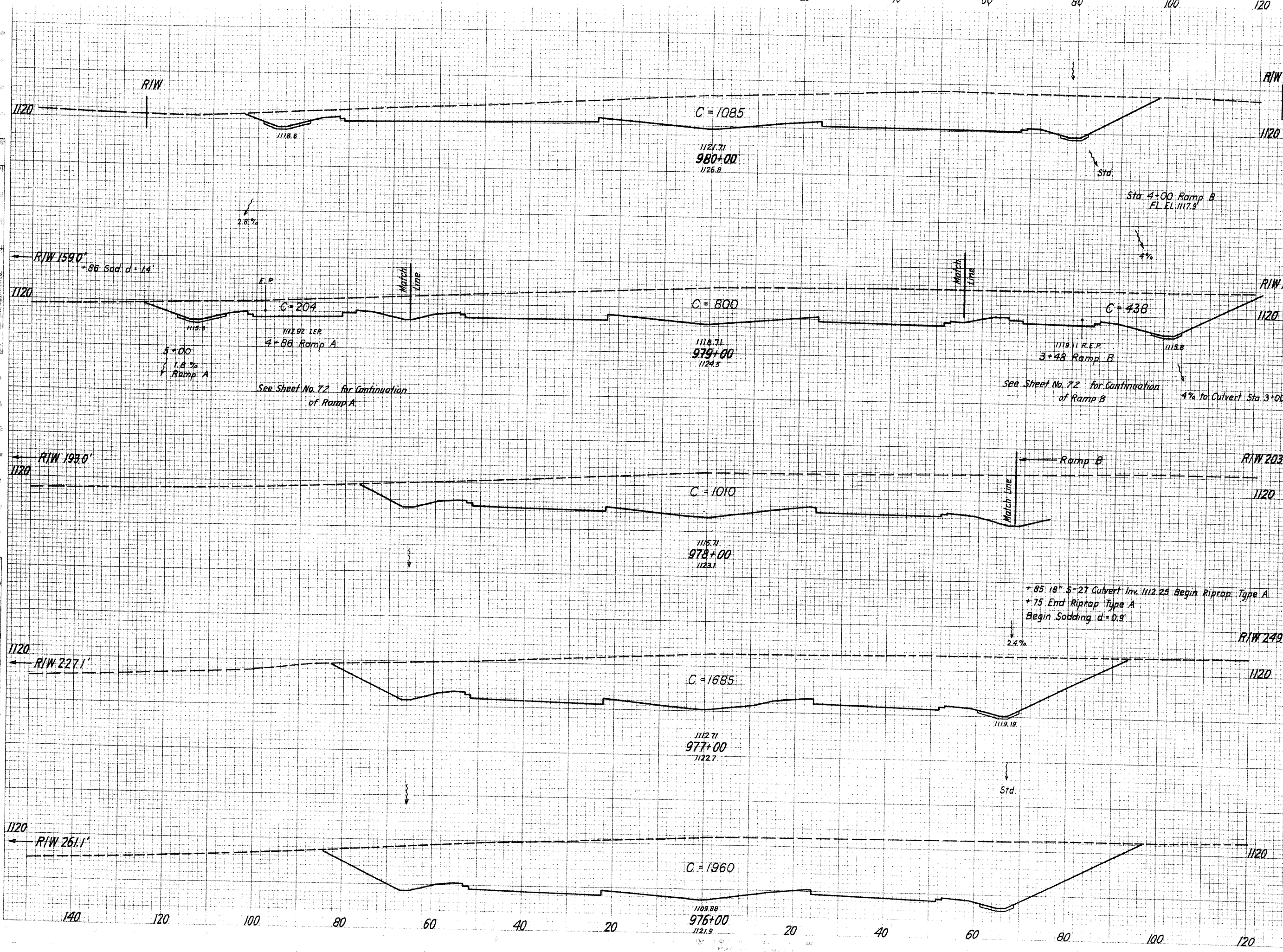
SEEDING	END AREA		CU. YDS	
	LM FT.	\$6. Yds.	CUT	FILL
152		3122	3	
1856			10596	11
182		2600	3	
1983			9907	11
175		2750	3	
1950			10522	11

Sta. 973+00 to Sta. 975+00

FINAL SURVEY PLOTTED
DATE: _____ BY: _____
NOTE BOOK NO. _____
CHECKED BY: _____

ORIGINAL SURVEY PLOTTED
DATE: _____ BY: _____
NOTE BOOK NO. _____
CHECKED BY: _____

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



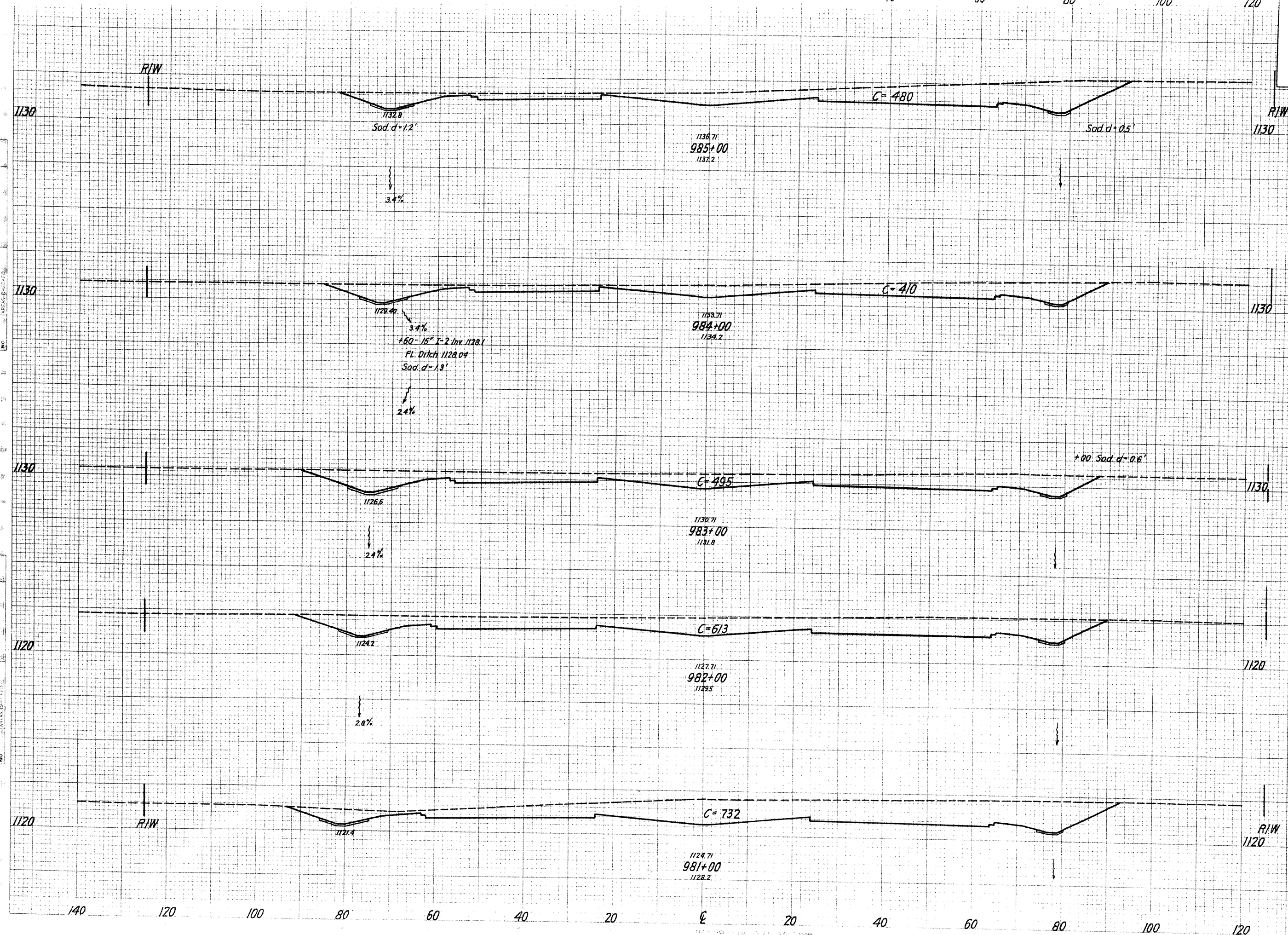
SEEDING LIN. FT.	END AREA		CU. YDS.	
	CUT	FILL	CUT	FILL
125	1085	3		
1639			4680	11
65 (170)	800 (1442)	2 (2)		
928			3352	11
102	1010	3		
1372			4991	11
145	1685	3		
1588			6161	11
141	1966	3		
1628				

Sta. 976+00 to Sta. 980+00

FINAL SURVEY PLOTTED
NOTE BOOK RECORDED
NO. AREAS CHECKED

ORIGINAL SURVEY PLOTTED
NOTE BOOK RECORDED
NO. AREAS CHECKED

STA - 21 - 17.80
WAY - 21 - 0.00
BUM - 21 - 0.00



SEEDING	END AREA		CU. YDS.	
	Lin Ft	Sq. Yds	CUT	FILL
125	480	2		
1422			1648	7
131	410	2		
1472			1676	7
134	495	2		
1461			2052	7
129	613	2		
1433			2491	7
129	732	2		
1411			3365	7

EXC. 26,916 CY
EMB. 110 CY
SEEDING 14,708 S.Y.

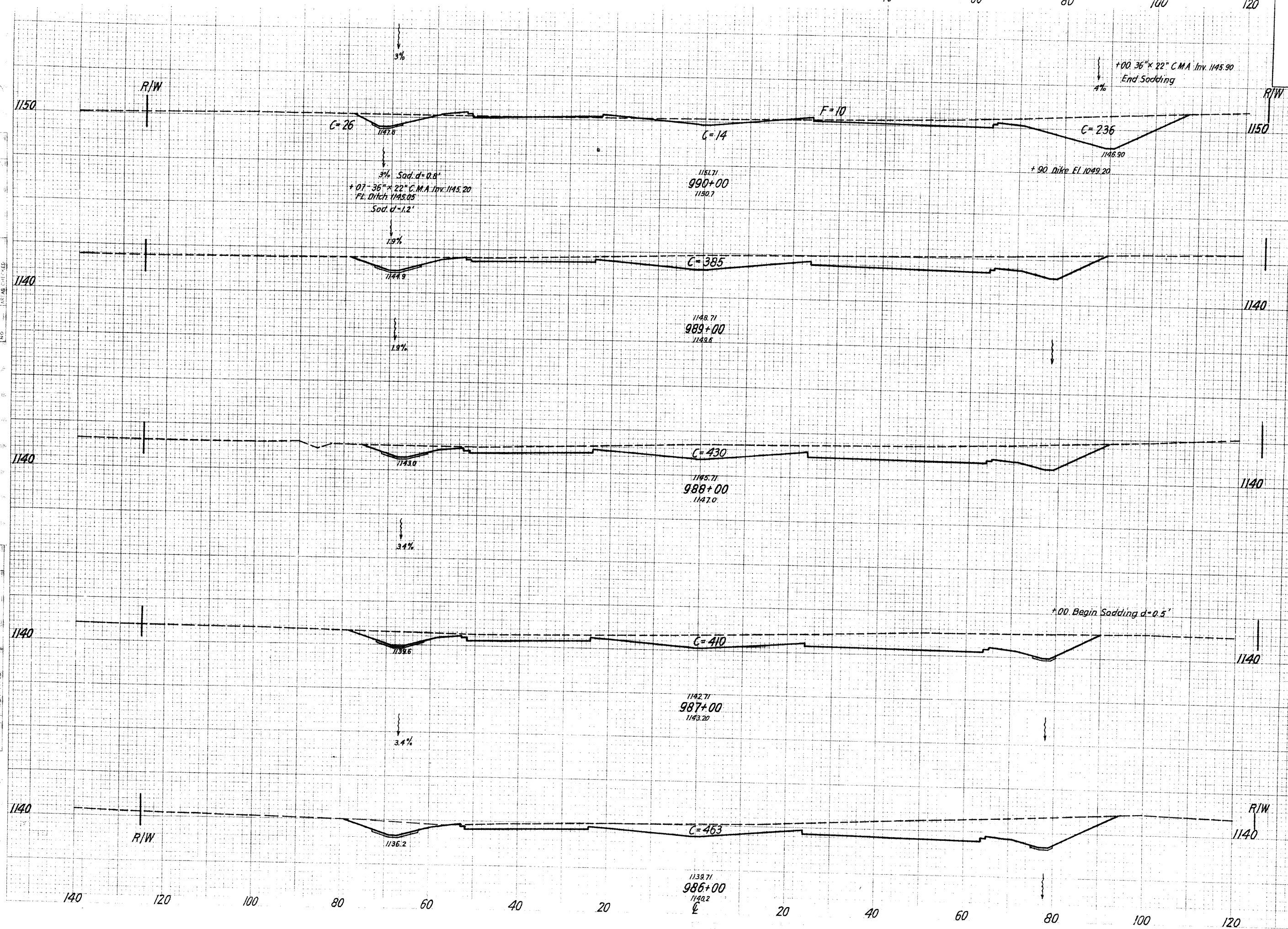
Sta. 981+00 to Sta. 985+00

FINAL SURVEY PLOTTED BY DATE
 NOTE BOOK BEARING NO. AREAS, CHANGES, ETC.
 ORIGINAL SURVEY PLOTTED BY DATE
 NOTE BOOK BEARING NO. AREAS, CHANGES, ETC.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

80
329

STA - 21 - 17.60
 WA - 21 - 0.00
 SUM - 21 - 0.00

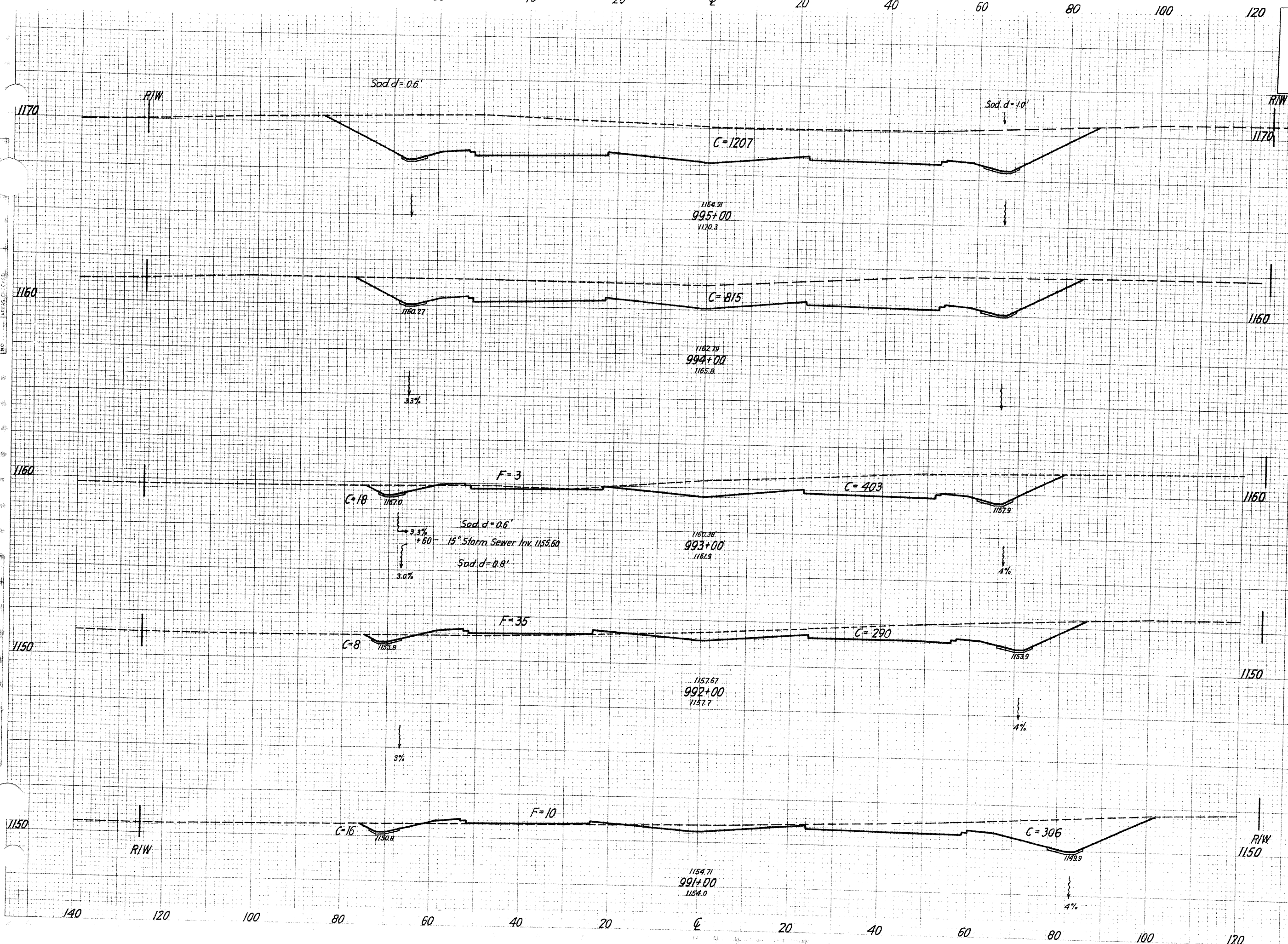


L. In. Ft.	SEEDING		END AREA		CU. YDS.	
	Ln. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
111			276	12		
1300					1224	28
123			385	2		
1361					1509	7
122			430	2		
1350					1556	7
121			410	2		
1394					1617	7
130			463	2		
1417					1746	7

ORIGINAL SURVEY PLOTTED BY DATE
 SURVEY BOOK NO. DATE
 FINAL SURVEY PLOTTED BY DATE
 SURVEY BOOK NO. DATE
 NOTE BOOK NO. DATE
 NO. DATE

Sta 986+00 to Sta 990+00.

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

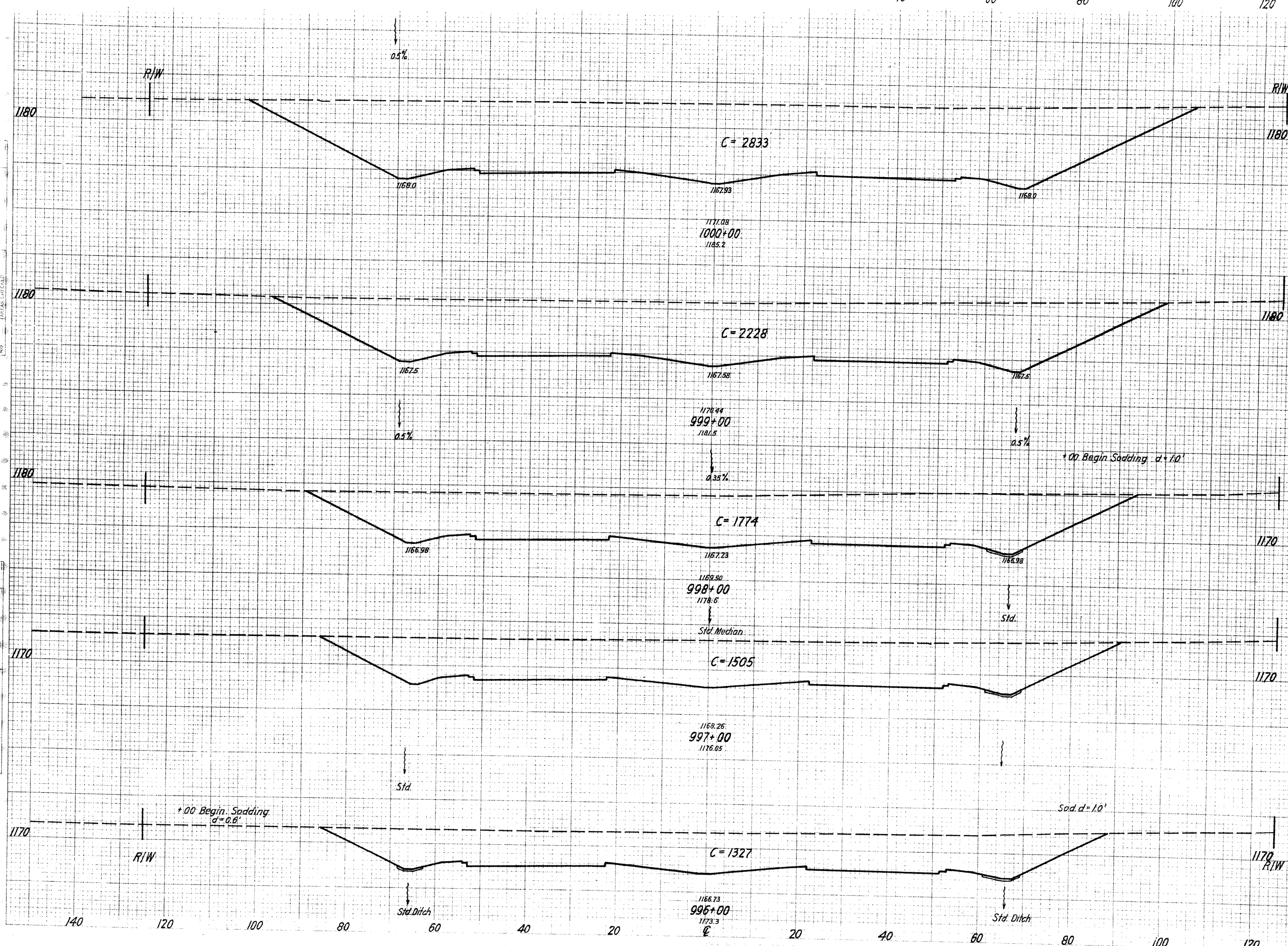


SECTION	LIMIT	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
142	142	1207	4		
1511	1511			3745	15
130	130	815	4		
1433	1433			2788	15
128	128	421	7		
1361	1361			1331	81
117	117	298	37		
1394	1394			1144	91
134	134	320	12		
1361	1361			1104	44

Sta. 991+00 to Sta. 995+00

ORIGINAL SURVEYED
 SURVEY BOOK
 DATE
 BY
 NO.
 AREAS
 CHECKED
 NO.
 AREAS
 CHECKED
 NO.
 AREAS
 CHECKED
 NO.
 AREAS
 CHECKED

STA - 21 - 17 80
WAY - 21 - 0.00
SUM - 21 - 0.00



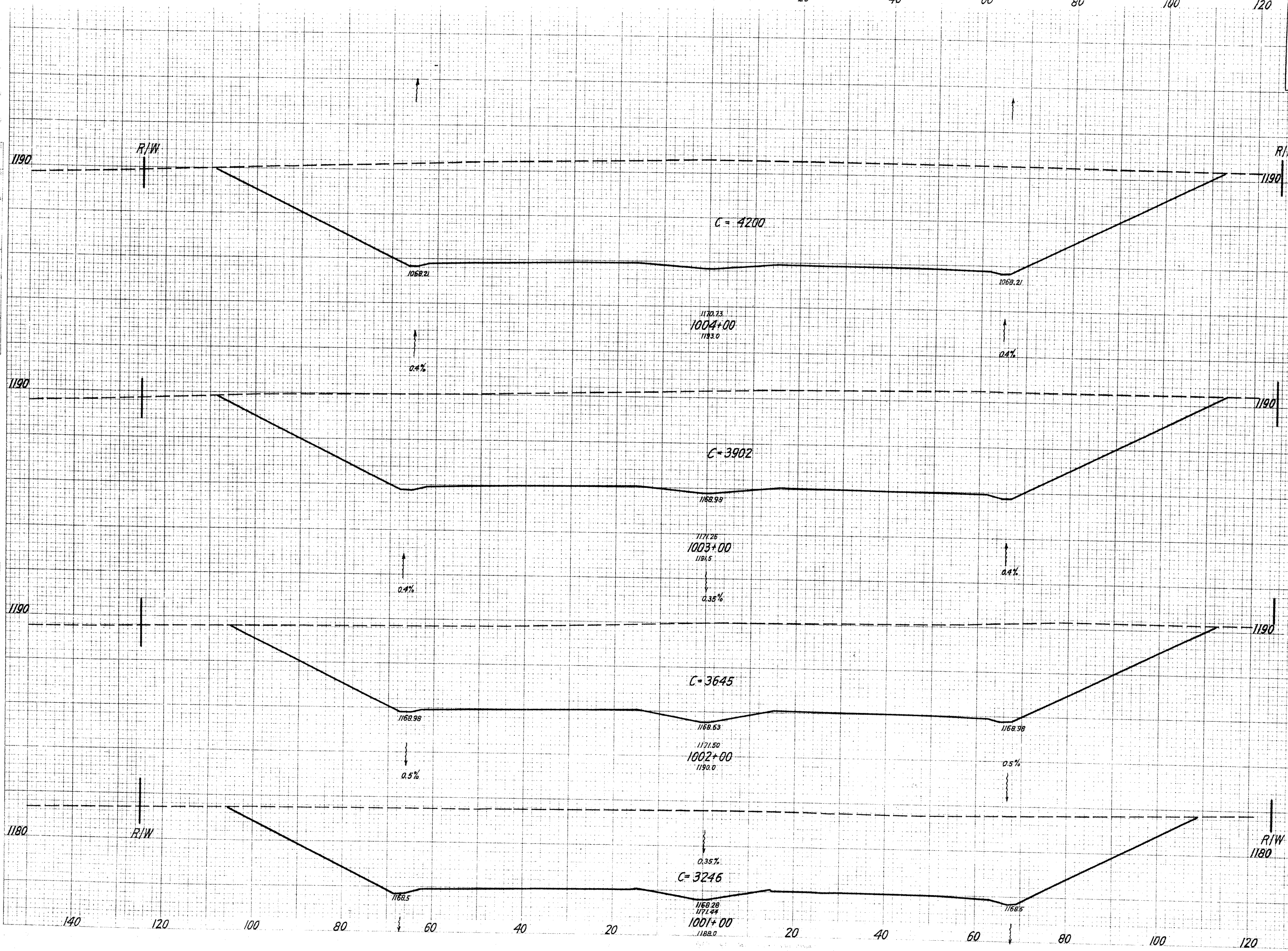
Sta.	CUT	FILL	SEEDING		END AREA		CU. YDS.	
			Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
183	2833	4						
191					9372	15		
161	2228							
176					7411	15		
156	1774	4						
1689					6072	15		
148	1505	4						
1617					5245	15		
143	1327	4						
1583					4693	15		

Exc. 66,397 CY
Emb. 417 CY
Seeding 17,316 SQ. Y.

Sta. 996+00 to Sta. 1000+00

DATE: _____ BY: _____
 ORIGINAL SURVEYED SURVEY PLOTTED
 NOTE BOOK: _____
 DATE: _____ BY: _____
 FINAL SURVEY PLOTTED SURVEY PLOTTED
 NOTE BOOK: _____
 DATE: _____ BY: _____

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

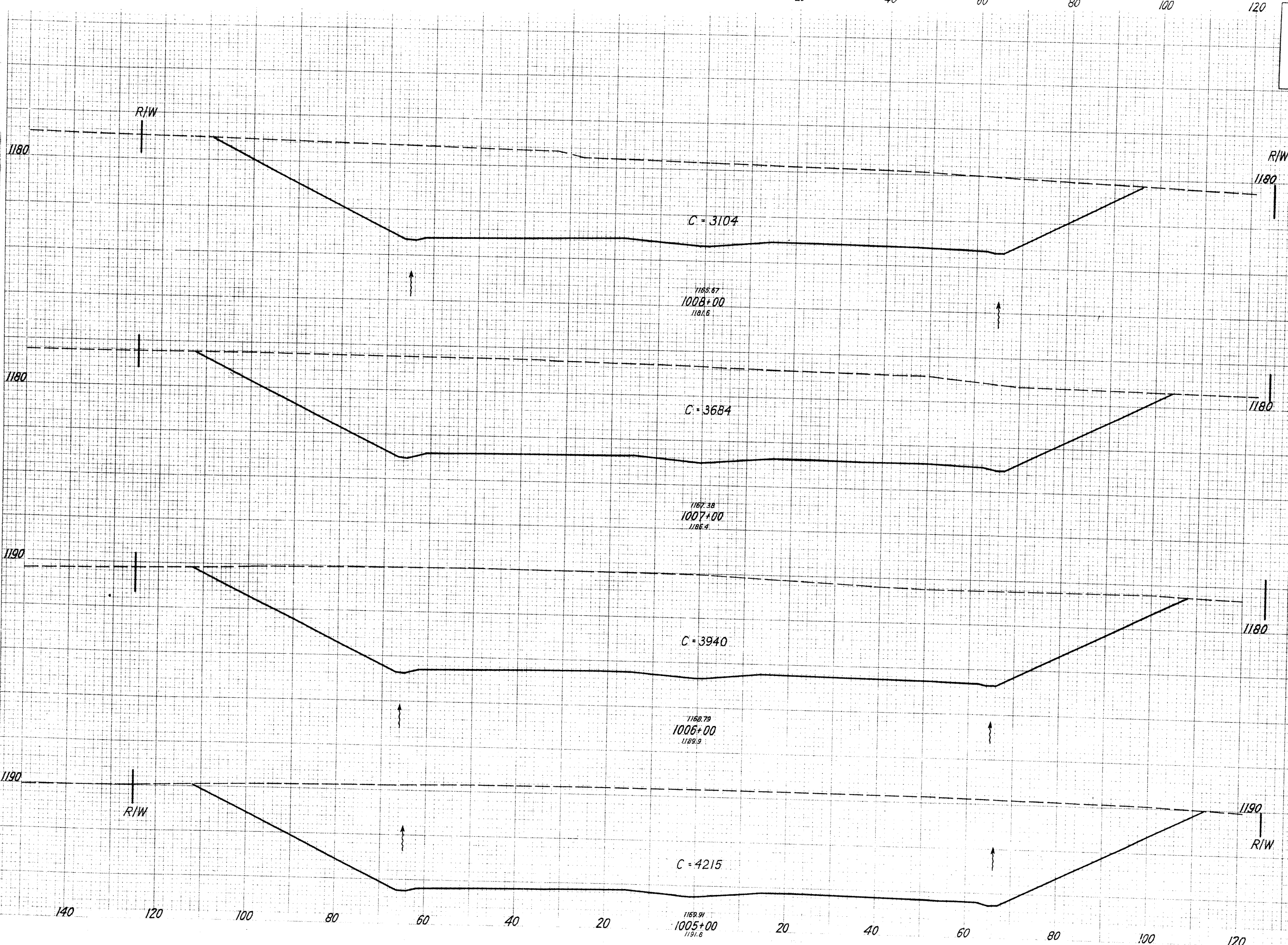


SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
116	4200	16		
1278		15004	59	
114	3902	16		
1256		13976	59	
112	3645	16		
1228		12761	59	
109	3246	16		
1617		11257	37	

Sta. 1001+00 to Sta. 1004+00

FINAL SURVEY PLOTTED
NOTE BOOK FILED
DATE: _____ BY: _____

ORIGINAL SURVEY PLOTTED
NOTE BOOK FILED
DATE: _____ BY: _____



E.C. 115,957 C.Y.
 E.M.B. 660 C.Y.
 SEEDING 14,168 S.Y.

Sta	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
110			3104	16		
1194					12570	59
105			3684	16		
1139					14119	59
100			3940	16		
1172					15702	59
111			4715	16		
1261					15583	59

Sta 1005+00 to Sta 1008+00

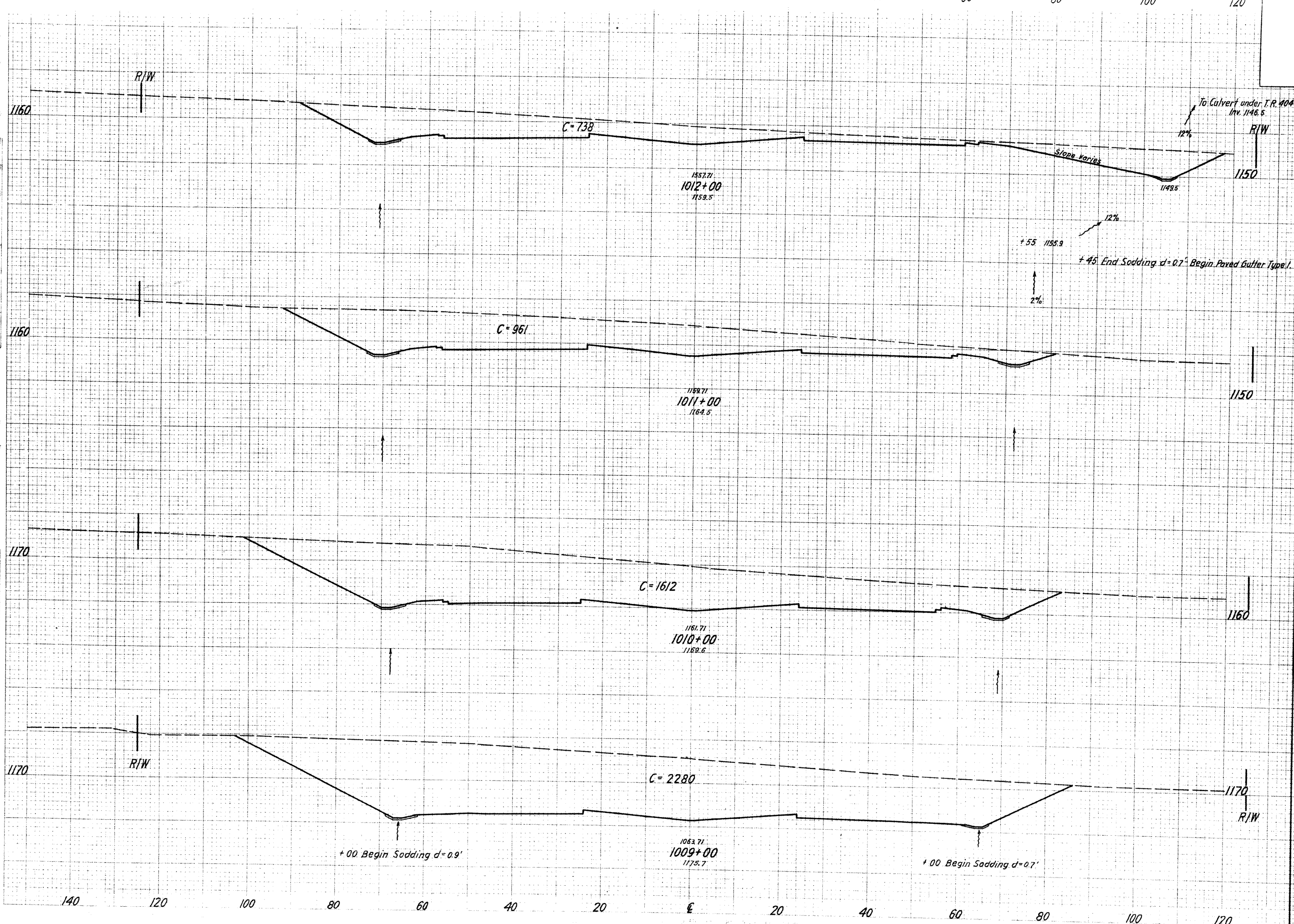
FINAL SURVEY
 NO. 1008+00

ORIGINAL SURVEY
 NO. 1005+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

85
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



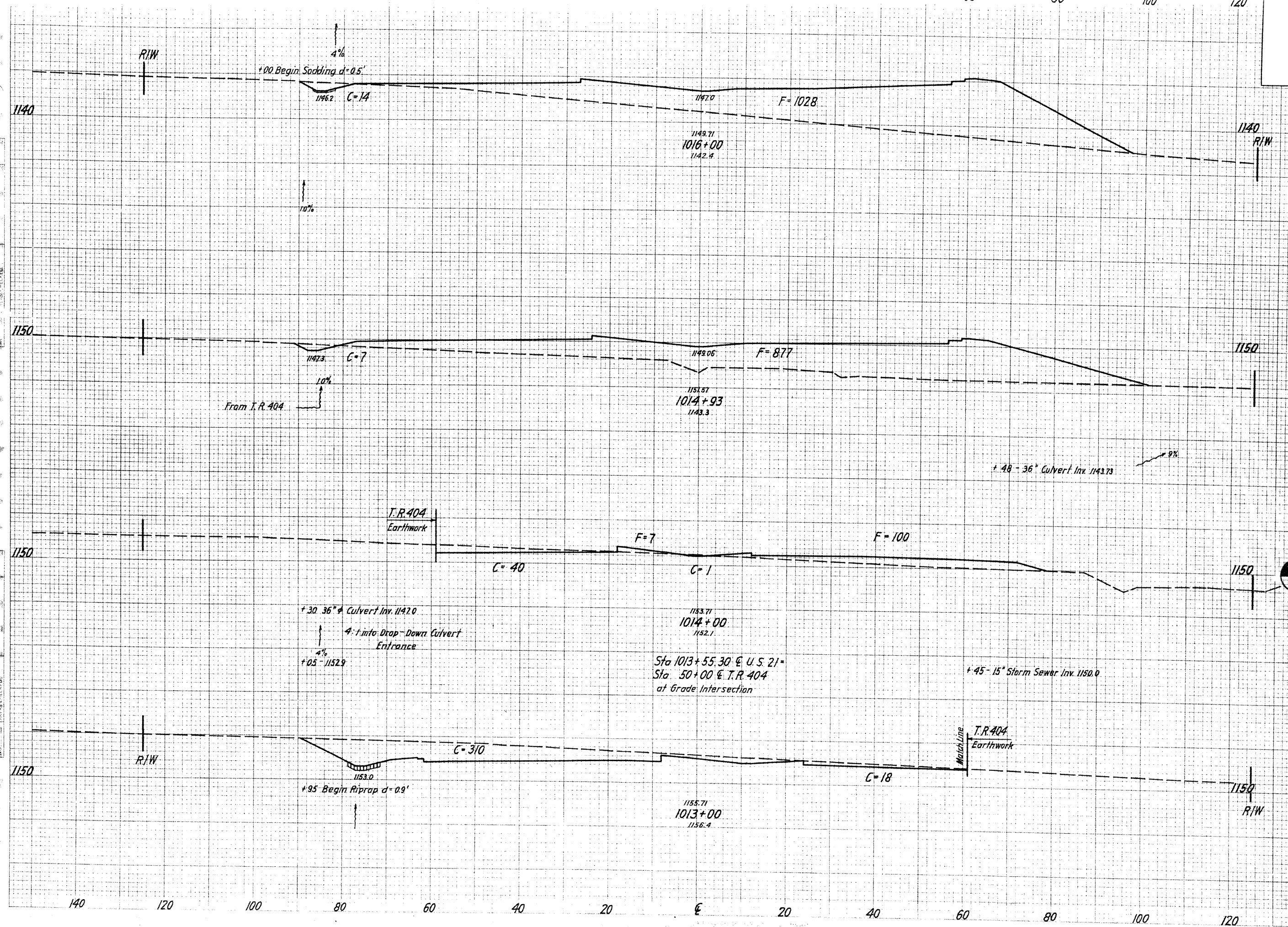
Lin. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
158			738		2	
1589			3146		7	
128			961		2	
1517			6617		7	
145			1612		2	
1706			7207		19	
162			2280		8	
1511			9970		44	

Sta. 1009+00 to Sta 1012+00

FINAL SURVEY
DATE: _____
BY: _____
NO. _____

ORIGINAL SURVEY
DATE: _____
BY: _____
NO. _____

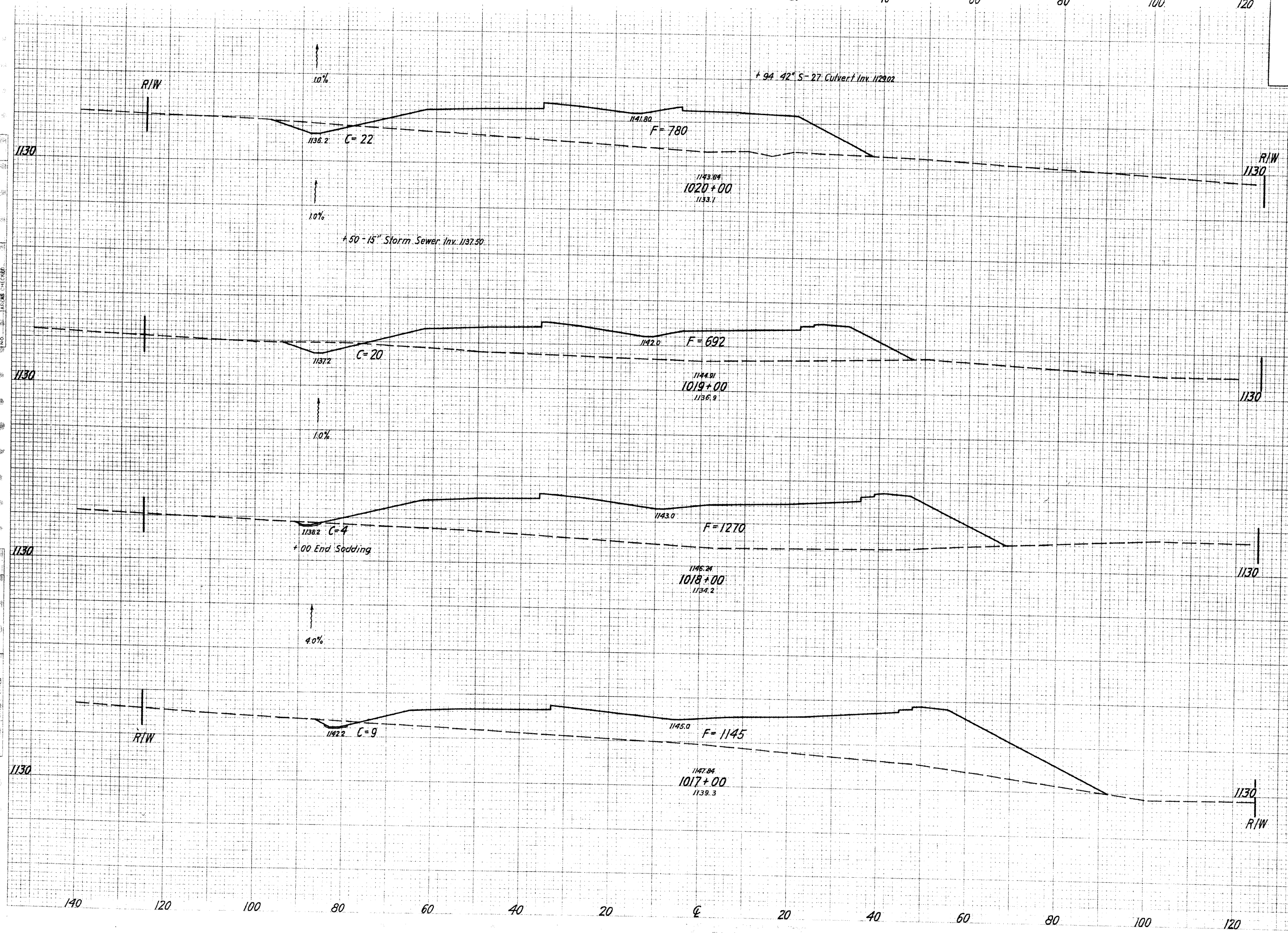
STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Lm. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
137		14	1042			
1646				42	3830	
140		7	891			
789				83	1738	
60		41	118			
562				683	222	
73		328	2			
1213				1974	7	

Sta. 1013+00 to Sta. 1015+00

DATE
BY
NO.
ORIGINAL SURVEY
SURVEY
NOTE BOOK
NO.
DATE
BY
NO.
FINAL SURVEY
NOTE BOOK
NO.



SEEDING	END AREA		CU YDS	
	Lin Ft	Sq Yds	CUT	FILL
113			22	786
1361			78	2150
132			20	699
1533			44	3661
144			4	1278
1633			24	4500
150			9	1152
1594			43	4063

EXC. 3,316 CY
EMB. 26,594 CY
SEEDING 13,209 SY

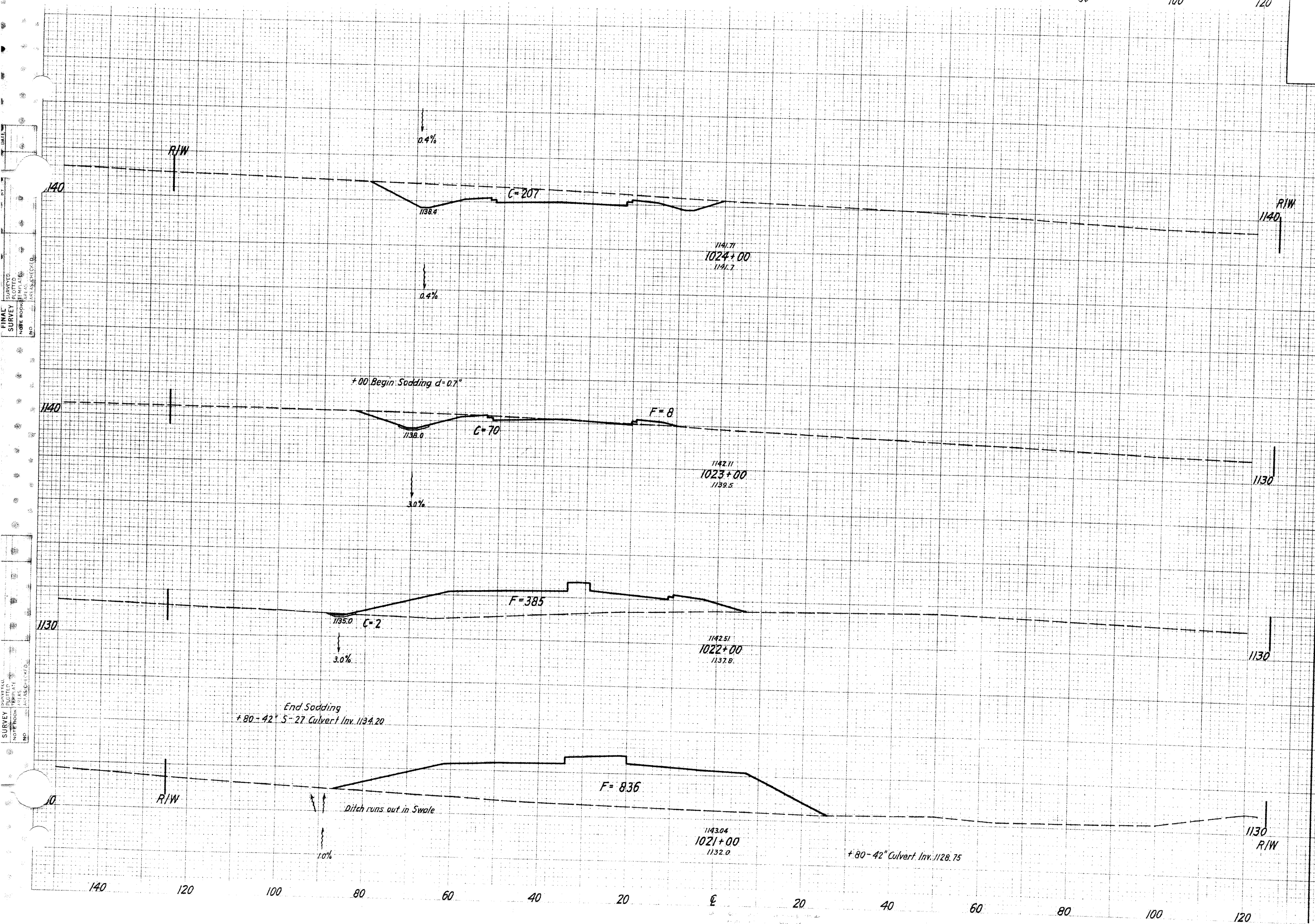
FINAL SURVEY
SURVEYED
NOTES BOOK
TEMPLATE
AREAS CHECKED

ORIGINAL SURVEY
SURVEYED
NOTES BOOK
TEMPLATE
AREAS CHECKED

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

88
329

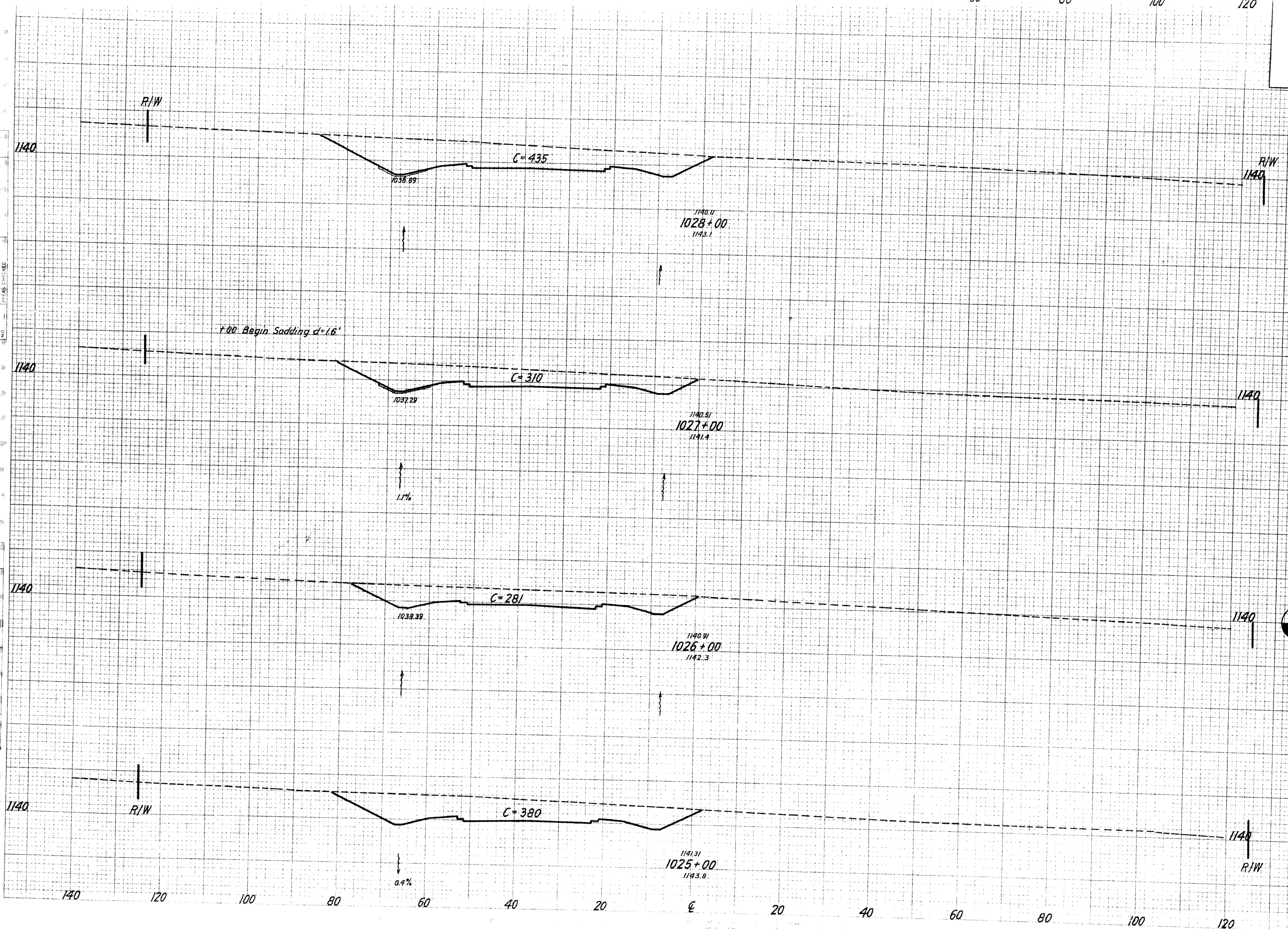
STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
55	207	-		
583			513	
50	70	8		
639			133	739
65	2	391		
944			4	2283
105	-	842		
1211			41	3015

Sta. 1021+00 to Sta. 1024+00

STA - 21 - 17.80
WAY - 21 - 5.00
SUM - 21 - 0.00

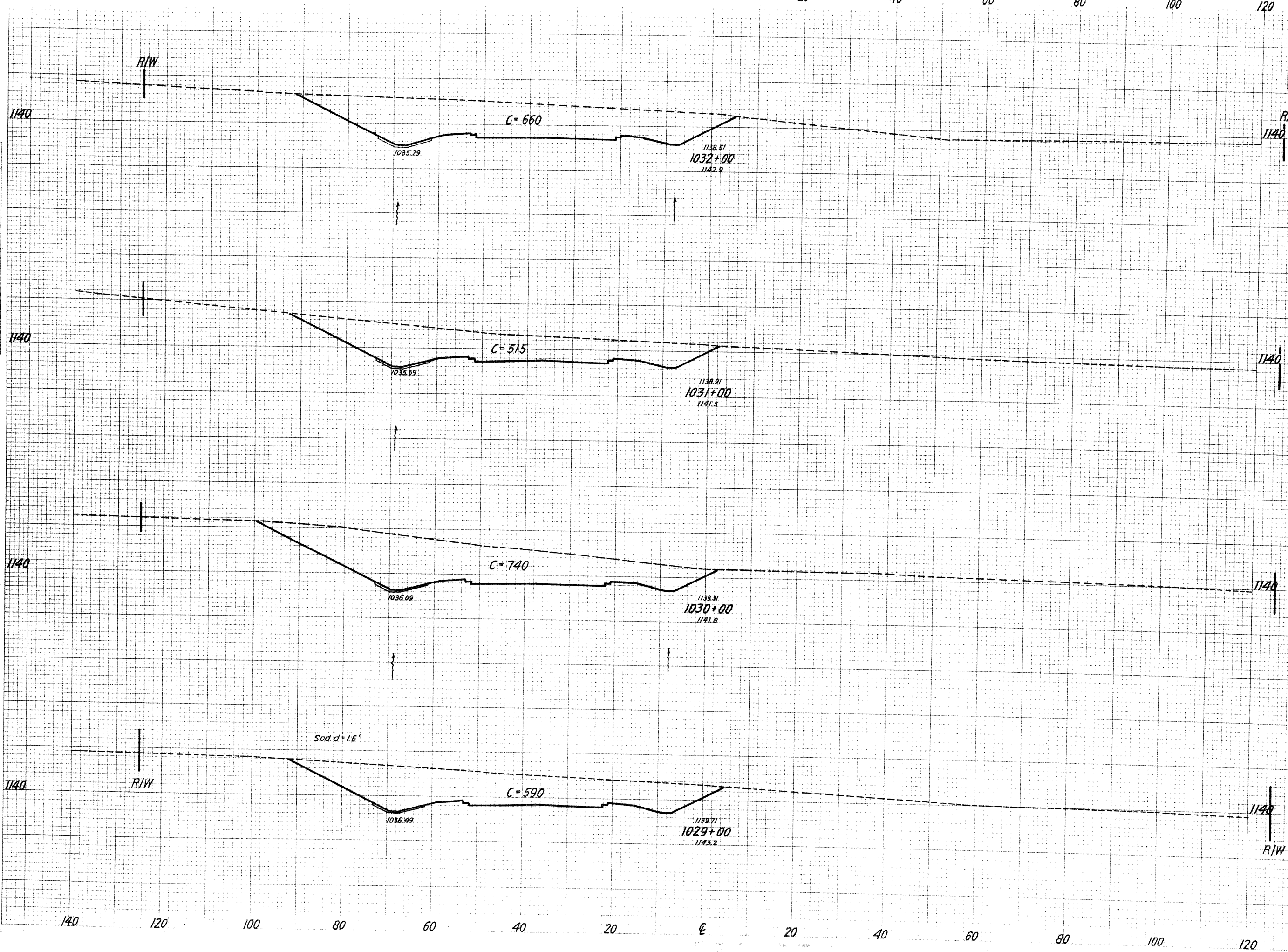


DATE: _____ BY: _____
 CHECKED: _____
 ORIGINAL SURVEY REVISIONS: _____
 NO. _____

Lin. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
78		435				
844					1380	
74		310				
783					1094	
67		281				
794					1224	
76		380				
672					1087	

Sta. 1025+00 to Sta 1028+00

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS.	
	Ln. Ft.	Sq. Yds.	CUT	FILL
90			660	
933				2176
78			515	
911				2324
86			740	
978				2463
90			590	
933				1898

EXC. 14,062 CY
EMB. 1,568 CY
SEEDING 9,000 SY

FINAL SURVEY PLOTTED FROM ORIGINAL SURVEY PLOTTING SHEETS BY DATE

ORIGINAL SURVEY PLOTTED FROM ORIGINAL SURVEY PLOTTING SHEETS BY DATE

NO. OF AREAS CHECKED

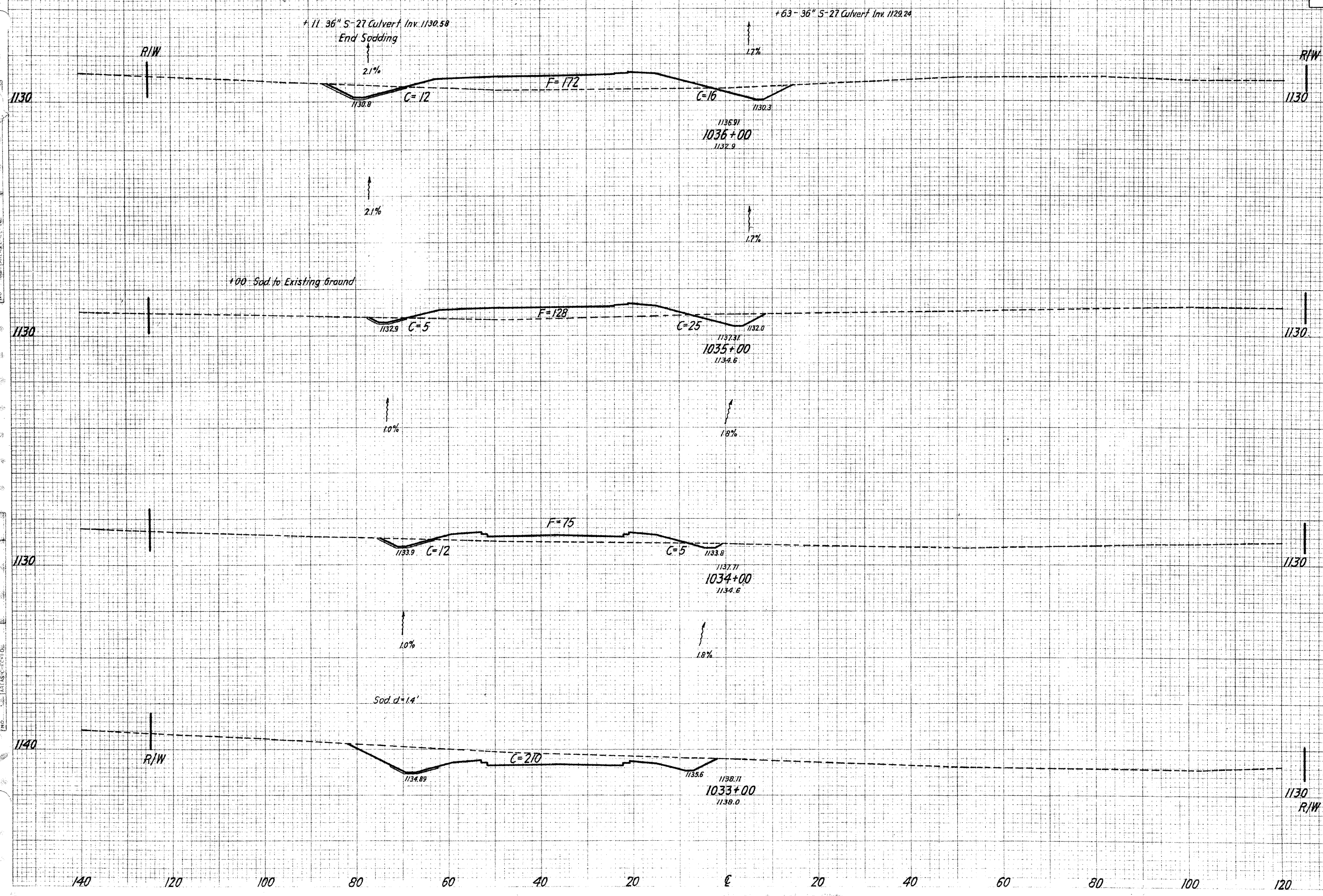
140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
OHIO			

STA - 21 - 17 80
WAY - 21 - 0.00
SUM - 21 - 0.00

FINAL SURVEY
SUSPECTED
FLOTTED
NOTE BOOK
NO. 1234567890

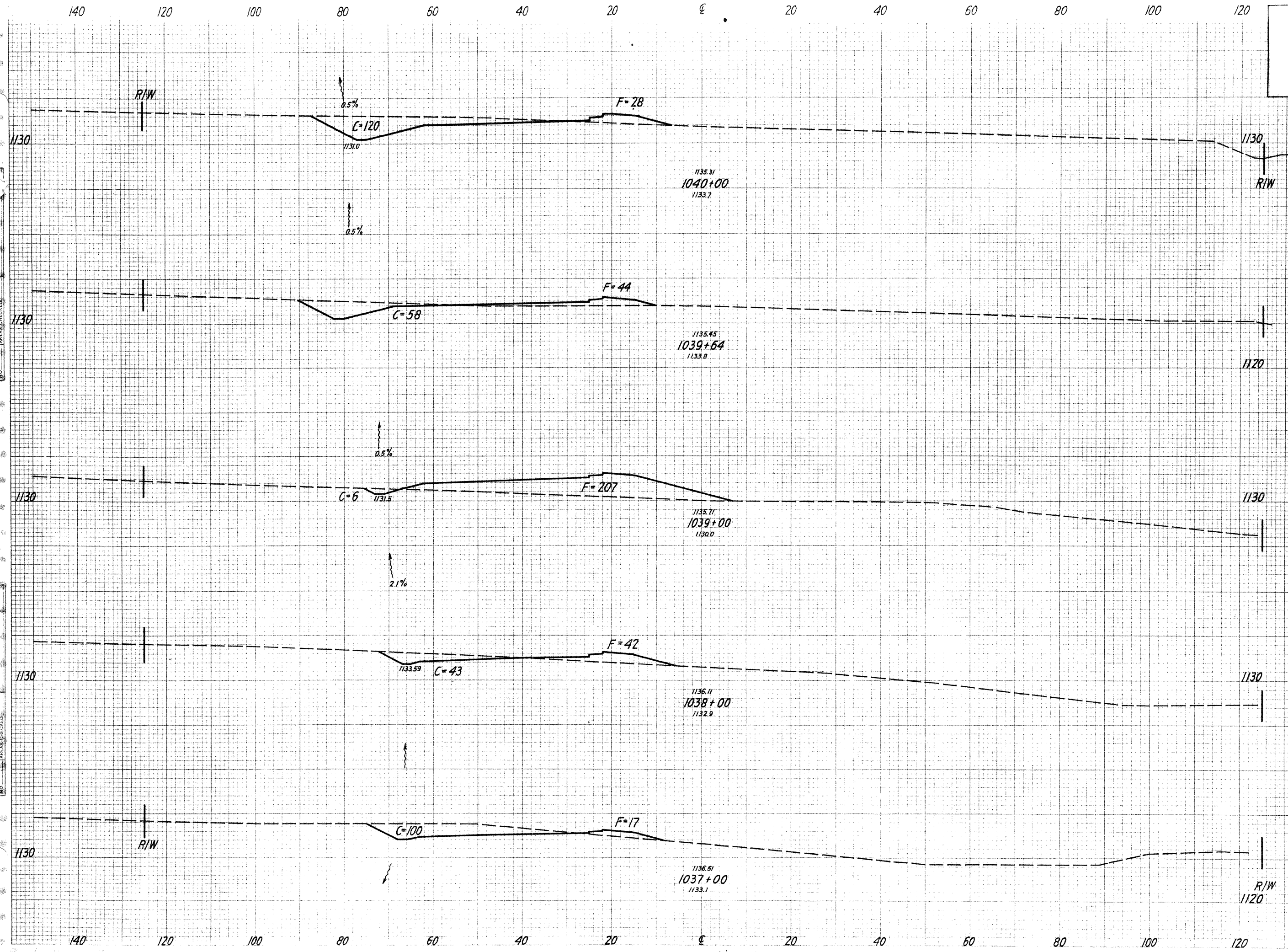
ORIGINAL SURVEY
SUSPECTED
FLOTTED
NOTE BOOK
NO. 1234567890



SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
85	28	175		
956			107	567
87	30	131		
833			87	381
63	17	75		
744			420	139
71	210	-		
894			1611	

Sta. 1033+00 to Sta. 1036+00

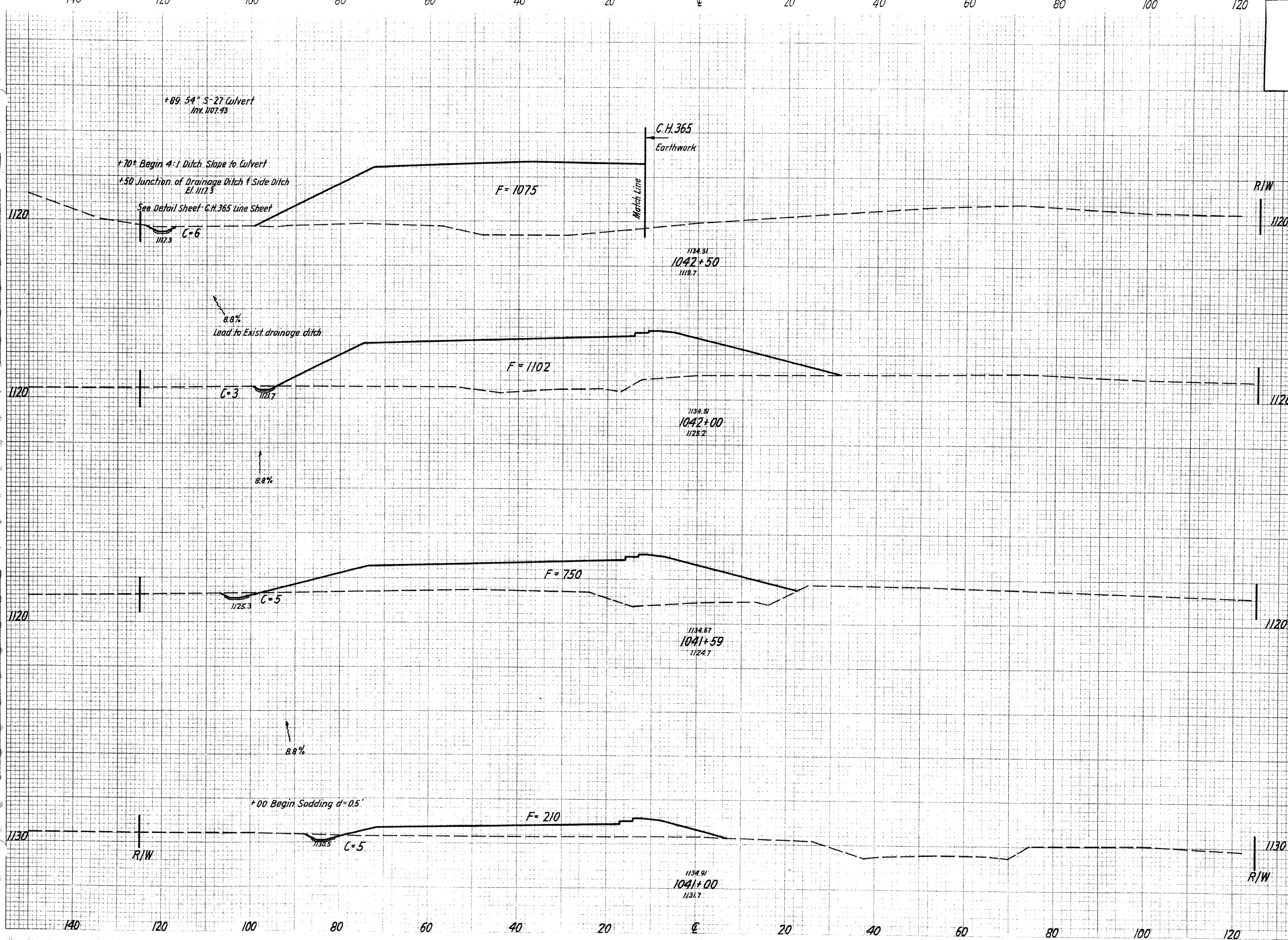
STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Lin. Ft.	SEEDING Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
73		120	31		
276				119	52
65		58	47		
498				76	305
75		6	210		
733				91	472
57		43	45		
628				265	120
56		100	20		
789				237	361

FINAL SURVEY PLOTTED AREAS CHECKED
 ORIGINAL SURVEY PLOTTED AREAS CHECKED
 NO.

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

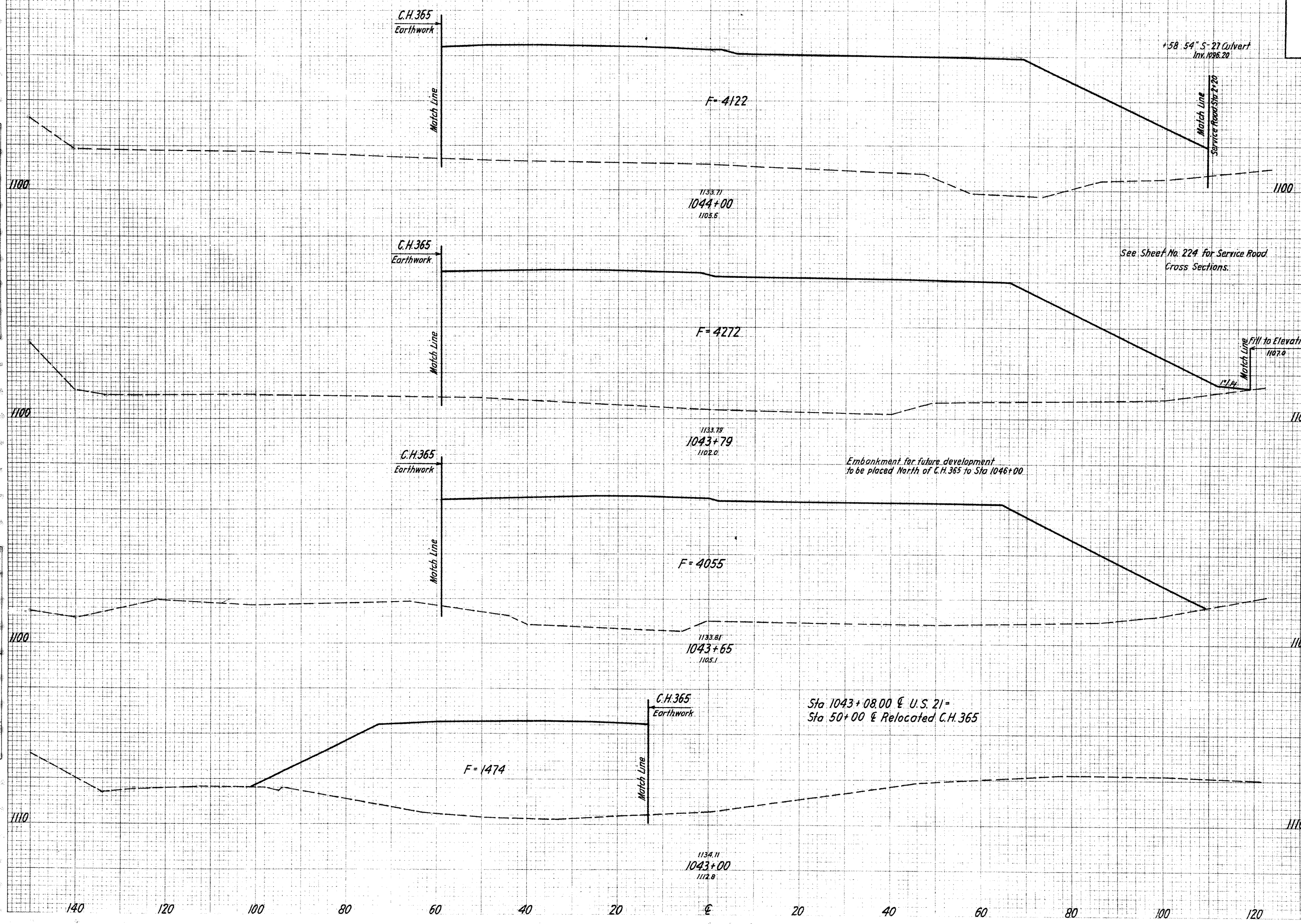


Sta	SEEDING		END AREA		CU. YDS.	
	Lin Ft	Sq. Yds	CUT	FILL	CUT	FILL
1041+00	75		6	1078		
1042+00	477				9	2027
1042+50	105		3	1105		
1041+59	569				6	1411
1041+00	100		5	753		
1041+00	564				10	1055
1041+00	72		5	213		
1041+00	806				231	452

Sta 1041+00 to Sta 1042+50

DATE: _____ BY: _____
 FINISHED SURVEY PLOTTED NOTE BOOK AREAS CHECKED
 ORIGINAL SURVEY PLOTTED NOTE BOOK AREAS CHECKED

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



L.A. FT.	Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
			4125		
308					3267
			4275		
204					2160
			4058		
433					6671
			1484		
533				16	2372

R/W
EXC. 668 CY
EMB. 52,856 CY
SEEDING 16,700 SY

See Sheet No. 224 for Service Road Cross Sections.

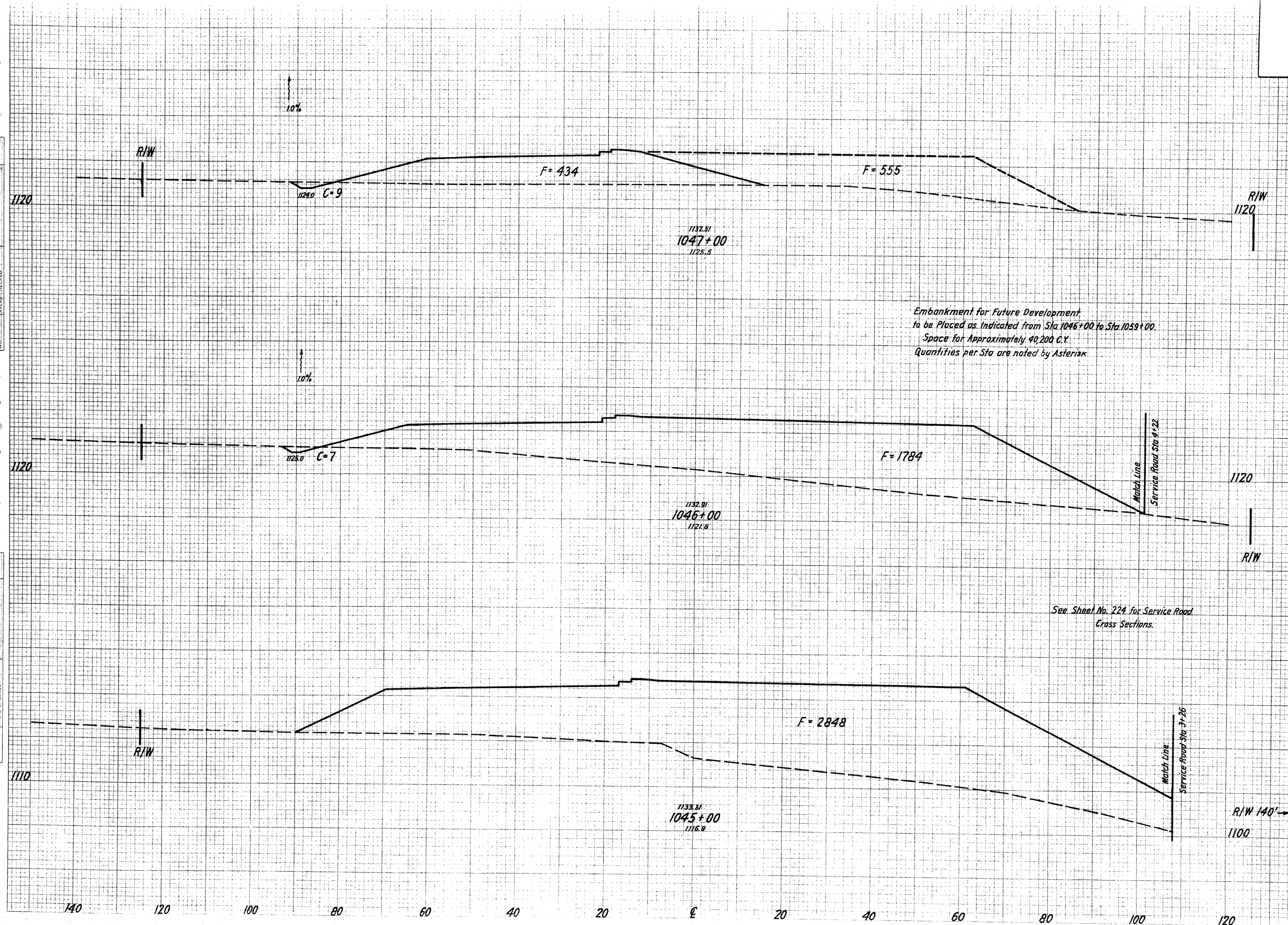
Embankment for future development to be placed North of C.H. 365 to Sta 1046+00

Sta 1043+08.00 & U.S. 21 - Sta 50+00 & Relocated C.H. 365

FINAL SURVEY PLOTTED AREAS CHECKED

ORIGINAL SURVEY PLOTTED AREAS CHECKED

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



*Embankment for Future Development
to be Placed as Indicated from Sta 1046+00 to Sta 1059+00.
Space for Approximately 40,200 C.Y.
Quantities per Sta are noted by Asterisk*

*See Sheet No. 224 for Service Road
Cross Sections.*

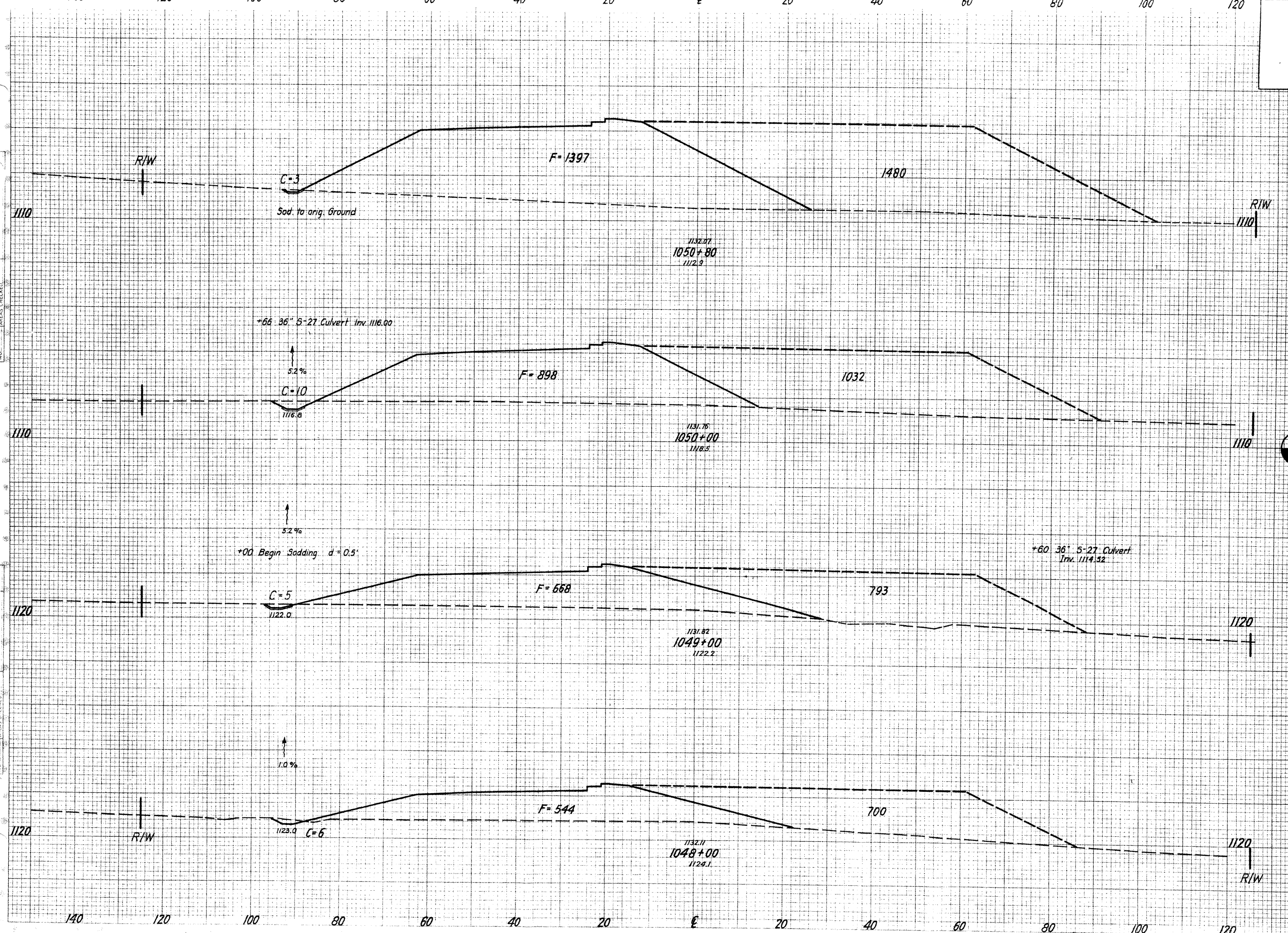
Sta.	SEEDING		END AREA		CU. YDS.	
	Li. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
1047+00	168		9	437		
1046+00	1894				30	4119*
1046+00	173		7	1767		1028*
1046+00	1906				13	8589*
1045+00	170			2850		
1045+00	1811					12,919*

Sta 1045+00 to Sta 1047+00

FINAL SURVEY
SURVEYED
SLOTTED
TEMPLATE
NOTE BOOK
AREAS CHECKED

ORIGINAL SURVEY
SURVEYED
SLOTTED
TEMPLATE
NOTE BOOK
AREAS CHECKED

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING L. Ft.	END AREA Sq. Yds.	CU. YDS.	
		CUT	FILL
193	3	1400	
1662	19	3409	3722
181	10	901	
1989	28	2913	3380
177	5	671	
1944	20	2256	2765
173	6	547	
1894	27	1822	2324

Sta. 1048+00 to Sta. 1050+80

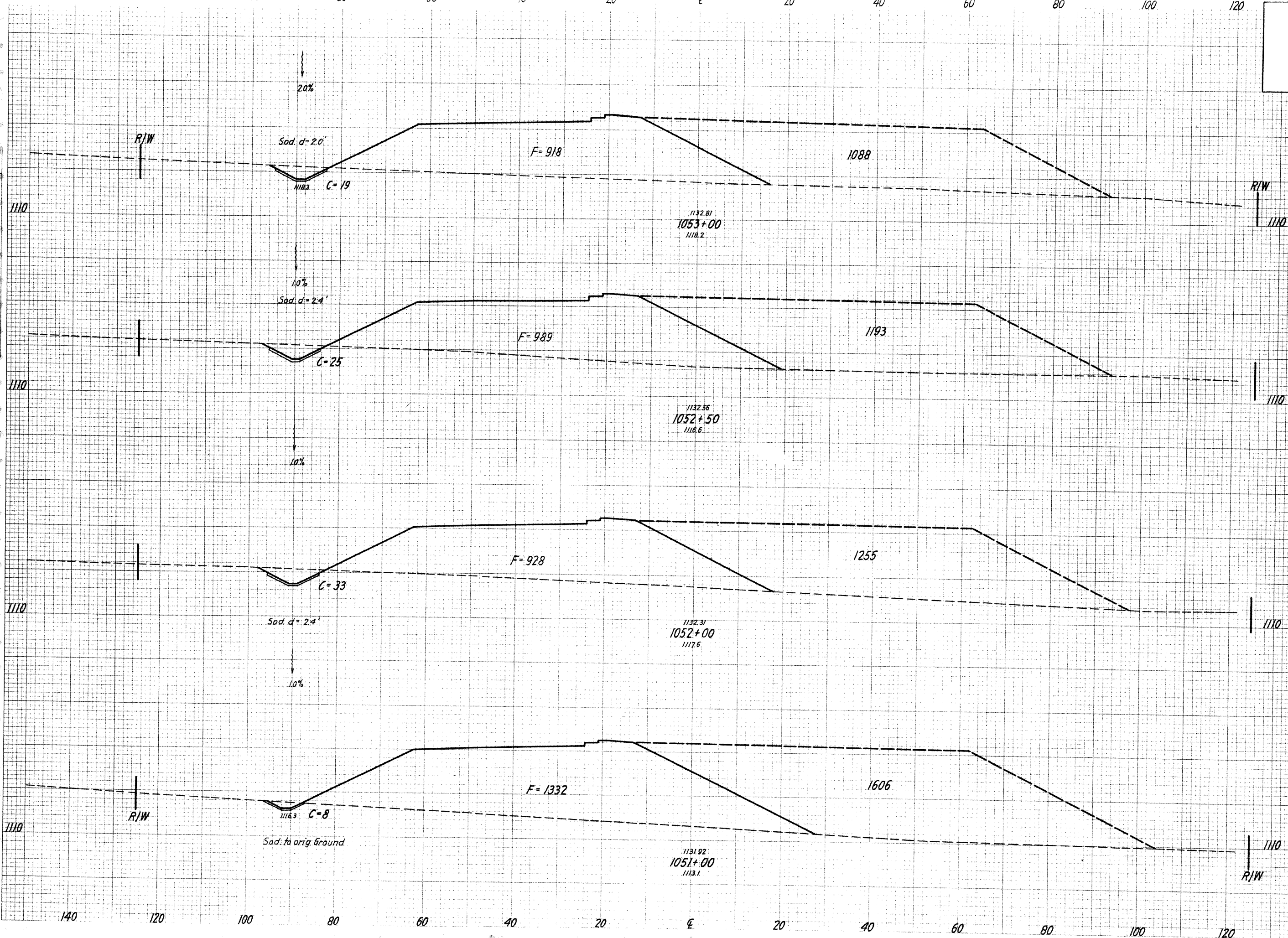
FINAL SURVEYED
SURVEY PLOTTED
NOTE BOOK
NO.

ORIGINAL SURVEYED
SURVEY PLOTTED
NOTE BOOK
NO.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

97
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING		END AREA		CU. YDS.	
Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
164		19	921		
	975			41	1771
187		25	992		2112
	1047			54	1781
190		33	931		2267
	2139			76	4196
195		8	1335		5298
	431			4	10,130
					1143

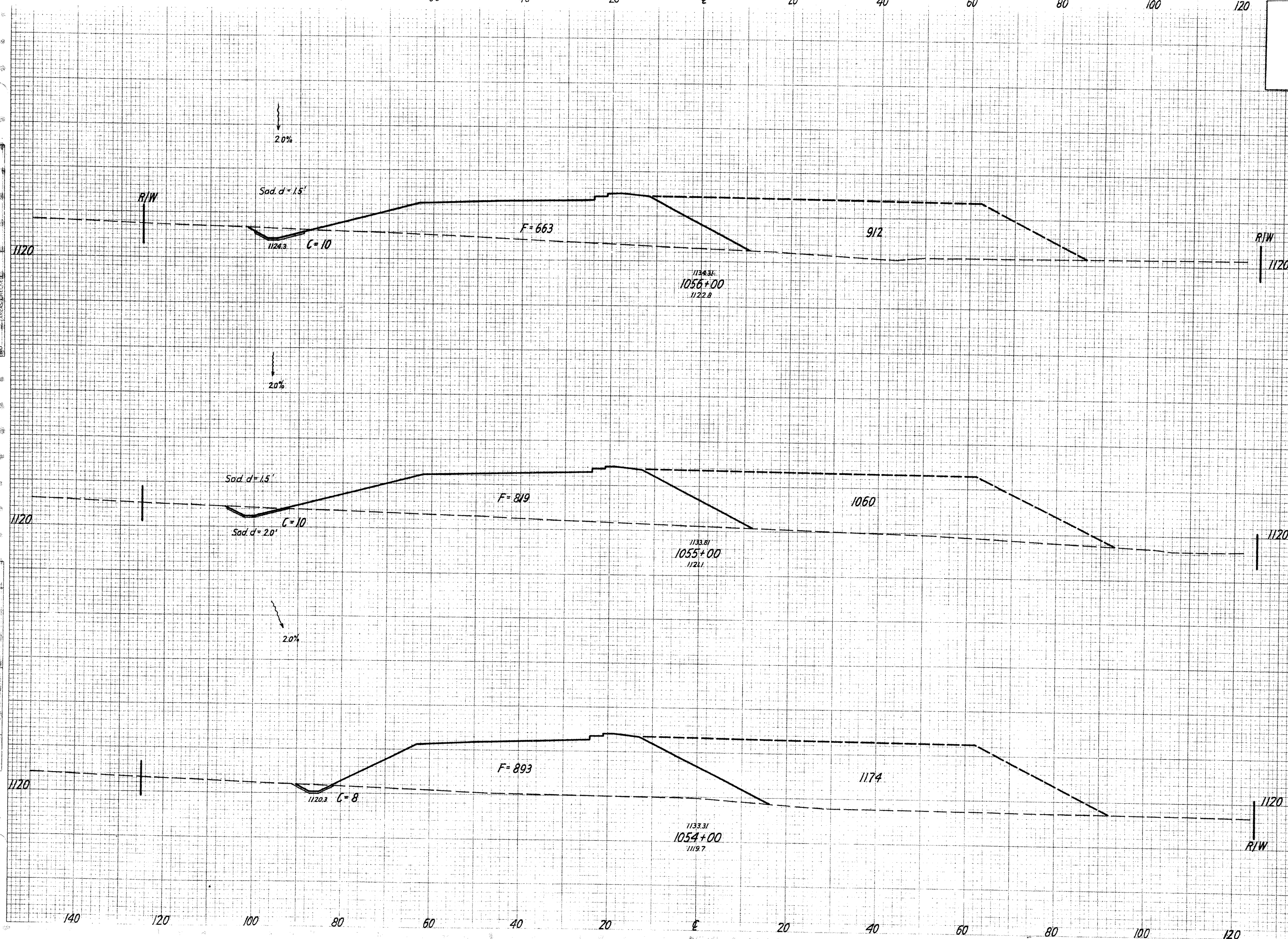
FINAL SURVEY PLOTTED
NOTE BOOK TEMPLATE AREAS CHECKED

ORIGINAL SURVEY PLOTTED
NOTE BOOK TEMPLATE AREAS CHECKED

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

98
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



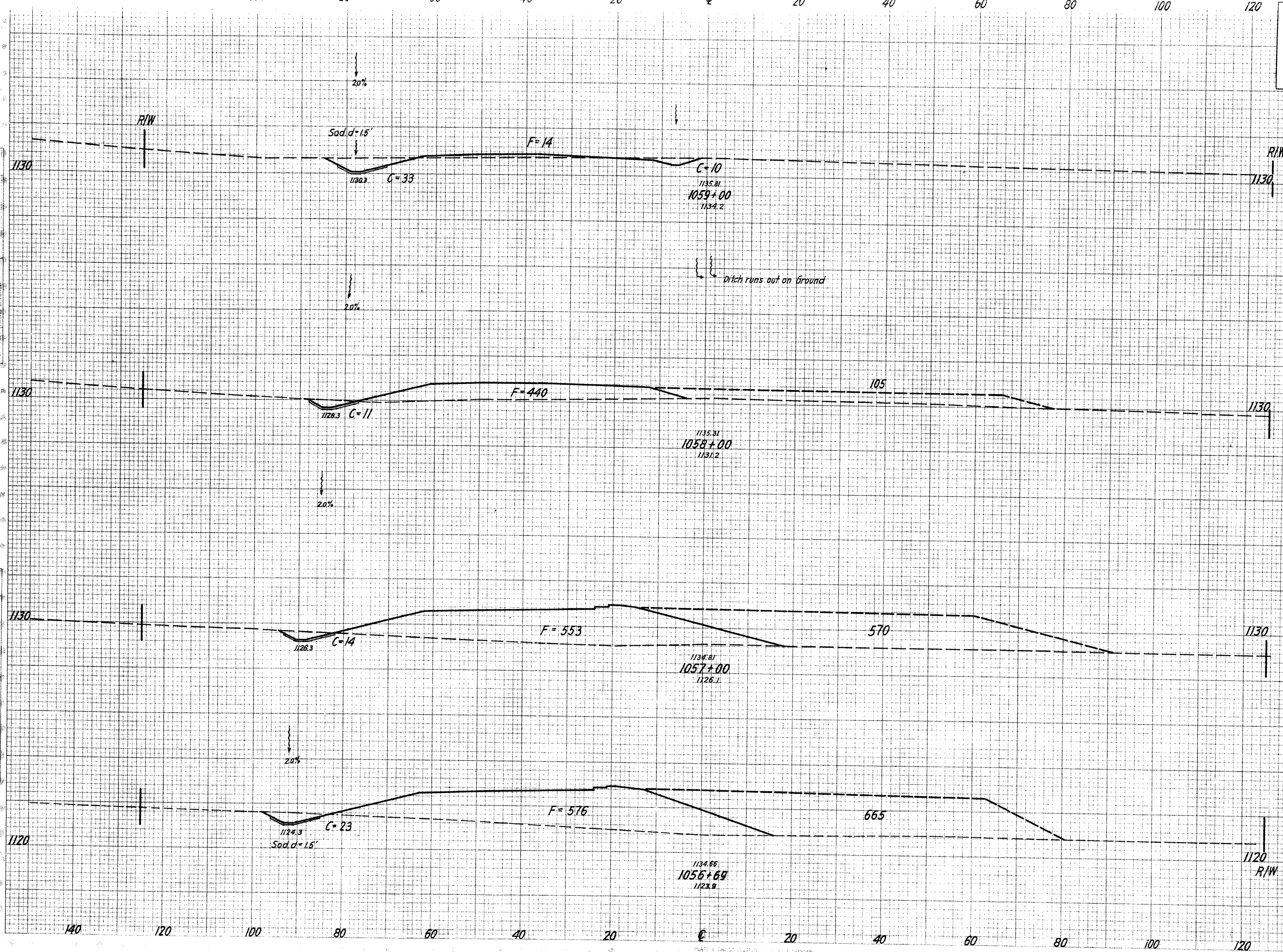
L.H. FT.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
180	10	669				
2078				37	2761	3852
194	10	822				
2172				33	3181	4137
177	8	896				
2006				50	3365	4189

Sta 1054+00 to Sta 1056+00

DATE
BY
SURVEYED
PLOTTED
FINAL SURVEY
NOTE BOOK
AREAS CHECKED

DATE
BY
ORIGINAL SURVEYED
PLOTTED
FINAL SURVEY
NOTE BOOK
AREAS CHECKED

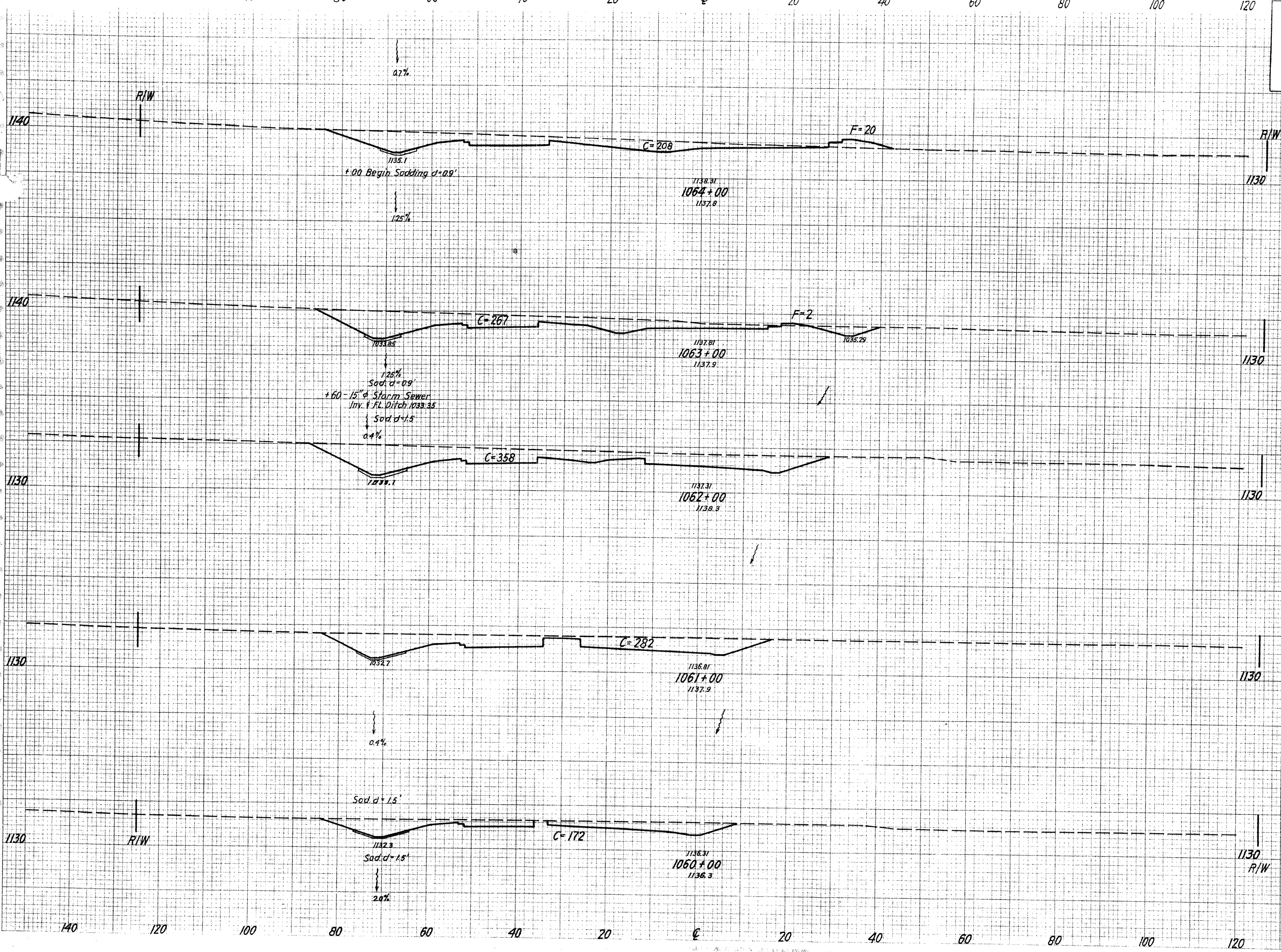
STA - 21 - 17.00
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING Lin. Ft.	END AREA		CU. YDS.	
	CUT	FILL	CUT	FILL
73	43	20		
1228			100	863
				194
148	11	446		
1800			46	1856
				1250
176	14	556		
596			18	652
				709
170	25	579		
1342			47	1595
				2015

EXC. 2944 CY
EMB. 34762 CY
SEEDING 18,690 SY

STA - 21 - 17. BR
WAY - 21 - 0.00
SUM - 21 - 0.00



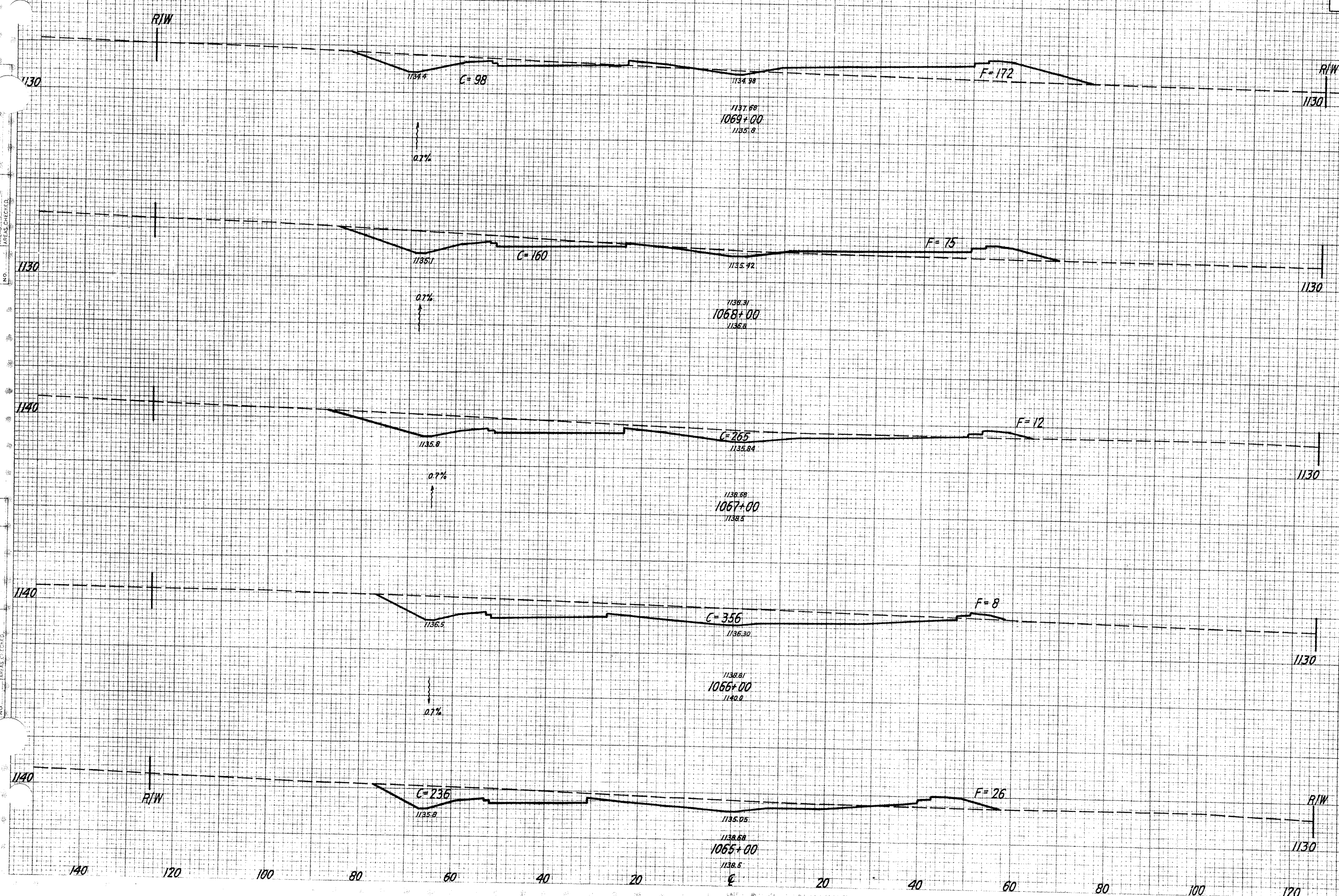
SEEDING Lm. Ft.	Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
109		708	24		
1111				880	56
91		267	6		
989				1157	19
87		358	3		
956				1185	11
85		282	3		
922				841	11
81		172	3		
856				398	43

Sta. 1060+00 to Sta. 1064+00

ORIGINAL SURVEY PLATE
 SURVEY BOOK NO. 100
 DATE: 10/1/50
 DRAWN BY: J. H. B.

FED. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		101 329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



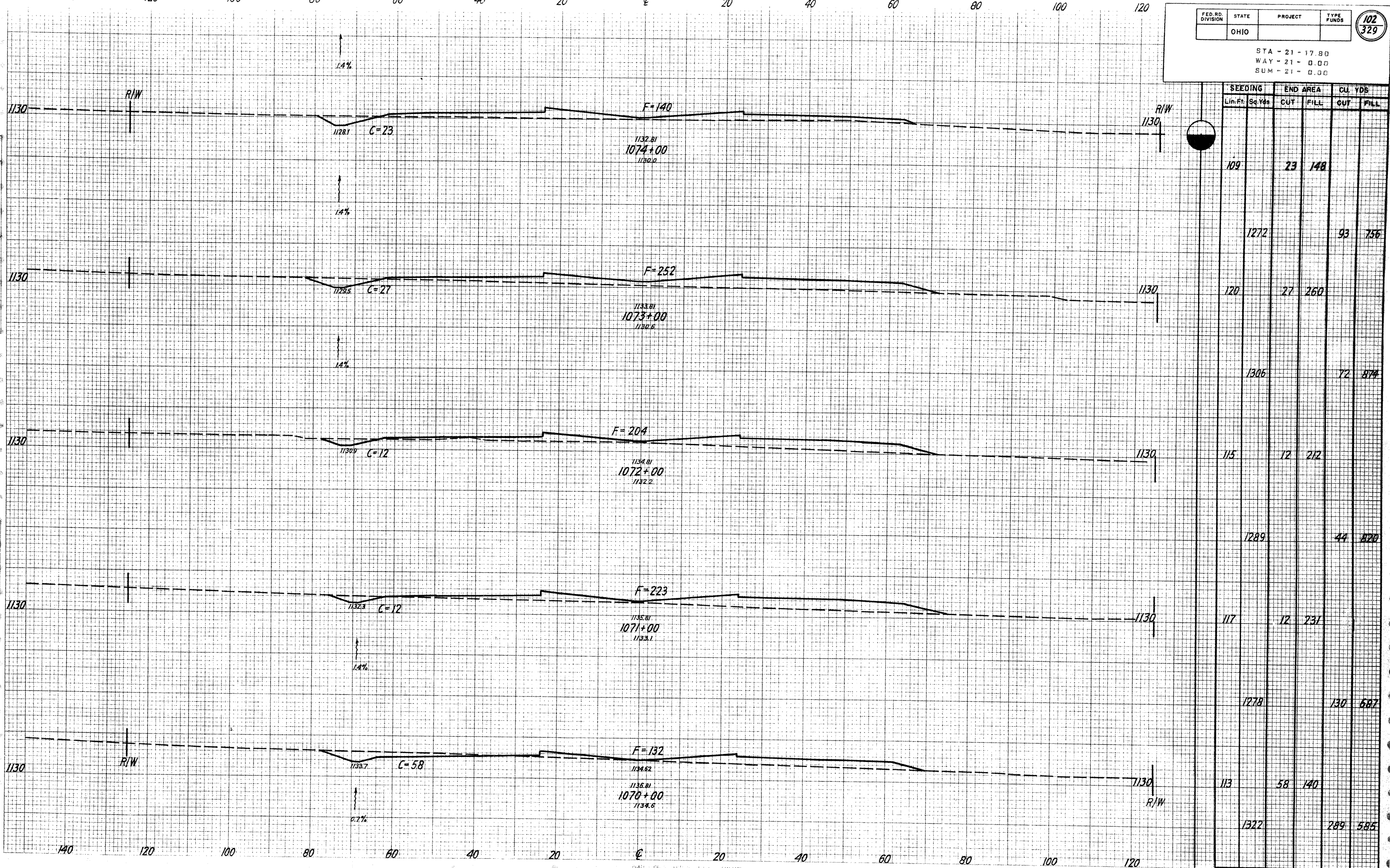
Sta.	SEEDING		END AREA		CU. YDS.	
	Len. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
125			98	176		
1372					478	472
122			160	79		
1267					787	176
116			265	16		
1222					1150	52
104			356	12		
1167					1096	78
106			236	30		
1194					822	100

EXC. 6,998 CY
EMB. 4,676 CY
SEEDING 14,589 CY

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

102
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



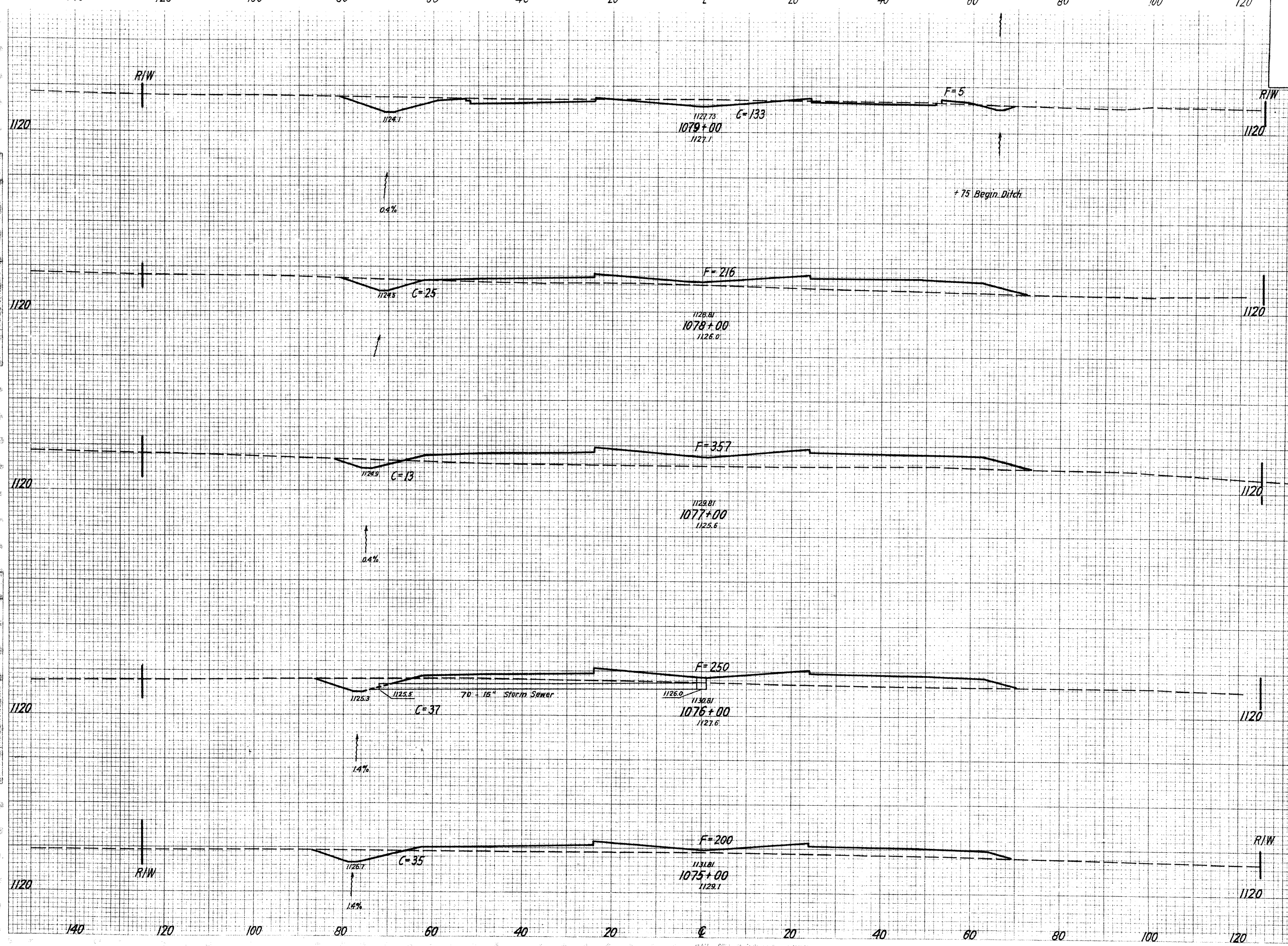
SEEDING Lin. Ft.	END AREA Sq. Yds.	CU. YDS.	
		CUT	FILL
109	23	148	
1272		93	756
120	27	260	
1306		72	874
115	12	212	
1289		44	820
117	12	231	
1278		130	687
113	58	140	
1322		289	585

FINAL SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

ORIGINAL SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

Sta. 1070+00 to Sta. 1074+00

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

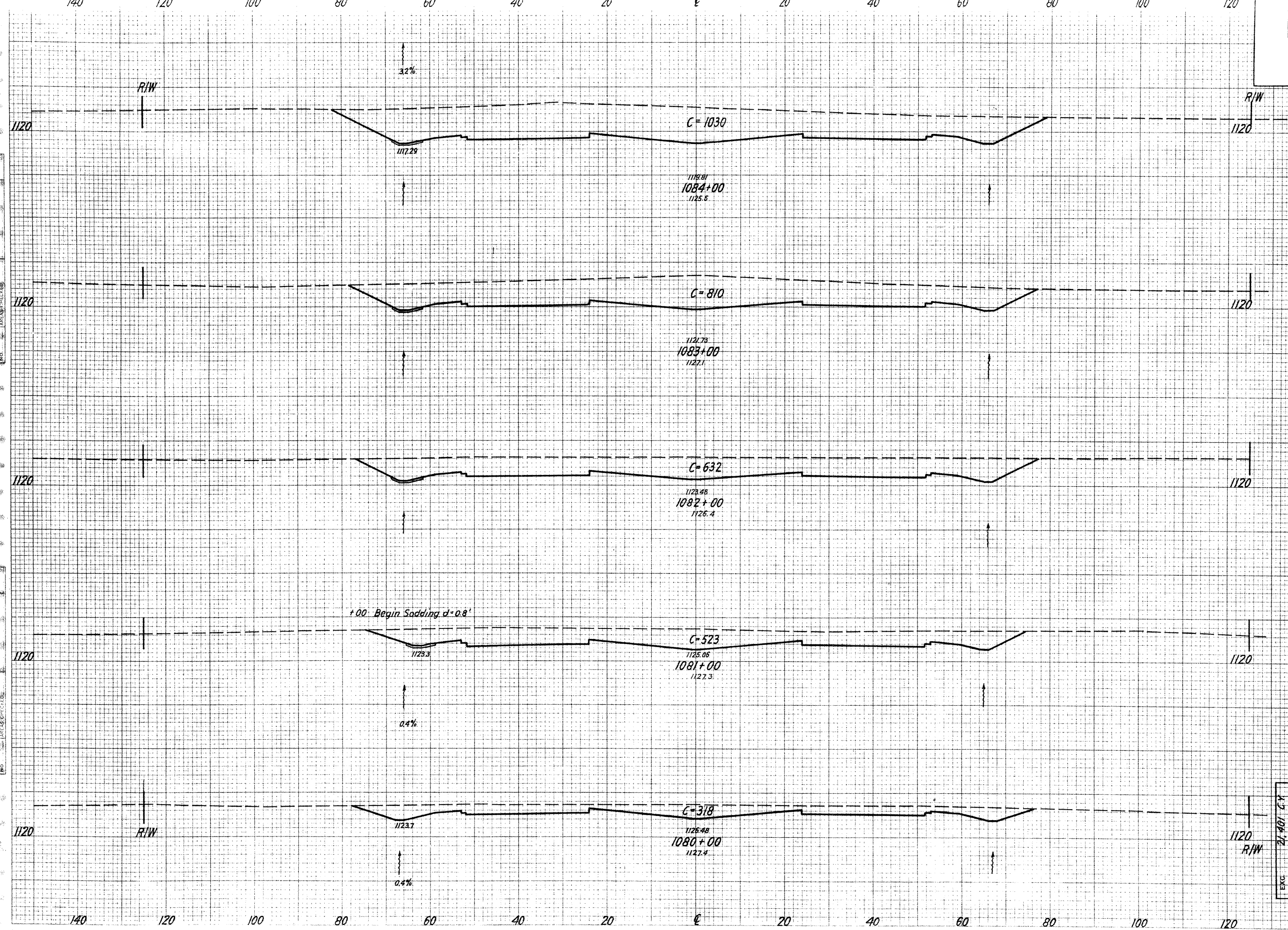


Lin. Ft.	SEEDING Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
115		133	7		
1278				293	428
115		25	224		
1361				70	1091
130		13	365		
1400				93	1154
122		37	258		
1350				133	863
121		35	208		
1278				107	659

FINAL SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

ORIGINAL SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

STA - 21 - 17.83
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
131		1030	2	
141				3407
123		810	2	
1361				2670
122		632	2	
1383				2139
127		523	2	
1383				1557
122		318	2	
1317				835

FINAL SURVEY PLOTTED BY [] DATE []

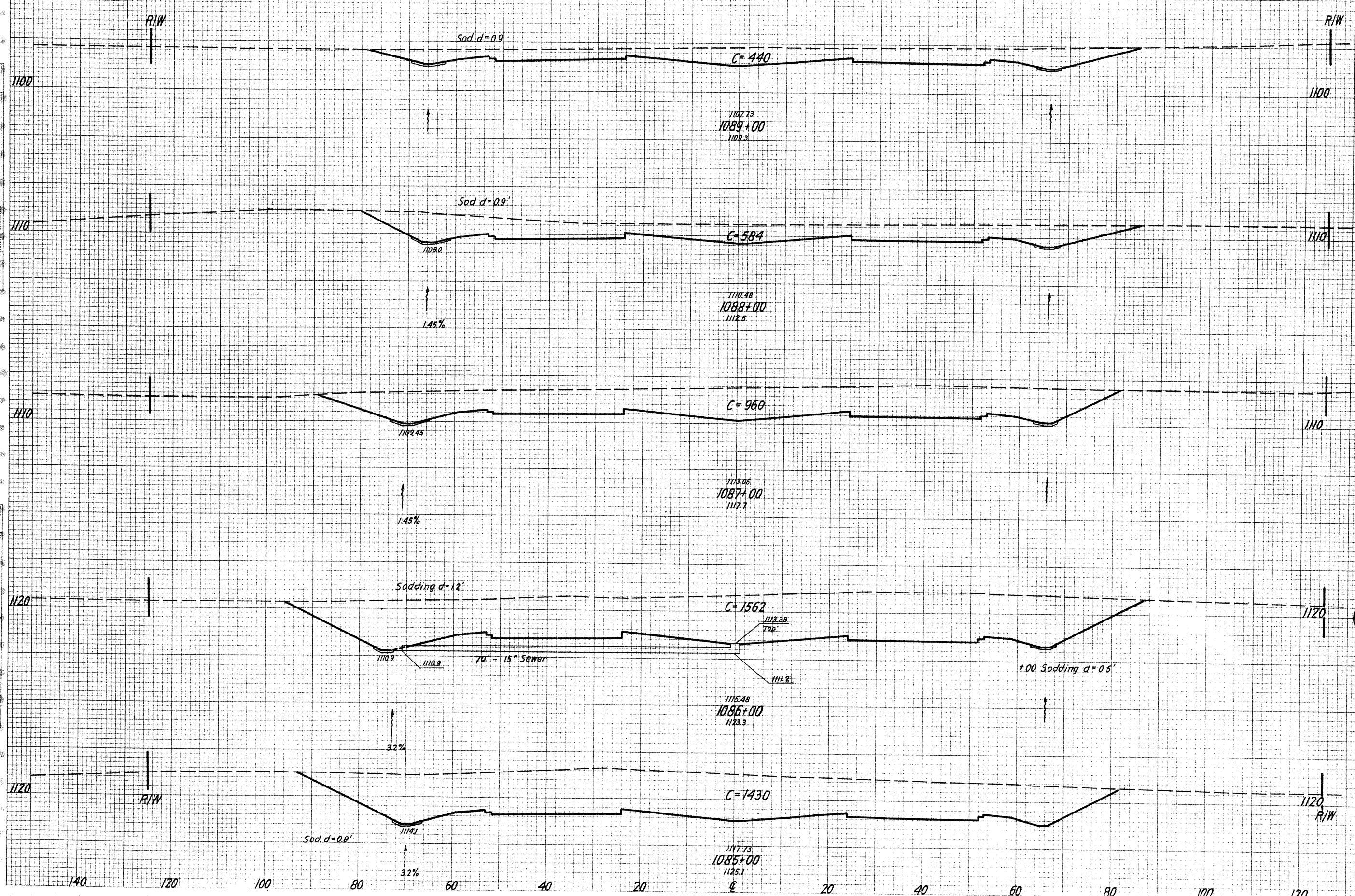
ORIGINAL SURVEY PLOTTED BY [] DATE []

EXC 21,407 C.Y.
EMB 4,254 C.Y.
SEEDING 16,334 S.Y.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

105
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING Lin. Ft.	END AREA Sq. Yds.	CU. YDS.	
		CUT	FILL
132	440	2	
1478			1896
134	584	2	
1522			2859
140	960	2	
1633			4670
154	1562	2	
1667			5541
146	1430	2	
1539			4556

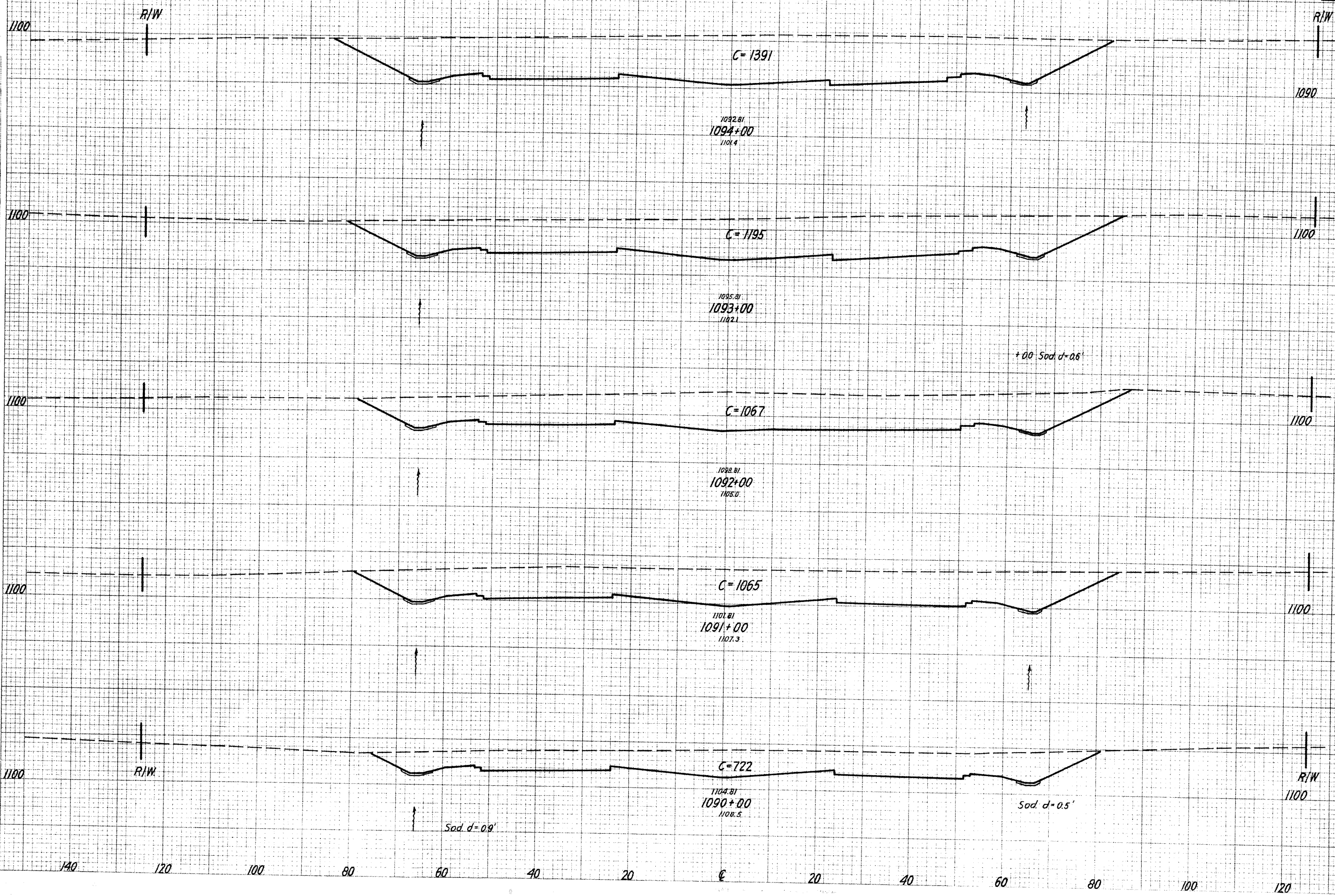
Sta 1085+00 to Sta 1089+00

FINISHED SURVEY PLOTTED REVISIONS AREAS CHECKED
 ORIGINAL SURVEY PLOTTED REVISIONS AREAS CHECKED
 NO. DATE BY

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
OHIO			

106
329

STA - 21 - 17.00
WAY - 21 - 0.00
SUM - 21 - 0.00



EXC. 49,857 CY
EMB. 101 CY
SEEDING 15,589 S.Y.

STATION	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
1094+00	141	1391	3			
1093+00	137	1195	3		4789	11
1092+00	135	1067	4		4189	13
1091+00	134	1065	2		3948	11
1090+00	126	722	2		3309	7
TOTAL	1433	722	2		2152	7

FINAL SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

ORIGINAL SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

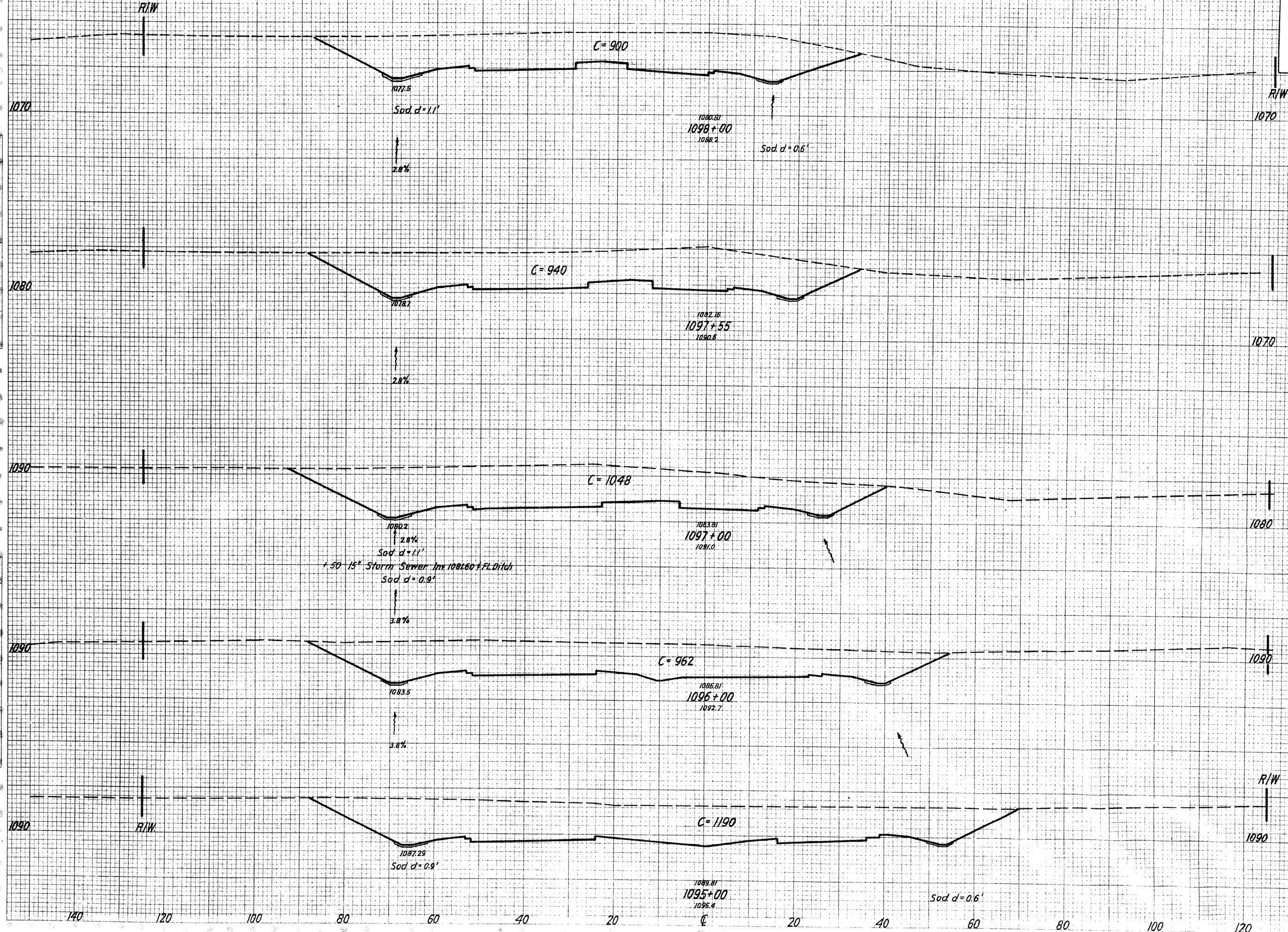
Sta. 1090+00 to Sta. 1094+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

107
329



SEEDING	END AREA		CU. YDS.	
	LIN. FT.	Sq. Yds.	CUT	FILL
103		900		
	543			1533
114		940		
	684			2025
110		1048		
	1272			3722
119		962	4	
	1394			3985
132		1190	3	
	1517			4780

ORIGINAL SURVEYED, PLOTTED, AND CHECKED BY: []
 FINAL SURVEYED, PLOTTED, AND CHECKED BY: []
 NO. OF BOOKS: []
 AREAS CHECKED: []

140 120 100 80 60 40 20 0 20 40 60 80 100 120

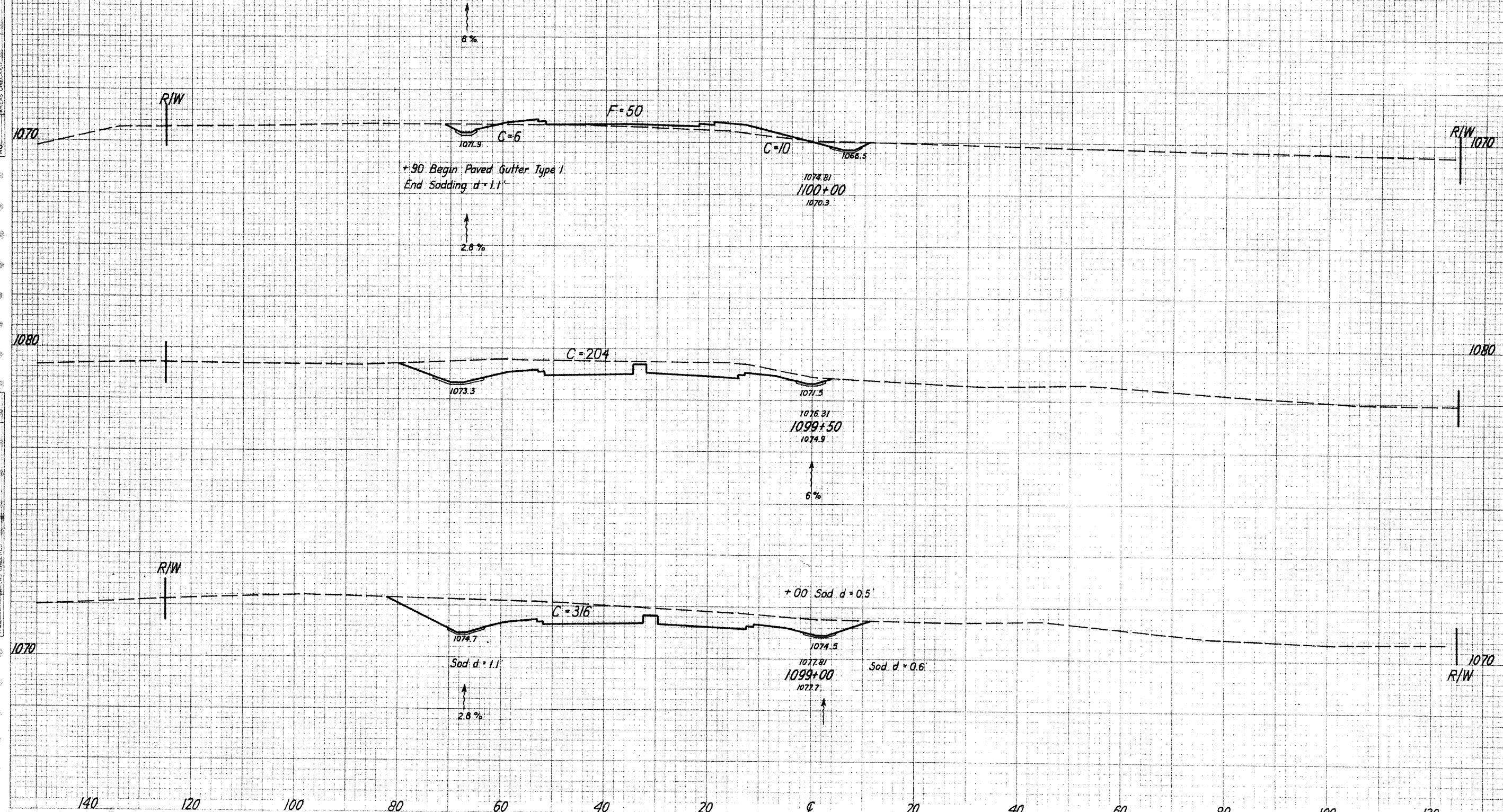
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

108
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

FINAL SURVEYED
SURVEY PLOTTED
NOTE BOOK NO. _____
AREAS CHECKED

FINAL SURVEYED
SURVEY PLOTTED
NOTE BOOK NO. _____
AREAS CHECKED



Sta. Pt.	SEEDING		END AREA		CU. YDS.	
	Ln. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
1070	72		16	50		
		392			204	46
1080	69		204			
		419			481	
1070	82		316			
		1028			2252	

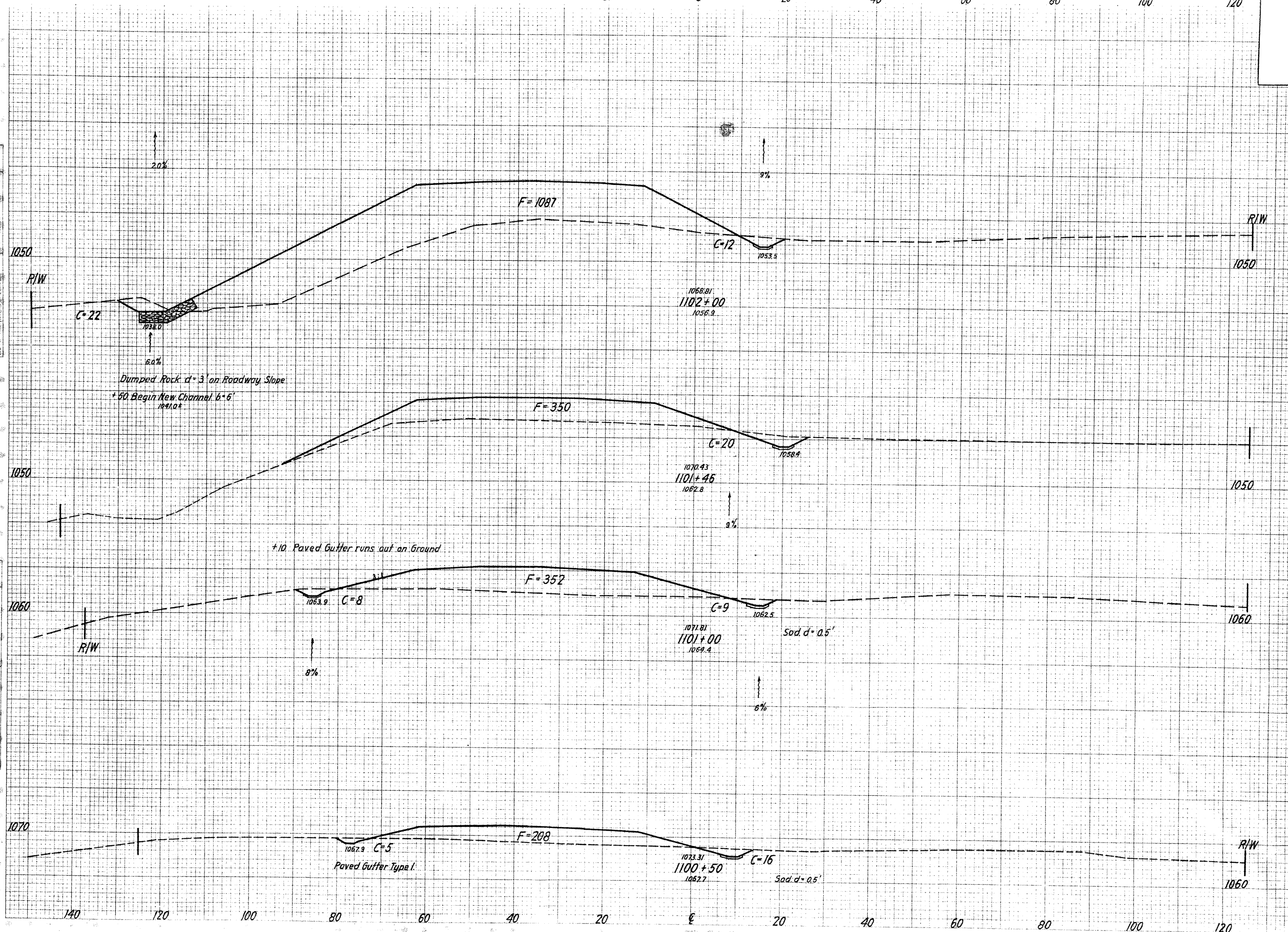
140 120 100 80 60 40 20 0 20 40 60 80 100 120

Sta 1099+00 to Sta 1100+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

109
329

STA - 21 - 17.60
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS	
	Lin. Ft.	Sq. Yds.	CUT	FILL
147	34	1093		
819	54	1449		
100	20	356		
552	32	608		
90	17	358		
486	35	530		
85	21	214		
436	34	244		

Sta. 1100+50 to Sta. 1102+00

FINAL SURVEY PLOTTED
NOTE BOOK NO. 109329
AREAS CHECKED

140 120 100 80 60 40 20 0 20 40 60 80 100 120

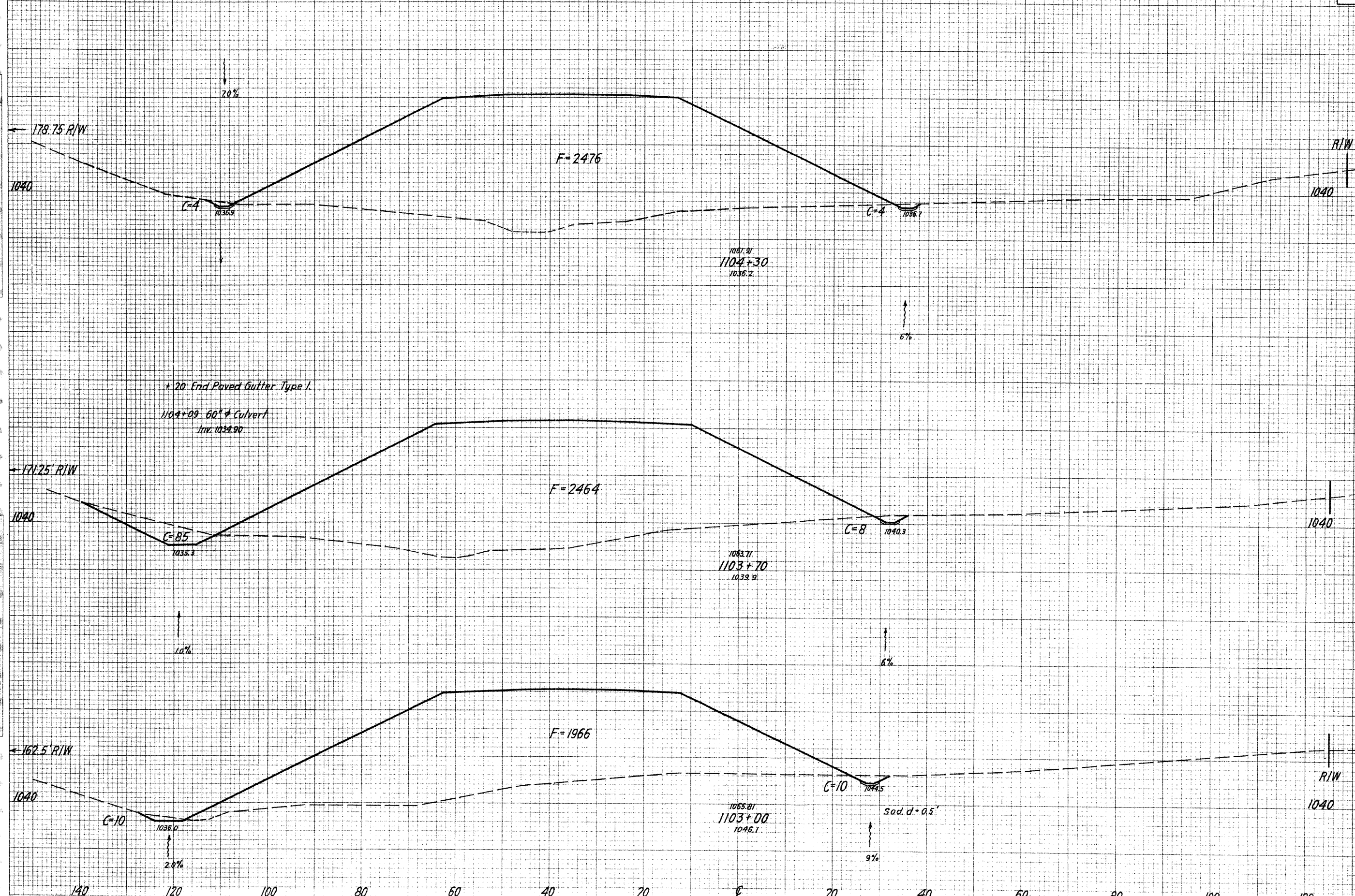
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

110
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

FINAL SURVEY PLOTTED
NOTE BOOK NO. 1040
NO. 1040

ORIGINAL SURVEY PLOTTED
NOTE BOOK NO. 1040
NO. 1040

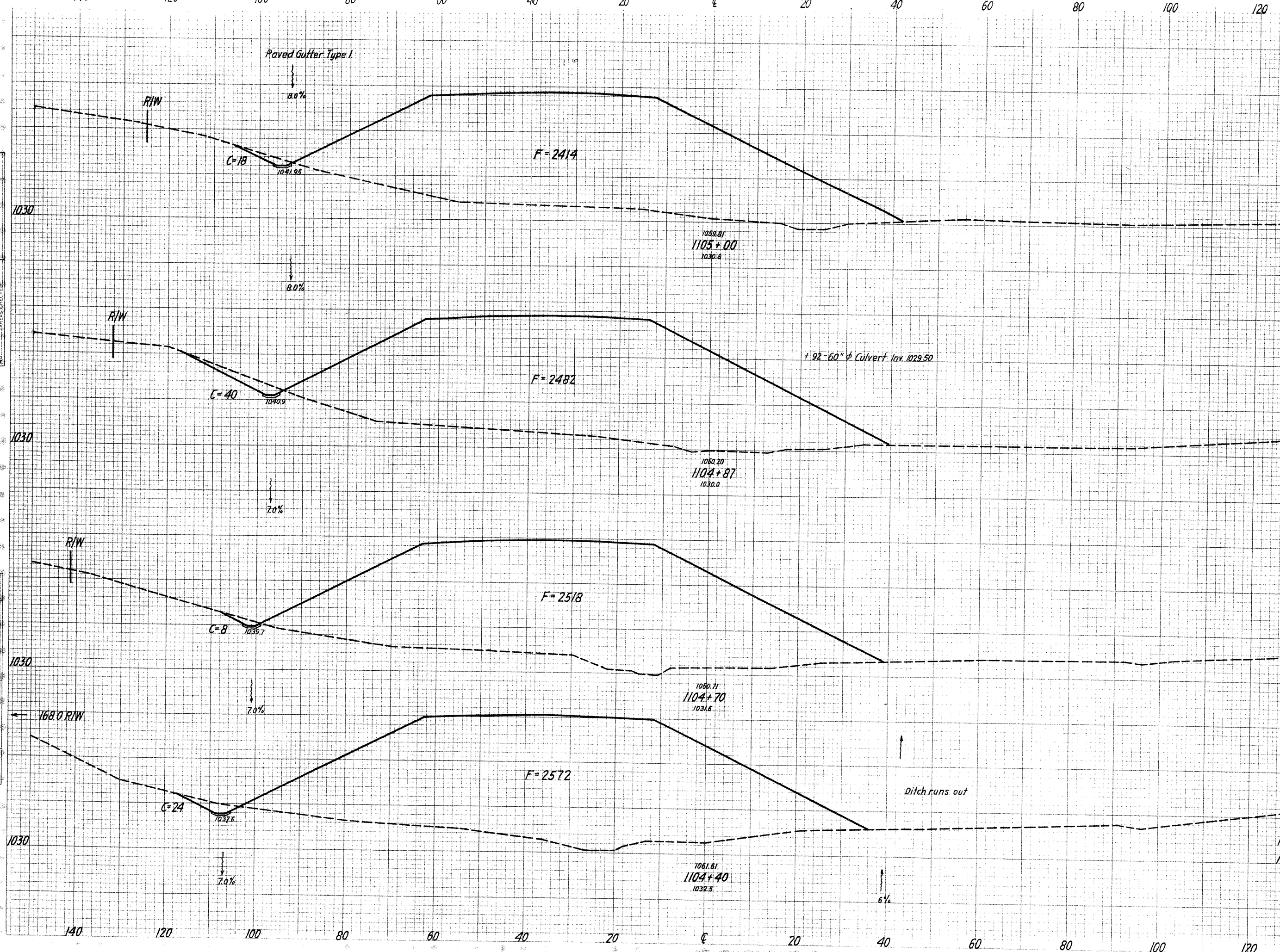


Lin. Ft.	Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
152	8	2482			
1083	112		5502		
173	93	2470			
1295	146		5758		
160	20	1972			
1706	100		5676		

ENC. 3777 CY
EMB. 37752 CY
SEEDING 14,648 SY

Sta. 1103+00 to Sta. 1104+30

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Lin. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
147		18	2420			
223				14	1182	
162		40	2488			
292				15	1578	
147		8	2524			
500				18	2834	
153		24	2578			
169				6	937	

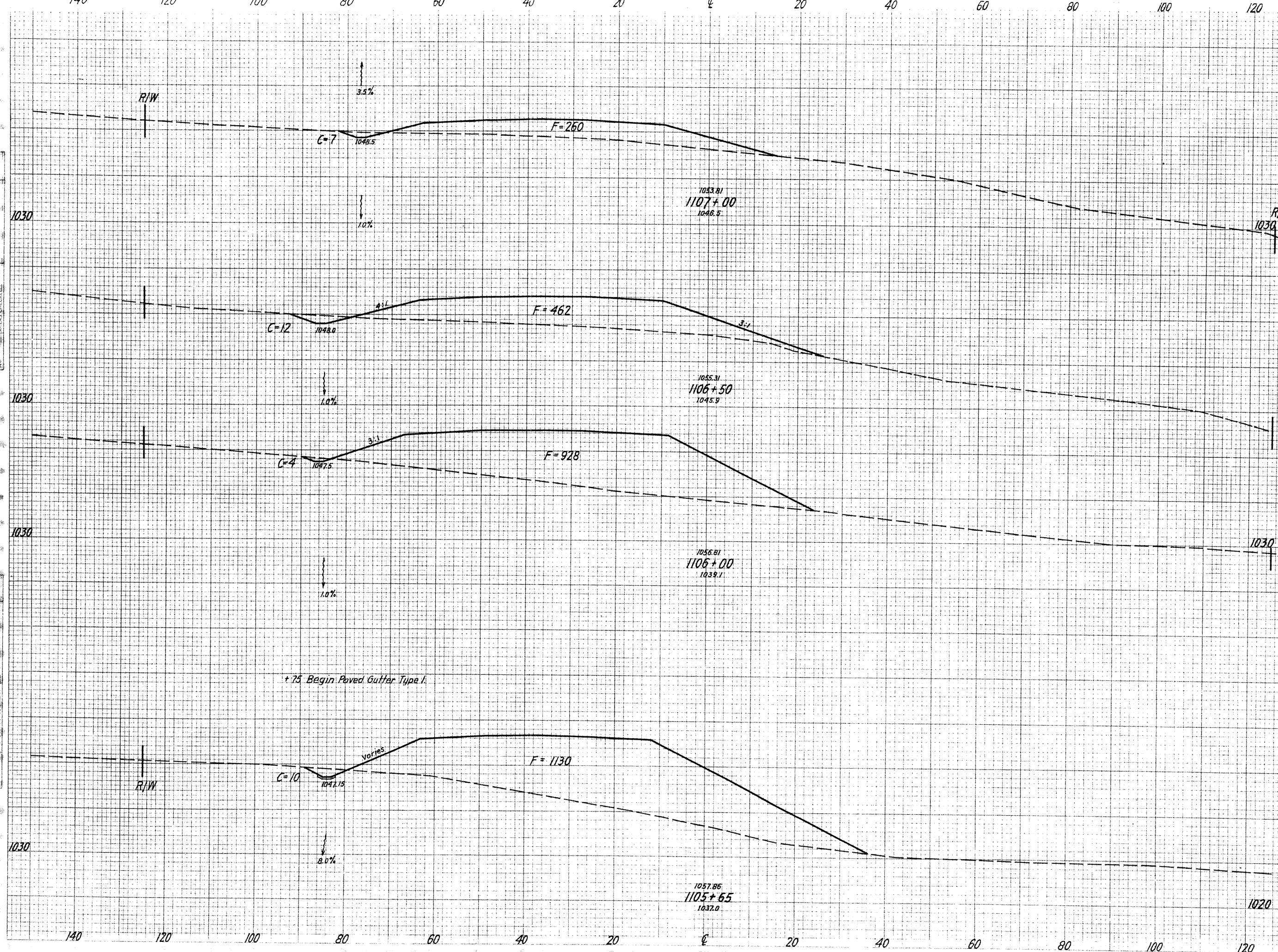
FINAL SURVEY PLOTTED AREAS CHECKED

ORIGINAL SURVEY PLOTTED AREAS CHECKED

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

112
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS	
	Lin. Ft.	Sq. Yds.	CUT	FILL
83	7	266		
553			18	680
116	12	468		
594			15	1298
98	4	934		
428			9	1342
122	10	1136		
971			34	4280

FINAL SURVEY PLOTTED
NOTE BOOK RE-PLATED
NO AREAS CHECKED

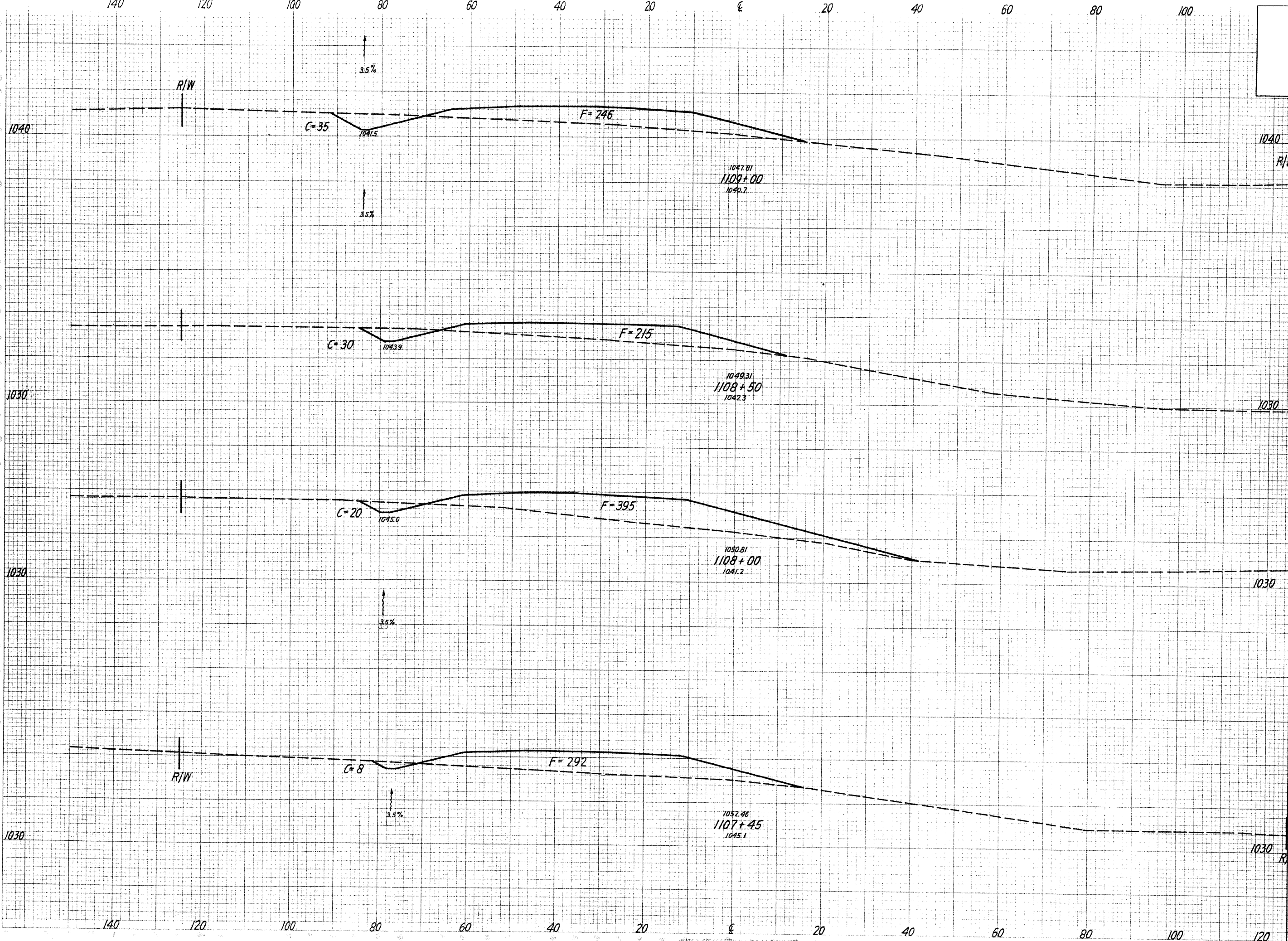
ORIGINAL SURVEY PLOTTED
NOTE BOOK RE-PLATED
NO AREAS CHECKED

Sta. 1105+65 to Sta. 1107+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

113
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Ln. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
96		35	252			
511				60	438	
88		30	221			
569				46	576	
117		20	401			
633				28	712	
90		8	298			
433				12	470	

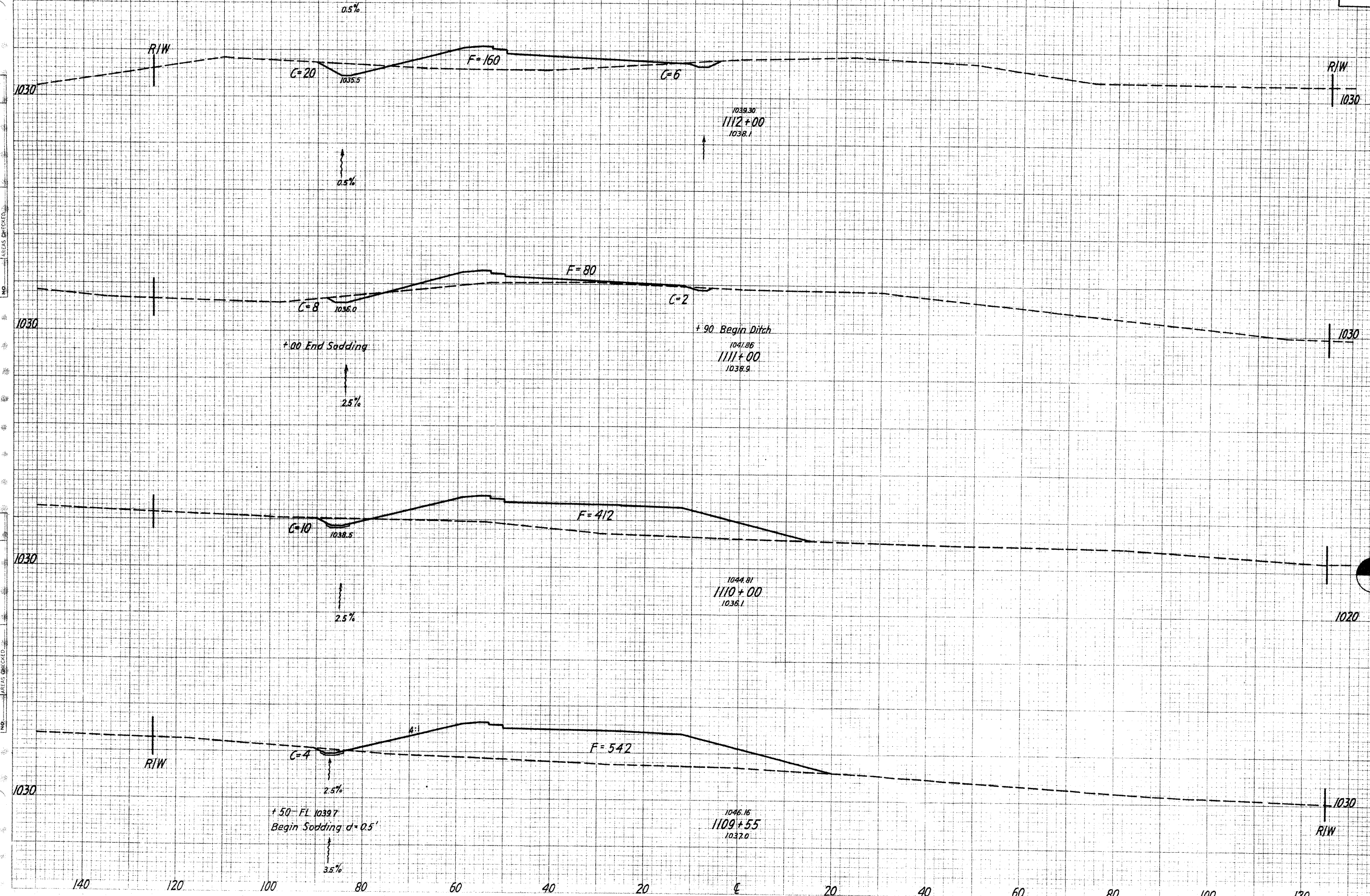
FINAL SURVEY CHECKED
SURVEY PLOTTED
FLAT PLATE
NOTEBOOK
AREAS CHECKED

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

114
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
78	26	163		
767			67	456
70	10	83		
928			37	922
97	10	415		
602			12	800
100	4	545		
544			40	812

DATE: _____ BY: _____
 SURVEYED: _____
 CHECKED: _____
 FINAL SURVEY: _____
 NO. OF BOOKS: _____
 NO. OF SHEETS: _____
 DATE: _____ BY: _____
 SURVEYED: _____
 CHECKED: _____
 FINAL SURVEY: _____
 NO. OF BOOKS: _____
 NO. OF SHEETS: _____

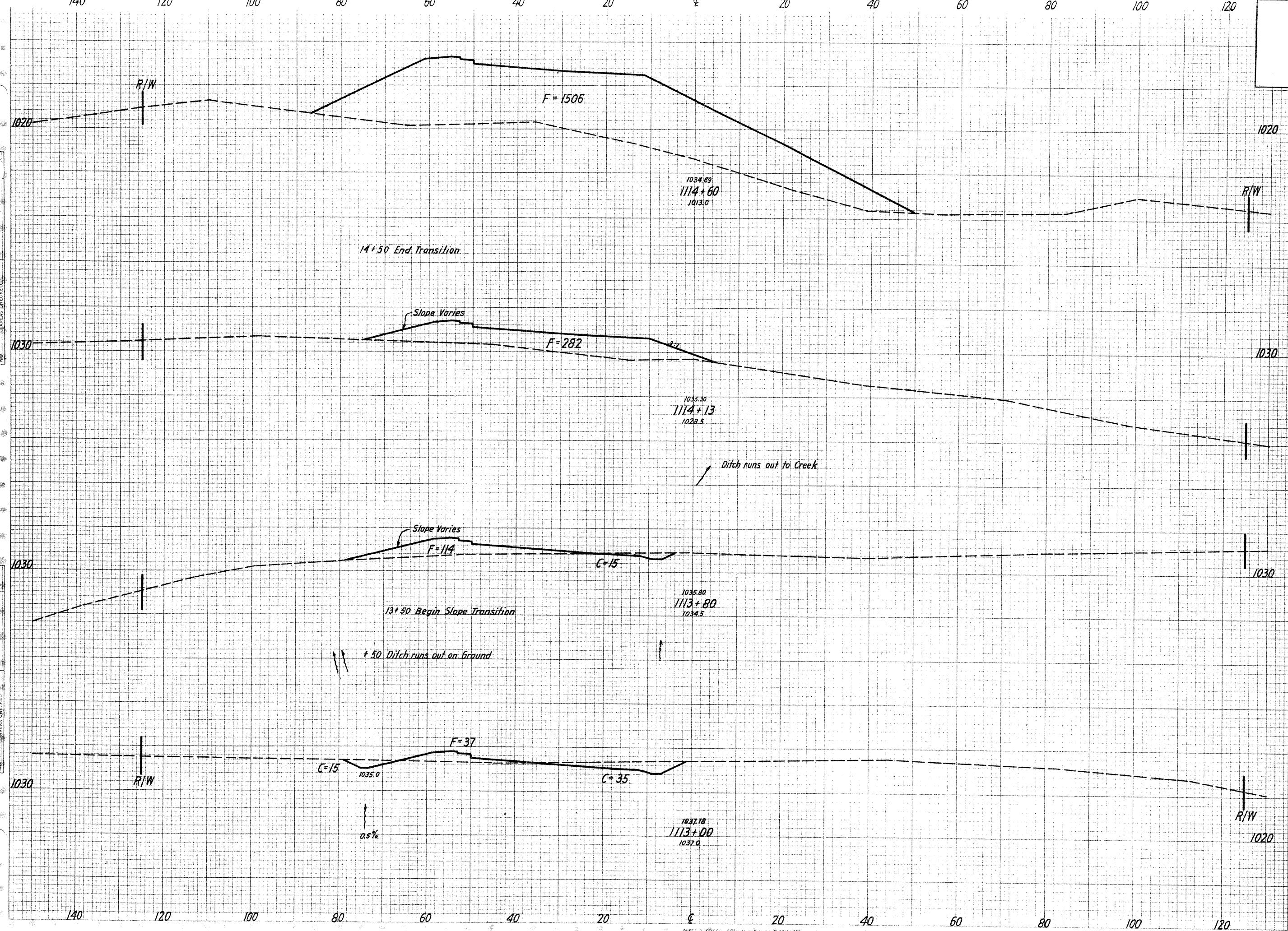
NOTE 3 - CROSS SECTION IN ACC. TO A.R.S. STANDARD
 ROYAL & STEER CO., NEW YORK

Sta 1109+55 to Sta 1112+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

115
329

STA - 21 - 17.90
WAY - 21 - 0.00
SUM - 21 - 0.00



Lin. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
137				1509		
509						1559
58				285		
224					9	246
64			15	117		
587					96	232
68			50	40		
811					141	376

FINAL SURVEY PLOTTED BY
NOTEBOOK NO. 115
DATE 11/13/00

ORIGINAL SURVEY PLOTTED BY
NOTEBOOK NO. 115
DATE 11/13/00

140 120 100 80 60 40 20 0 20 40 60 80 100 120

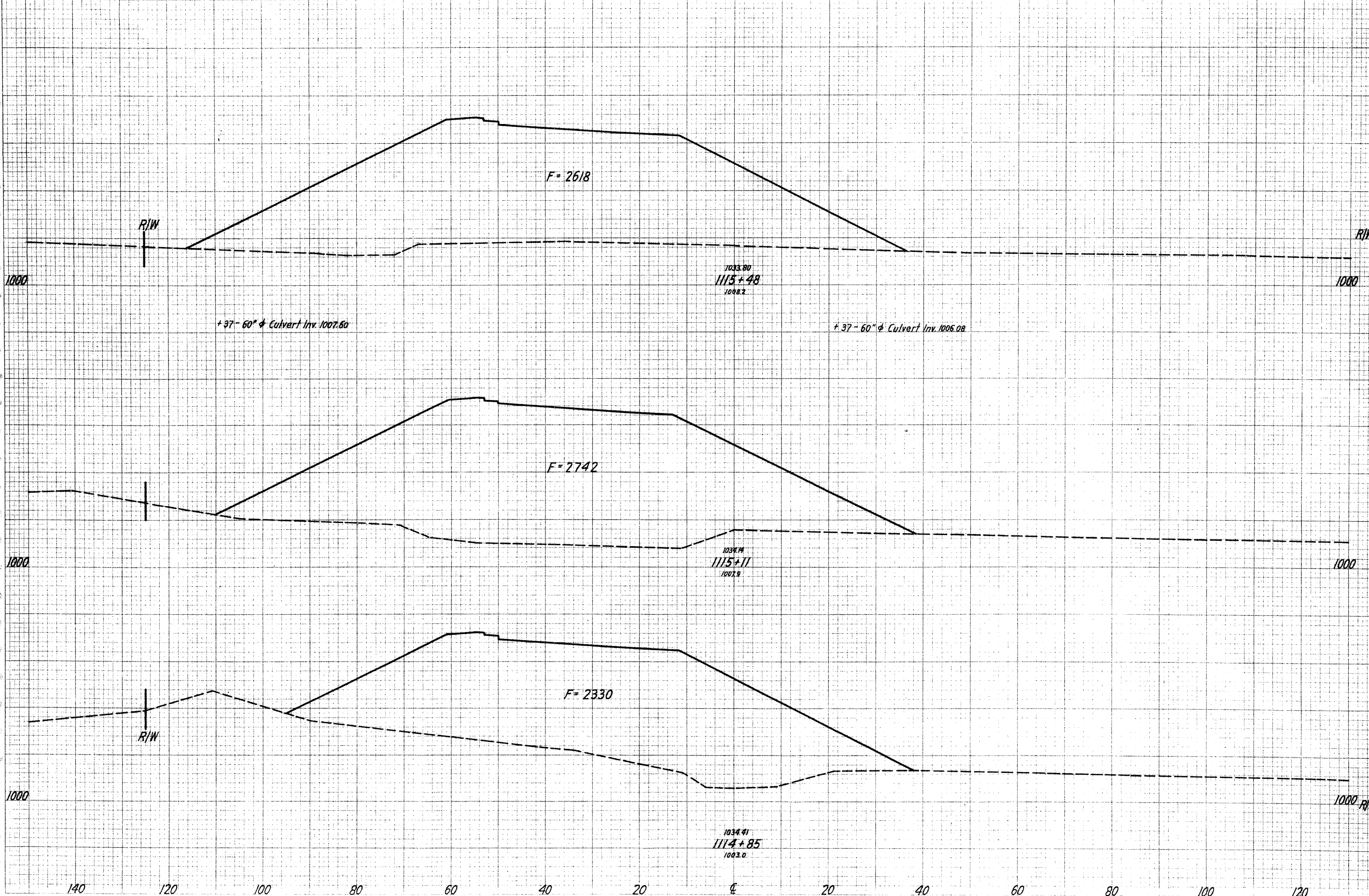
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
OHIO			

116
329

STA - 21 - 17.00
WAY - 21 - 0.00
SUM - 21 - 0.00

FINAL SURVEY PLOTTED AREAS CHECKED
NO. 1000

FINAL SURVEY PLOTTED AREAS CHECKED
NO. 1000



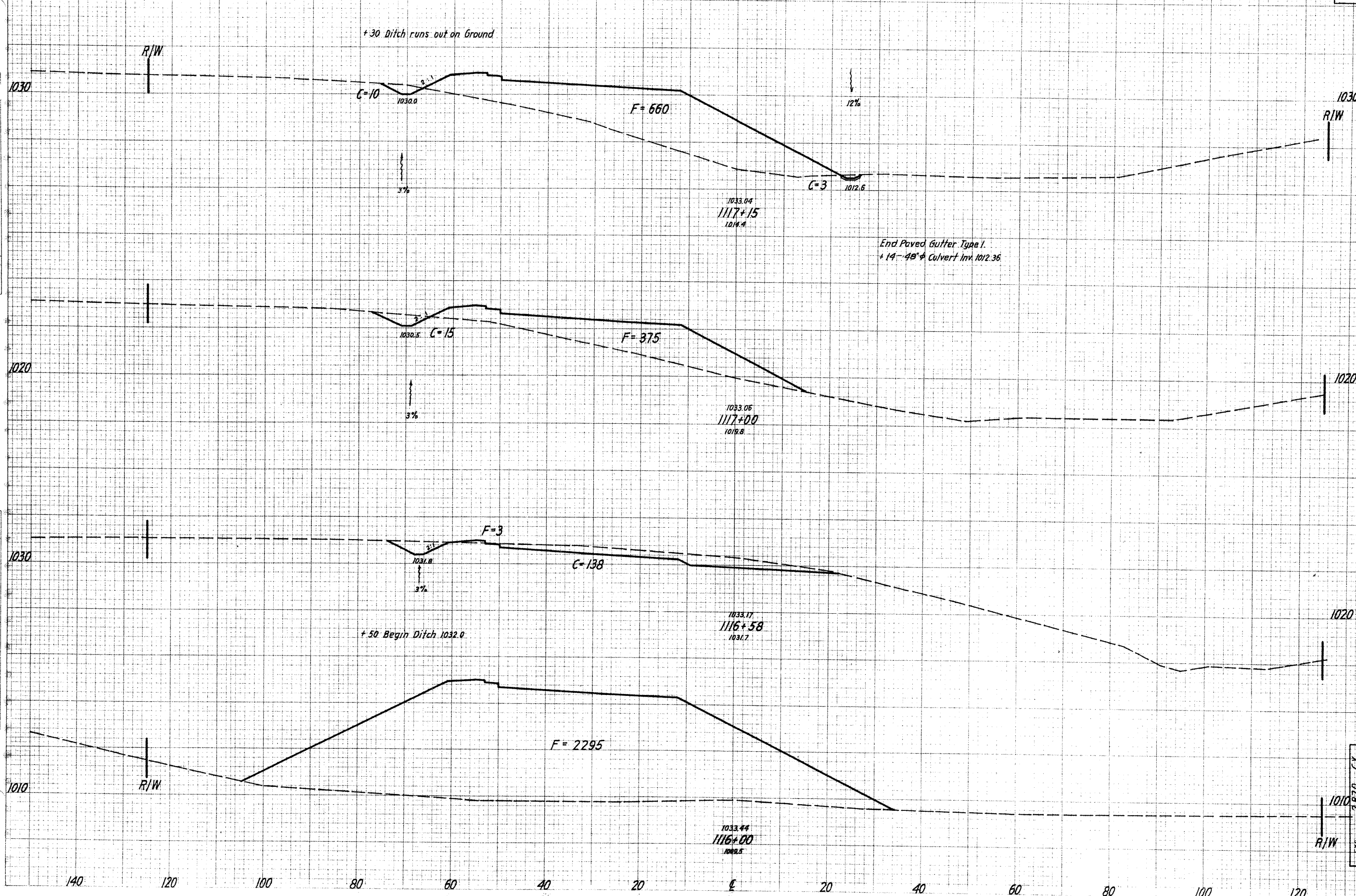
Lin. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
153				2621		
621						3677
149				2745		
403						2445
130				2333		
371						1777

Sta 1114+85 to Sta 1115+48

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

117
329

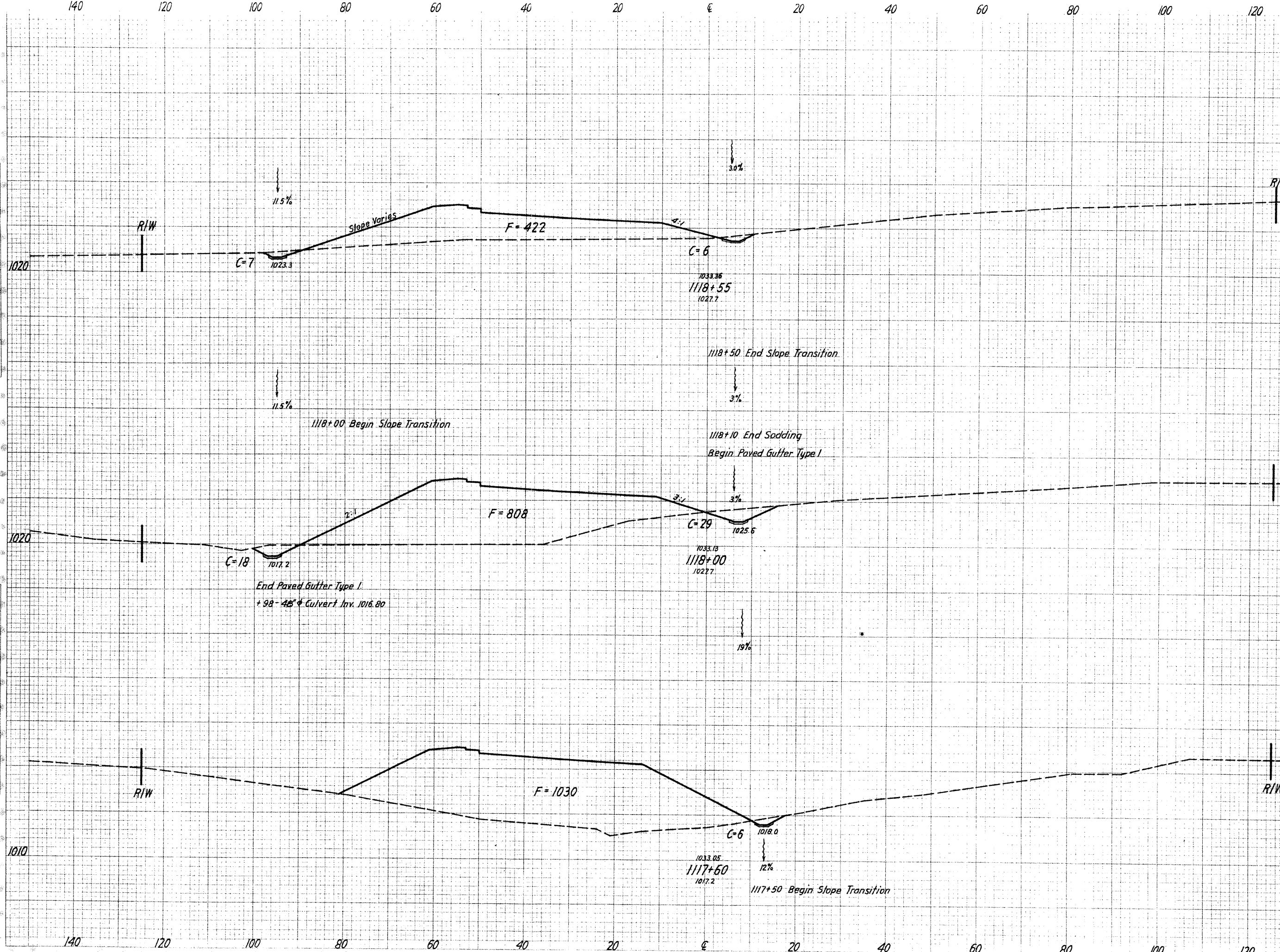
STA - 21 - 17.60
WAY - 21 - 0.00
SUM - 21 - 0.00



Lin. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
137		13	663			
185				8	289	
85		15	378			
397				119	299	
85		138	6			
719				148	2475	
138			2298			
841					4737	

Exc. 2870 CY
Emb. 24251 CY
Seeding 11569 SY

ORIGINAL SURVEY PLOTTED BY DATE
FINAL SURVEY PLOTTED BY DATE
NOTE BOOK AREAS CHECKED NO.



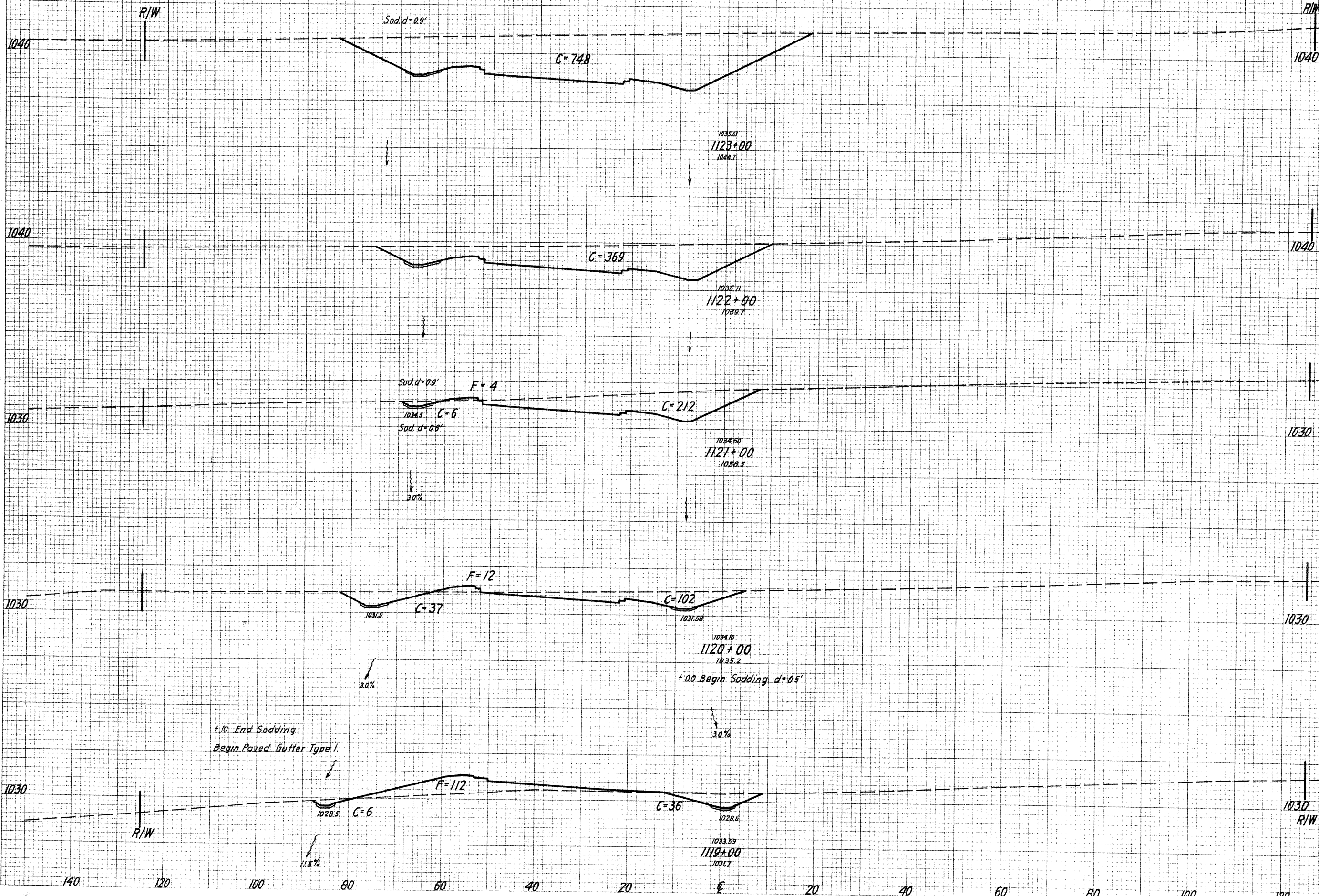
SEEDING	END AREA		CU. YDS.	
	Ln. Ft.	Sq. Yds.	CUT	FILL
96	13	425		
629			61	1261
110	47	811		
458			39	1365
96	6	1033		
583			16	1413

ORIGINAL SURVEY PLOTTED IN NOTE BOOK AREAS CHECKED
 ORIGINAL SURVEY PLOTTED IN NOTE BOOK AREAS CHECKED

FED. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

119
329

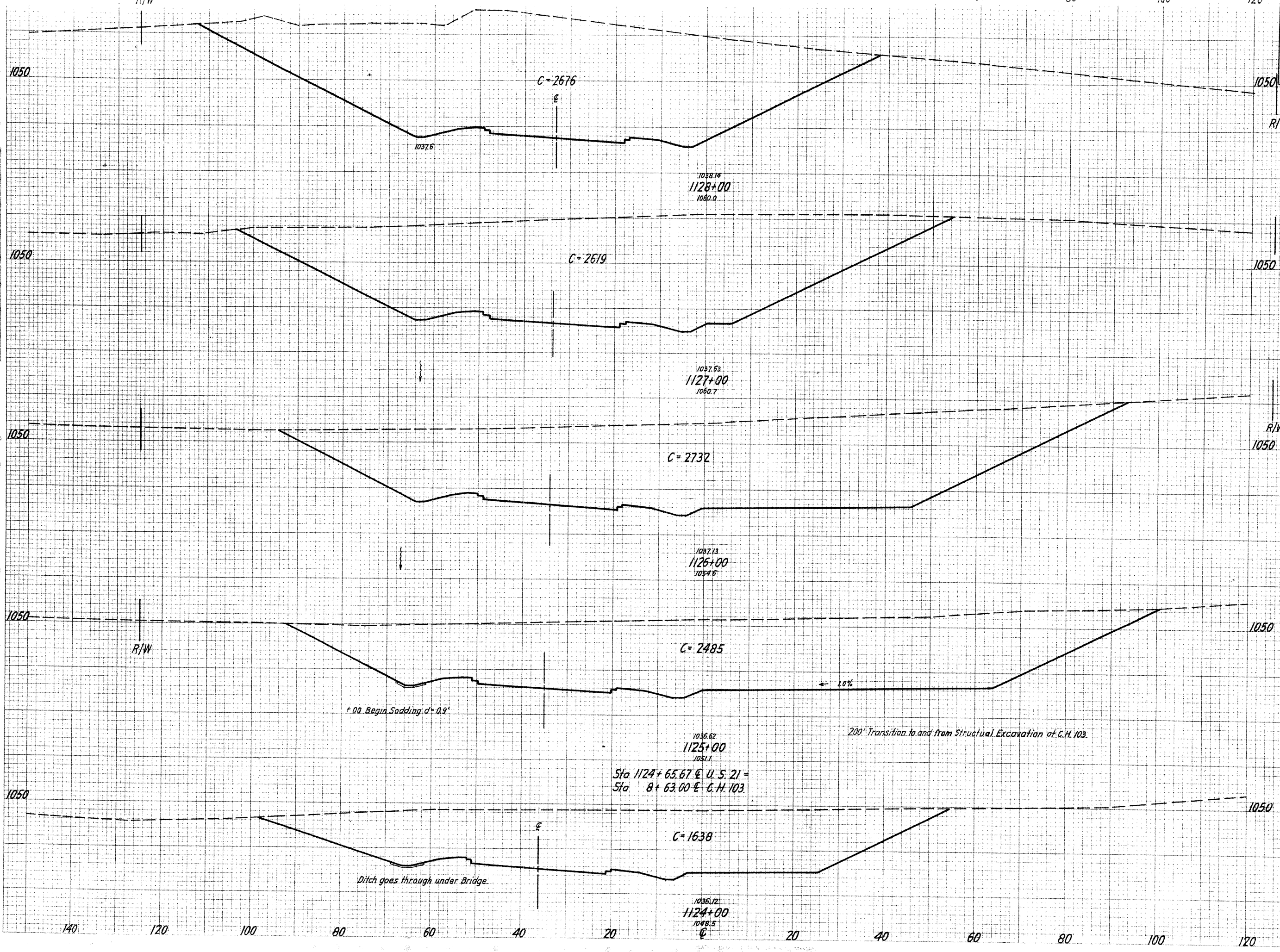
STA - 21 - 17.00
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING Ln. Ft.	Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
94		748			
1000				2069	
86		369			
844				1087	7
66		218	4		
800				667	30
78		139	12		
922				335	235
88		42	115		
460				46	450

ORIGINAL SURVEY CURVES PLOTTED
 SURVEY REVISIONS PLOTTED
 NO. OF AREAS CHECKED
 DATE
 BY
 NO. OF AREAS CHECKED
 DATE
 BY

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



C.Y.	SEEDING	END AREA		CU. YDS.	
		Lin. Ft.	Sq. Yds.	CUT	FILL
59,495	150		2676		
56	160	1722	2619		9806
14,911	1783				9909
	161		2732		
	1728				9661
	150		2485		
	1578				7635
	134		1638		
	1267				4419

FINAL SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

ORIGINAL SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

Sta 1124 + 65.67 @ U.S. 21 =
Sta 8 + 63.00 @ C.H. 103

+ 00 Begin Sodding d = 0.9'

200' Transition to and from Structural Excavation of C.H. 103.

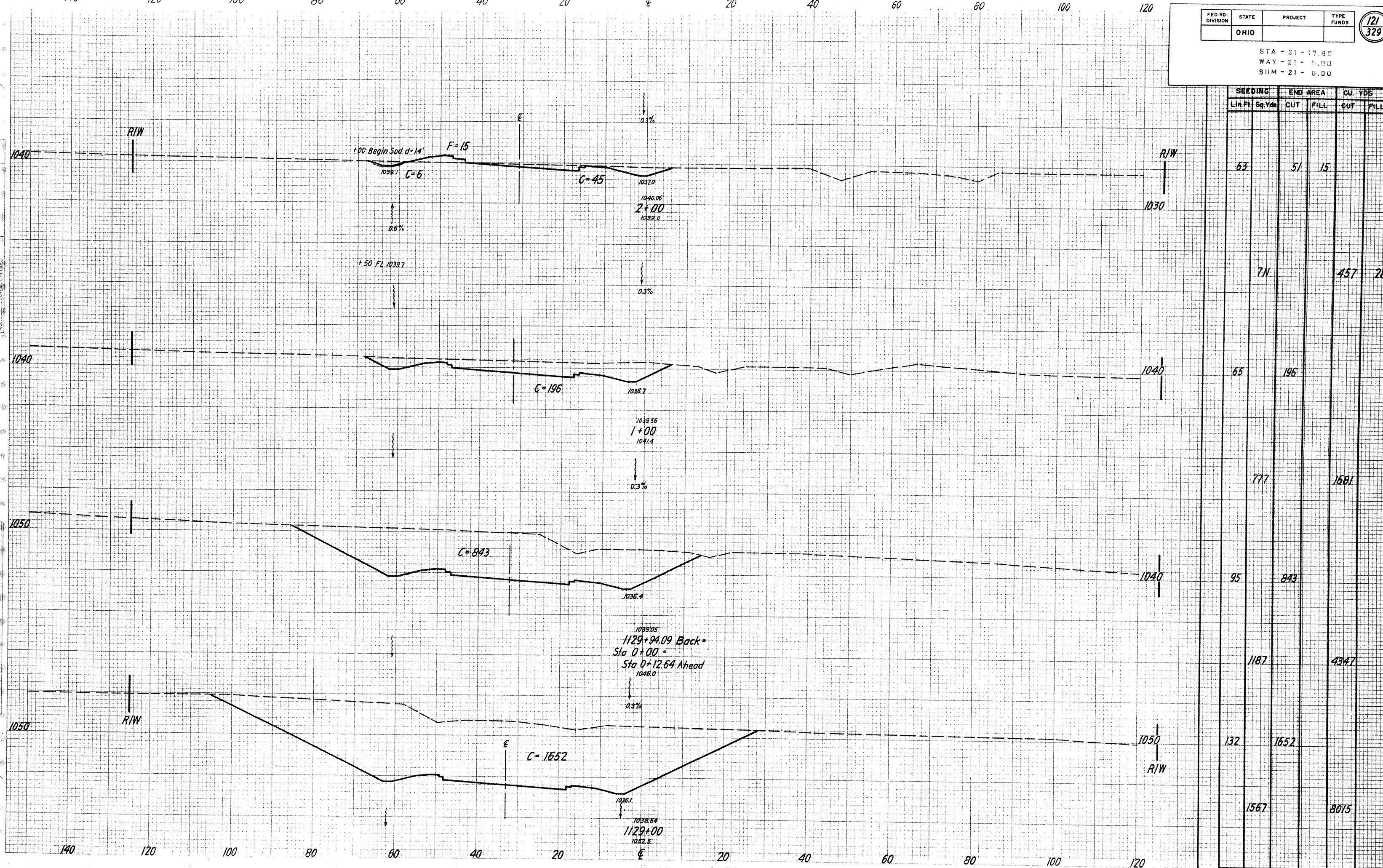
Ditch goes through under Bridge.

Sta. 1124+00 to Sta. 1128+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

121
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



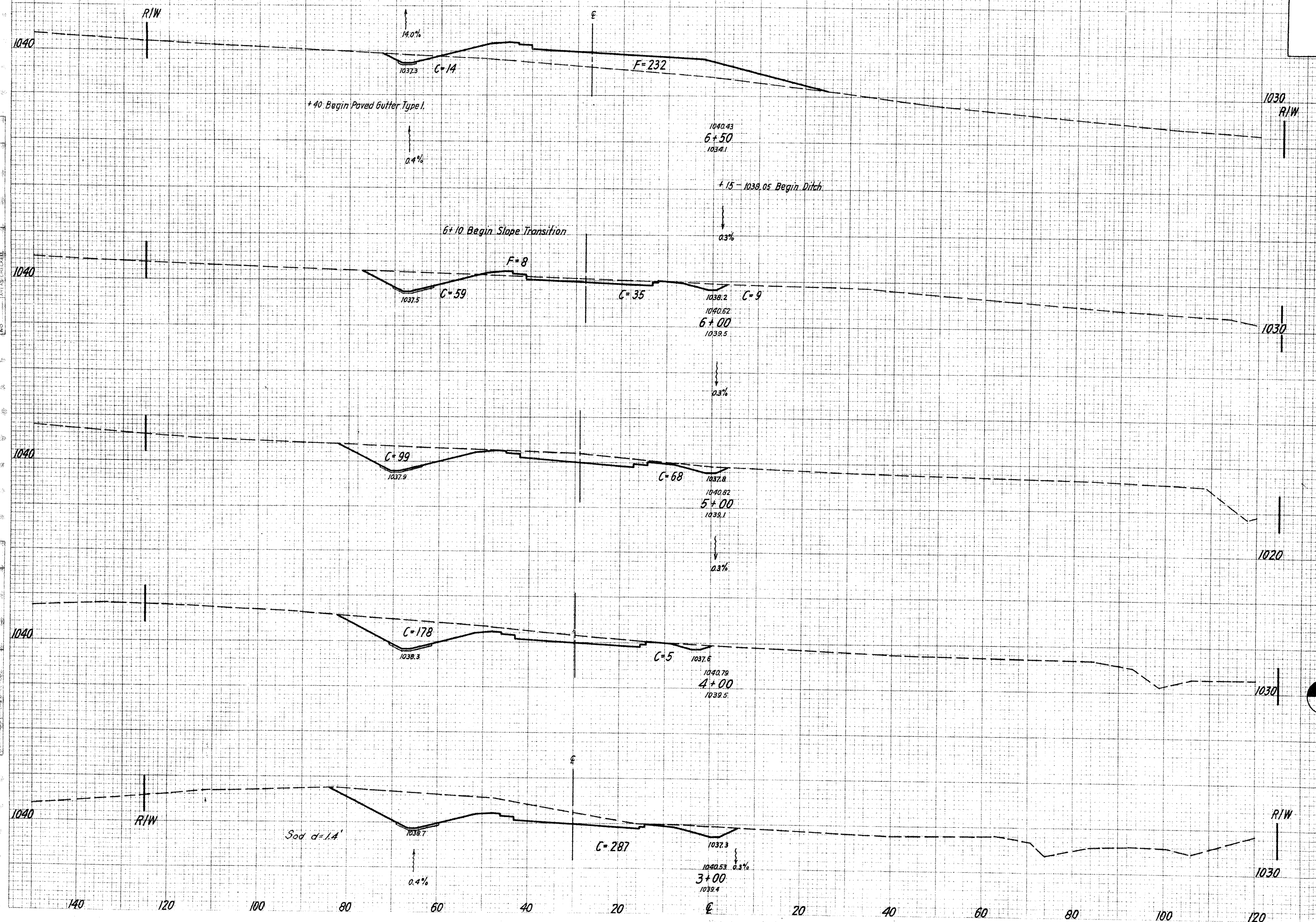
SEEDING	END AREA		CU. YDS	
	Lin. Ft	Sq. Yds	CUT	FILL
63	51	15		
711		457	28	
65		196		
777		1681		
95		843		
1187		4347		
132		1652		
1567		8015		

FINAL SURVEY PLOTTED BY DATE

ORIGINAL SURVEY PLOTTED BY DATE

Sta 1129+00 to Sta 2+00*

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



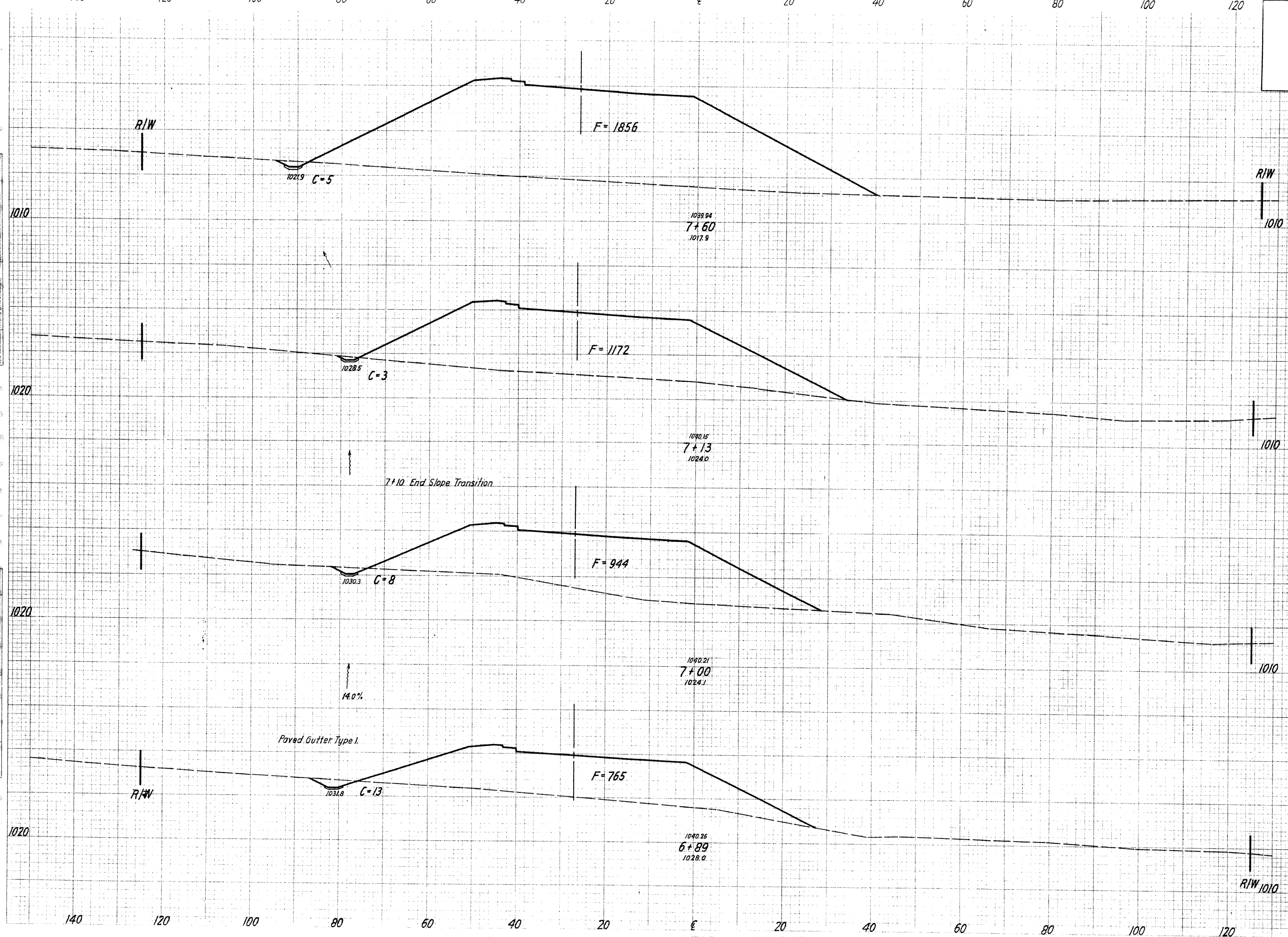
SEEDING	END AREA		CU YDS	
	Lin. Ft.	Sq. Yds.	CUT	FILL
90	14	235		
450			108	225
72	103	8		
828			500	15
77	167			
856			648	
77	183			
894			870	
84	287			
817			626	28

Sta. 3+00 to Sta. 6+50

FINAL SURVEY
 SURVEYED
 PLOTTED
 TEMPLATE
 AREAS
 CHECKED

ORIGINAL SURVEY
 SURVEYED
 PLOTTED
 TEMPLATE
 AREAS
 CHECKED

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



LIn. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
133		5	1859			
634					7	2641
110		3	1175			
149					3	511
97		8	947			
125					4	349
108		13	768			
429					19	724

FINAL SURVEYED
SURVEY PLOTTED
NOTE BOOK
NO. AREAS CHECKED

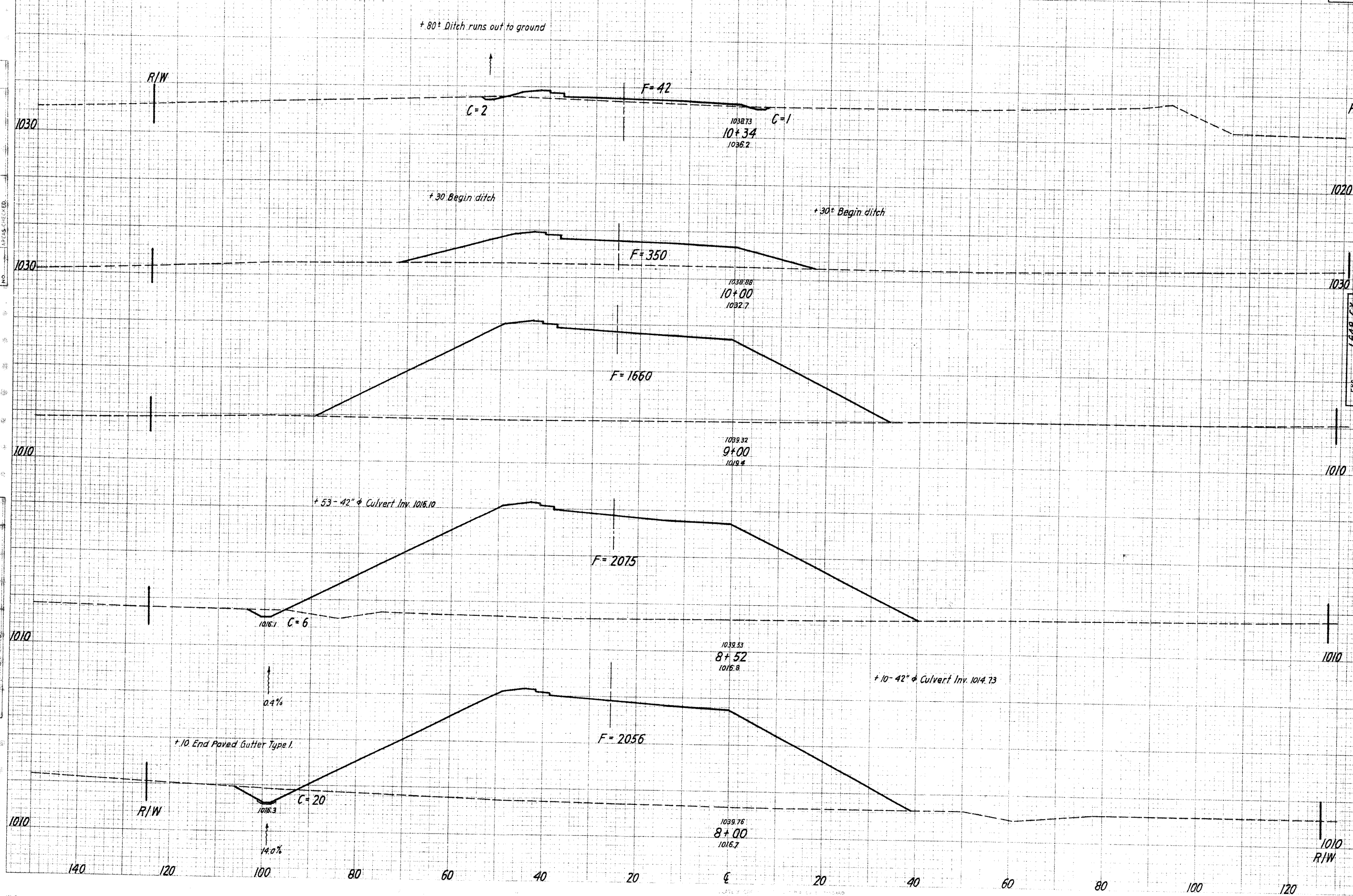
FINAL SURVEYED
SURVEY PLOTTED
NOTE BOOK
NO. AREAS CHECKED

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

124
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



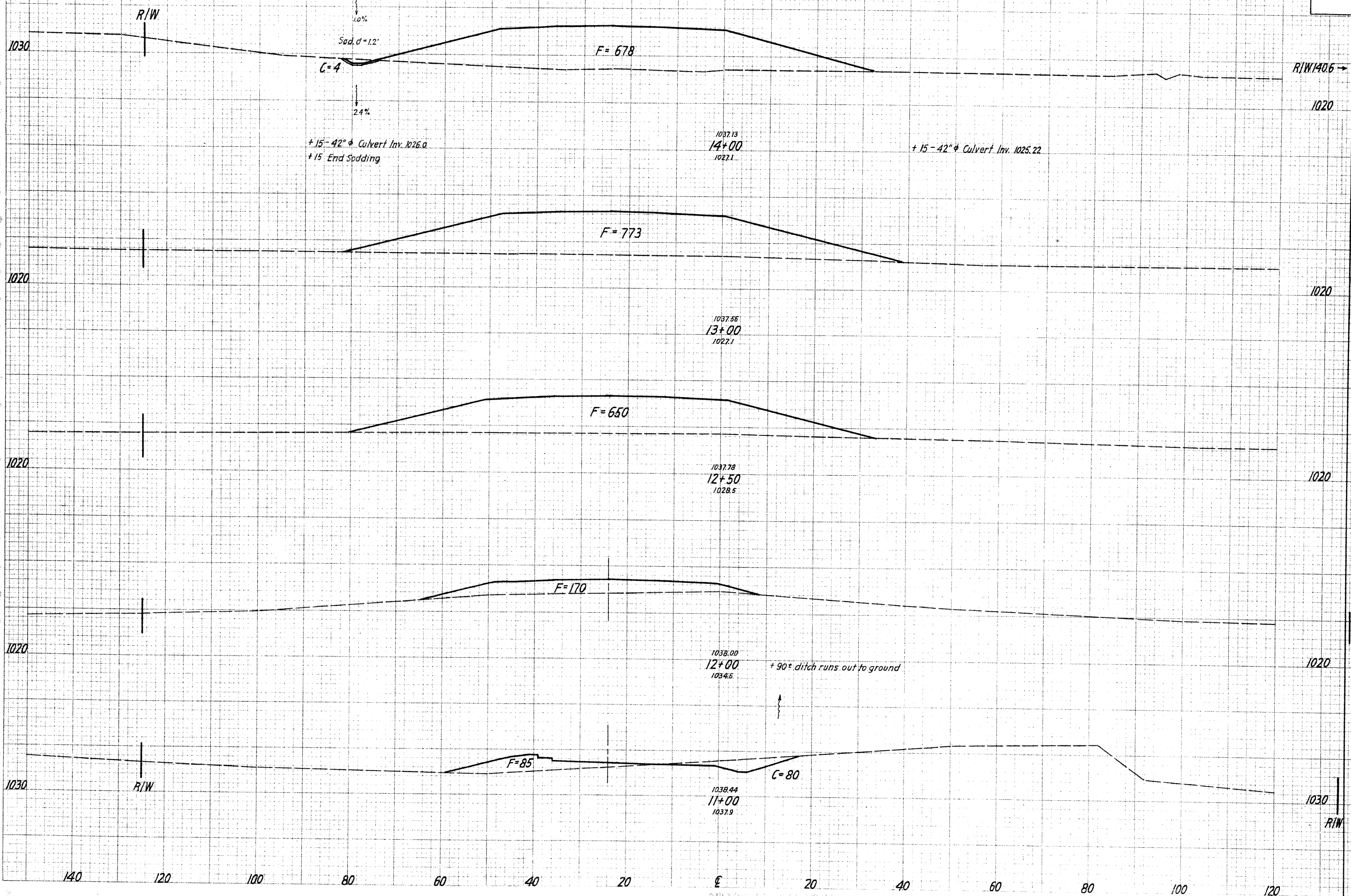
Ln Ft	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
50		3	45			
246				2	251	
80			353			
1222					3733	
122			1663			
707				5	3325	
143		6	2078			
832				25	3984	
145		20	2059			
618				19	2902	

EXC. 1648 CY
EMB. 27416 CY
SEEDING 11,794 SY

FINAL SURVEY PLOTTED TEMPLATE NO. 1030

ORIGINAL SURVEY PLOTTED TEMPLATE NO. 1010

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Sta	SEEDING		END AREA		CU. YDS.	
	Ln Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
1020	107		4	684		
		1222			7	2709
1020	113			779		
		597				1329
1020	102			656		
		461				770
1020	64			176		
		722			148	489
1030	66		80	88		
	425				101	163

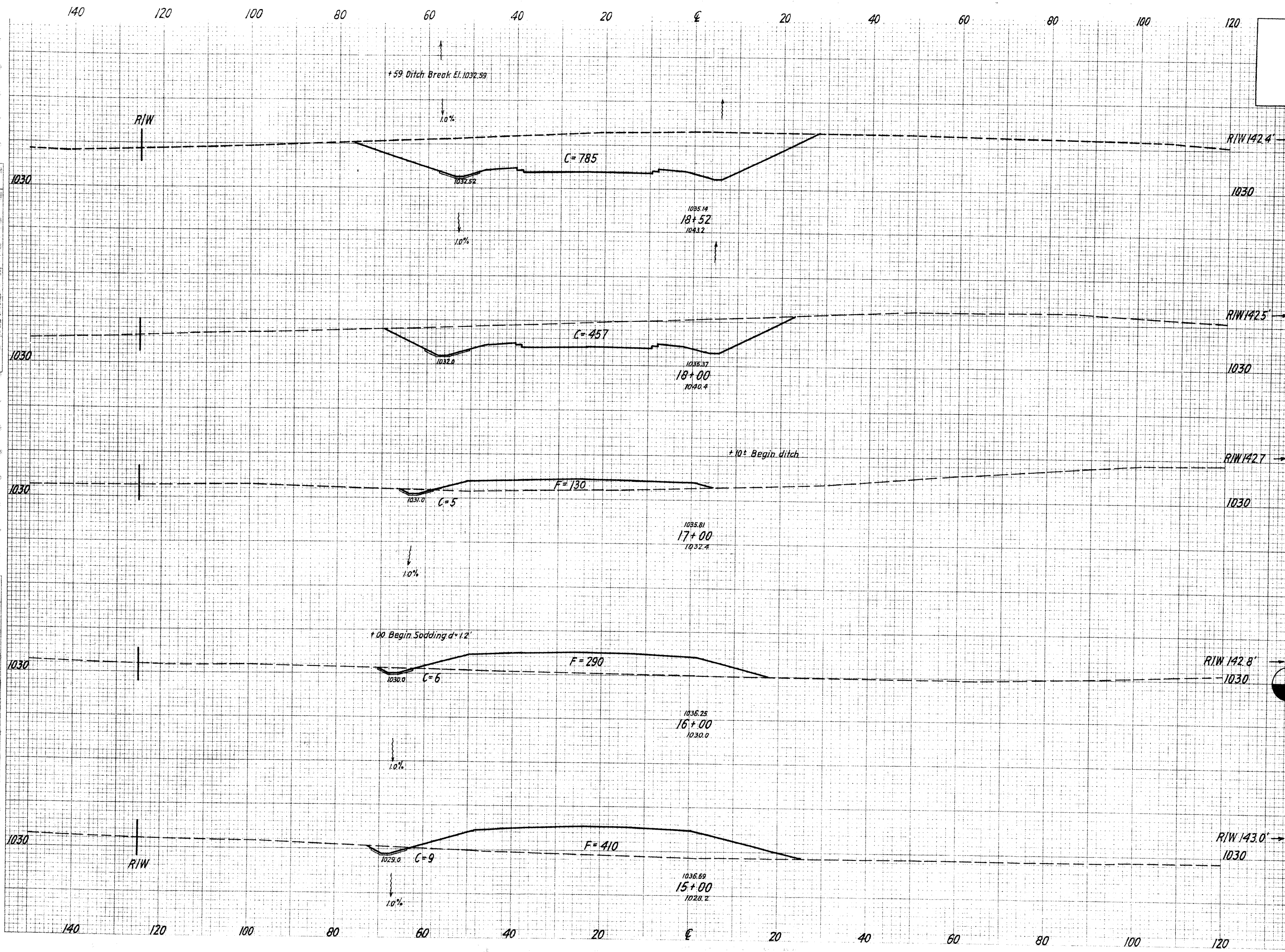
FINAL SURVEY
NO. 1027.1

ORIGINAT. SURVEY
NO. 1037.9

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

126
329

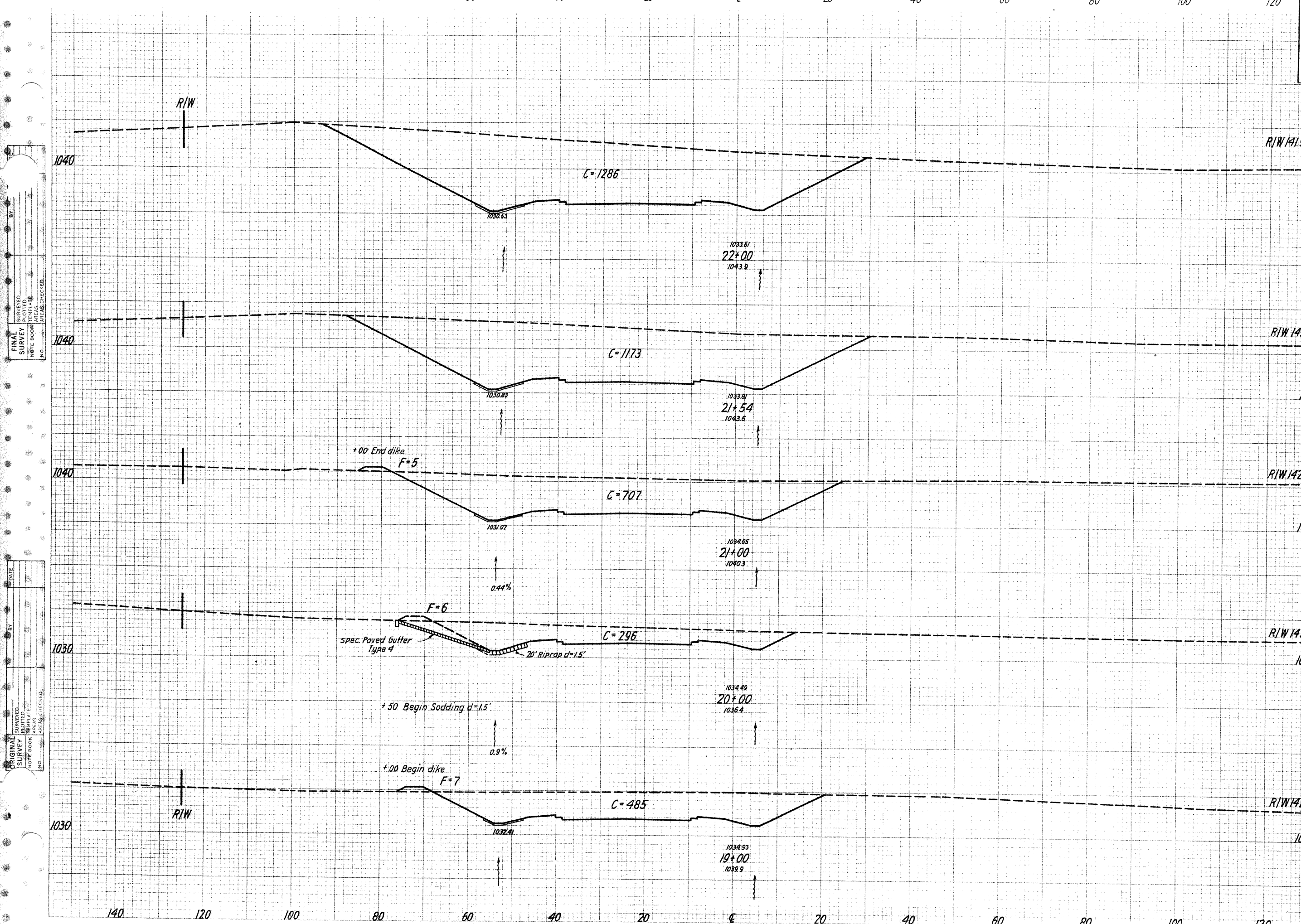
STA - 21 - 17.80
WAY - 21 - 0.00
S.M - 21 - 3.00



SEEDING Lin. Ft.	END AREA Sq. Yds.	CU. YDS.	
		CUT	FILL
97	785		
529			1796
86	457		
811			856 252
60	5	136	
756			20 800
76	6	296	
922			28 1319
90	9	410	
1094			24 2037

FINAL SURVEY SURVEYED, PLOTTED, NOTE BOOK, EMPLOYEE NO. AREAS CHECKED

ORIGINAL SURVEYED, PLOTTED, NOTE BOOK, EMPLOYEE NO. AREAS CHECKED



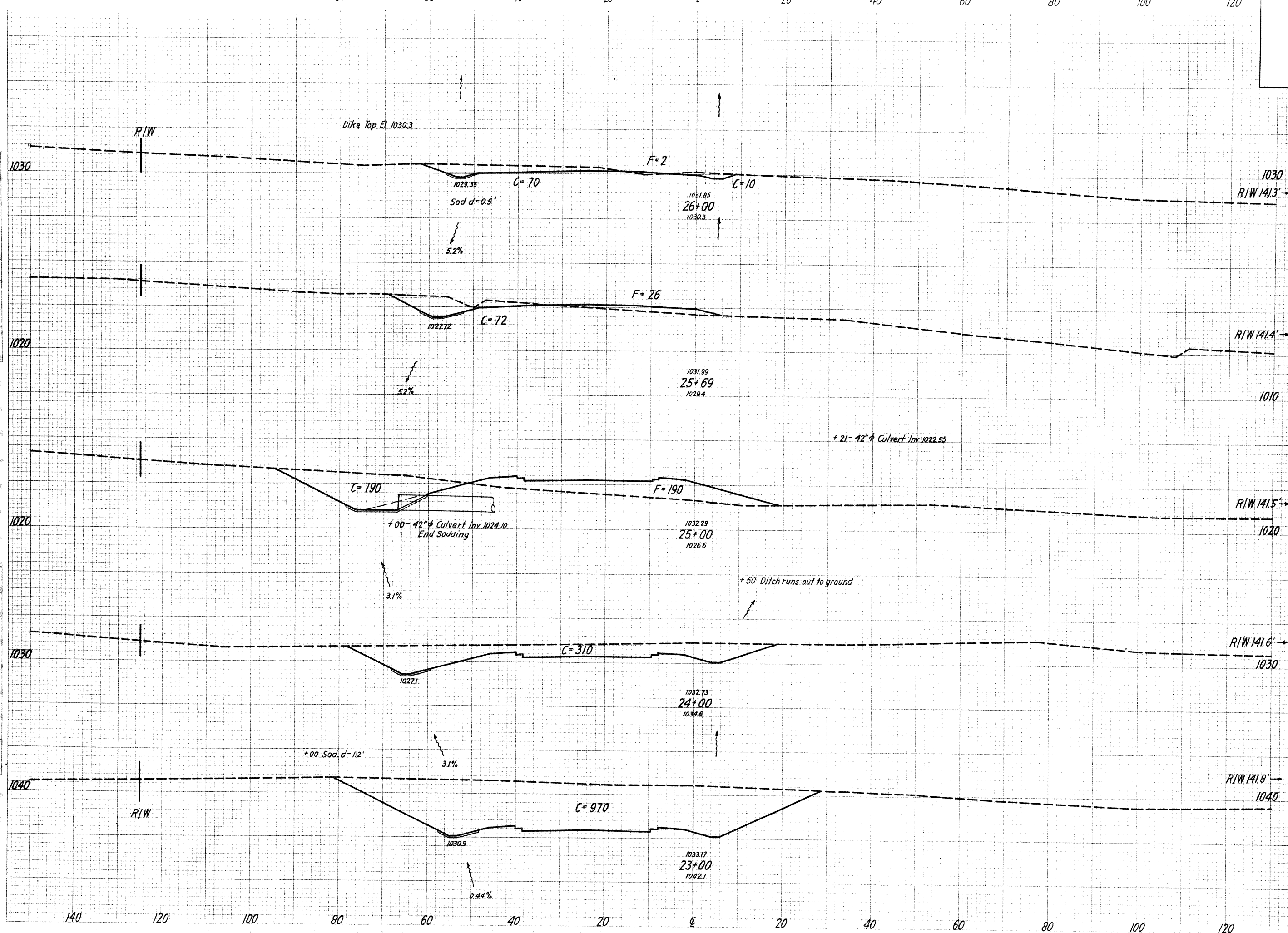
Sta.	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
22+00	120	1286				
21+54	114	1173	654		1880	5
21+00	104	707		5		
20+00	1033				1857	20
	82	296		6		
	1011				1446	24
	100	485		7		
	525				1129	6

FAC. 20667 CY
 EMB. 3082 CY
 SEEDING 11231 SY

FINAL SURVEY PLOTTED
 NOTE BOOK TEMPLATE
 NO. AREAS CHECKED

ORIGINAL SURVEY PLOTTED
 NOTE BOOK TEMPLATE
 NO. AREAS CHECKED

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



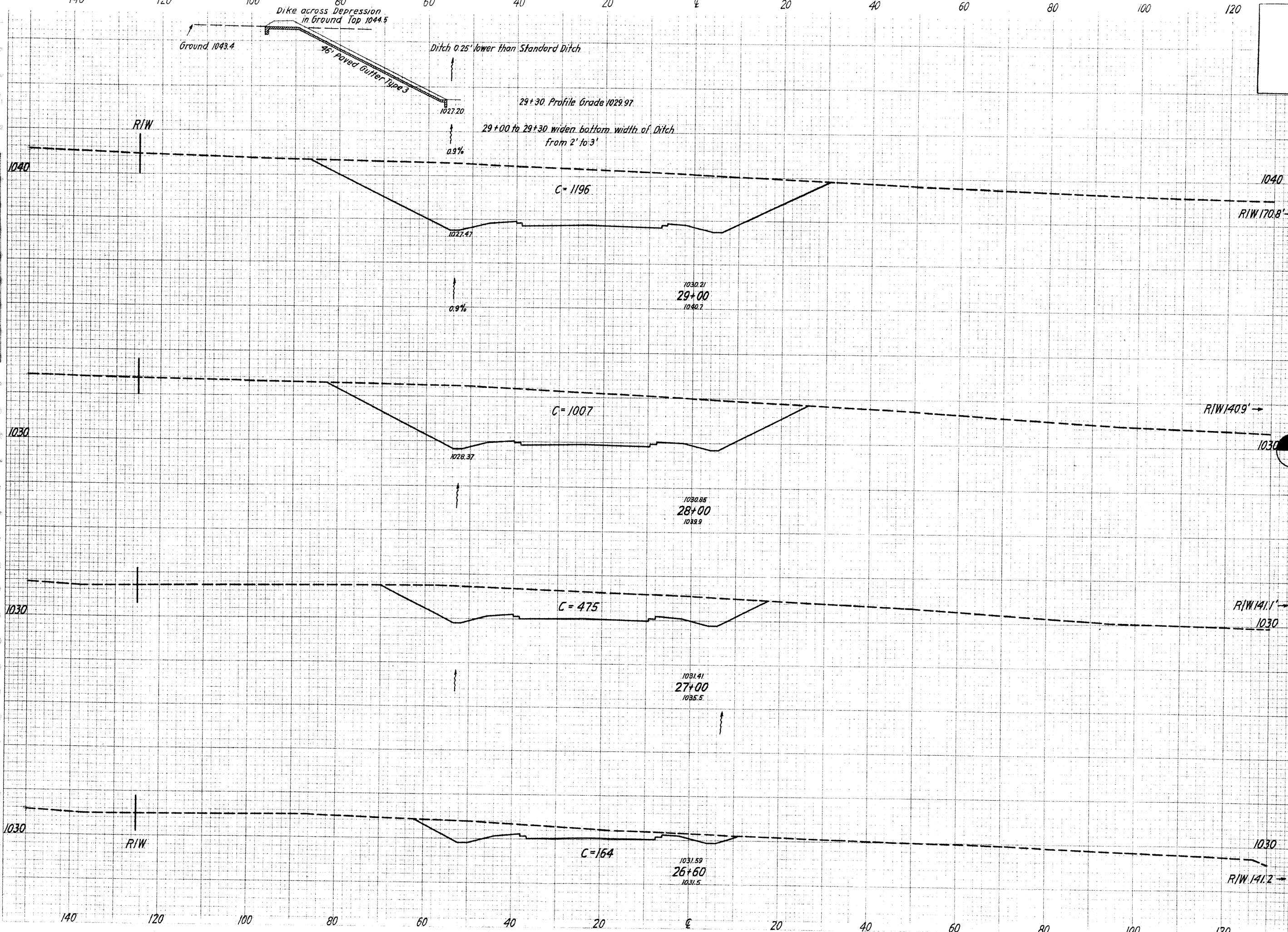
SEEDING	END AREA		CU. YDS.	
	Ln. Ft.	Sq. Yds.	CUT	FILL
60	80	8		
215			87	23
65	72	32		
663			335	395
108	190	190		
1117			926	352
93	310			
1089			2370	
103	970			
1239			4178	

Sta 23+00 to Sta. 26+00

FINAL SURVEY PLOTTED
NOTE BOOK NO. 128
AREAS CHECKED

DATE
NO.

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Ln. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
130		1196				
1294					4080	
103		1007				
1017					2744	
80		475				
304					473	
57		164				
390					271	9

Sta. 26+60 to Sta. 29+00

FINAL SURVEY PLOTTED AREAS CHECKED

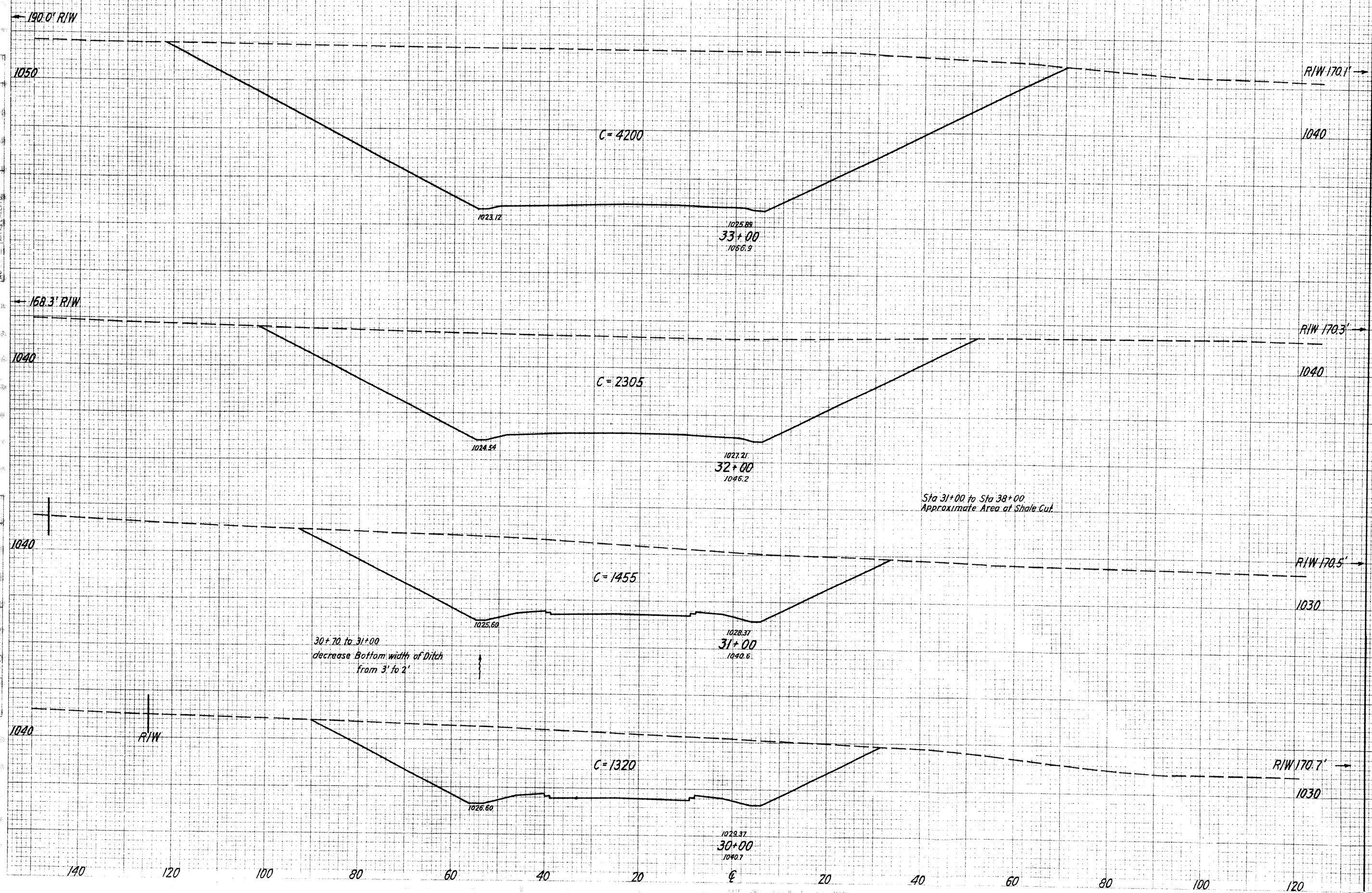
ORIGINAL SURVEY PLOTTED AREAS CHECKED

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

130
329

STA - 31 - 17.83
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
88	4200	6		
1017		12,046	22	
95	2305	6		
1039		6963	71	
92	1455			
1161		5139		
117	1320			
1372		4689		

Sta. 30+00 to Sta 33+00

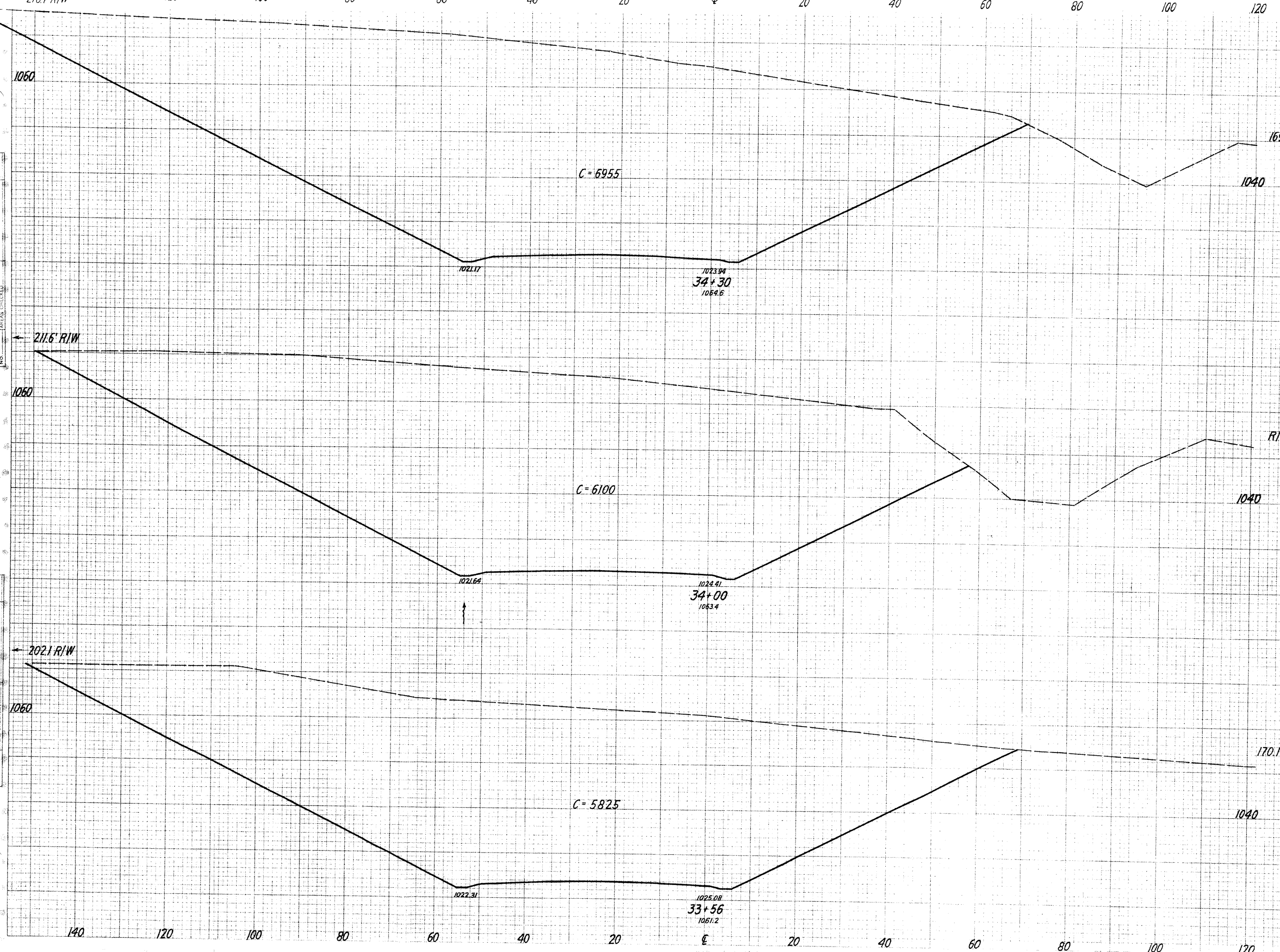
FINAL SURVEY PLOTTED
NOTE BOOK NO. 1000
NO. 1000

ORIGINAL SURVEY PLOTTED
NOTE BOOK NO. 1000
NO. 1000

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

131
329

STA - 21 - 17.80
WAY - 21 - 0.00
DAY - 1 - 0.00



LIn. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
126		6955	6			
377				7253	7	
100		6100	6			
538				9717	10	
120		5825	6			
647				10,396	12	

Exc. 79,026 C.Y.
Emb. 77 C.Y.
Seeding 8,428 S.Y.

FINAL SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

ORIGINAL SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

Sta 33+56 to Sta 34+30

140 120 100 80 60 40 20 0 20 40 60 80 100 120

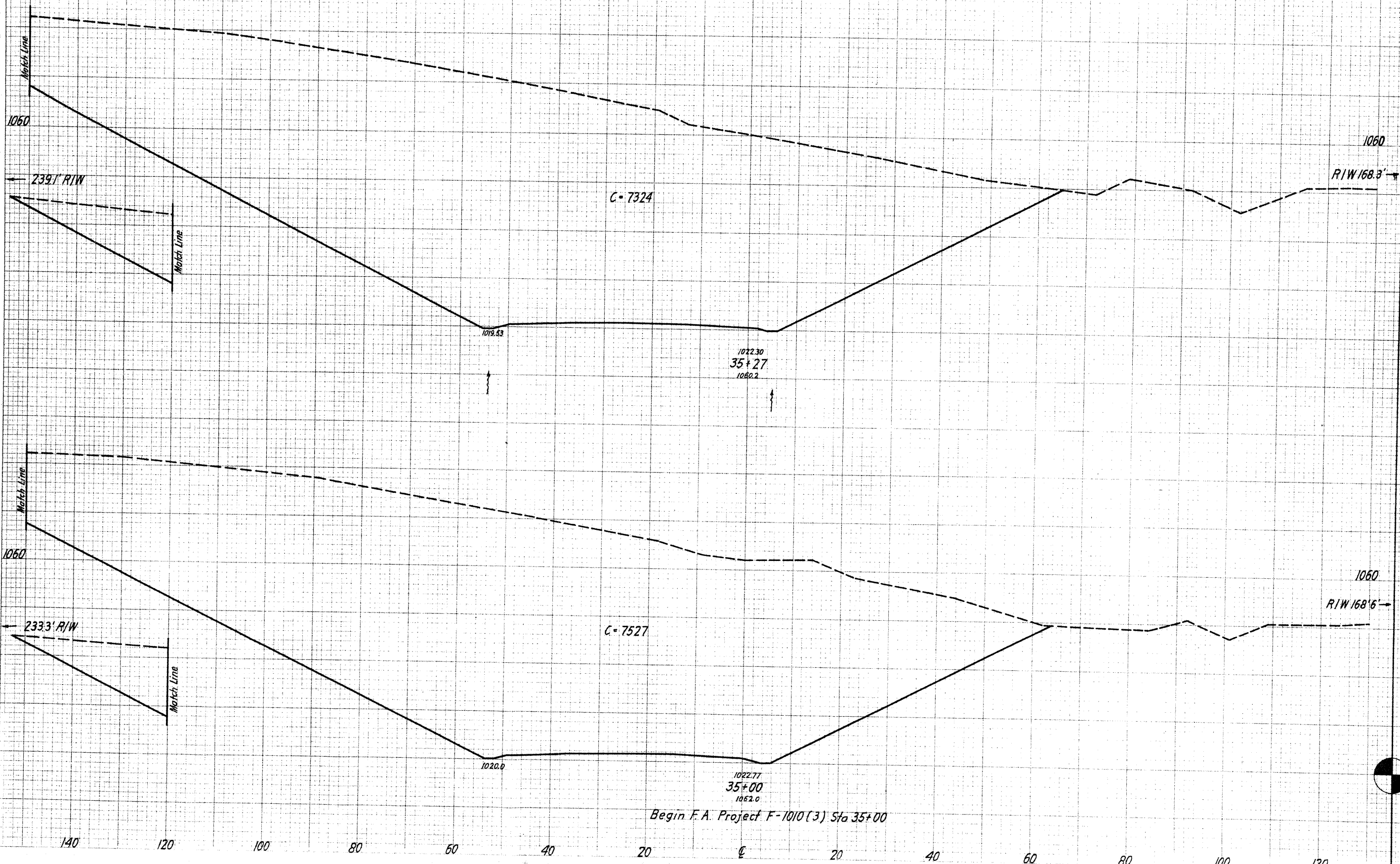
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

132
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

FINAL SURVEY
NOTED BOOK REPLICATED
AREAS CHECKED

ORIGINAL SURVEY
NOTED BOOK REPLICATED
AREAS CHECKED

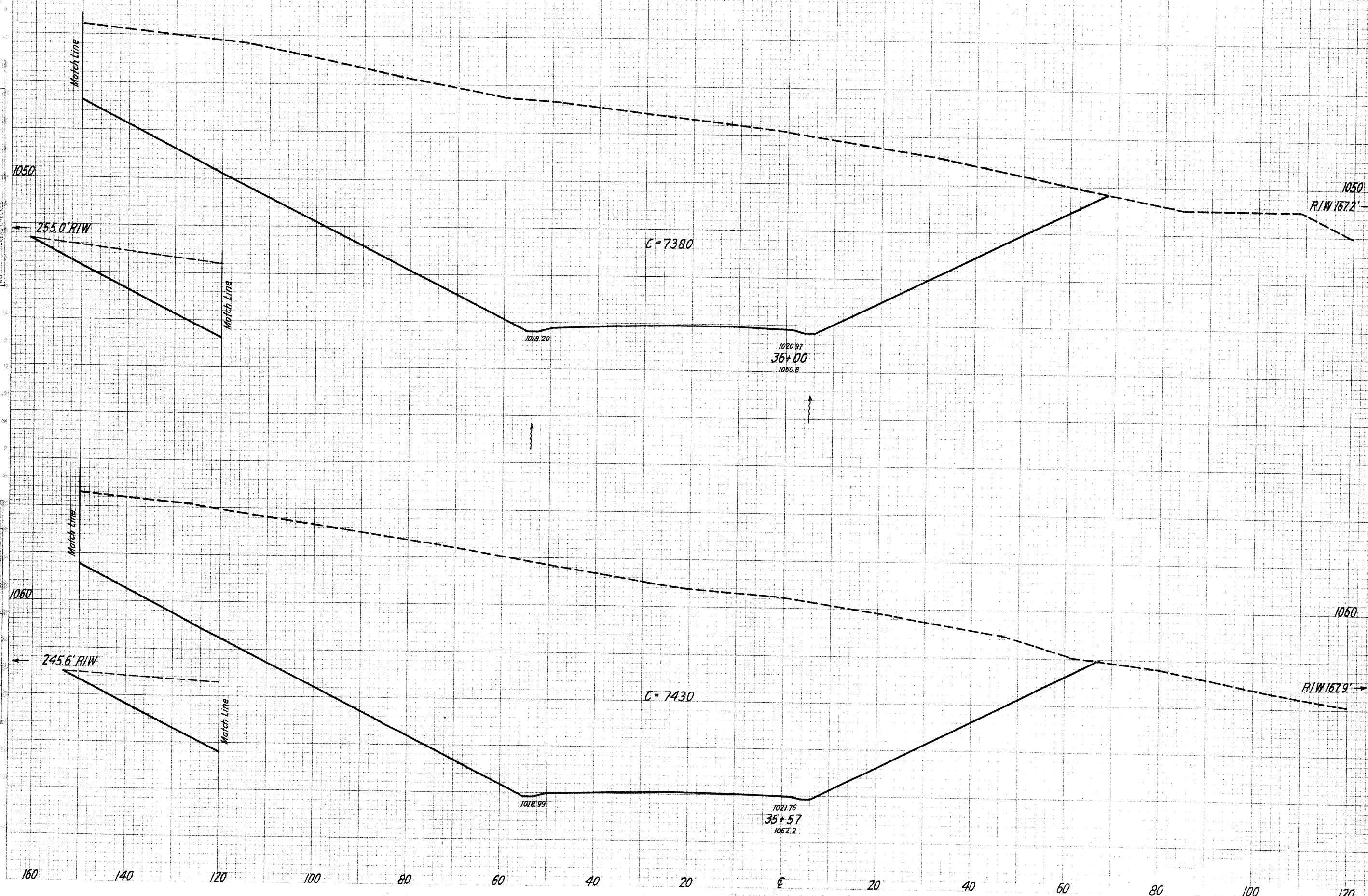


SEEDING	END AREA		CU. YDS.	
	Ln. Ft.	Sq. Yds.	CUT	FILL
128	7324	6		
383	7426	6		
127	7527	6		
983	18773	15		

Sta 35+00 to Sta 35+27

PLEASE USE...
REVISIONS...

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Sta.	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
122			7380	6		
578					11,793	10
120			7430	6		
413					8,097	7

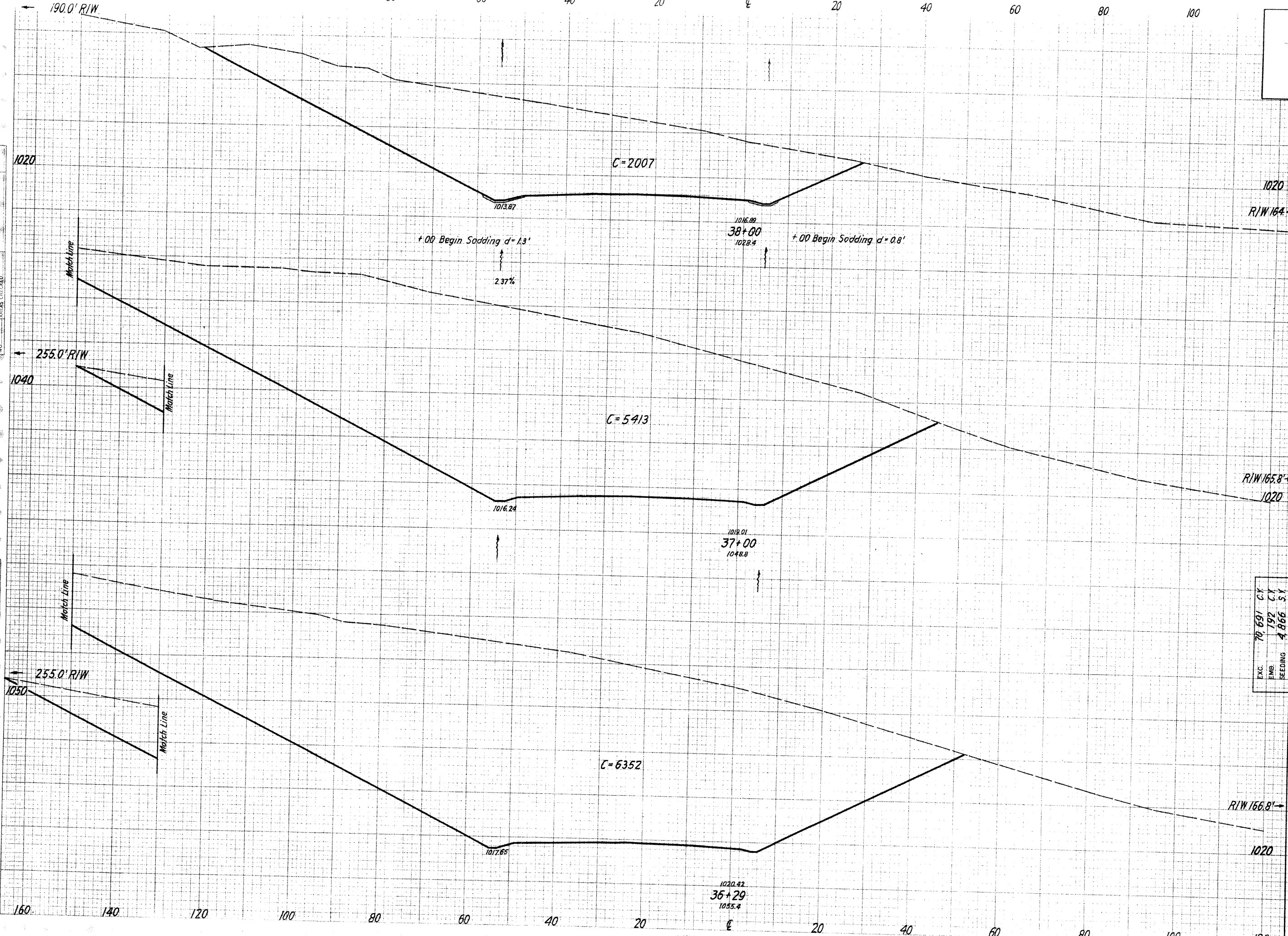
FINAL SURVEY PLOTTED AREAS CHECKED

FINAL SURVEY PLOTTED AREAS CHECKED

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

134
329



BY _____
DATE _____
NO. _____
NO. _____
NO. _____
NO. _____

BY _____
DATE _____
NO. _____
NO. _____
NO. _____
NO. _____

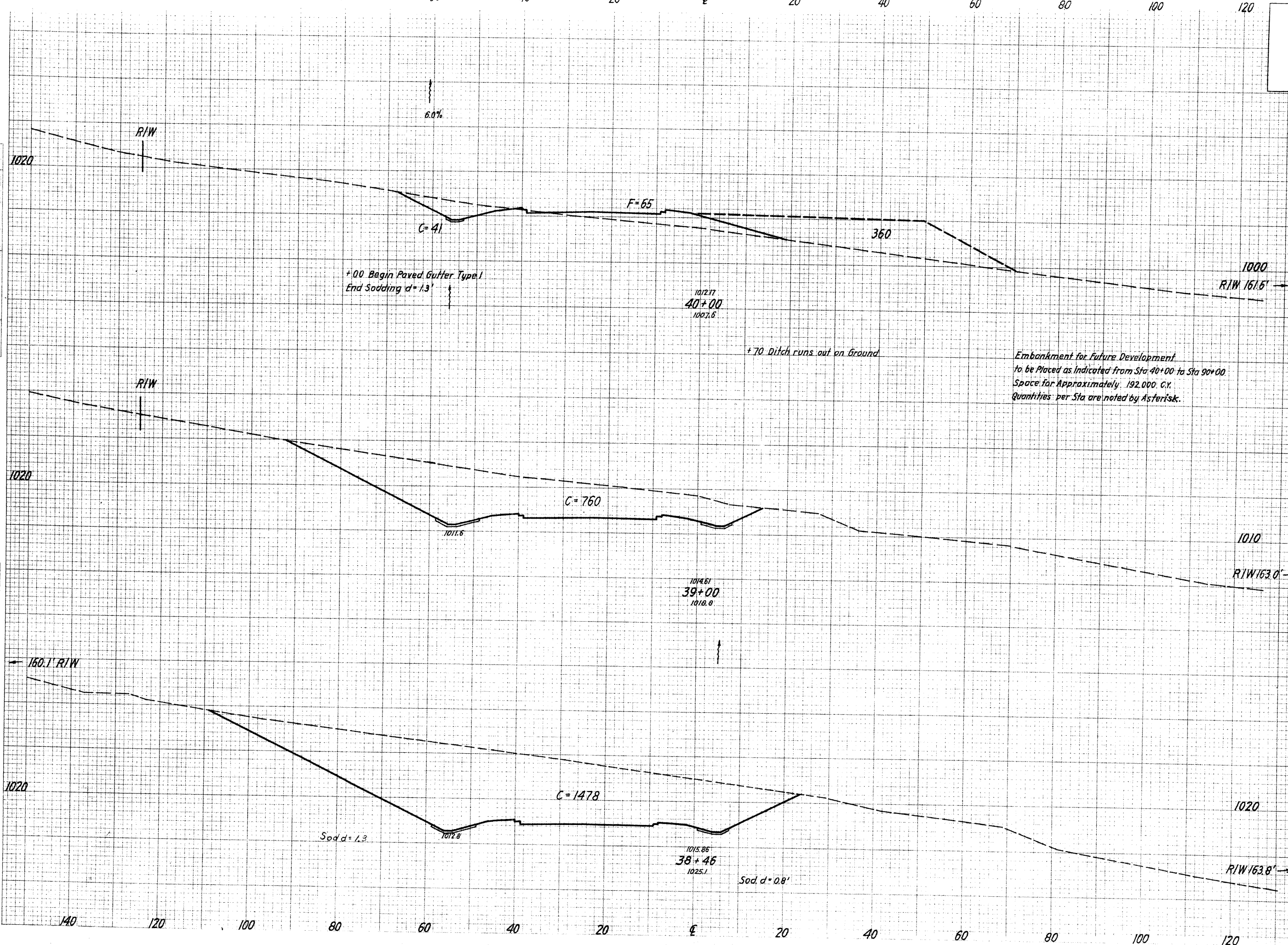
SEEDING	END AREA		CU. YDS.	
	L.H. FT.	Sq. Yds.	CUT	FILL
60	2007	6		
756		13,741	22	
76	5413	6		
686		15,469	16	
98	6352	6		
354		7375	6	

EXC. 70,691 CY
EMB. 792 CY
SEEDING 4,866 SY

Sta 36+29 to Sta 38+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	135 329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



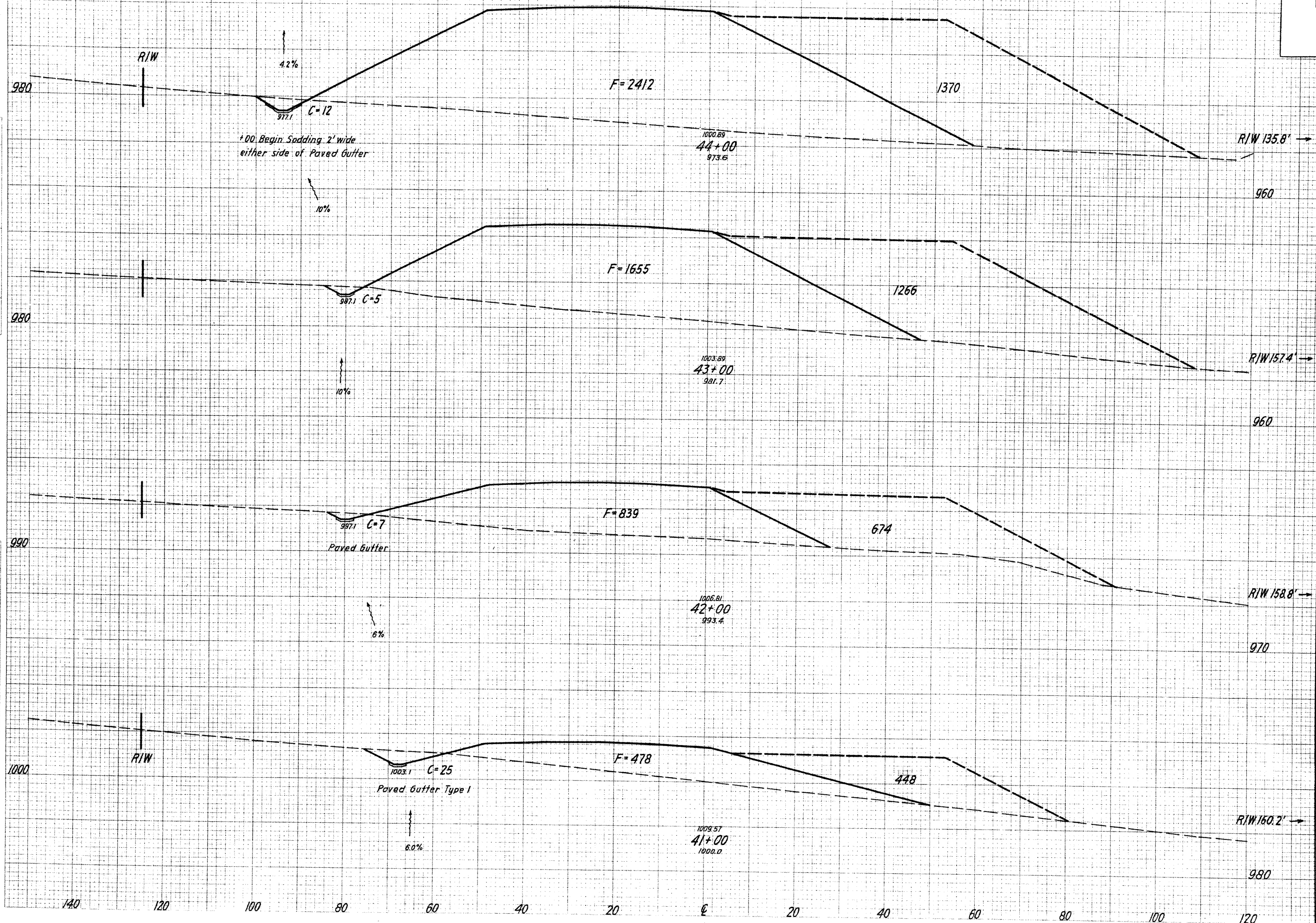
Lin. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
130		41		65		
1122				1483		120
72		760				
510				2238		
98		1478				
404				2969		5

Sta. 38+46 to Sta. 40+00

FINAL SURVEY PLOTTED BY DATE
NOTE BOOK NO. AREAS CHECKED

ORIGINAL SURVEY PLOTTED BY DATE
NOTE BOOK NO. AREAS CHECKED

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

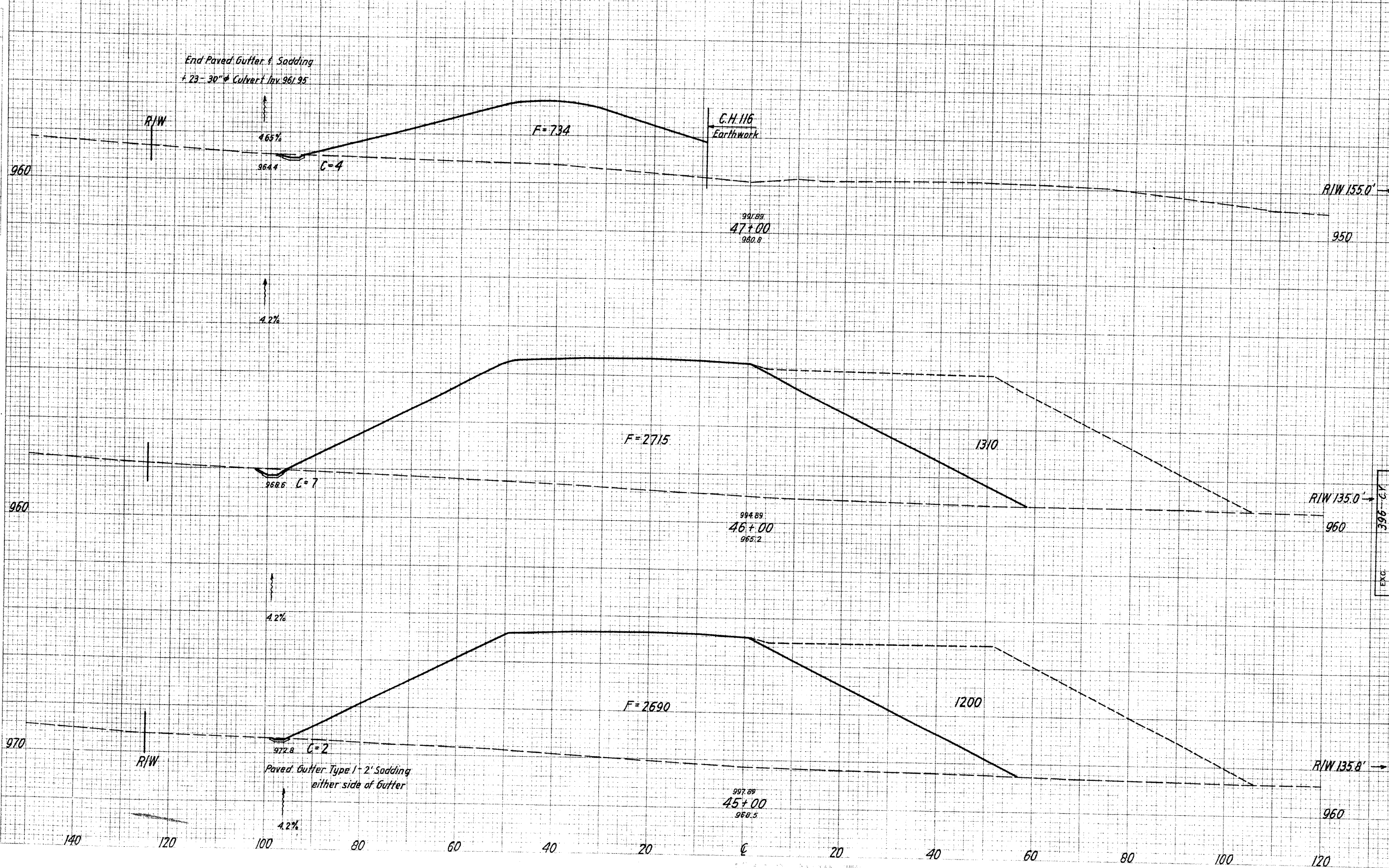


Sta.	SEEDING		END AREA		CU. YDS	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
44+00	210		12	2418		
43+00	2233				31	7554 4881
42+00	192		5	1661		
41+00	2011				22	4641 3593
40+00	170		7	845		
39+00	1778				59	2461 2078
38+00	150		25	484		
37+00	1556				122	1017 1496

ORIGINAL SURVEY BY DATE
 SURVEYED BY DATE
 CHECKED BY DATE
 DRAWN BY DATE
 NO. PARTS CHECKED
 ORIGINAL SURVEY BY DATE
 SURVEYED BY DATE
 CHECKED BY DATE
 DRAWN BY DATE
 NO. PARTS CHECKED
 FINAL SURVEY BY DATE
 SURVEYED BY DATE
 CHECKED BY DATE
 DRAWN BY DATE
 NO. PARTS CHECKED

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

Sta 47+21.06 U.S. 21
Sta 50+00 E.C.H. 116



Lin. Ft.	Seq. No.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
		4	734		
1790				19	9080 2840
215		7	2721		
2340				16	19031 4548
206		2	2696		
2311				25	9470 4759

EXC. 396 - CY
EMB. 79 616 CY
SEEDING 21 320 SY

Sta. 45+00 to Sta. 47+00

FINAL SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

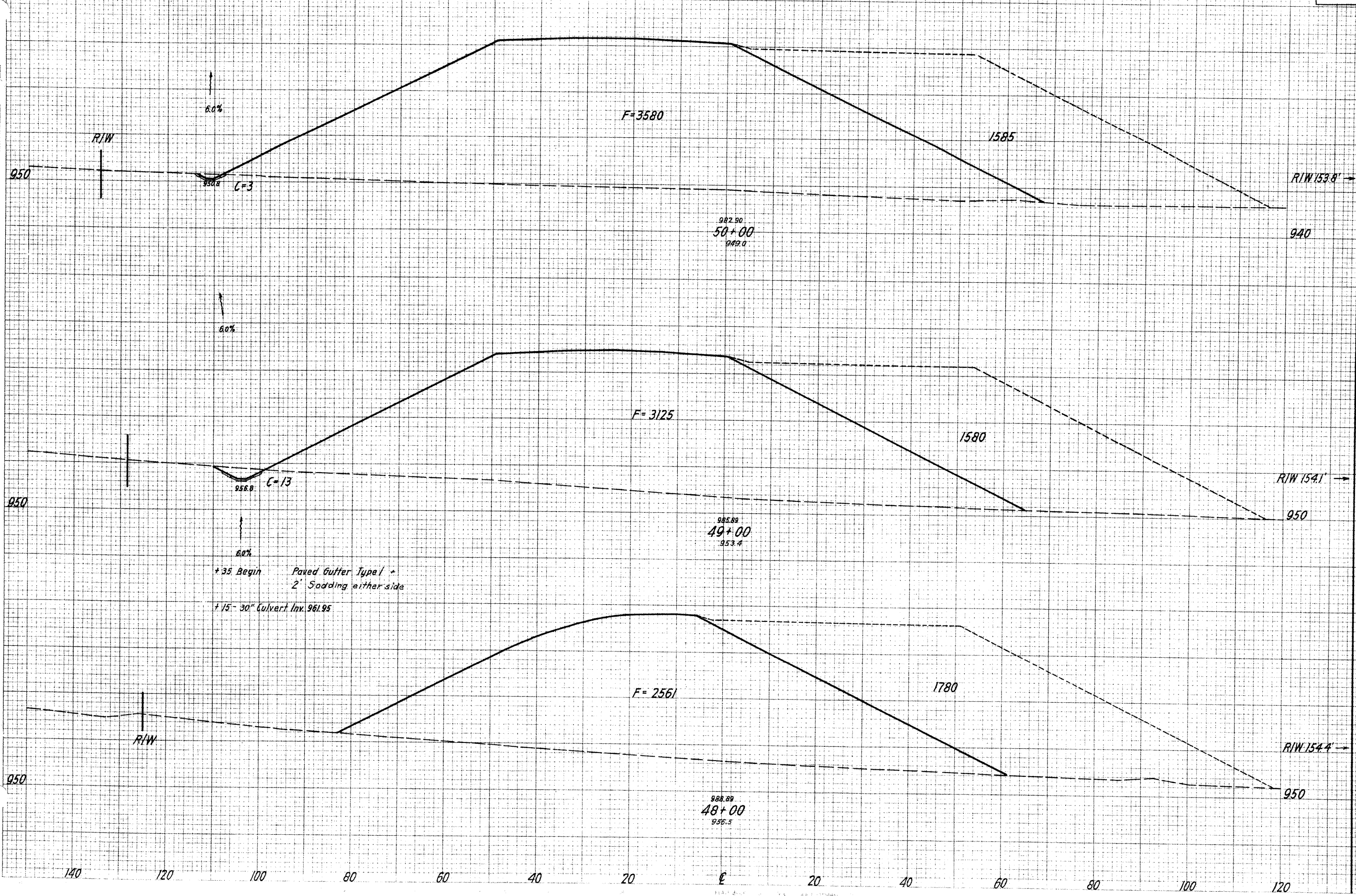
ORIGINAL SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	

138
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS	
	Lin. Ft.	Sq. Yds.	CUT	FILL
228	3	3586		
2544			30	12439 5861
230	13	3131		
2389	41	14420 6222		
698	4	2403 913		

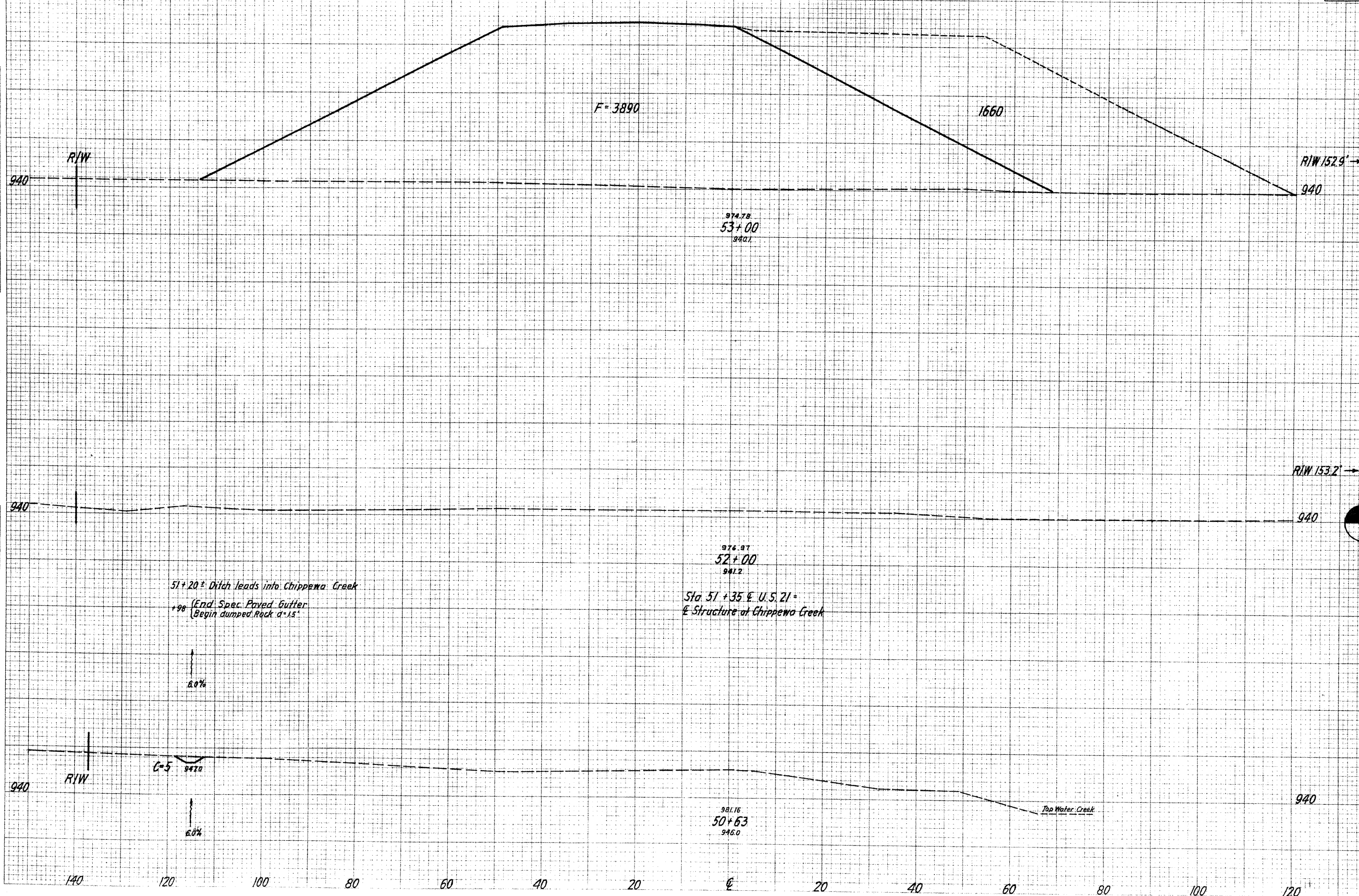
DATE: _____
BY: _____
FINAL SURVEY PLOTTING TEMPLATE
NOTE BOOK AREAS ARE CHECKED

DATE: _____
BY: _____
ORIGINAL SURVEY PLOTTING TEMPLATE
NOTE BOOK AREAS ARE CHECKED

Sta 48+00 to Sta 50+00

FED. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	139 329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING Lin. Ft.	END AREA Sq. Yds.	CU YDS	
		CUT	FILL
237			3896
2683			9787 3716
			6
1664		21	6100 1594

FINAL SURVEY
SURVEYED
PLOTTED
TEMP. DATE
NOT BOOKED
AREAS CHECKED
NO.

ORIGINAL SURVEY
SURVEYED
PLOTTED
TEMP. DATE
NOT BOOKED
AREAS CHECKED
NO.

Sta. 50+63 to Sta. 53+00

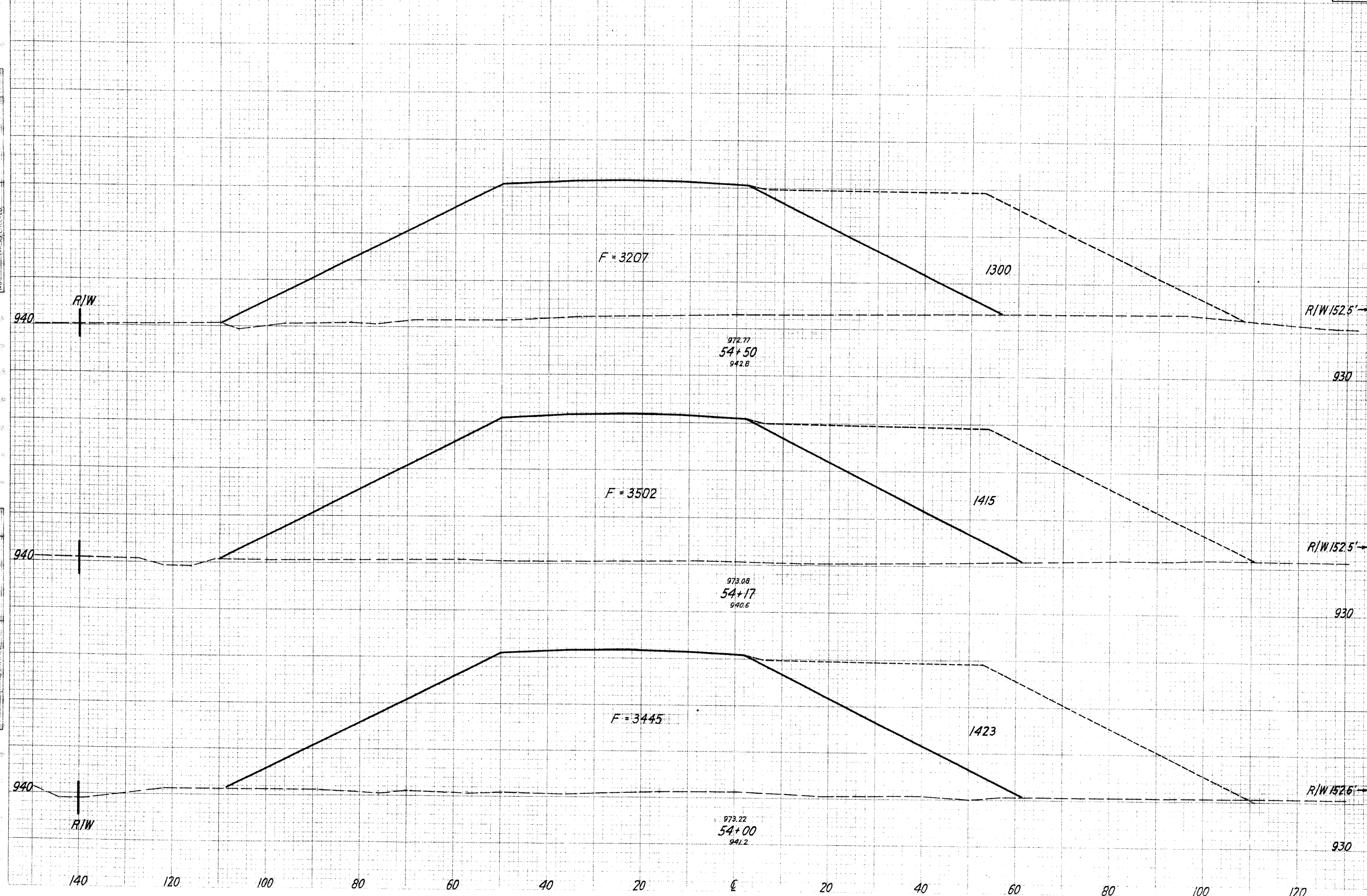
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

140
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

FINAL SURVEYED
SURVEY PLOTTED
NOTE BOOK
NO. AREAS CHECKED

FINAL SURVEYED
SURVEY PLOTTED
NOTE BOOK
NO. AREAS CHECKED

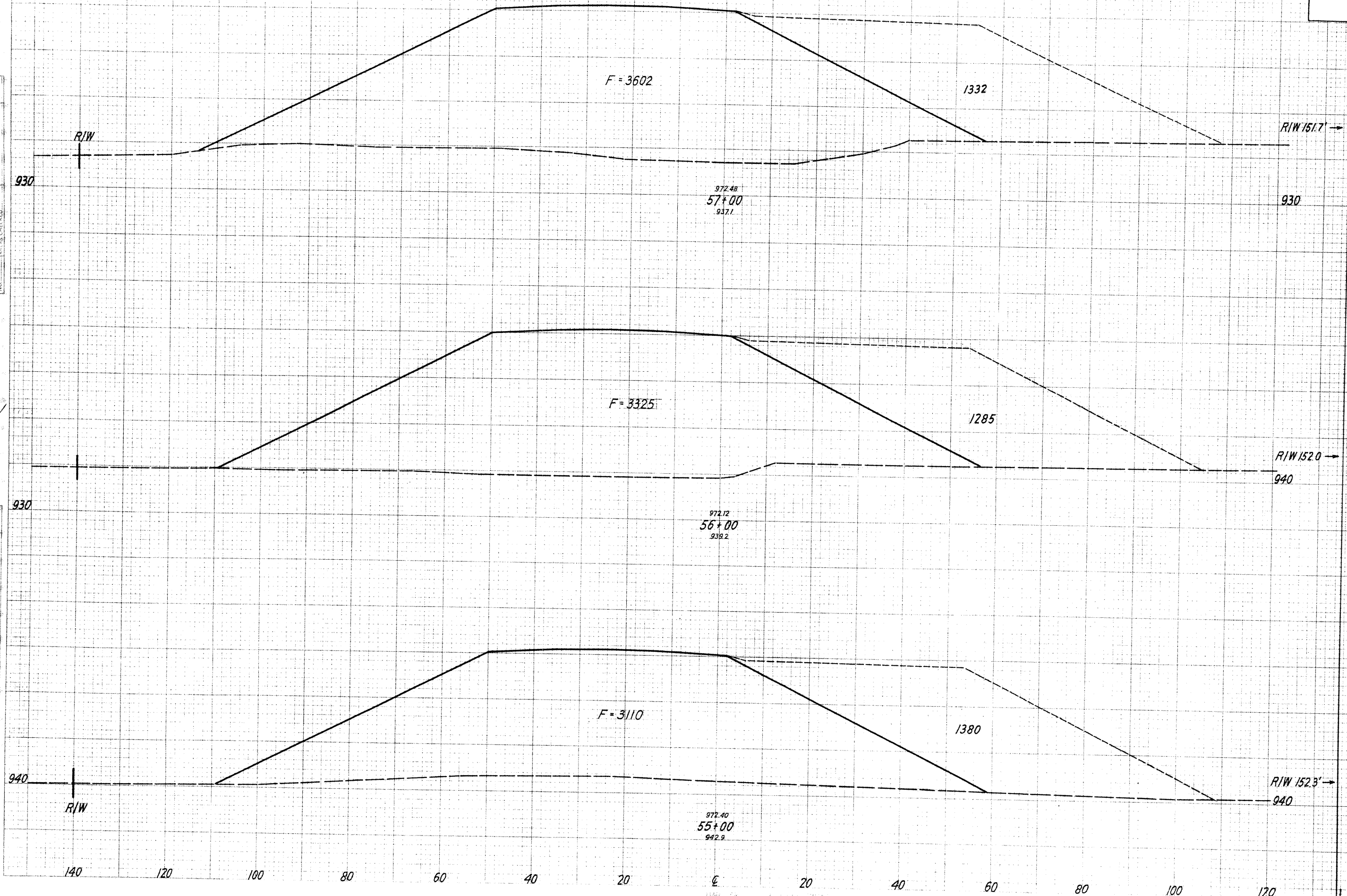


Lin Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
221				3213		
814					4107	1659
223				3508		
418					2191	893
220				3451		
2539					13606	5709

Sta. 54+00 to Sta 54+50

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	
ETA - 21 - 17.80			
WAY - 21 - 0.00			
SUM - 21 - 0.00			

141
329



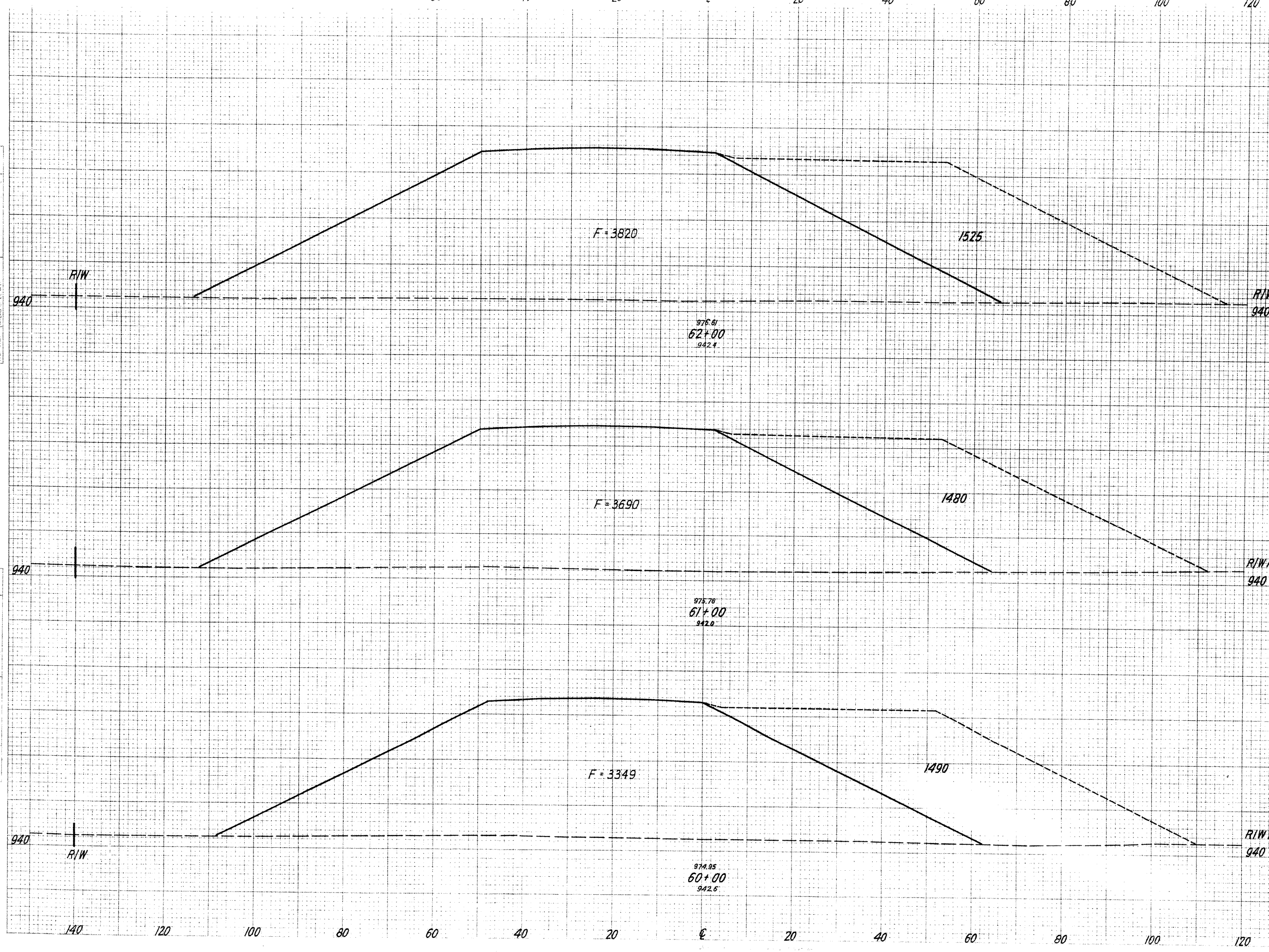
Sta.	SEEDING		END AREA		CU. YDS.	
	Ln. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
224				3608		
227		2506				12850 * 4846
220		2483		3331		11939 * 4935
1225				3116		5860 * 2481

FINAL SURVEY SURVEYED, PLOTTED, TEMPLATE, INSTRUMENTS, TRIPAS, CHECKED, NO.

ORIGINAL SURVEY SURVEYED, PLOTTED, INSTRUMENTS, TRIPAS, CHECKED, NO.

Sta 55+00 to Sta 57+00

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS	
	Lin. Ft.	Sq. Yds.	CUT	FILL
232		3826		
2550				13930 5565
227		3696		
2489				13052 5500
221		3355		
2439				12274 5367

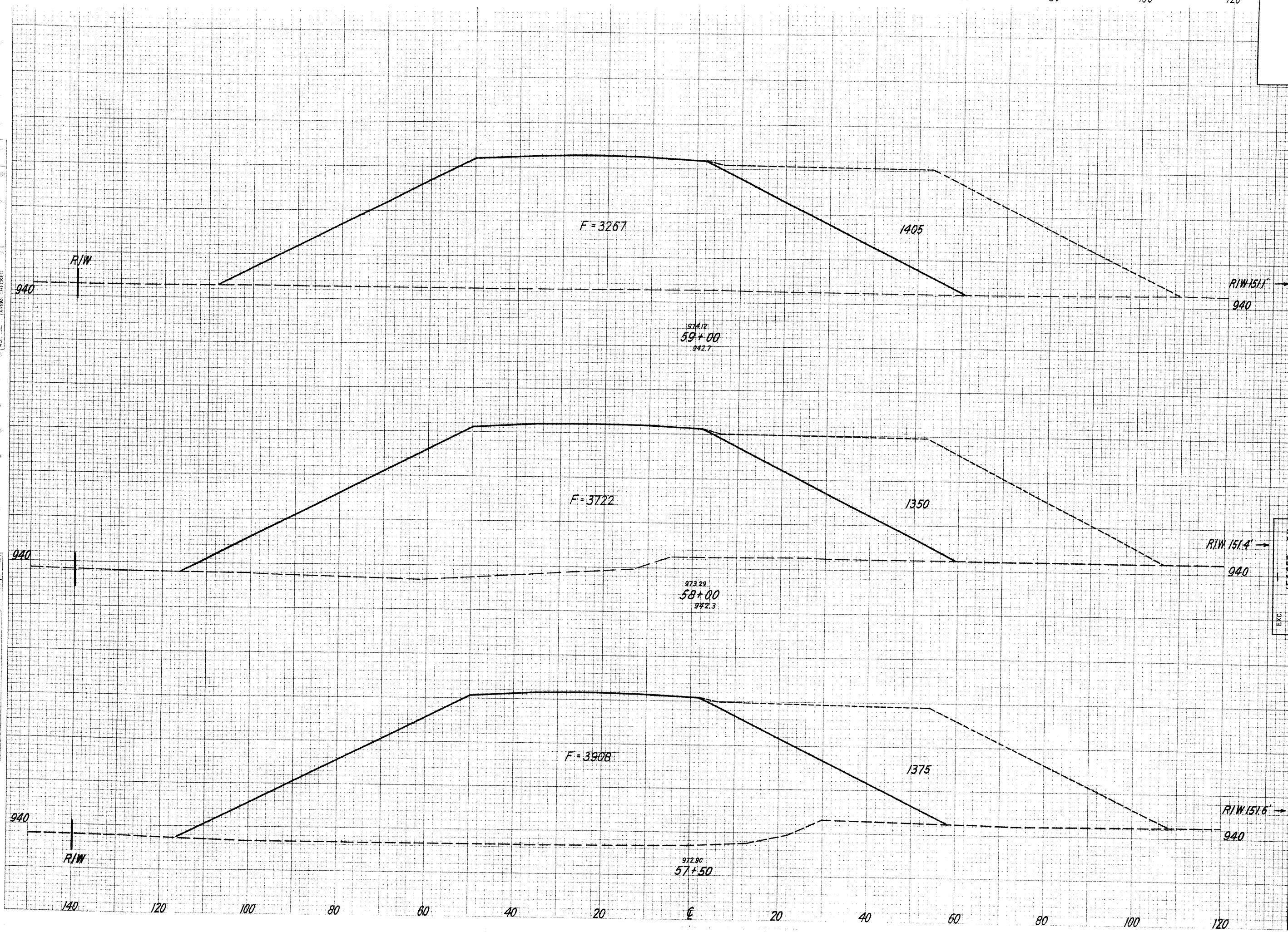
Sta 60+00 to Sta. 62+00

FINAL SURVEYED
DATE: _____
BY: _____
NOTE BOOK NO. _____
AREAS CHECKED: _____

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

142
329

STA - 21 - 17.00
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING Ln. Ft.	Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
218			3273		
2461				12965	5102
225			3728		
2517				7076	7523
228			3914		
2511				6965	2506

ENC.
EMB. 154079 CY
SEEDING 32707 SY

Sta. 57+50 to Sta. 59+00

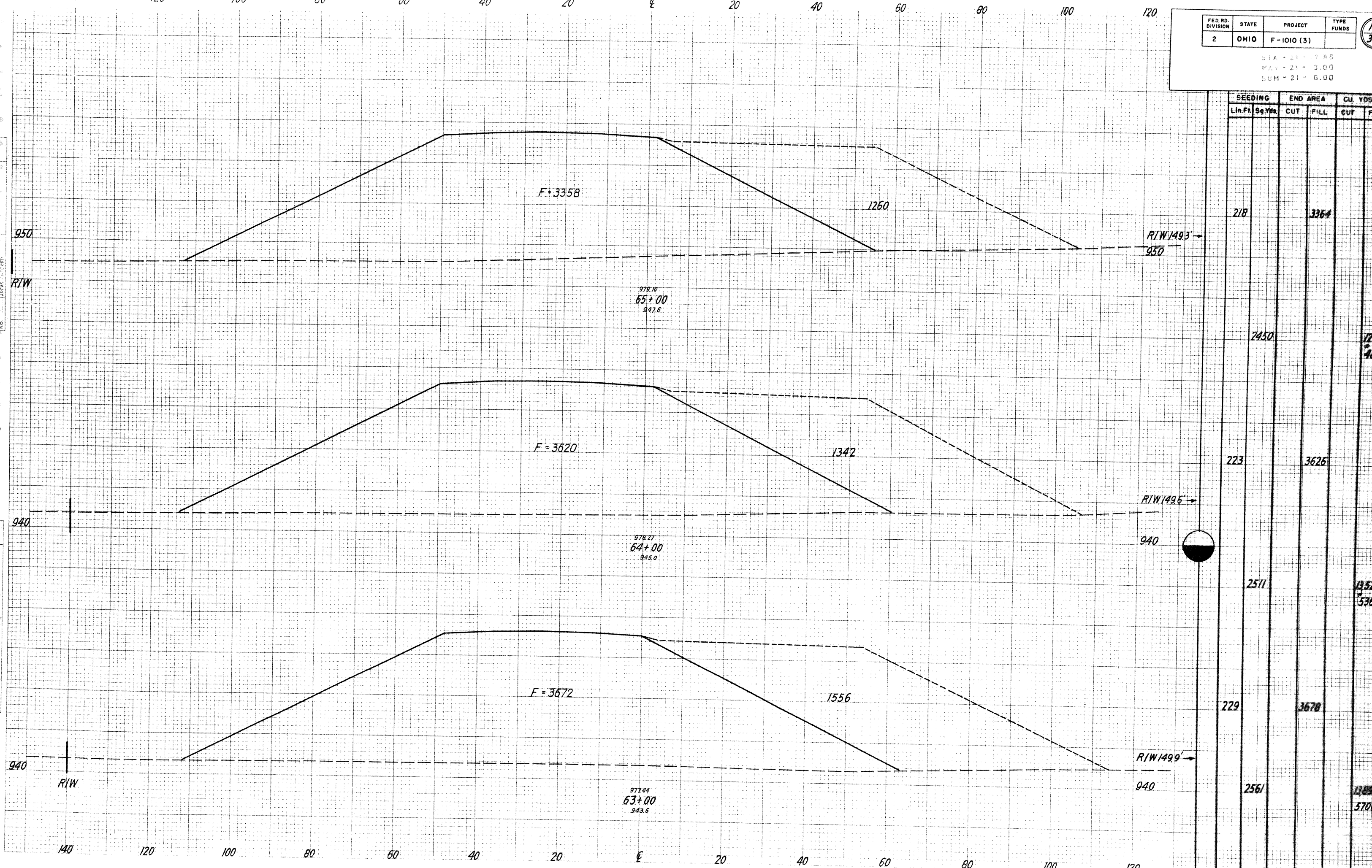
FINAL SURVEY PLOTTED
NOTE BOOK NO. 142
DATE

ORIGINAL SURVEY PLOTTED
NOTE BOOK NO. 142
DATE

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	

144
329

SIA - 21 - 0.00
WAY - 21 - 0.00
SUM - 21 - 0.00



Sta.	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yrs.	CUT	FILL	CUT	FILL
63+00	218			3364		
64+00	223			3626		
65+00	229			3678		
63+00	7450			12944		4819
64+00	2511			13526		5367
65+00	2561			14086		5706

Sta. 63+00 to Sta. 65+00

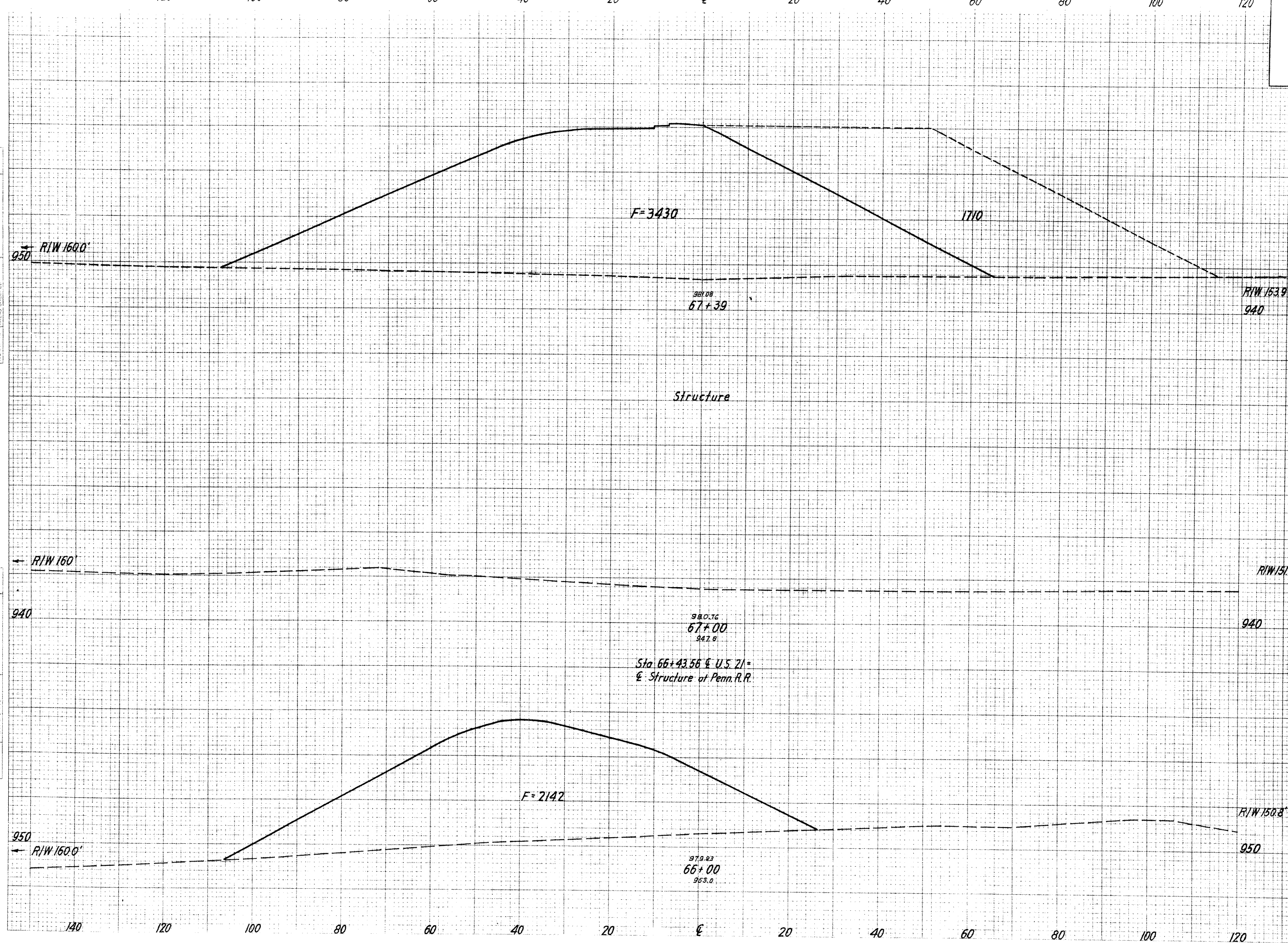
FINAL SURVEY
BY: [Signature]
DATE: [Date]
NO. [Number]

ORIGINAL SURVEY
BY: [Signature]
DATE: [Date]
NO. [Number]

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	

145
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING Lin. Ft.	END AREA Sq. Yds.	CUT		FILL	
		CUT	FILL	CUT	FILL
			3430		
1097				2732	1995
				1464	
3280			2142		
				11830	4107

Sta 66+00 to Sta 67+39

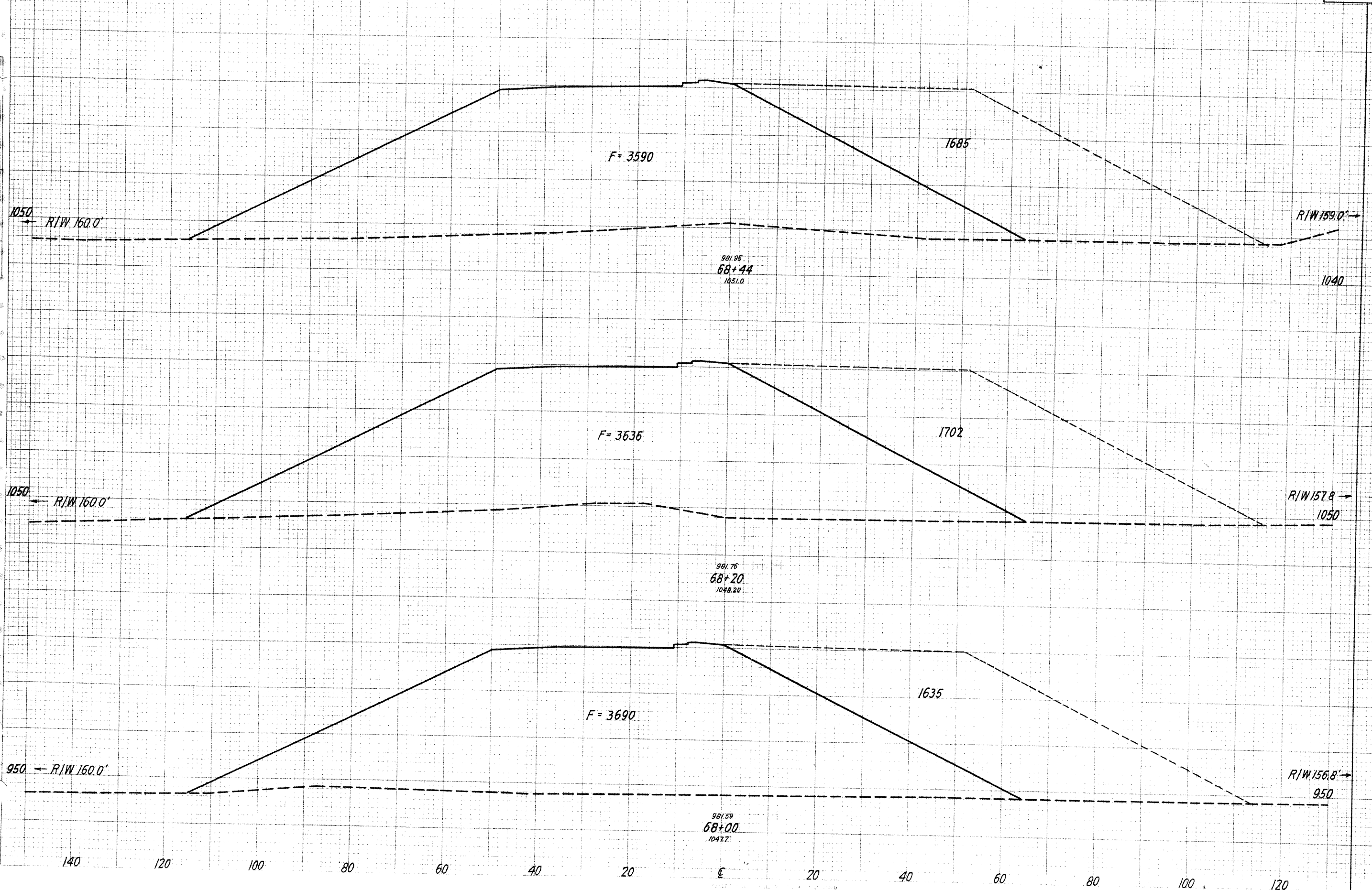
FINAL SURVEY PLOTTED
NOTE BOOK NO. []
DATE [] BY []

ORIGINAL SURVEY PLOTTED
NOTE BOOK NO. []
DATE [] BY []

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	

146
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Ln. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
234				3596		
623					3218	1505
233				3645		
517					2718	1236
232				3693		
1532					8291	3779

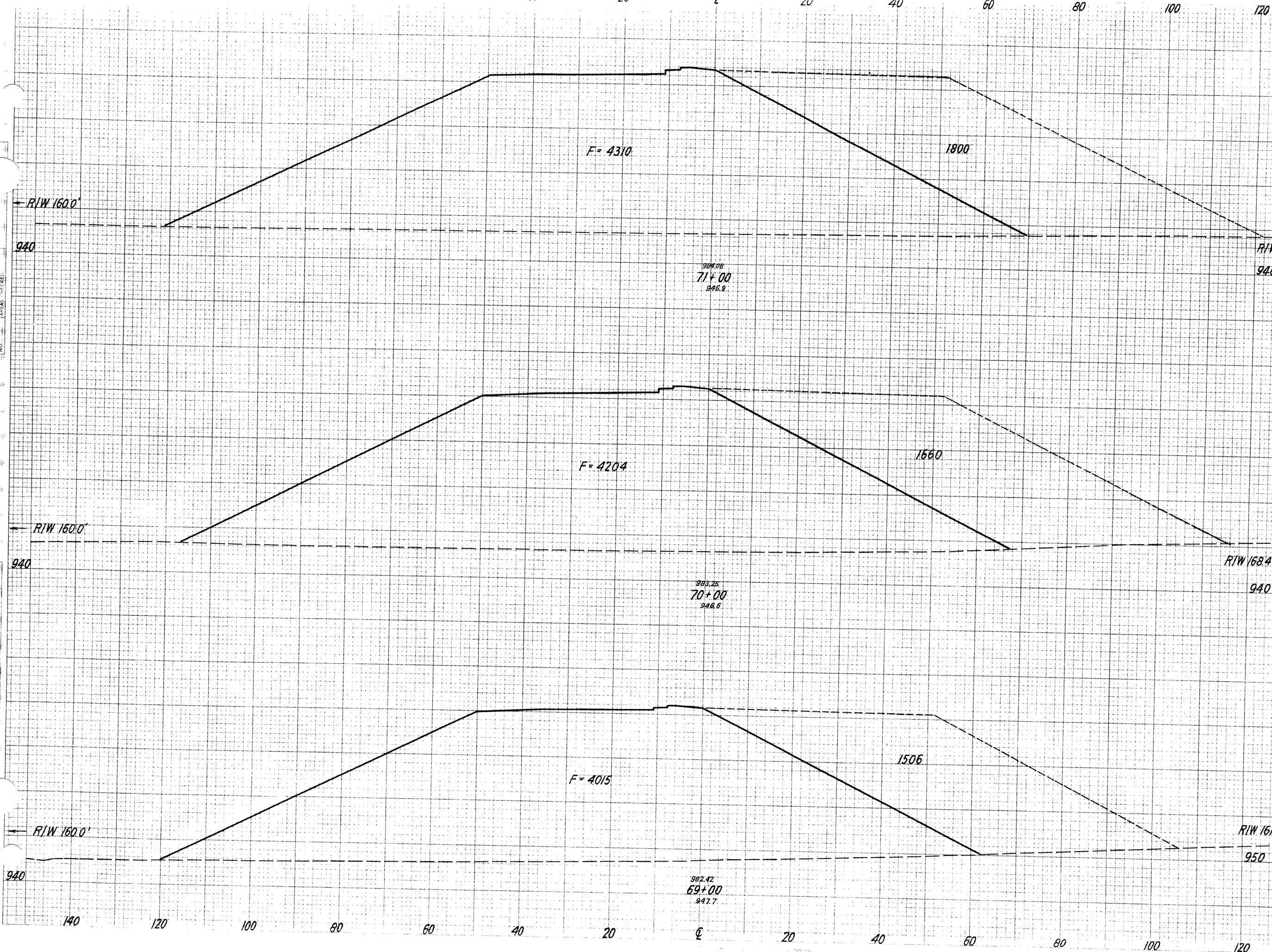
Sta 68+00 to Sta 68+44

DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____
 SURVEY: _____ NOTE BOOK: _____
 AREAS CHECKED: _____

DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____
 SURVEY: _____ NOTE BOOK: _____
 AREAS CHECKED: _____

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	147 329

STA - 21 - 17.80
 WAY - 21 - 0.00
 SUR - 21 - 0.00



SEEDING Lin. Ft.	Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
247			4313		
2672				15778	6407
234			4207		
2572				15237	5863
229			4018		
1440				7896	3309

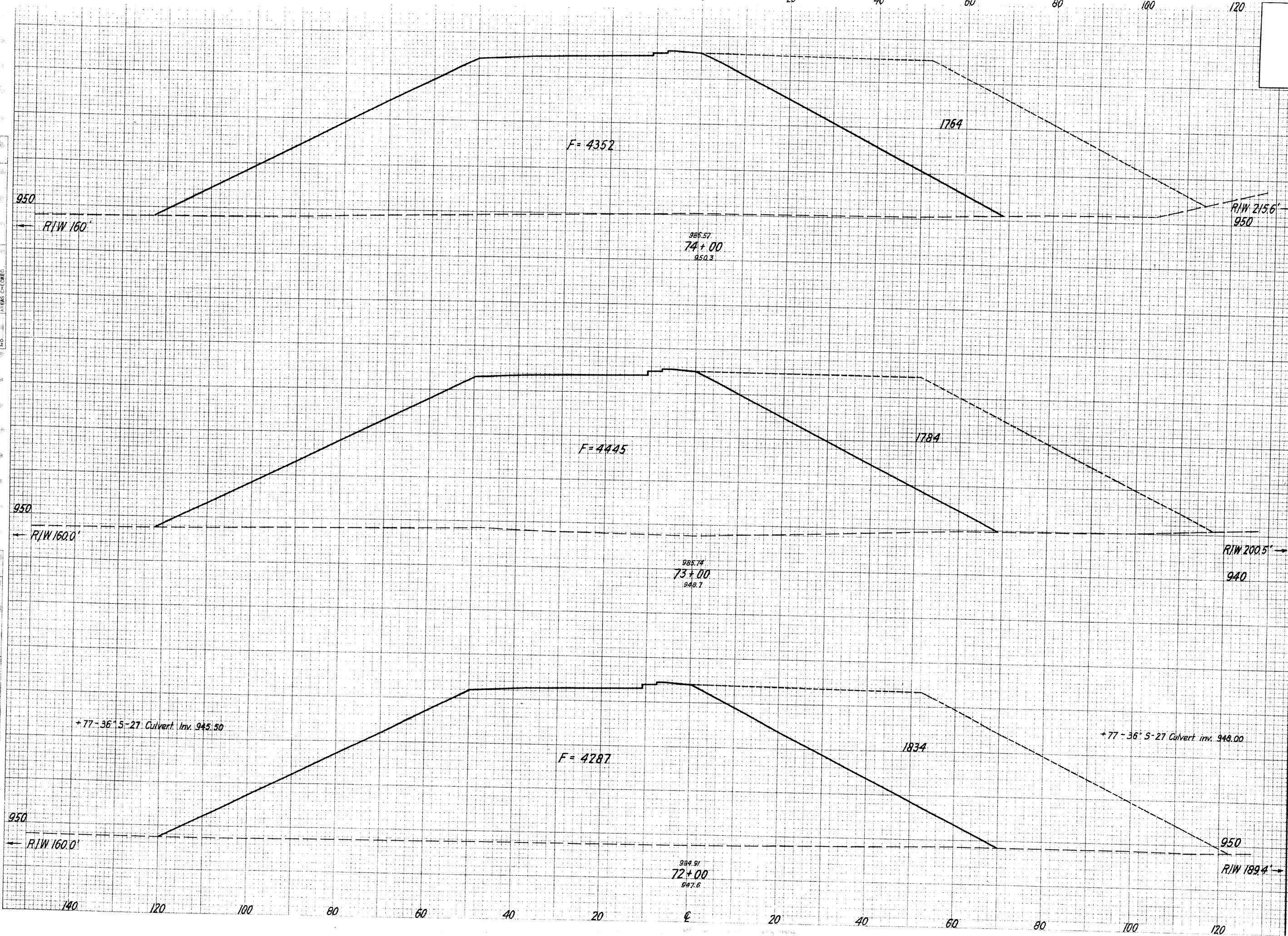
ETC.
 ENB.
 SEEDING.

Sta. 69+00 to Sta. 71+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

STA - 21 - 17.80
 WAY - 21 - 0.00
 SUM - 21 - 0.00

148
329



SEEDING	END AREA		CU. YDS	
	Lin. Ft.	Sq. Yds.	CUT	FILL
264			4355	
2817			4448	16302 6570
243			4290	
2711			4790	16181 6700
245			4790	
2733			497.6	15931 6730

Sta 72+00 to Sta 74+00

DATE: _____
 BY: _____
 CHECKED: _____
 NO. _____
 AREAS CHECKED: _____
 FINAL SURVEY
 SURVEYED: _____
 PLOTTED: _____
 NOTE BOOK: _____

DATE: _____
 BY: _____
 CHECKED: _____
 NO. _____
 AREAS CHECKED: _____
 ORIGINAL SURVEY
 SURVEYED: _____
 PLOTTED: _____
 NOTE BOOK: _____

+77'-36" 5-27 Culvert Inv. 945.50

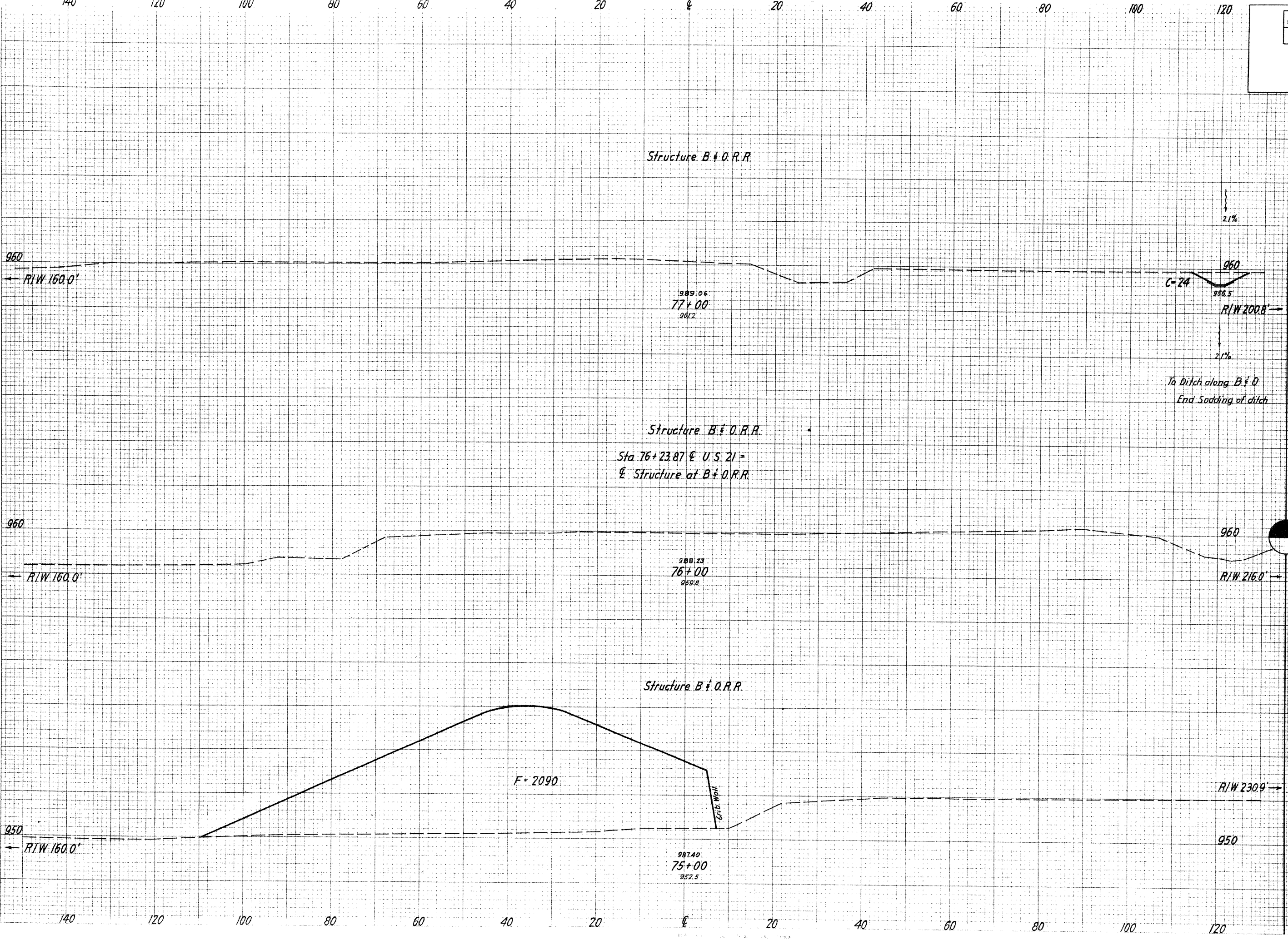
+77'-36" 5-27 Culvert Inv. 948.00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

STA - 21 - 17 80
WAY - 21 - 0 00
SUM - 21 - 0 00

FINAL SURVEY PLOTTED BY DATE
NOTE BOOK NO. AREAS CHECKED:

ORIGINAL SURVEY PLOTTED BY DATE
NOTE BOOK NO. AREAS CHECKED:



Structure B of O.R.R.

Structure B of O.R.R.

Sta 76+23.87 ± U.S. 21 =
± Structure of B of O.R.R.

Structure B of O.R.R.

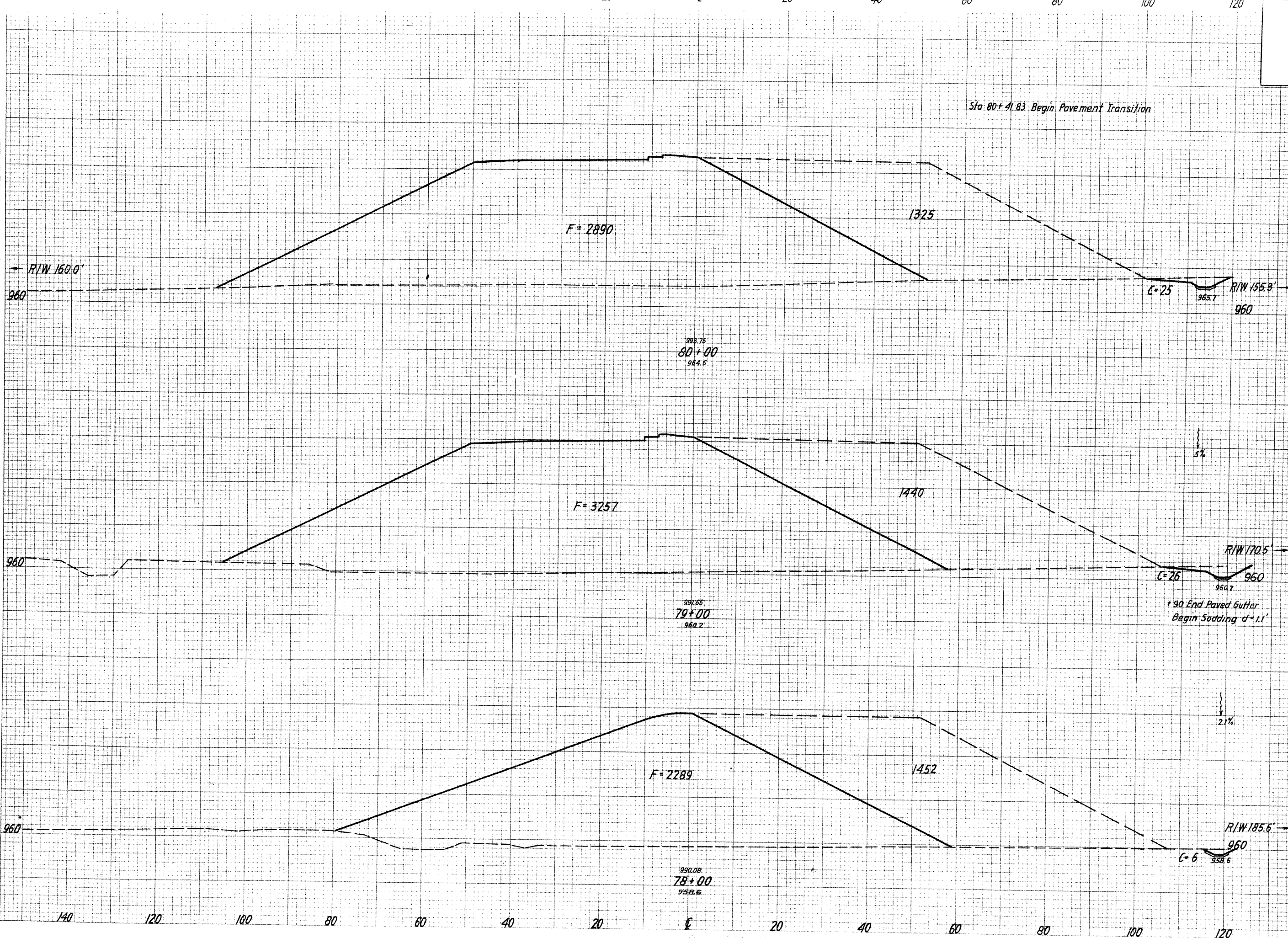
F-2090

SEEDING	END AREA	CU. YDS.	
		CUT	FILL
74			
2090			
3384			
15.820			
3267			

Sta. 75+00 to Sta. 77+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	150 329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA	CU. YDS.	
		CUT	FILL
252	25	2893	
2717			94
			11394
			5120
237	26	3260	
2840			58
			11050
			5356
	6	2289	
1228			56
			1752
			2372

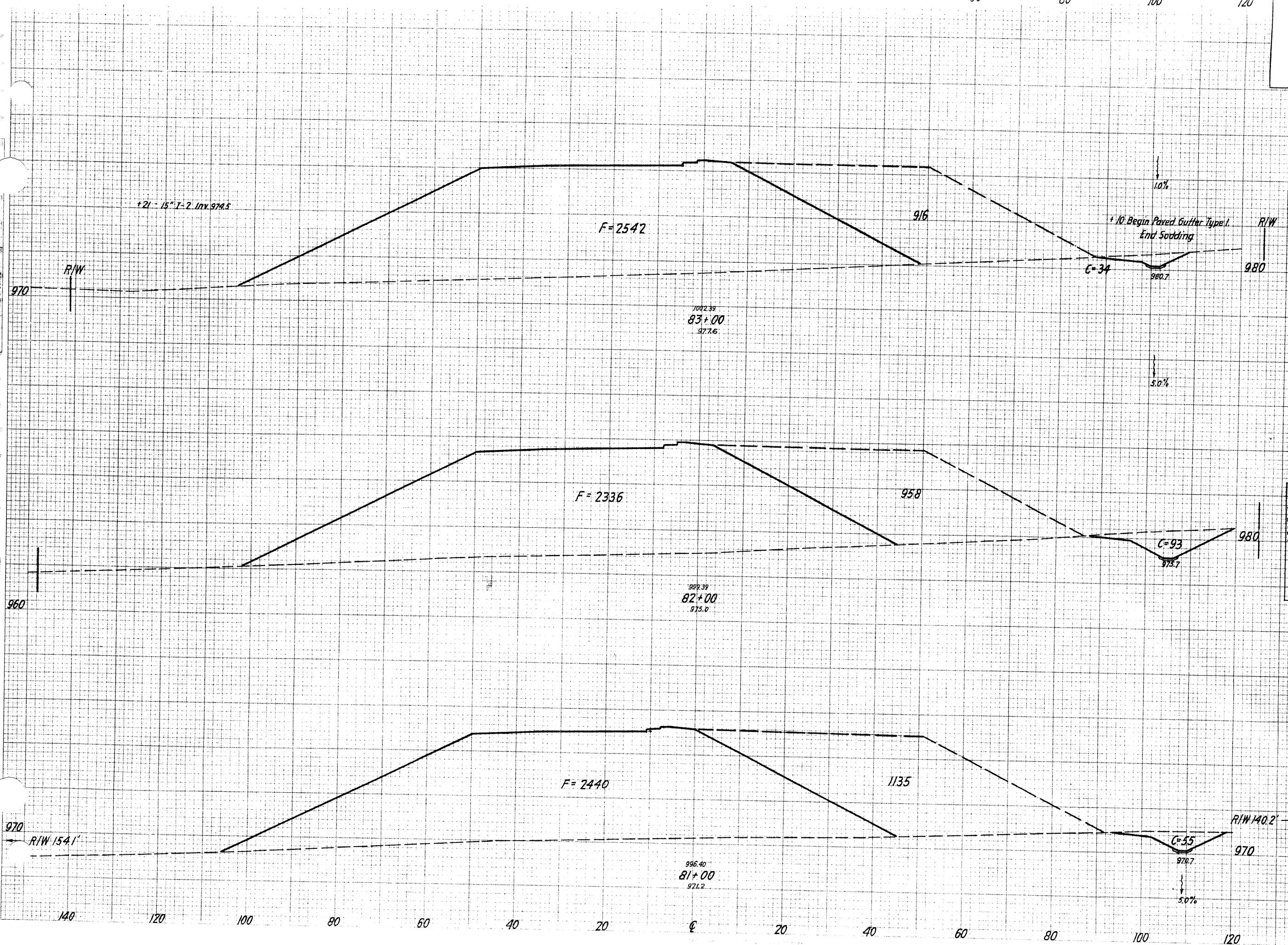
Sta. 78+00 to Sta. 80+00

FINAL SURVEY
DATE: _____
BY: _____
NO. _____
AREAS CHECKED

ORIGINAL SURVEY
DATE: _____
BY: _____
NO. _____
AREAS CHECKED

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	(151) 329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



BEEDING	END AREA		CU YDS	
	Lin. Ft.	Sq. Yds.	CUT	FILL
228	34	2545		
2589			235	904
				3470
238	93	2339		
2722			274	8856
				3876
252	55	2443		
2800			148	9881
				4556

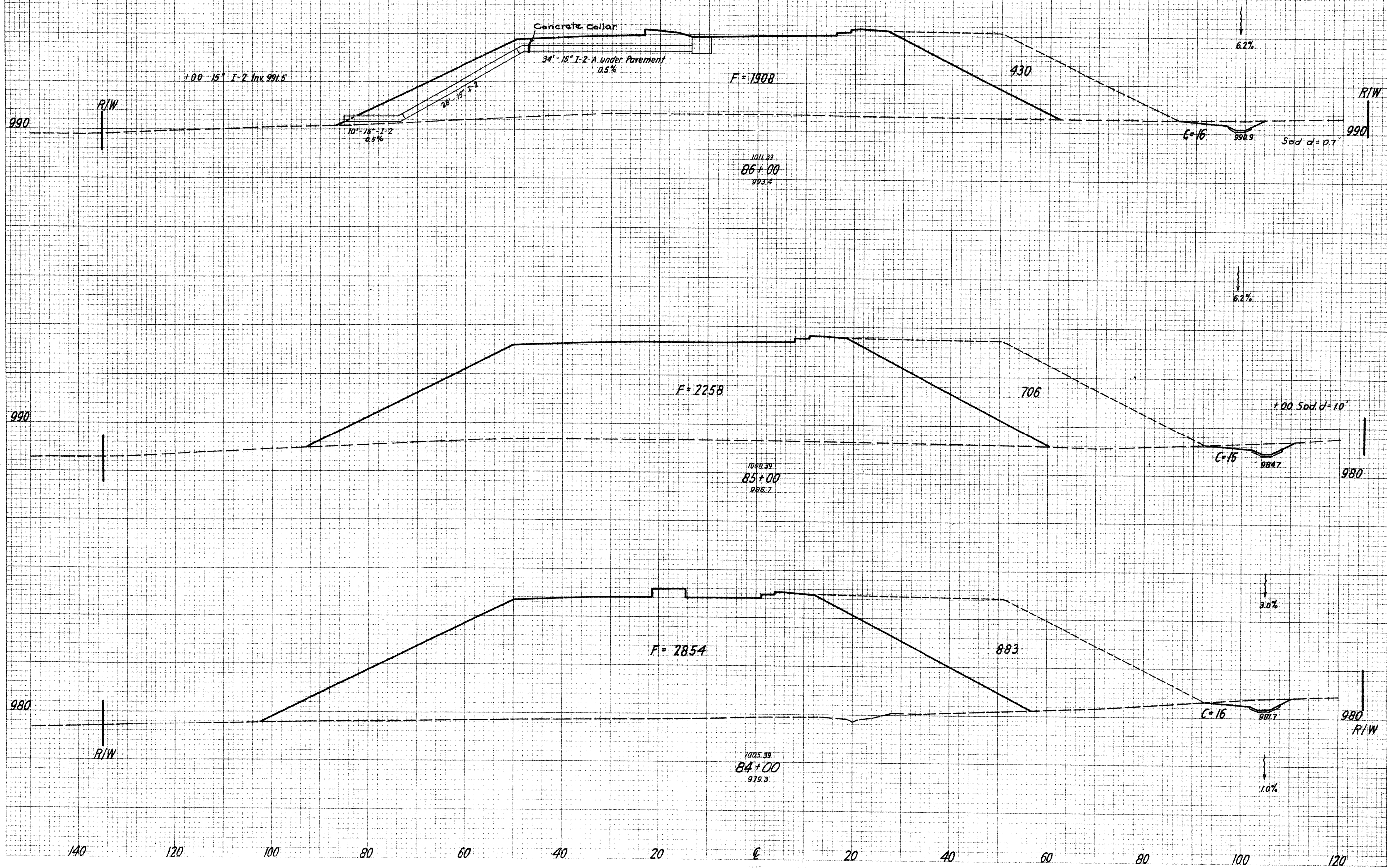
EXC. 1,307 CY
EMB. 91,769 CY
SEEDING. 24,600 SY

Sta 81+00 to Sta. 83+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	152 329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS	
	Lin. Ft.	Sq. Yds.	CUT	FILL
161	16	1914		
1928			57	7763 2104
183	15	2278		
2133			57	9509 2943
201	16	2857		
2383			93	10004 3331

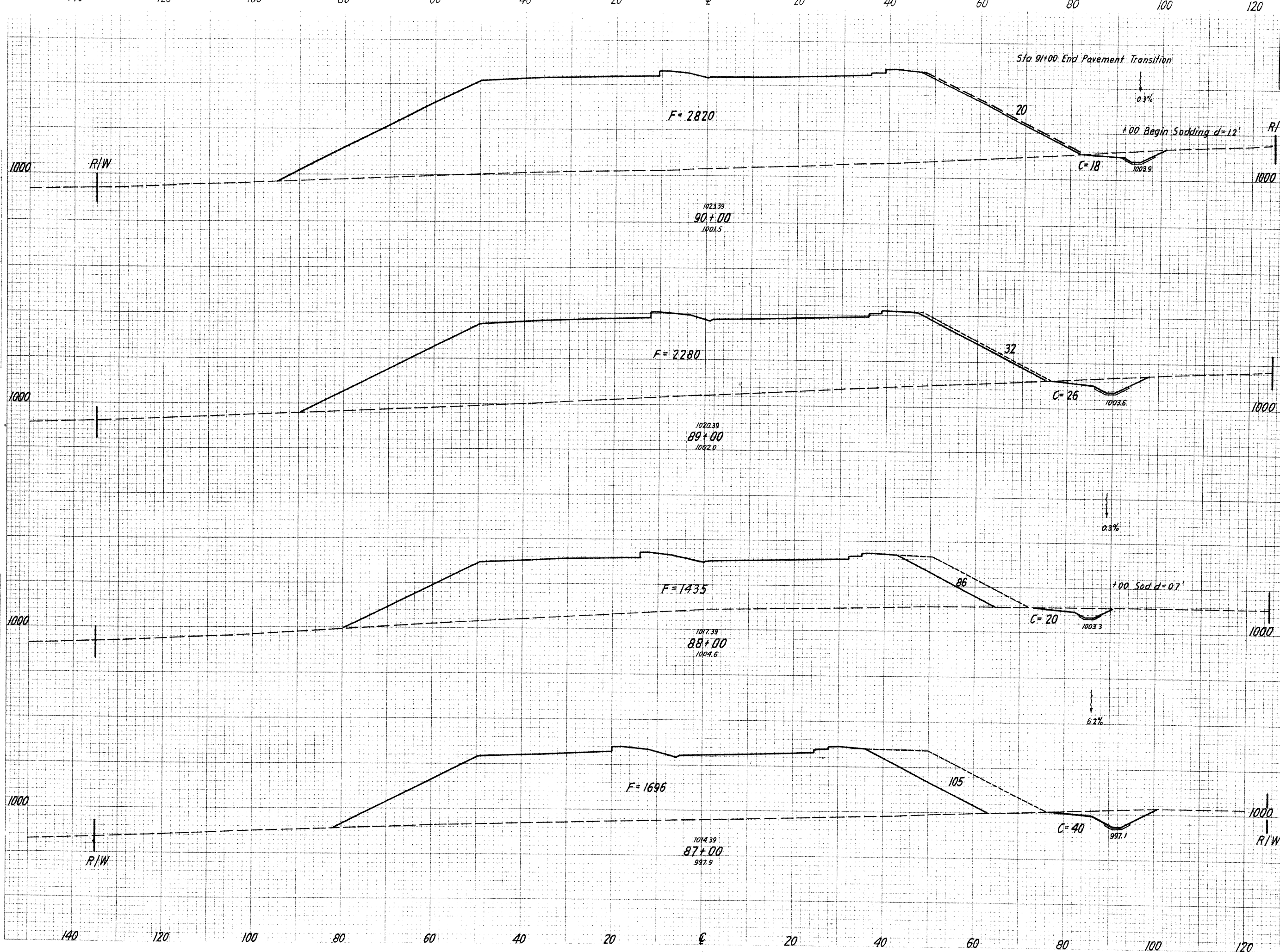
FINAL SURVEY PLOTTED BY: []
DATE: []
NOTE BOOK NO. []
AREAS CHECKED: []

ORIGINAL SURVEY PLOTTED BY: []
DATE: []
NOTE BOOK NO. []
AREAS CHECKED: []

Sta. 84+00 to Sta. 86+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	153 329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
170	18	2827		
1850			81	9470
163	26	2287		
1761			85	6906
154	20	1441		
1867			111	5820
182	40	1702		
1922			104	6696

Sta. 87+00 to Sta. 90+00

FINAL SURVEY NOTE BOOK NO. 153 329

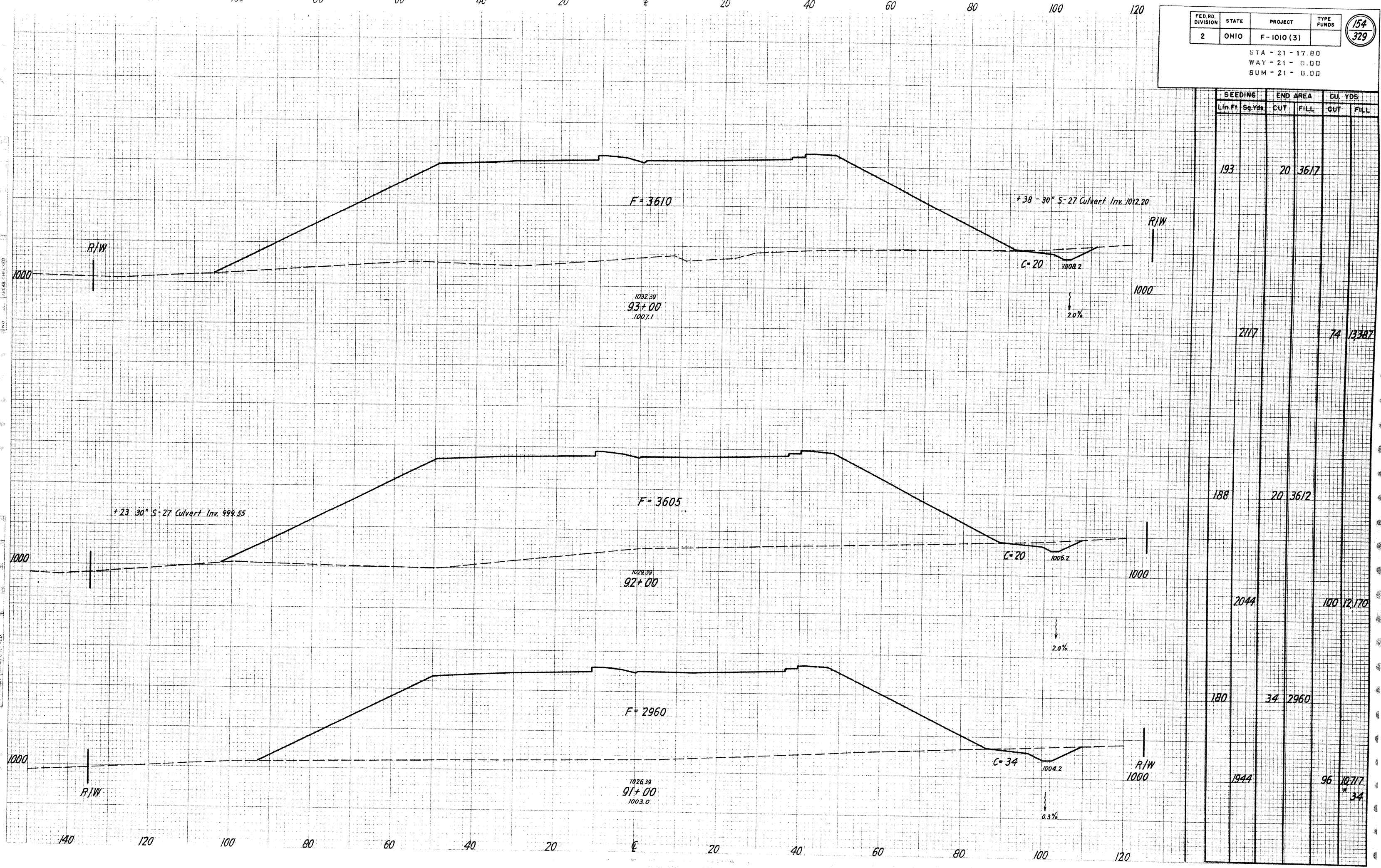
ORIGINAL SURVEY NOTE BOOK NO. 153 329

DATE: _____ BY: _____

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	

154
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
193	20	3617		
2117			74	13387
188	20	3612		
2044			100	12170
180	34	2960		
1944			96	10717

Sta. 91+00 to Sta. 93+00

FINAL SURVEY PLOTTING
NOTE BOOK NO. 1007.1
DATE
BY
NO. 1007.1

ORIGINAL SURVEY PLOTTING
NOTE BOOK NO. 1007.1
DATE
BY
NO. 1007.1

R/W

R/W

R/W

F = 3610

1032.39
93+00
1007.1

+ 38 - 30" S-27 Culvert. Inv. 1012.20

C=20 1008.2

2.0%

F = 3605

1029.39
92+00
1007.1

+ 23 - 30" S-27 Culvert. Inv. 999.55

C=20 1006.2

2.0%

F = 2960

1026.39
91+00
1003.0

C=34 1004.2

0.3%

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	

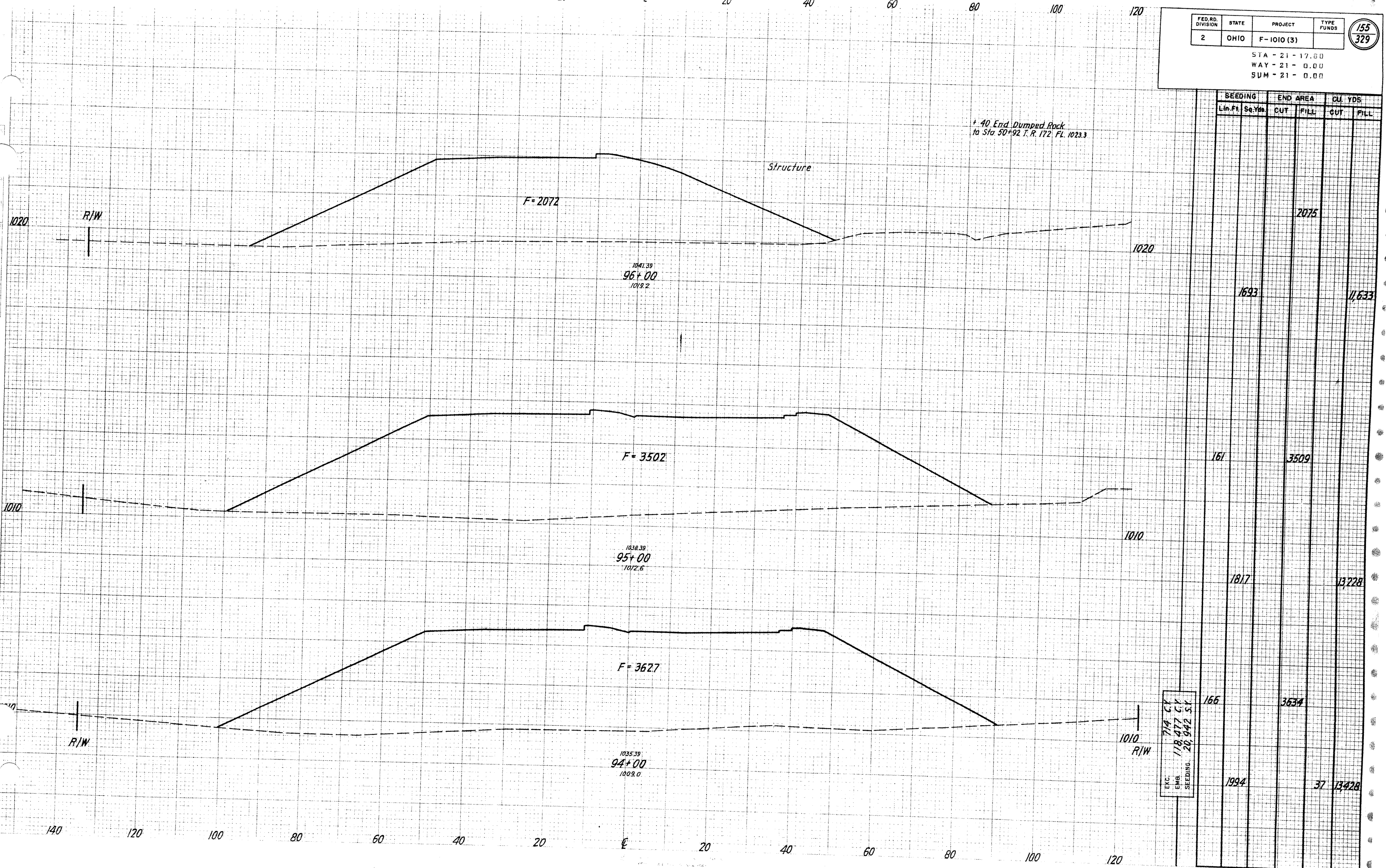
155
329

STA - 21 - 17.00
WAY - 21 - 0.00
SUM - 21 - 0.00

DATE
BY
SURVEYED
PLOTTED
NOTE BOOK
NO. 1
NO. 2
NO. 3
NO. 4
NO. 5
NO. 6
NO. 7
NO. 8
NO. 9
NO. 10
NO. 11
NO. 12
NO. 13
NO. 14
NO. 15
NO. 16
NO. 17
NO. 18
NO. 19
NO. 20
NO. 21
NO. 22
NO. 23
NO. 24
NO. 25
NO. 26
NO. 27
NO. 28
NO. 29
NO. 30
NO. 31
NO. 32
NO. 33
NO. 34
NO. 35
NO. 36
NO. 37
NO. 38
NO. 39
NO. 40
NO. 41
NO. 42
NO. 43
NO. 44
NO. 45
NO. 46
NO. 47
NO. 48
NO. 49
NO. 50
NO. 51
NO. 52
NO. 53
NO. 54
NO. 55
NO. 56
NO. 57
NO. 58
NO. 59
NO. 60
NO. 61
NO. 62
NO. 63
NO. 64
NO. 65
NO. 66
NO. 67
NO. 68
NO. 69
NO. 70
NO. 71
NO. 72
NO. 73
NO. 74
NO. 75
NO. 76
NO. 77
NO. 78
NO. 79
NO. 80
NO. 81
NO. 82
NO. 83
NO. 84
NO. 85
NO. 86
NO. 87
NO. 88
NO. 89
NO. 90
NO. 91
NO. 92
NO. 93
NO. 94
NO. 95
NO. 96
NO. 97
NO. 98
NO. 99
NO. 100

DATE
BY
SURVEYED
PLOTTED
NOTE BOOK
NO. 1
NO. 2
NO. 3
NO. 4
NO. 5
NO. 6
NO. 7
NO. 8
NO. 9
NO. 10
NO. 11
NO. 12
NO. 13
NO. 14
NO. 15
NO. 16
NO. 17
NO. 18
NO. 19
NO. 20
NO. 21
NO. 22
NO. 23
NO. 24
NO. 25
NO. 26
NO. 27
NO. 28
NO. 29
NO. 30
NO. 31
NO. 32
NO. 33
NO. 34
NO. 35
NO. 36
NO. 37
NO. 38
NO. 39
NO. 40
NO. 41
NO. 42
NO. 43
NO. 44
NO. 45
NO. 46
NO. 47
NO. 48
NO. 49
NO. 50
NO. 51
NO. 52
NO. 53
NO. 54
NO. 55
NO. 56
NO. 57
NO. 58
NO. 59
NO. 60
NO. 61
NO. 62
NO. 63
NO. 64
NO. 65
NO. 66
NO. 67
NO. 68
NO. 69
NO. 70
NO. 71
NO. 72
NO. 73
NO. 74
NO. 75
NO. 76
NO. 77
NO. 78
NO. 79
NO. 80
NO. 81
NO. 82
NO. 83
NO. 84
NO. 85
NO. 86
NO. 87
NO. 88
NO. 89
NO. 90
NO. 91
NO. 92
NO. 93
NO. 94
NO. 95
NO. 96
NO. 97
NO. 98
NO. 99
NO. 100

DATE
BY
SURVEYED
PLOTTED
NOTE BOOK
NO. 1
NO. 2
NO. 3
NO. 4
NO. 5
NO. 6
NO. 7
NO. 8
NO. 9
NO. 10
NO. 11
NO. 12
NO. 13
NO. 14
NO. 15
NO. 16
NO. 17
NO. 18
NO. 19
NO. 20
NO. 21
NO. 22
NO. 23
NO. 24
NO. 25
NO. 26
NO. 27
NO. 28
NO. 29
NO. 30
NO. 31
NO. 32
NO. 33
NO. 34
NO. 35
NO. 36
NO. 37
NO. 38
NO. 39
NO. 40
NO. 41
NO. 42
NO. 43
NO. 44
NO. 45
NO. 46
NO. 47
NO. 48
NO. 49
NO. 50
NO. 51
NO. 52
NO. 53
NO. 54
NO. 55
NO. 56
NO. 57
NO. 58
NO. 59
NO. 60
NO. 61
NO. 62
NO. 63
NO. 64
NO. 65
NO. 66
NO. 67
NO. 68
NO. 69
NO. 70
NO. 71
NO. 72
NO. 73
NO. 74
NO. 75
NO. 76
NO. 77
NO. 78
NO. 79
NO. 80
NO. 81
NO. 82
NO. 83
NO. 84
NO. 85
NO. 86
NO. 87
NO. 88
NO. 89
NO. 90
NO. 91
NO. 92
NO. 93
NO. 94
NO. 95
NO. 96
NO. 97
NO. 98
NO. 99
NO. 100



SEEDING Lin. Ft.	Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
				2075	
1693					11,633
161				3509	
1817					13,228
166				3634	
1994					37,3428

Sta. 94+00 to Sta. 96+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120

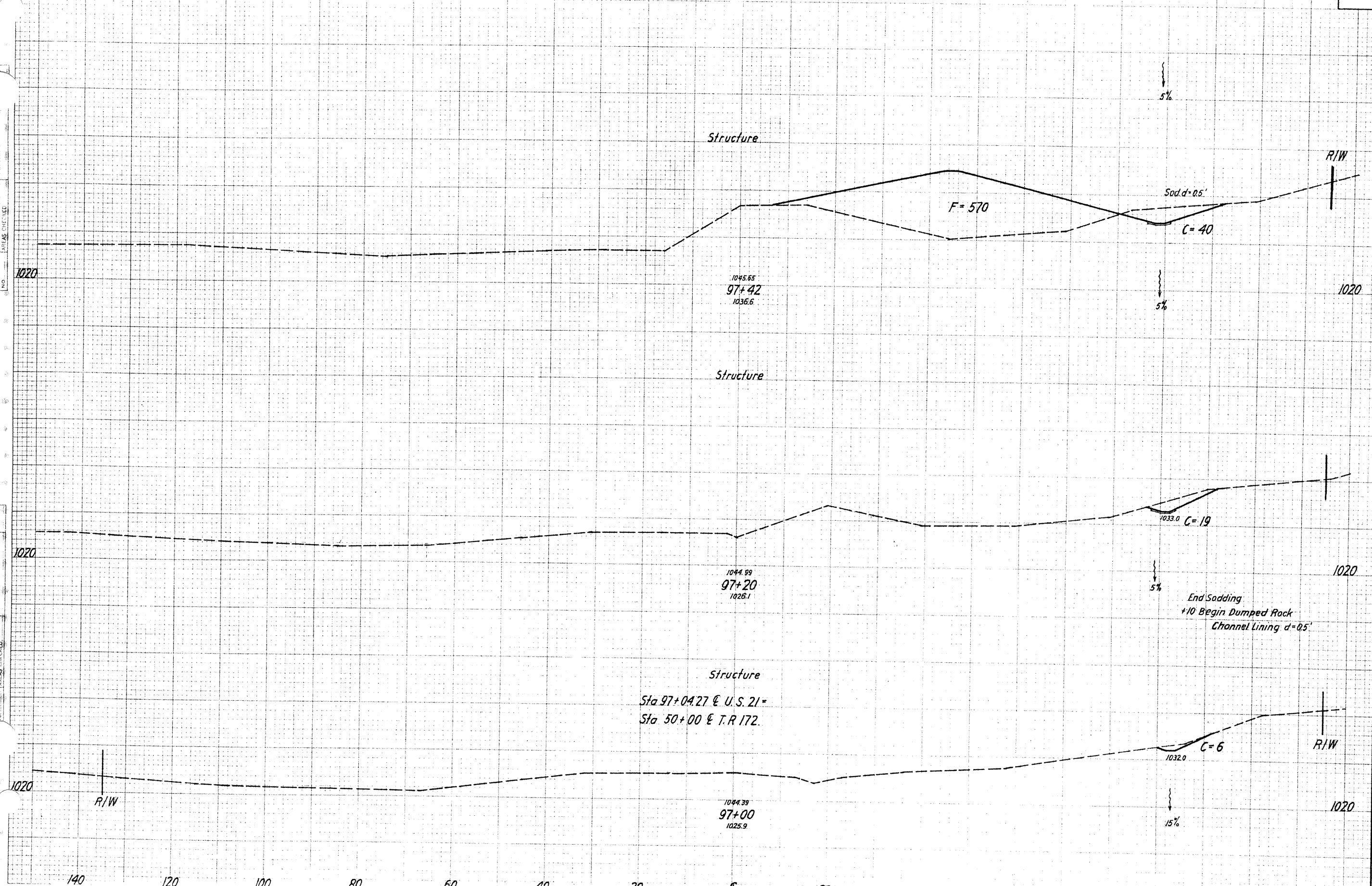
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

156
329

STA - 21 - 17.88
WAY - 21 - 0.00
S11M - 21 - 0.00

DATE: _____ BY: _____
 SURVEYED: _____
 SURVEY PLOTTED: _____
 SURVEY RECHECKED: _____
 NO. _____ AREAS CHECKED: _____

DATE: _____ BY: _____
 SURVEYED: _____
 SURVEY PLOTTED: _____
 SURVEY RECHECKED: _____
 NO. _____ AREAS CHECKED: _____



Lin. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
			40	570		
					36	443
					19	
					6	
1305						3505

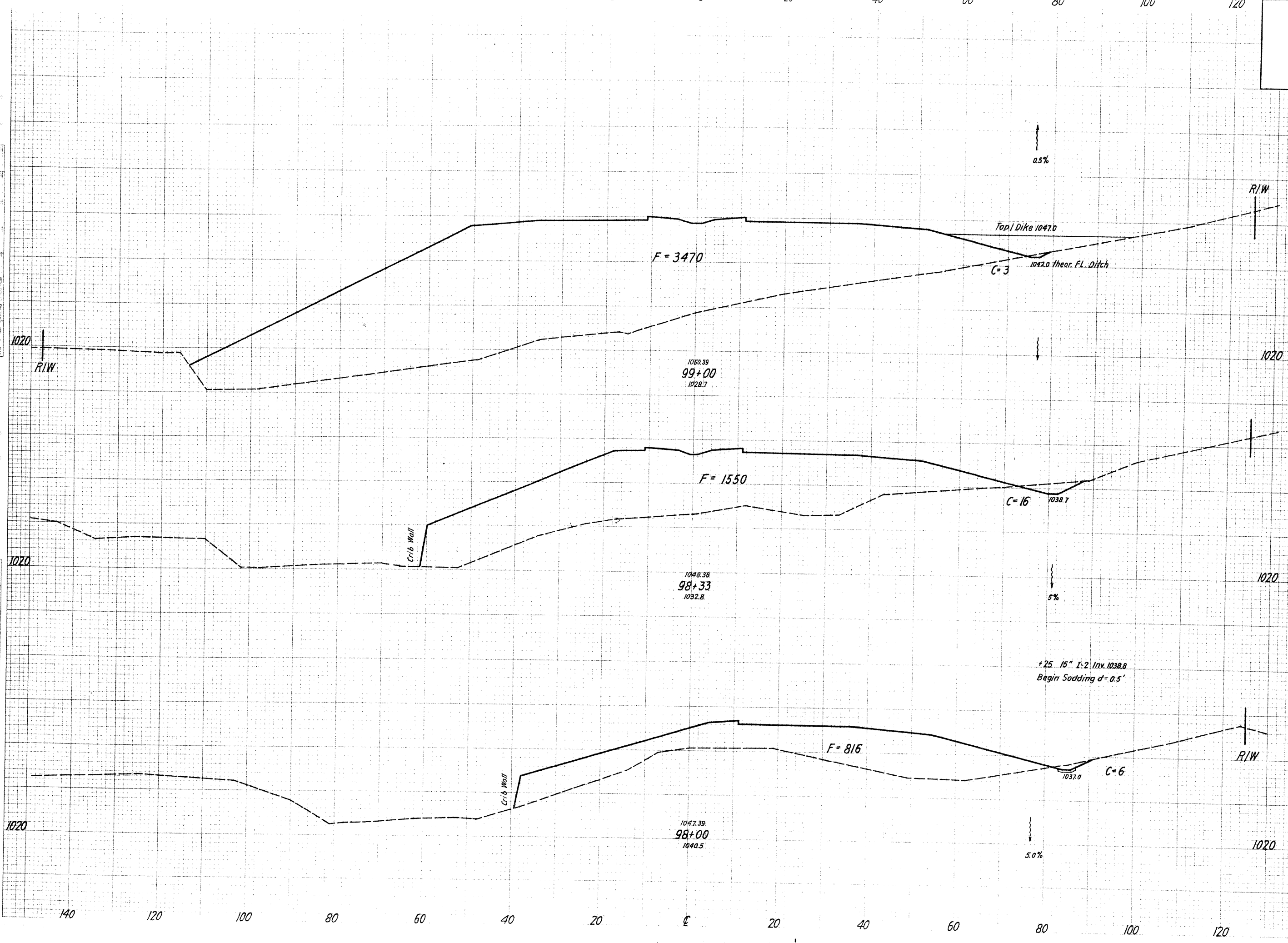
Structure
 Sta 97+04.27 @ U.S. 21-
 Sta 50+00 @ T.R. 172.

Sta 97+00 to Sta 97+42

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	157 329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL



162	3	3478		
1109			24	6745
136	16	1555		
450			134	1449
109	6	816		
1095			49	1489

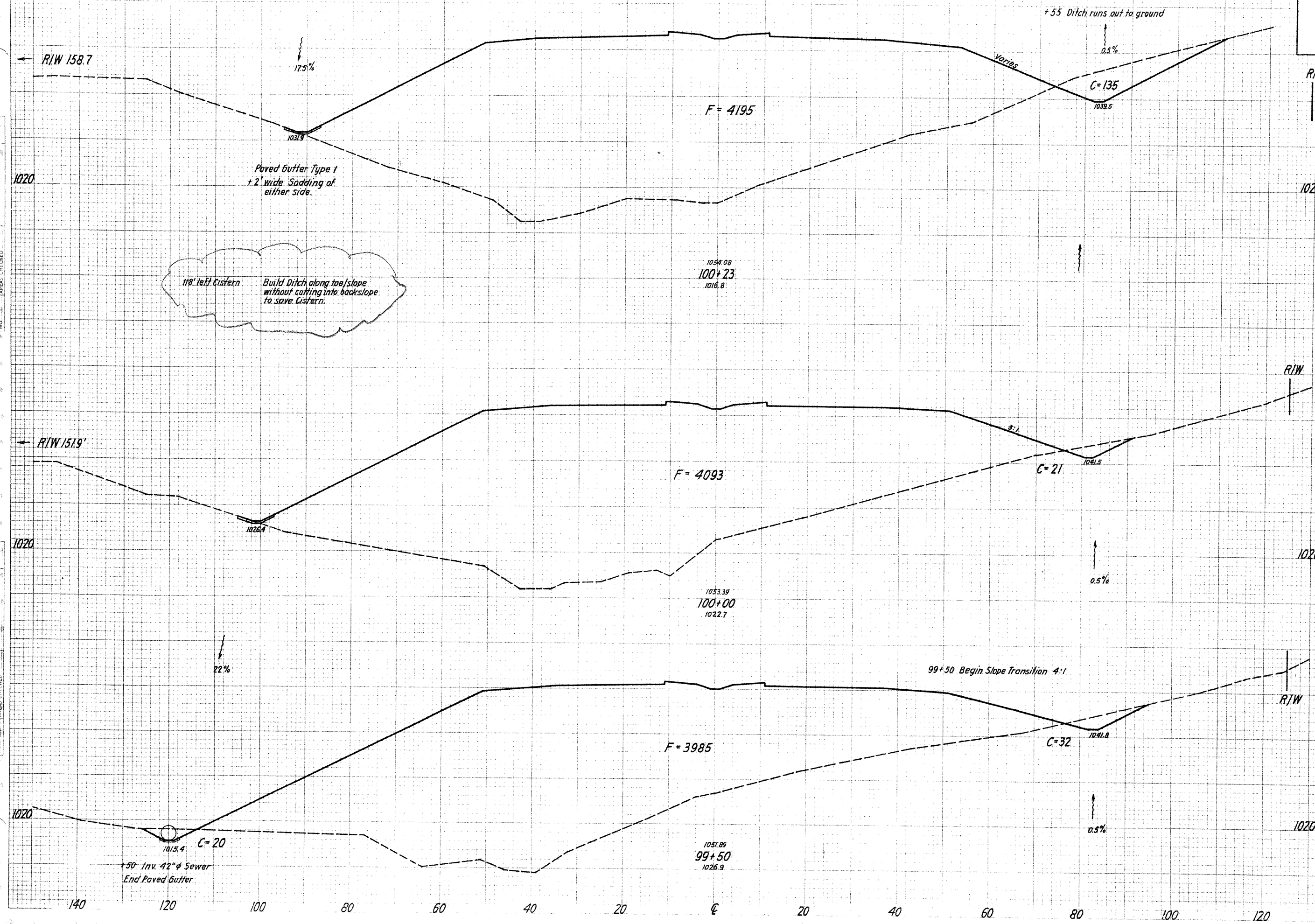
FINAL SURVEY
SURVEYED
PLOTTED
TEMPERATURE
NOTE BOOK
NO. AREAS CHECKED

ORIGINAL SURVEY
SURVEYED
PLOTTED
TEMPERATURE
NOTE BOOK
NO. AREAS CHECKED

Sta 98+00 to Sta. 99+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	158 329

STA - 21 - 17.50
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS.	
	Lin Ft.	Sq. Yds.	CUT	FILL
180	135	4201		
454			66	3535
175	21	4099		
1022			68	7491
193	52	3991		
986			51	6916

Sta 99+50 to Sta 100+25

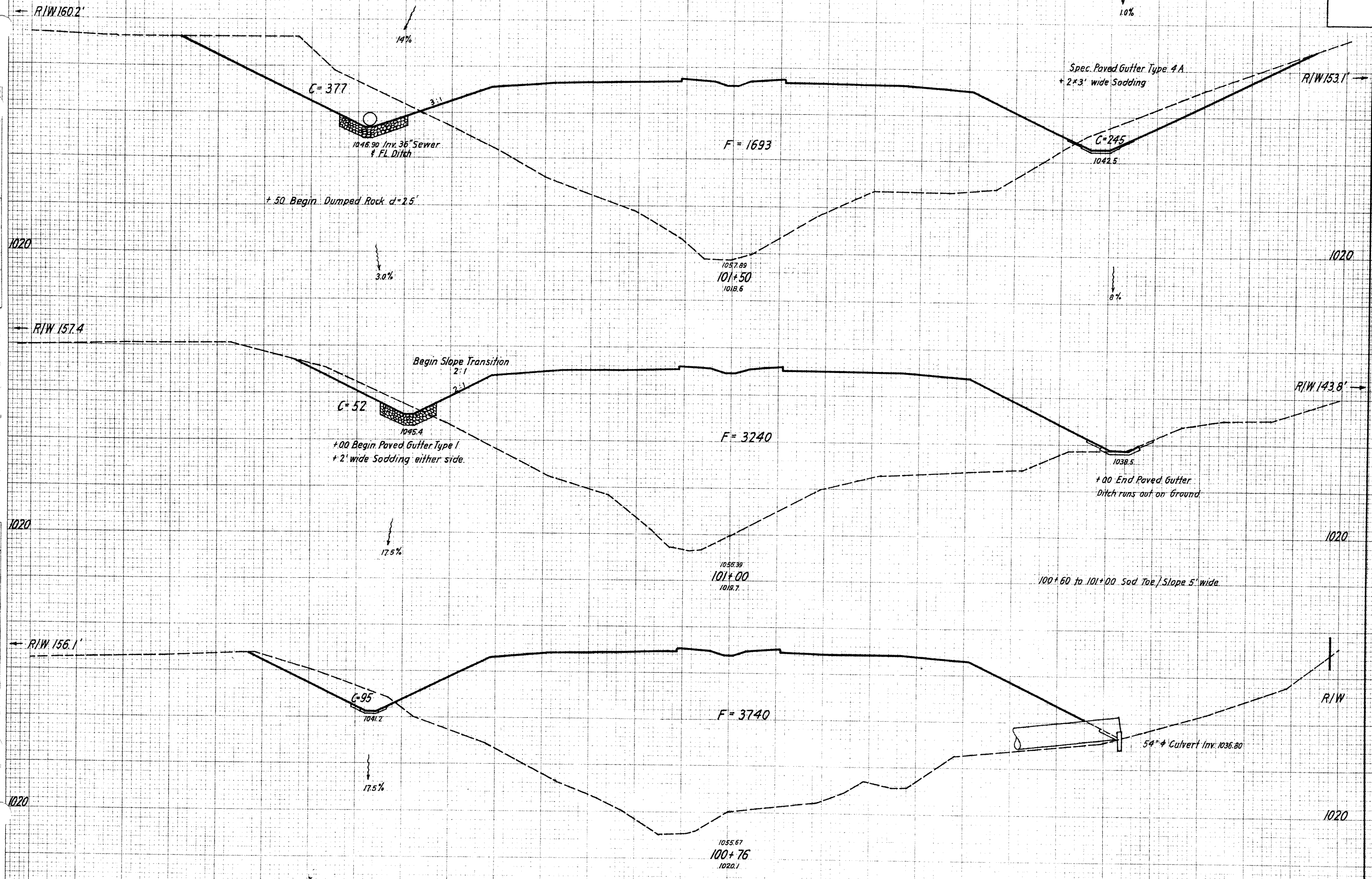
BY _____
DATE _____
NO. _____
AREAS CHECKED _____

BY _____
DATE _____
NO. _____
AREAS CHECKED _____

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	159 329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
217		622	1699	
1067		624	4579	
167		52	3246	
428		65	3108	
154		95	3746	
983		226	7800	

FINAL SURVEY PLOTTED AREAS CHECKED

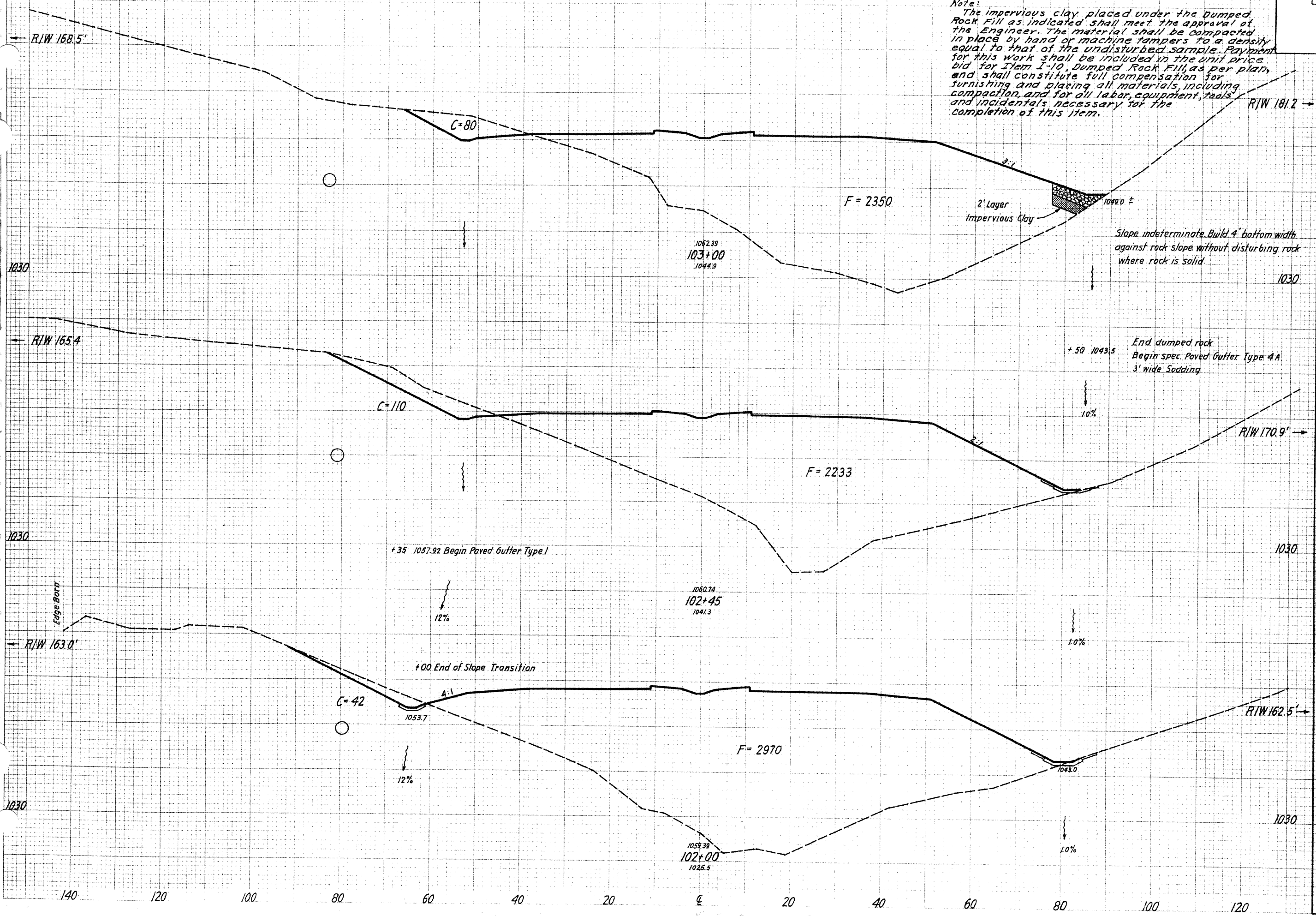
ORIGINAL SURVEY PLOTTED AREAS CHECKED

Sta 100+76 to Sta 101+50

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	160 329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

Note:
The impervious clay placed under the dumped Rock Fill as indicated shall meet the approval of the Engineer. The material shall be compacted in place by hand or machine tampers to a density equal to that of the undisturbed sample. Payment for this work shall be included in the unit price bid for Item I-10, Dumped Rock Fill, as per plan, and shall constitute full compensation for furnishing and placing all materials, including compaction, and for all labor, equipment, tools, and incidentals necessary for the completion of this item.

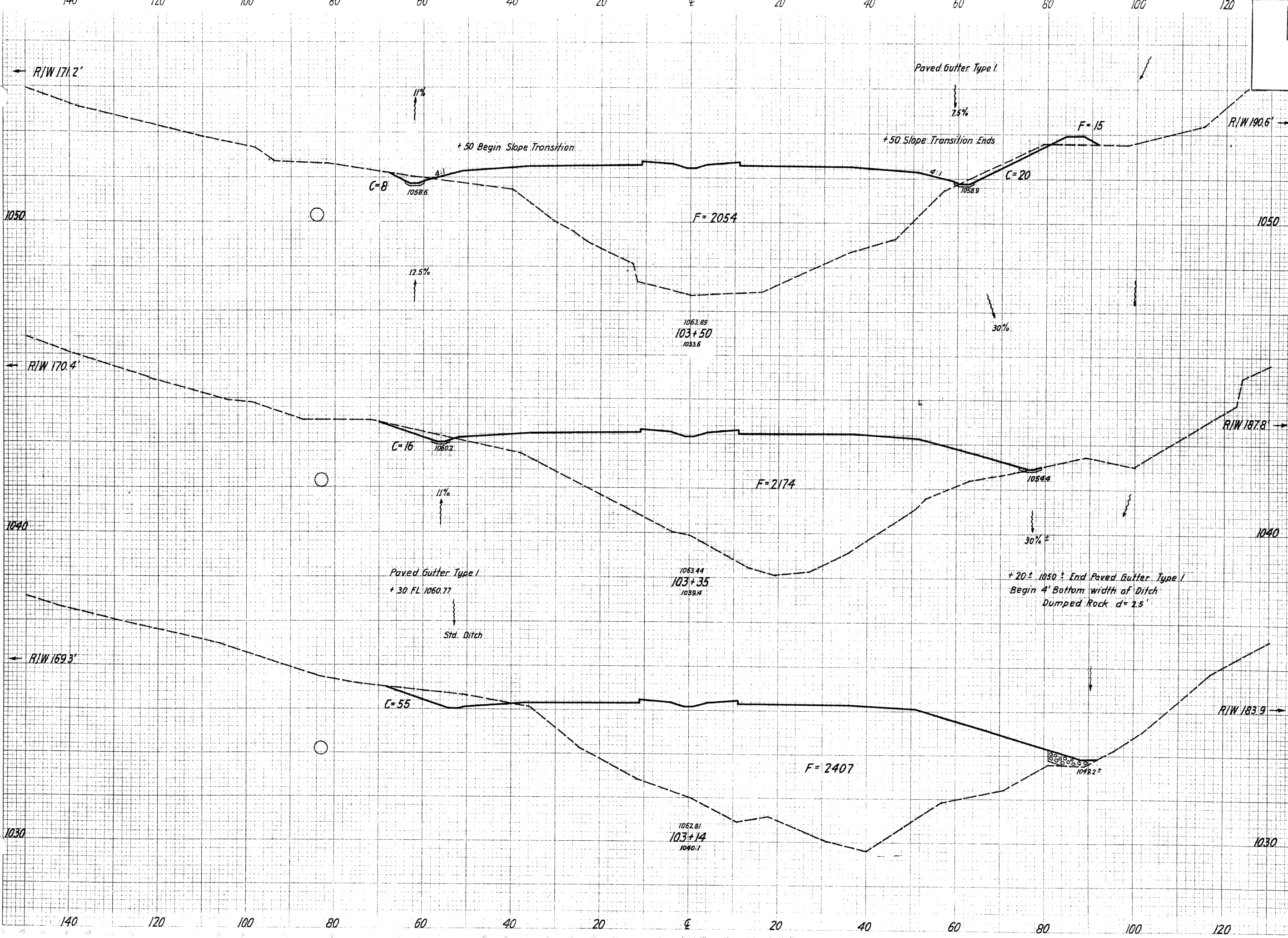


Lin. Ft.	Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
120	80	2356			
798			194	4680	
141	110	2239			
723			127	4346	
148	42	2976			
1014			615	4329	

Sta. 102+00 to Sta 103+00.

DATE: _____ BY: _____
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
 NO. AREAS: _____
 DATE: _____ BY: _____
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
 NO. AREAS: _____

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS.	
	Ln. Ft.	Sq. Yds.	CUT	FILL
124			28	2085
205				12 1185
122			16	2180
275			28	1786
114			35	2413
182				35 1236

Sta 103+14 to Sta 103+50

FINAL SURVEY
SURVEYED
SCOTTED
TEMPLATE
NOTE BOOK
AREAS
CHECKED
DATE

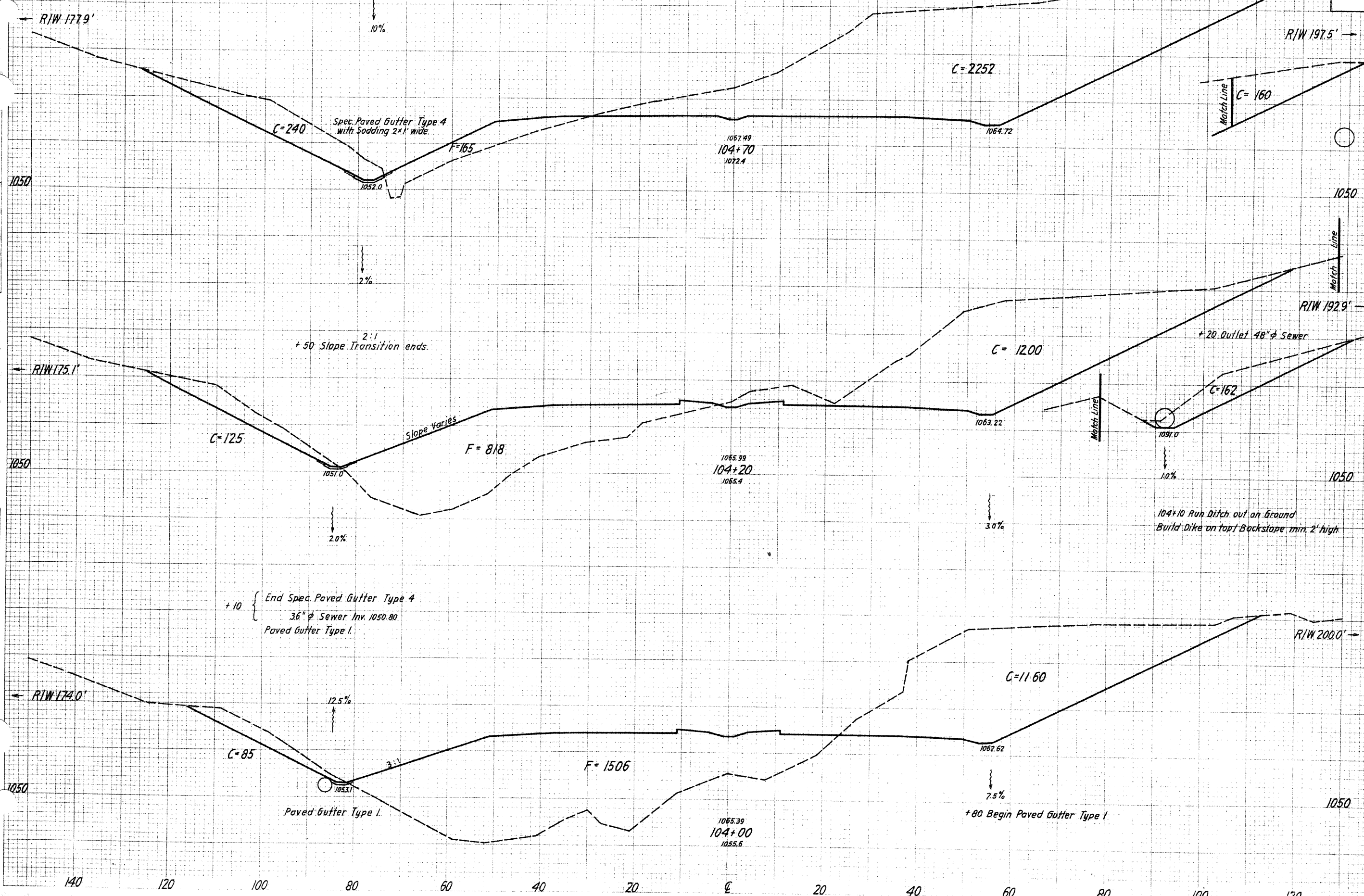
ORIGINAL SURVEY
SURVEYED
SCOTTED
TEMPLATE
NOTE BOOK
AREAS
CHECKED
DATE

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	

162
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Lin. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
195		2652	181			
1192				3632	931	
234		1487	824			
418				1012	865	
142		1245	1512			
739				1779	3331	

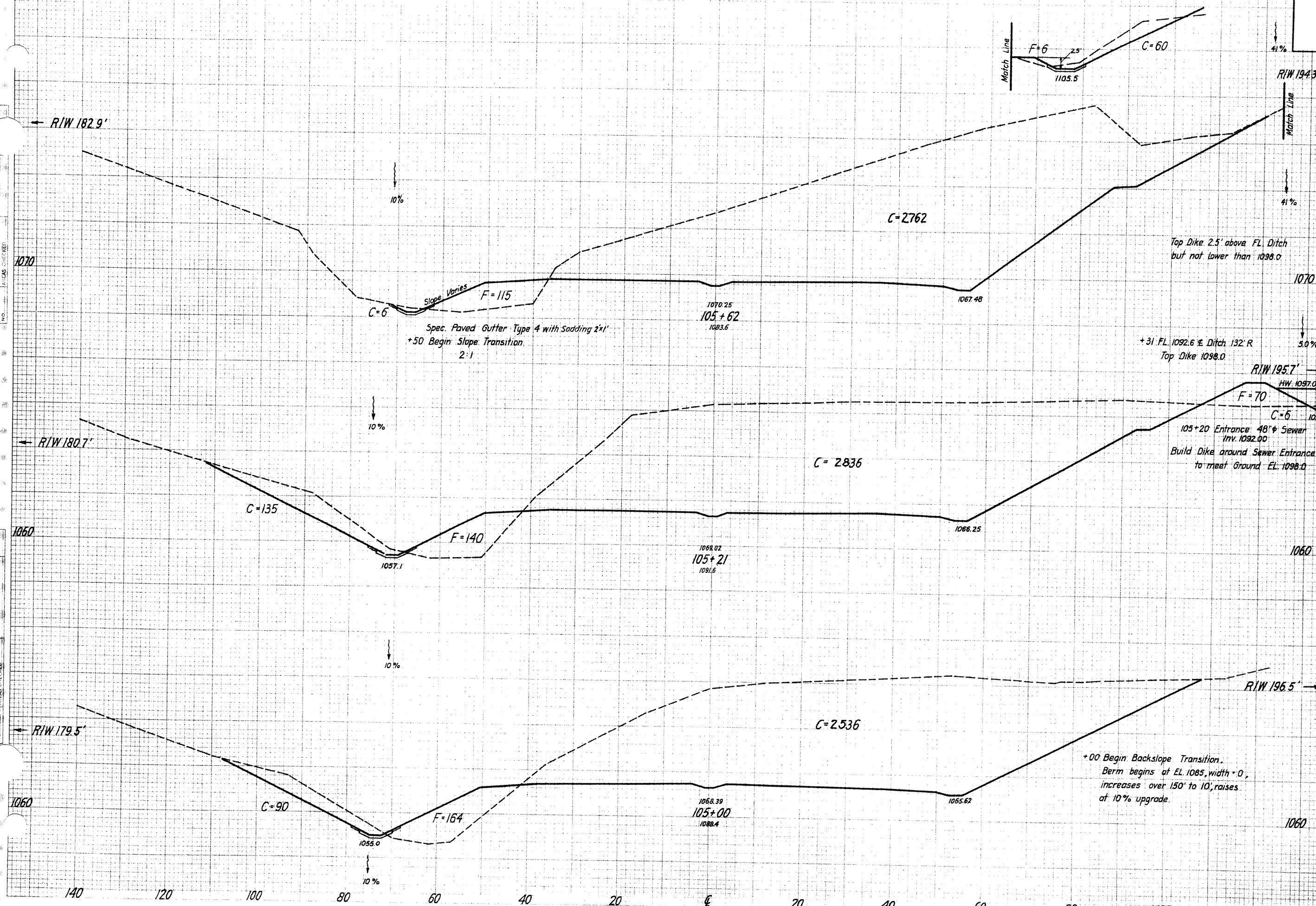
Sta 104+00 to Sta 104+70

FINAL SURVEY
SURVEYED BY
PLOTTED BY
CHECKED BY
DATE

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

163
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Sta.	SEEDING		END AREA		CU. YDS.	
	Ln. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
138			2828	137		
690					4408	276
165			2977	226		
350					2179	158
135			2626	180		
550					2932	201

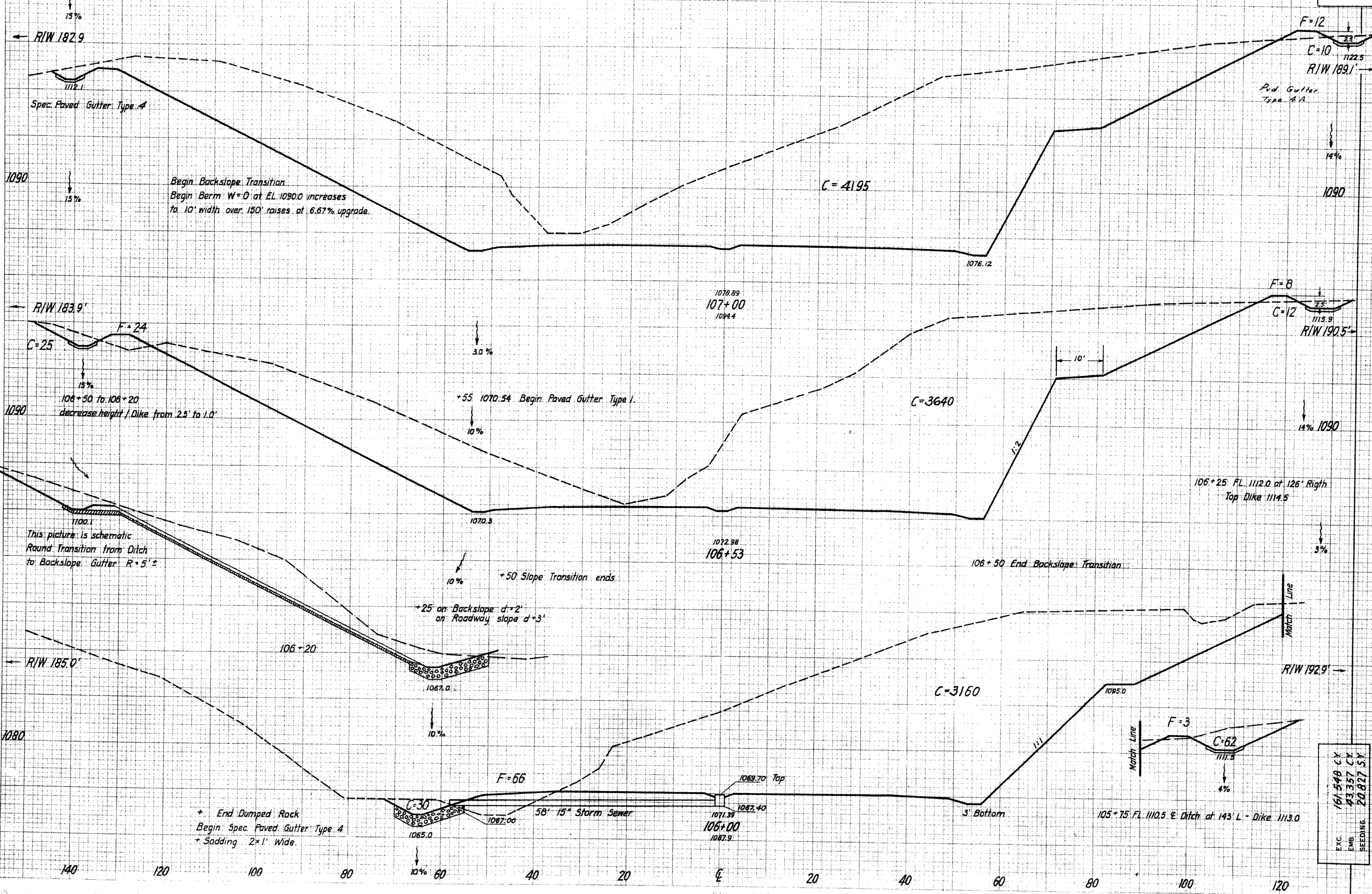
Sta 105+00 to Sta 105+62

DATE: _____ BY: _____
 SURVEYED: _____
 SURVEY PLOTTED: _____
 FINAL SURVEY: _____
 NOTE BOOK: _____
 NO. _____
 AREAS CHECKED: _____

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	164 329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



LINE	SEEDING	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
136		4205	28		
687			6860	66	
127		3677	48		
786			6801	191	
140		3252	86		
587			4278	156	

EXC. 161,548 CY
EMB. 43,337 CY
SEEDING 20,877 SY

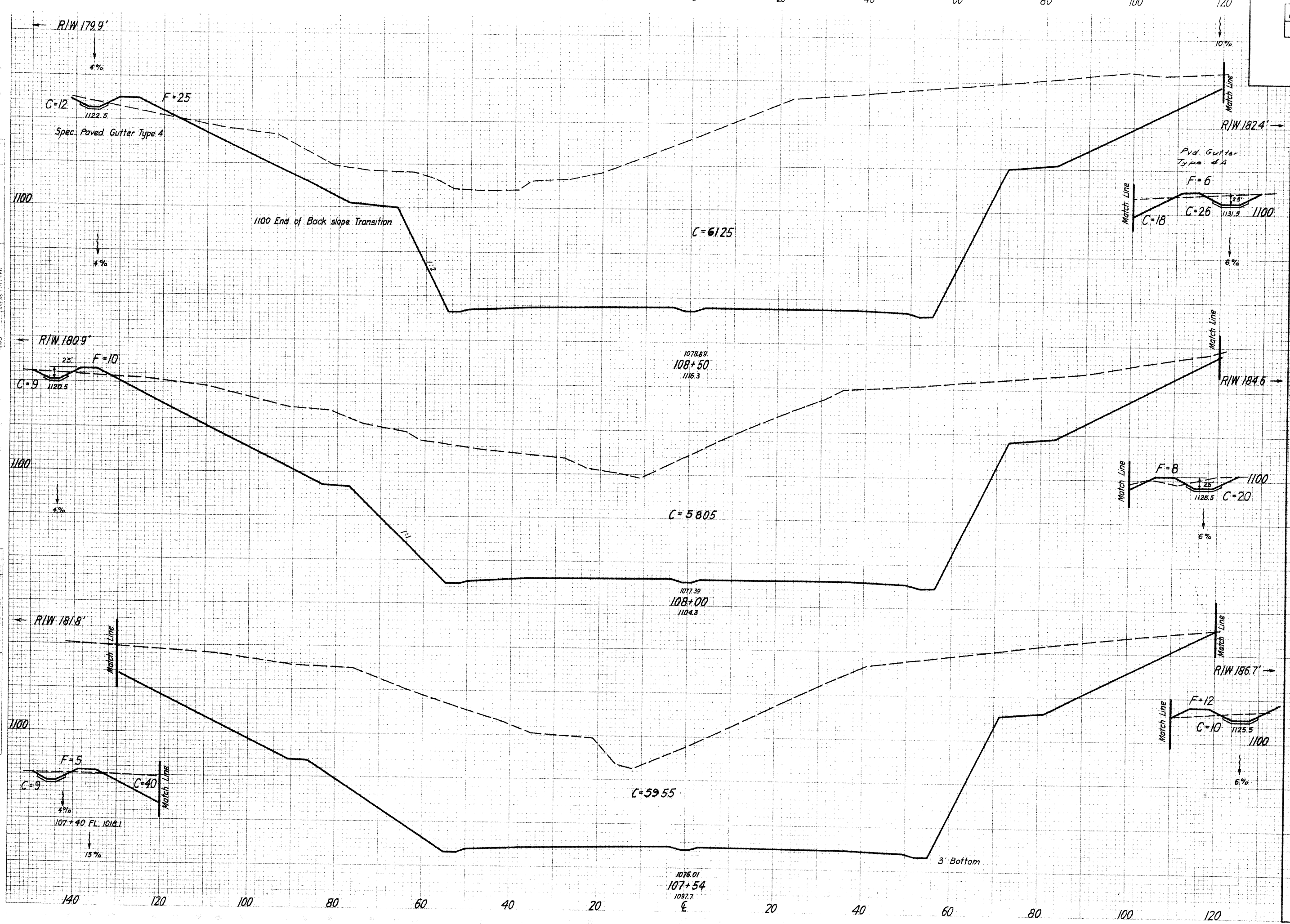
FINAL SURVEY PLOTTED BY DATE

ORIGINAL SURVEY PLOTTED BY DATE

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

165
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



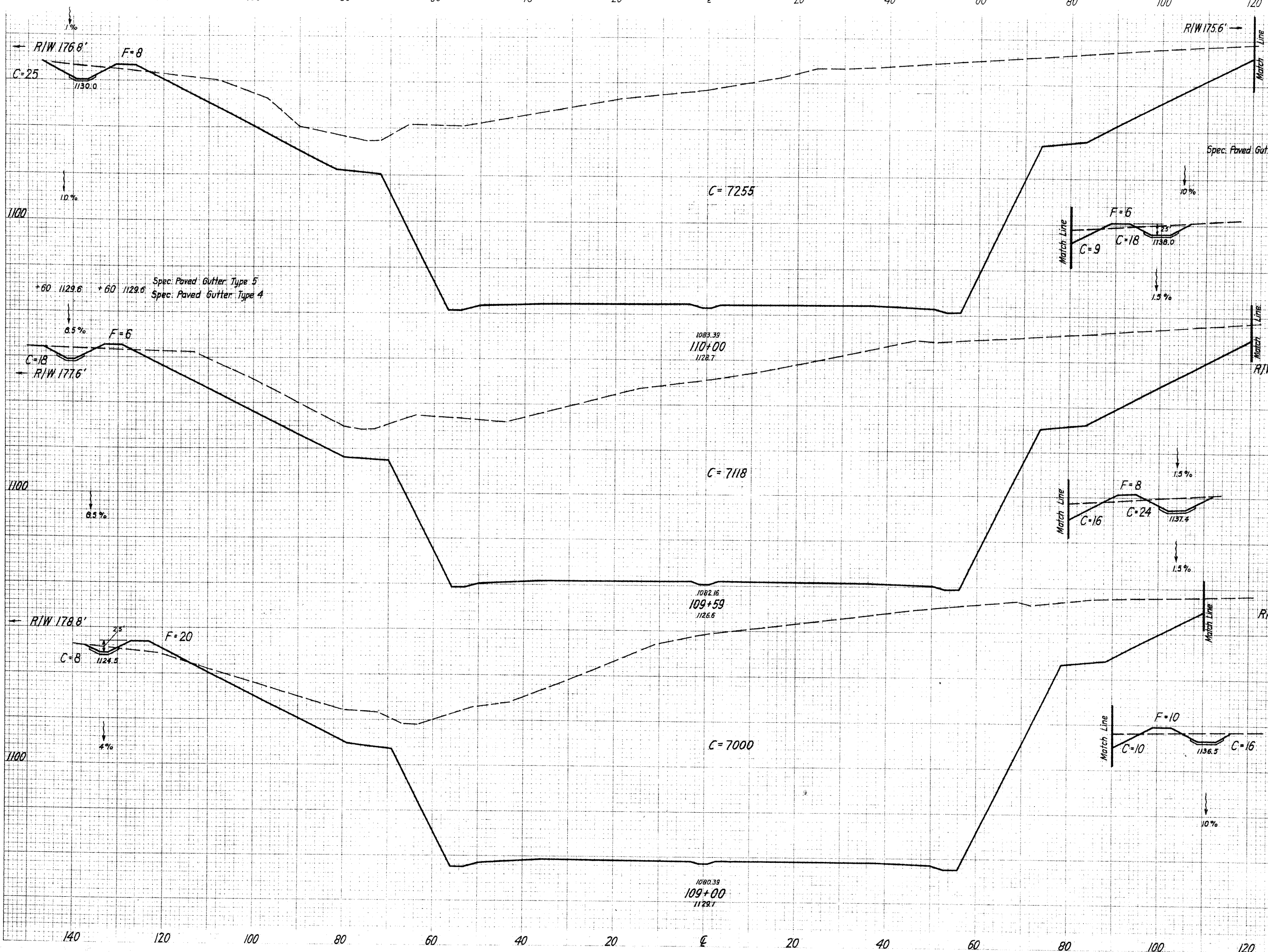
Lin. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
150			6181	47		
847			11125	75		
155			5834	34		
871			10093	57		
186			6014	33		
966			10219	61		

Sta. 107+54 to Sta. 108+60

FINAL SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

ORIGINAL SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



L.A. FT.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	CUT	FILL	CUT	FILL
168			7307	30		
794					10996	46
180			7176	30		
1056					15526	83
142			7034	46		
871					12249	86

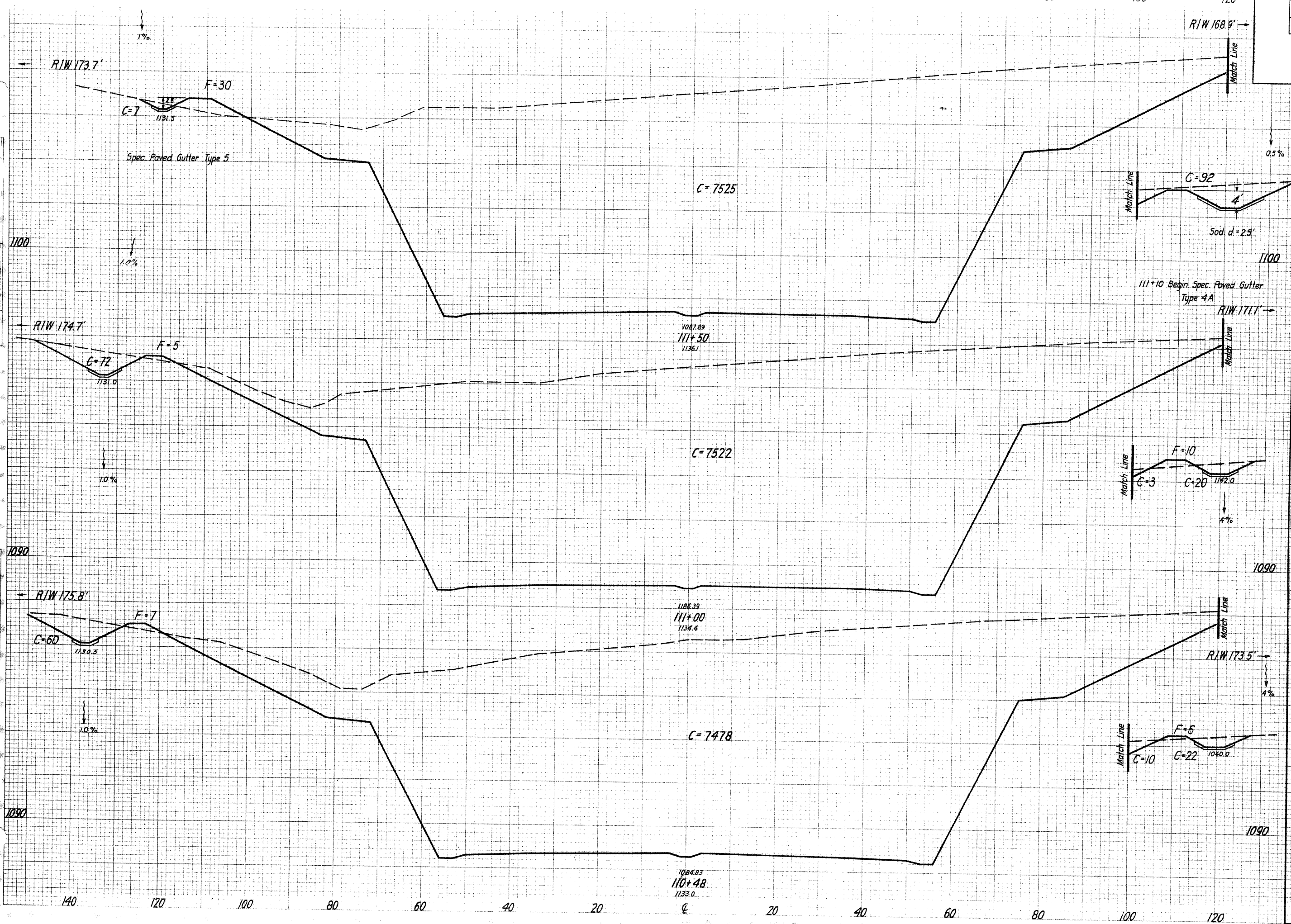
FINAL SURVEY
 SURVEYED BY
 NOTE BOOK NO.
 TEMPLATE NO.
 AREAS CHECKED

ORIGINAL SURVEY
 SURVEYED BY
 NOTE BOOK NO.
 TEMPLATE NO.
 AREAS CHECKED

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	

167
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



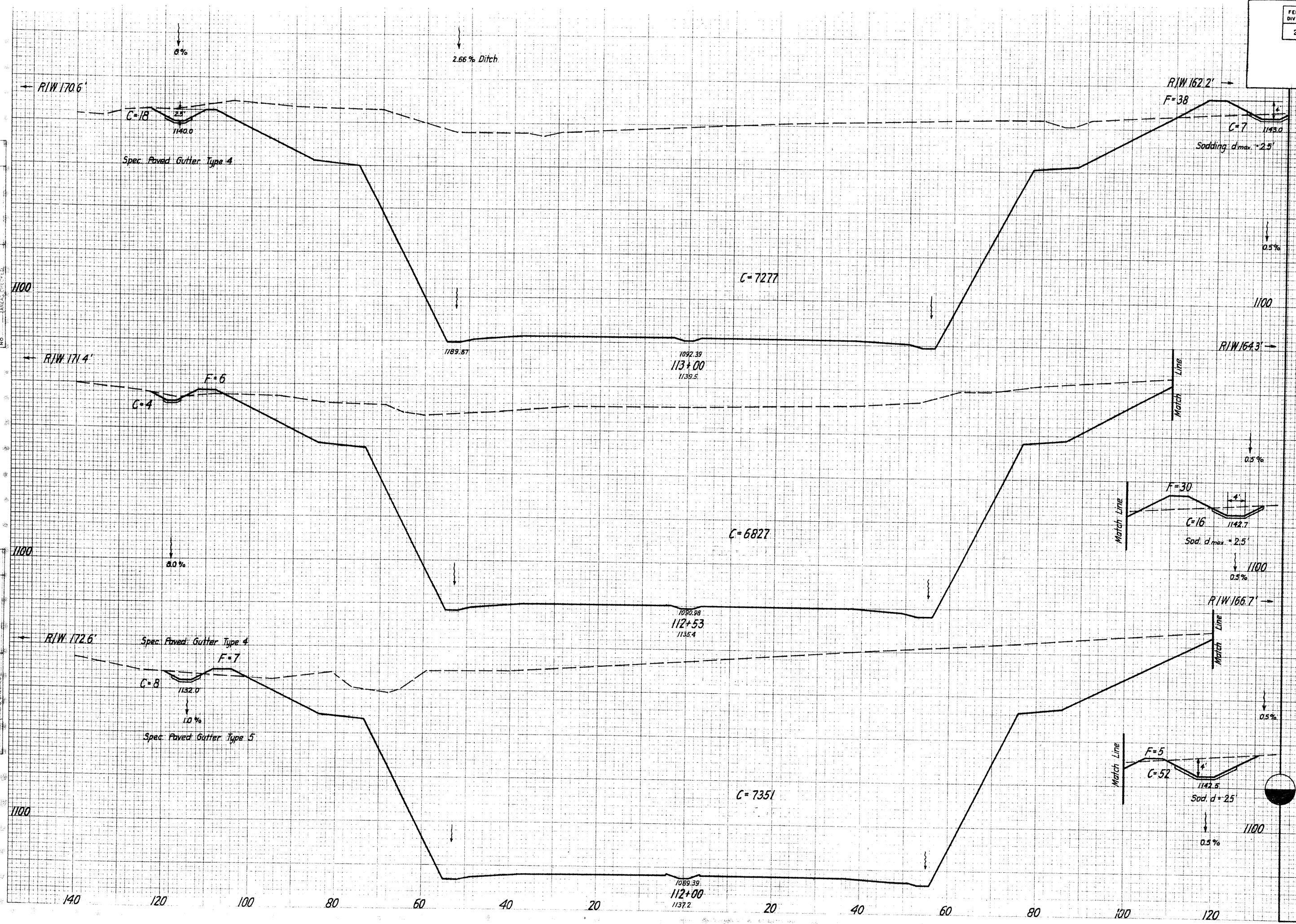
Sta. No.	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
163			7624	46		
972					14109	71
187			7617	31		
1046					14622	58
175			7570	29		
915					13215	52

Sta 110+48 to Sta 111+50

DATE: _____ BY: _____
 ORIGINAL SURVEY PLOTTED _____
 SURVEY PLOTTED _____
 NOTE BOOK NO. _____
 AREAS CHECKED _____

STA - 21 - 17.80
 WAY - 21 - 0.00
 SUM - 21 - 0.00

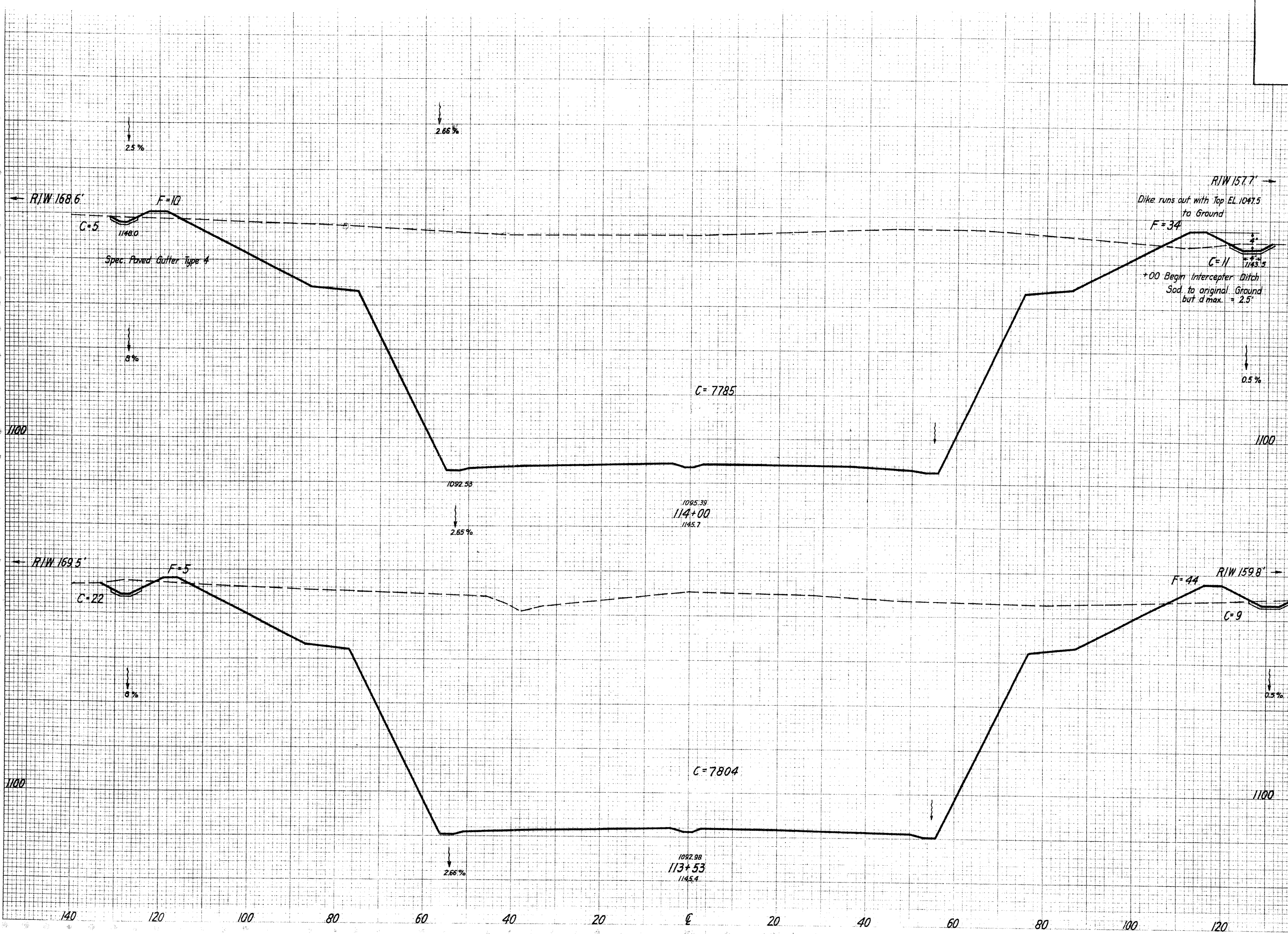
Lin. Ft.	Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
126			7302		54
689			12315		92
138			6847		52
780			13994		79
127			7411		28
831			13921		69



FINAL SURVEY PLOTTED BY: []
 CHECKED BY: []
 DATE: []

ORIGINAL SURVEY PLOTTED BY: []
 CHECKED BY: []
 DATE: []

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Lin. Ft.	Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
146			7801	60	
273					13,609
150			7835	65	
813					14,857

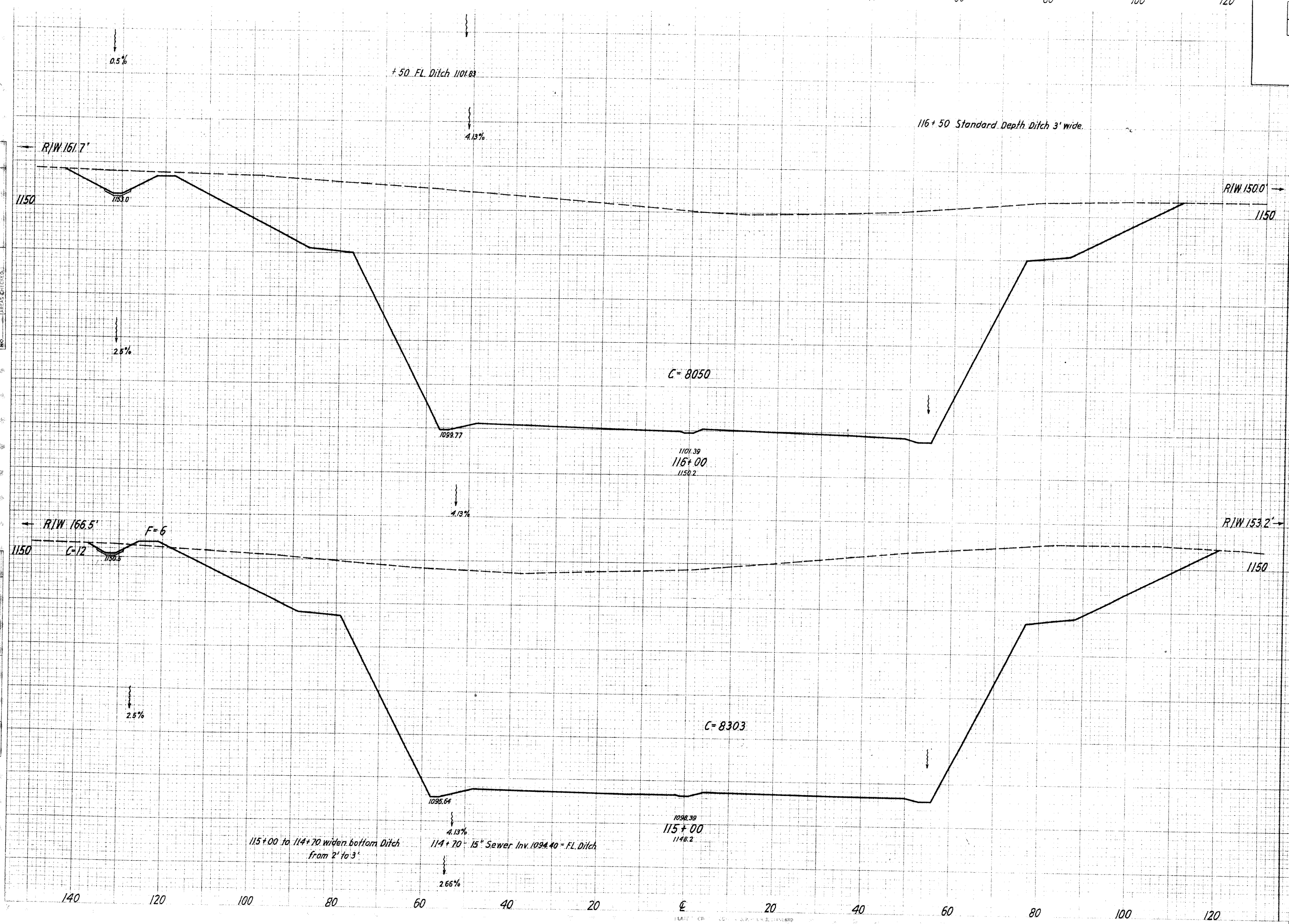
FINAL SURVEY BY DATE
SURVEYED BY DATE
NOTE BOOK NO.
AREAS CHECKED

ORIGINAL SURVEY BY DATE
SURVEYED BY DATE
NOTE BOOK NO.
AREAS CHECKED

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

170
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Lin. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
136		8050	16			
1500		30306	70			
134		8315	22			
1556		29844	152			

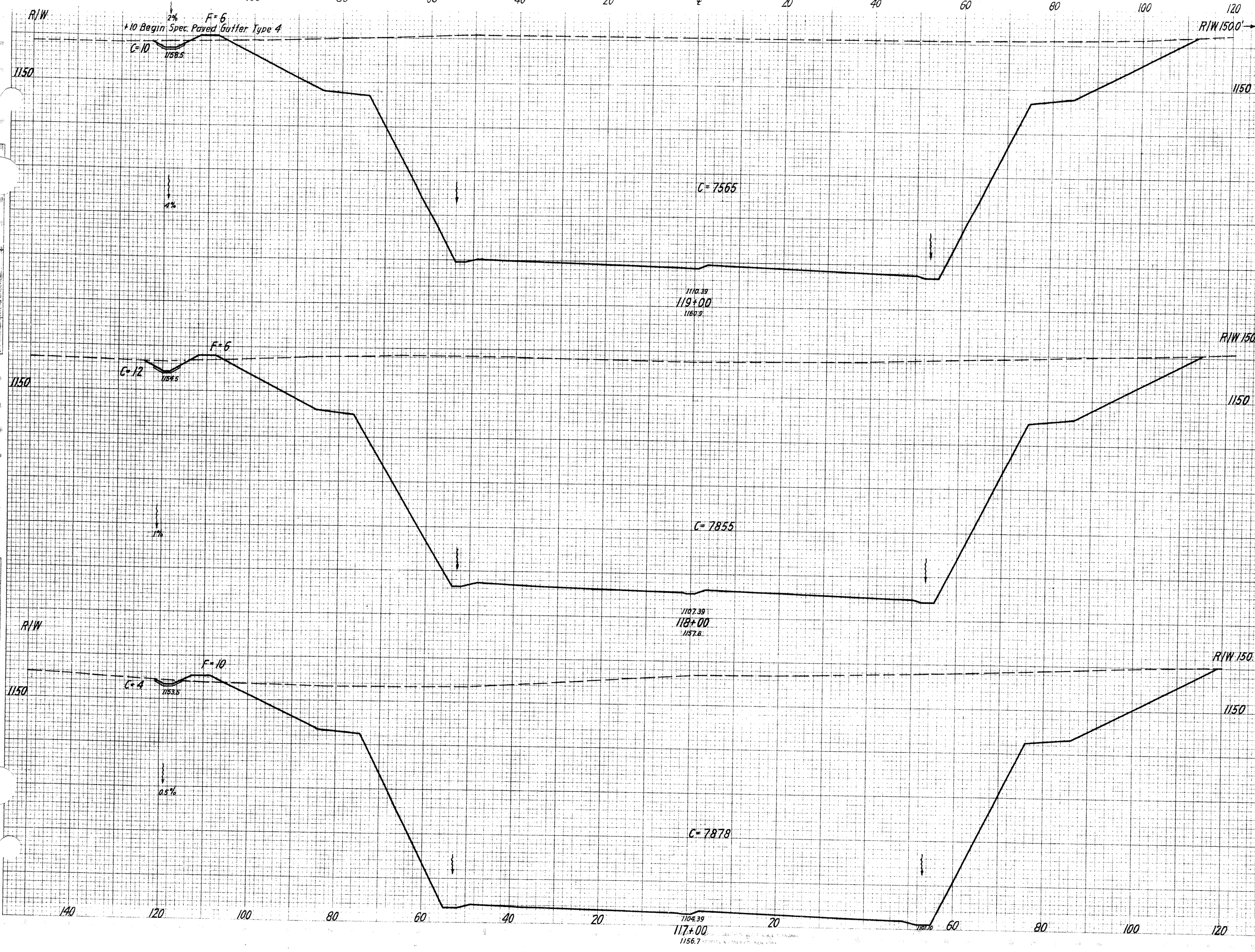
FINAL SURVEY
NOTED WORK
AREAS CHECKED

ORIGINAL SURVEY
NOTED WORK
AREAS CHECKED

Sta 115+00 to Sta 116+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	(171) 329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



L.H. FT.	SEEDING		END AREA		CU. YDS.	
	sq. Yds.		CUT	FILL	CUT	FILL
117			7575	22		
1317			28,596	81		
120			7867	22		
1460			29,165	89		
1550			29,304	78		

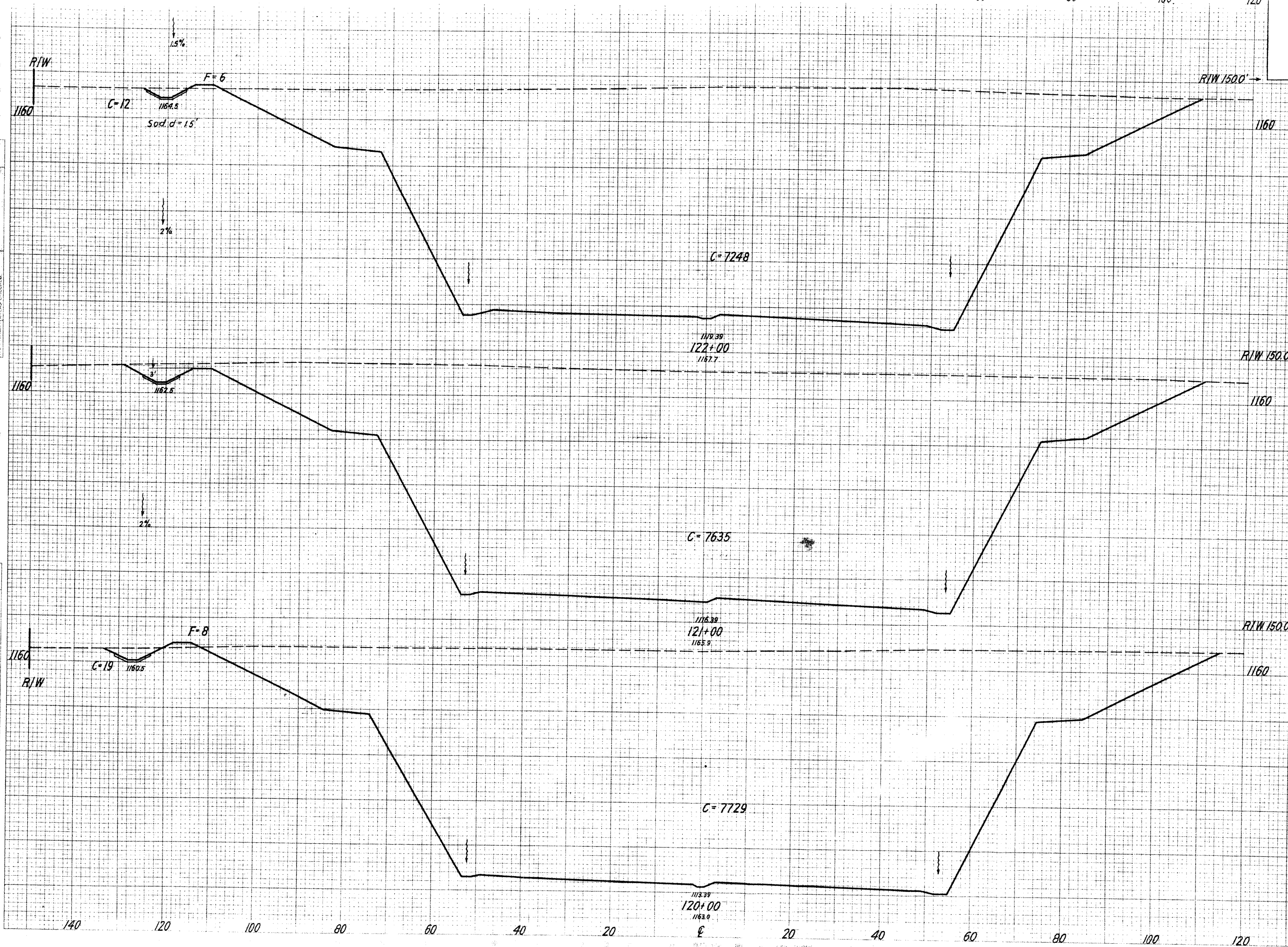
EXC. 338,791 C.Y.
EMB. 1,262 C.Y.
SEEDING 16,210 S.Y.

Sta 117+00 to Sta. 119+00

DATE _____
BY _____
FINAL SURVEY PLOTTED
NOTE BOOK REPLATED
NO. _____
AREAS CHECKED

DATE _____
BY _____
ORIGINAL SURVEY PLOTTED
NOTE BOOK REPLATED
NO. _____
AREAS CHECKED

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

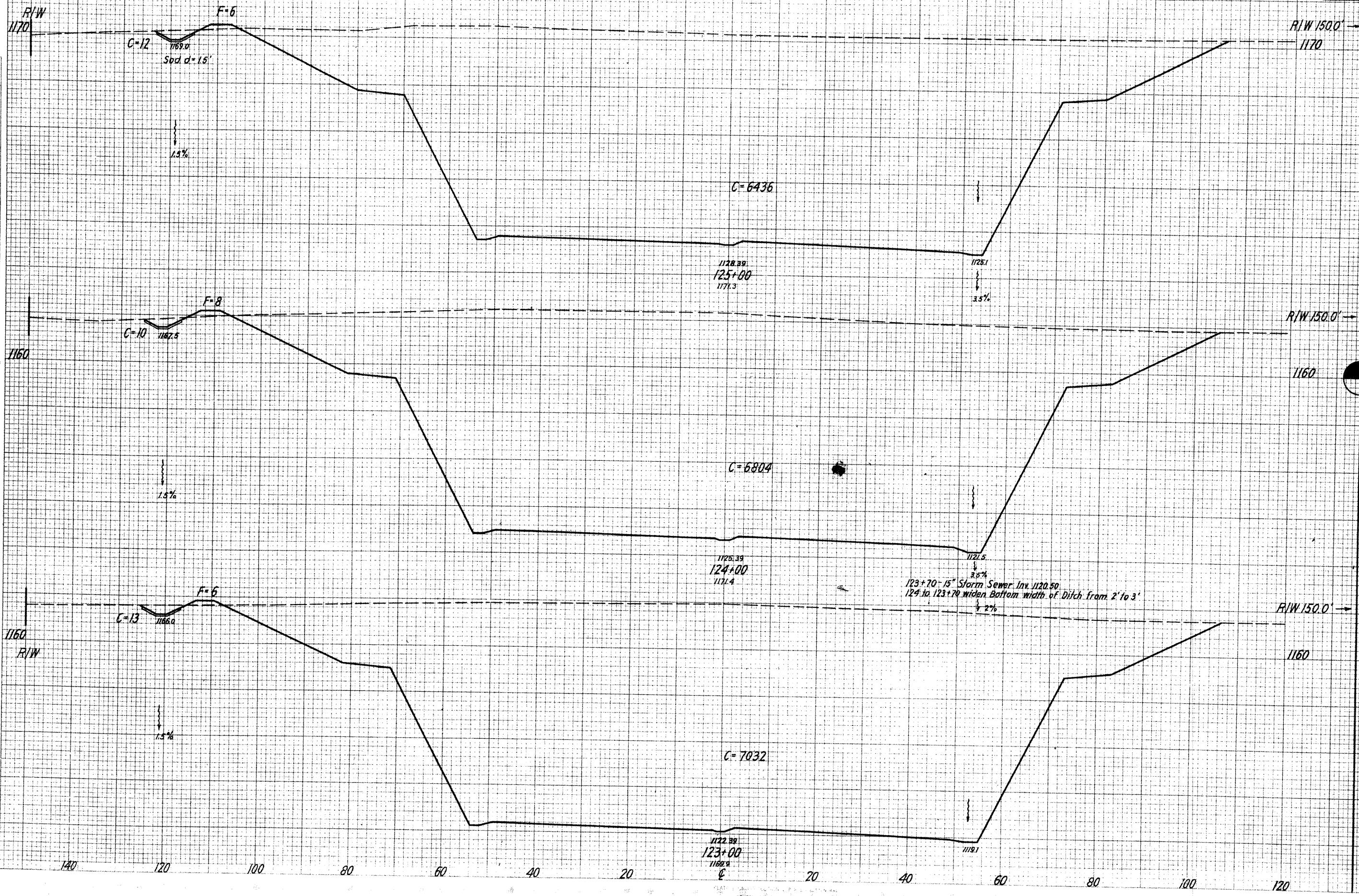


SEEDING Ln. Ft.	END AREA Sq. Yds.	CUT		FILL	
		CUT	FILL	CUT	FILL
130	7260	22			
1417			27583	70	
125	7635	16			
1428			28487	74	
132	7748	24			
1383			29376	85	

FINAL SURVEY SURVEYED, PLOTTED, NOTE BOOK AREAS CHECKED

ORIGINAL SURVEY SURVEYED, PLOTTED, NOTE BOOK AREAS CHECKED

STA - 21 - 17.00
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS	
	Lin. Ft.	Sq. Yds.	CUT	FILL
120	6448	22		
122	6814	24		
1189	7045	22		
1172	26491	81		

Sta. 123+00 to Sta. 125+00

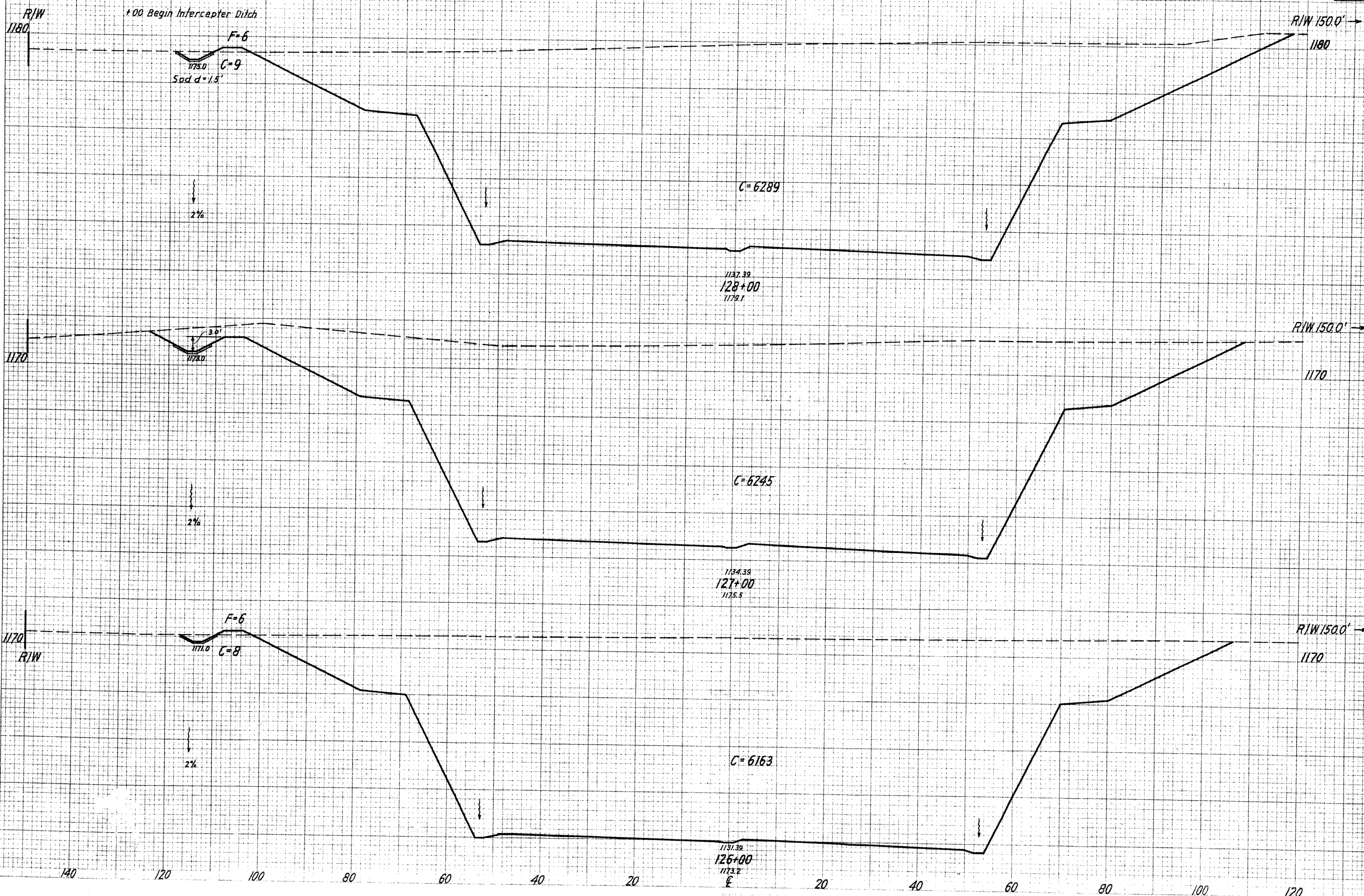
FINAL SURVEY PLOTTED BY DATE
NOTE BOOK AREAS CHECKED NO.

ORIGINAL SURVEY PLOTTED BY DATE
NOTE BOOK AREAS CHECKED NO.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	

174
329

STA - 21 - 17.83
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU YDS	
	Lin. Ft.	Sq. Yds.	CUT	FILL
132		6298	22	
1478			23228	70
125		6245	16	
1339			22993	70
116		6171	22	
1311			23368	81

DATE: _____ BY: _____
 ORIGINAL SURVEY: _____
 SURVEYED: _____
 ELECTRIC: _____
 TEMPLATE: _____
 NOTE BOOK: _____
 AREAS CHECKED: _____

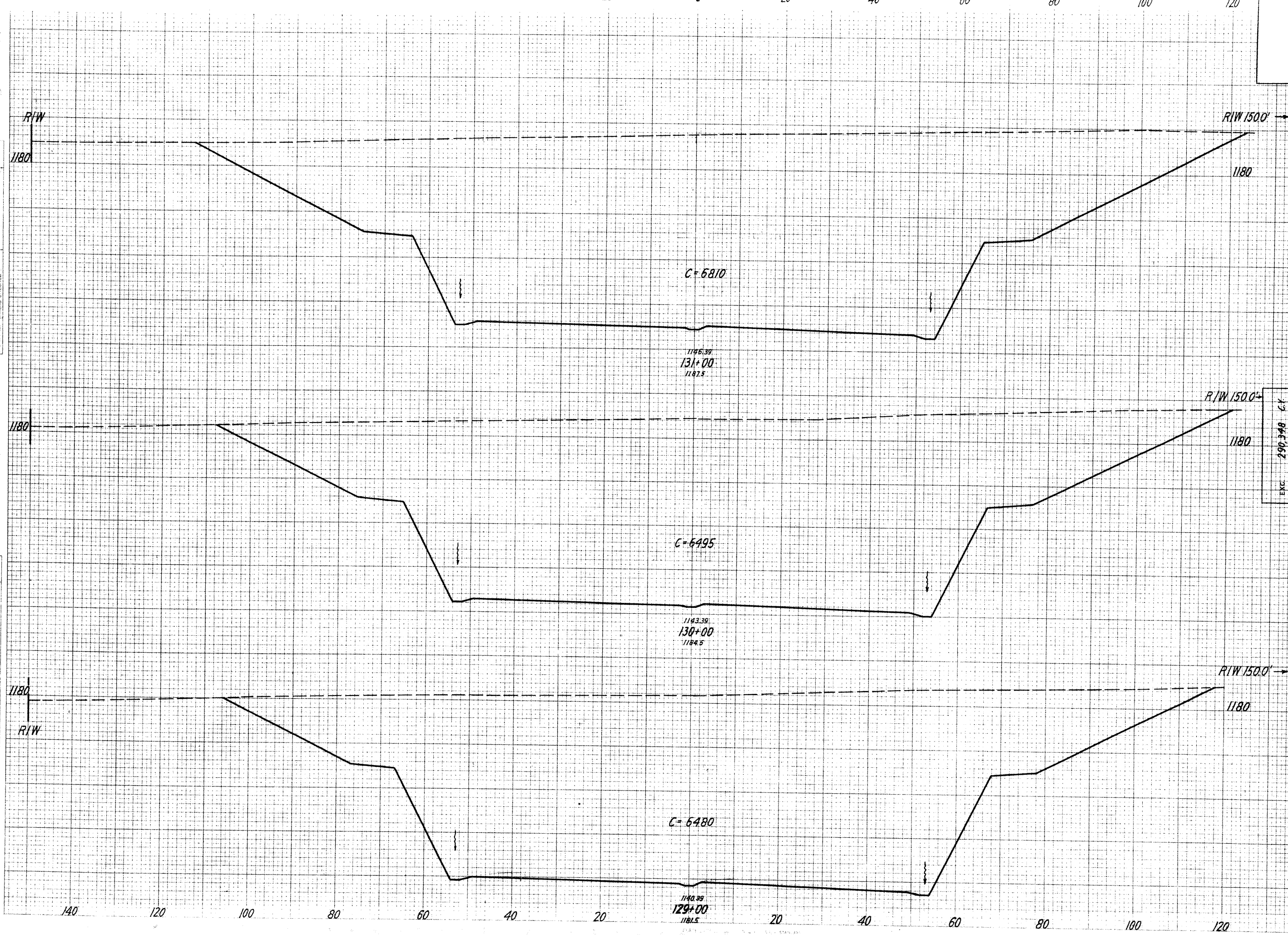
DATE: _____ BY: _____
 ORIGINAL SURVEY: _____
 SURVEYED: _____
 ELECTRIC: _____
 TEMPLATE: _____
 NOTE BOOK: _____
 AREAS CHECKED: _____

Sta. 126+00 to Sta. 128+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

175
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



STATION	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
134			6810	16		
1472					24,639	59
131			6495	16		
1394					24,028	59
120			6480	16		
1400					23,663	70

E.C. 290.348 C.Y.
E.M.B. 789 C.Y.
SEEDING 19/89 S.Y.

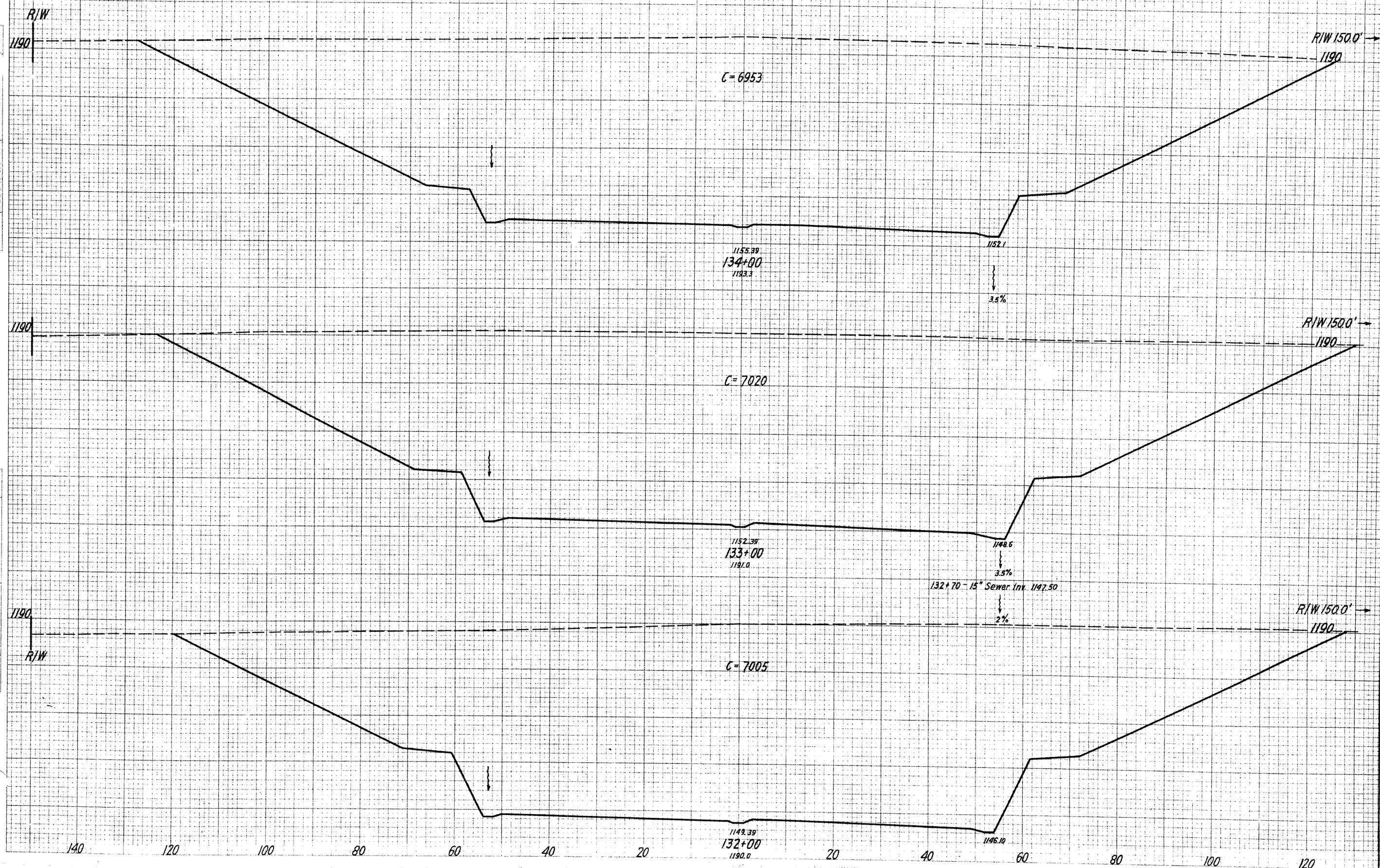
DATE _____ BY _____
FINAL SURVEY PLOTTED
NOTE BOOK TEMP. A/B
NO. AREAS CHECKED

DATE _____ BY _____
ORIGINAL SURVEY PLOTTED
NOTE BOOK TEMP. A/B
NO. AREAS CHECKED

Sta. 129+00 to Sta. 131+00

ETA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

134+00
Begin 150' Backslope transition. Berm width decreases from 10' to 0' at a 1% down grade to elevation 1060.0



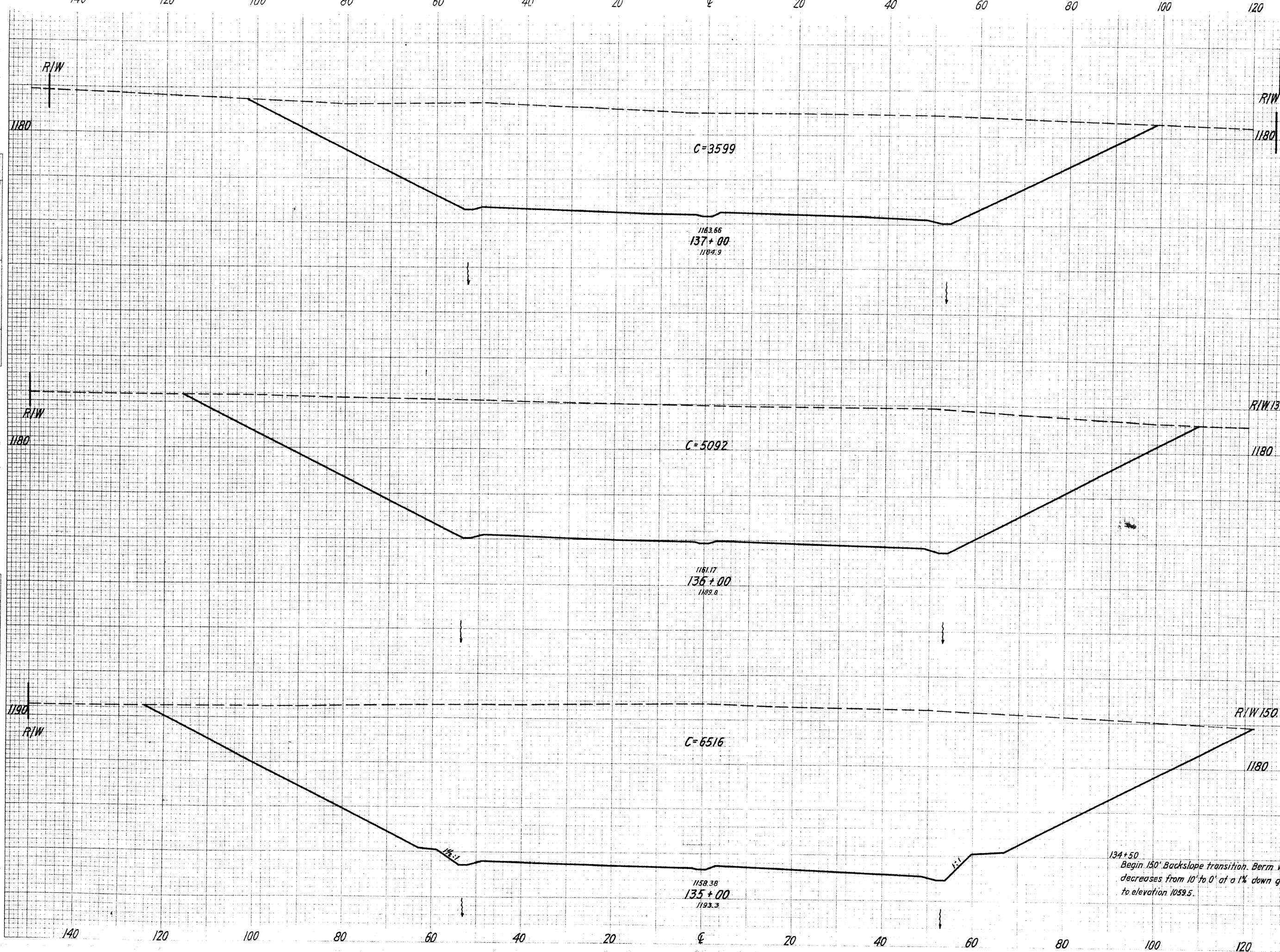
Sta	SEEDING		END AREA		CU. YDS	
	Lin Ft	Sq Yds	CUT	FILL	CUT	FILL
193			6953	16		
2106					26876	59
186			7020	16		
2017					25972	59
177			7005	16		
1728					25583	59

Sta 132+00 to Sta 134+00

DATE
BY
NO.
FINAL SURVEY PLOTTED
NOTE BOOK APPAS CHECKED

DATE
BY
NO.
ORIGINAL SURVEY PLOTTED
NOTE BOOK APPAS CHECKED

STA - 21 - 17.00
WAY - 21 - 0.00
SUM - 21 - 0.00



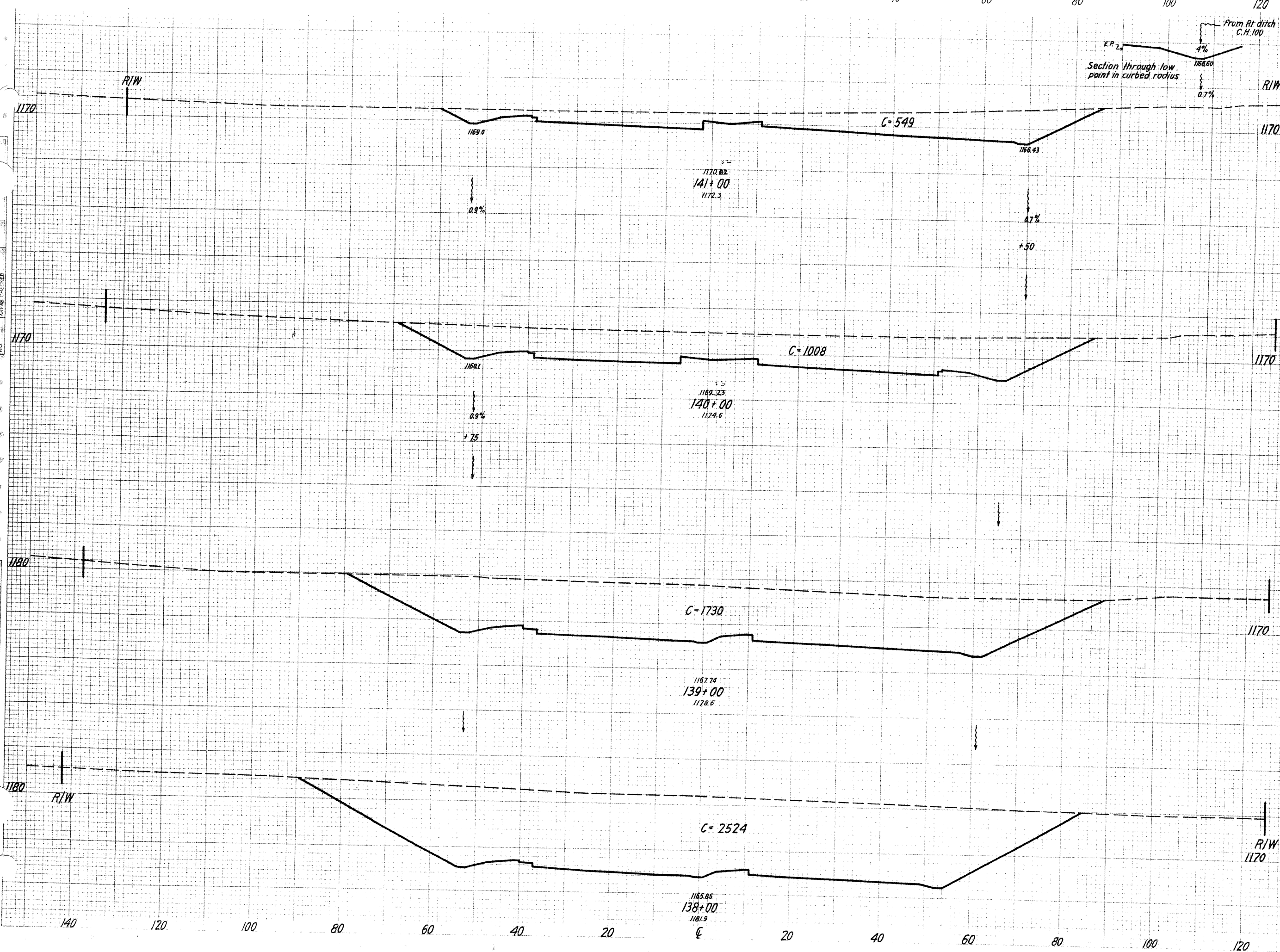
Sta.	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
153			3599	16		
1856					16094	59
181			5092	16		
2028					21496	59
184			6516	16		
2094					24943	55

134+50
Begin 150' Backslope transition. Berm width decreases from 10' to 0' of a 1% down grade to elevation 1059.5.

FINAL SURVEY PLOTTED BY: []
NOTE BOOK NO. [] AREA CHECKED BY: []
DATE: []

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	178 329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
87		549		
1072			2883	4
106		1008	2	
1294			5070	17
127		1730	7	
1500			7878	26
143		2524	7	
1644			11339	43

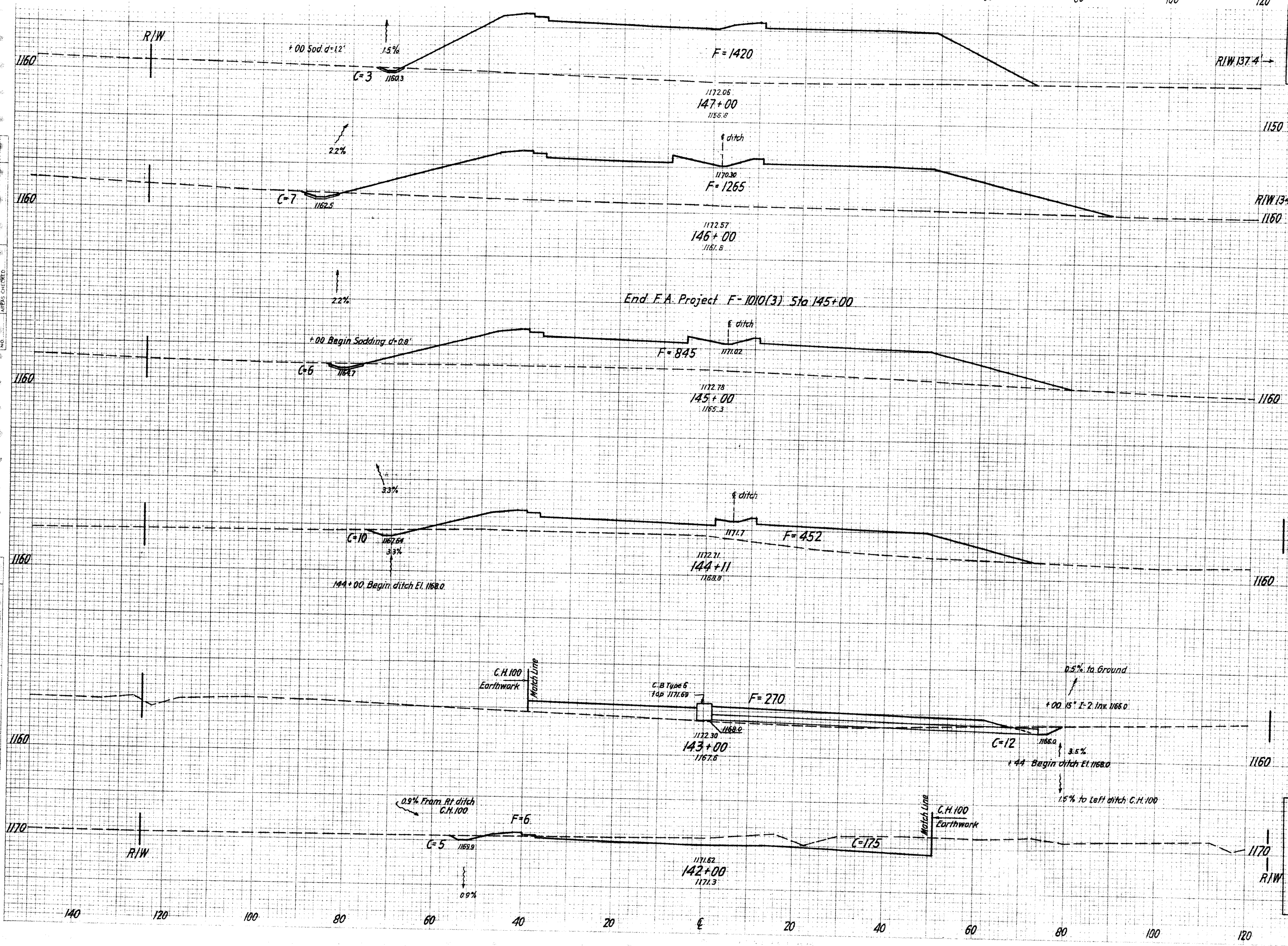
Sta 138+00 to Sta 141+00

DATE _____ BY _____
 SURVEYED _____
 ORIGINAL SURVEY _____
 NOTE BOOK _____
 AREAS CHECKED _____

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

179
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Exc. 58 CY
Emb. 14,906 CY
Seeding 3,990 SY

Exc. 45,041 CY
Emb. 4,330 CY
Seeding 9,943 SY

SEEDING Lin. Ft.	END AREA Sq. Yds.	CU. YDS.	
		CUT	FILL
110	3	1427	
1372			19 499
137	7	1269	
1433			24 3972
121	6	849	
1093			26 2151
100	10	456	
980			45 1500
77	12	274	
310			356 519
26	180	6	
194			1350 11

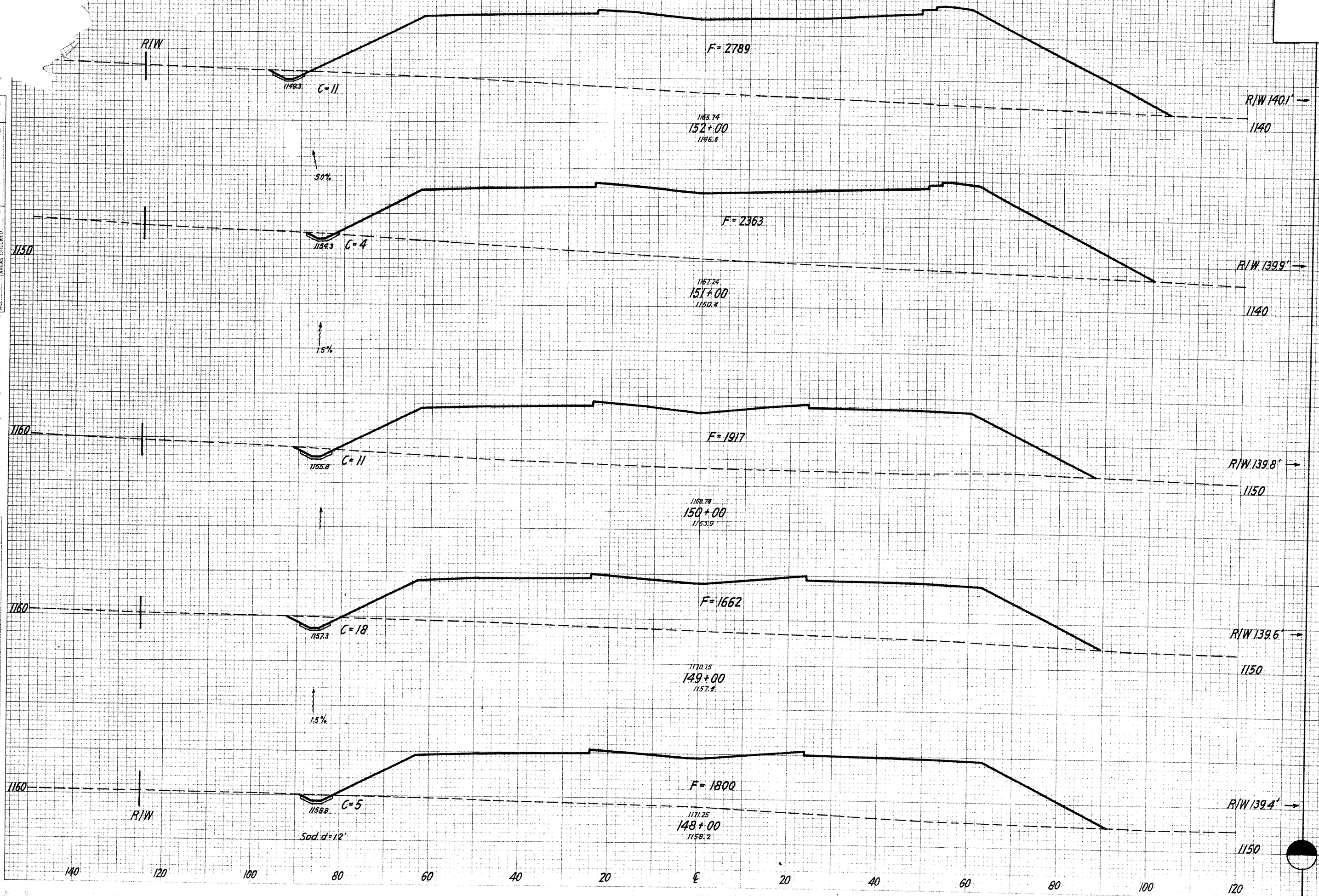
Sta 142+00 to Sta 147+00

FINAL SURVEY
DATE: _____
BY: _____
NO. _____

ORIGINAL SURVEY
DATE: _____
BY: _____
NO. _____

STA - 21 - 17.80
 WAY - 21 - 0.00
 SUM - 21 - 0.00

180
329



Sta.	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
152+00	169		11	2796		
151+00	156		4	2370	28	9567
150+00	142		11	1925	28	7954
149+00	1567				54	6657
148+00	140		18	1670		
147+00	1567				43	6441
146+00	142		5	1808		
145+00	1400				15	5991

Sta 148+00 to Sta 152+00

FINAL SURVEY PLOTTED BY DATE
 SURVEY PLOTTED BY DATE
 NOTE BOOK NO. AREAS CHECKED

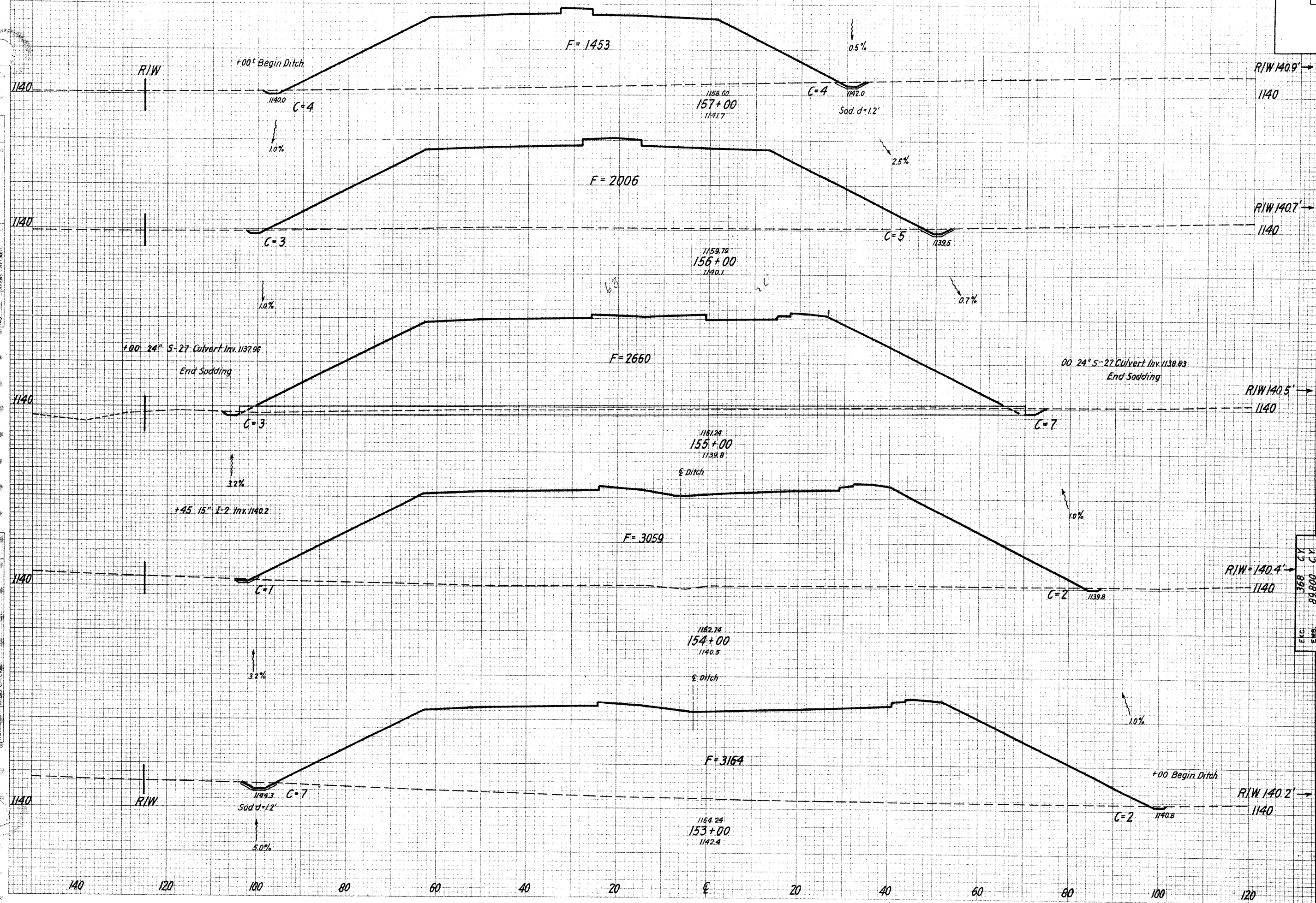
ORIGINAL SURVEY PLOTTED BY DATE
 SURVEY PLOTTED BY DATE
 NOTE BOOK NO. AREAS CHECKED

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

181
329

STA - 21 - 17.80
WAY - 21 - 0.00
EUM - 21 - 0.00



Sta.	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
110			8	1459		
129		1328	8	2012	30	6428
1650					33	8639
168			10	2664		
1883					24	10,611
171			3	3066		
1883					22	11,550
168			9	3171		
1872					37	11,050

EKG. 368 CY
EMR. 89,800 CY
SEEDING: 77,522 SY

FINAL SURVEYED
SURVEY PLOTTED
TEMP. DATE
NOTE BOOK
AREAS CHECKED
NO.

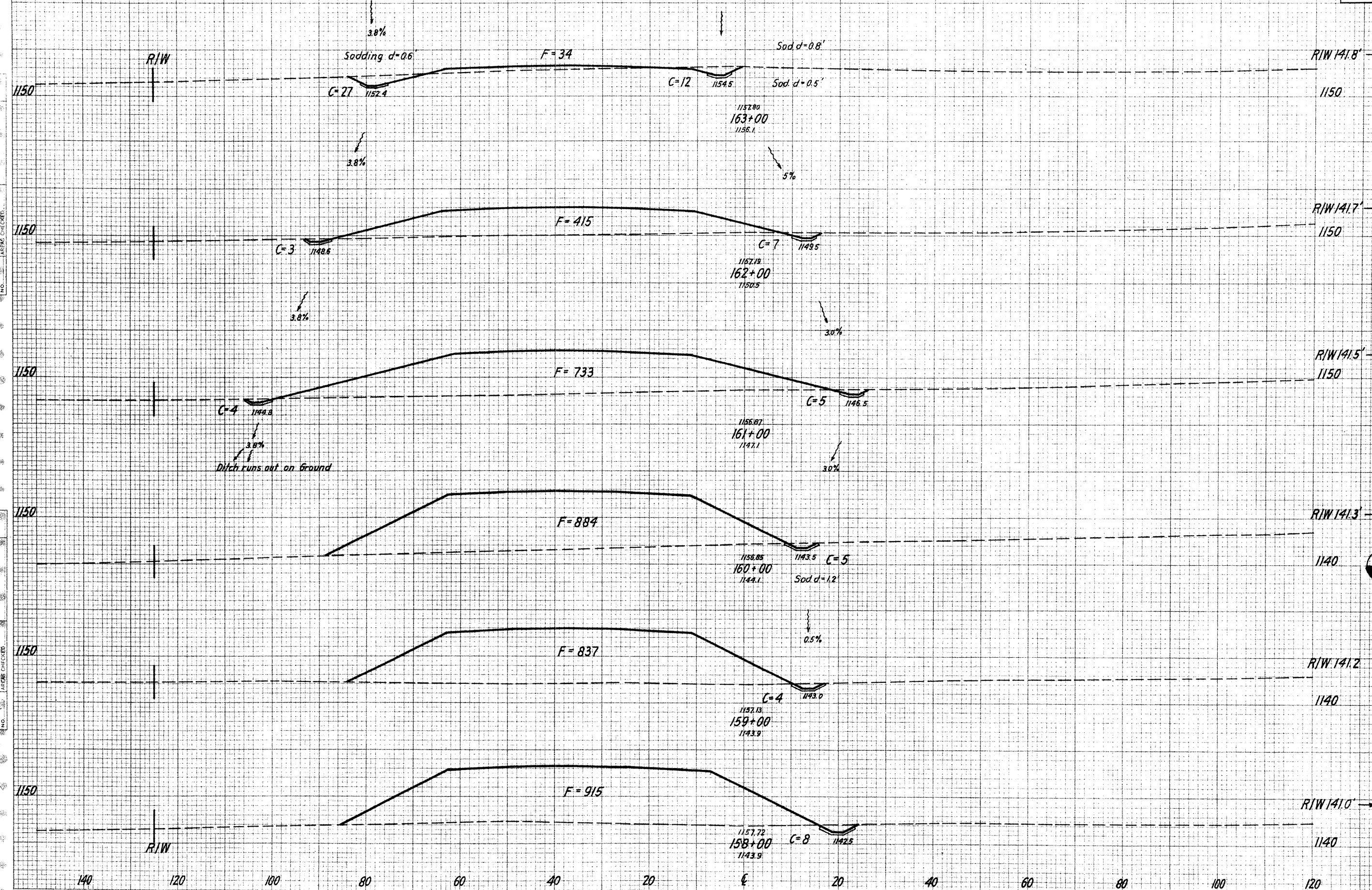
DATE
BY
NO.

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

182
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING L.in.Ft.	END AREA Sq.Yds.	CU. YDS.	
		CUT	FILL
124	39	40	
1561		91	854
147	10	421	
1500		35	2148
123	9	739	
1256		26	3017
103	5	890	
1050		17	3289
86	4	843	
1033		22	3267
100	8	921	
1167		30	4407

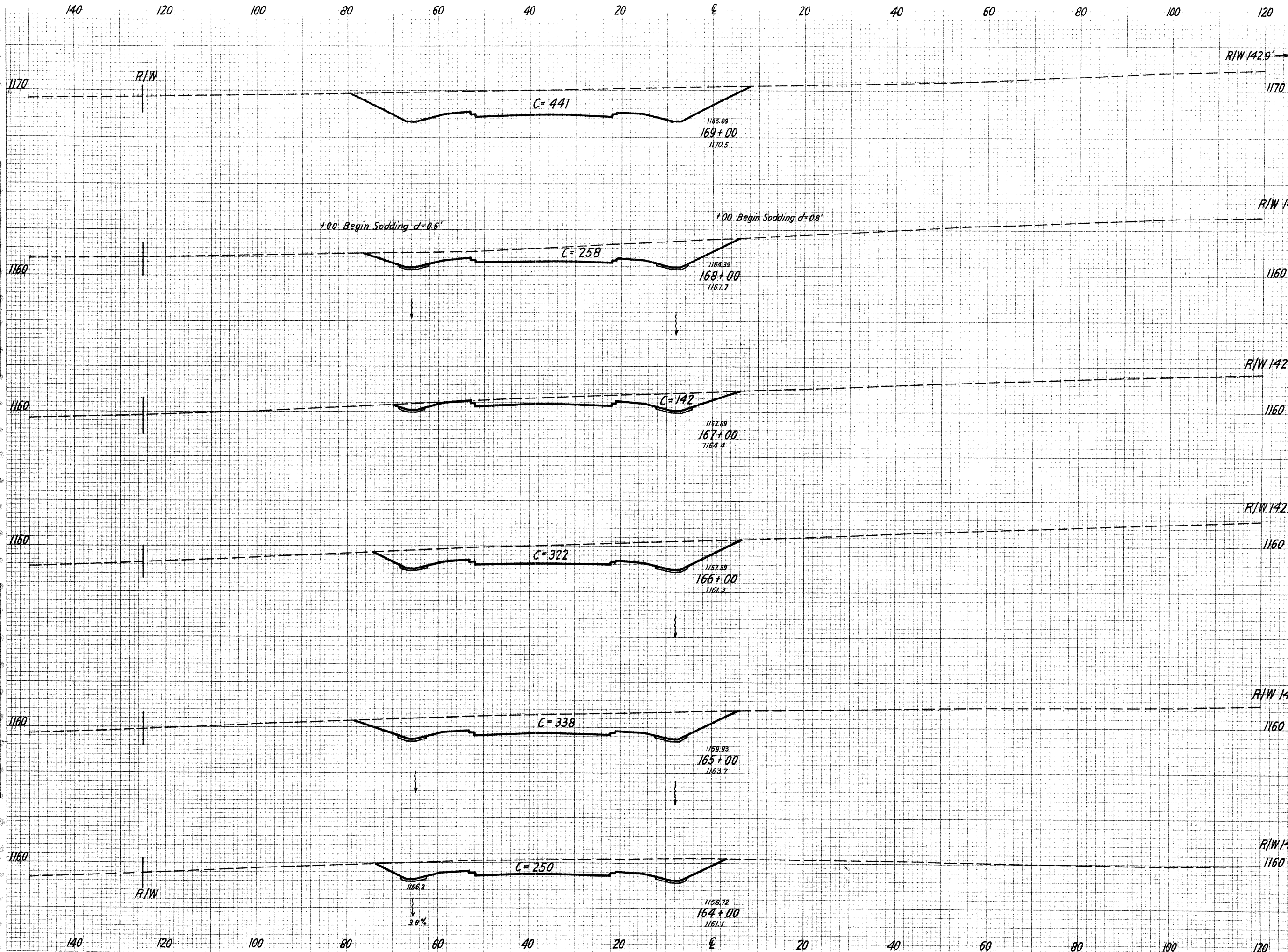
FINAL SURVEY
NOTE BOOK
NO. 333 AREAS CHECKED

Sta 158+00 to Sta 163+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

183
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Sta.	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
164+00	90		441			
165+00	80		258		1294	
166+00	76		142			
167+00	71		322		859	
168+00	76		338			
169+00	68		250		1089	
TOTAL	1067		535		74	

EKG 12 918 C.Y.
EMB 5 121 C.Y.
SEEDING 11 561 51

FINAL SURVEYED
SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

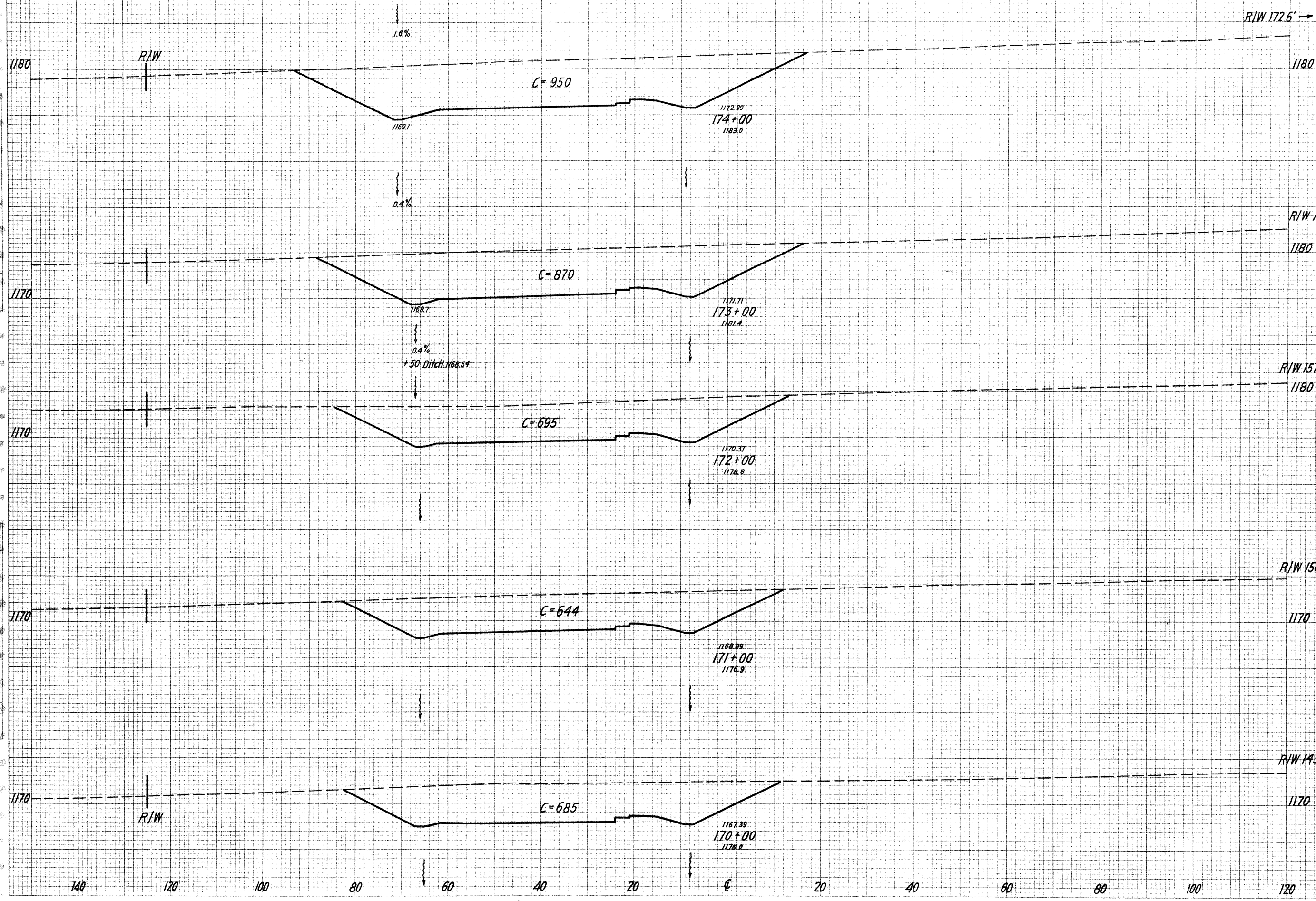
FINAL SURVEYED
SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

184
329

STA - 21 - 17.80
WAY - 2 - 0.00
SUM - 21 - 0.00



LINE FT.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.		CUT	FILL	CUT	FILL
104			950	3		
1122					3370	
98			870	3		
1050					2898	
91			695	3		
1006					2480	
90			644	3		
983					2461	
87			685	3		
983					2085	

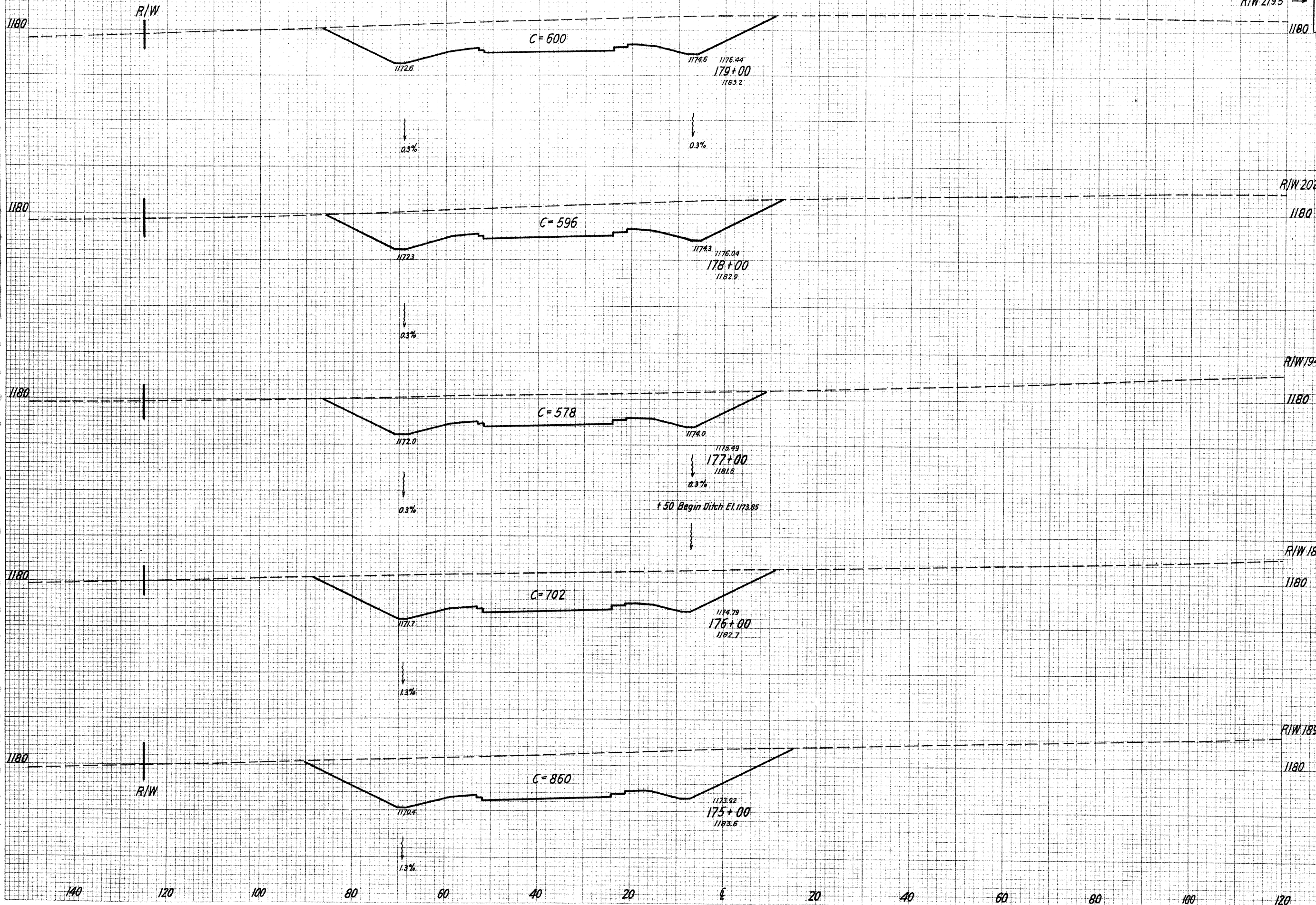
FINAL SURVEY PLOTTED FROM BOOK NO. 184 329
ORIGINAL SURVEY PLOTTED FROM BOOK NO. 184 329

Sta. 170+00 to Sta 174+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
OHIO			185 329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Sta.	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
91			600			
101					2215	
91			596			
994					2174	
88			578			
1006					2370	
93			702			
1072					2893	
100			860			
1133					3352	6

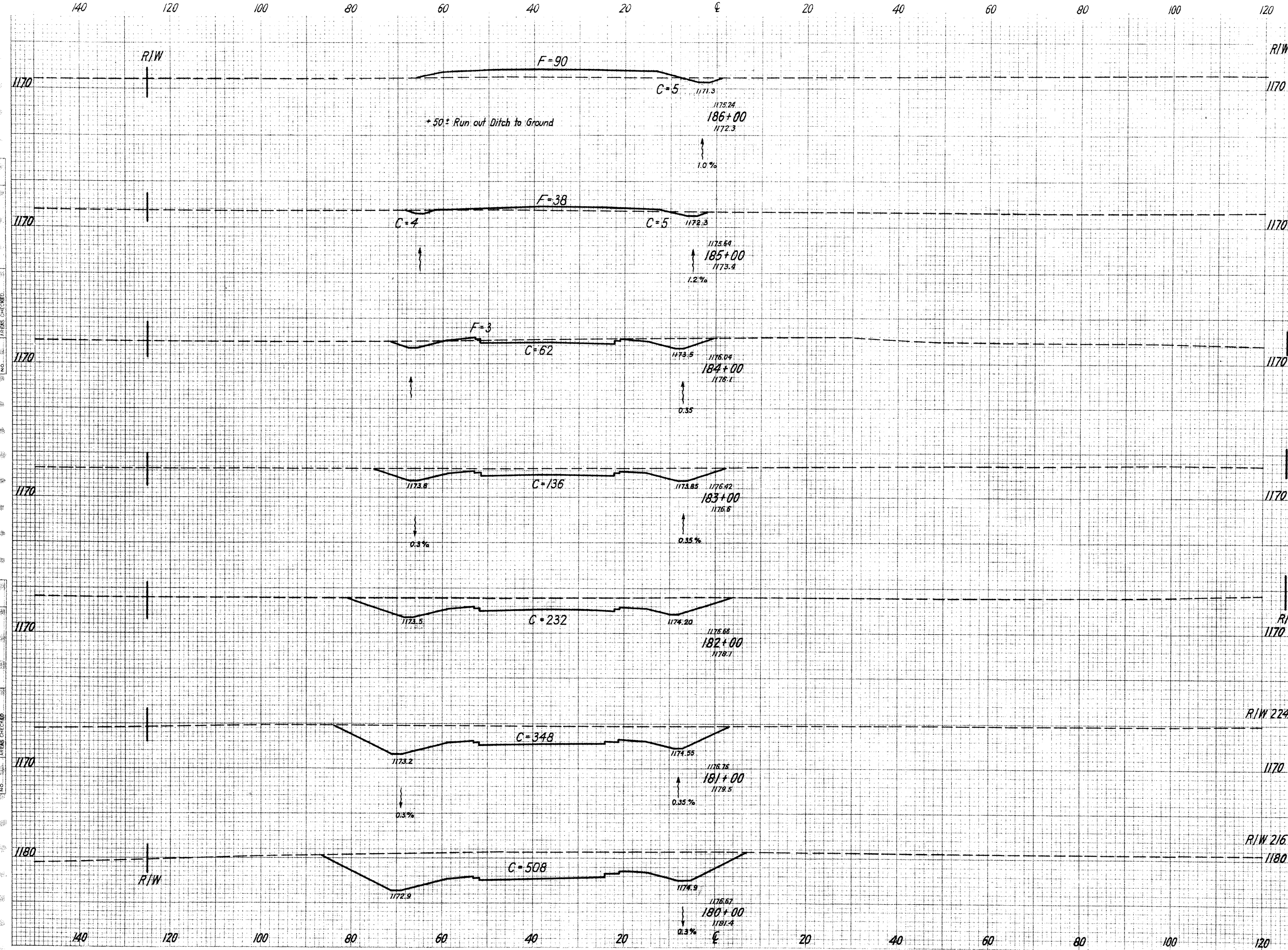
ENC. 25, 031, 01
EMB. 34, 34, 01
SEEDING 11, 744, 51

FINAL SURVEY
SURVEYED, PLOTTED, AND
NOTE BOOK AREAS CHECKED

ORIGINAL SURVEY
SURVEYED, PLOTTED, AND
NOTE BOOK AREAS CHECKED

Sta. 175+00 to Sta. 179+00

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



STATION	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
186+00	58	628	5	96	26	259
185+00	55	633	9	44	131	87
184+00	59	706	62	3	367	6
183+00	68	794	136		681	
182+00	75	917	232		1074	
181+00	90	967	348		1585	
180+00	84	972	508		2052	

FINAL SURVEY BY DATE
 SURVEYED BY DATE
 CHECKED BY DATE
 ORIGINAL SURVEY BY DATE
 SURVEYED BY DATE
 CHECKED BY DATE
 AREAS CHECKED

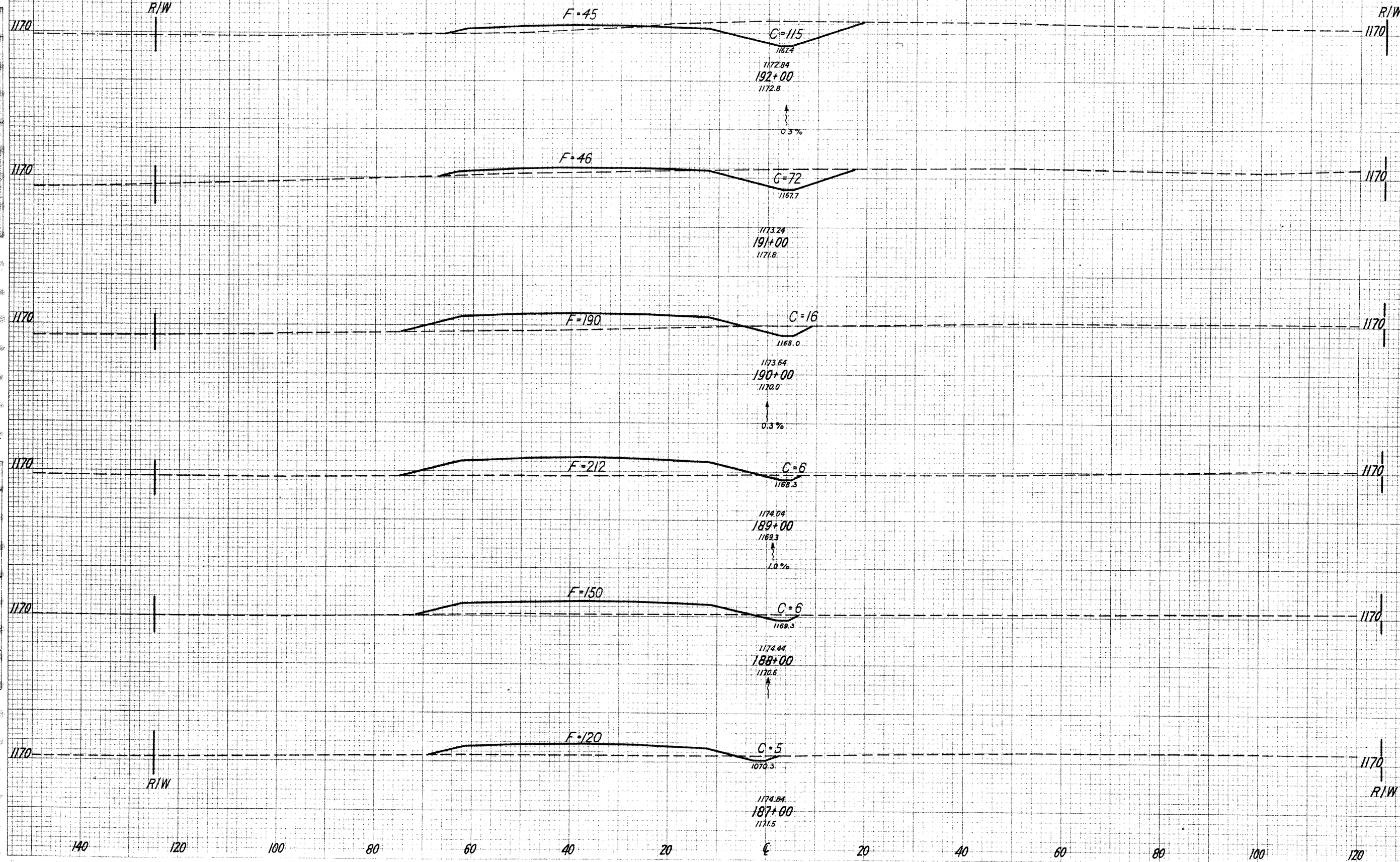
140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		187 329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

FINAL SURVEY PLOTTED BY
NO. 1170

FINAL SURVEY PLOTTED BY
NO. 1170



Sta.	SEEDING		END AREA		CU. YDS.	
	Ln. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
187+00	75		115	51		
188+00	778				346	191
189+00	65		72	52		
190+00	772				163	459
191+00	74		16	196		
192+00	806				41	767
193+00	71		6	218		
194+00	767				22	693
195+00	67		6	156		
196+00	706				20	522
197+00	60		5	126		
198+00	656				19	411

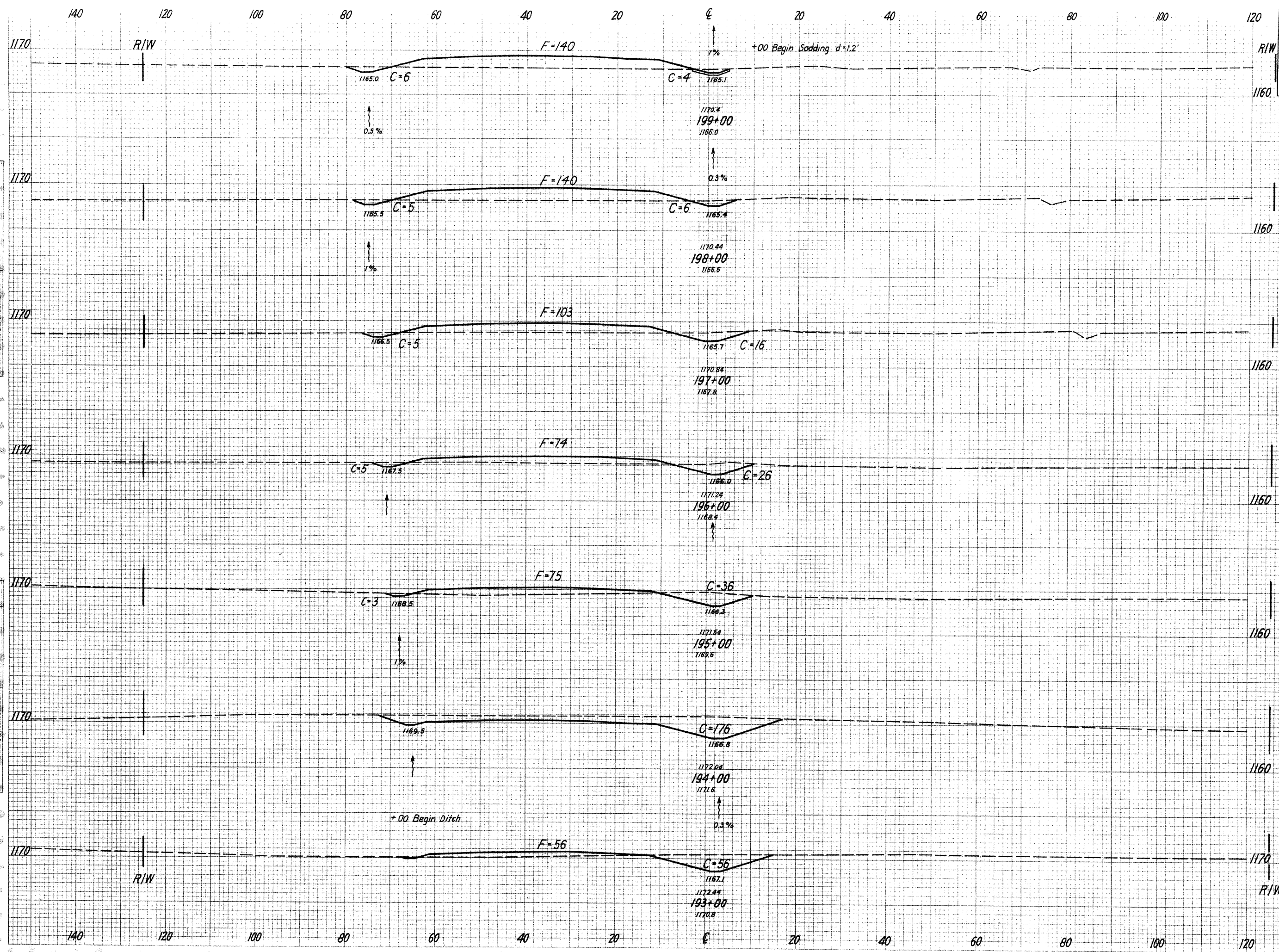
Exc. 2043 C.Y.
Emb. 4183 C.Y.
Seeding 9007 5.1

Sta 187+00 to Sta 192+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

188
329

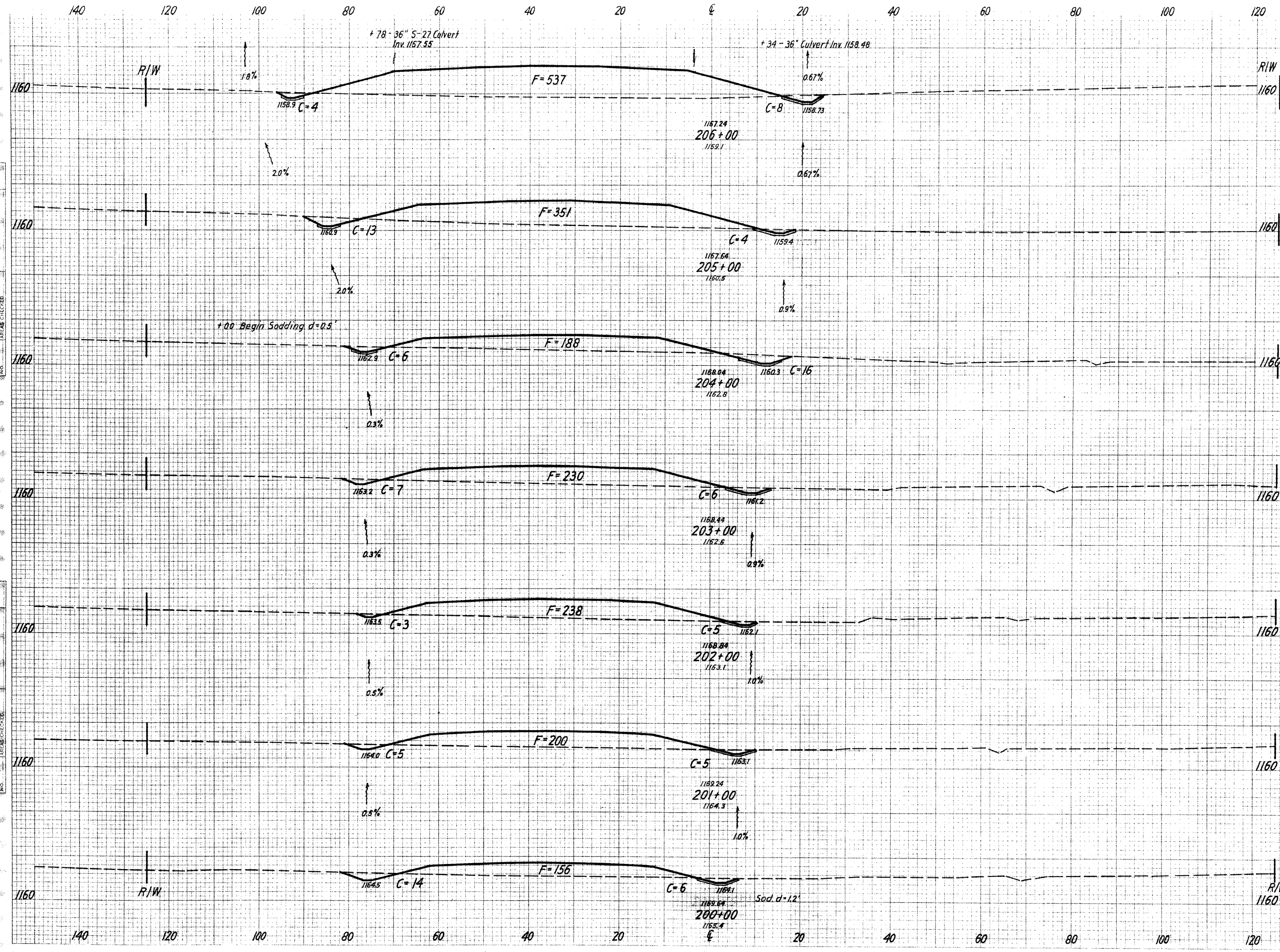
STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS.	
	Lm. Ft.	Sq. Yds.	CUT	FILL
72			10	146
73			11	146
74			21	109
72			31	80
70			39	81
78			176	6
72			56	62
789			130	298
822			398	161
833			430	126
817			317	209

FINAL SURVEYED
SURVEY PLOTTED
NOTE BOOK TEMPLATE
NO. AREAS CHECKED

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Lin. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Ft.		CUT	FILL	CUT	FILL
95			12		543	
1044					54	1667
93			17		357	
1006					72	1020
88			22		194	
956					65	796
84			13		236	
911					39	889
80			8		244	
900					33	833
82			10		206	
900					56	681
80			20		162	
844					56	570

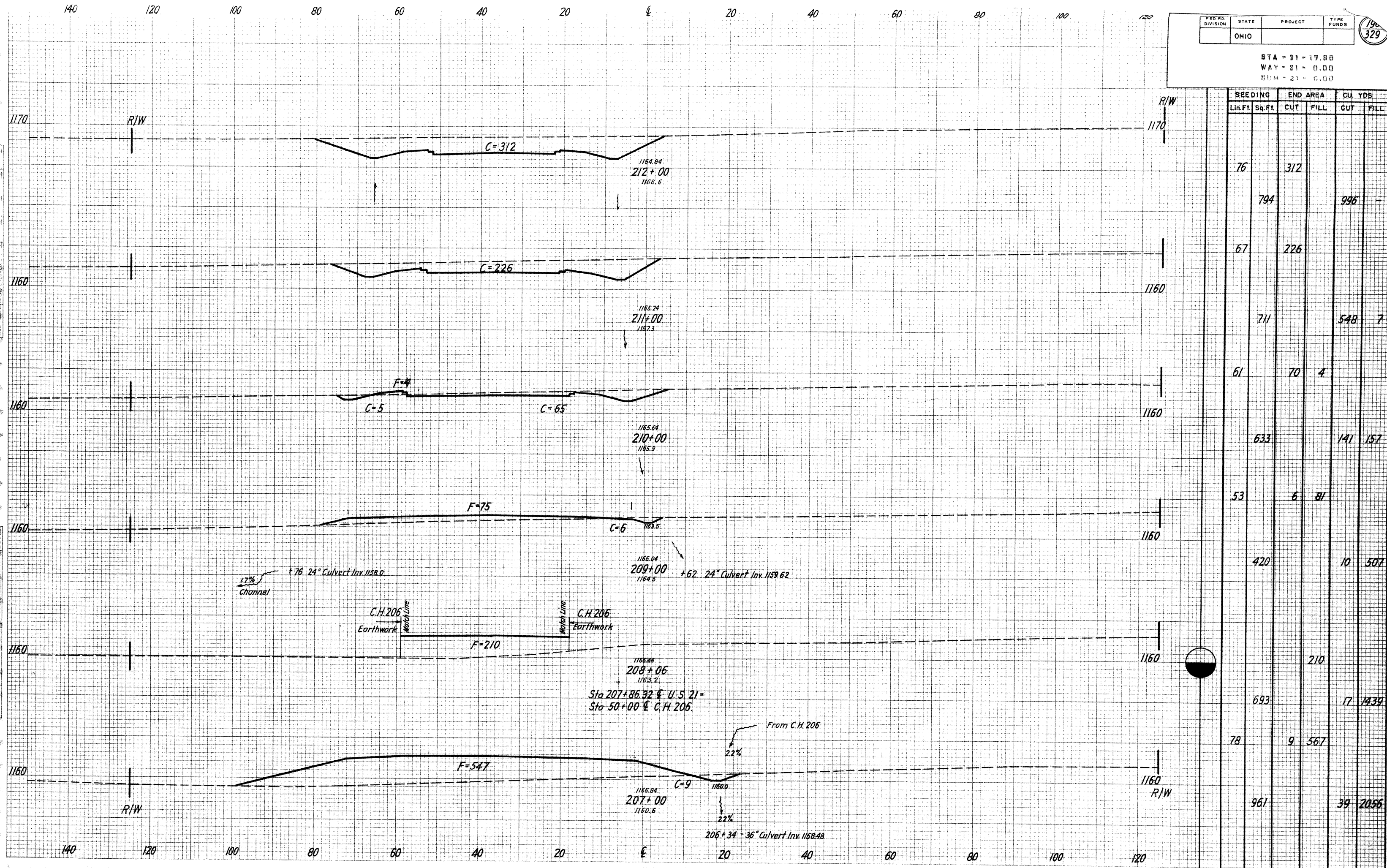
EXC. 625 CY
EMB. 11314 CY
SEEDING. 8986 S.Y.

FINAL SURVEY
SUBMITTED BY
DATE
NO. AREAS CHECKED

ORIGINAL SURVEY
SUBMITTED BY
DATE
NO. AREAS CHECKED

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

STA - 21 - 17.88
WAY - 21 - 0.00
SUM - 21 - 6.00



SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Ft.	CUT	FILL
76		312		
	794			996
67		226		
	711			548
61		70	4	
	633			141
				157
53		6	81	
	420			10
				507
				210
	693			17
				1439
78		9	567	
	961			39
				2056

Sta. 207+00 to Sta 212+00

FINAL SURVEY PLOTTED FROM NOTE BOOK

ORIGINAL SURVEY PLOTTED FROM NOTE BOOK

140 120 100 80 60 40 20 0 20 40 60 80 100 120

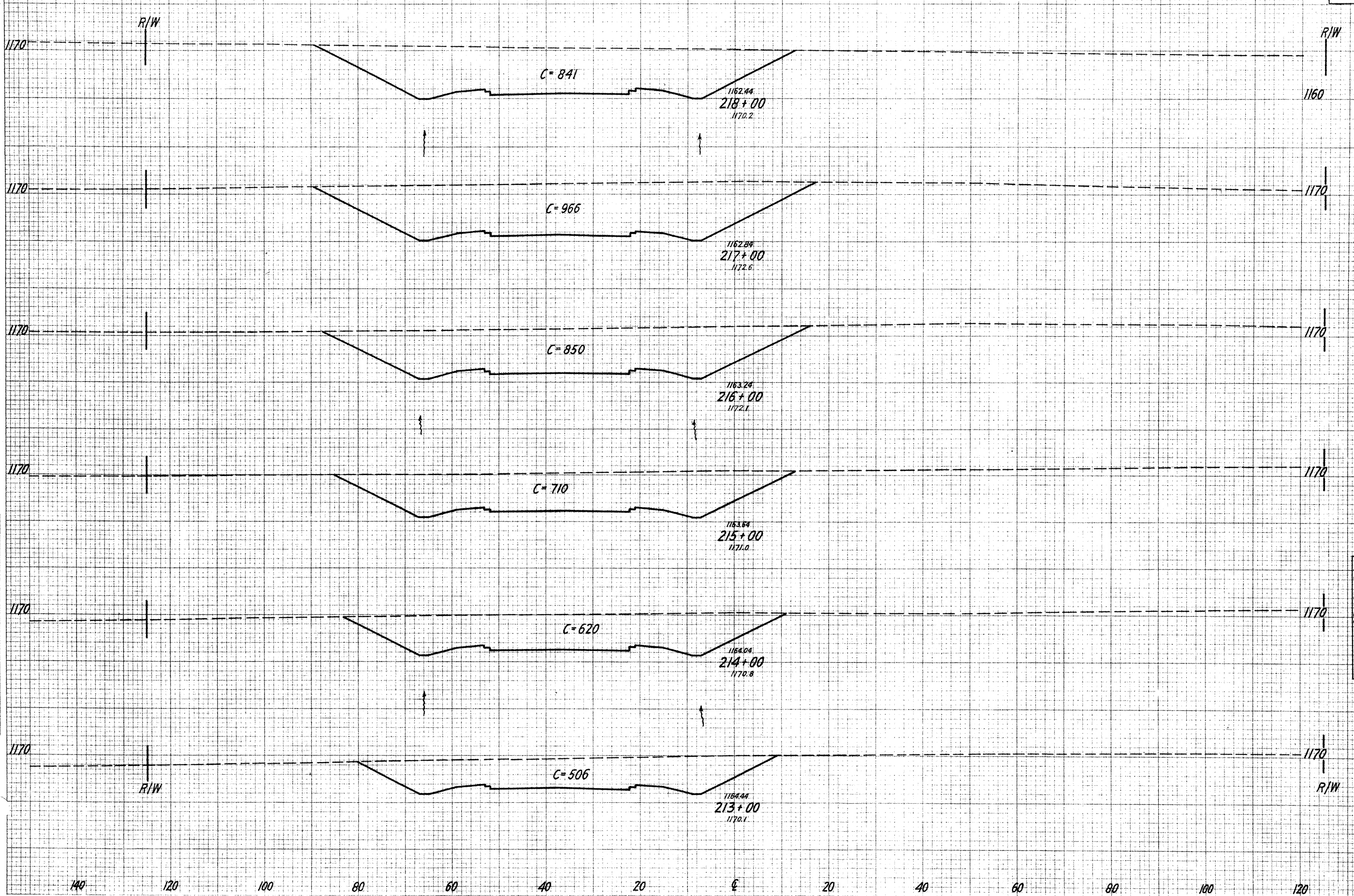
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

191
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

FINAL SURVEY
SURVEYED BY
DATE
NOTE BOOK NO.
TEMPLATE NO.
AREAS CHECKED

ORIGINAL SURVEY
SURVEYED BY
DATE
NOTE BOOK NO.
TEMPLATE NO.
AREAS CHECKED

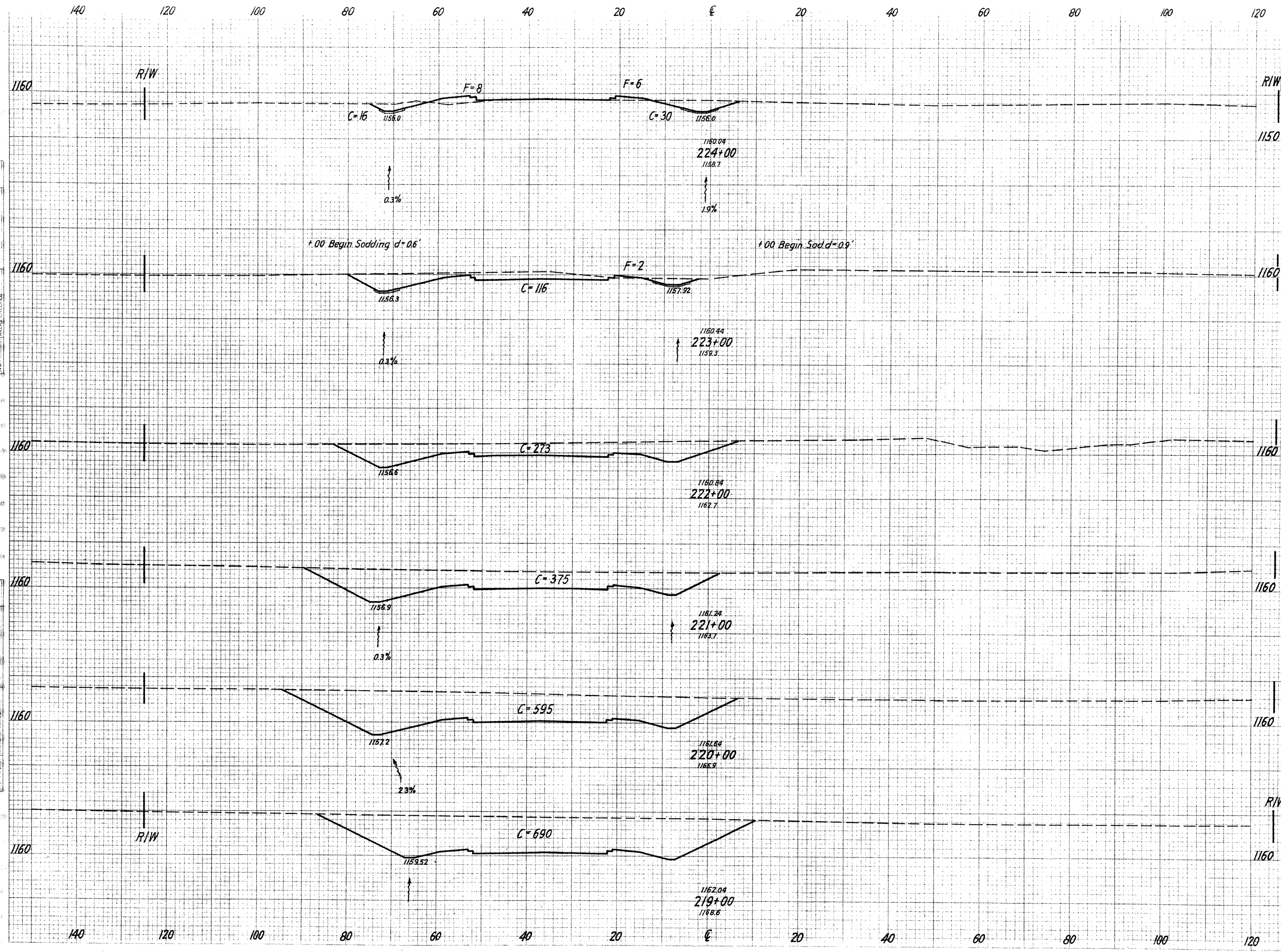


STATION	SEEDING		END AREA		CU. YDS.	
	LI. FT.	SQ. FT.	CUT	FILL	CUT	FILL
218+00	95	1083	841		3346	
217+00	100	1094	966		3353	
216+00	97	1044	850		2889	
215+00	91	989	710		2453	
214+00	87	989	620		2085	
213+00	91	928	506		1515	

EKG 22,571 CY
FMB 671 CY
SEEDING 10750 SY

Sta. 213+00 to Sta 218+00

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS	
	Lin. Ft.	Sq. Yds.	CUT	FILL
74	46	14		
	794		300	30
69	116	2		
	828		720	4
80	273			
	911		1200	
84	375			
	983		1796	
93	595			
	1017		2380	
90	690			
	1028		2835	

FINAL SURVEY PLOTTED
NOTE BOOK NO. 116
AREAS CHECKED

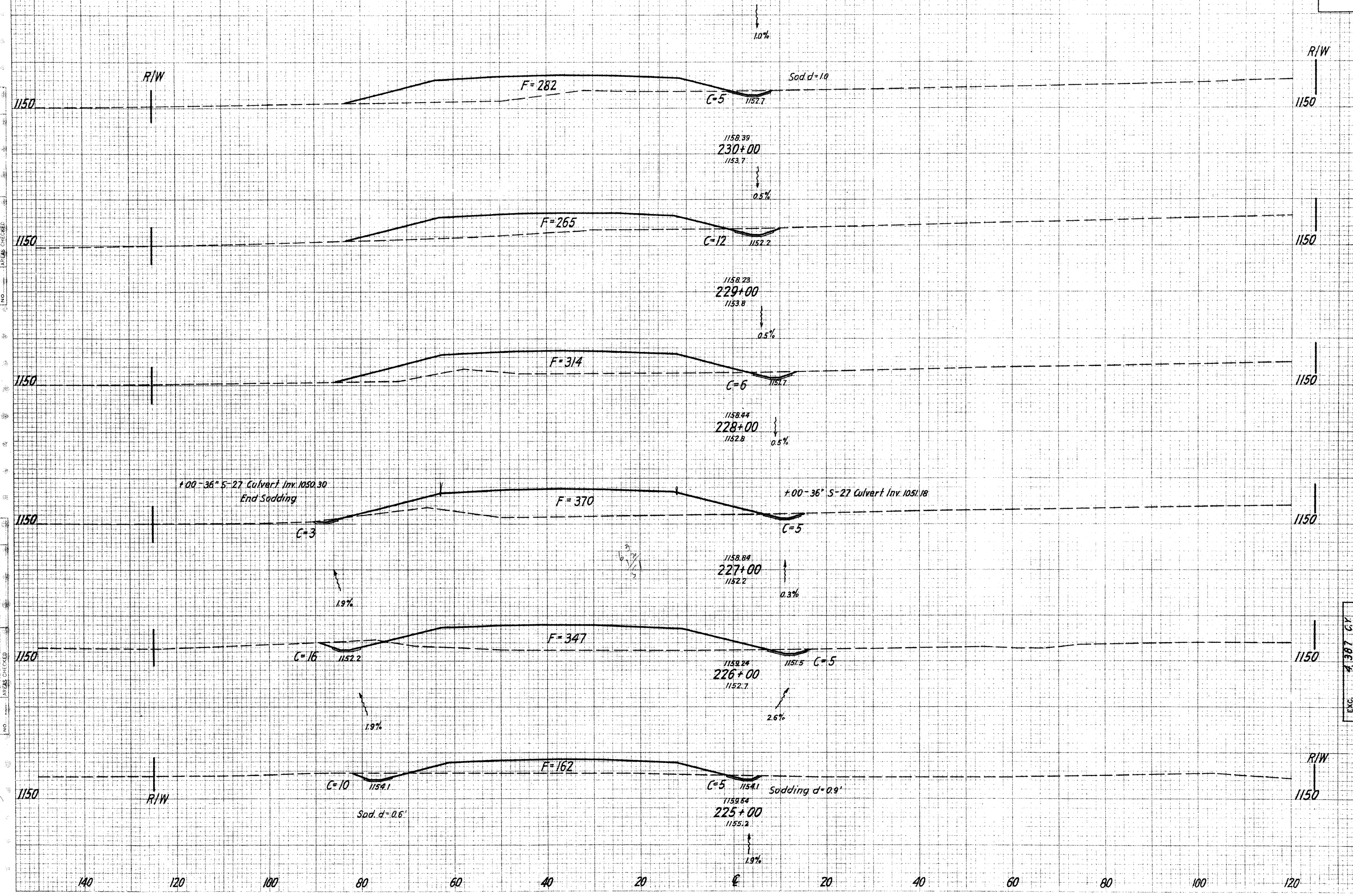
ORIGINAL SURVEY PLOTTED
NOTE BOOK NO. 116
AREAS CHECKED

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

193
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Sta.	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Ft.	CUT	FILL	CUT	FILL
81			5	288		
917					31	1035
84			12	271		
961					33	1094
89			6	320		
1022					26	1289
95			8	376		
1011					54	1350
87			21	353		
917					67	965
78			15	168		
844					113	337

ENC. 4,387 CY
EMB. 7,856 CY
SEEDING 9,746 SY

FINAL SURVEY NOTE BOOK NO.

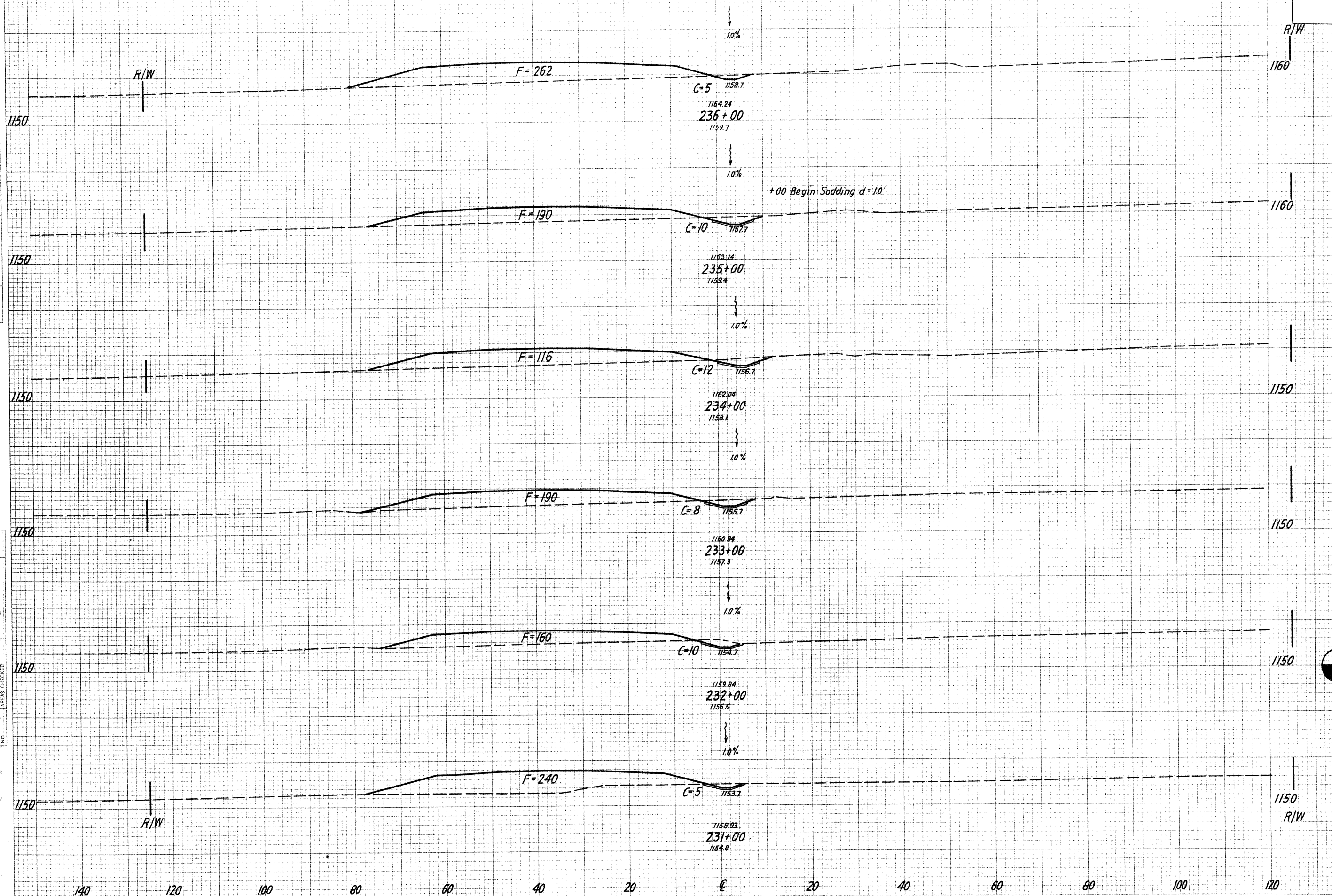
ORIGINAL SURVEY NOTE BOOK NO.

Sta. 225+00 to Sta. 230+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FIELD NO.	STATE	PROJECT	TYPE FUNDS
OHIO			194 329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



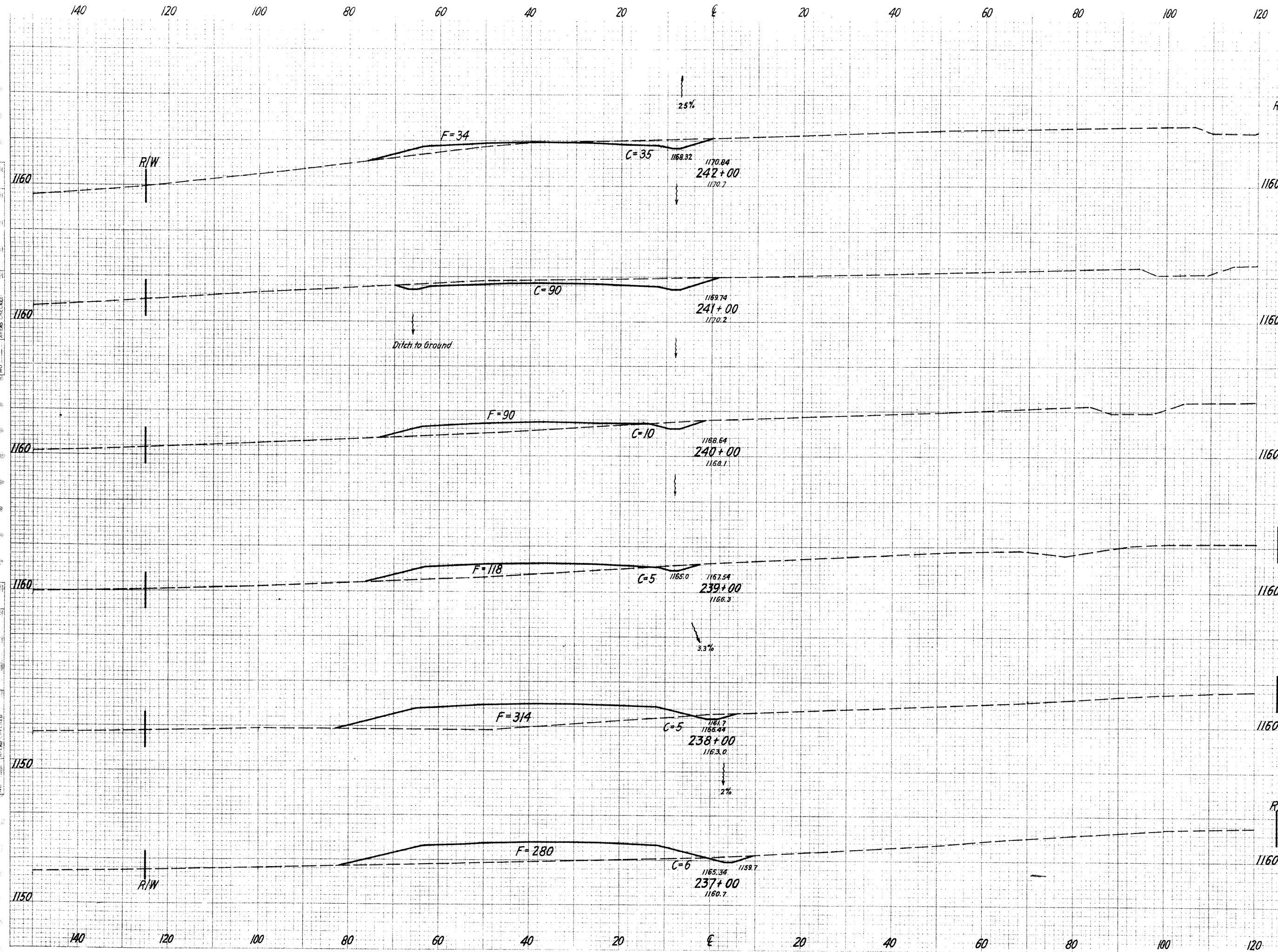
Lin. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Ft.	CUT	FILL	CUT	FILL	
73		5	268			
800				28	859	
71		10	196			
817				41	589	
76		12	122			
833				37	589	
74		8	196			
778				33	670	
66		10	166			
772				28	763	
73		5	246			
856				19	989	

FINAL SURVEY
SURVEYED
PLOTTED
EVALUATE
NOTE BOOK
AREAS CHECKED
NO.

ORIGINAL SURVEY
DATE
BY
NO. 1
NO. 2
NO. 3
NO. 4
NO. 5
NO. 6
NO. 7
NO. 8
NO. 9
NO. 10
NO. 11
NO. 12
NO. 13
NO. 14
NO. 15
NO. 16
NO. 17
NO. 18
NO. 19
NO. 20
NO. 21
NO. 22
NO. 23
NO. 24
NO. 25
NO. 26
NO. 27
NO. 28
NO. 29
NO. 30
NO. 31
NO. 32
NO. 33
NO. 34
NO. 35
NO. 36
NO. 37
NO. 38
NO. 39
NO. 40
NO. 41
NO. 42
NO. 43
NO. 44
NO. 45
NO. 46
NO. 47
NO. 48
NO. 49
NO. 50
NO. 51
NO. 52
NO. 53
NO. 54
NO. 55
NO. 56
NO. 57
NO. 58
NO. 59
NO. 60
NO. 61
NO. 62
NO. 63
NO. 64
NO. 65
NO. 66
NO. 67
NO. 68
NO. 69
NO. 70
NO. 71
NO. 72
NO. 73
NO. 74
NO. 75
NO. 76
NO. 77
NO. 78
NO. 79
NO. 80
NO. 81
NO. 82
NO. 83
NO. 84
NO. 85
NO. 86
NO. 87
NO. 88
NO. 89
NO. 90
NO. 91
NO. 92
NO. 93
NO. 94
NO. 95
NO. 96
NO. 97
NO. 98
NO. 99
NO. 100

Sta 231+00 to Sta 236+00

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS	
	Lin. Ft.	Sq. Yds.	CUT	FILL
66		35	40	
700			231	85
60		90	6	
672			185	189
61		10	96	
683			28	429
62		5	124	
744			19	822
72		5	320	
844			20	1122
80		6	286	
850			20	1026

EXC. 734 CY
EMB. 9924 CY
SEEDING 9500 SY

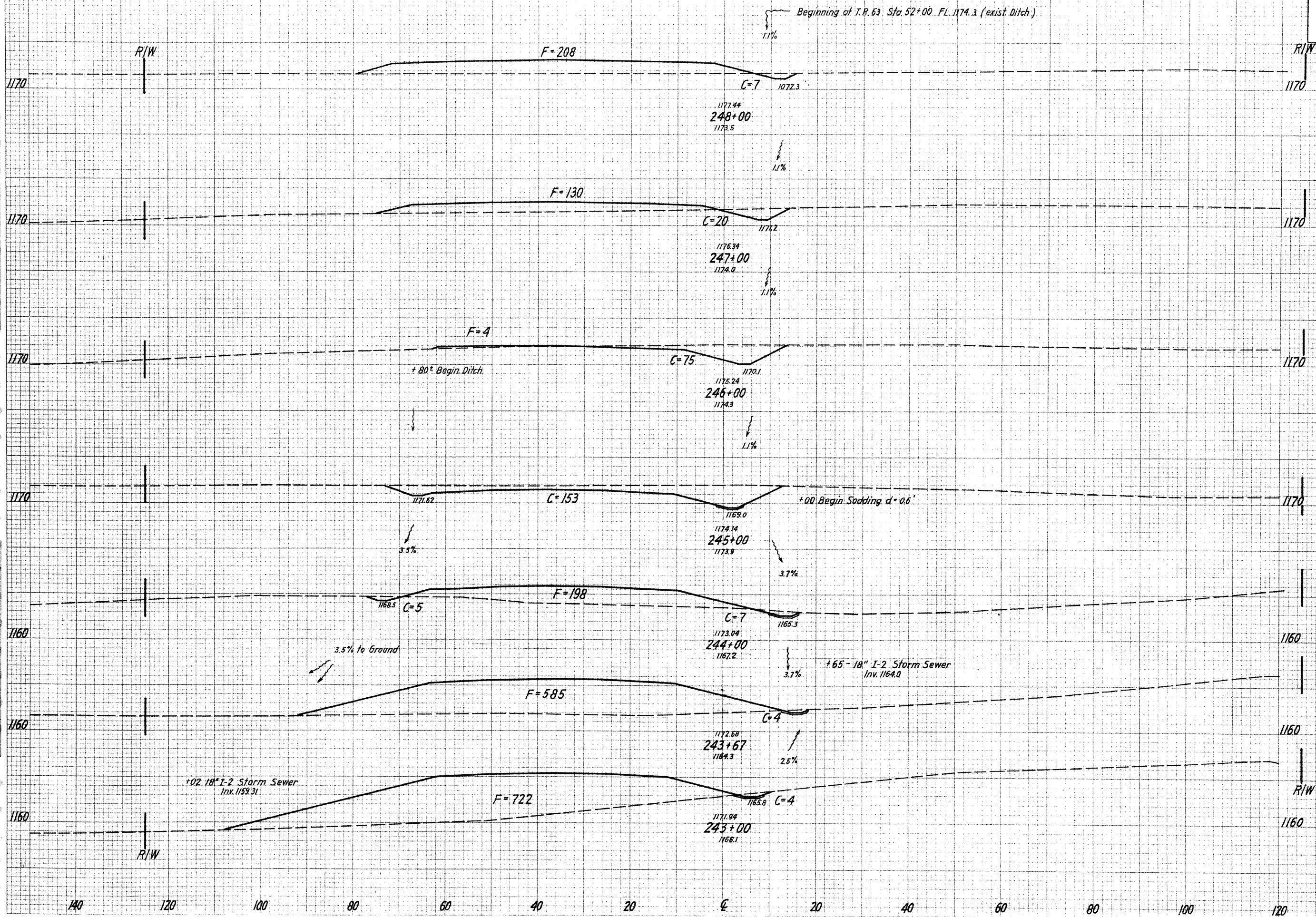
FINAL SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

ORIGINAL SURVEY PLOTTED
NOTE BOOK AREAS CHECKED

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

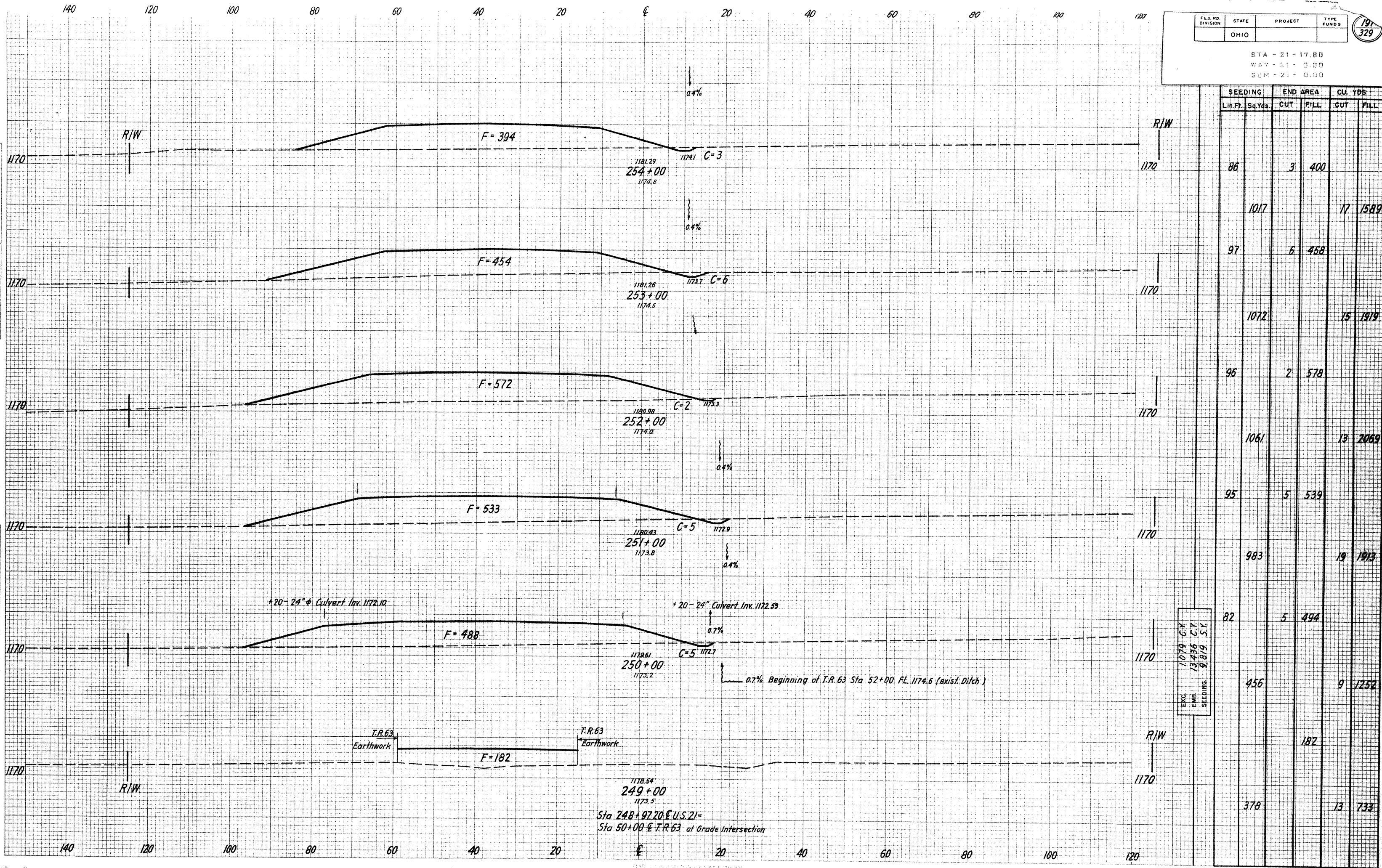
STA - 21 - 17.80
 WAY - 21 - 0.00
 SUM - 21 - 0.00



Sta.	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
248+00	66		7	214		
247+00		728			50	648
246+00	65		20	136		
245+00		711			176	270
244+00	63		75	10		
243+00		761			422	30
242+00	74		153	6		
241+00		856			306	389
240+00	80		12	204		
239+00		326			10	485
238+00	98		4	591		
237+00		770			10	1637
236+00	109		4	728		
235+00		972			72	1422

FINAL SURVEY PLOTTED DATE: _____ BY: _____
 SURVEYED BY: _____
 CHECKED BY: _____
 NO. OF AREAS CHECKED: _____

ORIGINAL SURVEY PLOTTED DATE: _____ BY: _____
 SURVEYED BY: _____
 CHECKED BY: _____
 NO. OF AREAS CHECKED: _____

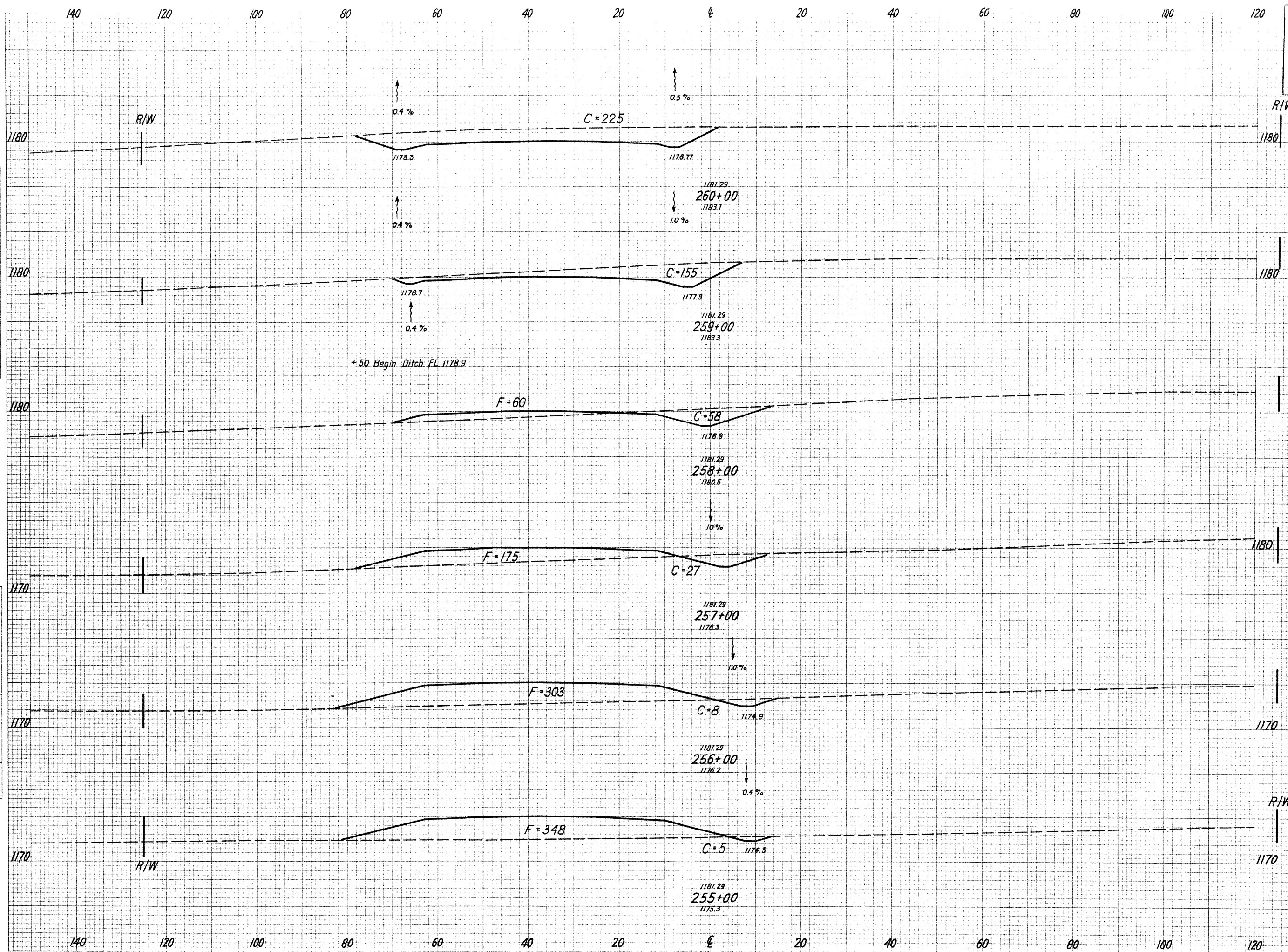


SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
86			3	400
1017				17 1589
97			6	458
1072				15 1919
96			2	578
1061				13 2069
95			5	539
983				19 1913
82			5	494
456				9 1252
				182
378				13 733

EXC. 1079 CY
 EMB. 13736 CY
 SEEDING 9,819 S.Y.

Sta 248+97.20 @ U.S. 21 -
 Sta 50+00 @ T.R. 63 at Grade Intersection

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Sta.	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
68			225	6		
739					704	22
65			155	6		
761					394	133
72			58	66		
850					157	457
81			27	181		
928					65	907
86			8	309		
933					24	1228
82			5	354		
933					15	1396

Sta. 255+00 to Sta. 260+00

FINAL SURVEY PLOTTED BY DATE
NOTE BOOK NO. AREAS CHECKED

140 120 100 80 60 40 20 0 20 40 60 80 100 120

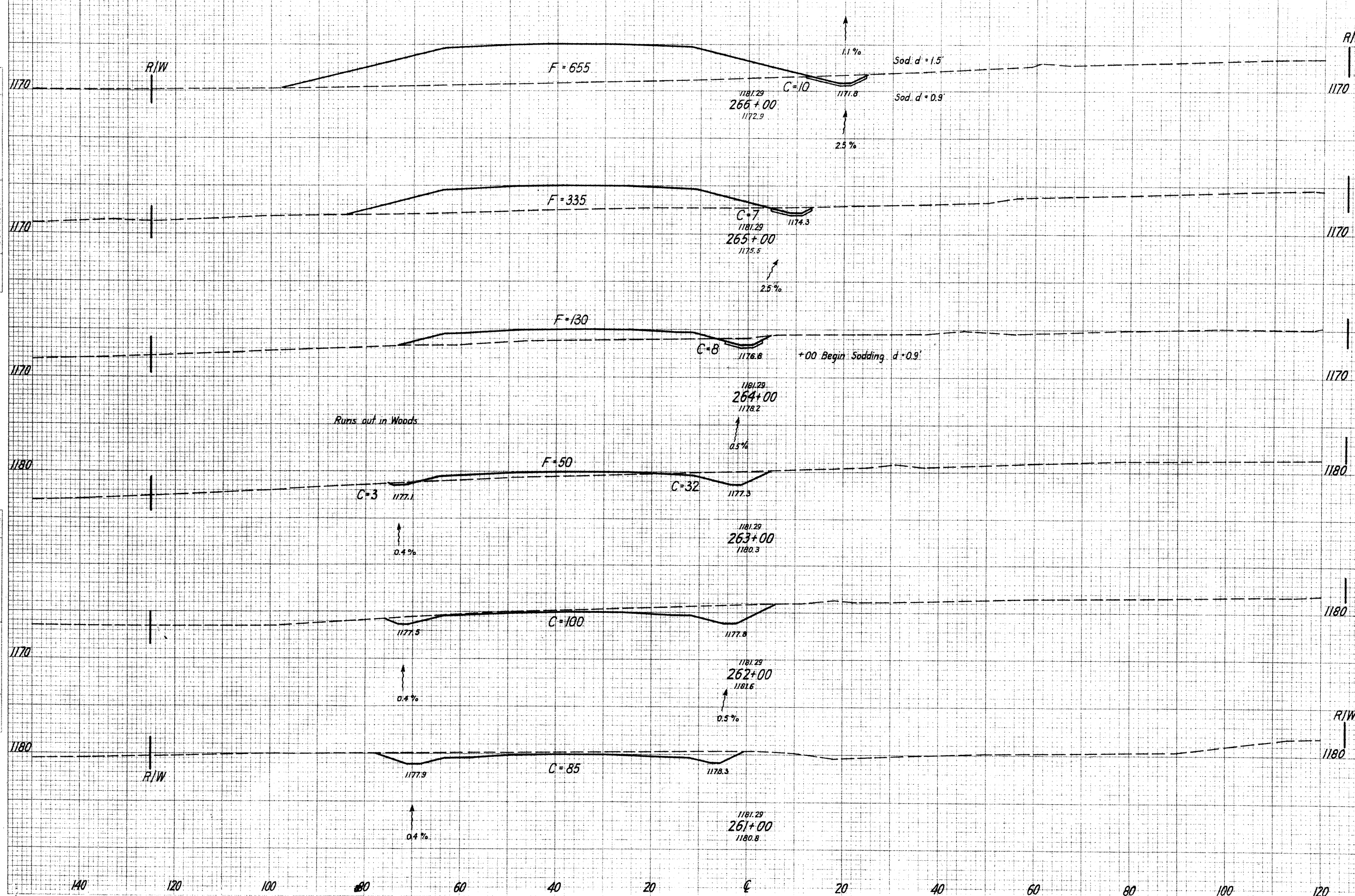
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

199
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

FINAL SURVEY PLOTTED
NOTE BOOK NO. AREAS CHECKED

ORIGINAL SURVEY PLOTTED
NOTE BOOK NO. AREAS CHECKED



SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
110	10	661		
	1083		31	1456
85	7	341		
	839		28	883
66	8	136		
	739		80	374
67	35	56		
	761		250	115
70	100	6		
	739		343	22
63	85	6		
	728		574	22

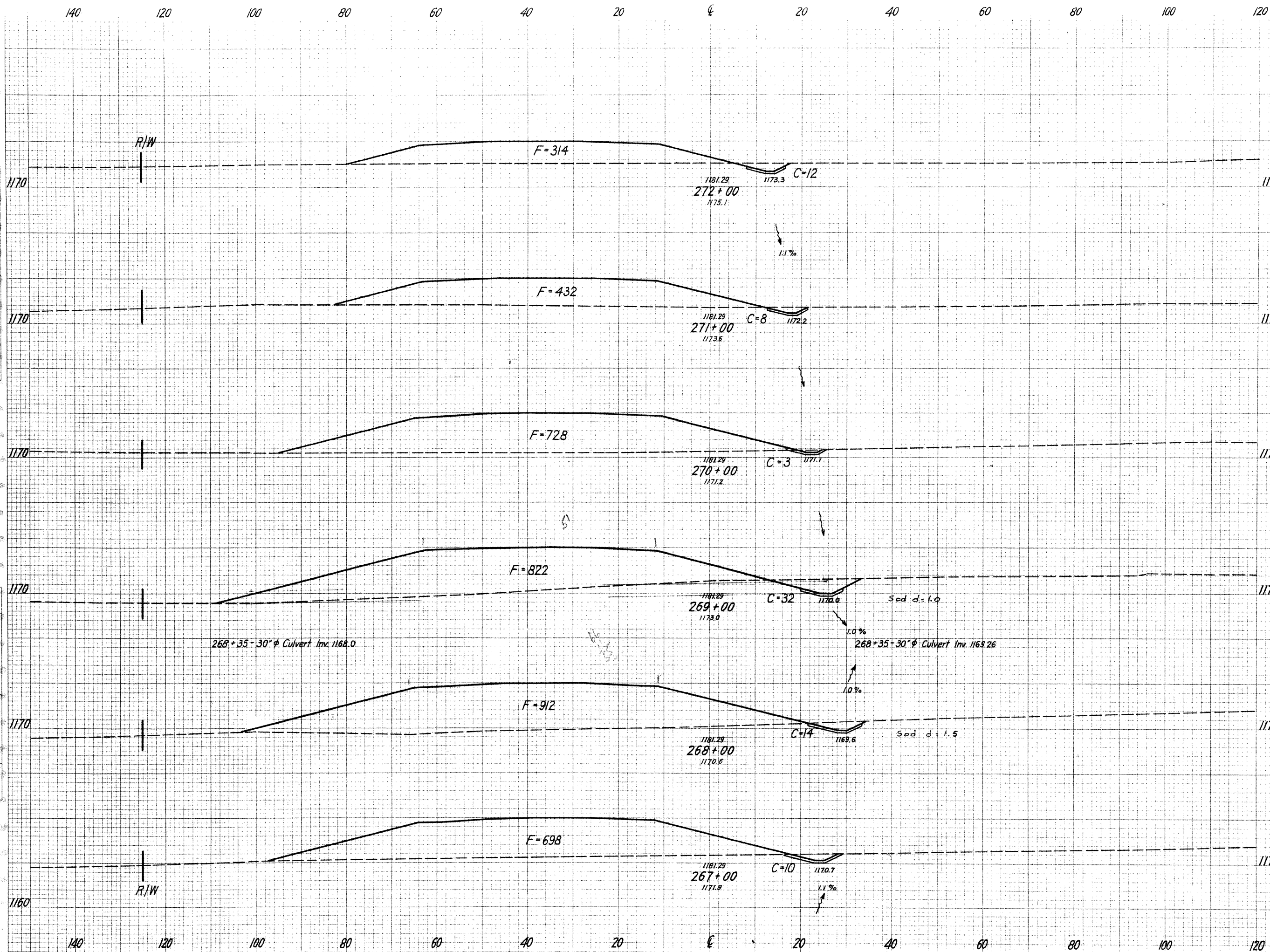
EXC. 2,707 CY
EMB. 10,323 CY
SEEDING 10,300 SY

Sta 261+00 to Sta 266+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

200
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS	
	Lin. Ft.	Sq. Yds.	CUT	FILL
85			12	320
883				37 1404
74			8	438
1011				20 2170
108			3	734
1333				65 2889
132			32	826
1428				85 3230
125			14	918
1333				44 3004
115			10	704
1250				37 2528

Sta. 267+00 to Sta 272+00

FINAL SURVEY PLOTTED TEMPLATE AREAS SHOWN
NO. DATE BY

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

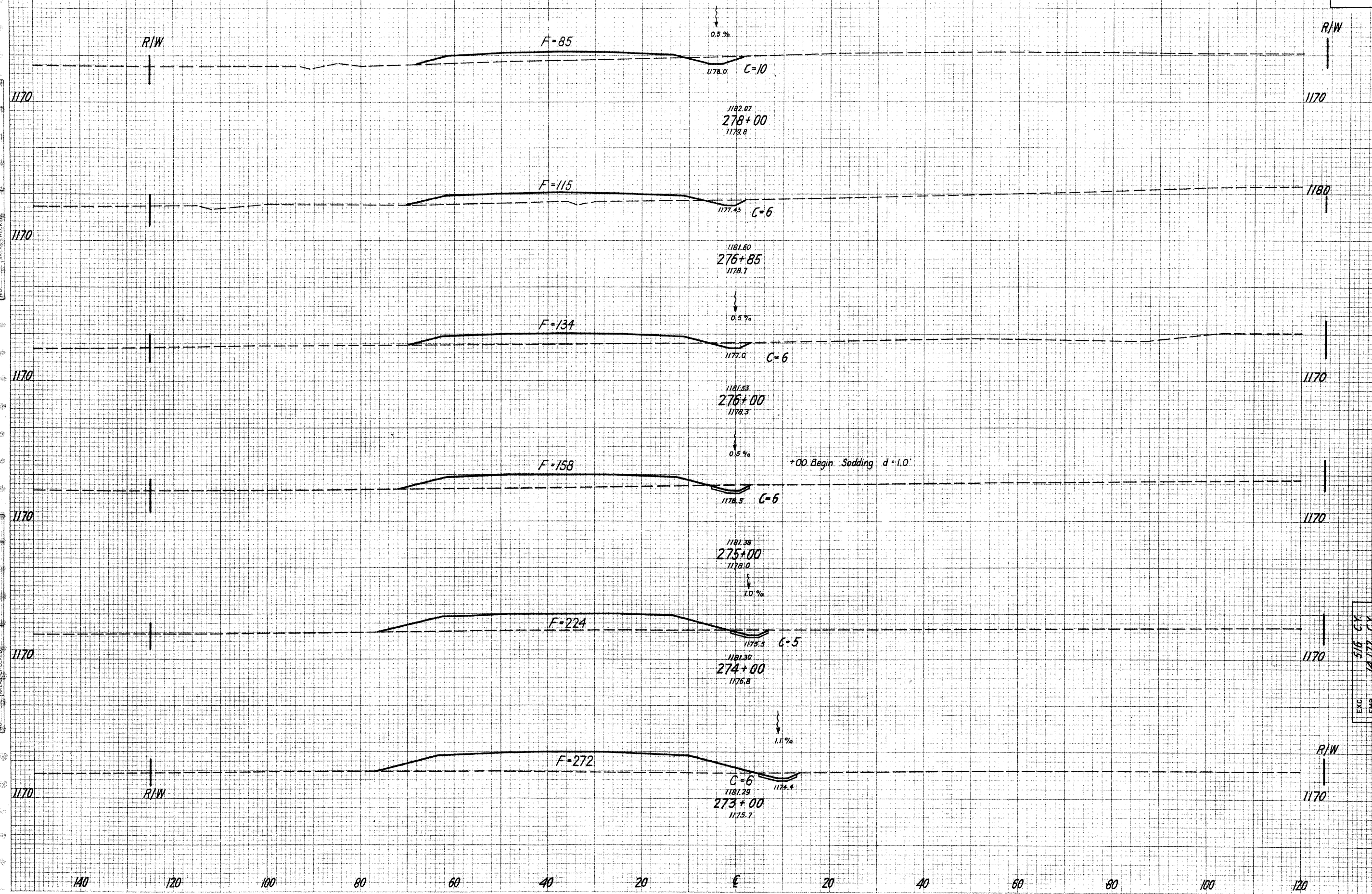
201
329

STA - 21 - 17.80
DAY - 21 - 0.00
SUM - 21 - 0.00

FINAL SURVEY PLOTTED
NO. AREAS CHECKED

DATE

NO. AREAS CHECKED



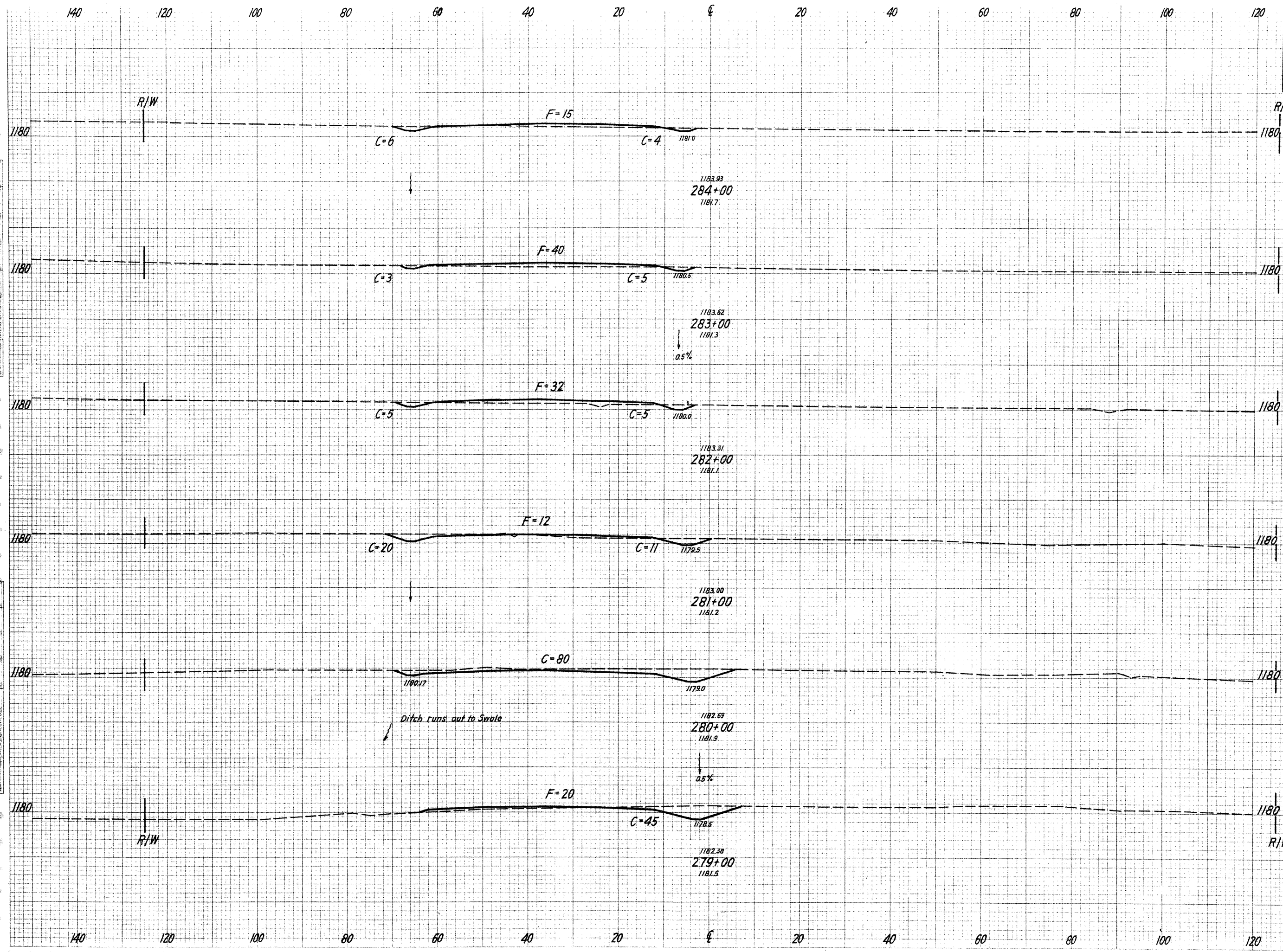
SEEDING Ln. Ft.	Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
48		10	91		
	639			34	451
52		6	121		
	491			19	411
52		6	140		
	594			22	563
55		6	164		
	667			20	730
65		5	230		
	794			20	941
78		6	278		
	906			33	1107

EXC. 516 CY
EMB. 14,172 CY
SEEDING 9,384 SY

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

202
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



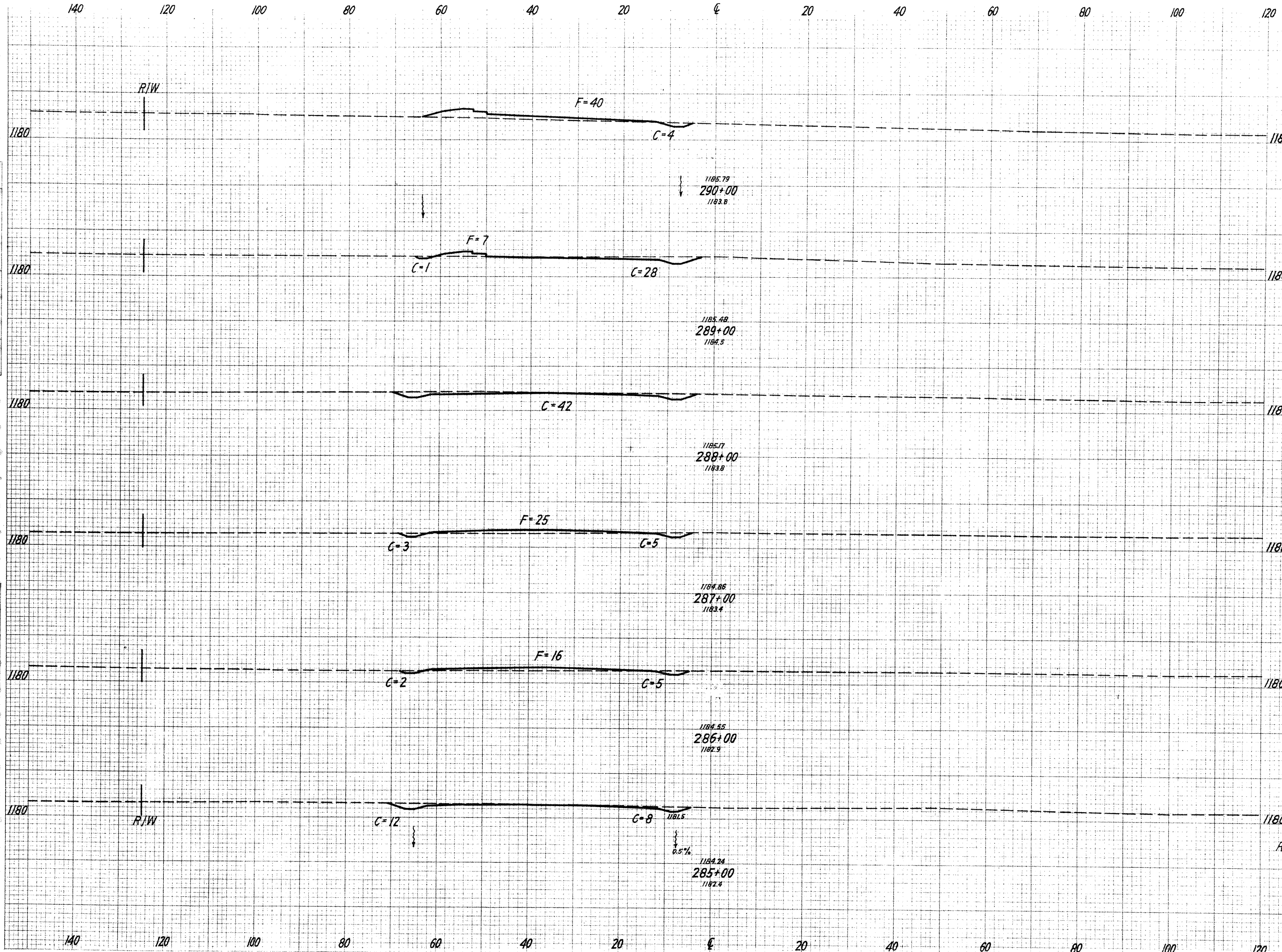
SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
56	10	21		
611			33	124
54	8	46		
617			33	156
57	10	38		
672			76	104
64	31	18		
717			206	44
65	80	6		
678			59	59
60	45	26		
600			102	217

FINAL SURVEYED BY DATE
 PLOTTED BY DATE
 NOTE BOOK NO. AREAS CHECKED
 NO. AREAS CHECKED

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

203
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Lin. Ft.	SEEDING Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
50		4	43		
	567			61	98
52		29	10		
	606			131	30
57		42	6		
	622			93	69
55		8	31		
	594			28	98
52		7	22		
	600			50	52
56		20	6		
	622			56	50

EXC. 841 CY
EMB. 1129 CY
SEEDING 7462 SY

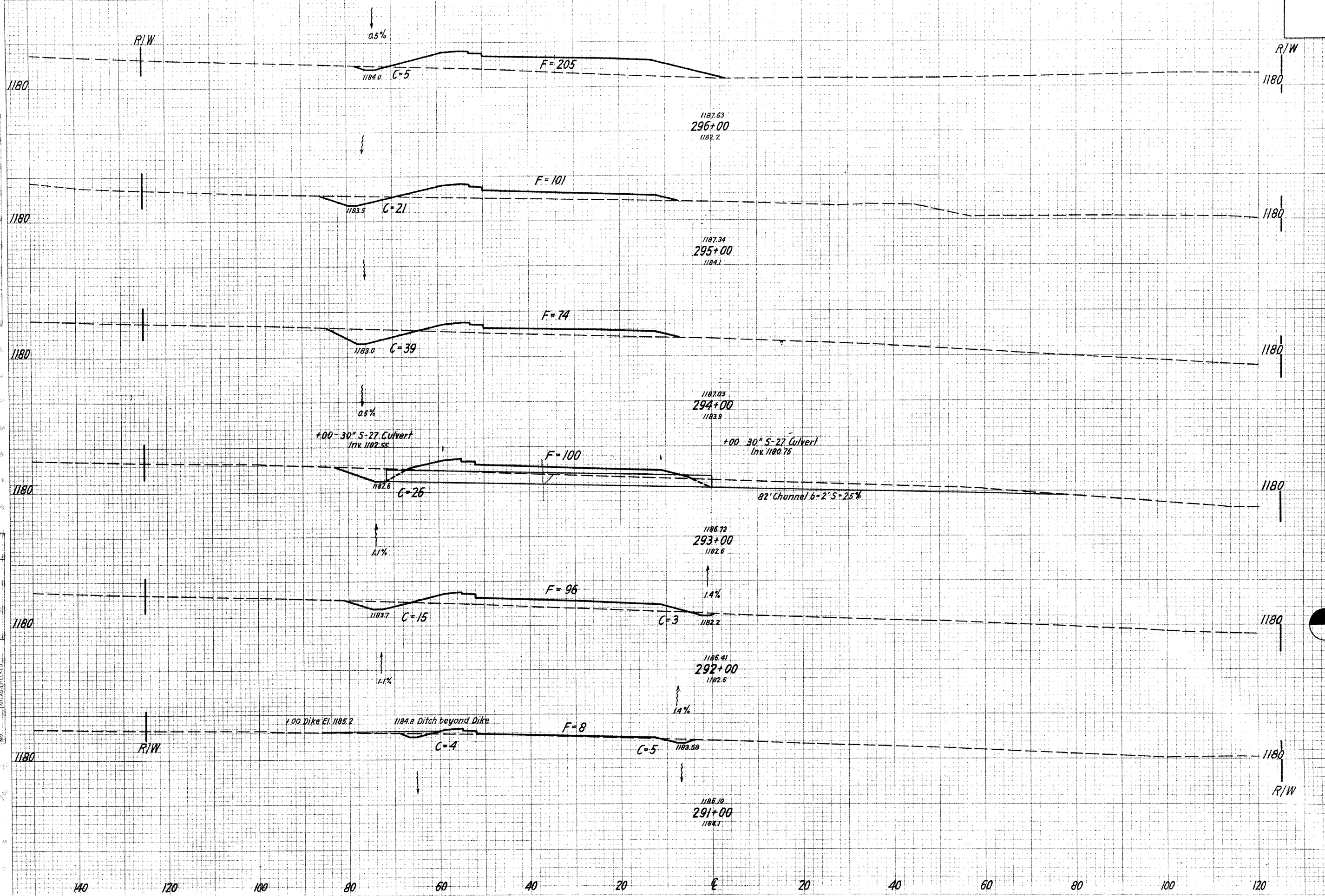
NO. _____ DATE _____ BY _____
 FINAL SURVEY PLOTTED BY _____
 CHECKED BY _____
 NO. _____ DATE _____ BY _____
 FINAL SURVEY PLOTTED BY _____
 CHECKED BY _____

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

204
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



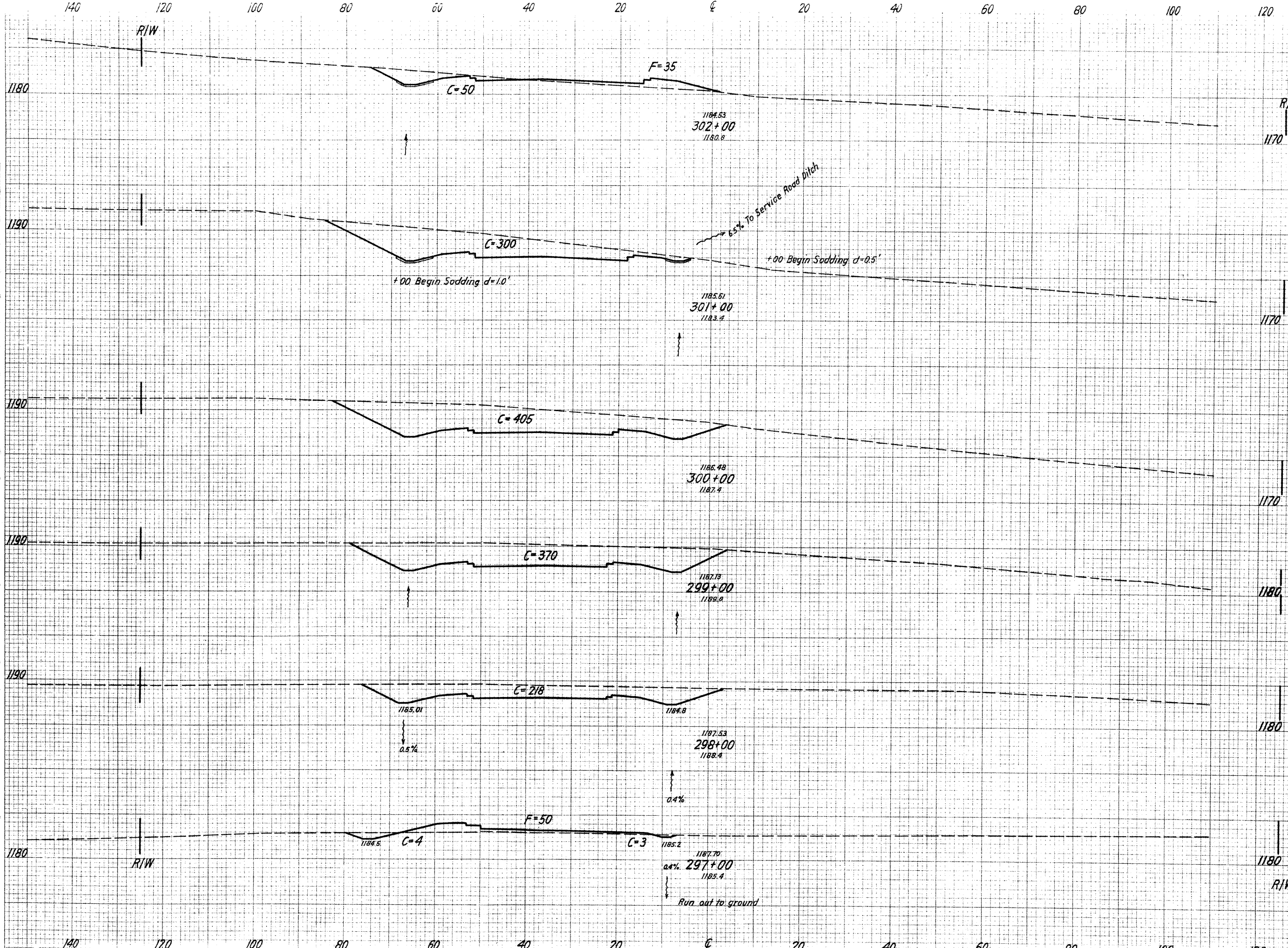
Lin. Ft.	SEEDING		END AREA		CU. YDS	
	Sq. Yds.	CUT	FILL	CUT	FILL	
71		5	208			
772				48	578	
68		21	104			
750				111	335	
67		39	77			
761				120	333	
70		26	103			
767				81	374	
68		18	99			
667				50	204	
52		9	11			
567				24	100	

FINAL SURVEYED, PLOTTED, REVISIONS, CHECKED, NO. DATE

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

205
329

CYA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Sta.	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
297+00	57		50	35		
298+00	67	689	300		648	65
299+00	76	794	405		1306	
300+00	827		370		1435	
301+00	789		218		1089	
302+00	60		7	53	417	98
TOTAL	728		22	483		

EXC.	5,399	CY
EMB.	3,595	CY
SEEDING	8,659	SY

FINAL SURVEYED
KEY TEMPLATE
BOOK AREAS
NO. AREAS CHECKED

Sta. 297+00 to Sta. 302+00

140

120

100

80

60

40

20

0

20

40

60

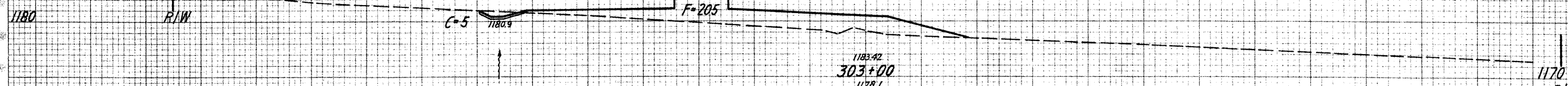
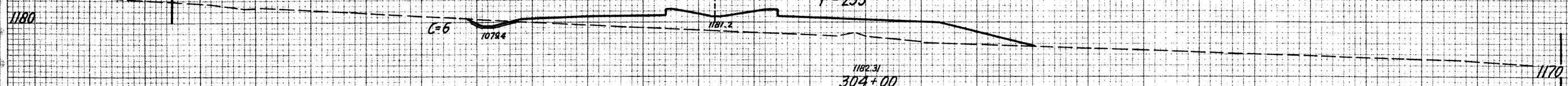
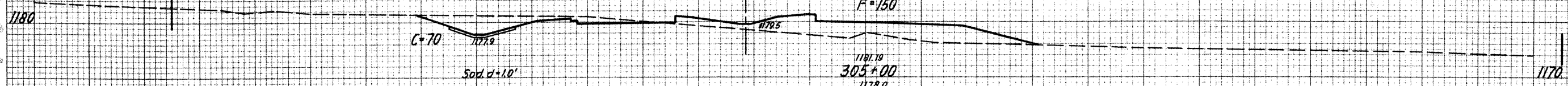
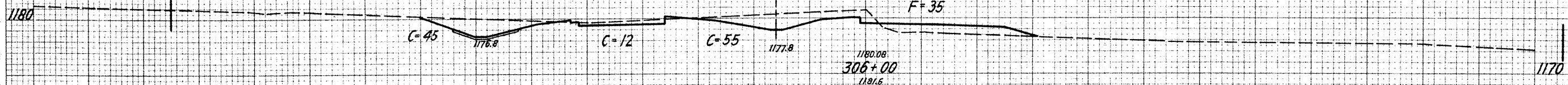
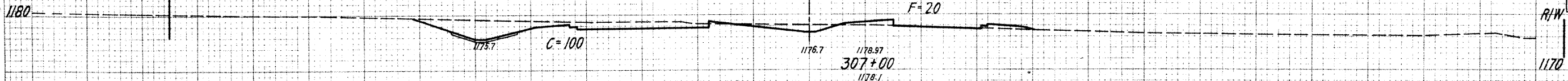
80

100

120

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS	206 329
	OHIO			

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
95			100	21		
1089					393	111
101			112	39		
1117					337	357
100			70	154		
1056					141	769
90			6	261		
889					20	863
70			5	211		
706					102	456

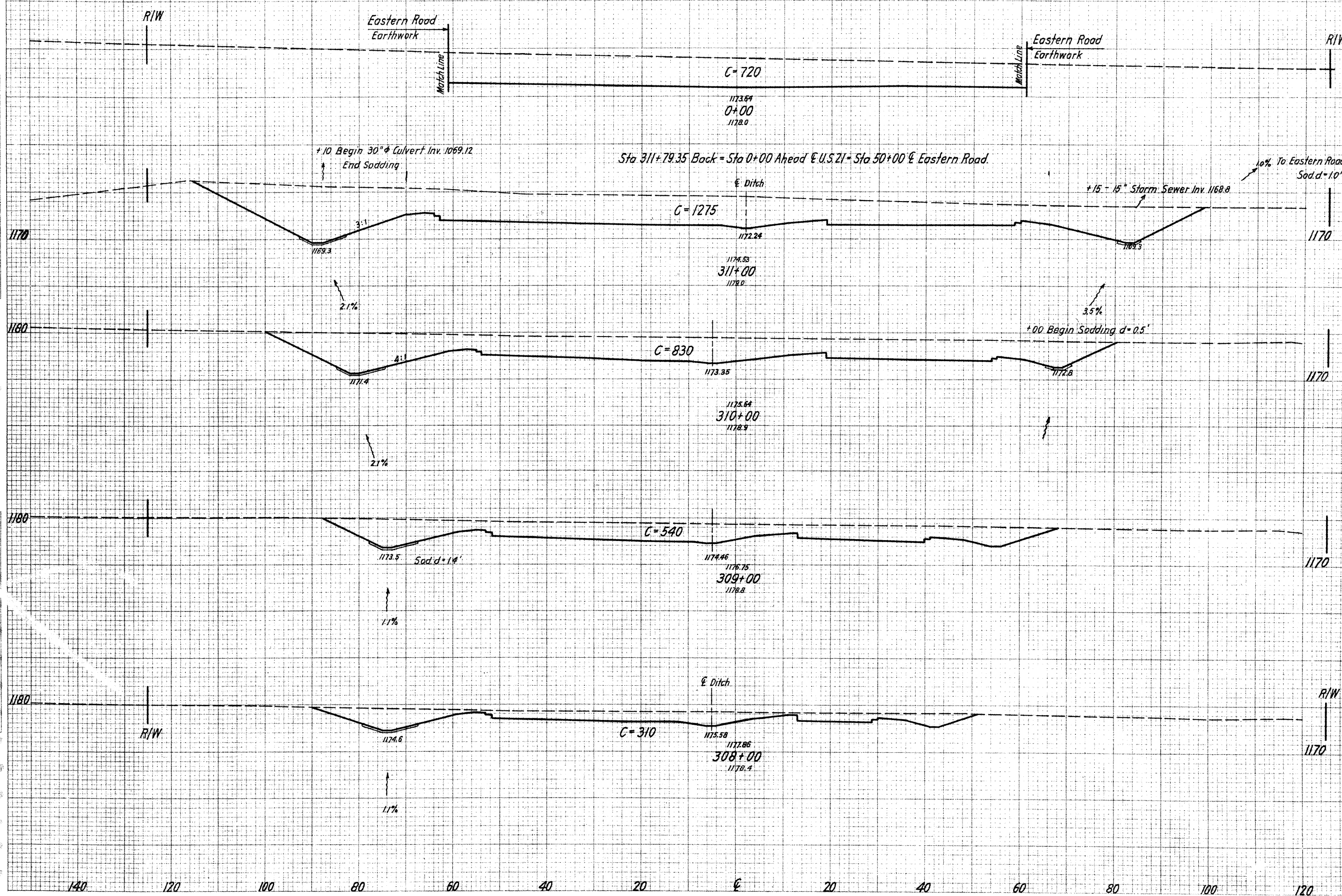
Sta 303+00 to Sta. 307+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120

FED RD DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

207
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS	
	Lin. Ft.	Sq. Yds.	CUT	FILL
			720	
1073			2932	6
150			1275	4
1583			3898	15
135			830	4
1444			2537	15
125			540	4
1383			1574	15
124			310	4
1217			739	46

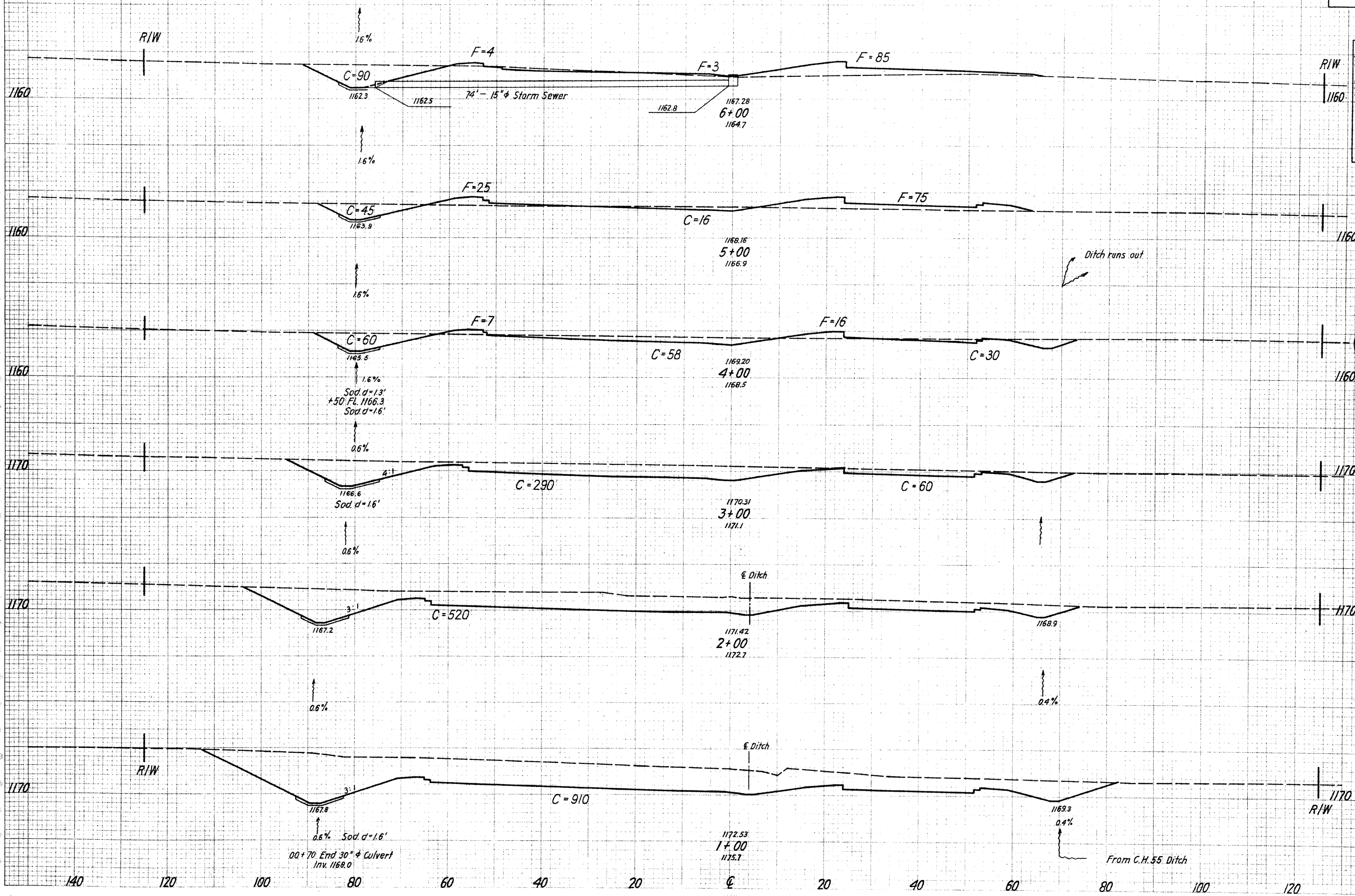
EXC. 20,771 C.Y.
EMB. 1,428 C.Y.
SEEDING 13,940 S.Y.

FINAL SURVEYED
SURVEY PLOTTED
NOTE BOOK AREAS
NO. AREAS CHECKED

FINAL SURVEYED
SURVEY PLOTTED
NOTE BOOK AREAS
NO. AREAS CHECKED

Sta. 308+00 to Sta. 0+00

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Lin. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
119			90	99		
1239					280	376
104			61	104		
1244					387	243
120			148	27		
1378					922	57
128			350	4		
1378					1611	15
120			520	4		
1417					2640	15
135			910	4		
1256					3019	7

EKG 1067 CY
EMG 23197 CY
SEEDING 12166 SY

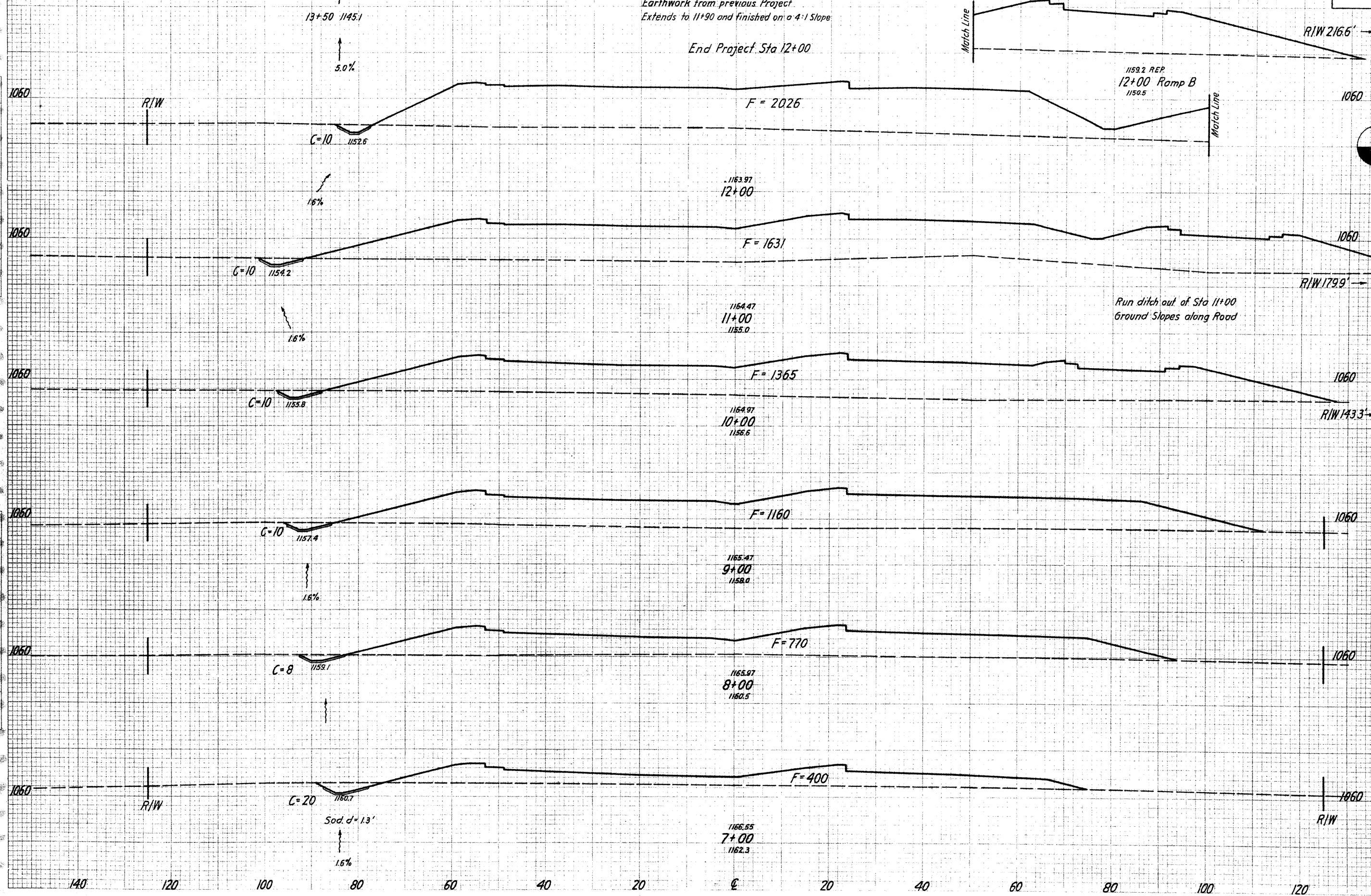
FINISH SURVEY
SURVEYED BY
TEMPERATURE
NOTE BOOK
AREAS CHECKED

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

Earthwork from previous Project
Extends to 11+90 and finished on a 4:1 Slope

End Project Sta 12+00

Drop down Slope of S.R. 5 Ditch
by spec. Paved Gutter



SEEDING	END AREA		CU. YDS.	
	Ln. Ft.	Sq. Yds.	CUT	FILL
218	10	2033		
2283			37	5585
193	10	1631		
2086			37	5561
168	10	1372		
1783			37	4702
153	10	1167		
1639			33	3600
142	8	777		
1500			52	2193
128	20	407		
1372			204	937

Sta 7+00 to Sta 12+00

FINAL SURVEY PLOTTED BY DATE BY

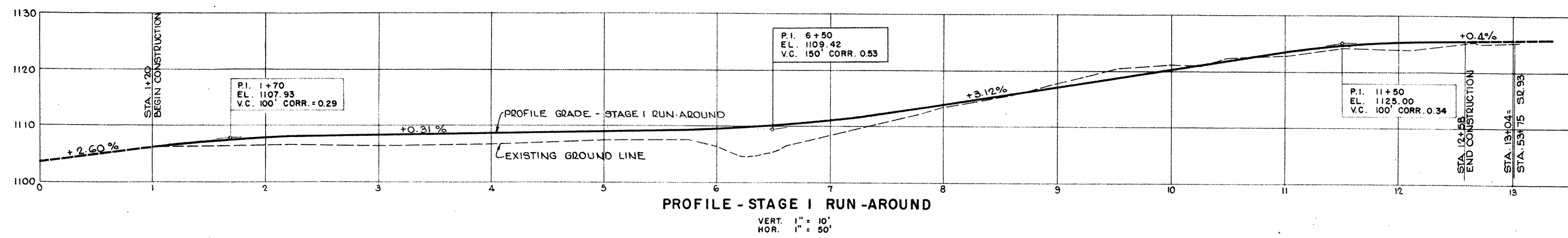
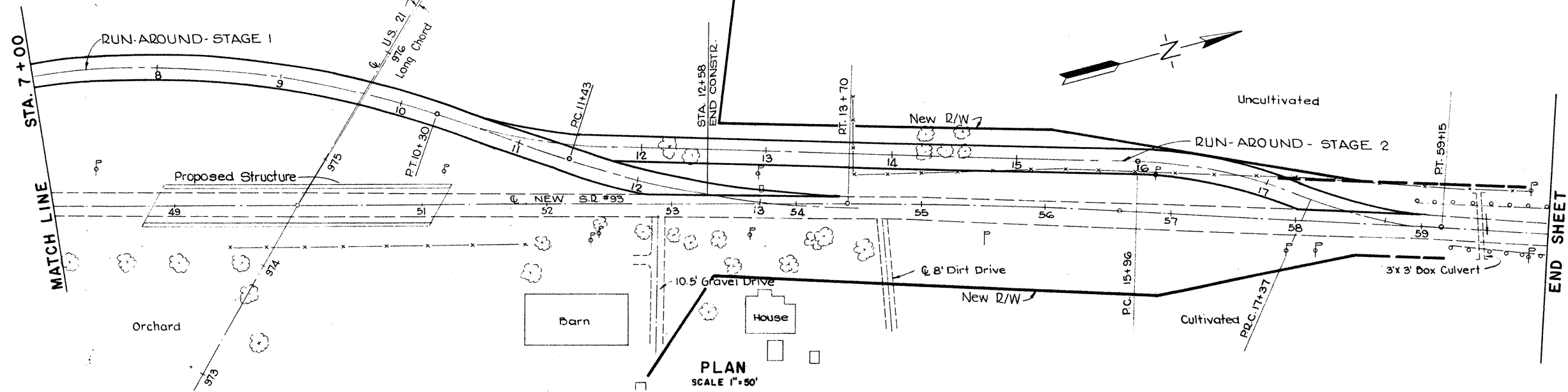
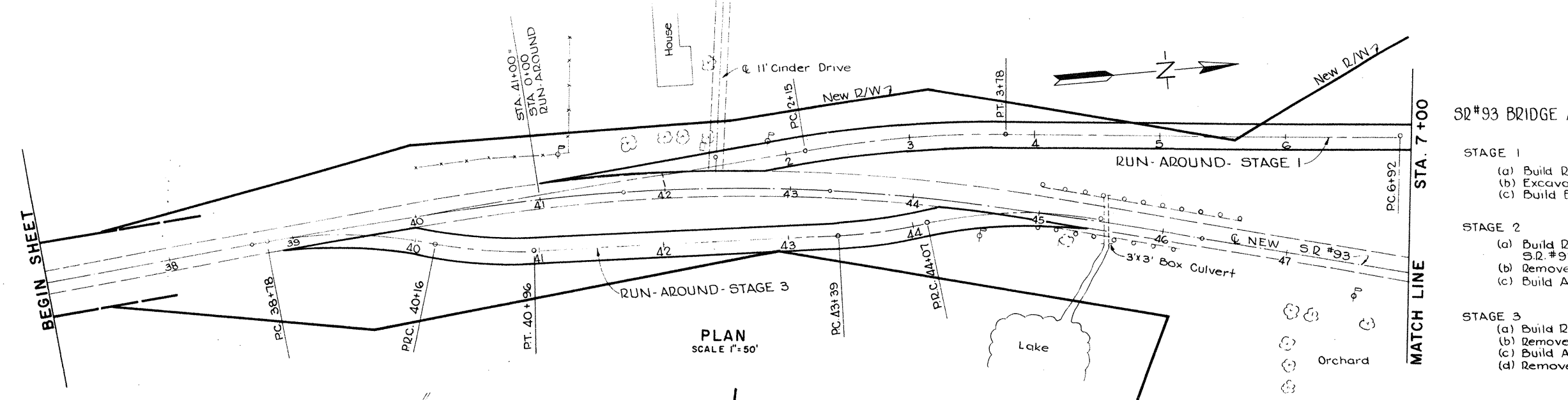
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

210
329

STA-21-17.80
WAY-21-0.00
SUM-21-0.00

SQ#93 BRIDGE AND APPROACH PAVEMENT CONSTRUCTION

- STAGE 1**
- Build Run-Around From Sta 41+00 to 54+00.
 - Excavate For Bridge Site
 - Build Bridge and Approach Pavement From Sta 43+00 to 52+00
- STAGE 2**
- Build Run-Around From Stage 1 Run-Around Sta 10+30 to S.R.#93 Sta 59+00.
 - Remove Unused Section of Run-Around Stage 1.
 - Build Approach Pavement From Sta 52+00 to Sta. 58+00
- STAGE 3**
- Build Run-Around From Sta. 39+00 to Sta.45+00
 - Remove Run-Around Stage 2.
 - Build Approach Pavement Sta. 37+91.78 to Sta. 44+00
 - Remove Run-Around Stage 3.

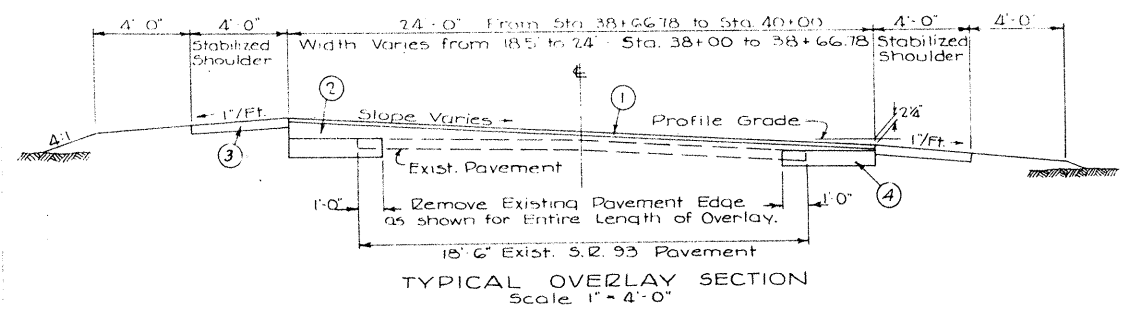


ESTIMATED QUANTITIES
Item 5-15 Temporary Run-Around Roads
Lump Sum.

- NOTES:**
- Run-arounds shall be constructed using Class "B" Pavement.
 - Grade of Stage 2 and 3 run-arounds shall be approximately the same as existing pavement.
 - Payment for Class "B" pavement on run-arounds is included in lump sum bid for item 5-15, Temporary Run-around Roads.

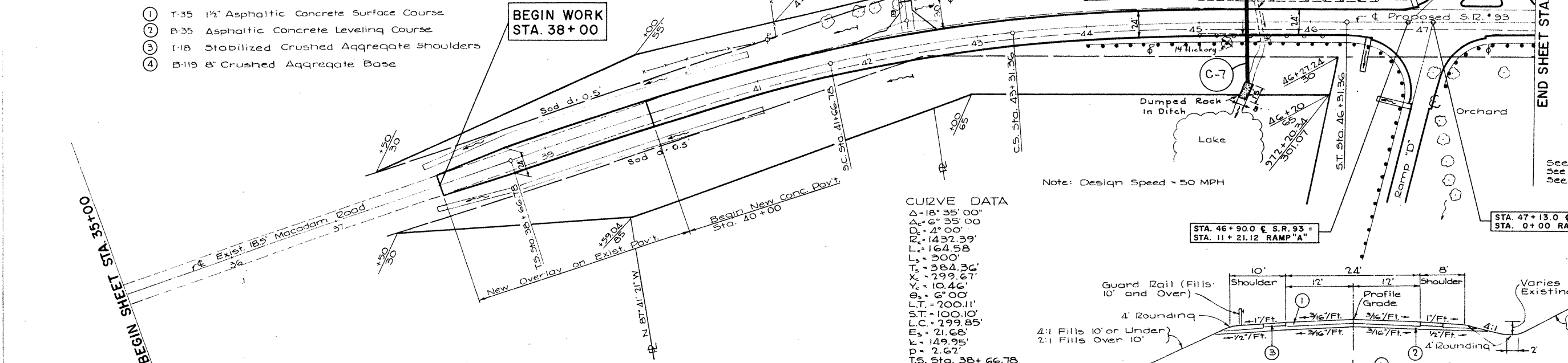
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA. - 21-17.80
WAY - 21-0.00
SUM - 21-0.00



- ① T-35 1 1/2" Asphaltic Concrete Surface Course
- ② B-35 Asphaltic Concrete Leveling Course
- ③ 1-18 Stabilized Crushed Aggregate Shoulders
- ④ B-119 8" Crushed Aggregate Base

BEGIN WORK
STA. 38+00

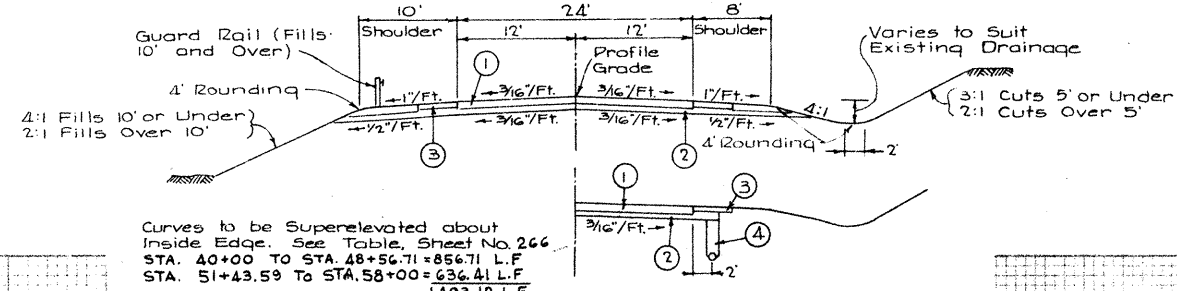


CURVE DATA

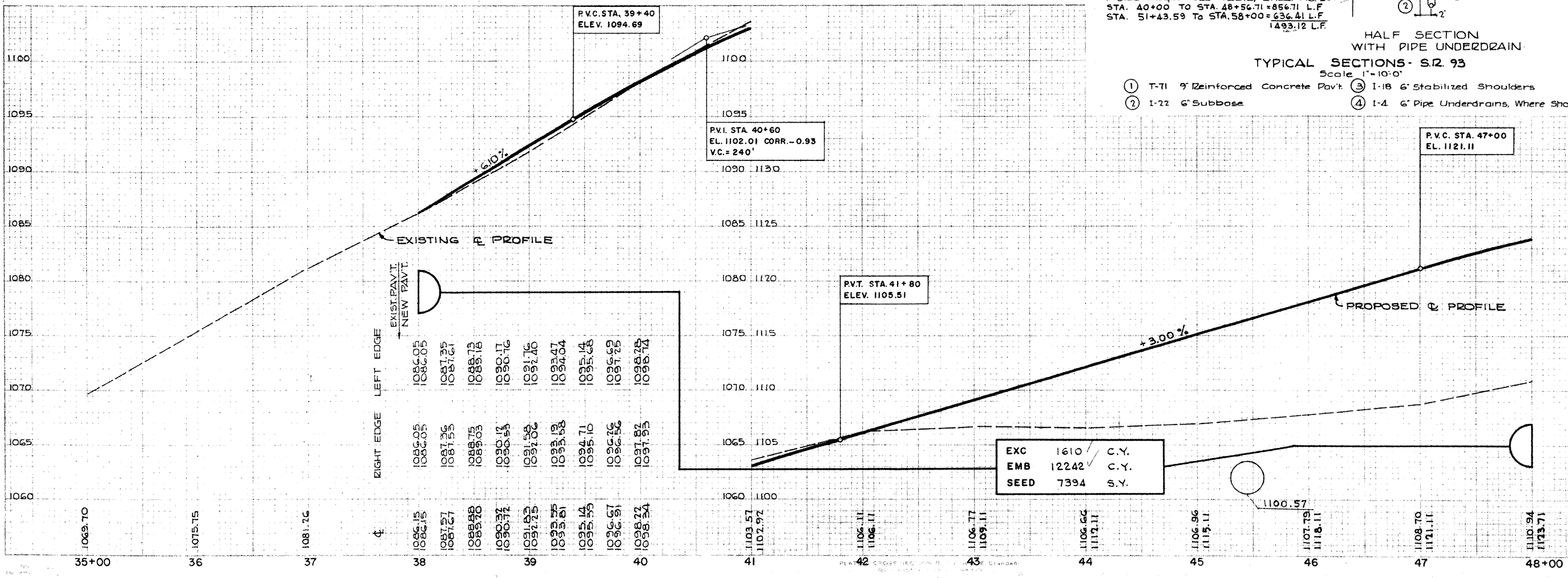
Δ = 18° 35' 00"
 Δc = 6° 35' 00"
 D = 4° 00"
 R = 1432.39'
 L = 164.58'
 Lc = 300'
 T = 384.36'
 X = 299.67'
 Y = 10.46'
 E = 6° 00"
 L.T. = 200.11'
 S.T. = 100.10'
 L.C. = 299.85'
 E = 21.68'
 K = 129.95'
 P = 2.62'

T.S. Sta. 38+66.78
 S.C. Sta. 41+66.78
 P.I. Sta. 42+47.00
 C.S. Sta. 43+31.36
 S.T. Sta. 46+31.36

PLAN
SCALE: 1" = 50'



- ① T-71 9" Reinforced Concrete Pav't
- ② 1-22 6" Subbase
- ③ 1-18 6" Stabilized Shoulders
- ④ 1-4 6" Pipe Underdrains, Where Shown



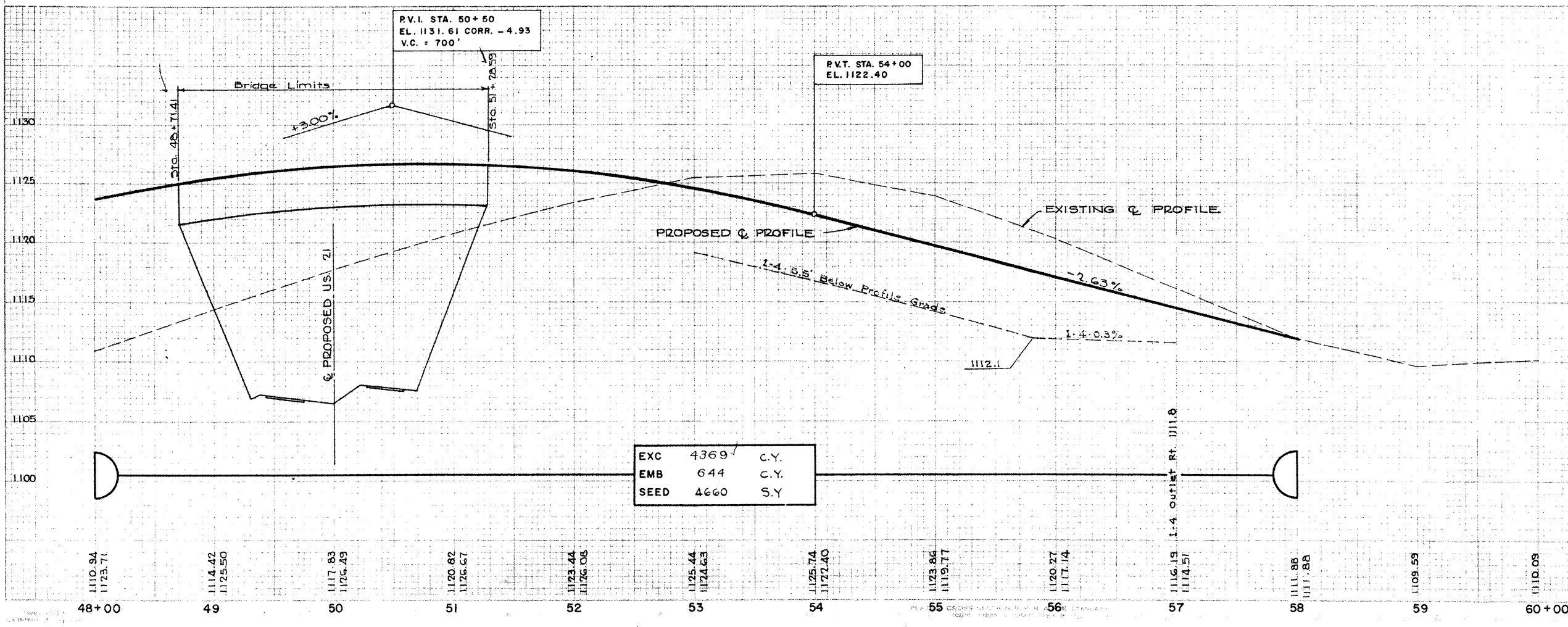
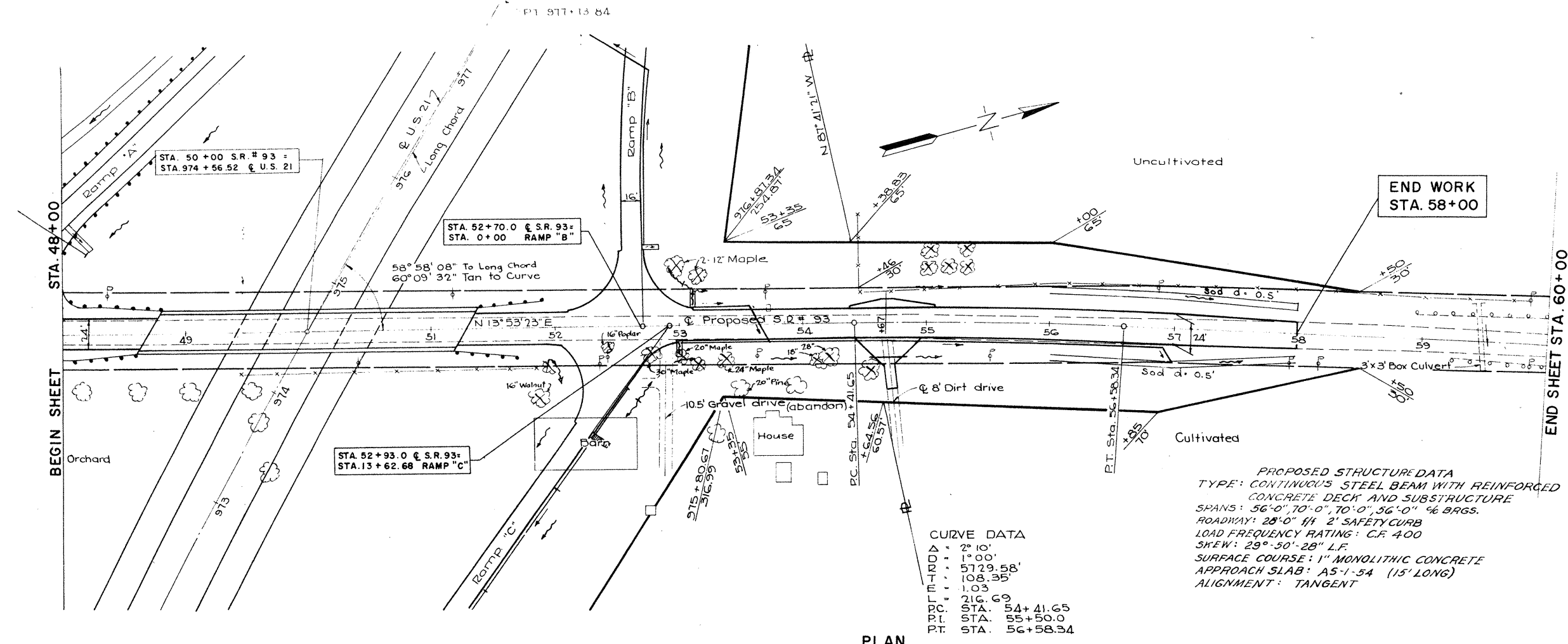
EXC	1610	C.Y.
EMB	12242	C.Y.
SEED	7394	S.Y.

PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

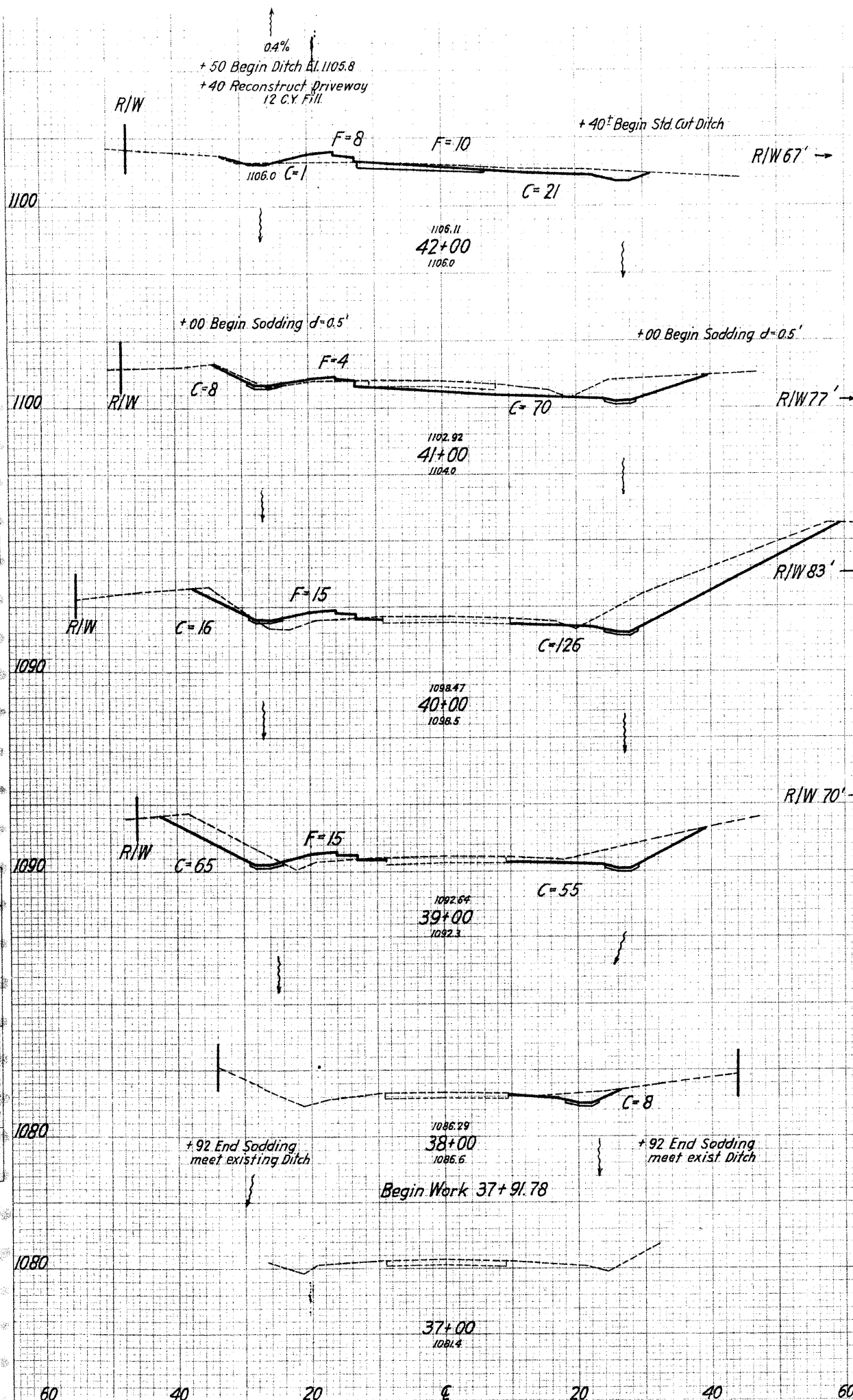
STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-7	48+55	Pipe Culvert	36" x 106"	268

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
E-1	STA 35+00 to STA 48+00 ROADWAY	SY				3070
E-8	Remov. & Disp. of Exist. Pav't.	SY	37+91	38+80		80
E-8	Remov. & Disp. of Exist. Pav't.	SY	39+75	43+00		670
I-15	Guard Rail	LF	45+00	46+12.50	R	112.50
I-15	Guard Rail Remov. & Disp.	LF	45+00	46+60	L	160
I-18	Stabilized Shoulder	CY				117
I-22	Subbase	CY				645
L-10	Sodding 5' Wide	SY	44+00	45+45	L	80
L-10	Sodding 9' Wide	SY	45+45	10+00' R		210
L-10	Sodding 5' Wide	SY	37+92	41+00	L	170
L-10	Sodding 5' Wide	SY	37+92	41+00	R	170
L-10	Sodding 4' Wide	SY	46+53	41+00	R	15
L-10	Sodding 4' Wide	SY	46+94		L	25
B-119	Gravel Base	CY	37+91	40+10		30
B-35	Asph. Conc. Leveling	CY				40
T-30	Bit Prime	GAL				200
T-35	Asph. Conc. Surf	CY				25
T-70	PCC Pav't for Drive (7')	SY	42+40		L	86
T-71	R.C. Pav't.	SY				2107
S-24	DRAINAGE					
S-24	39'-3x3' Box Culv. Remov.	L&R	45+54			L5
E-1	Comp. Subgr.	SY	48+70	51+30		535
E-8	Remov. & Disp. of Exist. Pav't.	SY	52+20	58+00		1192
E-8	Remov. & Disp. of Exist. Pav't.	SY				1727
I-15	Guard Rail	LF				110
I-18	Stabilized Shoulder	CY				110
I-22	Subbase	CY				520
L-10	Sodding 5' Wide	SY	56+00	58+00	L	110
L-10	Sodding 5' Wide	SY	56+00	58+00	R	110
L-10	Sodding 4' Wide	SY	52+94		L	5
L-10	Sodding 4' Wide	SY	53+12		R	5
T-70	PCC Pav't for Drive (7')	SY	54+65		L&R	105
T-71	R.C. Pav't.	SY				1975
I-7	R.C. Appr. Slab T=10"	SY	48+56.41	48+71.41		40
I-7	R.C. Appr. Slab T=10"	SY	51+28.59	51+43.59		40
I-1	8" Pipe for Driveway	LF	54+52	54+82	R	30
I-2	6" Storm Sewer A Under Pav't.	LF	53+57	53+74	ACROSS	30
I-4	6" Underdrain	LF	53+00	53+56	L	56
I-4	6" Underdrain	LF	53+00	57+00	R	392
I-4	6" Outlet	LF	57+00		R	10
I-5w/4	60° Bend 6"	Ea	53+56		L	1
I-5w/4	60° Bend 6"	Ea	56+92		R	2
I-5w/4	6" x 6" Wye	Ea	53+75		R	1
I-15	Guard Rail	LF	44+00	46+96.29	L	296.29
I-15	Guard Rail	LF	44+00	46+45	R	245.00
I-15	Guard Rail	LF	47+65.48	48+00	R	34.52
I-15	Guard Rail	LF	7+88.14	10+94.85	R	303.71
I-15	Guard Rail	LF	46+00	8+77.70	L	137.50
I-15	Guard Rail	LF	0+21	4+05	R	4.05
I-15	Guard Rail	LF	0+21	0+49.68	L	83.48
I-15	Guard Rail	LF	48+00	48+75	L	75.00
I-15	Guard Rail	LF	48+00	48+57	R	57.00
I-15	Guard Rail	LF	51+42	51+92	L	50.00
I-15	Guard Rail	LF	51+73	51+23	R	50.00

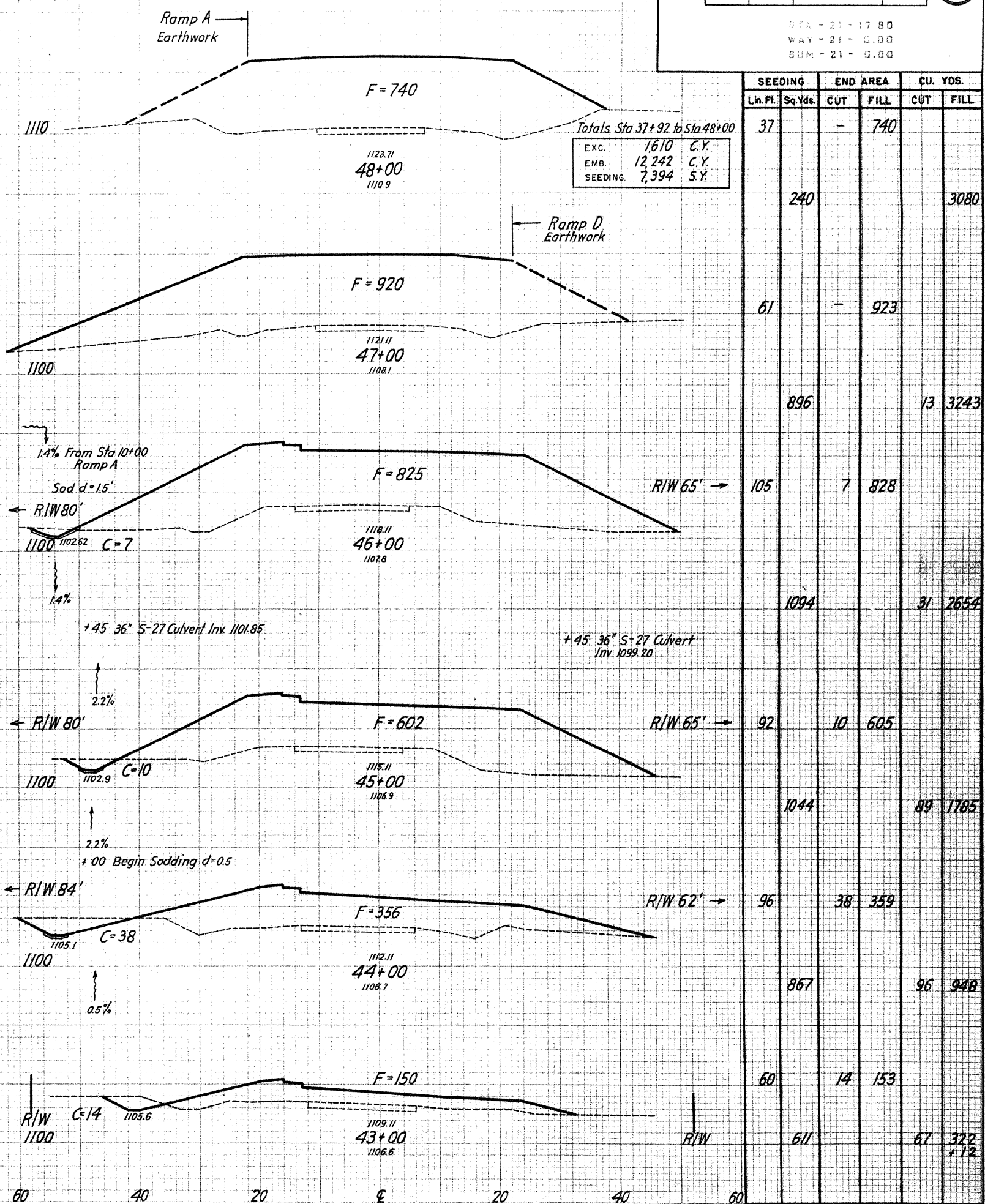


PREPARED AND RECOMMENDED BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17 80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING Lin. Ft.	END AREA Sq. Yds.	CU. YDS.	
		CUT	FILL
50		22	21
644			185
66		78	7
900			407
96		142	18
906			485
67		120	18
612			237
35		8	

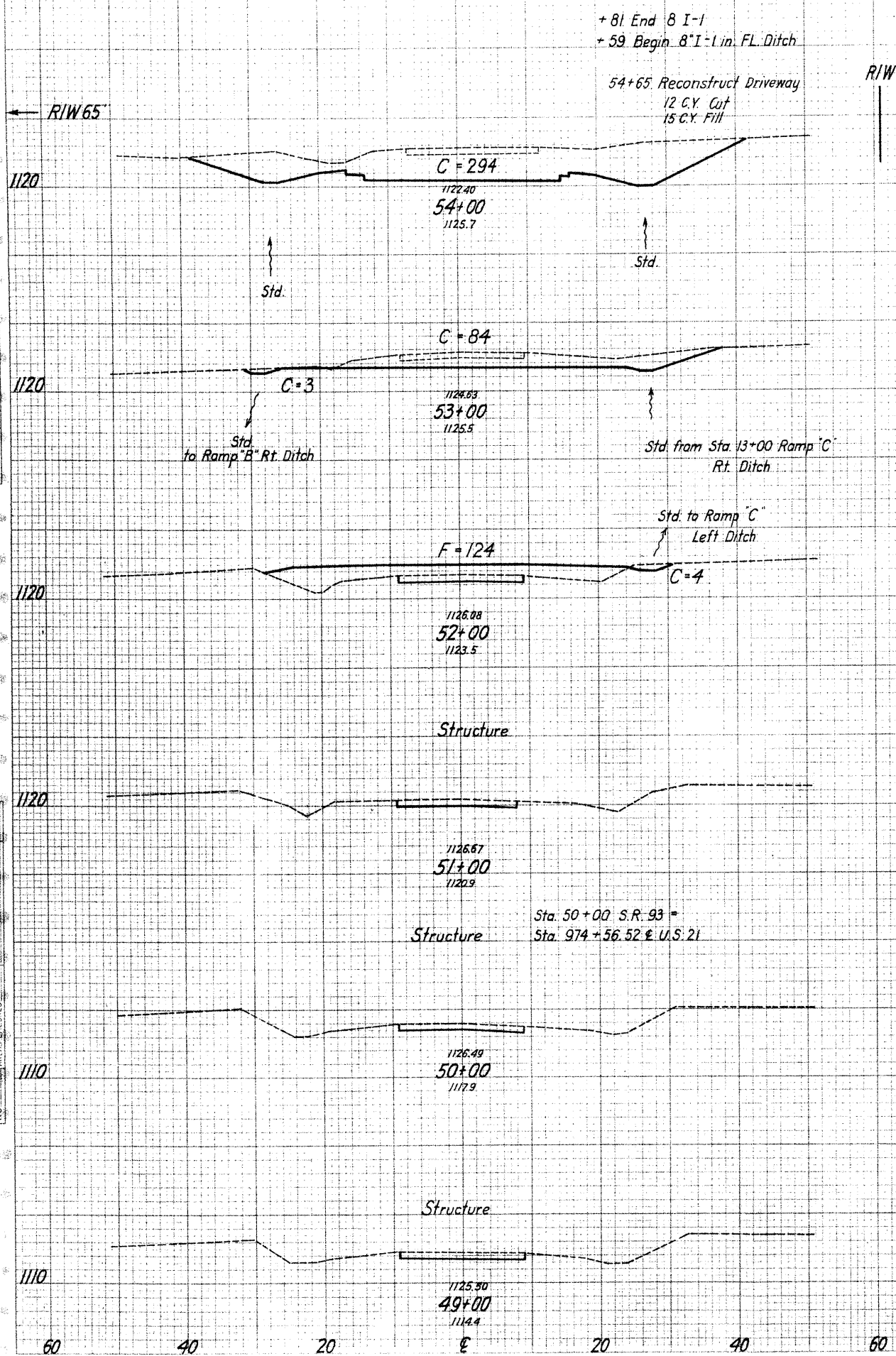


SEEDING Lin. Ft.	END AREA Sq. Yds.	CU. YDS.	
		CUT	FILL
37		-	740
240			
61		-	923
896			13
105		7	828
1094			31
92		10	605
1044			89
96		38	359
867			96
60		14	153
611			67

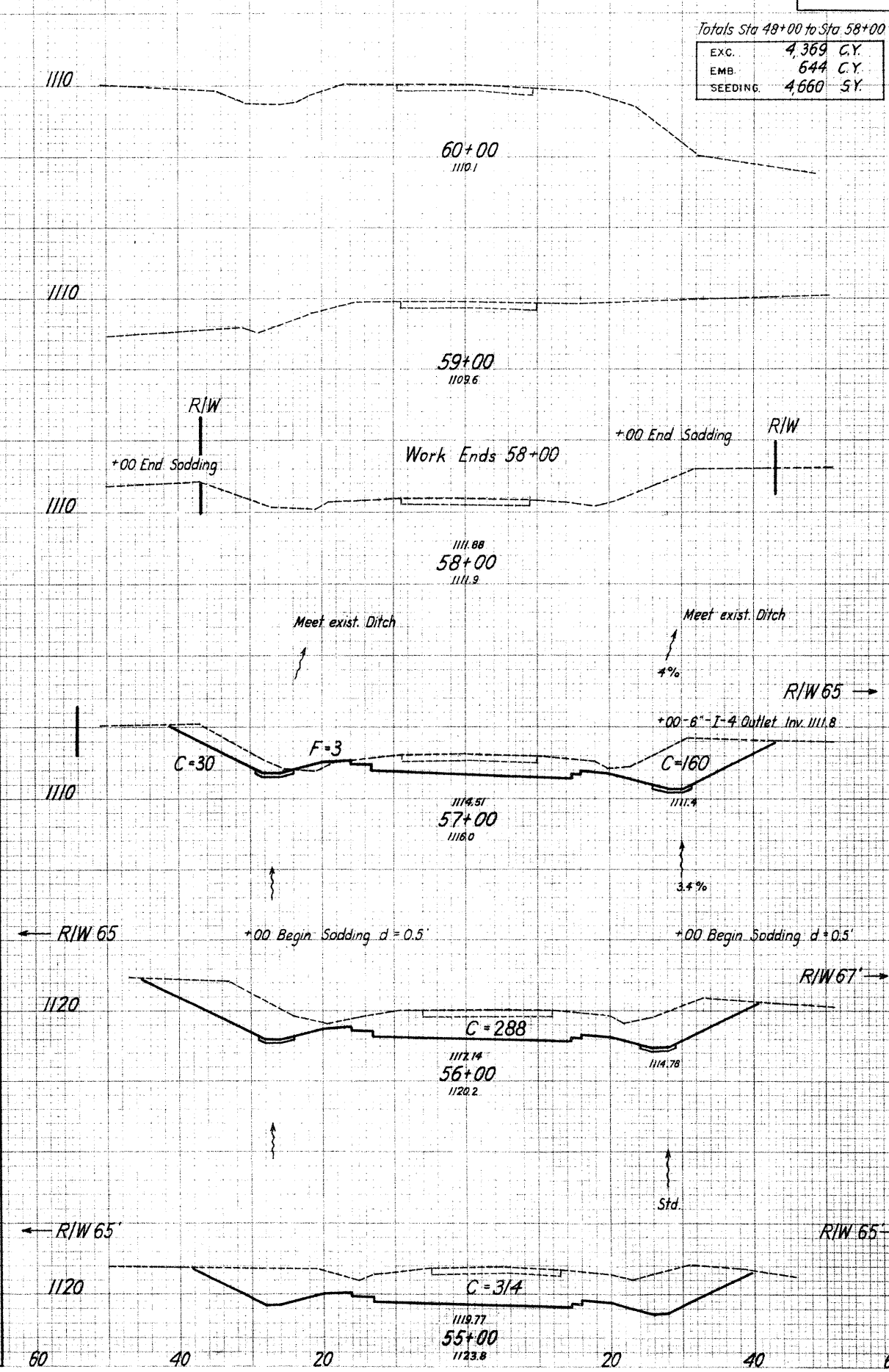
Totals Sta 37+92 to Sta 48+00
EXC. 1610 C.Y.
EMB. 12,242 C.Y.
SEEDING 7,394 S.Y.

FINAL SURVEYED BY DATE
SURVEY PLOTTED BY DATE
NOTE BOOK NO. DATE
TERRAIN AREAS CHECKED
NO.

SYA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING		END AREA		CU. YDS.	
Lin.Ft.	Sq.Yds.	CUT	FILL	CUT	FILL
71		294			
717				706	11
58		87	6		
48		4	130	169	252
408		4		354	
77		190	3		
867				885	6
79		288			
828				1115	
70		314			
783				1126	+15



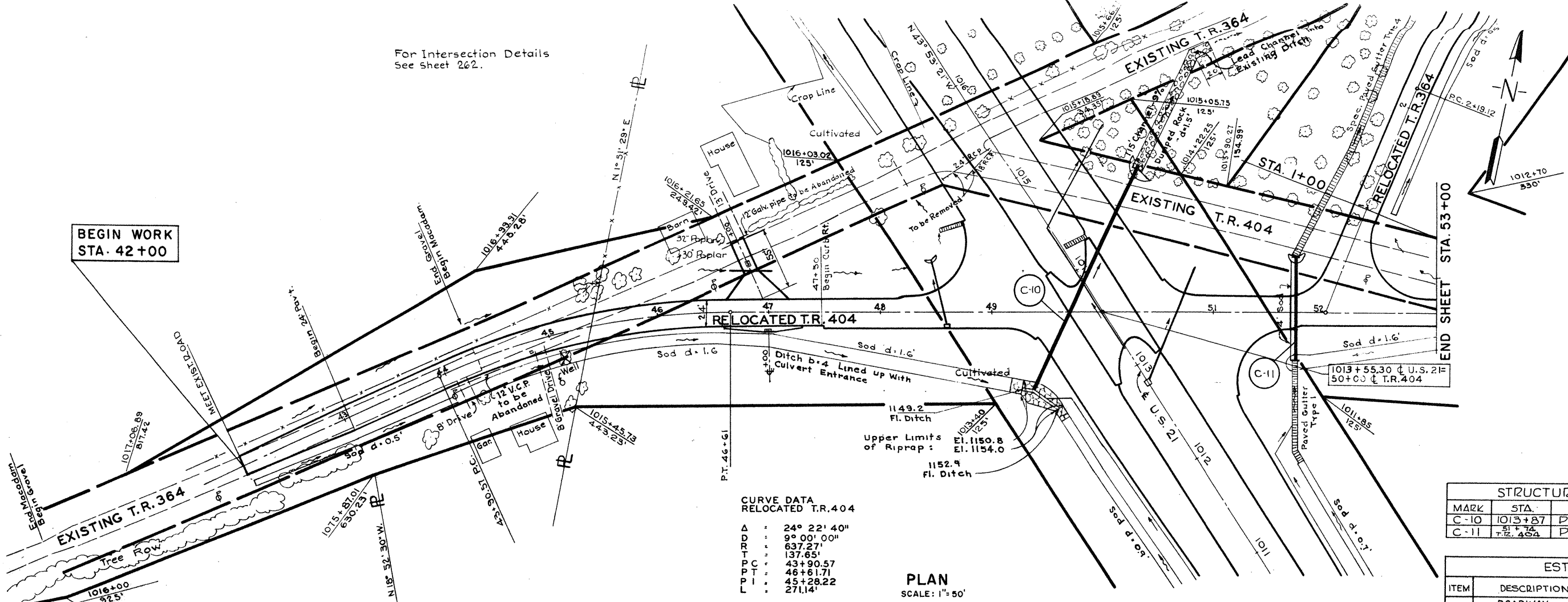
SEEDING		END AREA		CU. YDS.	
Lin.Ft.	Sq.Yds.	CUT	FILL	CUT	FILL
71		294			
717				706	11
58		87	6		
48		4	130	169	252
408		4		354	
77		190	3		
867				885	6
79		288			
828				1115	
70		314			
783				1126	+15

Totals Sta 48+00 to Sta 58+00
EXC. 4,369 C.Y.
EMB. 644 C.Y.
SEEDING. 4,660 SY.

FINAL SURVEY
SURVEYED
PLOTTED
NOTE BOOK
NO. AREAS CHECKED

STA. - 21 - 17.80
 WAY - 21 - 0.00
 SUM - 21 - 0.00

For Intersection Details See Sheet 262.



CURVE DATA
 RELOCATED T.R. 404
 Δ = 24° 22' 40"
 D = 9° 00' 00"
 R = 637.27'
 T = 137.65'
 PC = 43+90.57
 PT = 46+61.71
 PI = 45+28.22
 L = 271.14'

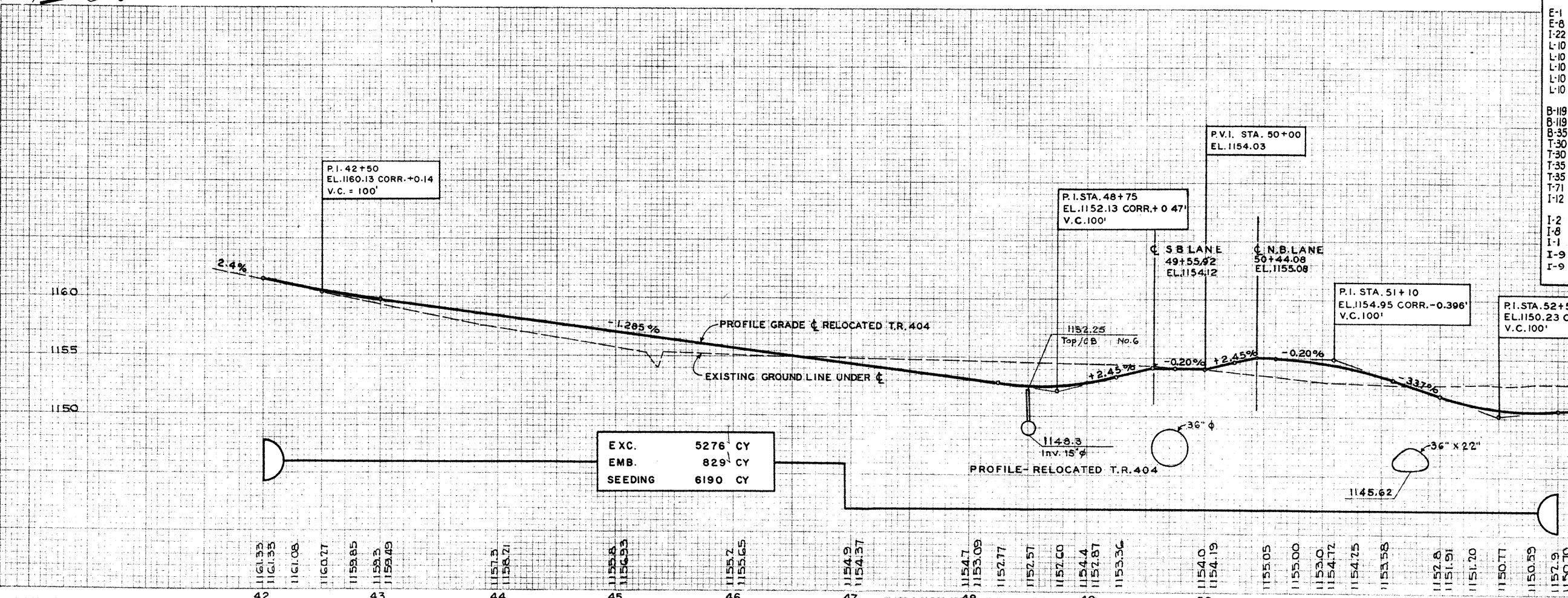
PLAN
 SCALE: 1" = 50'

STRUCTURES - 20' SPAN AND UNDER

MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-10	1013+87	Pipe Culvert	36" x 218"	268
C-11	51+74	Pipe Arch Culvert	36" x 22" x 94"	268

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB TOTAL	TOTAL
ROADWAY							
E-1	Comp. Subgr.	SY	48+20	51+80			1535
E-8	Remov. & Disp. of Exist. Pavt.	SY	42+00	53+00			2290
I-22	Subbase	CY	48+20	51+80			230
L-10	Sodding 5" Wide	SY	42+00	44+00	R	110	
L-10	Sodding 11" Wide	SY	44+00	46+50	R	300	
L-10	Sodding 12" Wide Aver.	SY	46+50	47+00	R	70	
L-10	Sodding 13" Wide	SY	47+00	49+18	R	310	
L-10	Pipe End Treatment	SY	48+50		L	2	792
PAVEMENT							
B-119	Gravel Base	CY				460	
B-119	Gravel Base for Drive	CY	46+80		L	15	475
B-35	2 1/2" Asph. Conc. Leveling	CY				130	153
T-30	Bit Prime	GAL			L	730	762
T-30	Bit Prime for Drive	GAL	46+80		L	32	82
T-35	1/2" Asph. Conc. Surf	CY				82	87
T-35	2" Asph. Conc. Surf for Drive	SY				5	5
T-71	9" R.C. Pavt.	SY	48+20	51+80			1535
I-12	Type 2A Curb	LF					550
DRAINAGE							
I-2	15" Storm Sewer B Under Pavt.	LF	48+50	48+60	L&R		60
I-8	Standard No. 6 CB	Eq	48+60		R		1
I-1	12" Pipe for Driveway	LF	46+62	47+04	L		38
I-9	Stone Drains No 2	LF	42+00	48+50	L&R	210	
I-9	Stone Drains No 2	LF	51+50	53+00	L&R	80	260

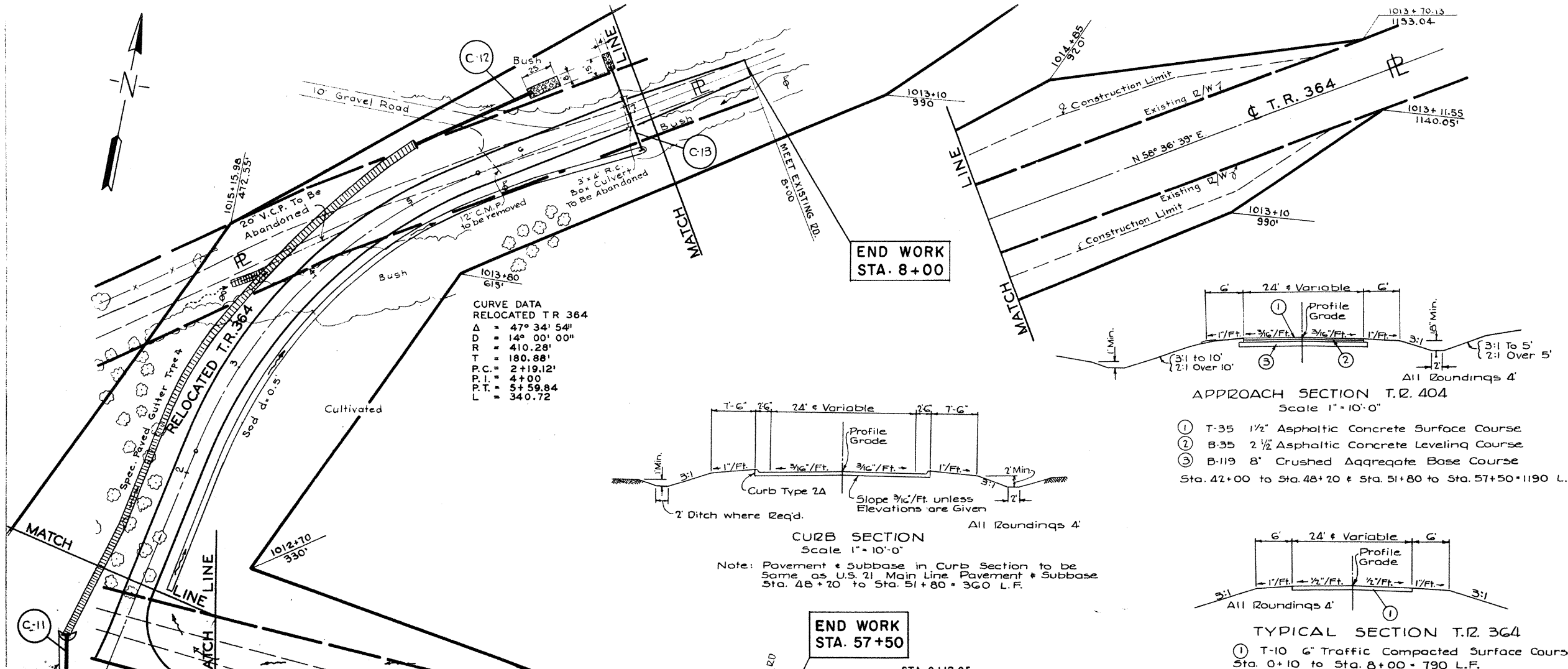


PREPARED AND RECOMMENDED BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

STA. - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

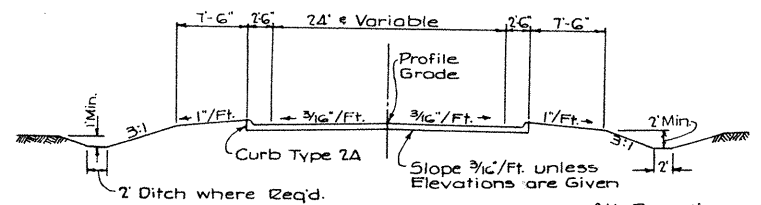
STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-11	52+24	Pipe Arch Culvert	36" x 22" x 94'	268
C-12	52+24	Pipe Arch Culvert	43" x 27" x 100'	268
C-13	52+24	Pipe Culvert	15" x 10'	268

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
E-8	Remov. & Disp. of Exist. Pavt.	SY	53+00	57+50		900
L-10	Sodding 11' Wide	SY	51+74	54+00	R	280
L-10	Sodding 9' Wide	SY	54+00	57+50	R	350
L-10	Sodding 5' Wide	SY	1+00	6+94	R	320
L-10	Sodding 4' Wide	SY	51+70		L&R	30
PAVEMENT						
B-119	8" Gravel Base	CY	53+00	57+50		280
B-35	2 1/2" Asph. Conc. Leveling	CY	53+00	57+50		95
T-10	6" Gravel Surface	CY	0+10	8+00		370
T-30	Bit Prime	GAL	53+00	57+50		440
T-35	1 1/2" Asph. Conc. Surf	CY	53+00	57+50		50
DRAINAGE						
E-12	12" Pipe to be Removed for Drainage	LF	5+75		Across L	30
I-14	Spec Paved Gutter Type 4	LF	0+40	6+25	L	530
S-24	4x3" R.C. Box Culvert 30' Long to be Removed	LS	6+94		Across L&R	LS
I-9	Stone Drains No 2	LF	53+00	57+50	L&R	140
I-9	Stone Drains No 2	LF	0+50	8+00	L&R	240

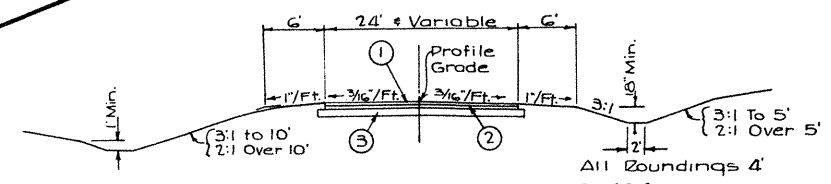


**CURVE DATA
RELOCATED T.R. 364**
 $\Delta = 47^\circ 34' 54''$
 $D = 14^\circ 00' 00''$
 $R = 410.28'$
 $T = 180.88'$
 $P.C. = 2+19.12'$
 $P.I. = 4+00'$
 $P.T. = 5+59.84'$
 $L = 340.72'$

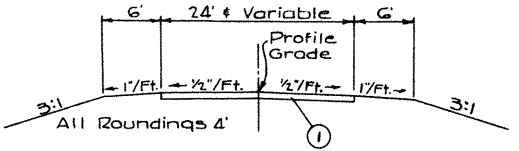
**CURVE DATA
RELOCATED T.R. 404**
 $\Delta = 139^\circ 54' 54''$
 $D = 5^\circ 00' 00''$
 $R = 955.37'$
 $P.C. = 53+28.26$
 $P.I. = 54+44.84$
 $P.T. = 55+60.28$
 $L = 232.02'$



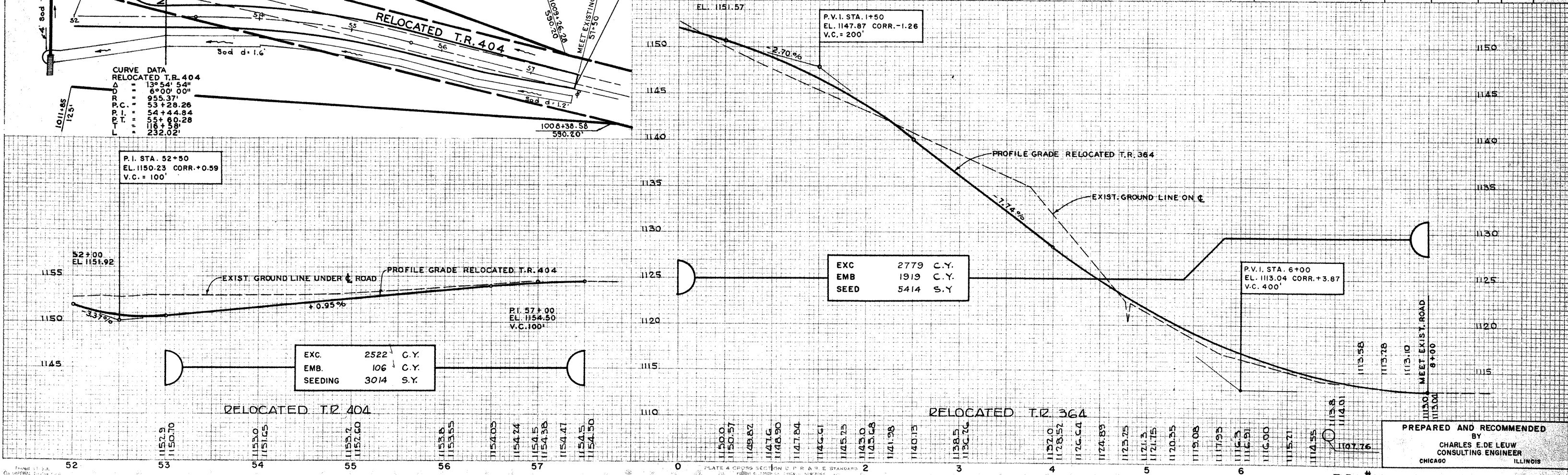
Note: Pavement & Subbase in Curb Section to be Same as U.S. 21 Main Line Pavement & Subbase Sta. 48+20 to Sta. 51+80 = 360 L.F.



- ① T-35 1 1/2" Asphaltic Concrete Surface Course
 - ② B-35 2 1/2" Asphaltic Concrete Leveling Course
 - ③ B-119 8" Crushed Aggregate Base Course
- Sta. 42+00 to Sta. 48+20 & Sta. 51+80 to Sta. 57+50 = 1190 L.F.



- ① T-10 6" Traffic Compacted Surface Course
- Sta. 0+10 to Sta. 8+00 = 790 L.F.

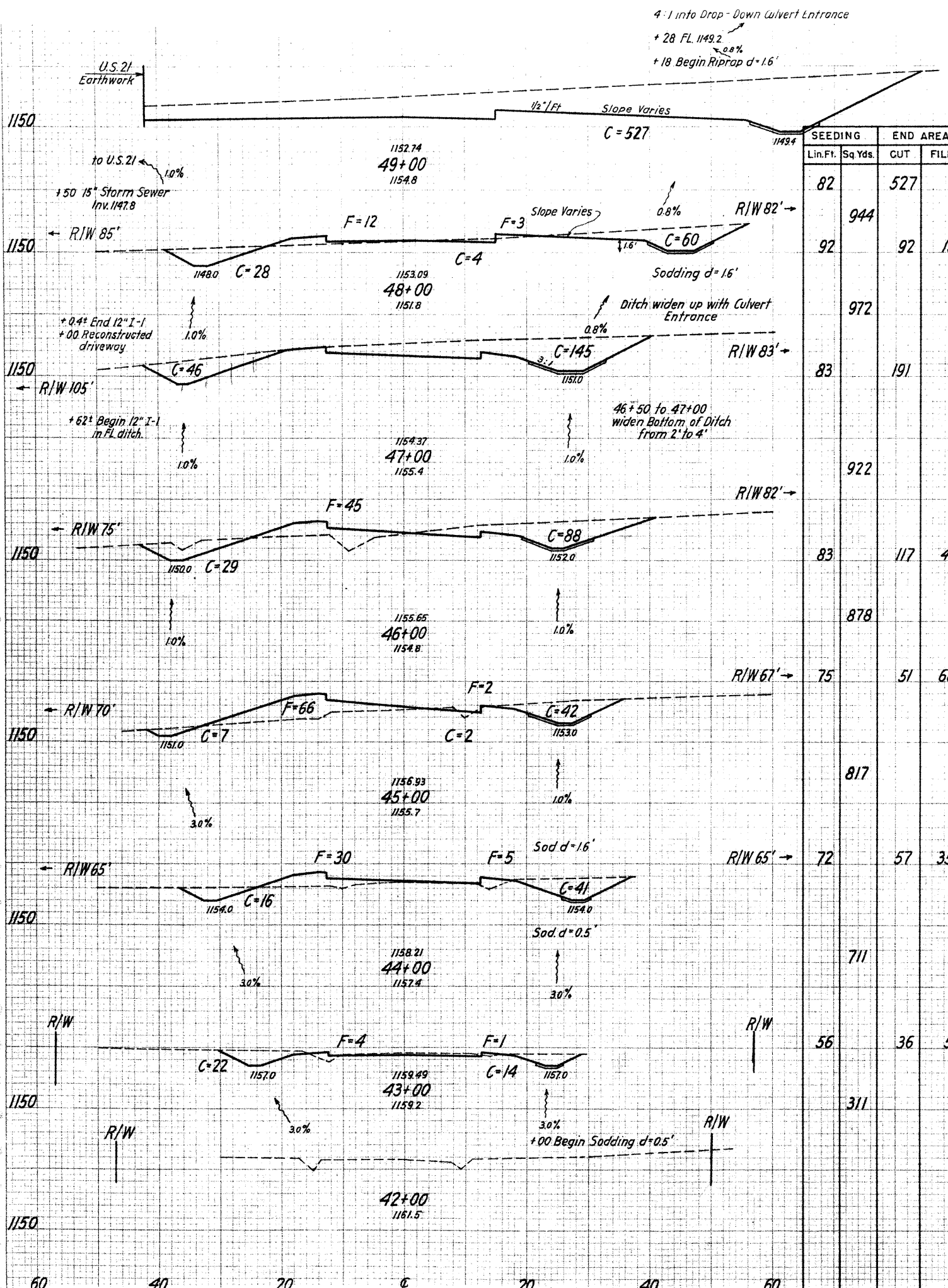


EXC. 2522 C.Y.
EMB. 106 C.Y.
SEEDING 3014 S.Y.

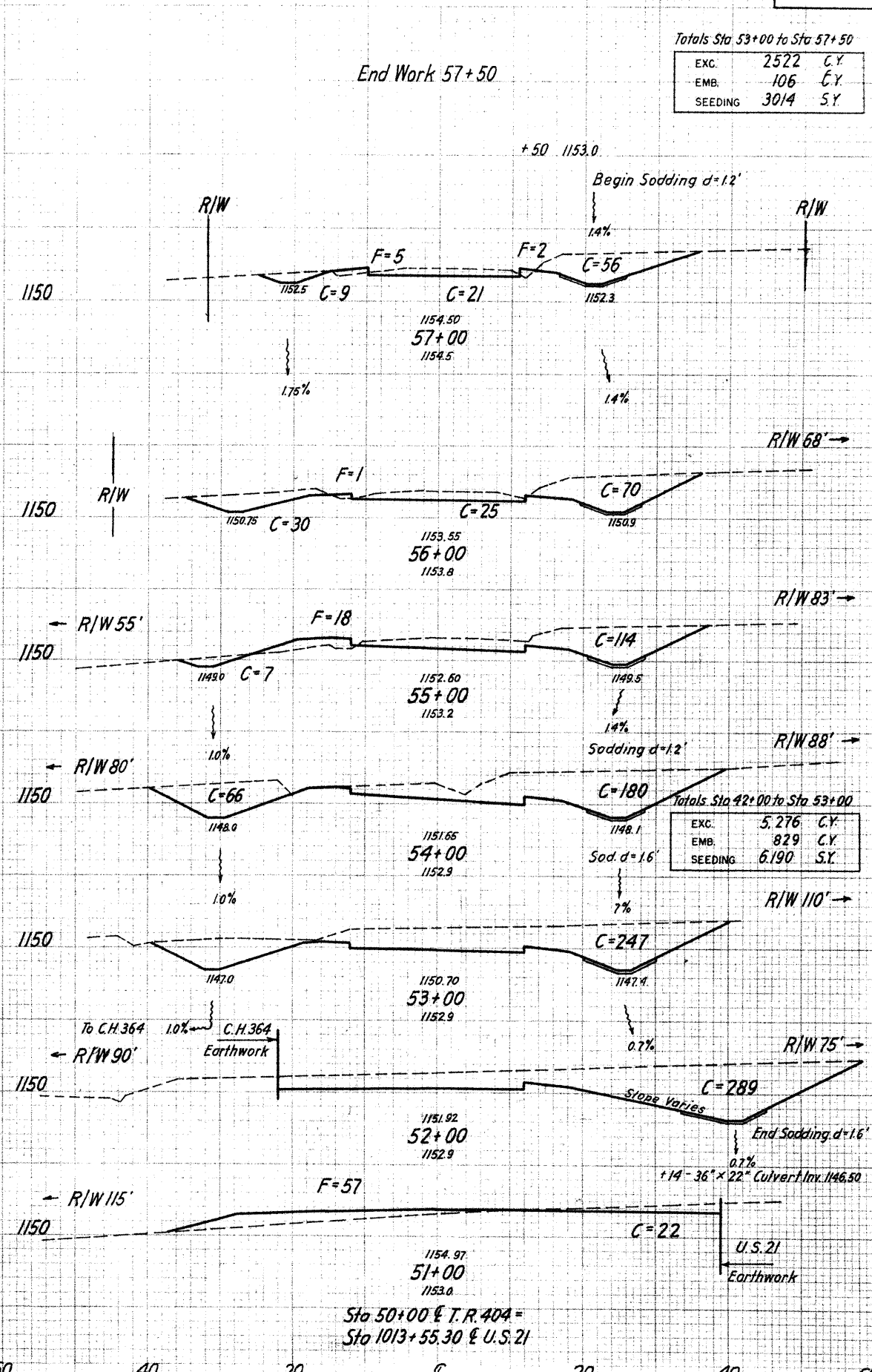
EXC. 2779 C.Y.
EMB. 1919 C.Y.
SEED 5414 S.Y.

PREPARED AND RECOMMENDED BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

STA - 21 - 37.80
 MAY - 21 - 1960
 SUM - 21 - 3.00



Lin. Ft.	Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
82	527				
92	944	92	15	1146	28
972				524	28
83	191				
922				570	83
83	117	45			
878				311	209
75	51	68			
817				200	191
72	57	35			
711				172	74
56	36	5			
311				67	9



Lin. Ft.	Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
169				82	12
61	86	13			
722				391	26
69	125	1			
778				456	35
71	121	18			
828				680	33
78	246				
867				913	
78	247				
467				993	
59	289				
667				576	106
30	22	57			
282				717	101

End Work 57+50

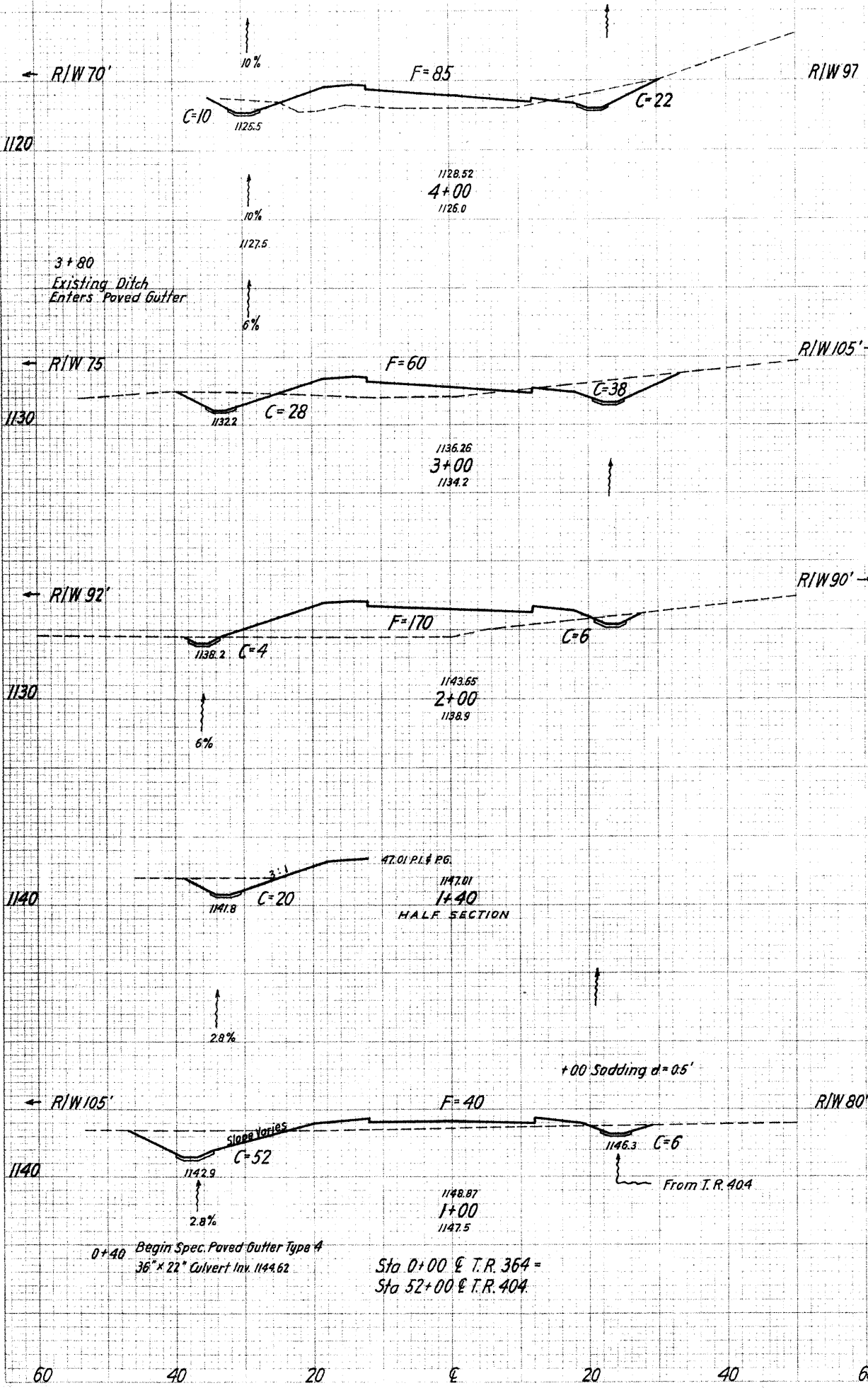
Totals Sta 53+00 to Sta 57+50

EXC.	2522	C.Y.
EMB.	106	C.Y.
SEEDING	3014	S.Y.

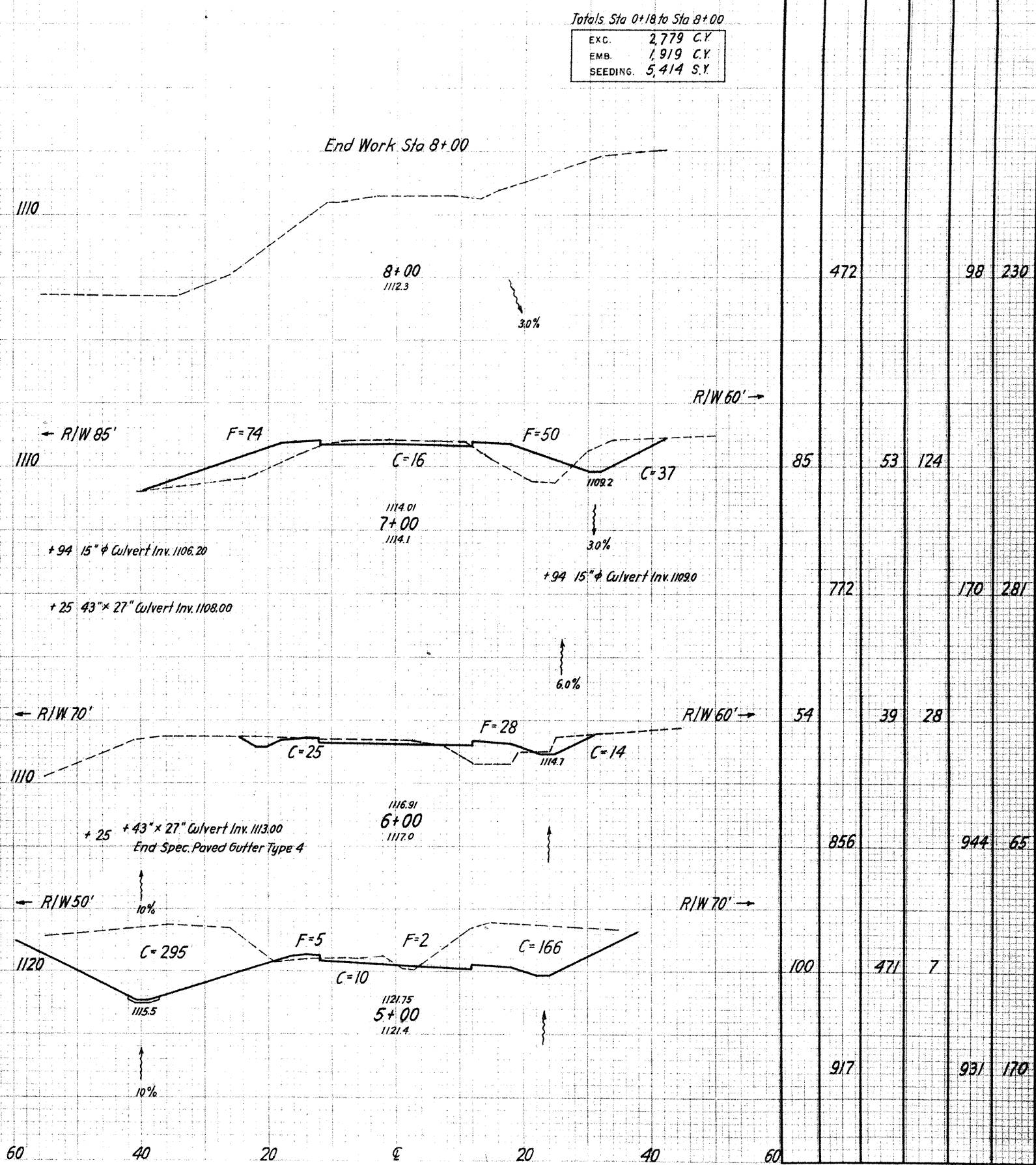
Totals Sta 42+00 to Sta 53+00

EXC.	5,276	C.Y.
EMB.	829	C.Y.
SEEDING	6,190	S.Y.

Sta 50+00 & T.R. 404 =
 Sta 1013+55.30 & U.S. 21



SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
65	32	85		
761		181	269	
72	66	60		
761		141	426	
65	10	170		
778		126	389	
75	58	40		
417		188	89	



Totals Sta 0+18 to Sta 8+00

EXC.	2,779 C.Y.
EMB.	1,919 C.Y.
SEEDING	5,414 S.Y.

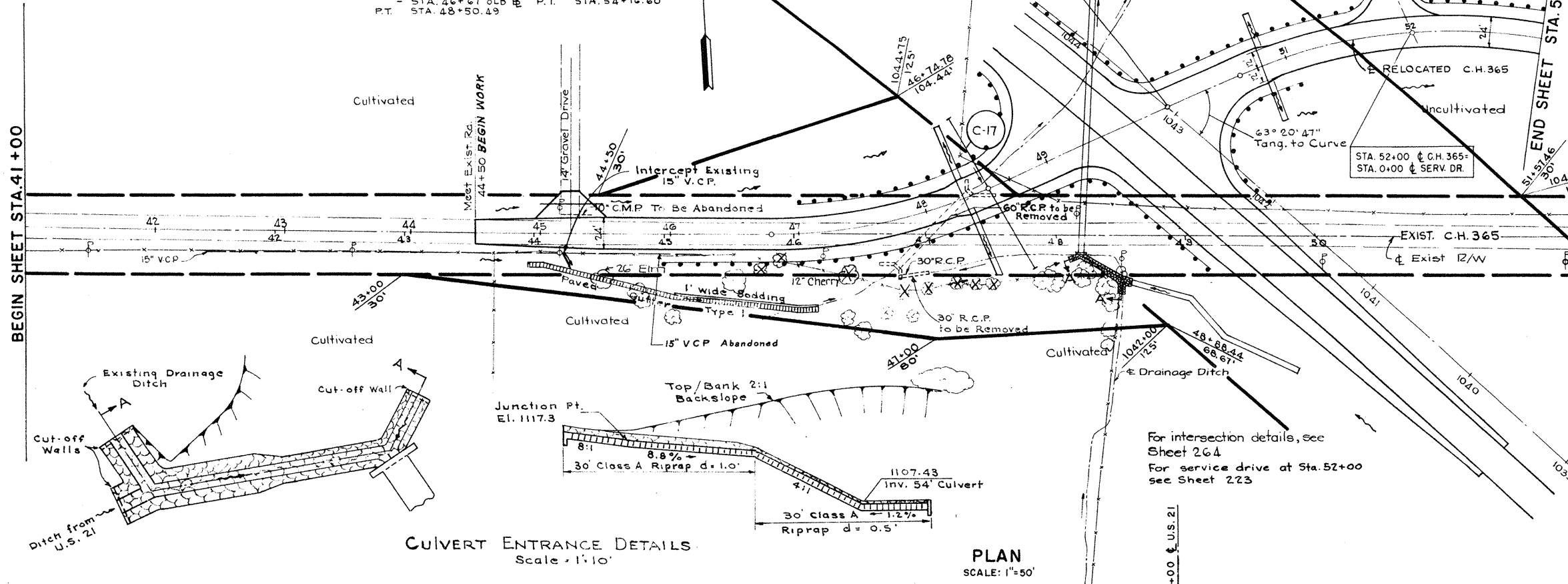
SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
472		98	230	
85	53	124		
772		170	281	
54	39	28		
856		944	65	
100	471	7		
917		931	170	

NOTE: Stationing Shown Above & C.H. 365 is New & Pav + Stationing Shown Below & C.H. 365 is Existing R/W And Coordinates Are Based on that Letter Stationing.

C.H. 365 CURVE DATA

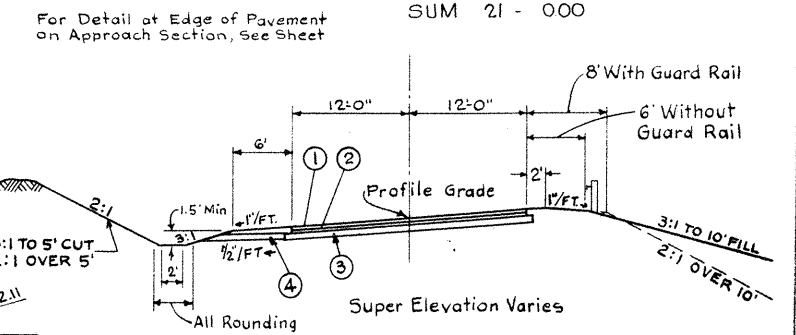
Δ = 24° 04' 35"	Δ = 13° 46' 12"
L = 147.28'	L = 183.84'
P.C. = STA 46+78.51	P.C. = STA 50+61.16
P.T. = STA 47+65.19	P.T. = STA 52+51.00
P.I. = STA 46+67.00	P.I. = STA 54+16.60
P.T. = STA 48+50.49	P.T. = STA 54+16.60

STA. 50+00 @ C.H. 365 = STA. 1043+08.00 @ U.S. 21

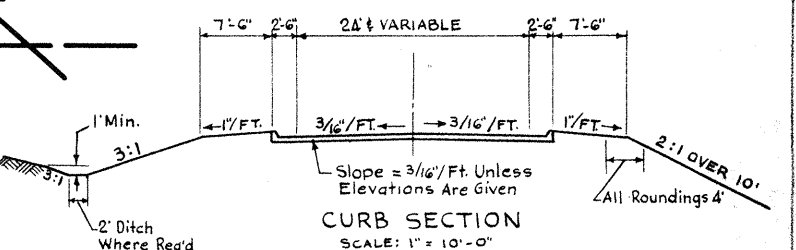


CULVERT ENTRANCE DETAILS Scale: 1" = 10'

PLAN SCALE: 1" = 50'



APPROACH SECTION SCALE: 1" = 10'-0"



CURB SECTION SCALE: 1" = 10'-0"

TYPICAL CROSS ROAD SECTIONS

Note: Pavement and Subbase For Curb Section Same as For U.S. 21 See Sheet 3

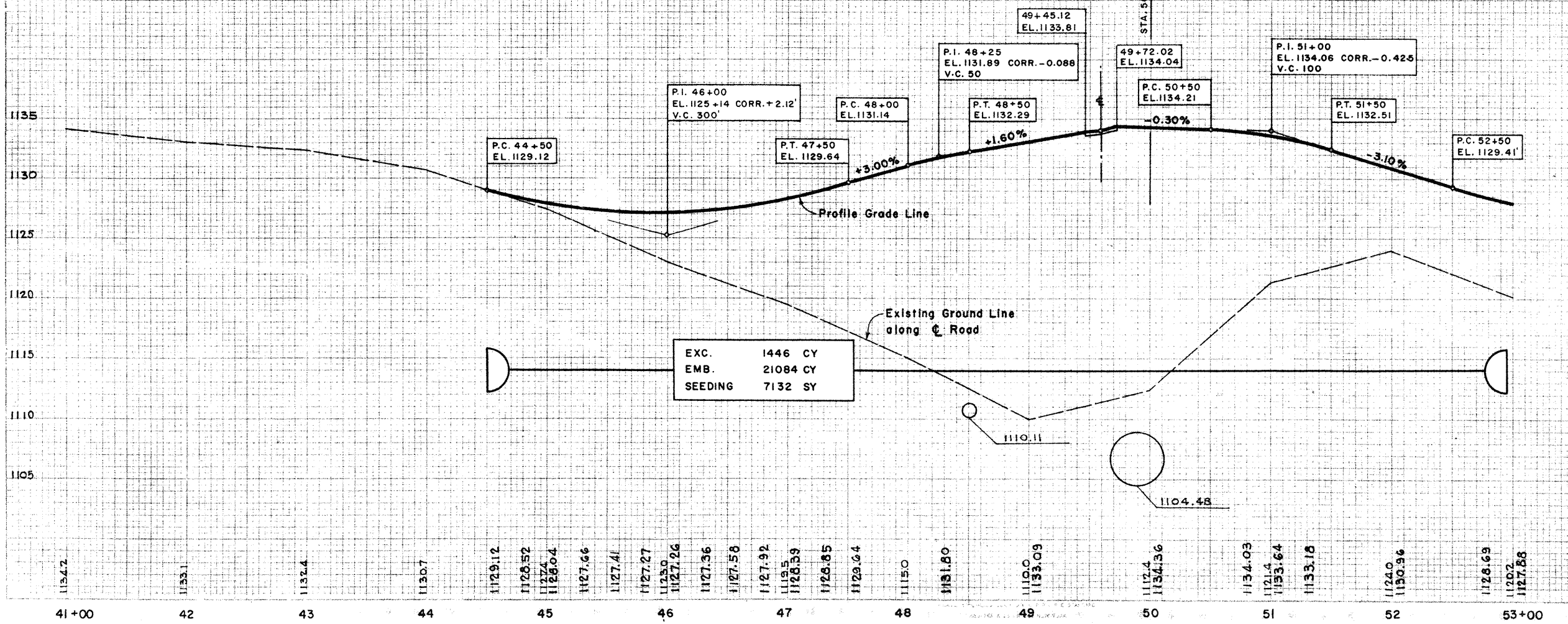
PAVEMENT - APPROACH SECTION

- 1 - T-35 - 1 1/2" Asphaltic Conc. Surface Course, Type A (70-80)
- 2 - B-35 - 2 1/2" Asphaltic Conc. Leveling Course (70-80)
- 3 - B-119 - 8" Crushed Aggregate Base
- 4 - 1-9 - Stone Under Drains, Where Directed by Engineer.

STRUCTURES - 20' SPAN AND UNDER					DETAIL SHEET
MARK	STA.	TYPE	SIZE		
C-16	1043+82	Pipe Culvert	54" x 440'		266
C-17	47+55	Pipe Culvert	15" x 132'		268

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB-TOTAL	TOTAL
ROADWAY							
E-1	Comp. Subgr.	SY	48+30	50+80			938
E-8	Remov & Disp. of Exist. Pavt.	SY	44+50	45+50		200	
E-8	Remov & Disp. of Exist. Pavt.	SY	48+00	49+50		285	
E-8	Remov & Disp. of Exist. Pavt.	SY	51+00	53+00		250	735
I-15	Guard Rail	LF					
I-22	Subbase	CY	48+30	50+80			117
L-10	Sodding - 1' Wide	SY	44+90	47+10	R	25	
L-10	Sodding - 4' Wide	SY	48+35		L&R	40	
L-10	Sodding - 4' Wide	SY	50+83		L&R	30	95
PAVEMENT							
B-119	8" Gravel Base	CY					371
B-119	5" Gravel Base Drive Pavt.	CY	45+25		L		11
B-35	2 1/2" Asphaltic Conc. Leveling	CY					111
T-30	Bit Prime	GAL					670
T-30	Bit Prime Drive Pavt.	GAL	45+25		L		30
T-35	1 1/2" Asphaltic Conc. Surf	CY					67
T-35	2" Asphaltic Conc. Surf for Drive	CY	45+25		L		4
T-71	9" R.C. Pavt.	SY	48+30	50+80			938
I-12	Type 2A Curb	LF					430
DRAINAGE							
E-12	60" Pipe Removed for Storage	LF	47+70	48+37	L&R		81
E-12	30" Pipe Removed for Storage	LF	47+70	47+92	R		24
I-1	12" Pipe for Driveway	LF	45+00	45+50	L		50
I-14	Paved Gutter Type 1	LF	44+90	47+10	R		220
I-9	Stone Drains No. 2	LF	44+50	48+00	L&R	110	
I-9	Stone Drains No. 2	LF	51+00	53+00	L&R	80	190
I-3	15" Roadway Drainage	LF	45+15±	45+25±	R		10
I-3	15" Outlet	LF	45+25±		R		10
I-13	15" 90° Bend	Ea.	45+15±		R		1
S-24	Remove Endwalls for 60" Pipe	LS	47+70	47+87	L&R		1.5
I-15	Guard Rail	LF	46+95.91	1044+34.49	L		234.49
I-15	Guard Rail	LF	45+97.12	1042+99.41	R		364.51
I-15	Guard Rail	LF	1042+00	51+14.14	R		150.00
I-15	Guard Rail	LF	1043+52.29	51+42	L		125.86
I-15	Guard Rail	LF	52+29	53+00	L		71.00
							945.88



PREPARED AND RECOMMENDED BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

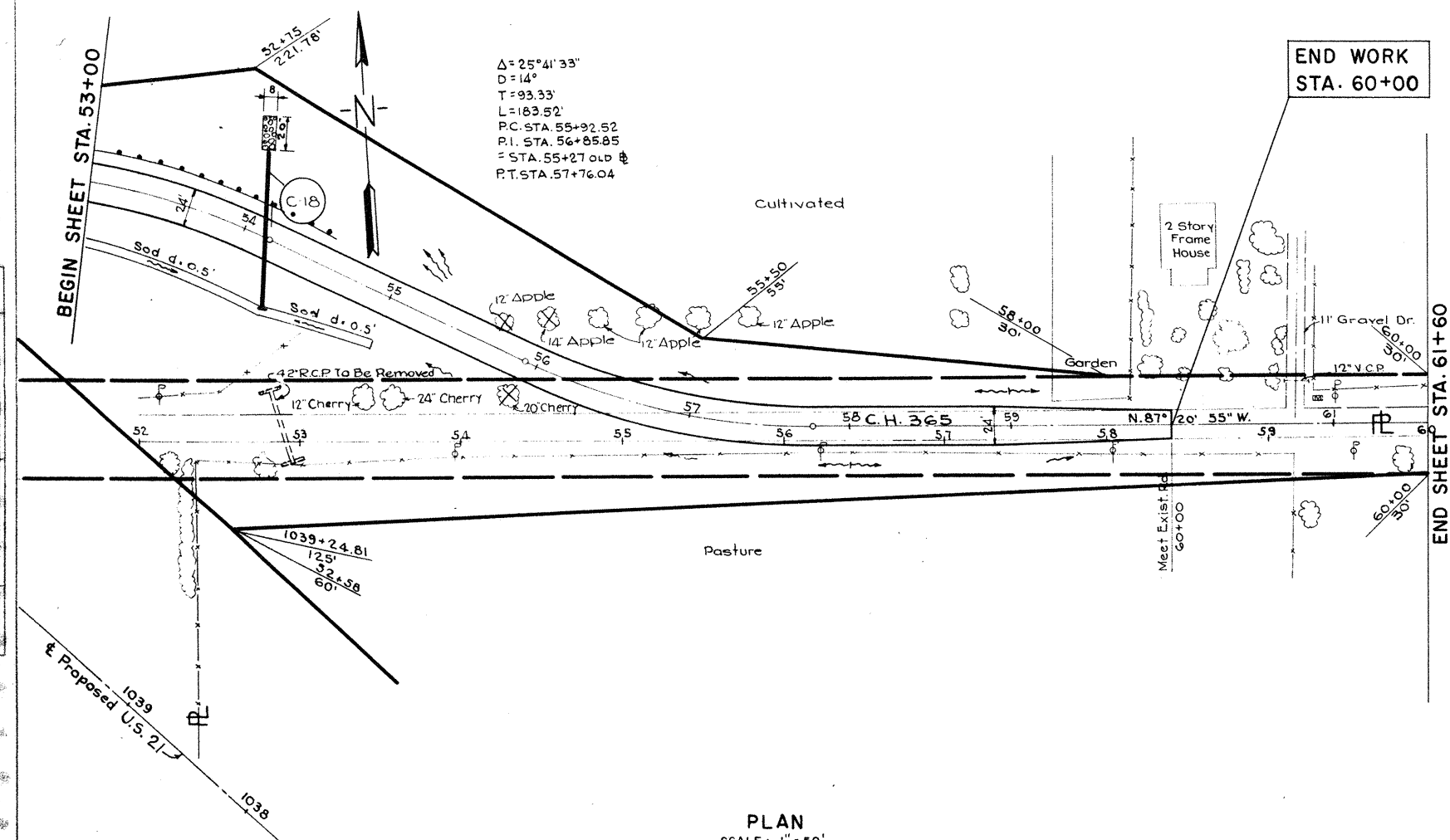
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

220
329

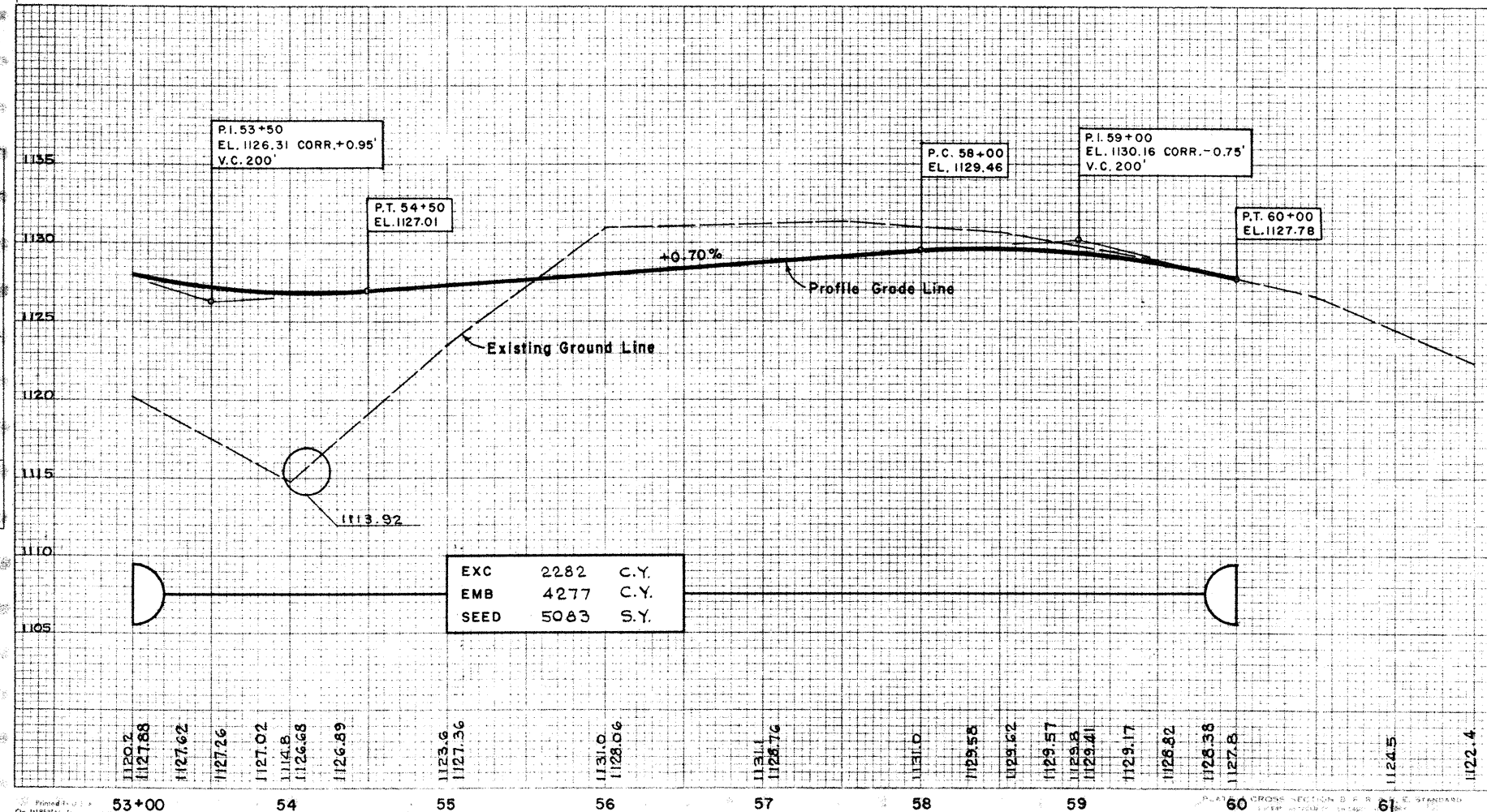
STA. 21 - 17.80
WAY 21 - 0.00
SUM - 21 - 0.00

STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C 18	54+12	Pipe Culvert	36" x 98"	268

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
E-8	Remov. & Disp. of Exist. Pavt.	SY	53+00	60+00		1280
I-15	Guard Rail	LF	53+00	54+42.3	L	142.3
L-10	Sodding 5' Wide	SY	53+00	55+00	R	110
PAVEMENT						
B-119	8" Gravel Base	CY				435
B-35	2 1/2" Asph. Conc. Base	CY				132
T-30	Bit Prime	GAL				680
T-35	1/2" Asph. Conc Surf	CY				78
DRAINAGE						
E-12	42" Pipe Removed for Storage	LF	54+57	54+87	R	48
I-2	6" Storm Sewer A Under Pavt.	LF	55+00	55+25	L to R	36
I-9	Stone Drains No 2	LF	55+50	60+00	L to R	220
S-24	Remove Endwalls for 42" Culvert	LS	54+57	& 54+87	R	LS

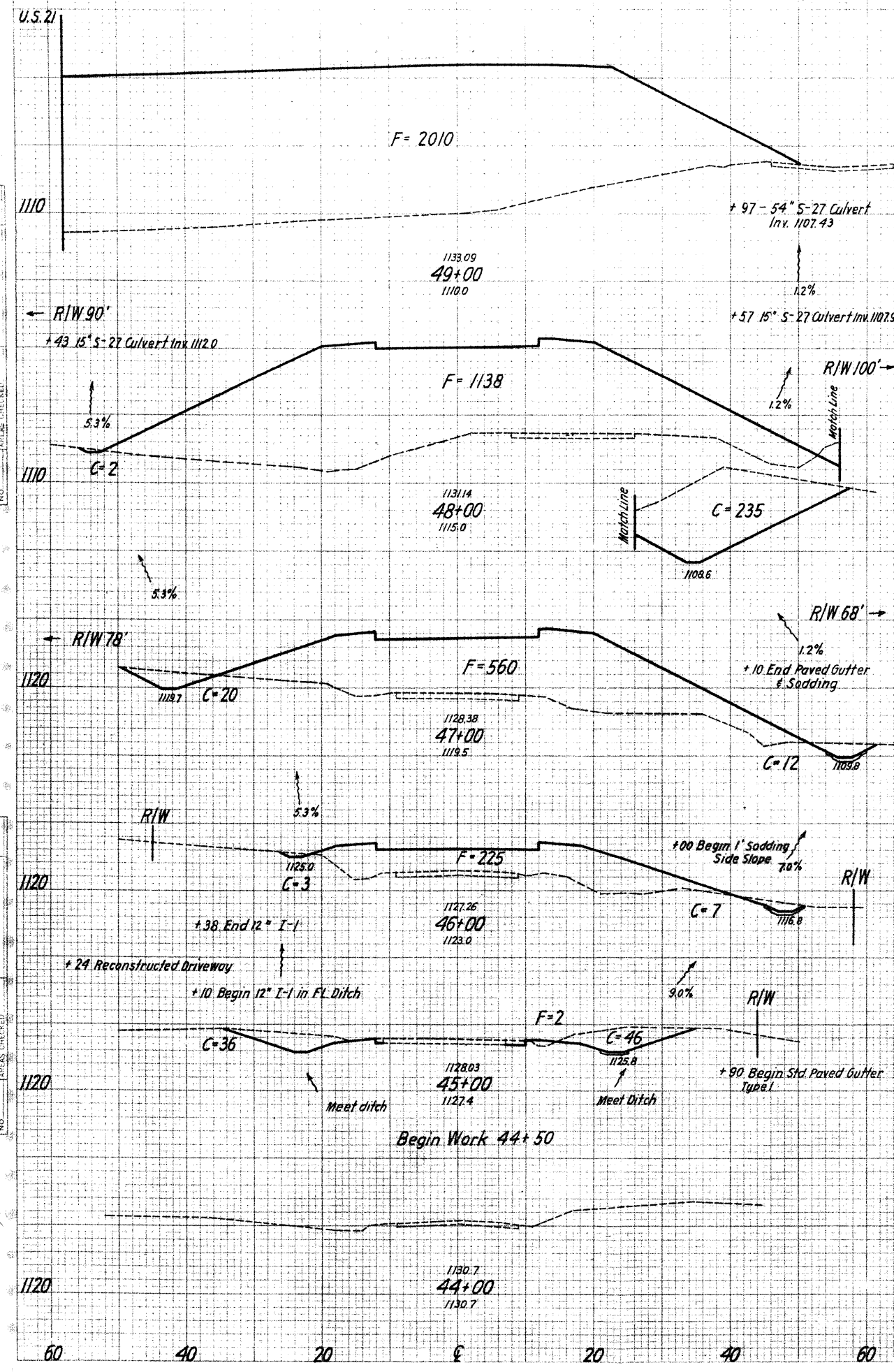


PLAN
SCALE: 1" = 50'

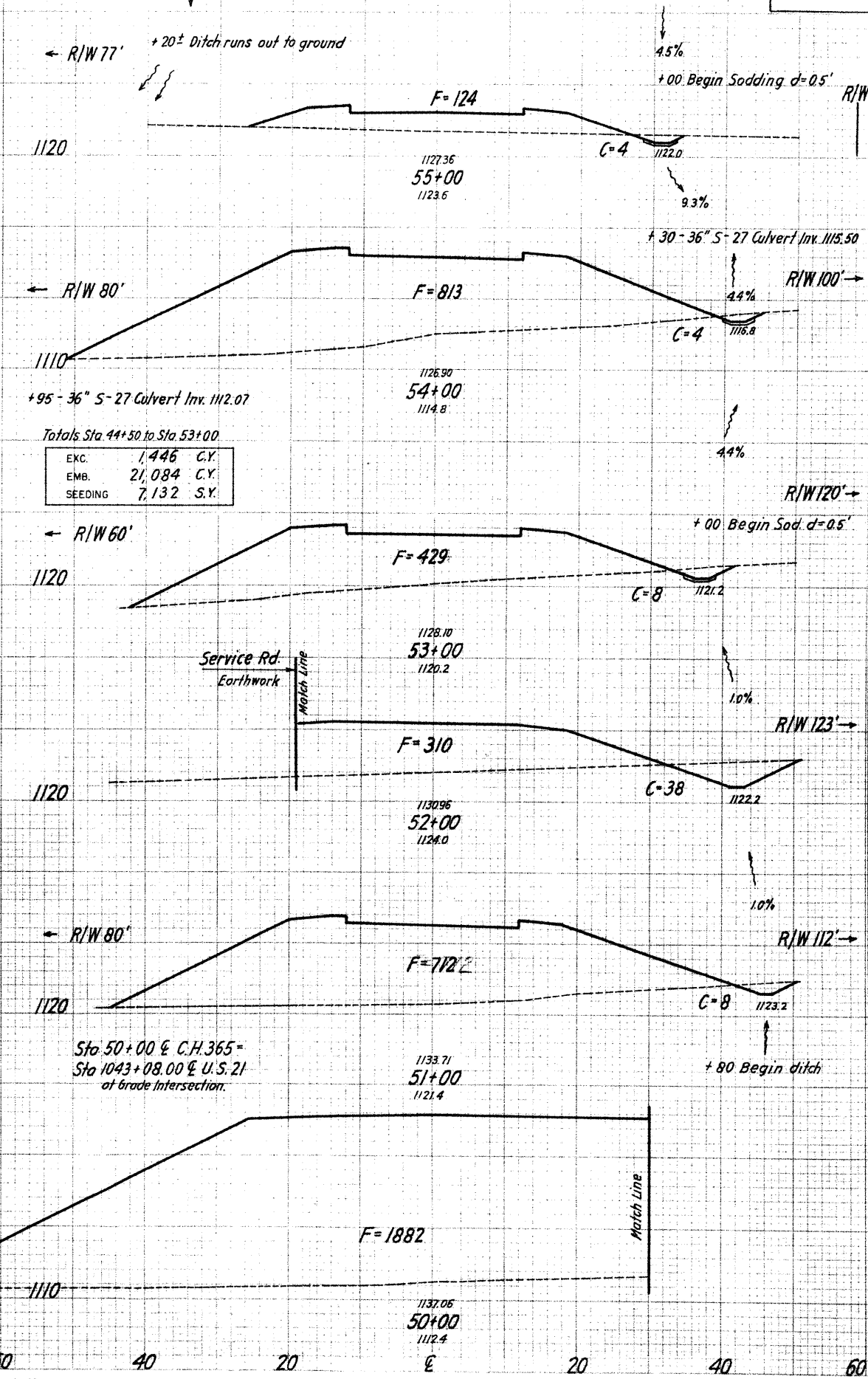


PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING Lin. Ft.	END AREA Sq. Yds.	CU. YDS.	
		CUT	FILL
40		2020	
1540		439	5848
152	237	1138	
1478		498	3144
114	32	560	
1056		78	1454
76	10	225	
794		170	420
67	82	2	
186		76	2



SEEDING Lin. Ft.	END AREA Sq. Yds.	CU. YDS.	
		CUT	FILL
59	4	124	
883		15	1735
100	4	813	
1028		22	2300
85	8	429	
587		85	1369
54	38	310	
533		85	1893
97	8	712	
753		15	4822
74		1892	
205			2132

Totals Sta 44+50 to Sta 53+00
 EMB. 1,446 C.Y.
 EMB. 21,084 C.Y.
 SEEDING 7,132 S.Y.

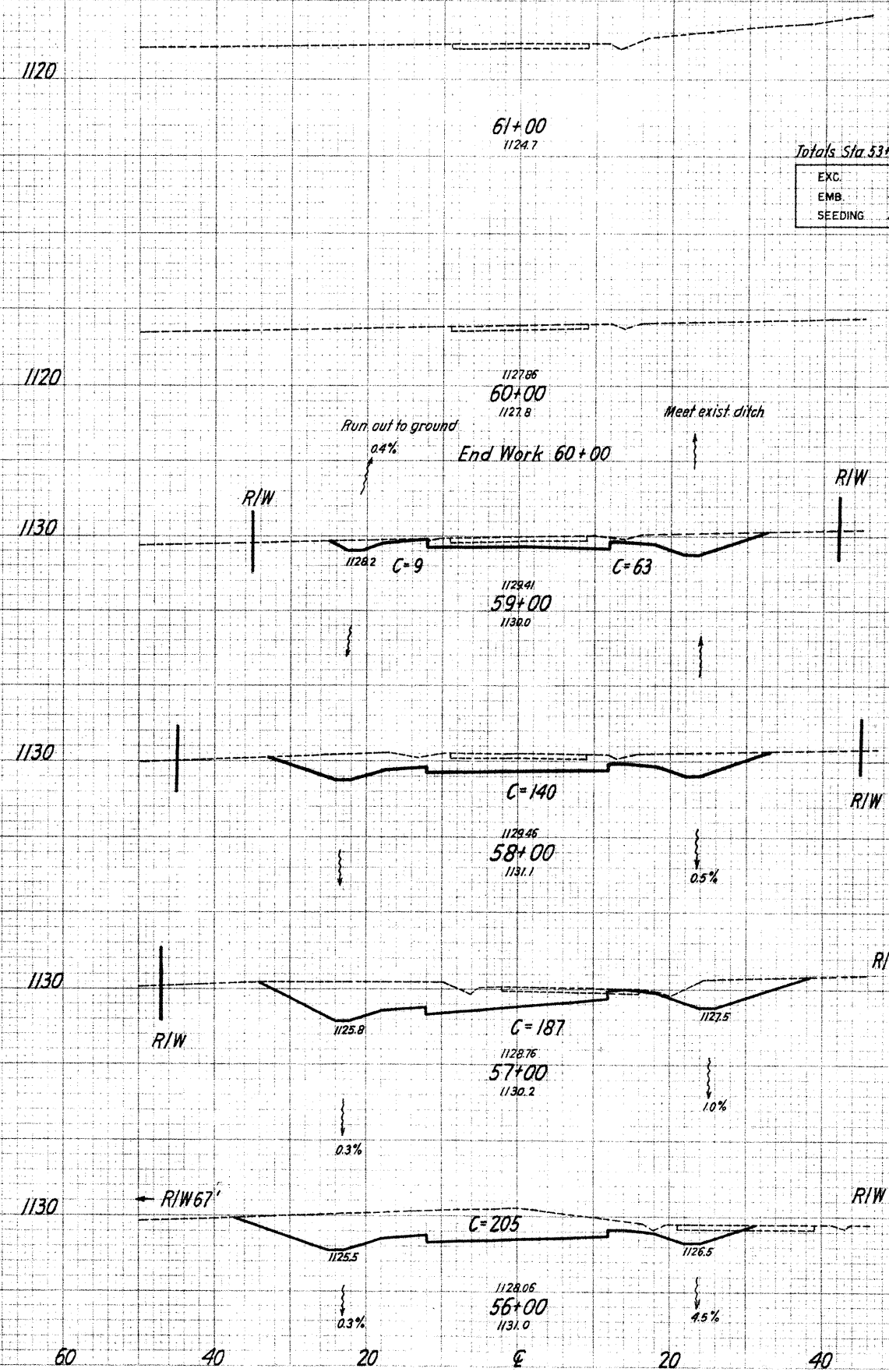
Sta 50+00 & C.H. 365 -
 Sta 1043+08.00 & U.S. 21
 at grade intersection.

FINAL SURVEY PLOTTED
 BY DATE
 CHECKED
 NO.

FINAL SURVEY PLOTTED
 BY DATE
 CHECKED
 NO.

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

FINAL SURVEYED SURVEYED SURVEYED SURVEYED
NO. 1000 1000 1000 1000
NOTE BOOK AREAS AREAS AREAS AREAS
NO. 1000 1000 1000 1000
AREAS CHECKED

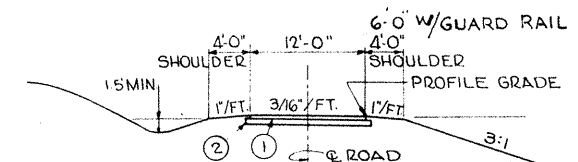
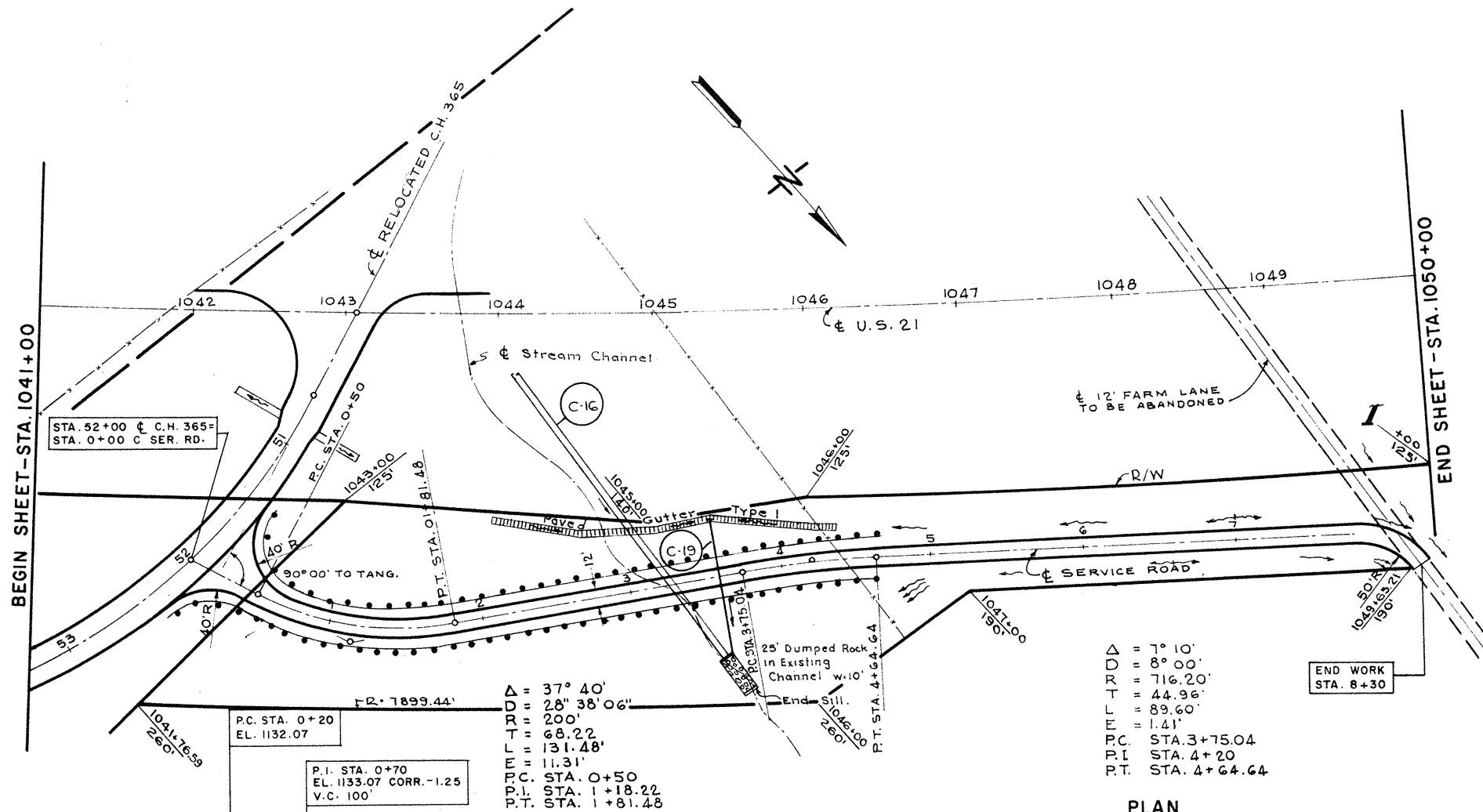


Totals Sta 53+00 to Sta 60+00

EXC.	2,282 C.Y.
EMB.	4,277 C.Y.
SEEDING	5,083 S.Y.

Sta.	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
55+00	66		205		387	242
57+00	70		187		726	
58+00	64		140		606	
59+00	56		72		393	
60+00	311		133			

STA - 21-17.80
WAY - 21-0.00
SUM - 21-0.00



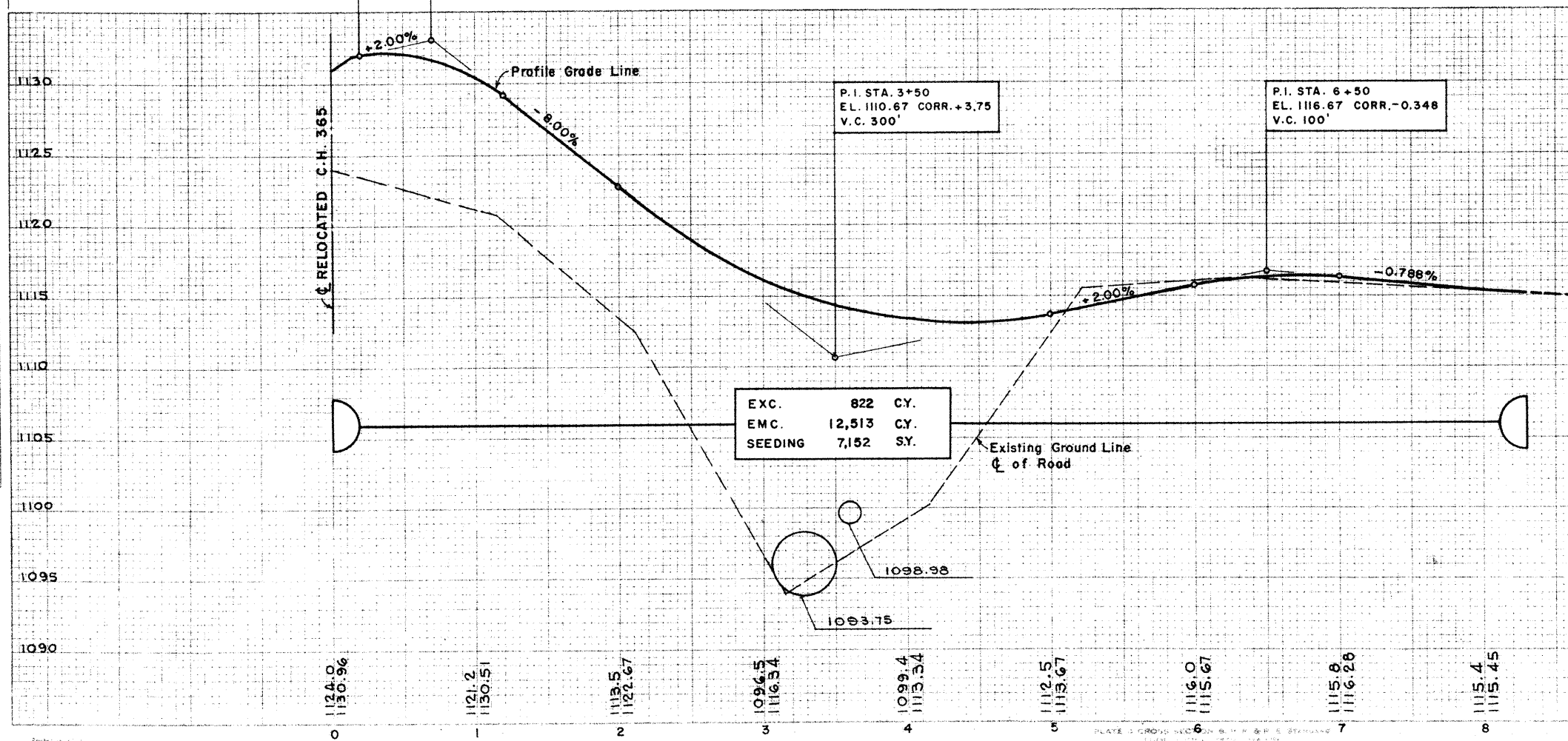
TYPICAL SECTION - SERVICE ROAD
SCALE 1" = 10'-0"

- ① T-35 2" ASPHALTIC CONCRETE SURFACE, TYPE 'A'(70-80)
- ② B-119 8" CRUSHED AGGREGATE BASE COURSE

STATION 0+15 TO 8+30 = 815 LIN. FT.

STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-16	1043+82	Pipe Culvert	54" x 440'	268
C-19	beg. 20' C.H. 365	Pipe Culvert	18" x 92'	268

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
PAVEMENT						
B-119	8" Gravel Base	CY				265
T-30	Bit Prime	GAL				420
T-35	2" Asph. Conc. Surf	CY				61
DRAINAGE						
I-14	Paved Gutter Type I	L.F.	2+20	4+40	L	220
ROADWAY						
I-15	Guard Rail	L.F.	51+42	4+64.70	L	449.20
I-15	Guard Rail	L.F.	52+29	4+64.70	L	461.70
						910.90

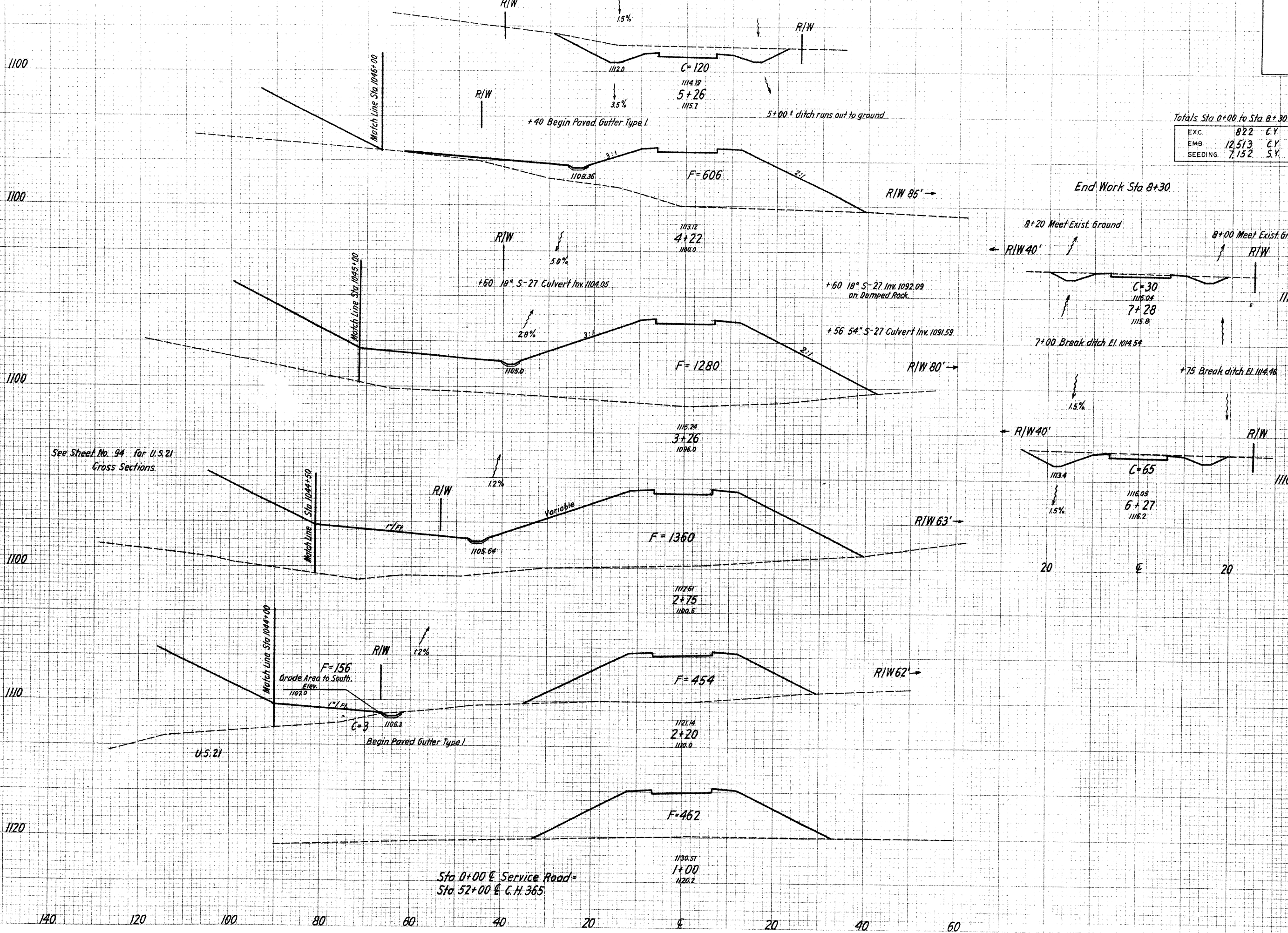


PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

224
329

STA - 21 - 17.80
WAY - 21 - 0.00
NUM - 21 - 0.00



Totals Sta 0+00 to Sta 8+30

EXC.	822 C.Y.
EMB.	12,513 C.Y.
SEEDING	7,152 S.Y.

Sta	SEEDING		END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
0+00	60		120			
7+28	965			231	1167	
7+28-8+30	272			57		
8+30	673		606			
7+28	48		30		3353	
7+28	1189			178		
7+28	606		1280			
6+27	60	677	65		2493	
7+28	123		1360			
7+28	752			3	2006	
7+28	123		3	610		
7+28	1340			7	2382	
7+28	78		462			
7+28	678				1112	

FINAL SURVEY NOTE BOOK NO. 10441-50

DATE BY

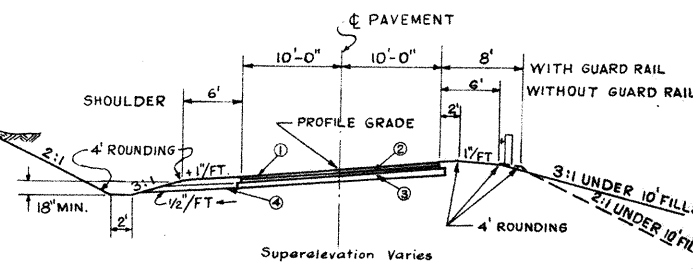
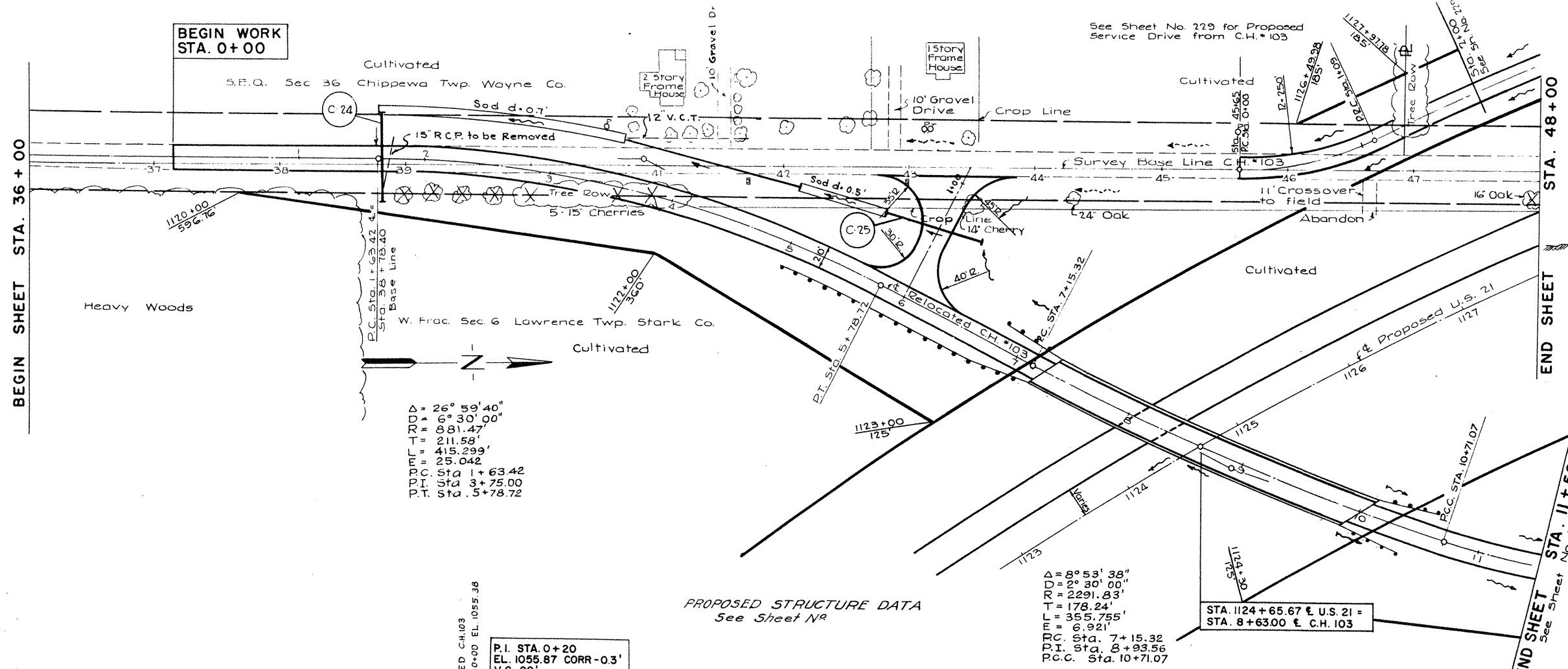
NO. 10441-50

See Sheet No. 94 for U.S. 21 Cross Sections.

Sta 0+00 & Service Road =
Sta 52+00 & C.H. 365

STA. -21 - 17.80
WAY. -21 - 0.00
SUM. -21 - 0.00

Sta. 0+00 to Sta. 7+10.30 = 710.30 L.F.
Sta. 10+15.95 to Sta. 11+50.0 = 134.05 L.F.
Total = 844.35 L.F.



- ① T-35 1 1/2" Asphaltic Concrete Surface Course Type A (70-80)
- ② B-35 2 1/2" Asphaltic Concrete Leveling Course (70-80)
- ③ B-119 8" Crushed Aggregate Base Course
- ④ I-9 8" Stone Underdrains - where directed by Engineer

STRUCTURES-20' SPAN AND UNDER

MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-24	1+65	Pipe Culvert	18" x 70	2CB
C-25	10+15.95	Pipe Culvert	15" x 80	2CB

PROPOSED STRUCTURE DATA
See Sheet NR

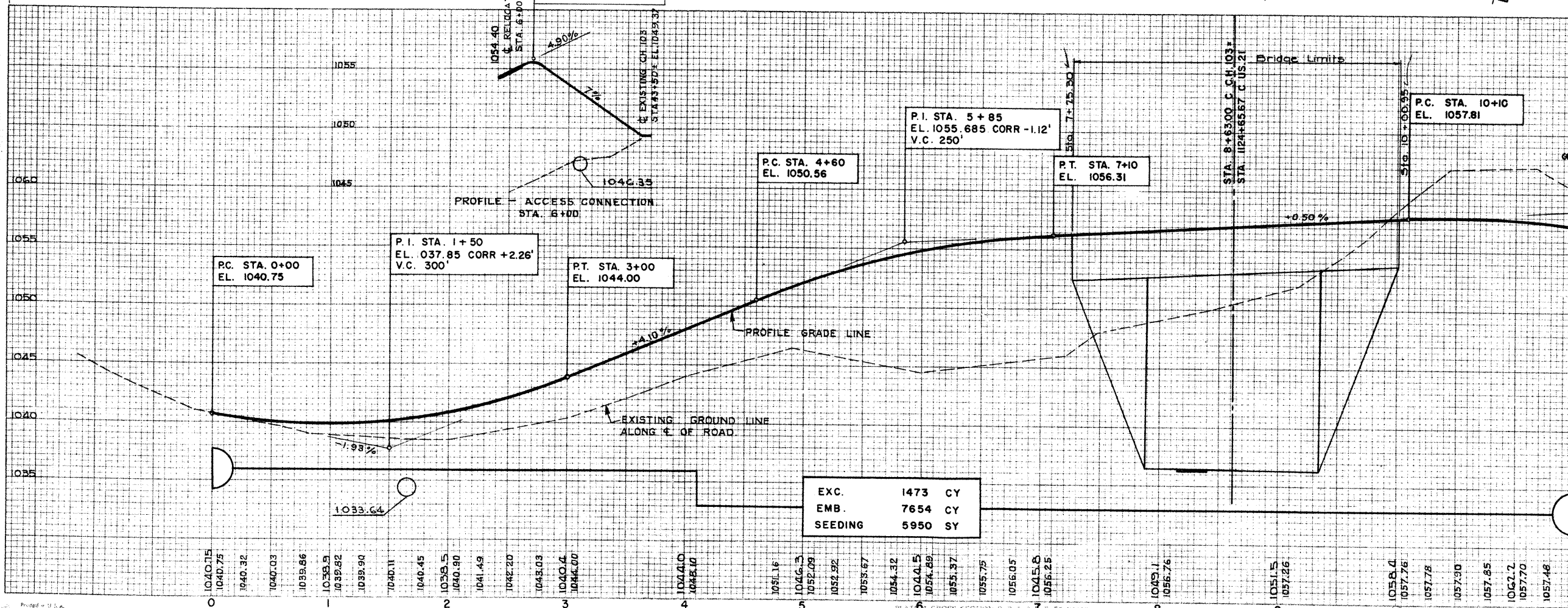
Δ = 8° 53' 38"
TRD = 29' 30' 00"
TR = 2291.83'
TL = 178.24'
L = 355.755'
EMR = 6.92'
P.C. Sta. 7+15.32
P.I. Sta. 8+93.56
P.C.C. Sta. 10+71.07

Δ = 26° 59' 40"
TRD = 6' 30' 00"
TR = 881.47'
TL = 211.58'
L = 415.299'
EMR = 25.042'
P.C. Sta. 1+63.42
P.I. Sta. 3+75.00
P.T. Sta. 5+78.72

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB TOTAL	TOTAL
ROADWAY							
E-8	Rem. & Disp. Ex. Pavt.	S.Y.	37+15	39+15		400	400
E-8	Rem. & Disp. Ex. Pavt.	S.Y.	45+65	48+00		525	925
I-15	Guard Rail	L.F.	4+97.5	7+10	R	212.5	
I-15	Guard Rail	L.F.	6+80	7+30	L	50	
I-15	Guard Rail	L.F.	10+16	10+56	R	50	
I-15	Guard Rail	L.F.	9+94	10+44	L	50	307.5
L-10	Sodding 6' Wide	S.Y.	1+65	3+50		125	
L-10	Sodding 5' Wide	S.Y.	4+90	5+55		35	160
PAVEMENT							
B-119	8" Gravel Base	CY				460	
B-35	2 1/2" Asph. Conc. Base	CY				140	
T-30	Bit. Prime	Gal.				750	
T-35	1 1/2" Asph. Conc. Surf.	CY				89	
I-7	R.C. Appr. Slabs T-10	S.Y.	7+10.30	7+25.30		33.3	
I-7	R.C. Appr. Slabs	S.Y.	9+85.95	10+00.95		33.3	67
T-30	Tack Coat	Gals				7	
DRAINAGE							
E-2	15" Pipe to be Removed for Storage	L.F.	1+70	5+90	Across	34	
I-1	15" Pipe Under Drives	L.F.	3+50	5+90	L	140	
I-9	Stone Drains No. 2	L.F.	0+00	7+00	L & R	220	
I-9	Stone Drains No. 2	L.F.	10+00	11+50	L & R	50	270

(*) T-30 tack coat to be applied @ 0.1 gal. per sq. yd. See notes in proposal.



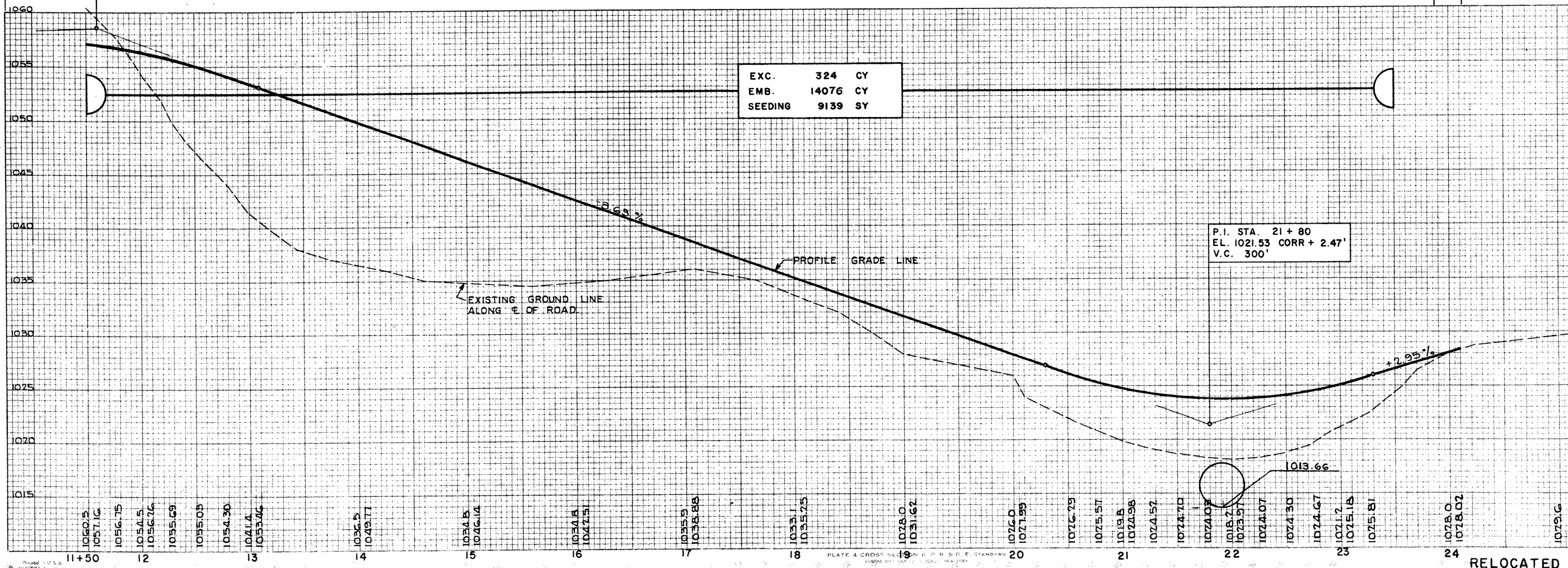
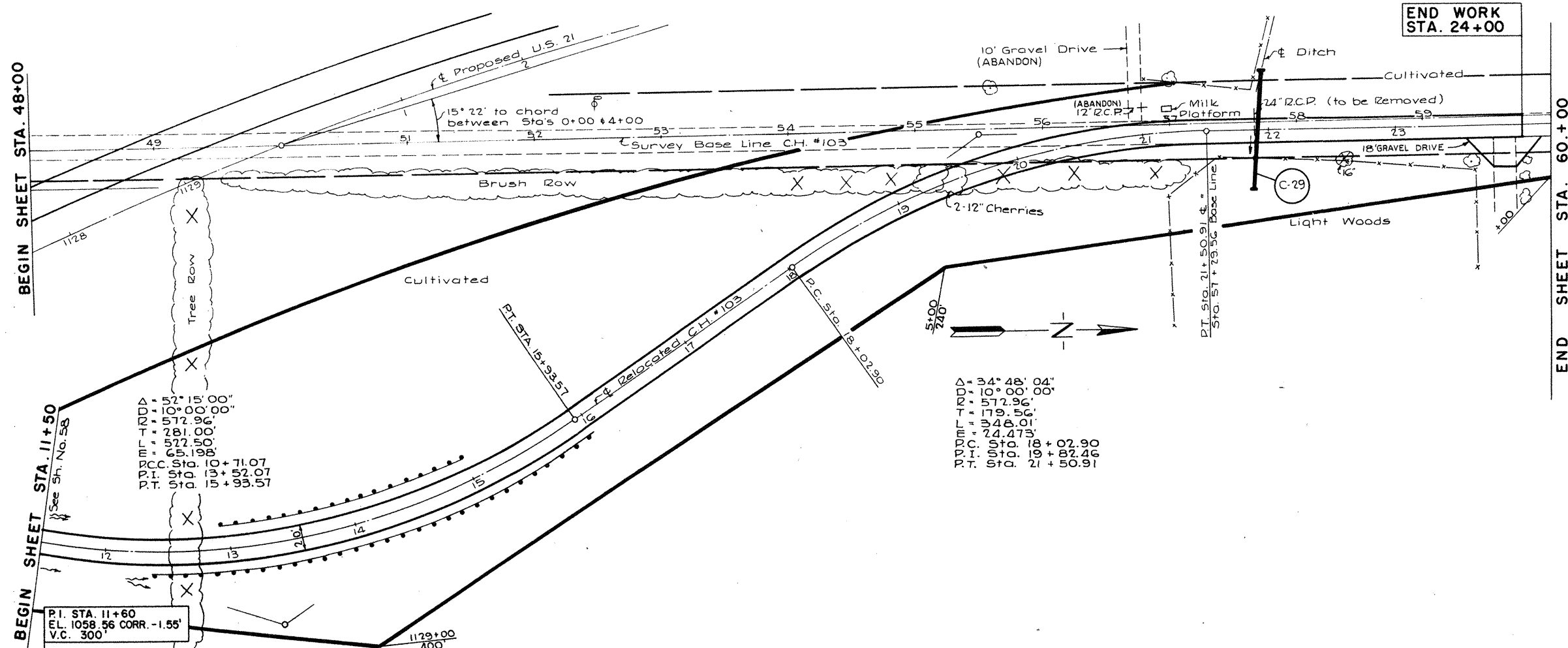
EXC. 1473 CY
EMB. 7654 CY
SEEDING 5950 SY

PREPARED AND RECOMMENDED
BY
CHARLES E. DELEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

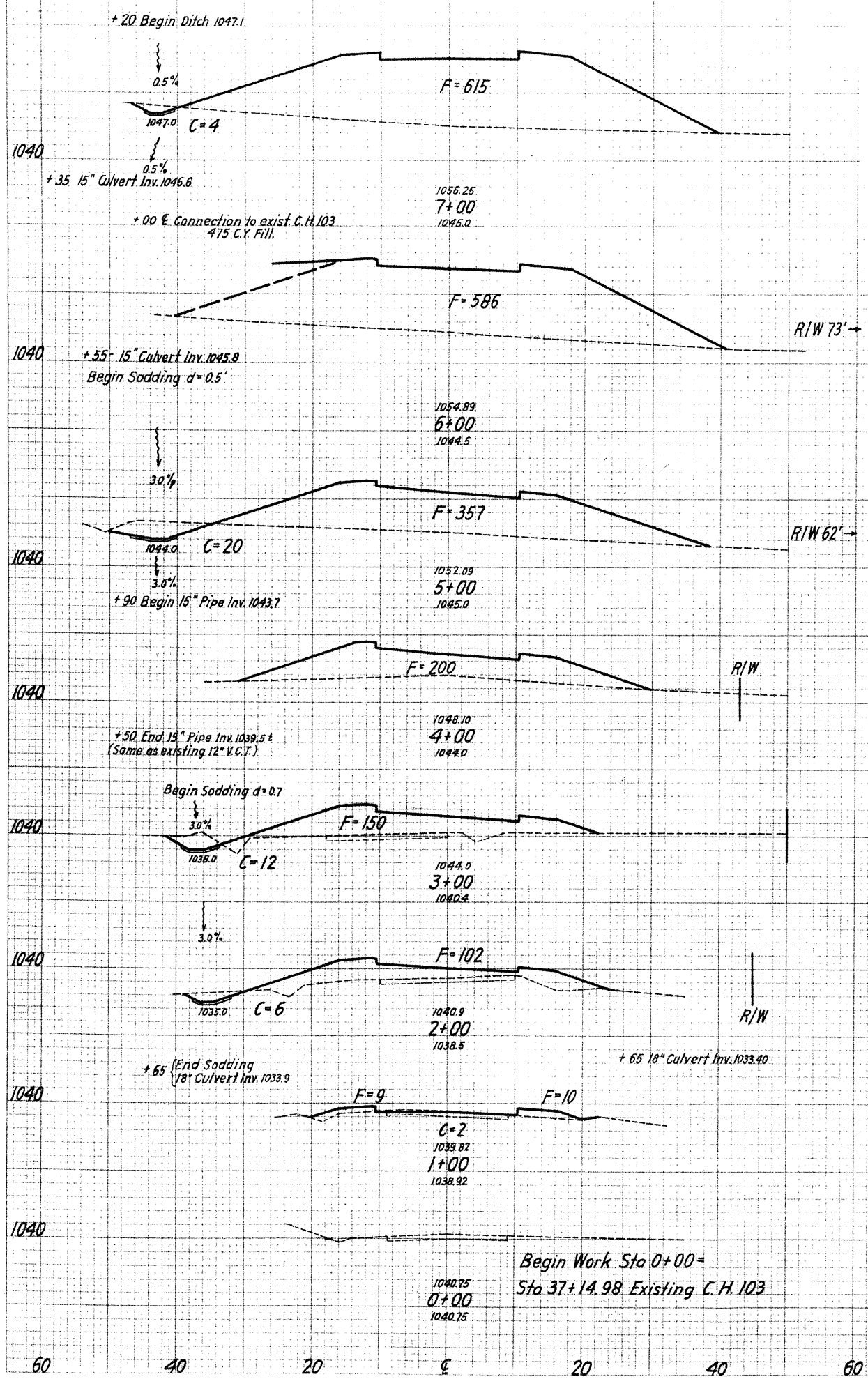
STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-29	21+82	Pipe Culvert	48' x 96'	268

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
E-8	Remov & Disp. of Exist. Pavt.	SY	48+00	56+80		1850
E-8	Remov & Disp. of Exist. Pavt.	SY	58+80	59+80		210
I-15	Guard Rail	LF	12+95	15+07.5	L	212.5
I-15	Guard Rail	LF	12+40	16+00	R	362.5
PAVEMENT						
B-119	6" Gravel Base	CY			L	650
B-119	5" Gravel Base for Drive	CY	23+85			30
B-35	2 1/2" Asph. Conc. Base	CY				217
T-30	Bit Prime for Drive	GAL			L	1020
T-30	Bit Prime for Drive	GAL	23+85			120
T-35	1 1/2" Asph. Conc. Surf	CY			L	116
T-35	2" Asph. Conc. Surf for Drive	CY	23+85			4
I-9	Stone Drains No. 2	LF	11+50	24+00	L+R	380
E-12	24" Pipe to be removed for storage	LF	21+88		Across	34

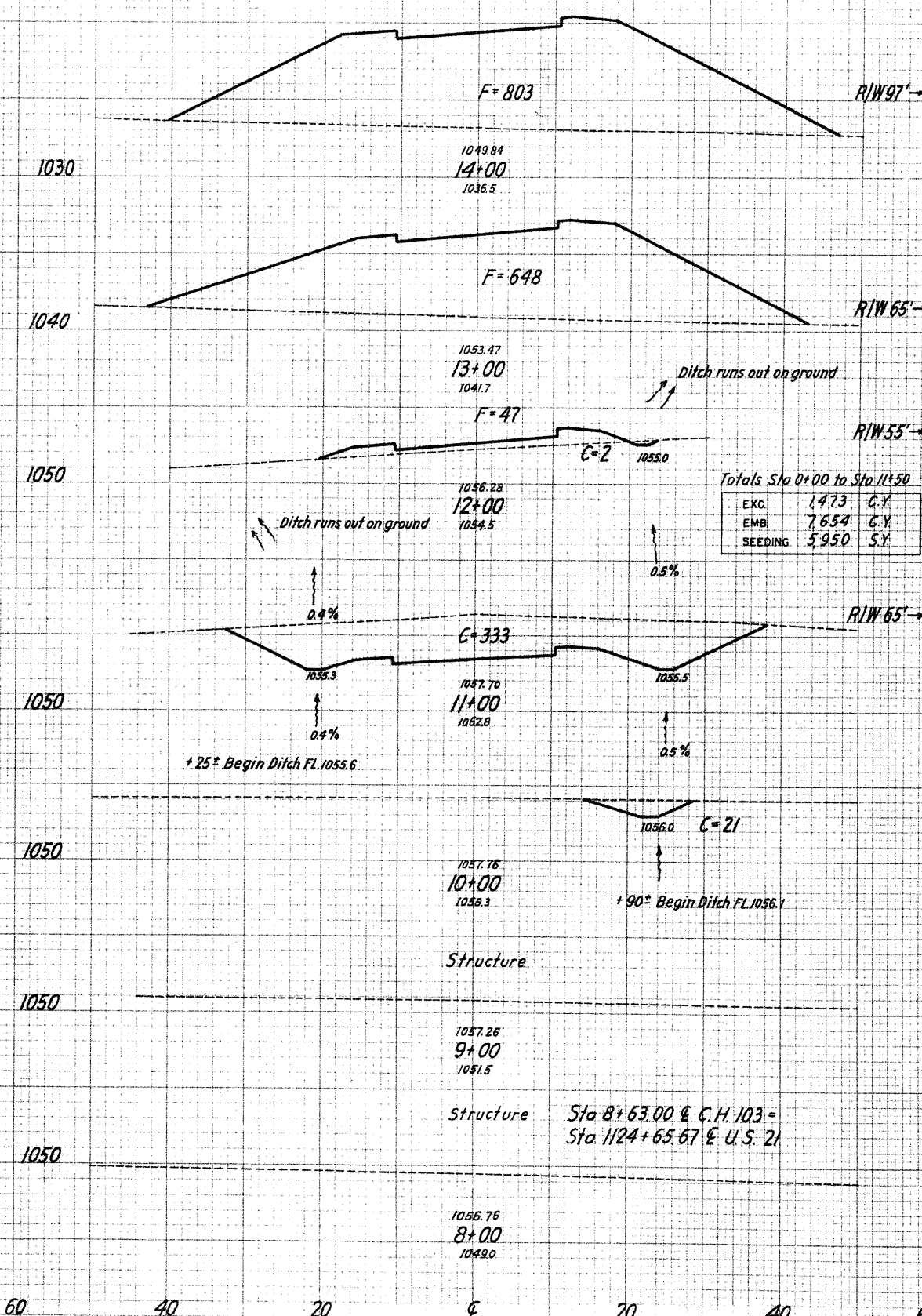


PREPARED AND RECOMMENDED BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Lin. Ft.	Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
91		4	615		
944				7	2224
43		586			475
900				37	1746
86		20	357		
822				37	1031
62		200			
711				22	648
66		12	150		
733				33	467
66		6	102		
583				15	224
39		2	19		
56				4	35
293					
3					760



Lin. Ft.	Sq. Yds.	END AREA		CU. YDS.	
		CUT	FILL	CUT	FILL
92			803		
1011					2687
90					648
744					4
44		2	47		
656					620
74		333			87
740					987
25		21			
					8
293					
3					760

Totals Sta 0+00 to Sta 11+50

Exc.	1,473	C.Y.
Emb.	7,654	C.Y.
Seeding	5,950	S.Y.

FINAL SURVEY NOTE BOOK AREAS CHECKED

DATE BY ORIGINAL SURVEY NOTE BOOK AREAS CHECKED

SUM - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

1030

F=98

1028.06
20+00
1026.0

RIW 75' →

SEEDING		END AREA		CU. YDS.	
Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
			98		
	606			433	
			136		
	550			363	
			60		
	539			337	
			122		
	739			985	
			410		
	956			2046	
			695		
	1028			2774	

1030

F=136

1031.69
19+00
1028.0

RIW 62' →

Totals: Sta 11+50 to Sta 24+00
EXC. 324 C.Y.
EMB. 14,076 C.Y.
SEEDING 9,139 S.Y.

End Work Sta 24+00 = Sta 59+78.65 Existing C.H. 103

1030

F=60

1035.32
18+00
1033.3

RIW 68' →

1020

1028.02
24+00
1028.0

RIW 43' →

300

269

1030

F=122

1038.95
17+00
1035.8

RIW 65' →

1020

F=145

RIW 57' →

54

145

1030

F=410

1042.58
16+00
1034.8

RIW 63' →

1020

F=426

RIW 70' →

87

426

1030

F=695

1046.21
15+00
1034.8

RIW 70' →

1020

F=234

RIW 79' →

70

234

1024.99
21+00
1020.0

683

615

60 40 20 € 20 40 60

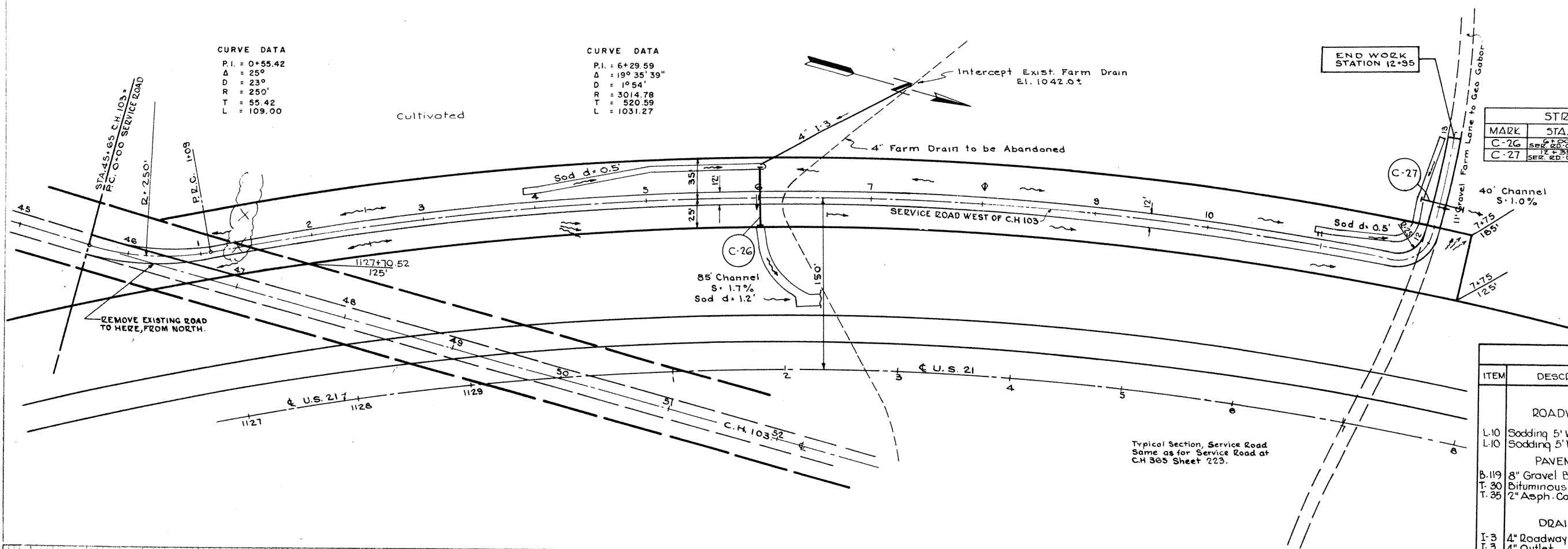
60 40 20 € 20 40 60

STA-21-17.80
WAY-21-0.00
SUM-21-0.00

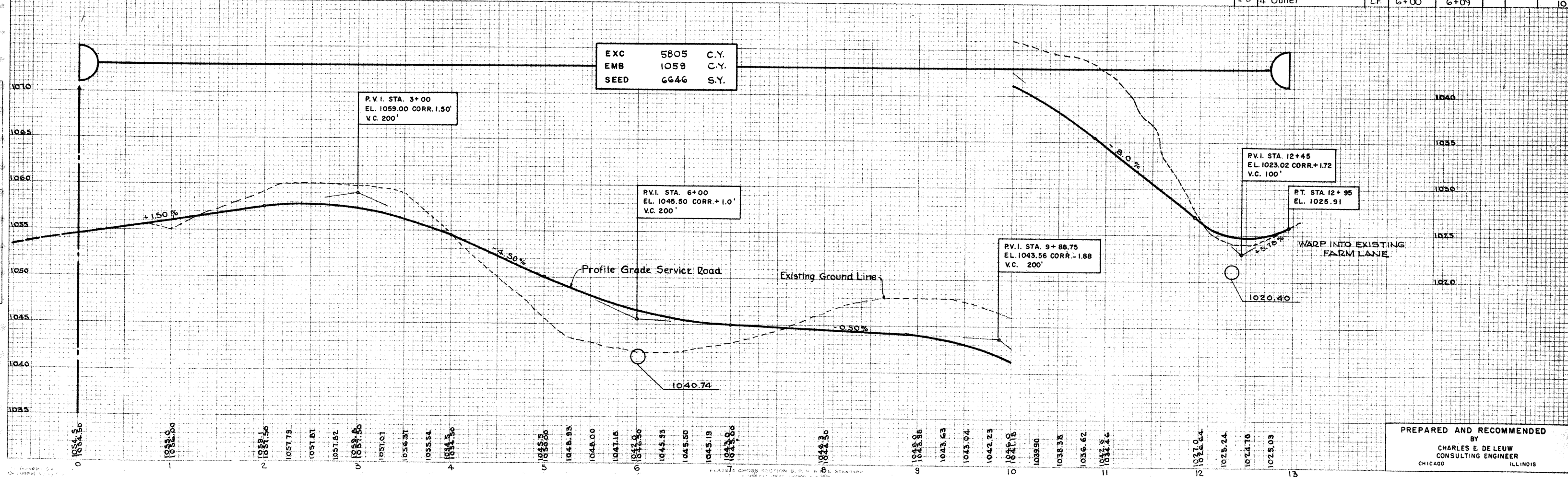
CURVE DATA
P.I. = 0+55.42
Δ = 25°
D = 230'
R = 250'
T = 55.42
L = 109.00

CURVE DATA
P.I. = 6+29.59
Δ = 19° 35' 39"
D = 1° 54'
R = 3014.78
T = 520.59
L = 1031.27

STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-26	SERV. RD. C.H. 103	Pipe Culvert	18" x 50'	268
C-27	SERV. RD. C.H. 103	Pipe Culvert	18" x 38'	268



ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
L-10	Sodding 5' Wide	SY.	3+90	6+00	L	115
L-10	Sodding 5' Wide	SY.	10+90	12+95	L	115
PAVEMENT						
B-119	8" Gravel Base	CY.				336
T-30	Bituminous Prime	Gal.				530
T-35	2" Asph. Conc. Surf.	CY.				79
DRAINAGE						
I-3	4" Roadway Drainage	LF.	6+09	7+37		140
I-3	4" Outlet	LF.	6+00	6+09		10



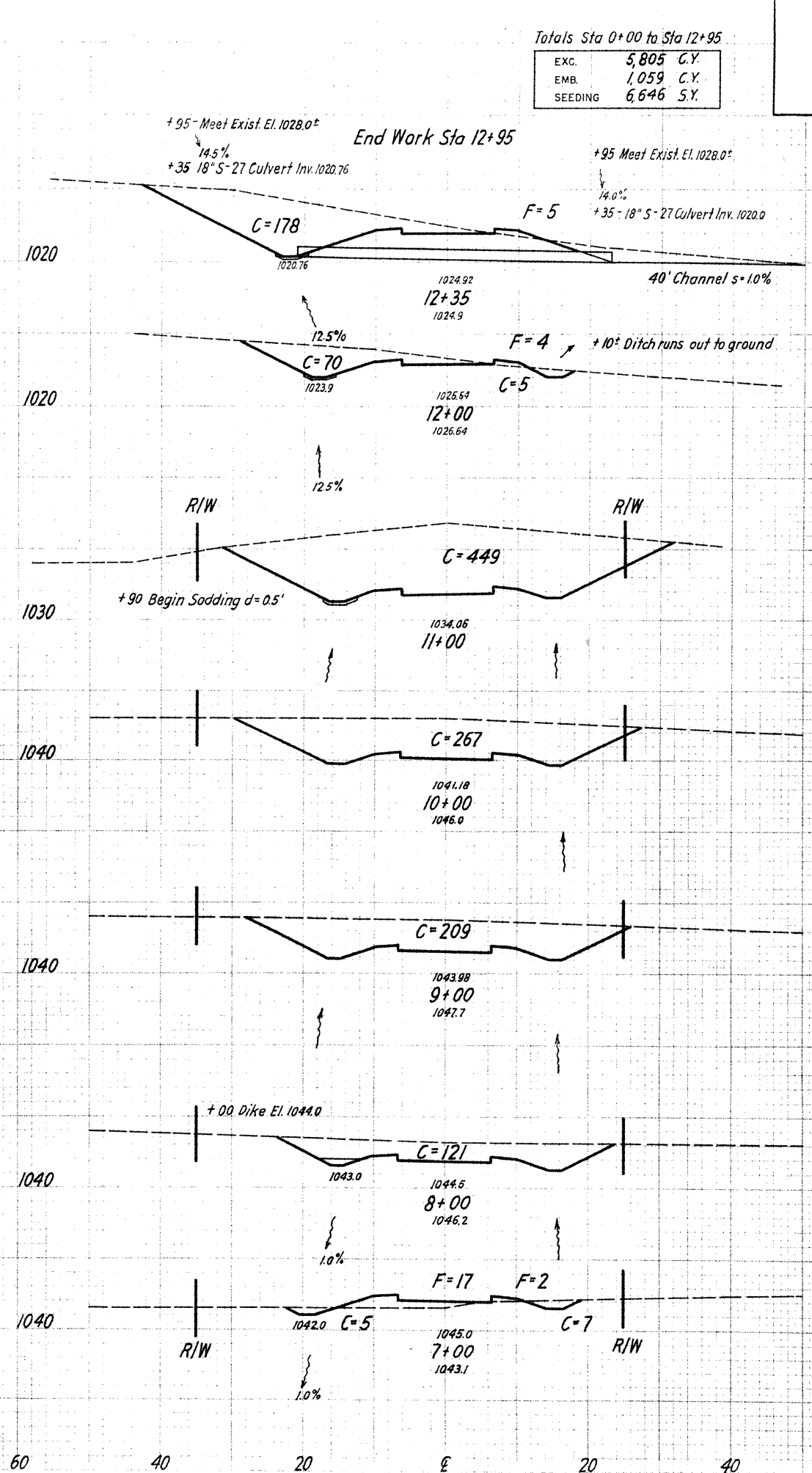
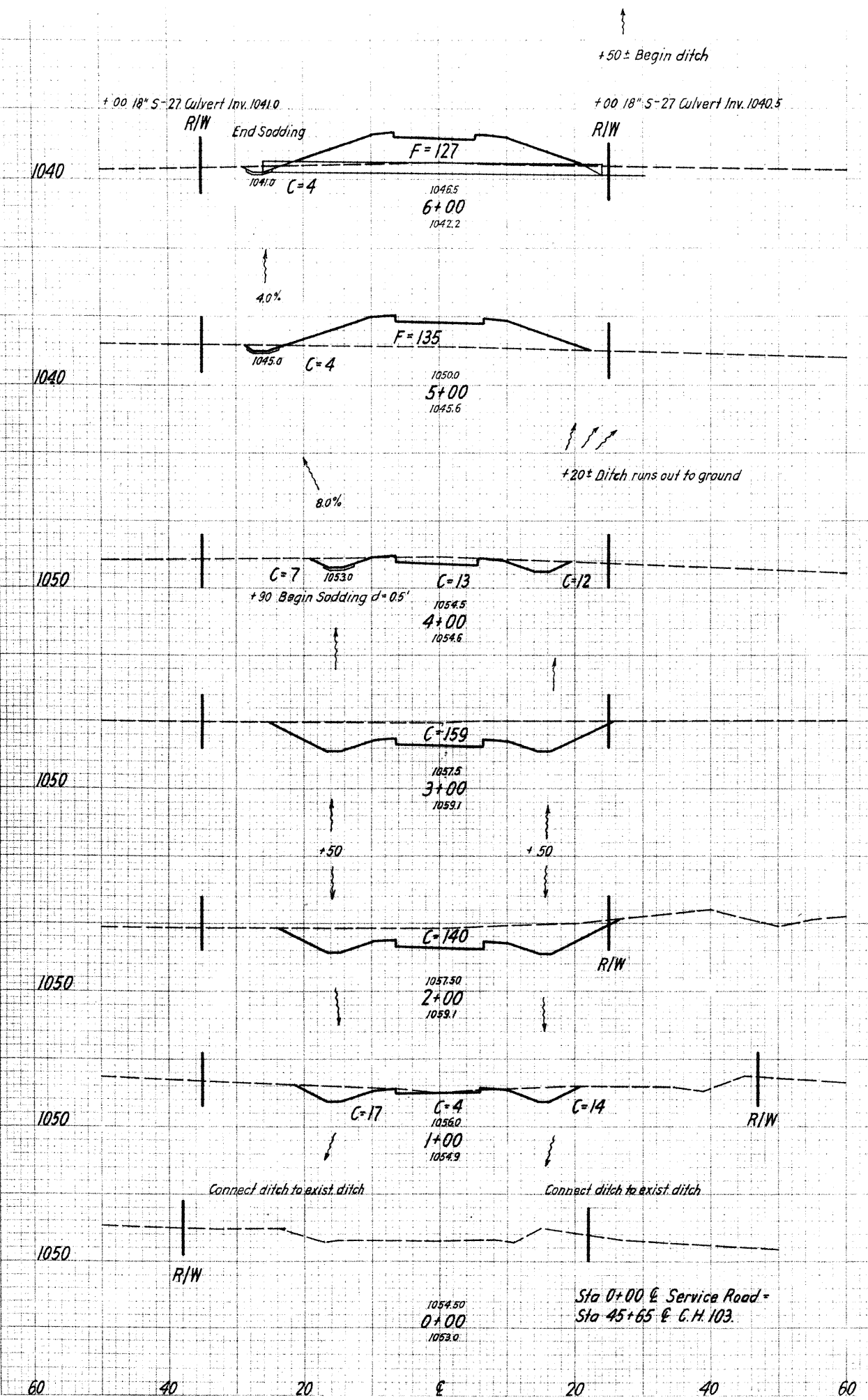
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

Totals Sta 0+00 to Sta 12+95

EXC. 5,805 C.Y.
EMB. 1,059 C.Y.
SEEDING 6,646 S.Y.

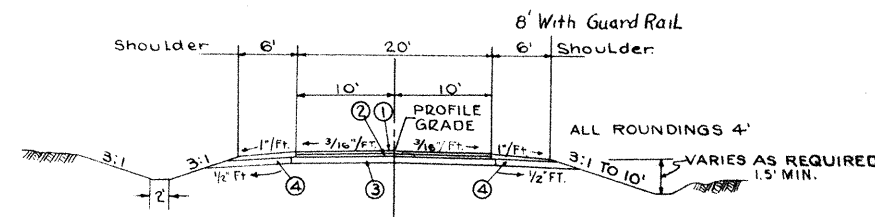
SEEDING	END AREA	CU. YDS.	
		CUT	FILL
Lin. Ft.	Sq. Yds.	CUT	FILL
49	4	127	
	539		15 485
48	4	135	
	500		67 250
42	32		
	517		354
51	159		
	561	140	554
50			
	567		324
52	35		
	289		65



SEEDING	END AREA	CU. YDS.	
		CUT	FILL
Lin. Ft.	Sq. Yds.	CUT	FILL
	253		198 6
76	178	5	
	257		164 6
56	75	4	
	633		970 7
58	449		
	611		1326
52	267		
	572		881
51	209		
	544		611
47	121		
	511		246 35
45	12	19	
	522		30 270

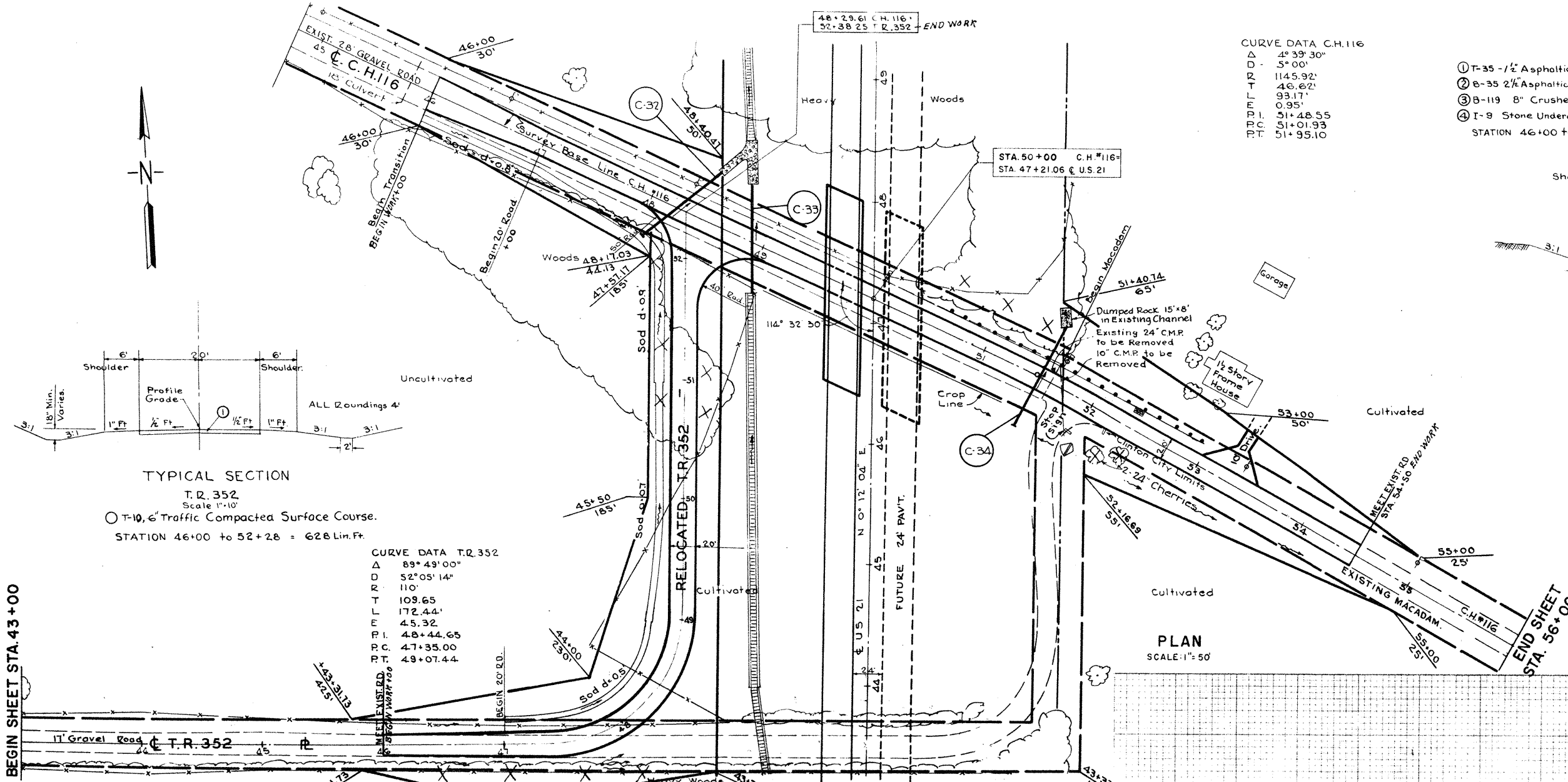
- ① T-35 - 1/2" Asphaltic Concrete Surface Course.
 - ② B-35 2 1/2" Asphaltic Concrete Leveling Course.
 - ③ B-119 8" Crushed Aggregate Base Course
 - ④ I-9 Stone Underdrains-Where directed by Engineer.
- STATION 46+00 to 54+50 = 850 Lin. Ft.

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-32	48+21	Pipe Culvert	24" x 84"	265
C-33	48+82	Pipe Culvert	30" x 92"	269
C-34	51+112	Pipe Culvert	18" x 94"	269

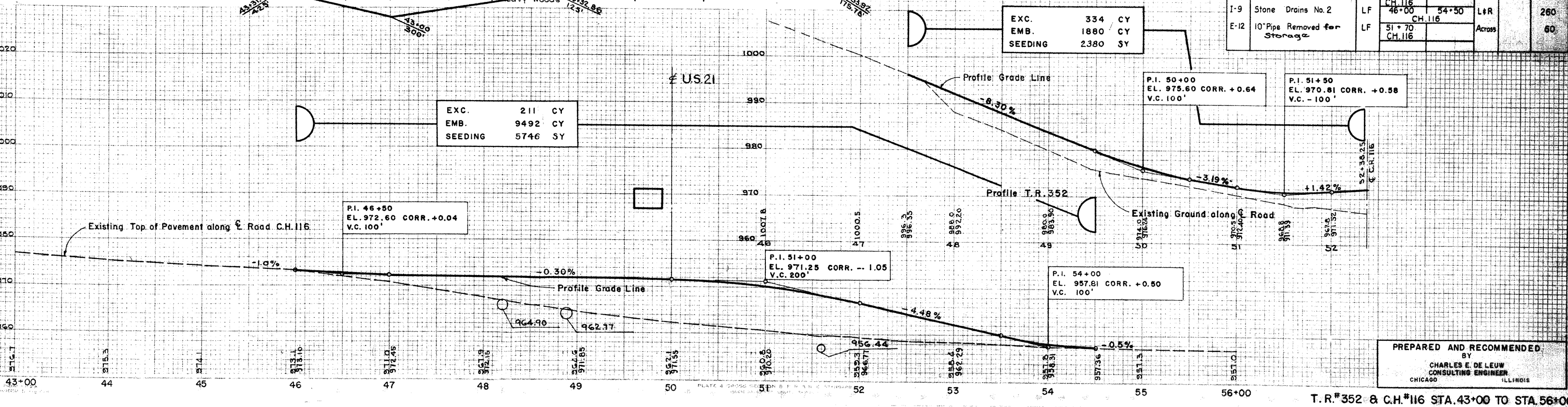
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB TOTAL	TOTAL
ROADWAY							
E-8	Remov. & Disp. of Exist. Pavt.	SY	53+50	54+50			222
I-15	Guard Rail	LF	50+50	52+95	L		237.5
L-10	Sodding 5' Wide	SY	47+00	49+00	L	110	
			TR 352				
L-10	Sodding 6' Wide	SY	49+00	51+00	L	130	
			TR 352				
L-10	Sodding 8' Wide	SY	51+00	52+18	L	105	
			TR 352				
L-10	Sodding 7' Wide	SY	46+00	48+05	R	160	505
			CH 116				
PAVEMENT							
B-119	8" Gravel Base	CY				450	
B-119	5" Gravel Base for Drive	CY	53+25		L	12	462
B-35	2 1/2" Asp. Conc. Base	CY				132	
T-10	Gravel Surface	CY				253	
T-30	Bit Prime	GAL				680	
T-30	Bit Prime for Drive	GAL	53+25		L	30	710
T-35	1 1/2" Asp. Conc. Surf	CY				81	
T-35	2" Asp. Conc. Surf for Drive	CY	53+25		L	4	85
DRAINAGE							
E-12	24" Pipe Removed for Storage	LF	51+60		Across		34
			CH 116				
I-9	Stone Drains No. 2	LF	46+00	54+50	L&R		260
			CH 116				
E-12	10" Pipe Removed for Storage	LF	51+70		Across		60
			CH 116				



TYPICAL SECTION
T.R. 352
Scale 1"=10'
① T-10, 6" Traffic Compacted Surface Course.
STATION 46+00 to 52+28 = 628 Lin. Ft.

CURVE DATA T.R. 352
 Δ 89° 49' 00"
 R 52° 05' 14"
 D 110'
 T 109.65
 F 172.44'
 P 45.32
 R.P. 48+44.65
 P.C. 47+35.00
 P.T. 49+07.44

CURVE DATA C.H. 116
 Δ 4° 39' 30"
 R 5° 00'
 D 1145.92'
 T 46.62'
 F 93.17'
 P 0.95'
 R.P. 51+48.55
 P.C. 51+01.93
 P.T. 51+95.10



EXC. 334 CY
EMB. 1880 CY
SEEDING 2380 SY

EXC. 211 CY
EMB. 9492 CY
SEEDING 5746 SY

P.I. 46+50
EL. 972.60 CORR. +0.04
V.C. 100'

P.I. 51+00
EL. 971.25 CORR. -1.05
V.C. 200'

P.I. 54+00
EL. 957.81 CORR. +0.50
V.C. 100'

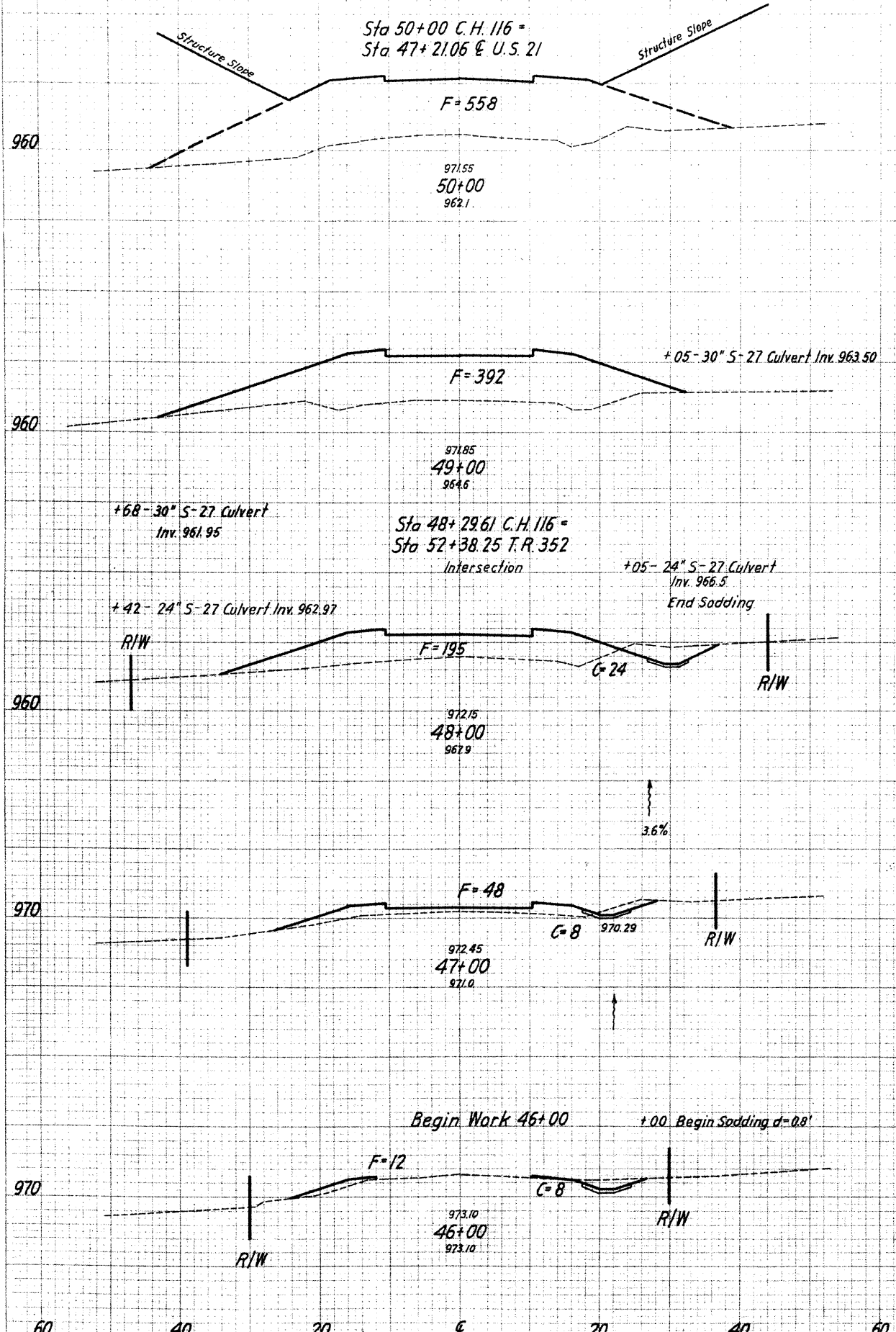
P.I. 50+00
EL. 975.60 CORR. +0.64
V.C. 100'

P.I. 51+50
EL. 970.81 CORR. +0.58
V.C. 100'

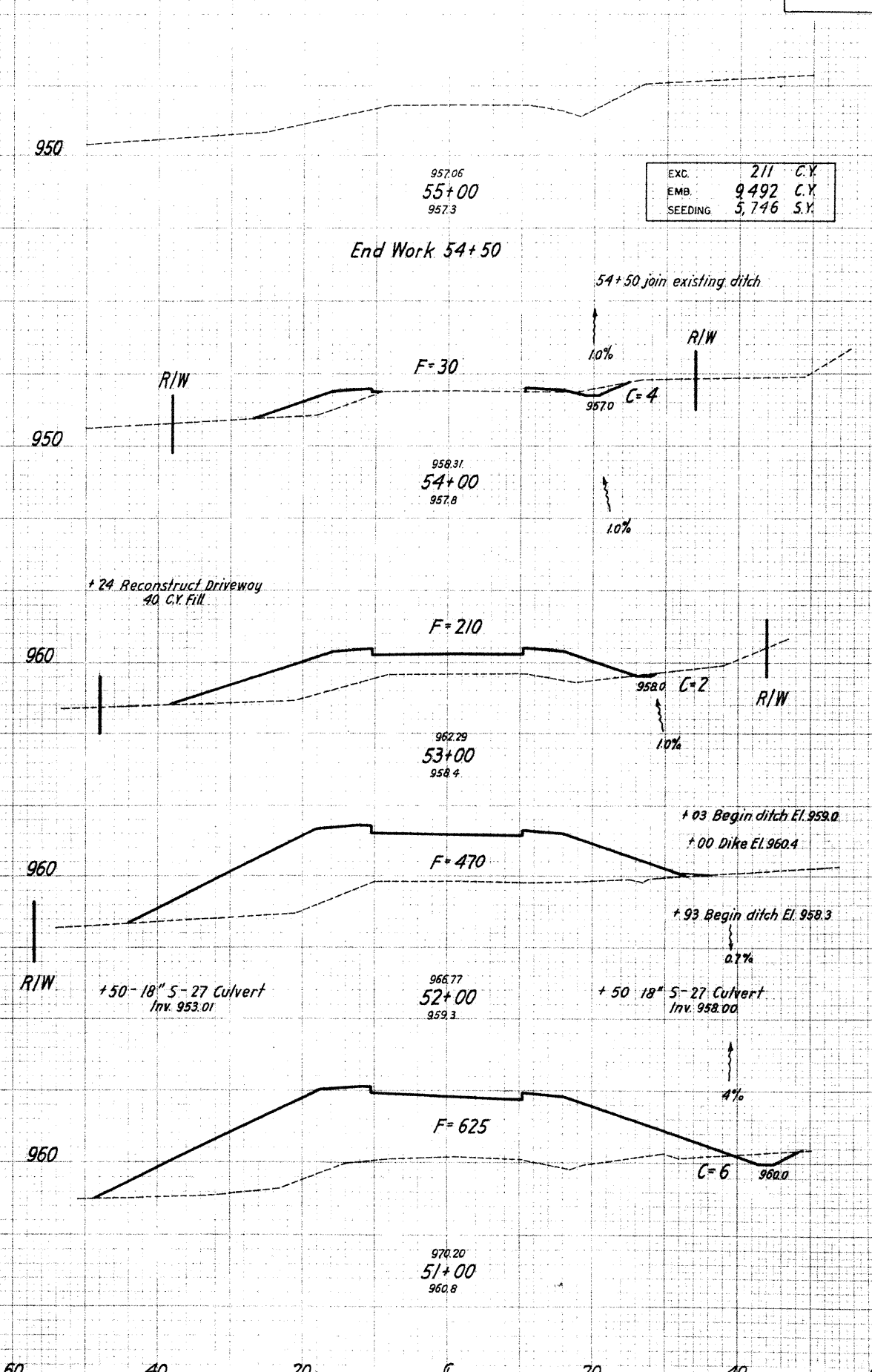
PREPARED AND RECOMMENDED BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

FINAL SURVEY PLOTTED
NOTE BOOK NO. 10000
DATE 10/15/50
BY J. H. [unclear]
CHECKED BY [unclear]



SEEDING		END AREA		CU. YDS.	
Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
23			558		
556				1685	
77		392			
811			44	1296	
69		24	195		
678			59	450	
53		8	48		
511			30	111	
39		8	12		

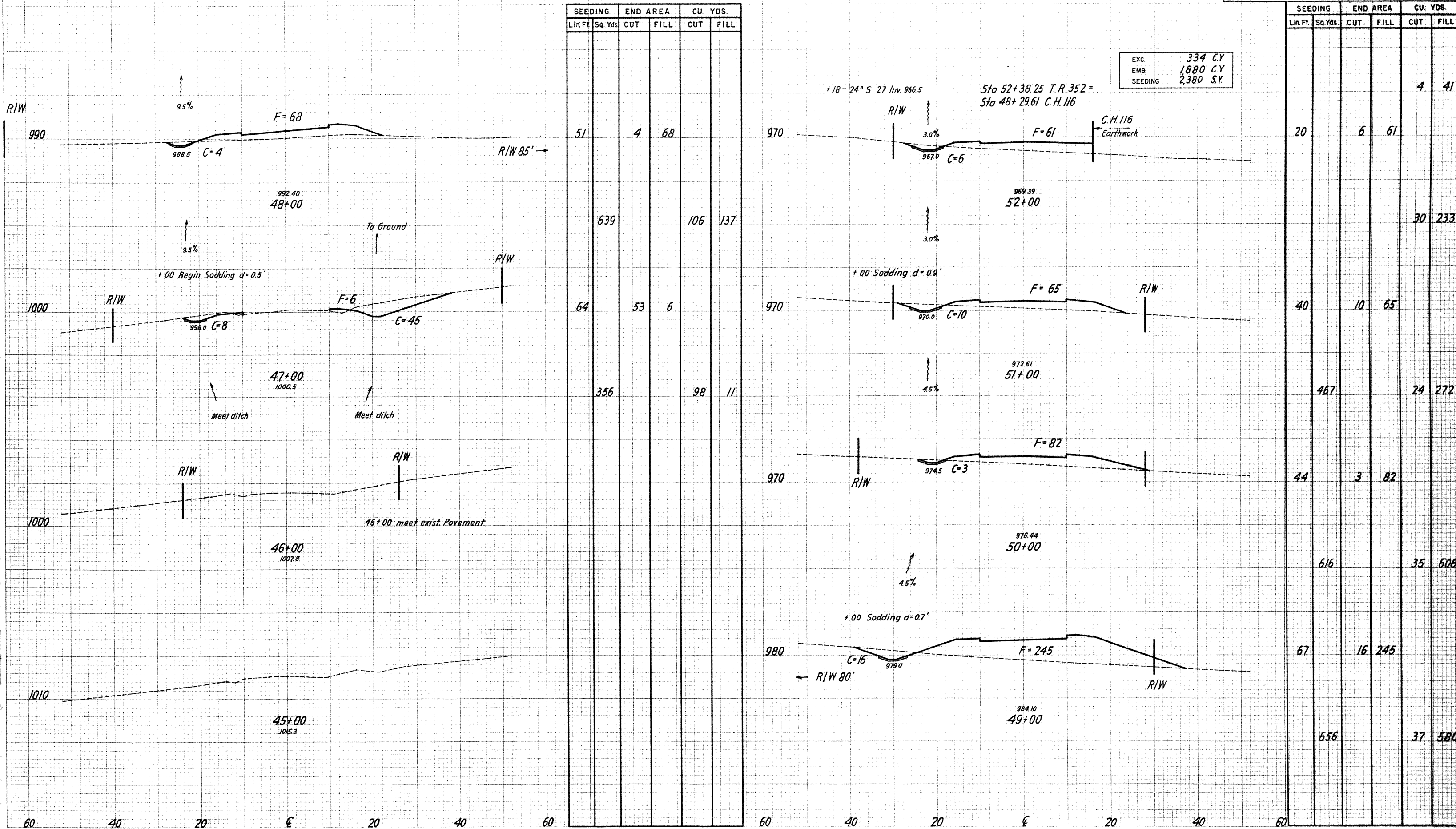


SEEDING		END AREA		CU. YDS.	
Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
144				4	28
52		4	30		
667				11	444 * 40
68		2	210		
828				22	1259
81			470		
1017				30	2028
102		6	625		
694				11	2191

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

SEEDING		END AREA		CU. YDS.	
Lin Ft	Sq. Yds	CUT	FILL	CUT	FILL
51	4	68			
639		106	137		
64	53	6			
356		98	11		
970					
40	10	65			
467				24	272
970					
44	3	82			
616				35	606
980					
67	16	245			
656				37	580

EXC. 334 C.Y.
EMB. 1880 C.Y.
SEEDING 2380 S.Y.

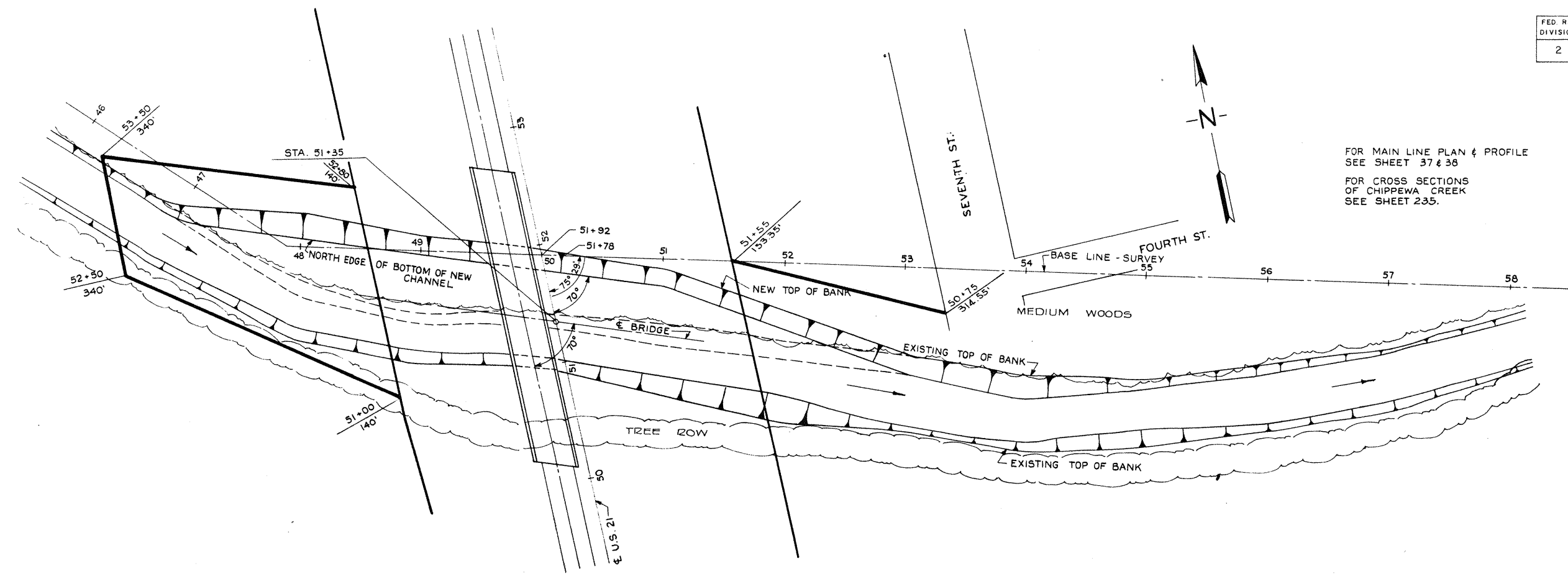


FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

234
329

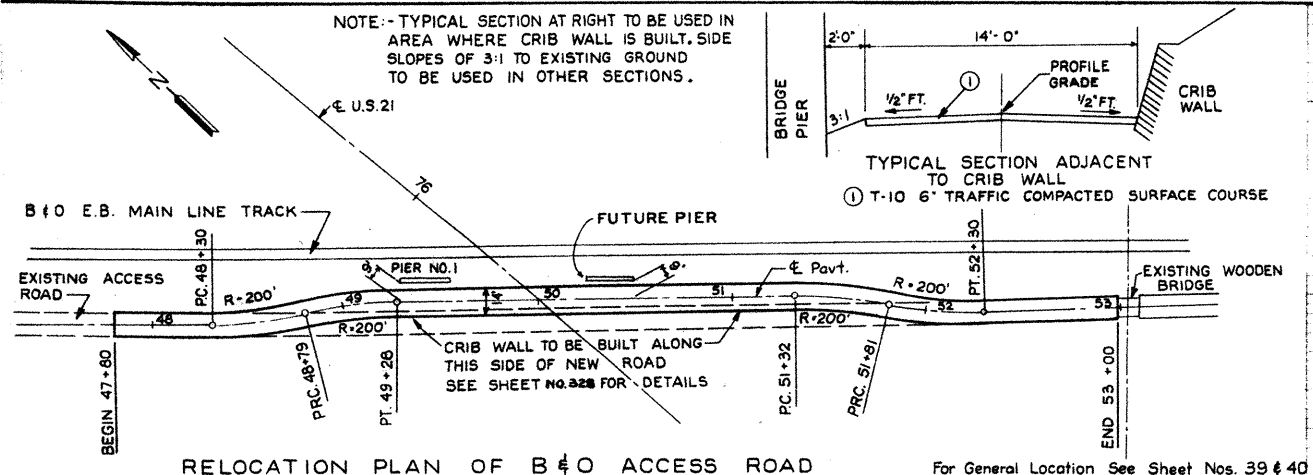
STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

FOR MAIN LINE PLAN & PROFILE
SEE SHEET 37 & 38
FOR CROSS SECTIONS
OF CHIPPEWA CREEK
SEE SHEET 235.

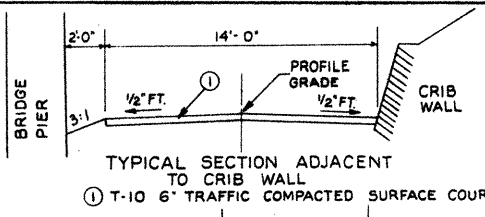


PLAN
SCALE: 1"=50'

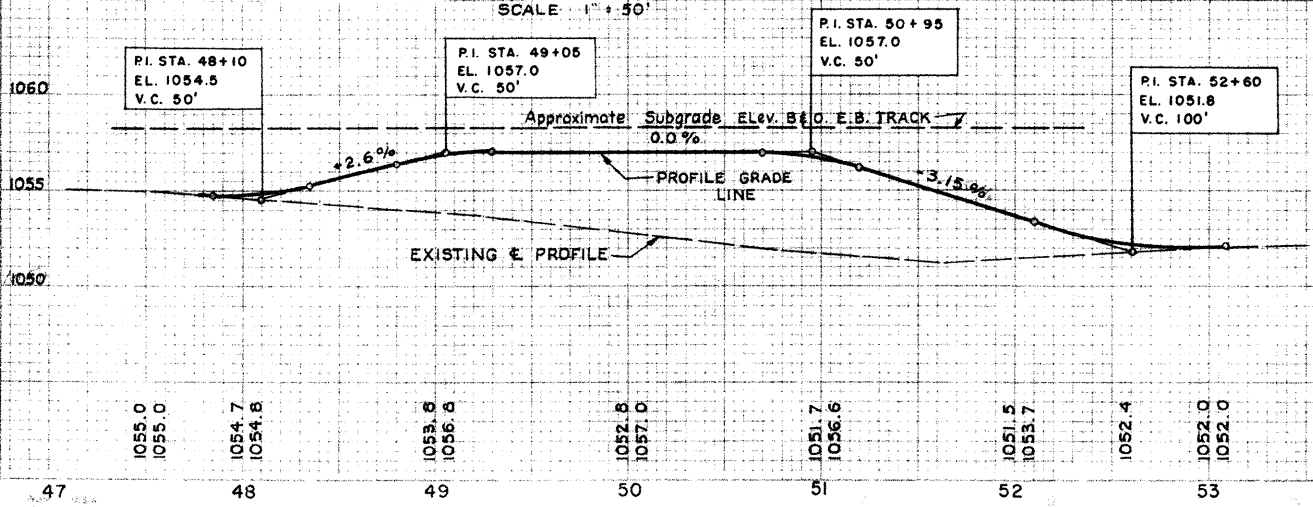
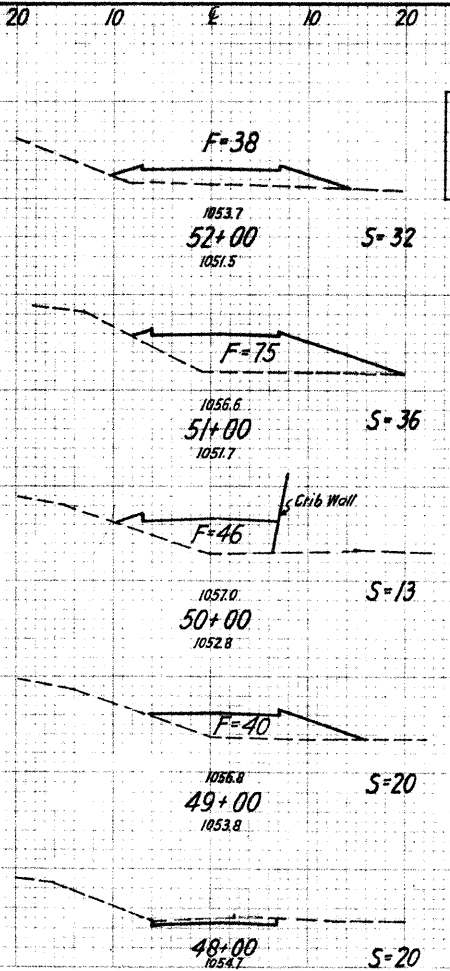
CHIPPEWA CREEK



RELOCATION PLAN OF B & O ACCESS ROAD
For General Location See Sheet Nos. 39 & 40
SCALE: 1"=50'



NOTE:-- TYPICAL SECTION AT RIGHT TO BE USED IN AREA WHERE CRIB WALL IS BUILT. SIDE SLOPES OF 3:1 TO EXISTING GROUND TO BE USED IN OTHER SECTIONS.

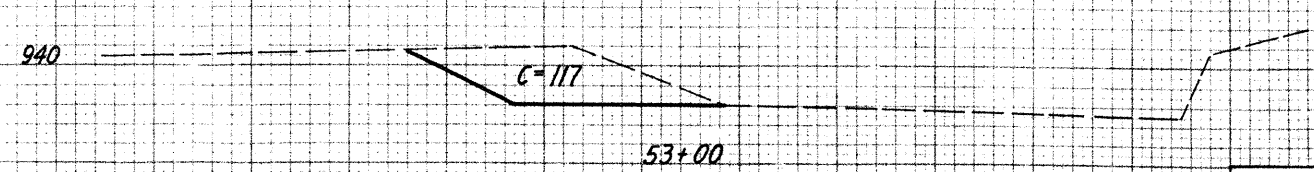
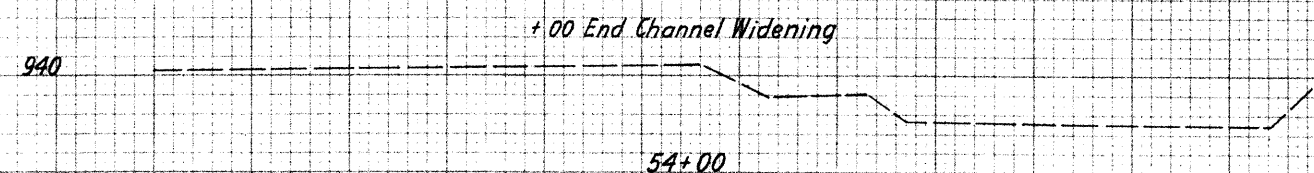
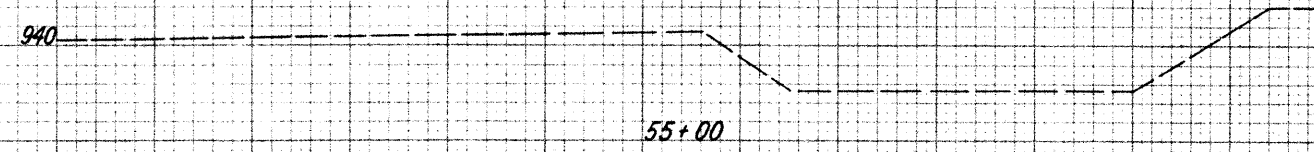
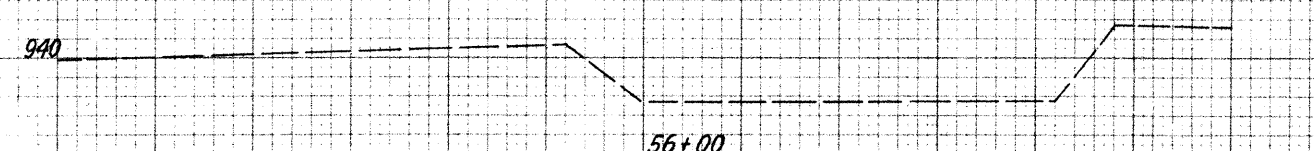
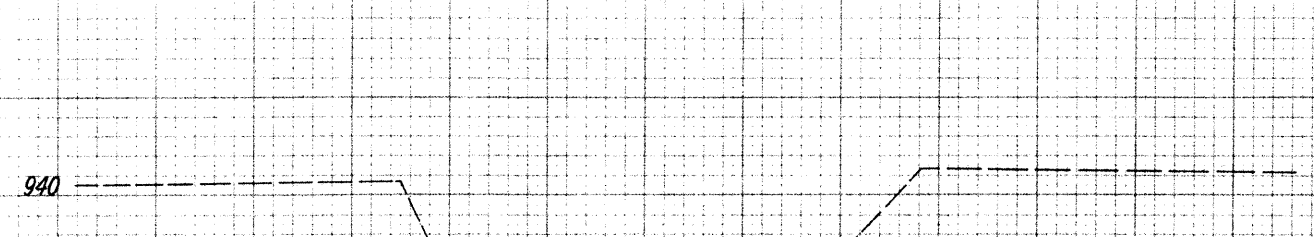
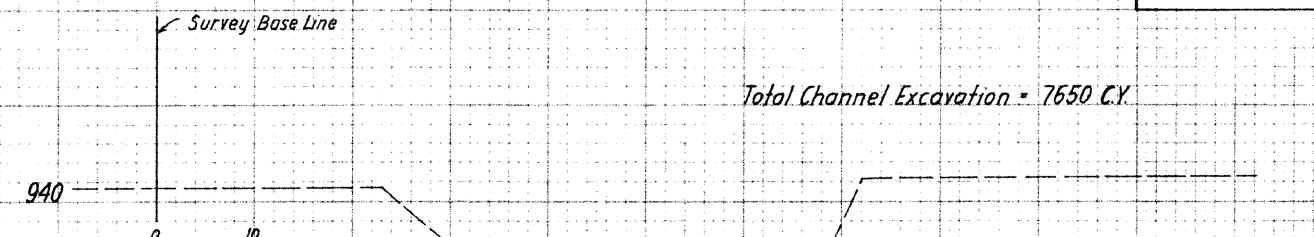
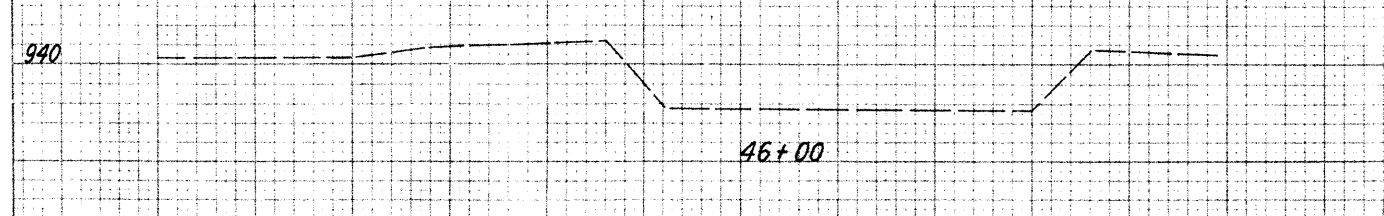
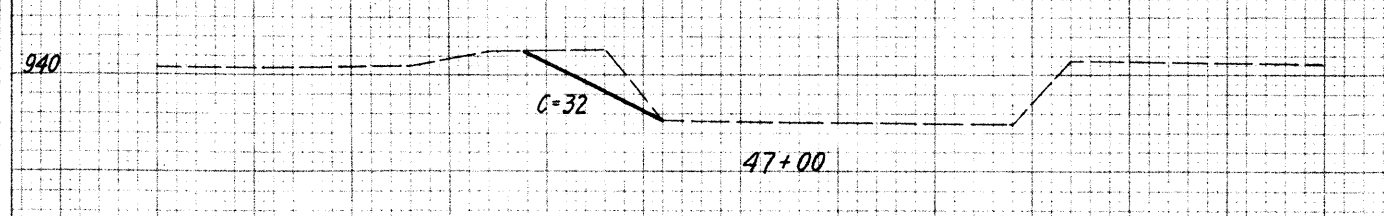
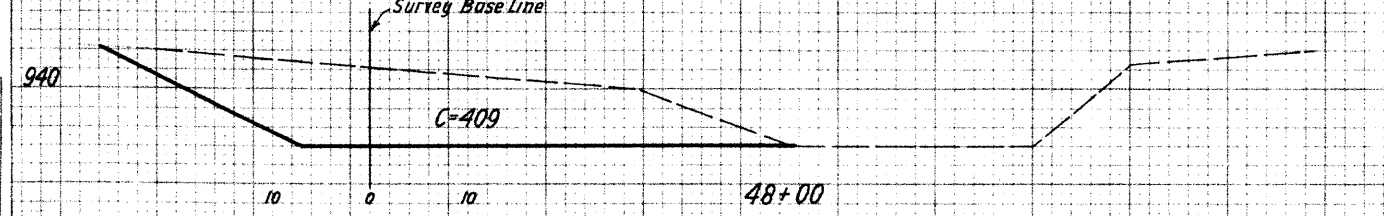
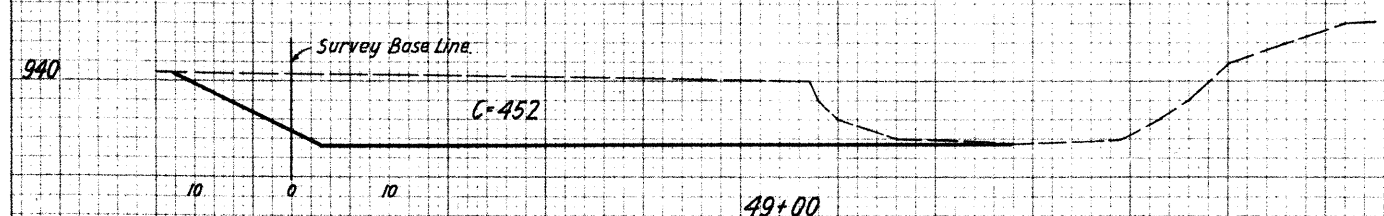
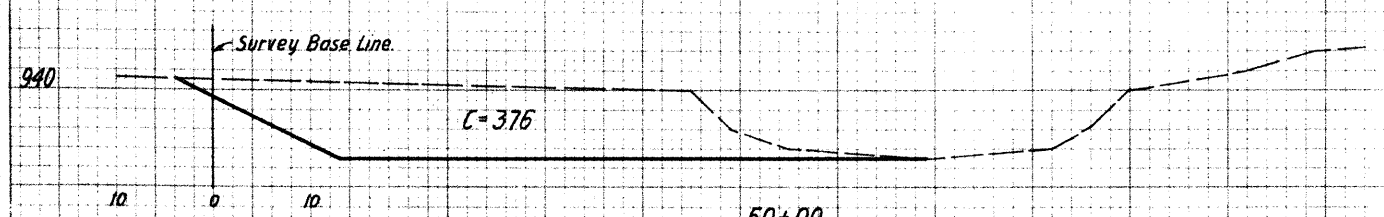
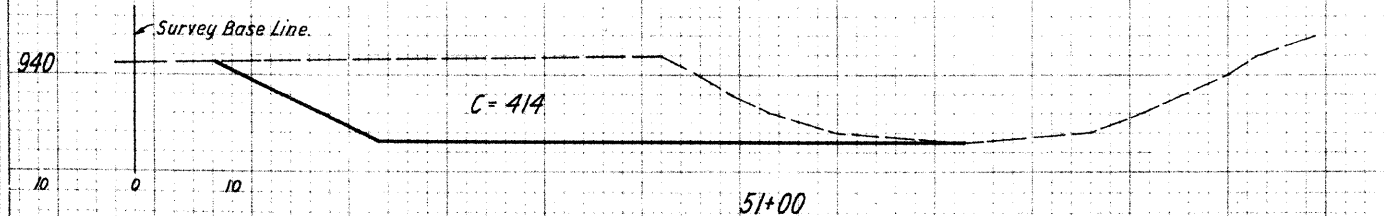
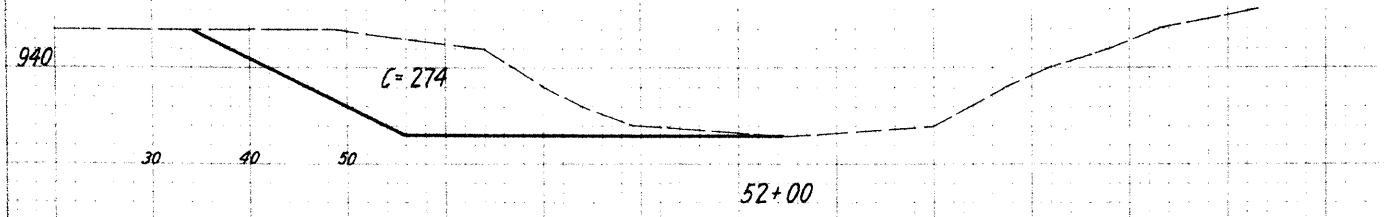


PREPARED AND RECOMMENDED BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

235
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



Total Channel Excavation = 7650 C.Y.

+50 Begin of Channel Widening

+00 End Channel Widening

Right of Survey Base Line

FINAL SURVEY NOTE BOOK NO. 10

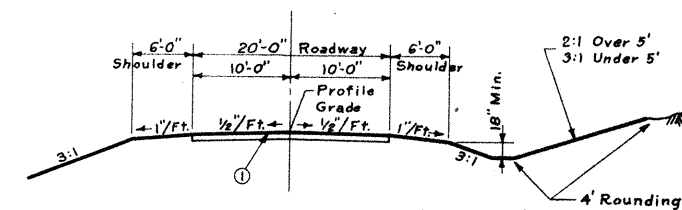
DATE

BT

NO.

AREAS CHECKED

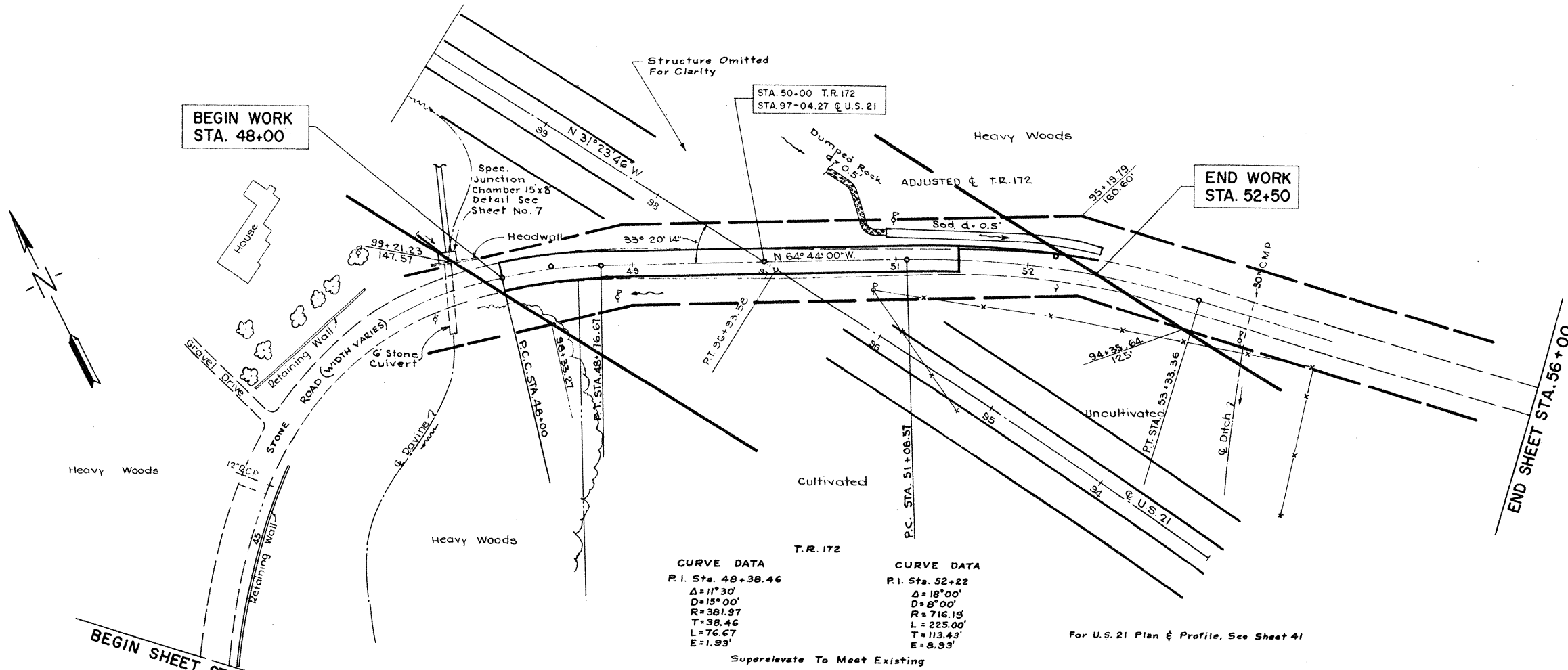
STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



TYPICAL SECTION
T.R. 172

Scale: 1"=10'

① T-10 6" Traffic Compacted Surface Course
Station 48+00 to 52+50 = 450 Lin. Ft.



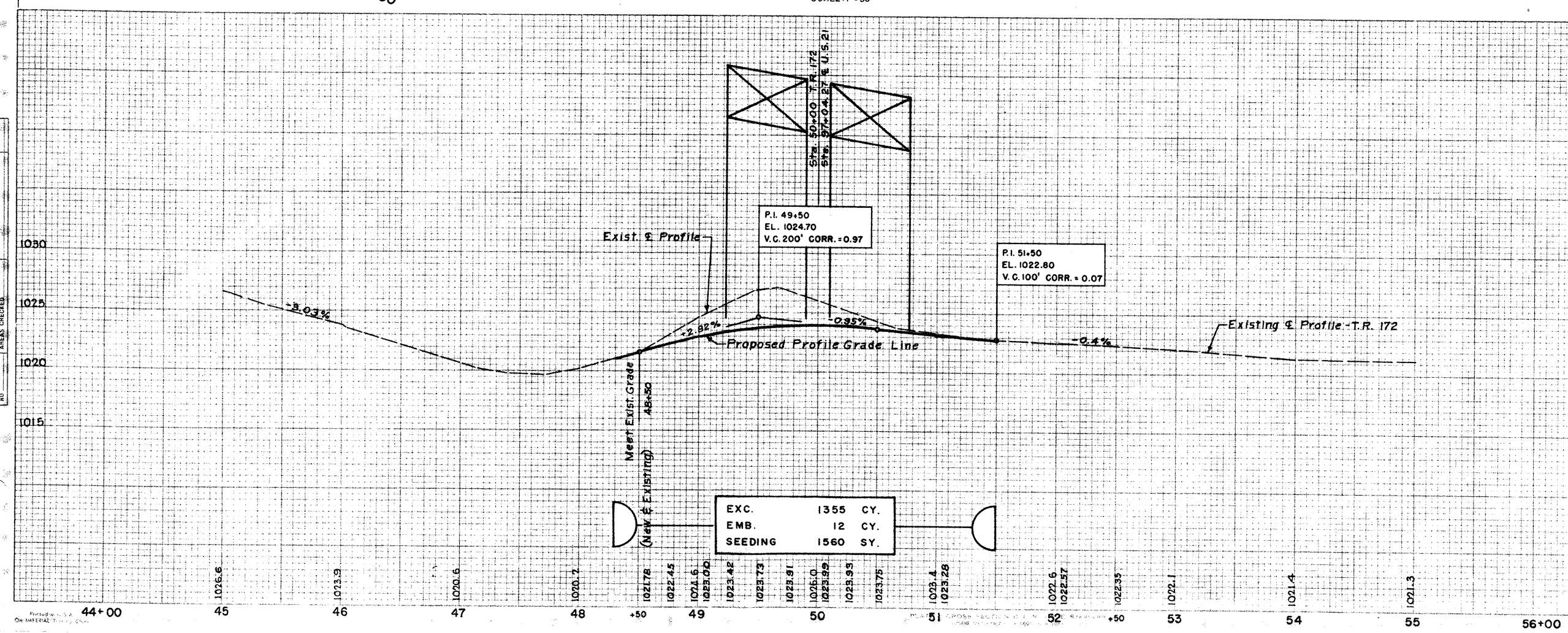
T.R. 172

CURVE DATA	CURVE DATA
P.I. Sta. 48+38.46	P.I. Sta. 52+22
Δ = 11°30'	Δ = 18°00'
D = 15°00'	D = 8°00'
R = 381.97	R = 716.15
T = 38.46	L = 225.00'
L = 76.67	T = 113.43'
E = 1.99'	E = 8.93'

Superelevate To Meet Existing

PLAN
SCALE: 1"=50'

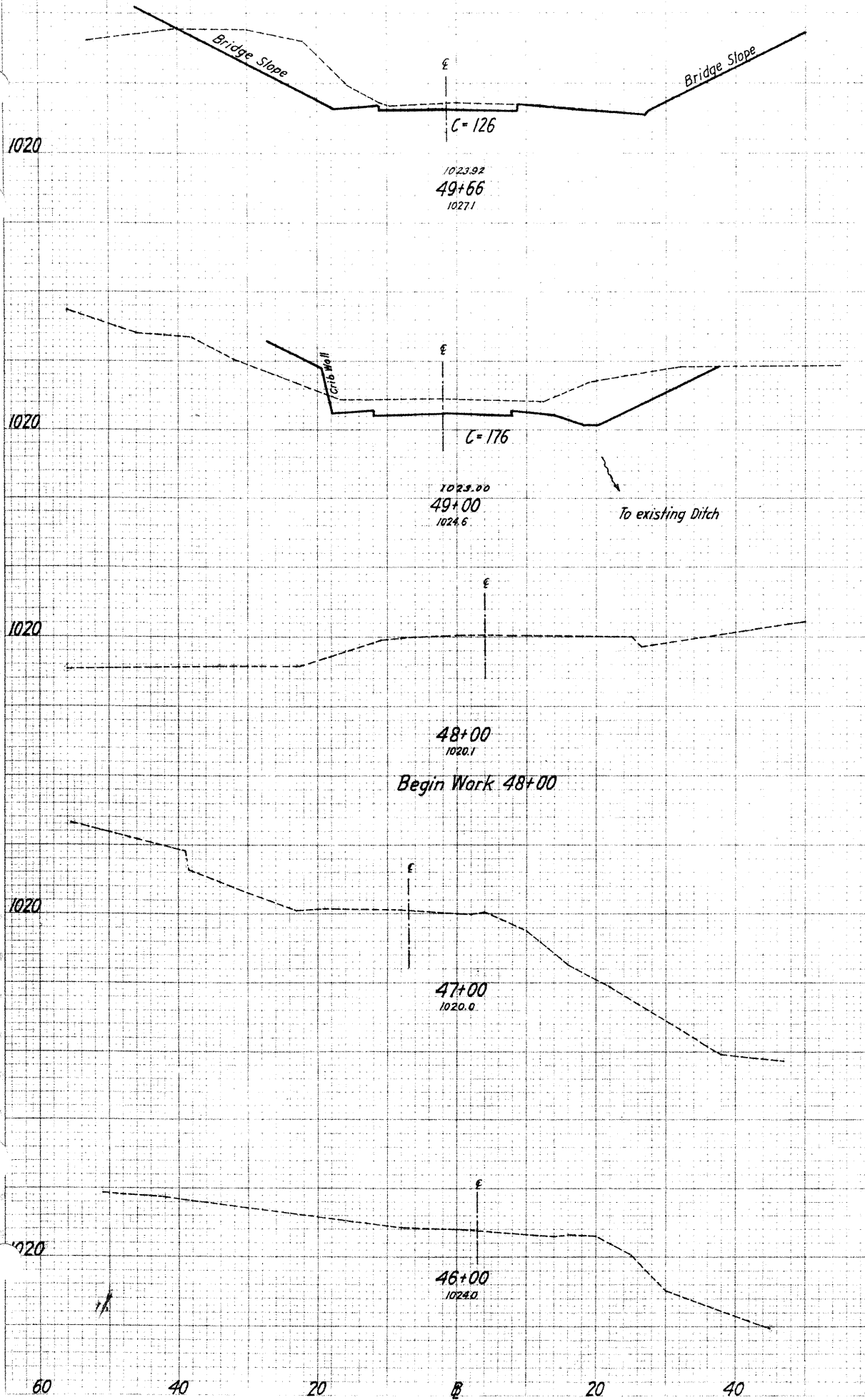
ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
L-10	5' WIDE SODDING	S.Y.	50+92	52+50	L	90
T-10	Traffic Compacted Surface Course	C.Y.	48+00	52+50		170



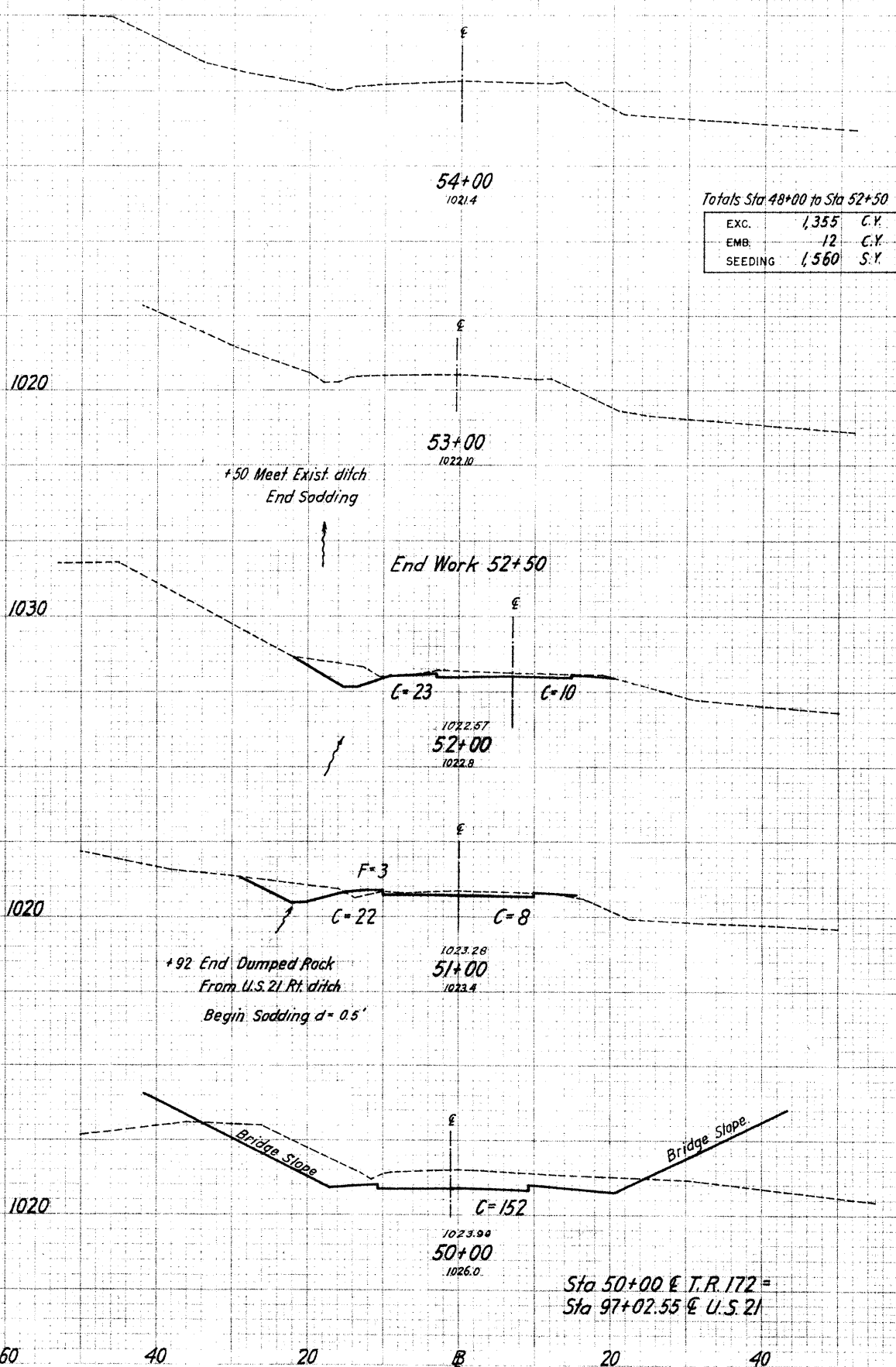
EXC.	1355 CY.
EMB.	12 CY.
SEEDING	1560 SY.

PREPARED AND RECOMMENDED
BY
CHARLES E. DELEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.60
WAY - 21 - 8.00
SUM - 21 - 0.00



SEEDING		END AREA		CU. YDS.	
Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
26		126			
	279			369	
50		176			
	277			326	



Totals Sta 48+00 to Sta 52+50

EXC.	1,355	C.Y.
EMB.	12	C.Y.
SEEDING	1,560	S.Y.

SEEDING		END AREA		CU. YDS.	
Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
	103			31	
	37	33			
	461			117	6
	46	30	3		
	356			337	6
	18	152			
	84			175	

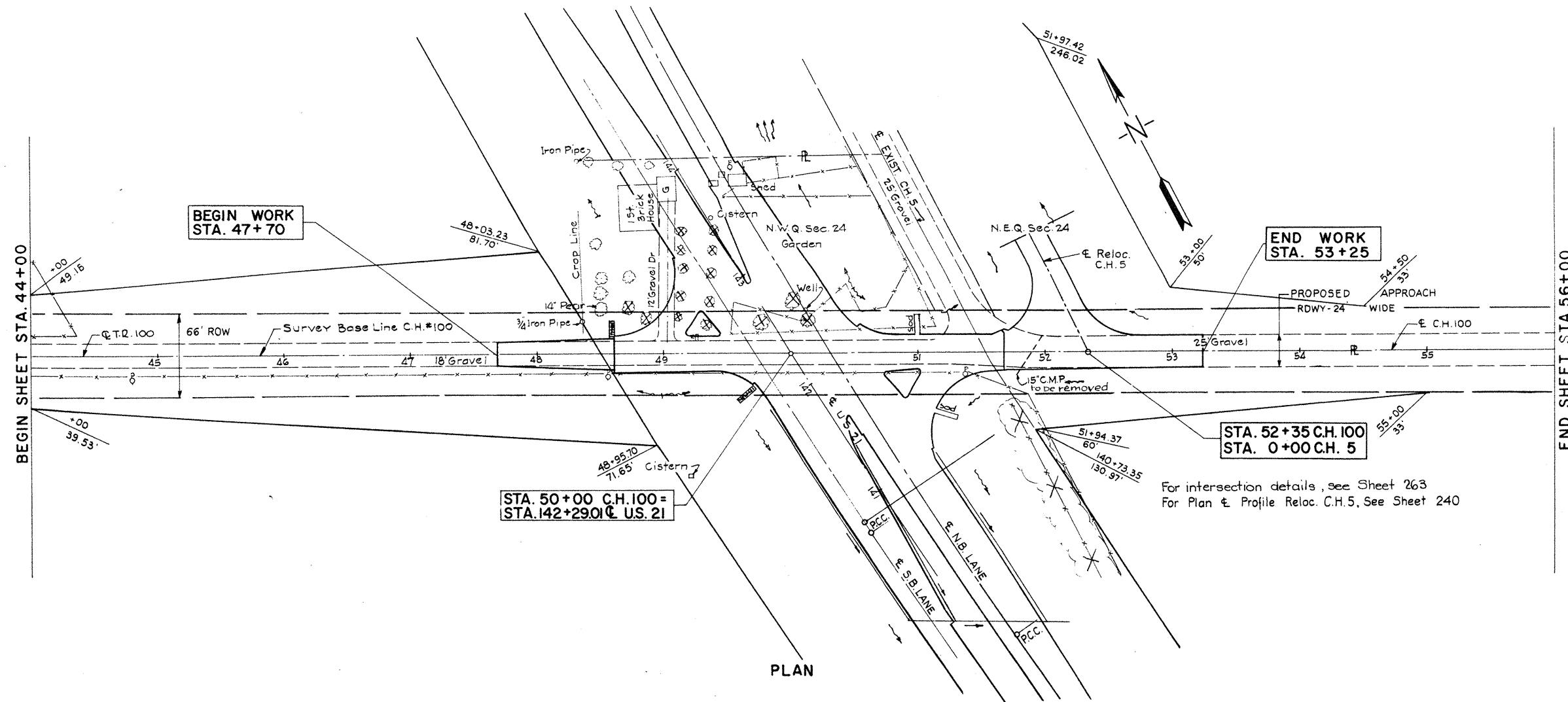
Sta 50+00 E.T.R. 172 =
Sta 97+02.55 E U.S. 21

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

238
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

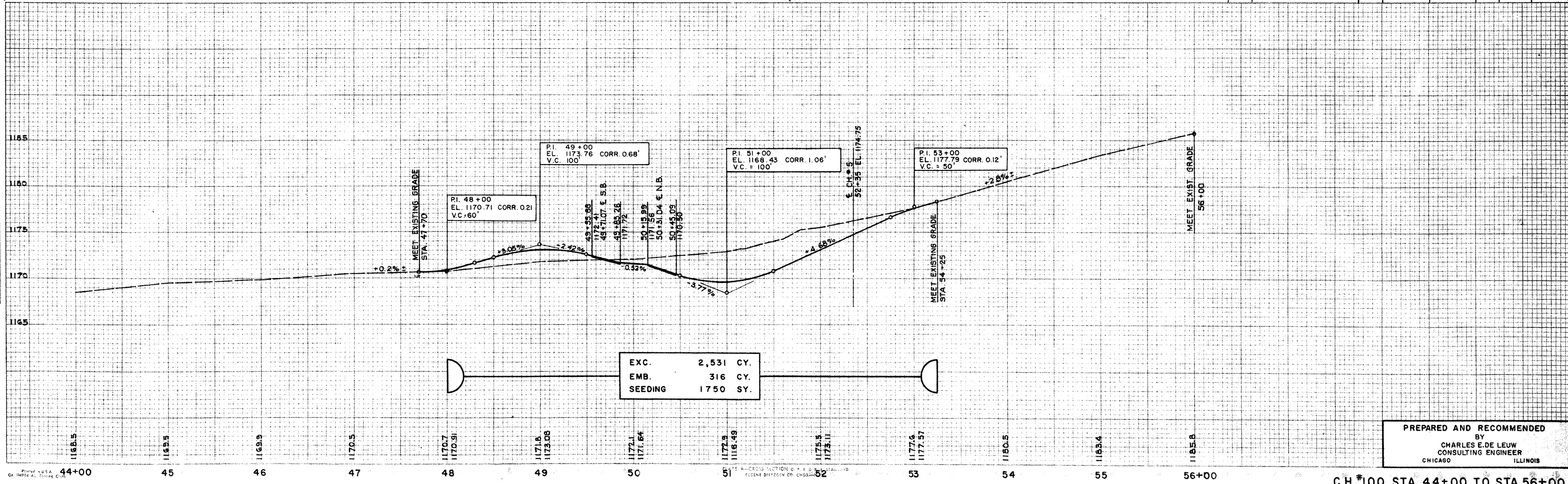
FOR PROPOSED RDWY. SECTION
ON APPROACHES, SEE C.H.# 5 SH. NO. 240



ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
E-1	Comp. Subgrade	SY	48+60	51+70		1073
I-22	Subbase	C.Y.	48+60	51+70		1355
L-10	Sodding 4' wide PAVEMENT	SY	51+00	51+70	L	5
T-10	6" Gravel Surface	C.Y.	48+60	51+70		110
T-11	9" R.C. Pav't.	SY	48+60	51+70		1073
I-12	Type 2A Curb	L.F.	48+60	51+70		625
DRAINAGE						
I-14	Spec Paved Gutter Type 8	L.F.	48+56		L	15
E-12	15" Pipe to be removed for storage	LF	51+80	52+00	Across	40

For intersection details, see Sheet 263
For Plan & Profile Reloc. C.H. 5, See Sheet 240

PLAN



EXC.	2,531 CY.
EMB.	316 CY.
SEEDING	1750 SY.

PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

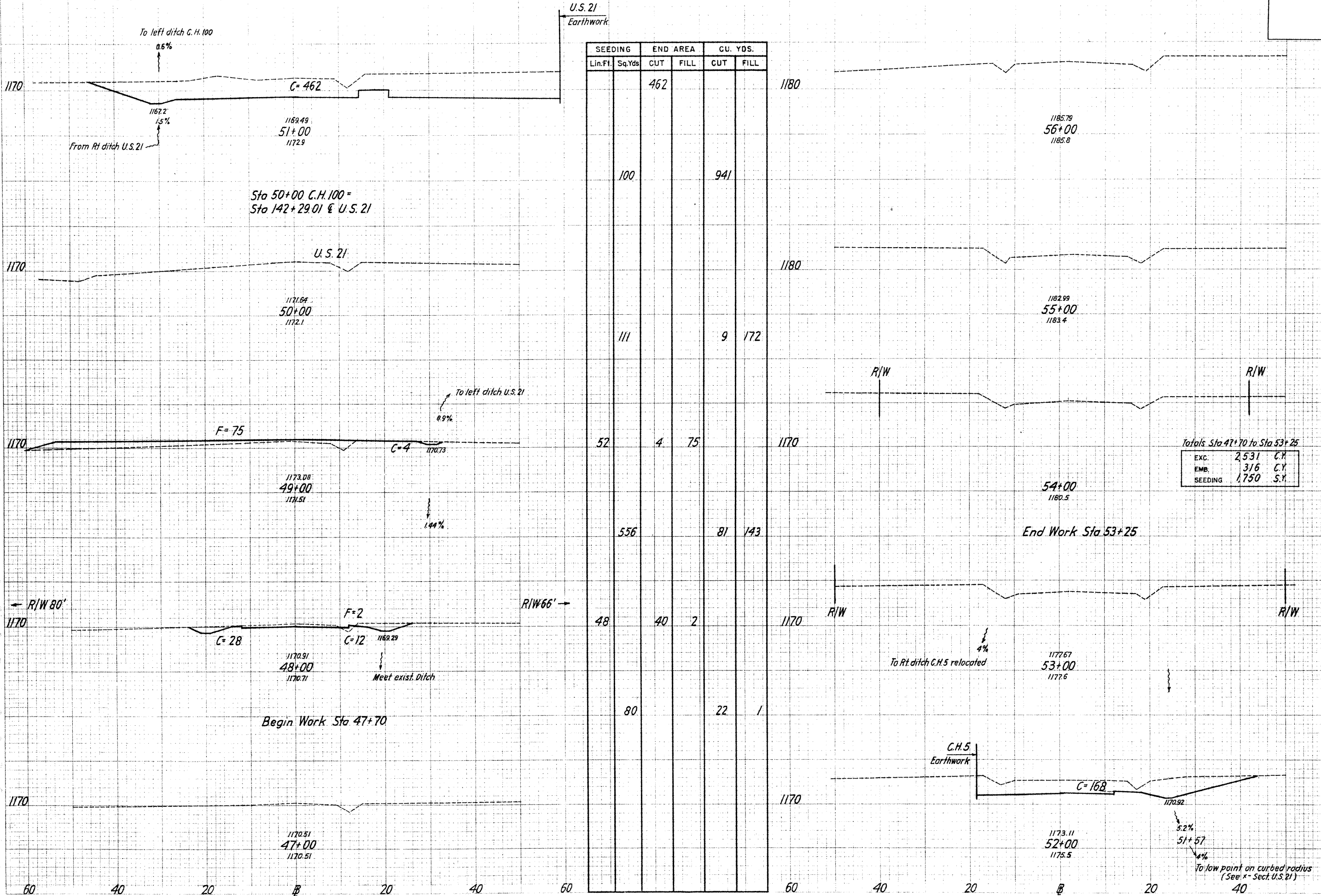
C.H.#100 STA. 44+00 TO STA. 56+00

BY
DATE
SUBMITTED
PLOTTED
NOTED
AREAS CHECKED
NO.

BY
DATE
SUBMITTED
PLOTTED
NOTED
AREAS CHECKED
NO.

44+00 45 46 47 48 49 50 51 52 53 54 55 56+00

STA - 21 - 17.00
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING		END AREA		CU. YDS.	
Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
		462			
100			941		
111		9	172		
52		4	75		
556		81	143		
48		40	2		
80		22	1		
				44	168
		551			1167

SEEDING		END AREA		CU. YDS.	
Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL

Totals Sta 47+70 to Sta 53+25

Exc.	2531	CY
Emb.	316	CY
Seeding	1750	S.Y.

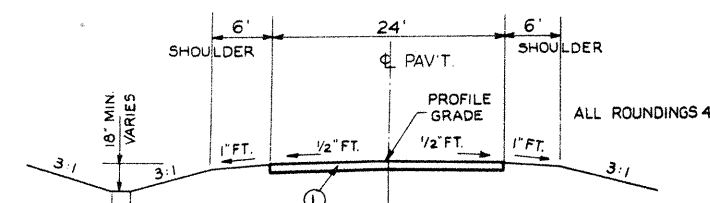
End Work Sta 53+25

C. H. 100 Sta 47+00 to Sta 56+00

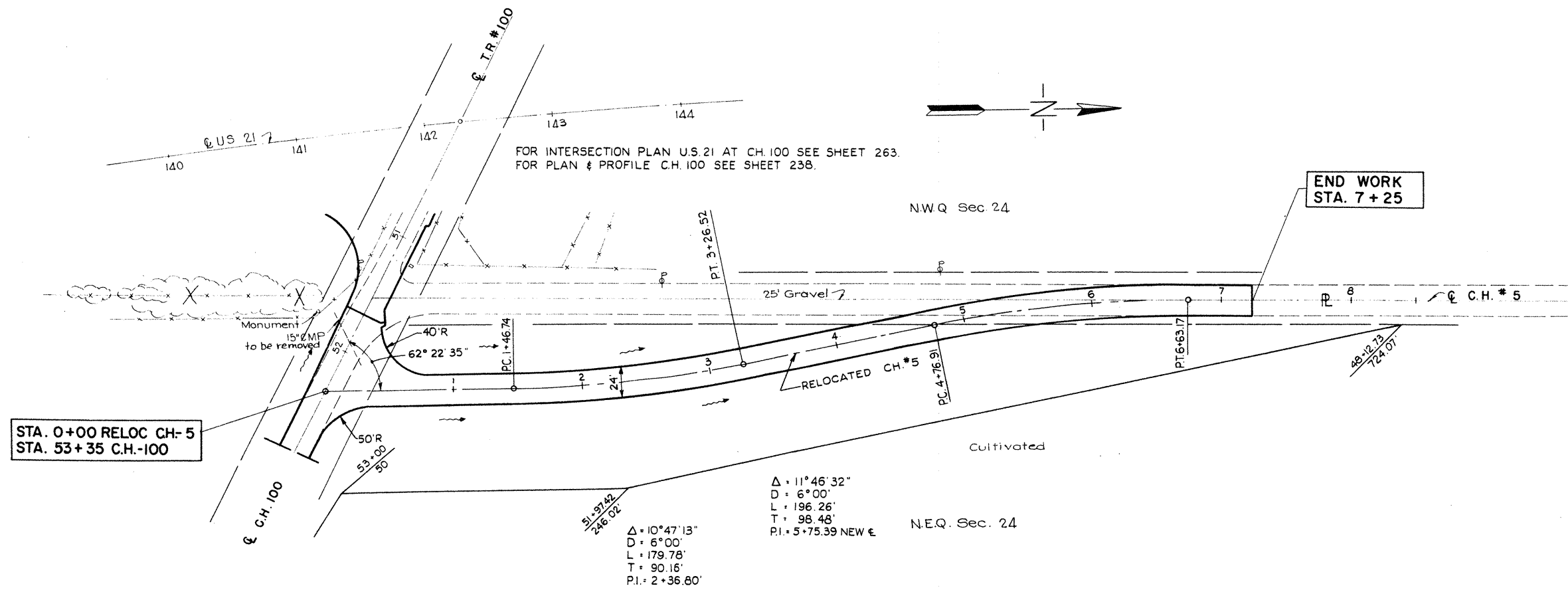
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

240
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

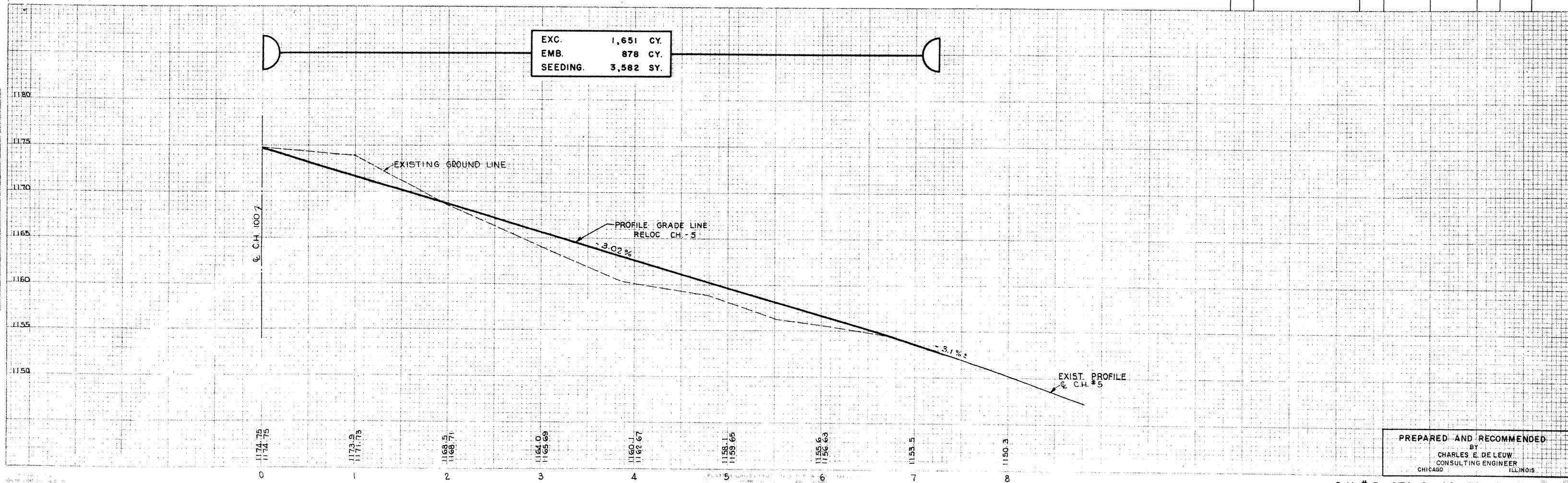


TYPICAL SECTION
CH. 5
SCALE = 1" = 10'
① T-10 6" TRAFFIC COMPACTED SURFACE COURSE
STATION 0+15 TO 6+75 = 660 LIN. FT.



PLAN
SCALE: 1" = 50'

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
T-10	PAVEMENT Gravel Surface	CY				400



PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

C.H. # 5 STA. 0+00 TO STA. 8+00

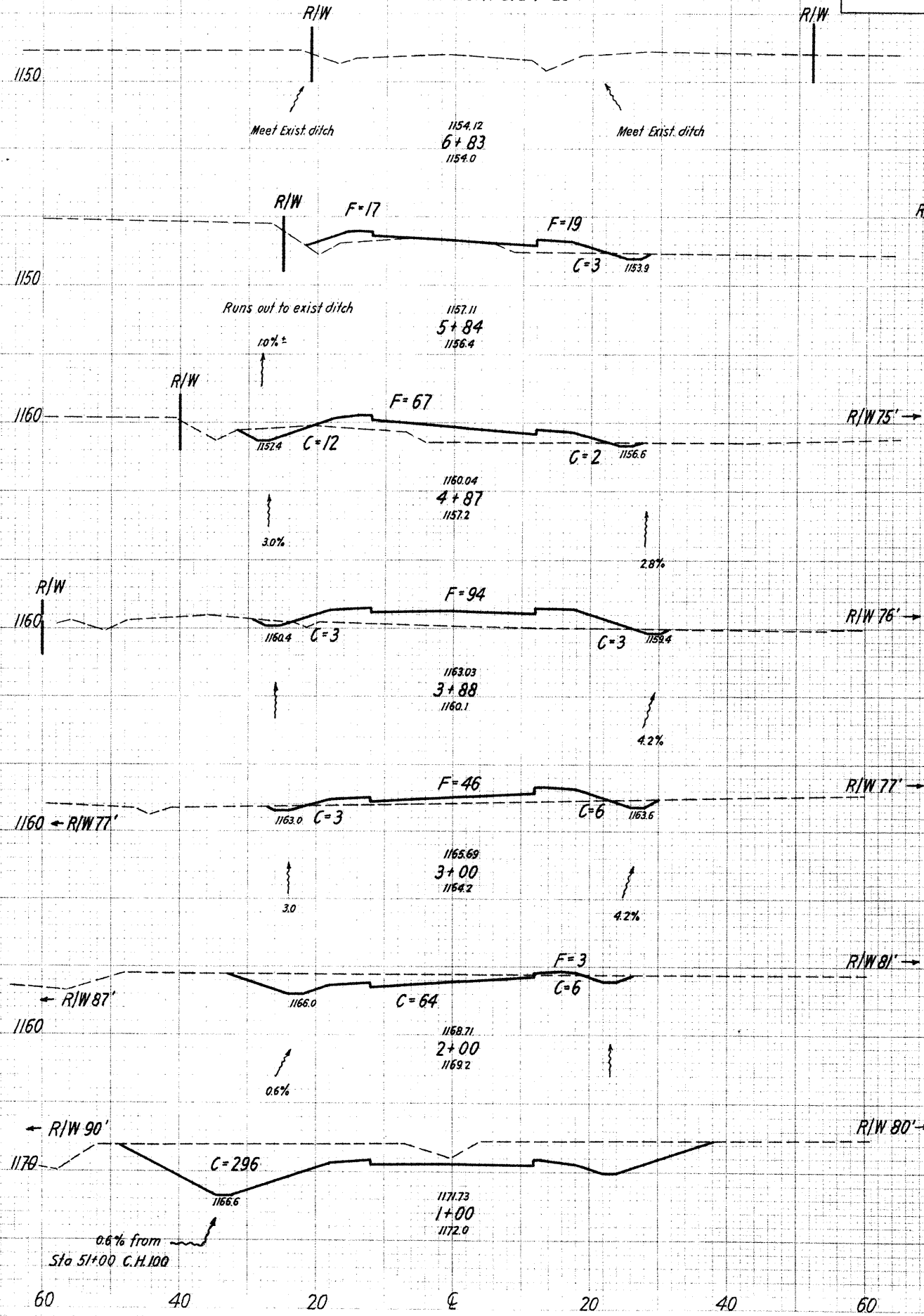
FINAL SURVEY PLOTTED NOTE BOOK AREAS CHECKED.

DATE BY SURVEYED PLOTTED NOTE BOOK AREAS CHECKED.

STA - 21 - 17.00
WAY - 21 - 0.00
SUM - 21 - 0.00

EXC. 1,651 C.Y.
EMB. 878 C.Y.
SEEDING 3,582 S.Y.

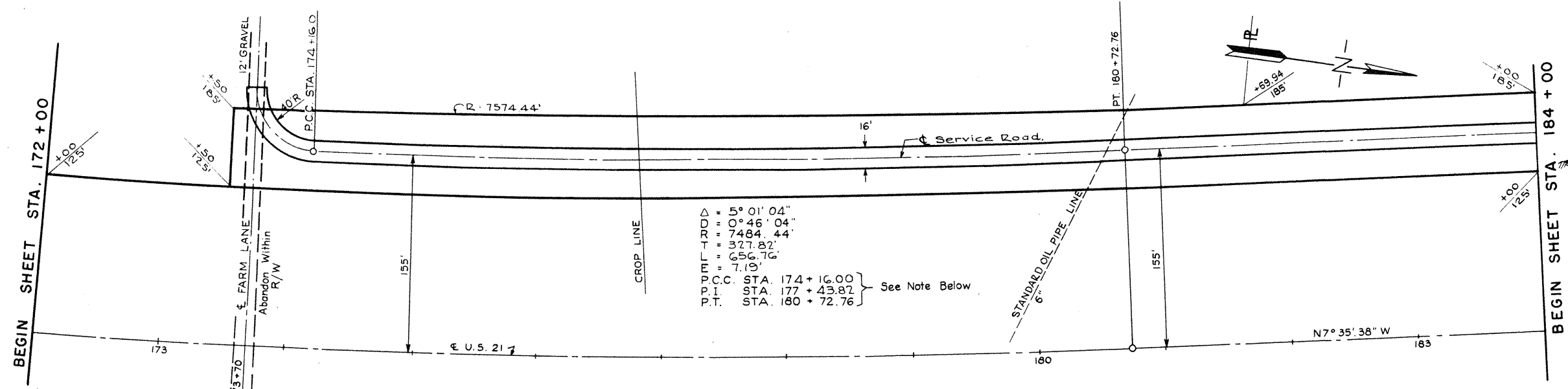
End Work Sta 7+25



Lm. Ft.	SEEDING		END AREA		CU. YDS.	
	Sq. Yds.	CUT	FILL	CUT	FILL	
41	226		3	39	5	71
58	534		14	67	31	190
60	649		6	94	37	295
55	562		9	46	24	220
56	617		60	3	128	91
87	794		60	3	659	6
200	87	296	-	-	767	-

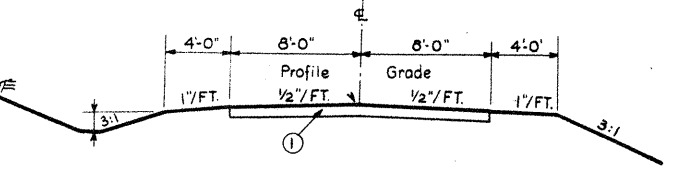
Relocated C.H. 5 - Sta 1+00 to Sta 6+83

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



$\Delta = 5^\circ 01' 04''$
 $TRD = 0^\circ 46' 04''$
 $T = 7484.44'$
 $M = 327.82'$
 $PF = 656.76'$
 $PI = 7.19'$
 P.C.C. STA. 174 + 16.00
 P.I. STA. 177 + 43.87
 P.T. STA. 180 + 72.76

See Note Below



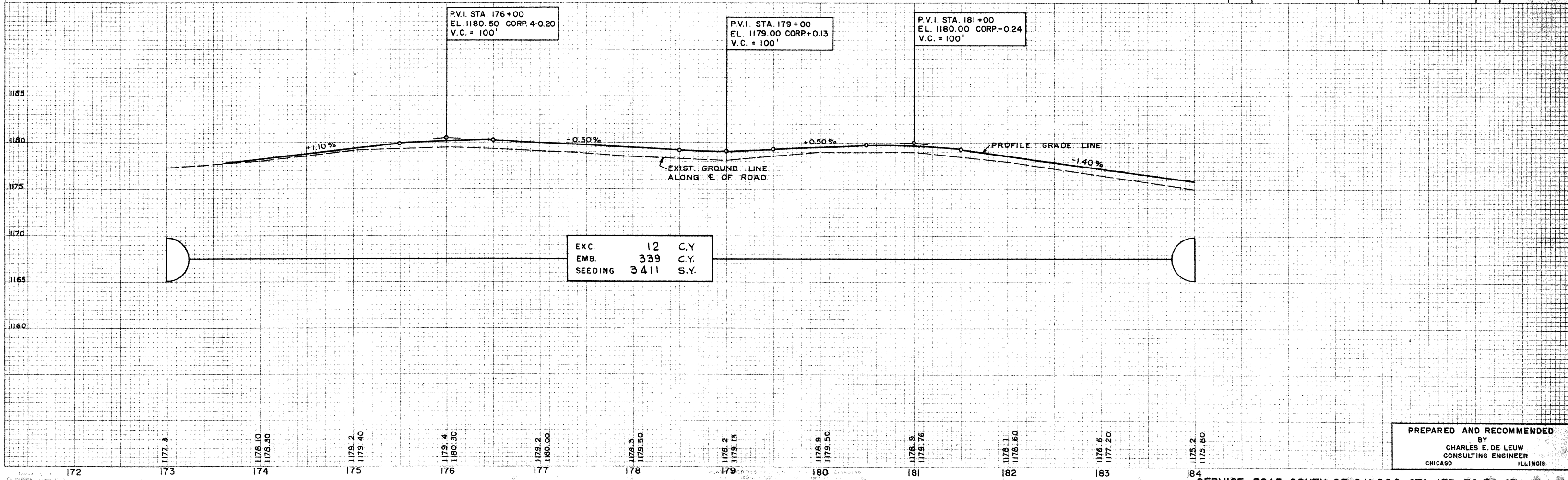
① T-10 6" Traffic Compacted Surface Course
Station 173+70 to 207+95 = 3454 Lin. Ft.

TYPICAL SECTION
SCALE: 1" = 6'-0"

NOTE:
THE STATIONING FOR THE SERVICE ROAD IS THE SAME AS OPPOSITE U.S. 21 STATIONING.

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
T-10	6" Gravel Pav't.	C.Y.				310

PLAN
SCALE = 1" = 50'

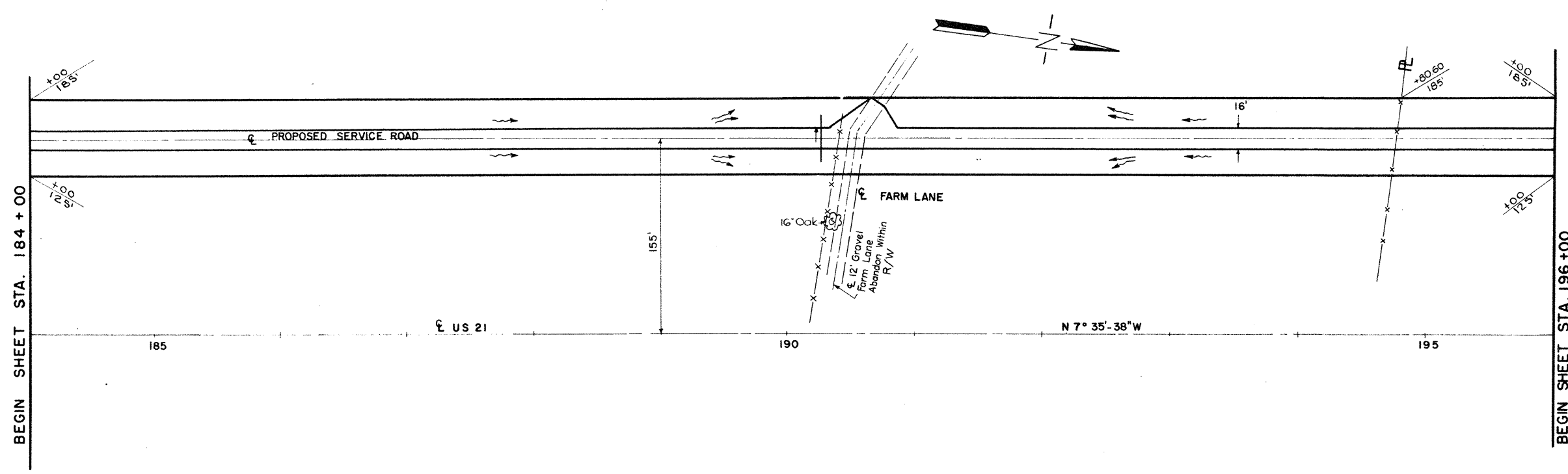


EXC.	12	C.Y.
EMB.	339	C.Y.
SEEDING	3411	S.Y.

PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

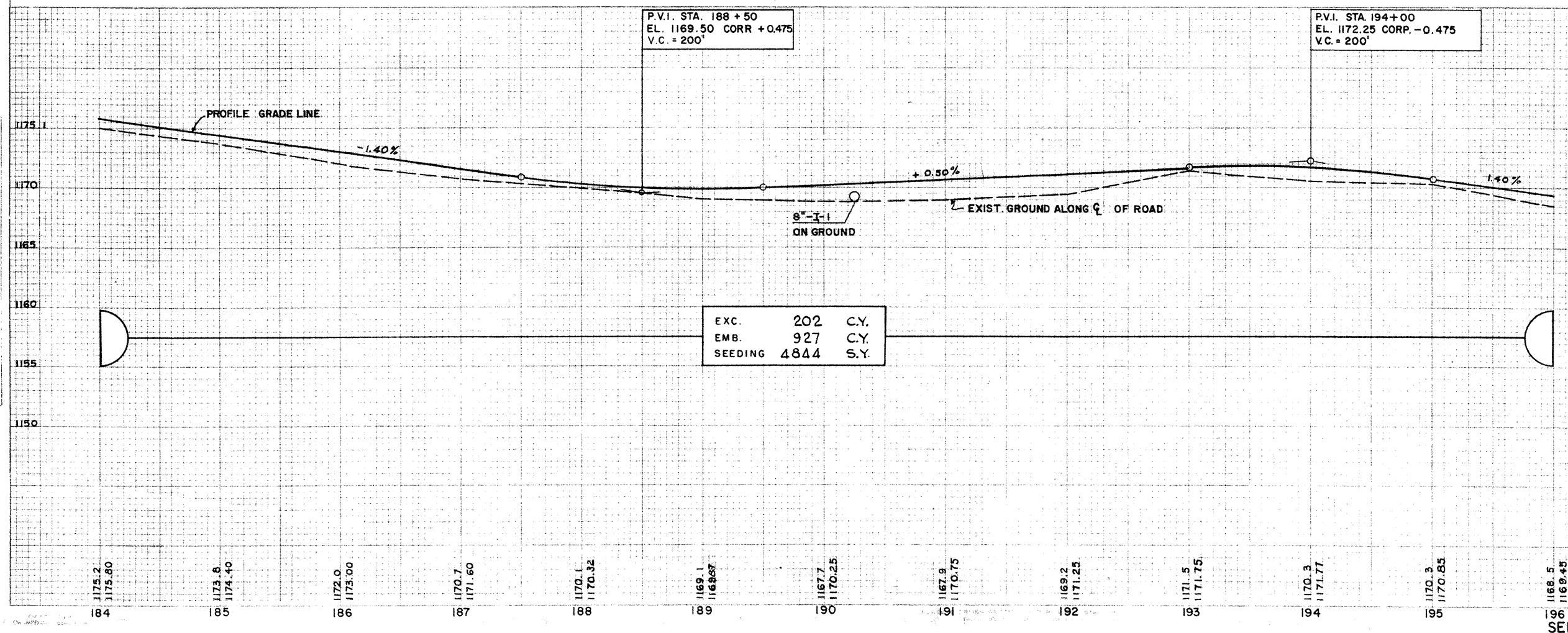
For Typical Section See Sheet 242



NOTE:
THE STATIONING FOR THE SERVICE ROAD IS THE SAME AS OPPOSITE U.S. 21 STATIONING.

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
T-10	PAVEMENT					
I-18	6" Gravel Pav't.	C.Y.	190+50		L	375
	6" STAB. GRAV. DRIVE DRAINAGE	C.Y.				15
I-1	8" Pipe Under Drive	L.F.	190+25			36

PLAN
SCALE: 1" = 50'

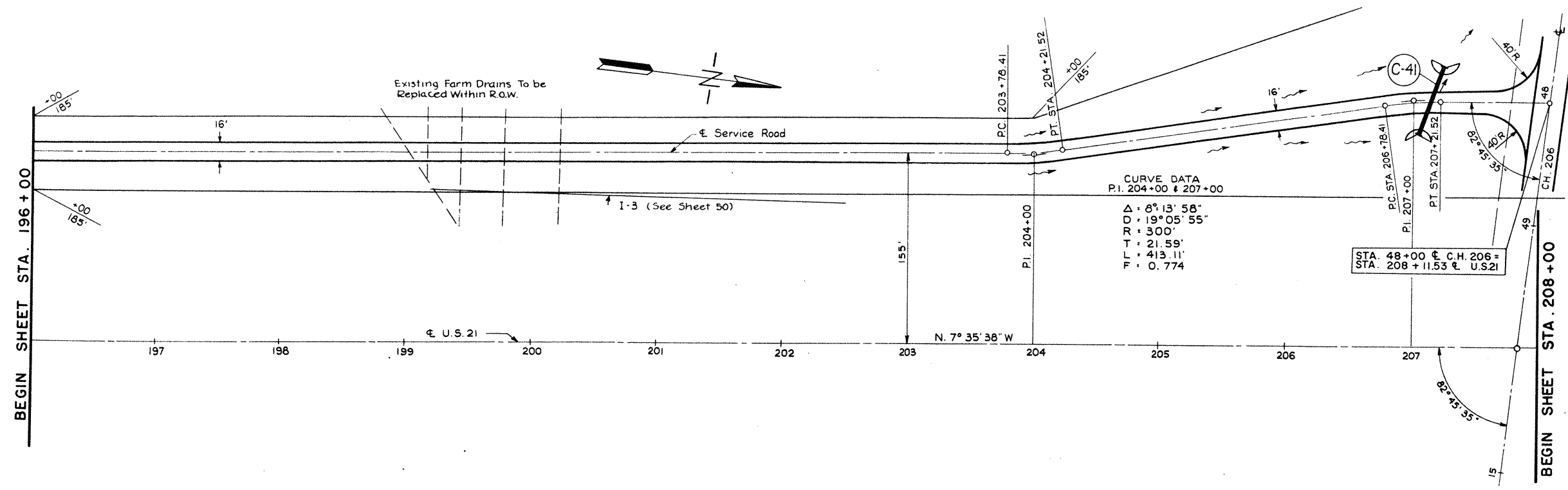


EXC.	202	C.Y.
EMB.	927	C.Y.
SEEDING	4844	S.Y.

PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA. - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

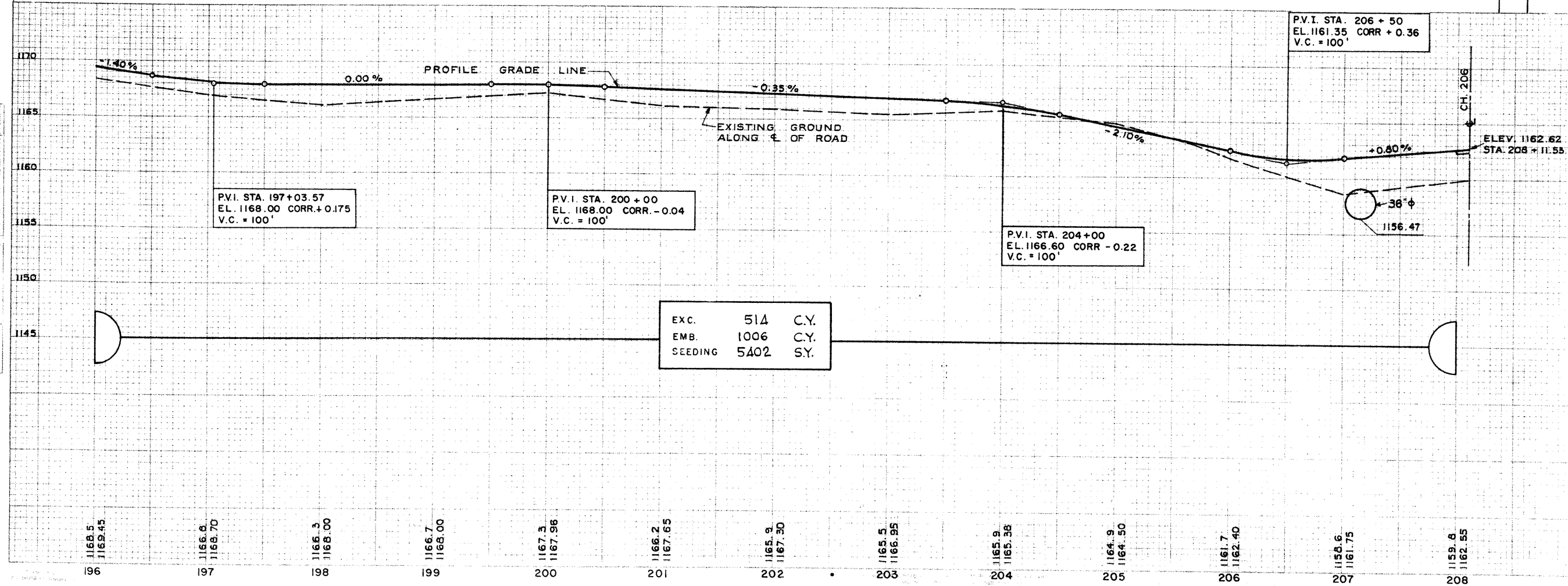
For Typical Section Service Road
On Sheet 242
For Plan & Profile C.H. 206, See Sheet 248



ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
T-10	PAVEMENT					
	6\" Grovel Pav't.	C.Y.				375
	DRAINAGE					
1-3	4\" Rdwy Drain Under Pav't	LF	199+20±	200+25±	L+R	222
1-3	6\" Rdwy Drain Under Pav't	LF	198+90±	199+25±	L+R	64
1-3	6\" -4\" Wye	EA	199+20±		R	1

NOTE:
THE STATIONING FOR THE SERVICE ROAD IS THE SAME AS OPPOSITE U.S. 21 STATIONING.

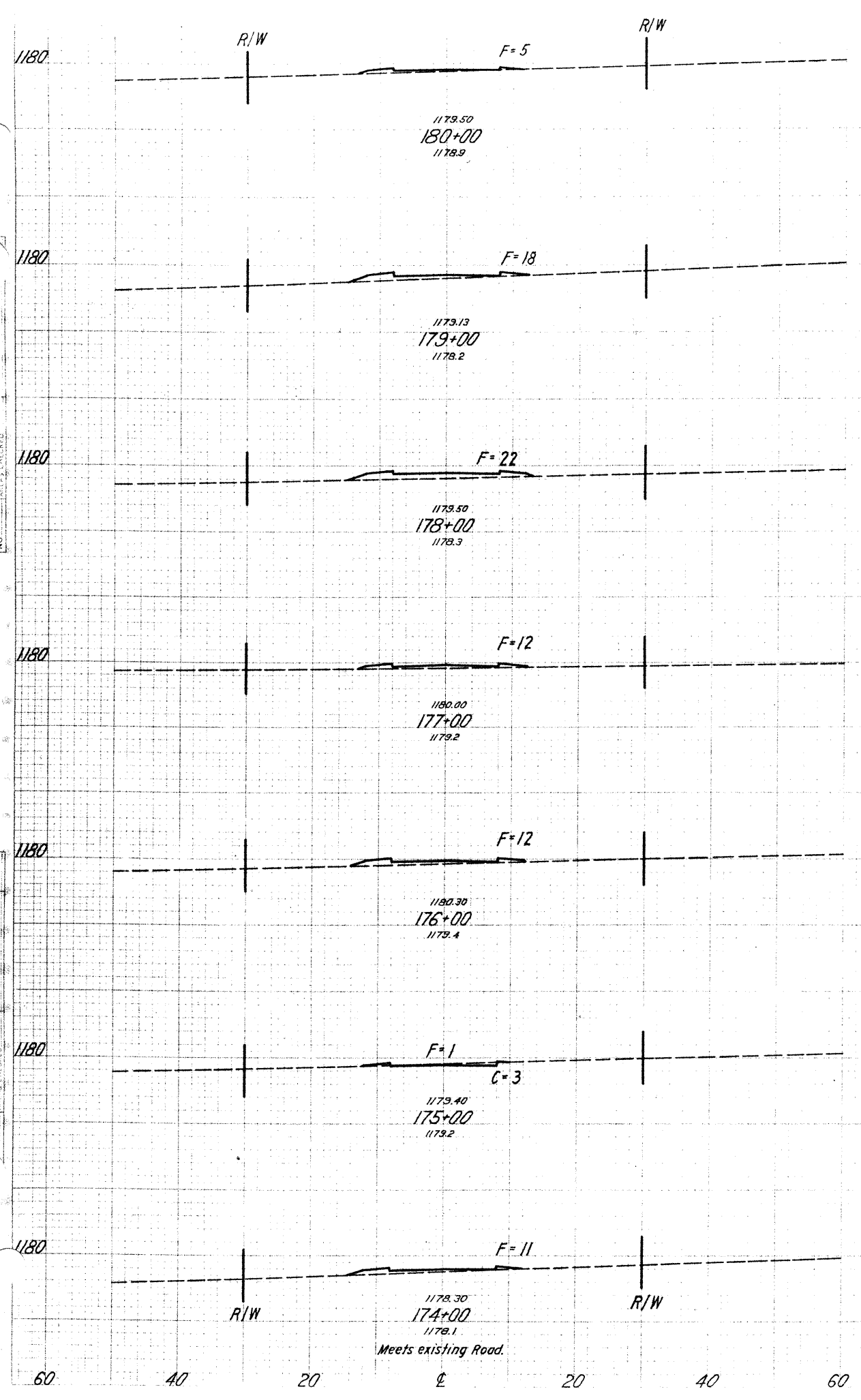
PLAN
SCALE: 1" = 50'



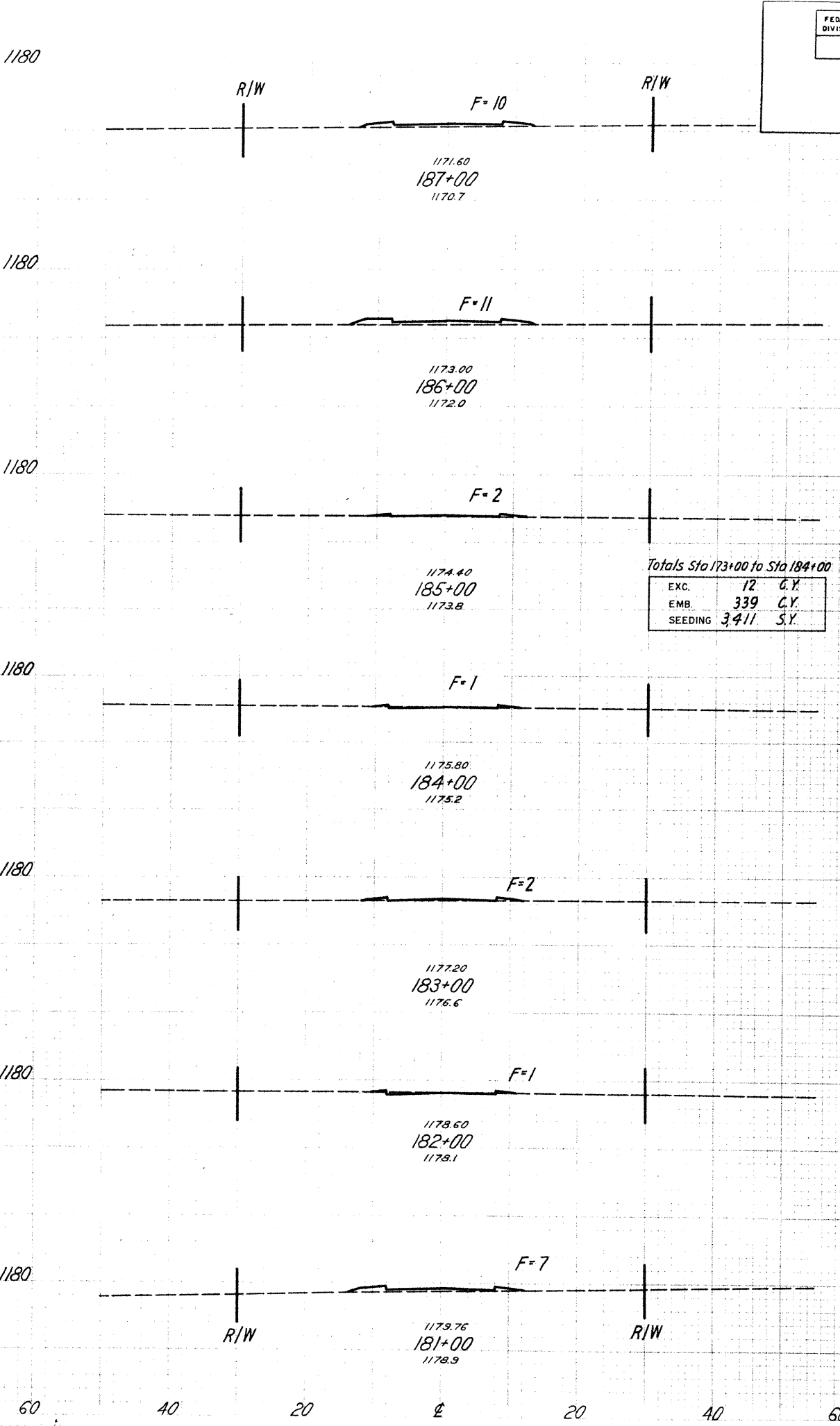
EXC. 514 C.Y.
EMB. 1006 C.Y.
SEEDING 5402 SY.

PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.00
WAY - 21 - 0.00
SUM - 21 - 0.00



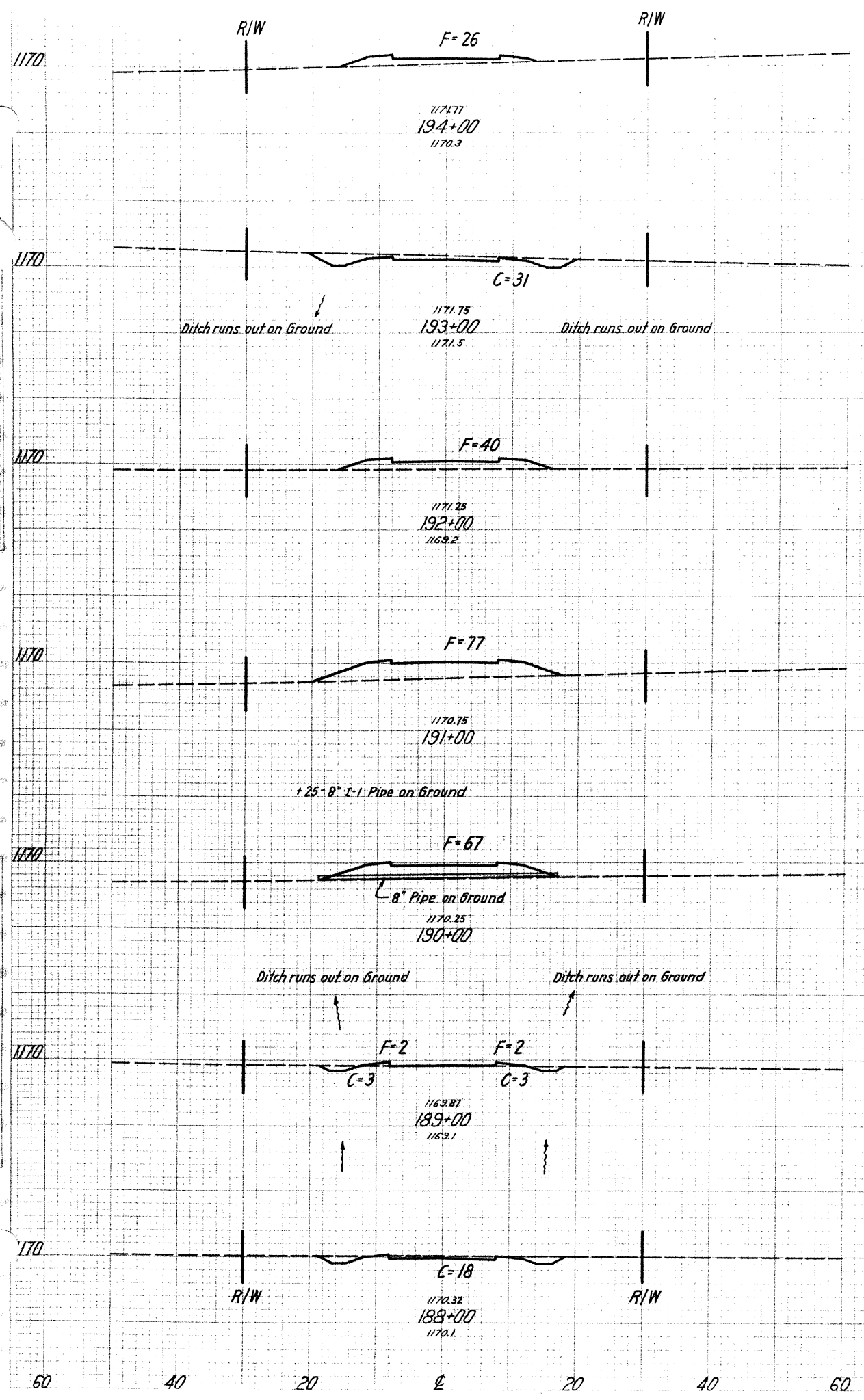
SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
29			5	
333				43
31		18		
350				74
32		22		
344				63
30		12		
339				44
31		12		
317		6	24	
26	3	1		
317		6	22	
31		11		
172				20



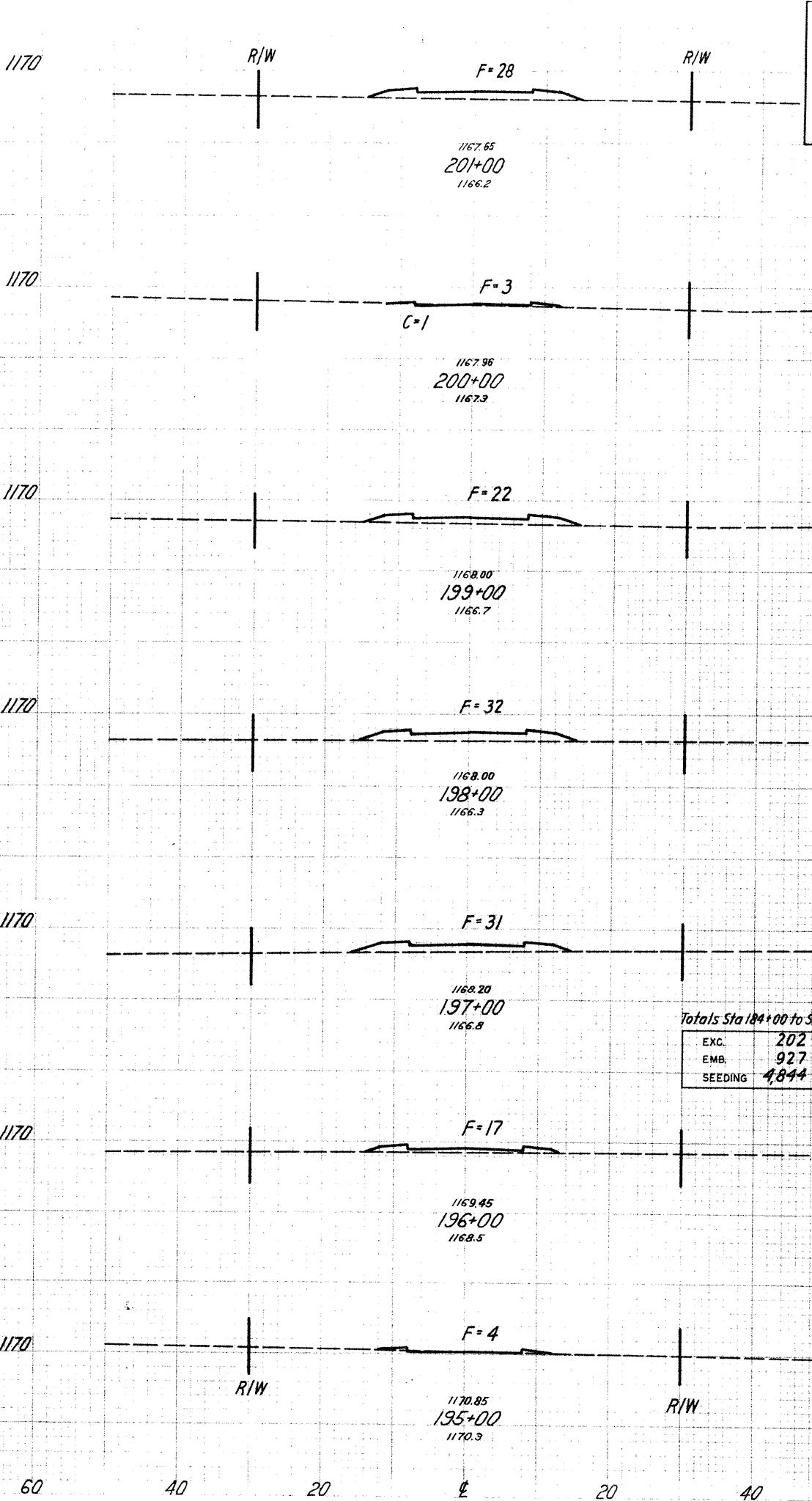
Totals Sta 173+00 to Sta 184+00
 EXC. 12 C.Y.
 EMB. 339 C.Y.
 SEEDING 3,411 S.Y.

SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
30			10	
344				39
32		11		
333				24
28		2		
300				6
26		1		
300				6
28		2		
300				6
26		1		
311				15
30		7		
328				22

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
34		26		
439		57	48	
45	31			
456		57	74	
37	40			
439		217		
42	77			
461		267		
41	67			
489	11	131		
47	6	4		
494		44	7	
42	18			
400		33	19	



SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
35		28		
356		2	57	
29	1	3		
356		2	46	
35		22		
389		100		
35		32		
394		117		
36		31		
378		89		
32		17		
339		39		
29		4		
350		56		

Totals Sta 184+00 to Sta 196+00
EXC. 202 C.Y.
EMB. 927 C.Y.
SEEDING 4,844 S.Y.

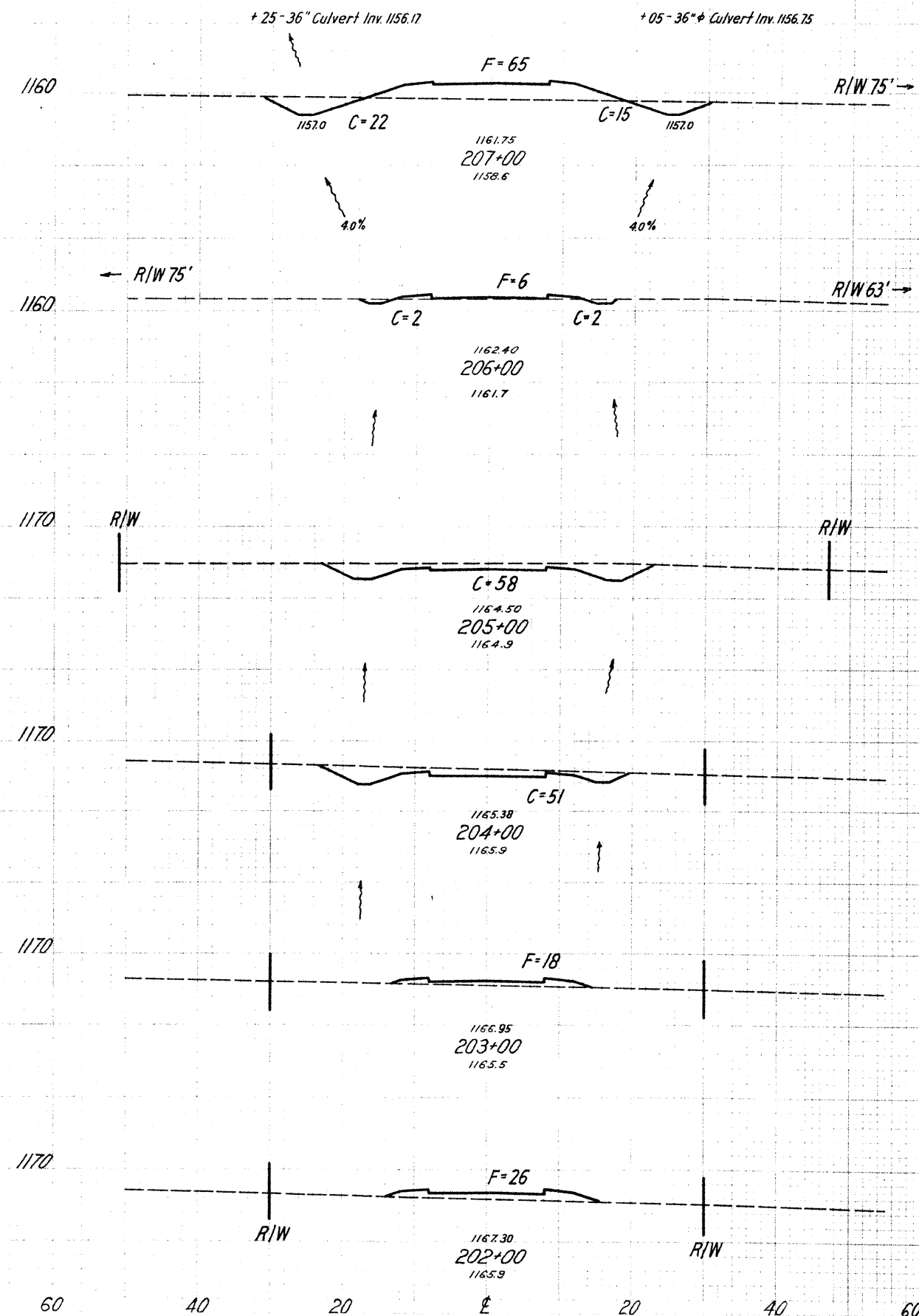
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

247
329

Totals Sta 196+00 to Sta 208+00

EXC. 514 C.Y.
EMB. 1,006 C.Y.
SEEDING 5,402 S.Y.

STA - 21 - 17.60
WAY - 21 - 0.00
SUM - 21 - 6.00

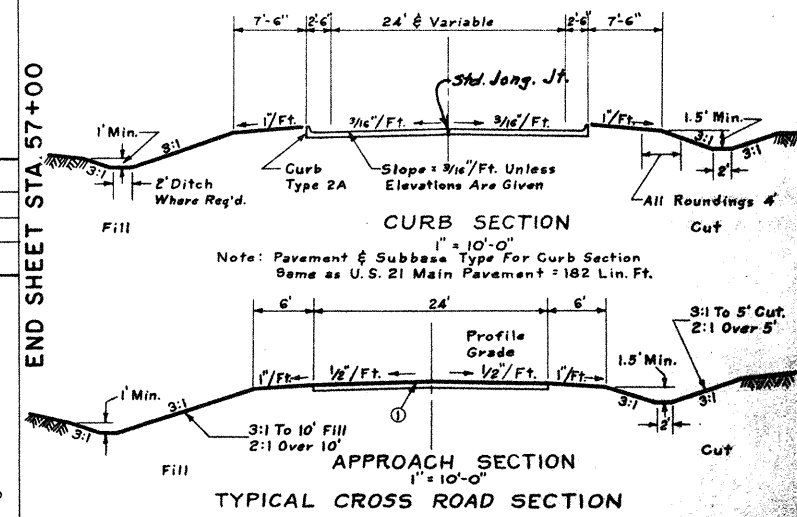
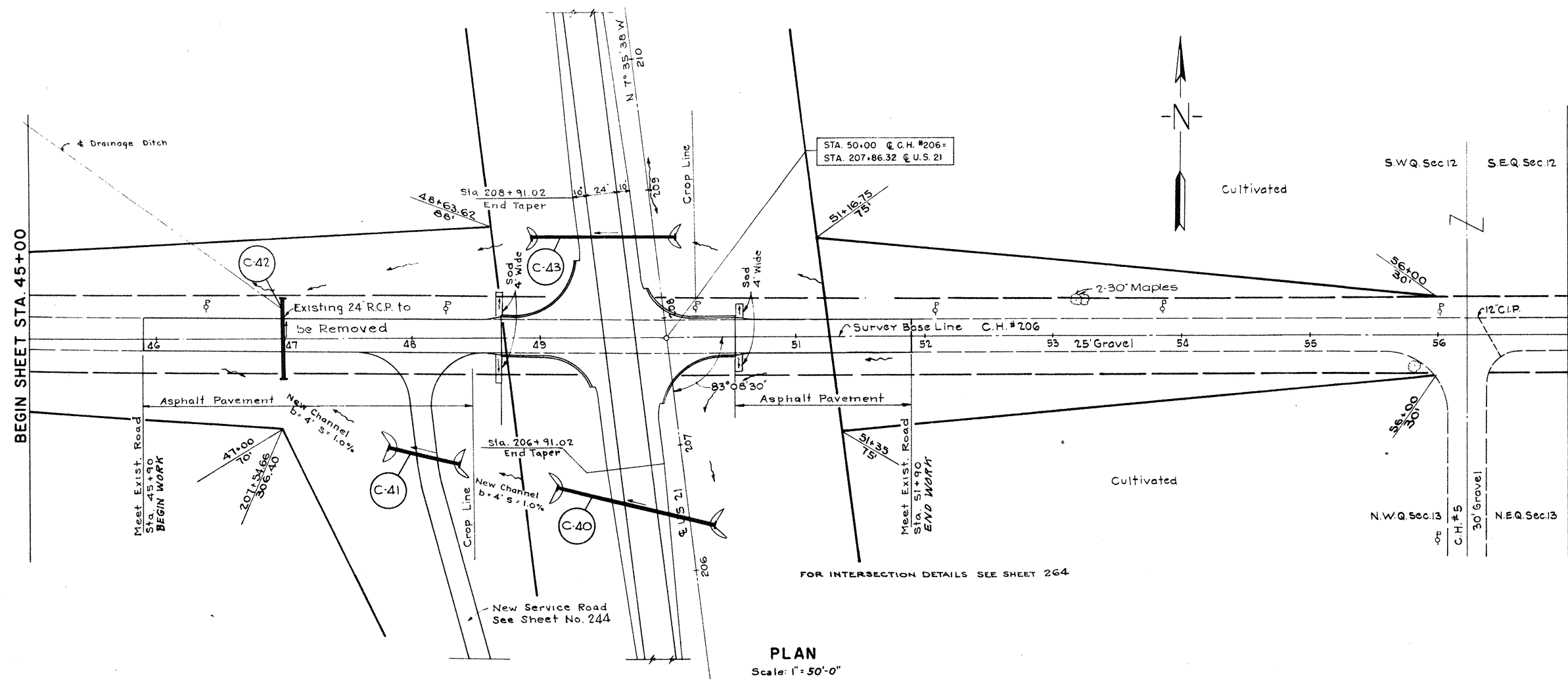


Sta	SEEDING		END AREA		CU. YDS.	
	Ln. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
207+00	69	661	37	65	23	241
206+00	40	606	4	6	76	131
205+00	51	506	58		115	11
204+00	49	556	51		202	
203+00	32	450		18	94	33
202+00	34	367		26		81
TOTAL	383				100	

FINAL SURVEY PLOTTED TEMPLATE

FINAL SURVEY PLOTTED TEMPLATE

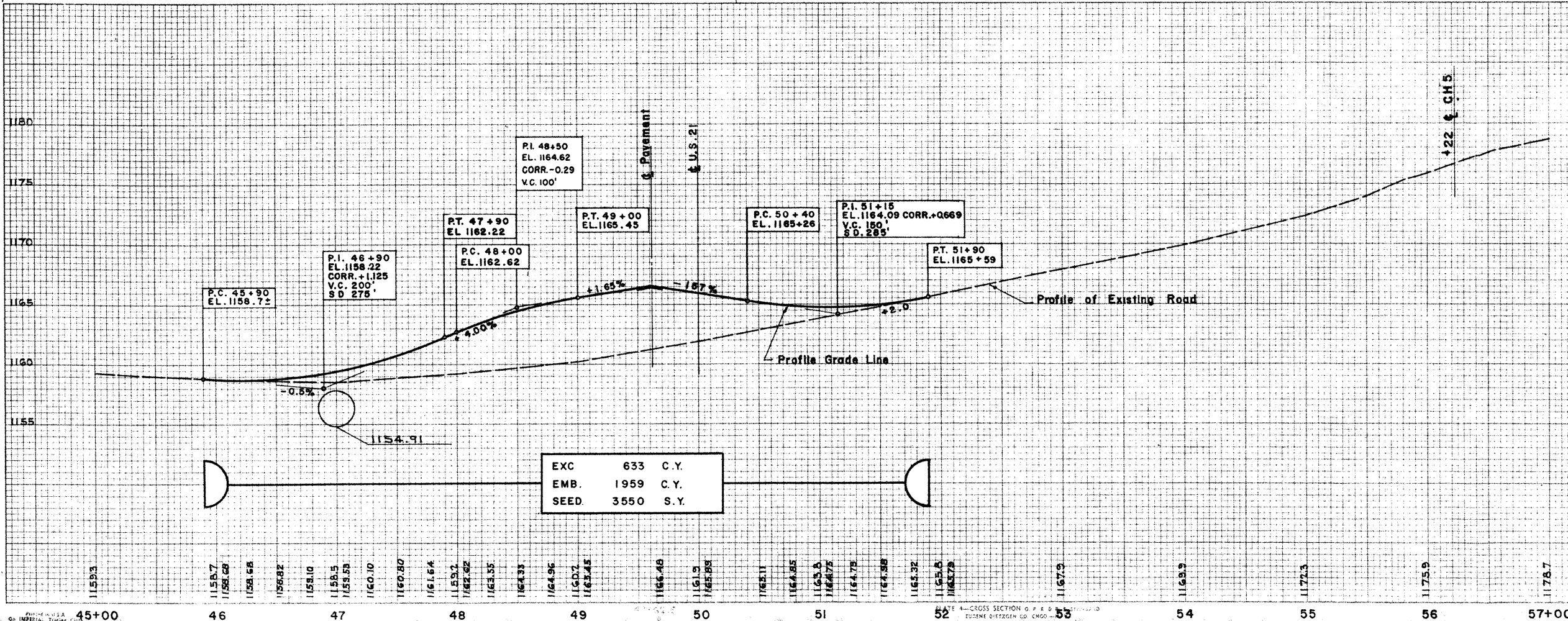
STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



① T-10 6" Traffic Compacted Surface Course
Station 45+90 to 48+72 & 50+54 to 51+90 = 418 Lin. Ft.

STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-40	206+41	Pipe Culvert	36" x 124'	269
C-41	207+16	Pipe Culvert	36" x 58'	269
C-42	47+00	Pipe Culvert	36" x 60'	269
C-43	208+64	Pipe Culvert	24" x 108'	269

PLAN
Scale: 1" = 50'-0"



EXC	633	C.Y.
EMB.	1959	C.Y.
SEED	3550	S.Y.

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
E-1	Comp. Subgrade	S.Y.	48+70	50+55		565
L-22	Subbase	C.Y.	48+70	50+55		62
L-10	Sodding 4' Wide	S.Y.	48+70		L&R	20
L-10	Sodding 4' Wide	S.Y.	50+55		L&R	15
PAVEMENT						
T-10	6" Gravel Surface	C.Y.	48+70	50+55		195
T-71	9" R.C. Polyt.	S.Y.	48+70	50+55		585
I-12	Type 2A Curb	L.F.	48+70	50+55		300
DRAINAGE						
E-12	24' Pipe Removed for Storage	L.F.	47+00		L&R	34

PREPARED AND RECOMMENDED BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

11A - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

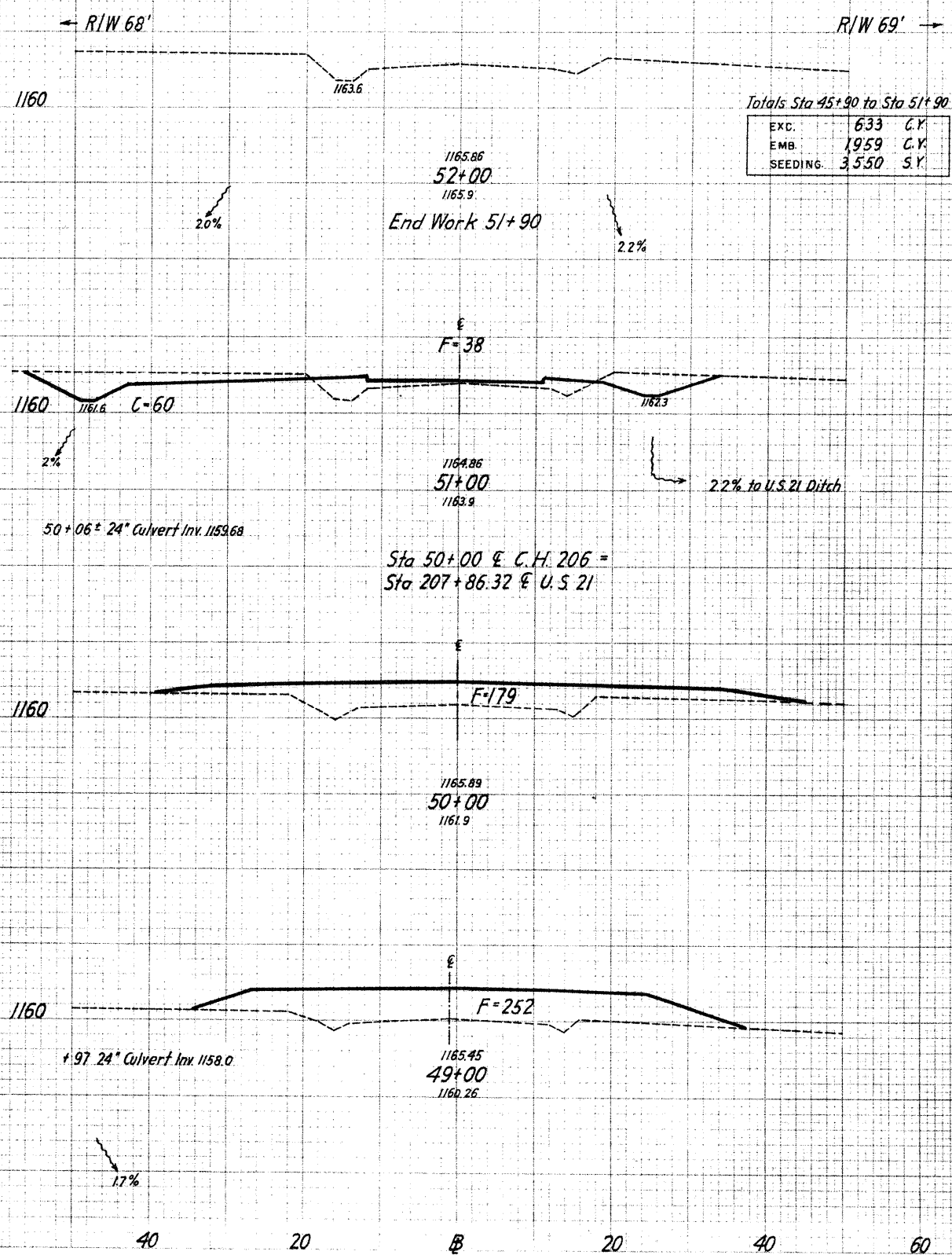
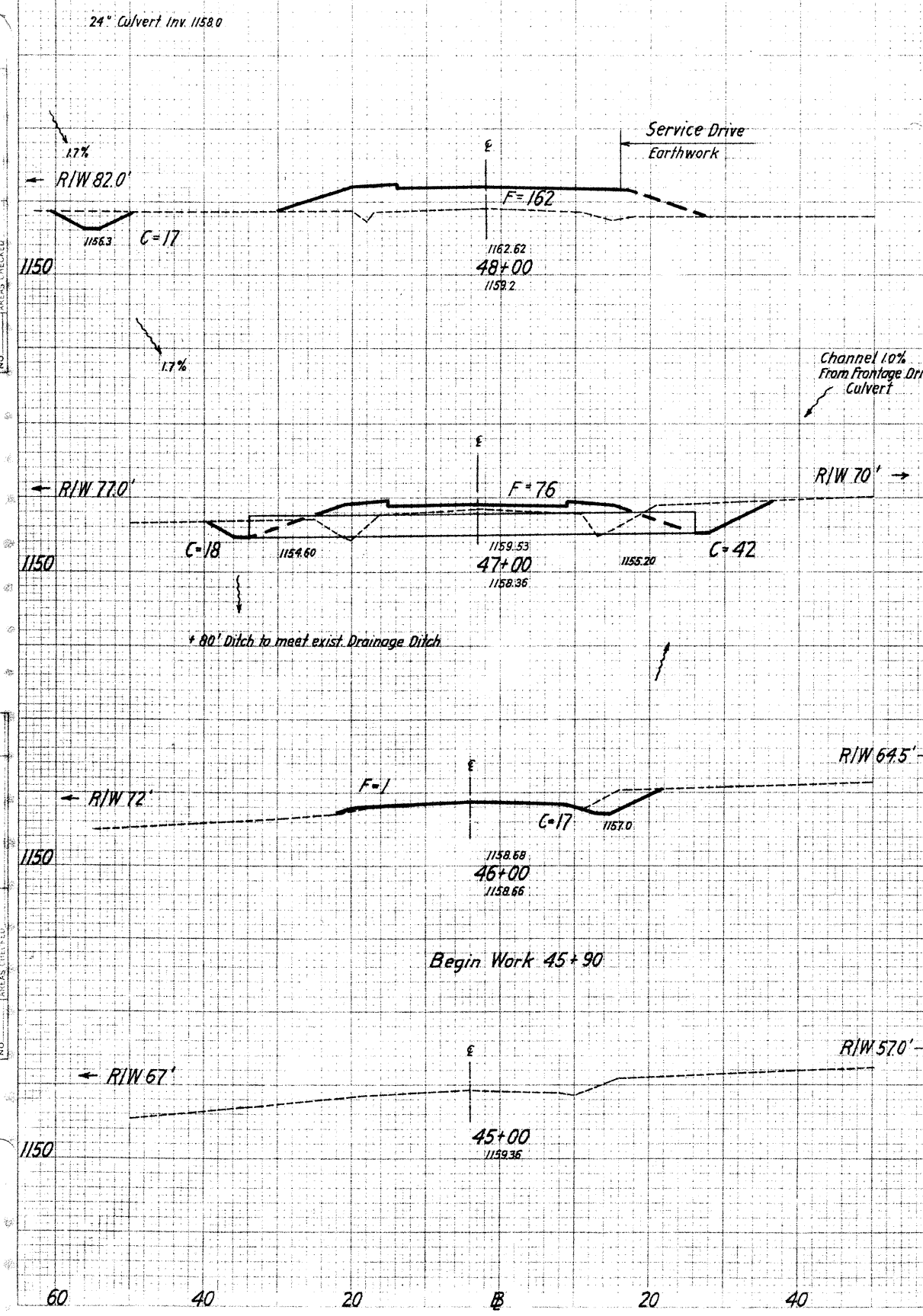
SEEDING		END AREA		CU. YDS.	
Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
67		17	156		
789		143	430		
75		60	76		
867		157	157		
55		17	1		
58			195		
59			268		
700		31	785		

SEEDING		END AREA		CU. YDS.	
Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
500			143	63	
67		86	38		
694		159	431		
58			195		
59			268		
700		31	785		

Totals Sta 45+90 to Sta 51+90
 EXC. 633 C.Y.
 EMB. 1959 C.Y.
 SEEDING 3550 S.Y.

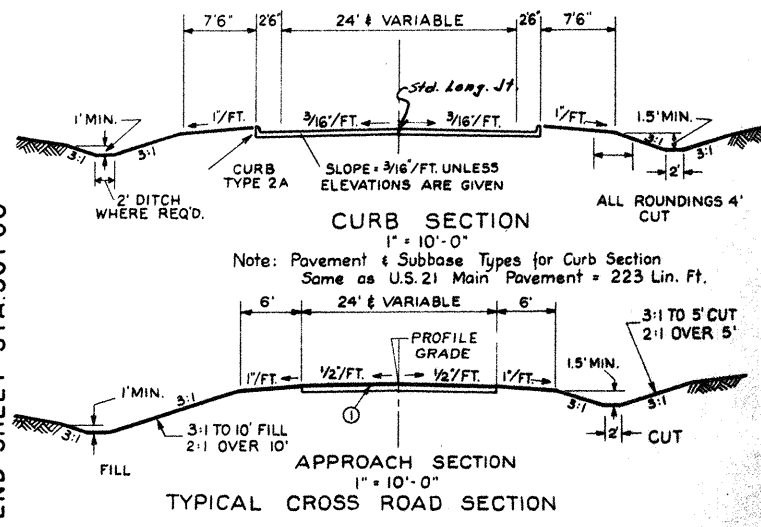
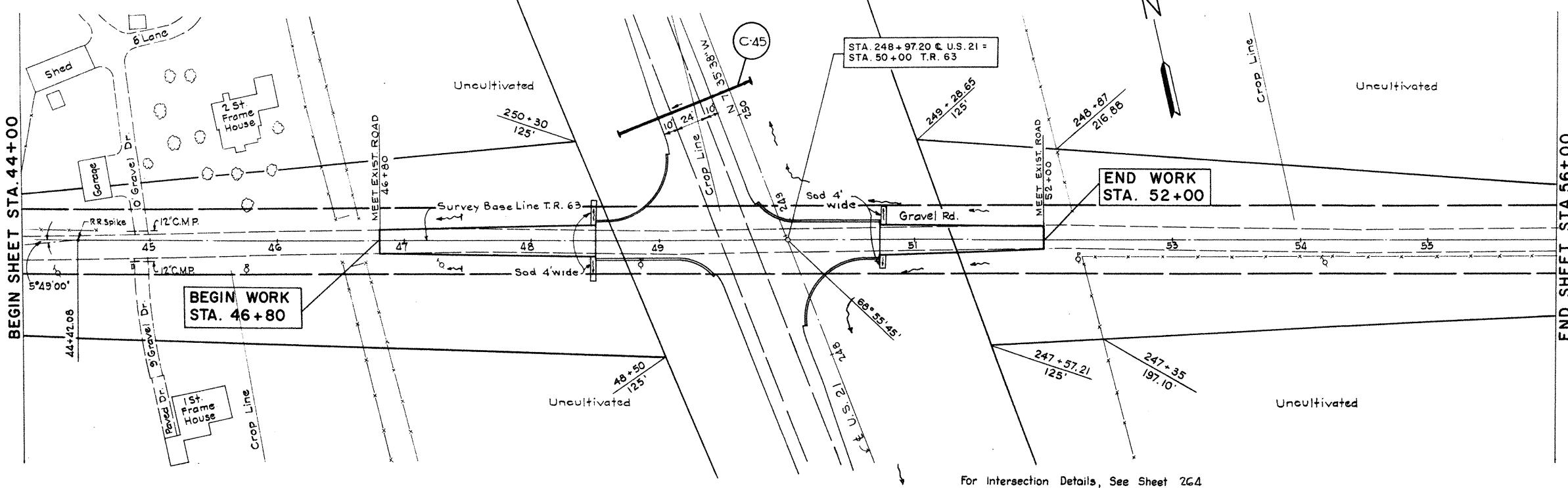
End Work 51+90

Sta 50+00 E. C.H. 206 =
 Sta 207+86.32 E. U.S. 21



FINAL SURVEY PLOTTED AREAS CHECKED
 SURVEY PLOTTED AREAS CHECKED
 NO. AREAS CHECKED

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



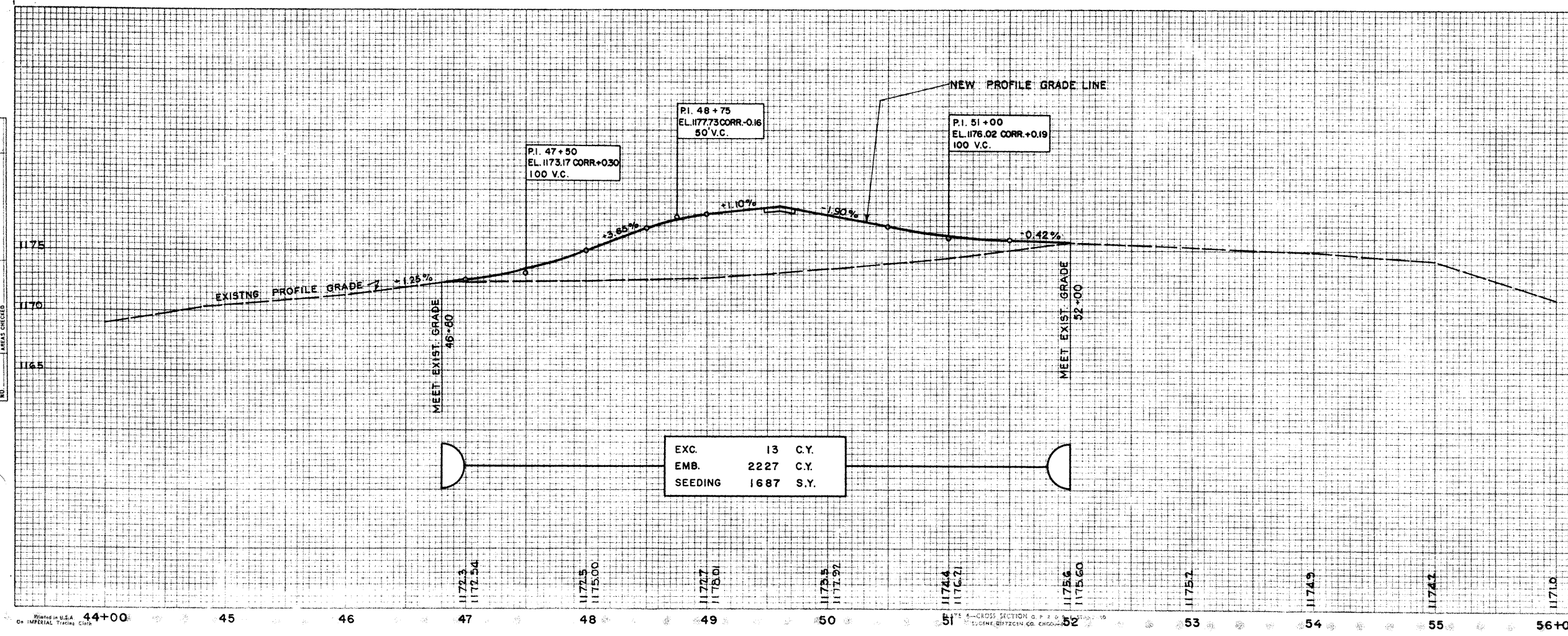
① T-10 6\"/>

For Intersection Details, See Sheet 264

PLAN

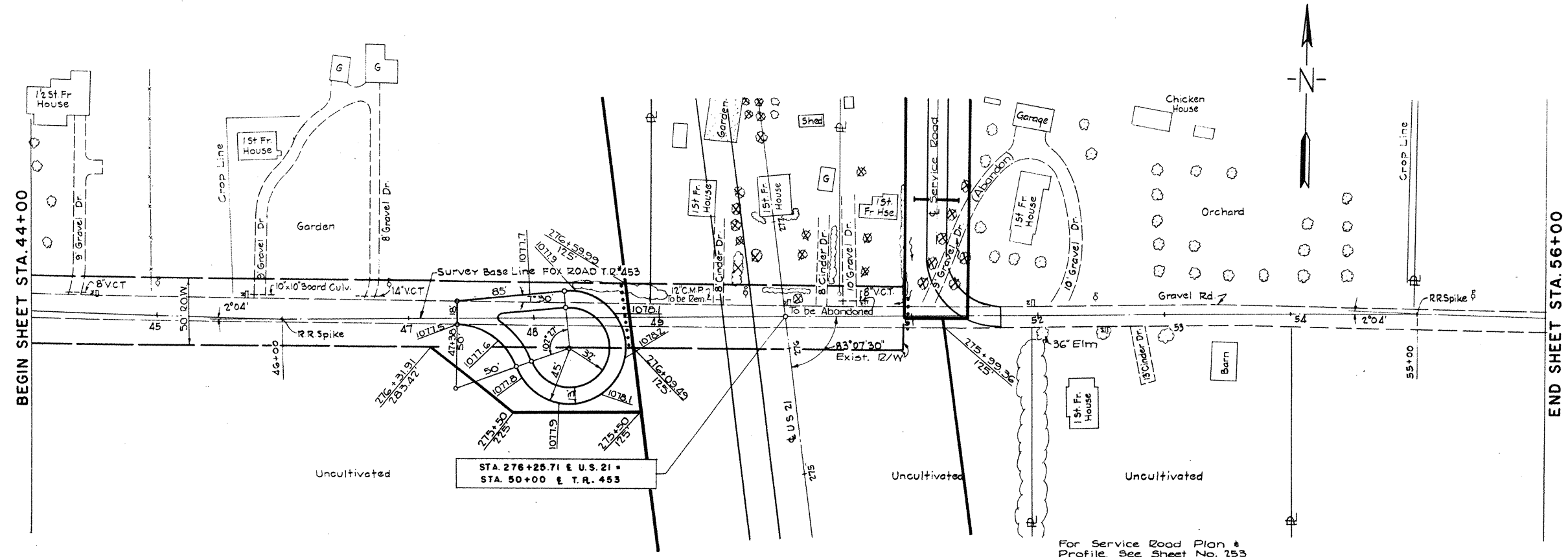
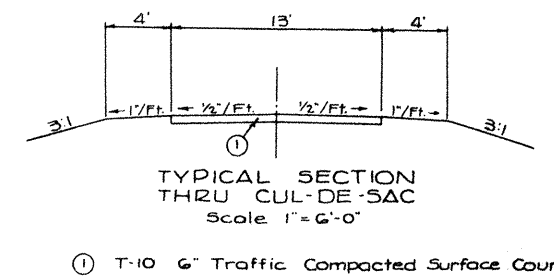
STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-45	250+20	Pipe Culvert	24\"/>	

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
E-1	Comp. Subgrade	S.Y.	48+50	50+70		785
I-72	Subbase	C.Y.	48+50	50+70		117
L-10	Sodding 4' Wide	S.Y.	48+48	50+72	L+R	20
L-10	Sodding 4' Wide	S.Y.	50+72		L+R	10
PAVEMENT						
T-10	6\"/>					



PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA. 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



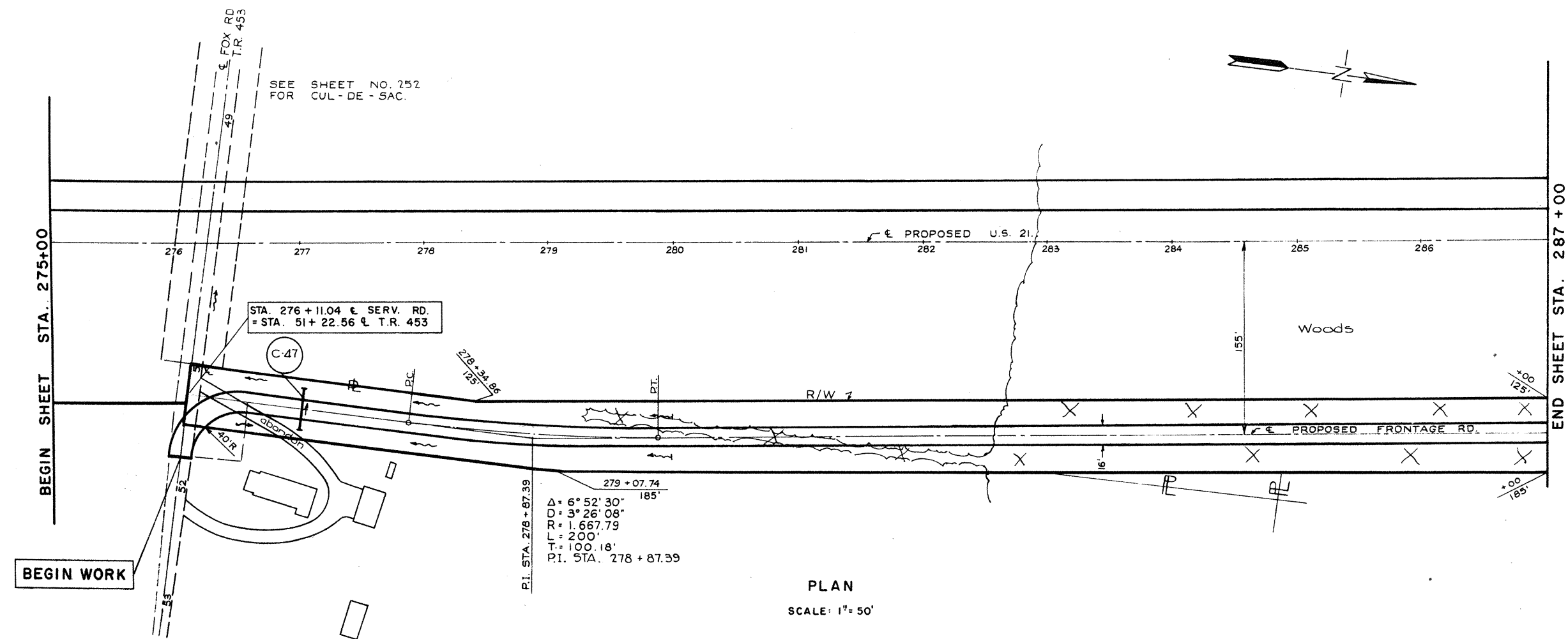
ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
PAVEMENT						
T-10	Gravel Surface	C.Y.				75
I-15	Guard Posts	Eq.	48+75		9	13
I-15	Guard Posts	Eq.	51+00		4	



PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

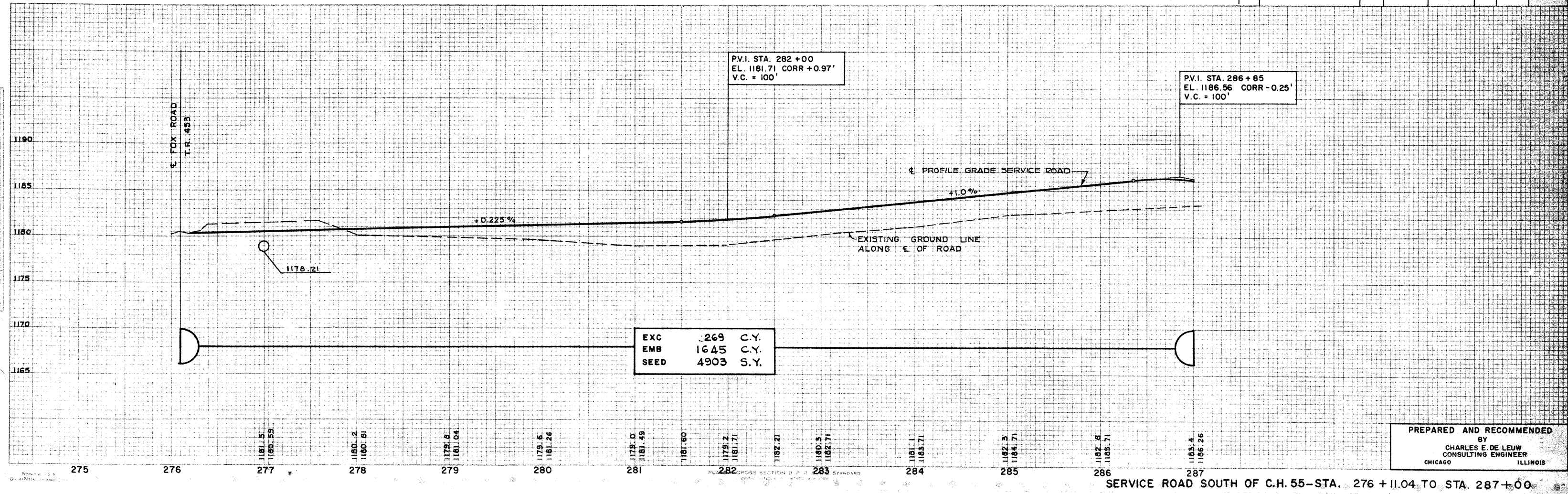
STA. - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

For Typical Section of Service Road.
See Service Road So. of C.H. 206, Sh. No. 255



MARK	STA.	TYPE	SIZE	STAY
C-47	276+11.04	Pipe Culvert	15' x 34'	269

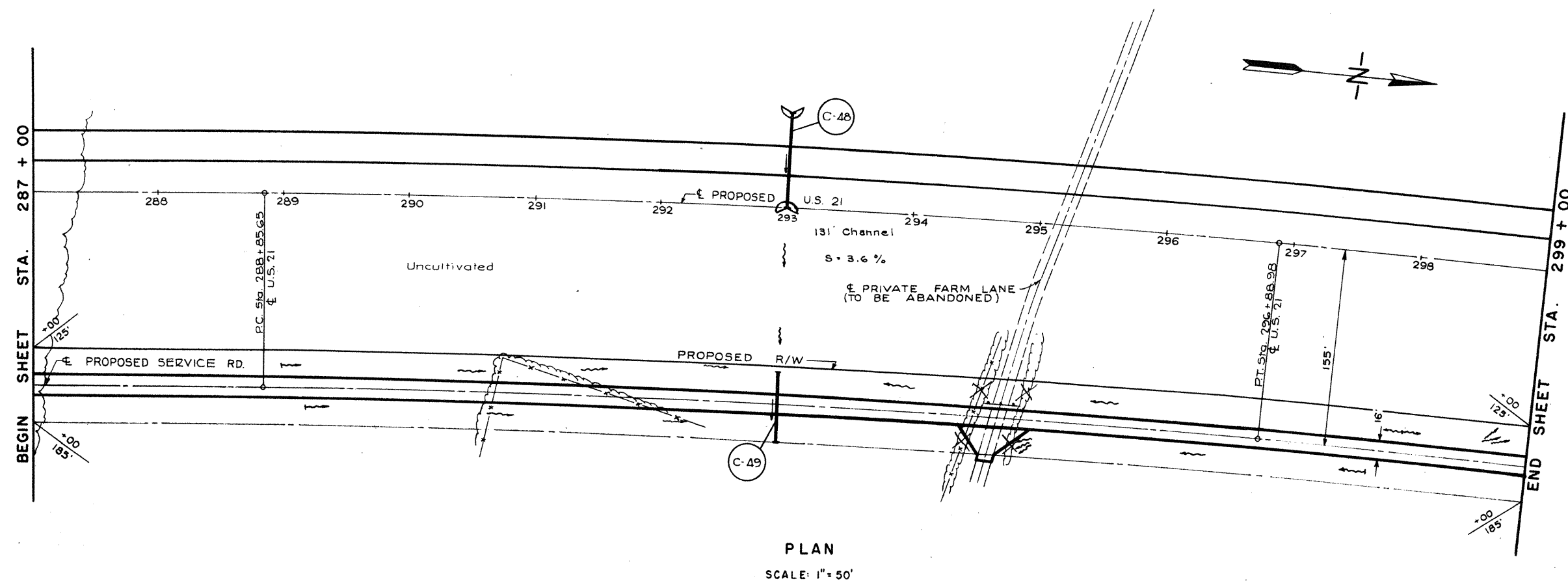
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB TOTAL	TOTAL
B-19	PAVEMENT						
T-30	8" Gravel Base	CY				455	
T-35	2" Asph. Conc. Surf	CY				720	
							107



FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

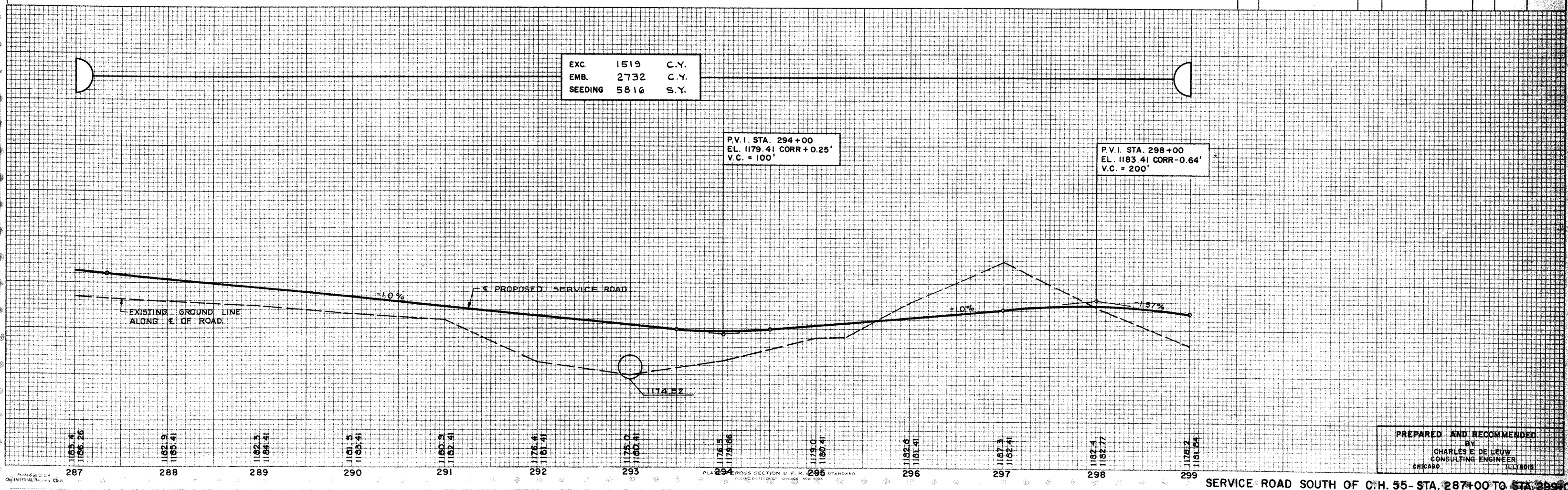
254
329

STA. - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-48	293+00	Pipe Culvert	30' x 72'	269
C-49	295+00	Pipe Culvert	30' x 58'	269

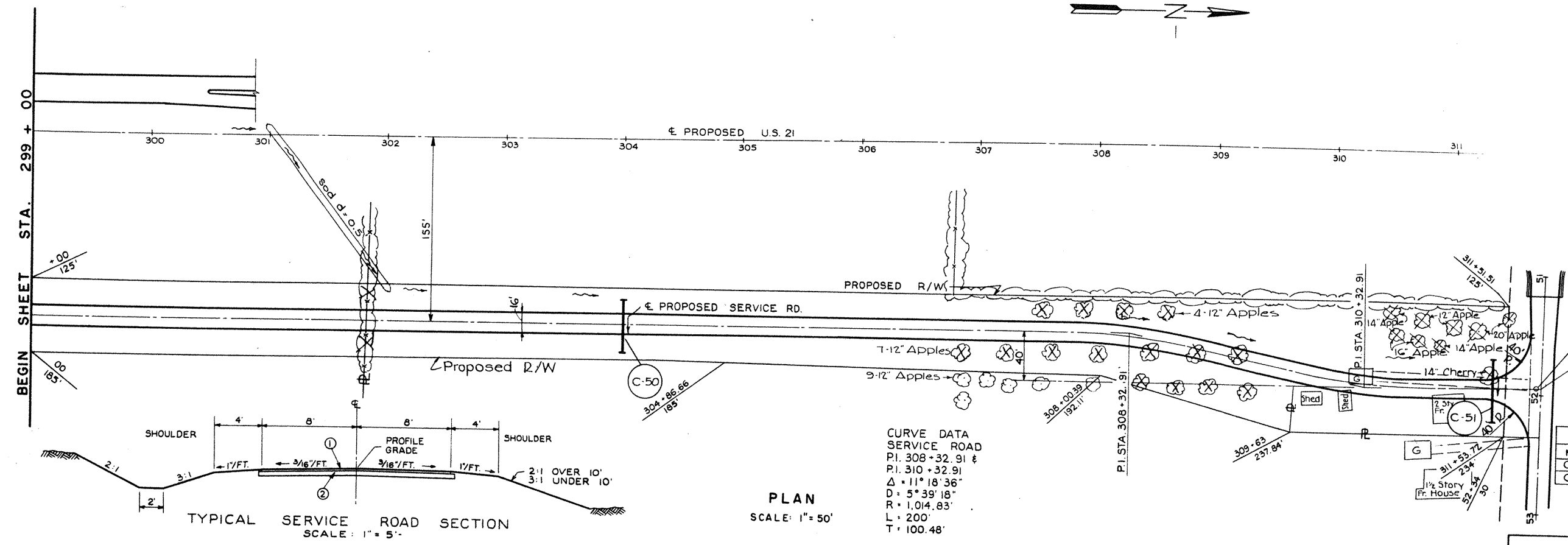
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB TOTAL	TOTAL
I-15	ROADWAY Guard Rail		294+80		L		25
B-119	PAVEMENT 8" Gravel Base	CY					510
T-30	Bit Prime	GAL					800
T-35	2" Asph. Conc. Surf	CY					120
I-18	6" Sfab. Gravel Drive	CY	295+00		R		12



PREPARED AND RECOMMENDED BY
CHARLES F. DE LEUW
CONSULTING ENGINEER
CHICAGO, ILLINOIS

SERVICE ROAD SOUTH OF C.H. 55- STA. 287+00 TO STA. 299+00

STA - 21 - 17.80
 WAY - 21 - 0.00
 SUM - 21 - 0.00



STA. 311+78.96 BACK =)
 STA. 0+00 AHEAD) U.S. 21

STA. 0+03.95 U.S. SERV. RD.
 = STA. 51+94 U.S. C.H.#55

FOR PLAN & PROFILE C.H. 55
 SEE SHEET 259

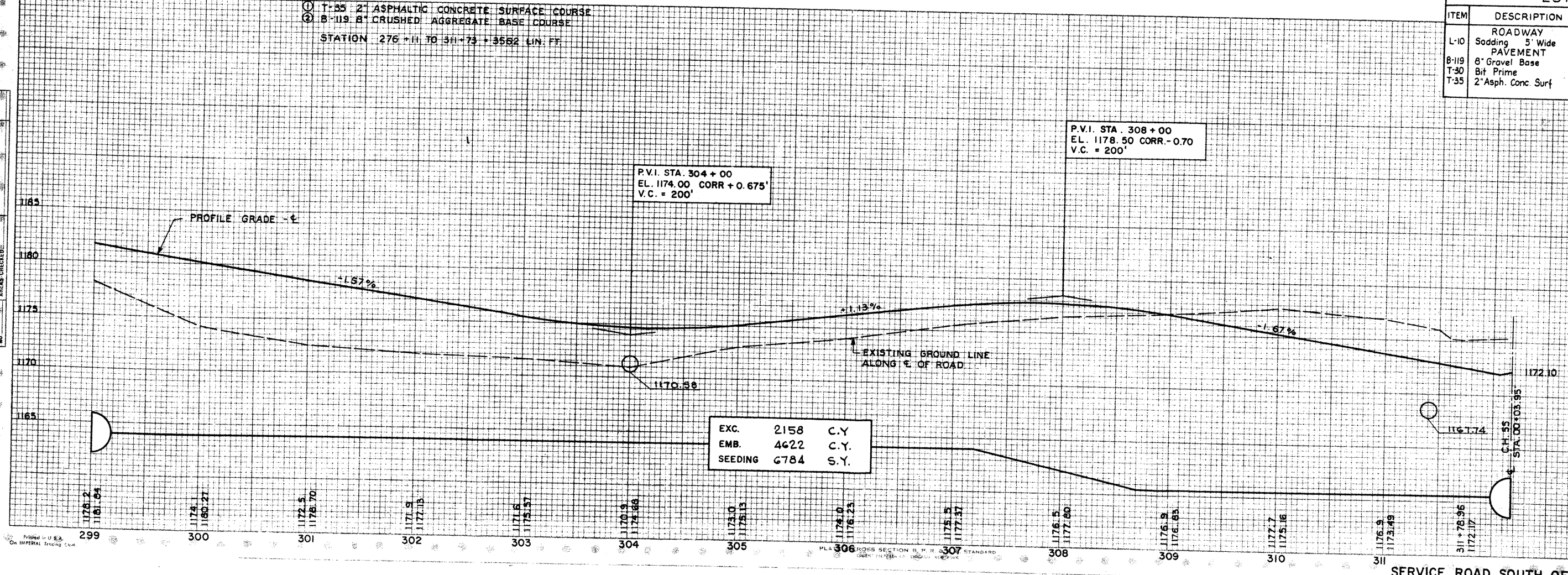
STRUCTURES - 20' SPAN AND UNDER

MARK	STA.	TYPE	SIZE	DETAIL SHEET
C-50	304+00 SERVICE RD	Pipe Culvert	18' x 46"	269
C-51	311+26 SERVICE RD	Pipe Culvert	18' x 54"	269

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	SUB TOTAL	TOTAL
L-10	ROADWAY Sodding 5' Wide PAVEMENT	SY	301+00	302+00	L		90
B-119	6" Gravel Base	CY					540
T-30	Bit Prime	GAL					850
T-35	2" Asph. Conc. Surf	CY					127

- ① T-35 2" ASPHALTIC CONCRETE SURFACE COURSE
 - ② B-119 6" CRUSHED AGGREGATE BASE COURSE
- STATION 276+11 TO 311+73 = 3562 LIN. FT.



PREPARED AND RECOMMENDED BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

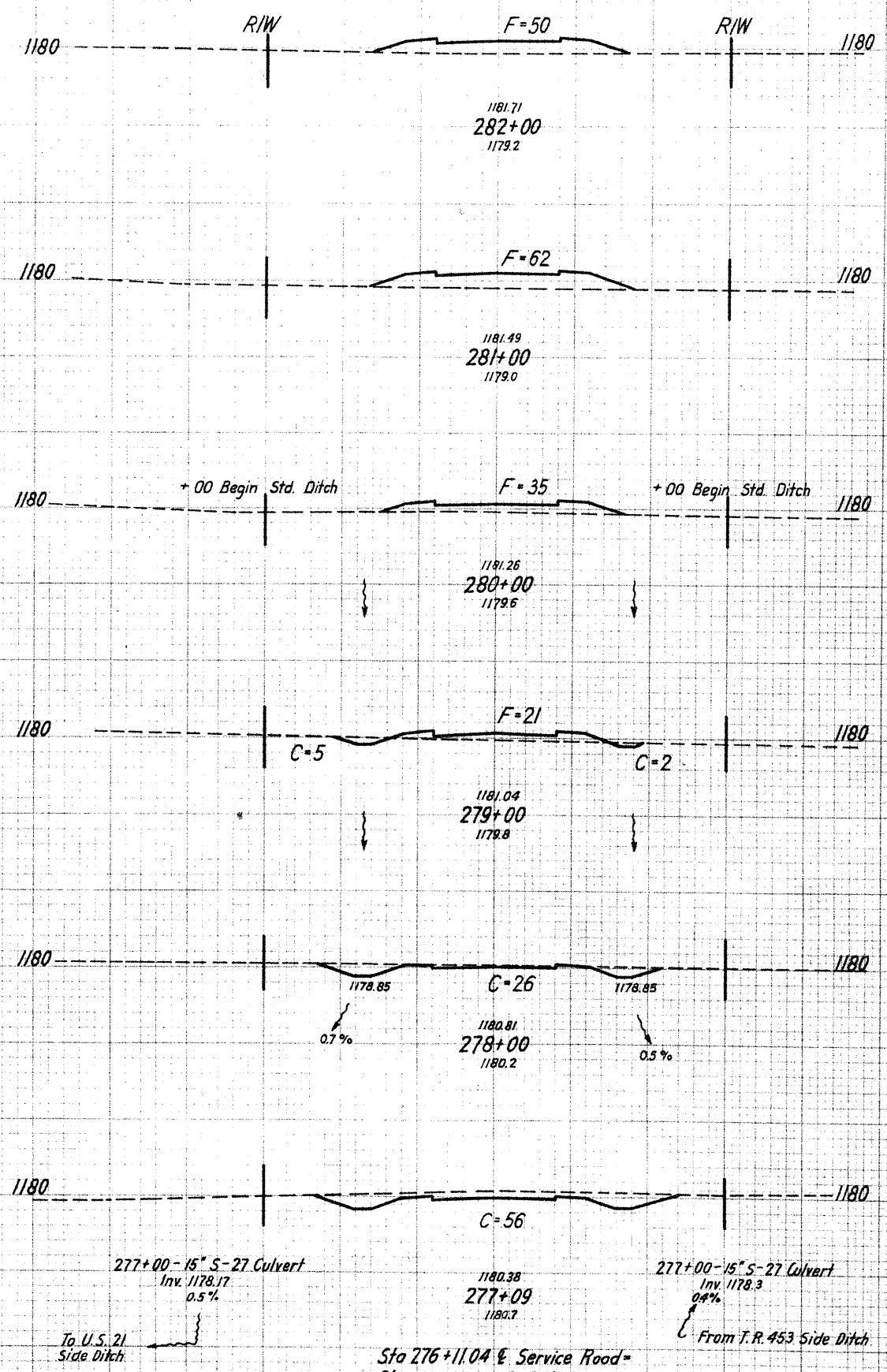
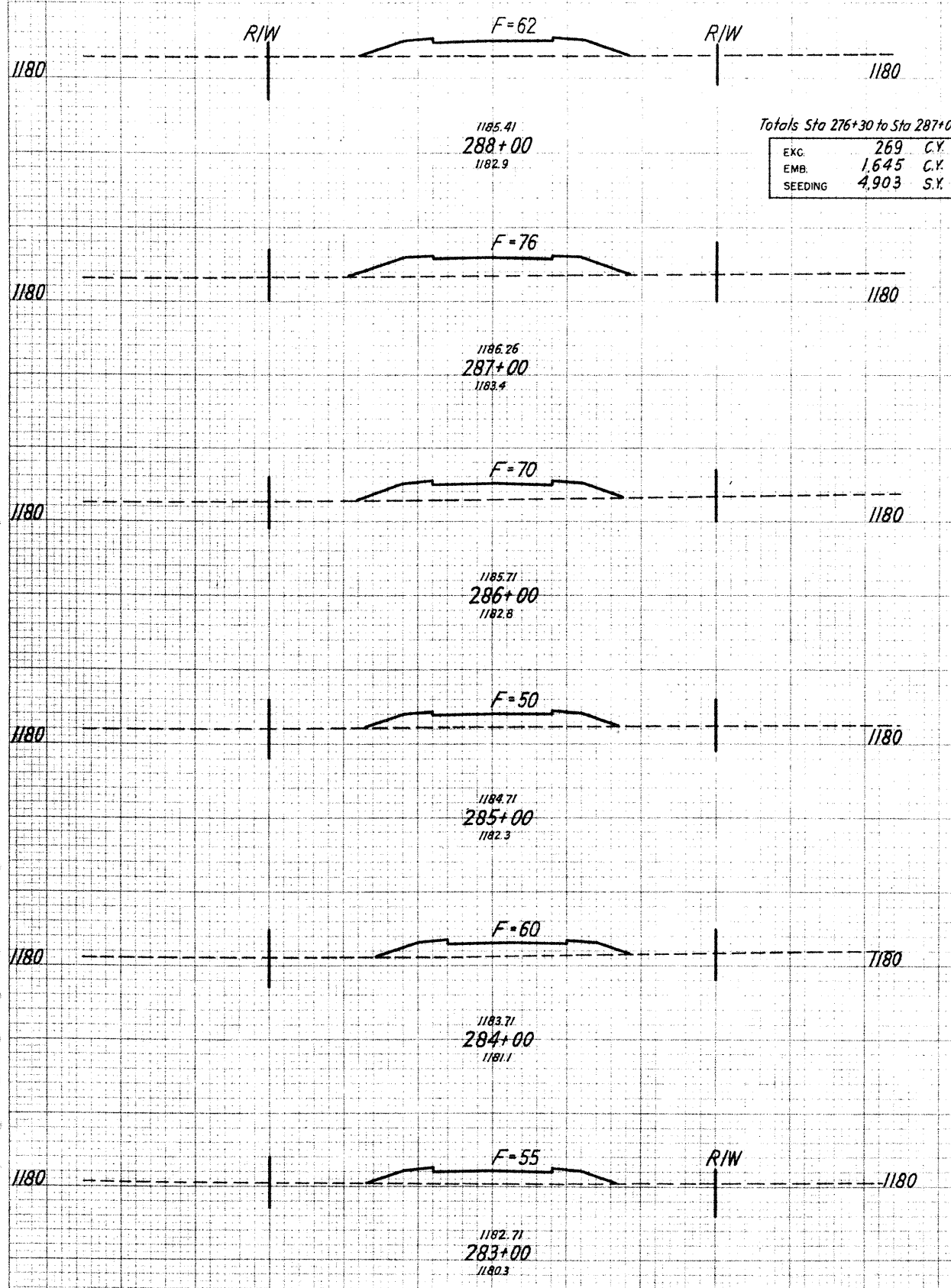
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
OHIO			

256
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

SEEDING		END AREA		CU. YDS.	
Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
40			62		
472				256	
45			76		
483				270	
42			70		
444				234	
38			50		
439				204	
41			60		
450				213	
40			55		
433				194	

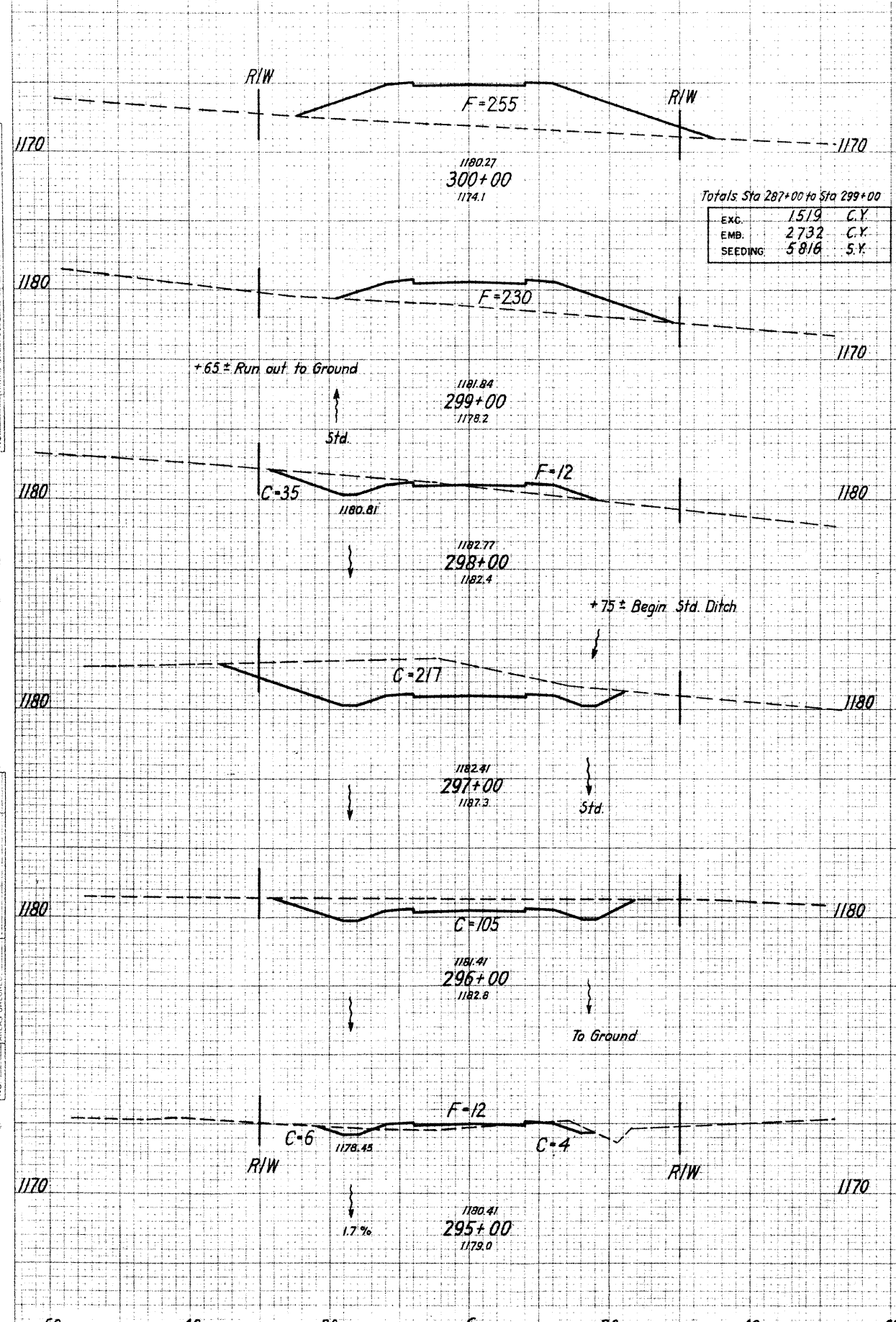
Totals Sta 276+30 to Sta 287+00
 EXC. 269 C.Y.
 EMB. 1,645 C.Y.
 SEEDING 4,903 S.Y.



SEEDING		END AREA		CU. YDS.	
Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
38			50		
428				207	
39			62		
422				180	
37			35		
467				13	104
47		7	21		
506				61	39
44			26		
445				123	-
44			56		
386				72	-

Sta 276+11.04 & Service Road =
Sta 51+22.56 & C.H. 453

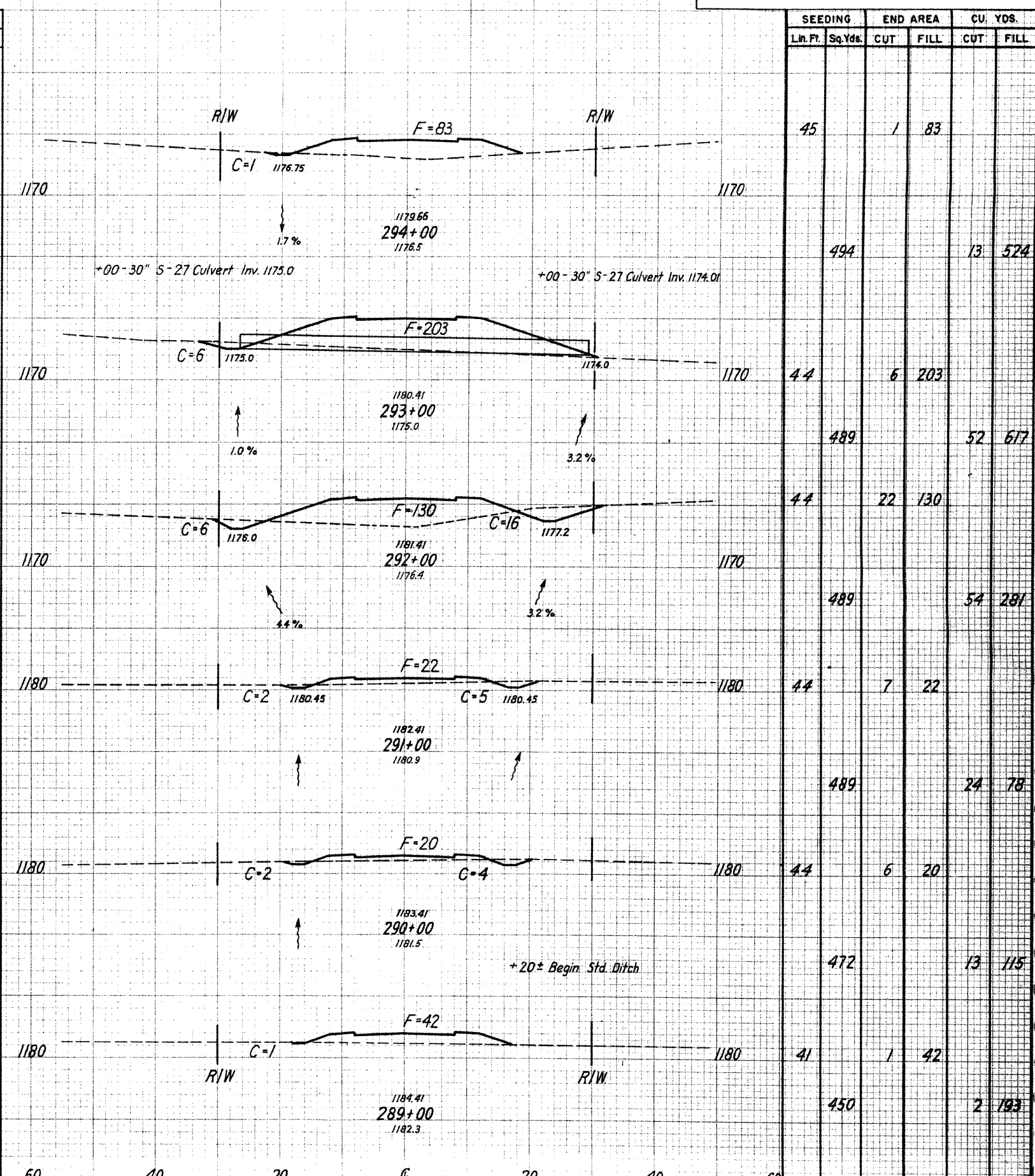
FINAL SURVEY PLOTTED
NOTE BOOK NO. SHEETS CHECKED



Totals Sta 287+00 to Sta 299+00

EXC.	1519	C.Y.
EMB.	2732	C.Y.
SEEDING	5816	S.Y.

SEEDING		END AREA		CU. YDS.	
Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
44		255			
489			898		
44		230			
489		65	448		
44		35	12		
489		467	22		
44		217			
489		596			
44		105			
494		213	22		
45		10	12		
500		20	176		



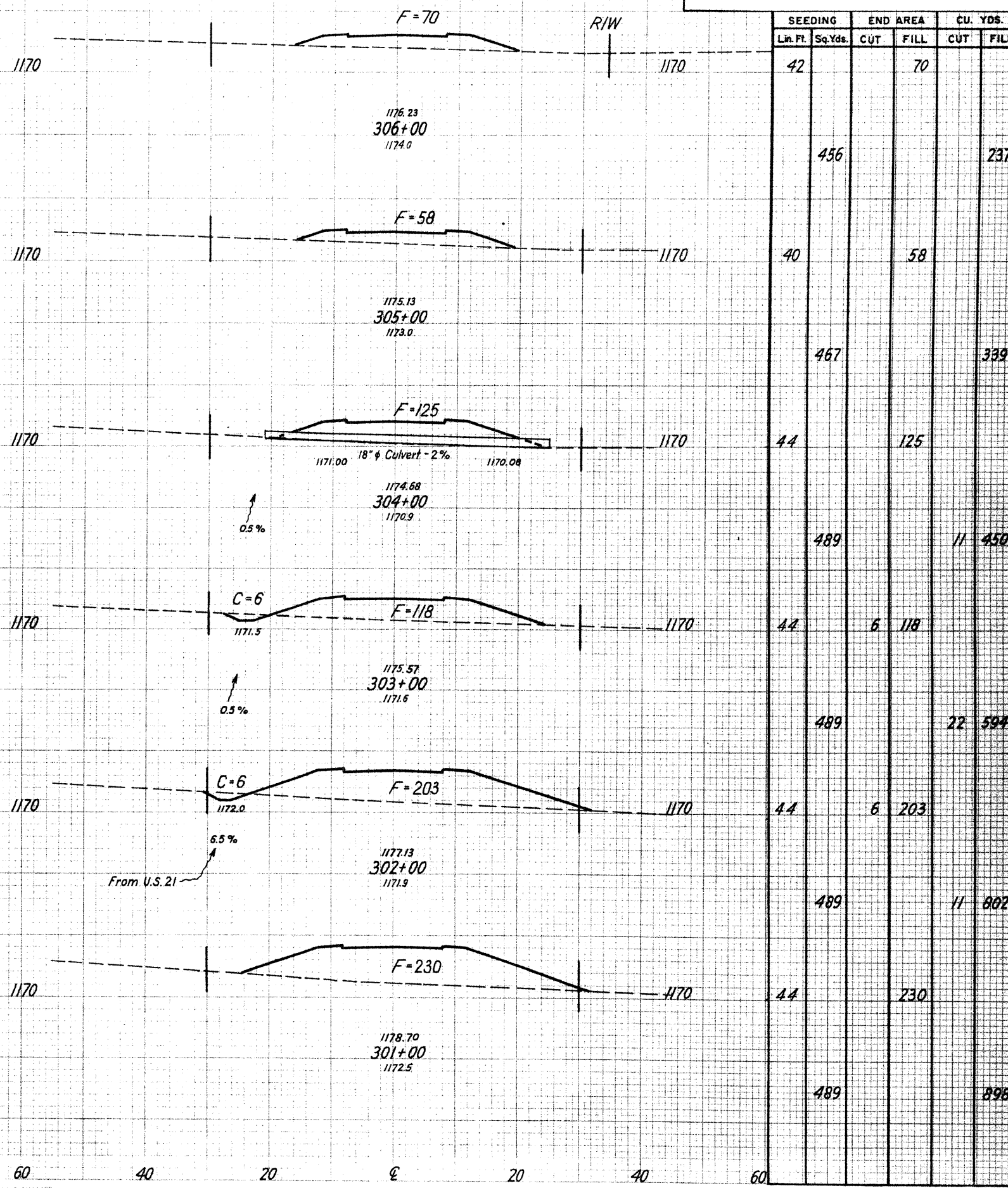
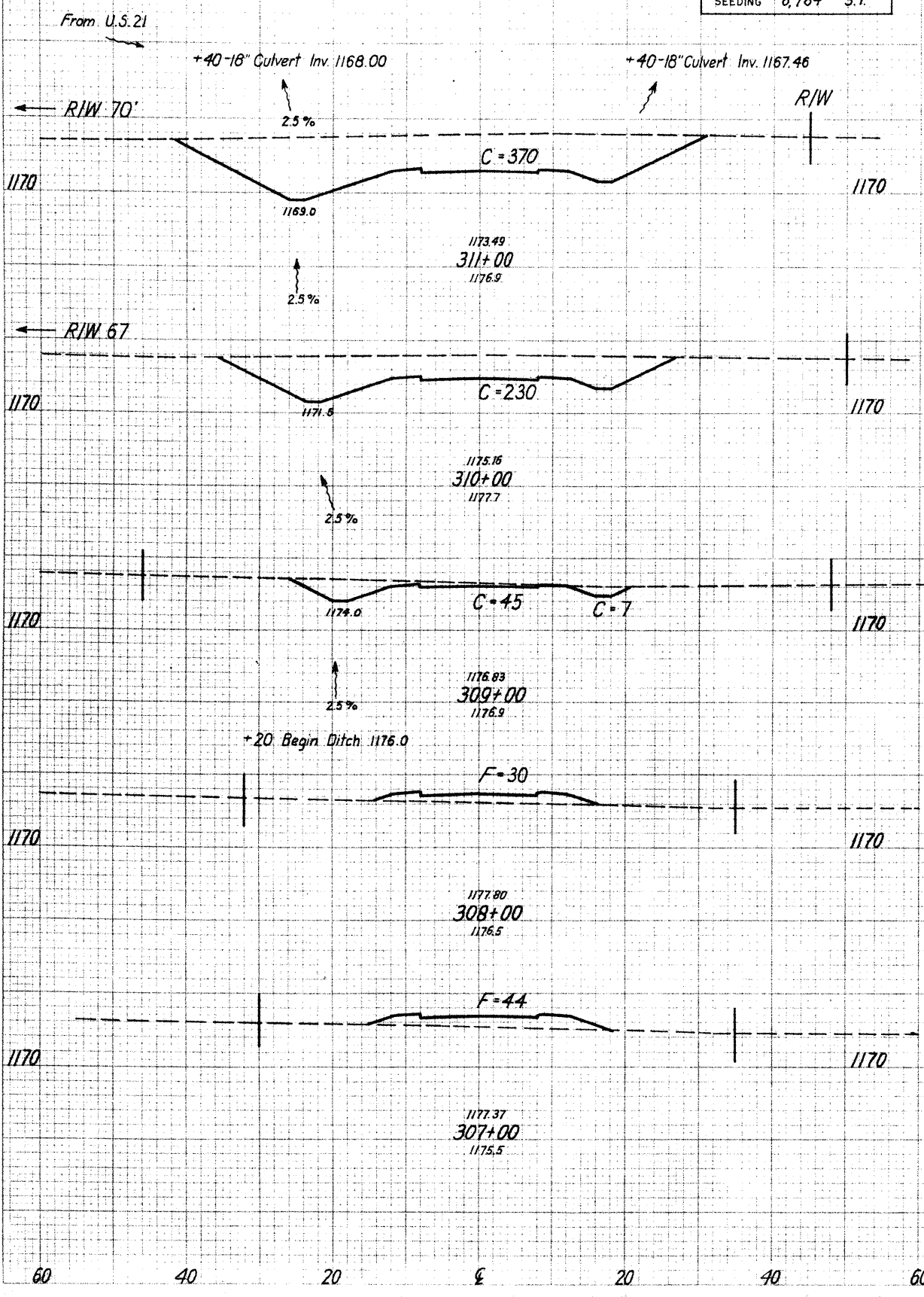
SEEDING		END AREA		CU. YDS.	
Lin. Ft.	Sq. Yds.	CUT	FILL	CUT	FILL
45		1	83		
494			13	524	
44		6	203		
489		52	617		
44		22	130		
489		54	281		
44		7	22		
489		24	78		
472		13	115		
41		1	42		
450		2	193		

Sta Equation:
Sta. 311+78.96 Back = Sta 0+00 Ahead
Sta 00+03.95 @ Service Road = Sta 51+94 @ C.H.55

Totals Sta 299+00 to Sta 311+60

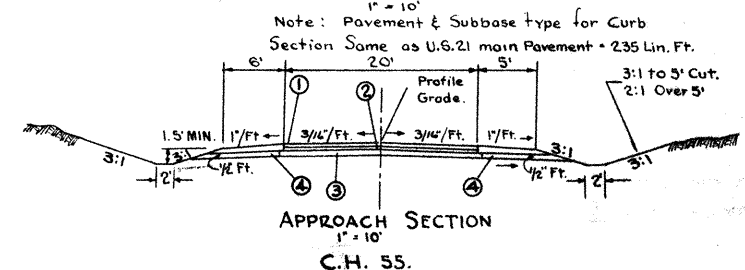
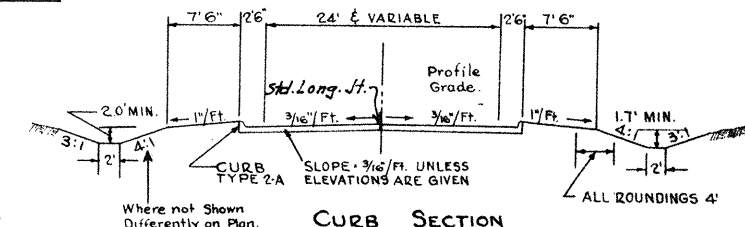
E.X.C.	2,158	C.Y.
EMB.	4,622	C.Y.
SEEDING	6,784	S.Y.

SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
	507		411	
	76	370		
	931		1111	
	66	230		
	650		509	
	51	52		
	478		83	56
	35	30		
	406		137	
	38	44		
	444		211	

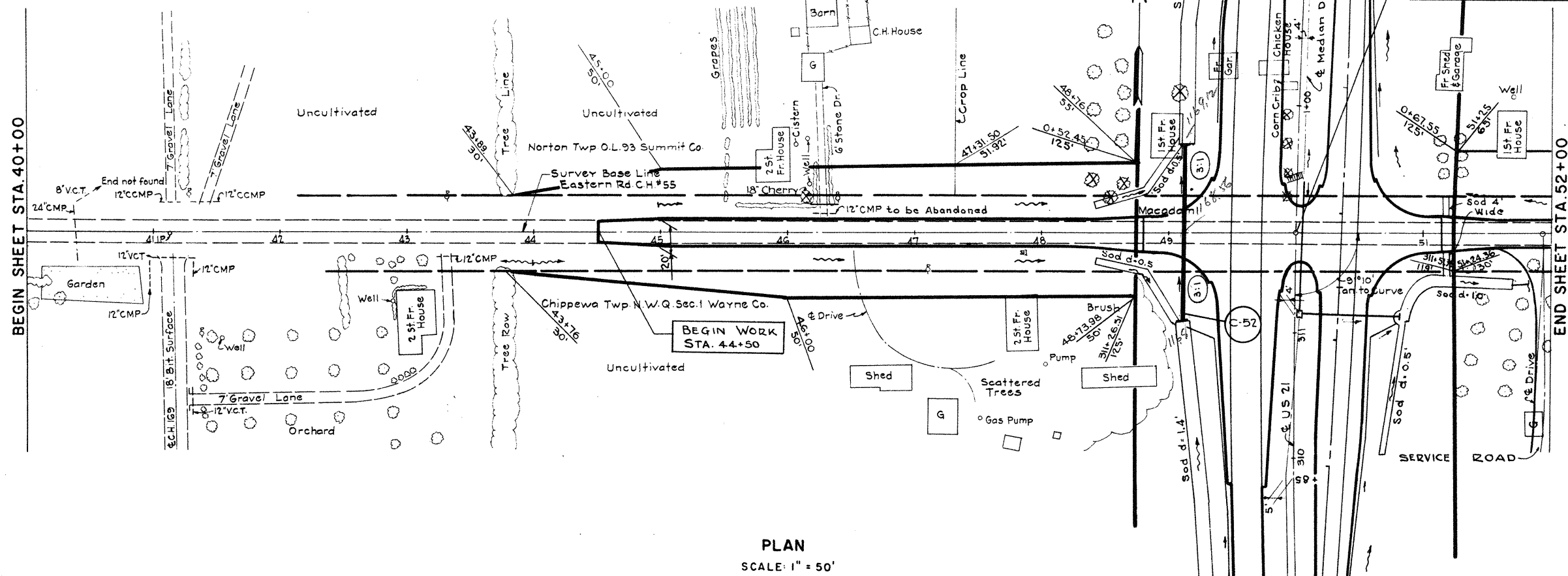


SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
	42		70	
	456			237
	40		58	
	467			339
	44		125	
	489			450
	44	6	118	
	489			22
	44	6	203	
	489			802
	44		230	
	489			898

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



- ① T-35 1 1/2" Asphaltic Concrete Surface Course.
 - ② B-35 2 1/2" Asphaltic Concrete Leveling Course.
 - ③ B-119 8" Crushed Aggregate Base Course.
 - ④ I-9 Stone Underdrains Where directed by Engineer.
- Station 44+50 to 48+80 & STA. 51+15 to 54+50 - 765 LIN. FT.



PLAN
SCALE: 1" = 50'

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
E-1	Comp. Subgr.	SY	48+80	51+15		714
E-8	Remov. & Disp. of Exist. Pavt.	SY	44+50	52+00		1500
I-22	Subbase	CY	48+80	51+15		110
L-10	Sodding 5' Wide	SY	48+40	49+10	L&R	100
L-10	Sodding 4' Wide	SY	51+17		L&R	15
PAVEMENT						
B-119	8" Gravel Base	CY				270
B-35	2 1/2" Asph. Conc. Base	CY				115
T-30	Bit Prime	GAL				420
T-35	1/2" Asph. Conc. Surf.	CY				48
T-71	9" R.C. Pavt.	SY	48+80	51+15		714
I-12	Type 2A Curb	LF				375
DRAINAGE						
I-1	12" Pipe for Drives	LF	46+17	46+39	L	22
I-9	Stone Underdrains No.2	LF	44+50	49+00	L&R	140
I-9	Stone Underdrains No.2	LF	51+00	52+00	L&R	50

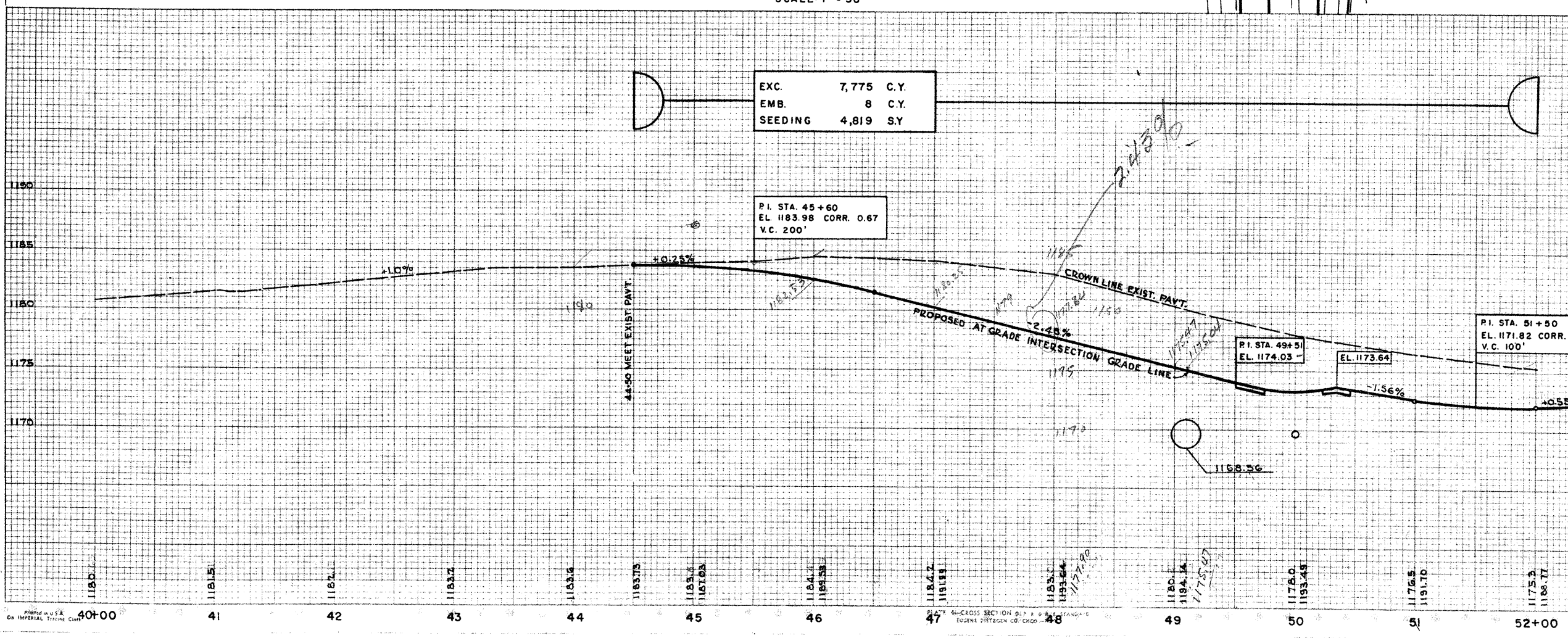
STRUCTURES - 20' SPAN AND UNDER				
MARK	STA.	TYPE	SIZE	HEIGHT
C-52	48+80	Pipe Culvert	30' x 140'	7'6"

EXC. 7,775 C.Y.
EMB. 8 C.Y.
SEEDING 4,819 S.Y.

P.I. STA. 45+60
EL. 1183.98 CORR. 0.67
V.C. 200'

P.I. STA. 49+51
EL. 1174.03

P.I. STA. 51+50
EL. 1171.82 CORR. +0.26
V.C. 100'

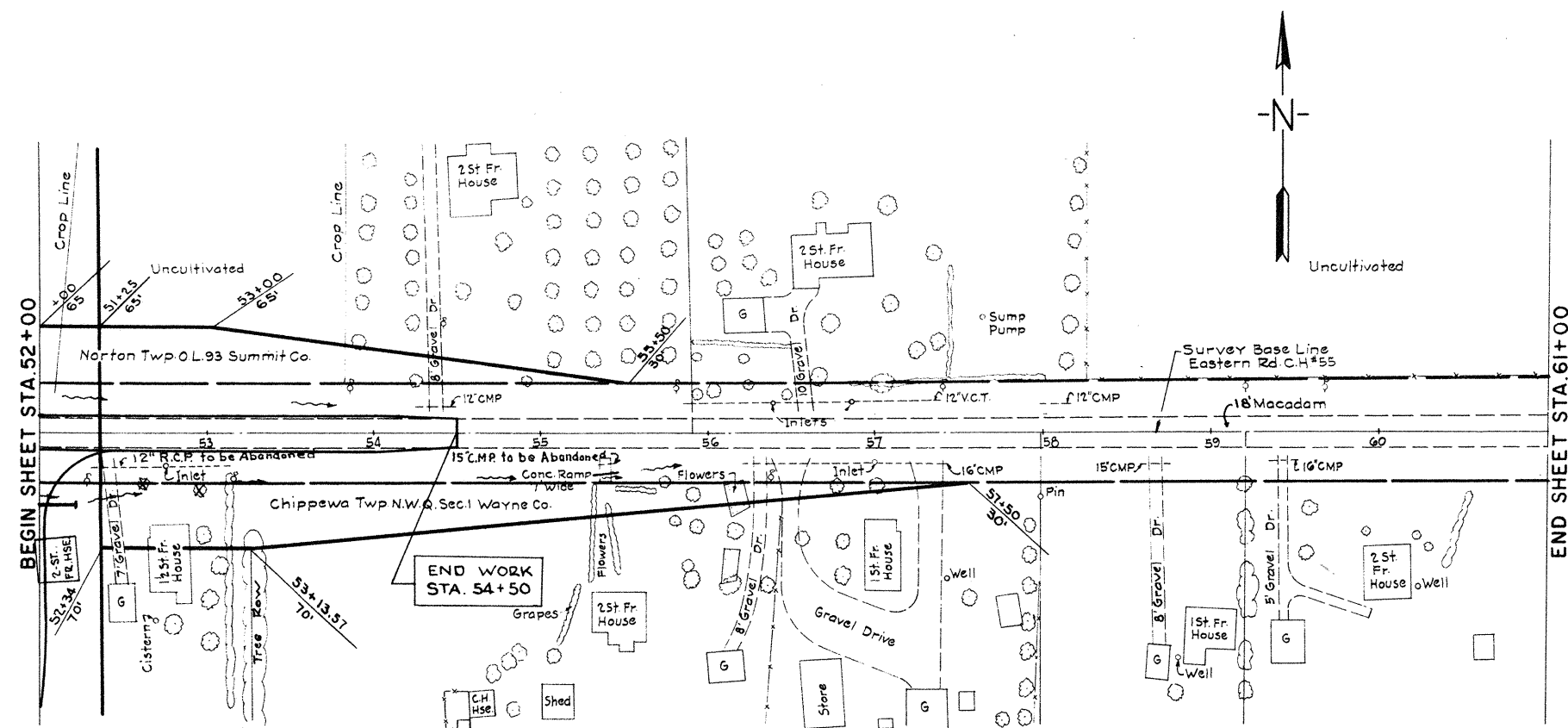


PREPARED AND RECOMMENDED BY
CHARLES E. DE LUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

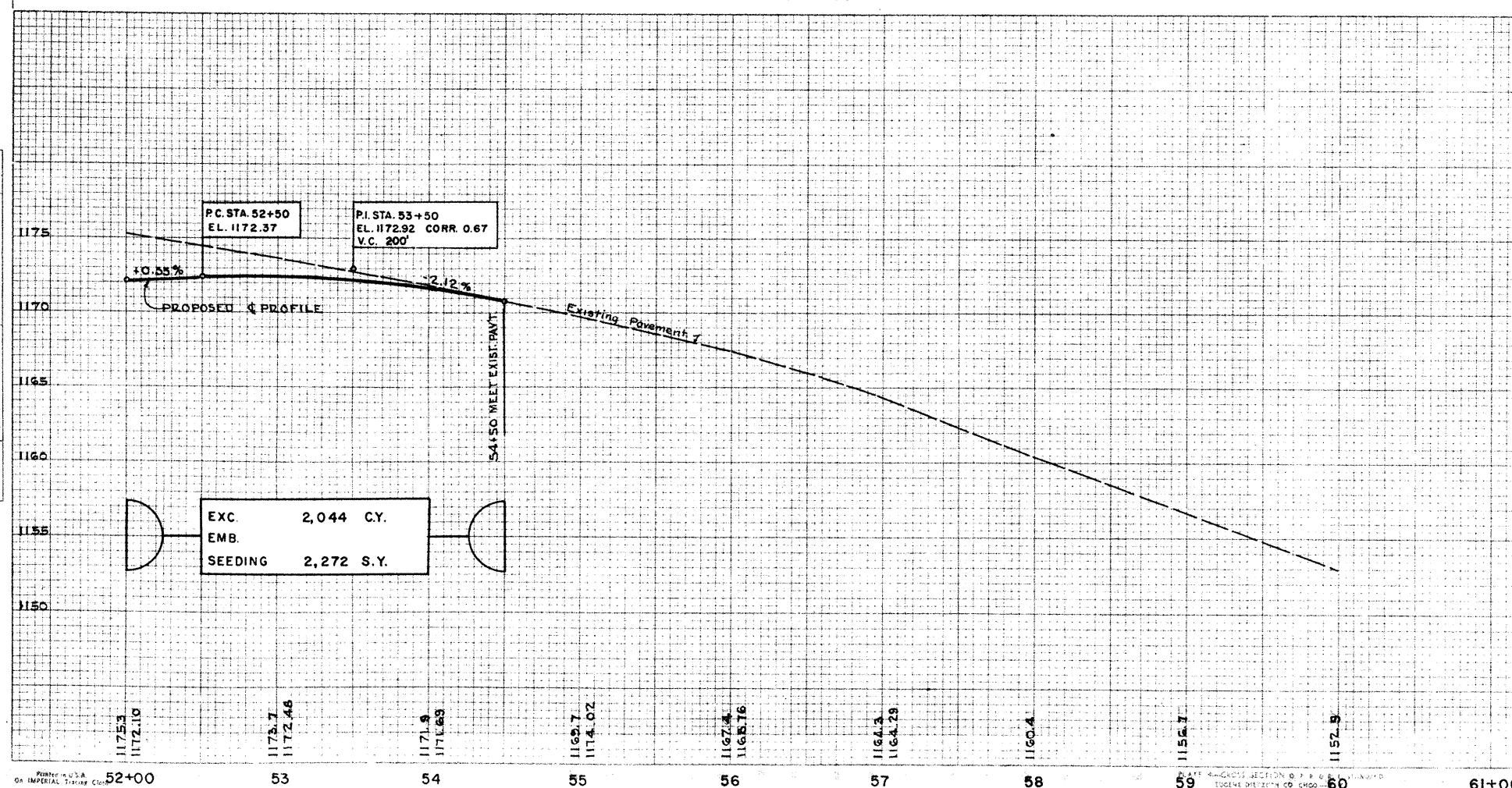
260
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



PLAN
SCALE: 1" = 50'

ESTIMATED QUANTITIES						
ITEM	DESCRIPTION	UNIT	FROM STATION	TO STATION	SIDE	TOTAL
ROADWAY						
E-8	Remov. & Disp. of Exist. Pavt.	SY				500
PAVEMENT						
B-119	8" Gravel Base	CY				130
B-35	2 1/2" Asph. Conc. Base	CY				39
T-30	Bit Prime	GAL				240
T-35	1 1/2" Asph. Conc. Surf	CY				23
DRAINAGE						
I-1	18" Pipe for Drive	LF	55+30	55+46	R	16
I-9	Stone Drains No 2	LF	52+00	54+50	L & R	80

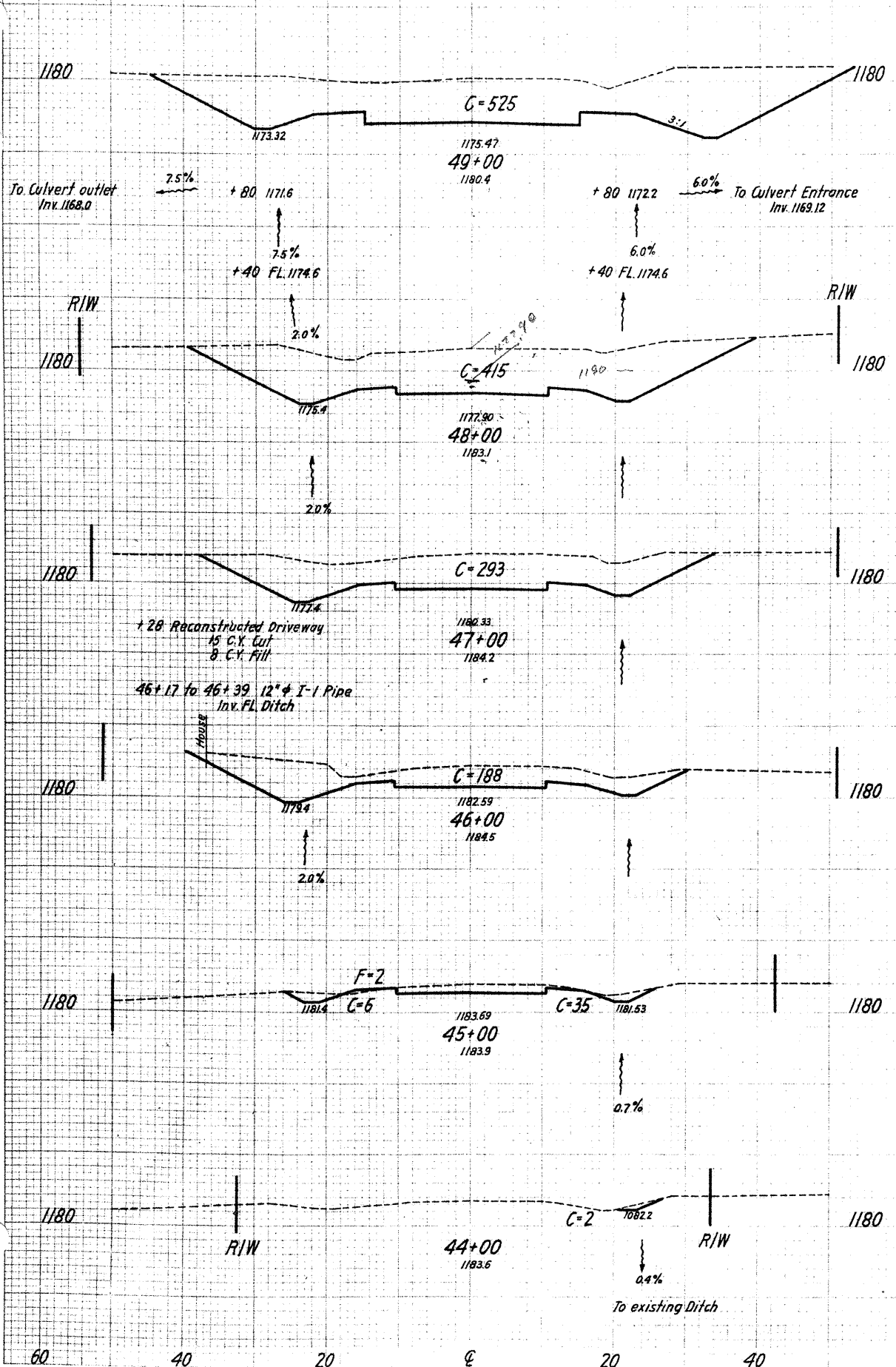


PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

261
329

1780 - 21 - 17.80
1780 - 21 - 0.00
1780 - 21 - 0.00

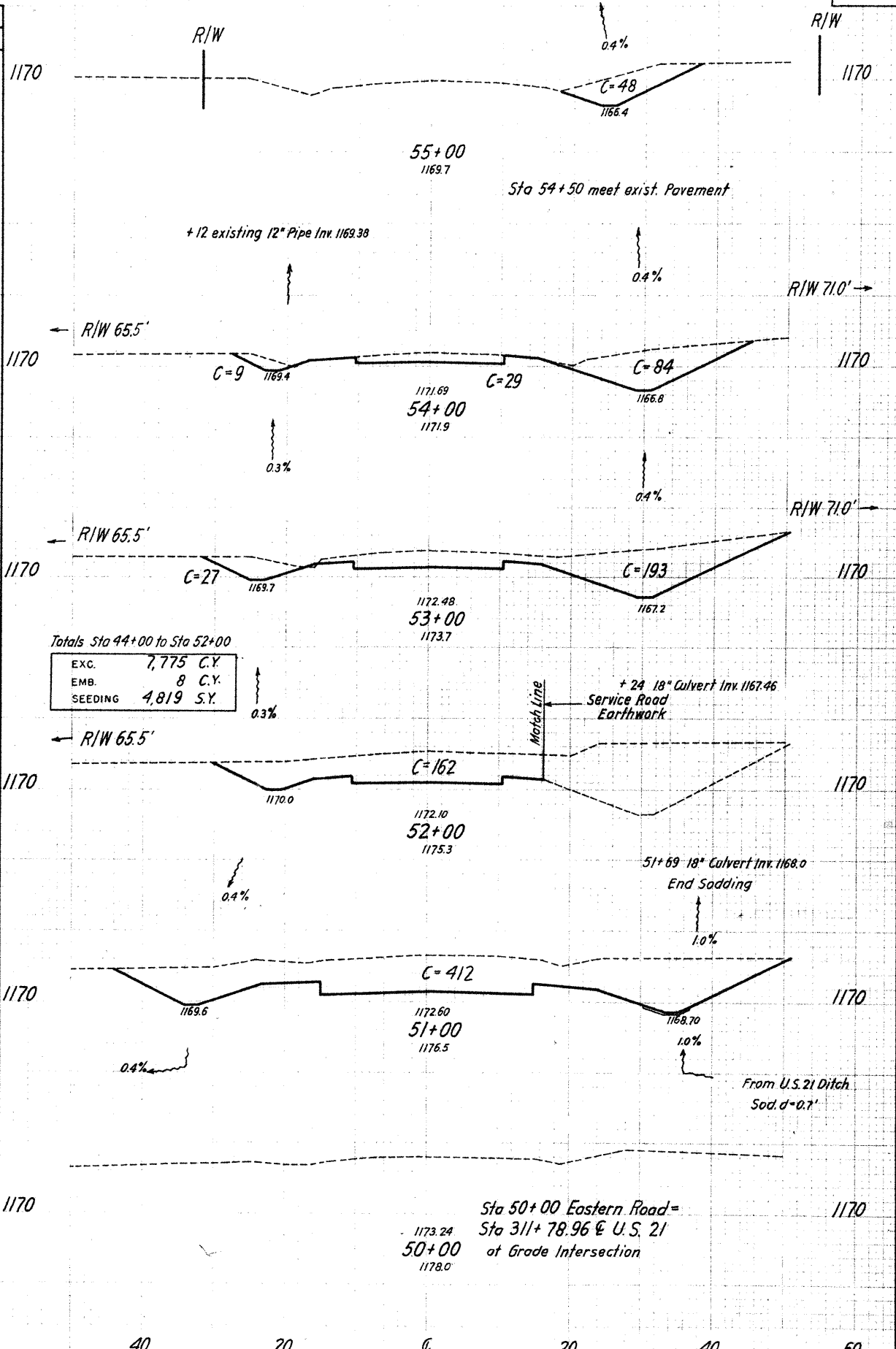


SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
93		525		
983			1741	
84		415		
939			1311	
85		293		
878			891	
73		188		
694			424	4
52		41	2	
356			780	4
12		2		

Totals Sta 52+00 to Sta 54+00

EXC.	2,044 C.Y.
EMB.	-
SEEDING	2,272 S.Y.

+ 60 meets existing Ditch
+ 30 to 46 18" Pipe under Drive in FL Ditch



Totals Sta 44+00 to Sta 52+00

EXC.	7,775 C.Y.
EMB.	8 C.Y.
SEEDING	4,819 S.Y.

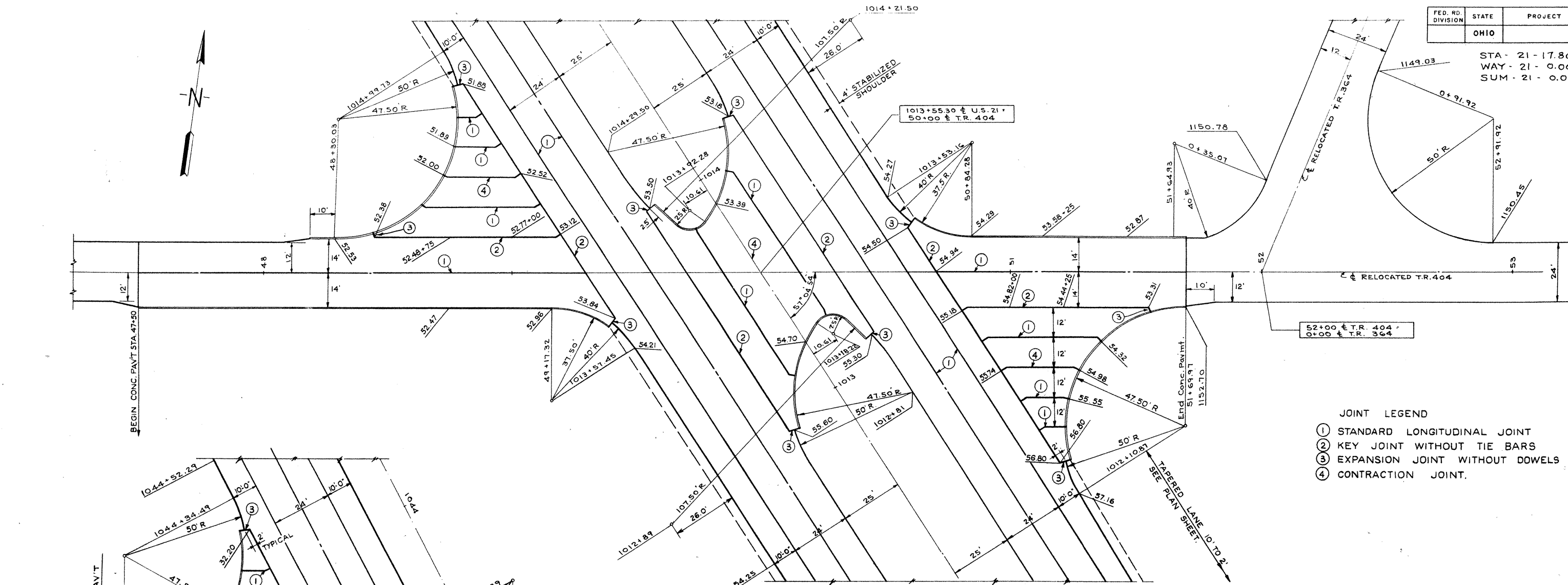
SEEDING	END AREA		CU. YDS.	
	Lin. Ft.	Sq. Yds.	CUT	FILL
31		48		
594			315	
76		122		
950			668	
95		220		
728			1061	
36		162		
672			1454	
85		412		
190			824	
12		2		
207			1050	

Sta 50+00 Eastern Road =
Sta 311+78.96 @ U.S. 21
at Grade Intersection

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

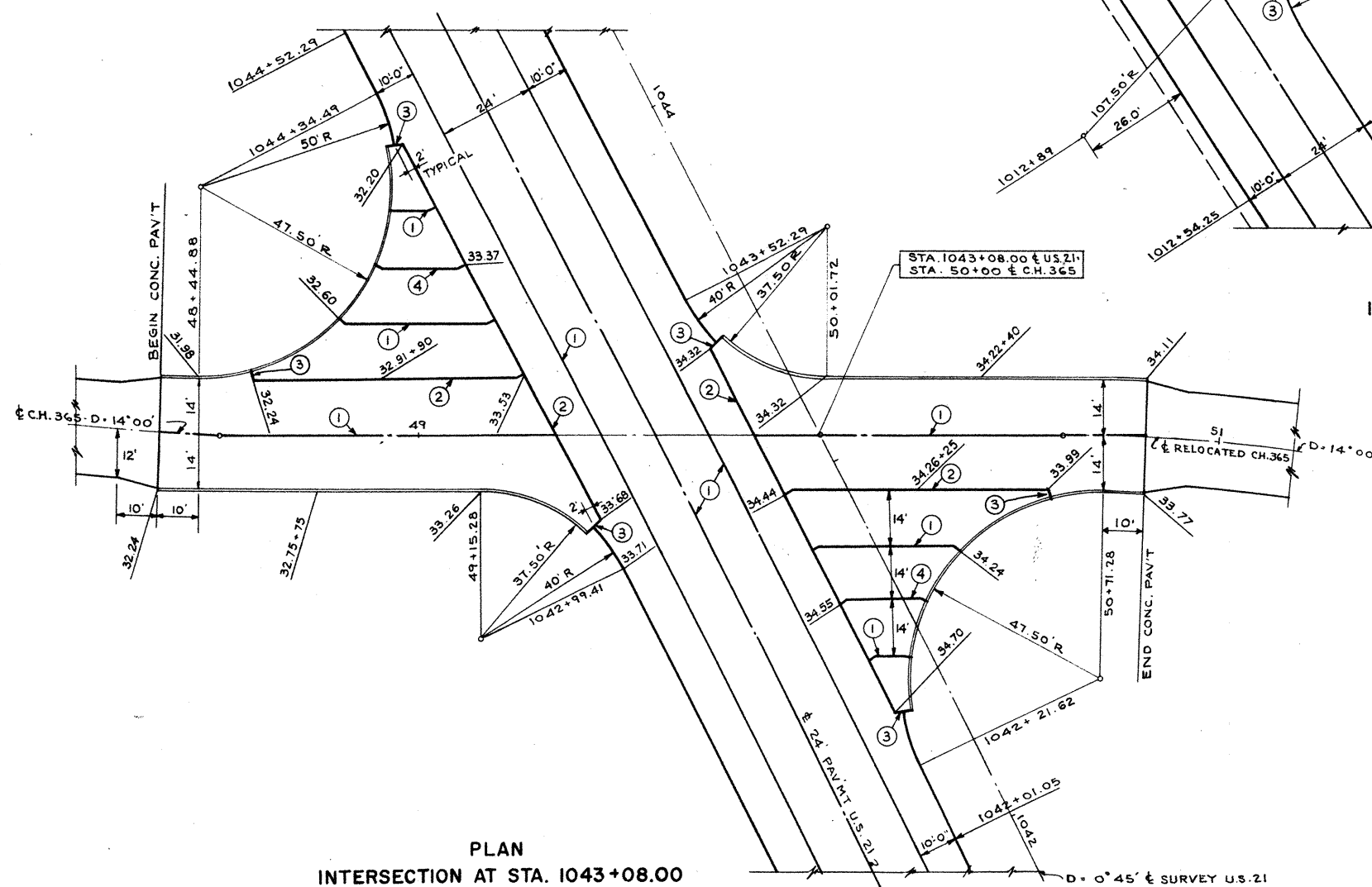
262
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

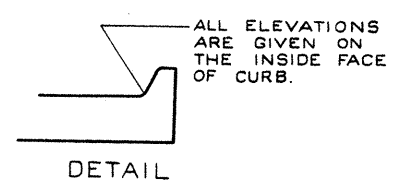


PLAN
INTERSECTION AT STA. 1013+55.30
T.R. 404
SCALE: 1" = 20'

- JOINT LEGEND**
- ① STANDARD LONGITUDINAL JOINT
 - ② KEY JOINT WITHOUT TIE BARS
 - ③ EXPANSION JOINT WITHOUT DOWELS
 - ④ CONTRACTION JOINT.



PLAN
INTERSECTION AT STA. 1043+08.00
C.H. 365
SCALE: 1" = 20'



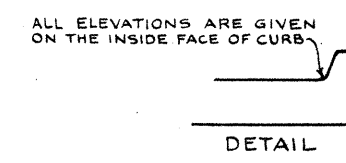
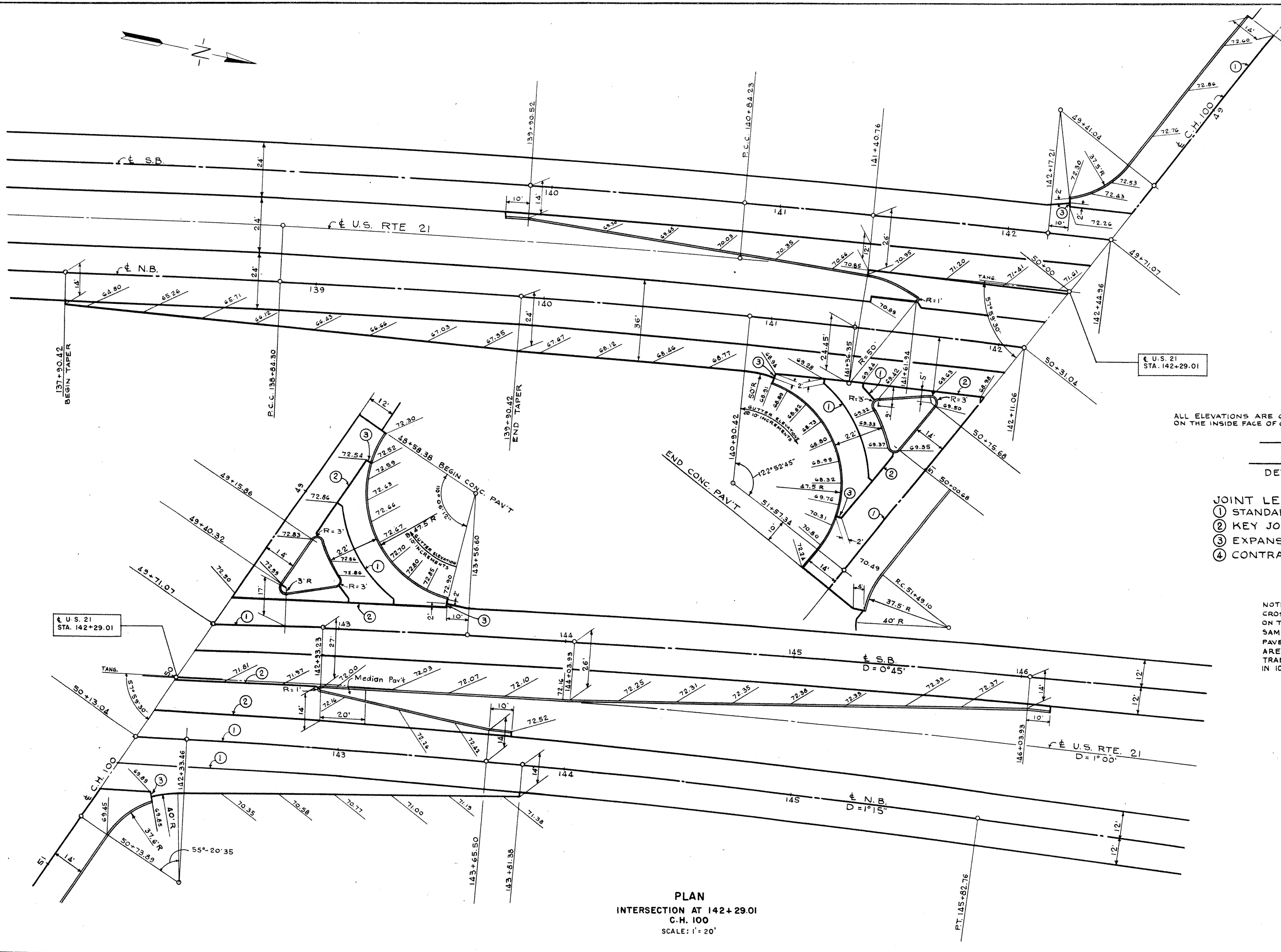
NOTE:
CROSS SLOPES FOR TOP OF PAVEMENT ON THE ADDITIONAL LANES ARE TO BE SAME AS ADJACENT MAIN ROADWAY PAVEMENT EXCEPT WHERE ELEVATIONS ARE PROVIDED FOR INTERSECTION WARPING. TRANSITION CURB HEIGHTS FROM 6" TO 2" IN 10' AT CURB ENDS.

PREPARED AND RECOMMENDED BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	

263
329

STA. 21-17.80
WAY 21- 0.00
SUM 21- 0.00



- JOINT LEGEND
- ① STANDARD LONGITUDINAL JOINT
 - ② KEY JOINT WITHOUT TIE BARS
 - ③ EXPANSION JOINT WITHOUT DOWELS
 - ④ CONTRACTION JOINT

NOTE:
CROSS SLOPES FOR TOP OF PAVEMENT ON THE ADDITIONAL LANES ARE TO BE SAME AS ADJACENT MAIN ROADWAY PAVEMENT EXCEPT WHERE ELEVATIONS ARE PROVIDED FOR INTERSECTION WARPING. TRANSITION CURB HEIGHTS FROM 6" TO 2" IN 10' AT ALL CURB ENDS.

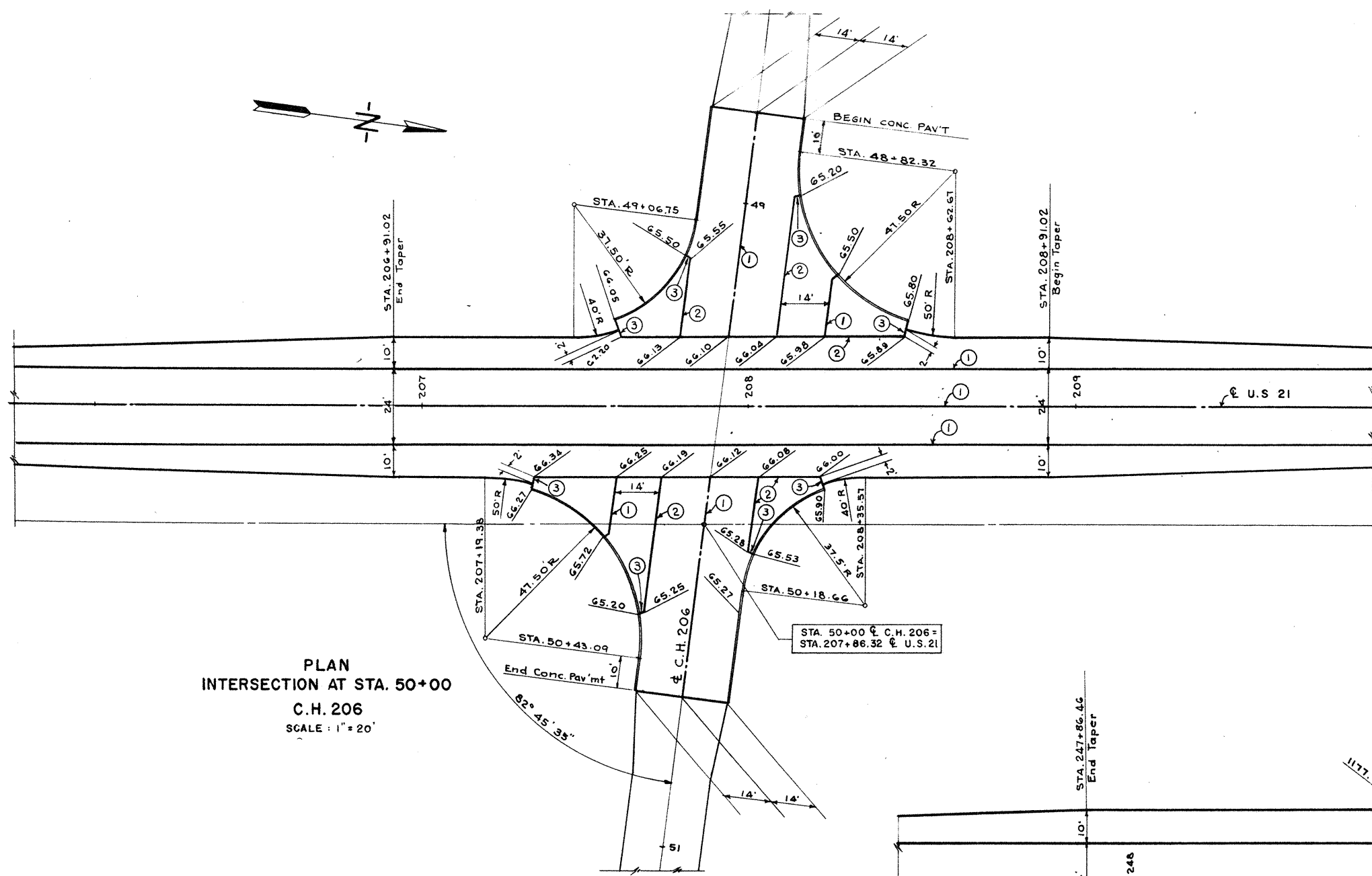
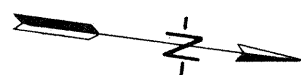
PLAN
INTERSECTION AT 142+29.01
C.H. 100
SCALE: 1" = 20'

PREPARED AND RECOMMENDED BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

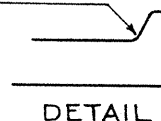
264
329

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



PLAN
INTERSECTION AT STA. 50+00
C.H. 206
SCALE: 1" = 20'

ALL ELEVATIONS ARE GIVEN ON THE INSIDE FACE OF CURB.

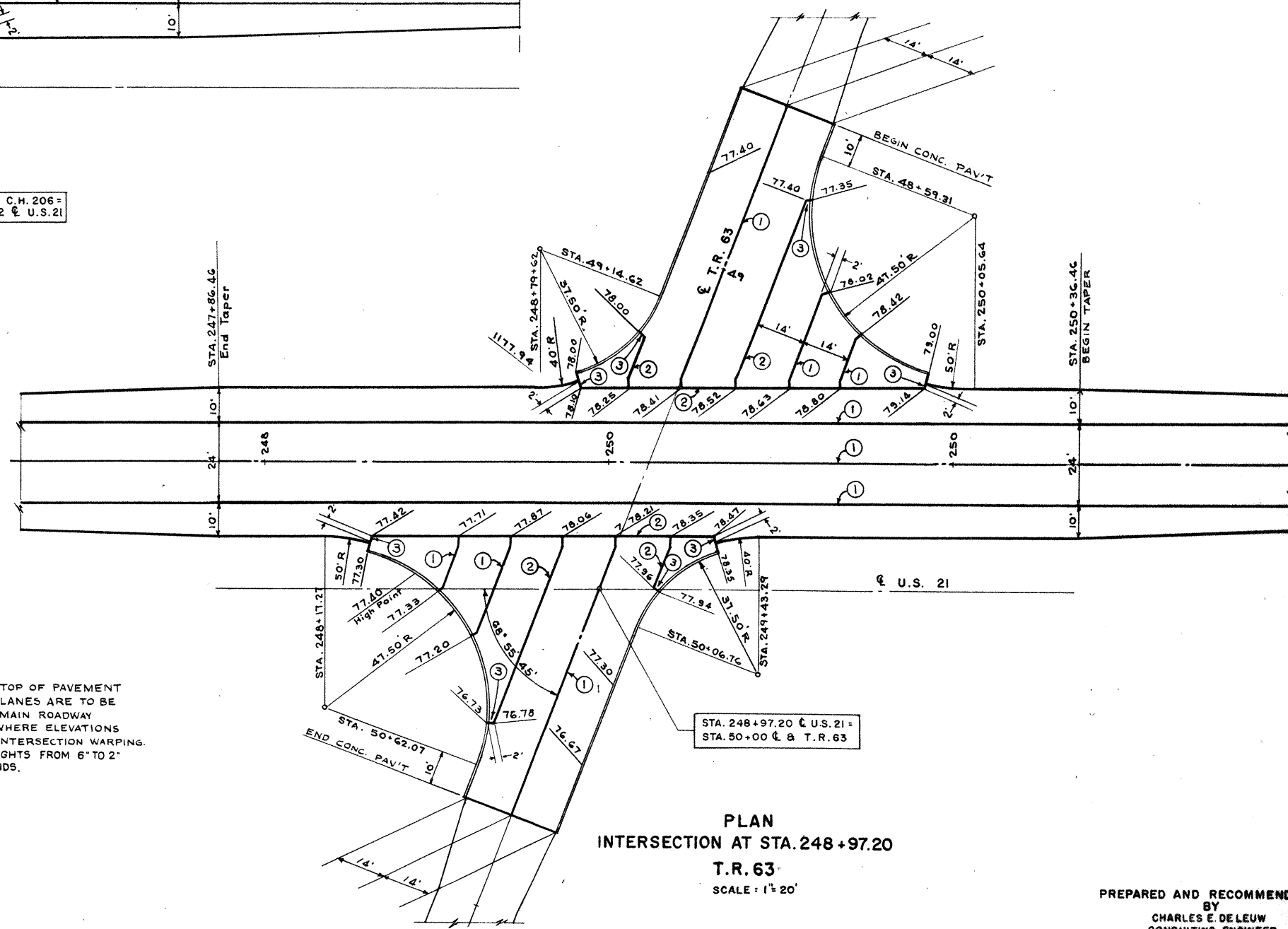


DETAIL

JOINT LEGEND

- ① STANDARD LONGITUDINAL JOINT
- ② KEY JOINT WITHOUT DOWELS
- ③ EXPANSION JOINT WITHOUT DOWELS
- ④ CONTRACTION JOINT

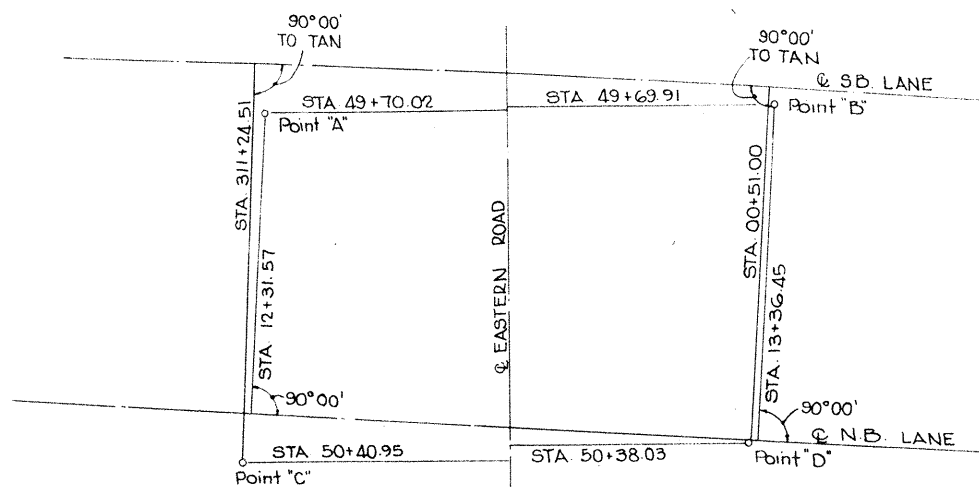
NOTE:
CROSS SLOPES FOR TOP OF PAVEMENT ON THE ADDITIONAL LANES ARE TO BE SAME AS ADJACENT MAIN ROADWAY PAVEMENT EXCEPT WHERE ELEVATIONS ARE PROVIDED FOR INTERSECTION WARPING. TRANSITION CURB HEIGHTS FROM 6" TO 2" IN 10' AT ALL CURB ENDS.



PLAN
INTERSECTION AT STA. 248+97.20
T.R. 63
SCALE: 1" = 20'

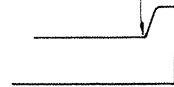
PREPARED AND RECOMMENDED BY
CHARLES E. DELEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

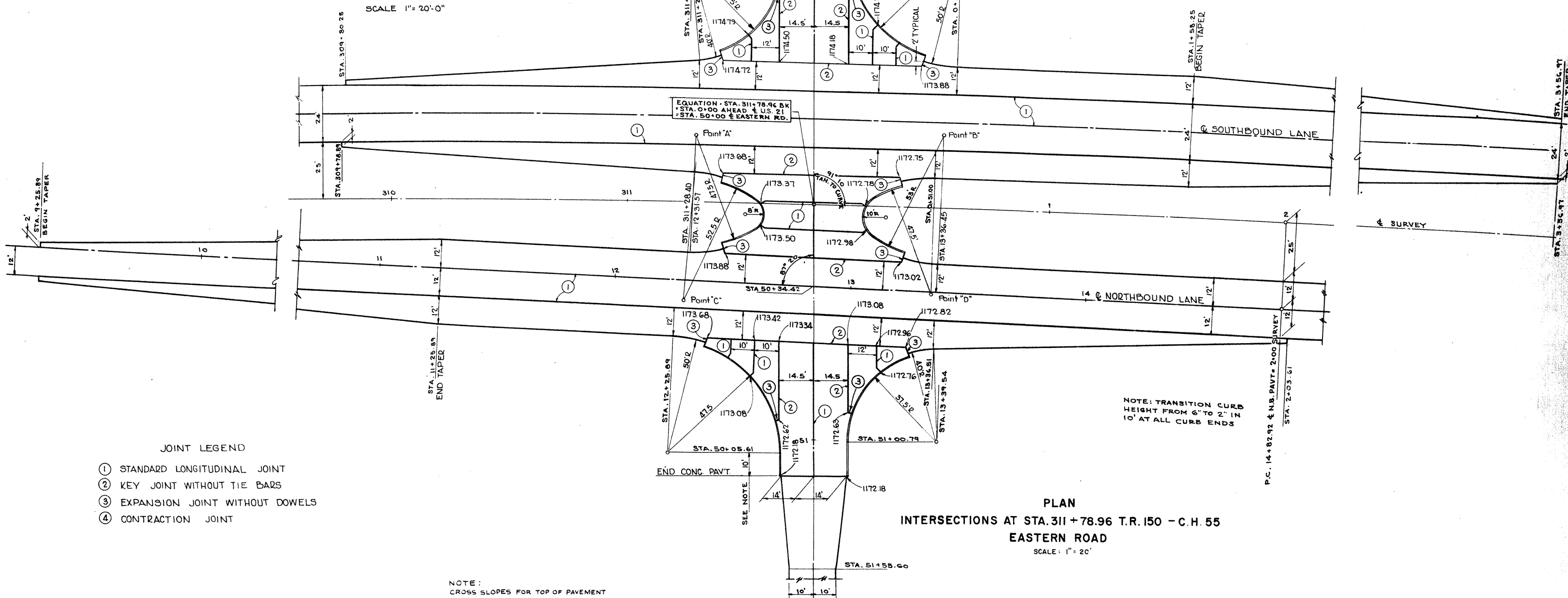
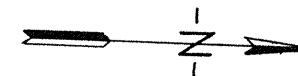


LOCATION PLAN - RADII POINTS
SCALE 1" = 20'-0"

ALL ELEVATIONS ARE GIVEN ON THE INSIDE FACE OF CURB.



DETAIL



- JOINT LEGEND**
- ① STANDARD LONGITUDINAL JOINT
 - ② KEY JOINT WITHOUT TIE BARS
 - ③ EXPANSION JOINT WITHOUT DOWELS
 - ④ CONTRACTION JOINT

NOTE:
CROSS SLOPES FOR TOP OF PAVEMENT ON THE ADDITIONAL LANES ARE TO BE SAME AS ADJACENT MAIN ROADWAY PAVEMENT EXCEPT WHERE ELEVATIONS ARE PROVIDED FOR INTERSECTION WARPING. TRANSITION CURB HEIGHTS FROM 6" TO 2" IN 10' AT ALL CURB ENDS.

NOTE: TRANSITION CURB HEIGHT FROM 6" TO 2" IN 10' AT ALL CURB ENDS

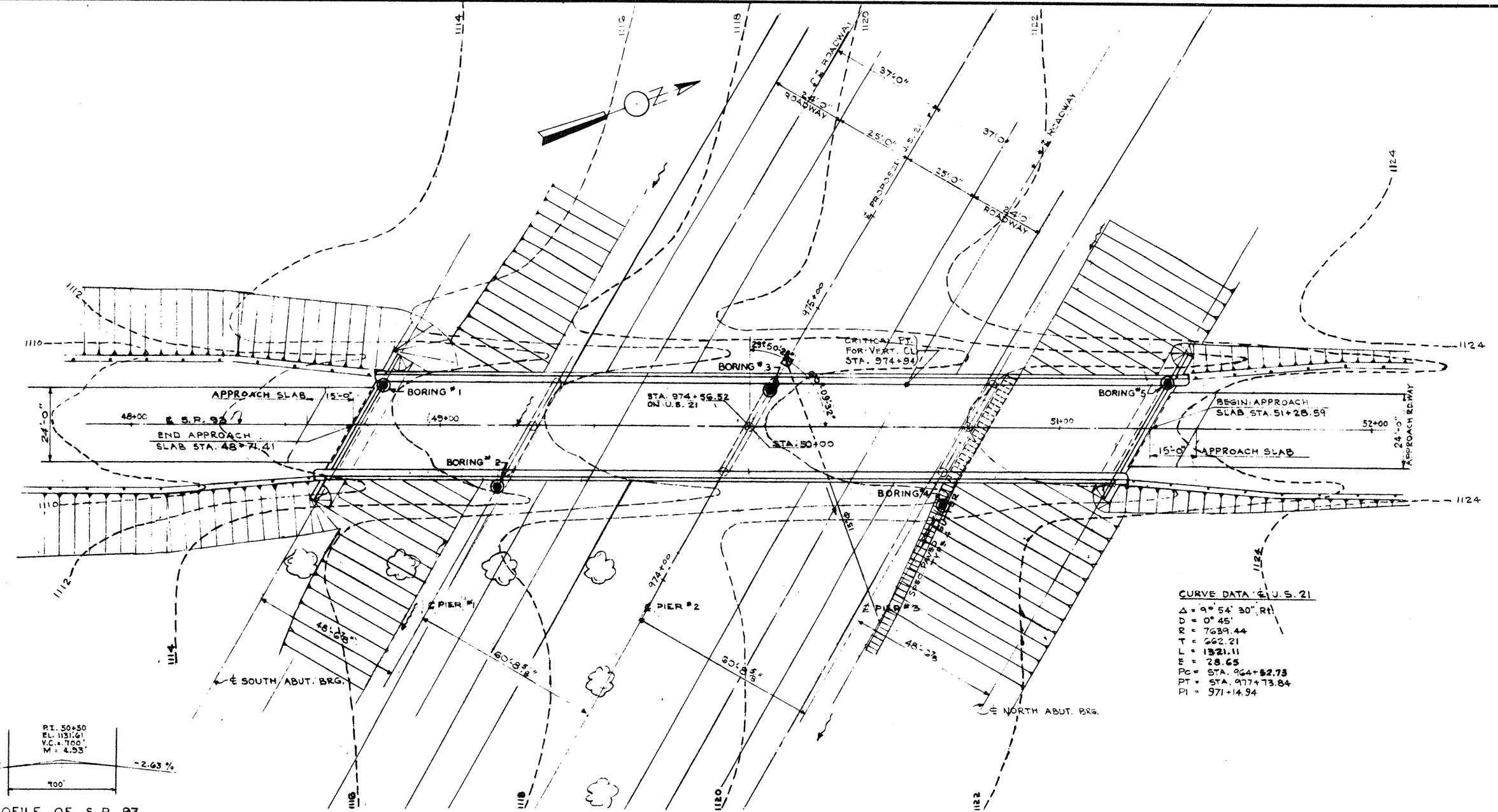
PLAN
INTERSECTIONS AT STA. 311+78.96 T.R. 150 - C.H. 55
EASTERN ROAD
SCALE: 1" = 20'

PREPARED AND RECOMMENDED BY
CHARLES E. DELEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

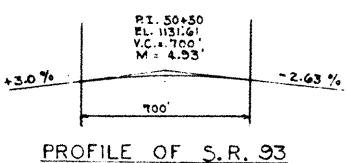
270
329

STA-21-1780
WAY-21-000
SUM-21-000

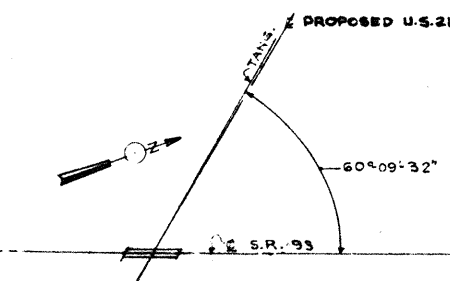


PLAN

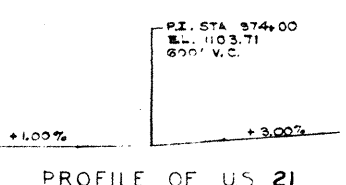
B.M. # 201 EL. 1126.28
 R.R. SPIKE IN ROOT-24' MAPLE
 200' RIGHT OF STA. 977+00
 EAST SIDE OF S.R. 93



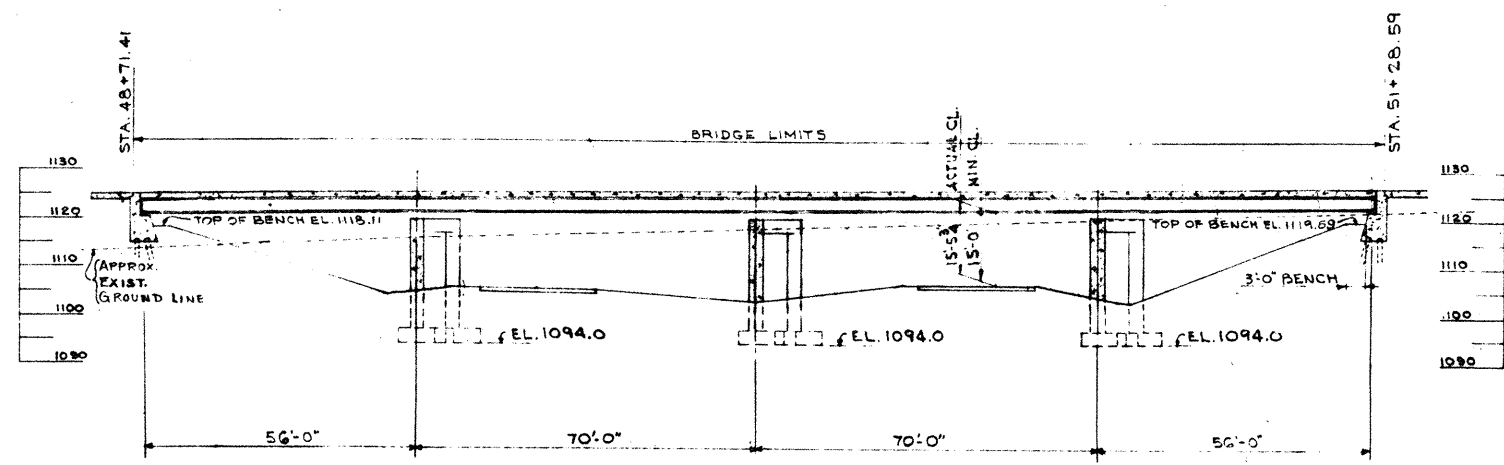
PROFILE OF S.R. 93



ALIGNMENT - S.R. 93

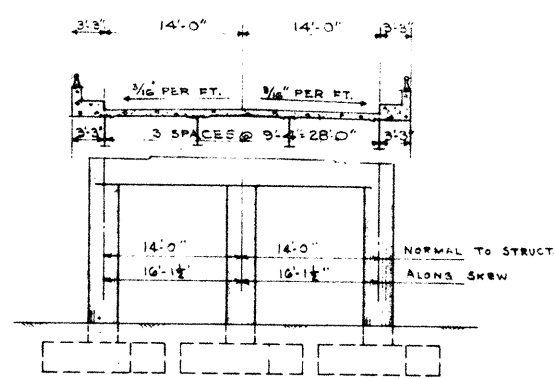


PROFILE OF U.S. 21



SECTION AT CL

NOTE:
 PILING 12 BP 53
 EST. AVERAGE } 24' N. ABUT.
 PAY LENGTH } 36' S. ABUT.



CROSS-SECTION OF BRIDGE

PROPOSED STRUCTURE
 TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.
 SPANS: 56'-0", 70'-0", 70'-0" & 56'-0" 5/8 BROS.
 ROADWAY: 28'-0" 1/4" 2'-0" SAFETY CURBS.
 LOAD FREQUENCY RATING: C.F. 400
 SKEW: 23'-50" - 23' L.P.
 SURFACE COURSE: 1" MONOLITHIC CONCRETE.
 APPROACH COURSE: AS SHOWN
 ALIGNMENT: TANGENT

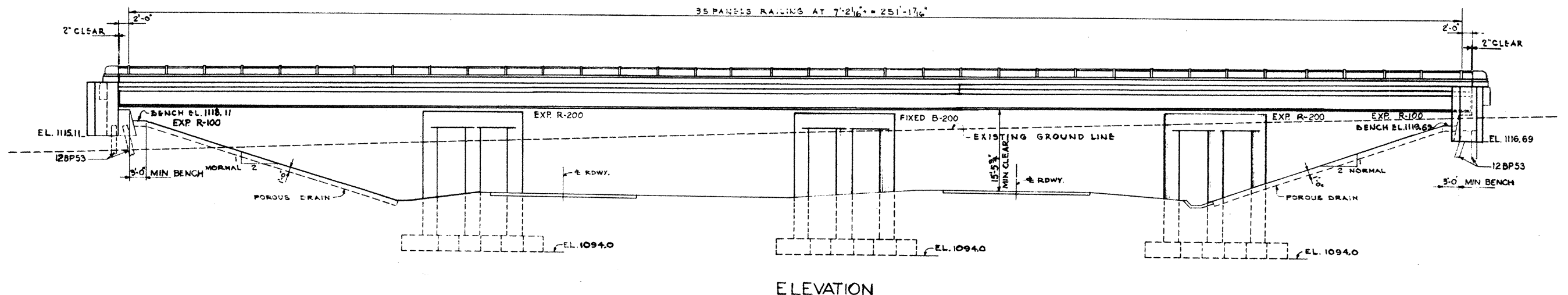
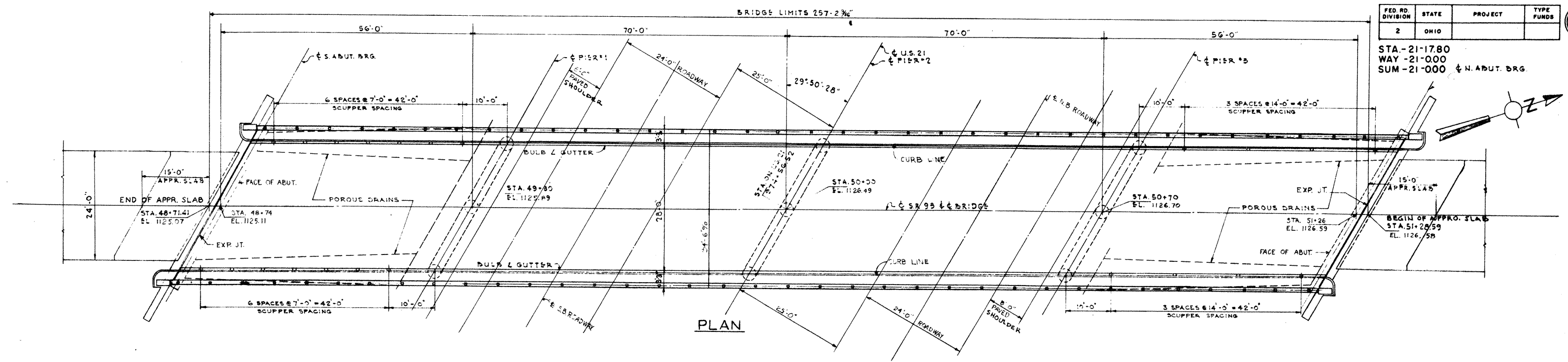
CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

SITE PLAN
 BRIDGE NO. STA-21-1846
 U.S. 21 UNDER SR 93
 STARK CO. STA. 974+56.52
 SEC. STA-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION
E.M.	J.N.		R.S.	M.C.	5-18-56	

FOUNDATION SOUNDINGS:
 FOUNDATION DESIGN AND FOUNDATION QUANTITIES ARE BASED ON A STUDY OF SOIL SAMPLING SOUNDINGS MADE AT THE SITE. THIS SOUNDING INFORMATION MAY BE INSPECTED IN THE OFFICE OF THE BUREAU OF BRIDGES IN COLUMBUS OR IN AN ABRIDGED FORM IN THE DIVISION OFFICE, BUT THE STATE ASSUMES NO RESPONSIBILITY FOR THE ACCURACY THEREOF.

STA-21-17.80
WAY-21-000
SUM-21-000 & N. ABUT. BRG.



GENERAL NOTES

REFERENCE SHALL BE MADE TO STANDARD DRAWING NO. RB-1155 DATED 3-1-55 AND TO SUPPLEMENTAL SPECIFICATIONS NO. S-114 DATED AUGUST 30, 1955.

SPECIFICATIONS: THIS WORK SHALL BE GOVERNED BY THE DESIGN SPECIFICATIONS FOR HIGHWAY STRUCTURES OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS, INCLUDING REVISIONS THRU FEB. 1, 1955, AND BY THE "CONSTRUCTION AND MATERIAL SPECIFICATIONS" OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS DATED JANUARY 1, 1955.

PILES SHALL BE DRIVEN TO FIRM CONTACT WITH ROCK, WHICH SHALL BE CONSIDERED AS ATTAINED WHEN THE CAPACITY ACCORDING TO THE FORMULA IN SEC. M-10.05 IS AT LEAST 60 TONS PER PILE IF A 7000 FT. LB. STEAM HAMMER IS USED, OR 40 TONS PER PILE IF A STEAM HAMMER OR DROP HAMMER OF 15,000 FT. LB. OR GREATER ENERGY IS USED AND IF THE LENGTH OF PENETRATION IS APPROXIMATELY EQUAL TO THE DEPTH TO ROCK ACCORDING TO THE BRIDGE FOUNDATION INVESTIGATION REPORT. IF THE ENERGY RATING OF THE HAMMER IS BETWEEN THESE VALUES THE REQUIRED FORMULA CAPACITY SHALL BE DETERMINED BY INTERPOLATION. (THE DESIGN LOAD IS 30 TONS PER PILE.) THE LENGTH OF PENETRATION OF EVERY PILE SHALL BE AT LEAST 80% OF THE ESTIMATED AVERAGE PAY LENGTH OF THE PILES AS INDICATED ON THE PLANS UNLESS A LESSER PENETRATION IS APPROVED BY THE DIRECTOR.

FOOTINGS OF PIERS SHALL EXTEND A MINIMUM OF THREE INCHES INTO SOLID ROCK OR TO THE ELEVATION SHOWN WHICHEVER IS LOWER.

WELDED STEEL: THE STEEL FOR THE 36WF104 BEAMS SHALL CONFORM TO ASTM DESIGNATION A-373. ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO EITHER ASTM A-7 (AS PER SEC. M-7.4(A) OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS) OR TO A-375.

WELDING OF STRUCTURAL STEEL SHALL BE CLASS 'A' EXCEPT AS OTHERWISE SHOWN.

PAINT, BOTH SHOP AND FIELD SHALL BE APPLIED BY BRUSHING. SPRAY APPLICATION WILL NOT BE PERMITTED.

SURFACE FINISH OF CONCRETE: RAILING END POSTS, RAILING PARAPETS, CURB FACES, FASCIAS OF DECK AND EXPOSED SURFACE OF PIERS, ABUTMENTS AND WINGWALLS SHALL RECEIVE A RUBBED SURFACE FINISH. ALL OTHER EXPOSED SURFACES SHALL BE GOVERNED BY THE PROVISIONS OF ITEM 5-1.

POROUS DRAINS EXTENDING FROM FACE OF ABUTMENT TO EL. 1104.5 N. & EL. 1103.5 S. SHALL BE PLACED ON AND FLUSH WITH EMBANKMENT SLOPES AT ALL FOUR CORNERS OF THE BRIDGE. THE DRAINS SHALL BE 7'-0" WIDE AT THE LOW END, TAPERING TO 4'-0" WIDE AT FACE OF ABUTMENT AND ONE FT. THICK. THEY SHALL BE CENTERED UNDER THE SCUPPERS.

GRAVEL, IF USED AS THE COARSE AGGREGATE SHALL BE ACCORDING TO SEC. M-3.03 INSTEAD OF M-3.01 FOR CLASS 'C' CONCRETE, SUPERSTRUCTURE. GRAVEL MEETING THE REQUIREMENTS OF SEC. M-3.03 ALSO MAY BE USED FOR OTHER CONCRETE IN THE STRUCTURE INCLUDING CONCRETE FOR PYLONS.

SPLICE OF REINFORCING STEEL: REINFORCING STEEL SHALL BE SPLICED BY LAPPING BARS A MINIMUM OF 30 TIMES THE DIAMETER OF THE SMALLER BAR CONCERNED.

ESTIMATED QUANTITIES							
ITEM	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER	GENERAL
E-2	LUMP SUM		COFFERDAMS, CRIBS AND SHEETING				
E-2	572	CU. YD.	UNCLASSIFIED EXCAVATION	125	447		
S-1	299	CU. YD.	CLASS 'C' CONCRETE, SUPERSTRUCTURE & PYLONS	2		297	
S-1	93	CU. YD.	CLASS 'C' CONCRETE, PIERS ABOVE FOOTINGS		93		
S-1	123	CU. YD.	CLASS 'E' CONCRETE, ABUTMENTS	123			
S-1	84	CU. YD.	CLASS 'E' CONCRETE, PIER FOOTINGS		84		
S-4	118,686	LBS.	REINFORCING STEEL	8093	30,551	19,859	183
S-7	250,260	LBS.	STRUCTURAL STEEL			250,260	
S-8	250,260	LBS.	FIELD PAINTING OF STRUCTURAL STEEL			250,260	
S-14	310	LIN. FT.	RAILING (ALUMINUM RAIL & SUPPORTS & CONC. PARAPET)			310	
S-16	LUMP SUM		FIRST TEST PILE				
S-18	600	LIN. FT.	STEEL PILES, 12 BP53	600			
S-29	46	CU. YD.	POROUS DRAINS ON EMBANKMENT SLOPES				46
S-29	45	CU. YD.	POROUS BACKFILL				45

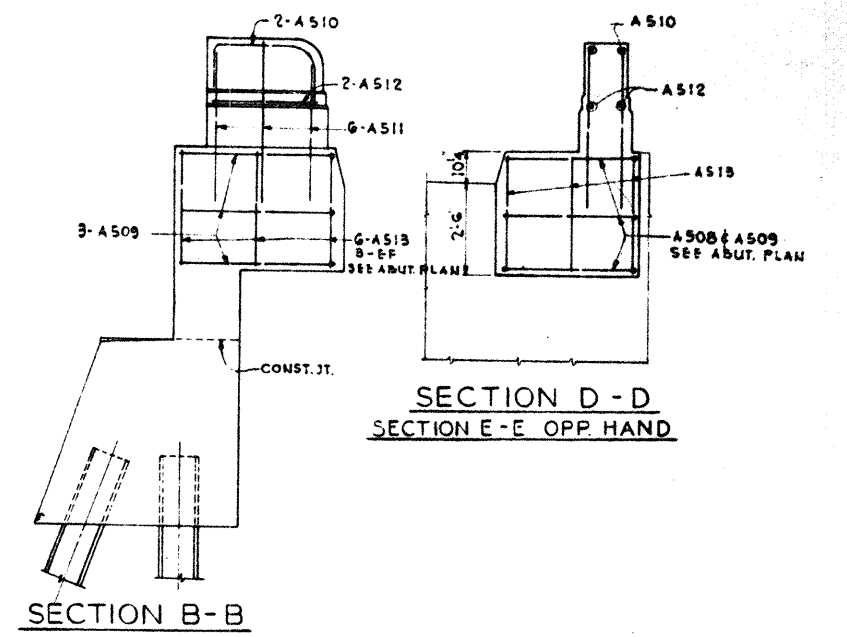
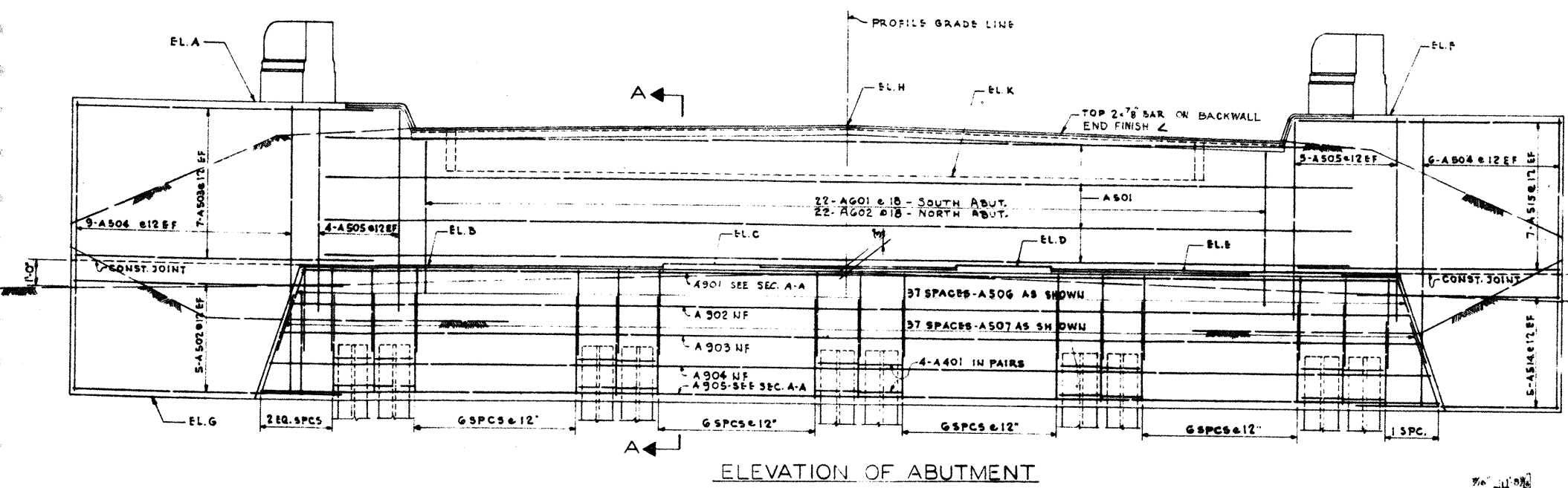
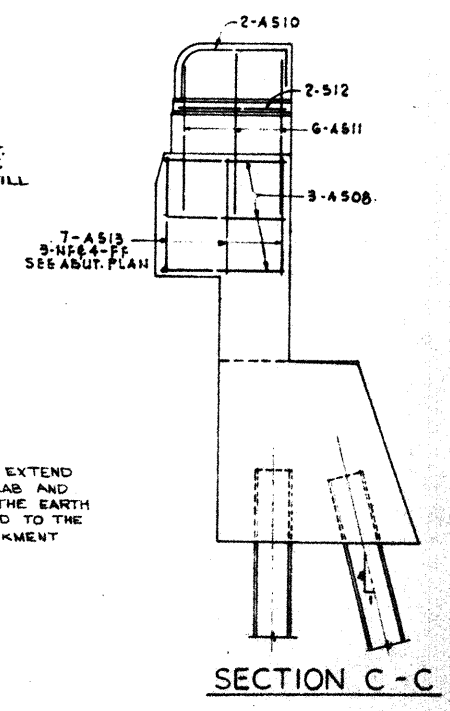
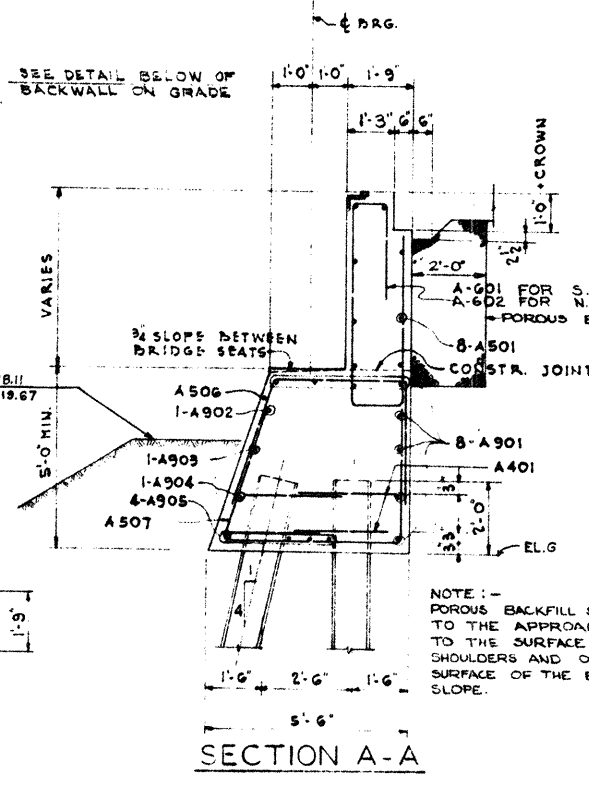
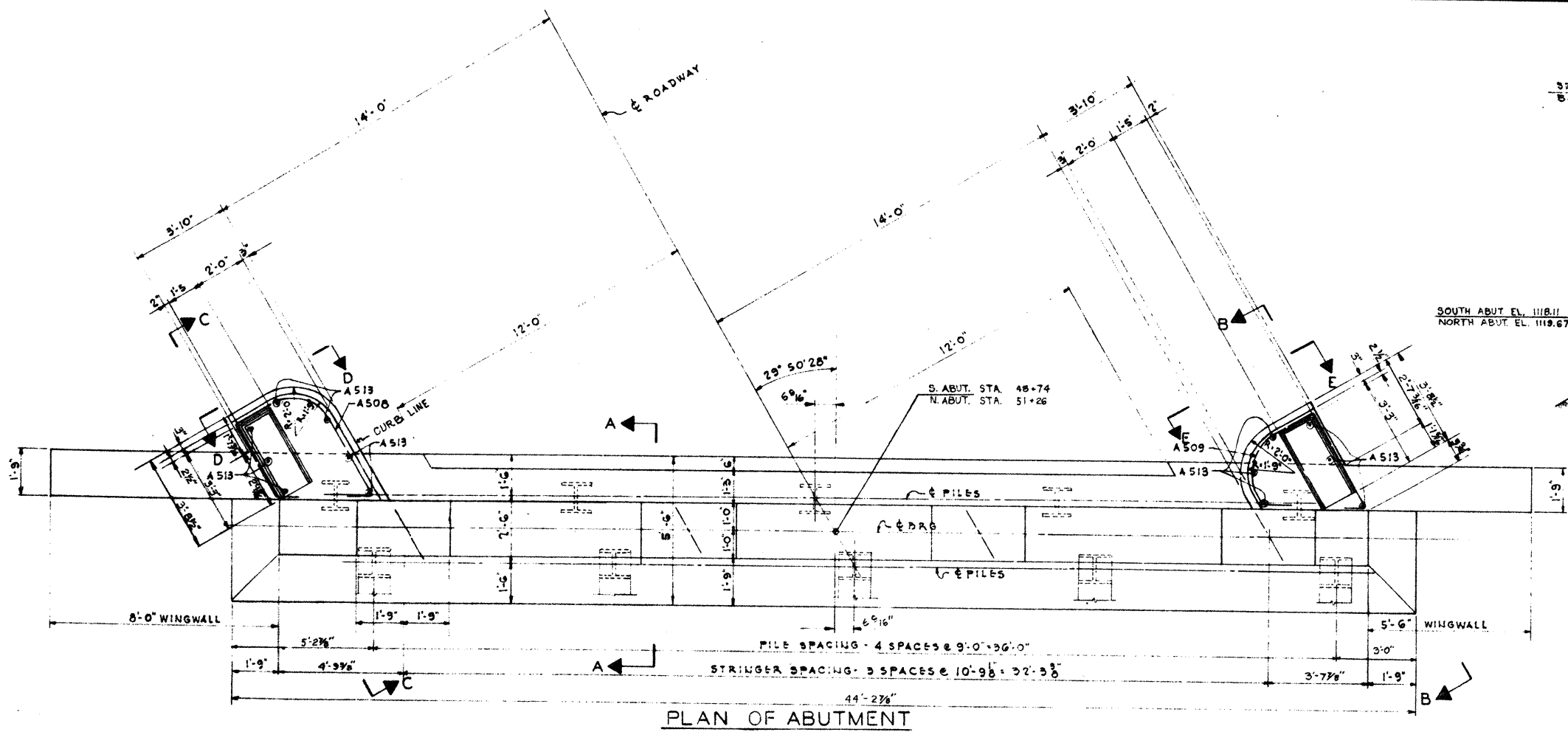
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

**GENERAL PLAN & ELEVATION
NOTES & ESTIMATED QUANTITIES**
BRIDGE NO. STA-21-1846
U.S. 21 UNDER SR 93

STARK CO. STA. 974+56.52
SEC. STA. 21

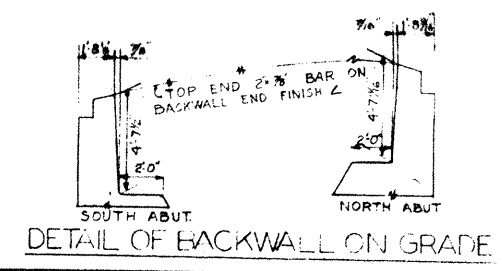
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	BY
E.M.	J.N.		R.S.	M.C.		

STA.-21-17.80
 WAY-21-0.00
 SUM-21-0.00



	A	B	C	D	E	F	G	H	K
SOUTH ABUT.	1125.57	1120.11	1120.35	1120.43	1120.37	1125.87	1115.11	1125.10	1123.74
NORTH ABUT.	1127.16	1121.69	1121.86	1121.88	1121.75	1127.25	1116.69	1126.59	1125.34

TABLE OF ELEVATIONS



NOTE:
 REINFORCING STEEL SHALL BE 2" CLEAR FROM SURFACE OF CONCRETE, UNLESS OTHERWISE NOTED.
 CONCRETE IN PYLON TO BE INCLUDED IN ITEM 5, CLASS 'C' CONCRETE, SUPERSTRUCTURE.
 REINFORCING STEEL IN TOP OF ABUTMENT BRIDGE SEAT TO BE PLACED TO CLEAR ANCHOR BOLTS.

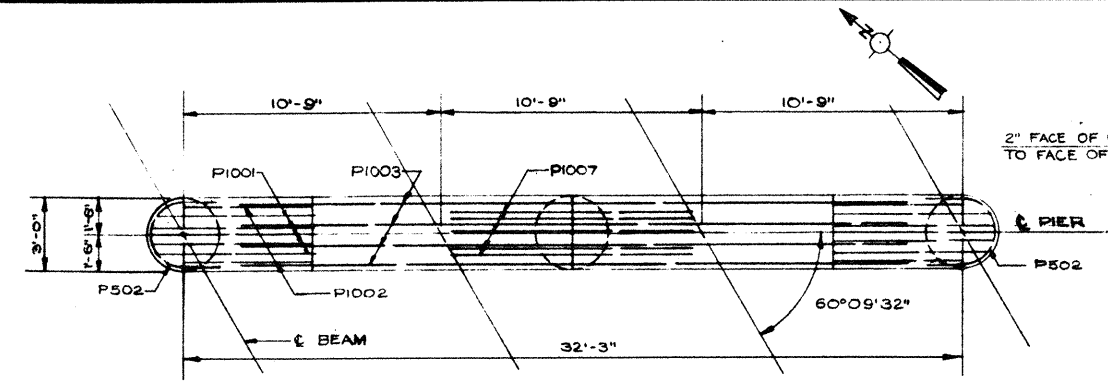
CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

ABUTMENTS DETAILS
 BRIDGE NO. STA-21-1846
 U.S. 21 UNDER SR 93

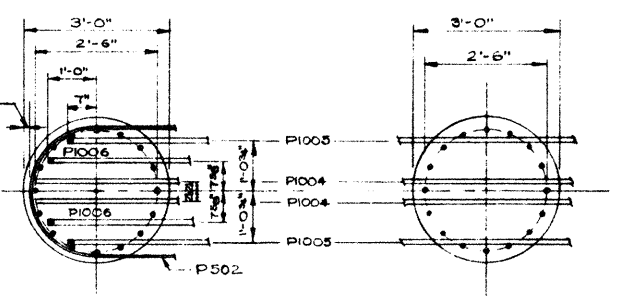
STARK CO. STA. 974+56.52
 SEC. STA. 21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
D.J.L.	AL.B.		R.S.	M.C.	5-18-56	

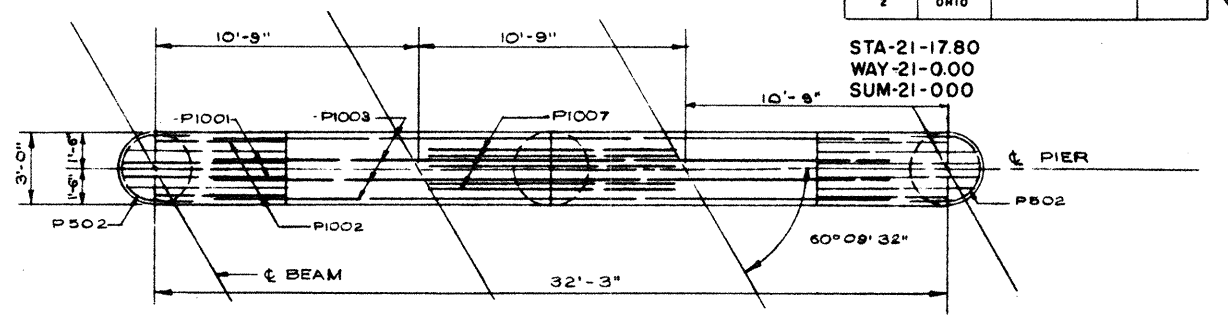
STA-21-17.80
WAY-21-0.00
SUM-21-000



PLAN - PIER #2
SHOWING TOP REINFORCING

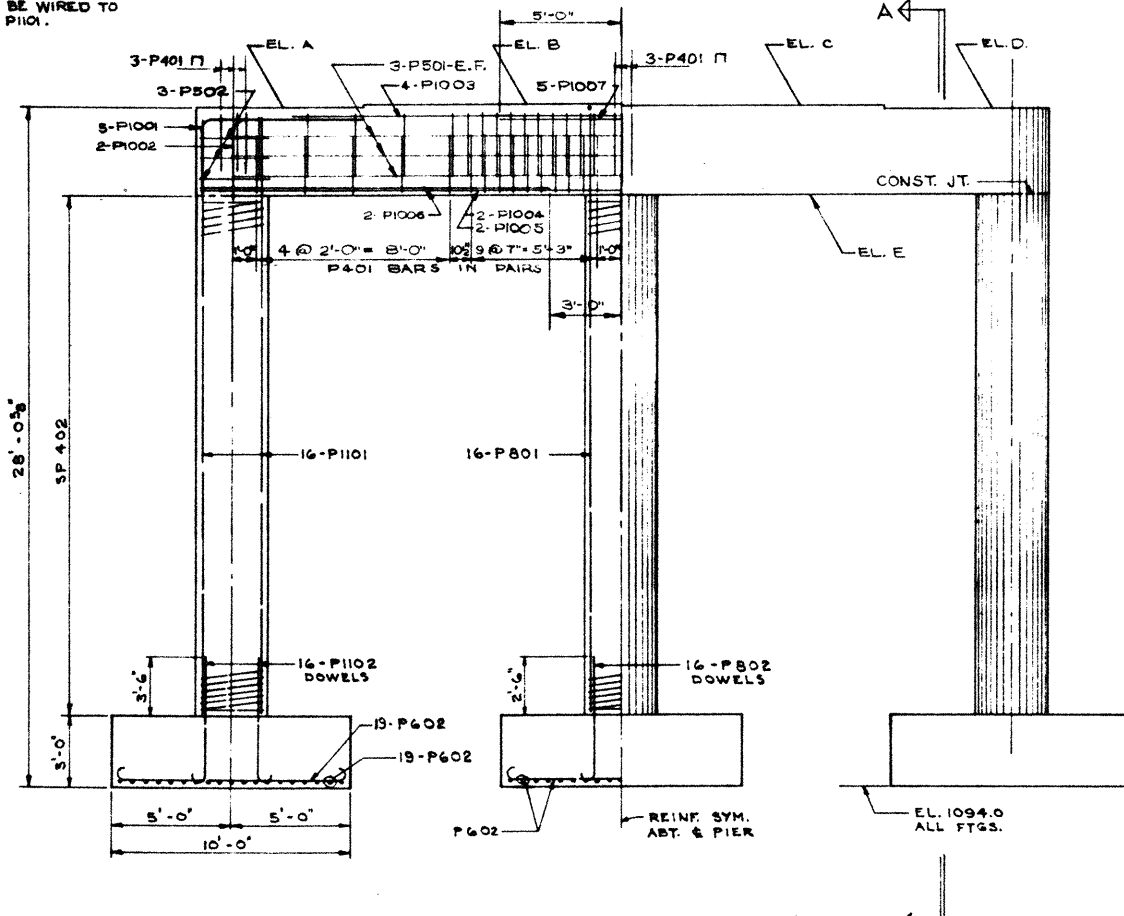


END COLUMN MIDDLE COLUMN
HORIZONTAL SECTION AT BASE OF PIER CAP - PIERS #1,3

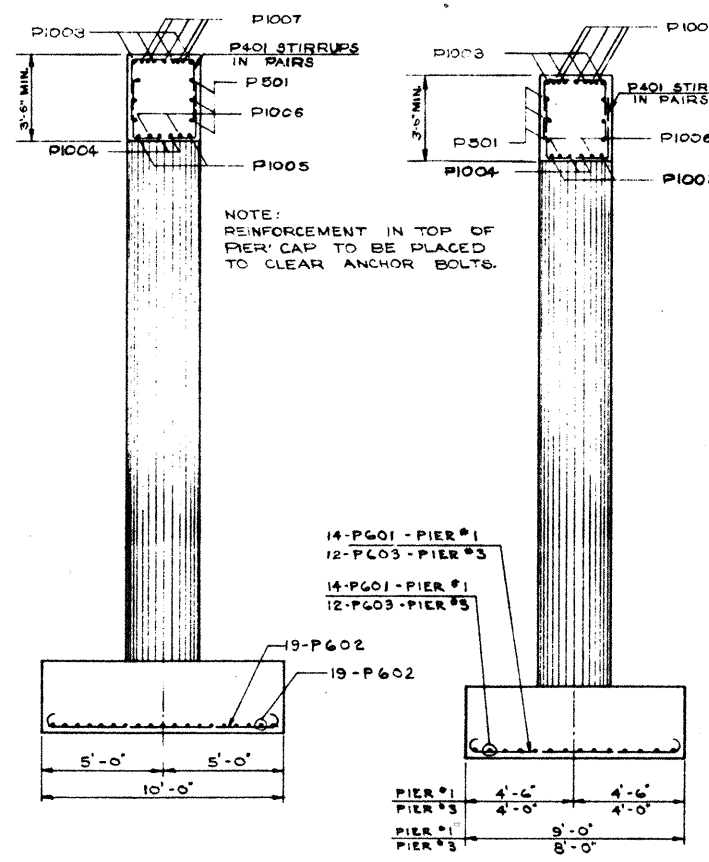


PLAN - PIERS #1,3
SHOWING TOP REINFORCING

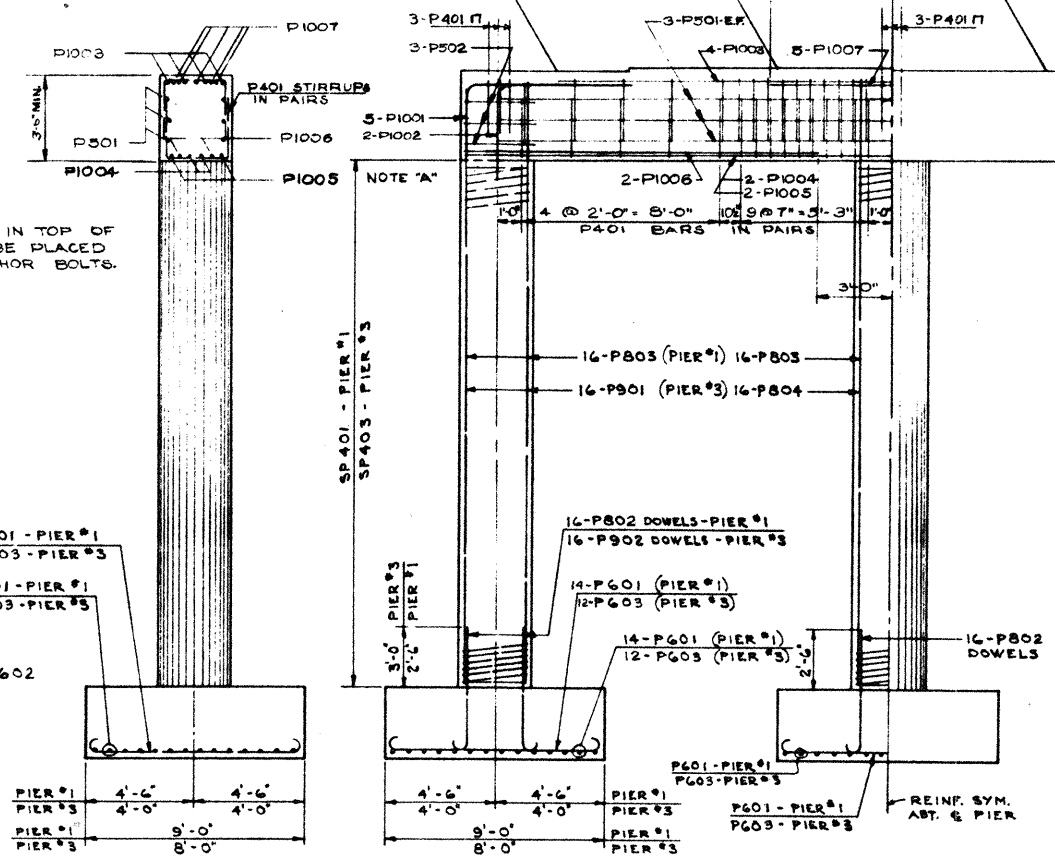
NOTE "A":
THE VERTICAL LEG OF BARS P1001 SHALL BE WIRED TO COL. BARS P1001.



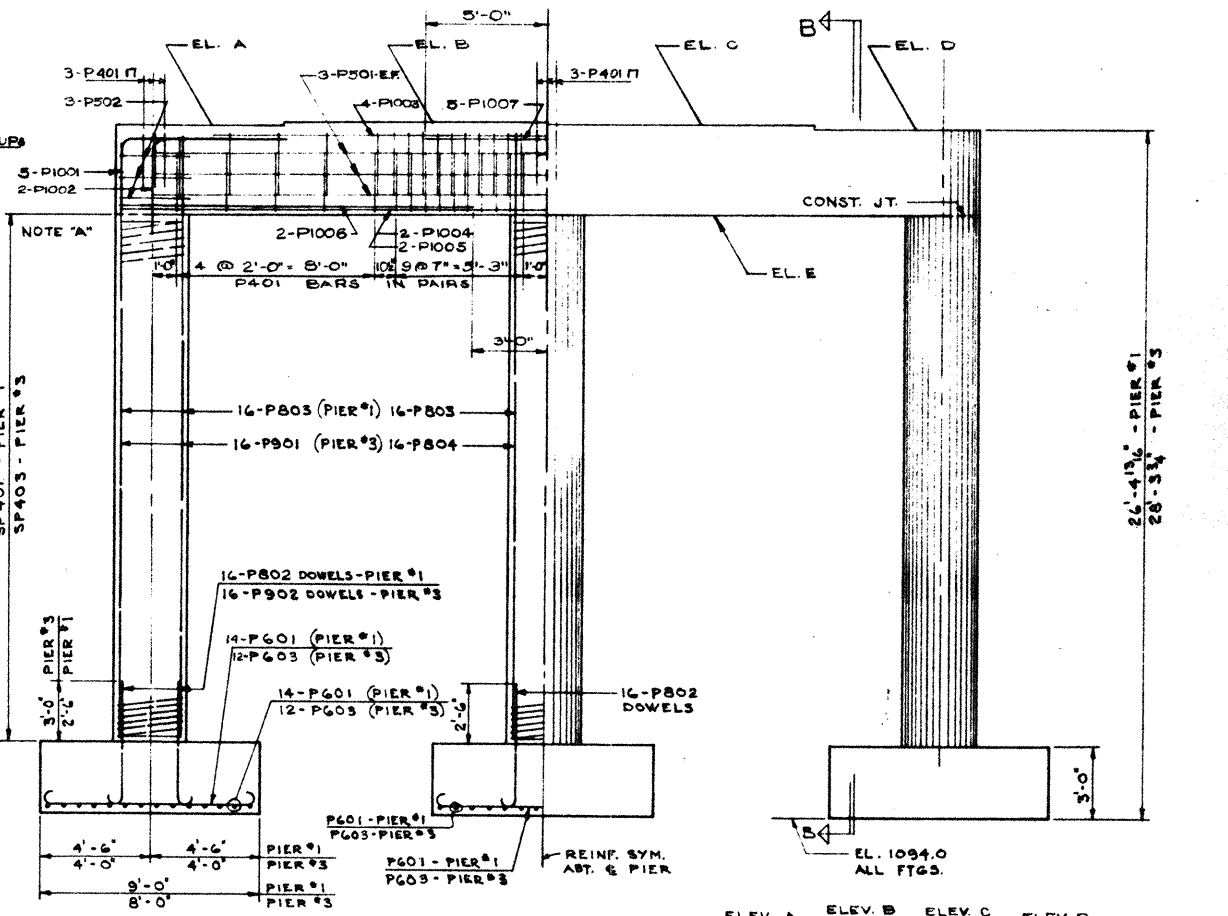
ELEVATION - PIER #2



SECTION A-A



SECTION B-B



ELEVATION - PIER #1 & 3

	ELEV. A	ELEV. B	ELEV. C	ELEV. D	ELEV. E
PIER #1	1120.58	1120.67	1120.61	1120.40	1116.90
PIER #2	1121.14	1121.27	1121.24	1121.05	1117.55
PIER #3	1121.31	1121.46	1121.46	1121.31	1117.81

NOTE:
REINFORCING STEEL SHALL BE 2" CLEAR FROM SURFACE OF CONCRETE UNLESS OTHERWISE NOTED.
REINFORCING STEEL IN TOP OF PIER CAP SHALL BE PLACED TO CLEAR ANCHOR BOLTS.

CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

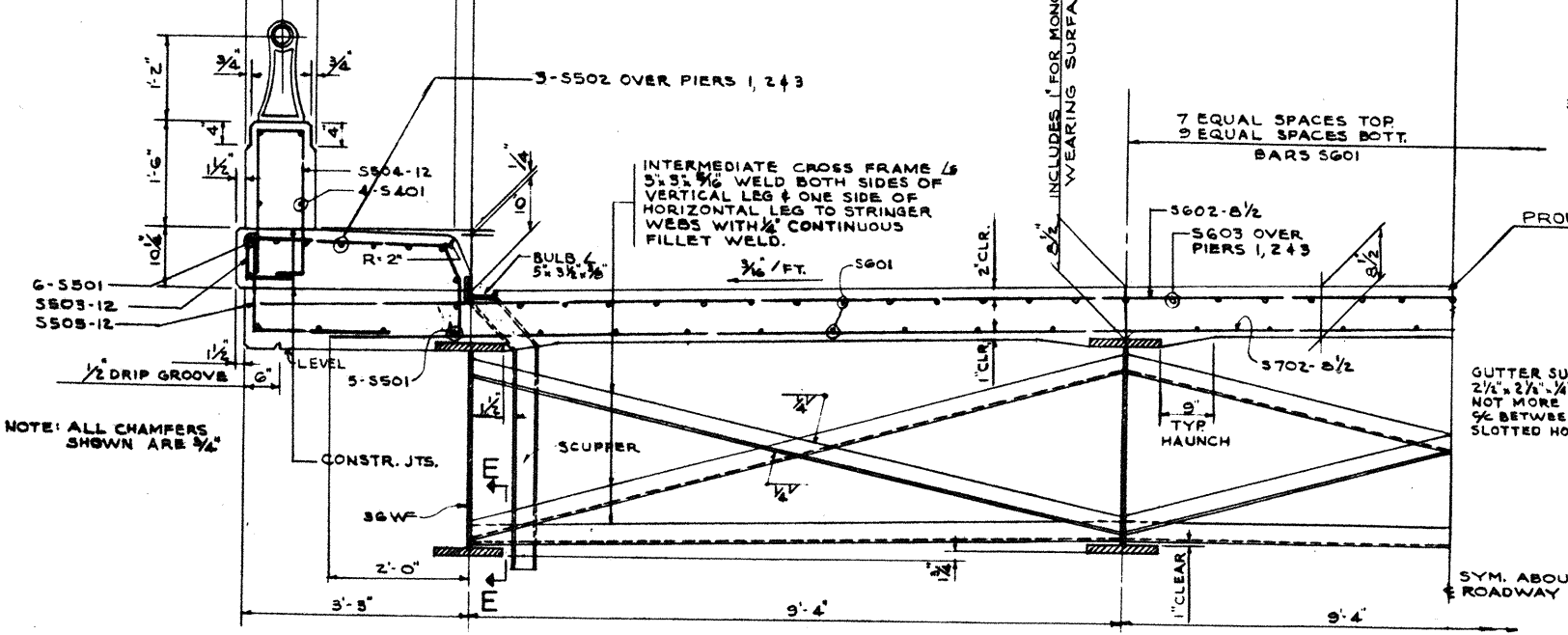
PIER DETAILS
BRIDGE NO. STA-21-1846
U.S. 21 UNDER SR 93

STARK CO. SEC. STA. -21 STA. 974+86.82

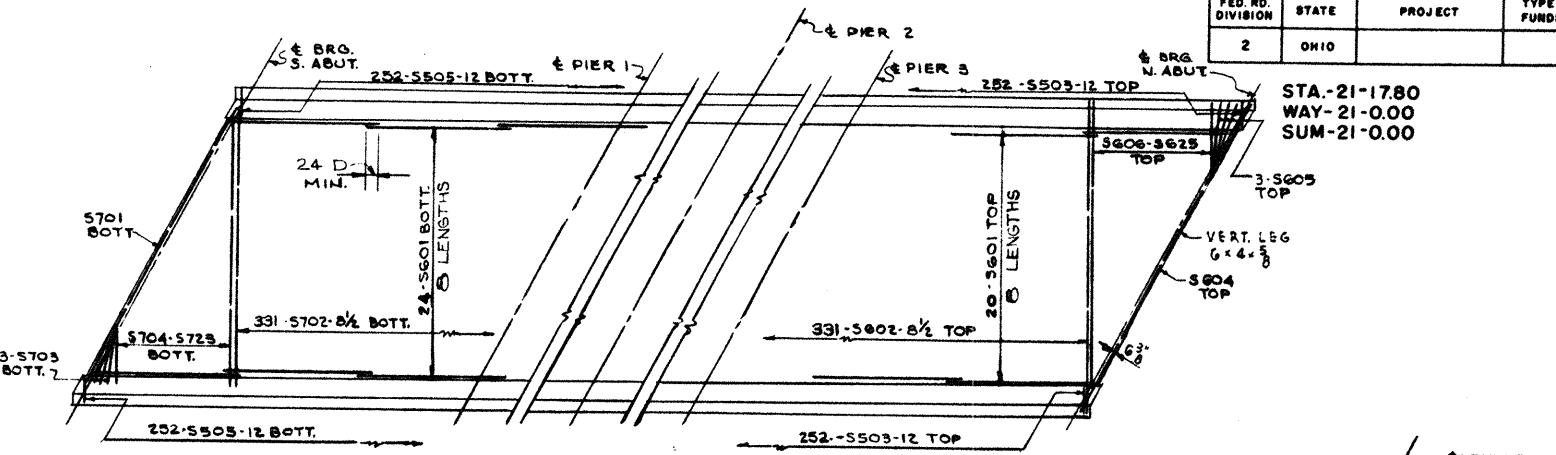
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
D.J.L.	W.J.C.	J.L.	R.S.	M.C.	5-18-58	

STA.-21-17.80
WAY-21-0.00
SUM-21-0.00

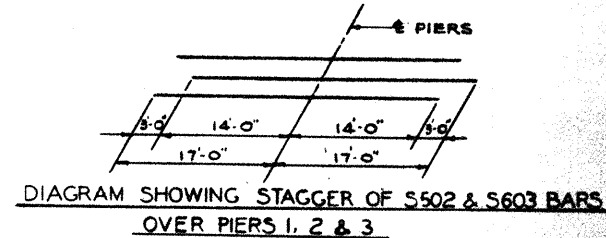
NOTE: CONCRETE IN PARAPET TO BE INCLUDED IN ITEM S14, RAILING



TRANSVERSE HALF SECTION

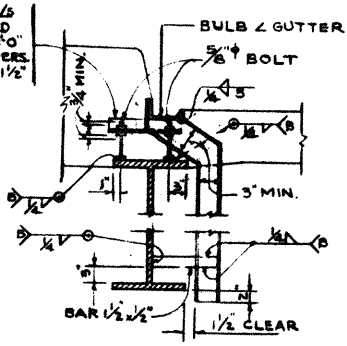


DECK SLAB REINFORCING PLAN

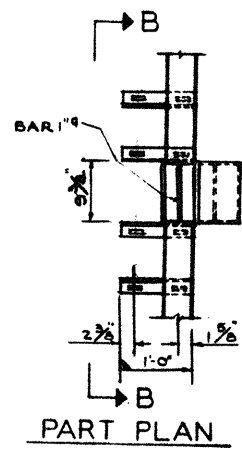


NOTE: ALL CHAMFERS SHOWN ARE 3/4"

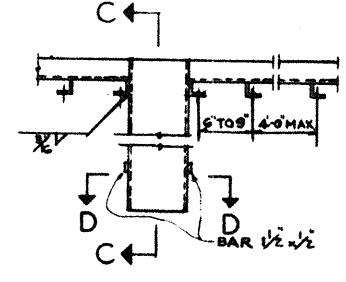
GUTTER SUPPORT & 2 1/4" x 2 1/4" x 1/4" SPACED NOT MORE THAN 40" BETWEEN SCUPPERS SLOTTED HOLES 1/2" x 1 1/2"



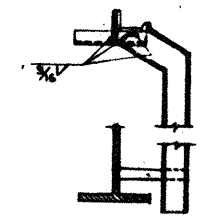
GUTTER SUPPORT AND SCUPPER



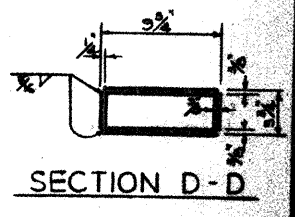
PART PLAN



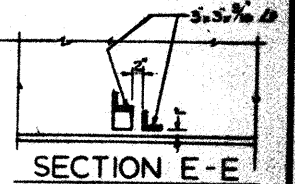
SECTION B-B



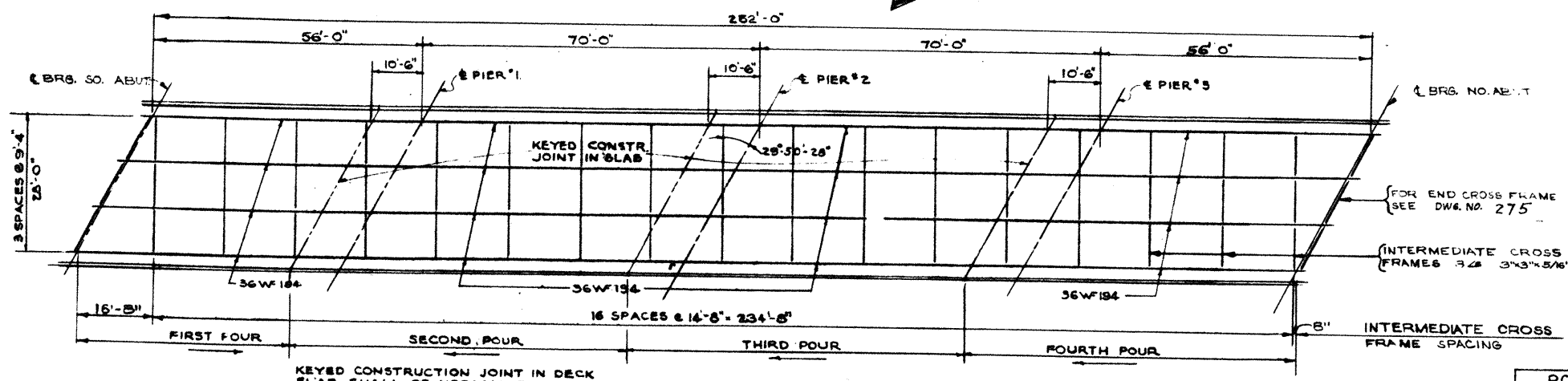
SECTION C-C



SECTION D-D



SECTION E-E



STEEL FRAMING PLAN

LOCATION	INTERIOR BEAMS	EXTERIOR BEAMS
	36 WF 194	36 WF 194
PIER # 1	TOP R. 10 1/2" x 1/2" x 14'-0"	10 1/2" x 1/2" x 11'-6"
	BOT. R. 13 1/2" x 3/8" x 14'-0"	13 1/2" x 3/8" x 11'-6"
PIER # 2	TOP R. 10 1/2" x 1/2" x 17'-6"	10 1/2" x 1/2" x 11'-6"
	BOT. R. 13 1/2" x 3/8" x 17'-6"	13 1/2" x 3/8" x 11'-6"
PIER # 3	TOP R. 10 1/2" x 1/2" x 14'-0"	10 1/2" x 1/2" x 11'-6"
	BOT. R. 13 1/2" x 3/8" x 14'-0"	13 1/2" x 3/8" x 11'-6"

DECK CONSTRUCTION PROCEDURE: THE DECK SLAB SHALL BE PLACED IN SECTIONS BETWEEN TRANSVERSE CONSTRUCTION JOINTS IN THE NUMERICAL ORDER AND IN THE DIRECTION INDICATED ON THE STEEL FRAMING PLAN IN ORDER THAT THE MAJOR PORTION OF THE DEAD LOAD DEFLECTION WILL OCCUR PRIOR TO PLACING CONCRETE OVER EACH PIER.

GUTTERS SHALL BE ACCURATELY ADJUSTED FOR ALIGNMENT AND GRADE WITH ALLOWANCE FOR DEAD LOAD DEFLECTION BEFORE CONCRETE IS PLACED.

	ROCKER	BOLSTER
NORTH ABUT.	R-100	
PIER NO. 1	R-200	
PIER NO. 2		B-200
PIER NO. 3	R-200	
SOUTH ABUT.	R-100	

FOR DETAILS SEE DWG. NO. RB-1-55

	EXTERIOR BEAMS		INTERIOR BEAMS	
	END MIDDLE SPANS	SPANS	END MIDDLE SPANS	SPANS
DEFLECTION DUE TO WEIGHT OF STEEL	1/16"	1/16"	1/16"	1/16"
DEFLECTION DUE TO REMAINING DEAD LOAD	7/16"	7/32"	5/16"	11/32"
CAMBER REQUIRED FOR VERTICAL CURVE	3/8"	19/32"	3/8"	19/32"
SUM OF DEFLECTION AND CAMBER	7/8"	13/16"	3/4"	1"
REQUIRED CAMBERS	0"	13/16"	0"	1"

NO CAMBERING OF BEAMS REQ'D, BUT THE BEAMS SHALL BE FABRICATED SO THAT ANY CURVED BEAMS WILL BE PLACED WITH THE CONVEX FLANGE UP.

CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

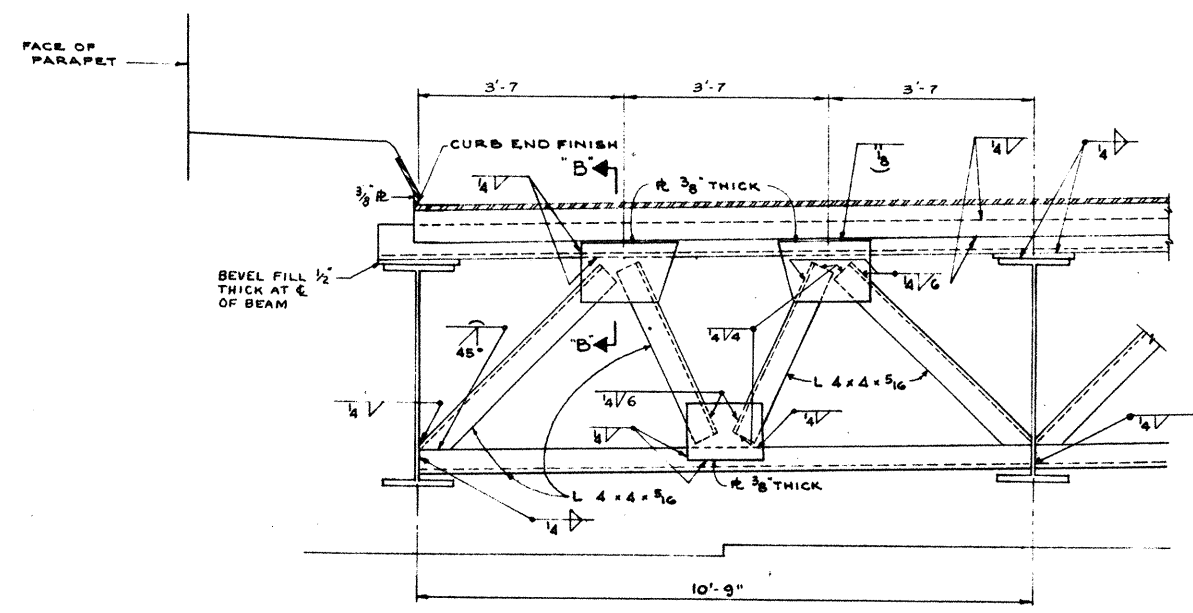
SUPERSTRUCTURE DETAILS

BRIDGE NO. STA.-21-1846
U.S. 21 UNDER SR 93

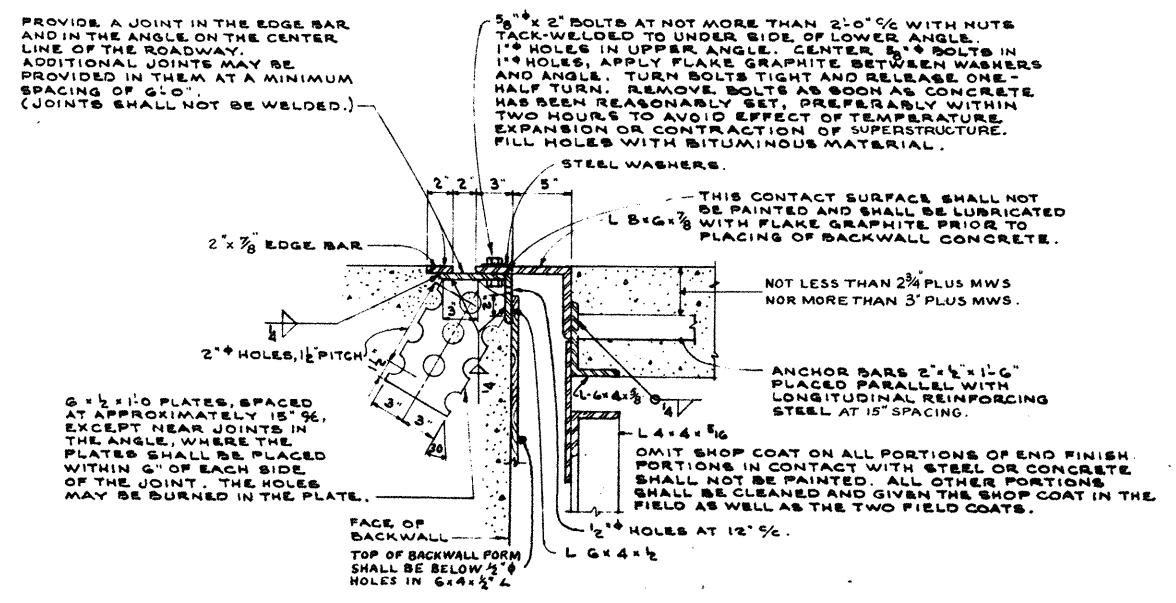
STARK CO. STA. 974+56.52
SEC. STA.-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION
D.J.L.	F.S.		R.S.	M.C.	5-18-56	

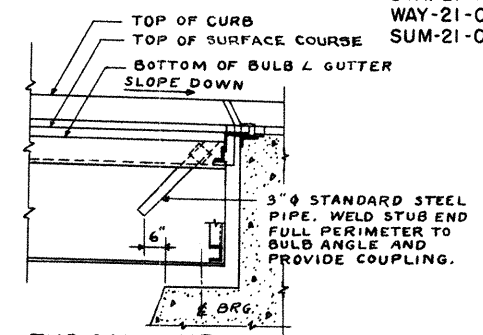
STA-21-17.80
WAY-21-0.00
SUM-21-0.00



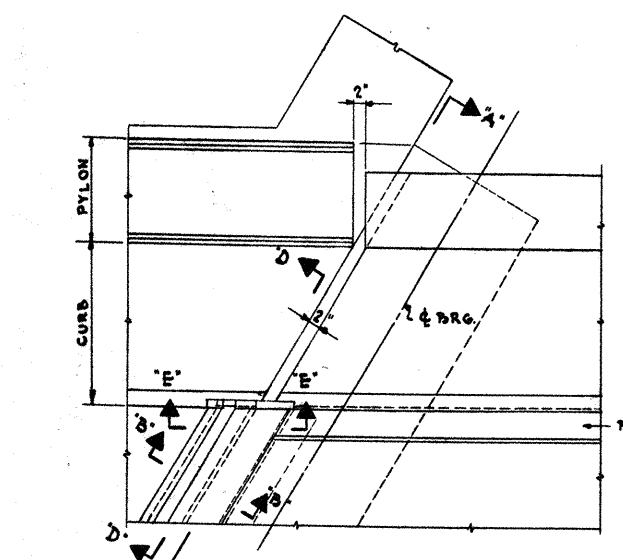
SECTION "A-A"



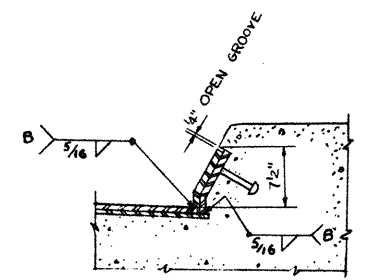
SECTION "B B"



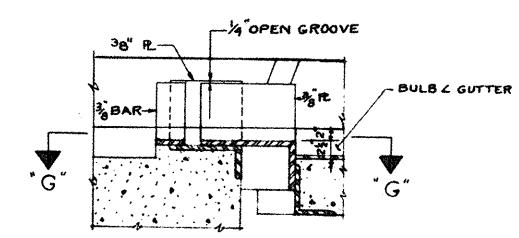
TYPICAL SECTION FOR GRADE SLOPING DOWN TO END FINISH



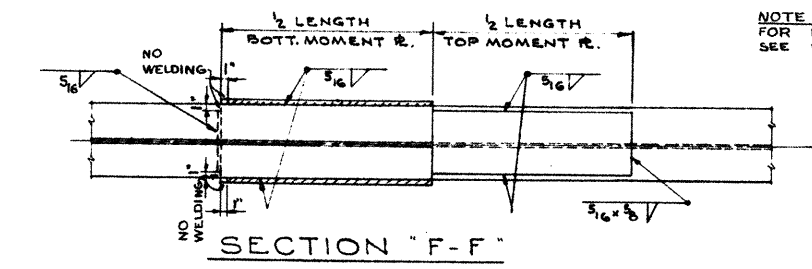
PARTIAL PLAN AT ABUTMENT



SECTION "D-D"

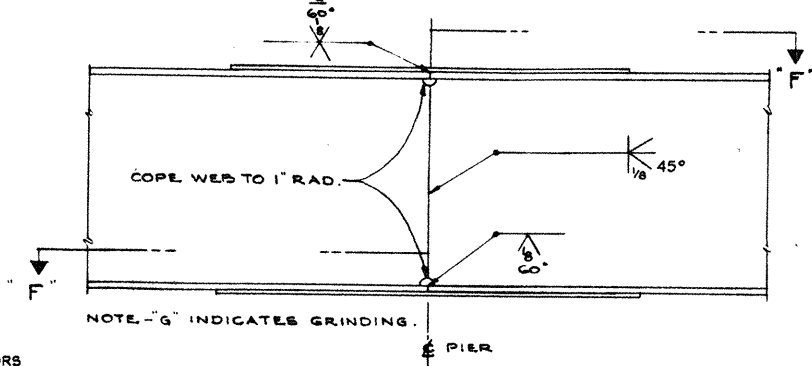


SECTION "E-E"



SECTION "F-F"

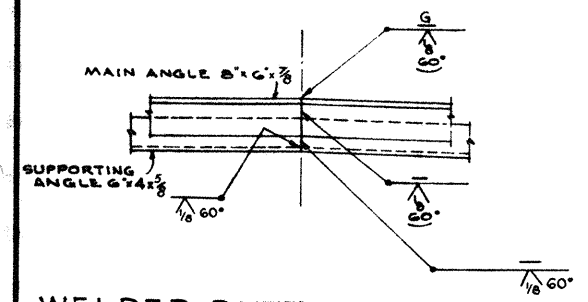
NOTE:
FOR MOMENT PLATE SIZES
SEE DWG. # 274



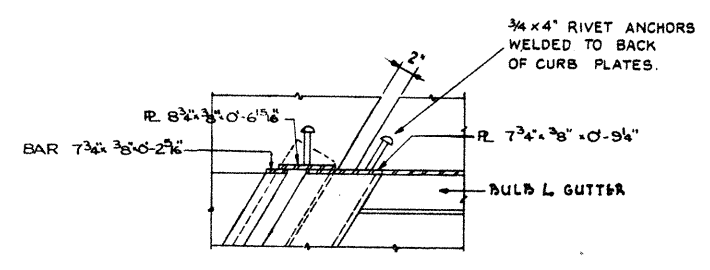
NOTE - "G" INDICATES GRINDING.

BEAM SPLICE DETAILS

- BEAM SPLICE WELDING PROCEDURE
1. RAISE END OF BEAM AT PIER 2 -1'32"
 2. BUTT-WELD BEAM FLANGES AND WEB AT PIER 1.
 3. LOWER END OF BEAM AT PIER 2.
 4. RAISE END OF BEAM AT PIER 3 -1'32"
 5. BUTT-WELD BEAM FLANGES AND WEB AT PIER 2.
 6. WELD TOP AND BOTTOM FLANGE SPLICE PLATES AT PIER 2.
 7. LOWER END OF BEAM AT PIER 3.
 8. RAISE BEAM AT ABUTMENT - 7/8"
 9. BUTT-WELD BEAM FLANGES AND WEB AT PIER 3.
- * WELDING SEQUENCE: MAKE ONE PASS IN EACH FLANGE, THEN ONE PASS IN THE WEB; REPEAT UNTIL WELDS ARE COMPLETED.



WELDED BUTT JOINT IN SUPERSTRUCTURE END FINISH ANGLES AT C. OF ROADWAY.



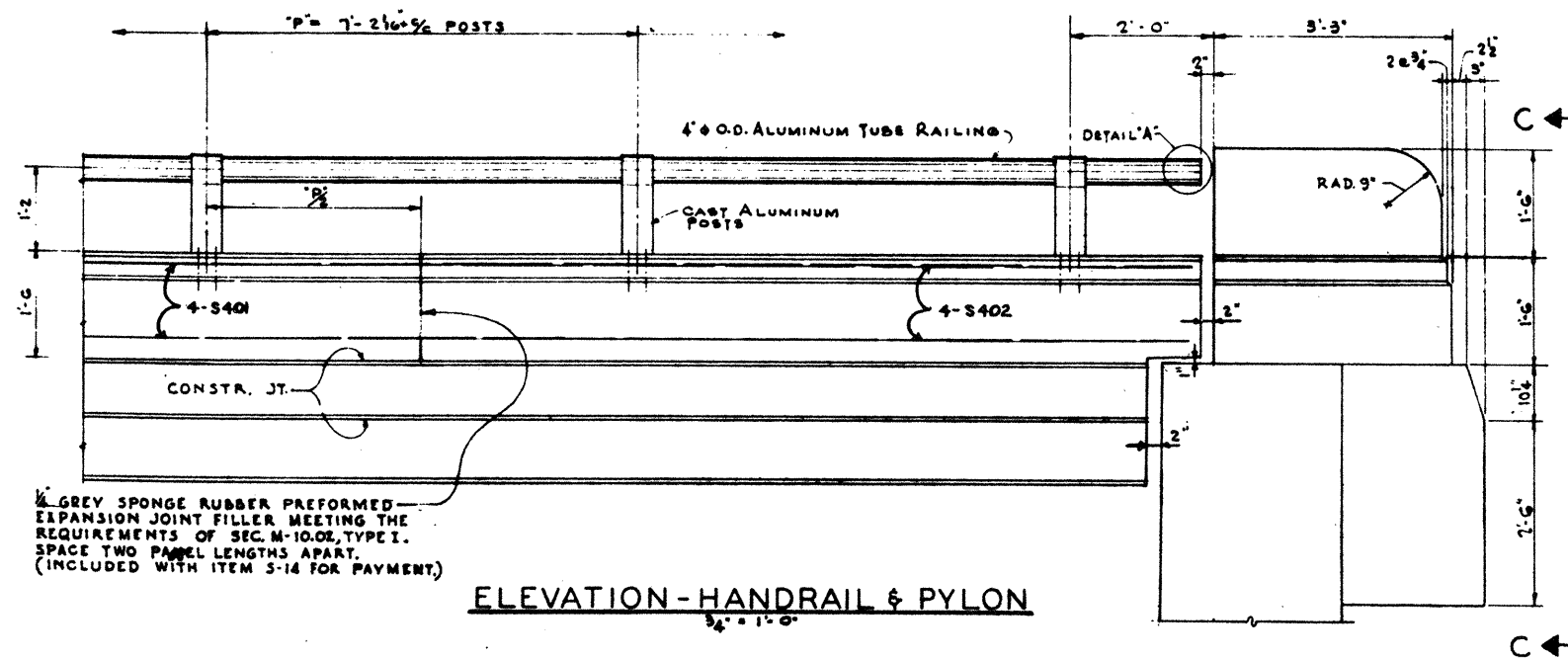
SECTION "G-G"

CHARLES E. DE LEUW CONSULTING ENGINEER CHICAGO ILLINOIS						
SUPERSTRUCTURE DETAILS						
BRIDGE NO. STA. 21-1846 U.S. 21 UNDER SR 93						
DESIGNED			DRAWN		TRACED	
CHECKED			REVIEWED		DATE	
DATE			REVISED			
E.M.	R.L.	R.S.	M.C.	5-18-56		

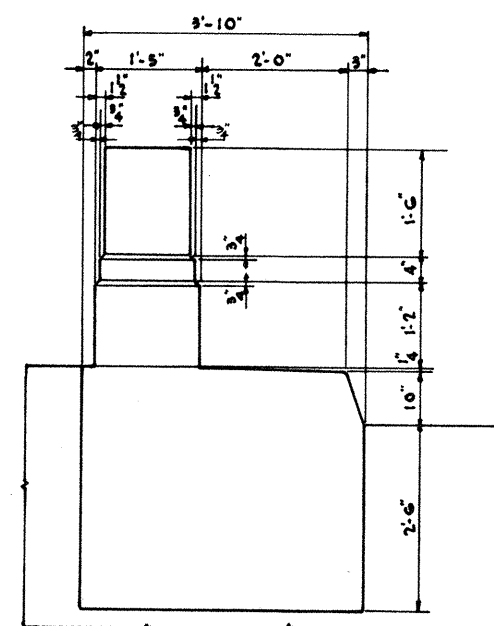
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

276
329

STA.-21-17.80
WAY-21-0.00
SUM-21-0.00

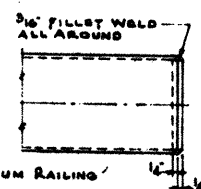


ELEVATION - HANDRAIL & PYLON
3/4\" = 1'-0"



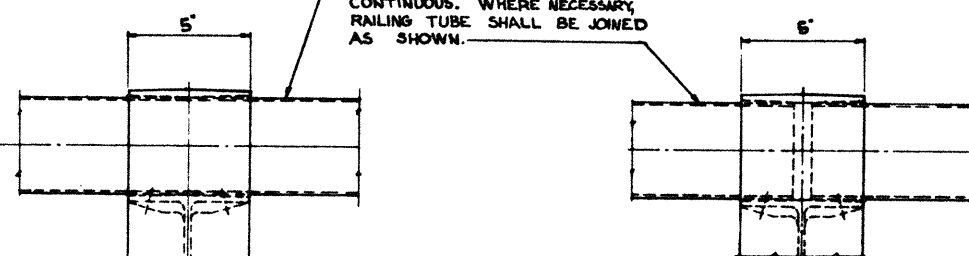
SECTION C-C
SCALE: 3/4\" = 1'-0"

1/2\" GREY SPONGE RUBBER PREFORMED EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF SEC. M-10.02, TYPE I. SPACE TWO PANEL LENGTHS APART. (INCLUDED WITH ITEM 5-14 FOR PAYMENT.)

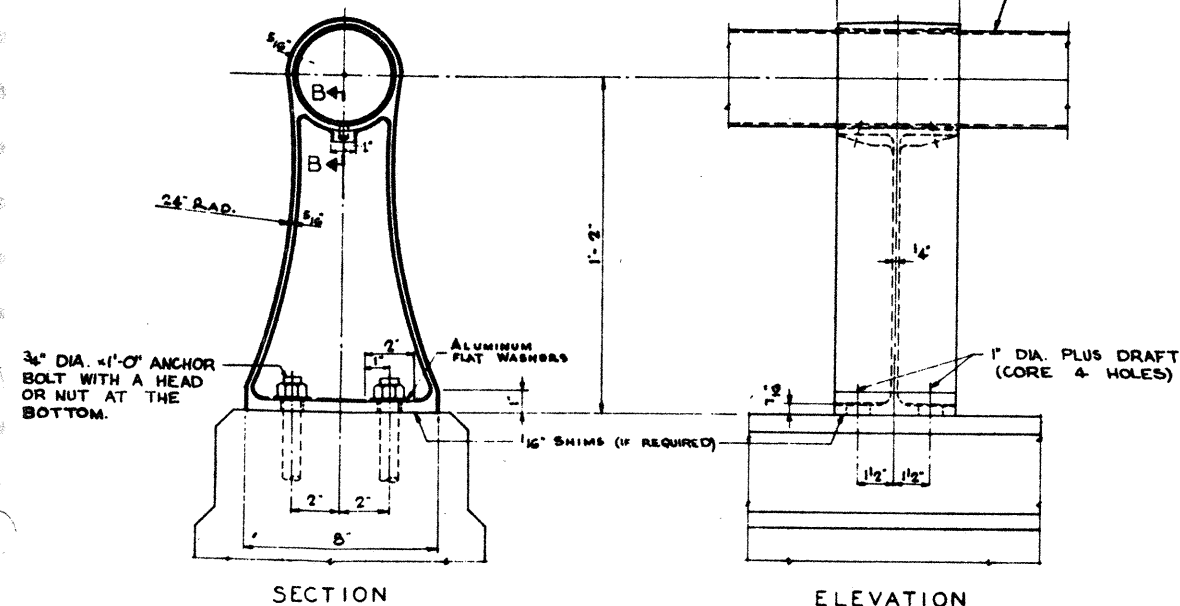


DETAIL A
3/4\" = 1'-0"

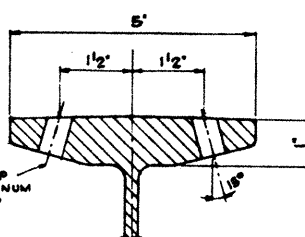
4\" O.D. x 3/16\" WALL ALUMINUM TUBE. RAILING IS GENERALLY CONTINUOUS. WHERE NECESSARY, RAILING TUBE SHALL BE JOINED AS SHOWN.



TYPICAL PIPE JOINT
3/4\" = 1'-0"



HANDRAIL DETAILS
3/4\" = 1'-0"



SECTION B-B
3/4\" = 1'-0"

NOTE:
REFER TO SUPPLEMENTAL SPECIFICATION NO. S-114 ALUMINUM FOR BRIDGE RAILING DATED AUG. 30, 1955

CHARLES E. DE LEUW CONSULTING ENGINEER CHICAGO ILLINOIS						
HANDRAIL AND PYLON DETAILS						
BRIDGE NO. STA-21-1846						
U.S. 21 UNDER SR. 93						
STARK CO.				STA. 974+56.52		
SEC. STA. 21						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
M.C.	R.N. ALB.		R.S.	M.C.	5-18-56	

REINFORCING STEEL LIST

SUPERSTRUCTURE				SUPERSTRUCTURE				BENDING DIAGRAMS		PIER NO. 2 (CONT.)				BENDING DIAGRAMS		ABUTMENTS (CONT.)					
MARK	NO.	LENGTH	WEIGHT	MARK	NO.	LENGTH	WEIGHT			MARK	NO.	LENGTH	WEIGHT	SHP.		MARK	NO.	LENGTH	WEIGHT	SHP.	
5701	2	26'-8"	151	5501	176	34'-0"	6,140			P801	16	24'-10"	1062	S		A502	20	9'-6"	198	S	
5702	331	32'-0"	21,700	5502	18	31'-0"	382			P802	16	6'-3"	267	B		A503	28	10'-6"	307	S	
5703	4	6'-3"	77	5503	104	6'-1"	3,190			P602	114	11'-0"	1882	B		A504	60	10'-0"	626	S	
5704	2	6'-6"	27	5504	504	5'-3"	2,198			P501	6	32'-3"	202	S		A505	36	7'-6"	282	S	
5705	2	7'-8"	32	5505	504	3'-11"	2,055			P502	6	8'-2"	51	B		A506	74	10'-7"	816	B	
5706	2	9'-0"	37							P401	69	7'-2"	331	B		A507	74	12'-3"	845	B	
5707	2	10'-3"	42							P1001	10	10'-0"	430	B		A508	6	12'-6"	78	B	
5708	2	11'-3"	47							P1002	4	9'-0"	155	B		A509	6	10'-5"	65	B	
5709	2	12'-8"	52							P1003	4	27'-0"	466	S		A510	8	6'-3"	52	B	
5710	2	14'-0"	57							P1004	2	34'-9"	236	S		A511	24	4'-3"	107	S	
5711	2	15'-3"	62							P1005	2	33'-5"	228	S		A512	8	2'-10"	24	S	
5712	2	16'-6"	67							P1006	4	14'-1"	243	S		A513	26	3'-0"	82	S	
5713	2	17'-9"	73					P1007	5	10'-0"	170	S		A514	20	7'-0"	146	S			
5714	2	19'-0"	78					P802	48	6'-3"	800	B		A515	28	8'-3"	270	S			
5715	2	20'-3"	83					P803	48	23'-2"	2964	S		A401	40	7'-4"	196	B			
5716	2	21'-3"	88																		
5717	2	22'-8"	93																		
5718	2	24'-0"	98																		
5719	2	25'-3"	103																		
5720	2	26'-6"	108																		
5721	2	27'-8"	113																		
5722	2	28'-0"	118																		
5723	2	30'-3"	124																		
5601	368	34'-0"	19,090																		
5602	331	34'-0"	16,900																		
5603	63	31'-0"	2,935																		
5604	2	39'-0"	117																		
5605	4	7'-0"	43																		
5606	2	7'-6"	23																		
5607	2	8'-8"	26																		
5608	2	10'-0"	30																		
5609	2	11'-3"	34																		
5610	2	12'-6"	38																		
5611	2	13'-9"	41																		
5612	2	15'-0"	45																		
5613	2	16'-0"	49																		
5614	2	17'-6"	53																		
5615	2	18'-9"	56																		
5616	2	20'-0"	60																		
5617	2	21'-3"	64																		
5618	2	22'-6"	68																		
5619	2	23'-9"	71																		
5620	2	25'-0"	75																		
5621	2	26'-3"	79																		
5622	2	27'-6"	83																		
5623	2	28'-8"	86																		
5624	2	30'-0"	90																		
5625	2	32'-0"	96																		

NOTE: BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO WHERE FOUR DIGITS ARE USED, INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE: A 700 IS A NO. 7 BAR, AND 1014 IS A NO. 10 SIZE.

SPIRAL REINFORCING STEEL						
MARK	NO.	CORE DIAM.	LENGTH	PITCH	NO. OF TURNS	WEIGHT
SR401	3	32"	18'-10 1/2"	4 1/2"	56	1110
SR402	3	32"	20'-6 3/4"	4 1/2"	58	1150
SR403	3	32"	20'-8 3/4"	4 1/2"	59	1170

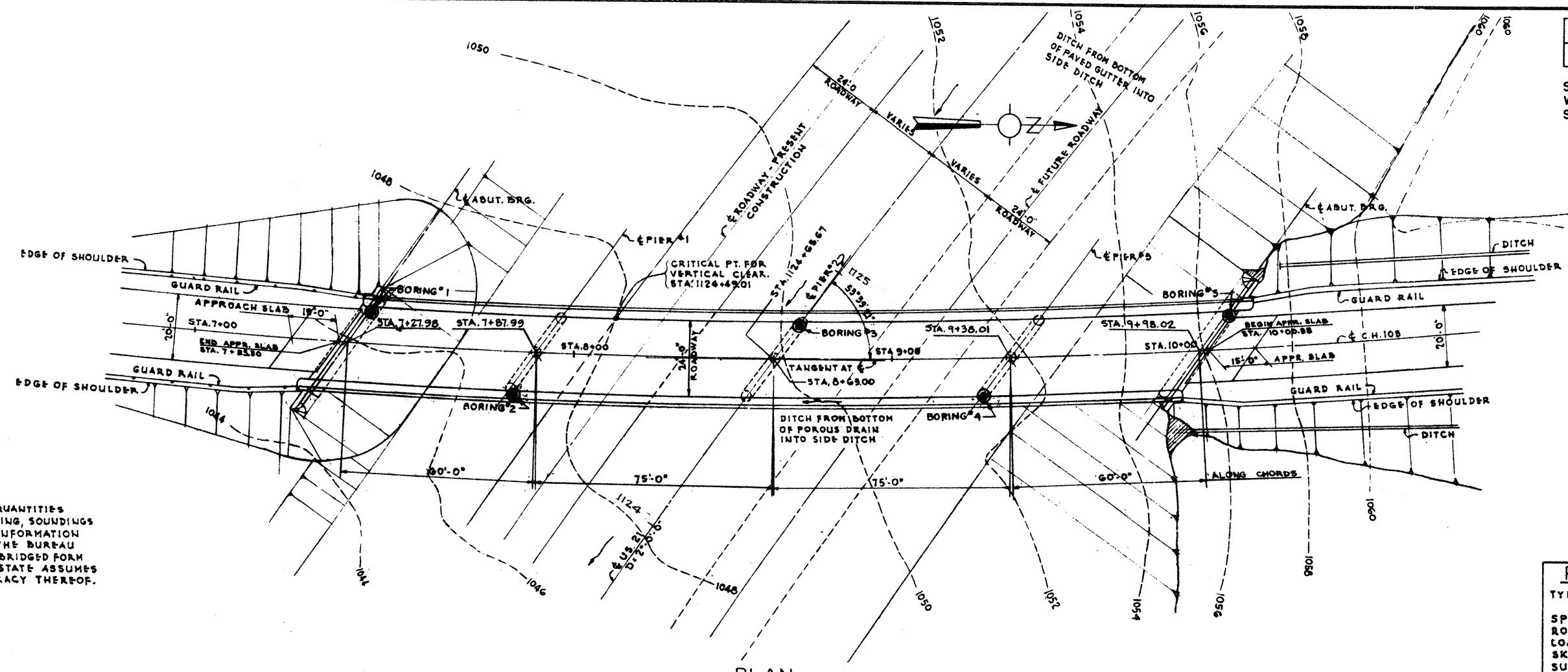
SPIRAL REINFORCING BARS
 THE "LENGTH" SHOWN IN THE STEEL LIST FOR THE SPIRAL BAR IS THE DISTANCE FROM THE TOP OF THE FOOTING TO THE BOTTOM OF THE PIER CAP.
 THE "NO. OF TURNS" SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE "LENGTH" DIVIDED BY THE PITCH, PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS) EXPRESSED AS THE NEAREST WHOLE NUMBER.
 SPIRAL REINFORCING BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM 6-4.
 1/2 CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.
 FOUR STEEL CHANNEL, TEE OR ANGLE SPACERS WEIGHING APPROXIMATELY 0.68 LB. PER LIN. FT. OF SPACER, SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.68 LB. PER LIN. FT. WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS.

<small>CHARLES E. DE LUW CONSULTING ENGINEER CHICAGO ILLINOIS</small>					
REINFORCING STEEL LIST BRIDGE NO STA-21-1846 U.S. 21 UNDER SR93					
STARK CO.			STA. 974+56.52		
SEC. STA-21					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
	J.G.		RS.	M.C.	5-18-56

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

378

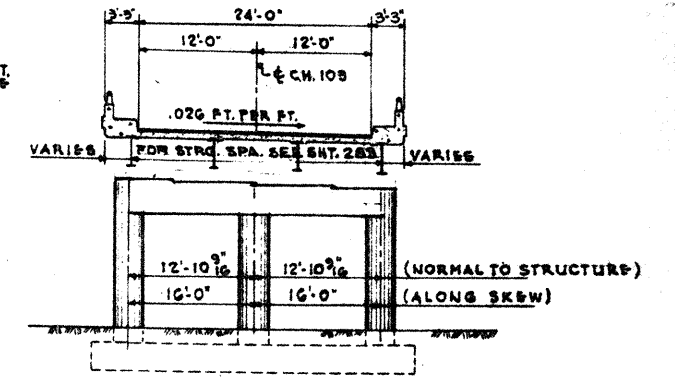
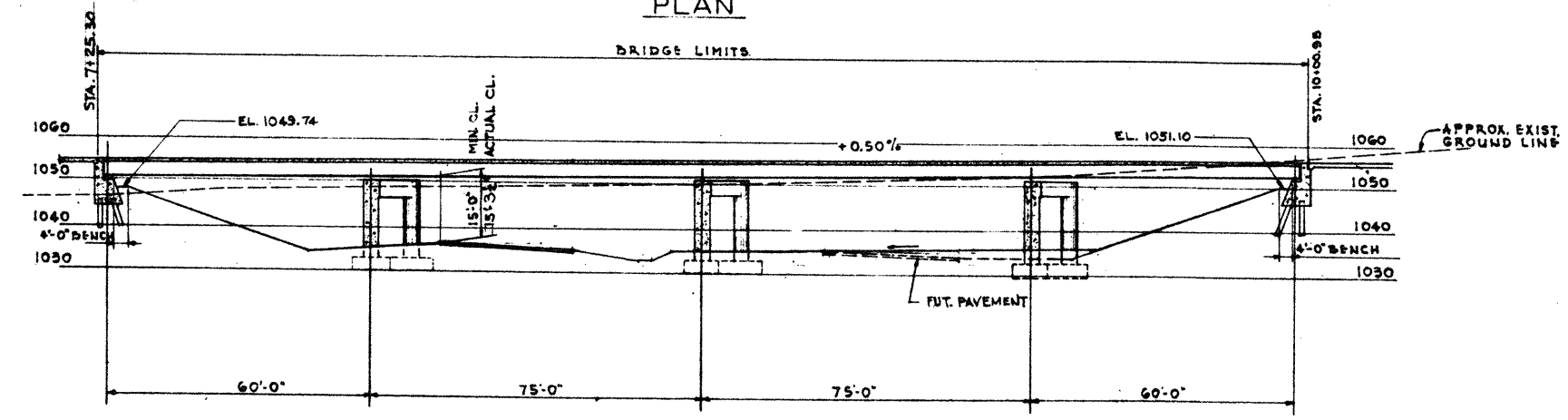
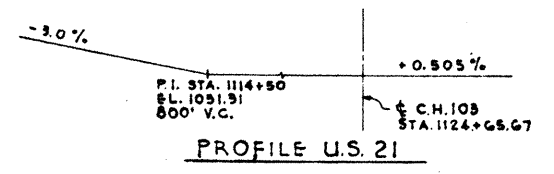
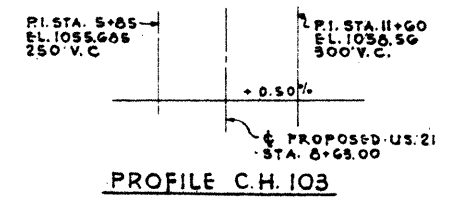
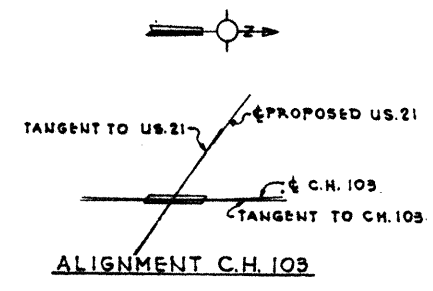
STA.-21-17.80
WAY-21-0.00
SUM-21-0.00



CURVE DATA
(P.I. STA. 8+93.56)
I = 8° 59' 36"
D = 2' 30'-0"
R = 2291.85'
T = 178.24'
L = 355.75'
(CURVE DATA ALONG $\frac{1}{2}$ OF CH 103)

FOUNDATION SOUNDINGS:
FOUNDATION DESIGN AND FOUNDATION QUANTITIES ARE BASED ON A STUDY OF SOIL SAMPLING, SOUNDINGS MADE AT THE SITE. THIS SOUNDING INFORMATION MAY BE INSPECTED IN THE OFFICE OF THE BUREAU OF BRIDGES IN COLUMBUS OR IN AN ABRIDGED FORM IN THE DIVISION OFFICE, BUT THE STATE ASSUMES NO RESPONSIBILITY FOR THE ACCURACY THEREOF.

PROPOSED STRUCTURE
TYPE: CONTINUOUS STEEL BEAMS WITH REINF. CONCRETE DECK AND SUBSTRUCTURE
SPANS: 60'-0", 75'-0", 75'-0" AND 60'-0"
ROADWAY: 24'-0" F-F CURBS; 2'-0" SAFETY CURBS
LOAD FREQUENCY RATINGS: C.F. 80
SKWB: 36" 20' 38"
SURFACE COURSE: ASPHALTIC CONCRETE
APPROACH SLAB: AS SHOWN
ALIGNMENT: ON 2° 30' CURVE



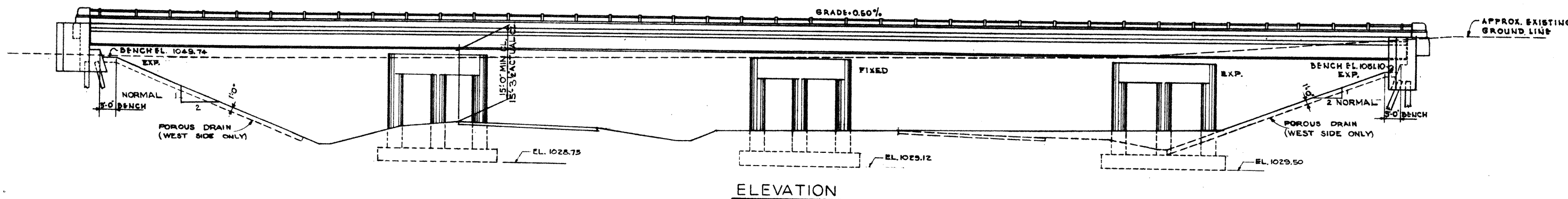
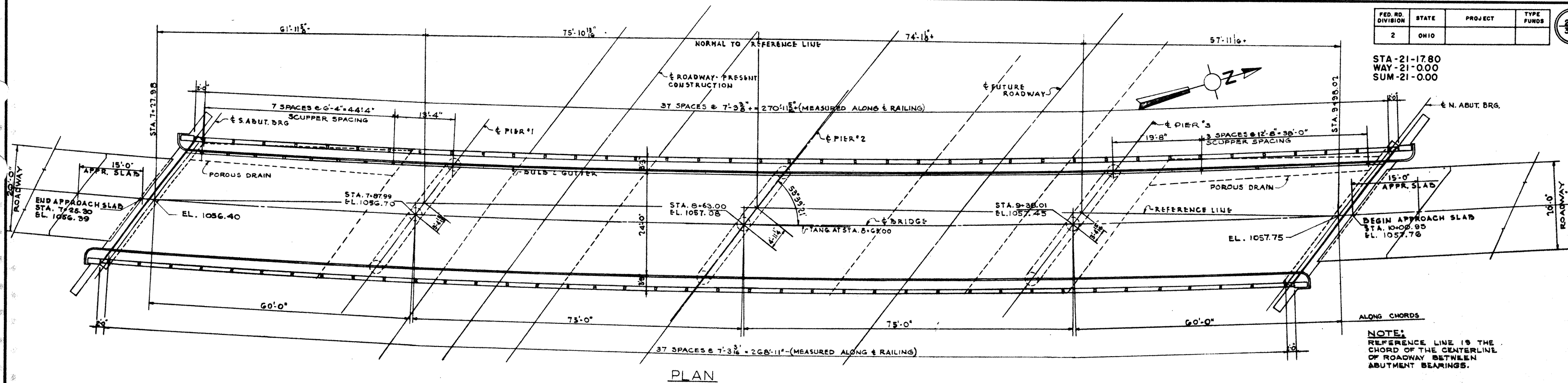
NOTE
PILING 12 BP 53
EST. AVERAGE N. ABUT. 25'-0"
PAY. LENGTH S. ABUT. 25'-0"

B.M. # 215 EL. 1048.91
R.R. SPIKE IN 10" WILD CHERRY
300' RIGHT, STA. 1127+00.

CHARLES E. DELEU CONSULTING ENGINEER CHICAGO ILLINOIS					
SITE PLAN					
BRIDGE NO. STA-21-2130 U.S. 21 UNDER CH 103					
STARK CO.			STA. 1124+65.67		
SEC. STA.-21					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
J.T.N.	ALB.		R.S.	L.N.R.	5-24-56

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

279
329



ESTIMATED QUANTITIES						
ITEM	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER. GENERAL
E-2	LUMP SUM		COFFERDAMS, CRIBS AND SHEETING			LUMP SUM
E-2	391	C.Y.	UNCLASSIFIED EXCAVATION	114	277	
S-1	222	C.Y.	CLASS "C" CONCRETE, SUPERSTRUCTURE & PYLONS	2		220
S-1	69	C.Y.	CLASS "C" CONCRETE, PIERS ABOVE FOOTINGS		69	
S-1	109	C.Y.	CLASS "E" CONCRETE, ABUTMENTS	109		
S-1	114	C.Y.	CLASS "E" CONCRETE, PIER FOOTINGS		114	
S-3	734	S.Y.	TYPE "C" WATERPROOFING			734
S-4	113,542	LBS.	REINFORCING STEEL	10,101	41,702	61,579 160
S-7	218,500	LBS.	STRUCTURAL STEEL			218,500
S-8	218,500	LBS.	FIELD PAINTING OF STRUCTURAL STEEL			218,500
S-14	548	L.F.	RAILINGS (ALUMINUM RAIL, SUPPORTS & CONC. PARAPET)			548
S-16	LUMP SUM		FIRST TEST PILE			LUMP SUM
S-18	500	L.F.	STEEL PILES 1/2 BP @ 53"	500		
S-29	273	L.F.	SUBDRAINAGE FOR WEARING SURFACE COURSE			273
S-29	18	C.Y.	POROUS DRAINS ON EMBANKMENT SLOPES			18
S-29	52	C.Y.	POROUS BACKFILL			52
T-35	51	C.Y.	ASPHALTIC CONC. SURFACE COURSE TYPE "A" OR "C" (70-80)			51

GENERAL NOTES

REFERENCE SHALL BE MADE TO STANDARD DRAWING NO. RD-1-55 DATED 3-1-55 AND TO SUPPLEMENTAL SPECIFICATIONS NO. S-114 DATED AUG. 30, 1955.

SPECIFICATIONS: THIS WORK SHALL BE GOVERNED BY THE DESIGN SPECIFICATIONS FOR HIGHWAY STRUCTURES OF THE STATE OF OHIO DEPARTMENT OF HIGHWAYS INCLUDING REVISIONS THRU FEB. 1, 1955 AND BY THE CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF HIGHWAYS, DATED JANUARY 1, 1955.

PILES SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 50 TONS PER PILE FOR THE ABUTMENT. THE LENGTH OF PENETRATION OF EVERY PILE SHALL BE AT LEAST 80% OF ESTIMATED AVERAGE PAY LENGTH OF THE PILES AS INDICATED ON THE PLANS, UNLESS A LESSER PENETRATION IS APPROVED BY THE DIRECTOR. THE DESIGN LOAD FOR THE ABUTMENT PILES IS 30 TONS PER PILE.

FOUNDATION PRESSURE: MAX. SOIL PRESSURE = 5000 LBS. PER SQ. FT. UNDER PIERS.

WELDING OF STRUCTURAL STEEL SHALL BE CLASS "A" EXCEPT AS OTHERWISE SHOWN.

PAINT: BOTH SHOP AND FIELD SHALL BE APPLIED BY BRUSHING. SPRAY APPLICATION WILL NOT BE PERMITTED.

SURFACE FINISH OF CONCRETE: RAILING END POSTS, RAILING PARAPETS, CURB FACES, FASCIAS OF DECK AND EXPOSED SURFACE OF PIERS, ABUTMENTS AND WING WALLS SHALL RECEIVE A RUBBED SURFACE FINISH. ALL

OTHER EXPOSED SURFACES SHALL BE GOVERNED BY THE PROVISIONS OF ITEM S-1.

POROUS DRAINS EXTENDING FROM FACE OF ABUTMENT TO EL. 1036.8 - N.W. SHALL BE PLACED ON AND FLUSH WITH EMBANKMENT SLOPES AT THE N.W. AND S.W. CORNERS OF THE STRUCTURE. THE DRAINS SHALL BE 7'-0" WIDE AT THE LOW END, TAPERING TO 4'-0" WIDE AT FACE OF ABUTMENT AND ONE FT. THICK. THEY SHALL BE CENTERED UNDER THE SCUPPERS.

GRAVEL, IF USED AS THE COURSE AGGREGATE, SHALL BE ACCORDING TO SEC. M-3.93 INSTEAD OF M-3.91 FOR CLASS "C" CONCRETE, SUPERSTRUCTURE. GRAVEL MEETING THE REQUIREMENTS OF SEC. M-3.93 ALSO MAY BE USED FOR OTHER CONCRETE IN THIS STRUCTURE INCLUDING CONCRETE FOR PYLONS.

SPLICE OF REINFORCING STEEL: REINFORCING STEEL SHALL BE SPLICED BY LAPPING BARS A MIN. OF 30 TIMES THE DIAMETER OF THE SMALLER BAR CONCERNED.

CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

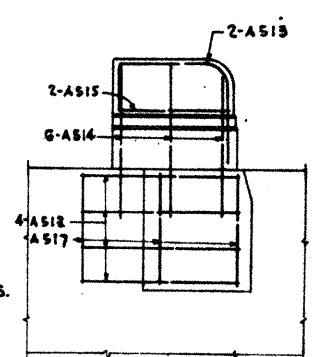
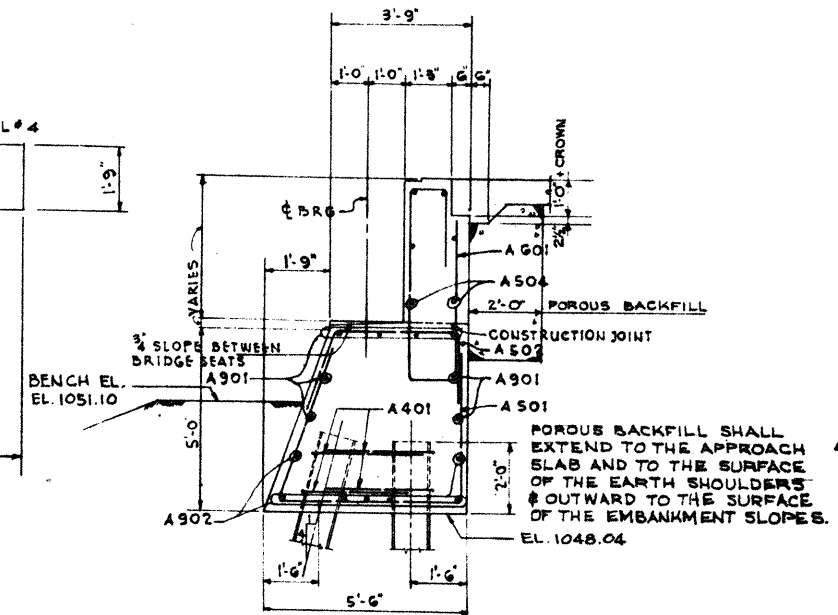
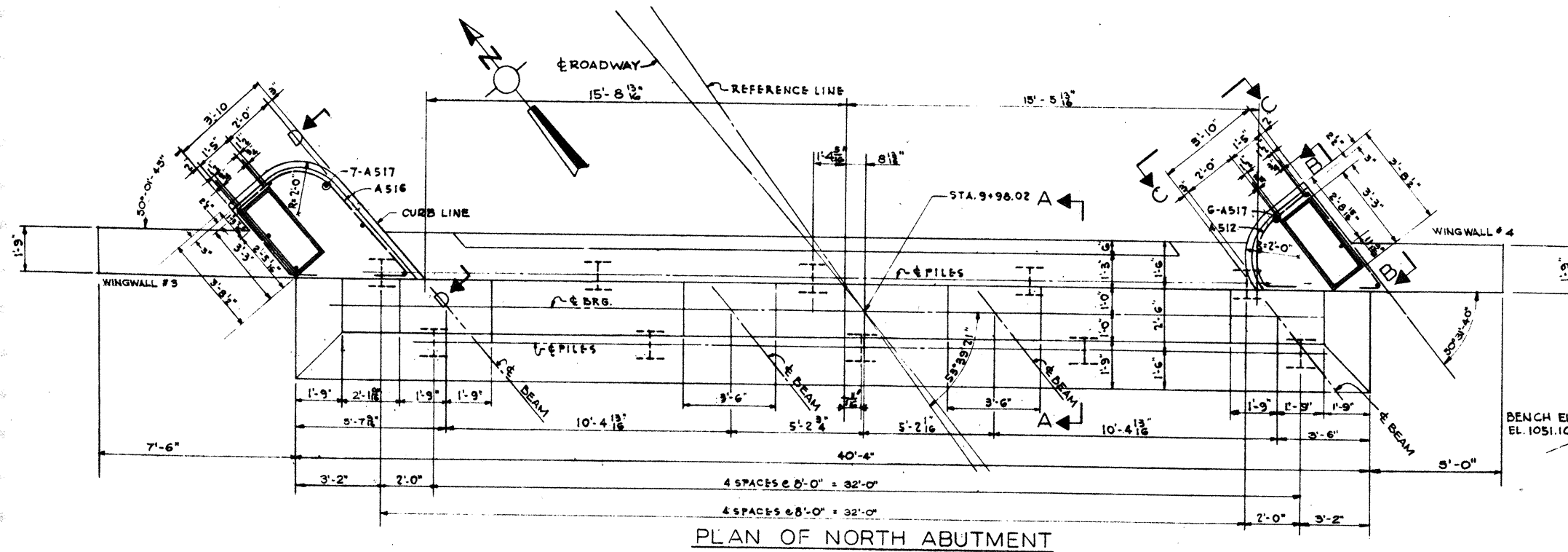
GENERAL PLAN & ELEVATION
NOTES & ESTIMATED QUANTITIES
BRIDGE NO. STA. 21-2130
U.S. 21 UNDER CH 103
STARK CO. STA. 1124+65.67
SEC. STA. -21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.T.M.	ALB.		R.S.	L.N.R.	5-24-56	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

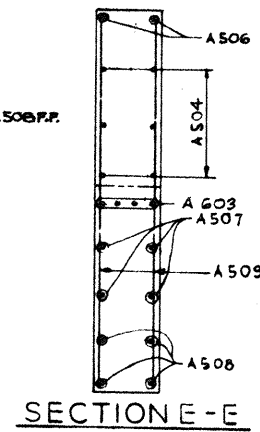
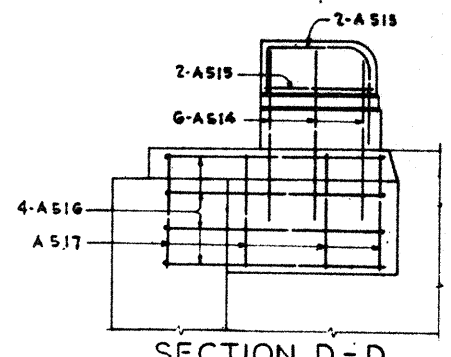
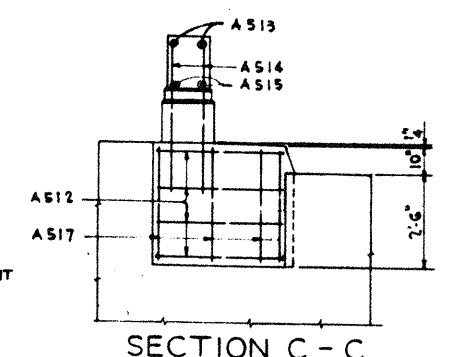
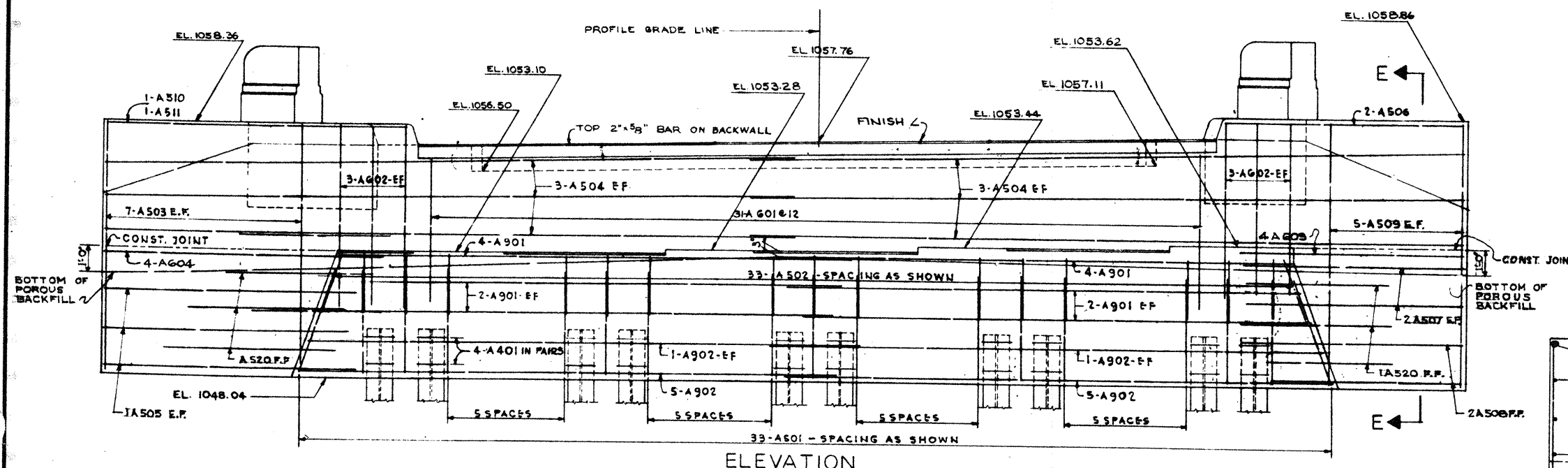
280
329

STA-21-17.80
WAY-21-0.00
SUM-21-0.00



SECTION A-A

SECTION B-B



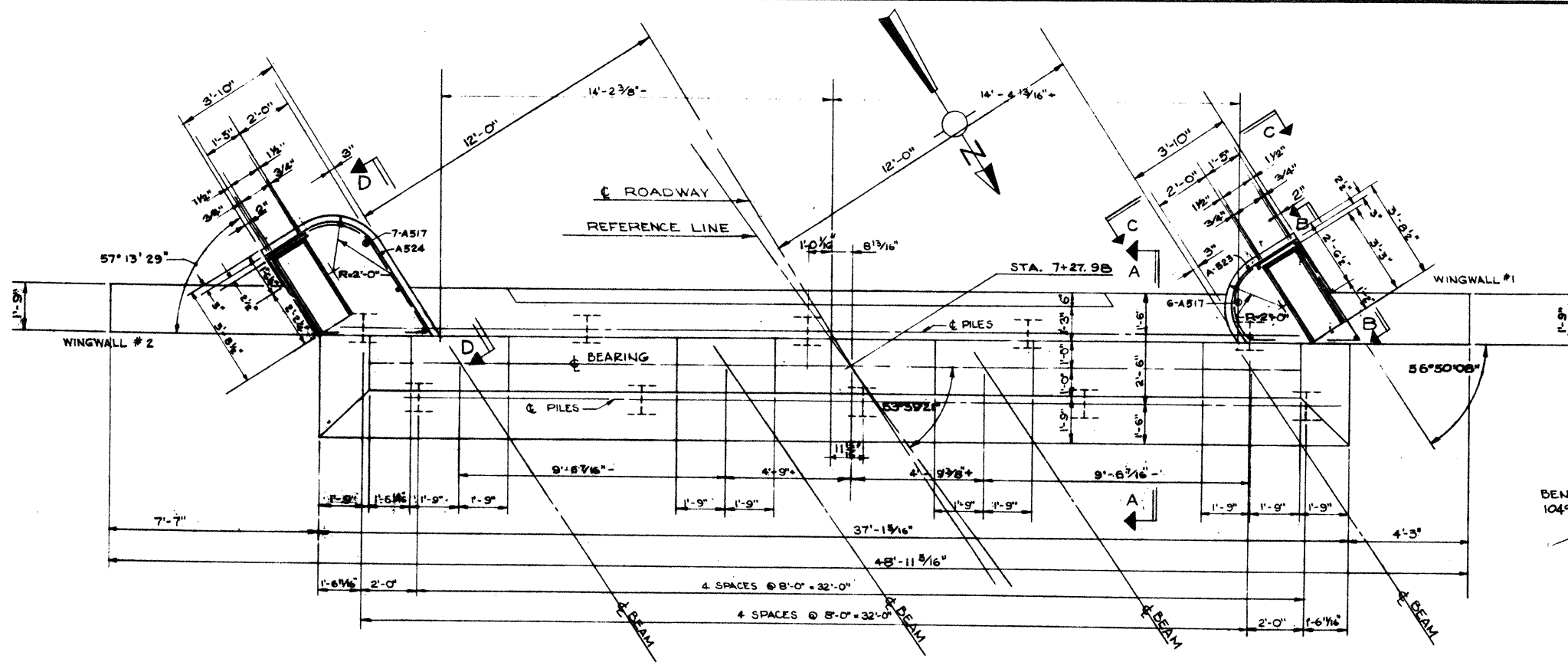
NOTES:
REINFORCING STEEL SHALL BE 2" CLEAR FROM SURFACE OF CONCRETE UNLESS OTHERWISE NOTED. CONCRETE IN PYLONS TO BE INCLUDED IN ITEM S-1, CLASS "C" CONCRETE, SUPER-STRUCTURE. REINFORCING STEEL IN TOP OF ABUTMENT BRIDGE SEAT TO BE PLACED TO CLEAR ANCHOR BOLTS.

CHARLES E. DE LEUW CONSULTING ENGINEER CHICAGO ILLINOIS						
NORTH ABUTMENT DETAILS						
BRIDGE NO. ST-21-2130 U.S. 21 UNDER CH. 103						
STARK CO.			STA. 1124 + 65.67			
SEC. STA. - 21						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
L.T.N.	W.J.C.		R.S.	L.N.R.	5-24-56	

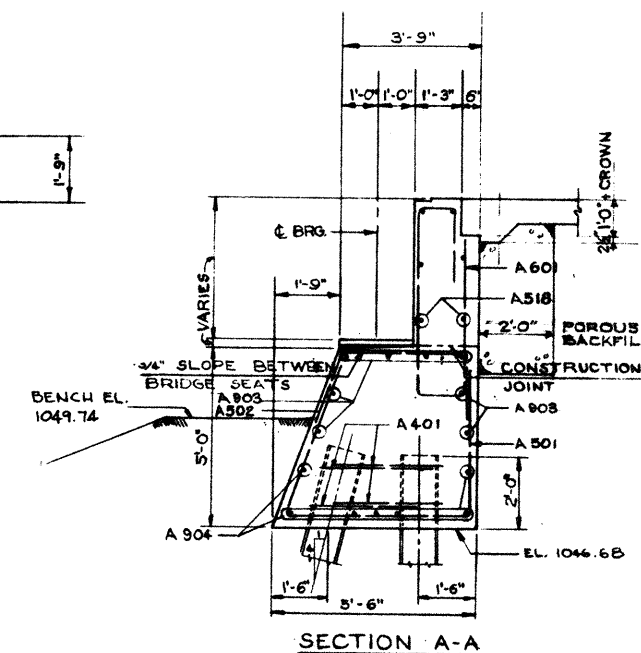
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

281
329

STA-21-17.80
WAY-21-000
SUM-21-000

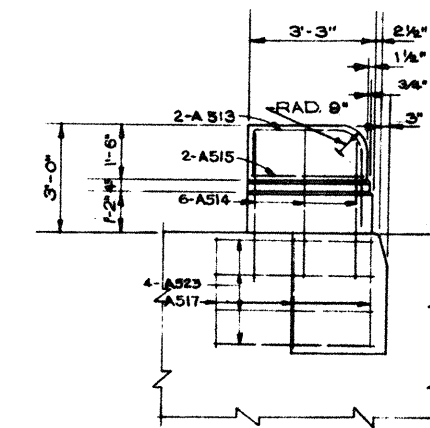


PLAN OF SOUTH ABUTMENT

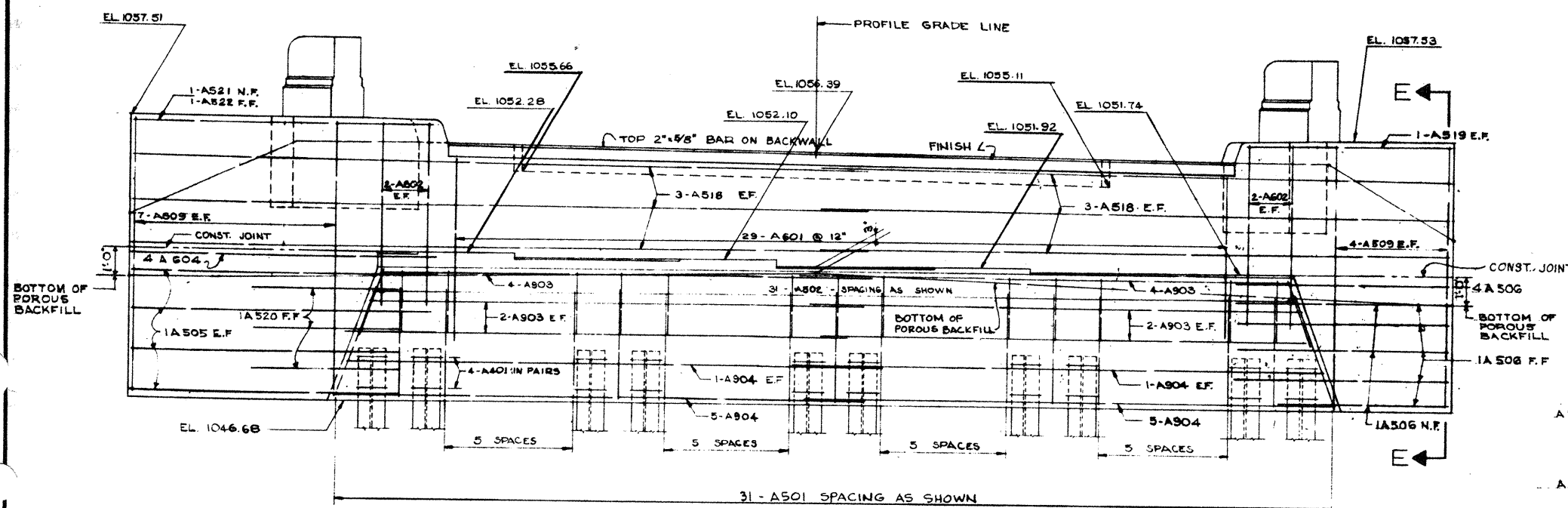


SECTION A-A

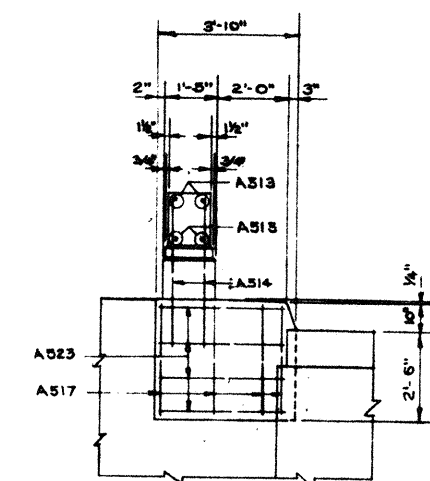
POROUS BACKFILL SHALL EXTEND TO THE APPROACH SLAB AND TO THE SURFACE OF THE EARTH SHOULDERS AND OUTWARD TO THE SURFACE OF THE EMBANKMENT SLOPES.



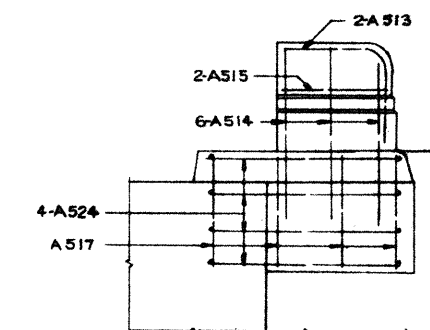
VIEW B-B



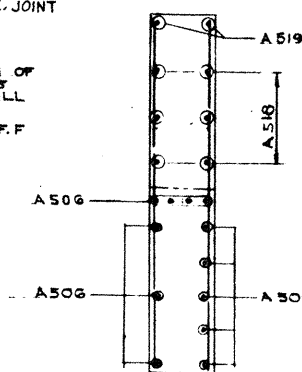
ELEVATION



VIEW C-C



VIEW D-D



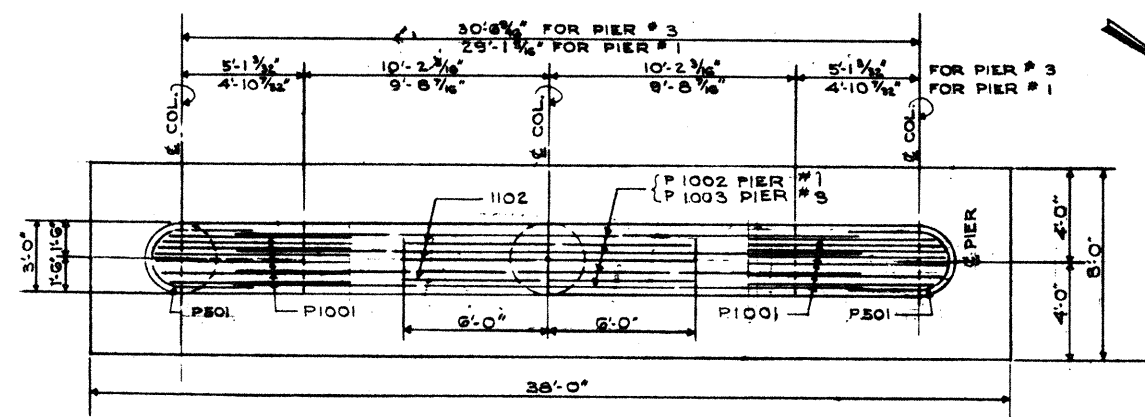
SECTION E-E

NOTES:

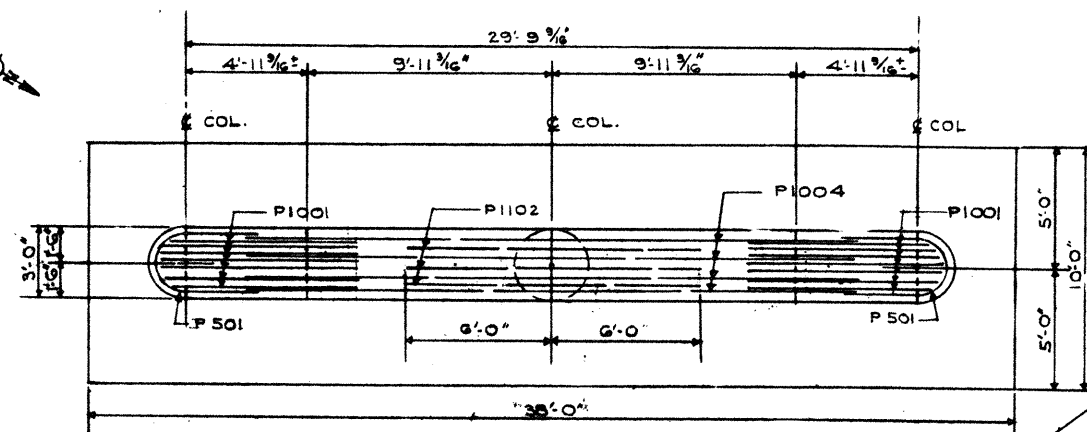
REINFORCING STEEL SHALL BE 2" CLEAR FROM SURFACE OF CONCRETE UNLESS OTHERWISE NOTED. CONCRETE IN PYLONS TO BE INCLUDED IN ITEM 3-1, CLASS "C" CONCRETE; SUPERSTRUCTURE REINFORCING STEEL IN TOP OF ABUTMENT BRIDGE SEAT TO BE PLACED TO CLEAR ANCHOR BOLTS.

CHARLES E. DE LEUW CONSULTING ENGINEER CHICAGO ILLINOIS						
SOUTH ABUTMENT DETAILS BRIDGE NO. STA-21-213P U.S. 21 UNDER CH 103 STARK CO. STA. 1124 +65.67 SEC. STA-21						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
I.T.N.	W.J.C.		R.S.	L.N.R.	5-24-56	

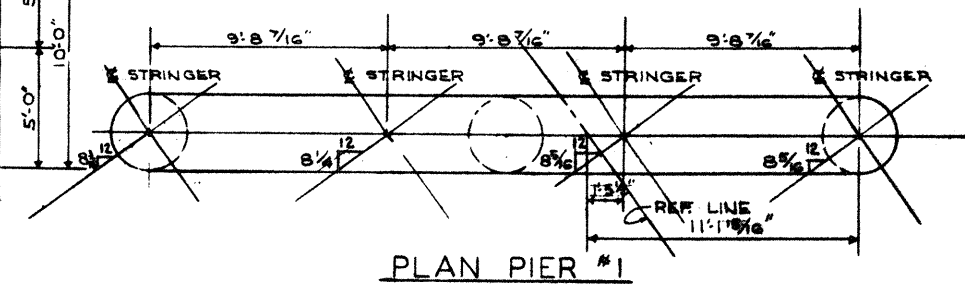
STA-21-17.80
WAY-21-000
SUM-21-000



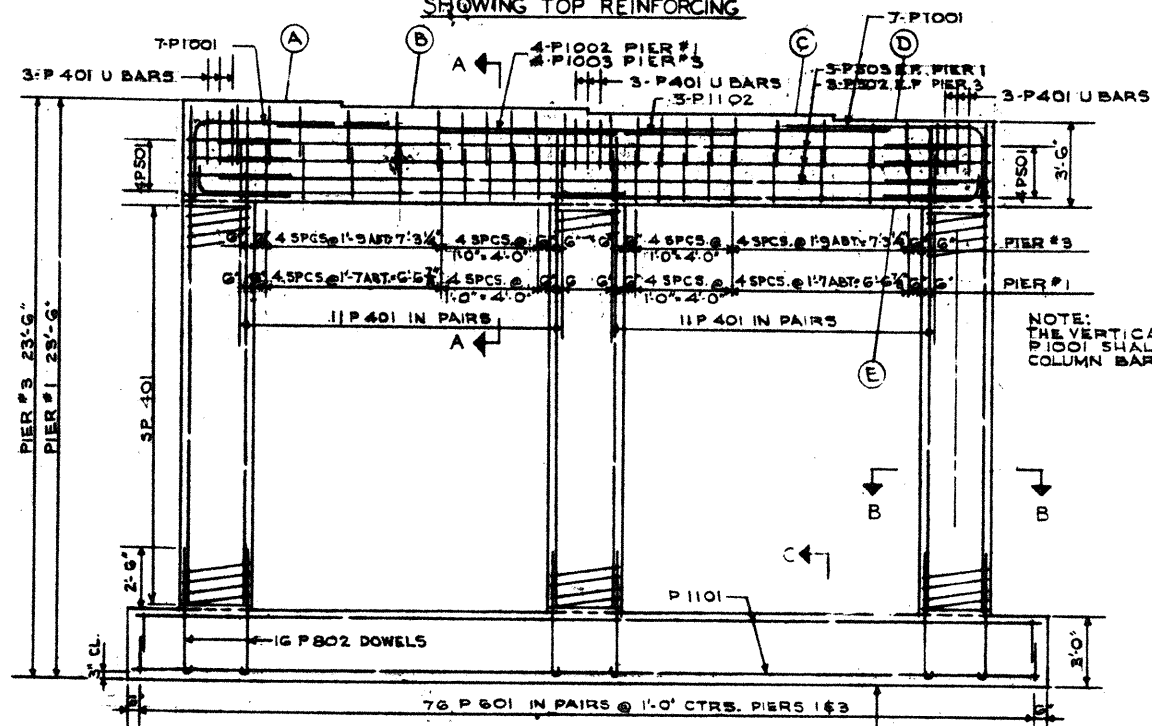
PLAN-PIERS 1 & 3
SHOWING TOP REINFORCING



PLAN-PIER #2
SHOWING TOP REINFORCING

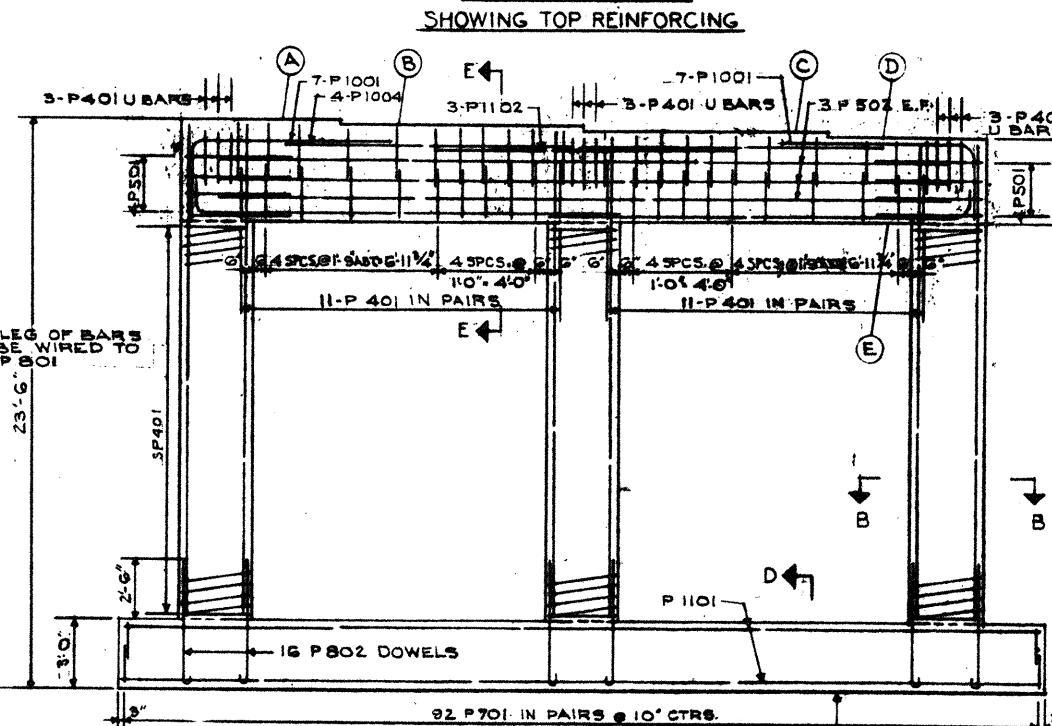


PLAN PIER #1



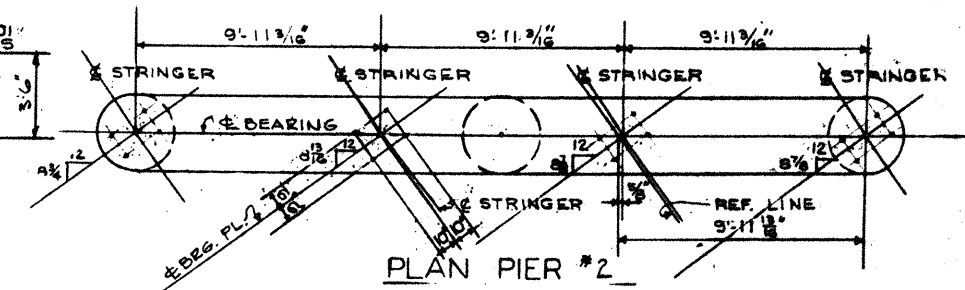
ELEVATION-PIERS 1 & 3

EL. 1029.20 PIER 3
EL. 1028.46 PIER 1

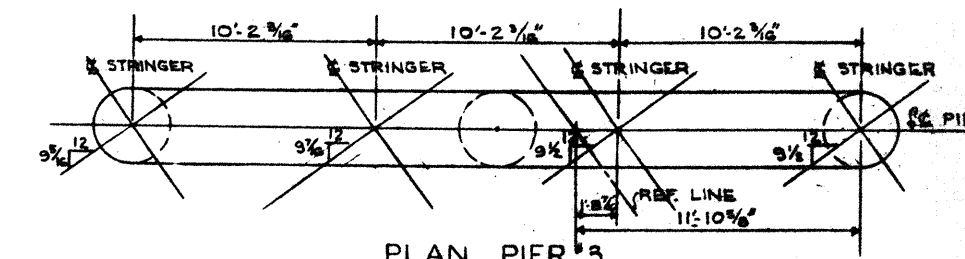


ELEVATION-PIER #2

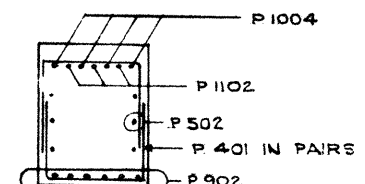
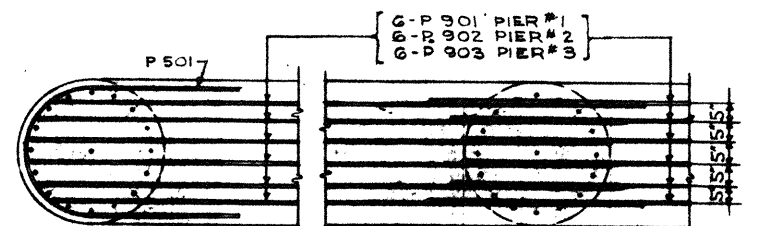
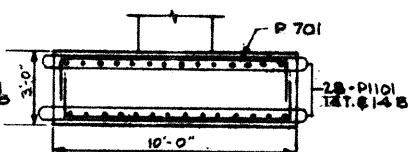
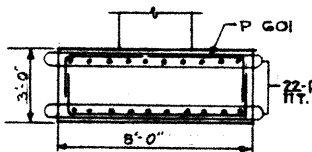
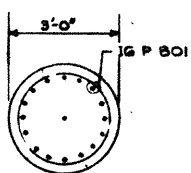
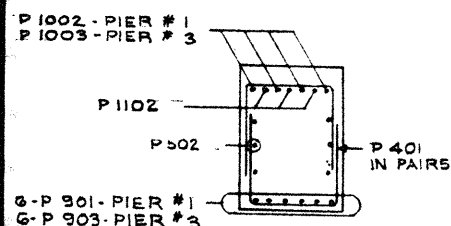
EL. 1028.82



PLAN PIER #2



PLAN PIER #3



SECTION A-A

SECTION B-B

SECTION C-C

SECTION D-D

END COLUMN
MIDDLE COL.
HORIZONTAL SECTION AT BASE OF PIER CAP
FOR ALL PIERS

SECTION E-E

	ELEV. "A"	ELEV. "B"	ELEV. "C"	ELEV. "D"	ELEV. "E"
PIER #1	1051.96	1051.78	1051.60	1051.42	1047.92
PIER #2	1052.33	1052.15	1051.98	1051.80	1048.30
PIER #3	1052.70	1052.52	1052.36	1052.18	1048.68

CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

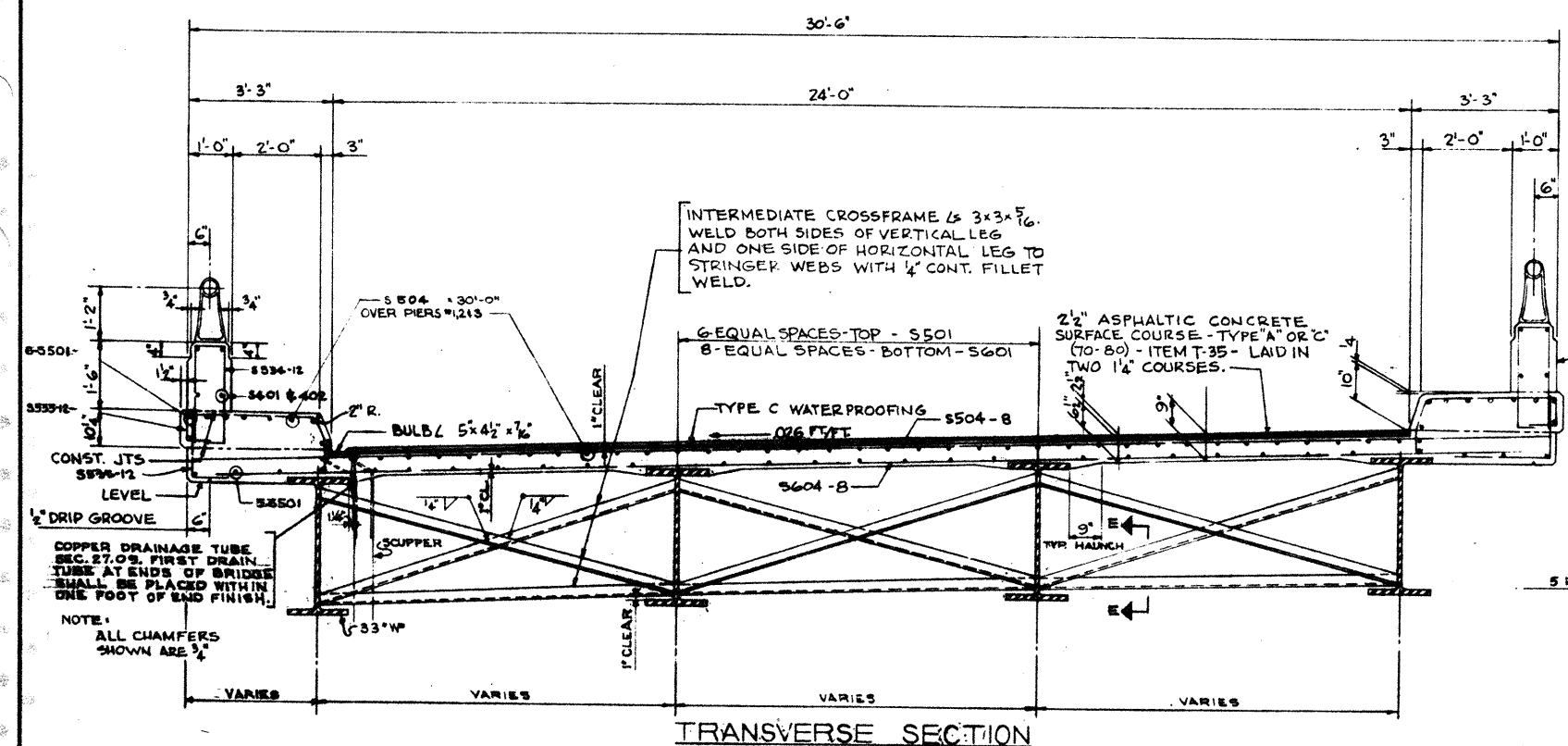
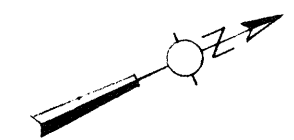
DETAILS OF PIERS NO. 1, 2 & 3
BRIDGE NO. STA-21-2130
U.S. 21 UNDER CH 103

STARK CO.
SEC. STA.-21 STA. 1124+65.67

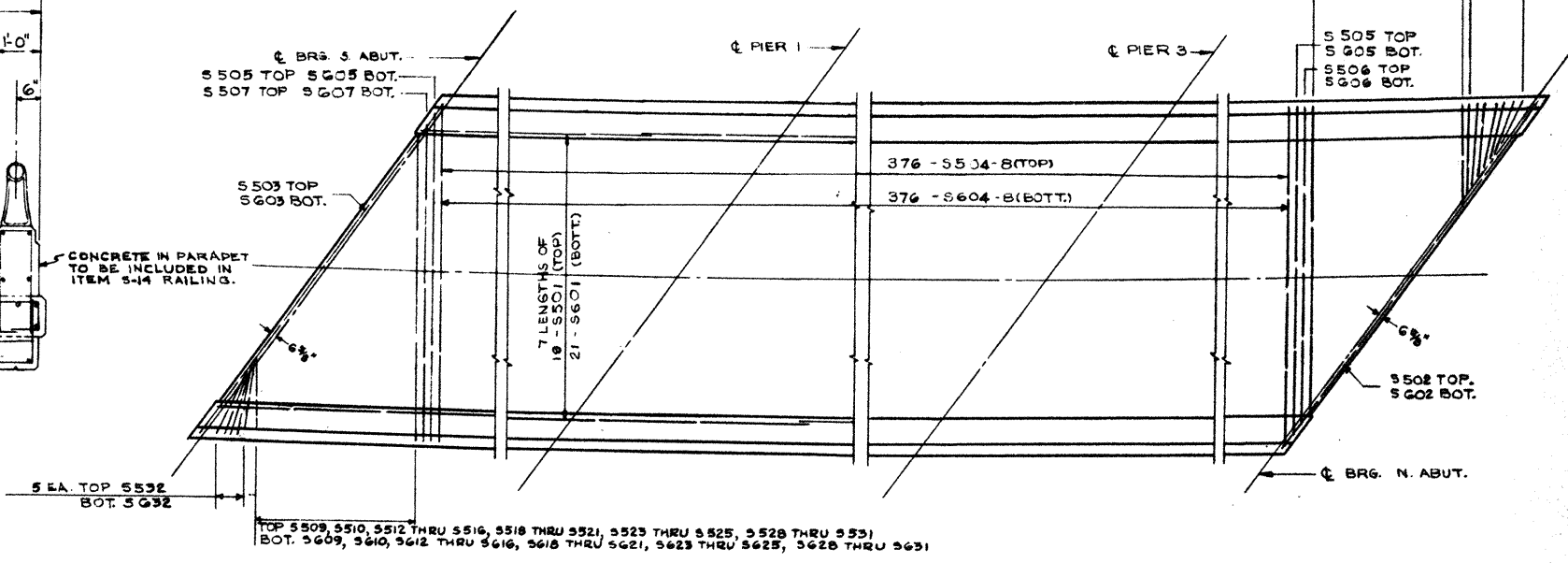
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
N.S.W.	J.N.		R.S.	L.N.R.	5-24-56	

STA-21-1780
WAY-21-000
SUM-21-000

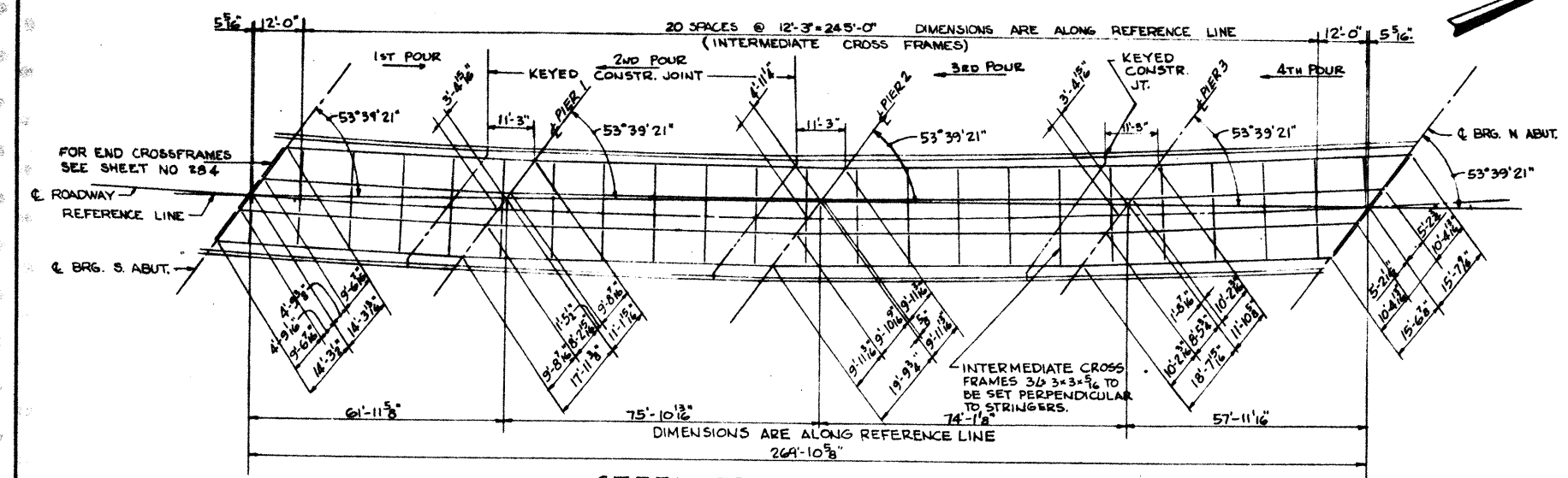
TOP 5508 - 5.531
BOT 5608 - 5.531
7-5532 TOP
7-5632 BOT.



TRANSVERSE SECTION



DECK SLAB REINFORCING PLAN



STEEL FRAMING PLAN

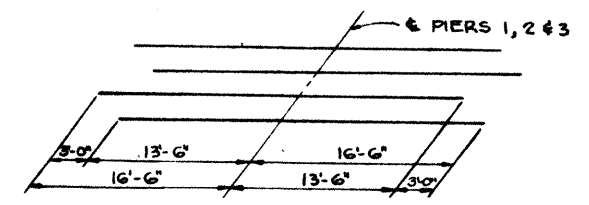


DIAGRAM SHOWING STAGGER OF S504 BARS OVER PIERS #1, 2 & 3

MOMENT PLATE SIZES			
LOCATION		INTERIOR BEAMS 33WF141	EXTERIOR BEAMS 33WF141
PIERS #1 & 3	TOP R	10 x 11/16 x 17'-0"	10 x 11/16 x 17'-0"
	BOTT R	13 x 9/16 x 17'-0"	13 x 9/16 x 17'-0"
PIER #2	TOP R	10 x 11/16 x 17'-0"	10 x 11/16 x 17'-0"
	BOTT R	13 x 9/16 x 17'-0"	13 x 9/16 x 17'-0"

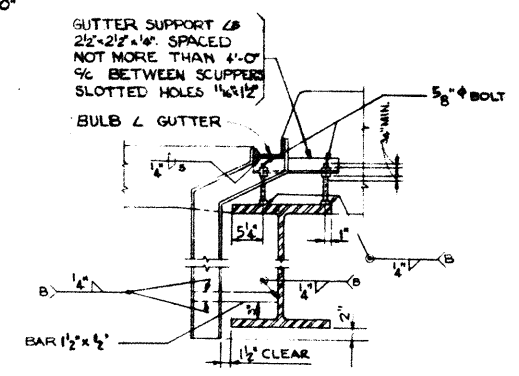
ROCKERS AND BOLSTERS		
	ROCKER	BOLSTER
WEST ABUTMENT	R-75	
PIER NO. 1	R-200	
PIER NO. 2	R-200	B-200
PIER NO. 3	R-200	
EAST ABUTMENT	R-75	

FOR DETAILS SEE DWG. NO. R21-55

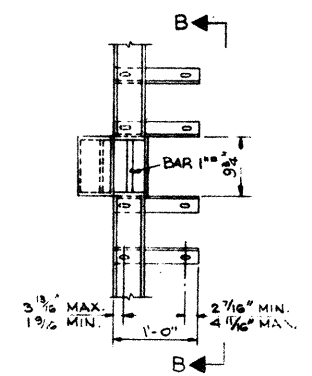
DEFLECTION AND CAMBER				
	INTERIOR STRINGER		FASCIA STRINGER	
	END SPAN	MIDDLE SPAN	END SPAN	MIDDLE SPAN
DEFLECTION DUE TO WEIGHT OF STEEL	.0481"	.0653"	.0481"	.0653"
DEFLECTION DUE TO REMAINING D.L.	.2910"	.3950"	.5230"	.7100"
CAMBER REQ'D. FOR VERT. CURVE	0	0	0	0
SUM OF DEP. AND CAMBER	.3391"	.4603"	.5711"	.7753"
REQUIRED CAMBER	0"	0"	0"	3/4"

* CAMBER: NO CAMBERING OF BEAMS IS REQUIRED BUT THE BEAMS SHALL BE SO FABRICATED THAT ANY CURVED BEAMS WILL BE PLACED WITH THE CONVEX FLANGE UP.

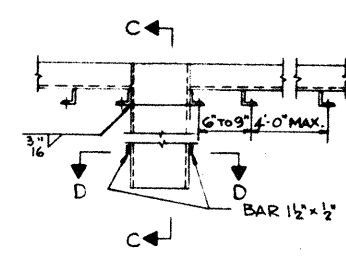
KEYED CONSTRUCTION JOINT IN DECK SLAB SHALL BE NORMAL TO THE CENTERLINE OF ROADWAY FOR 2'-0" INSIDE OF THE EDGE OF THE SLAB.



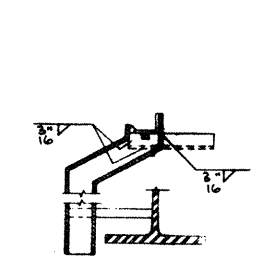
GUTTER SUPPORT AND SCUPPER



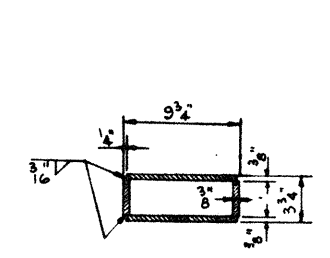
PART PLAN



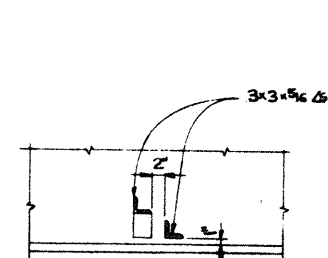
SECTION B-B



SECTION C-C



SECTION D-D



SECTION E-E

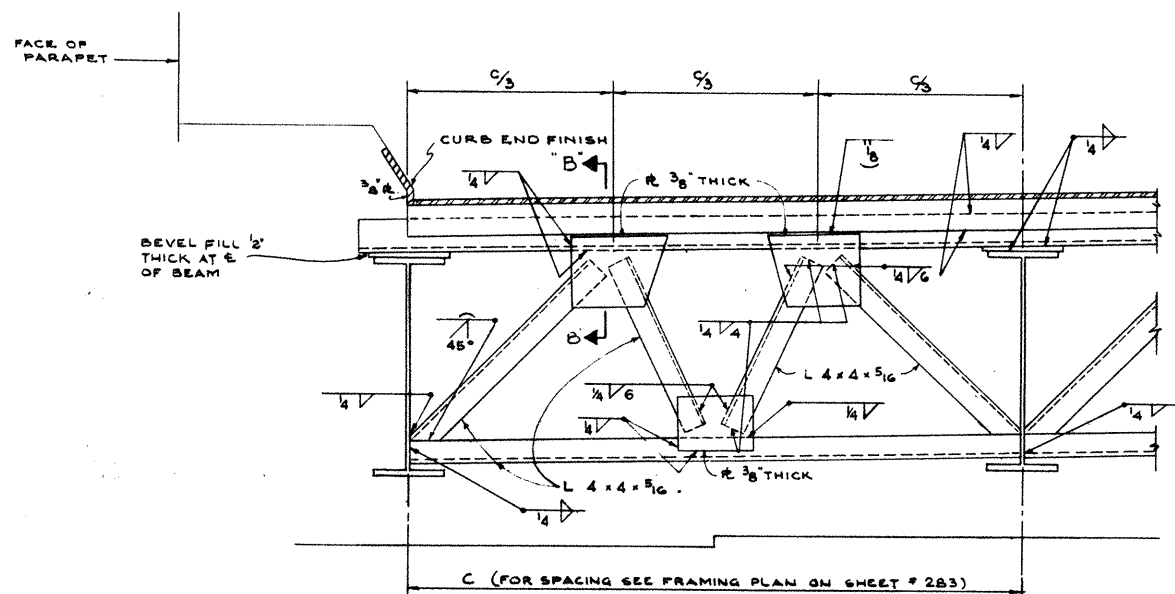
CHARLES E. DELEUP
CONSULTING ENGINEER
CHICAGO ILLINOIS

SUPERSTRUCTURE DETAILS
BRIDGE NO. ST-21-2130
U.S. 21 UNDER CH 103

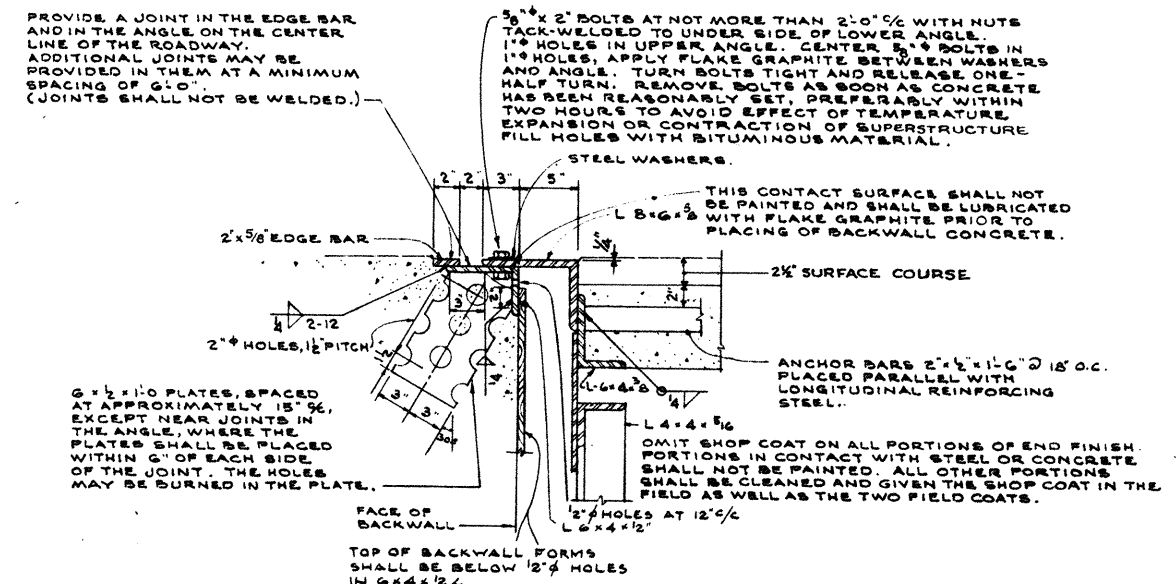
STARK CO STA. 1124+65.67
SEC. STA-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION
J.E.	W.J.C.		D.J.L.	L.N.R.	5-24-56	

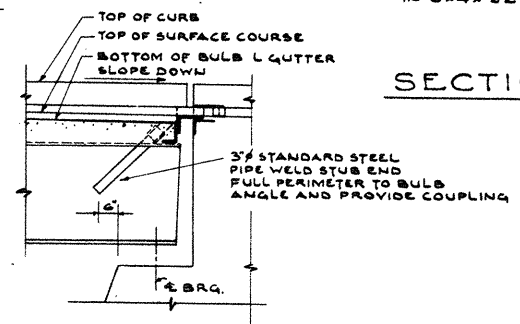
STA-21-1780
WAY-21-000
SUM-21-000



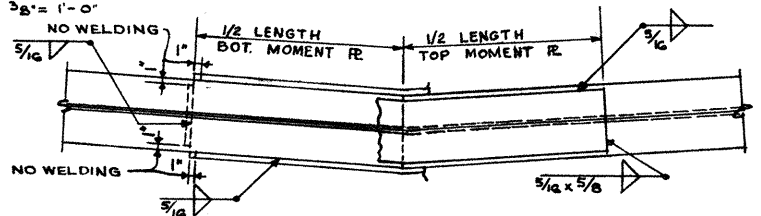
SECTION 'A-A'



SECTION 'B-B'

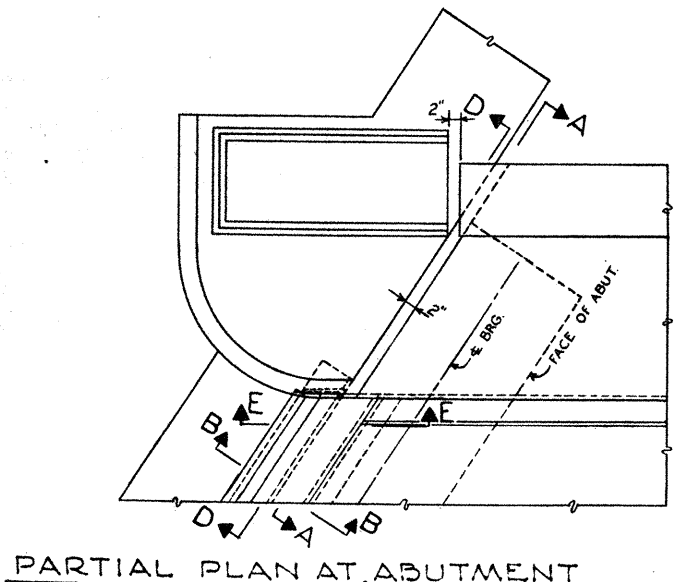


TYPICAL SECTION FOR GRADE SLOPING DOWN TO END FINISH

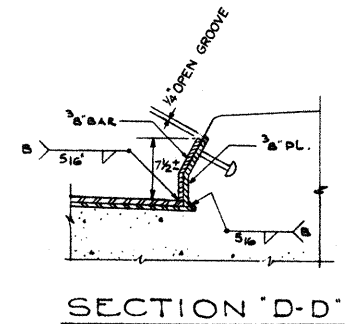


SECTION 'F-F'

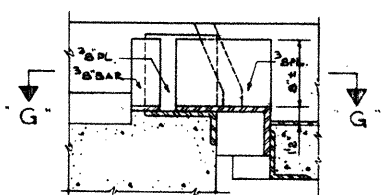
NOTE:
FOR SIZE OF MOMENT
SEE SHEET # 283



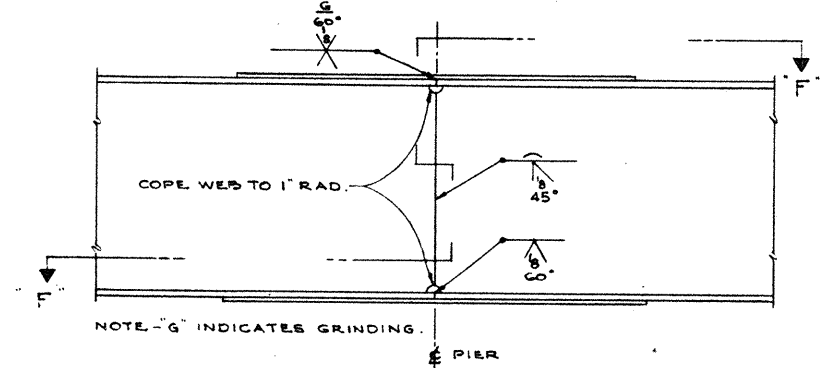
PARTIAL PLAN AT ABUTMENT



SECTION 'D-D'



SECTION 'E-E'

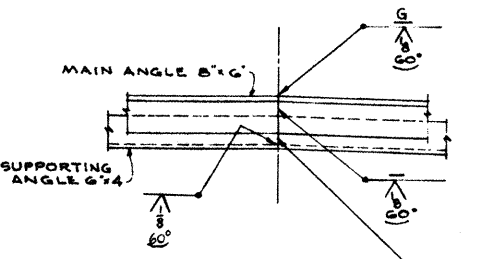


BEAM SPLICE DETAILS

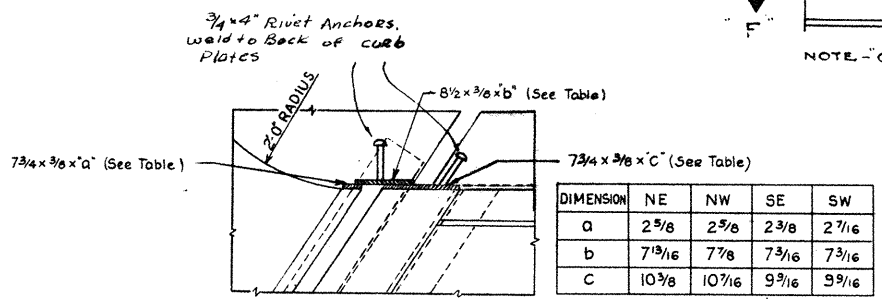
BEAM SPLICE WELDING PROCEDURE

1. RAISE END OF BEAM 2" AT PIER 2.
2. BUTT WELD BEAM FLANGES AND WEB AT PIER 1.
3. WELD TOP AND BOTTOM FLANGE MOMENT PLATES AT PIER 1.
4. LOWER END OF BEAM AT PIER 2.
5. MAKE SPLICE AT SECOND AND SUCCEEDING PIERS IN THE SAME MANNER, RAISING THE END OF THE BEAMS 2" AT PIER 3, AND 1 1/2" AT THE ABUTMENT.

WELDING SEQUENCE: MAKE ONE PASS IN EACH FLANGE, THEN ONE PASS IN THE WEB. REPEAT UNTIL WELDS ARE COMPLETED.



WELDED BUTT JOINT IN SUPERSTRUCTURE END FINISH ANGLES AT C OF ROADWAY.



SECTION 'G-G'

DIMENSION	NE	NW	SE	SW
a	2 5/8	2 5/8	2 3/8	2 7/16
b	7 13/16	7 7/8	7 3/16	7 3/16
c	10 3/8	10 7/16	9 9/16	9 9/16

CHARLES E. DELEW
CONSULTING ENGINEER
CHICAGO ILLINOIS

SUPERSTRUCTURE DETAILS
BRIDGE NO. WAY-21-2130
U.S. 21 UNDER CH 103

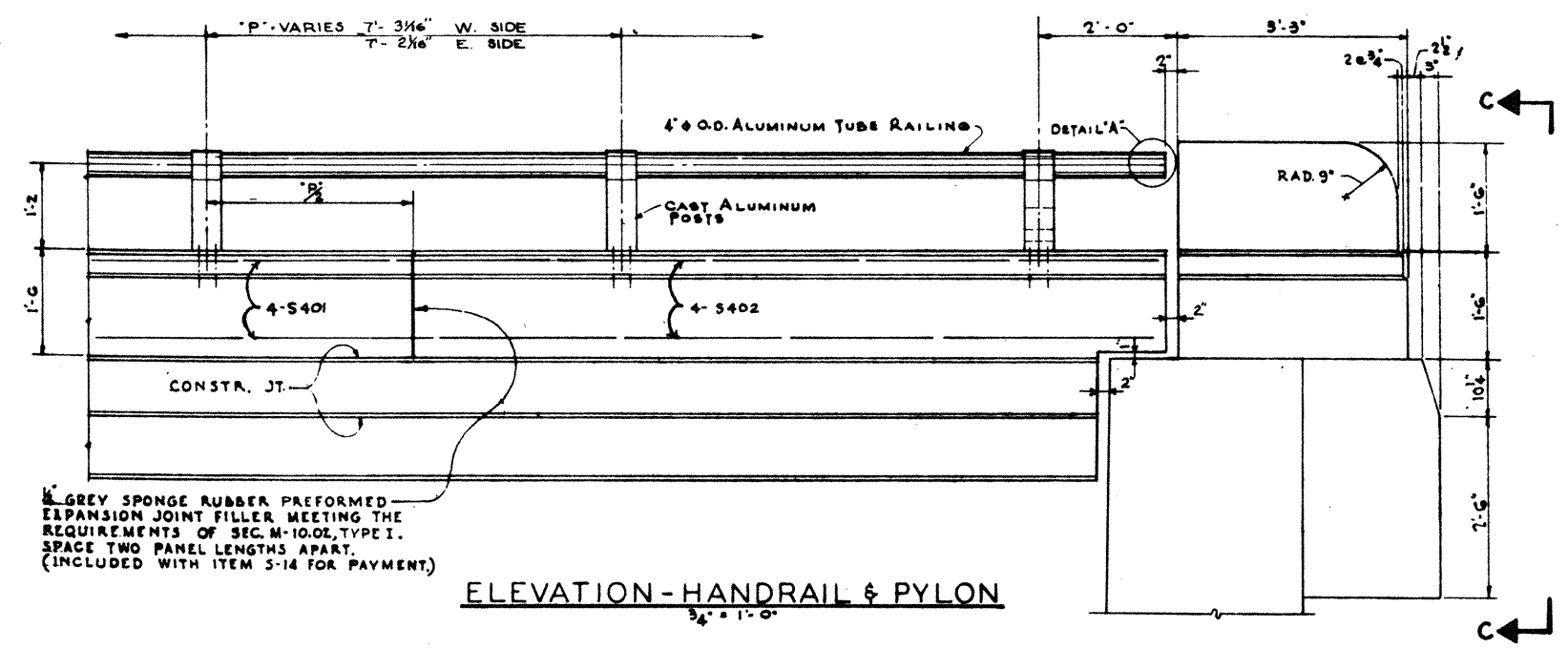
STARK CO. STA. 1124 + 65.67
SEC. STA. -21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.E.	J.N.		R.S.		L.N.R. 5-24-56	

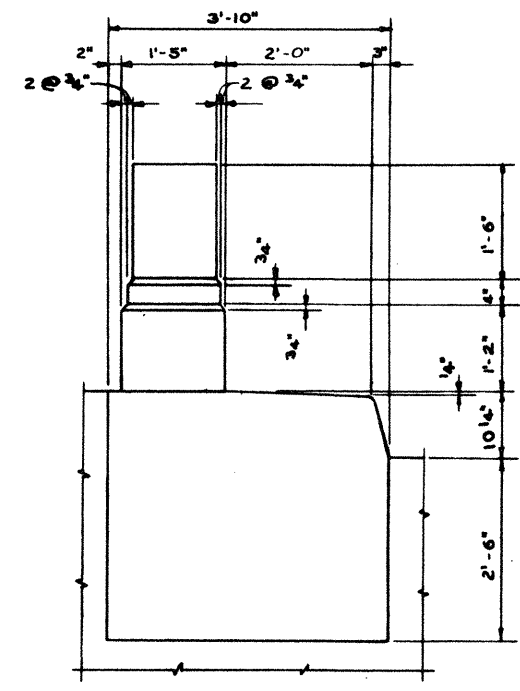
FED. NO. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

285
329

STA.-21-17.80
WAY -21-0.00
SUM -21-0.00

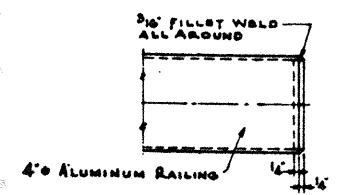


ELEVATION - HANDRAIL & PYLON
3/4\" = 1'-0"



VIEW C-C
3/4\" = 1'-0"

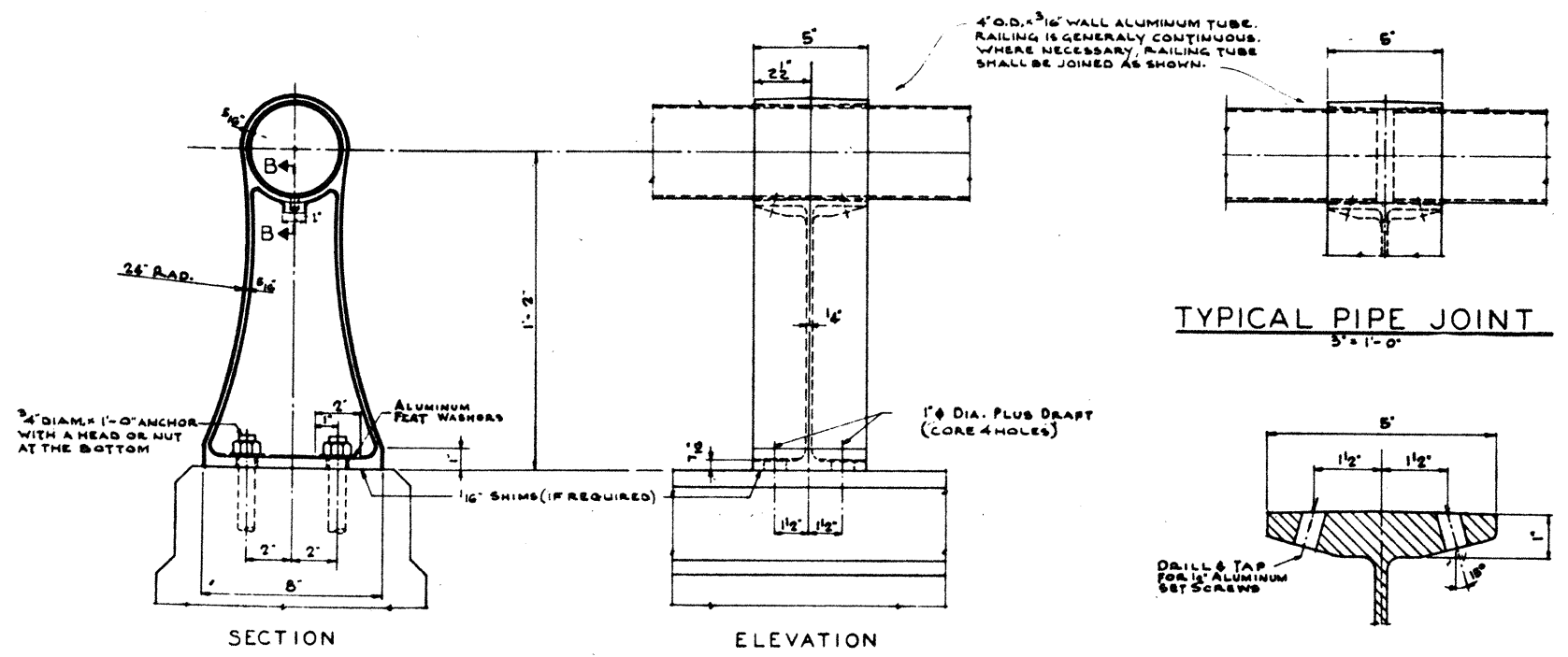
1/2\" GREY SPONGE RUBBER PREFORMED EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF SEC. M-10.02, TYPE I. SPACE TWO PANEL LENGTHS APART. (INCLUDED WITH ITEM 5-14 FOR PAYMENT)



DETAIL A
3/4\" = 1'-0"

4\" O.D. x 3/16\" WALL ALUMINUM TUBE. RAILING IS GENERALLY CONTINUOUS. WHERE NECESSARY, RAILING TUBE SHALL BE JOINED AS SHOWN.

TYPICAL PIPE JOINT
3/4\" = 1'-0"



HANDRAIL DETAILS
3/4\" = 1'-0"

SECTION B-B
3/4\" = 1'-0"

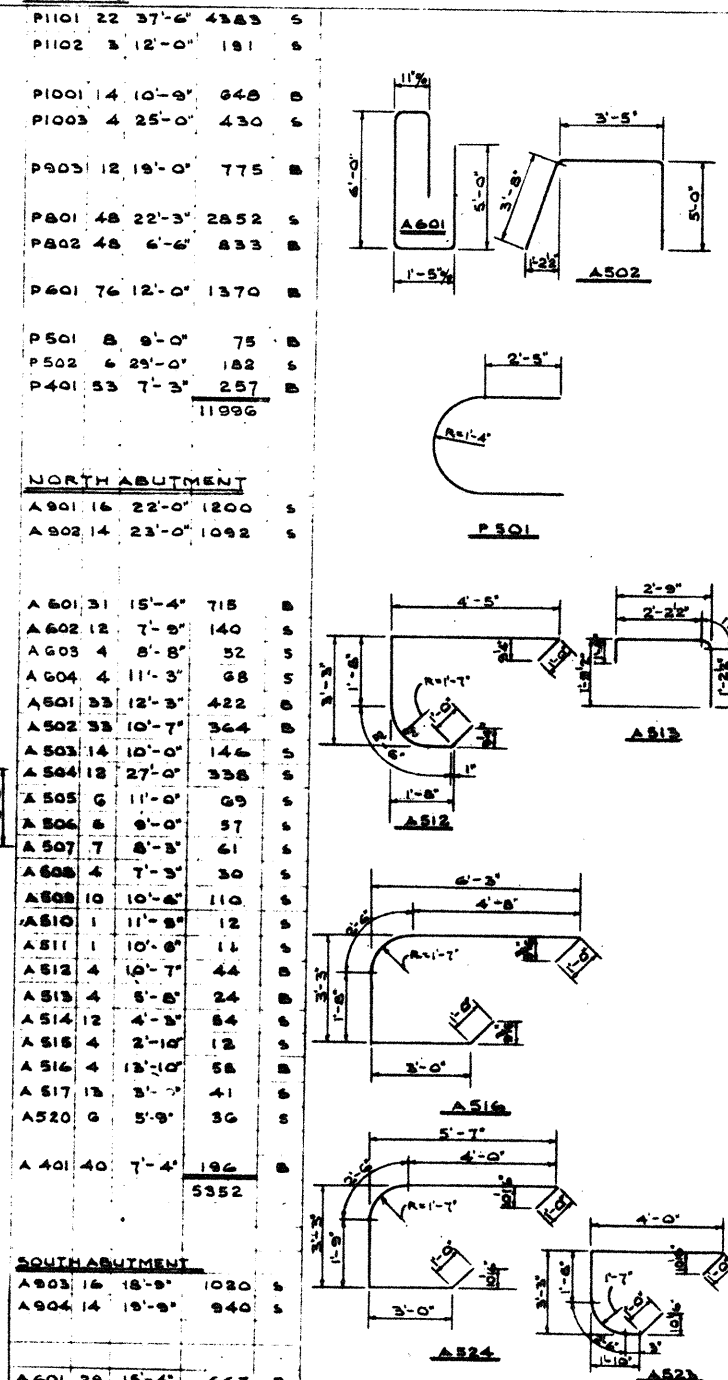
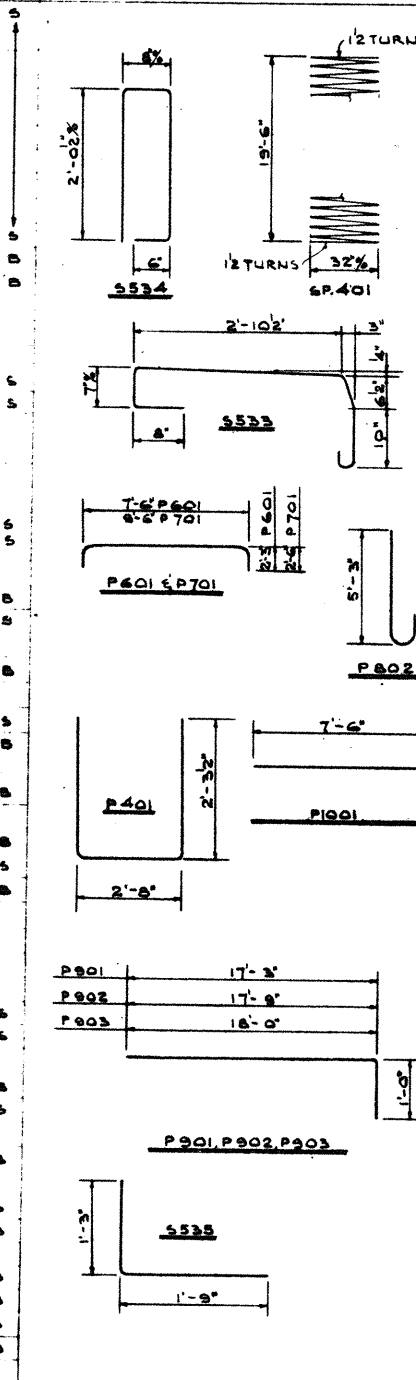
NOTE:
FOR FURTHER DETAILS SEE SUPPLEMENTAL SPECIFICATIONS NO. S-114 ALUMINUM FOR BRIDGE RAILING, DATED AUGUST 30, 1955

CHARLES E. DE LEUW CONSULTING ENGINEER CHICAGO ILLINOIS						
HANDRAIL AND PYLON DETAILS						
BRIDGE NO. STA-21-2130						
U.S. 21 UNDER CH 103						
STARK CO.				STA. 1124+65.67		
SEC. STA.-21						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
M.C.	R.N. ALB.		R.S.	L.N.R.	5-24-56	

STA-21-17.80
WAY-21-0.00
SUM-21-0.00

REINFORCING STEEL LIST

SUPERSTRUCTURE					SUPERSTRUCTURE (CONT.)					PIER NO. 1					PIER NO. 2					SOUTH ABUTMENT (CONT.)					
MARK NO.	LENGTH	WEIGHT	SHP.		MARK NO.	LENGTH	WEIGHT	SHP.		MARK NO.	LENGTH	WEIGHT	SHP.		MARK NO.	LENGTH	WEIGHT	SHP.		MARK NO.	LENGTH	WEIGHT	SHP.		
5601	147	40'-3"	8887	5	5523	2	14'-6"	31	5	PI101	22	37'-6"	4383	5	A602	8	7'-9"	93	5	A604	4	11'-3"	62	5	
5602	1	37'-9"	57		5524	2	13'-6"	29		PI102	3	12'-0"	191	5	A501	31	12'-3"	396	5	A502	31	10'-7"	342	5	
5603	1	34'-9"	52		5525	2	12'-9"	26		PI001	14	10'-9"	648	5	A505	6	11'-0"	69	5	A506	12	7'-6"	94	5	
5604	376	29'-0"	16378		5526	1	12'-0"	13		PI003	4	25'-0"	430	5	A509	22	10'-6"	241	5	A513	4	5'-8"	44	5	
5605	2	28'-3"	85		5527	2	11'-3"	24		P903	12	18'-0"	775	5	A514	12	4'-3"	54	5	A515	4	2'-10"	12	5	
5606	1	27'-6"	41		5528	2	10'-3"	21		P801	48	22'-3"	2852	5	A517	13	3'-0"	41	5	A518	12	25'-3"	316	5	
5607	1	27'-0"	41		5529	2	9'-6"	20		P802	48	6'-6"	833	5	A519	2	7'-5"	16	5	A520	4	5'-5"	24	5	
5608	1	26'-3"	39		5530	2	8'-9"	19		P601	76	12'-0"	1370	5	A521	1	11'-3"	12	5	A522	1	10'-2"	11	5	
5609	2	25'-3"	76		5531	2	7'-9"	17		P501	8	9'-0"	75	5	A523	4	10'-5"	44	5	A524	4	13'-2"	55	5	
5610	2	24'-6"	74		5532	12	7'-0"	88		P502	6	29'-0"	182	5											
5611	1	23'-9"	36		5533	540	6'-3"	3520	B	P401	53	7'-3"	257	5											
5612	2	23'-0"	69		5534	540	5'-3"	2957	B																
5613	2	22'-0"	66					33424																	
5614	2	21'-3"	64																						
5615	2	20'-6"	62																						
5616	2	19'-6"	58																						
5617	1	18'-9"	28																						
5618	2	18'-0"	54																						
5619	2	17'-3"	52																						
5620	2	16'-3"	49																						
5621	2	15'-6"	47																						
5622	1	14'-9"	22																						
5623	2	14'-0"	42																						
5624	2	13'-0"	39																						
5625	2	12'-3"	38																						
5626	1	11'-6"	17																						
5627	2	10'-9"	38																						
5628	2	9'-9"	29																						
5629	2	9'-0"	27																						
5630	2	8'-3"	25																						
5631	2	7'-3"	22																						
5632	12	6'-6"	117																						
			26,726																						



MARK NO.	LENGTH	WEIGHT	SHP.
A501	31	12'-3"	396
A502	31	10'-7"	342
A505	6	11'-0"	69
A506	12	7'-6"	94
A509	22	10'-6"	241
A513	4	5'-8"	44
A514	12	4'-3"	54
A515	4	2'-10"	12
A517	13	3'-0"	41
A518	12	25'-3"	316
A519	2	7'-5"	16
A520	4	5'-5"	24
A521	1	11'-3"	12
A522	1	10'-2"	11
A523	4	10'-5"	44
A524	4	13'-2"	55

SPIRAL REINFORCING STEEL					
MARK NO.	CORE DIA.	LENGTH	PITCH	NO OF TURNS	WEIGHT
SP401	3/8"	18'-6"	4'-2"	55	3240

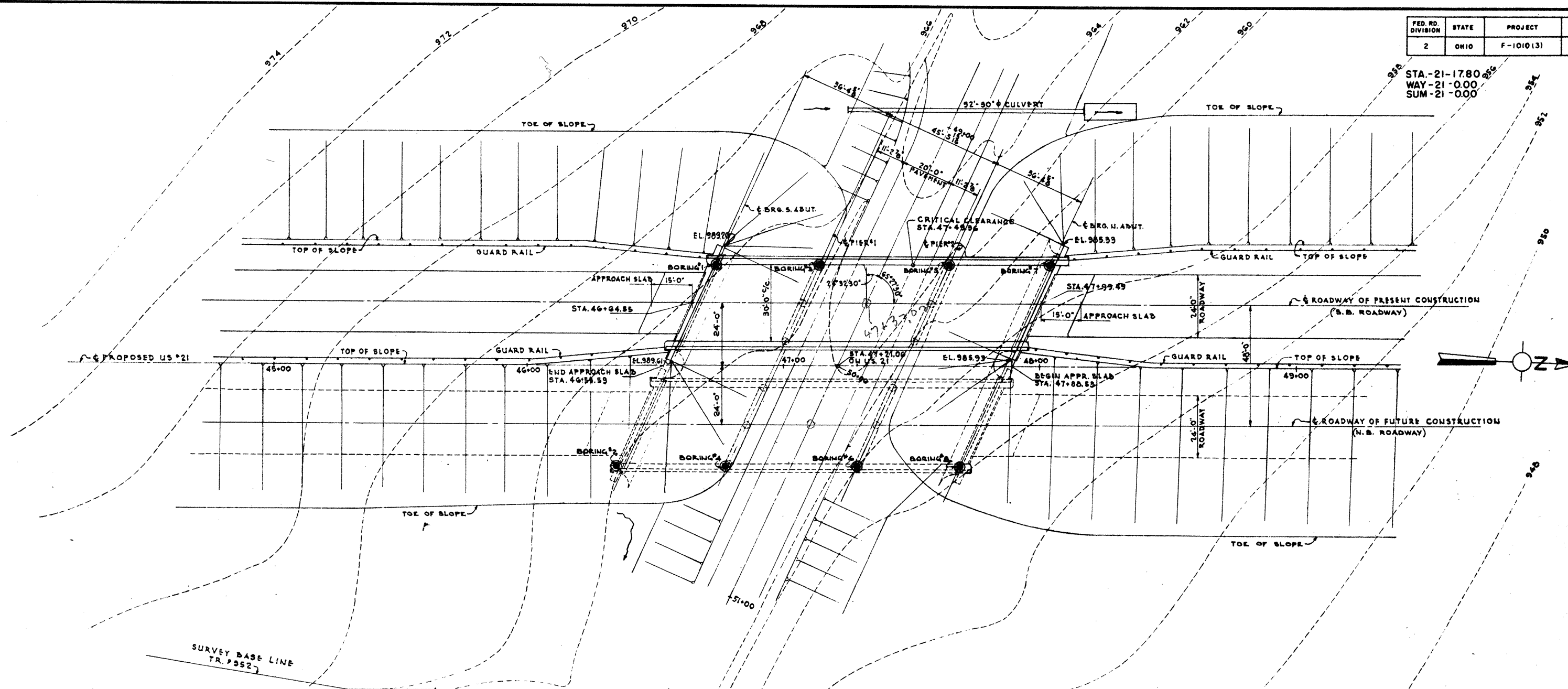
NOTE:
BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE: A 700 IS A NUMBER 7 BAR AND A1014 IS A NUMBER 10 SIZE.

SPIRAL REINFORCING BARS
THE LENGTH SHOWN IN THE STEEL LIST FOR THE SPIRAL BAR IS THE DISTANCE FROM THE TOP OF THE FOOTING TO THE BOTTOM OF THE PIER CAP.
THE NO. OF TURNS SHOWN IN THE STEEL LIST FOR THE SPIRAL BAR IS THE LENGTH DIVIDED BY THE PITCH PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS) EXPRESSED AS THE NEAREST WHOLE NUMBER.
SPIRAL REINFORCING BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM 5-4
1/2" CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.
FOUR STEEL CHANNEL TEE OR ANGLE SPACERS WEIGHING APPROXIMATELY 2.5 LB. PER LIN. FT. OF SPACERS SHALL BE PROVIDED FOR EACH SPIRAL UNIT.
THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.28 LB. PER LIN. FT. WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS.

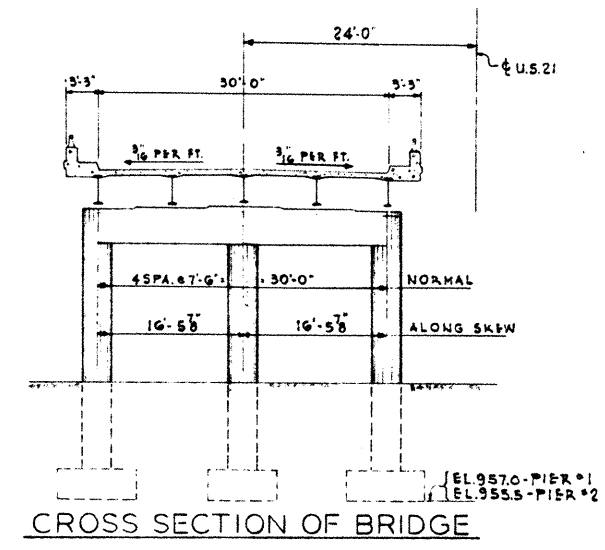
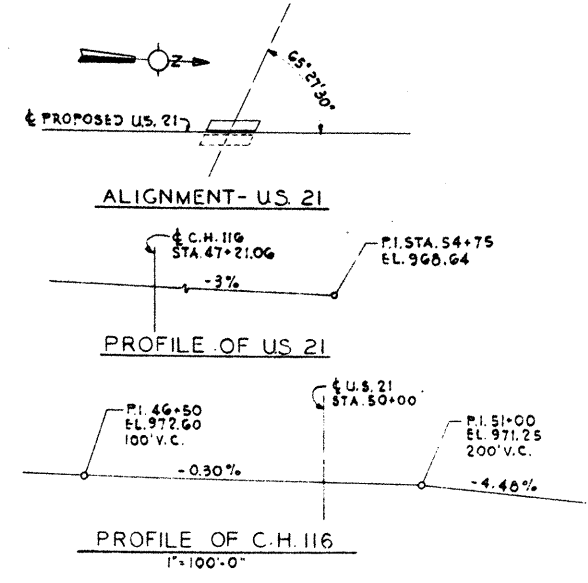
CHARLES E. DE LEW CONSULTING ENGINEER CHICAGO ILLINOIS						
REINFORCING STEEL LIST						
BRIDGE NO. STA-21-2130 U.S. 21 UNDER CH 103						
STARK CO.				STA. 1124+68.67		
SEC. STA-21						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	J.G.		R.S.		L.N.R. 8-24-66	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

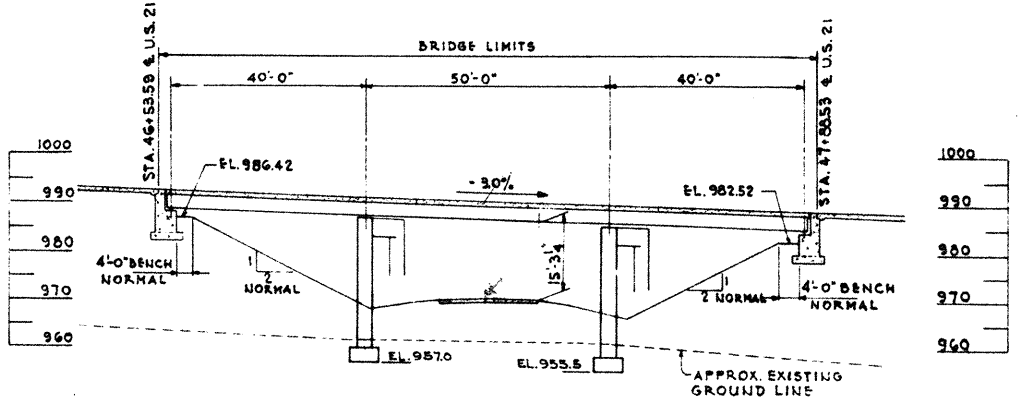
287
329



PLAN



CROSS SECTION OF BRIDGE



SECTION AT S.B. ROADWAY

FOUNDATION SOUNDINGS
 FOUNDATION DESIGN AND FOUNDATION QUANTITIES ARE BASED ON A STUDY OF SOIL SAMPLING SOUNDINGS MADE AT THE SITE. THIS SOUNDING INFORMATION MAY BE INSPECTED IN THE OFFICE AT THE BUREAU OF BRIDGES IN COLUMBUS OR IN AN ABRIDGED FORM IN THE DIVISION OFFICE, BUT THE STATE ASSUMES NO RESPONSIBILITY FOR THE ACCURACY THEREOF.

B.M. #220 EL. 957.54
 R.R. SPIKE IN TRANSFORMER POLE #FS 232, 350' RIGHT OF STA. 46+00 NORTH SIDE C.H. 116.

PROPOSED STRUCTURE

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE
 SPANS: 40'-0"; 50'-0"; 40'-0" C/C BRGS.
 ROADWAY: 30'-0" f/f; 2'-0" SAFETY CURBS
 LOAD FREQUENCY RATING: C.F. 2000(5)
 SURFACE COURSE: 1" MONOLITHIC CONCRETE WEARING SURFACE

SKEW: 24'-32'-30" L.F.
 APPROACH SLAB: AS SHOWN
 ALIGNMENT: TANGENT

CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

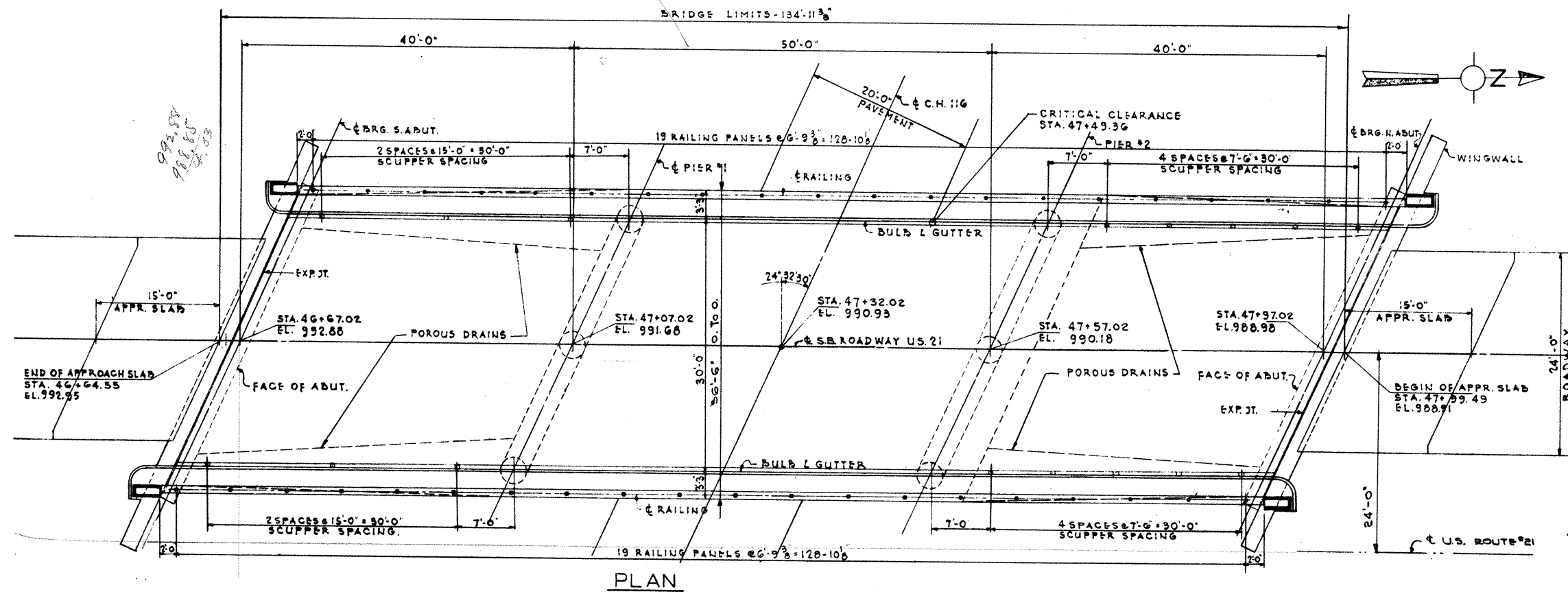
SITE PLAN
 BRIDGE NO. WAY-21-0089
 U.S. 21 OVER CH 116
 WAYNE CO. STA. 47+21.06
 SEC. WAY-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.F. J.A.E.	AL.B.		C.A.E.	L.N.R.	5-24-56	

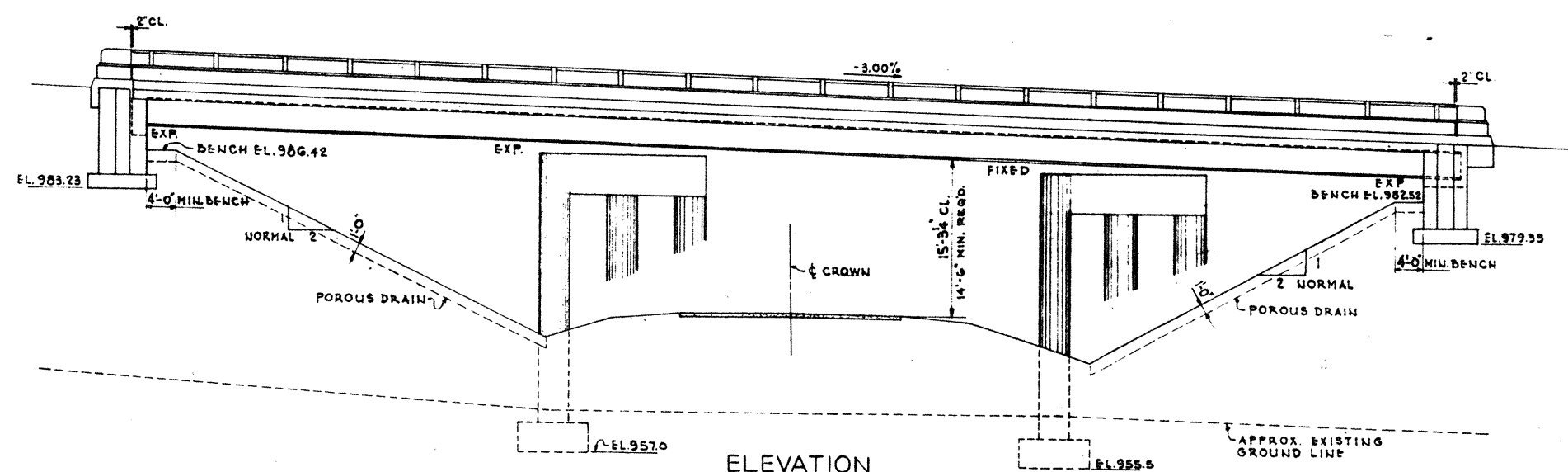
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

388
329

STA.-21-17.80
WAY -21-0.00
SUM -21-0.00



PLAN



ELEVATION

ITEM	TOTAL	UNIT	DESCRIPTION	ESTIMATED QUANTITIES			
				ABUT.	PIERS#2	SUPER.	GENERAL
E-2	LUMP SUM		COFFERDAMS, CRIBS AND SHEETING				
E-2	366	CU. YD.	UNCLASSIFIED EXCAVATION, INCLUDING ROCK	153	213		
S-1	164	CU. YD.	CLASS 'C' CONCRETE, SUPERSTRUCTURE & PYLONS	2	162		
S-1	68	CU. YD.	CLASS 'C' CONCRETE, PIERS ABOVE FOOTINGS		68		
S-1	87	CU. YD.	CLASS 'E' CONCRETE, ABUTMENTS ABOVE FOOTINGS	87			
S-1	65	CU. YD.	CLASS 'S' CONCRETE, FOOTINGS	34	31		
S-4	47,968	LBS	REINFORCING STEEL	6,367	16,391	45,129	81
S-7	117,110	LBS	STRUCTURAL STEEL			117,110	
S-8	117,110	LBS	FIELD PAINTING OF STRUCTURAL STEEL			117,110	
S-14	263	LIN. FT.	RAILING (ALUMINUM RAIL & SUPPORTS & CONC. PARAPET)			263	
S-29	34	CU. YD.	POROUS DRAINS ON EMBANKMENT SLOPES				34
S-29	31	CU. YD.	POROUS BACKFILL				31

GENERAL NOTES

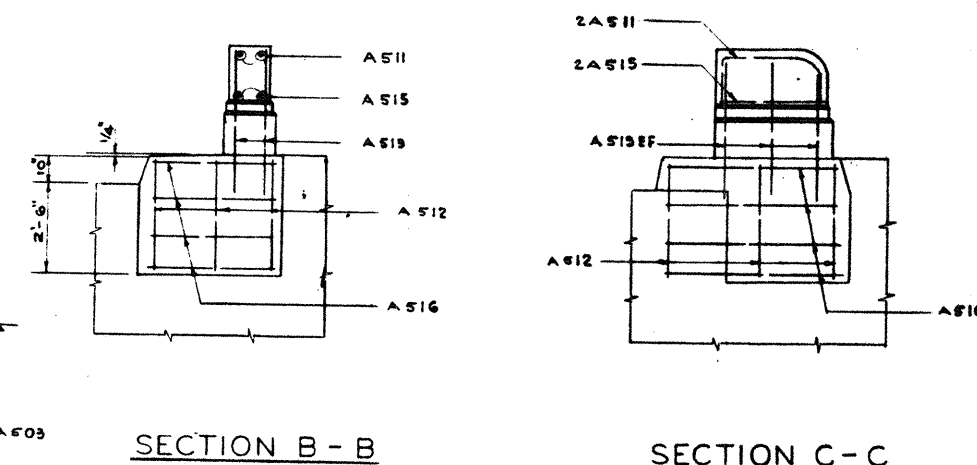
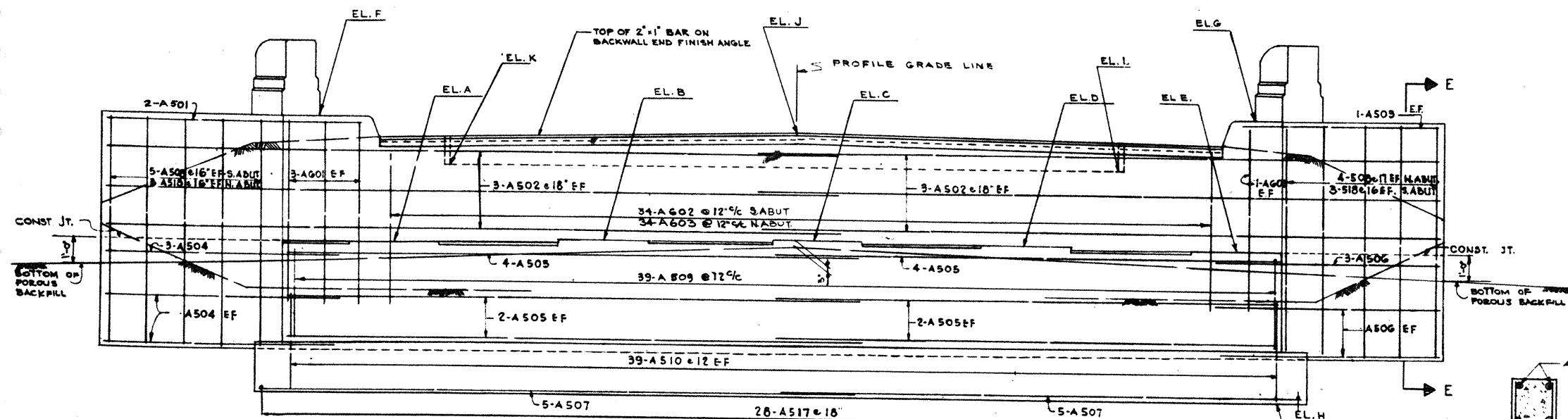
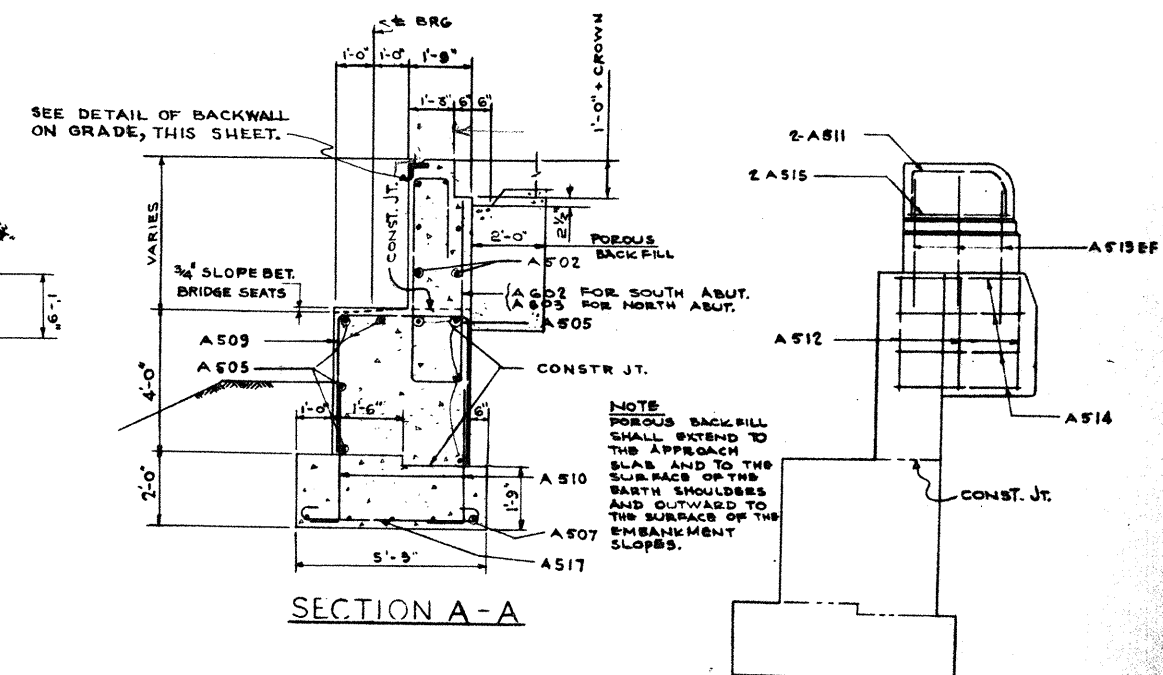
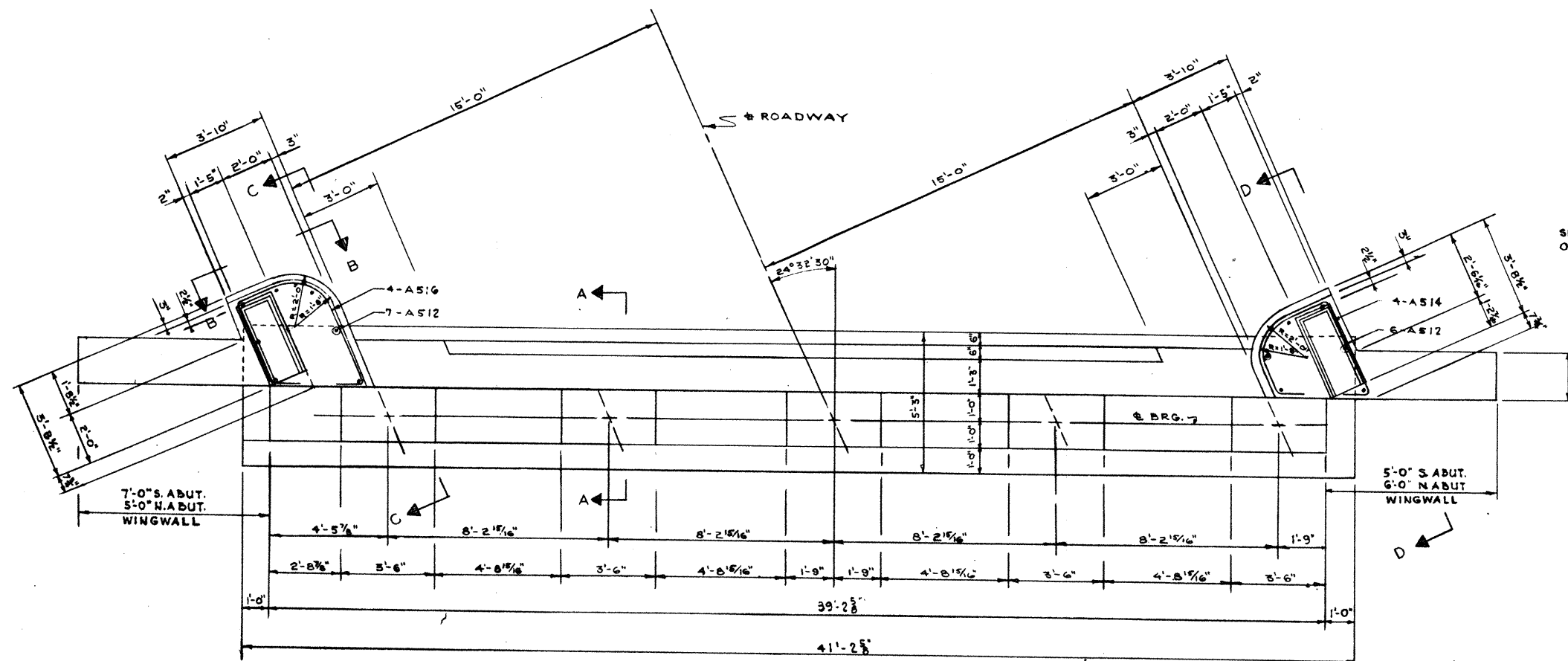
REFERENCE SHALL BE MADE TO STANDARD DRAWING NO. RB-1-55 DATED 3-1-55 AND TO SUPPLEMENTAL SPECIFICATIONS NO. S-114 DATED AUGUST 30-1955.
 SPECIFICATIONS: THIS WORK SHALL BE GOVERNED BY THE "DESIGN SPECIFICATIONS FOR HIGHWAY STRUCTURES" OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS, INCLUDING REVISIONS THRU FEB. 1, 1955, AND BY THE "CONSTRUCTION AND MATERIAL SPECIFICATIONS" OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS, DATED JANUARY 1, 1955.
 FOOTINGS OF PIERS SHALL EXTEND A MINIMUM OF THREE INCHES INTO SOUND ROCK OR TO THE ELEVATION SHOWN, WHICHEVER IS LOWER, FOUNDATION PRESSURE: MAX. SOIL PRESSURE = 3000 LBS. PER SQ. FT. UNDER ABUTMENTS
 WELDING OF STRUCTURAL STEEL SHALL BE CLASS "A" EXCEPT AS OTHERWISE SHOWN. WELDS SHOWN AS FIELD WELDS MAY, AT THE OPTION OF THE CONTRACTOR, BE MADE IN THE SHOP. PAINT, BOTH SHOP AND FIELD, SHALL BE APPLIED BY BRUSHING. SPRAY APPLICATION WILL BE NOT PERMITTED.
 SURFACE FINISH OF CONCRETE: RAILING END POSTS, RAILING PARAPETS, CURB FACES, FASCIAE OF DECK AND EXPOSED SURFACE OF PIERS, ABUTMENTS AND WINGWALLS SHALL RECEIVE A RUBBED SURFACE FINISH. ALL OTHER EXPOSED SURFACES SHALL BE GOVERNED BY THE PROVISIONS OF ITEM S-1.
 POROUS DRAINS, EXTENDING FROM FACE OF ABUTMENT TO EL. 969.4-S SHALL BE PLACED ON AND FLUSH WITH EMBANKMENT SLOPES AT ALL FOUR CORNERS OF THE BRIDGE. THE DRAINS SHALL BE 7'-0" WIDE AT THE LOW END, TAPERING TO 4'-0" WIDE AT FACE OF ABUTMENT AND ONE FT. THICK. THEY SHALL BE CENTERED UNDER THE SCUPPERS.
 GRAVEL IF USED AS THE COARSE AGGREGATE, SHALL BE ACCORDING TO SEC. M-3.99 INSTEAD OF M-3.91 FOR CLASS 'C' CONCRETE. SUPERSTRUCTURE, GRAVEL MEETING THE REQUIREMENTS OF SEC. M-3.95 ALSO MAY BE USED FOR OTHER CONCRETE IN THIS STRUCTURE INCLUDING CONCRETE FOR PYLONS.
 SPLICE OF REINFORCING STEEL: REINFORCING STEEL SHALL BE SPLICED BY LAPPING BARS A MIN. OF 30 TIMES THE DIAMETER OF THE SMALLER BAR CONCERNED.
 EXCAVATION QUANTITY INCLUDES THE REMOVAL OF FILL MATERIAL BETWEEN THE TOP OF THE BARTH BENCH AND THE BOTTOM OF THE ABUTMENT, AND BETWEEN THE BOTTOM OF THE PIER FOOTING AND THE FINISHED GRADE LINE CROSS SECTION.

CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

**GENERAL PLAN & ELEVATION
NOTES & ESTIMATED QUANTITIES**
BRIDGE NO. WAY-21-0089
U.S. 21 OVER CH 116
WAYNE CO. STA. 47+21.06
SEC. WAY-21

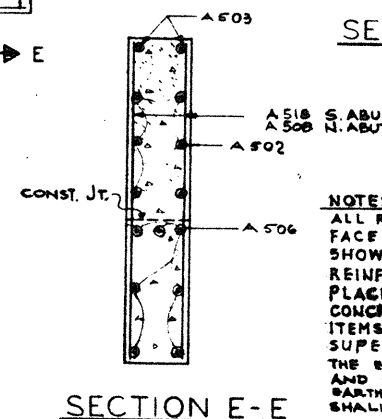
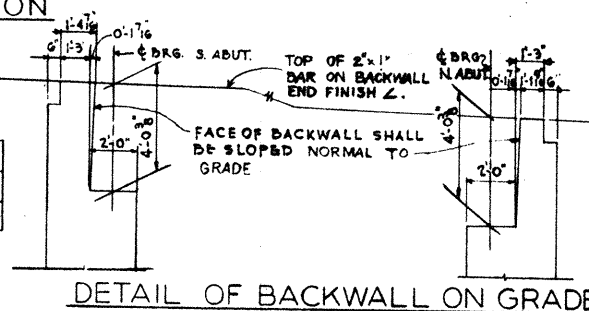
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.F.	AL.B.		C.A.E.	L.N.R.	5-24-56	

STA.-21-17.80
WAY-21-000
SUM-21-000



ELEVATIONS

ABUTMENT	A	B	C	D	E	F	G	H	J	K	L
SOUTH	988.83	988.83	988.85	988.43	988.42	988.77	988.50	988.42	988.91	989.95	989.60
NORTH	984.52	984.73	984.95	984.93	984.93	985.33	985.78	978.52	988.95	987.55	987.88



NOTE:
ALL REINFORCING STEEL SHALL CLEAR FACE OF CONCRETE 2" UNLESS OTHERWISE SHOWN.
REINFORCING BARS IN BRIDGE SEATS TO BE PLACED TO CLEAR ANCHOR BOLTS CONCRETE IN PYLON TO BE INCLUDED IN ITEMS S-1 CLASS 'C' CONCRETE SUPERSTRUCTURE
THE EMBANKMENT SHALL BE PLACED AND COMPACTED TO THE HEIGHT OF THE BARTH BENCH AFTER WHICH EXCAVATION SHALL BE MADE FOR THE ABUTMENT.

CHARLES E. DELEW
CONSULTING ENGINEER
CHICAGO ILLINOIS

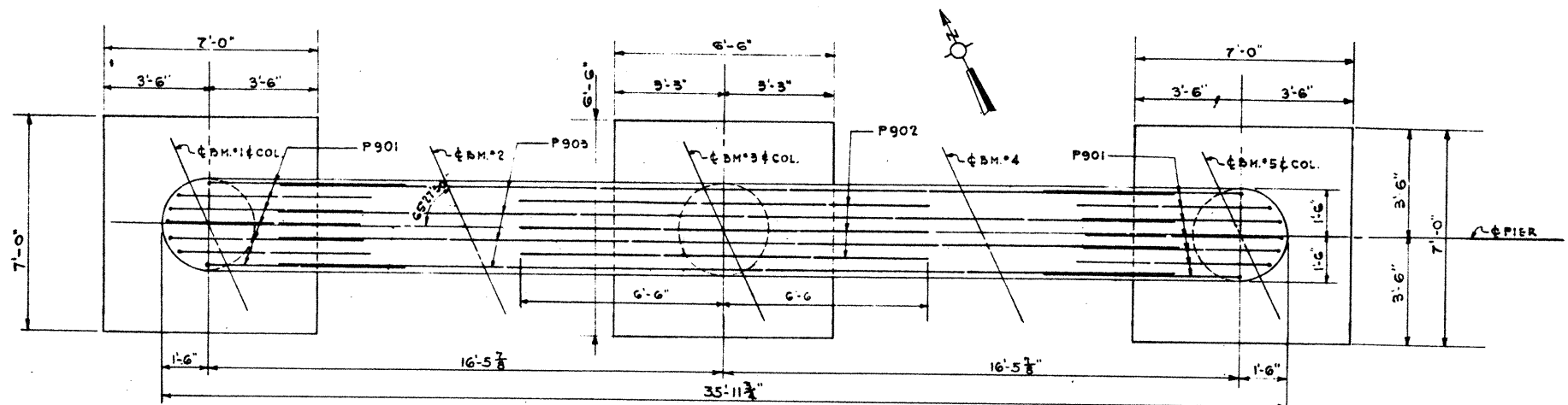
ABUTMENT DETAILS
BRIDGE NO. WAY-21-0089
U.S. 21 OVER CH 116
WAYNE CO. STA. 47+2108
SEC. WAY-21.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	J.A.E.		C.A.E.	L.N.R.	5-24-56	

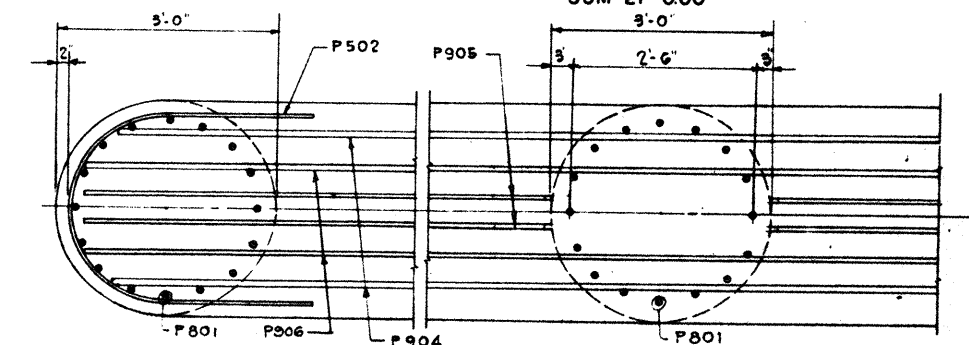
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

290
329

STA.-21-17.80
WAY-21-0.00
SUM-21-3.000

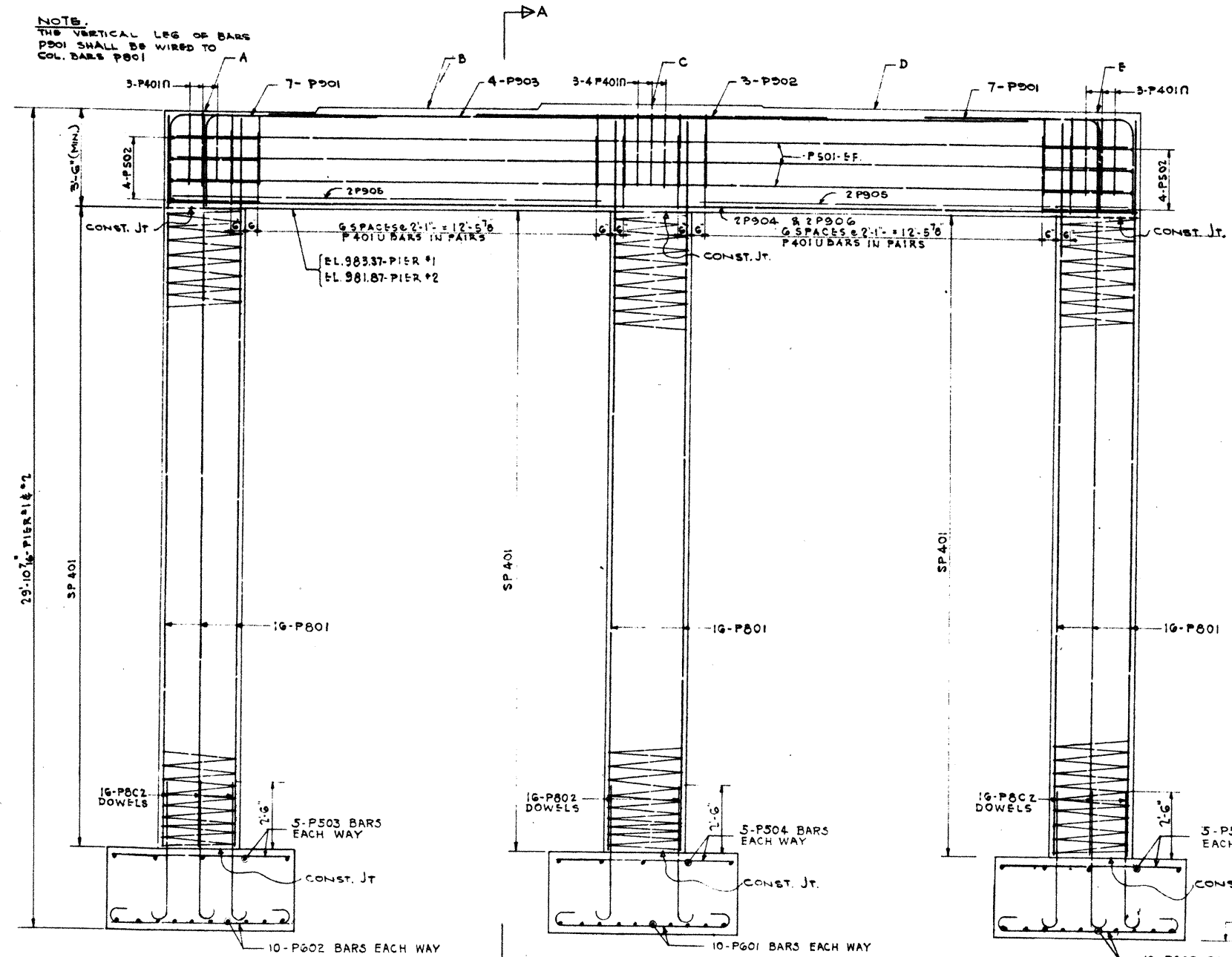


PLAN - PIERS #1 & #2
SHOWING TOP REINFORCING

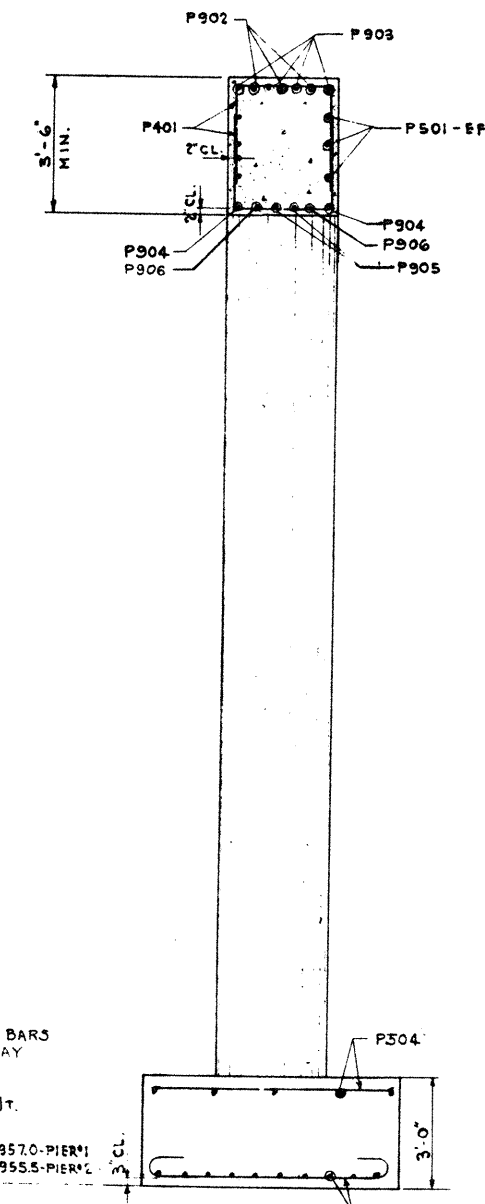


END COLUMN MIDDLE COLUMN
HORIZONTAL SECTION AT BASE OF PIER CAP

NOTE:
THE VERTICAL LEG OF BARS P901 SHALL BE WIRED TO COL. BARS P901



ELEVATION



SECTION A-A

PIER NO.	ELEV. A	ELEV. B	ELEV. C	ELEV. D	ELEV. E
PIER #1	986.87	987.08	987.30	987.28	987.28
PIER #2	985.37	985.58	985.80	985.78	985.78

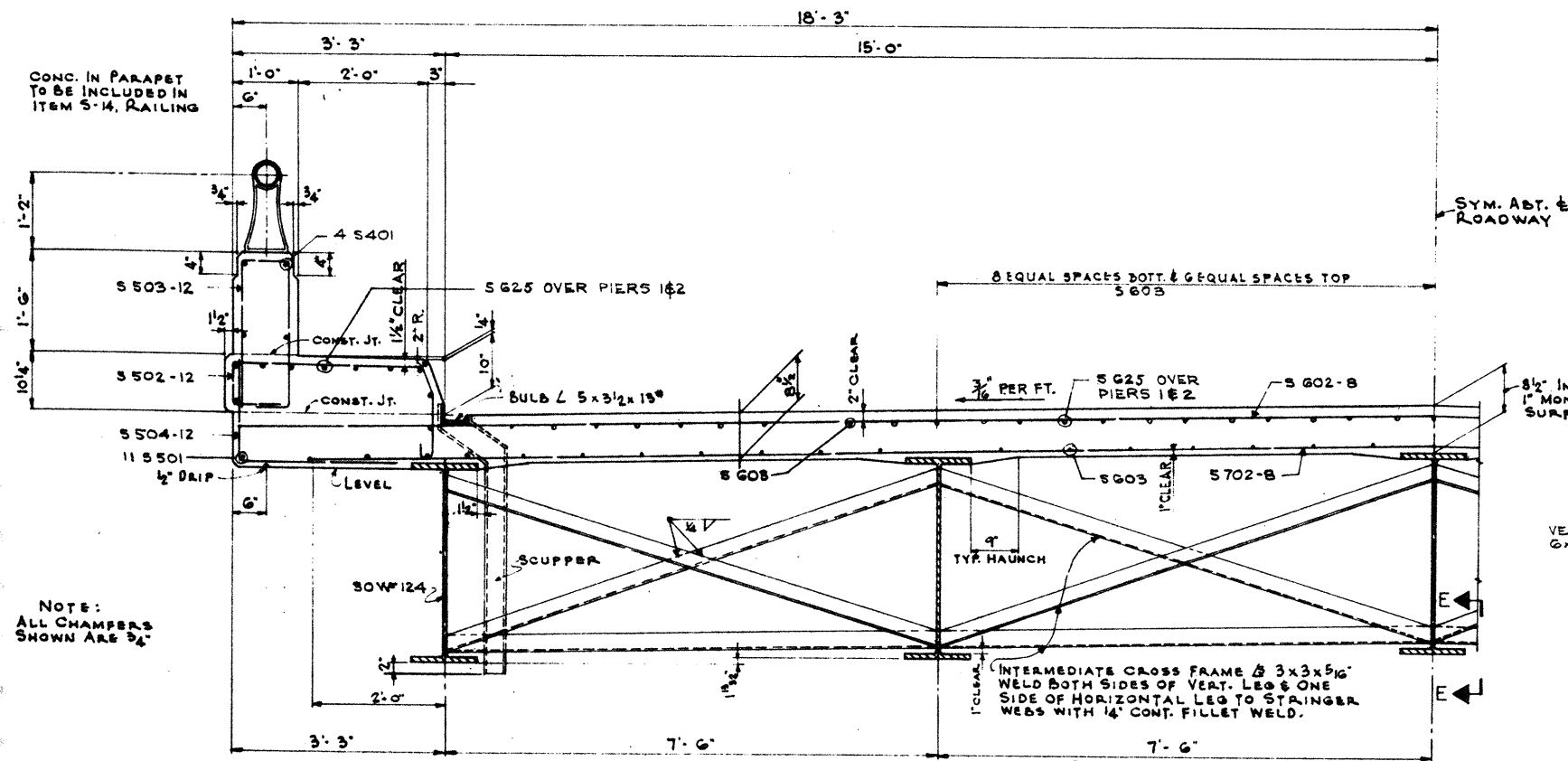
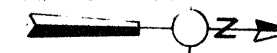
NOTE:
ALL REINFORCING STEEL SHALL CLEAR FACE OF CONCRETE 2" UNLESS OTHERWISE SHOWN. REINFORCING BARS IN BRIDGE SEATS TO BE PLACED TO CLEAR ANCHOR BOLTS.

CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

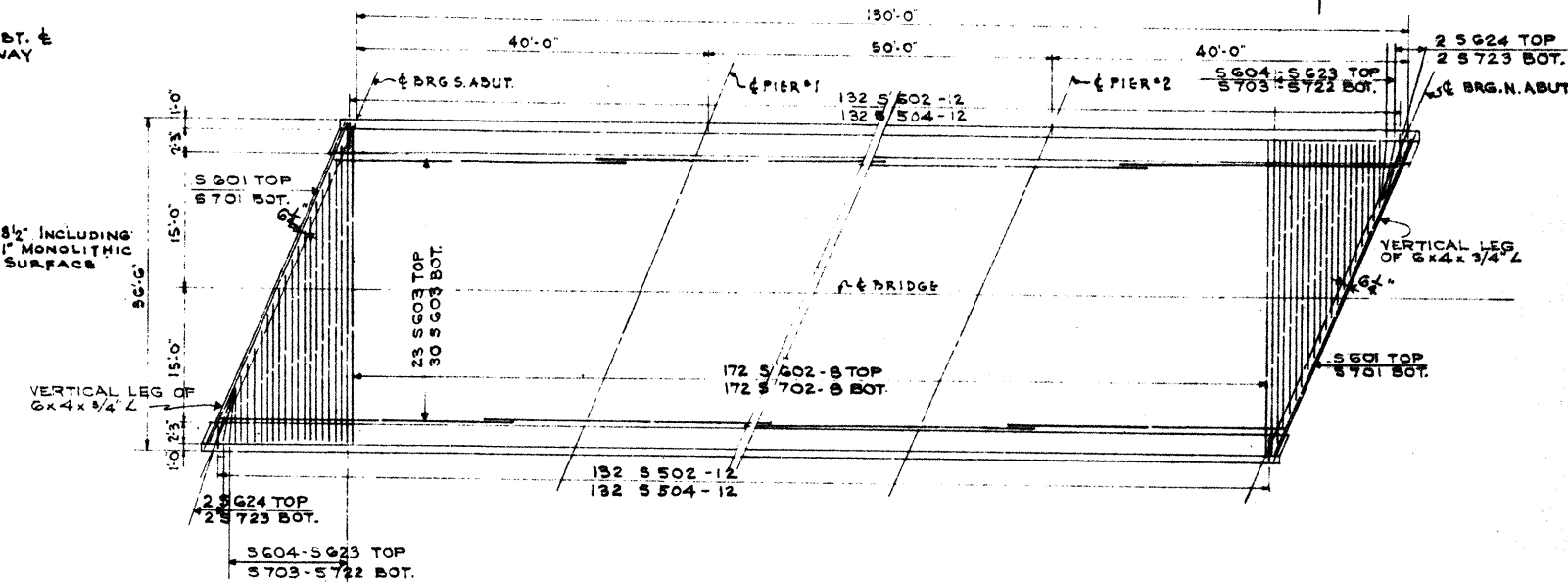
DETAILS OF PIERS NO. 1, & 2
BRIDGE NO. WAY-21-0089
U.S. 21 OVER CH 116
WAYNE CO. STA. 47+2106
SEC. WAY-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	A.L.B.		C.A.E.	L.N.R.	5-24-86	

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



TRANSVERSE HALF SECTION



DECK SLAB REINFORCING PLAN

ROCKERS & BOLSTERS		
S. ABUTMENT	ROCKER	BOLSTER
PIER NO. 1	R-75	
PIER NO. 2	R-150	B-150
N. ABUTMENT	R-75	

FOR DETAILS SEE DRWG. RD-1-55

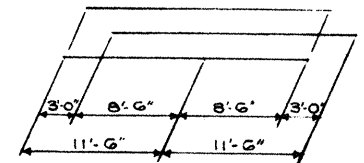
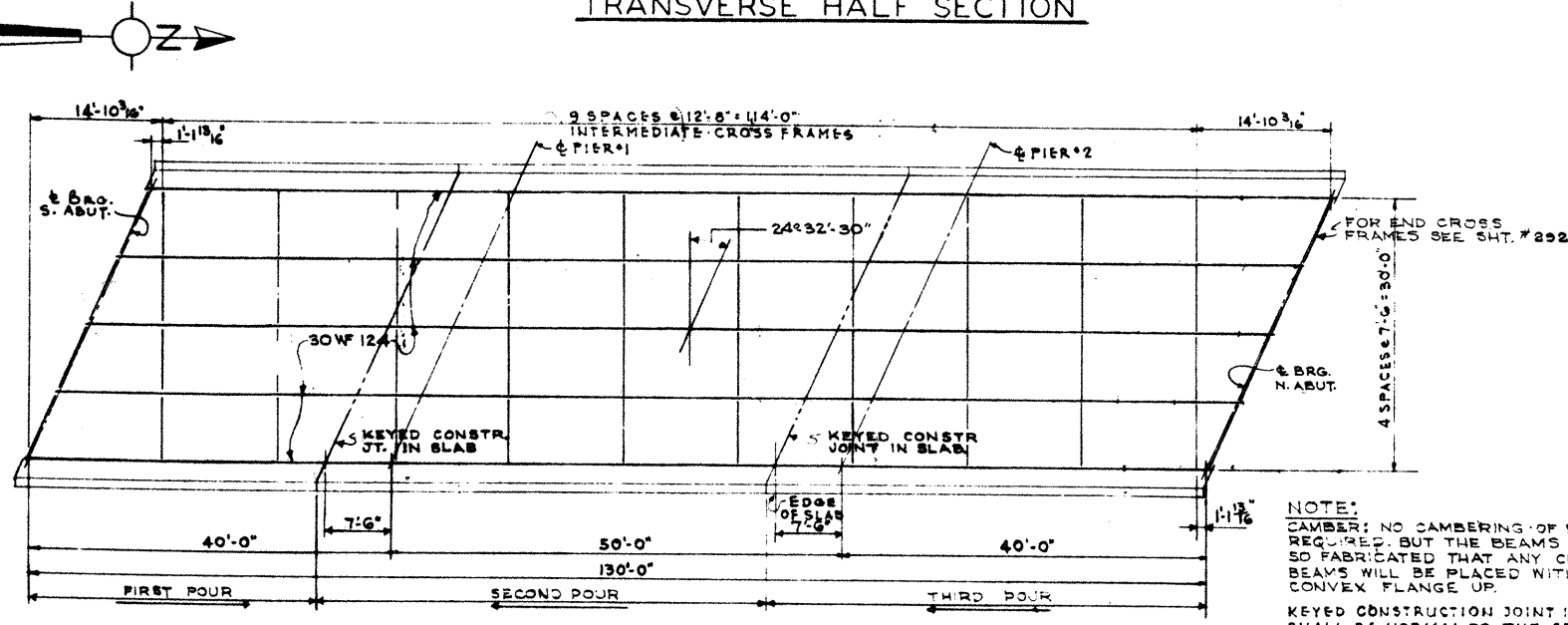


DIAGRAM SHOWING STAGGER OF S 625 BARS OVER PIERS 1 AND 2



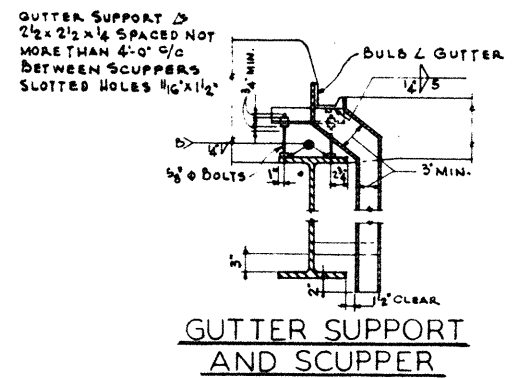
STEEL FRAMING PLAN

MOMENT PLATE SIZES		
LOCATION	INT. BMS 30WF124	EXT. BMS 30WF124
PIERS 1 & 2	TOP 9'-3/8" x 9'-0"	9'-3/8" x 9'-0"
	BOTT. 12'-3/8" x 9'-0"	12'-3/8" x 9'-0"

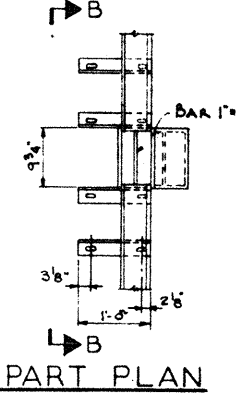
NOTE:
CAMBER: NO CAMBERING OF BEAMS IS REQUIRED, BUT THE BEAMS SHALL BE SO FABRICATED THAT ANY CURVED BEAMS WILL BE PLACED WITH THE CONVEX FLANGE UP.
KEYED CONSTRUCTION JOINT IN DECK SLAB SHALL BE NORMAL TO THE CENTERLINE OF ROADWAY FOR 2'-0" INSIDE OF THE EDGE OF SLAB.

DECK CONSTRUCTION PROCEDURE
THE DECK SLAB SHALL BE PLACED IN SECTIONS BETWEEN TRANSVERSE CONSTRUCTION JOINTS, IN THE NUMERICAL ORDER AND IN THE DIRECTION INDICATED ON THE STEEL FRAMING PLAN IN ORDER THAT THE MAJOR PORTION OF THE DEAD LOAD DEFLECTION WILL OCCUR PRIOR TO PLACING CONCRETE OVER EACH PIER.

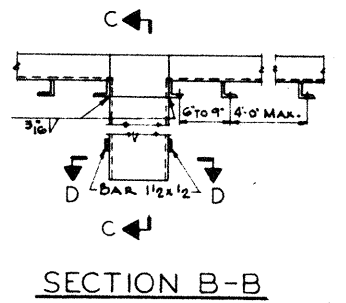
GUTTERS SHALL BE ACCURATELY ADJUSTED FOR ALIGNMENT AND GRADE WITH ALLOWANCE FOR DEAD LOAD DEFLECTION BEFORE CONCRETE IS PLACED.



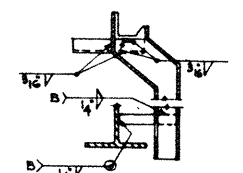
GUTTER SUPPORT AND SCUPPER



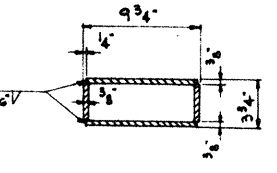
PART PLAN



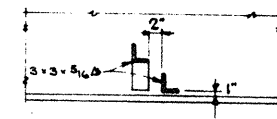
SECTION B-B



SECTION C-C



SECTION D-D



SECTION E-E

CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

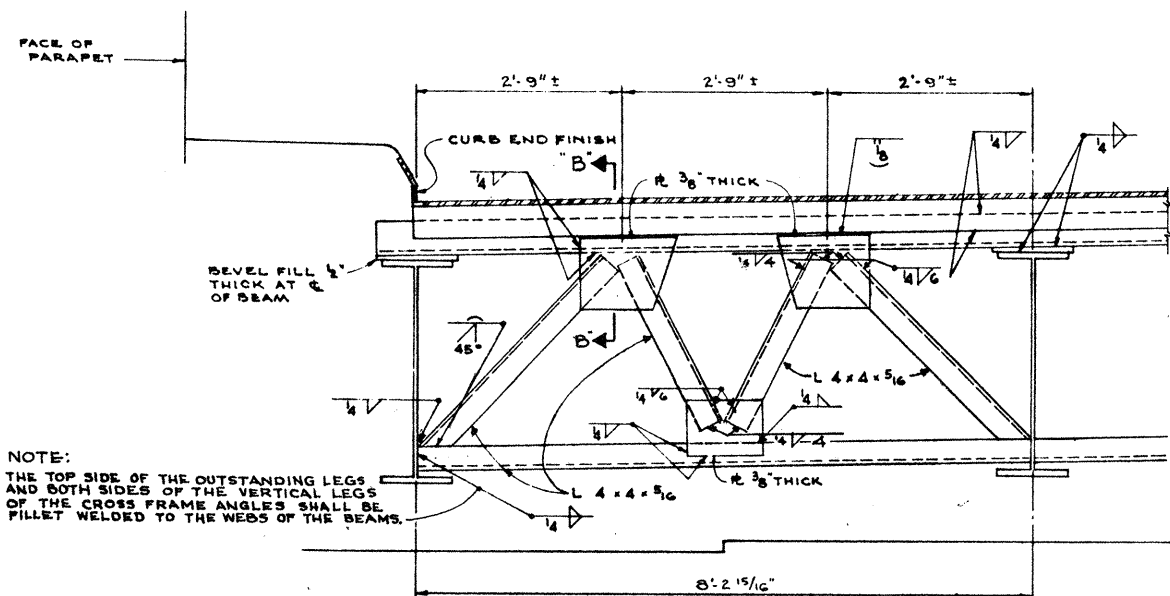
SUPERSTRUCTURE DETAILS
BRIDGE NO. WAY-21-0089
U.S. 21 OVER CH 116
WAYNE CO. STA. 47+21.06
SEC. WAY-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.F.	J.G.N.		C.A.E.	L.N.R.	5-24-58	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

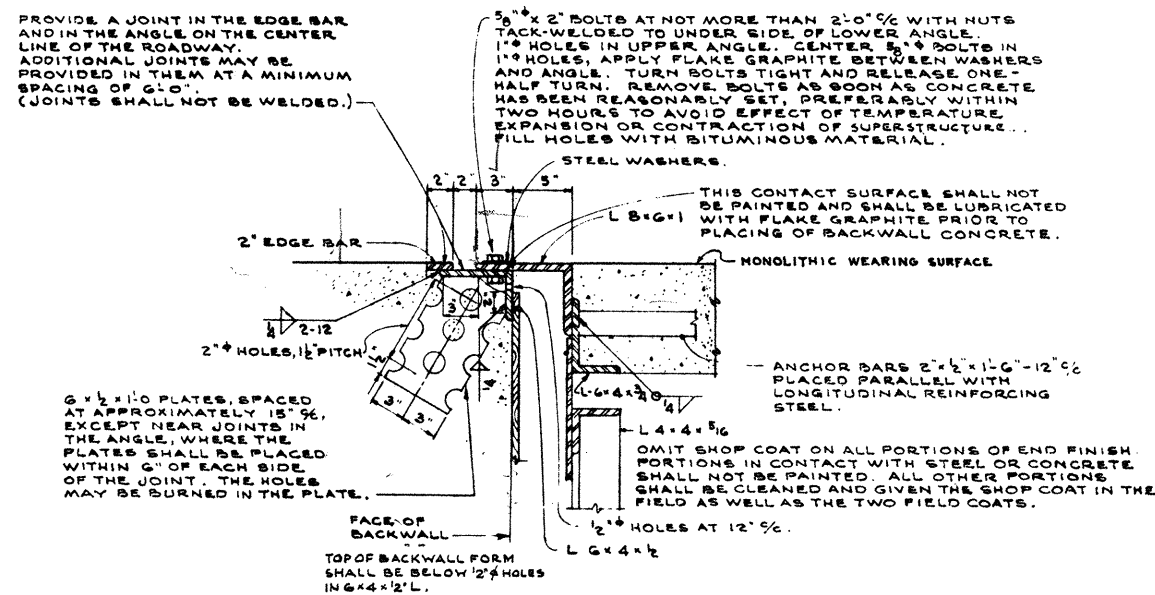
292
329

STA-21-17.80
WAY-21-0.00
SUM-21-0.00



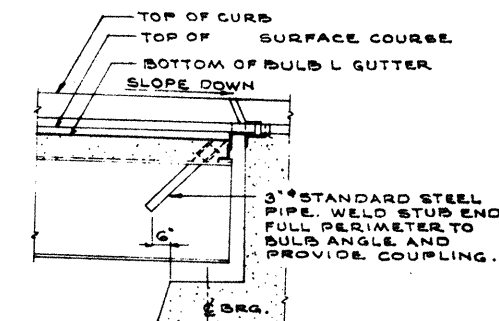
SECTION "A-A"

3/4" x 1'-0"



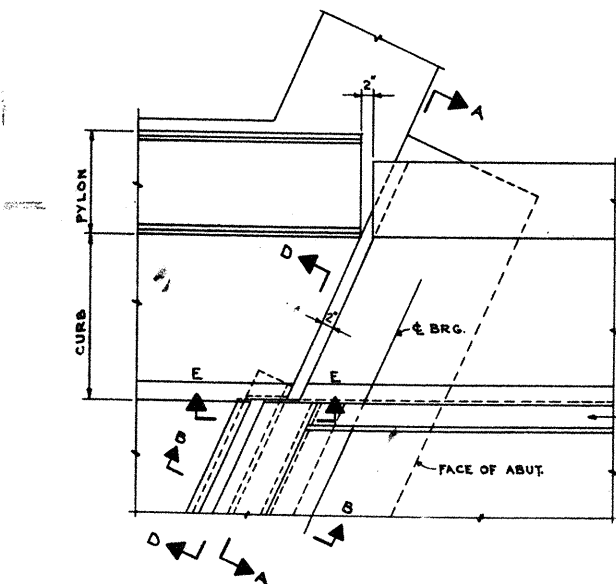
SECTION "B-B"

1/2" x 1'-0"



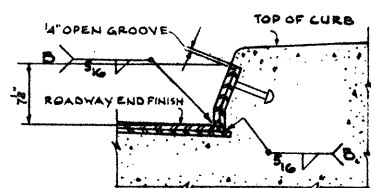
TYPICAL SECTION FOR GRADE SLOPING DOWN TO END FINISH

3/8" x 1'-0"



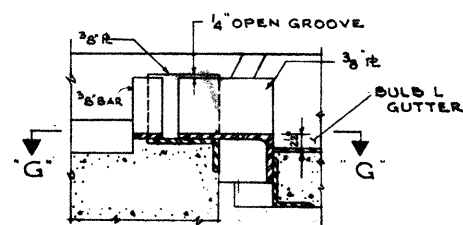
PARTIAL PLAN AT ABUTMENT

3/4" x 1'-0"



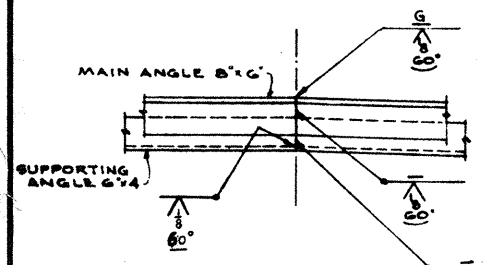
SECTION "D-D"

1" x 1'-0"



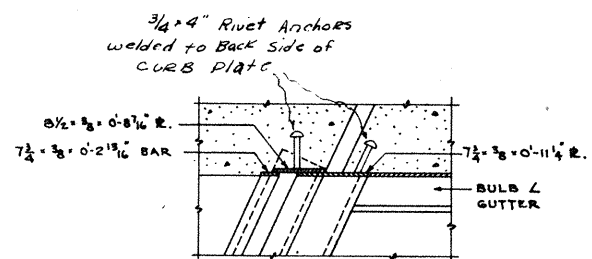
SECTION "E-E"

1" x 1'-0"



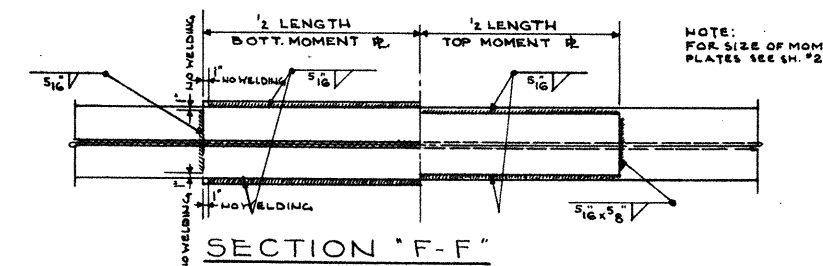
WELDED BUTT JOINT IN SUPERSTRUCTURE END FINISH ANGLES AT C OF ROADWAY.

3/4" x 1'-0"

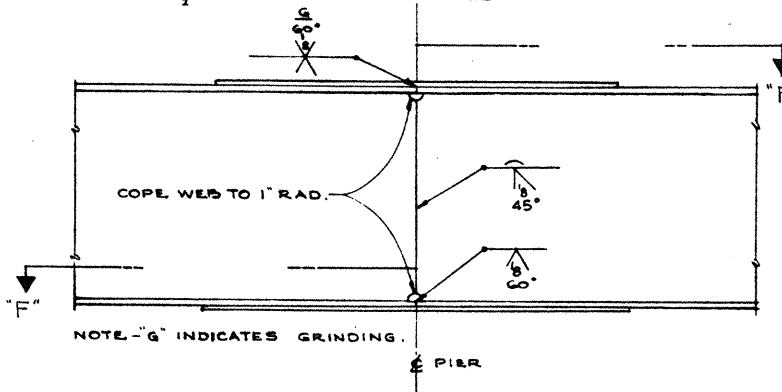


SECTION "G-G"

1" x 1'-0"



SECTION "F-F"



BEAM SPLICE DETAILS

3/4" x 1'-0"

- BEAM SPLICE WELDING PROCEDURE:
1. RAISE THE ABUTMENT ENDS OF THE BEAMS 7/8".
 2. BUTT WELD THE BEAM FLANGES AND WEB.
 3. WELD THE BOTTOM AND TOP MOMENT PLATES.
 4. LOWER THE BEAM ENDS TO FINAL POSITION.

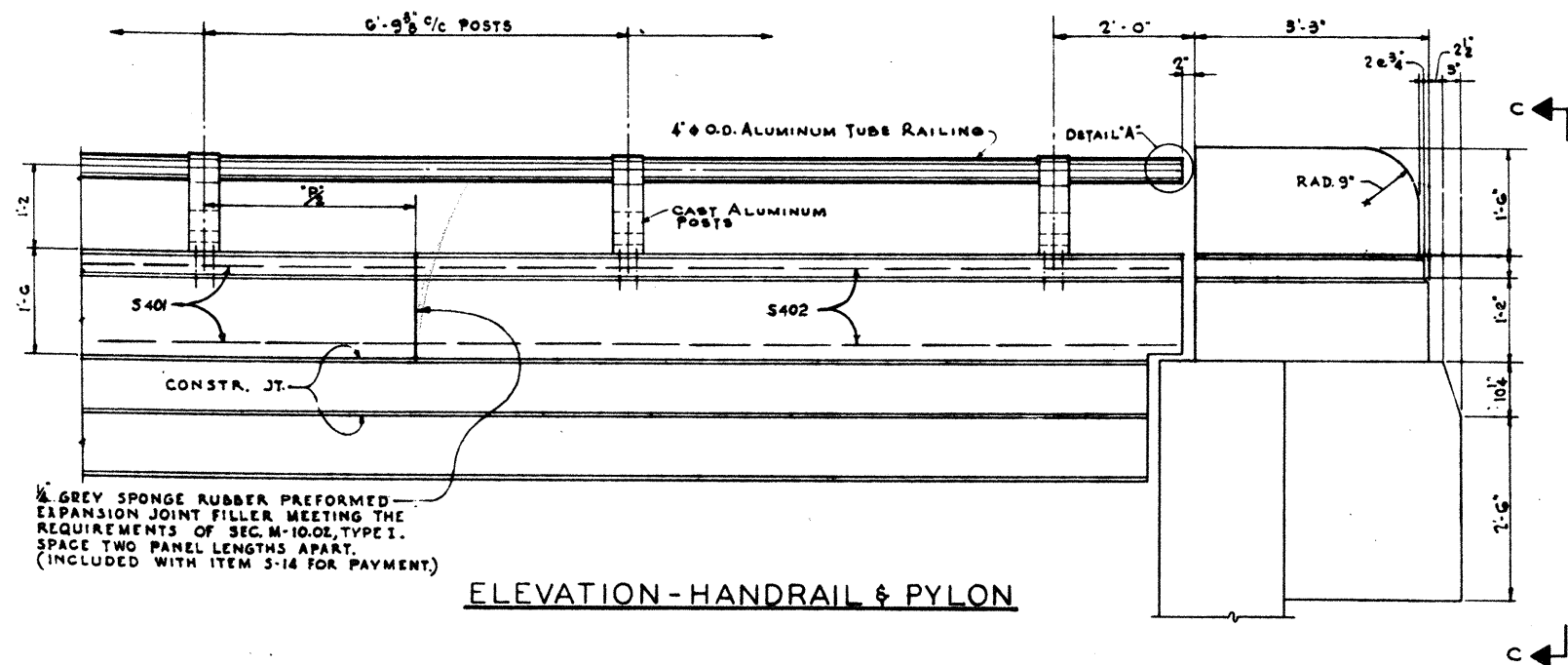
* MAKE ONE PASS IN EACH FLANGE, THEN ONE PASS IN THE WEB; REPEAT UNTIL WELDS ARE COMPLETED.

CHARLES E. DE LEUW CONSULTING ENGINEER CHICAGO ILLINOIS						
SUPERSTRUCTURE DETAILS						
BRIDGE NO. WAY-21-0089 U.S. 21 OVER CH 116						
WYNE CO. SEC. WAY 21					STA 47+21.06	
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	R.E.B.		R.E.N.	M.C.	5-24-56	

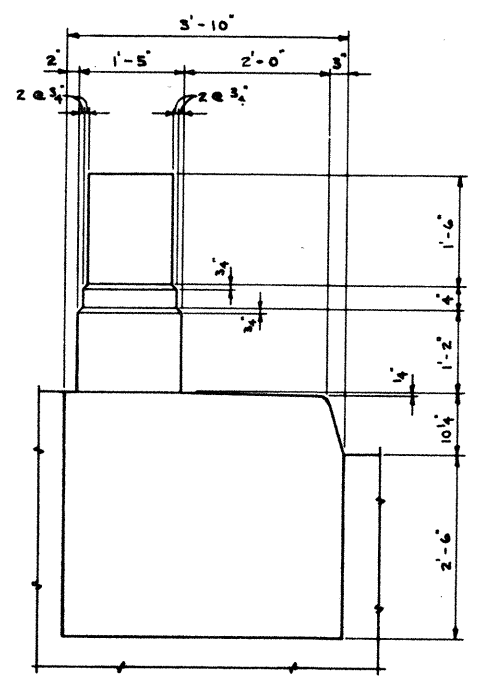
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

293
329

STA-21-1780
WAY-21-000
SUM-21-000

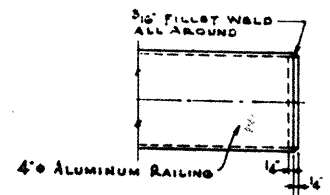


ELEVATION - HANDRAIL & PYLON

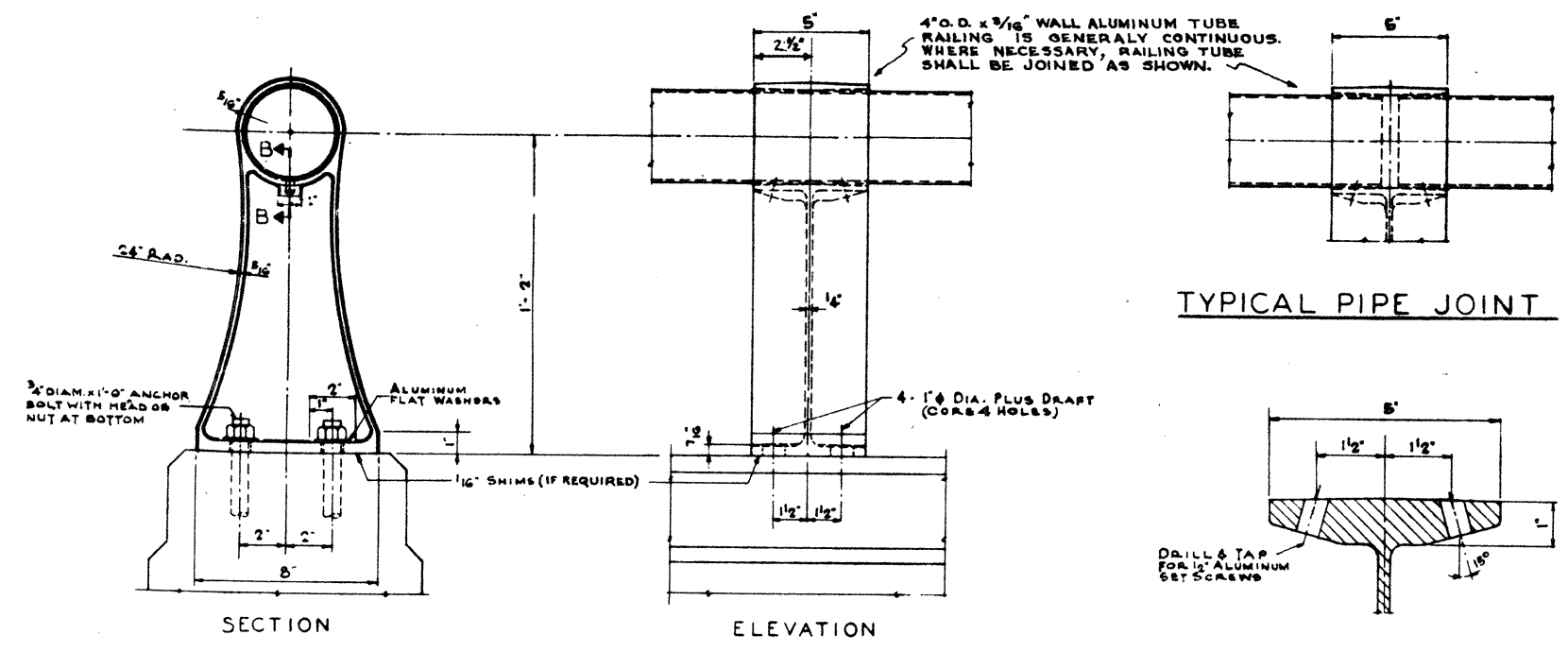


VIEW C-C

1/4\"/>



DETAIL A



HANDRAIL DETAILS

TYPICAL PIPE JOINT

SECTION B-B

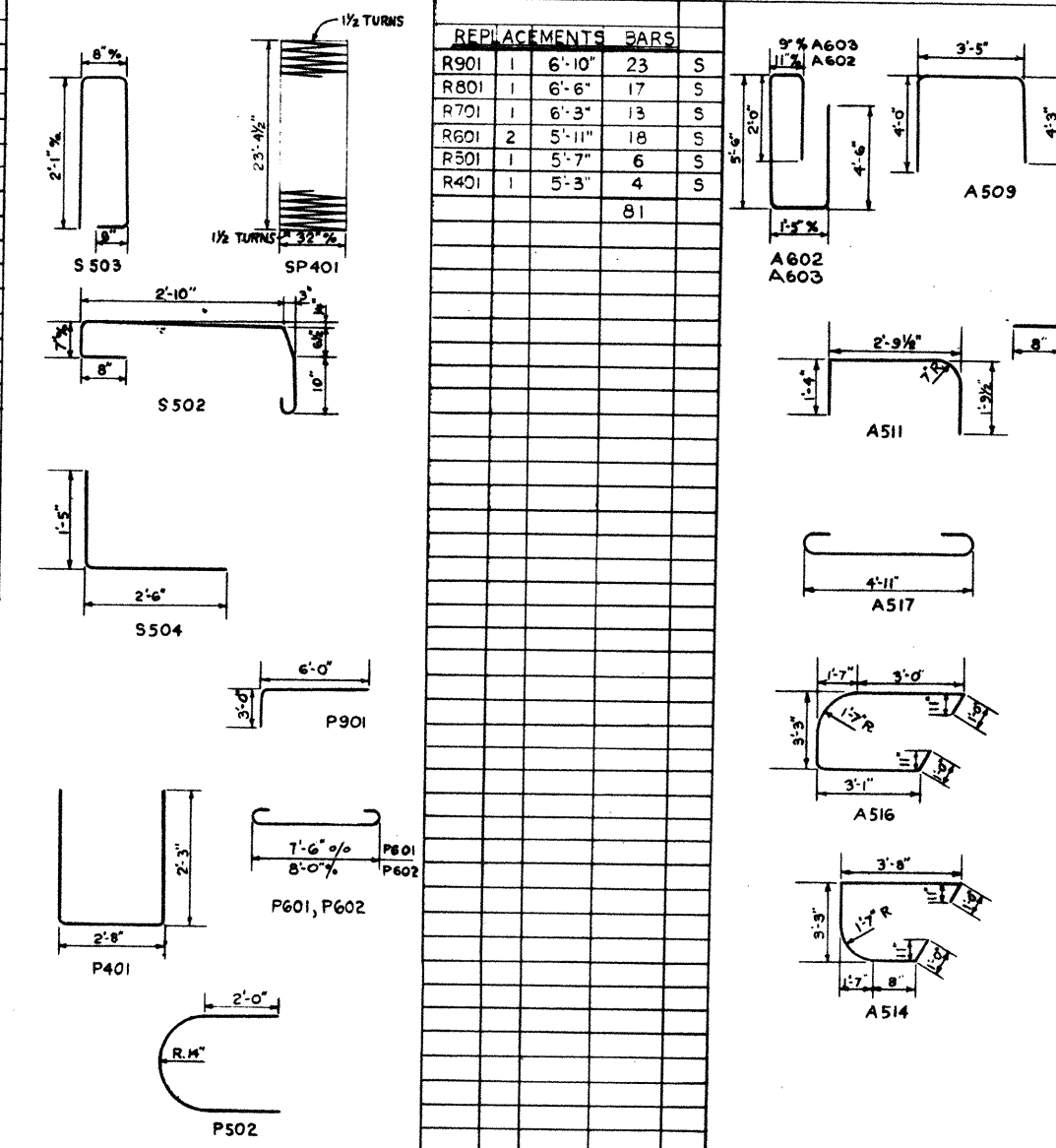
NOTE:
FOR FURTHER DETAILS SEE SUPPLEMENTAL SPECIFICATION NO. 5-114 ALUMINUM FOR BRIDGE RAILING DATED AUG 30, 1955.

CHARLES E. DE LEUW CONSULTING ENGINEER CHICAGO ILLINOIS						
HANDRAIL AND PYLON DETAILS						
BRIDGE NO. WAY-21-0089						
U.S. 21 OVER CH 116						
WAYNE CO.					STA. 47+21.06	
SEC. WAY 21						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	ALB.		R.E.H.	L.N.A.	5-24-56	

STA-21-17.80
WAY-21-0.00
SUM-21-0.00

REINFORCING STEEL LIST															
SUPER STRUCTURE				PIERS NO. 1 & 2				ABUTMENTS				REPLACEMENTS BARS			
MARK NO.	LENGTH	WEIGHT	SHP	MARK NO.	LENGTH	WEIGHT	SHP	MARK NO.	LENGTH	WEIGHT	SHP	MARK NO.	LENGTH	WEIGHT	SHP
S701	2 39'-6"	161	S	S401	72 13'-0"	625	S	R901	1 6'-10"	23	S				
S702	172 34'-0"	11,953	S	S402	16 11'-8"	125	S	R801	1 6'-6"	17	S				
S703	2 33'-9"	138	S			750		R701	1 6'-3"	13	S				
S704	2 32'-6"	133	S					R601	2 5'-11"	18	S				
S705	2 31'-0"	127	S					R501	1 5'-7"	6	S				
S706	2 29'-5"	121	S					R401	1 5'-3"	4	S				
S707	2 28'-0"	114	S												
S708	2 26'-6"	108	S												
S709	2 25'-0"	102	S												
S710	2 23'-6"	96	S												
S711	2 22'-0"	90	S												
S712	2 20'-6"	84	S												
S713	2 19'-0"	78	S												
S714	2 17'-6"	72	S												
S715	2 16'-0"	65	S												
S716	2 14'-6"	59	S												
S717	2 13'-0"	53	S												
S718	2 11'-6"	47	S												
S719	2 10'-0"	41	S												
S720	2 8'-6"	35	S												
S721	2 7'-0"	29	S												
S722	2 5'-6"	22	S												
S723	4 4'-9"	39	S												
		13,767													
S601	2 39'-6"	119	S												
S602	172 36'-0"	9,300	S												
S603	212 34'-3"	10,906	S												
S604	2 34'-9"	104	S												
S605	2 33'-6"	101	S												
S606	2 32'-0"	96	S												
S607	2 30'-6"	92	S												
S608	2 29'-0"	87	S												
S609	2 27'-6"	83	S												
S610	2 26'-0"	78	S												
S611	2 24'-6"	74	S												
S612	2 23'-0"	69	S												
S613	2 21'-6"	65	S												
S614	2 20'-0"	60	S												
S615	2 18'-6"	56	S												
S616	2 17'-0"	51	S												
S617	2 15'-6"	47	S												
S618	2 14'-0"	42	S												
S619	2 12'-6"	38	S												
S620	2 11'-0"	33	S												
S621	2 9'-6"	29	S												
S622	2 8'-0"	24	S												
S623	2 6'-6"	20	S												
S624	4 5'-9"	34	S												
S625	56 20'-0"	1,683													
		23,291													
S501	88 34'-3"	3,144	S												
S502	264 5'-11"	1,630	B												
S503	264 5'-4"	1,468	B												
S504	264 3'-11"	1,079	B												
		7,321													

REINFORCING STEEL LIST



MARK NO.	LENGTH	WEIGHT	SHP
R901	1 6'-10"	23	S
R801	1 6'-6"	17	S
R701	1 6'-3"	13	S
R601	2 5'-11"	18	S
R501	1 5'-7"	6	S
R401	1 5'-3"	4	S
		81	

SPIRAL REINFORCING BARS
 THE "LENGTH" SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE DISTANCE FROM THE TOP OF THE FOOTING TO THE BOTTOM OF THE PIER CAP.
 THE "NO. OF TURNS" SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS, IS THE "LENGTH" DIVIDED BY THE PITCH, PLUS THREE TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER.
 SPIRAL REINFORCING BARS SHALL NOT HAVE DEFORMATIONS, BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM S-4.
 1/2 CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.
 FOUR STEEL CHANNEL, TEE OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.68 LB. PER LIN. FT. OF SPACER, SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.68 LB. PER LIN. FT. WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS.

NOTE:
 BAR SIZE IS INDICATED IN THE BAR MARK, THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO WHERE FOUR DIGITS ARE USED, INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE: A700 IS A NO. 7 BAR, AND 1014 IS A NO. 10 SIZE.

MARK NO.	COORDIN.	LENGTH	PITCH	NO. TURNS	WEIGHT
SP401	A	32'	23'-4 1/2"	4 1/2	65 3,574

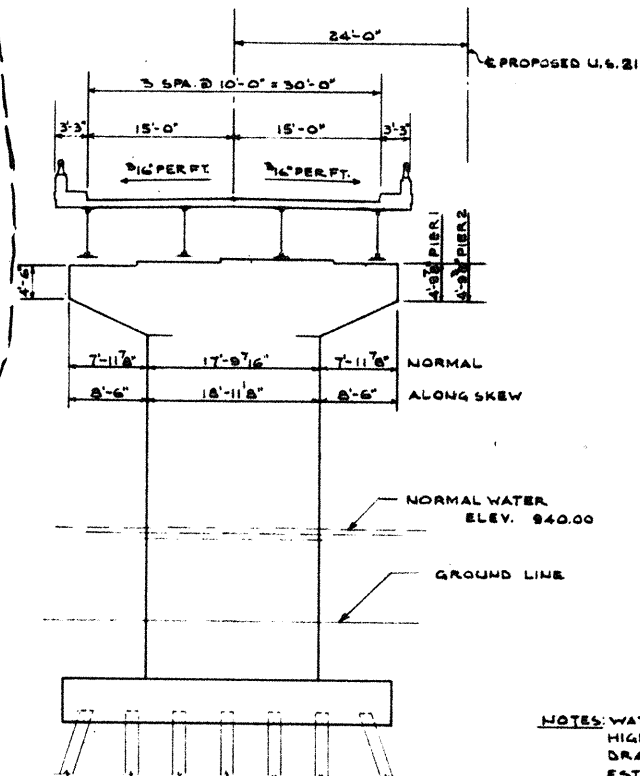
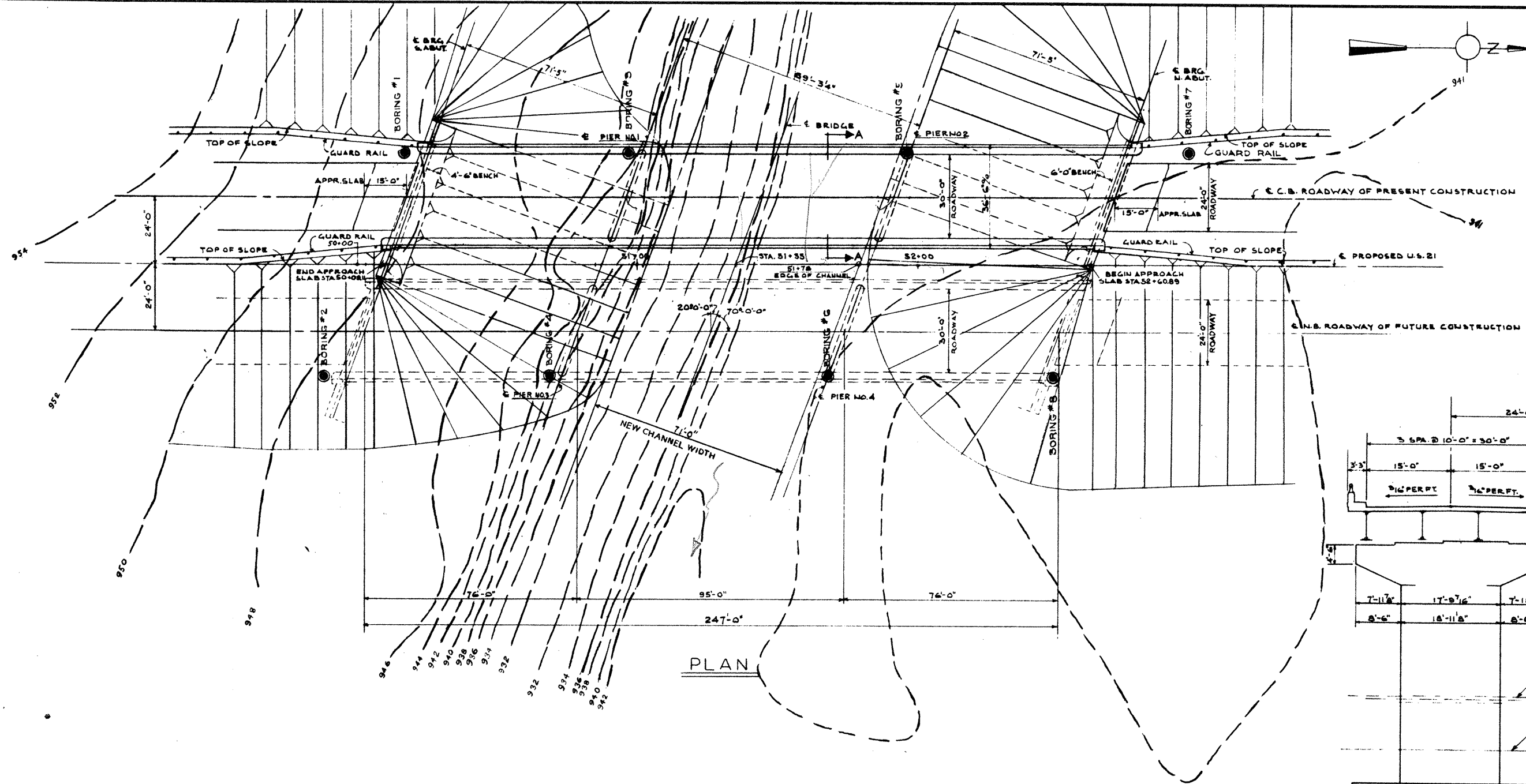
CHARLES E. DE LEU CONSULTING ENGINEER CHICAGO ILLINOIS					
REINFORCING STEEL LIST					
BRIDGE NO. WAY-21-0089 U.S. 21 OVER CH 116					
WAYNE CO. SEC. WAY-21			STA. 47+21.06		
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
R.E.H.	M.R.		E.S.M.	L.N.R.	5-24-56

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

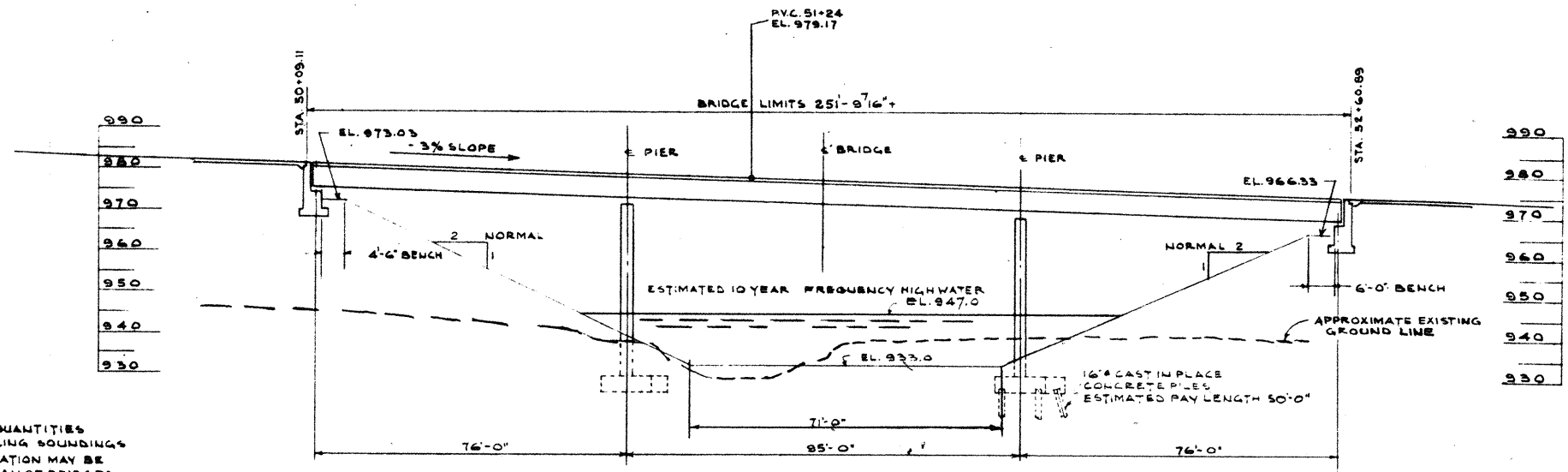
295
329

STA. 21-17.80
WAY-21-0.00
SUM-21-0.00

$\tan 20^\circ = \frac{x}{24}$
 $24 \times \tan 20^\circ =$
 $24 \times .3640 = 8.74$
 $\frac{51+35}{51+43.74 \text{ of Br.}}$
 $\frac{50+18.91}{1+24.83}$



NOTES: WATERWAY AREA PROVIDED-1510'²
 HIGH WATER ESTIMATED ELEV-947.0
 DRAINAGE AREA-150 SQ. MI. 2
 ESTIMATED RATE OF FLOW-16,000 C.F.S.



SECTION AT C

Shells for Piles shall be not less than No. 3 gage

FOUNDATION SOUNDINGS
 FOUNDATION DESIGN AND FOUNDATION QUANTITIES ARE BASED ON A STUDY OF SOIL SAMPLING SOUNDINGS MADE AT THE SITE. THIS SOUNDING INFORMATION MAY BE INSPECTED IN THE OFFICE AT THE BUREAU OF BRIDGES IN COLUMBUS OR IN ANA BRIDGED FORM IN THE DIVISION OFFICE, BUT THE STATE ASSUMES NO RESPONSIBILITY FOR THE ACCURACY THEREOF.

PROPOSED STRUCTURE

TYPE: CONTINUOUS STEEL GIRDERS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.
 SPANS: 76'-0" 95'-0" 76'-0" 3 C.B.G.S.
 ROADWAY: 30'-0" 7/8"; 2'-0" SAFETY CURBS.
 LOAD FREQUENCY RATING: CF 2000
 SKEW: 20°-0'-0" L.H.
 SURFACE COURSE: 1" MONOLITHIC CONCRETE.
 APPROACH SLAB: AS SHOWN.
 ALIGNMENT: TANGENT.

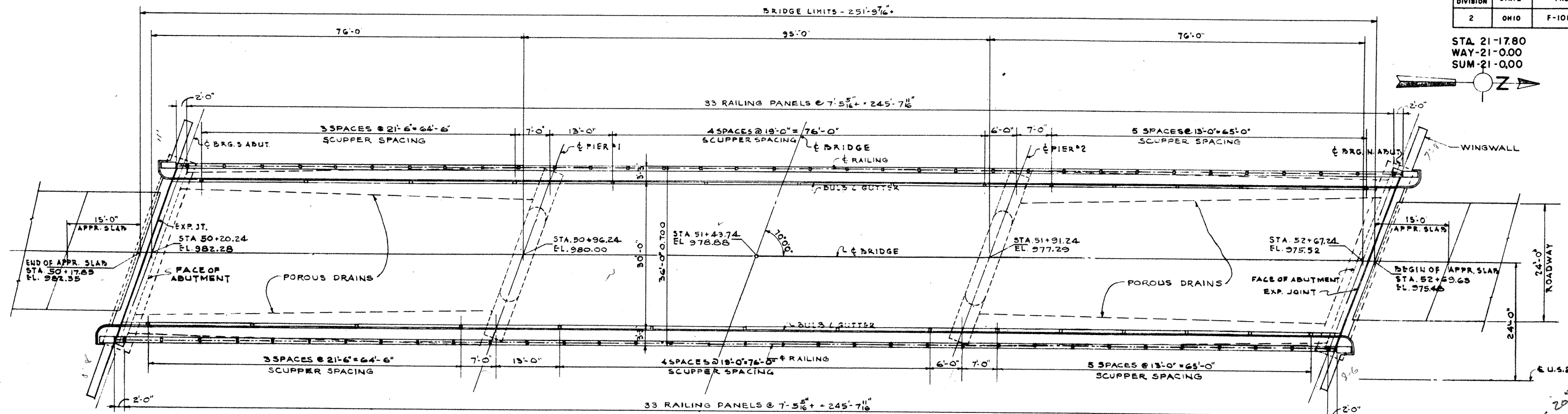
CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

SITE PLAN

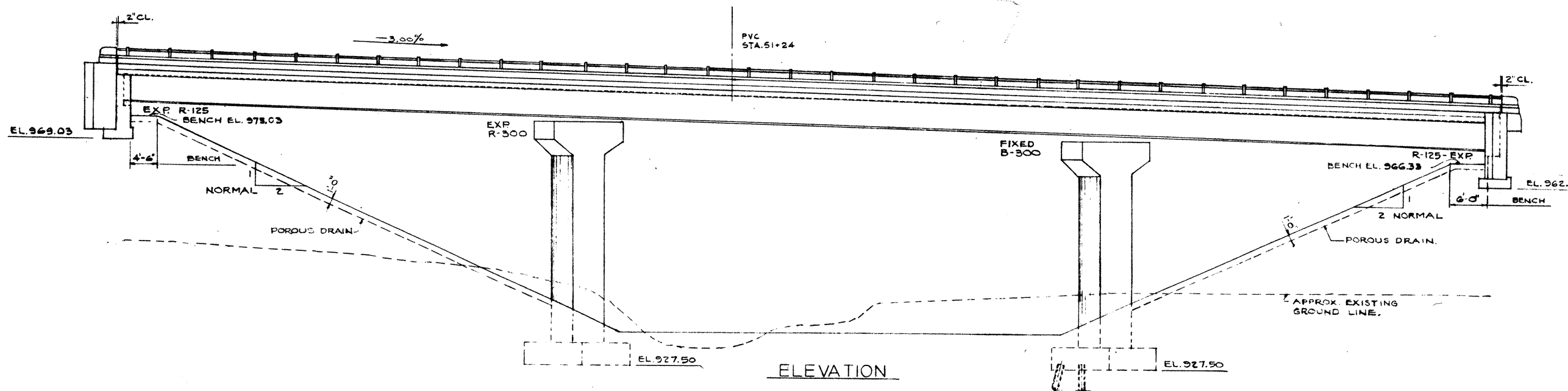
BRIDGE NO. WAY-21-0095
 U.S. 21 OVER CHIPPEWA CREEK
 WAYNE CO.
 SEC. WAY-21
 STA. 51+35

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.E.M.	M.R.		E.S.M.	L.N.R.	6-11-56	

STA. 21-17.80
WAY-21-0.00
SUM-21-0.00



PLAN



ELEVATION

GENERAL NOTES:

REFERENCE: SHALL BE MADE TO STANDARD DRAWING NO. RD-1-55 DATED 3-1-55 AND TO SUPPLEMENTAL SPECIFICATIONS NO. S-114 DATED AUG. 30, 1955.

EXCAVATION QUANTITY INCLUDES THE REMOVAL OF FILL MATERIAL BETWEEN THE TOP OF THE EARTH BENCH AND THE BOTTOM OF THE ABUTMENT.

SPECIFICATIONS: THIS WORK SHALL BE GOVERNED BY THE "DESIGN SPECIFICATIONS FOR HIGHWAY STRUCTURES" OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS INCLUDING REVISIONS THRU FEB. 1, 1955, AND BY THE "CONSTRUCTION AND MATERIAL SPECIFICATIONS" OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS, DATED JANUARY 1, 1955.

FOOTINGS OF SOUTH PIER SHALL EXTEND A MINIMUM OF THREE INCHES INTO SOLID ROCK TO THE ELEVATION SHOWN, WHICHEVER IS LOWER.

FOUNDATION PRESSURE: MAX. SOIL PRESSURE = 3000 LBS. PER SQ. FT. UNDER ABUTMENTS, AND 12,000 LBS. PER SQ. FT. UNDER PIER #1.

WELDING OF STRUCTURAL STEEL SHALL BE CLASS 'A' EXCEPT AS OTHERWISE SHOWN. WELDS SHOWN AS FIELD WELDS MAY, AT THE OPTION OF THE CONTRACTOR, BE MADE IN THE SHOP.

PAINT BOTH SHOP AND FIELD, SHALL BE APPLIED BY BRUSHING. SPRAY APPLICATION WILL NOT BE PERMITTED.

PILES SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 40 TONS. THE LENGTH OF PENETRATION OF EVERY PILE SHALL BE AT LEAST 80% OF THE ESTIMATED AVERAGE LENGTH OF PENETRATION OF THE PILES AS INDICATED ON THE PLANS UNLESS A LESSER PENETRATION IS APPROVED BY THE DIRECTOR.

SURFACE FINISH OF CONCRETE, RAILING END POSTS, RAILING PARAPETS, CURB FACES AND FASCIAS OF DECK SHALL RECEIVE A RUBBED SURFACE FINISH. ALL OTHER EXPOSED SURFACES SHALL BE GOVERNED BY THE PROVISIONS OF ITEM 5-1.

POROUS DRAINS EXTENDING FROM FACE OF ABUTMENT TO EL. 940.00 SHALL BE PLACED ON AND FLUSH WITH ENBANKMENT SLOPES AT ALL FOUR CORNERS OF THE BRIDGE. THE DRAINS SHALL BE 7'-0" WIDE AT THE LOWER END, TAPERING TO 4'-0" WIDE AT FACE OF ABUTMENT AND ONE FT. THICK. THEY SHALL BE CENTERED UNDER THE SCUPPERS.

GRAVEL, IF USED AS THE COARSE AGGREGATE, SHALL BE ACCORDING TO SEC. M-3.03 INSTEAD OF M-3.01 FOR CLASS 'C' CONCRETE, SUPERSTRUCTURE. GRAVEL MEETING THE REQUIREMENTS OF SEC. M-3.03 ALSO MAY BE USED FOR OTHER CONCRETE IN THIS STRUCTURE INCLUDING CONCRETE FOR PYLONS.

SPlice OF REINFORCING STEEL: REINFORCING STEEL SHALL BE SPliced BY LAPPING BARS A MINIMUM OF 30 TIMES THE DIAMETER OF THE SMALLER BAR CONCERNED.

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS 1, 2	SUPER	GENERAL
E-2	LUMPSUM		COFFERDAMS, CRIBS AND SHEETING				
E-2	742	CU. YD.	UNCLASSIFIED EXCAVATION	264	478		
E-3	1650	CU. YD.	CHANNEL EXCAVATION				1650
S-1	316	CU. YD.	CLASS 'C' CONCRETE, SUPERSTRUCTURE & PYLONS	2		314	
S-1	226	CU. YD.	CLASS 'C' CONCRETE, PIERS ABOVE FOOTINGS		226		
S-1	123	CU. YD.	CLASS 'E' CONCRETE, ABUTMENT WALLS	123			
S-1	130	CU. YD.	CLASS 'E' CONCRETE, FOOTINGS	38	92		
S-4	118,101	LBS.	REINFORCING STEEL	8,144	27,390	82,321	246
S-7	327,500	LBS.	STRUCTURAL STEEL			327,500	
S-8	327,500	LBS.	FIELD PAINTING OF STRUCTURAL STEEL			327,500	
S-14	498	LIN. FT.	RAILING (ALUMINUM RAIL & SUPPORTS & CONC. PARAPET)				498
S-16	LUMPSUM		FIRST TEST PILE				
S-18	1,050	LIN. FT.	CAST IN PLACE CONCRETE PILES, 16" No. 3 gage		1,050		
S-29	74	CU. YD.	POROUS DRAINS ON EMBANKMENT SLOPES				74
S-29	32	CU. YD.	POROUS BACKFILL				32

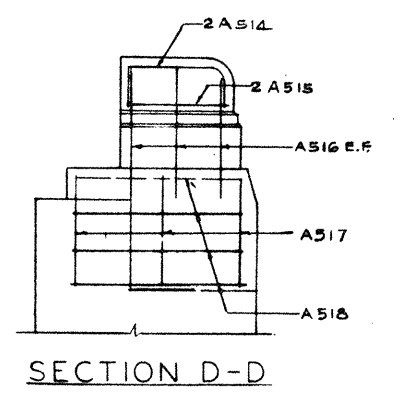
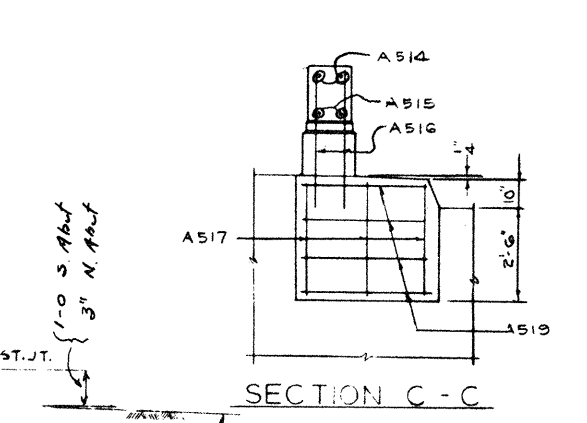
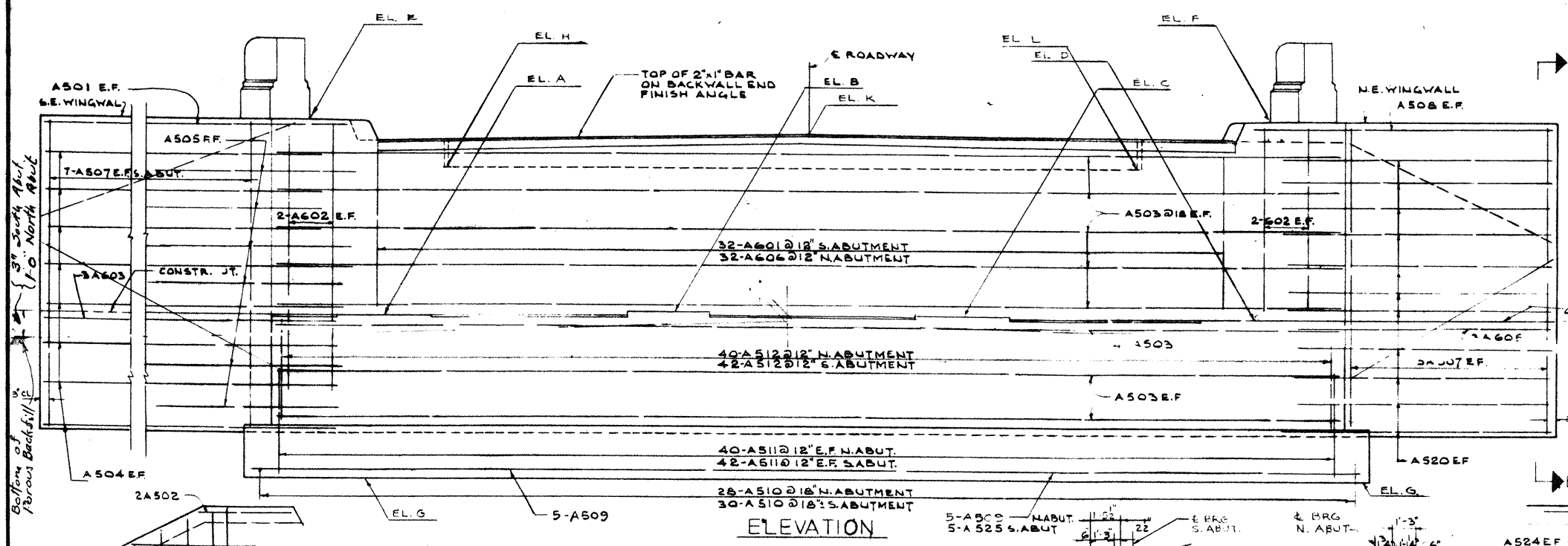
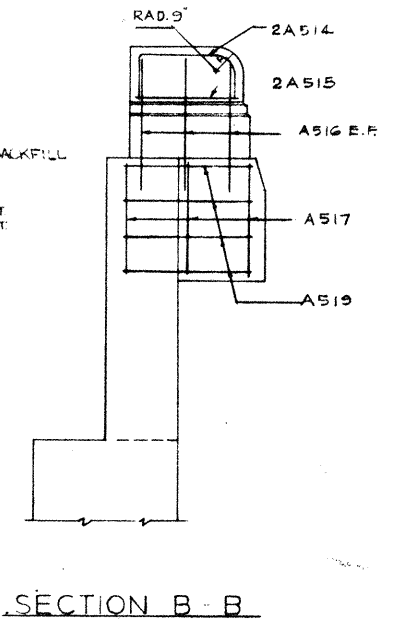
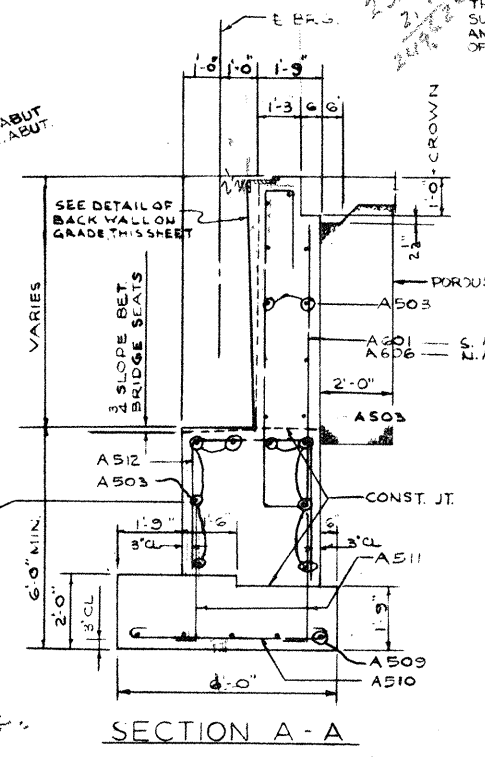
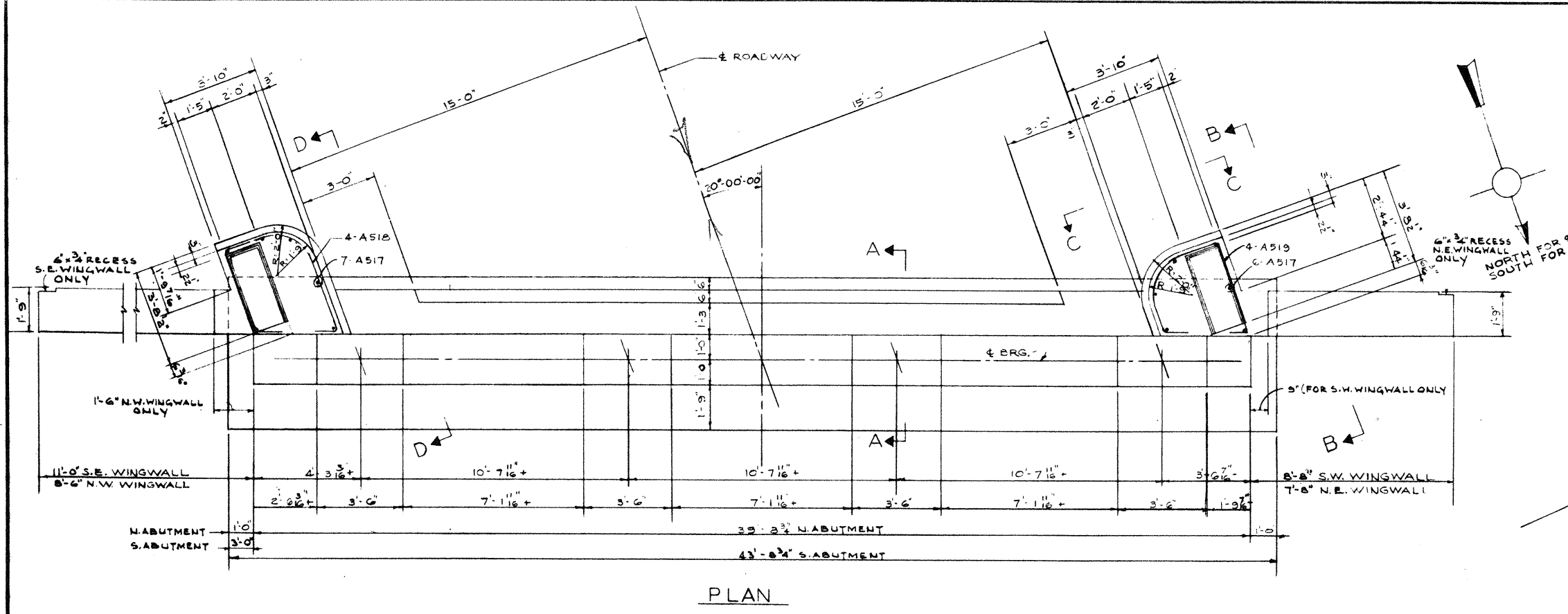
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

**GENERAL PLAN & ELEVATION
NOTES & ESTIMATED QUANTITIES**
BRIDGE NO. WAY-21-0095
U.S. 21 OVER CHIPPEWA CREEK
WAYNE CO. STA. 51+35
SEC. WAY-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	A.L.B. F.S.		E.S.M.	L.N.R.	6-11-56	

STA. 21-17.80
WAY-21-000
SUM-21-000

NOTE:
POROUS BACKFILL SHALL EXTEND UPWARD TO THE APPROACH SLAB AND TO THE SURFACE OF THE EARTH SHOULDERS, AND OUTWARD TO THE SURFACE OF THE EMBANKMENT SLOPE.



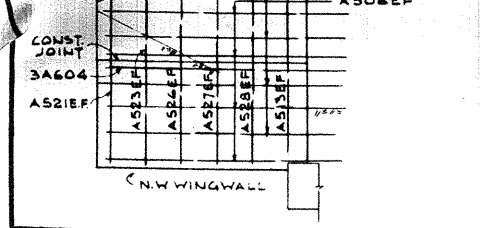
NOTES:
E.F. DENOTES "EACH FACE"
N.F. DENOTES "NEAR FACE"
R.F. DENOTES "FAR FACE"

ALL REINFORCING STEEL SHALL CLEAR FACE OF CONCRETE 2" UNLESS OTHERWISE SHOWN.

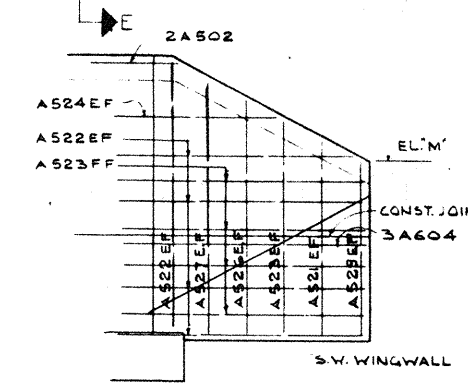
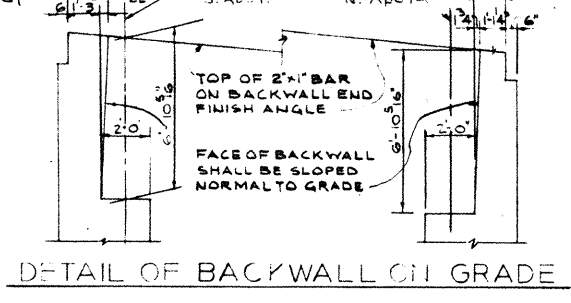
REINFORCING BARS IN BRIDGE SEATS TO BE PLACED TO CLEAR ANCHOR BOLTS.

CONCRETE IN PYLON TO BE INCLUDED IN ITEM S-1 CLASS 'C' CONCRETE SUPERSTRUCTURE.

THE EMBANKMENT SHALL BE PLACED AND COMPACTED TO THE HEIGHT OF THE EARTH BENCH, AFTER WHICH EXCAVATION SHALL BE MADE FOR THE ABUTMENT.



ABUTMENT	A	B	C	D	E	F	G	H	K	L	M
SOUTH	975.34	975.40	975.29	975.03	982.27	981.90	963.03	981.29	982.31	981.03	977.67
NORTH	968.33	968.55	968.33	968.56	975.37	975.64	962.33	974.25	975.50	974.43	971.75



CHARLES E. DE LEW
CONSULTING ENGINEER
CHICAGO ILLINOIS

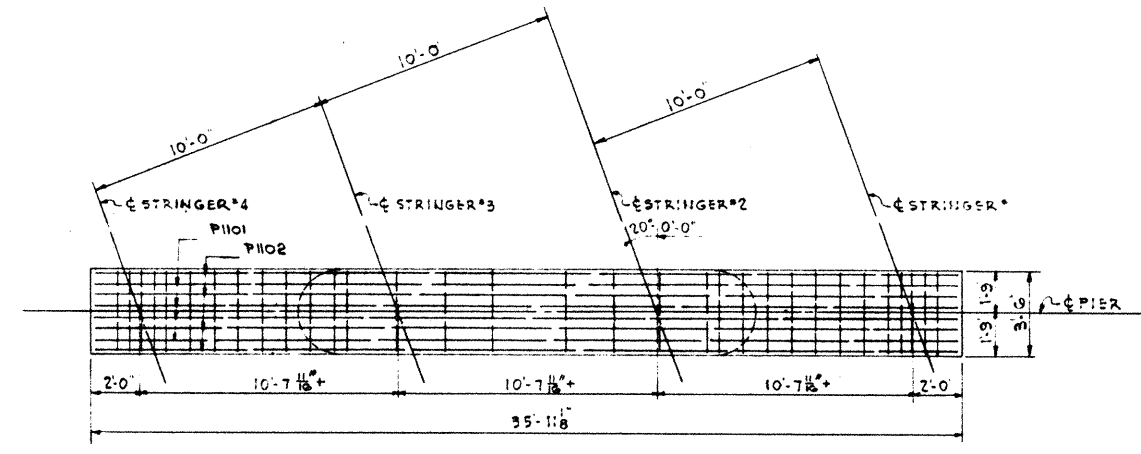
ABUTMENT DETAILS
BRIDGE NO. WAY-21-0095
U.S. 21 OVER CHIPPEWA CREEK
WAYNE CO. STA. 51+35
SEC. WAY-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JAE	FS		E.S.M.	L.N.R.	6-11-56	

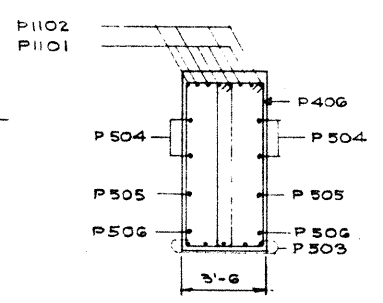
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	298 329

STA. 21-17.80
WAY-21-0.00
SUM-21-0.00

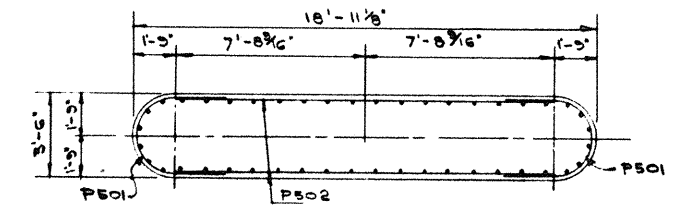
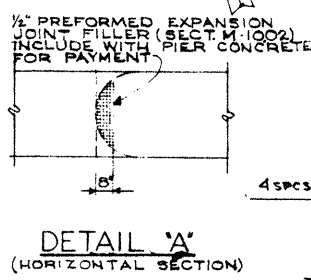
NOTE:
ALL REINFORCING STEEL SHALL CLEAR FACE OF CONCRETE 2" UNLESS OTHERWISE SHOWN. REINFORCING BARS IN BRIDGE SEATS TO BE PLACED TO CLEAR ANCHOR BOLTS.



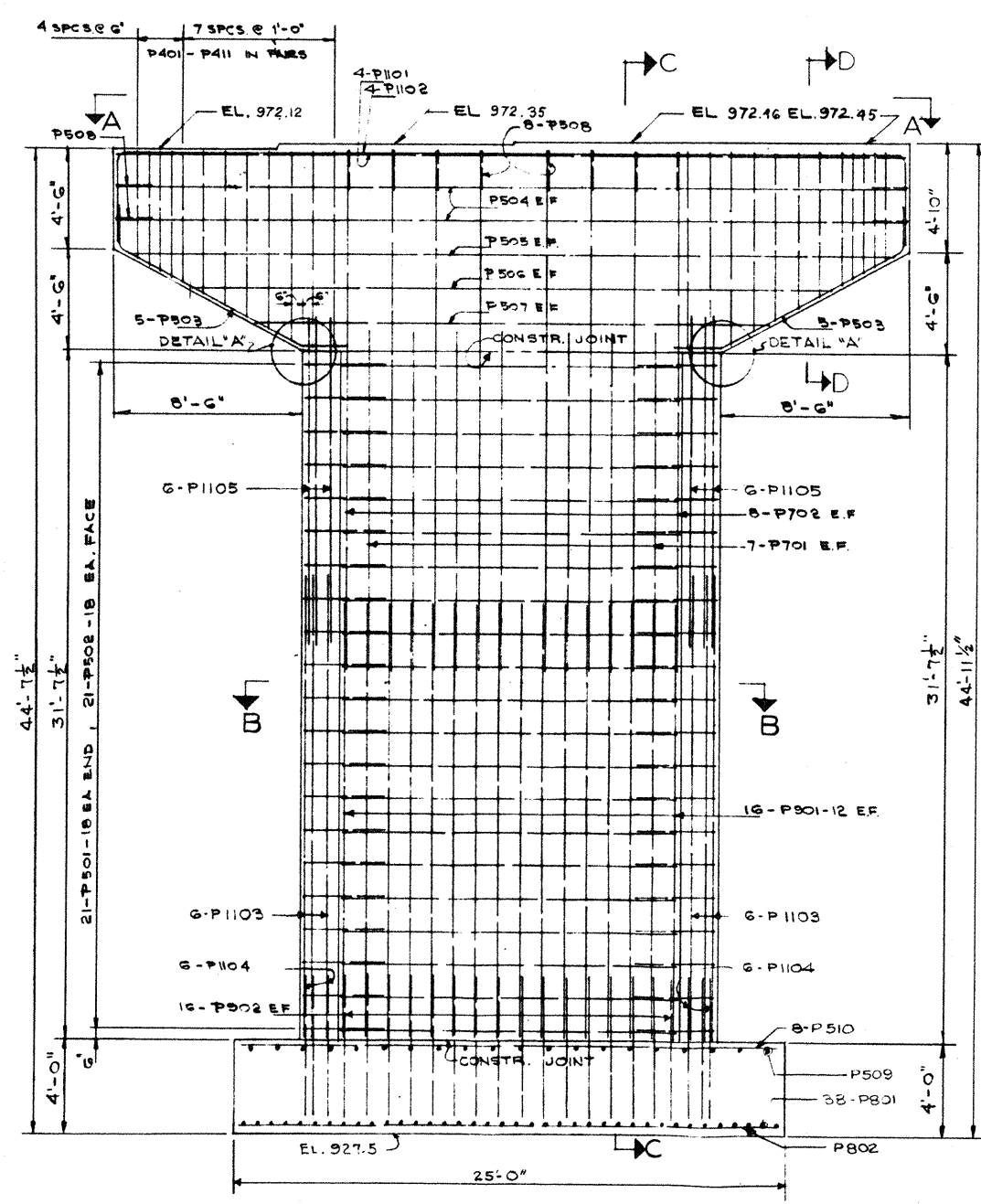
VIEW A-A



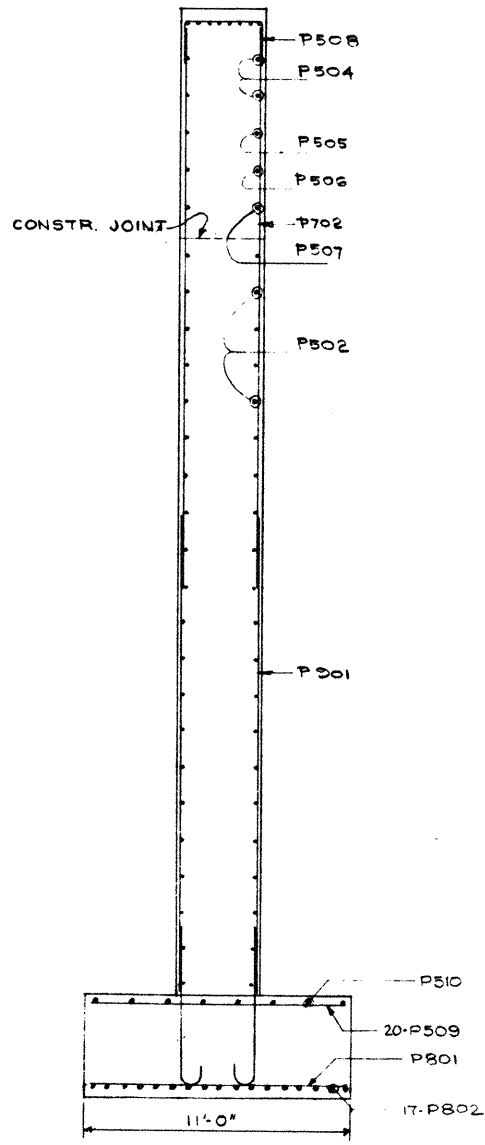
SECTION D-D



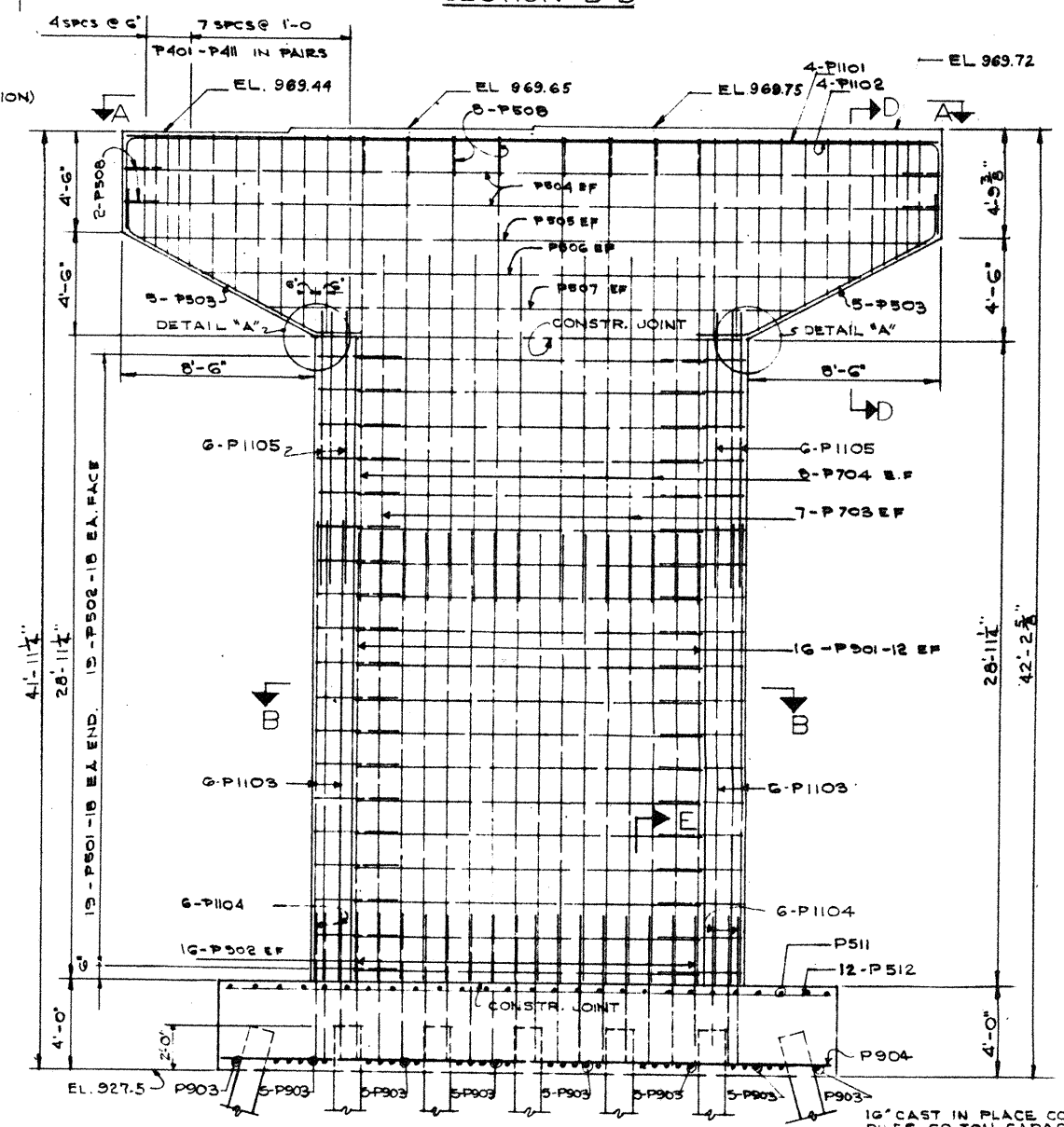
SECTION B-B



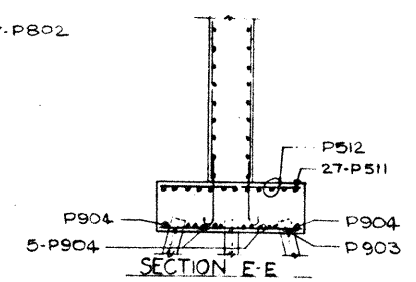
ELEVATION PIER #1



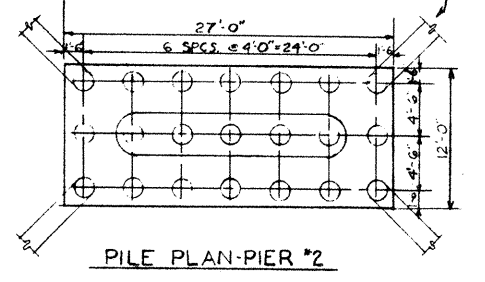
SECTION C-C



ELEVATION PIER #2



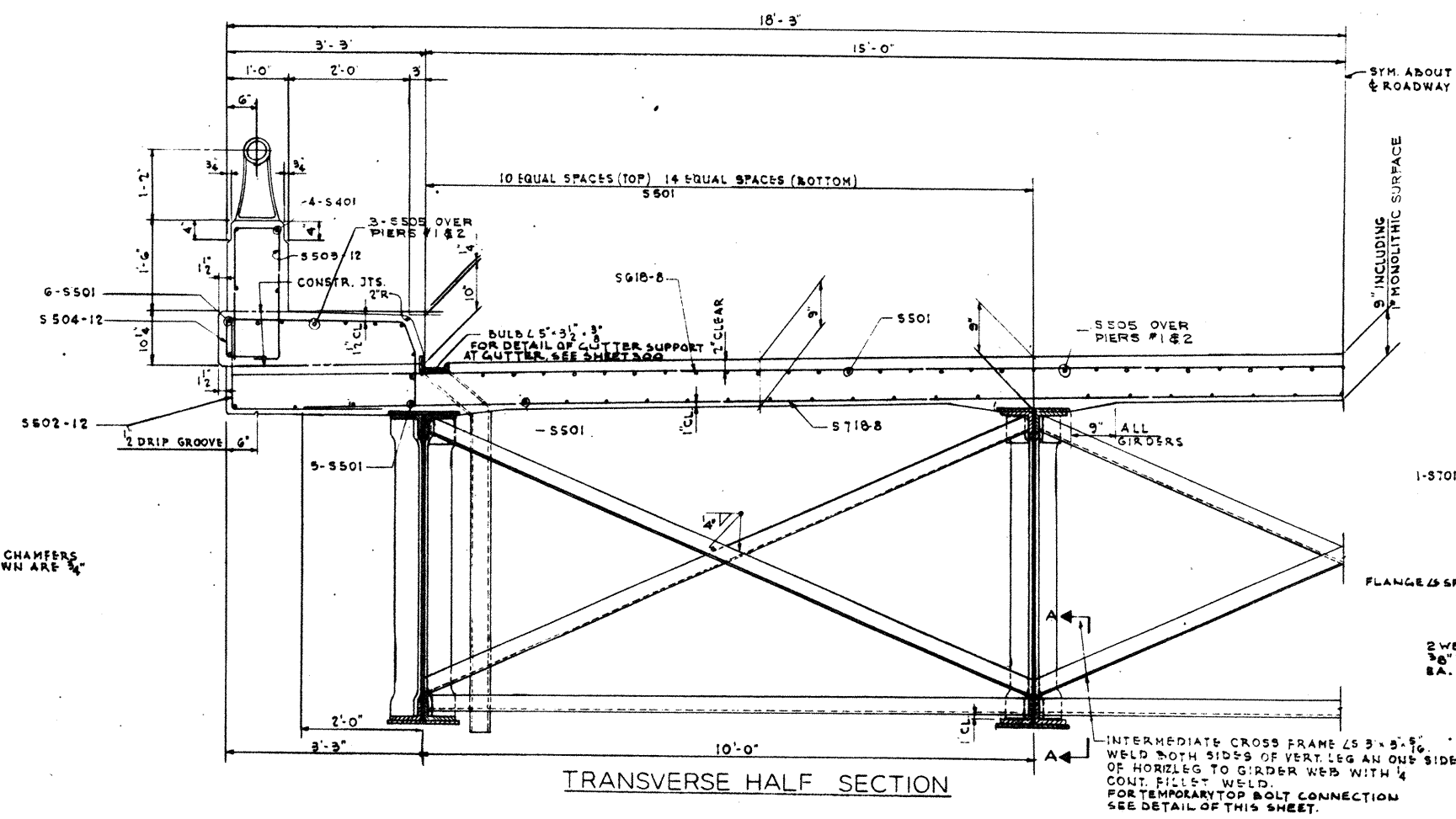
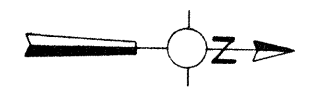
SECTION E-E



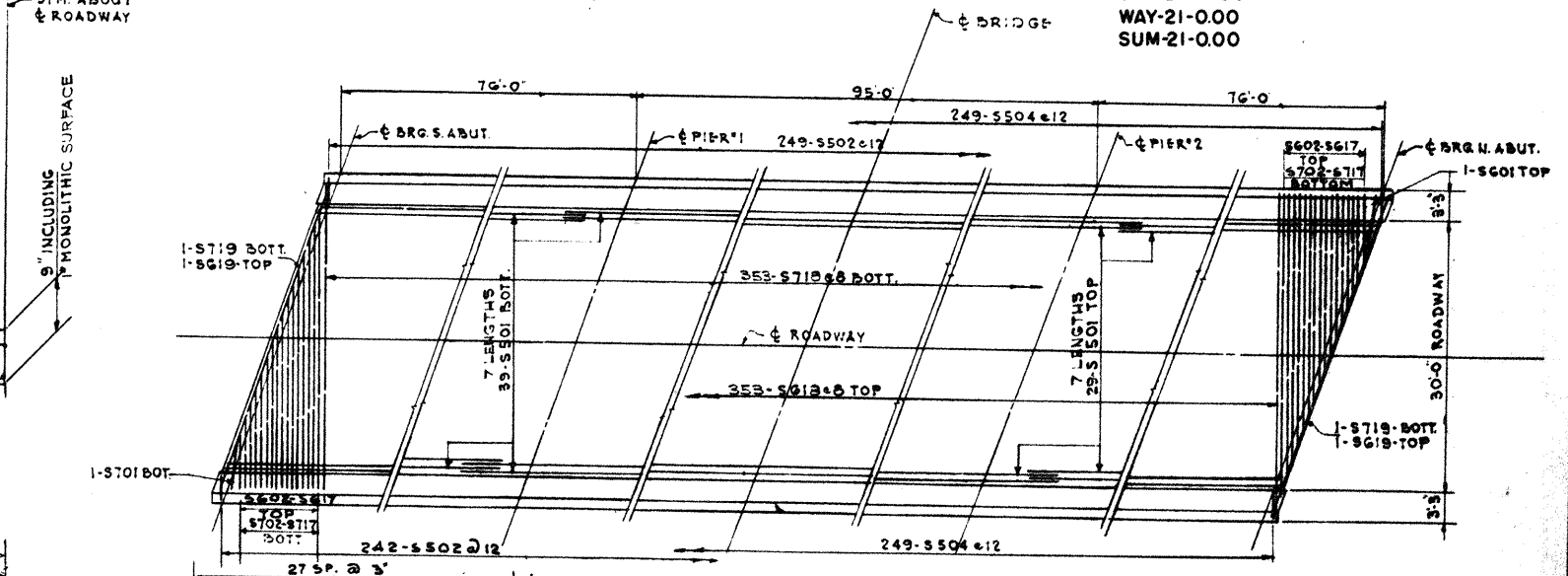
PILE PLAN-PIER #2

CHARLES E. DE LEUW CONSULTING ENGINEER CHICAGO ILLINOIS						
DETAILS OF PIERS NO. 1, & 2						
BRIDGE NO. WAY21-0095						
U.S. 21 OVER CHIPPEWA CREEK						
WAYNE CO. STA. 51+35						
SEC. WAY-21						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION
J.A.E.	AL.B. G.S.		E.S.M.	L.N.R.	6-11-56	

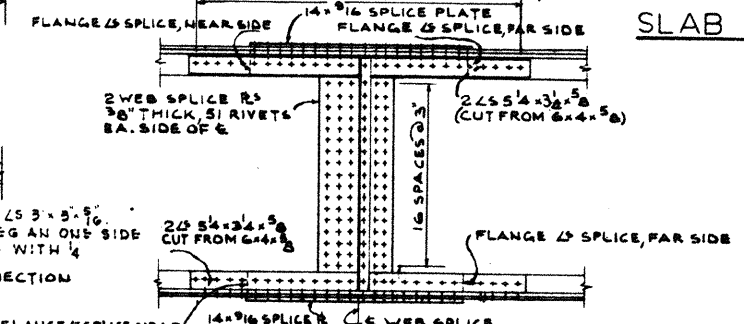
STA: 21-17.80
WAY: 21-0.00
SUM: 21-0.00



NOTE:
ALL CHAMFERS
SHOWN ARE 1/4"



SLAB REINFORCING PLAN



FIELD SPICE DETAIL

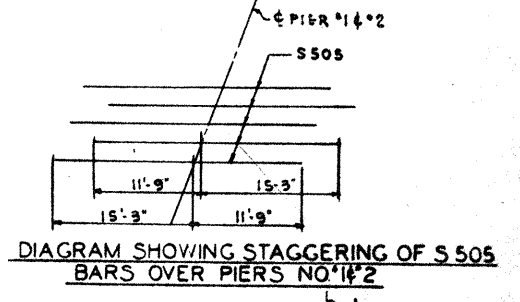
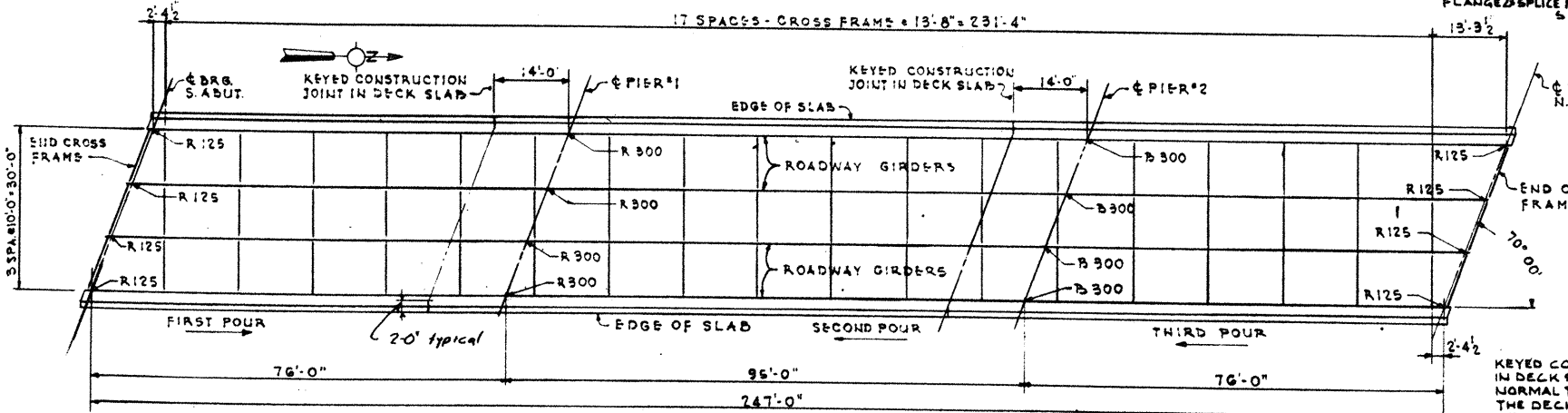
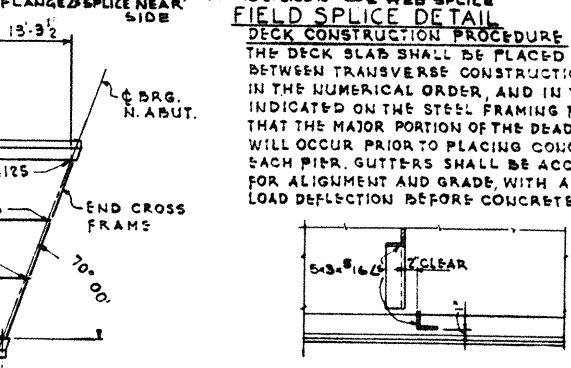


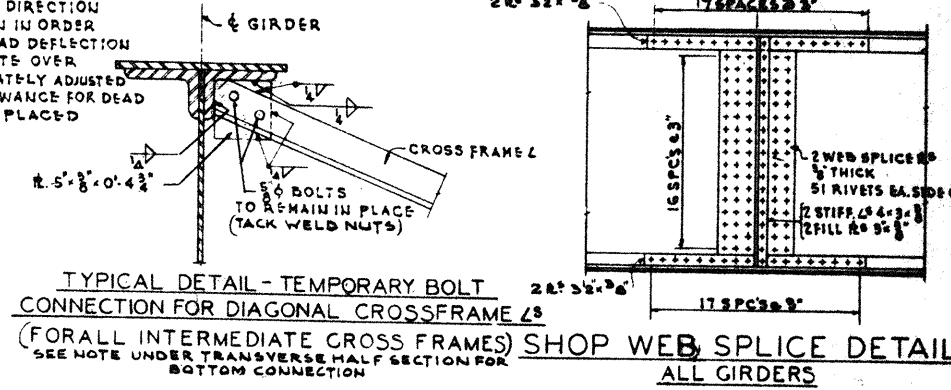
DIAGRAM SHOWING STAGGERING OF S 505 BARS OVER PIERS NO. 1 & 2



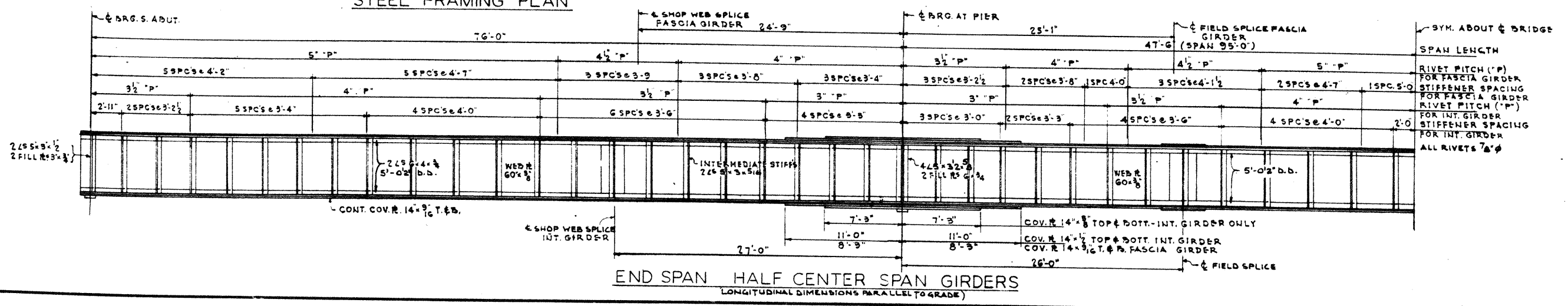
STEEL FRAMING PLAN



SECTION A-A



TYPICAL DETAIL - TEMPORARY BOLT CONNECTION FOR DIAGONAL CROSSFRAME (FOR ALL INTERMEDIATE CROSS FRAMES) SHOP WEB SPICE DETAIL ALL GIRDERS



END SPAN HALF CENTER SPAN GIRDERS
LONGITUDINAL DIMENSIONS PARALLEL TO GRADE

	INT. GIRDERS				FASCIA GIRDERS			
	END SPANS	MID SPANS	END SPANS	MID SPANS	END SPANS	MID SPANS	END SPANS	MID SPANS
DEFLECTION DUE TO WEIGHT OF STEEL	0	0	0	0	0	0	0	0
DEFLECTION DUE TO REMAINING D.L.	1/4	1/4	1/8	1/2	1/4	1/4	1/8	1/2

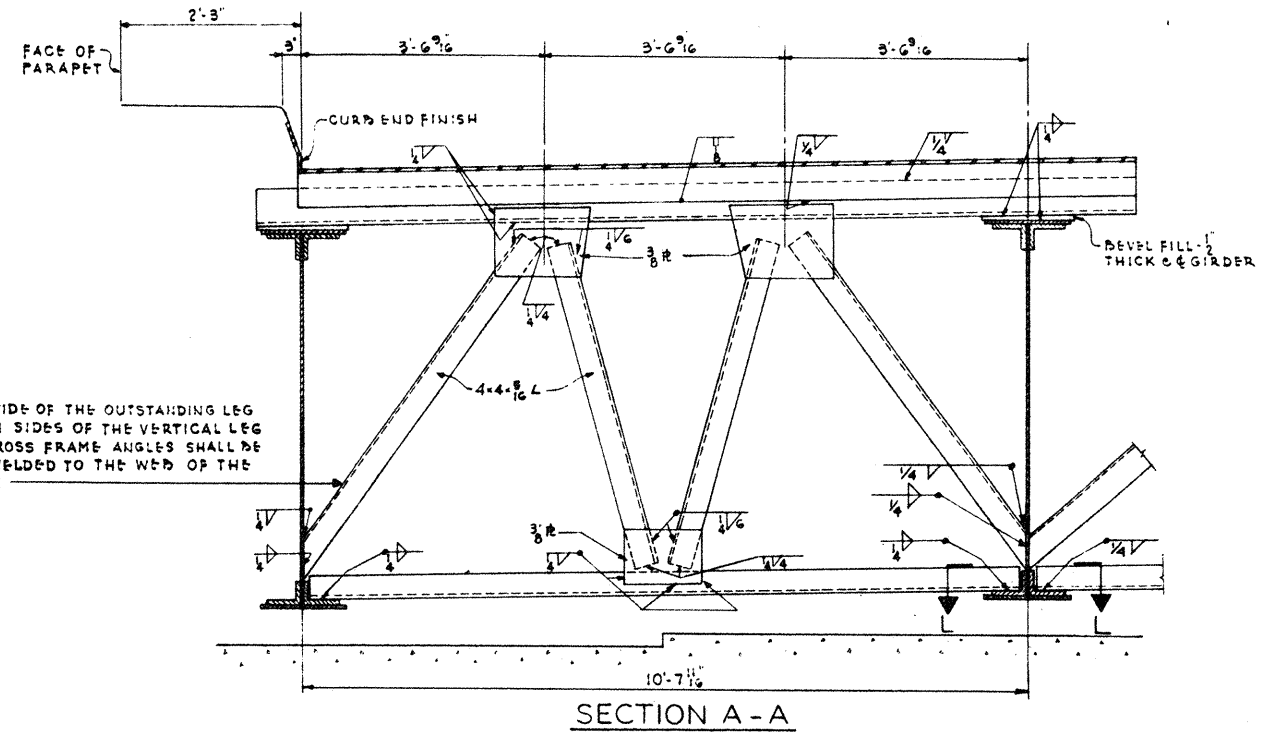
NO CAMBERING OF GIRDERS REQUIRED

CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

SUPERSTRUCTURE DETAILS
BRIDGE NO. WAY-21-0095
U.S. 21 OVER CHIPPEWA CREEK
WAYNE CO. STA. 51+35
SEC. WAY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	AL.B.		E.S.M.	L.N.R.	6-11-56	

STA. 21-17.80
WAY-21-0.00
SUM-21-0.00

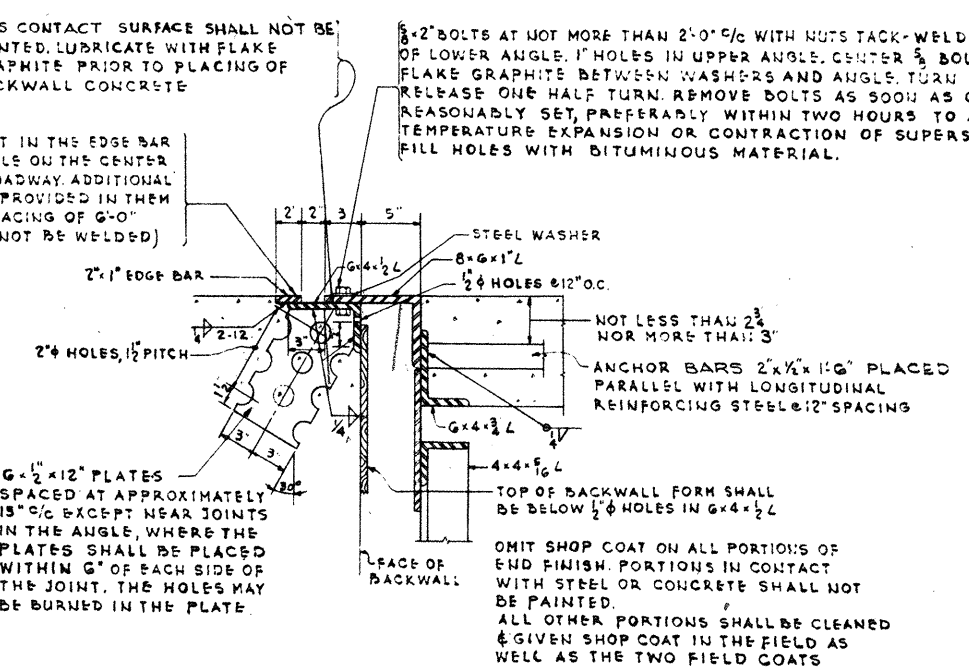


NOTE
THE TOP SIDE OF THE OUTSTANDING LEG AND BOTH SIDES OF THE VERTICAL LEG OF THE CROSS FRAME ANGLES SHALL BE FILLET WELDED TO THE WEB OF THE GIRDERS

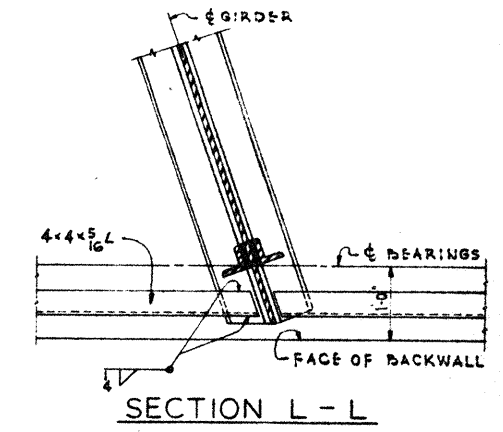
SECTION A-A

THIS CONTACT SURFACE SHALL NOT BE PAINTED, LUBRICATE WITH FLAKE GRAPHITE PRIOR TO PLACING OF BACKWALL CONCRETE

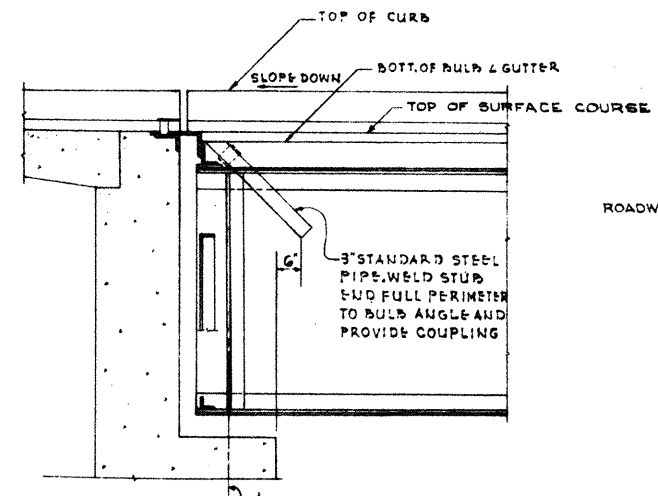
PROVIDE A JOINT IN THE EDGE BAR AND IN THE ANGLE ON THE CENTER LINE OF THE ROADWAY. ADDITIONAL JOINTS MAY BE PROVIDED IN THEM AT MINIMUM SPACING OF 6'-0" (JOINTS SHALL NOT BE WELDED)



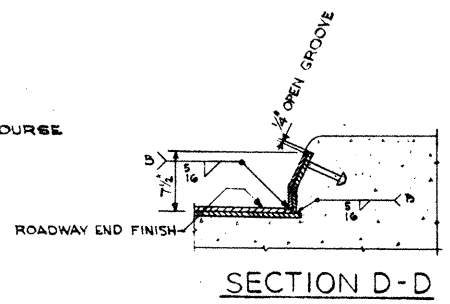
SECTION B-B



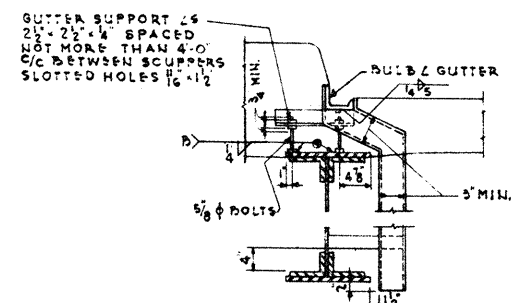
SECTION L-L



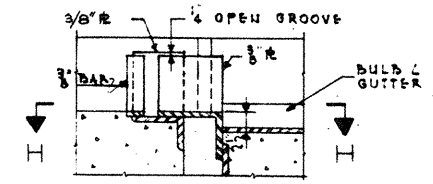
TYPICAL SECTION FOR GRADE SLOPING DOWN TO END FINISH



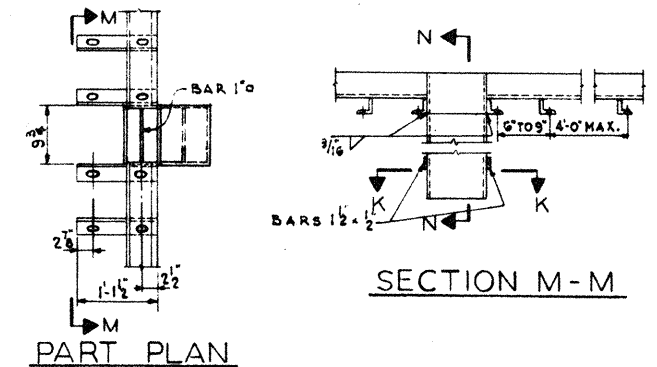
SECTION D-D



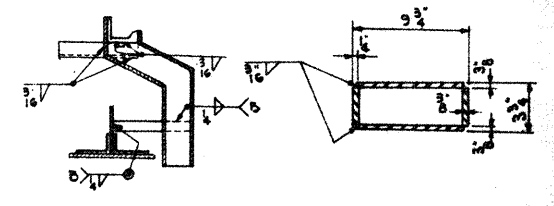
GUTTER SUPPORT AND SCUPPER



SECTION E-E

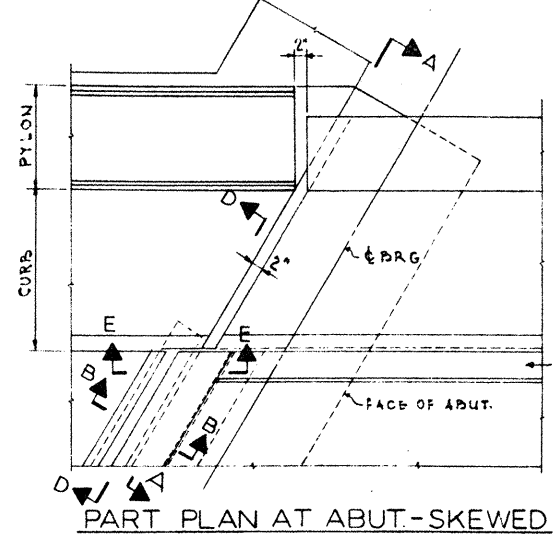


PART PLAN

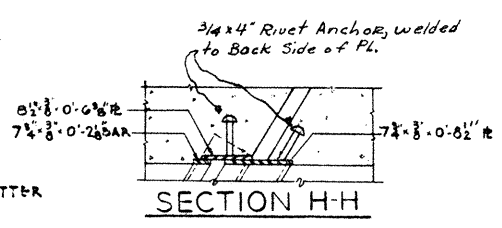


SECTION N-N

SECTION K-K



PART PLAN AT ABUT-SKEWED



SECTION H-H

CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

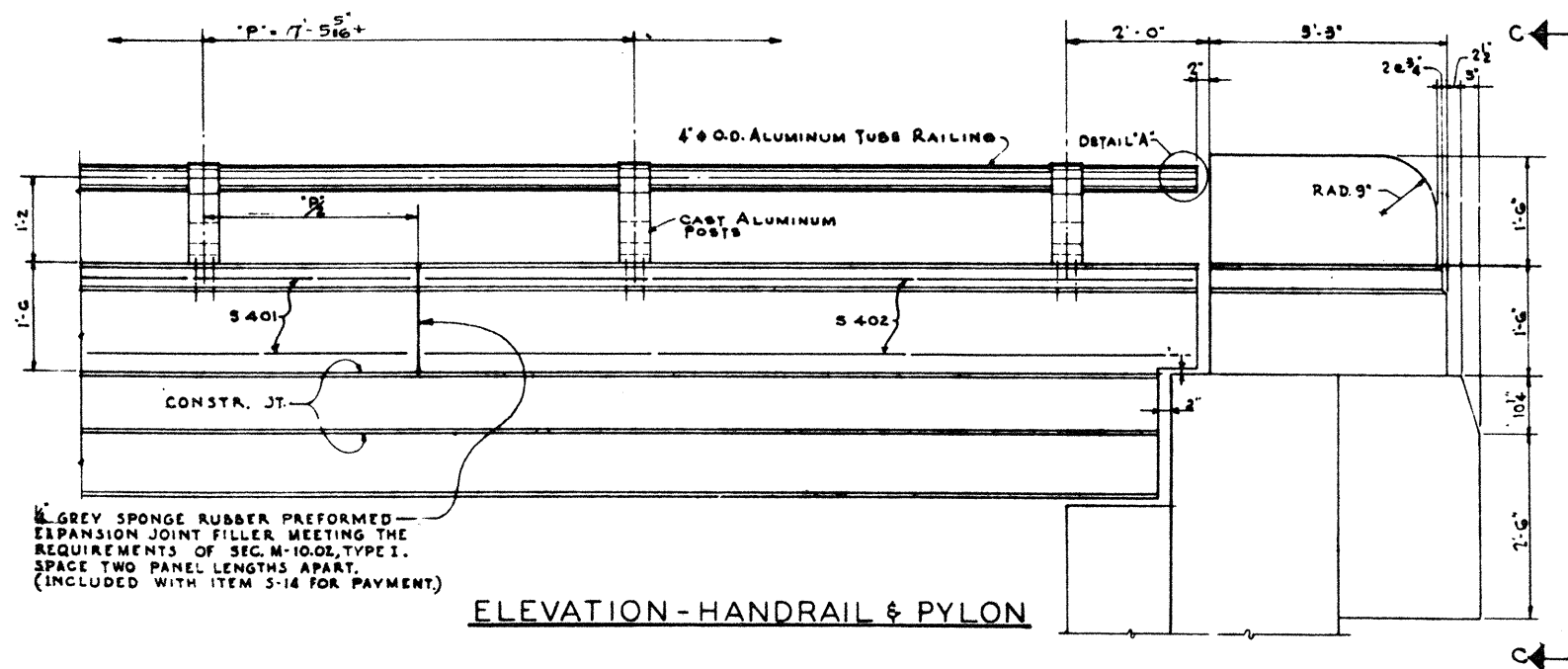
SUPERSTRUCTURE DETAILS
BRIDGE NO. WAY21-0095
U.S. 21 OVER CHIPPEWA CREEK
WAYNE CO. STA. 51+35
SEC. WAY-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	ALB.		E.S.M.	L.N.R.	6-11-56	

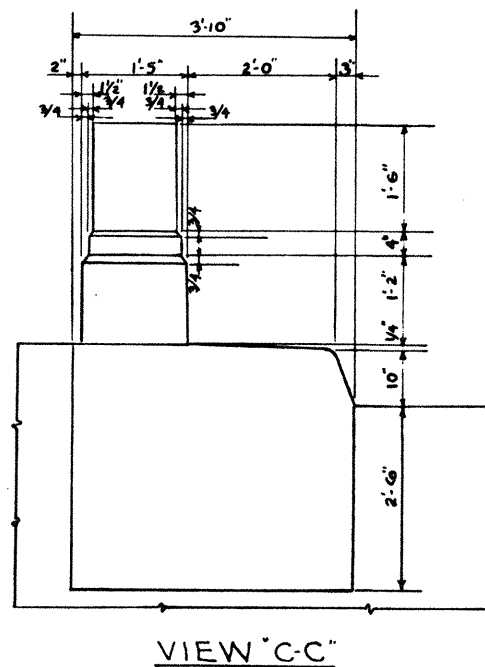
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

301
329

STA. -21-17.80
WAY -21-000
SUM -21-000

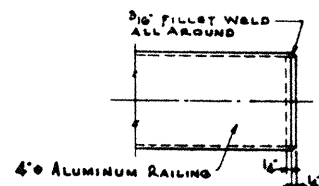


ELEVATION - HANDRAIL & PYLON

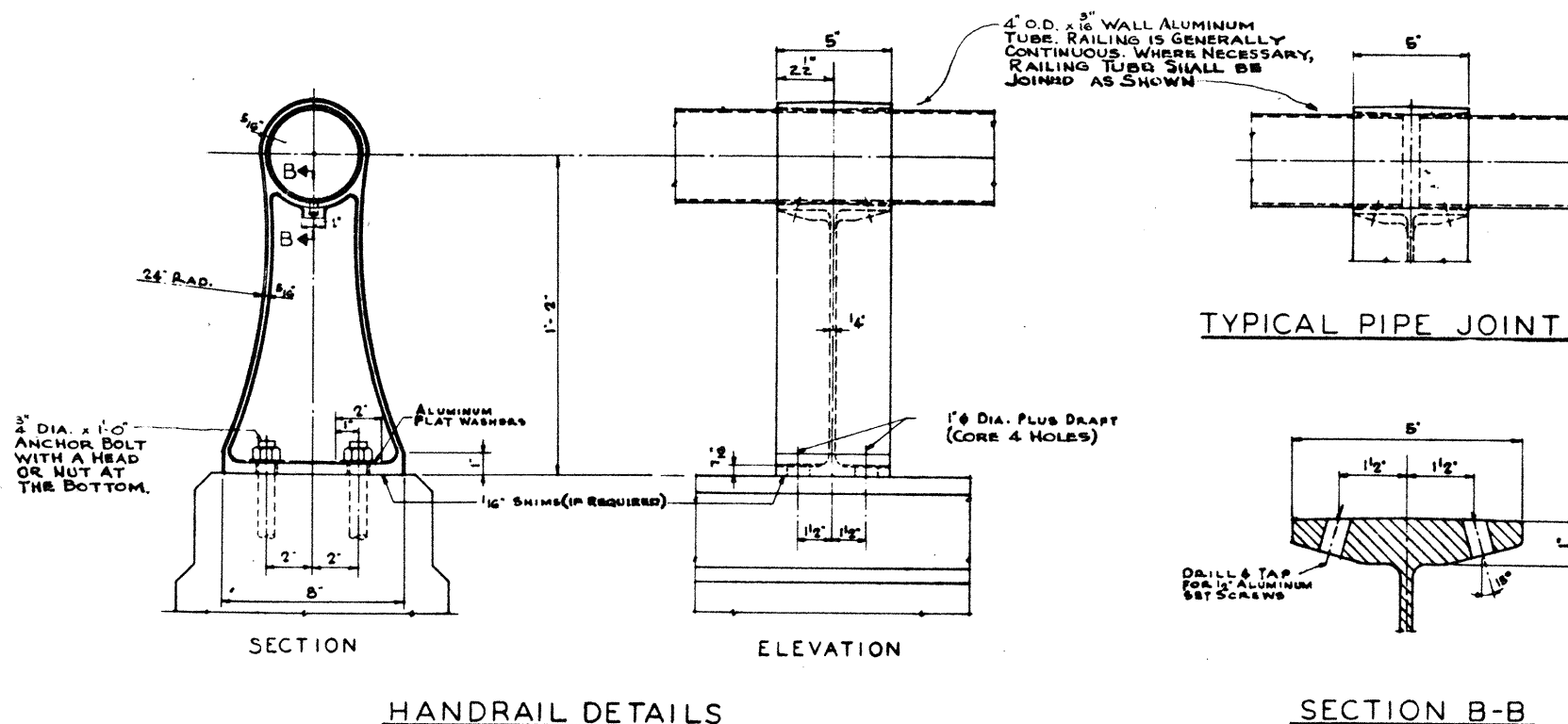


VIEW "C-C"

1/2" GREY SPONGE RUBBER PREFORMED EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF SEC. M-10.02, TYPE I. SPACE TWO PANEL LENGTHS APART. (INCLUDED WITH ITEM 5-14 FOR PAYMENT.)



DETAIL A



HANDRAIL DETAILS

TYPICAL PIPE JOINT

SECTION B-B

NOTE:
FOR FURTHER DETAILS SEE SUPPLEMENTAL SPECIFICATIONS NO. S-114 ALUMINUM FOR BRIDGE RAILING, DATED AUGUST 30, 1955

CHARLES E. DE LEUW CONSULTING ENGINEER CHICAGO ILLINOIS						
HANDRAIL AND PYLON DETAILS						
BRIDGE NO. WAY-21-0095						
U.S. 21 OVER CHIPPEWA CREEK						
WAYNE CO.				STA. 51+35		
SEC. WAY-21						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION
M.C.	R.N.	R.N. J.L.	ESM.	L.N.R.	6-11-56	

STA-21-17.80
WAY- 21-000
SUM- 21-000

SUPERSTRUCTURE				PIERS #1 AND #2				SOUTH ABUTMENT				NORTH ABUTMENT							
MARK NO.	LENGTH	WEIGHT	SHP.	MARK NO.	LENGTH	WEIGHT	SHP.	MARK NO.	LENGTH	WEIGHT	SHP.	MARK NO.	LENGTH	WEIGHT	SHP.				
5701	2	5'-3"	22	S	P1101	8	35'-7"	1,510	S	A601	32	19'-10"	953	B	A602	8	8'-10"	106	S
5702	2	5'-8"	23	S	P1102	8	43'-7"	1,850	B	A603	3	12'-8"	57	S	A604	3	10'-4"	47	S
5703	2	7'-4"	30	S	P1103	24	20'-0"	2,550	S	A501	2	13'-6"	28	S	A502	2	4'-0"	8	S
5704	2	9'-2"	38	S	P1104	24	8'-0"	1,057	B	A503	18	39'-3"	738	S	A504	16	12'-5"	207	S
5705	2	11'-0"	45	S	P1105	24	18'-0"	2,398	S	A505	6	5'-0"	31	S	A506	12	9'-0"	123	S
5706	2	12'-10"	53	S	P901	64	20'-0"	4,350	S	A507	14	11'-0"	161	S	A510	30	6'-0"	212	B
5707	2	14'-8"	60	S	P902	64	8'-0"	1,739	B	A511	84	4'-3"	378	B	A512	42	11'-2"	490	B
5708	2	16'-6"	68	S	P903	32	11'-6"	1,252	S	A513	2	10'-9"	29	S	A514	4	6'-3"	26	B
5709	2	18'-4"	75	S	P904	12	26'-6"	1,082	S	A515	4	2'-11"	12	S	A516	12	4'-9"	60	S
5710	2	20'-2"	83	S	P801	36	10'-0"	1,065	S	A517	13	3'-0"	41	S	A518	4	12'-1"	176	B
5711	2	22'-0"	90	S	P802	17	24'-6"	1,112	S	A519	4	10'-6"	44	B	A519	4	10'-6"	44	B
5712	2	23'-10"	98	S	P701	14	15'-11"	456	S	A521	2	7'-3"	15	S	A520	22	9'-0"	207	S
5713	2	25'-8"	105	S	P702	18	22'-9"	745	S	A522	12	10'-0"	125	S	A521	2	7'-3"	15	S
5714	2	27'-6"	112	S	P703	14	13'-3"	380	S	A523	2	9'-2"	17	S	A523	2	9'-2"	17	S
5715	2	29'-4"	120	S	P704	16	20'-0"	656	S	A524	2	5'-6"	12	S	A524	2	5'-6"	12	S
5716	2	31'-2"	128	S	P501	80	9'-0"	750	B	A525	10	23'-9"	248	S	A525	10	23'-9"	248	S
5717	2	33'-0"	134	S	P502	80	15'-5"	1,287	S	A526	2	8'-11"	19	S	A526	2	8'-11"	19	S
5718	353	34'-0"	24,532	S	P503	20	13'-3"	285	B	A527	2	9'-9"	20	S	A527	2	9'-9"	20	S
5719	2	38'-3"	157	S	P504	8	35'-7"	297	S	A528	2	10'-7"	22	S	A528	2	10'-7"	22	S
					P505	4	34'-11"	142	S	A529	2	6'-5"	14	S	A529	2	6'-5"	14	S
					P506	4	29'-3"	122	S										
					P507	4	23'-7"	99	S										
					P508	24	6'-2"	154	B										
					P509	20	10'-6"	219	S										
					P510	8	24'-6"	206	S										
					P511	27	11'-6"	296	S										
					P512	12	26'-6"	331	S										
					P401	8	14'-2"	76	B										
					P402	8	14'-10"	79	B										
					P403	8	15'-4"	82	B										
					P404	8	15'-10"	85	B										
					P405	8	16'-4"	87	B										
					P406	8	17'-6"	94	B										
					P407	8	18'-6"	99	B										
					P408	8	19'-0"	104	B										
					P409	8	20'-8"	111	B										
					P410	8	21'-8"	116	B										
					P411	16	22'-4"	239	B										
								27,562											
5501	630	37'-0"	24,320	S															
5502	498	3'-11"	2,036	B															
5503	498	5'-3"	2,726	B															
5504	498	6'-1"	3,165	B															
5505	68	27'-0"	1,915	S															
5401	240	14'-6"	2,325	S															
5402	16	12'-6"	134	S															
			82,788																

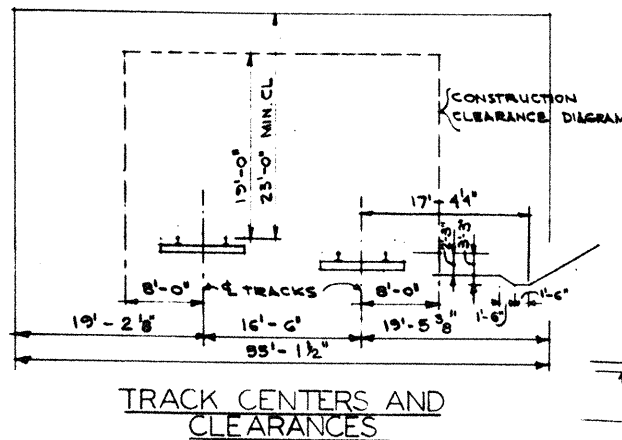
NOTE:
BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE: A 700 IS A NO. 7 BAR AND A 1014 IS A NUMBER 10 SIZE.

DESIGNED							DRAWN							TRACED							CHECKED							REVIEWED							DATE							REVISED						
							J.G.N.														E.S.M.							L.N.R.							6-11-56													

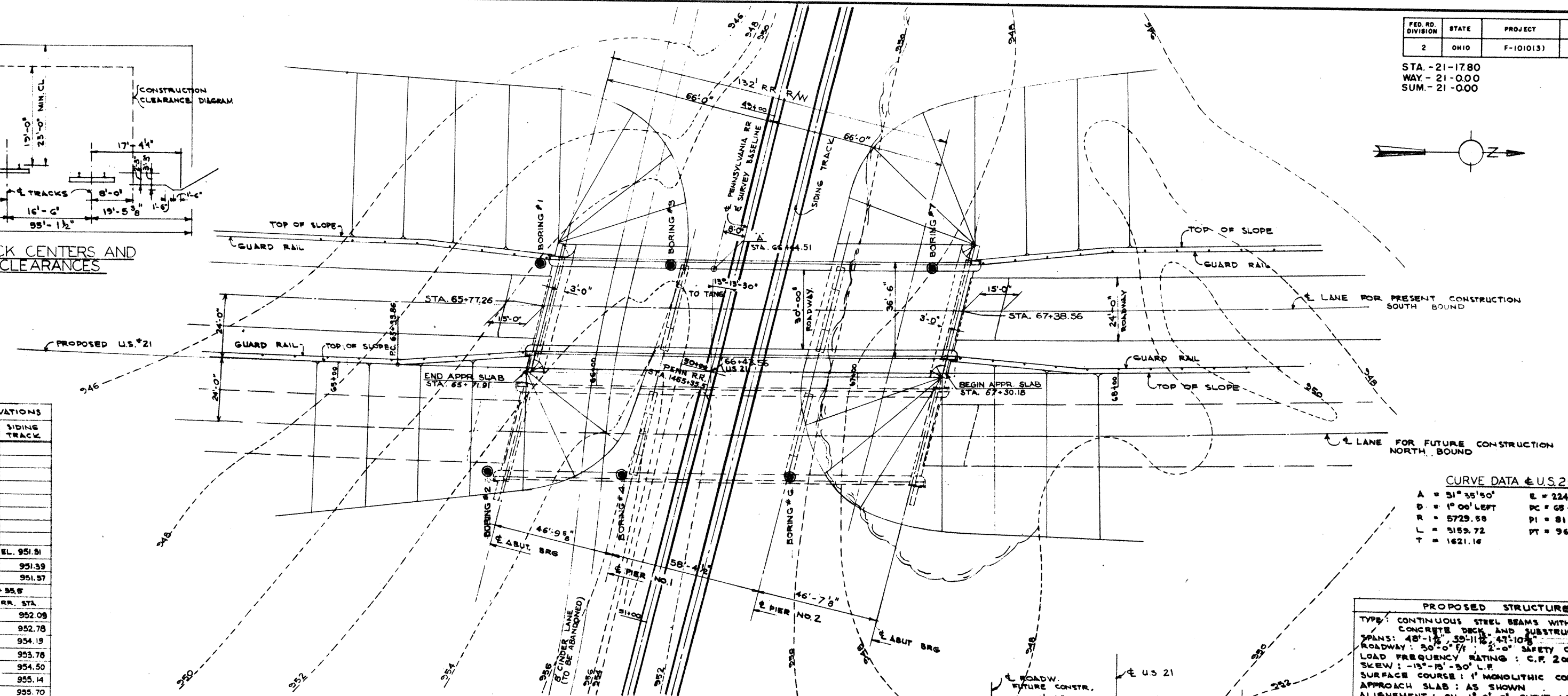
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

REINFORCING STEEL LIST
BRIDGE NO. WAY-21-0095
U.S. 21 OVER CHIPPEWA CREEK
WAYNE CO. STA. 51+36
SEC. WAY-21

STA. -21-1780
WAY. -21-0.00
SUM. -21-0.00



TOP OF RAIL-ELEVATIONS		
SURVEY STATIONS	MAIN LINE TRACK	SIDING TRACK
40+00	EL. 951.59	
41+00	951.57	
42+00	951.48	
43+00	951.37	
44+00	951.23	
45+00	951.22	
46+00	951.27	
47+00	951.68	
48+00	952.06	EL. 951.91
49+00	952.43	951.39
50+00	952.90	951.57
* = U.S. 21 = 1465 + 35.8'		
PENN. RR. STA.		
51+00	953.38	952.08
52+00	953.85	952.78
53+00	954.45	954.19
54+00	954.98	953.78
55+00	955.43	954.50
56+00	955.97	955.14
57+00	956.53	955.70
58+00	957.09	956.27
59+00	957.69	956.85
60+00	958.05	957.41



CURVE DATA @ U.S. 21

A	= 31° 35' 50"	E	= 224.95
D	= 1° 00' LEFT	PC	= 68 + 33.86
R	= 5729.58	PI	= 81 + 55.02
L	= 3159.72	PT	= 96 + 53.58
T	= 1621.16		

PROPOSED STRUCTURE

TYPE: CONTINUOUS STEEL BEAMS WITH REINFR. CONCRETE DECK AND SUBSTRUCTURE

SPANS: 48'-1 1/2", 30'-11 1/2", 47'-10 1/8"

ROADWAY: 30'-0" @ 2% ; 2'-0" SAFETY CURBS

LOAD FREQUENCY RATING: C.F. 2000

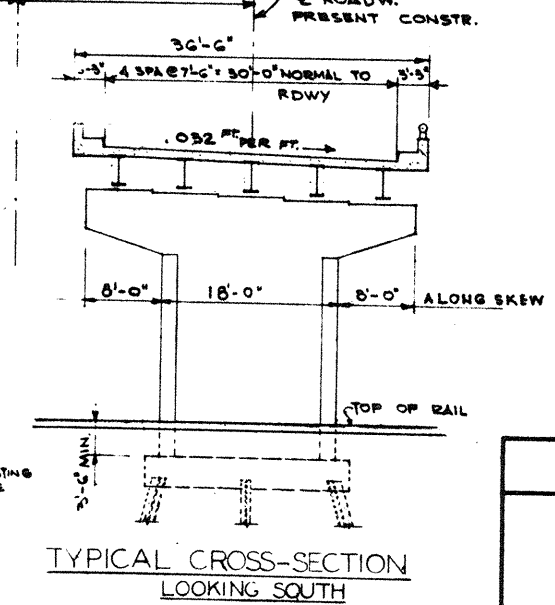
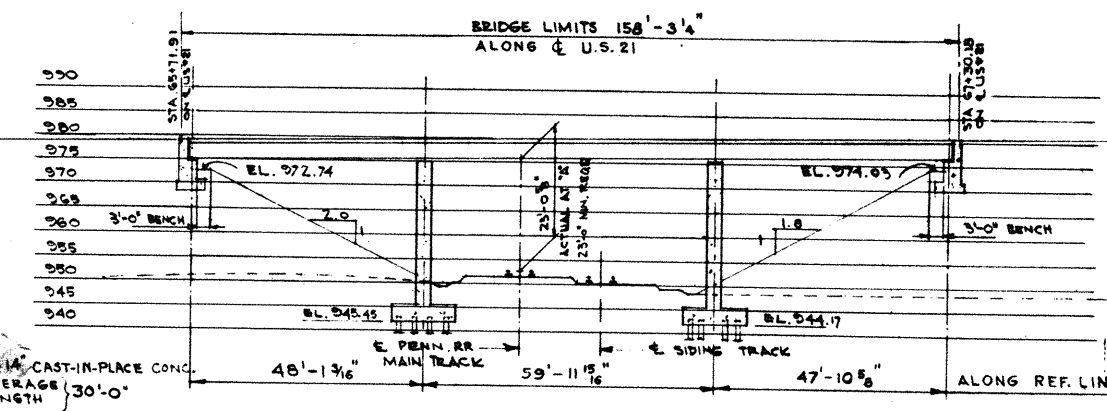
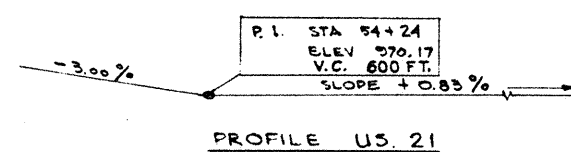
SKIEW: -13°-15'-30" L.F.

SURFACE COURSE: 1" MONOLITHIC CONCRETE

APPROACH SLAB: AS SHOWN

ALIGNMENT: ON 1°-0'-0" CURVE LEFT

B.M. #222 EL. 958.09
R.R. SPIKE IN TELEGRAPH POLE
300' RIGHT STA. 68+00, SOUTH
SIDE PENN. R.R.



FOUNDATION SOUNDINGS:
FOUNDATION DESIGN AND FOUNDATION QUANTITIES ARE BASED ON A STUDY OF SOIL SAMPLING SOUNDINGS MADE AT THE SITE. THIS SOUNDING INFORMATION MAY BE INSPECTED IN THE OFFICE OF THE BUREAU OF BRIDGES IN COLUMBUS OR IN AN ABRIDGED FORM IN THE DIVISION OFFICE, BUT THE STATE ASSUMES NO RESPONSIBILITY FOR THE ACCURACY THERE OF.

NOTE
PILING - 14" CAST-IN-PLACE CONC.
EST. AVERAGE 30'-0" PILE LENGTH

CHARLES E. DE LEU
CONSULTING ENGINEER
CHICAGO ILLINOIS

SITE PLAN
BRIDGE NO. WAY-21-0125
U.S. 21 OVER PENN. R.R.
WAYNE CO. STA. 66 + 43.56
SEC. WAY-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.M.	G.S.		R.G.M.	L.N.R.	6-1-58	

STA-21-1780
WAY-21-0.00
SUM-21-0.00

GENERAL NOTES

CONSTRUCTION CLEARANCE OF 19'-0" VERTICALLY ABOVE THE TOP OF THE RAILROAD TRACKS AND 8'-0" HORIZONTALLY FROM THE CENTER OF THE TRACKS SHALL BE MAINTAINED AT ALL TIMES.

SHEETING AND BRACING: BEFORE CONSTRUCTION IS STARTED, SIX SETS OF PRINTS SHOWING DETAILS OF THE SHEETING AND BRACING TO BE USED FOR EXCAVATION ADJACENT TO THE RAILROAD TRACKS SHALL BE SUBMITTED TO THE DIRECTOR FOR APPROVAL BY THE DEPARTMENT OF HIGHWAYS AND BY THE RAILROAD COMPANY.

ALIGNING RAILROAD TRACKS: AFTER THE CONTRACTOR HAS COMPLETED ALL EXCAVATION AND BACKFILL ADJACENT TO THE RAILROAD TRACKS IN COMPLIANCE WITH SEC. E-2.04 AND E-2.08 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, SUBJECT TO THE SUPERVISION OF THE RAILROAD COMPANY, NOTHING IN SEC. E-2.04, E-2.08 OR G-8.07 OF THE SPECIFICATIONS SHALL BE CONSTRUED TO HOLD THE CONTRACTOR LIABLE FOR ALIGNING AND RESURFACING THE RAILROAD TRACKS.

REFERENCE SHALL BE MADE TO SUPPLEMENTAL SPECIFICATIONS NO. S-114 DATED AUG. 30, 1955.

SPECIFICATIONS: THIS WORK SHALL BE GOVERNED BY THE "DESIGN SPECIFICATIONS FOR HIGHWAY STRUCTURES" OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS, INCLUDING REVISIONS THROUGH FEBRUARY 1ST, 1955 AND BY THE "CONSTRUCTION AND MATERIAL SPECIFICATIONS" OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS, DATED JANUARY 1, 1955.

PILES SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 50 TONS FOR THE PIERS. THE LENGTH OF PENETRATION OF EVERY PILE SHALL BE AT LEAST 80% OF THE ESTIMATED AVERAGE PILE LENGTH OF THE PIERS AS INDICATED ON THE PLANS, UNLESS A LESSER PENETRATION IS APPROVED BY THE DIRECTOR.

FOUNDATION PRESSURE: MAX. SOIL PRESSURE - 3000 LBS. PER SQ. FT. UNDER ABUTMENTS.

WELDING OF STRUCTURAL STEEL SHALL BE CLASS "A" EXCEPT AS OTHERWISE SHOWN. WELDS SHOWN AS FIELD WELDS MAY, AT THE OPTION OF THE CONTRACTOR, BE MADE IN THE SHOP.

PAINT: BOTH SHOP AND FIELD, SHALL BE APPLIED BY BRUSHING. SPRAY APPLICATIONS WILL NOT BE PERMITTED.

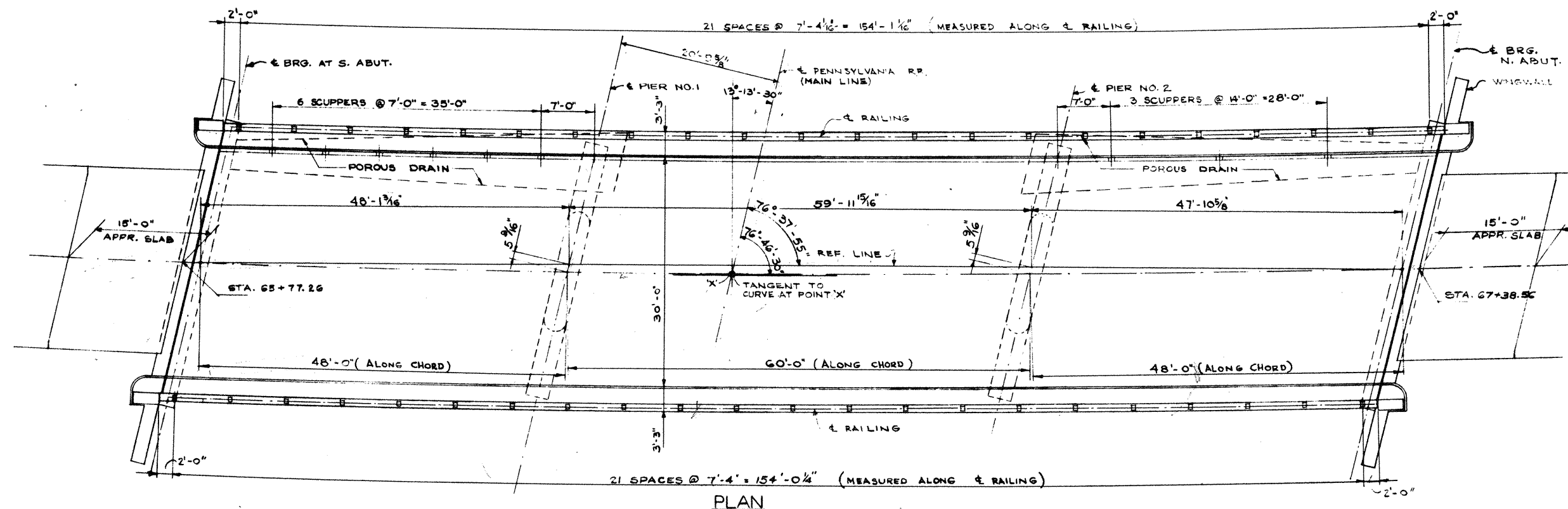
SURFACE FINISH OF CONCRETE: RAILING END POSTS, RAILING PARAPETS, CURB FACES, FASCIAS OF DECK SHALL

RECEIVE A RUBBED SURFACE FINISH. ALL OTHER EXPOSED SURFACES SHALL BE GOVERNED BY THE PROVISIONS OF ITEM S-1.

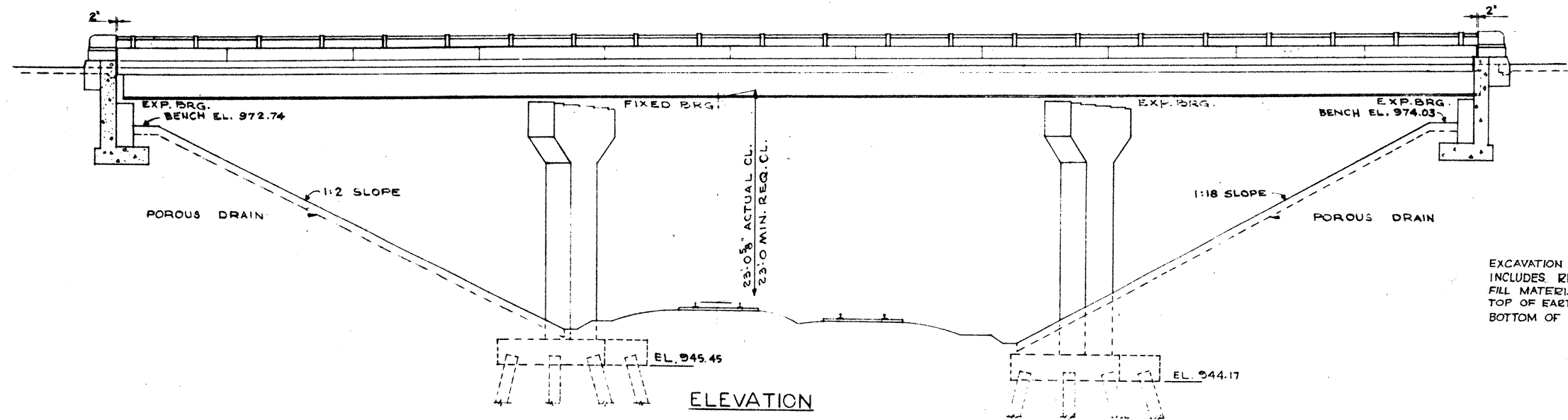
POROUS DRAINS EXTENDING FROM FACE OF ABUTMENT TO (EL. 948.23 M., EL. 949.49 S) SHALL BE PLACED ON AND FLUSH WITH EMBANKMENT SLOPES AT THE SOUTHWEST AND NORTHWEST CORNERS OF THE BRIDGE. THE DRAINS SHALL BE 8'-0" WIDE AT THE LOW END TAPERING TO 4'-0" WIDE AT FACE OF ABUTMENT AND ONE FT. THICK. THEY SHALL BE CENTERED UNDER THE SCUPPERS.

GRAVEL, IF USED AS THE COARSE AGGREGATE, SHALL BE ACCORDING TO SECTION M-3.93 INSTEAD OF M-3.91 FOR CLASS "C" CONCRETE, SUPERSTRUCTURE. GRAVEL MEETING THE REQUIREMENTS OF SEC. M-3.93 ALSO MAY BE USED FOR OTHER CONCRETE IN THIS STRUCTURE INCLUDING CONCRETE FOR PYLONS.

SPLICE OF REINFORCING STEEL: REINFORCING STEEL SHALL BE SPLICED BY LAPPING BARS A MIN. OF 30 TIMES THE DIAMETER OF THE SMALLER BAR CONCERNED.

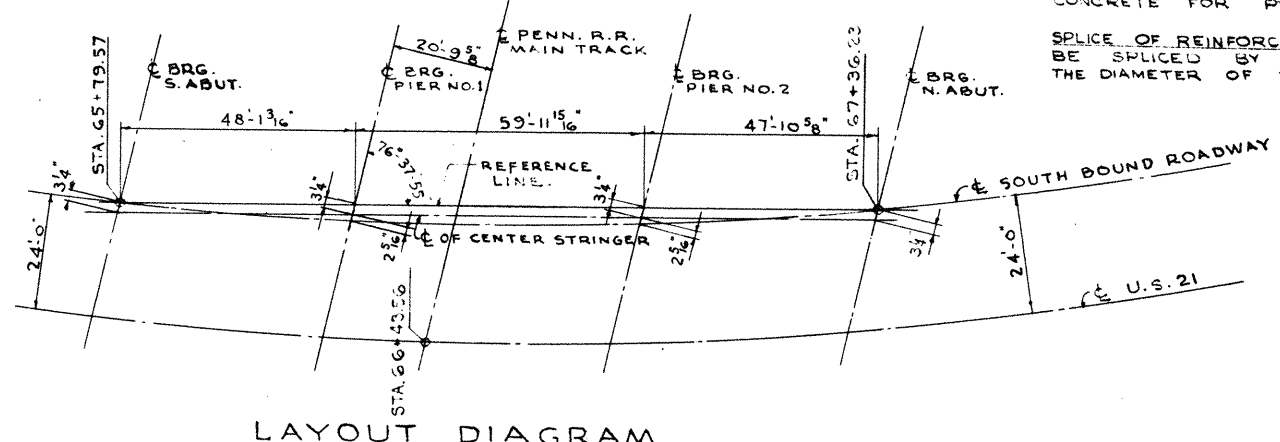


PLAN



ELEVATION

ESTIMATED QUANTITIES						
ITEM	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER. GENERAL
E-2	LUMP SUM		COFFERDAMS, CRIBS, AND SHEETING			
E-2	270	CU. YDS.	UNCLASSIFIED EXCAVATION	105	165	
S-1	200	CU. YDS.	CLASS "C" CONCRETE, SUPERSTRUCTURE & PYLONS			195
S-1	140	CU. YDS.	CLASS "C" CONCRETE, PIERS ABOVE FOOTINGS		140	
S-1	91	CU. YDS.	CLASS "E" CONCRETE, ABUTMENT WALLS	91		
S-1	97	CU. YDS.	CLASS "E" CONCRETE, FOOTINGS	35	62	
S-4	79,180	LBS.	REINFORCING STEEL	6,680	13,100	59,400
S-7	137,908	LBS.	STRUCTURAL STEEL			137,908
S-8	137,908	LBS.	FIELD PAINTING OF STRUCTURAL STEEL			137,908
S-14	308	LIN. FT.	RAILING (ALUMINUM RAIL & SUPPORTS & CONC. PARAPET)			308
S-16	LUMP SUM		FIRST TEST PILE			
S-18	960	LIN. FT.	14" CAST-IN-PLACE REINFORCED CONCRETE PILES		960	
S-29	25	CU. YDS.	POROUS DRAIN ON EMBANKMENT SLOPES	25		
S-29	165	CU. YDS.	POROUS BACKFILL			165



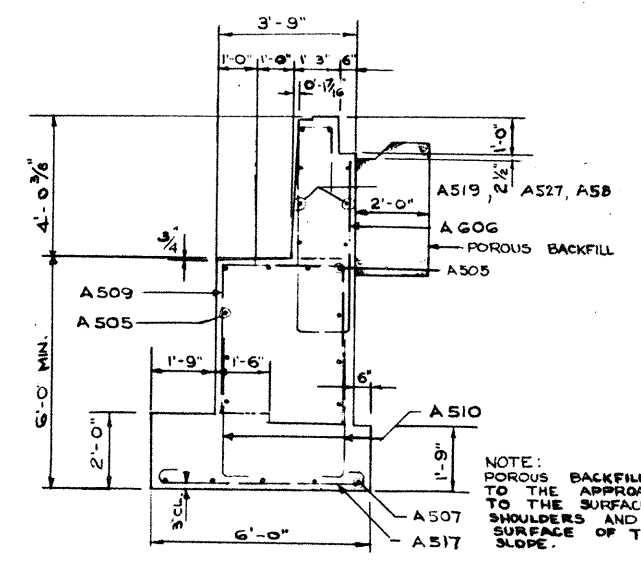
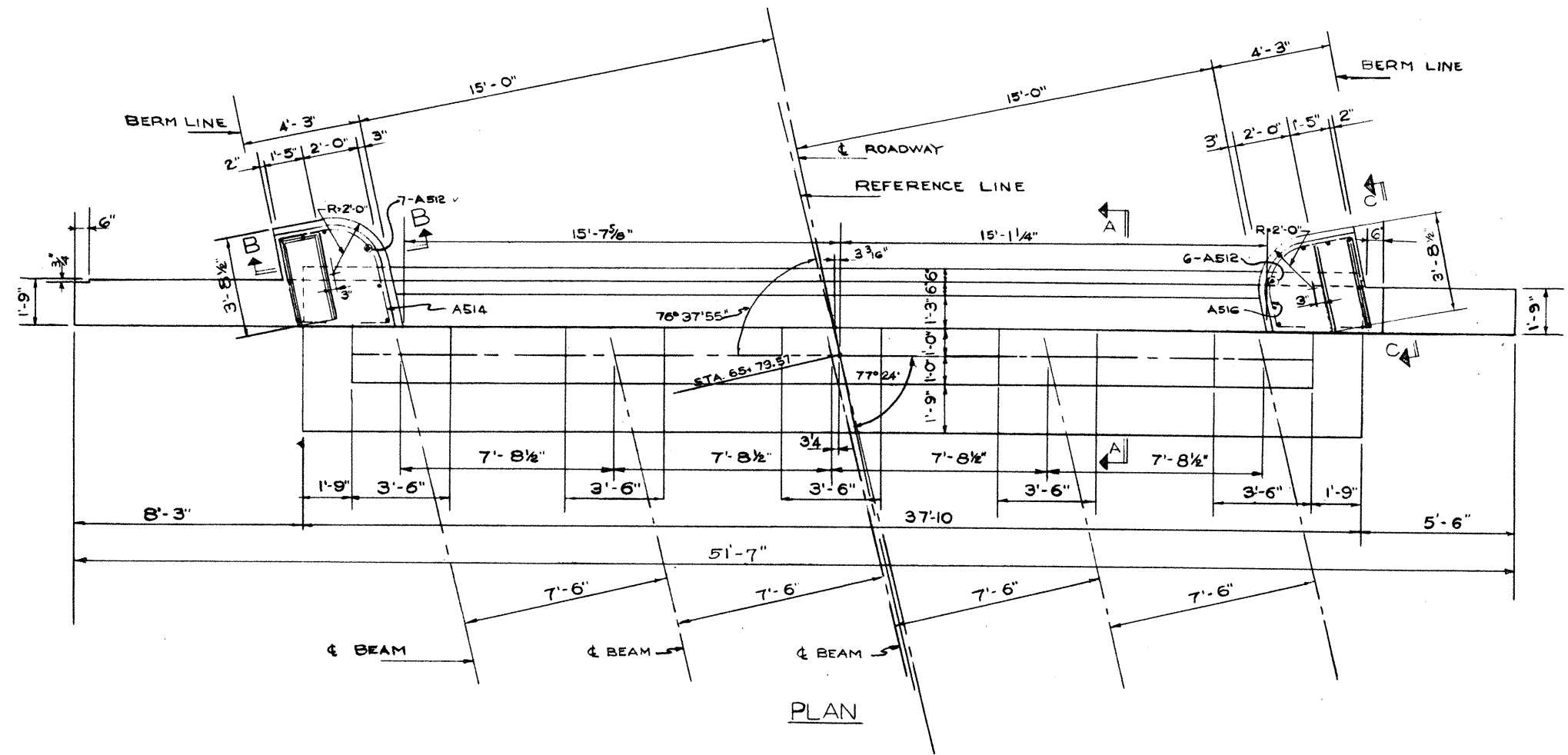
LAYOUT DIAGRAM

CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

**GENERAL PLAN & ELEVATION
NOTES & ESTIMATED QUANTITIES**
BRIDGE NO. WAY-21-0125
U.S. 21 OVER PENN. R.R.
WAYNE CO. STA. 66+43.56
SEC. WAY-21

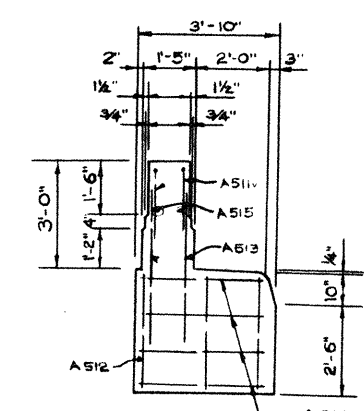
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E. M.	G. S.		R. G. M.	L. N. R.	6-11-56	

STA-21-17.80
WAY-21-0.00
SUM-21-0.00

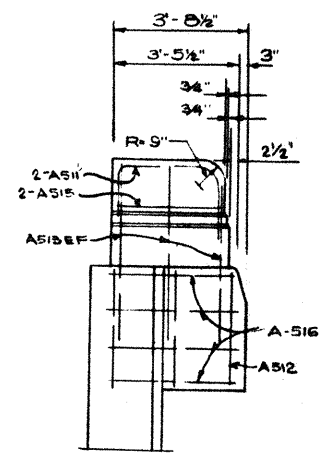


NOTE: POROUS BACKFILL SHALL EXTEND TO THE APPROACH SLAB AND TO THE SURFACE OF THE EARTH SHOULDERS AND OUTWARD TO THE SURFACE OF THE EMBANKMENT SLOPE.

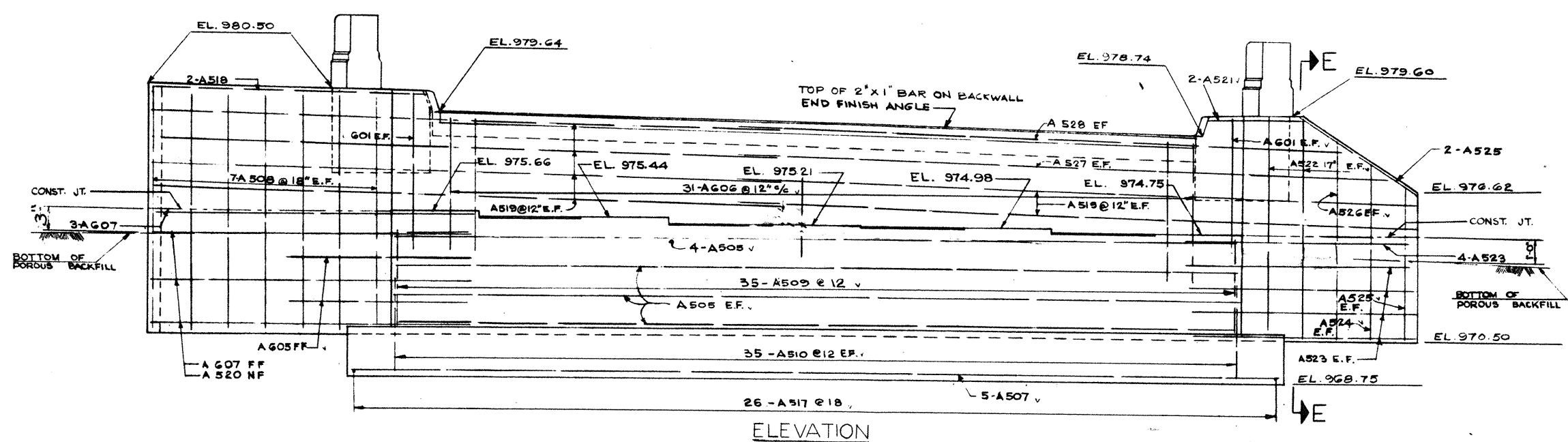
SECTION A-A



SECTION B-B



VIEW C-C



ELEVATION

NOTE:
ALL REINFORCING STEEL SHALL CLEAR FACE OF CONCRETE 2" UNLESS OTHERWISE SHOWN.
REINFORCING BARS IN BRIDGE SEATS TO BE PLACED TO CLEAR ANCHOR BOLTS.
CONCRETE IN PYLON TO BE INCLUDED IN ITEMS S-1 CLASS "C" CONCRETE SUPERSTRUCTURE.
PROCEDURE:
THE EMBANKMENT SHALL BE PLACED AND COMPACTED TO THE HEIGHT OF THE EARTH BENCH, AFTER WHICH EXCAVATION SHALL BE MADE FOR THE ABUTMENT.

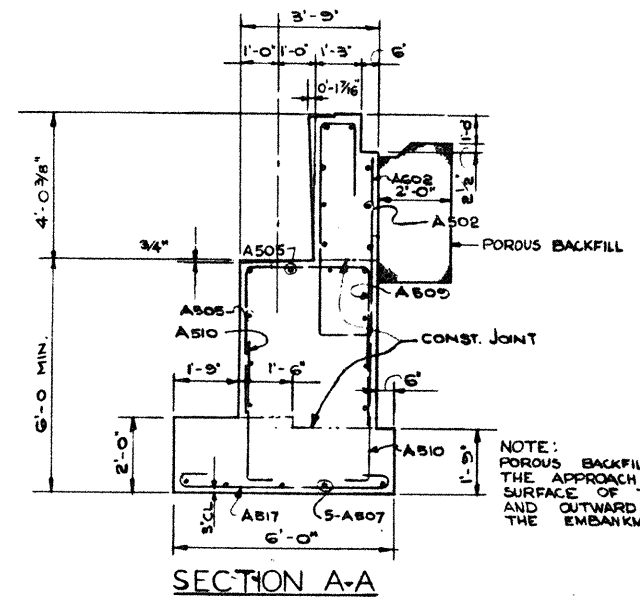
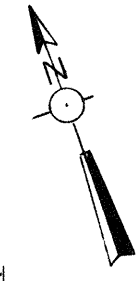
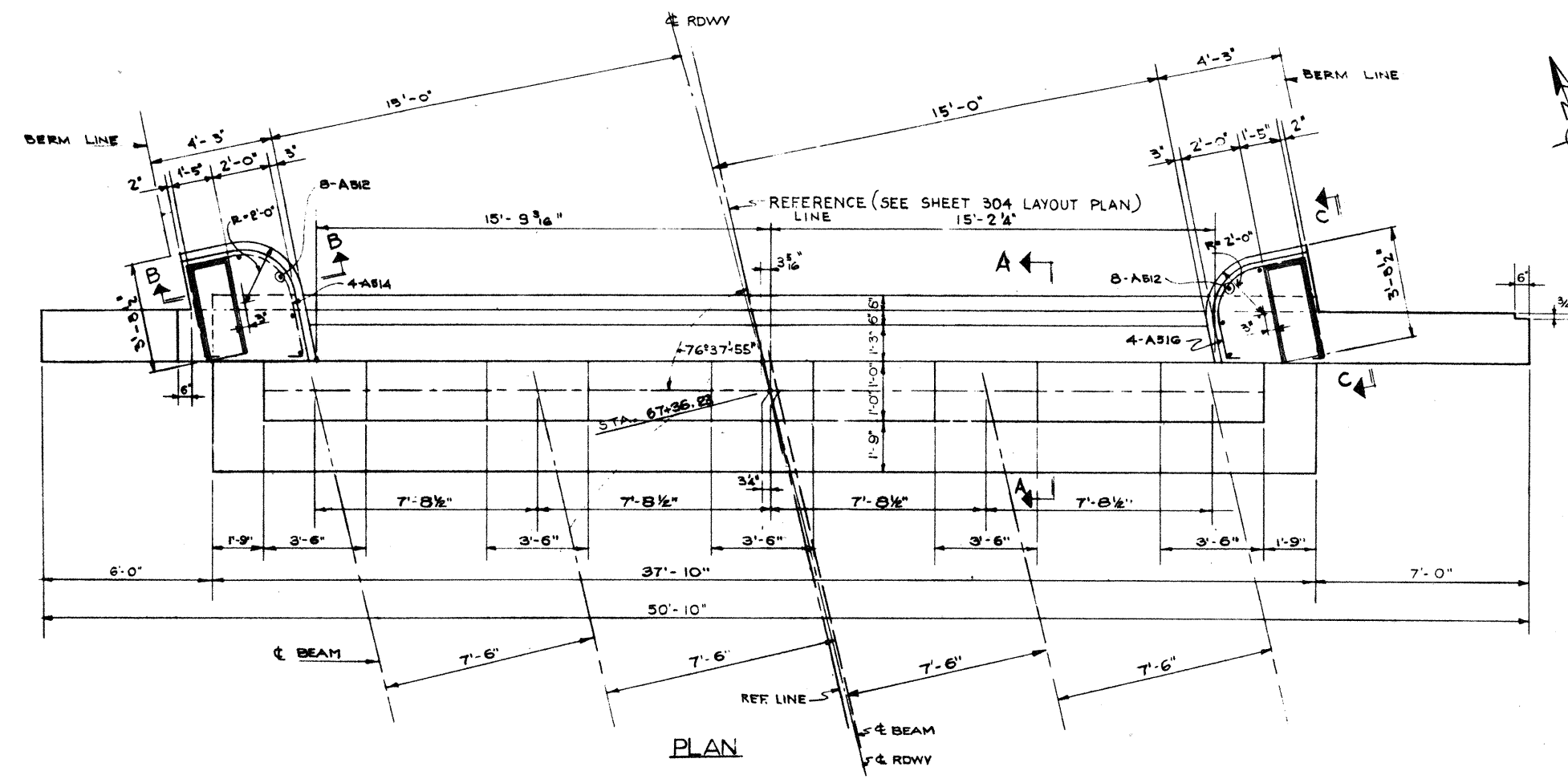
E.F. DENOTES "EACH FACE"
N.F. DENOTES "NEAR FACE"
F.F. DENOTES "FAR FACE"

CHARLES E. DE LEUW CONSULTING ENGINEER CHICAGO ILLINOIS						
SOUTH ABUTMENT DETAILS						
BRIDGE NO. WAY-21-0125 U.S. 21 OVER PENN. R.R.						
WAYNE CO. STA. 66+43.56						
SEQ. WAY-21						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	W.J.C. M.R.		R.G.M.	L.N.R.	6-11-56	

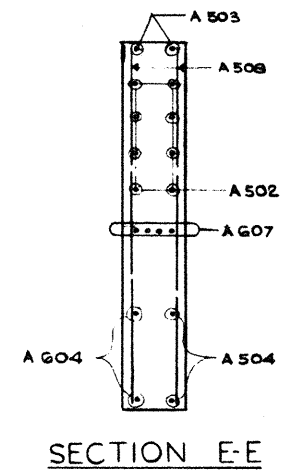
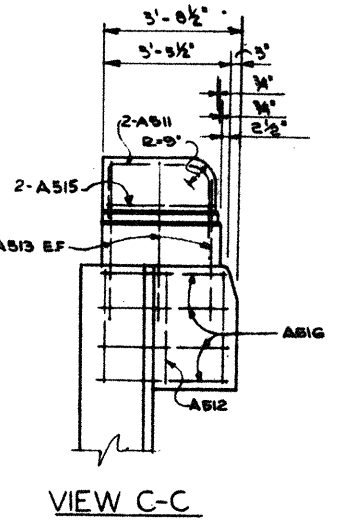
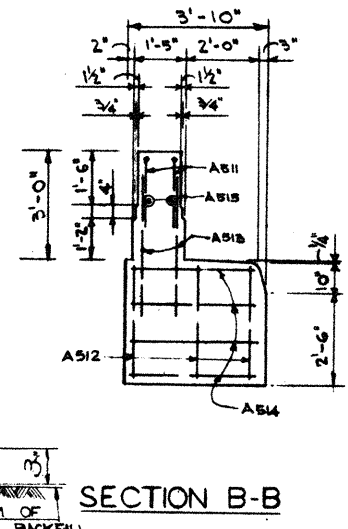
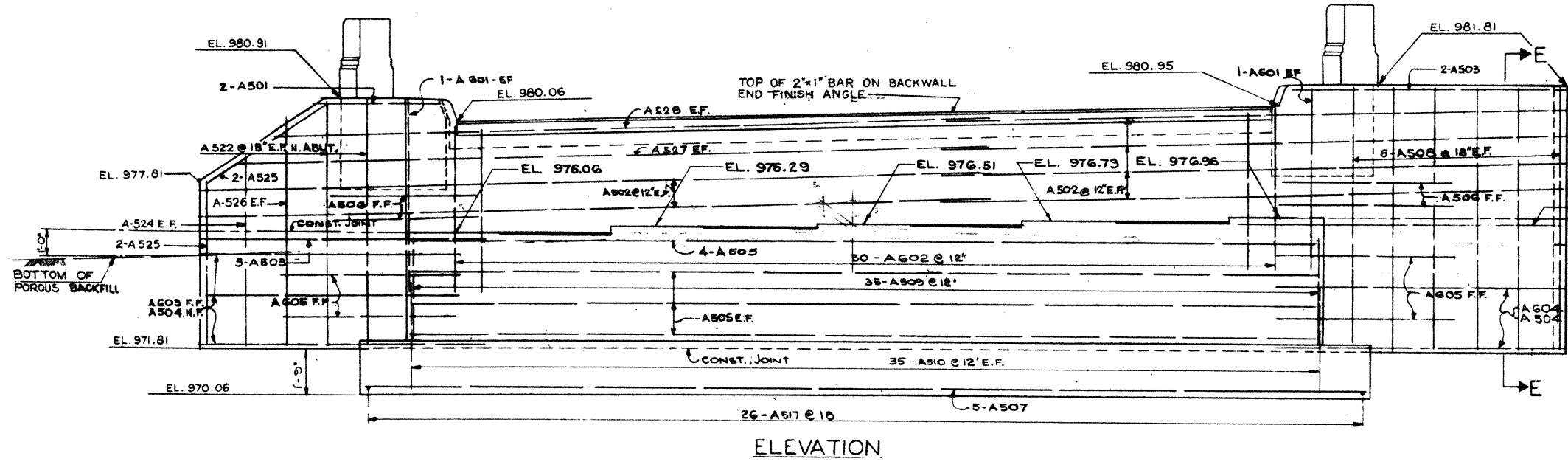
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

306
329

STA-21-17.80
WAY-21-0.00
SUM-21-0.00



NOTE:
POROUS BACKFILL SHALL EXTEND TO THE APPROACH SLAB AND TO THE SURFACE OF THE EARTH SHOULDERS AND OUTWARD TO THE SURFACE OF THE EMBANKMENT SLOPE.



NOTE
ALL REINFORCING STEEL SHALL CLEAR FACE OF CONCRETE 2" UNLESS OTHERWISE SHOWN. REINFORCING BARS IN BRIDGE SLABS TO BE PLACED TO CLEAR ANCHOR BOLTS. CONCRETE IN PYLON TO BE INCLUDED IN ITEMS 5-1 CLASS "C" CONCRETE SUPERSTRUCTURE. PROCEDURE: THE EMBANKMENT SHALL BE PLACED AND COMPACTED TO THE HEIGHT OF THE EARTH BENCH, AFTER WHICH EXCAVATION SHALL BE MADE FOR THE ABUTMENT. E.F. DENOTES "EACH FACE" N.F. DENOTES "NEAR FACE" F.F. DENOTES "FAR FACE"

CHARLES E. DE LUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

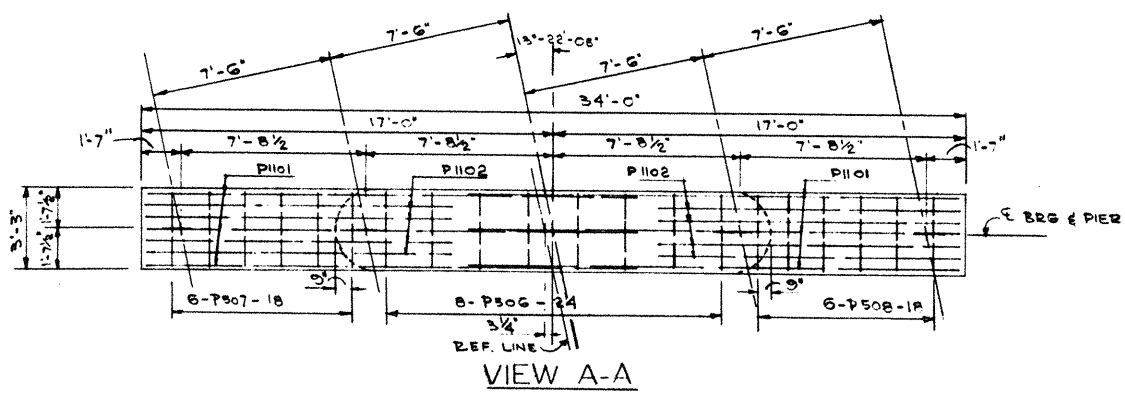
NORTH ABUTMENT DETAILS

BRIDGE NO. WAY-21-0125
U.S. 21 OVER PENN. R.R.
WAYNE CO. STA. 66+43.56
SEC. WAY-21

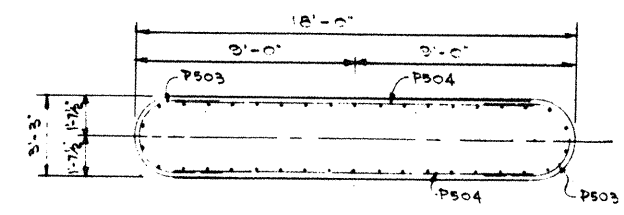
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	W.J.C. M.R.		R.G.M.	L.N.R.	6-11-56	

FED. NO. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	307 329

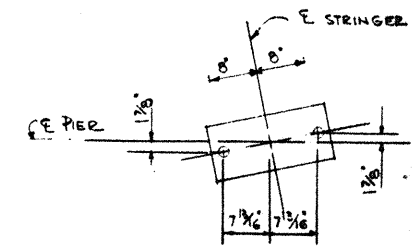
STA-21-17.80
WAY-21-0.00
SUM-21-0.00



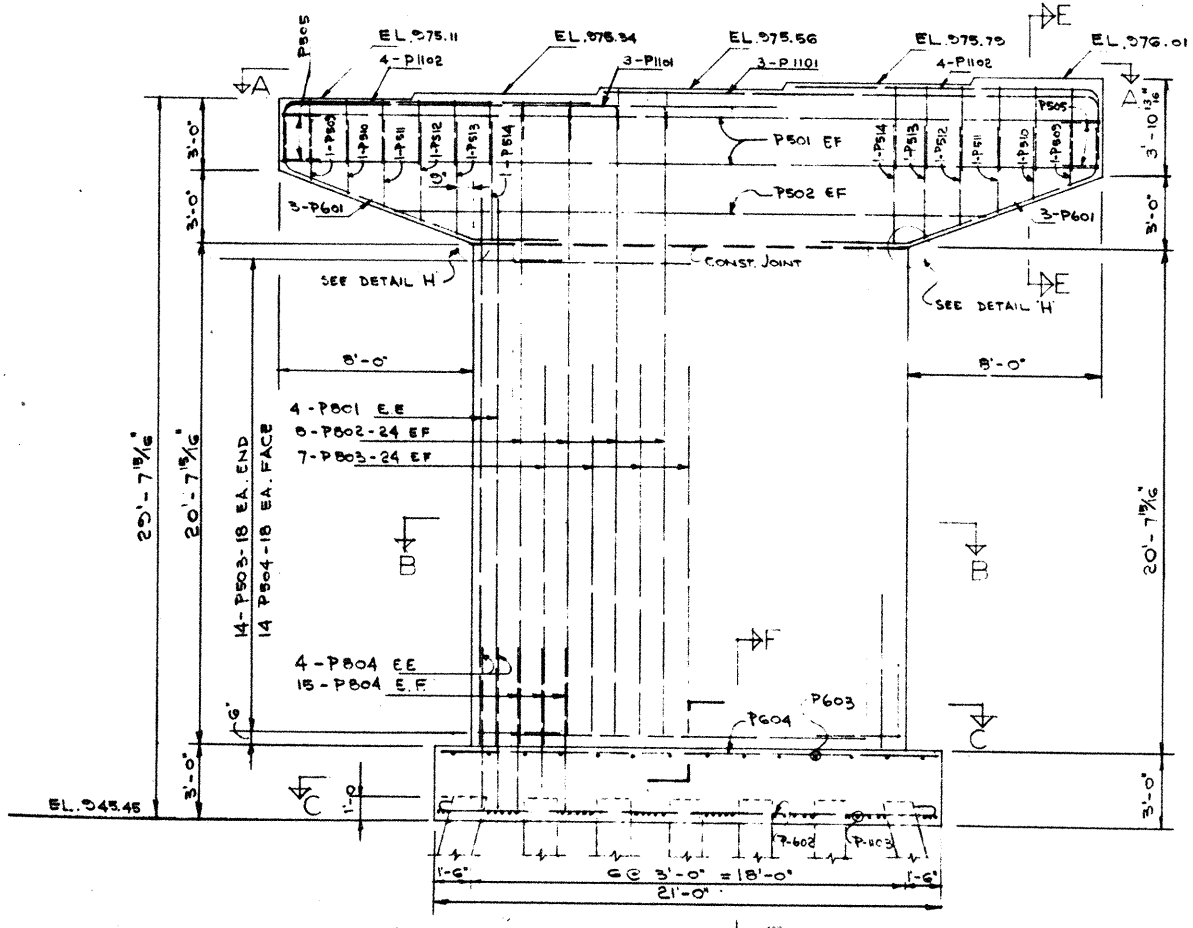
VIEW A-A



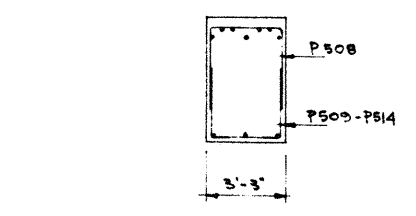
SECTION B-B



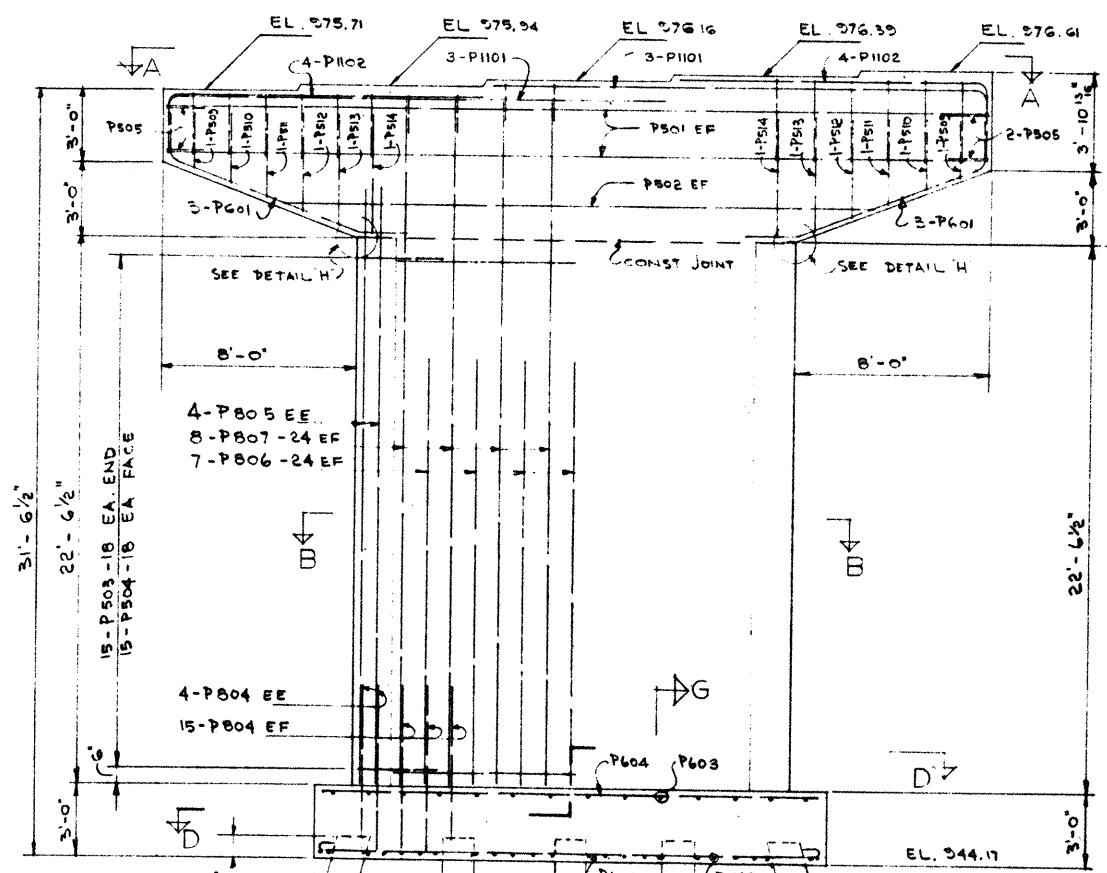
ANCHOR BOLT LOCATION
PIER #1 & PIER #2



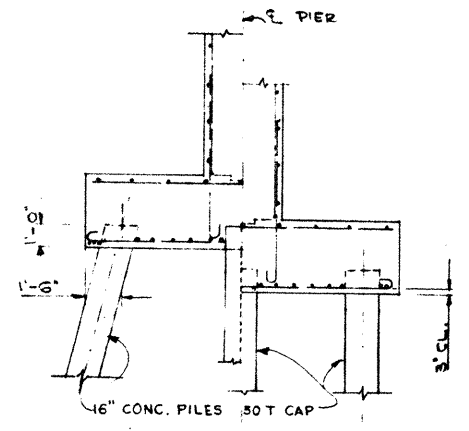
ELEVATION PIER #1



SECTION E-E

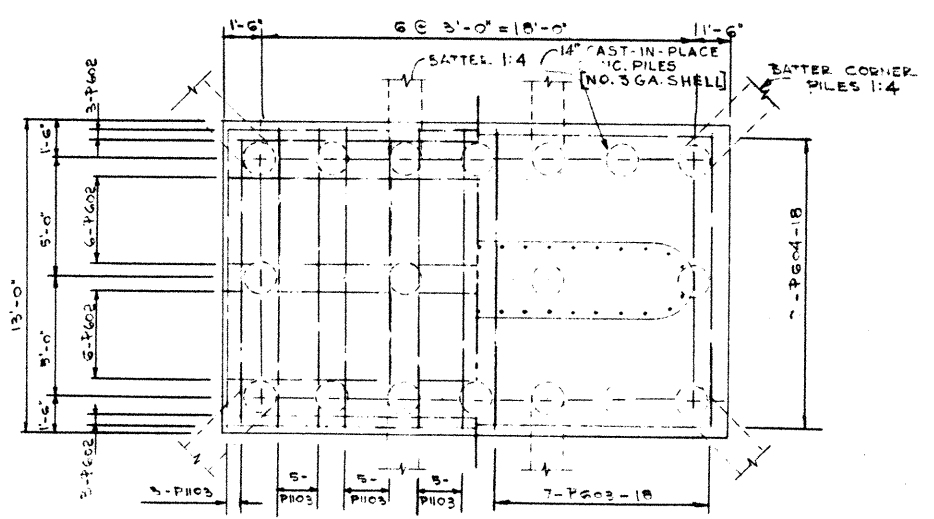


ELEVATION PIER #2

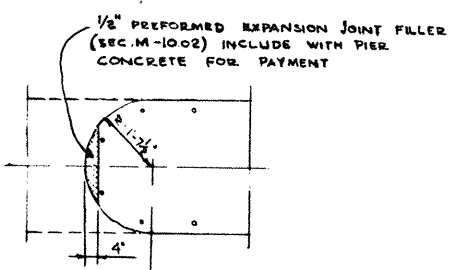


HALF SECT. F-F

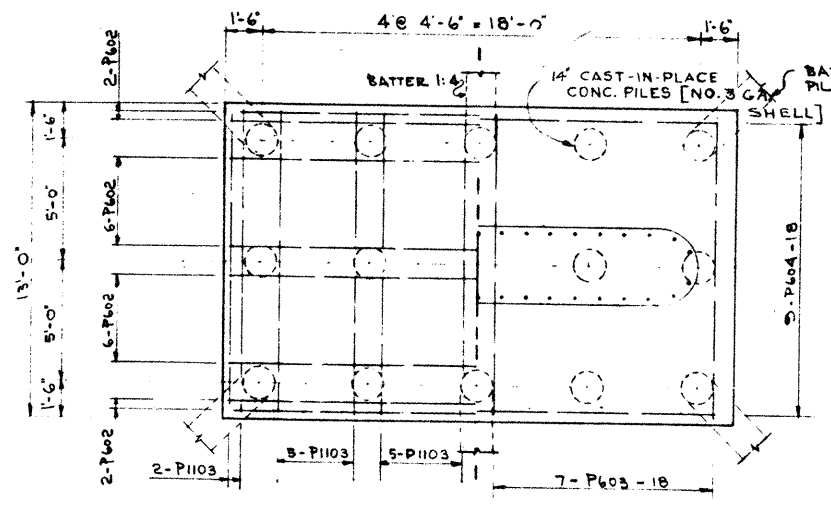
HALF SECT. G G



SECTION C-C



DETAIL "H"
HORIZ. SECT.



SECTION D-D

NOTE:
ALL REINFORCING STEEL SHALL CLEAR FACE OF CONCRETE 2" UNLESS OTHERWISE SHOWN.
REINFORCING BARS IN BRIDGE SEATS TO BE PLACED TO CLEAR ANCHOR BOLTS.
E.F. DENOTES "EACH FACE"
N.F. DENOTES "NEAR FACE"
F.F. DENOTES "FAR FACE"

CHARLES E. DE LEUW CONSULTING ENGINEER CHICAGO ILLINOIS					
PIER DETAILS					
BRIDGE NO. WAY-21-0125 U.S. 21 OVER PENN. R.R.					
WAYNE CO.			STA. 66+43.56		
SEC. WAY-21					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
N.S.W.	G.S.		R.G.M.	L.N.R.	6-11-56

STA-21-17.80
WAY-21-0.00
SUM-21-0.00

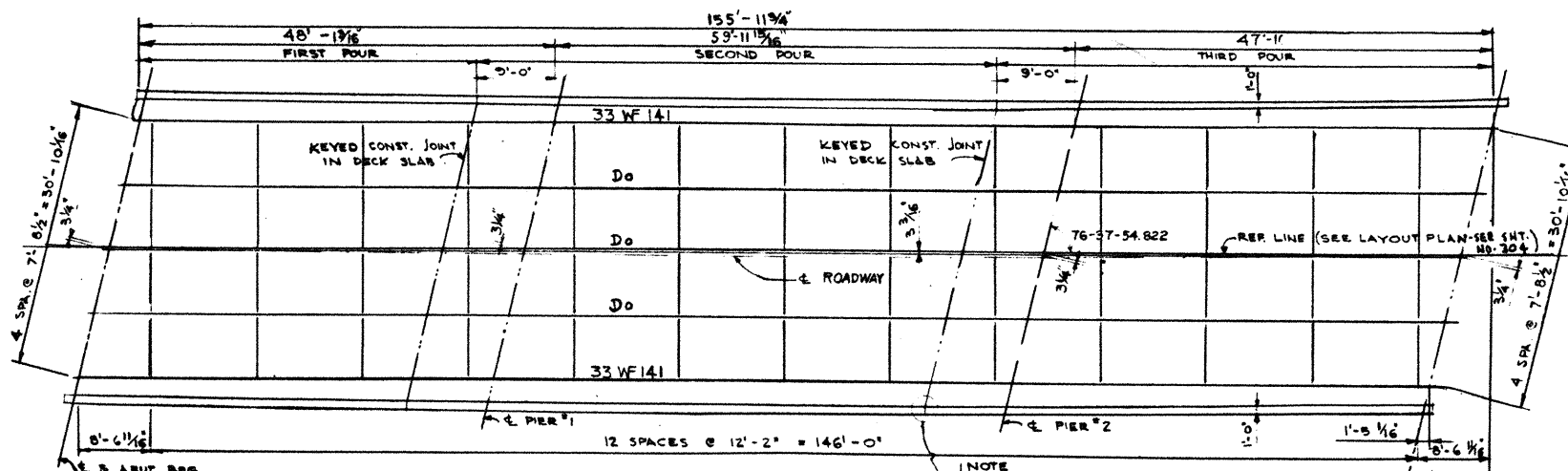
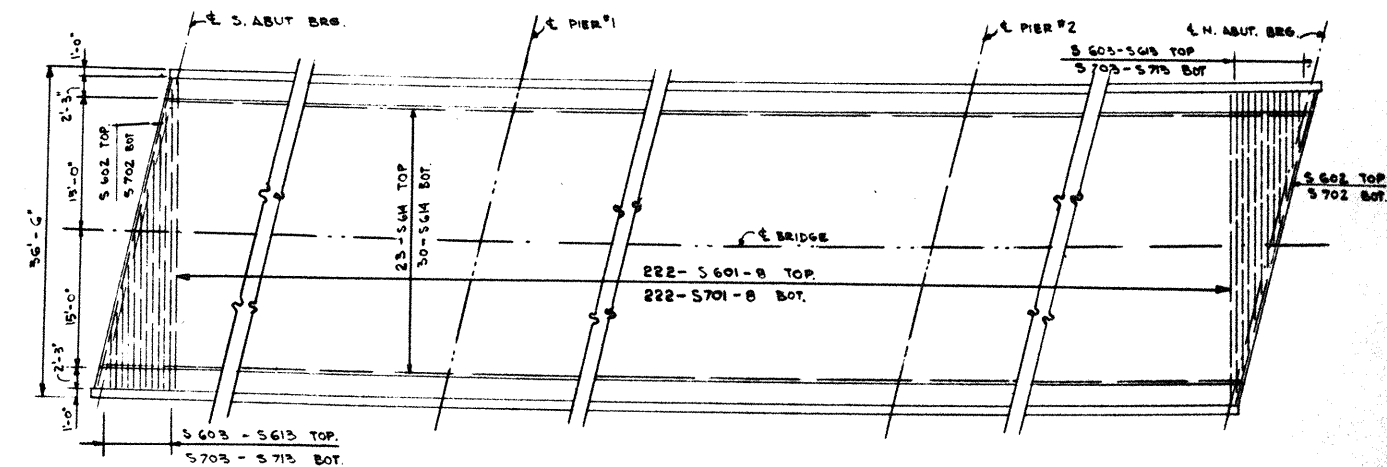
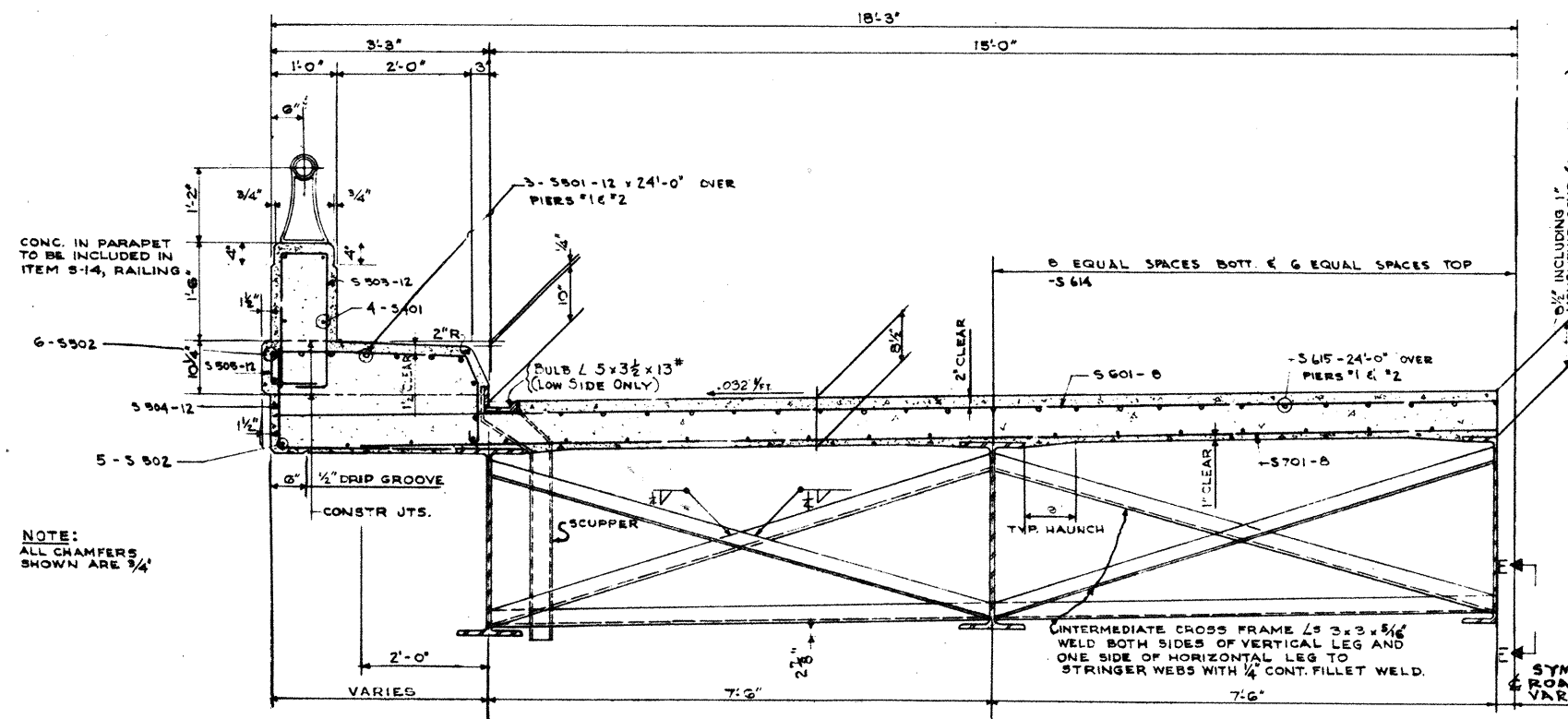


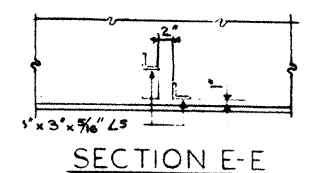
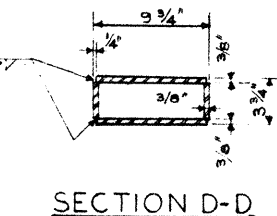
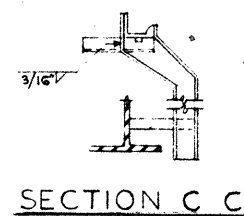
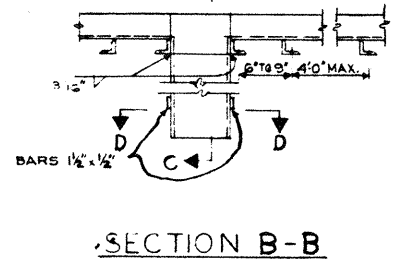
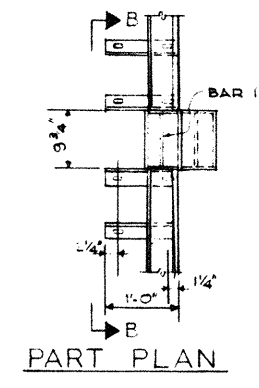
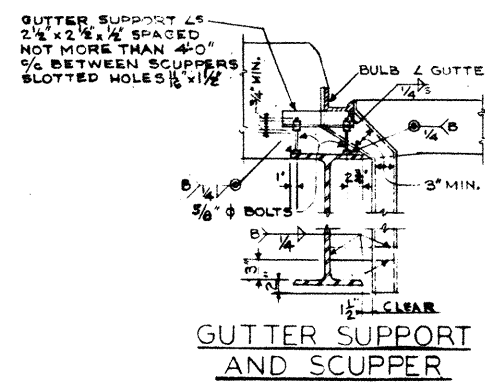
DIAGRAM SHOWING STAGGER OF S 615 & S 501 BARS OVER PIERS NO 1 & 2

	DEFLECTION & CAMBER			
	INTERIOR		FASCIA	
	END SPAN	MIDDLE SPAN	END SPAN	MIDDLE SPAN
DEF. DUE TO WGT. OF STEEL	1/32"	1/32"	1/32"	1/32"
DEF. DUE TO REMAINING D.L.	7/32"	3/16"	11/32"	11/32"
CAMBER REQUIRED FOR VERT. CURVE	0	0	0	0
SUM OF DEF. AND CAMBER	1/4"	7/32"	7/16"	3/8"
REQUIRED CAMBER	0	0	0	0

LOCATION	INTERIOR BEAMS		EXTERIOR BEAMS	
	TOP	BOT	TOP	BOT
PIER #1	10 x 3/8 x 13-0"	10 x 3/8 x 13-0"	10 x 3/8 x 13-0"	10 x 3/8 x 13-0"
PIER #2	10 x 3/8 x 13-0"	10 x 3/8 x 13-0"	10 x 3/8 x 13-0"	10 x 3/8 x 13-0"

DECK CONSTRUCTION PROCEDURE
THE DECK SLAB SHALL BE PLACED IN SECTIONS BETWEEN TRANSVERSE CONSTRUCTION JOINTS IN THE NUMERICAL ORDER AND IN THE DIRECTION INDICATED ON THE STEEL FRAMING PLAN IN ORDER THAT THE MAJOR PORTION OF THE DEAD LOAD DEFLECTION WILL OCCUR PRIOR TO PLACING CONCRETE OVER EACH PIER.

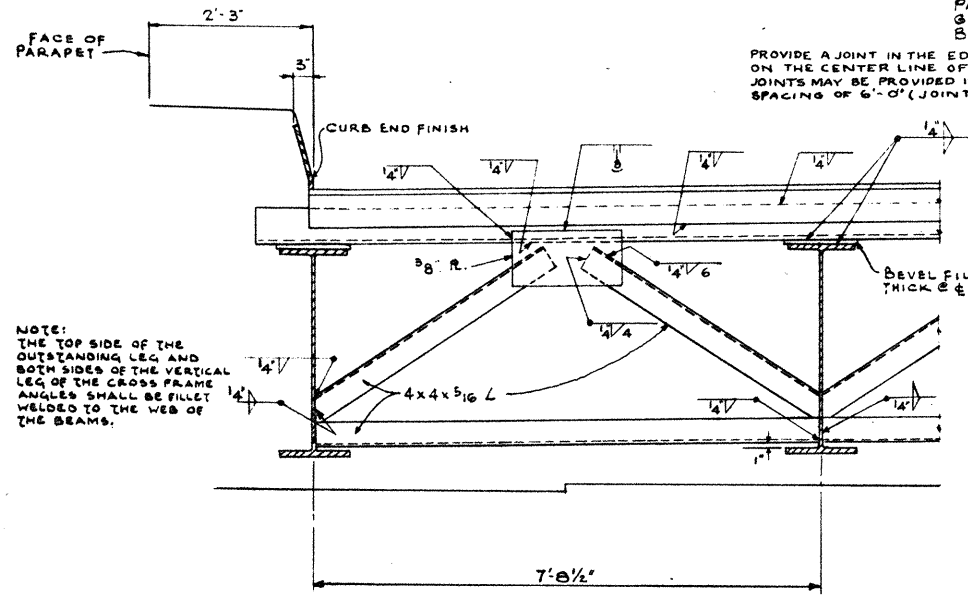
GUTTERS SHALL BE ACCURATELY ADJUSTED FOR ALIGNMENT AND GRADE WITH ALLOWANCE FOR DEAD LOAD DEFLECTION BEFORE CONCRETE IS PLACED.



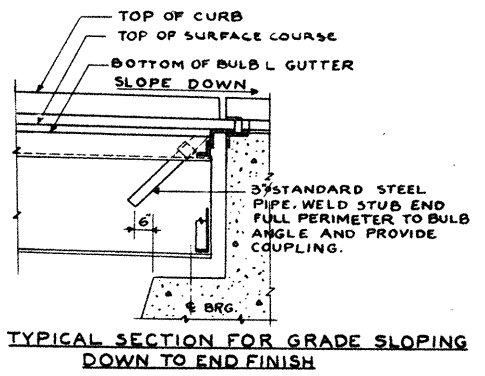
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

SUPERSTRUCTURE DETAILS
BRIDGE NOWAY-21-0125
U.S. 21 OVER PENN. R.R.
WAYNE CO. STA. 66+43.56
SEC. WAY-21

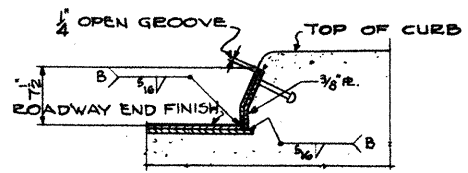
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
N.S.W.	J.N.		R.G.M.	L.N.R.	6-11-56	



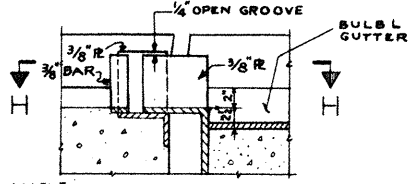
SECTION A-A



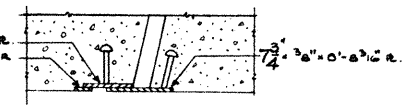
TYPICAL SECTION FOR GRADE SLOPING DOWN TO END FINISH



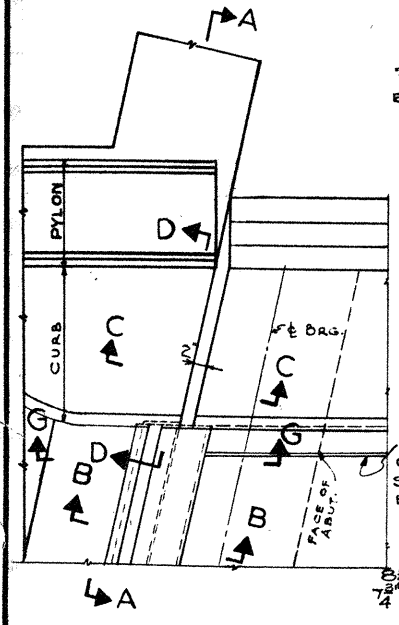
SECTION D-D



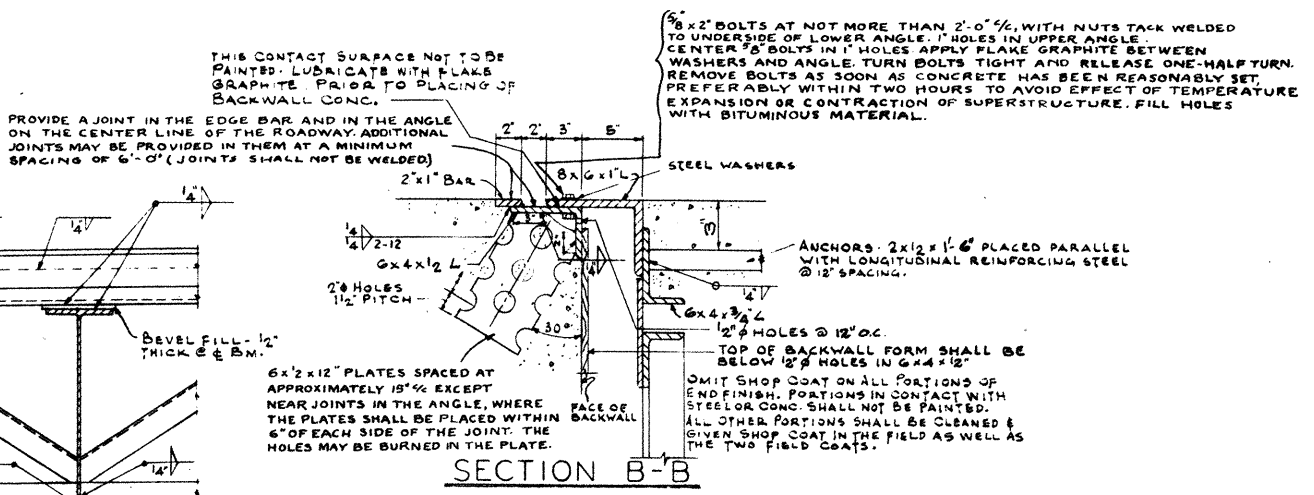
SECTION G-G



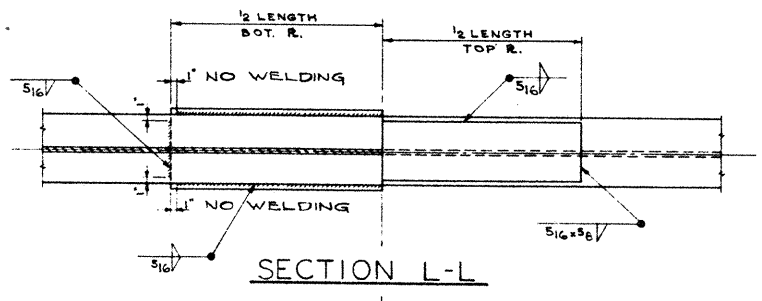
SECTION H-H



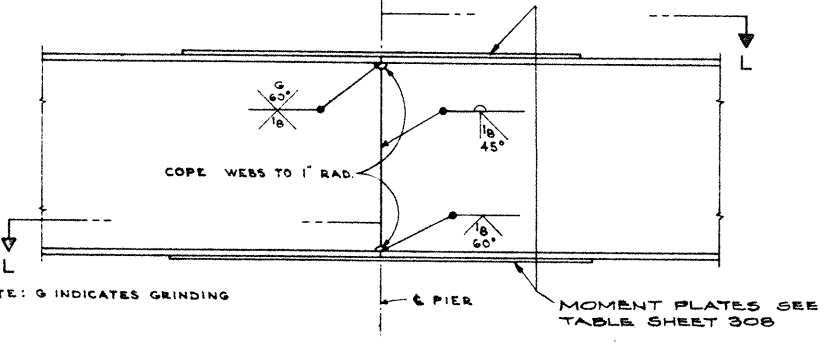
PART PLAN AT ABUT-SKEWED



SECTION B-B

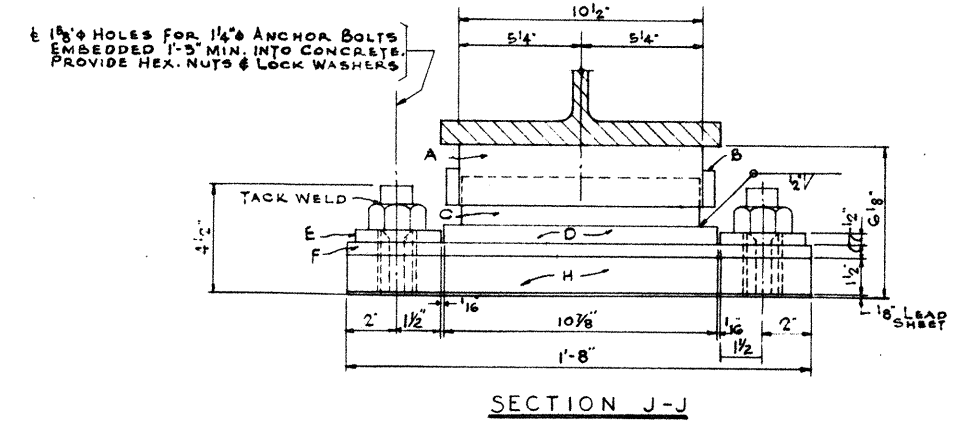


SECTION L-L



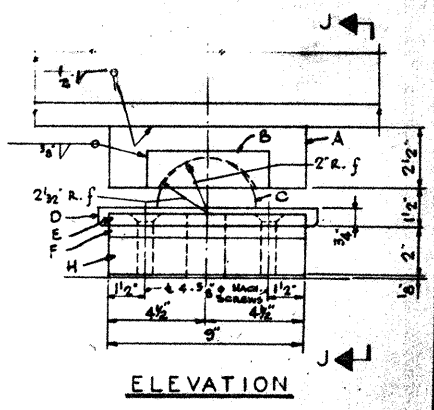
BEAM SPLICE DETAILS

- BEAM SPLICE WELDING PROCEDURE:
1. RAISE THE ABUTMENT ENDS OF THE BEAMS 3/4".
 2. BUTT WELD THE BEAM FLANGES & WEB.
 3. WELD THE BOTTOM & TOP MOMENT PLATES.
 4. LOWER THE BEAM ENDS TO FINAL POSITION.
- * MAKE ONE PASS IN EACH FLANGE THEN ONE PASS IN WEB; REPEAT UNTIL WELDS ARE COMPLETED.

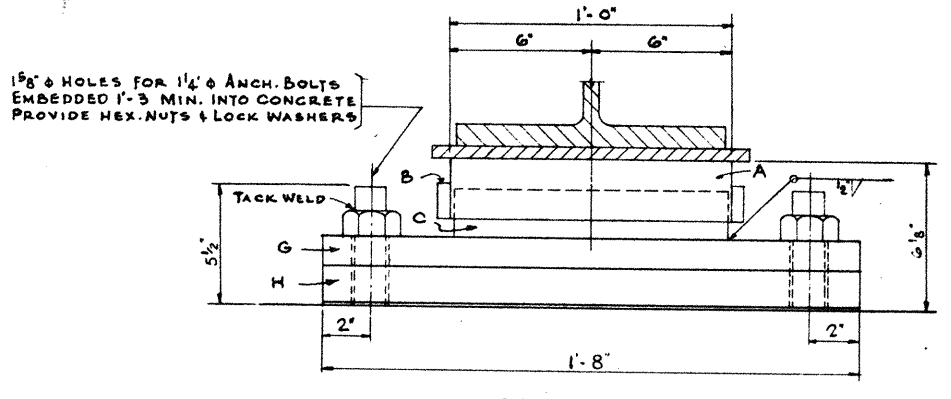


SECTION J-J

DETAIL OF EXPANSION BEARING

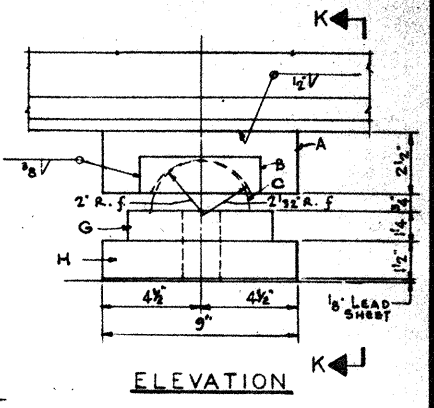


ELEVATION



SECTION K-K

DETAIL OF FIXED BEARING



ELEVATION

MATERIAL - FIXED BEARING

- A - SOLE PL. - 9"x2 1/2"x1'-0"
- B - SIDE PL. - 1 1/2"x12"x0'-5"
- C - PIN - HALF ROUND 4"x0'-11 3/8"
- G - BOTTOM PL. 7"x11 1/4"x1'-8"
- H - MASONRY PL. 9"x11 1/2"x1'-8"
- 2 - ANCH. BOLTS - 1/4" x 1'-9"
- LEAD SHEET - 9"x12"x1'-8"

MATERIAL - EXPANSION BEARING

- A - SOLE PL. - 9"x2 1/2"x0'-10 1/2"
- B - SIDE PL. - 1 1/2"x12"x0'-5"
- C - PIN - HALF ROUND 4"x0'-10 3/8"
- D - SLIDING PL. - 10"x3 1/4"x0'-1'-0 3/8"
- E - GUIDE PL. - 3"x1 1/2"x0'-9"
- F - BRONZE PL. - 9"x12"x1'-8" LEADED BRONZE
- H - MASONRY PL. - 9"x11 1/2"x1'-8"
- 2 - ANCH. BOLTS - 1/4" x 1'-8"
- 4 - 3/8" MACHINE SCREWS
- LEAD SHEET - 9"x12"x1'-8"

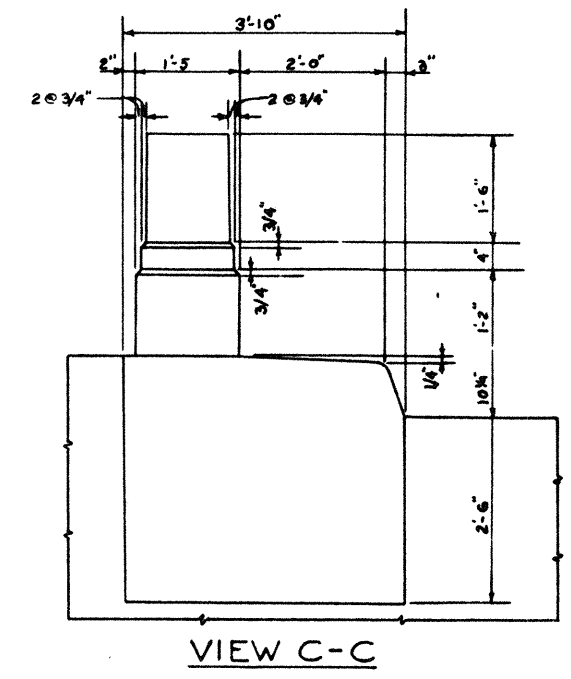
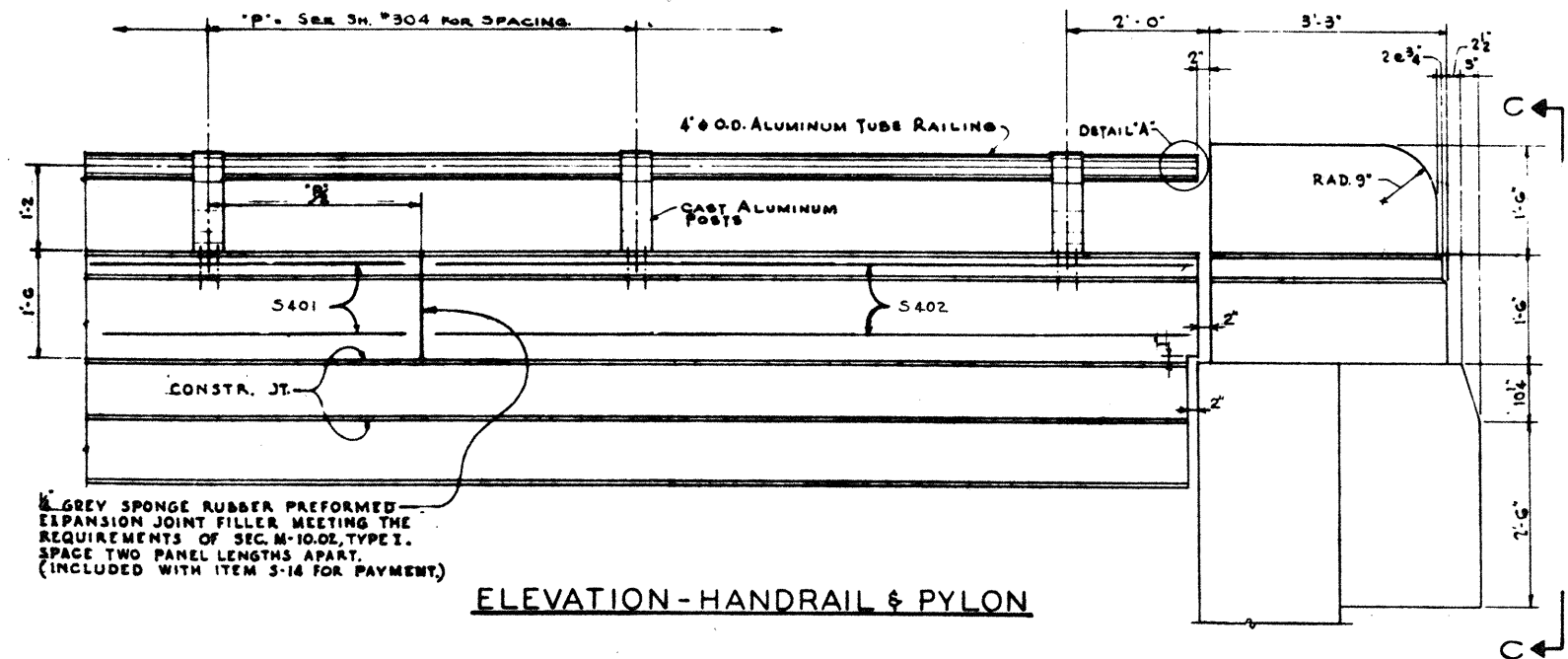
STA-21-17.80
WAY-21-000
SUM-21-000

CHARLES E. DE LEUW CONSULTING ENGINEER CHICAGO ILLINOIS					
SUPERSTRUCTURE DETAILS					
BRIDGE NO. WAY-21-0125 U.S. 21 OVER PENN. R.R.					
WAYNE CO. SEC. WAY-21			STA. 66 + 43.56		
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
N.S.W.	M.R.		R.G.M.	L.N.R.	6-11-56

FED. NO. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(13)	

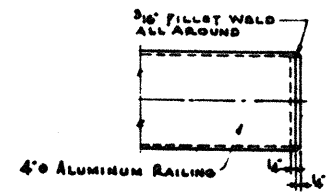
310
329

STA-21-17.80
WAY-21-000
SUM-21-000

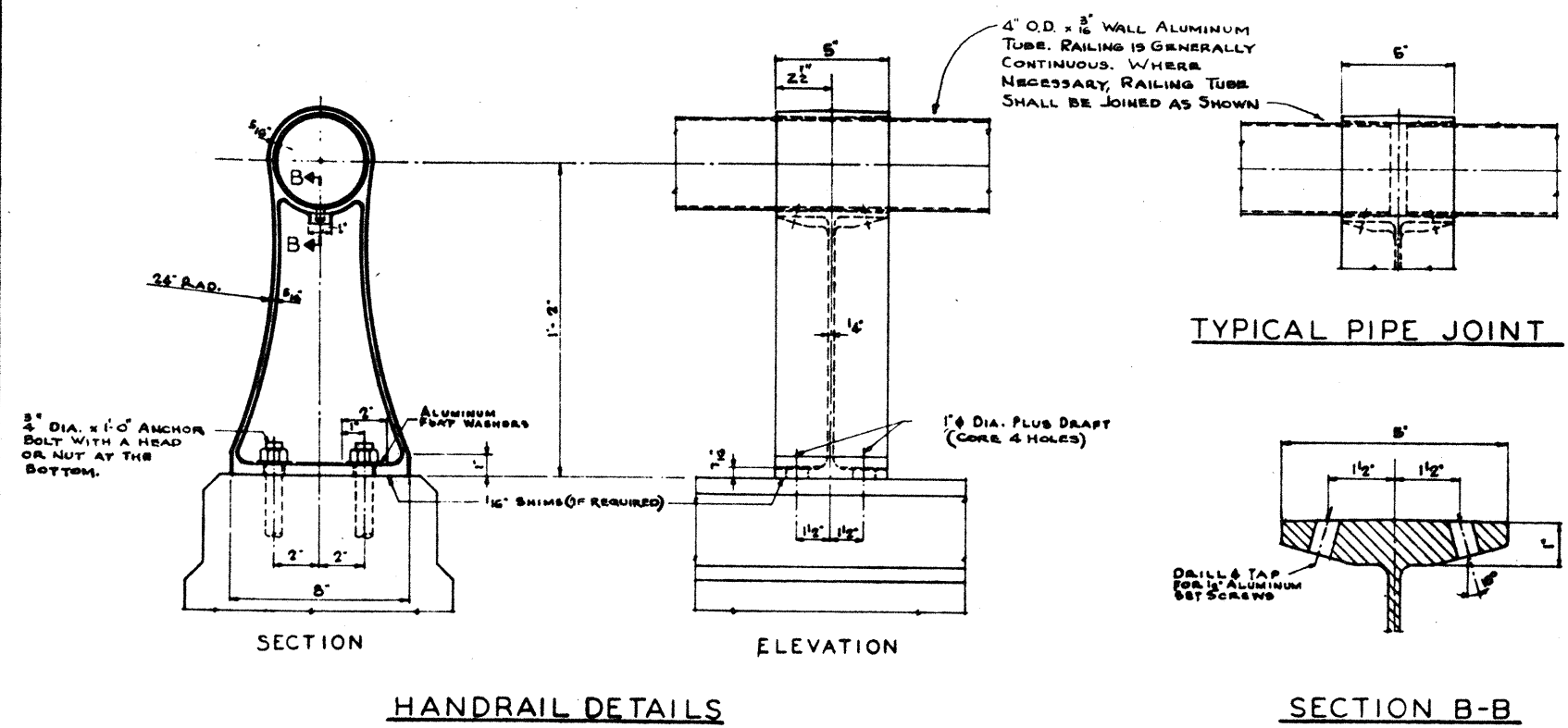


GREY SPONGE RUBBER PREFORMED EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF SEC. M-10.02, TYPE I. SPACE TWO PANEL LENGTHS APART. (INCLUDED WITH ITEM 5-14 FOR PAYMENT)

ELEVATION - HANDRAIL & PYLON



DETAIL A



HANDRAIL DETAILS

TYPICAL PIPE JOINT

SECTION B-B

NOTE:
FOR FURTHER DETAILS SEE SUPPLEMENTAL SPECIFICATIONS NO. 5-114 ALUMINIUM FOR BRIDGE RAILING DATED AUGUST 30, 1955.

CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

HANDRAIL AND PYLON DETAILS

BRIDGE NO. WAY-21-0125
U.S. 21 OVER PENN. R.R.
WAYNE CO. STA. 66+43.56
SEC. WAY-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
M.C.	R.N. A.L.B.		R.G.M.	L.N.R.	6-11-56	

STA. - 21-1780
WAY. - 21-Q00
SUM. - 21-Q00

REINFORCING STEEL LIST

SUPERSTRUCTURE					PIER/COUNT.					BENDING DIAGRAMS					NORTH ABUTMENT					SOUTH ABUTMENT									
MARK	NO.	LENGTH	WEIGHT	SHP.	MARK	NO.	LENGTH	WEIGHT	SHP.	BENDING DIAGRAMS					MARK	NO.	LENGTH	WEIGHT	SHP.	BENDING DIAGRAMS					MARK	NO.	LENGTH	WEIGHT	SHP.
5701	222	34'-0"	15,428	S	P501	4	33'-8"	140	S		A601	4	6'-6"	39	S		A517	26	6'-8"	182	B								
5702	2	35'-0"	143	S	P502	2	24'-3"	51	S		A501	2	4'-0"	9	S		A518	2	11'-0"	23	S								
5703	2	6'-0"	25	S	P503	28	8'-7"	251	B		A502	12	26'-3"	330	S		A519	12	26'-9"	340	S								
5704	2	8'-9"	34	S	P504	28	14'-9"	431	B		A503	2	10'-0"	21	S		A520	3	11'-4"	36	S								
5705	2	11'-6"	24	S	P505	4	6'-9"	28	B		A504	5	10'-7"	55	S		A521	2	3'-6"	8	S								
5706	2	14'-3"	58	S	P506	8	5'-8"	48	B		A505	10	34'-0"	356	S		A522	4	8'-8"	109	S								
5707	2	17'-0"	69	S	P507	6	7'-9"	48	B		A506	4	7'-6"	32	S		A523	12	9'-5"	119	S								
5708	2	18'-9"	81	S	P508	6	9'-1"	57	B		A507	5	37'-4"	195	S		A524	2	7'-0"	15	S								
5709	2	22'-6"	92	S	P509	2	7'-9"	16	B		A508	12	9'-7"	120	S		A525	4	5'-9"	24	S								
5710	2	25'-3"	103	S	P510	2	8'-9"	18	B		A509	35	11'-4"	415	B		A526	2	8'-0"	17	S								
5711	2	28'-0"	114	S	P511	2	9'-9"	20	B		A510	70	4'-9"	348	B		A527	2	25'-9"	52	S								
5712	2	30'-9"	126	S	P512	2	10'-9"	22	B		A511	4	6'-3"	24	B		A528	2	24'-6"	52	S								
5713	2	33'-6"	137	S	P513	2	11'-9"	25	B		A512	16	3'-0"	50	S														
					P514	2	12'-5"	26	B		A513	12	4'-3"	53	S														
5601	222	36'-2"	12,060	S	PIER 2				9754																				
5602	2	37'-2"	112	S	P1101	6	23'-0"	733	B		A501	2	4'-0"	9	S														
5603	2	7'-1"	22	S	P1102	8	15'-2"	645	B		A502	12	26'-3"	330	S														
5604	2	9'-10"	30	S	P1103	24	15'-8"	1998	B		A503	2	10'-0"	21	S														
5605	2	12'-7"	38	S							A504	5	10'-7"	55	S														
5606	2	15'-4"	47	S	P804	38	7'-10"	744	B		A505	10	34'-0"	356	S														
5607	2	18'-1"	55	S	P805	8	24'-6"	523	S		A506	4	7'-6"	32	S														
5608	2	20'-10"	63	S	P806	14	17'-6"	654	S		A507	5	37'-4"	195	S														
5609	2	23'-7"	71	S	P807	3	28'-7"	1221	S		A508	12	9'-7"	120	S														
5610	2	26'-4"	79	S	P601	6	13'-4"	120	B		A509	35	11'-4"	415	B														
5611	2	28'-1"	88	S	P602	16	22'-0"	529	S		A510	70	4'-9"	348	B														
5612	2	31'-10"	96	S	P603	14	12'-6"	263	S		A511	4	6'-3"	24	B														
5613	2	34'-7"	104	S	P604	3	20'-6"	277	S		A512	16	3'-0"	50	S														
5614	263	36'-6"	13,750	S							A513	12	4'-3"	53	S														
5615	44	24'-0"	1,585	S							A514	4	11'-3"	47	B														
					P501	4	33'-8"	140	S	A515	4	2'-10"	12	S															
					P502	2	24'-3"	51	S	A516	4	10'-3"	45	B															
					P503	30	8'-7"	269	B																				
					P504	30	14'-9"	462	B																				
					P505	4	6'-9"	28	B																				
					P506	8	5'-8"	48	B																				
					P507	6	7'-9"	48	B																				
					P508	6	9'-1"	57	B																				
					P509	2	7'-9"	16	B																				
					P510	2	8'-9"	18	B																				
					P511	2	9'-9"	20	B																				
					P512	2	10'-9"	22	B																				
					P513	2	11'-9"	25	B																				
					P514	2	12'-5"	26	B																				

NOTE:
BAR SIZE IS INDICATED IN THE BAR MARK.
THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE: A700 IS A NUMBER 7 BAR AND A1014 IS A NUMBER 10 SIZE.

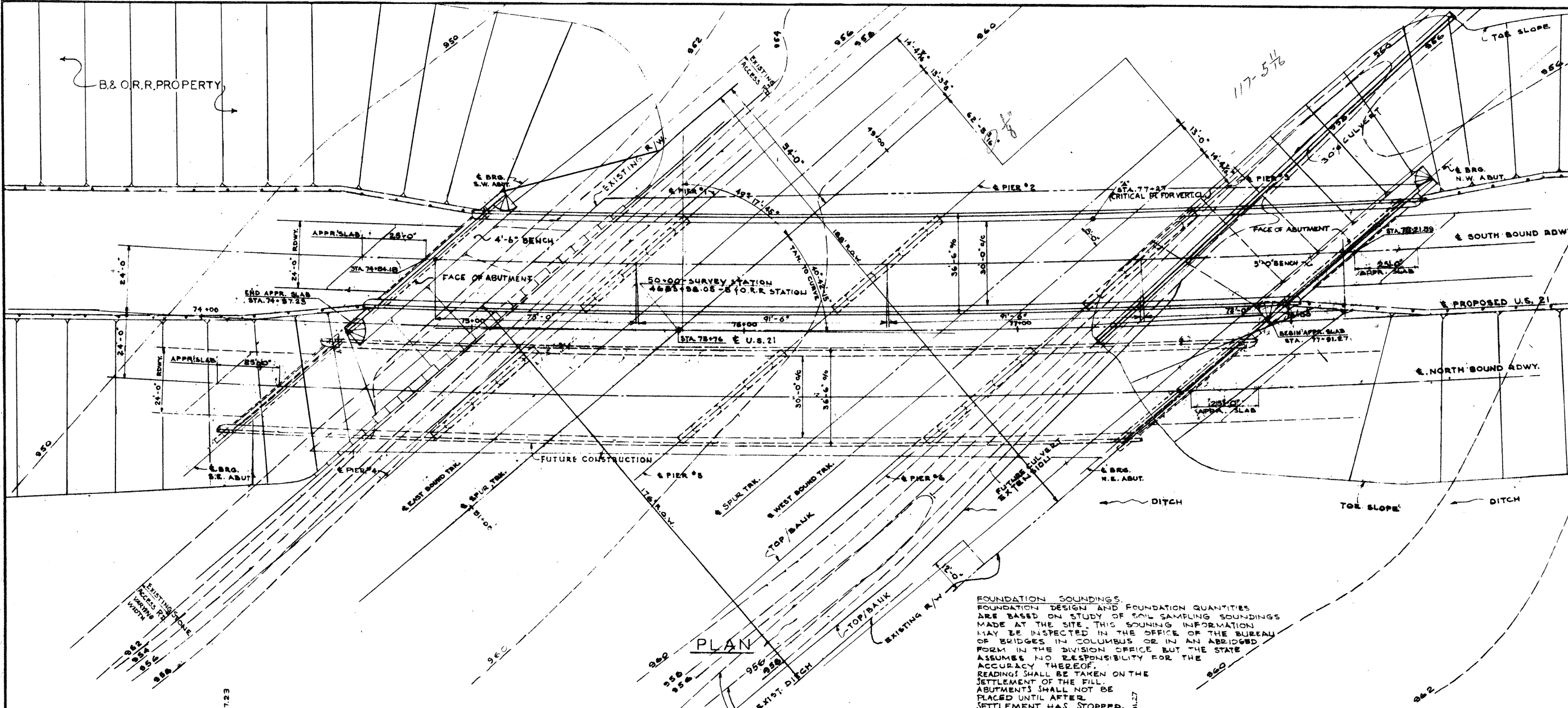
CHARLES E. DE LEU
CONSULTING ENGINEER
CHICAGO ILLINOIS

REINFORCING STEEL LIST

BRIDGE NO. WAY-21-0125
U.S. 21 OVER PENN. R.R.
WAYNE CO. STA. 66 + 43.56
SEC. WAY-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	J.G.		R.G.M.	L.N.R.	6-11-56	

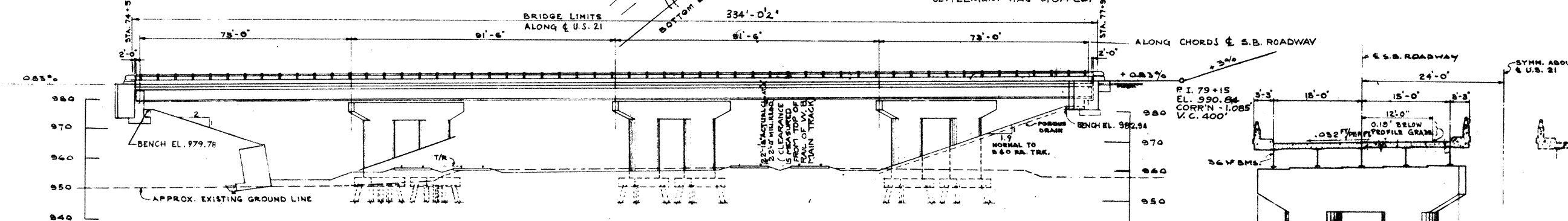
STA-21-1780
WAY-21-000
SUM-21-000



A	31°35'30"
D	19'-00'
R	5729.58
T	1621.16
L	3159.72
PC STA.	65+33.86
PI	81+55.02
PT	96+23.58

FOUNDATION SOUNDINGS
FOUNDATION DESIGN AND FOUNDATION QUANTITIES ARE BASED ON STUDY OF SOIL SAMPLING SOUNDINGS MADE AT THE SITE. THIS SOUNDING INFORMATION MAY BE INSPECTED IN THE OFFICE OF THE BUREAU OF BRIDGES IN COLUMBUS OR IN AN ABBRIDGED FORM IN THE DIVISION OFFICE BUT THE STATE ASSUMES NO RESPONSIBILITY FOR THE ACCURACY THEREOF. READINGS SHALL BE TAKEN ON THE SETTLEMENT OF THE FILL. ABUTMENTS SHALL NOT BE PLACED UNTIL AFTER SETTLEMENT HAS STOPPED.

PROPOSED STRUCTURE
TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED DECK AND SUBSTRUCTURE
SPANS: 73'-0", 91'-6", 81'-0", 73'-0" 1/2 BRGS.
ROADWAY: 30'-0" f/h; 2'-0" SAFETY CURBS
LOAD FREQUENCY RATING: C.F. 2000
SKEW: 49°-17'-45" L.R.
SURFACE COURSE: MONOLITHIC CONCRETE
APPROACH SLAB: AS SHOWN
ALIGNMENT ON 19'-0"-0" CURVE LEFT

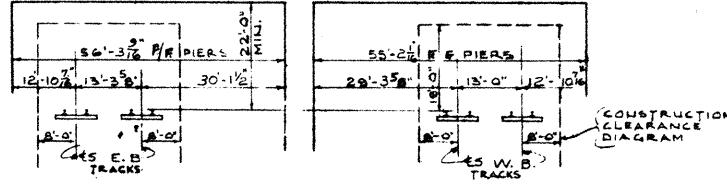


SURVEY STATION	W.B. MAIN	W.B. SIDING	E.B. MAIN	E.B. SIDING	SURVEY STATION	W.B. MAIN	W.B. SIDING	E.B. MAIN	E.B. SIDING
40+00	964.21	963.51	962.90	962.17	51+00	962.07	961.36	960.49	959.95
41+00	964.02	963.44	962.82	962.15	52+00	961.88	961.09	960.33	959.87
42+00	963.82	963.02	962.65	961.94	53+00	961.78	960.94	960.18	959.81
43+00	963.59	962.74	962.44	961.87	54+00	961.66	960.85	960.04	959.95
44+00	963.37	962.64	962.17	961.84	55+00	961.44	960.83	959.93	959.92
45+00	963.16	962.54	961.93	961.64	56+00	961.23	961.04	959.82	959.82
46+00	962.89	962.35	961.64	961.44	57+00	960.90	960.86	959.70	959.65
47+00	962.71	962.17	961.33	961.38	58+00	960.78	960.75	959.66	959.70
48+00	962.55	962.00	961.03	960.83	59+00	960.61	960.49	959.72	959.68
49+00	962.35	961.72	960.84	960.64	60+00	960.42	960.39	959.76	959.72
50+00	962.19	961.51	960.63	960.24					

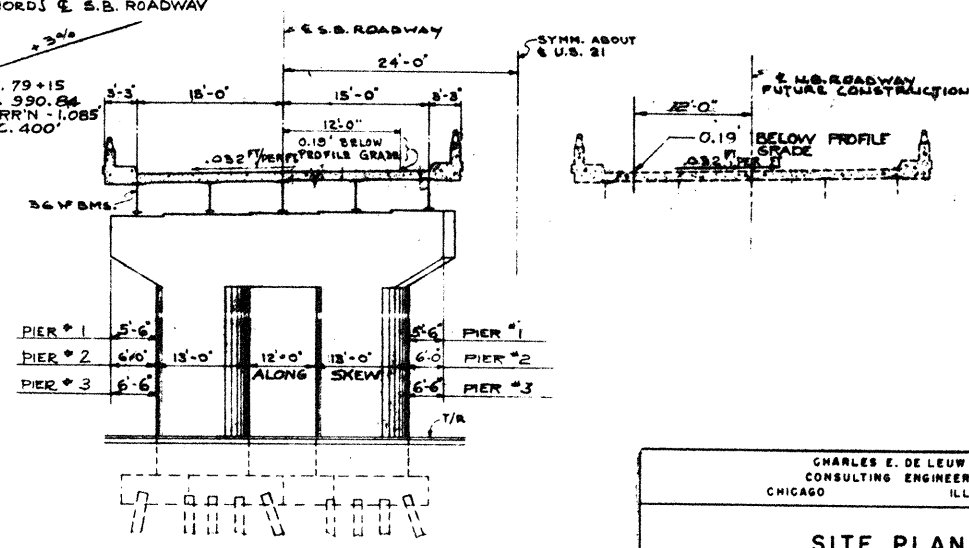
NOTE:
PIPING - 10" CAST-IN-PLACE CONC. (NO. 3-GAGE SHELL)
EST. AVERAGE
PIV LENGTH - 35' ALL PIERS

ELEVATION

B.M. #223 EL. 959.45
TOP OF NORTHWEST CROSSCUT BOLT IN BASE OF SIGNAL LIGHT STANDARD 375' RIGHT STA. 72+00.



TRACK CENTERS AND CLEARANCE



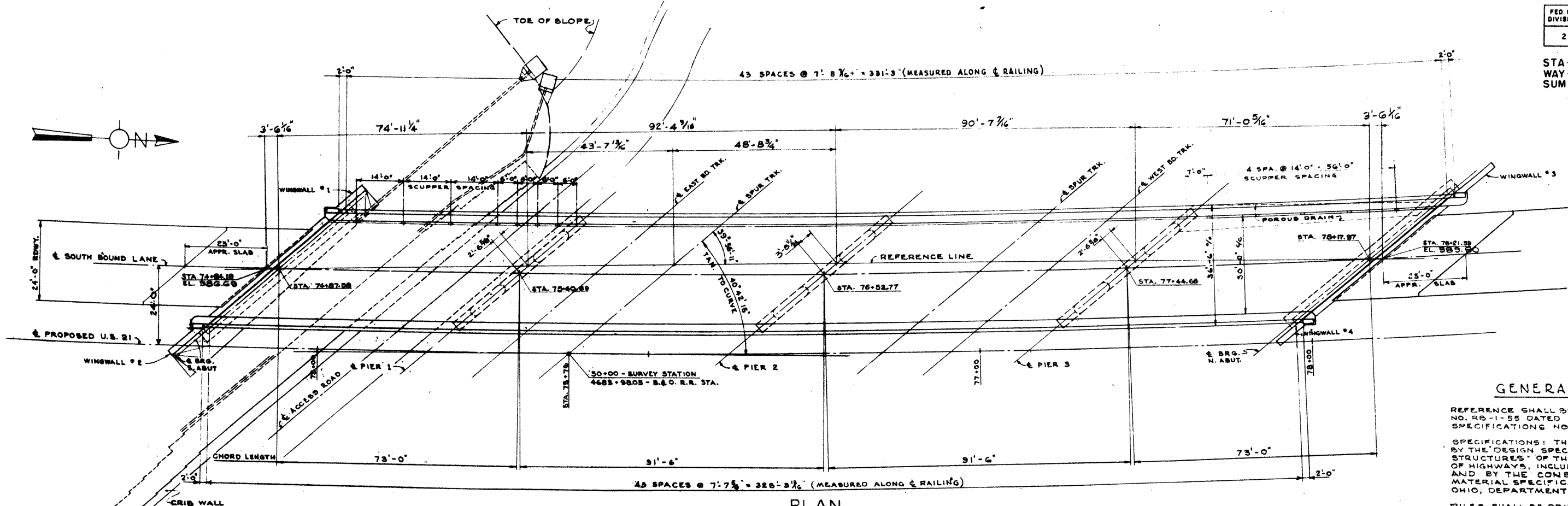
CROSS SECTION OF BRIDGE (LOOKING NORTH)

CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

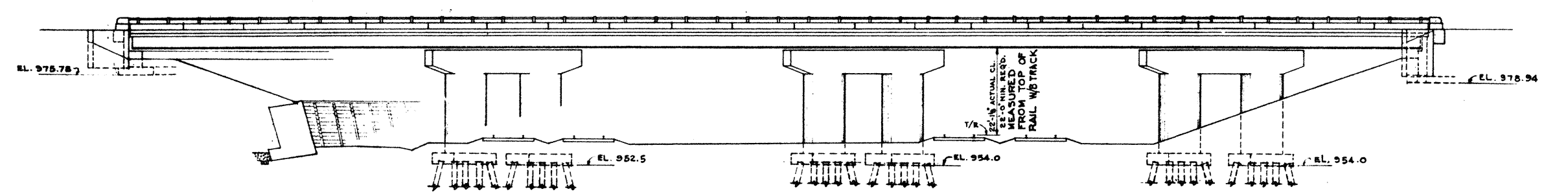
SITE PLAN
BRIDGE NO. WAY-21-0143
U.S. 21 OVER B & O.R.R.
WAYNE CO. STA. 75+76.00
SEGWAY-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
M.C.	J.L.	H.P.	E.S.M.	L.N.R.	6-11-56	

STA-21-17.80
WAY-21-0.00
SUM-21-0.00



PLAN



ELEVATION

NOTE:
REFERENCE LINE IS THE CHORD BETWEEN INTERSECTIONS OF E. OF SOUTH BOUND ROADWAY AND E. OF ABUTMENT BEARINGS.

GENERAL NOTES

REFERENCE SHALL BE MADE TO STANDARD DRAWING NO. RB-1-55 DATED 3-1-55 AND TO SUPPLEMENTAL SPECIFICATIONS NO. 6-114 DATED AUG. 30, 1955.

SPECIFICATIONS: THIS WORK SHALL BE GOVERNED BY THE DESIGN SPECIFICATIONS FOR HIGHWAY STRUCTURES OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS, INCLUDING REVISIONS THRU FEB. 1, 1955, AND BY THE CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS, DATED JAN. 1, 1955.

PILES SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 60 TONS FOR THE PIERS. THE LENGTH OF PENETRATION OF EVERY PILE SHALL BE AT LEAST 80% OF THE ESTIMATED AVERAGE PAY LENGTH OF THE PILES IN THE PIERS, AS INDICATED ON THE PLANS, UNLESS A LESSER PENETRATION IS APPROVED BY THE DIRECTOR.

FOUNDATION PRESSURE: MAX. SOIL PRESSURE = 3,000 LBS. PER SQ. FT. UNDER ABUTMENTS.

WELDING OF STRUCTURAL STEEL SHALL BE CLASS "A" EXCEPT AS OTHERWISE SHOWN. WELDS SHOWN AS FIELD WELDS MAY, AT THE OPTION OF THE CONTRACTOR, BE MADE IN THE SHOP.

PAINT, BOTH SHOP AND FIELD, SHALL BE APPLIED BY BRUSHING. SPRAY APPLICATION WILL NOT BE PERMITTED.

SURFACE FINISH OF CONCRETE: RAILING END POSTS, RAILING PARAPETS, CURB FACES AND FASCIAE OF DECK SHALL RECEIVE A RUBBED SURFACE FINISH. ALL OTHER EXPOSED SURFACES SHALL BE GOVERNED BY THE PROVISIONS OF ITEM 3-1.

POROUS DRAIN: EXTENDING FROM FACE OF ABUTMENT TO EL. 960.0 SHALL BE PLACED ON AND FLUSH WITH EMBANKMENT SLOPE AT NORTHWEST CORNER OF THE BRIDGE. THE DRAIN SHALL BE 8'-0" WIDE AT THE LOW END, TAPERING TO 4'-0" WIDE AT FACE OF ABUTMENT AND ONE FOOT THICK. IT SHALL BE CENTERED UNDER THE SCUPPERS.

GRAVEL IF USED AS THE COARSE AGGREGATE, SHALL BE ACCORDING TO SEC. M-393 INSTEAD OF SEC. M-391 FOR CLASS "C" CONC. IN THE SUPERSTRUCTURE. GRAVEL MEETING THE REQUIREMENTS OF SEC. M-393 ALSO MAY BE USED FOR OTHER CONCRETE IN THIS STRUCTURE, INCLUDING CONCRETE FOR PYLONS.

SPLICE OF REINFORCING STEEL: REINFORCING STEEL SHALL BE SPLICED BY LAPPING BARS A MIN. OF 30 TIMES THE DIAMETER OF THE SMALLER BAR.

EXCAVATION QUANTITY INCLUDES THE REMOVAL OF FILL MATERIAL BETWEEN THE TOP OF THE EARTH BENCH AND THE BOTTOM OF THE ABUTMENT.

WELDED STEEL: THE STEEL FOR THE 36 WF 245 BEAMS SHALL CONFORM TO ASTM DESIGNATION A-373. ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO EITHER ASTM A-7/A5 PER SEC. M-7.4 (a) OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS) OR TO A-373.

CONSTRUCTION CLEARANCE OF 19'-0" VERTICALLY ABOVE THE TOP OF THE RAILROAD TRACKS AND 8'-0" HORIZONTALLY FROM THE CENTER OF TRACKS SHALL BE MAINTAINED AT ALL TIMES.

SHEETING AND BRACING: BEFORE CONSTRUCTION IS STARTED, SETS OF PRINTS SHOWING DETAILS OF THE SHEETING AND BRACING TO BE USED FOR EXCAVATION ADJACENT TO THE RAILROAD TRACKS SHALL BE SUBMITTED TO THE DIRECTOR FOR APPROVAL BY THE DEPARTMENT OF HIGHWAYS AND BY THE RAILROAD COMPANY.

ALIGNING RAILROAD TRACKS: AFTER THE CONTRACTOR HAS COMPLETED ALL EXCAVATION AND BACKFILL ADJACENT TO THE RAILROAD TRACKS IN COMPLIANCE WITH SECTION E-204 AND E-208 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, SUBJECT TO THE SUPERVISION OF THE RAILROAD COMPANY, NOTHING IN SEC. E-204, E-208 OR G-8.07 OF THE SPECIFICATIONS SHALL BE CONSTRUED TO HOLD THE CONTRACTOR LIABLE FOR ALIGNING AND RESURFACING THE RAILROAD TRACKS.

ESTIMATED QUANTITIES						
ITEM	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPERSTR. GENERAL
I-4	162	LIN. FT.	6" HELICAL PERFOR. CORR. MTL. PIPE 3/8" M-6.4(h) FOR UNDERDRAINS			162
I-17	1963	SQ. FT.	PRECAST REINF. CONC. CELLULAR RETAINING WALL			1963
E-2	LUMPSUM		COFFERDAMS, CRIBS AND SHEETING			
E-2	429	CU. YD.	UNCLASSIFIED EXCAVATION	201	228	
S-1	413	CU. YD.	CLASS "C" CONCRETE, SUPERSTRUCTURE & PYLONS			413
S-1	281	CU. YD.	CLASS "C" CONCRETE, PIERS ABOVE FOOTINGS		281	
S-1	136	CU. YD.	CLASS "E" CONCRETE, ABUTMENT WALLS	136		
S-1	147	CU. YD.	CLASS "E" CONCRETE, FOOTINGS	54	93	
S-4	154,672	LBS.	REINFORCING STEEL	10,020	31,348	113,081
S-7	527,400	LBS.	STRUCTURAL STEEL, INCLUDING BLAST PLATES			527,400
S-8	527,400	LBS.	FIELD PAINTING OF STRUCTURAL STEEL & BLAST PLATES			527,400
S-14	658	LIN. FT.	RAILING (ALUMINUM RAIL & SUPPORTS & CONC. PARAPET)			658
S-16	LUMPSUM		FIRST TEST PILE			
S-18	2520	LIN. FT.	16" CAST IN PLACE REINF. CONCRETE PILES, NO. 3 GAGE		2520	
S-23	16	CU. YD.	POROUS DRAINS ON EMBANKMENT SLOPES			16
S-29	75	LIN. FT.	6" WROUGHT IRON OR GALVANIZED STEEL PIPE, INCL. SPECIALS			75
S-29	75	LIN. FT.	8" BITUMINOUS COATED CORRUGATED METAL PIPE, SEC. M-6.4(c)			75
S-29	52	CU. YD.	POROUS BACKFILL			52

CHARLES E. DE LEW
CONSULTING ENGINEER
CHICAGO ILLINOIS

**GENERAL PLAN & ELEVATION
NOTES & ESTIMATED QUANTITIES**
BRIDGE NO. WAY-21-0143
U.S. 21 OVER B & O. R.R.
WAYNE CO STA. 75+76.00
SEC. WAY-21

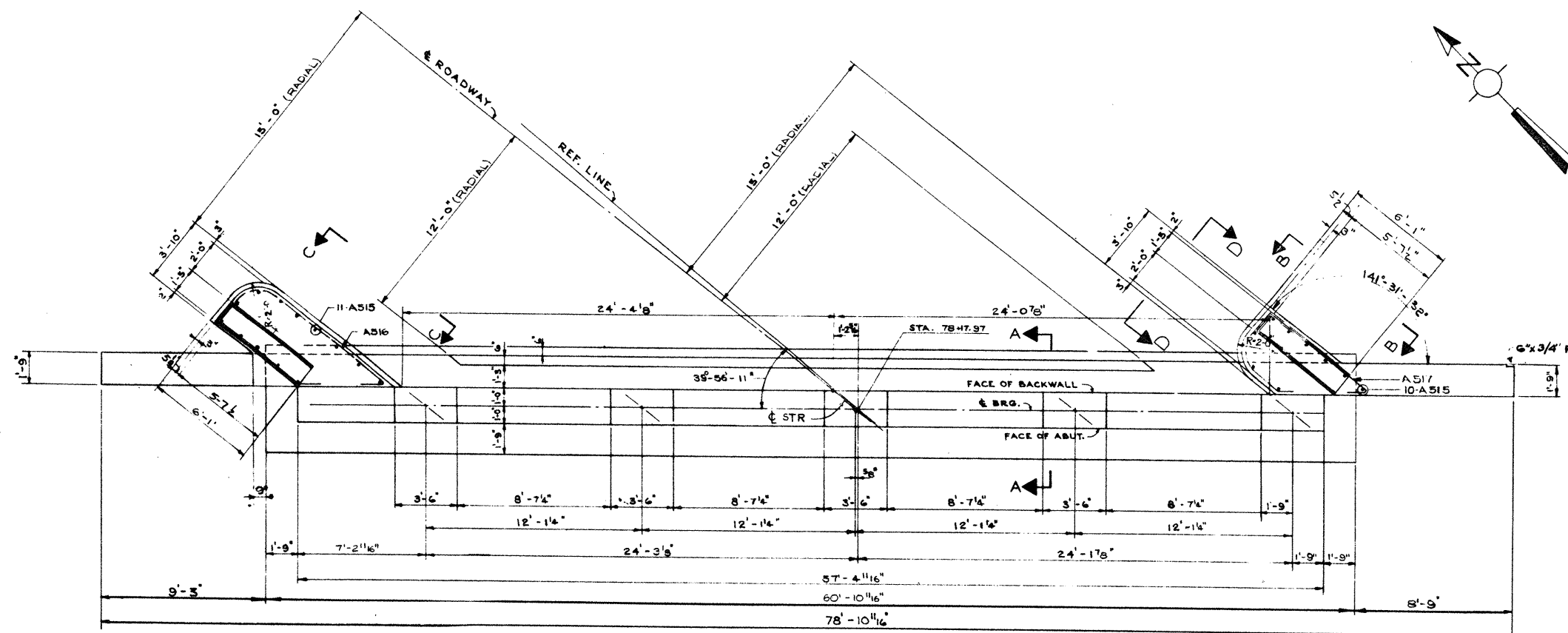
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	J.L.		E.S.M.	L.N.R.	6-11-56	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010 (3)	

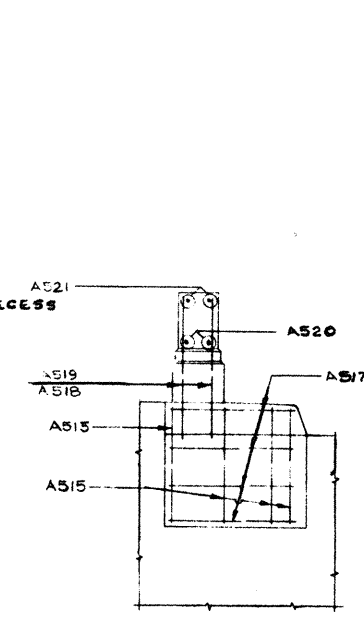
314
329

STA-21-17.80
WAY-21-0.00
SUM-21-0.00

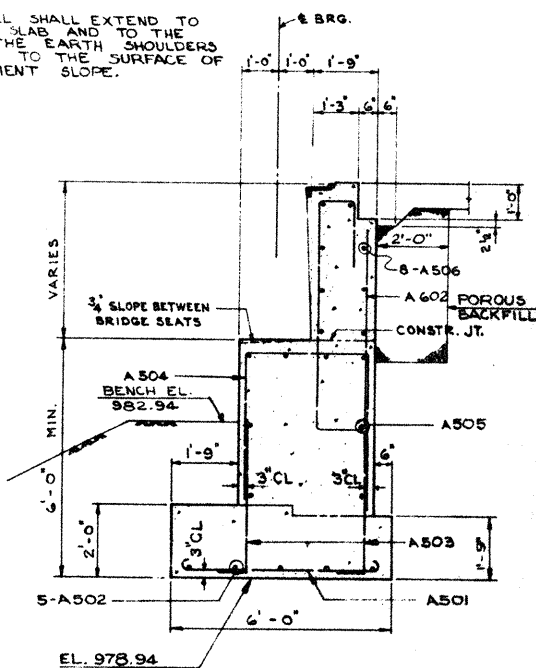
NOTE:
POROUS BACKFILL SHALL EXTEND TO THE APPROACH SLAB AND TO THE SURFACE OF THE EARTH SHOULDERS AND OUTWARD TO THE SURFACE OF THE EMBANKMENT SLOPE.



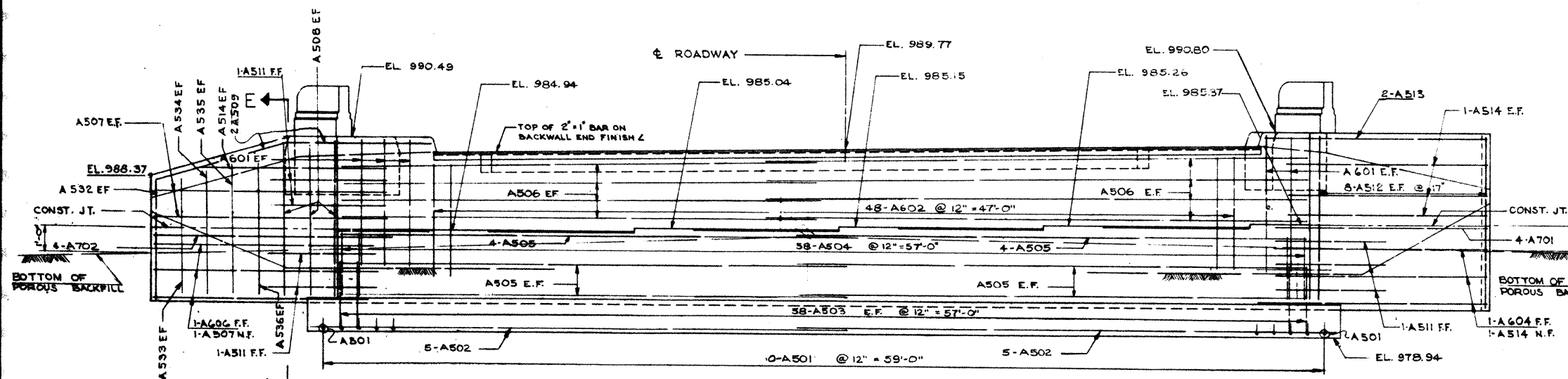
PLAN OF NORTH ABUTMENT



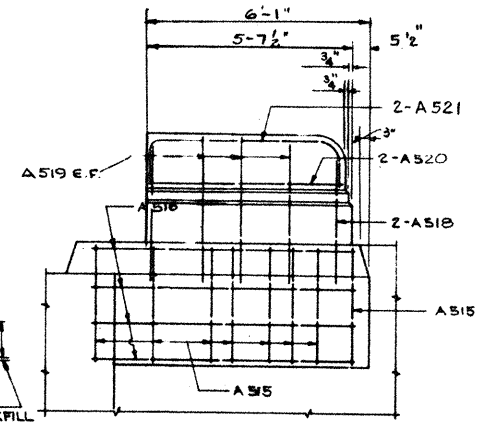
SECTION D-D



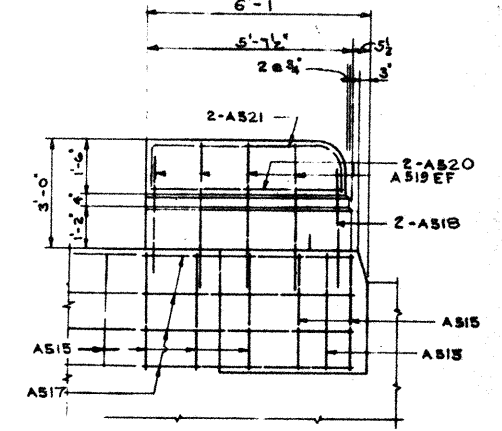
SECTION A-A



ELEVATION

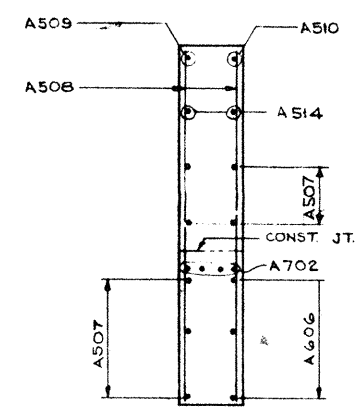


SECTION C-C



SECTION B-B

NOTES:
REINFORCING STEEL SHALL BE 2\"/>



SECTION E-E

CHARLES E. DELEU
CONSULTING ENGINEER
CHICAGO ILLINOIS

NORTH ABUTMENTS DETAILS
BRIDGE NO. WAY-21-0143
U.S. 21 OVER B. & O. R.R.
WAYNE CO. STA. 75 + 76
SEC. WAY-21

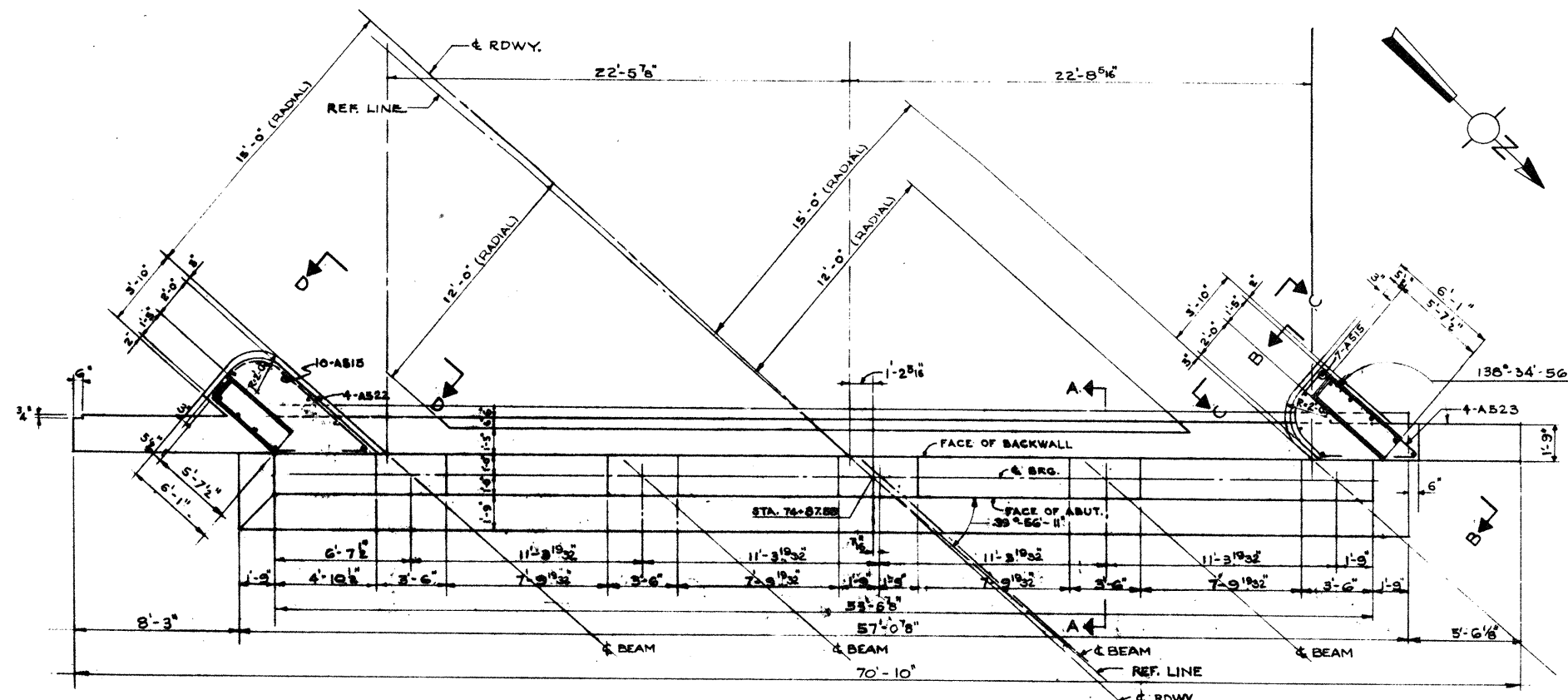
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	J.L.F.S.		E.S.M.	L.N.R.	6-11-56	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

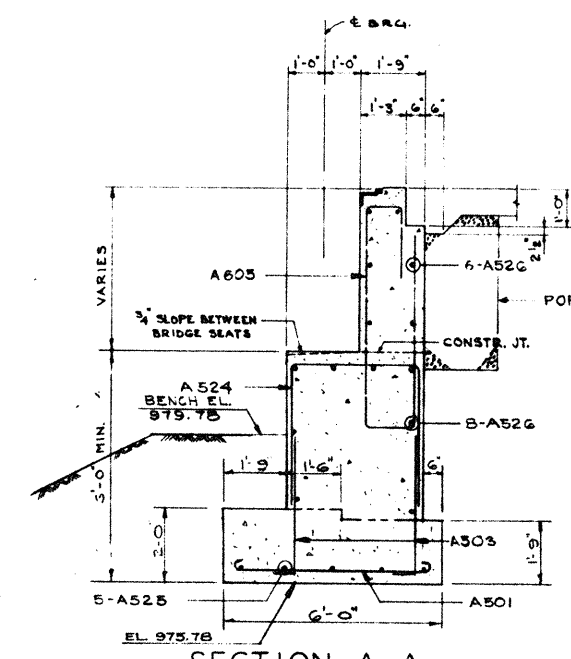
318
329

POROUS BACKFILL SHALL EXTEND TO THE APPROACH SLAB AND TO THE SURFACE OF THE EARTH SHOULDERS AND TO THE SURFACE OF THE EMBANKMENT SLOPE.

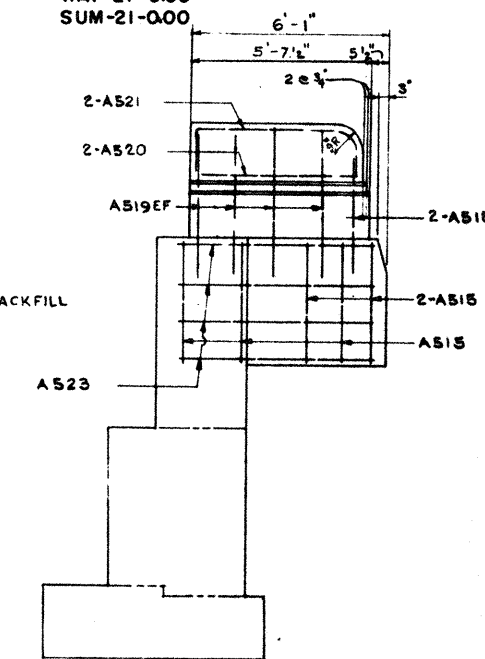
STA-21-17.80
WAY-21-000
SUM-21-000



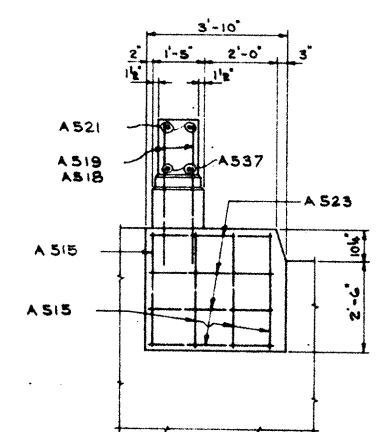
PLAN OF SOUTH ABUTMENT



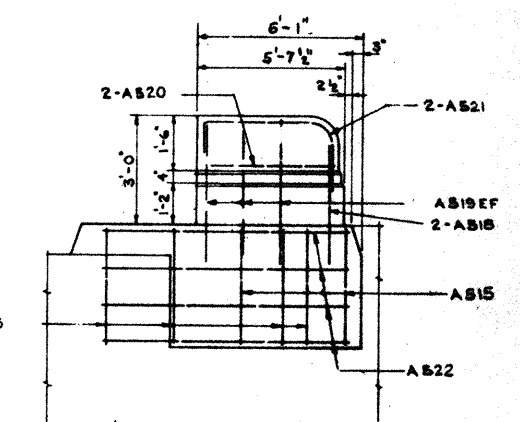
SECTION A-A



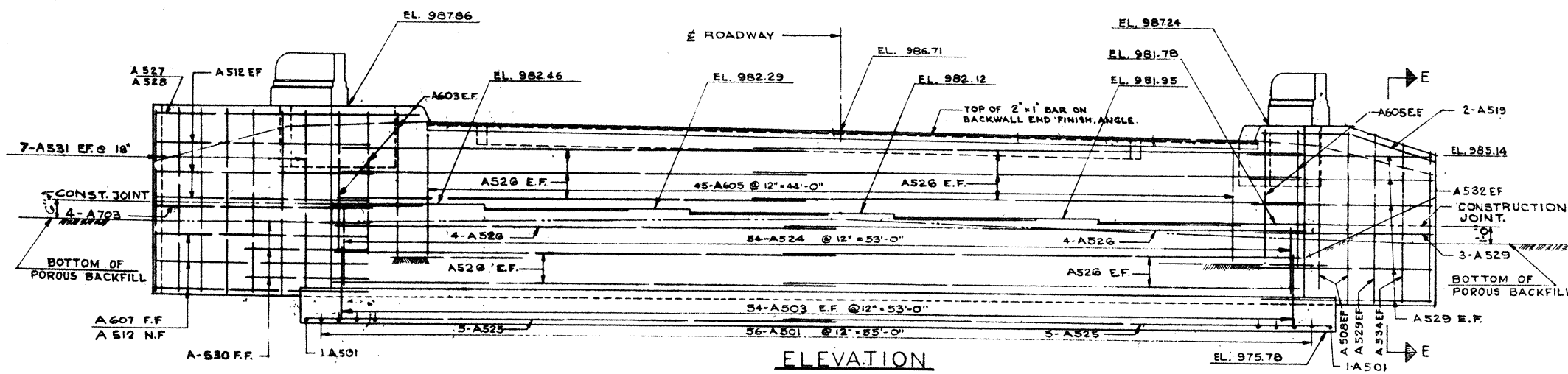
SECTION B-B



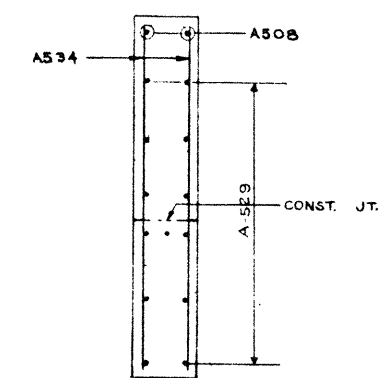
SECTION C-C



SECTION D-D



ELEVATION



SECTION E-E

EF DENOTES EACH FACE
NF DENOTES NEAR FACE
FF DENOTES FAR FACE

NOTES:
REINFORCING STEEL SHALL BE 2\"/>

CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

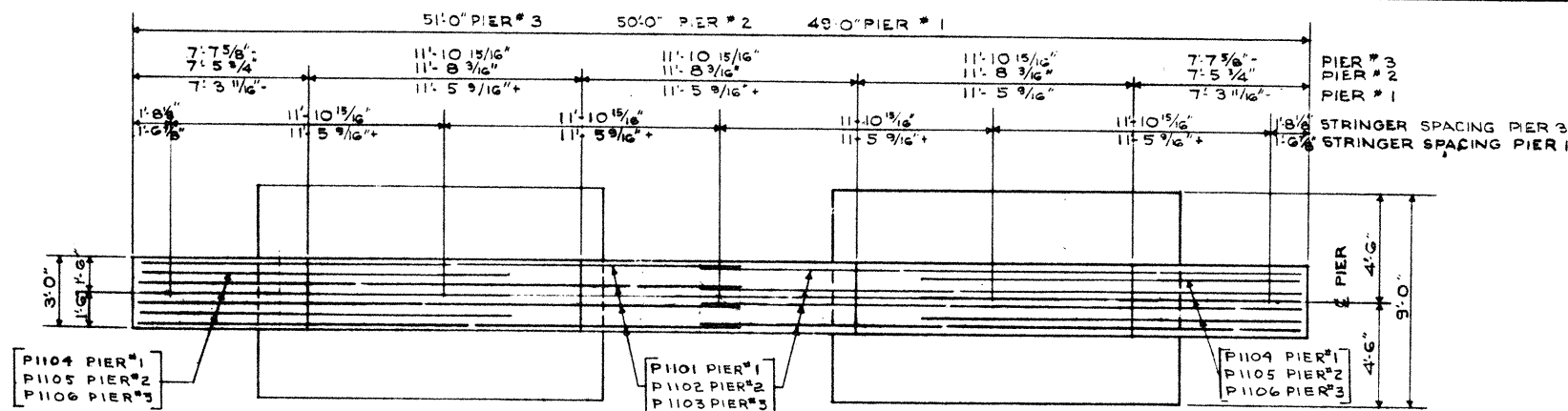
SOUTH ABUTMENTS DETAILS
BRIDGE NO. WAY-21-0143
US21 OVER B. & O. R. R.
WAYNE CO. STA. 75 + 76
SEC. WAY-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION
J.A.E.	F.S.		E.S.M.	L.N.R.	6-11-56	

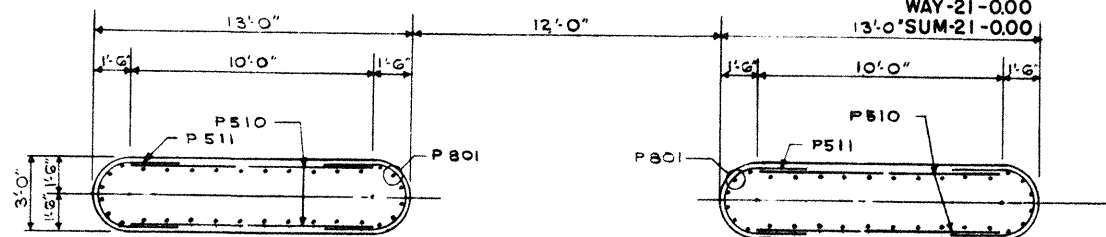
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

316
329

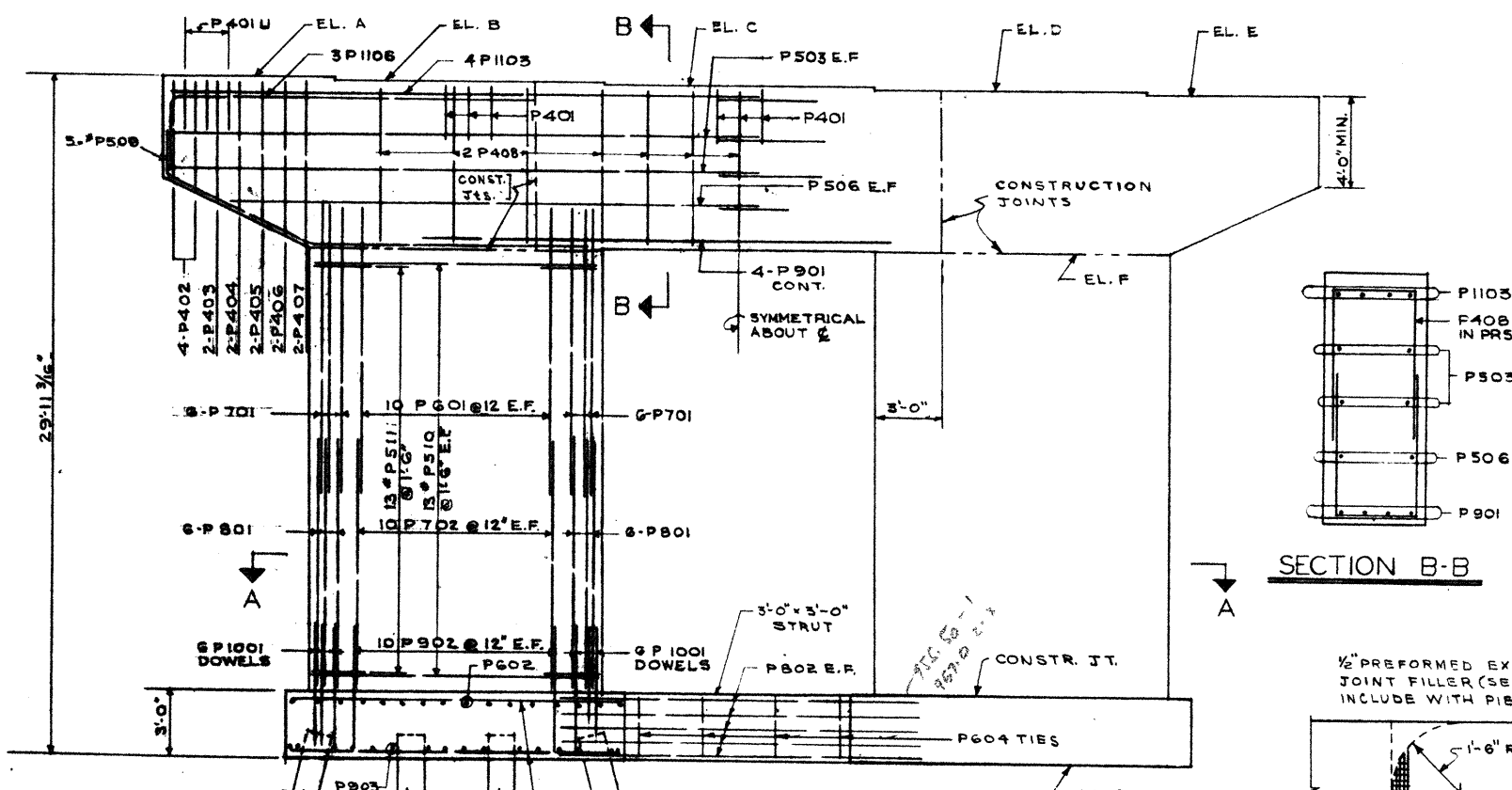
STA-21-17.80
WAY-21-0.00
SUM-21-0.00



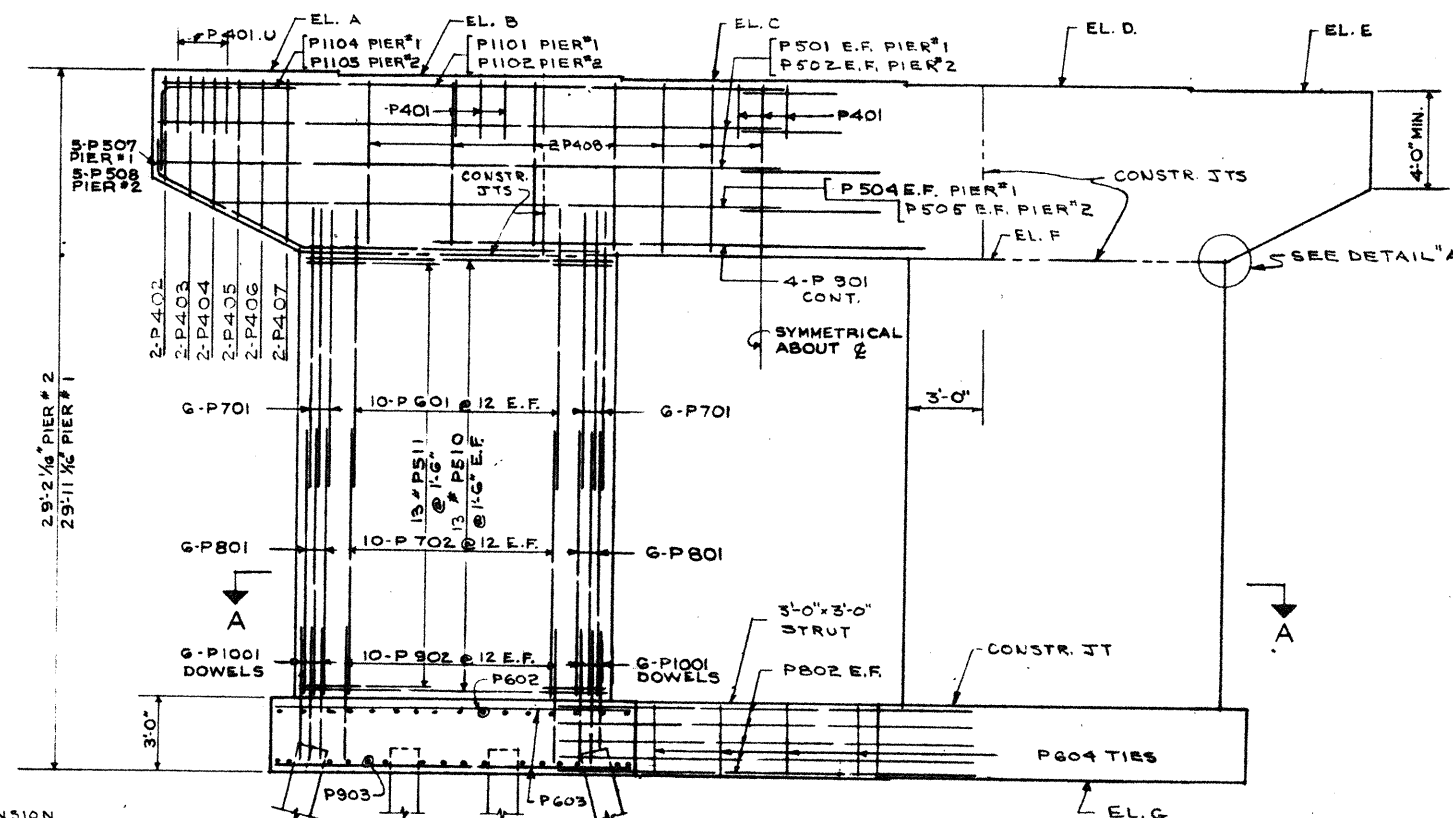
PLAN PIERS 1, 2 & 3
SHOWING TOP REINFORCING



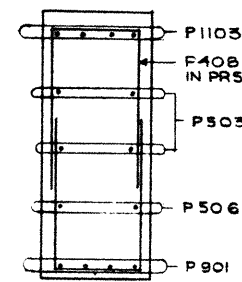
SECTION A-A



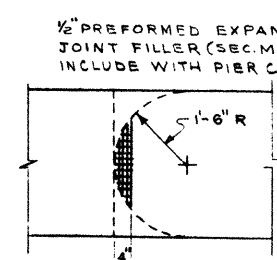
ELEVATION PIER #3
LOOKING SOUTH



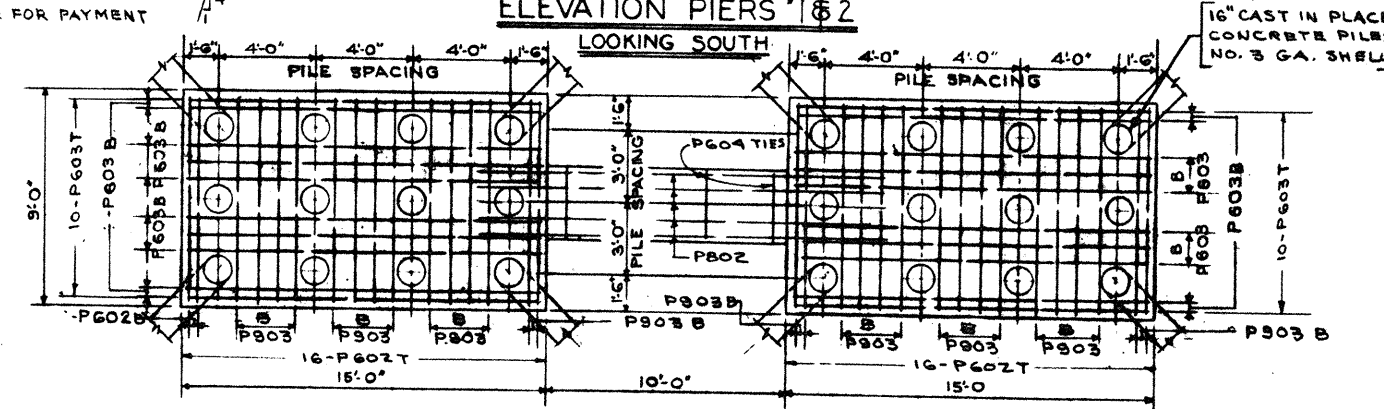
ELEVATION PIERS #1 & 2



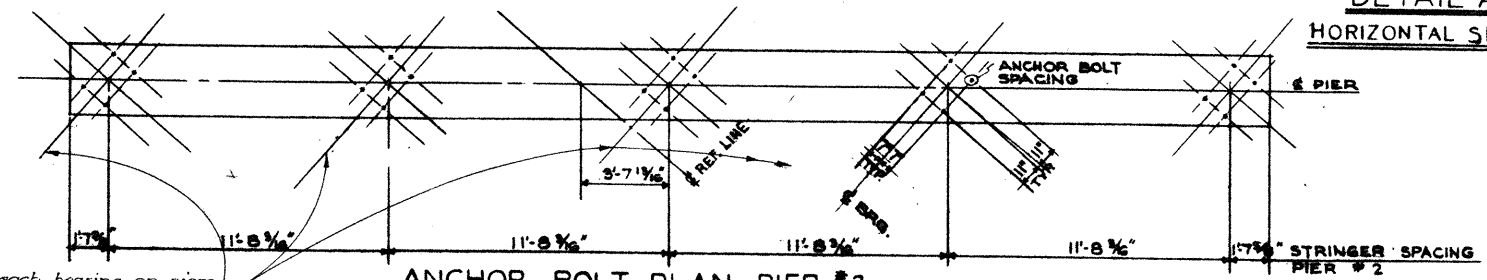
SECTION B-B



DETAIL "A"
HORIZONTAL SECTION



FOOTING PLAN PIERS 1, 2 & 3



ANCHOR BOLT PLAN PIER #2

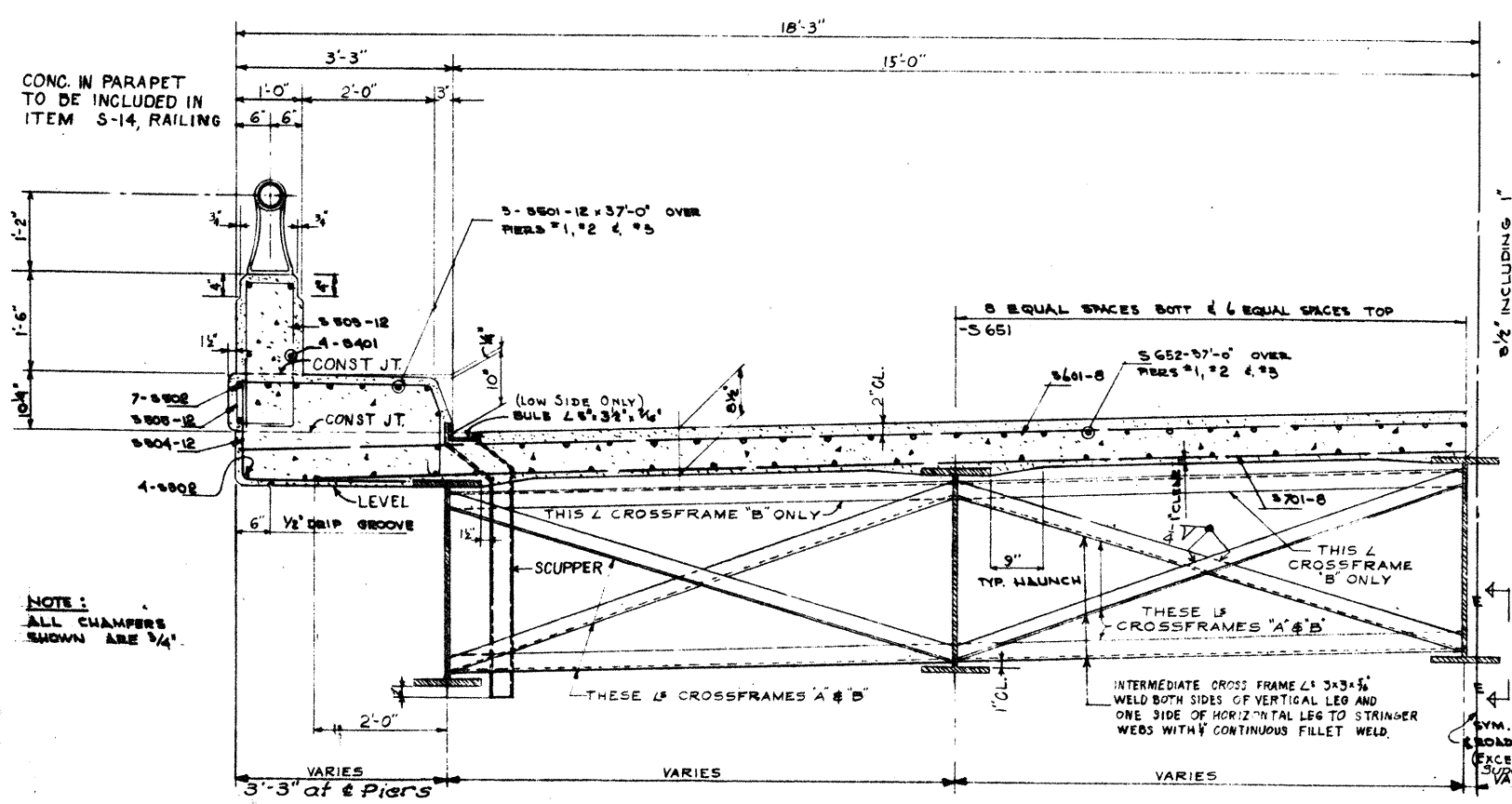
	ELEV. A	ELEV. B	ELEV. C	ELEV. D	ELEV. E	ELEV. F	ELEV. G
PIER #1	982.42	983.28	982.08	981.81	981.74	974.74	952.60
PIER #2	983.7	983.00	982.82	981.87	982.51	975.51	954.00
PIER #3	983.93	983.78	983.63	983.48	983.24	976.34	954.00

Transverse \pm of each bearing on piers is to bisect the angle between the beams spliced at that bearing

CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

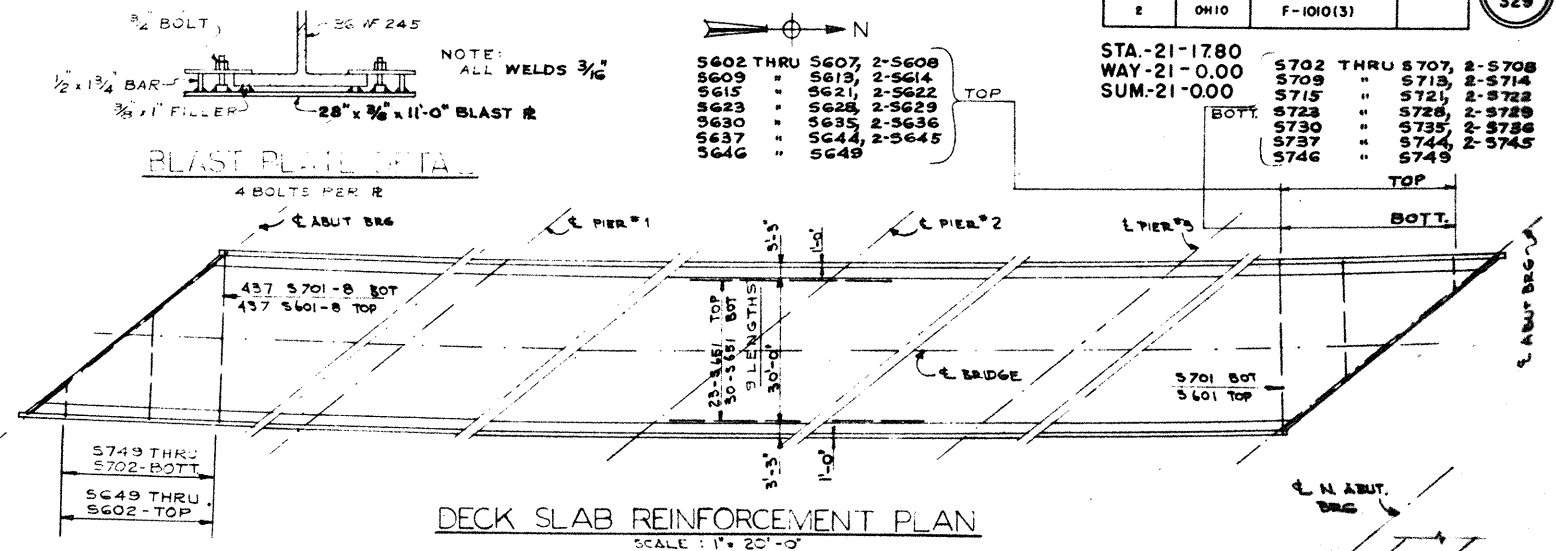
PIER DETAILS
BRIDGE NO. WAY-21-0143
U.S. 21 OVER B & O.R.R.
WAYNE CO. STA. 75 + 76.00
SEC. WAY-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.B.	J.N.		E.S.M. J.A.E.	L.N.R.	6-11-58	



TRANSVERSE HALF SECTION
SCALE: 3/4" = 1'-0"

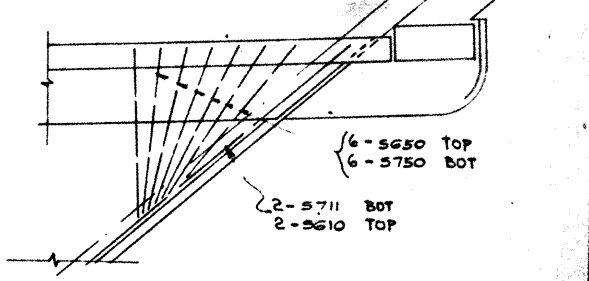
Intersection of ϕ of fascia stringer with ϕ of bearing at piers and abutments is at curb line.



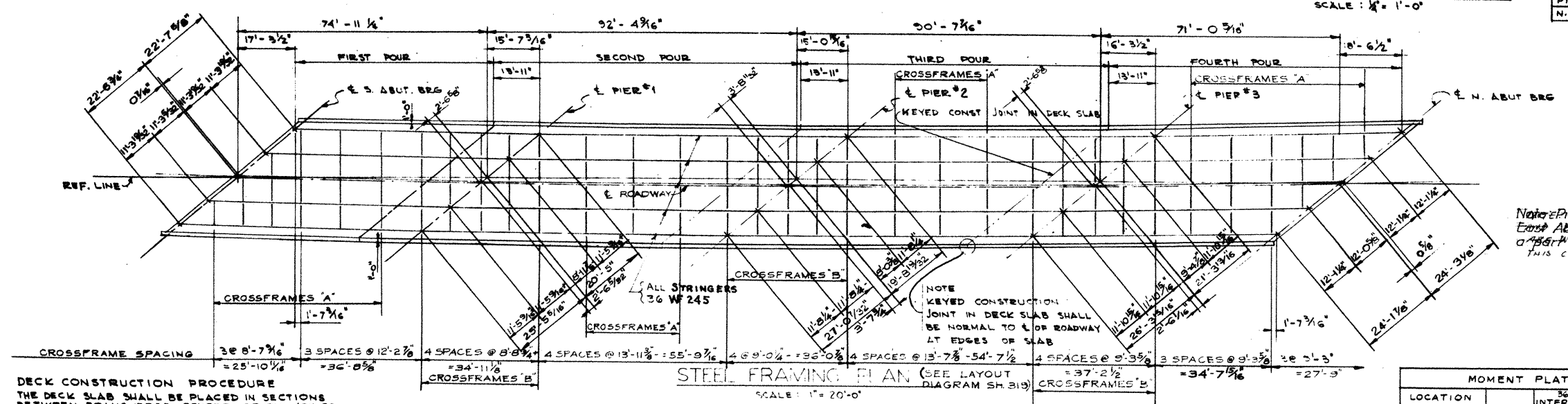
DECK SLAB REINFORCEMENT PLAN
SCALE: 1" = 20'-0"

ROCKERS AND BOLSTERS		
	ROCKER	BOLSTER
S.W. ABUTMENT	R-100	
PIER #1	R-250	
PIER #2		B-250
PIER #3	R-250	
N.W. ABUTMENT	R-100	
S.E. ABUTMENT	R-100	
PIER #4	R-250	
PIER #5		B-250
PIER #6	R-250	
N.E. ABUTMENT	R-100	

PART PLAN & S.E. CORNER
SCALE: 1/4" = 1'-0"

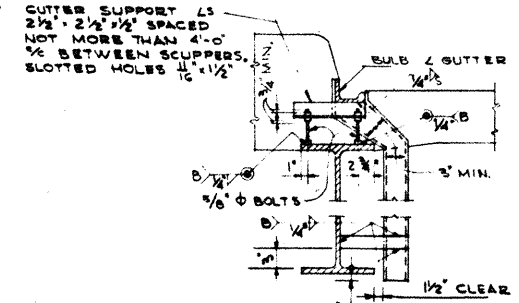


PART PLAN & N.W. CORNER
SCALE: 1/4" = 1'-0"

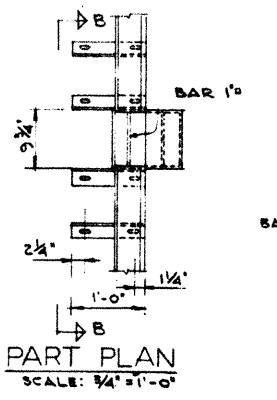


STEEL FRAMING PLAN
SCALE: 1" = 20'-0"

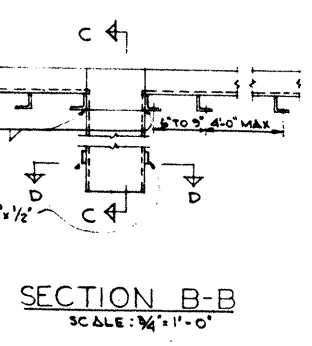
DECK CONSTRUCTION PROCEDURE
THE DECK SLAB SHALL BE PLACED IN SECTIONS BETWEEN TRANSVERSE CONSTRUCTION JOINTS IN THE NUMERICAL ORDER AND IN THE DIRECTION INDICATED ON THE STEEL FRAMING PLAN IN ORDER THAT THE MAJOR PORTION OF THE DEAD LOAD DEFLECTION WILL OCCUR PRIOR TO PLACING CONCRETE OVER EACH PIER.



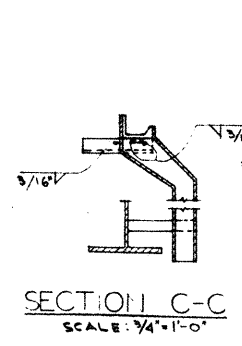
GUTTER SUPPORT AND SCUPPER
SCALE: 3/4" = 1'-0"



PART PLAN
SCALE: 3/4" = 1'-0"



SECTION B-B
SCALE: 3/4" = 1'-0"



SECTION C-C
SCALE: 3/4" = 1'-0"

MOMENT PLATE SIZES			
LOCATION	36 WF 245 INTERIOR BEAMS	36 WF 245 FASCIA BEAMS	
PIERS 1 & 3	TOP R 15" x 7/8" x 27'-6"	15" x 7/8" x 25'-0"	
	BOTT R 18" x 3/4" x 27'-6"	18" x 3/4" x 25'-0"	
PIER 2	TOP R 15" x 1" x 30'-6"	15" x 1" x 26'-6"	
	BOTT R 18" x 3/4" x 30'-6"	18" x 3/4" x 26'-6"	

Note: Piers No. 3 & 6 and East Abutments are not a part of this contract.

DIAGRAM SHOWING STAGGER OF S 501 & S 652 BARS OVER PIERS N.O. 1, 2 & 3

	DEFLECTION					
	SOUTH BOUND			NORTH BOUND		
	INT. STR.	FASCIA STR.		INT. STR.	FASCIA STR.	
DEFLECTION DUE TO WEIGHT OF STEEL	1/8"	1/4"	1/8"	1/8"	1/4"	1/8"
DEFLECTION DUE TO REMAINING DEAD LOAD	1/2"	3/4"	7/8"	1"	1 1/2"	7/8"

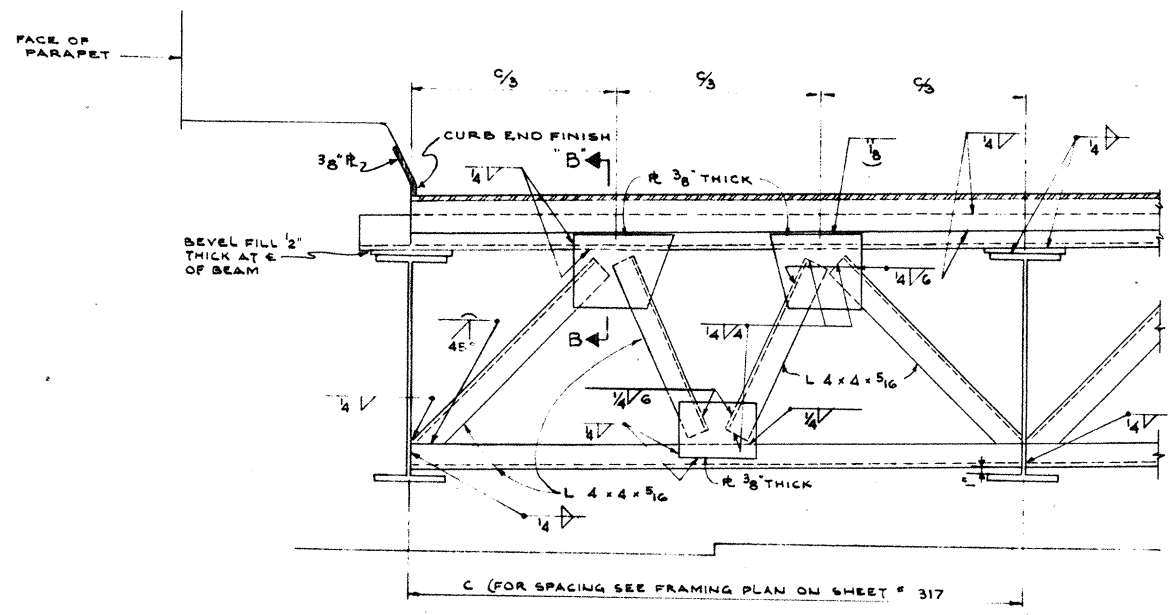
CAMBER: NO CAMBERING OF BEAMS IS REQUIRED BUT THE BEAMS SHALL BE SO FABRICATED THAT ANY CURVED BEAMS WILL BE PLACED WITH THE CONVEY FLANGE UP.

CHARLES E. DE LEU
CONSULTING ENGINEER
CHICAGO ILLINOIS

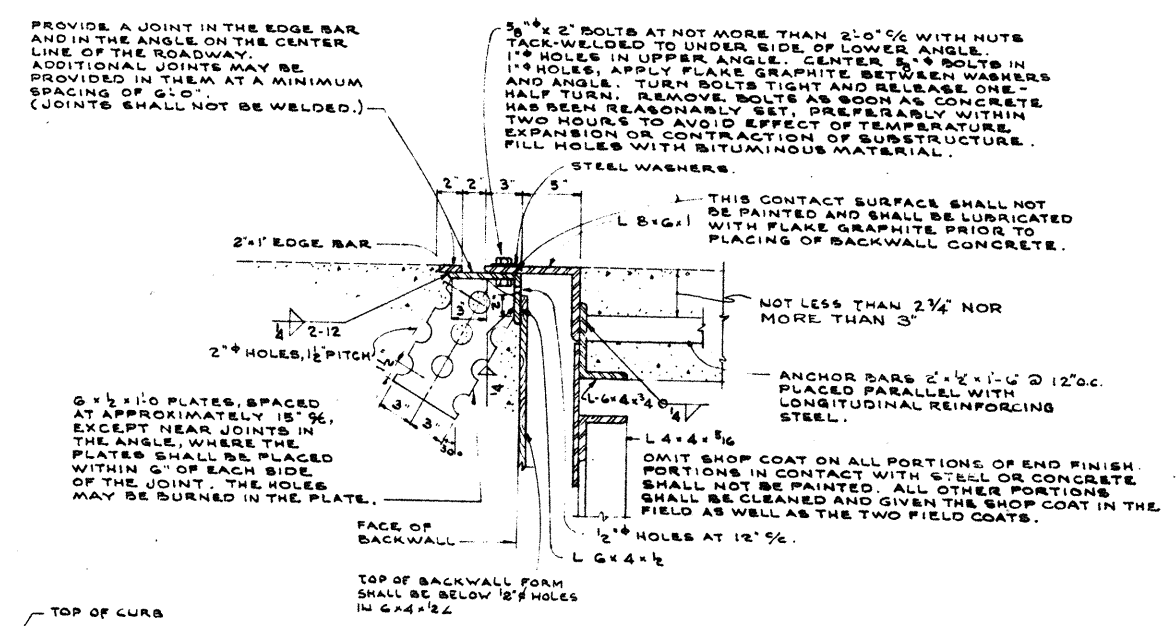
SUPERSTRUCTURE DETAILS
BRIDGE NO. WAY-21-0143
U.S. 21 OVER B & O R.R.
WAYNE CO. STA. 75 + 76
SEC. WAY-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	G.S.		R.S.	L.N.R.	6-11-56	

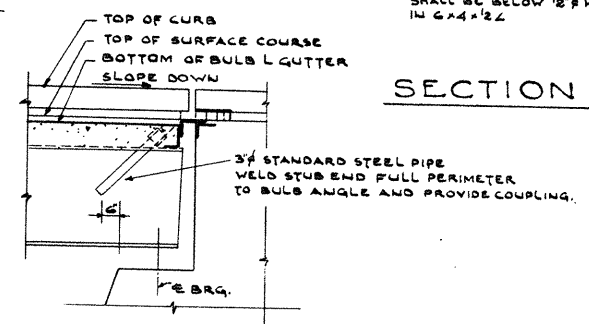
STA. 21-1780
WAY-21-0.00
SUM. 21-0.00



SECTION "A-A"

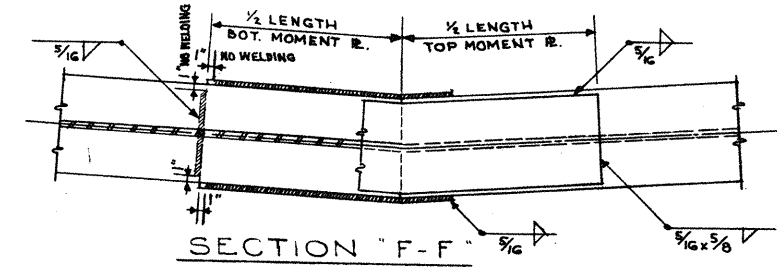


SECTION "B-B"

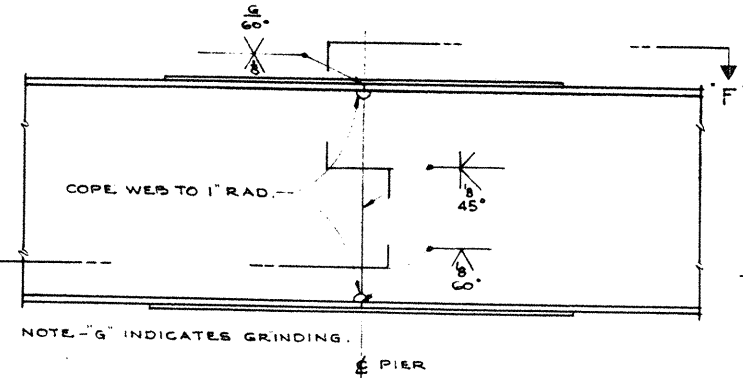


TYPICAL SECTION FOR GRADE SLOPING DOWN TO END FINISH

NOTE: FOR SIZE OF MOMENT PLATE SEE SHT. 317

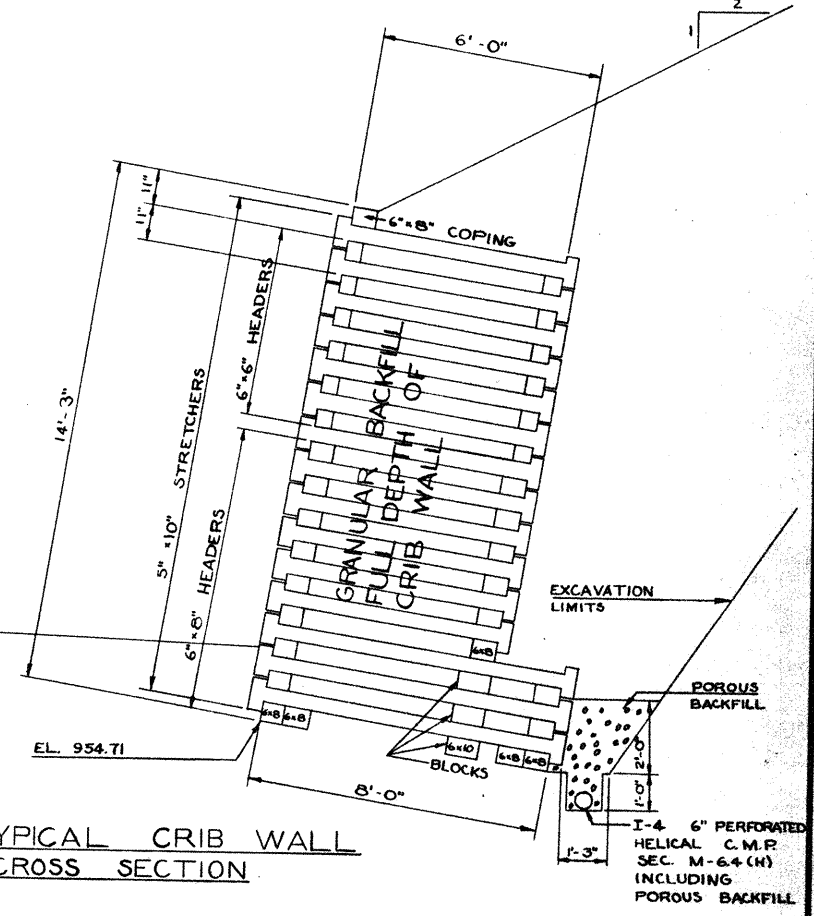


SECTION "F-F"

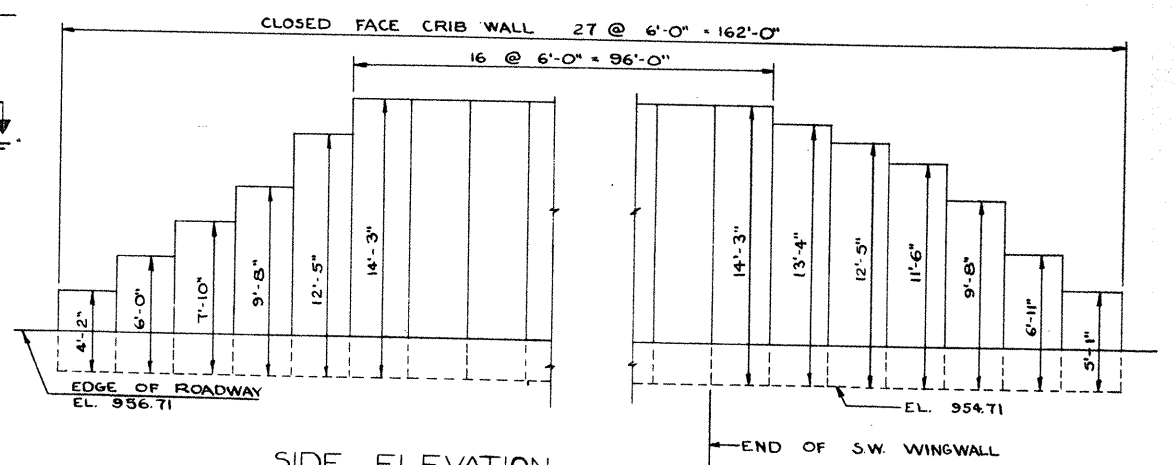


BEAM SPLICE DETAILS

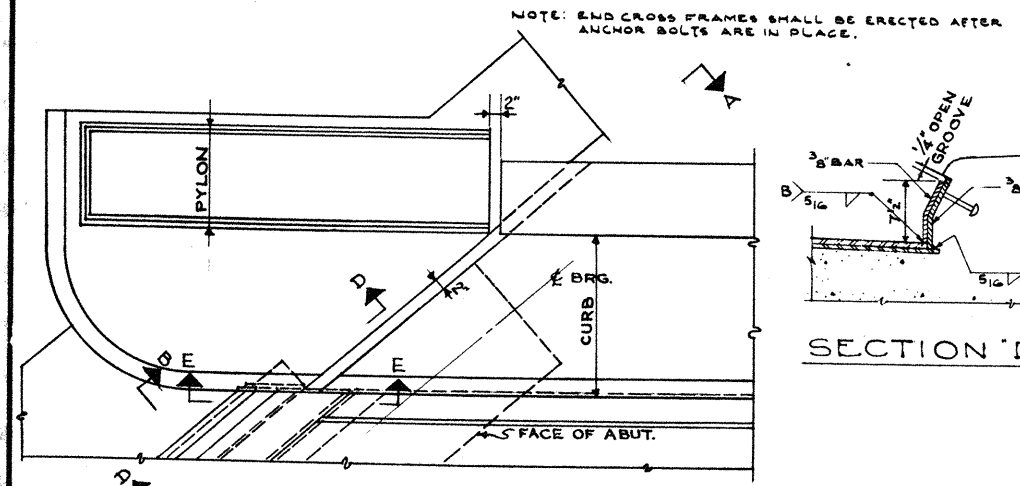
- BEAM SPLICE WELDING PROCEDURE:**
1. RAISE END OF BEAM AT PIER #2 - 4"
 2. BUTT WELD THE BEAM FLANGES AND WEB AT PIER #1
 3. WELD THE BOTTOM AND TOP MOMENT PLATES.
 4. LOWER BEAM TO FINAL POSITION AT PIER #1
 5. RAISE END OF BEAM AT PIER #3 - 4 1/2"
 6. BUTT WELD BEAM FLANGES AND WEB AT PIER #2
 7. WELD THE BOTTOM AND TOP MOMENT PLATES
 8. LOWER BEAM AT PIER #3
 9. RAISE END OF BEAM AT ABUTMENT 2 1/8"
 10. BUTT WELD BEAM FLANGES AND WEB AT PIER #3
 11. WELD BOTTOM AND TOP MOMENT PLATES
 12. LOWER BEAM AT ABUTMENT TO FINAL POSITION.
- * MAKE ONE PASS IN EACH FLANGE, THEN ONE PASS IN THE WEB, REPEAT UNTIL WELDS ARE COMPLETED.



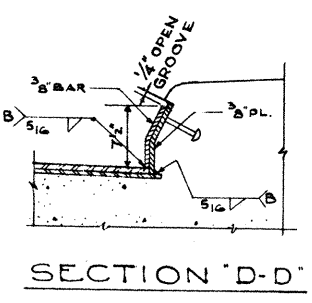
TYPICAL CRIB WALL CROSS SECTION



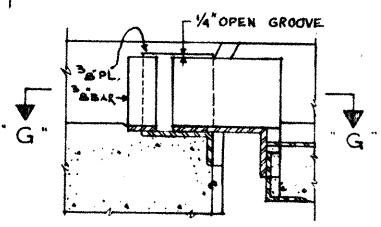
SIDE ELEVATION LOOKING SOUTH



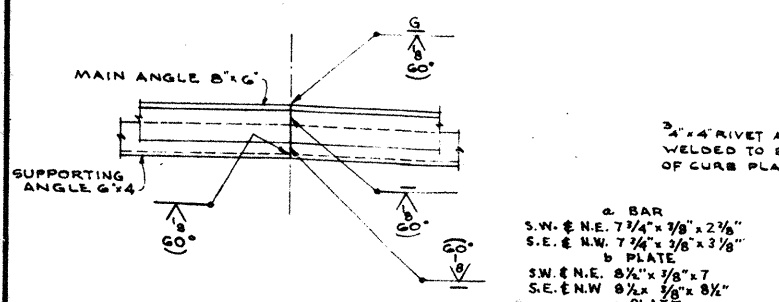
PARTIAL PLAN AT ABUTMENT



SECTION "D-D"

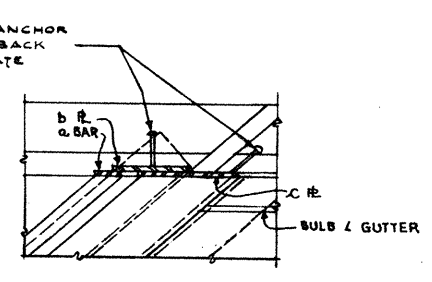


SECTION "E-E"



WELDED BUTT JOINT IN SUPERSTRUCTURE END FINISH ANGLES AT CL OF ROADWAY.

- ANGLE BAR**
S.W. & N.E. 7 1/4" x 3/8" x 2 1/2"
S.E. & N.W. 7 1/4" x 3/8" x 3 1/8"
- b PLATE**
S.W. & N.E. 8 1/2" x 3/8" x 7"
S.E. & N.W. 8 1/2" x 3/8" x 8 1/2"
- c PLATE**
S.W. & N.E. 7 1/4" x 3/8" x 11 0"
S.E. & N.W. 7 1/4" x 3/8" x 10 3/8"



SECTION "G-G"

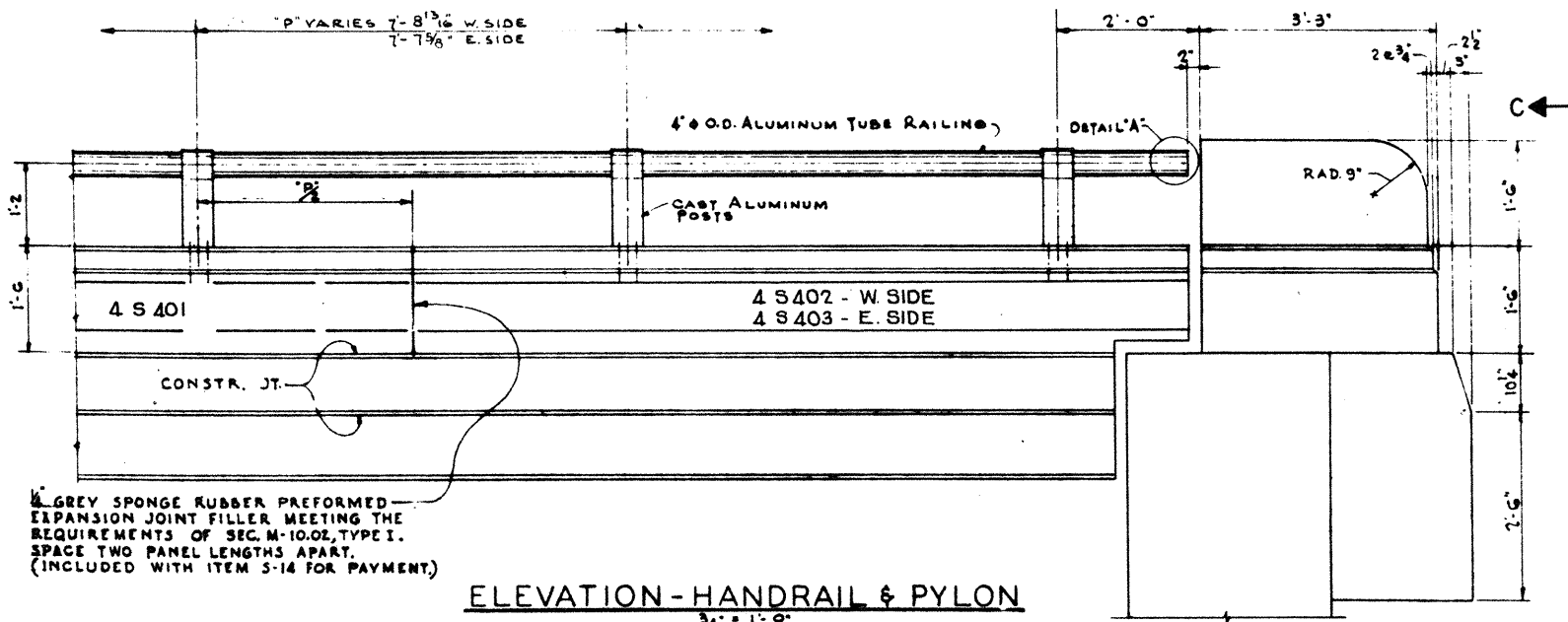
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

SUPERSTRUCTURE DETAILS
CRIB WALL ELEV. & DETAILS
BRIDGE NO. WAY-21-0143
U.S. 21 OVER B. & O. R.R.

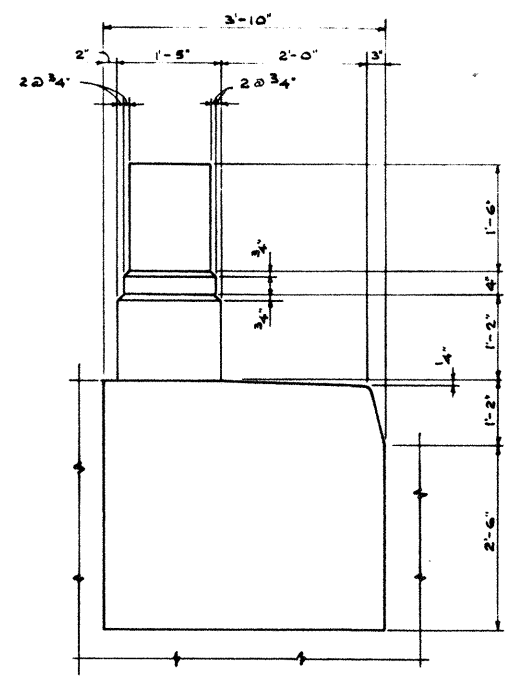
WAYNE CO. STA. 75 + 76
SEC. WAY-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	J.N.		NSW. E.S.M.	L.N.R.	6-11-56	

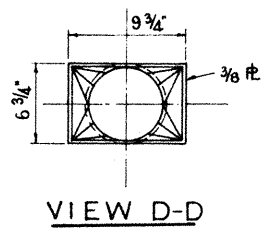
STA. -21-17.80
WAY -21-000
SUM. 21-000



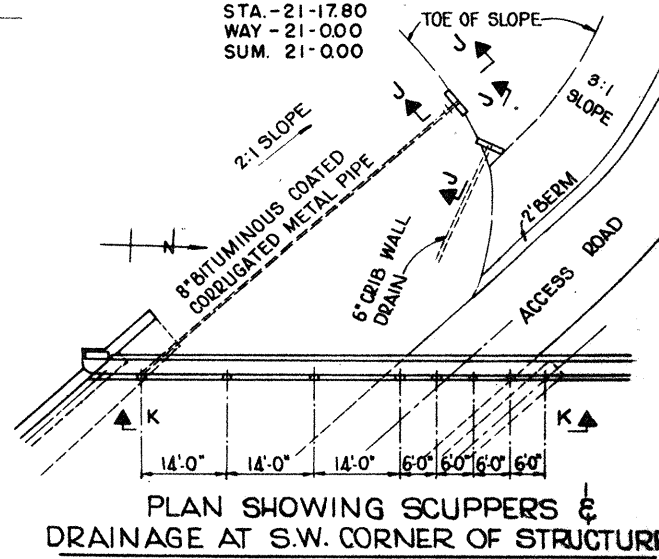
ELEVATION - HANDRAIL & PYLON



VIEW C-C



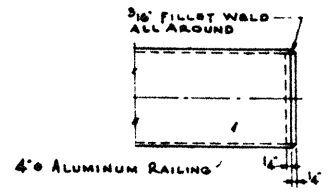
VIEW D-D



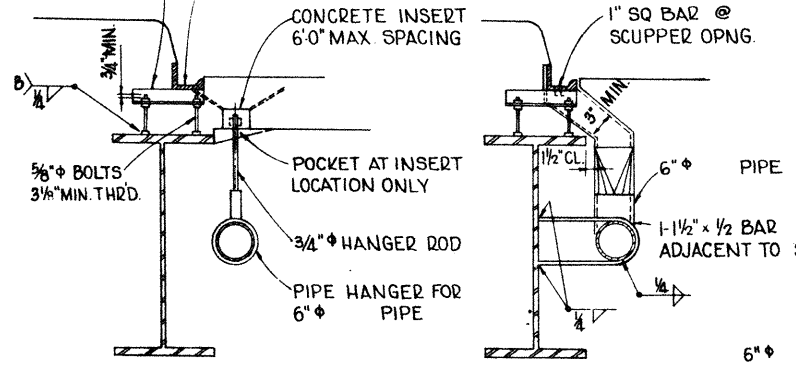
PLAN SHOWING SCUPPERS & DRAINAGE AT S.W. CORNER OF STRUCTURE

GREY SPONGE RUBBER PREFORMED EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF SEC. M-10.02, TYPE I. SPACE TWO PANEL LENGTHS APART. (INCLUDED WITH ITEM 5-14 FOR PAYMENT)

GUTTER SUPPORT IS 2 1/2 x 2 1/2 x 1/2 SPACED NOT MORE THAN 4'-0" C-C BETWEEN SCUPPERS. SLOTTED HOLES 1 1/8" x 1 1/2"



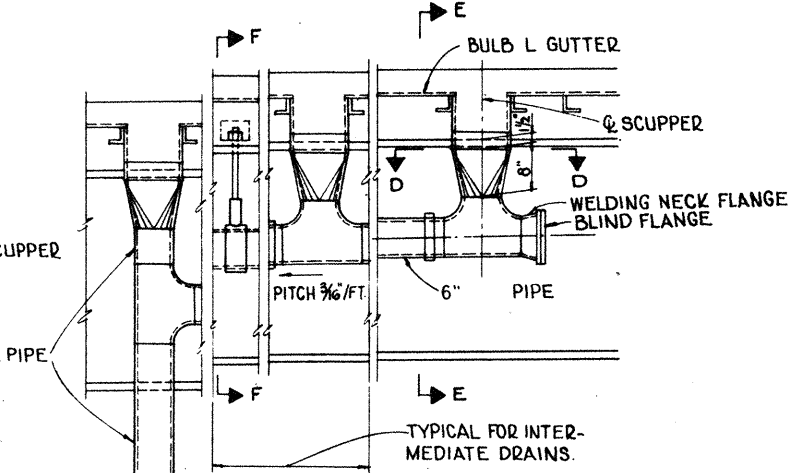
DETAIL A



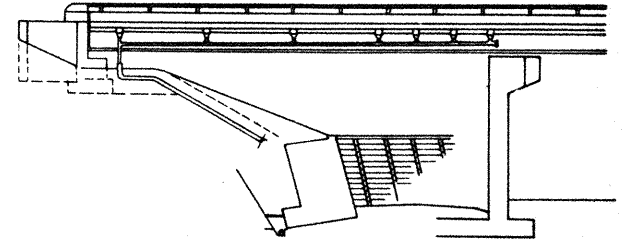
SECTION F-F

SECTION E-E

FOR DETAILS NOT SHOWN SEE SECTION F-F AND GUTTER SUPPORT AND SCUPPER



TYPICAL FOR INTER-MEDIATE DRAINS



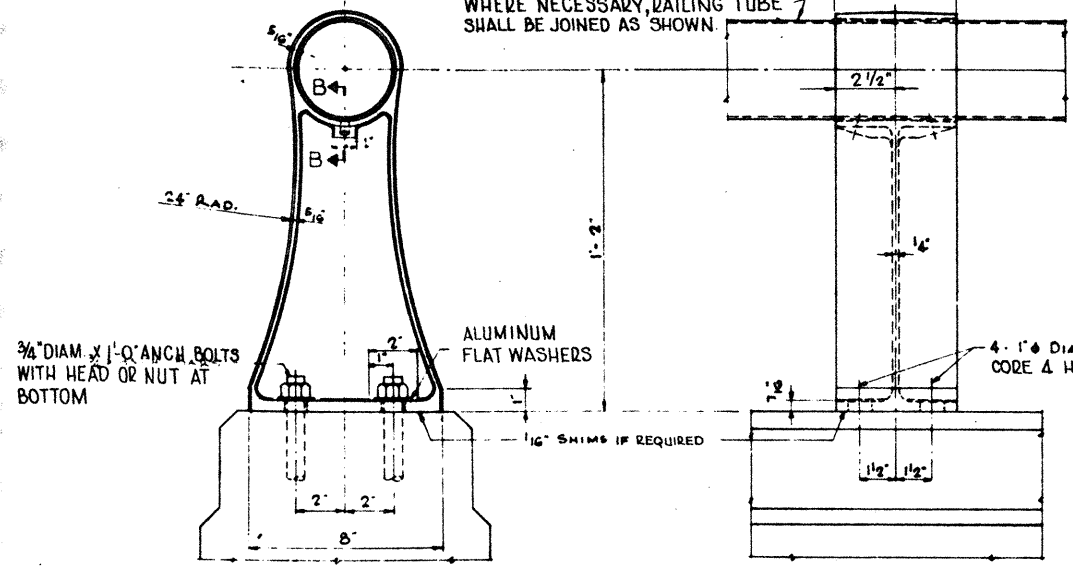
SECTION K-K

Note: 6" pipe shall be wrought iron or galvanized steel. Joint shall be made by welding before galvanizing or by use of Victaulic couplings or approved equivalent. Galvanizing shall conform to Sec. M-7.4(d) except that on straps and bolts for mounting pipe, the galvanizing called for in Sec. M-10.30 may be used.

4' O.D. x 3/8" WALL ALUMINUM TUBE RAILING IS GENERALLY CONTINUOUS. WHERE NECESSARY, RAILING TUBE SHALL BE JOINED AS SHOWN.

4' O.D. x 3/8" WALL ALUMINUM TUBE RAILING IS GENERALLY CONTINUOUS. WHERE NECESSARY, RAILING TUBE SHALL BE JOINED AS SHOWN.

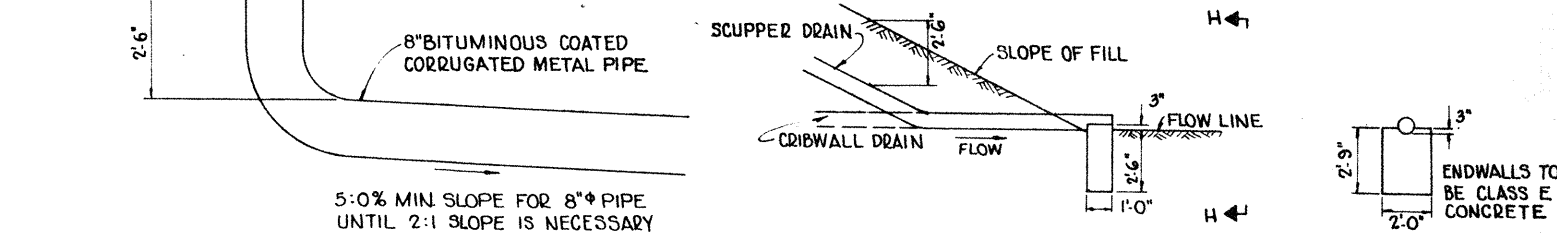
TYPICAL PIPE JOINT



HANDRAIL DETAILS

NOTE: FOR FURTHER DETAILS SEE SUPPLEMENTAL SPECIFICATION No. S-114 ALUMINUM FOR BRIDGE RAILING, DATED AUG. 30, 1955.

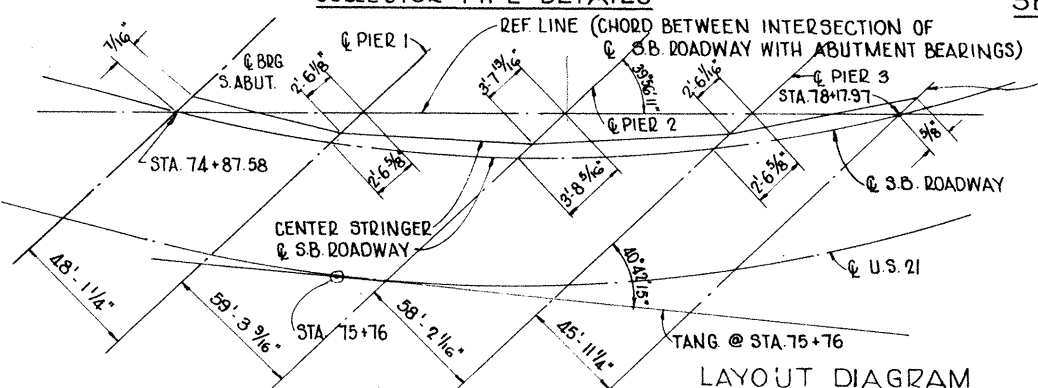
SECTION B-B



COLLECTOR PIPE DETAILS

SECTION J-J

VIEW H-H



LAYOUT DIAGRAM

CHARLES E. DE LEUW CONSULTING ENGINEER CHICAGO ILLINOIS					
HANDRAIL AND PYLON DETAILS BRIDGE NO. WAY-21-0143 U.S. 21 OVER B & O. R.R. WAYNE CO. STA. 75+76.00 SEC. WAY-21					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
M.C.	R.N. M.R.			L.N.R.	6-11-56

STA-21-17.80
WAY-21-0.00
SUM-21-0.00

REINFORCING STEEL LIST

SUPERSTRUCTURE				SUPERSTRUCTURE				BENDING DIAGRAMS				BENDING DIAGRAMS				SUPERSTRUCTURE				SUPERSTRUCTURE				BENDING DIAGRAMS				BENDING DIAGRAMS			
MARK NO.	LENGTH	WEIGHT	SHP.	MARK NO.	LENGTH	WEIGHT	SHP.	MARK NO.	LENGTH	WEIGHT	SHP.	MARK NO.	LENGTH	WEIGHT	SHP.	MARK NO.	LENGTH	WEIGHT	SHP.	MARK NO.	LENGTH	WEIGHT	SHP.	MARK NO.	LENGTH	WEIGHT	SHP.	MARK NO.	LENGTH	WEIGHT	SHP.
5701	437	34'-0"	30370	S	5606	2	32'-10"	99	S																						
5702	2	33'-10"	138	S	5607	2	32'-2"	97	S																						
5703	2	33'-4"	136	S	5608	3	31'-6"	142	S																						
5704	2	32'-10"	135	S	5609	2	30'-10"	93	S																						
5601	437	36'-0"	23630	S	5602	2	34'-10"	105	S																						
5603	2	34'-4"	103	S	5604	2	33'-10"	101	S																						
5608	2	33'-2"	99	S	5609	2	32'-10"	98	S																						

NOTE:
BAR SIZE IS INDICATED IN THE BAR MARK.
THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE: A700 IS A NUMBER 7 BAR AND A1014 IS A NUMBER 10 SIZE.

A508	6	9'-4"	59	S
A509	1	7'-8"	8	S
A510	1	6'-0"	7	S
A511	7	5'-10"	43	S
A512	16	9'-8"	162	S
A513	3	13'-3"	28	S
A514	11	11'-10"	135	S
A515	21	3'-0"	66	S
A516	4	19'-1"	80	B
A517	4	14'-9"	62	B
A518	4	3'-6"	17	S
A519	10	4'-3"	36	S
A520	4	5'-3"	22	S
A521	4	6'-3"	26	B
A532	2	7'-2"	15	S
A533	2	7'-6"	16	S
A534	2	7'-11"	17	S
A535	2	8'-3"	17	S
A536	2	8'-8"	18	S
SOUTH ABUTMENT				
A703	4	10'-4"	85	S
A603	8	7'-2"	86	S
A605	45	15'-10"	1069	B
A607	3	10'-0"	45	S
A501	58	6'-9"	410	S
A503	108	4'-3"	479	B
A508	4	9'-4"	36	S
A515	15	3'-0"	47	S
A518	4	3'-6"	15	S
A519	10	4'-3"	45	S
A520	4	5'-3"	22	S
A521	4	6'-3"	26	B
A522	4	10'-7"	82	B
A523	4	15'-3"	64	B
A524	54	11'-8"	658	B
A525	10	29'-1"	304	S
A526	14	27'-1"	297	S
A527	1	12'-4"	13	S
A528	1	13'-11"	18	S
A529	15	8'-7"	134	S
A530	3	6'-0"	19	S
A531	10	9'-9"	102	S
A532	2	7'-2"	15	S
A534	2	7'-11"	17	S
A512	9	9'-8"	91	S
REPLACEMENT BARS				
R1101	1	7'-6"	40	S
R1001	1	7'-2"	31	S
R901	1	6'-10"	23	S
R801	1	6'-6"	18	S
R701	2	6'-3"	28	S
R601	4	5'-11"	36	S
R501	1	5'-7"	6	S
R401	1	5'-3"	4	S

CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

REINFORCING STEEL LIST

BRIDGE NOWAY-21-0143
U.S. 21 OVER B & O. R. R.
WAYNE CO. STA. 75+76.00
SEC. WAY-21

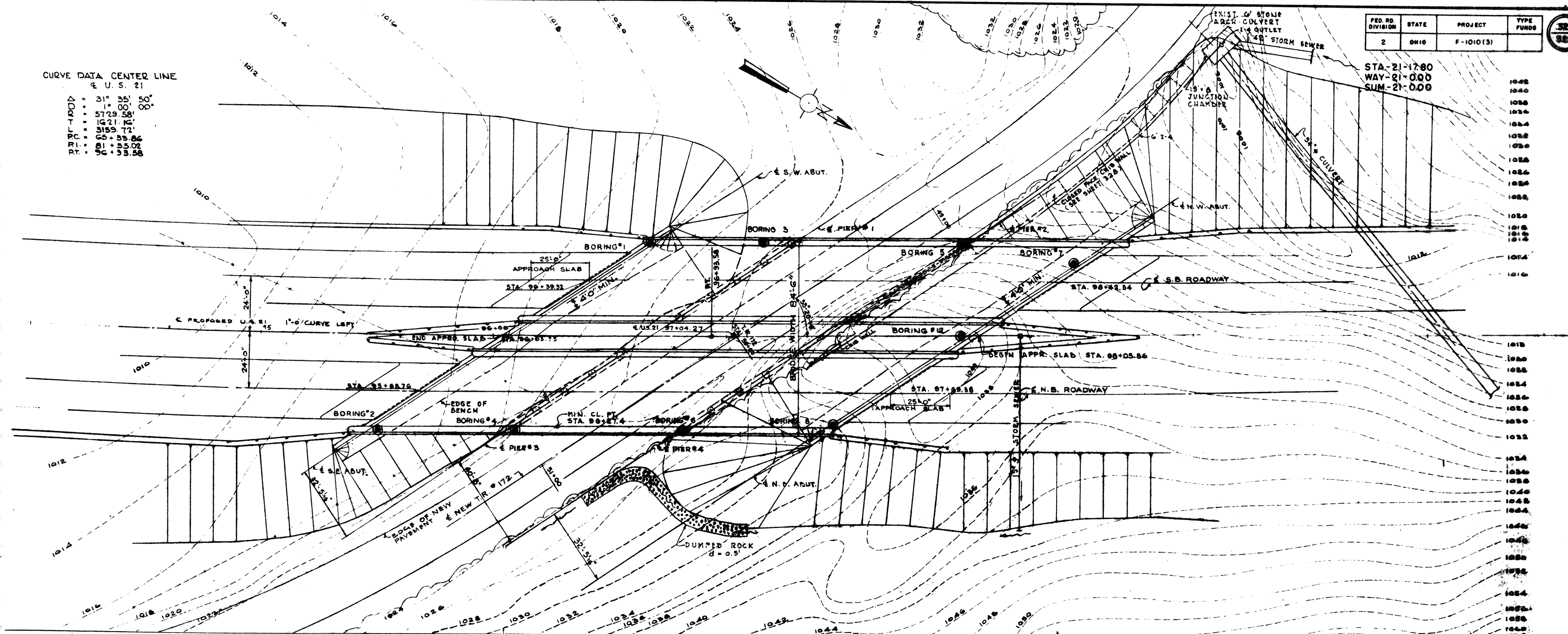
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	J.G.		E.S.M.	L.N.R.	6-11-56	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(13)	

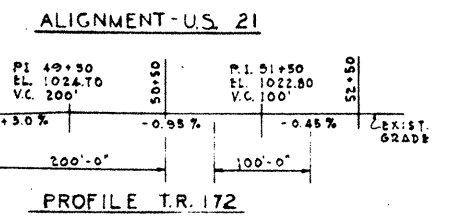
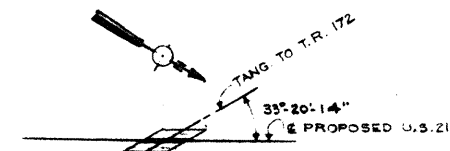
321
988

CURVE DATA CENTER LINE
E U.S. 21

P.C. = 31° 55' 50"
 P.T. = 5729.58'
 R.C. = 1621.42'
 R.T. = 3159.72'
 R.C. = 65+33.86
 R.T. = 81+33.02
 R.T. = 96+33.58

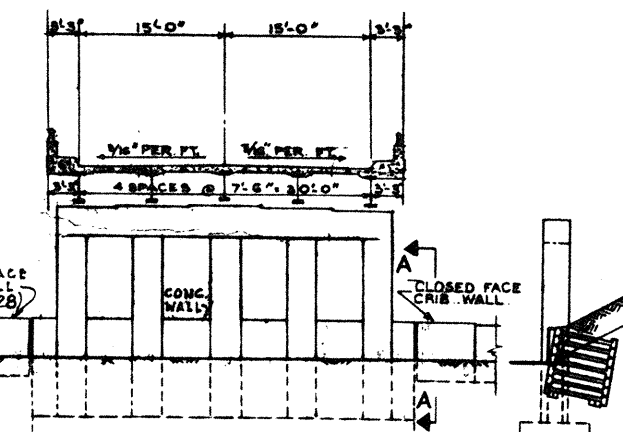
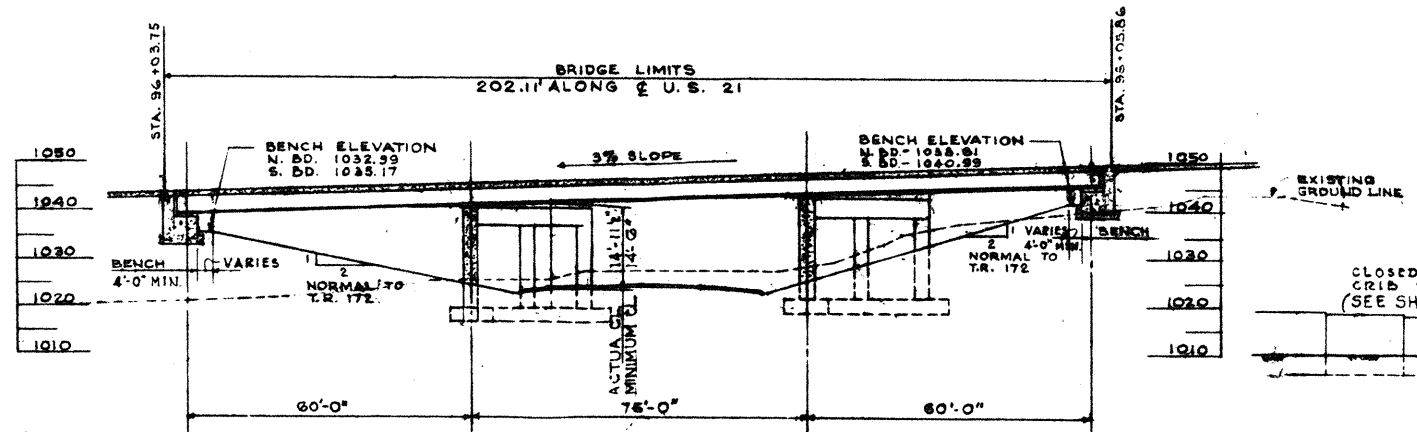


PLAN



PROFILE OF U.S. 21

FOUNDATION SOUNDINGS:
FOUNDATION DESIGN AND FOUNDATION QUANTITIES ARE BASED ON A STUDY OF ROD SOUNDINGS (AND/OR SOIL-SAMPLING SOUNDINGS) MADE AT THE SITE. THIS SOUNDING INFORMATION MAY BE INSPECTED IN THE OFFICE OF THE OFFICE OF THE BUREAU OF BRIDGES IN COLUMBUS OR IN THE DIVISION OFFICE BUT THE STATE ASSUMES NO RESPONSIBILITY FOR THE ACCURACY THEREOF.



PROPOSED STRUCTURE

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPANS: 60'-0", 75'-0" @ 60'-0" 2/3 BRGS.

ROADWAY: 30'-0" 2/3; 2'-0" SAFETY CURBS

LOAD FREQUENCY RATING: C.F. 2000

BEAMS: 36" 33" 42" HP

EMERGENCY CURBS: 1" MONOLITHIC CONCRETE

APPROACH SLABS: AS SHOWN

ALIGNMENT: ON TANGENT FROM STA. 90+98.98 NORTH 1'00'00" CURVE (LEFT) STA. 90+98.98

NOTE: FRONT FACE OF CRIB WALL AT GROUND LINE TO COINCIDE WITH FRONT FACE OF RETAINING WALL BETWEEN PIER COLUMNS

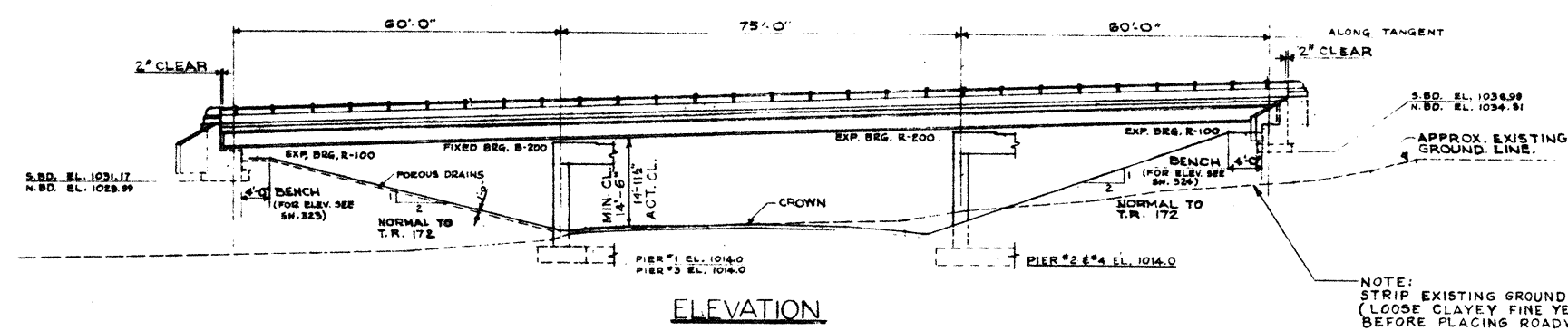
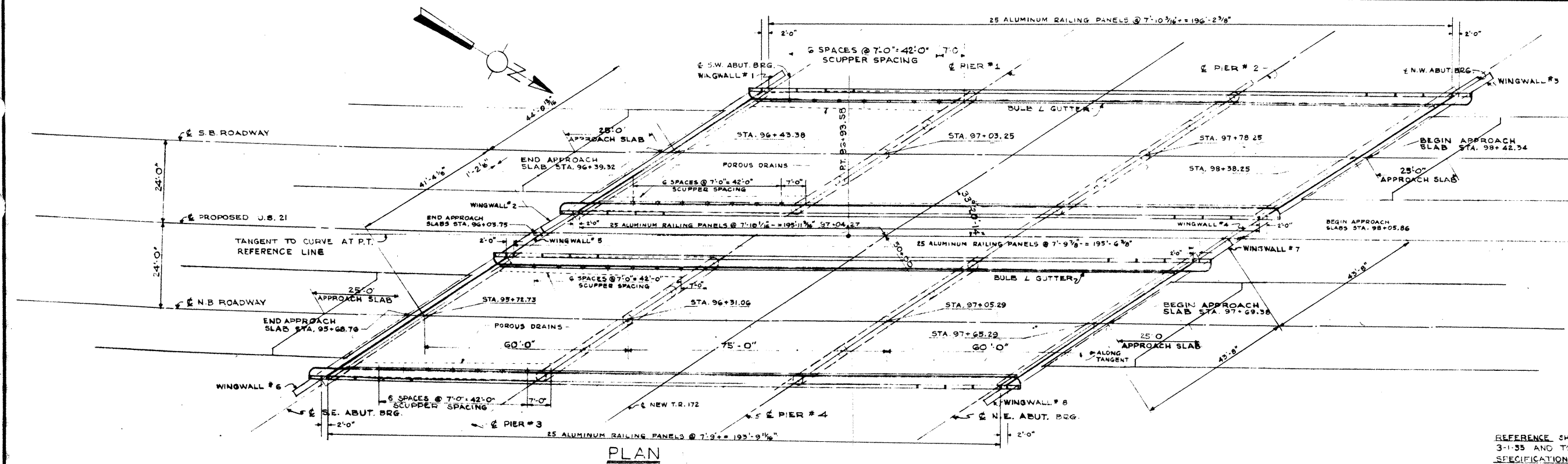
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

SITE PLAN
BRIDGE NO. WAY-21-0182
U.S. 21 OVER T.R. 172
WAYNE CO. STA. 97+04.27
SEG. WAY-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	J.M.		R.S.	L.N.R.	6-11-38	

B.M. #225 EL. 1020.44
R.R. SPIKE IN POWER POLE 200'
RIGHT STA. 94+00, SOUTH SIDE
T.R. 172.

STA.-21-17.80
WAY-21-0.00
SUM.-21-0.00



NOTE:
STRIP EXISTING GROUND OF ANY LOOSE MATERIAL (LOOSE CLAYEY FINE YELLOW OR BROWN SAND, ETC.) BEFORE PLACING ROADWAY EMBANKMENT

GENERAL NOTES

REFERENCE SHALL BE MADE TO STANDARD DRAWING NO. RB-1-55 DATED 3-1-35 AND TO SUPPLEMENT SPECIFICATIONS NO. S-114 DATED AUG. 30, 1955. SPECIFICATIONS THIS WORK SHALL BE GOVERNED BY THE "DESIGN SPECIFICATIONS FOR HIGHWAY STRUCTURES" OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS, INCLUDING REVISIONS THRU FEB. 1, 1955, AND BY THE "CONSTRUCTION AND MATERIAL SPECIFICATIONS" OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS, DATED JANUARY 1, 1955.

FOOTINGS OF PIERS SHALL EXTEND A MINIMUM OF 3' INTO SOLID SHALE OR TO THE ELEVATION SHOWN, WHICHEVER IS LOWER. FOUNDATION PRESSURE: MAX. SOIL PRESSURE = 3000 LBS. PER SQ. FT. UNDER ABUTMENTS.

WELDING OF STRUCTURAL STEEL SHALL BE CLASS "A" EXCEPT AS OTHERWISE SHOWN. WELDS SHOWN AS FIELD WELDS MAY, AT THE OPTION OF THE CONTRACTOR, BE MADE IN THE SHOP.

PAINT: BOTH SHOP AND FIELD, SHALL BE APPLIED BY BRUSHING. SPRAY APPLICATION WILL NOT BE PERMITTED.

SURFACE FINISH OF CONCRETE: RAILING END POSTS, RAILING PARAPETS, CURB FACES, FASCIAE OF DECK AND EXPOSED SURFACE OF PIERS, ABUTMENTS AND WINGWALLS SHALL RECEIVE A RUBBED SURFACE FINISH. ALL OTHER EXPOSED SURFACES SHALL BE GOVERNED BY THE PROVISIONS OF ITEM S-1.

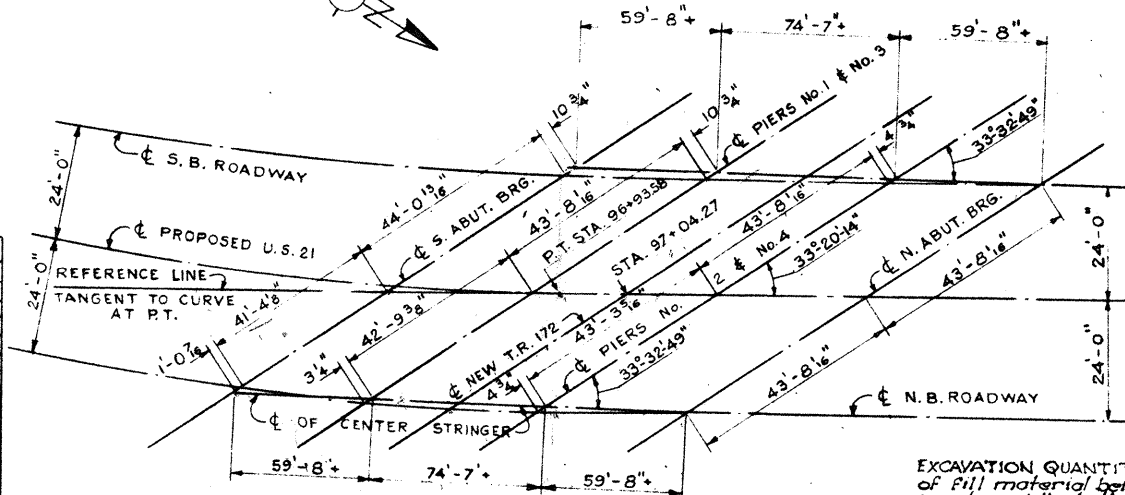
POROUS DRAINS, EXTENDING FROM FACE OF S. ABUTS. TO EL. 1021.0 - N.B. SHALL BE PLACED ON AND FLUSH WITH EMBANKMENT SLOPES AT ALL SOUTH CORNERS OF THE BRIDGE. THE DRAINS SHALL BE 6'-0" WIDE AT THE LOW END, TAPERING TO 4'-0" WIDE AT FACE OF ABUTMENT AND ONE FT. THICK. THEY SHALL BE CENTERED UNDER THE SCUPPERS.

GRAVEL, IF USED AS THE COURSE AGGREGATE, SHALL BE ACCORDING TO SECTION M-3.93 INSTEAD OF M-3.91 FOR CLASS "C" CONCRETE, SUPERSTRUCTURE. GRAVEL MEETING THE REQUIREMENTS OF SEC. M-3.93 ALSO MAY BE USED FOR OTHER CONCRETE IN THIS STRUCTURE INCLUDING CONCRETE FOR PYLONS.

SPICE OF REINFORCING STEEL: REINFORCING STEEL SHALL BE SPICED BY LAPPING BARS A MIN. OF 30 TIMES THE DIAMETER OF THE SMALLER BAR CONCERNED.

EXCAVATION FOR CONCRETE CELLULAR RETAINING WALL WILL BE INCLUDED FOR PAYMENT IN THE UNIT PRICE OF ITEM I-17, PRECAST REINFORCED CONCRETE CELLULAR RETAINING WALL.

WELDED STEEL: THE STEEL FOR THE 36 W-182 BEAMS SHALL CONFORM TO ASTM DESIGNATION A-373. ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO EITHER ASTM A7 (AS PER SEC. M-7.4(a) OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS) OR TO A-373



EXCAVATION QUANTITY includes the removal of fill material between the top of the earth bench and the bottom of the abutment.

ESTIMATED QUANTITIES						
ITEM	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER. GENERAL
E-2	LUMPSUM		COFFERDAMS, CRIBS AND SHEETING			
E-2	955	CU.YD.	UNCLASSIFIED EXCAVATION	363	572	421
S-1	428	CU.YD.	CLASS "C" CONCRETE SUPERSTRUCTURE (PYLONS)	7		421
S-1	218	CU.YD.	CLASS "C" CONCRETE PIERS ABOVE FOOTINGS		218	
S-1	367	CU.YD.	CLASS "E" CONCRETE ABUTMENT WALLS	367		
S-1	233	CU.YD.	CLASS "E" CONCRETE FOOTINGS	123	110	
S-4	194,95	LBS.	REINFORCING STEEL	22,847	48,924	122,281
S-7	472,300	LBS.	STRUCTURAL STEEL			472,300
S-8	472,300	LBS.	FIELD PAINTING OF STRUCTURAL STEEL			472,300
S-14	797	LIN. FT.	RAILING (ALUMINUM RAIL SUPPORTS & CONC. PARAPET)			797
S-23	46	CU.YD.	POROUS DRAINS ON EMBANKMENT SLOPES			46
S-23	120	CU.YD.	POROUS BACKFILL			120
I-4	29	LIN. FT.	6" HELICAL CORR. PIPE SEC. M-6A (H) WITHOUT PERFORATIONS FOR PIPE			29
I-4	196	LIN. FT.	6" HELICAL PERFORATED CORR. METAL PIPE SEC. M-6.4 (H) FOR UNDERDRAINS			196
I-17	1125	SQ. FT.	PRECAST REINFORCED CONCRETE CELLULAR RETAINING WALL			1125

CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

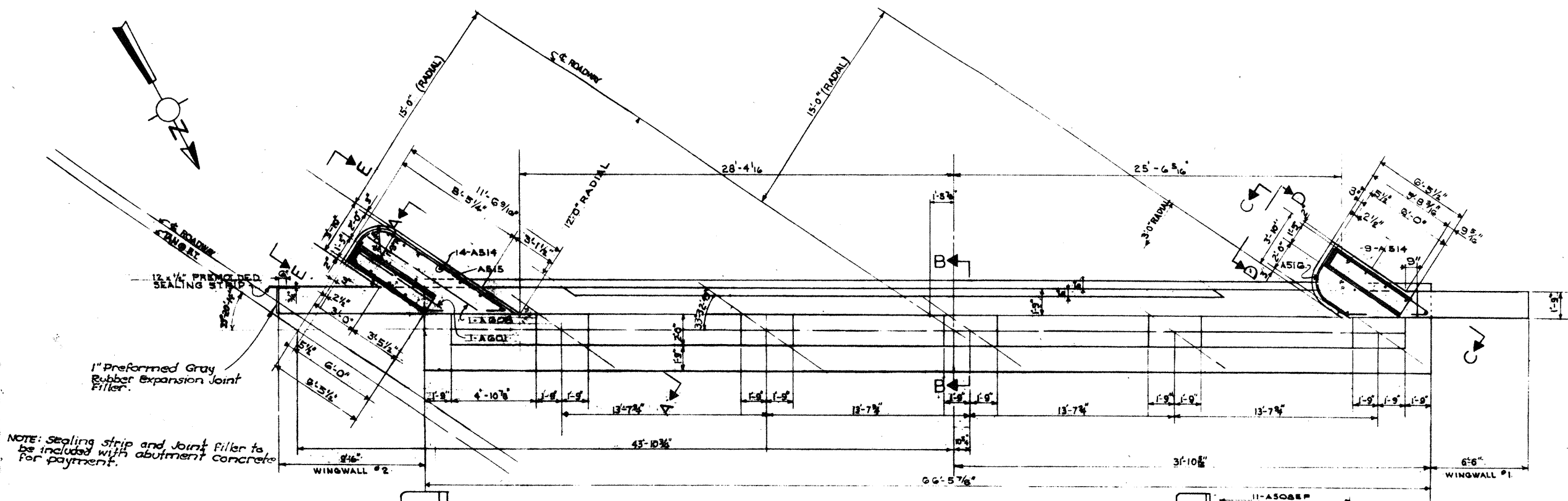
**GENERAL PLAN & ELEVATION
NOTES & ESTIMATED QUANTITIES**
BRIDGE NO. WAY-21-0182
U.S. 21 OVER T.R. 172
WAYNE CO. STA. 97+04.27
SEC. WAY-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	J.N.		R.S.	L.N.R.	6-11-56	

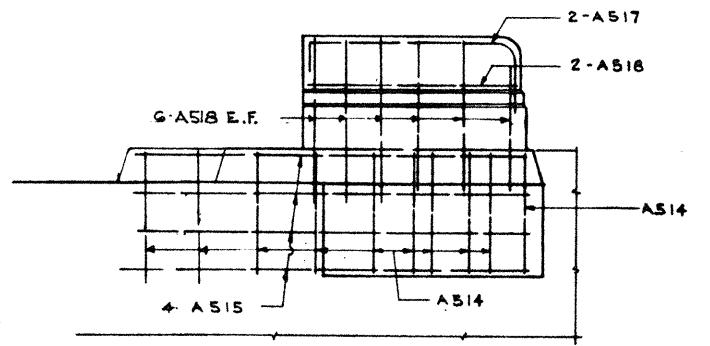
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

323
329

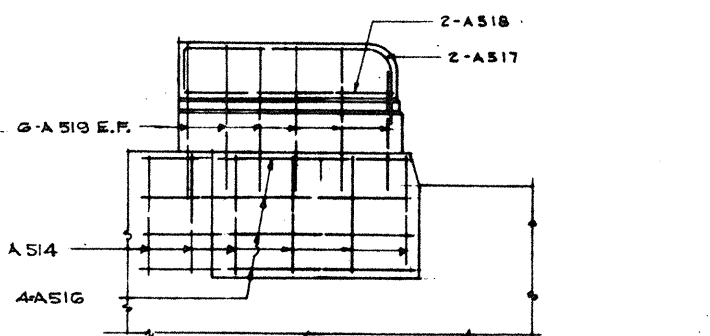
STA. -21-1780
WAY -21-0.00
SUM -21-0.00



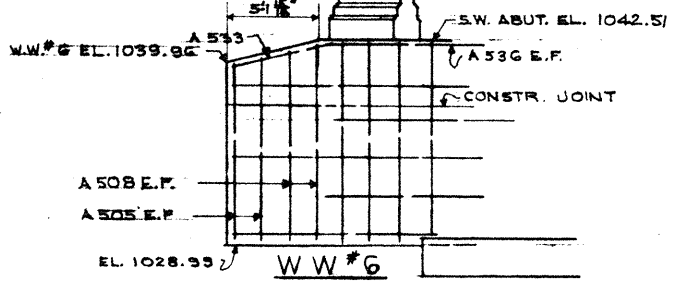
NOTE: Sealing strip and Joint Filler to be included with abutment concrete for payment.



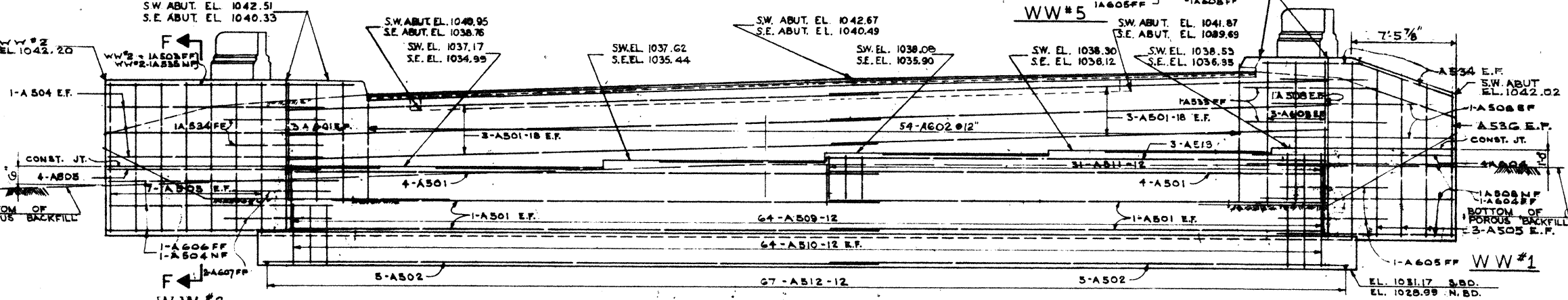
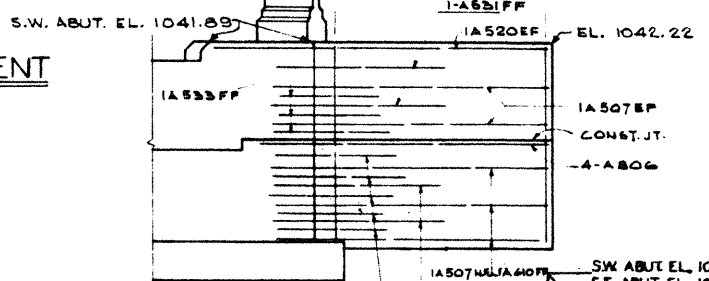
SECTION A-A



SECTION C-C

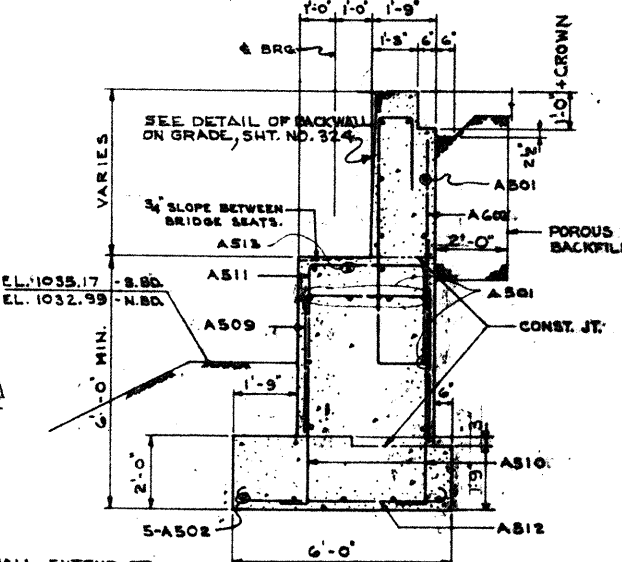


PLAN OF SOUTHWEST ABUTMENT

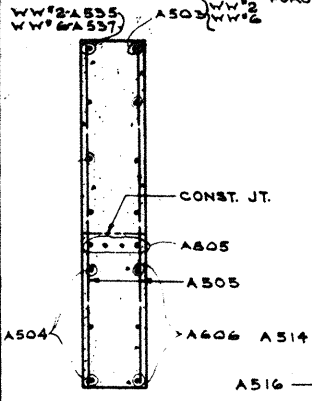


ELEVATION OF SOUTHWEST ABUTMENT

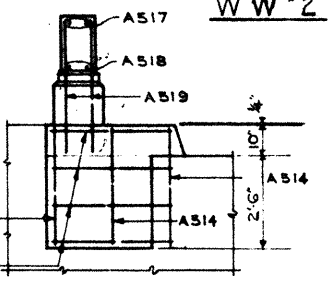
(SOUTHEAST ABUTMENT SIMILAR EXCEPT FOR WINGWALL REINFORCING)



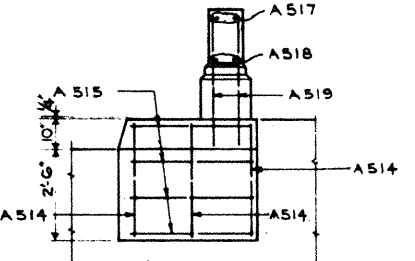
SECTION B-B



SECTION F-F

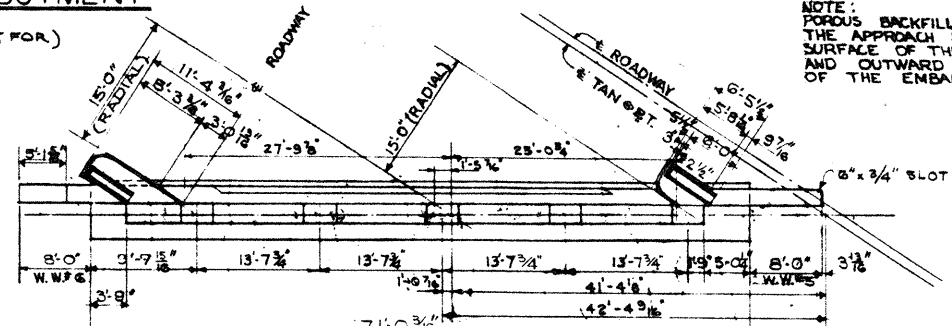


SECTION D-D



SECTION E-E

NOTE:
ALL REINFORCING STEEL SHALL CLEAR FACE OF CONCRETE 2" UNLESS OTHERWISE SHOWN.
REINFORCING BARS IN BRIDGE SEATS TO BE PLACED TO CLEAR ANCHOR BOLTS.
CONCRETE IN PYLON TO BE INCLUDED IN ITEMS 5-1 CLASS 'C' CONCRETE, SUPERSTRUCTURE.
THE EMBANKMENT SHALL BE PLACED AND COMPACTED TO THE HEIGHT OF THE EARTH BENCH, AFTER WHICH EXCAVATION SHALL BE MADE FOR THE ABUTMENT.
E.F. DENOTES 'EACH FACE'
N.F. DENOTES 'NEAR FACE'
F.F. DENOTES 'FAR FACE'



PLAN OF SOUTHEAST ABUTMENT

NOTE: POROUS BACKFILL SHALL EXTEND TO THE APPROACH SLAB AND TO THE SURFACE OF THE EARTH SHOULDERS AND OUTWARD TO THE SURFACE OF THE EMBANKMENT SLOPE.

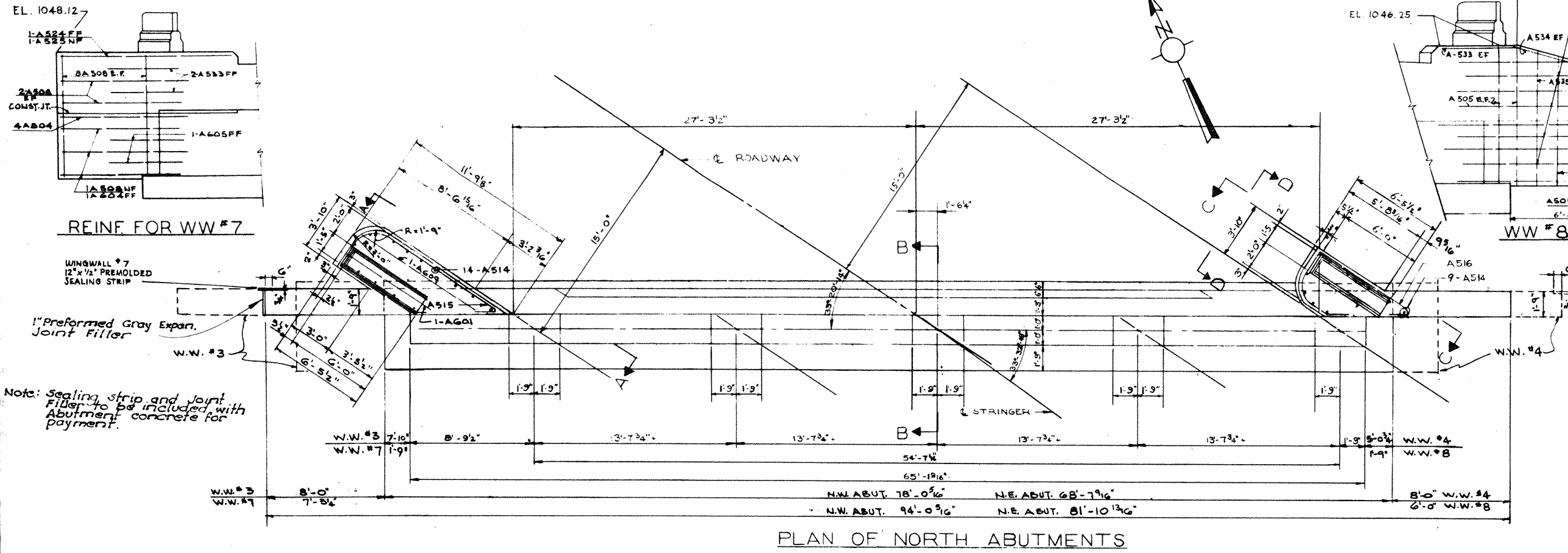
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

SOUTH ABUTMENTS DETAILS

BRIDGE NO. WAY-21-0182
U.S. 21 OVER T.R. 172

WAYNE CO. STA. 97+04.27
SEC. WAY-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	M.R.		N.S.W.	L.N.R.	6-11-56	

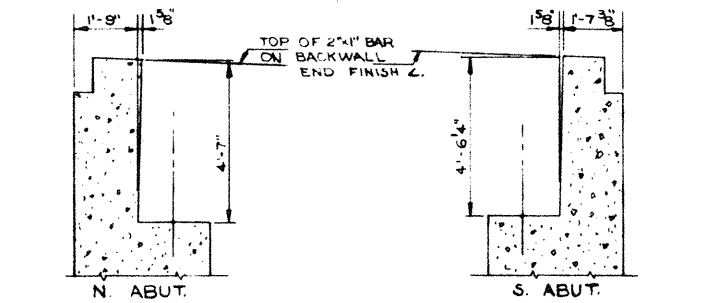
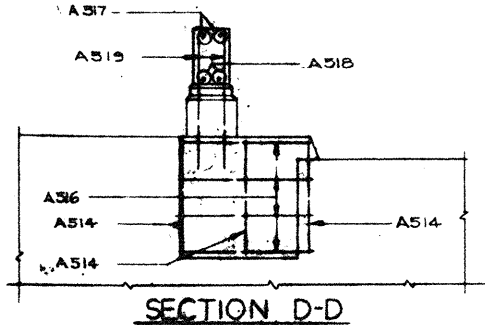
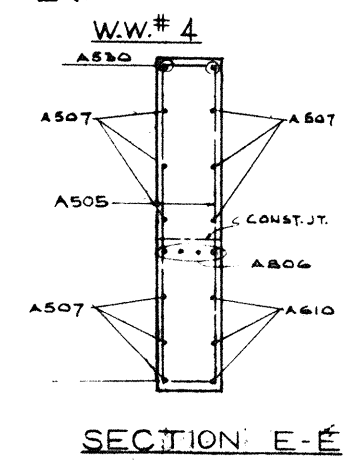
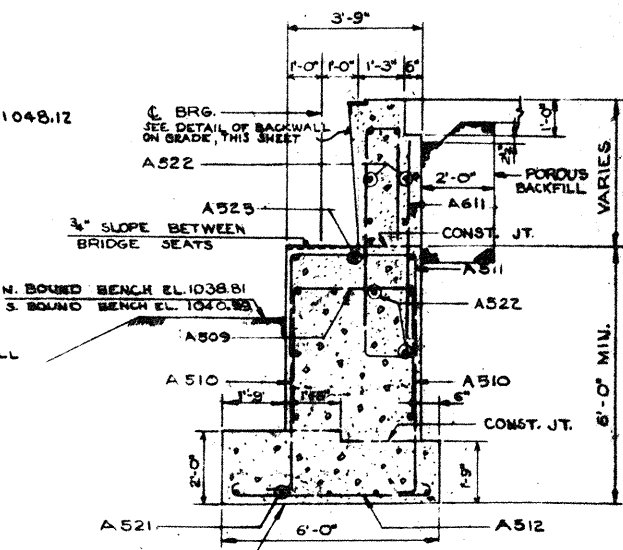
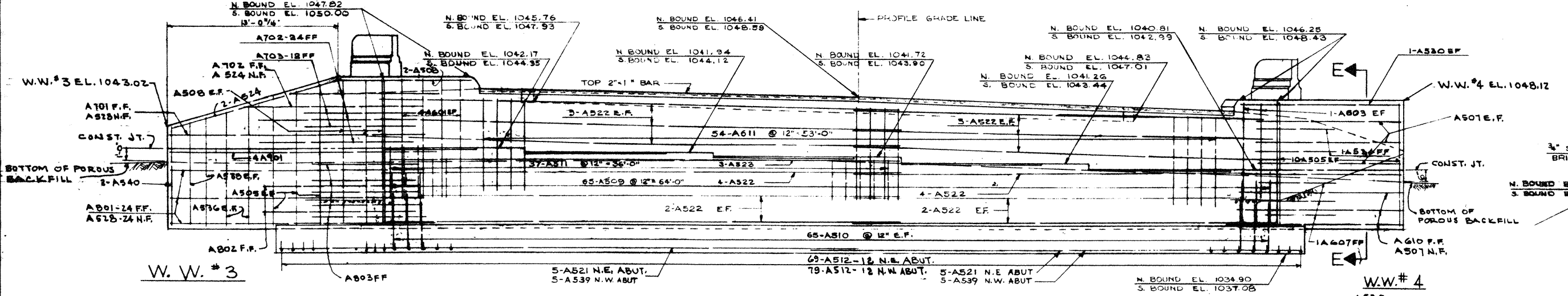
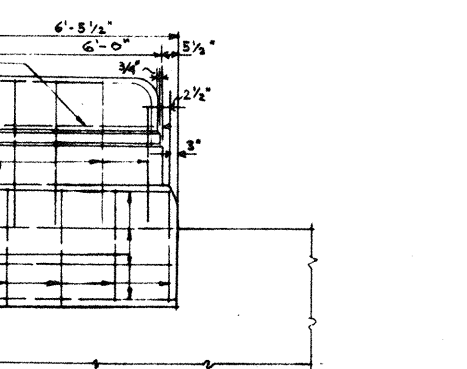
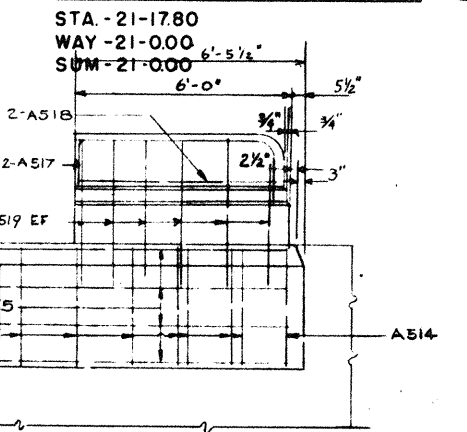


REINF. FOR WW #7

WINGWALL #7
12"x1/2" PREMOLDED SEALING STRIP

1" Preformed Gray Expan. Joint Filler

Note: Sealing strip and joint filler to be included with Abutment concrete for payment.



NOTE:

ALL REINFORCING STEEL SHALL CLEAR FACE OF CONCRETE 2" UNLESS OTHERWISE SHOWN.

REINFORCING BARS IN BRIDGE SEATS TO BE PLACED TO CLEAR ANCHOR BOLTS.

CONCRETE IN PYLON TO BE INCLUDED IN ITEMS S-1 CLASS "C" CONCRETE, SUPERSTRUCTURE.

POROUS BACKFILL SHALL EXTEND TO THE APPROACH SLAB AND TO THE SURFACE OF THE EARTH SHOULDERS AND OUTWARD TO THE SURFACE OF THE EMBANKMENT SLOPE.

THE EMBANKMENT SHALL BE PLACED AND COMPACTED TO THE HEIGHT OF THE EARTH BENCH, AFTER WHICH EXCAVATION SHALL BE MADE FOR THE ABUTMENT.

E.F. DENOTES "EACH FACE"

N.F. DENOTES "NEAR FACE"

F.F. DENOTES "FAR FACE"

CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

NORTH ABUTMENT DETAILS

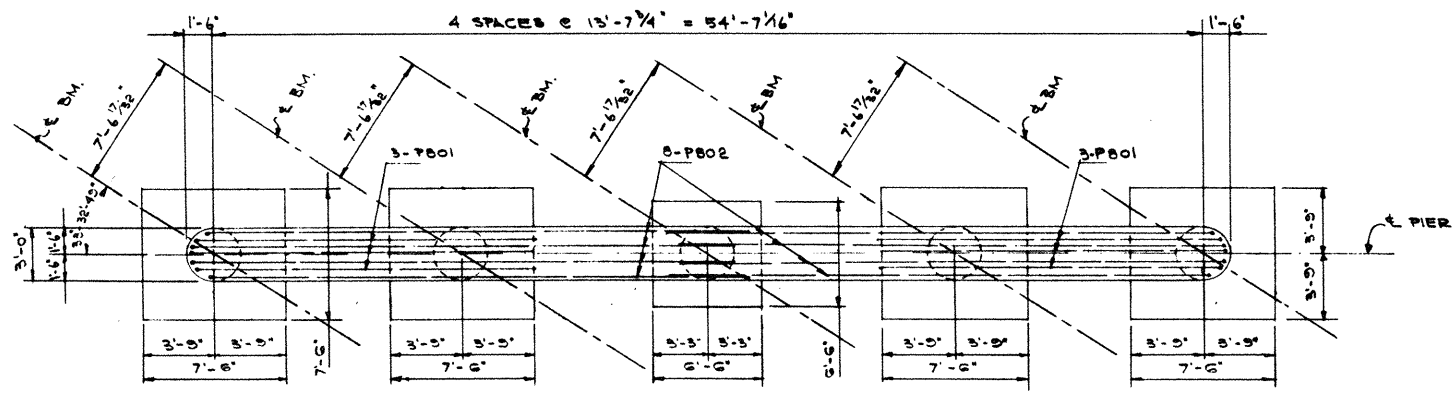
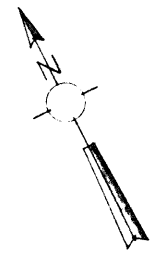
BRIDGE NO. WAY-21-0182
U.S. 21 OVER T.R. 172

WAYNE CO. SEC. WAY-21

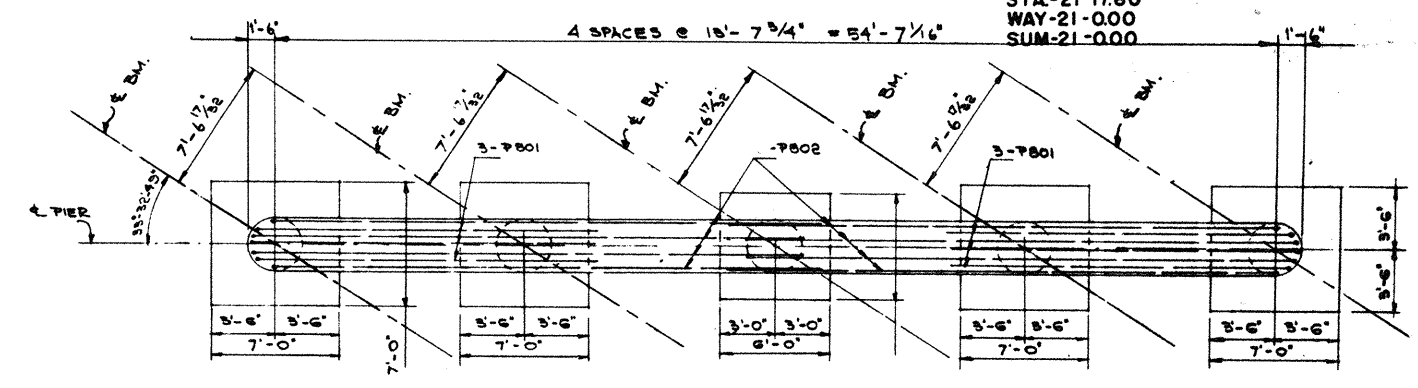
STA. 97+04.27

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	M.R. J.L.		N.S.W.	L.N.R.	6-11-56	

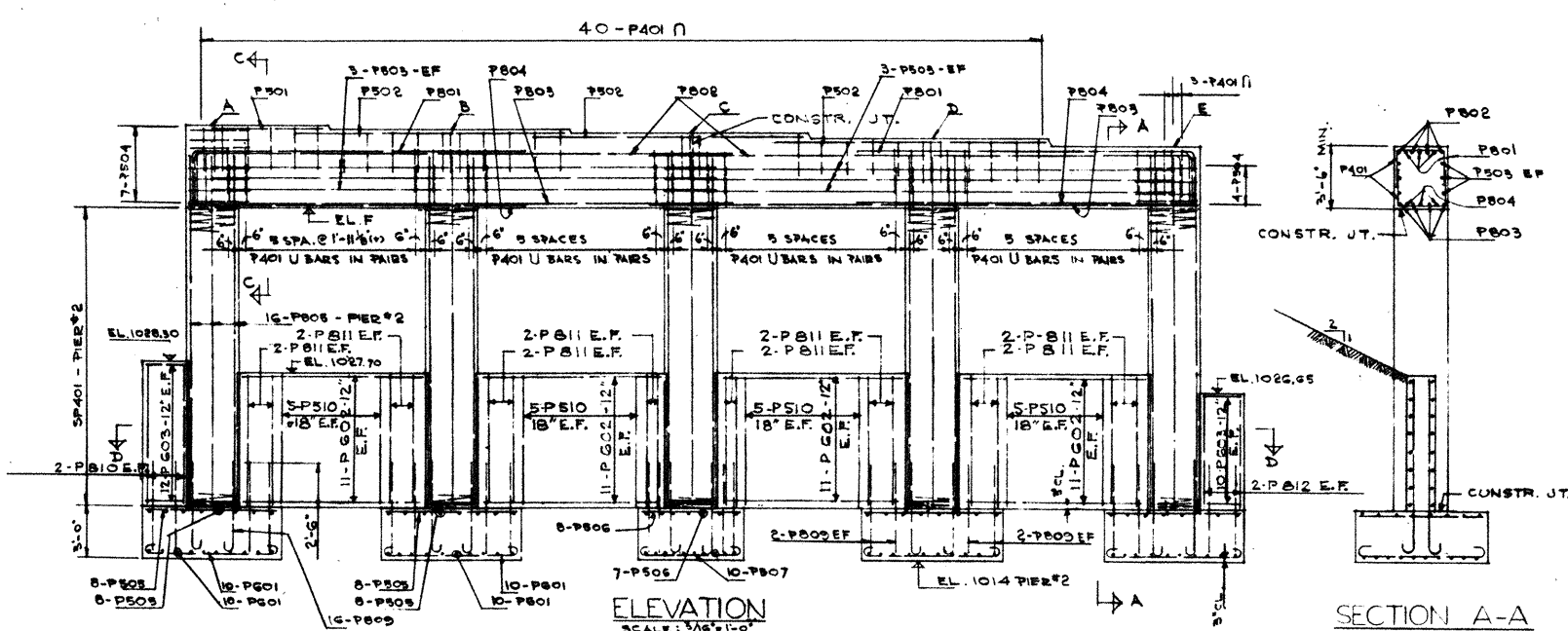
STA-21-17.80
WAY-21-000
SUM-21-000



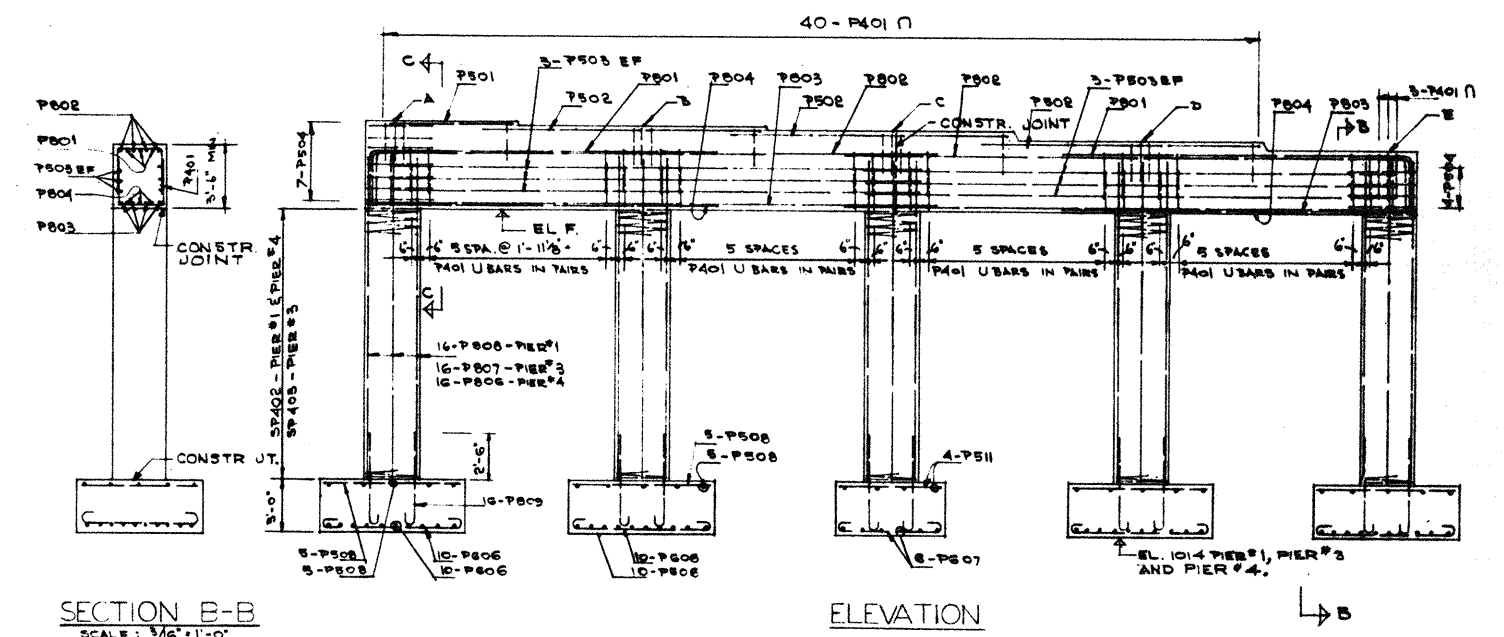
PLAN-PIER #2
SHOWING TOP-REINFORCING



PLAN-PIERS #1, #3 & #4
SHOWING TOP-REINFORCING

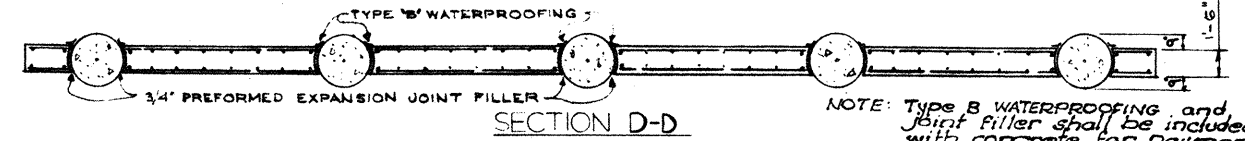


SECTION A-A

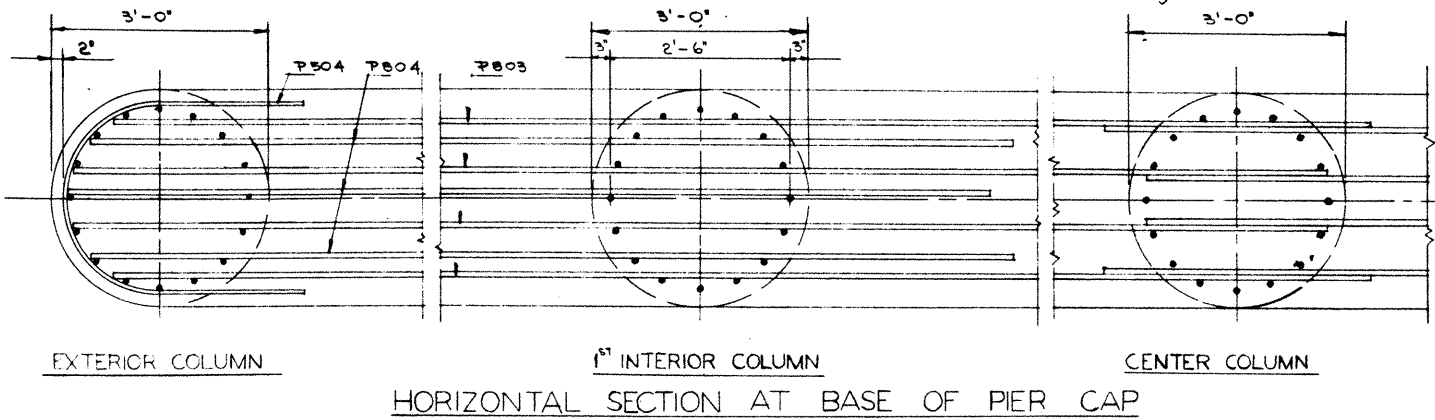


SECTION B-B

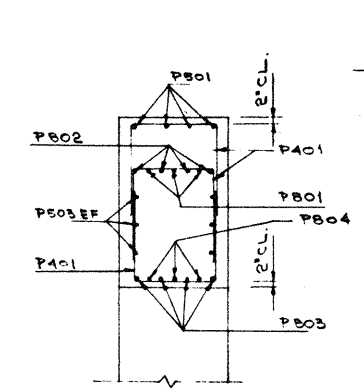
ELEVATION



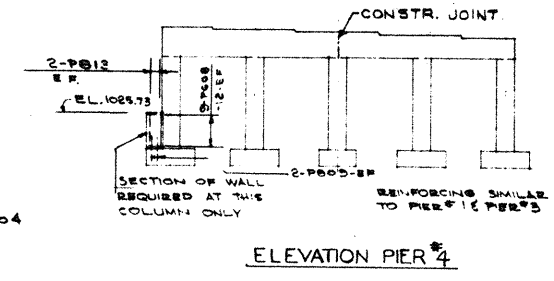
SECTION D-D
NOTE: Type B WATERPROOFING and Joint Filler shall be included with concrete for payment.



HORIZONTAL SECTION AT BASE OF PIER CAP



SECTION C-C



ELEVATION PIER #4

PIER NO.	ELEV. A	ELEV. B	ELEV. C	ELEV. D	ELEV. E	ELEV. F
PIER #1	1039.79	1039.56	1039.34	1038.88	1038.45	1034.88
PIER #2	1042.03	1041.80	1041.58	1041.12	1040.67	1037.17
PIER #3	1037.61	1037.38	1037.16	1036.70	1036.28	1032.78
PIER #4	1039.88	1039.62	1039.40	1038.94	1038.49	1034.99

NOTE:
ALL REINFORCING STEEL SHALL CLEAR FACE OF CONCRETE 2" UNLESS OTHERWISE SHOWN.
REINFORCING BARS IN BRIDGE SEATS TO BE PLACED TO CLEAR ANCHOR BOLTS.
E.F. DENOTES "EACH FACE"
N.F. DENOTES "NEAR FACE"
P.F. DENOTES "FAR FACE"
PRE-MOLDED JOINT FILLER & TYPE "B" WATERPROOFING TO BE INCLUDED IN ITEM 3-1, CLASS "C" CONCRETE, PIER ABOVE FOOTINGS FOR PAYMENT.

CHARLES E. DELEW
CONSULTING ENGINEER
CHICAGO ILLINOIS

DETAILS OF PIERS NO. 1, 2, 3 & 4

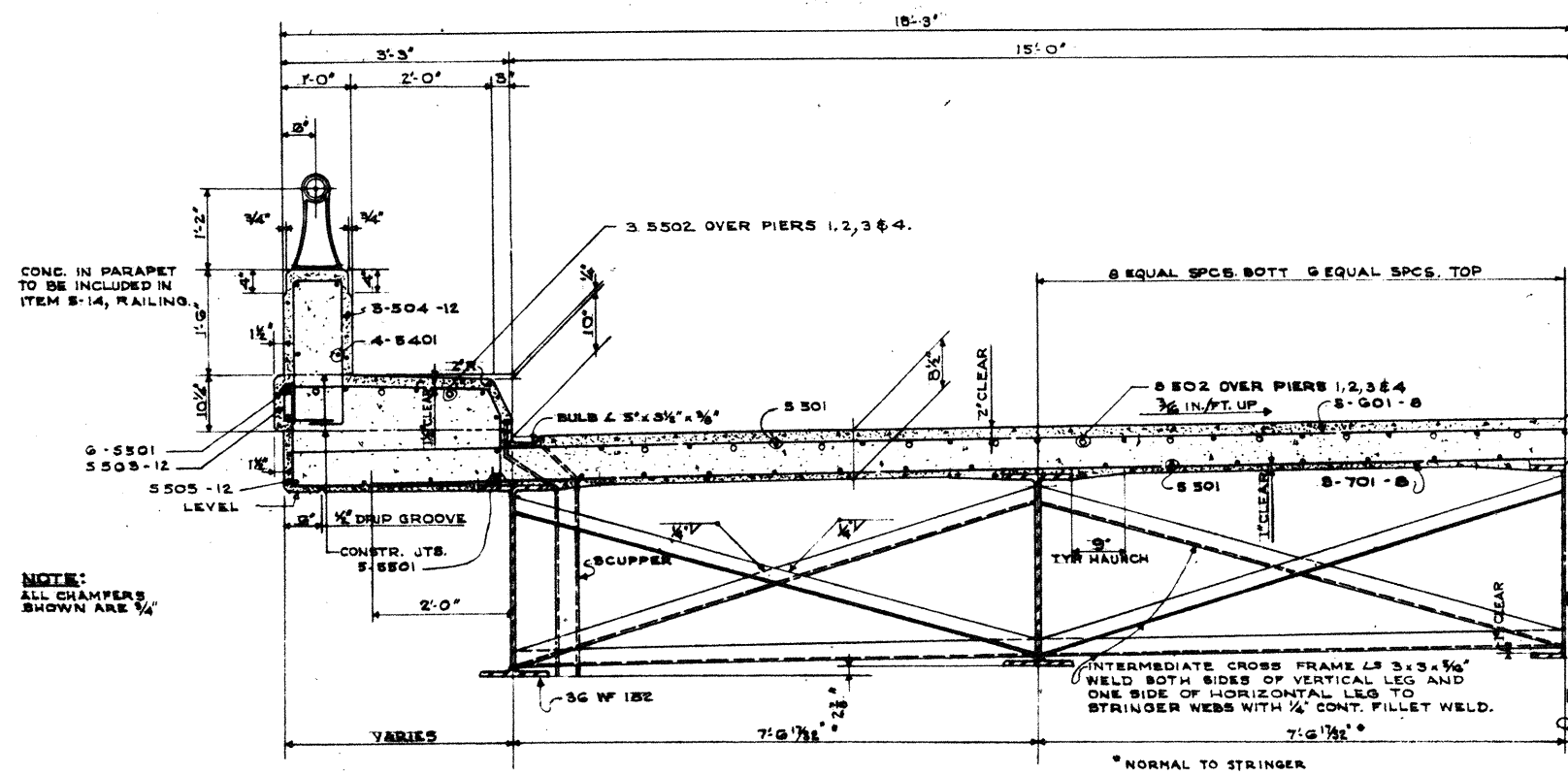
BRIDGE NOWAY-21-0182
U.S. 21 OVER T.R. 172

WAYNE CO. STA. 97+04.27
SEC. WAY-21

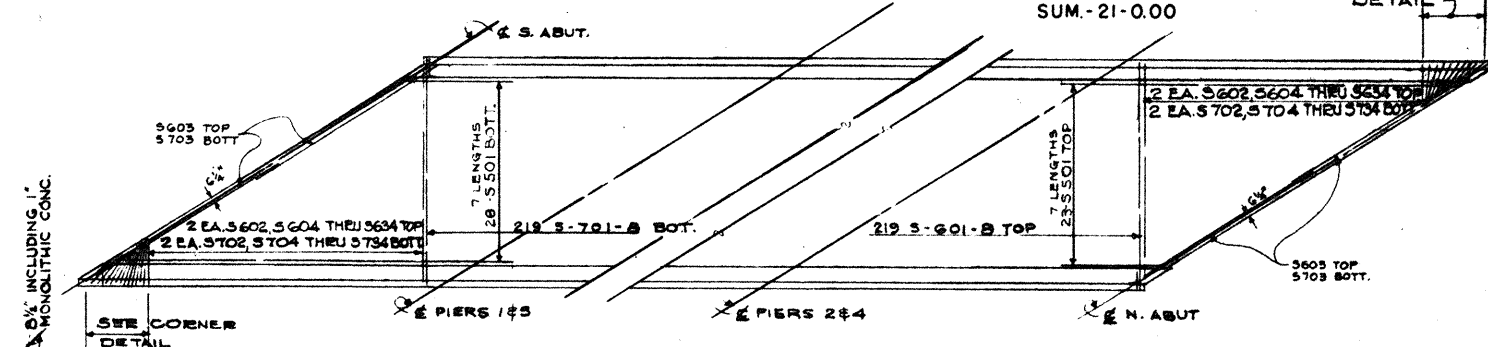
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	G.S.		R.S.	L.N.R.	6-11-56	

STA. - 21-17.80
WAY - 21-0.00
SUM. - 21-0.00

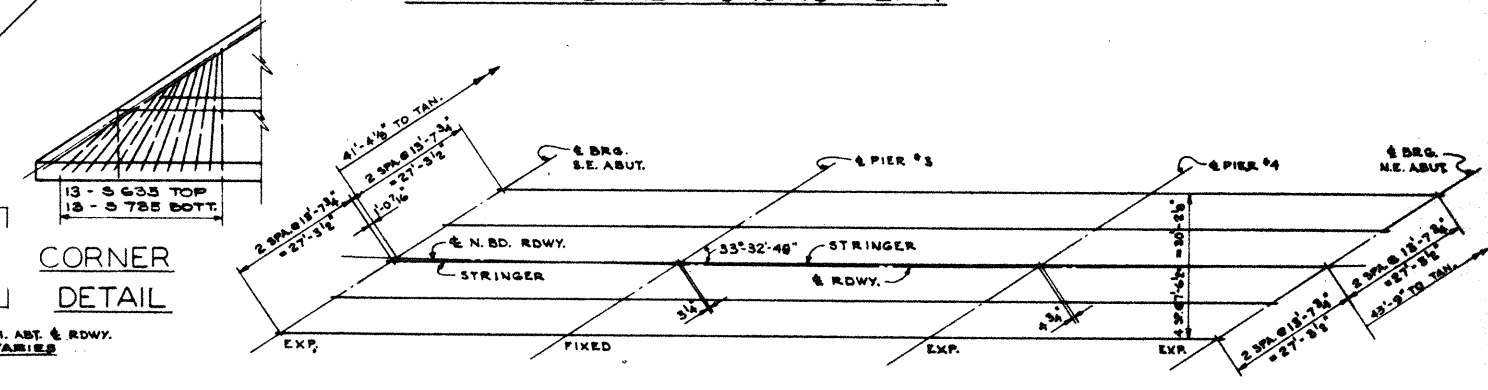
SEE CORNER DETAIL 7



TRANSVERSE HALF SECTION

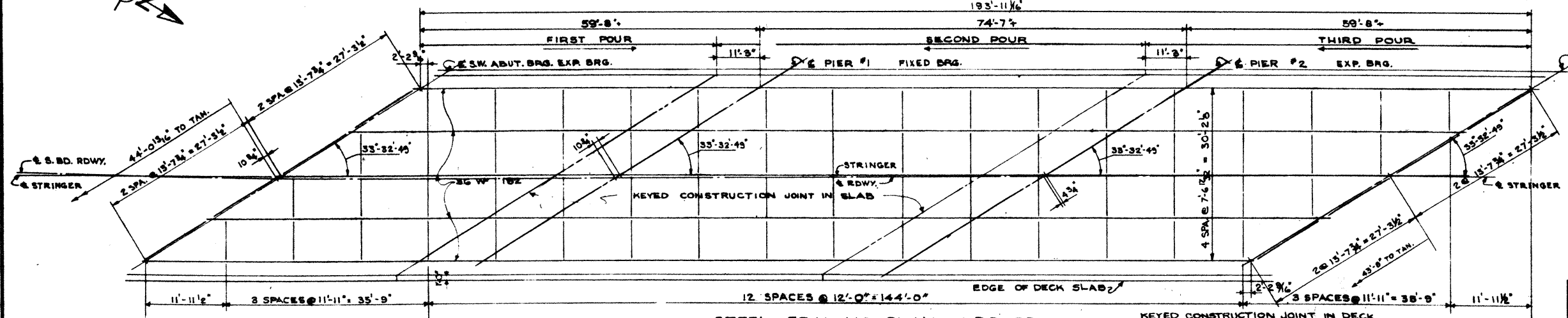


DECK SLAB REINFORCING PLAN



STEEL FRAMING PLAN - N.B.D. RDWY.

FOR DIAPHRAGM SPACING AND DIMENSIONS SEE PLAN OF S.B.D. RDWY.



STEEL FRAMING PLAN - S.B.D. RDWY.

SEE LAYOUT DIAGRAM SHT. NO. 322

KEYED CONSTRUCTION JOINT IN DECK SHALL BE NORMAL TO THE CENTERLINE OF ROADWAY FOR 2'-0" INSIDE OF THE EDGE OF SLAB.

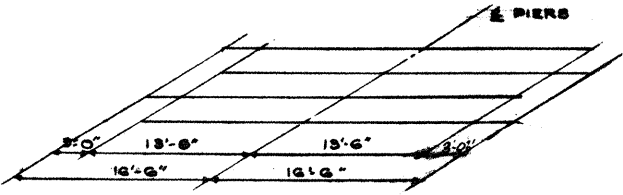


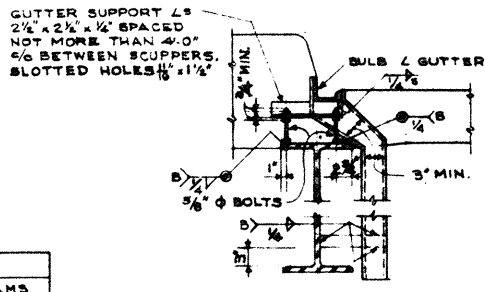
DIAGRAM SHOWING STAGGER OF #502 BARS OVER PIERS 1,2,3 & 4

ROCKERS & BOLSTERS	
	BOLSTER
S. W. ABUT.	R-100
PIER #1	B-200
PIER #2	R-200
N. W. ABUT.	R-100
S. E. ABUT.	R-100
PIER #3	B-200
PIER #4	R-200
N. E. ABUT.	R-100

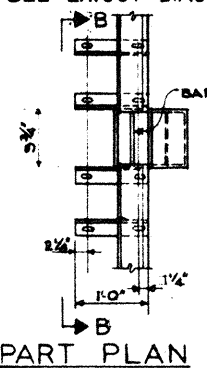
CAMBER: NO CAMBERING OF BEAMS IS REQUIRED BUT THE BEAMS SHALL BE SO FABRICATED THAT ANY CURVED BEAMS SHALL BE PLACED WITH THE CONVEX SURFACE UP.

DECK CONSTRUCTION PROCEDURE.
THE DECK SLAB SHALL BE PLACED IN SECTIONS BETWEEN TRANSVERSE CONSTRUCTION JOINTS IN THE NUMERICAL ORDER AND IN THE DIRECTION INDICATED ON THE STEEL FRAMING PLAN IN ORDER THAT THE MAJOR PORTION OF THE DEAD LOAD DEFLECTION WILL OCCUR PRIOR TO PLACING CONCRETE OVER EACH PIER.

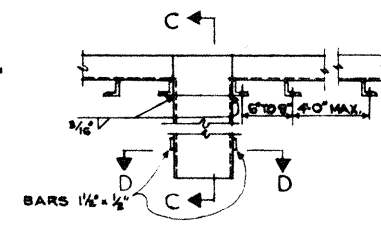
GUTTERS SHALL BE ACCURATELY ADJUSTED FOR ALIGNMENT AND GRADE WITH ALLOWANCE FOR DEAD LOAD DEFLECTION BEFORE CONCRETE IS PLACED.



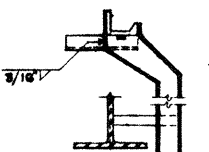
GUTTER SUPPORT AND SCUPPER



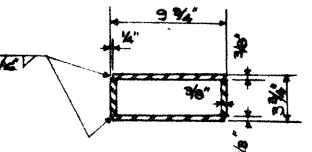
PART PLAN



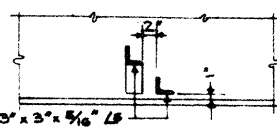
SECTION B-B



SECTION C-C



SECTION D-D



SECTION E-E

MOMENT PLATE SIZES		
LOCATION	INTERIOR BEAMS	FASCIA BEAMS
	3/4" W 182	3/4" W 182
PIERS #1, 2, 3, 4	TOP E. 10 1/2 x 8 = 26'-6"	10 1/2 x 8 = 21'-6"
	BOT. E. 13 1/2 x 8 = 26'-6"	13 1/2 x 8 = 21'-6"

CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

SUPERSTRUCTURE DETAILS
BRIDGE NO. WY-21-0182
U.S. 21 OVER T.R. 172

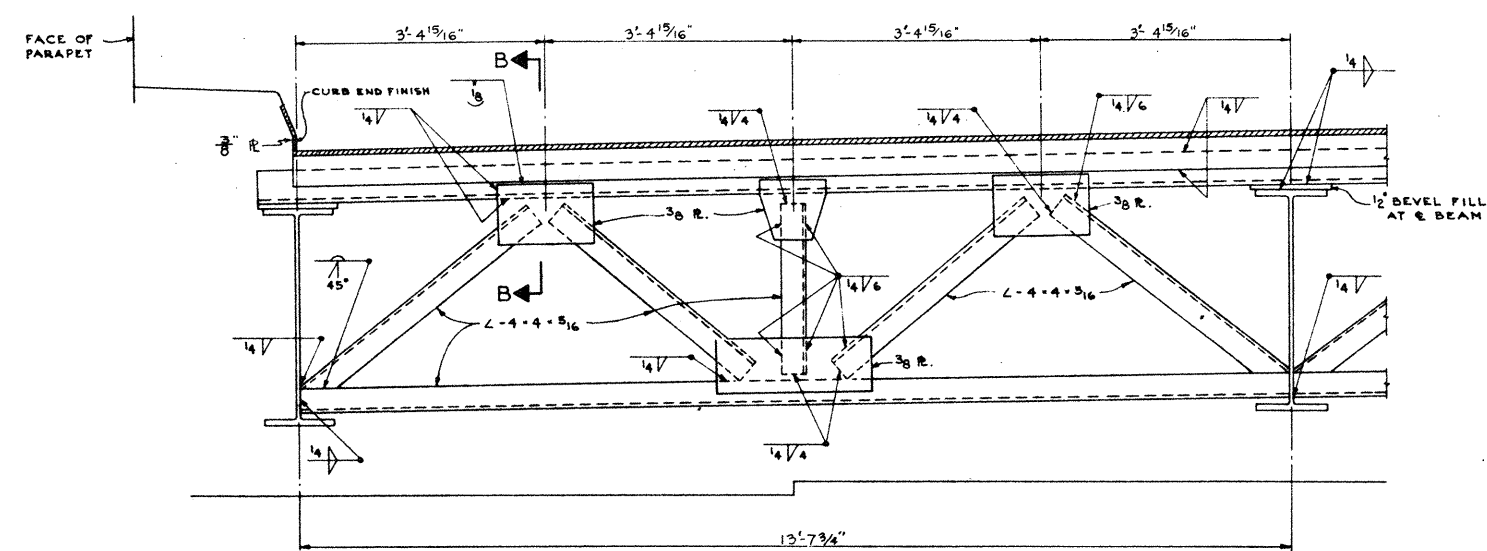
WAYNE CO. STA. 97+04.27
SEC. WAY-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	J.N.		R.S.	L.N.R.	6-11-56	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(13)	

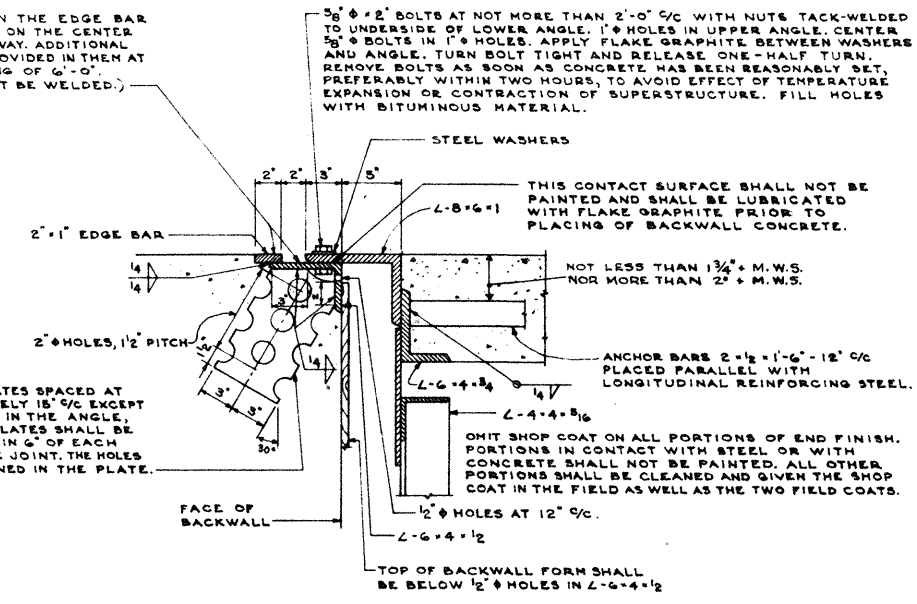
327
329

STA.-21-1780
WAY-21-0.00
SUM-21-0.00

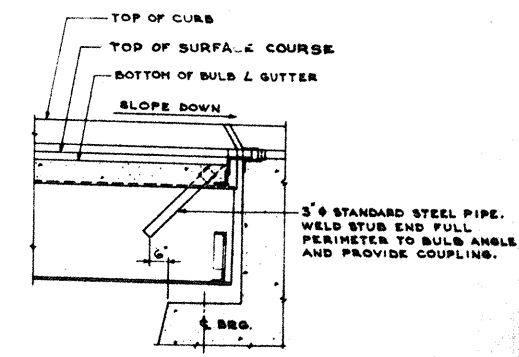


SECTION A-A

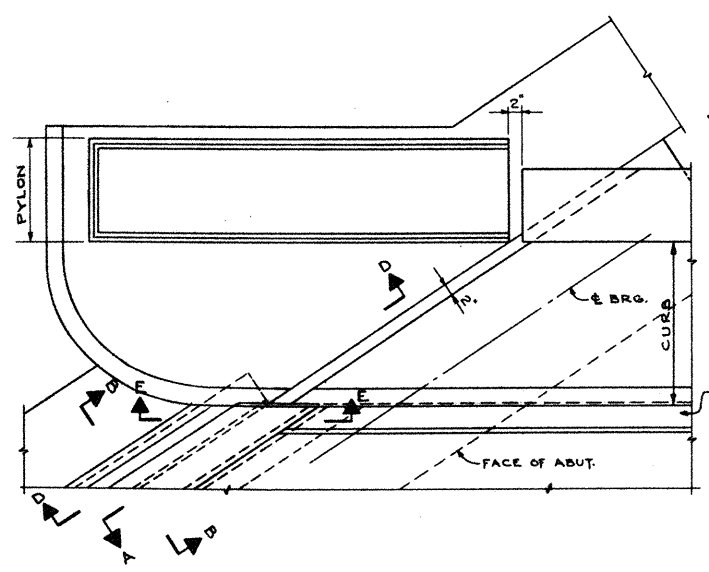
PROVIDE A JOINT IN THE EDGE BAR AND IN THE ANGLE ON THE CENTER LINE OF THE ROADWAY. ADDITIONAL JOINTS MAY BE PROVIDED IN THEM AT A MINIMUM SPACING OF 6'-0\"/>



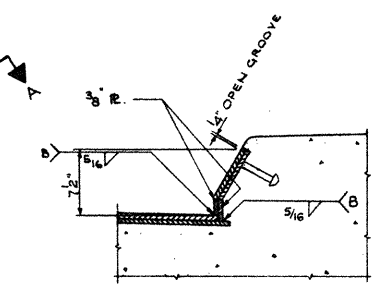
SECTION B-B



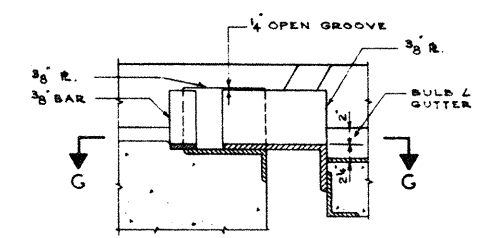
TYPICAL SECTION FOR GRADE SLOPING DOWN TO END FINISH



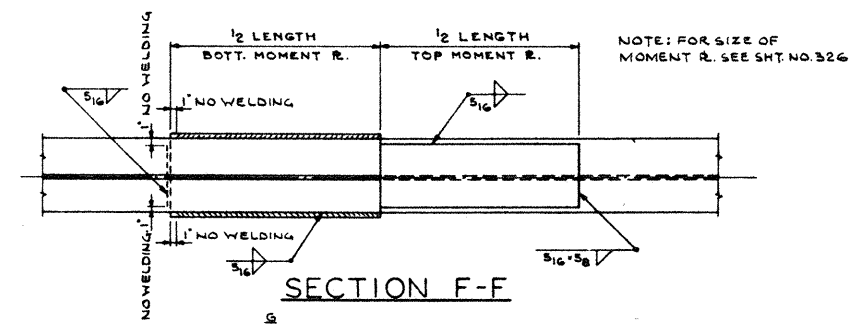
PARTIAL PLAN AT ABUTMENT



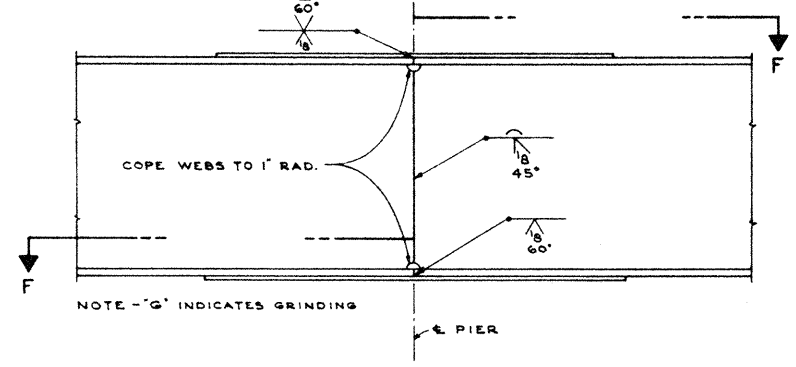
SECTION D-D
1'-1'-0"



SECTION E-E

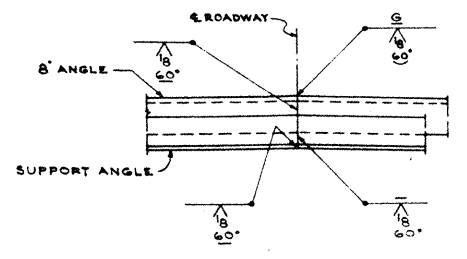


SECTION F-F

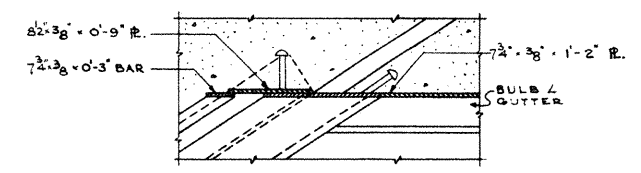


BEAM SPLICE DETAILS

- BEAM SPLICE WELDING PROCEDURE**
1. RAISE THE ADJUTMENT ENDS OF THE BEAMS 1/4\"/>
 2. BUTT-WELD THE BEAM FLANGES AND WEB.
 3. WELD THE BOTTOM AND TOP MOMENT PLATES.
 4. LOWER THE BEAM ENDS TO FINAL POSITION.
- * MAKE ONE PASS IN EACH FLANGE, THEN ONE PASS IN THE WEB, REPEAT UNTIL WELDS ARE COMPLETED.



WELDED BUTT JOINT IN SUPERSTRUCTURE
END FINISH ANGLES AT C OF ROADWAY



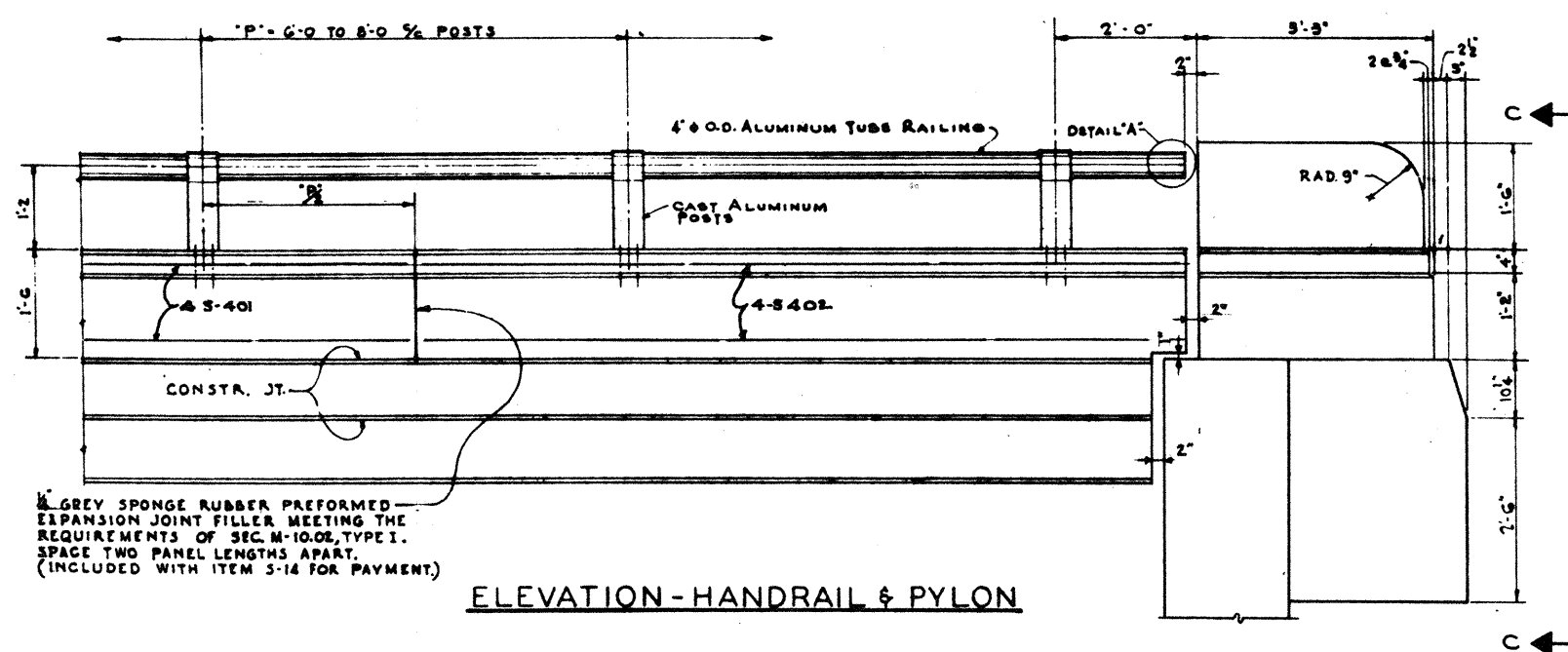
SECTION G-G

CHARLES E. DE LEUW CONSULTING ENGINEER CHICAGO ILLINOIS						
SUPERSTRUCTURE DETAILS						
BRIDGE NOWAY-21-0182 U.S. 21 OVER T.R. 172						
WAYNE CO. SEC. WAY-21				STA. 97+04.27		
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.E.	J.G.		R.S.	L.N.R.	6-11-58	

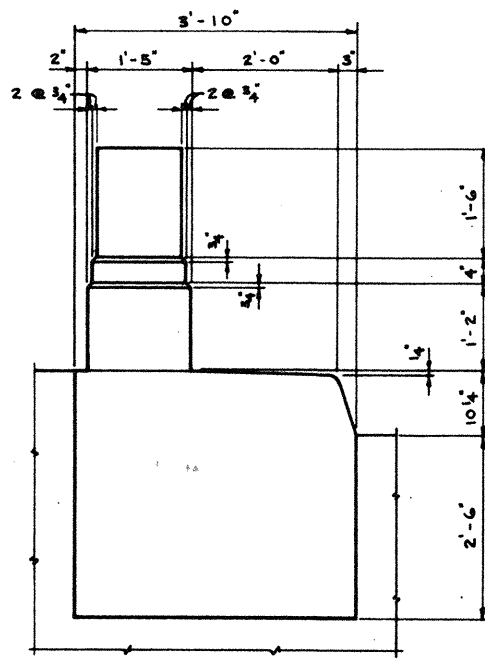
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	F-1010(3)	

328
329

STA-21-17.80
WAY-21-0.00
SUM-21-0.00

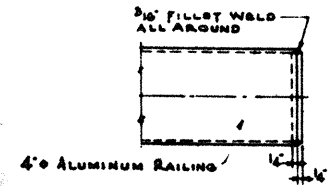


ELEVATION - HANDRAIL & PYLON

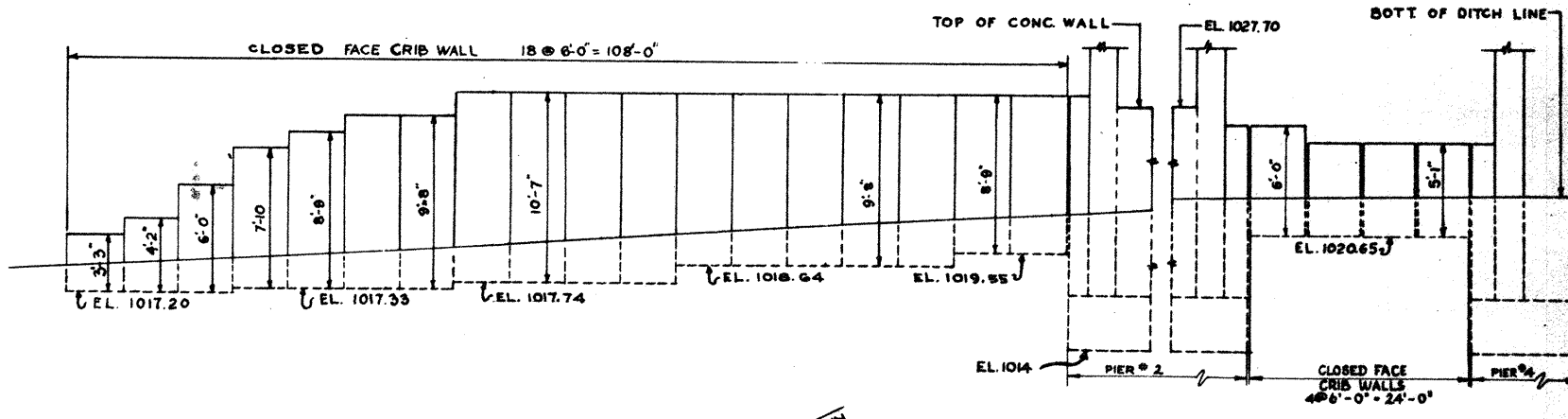


VIEW C-C

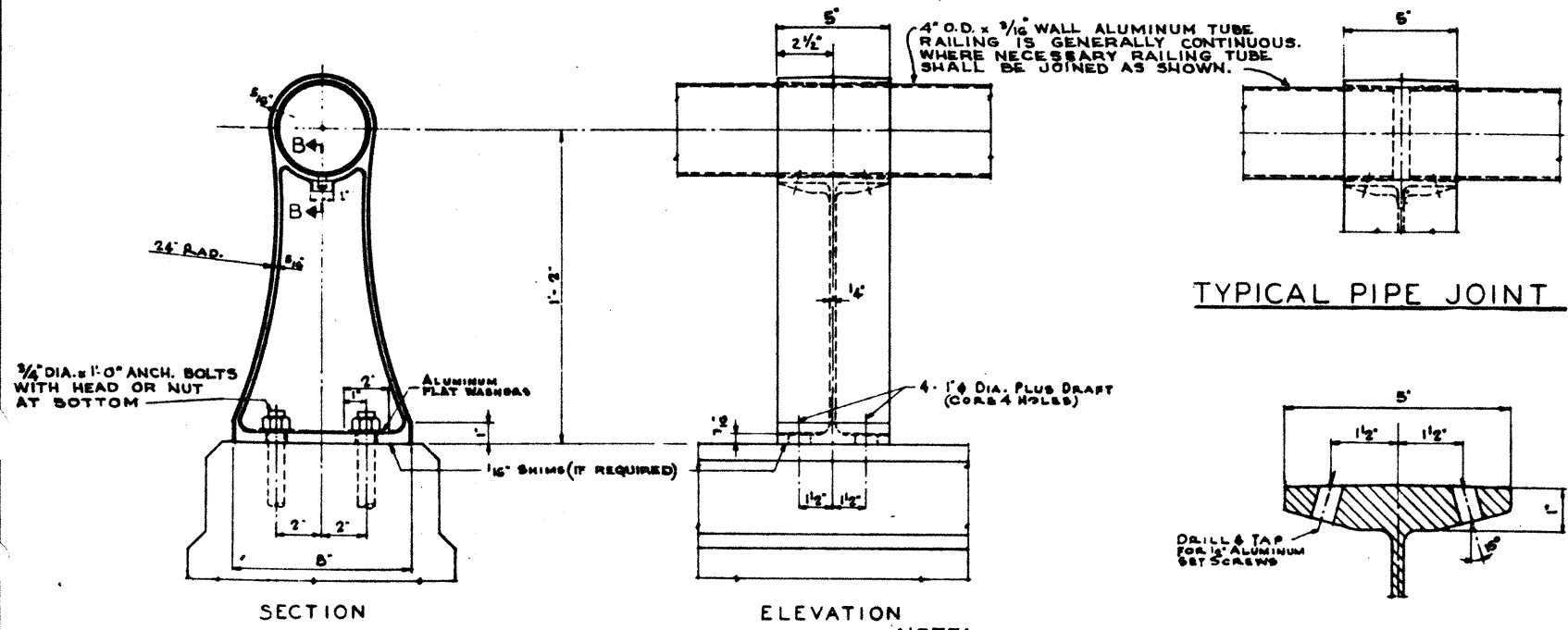
GREY SPONGE RUBBER PREFORMED EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF SEC. M-10.02, TYPE I. SPACE TWO PANEL LENGTHS APART. (INCLUDED WITH ITEM 5-14 FOR PAYMENT)



DETAIL A

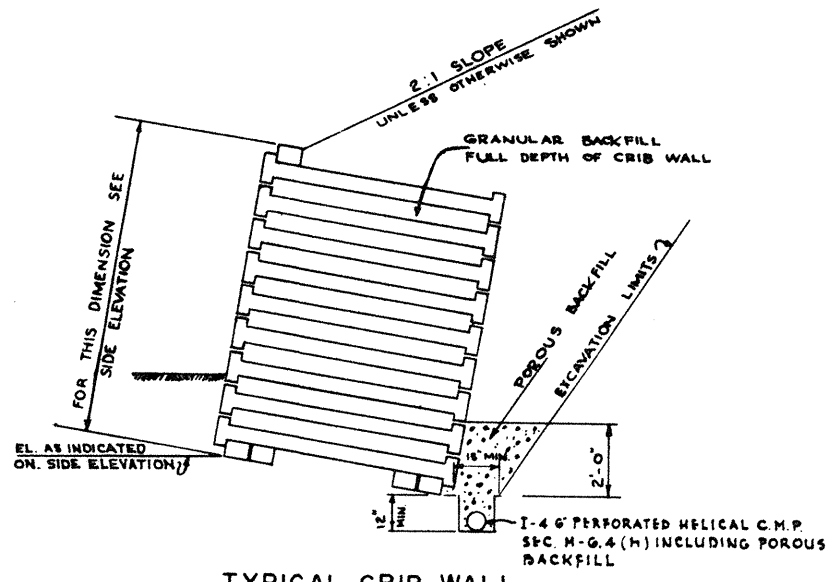


SIDE ELEVATION
LOOKING NORTH AT NORTH PIERS



HANDRAIL DETAILS

NOTE:
FOR FURTHER DETAILS SEE SUPPLEMENTAL SPECIFICATION NO. S-114 ALUMINUM FOR BRIDGE RAILING, DATED AUG. 30, 1955



TYPICAL CRIB WALL
CROSS SECTION

CHARLES E. DE LEUW CONSULTING ENGINEER CHICAGO ILLINOIS					
HANDRAIL AND PYLON DETAILS CRIB WALL ELEVATION & DETAILS BRIDGE NO. WAY-21-0182 U.S. 21 OVER T.R. 172					
WAYNE CO.			STA. 97+04.27		
SEC. WAY-21					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
M.C.	R.N. J.L.		REH.	L.N.R.	6-11-56

STA.-21-17.80
WAY-21-0.00
SUM-21-0.00

REINFORCING STEEL LIST

SUPERSTRUCTURE					SUPERSTRUCTURE					PIER NO. 2					PIER NO. 4 (CONT)					NORTH ABUTMENTS				
MARK	NO.	LENGTH	WEIGHT	SHP.	MARK	NO.	LENGTH	WEIGHT	SHP.	MARK	NO.	LENGTH	WEIGHT	SHP.	MARK	NO.	LENGTH	WEIGHT	SHP.	MARK	NO.	LENGTH	WEIGHT	SHP.
5701	438	34'-0"	30439	5	5620	8	19'-9"	228	5	P801	6	21'-3"	340	5	P607	12	7'-0"	126	5	A901	4	19'-3"	202	5
5702	8	33'-3"	544	5	5621	8	18'-0"	216	5	P802	8	33'-6"	716	5	P608	18	2'-0"	54	5	A801	3	18'-0"	148	5
5703	8	32'-6"	531	5	5622	8	17'-0"	204	5	P803	8	30'-0"	641	5	P501	4	6'-9"	28	5	A802	2	11'-6"	56	5
5704	8	32'-3"	527	5	5623	8	16'-3"	195	5	P804	6	19'-0"	304	5	P502	12	15'-6"	194	5	A803	5	7'-6"	100	5
5705	8	31'-3"	511	5	5624	8	15'-6"	186	5	P805	80	23'-3"	4966	5	P503	12	28'-3"	354	5	A804	4	11'-8"	124	5
5706	8	30'-3"	495	5	5625	8	14'-6"	174	5	P809	120	6'-6"	2082	5	P504	11	8'-3"	95	5	A806	4	15'-5"	165	5
5707	8	29'-6"	482	5	5626	8	13'-9"	165	5	P810	4	11'-0"	117	5	P508	40	6'-6"	271	5					
5708	8	28'-6"	466	5	5627	8	12'-9"	153	5	P811	32	10'-6"	896	5	P511	12	5'-6"	69	5					
5709	8	27'-9"	454	5	5628	8	11'-9"	141	5	P812	4	9'-6"	101	5										
5710	8	26'-9"	437	5	5629	8	11'-0"	132	5	P601	80	8'-6"	1021	5										
5711	8	26'-0"	425	5	5630	8	10'-0"	120	5	P602	88	10'-6"	1388	5										
5712	8	25'-0"	409	5	5631	8	9'-3"	111	5	P603	44	2'-0"	132	5										
5713	8	24'-0"	392	5	5632	8	8'-3"	99	5															
5714	8	23'-3"	380	5	5633	8	7'-6"	90	5															
5715	8	22'-3"	364	5	5634	8	6'-6"	78	5															
5716	8	21'-6"	352	5	5635	8	6'-0"	469	5															
5717	8	20'-6"	335	5																				
5718	8	19'-9"	323	5																				
5719	8	18'-9"	307	5																				
5720	8	18'-0"	294	5																				
5721	8	17'-0"	278	5																				
5722	8	16'-0"	262	5																				
5723	8	15'-3"	249	5																				
5724	8	14'-6"	237	5																				
5725	8	13'-6"	221	5																				
5726	8	12'-9"	208	5																				
5727	8	11'-9"	192	5																				
5728	8	10'-9"	176	5																				
5729	8	10'-0"	164	5																				
5730	8	9'-0"	147	5																				
5731	8	8'-3"	135	5																				
5732	8	7'-3"	118	5																				
5733	8	6'-6"	106	5																				
5734	8	5'-6"	90	5																				
5735	8	5'-0"	271	5																				
			41321																					
5601	438	34'-0"	23684	5																				
5602	8	34'-3"	48	5																				
5603	8	33'-6"	408	5																				
5604	8	33'-3"	400	5																				
5605	8	32'-3"	388	5																				
5606	8	31'-3"	376	5																				
5607	8	30'-6"	366	5																				
5608	8	29'-6"	354	5																				
5609	8	28'-9"	345	5																				
5610	8	27'-9"	333	5																				
5611	8	27'-0"	324	5																				
5612	8	26'-0"	312	5																				
5613	8	25'-0"	300	5																				
5614	8	24'-3"	291	5																				
5615	8	23'-3"	279	5																				
5616	8	22'-6"	270	5																				
5617	8	21'-6"	258	5																				
5618	8	20'-9"	249	5																				
5619	8	19'-0"	237	5																				

MARK	NO.	CORE DIAM. OF SPIRAL	LENGTH	PITCH	NO. OF TURNS	WEIGHT
SR401	5	32"	20'-2"	4'-2"	57	1868
SR402	10	32"	18'-0"	4'-2"	51	3340
SR403	5	32"	15'-9"	4'-2"	45	1475

NOTE:
BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE: A700 IS A NUMBER 7 BAR AND A1014 IS A NUMBER 10 SIZE.

SPIRAL REINFORCING BARS

THE LENGTH SHOWN IN THE STEEL LIST FOR THE SPIRAL BAR IS THE DISTANCE FROM THE TOP OF THE FOOTING TO THE BOTTOM OF THE PIER CAP.
THE NO. OF TURNS SHOWN IN THE STEEL LIST FOR THE SPIRAL BAR IS THE LENGTH DIVIDED BY THE PITCH, PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS) EXPRESSED AS THE NEAREST WHOLE NUMBER.
SPIRAL REINFORCING BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM 5-4
1/2 CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.
FOUR STEEL CHANNEL, TEE OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.66 LB. PER LIN. FT. OF SPACER, SHALL BE PROVIDED FOR EACH SPIRAL UNIT.
THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.66 LB. PER LIN. FT. WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS.

CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

REINFORCING STEEL LIST

BRIDGE NO. WAY 21-0182
U.S. 21 OVER T.R. 172

WAYNE CO. STA. 97+04.27
SEC. WAY-21

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	J.G.		R.S.	L.N.R.	6-11-56	

T.N.N.
OK
6-5-56

Signed Albert B. Birdsall
Albert Birdsall
Registered Surveyor No. 2798
Date MARCH 27, 1956

LOCATION PLAT

WAY-21-0.00

MASSILLON-CLEVELAND ROAD

SUMMIT AND WAYNE COUNTYS

NORTON AND CHIPPEWA TOWNSHIPS

LIMITED ACCESS HIGHWAY
I Hereby Certify this Plat to be Correct
Signed by Carl L. Campbell
Division Deputy Director
State of Ohio Department of Highways
Received MAY 21 1956 at 10:20 A.M.
Recorded MAY 21 1956
Plat Book 5 Page 52 #196491
Signed Ruth Williams Recorder, Wayne County, Ohio
Fee 8.30

Vol. 5 Page 52
Received _____ at _____
Recorded _____
Plat Book 47 Page 90
Signed _____ Recorder, Summit County, Ohio
Fee See below

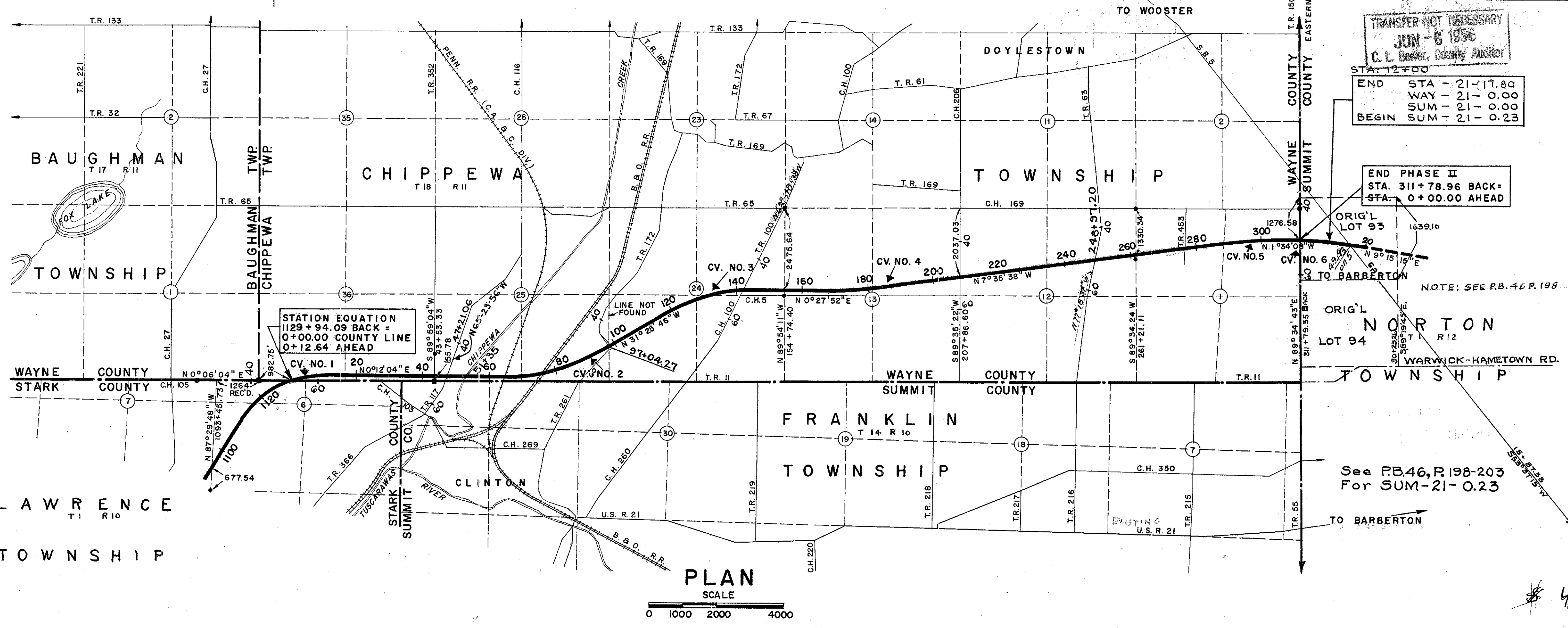
CURVE NO. 1	CURVE NO. 2
Δ 58°22'	Δ 31°35'50" Lt.
Δc 52°22'	D 1°00'00"
Dc 2'00'00"	D 5729.58
Pc 2864.79'	T 1621.16
Lc 2618.34'	L 3159.72
Ls 300.00'	E 224.93
Ts 1750.70	Pc 65+33.86
Xc 299.92	Pi 81+55.02
Yc 5.24	Rt 96+93.58
Es 3°00'	
Lt 200.03	
St 100.03	
Lc 299.96'	
Es 418.02	
k 149.99	
p 1.31	
Ts 1109+18.69	
Sc 1112+18.69	
Pi 1126+69.38	
Cs 1138+37.03	
8+55.58	
St 1141+37.03	
11+55.58	

CURVE NO. 3
Δ 31°51'38" Lt.
D 1°00'00"
D 5729.58
T 1635.39
L 3186.06
E 228.82
Pc 115+71.31
Pi 132+06.70
Rt 147+57.37

CURVE NO. 4
Δ 8°03'30" Lt.
D 0°45'00"
D 7639.44
T 538.11
L 1074.44
E 18.93
Pc 169+98.32
Pi 175+36.43
Rt 180+72.76

CURVE NO. 5
Δ 6°01'30" Rt.
D 0°45'00"
D 7639.44
T 402.04
L 803.33
E 10.58
Pc 288+85.65
Pi 292+87.69
Rt 296+88.98

CURVE NO. 6
Δ 10°49'23"
D 0°45'00"
D 7639.44
T 723.69
L 1443.07
E 34.20
Pc 308+00.39
Pi 3+45.12
Rt 10+64.50



Note: The Station on The Centerline of Intersecting Roads at Centerline of Above Survey is Sta. 50+00 Except Where Noted.

TRANSFER NOT NECESSARY
JUN - 6 1956
C. L. Bower, County Auditor
STA. 12+00
END STA - 21-17.80
WAY - 21-0.00
SUM - 21-0.00
BEGIN SUM - 21-0.23

END PHASE II
STA. 311+78.96 BACK=
STA. 0+00.00 AHEAD

NOTE: SEE P.B. 46 P. 198

See P.B. 46, P. 198-203
For SUM-21-0.23

RECEIVED FOR RECORD
JUN 6 1956
At 12:38 P.M.
JUN 11 1956
Recorded 47 Page 90
Frank W. Kruger
Recorder
Summit County, Ohio
By Roy Ruff
Supt.

 C. S. 8+55.58	 S.T. 11+55.58	 P.O.T. 18+73.83	 P.O.T. 34+30.28	 P.O.T. 48+99.83	 P.C. 65+33.86	 P.I. 81+55.02	 P.T. 96+93.58	 P.O.T. 105+04.06	 P.C. 115+71.31	 P.I. 132+06.70	 P.T. 147+57.37
 P.C. 169+98.32	 P.I. 175+36.43	 P.T. 180+72.76	 P.O.T. 194+54.50	 P.O.T. 216+29.88	 P.O.T. 241+70.48	 P.O.T. 264+45.29	 P.C. 288+85.65	 P.I. 292+87.69	 P.T. 296+88.98	 P.C. 308+00.39	

CENTER LINE MONUMENTS WILL BE SET DURING OR AFTER CONSTRUCTION

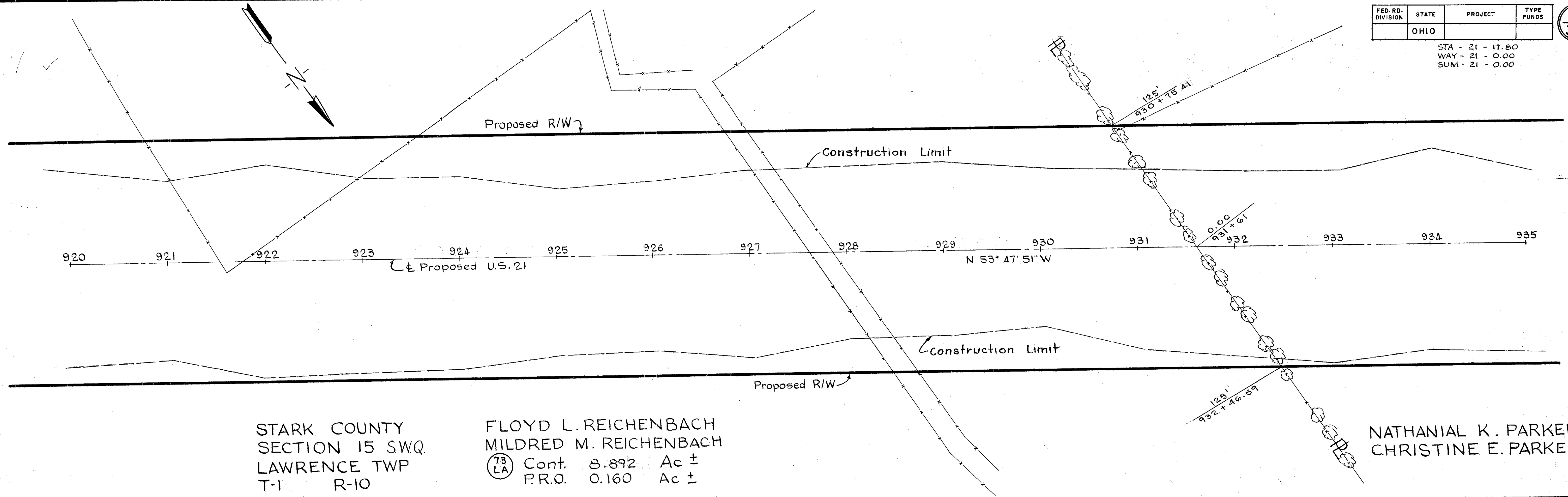
70%
STATE OF OHIO
ALBERT B. BIRDSALL
REGISTERED SURVEYOR

PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

1
30

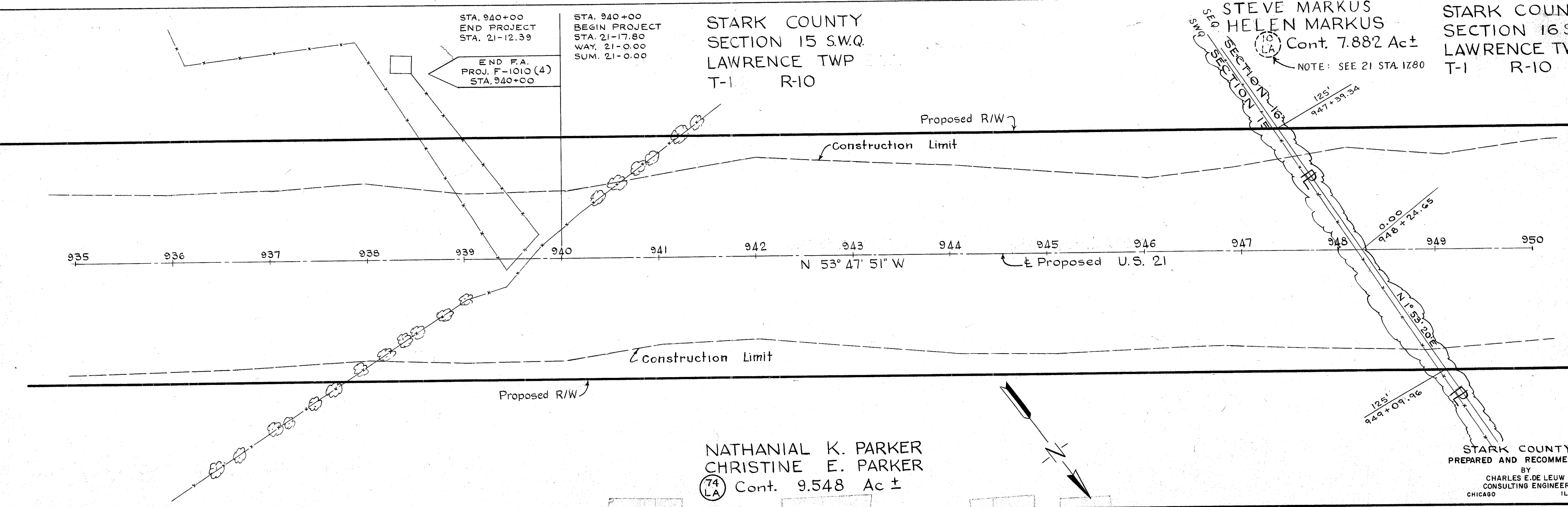
STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



STARK COUNTY
SECTION 15 SWQ.
LAWRENCE TWP
T-1 R-10

FLOYD L. REICHENBACH
MILDRED M. REICHENBACH
73 LA Cont. 8.892 Ac ±
P.R.O. 0.160 Ac ±

NATHANIAL K. PARKER
CHRISTINE E. PARKER



STA. 940+00
END PROJECT
STA. 21-12.39

END F.A.
PROJ. F-1010 (4)
STA. 940+00

STA. 940+00
BEGIN PROJECT
STA. 21-17.80
WAY. 21-0.00
SUM. 21-0.00

STARK COUNTY
SECTION 15 SWQ.
LAWRENCE TWP
T-1 R-10

STEVE MARKUS
HELEN MARKUS
74 LA Cont. 7.882 Ac ±
NOTE: SEE 21 STA. 17.80

STARK COUNTY
SECTION 16 SWQ.
LAWRENCE TWP
T-1 R-10

NATHANIAL K. PARKER
CHRISTINE E. PARKER
74 LA Cont. 9.548 Ac ±

STARK COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

Revised 5-22-52

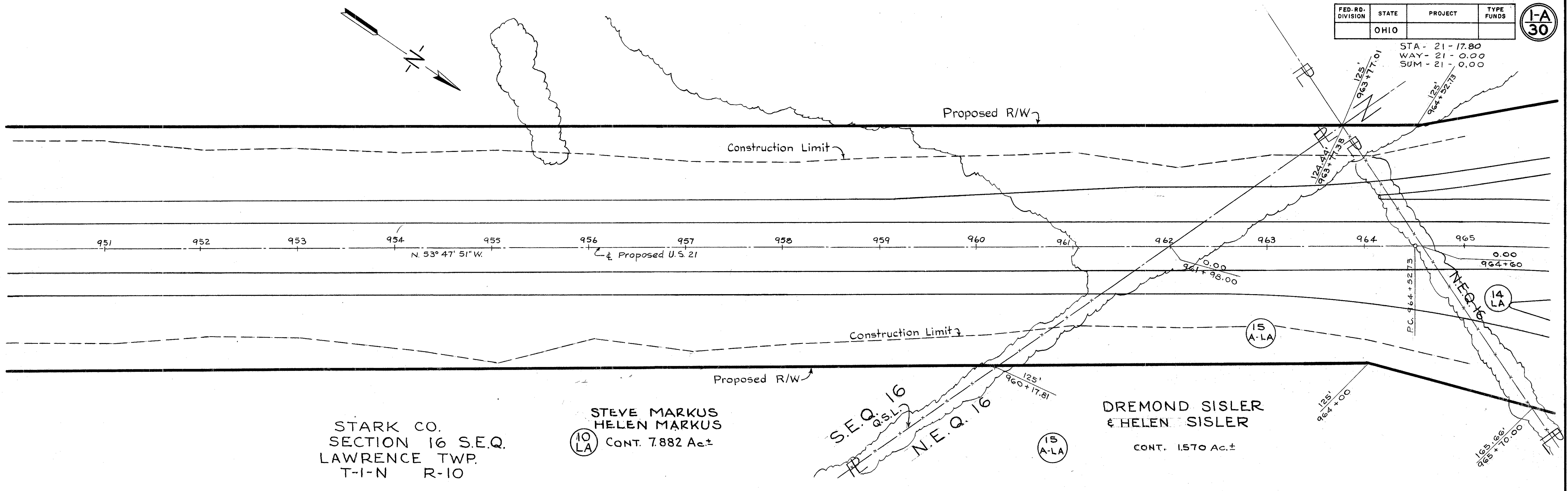
1730

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

1-A
30

STA - 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00

SEE SHEET #1



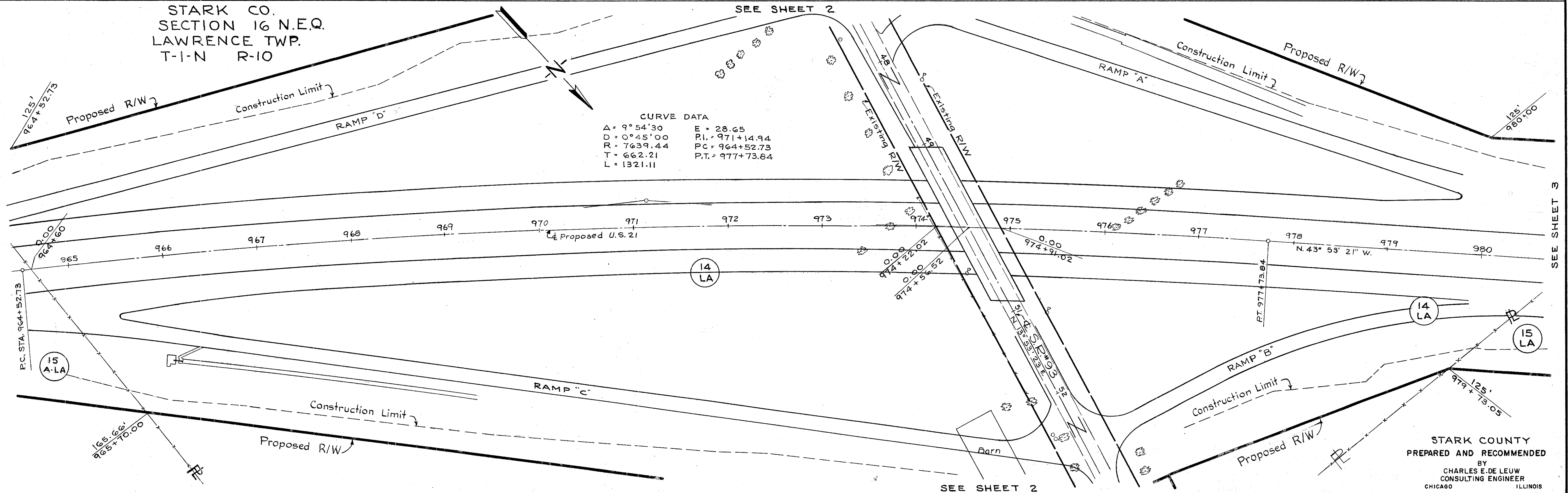
STARK CO.
SECTION 16 S.E.Q.
LAWRENCE TWP.
T-1-N R-10

STEVE MARKUS
HELEN MARKUS
10 LA CONT. 7.882 Ac±

DREMOND SISLER
& HELEN SISLER
15 A-LA CONT. 1.570 Ac±

STARK CO.
SECTION 16 N.E.Q.
LAWRENCE TWP.
T-1-N R-10

CURVE DATA
A = 9° 54' 30" E = 28.65
D = 0° 45' 00" P.I. = 971 + 14.94
R = 7639.44 PC = 964 + 52.73
T = 662.21 P.T. = 977 + 73.84
L = 1321.11



STARK COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

SEE SHEET 2

RIGHT-OF-WAY SHEET- STA. 950+00-980+00

REV. 5-22-56

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

2
30

STA. 21 - 17.80
WAY - 21-0.00
SUM - 21-0.00

S.E. Qr. Sec. 16

N.E. Qr. Sec. 16

STARK CO.
SECTION 16
LAWRENCE TWP.
T-1-N R-10-W
WILLIAM REICHENBACH
& METTIA REICHENBACH

THOMAS J. POWELL

JOHN TIPPEL

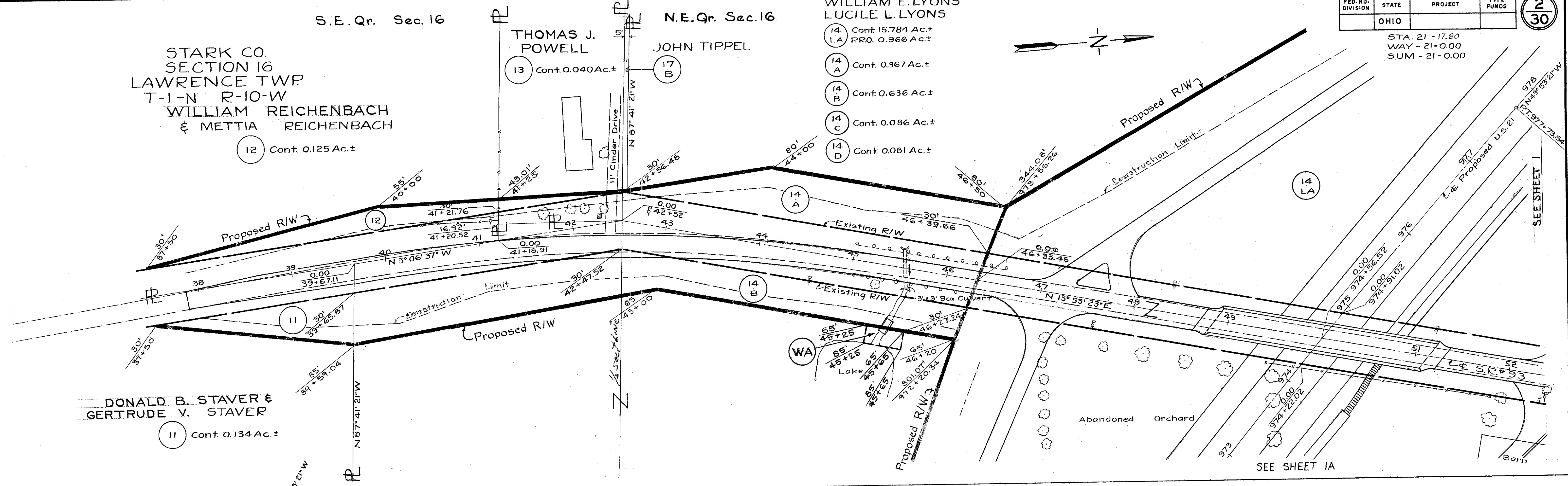
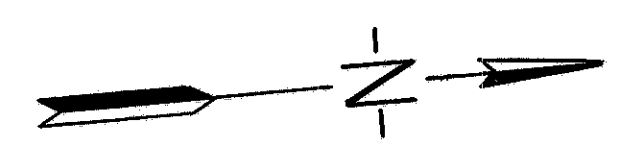
WILLIAM E. LYONS
LUCILE L. LYONS

- 14 LA Cont. 15.784 Ac.±
PRO. 0.966 Ac.±
- 14 A Cont. 0.367 Ac.±
- 14 B Cont. 0.636 Ac.±
- 14 C Cont. 0.086 Ac.±
- 14 D Cont. 0.081 Ac.±

12 Cont. 0.125 Ac.±

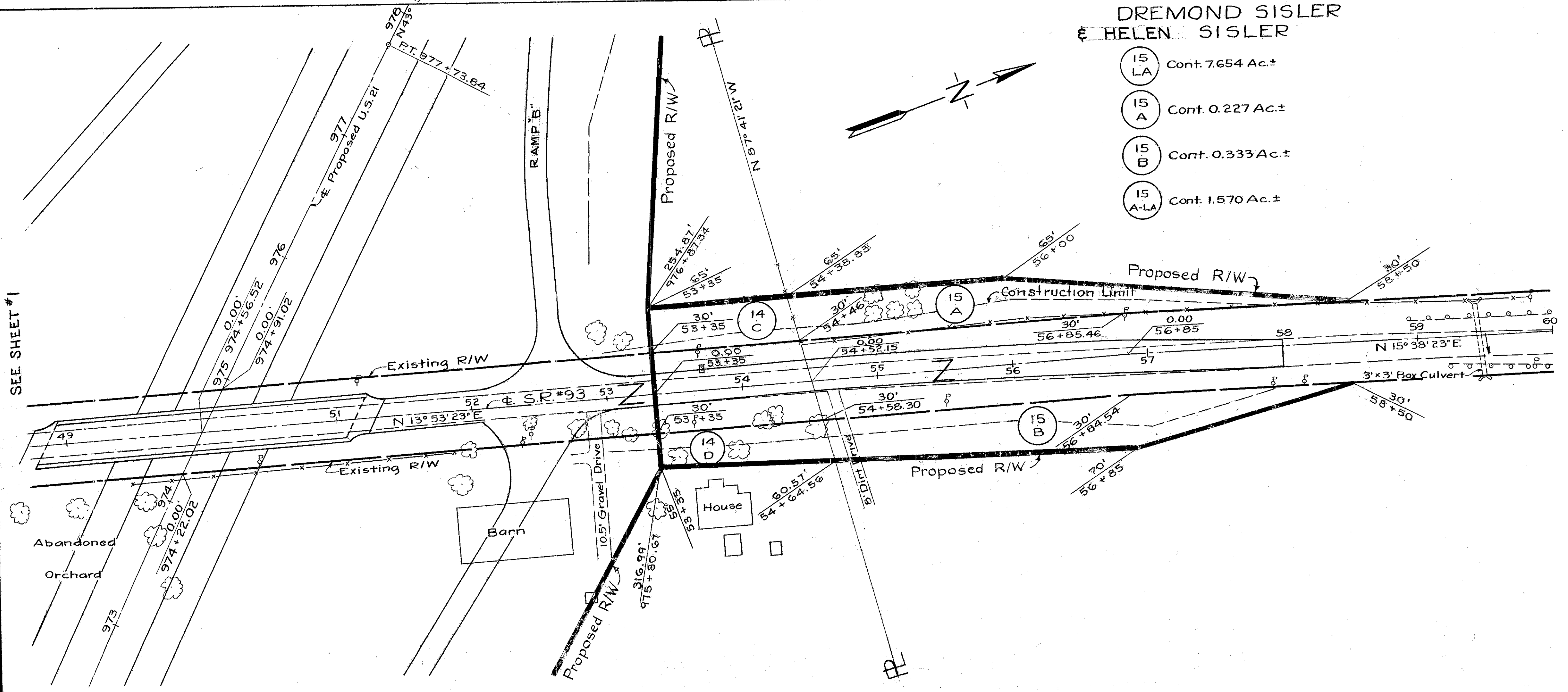
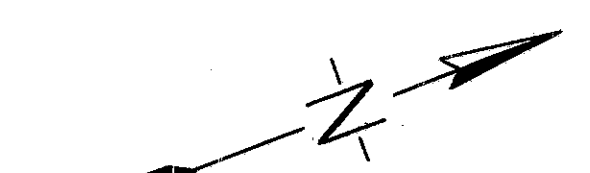
DONALD B. STAVER &
GERTRUDE V. STAVER

11 Cont. 0.134 Ac.±



DREMOND SISLER
& HELEN SISLER

- 15 LA Cont. 7.654 Ac.±
- 15 A Cont. 0.227 Ac.±
- 15 B Cont. 0.333 Ac.±
- 15 A-LA Cont. 1.570 Ac.±



STARK COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

SEE SHEET #1A

RIGHT-OF-WAY SHEET S.R. 93

WILLIAM E. LYONS
LUCILE L. LYONS

(14) LA
Cont. 15.784 Ac.±
P.R.O. 0.966 Ac.±

DREMOND SISLER
HELEN SISLER

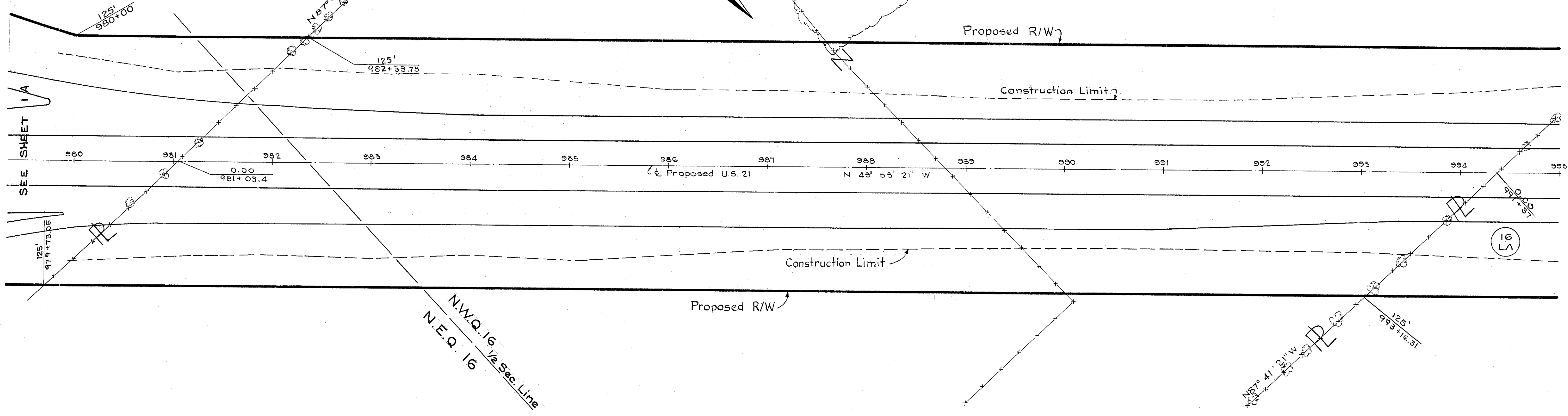
(15) LA
Cont. 7.654 Ac.±

STARK CO.
SECTION 16 N.W.Q.
LAWRENCE TWP
T-1-N R-10-W

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

3
30

STA. 21-17.80
WAY- 21-0.00
SUM- 21-0.00

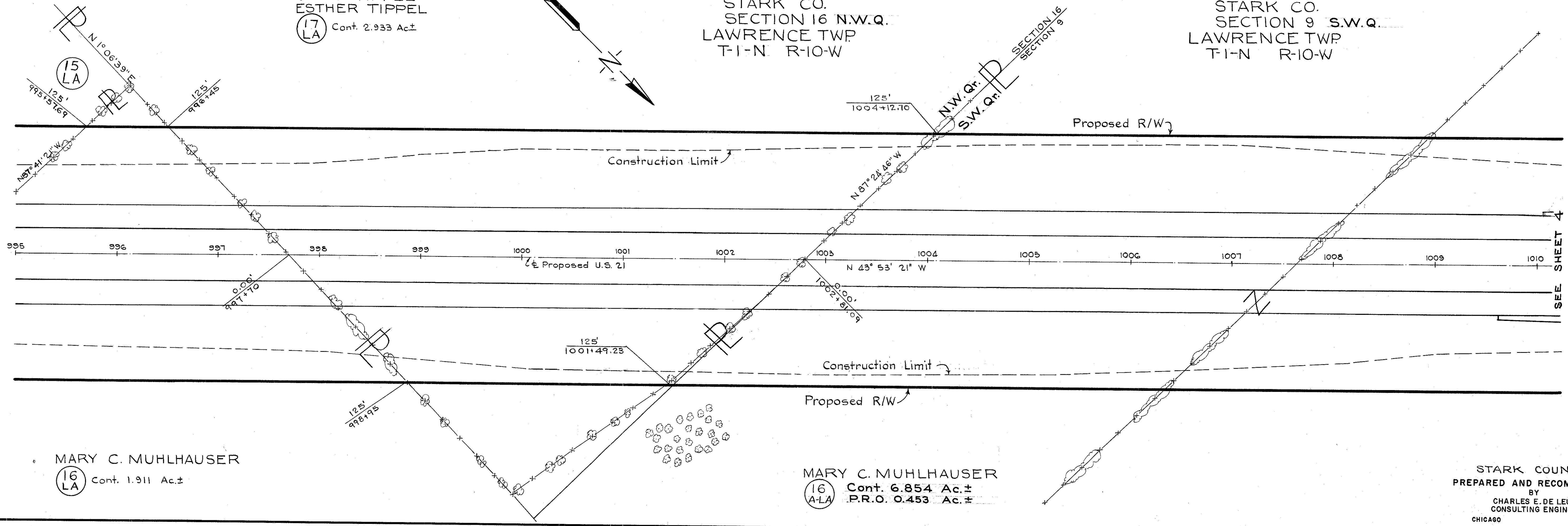


JOHN TIPPEL
ESTHER TIPPEL

(17) LA
Cont. 2.933 Ac.±

STARK CO.
SECTION 16 N.W.Q.
LAWRENCE TWP
T-1-N R-10-W

STARK CO.
SECTION 9 S.W.Q.
LAWRENCE TWP
T-1-N R-10-W



MARY C. MUHLHAUSER
(16) LA
Cont. 1.911 Ac.±

MARY C. MUHLHAUSER
(16) A-LA
Cont. 6.854 Ac.±
P.R.O. 0.453 Ac.±

STARK COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

REV. 6-22-56

STARK CO.
SECTION 9 S.W.Q.
LAWRENCE TWP
T-1-N R-10-W

SEE SHEET

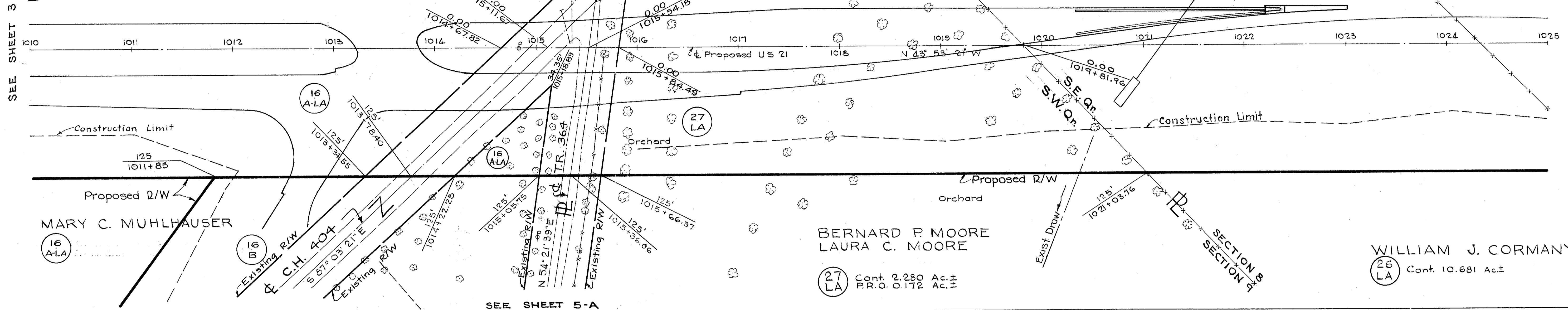
STARK CO.
SECTION 8 S.E.Q.
LAWRENCE TWP
T-1-N R-10-W

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

4
30

STA. 21-17.80
WAY-21-0.00
SUM-21-0.00

SEE SHEET 3

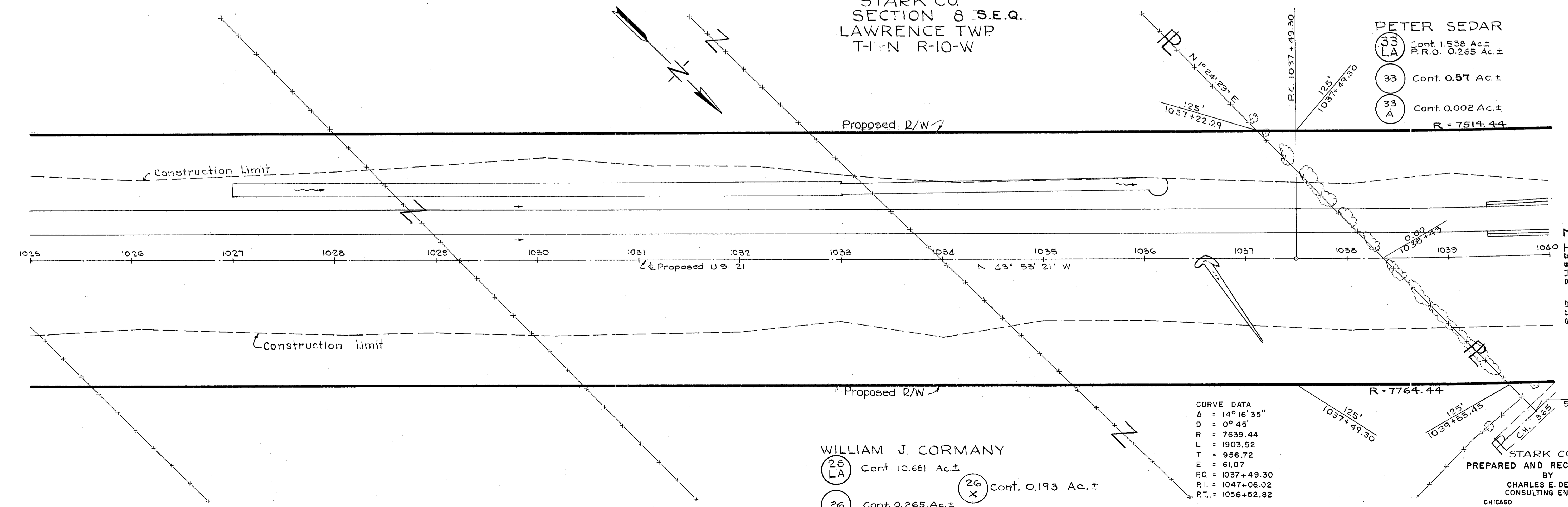


SEE SHEET 5-A

STARK CO.
SECTION 8 S.E.Q.
LAWRENCE TWP
T-1-N R-10-W

PETER SEDAR

- (33 LA) Cont. 1.536 Ac.±
P.R.O. 0.265 Ac.±
 - (33) Cont. 0.57 Ac.±
 - (33 A) Cont. 0.002 Ac.±
- R = 7514.44



WILLIAM J. CORMANY

- (26 LA) Cont. 10.681 Ac.±
- (26) Cont. 0.265 Ac.±
- (26 X) Cont. 0.193 Ac.±

CURVE DATA
Δ = 14° 16' 35"
D = 0° 45'
R = 7639.44
L = 1903.52
T = 956.72
E = 61.07
P.C. = 1037+49.30
P.I. = 1047+06.02
P.T. = 1056+52.82

STARK COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

REV. 5-22-56

STARK CO.
SECTION 8 S.E.Q.
LAWRENCE TWP.
T-1-N R-10-W

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

STA. 21-17.80
WAY- 21-0.00
SUM- 21-0.00

5
30

WILLIAM J. CORMANY

26 LA Cont. 10.681 Ac.±

26 Cont. 0.293 Ac.±

WILLIAM MCKINLEY LEWIS
MARY ARMANDA LEWIS

20 Cont. 0.211 Ac.±

WINERFIERD ARCHER
FLORENCE ARCHER

18 Cont. 0.177 Ac.±

MARY C. MUHLHAUSER

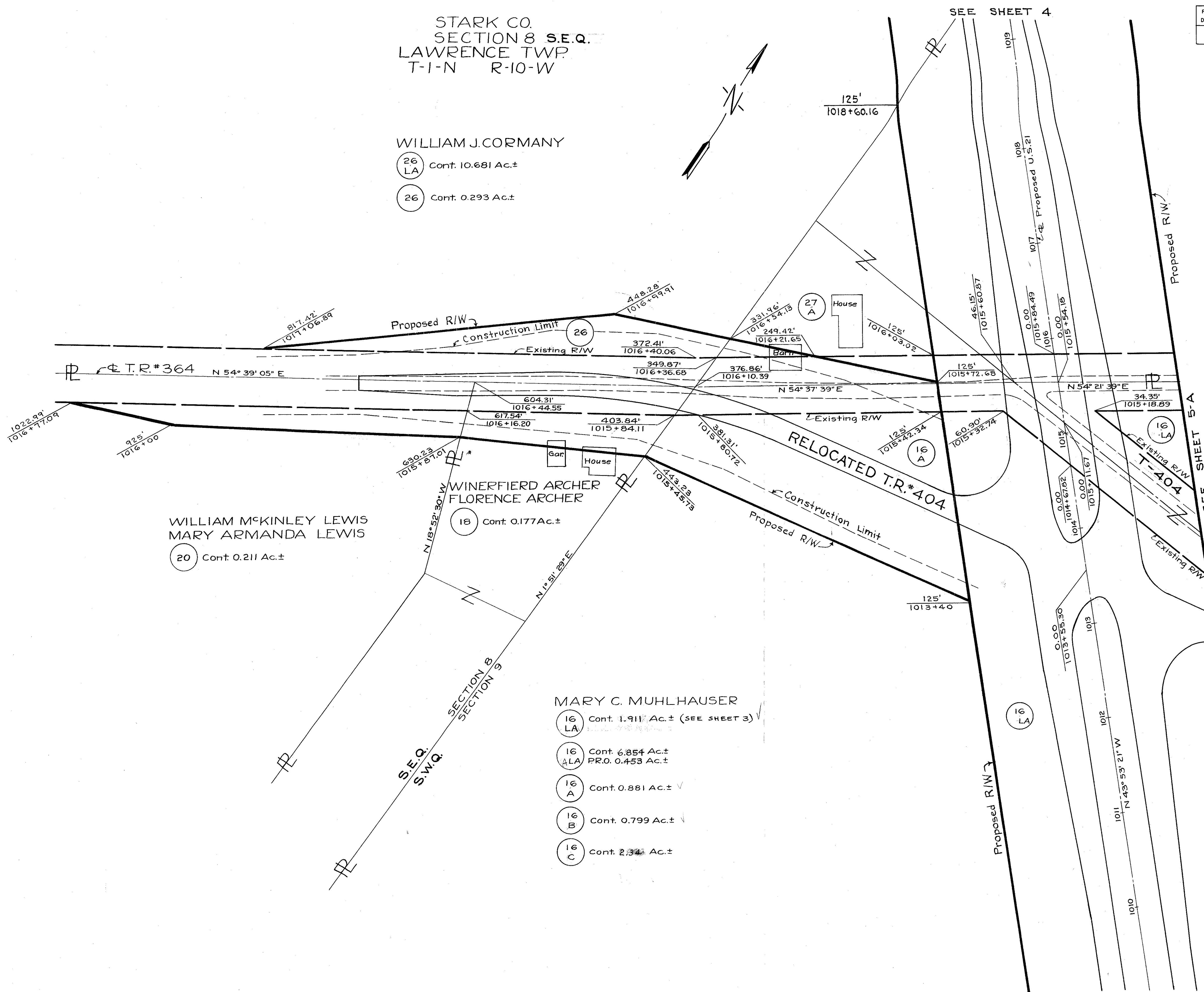
16 LA Cont. 1.911 Ac.± (SEE SHEET 3)

16 ALA Cont. 6.854 Ac.±
PR.O. 0.453 Ac.±

16 A Cont. 0.881 Ac.±

16 B Cont. 0.799 Ac.±

16 C Cont. 2.324 Ac.±



SEE SHEET 3

STARK COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

REV 5-21-52

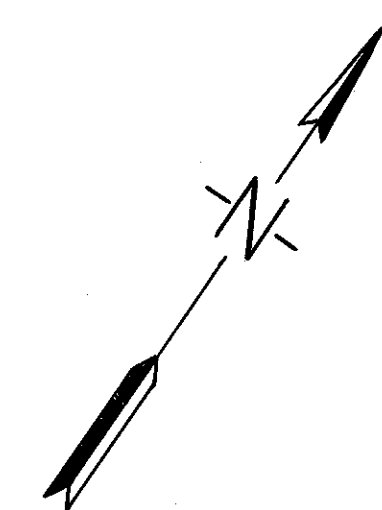
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

5-A
30

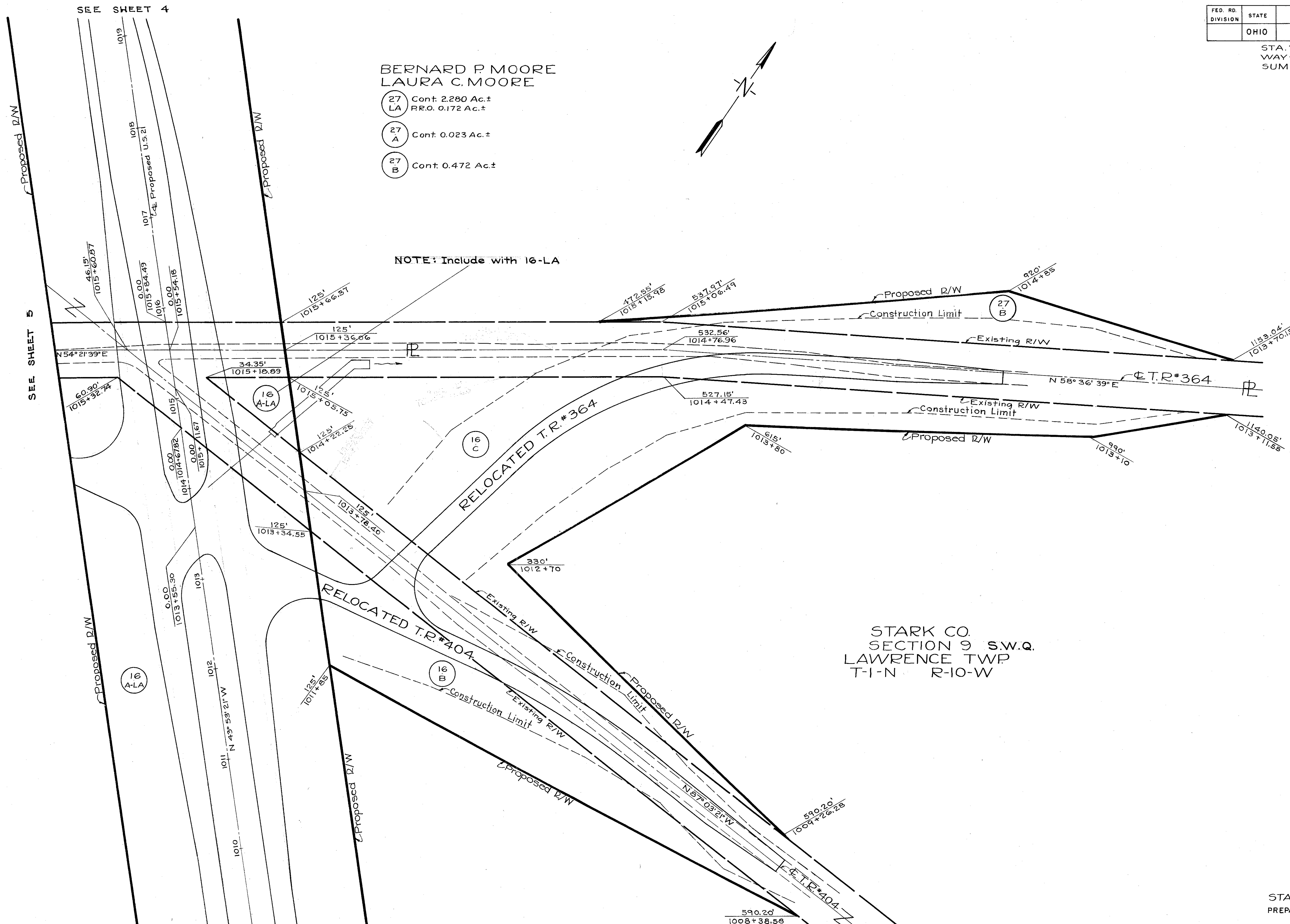
STA. 21-17.80
WAY - 21-0.00
SUM - 21-0.00

BERNARD P MOORE
LAURA C. MOORE

- (27) Cont. 2.280 Ac.±
LA P.R.O. 0.172 Ac.±
- (27) Cont. 0.023 Ac.±
A
- (27) Cont. 0.472 Ac.±
B



NOTE: Include with 16-LA



STARK CO.
SECTION 9 S.W.Q.
LAWRENCE TWP
T-1-N R-10-W

SEE SHEET 4

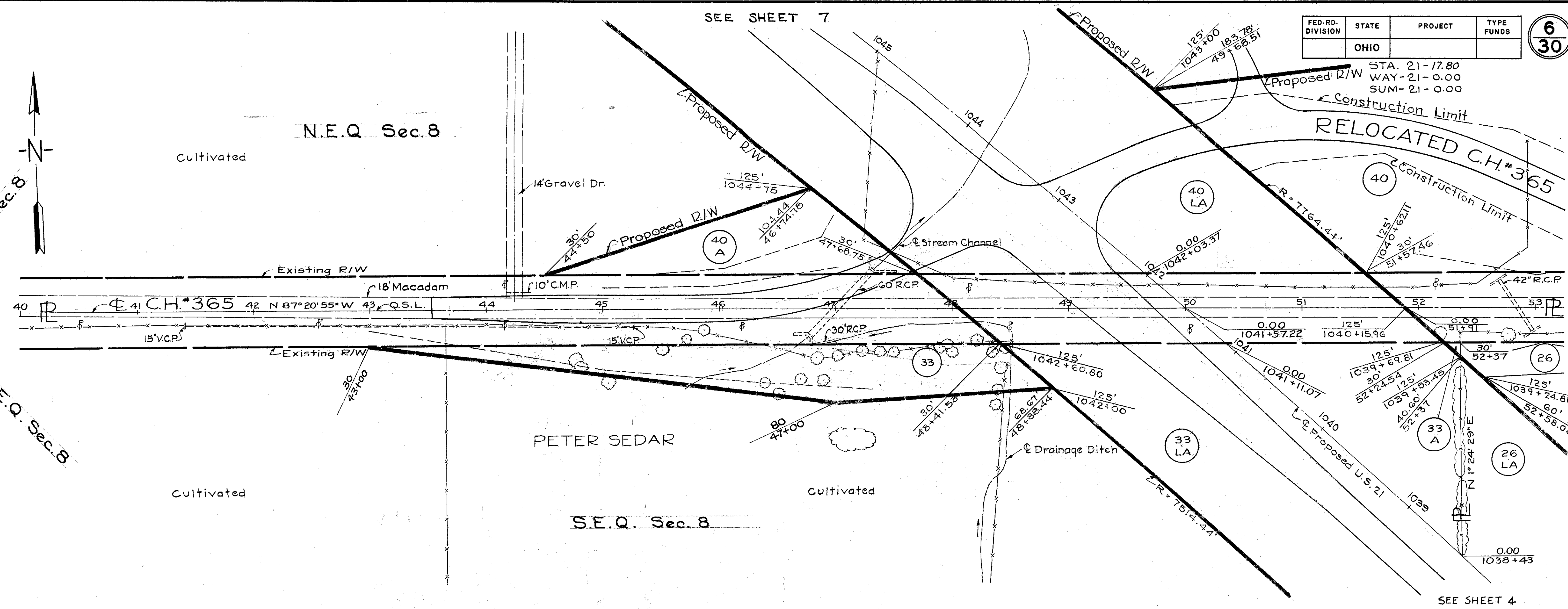
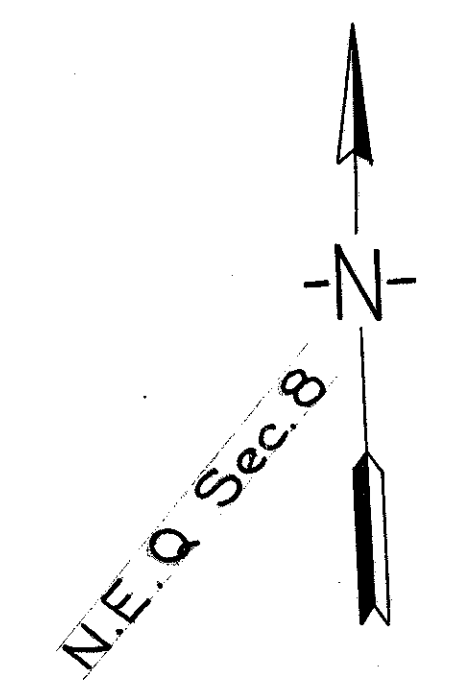
SEE SHEET 5

SEE SHEET 3

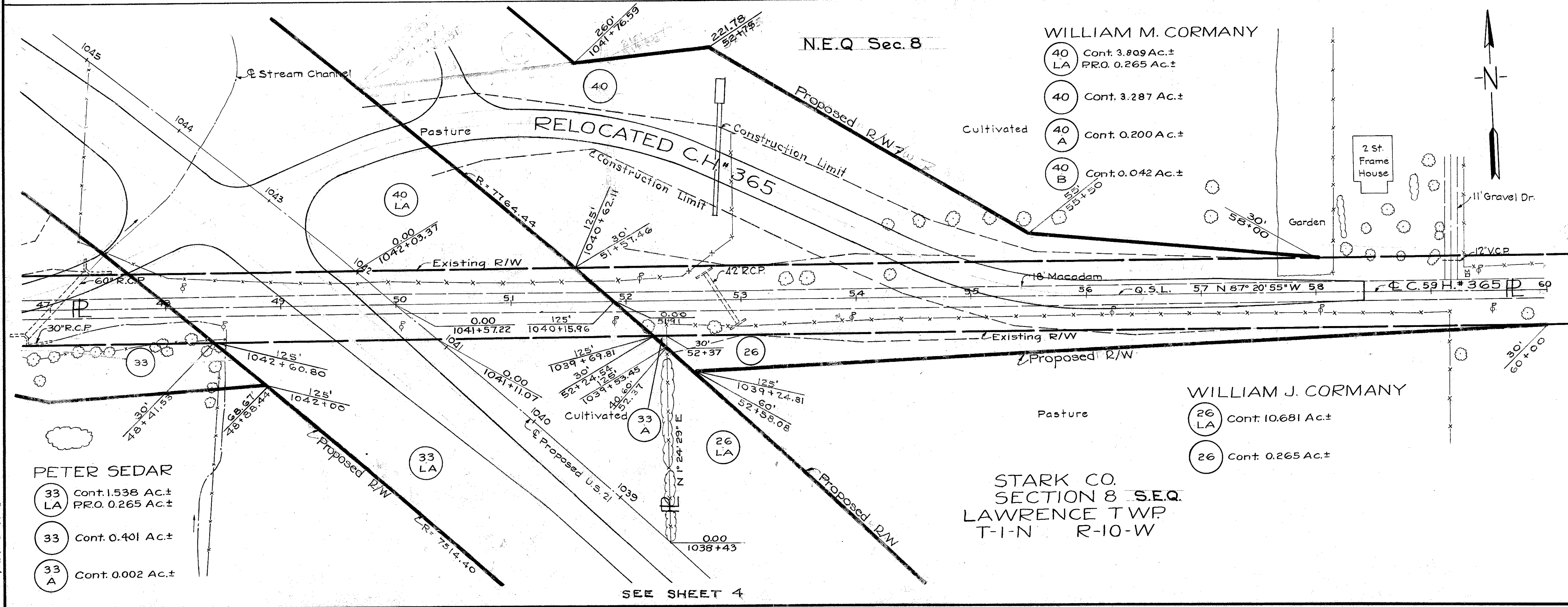
REV. 5-23-56

STARK COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA. 21-17.80
WAY-21-0.00
SUM-21-0.00



SEE SHEET 4



PETER SEDAR
 33 Cont. 1.538 Ac.±
 LA PR.O. 0.265 Ac.±
 33 Cont. 0.401 Ac.±
 33 A Cont. 0.002 Ac.±

WILLIAM M. CORMANY
 40 Cont. 3.809 Ac.±
 LA PR.O. 0.265 Ac.±
 40 Cont. 3.287 Ac.±
 40 A Cont. 0.200 Ac.±
 40 B Cont. 0.042 Ac.±

WILLIAM J. CORMANY
 26 LA Cont. 10.681 Ac.±
 26 Cont. 0.265 Ac.±

STARK CO.
 SECTION 8 S.E.Q.
 LAWRENCE TWP.
 T-1-N R-10-W

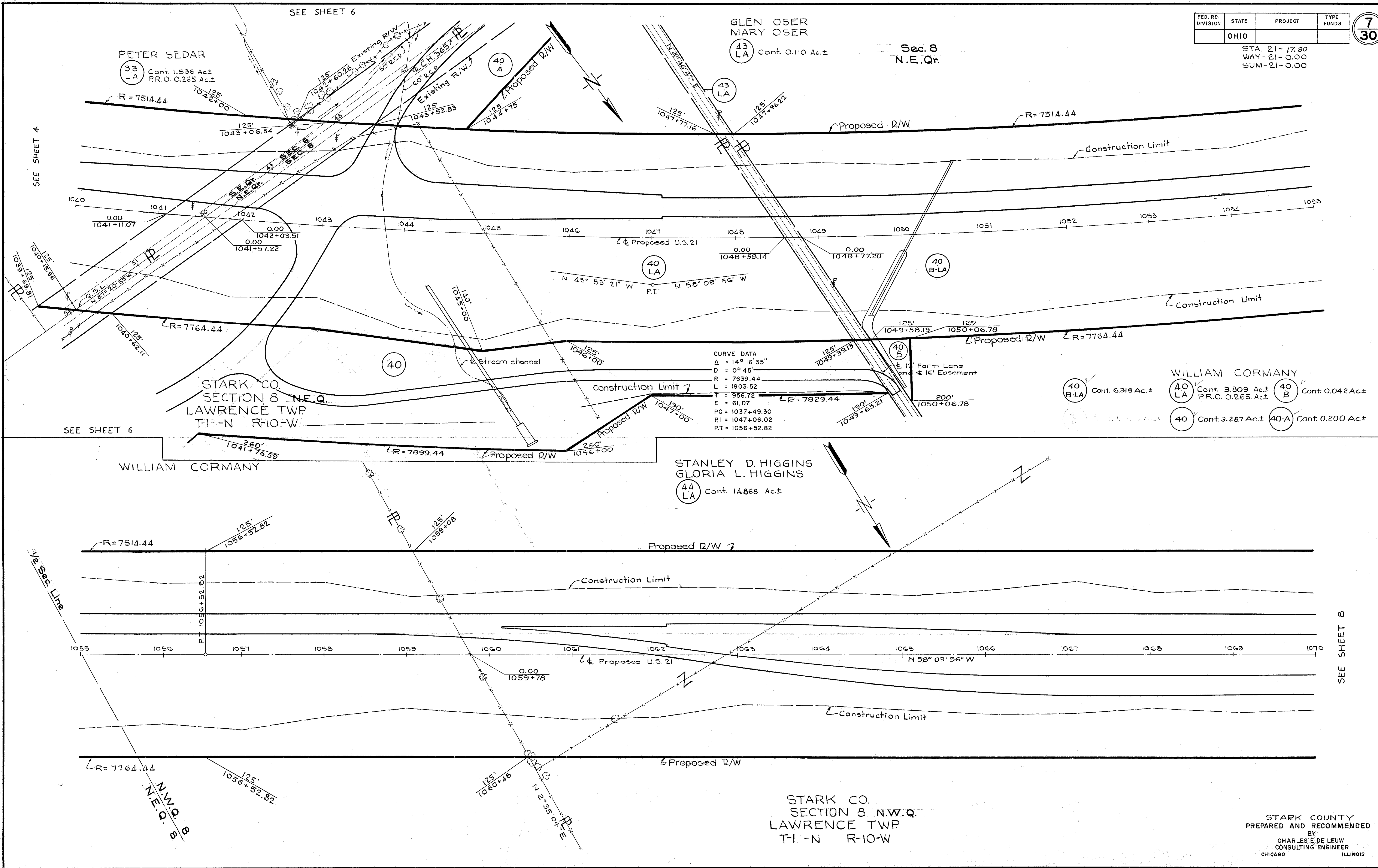
SEE SHEET 4

STARK COUNTY
 PREPARED AND RECOMMENDED
 BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

7
30

STA. 21- 17.80
WAY- 21- 0.00
SUM- 21- 0.00



REV. 5-23-54

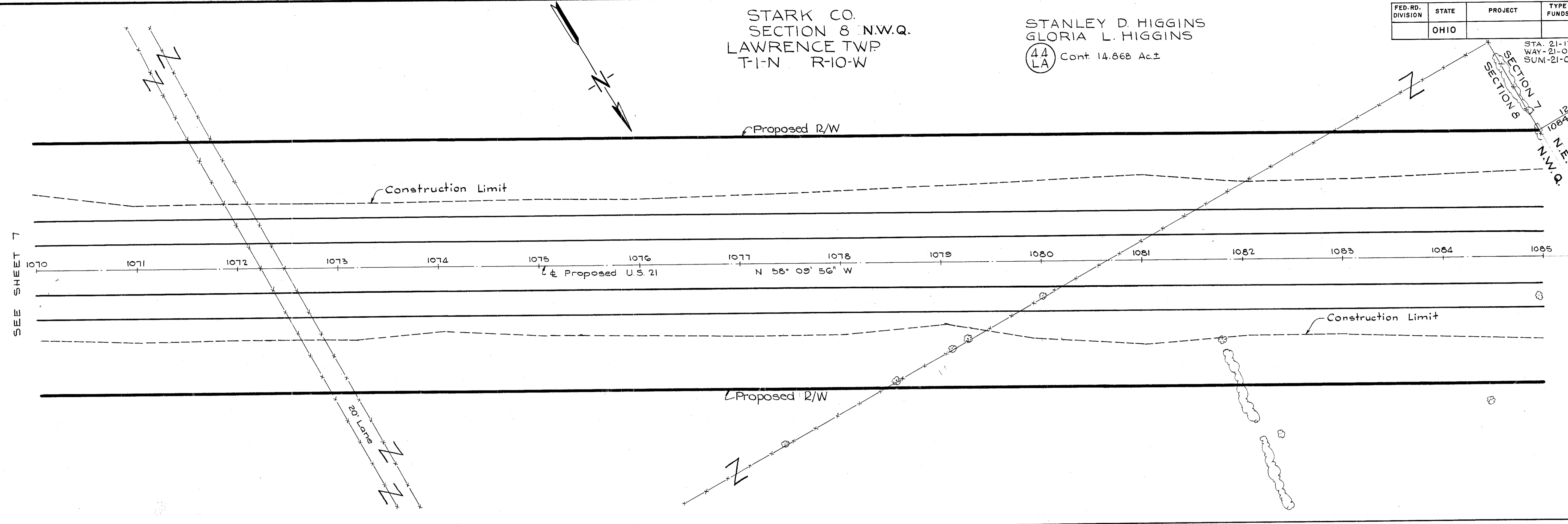
STARK CO.
SECTION 8 N.W. Q.
LAWRENCE TWP
T1-N R-10-W

STARK COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STARK CO.
SECTION 8 N.W.Q.
LAWRENCE TWP
T-1-N R-10-W

STANLEY D. HIGGINS
GLORIA L. HIGGINS
(44 LA) Cont. 14.868 Ac.±

STA. 21-17.80
WAY-21-0.00
SUM-21-0.00



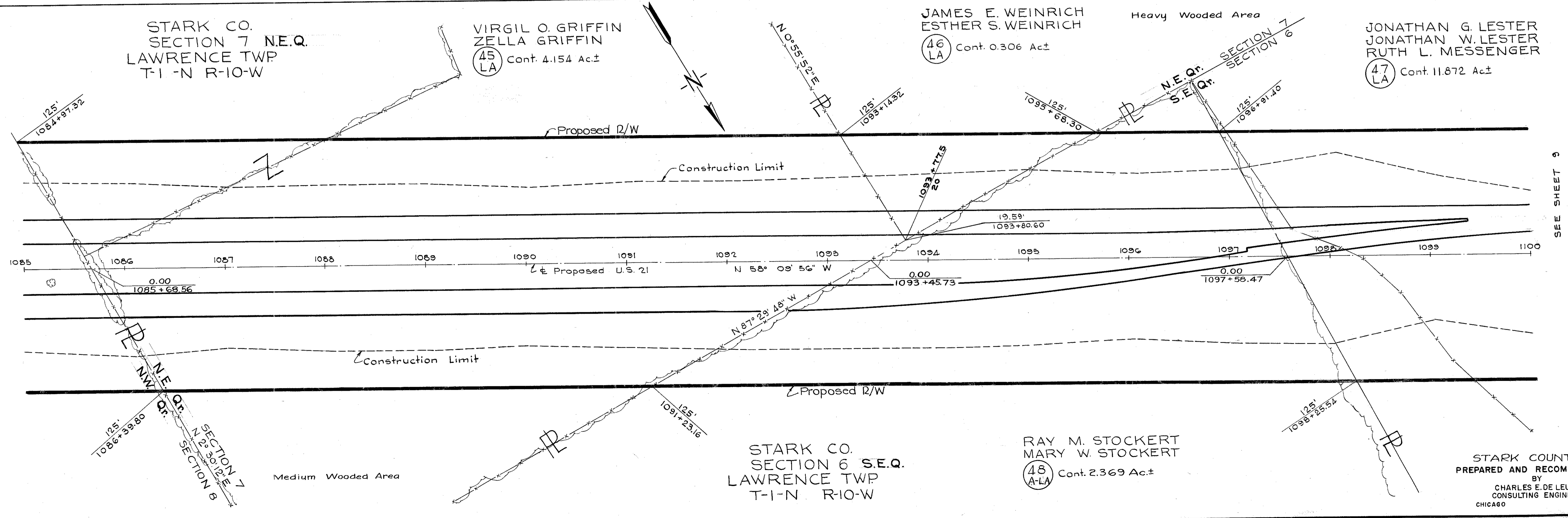
STARK CO.
SECTION 7 N.E.Q.
LAWRENCE TWP
T-1-N R-10-W

VIRGIL O. GRIFFIN
ZELLA GRIFFIN
(45 LA) Cont. 4.154 Ac.±

JAMES E. WEINRICH
ESTHER S. WEINRICH
(46 LA) Cont. 0.306 Ac.±

Heavy Wooded Area

JONATHAN G. LESTER
JONATHAN W. LESTER
RUTH L. MESSENGER
(47 LA) Cont. 11.872 Ac.±



STARK CO.
SECTION 6 S.E.Q.
LAWRENCE TWP
T-1-N R-10-W

RAY M. STOCKERT
MARY W. STOCKERT
(48 A-LA) Cont. 2.369 Ac.±

STARK COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

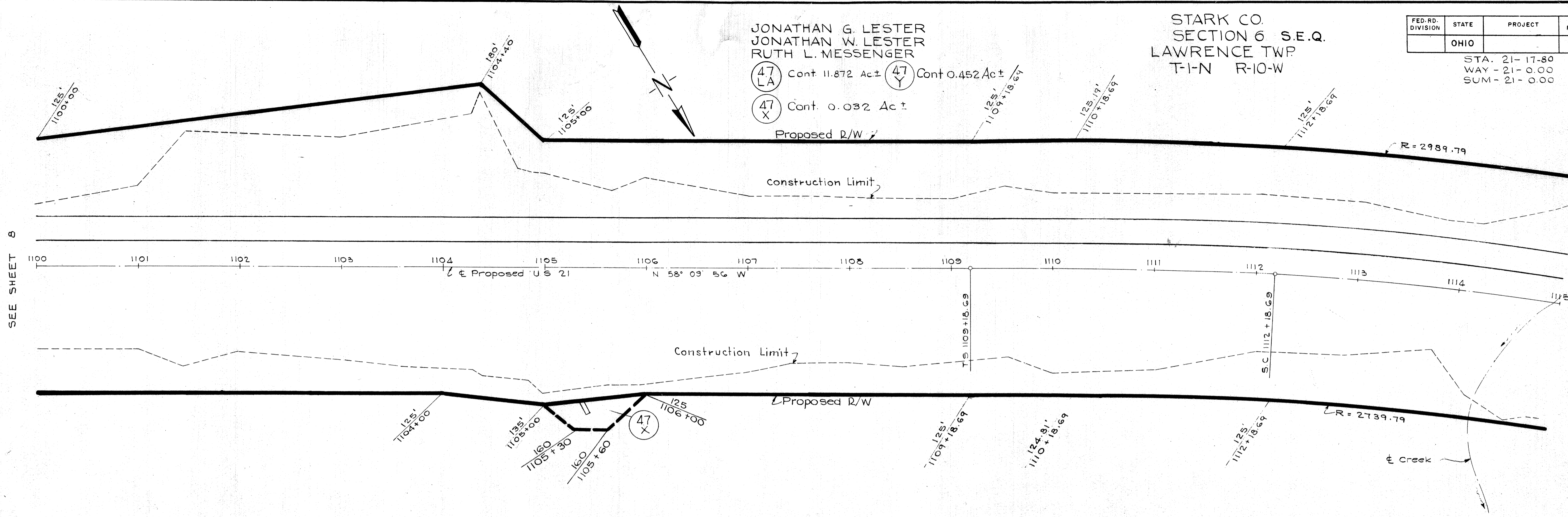
9
30

STARK CO.
SECTION 6 S.E.Q.
LAWRENCE TWP.
T-1-N R-10-W

STA. 21-17-80
WAY - 21-0.00
SUM - 21-0.00

JONATHAN G. LESTER
JONATHAN W. LESTER
RUTH L. MESSENGER

(47) Cont 11.872 Ac± (47) Cont 0.452 Ac±
(47) Cont 0.032 Ac±



RAY M. STOCKERT
MARY W. STOCKERT

(48) Cont 6.505 Ac±
P.R.O. 0.530 Ac±
(48-B) Cont. 1.303 Ac± (48-C) Cont. 4.479 Ac±

SEE SHEET 10

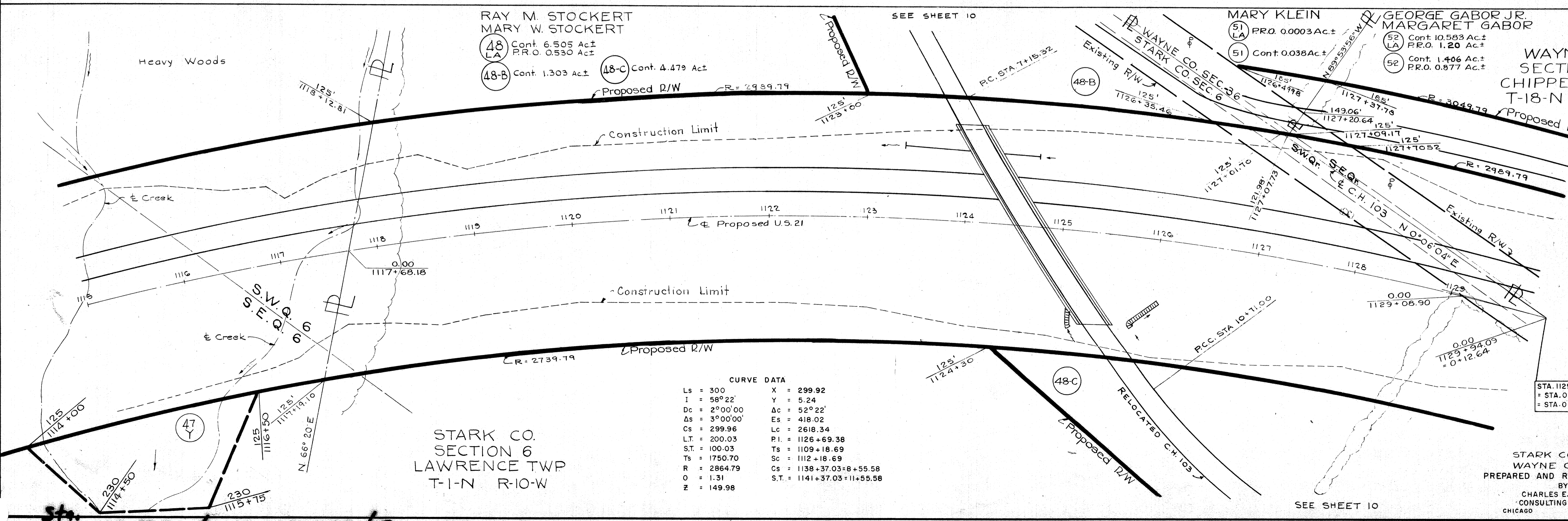
MARY KLEIN

(51) P.R.O. 0.0003 Ac±
(51) Cont. 0.038 Ac±

GEORGE GABOR JR.
MARGARET GABOR

(52) Cont 10.583 Ac±
P.R.O. 1.20 Ac±
(52) Cont. 1.406 Ac±
P.R.O. 0.877 Ac±

WAYNE CO.
SECTION 36
CHIPPEWA TWP.
T-18-N R-11-W



CURVE DATA

Ls = 300	X = 299.92
I = 58° 22'	Y = 5.24
Dc = 2° 00' 00"	Ac = 52° 22'
As = 3° 00' 00"	Es = 418.02
Cs = 299.96	Lc = 2618.34
Lt = 200.03	Pl = 1126+69.38
St = 100.03	Ts = 1109+18.69
Ts = 1750.70	Sc = 1112+18.69
R = 2864.79	Cs = 1138+37.03=8+55.58
O = 1.31	S.T. = 1141+37.03=11+55.58
Z = 149.98	

STARK CO.
SECTION 6
LAWRENCE TWP.
T-1-N R-10-W

STARK COUNTY
WAYNE COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

RIGHT-OF-WAY SHEET - STA. 1100+00 - 1129+94.09

Sta. 21-17-80 / Way-21-0.00 / Sum-21-0.00

part superseded (Sheet 14)

REV. 5-22-56

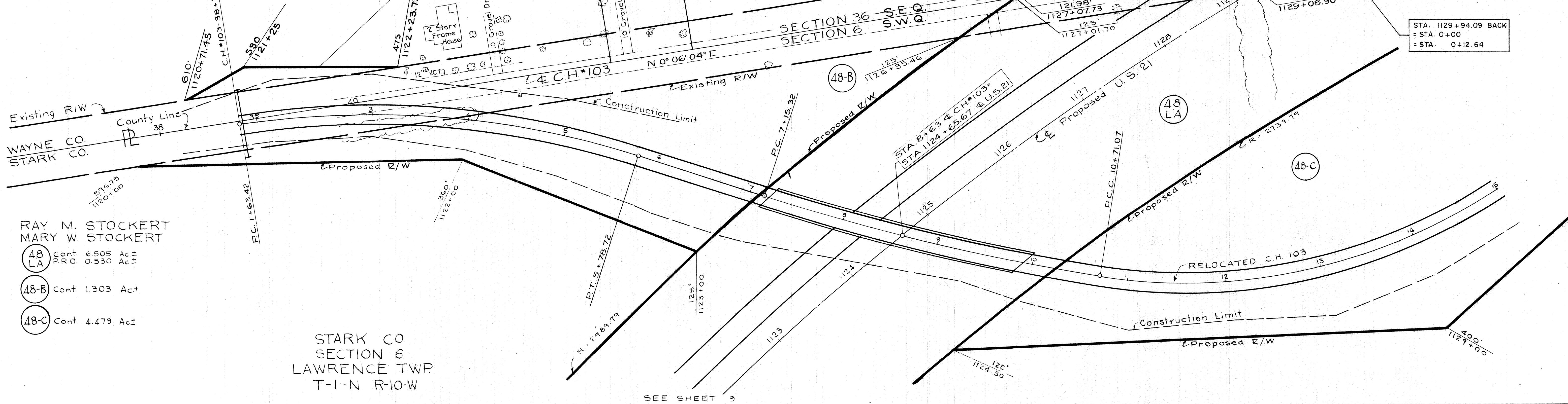
WAYNE CO.
SECTION 36
CHIPPEWA TWP
T-18-N R-11-W

MARY KLEIN
51 LA P.R.O. 0.0003 Ac±
51 Cont. 0.063 Ac±
51 Cont. 0.038 Ac±

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

STA. 21-17.60
WAY-21-0.00
SUM-21-0.00

STA. 1129+94.09 BACK
= STA. 0+00
= STA. 0+12.64



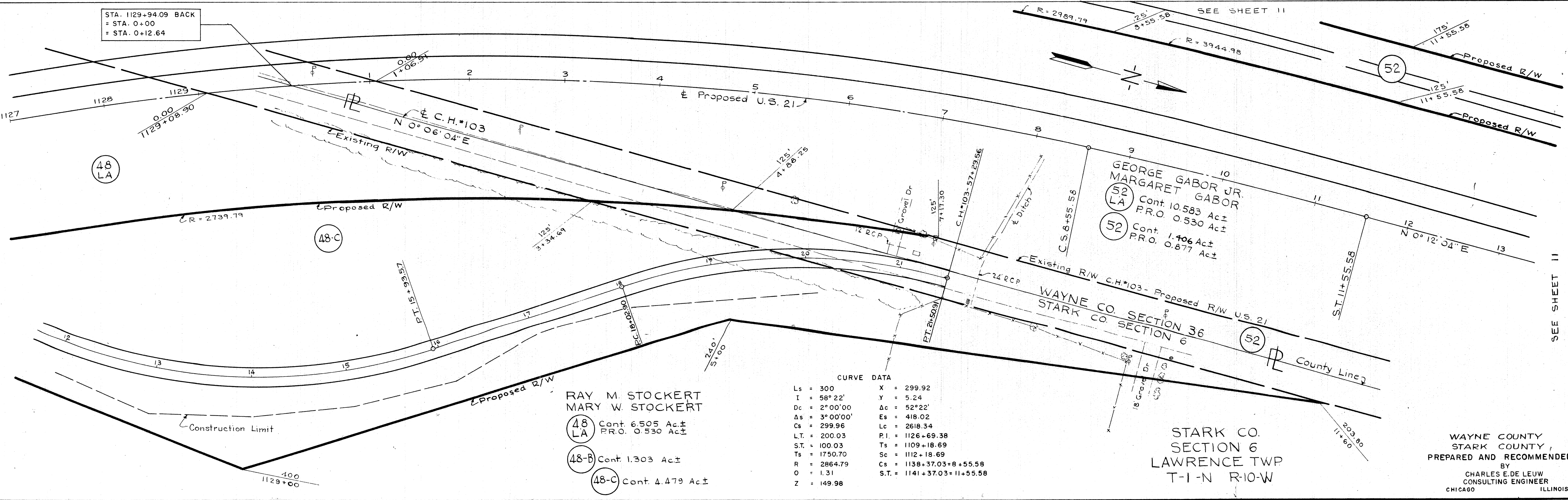
RAY M. STOCKERT
MARY W. STOCKERT

48 LA Cont. 6.505 Ac±
P.R.O. 0.530 Ac±
48-B Cont. 1.303 Ac±
48-C Cont. 4.479 Ac±

STARK CO.
SECTION 6
LAWRENCE TWP
T-1-N R-10-W

SEE SHEET 9

STA. 1129+94.09 BACK
= STA. 0+00
= STA. 0+12.64



GEORGE GABOR JR.
MARGARET GABOR
52 LA Cont. 10.583 Ac±
P.R.O. 0.530 Ac±
52 Cont. 1.406 Ac±
P.R.O. 0.877 Ac±

RAY M. STOCKERT
MARY W. STOCKERT

48 LA Cont. 6.505 Ac±
P.R.O. 0.530 Ac±
48-B Cont. 1.303 Ac±
48-C Cont. 4.479 Ac±

CURVE DATA

Ls = 300	X = 299.92
I = 58° 22'	Y = 5.24
Dc = 2° 00' 00"	Δc = 52° 22'
Δs = 3° 00' 00"	Es = 418.02
Cs = 299.96	Lc = 2618.34
LT = 200.03	PI = 1126+69.38
ST = 100.03	Ts = 1109+18.69
Ts = 1750.70	Sc = 1112+18.69
R = 2864.79	Cs = 1138+37.03+8+55.58
O = 1.31	S.T. = 1141+37.03+11+55.58
Z = 149.98	

STARK CO.
SECTION 6
LAWRENCE TWP
T-1-N R-10-W

WAYNE COUNTY
STARK COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

WAYNE CO.
SECTION 36 S.E.Q.
CHIPPEWA TWP
T-18-N R-11-W

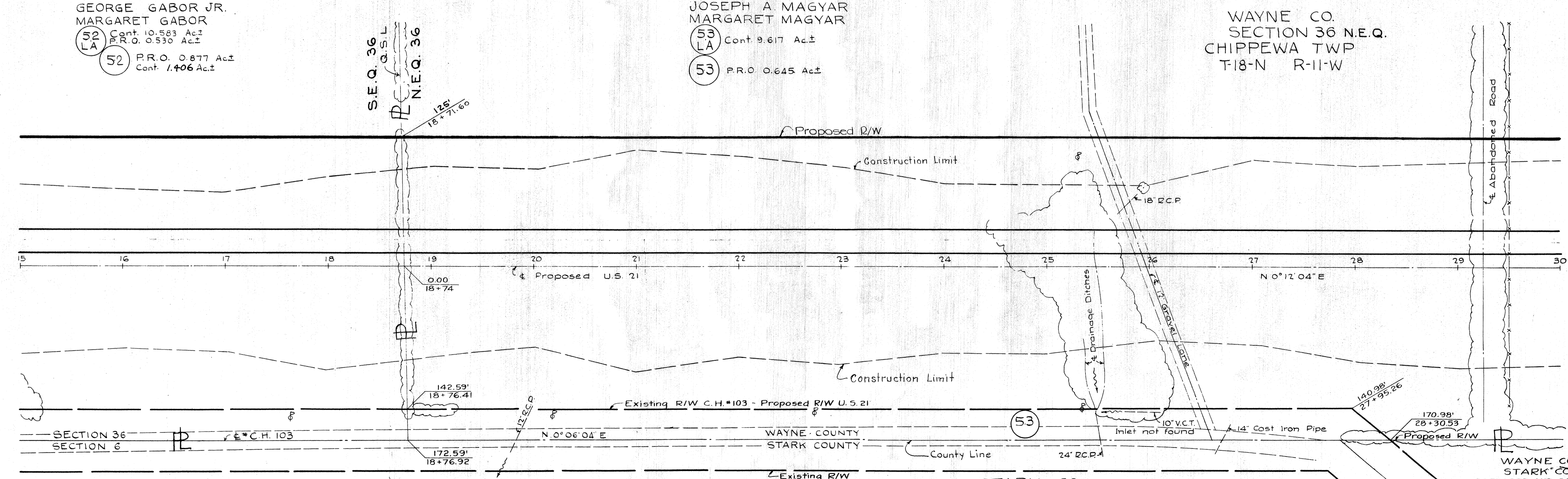
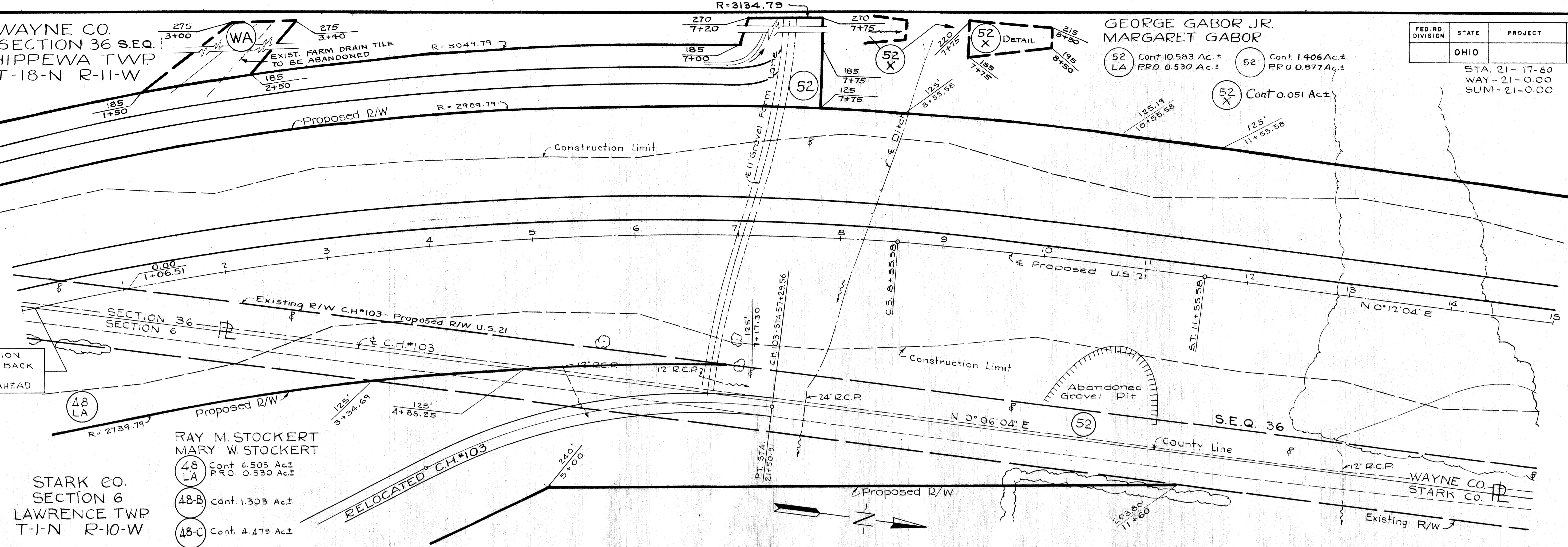
GEORGE GABOR JR.
MARGARET GABOR

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

STA. 21-17-80
WAY-21-0.00
SUM-21-0.00

SEE SHEET 9

STA. EQUATION
1129+94.09 BACK
= 0+00
= 0+12.64 AHEAD



SEE SHEET 12

REV. 5-22-66

WAYNE COUNTY
STARK COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

JOSEPH A. MAGYAR
MARGARET MAGYAR

53 LA Cont. 9.617 Ac.±
53 R.R.O. 0.645 Ac.±

WAYNE CO.
SECTION 36 NE.Q.
CHIPPEWA TWP.
T-18-N R-11-W

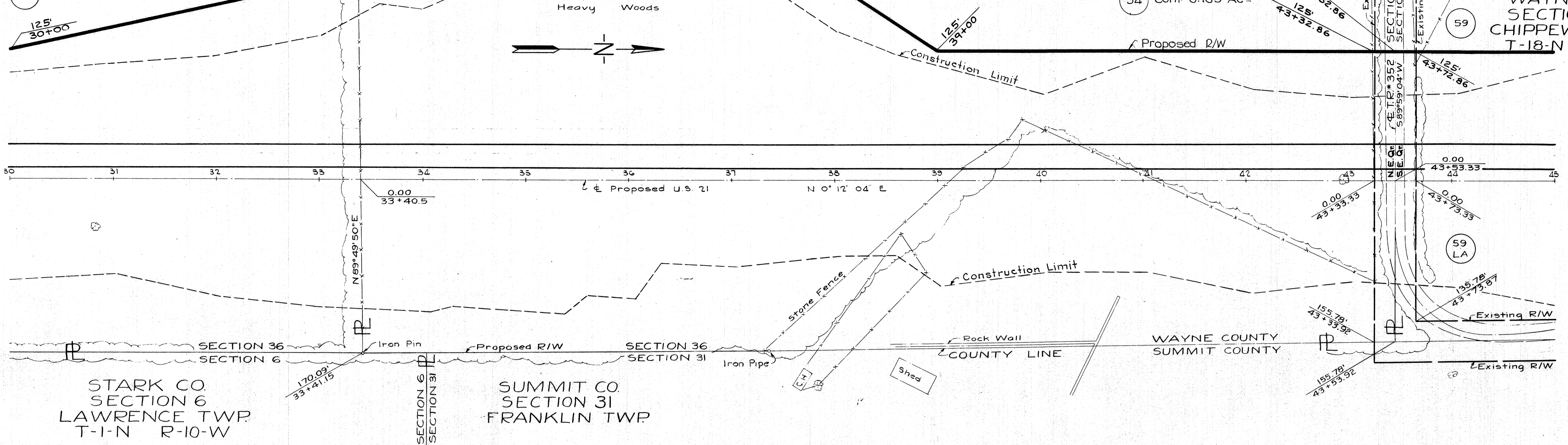
RUTH LLOYD
54 LA Cont. 7.767 Ac.±
R.R.O. 0.129 Ac.±
54 Cont. 0.103 Ac.±

SEE SHEET 13

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

12
30

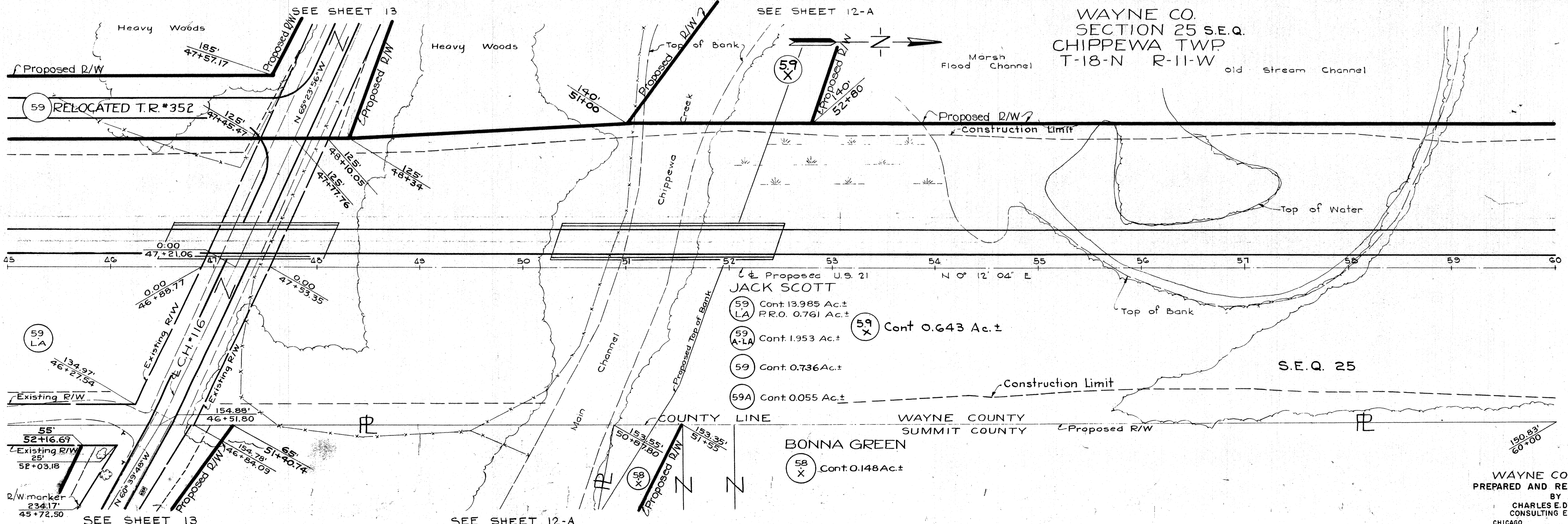
WAYNE CO.
SECTION 25 S.E.Q.
CHIPPEWA TWP.
T-18-N R-11-W



STARK CO.
SECTION 6
LAWRENCE TWP.
T-1-N R-10-W

SUMMIT CO.
SECTION 31
FRANKLIN TWP.

WAYNE COUNTY
SUMMIT COUNTY



WAYNE CO.
SECTION 25 S.E.Q.
CHIPPEWA TWP.
T-18-N R-11-W

JACK SCOTT
59 LA Cont. 13.985 Ac.±
R.R.O. 0.761 Ac.±
59 A-LA Cont. 1.953 Ac.±
59 Cont. 0.736 Ac.±
59A Cont. 0.055 Ac.±

59 X Cont. 0.643 Ac.±

BONNA GREEN
58 X Cont. 0.148 Ac.±

55
52+16.67
Existing R/W
25
52+03.18
R/W marker
234.17'
45+72.50

WAYNE COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

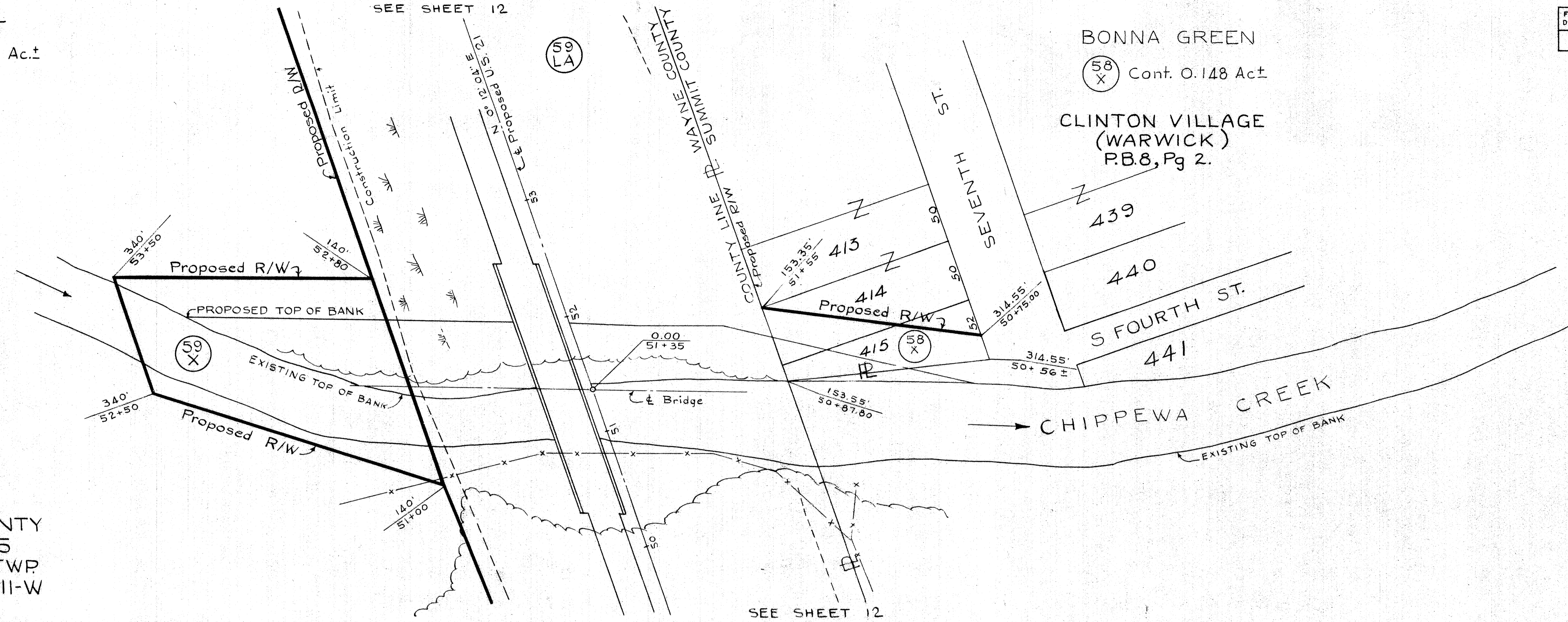
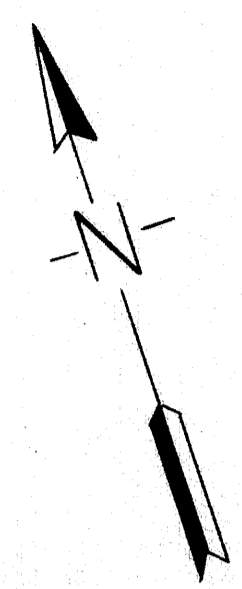
JACK SCOTT
59 X Cont. 0.643 Ac.t

SEE SHEET 12

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

12A
30

STA 21 - 17-80
WAY - 21 - 0.00
SUM - 21 - 0.00



WAYNE COUNTY
SECTION 25
CHIPPEWA TWP
T-18-N R-11-W

SUMMIT COUNTY
SECTION 31
FRANKLIN TWP
T-2-N R-10-W

SEE SHEET 12

REV 5-12-52

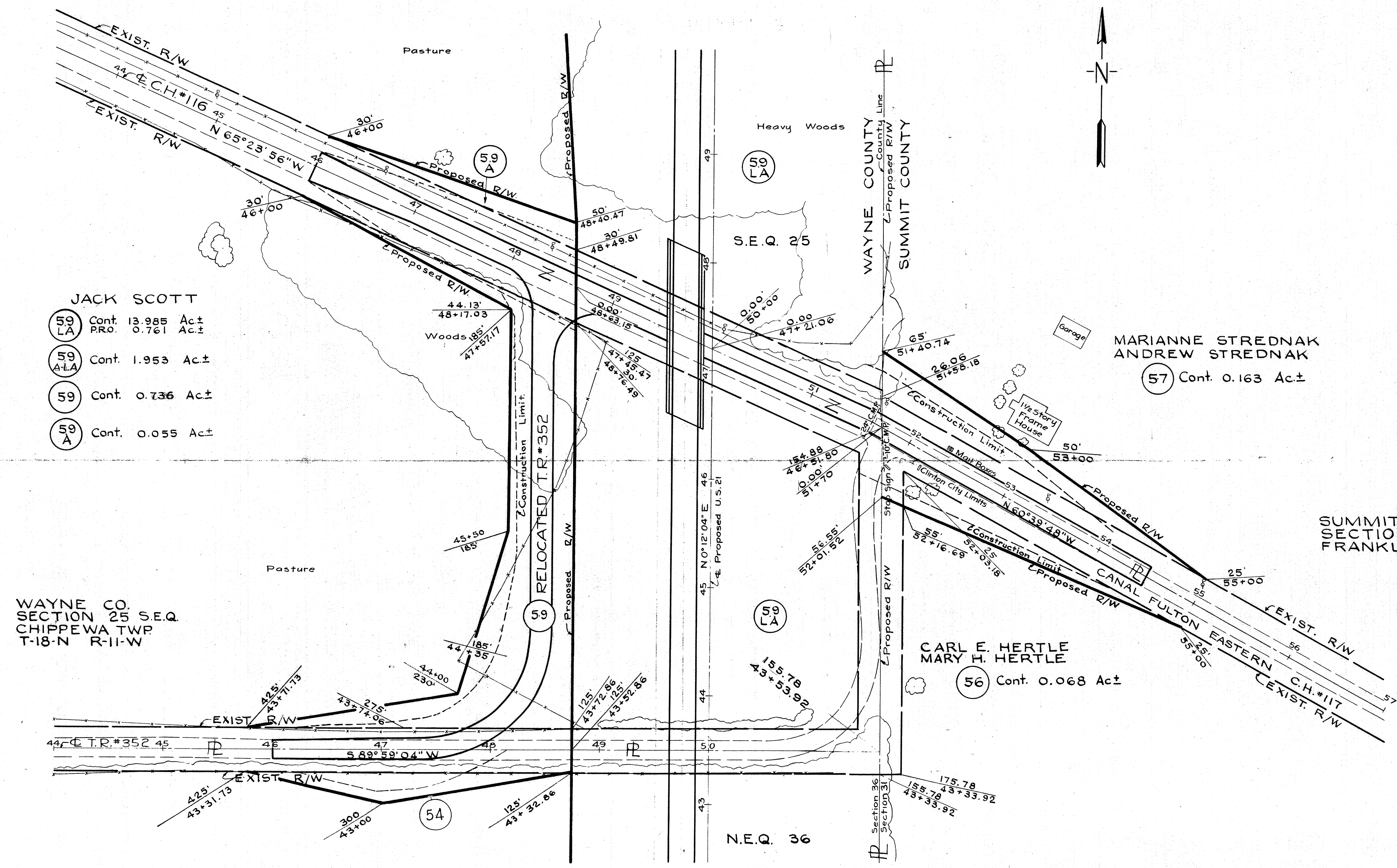
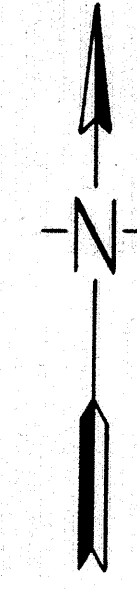
WAYNE COUNTY
SUMMIT COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

13
30

STA. 21 - 17.00
WAY 21 - 0.00
SUM 21 - 0.00

SEE SHEET 12



- JACK SCOTT
- (59 LA) Cont. 13.985 Ac±
PRD. 0.761 Ac±
 - (59 A-LA) Cont. 1.953 Ac±
 - (59) Cont. 0.736 Ac±
 - (59 A) Cont. 0.055 Ac±

WAYNE CO.
SECTION 25 S.E.Q.
CHIPPEWA TWP.
T-18-N R-II-W

SUMMIT CO.
SECTION 31 S.W.Q.
FRANKLIN TWP.

N.E.Q. 36

SEE SHEET 12

Rev. 5-22-36

WAYNE COUNTY
SUMMIT COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

JACK SCOTT
 59 Cont. 13.985 Ac.±
 LA P.R.O. 0.761 Ac.±
 59 A-LA Cont. 1.953 Ac.±
 59 Cont. 0.631 Ac.±

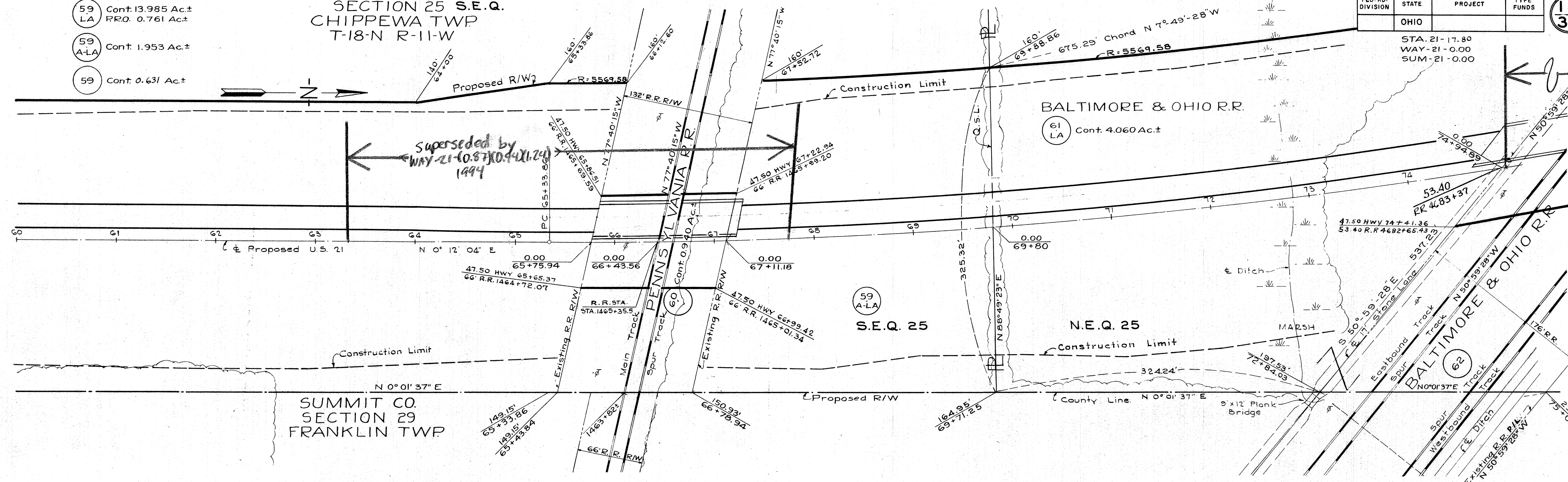
WAYNE CO.
 SECTION 25 S.E.Q.
 CHIPPEWA TWP
 T-18-N R-11-W

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

14
30

STA. 21-17.80
 WAY-21-0.00
 SUM-21-0.00

SEE SHEET 12



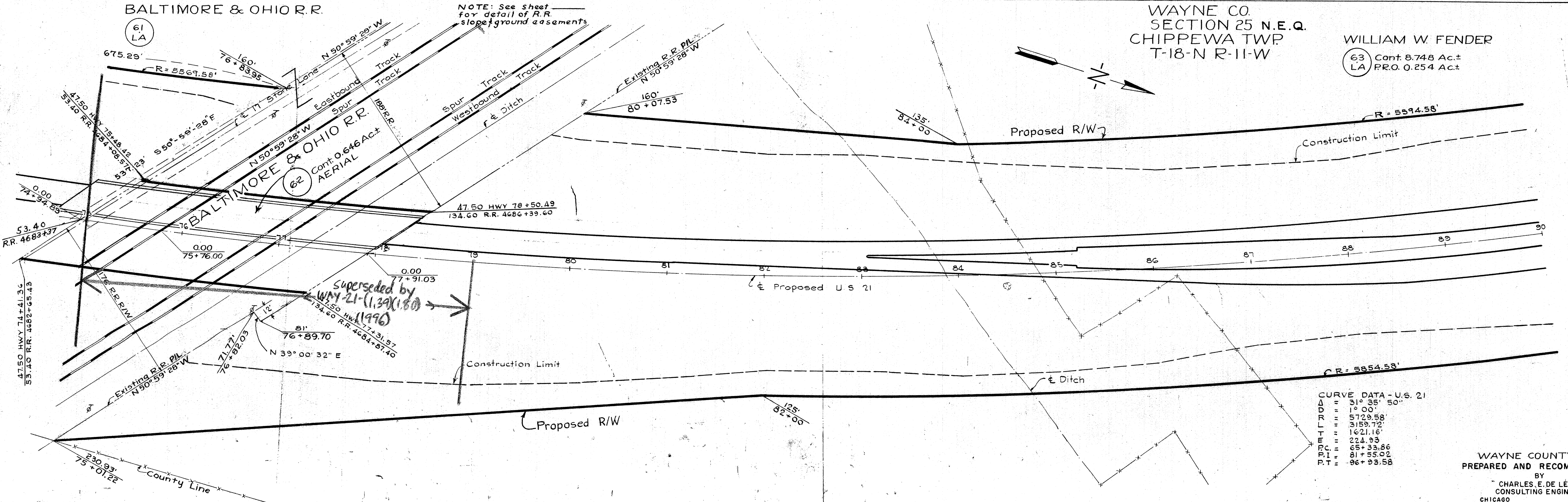
BALTIMORE & OHIO R.R.

61 LA

NOTE: See sheet for detail of R.R. slope/ground easements

WAYNE CO.
 SECTION 25 N.E.Q.
 CHIPPEWA TWP
 T-18-N R-11-W

WILLIAM W. FENDER
 63 Cont. 8.748 Ac.±
 LA P.R.O. 0.254 Ac.±



SEE SHEET 15

CURVE DATA - U.S. 21

Δ	= 31° 35' 50"
Δ	= 1° 00'
Δ	= 5729.58'
Δ	= 3159.72'
Δ	= 1621.16'
Δ	= 224.93'
P.C.	= 65+33.86
P.I.	= 81+55.02
P.T.	= 96+93.58

WAYNE COUNTY
 PREPARED AND RECOMMENDED
 BY
 CHARLES E. DE LÉUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

15
30

STA. 21 - 17.60
WAY - 21 - 0.00
SUM - 21 - 0.00

WILLIAM W. FENDER
63 LA Cont. 6.748 Ac.±
P.R.O. 0.254 Ac.±

WAYNE CO.
SECTION 25 N.E.Q.
CHIPPEWA TWP.
T-18-N R-11-W

64 LA Cont. 0.041 Ac.±
P.R.O. 0.069 Ac.±

LEWIS C. RUCH
PAULINE RUCH
66 LA Cont. 6.917 Ac.±
P.R.O. 0.094 Ac.±

SEE SHEET 14

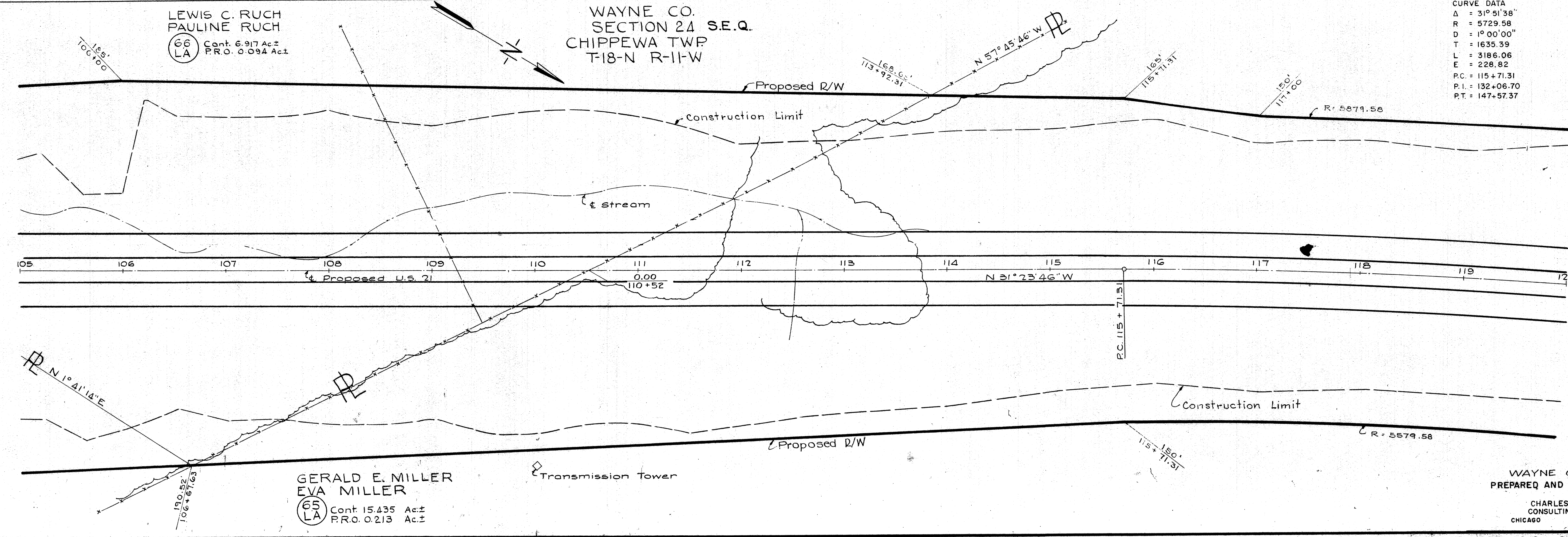
CURVE DATA
Δ = 31° 35' 50"
D = 1° 00' 00"
L = 3159.58
R = 5729.58
T = 1621.16
E = 224.93
PC = 65+33.86
PI = 81+55.02
PT = 96+93.53

LEWIS C. RUCH
PAULINE RUCH
66 LA Cont. 6.917 Ac.±
P.R.O. 0.094 Ac.±

WAYNE CO.
SECTION 24 S.E.Q.
CHIPPEWA TWP.
T-18-N R-11-W

GERALD E. MILLER
EVA MILLER
65 LA Cont. 15.435 Ac.±
P.R.O. 0.213 Ac.±

CURVE DATA
Δ = 31° 51' 38"
D = 1° 00' 00"
R = 5729.58
L = 3186.06
T = 1635.39
E = 228.82
PC = 115+71.31
PI = 132+06.70
PT = 147+57.37



GERALD E. MILLER
EVA MILLER
65 LA Cont. 15.435 Ac.±
P.R.O. 0.213 Ac.±

WAYNE COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

RIGHT-OF-WAY SHEET - STA. 90+00 - 120+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

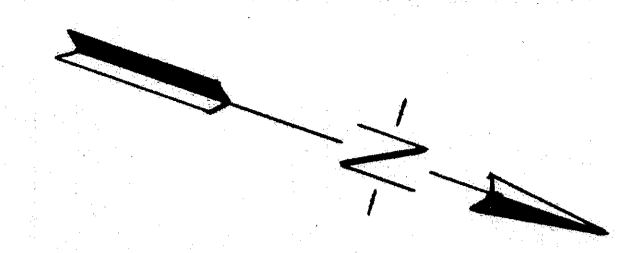
16
30

STA 21-17.80
WAY- 21-0.00
SUM- 21-0.00

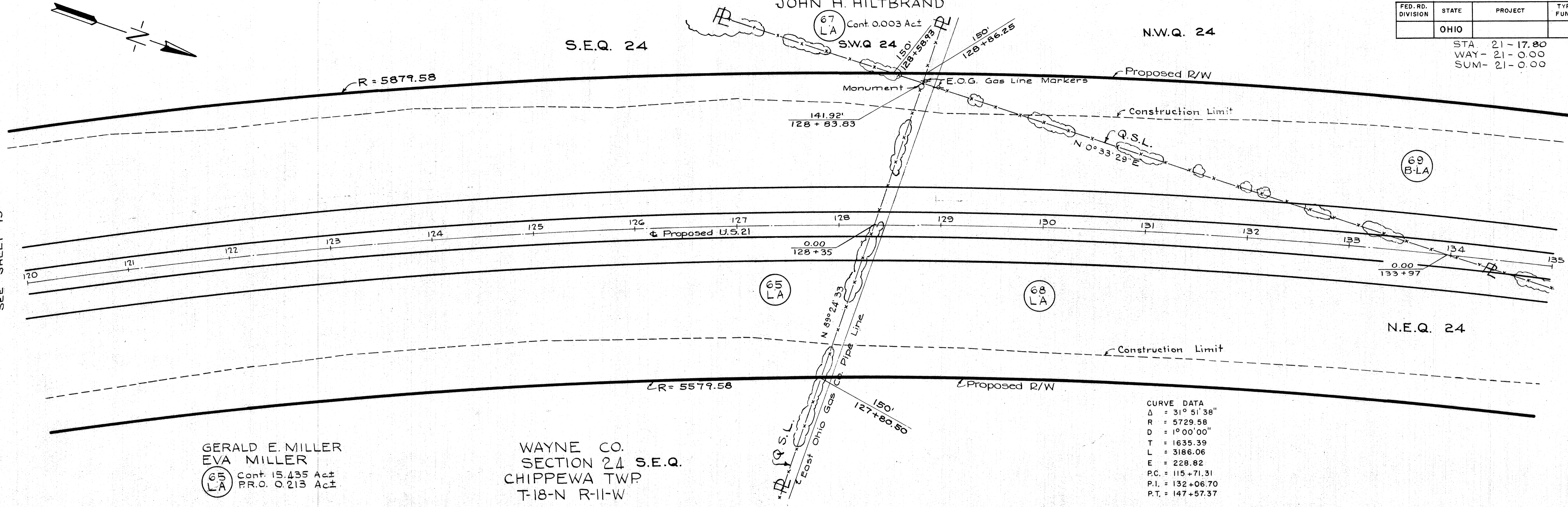
JOHN H. HILTBRAND

S.E.Q. 24

N.W.Q. 24



SEE SHEET 15

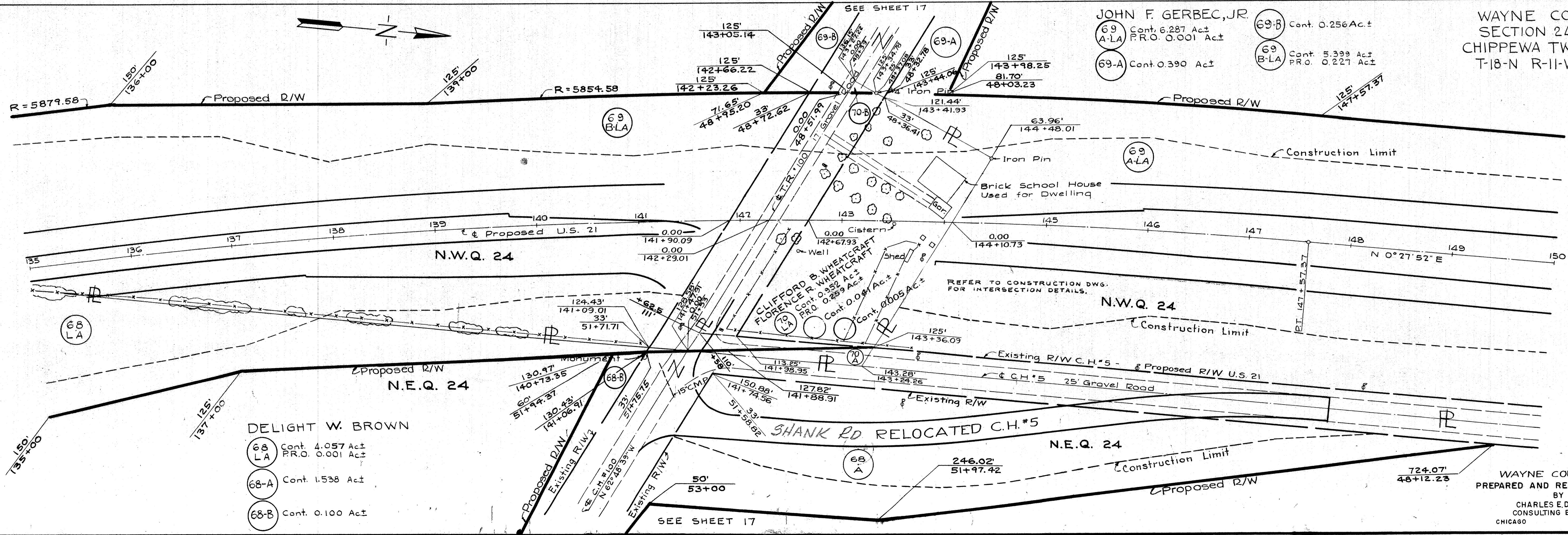


GERALD E. MILLER
EVA MILLER
65 LA Cont. 15.435 Ac±
P.R.O. 0.213 Ac±

WAYNE CO.
SECTION 24 S.E.Q.
CHIPPEWA TWP
T-18-N R-11-W

JOHN F. GERBEC, JR.

WAYNE CO.
SECTION 24
CHIPPEWA TWP
T-18-N R-11-W



69 A-LA Cont. 6.287 Ac±
P.R.O. 0.001 Ac±
69-A Cont. 0.390 Ac±

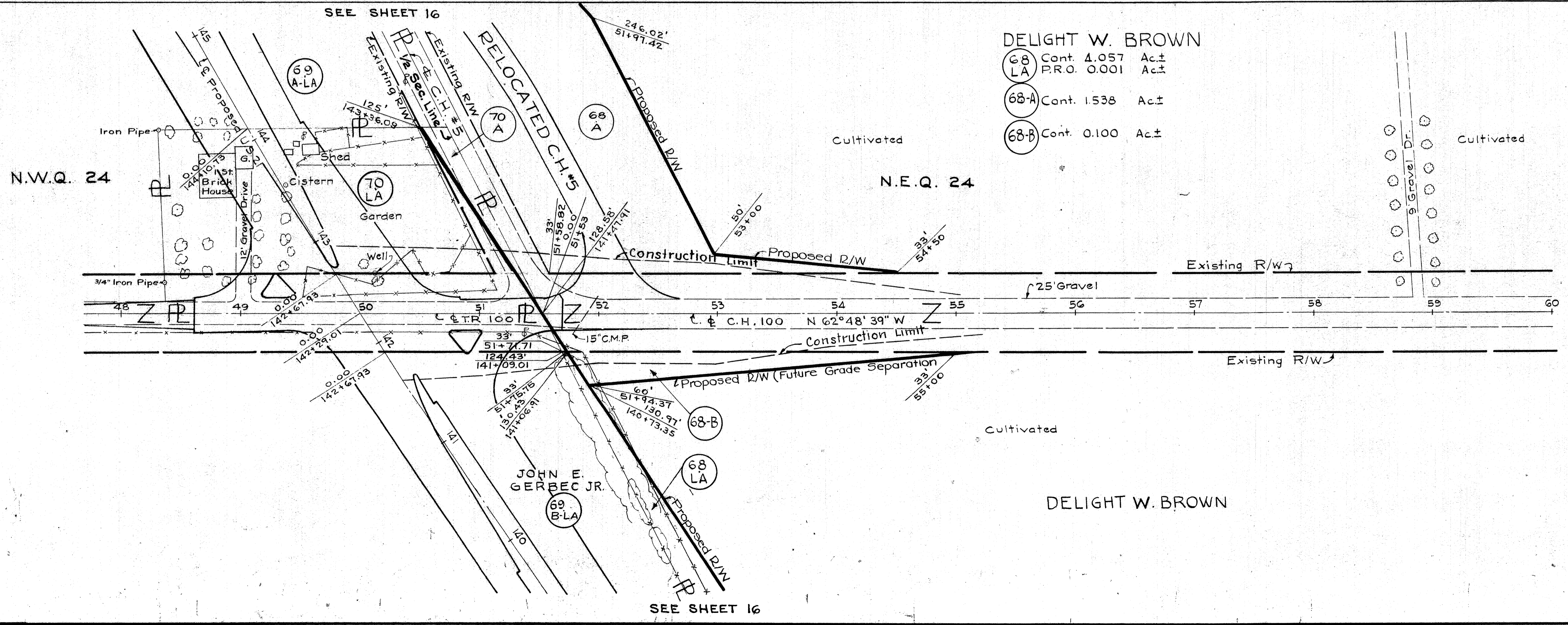
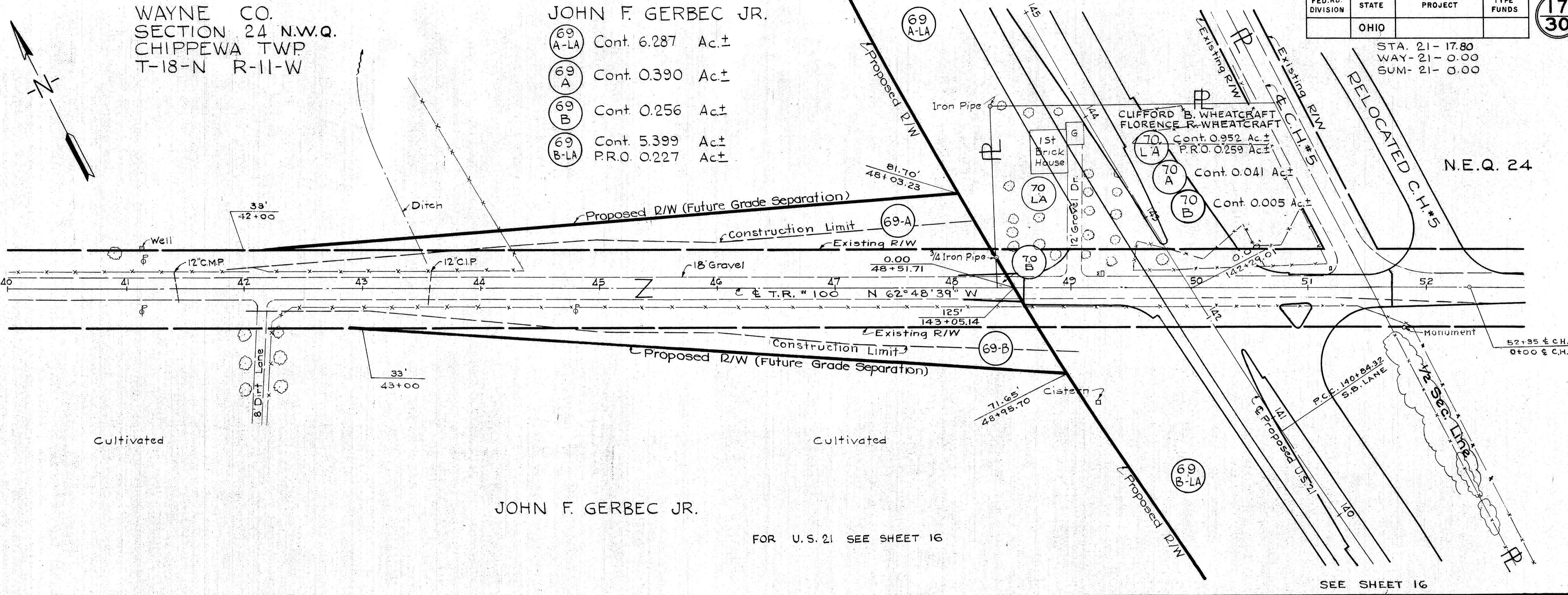
69-B Cont. 0.256 Ac±
69 B-LA Cont. 5.399 Ac±
P.R.O. 0.227 Ac±

DELIGHT W. BROWN
68 LA Cont. 4.057 Ac±
P.R.O. 0.001 Ac±
68-A Cont. 1.538 Ac±
68-B Cont. 0.100 Ac±

WAYNE COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

RIGHT-OF-WAY SHEET-STA. 120+00-150+00

REV. 5-22-52



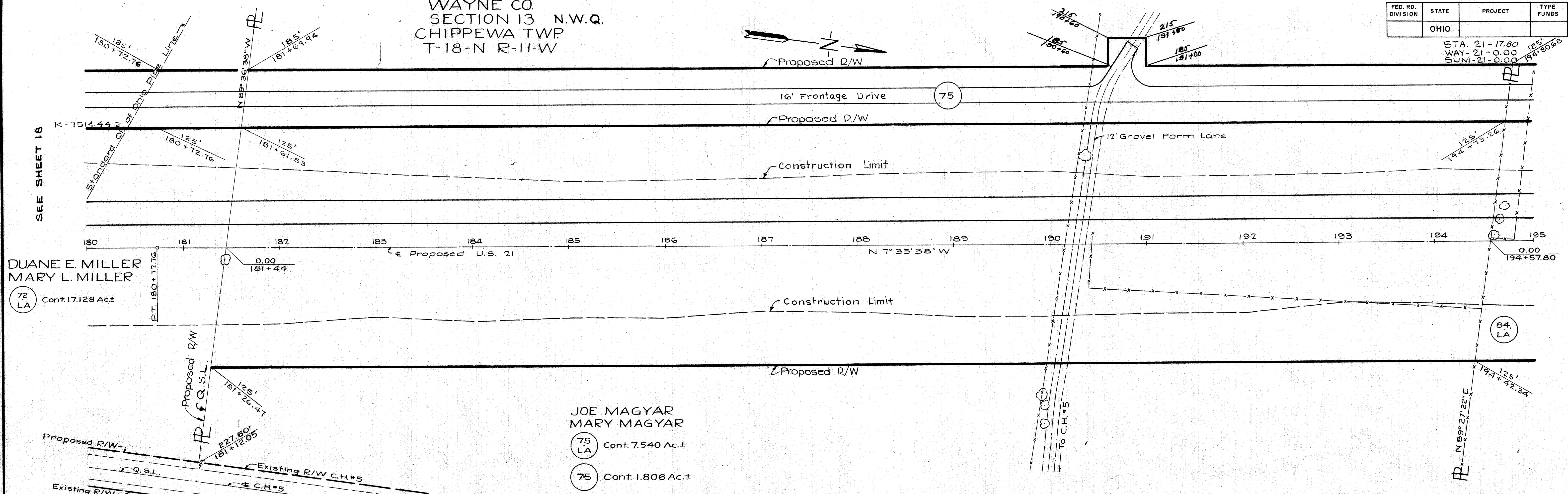
WAYNE COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

WAYNE CO.
SECTION 13 N.W.Q.
CHIPPEWA TWP
T-18-N R-11-W

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

19
30

STA. 21-17.80
WAY-21-0.00
SUM-21-0.00



SEE SHEET 18

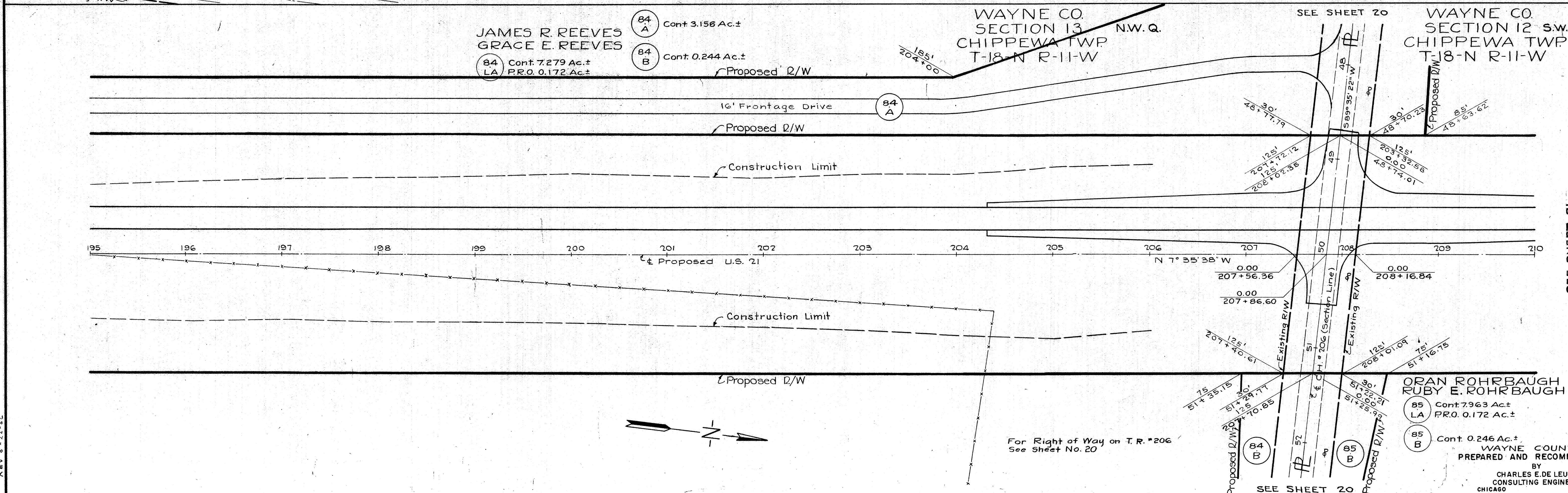
DUANE E. MILLER
MARY L. MILLER
72 LA Cont. 17.128 Ac.±

JOE MAGYAR
MARY MAGYAR
75 LA Cont. 7.540 Ac.±
75 Cont. 1.806 Ac.±

JAMES R. REEVES
GRACE E. REEVES
84 A Cont. 3.156 Ac.±
84 B Cont. 0.244 Ac.±
84 LA Cont. 7.279 Ac.±
PR.O. 0.172 Ac.±

WAYNE CO.
SECTION 13 N.W.Q.
CHIPPEWA TWP
T-18-N R-11-W

WAYNE CO.
SECTION 12 S.W.Q.
CHIPPEWA TWP
T-18-N R-11-W



ORAN ROHRBAUGH
RUBY E. ROHRBAUGH
85 LA Cont. 7.963 Ac.±
PR.O. 0.172 Ac.±
85 B Cont. 0.246 Ac.±

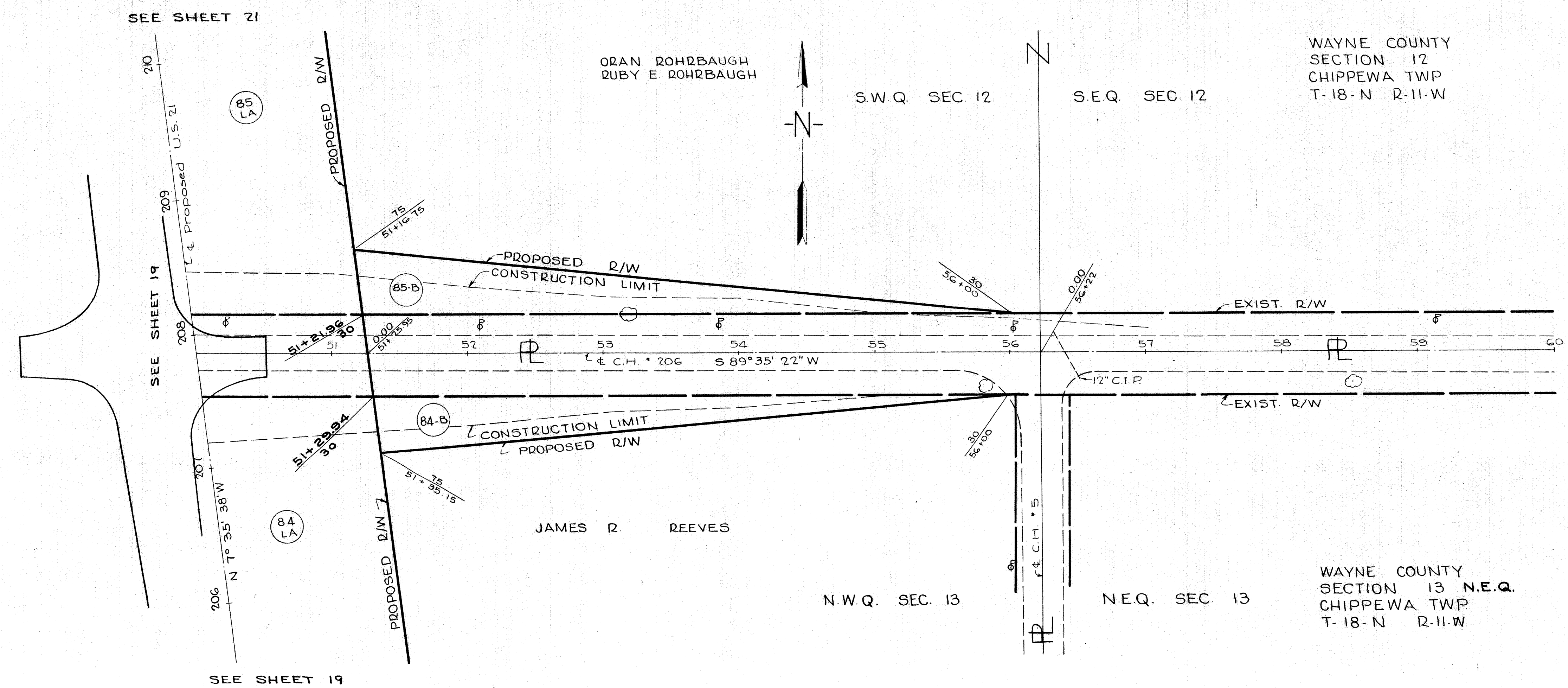
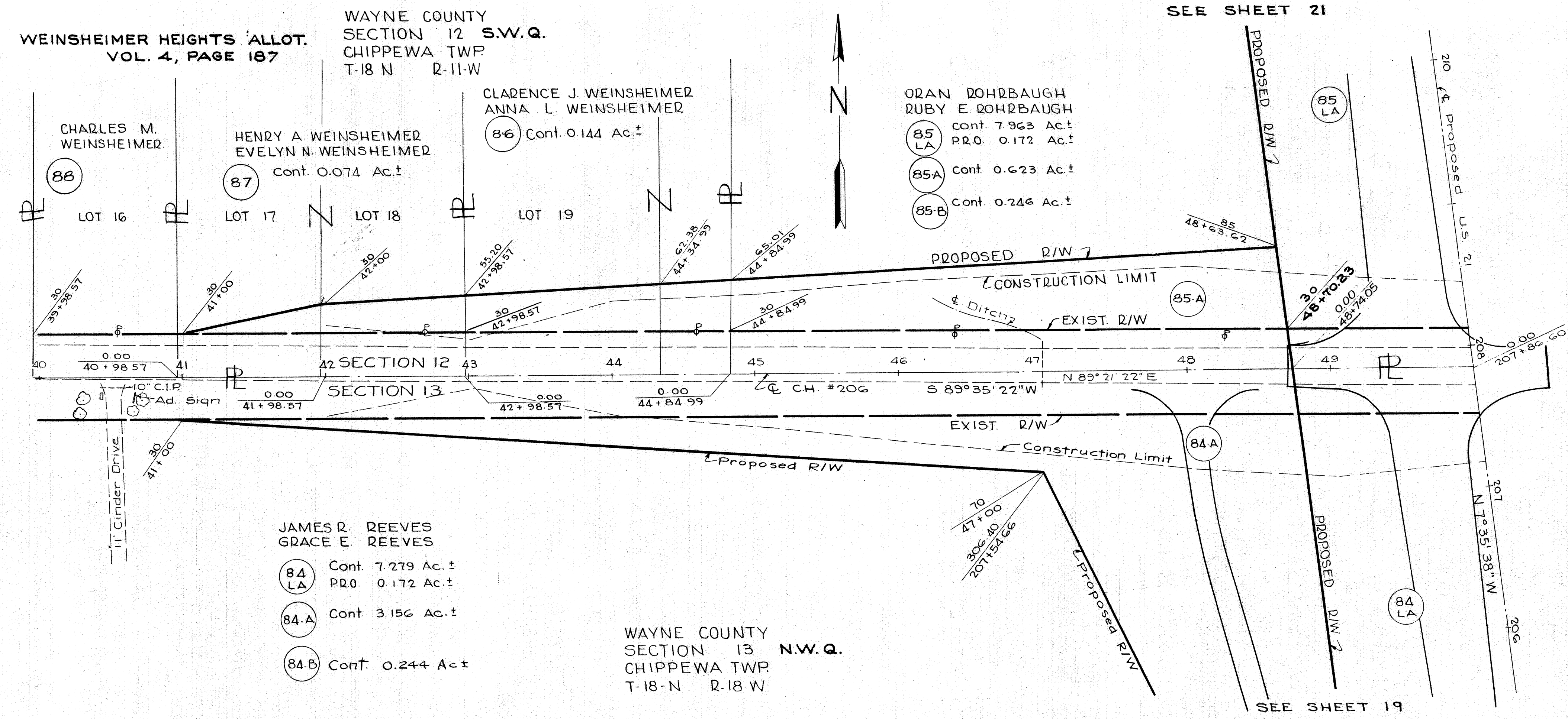
WAYNE COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

For Right of Way on T.R. #206
See Sheet No. 20

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

20
30

STA 21 - 17.80
WAY - 21 - 0.00
SUM - 21 - 0.00



WAYNE COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

WAYNE CO.
SECTION 12 S.W.Q.
CHIPPEWA TWP.
T-18-N R-11-W

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

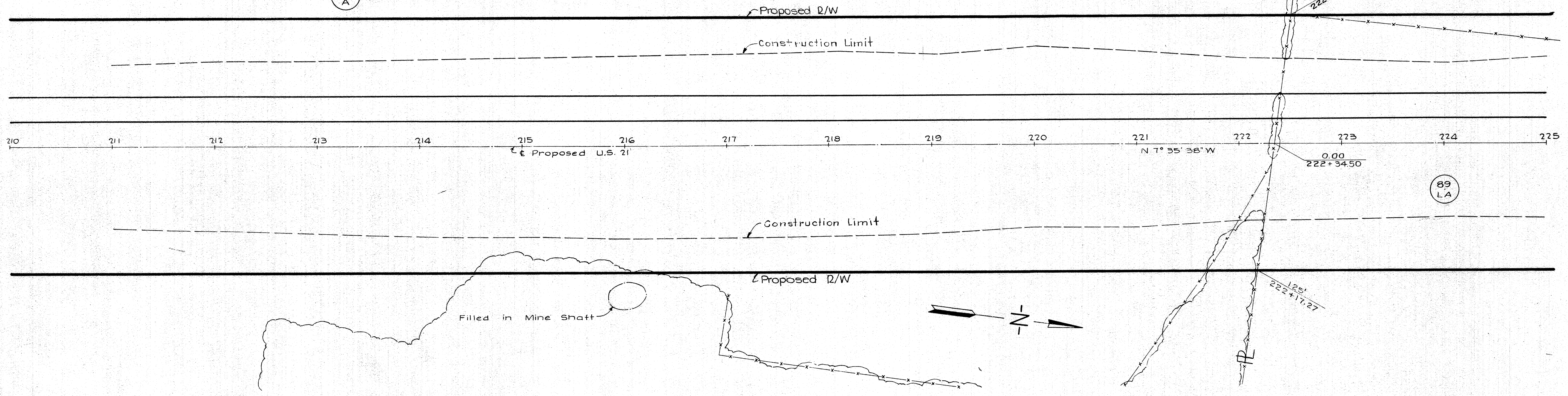
21
30

STA. 21-17.80
WAY-21- 0.00
SUM-21- 0.00

ORAN ROHRBAUGH
RUBY B. ROHRBAUGH

- 85 LA Cont. 7.963 Ac.±
PRO. 0.172 Ac.±
- 85 A Cont. 0.623 Ac.±

SEE SHEET 19



WILLIAM R. BALDING
LILLIAN BALDING
JAMES E. BALDING
ETHEL S. BALDING

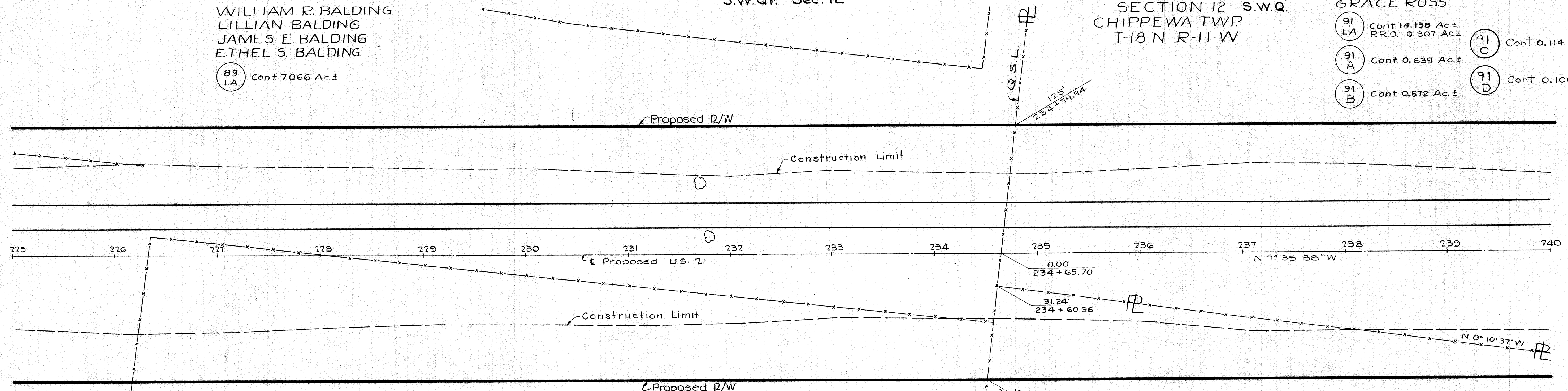
- 89 LA Cont. 7.066 Ac.±

S.W. Qr. Sec. 12

WAYNE CO.
SECTION 12 S.W.Q.
CHIPPEWA TWP.
T-18-N R-11-W

LYNN ROSS
GRACE ROSS

- 91 LA Cont. 14.158 Ac.±
P.R.O. 0.307 Ac.±
- 91 A Cont. 0.639 Ac.±
- 91 B Cont. 0.572 Ac.±
- 91 C Cont. 0.114 Ac.±
- 91 D Cont. 0.106 Ac.±



SIDNEY H. ROBERTS
EFFIE G. ROBERTS

- 90 LA Cont. 0.775 Ac.±
- 90 A Cont. 0.356 Ac.±
- 90 B Cont. 0.399 Ac.±

SEE SHEET 22

REV. 5-22-56

WAYNE COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

LYNN & GRACE ROSS

- 91 LA Cont. 14.158 Ac.±
P.R.O. 0.307 Ac.±
- 91 A Cont. 0.639 Ac.±
- 91 B Cont. 0.572 Ac.±

- 91 C Cont. 0.114 Ac.±
- 91 D Cont. 0.106 Ac.±

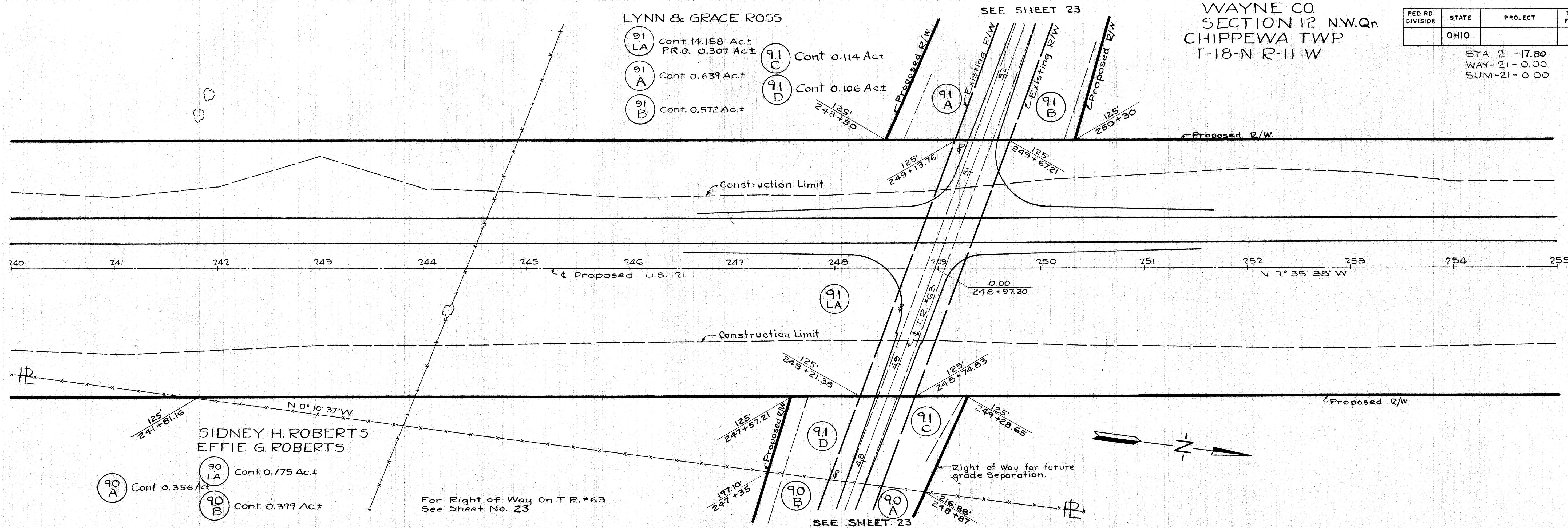
WAYNE CO.
SECTION 12 N.W.Qr.
CHIPPEWA TWP
T-18-N R-11-W

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

STA. 21 - 17.80
WAY-21 - 0.00
SUM-21 - 0.00

22
30

SEE SHEET 21

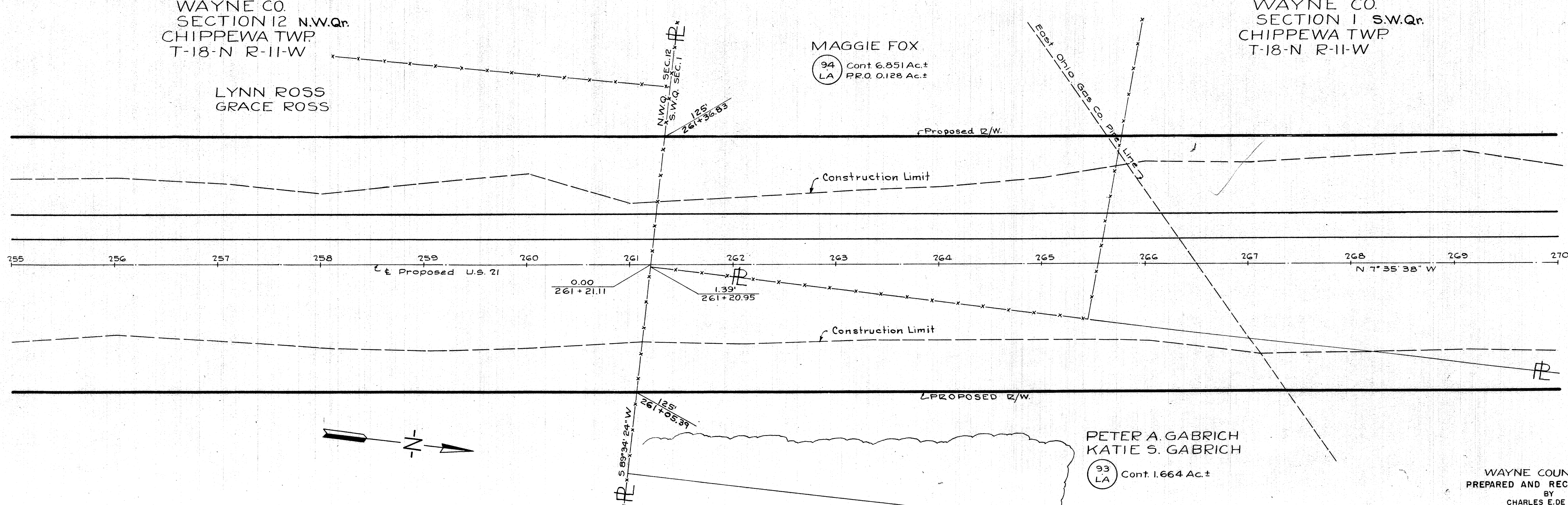


WAYNE CO.
SECTION 12 N.W.Qr.
CHIPPEWA TWP
T-18-N R-11-W

LYNN ROSS
GRACE ROSS

MAGGIE FOX
94 LA Cont. 6.851 Ac.±
P.R.O. 0.128 Ac.±

WAYNE CO.
SECTION 1 S.W.Qr.
CHIPPEWA TWP
T-18-N R-11-W

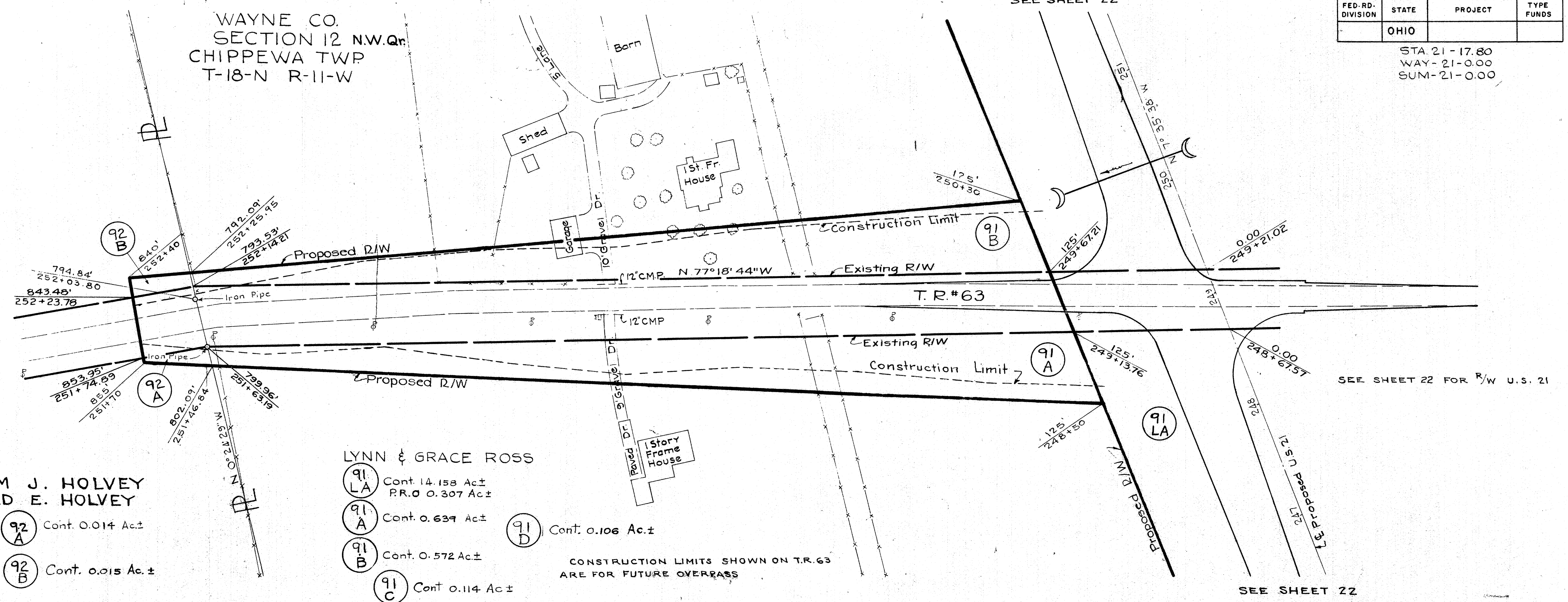
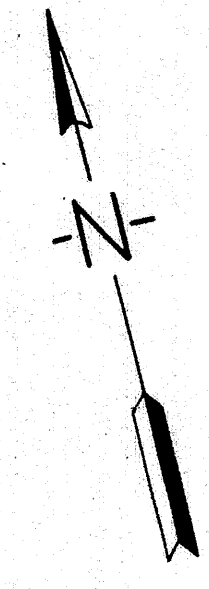


PETER A. GABRICH
KATIE S. GABRICH
93 LA Cont. 1.664 Ac.±

WAYNE COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

STA 21-17.80
WAY-21-0.00
SUM-21-0.00

WAYNE CO.
SECTION 12 N.W. Qr.
CHIPPEWA TWP.
T-18-N R-11-W



WILLIAM J. HOLVEY
MILDRED E. HOLVEY

- 92 A Cont. 0.014 Ac.±
- 92 B Cont. 0.015 Ac.±

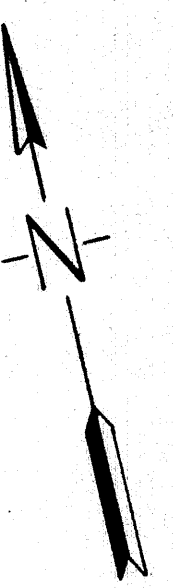
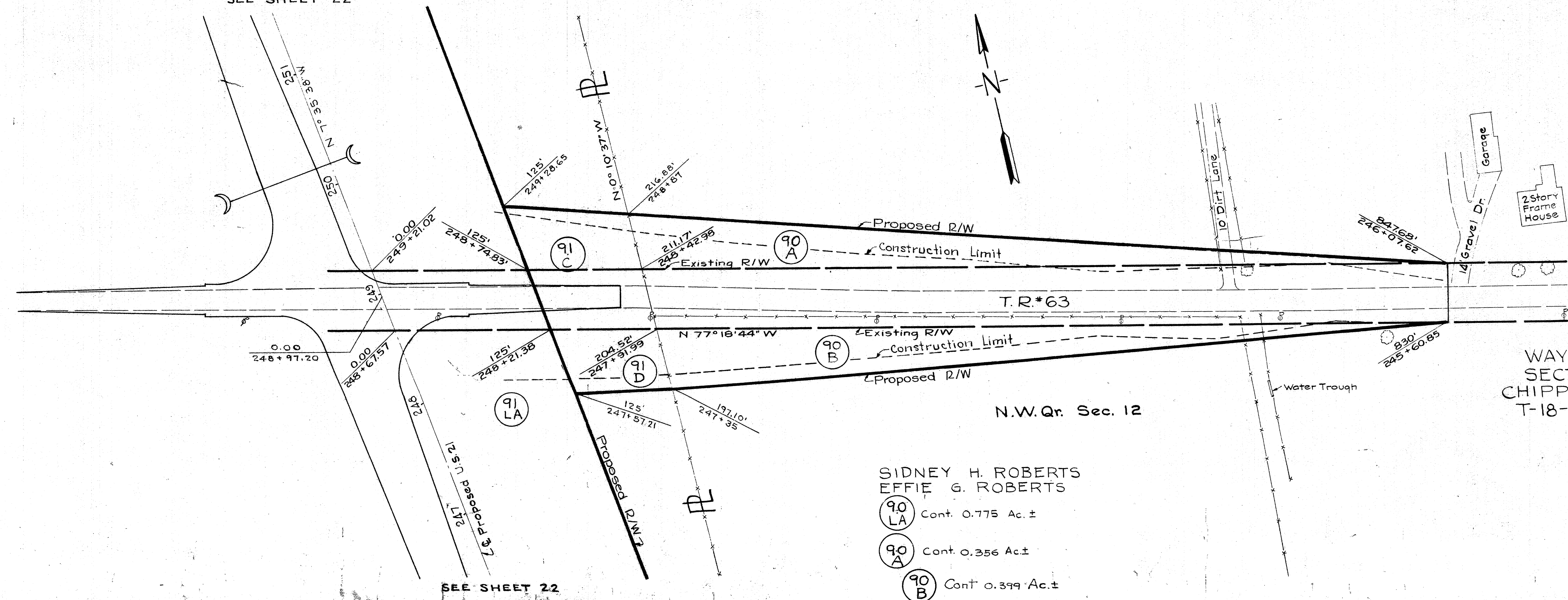
LYNN & GRACE ROSS

- 91 LA Cont. 14.158 Ac.±
P.R.O. 0.307 Ac.±
- 91 A Cont. 0.639 Ac.±
- 91 B Cont. 0.572 Ac.±
- 91 C Cont. 0.114 Ac.±
- 91 D Cont. 0.106 Ac.±

CONSTRUCTION LIMITS SHOWN ON T.R. 63
ARE FOR FUTURE OVERPASS

SEE SHEET 22

SEE SHEET 22



WAYNE CO.
SECTION 12 N.W. Qr.
CHIPPEWA TWP.
T-18-N R-11-W

N.W. Qr. Sec. 12

SIDNEY H. ROBERTS
EFFIE G. ROBERTS

- 90 LA Cont. 0.775 Ac.±
- 90 A Cont. 0.356 Ac.±
- 90 B Cont. 0.399 Ac.±

SEE SHEET 22

WAYNE COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

WAYNE CO.
SECTION I S.W.Qr.
CHIPPEWA TWP
T-18-N R-11-W

SEE SHEET 25

S.W.Qr. Sec. 1

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

24
30

STA. 21-17.80
WAY-21-0.00
SUM-21-0.00

MAGGIE FOX

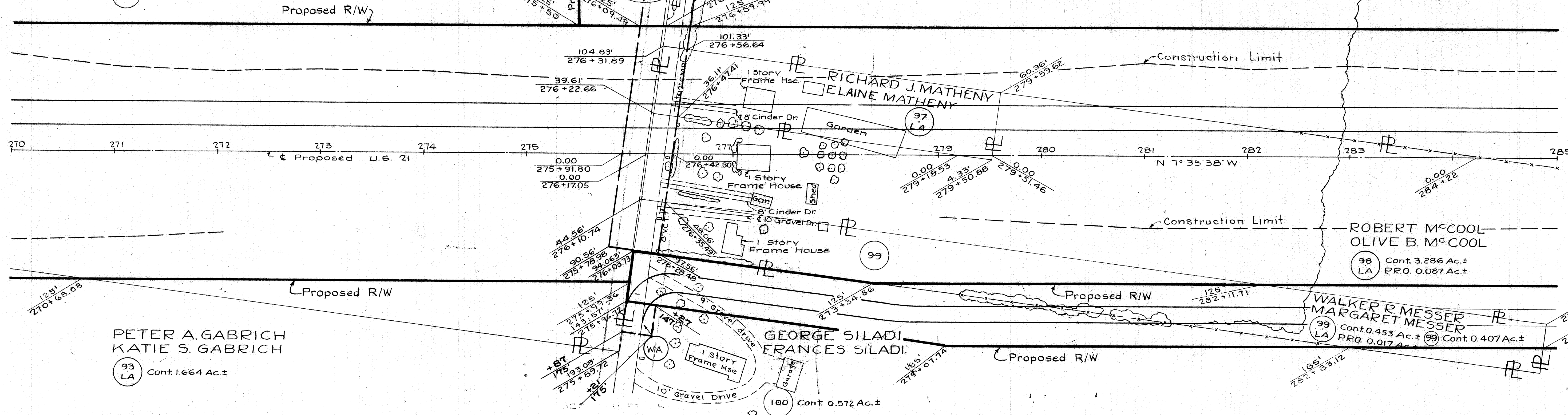
94 Cont. 6.851 Ac.±
LA P.R.O. 0.128 Ac.±

94 Cont. 0.284 Ac.±

BETTY BOWERS

96 Cont. 2.377 Ac.±
LA P.R.O. 0.017 Ac.±

SEE SHEET 22



WAYNE CO.
SECTION I N.W.Qr.
CHIPPEWA TWP
T-18-N R-11-W

FRANK NAGY
ROSE NAGY

101 LA Cont. 8.349 Ac.±

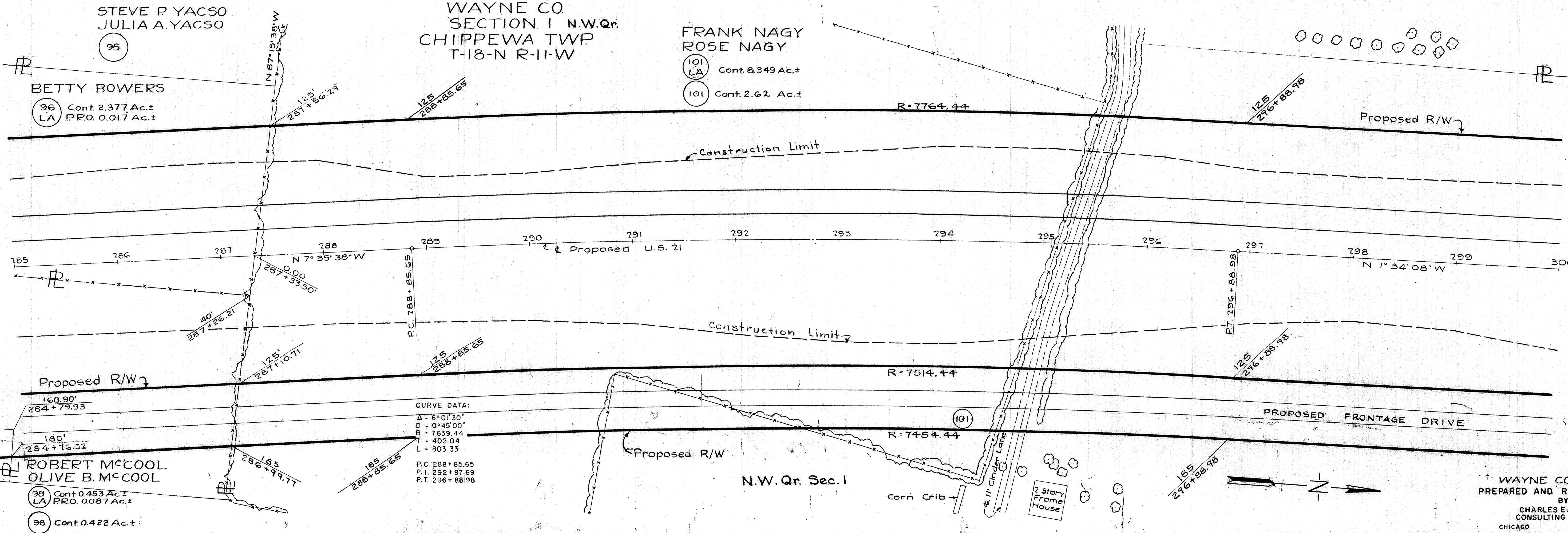
101 Cont. 2.62 Ac.±

STEVE P. YACSO
JULIA A. YACSO

95

BETTY BOWERS

96 Cont. 2.377 Ac.±
LA P.R.O. 0.017 Ac.±



CURVE DATA:

Δ = 6°01'30"
D = 0°45'00"
R = 7514.44
L = 803.33

P.C. 288+85.65
P.I. 292+87.69
P.T. 296+88.98

REV. 5-22-52

SEE SHEET 26

WAYNE COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

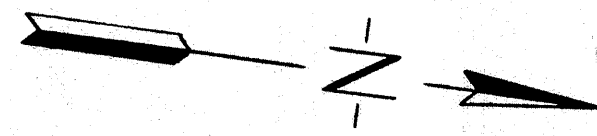
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

25
30

STA. 21-17.80
WAY-21-0.00
SUM-21-0.00

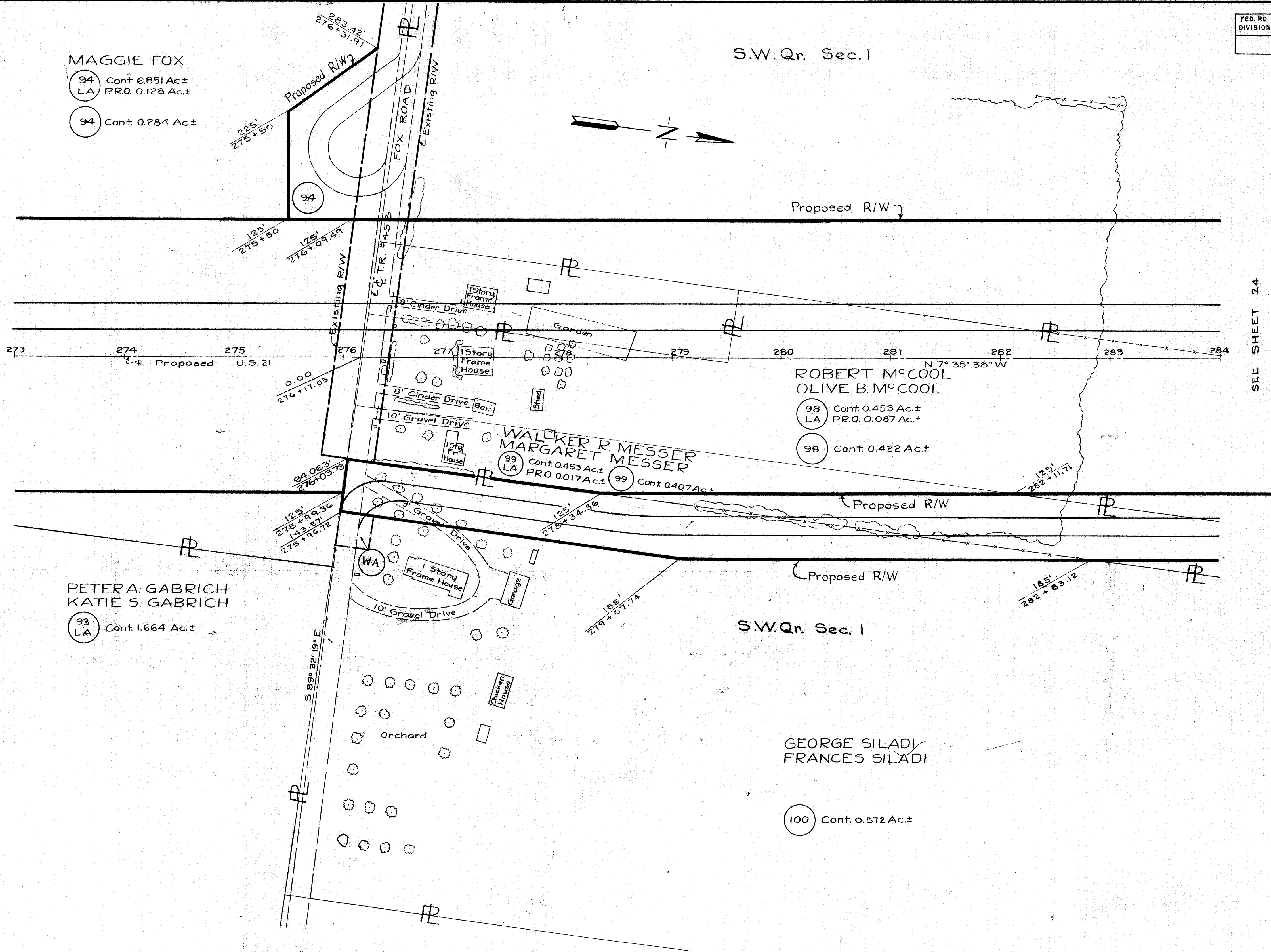
MAGGIE FOX
 94 Cont. 6.851 Ac±
 LA PRO. 0.128 Ac±
 94 Cont. 0.284 Ac±

S.W. Qr. Sec. 1



SEE SHEET 24

SEE SHEET 24



REV. 5-11-52

WAYNE COUNTY
 PREPARED AND RECOMMENDED
 BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

RIGHT-OF-WAY SHEET - STA. 273+00 - 284+00

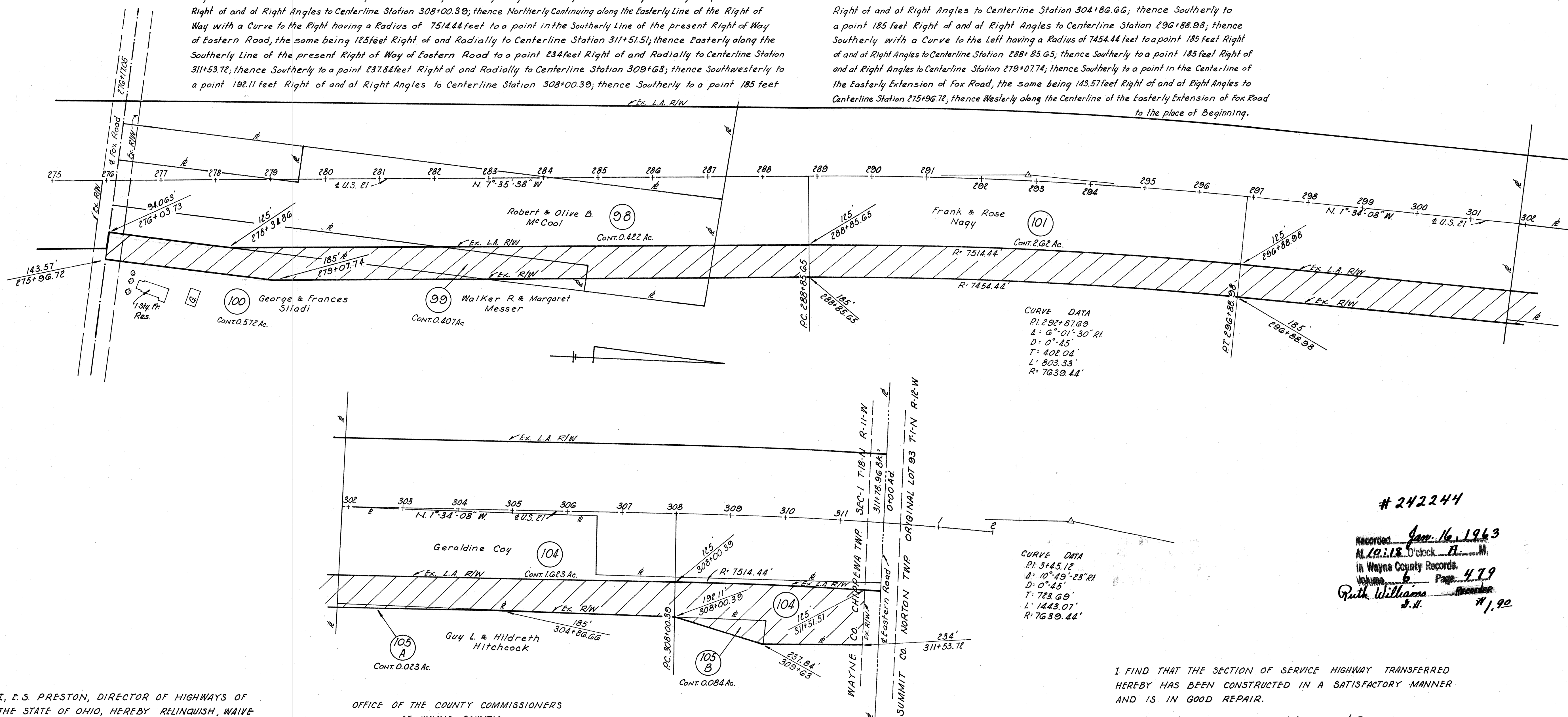
DESCRIPTION OF LAND TRANSFERRED

Being a Parcel of Land Lying on the Right Side of the Centerline of Survey Made by the Department of Highways, Recorded in Book 5, Page 52-53, Situated in Wayne County, Ohio, Chippewa Township, Southwest & Northwest Quarter, Section 1, Town 18N, Range 11W, & being Located within the Following Discribed Points in the Boundary: Beginning of a Point in the Centerline of Fox Road, the same being the Easterly Terminus of Fox Road, Where it is Intersected by the Easterly Line of the Right of Way of State Route U.S. 21, said Point being 94.063 feet Right of and at Right Angles to Station 276+03.73 in the Centerline of Survey made by the Department of Highways for State Route U.S. 21, Running thence Northerly along the Easterly Line of the Right of Way of State Route U.S. 21, to a point 125 feet Right of and at Right Angles to Centerline Station 278+34.86; thence Northerly continuing along the Easterly Line of the Right of Way to a point 125 feet Right of and at Right Angles to Centerline Station 288+85.65; thence Northerly continuing along the Easterly Line of the Right of Way with a Curve to the Right having a Radius of 7514.44 feet to a point 125 feet Right of and at Right Angles to Centerline Station 296+88.98; thence Northerly continuing along the Easterly Line of the Right of Way to a point 125 feet Right of and at Right Angles to Centerline Station 308+00.39; thence Northerly continuing along the Easterly Line of the Right of Way with a Curve to the Right having a Radius of 7514.44 feet to a point in the Southerly Line of the present Right of Way of Eastern Road, the same being 125 feet Right of and Radially to Centerline Station 311+51.51; thence Easterly along the Southerly Line of the present Right of Way of Eastern Road to a point 234 feet Right of and Radially to Centerline Station 311+53.72; thence Southerly to a point 192.11 feet Right of and Radially to Centerline Station 308+00.39; thence Southwesterly to a point 192.11 feet Right of and at Right Angles to Centerline Station 308+00.39; thence Southerly to a point 185 feet

RECORD OF ORIGINAL HIGHWAY EASEMENTS

PARCEL NO. RECORDED
 98 DEED Vol. 333 Pg. 242
 99 DEED Vol. 333 Pg. 196
 100 DEED Vol. 333 Pg. 215
 101 CASE NO. 39376 WAYNE CO. COURT OF COMMON PLEAS
 104 CASE NO. 39377 WAYNE CO. COURT OF COMMON PLEAS
 105A DEED Vol. 334 Pg. 383
 105B DEED Vol. 334 Pg. 384
 CENTER LINE RECORD-- U.S. R. -21 is in WAYNE COUNTY BOOK - 5 PAGES 52-53

Right of and at Right Angles to Centerline Station 304+86.66; thence Southerly to a point 185 feet Right of and at Right Angles to Centerline Station 296+88.98; thence Southerly with a Curve to the Left having a Radius of 7454.44 feet to a point 185 feet Right of and at Right Angles to Centerline Station 288+85.65; thence Southerly to a point 185 feet Right of and at Right Angles to Centerline Station 279+07.74; thence Southerly to a point in the Centerline of the Easterly Extension of Fox Road, the same being 143.57 feet Right of and at Right Angles to Centerline Station 275+06.72; thence Westerly along the Centerline of the Easterly Extension of Fox Road to the place of Beginning.



242244
 Recorded Jan. 16, 1963
 At 10:15 O'clock P.M.
 in Wayne County Records
 Volume 6 Page 479
 Ruth Williams Recorder
 S.H. #1,92

CURVE DATA
 PI 314.12
 Δ 10°-49'-23" R
 D 0°-45'
 T 723.69'
 L 1443.07'
 R 7639.44'

I FIND THAT THE SECTION OF SERVICE HIGHWAY TRANSFERRED HEREBY HAS BEEN CONSTRUCTED IN A SATISFACTORY MANNER AND IS IN GOOD REPAIR.

DATE Nov. 13, 1962
 Walter H. Metzler
 WAYNE COUNTY ENGINEER

I, E.S. PRESTON, DIRECTOR OF HIGHWAYS OF THE STATE OF OHIO, HEREBY RELINQUISH, WAIVE AND TRANSFER ANY JURISDICTION OR CONTROL THAT I HAVE, TO THE BOARD OF COUNTY COMMISSIONERS OF WAYNE COUNTY, OVER THE ABOVE DESCRIBED PROPERTY, AS SHOWN BY THE CROSS HATCHED AREAS, SECURED FOR LOCAL ROAD SERVICE
 DATE 12-21-62
 DATE 12-27-62 ATTEST
 Director of Highways
 Secretary

OFFICE OF THE COUNTY COMMISSIONERS OF WAYNE COUNTY
 THIS PLAT APPROVED & ACCEPTED BY US THIS 2nd DAY OF January, 1963 FOR MAINTENANCE AND PUBLIC USE.
 BOARD OF WAYNE COUNTY COMMISSIONERS

TRANSFER PLAT
 WAYNE CO. - SR. US. 21-0.00
 CHIPPEWA TWP. S.W. & N.W. GR. SEC. 1
 T-18-N R-11-W

STA. 21-17.80
WAY-21-0.00
SUM-21-0.00

WAYNE CO.
CHIPPEWA TWP
N.W. Q. SEC. I
T-18-N R-11-W

103 JESSE E. & SARAH M. LESH
LA Cont. 4.139 Ac±
P.R.O. 0.172 Ac±
103 Cont. 0.178 Ac±

104 GERALDINE COY
LA Cont. 1.443 Ac±
P.R.O. 0.004 Ac±
104 Cont. 1.623 Ac±

101 FRANK NAGY
LA Cont. 8.349 Ac±
101 Cont. 4.344 Ac±

105 GUY L. HITCHCOCK
LA Cont. 0.074 Ac±
105 A Cont. 0.023 Ac±
105 B Cont. 0.084 Ac±

110 LEWIS A. & NANCY G. WICHTERMAN
LA Cont. 1.641 Ac±
P.R.O. 0.164 Ac±
110 Cont. 0.077 Ac±

SUMMIT CO.
NORTON TWP
ORIGINAL LOT 93
T-1-N R-12-W
HUSTON E. SNYDER

109 JOHN BOSCH
LA Cont. 0.136 Ac±
P.R.O. 0.008 Ac±
109 Cont. 0.147 Ac±

CURVE DATA
Δ = 10°49'23"
D = 0°45'00"
R = 7639.44
T = 723.69
L = 1443.07
E = 34.20
P.C. = 308+00.39
P.I. = 3+45.12
P.T. = 10+64.50

STA. 12+00
END PROJECT
STA. 21-17.80
WAY-21-0.00
SUM-21-0.00

STA. 12+00
BEGIN PROJECT
SUM-21-0.23

SEE SHEET 24

SEE SHEET 27

SEE SHEET 27

SEE SHEET 27

WAYNE COUNTY
SUMMIT COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

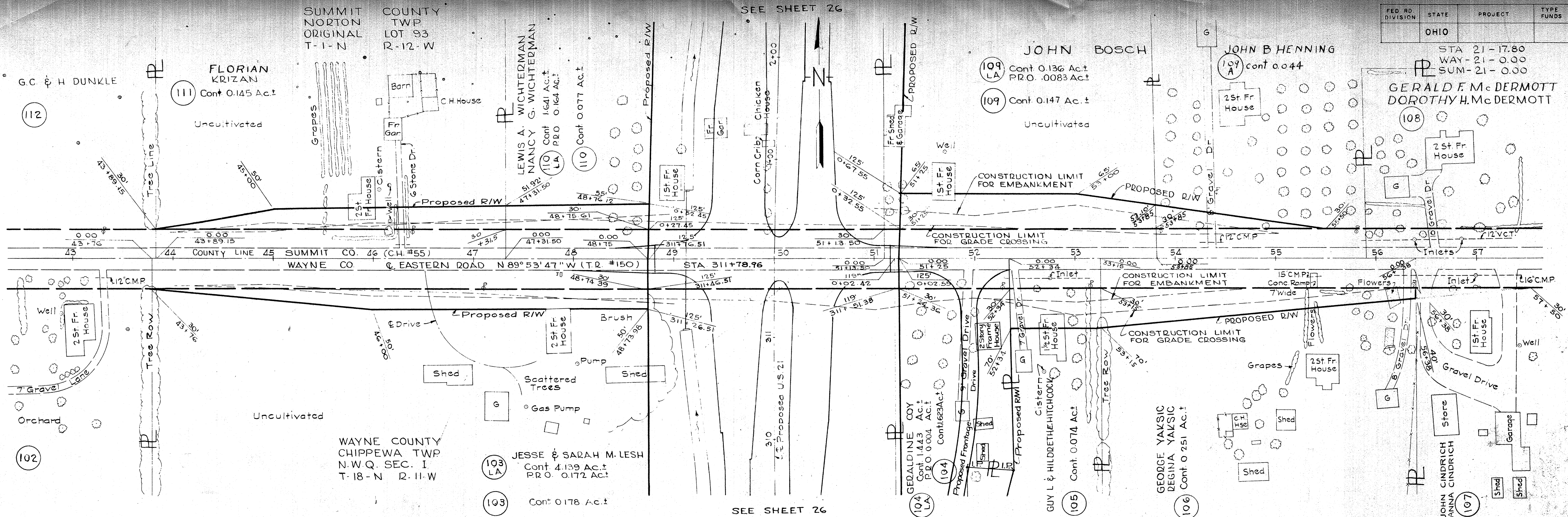
RIGHT-OF-WAY SHEET - (STA. 300+00-311+78.96) - (0+00-12+00)

REV. 6-22-57

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
	OHIO		

27
30

SEE SHEET 26



SUMMIT COUNTY
NORTON TWP.
ORIGINAL LOT 93
T-1-N R-12-W

GC. & H DUNKLE
112
FLORIAN KRIZAN
111 Cont. 0.145 Ac.±
Uncultivated

LEWIS A. WICHTERMAN
NANCY G. WICHTERMAN
110 Cont. 1.641 Ac.±
P.R.O. 0.164 Ac.±
110 Cont. 0.077 Ac.±

JOHN BOSCH
109 LA Cont. 0.136 Ac.±
P.R.O. 0.0083 Ac.±
109 Cont. 0.147 Ac.±
Uncultivated

JOHN B HENNING
109 A cont. 0.044
2 1/2 St Fr House

GERALD F. McDERMOTT
DOROTHY H. McDERMOTT
108
2 1/2 St Fr House

WAYNE COUNTY
CHIPPEWA TWP.
N.W. Q. SEC. 1
T-18-N R-11-W
103 LA Cont. 4.139 Ac.±
P.R.O. 0.172 Ac.±
103 Cont. 0.178 Ac.±
JESSE & SARAH M. LESH

GERALDINE COY
104 LA Cont. 1.443 Ac.±
P.R.O. 0.004 Ac.±
104 Cont. 1.623 Ac.±
GUY L. & HILDRETH HITCHCOCK
105 Cont. 0.074 Ac.±

GEORGE YAKSIC
REGINA YAKSIC
106 Cont. 0.251 Ac.±

JOHN CINDRICH
ALVA CINDRICH
107

SEE SHEET 26

WAYNE COUNTY
SUMMIT COUNTY
PREPARED AND RECOMMENDED
BY
CHARLES E. DE LEUW
CONSULTING ENGINEER
CHICAGO ILLINOIS

RIGHT-OF-WAY SHEET-EASTERN ROAD C.H. 55

SOIL PROFILE




















STA - 21 - 17.80
 WAY - 21 - 0.00
 SUM - 21 - 0.00

1
20

STATE HIGHWAY TESTING AND
 RESEARCH LABORATORY
 O.S.U. CAMPUS, COLUMBUS, OHIO

Note: The information shown by this subgrade profile was secured for the use of the State of Ohio and is not to be construed as a part of the plans governing the construction of the project.

LEGEND FOR PROJECT - AVERAGE RESULTS OF TESTS - 503 SAMPLES TESTED

DESCRIPTION	H. R. B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
 GRAVEL &/OR STONE FRAGMENTS	A-1-a	A-1-a									
 GRAVEL &/OR STONE FRAGMENTS WITH SAND	A-1-b	A-1-b	45	14	20	11	11	NP	NP	13	6
 COARSE & FINE SAND	A-3	A-3a	13	11	50	13	14	NP	NP	17	22
 GRAVEL &/OR STONE FRAGMENTS WITH SAND & SILT	A-2-4	A-2-4	33	11	27	16	14	NP	NP	12	22
 GRAVEL &/OR STONE FRAGMENTS WITH SAND, SILT & CLAY	A-2-6	A-2-6	43	16	15	13	13	29	15	14	1
 SANDY SILT	A-4	A-4a	13	8	24	31	24	20	6	14	329
 SILT	A-4	A-4b	2	2	8	57	31	23	6	21	38
 SILT & CLAY	A-6	A-6a	6	4	12	38	41	32	13	20	56
 CLAY	A-6	A-6b	5	4	16	37	38	35	17	22	12
 ELASTIC CLAY	A-7-5	A-7-5	0	1	1	43	56	64	31	70	4
 CLAY	A-7-6	A-7-6a	0	1	5	41	53	47	25	33	13
 TOP SOIL											
 BERM MATERIAL											
 PEAT OR ORGANIC MATERIAL											
 SANDSTONE											
 SHALE											
 AUGER BORING PLOTTED TO VERTICAL SCALE ONLY											
 AUGER BORING - PLAN VIEW											
 MOISTURE CONTENT NEARLY EQUAL TO OR GREATER THAN THE LIQUID LIMIT.											

VISUAL CLASSIFICATION

VISUAL CLASSIFICATION

 SWAMP GRASS & ROOTS.

NOTE:

FIGURES BESIDE BORINGS INDICATE MOISTURE IN PERCENT
 U.S. IMMEDIATELY ABOVE THE BORING INDICATES THE THICKNESS
 OF UNSATISFACTORY SUBGRADE SOIL.
 SAMPLES TESTED - LABORATORY NUMBERS.
 17931 - 18003
 18269 - 18354
 18672 - 18819
 19371 - 19511
 19947 - 20003

PREPARED AND RECOMMENDED
 BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

BEGIN SHEET - STA. 918+00

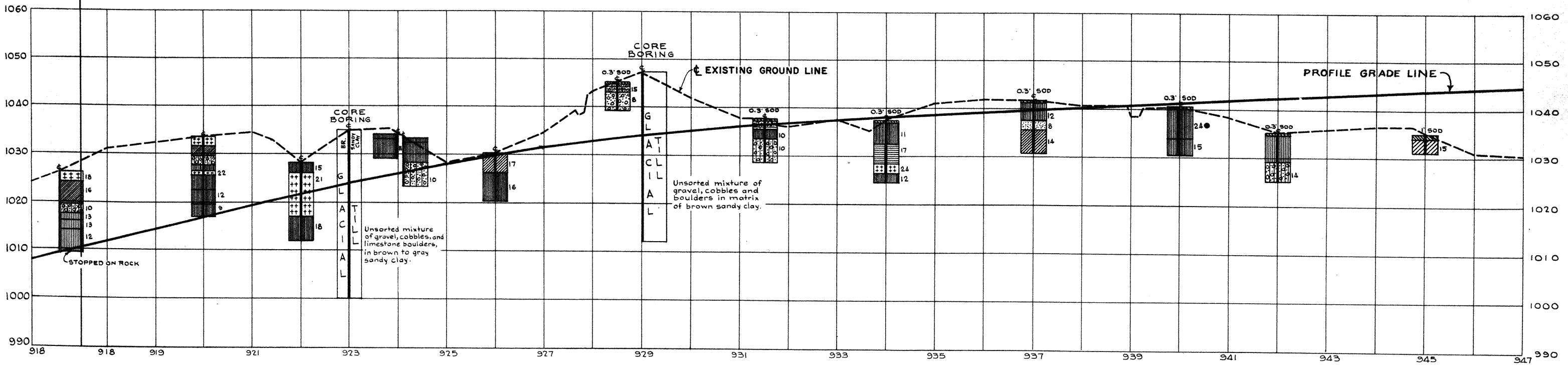
END SHEET - STA. 947+00

STATION EQUATION
 STA. 918+94.58 BACK =
 STA. 917+47.89 AHEAD

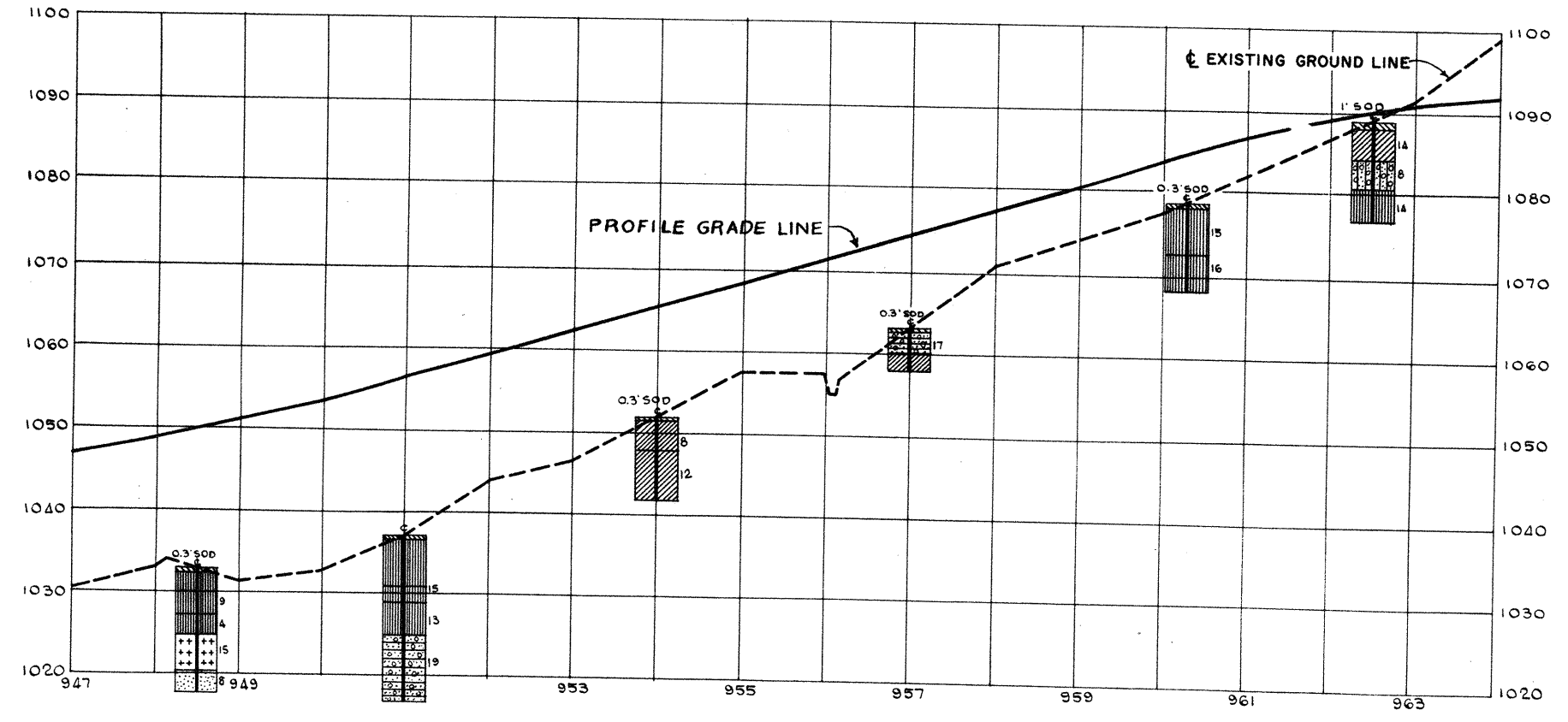
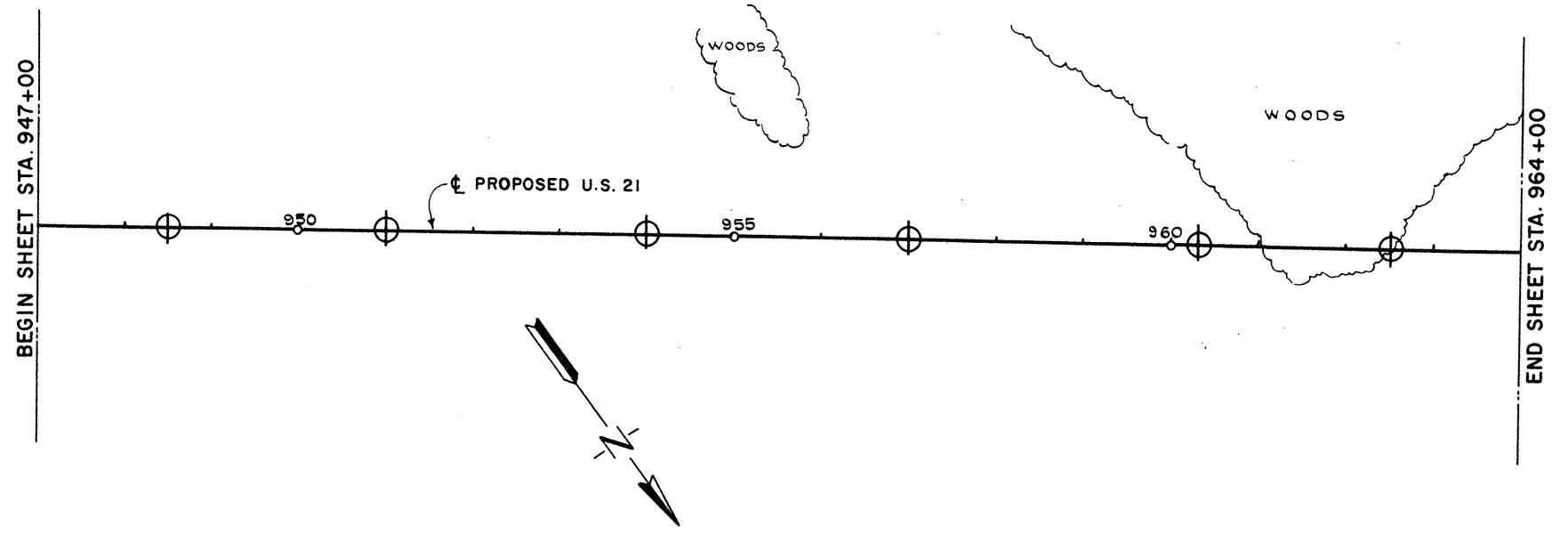
STATION EQUATION
 STA. 918+94.58 BACK = STA. 917+47.89 AHEAD

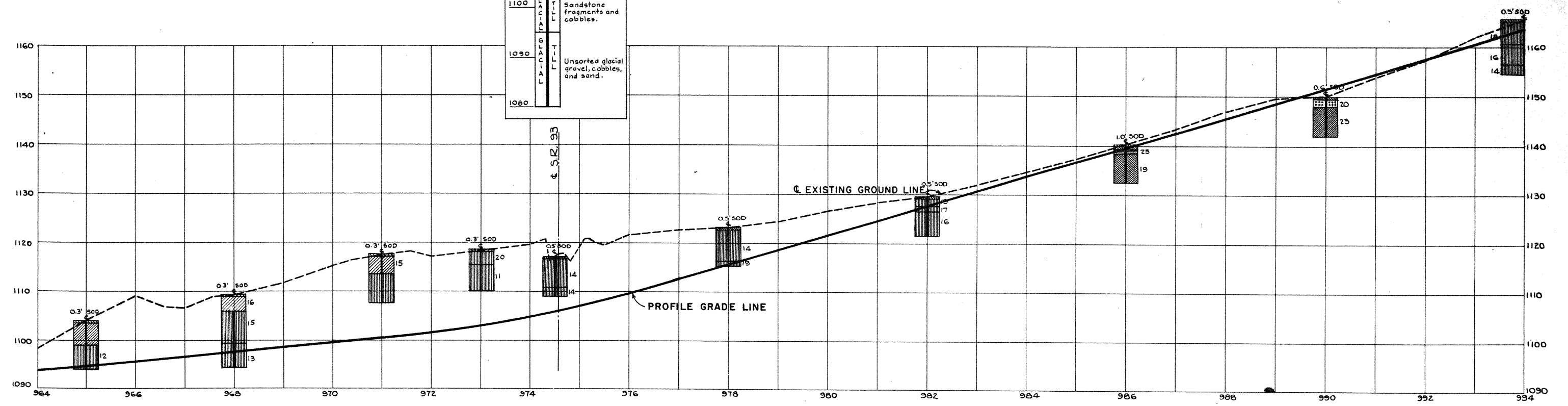
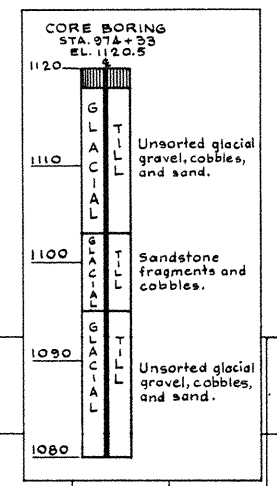
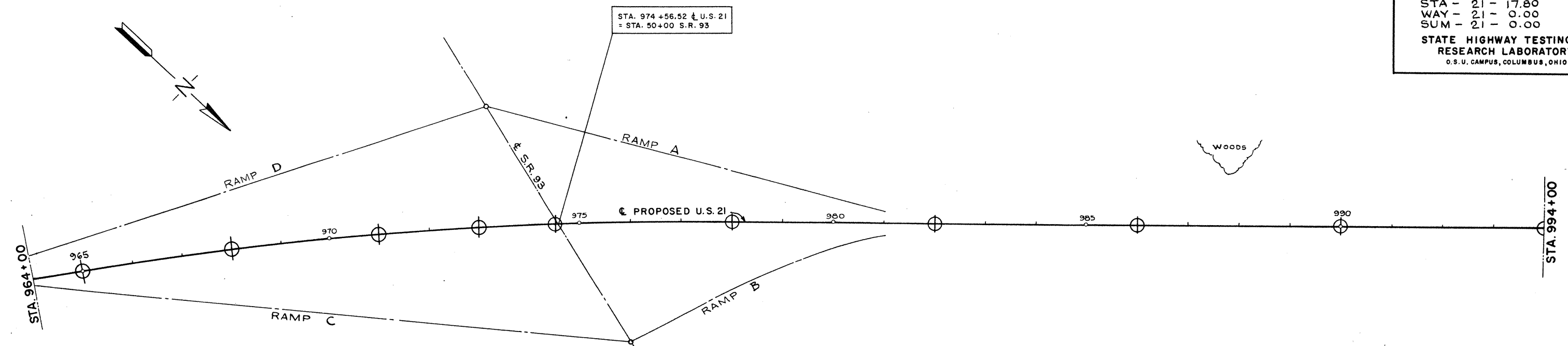
ANOTHER PROJECT  BEGIN PROJECT
 STA. 940+00

PROPOSED U.S. 21

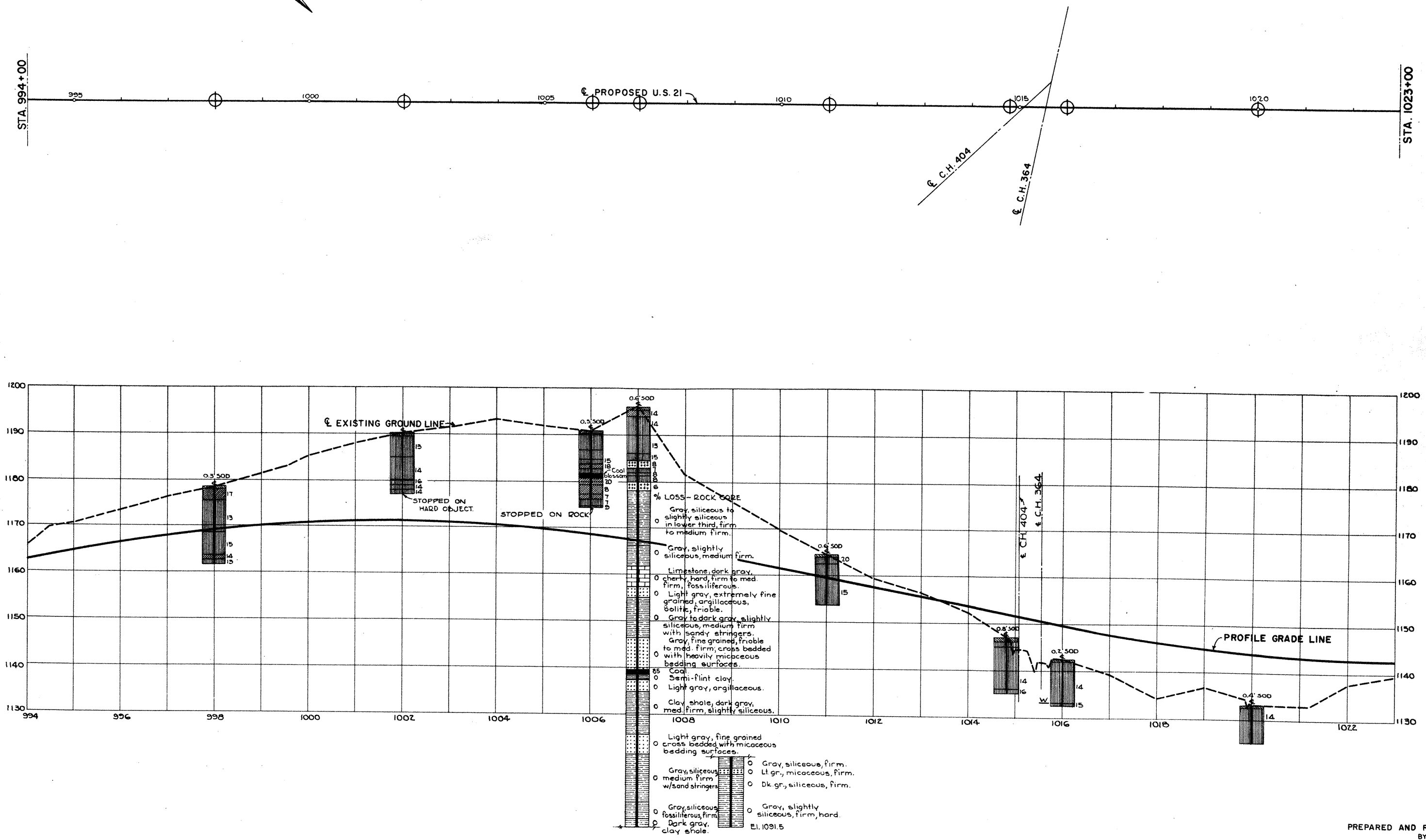


PREPARED AND RECOMMENDED
 BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS





PREPARED AND RECOMMENDED
 BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS



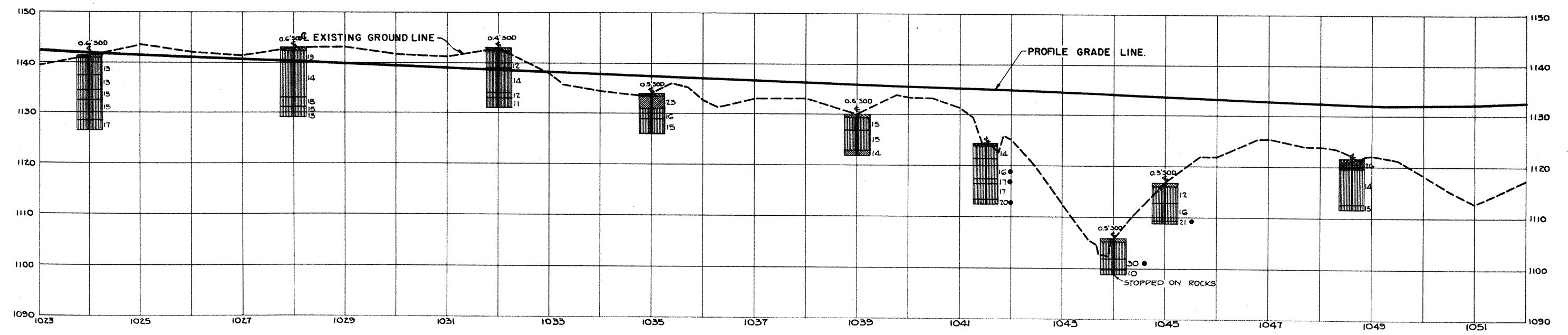
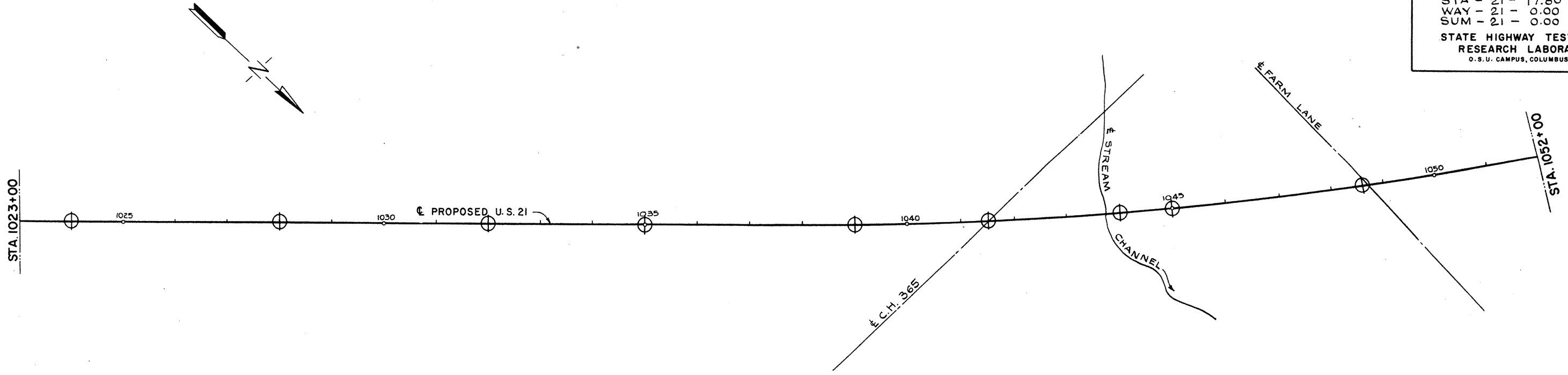
PREPARED AND RECOMMENDED BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

SOIL PROFILE

STA - 21 - 17.80
 WAY - 21 - 0.00
 SUM - 21 - 0.00

6
20

STATE HIGHWAY TESTING AND
 RESEARCH LABORATORY
 O. S. U. CAMPUS, COLUMBUS, OHIO



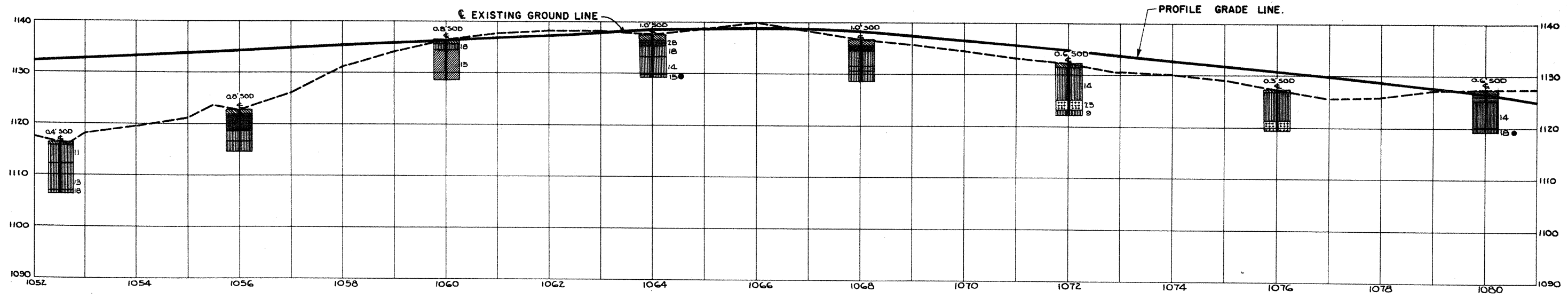
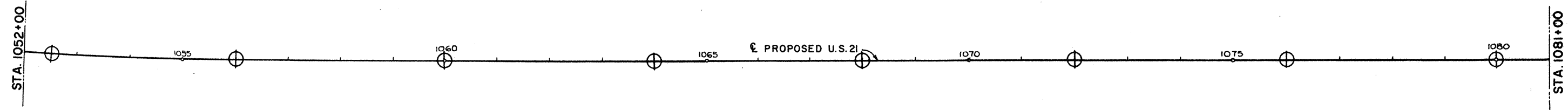
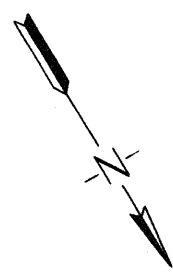
PREPARED AND RECOMMENDED
 BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

SOIL PROFILE

STA - 21 - 17.80
 WAY - 21 - 0.00
 SUM - 21 - 0.00

7
20

STATE HIGHWAY TESTING AND
 RESEARCH LABORATORY
 O. S. U. CAMPUS, COLUMBUS, OHIO



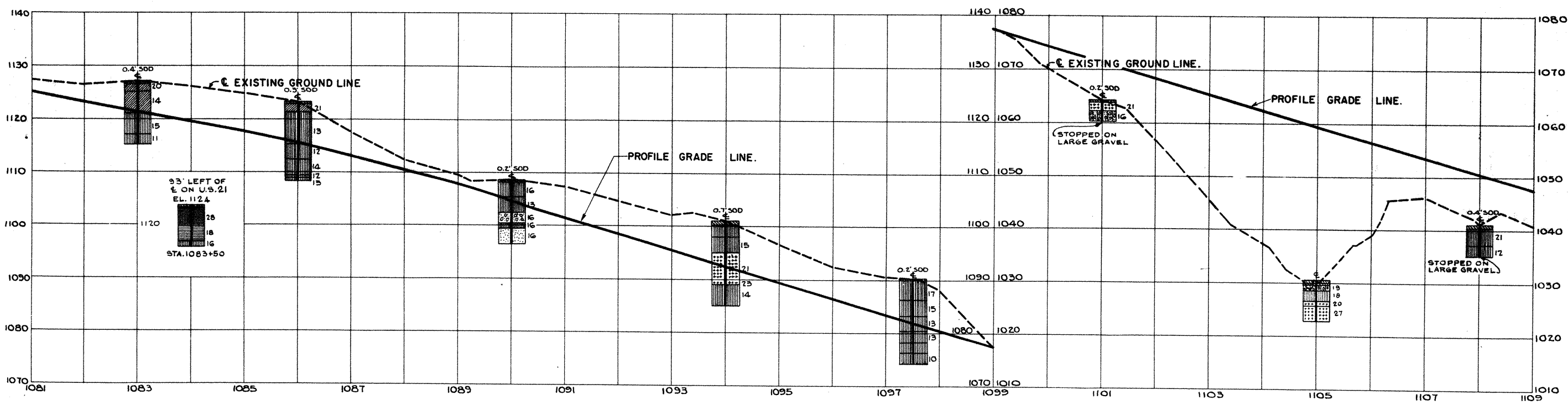
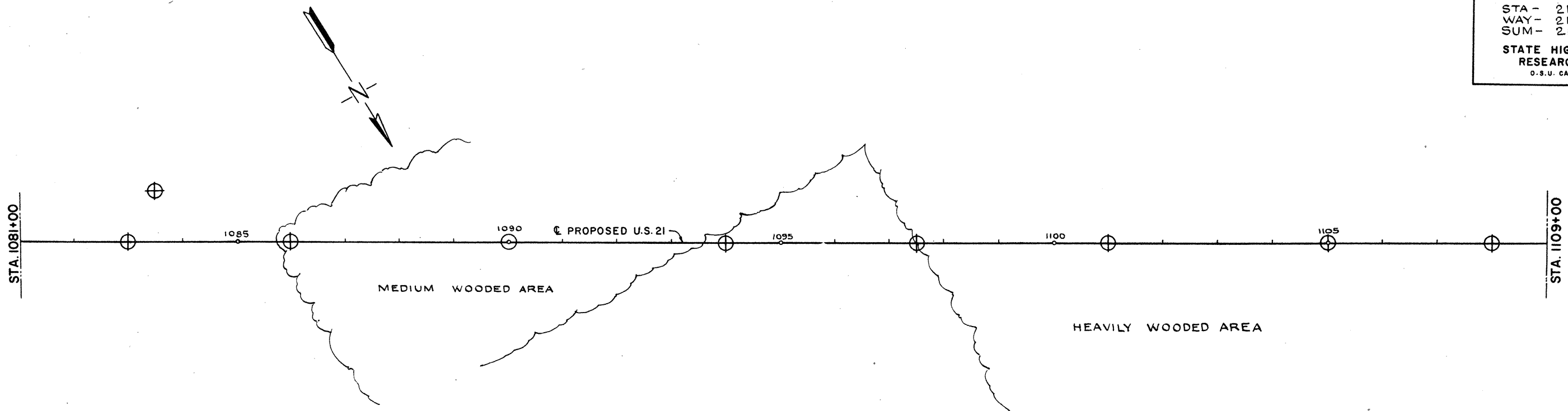
PREPARED AND RECOMMENDED
 BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

SOIL PROFILE

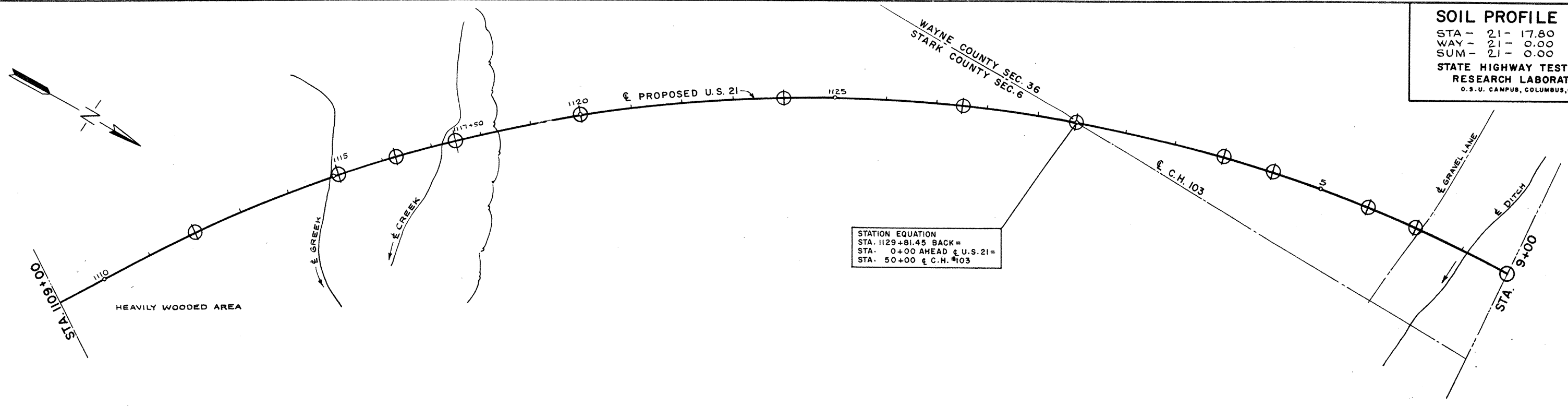
STA - 21 - 17.80
 WAY - 21 - 0.00
 SUM - 21 - 0.00

8
20

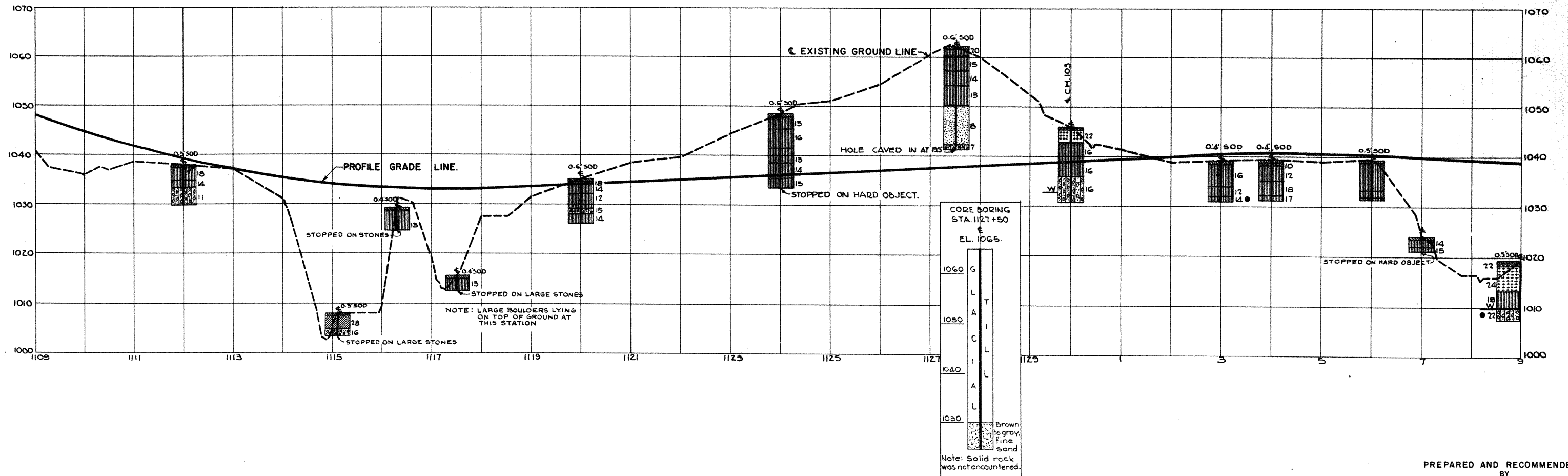
STATE HIGHWAY TESTING AND
 RESEARCH LABORATORY
 O. S. U. CAMPUS, COLUMBUS, OHIO



PREPARED AND RECOMMENDED
 BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS



STATION EQUATION
 STA. 1129+81.45 BACK =
 STA. 0+00 AHEAD of U.S. 21 =
 STA. 50+00 of C.H. #103



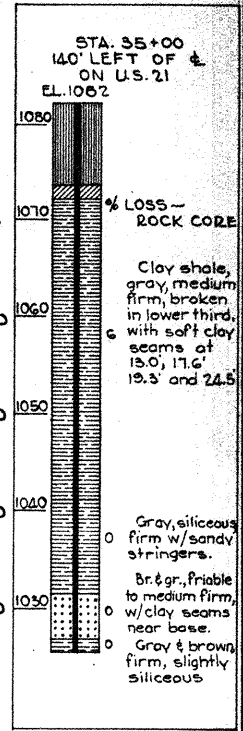
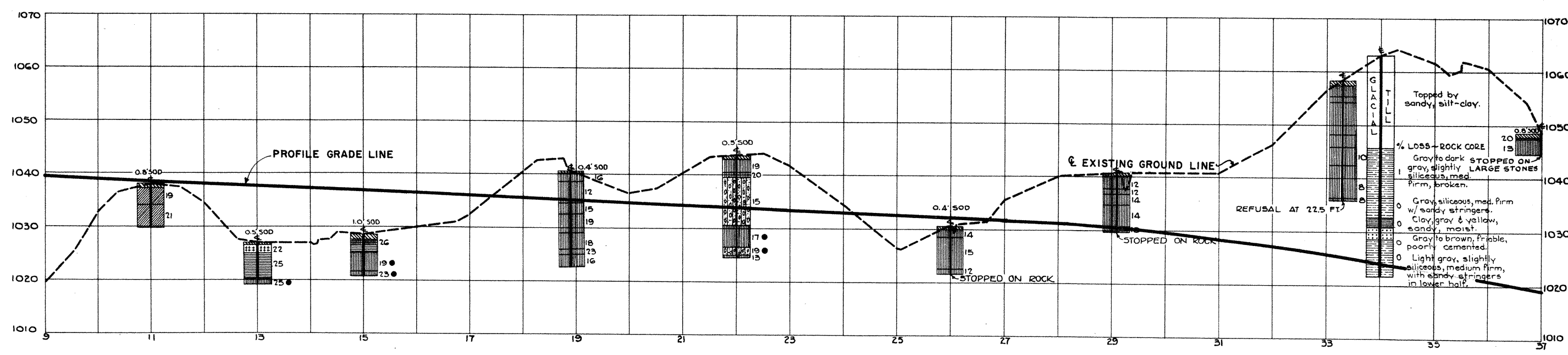
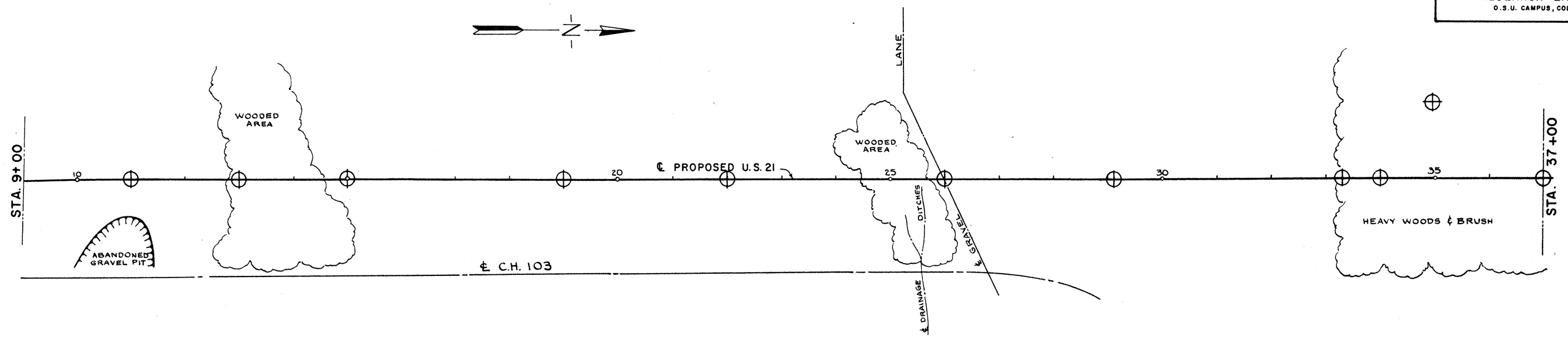
PREPARED AND RECOMMENDED
 BY
CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

SOIL PROFILE

STA - 21 - 17.80
 WAY - 21 - 0.00
 SUM - 21 - 0.00

10
20

STATE HIGHWAY TESTING AND
 RESEARCH LABORATORY
 O.S.U. CAMPUS, COLUMBUS, OHIO



PREPARED AND RECOMMENDED BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

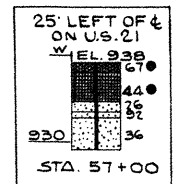
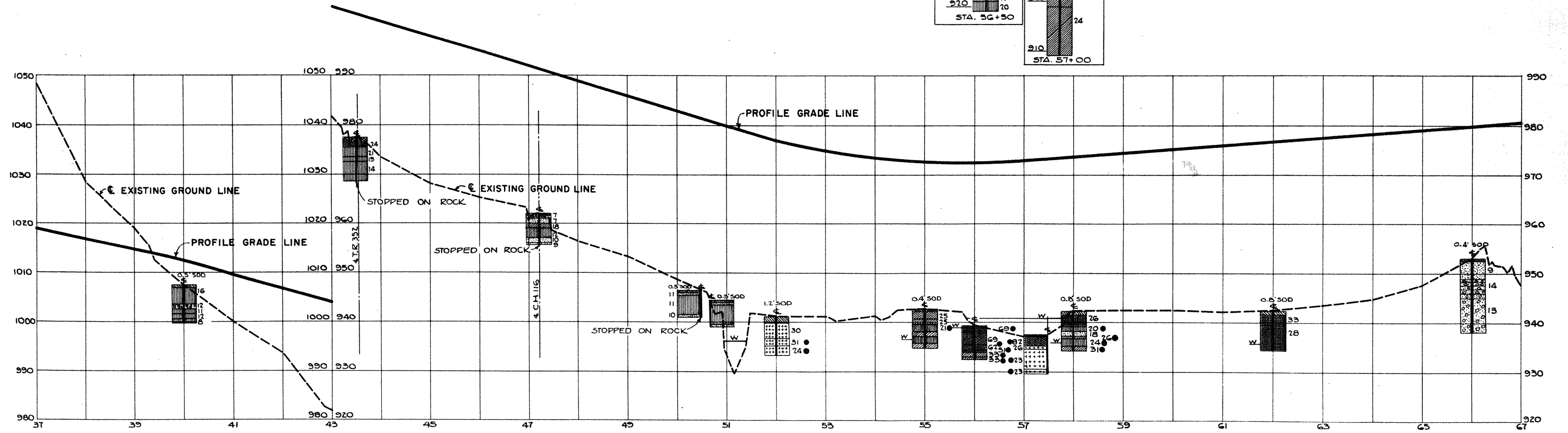
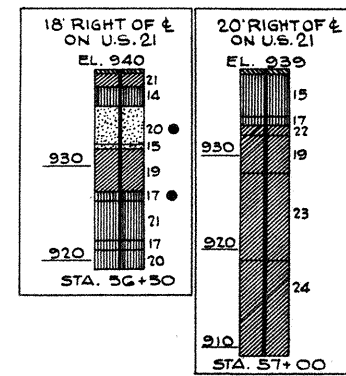
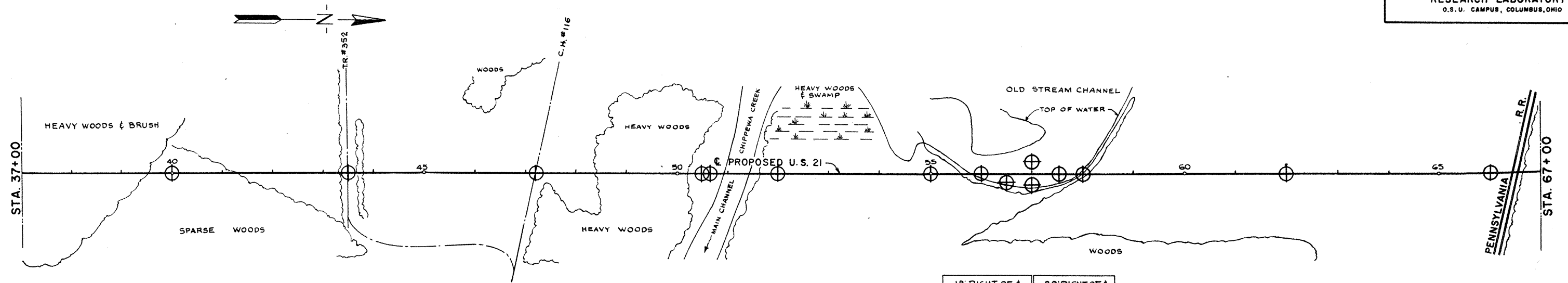
STA. 9+00 TO STA. 37+00

SOIL PROFILE

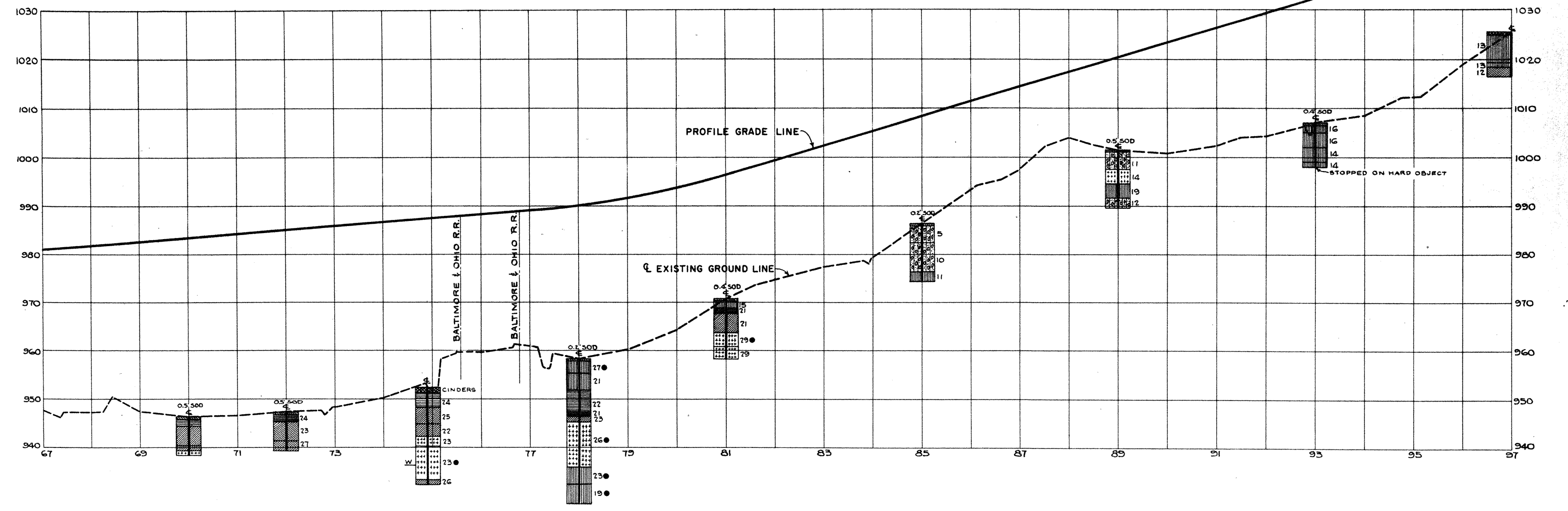
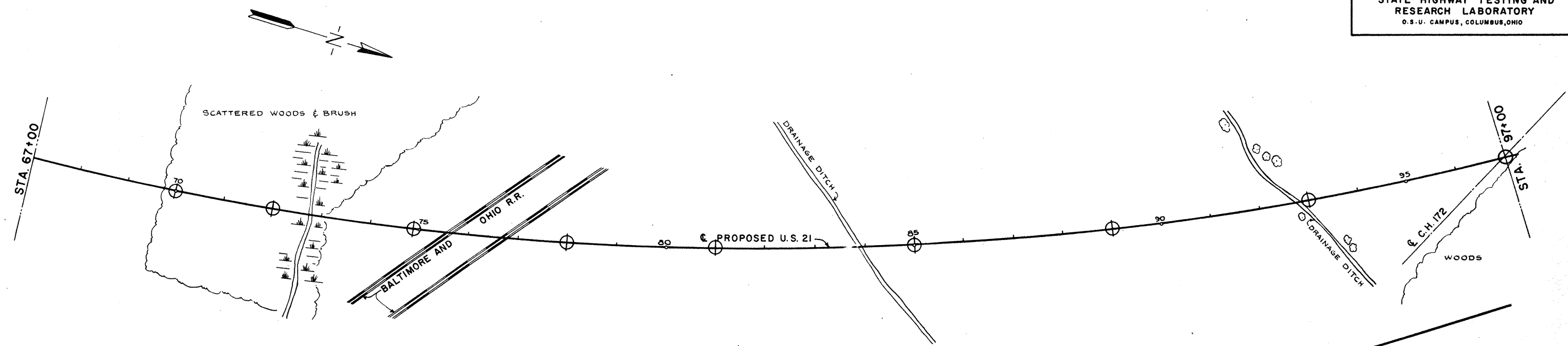
STA - 21 - 17.60
 WAY - 21 - 0.00
 SUM - 21 - 0.00

11
20

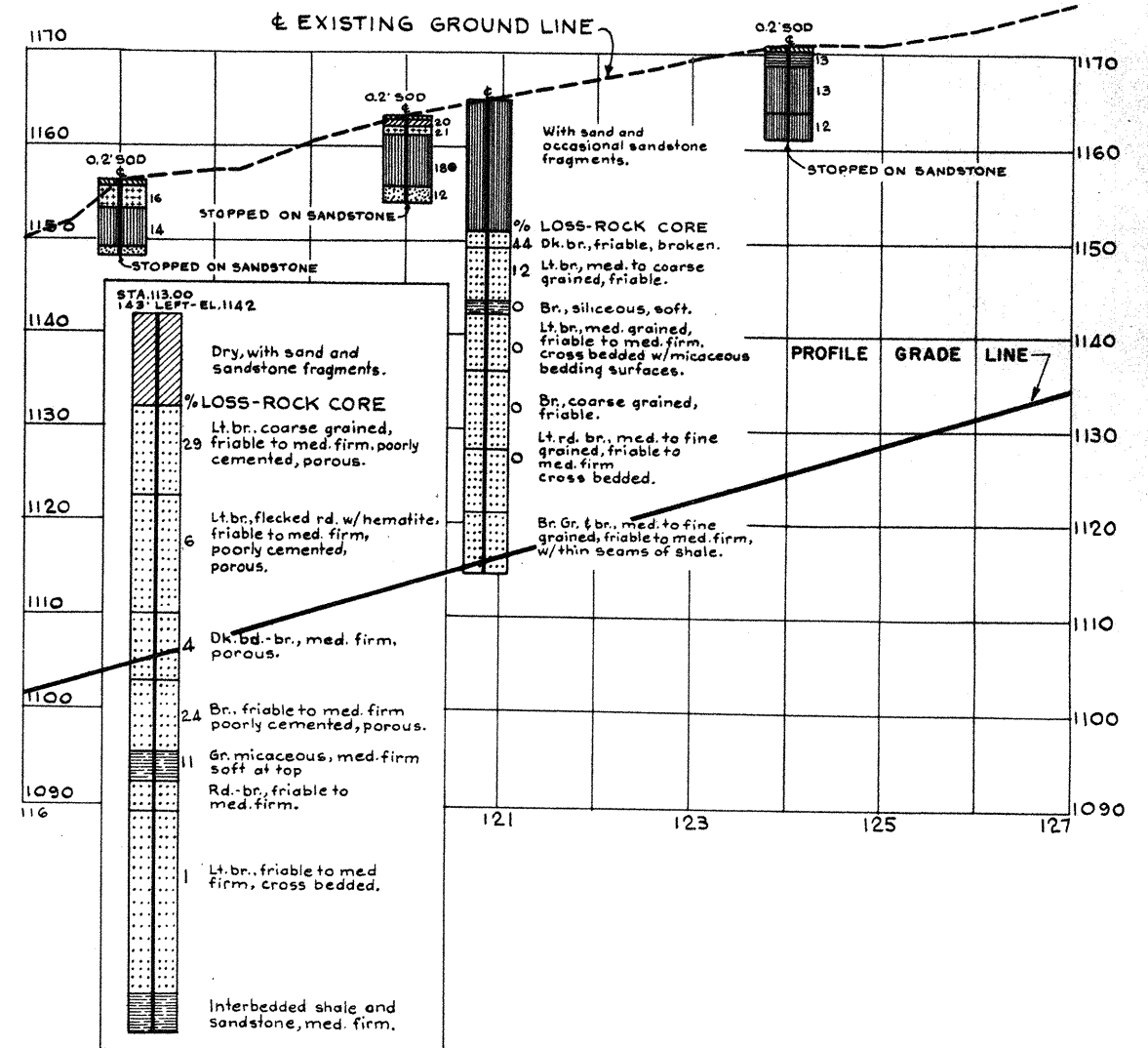
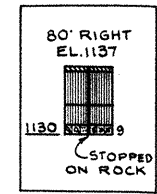
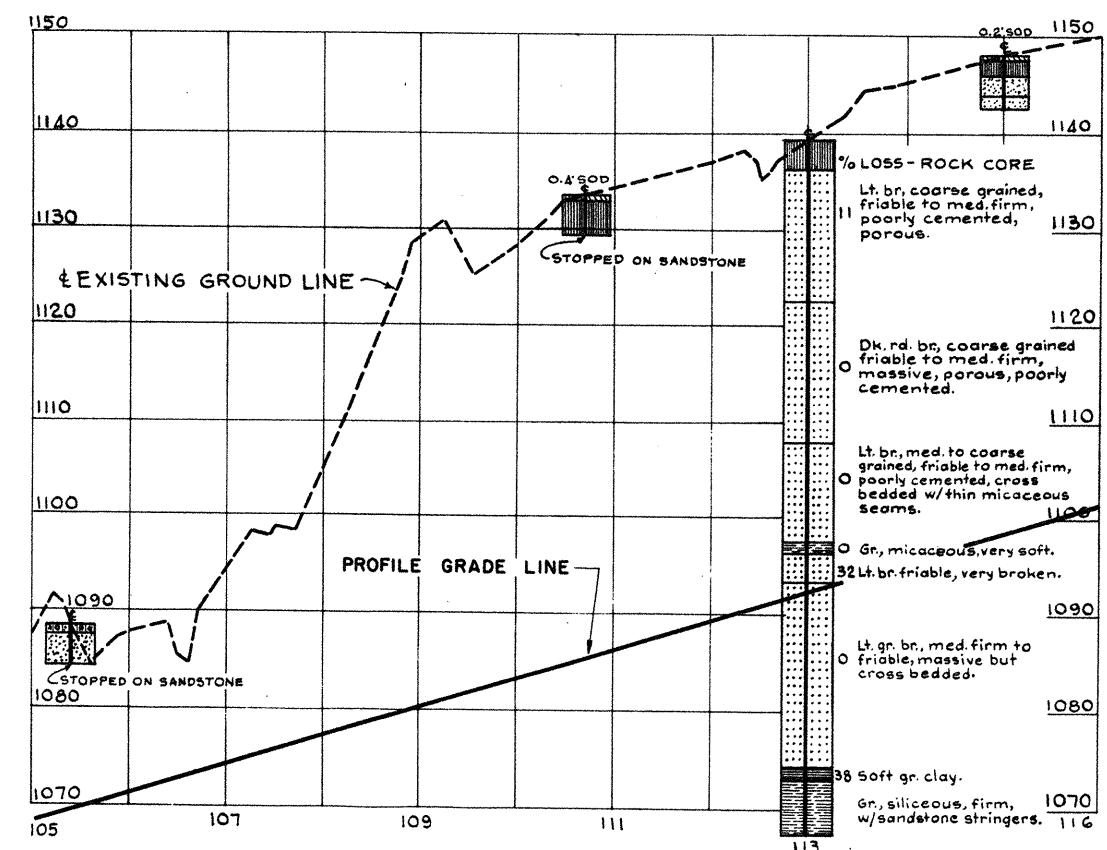
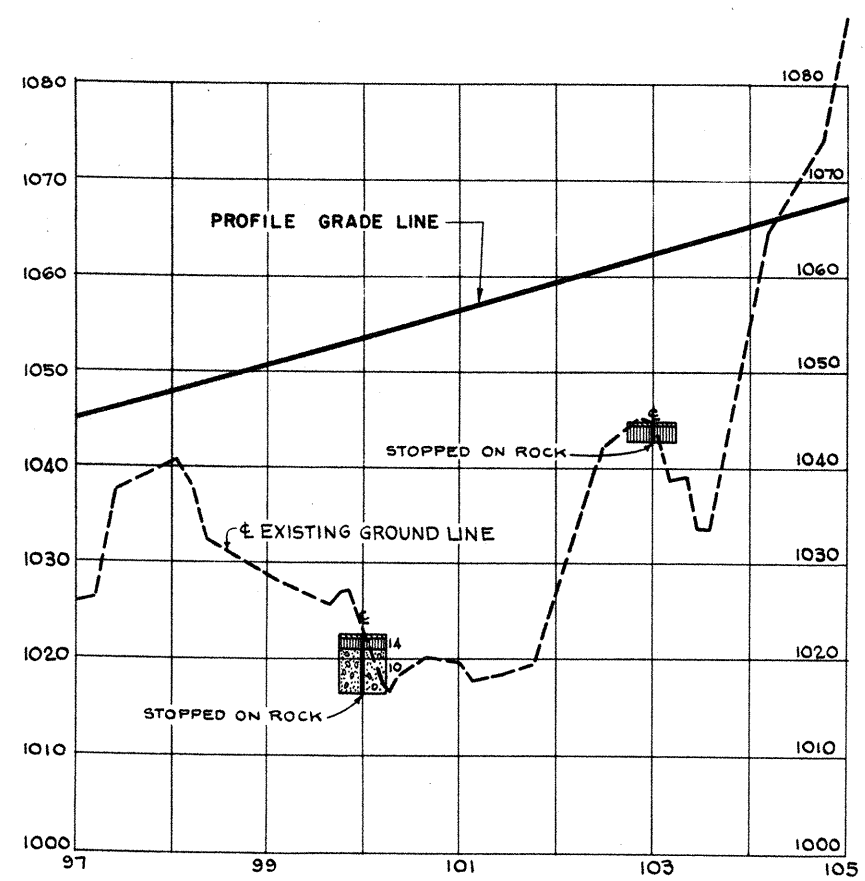
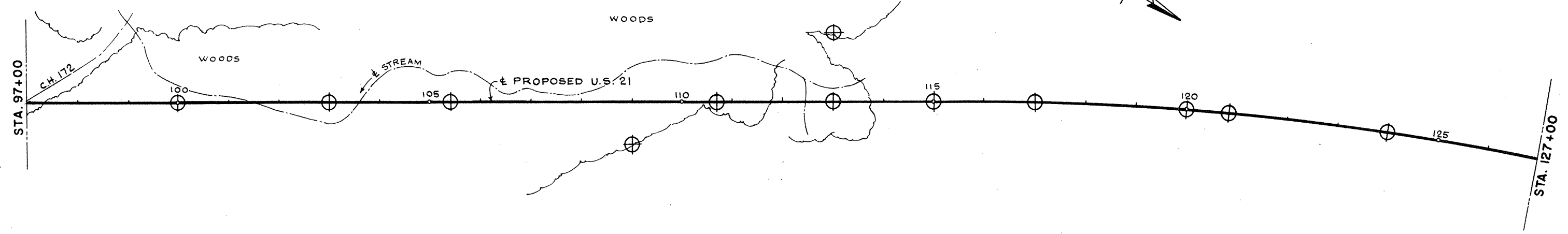
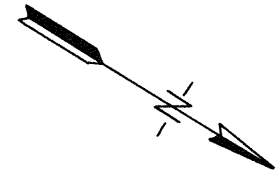
STATE HIGHWAY TESTING AND
 RESEARCH LABORATORY
 O.S.U. CAMPUS, COLUMBUS, OHIO



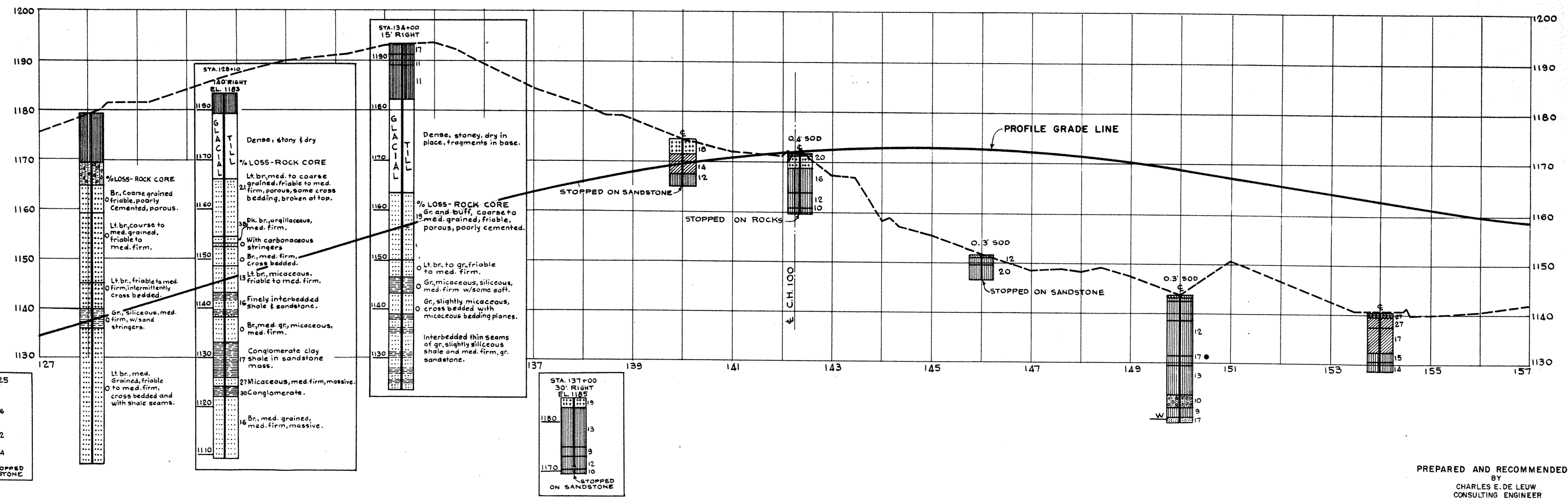
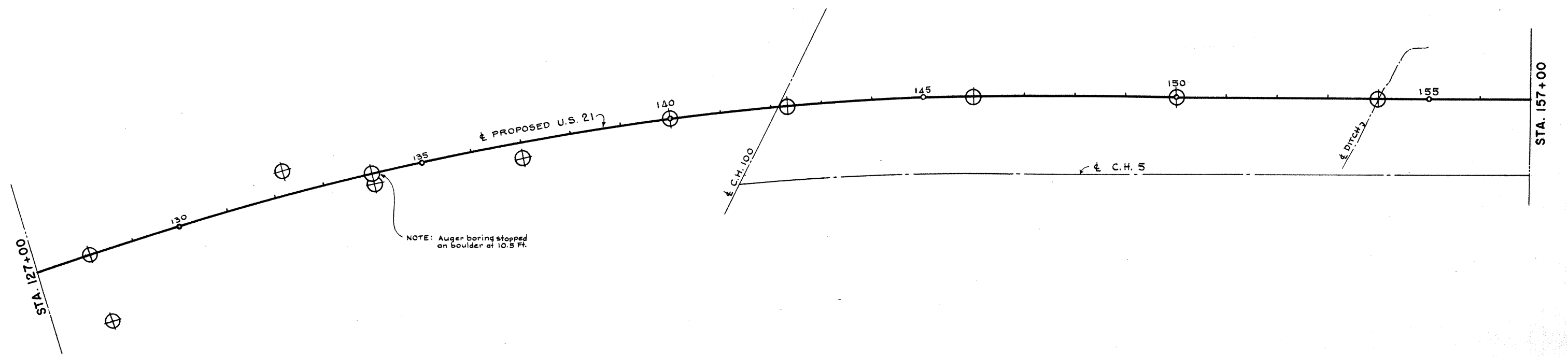
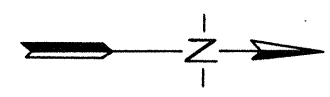
PREPARED AND RECOMMENDED
 BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS



PREPARED AND RECOMMENDED BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS



PREPARED AND RECOMMENDED BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS



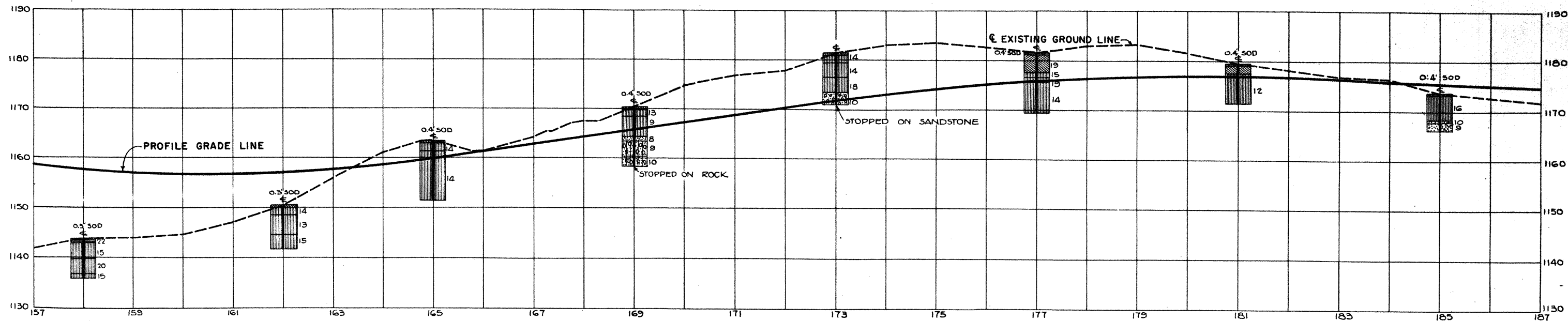
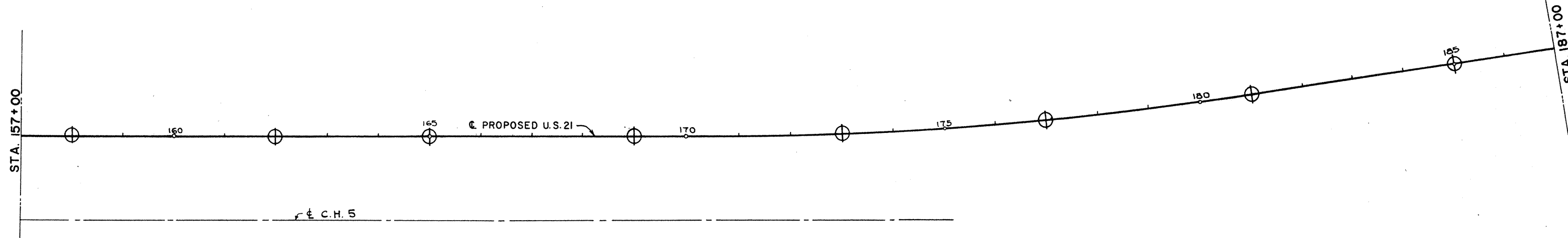
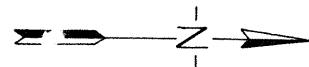
PREPARED AND RECOMMENDED BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

SOIL PROFILE

STA - 21 - 17.80
 WAY - 21 - 0.00
 SUM - 21 - 0.00

15
20

STATE HIGHWAY TESTING AND
 RESEARCH LABORATORY
 O.S.U. CAMPUS, COLUMBUS, OHIO



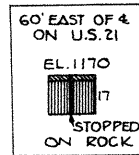
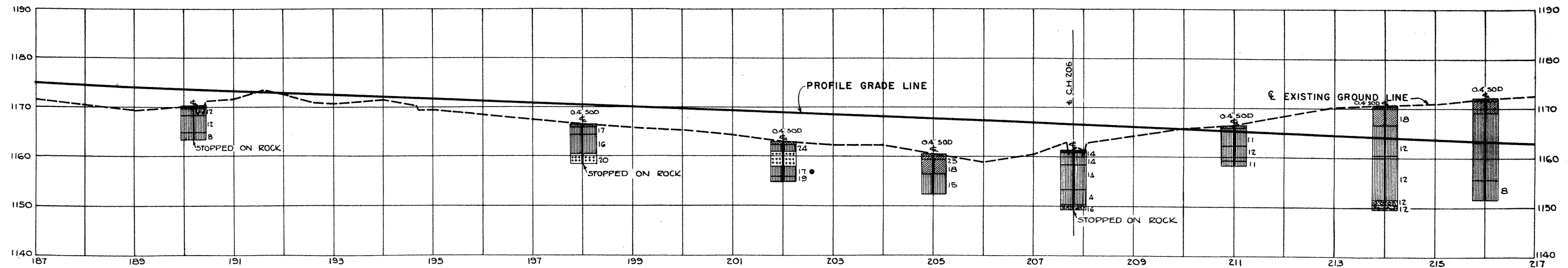
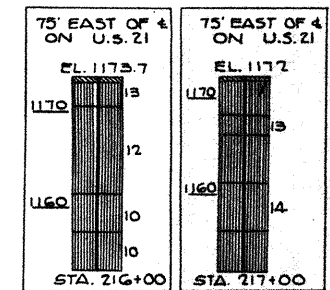
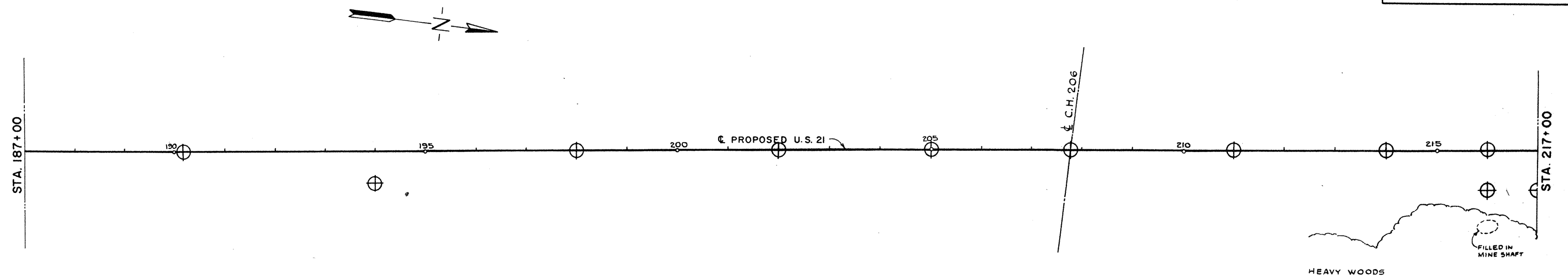
PREPARED AND RECOMMENDED
 BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

SOIL PROFILE

STA - 21 - 17.80
 WAY - 21 - 0.00
 SUM - 21 - 0.00

16
20

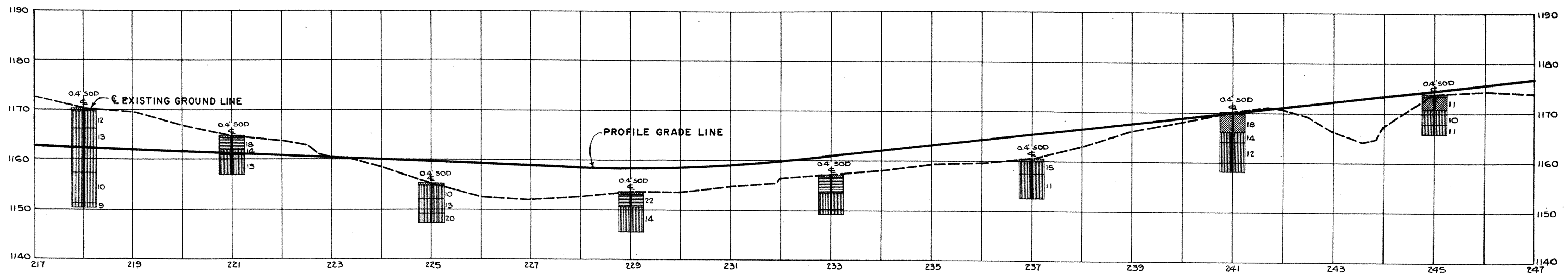
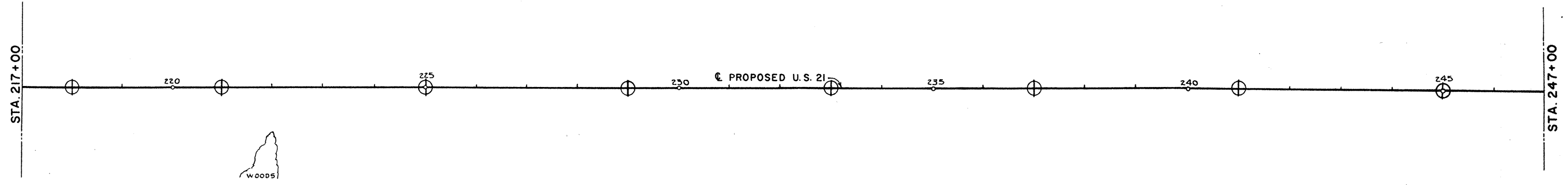
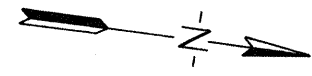
STATE HIGHWAY TESTING AND
 RESEARCH LABORATORY
 O.S.U. CAMPUS, COLUMBUS, OHIO



PREPARED AND RECOMMENDED
 BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

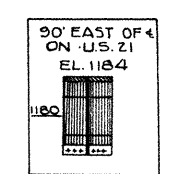
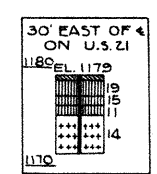
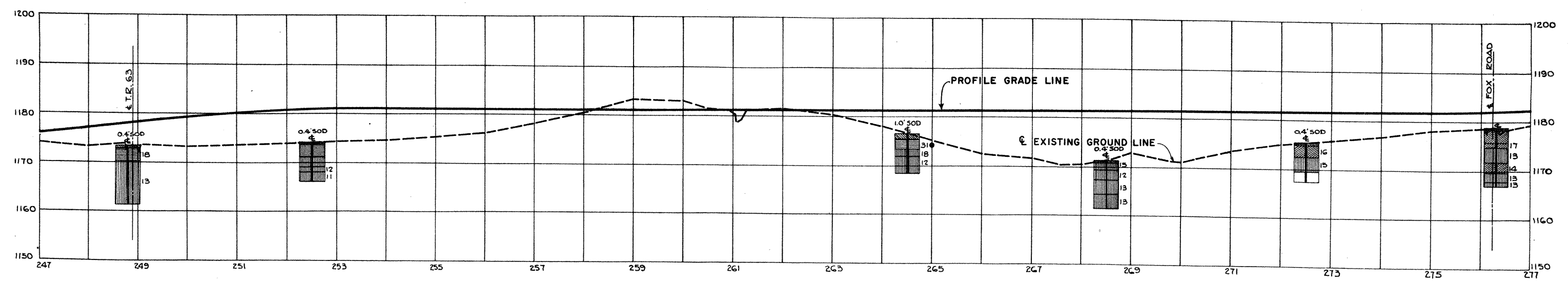
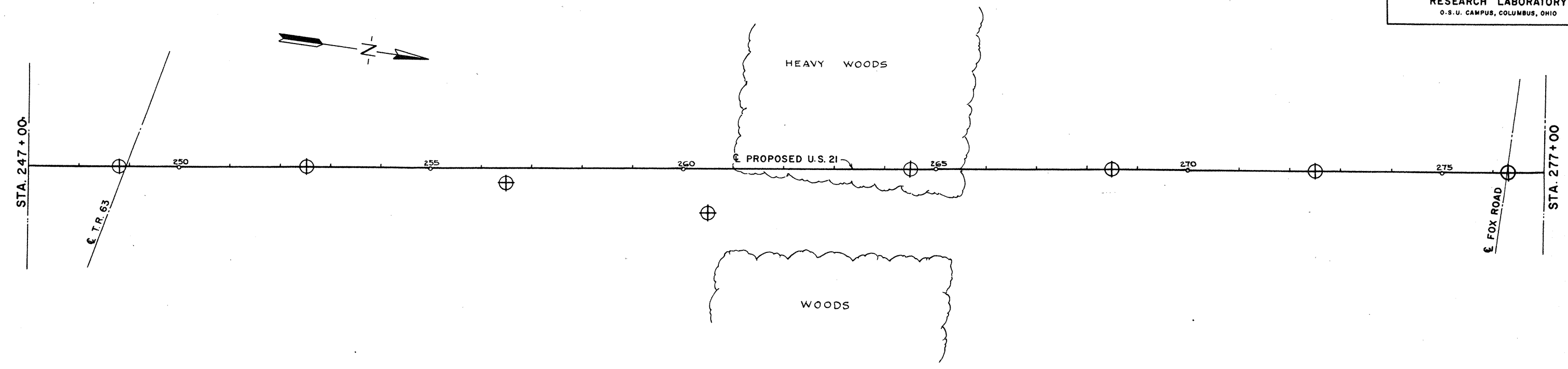
SOIL PROFILE
 STA - 21 - 17.80
 WAY - 21 - 0.00
 SUM - 21 - 0.00
 STATE HIGHWAY TESTING AND
 RESEARCH LABORATORY
 O. S. U. CAMPUS, COLUMBUS, OHIO

17
20



PREPARED AND RECOMMENDED
 BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

STA. 217+00 TO STA. 247+00



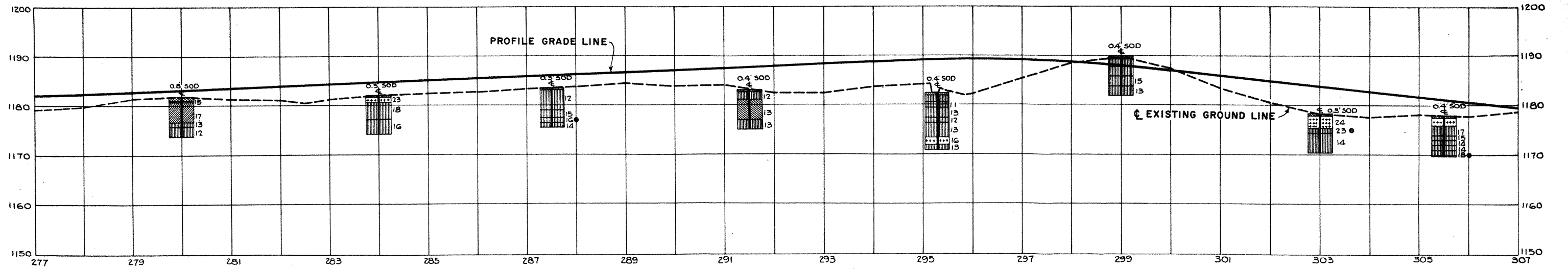
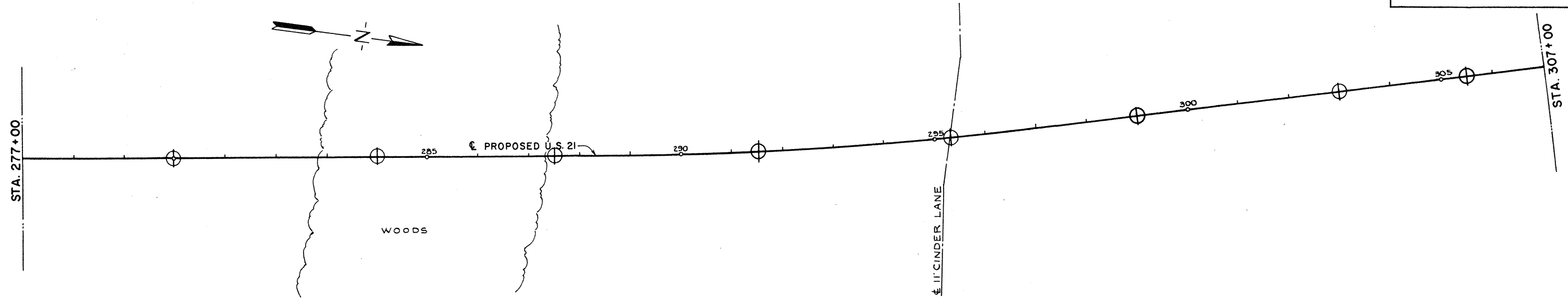
PREPARED AND RECOMMENDED BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

SOIL PROFILE

STA - 21 - 17.80
 WAY - 21 - 0.00
 SUM - 21 - 0.00

STATE HIGHWAY TESTING AND
 RESEARCH LABORATORY
 O.S.U. CAMPUS, COLUMBUS, OHIO

19
 20



PREPARED AND RECOMMENDED
 BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS

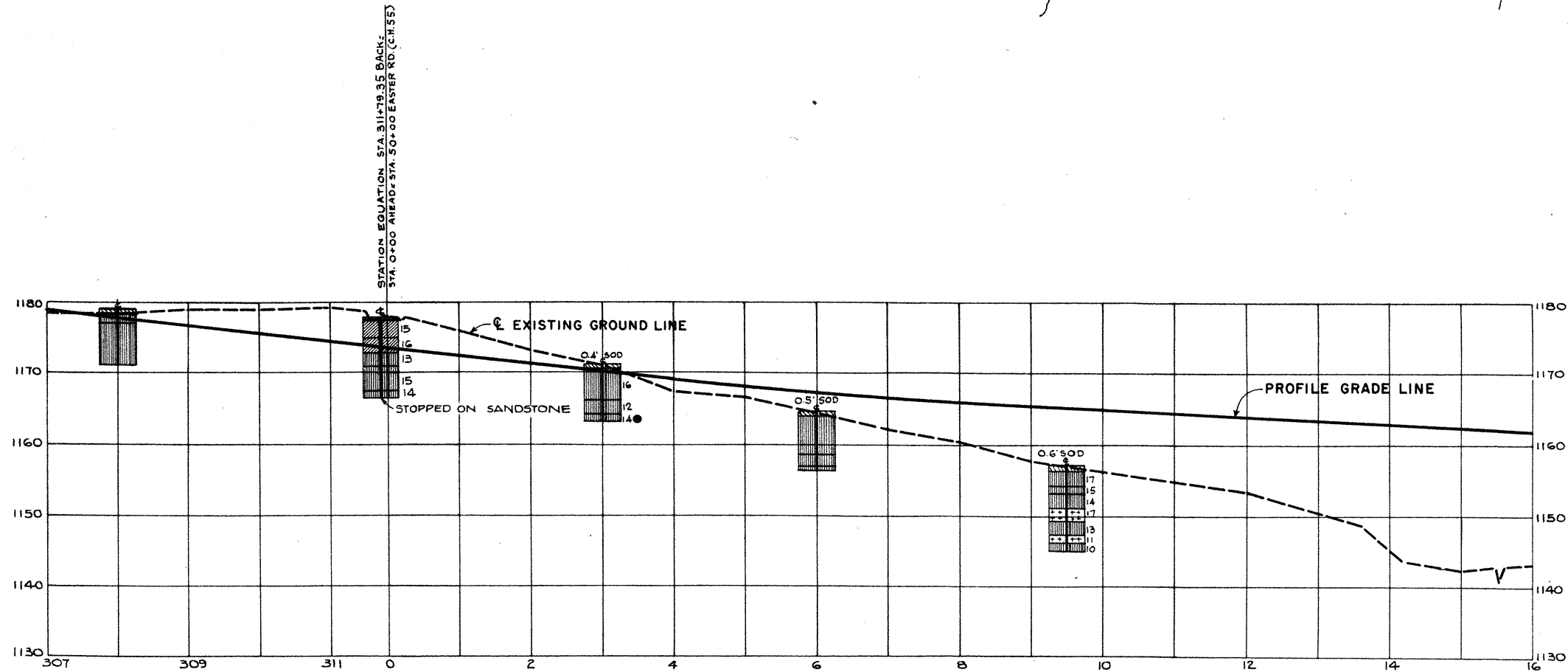
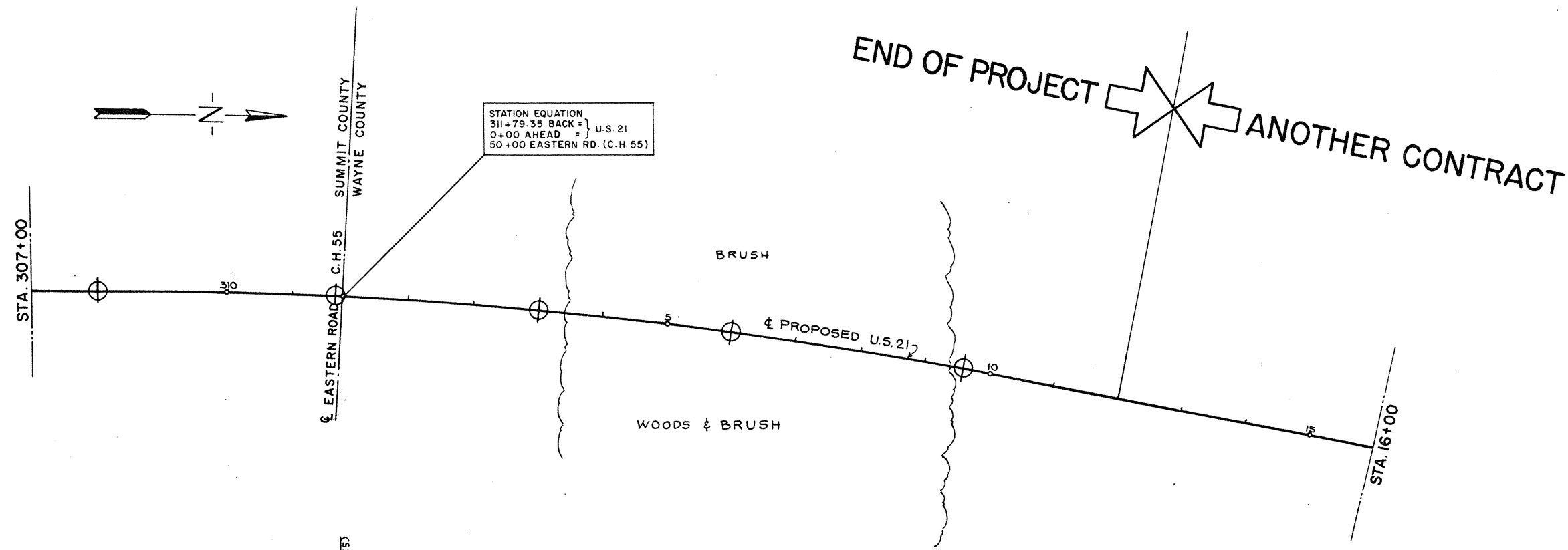
STA. 277 +00 TO STA. 307 +00

SOIL PROFILE

STA - 21 - 17.80
 WAY - 21 - 0.00
 SUM - 21 - 0.00

20
20

STATE HIGHWAY TESTING AND
 RESEARCH LABORATORY
 O.S.U. CAMPUS, COLUMBUS, OHIO



PREPARED AND RECOMMENDED
 BY
 CHARLES E. DE LEUW
 CONSULTING ENGINEER
 CHICAGO ILLINOIS