

Missouri Department of Transportation

3025 East Kearney Street
P.O. Box 868
Springfield, Missouri 65801
417.895.7600

TO: File

FROM: Dorothy Halbrook
Senior Traffic Studies Specialist
Andrew Wall
Traffic Engineering Intern

DATE: June 26th, 2022

SUBJECT: Right and Left Turn Lane Study
US 60 at MO 97
Barry County

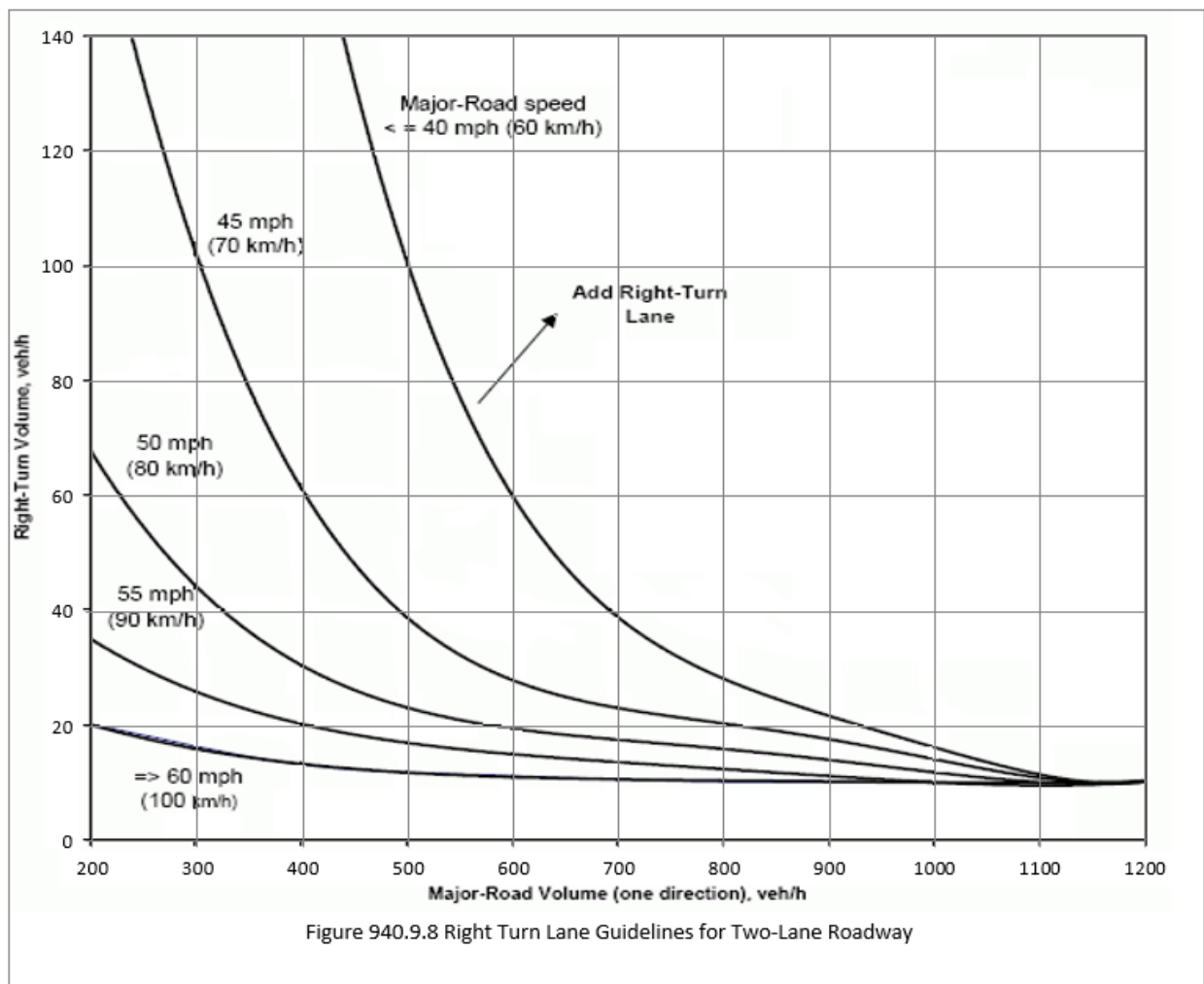
The purpose of this study is to determine whether the intersection of US 60 and MO 97 in Barry County meet the criteria in the EPG for the installation of any left or right turn lanes. The study has been completed in response to scoping of a project addressing adding turn lanes along US 60.

US 60 is a two-lane principal arterial with a speed limit of 65 MPH through the intersection of MO 97. The existing left turn lanes are for EB US 60 to SB MO 97 and for WB US 60 to NB MO 97. MO 97 is a two-lane major collector with a speed limit of 55 mph through the intersection of US 60. There are no existing turn lanes on this segment of MO 97. See the aerial below to see the existing conditions.



EASTBOUND US 60 RIGHT TURN LANE VOLUME WARRANT:

TRAFFIC VOLUME INFORMATION: a 13-hour traffic count was performed at the intersection of US 60 and MO 97 in August of 2021. The speed limit of US 60 at this intersection is 65 MPH. Traffic was counted from 6:00 AM to 7:00 PM. During this time, there were a total of 117 EB US 60 to NB MO 97 right turning vehicles. The total eastbound thru volume was 1870 vehicles. The right turn volume makes up 6.3% of the eastbound traffic on US 60. The peak right turning volume was 13 vehicles per hour out of 178 vehicles.



The blue diamond shows where the right turning volumes of the advancing traffic and the total advancing traffic volumes intersect for each hour of the traffic count. Less than 200 vehicles turned on to MO 97, so there are no diamonds shown on the chart. Therefore, the intersection falls **below** the 60 MPH line for at two-lane road, and therefore, the volume warrant for a EB right turn lane is **not met**.

FIVE YEAR CRASH RATE INFORMATION:

Below is the relevant crash history for the intersection of US 60 and MO 97 from January 1st, 2017 to December 31, 2021. The intersection showed 0 relevant crashes at this location.

No. of Crashes	0
No. of Days	1825
Entering AADT	4960 (2021)

An intersection crash rate can be calculated using the formula below.

$$\text{CR} = (\text{number of crashes} \times 10\text{E}6) / (\text{No. of days} \times \text{Entering AADT})$$
$$\text{CR} = (0 \times 10\text{E}6) / (1825 \times 4960) = 0$$

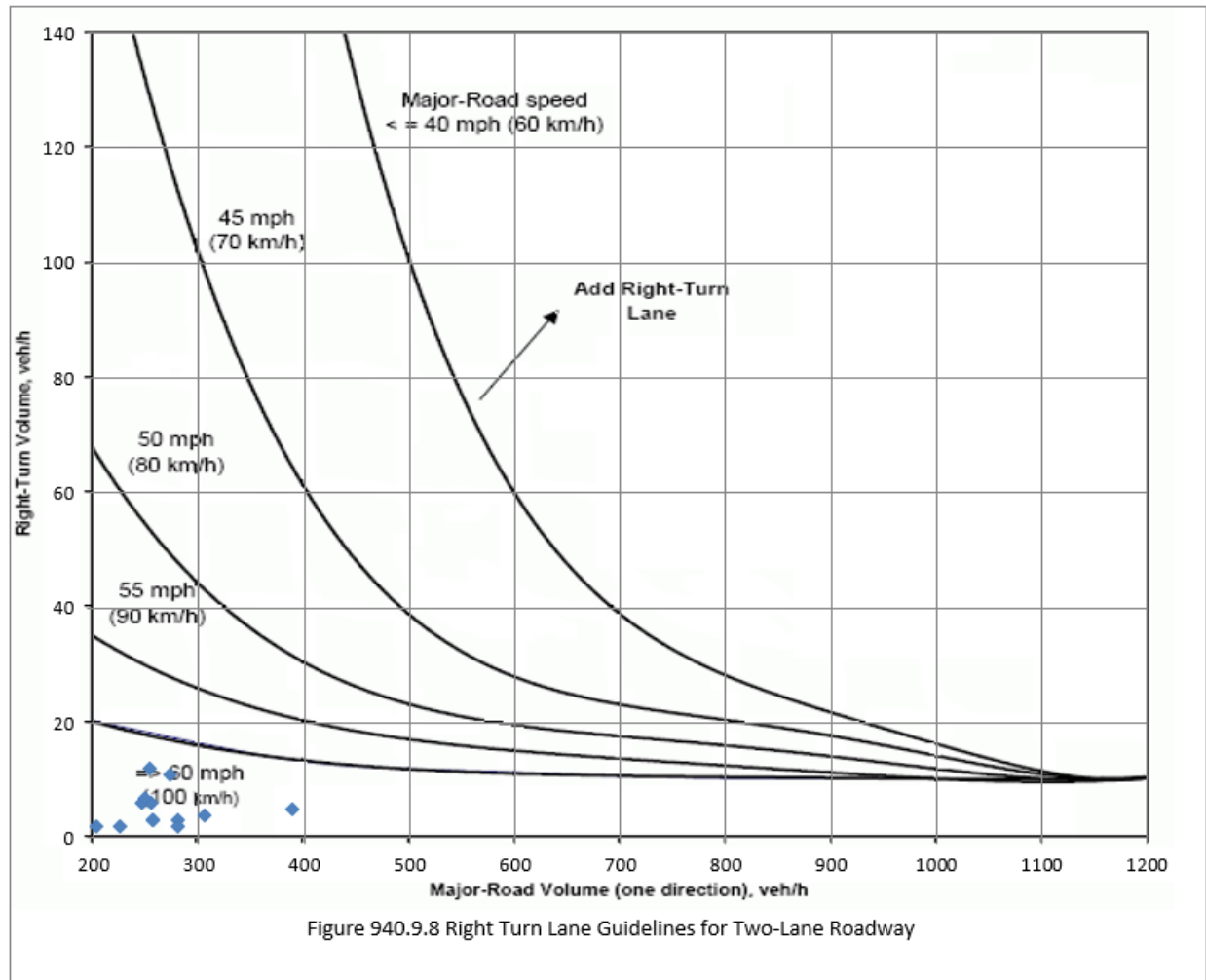
US 60						
Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	0	0	0	0	0	0
Total	0	0	0	0	0	0

The crash classes are shown in the following table.

US 60						
Crash Class	2017	2018	2019	2020	2021	Total
Rear End	0	0	0	0	0	0
Total	0	0	0	0	0	0

WESTBOUND US 60 RIGHT TURN LANE VOLUME WARRANT:

TRAFFIC VOLUME INFORMATION: a 13-hour traffic count was performed at the intersection of US 60 and MO 97 in August of 2021. The speed limit of US 60 at this intersection is 65 MPH. Traffic was counted from 6:00 AM to 7:00 PM. During this time, there were a total of 559 WB US 60 to NB MO 97 right turning vehicles. The total westbound thru volume was 2416 vehicles. The right turn volume makes up 23.1% of the westbound traffic on US 60. The peak right turning volume was 66 vehicles per hour out of 254 vehicles.



The blue diamond shows where the right turning volumes of the advancing traffic and the total advancing traffic volumes intersect for each hour of the traffic count. Therefore, the intersection falls **below** the 60 MPH line for at two-lane road, and therefore the volume warrant for a EB right turn lane is **not met**.

FIVE YEAR CRASH RATE INFORMATION:

Below is the relevant crash history for the intersection of US 60 and MO 97 from January 1st, 2017 to December 31, 2021. The intersection showed 1 relevant crash at this location.

No. of Crashes	1
No. of Days	1825
Entering AADT	4833 (2021)

An intersection crash rate can be calculated using the formula below.

$$\text{CR} = (\text{number of crashes} \times 10\text{E}6) / (\text{No. of days} \times \text{Entering AADT})$$
$$\text{CR} = (1 \times 10\text{E}6) / (1825 \times 4833) = 1.13$$

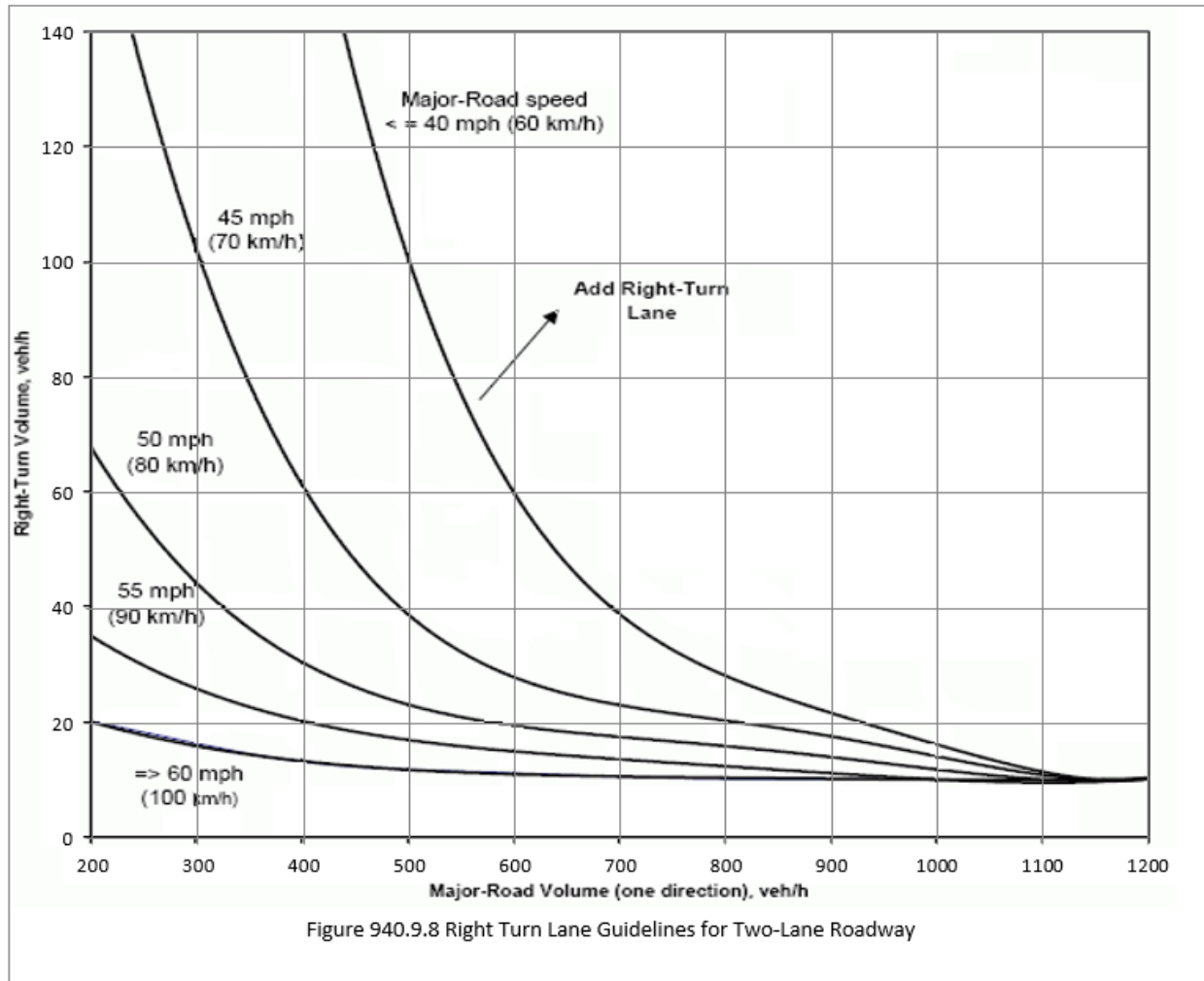
US 60						
Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	1	0	1
Property Damage Only	0	0	0	0	0	0
Total	0	0	0	1	0	1

The crash classes are shown in the following table.

US 60						
Crash Class	2017	2018	2019	2020	2021	Total
Angle	0	0	0	1	0	1
Total	0	0	0	1	0	1

NORTHBOUND MO 97 RIGHT TURN LANE VOLUME WARRANT:

TRAFFIC VOLUME INFORMATION: a 13-hour traffic count was performed at the intersection of US 60 and MO 97 in August of 2021. The speed limit of MO 97 at this intersection is 55 MPH. Traffic was counted from 6:00 AM to 7:00 PM. During this time, there were a total of 254 NB MO 97 to EB US 60 right turning vehicles. The total northbound thru volume was 575 vehicles. The right turn volume makes up 44.2% of the northbound traffic on MO 97. The peak right turning volume was 33 vehicles per hour out of 66 vehicles.



The total advancing traffic volumes intersect for each hour of the traffic count never reach the 200 veh/h required to show on this chart. Therefore, the intersection falls **below** the 55 MPH line for at two-lane road, and therefore the volume warrant for a NB right turn lane is **not met**.

FIVE YEAR CRASH RATE INFORMATION:

Below is the relevant crash history for the intersection of US 60 and MO 97 from January 1st, 2017 to December 31, 2021. The intersection showed 0 relevant crashes at this location.

No. of Crashes	0
No. of Days	1825
Entering AADT	360 (2021)

An intersection crash rate can be calculated using the formula below.

$$\text{CR} = (\text{number of crashes} \times 10\text{E}6) / (\text{No. of days} \times \text{Entering AADT})$$
$$\text{CR} = (0 \times 10\text{E}6) / (1825 \times 360) = 0.00$$

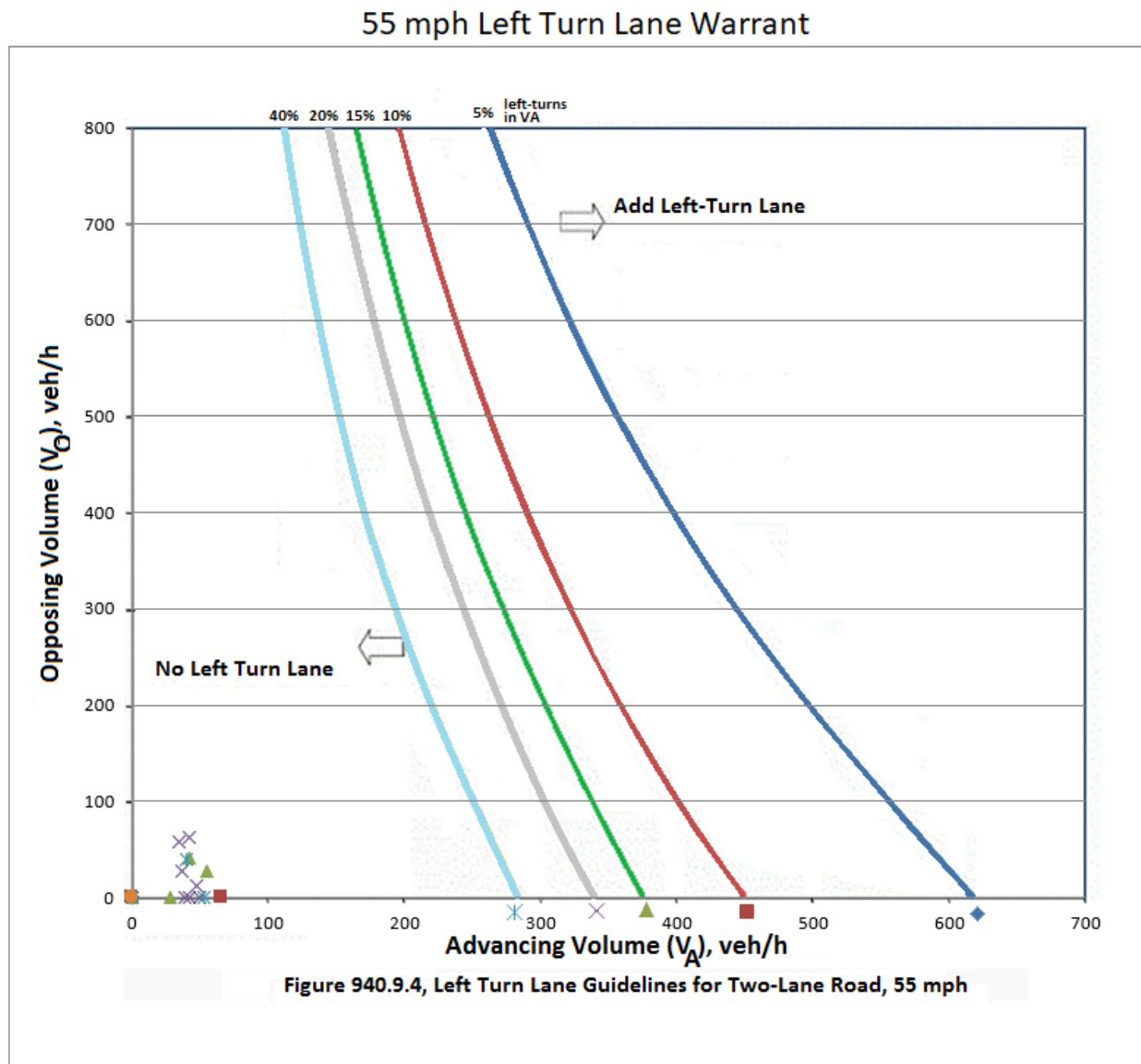
MO 97						
Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	0	0	0	0	0	0
Total	0	0	0	0	0	0

The crash classes are shown in the following table.

MO 97						
Crash Class	2017	2018	2019	2020	2021	Total
Angle	0	0	0	0	0	0
Total	0	0	0	0	0	0

NORTHBOUND MO 97 LEFT TURN LANE VOLUME WARRANT:

TRAFFIC VOLUME INFORMATION: a 13-hour traffic count was performed at the intersection of US 60 and MO 97 in August of 2021. The speed limit of MO 97 at this intersection is 55 MPH. Traffic was counted from 6:00 AM to 7:00 PM. During this time, there were a total of 92 NB MO 97 to WB US 60 right turning vehicles. The total northbound thru volume was 575 vehicles. The left turn volume makes up 16.0% of the northbound traffic on MO 97. The peak left turning volume was 12 vehicles per hour out of 53 vehicles.



The dots show where the left turning volumes of the advancing traffic and the total opposing traffic volumes intersect for each hour of the traffic count. The dots fall below the appropriate line, and therefore the volume warrant for a NB left turn lane is **not met**.

FIVE YEAR CRASH RATE INFORMATION:

Below is the relevant crash history for the intersection of US 60 and MO 97 from January 1st, 2017 to December 31, 2021. The intersection showed 0 relevant crashes at this location.

No. of Crashes	0
No. of Days	1825
Entering AADT	360 (2021)

An intersection crash rate can be calculated using the formula below.

$$\text{CR} = (\text{number of crashes} \times 10\text{E}6) / (\text{No. of days} \times \text{Entering AADT})$$
$$\text{CR} = (0 \times 10\text{E}6) / (1825 \times 360) = 0.00$$

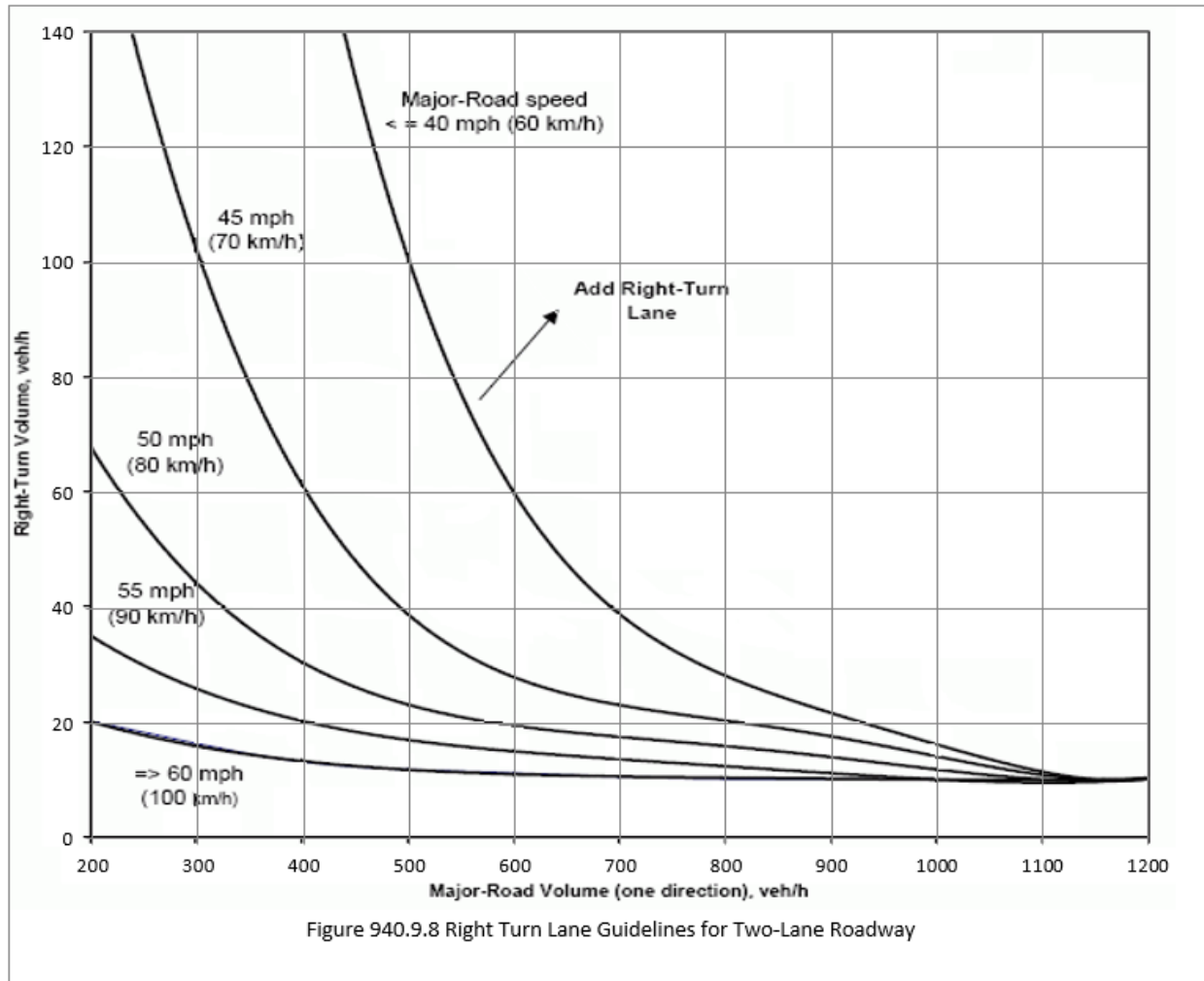
MO 97						
Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	0	0	0	0	0	0
Total	0	0	0	0	0	0

The crash classes are shown in the following table.

MO 97						
Crash Class	2017	2018	2019	2020	2021	Total
Angle	0	0	0	0	0	0
Total	0	0	0	0	0	0

SOUTHBOUND MO 97 RIGHT TURN LANE VOLUME WARRANT:

TRAFFIC VOLUME INFORMATION: a 13-hour traffic count was performed at the intersection of US 60 and MO 97 in August of 2021. The speed limit of MO 97 at this intersection is 55 MPH. Traffic was counted from 6:00 AM to 7:00 PM. During this time, there were a total of 256 SB MO 97 to WB US 60 right turning vehicles. The total southbound thru volume was 1007 vehicles. The right turn volume makes up 25.4% of the southbound traffic on MO 97. The peak right turning volume was 28 vehicles per hour out of 93 vehicles.



The total advancing traffic volumes intersect for each hour of the traffic count never reach the 200 veh/h required to show on this chart. Therefore, the intersection falls **below** the 55 MPH line for at two-lane road, and therefore the volume warrant for a EB right turn lane is **not met**.

FIVE YEAR CRASH RATE INFORMATION:

Below is the relevant crash history for the intersection of US 60 and MO 97 from January 1st, 2017 to December 31, 2021. The intersection showed 0 relevant crashes at this location.

No. of Crashes	0
No. of Days	1825
Entering AADT	1009 (2021)

An intersection crash rate can be calculated using the formula below.

$$\text{CR} = (\text{number of crashes} \times 10\text{E}6) / (\text{No. of days} \times \text{Entering AADT})$$
$$\text{CR} = (0 \times 10\text{E}6) / (1825 \times 1009) = 0.00$$

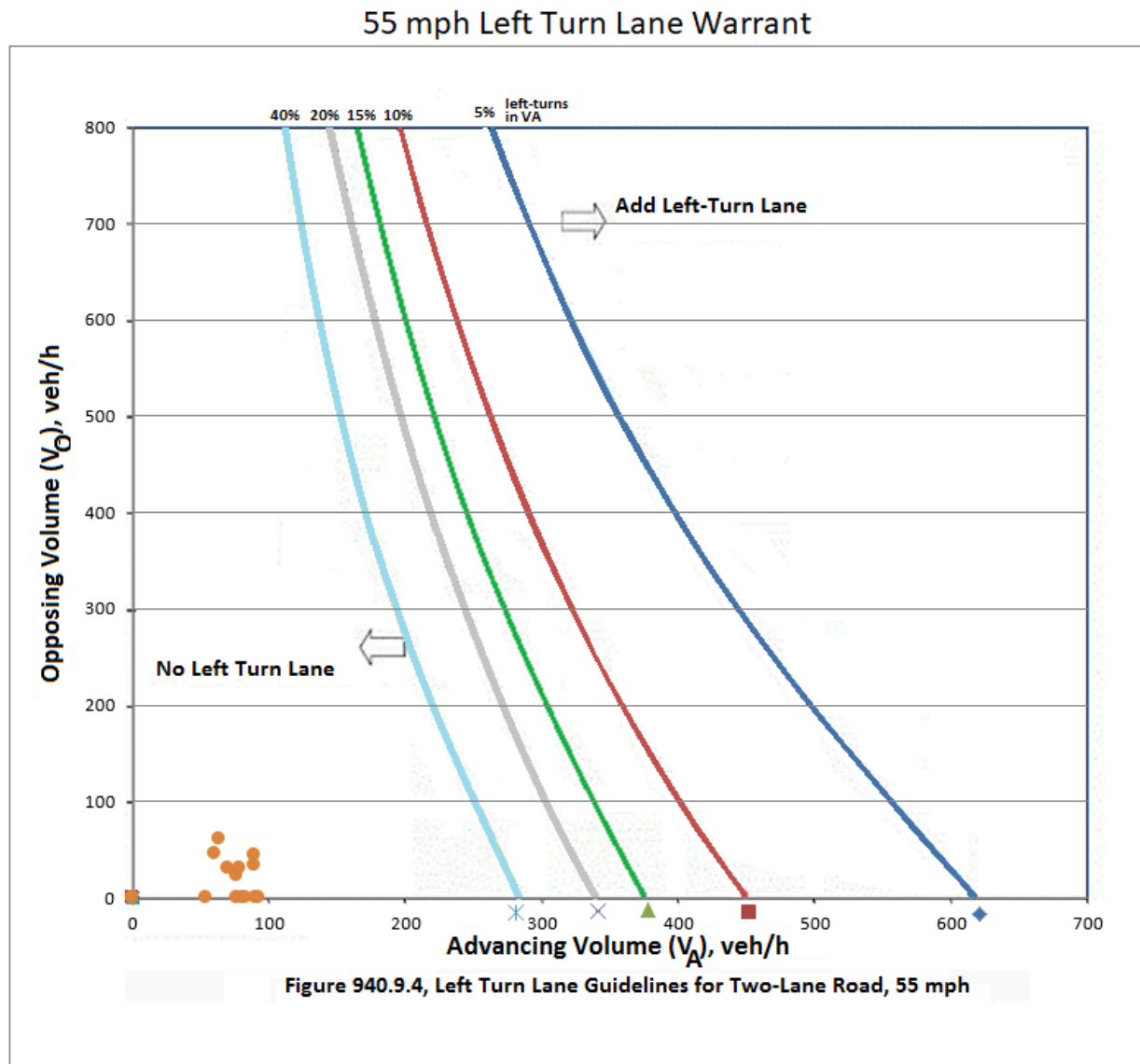
MO 97						
Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	0	0	0	0	0	0
Total	0	0	0	0	0	0

The crash classes are shown in the following table.

MO 97						
Crash Class	2017	2018	2019	2020	2021	Total
Angle	0	0	0	0	0	0
Total	0	0	0	0	0	0

SOUTHBOUND MO 97 LEFT TURN LANE VOLUME WARRANT:

TRAFFIC VOLUME INFORMATION: a 13-hour traffic count was performed at the intersection of US 60 and MO 97 in August of 2021. The speed limit of MO 97 at this intersection is 55 MPH. Traffic was counted from 6:00 AM to 7:00 PM. During this time, there were a total of 528 SB MO 97 to EB US 60 right turning vehicles. The total southbound thru volume was 1007 vehicles. The left turn volume makes up 52.4% of the southbound traffic on MO 97. The peak left turning volume was 53 vehicles per hour out of 89 vehicles.



The dots show where the left turning volumes of the advancing traffic and the total opposing traffic volumes intersect for each hour of the traffic count. The dots fall below the appropriate line, and therefore the volume warrant for a NB left turn lane is **not met**.

FIVE YEAR CRASH RATE INFORMATION:

Below is the relevant crash history for the intersection of US 60 and MO 97 from January 1st, 2017 to December 31, 2021. The intersection showed 0 relevant crashes at this location.

No. of Crashes	0
No. of Days	1825
Entering AADT	360 (2021)

An intersection crash rate can be calculated using the formula below.

$$\text{CR} = (\text{number of crashes} \times 10\text{E}6) / (\text{No. of days} \times \text{Entering AADT})$$
$$\text{CR} = (0 \times 10\text{E}6) / (1825 \times 360) = 0.00$$

MO 97						
Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	0	0	0	0	0	0
Total	0	0	0	0	0	0

The crash classes are shown in the following table.

MO 97						
Crash Class	2017	2018	2019	2020	2021	Total
Angle	0	0	0	0	0	0
Total	0	0	0	0	0	0

COMMENTS:

There is not a sufficient crash history and traffic volumes to warrant the installation of any right or left turn lanes on US 60 at MO 97 currently. There are 12 (twelve) right-angle crashes here due to traffic trying to turn left from EB US 60 onto NB MO 97, from NB MO 97 onto WB US 60, from SB MO 97 to WB US 60 or crossing MO 97 from either direction. These crashes are not correctable by adding turn lanes. One crash could be corrected by a right turn lane from WB US 60 to NB MO 97. It is not recommended to add any turn lanes at this time. However, due to the number of crashes, it is recommended to study the possibility of adding a roundabout with a future project.

Missouri Department of Transportation

3025 East Kearney Street
P.O. Box 868
Springfield, Missouri 65801
417.895.7600

TO: File

FROM: Dorothy Halbrook
Senior Traffic Studies Specialist

DATE: June 22nd, 2022

SUBJECT: Left and Right Turn Lane Study
US 60 at Hammer Rd
Newton County

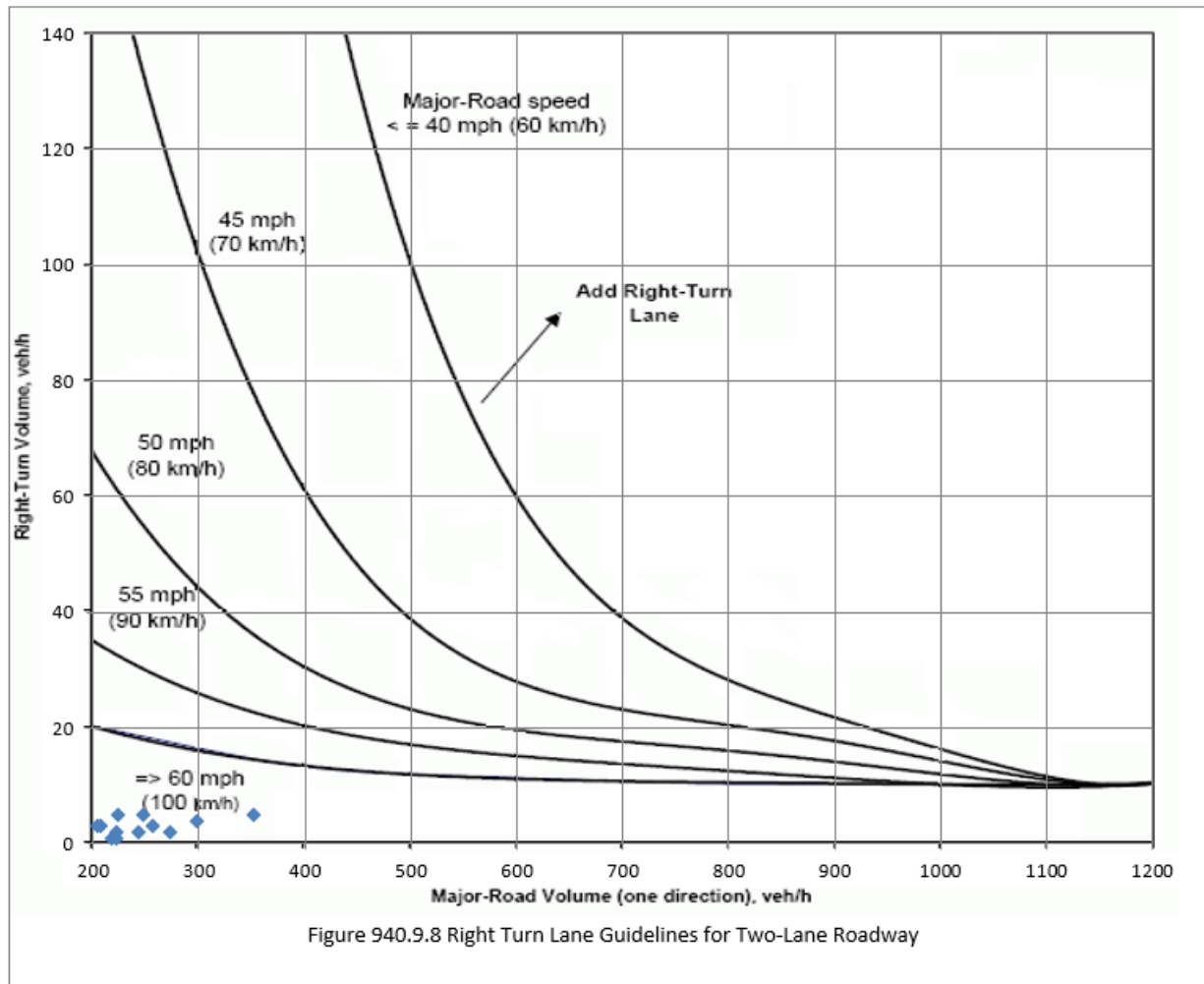
The purpose of this study is to determine whether the intersection of US 60 and Hammer Rd in Newton County meet the criteria in the EPG for the installation of any left or right turn lanes. The study has been completed in response to scoping of a project addressing adding turn lanes along US 60.

US 60 is a super two-lane principal arterial with a speed limit of 60 MPH through the intersection of Hammer Rd. Hammer Rd is a city road with a speed limit of 45 mph through the intersection of US 60. There are no existing turn lanes on this segment of Hammer Rd. See the aerial below to see the existing conditions.



EASTBOUND US 60 RIGHT TURN LANE VOLUME WARRANT:

TRAFFIC VOLUME INFORMATION: a 13-hour traffic count was performed at the intersection of US 60 and Hammer Rd in August of 2021. The speed limit of US 60 at this intersection is 60 MPH. Traffic was counted from 6:00 AM to 7:00 PM. During this time, there were a total of 40 EB US 60 to SB Hammer Rd right turning vehicles. The total eastbound thru volume was 3157 vehicles. The right turn volume makes up 1.3% of the eastbound traffic on US 60. The peak right turning volume was 5 vehicles per hour out of 351 vehicles.



The blue diamond shows where the right turning volumes of the advancing traffic and the total advancing traffic volumes intersect for each hour of the traffic count. Therefore, the intersection falls **below** the 60 MPH line for a two-lane road, and therefore the volume warrant for a EB right turn lane is **not met**.

FIVE YEAR CRASH RATE INFORMATION:

Below is the relevant crash history for the intersection of US 60 and Hammer Rd from January 1st, 2016 to December 31, 2020. The intersection showed 0 relevant crashes at this location.

No. of Crashes	1
No. of Days	1825
Entering AADT	4926 (2021)

An intersection crash rate can be calculated using the formula below.

$$\text{CR} = (\text{number of crashes} \times 10\text{E}6) / (\text{No. of days} \times \text{Entering AADT})$$
$$\text{CR} = (1 \times 10\text{E}6) / (1825 \times 4926) = 1.11$$

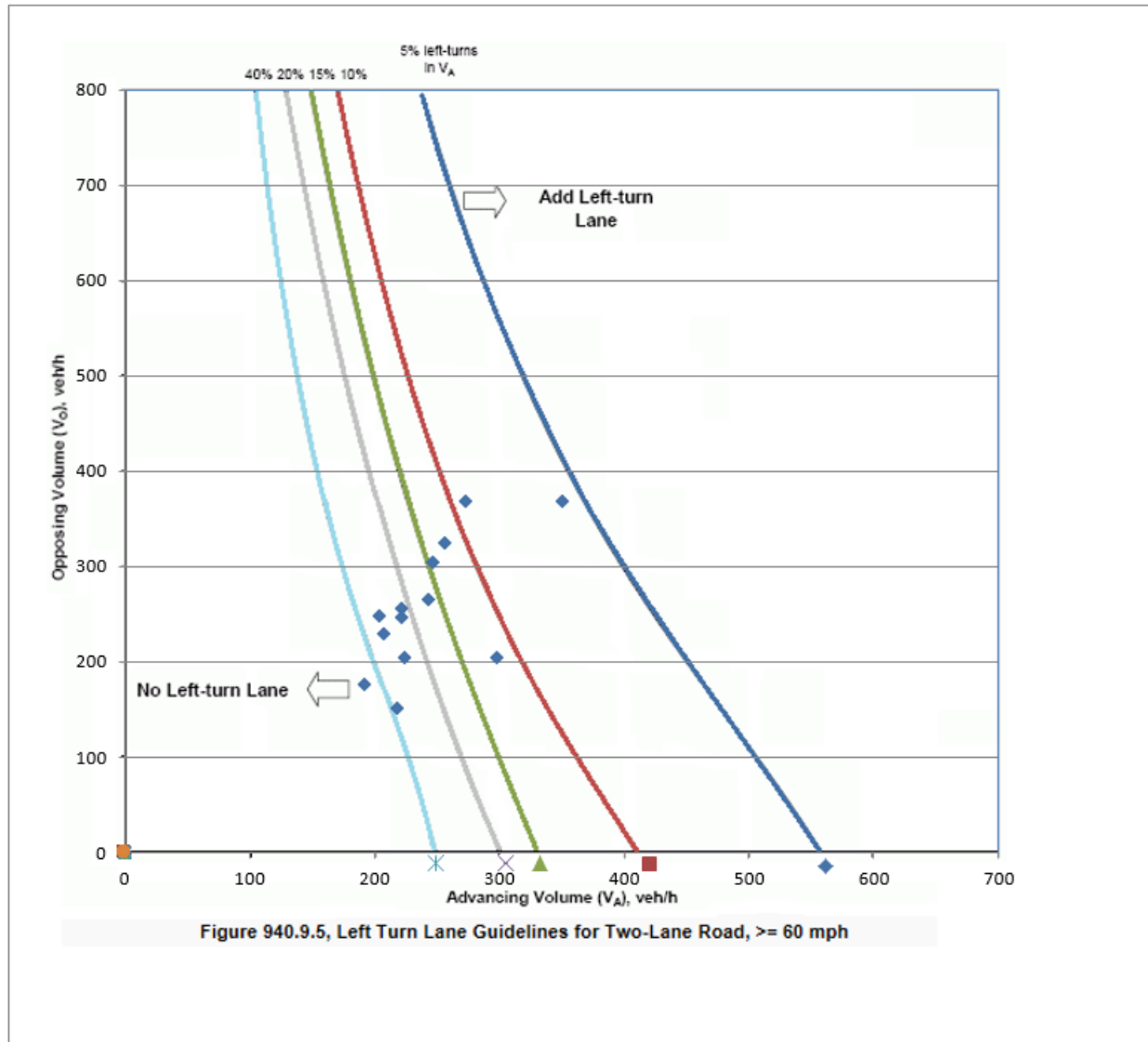
US 60							
Severity Rating	2016	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0	0
Property Damage Only	0	0	1	0	0	0	1
Total	0	0	1	0	0	0	1

The crash classes are shown in the following table.

US 60							
Crash Class	2016	2017	2018	2019	2020	2021	Total
Right Turn	0	0	0	0	1	0	1
Total	0	0	0	0	1	0	1

EASTBOUND US 60 LEFT TURN LANE VOLUME WARRANT:

TRAFFIC VOLUME INFORMATION: a 13-hour traffic count was performed at the intersection of US 60 and Hammer Rd in August of 2021. The speed limit of US 60 at this intersection is 60 MPH. Traffic was counted from 6:00 AM to 7:00 PM. During this time, there were a total of 36 EB US 60 to NB Hammer Rd left turning vehicles. The total eastbound thru volume was 3157 vehicles. The left turn volume makes up 1.1% of the eastbound traffic on US 60. The peak left turning volume was 9 vehicles per hour out of 298 vehicles.



The blue diamond shows where the left turning volumes of the advancing traffic and the total advancing traffic volumes intersect for each hour of the traffic count. Therefore, the blue diamonds are **left** of the 5% line for at two-lane road, and therefore the volume warrant for a EB left turn lane is **not met**.

FIVE YEAR CRASH RATE INFORMATION:

Below is the relevant crash history for the intersection of US 60 and Hammer Rd from January 1st, 2016 to December 31, 2020. The intersection showed 0 relevant crashes at this location.

No. of Crashes	0
No. of Days	1825
Entering AADT	4926 (2021)

An intersection crash rate can be calculated using the formula below.

$$\text{CR} = (\text{number of crashes} \times 10\text{E}6) / (\text{No. of days} \times \text{Entering AADT})$$
$$\text{CR} = (0 \times 10\text{E}6) / (1825 \times 4926) = 0$$

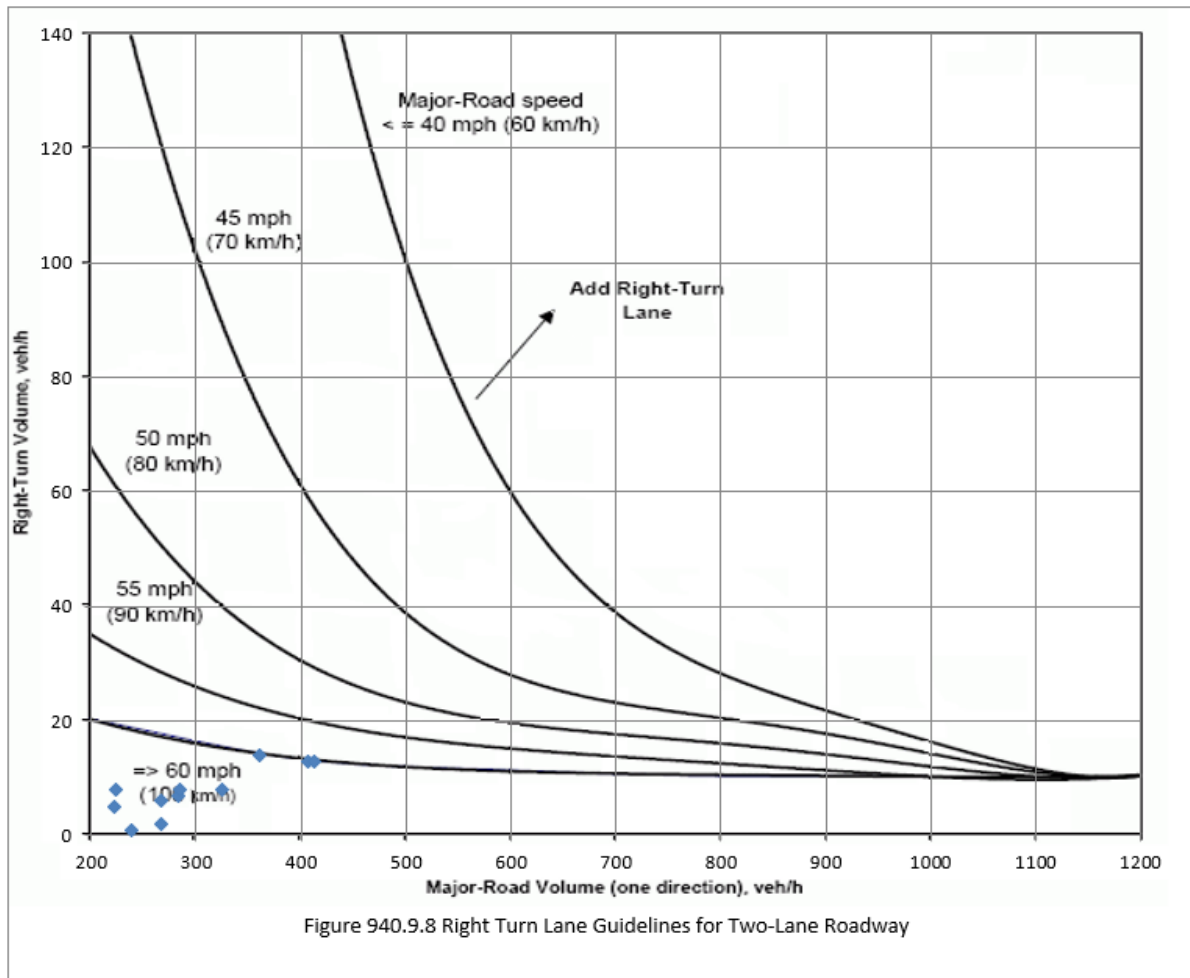
US 60							
Severity Rating	2016	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0	0
Property Damage Only	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0

The crash classes are shown in the following table.

US 60							
Crash Class	2016	2017	2018	2019	2020	2021	Total
Right Turn	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0

WESTBOUND US 60 RIGHT TURN LANE VOLUME WARRANT:

TRAFFIC VOLUME INFORMATION: a 13-hour traffic count was performed at the intersection of US 60 and Hammer Rd in August of 2021. The speed limit of US 60 at this intersection is 60 MPH. Traffic was counted from 6:00 AM to 7:00 PM. During this time, there were a total of 66 WB US 60 to NB Hammer Rd right turning vehicles. The total westbound thru volume was 3470 vehicles. The right turn volume makes up 1.9% of the westbound traffic on US 60. The peak right turning volume was 12 vehicles per hour out of 253 vehicles.



The blue diamond shows where the right turning volumes of the advancing traffic and the total advancing traffic volumes intersect for each hour of the traffic count. Therefore, the intersection falls **above** the 60 MPH line for a two-lane road, and therefore the volume warrant for a WB right turn lane is **met**.

FIVE YEAR CRASH RATE INFORMATION:

Below is the relevant crash history for the intersection of US 60 and Hammer Rd from January 1st, 2016 to December 31, 2020. The intersection showed 3 relevant crashes at this location.

No. of Crashes	3
No. of Days	1825
Entering AADT	4833 (2021)

An intersection crash rate can be calculated using the formula below.

$$\text{CR} = (\text{number of crashes} \times 10\text{E}6) / (\text{No. of days} \times \text{Entering AADT})$$
$$\text{CR} = (3 \times 10\text{E}6) / (1825 \times 4833) = 0.34$$

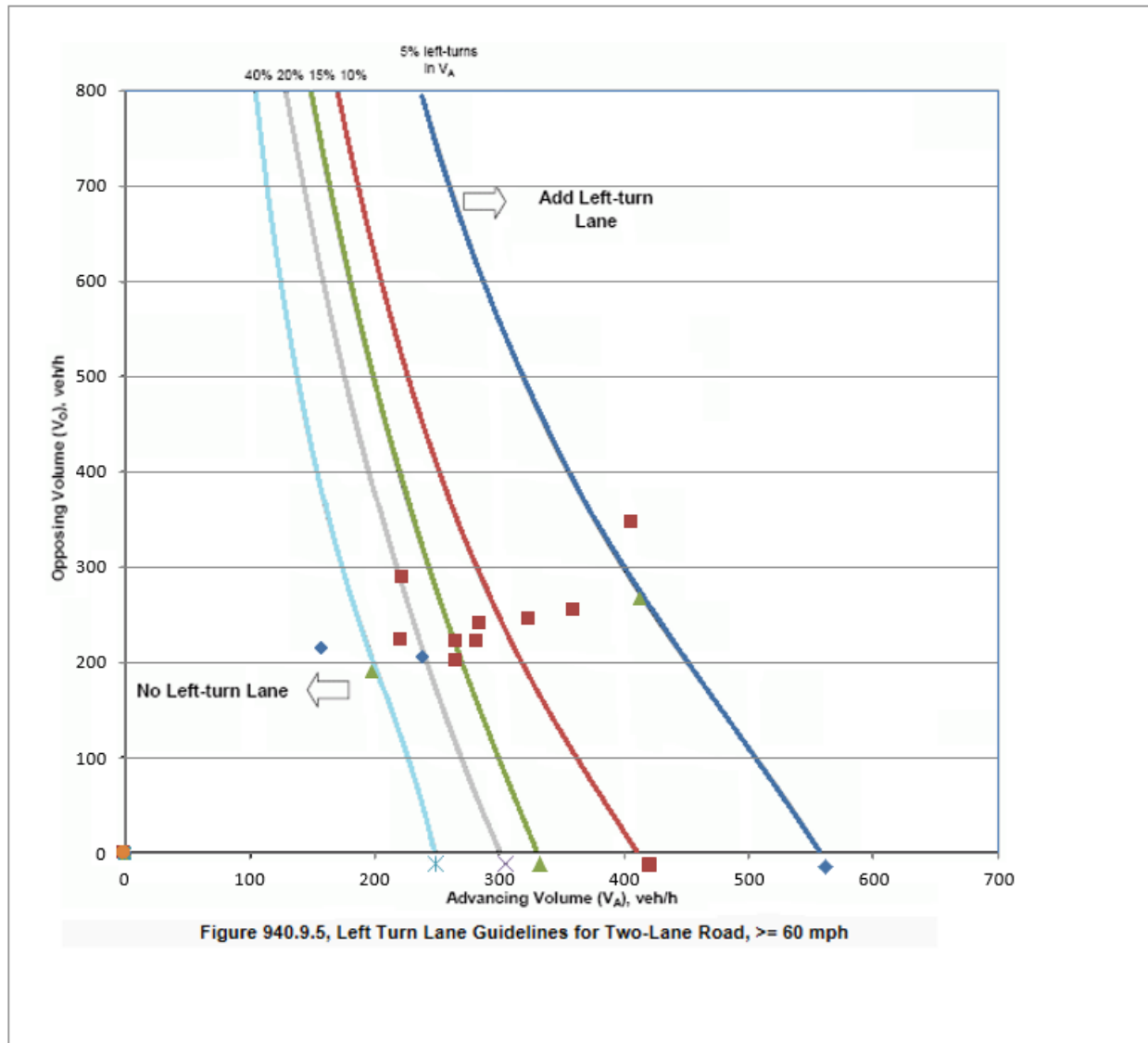
US 60							
Severity Rating	2016	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	1	1
Minor Injury	1	0	0	0	0	0	1
Property Damage Only	1	0	0	0	1	1	3
Total	2	0	0	0	1	2	5

The crash classes are shown in the following table.

US 60							
Crash Class	2016	2017	2018	2019	2020	2021	Total
Out of Control	1	0	0	0	0	0	1
Rear End	1	0	1	0	0	2	4
Total	2	0	1	0	0	2	5

WESTBOUND US 60 LEFT TURN LANE VOLUME WARRANT:

TRAFFIC VOLUME INFORMATION: a 13-hour traffic count was performed at the intersection of US 60 and Hammer Rd in August of 2021. The speed limit of US 60 at this intersection is 60 MPH. Traffic was counted from 6:00 AM to 7:00 PM. During this time, there were a total of 294 WB US 60 to SB Hammer Rd left turning vehicles. The total westbound thru volume was 3642 vehicles. The left turn volume makes up 8.1% of the westbound traffic on US 60. The peak left turning volume was 45 vehicles per hour out of 413 vehicles.



The red square shows where the left turning volumes of the advancing traffic and the total advancing traffic volumes intersect for each hour of the traffic count. Therefore, the intersection falls **right** of the 10% line for at two-lane road, and therefore the volume warrant for a WB left turn lane is **met**.

FIVE YEAR CRASH RATE INFORMATION:

Below is the relevant crash history for the intersection of US 60 and Hammer Rd from January 1st, 2016 to December 31, 2020. The intersection showed 0 relevant crashes at this location.

No. of Crashes	0
No. of Days	1825
Entering AADT	4833 (2021)

An intersection crash rate can be calculated using the formula below.

$$\text{CR} = (\text{number of crashes} \times 10\text{E}6) / (\text{No. of days} \times \text{Entering AADT})$$
$$\text{CR} = (0 \times 10\text{E}6) / (1825 \times 4926) = 0$$

US 60							
Severity Rating	2016	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0	0
Property Damage Only	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0

The crash classes are shown in the following table.

US 60							
Crash Class	2016	2017	2018	2019	2020	2021	Total
Right Turn	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0

COMMENTS:

There were 3 (three) crashes correctable by the addition of a right turn lane at the intersection from January 1, 2016 to December 31, 2020. The turning movement counts did meet the minimum volume criteria for the westbound right turning and left turning movement. The turning movement counts did not meet the minimum volume criteria for the eastbound right turning and left turning movements. **Therefore, it is recommended that both westbound right and left turn lanes to be added with a future project.**

Your Company Name Here

This is your address
Your City, State, Zip Code
Your Tagline Here

File Name : 0216_US60_Hammer_August2021

Site Code : 0216

Start Date : 8/25/2021

Page No : 1

Groups Printed- All Vehicles (no classification)

	Hammer Southbound					US 60 Westbound					Hammer Northbound					US 60 Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
06:00 AM	1	2	3	0	6	1	28	1	0	30	4	0	0	0	4	0	35	0	0	35	75
06:15 AM	0	0	1	0	1	0	35	0	0	35	5	1	0	0	6	0	47	0	0	47	89
06:30 AM	1	0	1	0	2	1	44	2	0	47	5	2	1	0	8	0	69	1	0	70	127
06:45 AM	1	1	1	0	3	2	40	4	0	46	8	2	2	0	12	1	64	1	0	66	127
Total	3	3	6	0	12	4	147	7	0	158	22	5	3	0	30	1	215	2	0	218	418
07:00 AM	3	0	1	0	4	2	54	7	0	63	8	0	2	0	10	1	65	2	0	68	145
07:15 AM	1	1	4	0	6	0	50	4	0	54	10	5	2	0	17	0	61	4	0	65	142
07:30 AM	2	0	7	0	9	2	51	1	0	54	9	7	1	0	17	0	75	2	0	77	157
07:45 AM	1	3	3	0	7	4	42	6	0	52	11	1	4	0	16	3	84	1	0	88	163
Total	7	4	15	0	26	8	197	18	0	223	38	13	9	0	60	4	285	9	0	298	607
08:00 AM	0	2	1	0	3	1	50	8	0	59	10	2	0	0	12	2	56	0	0	58	132
08:15 AM	0	1	1	0	2	1	34	5	0	40	8	3	1	0	12	0	52	1	0	53	107
08:30 AM	0	3	0	0	3	1	52	5	0	58	5	2	1	0	8	0	27	1	0	28	97
08:45 AM	1	2	2	0	5	2	36	3	0	41	5	1	0	0	6	2	51	0	0	53	105
Total	1	8	4	0	13	5	172	21	0	198	28	8	2	0	38	4	186	2	0	192	441
09:00 AM	1	0	2	0	3	2	54	3	0	59	7	3	2	0	12	2	52	0	0	54	128
09:15 AM	0	2	1	0	3	1	57	5	0	63	3	2	2	0	7	1	52	1	0	54	127
09:30 AM	0	2	1	0	3	1	44	7	0	52	6	1	0	0	7	1	50	0	0	51	113
09:45 AM	1	2	2	0	5	1	44	3	0	48	7	0	0	0	7	1	64	0	0	65	125
Total	2	6	6	0	14	5	199	18	0	222	23	6	4	0	33	5	218	1	0	224	493
10:00 AM	0	0	0	0	0	0	45	2	0	47	3	3	0	0	6	1	49	0	0	50	103
10:15 AM	0	0	1	0	1	1	68	1	0	70	2	1	0	0	3	1	51	1	0	53	127
10:30 AM	0	1	3	0	4	0	44	4	0	48	2	2	0	0	4	0	62	0	0	62	118
10:45 AM	0	1	0	0	1	0	71	2	0	73	5	0	1	0	6	1	41	0	0	42	122
Total	0	2	4	0	6	1	228	9	0	238	12	6	1	0	19	3	203	1	0	207	470
11:00 AM	1	1	0	0	2	1	55	4	0	60	7	1	2	0	10	3	44	1	0	48	120
11:15 AM	0	4	0	0	4	0	62	4	0	66	5	2	0	0	7	0	54	0	0	54	131
11:30 AM	1	2	0	0	3	0	61	4	0	65	1	0	0	0	1	0	49	0	0	49	118
11:45 AM	2	0	1	0	3	1	68	6	0	75	8	3	4	0	15	0	52	1	0	53	146
Total	4	7	1	0	12	2	246	18	0	266	21	6	6	0	33	3	199	2	0	204	515
12:00 PM	0	2	1	0	3	1	68	9	0	78	2	0	1	0	3	0	53	0	0	53	137
12:15 PM	0	3	0	0	3	3	60	9	0	72	3	1	1	0	5	0	60	0	0	60	140
12:30 PM	0	2	2	0	4	1	61	4	0	66	9	1	2	0	12	0	60	1	0	61	143
12:45 PM	2	3	1	0	6	2	60	5	0	67	7	0	0	0	7	1	47	0	0	48	128
Total	2	10	4	0	16	7	249	27	0	283	21	2	4	0	27	1	220	1	0	222	548

Your Company Name Here

This is your address
Your City, State, Zip Code
Your Tagline Here

File Name : 0216_US60_Hammer_August2021

Site Code : 0216

Start Date : 8/25/2021

Page No : 2

Groups Printed- All Vehicles (no classification)

	Hammer Southbound					US 60 Westbound					Hammer Northbound					US 60 Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
01:00 PM	0	1	0	0	1	0	61	4	0	65	4	1	0	0	5	0	48	0	0	48	119
01:15 PM	0	2	1	0	3	3	54	4	0	61	4	1	1	0	6	0	61	0	0	61	131
01:30 PM	0	2	3	0	5	1	65	5	0	71	5	0	2	0	7	1	49	0	0	50	133
01:45 PM	1	1	0	0	2	2	61	6	0	69	5	1	1	0	7	1	62	0	0	63	141
Total	1	6	4	0	11	6	241	19	0	266	18	3	4	0	25	2	220	0	0	222	524
02:00 PM	0	1	0	0	1	2	74	7	0	83	5	2	1	0	8	2	57	0	0	59	151
02:15 PM	0	0	2	0	2	1	76	3	0	80	6	1	1	0	8	1	58	1	0	60	150
02:30 PM	1	5	0	0	6	2	74	5	0	81	9	5	1	0	15	1	75	0	0	76	178
02:45 PM	1	0	0	0	1	3	73	4	0	80	9	2	0	0	11	1	50	1	0	52	144
Total	2	6	2	0	10	8	297	19	0	324	29	10	3	0	42	5	240	2	0	247	623
03:00 PM	1	5	1	0	7	2	61	4	0	67	4	1	0	0	5	0	66	0	0	66	145
03:15 PM	1	4	0	0	5	3	67	8	0	78	9	3	0	0	12	1	63	1	0	65	160
03:30 PM	1	2	0	0	3	4	88	13	0	105	11	1	0	0	12	0	68	0	0	68	188
03:45 PM	2	2	1	0	5	5	94	11	0	110	5	2	0	0	7	2	54	1	0	57	179
Total	5	13	2	0	20	14	310	36	0	360	29	7	0	0	36	3	251	2	0	256	672
04:00 PM	3	4	0	0	7	3	95	10	0	108	7	1	0	0	8	2	99	0	0	101	224
04:15 PM	1	3	4	0	8	5	90	8	0	103	6	2	1	0	9	0	63	1	0	64	184
04:30 PM	0	1	1	0	2	2	95	13	0	110	9	7	0	0	16	2	96	3	0	101	229
04:45 PM	0	2	0	0	2	3	76	6	0	85	11	2	2	0	15	1	83	1	0	85	187
Total	4	10	5	0	19	13	356	37	0	406	33	12	3	0	48	5	341	5	0	351	824
05:00 PM	0	2	1	0	3	7	97	10	0	114	9	1	0	0	10	0	60	3	0	63	190
05:15 PM	1	4	2	0	7	3	94	16	0	113	10	7	1	0	18	0	81	2	0	83	221
05:30 PM	0	2	1	0	3	2	80	11	0	93	4	4	1	0	9	2	57	0	0	59	164
05:45 PM	1	1	0	0	2	1	84	8	0	93	5	1	0	0	6	0	67	1	0	68	169
Total	2	9	4	0	15	13	355	45	0	413	28	13	2	0	43	2	265	6	0	273	744
06:00 PM	0	2	0	0	2	3	67	6	0	76	15	2	0	0	17	1	62	1	0	64	159
06:15 PM	1	1	0	0	2	2	78	4	0	84	7	0	1	0	8	0	65	1	0	66	160
06:30 PM	0	2	2	0	4	2	61	7	0	70	5	3	0	0	8	0	51	1	0	52	134
06:45 PM	1	3	1	0	5	1	51	3	0	55	5	1	0	0	6	1	60	0	0	61	127
Total	2	8	3	0	13	8	257	20	0	285	32	6	1	0	39	2	238	3	0	243	580
Grand Total	35	92	60	0	187	94	3254	294	0	3642	334	97	42	0	473	40	3081	36	0	3157	7459
Apprch %	18.7	49.2	32.1	0		2.6	89.3	8.1	0		70.6	20.5	8.9	0		1.3	97.6	1.1	0		
Total %	0.5	1.2	0.8	0	2.5	1.3	43.6	3.9	0	48.8	4.5	1.3	0.6	0	6.3	0.5	41.3	0.5	0	42.3	

Missouri Department of Transportation

3025 East Kearney Street
P.O. Box 868
Springfield, Missouri 65801
417.895.7600

TO: Memo to File

FROM: Dorothy Halbrook
Senior Traffic Studies Specialist
Andrew Wall
Traffic Engineering Intern

DATE: July 26, 2022

SUBJECT: Traffic Study
Right Turn Lane and Left Turn Lane Warrant Study
US 60 at Oak Ridge Rd
Newton County

The purpose of this study is to determine whether the intersection of US 60 at Oak Ridge Dr. meets the criteria in the EPG for an Auxiliary Acceleration and Turning Lane for all right turning and left turning movements. The study has been completed in response to scoping of a project addressing adding turn lanes along US 60.

Site Information:

US 60 is a two-lane, east-west principal arterial with 12-foot lanes and 6-foot shoulders at this location. Currently it has westbound and eastbound left-turn lanes but no right-turn lanes at this intersection. The posted speed limit on US 60 is 45 mph at this location. Oak Ridge Dr. is a two-lane major collector with two 10-foot lanes and no shoulders that runs north and briefly south from US 60. The speed limit on Oak Ridge Dr. is unposted; in the City of Neosho, the speed limit is 25 mph when unposted.



The following is an aerial view of this location:



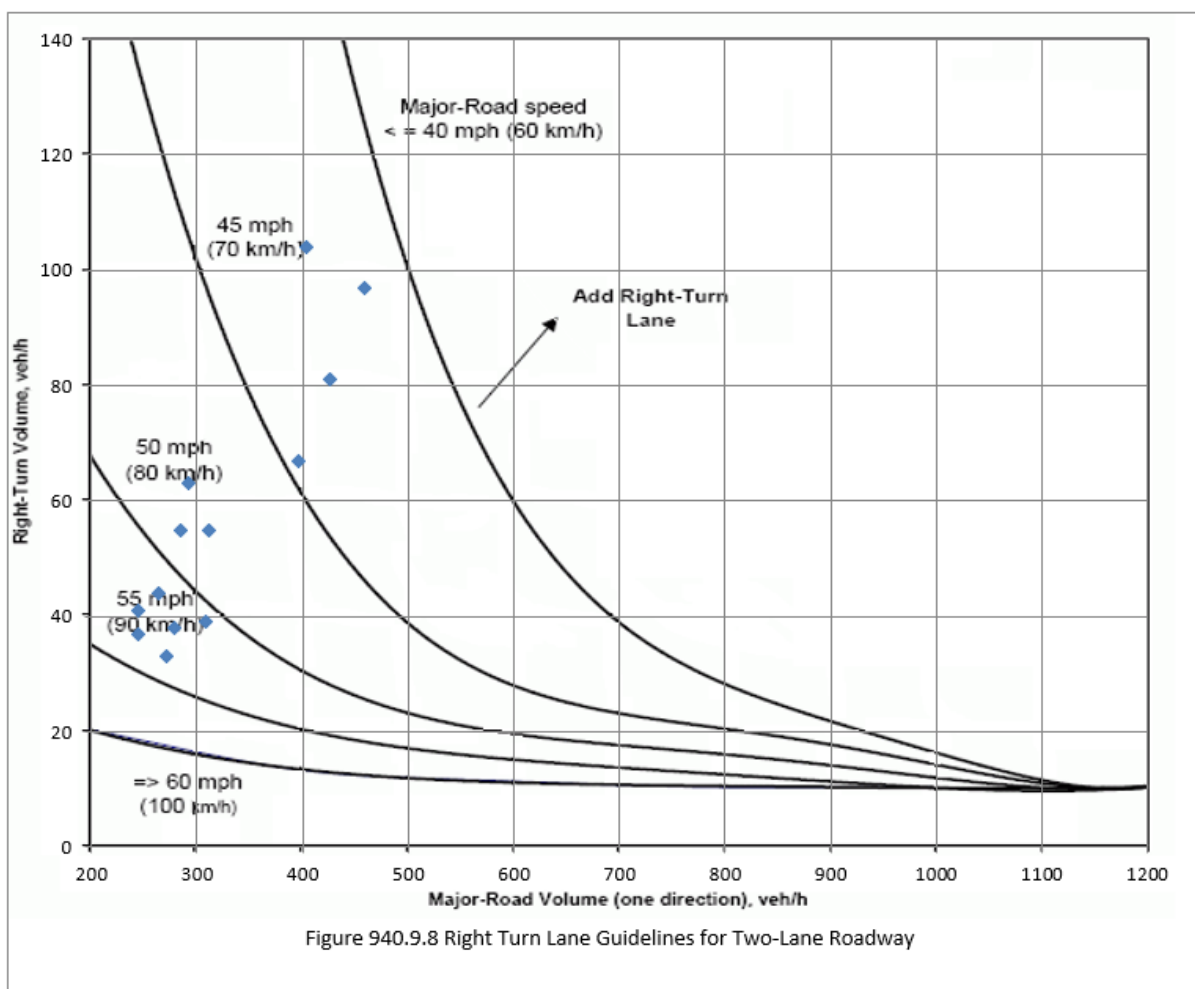
Right Turn Lane Warrant – US 60 Westbound

Traffic Volume Information:

A 13-hour traffic count was conducted at the intersection on September 13, 2018. Traffic was counted from 6:00 a.m. to 7:00 p.m.

During this time period there were a total of 754 westbound US 60 to northbound Oak Ridge Dr. right turning vehicles. The total westbound volume is 4,184 vehicles. The right turning volume makes up 18.0% of westbound traffic. The peak hour right turning volume for westbound traffic was 104 vehicles per hour out of 404 total westbound vehicles.

2 Lane Right Turn Lane Chart



The dots show where the total volume of westbound traffic and the right turning westbound volume intersect. The dots fall above the appropriate line for 13 hours counted. **Therefore, the volume warrant for a right turn lane has been met.**

Five Year Crash Rate Information:

Below is the crash history for the intersection of US 60 and Oak Ridge Dr. from January 1, 2017 to December 31, 2021. The intersection showed one (1) crash involving right-turning westbound traffic.

<i>No. of Crashes</i>	<i>1</i>
<i>No. of Days</i>	<i>1,825</i>
<i>Entering AADT</i>	<i>4,833</i>

An intersection crash rate can be calculated as follows:

$$CR = (\text{Number of Crashes} \times 10E6) / (\text{Number of Days} \times \text{Entering AADT})$$

$$CR = (1 \times 10E6) / (1825 \times 4833) = \mathbf{1.13}$$

The crash severity is shown in the following table.

Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	0	0	1	0	0	1
Total	0	0	1	0	0	1

The crash classes are shown in the following table.

Crash Class	2017	2018	2019	2020	2021	Total
Rear End	0	0	1	0	0	1
Total	0	0	1	0	0	1

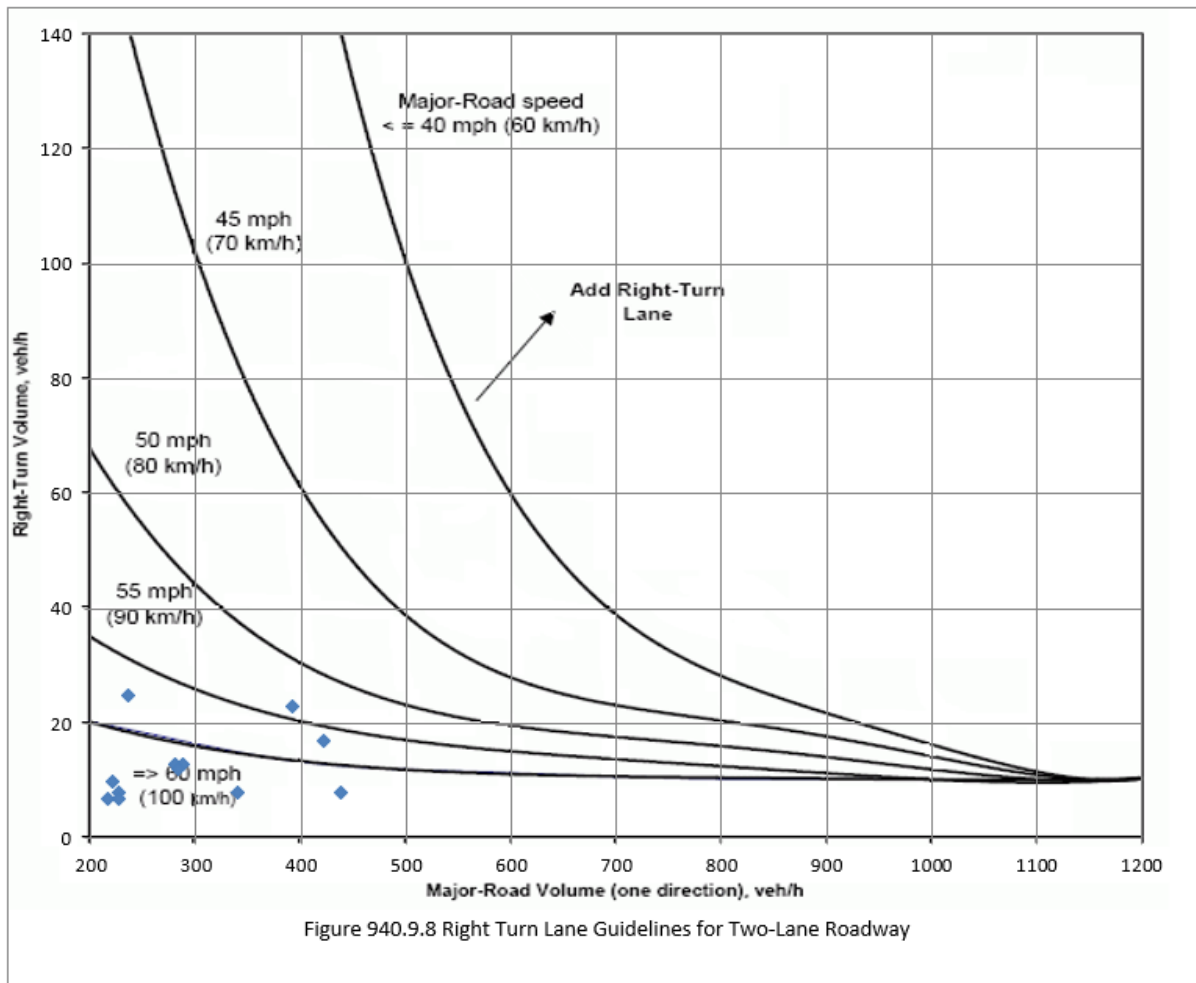
Right Turn Lane Warrant – US 60 Eastbound

Traffic Volume Information:

A 13-hour traffic count was conducted at the intersection on September 13, 2018. Traffic was counted from 6:00 a.m. to 7:00 p.m.

During this time period there were a total of 158 eastbound US 60 to southbound Oak Ridge Dr. right turning vehicles. The total eastbound volume is 3,692 vehicles. The right turning volume makes up 4.3% of eastbound traffic. The peak hour right turning volume for eastbound traffic was 25 vehicles per hour out of 235 total eastbound vehicles.

2 Lane Right Turn Lane Chart



The dots show where the total volume of eastbound traffic and the right turning eastbound volume intersect. The dots fall below the appropriate line for 13 hours counted. **Therefore, the volume warrant for a right turn lane has not been met.**

Five Year Crash Rate Information:

Below is the crash history for the intersection of US 60 and Oak Ridge Dr. from January 1, 2017 to December 31, 2021. The intersection showed zero (0) crashes involving right-turning eastbound traffic.

<i>No. of Crashes</i>	<i>0</i>
<i>No. of Days</i>	<i>1,825</i>
<i>Entering AADT</i>	<i>5,235</i>

An intersection crash rate can be calculated as follows:

$$CR = (Number\ of\ Crashes \times 10E6) / (Number\ of\ Days \times Entering\ AADT)$$

$$CR = (0 \times 10E6) / (1825 \times 5235) = 0.00$$

The crash severity is shown in the following table.

Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	0	0	0	0	0	0
Total	0	0	0	0	0	0

The crash classes are shown in the following table.

Crash Class	2017	2018	2019	2020	2021	Total
Rear End	0	0	0	0	0	0
Total	0	0	0	0	0	0

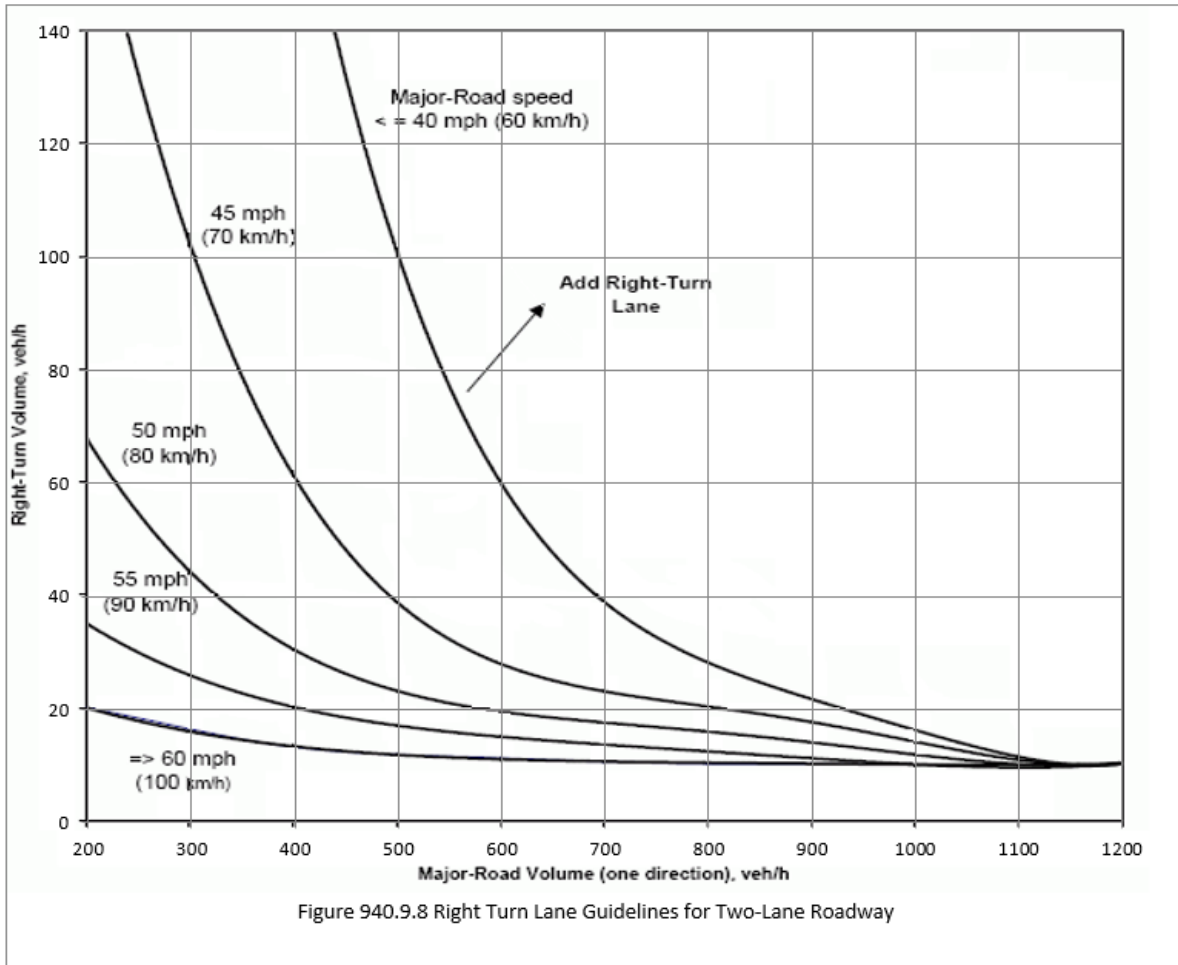
Right Turn Lane Warrant – Oak Ridge Dr. Northbound

Traffic Volume Information:

A 13-hour traffic count was conducted at the intersection on September 13, 2018. Traffic was counted from 6:00 a.m. to 7:00 p.m.

During this time period there were a total of 75 northbound Oak Ridge Dr. to eastbound US 60 right turning vehicles. The total northbound volume is 570 vehicles. The right turning volume makes up 13.2% of northbound traffic. The peak hour right turning volume for northbound traffic was 20 vehicles per hour out of 99 total northbound vehicles.

2 Lane Right Turn Lane Chart



The hourly volume never reaches the minimum of 200 veh/h to appear on the chart. **Therefore, the volume warrant for a right turn lane has not been met.**

Five Year Crash Rate Information:

Below is the crash history for the intersection of US 60 and Oak Ridge Dr. from January 1, 2017 to December 31, 2021. The intersection showed zero (0) crashes involving right-turning northbound traffic.

<i>No. of Crashes</i>	<i>0</i>
<i>No. of Days</i>	<i>1,825</i>
<i>Entering AADT</i>	<i>5,235</i>

An intersection crash rate can be calculated as follows:

$$CR = (Number\ of\ Crashes \times 10E6) / (Number\ of\ Days \times Entering\ AADT)$$

$$CR = (0 \times 10E6) / (1825 \times 1171) = \mathbf{0.00}$$

The crash severity is shown in the following table.

Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	0	0	0	0	0	0
Total	0	0	0	0	0	0

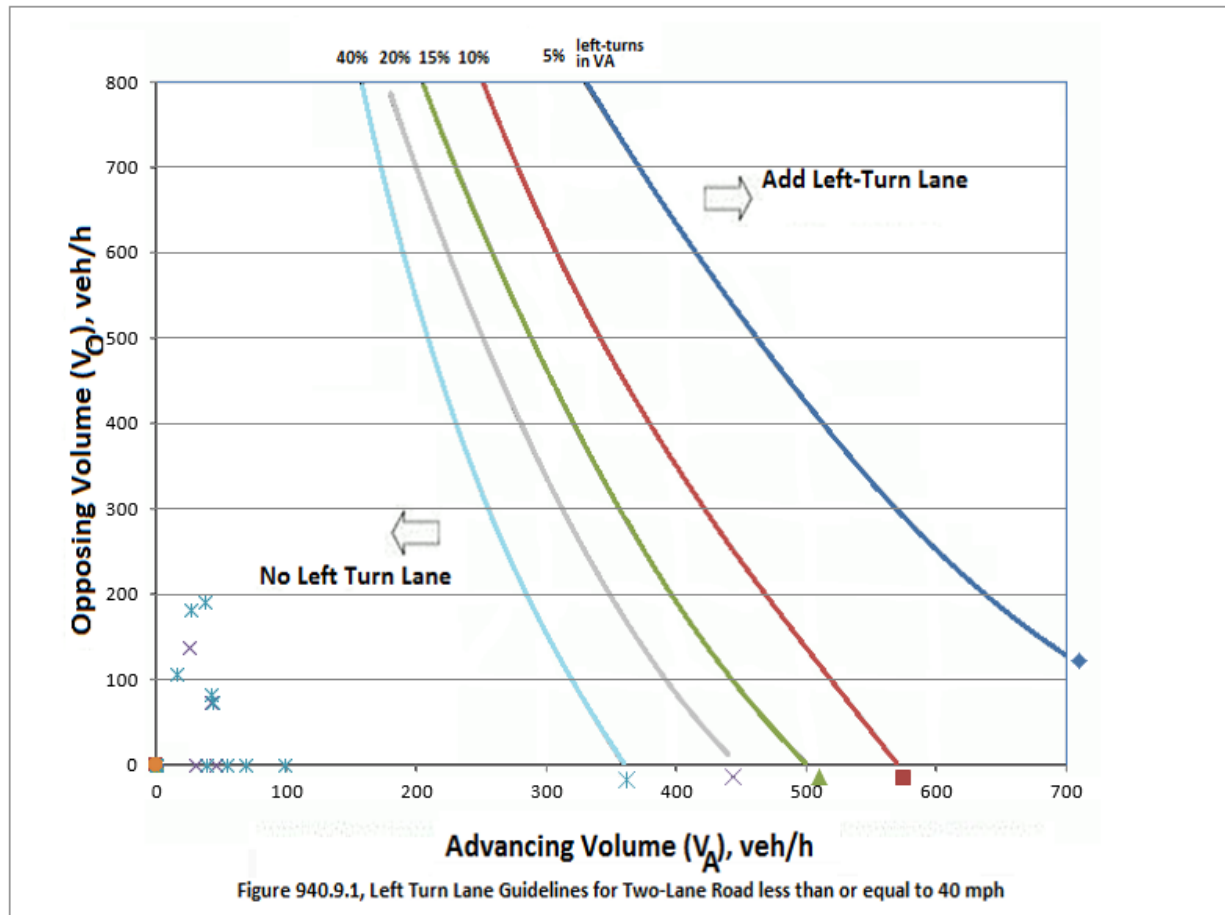
The crash classes are shown in the following table.

Crash Class	2017	2018	2019	2020	2021	Total
Rear End	0	0	0	0	0	0
Total	0	0	0	0	0	0

Left Turn Lane Warrant – Oak Ridge Dr. Northbound

A 13-hour traffic count was conducted at the intersection on September 13, 2018. Traffic was counted from 6:00 a.m. to 7:00 p.m.

During this time period there were a total of 138 northbound Oak Ridge Dr. to eastbound US 60 left turning vehicles. The total northbound volume is 570 vehicles. The left turning volume makes up 24.2% of northbound traffic. The peak hour left turning volume for northbound traffic was 26 vehicles per hour out of 99 total northbound vehicles.



The dots show where the total volume of northbound traffic and the left turning southbound volume intersect. The dots fall below the appropriate line for 13 hours counted. **Therefore, the volume warrant for a left turn lane has not been met.**

Five Year Crash Rate Information:

Below is the crash history for the intersection of US 60 and Oak Ridge Dr. from January 1, 2017 to December 31, 2021. The intersection showed zero (0) crashes involving left-turning northbound traffic.

No. of Crashes	0
No. of Days	1,825
Entering AADT	1,171

An intersection crash rate can be calculated as follows:

$$CR = (\text{Number of Crashes} \times 10E6) / (\text{Number of Days} \times \text{Entering AADT})$$

$$CR = (0 \times 10E6) / (1825 \times 1171) = \mathbf{0.00}$$

The crash severity is shown in the following table.

Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	0	0	0	0	0	0
Total	0	0	0	0	0	0

The crash classes are shown in the following table.

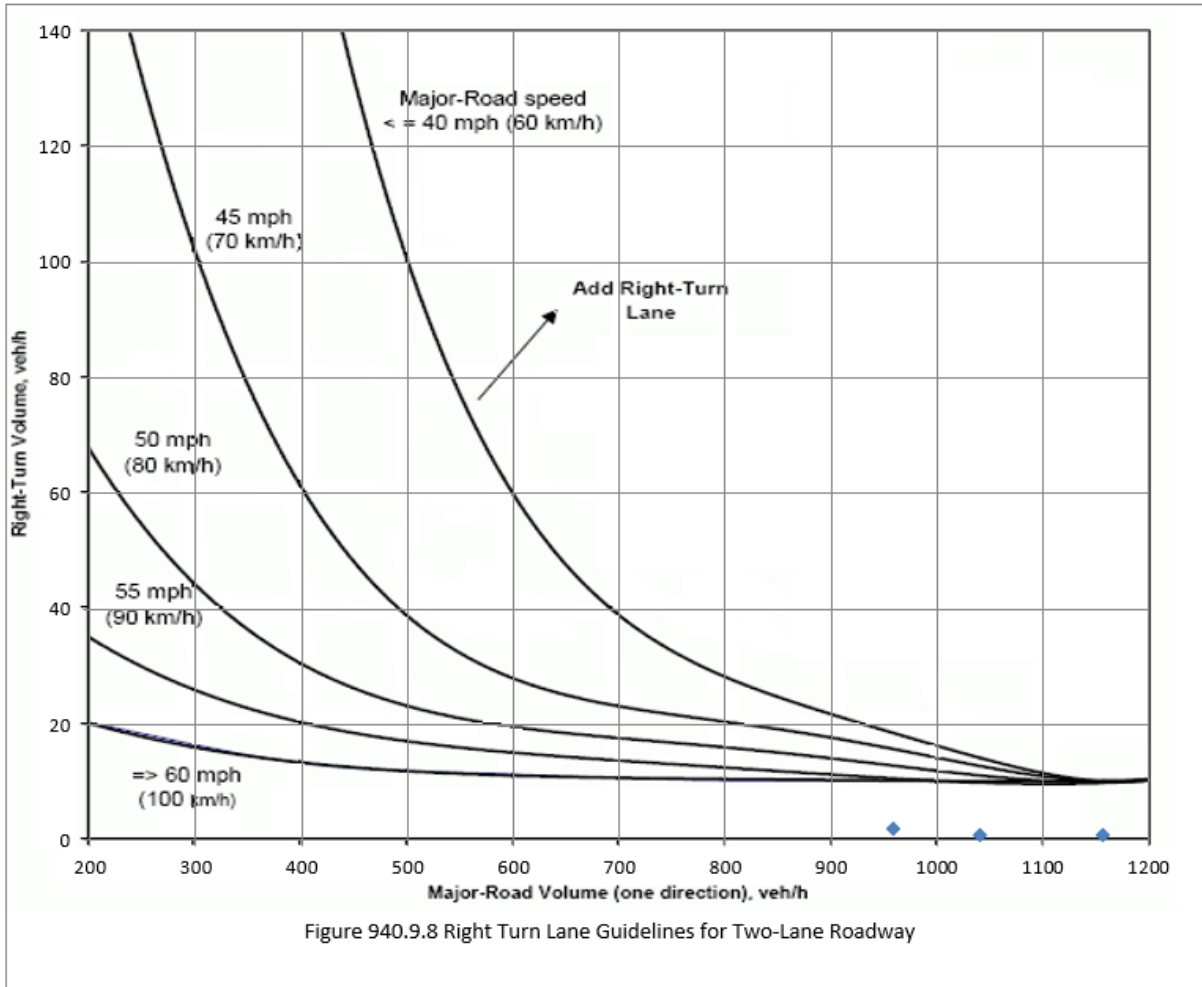
Crash Class	2017	2018	2019	2020	2021	Total
Rear End	0	0	0	0	0	0
Total	0	0	0	0	0	0

Right Turn Lane Warrant – Oak Ridge Dr. Southbound

A 13-hour traffic count was conducted at the intersection on September 13, 2018. Traffic was counted from 6:00 a.m. to 7:00 p.m.

During this time period there were a total of 605 southbound Oak Ridge Dr. to westbound US 60 right turning vehicles. The total southbound volume is 1,815 vehicles. The right turning volume makes up 33.3% of southbound traffic. The peak hour right turning volume for southbound traffic was 78 vehicles per hour out of 217 total southbound vehicles.

2 Lane Right Turn Lane Chart



The dots show where the total volume of northbound traffic and the left turning southbound volume intersect. The dots fall below the appropriate line for 13 hours counted. **Therefore, the volume warrant for a right turn lane has not been met.**

Five Year Crash Rate Information:

Below is the crash history for the intersection of US 60 and Oak Ridge Dr. from January 1, 2017 to December 31, 2021. The intersection showed three (3) crashes involving right-turning southbound traffic.

<i>No. of Crashes</i>	3
<i>No. of Days</i>	1,825
<i>Entering AADT</i>	1,391

An intersection crash rate can be calculated as follows:

$$CR = (\text{Number of Crashes} \times 10E6) / (\text{Number of Days} \times \text{Entering AADT})$$

$$CR = (3 \times 10E6) / (1825 \times 1391) = \mathbf{11.82}$$

The crash severity is shown in the following table.

Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	1	1	0	0	1	3
Total	1	1	0	0	1	3

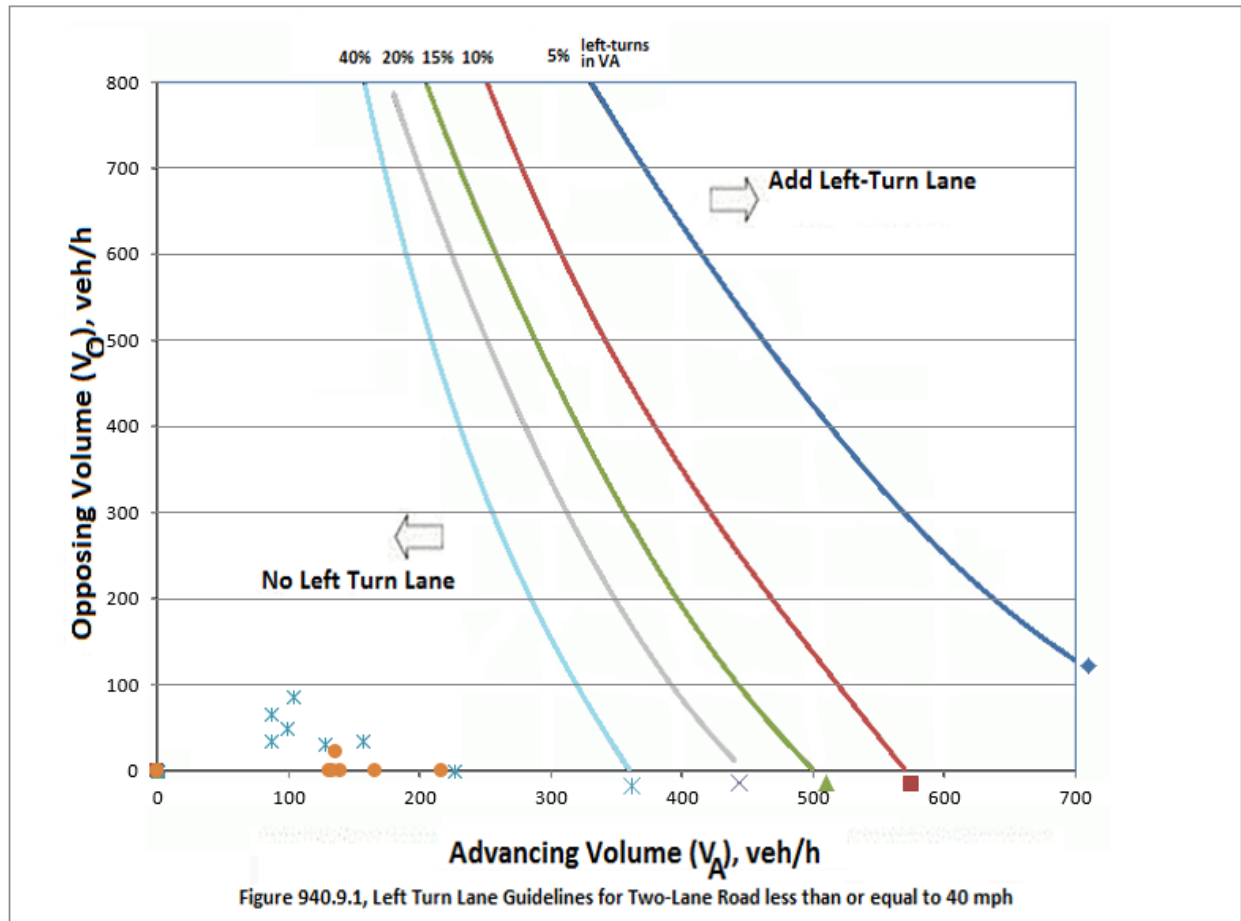
The crash classes are shown in the following table.

Crash Class	2017	2018	2019	2020	2021	Total
Angle	0	0	0	0	1	1
Rear End	1	1	0	0	0	0
Total	1	1	0	0	1	1

Left Turn Lane Warrant – Oak Ridge Dr. Southbound

A 13-hour traffic count was conducted at the intersection on September 13, 2018. Traffic was counted from 6:00 a.m. to 7:00 p.m.

During this time period there were a total of 747 southbound Oak Ridge Dr. to eastbound US 60 left turning vehicles. The total southbound volume is 1,815 vehicles. The left turning volume makes up 41.2% of southbound traffic. The peak hour left turning volume for southbound traffic was 99 vehicles per hour out of 217 total southbound vehicles.



The dots show where the total volume of northbound traffic and the left turning southbound volume intersect. The dots fall below the appropriate line for 13 hours counted. **Therefore, the volume warrant for a left turn lane has not been met.**

Five Year Crash Rate Information:

Below is the crash history for the intersection of US 60 and Oak Ridge Dr. from January 1, 2017 to December 31, 2021. The intersection showed zero (0) crashes involving left-turning southbound traffic.

<i>No. of Crashes</i>	<i>0</i>
<i>No. of Days</i>	<i>1,825</i>
<i>Entering AADT</i>	<i>1,391</i>

An intersection crash rate can be calculated as follows:

$$CR = (Number\ of\ Crashes \times 10E6) / (Number\ of\ Days \times Entering\ AADT)$$

$$CR = (0 \times 10E6) / (1825 \times 1391) = \mathbf{0.00}$$

The crash severity is shown in the following table.

Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	0	0	0	0	0	0
Total	0	0	0	0	0	0

The crash classes are shown in the following table.

Crash Class	2017	2018	2019	2020	2021	Total
Rear End	0	0	0	0	0	0
Total	0	0	0	0	0	0

Comments:

There were three (3) crashes correctable by the addition of a southbound right turn lane at the intersection from January 1, 2017 to December 31, 2021, as well as one (1) crash correctable by the addition of a westbound right turn lane. The turning movement counts show that the intersection meets the minimum volume criteria for the westbound right-turning movement. Therefore, **a new westbound right-turn lane is recommended.**

Missouri Department of Transportation

3025 East Kearney Street
P.O. Box 868
Springfield, Missouri 65801
417.895.7600

TO: File

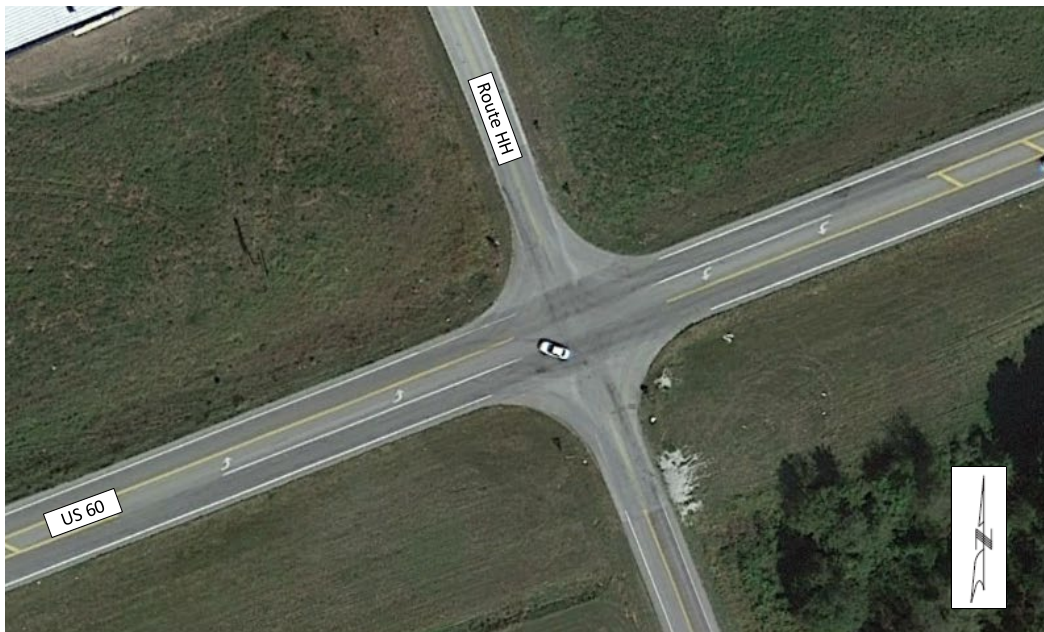
FROM: Dorothy Halbrook
Senior Traffic Studies Specialist

DATE: June 29th, 2022

SUBJECT: Right Turn Lane Study
US 60 at Route HH
Newton County

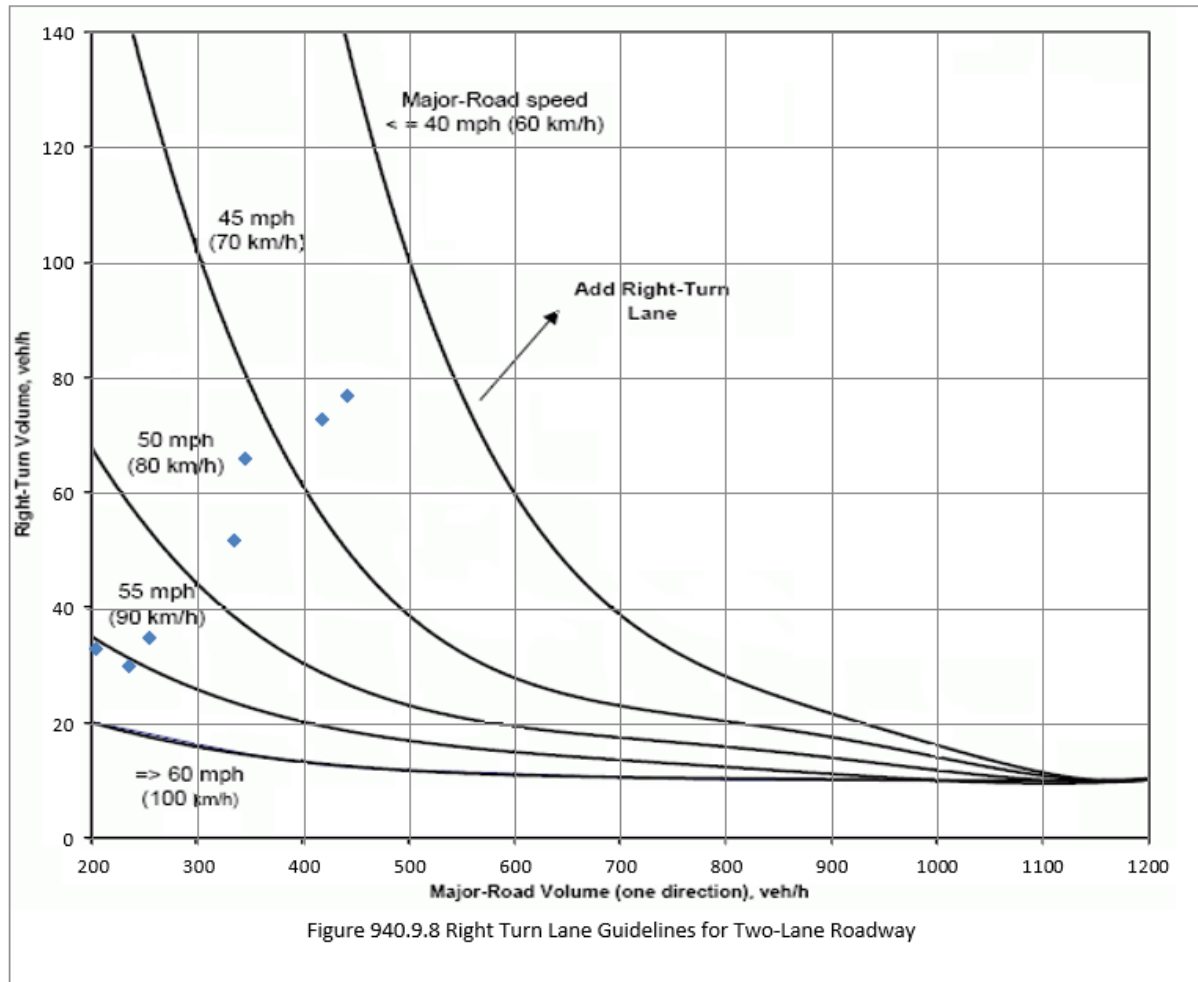
The purpose of this study is to determine whether the intersection of US 60 and Route HH in Newton County meet the criteria in the EPG for the installation of any left or right turn lanes. The study has been completed in response to scoping of a project addressing adding turn lanes along US 60.

US 60 is a super two-lane principal arterial with a speed limit of 65 MPH through the intersection of Route HH. The existing left turn lanes are for EB US 60 to EB Route HH and for WB US 60 to WB Route HH. Route HH is a two-lane major collector with a speed limit of 35 mph through the intersection of US 60. There are no existing turn lanes on this segment of Route HH. See the aerial below to see the existing conditions.



EASTBOUND US 60 RIGHT TURN LANE VOLUME WARRANT:

TRAFFIC VOLUME INFORMATION: a 13-hour traffic count was performed at the intersection of US 60 and Route HH in August of 2021. The speed limit of US 60 at this intersection is 65 MPH. Traffic was counted from 6:00 AM to 7:00 PM. During this time, there were a total of 484 EB US 60 to EB Route HH right turning vehicles. The total eastbound thru volume was 2988 vehicles. The right turn volume makes up 16.2% of the eastbound traffic on US 60. The peak right turning volume was 77 vehicles per hour out of 338 vehicles.



The blue diamond shows where the right turning volumes of the advancing traffic and the total advancing traffic volumes intersect for each hour of the traffic count. Therefore, the intersection falls **above** the 60 MPH line for at two-lane road, and therefore the volume warrant for a EB right turn lane is **met**.

FIVE YEAR CRASH RATE INFORMATION:

Below is the relevant crash history for the intersection of US 60 and Route HH from January 1st, 2016 to December 31, 2020. The intersection showed 0 relevant crashes at this location.

No. of Crashes	0
No. of Days	1825
Entering AADT	4960 (2021)

An intersection crash rate can be calculated using the formula below.

$$\text{CR} = (\text{number of crashes} \times 10\text{E}6) / (\text{No. of days} \times \text{Entering AADT})$$
$$\text{CR} = (0 \times 10\text{E}6) / (1825 \times 4960) = 0$$

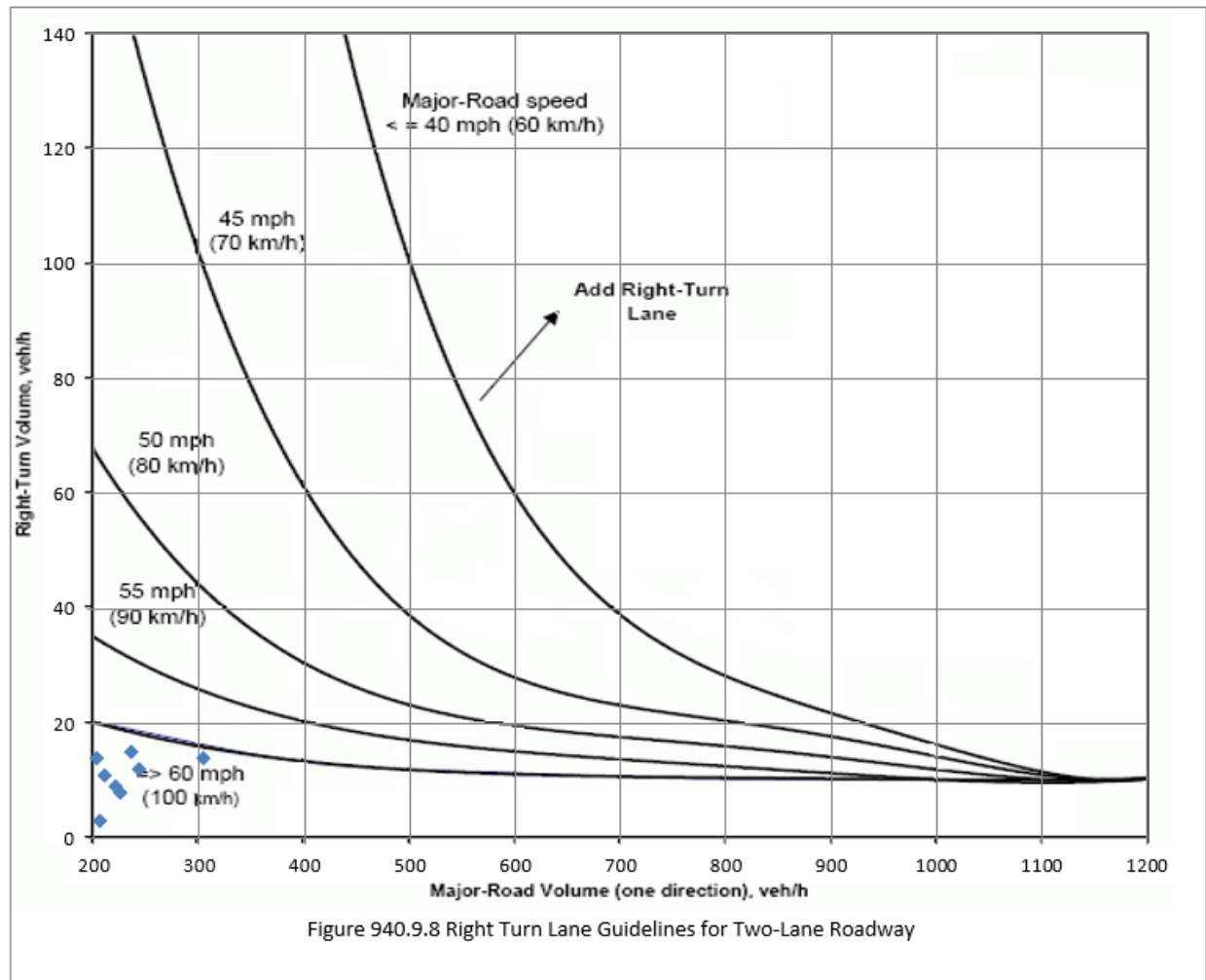
US 60						
Severity Rating	2016	2017	2018	2019	2020	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	0	0	0	0	0	0
Total	0	0	0	0	0	0

The crash classes are shown in the following table.

US 60						
Crash Class	2016	2017	2018	2019	2020	Total
Rear End	0	0	0	0	0	0
Total	0	0	0	0	0	0

WESTBOUND US 60 RIGHT TURN LANE VOLUME WARRANT:

TRAFFIC VOLUME INFORMATION: a 13-hour traffic count was performed at the intersection of US 60 and Route HH in August of 2021. The speed limit of US 60 at this intersection is 65 MPH. Traffic was counted from 6:00 AM to 7:00 PM. During this time, there were a total of 138 WB US 60 to WB Route HH right turning vehicles. The total westbound thru volume was 2385 vehicles. The right turn volume makes up 5.8% of the westbound traffic on US 60. The peak right turning volume was 14 vehicles per hour out of 282 vehicles.



The blue diamond shows where the right turning volumes of the advancing traffic and the total advancing traffic volumes intersect for each hour of the traffic count. Therefore, the intersection falls **below** the 60 MPH line for at two-lane road, and therefore the volume warrant for a WB right turn lane is **not met**.

FIVE YEAR CRASH RATE INFORMATION:

Below is the relevant crash history for the intersection of US 60 and Route HH from January 1st, 2016 to December 31, 2020. The intersection showed 0 relevant crashes at this location.

No. of Crashes	0
No. of Days	1825
Entering AADT	4306 (2021)

An intersection crash rate can be calculated using the formula below.

$$\text{CR} = (\text{number of crashes} \times 10\text{E}6) / (\text{No. of days} \times \text{Entering AADT})$$
$$\text{CR} = (0 \times 10\text{E}6) / (1825 \times 4306) = 0$$

US 60						
Severity Rating	2016	2017	2018	2018	2020	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	0	0	0	0	0	0
Total	0	0	0	0	0	0

The crash classes are shown in the following table.

US 60						
Crash Class	2016	2017	2018	2019	2020	Total
Rear End	0	0	0	0	0	0
Total	0	0	0	0	0	0

COMMENTS:

The traffic volumes warrant is met for the eastbound right turn lane on US 60 to Route HH. There is not a sufficient crash history and traffic volumes to warrant the installation of any other turn lanes on US 60 or Route HH currently. There is a crash issue here for traffic trying to turn from EB Route HH onto EB US 60 from the eastbound, from WB Route HH onto WB US 60, or crossing Route HH from either direction. Therefore, it is recommended to add a roundabout at this location and be placed on the "Traffic Needs List."



SW MoDOT
3025 E. Kearney
M.P.O. Box 868
Springfield, Missouri, United States 65801
417-621-6571 lori.palmer@modot.mo.gov

Count Name: RT Z @ Hartley Jasper 7GST Feb
2020
Site Code:
Start Date: 02/04/2020
Page No: 1

Turning Movement Data

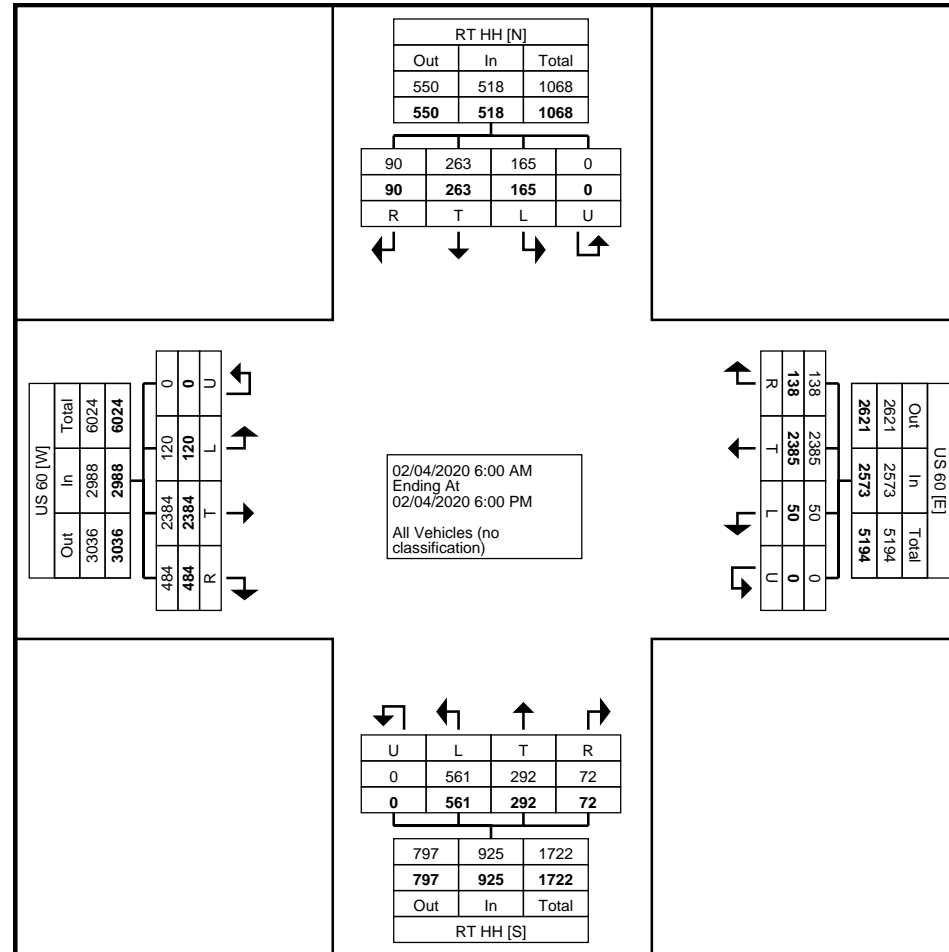
Start Time	RT HH Southbound					US 60 Westbound					RT HH Northbound					US 60 Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
6:00 AM	0	1	5	0	6	0	26	0	0	26	0	3	11	0	14	2	22	0	0	24	70
6:15 AM	1	2	4	0	7	0	31	0	0	31	0	4	6	0	10	3	19	0	0	22	70
6:30 AM	1	3	0	0	4	3	71	1	0	75	3	3	16	0	22	1	15	2	0	18	119
6:45 AM	1	7	1	0	9	0	73	0	0	73	4	5	20	0	29	6	29	0	0	35	146
Hourly Total	3	13	10	0	26	3	201	1	0	205	7	15	53	0	75	12	85	2	0	99	405
7:00 AM	0	5	1	0	6	2	57	2	0	61	1	7	16	0	24	10	42	0	0	52	143
7:15 AM	3	1	8	0	12	6	70	3	0	79	5	10	31	0	46	1	29	4	0	34	171
7:30 AM	3	2	5	0	10	3	73	3	0	79	2	14	24	0	40	6	34	1	0	41	170
7:45 AM	1	4	2	0	7	3	82	0	0	85	2	23	19	0	44	8	37	0	0	45	181
Hourly Total	7	12	16	0	35	14	282	8	0	304	10	54	90	0	154	25	142	5	0	172	665
8:00 AM	3	2	4	0	9	5	59	0	0	64	0	6	15	0	21	7	30	1	0	38	132
8:15 AM	1	2	2	0	5	1	61	1	0	63	1	2	15	0	18	7	37	0	0	44	130
8:30 AM	1	2	4	0	7	1	49	1	0	51	1	8	14	0	23	7	28	0	0	35	116
8:45 AM	1	2	1	0	4	1	44	2	0	47	1	12	15	0	28	4	34	2	0	40	119
Hourly Total	6	8	11	0	25	8	213	4	0	225	3	28	59	0	90	25	129	3	0	157	497
9:00 AM	3	3	1	0	7	3	49	1	0	53	1	4	11	0	16	7	37	2	0	46	122
9:15 AM	0	7	3	0	10	1	60	2	0	63	2	4	13	0	19	4	28	1	0	33	125
9:30 AM	3	5	1	0	9	6	43	2	0	51	1	2	6	0	9	11	45	1	0	57	126
9:45 AM	0	2	2	0	4	1	40	2	0	43	1	7	7	0	15	7	21	4	0	32	94
Hourly Total	6	17	7	0	30	11	192	7	0	210	5	17	37	0	59	29	131	8	0	168	467
10:00 AM	3	3	4	0	10	4	35	1	0	40	3	9	5	0	17	4	35	3	0	42	109
10:15 AM	2	2	3	0	7	3	29	0	0	32	1	3	5	0	9	7	34	1	0	42	90
10:30 AM	2	2	2	0	6	3	57	0	0	60	0	5	15	0	20	9	30	2	0	41	127
10:45 AM	1	3	0	0	4	5	41	0	0	46	1	8	10	0	19	7	34	0	0	41	110
Hourly Total	8	10	9	0	27	15	162	1	0	178	5	25	35	0	65	27	133	6	0	166	436
11:00 AM	1	4	1	0	6	5	40	1	0	46	1	4	15	0	20	8	53	2	0	63	135
11:15 AM	3	5	6	0	14	5	30	0	0	35	2	4	16	0	22	6	25	2	0	33	104
11:30 AM	2	8	2	0	12	3	35	3	0	41	3	2	10	0	15	11	49	2	0	62	130
11:45 AM	0	3	4	0	7	2	42	2	0	46	2	3	11	0	16	8	35	2	0	45	114
Hourly Total	6	20	13	0	39	15	147	6	0	168	8	13	52	0	73	33	162	8	0	203	483
12:00 PM	2	9	5	0	16	1	51	2	0	54	2	4	4	0	10	9	44	0	0	53	133
12:15 PM	0	6	2	0	8	2	40	2	0	44	1	6	12	0	19	7	57	0	0	64	135
12:30 PM	1	4	3	0	8	1	34	2	0	37	1	6	10	0	17	12	61	2	0	75	137
12:45 PM	2	4	4	0	10	2	46	0	0	48	2	5	6	0	13	7	50	5	0	62	133
Hourly Total	5	23	14	0	42	6	171	6	0	183	6	21	32	0	59	35	212	7	0	254	538
1:00 PM	1	6	2	0	9	2	49	3	0	54	1	8	11	0	20	9	36	5	0	50	133

1:15 PM	1	7	4	0	12	4	58	0	0	62	3	6	14	0	23	9	51	1	0	61	158
1:30 PM	2	7	2	0	11	2	52	0	0	54	0	2	9	0	11	5	48	1	0	54	130
1:45 PM	0	6	1	0	7	1	48	2	0	51	0	5	9	0	14	7	58	4	0	69	141
Hourly Total	4	26	9	0	39	9	207	5	0	221	4	21	43	0	68	30	193	11	0	234	562
2:00 PM	1	8	1	0	10	2	52	1	0	55	4	8	11	0	23	11	88	3	0	102	190
2:15 PM	4	6	4	0	14	3	40	0	0	43	2	5	13	0	20	10	59	3	0	72	149
2:30 PM	1	6	6	0	13	7	47	0	0	54	1	5	6	0	12	17	59	5	0	81	160
2:45 PM	3	4	5	0	12	4	42	1	0	47	2	9	15	0	26	14	62	2	0	78	163
Hourly Total	9	24	16	0	49	16	181	2	0	199	9	27	45	0	81	52	268	13	0	333	662
3:00 PM	6	7	6	0	19	3	57	1	0	61	2	8	3	0	13	15	71	6	0	92	185
3:15 PM	0	12	3	0	15	4	59	0	0	63	0	7	9	0	16	21	81	7	0	109	203
3:30 PM	6	13	7	0	26	3	55	0	0	58	0	7	6	0	13	16	104	6	0	126	223
3:45 PM	4	15	12	0	31	2	57	2	0	61	4	7	13	0	24	25	82	7	0	114	230
Hourly Total	16	47	28	0	91	12	228	3	0	243	6	29	31	0	66	77	338	26	0	441	841
4:00 PM	3	6	4	0	13	3	34	1	0	38	7	5	12	0	24	20	78	5	0	103	178
4:15 PM	1	10	3	0	14	5	51	0	0	56	0	7	14	0	21	16	86	4	0	106	197
4:30 PM	3	5	4	0	12	2	36	0	0	38	0	7	7	0	14	22	77	6	0	105	169
4:45 PM	2	11	7	0	20	4	64	2	0	70	0	4	12	0	16	15	84	4	0	103	209
Hourly Total	9	32	18	0	59	14	185	3	0	202	7	23	45	0	75	73	325	19	0	417	753
5:00 PM	1	9	5	0	15	4	54	1	0	59	1	4	3	0	8	25	88	5	0	118	200
5:15 PM	5	10	3	0	18	7	51	1	0	59	0	6	10	0	16	21	61	5	0	87	180
5:30 PM	3	7	2	0	12	1	53	0	0	54	1	5	16	0	22	12	64	1	0	77	165
5:45 PM	2	5	4	0	11	3	58	2	0	63	0	4	10	0	14	8	53	1	0	62	150
Hourly Total	11	31	14	0	56	15	216	4	0	235	2	19	39	0	60	66	266	12	0	344	695
Grand Total	90	263	165	0	518	138	2385	50	0	2573	72	292	561	0	925	484	2384	120	0	2988	7004
Approach %	17.4	50.8	31.9	0.0	-	5.4	92.7	1.9	0.0	-	7.8	31.6	60.6	0.0	-	16.2	79.8	4.0	0.0	-	-
Total %	1.3	3.8	2.4	0.0	7.4	2.0	34.1	0.7	0.0	36.7	1.0	4.2	8.0	0.0	13.2	6.9	34.0	1.7	0.0	42.7	-
All Vehicles (no classification)	90	263	165	0	518	138	2385	50	0	2573	72	292	561	0	925	484	2384	120	0	2988	7004
% All Vehicles (no classification)	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0



SW MoDOT
3025 E. Kearney
M.P.O. Box 868
Springfield, Missouri, United States 65801
417-621-6571 lori.palmer@modot.mo.gov

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2020
Site Code:
Start Date: 02/04/2020
Page No: 3



Turning Movement Data Plot



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2020
Site Code:
Start Date: 02/04/2020
Page No: 4

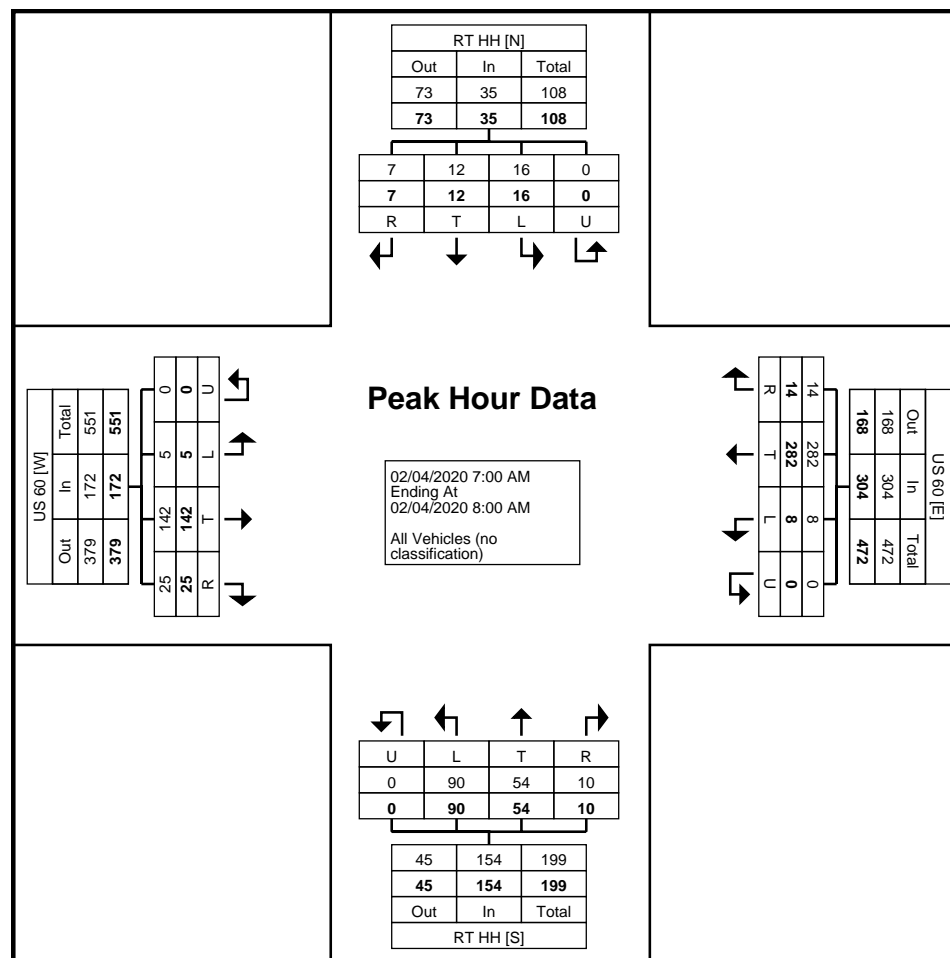
Turning Movement Peak Hour Data (7:00 AM)

Start Time	RT HH Southbound					US 60 Westbound					RT HH Northbound					US 60 Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
7:00 AM	0	5	1	0	6	2	57	2	0	61	1	7	16	0	24	10	42	0	0	52	143
7:15 AM	3	1	8	0	12	6	70	3	0	79	5	10	31	0	46	1	29	4	0	34	171
7:30 AM	3	2	5	0	10	3	73	3	0	79	2	14	24	0	40	6	34	1	0	41	170
7:45 AM	1	4	2	0	7	3	82	0	0	85	2	23	19	0	44	8	37	0	0	45	181
Total	7	12	16	0	35	14	282	8	0	304	10	54	90	0	154	25	142	5	0	172	665
Approach %	20.0	34.3	45.7	0.0	-	4.6	92.8	2.6	0.0	-	6.5	35.1	58.4	0.0	-	14.5	82.6	2.9	0.0	-	-
Total %	1.1	1.8	2.4	0.0	5.3	2.1	42.4	1.2	0.0	45.7	1.5	8.1	13.5	0.0	23.2	3.8	21.4	0.8	0.0	25.9	-
PHF	0.583	0.600	0.500	0.000	0.729	0.583	0.860	0.667	0.000	0.894	0.500	0.587	0.726	0.000	0.837	0.625	0.845	0.313	0.000	0.827	0.919
All Vehicles (no classification)	7	12	16	0	35	14	282	8	0	304	10	54	90	0	154	25	142	5	0	172	665
% All Vehicles (no classification)	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0



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M.P.O. Box 868
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2020
Site Code:
Start Date: 02/04/2020
Page No: 5





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2020
Site Code:
Start Date: 02/04/2020
Page No: 6

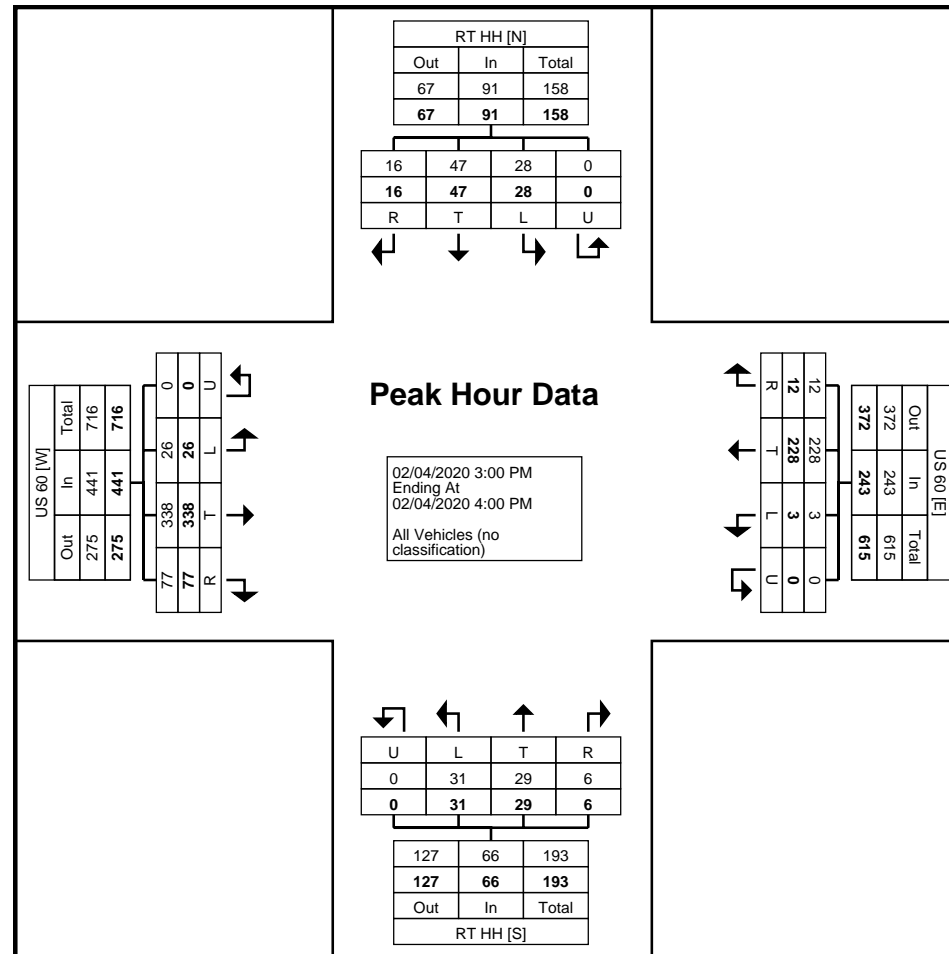
Turning Movement Peak Hour Data (3:00 PM)

Start Time	RT HH Southbound					US 60 Westbound					RT HH Northbound					US 60 Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
3:00 PM	6	7	6	0	19	3	57	1	0	61	2	8	3	0	13	15	71	6	0	92	185
3:15 PM	0	12	3	0	15	4	59	0	0	63	0	7	9	0	16	21	81	7	0	109	203
3:30 PM	6	13	7	0	26	3	55	0	0	58	0	7	6	0	13	16	104	6	0	126	223
3:45 PM	4	15	12	0	31	2	57	2	0	61	4	7	13	0	24	25	82	7	0	114	230
Total	16	47	28	0	91	12	228	3	0	243	6	29	31	0	66	77	338	26	0	441	841
Approach %	17.6	51.6	30.8	0.0	-	4.9	93.8	1.2	0.0	-	9.1	43.9	47.0	0.0	-	17.5	76.6	5.9	0.0	-	-
Total %	1.9	5.6	3.3	0.0	10.8	1.4	27.1	0.4	0.0	28.9	0.7	3.4	3.7	0.0	7.8	9.2	40.2	3.1	0.0	52.4	-
PHF	0.667	0.783	0.583	0.000	0.734	0.750	0.966	0.375	0.000	0.964	0.375	0.906	0.596	0.000	0.688	0.770	0.813	0.929	0.000	0.875	0.914
All Vehicles (no classification)	16	47	28	0	91	12	228	3	0	243	6	29	31	0	66	77	338	26	0	441	841
% All Vehicles (no classification)	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0



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3025 E. Kearney
M.P.O. Box 868
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Site Code:
Start Date: 02/04/2020
Page No: 7



Turning Movement Peak Hour Data Plot (3:00 PM)



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2020
Site Code:
Start Date: 02/04/2020
Page No: 8

Missouri Department of Transportation

3025 East Kearney Street
P.O. Box 868
Springfield, Missouri 65801
417.895.7600

TO: Memo to File

FROM: Dorothy Halbrook
Senior Traffic Studies Specialist
Andrew Wall
Traffic Engineering Intern

DATE: September 15th, 2022

SUBJECT: Traffic Study
Right Turn Lane and Left Turn Lane Warrant Study
US 60 at RT M & RT W
Newton County

The purpose of this study is to determine whether the intersection of US 60 at RT M & RT W meets the criteria in the EPG for an Auxiliary Acceleration and Turning Lane for all right turning and left turning movements. The study has been completed in response to scoping of a project addressing adding turn lanes along US 60.

Site Information:

US 60 is a two-lane, east-west principal arterial with 12-foot lanes and 6-foot shoulders at this location. Currently it has no left- or right-turn lanes at this intersection. The posted speed limit on US 60 is 65 mph at this location. RT M is a two-lane major collector with two 10-foot lanes and no shoulders that runs south from US 60. The posted speed limit on RT M is 55 mph at this location. RT W is a two-lane major collector with two 11-foot lanes and no shoulders that runs north from US 60. The posted speed limit on RT W is 55 mph at this location.



The following is an aerial view of this location:



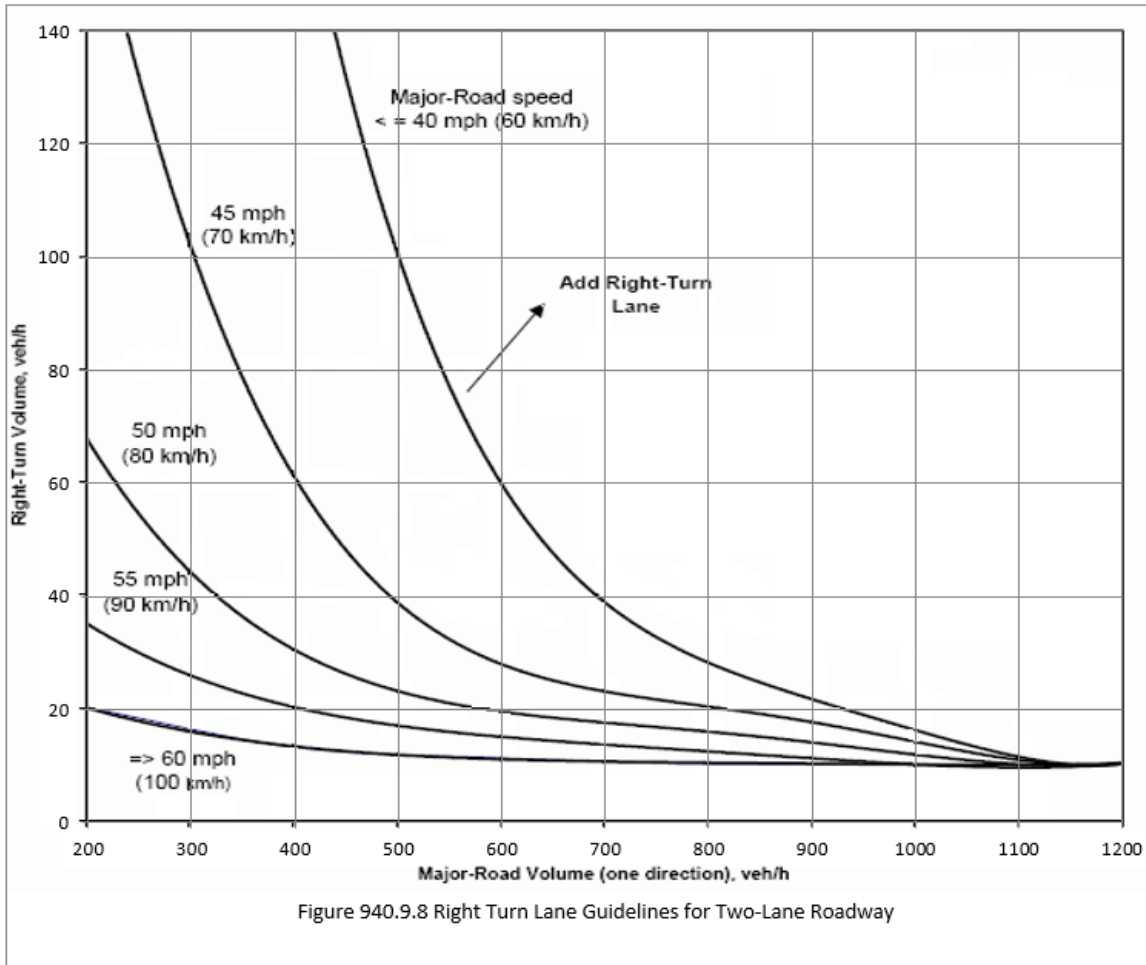
Right Turn Lane Warrant – US 60 Westbound

Traffic Volume Information:

A 13-hour traffic count was conducted at the intersection on August 25, 2021. Traffic was counted from 6:00 a.m. to 7:00 p.m.

During this time period there were a total of 67 westbound US 60 to northbound RT W right turning vehicles. The total westbound volume is 1,511 vehicles. The right turning volume makes up 4.4% of westbound traffic. The peak hour right turning volume for westbound traffic was 10 vehicles per hour out of 112 total westbound vehicles.

2 Lane Right Turn Lane Chart



The hourly volume never reaches the minimum of 200 veh/h to appear on the chart. **Therefore, the volume warrant for a right turn lane has not been met.**

Five Year Crash Rate Information:

Below is the crash history for the intersection of US 60 and RT M & RT W from January 1, 2017 to December 31, 2021. The intersection showed zero (0) crashes involving right-turning westbound traffic.

<i>No. of Crashes</i>	<i>0</i>
<i>No. of Days</i>	<i>1,825</i>
<i>Entering AADT</i>	<i>1,842</i>

An intersection crash rate can be calculated as follows:

$$CR = (Number\ of\ Crashes \times 10E6) / (Number\ of\ Days \times Entering\ AADT)$$

$$CR = (0 \times 10E6) / (1825 \times 1842) = \mathbf{0.00}$$

The crash severity is shown in the following table.

Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	0	0	0	0	0	0
Total	0	0	0	0	0	0

The crash classes are shown in the following table.

Crash Class	2017	2018	2019	2020	2021	Total
All Classes	0	0	0	0	0	0
Total	0	0	0	0	0	0

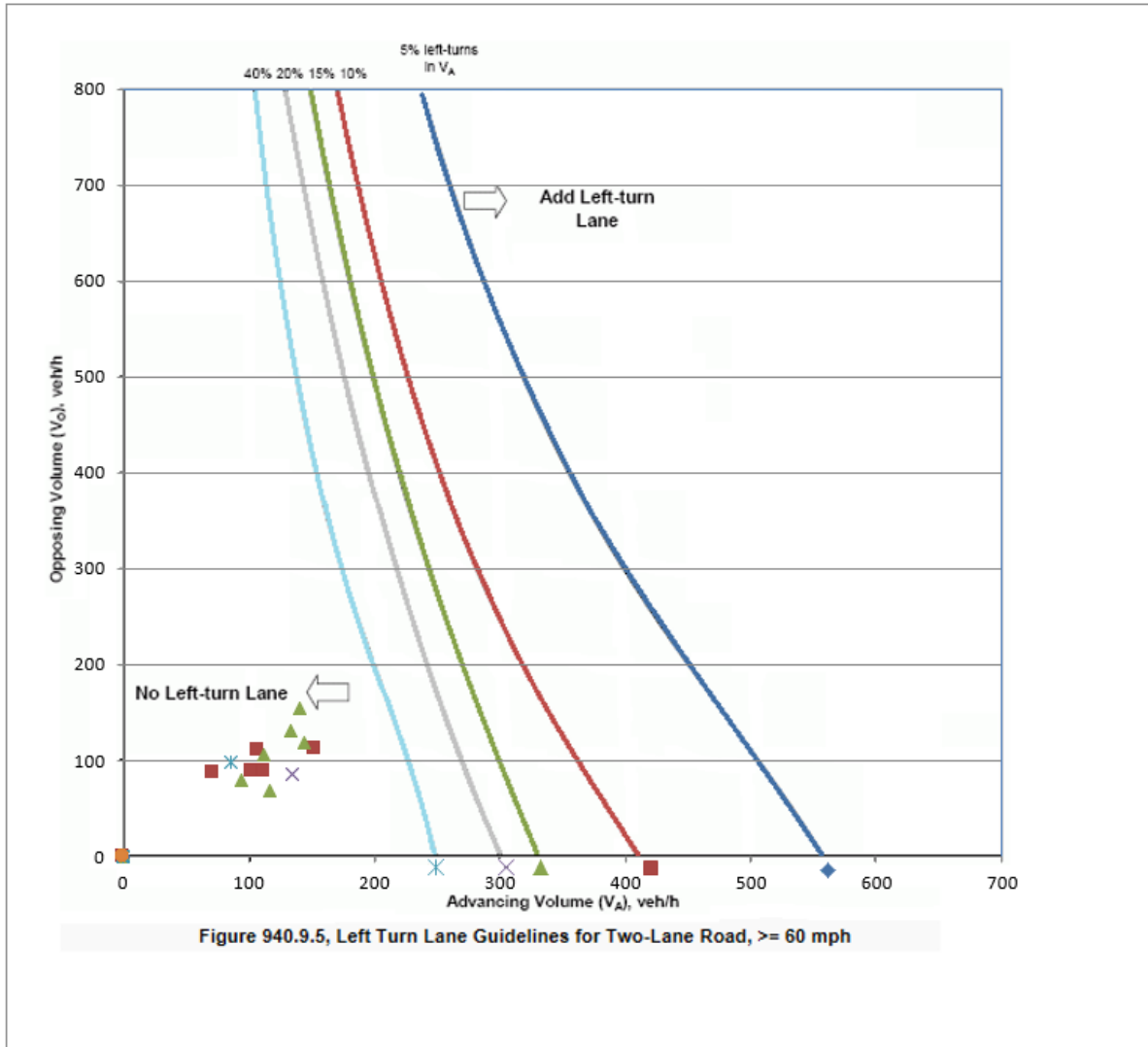
Left Turn Lane Warrant – US 60 Westbound

Traffic Volume Information:

A 13-hour traffic count was conducted at the intersection on August 25, 2021. Traffic was counted from 6:00 a.m. to 7:00 p.m.

During this time period there were a total of 174 westbound US 60 to southbound RT M left turning vehicles. The total westbound volume is 1,511 vehicles. The left turning volume makes up 11.5% of westbound traffic. The peak hour left turning volume for westbound traffic was 24 vehicles per hour out of 135 total westbound vehicles.

60 mph Left Turn Lane Warrant



The dots show where the total volume of eastbound traffic and the left turning westbound volume intersect. The dots fall below the appropriate line for 13 hours counted. **Therefore, the volume warrant for a left turn lane has not been met.**

Five Year Crash Rate Information:

Below is the crash history for the intersection of US 60 and RT M & RT W from January 1, 2017 to December 31, 2021. The intersection showed seven (7) crashes involving left-turning westbound traffic.

<i>No. of Crashes</i>	7
<i>No. of Days</i>	1,825
<i>Entering AADT</i>	1,842

An intersection crash rate can be calculated as follows:

$$CR = (Number\ of\ Crashes \times 10E6) / (Number\ of\ Days \times Entering\ AADT)$$

$$CR = (7 \times 10E6) / (1825 \times 1842) = \mathbf{20.82}$$

The crash severity is shown in the following table.

Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	1	0	0	1
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	1	1	0	0	2
Property Damage Only	3	0	1	0	0	4
Total	3	1	3	0	0	7

The crash classes are shown in the following table.

Crash Class	2017	2018	2019	2020	2021	Total
Rear End	2	0	1	0	0	3
Angle	0	1	2	0	0	3
Object	1	0	0	0	0	1
Total	3	1	3	0	0	7

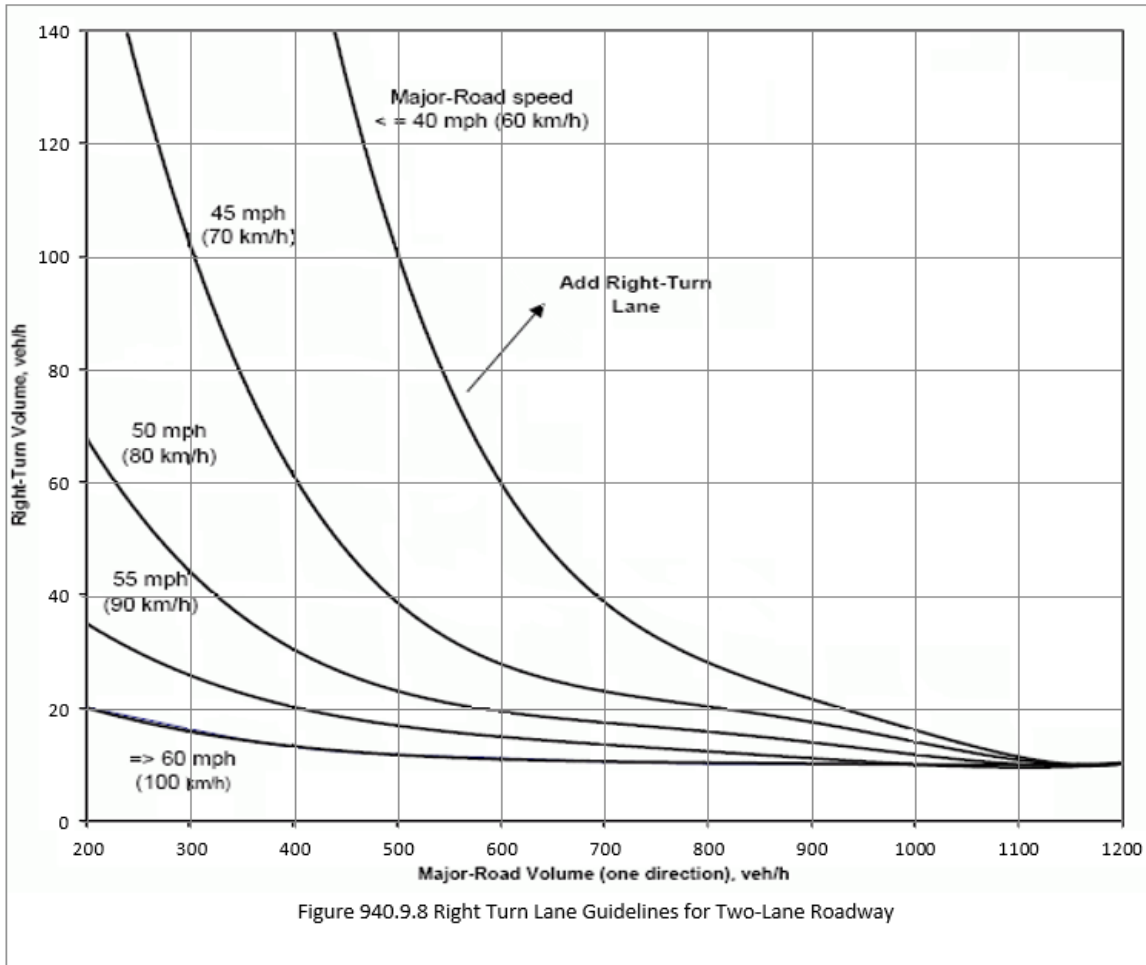
Right Turn Lane Warrant – US 60 Eastbound

Traffic Volume Information:

A 13-hour traffic count was conducted at the intersection on August 25, 2021. Traffic was counted from 6:00 a.m. to 7:00 p.m.

During this time period there were a total of 119 eastbound US 60 to southbound RT M right turning vehicles. The total eastbound volume is 1,458 vehicles. The right turning volume makes up 8.2% of eastbound traffic. The peak hour right turning volume for eastbound traffic was 17 vehicles per hour out of 109 total eastbound vehicles.

2 Lane Right Turn Lane Chart



The hourly volume never reaches the minimum of 200 veh/h to appear on the chart. **Therefore, the volume warrant for a right turn lane has not been met.**

Five Year Crash Rate Information:

The crash history for the intersection of US 60 and RT M & RT W from January 1, 2017 to December 31, 2021 showed zero (0) crashes involving right-turning eastbound traffic.

<i>No. of Crashes</i>	<i>0</i>
<i>No. of Days</i>	<i>1,825</i>
<i>Entering AADT</i>	<i>2,113</i>

An intersection crash rate can be calculated as follows:

$$CR = (Number\ of\ Crashes \times 10E6) / (Number\ of\ Days \times Entering\ AADT)$$

$$CR = (0 \times 10E6) / (1825 \times 2113) = \mathbf{0.00}$$

The crash severity is shown in the following table.

Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	0	0	0	0	0	0
Total	0	0	0	0	0	0

The crash classes are shown in the following table.

Crash Class	2017	2018	2019	2020	2021	Total
All Classes	0	0	0	0	0	0
Total	0	0	0	0	0	0

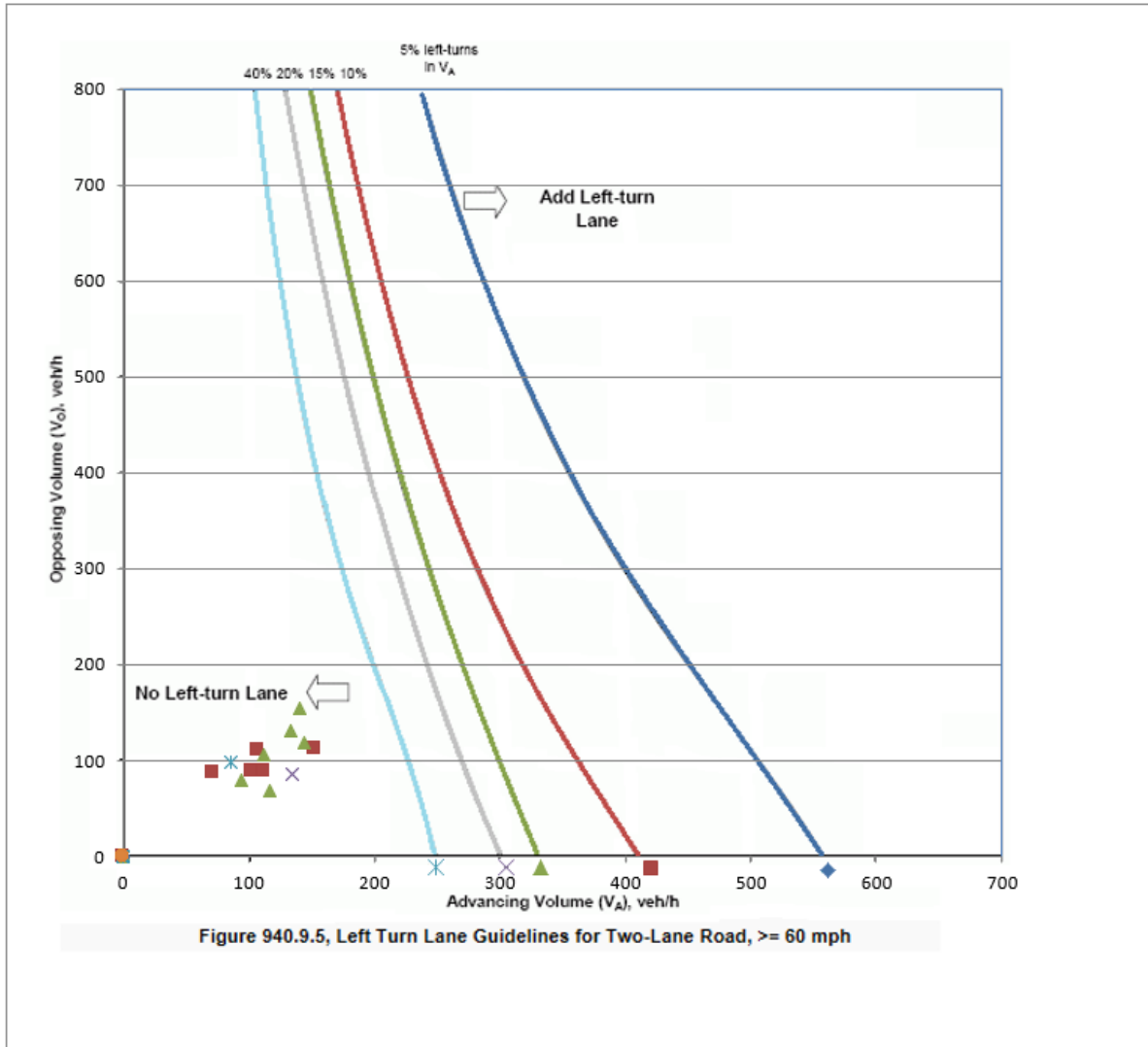
Left Turn Lane Warrant – US 60 Eastbound

Traffic Volume Information:

A 13-hour traffic count was conducted at the intersection on August 25, 2021. Traffic was counted from 6:00 a.m. to 7:00 p.m.

During this time period there were a total of 127 eastbound US 60 to northbound RT W left turning vehicles. The total eastbound volume is 1,458 vehicles. The left turning volume makes up 8.7% of eastbound traffic. The peak hour left turning volume for eastbound traffic was 20 vehicles per hour out of 174 total eastbound vehicles.

60 mph Left Turn Lane Warrant



The dots show where the total volume of westbound traffic and the left turning eastbound volume intersect. The dots fall below the appropriate line for 13 hours counted. **Therefore, the volume warrant for a left turn lane has not been met.**

Five Year Crash Rate Information:

The crash history for the intersection of US 60 and RT M & RT W from January 1, 2017 to December 31, 2021 showed one (1) crash involving left-turning eastbound traffic.

<i>No. of Crashes</i>	<i>1</i>
<i>No. of Days</i>	<i>1,825</i>
<i>Entering AADT</i>	<i>2,113</i>

An intersection crash rate can be calculated as follows:

$$CR = (Number\ of\ Crashes \times 10E6) / (Number\ of\ Days \times Entering\ AADT)$$

$$CR = (1 \times 10E6) / (1825 \times 2113) = \mathbf{2.59}$$

The crash severity is shown in the following table.

Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	0	0	0	0	1	1
Total	0	0	0	0	1	1

The crash classes are shown in the following table.

Crash Class	2017	2018	2019	2020	2021	Total
Rear End	0	0	0	0	1	1
Total	0	0	0	0	1	1

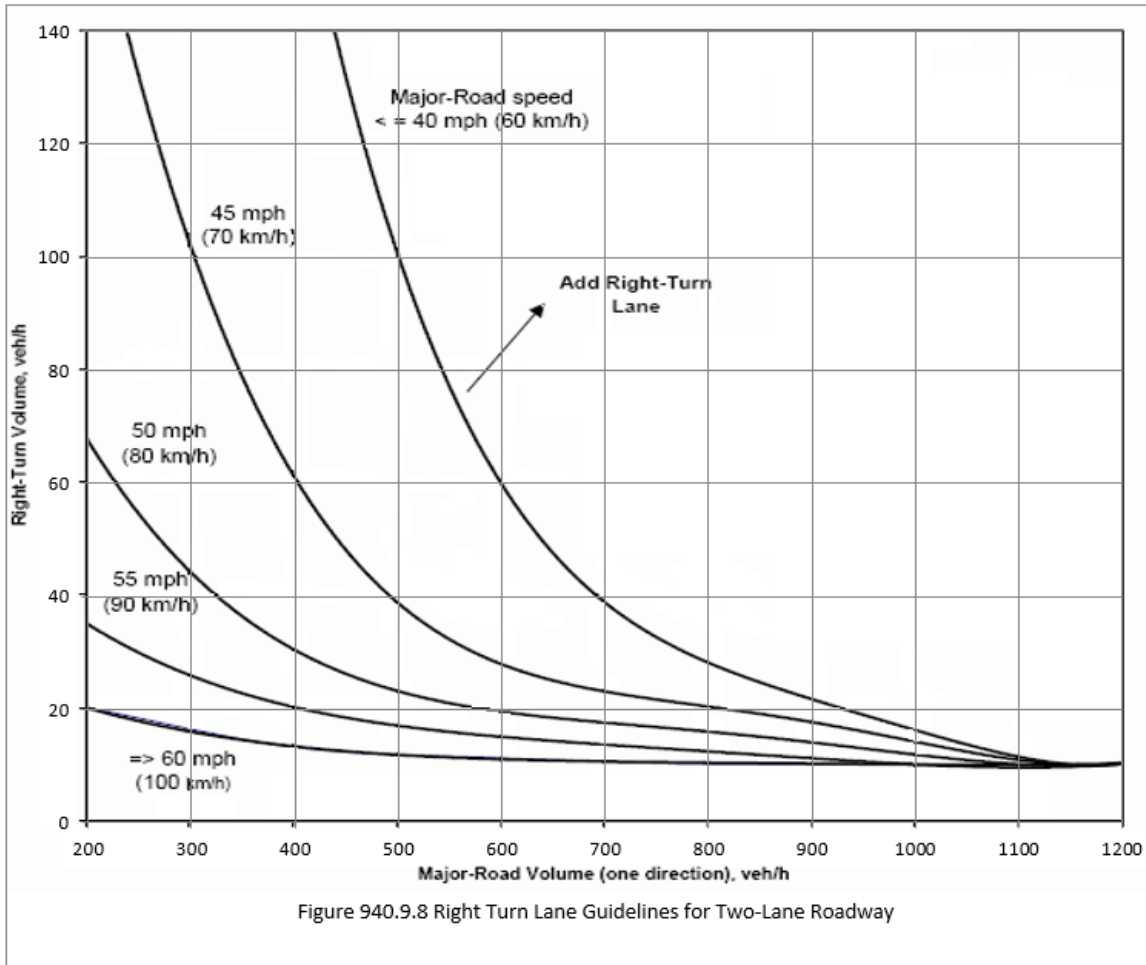
Right Turn Lane Warrant – RT M Northbound

Traffic Volume Information:

A 13-hour traffic count was conducted at the intersection on August 25, 2021. Traffic was counted from 6:00 a.m. to 7:00 p.m.

During this time period there were a total of 210 northbound RT M to eastbound US 60 right turning vehicles. The total northbound volume is 424 vehicles. The right turning volume makes up 49.5% of northbound traffic. The peak hour right turning volume for northbound traffic was 24 vehicles per hour out of 45 total northbound vehicles.

2 Lane Right Turn Lane Chart



The hourly volume never reaches the minimum of 200 veh/h to appear on the chart. **Therefore, the volume warrant for a right turn lane has not been met.**

Five Year Crash Rate Information:

The crash history for the intersection of US 60 and RT M & RT W from January 1, 2017 to December 31, 2021 showed one (1) crash involving right-turning northbound traffic.

<i>No. of Crashes</i>	<i>1</i>
<i>No. of Days</i>	<i>1,825</i>
<i>Entering AADT</i>	<i>493</i>

An intersection crash rate can be calculated as follows:

$$CR = (\text{Number of Crashes} \times 10E6) / (\text{Number of Days} \times \text{Entering AADT})$$

$$CR = (1 \times 10E6) / (1825 \times 493) = \mathbf{11.11}$$

The crash severity is shown in the following table.

Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	0	0	0	0	1	1
Total	0	0	0	0	1	1

The crash classes are shown in the following table.

Crash Class	2017	2018	2019	2020	2021	Total
Rear End	0	0	0	0	1	1
Total	0	0	0	0	1	1

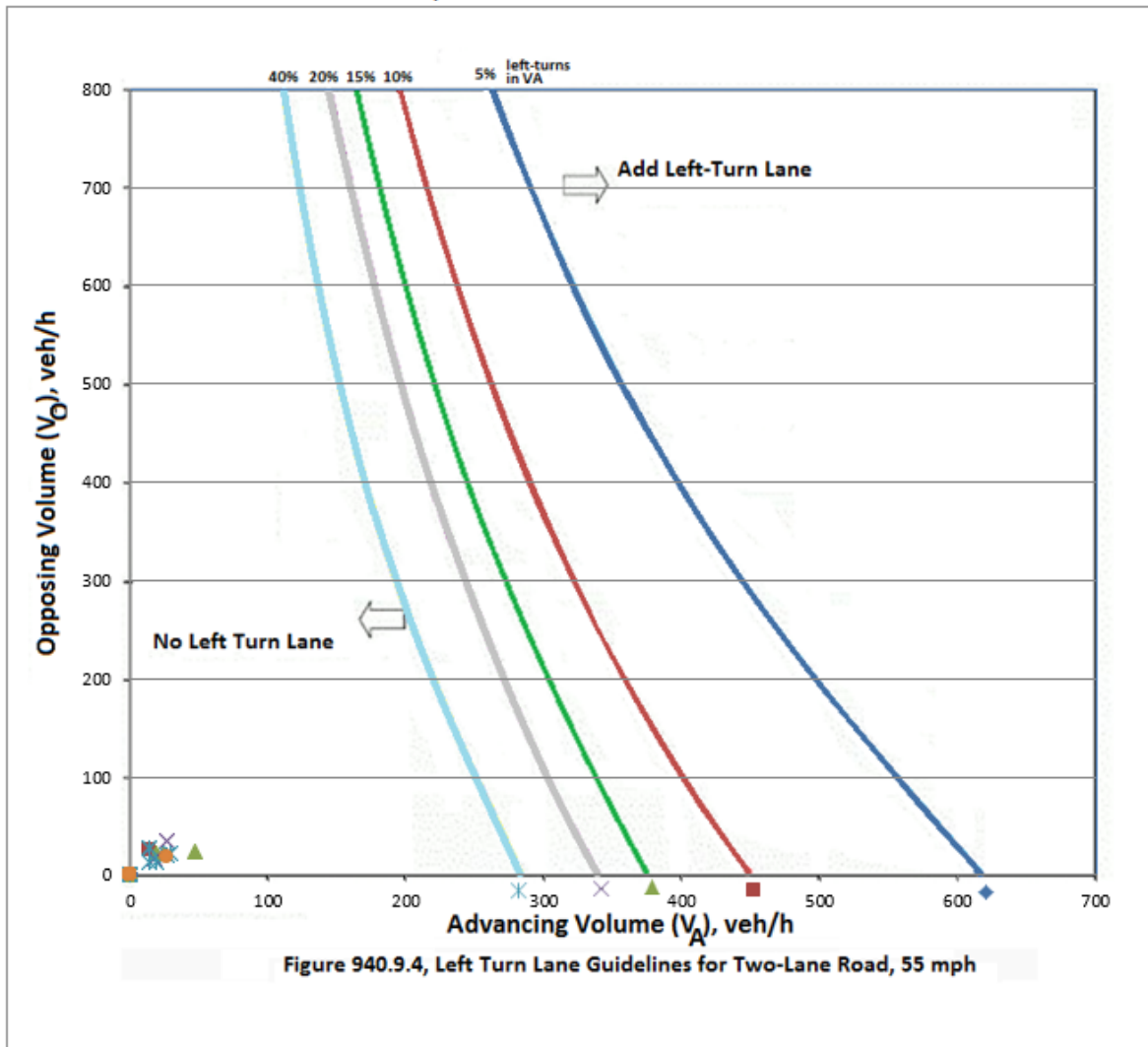
Left Turn Lane Warrant – RT M Northbound

Traffic Volume Information:

A 13-hour traffic count was conducted at the intersection on August 25, 2021. Traffic was counted from 6:00 a.m. to 7:00 p.m.

During this time period there were a total of 136 northbound RT M to westbound US 60 left turning vehicles. The total northbound volume is 424 vehicles. The left turning volume makes up 32.1% of northbound traffic. The peak hour left turning volume for northbound traffic was 20 vehicles per hour out of 44 total northbound vehicles.

55 mph Left Turn Lane Warrant



The dots show where the total volume of southbound traffic and the left turning northbound volume intersect. The dots fall below the appropriate line for 13 hours counted. **Therefore, the volume warrant for a left turn lane has not been met.**

Five Year Crash Rate Information:

The crash history for the intersection of US 60 and RT M & RT W from January 1, 2017 to December 31, 2021 showed zero (0) crashes involving left-turning northbound traffic.

<i>No. of Crashes</i>	0
<i>No. of Days</i>	1,825
<i>Entering AADT</i>	493

An intersection crash rate can be calculated as follows:

$$CR = (Number\ of\ Crashes \times 10E6) / (Number\ of\ Days \times Entering\ AADT)$$

$$CR = (0 \times 10E6) / (1825 \times 493) = \mathbf{0.00}$$

The crash severity is shown in the following table.

Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	0	0	0	0	0	0
Total	0	0	0	0	0	0

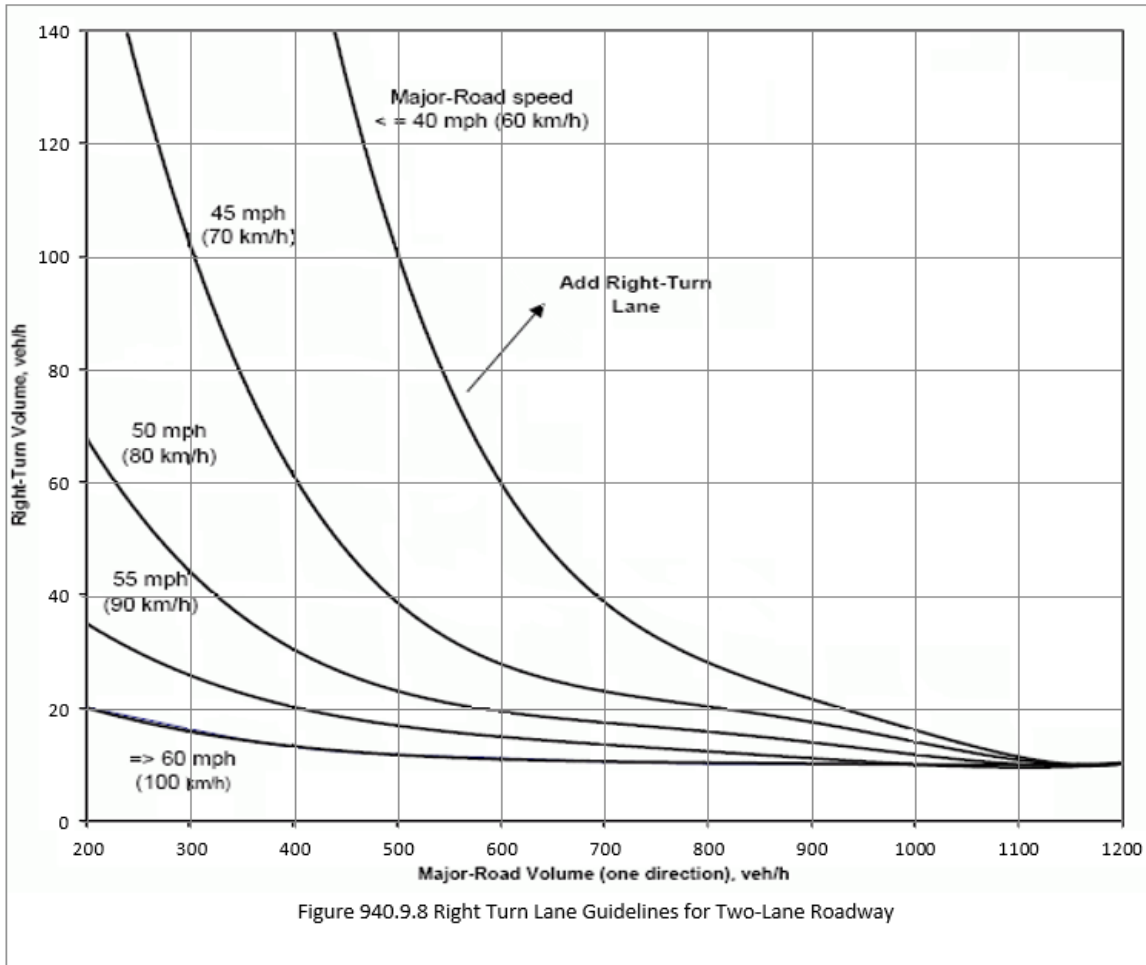
The crash classes are shown in the following table.

Crash Class	2017	2018	2019	2020	2021	Total
All Classes	0	0	0	0	0	0
Total	0	0	0	0	0	0

Right Turn Lane Warrant – RT W Southbound

During this time period there were a total of 116 southbound RT W to westbound US 60 right turning vehicles. The total southbound volume is 287 vehicles. The right turning volume makes up 40.4% of southbound traffic. The peak hour right turning volume for southbound traffic was 22 vehicles per hour out of 47 total southbound vehicles.

2 Lane Right Turn Lane Chart



The hourly volume never reaches the minimum of 200 veh/h to appear on the chart. **Therefore, the volume warrant for a right turn lane has not been met.**

Five Year Crash Rate Information:

The crash history for the intersection of US 60 and RT M & RT W from January 1, 2017 to December 31, 2021 showed zero (0) crashes involving right-turning southbound traffic.

<i>No. of Crashes</i>	<i>0</i>
<i>No. of Days</i>	<i>1,825</i>
<i>Entering AADT</i>	<i>102</i>

An intersection crash rate can be calculated as follows:

$$CR = (\text{Number of Crashes} \times 10E6) / (\text{Number of Days} \times \text{Entering AADT})$$

$$CR = (0 \times 10E6) / (1825 \times 102) = \mathbf{0.00}$$

The crash severity is shown in the following table.

Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	0	0	0	0	0	0
Total	0	0	0	0	0	0

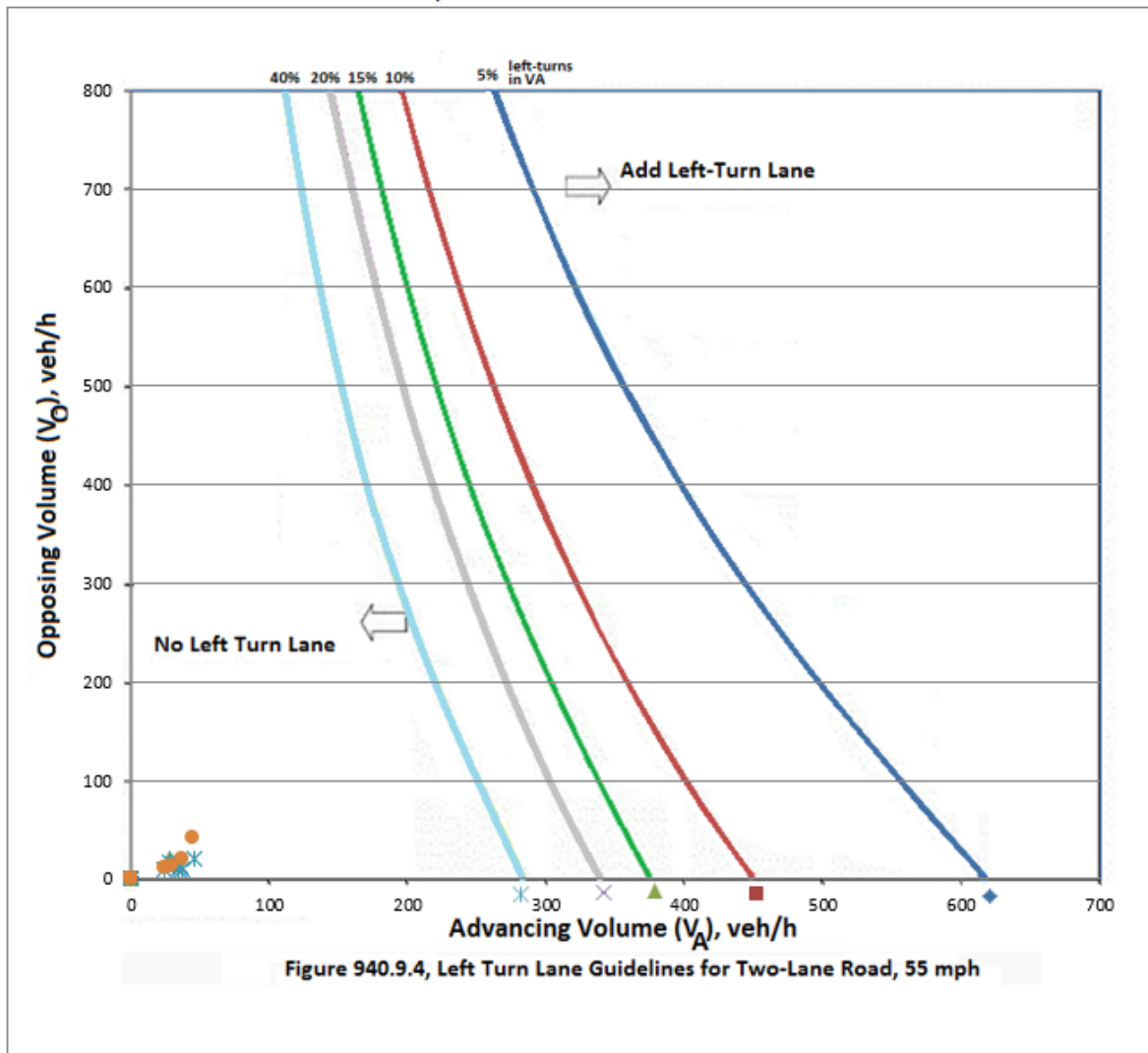
The crash classes are shown in the following table.

Crash Class	2017	2018	2019	2020	2021	Total
All Classes	0	0	0	0	0	0
Total	0	0	0	0	0	0

Left Turn Lane Warrant – RT W Southbound

During this time period there were a total of 66 southbound RT W to eastbound US 60 left turning vehicles. The total southbound volume is 287 vehicles. The left turning volume makes up 23.0% of southbound traffic. The peak hour left turning volume for southbound traffic was 11 vehicles per hour out of 26 total southbound vehicles.

55 mph Left Turn Lane Warrant



The dots show where the total volume of northbound traffic and the left turning southbound volume intersect. The dots fall below the appropriate line for 13 hours counted. **Therefore, the volume warrant for a left turn lane has not been met.**

Five Year Crash Rate Information:

The crash history for the intersection of US 60 and RT M & RT W from January 1, 2017 to December 31, 2021 showed zero (0) crashes involving left-turning southbound traffic.

<i>No. of Crashes</i>	0
<i>No. of Days</i>	1,825
<i>Entering AADT</i>	102

An intersection crash rate can be calculated as follows:

$$CR = (Number\ of\ Crashes \times 10E6) / (Number\ of\ Days \times Entering\ AADT)$$

$$CR = (0 \times 10E6) / (1825 \times 102) = \mathbf{0.00}$$

The crash severity is shown in the following table.

Severity Rating	2017	2018	2019	2020	2021	Total
Fatality	0	0	0	0	0	0
Disabling Injury	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Property Damage Only	0	0	0	0	0	0
Total	0	0	0	0	0	0

The crash classes are shown in the following table.

Crash Class	2017	2018	2019	2020	2021	Total
All Classes	0	0	0	0	0	0
Total	0	0	0	0	0	0

Comments:

There were seven (7) crashes correctable by the addition of a westbound left turn lane at the intersection from January 1, 2017 to December 31, 2021, as well as one (1) crash correctable by the addition of an eastbound left turn lane and one (1) crash correctable by the addition of a northbound right turn lane. The turning movement counts show that the intersection did meet the minimum volume criteria for any left- or right-turning movements. However, due to the rate of crashes correctable by a westbound left turn lane, it is recommended that a westbound left turn lane to be considered in scoping the project along US 60.

Date

TO: Memo to file

FROM: Brittany Mitchell, E.I.T.
Intermediate Traffic Studies Specialist

DATE: Aug 11, 2021

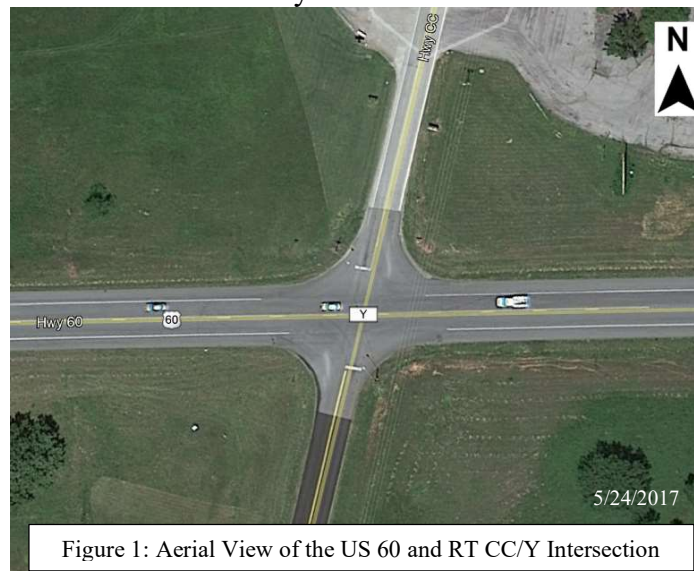
SUBJECT: Traffic Study
Turn Lane Study
US 60 at RT CC/Y
Newton County

The purpose of this study is to determine if the intersection of US 60 and RT CC/Y meets the criteria in the Engineering Policy Guide (EPG) for left and/or right turn lanes.

Site Information:

US 60 is an east/west, two-lane roadway with at grade intersections. At its intersection with RT CC/Y, US 60 has a single lane for both the westbound and the eastbound approach. Near the study intersection, the current posted speed limit for US 60 is 60 mph. The southbound leg of the intersection is RT CC. RT CC is a two-lane roadway and has a single lane approach at its intersection with US 60. The northbound leg of the intersection is RT Y. RT Y is a two-lane roadway and has a single lane approach at its intersection with US 60. The intersection is currently two-way stop controlled with stop control on RT CC/Y. Near the study intersection, the current posted speed for RT CC/Y is 55 mph.

The following is an aerial view of the study intersection:



Traffic Volume Information

A 13-hour traffic count was performed at the intersection on Wednesday, July 21, 2021. Traffic was counted from 6:00 a.m. to 7:00 p.m. Traffic Volumes are summarized as needed for turn lane warrants in the following tables.

Eastbound Left

Hour Count	Advancing Volume (veh/hr)	Left Turning Volume (veh/hr)	% LT Advancing Traffic (%)	Opposing Volume (veh/hr)
6-7 am	124	5	4%	96
7-8 am	164	8	5%	172
8-9 am	137	10	7%	145
9-10 am	140	13	9%	170
10-11 am	167	4	2%	198
11-12 pm	183	10	5%	201
12-1 pm	166	9	5%	243
1-2 pm	197	12	6%	229
2-3 pm	199	10	5%	204
3-4 pm	243	11	5%	241
4-5 pm	231	19	8%	296
5-6 pm	223	19	9%	289
6-7 pm	174	11	6%	222

Advancing Volume (veh/hr) - The advancing volume includes the right-turn, left-turn and through movements in the same direction as the left turning vehicle.

Opposing Volume (veh/hr) - The opposing volume is to include only the right-turn and through movements in the opposite direction of the left turning vehicle.

Eastbound Right

Hour Count	Advancing Volume (veh/hr)	Right Turning Volume (veh/hr)
6-7 am	124	0
7-8 am	164	0
8-9 am	137	4
9-10 am	140	2
10-11 am	167	8
11-12 pm	183	4
12-1 pm	166	6
1-2 pm	197	2

2-3 pm	199	0
3-4 pm	243	5
4-5 pm	231	3
5-6 pm	223	1
6-7 pm	174	4

Advancing Volume (veh/hr) - The advancing volume is to include the right-turn, left-turn and through movements in the same direction as the right turning vehicle.

Westbound Left

Hour Count	Advancing Volume (veh/hr)	Left Turning Volume (veh/hr)	% LT Advancing Traffic (%)	Opposing Volume (veh/hr)
6-7 am	97	1	1%	119
7-8 am	175	3	2%	156
8-9 am	150	5	3%	127
9-10 am	177	7	4%	127
10-11 am	212	14	7%	163
11-12 pm	214	13	6%	173
12-1 pm	257	14	5%	157
1-2 pm	250	20	8%	185
2-3 pm	214	10	5%	189
3-4 pm	271	30	11%	232
4-5 pm	316	20	6%	212
5-6 pm	310	21	7%	204
6-7 pm	243	21	9%	163

Advancing Volume (veh/hr) - The advancing volume includes the right-turn, left-turn and through movements in the same direction as the left turning vehicle.

Opposing Volume (veh/hr) - The opposing volume is to include only the right-turn and through movements in the opposite direction of the left turning vehicle.

Westbound Right

Hour Count	Advancing Volume (veh/hr)	Right Turning Volume (veh/hr)
6-7 am	97	7
7-8 am	175	11
8-9 am	150	11
9-10 am	177	7
10-11 am	212	9

11-12 pm	214	14
12-1 pm	257	18
1-2 pm	250	19
2-3 pm	214	20
3-4 pm	271	32
4-5 pm	316	40
5-6 pm	310	23
6-7 pm	243	28

Advancing Volume (veh/hr) - The advancing volume is to include the right-turn, left-turn and through movements in the same direction as the right turning vehicle.

Northbound Left

Hour Count	Advancing Volume (veh/hr)	Left Turning Volume (veh/hr)	% LT Advancing Traffic (%)	Opposing Volume (veh/hr)
6-7 am	35	4	11%	27
7-8 am	45	4	9%	23
8-9 am	45	1	2%	32
9-10 am	24	3	13%	22
10-11 am	34	5	15%	25
11-12 pm	25	4	16%	28
12-1 pm	31	4	13%	30
1-2 pm	43	2	5%	38
2-3 pm	24	2	8%	33
3-4 pm	35	3	9%	40
4-5 pm	40	1	3%	59
5-6 pm	50	5	10%	45
6-7 pm	27	4	15%	57

Advancing Volume (veh/hr) - The advancing volume includes the right-turn, left-turn and through movements in the same direction as the left turning vehicle.

Opposing Volume (veh/hr) - The opposing volume is to include only the right-turn and through movements in the opposite direction of the left turning vehicle.

Northbound Right

Hour Count	Advancing Volume (veh/hr)	Right Turning Volume (veh/hr)
6-7 am	35	13
7-8 am	45	19

8-9 am	45	28
9-10 am	24	12
10-11 am	34	16
11-12 pm	25	11
12-1 pm	31	16
1-2 pm	43	20
2-3 pm	24	9
3-4 pm	35	13
4-5 pm	40	21
5-6 pm	50	20
6-7 pm	27	9

Advancing Volume (veh/hr) - The advancing volume is to include the right-turn, left-turn and through movements in the same direction as the right turning vehicle.

Southbound Left

Hour Count	Advancing Volume (veh/hr)	Left Turning Volume (veh/hr)	% LT Advancing Traffic (%)	Opposing Volume (veh/hr)
6-7 am	34	21	62%	31
7-8 am	32	17	53%	41
8-9 am	42	28	67%	44
9-10 am	29	14	48%	21
10-11 am	34	12	35%	29
11-12 pm	40	13	33%	21
12-1 pm	41	17	41%	27
1-2 pm	49	20	41%	41
2-3 pm	44	22	50%	22
3-4 pm	51	22	43%	32
4-5 pm	86	26	30%	39
5-6 pm	63	16	25%	45
6-7 pm	78	26	33%	23

Advancing Volume (veh/hr) - The advancing volume includes the right-turn, left-turn and through movements in the same direction as the left turning vehicle.

Opposing Volume (veh/hr) - The opposing volume is to include only the right-turn and through movements in the opposite direction of the left turning vehicle.

Southbound Right

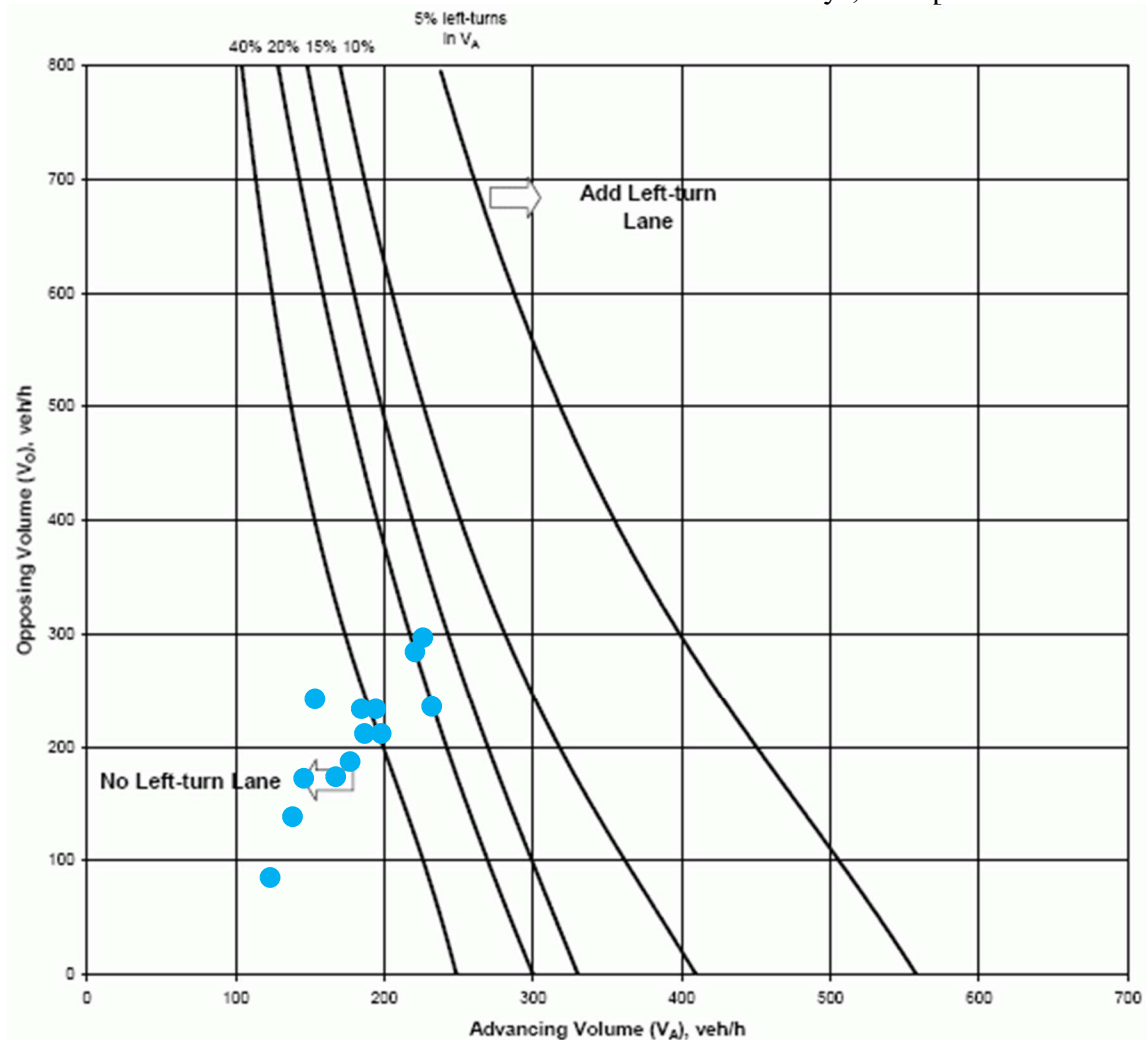
Hour Count	Advancing Volume (veh/hr)	Right Turning Volume (veh/hr)
6-7 am	34	7
7-8 am	32	9
8-9 am	42	10
9-10 am	29	7
10-11 am	34	9
11-12 pm	40	12
12-1 pm	41	11
1-2 pm	49	11
2-3 pm	44	11
3-4 pm	51	11
4-5 pm	86	27
5-6 pm	63	18
6-7 pm	78	21

Advancing Volume (veh/hr) - The advancing volume is to include the right-turn, left-turn and through movements in the same direction as the right turning vehicle.

Turn Lanes Evaluation

Eastbound Left

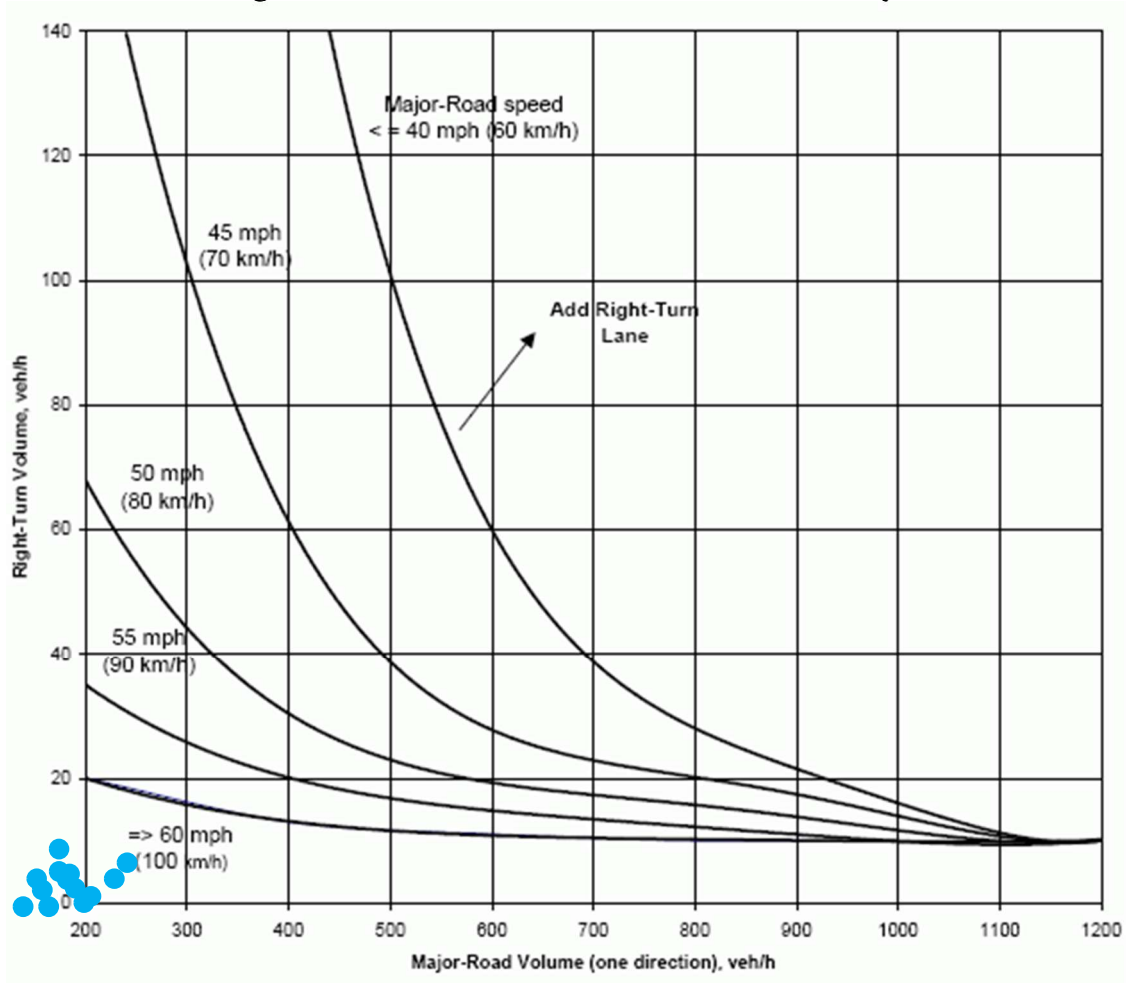
Left Turn Lane Guidelines for Two-Lane Roadways, 60 mph



The blue dots represent traffic conditions for all hours that traffic volumes were collected. The highest percent of left turns in advancing traffic is 9%. The percent of left turning traffic is rounded up to the nearest percentage trendline, therefore the 10% line is used. All traffic volumes fall to the left of the 10% line and the warrant for a left turn lane is not **met**.

Eastbound Right

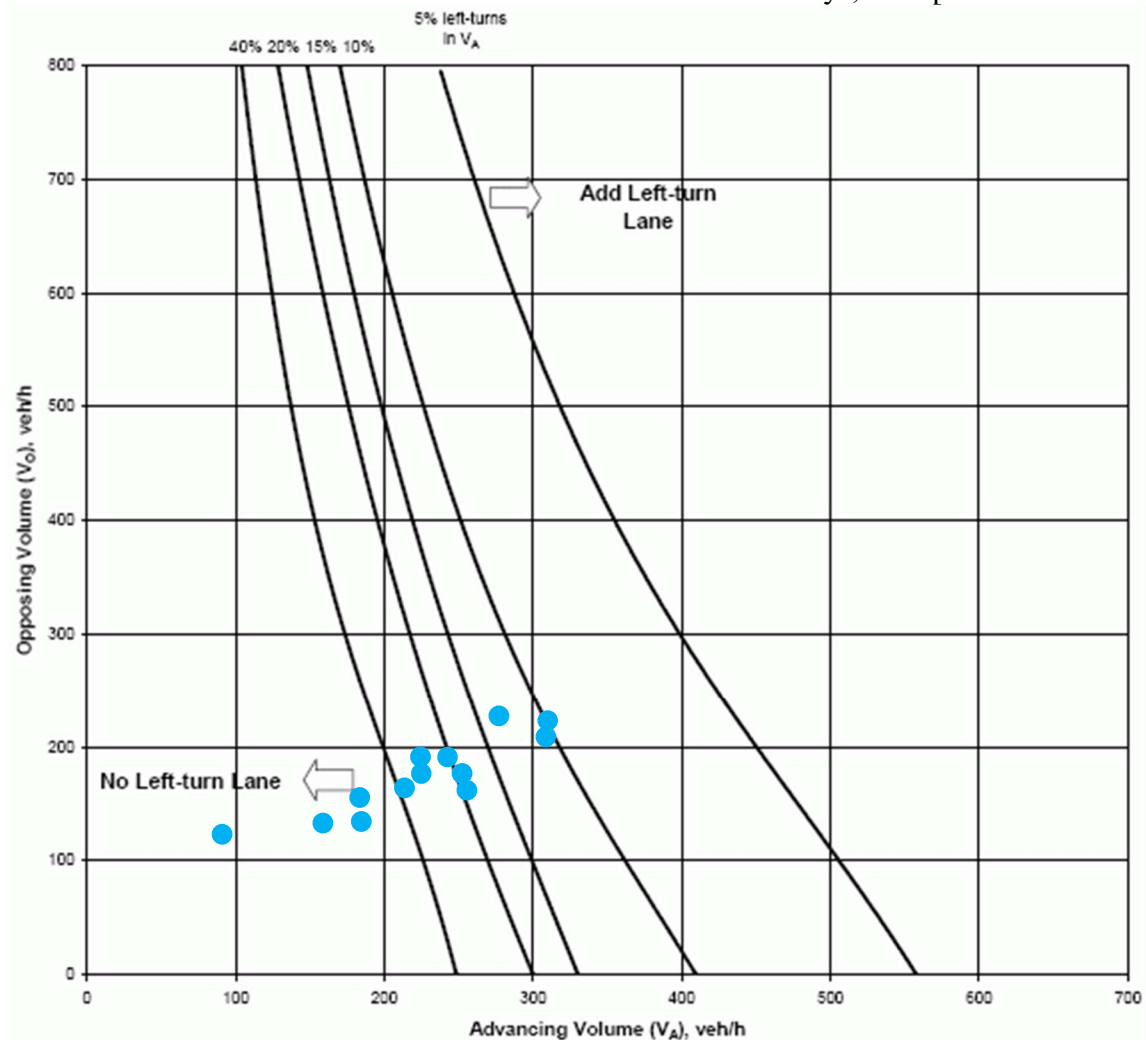
Right Turn Lane Guidelines for Two-Lane Roadways



The blue dots represent traffic conditions for all hours that traffic volumes were collected. All points fall below the line for 60 mph and therefore the volume warrant for a right turn lane is **not met**.

Westbound Left

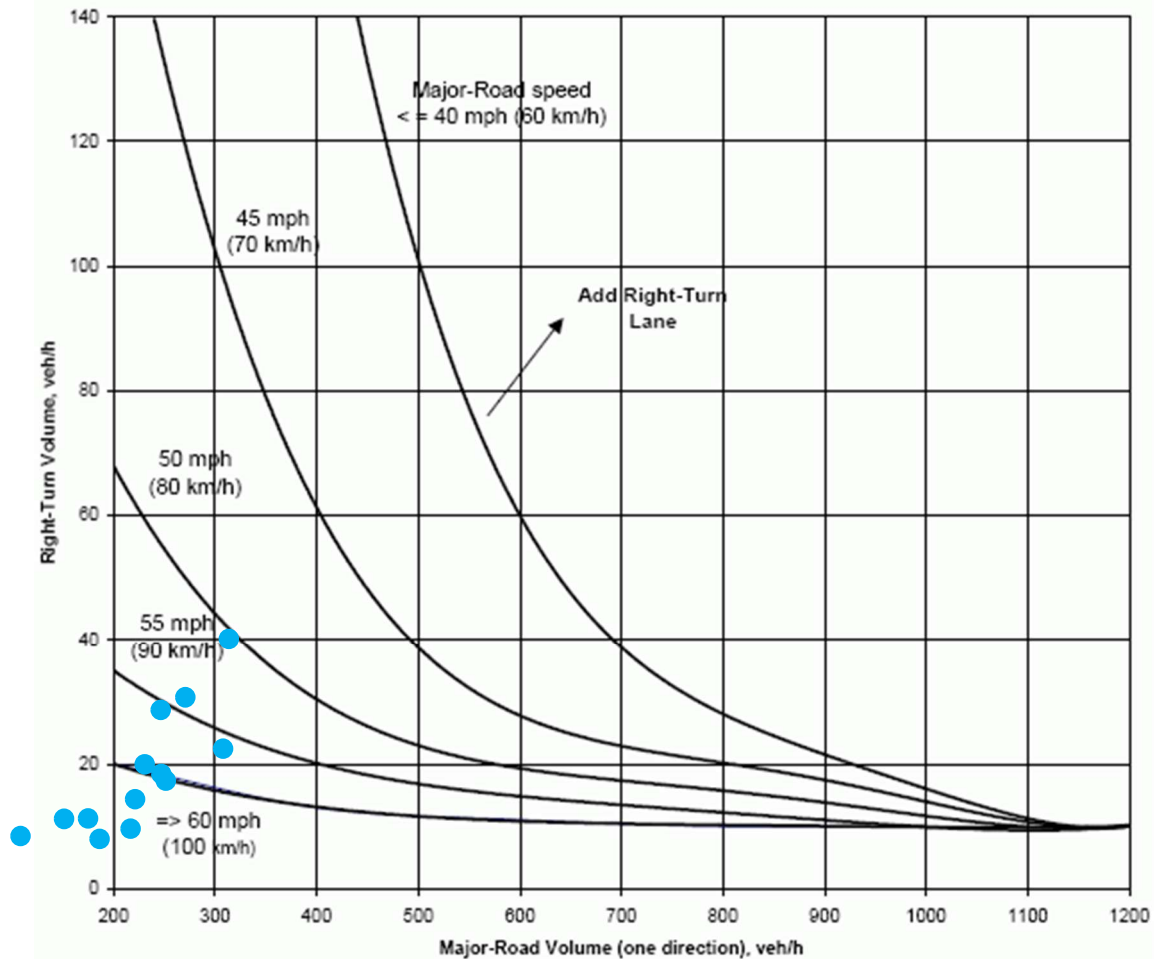
Left Turn Lane Guidelines for Two-Lane Roadways, 60 mph



The blue dots represent traffic conditions for all hours that traffic volumes were collected. The average percent of left turns in advancing traffic and the percentage of left turns in advancing traffic during the peak hour is 6%. The percent of left turning traffic is rounded up to the nearest percentage trendline, therefore the 10% line is used. The point representing the peak hour falls on the 10% line and the warrant for a left turn lane is **met**.

Westbound Right

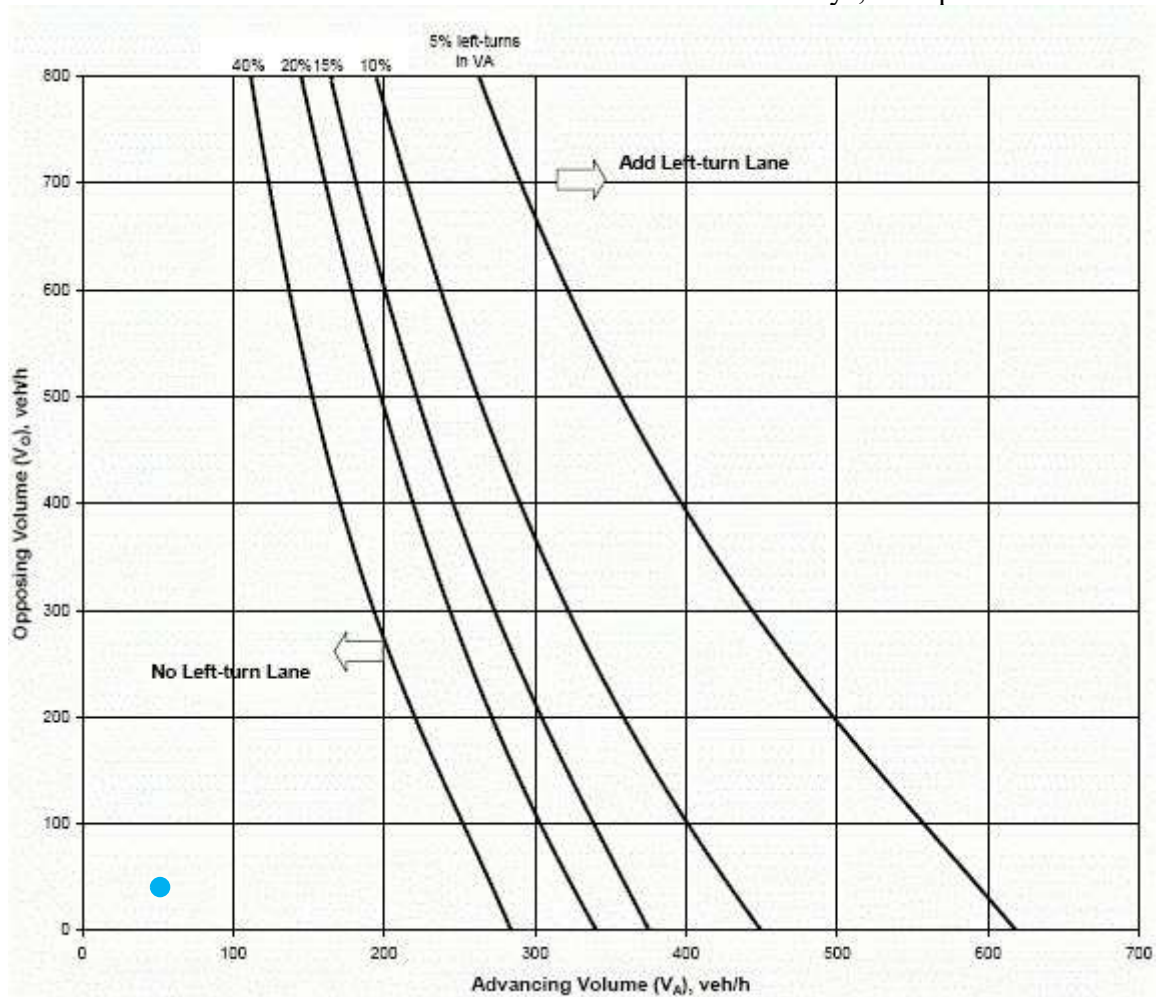
Right Turn Lane Guidelines for Two-Lane Roadways



The blue dots represent traffic conditions for all hours that traffic volumes were collected. Several points fall above the line for 60 mph and therefore the volume warrant for a westbound right turn lane is **met**.

Northbound Left

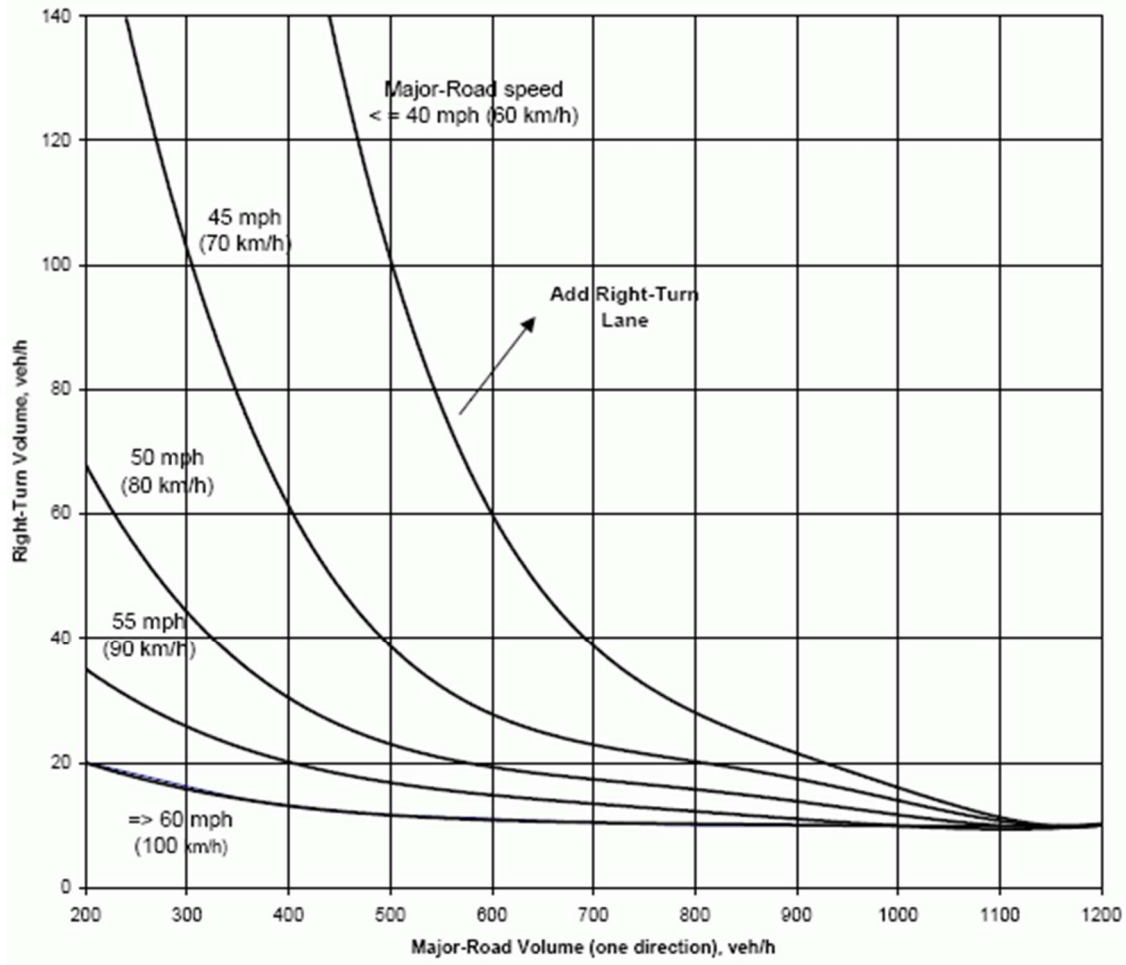
Left Turn Lane Guidelines for Two-Lane Roadways, 55 mph



The blue dot represents the Northbound peak hour traffic conditions (5-6 pm). The peak hour percent of left turns in advancing traffic is 10%. The peak traffic volumes fall to the left of the 10% line and the warrant for a left turn lane is **not met**.

Northbound Right

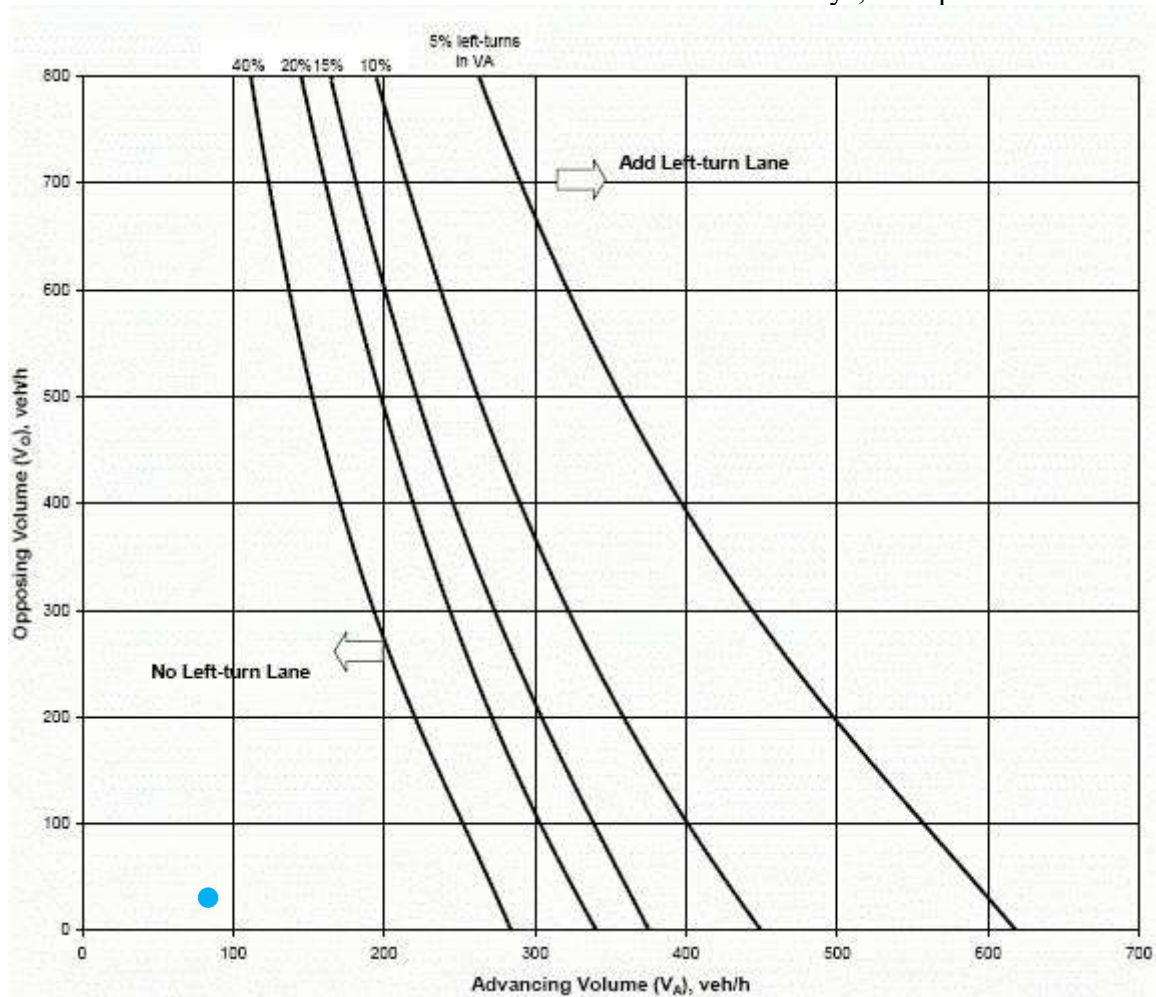
Right Turn Lane Guidelines for Two-Lane Roadways



The blue dot represents the Northbound Peak Hour (5-6 pm) traffic conditions. This point falls below the line for 55 mph and therefore the volume warrant for a right turn lane is **not met**.

Southbound Left

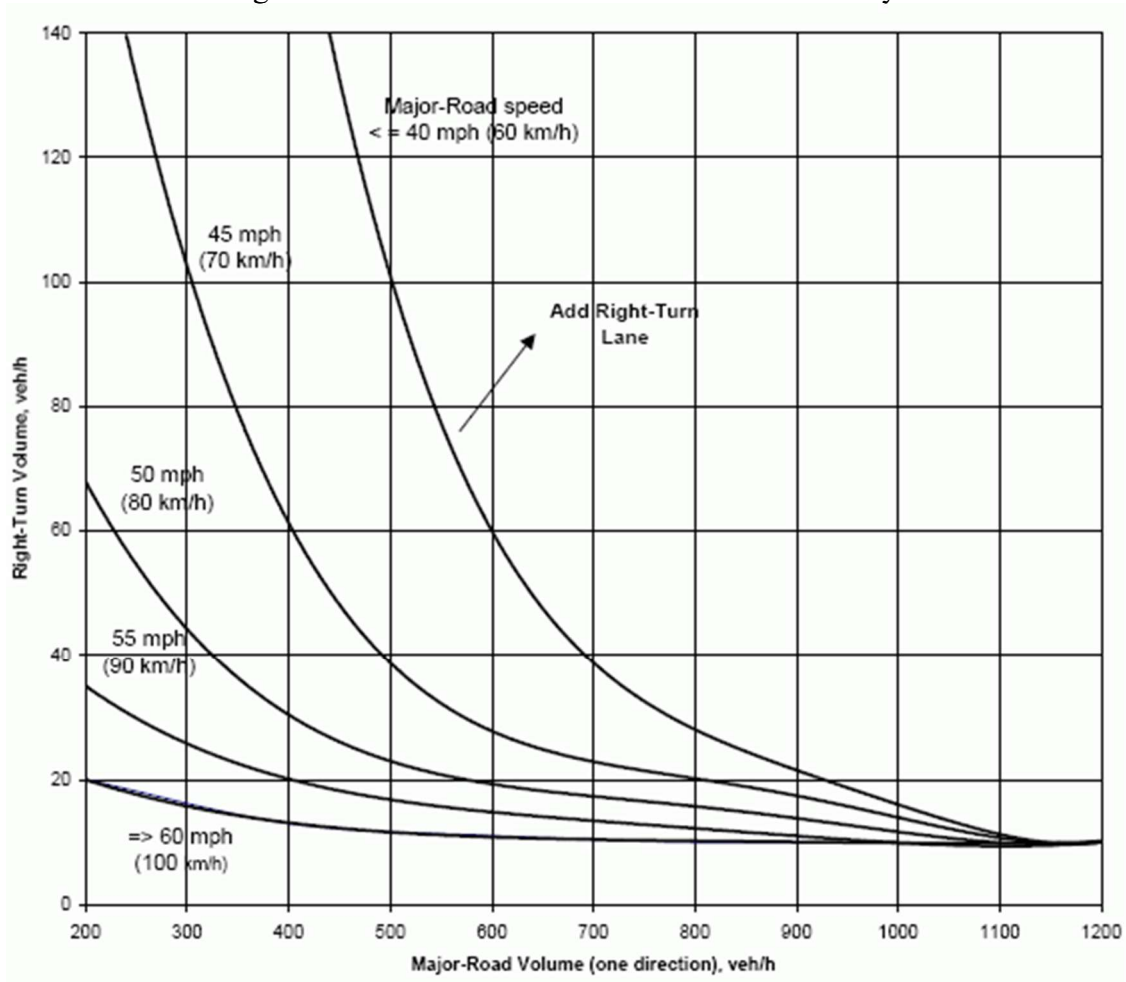
Left Turn Lane Guidelines for Two-Lane Roadways, 55 mph



The blue dot represents the Southbound peak hour traffic conditions (4-5 pm). The peak hour percent of left turns in advancing traffic is 30%. The percent of left turning traffic is rounded up to the nearest percentage trendline, therefore the 40% line is used. The peak traffic volumes fall to the left of the 40% line and the warrant for a left turn lane is not **met**.

Southbound Right

Right Turn Lane Guidelines for Two-Lane Roadways



The blue dot represents the Southbound Peak Hour (4-5 pm) traffic conditions. This point falls below the line for 55 mph and therefore the volume warrant for a right turn lane is **not met**.

Five Year Crash Rate Information

Below is the crash history for the intersection of US 60 and RT CC/Y from January 1, 2016 to December 31, 2020. The intersection showed 15 total crashes.

<i>No. Crashes</i>	<i>15</i>
<i>No. of Days</i>	<i>1825</i>
<i>Entering AADT</i>	<i>9054</i>

An intersection crash rate can be calculated using the formula below.

$$CR = (number\ of\ crashes \times 10^6) / (No.\ of\ Days \times Entering\ AADT)$$

$$CR = (15 \times 10^6) / (1825 \times 9054) = 0.91$$

Severity Rating	2016	2017	2018	2019	2020	Total
Fatality	0	0	0	0	0	0
Serious Injury	0	1	0	1	0	2
Minor Injury	0	2	0	2	1	5
Property Damage Only	3	2	0	1	2	8
Total	3	5	0	4	3	15

Most of the 15 crashes were right angle crashes due to NB or SB failing to yield. However, 2 crashes were rear ends that involved vehicles turning off US 60. In these 2 crashes, one WBL vehicle got struck from behind and one WBR vehicle got struck from behind.

Comments/Recommendations

The traffic volumes at the intersection of US 60 and RT CC/Y warrant the installation of a westbound left turn lane and a westbound right turn lane.

Your Company Name Here

This is your address
Your City, State, Zip Code

Your Tagline Here

File Name : 0214_60_CC_Y_Neosho_July2021

Site Code : 0214

Start Date : 7/21/2021

Page No : 1

Groups Printed- All Vehicles (no classification)

	RT CC/Y Southbound					US 60 Westbound					Northbound Approach Northbound					US 60 Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
06:00 AM	2	1	6	0	9	2	17	0	0	19	4	2	1	0	7	0	26	2	0	28	63
06:15 AM	1	1	7	0	9	1	23	0	0	24	2	8	2	0	12	0	29	1	0	30	75
06:30 AM	1	2	2	0	5	1	26	0	0	27	4	3	1	0	8	0	37	2	0	39	79
06:45 AM	3	2	6	0	11	3	23	1	0	27	3	5	0	0	8	0	27	0	0	27	73
Total	7	6	21	0	34	7	89	1	0	97	13	18	4	0	35	0	119	5	0	124	290
07:00 AM	2	2	5	0	9	6	38	0	0	44	7	1	0	0	8	0	32	1	0	33	94
07:15 AM	1	0	4	0	5	0	37	0	0	37	2	10	0	0	12	0	37	2	0	39	93
07:30 AM	2	2	4	0	8	2	33	1	0	36	6	8	1	0	15	0	43	3	0	46	105
07:45 AM	4	2	4	0	10	3	53	2	0	58	4	3	3	0	10	0	44	2	0	46	124
Total	9	6	17	0	32	11	161	3	0	175	19	22	4	0	45	0	156	8	0	164	416
08:00 AM	1	1	10	0	12	1	26	2	0	29	7	2	0	0	9	2	23	2	0	27	77
08:15 AM	3	2	9	0	14	3	40	2	0	45	5	1	1	0	7	1	36	3	0	40	106
08:30 AM	2	0	5	0	7	4	34	0	0	38	8	7	0	0	15	1	27	3	0	31	91
08:45 AM	4	1	4	0	9	3	34	1	0	38	8	6	0	0	14	0	37	2	0	39	100
Total	10	4	28	0	42	11	134	5	0	150	28	16	1	0	45	4	123	10	0	137	374
09:00 AM	3	0	4	0	7	3	28	5	0	36	3	2	0	0	5	1	27	4	0	32	80
09:15 AM	1	0	7	0	8	3	42	2	0	47	5	0	1	0	6	1	38	5	0	44	105
09:30 AM	3	1	1	0	5	0	46	0	0	46	2	3	1	0	6	0	34	1	0	35	92
09:45 AM	0	7	2	0	9	1	47	0	0	48	2	4	1	0	7	0	26	3	0	29	93
Total	7	8	14	0	29	7	163	7	0	177	12	9	3	0	24	2	125	13	0	140	370
10:00 AM	1	2	2	0	5	3	52	3	0	58	3	2	2	0	7	3	28	1	0	32	102
10:15 AM	2	4	4	0	10	3	44	3	0	50	0	5	0	0	5	0	35	1	0	36	101
10:30 AM	0	5	4	0	9	1	48	4	0	53	9	4	1	0	14	2	51	2	0	55	131
10:45 AM	6	2	2	0	10	2	45	4	0	51	4	2	2	0	8	3	41	0	0	44	113
Total	9	13	12	0	34	9	189	14	0	212	16	13	5	0	34	8	155	4	0	167	447
11:00 AM	3	4	3	0	10	3	38	0	0	41	4	2	1	0	7	0	39	2	0	41	99
11:15 AM	3	2	4	0	9	2	52	5	0	59	3	4	2	0	9	0	48	3	0	51	128
11:30 AM	4	3	3	0	10	3	44	3	0	50	3	2	1	0	6	0	38	2	0	40	106
11:45 AM	2	6	3	0	11	6	53	5	0	64	1	2	0	0	3	4	44	3	0	51	129
Total	12	15	13	0	40	14	187	13	0	214	11	10	4	0	25	4	169	10	0	183	462
12:00 PM	2	4	5	0	11	2	54	3	0	59	5	0	2	0	7	1	45	1	0	47	124
12:15 PM	2	2	8	0	12	5	55	2	0	62	4	4	1	0	9	2	31	3	0	36	119
12:30 PM	4	1	1	0	6	4	53	3	0	60	3	4	0	0	7	1	37	3	0	41	114
12:45 PM	3	6	3	0	12	7	63	6	0	76	4	3	1	0	8	2	38	2	0	42	138
Total	11	13	17	0	41	18	225	14	0	257	16	11	4	0	31	6	151	9	0	166	495

Your Company Name Here

This is your address
Your City, State, Zip Code
Your Tagline Here

File Name : 0214_60_CC_Y_Neosho_July2021

Site Code : 0214

Start Date : 7/21/2021

Page No : 2

Groups Printed- All Vehicles (no classification)

	RT CC/Y Southbound					US 60 Westbound					Northbound Approach Northbound					US 60 Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
01:00 PM	2	5	4	0	11	5	56	4	0	65	7	5	0	0	12	1	43	2	0	46	134
01:15 PM	3	3	8	0	14	2	56	5	0	63	2	7	2	0	11	0	53	5	0	58	146
01:30 PM	5	6	6	0	17	5	50	10	1	66	7	8	0	0	15	0	48	4	0	52	150
01:45 PM	1	4	2	0	7	7	48	1	0	56	4	1	0	0	5	1	39	1	0	41	109
Total	11	18	20	0	49	19	210	20	1	250	20	21	2	0	43	2	183	12	0	197	539
02:00 PM	2	4	1	0	7	6	54	1	0	61	3	4	1	0	8	0	47	2	0	49	125
02:15 PM	2	2	7	0	11	4	41	3	0	48	3	2	0	0	5	0	50	3	0	53	117
02:30 PM	4	3	5	0	12	6	41	3	0	50	3	5	0	0	8	0	40	4	0	44	114
02:45 PM	3	2	9	0	14	4	48	3	0	55	0	2	1	0	3	0	52	1	0	53	125
Total	11	11	22	0	44	20	184	10	0	214	9	13	2	0	24	0	189	10	0	199	481
03:00 PM	2	6	7	0	15	4	53	5	0	62	2	6	0	0	8	0	47	3	0	50	135
03:15 PM	2	4	7	0	13	9	43	7	0	59	4	7	1	0	12	0	68	4	0	72	156
03:30 PM	1	5	3	0	9	7	57	6	0	70	5	3	2	0	10	4	57	3	0	64	153
03:45 PM	6	3	5	0	14	12	56	12	0	80	2	3	0	0	5	1	55	1	0	57	156
Total	11	18	22	0	51	32	209	30	0	271	13	19	3	0	35	5	227	11	0	243	600
04:00 PM	7	12	4	0	23	12	60	3	0	75	9	2	0	0	11	1	59	1	0	61	170
04:15 PM	7	6	9	0	22	9	68	11	0	88	4	3	0	0	7	0	40	7	0	47	164
04:30 PM	6	6	6	0	18	12	63	2	0	77	5	6	1	0	12	2	64	3	0	69	176
04:45 PM	7	9	7	0	23	7	65	4	0	76	3	7	0	0	10	0	46	8	0	54	163
Total	27	33	26	0	86	40	256	20	0	316	21	18	1	0	40	3	209	19	0	231	673
05:00 PM	5	7	1	0	13	6	61	3	0	70	3	7	1	0	11	0	54	7	0	61	155
05:15 PM	3	4	8	0	15	5	85	4	0	94	3	4	3	0	10	0	61	4	0	65	184
05:30 PM	5	9	2	0	16	5	66	8	0	79	9	9	1	0	19	0	41	2	0	43	157
05:45 PM	5	9	5	0	19	7	54	6	0	67	5	5	0	0	10	1	47	6	0	54	150
Total	18	29	16	0	63	23	266	21	0	310	20	25	5	0	50	1	203	19	0	223	646
06:00 PM	4	8	8	0	20	12	57	6	0	75	3	5	2	0	10	1	39	5	0	45	150
06:15 PM	5	10	8	0	23	3	55	6	0	64	3	3	2	0	8	1	36	3	0	40	135
06:30 PM	6	6	6	0	18	7	51	4	0	62	1	1	0	1	3	0	37	1	0	38	121
06:45 PM	6	7	4	0	17	6	31	5	0	42	2	4	0	0	6	2	47	2	0	51	116
Total	21	31	26	0	78	28	194	21	0	243	9	13	4	1	27	4	159	11	0	174	522
Grand Total	164	205	254	0	623	239	2467	179	1	2886	207	208	42	1	458	39	2168	141	0	2348	6315
Apprch %	26.3	32.9	40.8	0		8.3	85.5	6.2	0		45.2	45.4	9.2	0.2		1.7	92.3	6	0		
Total %	2.6	3.2	4	0	9.9	3.8	39.1	2.8	0	45.7	3.3	3.3	0.7	0	7.3	0.6	34.3	2.2	0	37.2	

MISSOURI

Route 60 - See page 4 of 4

A-5-3

NO.	7
DIST.	7
PROJECT	BARRY
DATE	12-1

STATE HIGHWAY COMMISSION
PLAN AND PROFILE
OF PROPOSED
STATE ROAD

FEDERAL AID PROJECT
BARRY COUNTY

PLAN 1 IN. = 100 FT.
PROFILE HOR. 1 IN. = 100 FT. VERT. 1 IN. = 10 FT.
CROSS-SECTIONS 1 IN. = 5 FT.

DIST 7
REC'D 5-22-61

330

CONVENTIONAL SIGNS	
STATE AND NATIONAL LINE	LEVY
COUNTY LINE	CULVERT
CITY, VILLAGE OR BOROUGH	DROP INLET
TOWNSHIP LINE	TROLLEY POLE
SECTION LINE	POWER POLE
GRANT LINE	TELEPHONE OR TELEGRAPH POLE
FENCE LINE	MARSH
GUARD RAIL	HEDGE
UNFENCED PROPERTY	GROUND ELEVATION
RIGHT OF WAY LINE	RAILROAD
TRAVELED WAY	RETAINING WALL
RAILROAD	BASE OR SURVEY LINE
RETAINING WALL	
BASE OR SURVEY LINE	

SCALE: ONE INCH = ONE MILE

SUBMITTED	
CHIEF ENGINEER NO. STATE HIGHWAY COMMISSION	
RECOMMENDED FOR APPROVAL	
DISTRICT ENGINEER - DISTRICT NO. 7	
RECOMMENDED FOR APPROVAL	
CHIEF ENGINEER BUREAU PUBLIC ROADS	
APPROVED	
DIRECTOR BUREAU OF PUBLIC ROADS	

Name of road Route 60 no. to Lawrence Co. Line
Type of Improvement 20' G. Earth.

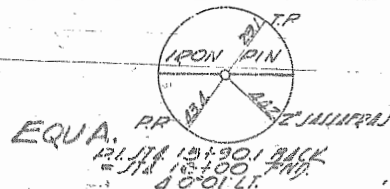
MISSOURI STATE HIGHWAY COMMISSION

ESTIMATE SHEET

County of BARRY
Length 1.000 Miles

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.			2A	
HY. NO.	COUNTY			ROUTE	SEC. NO.
7	Barry			D	1

[illegible]



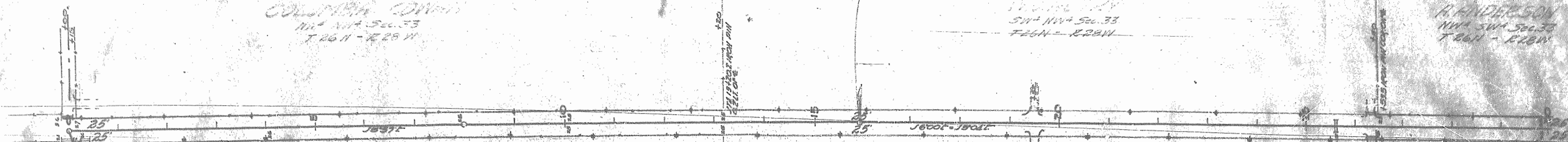
17426+39 C.M.P. CULV.
20' L. 13' x 16'
USE IN PLACE

FEDERAL ROAD DIST. NO.	STATE	FEDERAL PROJECT	FISCAL YEAR	BUSSET NO.	TOTAL BUSES
5	MO				
DRY. NO.	DRY. NO.		DRY. NO.		DRY. NO.
7	BARRY		JO		1

NO. 104-50133
T 26 N - R 28 W

SW¹ NW¹ Sec. 33
~~E 24 N - E 28 W~~

A. ANDERSON
NW 1/4 SW 1/4 Sec. 33
T26N - R28W



Begin Sec. 1

5740+25 CONC PIPE CULV.
17" 15" x 16"
USE IN PLACE

NE 4 NE 4 Sec. 32
T20N - R28W

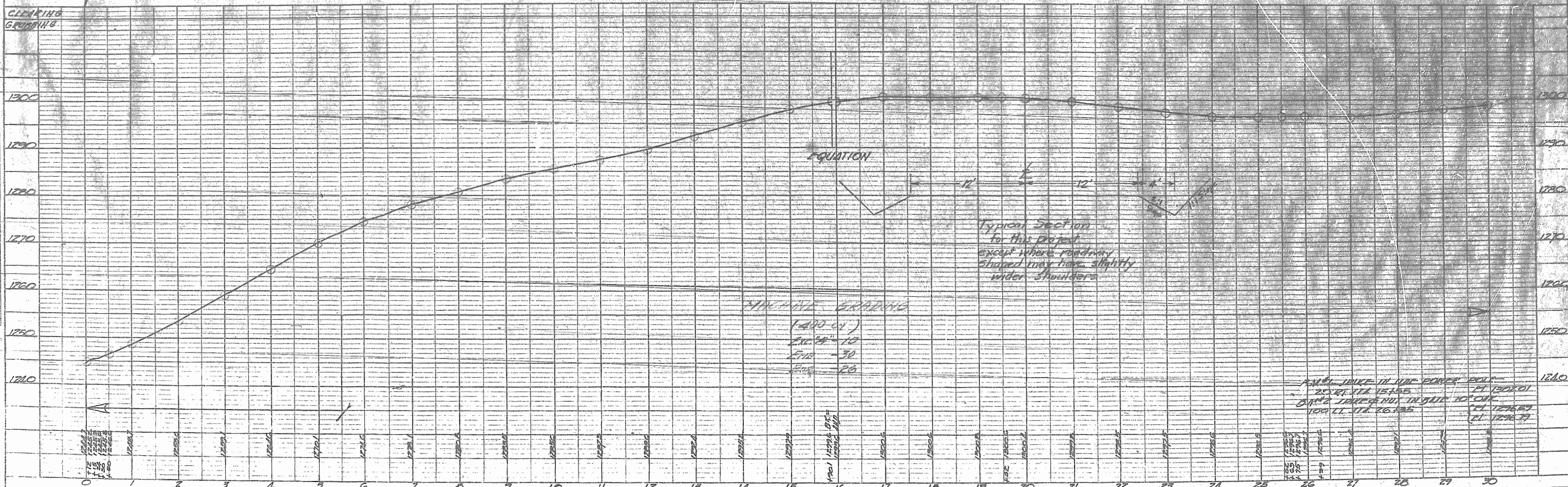
COLUMBIA COMPANY

SEA NEA Sec. 32 JTA 25+63 CONC BOX CULV
12-11-51 123 JTA-256C
T26N-R28W USE IN PLACE

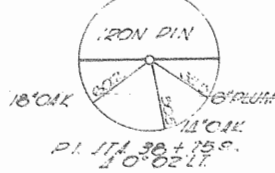
ANDERSON
NEASE SMC 32
TAN - 820V

F. F. & S. R. APPROACHES			
STATION	DEPT	W' 3"	W' 1"
D+15	LT. NO PIPE		5 6 M.G.
D+25	RT. USE PRES. PIPE		USE PRES. ENT. M.G.
D+32	RL. NO PIPE		10 8 M.G.
D+39	RT. 10		12 14 M.G.
D+39	LT. USE PRES. PIPE		5 6 M.G.

COST OF ALL CHAIRING & CHAIRING
MACHINE WORKING L.M.T. 11/1/1912
IN MACHINE CHAIRING

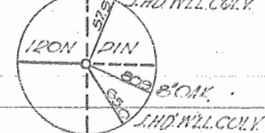


STA 32+08 C.I.P. CULV.
16' DI.
15" X 12"



STA 32+08 CONC. BOX CULV.
15" X 12"

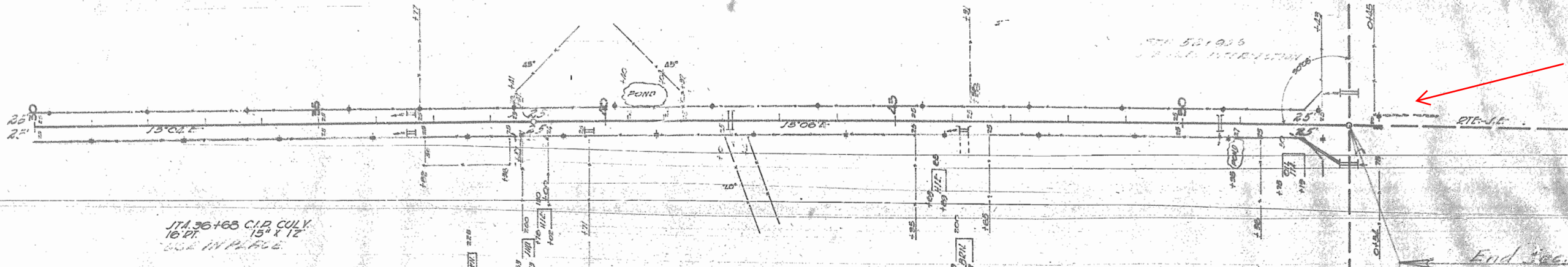
STA 52+08 CONC. BOX CULV.
15" X 12"



NO.	NO.	NO.
7	BARRY	10.1

STA 52+90.6 RT-10.
10' DI.
15" X 12"

Route 60
Intersection



STA 36+08 C.I.P. CULV.
16' DI.
15" X 12"

STA 39+76 WOOD CULV.
18' DI.
18" X 12"

STA 40+21 C.I.P. CULV.
15' DI.
15" X 12"

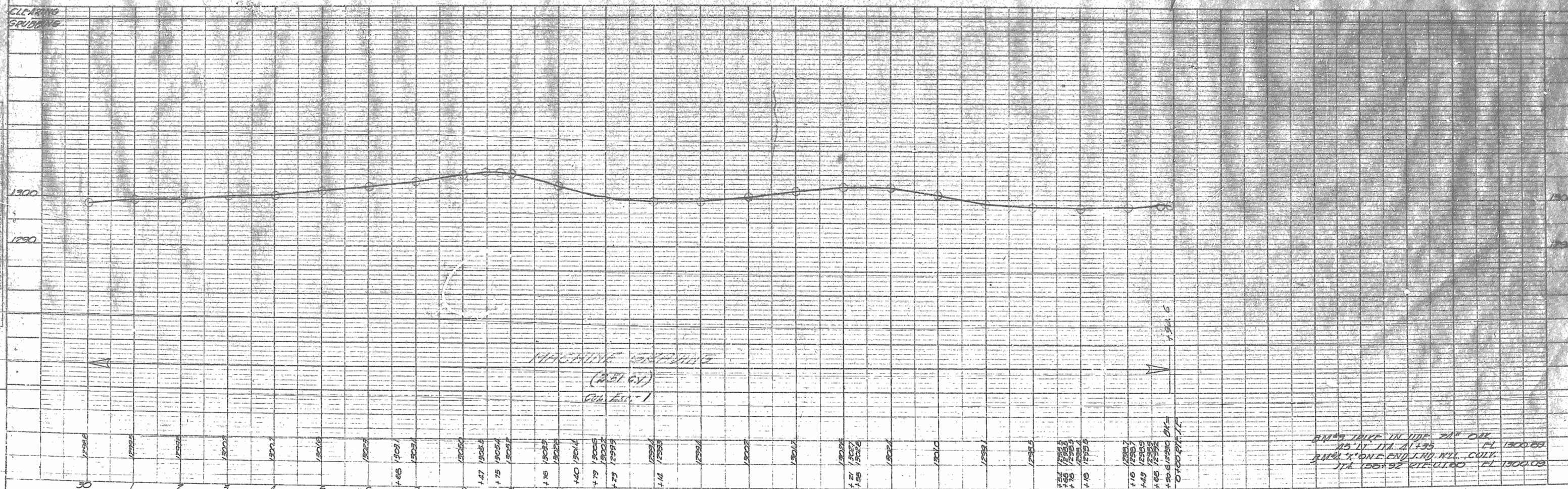
STA 52+05 CONC. BOX CULV.
15' DI.
15" X 12"

STA 52+90.6 CULV.
15' DI.
15" X 12"

F. E. & S. R. APPROACHES			
STATION	SHOUL.	15"	18"
36+68	RT.	USE PRES. PIPE	USE PRES. ENT.
36+68	LT.	USE PRES. PIPE	USE PRES. ENT.
39+76	RT.	NO PIPE	USE PRES. ENT.
39+76	LT.	USE PRES. PIPE	USE PRES. ENT.
40+21	RT.	NO PIPE	USE PRES. ENT.
40+21	LT.	NO PIPE	USE PRES. ENT.
52+05	RT.	USE PRES. PIPE	USE PRES. ENT.
52+05	LT.	USE PRES. PIPE	USE PRES. ENT.

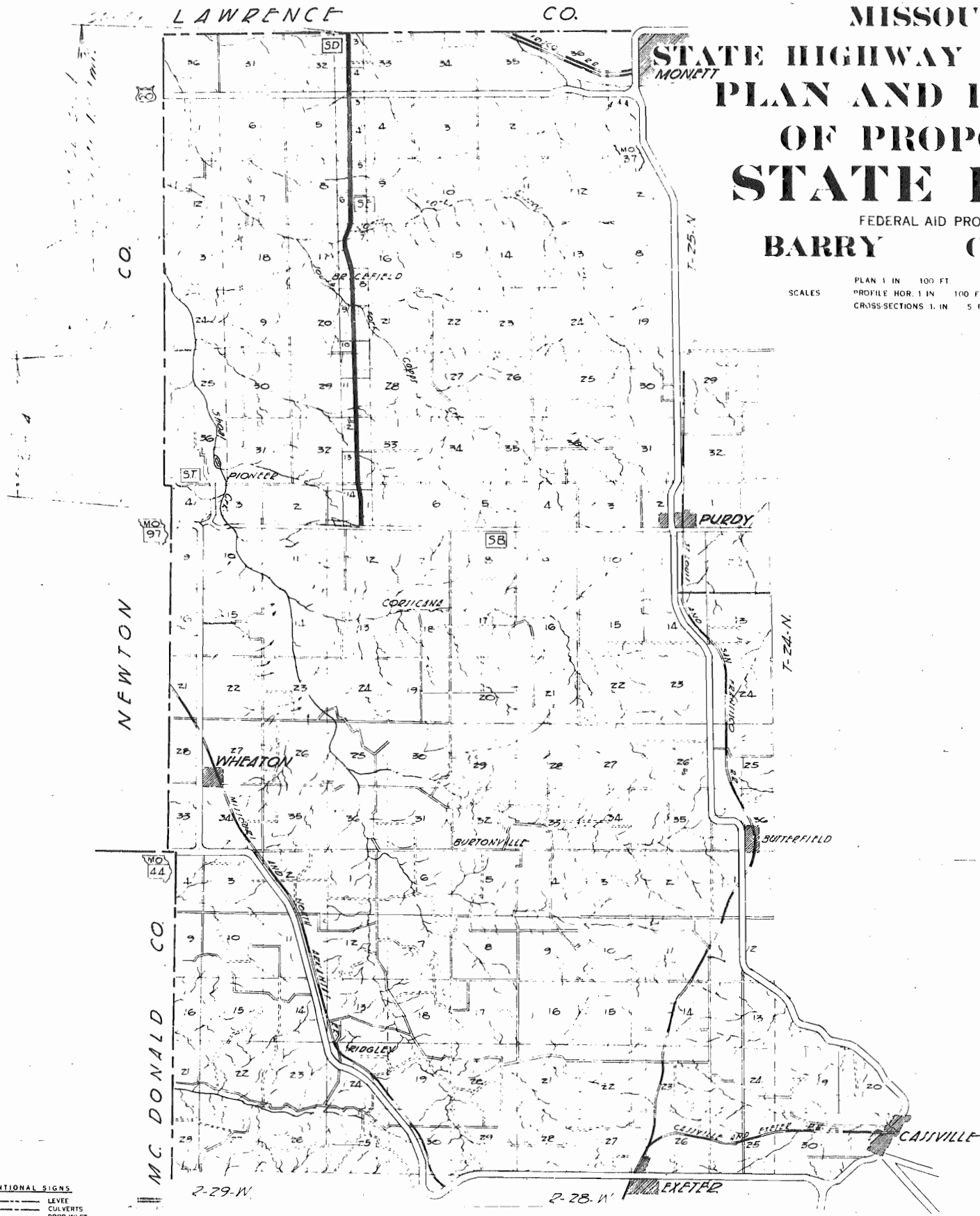
JOHN YONKERS
SEASIDE 500.32
T26N - R28W

CARLSON HETZ
NEA SEA 500.5
T25N - R28W



MISSOURI
STATE HIGHWAY COMMISSION
PLAN AND PROFILE
OF PROPOSED
STATE ROAD
FEDERAL AID PROJECT
BARRY COUNTY

PLAN 1 IN 100 FT.
PROFILE HOR. 1 IN 100 FT. VERT. 1 IN 10 FT.
CROSS SECTIONS 1 IN 5 FT.



CONVENTIONAL SIGNS
STATE AND NATIONAL LINE
COUNTY LINE
CITY, VILLAGE OR BOROUGH
TOWNSHIP LINE
SECTION LINE
GRANT LINE
FENCE LINE
GUARD RAIL
UNFENCED PROPERTY
RIGHT OF WAY LINE
TRAVELED WAY
RAILROADS
RETAINING WALL
BASE OR SURVEY LINE
LEVEE
CULVERTS
DROP INLET
TROLLEY POLE
POWER POLE
TELEPHONE OR TELEGRAPH POLE
MARSH
HEDGE
GROUND ELEVATION
GRADE ELEVATION
SURFACE LINE
GRADE LINE

SUBMITTED
CHIEF ENGINEER MO. STATE HIGHWAY COMMISSION
RECOMMENDED FOR APPROVAL
DISTRICT ENGINEER - DISTRICT NO. 5
RECOMMENDED FOR APPROVAL
CHIEF ENGINEER BUREAU PUBLIC ROADS
APPROVED
DIRECTOR BUREAU OF PUBLIC ROADS

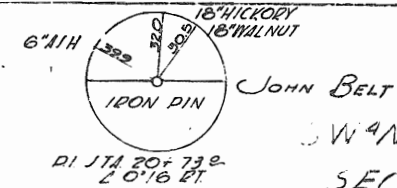
Name of road ROUTE 66 SOUTH TO ROUTE D

Type of Improvement 20' G.E.

MISSOURI STATE HIGHWAY COMMISSION
ESTIMATE SHEETCounty of BARRY
Length 3.447 Miles

PRO. ROAD DIST. NO.	STATE	PRO. AID PROJECT YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		21	21
DIV. NO.	COUNTY	ROUTE	SHEET NO.	
7	BARRY		55	1

EXCAVATION					REINFORCED CONCRETE BOX CULVERTS					LENGTH OF PROJECT					SUMMARY								
STATION	CL. A	CL. C	BORROW	AU. ROCK	STATION	STANDARD	SIZE	LENGTH	CONCRETE	REINF.	EXCAV.	REMARKS	ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS	NO. UNITS PER A.C. QUANT.						
0+00					PIPE CULVERTS													1-A	Clearing, 50'x10' Units	Acres	7.14		
3+00	331			140	STATION	LOCAL.	18"	24"	CULV. EXC.	REMARKS			Beginning of Project	Station	0+00	1-B	Grubbing, 87.12 Per Acre	Acres	4.2				
80+00				645.5	36+40	E		34"	11				Apparent Length	21000	Feet	1-C	Hedge Pulling	100 FT	28.26				
81+00	21			6.0	78+38	E		32'	9				Equation and Exceptions:	Equation 122+30.1 = 122+28.4	+ 2.5	21002.5	Feet	1-D	Cl. A Excavation	Cu. Yd.	1196		
97+00				108.5	148+28	E	30'		9				Exception 122+30.1 to 125+00	-2802.5		1-E	Cl. C Excavation	Cu. Yd.	28				
125+00	Exception				TOTALS		30'	66'	29'				Total Corrections			1-F	Culvert Excavation	Cu. Yd.	79				
129+00	61	22	362	29.5									Net Length of Project	18200	Feet	1-G	Machine Grading	Sq. Ft.	170.55				
176+55				575.0												1-H	Pick Up Rock	Cu. Yd.	1800				
177+00	Bridge															18*	15" Pipe Culverts	Lin. Ft.	216				
180+00	207			12.0												18*	18" Pipe Culverts	Lin. Ft.	156				
210+00				409.5												18*	24" Pipe Culverts	Lin. Ft.	176				
SUB TOTALS					620	28	362	1800.0	170.55	F.E. & S.R. PIPE CULVERTS													
FE, T.D. & S.S.					165		49			STATION					SIDE	15"	18"	24"	CULV. EXC.	F.E. EXC.	F.E. BOR.	F.E. EMB.	REMARKS
TOTAL					785	28	411	1800.0	170.55	2+30					LT.	36'			3	0	0	5	Balance
										4+45					RT.	18'			1	3	4	6	
										22+00					LT.	18'			2	1	2	3	
										27+10					LT.	18'			2	9	0	2	
										27+58					RT.	18'			2	2	1	3	
										37+70					LT.	18'			1	3	0	3	
										44+10					LT.	18'			2	1	2	3	
										55+25					RT.		40'		4	0	12	11	Double P.U. Rock Used
										67+75					RT.	18'			1	0	4	11	
										68+85					LT.	18'			1	6	0	6	
										82+00					LT.		22'		2	5	5	9	
										90+65					RT.	18'			1	0	6	5	
										93+75					LT.	18'			1	5	0	5	
										151+12					LT.	18'			1	1	3	4	
										168+30					LT.	18'			2	8	0	4	
										169+25					RT.	18'			2	5	0	0	Inch in Balance
										178+00					RT.		24'		3	11	0	10	
										179+08					LT.		24'		2	0	0	10	
										191+05					LT.	18'			3	5	0	4	
										192+30					RT.	18'			3	4	0	4	
										202+06					RT.		18'		3	3	2	5	
										205+05					LT.	18'			3	4	0	4	
										TOTALS						216	126	110	45	78	41	117	
CLEARING & GRUBBING					PICK UP ROCK																		
50'x10' UNITS 87.12 PER ACRE					BALANCE																		
SHEET UNITS					BOOK #1																		
NO. CLEAR					BOOK #2																		
3 50					BOOK #3																		
4 72					BOOK #4																		
5 137					BOOK #5																		
6 36					BOOK #6																		
7 83					BOOK #7																		
8 103					BOOK #8																		
9 131					BOOK #9																		
TOTAL UNITS 618					TOTAL EXC. BAL.																		
TOTAL 7.14 ACRES 4.2					140																		
					645.5																		
					6.0																		
					103.5																		
					29.5																		
					575.0																		
					12.0																		
					4.0																		
					110.5																		
					409.5																		
					1800.0																		
HEDGE PULLING					TAIL DITCHES																		
STATION STATION SIDE 100 FT.					STATION SIDE EXCAV.																		
0+45 2+20 LT. 1.85					78+38 RT. 4'																		
3+55 17+45 LT. 13.90					199+00 RT. 3'																		
5+50 17+76 RT. 12.26					202+08 LT. 3'																		
14+31 LT. 0.10					TOTAL 10'																		
40+10 RT. 0.05																							
173+35 LT. 0.05																							
197+55 RT. 0.05																							
TOTAL 28.26																							
CULVERT REMOVAL																							
STATION SIDE CULV. EXC.																							
36+38 RT. 2'																							
54+18 LT. 1'																							
191+06 LT. 1'																							
202+08 RT. 1'																							
TOTAL 5																							



V. STAPANSKI
NW 1/4 NW 1/4 SEC. 4
T. 25N - R. 28W

SW⁴NW⁴
SEC. 4

EST. NO.	STATE	FEDERAL PROJECT	FISCAL YEAR	ENTRY NO.	VOLUME
6	MO.			3	
SEC. 50.	COUNTY			ROUTE	SEC. 50
7	BARRY			1E	1

U. SZCZEPANSKI
NW 4 SW 4
SEC. 4

STA. 24+00 TO 30+00
SHIFT ROADWAY
SEE "X" SECT'S

JOHN BEL
NE 1 SE 1
SEC 5

17A. 28+44 CONC. BOX CUL
11L-4P 3x1x15 D.A.=13A
USE IN PLACE

Build Standard
Supplementary Route
Intersection.
75° Tangent.

NE⁴NE⁴SEC.5
T25N. R28W

CARLSON HEIRS

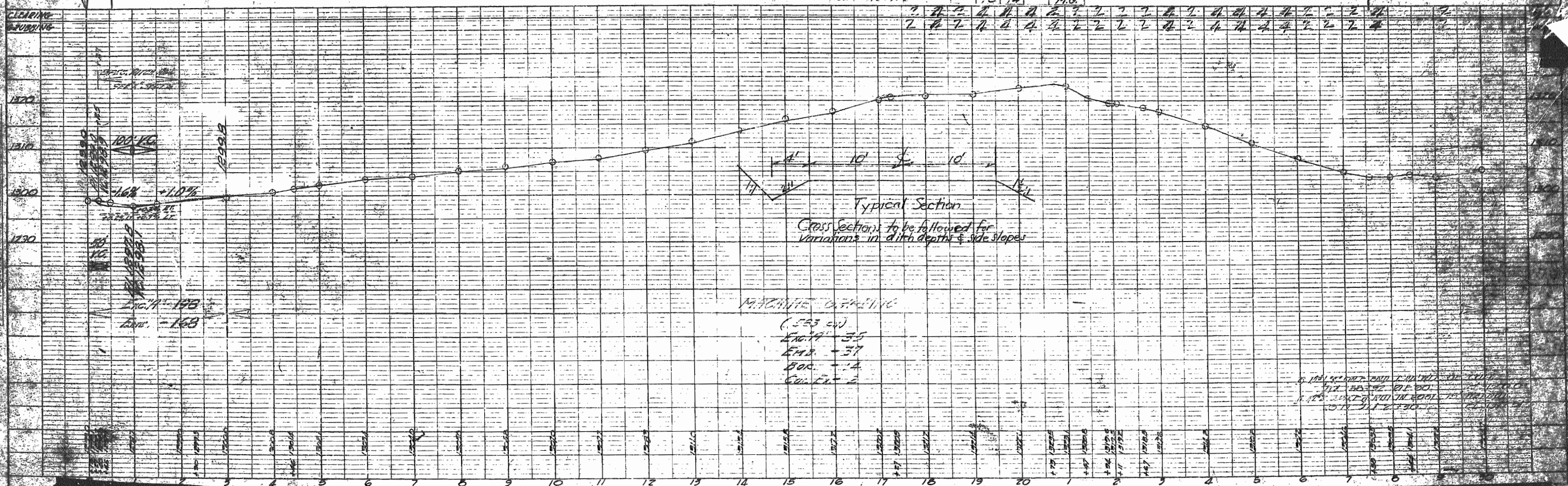
SE & NE
SEC. 5

HEDGE PULLING			
STATION	STATION	SIDE	100 FT.
111.15	111.15	111.15	111.15
111.50	111.50	111.50	111.50
111.85	111.85	111.85	111.85

STD. PIPE CULVERTS							
STATION	18"	24"	30"	36"	DRAINAGE AREA	CULV. EXCAV.	REMARKS
		12045					

F. E. & S. R APPROACHES									
STATION	SIDE	15"	18"	21"	24"	EXC.	EMB.	BOR.	INCL. H
2+30	LT.		18						
A+A'	RT.		18		(Rem)	2	10		MG
20+74	REL		NO P/AE				5	1	MG
204-24	LT.	18					A	3	MG
27+58	RT.		18					12	MG
30+30	REL		NO P/AE				12	12	MG

DRAINAGE STRUCTURES							
STATION	STAND	SIZE	SKEW	LENGTH	DRAIN- AGE AREA	CULV. EXCAV.	REMARKS



J. SZCZEPANSKI

NW 4 SW 4
SEC. 4

STA. 30+00 TO STA. 60+00
SHIFT ROADWAY
SEP. X SEETS

11A 20+30 CONC. BOX CULV. (NG)
11A 21+15 24" DIA. 104.0
Remove

IRON PIN
ROT. STA. 42+40

F.M. SZCZEPANSKI
NW 4 SW 4
SEC. 4

IRON PIN
PI. STA. 52+30 E
10.19 LT.

ED. WROBLESKI

11A 50+02 CONC. BOX CULV.
Use in Place

NW 4 NW 4
SEC. 9

NE 4 SE 4
SEC. 5

F. E. & S. R. APPROACHES									
STATION	SIDE	15"	18"	24"		EXC.	EMB.	FOR.	INCL. IN
37+71	LT.	18					5	0	M.G.
42+00	REL.	NO PIPE				7	6		M.G.
44+20	LT.	18					5	0	M.G.
53+00	REL.	USE PRES. CULV.				USE PRES. SUE RD.			M.G.
54+20	LT.	NO PIPE					15	15	M.G.
56+00	LT.	18				10			M.G.
56+02	LT.	USE PRES. CULV.				USE PRES. ENT.			M.G.

JOHN BELT

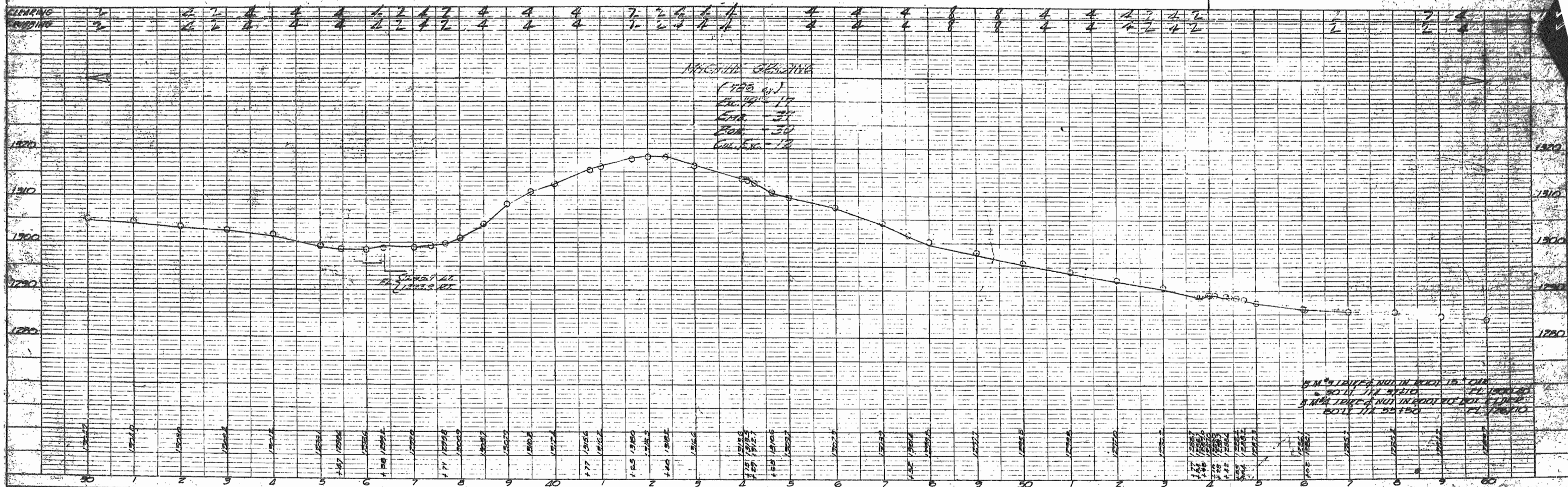
SE 4 SE 4
SEC. 5

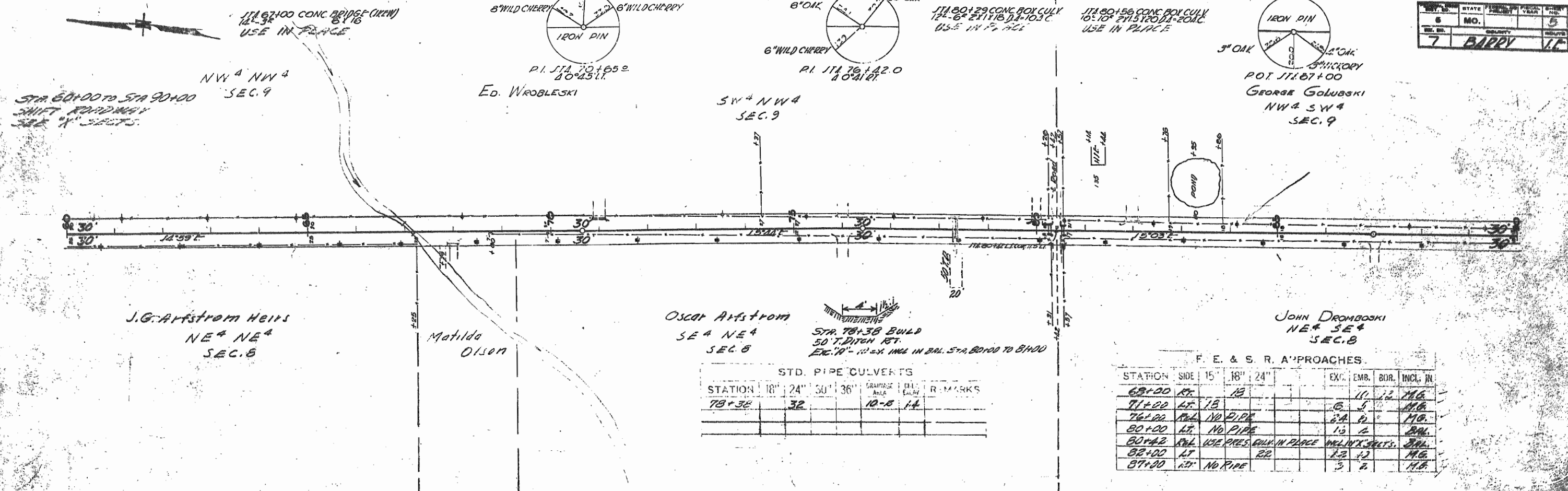
STD. PIPE CULVERTS

STATION	18"	24"	30"	36"	DRAINAGE AREA	REMARKS
36+39	34				10.8	12

11A 53+00 CONC. BOX CULV. USE IN PLACE
11A 54+10 CULV. USE IN PLACE

J.G. ARNSTROM HEIR
NE 4 NE 4
SEC. 8



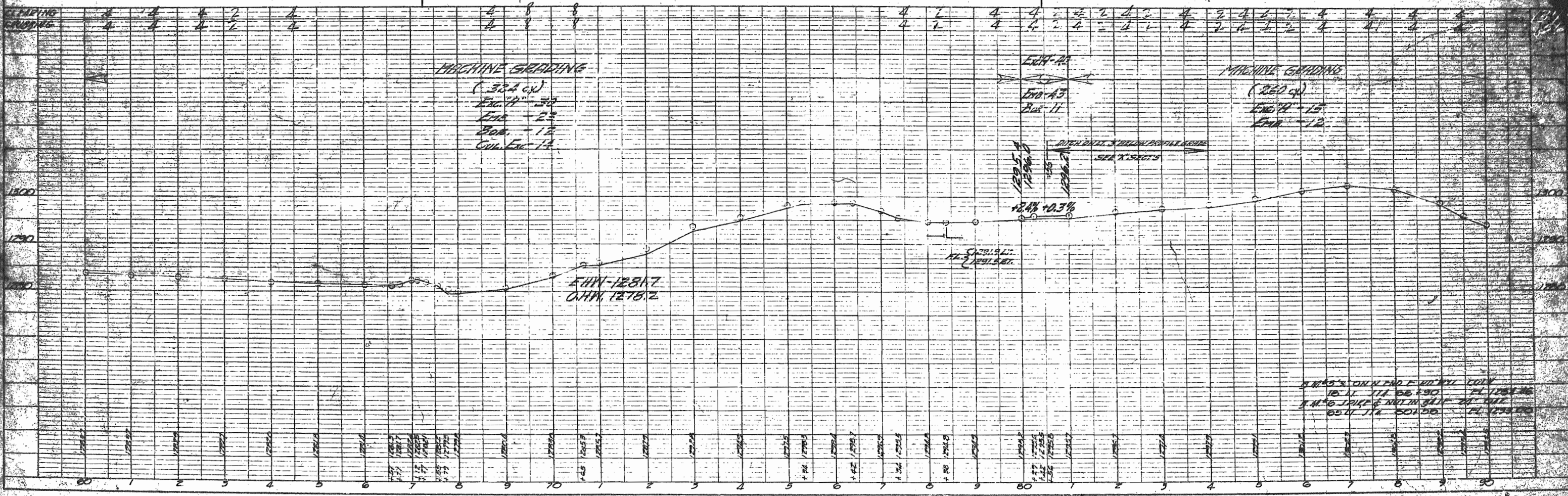


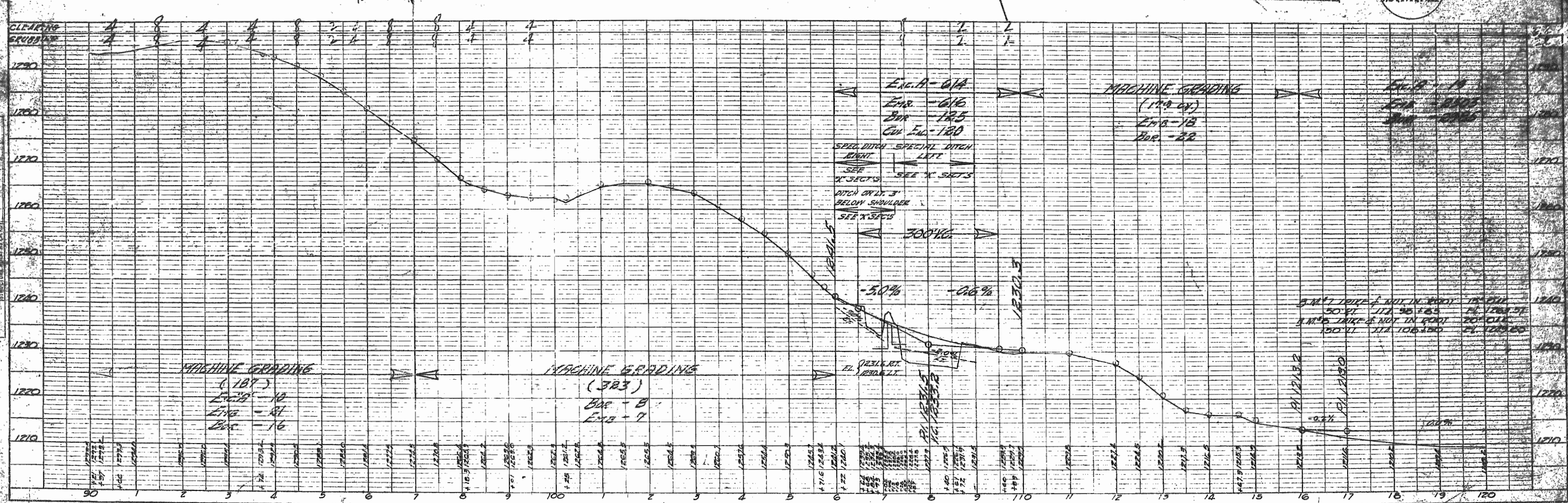
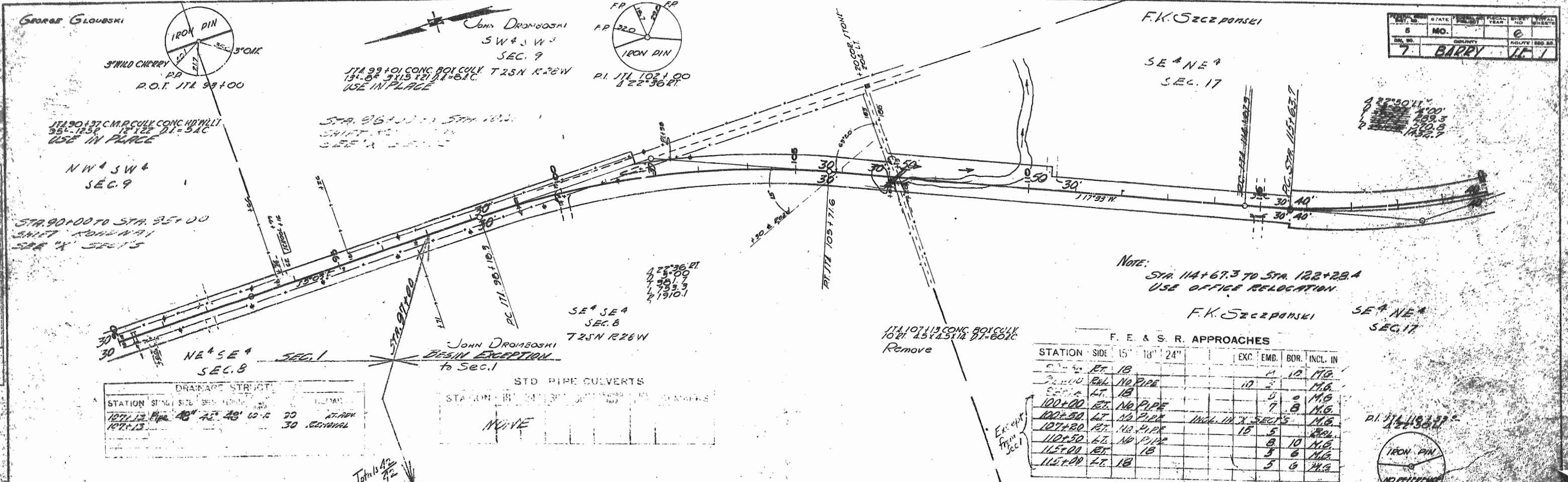
STD. PIPE CULVERTS

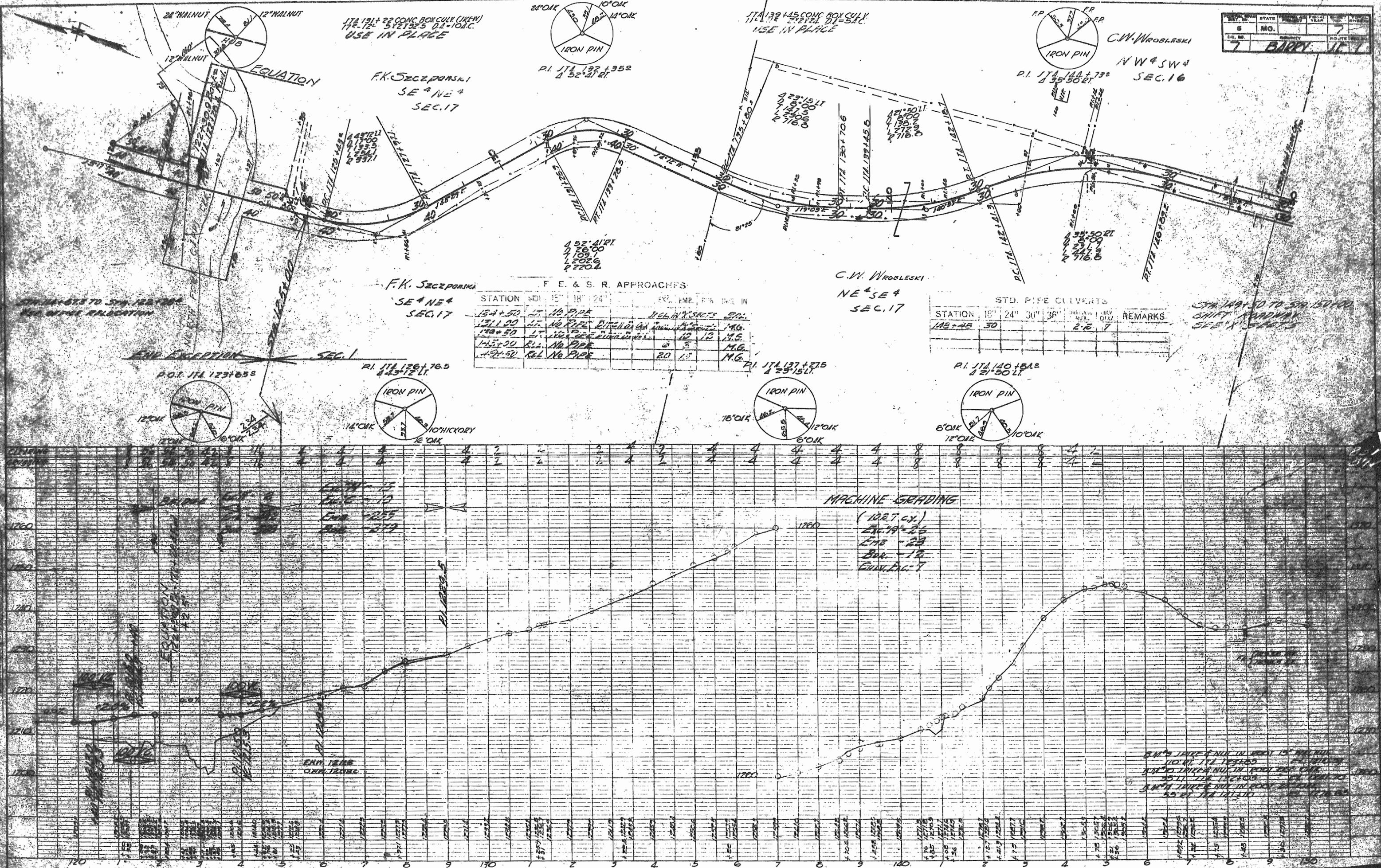
STATION	18"	24"	30"	36"	GRADE ANGLE	DEPT. ELEV.	R-MARKS
78+38		32			10-8	14	

F. E. & S. R. APPROACHES

STATION	SIDE	15'	18'	24'	EXC.	EMB.	BOR.	INCL. IN
68+00	RT.		13			11	12	M.G.
71+00	LT.	13			6	5		M.G.
76+00	RT.	NO PIPE			6	9		M.G.
80+00	LT.	NO PIPE			13	4		BAL.
80+42	RT.	USE PRES. CULV. IN PLACE						M.G.
82+00	LT.		22		13	12		M.G.
87+00	RT.	NO PIPE			3	2		M.G.

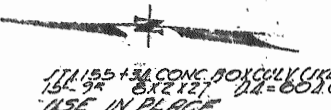






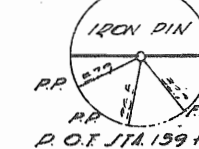


ROT JTA 151+00

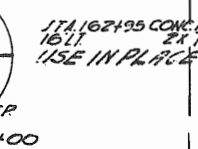


STA 155+34 CONC BOX CULV (C&N)
15' DIA 24' DIA 60' DIA
USE IN PLACE

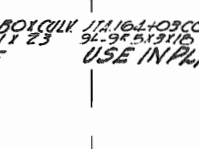
SW & SW
SEC. 16



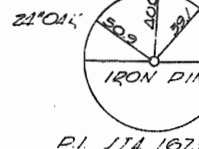
P.O.T. JTA 139+00



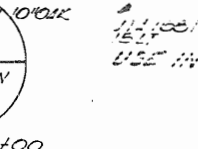
STA 162+95 CONC BOX CULV
24' DIA 24' DIA 60' DIA
USE IN PLACE



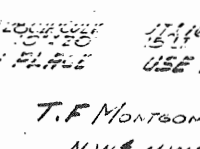
USE IN PLACE



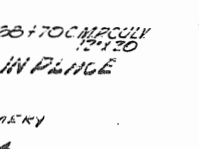
P.O.T. JTA 167+00



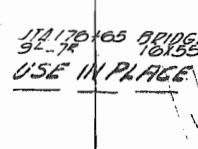
USE IN PLACE



USE IN PLACE



USE IN PLACE

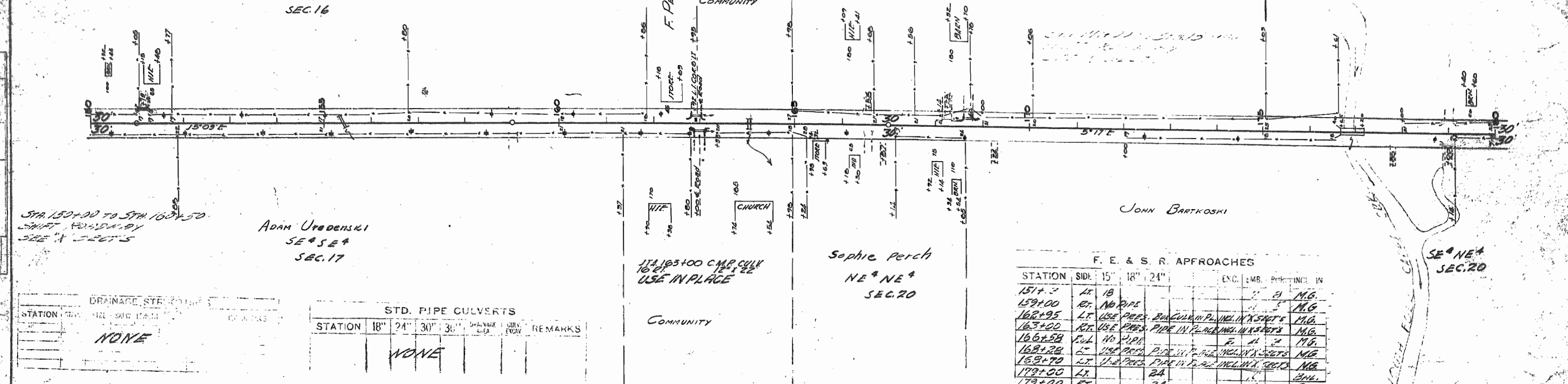


USE IN PLACE

STATE	COUNTY	TOWNSHIP	RANGE	SECTION
INDIANA	CLAY	11	1	1

JOHN BARTKOSKI
SW & NW
SEC. 21

T.F. MONTGOMERY
NW & NW
SEC. 21



STA. 150+00 TO STA. 163+50
SHORT ROADWAY
SEE 'X' SETS

ADAM URODEWSKI
SE & SE
SEC. 17

JTA 163+00 CONC BOX CULV
10' DIA 24' DIA 60' DIA
USE IN PLACE

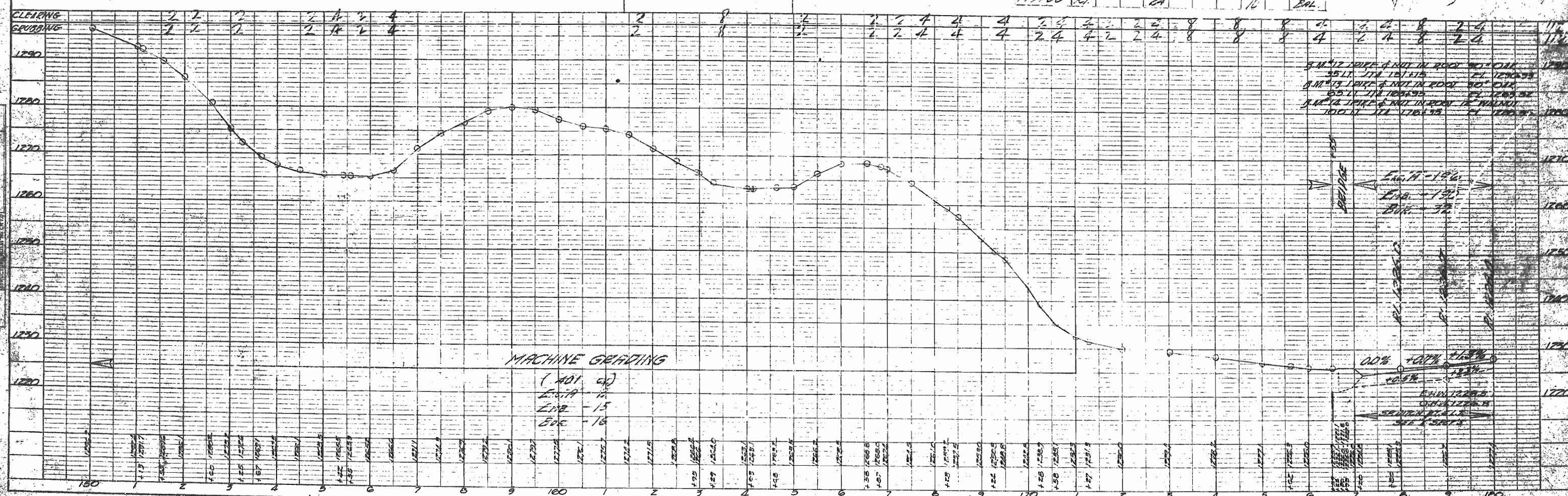
Sophie Perch
NE & NE
SEC. 20

JOHN BARTKOSKI

SE & NE
SEC. 20

DRAINAGE STRUCTURES		STD. PIPE CULVERTS		REMARKS	
STATION	SIZE	STATION	SIZE	REMARKS	
	NONE		NONE		

F. E. & S. R. APPROACHES					
STATION	SIDE	15'	18'	24'	END. EMB. PER INCH IN
151+3	LT	18			M.G.
159+00	RT	NO PIPE			M.G.
162+95	LT	USE PRES. BOX CULV IN PLACE IN X SETS			M.G.
163+00	RT	USE PRES. PIPE IN PLACE IN X SETS			M.G.
166+58	LT	NO PIPE			M.G.
168+28	LT	USE PRES. PIPE IN PLACE IN X SETS			M.G.
169+70	LT	USE PRES. PIPE IN PLACE IN X SETS			M.G.
179+00	LT	24			END.
179+00	RT	24			END.



MACHINE GRADING
(ADJ. 44)
E.G. 14
E.G. 15
E.G. 16

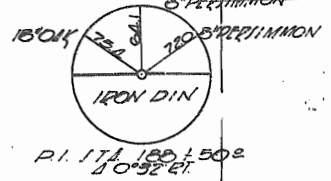
5' DIA 12' DIA & NOT IN ROAD 12' DIA 12' DIA
35' LT JTA 151+15
5' DIA 12' DIA & NOT IN ROAD 12' DIA 12' DIA
65' LT JTA 166+58
5' DIA 12' DIA & NOT IN ROAD 12' DIA 12' DIA
100' LT JTA 176+58

BRIDGE
E.G. 14
E.G. 15
E.G. 16

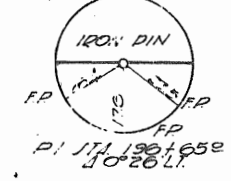
PL 12' DIA
PL 12' DIA
PL 12' DIA

0.0% +0.0% +0.0%
+0.5% +0.5% +0.5%
E.G. 14
E.G. 15
E.G. 16

JOHN BARTKOSKI
SW & NW 4
SEC. 21



ITA 191+06 PLANK ENT.
11\"/>



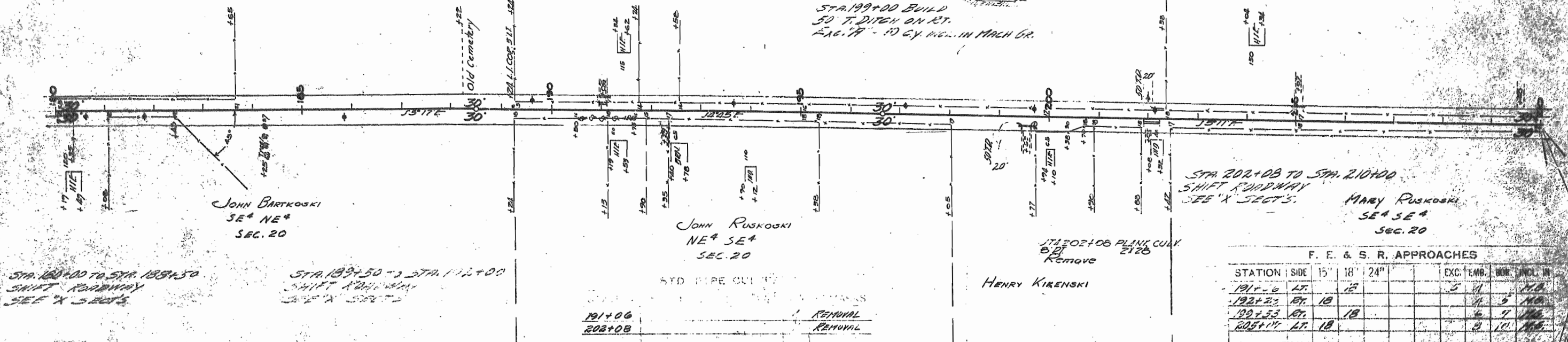
KATIE BARTKOSKI
NW 4 SW 4 SEC. 21
STA. 199+00 BUILD
50' T. DITCH ON RT.
Exc. "A" - 10 CY. INCL. IN MACH. GR.



STA. 202+00 BUILD
50' T. DITCH ON LEFT.
Exc. "A" - 15 CY. INCL. IN MACH. GR.

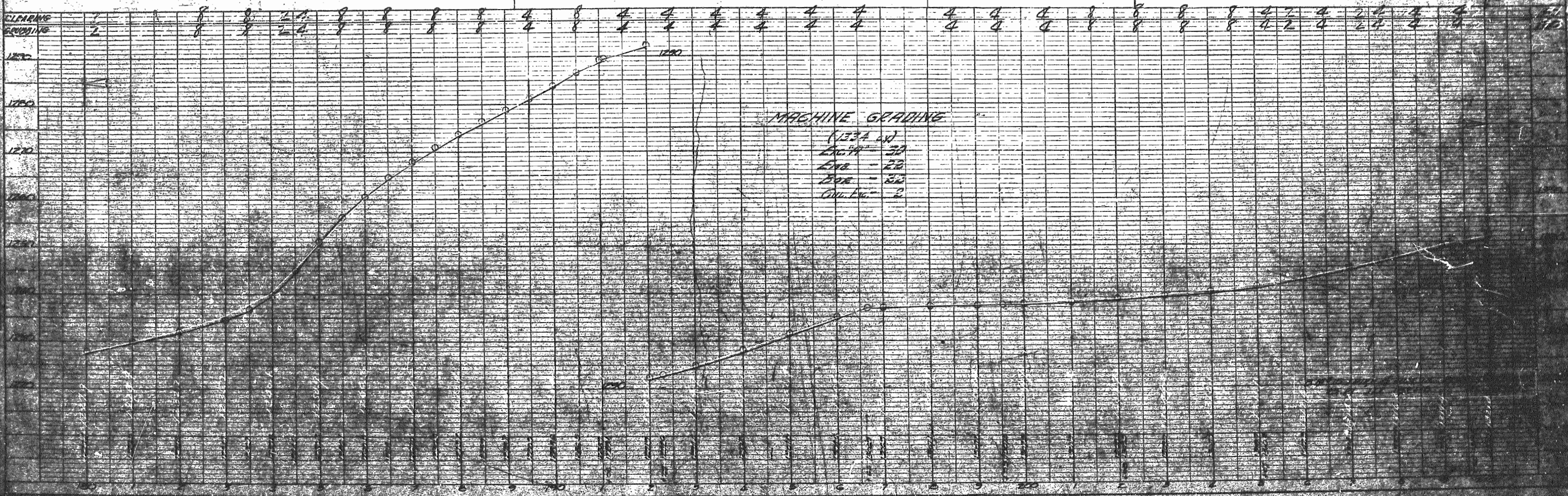
ADAM RAKOSKI
SW & SW 4
SEC. 21

STATE	MO.	DATE	BY	CHKD.
7	BARRY	10/1		



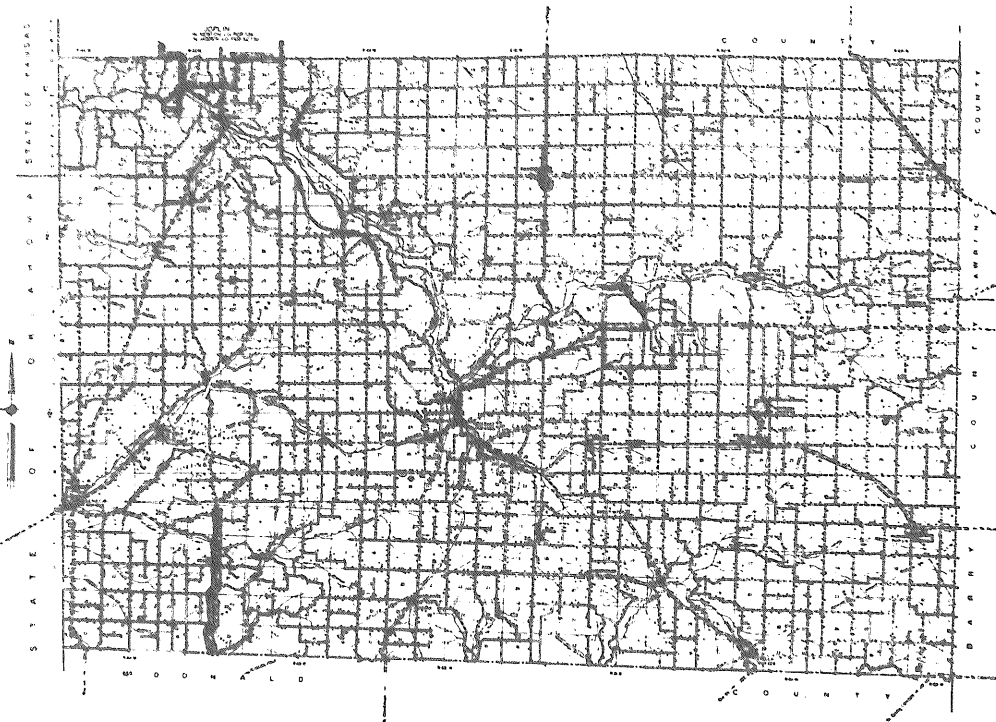
F. E. & S. R. APPROACHES

STATION	SIDE	15'	18'	24'	EXC.	EMB.	CON.	INCL. IN
191+00	LT.	12			5	4		M.B.
192+23	RT.	18			4	5		M.B.
192+53	RT.	18			6	7		M.B.
205+14	LT.	18			8	10		M.B.



MACHINE GRADING
(1234 LN)
Exc. "A" - 30
Exc. "B" - 22
Exc. "C" - 22
Exc. "D" - 2

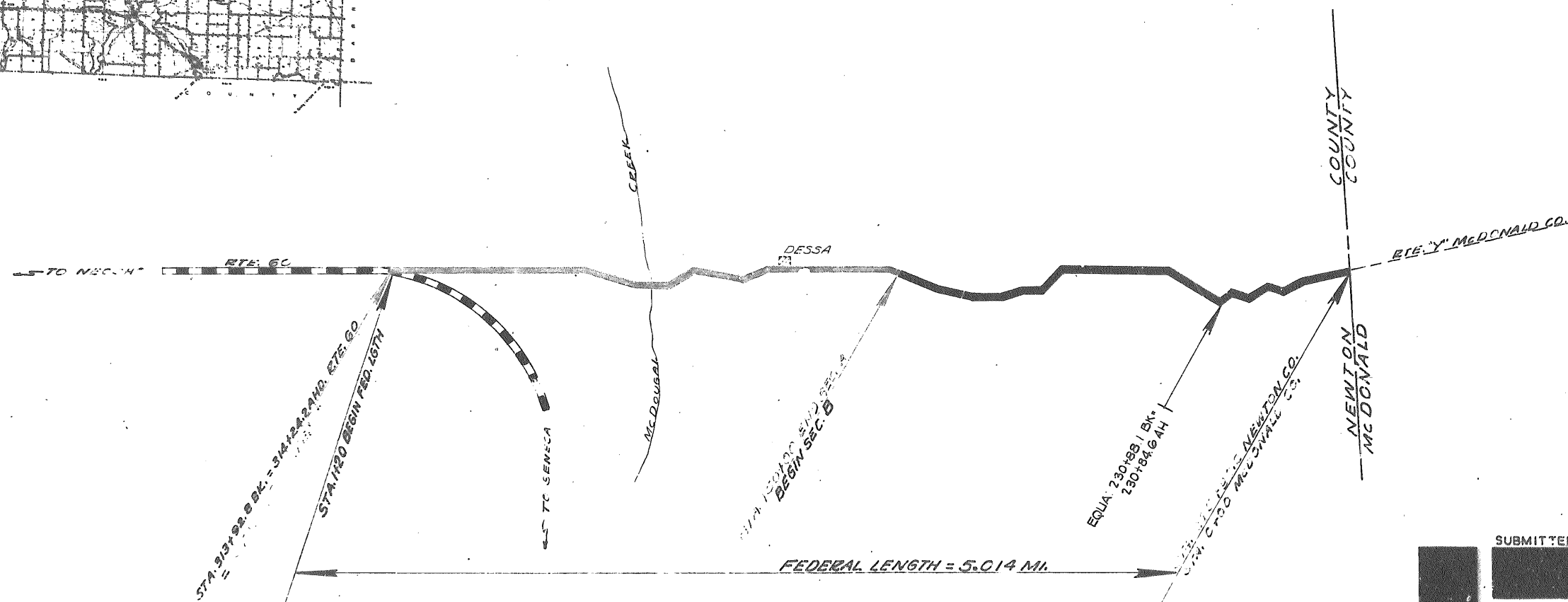
LOCATION MAP



MISSOURI STATE HIGHWAY COMMISSION PLAN AND PROFILE OF PROPOSED STATE ROAD

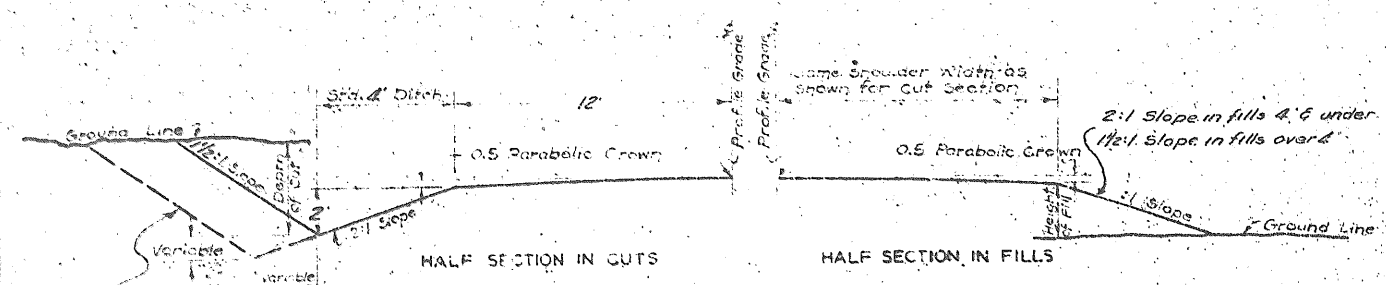
FEDERAL AID PROJECT
NEWTON COUNTY

COUNTY	NEWTON
STATE ROUTE NO.	S. Y.
PROJECT NO.	5-921(0)

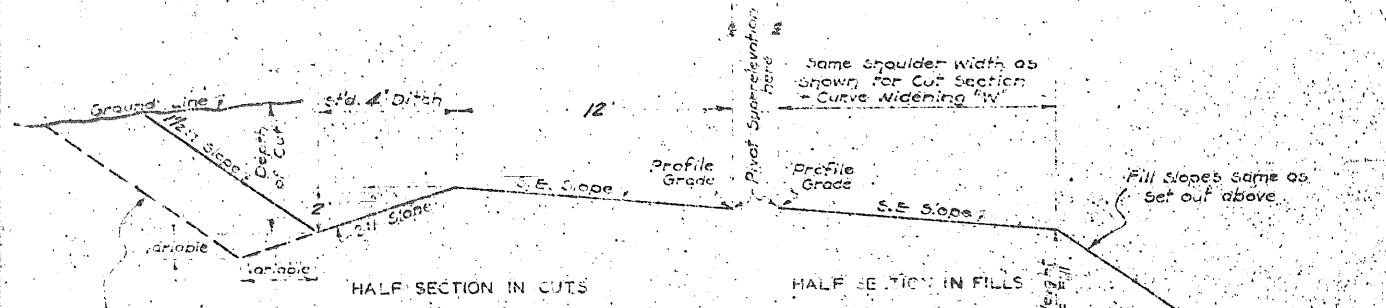


CONVENTIONAL SIGNS	
STATE AND NATIONAL LINE	LEVEE
COUNTY LINE	CULVERTS
CITY VILLAGE OR BOROUGH	DROP INLET
TOWNSHIP LINE	TROLLEY POLE
SECTION LINE	POWER POLE
GRANT LINE	TELEPHONE OR TELEGRAPH POLE
FENCE LINE	MARSH
GUARD RAIL	HEDGE
UNFENCED PROPERTY	GROUND ELEVATION
RIGHT OF WAY LINE	GRADE ELEVATION
TRAVELED WAY	SURFACE LINE
RAILROADS	GRADE LINE
RETAINING WALL	
BASE OR SURVEY LINE	

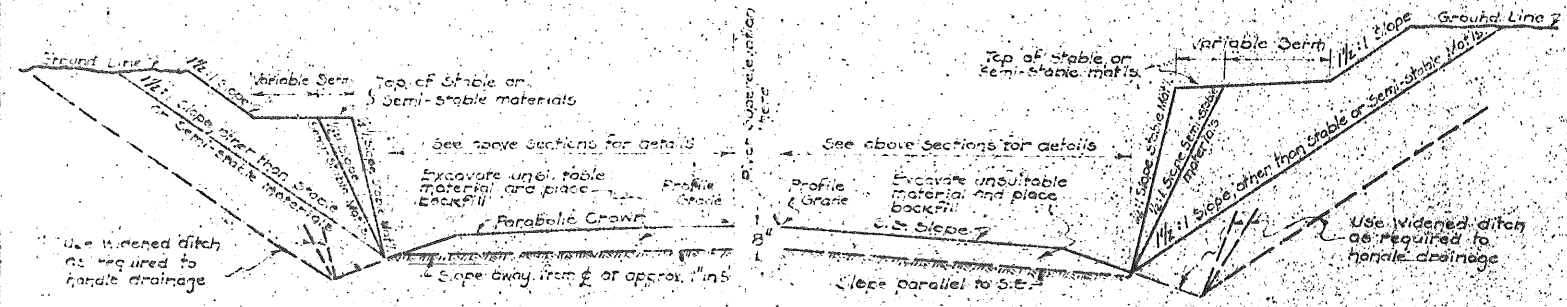
SUBMITTED BY	DATE
CHIEF ENGINEER MISSOURI STATE HIGHWAY COMMISSION	
RECOMMENDED FOR APPROVAL	
DISTRICT ENGINEER PUBLIC ROADS ADMINISTRATION FEDERAL WORKS AGENCY	
APPROVED BY	
DIVISION ENGINEER PUBLIC ROADS ADMINISTRATION FEDERAL WORKS AGENCY	



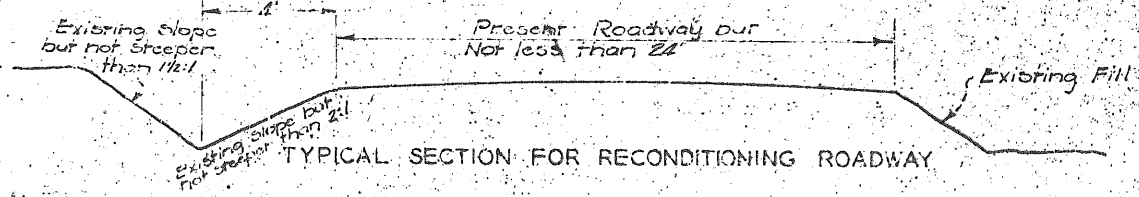
SECTIONS ON TANGENT



SECTIONS ON SUPERELEVATED CURVE



SECTIONS IN UNDERGRADED CUTS



TYPICAL SECTION FOR RECONDITIONING ROADWAY

GENERAL NOTES:

Machine Grading and Reconditioning Roadway shall be completed in accordance with these Typical Sections using the standard depth of ditch, except as otherwise noted on Plan Sheets and as required to provide proper drainage. Covering of at least 4 feet will be required over all drainage structures located within machine and Reconditioning Roadway sections.

In transitioning from one slope to another, use a 25 foot length of transition.

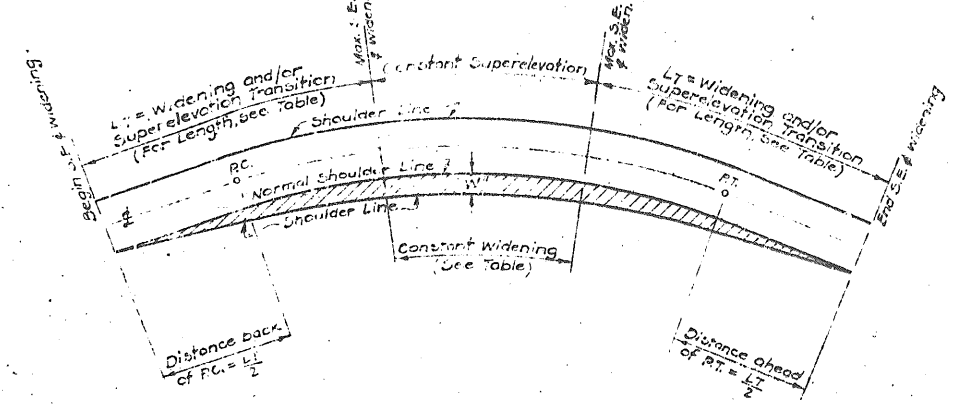
All information shown on these TYPICAL SECTIONS is for the purpose of indicating the required parabolic crown on tangent section, and general design and construction details. Actual construction of roadbed widths, slopes, depth and width of ditches, undergraded cuts and other features shall conform to the details shown on CROSS-SECTIONS and PLAN & PROFILE Sheets as directed by the Engineer.

Final finishing of side slopes of cuts and fills will not be required. Machine finishing to a smooth plane will be considered satisfactory.

Unless otherwise shown on the plans, the roadway ditch at all cross road culverts shall be widened to five (5) feet at the inlet, with a fifty (50) foot transition to the standard roadway ditch. In "Machine Grading" limits the cost of this excavation is to be included in the contract unit price for Machine Grading.

The cost of constructing Ditch Blocks in "Machine Grading" limits is to be included in the contract unit price for "Machine Grading".

SCHEME OF WIDENING AND SUPERELEVATION TRANSITION



SUPERELEVATION AND WIDENING DATA

Degree of Curve Dc	Design Speeds								
	30 or less			40 M.P.H.			50 M.P.H.		
	S	W	L	S	N	L	S	W	L
0° to 1°00'	0	0	0	0	0	0	0	0	0
1°01' to 1°30'	.01	0	150	.02	0	150	.02	0	150
1°31' to 2°00'	.01	0	150	.02	0	150	.02	0	150
2°01' to 2°30'	.01	0	150	.03	0	150	.04	0	150
2°31' to 3°00'	.02	0	150	.03	0	150	.05	0	150
3°01' to 3°30'	.02	0	150	.04	0	150	.06	0	150
3°31' to 4°00'	.02	0	150	.04	0	150	.06	0	150
4°01' to 4°30'	.03	0	150	.05	0	150	.08	0	150
4°31' to 5°00'	.03	0	150	.06	0	150	.08	2.0	200
5°01' to 5°30'	.04	0	150	.07	0	150	.08	2.0	250
5°31' to 6°00'	.05	0	150	.08	2.0	150	.08	2.0	300
6°01' to 6°30'	.05	2.0	150	.08	2.0	150	.08	3.0	300
6°31' to 7°00'	.06	2.0	150	.08	2.0	200	Max. Curve 9°00'		
7°01' to 7°30'	.06	2.0	150	.08	3.0	200			
7°31' to 8°00'	.07	2.0	150	.08	3.0	200			
8°01' to 8°30'	.07	2.0	150	.08	3.0	250			
8°31' to 9°00'	.08	2.0	150	.08	3.0	250			
9°01' to 9°30'	.08	2.0	150	.08	3.0	250			
9°31' to 10°00'	.08	2.0	150	.08	3.0	250			
10°01' to 10°30'	.08	2.0	150	.08	3.0	250			
10°31' to 11°00'	.08	2.0	150	.08	3.0	250			
11°01' to 11°30'	.08	2.0	150	.08	3.0	250			
11°31' to 12°00'	.08	2.0	150	.08	3.0	250			
12°01' to 12°30'	.08	2.0	150	.08	3.0	250			
12°31' to 13°00'	.08	2.0	150	.08	3.0	250			
13°01' to 13°30'	.08	2.0	150	.08	3.0	250			
13°31' to 14°00'	.08	2.0	150	.08	3.0	250			
14°01' to 14°30'	.08	2.0	150	.08	3.0	250			
14°31' to 15°00'	.08	2.0	150	.08	3.0	250			
15°01' to 15°30'	.08	2.0	150				Max. Curve 14°00'		
15°31' to 16°00'	.08	3.0	150						
16°01' to 16°30'	.08	3.0	150						
16°31' to 17°00'	.08	4.0	150						
17°01' to 17°30'	.08	4.0	200						

MISSOURI STATE HIGHWAY COMMISSION

TYPE GRAVEL EARTH, CULVERTS, & GRAVEL SURFACE

SUMMARY OF QUANTITIES

FINAL PLANS

FED. ROAD DIST. No.	STATE	PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	MO.	S-921(1)		2A	10
DIV. No.	COUNTY	ROUTE	SEC. No.		
7	NEWTON	3Y	A		

EXCAVATION						ENTRANCES SIDE ROAD CULVERT PIPE & APPROACHES					
Station	Class P	Class C	Borrow	Mach Gr 1	Mach Gr 2 (Round Bldg)	Station	Type	12"	15"	18"	24"
0+00						4+85	FE	26'	3'		
4+00						5+85	FE	26'	3'		
19+50	10					13+51	FE	28'	3'		
30+00						15+13	FE	28'	3'		
33+00						15+15	FE	28'	3'		
43+00						24+84	FE	28'	3'		
53+00	2316		123	10.0		25+00	FE	28'	3'		
64+00		5		11.0		31+17	FE	28'	3'		
74+50	110			13.5		32+55	FE	28'	3'		
83+50				8.0		32+86	FE	28'	3'		
88+00						42+95	FE	28'	3'		
99+50				2.5		51+30	FE	28'	3'		
106+50				7.0		56+30	FE	28'	3'		
110+50				4.0		59+10	FE	28'	3'		
114+50				4.0		59+15	FE	28'	3'		
128+50				3.0		64+44	FE	28'	3'		
131+50						64+56	FE	28'	3'		
130+00						71+30	FE	28'	3'		
Sub-Total	2436	3	123	29.0	44.5	71+30	FE	28'	3'		
Borrow	123					86+00	FE	28'	3'		
Apprs.				16.6		86+75	FE	28'	3'		
TOTAL	2559	5		456	44.5	87+52	FE	28'	3'		

CLEARING & GRUBBING

Sheet No.	Clearing Units	Grubbing Units
3	137	91
4	217	136
5	263	171
6	134	82
7	174	139

Total Units 925 619
ACRES 10.6 7.1

HEDGE REMOVAL

Station	Station	Side	100 Ft
99+50		EA	.05
106+35		LT	.05
116+15	122+60	LT	6.45
122+10		EA	.05
123+45	124+15	LT	.70
123+60		EA	.10
126+35	128+30	LT	1.95
132+05	132+50	LT	.45
138+50		LT	.10

TOTAL 990

SUBGRADE SCARIFYING

Station	Station	No. Sts.
17+50	19+50	2.0
23+50	25+50	2.0
27+50	30+00	2.5
48+00	51+00	3.0
82+00	88+00	6.0
89+50	92+00	2.5

TOTAL 180

C.M. CROSS ROAD CULVERT PIPE

Station	Location	15"	18"	24"	30"	CL 3 Exc.	Remarks
18+20.3	C.L.		34'			12	Incl. Rem.
20+12.2	C.L.		34'			13	Incl. Rem.
26+00	C.L.	32'	36'			10	
47+00	C.L.				48'	9	30' St. L.A.
89+72	C.L.	32'				12	Incl. Rem.
105+50.3	C.L.				36'	18	Incl. Rem.
130+00	C.L.			36'		8	
147+60	C.L.	34'				10	

TOTAL 100' 70' 36' 84' 92'

METAL ARCH CULVERTS & APPROACHES

Station	Location	B-4	B-5	B-6	B-7	Actual Length	M.G. Cl. 1	App. Surf. C.Y.	CL 3 Exc.	Remarks
41+42	FE	EA	22'			28'	3'	2		
55+38	FE	LT		48'		28'	3'	2		Dbl. Pipe Each 28' Long.
65+00	C.L.			48'					42	30' St. L.A.
67+74	FE	LT	32'			86'	9	2		
77+65	FE	EA	24'			110'	1.1	2		
101+24	FE	LT		24'		25'	3	2		60' Lt.
101+24	C.L.			54'					33	
112+50	C.L.			72'					32	Dbl. Pipe Each 36' Long Incl. Rem.

TOTAL 22' 120' 126' 48' 2.9 10 107

* Incl. in Gravel Surface Books

LENGTH OF PROJECT		
End of Project	Station	150+00
Beginning of Project	Station	0+00
Apparent Length		15000 Feet
Equations and Exceptions:	NONE	

Total Corrections		
Net Length of Project	15000 Feet	
State Length	=	15000 Feet
Federal Length	=	2.841 Miles

FEDERAL LENGTH		
End of Federal Aid Improvement Sta.	150+00	
Begin Federal Aid Improvement Sta.	1420	
Apparent Length		14880 Feet
Equations & Exceptions	- None	
Net Federal Length		14880 Feet
		= 2.818 Miles

ROCK FILL		
Station	Location	Furnish Placing Grt. Surf.
54+92	Culvert End	C.Y. 15
		S.Y. 46
TOTAL	15	15 46

GRAVEL SURFACE

Book No.	Cu. Yds.
1	502
2	500
3	500
4	200

TOTAL 1702

REMOVAL OF EXISTING STRUCTURES

Station	Location	Description	Struct's.
26+11	C.L.	12"x22" Conc. Pipe	1
87+52	EA	18"x18" R.C.P.	1
91+61	16' Lt.	12"x15" Conc. Pipe	1
95+48	20' Lt.	12"x15" R.C.P.	1
100+19	29' Lt.	23"x20" Pump Island	1
101+03.3	C.L.	3'x2'x3.2' & 4'x2'x3.2' Conc. Culi.	1
101+11	74' Lt.	18"x18" R.C.P.	1
101+24	21.5' Lt.	18"x30.5" Conc. Pipe	1
134+36	20' Lt.	12"x12" Conc. Pipe	1
147+92.6	C.L.	15"x25" R.C.P.	1

TOTAL 10
Lump Sum 1

REMOVAL OF EXISTING STRUCTURES NOT INCLUDED WITH LUMP SUM

Station	Location	Description	CL 3 Exc.
55+38	16' Lt.	18"x14.4" Conc. Pipe	70
92+90	18' Lt.	12"x15" Conc. Pipe	50

TOTAL 120

GENERAL SUMMARY				
ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS	NO. UNITS
1A-A	Clearing	Acres	10.6	
1A-B	Grubbing	Acres	7.1	
1A-C	Hedge Removal	100 Ft	9.90	
1A-D	Class A Excavation	Cu. Yd.	2559	
1A-E	Class C Excavation	Cu. Yd.	5	
1-I	Class 3 Excavation for Structures	Cu. Yd.	211	
1A-O	Machine Grading (Class 1)	Station	45.6	
1A-00	Machine Grading (Class 2)	Station	44.5	
1A-P	Subgrade Scarifying	Station	18.0	
1A-Q	Reconditioning Roadway	Station	66.5	
1-CA	Furnishing Rock Fill	Cu. Yd.	15	
1-CB	Placing Rock Fill	Cu. Yd.	15	
1-CD	Grouting Rock Fill Surface	Sq. Yd.	46	
13-C	Gravel Surface	Cu. Yd.	1702	
18-B	12" Corrugated Metal Culi. Pipe	Lin. Ft.	220	
18-B	15" " " " "	Lin. Ft.	220	
18-B	18" " " " "	Lin. Ft.	124	
18-B	24" " " " "	Lin. Ft.	172	
18-B	30" " " " "	Lin. Ft.	84	
18A-A	Metal Arch Culverts (Type B-4)	Lin. Ft.	22	
18A-A	Metal Arch Culverts (Type B-5)	Lin. Ft.	126	
18A-A	Metal Arch Culverts (Type B-6)	Lin. Ft.	186	
18A-A	Metal Arch Culverts (Type B-7)	Lin. Ft.	48	
33-A	Removal of (10) Existing Structures	Lump Sum	1	

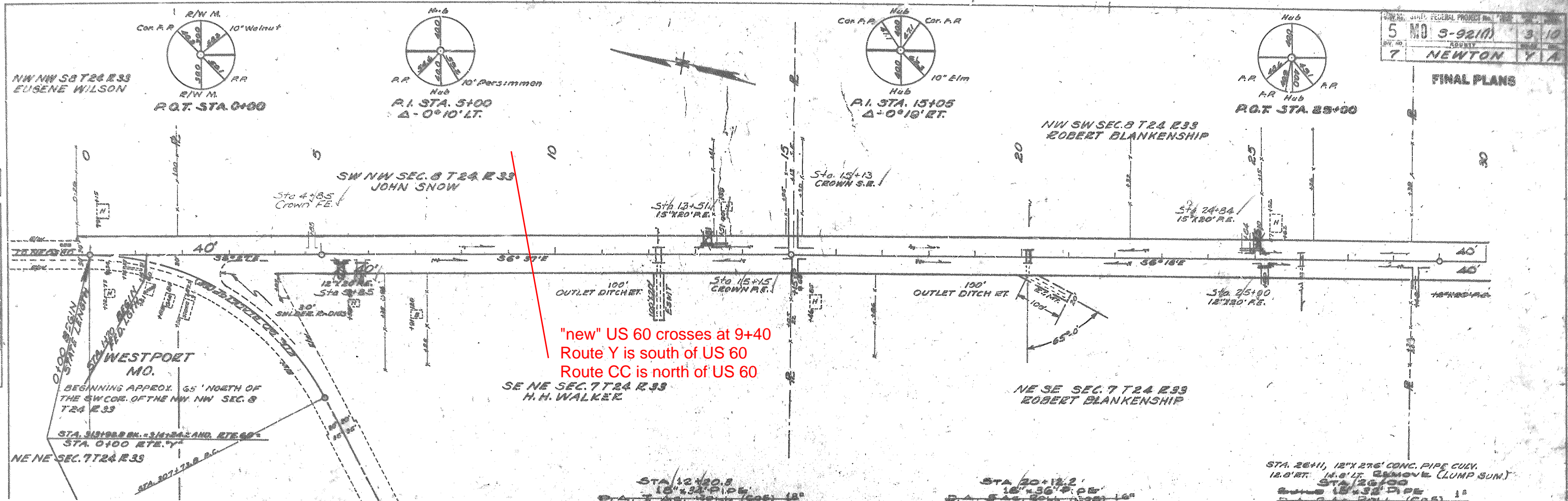
CONTINGENT ITEMS

* 12" Corrugated Metal Culi. Pipe	Lin. Ft.	60
* 15" " " " "	Lin. Ft.	30
* 18" " " " "	Lin. Ft.	22

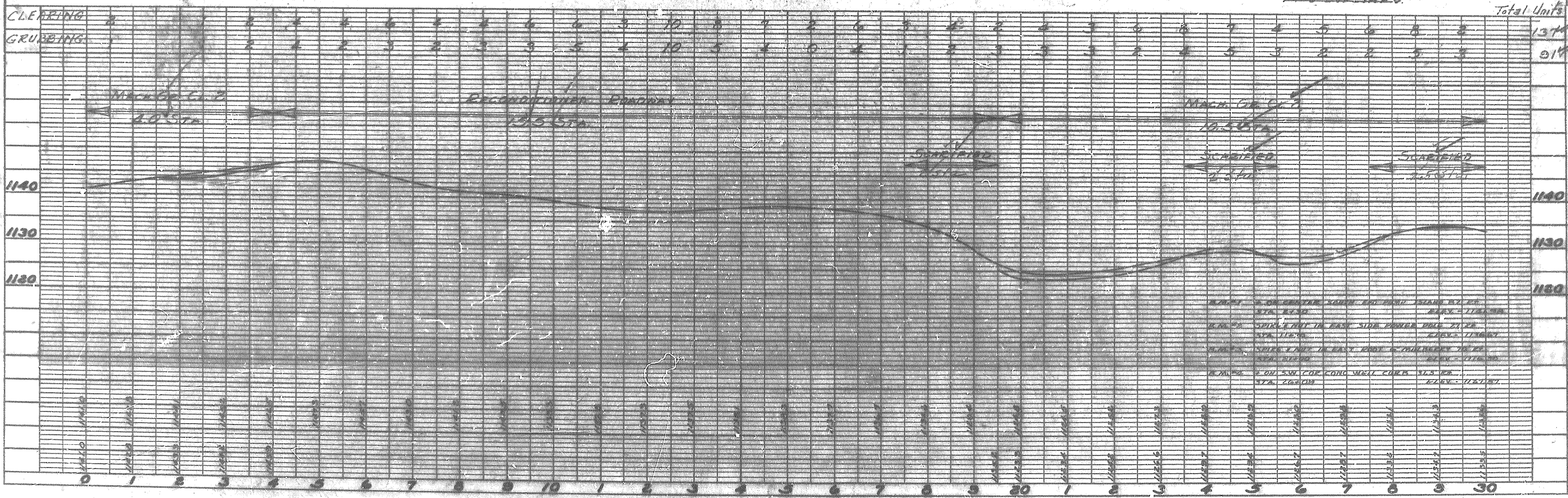
* Leftover and Turned over to Maintenance

PLAN
 SHEET NO. 5
 PROJECT NO. 3-92(11)
 COUNTY NEWTON
 TOWN Y A

5 NO 3-92(11) 3 10
 COUNTY NEWTON Y A



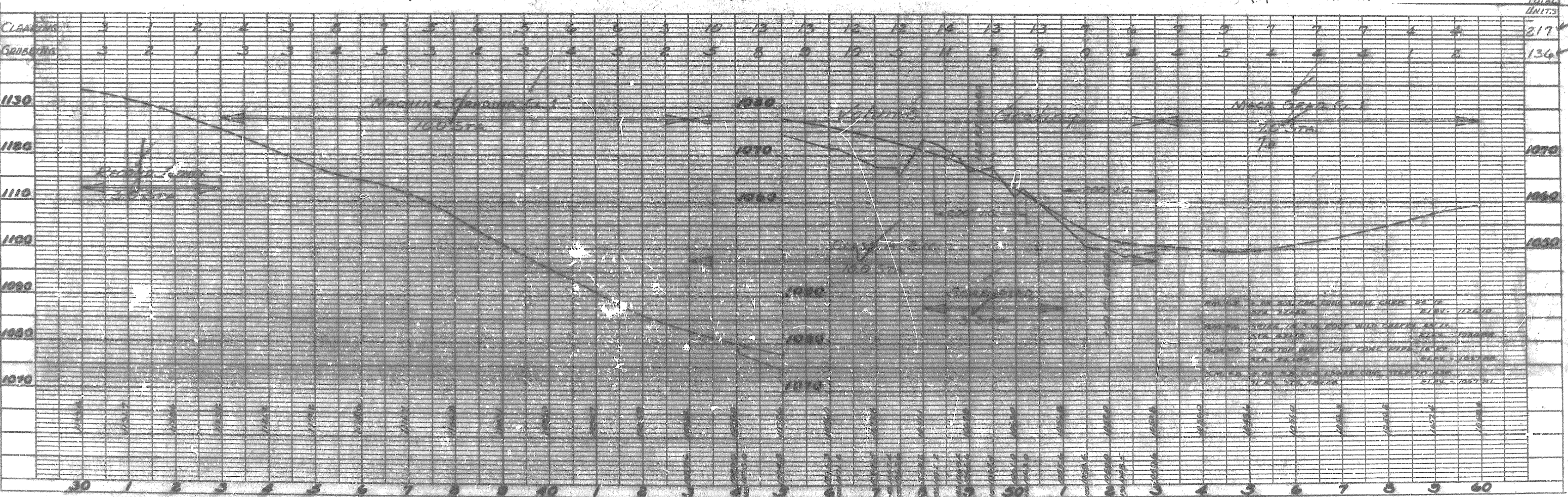
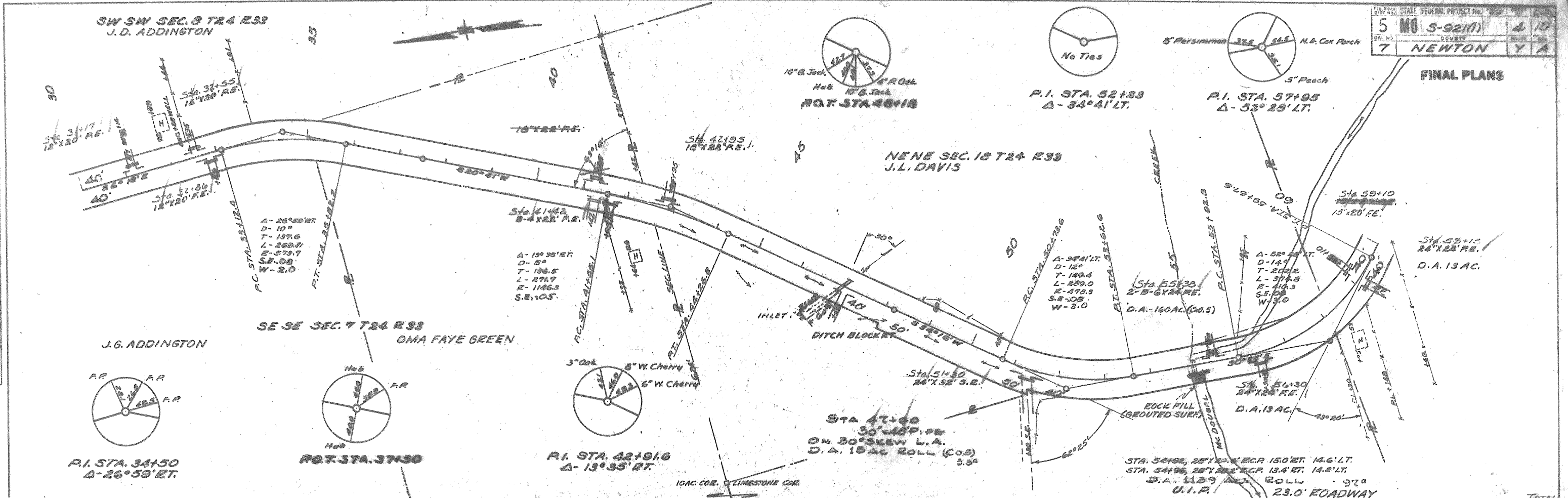
"new" US 60 crosses at 9+40
 Route Y is south of US 60
 Route CC is north of US 60



PLAN
 DRAWN BY
 CHECKED BY
 DATE
 SCALE
 SHEET NO.

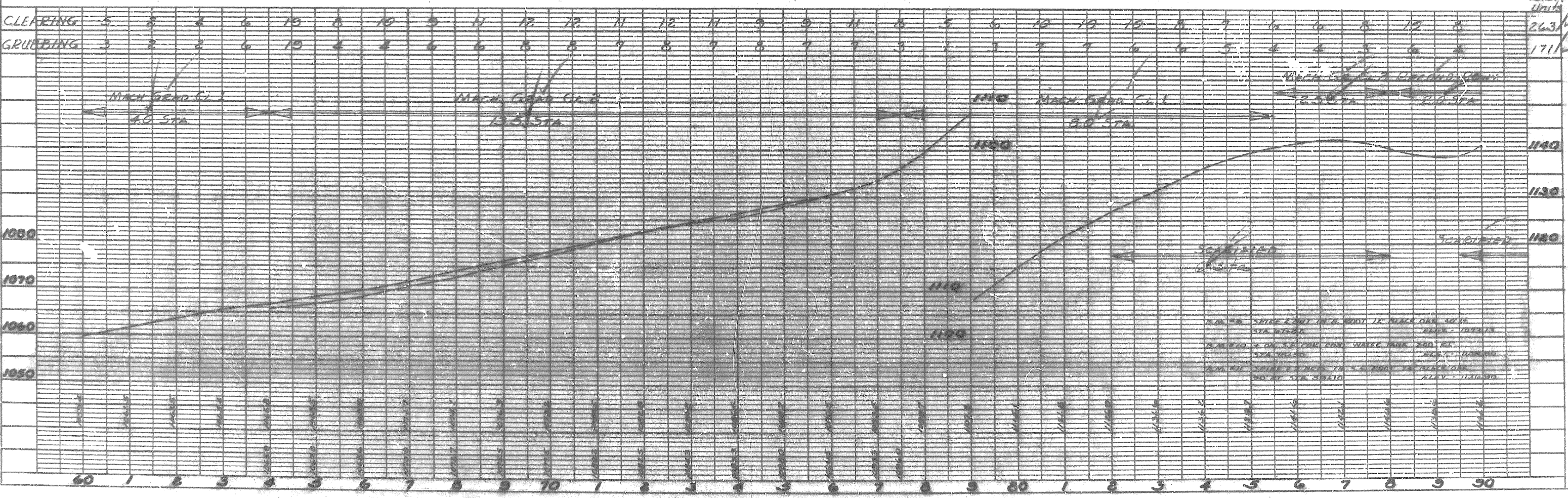
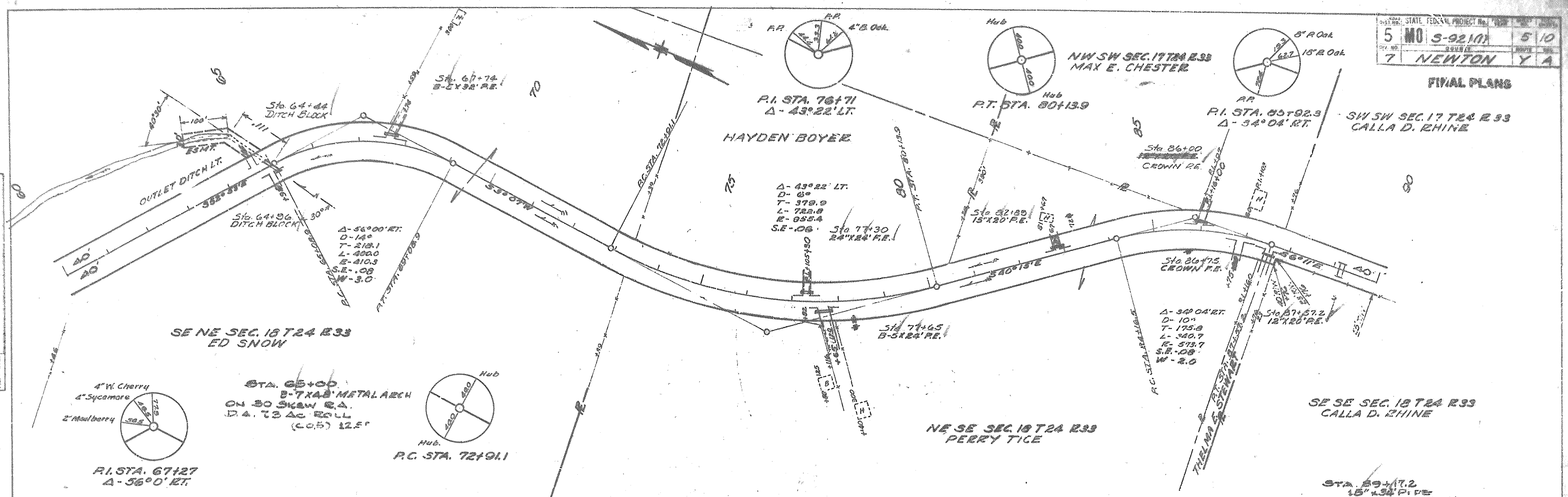
PROFILE
 DRAWN BY
 CHECKED BY
 DATE
 SCALE
 SHEET NO.

STATE PROJECT NO. 5 MO S-92(11) 4 10
 COUNTY NEWTON Y A

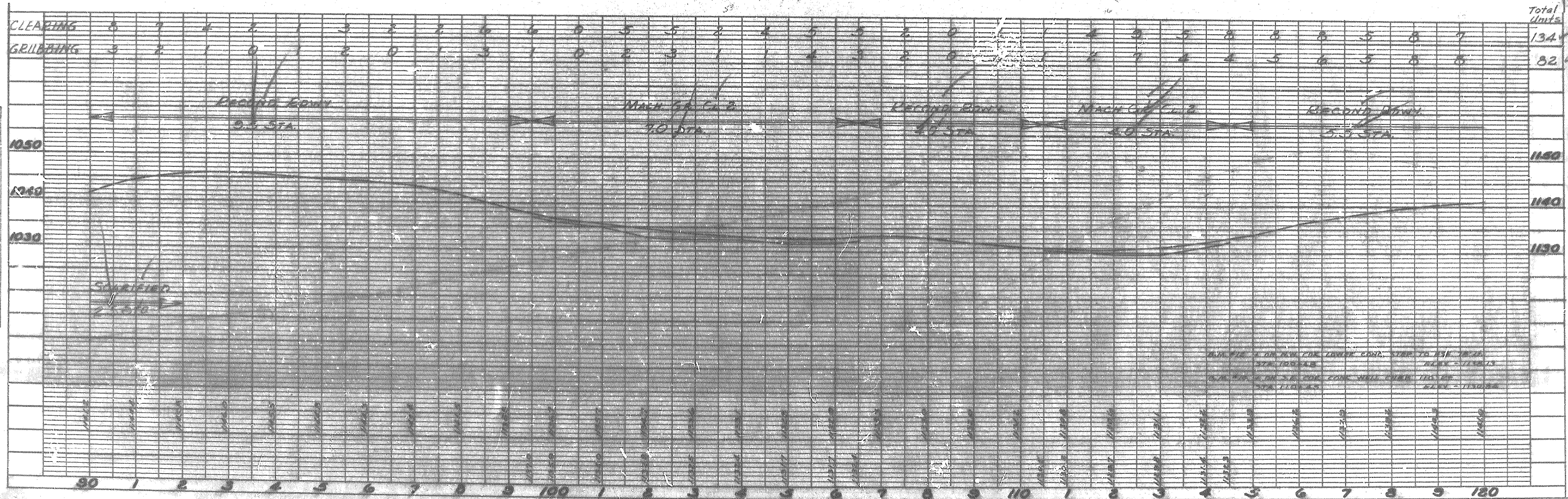
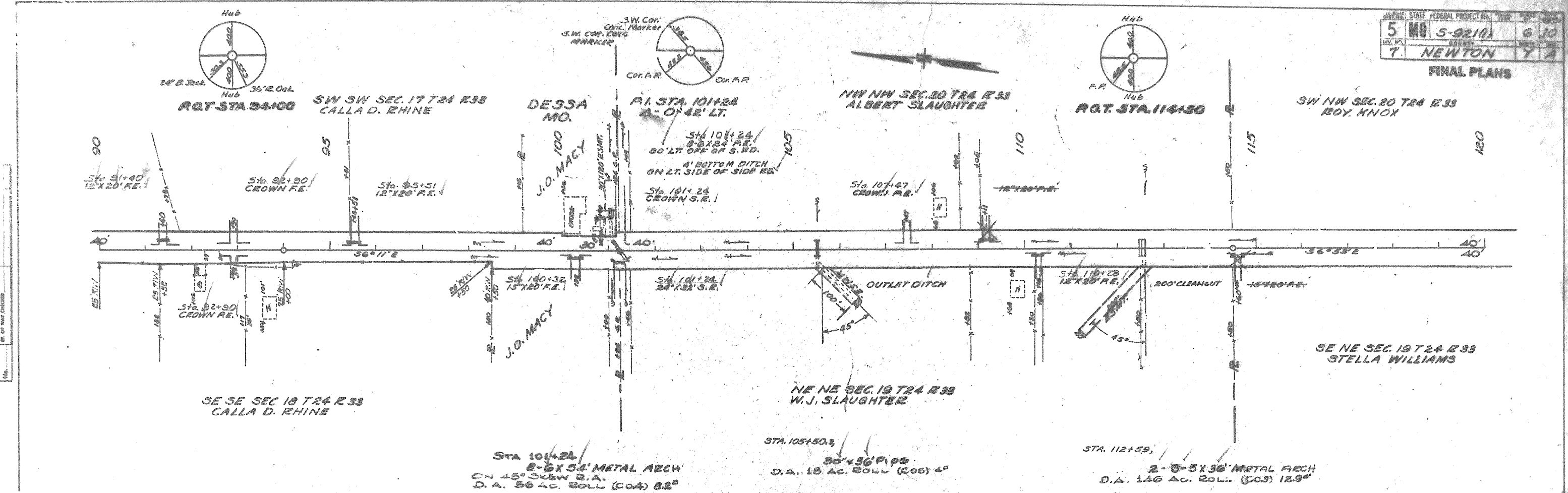


PLAN
 SURVEYED
 MOVED
 NOTE BOOK
 ALGEBRAIC CHANGES
 AT OF WAY CHANGED
 No.

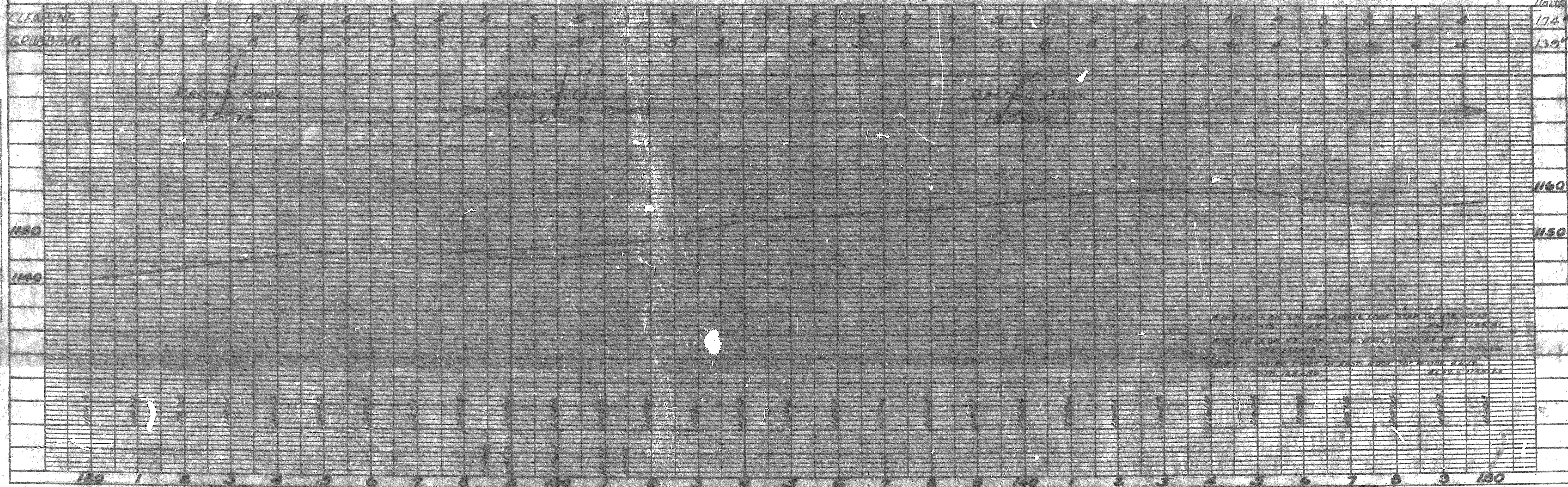
STATE, FEDERAL PROJECT No. 100
 DIST. NO. 5 MO 3-92101 5 10
 DIV. NO. 7 NEWTON Y A
FINAL PLANS



PLAN
 DRAWN BY
 CHECKED BY
 DATE
 NO.



362

[illegible]

~~ST HADARDS~~

TYP Sect + Earthwork

Route Y
Sect Proj S924-0A
County NEWTON
Sheet # 8

Surf. Carb + Gutter + APP
1BB2 ✓

Drainage
18A-1

Bridges

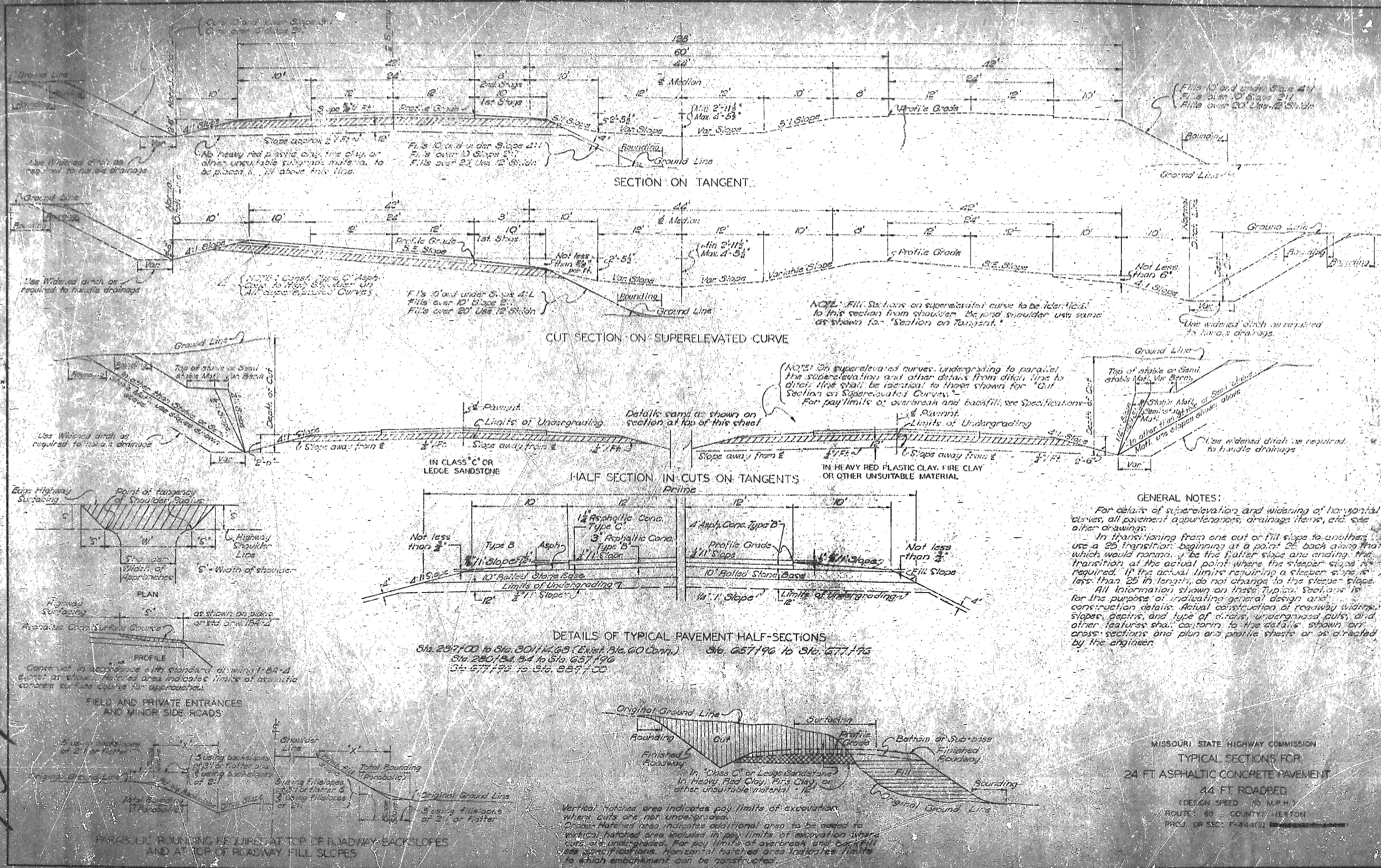
Conc-Reinf APPorts
Finish etc.

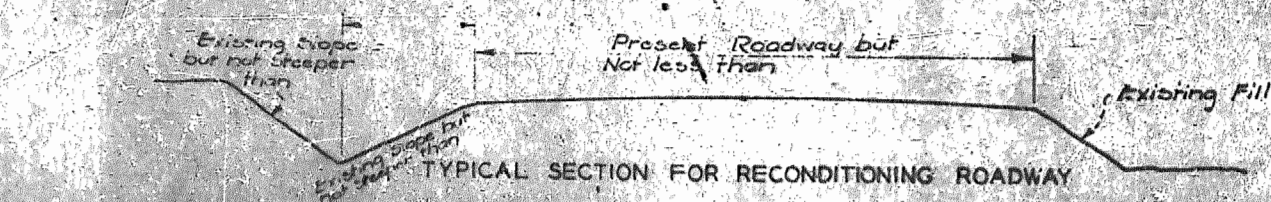
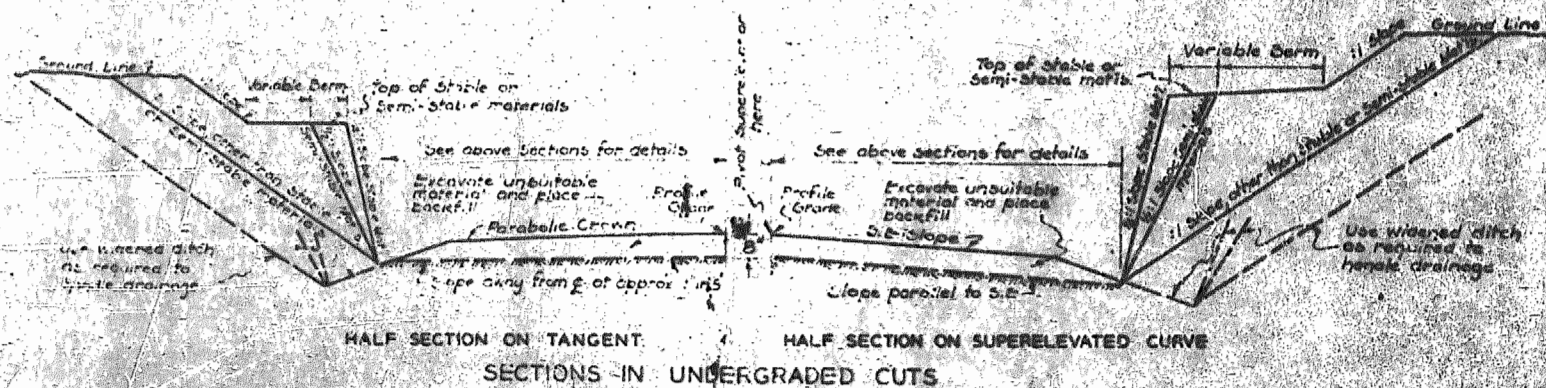
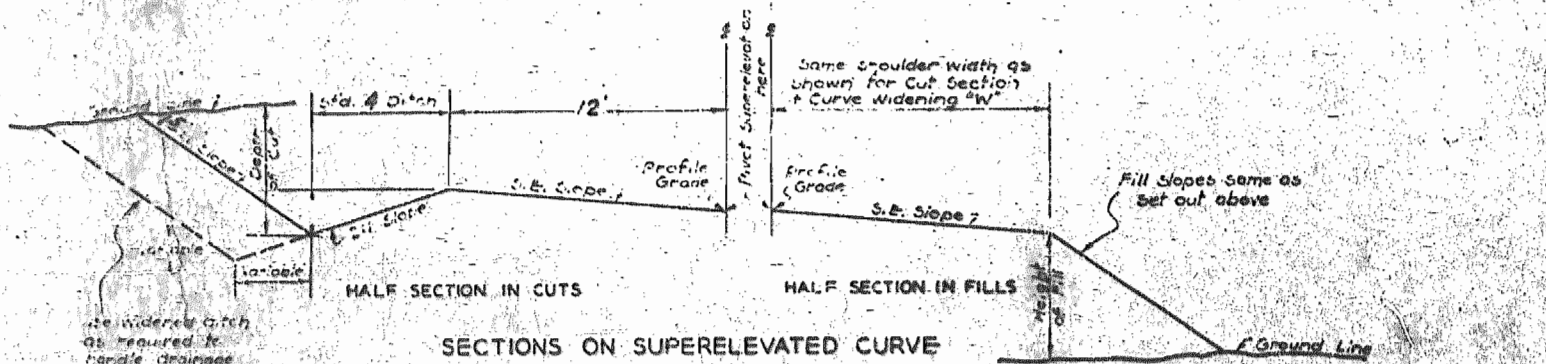
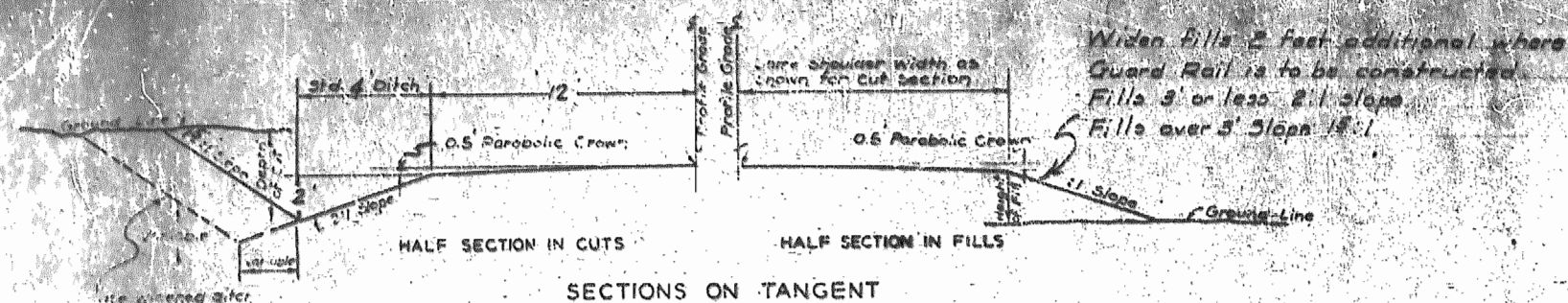
MISC.

364

FINAL
DESIGN
SECTION
DATE
BY

SECTION
DATE
BY





GENERAL NOTES

Machine Grading and Reconditioning Roadway shall be completed in accordance with these Typical Sections using the shoulders, depth of ditch except as otherwise noted on Plan Sheets and as required to provide proper drainage. Covering of at least 1 foot will be required over all drainage structures located within Machine and Reconditioning Roadway Sections.

Transitioning from one slope to another use a 25 foot length of transition.

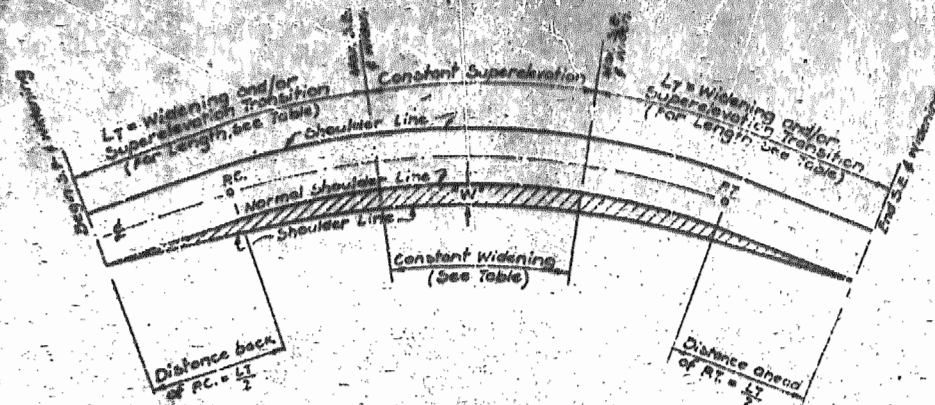
All information shown on these TYPICAL SECTIONS is for the purpose of indicating the required parabolic crown, on tangent section, and general design and construction details. Actual construction of roadbed widths, slopes, depth and width of ditches, undergraded cuts and other features shall conform to the details shown on Cross-Sections and Black Booklet Sheets or as directed by the Engineer.

Final finishing of side slopes of cuts and fills will not be required. Machine finishing to a smooth plane will be considered satisfactory.

Unless otherwise shown on the plans, the roadway ditch at all cross road culverts shall be widened to five (5) feet at the inlet with a fifty (50) foot transition to the standard roadway ditch. In "Machine Grading" limits the east of this excavation is to be included in the contract unit price for Machine Grading.

The cost of constructing Ditch Blocks in "Machine Grading" limits is to be included in the contract unit price for Machine Grading.

SCHEME OF WIDENING AND SUPERELEVATION TRANSITION



SUPERELEVATION AND WIDENING DATA

Degree of Curve Dc	Design Speeds											
	30 or Less			35 M.P.H.			40 M.P.H.			45 M.P.H.		
	S	W	LT	S	W	LT	S	W	LT	S	W	LT
0° to 1°00'	0	0	0	0	0	0	0	0	0	0	0	0
1°00' to 1°30'	0	0	150	0	0	150	0	0	150	0	0	150
1°30' to 2°00'	0	0	150	0	0	150	0	0	150	0	0	150
2°00' to 2°30'	0	0	150	0	0	150	0	0	150	0	0	150
2°30' to 3°00'	0	0	150	0	0	150	0	0	150	0	0	150
3°00' to 3°30'	0	0	150	0	0	150	0	0	150	0	0	150
3°30' to 4°00'	0	0	150	0	0	150	0	0	150	0	0	150
4°00' to 4°30'	0	0	150	0	0	150	0	0	150	0	0	150
4°30' to 5°00'	0	0	150	0	0	150	0	0	150	0	0	150
5°00' to 5°30'	0	0	150	0	0	150	0	0	150	0	0	150
5°30' to 6°00'	0	0	150	0	0	150	0	0	150	0	0	150
6°00' to 6°30'	0	0	150	0	0	150	0	0	150	0	0	150
6°30' to 7°00'	0	0	150	0	0	150	0	0	150	0	0	150
7°00' to 7°30'	0	0	150	0	0	150	0	0	150	0	0	150
7°30' to 8°00'	0	0	150	0	0	150	0	0	150	0	0	150
8°00' to 8°30'	0	0	150	0	0	150	0	0	150	0	0	150
8°30' to 9°00'	0	0	150	0	0	150	0	0	150	0	0	150
9°00' to 9°30'	0	0	150	0	0	150	0	0	150	0	0	150
9°30' to 10°00'	0	0	150	0	0	150	0	0	150	0	0	150
10°00' to 10°30'	0	0	150	0	0	150	0	0	150	0	0	150
10°30' to 11°00'	0	0	150	0	0	150	0	0	150	0	0	150
11°00' to 11°30'	0	0	150	0	0	150	0	0	150	0	0	150
11°30' to 12°00'	0	0	150	0	0	150	0	0	150	0	0	150
12°00' to 12°30'	0	0	150	0	0	150	0	0	150	0	0	150
12°30' to 13°00'	0	0	150	0	0	150	0	0	150	0	0	150
13°00' to 13°30'	0	0	150	0	0	150	0	0	150	0	0	150
13°30' to 14°00'	0	0	150	0	0	150	0	0	150	0	0	150
14°00' to 14°30'	0	0	150	0	0	150	0	0	150	0	0	150
14°30' to 15°00'	0	0	150	0	0	150	0	0	150	0	0	150
15°00' to 15°30'	0	0	150	0	0	150	0	0	150	0	0	150
15°30' to 16°00'	0	0	150	0	0	150	0	0	150	0	0	150
16°00' to 16°30'	0	0	150	0	0	150	0	0	150	0	0	150
16°30' to 17°00'	0	0	150	0	0	150	0	0	150	0	0	150
17°00' to 17°30'	0	0	150	0	0	150	0	0	150	0	0	150
17°30' to 18°00'	0	0	150	0	0	150	0	0	150	0	0	150
18°00' to 18°30'	0	0	150	0	0	150	0	0	150	0	0	150
18°30' to 19°00'	0	0	150	0	0	150	0	0	150	0	0	150
19°00' to 19°30'	0	0	150	0	0	150	0	0	150	0	0	150
19°30' to 20°00'	0	0	150	0	0	150	0	0	150	0	0	150
20°00' to 20°30'	0	0	150	0	0	150	0	0	150	0	0	150
20°30' to 21°00'	0	0	150	0	0	150	0	0	150	0	0	150
21°00' to 21°30'	0	0	150	0	0	150	0	0	150	0	0	150
21°30' to 22°00'	0	0	150	0	0	150	0	0	150	0	0	150
22°00' to 22°30'	0	0	150	0	0	150	0	0	150	0	0	150
22°30' to 23°00'	0	0	150	0	0	150	0	0	150	0	0	150
23°00' to 23°30'	0	0	150	0	0	150	0	0	150	0	0	150
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25°30' to 26°00'	0	0	150	0	0	150	0	0	150	0	0	150
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26°30' to 27°00'	0	0	150	0	0	150	0	0	150	0	0	150
27°00' to 27°30'	0	0	150	0	0	150	0	0	150	0	0	150
27°30' to 28°00'	0	0	150	0	0	150	0	0	150	0	0	150
28°00' to 28°30'	0	0	150	0	0	150	0	0	150	0	0	150
28°30' to 29°00'	0	0	150	0	0	150	0	0	150	0	0	150
29°00' to 29°30'	0	0	150	0	0	150	0	0	150	0	0	150
29°30' to 30°00'	0	0	150	0	0	150	0	0	150	0	0	150

NOTES

S denotes Superlevation in feet per foot
W denotes Widening of surfacing and inside shoulder in feet
LT denotes Length of Superlevation and/or widening transition in feet
Crown is to be eliminated on all Superelevated Curves.
Values for degree of curve not shown in above table shall be identical with those for the nearest tabulated curve. In case of tie, use values for next higher degree curve.

NOTE:
Use SE, Widening & LT as listed on Plans.

MISSOURI STATE HIGHWAY COMMISSION

TYPICAL SECTIONS

FOR

24 FT GRADED EARTH

FOR

SUPPLEMENTARY ROADS

(DESIGN SPEED — M.P.H.)

ROUTE 60 COUNTY NEWTON

PROJ. 9R SEC. F-244(1), 244(2), 244(3)

ENGR. SURVEYS AND PLANS

CHIEF ENGINEER

TABLE C

LOCATION From Route 94 Northeast to Toward Granby
TYPE Graded Earth Culverts & 24" Reinforced Concrete Pavement

MISSOURI STATE HIGHWAY COMMISSION

SUMMARY OF QUANTITIES

FINAL PLANS

Sheet 1 of 2

PROJECT NO.	STATE	FISCAL YEAR	EST. NO.	TOTAL SHEETS
7	MO.	1960	2-A	67
COUNTY				
NEWTON				

EXCAVATION										GENERAL SUMMARY										
Station	Class A	Borrow	Comp. Conc.	Comp. Conc. Overhaul	Remarks	FEDERAL LENGTH					LENGTH OF PROJECT					ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS	PER UNIT
281+00	2544	8428	2167		" Rte. 60 2550	End of Project	Station	281+00	End of Project	Station	281+00	Beginning of Project	Station	281+00	1-A	Clearing	Acres	312		
281+20	19721	1784	1200	923		Beginning of Project	Station	281+00	Beginning of Project	Station	281+00	Apparent Length	Station	281+00	1-B	Grubbing	Acres	394		
281+20	19721	1784	1200	923		Apparent Length	38695.16	Apparent Length	38695.16	Equations and Exceptions:	None	Equations and Exceptions:	None	281+00	1-D	Class A Excavation	C.Y.	24095		
281+20	19721	1784	1200	923		Exception:		Exception:						281+00	1-E	Class C Excavation	C.Y.	0		
281+20	19721	1784	1200	923		Sta. 281+00 to Sta. 281+20		Sta. 281+00 to Sta. 281+20						281+00	1-F	Class 3 Excavation for Structures	C.Y.	24095		
281+20	19721	1784	1200	923		Total Corrections	-25.66 Feet	Total Corrections	-25.66 Feet					281+00	1-K	Compacting Embankments	C.Y.	40581		
281+20	19721	1784	1200	923		Federal Length	38669.50 Feet	Federal Length	38669.50 Feet					281+00	1-L	Compacting in Cuts	C.Y.	40581		
281+20	19721	1784	1200	923			7.305 Miles		7.305 Miles	Total Corrections				281+00	1-N	Overhaul	1/4 Mi. Yd.	42196		
281+20	19721	1784	1200	923				Net Length of Project	38695.16	Net Length of Project	38695.16	State Length =	7.305 Miles	281+00	1-O	Removing (3) Miscellaneous Items	L. Sum	1		
281+20	19721	1784	1200	923										281+00	13-D	Crushed Stone (B) Surface	C.Y.	1122		
281+20	19721	1784	1200	923										281+00	14-B	Class B Concrete (Box Culverts)	C.Y.	7828		
281+20	19721	1784	1200	923										281+00	14-B	Class B Concrete (Other than Box Culs)	C.Y.	716		
281+20	19721	1784	1200	923										281+00	18-B	12" Corr. Metal Culs. Pipe (E&SR)	L.F.	178		
281+20	19721	1784	1200	923										281+00	18-B	15" " " " " "	L.F.	270		
281+20	19721	1784	1200	923										281+00	18-B	18" " " " " "	L.F.	150		
281+20	19721	1784	1200	923										281+00	18-B	24" " " " " "	L.F.	42		
281+20	19721	1784	1200	923										281+00	18-B	36" " " " " "	L.F.	40		
281+20	19721	1784	1200	923										281+00	18-B	48" " " " " "	L.F.	98		
281+20	19721	1784	1200	923										281+00	18-B	54" Corr. Metal Culs. Pipe	L.F.	42		
281+20	19721	1784	1200	923										281+00	18-C	18" Reinf. Conc. Culs. Pipe	L.F.	228		
281+20	19721	1784	1200	923										281+00	18-C	24" " " " " "	L.F.	608		
281+20	19721	1784	1200	923										281+00	18-C	30" " " " " "	L.F.	240		
281+20	19721	1784	1200	923										281+00	18-C	36" " " " " "	L.F.	108		
281+20	19721	1784	1200	923										281+00	18-C	42" " " " " "	L.F.	108		
281+20	19721	1784	1200	923										281+00	18-C	48" " " " " "	L.F.	202		
281+20	19721	1784	1200	923										281+00	18-C	54" " " " " "	L.F.	304		
281+20	19721	1784	1200	923										281+00	18-C	60" " " " " "	L.F.	44		
281+20	19721	1784	1200	923										281+00	18-A	18" Reinf. Conc. Culs. Pipe (Imp. to Method)	L.F.	44		
281+20	19721	1784	1200	923										281+00	18-A	24" " " " " "	L.F.	9268		
281+20	19721	1784	1200	923										281+00	19-A	Reinforcing Steel	Pound	1278		
281+20	19721	1784	1200	923										281+00	24-A	Class A Type 1 Ld. Underdrains	L.F.	98		
281+20	19721	1784	1200	923										281+00	24-D	Class C Underdrains (Tie)	L.F.	1170		
281+20	19721	1784	1200	923										281+00	27-A	Guard Rail (Type A)	L.F.	1		
281+20	19721	1784	1200	923										281+00	28-A	Barricades	Each	110		
281+20	19721	1784	1200	923										281+00	29-C	Right of Way Markers	Each	27		
281+20	19721	1784	1200	923										281+00	29-D	Drain Markers	Each	1		
281+20	19721	1784	1200	923										281+00	33-A	Removal of (2) Exist. Struts (Culv)	L. Sum	469		
281+20	19721	1784	1200	923										281+00	37-A	Fertilizing & Mulching	Acres			
281+20	19721	1784	1200	923										ROLLED STONE BASE						
281+20	19721	1784	1200	923										18-A	Water	100 Gal.	1620			
281+20	19721	1784	1200	923										2-A	Aggregate	Ton	122,787			
281+20	19721	1784	1200	923										2-B	Spreading, Shaping & Compacting (10")	Mile	282			
281+20	19721	1784	1200	923										2-B	Spreading, Shaping & Compacting (4")	Mile	282			
281+20	19721	1784	1200	923										ASPHALTIC CONCRETE PAVEMENT						
281+20	19721	1784	1200	923										4C-A	Primer (MC-8)	Gal.	79,201			
281+20	19721	1784	1200	923										7-B	Type B Asphaltic Concrete	Ton	28024			
281+20	19721	1784	1200	923										7-C	Type C Asphaltic Concrete	Ton	8127			
281+20	19721	1784	1200	923										SEAL COAT						
281+20	19721	1784	1200	923										19A-A	Bituminous Material (200-250 Pm. Aeph)	Gal.	25429			
281+20	19721	1784	1200	923										19A-C	Cover Material (30-110 Gr. No. 6)	Ton	1189			
281+20	19721	1784	1200	923										ROADWAY CONTINGENT ITEMS						
281+20	19721	1784	1200	923											Placing Rock Fill	C.Y.	367			
281+20	19721	1784	1200	923											18" Corr. Metal Culs. Pipe Turned over to State	L.F.	26			
281+20	19721	1784	1200	923											Cutting & Delivering Asphaltic Conc. Samples	Each	58			
281+20	19721	1784	1200	923											Tile Underdrain taken over from contractor	L.F.	167			

LOCATION FROM ROUTE BY ROAD DISTANCE TOWARDS BEARING

TYPE GRADED EARTH CUTS AND ASPHALTIC CONCRETE PAVEMENT

MISSOURI STATE HIGHWAY COMMISSION

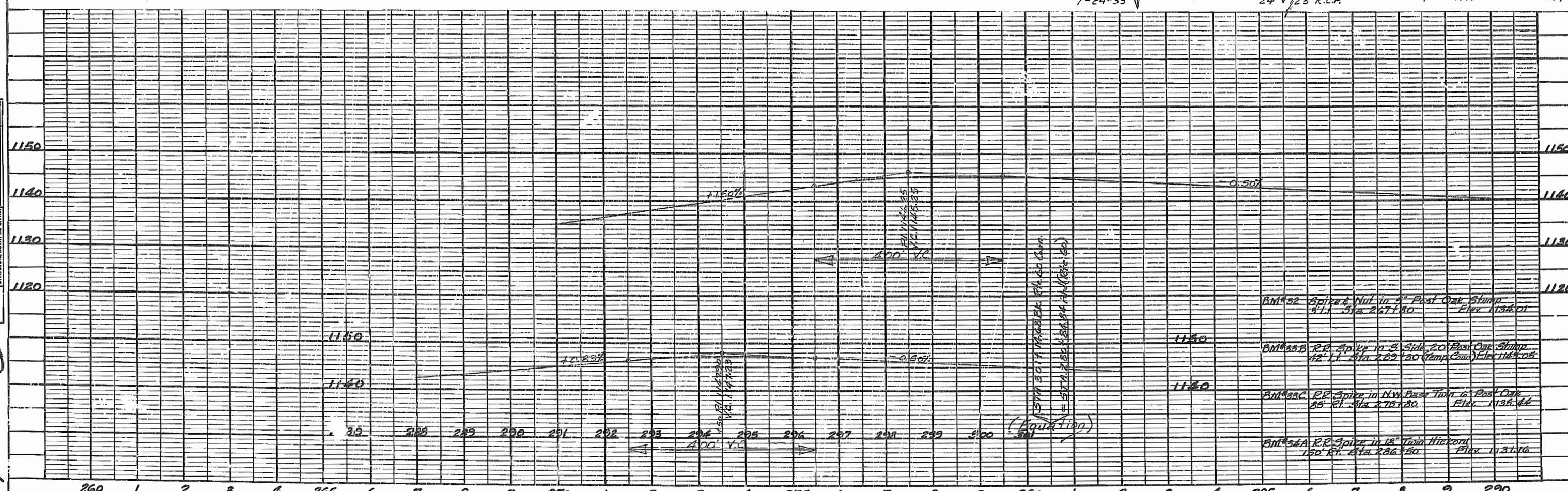
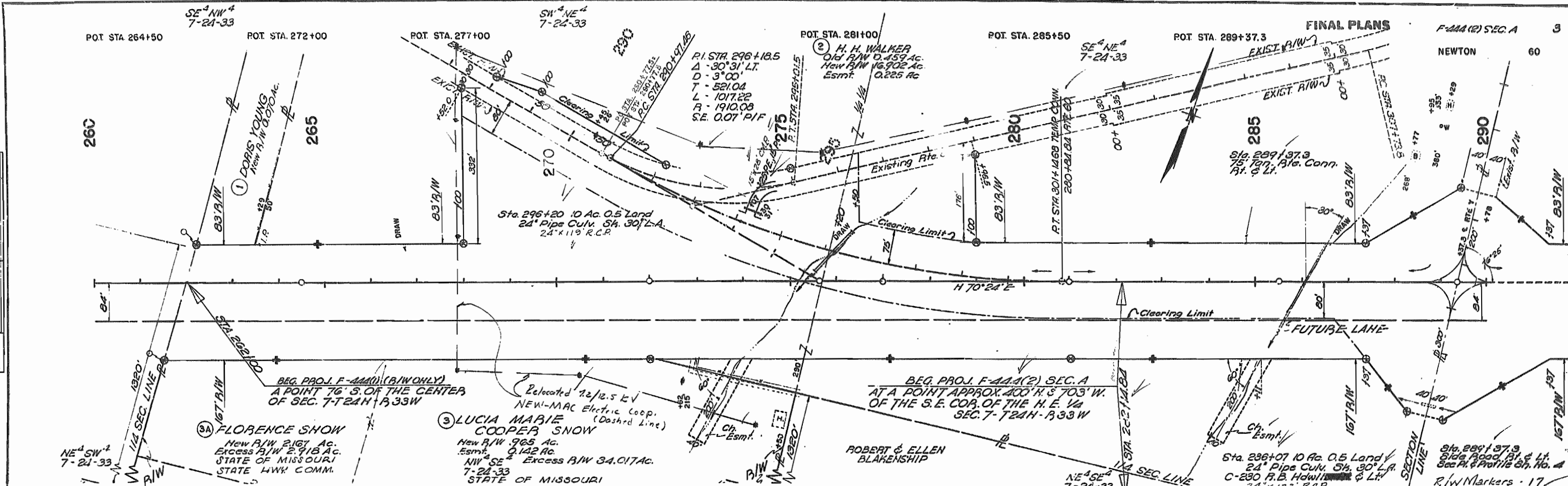
SUMMARY OF QUANTITIES

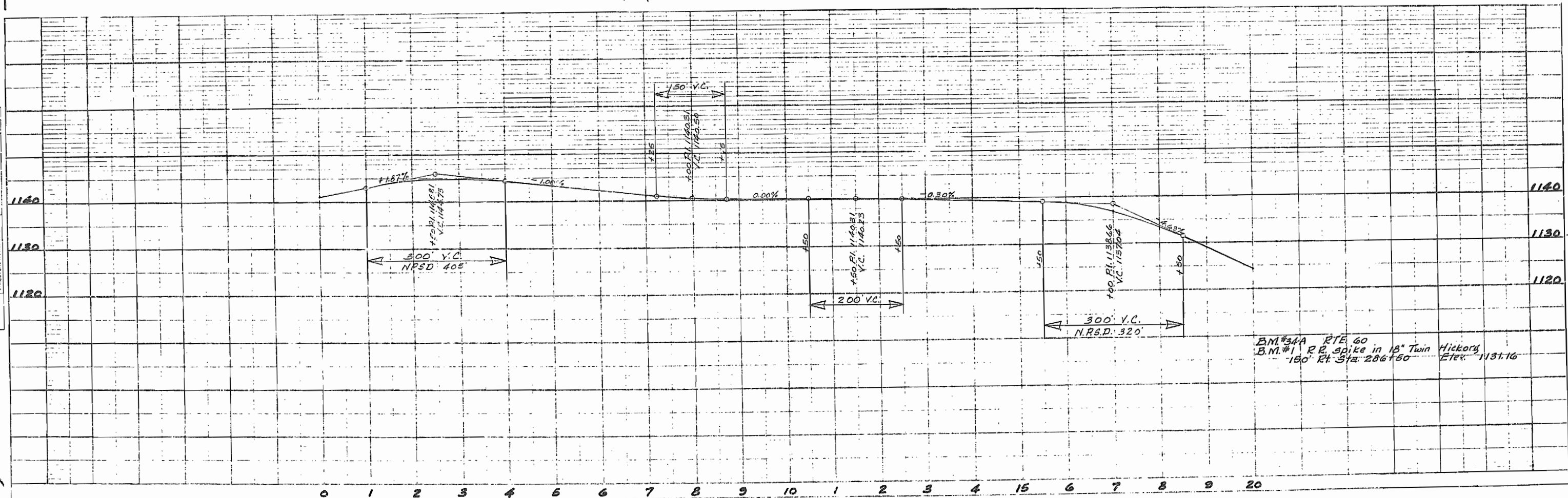
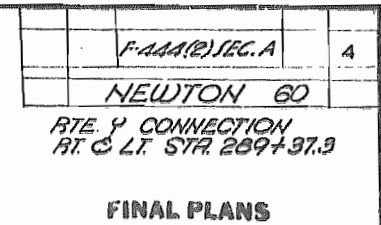
FINAL PLANS

Sheet 1 of 2

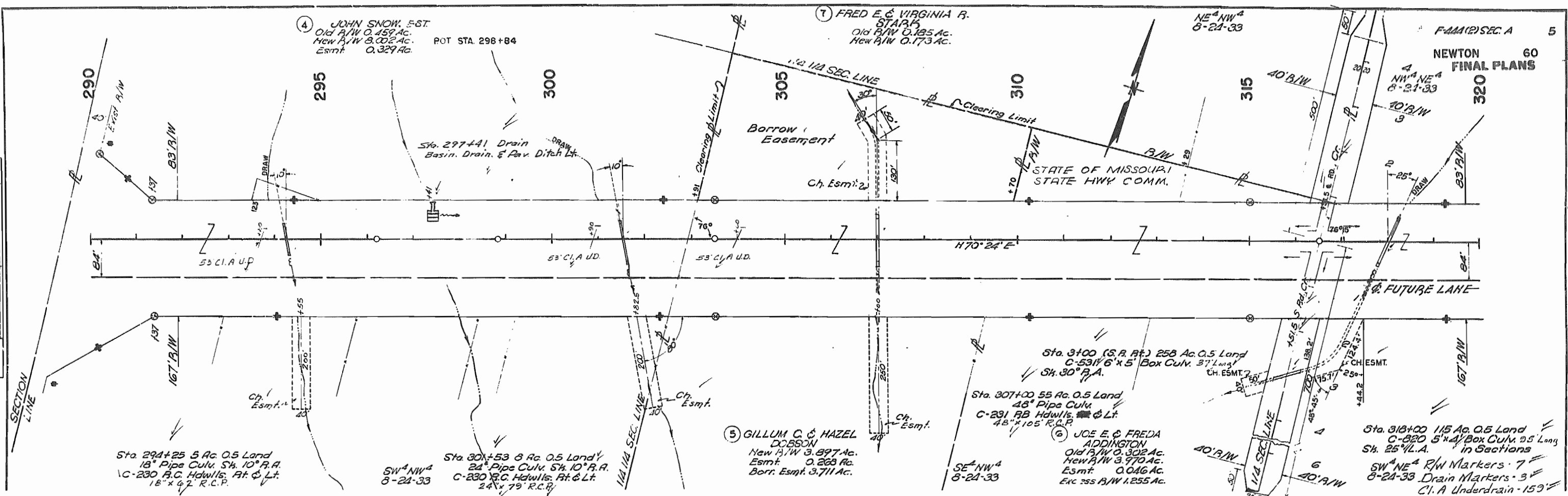
FILE NO.	STATE	PROJECT	FISCAL YEAR	PROJECT NO.	SHEET NO.
1	MO.	F-444(2)		2-A	
2		COUNTY		ROUTE	NO. OF
7		NEWTON		60	

ENTRANCES & SIDE ROAD PIPES (C.M.R.)										LENGTH OF PROJECT				GENERAL SUMMARY				
Station	Loc.	12"	18"	24"	30"	36"	42"	48"	54"	Remarks	End of Project	Beginning of Project	Apparent Length	Equations and Exceptions:	Item No.	Description	Unit	Total Units
224112	CR. LK.									Route 60 Cross Sta.								
224113	CR. LK.									Rto. Y. Sta. 222147.5								
224114	CR. LK.									Rto. Y. Village Type E.H.								
224115	CR. LK.									Rto. Y. Crown								
224116	CR. LK.									Rto. Y.								
224117	CR. LK.									Rto. Y.								
224118	CR. LK.									Rto. Y. Crown								
224119	CR. LK.									Rto. Y. Crown								
224120	CR. LK.									Rto. Y. Crown								
224121	CR. LK.									Rto. Y. Crown								
224122	CR. LK.									Rto. Y. Crown								
224123	CR. LK.									Rto. Y. Crown								
224124	CR. LK.									Rto. Y. Crown								
224125	CR. LK.									Rto. Y. Crown								
224126	CR. LK.									Rto. Y. Crown								
224127	CR. LK.									Rto. Y. Crown								
224128	CR. LK.									Rto. Y. Crown								
224129	CR. LK.									Rto. Y. Crown								
224130	CR. LK.									Rto. Y. Crown								
224131	CR. LK.									Rto. Y. Crown								
224132	CR. LK.									Rto. Y. Crown								
224133	CR. LK.									Rto. Y. Crown								
224134	CR. LK.									Rto. Y. Crown								
224135	CR. LK.									Rto. Y. Crown								
224136	CR. LK.									Rto. Y. Crown								
224137	CR. LK.									Rto. Y. Crown								
224138	CR. LK.									Rto. Y. Crown								
224139	CR. LK.									Rto. Y. Crown								
224140	CR. LK.									Rto. Y. Crown								
224141	CR. LK.									Rto. Y. Crown								
224142	CR. LK.									Rto. Y. Crown								
224143	CR. LK.									Rto. Y. Crown								
224144	CR. LK.									Rto. Y. Crown								
224145	CR. LK.									Rto. Y. Crown								
224146	CR. LK.									Rto. Y. Crown								
224147	CR. LK.									Rto. Y. Crown								
224148	CR. LK.									Rto. Y. Crown								
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224150	CR. LK.									Rto. Y. Crown								
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224155	CR. LK.									Rto. Y. Crown								
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224157	CR. LK.									Rto. Y. Crown								
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224160	CR. LK.									Rto. Y. Crown								
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224163	CR. LK.									Rto. Y. Crown								
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224190	CR. LK.									Rto. Y. Crown								

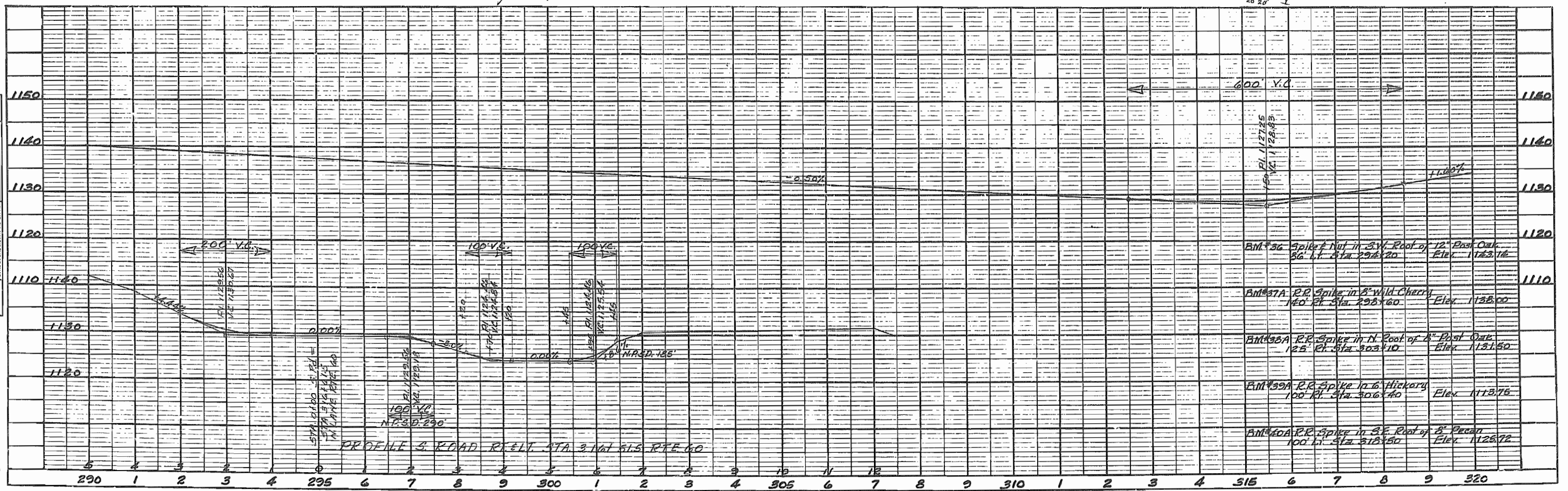


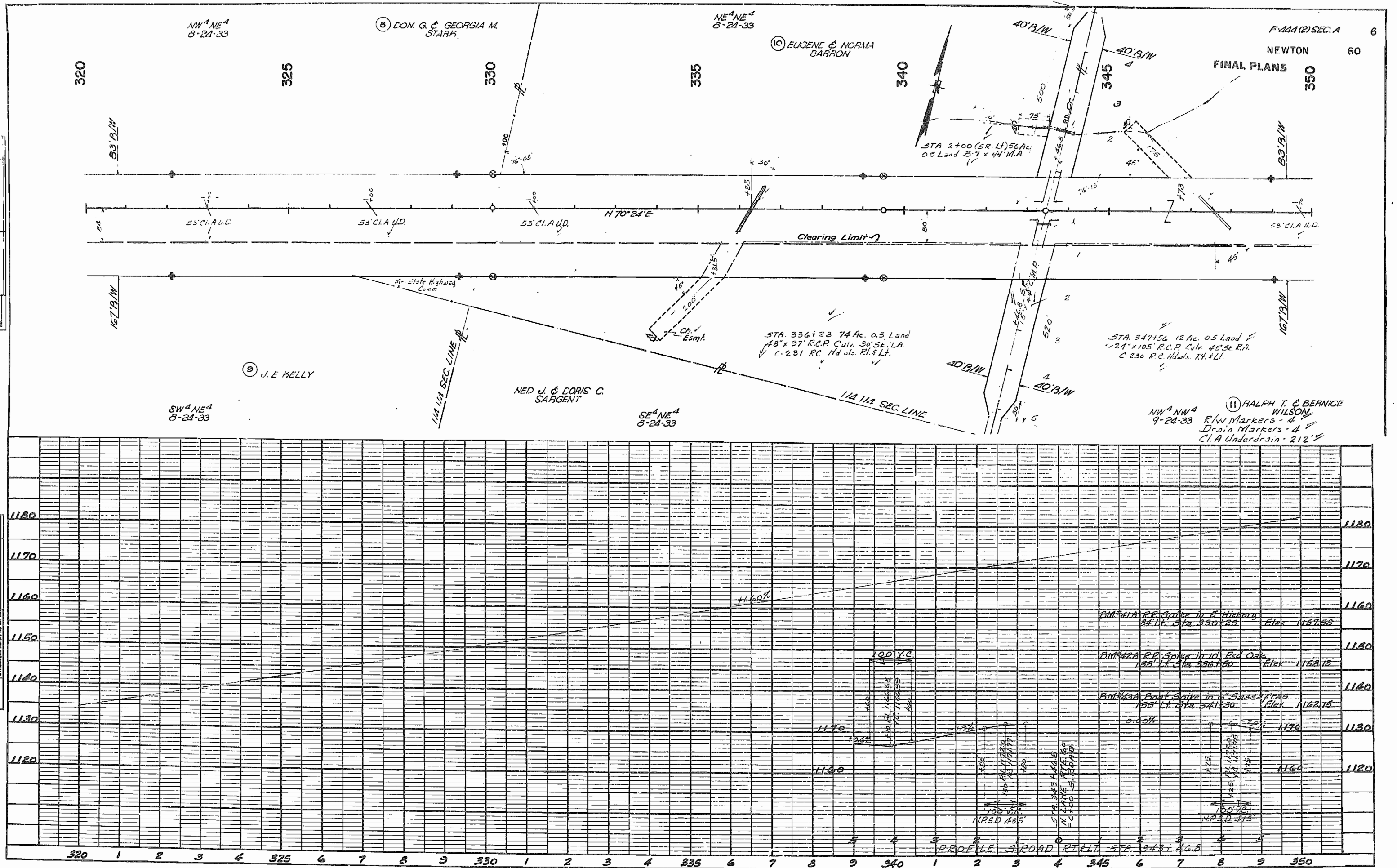


DATE	
BY	
SECTION	
PLAN	
NOTE BOOK	
NO.	

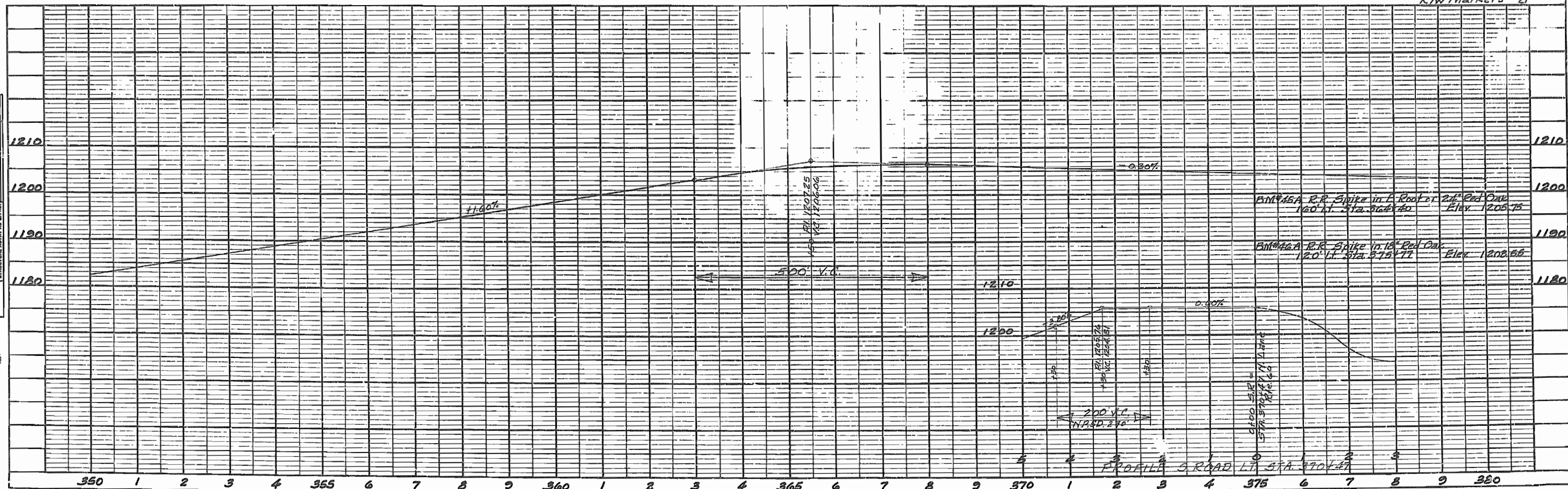


DATE	
BY	
PROFILE	
NOTE BOOK	
NO.	



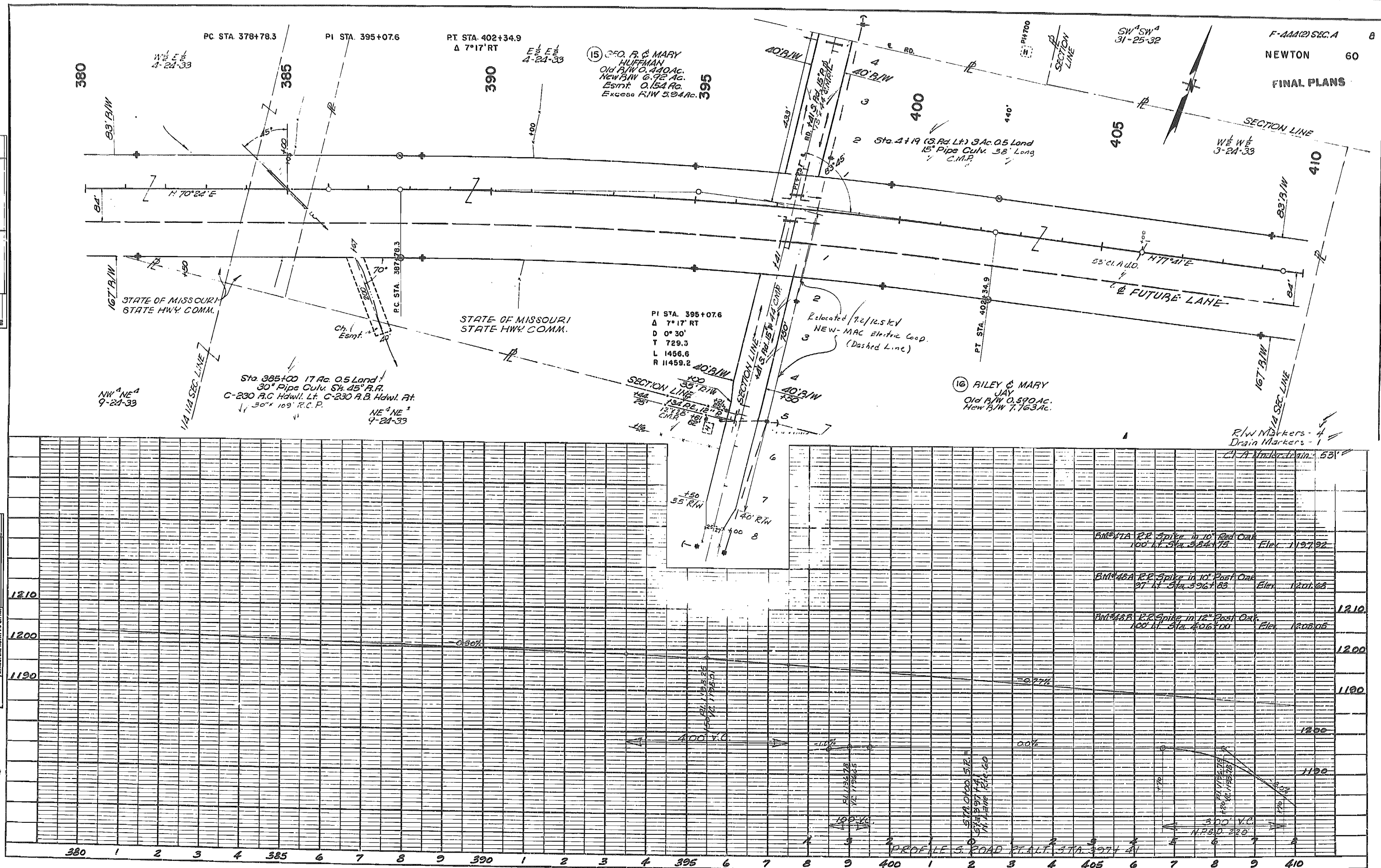


PROFILE		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	GRADED CHECKED		
	S. M.S. NOTED		
	STRUCTURE INDICATOR CHFD.		

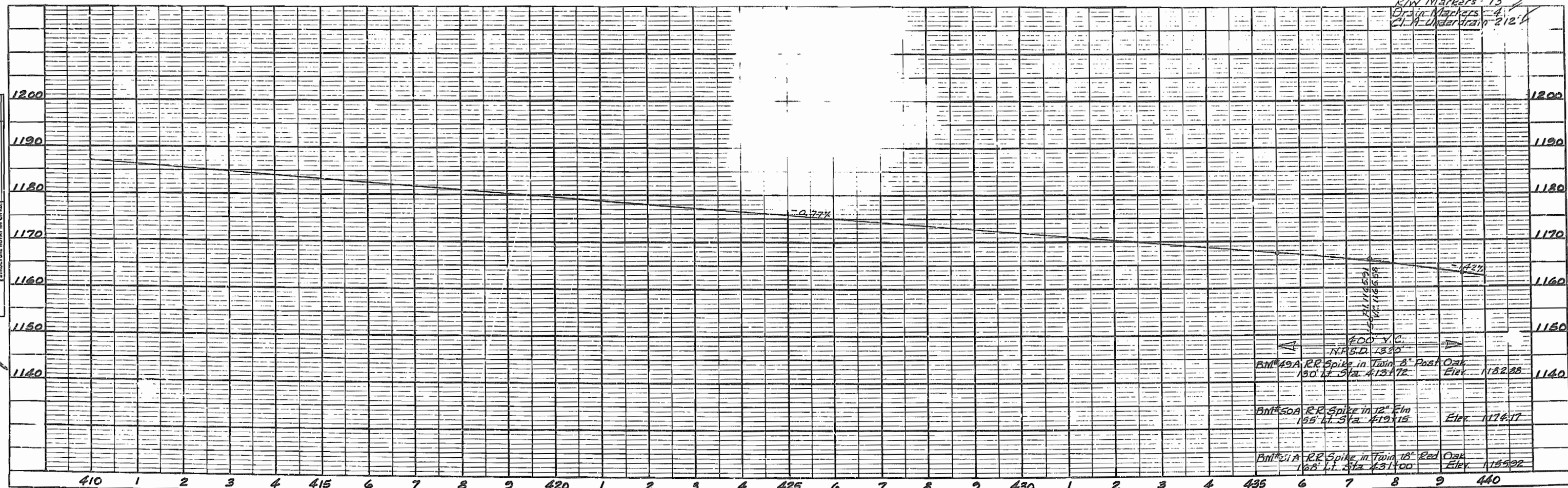
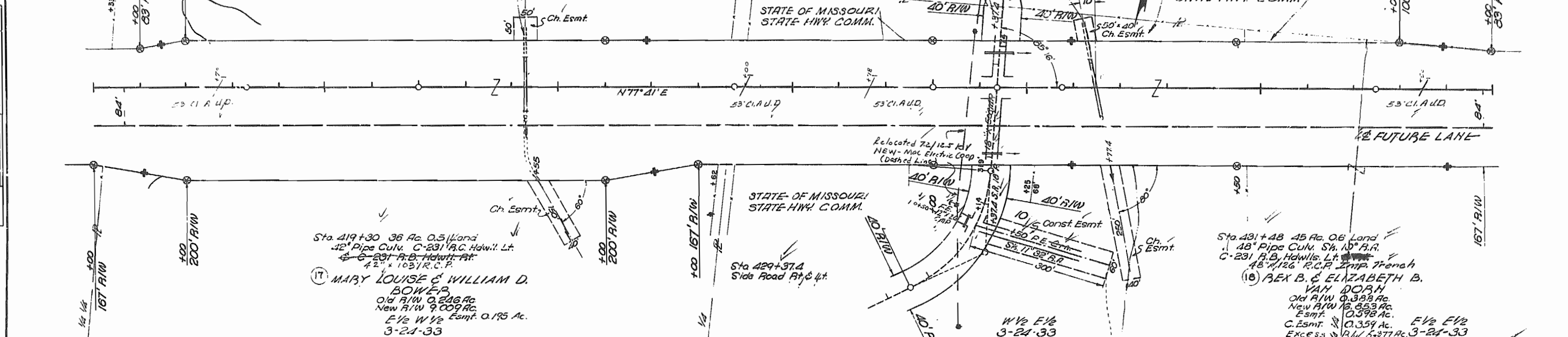


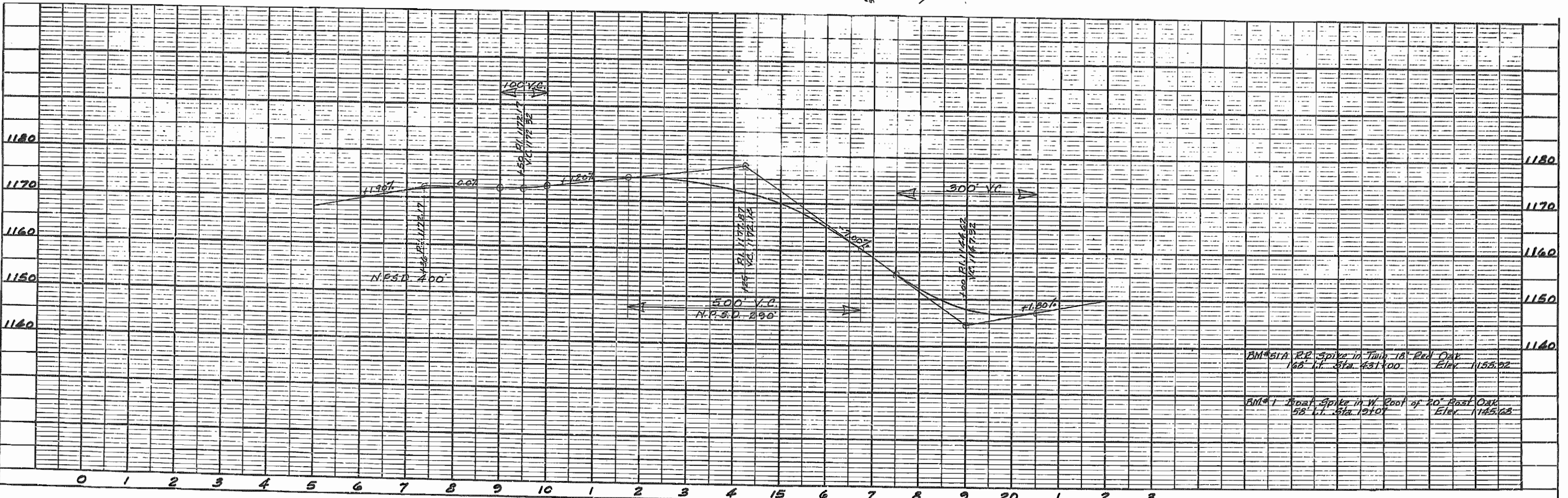
PLAN	SUBMITTED	CY	DATE
NOTE BOOK	PLATTED		
	ALLEGES CHARGED		
NO.	67. 67 MAY CHECKED		

PROFILE	SUBMITTED	BY	DATE
NOTE BOOK	FLATTED		
NO.	B. M. 3 NOTED		
	STRUCTURE NOTATY'S CHFD.		



(19) ARTHUR C. & DORA BELLE
CHURCHWELL
Old R/W 0.039 Ac.
New R/W 0.092 Ac.

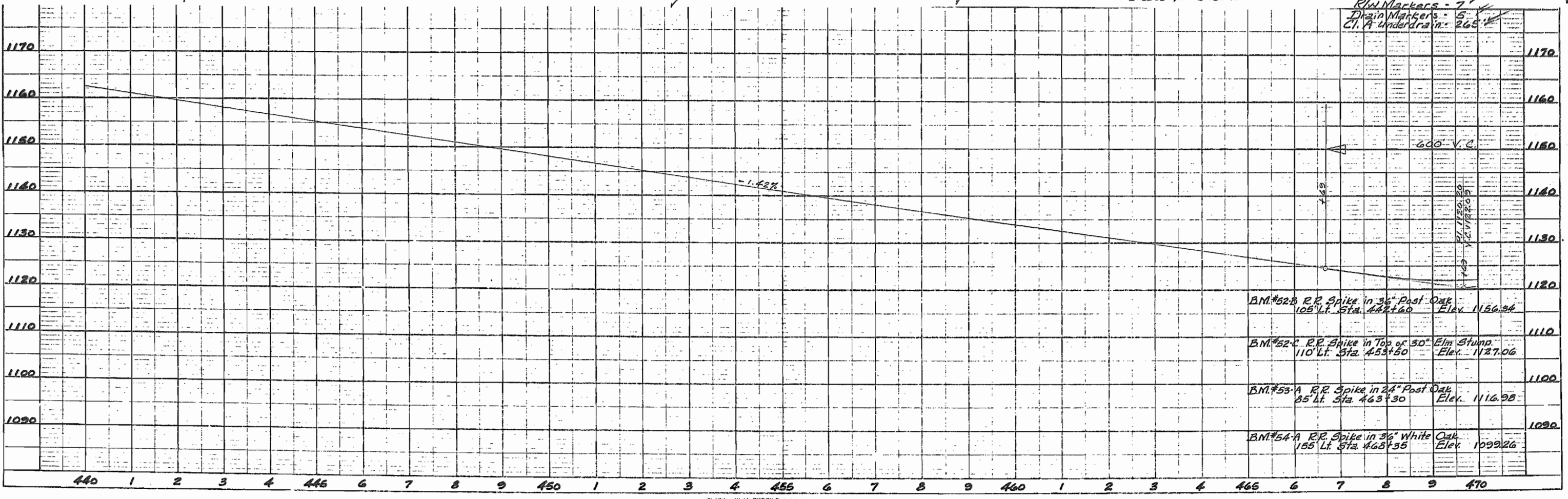
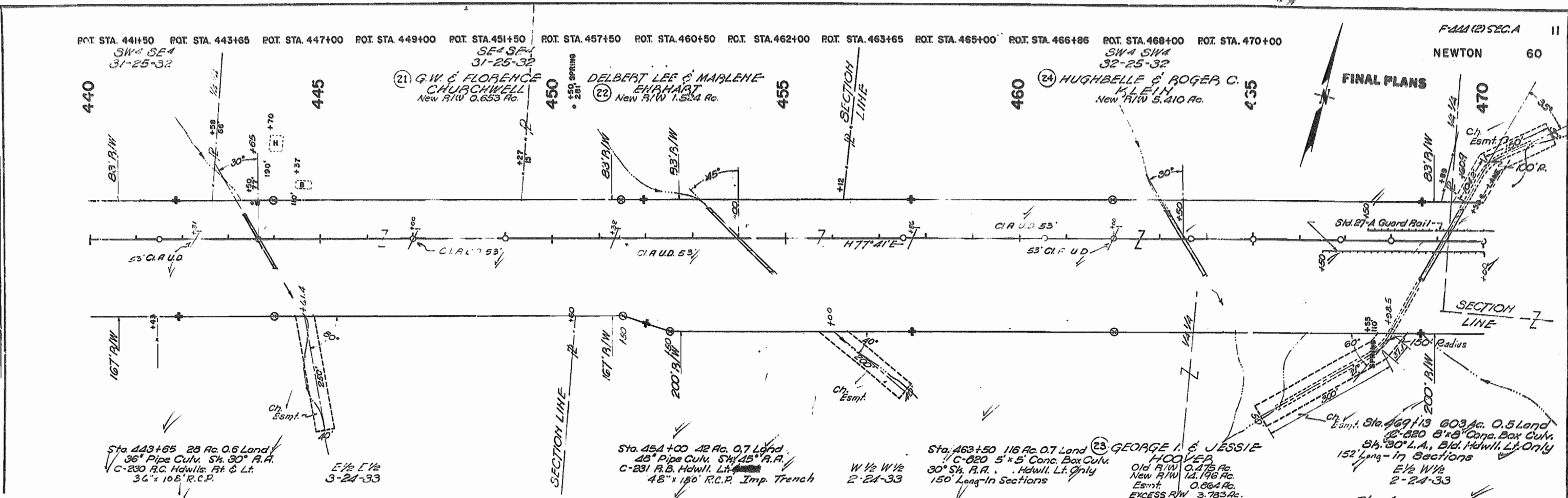




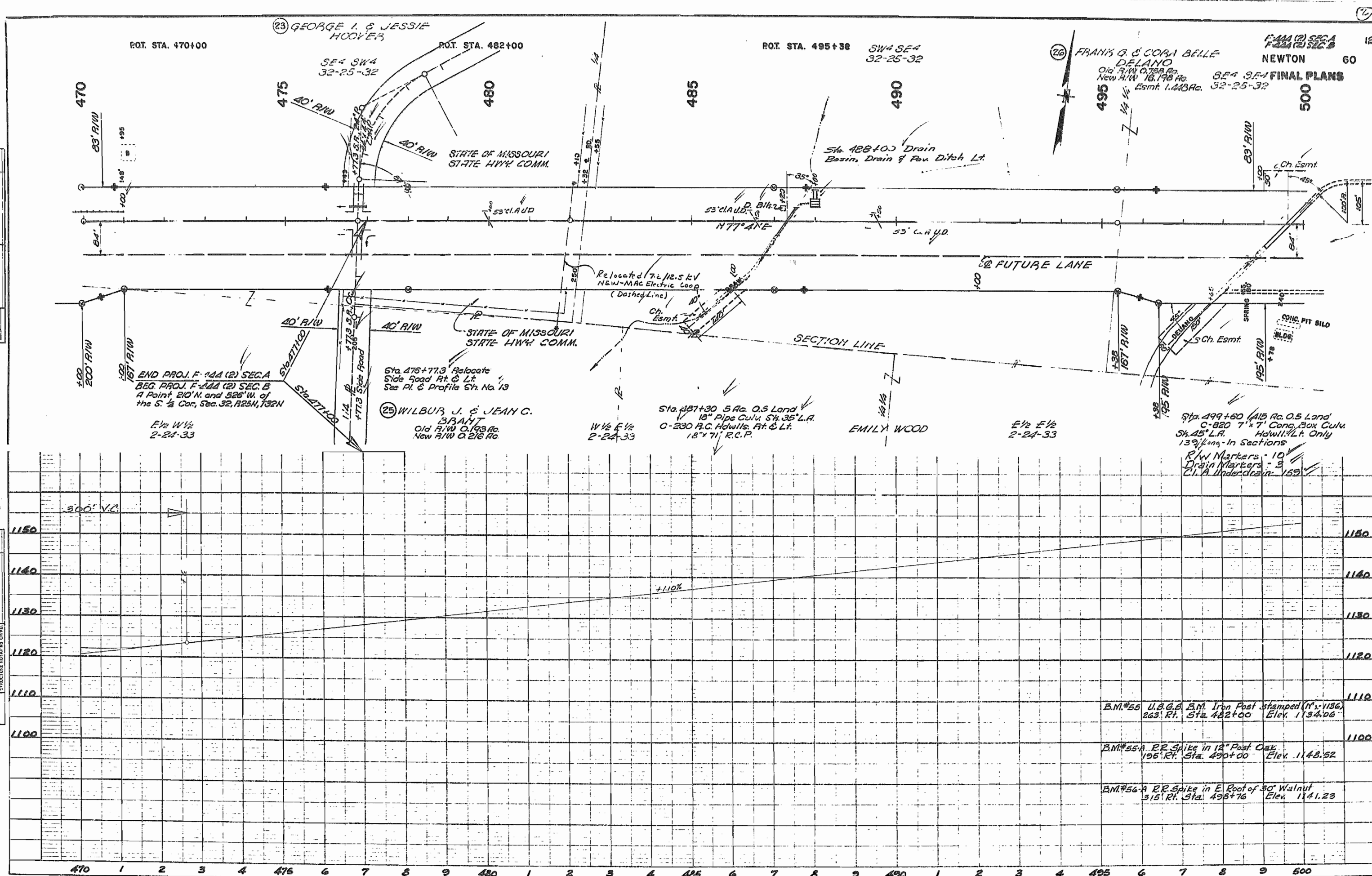
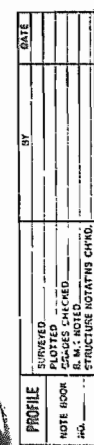
1604

PLAN	DATE
BY	
CHECKED	
APPROVED	
REVISION	

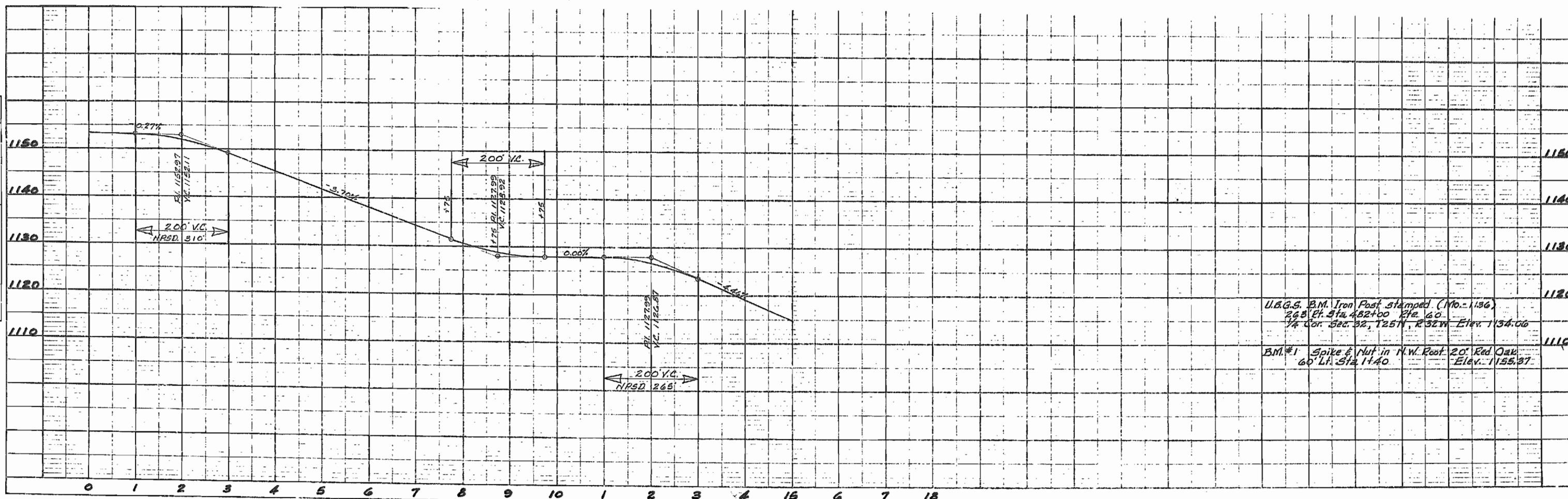
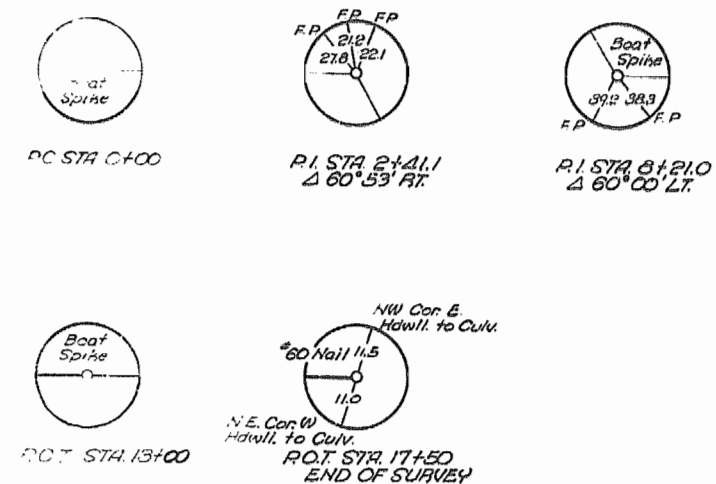
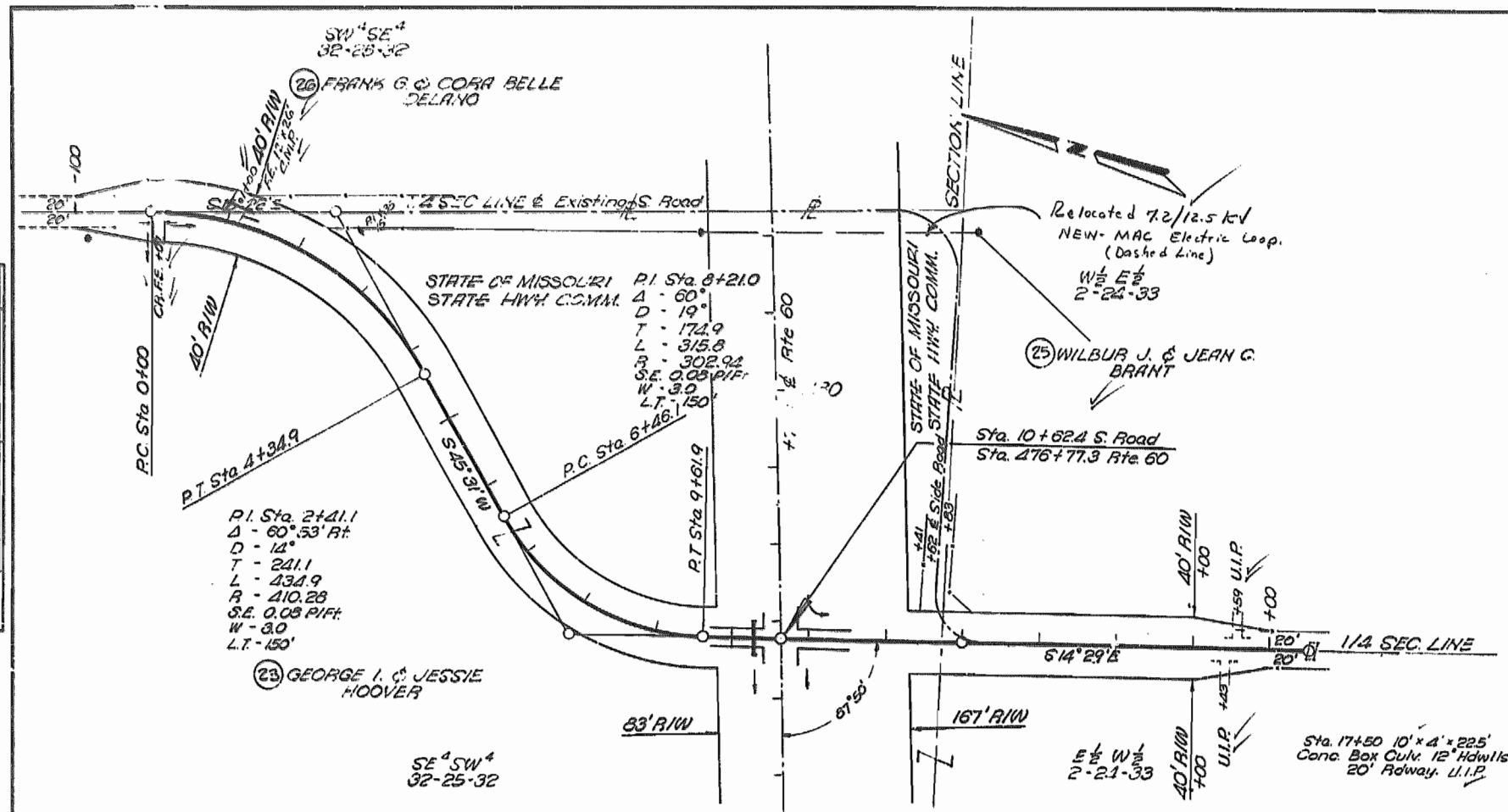
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APPROVED	
REVISION	



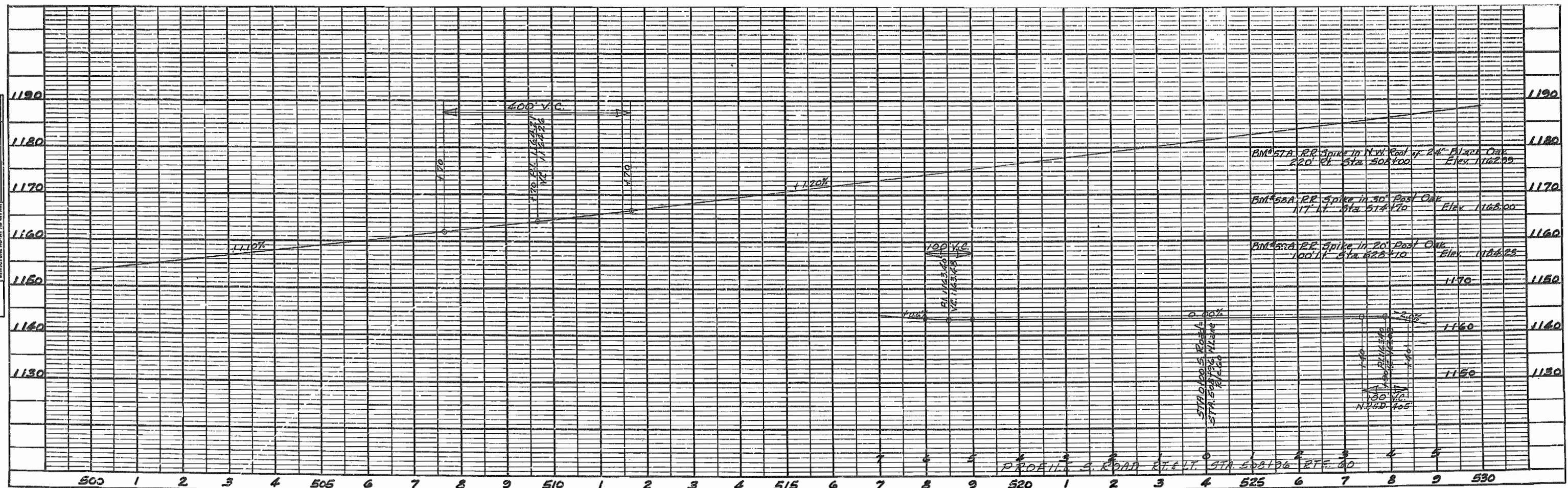
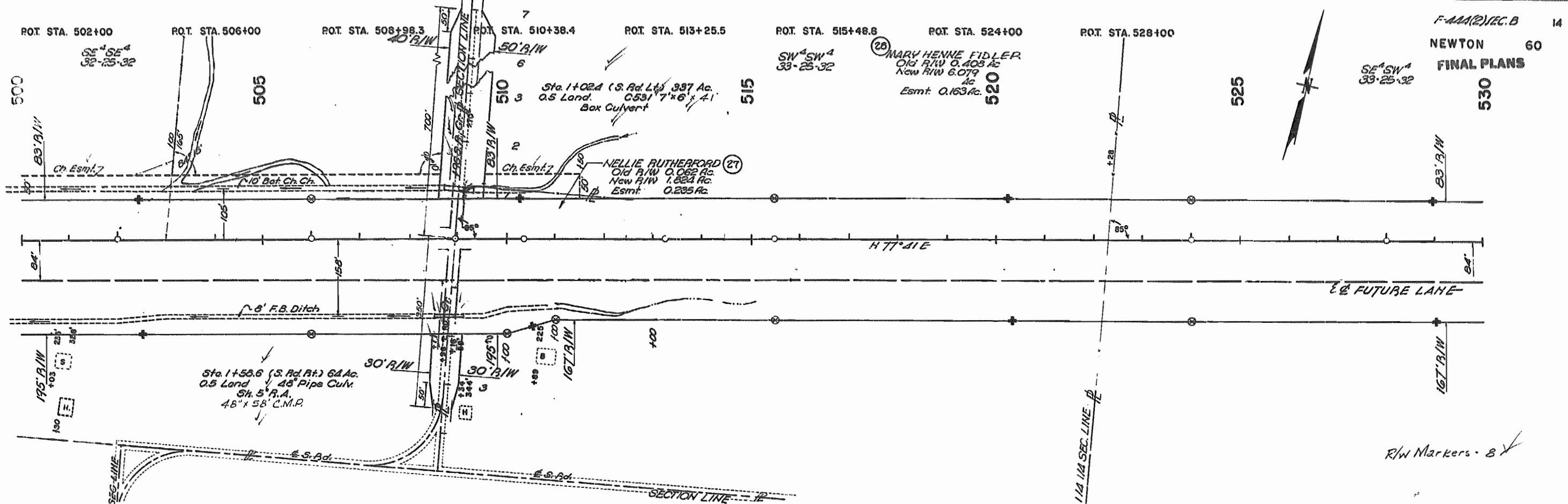
463



FINAL PLANS

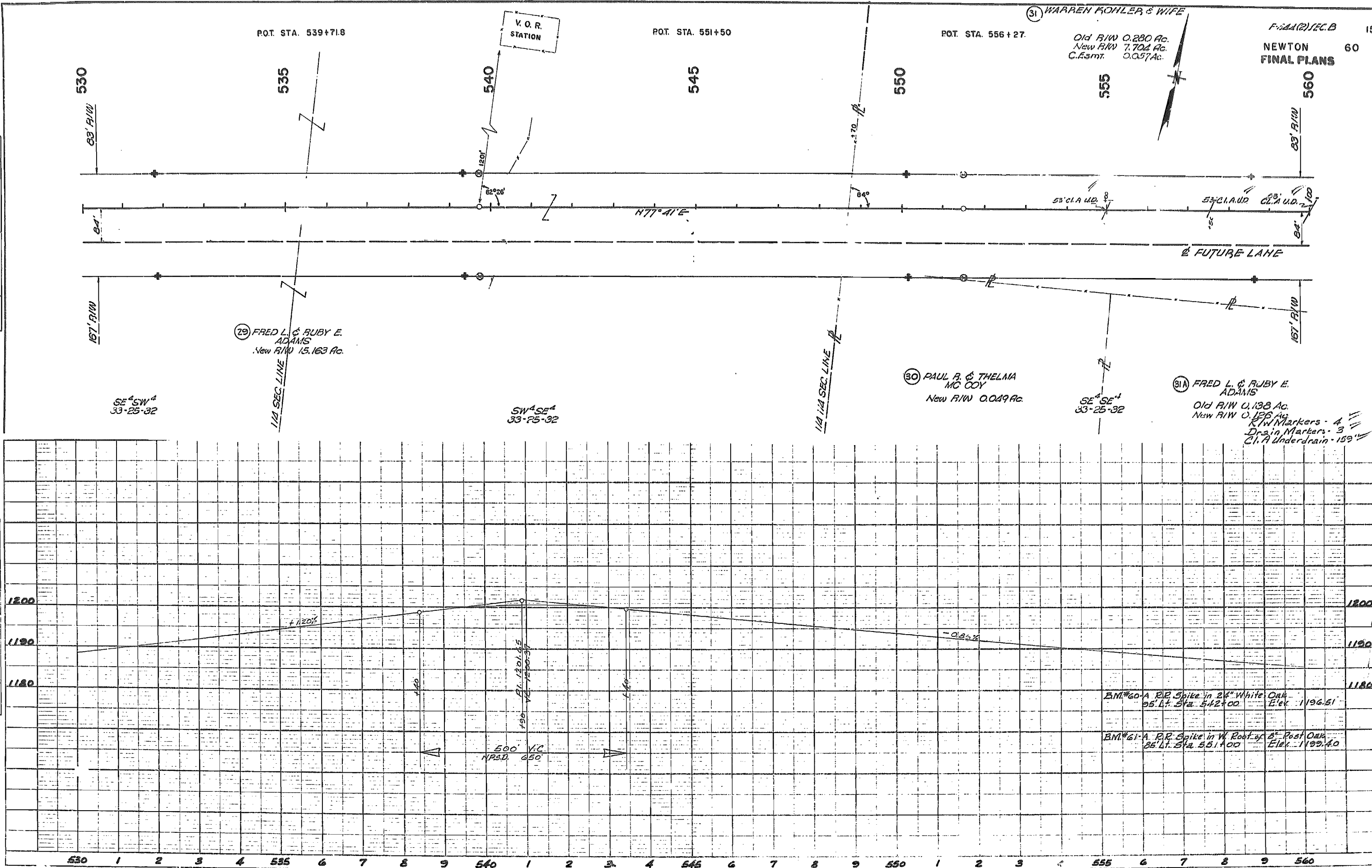


U.S.G.S. B.M. Iron Post stamped (Mo. - 1936)	
265 Ft. Sta 482+00 Ete 60	
1/4 Cor. Sec. 32, T25N, R32W Elev. 1134.06	
B.M. #1 Spike & Nut in N.W. Root 20' Red Oak	
60' Lf. Sta 1140 Elev. 1155.37	

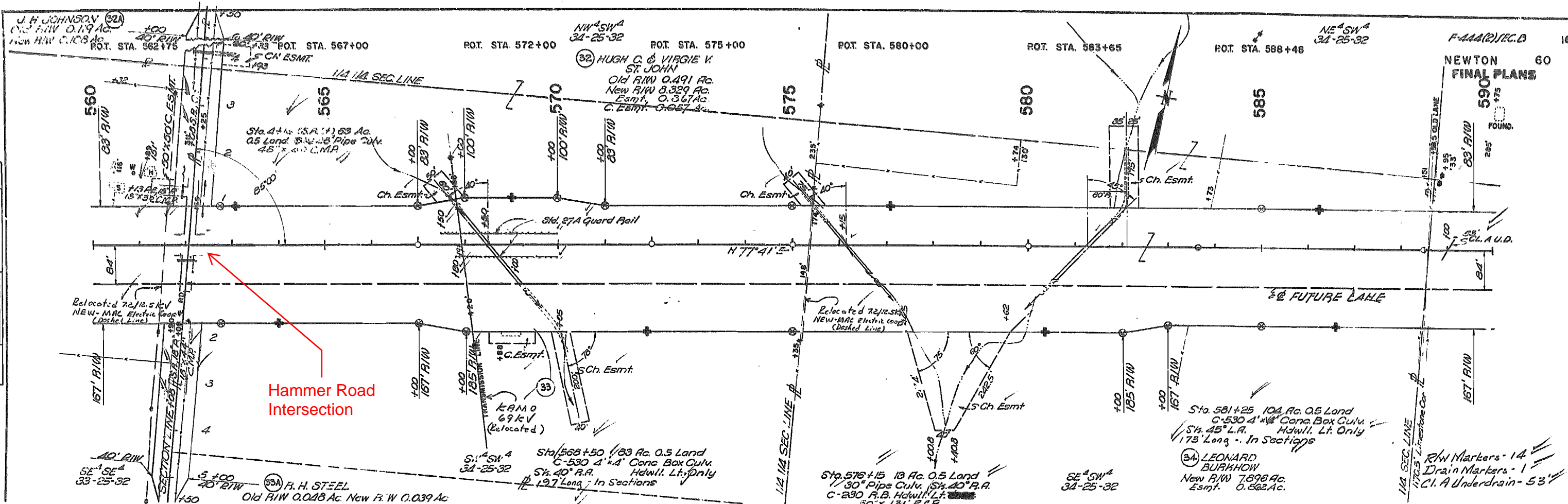


PLAN	DATE	BY	CHECKED
REVISIONS			
1. REVISION			
2. REVISION			
3. REVISION			
4. REVISION			
5. REVISION			
6. REVISION			
7. REVISION			
8. REVISION			
9. REVISION			
10. REVISION			

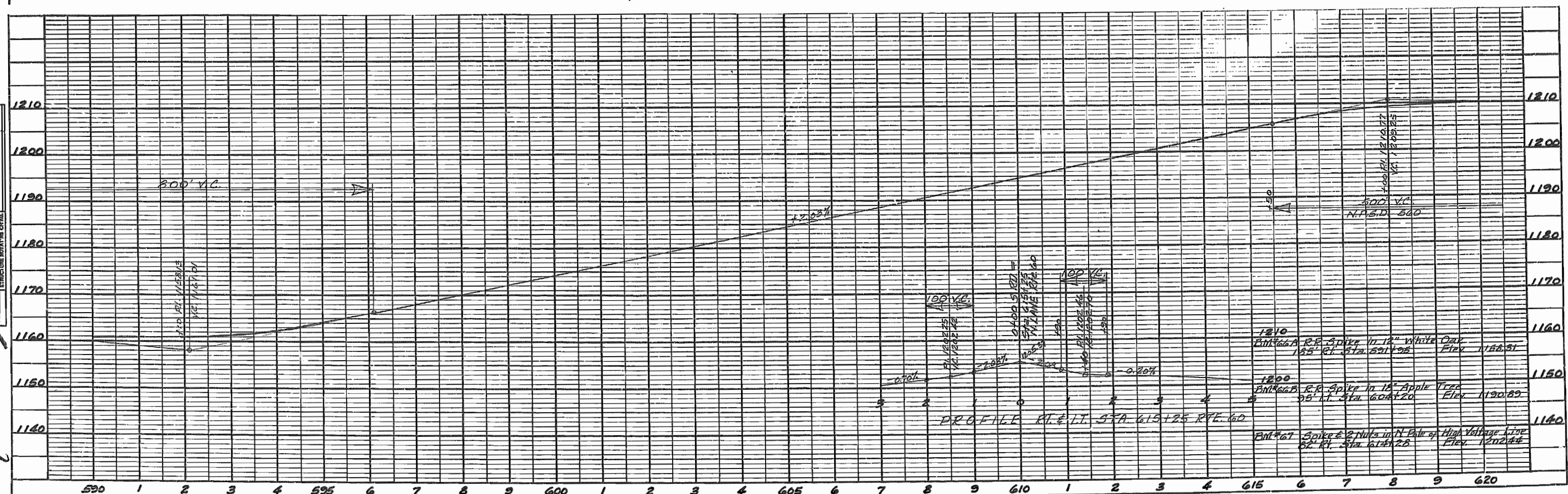
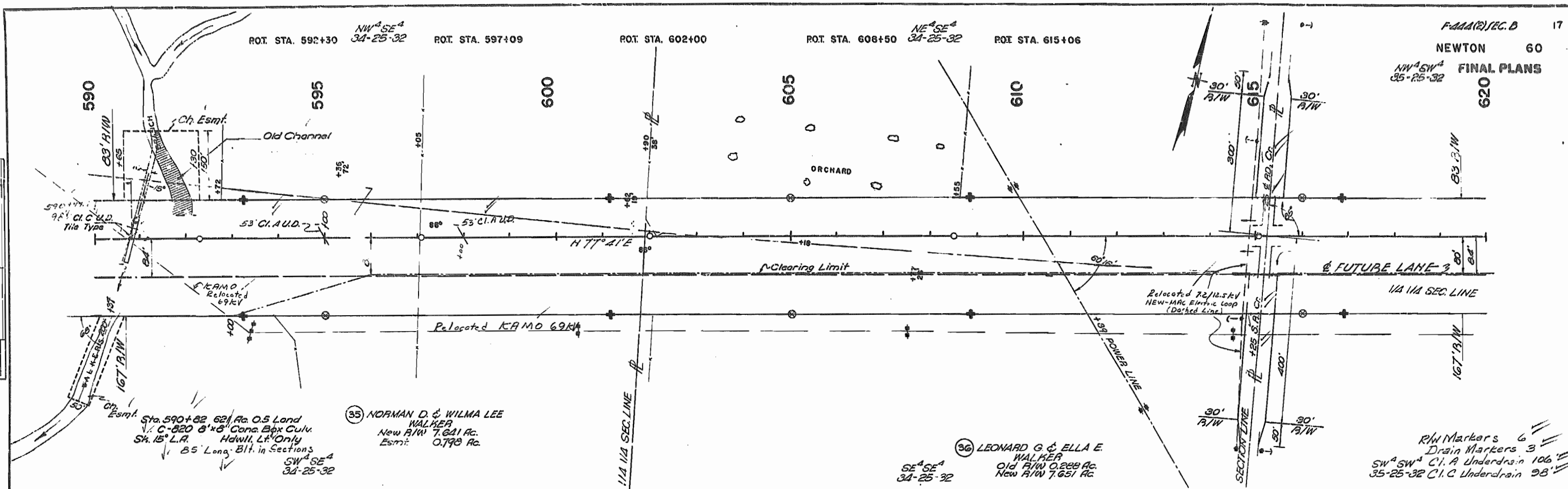
PROFILE	DATE	BY	CHECKED
REVISIONS			
1. REVISION			
2. REVISION			
3. REVISION			
4. REVISION			
5. REVISION			
6. REVISION			
7. REVISION			
8. REVISION			
9. REVISION			
10. REVISION			



467



PLAN PROFILE - 3/24/58
L. S. & CO. PRINT PAPER CO. - CHICAGO



DATE		BY	
SURVEYED			
PLOTTED			
MAPS CHECKED			
IN M.S. NOTED			

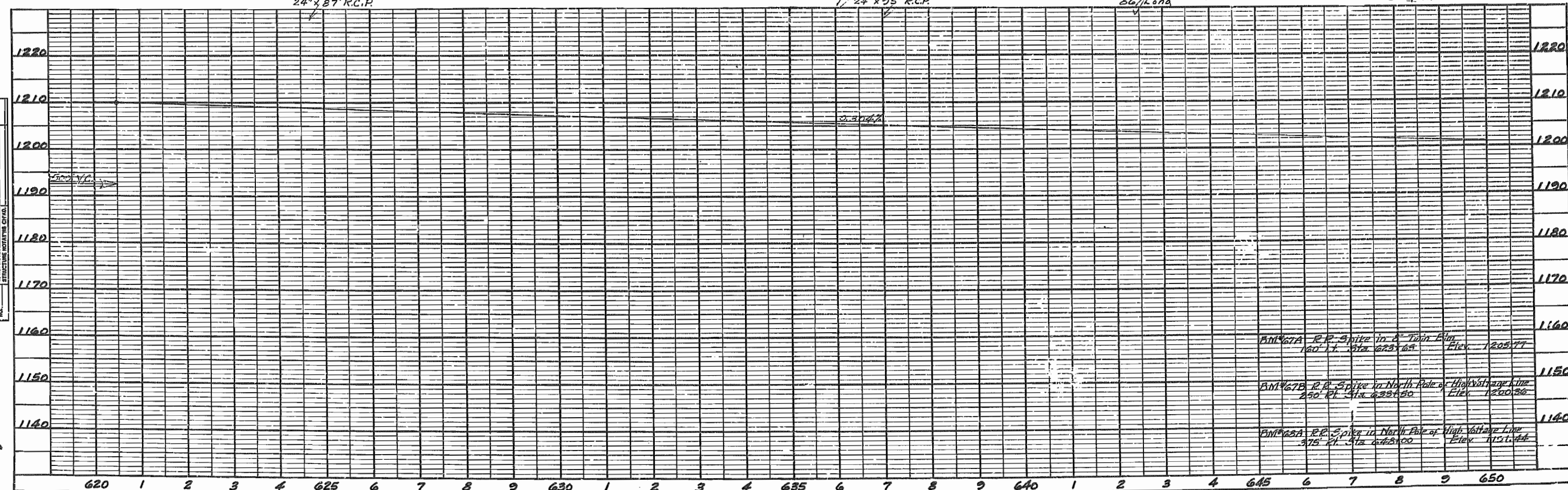
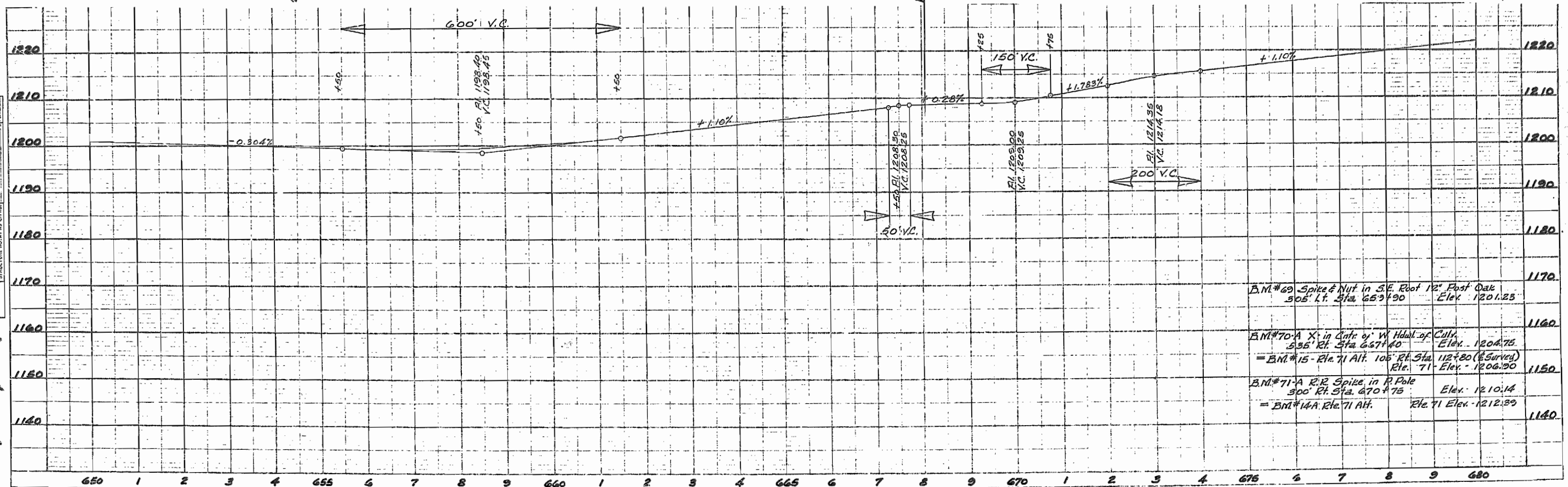
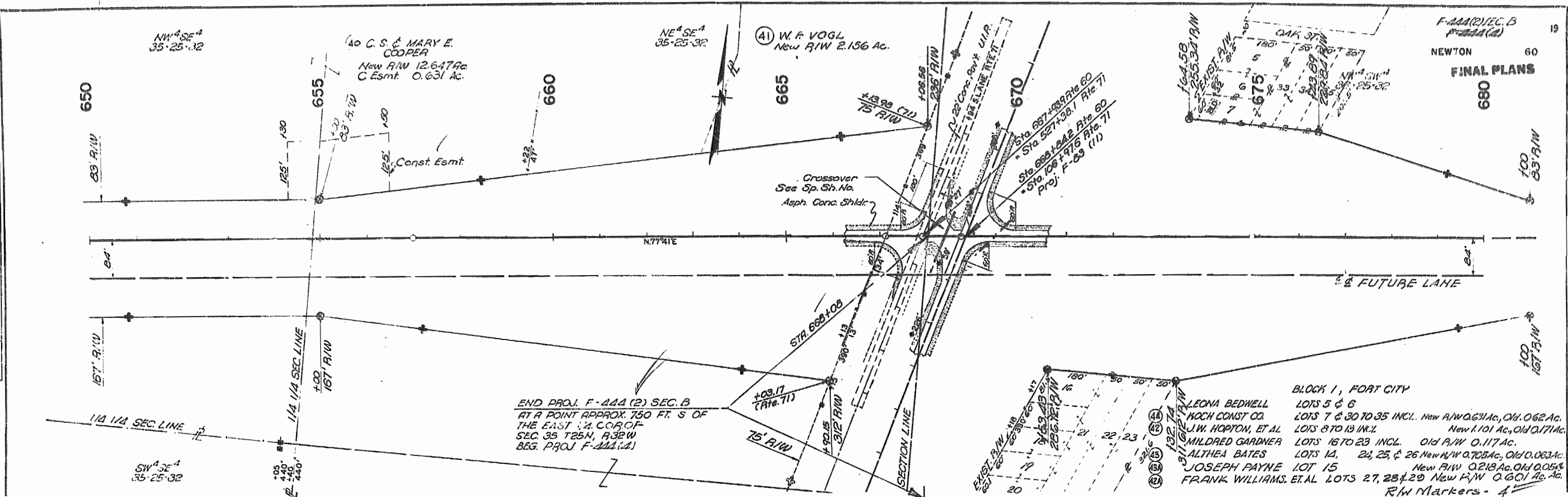


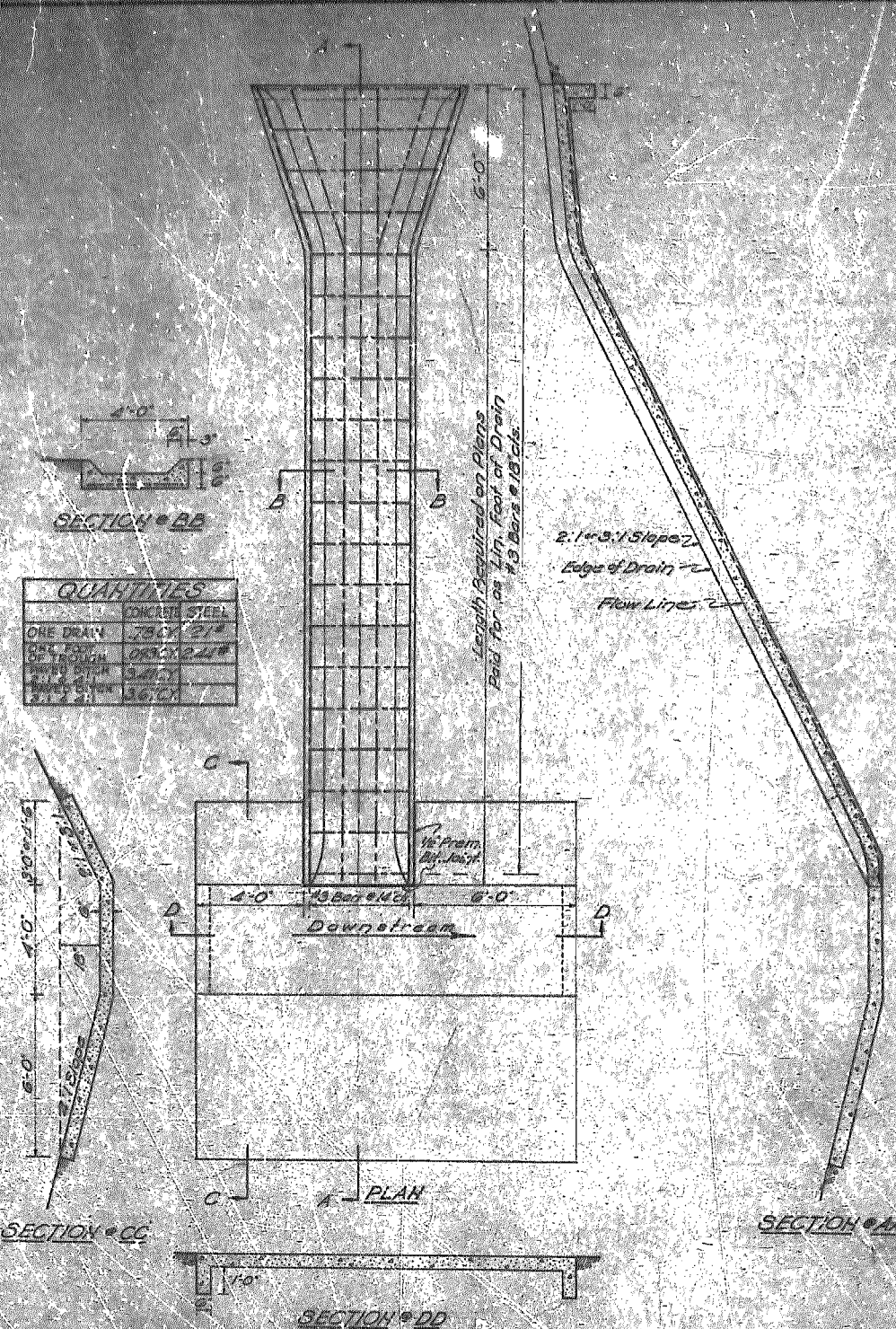
PLATE 1.—PLAN-PROFILE O. P. R. & W. STANDARD
U. S. BLUE PRINT PATENT CO.—CHICAGO

PLAN	DATE
SUBMITTED	BY
NOTED	DATE
REVISIONS	BY

PROFILE	DATE
SUBMITTED	BY
NOTED	DATE
REVISIONS	BY



47



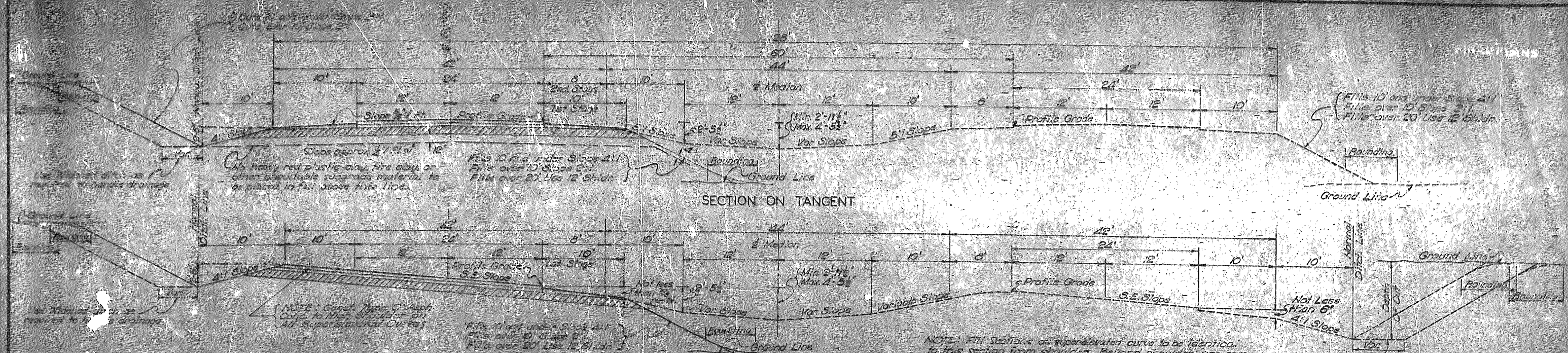
DRAIN BASIN, DRAIN, & PAVED DITCH

LT STA 297+41
LT STA 488+00

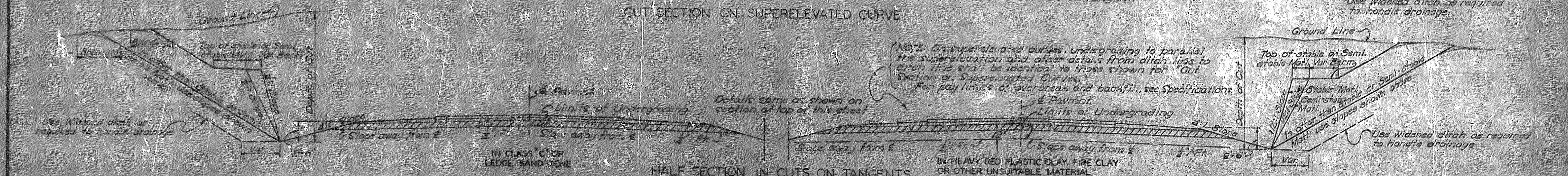
LIST OF STANDARD PLANS

PROJ.	SHEET
F-444(2) AFB	21
CO.	RTE.
NEWTON	60

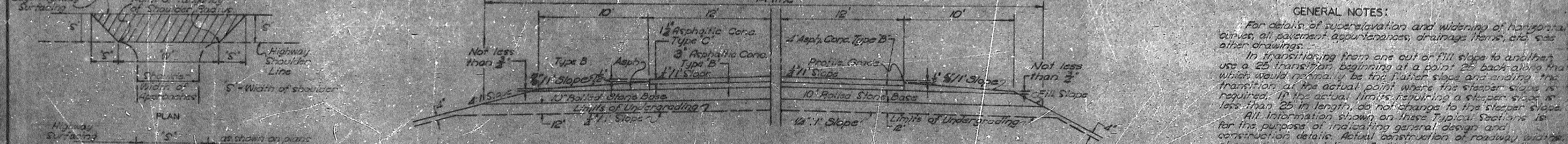
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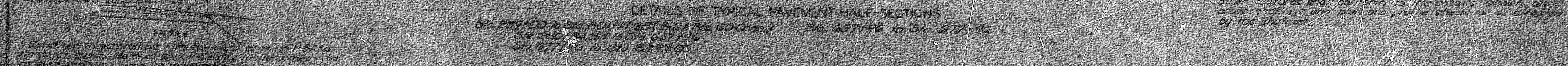
SECTION ON TANGENT



CUT SECTION ON SUPERELEVATED CURVE

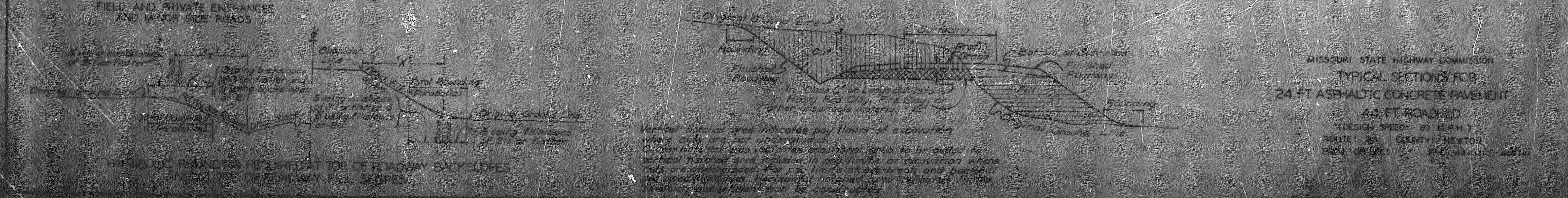


HALF SECTION IN CUTS ON TANGENTS



DETAILS OF TYPICAL PAVEMENT HALF-SECTIONS

Sta. 289+00 to Sta. 301+44.65 (Exist. Sta. 60 Conn.) Sta. 657+96 to Sta. 677+96
Sta. 289+00 to Sta. 301+44.65 (Exist. Sta. 60 Conn.) Sta. 657+96 to Sta. 677+96
Sta. 677+96 to Sta. 689+00

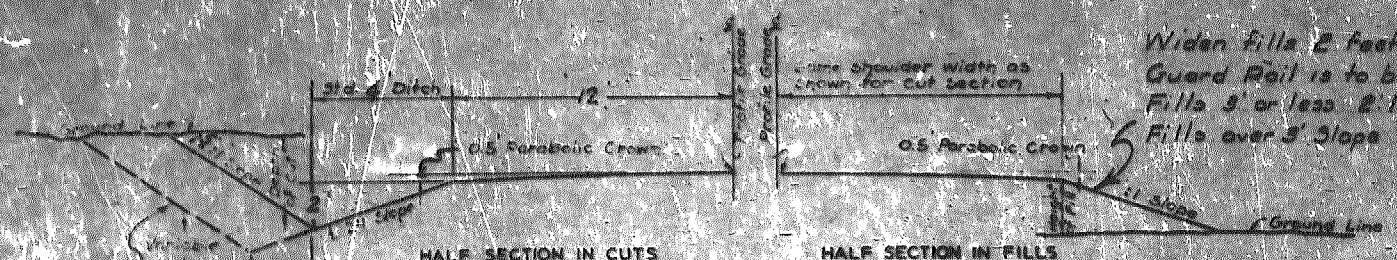


FIELD AND PRIVATE ENTRANCES AND MINOR SIDE ROADS

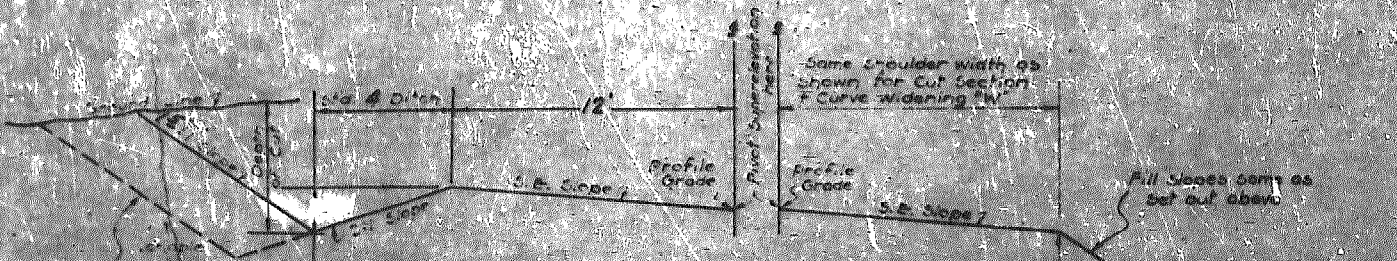
Vertical hatched area indicates pay limits of excavation where cuts are not undergraded.
Cross-hatched area indicates additional area to be added to vertical hatched area included in pay limits of excavation where cuts are undergraded. For pay limits of overbreak and backfill see specifications. Horizontal hatched area indicates limits to which encroachments can be constructed.

GENERAL NOTES:
For details of super-elevation and widening of horizontal curves, all pavement appurtenances, drainage items, etc. see other drawings.
In transitioning from one cut or fill slope to another, use a 25' transition, beginning at a point 25' back along the line which would normally be the flatter slope and ending the transition at the actual point where the steeper slope is required. If the actual limits requiring a steeper slope is less than 25' in length, do not change to the steeper slope.
All information shown on these typical sections is for the purpose of indicating general design and construction details. Actual construction of roadway widths, slopes, depths, and type of ditches, undergraded cuts, and other features shall conform to the details shown on cross-sections and plan and profile sheets or as directed by the engineer.

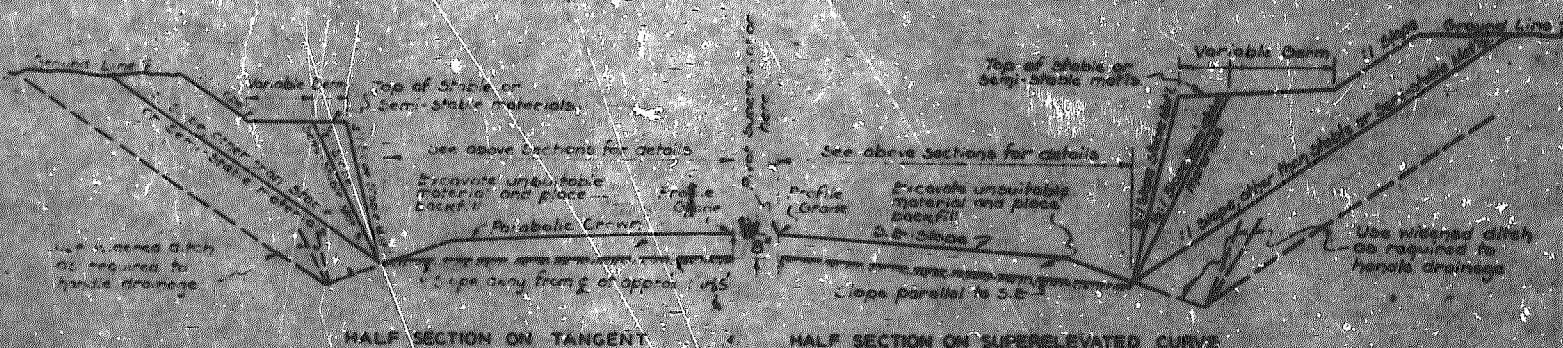
MISSOURI STATE HIGHWAY COMMISSION
TYPICAL SECTIONS FOR
24 FT. ASPHALTIC CONCRETE PAVEMENT
44 FT. ROADBED
(DESIGN SPEED 60 M.P.H.)
ROUTE 60 COUNTY NEWTON
PROJ. OR SEC. R.F.S. 444 (1) F-444 (1)



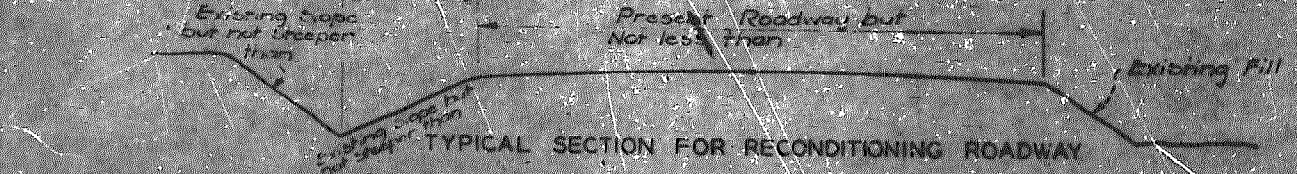
SECTIONS ON TANGENT



SECTIONS ON SUPERELEVATED CURVE



SECTIONS IN UNDERGRADED CUTS



TYPICAL SECTION FOR RECONDITIONING ROADWAY

GENERAL NOTES -

Machine Grading and Reconditioning Roadway shall be completed in accordance with these Typical Sections using the standard depth of ditch except as otherwise noted on Plan Sheets and as required to provide proper drainage. Covering of at least 1 foot will be required over all drainage structures located within Machine and Reconditioning Roadway sections.

In transitioning from one slope to another use a 25 foot length of transition.

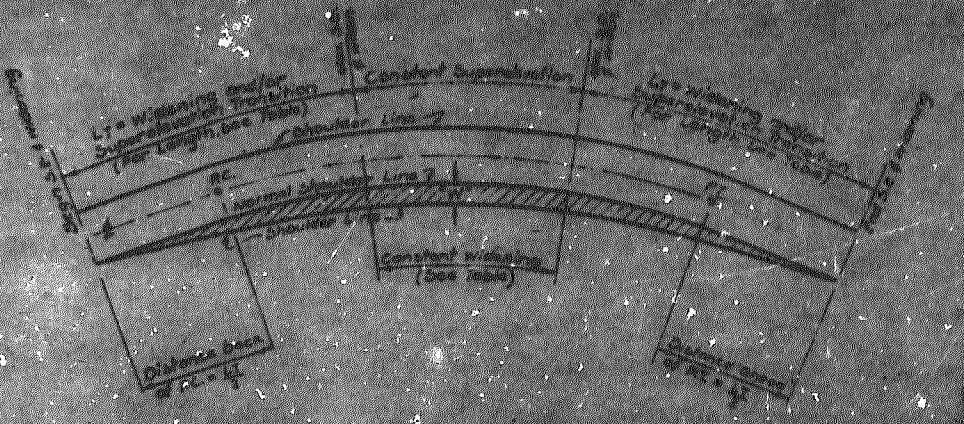
All information shown on these TYPICAL SECTIONS is for the purpose of indicating the required parabolic crown, tangent section, and general design and construction details. Actual construction of roadbed widths, slopes, depth and width of ditches, undergraded cuts and other features shall conform to the details shown on CROSS SECTIONS and PLAN & PROFILE SHEETS or as directed by the Engineer.

Hand finishing of all slopes of cuts and fills will not be required. Machine finishing to a smooth plane will be considered satisfactory.

Unless otherwise shown on the plans, the roadway ditch at all cross road culverts shall be widened to five (5) feet at the inlet with a 5:1 (50) foot transition to the standard roadway ditch in "Machine Grading" sections. The cost of this excavation is to be included in the contract unit price for Machine Grading.

The cost of constructing Ditch Blocks in "Machine Grading" limits is to be included in the contract unit price for "Machine Grading".

SCHEME OF WIDENING AND SUPERELEVATION TRANSITION FINAL PLANS



SUPERELEVATION AND WIDENING DATA

Degree of Curve Dc	Design Speeds									
	30 M.P.H.		35 M.P.H.		40 M.P.H.		45 M.P.H.		50 M.P.H.	
	S	W	S	W	S	W	S	W	S	W
0° to 1°00'	0	0	0	0	0	0	0	0	0	0
1°00' to 1°30'	0	0	0	0	0	0	0	0	0	0
1°30' to 2°00'	0	0	0	0	0	0	0	0	0	0
2°00' to 2°30'	0	0	0	0	0	0	0	0	0	0
2°30' to 3°00'	0	0	0	0	0	0	0	0	0	0
3°00' to 3°30'	0	0	0	0	0	0	0	0	0	0
3°30' to 4°00'	0	0	0	0	0	0	0	0	0	0
4°00' to 4°30'	0	0	0	0	0	0	0	0	0	0
4°30' to 5°00'	0	0	0	0	0	0	0	0	0	0
5°00' to 5°30'	0	0	0	0	0	0	0	0	0	0
5°30' to 6°00'	0	0	0	0	0	0	0	0	0	0
6°00' to 6°30'	0	0	0	0	0	0	0	0	0	0
6°30' to 7°00'	0	0	0	0	0	0	0	0	0	0
7°00' to 7°30'	0	0	0	0	0	0	0	0	0	0
7°30' to 8°00'	0	0	0	0	0	0	0	0	0	0
8°00' to 8°30'	0	0	0	0	0	0	0	0	0	0
8°30' to 9°00'	0	0	0	0	0	0	0	0	0	0
9°00' to 9°30'	0	0	0	0	0	0	0	0	0	0
9°30' to 10°00'	0	0	0	0	0	0	0	0	0	0
10°00' to 10°30'	0	0	0	0	0	0	0	0	0	0
10°30' to 11°00'	0	0	0	0	0	0	0	0	0	0
11°00' to 11°30'	0	0	0	0	0	0	0	0	0	0
11°30' to 12°00'	0	0	0	0	0	0	0	0	0	0
12°00' to 12°30'	0	0	0	0	0	0	0	0	0	0
12°30' to 13°00'	0	0	0	0	0	0	0	0	0	0
13°00' to 13°30'	0	0	0	0	0	0	0	0	0	0
13°30' to 14°00'	0	0	0	0	0	0	0	0	0	0
14°00' to 14°30'	0	0	0	0	0	0	0	0	0	0
14°30' to 15°00'	0	0	0	0	0	0	0	0	0	0
15°00' to 15°30'	0	0	0	0	0	0	0	0	0	0
15°30' to 16°00'	0	0	0	0	0	0	0	0	0	0
16°00' to 16°30'	0	0	0	0	0	0	0	0	0	0
16°30' to 17°00'	0	0	0	0	0	0	0	0	0	0
17°00' to 17°30'	0	0	0	0	0	0	0	0	0	0
17°30' to 18°00'	0	0	0	0	0	0	0	0	0	0
18°00' to 18°30'	0	0	0	0	0	0	0	0	0	0
18°30' to 19°00'	0	0	0	0	0	0	0	0	0	0
19°00' to 19°30'	0	0	0	0	0	0	0	0	0	0
19°30' to 20°00'	0	0	0	0	0	0	0	0	0	0
20°00' to 20°30'	0	0	0	0	0	0	0	0	0	0
20°30' to 21°00'	0	0	0	0	0	0	0	0	0	0
21°00' to 21°30'	0	0	0	0	0	0	0	0	0	0
21°30' to 22°00'	0	0	0	0	0	0	0	0	0	0
22°00' to 22°30'	0	0	0	0	0	0	0	0	0	0
22°30' to 23°00'	0	0	0	0	0	0	0	0	0	0
23°00' to 23°30'	0	0	0	0	0	0	0	0	0	0
23°30' to 24°00'	0	0	0	0	0	0	0	0	0	0
24°00' to 24°30'	0	0	0	0	0	0	0	0	0	0
24°30' to 25°00'	0	0	0	0	0	0	0	0	0	0
25°00' to 25°30'	0	0	0	0	0	0	0	0	0	0
25°30' to 26°00'	0	0	0	0	0	0	0	0	0	0
26°00' to 26°30'	0	0	0	0	0	0	0	0	0	0
26°30' to 27°00'	0	0	0	0	0	0	0	0	0	0
27°00' to 27°30'	0	0	0	0	0	0	0	0	0	0
27°30' to 28°00'	0	0	0	0	0	0	0	0	0	0
28°00' to 28°30'	0	0	0	0	0	0	0	0	0	0
28°30' to 29°00'	0	0	0	0	0	0	0	0	0	0
29°00' to 29°30'	0	0	0	0	0	0	0	0	0	0
29°30' to 30°00'	0	0	0	0	0	0	0	0	0	0
30°00' to 30°30'	0	0	0	0	0	0	0	0	0	0
30°30' to 31°00'	0	0	0	0	0	0	0	0	0	0
31°00' to 31°30'	0	0	0	0	0	0	0	0	0	0
31°30' to 32°00'	0	0	0	0	0	0	0	0	0	0
32°00' to 32°30'	0	0	0	0	0	0	0	0	0	0
32°30' to 33°00'	0	0	0	0	0	0	0	0	0	0
33°00' to 33°30'	0	0	0	0	0	0	0	0	0	0
33°30' to 34°00'	0	0	0	0	0	0	0	0	0	0
34°00' to 34°30'	0	0	0	0	0	0	0	0	0	0
34°30' to 35°00'	0	0	0	0	0	0	0	0	0	0
35°00' to 35°30'	0	0	0	0	0	0	0	0	0	0
35°30' to 36°00'	0	0	0	0	0	0	0	0	0	0
36°00' to 36°30'	0	0	0	0	0	0	0	0	0	0
36°30' to 37°00'	0	0	0	0	0	0	0	0	0	0
37°00' to 37°30'	0	0	0	0	0	0	0	0	0	0
37°30' to 38°00'	0	0	0	0	0	0	0	0	0	0
38°00' to 38°30'	0	0	0	0	0	0	0	0	0	0
38°30' to 39°00'	0	0	0	0	0	0	0	0	0	0
39°00' to 39°30'	0	0	0	0	0	0	0	0	0	0
39°30' to 40°00'	0	0	0	0	0	0	0	0	0	0
40°00' to 40°30'	0	0	0	0	0	0	0	0	0	0
40°30' to 41°00'	0	0	0	0	0	0	0	0	0	0
41°00' to 41°30'	0	0	0	0	0	0	0	0	0	0
41°30' to 42°00'	0	0	0	0	0	0	0	0	0	0
42°00' to 42°30'	0	0	0	0	0	0	0	0	0	0
42°30' to 43°00'	0	0	0	0	0	0	0	0	0	0
43°00' to 43°30'	0	0	0	0	0	0	0	0	0	0
43°30' to 44°00'	0	0	0	0	0	0	0	0	0	0
44°00' to 44°30'	0	0	0	0	0	0	0	0	0	0
44°30' to 45°00'	0	0	0	0	0	0	0	0	0	0
45°00' to 45°30'	0	0	0	0	0	0	0	0	0	0
45°30' to 46°00'	0	0	0	0	0	0	0	0	0	0
46°00' to 46°30'	0	0	0	0	0	0	0	0	0	0
46°30' to 47°00'	0	0	0	0	0	0	0	0	0	0
47°00' to 47°30'	0	0	0	0	0	0	0	0	0	0
47°30' to 48°00'	0	0	0	0	0	0	0	0	0	0
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49°00' to 49°30'	0	0	0	0	0	0	0	0	0	0
49°30' to 50°00'	0	0	0	0	0	0	0	0	0	0
50°00' to 50°30'	0	0	0	0	0	0	0	0	0	0
50°30' to 51°00'	0	0	0	0	0	0	0	0	0	0
51°00' to 51°30'	0	0	0	0	0	0	0	0	0	0
51°30' to 52°00'	0	0	0	0	0	0	0	0	0	0
52°00' to 52°30'	0	0	0	0	0	0	0	0	0	0
52°30' to 53°00'	0	0	0	0	0	0	0	0	0	0
53°00' to 53°30'	0	0	0	0	0	0	0	0	0	0
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54°00' to 54°30'	0	0	0	0	0	0	0	0	0	0
54°30' to 55°00'	0	0	0	0	0	0	0	0	0	0
55°00' to 55°30'	0	0	0	0	0	0	0	0	0	0
55°30' to 56°00'	0	0	0	0	0	0	0	0	0	0
56°00' to 56°30'	0	0	0	0	0	0	0	0	0	0
56°30' to 57°00'	0	0	0	0	0	0	0	0	0	0
57°00' to 57°30'	0	0	0	0	0	0	0	0	0	0
57°30' to 58°00'	0	0	0	0	0	0	0	0	0	0
58°00' to 58°30'	0	0	0	0	0	0	0	0	0	0
58°30' to 59°00'	0	0	0	0	0	0	0	0	0	0
59°00' to 59°30'	0	0	0	0	0	0	0	0	0	0
59°30' to 60°00'	0	0	0	0	0	0	0	0	0	0

NOTE:

Use 35' Widening & LT. as listed on Plans.

MISSOURI STATE HIGHWAY COMMISSION
TYPICAL SECTIONS

24 FT. EARTH
FOR
SUPPLEMENTARY ROADS

MEMPHIS
TENTON

MISSOURI STATE HIGHWAY COMMISSION

SUMMARY OF QUANTITIES

TYPE GRADED EARTH, CHALKETS, BRIDGE & ASPHALTIC CONC. PAVEMENT

FINAL PLANS

UNIT NO. & REF. No.	GRADE	PROJECT	SCHOOL YEAR	UNIT No.	TOTAL SHEETS
5	MO.	F-444(6)		2-A	64
UNIT No.	COUNT				
7	NEWTON			COUNT	APC No.

EXCAVATION

Station	Class A	Class C	Comp. Cat	Subgr	End Orchard	Remarks
668100						
668100	11791		1954	✓	875	
717480	26195		5800	✓	2190	
723482	33240		721	✓	1100	
758192	Pol. F. 12	141(6)				
776100	33005	✓	5694	✓	1455	✓
780119	44263	✓	5608	✓	1570	"End Overlook C"
825176	87761	✓	5198	✓	3175	17851
847100	176327	02	3723	✓	4594	49806
847100	414263	10836	20421	✓	12976	26509
Summing	1625					
Plan E. K. Co.					222078	54,004
TOTALS	416964	10836	20421	✓	514054	26509

LENGTH OF PROJECT

End of Project	Station	ADD 00.00
Beginning of Project	Station	668100.00
Apparent Length		75002.00
Equations and Exceptions:		
Proj. F.R. 446(S) Sta 723102.5 Sta 723102		- 3000.00
Sta 660100.00 Sta 660100.07 (N)		- 5.65
Total Corrections		- 3005.65
Net Length of Project		13288.10
State Length	mi	8.16
Federal Length	mi	5.65

GENERAL SUMMARY

ITEM NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	NO. UNITS PER 100 YD.
1-A	Clearing	Acres	62.4	
1-B	Grubbing	Acres	17.9	
1-D	Class A Excavation	CY	818884	
1-E	Class C Excavation	CY	10884	
1-F	Class B Excavation for Structures	CY	8184	
1-K	Compacting Embankments	CY	816064	
1-L	Compacting in Cuts	CY	80421	
1-N	Overhaul	Mt. Yd.	84609	
1-Z	Removal (18) Misc. Items	L. Sum	1	
1-CD	Grouted Rock Fill Surface	Sq. Yd.	768	
1-DB	Placing Rock Blanket	CY	788	
1-D	Crushed Stone Surface	CY	712	
16-B	Class B Concrete (Box Culverts)	CY	1884	
16-B	Class B Concrete (Other than Box Culi.)	CY	8487	
18-C	18" Reinf. Conc. Culi. Pim. (H.L.S.E.)	L.F.	80	
18-C	18" " " " " " "	L.F.	84	
18-C	18" " " " " " "	L.F.	816	
18-C	24" " " " " " "	L.F.	91	
18-C	30" " " " " " "	L.F.	86	
18-C	36" " " " " " "	L.F.	60	
18-C	48" " " " " " "	L.F.	78	
18-E	60" Conc. Metal Culi. Pim.	L.F.	64	
18-C	18" Reinf. Conc. Culi. Pim.	L.F.	198	
18-C	18" " " " " " "	L.F.	178	
18-C	24" " " " " " "	L.F.	873	
18-C	30" " " " " " "	L.F.	809	
18-C	36" " " " " " "	L.F.	91	
18-CA	18" Reinf. Conc. Culi. Pim. (Imp. Trunk Mthls)	L.F.	867	
18A-A	Metal Arch Culverts (Type B-7)	L.F.	60	
18A-A	Metal Arch Culverts (Type B-7)	L.F.	88	
18-X	4" Cast Iron Pipe	L.F.	177	
19-A	Reinforcing Steel	Lb.	64780	
20-A	Class A Type 1 Underdrain	L.F.	800	
21-A	Guard Rail (Type B)	L.F.	1876	
22-A	Barrieraas	Each	0	
23-C	Right of Way Markers	Each	0	
23-D	Drain Markers	Each	16	
24-A	Removal of (18) Exist. Strueth (Cuts)	L. Sum	1	
26-C	Manhole Frame & Cover (8")	Each	8	
27-A	Fertilizing and Mulching	Acres	80.6	

BOX CULVERTS

Station	Location	Standard	Size	Shew	Length	Cl.B	Reinf.	Cl.B.Fc	Fill	W/Shore	Remarks
7231ca	6	C-280	5'x5'	20' LA	28'	50.9	8260	59	7'-8'-7"	2:1	Built in Siphons, Mud Lift
7231ca	4	C-280	5'x8'	-	79'	82.6	8366	79	5'-6'-5"	1.5:1	" " " "
TOTALS						125.4	18460	138			

CROSS ROAD PIPE CULVERT (R.C.R)

Station	15"	10"	2"	20"	30"	Imp. 1/1000	C. 1.5 Cc	Median	Cl. 1.5	Range	Specs	Remarks
660153	115										21.5 L.A.	In Pl. 21. Med. Ditch
660162	26						50				20 L.A.	
667100			79				50	1.5-2.0 RC	2.2	2.2	—	RA Med. H., RC Med. H.
7001456				107			180	1.5-2.0 RC	1.9	1.9	35 L.A.	Med. H. Only
716170		48					28	1.5-2.0 RC	1.6	1.6	—	RA Med. H., RC Med. H.
727180				72			72	1.5-2.0 RC	3.1	3.1	—	
706166			88				46	1.5-2.0 RC	2.7	2.6	—	
817100					91		16	1.5-2.0 RC	2.0	2.0	20 L.A.	
822160		117					40	1.5-2.0 RC	1.1	1.1	20 L.A.	Med. H. Only
803145						229	55.5	1.5-2.0 RC	1.9	1.9	—	25 Fill
824100						328	68	1.5-2.0 RC	2.2	1.6	20 L.A.	25 Fill
820185		25					6	1.5-2.0 RC	1.7	1.6	20 L.A.	25 Fill

CONCRETE MANHOLES

Station	Location	Std.	Size	D	CIB	Reinf.	Notes	CIB in Section	Remarks
10122	S. R. 26. 52. 7011400	Spec	4' x 8'	10'-4 1/4"	9.8	1030	1	" 26.6" " 40"	Photo Main Bluff V
10172	S. R. 6. 52. 7011400	Spec	4' x 8'	15'-11 1/4"	16.2	1710	1	" 27.6" " 122"	" " " "
TOTALS					26.6	2000	2	450	177" " Incl. CIB for 4' x 8' Bluff an Fold Measured

ENTRANCES & ROAD ROAD RIPS (R.C.R.)

[illegible]

GUARD RAIL

Station	to	Station	Side	Type	Lin. Ft.	Remarks
767100		767100	RA	A	850	Fill Over 2c
864700		864125	LA	A	425	" " "
860700		864125	RA	A	425	" " "
875100		877125	LA	A	175	" " "
TOTAL					1875	

BARRICADES

— 400 —

ASPHALT CONCRETE PAVEMENT

4C-A Primer (MTC-0)	Gal.	816.88
7-B Type B Asphaltic Concrete	Ton	148.86
7-C Type C Asphaltic Concrete	Ton	819.0

SEAL COAT (SNOW BASE)

10A-A	Fluorescent Material (300-280 nm. Apch)	Gal.	100%
10A-C	Coar. Material (41-117 G. M. G.)	Tea	69%

ROADWAY CONTINGENT ITEMS

Test samples Asphaltic Cons.	Each	30
Placing of State Owned Pipe (15" RCP)	LF	28

RECEIVED ST. LOUIS (Pm) 11-1-32

1-6	Class I Excavation for Structures	C.Y.	552.8	✓
1-11	Class II Excavation for Structures	C.Y.	152.0	✓
16-B-1	Class III Concrete (Superstr.)	C.Y.	163.4	✓
16-B	Class B Concrete (Substr.)	C.Y.	515.1	✓
17-B	Reinforced Steel (1.00 - 3.00)	Lb.	105,000	✓
17-C	Steel Castings	Lb.	2510	✓
18-A	Reinforcing Steel	Lb.	51,720	✓
25-A	Paving	Ton	95.5	✓

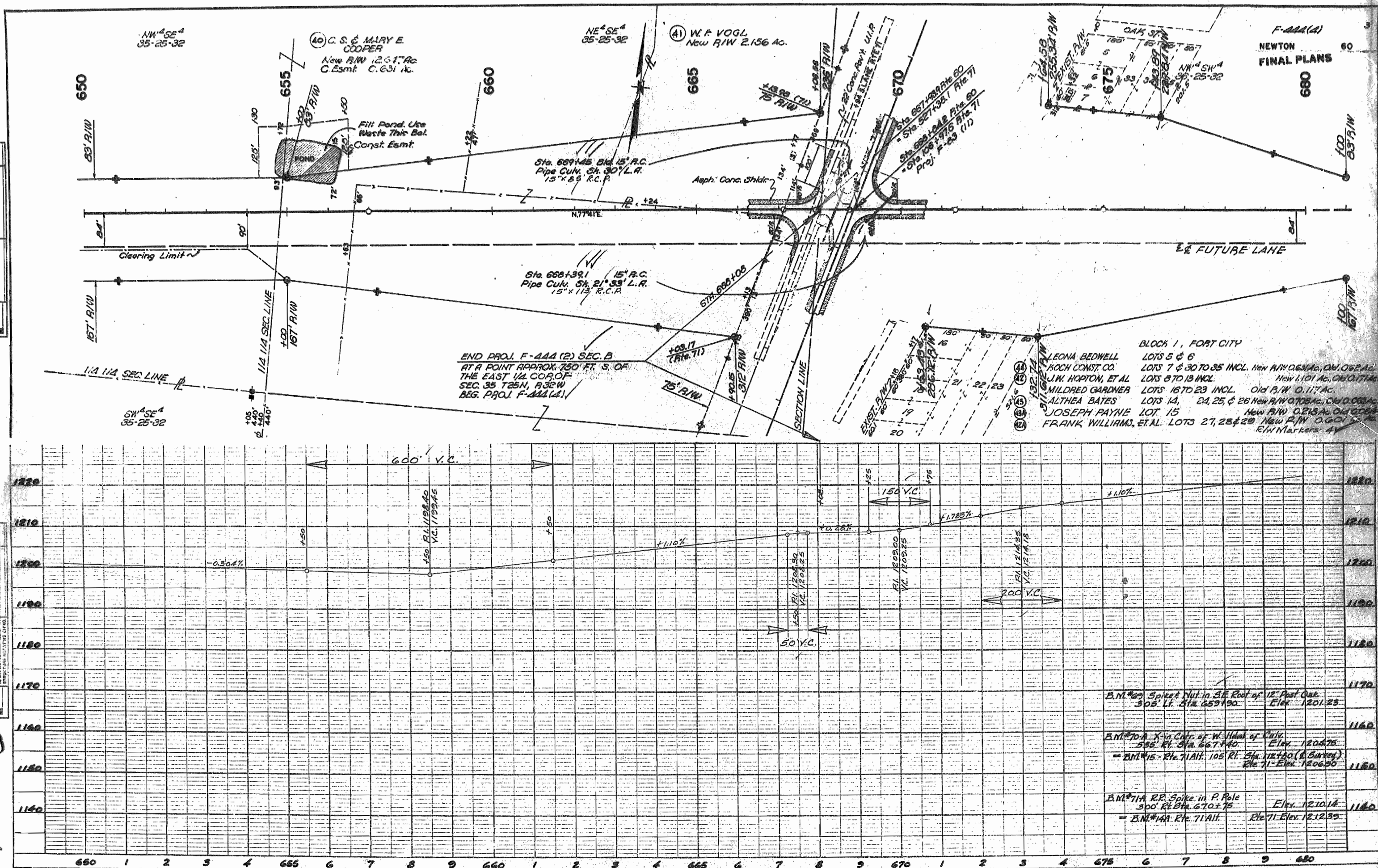
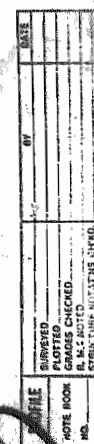
CONTINUED ITEMS

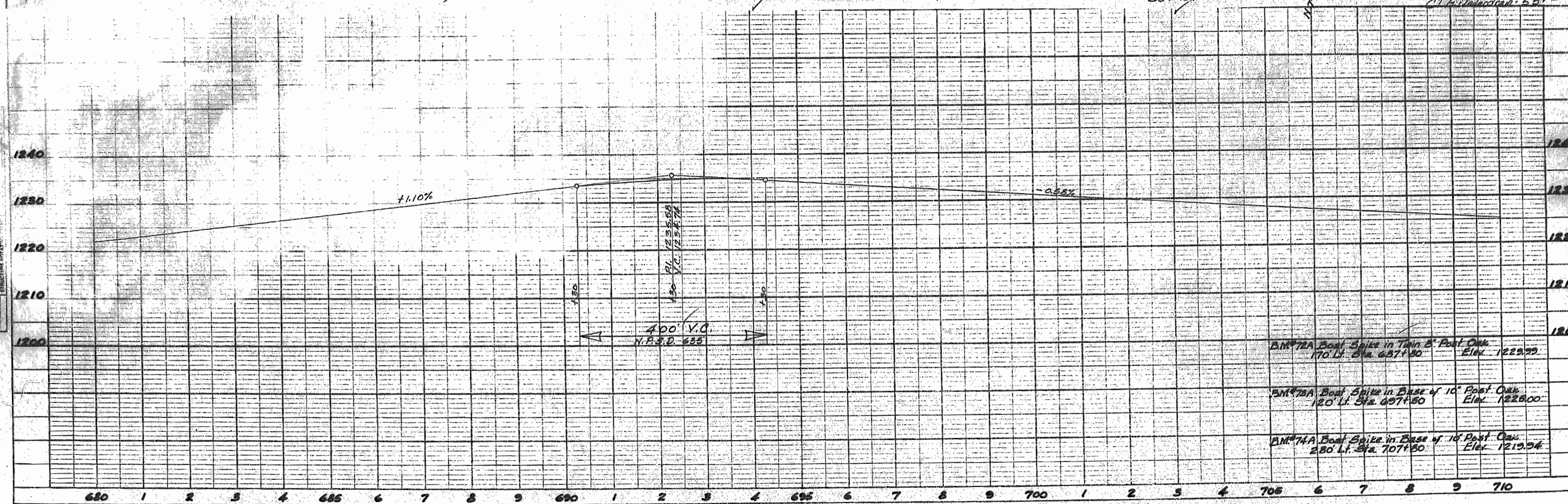
Drilling Test Holes L.F. 82 ✓

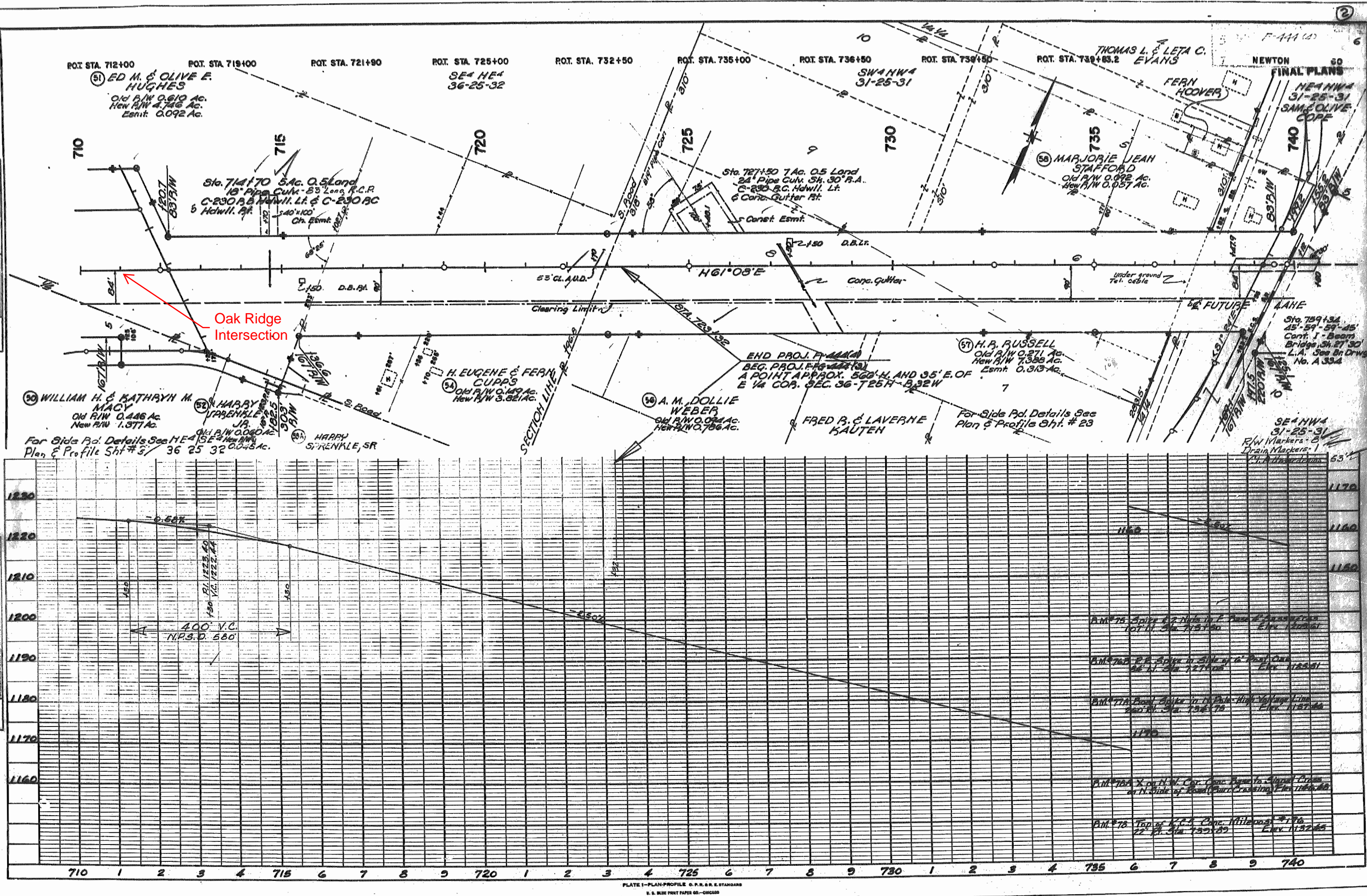
Placing 28 State owned Pine 100 100 100

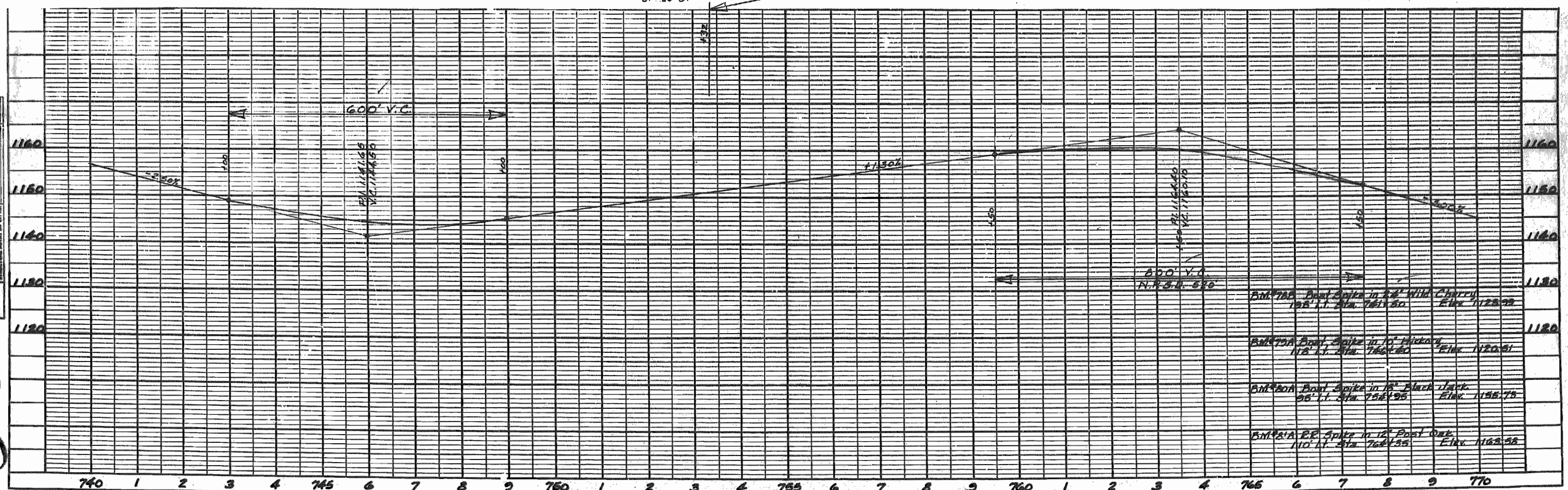
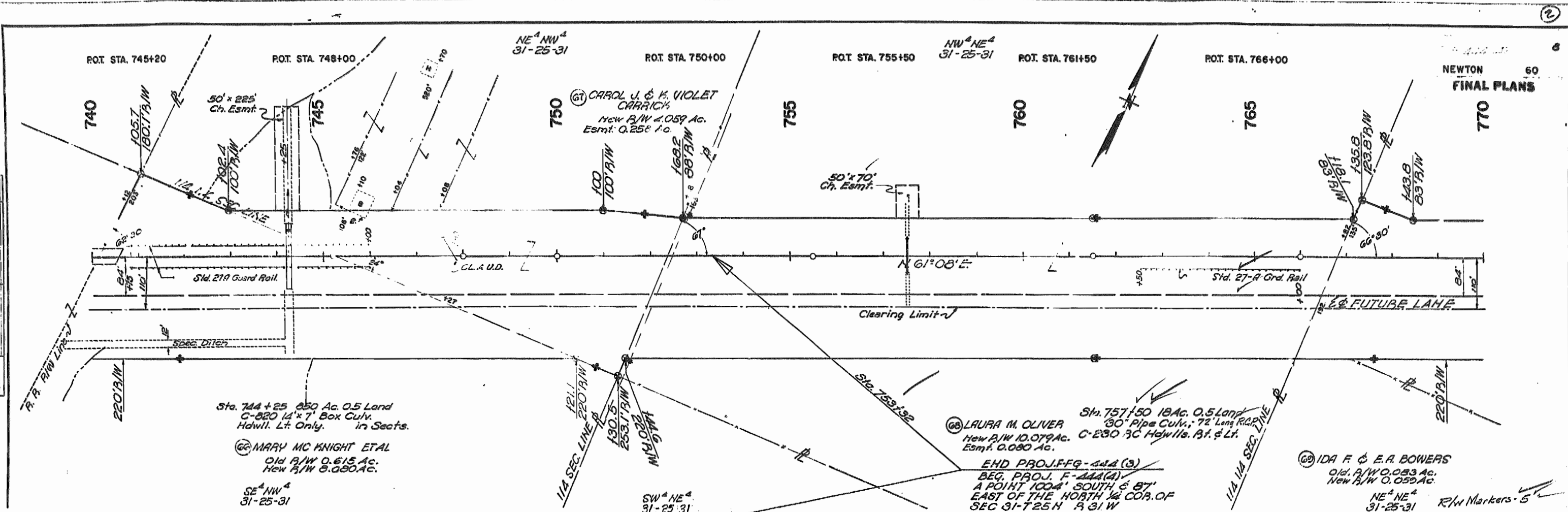
David A. Clark, Jr.

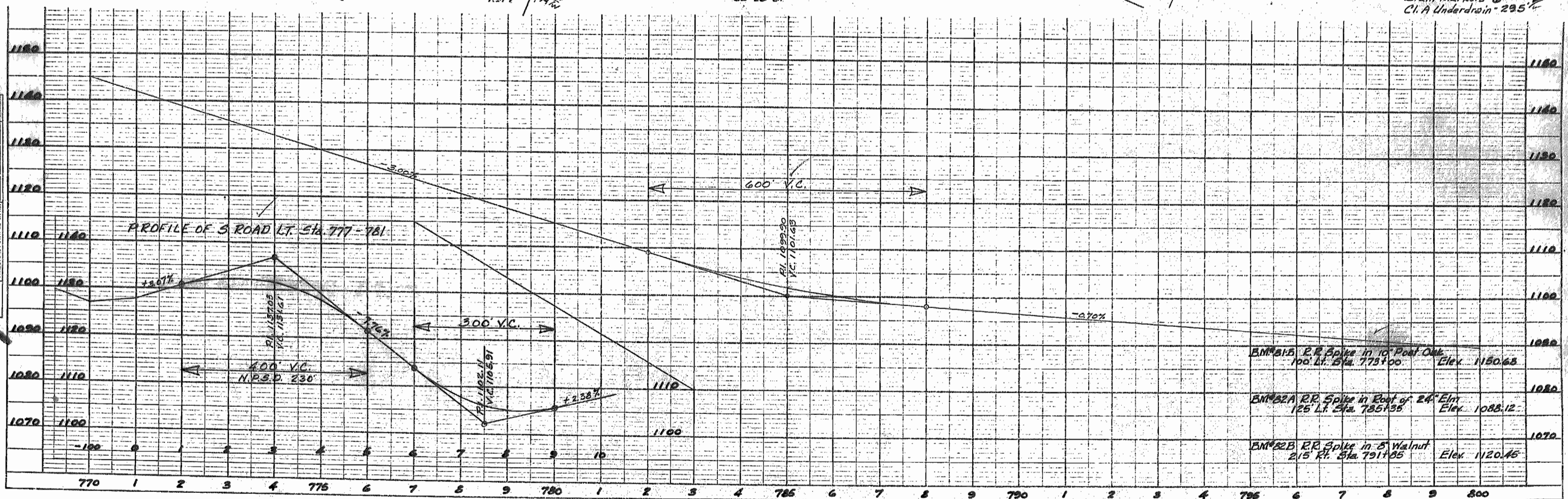
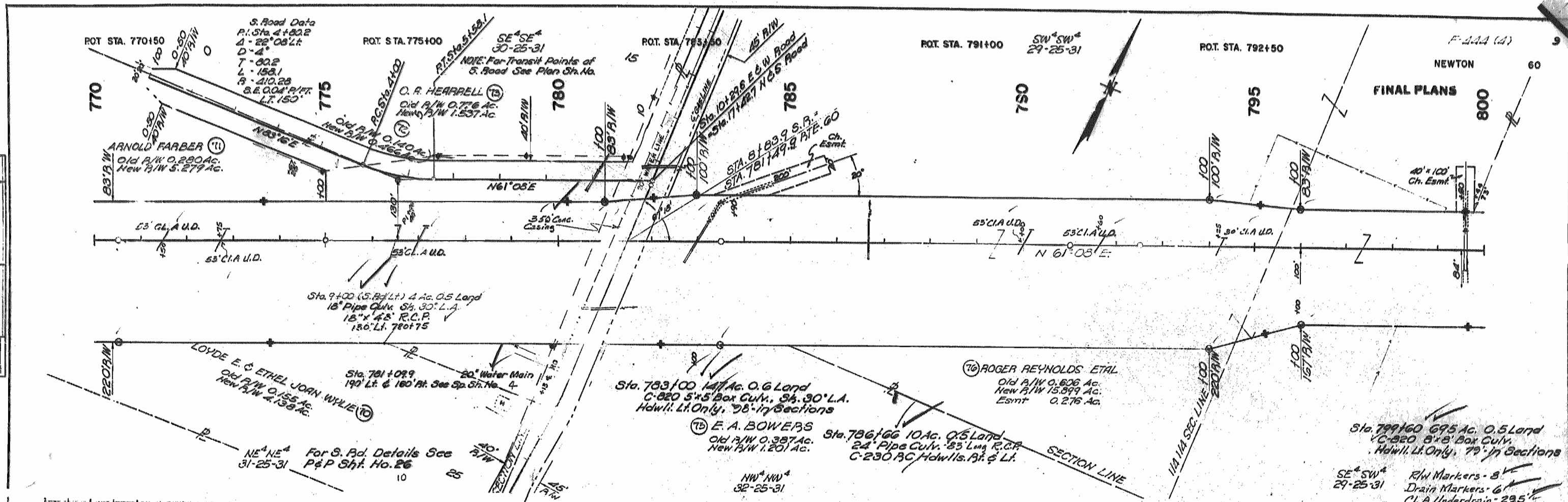
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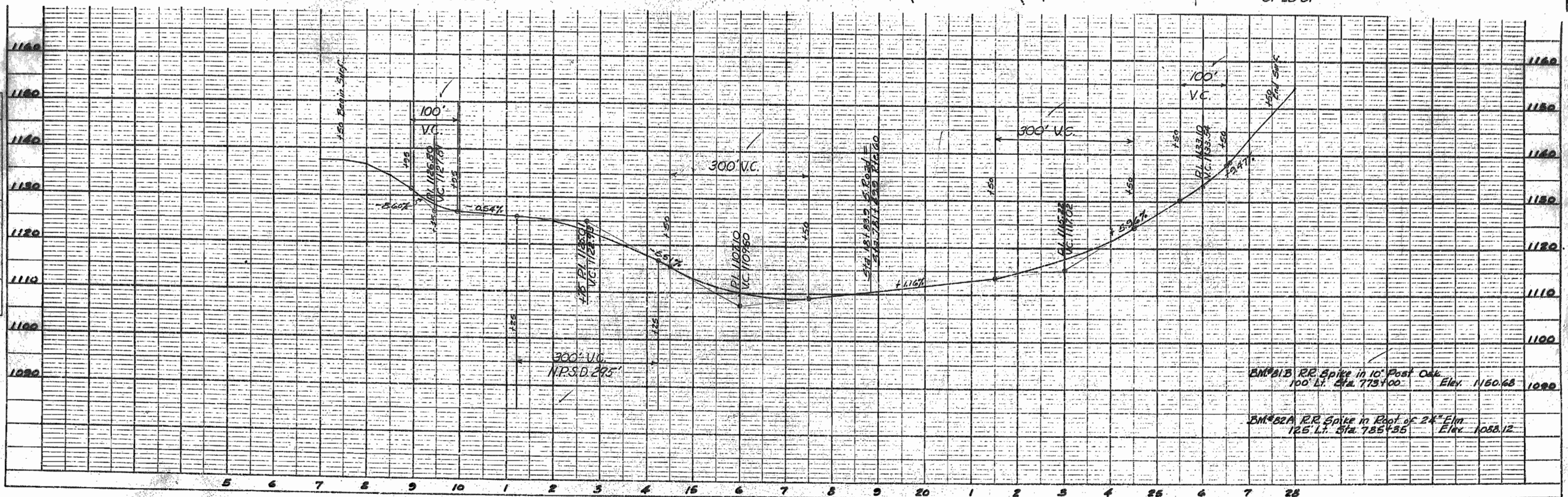
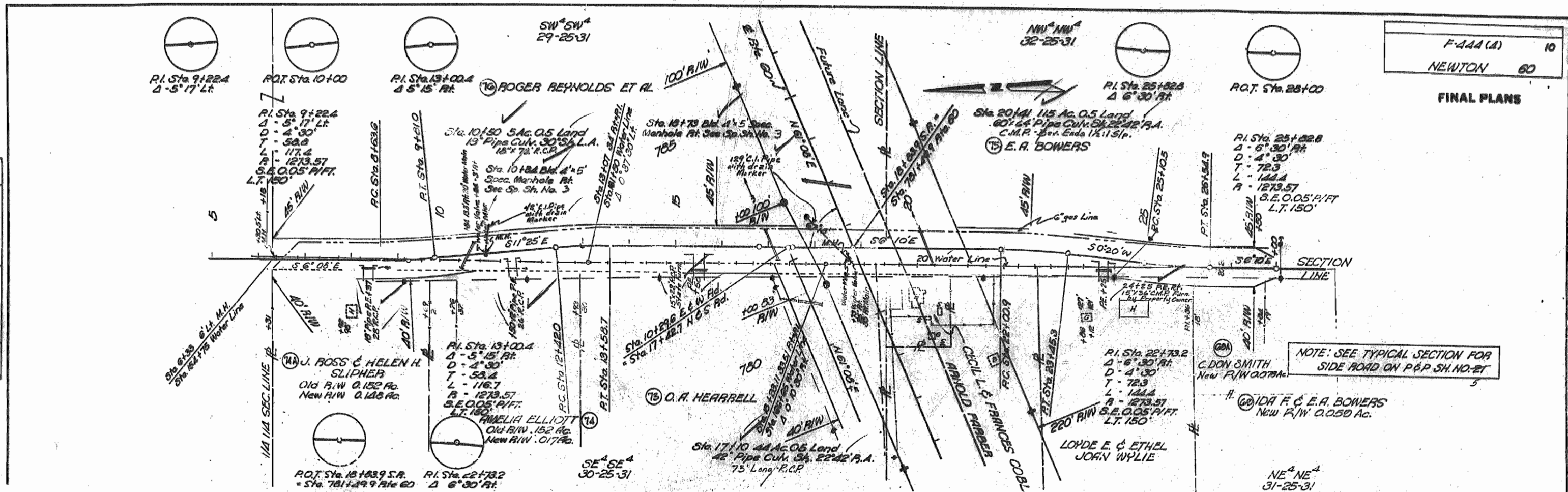


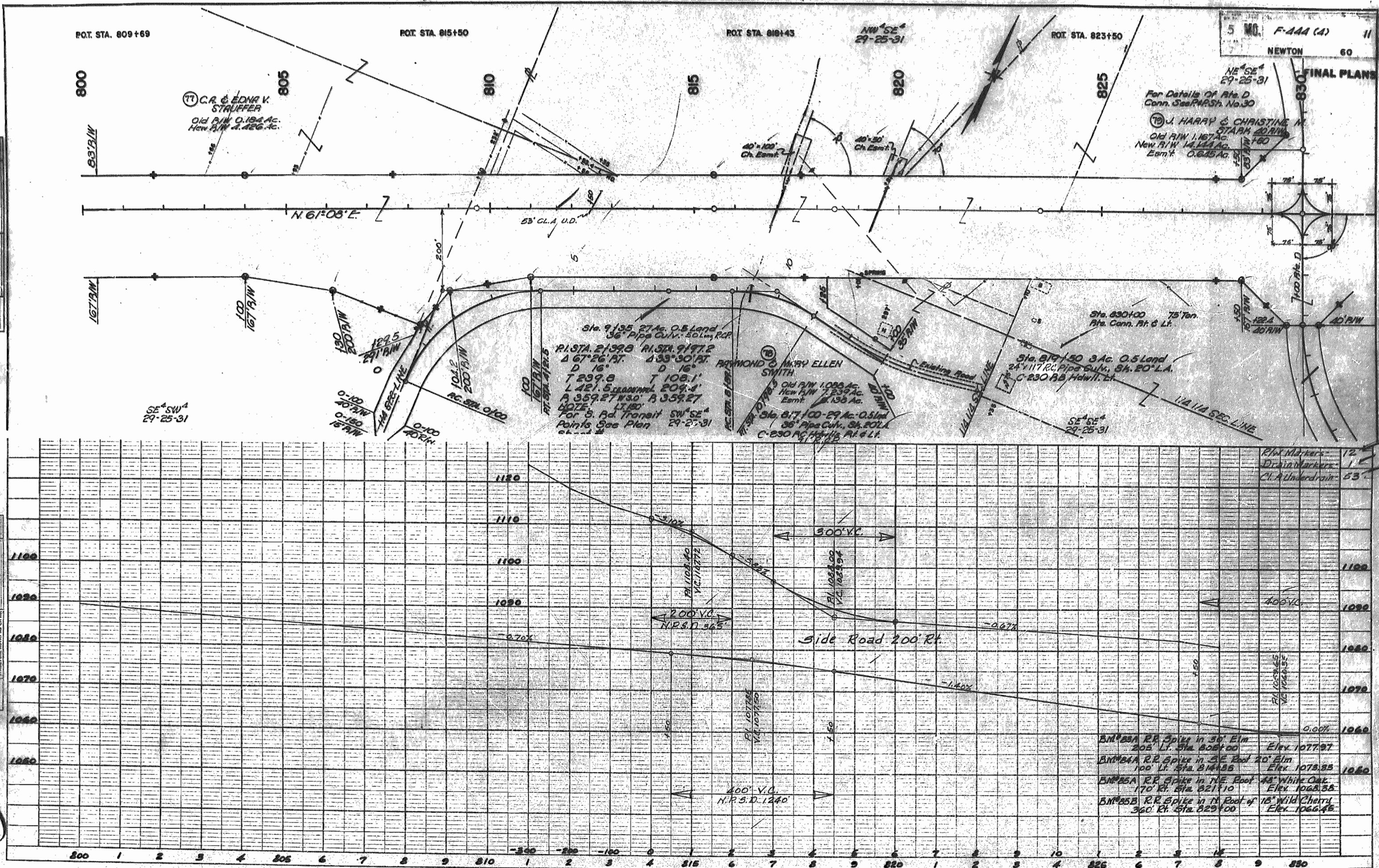


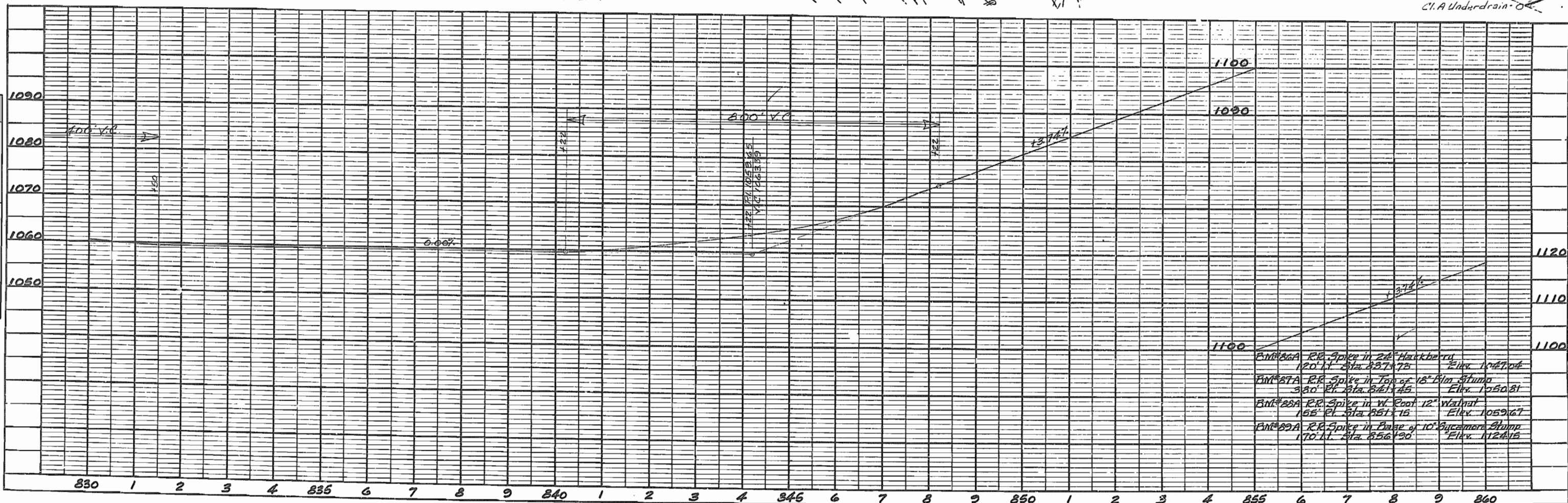












U. S. BLUE PRINT PAPER CO.—CHICAGO

PROFILE DATE BOON NO.	SURVEYED PLOTTED GRADES CHECKED B. M.'S NOTED STRUCTURE N. 24.75' S. 11.00' E. 11.00' S. 24.75' E.	11/7 11/7 11/7 11/7 11/7	DATE 11/7
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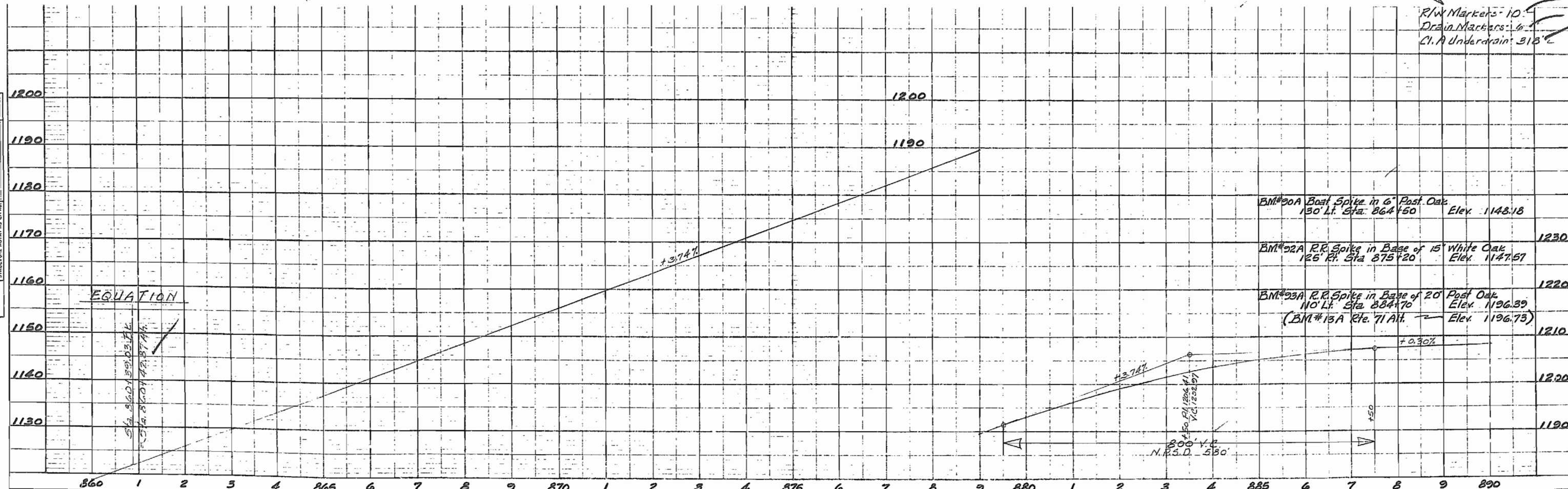
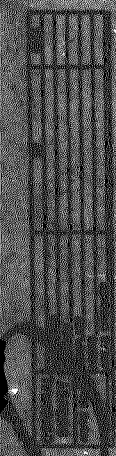


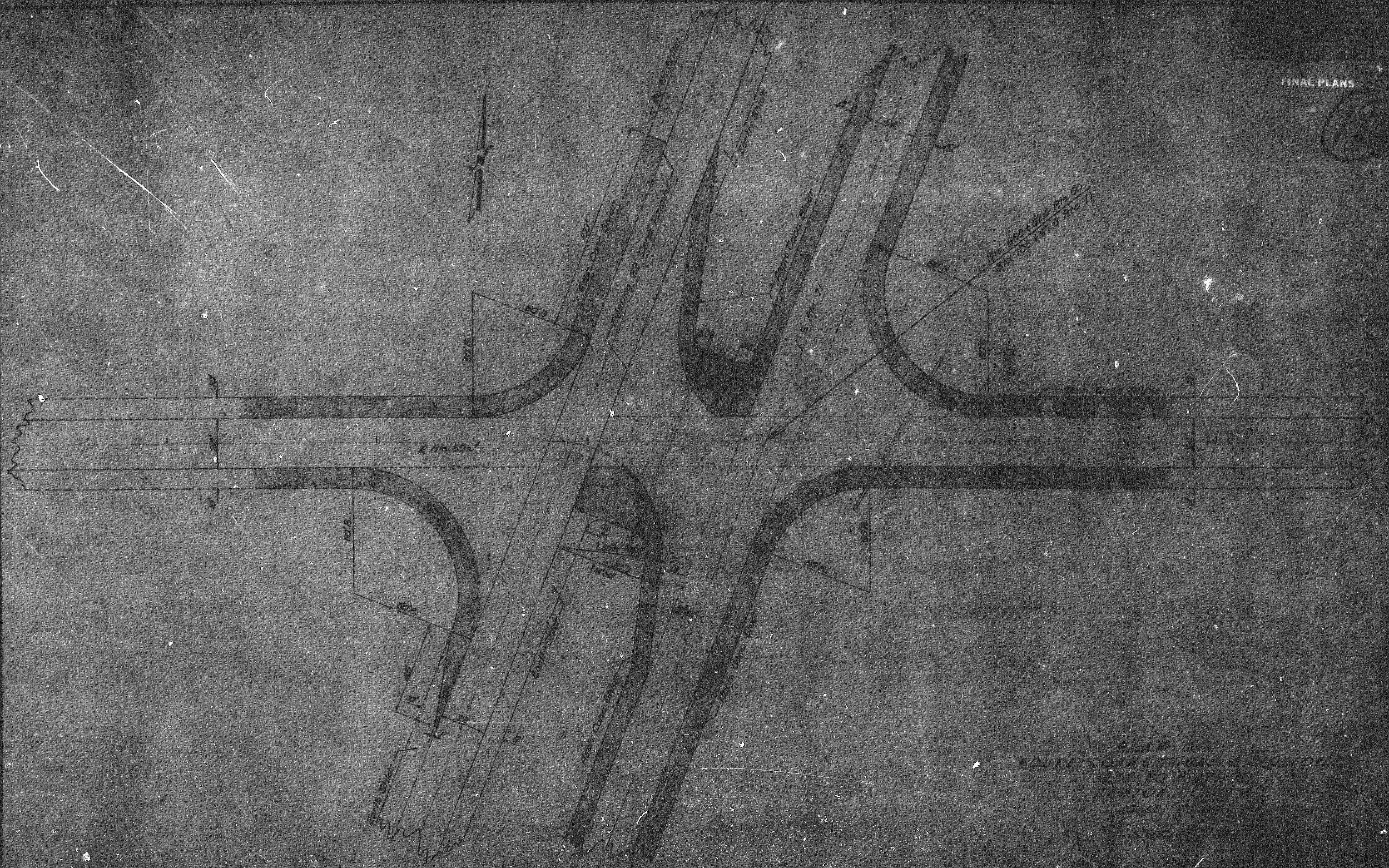
PLATE 1: PLATE PROFILE DETERMINED FROM PLATE

FINAL PLANS

18



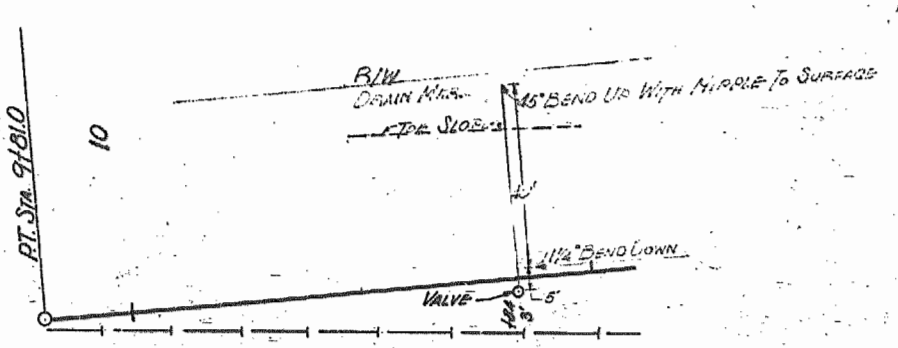
5/16



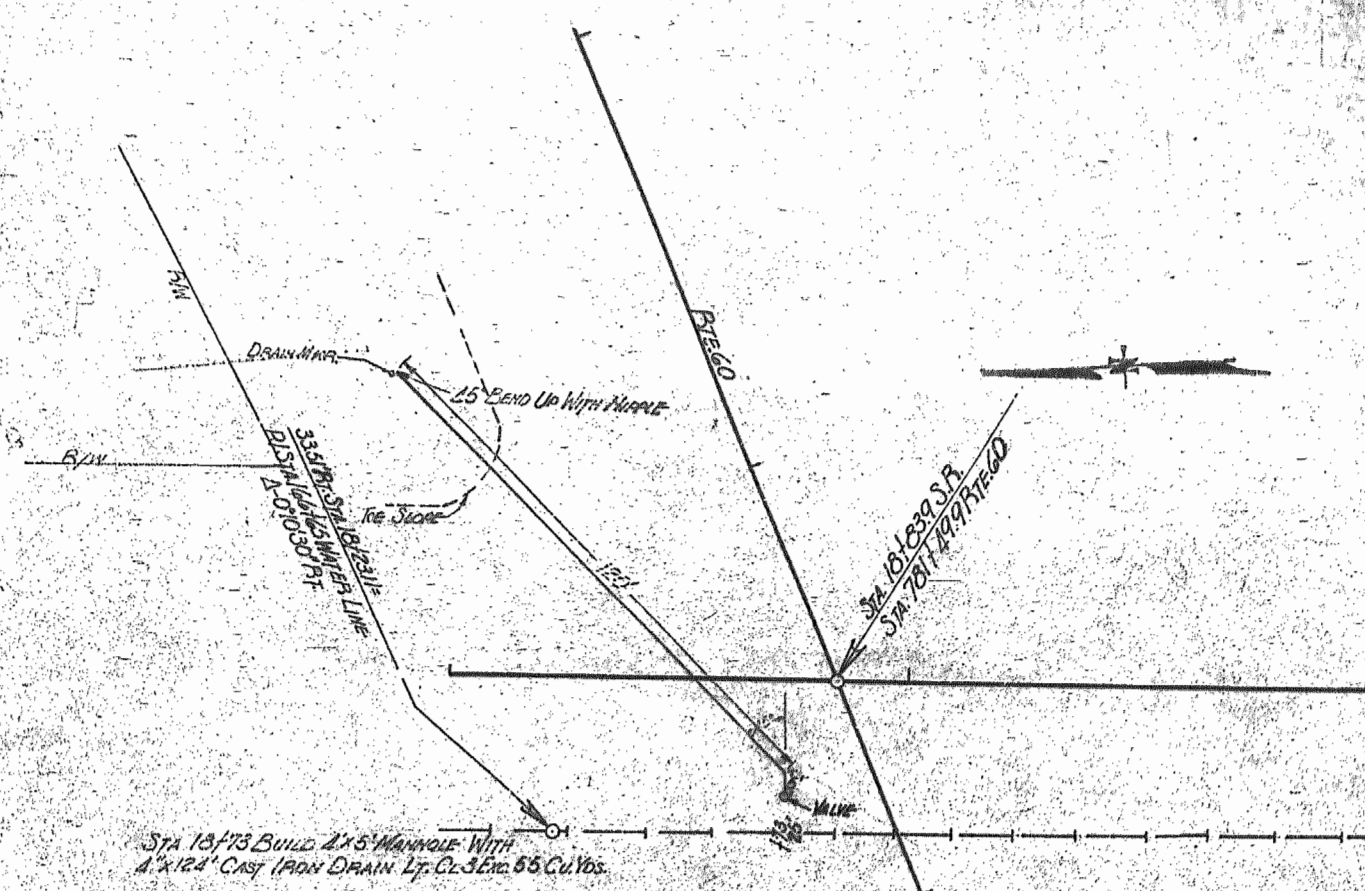
PLAN OF
ROUTE CORRECTION & IMPROVEMENT
RTE 60 & 71
HUNTER COUNTY
STATE OF TEXAS

19

PLAN	DATE	BY	CHKD
DESIGNED			
DRAWN			
CHECKED			
APPROVED			
NOTED			
REVISIONS			

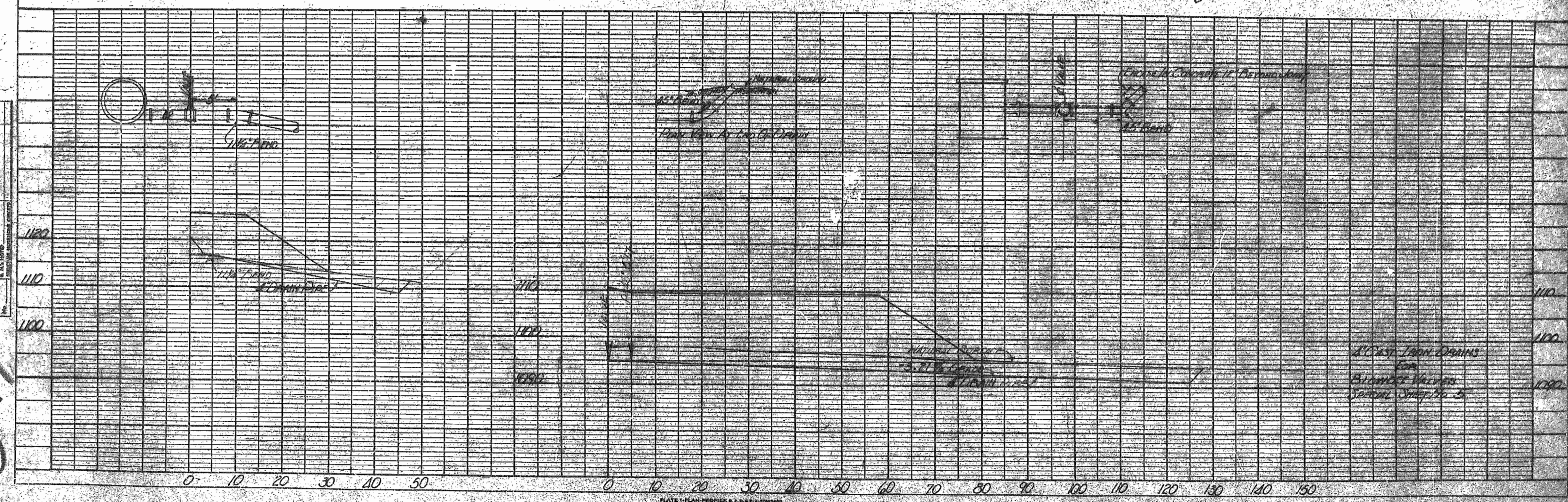


STA 10+34 BUILD 2'x5' MANHOLE WITH
 4"x6" CAST IRON DRAIN LT. CL 3 EX. 29 Cu Yds.



STA 18+73 BUILD 2'x5' MANHOLE WITH
 4"x12" CAST IRON DRAIN LT. CL 3 EX. 55 Cu Yds.

PROFILE	DATE	BY	CHKD
DESIGNED			
DRAWN			
CHECKED			
APPROVED			
NOTED			
REVISIONS			



4" CAST IRON DRAINS
 600
 BRONZE VALVES
 SERIAL SHIP NO. 5

SE⁴ NE⁴
29-25-31
STANFORD E. & WILMA D.
WILLIAMS
Chen. Esmt. .402 Ac.

SW⁴ NW⁴
28-25-31
ROY H. & OPAL E.
CARNES

SE⁴ NW⁴
28-25-31
FOREST L. & JOAN H.
MILLER

FINAL PLANS

20

RTE. 60 CURVE
R1 Sta. 849+87.9
Δ - 10°33'44"
D - 0°30'
T - 1057.97
L - 2110.00
R - 11259.19

CHARLES & BESSIE V.
TUGGLE

NE⁴ SE⁴
29-25-31

NE⁴ SW⁴
28-25-31

W. A. CAPPS

ORVAL & CORA
BOWERS

HW⁴ SW⁴
28-25-31

PLAN OF CHANNEL CHANGE
HICKORY CREEK
TRA 843+98.0
SEE PROFILE ON X-110, 14, NO. 231

TYPICAL SECTION OF CH. CHANGE

As Shown
On Plans

SECTION LINE

Proposed Channel Change

FUTURE LANE

CREEK

EXIST. R/W

EXIST. R/W

Water Line

Water Line

Water Line

Ch. Bk. Lt.

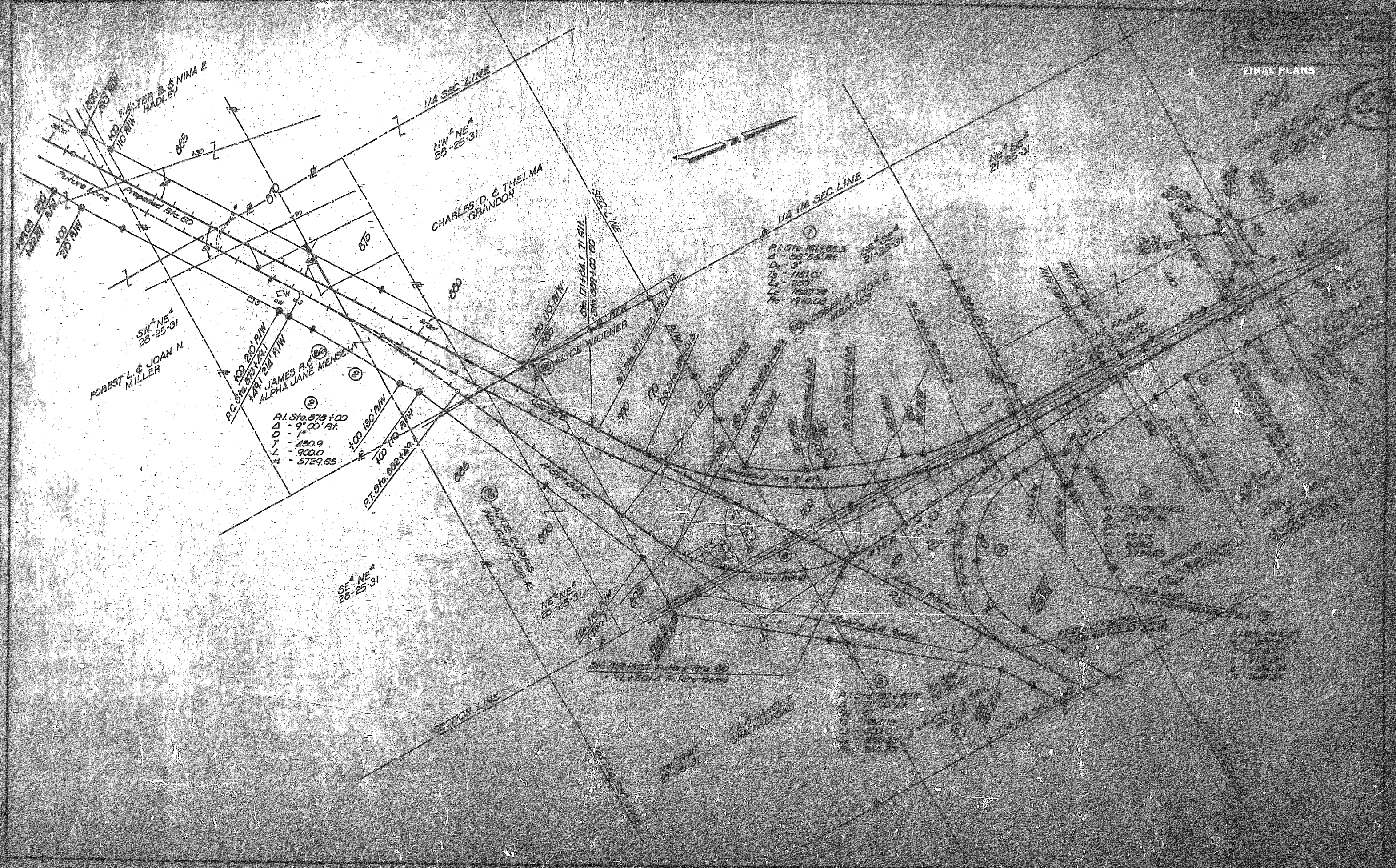
Channel Esmt

EXIST. R/W

EXIST. R/W

Δ - 15°
D - 50.3
T - 100
L - 478.3





LIST OF STANDARD PLANS

PROJ.	SHEET
F-444(4)	24
CO.	RTE.
NEWTON	60

[illegible]

9/5

DESIGN DESIGNATION

A.D.T. - 1993 = 7500
A.D.T. - 2013 = 9600

T = 12%
V = 60 M.P.H.

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION PLANS FOR PROPOSED STATE HIGHWAY

NEWTON COUNTY

COUNTY NEWTON ✓
ROUTE 71 ALT ✓
PROJECT STP-71-1(42) ✓
JOB NO. J7U0612 ✓

INDEX OF SHEETS

DESCRIPTION	SHEET NUMBER
TITLE SHEET	1
TYPICAL SECTIONS (1 SHEET)	2
SUMMARY (1 SHEET)	2-A
SUMMARY (2 SHEETS)	2-B
PLAN-PROFILE	3-5
REFERENCE POINTS	6
SPECIAL SHEETS	
TRAFFIC CONTROL SHEETS	
LIGHTING	
SIGNALS	
SIGNING	
CULVERT SECTIONS	
BRIDGE DRAWINGS	
STANDARD PLANS INDEX	
CROSS SECTIONS	
COMPUTER DATA	

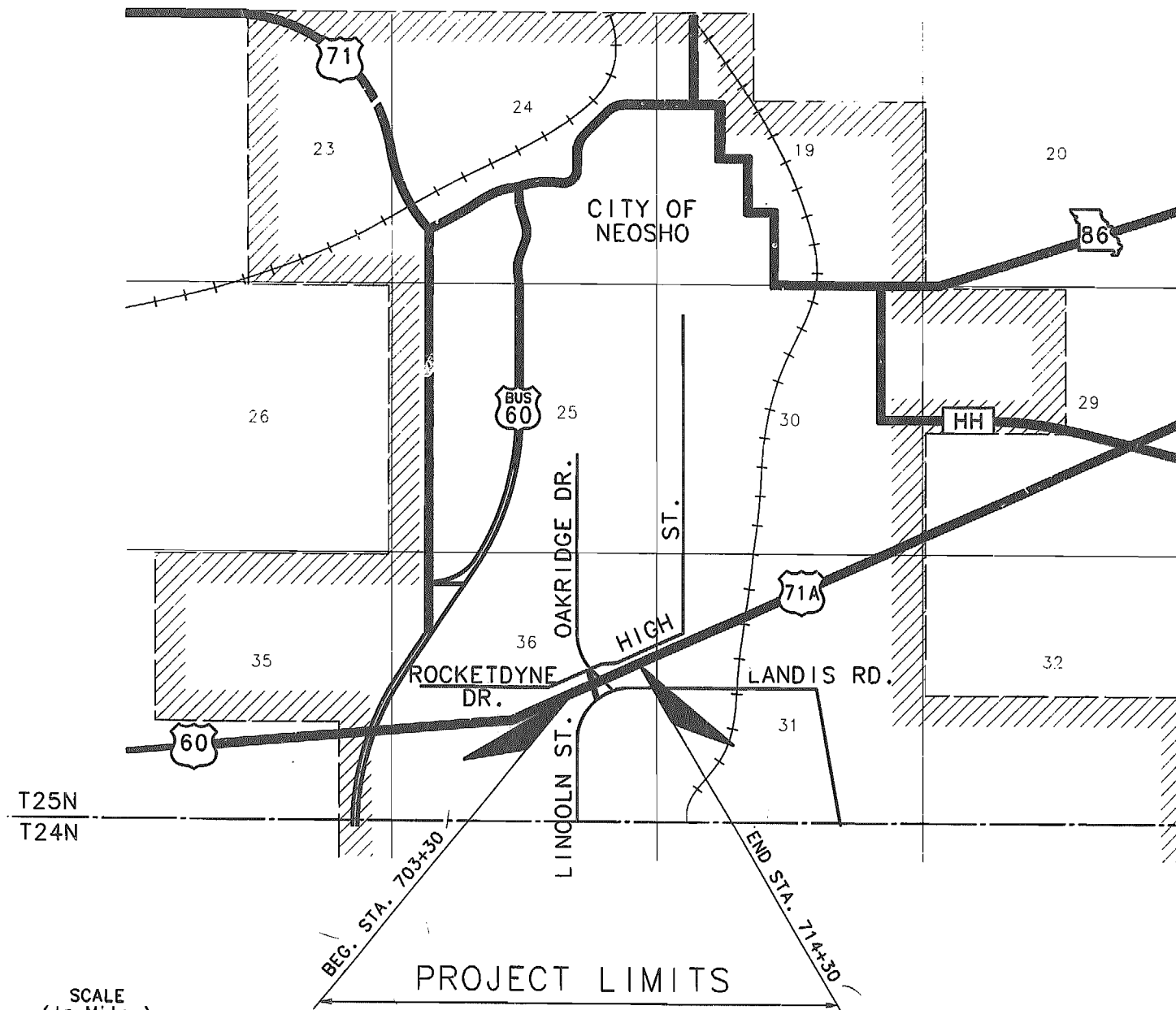
LENGTH OF PROJECT

END OF PROJECT	STA. 714 + 30 ✓
BEGINNING OF PROJECT	STA. 703 + 30 ✓
APPARENT LENGTH	1100.00 FEET ✓
EQUATIONS AND EXCEPTIONS	NONE ✓
TOTAL CORRECTIONS	0.00 FEET ✓
NET LENGTH OF PROJECT	1100.00 FEET ✓
STATE LENGTH	0.208-MILES ✓
FEDERAL LENGTH	0.208-MILES ✓

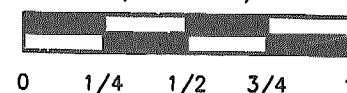
CONVENTIONAL SIGNS
(USED IN PLANS)

BUILDINGS AND STRUCTURES	
GUARD RAIL	
CONCRETE RIGHT-OF-WAY MARKER	
STEEL RIGHT-OF-WAY MARKER	
FENCE	
CHAIN LINK	
WOVEN WIRE	
GATE	
UTILITIES	
TELEPHONE	
POWER	
GAS	
WATER	
EXIST. MANHOLE	MH
EXIST. FIRE HYDRANT	HYD
EXIST. WATER VALVE	WV
EXIST. WATER METER	WM
EXIST. DROP INLET	DI
DITCH BLOCK	
EXIST. GROUND MOUNTED SIGN	
EXIST. LIGHT POLE	
EXIST. H-FRAME POWER POLE	
UNDERGROUND TELEPHONE	T
UNDERGROUND POWER	P

NOTE: DASHED OR OPEN SYMBOLS INDICATES
EXISTING FEATURES



SCALE
(In Miles)



PROJECT LIMITS

Intersection Modification
24' Wide Type V Drive

MISSOURI HIGHWAY AND
TRANSPORTATION COMMISSION

SUBMITTED

Wayne Muki
CHIEF ENGINEER

6-18-93
DATE

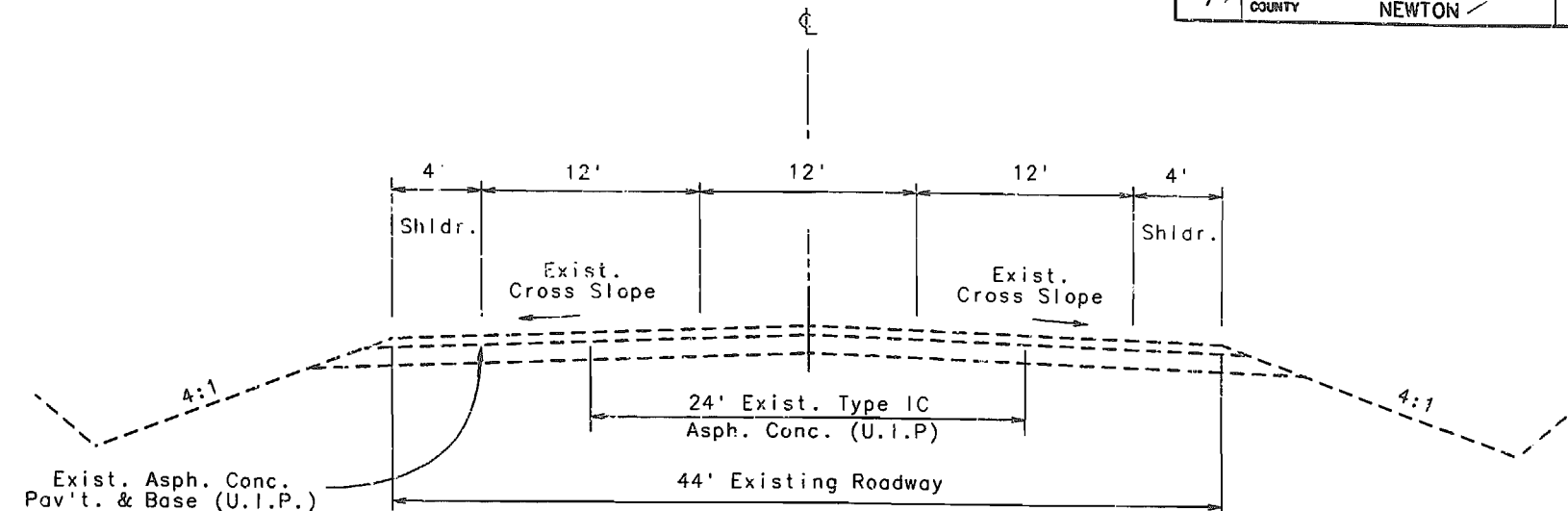
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

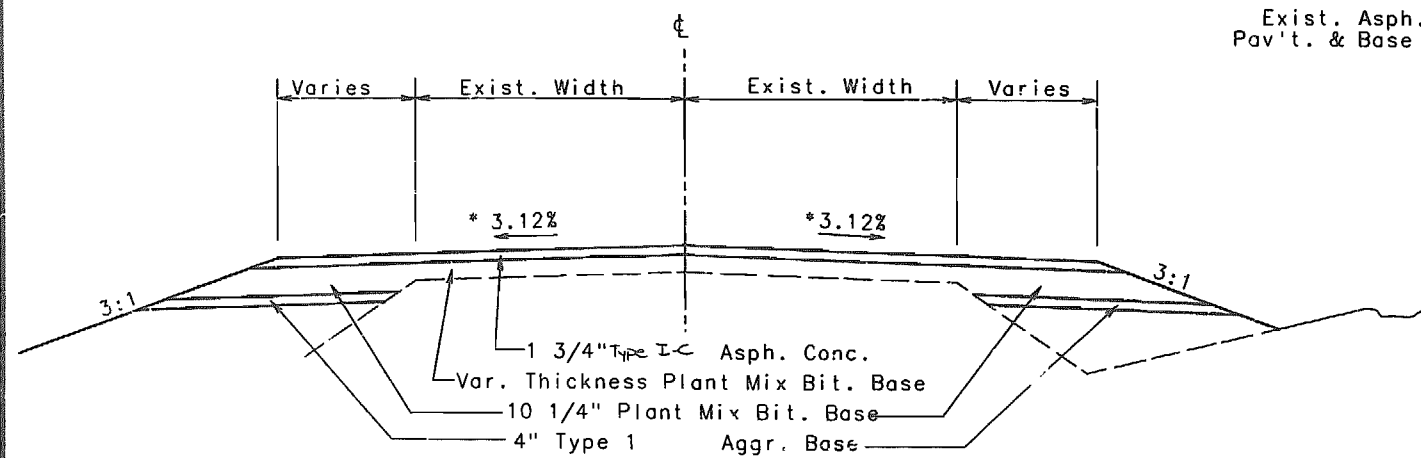
DIVISION ADMINISTRATOR

DATE

STATE MO	JOB NO. J7U0612	SHEET NO. 2
DIST. NO. 7	PROJECT NO. STP-71-1(42)	ROUTE 71A
	COUNTY NEWTON	

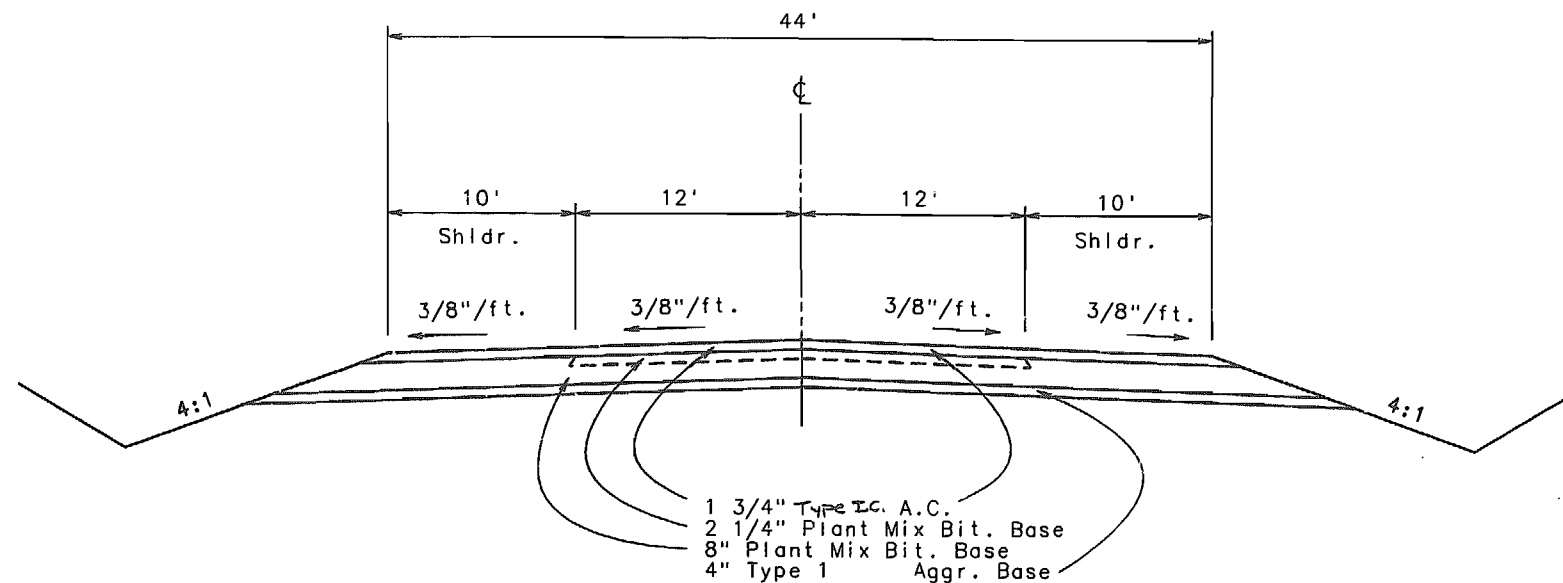


TYPICAL SECTION
Rte 71A



TYPICAL SECTION

ROCKETDYNE DRIVE - Match Exist. @ Sta. 11+00
HIGH STREET - Match Exist. @ Sta. 9+00
* Cross Slope to be Warped to Match Shoulder of Oak Ridge Drive



TYPICAL SECTION

Type V Drive (Oak Ridge Dr.)
Sta. 711+51.36 (Lt. & Rt.)

499 175

FINAL PLANS

STATE MO	JOB NO. J7U0612	SHEET NO. 2A
DIST. NO. 7	PROJECT NO. STP-71-1(42)	
	COUNTY NEWTON	ROUTE 71A

[illegible]

ITEM	DESCRIPTION	UNIT	QUANTITY
202-20.10	REMOVAL OF IMPROVEMENTS	LUMP SUM	1
203-10.00	CLASS A RECAVATION	CU YD	2,516
203-60.00	COMPACTING ENHANCEMENT	CU YD	1,393
203-70.75	COMPACTING IN CUT	STATION	1.7
301-10.11	ASPHALT CEMENT (BITUMINOUS BASE) AC-20	TON	118.5
301-20.00	MINERAL AGGREGATE (BITUMINOUS BASE)	TON	2,767
304-00.43	TYPE 1 AGGREGATE FOR BASE (4 IN. THICK)	SQ YD	5,732
390-90.00	TEMPORARY SURFACING	CU YD	0
403-10.11	ASPHALT CEMENT (ASPHALTIC CONCRETE) AC-20	TON	0
403-10.26	MINERAL AGGREGATE (ASPHALTIC CONCRETE) (TYPE C)	TON	0
407-10.05	TACK COAT	GALLON	350
601-10.00	FIELD LABORATORIES	LUMP SUM	1
608-30.00	CONCRETE MEDIAN STRIP	SQ YD	30.4
612-10.30	MOVABLE BARRICADE	EACH	4
612-20.20	INSTALLING GIVE AWAY BRAKE 4 FT. X 4 FT. SIGN	EACH	4
616-10.05	CONSTRUCTION SIGNS	SQ FT	290
616-10.20	CHANNELIZER (DEEM)	EACH	36
618-10.00	MOBILIZATION	LUMP SUM	1
619-10.00	PAVEMENT EDGE TREATMENT	LIN FT	500
620-50.01	TYPE 1 PREFORMED MARKING TAPE 4 IN., SOLID WHITE (substituted Thermoplastic)	100 FT	2.7
620-50.03	TYPE 1 PREFORMED MARKING TAPE 4 IN., SOLID YELLOW (substituted Thermoplastic)	100 FT	36.2
620-54.04	PREFORMED SHORT TERM MARKING TAPE 4 IN., INTERMITTENT YELLOW	MILE	.1
620-70.05	PAVEMENT STRIPE REMOVAL (TAPE)	100 FT	0
602-50.00	1 TON OF TYPE 3 MULCH	ACRE	2.0
605-10.00	SEEDING	ACRE	2.0
606-10.13	STRAW BALE DITCH FENCE	EACH	3
606-10.16	SEDIMENT REMOVAL	CU YD	0
606-10.17	TEMPORARY SEEDING AND MULCHING	ACRE	0
606-10.18	STRAW BALES (FENCE)	LIN FT	352
901-33.00	CONDUIT, 3 IN., RIGID STEEL, IN TRENCH	LIN FT	165
500	CONTINGENT ITEMS		
501.01	ASPHALT CEMENT AC-20 I-G MIX	TON	28.6
501.02	MINERAL AGGREGATE I-G MIX	TON	594
501.03	PAVEMENT STRIPE REMOVAL (PAINT)	100 FT	36
501.04	ASPHALT DENSITY SAMPLES	EACH	4

178

P.A.N.-BOLL(SZO) 71A 1 NEWTON

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

REV MAY 1, 89

FINAL PLANS

STATE	JOB NO.	J7U0612	SHEET NO.	28
MO	PROJECT NO.	STP-71-1(42)	ROUTE	71A
DIST NO.	7	COUNTY	NEWTON	

SHEET 1 OF 2

PAVEMENT STRIPE REMOVAL (PAINT)

SHEET	STA.	LOC.	100 FT.	REMARKS
3	703+30	RT	7.30	RTE. 71A
3	703+30	LT	5.25	"
3	703+30	LT	8.40	"
3	703+30	RT	8.90	"
3	708+65	RT	1.90	"
3	712+50	LT	1.80	"
3	712+75	RT	1.55	"
3	712+10	RT	0.70	"
3	712+10	LT	0.70	"
TOTAL 100 FT.				36.50
USE				36.0

CONCRETE MEDIAN STRIP

SHEET	STA. TO STA.	LOC.	S.Y.	REMARKS
3	711+20-711+38	28' LT.	22.9	LOW PROFILE ISLAND
3	711+65-711+75	28' RT.	7.5	LOW PROFILE ISLAND
TOTAL				30.4

CONDUIT 3" RIGID STEEL IN TRENCH

SHEET	STATION	LOC.	TRENCH LIN. FT.	REMARKS
3	711+51.36	75' LT.	80'	INST. ACROSS OAK RIDGE DR.
3	711+51.36	75' RT.	85'	
TOTAL				165'

TYPE 1 PREFORMED MARKING TAPE (THERMOPLASTIC SUBSTITUTED)

BEG. STA.	END STA.	LOC.	4" SOLID YELLOW LIN FT	4" SOLID WHITE LIN FT	REMARKS
703+30	710+90	RT	2594'		Rte. 71A
712+10	712+80	LT	70'		"
2+40	4+10	RT	340'		Oak Ridge Dr.
4+70	5+50	RT	180'		"
6+33	7+63	RT	230'		"
708+40	710+90	RT		200'	Rte. 71A
712+10	712+80	RT		70'	"
TOTAL				3424'	
USE				3424/100FT	2.7/100FT

REMOVAL OF IMPROVEMENTS

LUMP SUM

1

TEMPORARY EROSION CONTROL

SHEET	STRAW BALE DITCH CHECK EACH	STRAW BALE FENCE LIN. FT.
7		
TOTAL	3	352

PREFORMED SHORT TERM MARKING TAPE

SHEET	STA. TO STA.	LOC.	4" INT. YELLOW LIN. FT.	REMARKS
3	3+50 - 5+69.95	LT	219.95	OAK RIDGE DR.
3	6+13.95 - 7+79.78	LT	165.83	"
TOTAL				385.78 + 4 - 96.44 = 520 = 0.02 Mile
USE				0.1 MILE

588/177

SUMMARY OF QUANTITIES

SHEET 2 OF 2 ✓

92	STATE MO	JOB NO. J7U0612	SHEET 2E
	DIST NO. 7	PROJECT NO. STP-71-1(42)	
		COUNTY NEWTON	

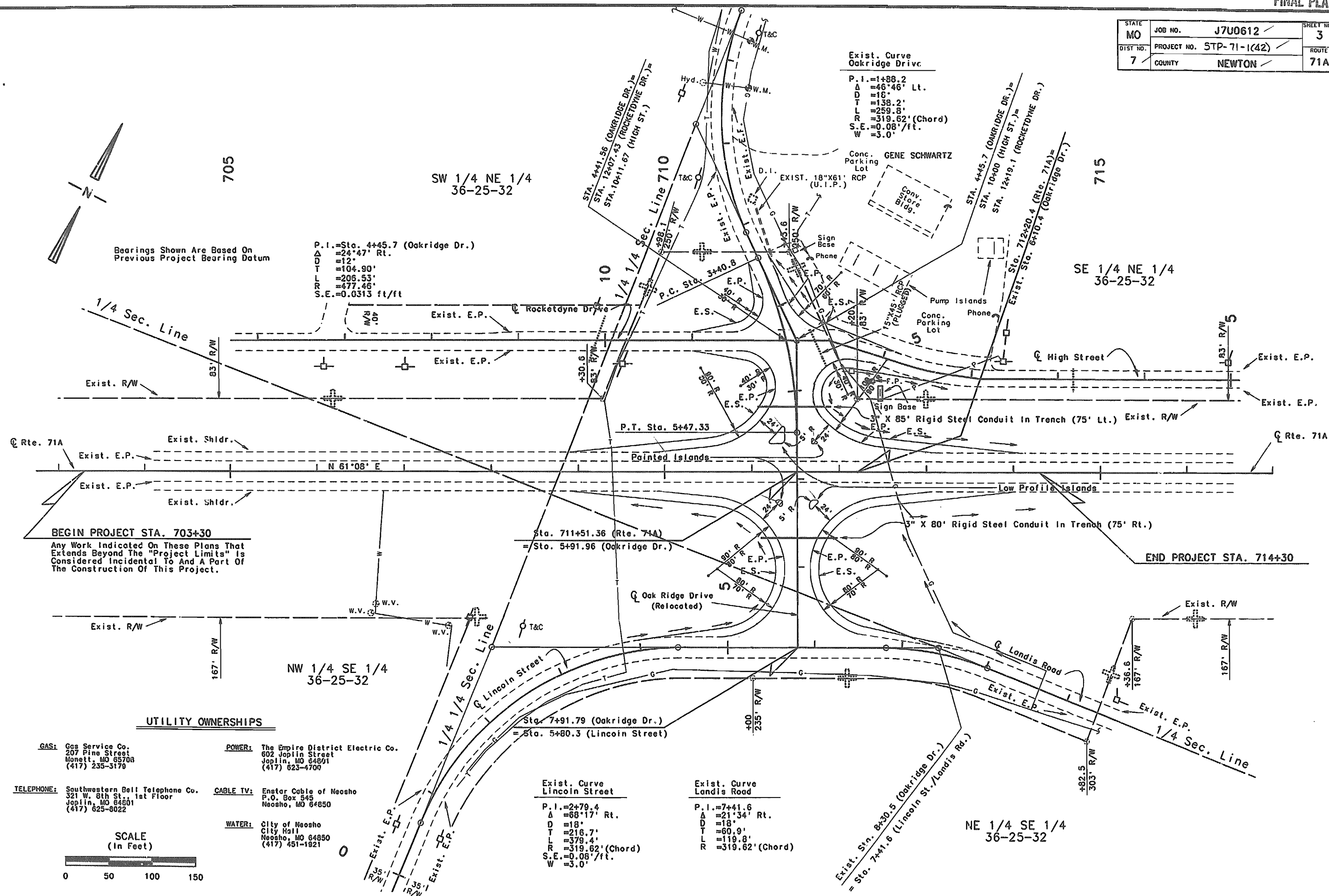
SIGN	SIZE (INCHES)	AREA (SQ FT)	QTY	TOTAL AREA	QTY RELOC	TOTAL RELOC AREA	DESCRIPTION
WARNING SIGNS							
W01-1Lb	48X48	16.0					TURN (SYMBOL LEFT ARROW)
W01-1Rb	48X48	16.0					TURN (SYMBOL RIGHT ARROW)
W01-2Lb	48X48	16.0					CURVE (SYMBOL LEFT ARROW)
W01-2Rb	48X48	16.0					CURVE (SYMBOL RIGHT ARROW)
W01-3Lb	48X48	16.0					REVERSE TURN (SYMBOL LEFT ARROW)
W01-3Rb	48X48	16.0					REVERSE TURN (SYMBOL RIGHT ARROW)
W01-4Lb	48X48	16.0					REVERSE CURVE (SYMBOL LEFT ARROW)
W01-4Lb2	48X48	16.0					DOUBLE ARROW REVERSE CURVE (SYM LT ARROWS)
W01-4Rb	48X48	16.0					REVERSE CURVE (SYMBOL RIGHT ARROW)
W01-4Rb2	48X48	16.0					DOUBLE ARROW REVERSE CURVE (SYM RT ARROWS)
W01-6	48X24	8.0					HORIZONTAL ARROW (SYMBOL)
W01-6a	72X36	18.0					HORIZONTAL ARROW (SYMBOL)
W01-7	48X24	8.0					DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
W01-7a	72X36	18.0					DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
W01-8	18X24	3.0					CHEVRON (SYMBOL)
W03-1b	48X48	16.0					STOP AHEAD
W03-2b	48X48	16.0					YIELD AHEAD
W03-3b	48X48	16.0					SIGNAL AHEAD (SYMBOL)
W03-4b	48X48	16.0					BE PREPARED TO STOP
W04-1Lb	48X48	16.0					MERGE (SYMBOL FROM LEFT)
W04-1Rb	48X48	16.0					MERGE (SYMBOL FROM RIGHT)
W05-1a	48X48	16.0					ROAD NARROWS
W05-3a	48X48	16.0					ONE LANE BRIDGE
W06-1b	48X48	16.0					DIVIDED HIGHWAY
W06-2b	48X48	16.0					DIVIDED HIGHWAY ENDS
W06-3b	48X48	16.0					TWO WAY TRAFFIC (SYMBOL)
W06-3x	24X18	3.0					TWO WAY TRAFFIC (PLAQUE)
W08-1b	48X48	16.0					BUMP
W08-2b	48X48	16.0					DIP
W08-3	48X48	16.0					PAVEMENT ENDS
W08-4b	48X48	16.0					SOFT SHOULDER
W08-5b	48X48	16.0					SLIPPERY WHEN WET (SYMBOL)
W08-6b	48X48	16.0					TRUCK CROSSING
W08-6c	48X48	16.0					TRUCK ENT (INCLUDES W025-1a PLATE)
W08-7a	36X36	9.0					LOOSE GRAVEL
W08-9	48X48	16.0					LOW SHOULDER
W08-9La	48X48	16.0					UNEVEN PAVEMENT (SYM FOR LT DROPOFF)
W08-9Ra	48X48	16.0					UNEVEN PAVEMENT (SYM FOR RT DROPOFF)
W09-1R	48X48	16.0					RIGHT LANE ENDS (INCLUDES W025-3c PLATE)
W09-2Ra	48X48	16.0					LANE ENDS MERGE RIGHT (INCLUDES W025-3b PLATE)
W10-1a	42D1a	9.6					RAILROAD CROSSING
W012-1	24X24	4.0					DOUBLE DOWN ARROW (SYMBOL)
W012-2a	48X48	16.0					LOW CLEARANCE (SYMBOL)
W012-2x	24X18	3.0					LOW CLEARANCE (PLAQUE)
W012-3a,b	144X24	24.0					OVERHEAD LOW CLEARANCE (FEET AND INCHES)
W013-1a	24X24	4.0					ADVISORY SPEED (PLAQUE)
W020-1	48X48	16.0					ROAD CONST AHEAD
W020-2	48X48	16.0					DETOUR AHEAD (INCLUDES W025-1b PLATE)
W020-3	48X48	16.0					ROAD CLOSED AHEAD (INCLUDES W025-1c PLATE)
W020-4a	48X48	16.0					ONE LANE ROAD AHEAD (INCLUDES W025-1a PLATE)
W020-5	48X48	16.0					RIGHT LANE CLOSED AHEAD (INCL W025-3d PLATE)
W020-6a	48X48	16.0					RIGHT LANE CLOSED (INCLUDES W025-3c PLATE)
W020-7b	48X48	16.0					FLAGGER (SYMBOL)
W020-7x	24X18	3.0					500 FT/1000 FT (PLAQUE)
W020-9c	48X48	16.0					OPEN TRENCH
W021-2b	48X48	16.0					FRESH OIL
W021-5b	48X48	16.0					SHOULDER WORK AHEAD
W021-7	36X36	9.0					SAND BLASTING
W022-1	48X48	16.0					BLASTING ZONE 1000 FT
W022-2	42X36	10.5					TURN OFF 2-WAY RADIO
W022-3	42X36	10.5					END BLASTING ZONE
W022-5	30X30	6.3					NO PASSING ZONES UNMARKED
W025-1a	26X9						1000 FT/1500 FT Plate
W025-1b	38X9						500 FT/1000 FT Plate
W025-1c	34X9						500 FT/1000 FT Plate

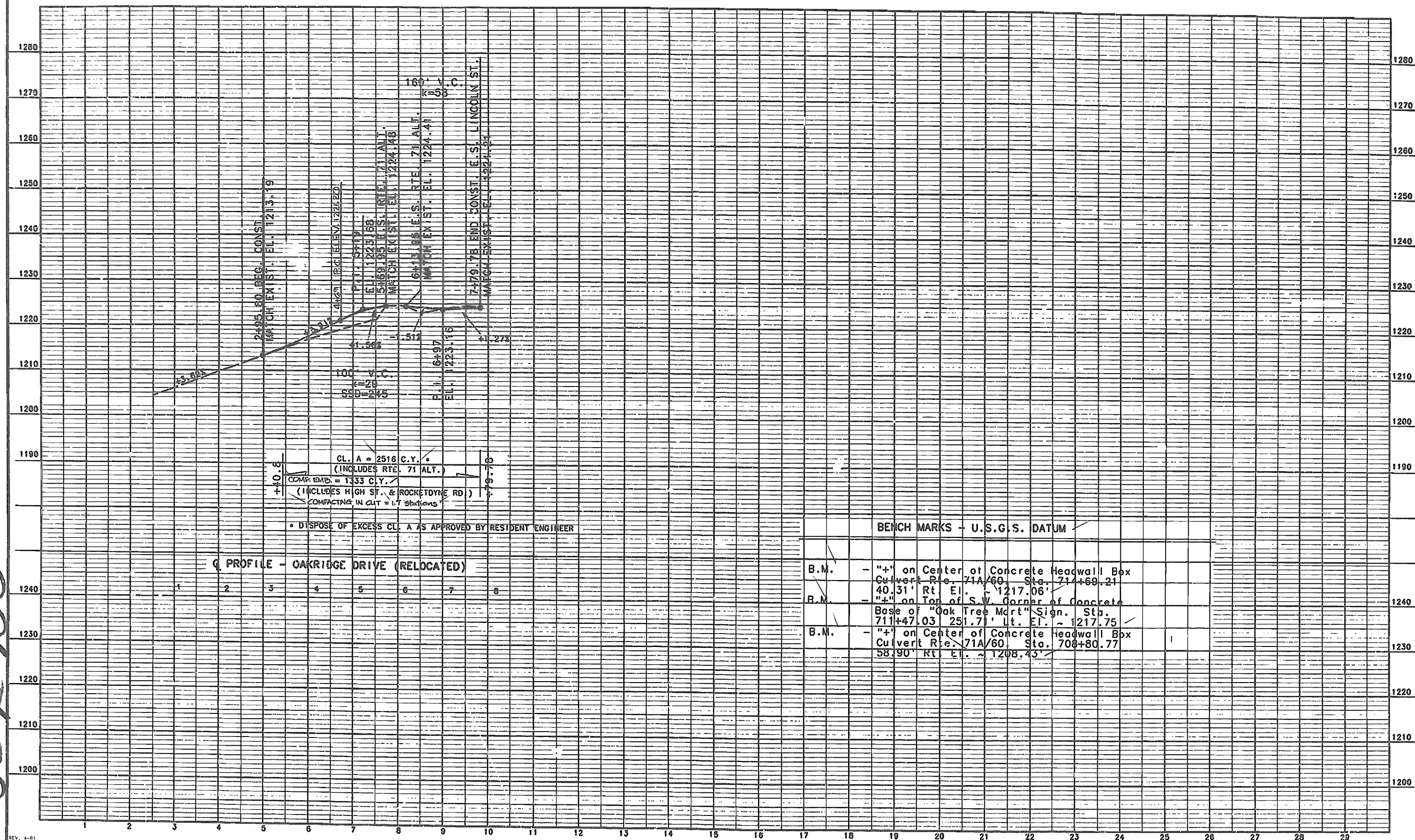
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*SEE GENERAL SPECIAL PROVISIONS

2008

179



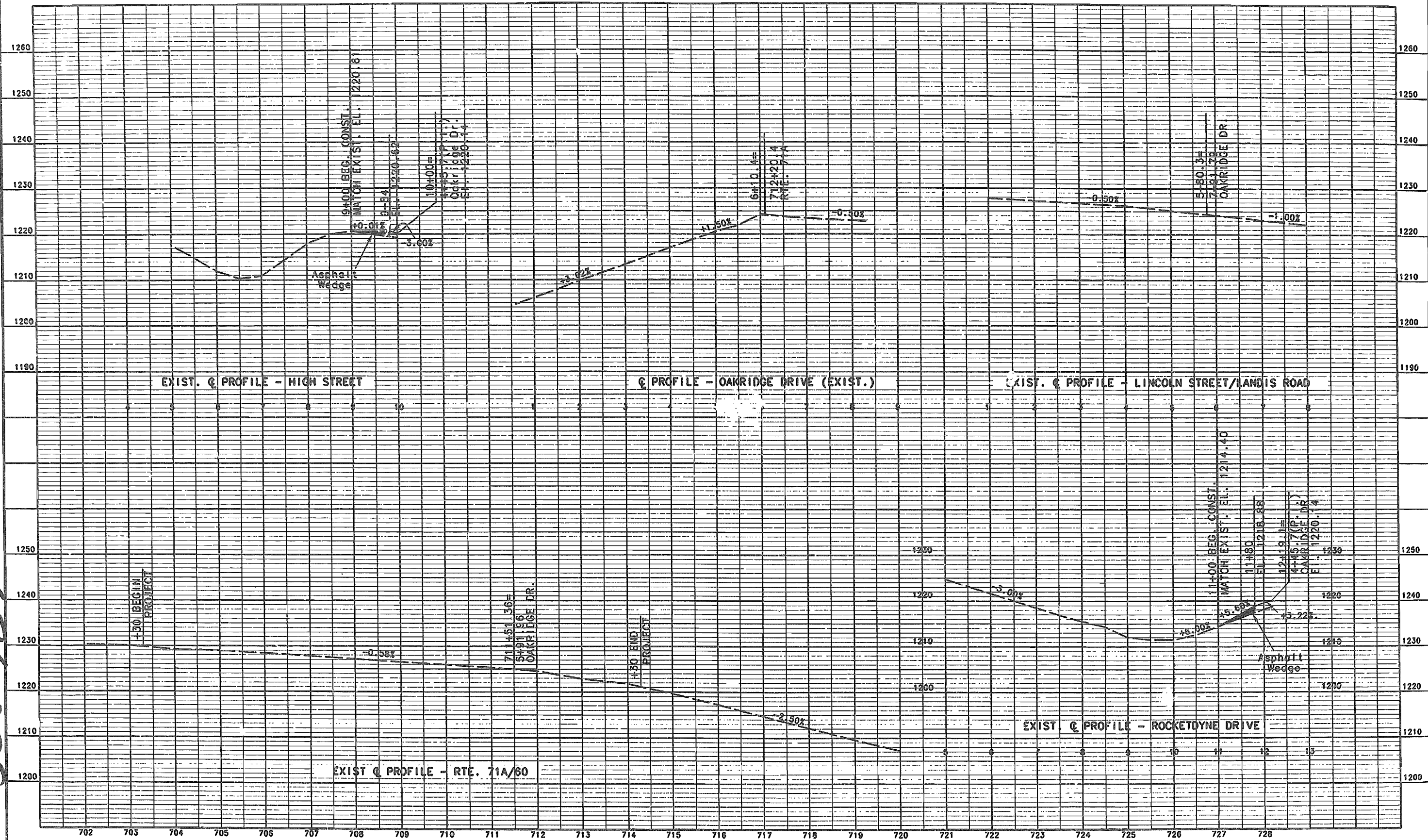


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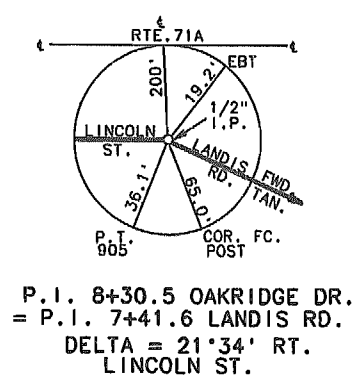
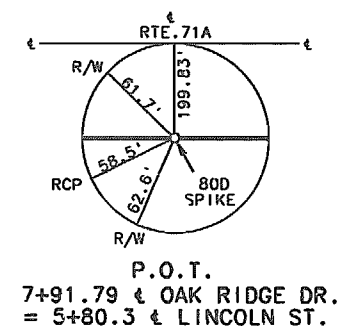
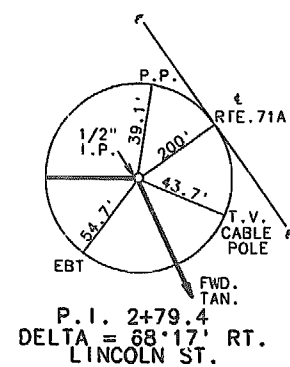
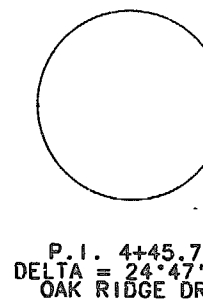
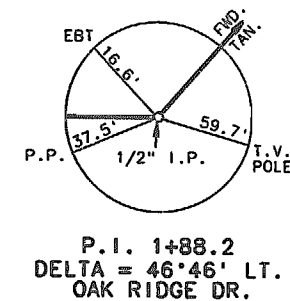
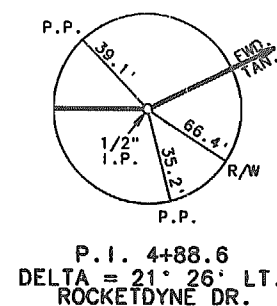
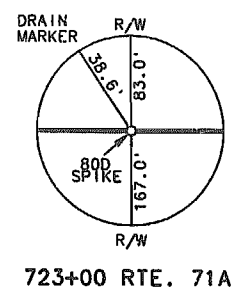
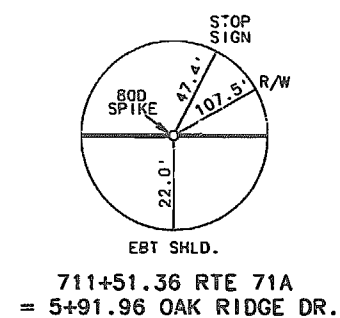
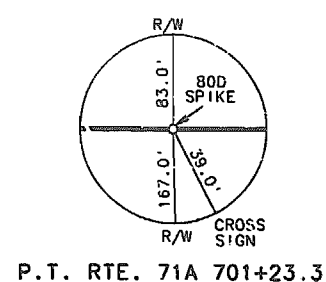
505/181

FINAL PLANS

STATE	JOB NO.	J7U0612	SHEET NO.
MO	PROJECT NO.	STP-71-1(42)	5
DIST NO.	ROUTE		71A
7	COUNTY	NEWTON	



STATE	JOB NO. J7U0612 /	SHEET NO.
MO		6
DIST NO	PROJECT NO. STP-71-1(42) /	ROUTE
7	COUNTY NEWTON /	71A



REFERENCE POINTS

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

STANDARD PLANS

REVISED MARCH 1, 1993

STATE MO	JOB NO. J7U0612	SHEET NO. 15
DIST NO. 7	PROJECT NO. STP-71-1(42)	ROUTE 71A
COUNTY NEWTON		

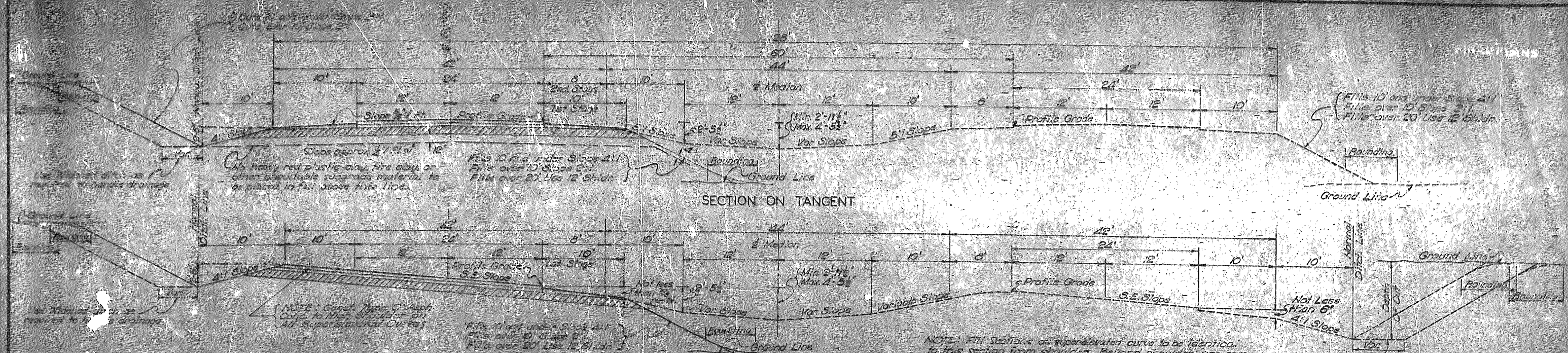
✓	NO.	DESCRIPTION
✓	203.00E	EXCAVATION & EMBANKMENT
	203.02C	UNDERGRADING
✓	203.10B	TABULATED EARTHWORK & SECTION DATA
✓	203.20B	SUPERELEVATION SPIRALS & WIDENING (UNDIVIDED)
	203.21B	SUPERELEVATION SPIRALS & WIDENING (DIVIDED)
	203.35A	MAILBOX TURNOUTS
	203.40E	TYPICAL DETAILS-RAMPS FOR INTERCHANGES (OTHER THAN 6:1 FORESLOPE)
	203.41E	TYPICAL DETAILS-RAMPS FOR INTERCHANGES (6:1 FORESLOPE)
	203.50J	TYPICAL CROSS-OVERS (DIVIDED HIGHWAYS)
	203.61	DRIVEWAY TYPE I
✓	203.62	DRIVEWAY TYPE II
	203.63	DRIVEWAY TYPE II I
	203.64	DRIVEWAY TYPE IV
✓	203.65	DRIVEWAY TYPE V
	204.00D	EMBANKMENT CONTROL MEASURING DEVICES
	502.00N	CONCRETE PAVEMENT & BASE APPURTENANCES (2 SHEETS) *
	502.10F	DOWEL SUPPORTING UNITS *
	503.00J	CONCRETE APPROACH SLABS TO BRIDGES (ALSO INCLUDE 502.00) *
	504.00	CONCRETE APPROACH PAVEMENT (2 SHEETS) *
	602.00A	RIGHT-OF-WAY & DRAIN MARKERS
	604.05B	PIPE CULVERT HEADWALLS - TYPE S
	604.10B	HEADWALL-WITH ENERGY DISSIPATOR - 18"
	604.11B	HEADWALL-WITH ENERGY DISSIPATOR - 24"
	604.12B	HEADWALL-WITH ENERGY DISSIPATOR - 30"
	604.13B	HEADWALL-WITH ENERGY DISSIPATOR - 36"
	604.14B	HEADWALL-WITH ENERGY DISSIPATOR - 42"
	604.15B	HEADWALL-WITH ENERGY DISSIPATOR - 48"
	604.20B	DROP INLET - TYPE B
	604.21B	DROP INLET - TYPE C
	604.22B	DROP INLET - TYPE D
	604.23B	DROP INLET - TYPE E
	604.24B	DROP INLET - TYPE EE
	604.25C	DROP INLET - TYPE F
	604.26D	DROP INLET - TYPE G
	604.27D	DROP INLET - TYPE S (3 SHEETS)
	604.28E	DROP INLET - TYPE T (ALSO INCLUDE 614.30)
	604.29C	DROP INLET - TYPE X
	604.30F	CONCRETE MANHOLES (ALSO INCLUDE 614.30)
	604.40E	PIPE COLLARS
	605.10A	CLASS A UNDERDRAINS
	606.00Y	GUARD RAIL (6 SHEETS) *
	606.22K	BRIDGE ANCHOR SECTION (SAFETY BARRIER CURB ON BRIDGE) (ALSO INCLUDE 606.00)
	606.23C	BRIDGE ANCHOR SECTION (THREE BEAM RAIL ON BRIDGE) (ALSO INCLUDE 606.00)
	606.30E	TERMINAL SECTION (ALSO INCLUDE 606.00)
	606.40A	GUARD CABLE
	607.10R	CHAIN LINK FENCE
	607.11B	CHAIN LINK FENCE FOR RETAINING WALLS
	607.20F	WOVEN WIRE FENCE (ALSO INCLUDE 607.10)

✓	NO.	DESCRIPTION
	608.00C	PAVED APPROACHES
	608.10G	CONCRETE SIDEWALK & WHEELCHAIR RAMPS
	608.20D	CONCRETE STEPS *
	609.00G	CONCRETE CURB - CURB & GUTTER - GUTTER
	609.15C	PAVED DITCHES *
	609.40E	DRAIN BASIN, SHLD. PAVE. & FILL SL. AT BR. ENDS (2 SHEETS) *
	609.60C	ROCK DITCH LINER *
	609.70C	ROCK LINING FOR CULVERT OUTLETS
	610.20E	BRICK MANHOLES (ALSO INCLUDE 614.30)
	611.60L	CONCRETE SLOPE PROTECTION
	612.10K	BARRICADES AND FLASHER SIGNS
	613.00B	PAVEMENT REPAIR
	614.10R	CURB INLETS, GRATES & BEARING PLATES
	614.30D	MANHOLE FRAMES & COVERS
	615.00A	OFFICE FOR ENGINEER
✓	616.10P	TRAFFIC CONTROL DEVICES (3 SHEETS) (ALSO INCLUDE 903.01) *
	617.00X	CONCRETE TRAFFIC BARRIER (3 SHEETS) *
	702.01F	16" CONCRETE PILES (APPROVED TYPES) (2 SHEETS)
	702.02B	CAST-IN-PLACE CONCRETE PILES (APPROVED TYPES)
	703.21E	CONCRETE BOX CULVERTS, H2O LOADING (3 SHEETS) (FLARED WINGS) (INCL 706.35)
	703.24E	CONCRETE BOX CULVERTS, SKEW DATA (703.30) (INCL 706.35)
	703.25E	CONCRETE BOX CULVERTS, SKEW DATA (703.21) (3 SHTS) (FLRD WINGS) (INCL 706.35)
	703.30F	CONCRETE BOX CULVERTS, 4' SPANS & LESS-ALL LOADING (INCL 706.35)
	703.35B	CONCRETE BOX CULVERTS, CUTTING DETAILS (STRAIGHT WINGS) (INCL 706.35)
	703.36A	CONCRETE BOX CULVERTS, CUTTING DETAILS (FLARED WINGS) (INCL 706.35)
	703.50H	CONCRETE DOUBLE BOX STRUCTURE-SQUARE (INCL 706.35)
	703.51G	CONCRETE DOUBLE BOX STRUCTURE-SKEWED (INCL 706.35)
	703.52D	CONCRETE DOUBLE BOX STRUCTURE-CUT SECTIONS (INCL 706.35)
	703.54E	DOUBLE BOX STRUCTURE REINFORCEMENT-H2O OR HS20 LOADING (8 SHEETS)
	703.55E	CONCRETE DOUBLE BOX STRUCTURE (FLARED WINGS) SQUARE (INCL 706.35)
	703.56E	CONCRETE DOUBLE BOX STRUCTURE (FLARED WINGS) SKEWED (INCL 706.35)
	703.60C	CONCRETE BOX STRUCTURE-PIPE INLET
	703.70D	CONCRETE TRIPLE BOX STRUCTURE-SQUARE (2 SHEETS) (INCL 706.35)
	703.71D	CONCRETE TRIPLE BOX STRUCTURE-SKEWED (2 SHEETS) (INCL 706.35)
	703.72D	CONCRETE TRIPLE BOX STRUCTURE-(FLARED WINGS) (SQUARE) (2 SHEETS) (INCL 706.35)
	703.73D	CONCRETE TRIPLE BOX STRUCTURE-(FLARED WINGS) (SKEWED) (2 SHEETS) (INCL 706.35)
	703.74D	CONCRETE TRIPLE BOX STRUCTURE-CUT SECTIONS (INCL 706.35)
	703.76B	CONCRETE TRIPLE BOX STRUCTURE REINFORCEMENT-H2O OR HS20 LOADING (5 SHEETS)
	706.30E	REINFORCING BAR SUPPORTS
	706.35E	BAR SUPPORTS FOR CONCRETE REINFORCEMENT
	712.40E	STEEL DAMS FOR BRIDGES (6" CHANNEL)
	726.31C	METAL CURTAIN WALL AND METAL INLETS
	726.30C	CULVERT INSTALLATION METHODS
	731.00S	PRECAST MANHOLES (ALSO INCL 614.30)
	731.10K	PRECAST DROP INLETS (4 SHTS) (ALSO INCL 614.30 & 614.10)

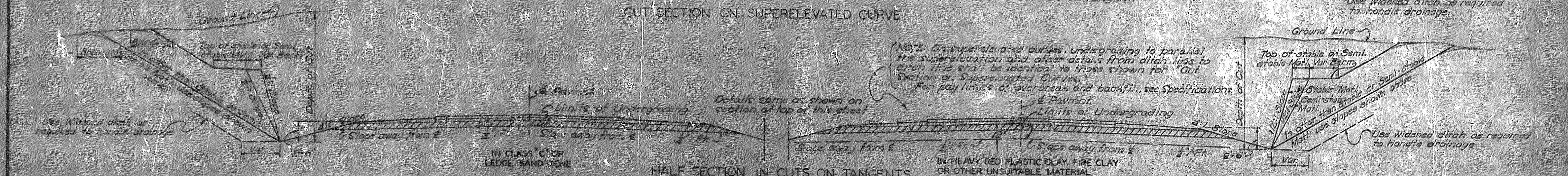
✓	NO.	DESCRIPTION
	732.00L	FLARED END SECTION (2 SHEETS)
	732.10	SAFETY SLOPE END SECTIONS (2 SHEETS) *
	806.02A	STAPLE PLACEMENT FOR PLASTIC NETTING
		HIGHWAY LIGHTING
	901.00P	POLES & APPURTENANCES-30' (3 SHEETS)
	901.01U	POLES & APPURTENANCES-45' (3 SHEETS)
	901.05A	CONTROL PANEL CABINET DETAILS (2 SHEETS) (SEE NOTE)
	901.12C	POLE MOUNT CONT STA-SECONDARY SERV-480 V MULTI CIR (NOT METERED)
	901.15E	POLE MOUNT CONT STA-SEC SERV-120,240, & 480 V MULTI CIR
	901.16D	POLE MOUNT CONT STA-SEC SERV-480 V MULTI CIR (METERED)
	901.18D	POLE MOUNT CONT STA-SEC SERV-120/240 V MULTI CIR
	901.19D	POLE MOUNT CONT STA-SEC SERV-240 V MULTI CIR (NOT METERED)
	901.20D	POLE MOUNT CONT STA-SEC SERV-120/240 V MULTI CIR (SIG METERED)
	901.22E	POLE MOUNT CONT STA-SEC SERV-120/240 & 480 V MULTI CIR (BOTH METERED)
	901.23E	POLE MOUNT CONT STA-SEC SERV-240 V MULTI CIR (METERED)
	901.24D	POLE MOUNT CONT STA-SEC SERV-240 V MULTI CIR (LIGHTS & SIGNALS-BOTH METERED)
	901.25D	BASE MOUNT CONT STA-SEC SERV-120/240 V MULTI CIR
		NOTE: ALSO INCLUDE 901.05 WITH 901.12 THROUGH 901.25 EXCEPT 901.18
		TRAFFIC SIGNALS
	902.00F	SIGNAL HEADS, LENSES AND MOUNTING
✓	902.10J	PULL BOXES, CONTROLLERS, COND LOCATION
	902.15D	POWER SUPPLY ASSEMBLY
	902.21B	TELEPHONE INTERCONNECT
	902.30H	CONCRETE BASES *
	902.40J	TUBULAR STEEL POST
	902.50F	DETECTORS
	902.60F	SPAN WIRE DETAILS-STEEL POST
	902.70D	SPAN WIRE DETAILS-WOOD POLE
	902.80A	TRAFFIC SIGNAL SYMBOLS
		HIGHWAY SIGNING
✓	903.01C	ALPHABETS (2 SHEETS)
	903.02Y	HIGHWAY SIGNING (7 SHEETS)
	903.03AP	SIGN MOUNTING DETAILS (5 SHEETS)
	903.04D	WEIGH STATION SIGNING
	903.05C	TUBULAR SPAN SUPPORT-ONE TUBE, TYPE S
	903.06C	TUBULAR SPAN SUPPORT-TWO TUBE, TYPE S
	903.07C	TUBULAR CANTILEVER SUPPORTS, TYPE C
	903.08C	TUBULAR BUTTERFLY SUPPORTS, TYPE B
	903.09D	LIGHTING SUPPORT BRACKET *
	903.10T	SIGN TRUSSES-OVERHEAD ALUMINUM (8 SHEETS) (INCL 903.03)
	903.12N	SIGN TRUSSES-BUTTERFLY & CANTILEVER-STEEL (7 SHEETS) (INCL 903.03)
	903.60S	SIGN TRUSSES-OVERHEAD STEEL (7 SHEETS) (INCL 903.03)

NOTES:
PLANS FOR THIS PROJECT WERE DEVELOPED USING DRAWINGS FROM THIS INDEX

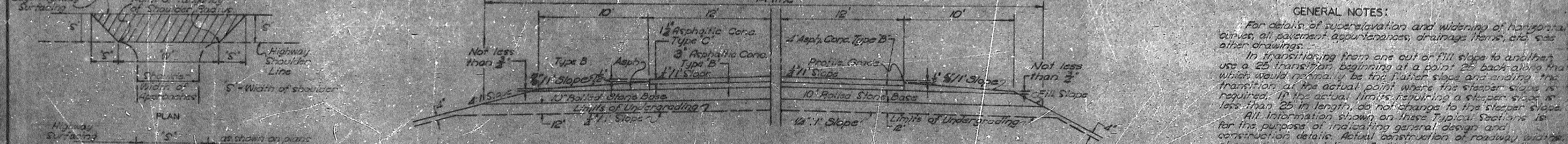
* REVISED OR NEW SINCE JAN. 1, 1992.



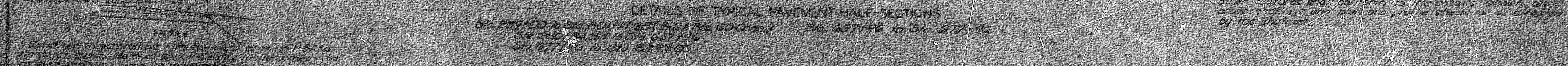
SECTION ON TANGENT



CUT SECTION ON SUPERELEVATED CURVE

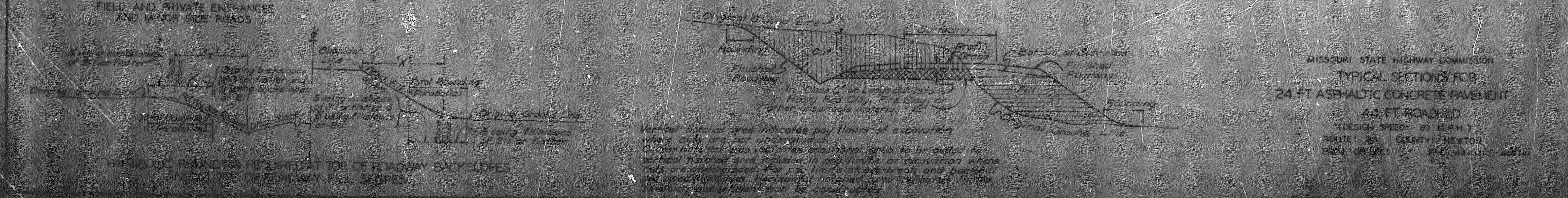


HALF SECTION IN CUTS ON TANGENTS



DETAILS OF TYPICAL PAVEMENT HALF-SECTIONS

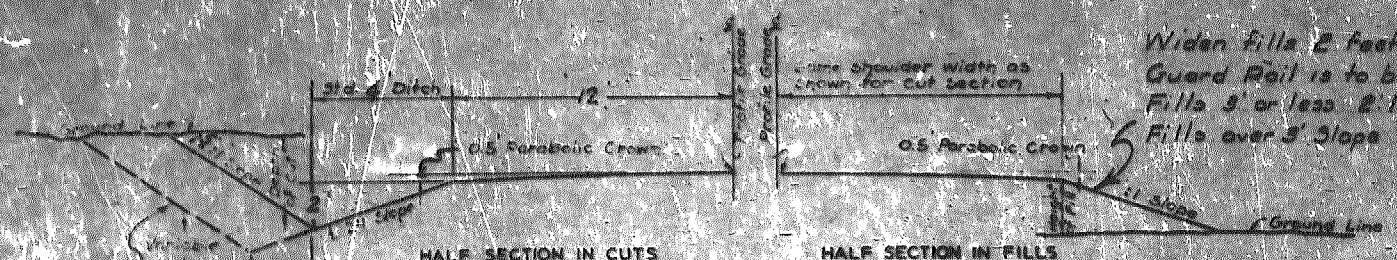
Sta. 289+00 to Sta. 301+44.65 (Exist. Sta. 60 Conn.) Sta. 657+96 to Sta. 677+96
Sta. 289+00 to Sta. 301+44.65 (Exist. Sta. 60 Conn.) Sta. 657+96 to Sta. 677+96
Sta. 677+96 to Sta. 689+00



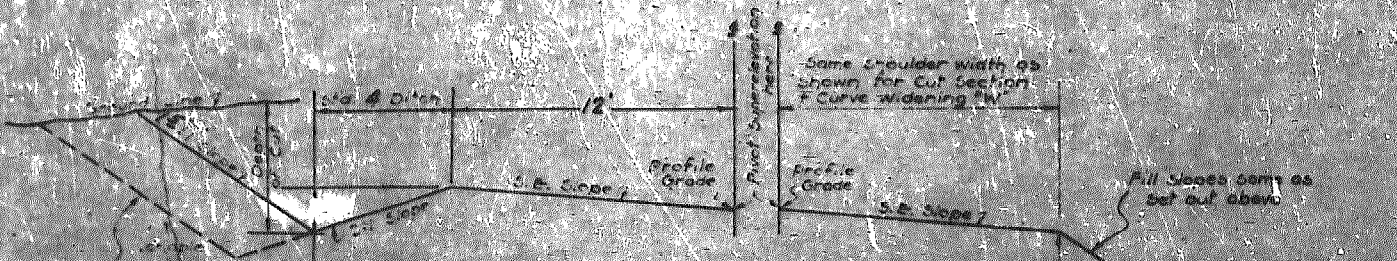
FIELD AND PRIVATE ENTRANCES AND MINOR SIDE ROADS

GENERAL NOTES:
For details of super-elevation and widening of horizontal curves, all pavement appurtenances, drainage items, etc. see other drawings.
In transitioning from one cut or fill slope to another, use a 25' transition, beginning at a point 25' back along the line which would normally be the flatter slope and ending the transition at the actual point where the steeper slope is required. If the actual limits requiring a steeper slope is less than 25' in length, do not change to the steeper slope.
All information shown on these typical sections is for the purpose of indicating general design and construction details. Actual construction of roadway widths, slopes, depths, and type of ditches, underdrains, cuts, and other features shall conform to the details shown on cross-sections and plan and profile sheets or as directed by the engineer.

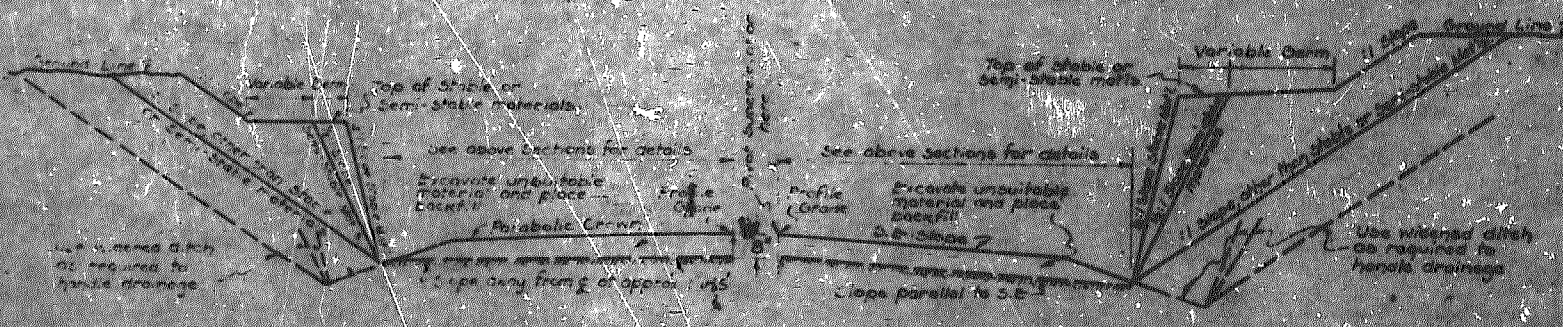
MISSOURI STATE HIGHWAY COMMISSION
TYPICAL SECTIONS FOR
24 FT. ASPHALTIC CONCRETE PAVEMENT
44 FT. ROADBED
(DESIGN SPEED 60 M.P.H.)
ROUTE 60 COUNTY NEWTON
PROJ. OR SEC. R.F.S. 444 (1) F-444 (1)



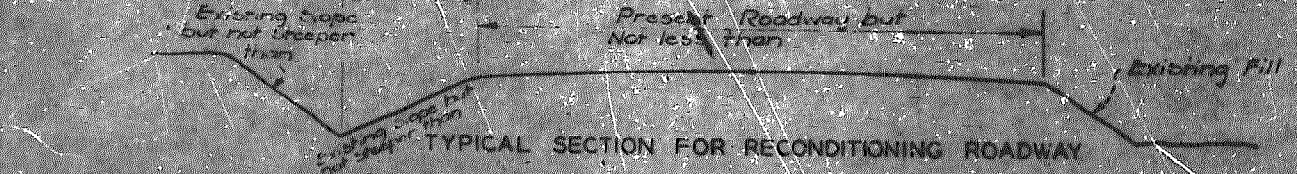
SECTIONS ON TANGENT



SECTIONS ON SUPERELEVATED CURVE



SECTIONS IN UNDERGRADED CUTS



TYPICAL SECTION FOR RECONDITIONING ROADWAY

GENERAL NOTES -

Machine Grading and Reconditioning Roadway shall be completed in accordance with these Typical Sections using the standard depth of ditch except as otherwise noted on Plan Sheets and as required to provide proper drainage. Covering of at least 1 foot will be required over all drainage structures located within Machine and Reconditioning Roadway sections.

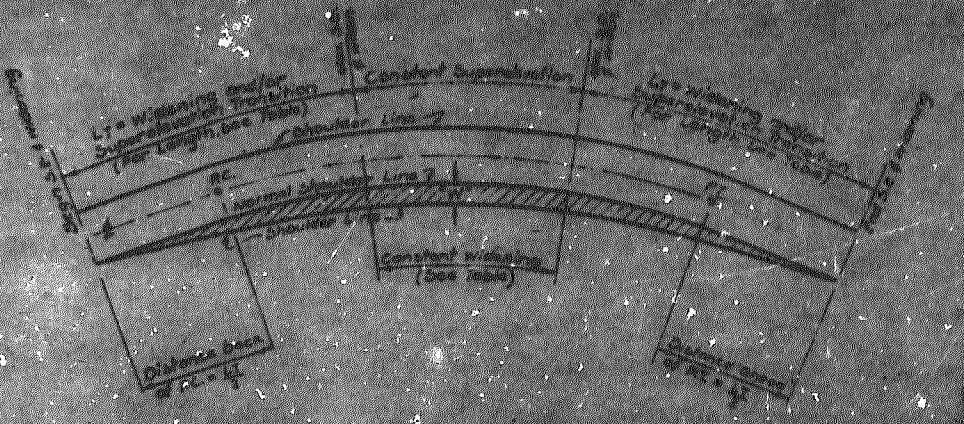
In transitioning from one slope to another use a 25 foot length of transition.

All information shown on these TYPICAL SECTIONS is for the purpose of indicating the required parabolic crown, tangent section, and general design and construction details. Actual construction of roadbed widths, slopes, depth and width of ditches, undergraded cuts and other features shall conform to the details shown on CROSS SECTIONS and PLAN & PROFILE SHEETS or as directed by the Engineer.

Hand finishing of all slopes of cuts and fills will not be required. Machine finishing to a smooth plane will be considered satisfactory.

Unless otherwise shown on the plans, the roadway ditch at all cross road culverts shall be widened to five (5) feet at the inlet with a 5:1 (50) foot transition to the standard roadway ditch in "Machine Grading" limits. The cost of constructing Ditch Blocks in "Machine Grading" limits is to be included in the contract unit price for "Machine Grading".

SCHEME OF WIDENING AND SUPERELEVATION TRANSITION FINAL PLANS



SUPERELEVATION AND WIDENING DATA

Degree of Curve Dc	Design Speeds									
	30 MPH		35 MPH		40 MPH		45 MPH		50 MPH	
	S	W	S	W	S	W	S	W	S	W
0° to 1°	0	0	0	0	0	0	0	0	0	0
1° to 2°	0	0	0	0	0	0	0	0	0	0
2° to 3°	0	0	0	0	0	0	0	0	0	0
3° to 4°	0	0	0	0	0	0	0	0	0	0
4° to 5°	0	0	0	0	0	0	0	0	0	0
5° to 6°	0	0	0	0	0	0	0	0	0	0
6° to 7°	0	0	0	0	0	0	0	0	0	0
7° to 8°	0	0	0	0	0	0	0	0	0	0
8° to 9°	0	0	0	0	0	0	0	0	0	0
9° to 10°	0	0	0	0	0	0	0	0	0	0
10° to 12°	0	0	0	0	0	0	0	0	0	0
12° to 14°	0	0	0	0	0	0	0	0	0	0
14° to 16°	0	0	0	0	0	0	0	0	0	0
16° to 18°	0	0	0	0	0	0	0	0	0	0
18° to 20°	0	0	0	0	0	0	0	0	0	0
20° to 22°	0	0	0	0	0	0	0	0	0	0
22° to 24°	0	0	0	0	0	0	0	0	0	0
24° to 26°	0	0	0	0	0	0	0	0	0	0
26° to 28°	0	0	0	0	0	0	0	0	0	0
28° to 30°	0	0	0	0	0	0	0	0	0	0
30° to 32°	0	0	0	0	0	0	0	0	0	0
32° to 34°	0	0	0	0	0	0	0	0	0	0
34° to 36°	0	0	0	0	0	0	0	0	0	0
36° to 38°	0	0	0	0	0	0	0	0	0	0
38° to 40°	0	0	0	0	0	0	0	0	0	0
40° to 42°	0	0	0	0	0	0	0	0	0	0
42° to 44°	0	0	0	0	0	0	0	0	0	0
44° to 46°	0	0	0	0	0	0	0	0	0	0
46° to 48°	0	0	0	0	0	0	0	0	0	0
48° to 50°	0	0	0	0	0	0	0	0	0	0
50° to 52°	0	0	0	0	0	0	0	0	0	0
52° to 54°	0	0	0	0	0	0	0	0	0	0
54° to 56°	0	0	0	0	0	0	0	0	0	0
56° to 58°	0	0	0	0	0	0	0	0	0	0
58° to 60°	0	0	0	0	0	0	0	0	0	0
60° to 62°	0	0	0	0	0	0	0	0	0	0
62° to 64°	0	0	0	0	0	0	0	0	0	0
64° to 66°	0	0	0	0	0	0	0	0	0	0
66° to 68°	0	0	0	0	0	0	0	0	0	0
68° to 70°	0	0	0	0	0	0	0	0	0	0
70° to 72°	0	0	0	0	0	0	0	0	0	0
72° to 74°	0	0	0	0	0	0	0	0	0	0
74° to 76°	0	0	0	0	0	0	0	0	0	0
76° to 78°	0	0	0	0	0	0	0	0	0	0
78° to 80°	0	0	0	0	0	0	0	0	0	0
80° to 82°	0	0	0	0	0	0	0	0	0	0
82° to 84°	0	0	0	0	0	0	0	0	0	0
84° to 86°	0	0	0	0	0	0	0	0	0	0
86° to 88°	0	0	0	0	0	0	0	0	0	0
88° to 90°	0	0	0	0	0	0	0	0	0	0

FOR SIDE ROADS

Rt 6 Lt Sta 316+51.5
 Rt 6 Lt Sta 343+40.8
 Lt Sta 370+47
 Rt 6 Lt Sta 397+41
 Rt 6 Lt Sta 423+87.4
 Rt 6 Lt Sta 476+77.5
 Rt 6 Lt Sta 508+86
 Rt 6 Lt Sta 562+08
 Rt 6 Lt Sta 615+25
 150 Lt Sta 705-70.5
 150 Lt Sta 776-78.1
 200 Rt Sta 805-81.7
 20 Rt Sta 84+00 Rte 6
 34 Lt Sta 855+80

NOTE:

Use 35 Widening & LT as listed on Plans.

MISSOURI STATE HIGHWAY COMMISSION
TYPICAL SECTIONS

24 FT. EARTH
FOR
SUPPLEMENTARY ROADS

MEMPHIS
TENTON

MISSOURI STATE HIGHWAY COMMISSION

SUMMARY OF QUANTITIES

TYPE GRADED EARTH, CHALKETS, BRIDGE & ASPHALTIC CONC. PAVEMENT

FINAL PLANS

UNIT NO. & REF. No.	GRADE	PROJECT	SCHOOL YEAR	UNIT No.	TOTAL SHEETS
5	MO.	F-444(6)		2-A	64
UNIT No.	COUNT				
7	NEWTON			COUNT	APC No.

EXCAVATION

Station	Class A	Class C	Comp. Cat	Subgr	End Orchard	Remarks
668100						
668100	11791		1954	✓	875	
717480	26195		5800	✓	2190	
723482	33240		721	✓	1100	
758192	Pos. F. 12	141(6)				
776100	33005	✓	5694	✓	1455	✓
780119	44263	✓	5608	✓	1570	"End Orchard C"
825175	87761	✓	32982	✓	5128	✓
847100	176327	✓	99	✓	3723	✓
					4594	✓
					4906	✓
Subtotal	414263	✓	10836	✓	20421	✓
Subtotal	1625				12976	✓
Pos. F. 12					26503	✓
					222078	✓
					54091	✓
TOTALS	416964	✓	10836	✓	20421	✓
					514054	✓
					26503	✓

LENGTH OF PROJECT

End of Project	Station	457+00.00
Beginning of Project	Station	448+00.00
Apparent Length		7200.00
Equations and Exceptions:		
Proj. E 12 444(3) Sta 772.121 & Sta 773.121	- 900.00	
Sta 840.120 to Sta 840.121	- 3.65	
Total Corrections		- 903.65
Net Length of Project		7293.65
State Length		3.65
Federal Length		3.65

GENERAL SUMMARY

ITEM NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	NO. UNITS PER 100 YD.
1-A	Clearing	Acres	62.4	
1-B	Grubbing	Acres	17.9	
1-D	Class A Excavation	CY	818884	
1-E	Class C Excavation	CY	10884	
1-F	Class B Excavation for Structures	CY	8184	
1-K	Compacting Embankments	CY	816064	
1-L	Compacting in Cuts	CY	80421	
1-N	Overhaul	Mt. Yd.	84609	
1-Z	Removal (18) Misc. Items	L. Sum	1	
1-CD	Grouted Rock Fill Surface	Sq. Yd.	768	
1-DB	Placing Rock Blanket	CY	788	
1-D	Crushed Stone Surface	CY	712	
16-B	Class B Concrete (Box Culverts)	CY	1884	
16-B	Class B Concrete (Other than Box Culi.)	CY	8487	
18-C	18" Reinf. Conc. Culi. Pim. (H.L.S.E.)	L.F.	80	
18-C	18" " " " " " "	L.F.	84	
18-C	18" " " " " " "	L.F.	816	
18-C	24" " " " " " "	L.F.	91	
18-C	30" " " " " " "	L.F.	86	
18-C	36" " " " " " "	L.F.	60	
18-C	48" " " " " " "	L.F.	78	
18-E	60" Conc. Metal Culi. Pim.	L.F.	64	
18-C	18" Reinf. Conc. Culi. Pim.	L.F.	198	
18-C	18" " " " " " "	L.F.	178	
18-C	24" " " " " " "	L.F.	873	
18-C	30" " " " " " "	L.F.	809	
18-C	36" " " " " " "	L.F.	91	
18-CA	18" Reinf. Conc. Culi. Pim. (Imp. Trunk Mthls)	L.F.	867	
18A-A	Metal Arch Culverts (Type B-7)	L.F.	60	
18A-A	Metal Arch Culverts (Type B-7)	L.F.	88	
18-X	4" Cast Iron Pipe	L.F.	177	
19-A	Reinforcing Steel	Lb.	64780	
20-A	Class A Type 1 Underdrain	L.F.	800	
21-A	Guard Rail (Type B)	L.F.	1876	
22-A	Barrieraas	Each	0	
23-C	Right of Way Markers	Each	0	
23-D	Drain Markers	Each	16	
24-A	Removal of (18) Exist. Strueth (Cuts)	L. Sum	1	
26-C	Manhole Frame & Cover (8")	Each	8	
27-A	Fertilizing and Mulching	Acres	80.6	

Box Culverts

Station	Location	Standard	Size	Shew	Length	C.I.B	Reinf.	C.I.B.Esc.	Fill	W/Slope	Remarks
7237ca	6	C-8.0	8'x6'	30' L.A	28'	50.3	2240	59	7'-8'-9'	2:1	Build in Section, West 1/4
7239ca	6	C-8.0	8'x6'	-	75'	26.6	2366	79	5'-6'-6'	15:1	" " " " " "
TOTALS						123.4	18660	138			-

CROSS ROAD PIPE CULVERT (R.C.P.)

Station	15"	10"	5"	30"	30"	Imp. or Exp. or C.I.C.	Cl. or H. or C.I.C.	Cl. or H. or C.I.C.	Range	Stem	Remarks
661183	115									2120 L.A.	In Fl. 71. Mol. Ditch
662668	86									20 L.A.	
667100			75								
7001496				187							20 Mol. L. R. Mol. B.
716170		85									
727180				78							
706166			88								
817100					91						
812160			117								
803148						289	55.5	20-280 PS	180	100	
821100						338	68	20-280 PS	160	100	
888185		95						15-280 PS	140	100	

CONCRETE MANHOLES

Station	Location	Std	Sink	D	C/B	Reinf	Notes	C/S Re-Location	Remarks
10/24	5' E of 50' 20" 11400	Spec	4' x 6'	10'-4 1/4"	2.5	1030	1	28.5' ¹⁰ 48'	Photo Main Channel
10/25	25' E of 50' 20" 11400	Spec	4' x 6'	15'-11 1/2"	1.2	1210	1	27.0' ¹⁰ 103'	"
TOTALS					22.5	2000	2	25.0' ¹⁰ 172'	¹⁰ Incl C/S for 2 C/S

ENTRANCE - SIDE ROAD BRIDGE (C.S.P.)

[illegible]

GUARD RAIL

Station	to	Station	Side	Type	Lin. Ft.	Remarks
762160		766100	RI	A	450	Fill Over 20'
866100		866125	LI	A	25	" " " "
866100		866125	RI	A	25	" " " "
875160		877125	LI	A	175	" " " "
TOTAL					1375	

BARRICADES

— 4 —

ASPHALT CONCRETE PAVEMENT

ASPHALT CONCRETE PAYMENT			
4C-A Primer (N.C.O.)	Gal.	21618	
7-B Type B Asphaltic Concrete	Ton	14448	
7-C Type C Asphaltic Concrete	Ton	5190	

SEAL COAT (SHOULDER)

10A-A Aluminum Material (200-250 Pcs Each)	Gal.	10000
10A-C Cover Material (21-110 Gals Ea)	Ton	200

ROADWAY CONTINGENT ITEMS
F I L E N U M B E R

Test samples Asphaltic Conc.	Each	30	✓
Placing of Steel Guard Pipe (15 RSP)	LF	24	✓

REF ID: A66666 (P. 16 of 111)

BRIDGE C.A. RICHES (Dun. & A. 1912)			
1-C	Class 1 Excavation - for Structures	C.Y.	886.4
1-B	Class 2 Excavation for Structures	C.Y.	158.0
1-A	Class 3 Excavation for Structures	C.Y.	153.4
1-B	Class 2 Gravel (Substr.)	C.Y.	818.1
1-B	Fin. Stru. Steel (1.00 Ton)	Lb.	105,000
1-C	Steel Castings	Lb.	8812
1-A	Reinforcing Steel	Lb.	89,242
35-A	Paving	Sq. Yd.	96.4

CONTINGENT ITEMS

Drilling Test Notes L.F. B2 ✓

* Flaming 28" Galv coated Pipe (10") to 74113

Edward C. [illegible]

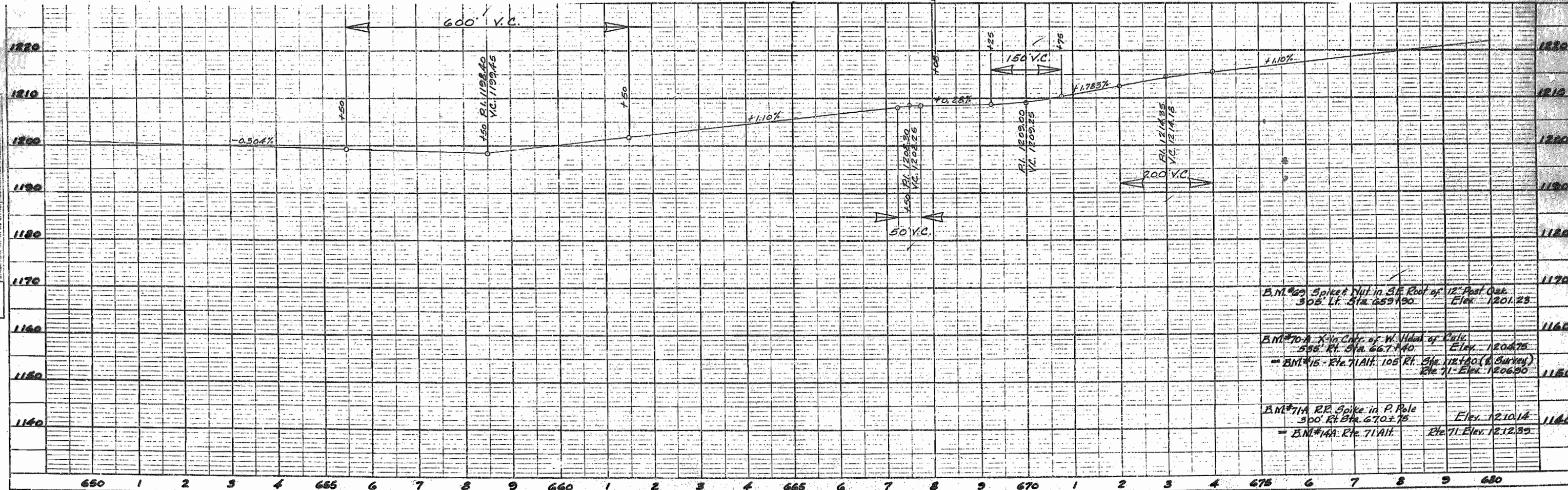
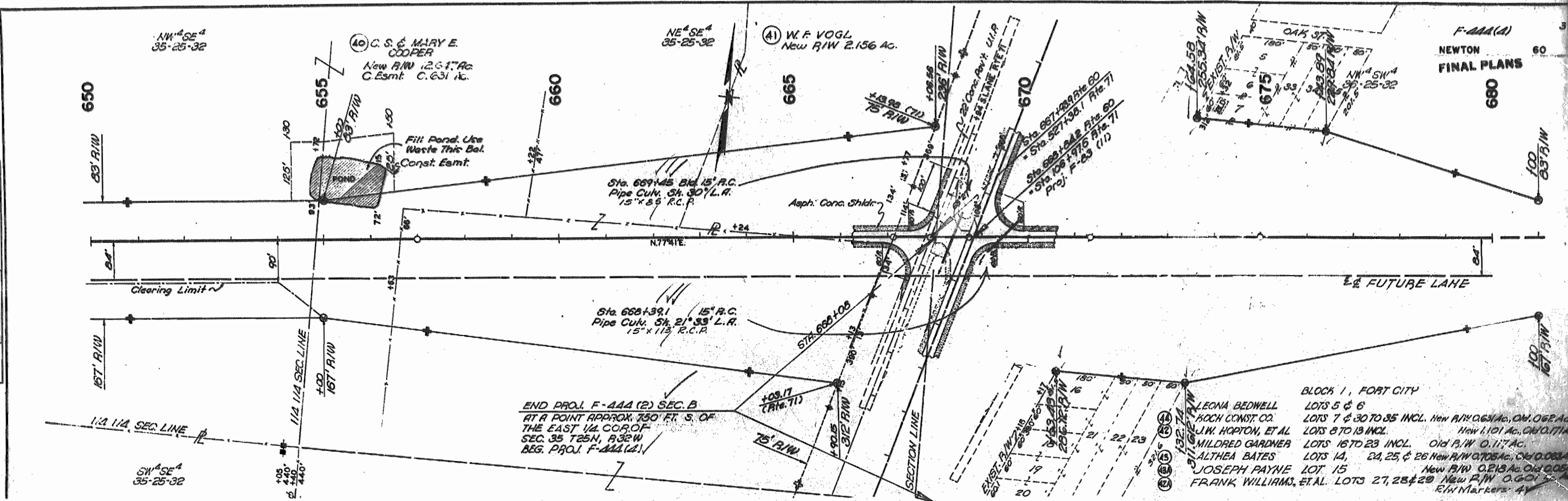
1990

100

100

PLAN	DATE
BY	
CHECKED	
APPROVED	

FILE	DATE
BY	
CHECKED	
APPROVED	





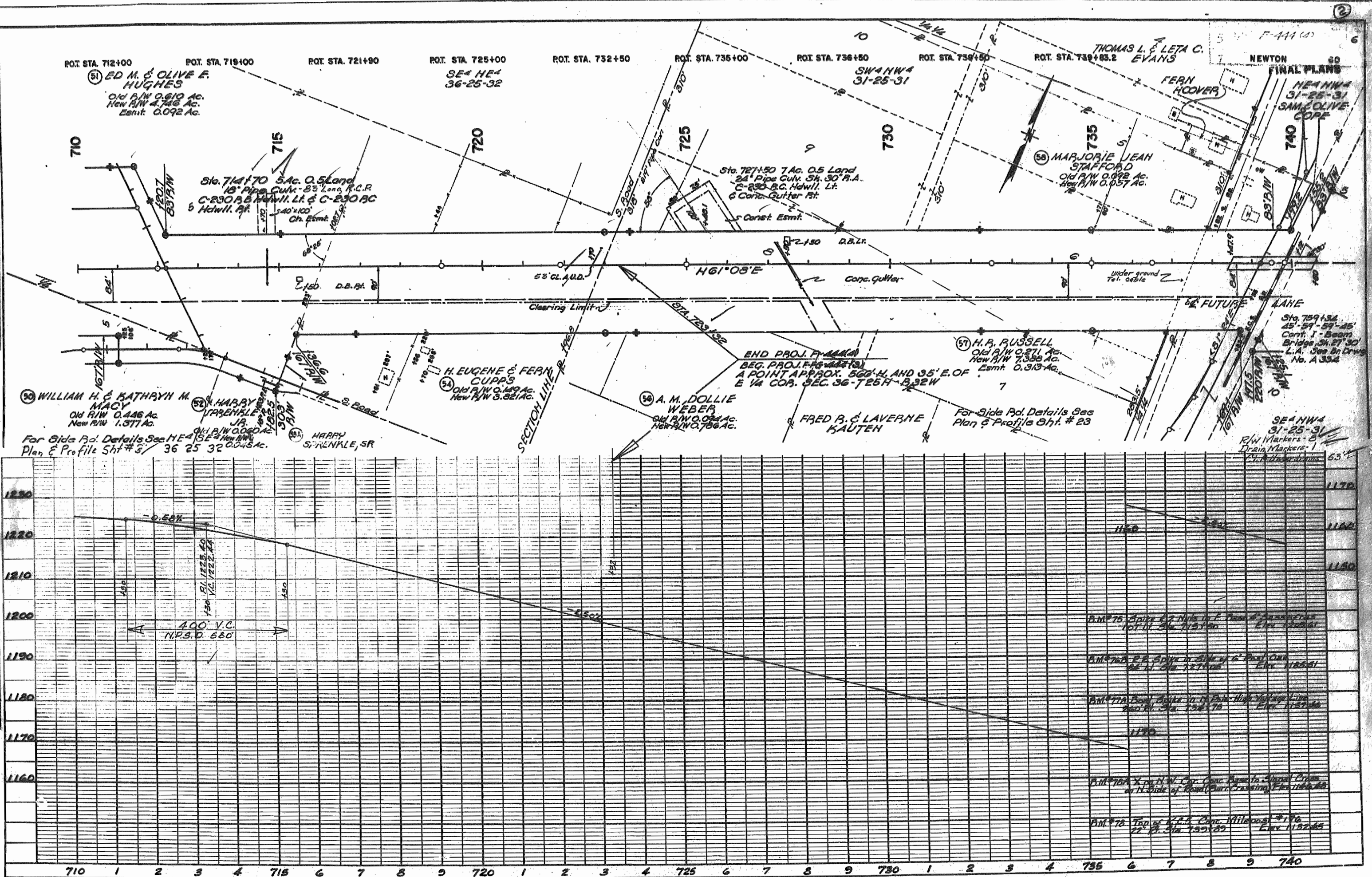
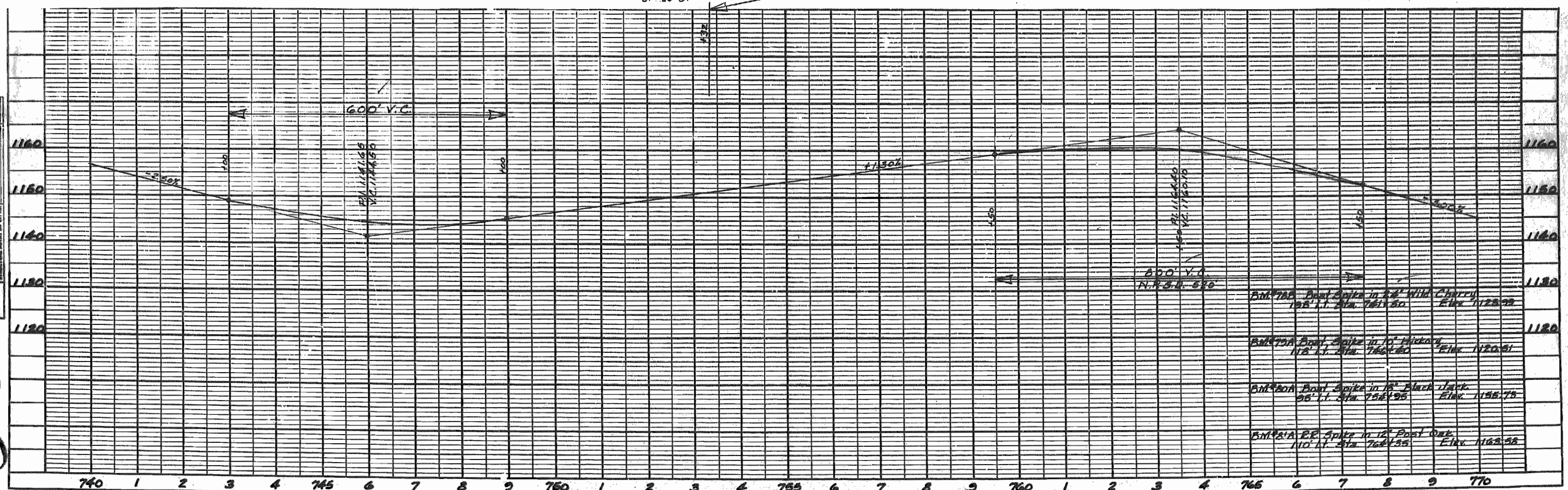
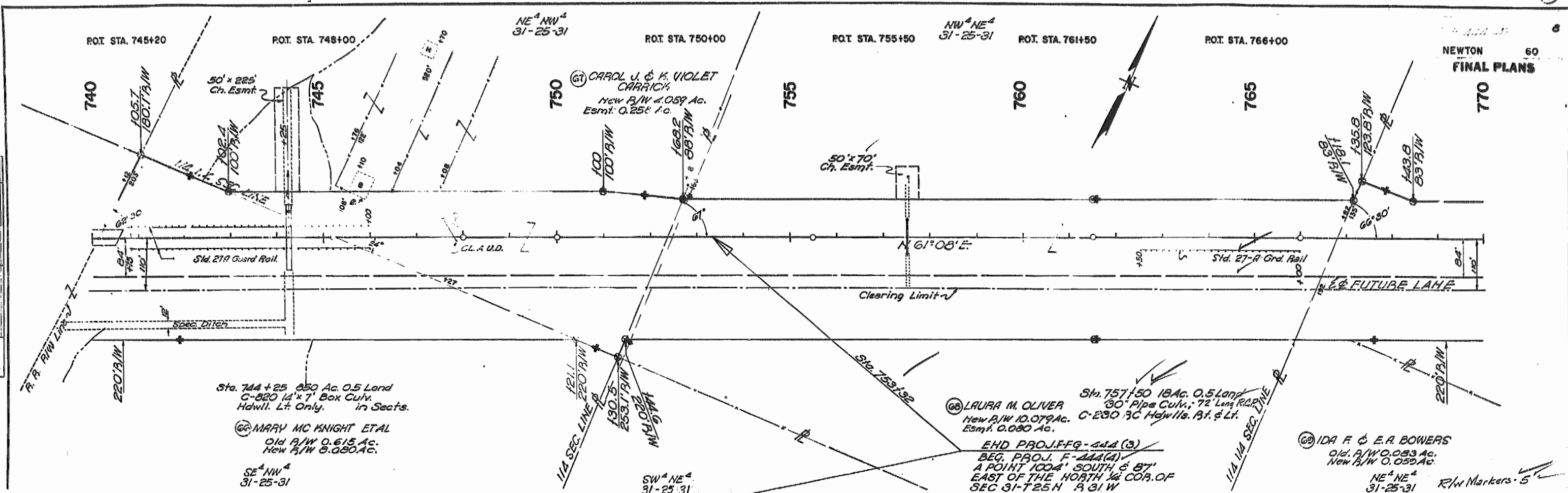
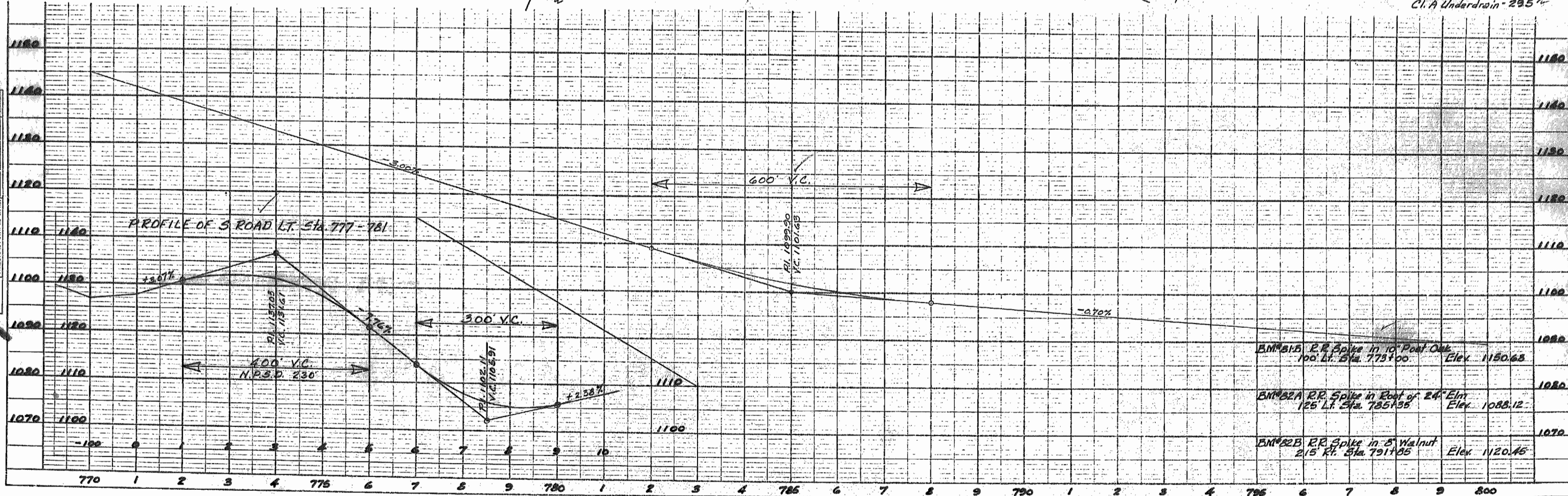
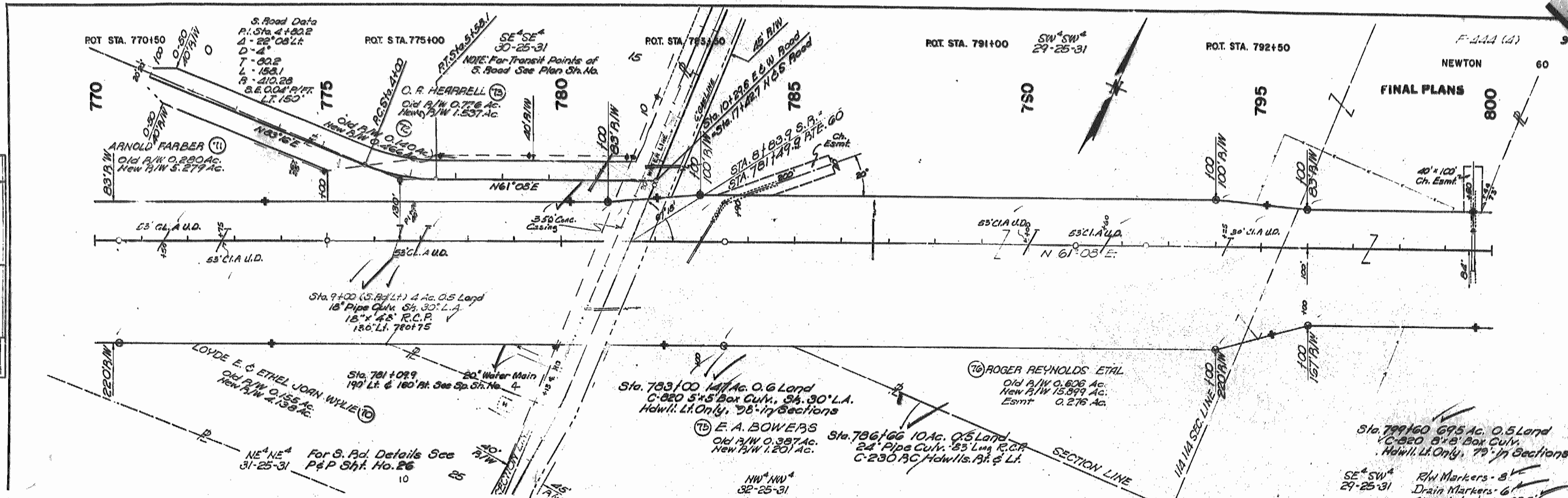


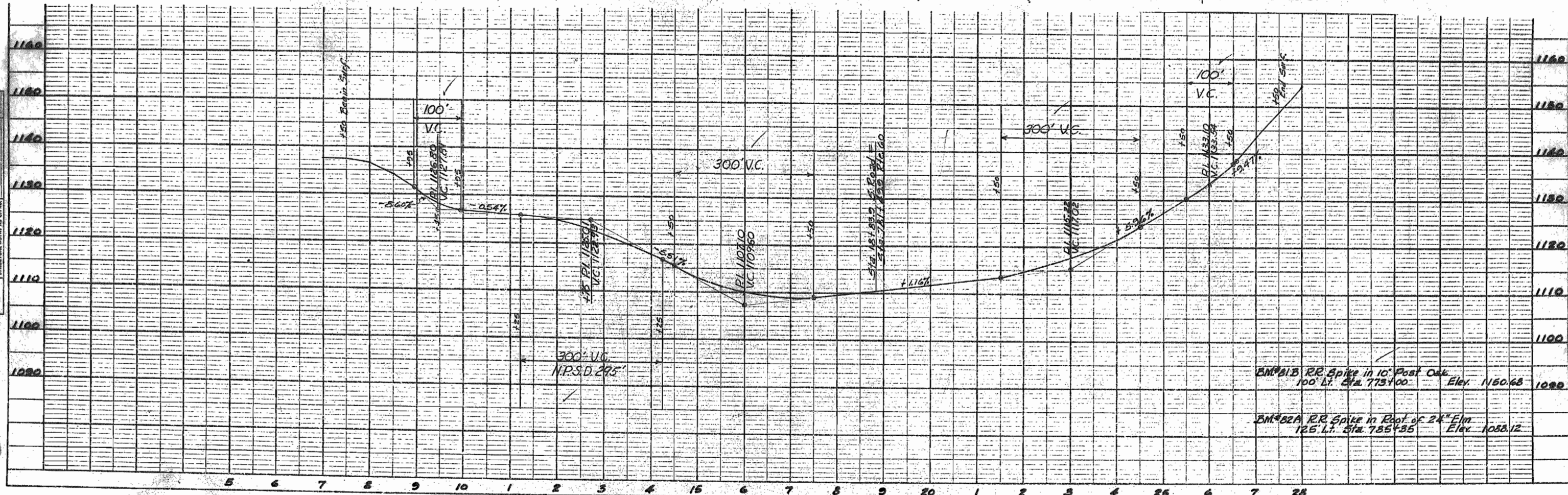
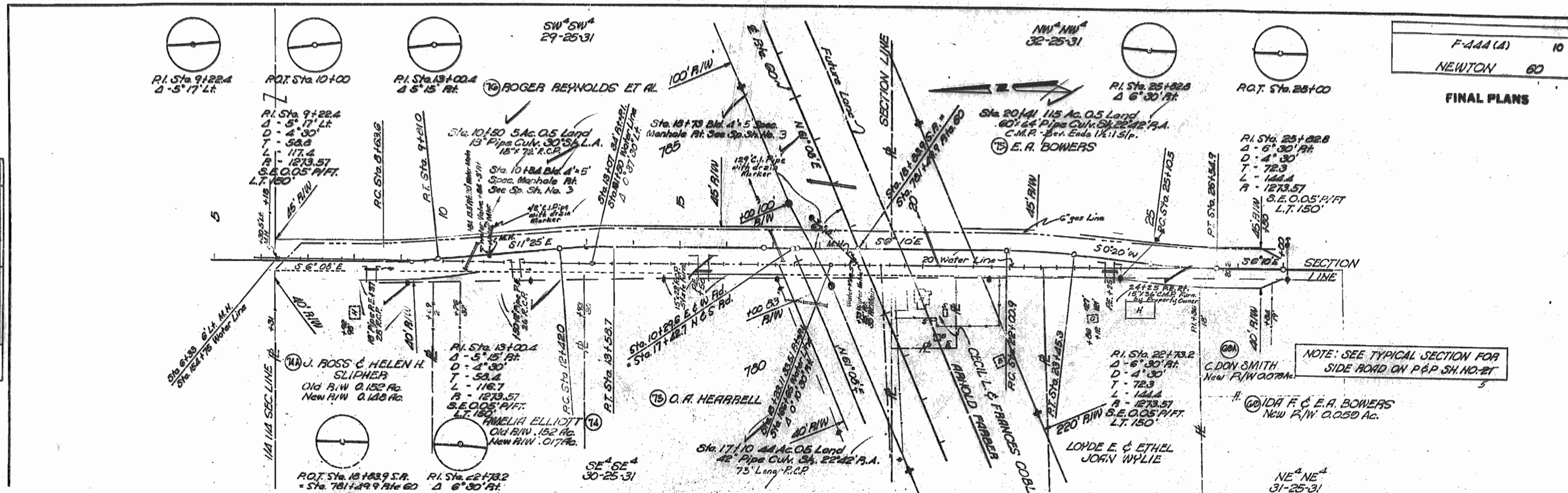
PLATE 1-PLAN-PROFILE C. P. & R. E. STANDARD
U. S. BLUE PRINT PAPER CO.-CHICAGO

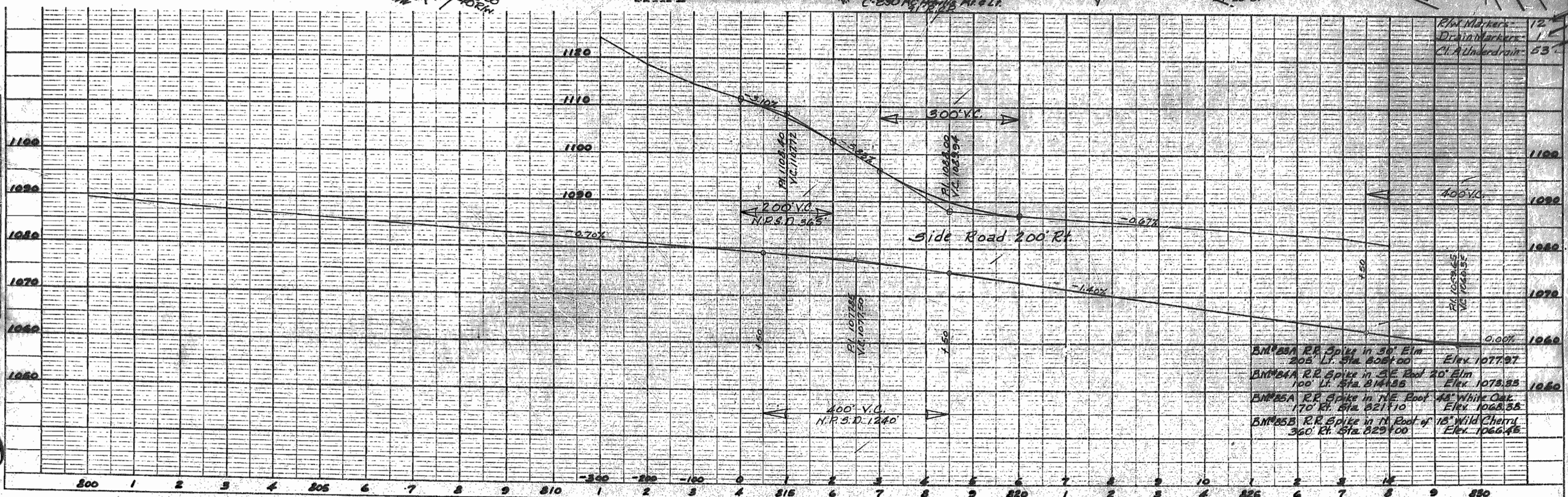
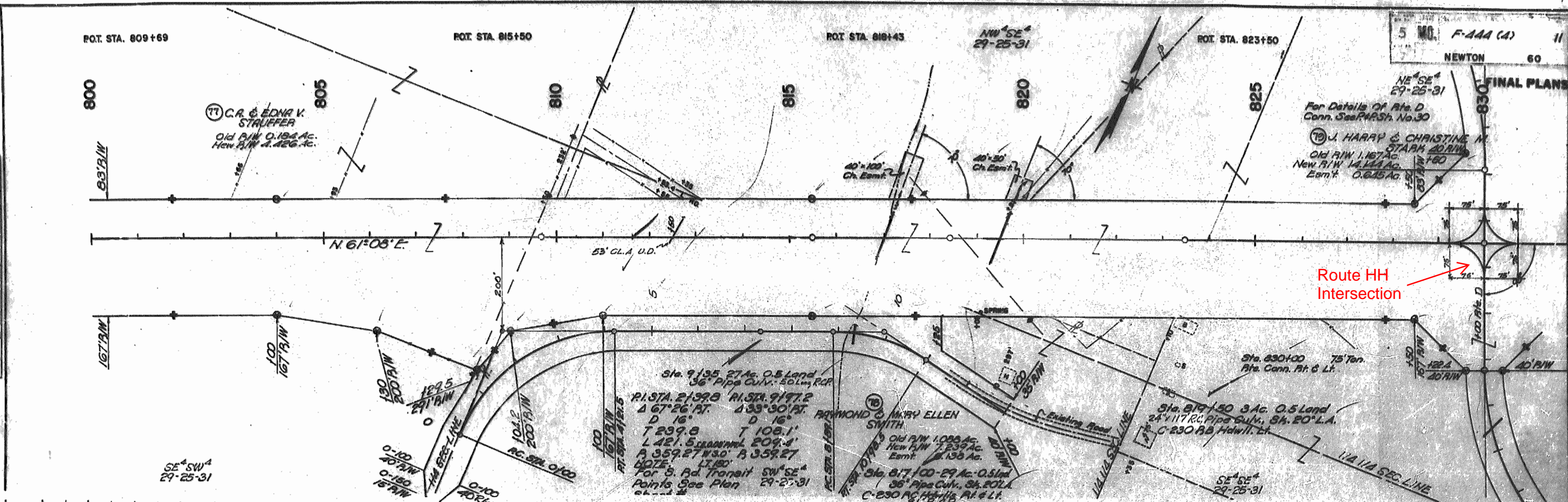


PLAN	DATE
BY	
CHECKED	
APPROVED	
REVISION	

DATE	BY
CHECKED	
APPROVED	
REVISION	







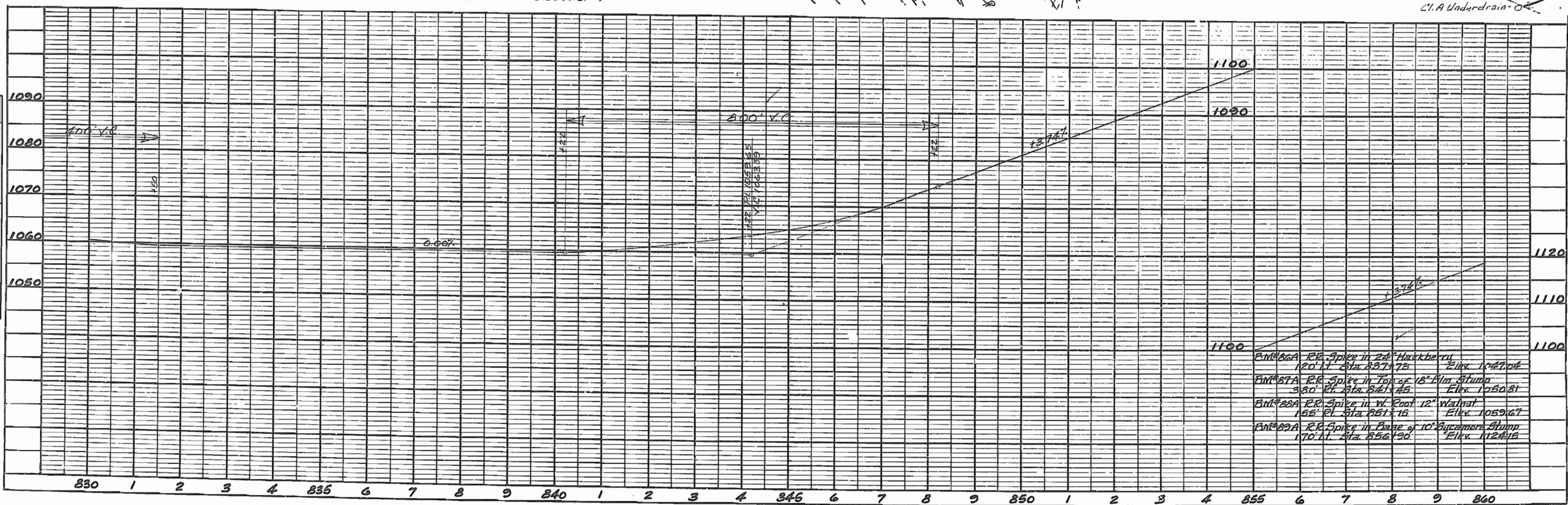
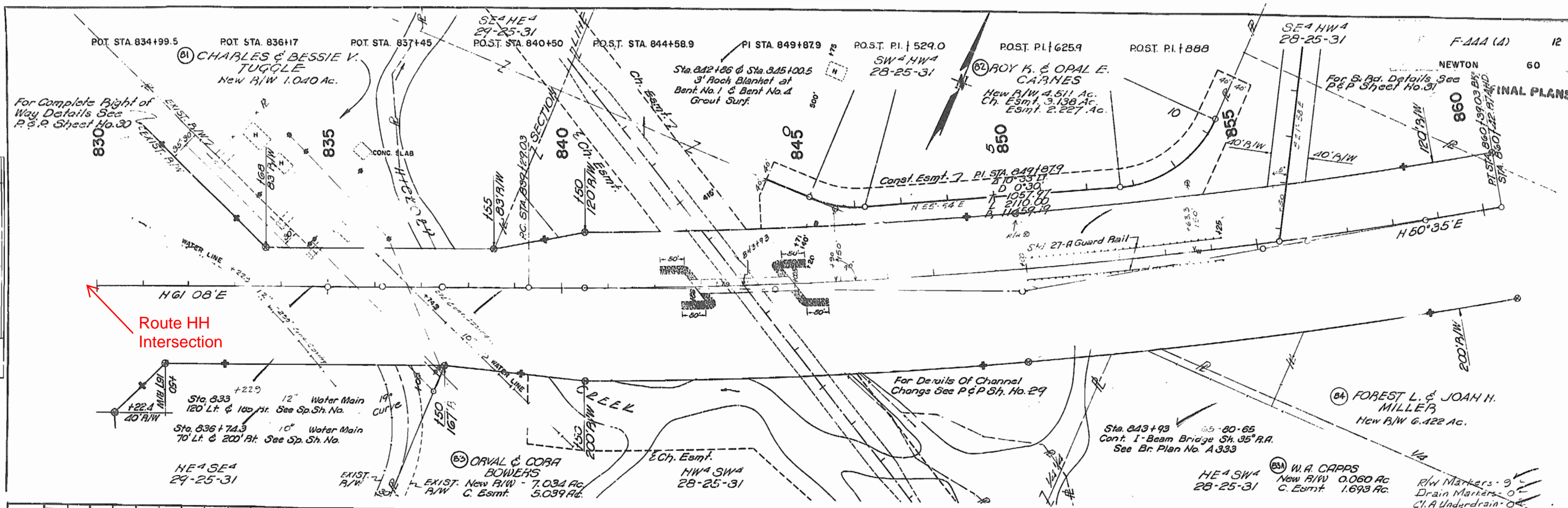


PLATE 1—PLAN-PROFILE O. P. R. & R. E. STANDARD
U. S. BLUE PRINT PAPER CO.—CHICAGO

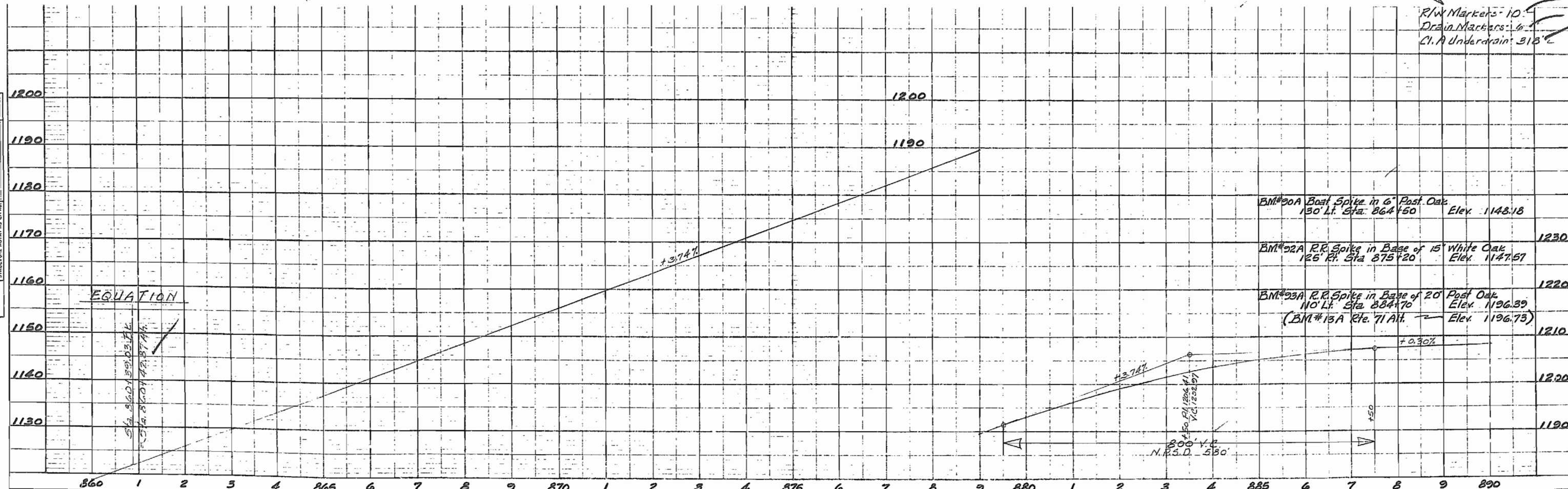
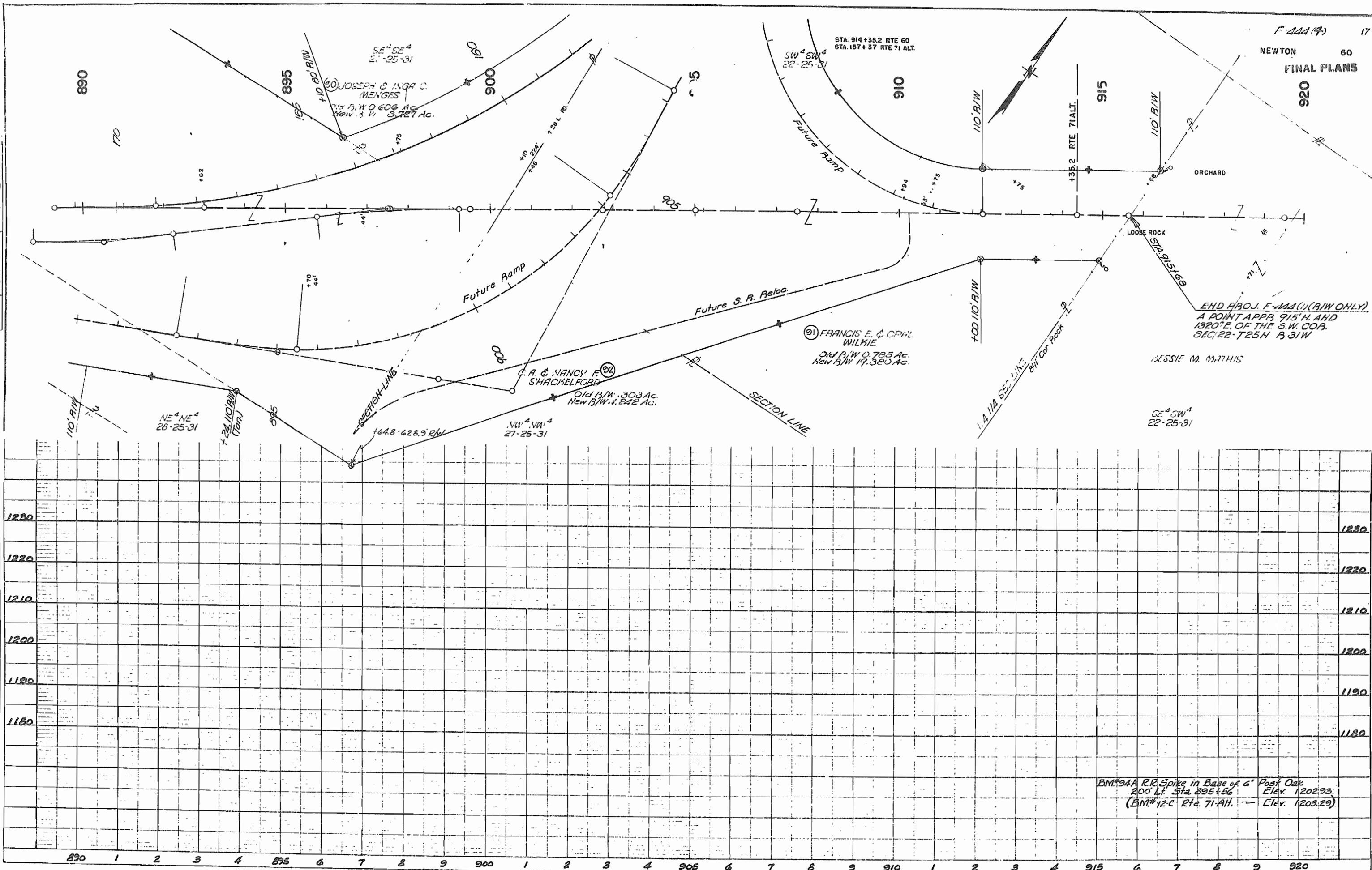
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PLATE 1: PLATE PROFILE DETERMINED FROM PLATE

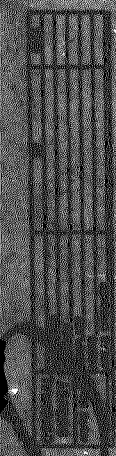
PLAN	DATE
REVISIONS	BY
NOTED	
ADJUSTED	
CHECKED	
BY	

PROFILE	DATE
REVISIONS	BY
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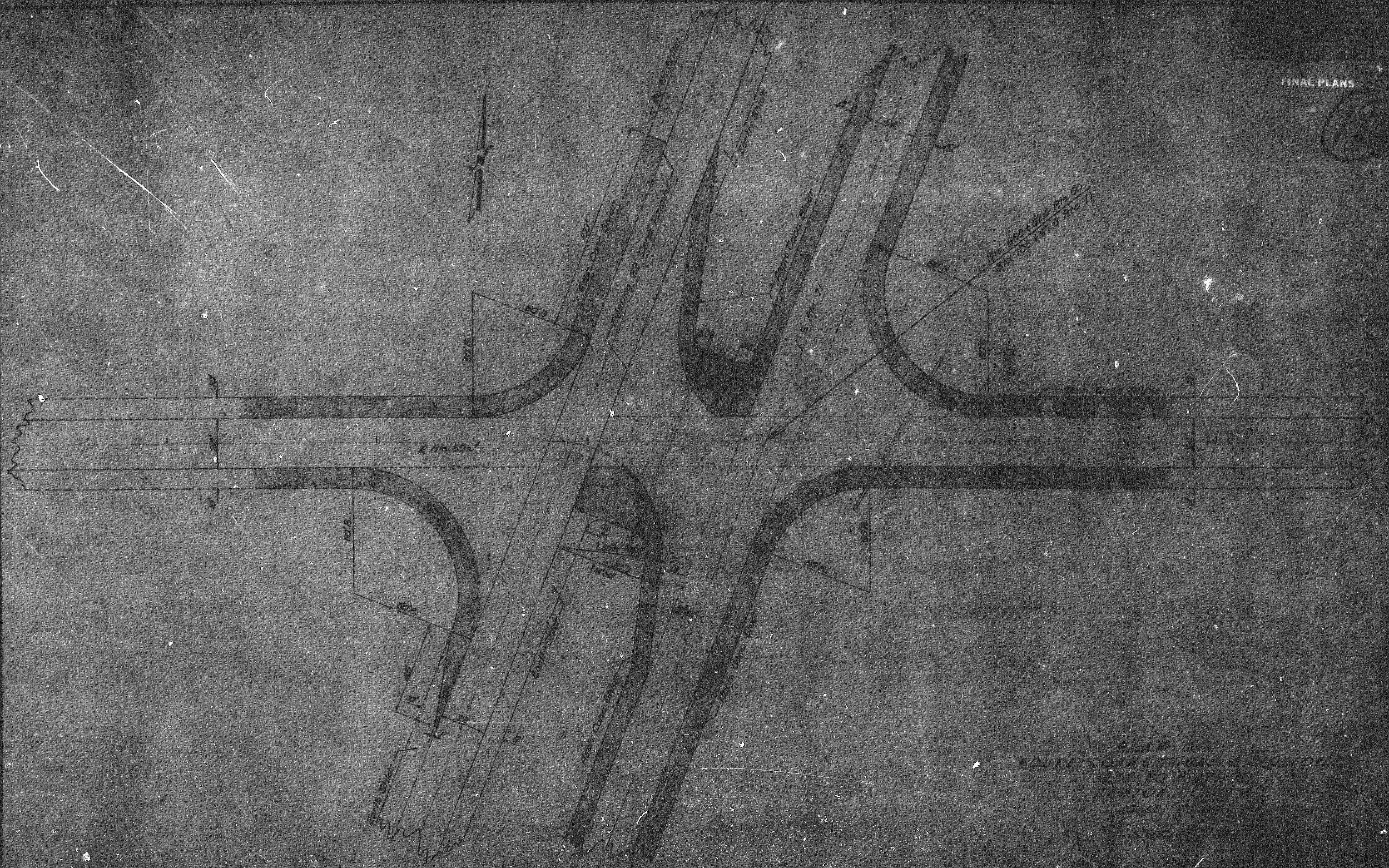


FINAL PLANS

18



5/16

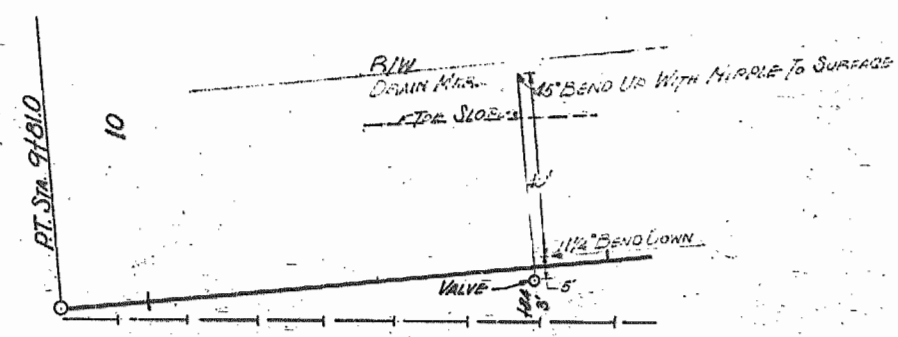


PLAN OF
ROUTE CORRECTION & IMPROVEMENT
RTE 60 & 71
HUNTER COUNTY
STATE OF TEXAS

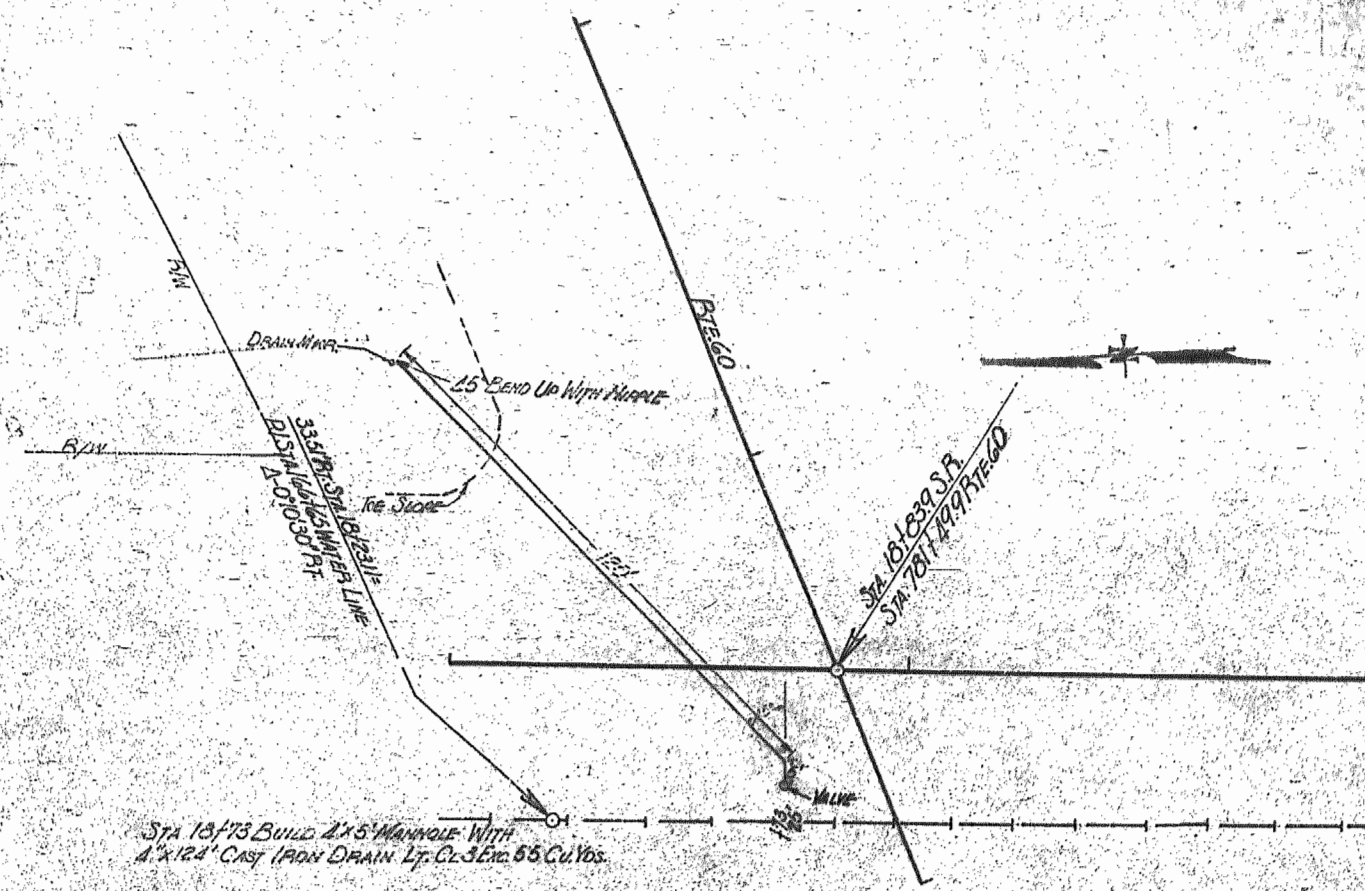
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PLAN	DATE	BY	CHKD
DESIGNED			
DRAWN			
CHECKED			
APPROVED			
NOTED			
REVISIONS			

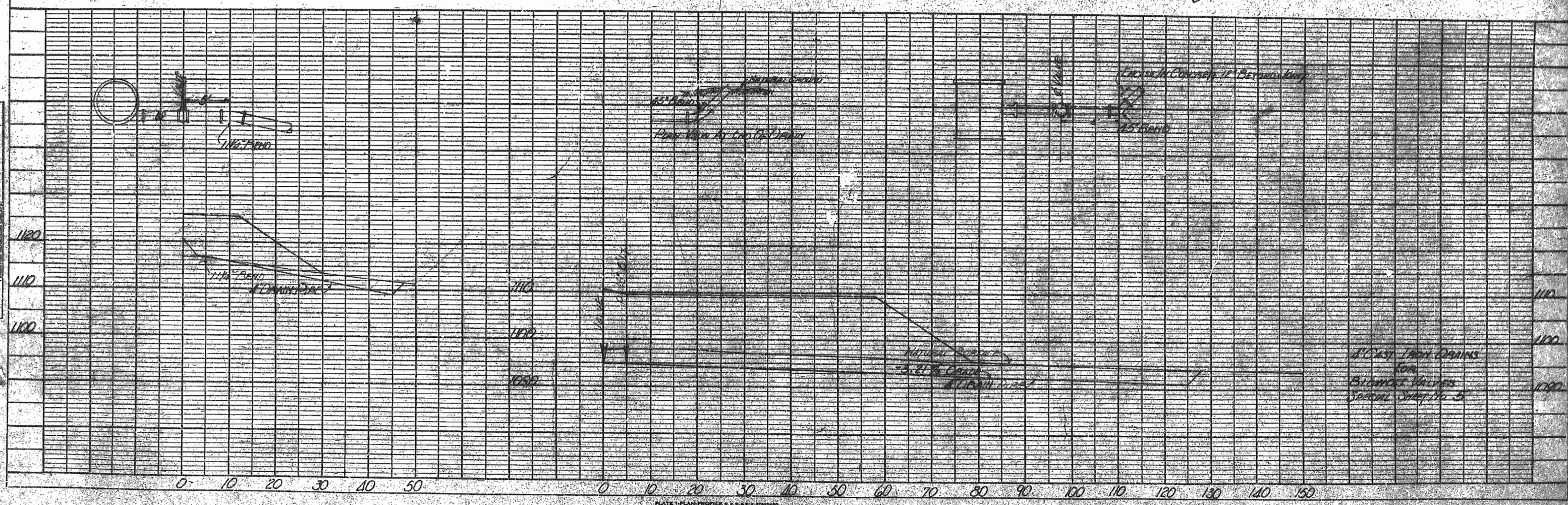
PROFILE	DATE	BY	CHKD
DESIGNED			
DRAWN			
CHECKED			
APPROVED			
NOTED			
REVISIONS			



STA 10+34 BUILD 2'x5' MANHOLE WITH
 4" x 46" CAST IRON DRAIN LT. CL 3 EXC. 29 Cu Yds.



STA 10+73 BUILD 2'x5' MANHOLE WITH
 4" x 124" CAST IRON DRAIN LT. CL 3 EXC. 55 Cu Yds.



4" CAST IRON DRAINS
 600
 BRONZE VALVES
 SERIAL SHIP NO. 5

SE⁴ NE⁴
29-25-31
STANFORD E. & WILMA D.
WILLIAMS
Chen. Esmt. .402 Ac.

SW⁴ NW⁴
28-25-31
ROY H. & OPAL E.
CARNES

SE⁴ NW⁴
28-25-31
FOREST L. & JOAN H.
MILLER

FINAL PLANS

20

RTE. 60 CURVE
R1 Sta. 849+87.9
Δ - 10°33'44"
D - 0°30'
T - 1057.97
L - 2110.00
R - 11259.19

CHARLES & BESSIE V.
TUGGLE

NE⁴ SE⁴
29-25-31

NE⁴ SW⁴
28-25-31

W. A. CAPPS

ORVAL & CORA
BOWERS

HW⁴ SW⁴
28-25-31

PLAN OF CHANNEL CHANGE
HICKORY CREEK
TRA 843+98.0
SEE PROFILE ON X-110, 14, NO. 231

TYPICAL SECTION OF CH. CHANGE

As Shown
On Plans

SECTION LINE

Proposed Channel Change

FUTURE LANE

CREEK

EXIST. R/W

EXIST. R/W

Water Line

Water Line

Water Line

Water Line

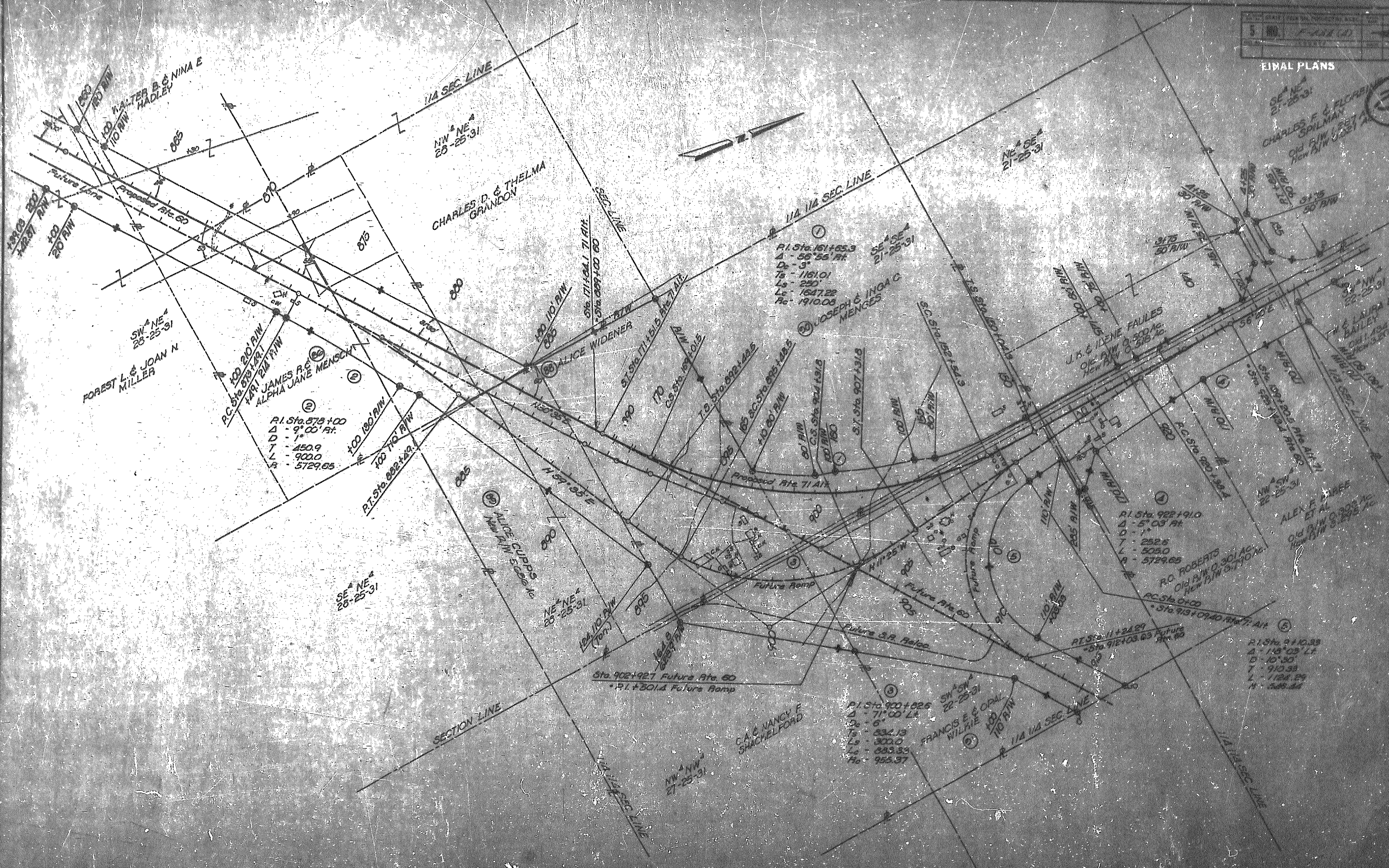
Channel Esmt

EXIST. R/W

EXIST. R/W

Δ - 15°
Δ - 15°
Δ - 50.3
Δ - 100
Δ - 470.3





DATE	10/1/50
BY	J. H. HARRIS
CHECKED BY	J. H. HARRIS
APPROVED BY	J. H. HARRIS
SCALE	1" = 100'
PROJECT	NEW YORK STATE
SECTION	1/4 SEC. LINE

DATE	10/1/50
BY	J. H. HARRIS
CHECKED BY	J. H. HARRIS
APPROVED BY	J. H. HARRIS
SCALE	1" = 100'
PROJECT	NEW YORK STATE
SECTION	1/4 SEC. LINE

LIST OF STANDARD PLANS

PROJ.	SHEET
F-444(4)	24
CO.	RTE.
NEWTON	60

[illegible]

9/5

DESIGN DESIGNATION

A.D.T. - 1991 = 2660

A.D.T. - 2011 = 3930

D.M.V. = 10 %

T = 10 %

V = 50 M.P.H.

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

PLANS FOR PROPOSED STATE HIGHWAY

FEDERAL AID PROJECT
NEWTON COUNTY

NOTE:

THIS PROJECT SHALL BE CONSTRUCTED AS
JOB NO. J7P0337 AND ALL REFERENCE TO
JOB NO. 7-P-337 FOUND ELSEWHERE IN
THESE PLANS SHALL BE CONSIDERED VOID.

COUNTY NEWTONROUTE 60PROJECT SIP-EM-60-1JOB NO. J7P0337R/W NO. 7P-337-60

LIMITED ACCESS HIGHWAY

THIS SHALL BE A LIMITED ACCESS HIGHWAY BETWEEN STA 1574+96.32 AND STA 1837+75.00 EXCEPT AT LOCATIONS AND AS OTHERWISE SPECIFICALLY SHOWN ON THESE PLANS. NO ADJUTER'S RIGHTS IN, OR OF DIRECT ACCESS TO, FROM, OR ACROSS THE HIGHWAY OR ITS RIGHT-OF-WAY SHALL ATTACH OR BELONG TO ANY PROPERTY ADJUTING ON SAID SECTION OF HIGHWAY, OR TO ANY PERSON MERELY BECAUSE OF OWNERSHIP OF SUCH ADJUTING PROPERTY. THERE SHALL BE THE USUAL RIGHT OF ACCESS OVER ANY LOCATION SHOWN ON THESE PLANS EITHER AS (1) AN ENTRANCE OR (2) A PRIVATE UNDERPASS. WHEREVER AN ADJACENT OUTER ROADWAY OR SERVICE ROAD IS SHOWN, THERE SHALL BE THE USUAL RIGHT OF DIRECT ACCESS BETWEEN THE ADJUTING PROPERTY AND SUCH OUTER ROADWAY OR SERVICE ROAD EXCEPT WHERE ACCESS IS SPECIFICALLY PROHIBITED BY THE SPECIAL SYMBOL DENOTING NO RIGHT OF ACCESS AND ALONG IT TO AND FROM THE NEAREST LANE OF THE THRUWAY OR A PUBLIC HIGHWAY. OUTER ROADWAYS AND SERVICE ROADS, AS THE CASE MAY BE, ARE SO DESIGNATED ON THE PLANS.

- BEGINNING AND ENDING OF LIMITED ACCESS.
- +— LIMITED ACCESS
- ||— NO RIGHT OF ACCESS OR CROSSING OF LINES BEARING THIS SYMBOL WILL BE PERMITTED UNDER ANY CIRCUMSTANCES.

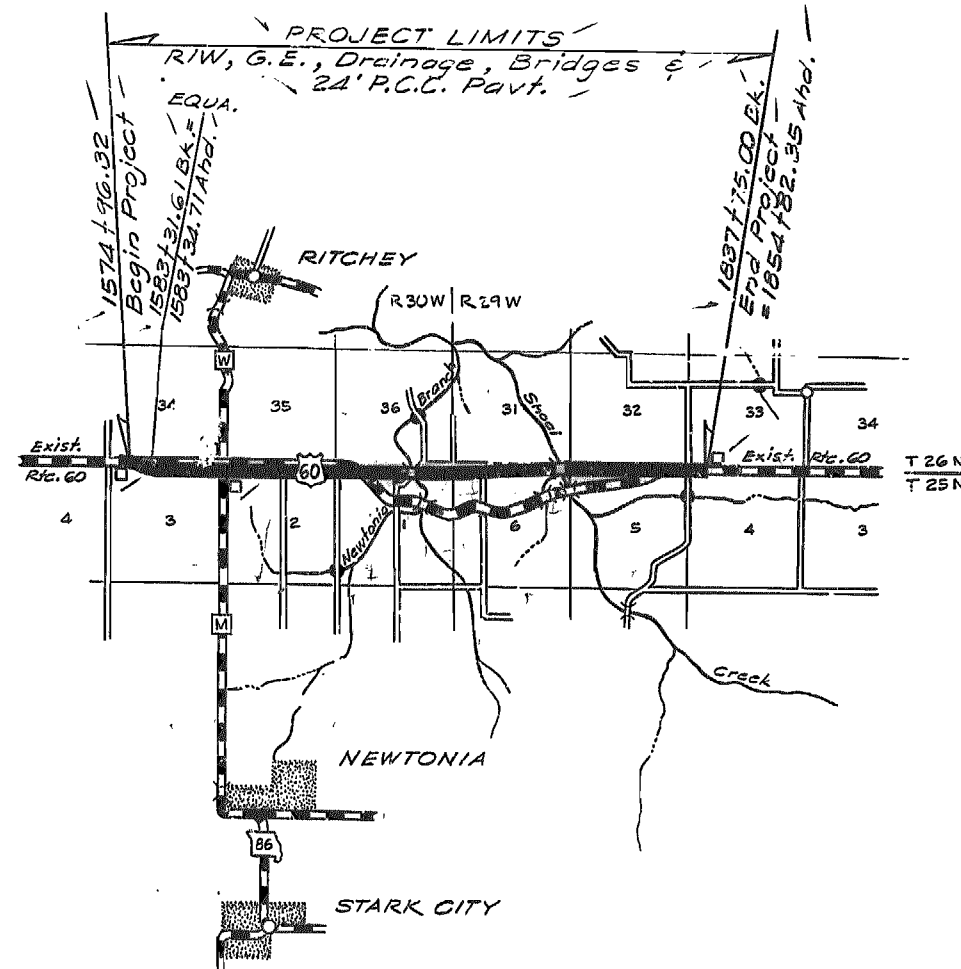
CONVENTIONAL SIGNS
(USED IN PLANS)

- BUILDINGS AND STRUCTURES
- GUARD RAIL
- CONCRETE RIGHT-OF-WAY MARKER
- STEEL RIGHT-OF-WAY MARKER
- FENCE
- CHAIN LINK
- WOVEN WIRE
- GATE
- UTILITIES
- TELEPHONE
- POWER
- GAS
- WATER
- UNDERGROUND TELEPHONE

TITLE SHEET LEGEND

IDENTIFICATION SYMBOLS (4 REQUIRED)

NOTE: DASHED OR OPEN SYMBOL INDICATES
EXISTING FEATURE



Scale in Miles
1/4 1/2 3/4 0

INDEX OF SHEETS

DESCRIPTION	SHEET NUMBER
TITLE SHEET	1
TYPICAL SECTIONS (2 SHEETS)	2
SUMMARY (2 SHEETS)	2-A
SUMMARY (5 SHEETS)	2-B
PLAN-PROFILE	3-14
REFERENCE POINTS	15-18
SPECIAL SHEETS	19-24
TRAFFIC CONTROL	27
TEMP. EROSION & SEDIMENT CONTROL	
SIGNING	
CULVERT SECTIONS	31-35
BRIDGE DRAWINGS	36-45
STANDARD PLANS INDEX	146
CROSS SECTIONS	147-154
COMPUTER DATA	

LENGTH OF PROJECT

END OF PROJECT	STA. 1837+75.00
BEGINNING OF PROJECT	STA. 1574+96.32
APPARENT LENGTH	26278.68 FEET
EQUATIONS AND EXCEPTIONS	
1583+31.61 BK. =	-3.10
1583+34.71 Ahd.	
TOTAL CORRECTIONS	-3.10 FEET
NET LENGTH OF PROJECT	26275.58 FEET
STATE LENGTH	4.976 MILES
FEDERAL LENGTH	4.976 MILES

MISSOURI HIGHWAY AND
TRANSPORTATION COMMISSION

SUBMITTED

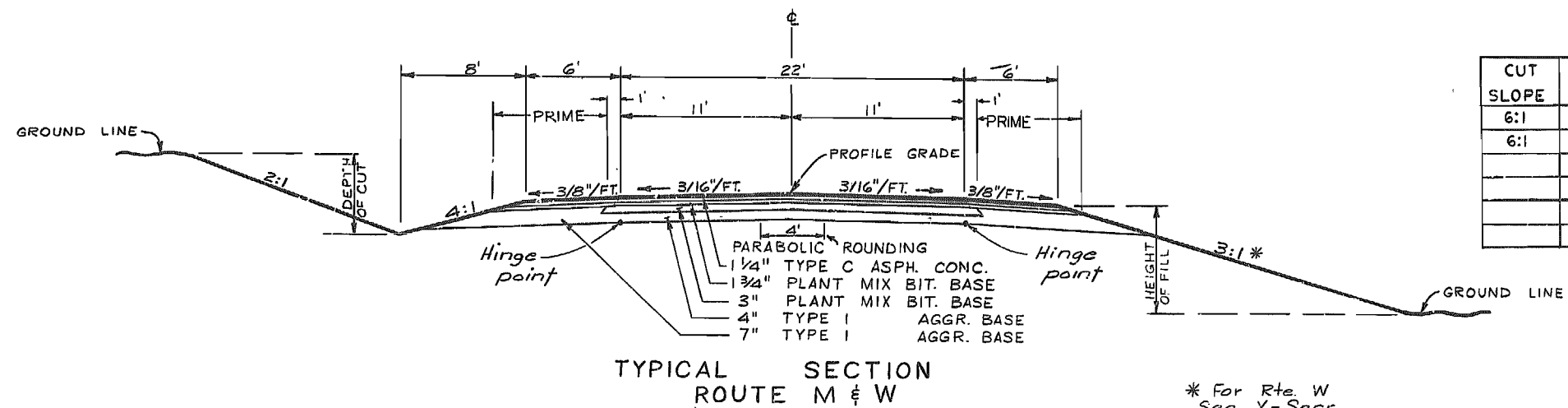
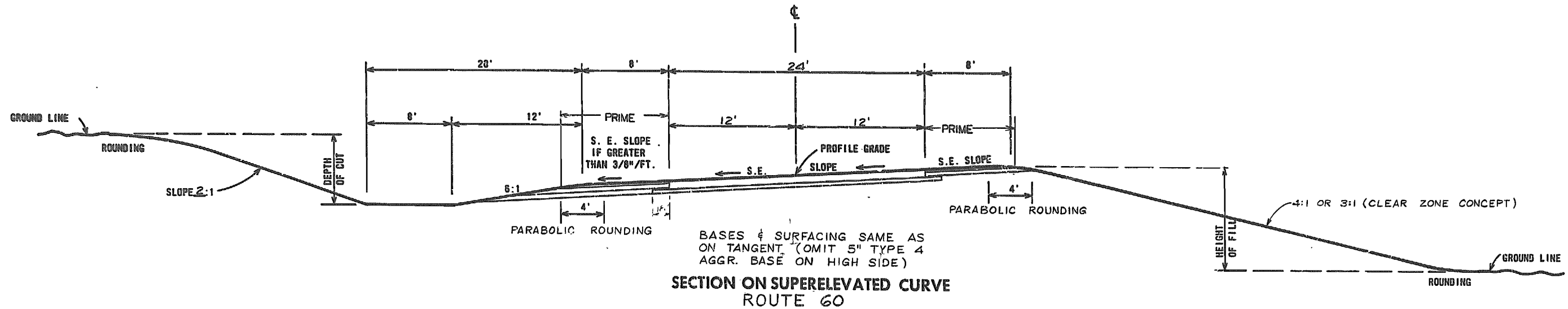
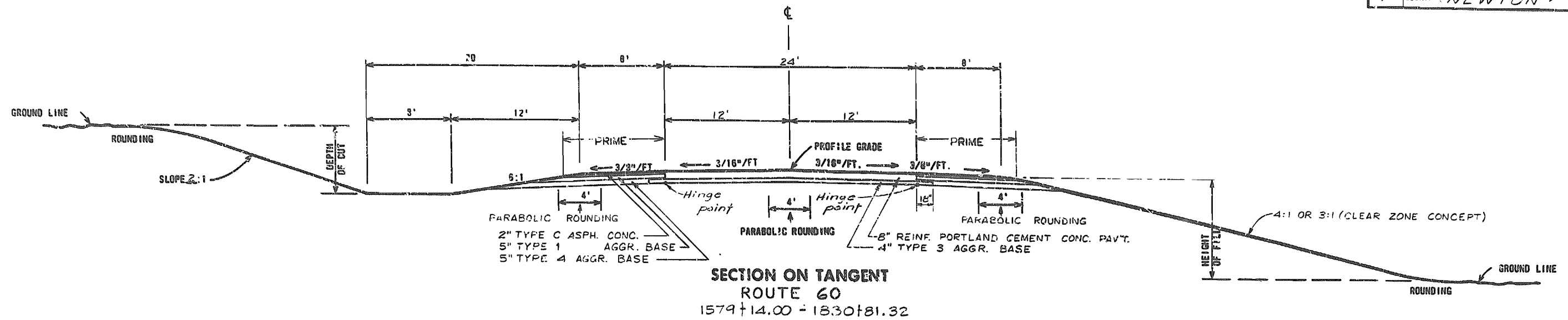
Osama Muni 11-25-91
CHIEF ENGINEER DATE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

DIVISION ADMINISTRATOR DATE

STATE MO.	JOB NO. 17P0337	SHEET NO. 2
DIST. NO. 7	PROJECT NO. STP BR-60-1(11)	ROUTE 60
	COUNTY NEWTON	



CLEAR ZONE TABLE

CUT SLOPE	FILL SLOPE	DEG. OF CURVE OUTSIDE TRAFFIC	CLEAR ZONE FROM E.O.P.
6:1		0° TO 0.25°	18'
6:1		0.50°	19'
	3:1	0° TO 0.25°	40'
	3:1	0.50°	41'
	4:1	0°	24'
	4:1	0.25° TO 0.50°	25'

**TYPICAL SECTION
ROUTE 60 &
ROUTE M & W**

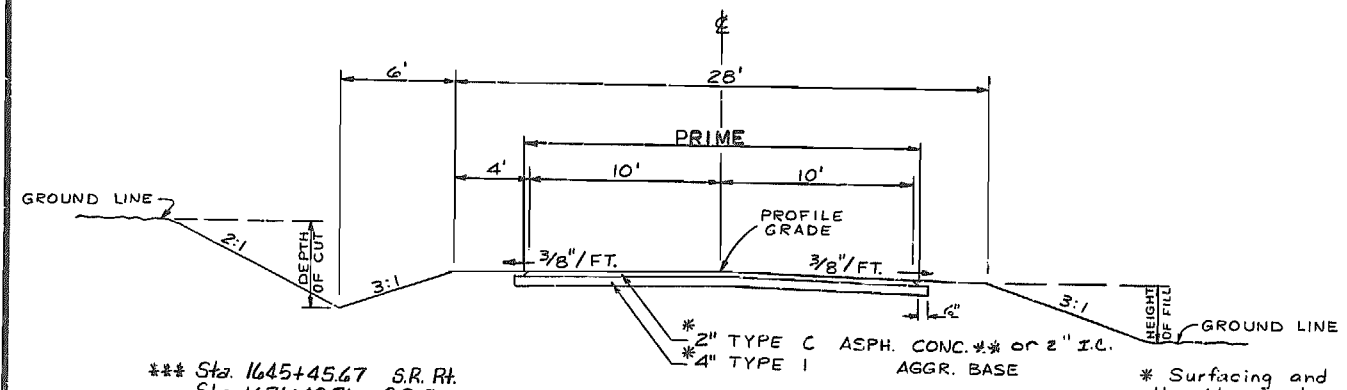
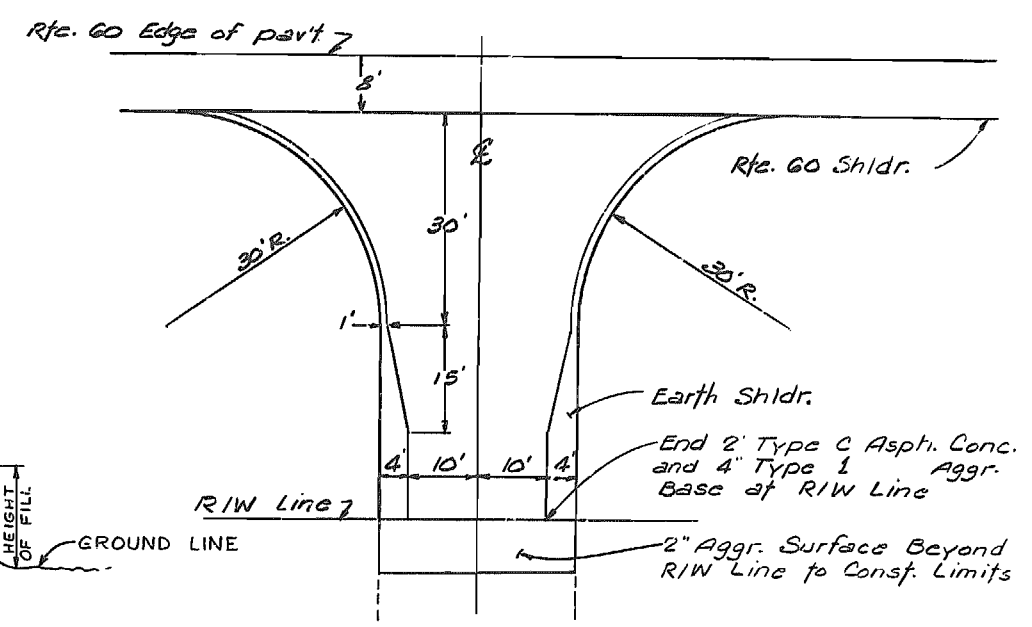
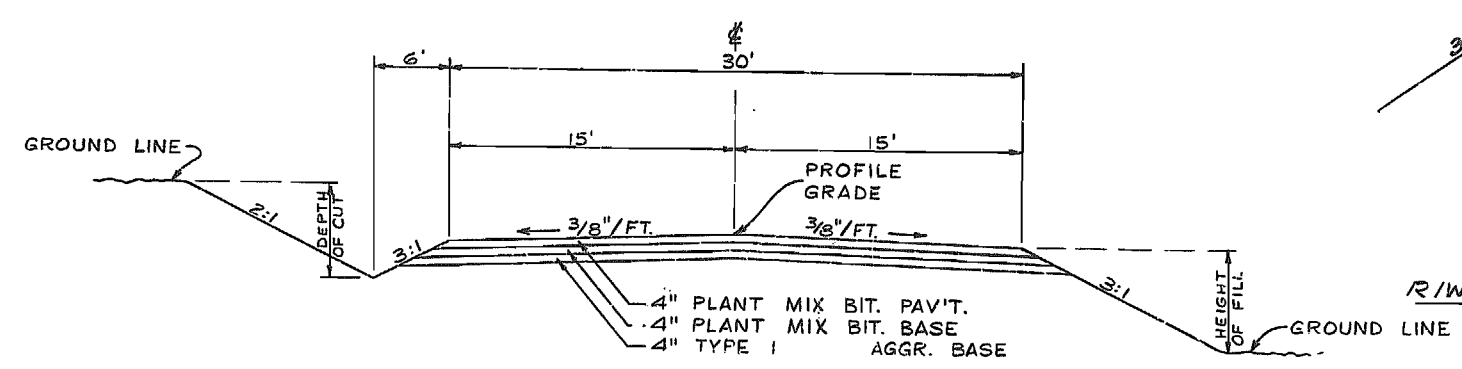
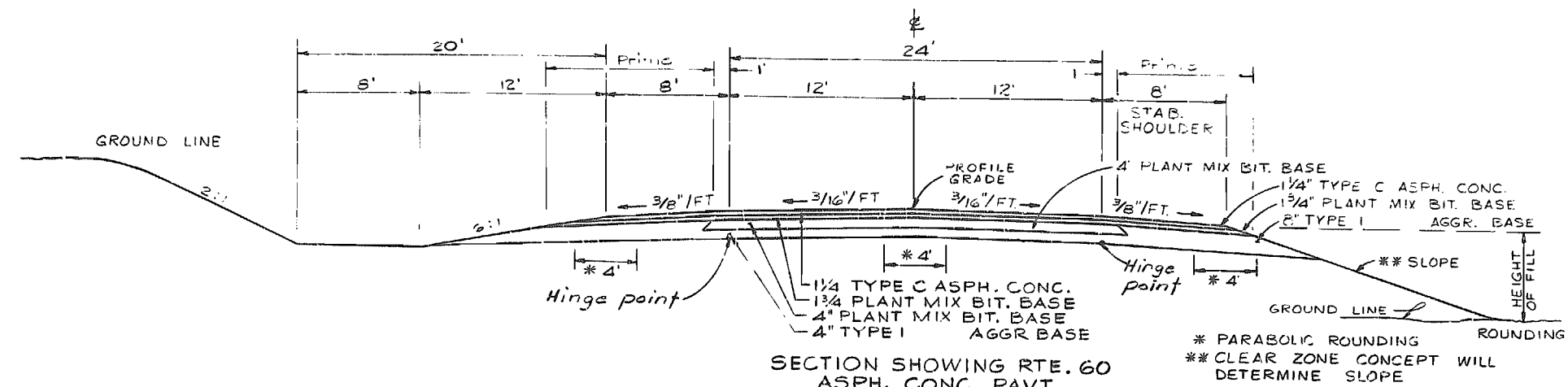
* For Rte. W
See X-Secs.

77 204

STATE	JOB NO.	SHEET NO.
MO.	17P0337	2
DIST. NO.	PROJECT NO.	ROUTE
7	STP-BRF-60-1(11)	60
COUNTY	NEWTON	

DATE	BY	REVIEWED	DATE
FINAL SURVEY	NO. 1	NO. 2	NO. 3
NO. 4	NO. 5	NO. 6	NO. 7

DATE	BY	REVIEWED	DATE
ORIGINAL SURVEY	NO. 1	NO. 2	NO. 3
NO. 4	NO. 5	NO. 6	NO. 7



- *** Sta. 1645+45.67 S.R. Rt.
- Sta. 1671+48.71 S.R. Rt. **
- Sta. 1697+49.3 S.R. Rt. **
- Sta. 1714+50 S.R. Lt.
- Sta. 1724+40.16 S.R. Lt.
- Sta. 1737+24.86 S.R. Rt. **
- Sta. 1818+00 S.R. Rt. **
- Sta. 1830+54.10 S.R. Lt.
- Sta. 1830+54.10 S.R. Rt. **

* Surfacing and Base will be used on all side roads and private entrances only to the Right-of-Way Line with 2" Aggr. Surf. used outside that limit (see plan view on this sheet).
 On the S. Rd. @ 1671+48.71 the 2" Asph. Conc. and 4" Type I Aggr. Base will extend past the Right-of-Way to the limits of const.

TYPICAL SECTION
 ROUTE 60, TEMP. CONN.,
 BYPASSES, SIDE ROAD CONN.,
 AND ENTRANCES

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

STATE MO	JOB NO. J7P0337	SHEET NO. 2A
DIST. NO. 7	PROJECT NO. STP-BRF-60-1(11)	ROUTE 60
	COUNTY NEWTON	

Sheet 1 of 2

ITEM	DESCRIPTION	UNIT	QUANTITY
201-10.00	CLEARING	ACRE	32.9
201-20.00	GRADING	ACRE	19.8
202-20.10	REMOVAL OF IMPROVEMENTS	LUMP SUM	1
203-10.00	CLASS A EXCAVATION	CU YD	528,734
203-20.00	CLASS C EXCAVATION	CU YD	17,365
203-60.00	COMPACTING EQUIPMENT	CU YD	468,999
203-70.75	COMPACTING IN CUT	STATION	1205
205-10.00	OVERHAUL (STATION)	STA YD	3,704,911
206-30.00	CLASS 3 EXCAVATION	CU YD	1489
206-50.00	TEMPORARY SHORING	SQ FT	1754
207-10.00	LINEAR GRADING CLASS 1	STATION	42.1
301-10.11	ASPHALT CEMENT (BITUMINOUS BASE) AC-20	TON	248.3
301-20.00	MINERAL AGGREGATE (BITUMINOUS BASE)	TON	5422
304-00.43	TYPE 1 AGGREGATE FOR BASE (4 IN. THICK)	SQ YD	23407
304-00.53	TYPE 1 AGGREGATE FOR BASE (5 IN. THICK)	SQ YD	53,179
304-00.73	TYPE 1 AGGREGATE FOR BASE (7 IN. THICK)	SQ YD	1,140
304-00.83	TYPE 1 AGGREGATE FOR BASE (8 IN. THICK)	SQ YD	2,444
304-03.43	TYPE 3 AGGREGATE FOR BASE (4 IN. THICK)	SQ YD	73,465
304-04.53	TYPE 4 AGGREGATE FOR BASE (5 IN. THICK)	SQ YD	59,832
310-50.01	CRUSHED STONE (B)	CU YD	459
401-10.11	ASPHALT CEMENT (BITUMINOUS PAVEMENT) AC-20	TON	1195
401-20.10	MINERAL AGGREGATE (BITUMINOUS PAVEMENT) RP-1	TON	2441
403-10.11	ASPHALT CEMENT (ASPHALTIC CONCRETE) AC-20	TON	279.0
403-10.26	MINERAL AGGREGATE (ASPHALTIC CONCRETE) (TYPE C MIX)	TON	5920
407-10.05	TACK COAT	GALLON	660
408-10.10	PRIME-LIQUID ASPHALT MC 30	GALLON	14080
502-12.08	CONCRETE PAVEMENT (8 IN. REINFORCED)	SQ YD	64905.6
503-10.00	BRIDGE APPROACH SLAB	SQ YD	406.2
601-10.00	FIELD LABORATORIES	LUMP SUM	1
605-20.10	CLASS B PERFORATED UNDERDRAIN	LIN FT	86
606-10.10	GUARD RAIL TYPE A	LIN FT	1,025
606-10.40	GUARD RAIL TYPE D	LIN FT	125
606-22.00	BRIDGE ANCHOR SECTION (SAFETY BARRIER CURB)	EACH	8
606-30.10	BREAKAWAY CABLE TERMINAL	EACH	8
608-30.00	CONCRETE MEDIAN STRIP	SQ YD	17.2
609-60.00	DITCH LINER	SQ YD	759
609-70.00	ROCK LINING	CU YD	14

ITEM	DESCRIPTION	UNIT	QUANTITY
611-10.10	FURNISHING ROCK FILL	CU YD	0
611-10.20	PLACING ROCK FILL	CU YD	542
611-30.40	PLACING TYPE 2 ROCK BLANKET	CU YD	1,178
611-70.10	GEOTEXTILE FABRIC (SLIDE REPAIR)	SQ YD	833
612-10.30	MOVABLE BARRICADES	EACH	32
612-90.10	INSTALLING GIVE EM A BRAKE 4 FT. X 8 FT. SIGN	EACH	4
612-90.20	INSTALLING GIVE EM A BRAKE 4 FT. X 4 FT. SIGN	EACH	2
616-10.05	CONSTRUCTION SIGNS	SQ FT	1444
616-10.10	RELOCATED SIGNS	SQ FT	330
616-10.20	CHANNELISER (DRAIN)	EACH	97
616-10.40	TYPE II OBJECT MARKER	EACH	0
616-10.50	FLASHING ELECTRIC LIGHT	EACH	10
618-10.00	MOBILIZATION	LUMP SUM	1
619-10.00	PAVEMENT EDGE TREATMENT	LIN FT	2667
620-51.03	TYPE 2 PREFORMED MARKING TAPE 4 IN., SOLID YELLOW	100 FT	0
620-51.04	TYPE 2 PREFORMED MARKING TAPE 4 IN., INTERMITTENT YELLOW	100 FT	0
620-53.01	PREFORMED REMOVABLE MARKING TAPE 4 IN., SOLID WHITE	100 FT	70.7
620-53.03	PREFORMED REMOVABLE MARKING TAPE 4 IN., SOLID YELLOW	100 FT	70.3
620-70.00	PAVEMENT STRIPE REMOVAL (PAINT)	100 FT	16.9
620-70.05	PAVEMENT STRIPE REMOVAL (TAPE)	100 FT	0
703-20.01	CLASS B CONCRETE (CULVERTS)	CU YD	75.5
706-10.30	REINFORCING STEEL (CULVERTS)	POUND	9,050
725-02.15	15 IN. PIPE CULVERT GROUP II	LIN FT	894
725-02.18	18 IN. PIPE CULVERT GROUP II	LIN FT	372
725-02.24	24 IN. PIPE CULVERT GROUP II	LIN FT	102
725-02.30	30 IN. PIPE CULVERT GROUP II	LIN FT	78
725-02.36	36 IN. PIPE CULVERT GROUP II	LIN FT	116
725-10.15	15 IN. CORRUGATED METAL PIPE	LIN FT	98
725-10.24	24 IN. CORRUGATED METAL PIPE	LIN FT	264
726-13.18	18 IN. CLASS III REINFORCED CONCRETE PIPE CULVERT	LIN FT	205
726-13.24	24 IN. CLASS III REINFORCED CONCRETE PIPE CULVERT	LIN FT	126
726-13.30	30 IN. CLASS III REINFORCED CONCRETE PIPE CULVERT	LIN FT	112
726-13.36	36 IN. CLASS III REINFORCED CONCRETE PIPE CULVERT	LIN FT	105
726-13.48	48 IN. CLASS III REINFORCED CONCRETE PIPE CULVERT	LIN FT	140
726-14.30	30 IN. CLASS IV REINFORCED CONCRETE PIPE CULVERT	LIN FT	197
726-14.36	36 IN. CLASS IV REINFORCED CONCRETE PIPE CULVERT	LIN FT	215
726-14.42	42 IN. CLASS IV REINFORCED CONCRETE PIPE CULVERT	LIN FT	162

ITEM	DESCRIPTION	UNIT	QUANTITY
726-15.54	54 IN. CLASS V REINFORCED CONCRETE PIPE CULVERT	LIN FT	193
728-10.00	RELAID PIPE	LIN FT	0
732-00.15	15 IN. FLARED END SECTION	EACH	32
732-00.18	18 IN. FLARED END SECTION	EACH	12
732-00.24	24 IN. FLARED END SECTION	EACH	6
732-00.30	30 IN. FLARED END SECTION	EACH	6
732-00.36	36 IN. FLARED END SECTION	EACH	4
732-00.42	42 IN. FLARED END SECTION	EACH	2
732-00.48	48 IN. FLARED END SECTION	EACH	2
732-00.54	54 IN. FLARED END SECTION	EACH	2
802-50.00	TYPE 3 MULCH	ACRE	108.3
805-10.00	SEEDING	ACRE	108.9
806-40.00	PLASTIC NETTING	SQ YD	0
806-99.90	SLOPE DRAINS	LIN FT	510
806-99.91	ROCK DITCH CHECKS	EACH	238
806-99.92	STRAW BALE DITCH CHECK	EACH	620
806-99.93	SILT FENCE DITCH CHECK	EACH	95
806-99.94	SEDIMENT BASING	CU YD	0
806-99.95	SEDIMENT REMOVAL	CU YD	82.9
806-99.96	TEMPORARY SEEDING AND MULCH	ACRE	1.9
806-99.97	STRAW BALES	LIN FT	4003
806-99.98	SILT FENCE	LIN FT	3061
903-50.15	TYPE IV OBJECT MARKER	EACH	15
CONT. 501.01	LAND FARM SOIL	\$	9607.79
CONT. 501.02	TEMP. SURFACING	CU YD	578
CONT. 501.03	THERMO MARK 4" SY.	100 FT	34.4
CONT. 501.04	THERMO MARK 4" LY.	100 FT	2.0
CONT. 501.05	CLASS A-UB	LIN FT	116
CONT. 501.06	DRAIN BASIN	EA.	2
CONT. 501.07	ASPH. CEM. AC-20 TYPE I-C	TON	24.9
CONT. 501.08	MIN. AGG. TYPE I-C MIX	TON	512
CONT. 501.09	TRANSITION SECTION	EA.	8
CONT. 501.10	FORCE ACCOUNT WORK (LOW WATER CROSSING)	\$	101,528.36
CONT. 501.11	ASPH. DENSITY SAMPLE (BIT. BASE)	EA.	6
CONT. 501.12	ASPH. DENSITY SAMPLE (TYPE "C")	EA.	3
726-10.60	REINFORCING STEEL (BRIDGES)	POUND	1,100

73-206

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

STATE MO	JOB NO. ✓ 17P0337 ✓	SHEET NO. 2A
DIST NO. 7	PROJECT NO. STP-BRF-60-1C(1)	
	COUNTY NEWTON ✓	ROUTE 60

Sheet 2 of 2

[illegible]

ITEM	DESCRIPTION	UNIT	QUANTITY
	BRIDGE DWG. NO. A-4893 SEA 1706+60 (CONC ALTERNATE)		
202-10.20	REMOVAL OF BRIDGES	LUMP SUM	1
702-10.12	STRUCTURAL STEEL PILES (12 IN.)	LIN FT	1245
702-60.00	PRE-BORE FOR PILING	LIN FT	414
702-70.00	PILE POINT REINFORCEMENT	EACH	12
703-20.03	CLASS B CONCRETE (SUBSTR)	CU YD	61.3
703-62.13	SLAB ON CONCRETE I-GIRDER, SEE SPECIAL PROVISIONS	SQ YD	1,180
703-62.15	SAFETY BARRIER CURB	LIN FT	556
703-70.30	PLAIN WROTHENE BEARING PADS	EACH	5
703-71.50	LAMINATED WROTHENE BEARING PADS (TAPERED)	EACH	25
705-11.65	PRESTRESSED CONCRETE I-GIRDER, 65 FT SPAN	EACH	15
706-10.60	REINFORCING STEEL (BRIDGES)	POUND	2,640
712-10.00	FAB. STRUCT. CARBON STEEL (MISC)	POUND	3,840
712-36.10	SLAB DRAINS	EACH	36
712-36.50	VERTICAL DRAIN AT END BENTS	EACH	2
	BRIDGE DWG. A-1351 SEA 1706+60 (OVER AS ORDERED)		
202-10.21	REMOVAL OF BRIDGES	LUMP SUM	
702-10.12	STRUCTURAL STEEL PILES (12 IN.)	LIN FT	1,245
702-60.00	PRE-BORE FOR PILING	LIN FT	414
702-70.00	PILE POINT REINFORCEMENT	EACH	12
703-20.03	CLASS B CONCRETE (SUBSTR)	CU YD	61.3
703-62.13	SLAB ON CONCRETE I-GIRDER, SEE SPECIAL PROVISIONS	SQ YD	1,180
703-62.15	SAFETY BARRIER CURB	LIN FT	556
703-70.30	PLAIN WROTHENE BEARING PADS	EACH	5
703-71.50	LAMINATED WROTHENE BEARING PADS (TAPERED)	EACH	25
705-11.65	PRESTRESSED CONCRETE I-GIRDER, 65 FT SPAN	EACH	15
706-10.60	REINFORCING STEEL (BRIDGES)	POUND	2,640
712-10.00	FAB. STRUCT. CARBON STEEL (MISC)	POUND	3,840
712-36.10	SLAB DRAINS	EACH	36
712-36.50	VERTICAL DRAIN AT END BENTS	EACH	2
	BRIDGE DWG. A-1351 SEA 1706+60 (OVER AS ORDERED)		
202-10.21	REMOVAL OF BRIDGES	LUMP SUM	
702-10.12	STRUCTURAL STEEL PILES (12 IN.)	LIN FT	1,245
702-60.00	PRE-BORE FOR PILING	LIN FT	414
702-70.00	PILE POINT REINFORCEMENT	EACH	12
703-20.03	CLASS B CONCRETE (SUBSTR)	CU YD	61.3
703-62.13	SLAB ON CONCRETE I-GIRDER, SEE SPECIAL PROVISIONS	SQ YD	1,180
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705-11.65	PRESTRESSED CONCRETE I-GIRDER, 65 FT SPAN	EACH	15

ITEM	DESCRIPTION	UNIT	QUANTITY
	BRIDGE NO. A-4694 STA 1768+90 (CONC ALTERNATE)		
202-10.20	REMOVAL OF BRIDGES	LUMP SUM	1
235-10.00	CLASS 1 EXCAVATION	CU YD	232.0
205-20.00	CLASS 2 EXCAVATION	CU YD	559.5
702-10.12	STRUCTURAL STEEL PILES (12 IN.)	LIN FT	2748
702-60.00	PRE-BORE FOR PILING	LIN FT	115
702-70.00	PILE POINT REINFORCEMENT	EACH	102
703-20.03	CLASS B CONCRETE (SUBSTR)	CU YD	533.1
703-42.13	SLAB ON CONCRETE I-GIRDER, SEE SPECIAL PROVISIONS	SQ YD	2,693
703-42.15	SAFETY BARRIER CURB	LIN FT	1,210
703-71.50	LAMINATED RUBBER BEARING PADS (TAPERED)	EACH	70
705-11.61	PRESTRESSED CONCRETE I-GIRDER, 61 FT SPAN	EACH	5
705-11.37	PRESTRESSED CONCRETE I-GIRDER, 87 FT SPAN	EACH	29
706-10.60	REINFORCING STEEL (BRIDGES)	POUND	75,760
712-36.10	SLAB DRAINS	EACH	100
712-36.50	VERTICAL DRAIN AT END BENTS	EACH	2
CONT 505.01	PRESTRESSED CONCRETE I-GIRDER, 87 FT. SPAN	EACH	1
CONT 505.02	2 EXC. STR. BELOW DEAN	CU. YD.	211.5
CONT 505.03	1 EXC. STR. BELOW DEAN	CU. YD.	53.0
CONT 505.04	TEST HOLES	LIN. FT	24
CONT 505.05	CREVICE CONCRETE	CU. YD.	1
CONT 505.06	PLAIN REINFORCING STEEL (SUPERSTR.)	POUND	710
	FOOTNOTE		
(ii)	INCLUDES 2409 CU YDS ROUNDING		
	Accepted: Dec. 28, 1993		
	Prepared By: William J. Danner		
	Resident Engineer: Gary R. Miller	Date	2/11/94
	District Office: Don Lowery	Date	03/24/94
	Main Office: Sandra Bean	Date	05/10/94

FOOTNOTE

(i)	INCLUDES 2409 CU YDS ROUNDING
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Accepted: Dec. 28, 1993

Prepared By: *William J. Patterson*

Resident Engineer: Gary L. Miller

Date	2/11/99
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District Office: Don Lowery

Date	03/24/94
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Main Office: Sandra Beam

Date	05/16/94
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MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

REV MAY 1, 89

STATE	MO	JOB NO.	7P0337	SHEET NO.	28
DIST. NO.	7	PROJ.	STP-33E-60-1(11)	ROUTE	60
COUNTY	NEWTON				

SHEET 1 OF 7

ENTRANCES AND SIDE ROADS

* FIELD MEASURED

SHEET	STATION	TYPE	LOC.	STD.	% GRADE	GROUP II PIPE	FL. END SECT.	REL. TO CLASS	JOVERFILL	4" TYPE	REMARKS	TYPE IV OBJECT MARKERS
						15" 18" 24" 30" 36" 48"	15" 18" 24"	PIPE EXC.	HEIGHT			
3	1574+75	C.E.	LT.	203.31	-5.53	48"			2.5'	AGGR. S.Y.		
3	1577+00	C.E.	LT.	203.31	-5.0	48"			3.0'	97.8'	30' TOP	
3	1577+75	P.E.	LT.	203.31	-7.85	30"			1.5'	119.9'	30' TOP	
3	1580+15	F.E.	RT.	203.31	+3.57					111.8'	NO PIPE	
3	1580+50	F.E.	LT.	203.31	+3.23	28"			1.5'			
3	1593+00	F.E.	RT.	203.31	-2.1	36"			2.5'			
4	1602+27	F.E.	LT.	203.31	0.0							
4	1618+37.65	RTE. W	LT.	203.31	-2.0						U.I.P. EXIST. 15" C.M.P.	
4	1618+37.65	RTE. M	RT.	203.31	+1.0						NO PIPE. QUANT. IN TABULATION ROUTE W	
4	2+80	P.E.	RT.	203.30	+10.0	36"			1'	71.8'	NO PIPE. QUANT. IN TABULATION ROUTE M	
5	1636+69	P.E.	LT.	203.31	-2.94					183'	SK. 15" L.A., S.R. RT. 1618+37.65	
5	1637+50	F.E.	RT.	203.31	-2.32						NO PIPE	
5	1645+45.67	S.RD.	RT.	203.31	-2.4	46"			3'	399'	NO PIPE	
5	1654+44	P.E.	LT.	203.31	-1.29					183'	NO PIPE	
5	1654+44	F.E.	RT.	203.31	-10.73						NO PIPE	
6	1664+00	P.E.	LT.	203.31	-2.77					183'	NO PIPE	
6	1664+00	F.E.	RT.	203.31	0.00						NO PIPE	
6	1665+52	C.E.	LT.	203.31	+5.56	40"			1.5'	283'	NO PIPE	
6	1671+48.7	F.E.	LT.	203.31	+4.6	30"			1.5'		30' TOP	
6	1671+48.71	S.RD.	RT.	203.31	+3.76	44"			3'	552.8'	SK. 5" L.A.	
7	1697+69.3	F.E.	LT.	203.31	-9.55	28"			1.5'			
7	1697+69.3	S.RD.	RT.	203.31	-4.5				10'	405.1'	STA. 3+25	
7	3+75	F.E.	LT.	203.30	-15.0						NO PIPE, S.R. RT. 1697+69.3, BUILD TO F.E. STDS.	
7	1714+50	S.RD.	LT.	203.31	+4.0				3.5'	400.6'	MOVED AFTER EXCAVATION COMPLETED @ PLAN LOCATION (52' 10" 24" CL. 3)	
8	1724+15	F.E.	RT.	203.31	-10.0	52"					30' TOP	
8	1613+74	P.E.	RT.	203.30						206.9'	** OUT OF ORDER	
8	1724+40.16	S.RD.	LT.	203.31	+3.16	56"			5.5'	398.7'		
8	8+20	P.E.	LT.	203.30	+8.1	36"			1'			
8	1731+00	F.E.	RT.	203.31	-2.86	28"			1.5'		S. RD. LT. 1724+40.16	
8	1737+24.86	S.RD.	RT.	203.31	-4.0	44"			3'	375'	Pipe @ Sta. 1+50	
8	1737+24.9	P.E.	LT.	203.31	+4.2	30"			1.5'	146.9'		
9	1753+00	P.E.	LT.	203.31	+10.0	30"			1.5'	144.2'		
9	1766+00	F.E.	RT.	203.31	+4.0						NO PIPE	
10	1797+25	P.E.	LT.	203.31	-8.0					131'	NO PIPE	
11	1818+00	S.RD.	RT.	203.31	-7.23					572'	NO PIPE	
11	1825+00	F.E.	LT.	203.31	-3.07				2'		NO PIPE	
11	1826+00	P.E.	RT.	203.31	+0.86	60"			5'	190.2'	NO PIPE	
11	1830+54.1	S.RD.	LT.	203.31	+0.01	248"			1.5'	398.7'	30' TOP	
11	6+40	F.E.	RT.	203.30	-18.0	36"			1'		Pipe @ Sta. 5+50	
11	8+00	F.E.	RT.	203.30	+8.53	56"			3'		S. RD. LT. 1830+54.1	
11	1830+54.1	S.RD.	RT.	203.31	-0.06					375'	S. RD. LT. 1830+54.1 (30' TOP)	
11	14+00	F.E.	RT.	203.30	+0.07	36"			1'		NO PIPE	
12	1856+00	P.E.	RT.	203.31	-2.55	28"			1'	123.3'	S. RD. RT. 1830+54.1	
12	1856+00	F.E.	LT.	203.31	-7.08	30"			1.5'			
14	1778+00-1783+45	S.RD.		203.31							LOW WATER X-ING EAST RTE. 60	
14	1783+20	F.E.	LT.	203.30	-8.04						LOW WATER X-ING (NO PIPE) EXIST. RTE. 60	
14	1783+20	P.E.	RT.	203.30	+2.28						LOW WATER X-ING (NO PIPE) EXIST. RTE. 60	
6	1671+48.71	S.RD.	RT.	203.31						1961.5'	** OUT OF ORDER (1480 S. RD. = 0+00 S. RD. CORN. L.L.)	

CONTINUED NEXT SHEET

CLASS III REINF. CONC. PIPE CULVERTS

SHEET	STATION	LOC.	SKEW	CL. III REINF. CONC. PIPE	CL. 3 FLARED END SECTIONS	REMARKS
				18" 24" 30" 36" 48"	EXC. 18" 24" 30" 36" 48"	
4	1609+85				140'	198'
4	1618+37.65	RTE. W			2	PIPE LENGTH 109' 1ST. STAGE, 31' 2ND STAGE
5	1640+05.5				105'	23'
6	1662+04.2				126'	74'
7	1698+84				107'	4'
9	1765+40				112'	5'
TOTALS				205'	126'	121' 10" 140' 304'

CLASS B PERFORATED UNDERDRAIN

SHEET	STATION	LOC.	SKEW	24" CL. 3 EXC. C.Y.	REMARKS
7	1709+81.2			10' R.A. 86'	BEVEL OUTLET END 2:1
TOTALS				86'	

CLASS IV REINF. CONC. PIPE CULVERTS

SHEET	STATION	LOC.	SKEW	CL. IV REINF. CONC. PIPE	CL. 3 FL. END SECTION	REMARKS
				30" 36" 42"	EXC. 30" 36" 42"	
3	1586+50			15" L.A.	162'	2
10	1798+25			35" L.A.	197'	2
11	1808+32			25" L.A.	215'	2
TOTALS				197'	215'	162'

CLASS V REINF. CONC. PIPE CULVERTS

SHEET	STATION	LOC.	CL. V REINF. CONC. PIPE	CL. 3 FL. END SECTION	REMARKS
			54"	EXC. 54"	
4	1598+71			193'	326'
TOTALS				193'	326'

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

REV MAY 1, 89

STATE MO
JOB NO. J7P0337
SHEET NO. 2B
ROUTE 60

DIST NO. 7
PROJ. STP-BRF-30-1 (II)
COUNTY NEWTON

SHEET 2 OF 7

REMOVAL OF IMPROVEMENTS

SHEET	STATION	LOC.	DESCRIPTION	NO.	REMARKS						
			LUMP SUM	1							
ENTRANCES AND SIDE ROADS											
SHEET	STATION	TYPE	LOC.	% GRADE	GROUP	PIPE	EL. END SECT.	REL. TO	CLASS	3" WIRE	4" TYPE
							15' 18" 24" 30" 36" 42" 48" 54" 60" 66" 72" 78" 84" 90" 96" 102" 108" 114" 120"	PIPE	EXC.	HEIGHT	
	158+37.65	TEMP	45 LT.	*	72				27'		AGGR.
	167+145.71	TEMP	30 LT.	*	58				26'		S.V.
	167+100	B.E.		*	44				5'		
7	174+150	S.R.D.	E	*	38		2'		33'		
6	173+24.36	S.R.D.	39 E	*	55		2'		18'		
TOTAL					894	372	102	78	116	32	8
USE					894	372	102	78	116	32	8
									297'		8014.2
									297'		8014

ROCK LINING

SHEET	STATION	LOC.	DEPTH	WIDTH	LENGTH	C.Y.	REMARKS
3	186+50	LT.	2'	10'	20'	15	AT CULVERT OUTLET
4	1598+71	LT.	2'	13.5'	22'	22	AT CULVERT OUTLET
4	1609+85	LT.	2'	12'	20'	18	AT CULVERT OUTLET
4	1620+40	LT.	2'	18'	25'	33	AT CULVERT OUTLET
5	1640+05.5	LT.	1.5'	9'	18'	9	AT CULVERT OUTLET
6	1662+04.2	LT.	1'	6'	16'	4	AT CULVERT OUTLET
TOTAL						114.0	C.Y.

GUARD RAIL, TYPE A

SHEET	STA. TO STA.	LOC.	FIELD MEASURED	BR.	ANCH.	B.C.T.	TRANS SECT.	REMARKS
7	1704+61.9	1706+36.9	RT.	175'	#			S.W. END OF BRIDGE
7	1705+97.8	1706+22.8	LT.	25'	#			N.W. END OF BRIDGE
7	1709+39.3	1711+51.8	LT.	212.5'	#			N.E. END OF BRIDGE
7	1709+53.4	1710+78.4	RT.	125'	#			S.E. END OF BRIDGE
9	1767+35.4	1768+60.4	RT.	125'	#			S.W. END OF BRIDGE
9	1768+35.4	1768+60.4	LT.	25'	#			N.W. END OF BRIDGE
10	1775+03.8	1777+16.3	LT.	212.5'	#			N.E. END OF BRIDGE
10	1775+03.8	1776+28.8	RT.	125'	#			S.E. END OF BRIDGE
TOTAL				1025'	#	8	8	

GUARD RAIL, TYPE D

SHEET	STA. TO STA.	LOC.	FIELD MEASURED	REMARKS
7	1705+95	122' RT.	25'	CO. RD. @ NEWTONIA BRANCH
14	1724+00	6'	25'	OLD RTE. 60 STATIONING
14	1726+50	6'	25'	OLD RTE. 60 STATIONING
14	1783+45	6'	25'	OLD RTE. 60 STATIONING
14	1806+25	6'	25'	OLD RTE. 60 STATIONING
TOTAL				125' *

DITCH LINER

SHEET	STA. TO STA.	LOC.	LENGTH	DEPTH	WIDTH	SLOPES	FIELD MEASURED	REMARKS
7	1697+89	1699+00	LT.	11'	8'	4:1, 2:1	177.1'	
10	1794+65	1795+10	RT.	45'	2'	2:1, 2:1	119.7'	
11	1808+60	1809+00	LT.	40'	.73 ADV.	3:1, 2:1	68.6'	SEE CULVERT SECTIONS
11	1809+00	1810+00	LT.	100'	.75'	3:1, 2:1	67.2'	
11	1810+00	1811+00	LT.	100'	.75'	3:1, 4:1, 2:1 D.S.	104.5'	
14	1780+00	1781+00	LT.	100'		PAD	111.1'	EXIST. RTE. 60 LOW WATER X-ING
14	1782+00	1783+00	LT.	100'		PAD	111.1'	EXIST. RTE. 60 LOW WATER X-ING
TOTAL							759.4'	
USE							759'	

CONCRETE BOX CULVERT

SHEET	STATION	LOC.	STD.	WING	SIZE	LENGTH	SKEW	CL. B	REINF.	CL. 3	REMARKS
4	1620+40	6	703.21	2:1	6' X 4'	128'	20' R.A.	75.5'	9050'	172'	BOX LENGTH 104' 1ST STAGE, 24' 2ND STAGE
TOTALS								75.5'	9050'	172'	

77 209

REV MAY 1, 89

STATE MO	JOB NO. 740337	SHEET NO. 2B
DIST NO. 7	PROJECT NO. STA. BRFGO-111	ROUTE
	COUNTY NEWTON	60

SHEET 3 OF 7

ROCK BLANKET, TYPE 2					
SHEET	STA. TO STA.	LOC.	DEPTH FT.	MEASUREMENT PLACE C.Y.	
7	1706+30-1706+85	LT.&RT.	2	266	WEST SPILL
7	1708+79-1709+70	LT.&RT.	2	436	EAST SPILL
9	1774+74.1	LT.&RT.	2	476	EAST SPILL
TOTAL				1178	cy

CLEARING & GRUBBING				
SHEET	FIELD MEASUREMENT CLEAR		FIELD MEASUREMENT GRUB	REMARKS
TOTAL	32.9 AC.		19.8 AC.	

SHEET	STA. TO STA.	LOC.	S.Y.	REMARKS
419	1618+13.65-1618+24.65	LT.	8.6	RTE. W INTERSECTION
419	1618+51.65-1618+62.65	RT.	8.6	RTE. M INTERSECTION
		TOTAL	17.2	

SHEET	STA. TO STA.	LOCATION	FIELD MEASUREMENT			REMARKS
			4"	4"	4"	
			SOLID WHITE	SOLID YLW.	INT. YLW.	
11	1821+00	1821+10	RT OF 1			RT EOP EXIST. RTE 60
11	1818+00	1821+50	LT. IRT. OF 2	3.30	6.40	(DBL. YELLOW) ✓
12	1856+00	1858+00	2 ✓		2.00	EXIST. RTE. 60
12	1856+00	1858+00	2 ✓			EXIST. RTE. 60
6	1677+28	1679+65	2 ✓	4.74	2.94	(DBL YELLOW) EXIST. RTE. 60
TOTAL			3.30	13.14	50	
USE			16.9	(100)		

SHEET	STA.	TO STA.	LOC.	SKEW	CONC.	REMARKS
					S.Y.	
7 ✓	1706+32	93-1706+60	¢	20° R.A.	116.8 ✓	
7 ✓	1709+16	2-1709+43	¢	20° R.A.	116.8 ✓	
9 ✓	1768+70	-1768+90	¢		86.3 ✓	
9 ✓	1774+74	1-1774+94	¢		86.3 ✓	
				TOTAL	406.2 ✓	

SHEET	STA. TO STA.	LOC.	PRIEST S.F.	REMARKS
-4	1598+71	48' LT.	754	(SEE CULVERT SECTION FOR DETAILS)
-4	1609+85	51' LT.	644	" " " "
-4	1620+46	53' LT.	356	" " " "
	TOTAL		1754	

SHEET		STA. TO STA.	LOCATION	FIELD MEASUREMENT		REMARKS
				4"	4"	
				SOLID	SOLID	
				YLW.	WHITE	
				100'	100'	
6	1667+97	-1679+98.59	BYPASS E.P.	23.8'		DBL. SOLID YELLOW
6	1667+ 97	-1679+98.59	BYPASS E.P.		24.2	WHITE EDGE LINES LT. & RT.
11&12	1834+73.16	-1857+96.56	BYPASS E.	46.50'		DBL. SOLID YELLOW
11&12	1834+73.16	-1857+96.56	BYPASS E.P.		46.50'	WHITE EDGE LINES LT. & RT.
TOTALS				70.30	70.70	
USE				70.3(100')	70.7(100')	

SHEET	STA.	LOCATION	SKEW	15"	24"	CL. 3 EXC. C.Y.	REMARKS
13	1839+87	E TEMP. BYPASS	30 L.A.	56'	51'		
13	1854+00	E TEMP. BYPASS		42'	35'		
14	1781+65	E ✓		66'			LOW WATER X-ING BE
14	1781+68	E ✓		66'			LOW WATER X-ING BE
14	1781+71	E ✓		66'			LOW WATER X-ING BE
14	1781+74	E ✓		66'			LOW WATER X-ING BE
TOTAL				98'✓	264'✓	86'✓	

SHEET	STA. TO STA.	LOCATION	4"	4"	REMARKS
✓	SALVAGED FOR MAINTENANCE		SOLID YLW.	SOLID WHITE	
✓	" " "	✓	100'	100'	

SHEET		STA. TO STA.	LOCATION	FIELD MEASUREMENT		REMARKS
				4"	4"	
				SOLID	INT.	
				YLW.	YLW.	
				100'	100'	
3	1569+25	1579+14	LT. FRT. E	19.80		
4	0+89.8	4+10.8	LT. FRT. E	6.40		RTE M
11/12	1830+18.32	1837+75	LT. E	6.90	6.8/1.2	
12	1854+18.35	1856+07.35	RT. E	1.30	1.2/1.4	
TOTAL				34.4	2.0	(100')

TOTALS	0	0
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Sheet 4 of 7

STATE MO.	JOB NO. 1743331	SHEET NO. 2B
DIST. NO. 7	PROJECT NO. STA-BKF-60-1111	ROUTE
	COUNTY NEWTON	60

TEMPORARY EROSION & SEDIMENT CONTROL

SLOPE DRAINS

Length
L.F.

TOTAL	* 510
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SEDIMENT BASINS

TOTAL	~	0
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TEMPORARY SEEDING AND MULCHING

TOTAL

Acres
#19

SILT FENCE

Length	L.F.
--------	------

TOTAL	* 3,061
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DITCH CHECKS

Rock	Str. Balc
------	-----------

Each	Each
------	------

TOTAL

238' 620'

STRAW	BALES
-------	-------

Lin. Ft.

TOTAL

* 4.003

SEDIMENT REMOVAL

CV

TOTAL

* B29

*	FIELD	MEASURED
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[illegible]

FINAL SURVEY	SURVIVAL	BY	DATE
NOTE BOOK	POSTED		
NO.	RECEIVED		

SUMMARY OF QUANTITIES

D-206
REV SEP 1, 1990

STATE MO	JOB NO. J7P0337	SHEET NO. 2B
DIST NO. 7	PROJECT NO. STP-BRF-60-111	ROUTE
	COUNTY NEWTON	60

SHEET 7 OF 7

SIGN	SIZE (INCHES)	AREA (SQ FT)	QTY	TOTAL AREA	QTY RELOC	TOTAL RELOC AREA	DESCRIPTION
WARNING SIGNS							
W01-1Lb	48X48	16.0					TURN (SYMBOL LEFT ARROW)
W01-1Rb	48X48	16.0					TURN (SYMBOL RIGHT ARROW)
W01-2Lb	48X48	16.0					CURVE (SYMBOL LEFT ARROW)
W01-2Rb	48X48	16.0					CURVE (SYMBOL RIGHT ARROW)
W01-3Lb	48X48	16.0	5	80.0			REVERSE TURN (SYMBOL LEFT ARROW)
W01-3Rb	48X48	16.0	3	48.0			REVERSE TURN (SYMBOL RIGHT ARROW)
W01-4Lb	48X48	16.0					REVERSE CURVE (SYMBOL LEFT ARROW)
W01-4Lb2	48X48	16.0					DOUBLE ARROW REVERSE CURVE (SYM LT ARROWS)
W01-4Rb	48X48	16.0					REVERSE CURVE (SYMBOL RIGHT ARROW)
W01-4Rb2	48X48	16.0					DOUBLE ARROW REVERSE CURVE (SYM RT ARROWS)
W01-6	48X24	8.0					HORIZONTAL ARROW (SYMBOL)
W01-6a	72X36	16.0					HORIZONTAL ARROW (SYMBOL)
W01-7	48X24	8.0					DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
W01-7a	72X36	16.0					DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
W01-8	18X24	3.0					CHEVRON (SYMBOL)
W03-1b	48X48	16.0					STOP AHEAD
W03-2b	48X48	16.0					YIELD AHEAD
W03-3b	48X48	16.0					SIGNAL AHEAD (SYMBOL)
W03-4b	48X48	16.0					BE PREPARED TO STOP
W04-1Lb	48X48	16.0					MERGE (SYMBOL FROM LEFT)
W04-1Rb	48X48	16.0					MERGE (SYMBOL FROM RIGHT)
W05-1a	48X48	16.0					ROAD NARROWS
W05-3a	48X48	16.0					ONE LANE BRIDGE
W06-1b	48X48	16.0					DIVIDED HIGHWAY
W06-2b	48X48	16.0					DIVIDED HIGHWAY ENDS
W06-3b	48X48	16.0					TWO WAY TRAFFIC (SYMBOL)
W06-3x	24X18	3.0					TWO WAY TRAFFIC (PLAQUE)
W08-1b	48X48	16.0					BUMP
W08-2b	48X48	16.0					DIP
W08-3	48X48	16.0					PAVEMENT ENDS
W08-4b	48X48	16.0					SOFT SHOULDER
W08-5b	48X48	16.0					SLIPPERY WHEN WET (SYMBOL)
W08-6b	48X48	16.0					TRUCK CROSSING
W08-6c	48X48	16.0					TRUCK ENT (INCLUDES W025-1a PLATE)
W08-7a	36X36	9.0					LOOSE GRAVEL
W08-9	48X48	16.0					LOW SHOULDER
W08-9La	48X48	16.0					UNEVEN PAVEMENT (SYM FOR LT DROPOFF)
W08-9Ra	48X48	16.0					UNEVEN PAVEMENT (SYM FOR RT DROPOFF)
W09-1R	48X48	16.0					RIGHT LANE ENDS (INCLUDES W025-3c PLATE)
W09-2Ra	48X48	16.0					LANE ENDS MERGE RIGHT (INCLUDES W025-3b PLATE)
W10-1a	42D1a	9.6					RAILROAD CROSSING
W012-1	24X24	4.0					DOUBLE DOWN ARROW (SYMBOL)
W012-2a	48X48	16.0					LOW CLEARANCE (SYMBOL)
W012-2x	24X18	3.0					LOW CLEARANCE (PLAQUE)
W012-3a,b	144X24	24.0					OVERHEAD LOW CLEARANCE (FEET AND INCHES)
W013-1a	24X24	4.0	8	32			ADVISORY SPEED (PLAQUE) 30 M.P.H.
W020-1	48X48	16.0	27	432.0	5	80	ROAD CONST AHEAD (INCLUDES W025-6 PLATE)
W020-2	48X48	16.0	4	64.0			DETOUR AHEAD (INCLUDES W025-1b PLATE)
W020-3	48X48	16.0					ROAD CLOSED AHEAD (INCLUDES W025-1c PLATE)
W020-4a	48X48	16.0	2	32			ONE LANE ROAD AHEAD (INCLUDES W025-1a PLATE)
W020-5	48X48	16.0					RIGHT LANE CLOSED AHEAD (INCL W025-3d PLATE)
W020-6a	48X48	16.0					RIGHT LANE CLOSED (INCLUDES W025-3c PLATE)
W020-7b	48X48	16.0	2	32			FLAGGER (SYMBOL)
W020-7x	24X18	3.0					500 FT/1000 FT (PLAQUE)
W020-9c	48X48	16.0	12	192	10	160	OPEN TRENCH
W021-2b	48X48	16.0					FRESH OIL
W021-5b	48X48	16.0	5	80			SHOULDER WORK AHEAD
W021-7	36X36	9.0					SAND BLASTING
W022-1	48X48	16.0					BLASTING ZONE 1000 FT
W022-2	42X36	10.5					TURN OFF 2-WAY RADIO
W022-3	42X36	10.5					END BLASTING ZONE
W022-5	30X30	6.3					NO PASSING ZONES UNMARKED
W025-1a	26X9						1000 FT/1500 FT Plate
W025-1b	38X9						500 FT/1000 FT Plate
W025-1c	34X9						500 FT/1000 FT Plate

SIGN	SIZE (INCHES)	AREA (SQ FT)	QTY	TOTAL AREA	QTY RELOC	TOTAL RELOC AREA	DESCRIPTION
REGULATORY SIGNS							
W025-3b	30X9						LEFT Plate
W025-3c	33X9						LEFT/CENTER Plate
W025-3d	22X9						LEFT/CENTER Plate
W025-5	30X12	2.5					1/2 MILE/1 MILE (PLAQUE)
W025-6	28X9						RAMP/BRIDGE Plate
REGULATORY SIGNS							
R1-1b	48X48	13.25					STOP
R1-2a	48X48X48	6.93					YIELD
R1-3	20X9	1.25					4-WAY (PLAQUE)
R1-5	20X9	1.25					3-WAY (PLAQUE)
R2-1b	36X48	12.00	10	120			SPEED LIMIT XX (2) 55 M.P.H. (5) 30 M.P.H. & (2) 20 M.P.H.
R2-5b	36X48	12.00	5	60			REDUCED SPEED AHEAD
R3-1b	36X36	9.00					NO RIGHT TURN (SYMBOL)
R3-2b	36X36	9.00					NO LEFT TURN (SYMBOL)
R3-3a	36X36	9.00					NO TURNS
R3-4	24X24	4.00					NO U-TURN (SYMBOL)
R3-7L	30X30	6.25					LEFT LANE MUST TURN LEFT
R3-7R	30X30	6.25					RIGHT LANE MUST TURN RIGHT
R4-1b	36X48	12.00					DO NOT PASS
R4-2b	36X48	12.00					PASS WITH CARE
R4-7Lb	36X48	12.00					KEEP LEFT (HORIZONTAL ARROW)
R4-7Rb	36X48	12.00					KEEP RIGHT (HORIZONTAL ARROW)
R4-17La	36X36	9.00					KEEP LEFT
R4-17Ra	36X36	9.00					KEEP RIGHT
R5-1	30X30	6.25					DO NOT ENTER
R5-1a	36X24	6.00					WRONG WAY
R6-1La	48X18	6.00					ONE WAY ARROW (LEFT)
R6-1Ra	48X18	6.00					ONE WAY ARROW (RIGHT)
R6-2La	24X30	5.00					ONE WAY (LEFT)
R6-2Ra	24X30	5.00					ONE WAY (RIGHT)
R11-2	48X30	10.00	13	130.0	4	40.0	ROAD CLOSED
R11-3	60X30	12.50					ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY
R11-4	60X30	12.50	5	62.5	4	50.0	ROAD CLOSED TO THRU TRAFFIC
R12-3b	36X36	9.00					TO ONCOMING TRAFFIC (PLAQUE)
S4-4a	36X18	4.50					WHEN FLASHING
GUIDE SIGNS							
G020-1	60X36	15.00	2	30.0			ROAD CONSTRUCTION NEXT XX MILES
G020-2	60X24	10.00	2	20.0			END CONSTRUCTION
M04-8a	30X15	3.13					DETOUR (PLAQUE)
M04-9L	48X36	12.00					DETOUR (LEFT ARROW)
M04-9R	48X36	12.00					DETOUR (RIGHT ARROW)
M04-10L	48X18	6.00	2	12.0			DETOUR (ARROW LEFT)
M04-10R	48X18	6.00	3	18			DETOUR (ARROW RIGHT)
M04-11	24X18	3.00					DETOUR ENDS
M5-1L	21X15	2.19					ADVANCE LEFT TURN ARROW
M5-1R	21X15	2.19					ADVANCE RIGHT TURN ARROW
MISCELLANEOUS SIGNS							
616-10.05 CONSTRUCTION SIGNS TOTAL 1444							
616-10.10 RELOCATED SIGNS TOTAL 330							

ITEM NUMBER	SIZE (INS)	TOTAL QTY	DESCRIPTION
616-10.20	36X18	97	CHANNELIZER (DRUM)
616-10.35	8X24		TYPE I BARRICADE (ONE RAIL)
616-10.36	8X24		TYPE II BARRICADE (TWO RAILS)
616-10.40	48X96		FLASHING ARROW PANEL
616-10.45	18X18		TYPE I OBJECT MARKER
616-10.46	6X12		TYPE II OBJECT MARKER
616-10.47	8X24		TYPE III OBJECT MARKER
616-10.50	8	10	FLASHING ELECTRIC LIGHT
616-10.51	---		WARNING LIGHT TYPE A
616-10.52	---		WARNING LIGHT TYPE B
616-10.53	---		WARNING LIGHT TYPE C
616-10.54	---		STROBE LIGHT
616-10.60	---		RAISED PAVEMENT MARKER
616-10.70	28		FLEXIBLE DELINEATOR
616-10.80	LIN FT	2667	EDGE DROPOFF TREATMENT
612-10.30	72X144	32	MOVEABLE BARRICADE (THREE RAILS)
612-90.10	48X96	4	• INSTALLING GIVE'EM A BRAKE
612-90.20	48X48	2	• INSTALLING GIVE'EM A BRAKE
• SEE GENERAL SPECIAL PROVISIONS			

SE-4 SW-4 Sec 3
T-6A - R30W

Land Survey Monument, R.R. Soike
S.E. Corner of Sec. 33, T26N, R30W
1395.86' N 86° 37' 00" W of E. Pt. Sta. 1574 + 15.52
Set by Sam Goodman, L.S. 2031
Recorded in Newton Co. Book S, P. 244

EXIST. R/W

NOTE: New & Shifted 9' Rt. of Existing E

*Langs Survey Monument, R.R. Spike
 N.W. Corner of Sec. 3, T25N, R30W
 1406.33' N 86° 37' 29" W of & P.T. Sta. 1579+13.52
 Set by Sam Goodman, L.S. 2031
 Recorded in Newton Co. Book G, P. 299*

(6A) WINIFRED KATHLEEN BROWN HAYWORTH
4.33 Ac. New R/W
82.87 Ac. Remain.

Right-of-Way Limits
for this Project Extend W/ Lot 2 NW 4 Sec. 3
from Sta. 1565+37.9 T 25N - R 30W
to Sta. 1860+92, a
Distance of 5.273 Miles.

P.I. 1577+05.44
9' Rt. Exist. 1577+05.44
Δ - 8° 21' Rt.
D - 2°
T - 209.12'
L - 417.50'
R - 2864.79'
S.E. - 0.04'/ft.

Sta. 1574+96.32 Begin Project
Fed. Improvement Begins @ a
Point Approx. 979.1' East & 40.2'
South of S.E. Cor. Sec. 33, T26N, R30W

NOTE: ALL R/W DIMENSIONS
ARE FROM NEW ϕ

E 1/2 Lot 2 NW 4 Sec. 3
T25N - R30W

Note: Exist. & Constructed Entrances May Be Widened To A Maximum Width of 60' By Permit Unless Otherwise Noted

(13A)
(See P&F Sht.4)

NOTE: Do not disturb existing trees on this project beyond the clear zone const. limits except as directed by the engineer.

UTILITIES OWNERSHIPS

POWER: New-Mac Electric Co-op., Inc.
P.O. Box 311
Neosho, Mo. 64850
Tel. No. (417) 628-3844

TELEPHONE: Granby Telephone Co.
P.O. Box 209
Granby, Mo. 64844
Tel. No. (417) 472-6211
Southwestern Bell Telephone Co.
600 St. Louis Street - Room 630
Springfield, Mo. 65806
Tel. No. (417) 836-2686

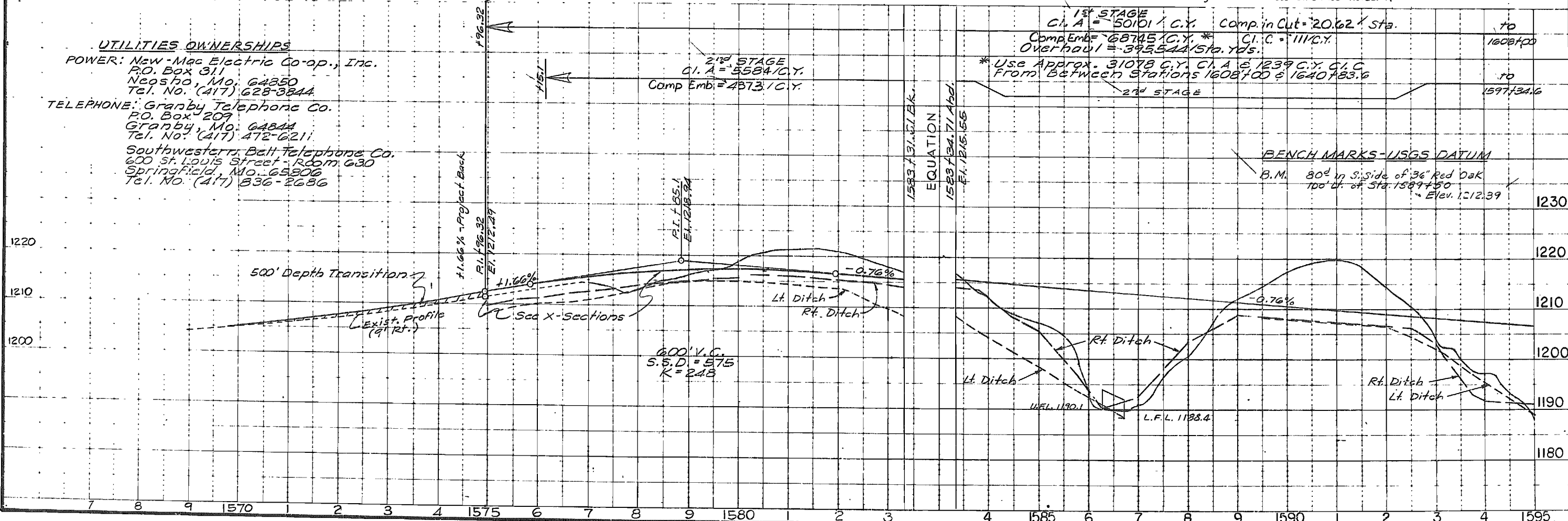
1st STAGE
 $C.L. A = 50101 / C.Y.$ Comp. in Cut = 20.62 / Sta
 Comp. Emb = 68.45 / C.Y. * $C.L. C = 111 / C.Y.$
 Verhovl = 395.544 / Sta. Yds.

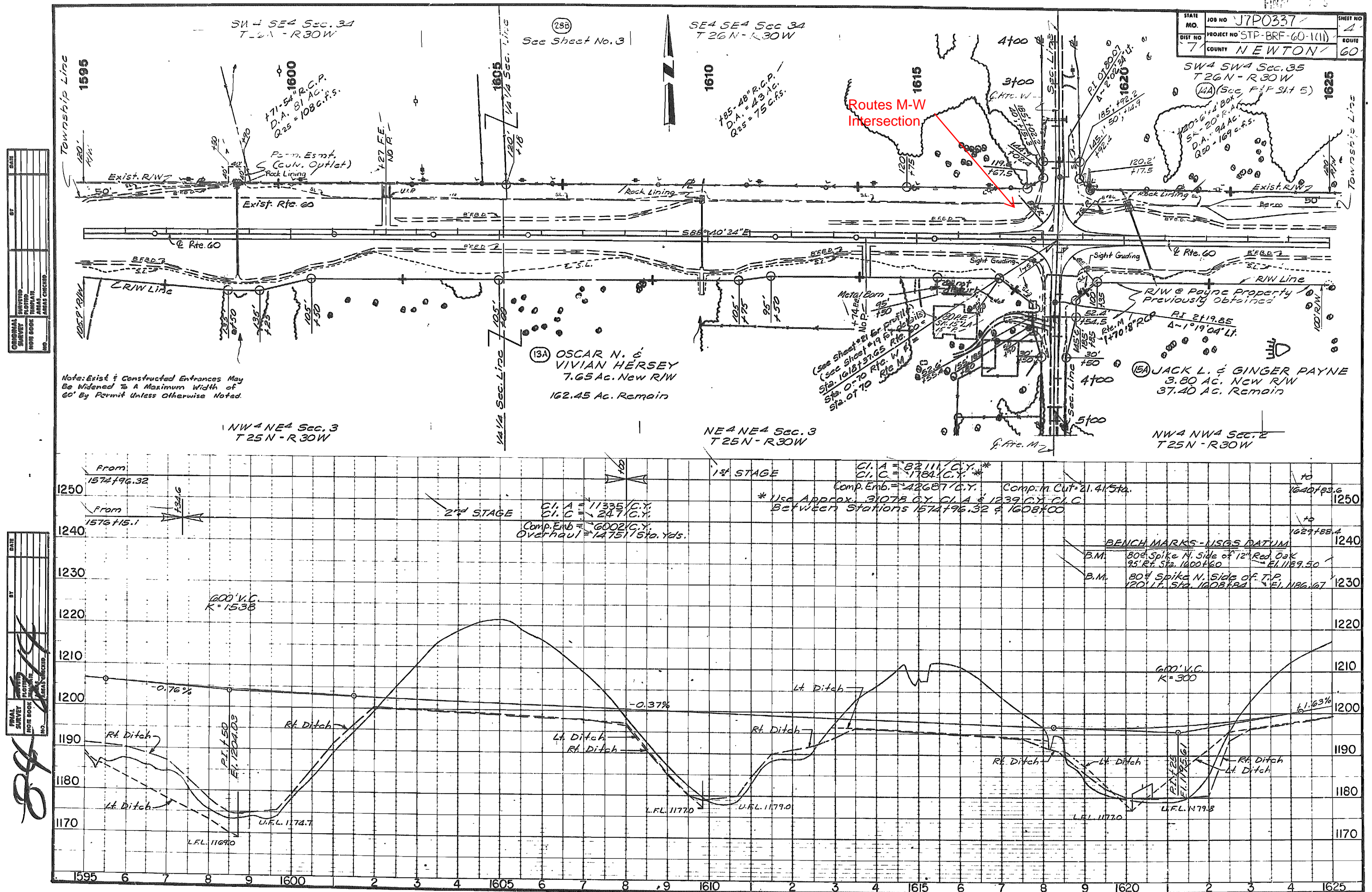
2nd STAGE
C1. A = 5584 / C.Y.
Comp Emb = 4373 / C.Y.

* Use Approx. 31078 C.Y. C.I.A & 1239 C.Y. C.I.C
From Between Stations 1608+00 & 1640+83.6

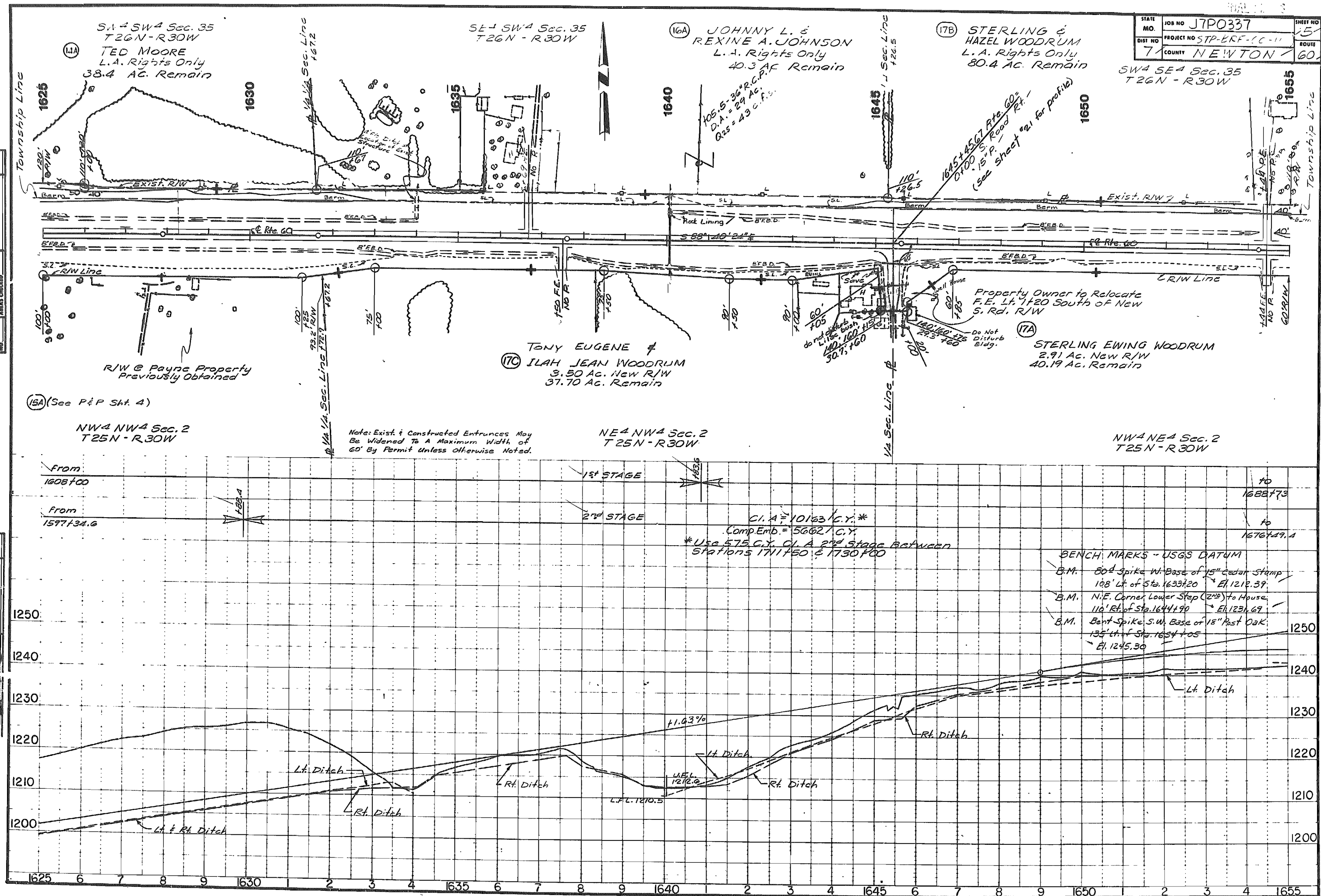
BENCH MARKS - USGS DATUM

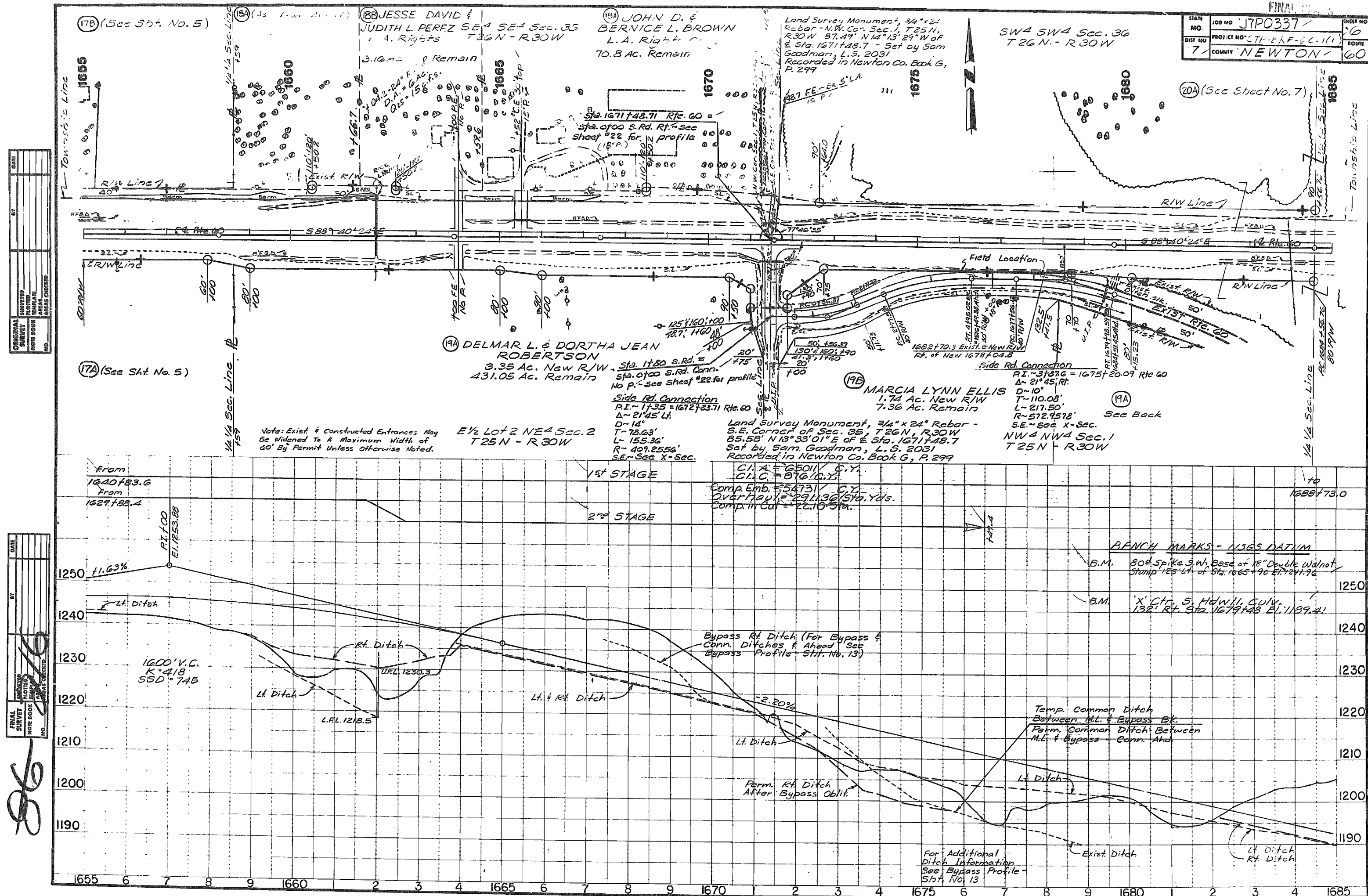
B.M. 80' in S. side of 36" Red Oak
100' W. of Sta. 1589+50
Elev. 1212.3





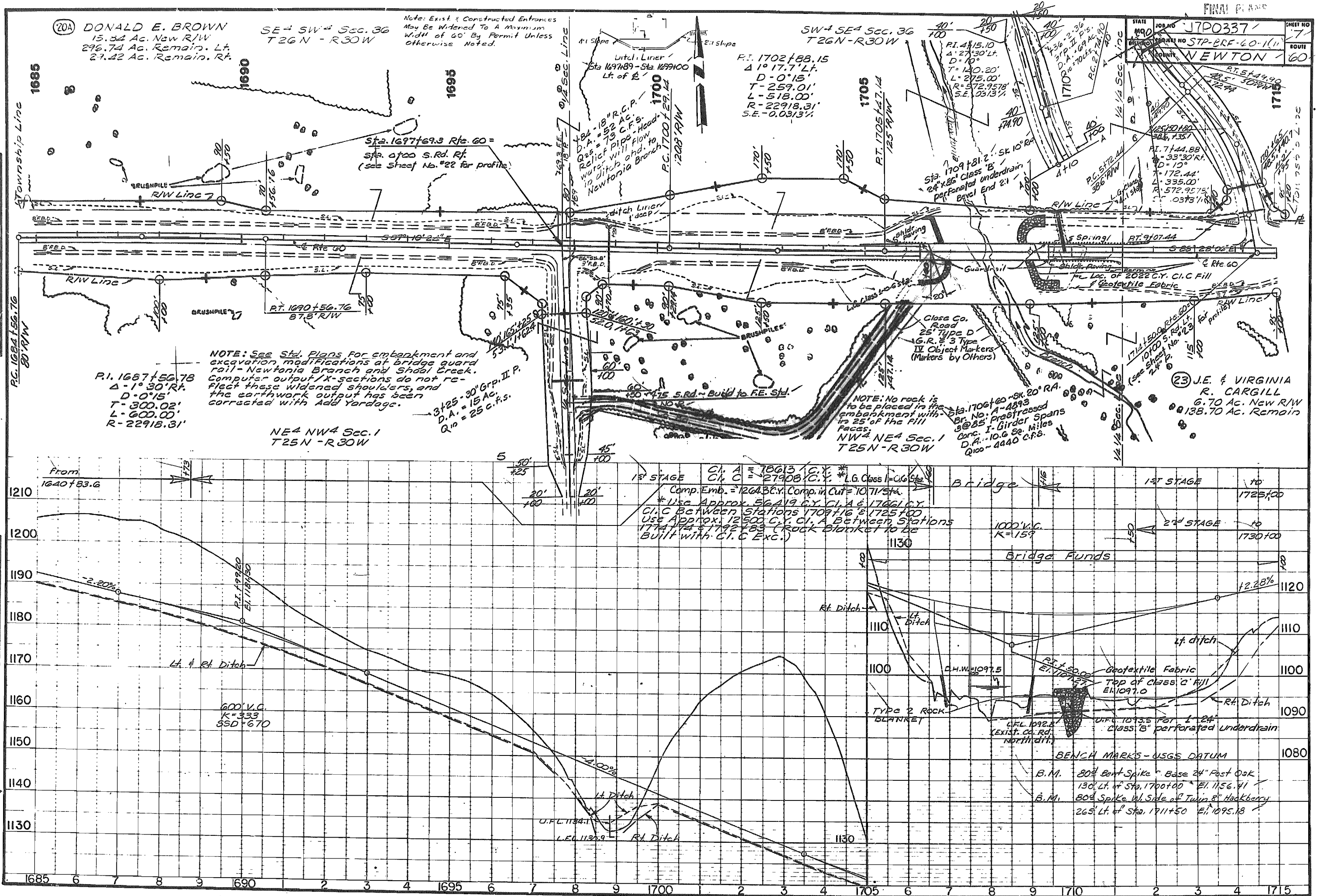
FINAL SURVEY	SURVED NO.	BY	DATE
NOTE BOOK	NOTED DATE		
NO.	REMARKS		





STATE	JOB NO	SHEET NO
NO	JTP0337	7
PROJECT	PROJECT NO	ROUTE
STP-BRF-60-1011		60
COUNTY	TOWN	
NEWTON		

1/4 Sec. 4, 2nd
 D. 1
 21.5149.90
 285.5000
 122.74
 75



STATE	MO.	JOB NO.	17P0337	SHEET NO.	8
DIST. NO.	7	PROJECT NO.	STP-ELF-60-111	ROUTE	20
COUNTY	NEWTON				20

SE 1/4 Sec. 36
T26N - R30W

(See Sheet No. 7)

NORMAN &
GENEVIEVE HASKINS
0.11 Ac. New R/W

SW 1/4 Sec. 31
T26N - R29W

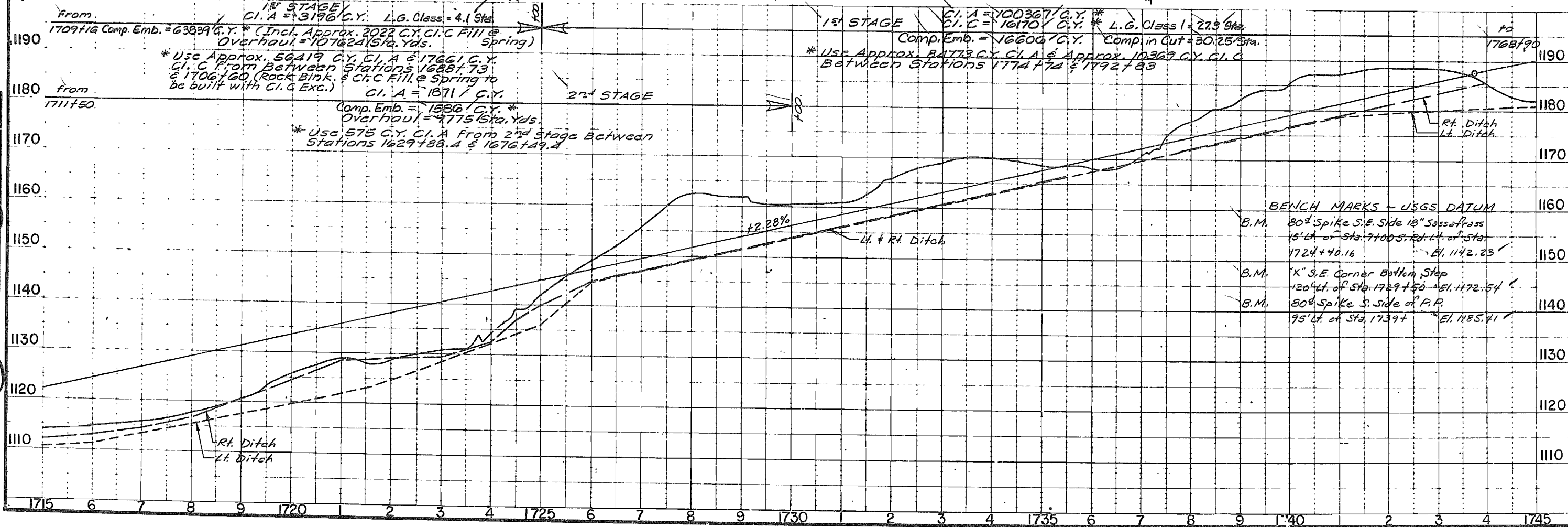
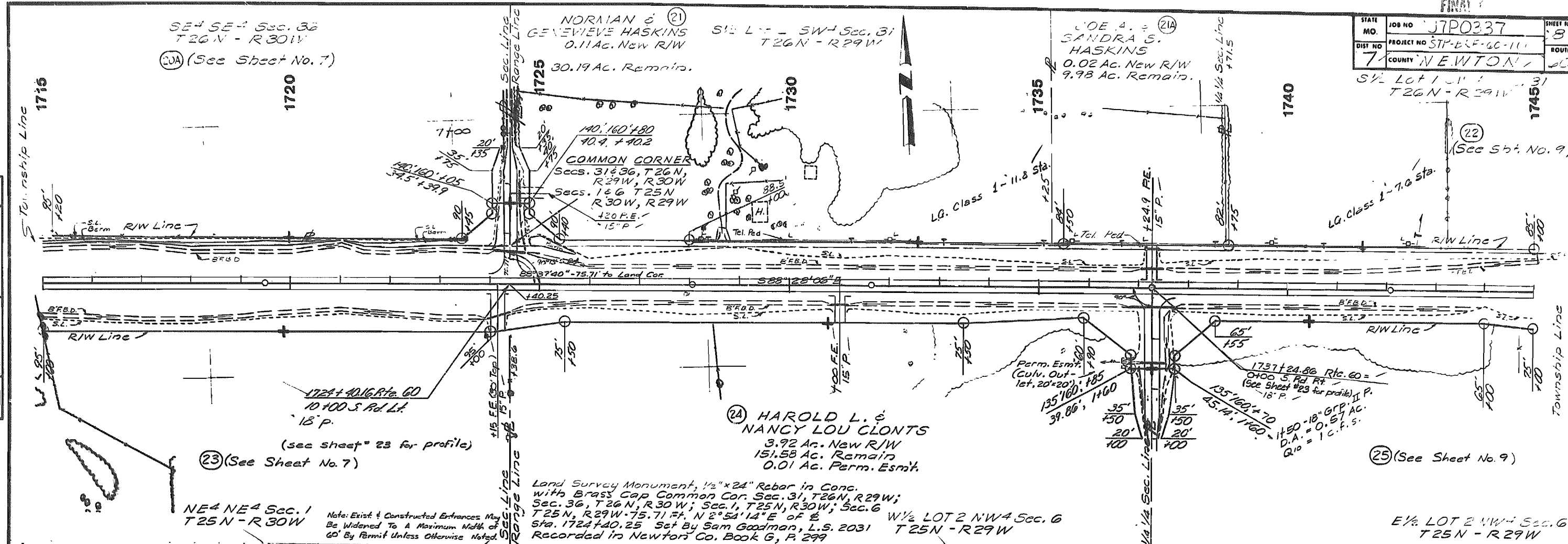
JOE A. &
SANDRA S.
HASKINS
0.02 Ac. New R/W
9.98 Ac. Remain.

SW 1/4 Lot 1-11
T26N - R29W

(See Sht. No. 9)

DATE	
BY	
ORIGINAL SURVEY	
NOTED	
TEMP	
AREAS CHECKED	

DATE	
BY	
FINAL SURVEY	
NOTED	
TEMP	
AREAS CHECKED	



STATE MO.	JOB NO. J7P0337	SHEET NO. 19
DIST NO. 7	PROJECT NO. STP-ERF-60-1(11)	ROUTE 60
COUNTY NEWTON		

SE4 SE4 Sec. 31
T26 N - R29 W

(27A) Sec R & P Sheet #10

Property Owner will be allowed access under the bridge east of Shoal Creek.

NOTE: No rock is to be placed in the embankment within 25' of the east fill face.

NE4 NE4 Sec. 6
T25 N - R29 W

(27A) (See Sheet No. 10)

SW4 SE4 Sec. 31
T26 N - R29 W
(22) C. LOWELL &
BOBBY P. CREACH
0.54 Ac. New R/W
114.76 Ac. Remain.

(25) HERSCHELL D. &
PHYLLIS J. TRAMMELL
9.83 Ac. New R/W
180.27 Ac. Remain

NW4 NE4 Sec. 6
T25 N - R29 W

S1 - L511 - 4 S1 - 31
T26 N - R29 W

E1/2 LOT 2 NW4 Sec. 6
T25 N - R29 W

Note: Exist & Constructed Entrances May Be Widened To A Maximum Width of 60' By Permit Unless Otherwise Noted.

Sta. 1768+90
Br. No. A-4894
(1-GI & 6@87)
Prestressed Conc.
I-Girders Span
D.A. ~ 141.7 Sp. Miles
Q25 = 26,950 c.f.s.

1765+40-30° R.C.P.
Sk. 30° L.A.
D.A. = 16 Ac.
Q25 = 31 c.f.s.

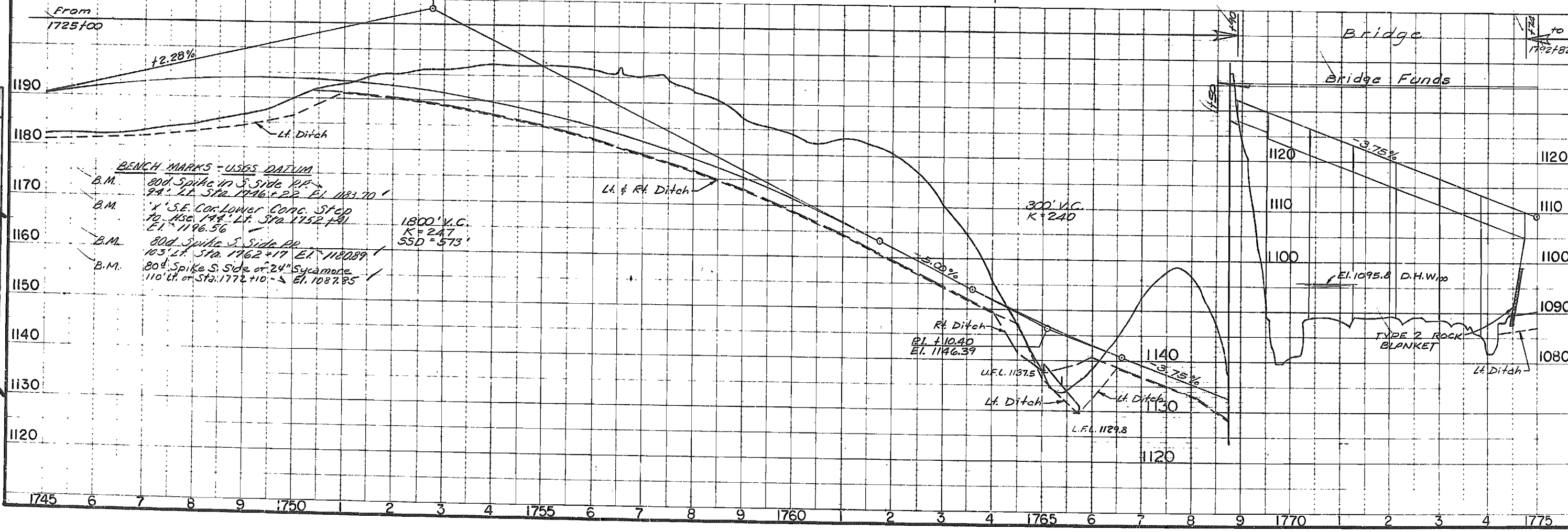
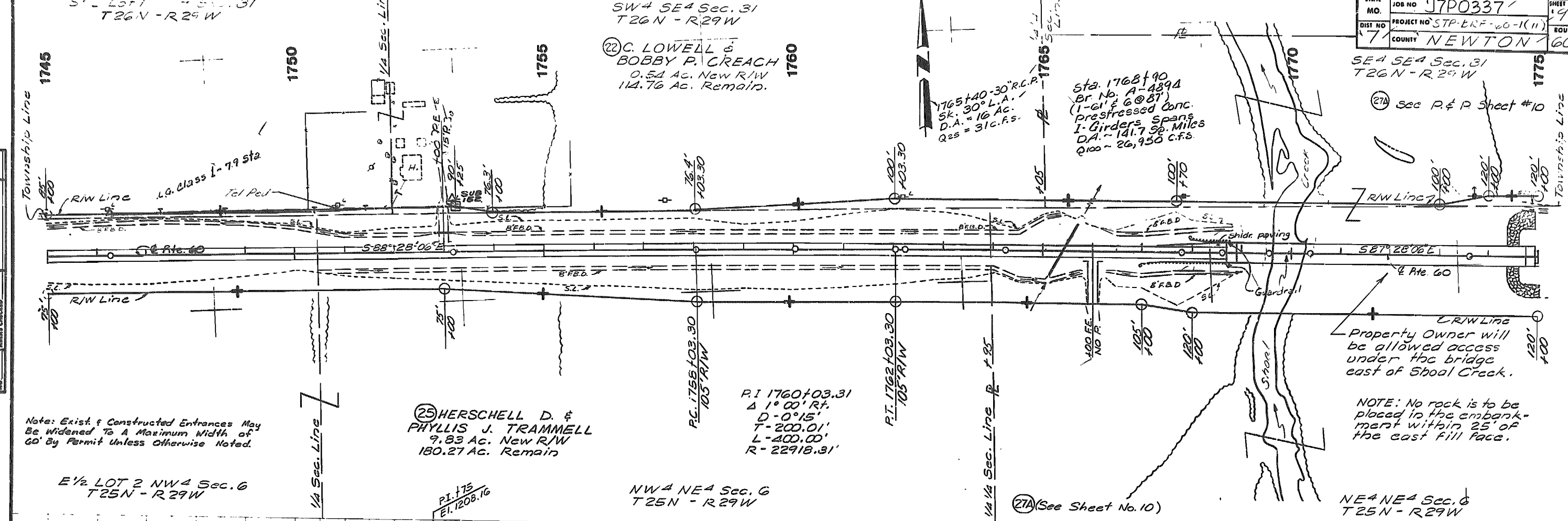
P.I. 1760+03.31
Δ 1° 00' Rt.
D = 0° 15'
T = 200.01'
L = 400.00'
R = 22918.31'

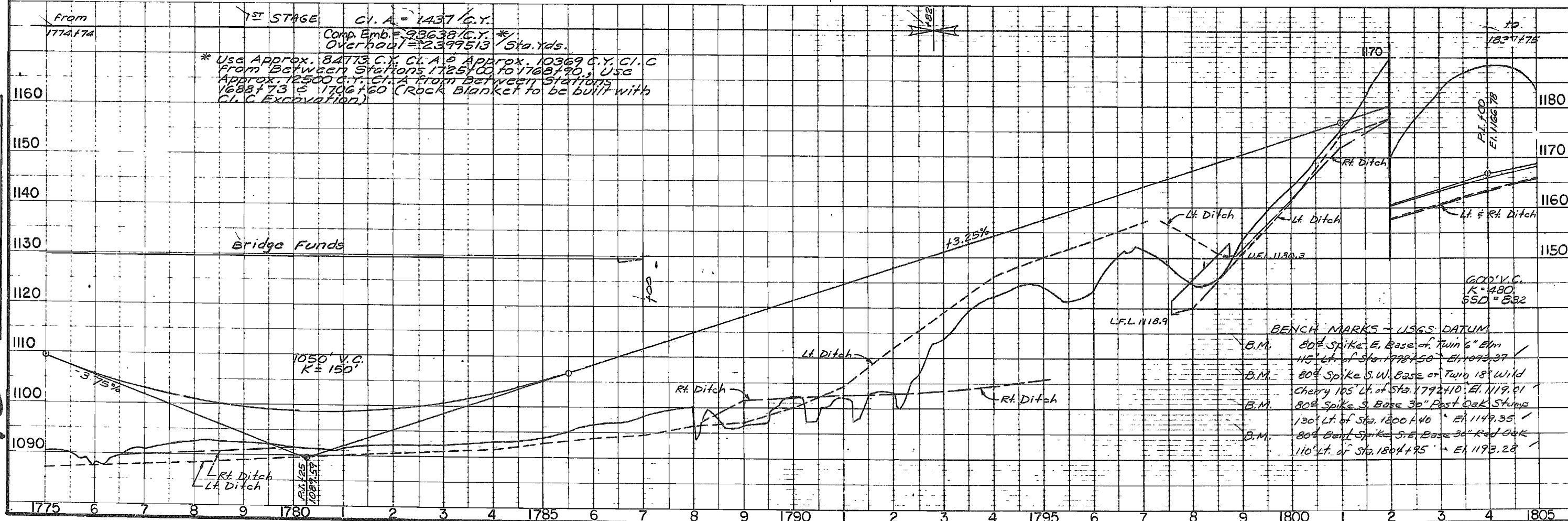
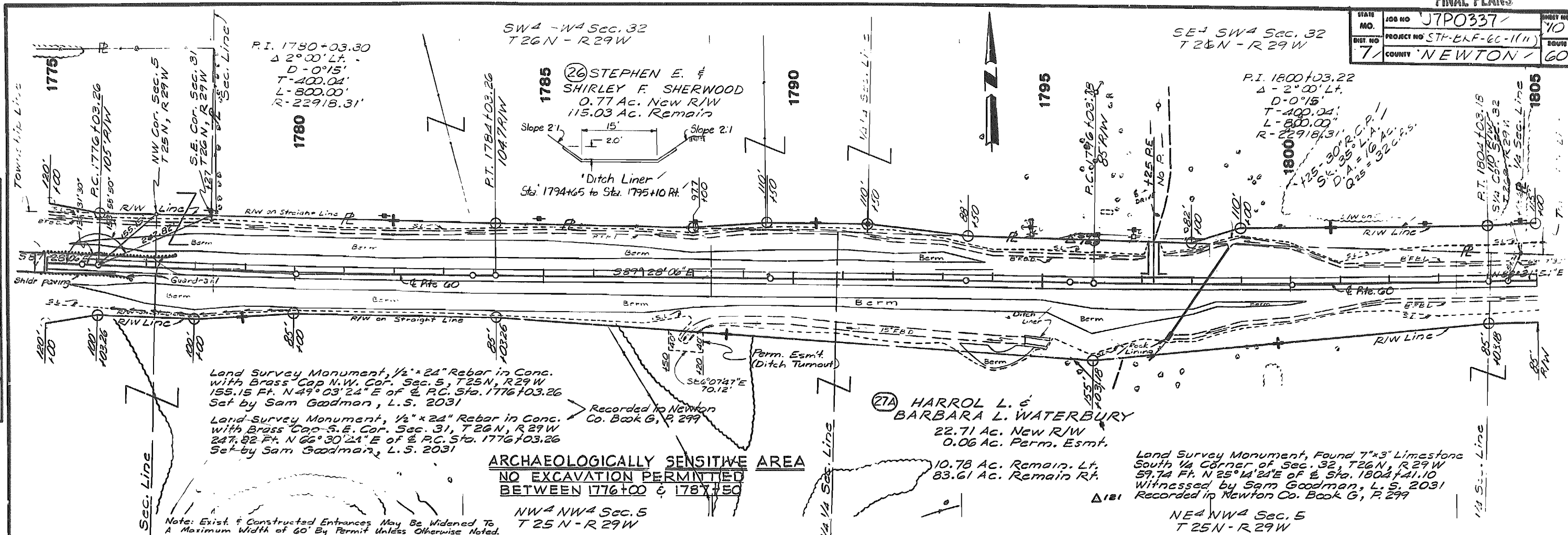
P.C. 1755+03.30
105° R/W

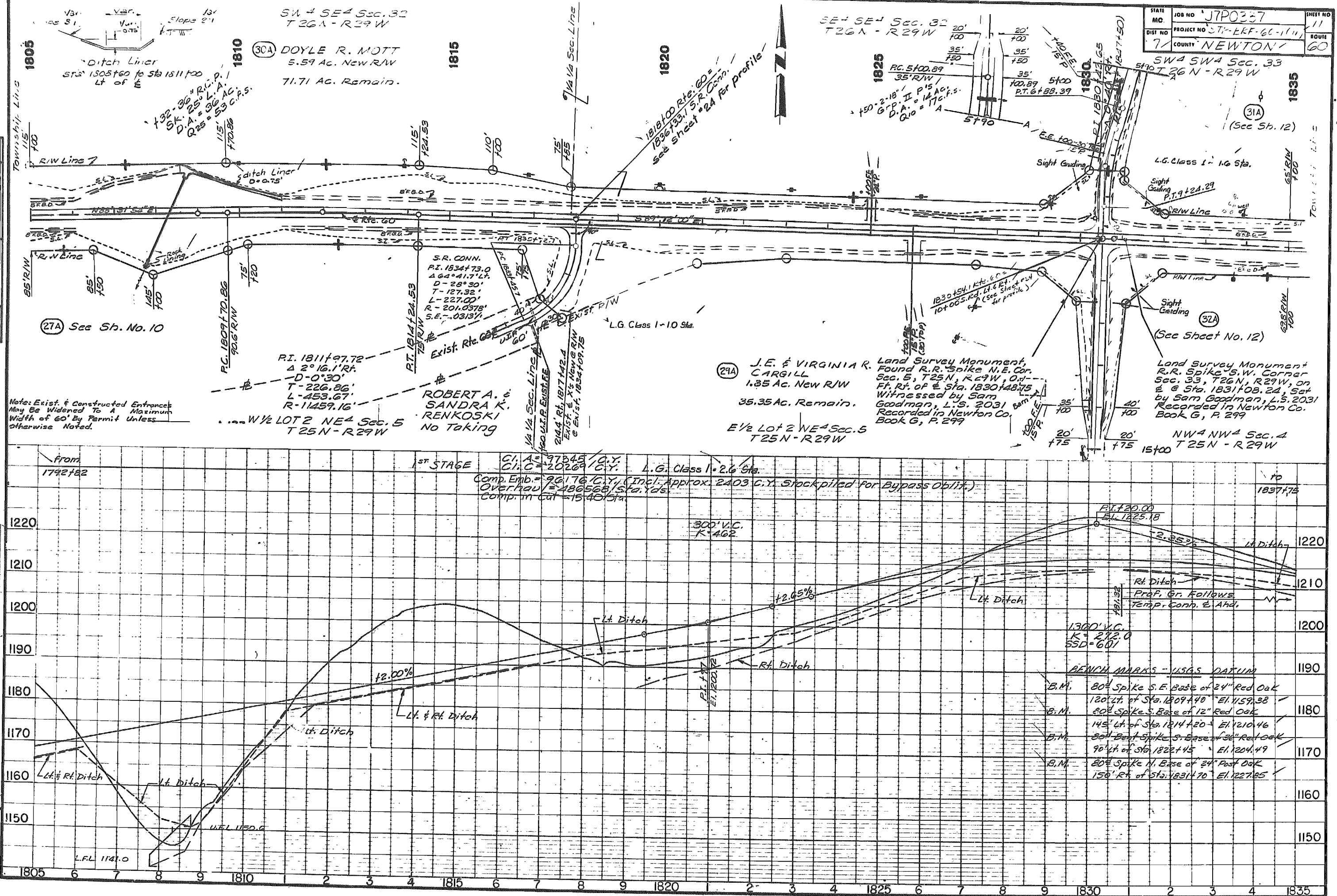
P.T. 1762+03.30
105° R/W

DATE	
BY	
ORIGINAL SURVEY	
NOTED	
NO. BOOK	
AREA CHECKED	

DATE	
BY	
FINAL SURVEY	
NOTED	
NO. BOOK	
AREA CHECKED	

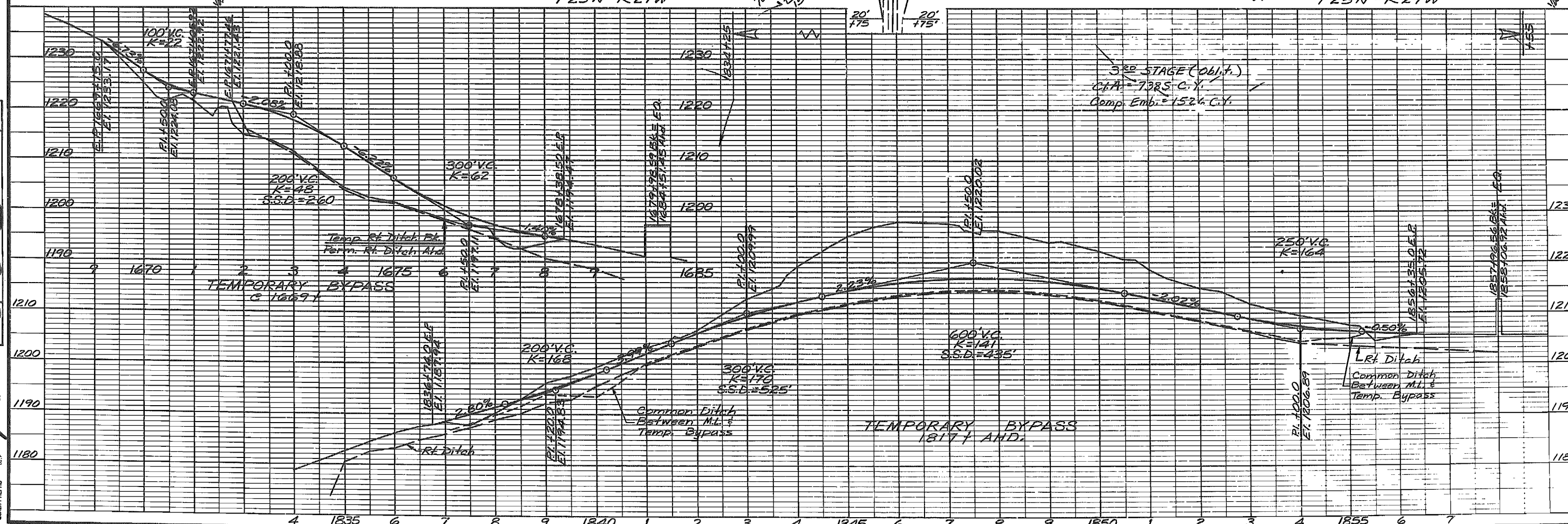
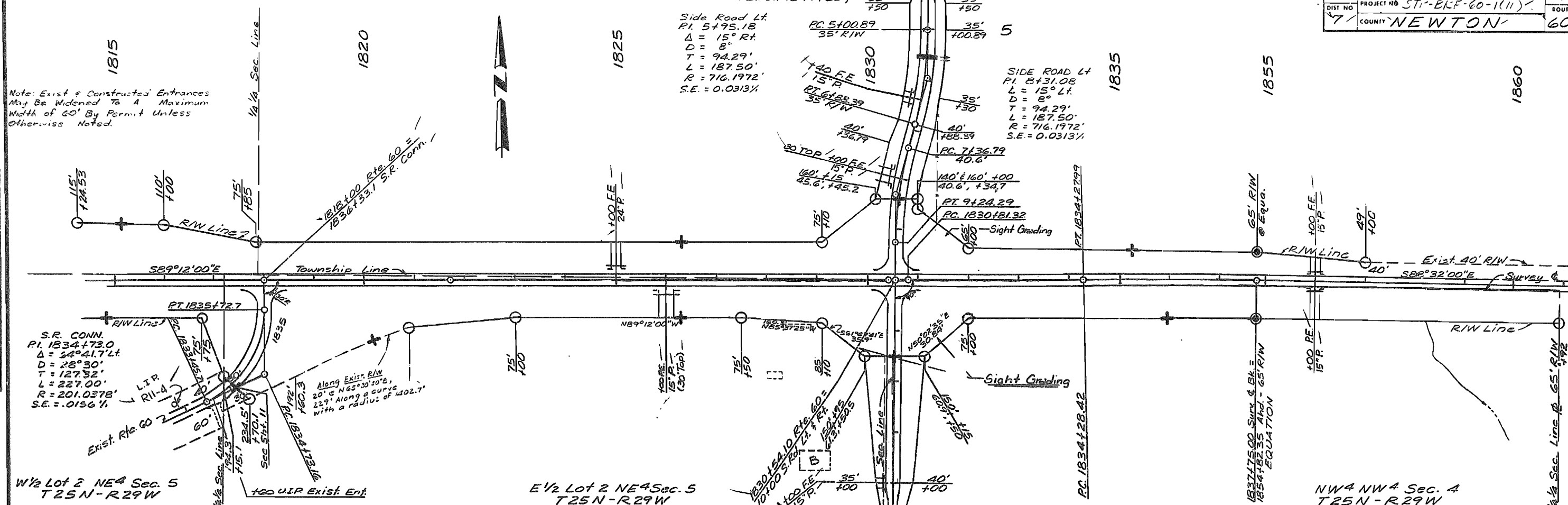






SW4 SW4 Sec. 33
T26N-R29W

FINAL SURVEY	BY	DATE
SUBMITTED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		
NO		



FINAL SURVEY	BY	DATE
MOBILE BOOK		
PLOTTED		
STAMPED		
REAS.		

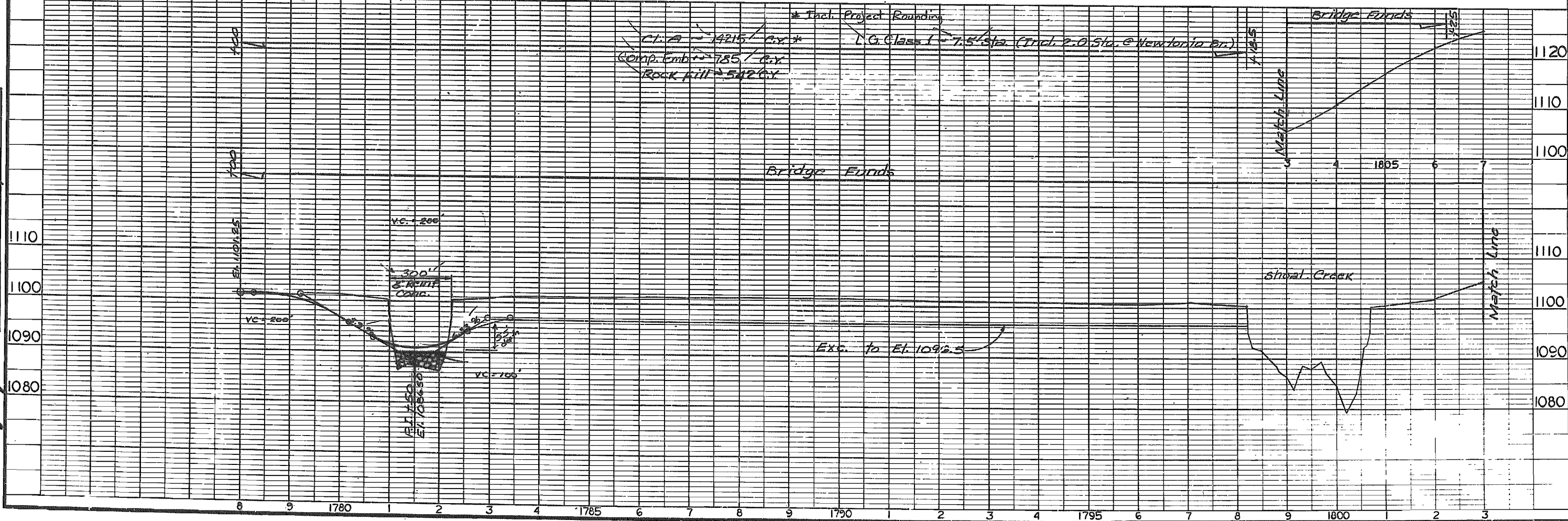
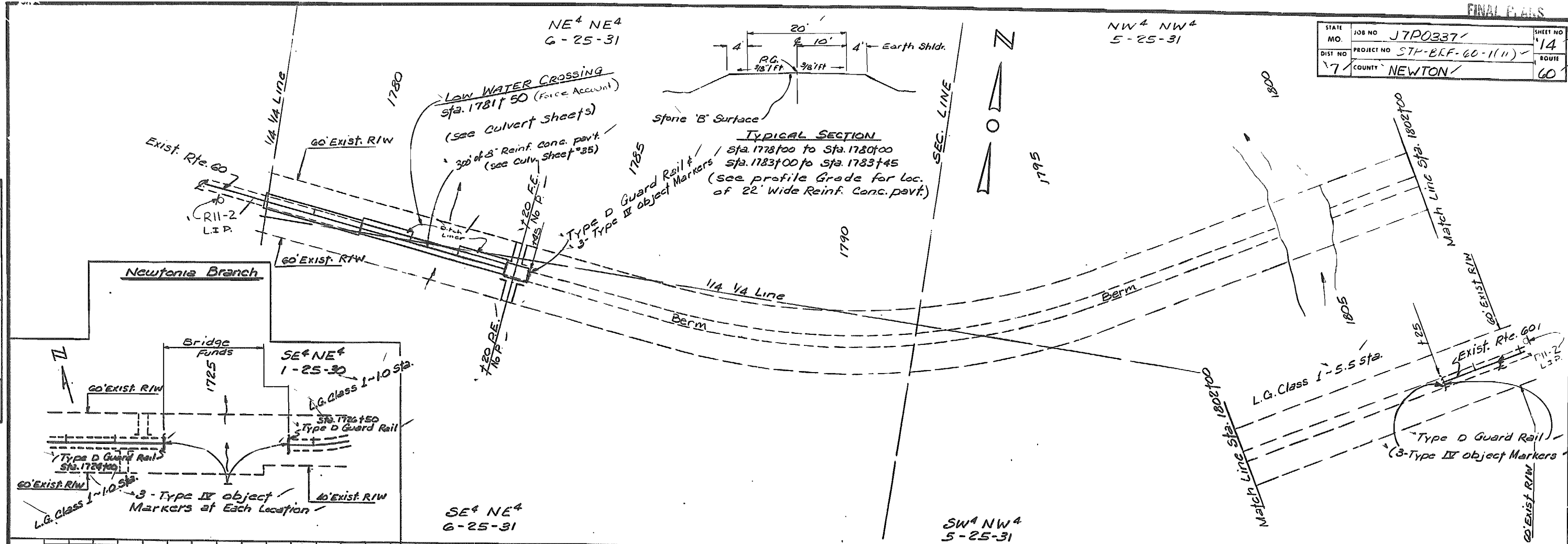
UNITED STATES DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION

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COUNTY	NEWTON	

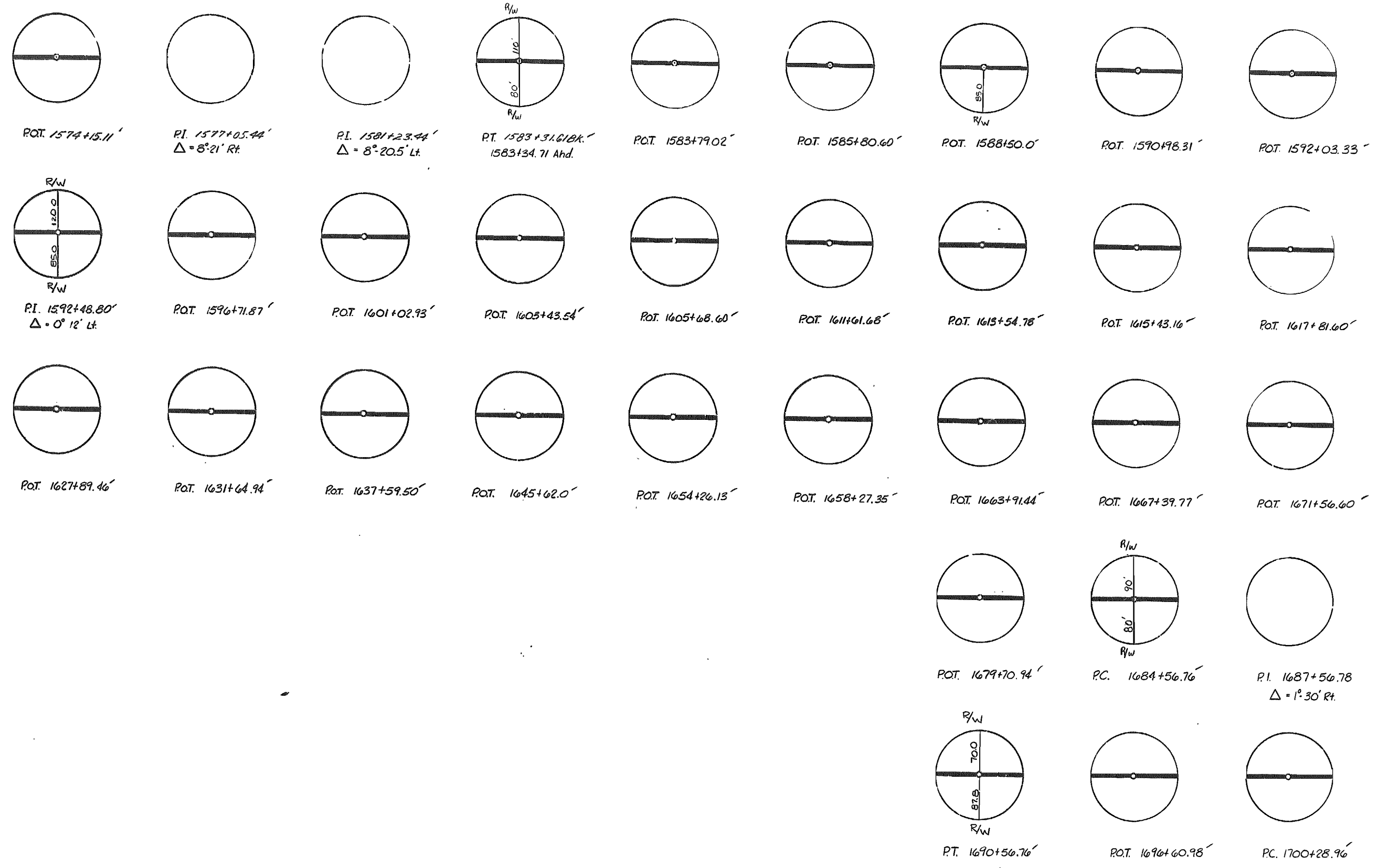
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FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO	AREAS CHECKED

DATE	BY
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NOTE BOOK	PLOTTED
NO	AREAS CHECKED

94



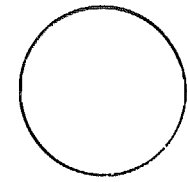
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DIST. NO.	COUNTY NEWTON	ROUTE 60



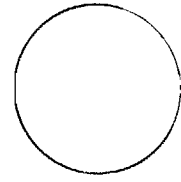
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MO.	J7P0337	16
DIST NO.	PROJECT NO.	ROUTE
7	STP-ERF-60-1(11)	60
COUNTY	NEWTON	

DATE	BY
FINAL SURVEY	NOTED
NOTE BOOK	PLAT
NO.	AREA CHECKED

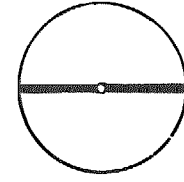
DATE	BY
5-87	
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NOTE BOOK	PLAT
NO.	AREA CHECKED



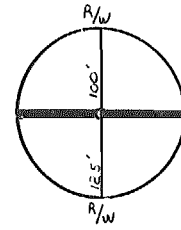
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 $\Delta = 1^{\circ}17'7''$ Lt



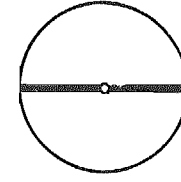
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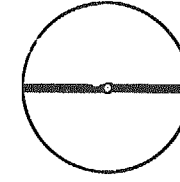
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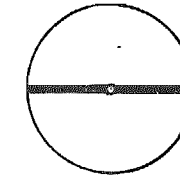
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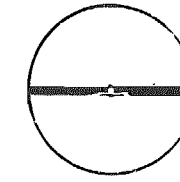
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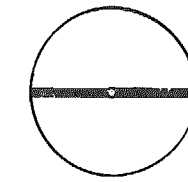
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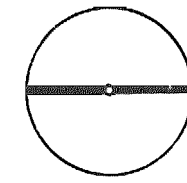
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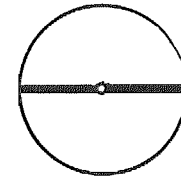
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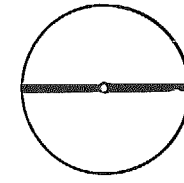
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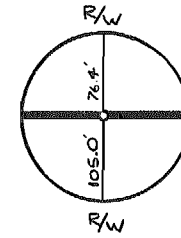
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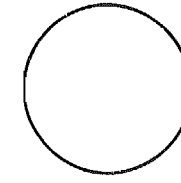
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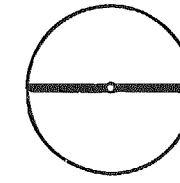
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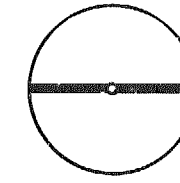
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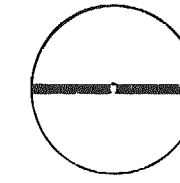
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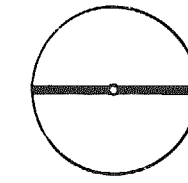
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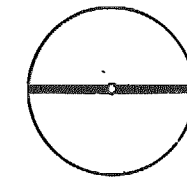
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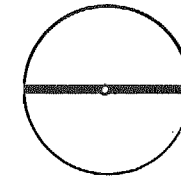
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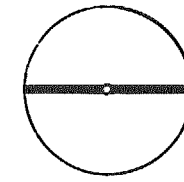
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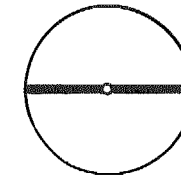
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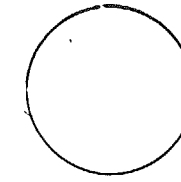
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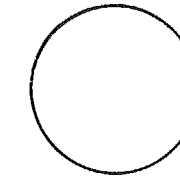
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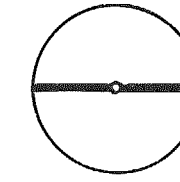
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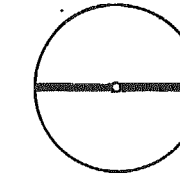
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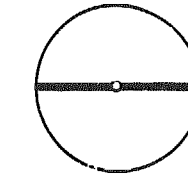
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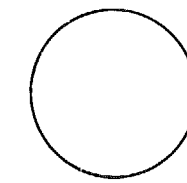
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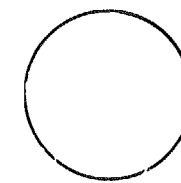
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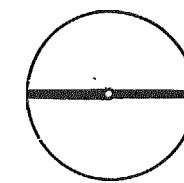
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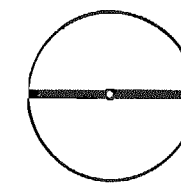
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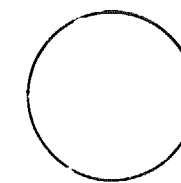
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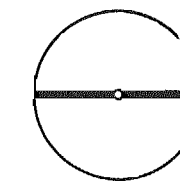
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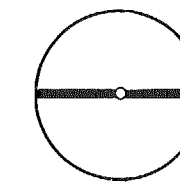
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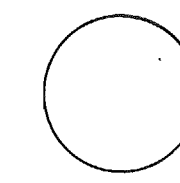
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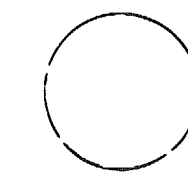
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P.O.T. 1821+70.96



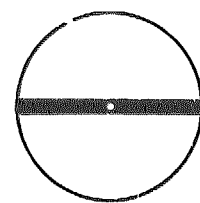
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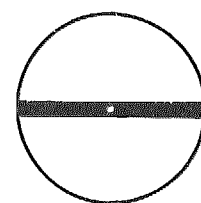
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DATE
 BY
 SURVEYED
 PLOTTED
 REVISION
 FINAL SURVEY
 NOTE BOOK
 NO.

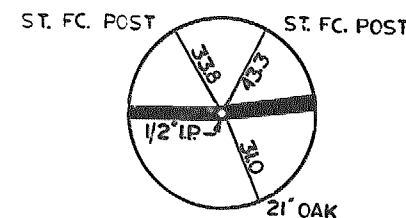
DATE
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 SURVEYED
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 REVISION
 FINAL SURVEY
 NOTE BOOK
 NO.



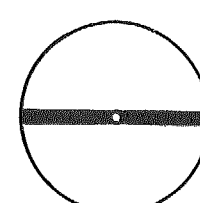
P.O.T. 0+00.0



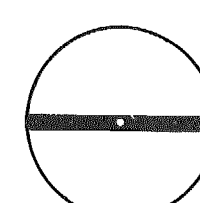
P.O.T. 0+69.84



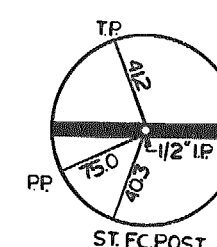
P.I. 4+45.20
 $\Delta = 0^\circ 22' \text{ LT}$



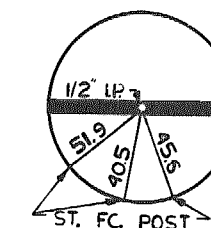
P.O.T. 0+69.93



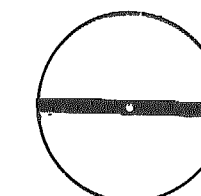
P.O.T. 0+00.0



P.O.T. 4+00.0



P.O.T. 12+69.04

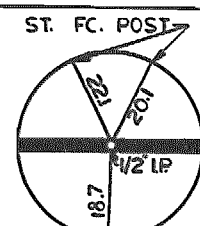


P.O.T. 0+00.0

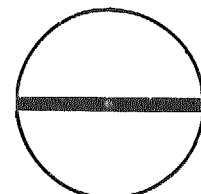
SIDE ROAD RTE. M

SIDE ROAD RTE. W

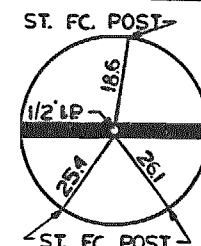
SIDE ROAD RT. Q STA. 1645+



P.O.T. 4+00

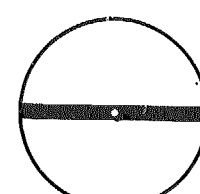


P.O.T. 0+00.0

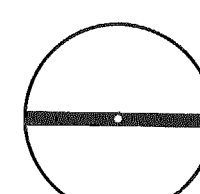


P.O.T. 4+50.0

SIDE ROAD STA. 1671+48.71 RT.

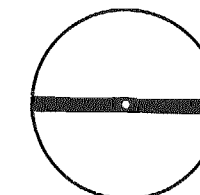


P.O.T. 0+00

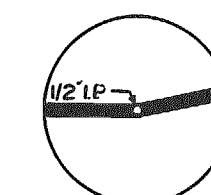


P.O.T. 5+50.0

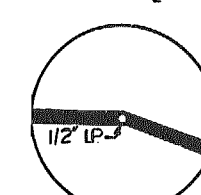
SIDE ROAD STA. 1697+69.3 RT.



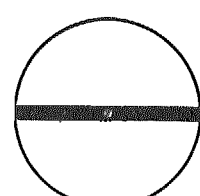
P.O.T. 1+15.94



P.I. 4+15.10
 $\Delta = 27^\circ 30' \text{ LT}$

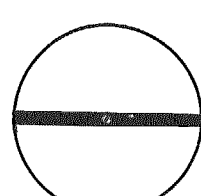


P.I. 7+44.66
 $\Delta = 33^\circ 30' \text{ RT}$

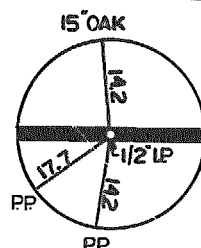


P.O.T. 9+28.92

SIDE ROAD 1714+50 LT.

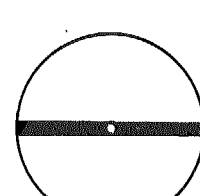


P.O.T. 10+00.0

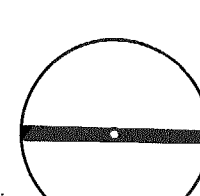


P.O.T. 7+08.4

SIDE ROAD LT. OF Q STA. 1724+40.16

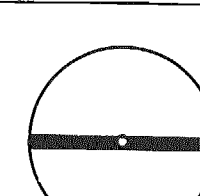


P.O.T. 10+00.0

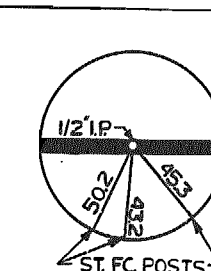


P.O.T. 0+00

SIDE ROAD RT OF Q STA. 1737+24.86

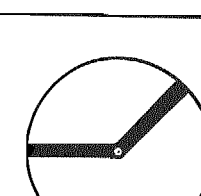


P.O.T. 2+44.6

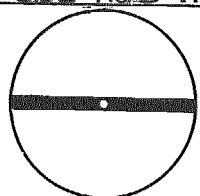


EQUA=1833 13.8 BK.
 1833 21.9 AH.

EXIST. RTE. 60 CONNECTION STA. 1818+00

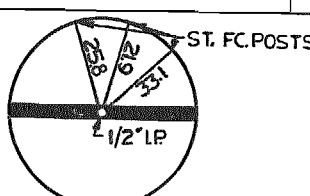


P.I. 1634+73.0
 $\Delta = 64^\circ 41.7' \text{ LT}$

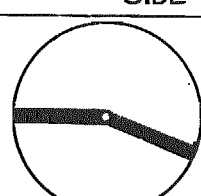


P.O.T. 1836+33.1

EXISTING ROUTE 60
 CONNECTION STA. 1818+00

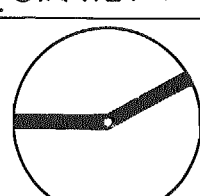


P.O.T. 3+53.54

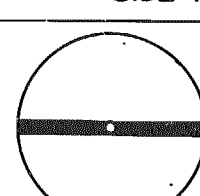


P.I. 5+95.18
 $\Delta = 15^\circ \text{ RT}$

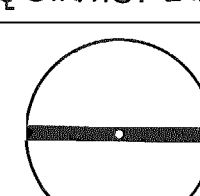
SIDE ROAD LT. & RT. Q STA. 1830+54.10



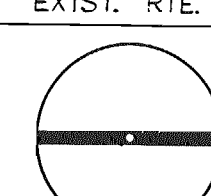
P.I. 8+31.08
 $\Delta = 15^\circ \text{ LT}$



P.O.T. 10+00.0

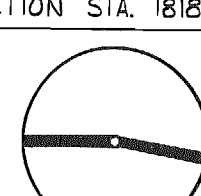


P.O.T. 11+88.37

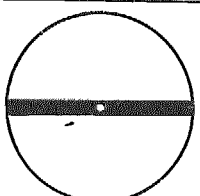


P.C. 1667+39.77

TEMPORARY BYPASS

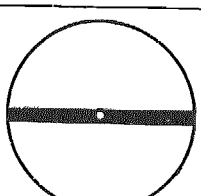


P.I. 1669+41.83
 $\Delta = 20^\circ 00' \text{ RT}$



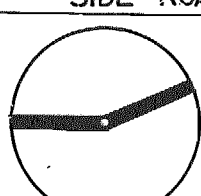
P.T. 1671+39.77

CONT. ON SHEET 18

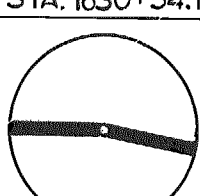


1+80 SIDE RD. SOUTH
 0+00 SIDE RD. CONN. EAST

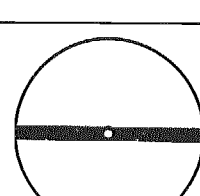
SIDE ROAD CONN. RT Q STA 1671+



P.I. 1+35
 $\Delta = 21^\circ 45' \text{ LT}$

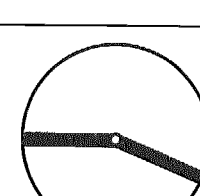


BK. TAN. EXTENDED
 AHD. OF P.I. 3+87.60
 40.13 FT.
 $\Delta = 21^\circ 45' \text{ RT}$

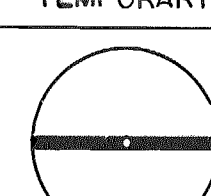


P.I. 1834+73.00

TEMPORARY BYPASS



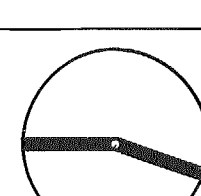
P.I. 1837+94.54
 $\Delta = 25^\circ 17' 30' \text{ RT}$



P.O.T. 1844+63.84

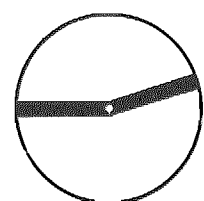
REFERENCED POINTS

Sheet 3 of 4

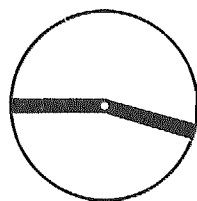


P.I. 1847+35.99
 $\Delta = 0^\circ 40' 00' \text{ RT}$

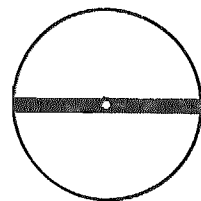
STATE	JOB NO.	SHEET NO.
MO.	J7P0337	18
DIST. NO.	PROJECT NO.	ROUTE
7	STP-BRF-60(11)	60
COUNTY	NEWTON	



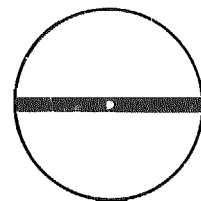
P.I. 1853+80.99
Δ = 12°28'00" LT.



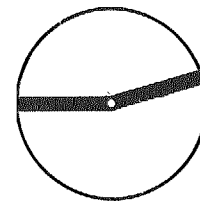
P.I. 1856+58.59
Δ = 12°28'00" RT.



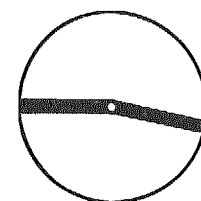
P.T. EQUA=1857+96.56 BK.
1858+06.92 AH.



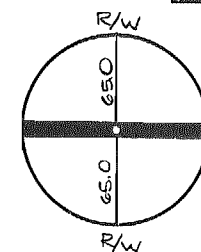
P.C. 1830+81.32



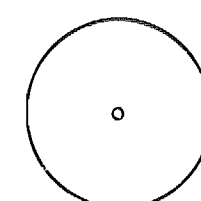
P.I. 1832+54.67
Δ = 1°44'00" LT.



P.I. 1836+01.77
Δ = 1°44'00" RT.

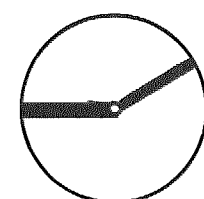


P.T. 1837+75.09 BK =
1834+82.35 AH.

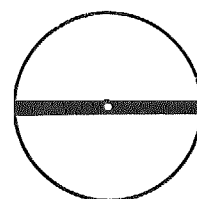


TEMPORARY BYPASS

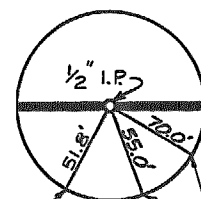
CROSS OVER NEW C TO EXISTING C



P.O.S.T. 1673+33.94
Δ 18°45' LT.

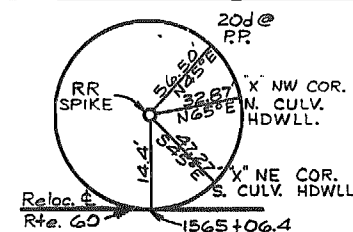


AHD. TAN. EXTENDED
BK. OF P.I. 1678+78.19
31.78 FT.

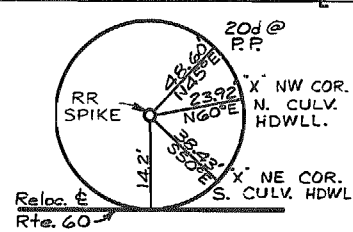


P.I. +120.27

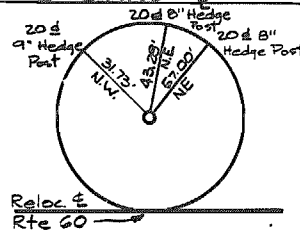
TEMPORARY BYPASS CONT. FROM SHEET 17



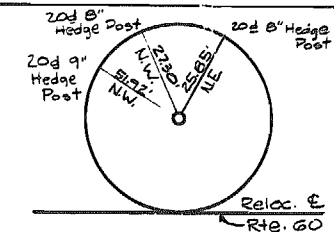
NW CORNER, SEC. 3
T25N R30W
1565+06.4
14.4' LT.



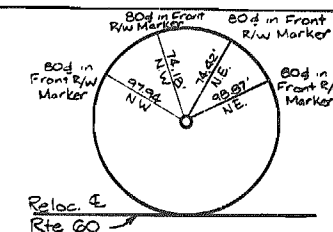
SE CORNER, SEC. 33
T26N R30W
1565+16.5
14.2' LT.



NW CORNER, SEC. 1
T25N R30W
1671+25.3
84.3' LT.

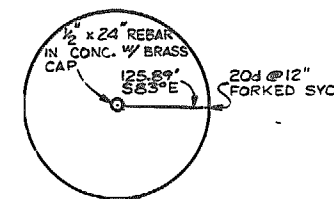


SE CORNER, SEC. 35
T26N R30W
1671+66.8
83.6' LT.

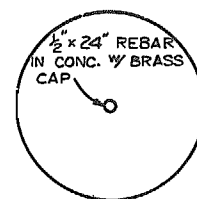


COMMON CORNER, SEC. 1, 6, 31, 36
T25, 26N R29, 30W
1724+42.1
75.7' LT.

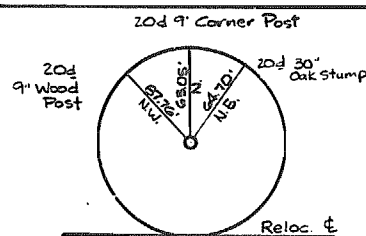
LAND TIES



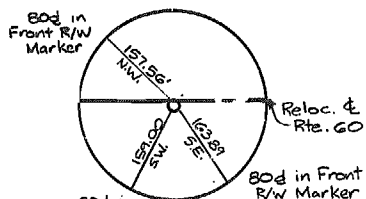
NW CORNER, SEC. 5
T25N R29W
1777+16.4
106.5' LT.



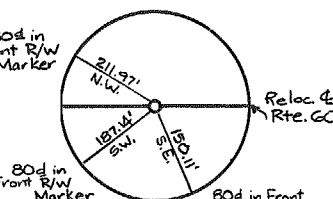
SE CORNER, SEC. 31
T26N R29W
1778+27.0
107.6' LT.



S 1/4 CORNER, SEC. 32
T26N R29W
1804+68.0
53.4' LT.

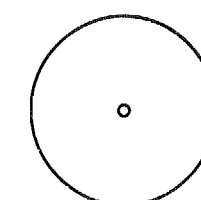
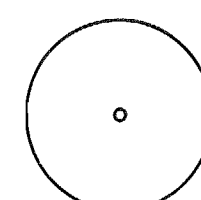
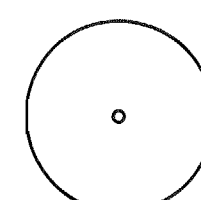
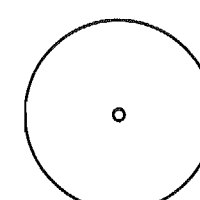
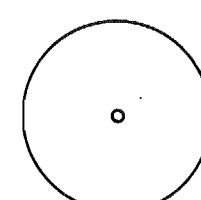
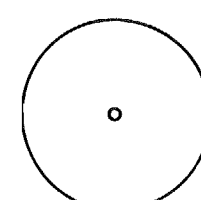
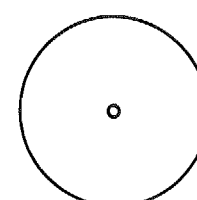
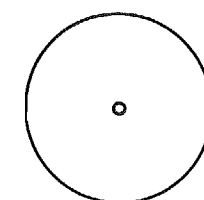
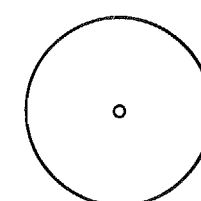
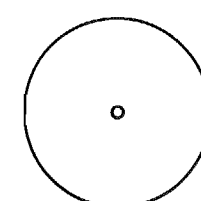
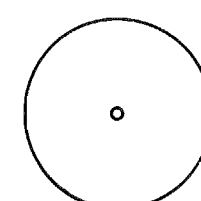
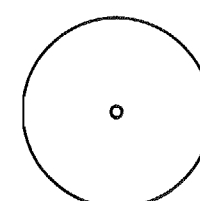
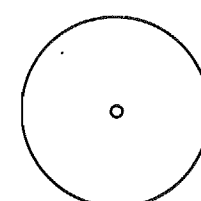
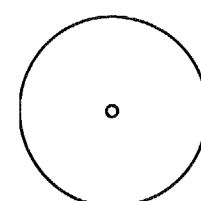
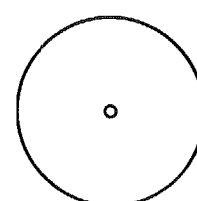
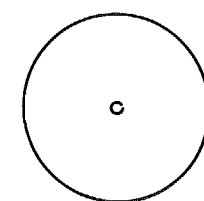


NE CORNER, SEC. 5
T25N R29W
1830+48.75
0.1' RT.

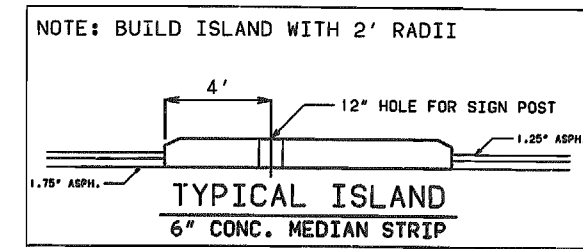
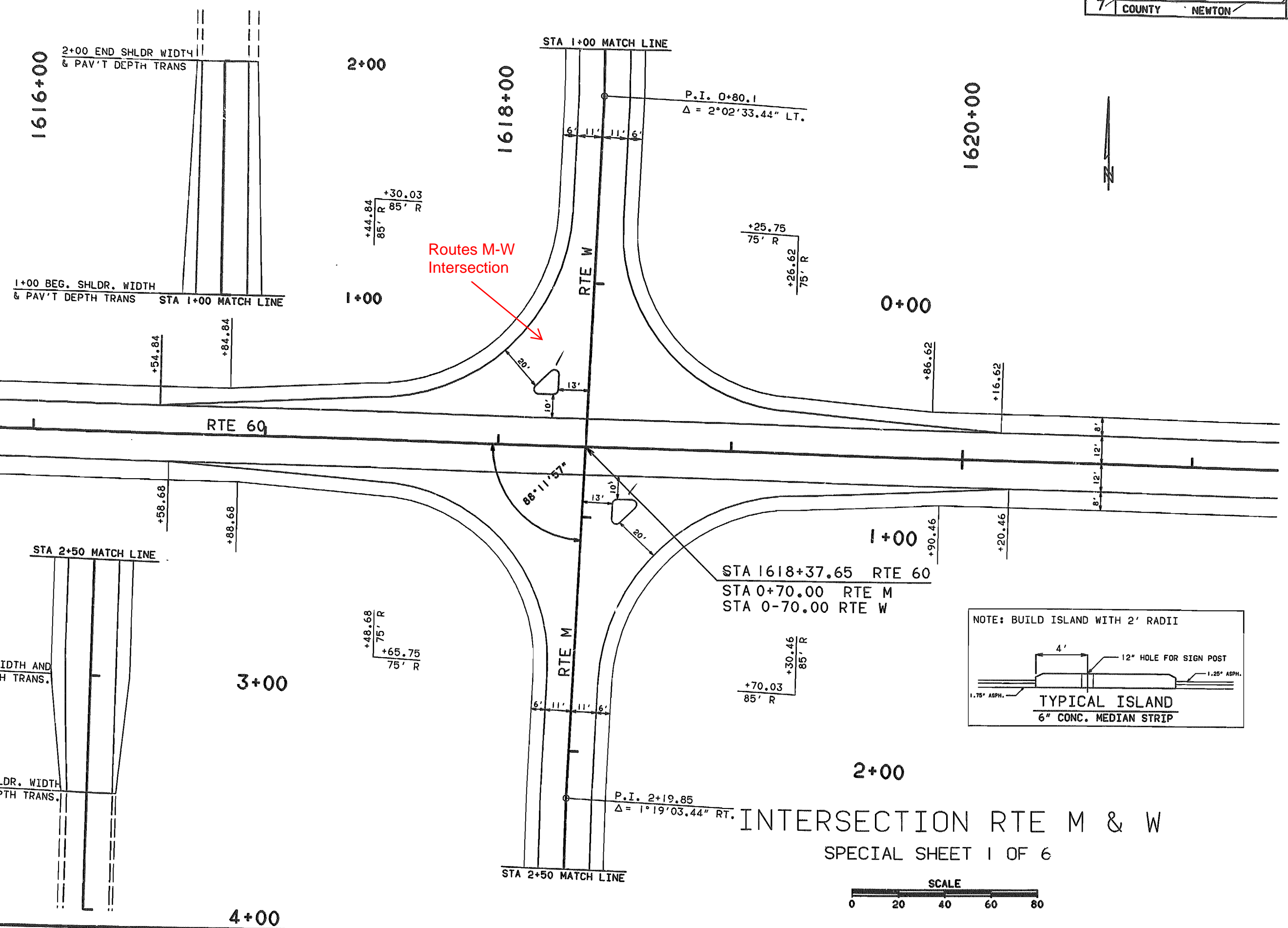


SW CORNER, SEC. 33
T26N R29W
1831+08.24
ON C

LAND TIES CONT'D.



99 229

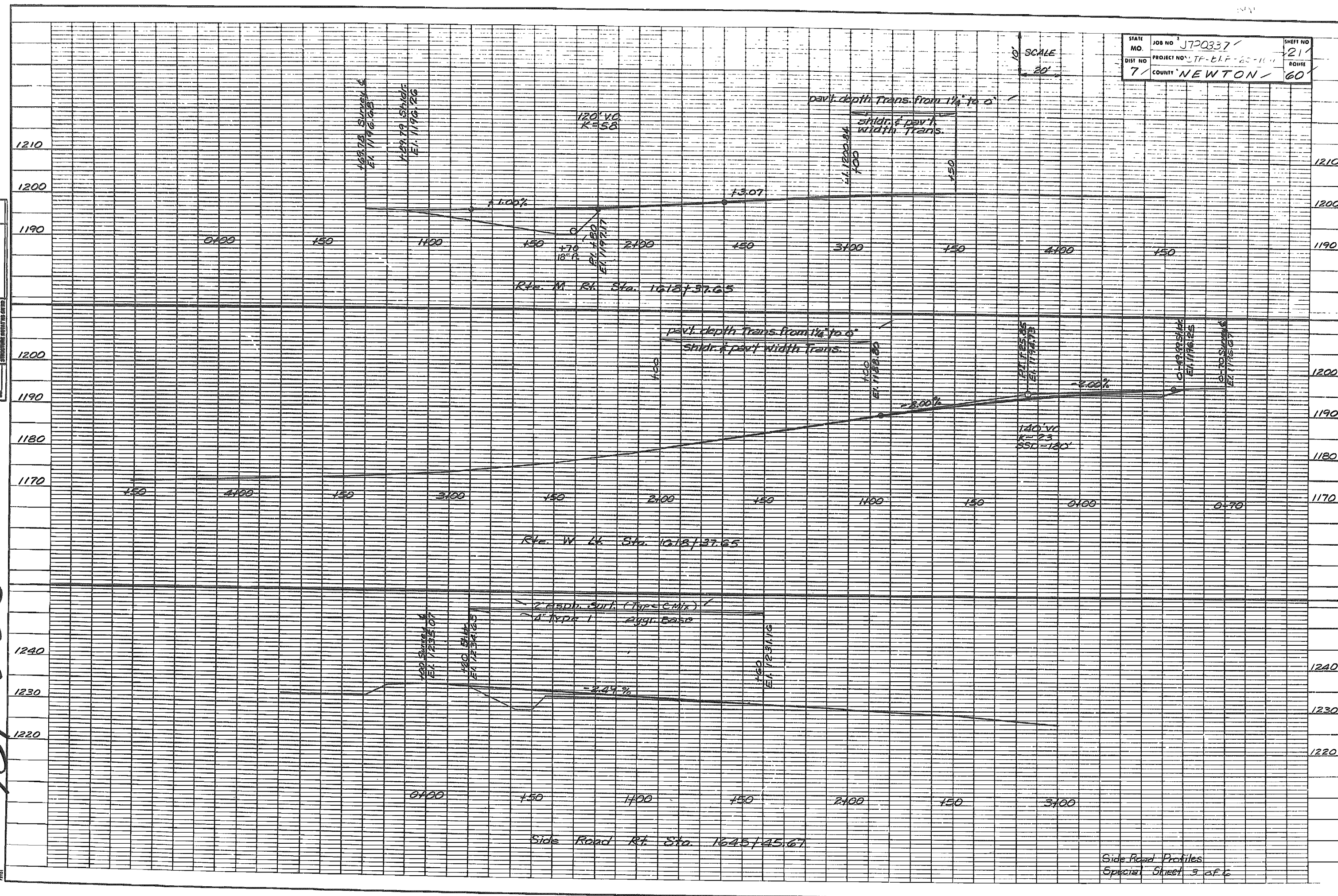


INTERSECTION RTE M & W
SPECIAL SHEET 1 OF 6

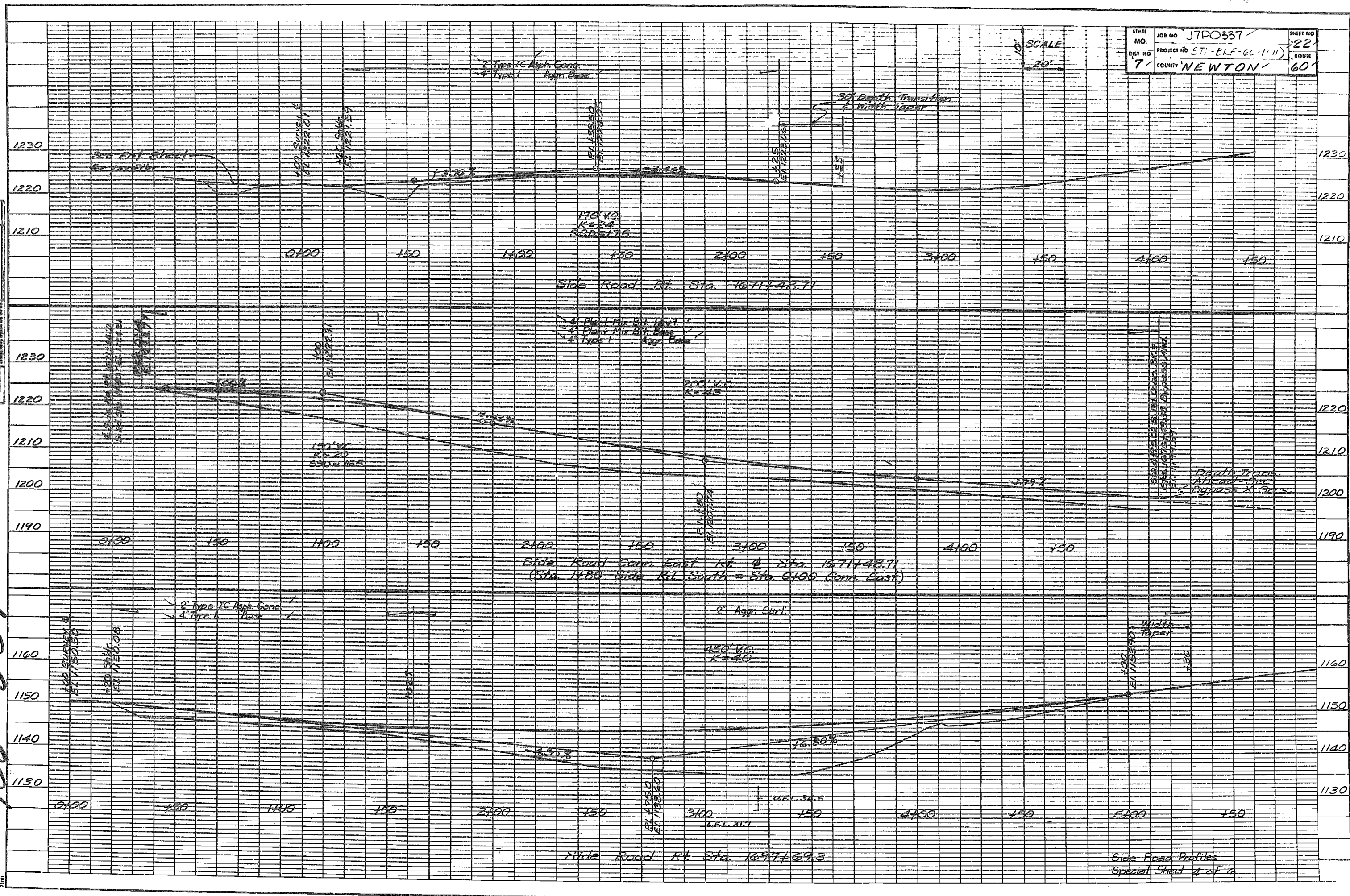


DATE	1-17
BY	
PROJECT	
DESIGNED BY	
CHECKED BY	
IN CHARGE	
APPROVED	

187 230



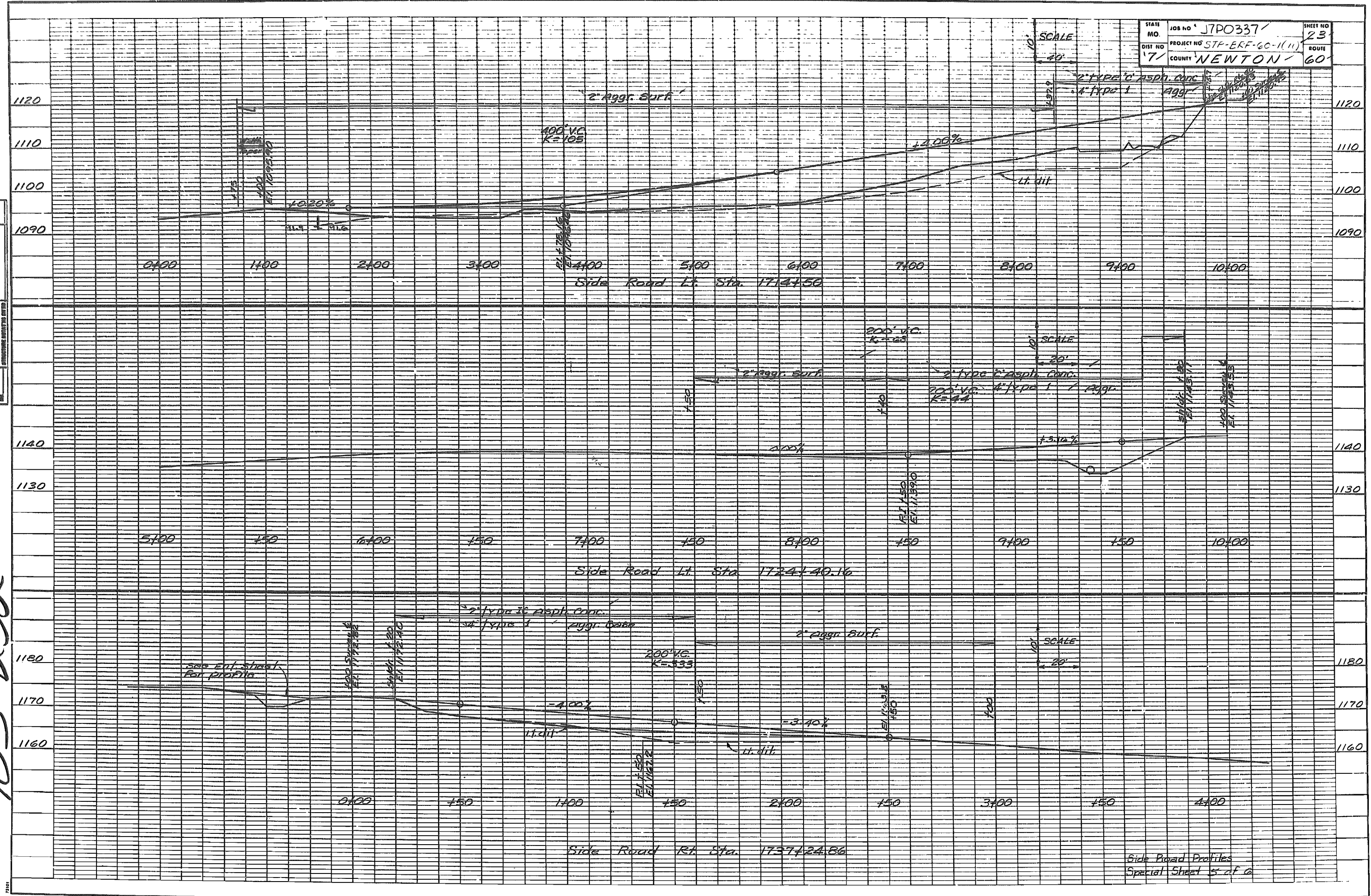
一、



DATE	7-7
BY	
PROJECT	STP-ERF-60-1(11)
DATE	
BY	
PROJECT	STP-ERF-60-1(11)
DATE	
BY	
PROJECT	STP-ERF-60-1(11)
DATE	
BY	

183 232

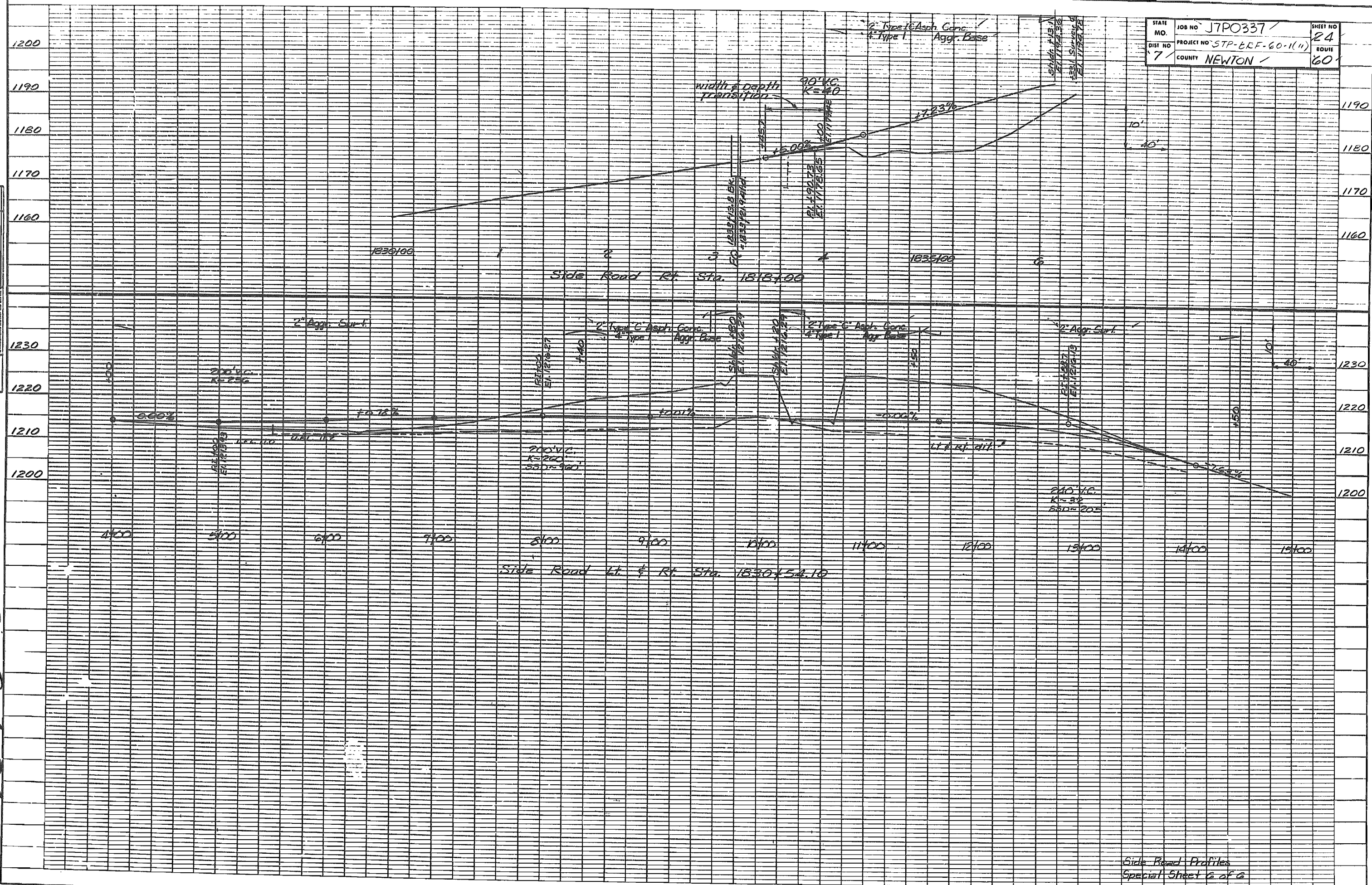
STATE MO.	J7D0337	SHEET NO.	23
DIST NO.	7	PROJECT NO.	STP-ERF-60-1(11)
COUNTY	NEWTON	ROUTE	60



Side Road Profiles
Special Sheet 5 of 6

104 233

DATE	7-27
BY	KS
CHECKED	
DESIGNED	
IN CHARGE	
APPROVED	
CONTRACTING MATERIALS	



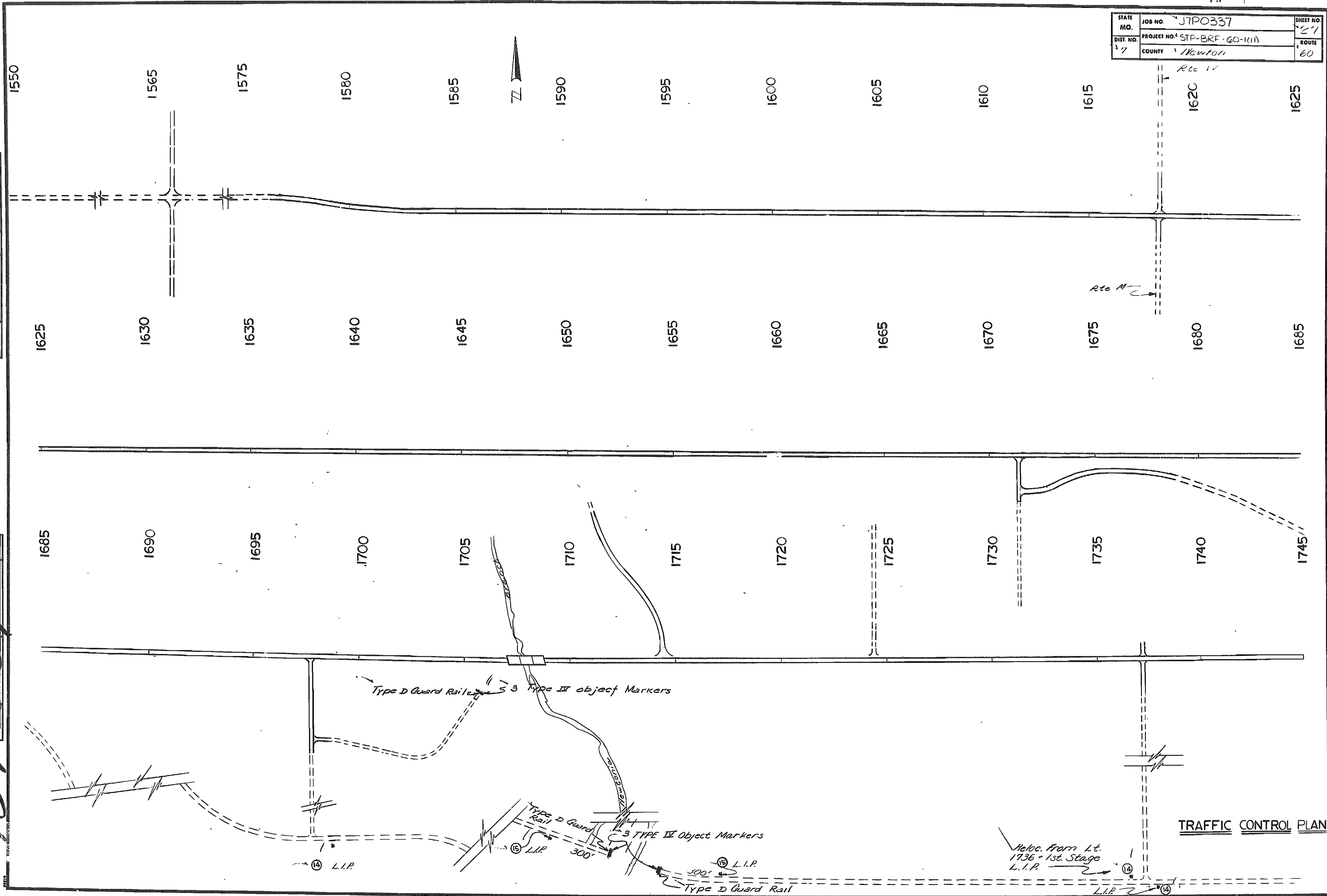
STATE	MO.	JOB NO.	J7P0337	SHEET NO.	24
DIST. NO.	7	PROJECT NO.	STP-BRF-60-1(11)	ROUTE	60
		COUNTY	NEWTON		

Side Road Profiles
Special Sheet 6 of 6

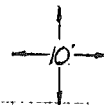
FINAL	SUBMITTED	DATE
SURVEY	BY	
NOTE BOOK		
NO.	AREAS CHECKED	

ORIGINAL	SURVEY	DATE
SURVEY	BY	
NOTE BOOK		
NO.	AREAS CHECKED	

STATE	JOB NO.	SHEET NO.
MO.	J7P0337	21
DIST. NO.	PROJECT NO. STP-BRF-60-1(11)	ROUTE
7	COUNTY Newton	60



TRAFFIC CONTROL PLAN



Typ. Sect.
Thru Rock
Lining

2nd Stage
Const.

2nd Stage
8' Bott. Outlet Ditch
14' - 2:1 Slopes
CL A = 27 C.Y.

L.E.L. 1177.0
Rock Lining at Outlet
12' x 2' x 20' = 10 cu. yds.

1st Stage (F.L. 1177)
1st STAGE: Remove Wingwalls
& 10' of Exist. 5' x 3' Conc. Box
Add - Temp. Carry Water
Between New & Exist.

1609+85.0 - 18" x 109' CI. III R.C.P.
(B-Bedding) with 1'-48" Fir. End
Sect. Rt. 1st Stage & 48" x 31' CI. III
R.C.P. (B-Bedding) with 48" Fir.
End Sect. Lt. 2nd Stage
CL 3 = 198 cu. yds.

6' Bott. Inlet Ditch
Rt. - 2:1 Slopes
CL A = 22 C.Y.

Exist. R/W

Rock Lining
at Outlet
13.5' x 2' x 22' = 22 cu. yds.

2nd Stage
10' Bott. Outlet Ditch
14' - 2:1 Slopes
CL A = 11 C.Y.

1st Stage
Cut Line
Exist. Box
1st STAGE: Remove Wingwalls & 5' of Exist. 6' x 4' Conc. Box
2nd STAGE: Remove Remain. of
Exist. Box (Incl. with CL 3 Exc.)

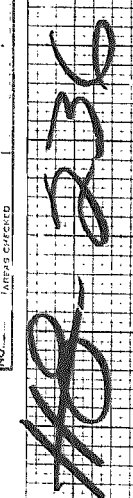
1593+71.0 - 54" x 138' CI. V R.C.P.
(B-Bedding) with 1'-54" Fir. End
Sect. Rt. 1st Stage & 54" x 55' CI. V
R.C.P. (B-Bedding) with 1'-54" Fir.
End Sect. Lt. 2nd Stage
CL 3 = 326 cu. yds.

1586+50 - 42" x 122' CI. IV R.C.P.
with 1'-42" Fir. End Sect. Rt. 1st
Stage & 42" x 40' CI. IV R.C.P.
with 1'-42" Fir. End Sect. Lt.
2nd Stage = Sk. 150' L.A.
CL 3 = 246 cu. yds.

Rock Lining
at Outlet
10' x 2' x 20' = 15 cu. yds.

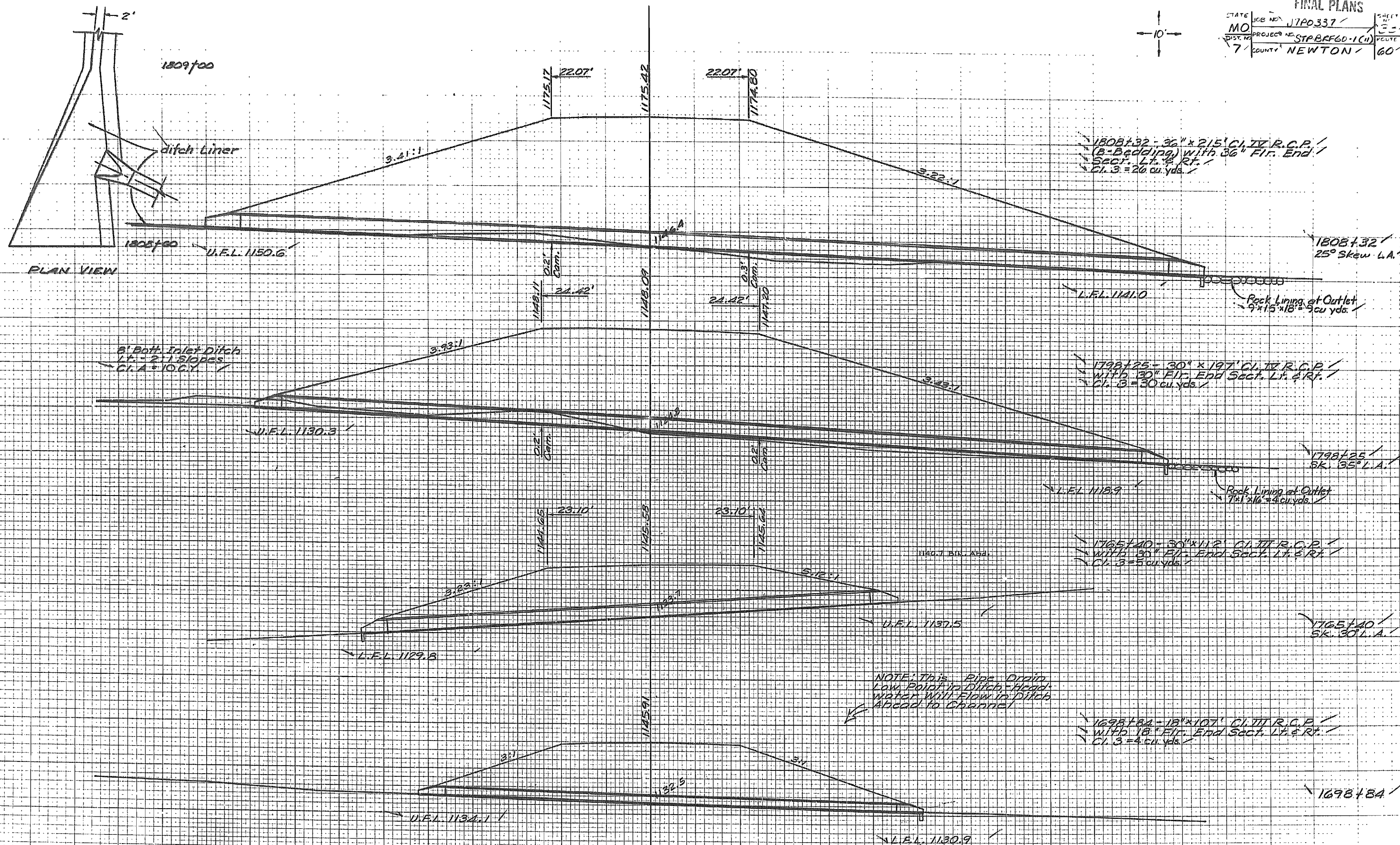
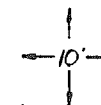
1st Stage
Cut Line
Exist. Box
1st STAGE: Remove Rt. Wingwalls
& 10' of Exist. 4' x 2.5' Conc. Box And
Temporarily Carry Water
Between New & Exist.

6' Bott. Inlet Ditch
Rt. - 2:1 Slopes
CL A = Incl. with Dam Oblit.



FINAL PLANS

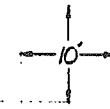
STATE MO JOB NO. 17P0337
 DIST. NO. PROJECT NO. STP-BRF60-1(11)
 COUNTY NEWTON ROUTE 60



#19 237

PLAN

STATE JOB NO. 07P0337
 MO PROJECT NO. STP. REF. 60-1(1)
 DIST NO. 7 COUNTY NEWTON ROUTE 60



5+50 ~ S. Rd. Lt. Sta. 1830+54.1
 2 ~ 18" x 48" Group II pipe
 Cl. 3 ~ 13 C.Y.

1830+54.1 Rte. 60
 5+50 S.R. Culv.

1+50 ~ S. Rd. Rt. Sta. 1737+24.86
 18" x 44" Group II pipe
 2 ~ 18" Flared End Sections
 Cl. 3 ~ 23 C.Y.

1737+24.86 Rte. 60
 1+50 S.R. Culv.

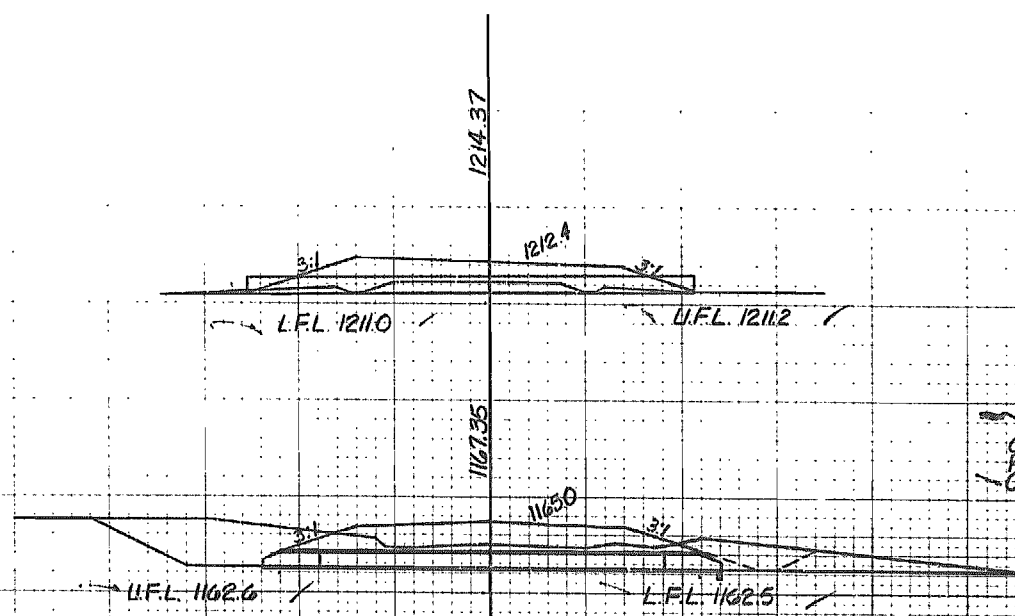
1724+40.16 Rte. 60
 8+50 S.R. Culv.

DELETED

1714+50 Rte. 60
 1+50 S.R. Culv.
 Relocated To 4+36
 See Computer Sheet 55
 2 ~ 36" x 58"
 G.P. II Pipe
 Cl. 3 ~ 90 C.Y.

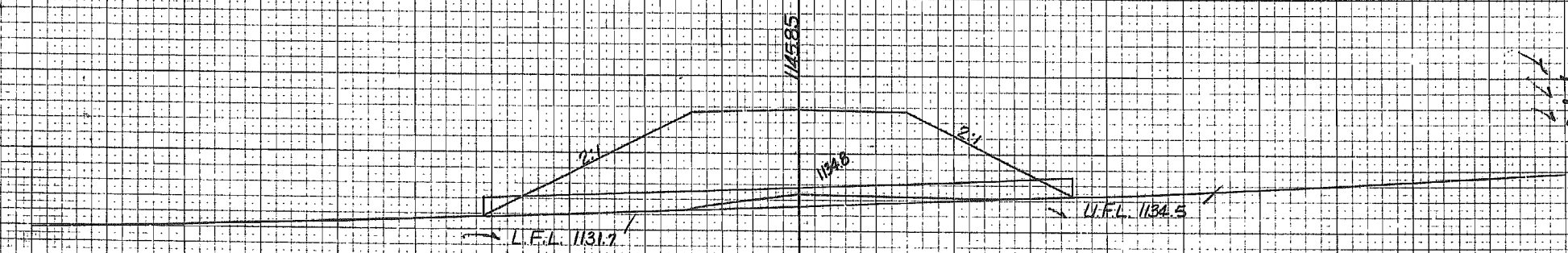
3+25 ~ S. Rd. Rt. Sta. 1697+69.3
 30" x 72" Group II pipe
 Cl. 3 ~ 9 C.Y.

1697+69.3 Rte. 60
 3+25 S.R. Culv.

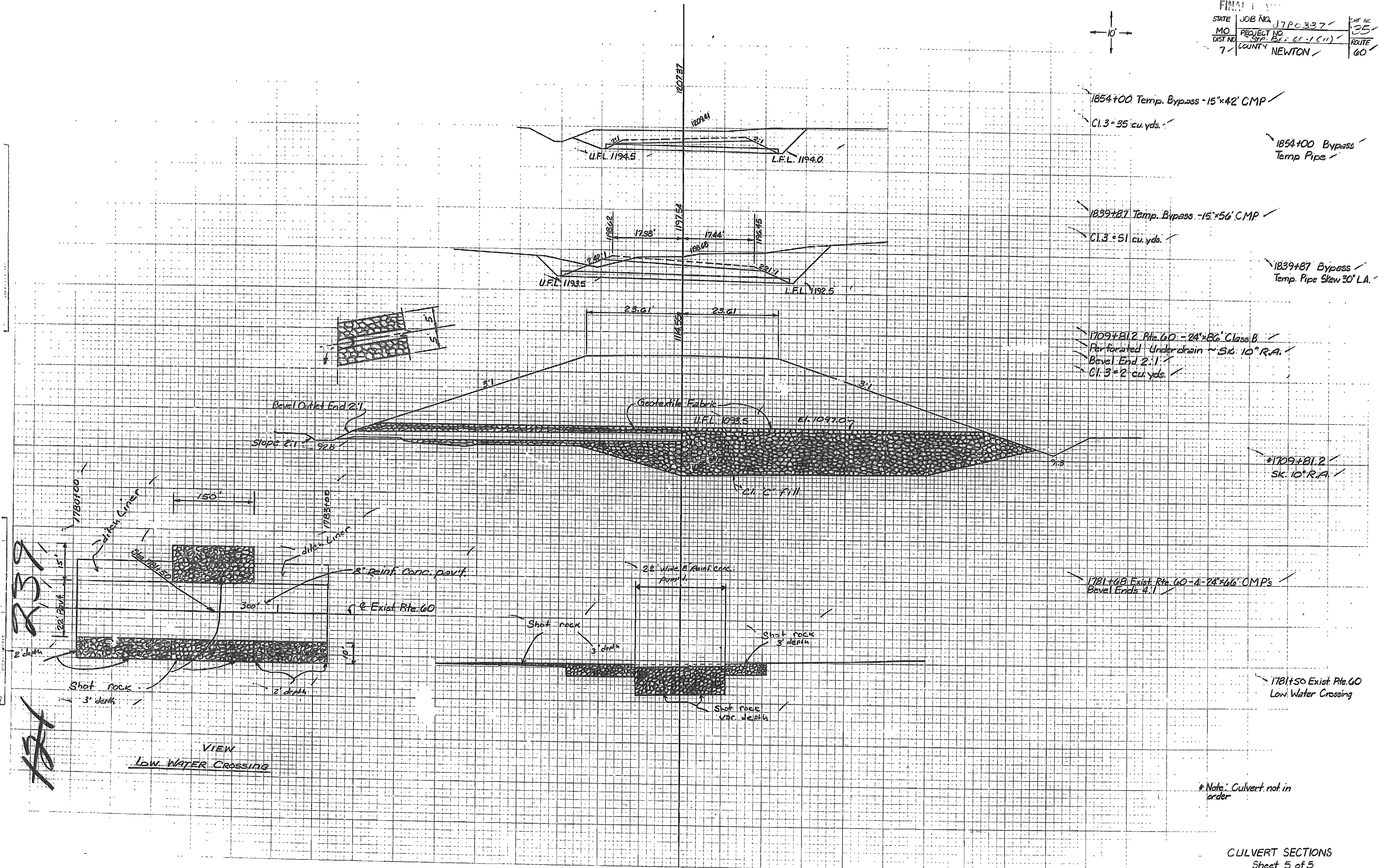
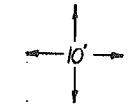


Outlet Ditch
 Rt. 2:1 Slopes
 Cl. A = 6 cu. yds.

Outlet Ditch
 Rt. 2:1 Slopes
 Cl. A = 1 cu. yd.



128 238



1854+00 Temp. Bypass - 15"x42" CMP

Cl. 3 = 35 cu. yds.

1854+00 Bypass
Temp. Pipe

1839+87 Temp. Bypass - 15"x56" CMP

Cl. 3 = 51 cu. yds.

1839+87 Bypass
Temp. Pipe Skew 30° L.A.

1709+81.2 Rte. 60 - 24"x86" Class B

Perforated Underdrain ~ Sk. 10° R.A.

Bevel End 2:1

Cl. 3 = 2 cu. yds.

1709+81.2
Sk. 10° R.A.

1781+08 Exist. Rte. 60 - 4 - 24"x66" CMP's

Bevel Ends 4:1

1781+50 Exist. Rte. 60
Low Water Crossing

* Note: Culvert not in order

VIEW
LOW WATER CROSSING

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION
STANDARD PLANS

REVISED JAN. 1, 1992

STATE	JOB NO. J7P0337	SHEET NO.
MO		146
DIST NO.	PROJECT NO. STP-BRF-601(11)	ROUTE
7	COUNTY NEWTON	60

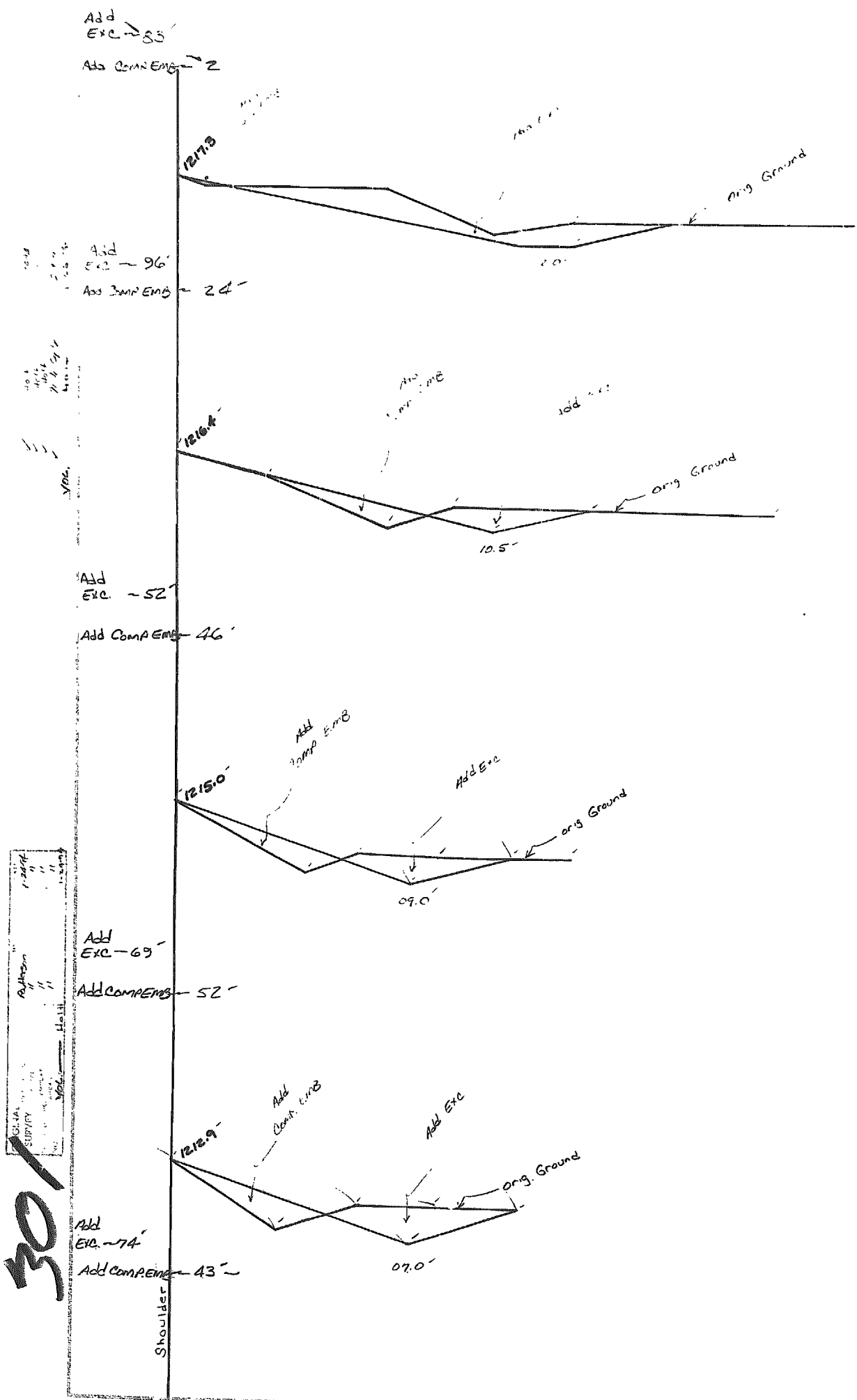
FINAL PLANS

✓	NO.	DESCRIPTION
✓	203.00E	EXCAVATION & EMBANKMENT
✓	203.02C	UNDERGRADING
✓	203.10B	TABULATED EARTHWORK & SECTION DATA
✓	203.20B	SUPERELEVATION SPIRALS & WIDENING (UNDIVIDED)
✓	203.21B	SUPERELEVATION SPIRALS & WIDENING (DIVIDED)
✓	203.30A	ENTRANCES & APPROACHES (LESS THAN 400 ADT)
✓	203.31B	ENTRANCES & APPROACHES (GREATER THAN 400 ADT - NO SAFETY ZONE)
	203.32D	ENTRANCES & APPROACHES (GREATER THAN 400 ADT - SAFETY ZONE)
	203.35A	MAILBOX TURNOUTS
	203.40E	TYPICAL DETAILS-RAMPS FOR INTERCHANGES (OTHER THAN 6:1 FORESLOPE)
	203.41E	TYPICAL DETAILS-RAMPS FOR INTERCHANGES (6:1 FORESLOPE)
✓	203.50J	TYPICAL CROSS-OVERS (DIVIDED HIGHWAYS)
	203.61	DRIVEWAY TYPE I
	203.62	DRIVEWAY TYPE II
	203.63	DRIVEWAY TYPE III
	203.64	DRIVEWAY TYPE IV
	203.65	DRIVEWAY TYPE V
	204.00D	EMBANKMENT CONTROL MEASURING DEVICES
✓	502.00M	CONCRETE PAVEMENT & BASE APPURTENANCES
✓	502.10E	DOWEL SUPPORTING UNITS
✓	503.00J	CONCRETE APPROACH SLABS TO BRIDGES (ALSO INCLUDE 502.00)
	602.00A	RIGHT-OF-WAY & DRAIN MARKERS
	604.05B	PIPE CULVERT HEADWALLS - TYPE S
	604.10B	HEADWALL-WITH ENERGY DISSIPATOR - 18"
	604.11B	HEADWALL-WITH ENERGY DISSIPATOR - 24"
	604.12B	HEADWALL-WITH ENERGY DISSIPATOR - 30"
	604.13B	HEADWALL-WITH ENERGY DISSIPATOR - 36"
	604.14B	HEADWALL-WITH ENERGY DISSIPATOR - 42"
	604.15B	HEADWALL-WITH ENERGY DISSIPATOR - 48"
	604.20B	DROP INLET - TYPE B
	604.21B	DROP INLET - TYPE C
	604.22B	DROP INLET - TYPE D
	604.23B	DROP INLET - TYPE E
	604.24B	DROP INLET - TYPE EE
	604.25C	DROP INLET - TYPE F
	604.26D	DROP INLET - TYPE G
	604.27D	DROP INLET - TYPE S (3 SHEETS)
	604.28E	DROP INLET - TYPE T (ALSO INCLUDE 614.30)
	604.29C	DROP INLET - TYPE X
	604.30F	CONCRETE MANHOLES (ALSO INCLUDE 614.30)
	604.40E	PIPE COLLARS
	605.10A	CLASS A UNDERDRAINS
✓	606.00X	GUARD RAIL (6 SHEETS)
✓	606.22K	BRIDGE ANCHOR SECTION (SAFETY BARRIER CURB ON BRIDGE) (ALSO INCLUDE 606.00)
	606.23C	BRIDGE ANCHOR SECTION (THREE BEAM RAIL ON BRIDGE) (ALSO INCLUDE 606.00)
	606.30E	TERMINAL SECTION (ALSO INCLUDE 606.00)
	606.40A	GUARD CABLE
	607.10R	CHAIN LINK FENCE
	607.11B	CHAIN LINK FENCE FOR RETAINING WALLS
	607.20F	WOVEN WIRE FENCE (ALSO INCLUDE 607.10)

✓	NO.	DESCRIPTION
	608.00C	PAVED APPROACHES
	608.10G	CONCRETE SIDEWALK & WHEELCHAIR RAMPS
	608.20C	CONCRETE STEPS
	609.00G	CONCRETE CURB - CURB & GUTTER - GUTTER
	609.15B	PAVED DITCHES
✓	609.40D	DRAIN BASIN, SHOULDER PAVING & FILL SLOPE AT BRIDGE ENDS
✓	609.60B	DITCH LINER
✓	609.70C	ROCK LINING FOR CULVERT OUTLETS
	610.20E	BRICK MANHOLES (ALSO INCLUDE 614.30)
	611.60L	CONCRETE SLOPE PROTECTION
	612.10K	BARRICADES AND FLASHER SIGNS
	613.00B	PAVEMENT REPAIR
	614.10R	CURB INLETS, GRATES & BEARING PLATES
	614.30D	MANHOLE FRAMES & COVERS
	615.00A	OFFICE FOR ENGINEER
✓	616.10M	TRAFFIC CONTROL DEVICES (3 SHEETS) (ALSO INCLUDE 903.01)
	617.00W	CONCRETE TRAFFIC BARRIER (3 SHEETS)
	702.01F	16" CONCRETE PILES (APPROVED TYPES) (2 SHEETS)
	702.02B	CAST-IN-PLACE CONCRETE PILES (APPROVED TYPES)
✓	703.21E	CONCRETE BOX CULVERTS, H2O LOADING (3 SHEETS) (FLARED WINGS) (INCL 706.35)
	703.24E	CONCRETE BOX CULVERTS, SKEW DATA (703.30) (INCL 706.35)
✓	703.25E	CONCRETE BOX CULVERTS, SKEW DATA (703.21) (3 SHTS) (FLRD WINGS) (INCL 706.35)
	703.30F	CONCRETE BOX CULVERTS, 4' SPANS & LESS-ALL LOADING (INCL 706.35)
	703.35B	CONCRETE BOX CULVERTS, CUTTING DETAILS (STRAIGHT WINGS) (INCL 706.35)
	703.36A	CONCRETE BOX CULVERTS, CUTTING DETAILS (FLARED WINGS) (INCL 706.35)
	703.50H	CONCRETE DOUBLE BOX STRUCTURE-SQUARE (INCL 706.35)
	703.51G	CONCRETE DOUBLE BOX STRUCTURE-SKEWED (INCL 706.35)
	703.52D	CONCRETE DOUBLE BOX STRUCTURE-CUT SECTIONS (INCL 706.35)
	703.54E	DOUBLE BOX STRUCTURE REINFORCEMENT-H2O OR HS20 LOADING (8 SHEETS)
	703.55E	CONCRETE DOUBLE BOX STRUCTURE (FLARED WINGS) SQUARE (INCL 706.35)
	703.56E	CONCRETE DOUBLE BOX STRUCTURE (FLARED WINGS) SKEWED (INCL 706.35)
	703.60C	CONCRETE BOX STRUCTURE-PIPE INLET
	703.70D	CONCRETE TRIPLE BOX STRUCTURE-SQUARE (2 SHEETS) (INCL 706.35)
	703.71D	CONCRETE TRIPLE BOX STRUCTURE-SKEWED (2 SHEETS) (INCL 706.35)
	703.72D	CONCRETE TRIPLE BOX STRUCTURE-(FLARED WINGS) (SQUARE) (2 SHEETS) (INCL 706.35)
	703.73D	CONCRETE TRIPLE BOX STRUCTURE-(FLARED WINGS) (SKEWED) (2 SHEETS) (INCL 706.35)
	703.74D	CONCRETE TRIPLE BOX STRUCTURE-CUT SECTIONS (INCL 706.35)
	703.76B	CONCRETE TRIPLE BOX STRUCTURE REINFORCEMENT-H2O OR HS20 LOADING (5 SHEETS)
	706.30E	REINFORCING BAR SUPPORTS
✓	706.35E	BAR SUPPORTS FOR CONCRETE REINFORCEMENT
	712.40E	STEEL DAMS FOR BRIDGES (6" CHANNEL)
	725.31C	METAL CURTAIN WALL AND METAL INLETS
✓	726.30C	CULVERT INSTALLATION METHODS
	731.00S	PRECAST MANHOLES (ALSO INCL 614.30)
	731.10K	PRECAST DROP INLETS (4 SHTS) (ALSO INCL 614.30 & 614.10)

✓	NO.	DESCRIPTION
✓	732.00L	FLARED END SECTION (2 SHEETS)
✓	806.02A	STAPLE PLACEMENT FOR PLASTIC NETTING
		HIGHWAY LIGHTING
	901.00P	POLES & APPURTENANCES-30' (3 SHEETS)
	901.01U	POLES & APPURTENANCES-45' (3 SHEETS)
	901.05A	CONTROL PANEL CABINET DETAILS (2 SHEETS) (SEE NOTE)
	901.12C	POLE MOUNT CONT STA-SECONDARY SERV-480 V MULTI CIR (NOT METERED)
	901.15E	POLE MOUNT CONT STA-SEC SERV-120,240, & 480 V MULTI CIR
	901.16D	POLE MOUNT CONT STA-SEC SERV-480 V MULTI CIR (METERED)
	901.18D	POLE MOUNT CONT STA-SEC SERV-120/240 V MULTI CIR
	901.19D	POLE MOUNT CONT STA-SEC SERV-240 V MULTI CIR (NOT METERED)
	901.20D	POLE MOUNT CONT STA-SEC SERV-120/240 V MULTI CIR (SIG METERED)
	901.22E	POLE MOUNT CONT STA-SEC SERV-120/240 & 480 V MULTI CIR (BOTH METERED)
	901.23E	POLE MOUNT CONT STA-SEC SERV-240 V MULTI CIR (METERED)
	901.24D	POLE MOUNT CONT STA-SEC SERV-240 V MULTI CIR (LIGHTS & SIGNALS-BOTH METERED)
	901.25D	BASE MOUNT CONT STA-SEC SERV-120/240 V MULTI CIR
		NOTE: ALSO INCLUDE 901.05 WITH 901.12 THROUGH 901.25 EXCEPT 901.18
		TRAFFIC SIGNALS
	902.00F	SIGNAL HEADS, LENSES AND MOUNTING
	902.10J	PULL BOXES, CONTROLLERS, COND LOCATION
	902.15D	POWER SUPPLY ASSEMBLY
	902.21B	TELEPHONE INTERCONNECT
	902.30G	CONCRETE BASES
	902.40J	TUBULAR STEEL POST
	902.50F	DETECTORS
	902.60F	SPAN WIRE DETAILS-STEEL POST
	902.70D	SPAN WIRE DETAILS-WOOD POLE
	902.80A	TRAFFIC SIGNAL SYMBOLS
		HIGHWAY SIGNING
✓	903.01C	ALPHABETS (2 SHEETS)
	903.02Y	HIGHWAY SIGNING (7 SHEETS)
✓	903.03AP	SIGN MOUNTING DETAILS (5 SHEETS)
	903.04D	WEIGH STATION SIGNING
	903.05C	TUBULAR SPAN SUPPORT-ONE TUBE, TYPE S
	903.06C	TUBULAR SPAN SUPPORT-TWO TUBE, TYPE S
	903.07C	TUBULAR CANTILEVER SUPPORTS, TYPE C
	903.08C	TUBULAR BUTTERFLY SUPPORTS, TYPE B
	903.09C	LIGHTING SUPPORT BRACKET
	903.10T	SIGN TRUSSES-OVERHEAD ALUMINUM (8 SHEETS) (INCL 903.03)
	903.12N	SIGN TRUSSES-BUTTERFLY & CANTILEVER-STEEL (7 SHEETS) (INCL 903.03)
	903.60S	SIGN TRUSSES-OVERHEAD STEEL (7 SHEETS) (INCL 903.03)

NOTES:
PLANS FOR THIS PROJECT WERE DEVELOPED USING DRAWINGS FROM THIS INDEX



1579+14.5
Runout

1578+00
Cl. A - 39
Comp. Emb. - 1

1577+00
Cl. A - 13
Comp. Emb. - 12

1576+00
Cl. A - 15
Comp. Emb. - 13

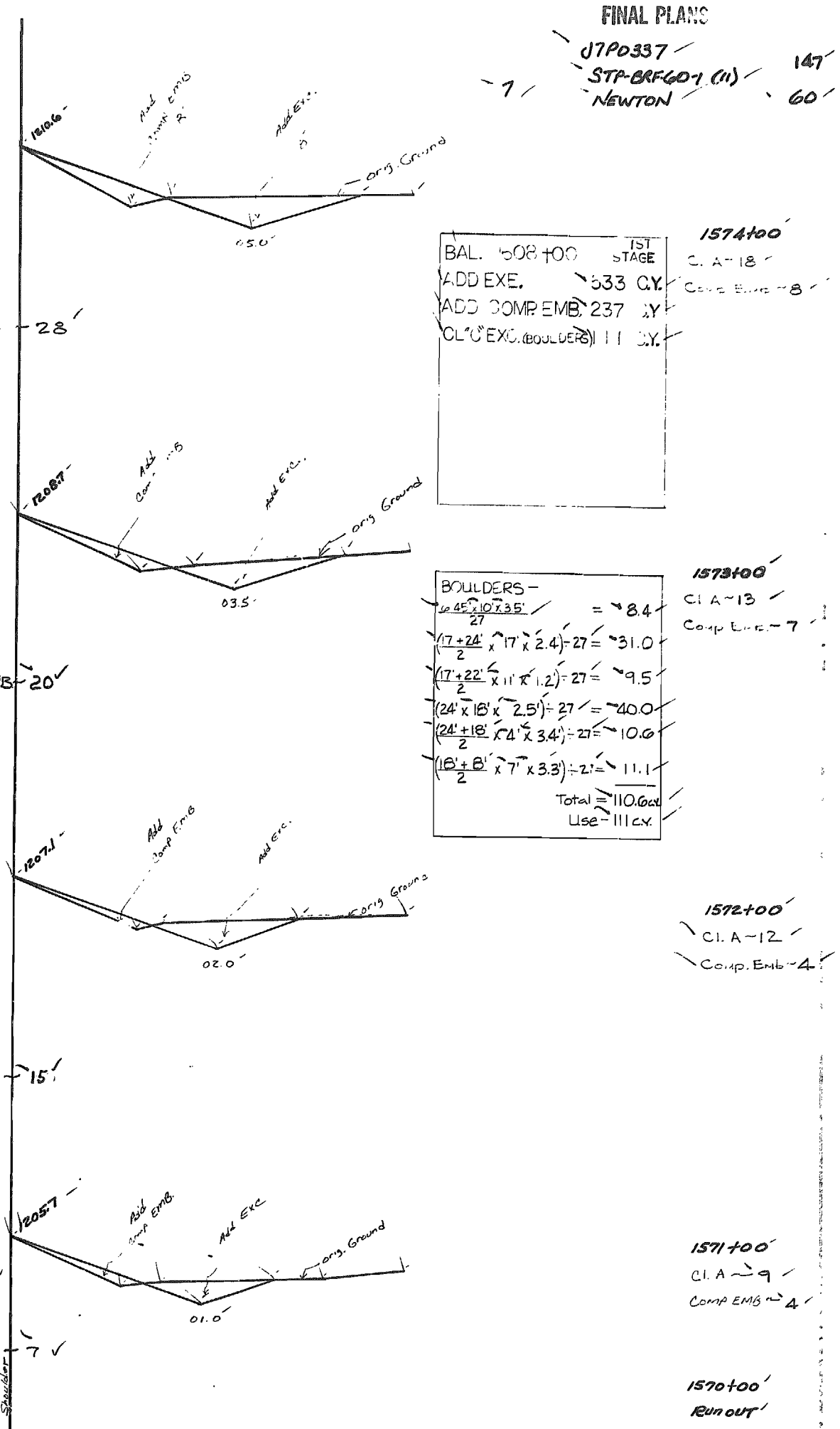
1575+00
Cl. A - 22
Comp. Emb. - 15

Add Exc. - 57 / Add Comp. Emb. - 28

Add Exc. - 46 / Add Comp. Emb. - 20

Add Exc. - 39 / Add Comp. Emb. - 15

Add Exc. - 17 / Add Comp. Emb. - 7

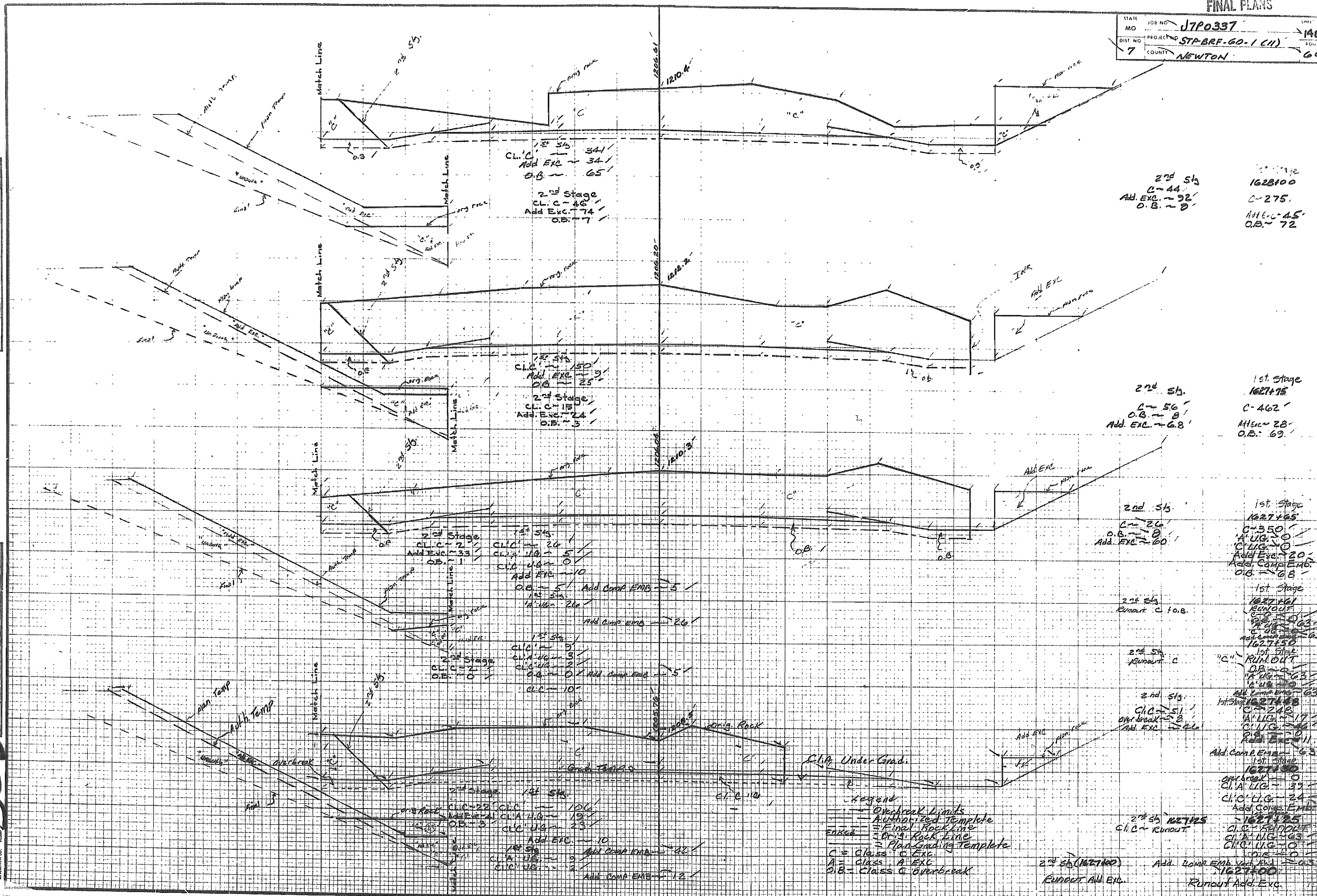


BAL. 508+00
ADD EXE. 533 CY
ADD COMP. EMB. 237 CY
CL. C EXC. (BOULDERS) 11 CY

BOULDERS -
 $\frac{45 \times 10 \times 3.5}{27} = 8.4$
 $\frac{(17+24) \times 17 \times 2.4}{2} = 31.0$
 $\frac{(17+22) \times 11 \times 1.2}{2} = 9.5$
 $\frac{(24 \times 18) \times 2.5}{27} = 40.0$
 $\frac{(24+18) \times 4 \times 3.4}{27} = 10.0$
 $\frac{(18+8) \times 7 \times 3.3}{27} = 11.1$
 Total = 110.0 CY
 Use = 111 CY

Add 1022' Exc. TO BUILD INSLOPE

301



FINAL PLANS

STATE MO JOB NO. J7P0337 SHEET 149
 DIST NO PROJECT NO STP-BRF-60-1 (11) ROUTE
 7 COUNTY NEWTON 60

1st Stg.
 CL C ~ 160'
 CL A ~ 44' ~ 2'
 CL C ~ 44' ~ 2'
 O.B. ~ 0' Add Comp Emb ~ 5'

2nd Stage
 CL C ~ 29'
 Add Exc ~ 0'
 O.B. ~ 0'

1st Stg.
 O.B. ~ 61'
 2nd Stage
 O.B. ~ 7'

2nd Stg.
 Embout
 C ~ 0'
 Add Exc ~ 0'
 O.B. ~ 0'

1st Stg.
 1628+70
 C ~ 0'
 A' U.G. ~ 63'
 C' U.G. ~ 0'
 Add Comp. Emb ~ 63'
 Ded. Exc ~ 0'
 O.B. ~ 0'

2nd Stg.
 O.B. ~ 0'

1st Stg.
 1628+68
 (Ahd.) A' U.G. ~ 0'
 (Ahd.) C' U.G. ~ 63'
 (Bk.) O.B. ~ 72'
 (Ahd.) O.B. ~ 72'
 Add Comp. Emb ~ 63'

2nd Stg.
 C ~ 62'
 Add Exc ~ 1'
 O.B. ~ 0'

1st Stg.
 1628+45
 C ~ 346'
 H16 ~ 1'
 O.B. ~ 72'

2nd Stg.
 C ~ 58'
 Add Exc ~ 25'
 O.B. ~ 0'

1st Stg.
 1628+35
 C ~ 357'
 Add Exc ~ 5'
 O.B. ~ 72'

2nd Stg.
 C ~ 66'
 Add Exc ~ 56'
 O.B. ~ 0'

1st Stg.
 1628+20
 C ~ 102'
 Add Exc ~ 18'
 O.B. ~ 72'

1st Stg.
 CL C ~ 130'
 Add Exc ~ 27'
 O.B. ~ 27'
 2nd Stage
 CL C ~ 22'
 Add Exc ~ 5'
 O.B. ~ 3'

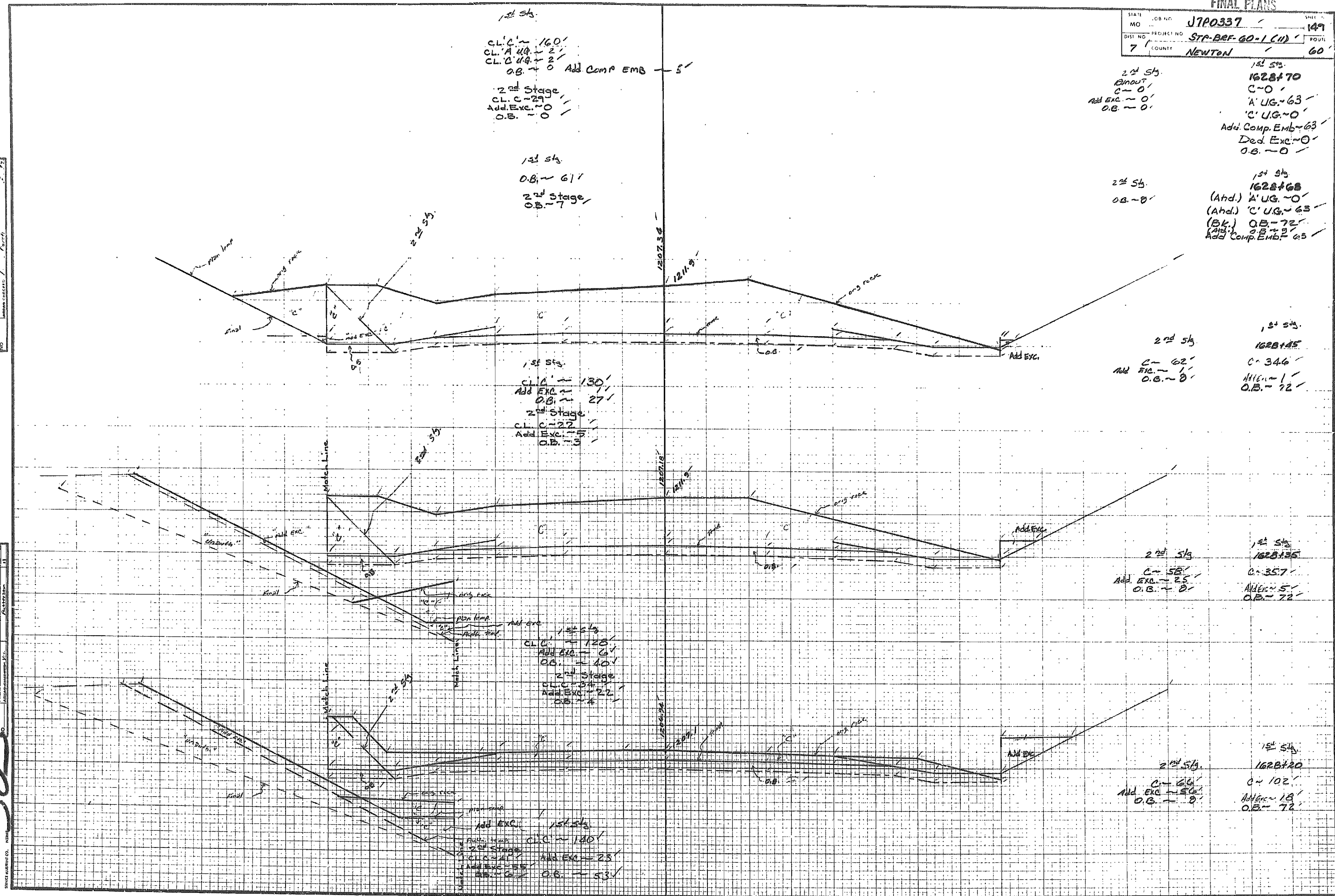
1st Stg.
 CL C ~ 128'
 Add Exc ~ 64'
 O.B. ~ 40'
 2nd Stage
 CL C ~ 34'
 Add Exc ~ 22'
 O.B. ~ 4'

1st Stg.
 CL C ~ 140'
 Add Exc ~ 23'
 O.B. ~ 53'

FINAL SURVEY
 DATE 11-2-79
 BY [Signature]
 CHECKED [Signature]
 NO. 303

ORIGINAL SURVEY
 DATE 11-2-79
 BY [Signature]
 CHECKED [Signature]
 NO. 303

303



BAL. 1629+88.4 2 ND. STAGE

Total CL "C" EXC. 213 C.Y.
Total CL "C" O.B. 34 C.Y.
ADD EXC. 254 C.Y.

BAL. 1640+83.6 1ST. STAGE

TOTAL CL "C" EXC. 1404 C.Y.
TOTAL CL "A" U.G. 110 C.Y.
TOTAL CL "C" U.G. 91 C.Y.
TOTAL CL "C" O.B. 289 C.Y.
ADD EXC. 93 C.Y.
DED EXC. 14 C.Y.
ADD COMP. EMB. 204 C.Y.

STATE MO J7P0337
STP. REF. 60-1 (11)
7 NEWTON 150
60

1629+15
RUN OUT
C ~ 0
A' U.G. ~ 63 BK.
J.B. ~ 0
O.B. ~ 0
Add COMP. EMB. ~ 63

1629+10
C ~ 83
A' U.G. ~ 49
C' U.G. ~ 26
O.B. ~ 0
Add. Comp. Emb. ~ 75

1629+00
C ~ 163
A' U.G. ~ 11
C' U.G. ~ 52
DED EXC. ~ 0
Add. Comp. Emb. ~ 63
O.B. ~ 9

1628+75
C ~ 153
A' U.G. ~ 25
C' U.G. ~ 38
DED EXC. ~ 26
Add. Comp. Emb. ~ 63
O.B. ~ 9

CL "C" ~ 8
CL "A" U.G. ~ 10
CL "C" U.G. ~ 2
CL "C" O.B. ~ 1

Add. Comp. Emb. ~ 13

CL "C" ~ 46
CL "A" U.G. ~ 11
CL "C" U.G. ~ 14
CL "C" O.B. ~ 3

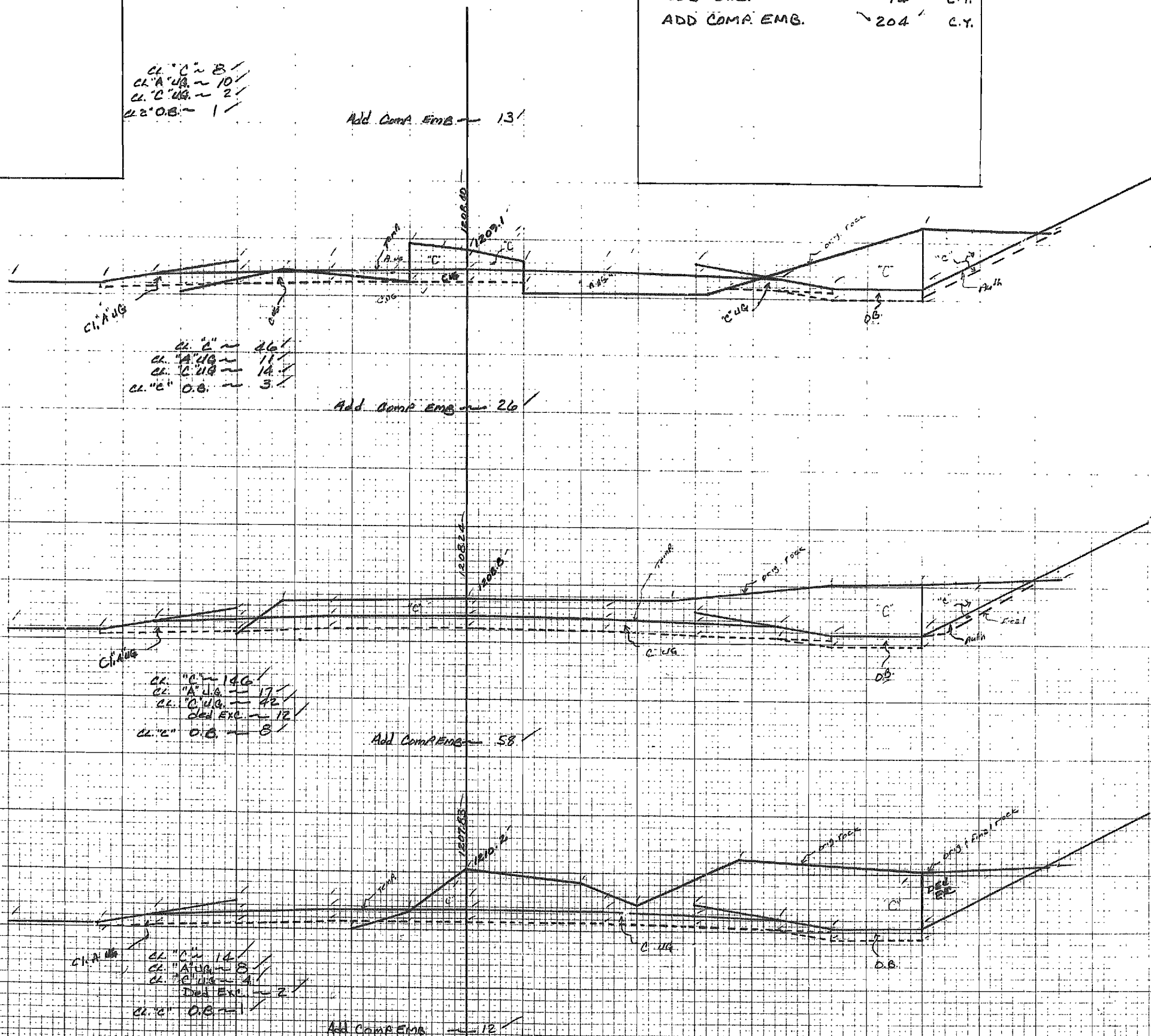
Add. Comp. Emb. ~ 26

CL "C" ~ 146
CL "A" U.G. ~ 17
CL "C" U.G. ~ 42
DED EXC. ~ 12
CL "C" O.B. ~ 8

Add. Comp. Emb. ~ 58

CL "A" U.G. ~ 16
CL "A" U.G. ~ 8
CL "C" U.G. ~ 4
DED EXC. ~ 2
CL "C" O.B. ~ 1

Add. Comp. Emb. ~ 12



FINAL SURVEY
NOTED BOOK
NO.

ORIGINAL SURVEY
NOTED BOOK
NO.

304

STA TO STA
1684+ 1688+

8.0 x 8.0 x 2.0 ÷ 27 = 4.7 C.Y.
28.0 x 13.0 x 1.4 ÷ 27 = 18.9 C.Y.
29.0 x 13.0 x 2.3 ÷ 27 = 32.1 C.Y.
34.0 x 12.0 x 1.0 ÷ 27 = 15.1 C.Y.
29.0 x 13.0 x 3.5 ÷ 27 = 48.9 C.Y.
35.0 x 7.0 x 3.0 ÷ 27 = 27.2 C.Y.
7.0 x 7.0 x 4.0 ÷ 27 = 7.3 C.Y.
13.0 x 8.0 x 3.0 ÷ 27 = 11.6 C.Y.
6.0 x 10.0 x 3.4 ÷ 27 = 7.6 C.Y.
12.0 x 5.0 x 5.2 ÷ 27 = 11.6 C.Y.
14.0 x 7.0 x 4.9 ÷ 27 = 17.8 C.Y.
7.0 x 7.0 x 2.2 ÷ 27 = 4.0 C.Y.
34.0 x 6.0 x 4.0 ÷ 27 = 30.2 C.Y.
16.0 x 10.0 x 1.9 ÷ 27 = 11.3 C.Y.
11.0 x 11.0 x 4.1 ÷ 27 = 18.4 C.Y.
27.0 x 10.0 x 4.2 ÷ 27 = 42.0 C.Y.
41.0 x 18.0 x 7.4 ÷ 27 = 202.3 C.Y.
28.0 x 10.0 x 6.0 ÷ 27 = 62.2 C.Y.
13.0 x 11.0 x 7.8 ÷ 27 = 41.3 C.Y.
37.0 x 16.0 x 6.4 ÷ 27 = 140.3 C.Y.
34.0 x 8.0 x 4.0 ÷ 27 = 40.3 C.Y.
9.0 x 9.0 x 6.0 ÷ 27 = 18.0 C.Y.
13.0 x 13.0 x 4.0 ÷ 27 = 25.0 C.Y.
19.0 x 24.0 x 2.0 ÷ 27 = 32.0 C.Y.
8.0 x 7.0 x 3.0 ÷ 27 = 6.2 C.Y.

876.3 C.Y.

TOTAL — USE 876.0 C.Y.

Sta. to Sta.

1684+ to 1688+

8.0 x 8.0 x 2.0 ÷ 27 = 4.7 C.Y.
28.0 x 13.0 x 1.4 ÷ 27 = 18.9 C.Y.
29.0 x 13.0 x 2.3 ÷ 27 = 32.1 C.Y.
34.0 x 12.0 x 1.0 ÷ 27 = 15.1 C.Y.
29.0 x 13.0 x 3.5 ÷ 27 = 48.9 C.Y.
35.0 x 7.0 x 3.0 ÷ 27 = 27.2 C.Y.
7.0 x 7.0 x 4.0 ÷ 27 = 7.3 C.Y.
13.0 x 8.0 x 3.0 ÷ 27 = 11.6 C.Y.
6.0 x 10.0 x 3.4 ÷ 27 = 7.6 C.Y.
12.0 x 5.0 x 5.2 ÷ 27 = 11.6 C.Y.
14.0 x 7.0 x 4.9 ÷ 27 = 17.8 C.Y.
7.0 x 7.0 x 2.2 ÷ 27 = 4.0 C.Y.
34.0 x 6.0 x 4.0 ÷ 27 = 30.2 C.Y.
16.0 x 10.0 x 1.9 ÷ 27 = 11.3 C.Y.
11.0 x 11.0 x 4.1 ÷ 27 = 18.4 C.Y.
27.0 x 10.0 x 4.2 ÷ 27 = 42.0 C.Y.
41.0 x 18.0 x 7.4 ÷ 27 = 202.3 C.Y.
28.0 x 10.0 x 6.0 ÷ 27 = 62.2 C.Y.
13.0 x 11.0 x 7.8 ÷ 27 = 41.3 C.Y.
37.0 x 16.0 x 6.4 ÷ 27 = 140.3 C.Y.
34.0 x 8.0 x 4.0 ÷ 27 = 40.3 C.Y.
9.0 x 9.0 x 6.0 ÷ 27 = 18.0 C.Y.
13.0 x 13.0 x 4.0 ÷ 27 = 25.0 C.Y.
18.0 x 24.0 x 2.0 ÷ 27 = 32.0 C.Y.
8.0 x 7.0 x 3.0 ÷ 27 = 6.2 C.Y.

876.3 C.Y.

TOTAL — USE 876.0 C.Y.

BAL. 1688 +73 (BOULDERS) 1ST STAGE

CLASS C EXC.

876 CY.

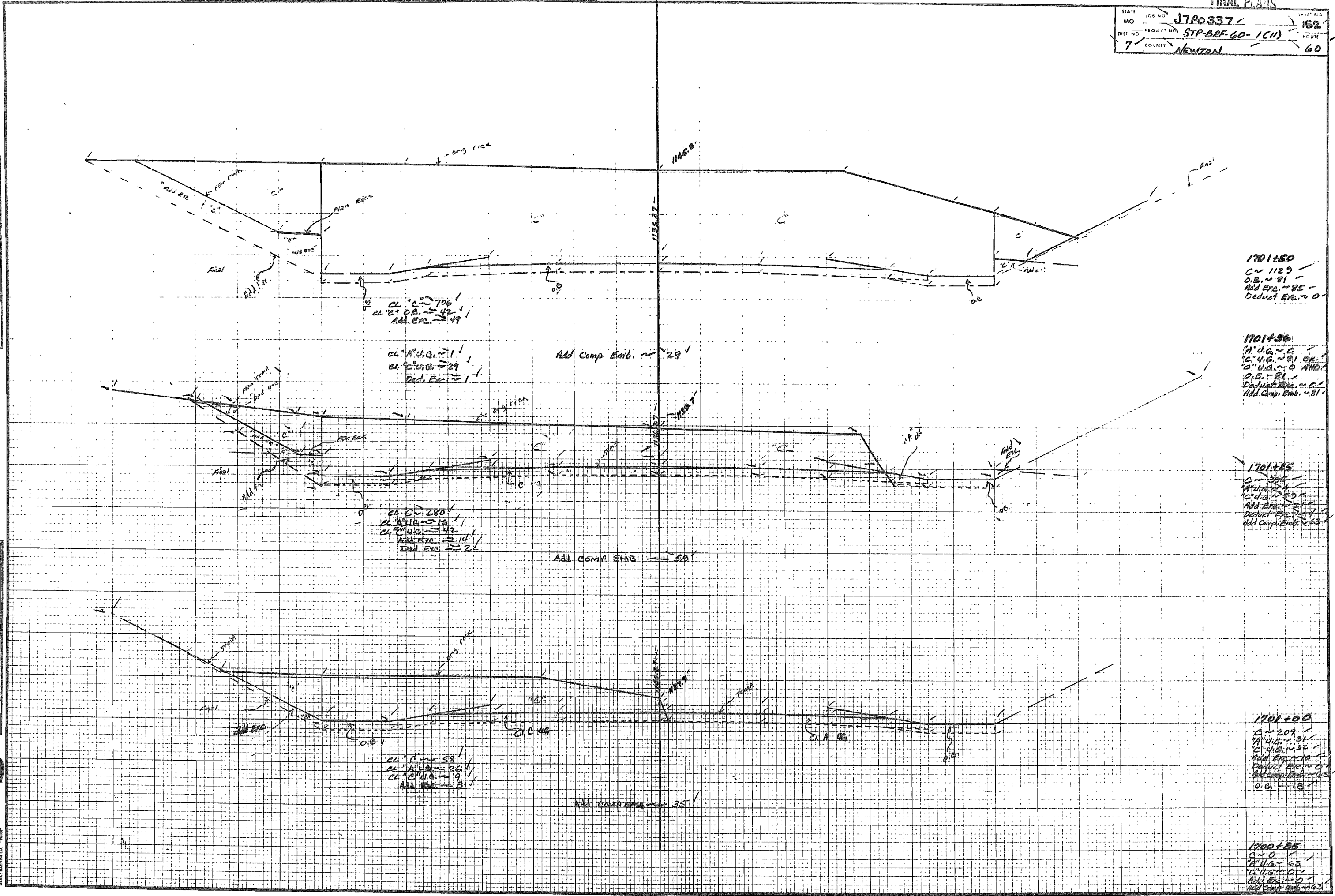
FINAL PLANS

STATE	MO	JOE NO	152
DIST NO	7	PROJECT NO	J7P0337
COUNTY	NEWTON	ROUTE	60

DATE	1-19-83
BY	W. J. H. H.
ORIGINAL SURVEY	PLANNED
NOTE BOOK	NO

DATE	1-19-83
BY	W. J. H. H.
ORIGINAL SURVEY	PLANNED
NOTE BOOK	NO

306



1701+50
C 1129
D.B. 81
Add. Exc. 85
Deduct. Exc. 0

1701+56
A 4.6, C 4.6
D.B. 81
Add. Exc. 81
Deduct. Exc. 0
Add. Comp. Emb. 81

1701+65
C 335
A 4.6, C 4.6
Add. Exc. 21
Deduct. Exc. 0
Add. Comp. Emb. 63

1701+80
C 209
A 4.6, C 4.6
Add. Exc. 10
Deduct. Exc. 0
Add. Comp. Emb. 63
D.B. 18

1701+85
C 0
A 4.6, C 4.6
Add. Exc. 0
Deduct. Exc. 0
Add. Comp. Emb. 63

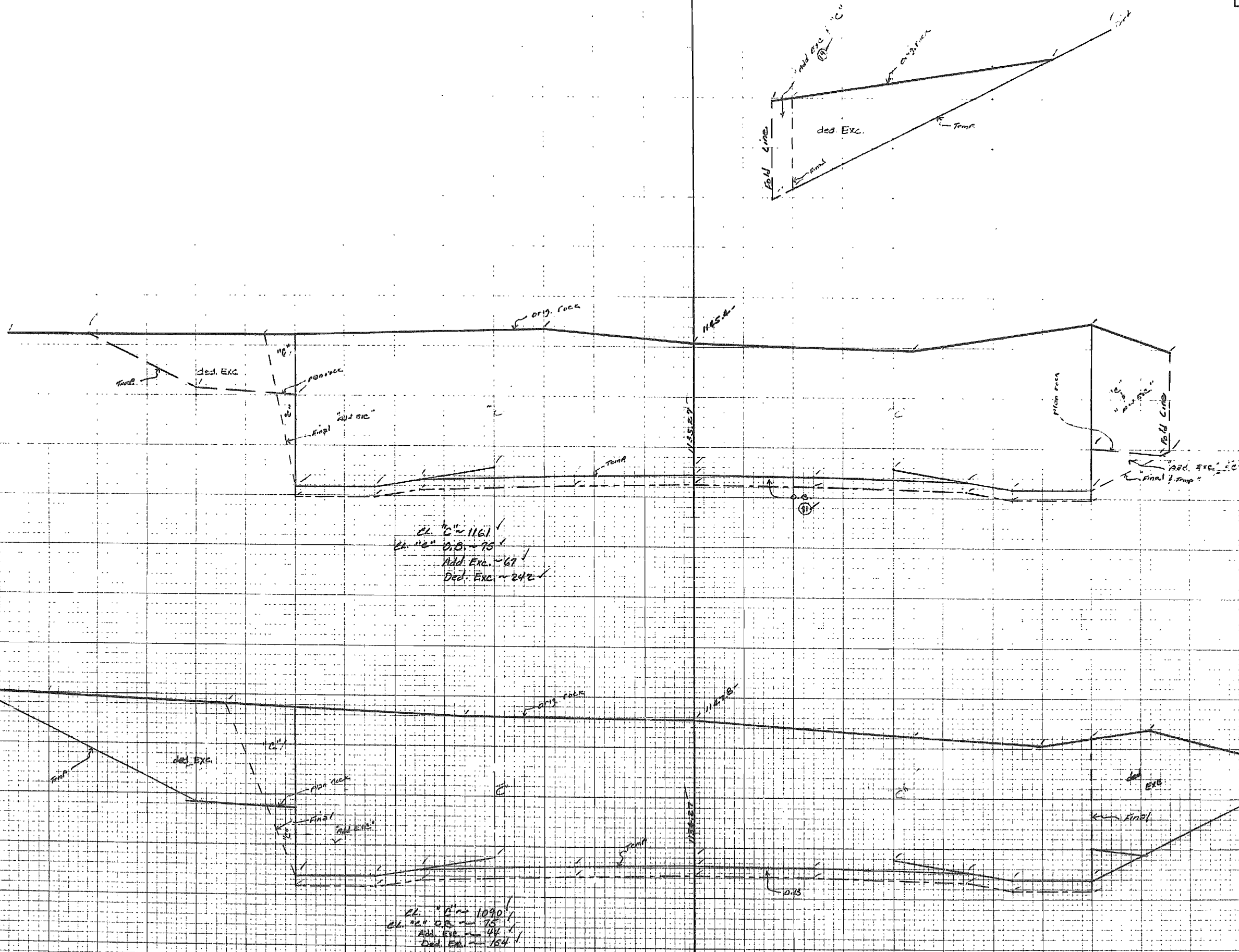
FINAL PLANS

STATE MO DIST NO PROJECT NO DIST NO COUNTY ROUTE
 J7P0337 STA-BRF-60-1 (111) 7 NEWTON 60

FINAL SURVEY
 SURVEYED
 PLOTTED
 NOTE BOOK
 NO

DATE
 BY
 SURVEYED
 PLOTTED
 NOTE BOOK
 NO

307
 SURVEYED
 PLOTTED
 NOTE BOOK
 NO



1702+00
 C ~ 1222
 O.B. ~ 81
 Add Exc. ~ 195
 Deduct Exc. ~ 190

1701+75
 C ~ 1226
 O.B. ~ 81
 Add Exc. ~ 110
 Deduct Exc. ~ 332

CL ~ 1090
 O.B. ~ 75
 Add Exc. ~ 44
 Ded. Exc. ~ 154

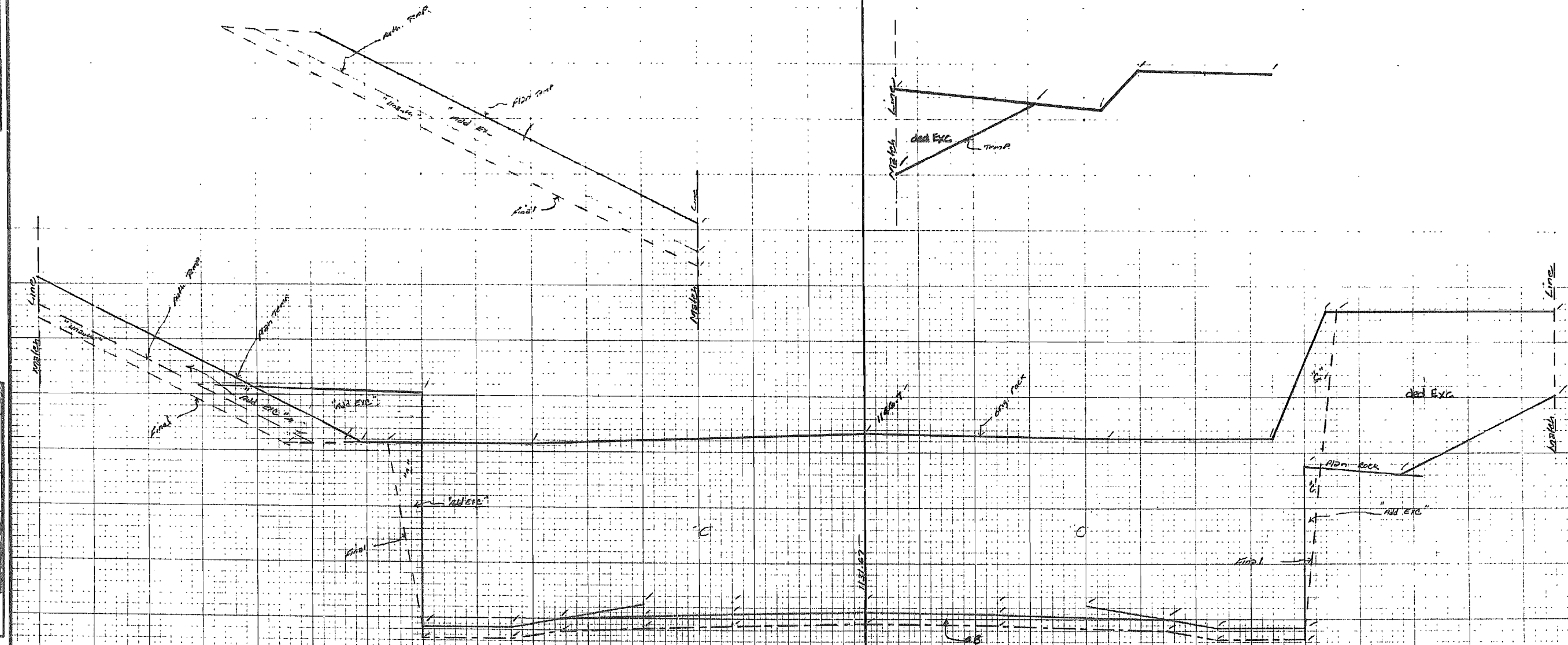
CL ~ 1161
 O.B. ~ 75
 Add Exc. ~ 67
 Ded. Exc. ~ 242

STATE	JOB NO.	SHEET NO.
MO	J7P0337	154
DIST NO.	PROJECT NO.	ROUTE
7	STP-BRF-60-1 (II)	60
COUNTY	NEWTON	

FINAL SURVEY
DATE 1-10-67
BY J. H. HARRIS
NOTED BOOK NO. 11
NO. 11

ORIGINAL SURVEY
DATE 1-10-67
BY J. H. HARRIS
NOTED BOOK NO. 11
NO. 11

308



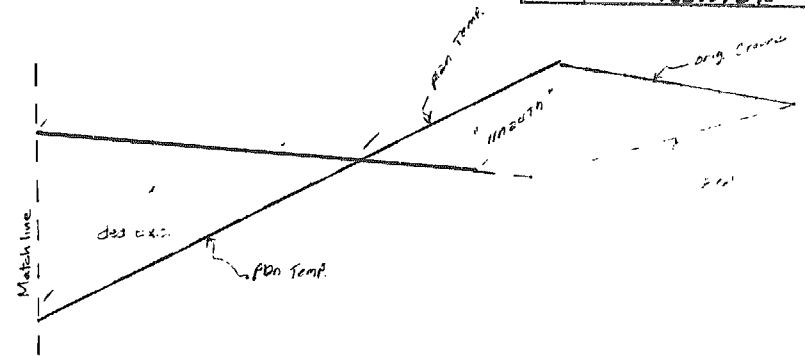
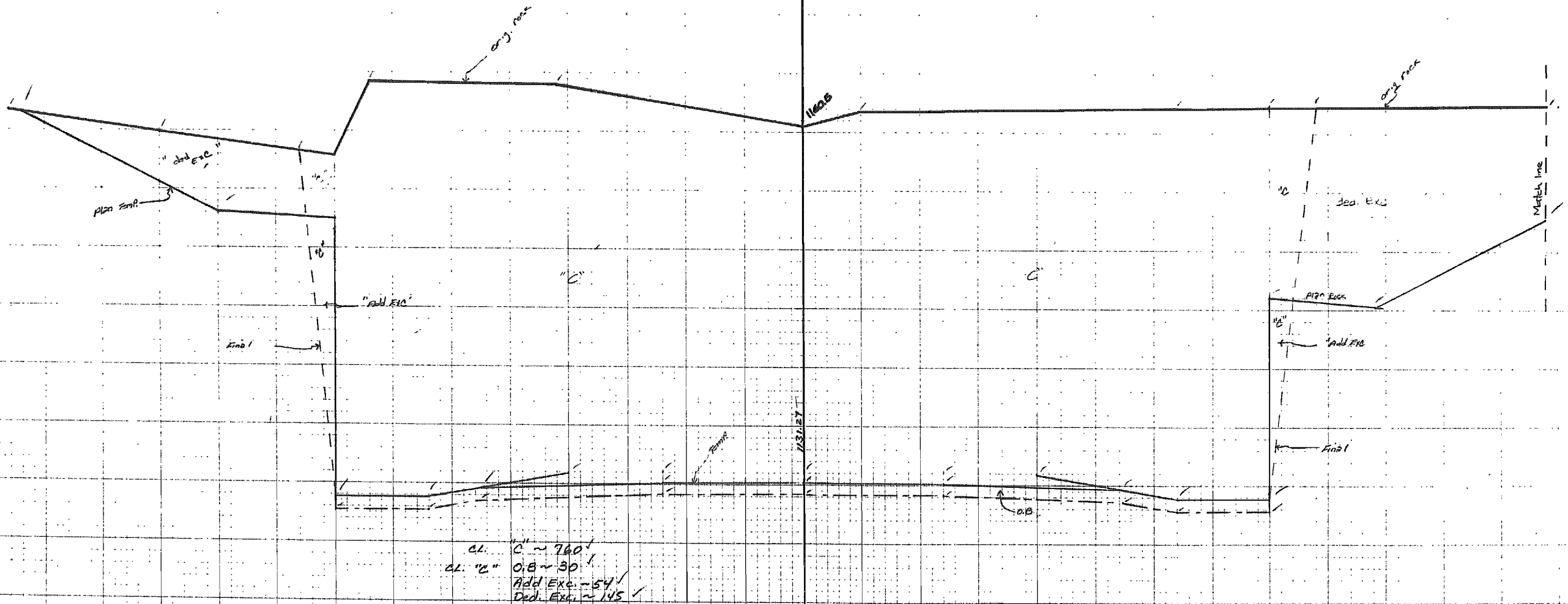
at 1702+40
C.W. 120
Add. Exc. 279
Ded. Exc. 365

1702+40
C.W. 137.4
D.B. 81
Add. Exc. 242
Ded. Exc. 303

FINAL SURVEY
 DATE: 12-22-54
 BY: J. J. [unclear]
 CHECKED: [unclear]
 NO. 11

ORIGINAL SURVEY
 DATE: 12-22-54
 BY: J. J. [unclear]
 CHECKED: [unclear]
 NO. 11

309



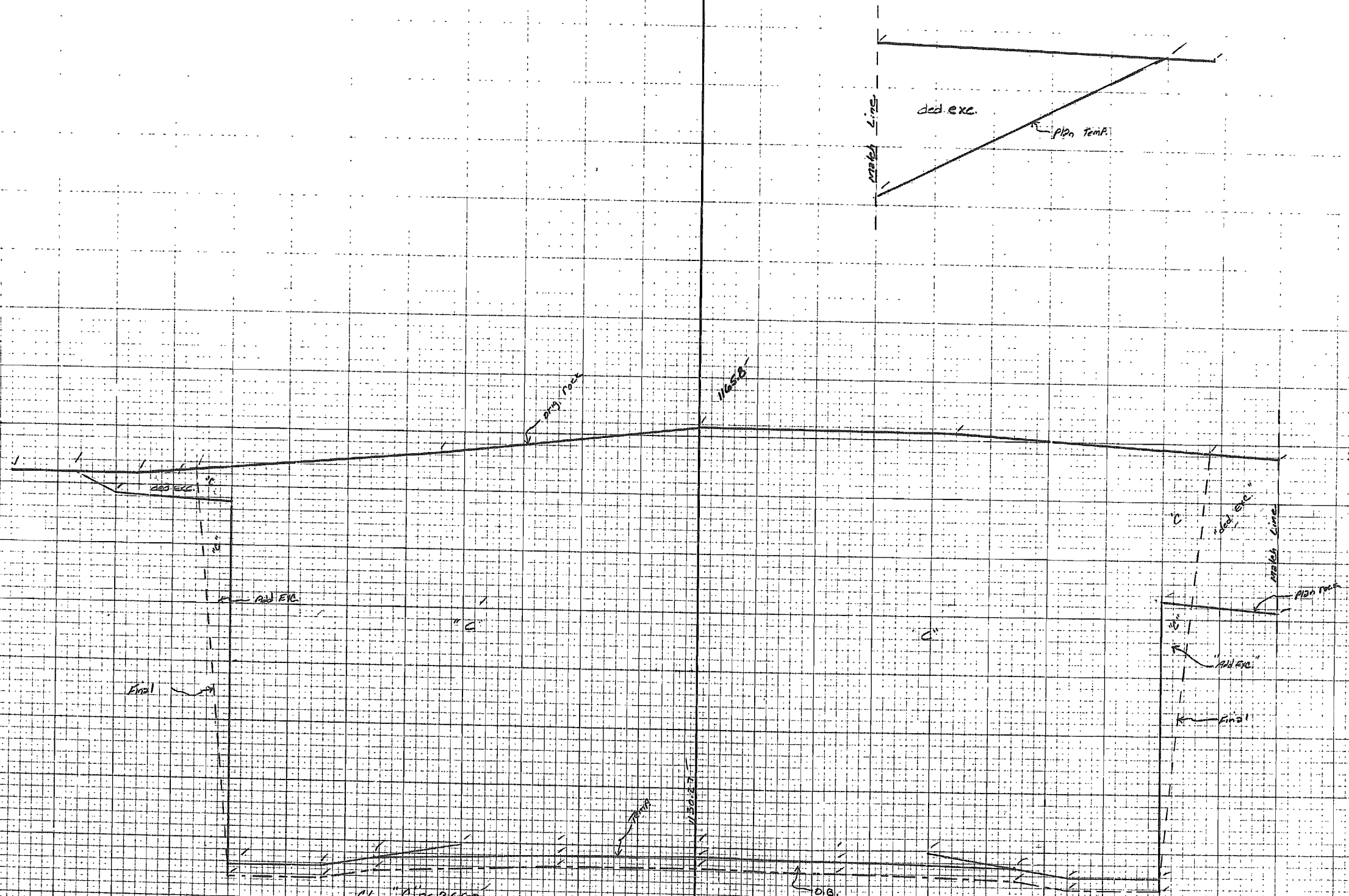
1702.150
 C ~ 2729
 O.B. ~ 81
 Add Exc. ~ 471
 Deduct Exc. ~ 479

STATE	JOB NO.	SHEET NO.
MO	07P0337	150
DIST NO.	PROJECT NO.	ROUTE
7	STP-BRF-60-1(11)	60
COUNTY	NEWTON	

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

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

310



CL "D" ~ 2660'
 CL "C" O.B. ~ 75'
 Add Exc. ~ 56'
 Ded. Exc. ~ 345'

1702+75
 C.M. 3016
 O.B. ~ 81'
 Add Exc. ~ 74'
 Deduct Exc. ~ 266'

CL. "C" ~ 5645
CL. "C" O.B. ~ 152
Add Exc. ~ 422
Ded. Exc. ~ 215

FINAL SURVEY	SURVISED	BY	DATE
NOTE BOOK	PLOTTED	<i>Frederick</i>	<i>1-18-93</i>
	FLATTENED	<i>Frederick</i>	<i>1-18-93</i>
	AREAS	<i>Frederick</i>	<i>1-18-93</i>
NO	REMARKS	<i>Frederick</i>	<i>1-18-93</i>

ORIGINAL	SURVEYED	BY	DATE
SURVEY		P. HARRISON	12-17-92
NOTE BOOK		P. HARRISON	12-17-92
NO.	AREA	11	1-12-94



SERVICE BLUEPRINT CO. NO. 1000

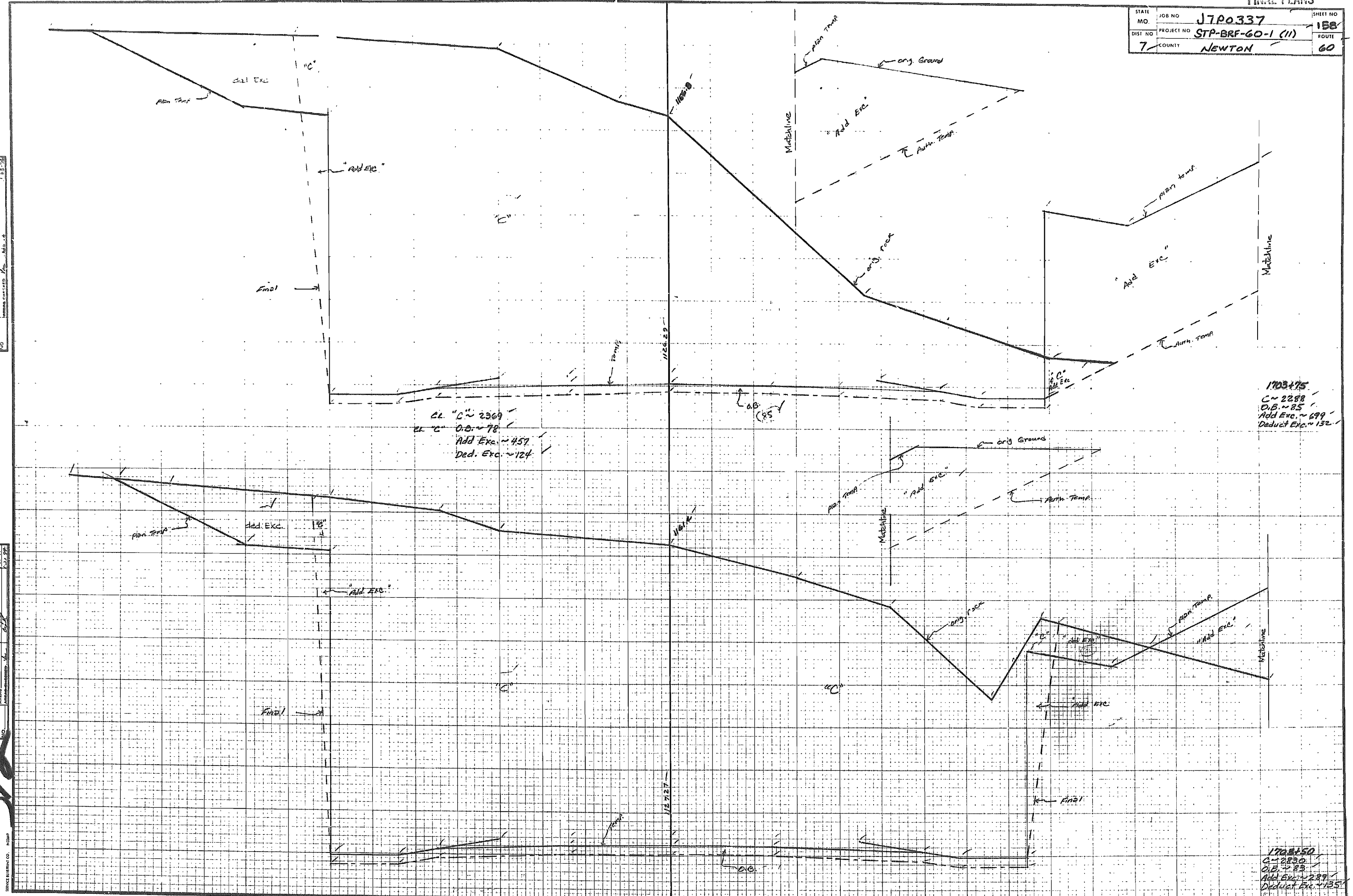
1703+00
C ~ 3267 ✓
O.B. ~ 81 ✓
Add Exc. ~ 167 ✓
Deduct Exc. ~ 97 ✓

STATE	MO.	JOB NO.	17P0337	SHEET NO.	158
DIST. NO.	7	PROJECT NO.	STP-BRF-60-1 (11)	ROUTE	60
COUNTY	7	COUNTY	NEWTON		

FINAL SURVEY
 PLATTE BOOK
 NO. 158
 DATE 11/15/83
 BY [Signature]
 CHECKED [Signature]
 SURVEYED [Signature]
 PLATTED [Signature]
 AREA CALCULATED [Signature]

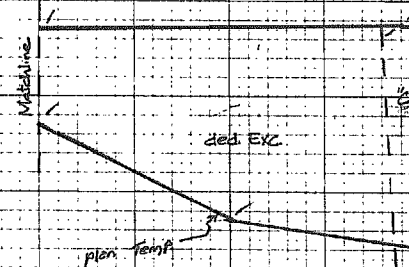
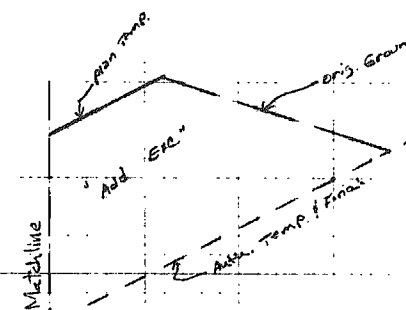
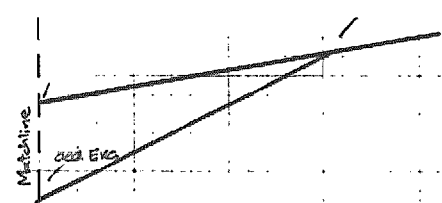
ORIGINAL SURVEY
 PLATTE BOOK
 NO. 158
 DATE 11/15/83
 BY [Signature]
 CHECKED [Signature]
 SURVEYED [Signature]
 PLATTED [Signature]
 AREA CALCULATED [Signature]

312

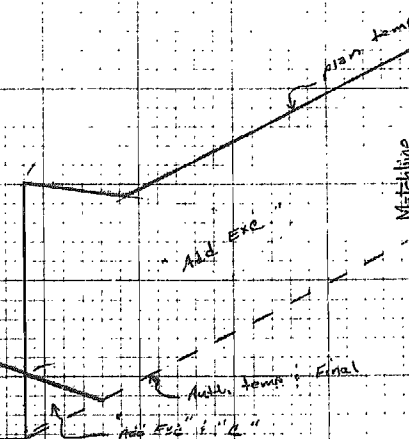
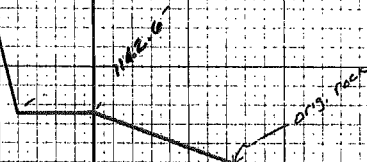


1704+30
O.B. ~ 68th sk.
"A" U.G. ~ 0.
"C" U.G. ~ 71
Add Comp. Emb. ~ 71

CL "C" O.B. v 16 ✓



2.



1704 + 25
C ~ 1799 ✓
O.B. ~ 89 ✓
Add Exc. ~ 353 ✓
Deduct Exc. ~ 204

CL "C" ~ 1816 ✓
CL "C" O.R. ~ 81 ✓
Add Exc. ~ 466 ✓
Ded. Exc. ~ 156

FINAL SURVEY	CURVED	BY	DATE
NOTE BOOK	PLOTTED	<i>Paulina</i>	<i>1-12-20</i>
NO	TEMPERATURE	<i>Paulina</i>	<i>1-14-20</i>
	AREA	<i>Paulina</i>	<i>1-15-20</i>
	AREA	<i>Paulina</i>	<i>1-16-20</i>
	AREA	<i>Paulina</i>	<i>1-17-20</i>
	AREA	<i>Paulina</i>	<i>1-18-20</i>
	AREA	<i>Paulina</i>	<i>1-19-20</i>
	AREA	<i>Paulina</i>	<i>1-20-20</i>
	AREA	<i>Paulina</i>	<i>1-21-20</i>
	AREA	<i>Paulina</i>	<i>1-22-20</i>
	AREA	<i>Paulina</i>	<i>1-23-20</i>
	AREA	<i>Paulina</i>	<i>1-24-20</i>
	AREA	<i>Paulina</i>	<i>1-25-20</i>
	AREA	<i>Paulina</i>	<i>1-26-20</i>
	AREA	<i>Paulina</i>	<i>1-27-20</i>
	AREA	<i>Paulina</i>	<i>1-28-20</i>
	AREA	<i>Paulina</i>	<i>1-29-20</i>
	AREA	<i>Paulina</i>	<i>1-30-20</i>
	AREA	<i>Paulina</i>	<i>1-31-20</i>
	AREA	<i>Paulina</i>	<i>1-32-20</i>
	AREA	<i>Paulina</i>	<i>1-33-20</i>
	AREA	<i>Paulina</i>	<i>1-34-20</i>
	AREA	<i>Paulina</i>	<i>1-35-20</i>
	AREA	<i>Paulina</i>	<i>1-36-20</i>
	AREA	<i>Paulina</i>	<i>1-37-20</i>
	AREA	<i>Paulina</i>	<i>1-38-20</i>
	AREA	<i>Paulina</i>	<i>1-39-20</i>
	AREA	<i>Paulina</i>	<i>1-40-20</i>
	AREA	<i>Paulina</i>	<i>1-41-20</i>
	AREA	<i>Paulina</i>	<i>1-42-20</i>
	AREA	<i>Paulina</i>	<i>1-43-20</i>
	AREA	<i>Paulina</i>	<i>1-44-20</i>
	AREA	<i>Paulina</i>	<i>1-45-20</i>
	AREA	<i>Paulina</i>	<i>1-46-20</i>
	AREA	<i>Paulina</i>	<i>1-47-20</i>
	AREA	<i>Paulina</i>	<i>1-48-20</i>
	AREA	<i>Paulina</i>	<i>1-49-20</i>
	AREA	<i>Paulina</i>	<i>1-50-20</i>
	AREA	<i>Paulina</i>	<i>1-51-20</i>
	AREA	<i>Paulina</i>	<i>1-52-20</i>
	AREA	<i>Paulina</i>	<i>1-53-20</i>
	AREA	<i>Paulina</i>	<i>1-54-20</i>
	AREA	<i>Paulina</i>	<i>1-55-20</i>
	AREA	<i>Paulina</i>	<i>1-56-20</i>
	AREA	<i>Paulina</i>	<i>1-57-20</i>
	AREA	<i>Paulina</i>	<i>1-58-20</i>
	AREA	<i>Paulina</i>	<i>1-59-20</i>
	AREA	<i>Paulina</i>	<i>1-60-20</i>
	AREA	<i>Paulina</i>	<i>1-61-20</i>
	AREA	<i>Paulina</i>	<i>1-62-20</i>
	AREA	<i>Paulina</i>	<i>1-63-20</i>
	AREA	<i>Paulina</i>	<i>1-64-20</i>
	AREA	<i>Paulina</i>	<i>1-65-20</i>
	AREA	<i>Paulina</i>	<i>1-66-20</i>
	AREA	<i>Paulina</i>	<i>1-67-20</i>
	AREA	<i>Paulina</i>	<i>1-68-20</i>
	AREA	<i>Paulina</i>	<i>1-69-20</i>
	AREA	<i>Paulina</i>	<i>1-70-20</i>
	AREA	<i>Paulina</i>	<i>1-71-20</i>
	AREA	<i>Paulina</i>	<i>1-72-20</i>
	AREA	<i>Paulina</i>	<i>1-73-20</i>
	AREA	<i>Paulina</i>	<i>1-74-20</i>
	AREA	<i>Paulina</i>	<i>1-75-20</i>
	AREA	<i>Paulina</i>	<i>1-76-20</i>
	AREA	<i>Paulina</i>	<i>1-77-20</i>
	AREA	<i>Paulina</i>	<i>1-78-20</i>
	AREA	<i>Paulina</i>	<i>1-79-20</i>
	AREA	<i>Paulina</i>	<i>1-80-20</i>
	AREA	<i>Paulina</i>	<i>1-81-20</i>
	AREA	<i>Paulina</i>	<i>1-82-20</i>
	AREA	<i>Paulina</i>	<i>1-83-20</i>
	AREA	<i>Paulina</i>	<i>1-84-20</i>
	AREA	<i>Paulina</i>	<i>1-85-20</i>
	AREA	<i>Paulina</i>	<i>1-86-20</i>
	AREA	<i>Paulina</i>	<i>1-87-20</i>
	AREA	<i>Paulina</i>	<i>1-88-20</i>
	AREA	<i>Paulina</i>	<i>1-89-20</i>
	AREA	<i>Paulina</i>	<i>1-90-20</i>
	AREA	<i>Paulina</i>	<i>1-91-20</i>
	AREA	<i>Paulina</i>	<i>1-92-20</i>
	AREA	<i>Paulina</i>	<i>1-93-20</i>
	AREA	<i>Paulina</i>	<i>1-94-20</i>
	AREA	<i>Paulina</i>	<i>1-95-20</i>
	AREA	<i>Paulina</i>	<i>1-96-20</i>

ORIGINAL	CHECKED	BY	DATE
SURVEY	PLOTTED	Polina Egan	11.21.92
NOTE BOOK	TEMPLATE	Polina Egan	11.21.92
	AREAS	Polina Egan	11.27.92
		Grady	1.23.94

44

FINAL SURVEY
DATE
BY
SURVEYED
NOTED
NO.

ORIGINAL SURVEY
DATE
BY
SURVEYED
NOTED
NO.

316
LANGE ILLINOIS CO. N304

BAL. 1705+60	1ST. STAGE	
TOTAL CL "C" EXC.	26745	C.Y.
TOTAL CL "A" U.G.	209	C.Y.
TOTAL CL "C" U.G.	218	C.Y.
ADD. EXC.	2995	C.Y.
DED. EXC.	2552	C.Y.
TOTAL CL "C" O.B.	945	C.Y.
ADD. COMP. EMB.	426	C.Y.

CL "C" ~ 443
CL "A" U.G. ~ 104
CL "C" U.G. ~ 23
EX. "C" O.B. ~ 8
Add. Exc. ~ 55
Ded. Exc. ~ 64

Add. Comp. Emb. ~ 127

1705+50
C ~ 0
A U.G. ~ 69
C U.G. ~ 0
Add. Exc. ~ 0
Deduct Exc. ~ 0
Add. Comp. Emb. ~ 69
O.B. ~ 0

1705+00
C ~ 478
A U.G. ~ 43
C U.G. ~ 25
Add. Exc. ~ 59
Deduct Exc. ~ 69
Add. Comp. Emb. ~ 69
O.B. ~ 9

CL "C" ~ 1484
CL "A" U.G. ~ 56
CL "C" U.G. ~ 70
CL "C" O.B. ~ 25
Add. Exc. ~ 103
Ded. Exc. ~ 257

Add. Comp. Emb. ~ 136

FINAL P17.5

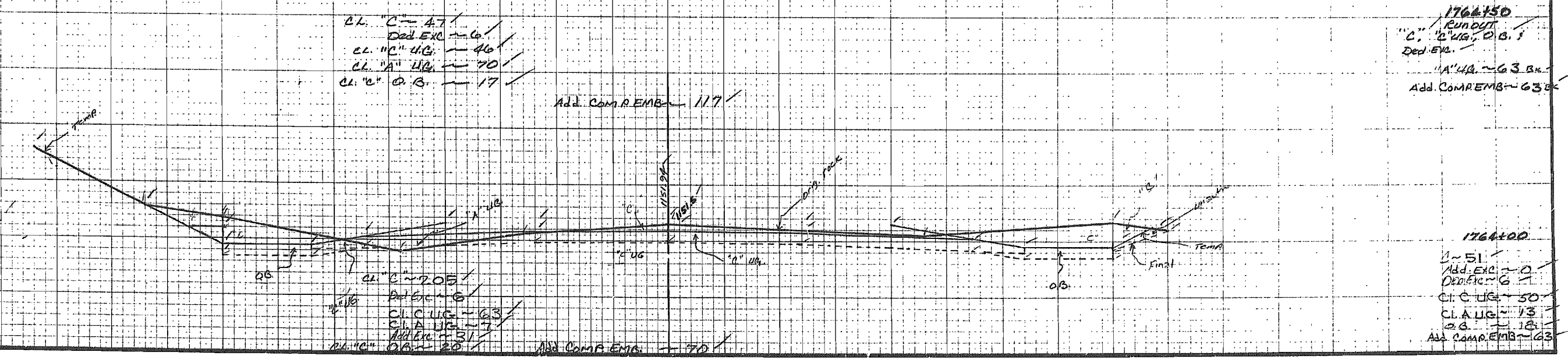
STATE	MO	JOB NO	JTP0337	SHEET NO	166
DIST NO	7	COUNTY	NEWTON	ROUTE	60
PROJECT NO	STP-BEF-60-1 (11)				

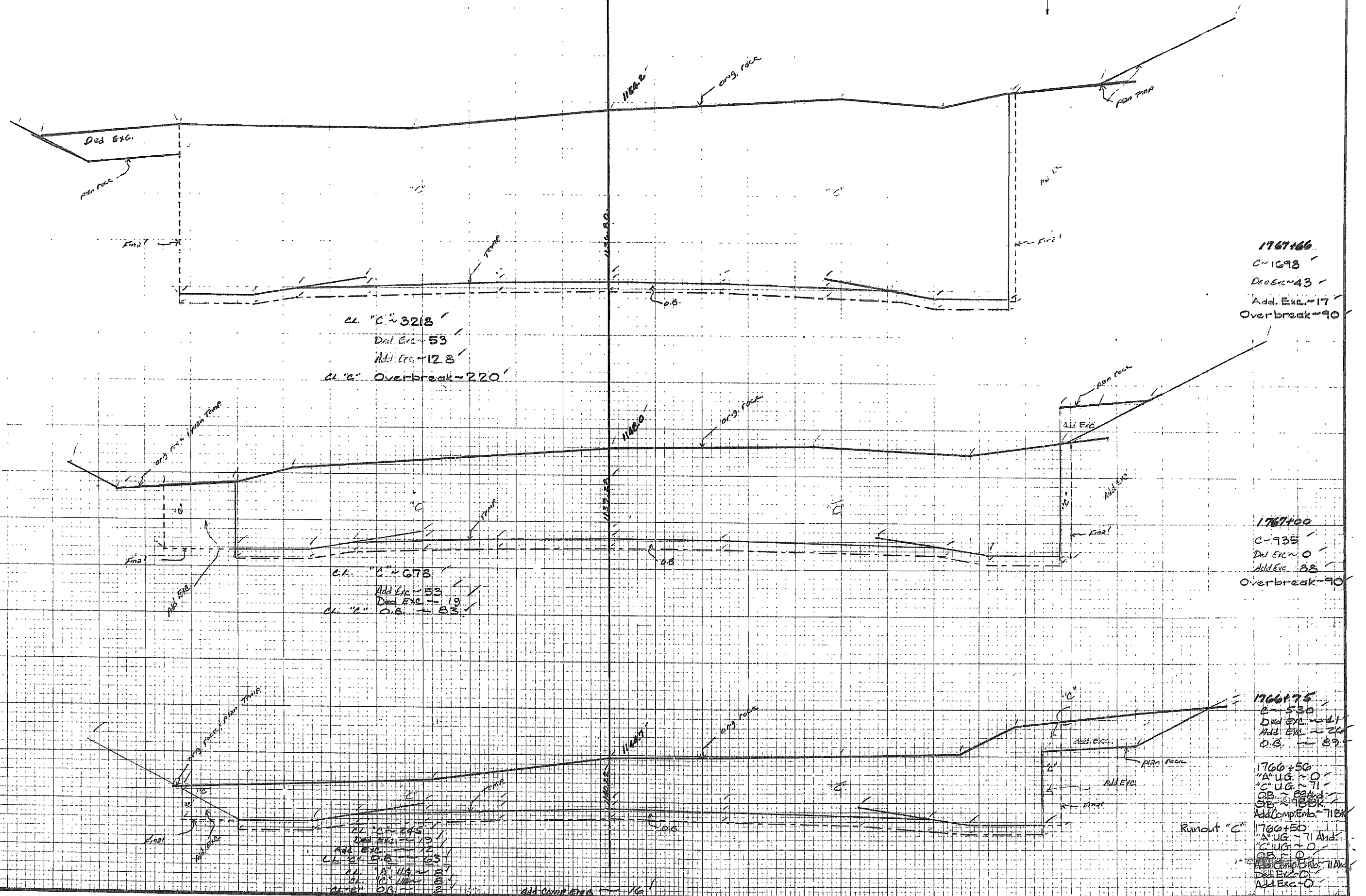
FINAL SURVEY
NOTE BOOK
NO. 320

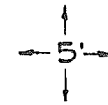
ORIGINAL SURVEY
NOTE BOOK
NO. 320

320

BAL. 1768+90	1ST. STAGE
TOTAL CL "C" EXC.	3883' C.Y.
DED. EXC.	131' C.Y.
ADD EXC.	230' C.Y.
TOTAL CL "C" DB.	779' C.Y.
TOTAL CL "A" UG.	100' C.Y.
TOTAL CL "C" UG.	132' C.Y.
ADD COMP. EMB.	234' C.Y.

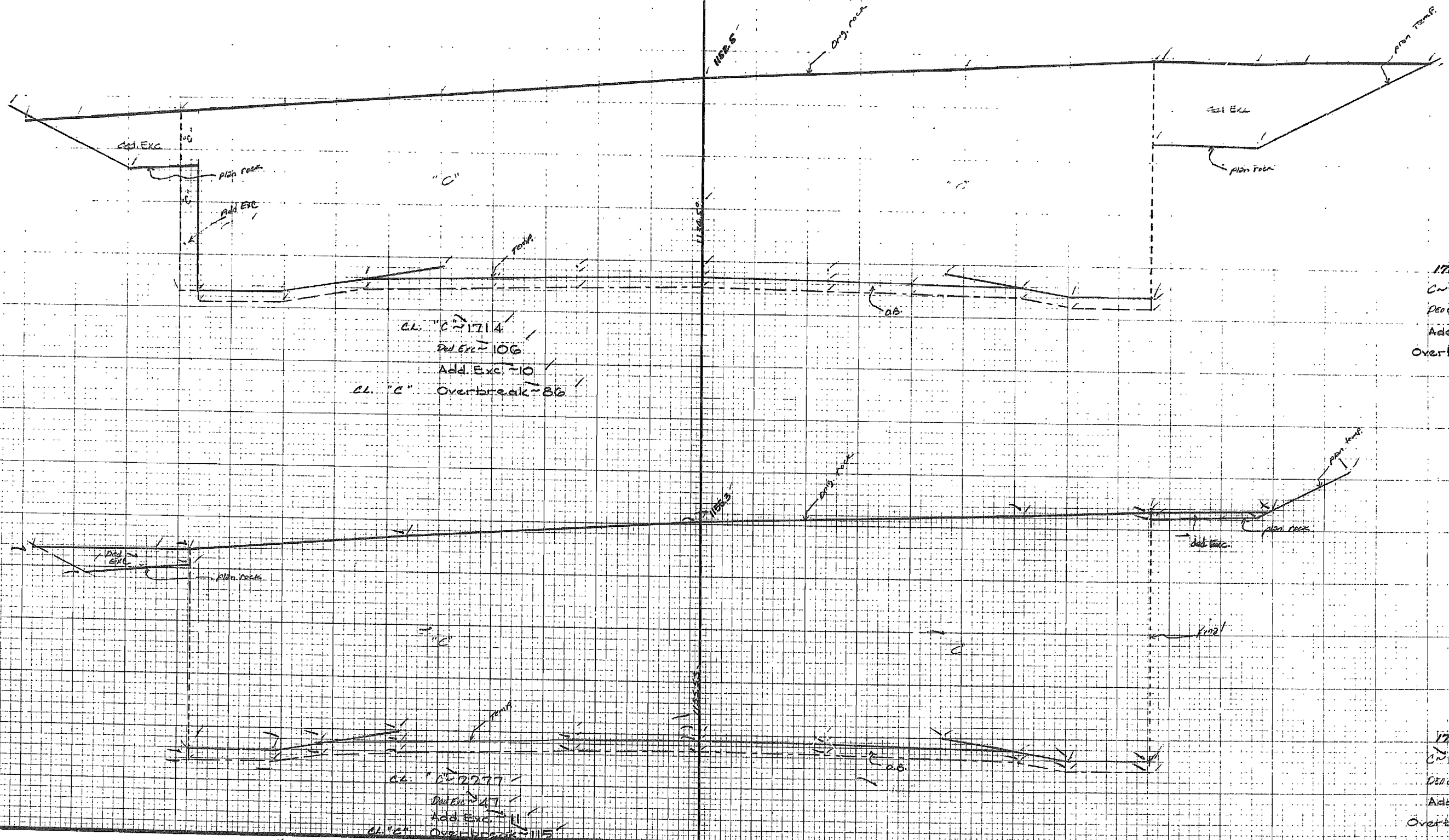






FINAL SURVEY
DATE: 1-25-74
BY: [Signature]
CHECKED: [Signature]
NO. 1

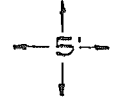
ORIGINAL SURVEY
DATE: 1-25-74
BY: [Signature]
CHECKED: [Signature]
NO. 1



1768+25
C=1785
Prop. E. = 197
Add. Exc. = 21
Overbreak = 92

1768+00
C=1918
Prop. E. = 32
Add. Exc. = 0
Overbreak = 93

372



CL "C" 31'
Ded. Exc ~ 0
Add Exc ~ 26'
CL "C" O.B. ~ 15'

Ded. COMP. EMB ~ 14'

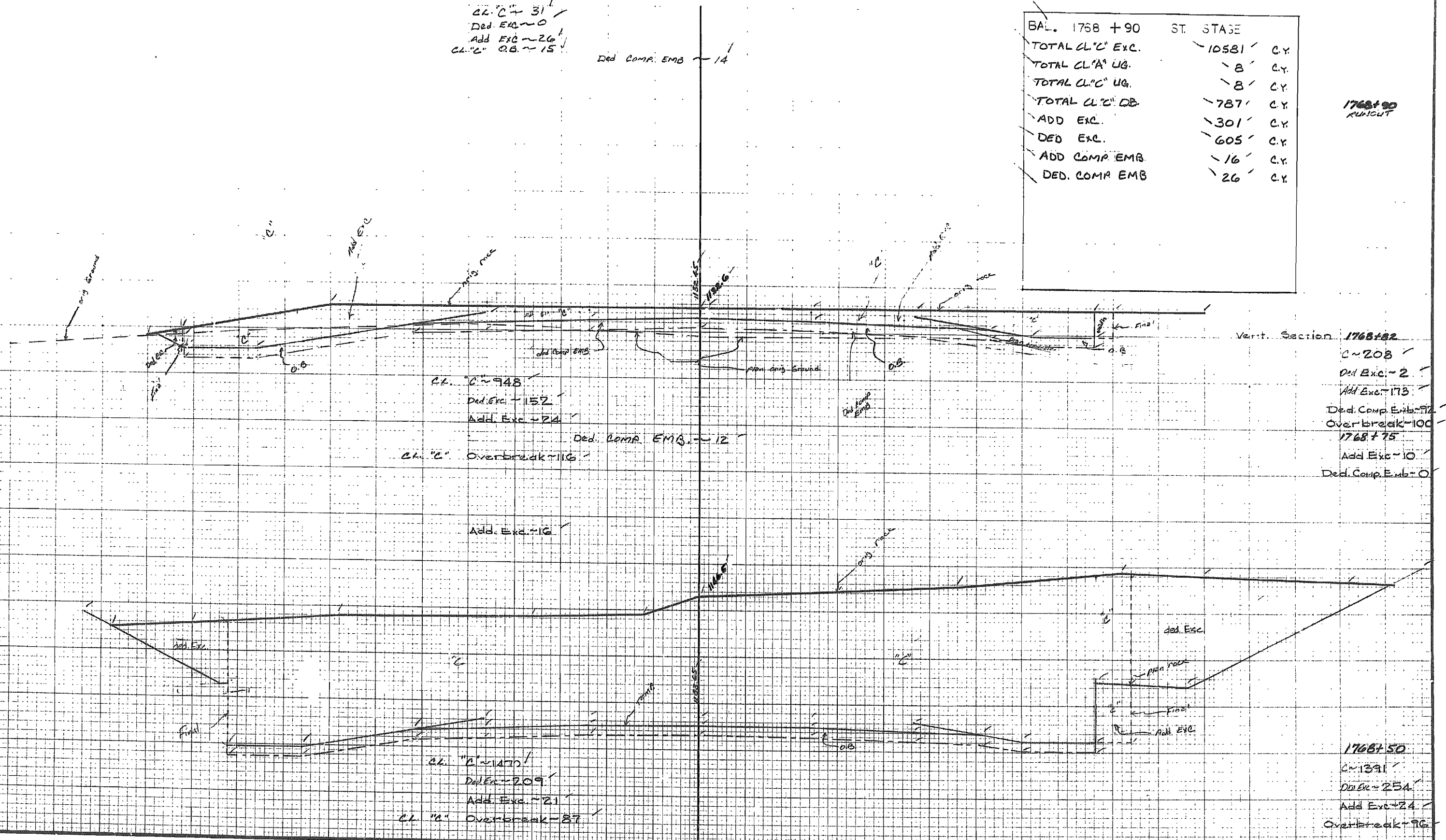
BAL. 1768 + 90	ST. STAGE	
TOTAL CL "C" Exc.	10581	C.Y.
TOTAL CL "A" UG.	8	C.Y.
TOTAL CL "C" UG.	8	C.Y.
TOTAL CL "C" DB.	787	C.Y.
ADD Exc.	301	C.Y.
DED Exc.	605	C.Y.
ADD COMP. EMB.	16	C.Y.
DED. COMP. EMB.	26	C.Y.

1768+90
RUNOUT

FINAL SURVEY
NOTE BOOK
NO. 1

ORIGINAL SURVEY
NOTE BOOK
NO. 323

DATE
BY
REVISION
DATE
BY
REVISION
DATE
BY
REVISION



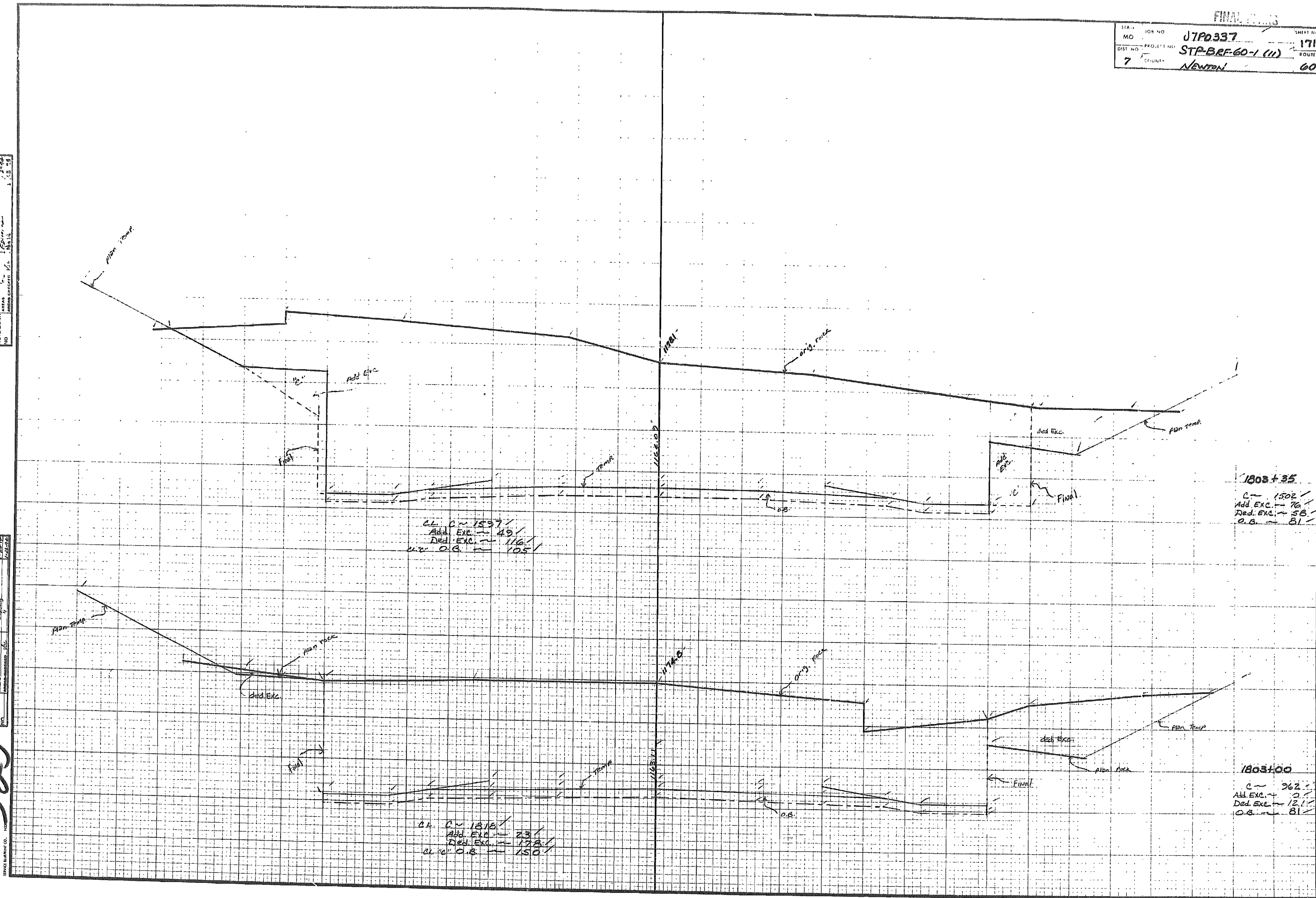
FINAL

STA. NO.	J7P0337	SHEET NO.	171
MO.		PROJECT NO.	STP-BRF-60-1 (II)
DIST. NO.	7	ROUTE	60
COUNTY	NEWTON		

DATE	12-11-59
BY	W. H. H. H.
REVIEWED	
PLANNED	
NOTED	
NO.	

DATE	12-11-59
BY	W. H. H. H.
REVIEWED	
PLANNED	
NOTED	
NO.	

325



1803+35
C.V. 1537'
Add. Exc. 49'
Ded. Exc. 116'
O.B. 105'

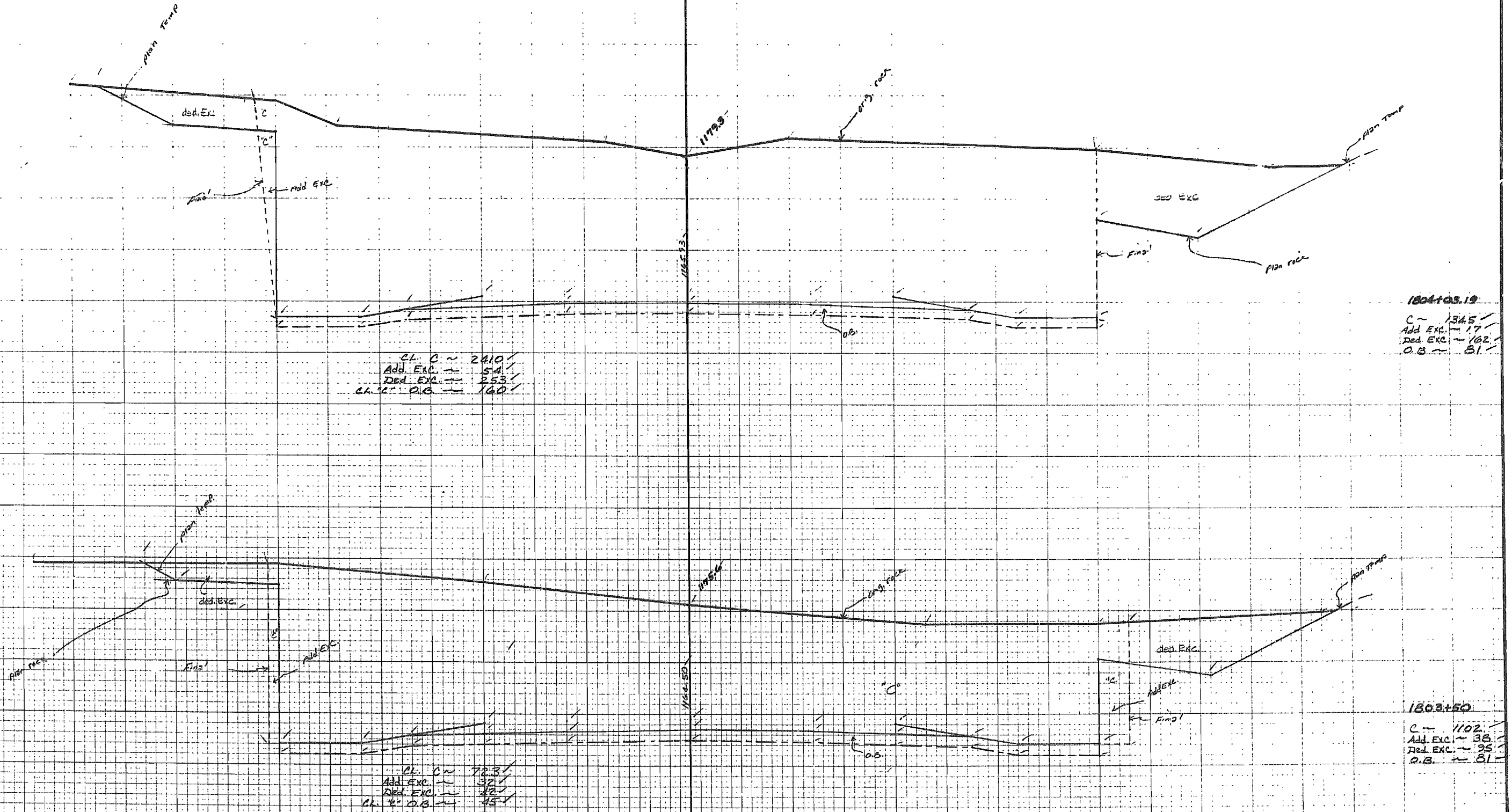
1803+00
C.V. 1818'
Add. Exc. 23'
Ded. Exc. 178'
O.B. 150'

FINAL
SURVEY
NOTEBOOK
NO.

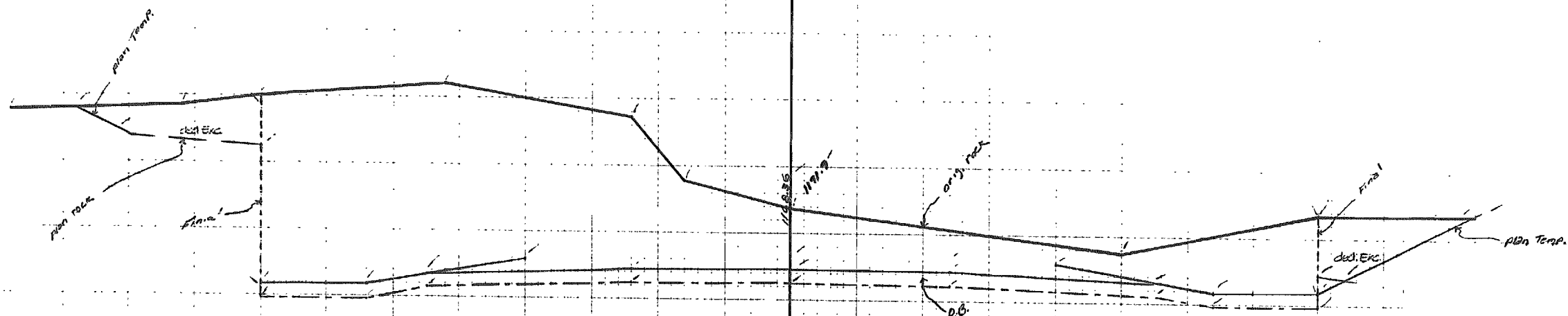
ORIGINAL
SURVEY
NOTEBOOK
NO.

326

SEVERE BLINDING CO. N334



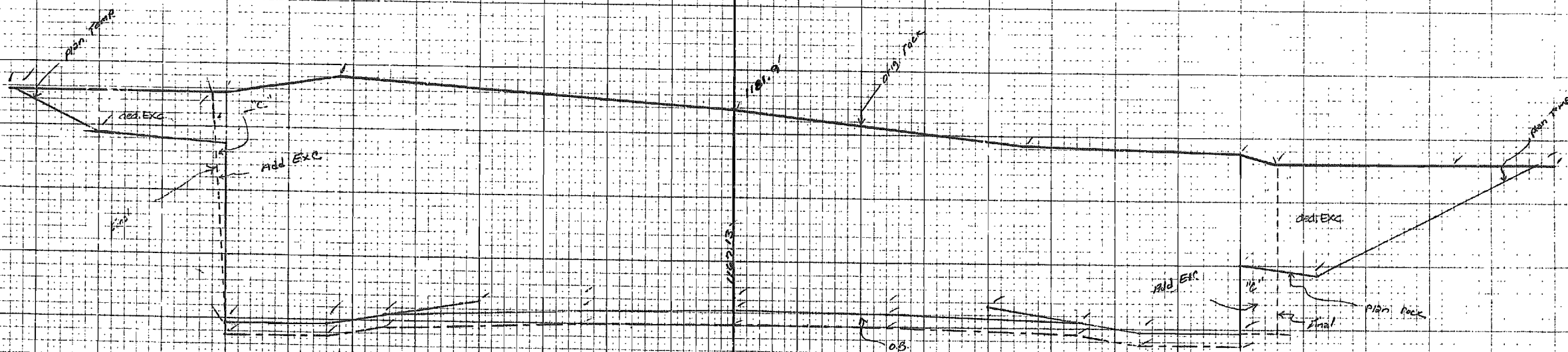
DATE 10/28/94
 BY G. T. H. H. H.
 SURVEY PLOTTED
 NOTE BOOK
 NO.



CL C ~ 1790
 Add. Exc. ~ 19
 Ded. Exc. ~ 194
 CL "C" O.B. ~ 150

1005+00
 C ~ 612
 Add. Exc. ~ 0
 Ded. Exc. ~ 66
 O.B. ~ 81

DATE 10/28/94
 BY G. T. H. H. H.
 SURVEY PLOTTED
 NOTE BOOK
 NO.



CL C ~ 2311
 Add. Exc. ~ 33
 Ded. Exc. ~ 265
 CL "C" O.B. ~ 140

1004+50
 C ~ 1321
 Add. Exc. ~ 21
 Ded. Exc. ~ 144
 O.B. ~ 81

327

DATE: 11/16/60
BY: G. H. H. H.
SUPERVISOR: [Signature]
PLANNING: [Signature]
DESIGN: [Signature]
CONSTRUCTION: [Signature]
NO. 1

DATE: 11/16/60
BY: [Signature]
SUPERVISOR: [Signature]
PLANNING: [Signature]
DESIGN: [Signature]
CONSTRUCTION: [Signature]
NO. 1

338

BAL 1837+75 1ST. STAGE		
TOTAL CL "C" EXC.	13725	C.Y.
TOTAL CL "A" UG.	73	C.Y.
TOTAL CL "C" UG.	58	C.Y.
TOTAL CL "C" OB.	1297	C.Y.
ADD EXC.	311	C.Y.
DED. EXC.	1280	C.Y.
ADD COMP. EMB.	129	C.Y.

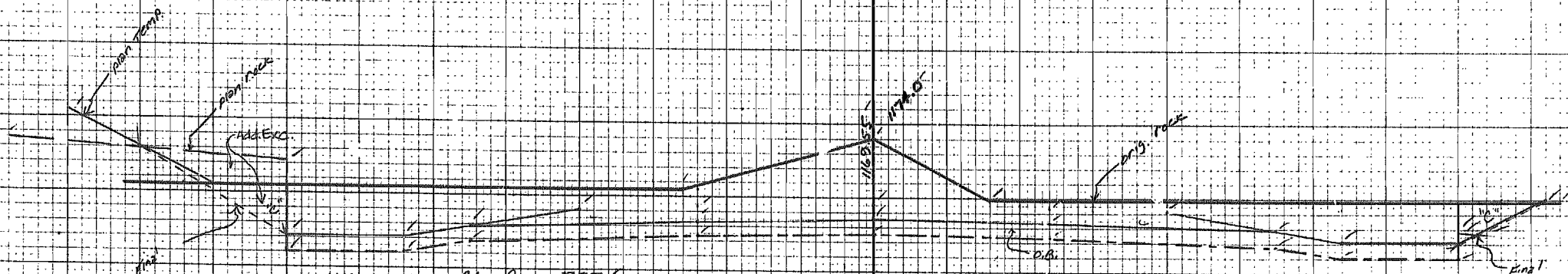
CL "C" ~ 220
Add. Exc. ~ 23
CL "C" UG. ~ 24
CL "A" UG. ~ 26
CL "C" O.B. ~ 7

Add. Comp. Emb. ~ 51

1806+00
Runout
CL "C" ~ 0
CL "A" UG. ~ 63 (Vert. Gen.)
O.B. ~ 0
Add. Comp. Emb. ~ 63
C ~ 0
Add. Exc. ~ 0

CL "C" O.B. ~ 84

1805+78
CL "C" (Bk) ~ 31
CL "C" UG. ~ 63 (Attd.)
CL "A" UG. ~ 0 (Attd.)
O.B. ~ 18 (Attd.)
Add. Comp. Emb. ~ 63



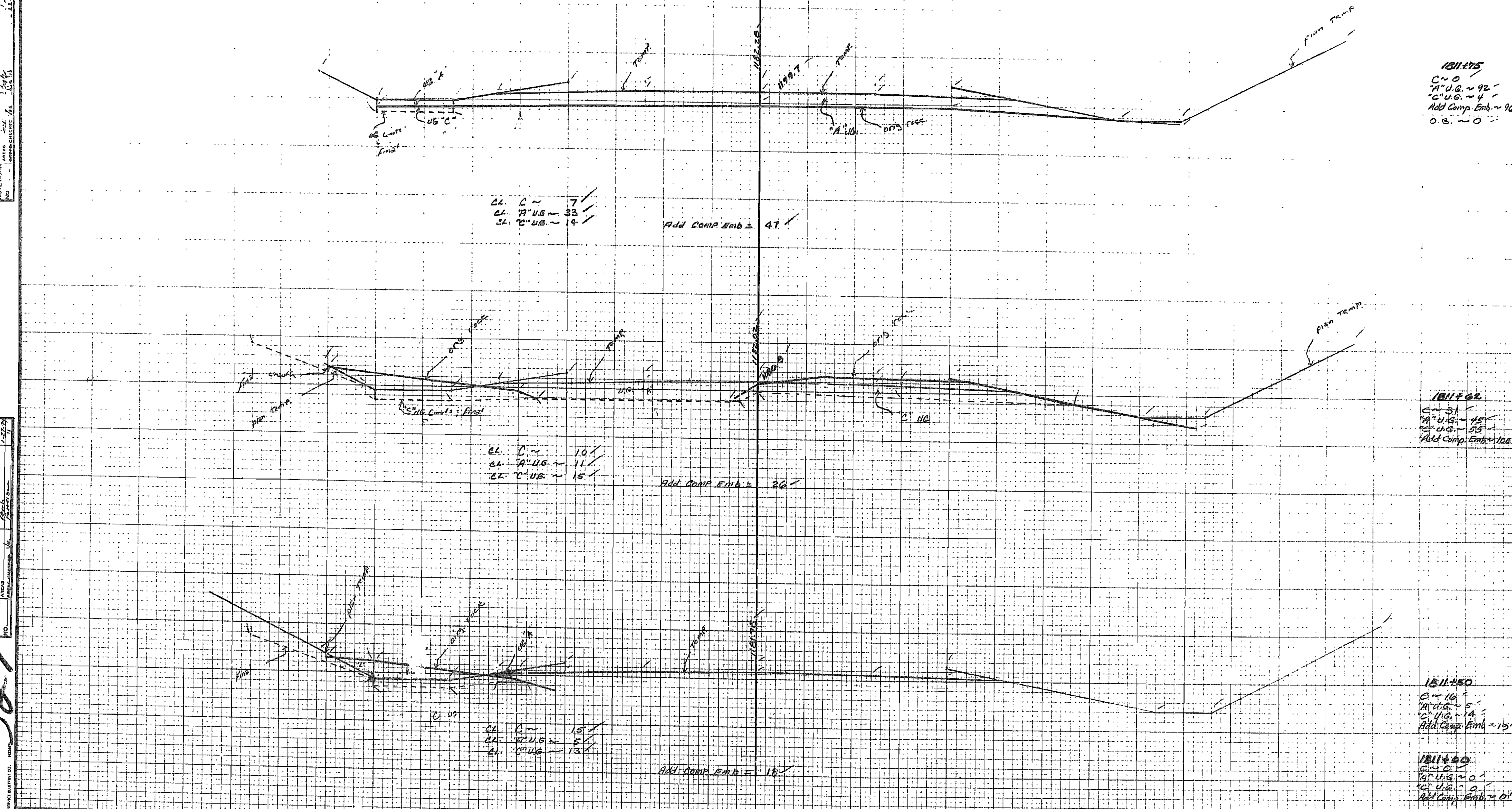
CL "C" ~ 787
Add. Exc. ~ 25
DED. EXC. ~ 61
CL "C" O.B. ~ 150

1805+50
C ~ 238
Add. Exc. ~ 25
DED. EXC. ~ 0
O.B. ~ 81

FINAL SURVEY
BY: [Signature]
DATE: 1/1/75
SURVEYED: [Signature]
PLOTTER: [Signature]
NOTE BOOK: [Signature]
NO: [Signature]

ORIGINAL SURVEY
BY: [Signature]
DATE: 1/1/75
SURVEYED: [Signature]
PLOTTER: [Signature]
NOTE BOOK: [Signature]
NO: [Signature]

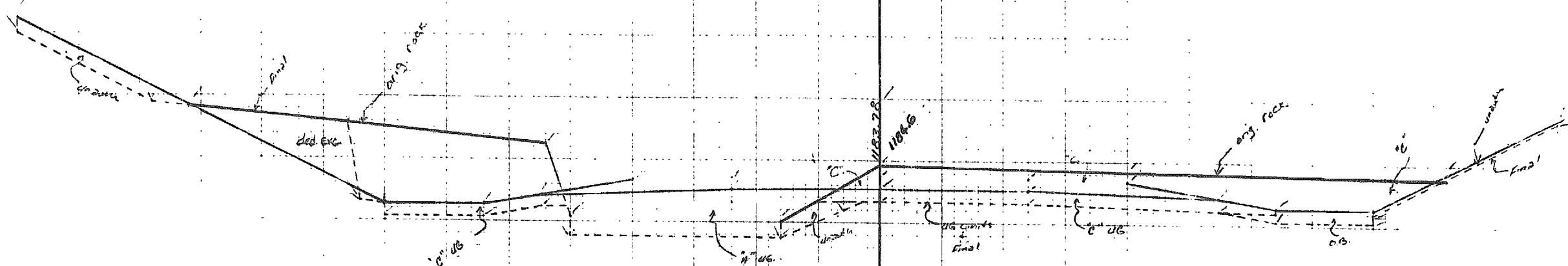
329



DATE 1/15/78
BY [Signature]
SURVEYED [Signature]
PLOTTER [Signature]
NOTE BOOK [Signature]
NO. 330

DATE 1/15/78
BY [Signature]
SURVEYED [Signature]
PLOTTER [Signature]
NOTE BOOK [Signature]
NO. 330

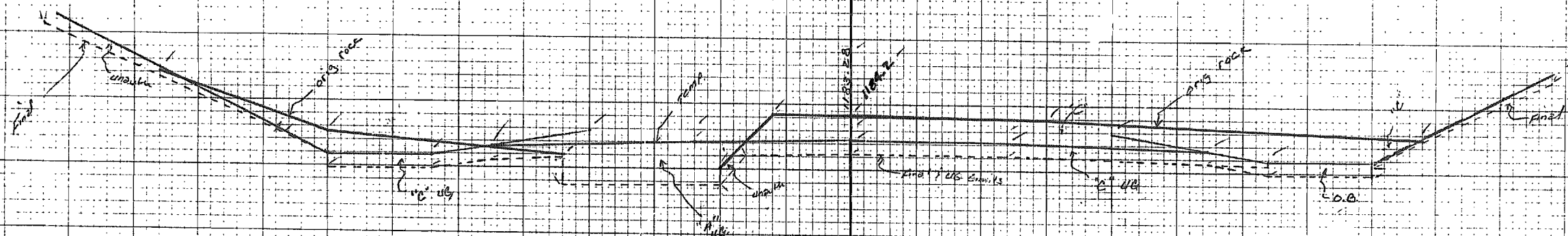
330



C.L. C ~ 135
C.L. R ~ 52
C.L. U.G. ~ 49
Ded. Exc. ~ 17
C.L. O.B. ~ 8

Add Comp. Emb. = 101

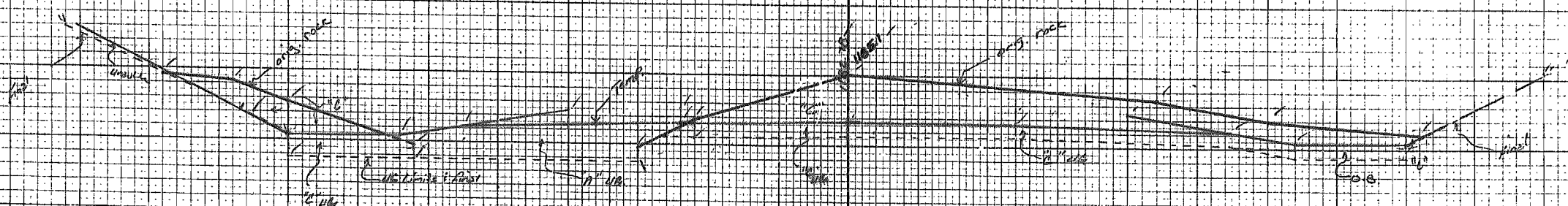
1812+50
C ~ 176
R ~ 70
U.G. ~ 49
Deduct Exc. ~ 37
Add Comp. Emb. ~ 113
O.B. ~ 9



C.L. C ~ 112
C.L. R ~ 40
C.L. U.G. ~ 53
C.L. O.B. ~ 8

Add Comp. Emb. = 93

1812+25
C ~ 116
R ~ 43
U.G. ~ 57
Deduct Exc. ~ 0
Add Comp. Emb. ~ 100
O.B. ~ 9



C.L. C ~ 58
C.L. R ~ 62
C.L. U.G. ~ 39
C.L. O.B. ~ 8

Add Comp. Emb. = 91

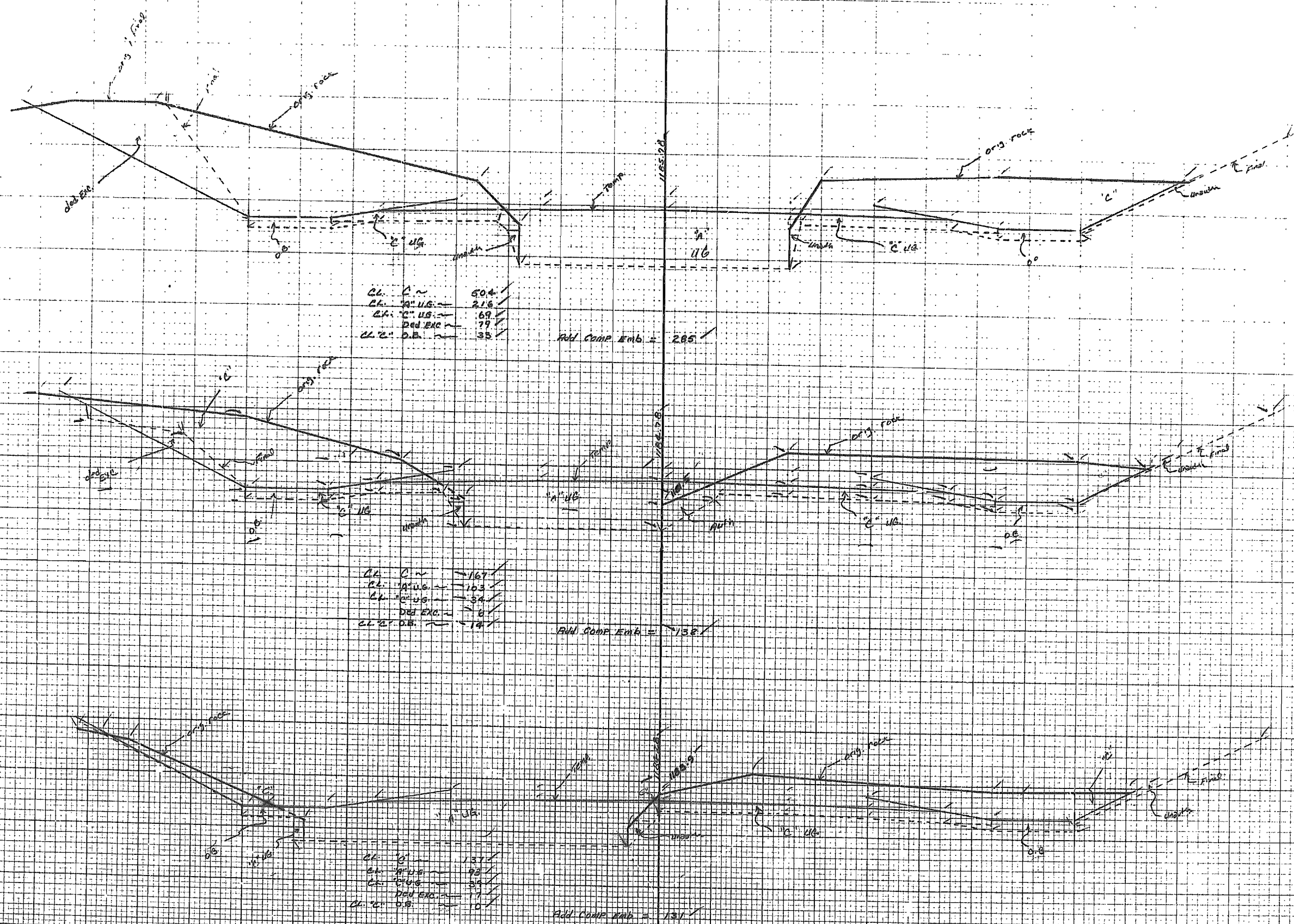
1812+00
C ~ 126
R ~ 43
U.G. ~ 58
Add Comp. Emb. ~ 101
O.B. ~ 9

STATE	MO	JOB NO	J7P0337	SHEET NO	177
DIST NO	7	PROJECT NO	STA-BRF-60-1 (11)	ROUTE	60
COUNTY	NEWTON				

DATE	12-2-77
BY	William J. Hines
ORIGINAL SURVEY	PLOTTED
NOTE BOOK	NO

DATE	12-2-77
BY	William J. Hines
ORIGINAL SURVEY	PLOTTED
NOTE BOOK	NO

331



CL. C ~ 59.4
CL. 10" U.G. ~ 2.16
CL. 2" U.G. ~ 6.9
Ded. Exc. ~ 7.7
CL. 2" O.B. ~ 3.5

Add Comp. Emb. = 2.85

CL. C ~ 167
CL. 10" U.G. ~ 10.3
CL. 2" U.G. ~ 3.4
Ded. Exc. ~ 6
CL. 2" O.B. ~ 1.4

Add Comp. Emb. = 1.32

CL. C ~ 131
CL. 10" U.G. ~ 9.3
CL. 2" U.G. ~ 5.9
Ded. Exc. ~ 1.1
CL. 2" O.B. ~ 1.0

Add Comp. Emb. = 1.31

1813+50
C ~ 30.3
10" U.G. ~ 1.40
2" U.G. ~ 3.6
Deduct Exc. ~ 7.2
Add Comp. Emb. ~ 1.76
O.B. ~ 1.8

1813+00
C ~ 24.5
10" U.G. ~ 9.3
2" U.G. ~ 3.4
Deduct Exc. ~ 1.3
Add Comp. Emb. ~ 1.32
O.B. ~ 1.8

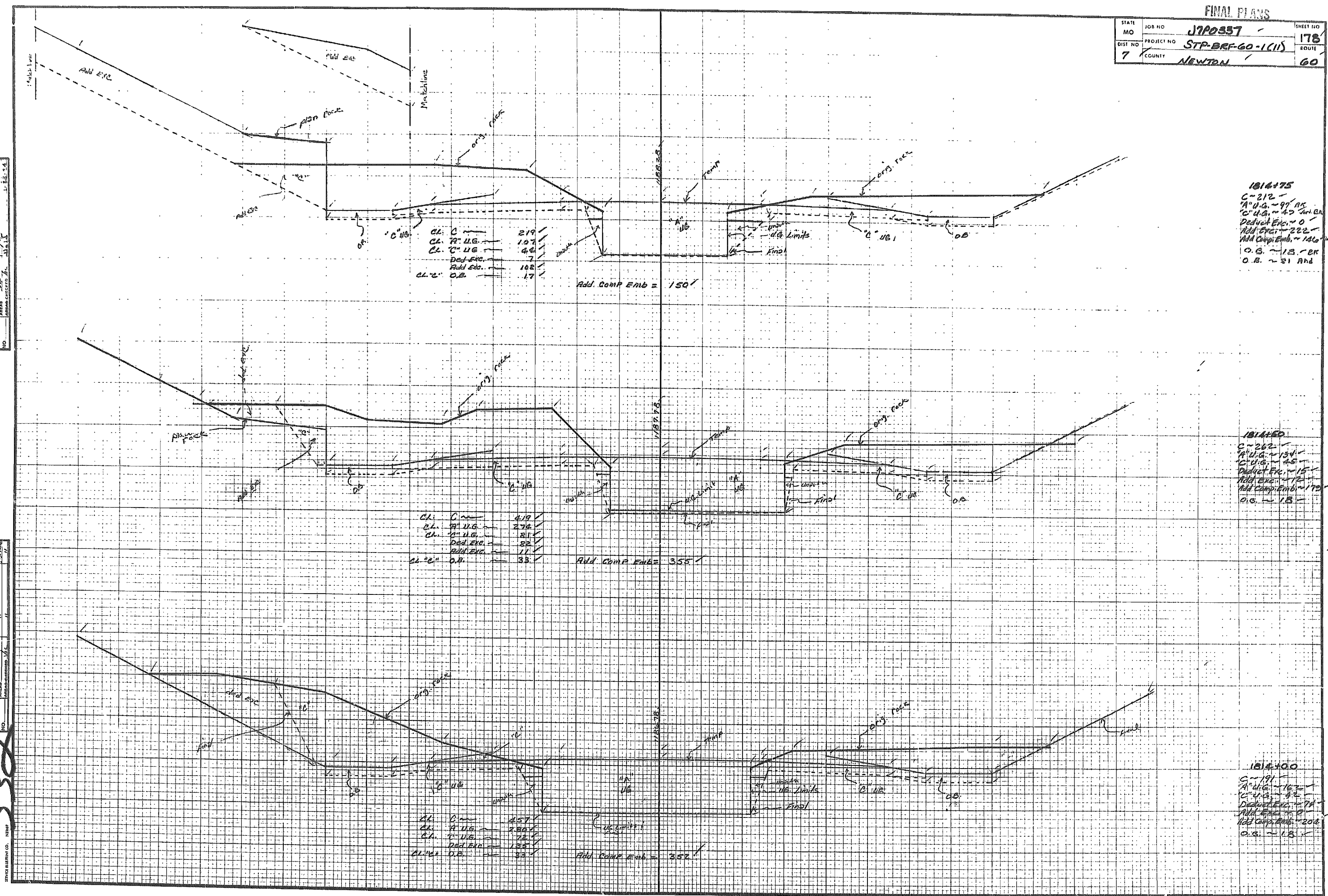
1812+75
C ~ 11.4
10" U.G. ~ 1.30
2" U.G. ~ 3.5
Deduct Exc. ~ 0
Add Comp. Emb. ~ 1.65
O.B. ~ 1.3

STATE	JOB NO.	SHEET NO.
MO	J7P0357	178
DIST NO.	PROJECT NO.	ROUTE
7	STP-BRF-60-1(11)	60
	COUNTY	
	NEWTON	

DATE	BY
11-13-14	J. J. Johnson
SURVEYED	PLANNED
NO.	NO.
1	1

DATE	BY
11-13-14	J. J. Johnson
SURVEYED	PLANNED
NO.	NO.
1	1

332



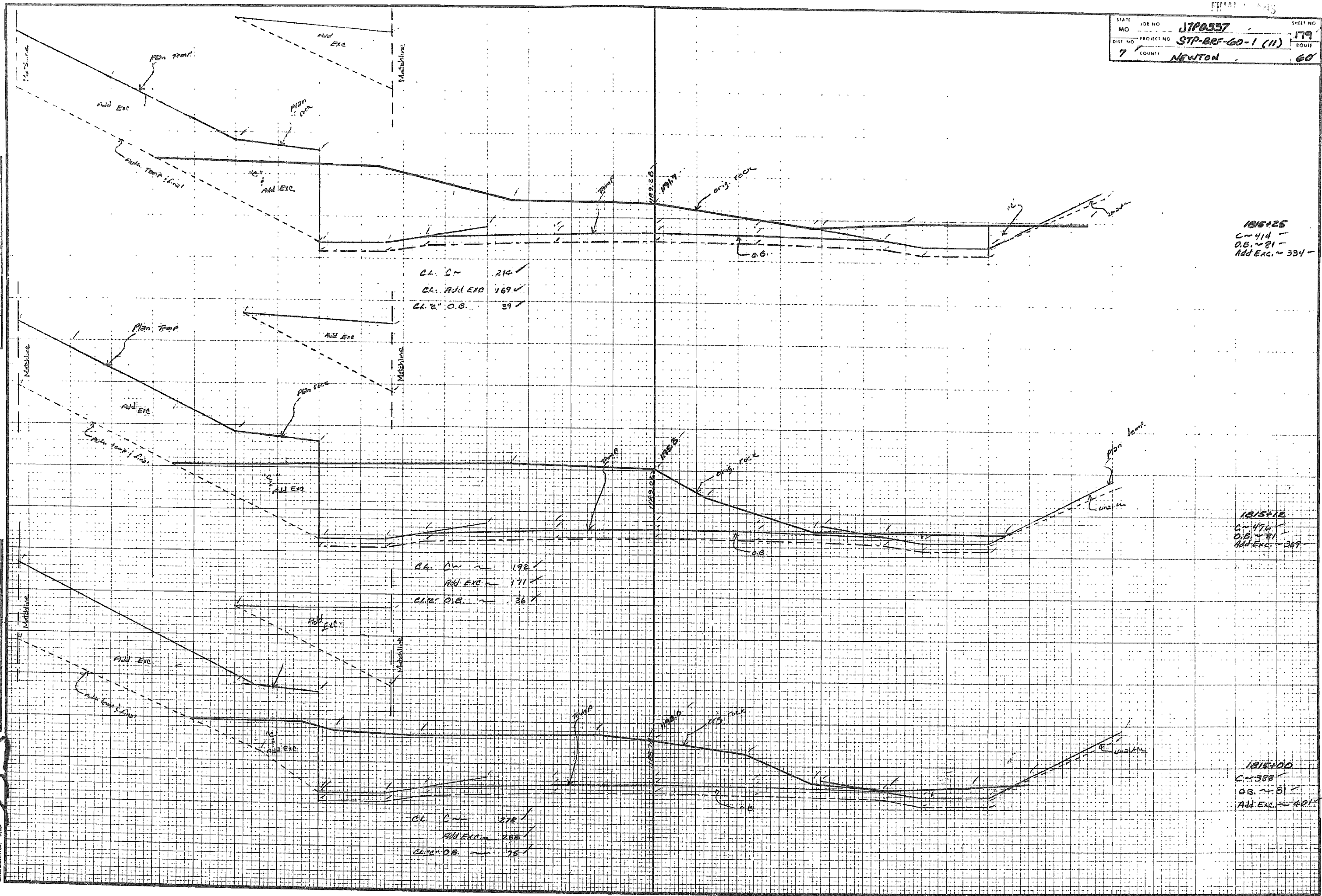
1814175
 C-212
 A" U.G. ~ 97' BK
 C" U.G. ~ 43' Jct BK
 Deduct Exc. ~ 0
 Add Exc. ~ 222
 Add Comp Emb. ~ 146' max
 O.B. ~ 13' BK
 O.B. ~ 21' AND

1814160
 C-262
 A" U.G. ~ 134
 C" U.G. ~ 45
 Deduct Exc. ~ 15
 Add Exc. ~ 172
 Add Comp Emb. ~ 170
 O.B. ~ 13

1814100
 C-191
 A" U.G. ~ 162
 C" U.G. ~ 82
 Deduct Exc. ~ 74
 Add Exc. ~ 89
 Add Comp Emb. ~ 204
 O.B. ~ 13

FINAL SURVEY
 SURVEYED BY **W. J. H. H. H.**
 PLATTED BY **W. J. H. H. H.**
 NOTE BOOK NO. **11**
 DATE **11-1-11**

ORIGINAL SURVEY
 SURVEYED BY **W. J. H. H. H.**
 PLATTED BY **W. J. H. H. H.**
 NOTE BOOK NO. **11**
 DATE **11-1-11**

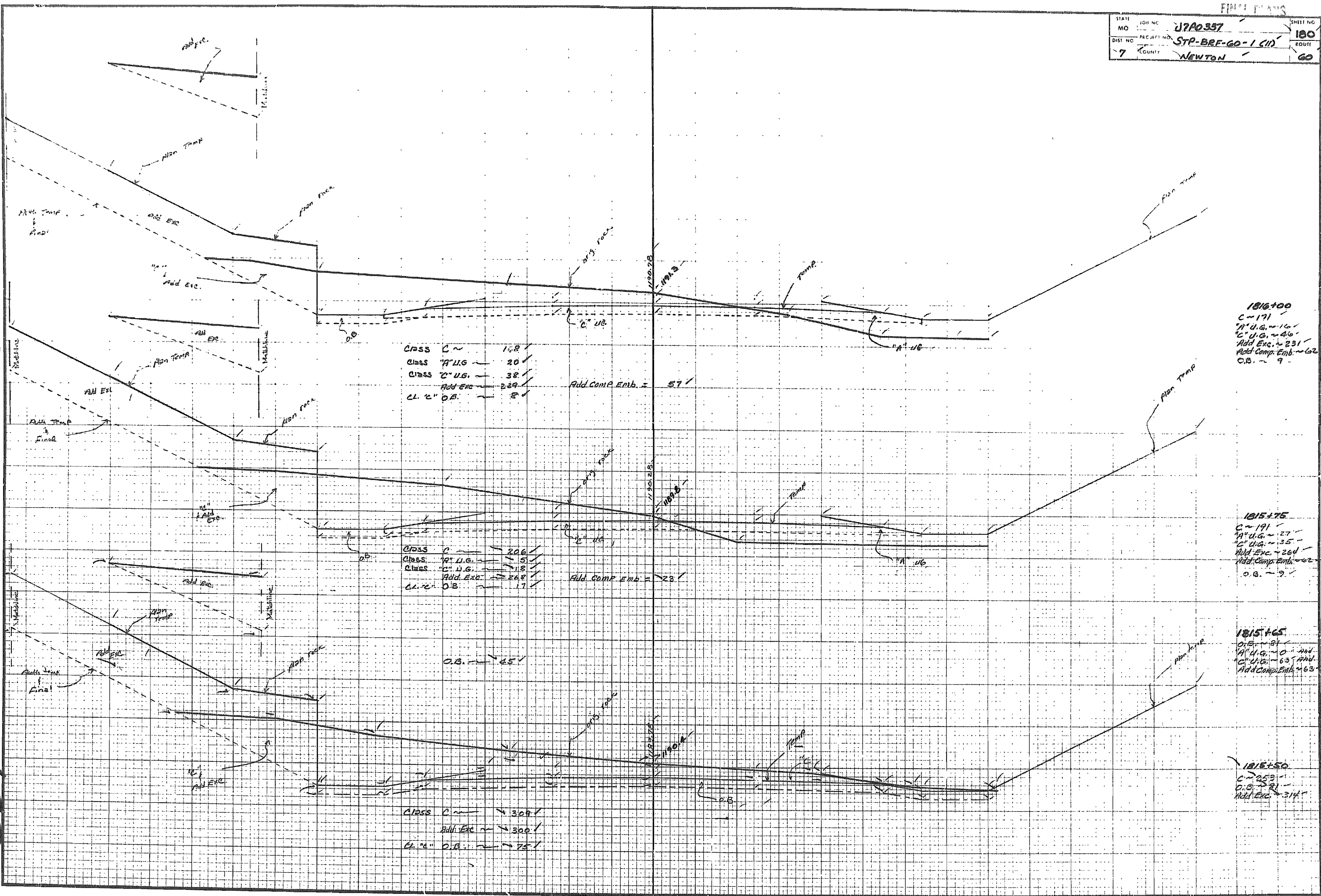


333

DATE 1-7-73 BY [Signature]
 SURVEY PLATTED [Signature]
 NOTE BOOK NO. 334

DATE 1-7-73 BY [Signature]
 SURVEY PLATTED [Signature]
 NOTE BOOK NO. 334

334



FINAL	BY	DATE
SURVEYED	<i>W. C. Smith</i>	<i>1-22-24</i>
PLOTTED	<i>W. C. Smith</i>	<i>1-22-24</i>
TEMPERATURE	<i>W. C. Smith</i>	<i>1-22-24</i>
AREAS	<i>W. C. Smith</i>	<i>1-22-24</i>
ADDITION CHECKED	<i>W. C. Smith</i>	<i>1-22-24</i>

[illegible]

1816+75
C ~ 58 ✓
"C" d.g. ~ 12 ✓
Add Exc. ~ 7 ✓
Add Comp. Emb. ~ 22 ✓
"A" TB ~ 10 ✓
O.B. ~ 7 ✓

ORIGINAL	BY		DATE
SURVEY	PL. TED	<i>Ed Johnson</i>	<i>1-2-82</i>
NOTE BOOK	TE. ALE	<i>Ed Johnson</i>	<i>1-2-82</i>
NO	AL. NG	<i>Ed Johnson</i>	<i>1-2-82</i>


 SERVICE ELEMENT CO. INT-589

1016+50
C ~ 96 -
"A" U.G. ~ 4 -
"C" U.G. ~ 16 -
Add Exc. ~ 26 -
Add Comp. Emb. ~ 20
O.B. ~ 0 -

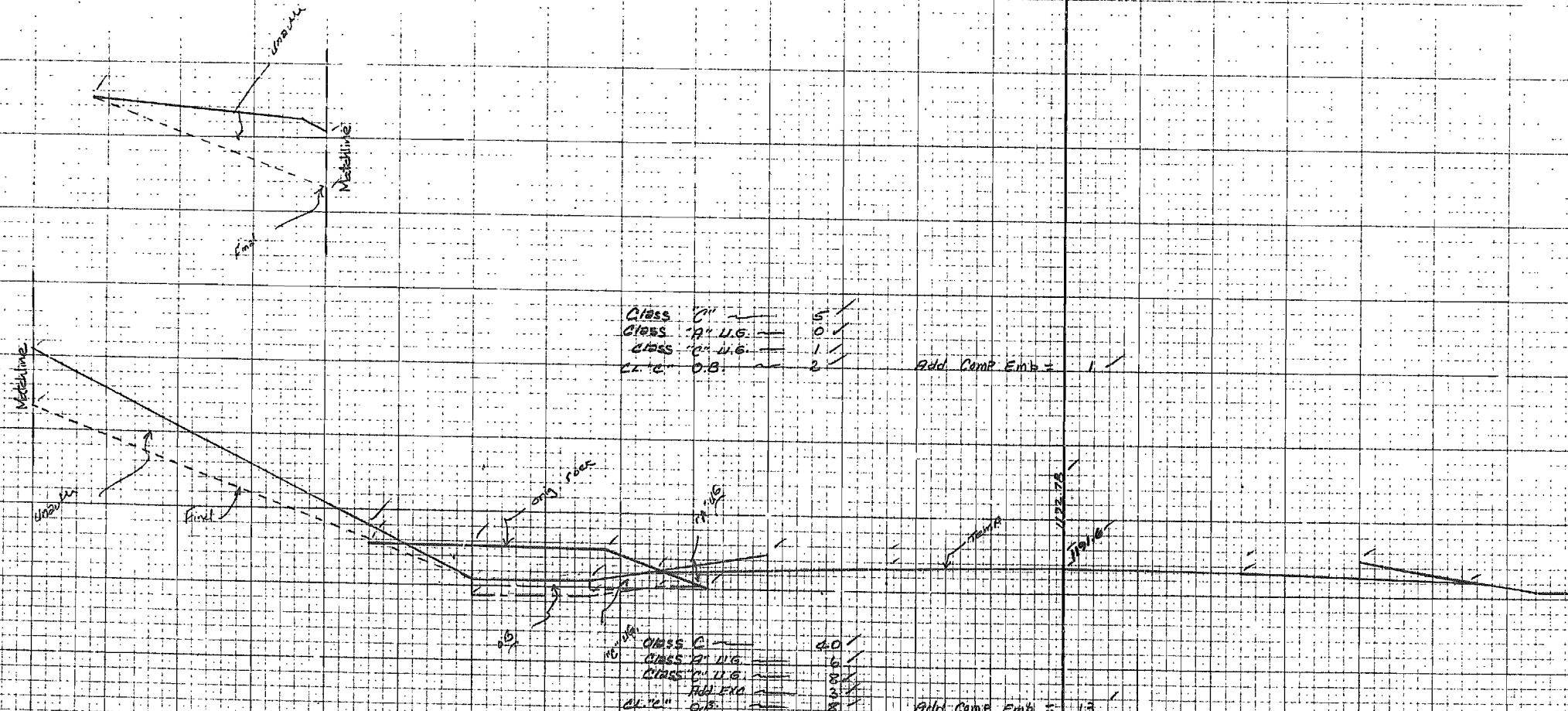
[illegible]

FINAL SURVEY
 SURVEYED BY DATE
 PLOTTED BY DATE
 NOTE BOOK NO. 17A0397
 NO. 17A0397

ORIGINAL SURVEY
 SURVEYED BY DATE
 PLOTTED BY DATE
 NOTE BOOK NO. 17A0397
 NO. 17A0397

336

BAL. 1837+75 1ST. STAGE		
TOTAL CL "C" EXC.	4018	C.Y.
TOTAL CL "A" UG.	1326	C.Y.
TOTAL CL "C" UG.	674	C.Y.
TOTAL CL "C" DB.	497	C.Y.
ADD. EXC.	1793	C.Y.
DED. EXC.	343	C.Y.
ADD COMP. EMB.	1996	C.Y.



Class C 5
 Class A U.G. 0
 Class B U.G. 1
 CL "C" DB 2
 Add Comp Emb = 1

Class C 40
 Class A U.G. 6
 Class B U.G. 8
 Add Exc 3
 CL "C" DB 8
 Add Comp Emb = 13

1847+10
 CL "C" EXC 0
 CL "A" U.G. 0
 CL "B" U.G. 0
 CL "C" DB 0
 Add Comp Emb = 0

1847+100
 CL "C" EXC 29
 CL "A" U.G. 15
 CL "B" U.G. 2
 Add Exc 0
 CL "C" DB 0
 Add Comp Emb = 7

BAL. 1768+90 1ST. STAGE

PLAN CL A EXC.	1180 CY
PLAN CL C EXC.	0 CY
TOTAL PLAN EXC.	1180 CY
DEDUCT EXC.	0 CY
ADD EXC. (Proj Rounding)	2409 CY
TOTAL EXC.	14215 CY
FINAL CL C EXC.	0 CY
CL C UNDERGR.	0 CY
CL C OVERBR.	0 CY
TOTAL FINAL CL C EXC.	0 CY
FINAL CL A EXC.	14215 CY
CL A UNDERGR.	0 CY
TOTAL FINAL CL A EXC.	14215 CY
PLAN COMP EMB.	765 CY
ADD COMP EMB.	0 CY
DEDUCT COMP EMB.	0 CY
TOTAL FINAL COMP EMB.	765 CY
L.G. 1	7.5 STA
ROCK FILL	542 CY

BAL. 1768+90 1ST. STAGE

PLAN CL A EXC.	104056 CY
PLAN CL C EXC.	10872 CY
TOTAL PLAN EXC.	114928 CY
DEDUCT EXC.	736 CY
ADD EXC.	531 CY
TOTAL EXC.	114723 CY
FINAL CL C EXC.	14464 CY
CL C UNDERGR.	140 CY
CL C OVERBR.	1566 CY
TOTAL FINAL CL C EXC.	16170 CY
FINAL CL A EXC.	100259 CY
CL A UNDERGR.	108 CY
TOTAL FINAL CL A EXC.	100367 CY
PLAN COMP EMB.	6382 CY
ADD COMP EMB.	250 CY
DEDUCT COMP EMB.	26 CY
TOTAL FINAL COMP EMB.	16606 CY
COMP-IN-CUT	3025 STA
L.G. 1	27.3 STA

BAL. 1572+49.4 2ND. STAGE

PLAN CL A EXC.	0.63 CY
PLAN CL C EXC.	0.63 CY
TOTAL PLAN EXC.	0.63 CY
DEDUCT EXC.	0 CY
ADD EXC.	0 CY
TOTAL EXC.	0.63 CY
FINAL CL C EXC.	0 CY
CL C UNDERGR.	0 CY
CL C OVERBR.	0 CY
TOTAL FINAL CL C EXC.	0 CY
FINAL CL A EXC.	0.63 CY
CL A UNDERGR.	0 CY
TOTAL FINAL CL A EXC.	0.63 CY
PLAN COMP EMB.	5662 CY
ADD COMP EMB.	0 CY
DEDUCT COMP EMB.	0 CY
TOTAL FINAL COMP EMB.	5662 CY

BAL. 1568+73 1ST. STAGE

PLAN CL A EXC.	55837 CY
PLAN CL C EXC.	50 CY
TOTAL PLAN EXC.	55887 CY
DEDUCT EXC.	0 CY
ADD EXC.	0 CY
TOTAL EXC.	55887 CY
FINAL CL C EXC. (Boulders)	576 CY
CL C UNDERGR.	0 CY
CL C OVERBR.	0 CY
TOTAL FINAL CL C EXC.	576 CY
FINAL CL A EXC.	55011 CY
CL A UNDERGR.	0 CY
TOTAL FINAL CL A EXC.	55011 CY
PLAN COMP EMB.	54731 CY
ADD COMP EMB.	0 CY
DEDUCT COMP EMB.	0 CY
TOTAL FINAL COMP EMB.	54731 CY
COMP-IN-CUT	2210 STA
OVERHAUL	291136 STAYS

BAL. 183+00 1ST. STAGE

PLAN CL A EXC.	7385 CY
PLAN CL C EXC.	0 CY
TOTAL PLAN EXC.	7385 CY
DEDUCT EXC.	0 CY
ADD EXC.	0 CY
TOTAL EXC.	7385 CY
FINAL CL C EXC.	0 CY
CL C UNDERGR.	0 CY
CL C OVERBR.	0 CY
TOTAL FINAL CL C EXC.	0 CY
FINAL CL A EXC.	7385 CY
CL A UNDERGR.	0 CY
TOTAL FINAL CL A EXC.	7385 CY
PLAN COMP EMB.	1526 CY
ADD COMP EMB.	0 CY
DEDUCT COMP EMB.	0 CY
TOTAL FINAL COMP EMB.	1526 CY
* PE. RT. 1826+00	
* PE. RT. 1856+00	
* SR. RT. 1818+00	

BAL. 1725+00 1ST. STAGE

PLAN CL A EXC.	3196 CY
PLAN CL C EXC.	0 CY
TOTAL PLAN EXC.	3196 CY
DEDUCT EXC.	0 CY
ADD EXC.	0 CY
TOTAL EXC.	3196 CY
FINAL CL C EXC.	0 CY
CL C UNDERGR.	0 CY
CL C OVERBR.	0 CY
TOTAL FINAL CL C EXC.	0 CY
FINAL CL A EXC.	3196 CY
CL A UNDERGR.	0 CY
TOTAL FINAL CL A EXC.	3196 CY
PLAN COMP EMB.	63839 CY
ADD COMP EMB.	0 CY
DEDUCT COMP EMB.	0 CY
TOTAL FINAL COMP EMB.	63839 CY
OVERHAUL	107624 STAYS
L.G. 1	4.1 STA

BAL. 1529+88.4 2ND. STAGE

PLAN CL A EXC.	11027 CY
PLAN CL C EXC.	267 CY
TOTAL PLAN EXC.	11294 CY
DEDUCT EXC.	0 CY
ADD EXC.	254 CY
TOTAL EXC.	11548 CY
FINAL CL C EXC.	213 CY
CL C UNDERGR.	0 CY
CL C OVERBR.	34 CY
TOTAL FINAL CL C EXC.	247 CY
FINAL CL A EXC.	11335 CY
CL A UNDERGR.	0 CY
TOTAL FINAL CL A EXC.	11335 CY
PLAN COMP EMB.	6007 CY
ADD COMP EMB.	0 CY
DEDUCT COMP EMB.	0 CY
TOTAL FINAL COMP EMB.	6007 CY
OVERHAUL	14751 STAYS

BAL. 1540+83.5 1ST. STAGE

PLAN CL A EXC.	82087 CY
PLAN CL C EXC.	1239 CY
TOTAL PLAN EXC.	83326 CY
DEDUCT EXC.	14 CY
ADD EXC.	93 CY
TOTAL EXC.	83405 CY
FINAL CL C EXC.	1404 CY
CL C UNDERGR.	91 CY
CL C OVERBR.	289 CY
TOTAL FINAL CL C EXC.	1784 CY
FINAL CL A EXC.	82001 CY
CL A UNDERGR.	110 CY
TOTAL FINAL CL A EXC.	82111 CY
PLAN COMP EMB.	42483 CY
ADD COMP EMB.	204 CY
DEDUCT COMP EMB.	0 CY
TOTAL FINAL COMP EMB.	42687 CY
COMP-IN-CUT	21.41 STA

BAL. 1730+00 2ND. STAGE

PLAN CL A EXC.	1871 CY
PLAN CL C EXC.	0 CY
TOTAL PLAN EXC.	1871 CY
DEDUCT EXC.	0 CY
ADD EXC.	0 CY
TOTAL EXC.	1871 CY
FINAL CL C EXC.	0 CY
CL C UNDERGR.	0 CY
CL C OVERBR.	0 CY
TOTAL FINAL CL C EXC.	0 CY
FINAL CL A EXC.	1871 CY
CL A UNDERGR.	0 CY
TOTAL FINAL CL A EXC.	1871 CY
PLAN COMP EMB.	1586 CY
ADD COMP EMB.	0 CY
DEDUCT COMP EMB.	0 CY
TOTAL FINAL COMP EMB.	1586 CY
OVERHAUL	9775 STAYS

BAL. 1705+62 1ST. STAGE

PLAN CL A EXC.	84523 CY
PLAN CL C EXC.	20183 CY
TOTAL PLAN EXC.	104706 CY
DEDUCT EXC.	2552 CY
ADD EXC.	2495 CY
TOTAL EXC.	105149 CY
FINAL CL C EXC.	26745 CY
CL C UNDERGR.	218 CY
CL C OVERBR.	945 CY
TOTAL FINAL CL C EXC.	27908 CY
FINAL CL A EXC.	78404 CY
CL A UNDERGR.	209 CY
TOTAL FINAL CL A EXC.	78613 CY
PLAN COMP EMB.	12217 CY
ADD COMP EMB.	426 CY
DEDUCT COMP EMB.	0 CY
TOTAL FINAL COMP EMB.	12643 CY
COMP-IN-CUT	10.71 STA
L.G. 1	0.6 STA

BAL. 1576+15.1 2ND. STAGE

PLAN CL A EXC.	5584 CY
PLAN CL C EXC.	0 CY
TOTAL PLAN EXC.	5584 CY
DEDUCT EXC.	0 CY
ADD EXC.	0 CY
TOTAL EXC.	5584 CY
FINAL CL C EXC.	0 CY
CL C UNDERGR.	0 CY
CL C OVERBR.	0 CY
TOTAL FINAL CL C EXC.	0 CY
FINAL CL A EXC.	5584 CY
CL A UNDERGR.	0 CY
TOTAL FINAL CL A EXC.	5584 CY
PLAN COMP EMB.	4373 CY
ADD COMP EMB.	0 CY
DEDUCT COMP EMB.	0 CY
TOTAL FINAL COMP EMB.	4373 CY

BAL. 1608+00 1ST. STAGE

PLAN CL A EXC.	49679 CY
PLAN CL C EXC.	0 CY
TOTAL PLAN EXC.	49679 CY
DEDUCT EXC.	0 CY
ADD EXC.	533 CY
TOTAL EXC.	50212 CY
FINAL CL C EXC. (Boulders)	111 CY
CL C UNDERGR.	0 CY
CL C OVERBR.	0 CY
TOTAL FINAL CL C EXC.	111 CY
FINAL CL A EXC.	50101 CY
CL A UNDERGR.	0 CY
TOTAL FINAL CL A EXC.	50101 CY
PLAN COMP EMB.	68508 CY
ADD COMP EMB.	237 CY
DEDUCT COMP EMB.	0 CY
TOTAL FINAL COMP EMB.	68745 CY
COMP-IN-CUT	20.62 STA
OVERHAUL	395544 STAYS

PLAN CL. A EXC.	539968 CY
PLAN CL. C EXC.	44502 CY
TOTAL PLAN EXC.	584470 CY
DEDUCT EXC.	4925 CY
ADD EXC.	8919 CY
TOTAL EXC.	588464 CY
FINAL CL. C EXC.	61556 CY
CL. C UNDERGR.	1181 CY
CL. C OVERBR.	4628 CY
TOTAL FINAL CL. C EXC.	67365 CY
FINAL CL. A EXC.	526908 CY
CL. A UNDERGR.	1826 CY
TOTAL FINAL CL. A EXC.	528734 CY
PLAN COMP. EMB.	465783 CY
ADD COMP. EMB.	3242 CY
DEDUCT COMP. EMB.	26 CY
TOTAL FINAL COMP. EMB.	468999 CY
COMP-IN-CUT	120.5 STA.
OVERHAUL	3704911 STA. YDS.
L.G. 1	42.1 STA.

RTE
60
PLAN
EXC.
CHECK

SEE CORRECTED TABULATION OF QUANTITY SHEETS FOR ADJUSTED PLAN QUANTITY OF EXCAVATION AND COMPACTING EMBANKMENT FOR EACH BALANCE.

PROJECT TOTALS	
PLAN CL. A EXC.	539968 CY
PLAN CL. C EXC.	44502 CY
TOTAL PLAN EXC.	584470 CY
DEDUCT EXC.	4925 CY
ADD EXC.	8919 CY
TOTAL EXC.	588464 CY
FINAL CL. C EXC.	61556 CY
CL. C UNDERGR.	1181 CY
CL. C OVERBR.	4628 CY
TOTAL FINAL CL. C EXC.	67365 CY
FINAL CL. A EXC.	526908 CY
CL. A UNDERGR.	1826 CY
TOTAL FINAL CL. A EXC.	528734 CY
PLAN COMP. EMB.	465783 CY
ADD COMP. EMB.	3242 CY
DEDUCT COMP. EMB.	26 CY
TOTAL FINAL COMP. EMB.	468999 CY
COMP-IN-CUT	120.5 STA.
OVERHAUL	3704911 STA. YDS.
L.G. - 1	42.1 STA.

BAL. 1837 + 75 1ST. STAGE	
PLAN CL. A EXC.	101317 CY
PLAN CL. C EXC.	11891 CY
TOTAL PLAN EXC.	113208 CY
DEDUCT EXC.	1623 CY
ADD EXC.	2104 CY
TOTAL EXC.	113689 CY
FINAL CL. C EXC.	17743 CY
CL. C UNDERGR.	732 CY
CL. C OVERBR.	1794 CY
TOTAL FINAL CL. C EXC.	20269 CY
FINAL CL. A EXC.	95946 CY
CL. A UNDERGR.	1399 CY
TOTAL FINAL CL. A EXC.	97345 CY
PLAN COMP. EMB.	94051 CY
ADD COMP. EMB.	2125 CY
DEDUCT COMP. EMB.	0 CY
TOTAL FINAL COMP. EMB.	96176 CY
COMP-IN-CUT	15.40 STA.
OVERHAUL	486568 STA. YDS.
L.G. 1	2.6 STA.

BAL. 1792 + 82 1ST. STAGE	
PLAN CL. A EXC.	1437 CY
PLAN CL. C EXC.	0 CY
TOTAL PLAN EXC.	1437 CY
DEDUCT EXC.	0 CY
ADD EXC.	0 CY
TOTAL EXC.	1437 CY
FINAL CL. C EXC.	0 CY
CL. C UNDERGR.	0 CY
CL. C OVERBR.	0 CY
TOTAL FINAL CL. C EXC.	0 CY
FINAL CL. A EXC.	1437 CY
CL. A UNDERGR.	0 CY
TOTAL FINAL CL. A EXC.	1437 CY
PLAN COMP. EMB.	93638 CY
ADD COMP. EMB.	0 CY
DEDUCT COMP. EMB.	0 CY
TOTAL FINAL COMP. EMB.	93638 CY
OVERHAUL	2399513 STA. YDS.

338

DESIGN DESIGNATION

A.D.T. - 2004 = 5,500

A.D.T. - 2024 = 7,700

D.H.V. = 8%

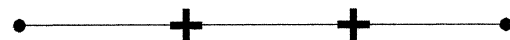
T = 11%

V = 50 M.P.H.

FUNCTIONAL CLASSIFICATION : MINOR ARTERIAL

PARTIAL LIMITED ACCESS HIGHWAY

THIS SHALL BE A PARTIAL LIMITED ACCESS HIGHWAY. EXCEPT AT LOCATIONS AND AS OTHERWISE SPECIFICALLY SHOWN ON THESE PLANS, NO ABUTTER'S RIGHTS IN, OR OF DIRECT ACCESS TO, FROM OR ACROSS THE HIGHWAY OR ITS RIGHT-OF-WAY SHALL ATTACH OR BELONG TO ANY PROPERTY ABUTTING ON SAID SECTION OF HIGHWAY, OR TO ANY PERSON MERELY BECAUSE OF OWNERSHIP OF SUCH ABUTTING PROPERTY WHERE THE SYMBOL SHOWN BELOW IS SHOWN ON THE RIGHT-OF-WAY LINE.



CONVENTIONAL SYMBOLS

(USED IN PLANS)

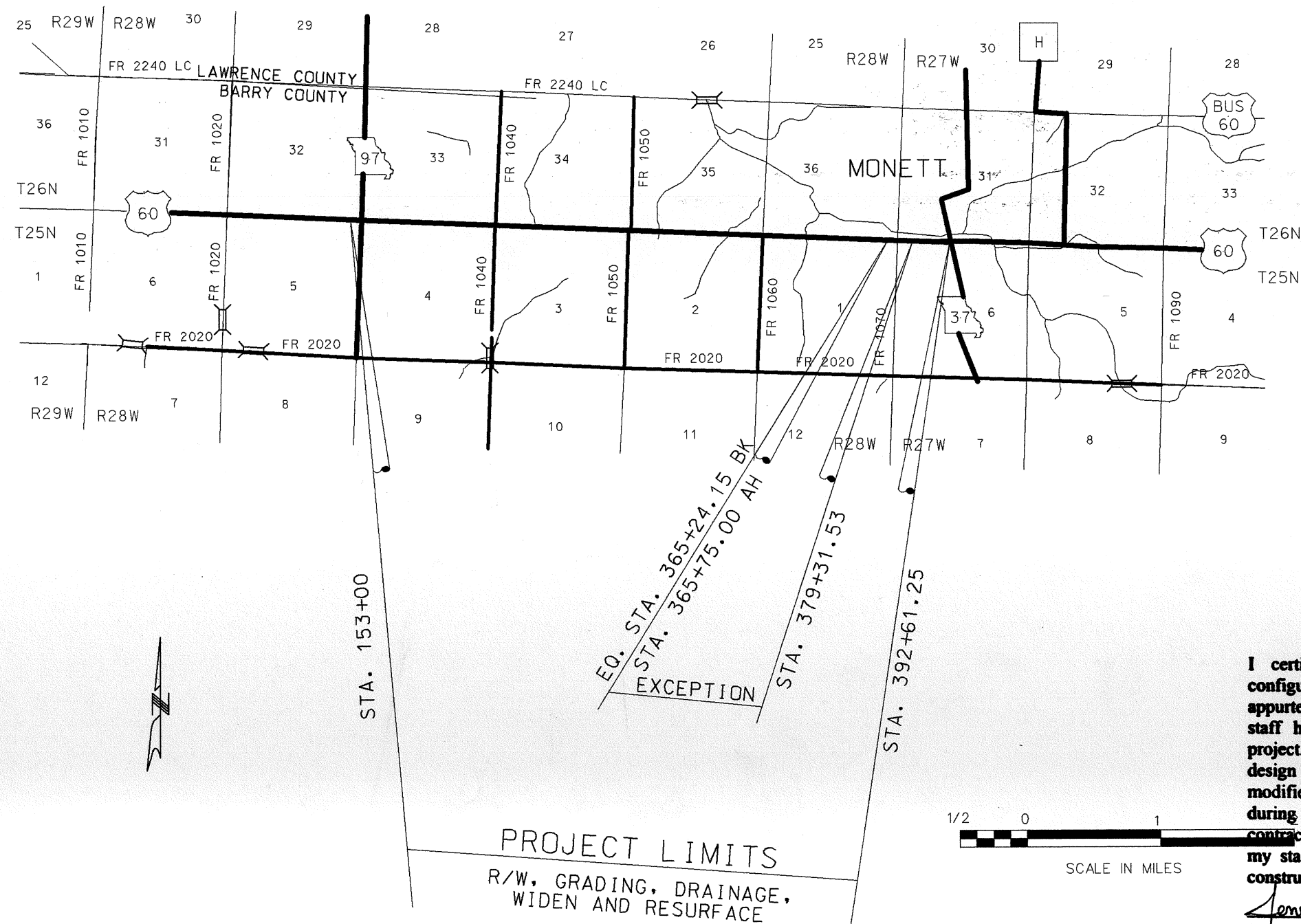
	EXISTING	NEW
BUILDINGS AND STRUCTURES		
GUARD RAIL		
CONCRETE RIGHT-OF-WAY MARKER		
STEEL RIGHT-OF-WAY MARKER		
UTILITIES		
FIBER OPTICS	-FO-	-FO-
OVER HEAD TELEPHONE	-O-	-O-
UNDER GROUND TELEPHONE	-T-	-T-
OVER HEAD POWER	-G-	-G-
UNDER GROUND POWER	-W-	-W-
GAS	-G-	-G-
WATER	-W-	-W-
MANHOLE		
FIRE HYDRANT		
WATER VALVE		
WATER METER		
DROP INLET		
DITCH BLOCK		
GROUND MOUNTED SIGN		
LIGHT POLE		
H-FRAME POWER POLE		
TELEPHONE PEDESTAL		
FENCE		
CHAIN LINK		
WOVEN WIRE		
GATE POST		
GRS MONUMENT		
BENCHMARK		
UTILITY TO BE MOVED		
U.I.P.		
R&R		
(R)		

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

PLANS FOR ~~PROPOSED~~ STATE HIGHWAY

BARRY COUNTY

FINAL PLANS



ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	1
JOB NO.	J7P0352B		
PROJECT NO.	F.A.F.-60-1(16)		
CONTRACT I.D.	021213-703		
COUNTY	BARRY		
DATE			

FINAL PLANS

INDEX OF SHEETS ^{12/23/03}

DESCRIPTION	SHEET NUMBER
TITLE SHEET	1
TYPICAL SECTIONS (4 SHEETS)	2-5
SUMMARY (2 SHEETS 2A)	6-7
SUMMARY (4 SHEETS 2B)	8-11
PLAN-PROFILE	12-32
REFERENCE POINTS	-
COORDINATE POINTS	-
SPECIAL SHEETS	33-38
TRAFFIC CONTROL SHEETS	-
EROSION CONTROL	-
LIGHTING	-
SIGNALS	-
SIGNING	39-41
CULVERT SECTIONS	42-48
BRIDGE DRAWINGS	-
STANDARD PLANS INDEX	-
CROSS SECTIONS	49-185
COMPUTER DATA	-

LENGTH OF PROJECT

END OF PROJECT	STA. 392 + 61.25
BEGINNING OF PROJECT	STA. 153 + 00.00
APPARENT LENGTH	23961.25 FEET
EQUATIONS AND EXCEPTIONS	
EQUATION:	
365+24.15BK=365+75.00AH	- 50.85 FEET
EXCEPTION:	
365+75.00 TO 379+31.53	- 1356.53 FEET
TOTAL CORRECTIONS	- 1407.38 FEET
NET LENGTH OF PROJECT	22553.87 FEET
STATE LENGTH	4.272 MILES
FEDERAL LENGTH	4.272 MILES

FINAL PLANS

I certify that this plan sheet accurately depicts the configuration and location of the roadway and all its appurtenant features, to the best of my knowledge, as I and my staff have observed the contractor's construction of this project. I specifically disclaim any responsibility for the design of this project, except as I and my staff may have modified or authorized the modification of the project design during its construction; and I disclaim responsibility for the contractor's actual construction of the project, except as I and my staff may have directed or ordered that the project be constructed.

Signature

12/23/03
Date

DATE 10/17/2003

ROUTE 60	STATE MO	DISTRICT 7	SHEET NO. 2
JOB NO. J7P0352B		REGISTERED PROFESSIONAL ENGINEER JENNIFER HINSON NUMBER 2-26538	
PROJECT NO. F.A.F.-60-1(16)		CONTRACT I.D. 021213-703	
COUNTY BARRY		FINAL PLANS	

12/23/03

ROUTE 60
TYPICAL SECTION
STA. 153+00 TO STA. 160+99.69

- (1) 0' TO 6' FROM 153+00 TO 156+00
6' FROM 156+00 TO 160+99.69
- (2) 12' FROM 153+00 TO 158+01.77
12' TO 22' FROM 158+01.77 TO 158+51.77
22' TO 14.64' FROM 158+51.77 TO 160+62.87
22' TO 14.64' FROM 160+62.87 TO 160+99.69
- (3) 12' FROM 153+00 TO 157+97.21
12' TO 22' FROM 157+97.21 TO 158+47.21
22' TO 14.50' FROM 158+47.21 TO 160+62.17
22' TO 14.50' FROM 160+62.17 TO 160+99.69
- (4) 12' FROM 153+00 TO 158+50
11' FROM 160+60 TO 160+99.69

ROUTE 60
TYPICAL SECTION
STA. 160+99.69 TO STA. 167+34.17

- (1) 6' FROM 160+99.69 TO 163+00
6' TO 0' FROM 163+00 TO 166+00
0' FROM 166+00 TO 167+34.17
- (2) 22' TO 14.64' FROM 160+99.69 TO 161+12.87
12' FROM 161+12.87 TO 167+34.17
- (3) 22' TO 14.50' FROM 160+99.69 TO 161+12.17
12' FROM 161+12.17 TO 167+34.17
- (4) 0' TO 11' FROM 160+99.69 TO 167+34.17
- (5) 11' FROM 160+99.69 TO 167+34.17

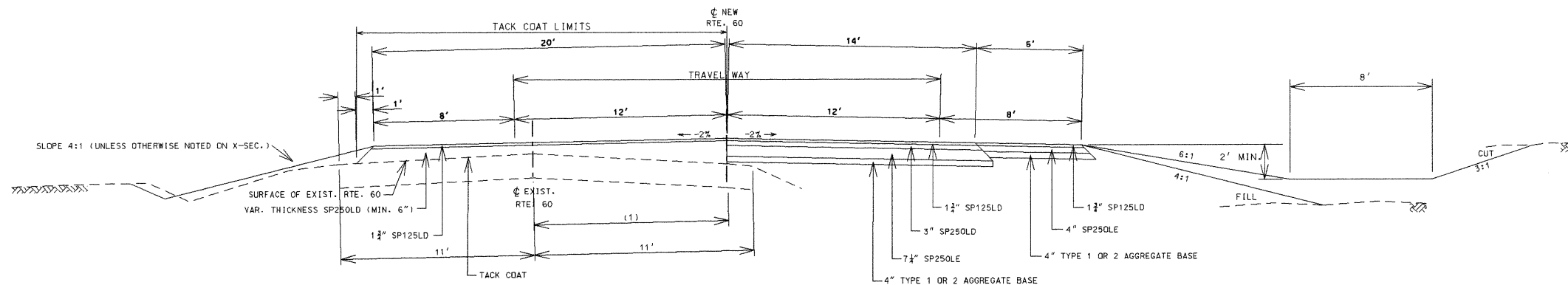
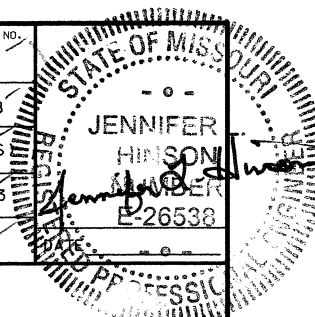
ROUTE 60
TYPICAL SECTION
STA. 167+34.17 TO STA. 324+75

FINAL PLANS

I certify that this plan sheet accurately depicts the configuration and location of the roadway and all its appurtenant features, to the best of my knowledge, as I and my staff have observed the contractor's construction of this project. I specifically disclaim any responsibility for the design of this project, except as I and my staff may have modified or authorized the modification of the project design during its construction; and I disclaim responsibility for the contractor's actual construction of the project, except as I and my staff may have directed or ordered that the project be constructed.

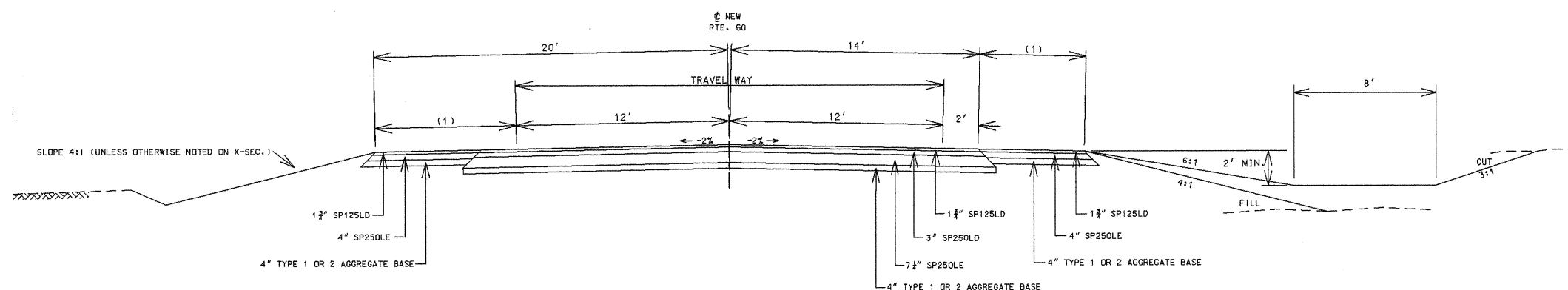
Signature *Jennifer Hinson* TYPICAL SECTIONS 12/23/03
1 OF Date

ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	3
JOB NO. J7P0352B			
PROJECT NO. F.A.F.-60-1(16)			
CONTRACT I.D. 021213-703			
COUNTY BARRY			



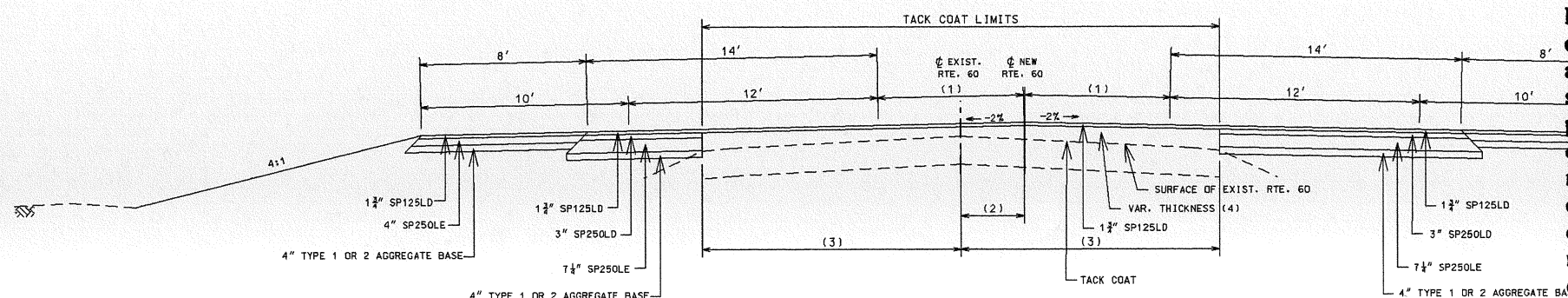
ROUTE 60
TYPICAL SECTION
STA. 324+75 TO STA. 327+00

(1) 0' TO 11' FROM 324+75 TO 327+00



ROUTE 60
TYPICAL SECTION
STA. 327+00 TO STA. 342+00

(1) 6' FROM 327+00 TO 341+00
6' TO 8' FROM 341+00 TO 342+00



ROUTE 60
TYPICAL SECTION
STA. 342+00 TO STA. 392+61.25
EXCEPTION 365+24.15 BK = 365+75.00 AH TO 379+31.53

FINAL PLANS

I certify that this plan sheet accurately depicts the configuration and location of the roadway and all its appurtenant features, to the best of my knowledge, as I and my staff have observed the contractor's construction of this project. I specifically disclaim any responsibility for the design of this project, except as I and my staff may have modified or authorized the modification of the project design during its construction; and I disclaim responsibility for the contractor's actual construction of the project, except as I and my staff may have directed or ordered that the project be constructed.

Jennifer Hinson
Signature

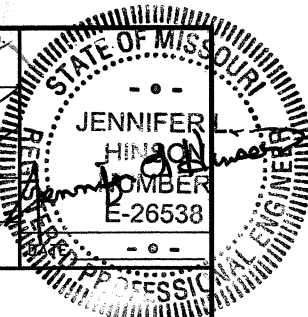
12/23/03
Date

- (1) 0' - 7' FROM 342+00 TO 345+50
7' FROM 345+50 TO 392+61.25
- (2) 11' - 7' FROM 342+00 TO 359+74.93
7' FROM 359+74.93 TO 365+24.15 BK
7' - 0' FROM 379+31.53 TO 387+47.95
0' FROM 387+47.95 TO 392+61.25
- (3) 11' FROM 342+00.00 TO 365+24.15 BK
19' FROM 379+31.53 TO 392+61.25
- (4) 3" MIN SP25OLD FROM 342+00 TO 365+24.15 BK
2" MIN SP19OLD FROM 378+00 TO 392+61.25

WEDGE ASPHALT TO A COLDMILLED SECTION
0 TO 1 1/2" DEEP FROM 390+86.25 TO 392+61.25

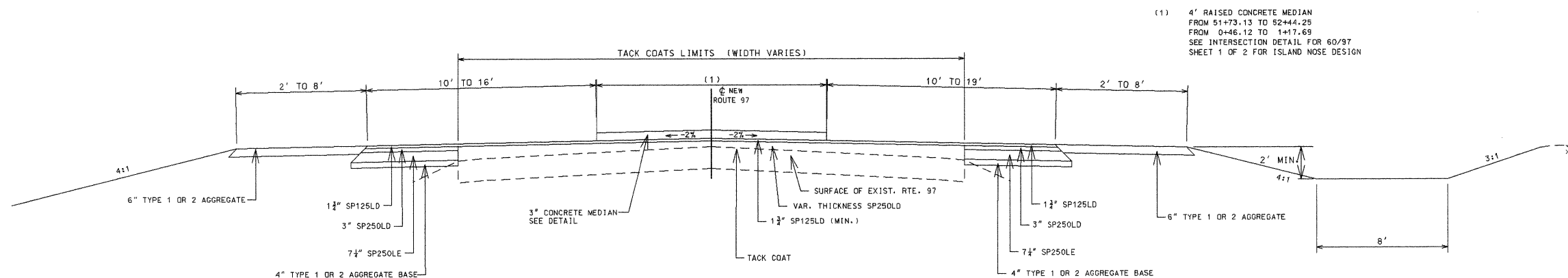
TYPICAL SECTIONS
2 OF 4

ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	4
JOB NO. J7P0352B			
PROJECT NO. F.A.F.-60-1(16)			
CONTRACT I.D. 021213-703			
COUNTY BARRY			

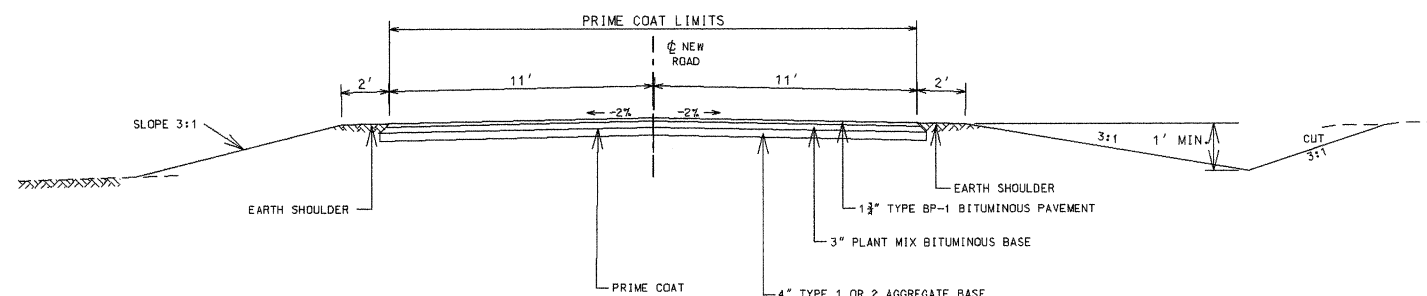


FINAL PLANS

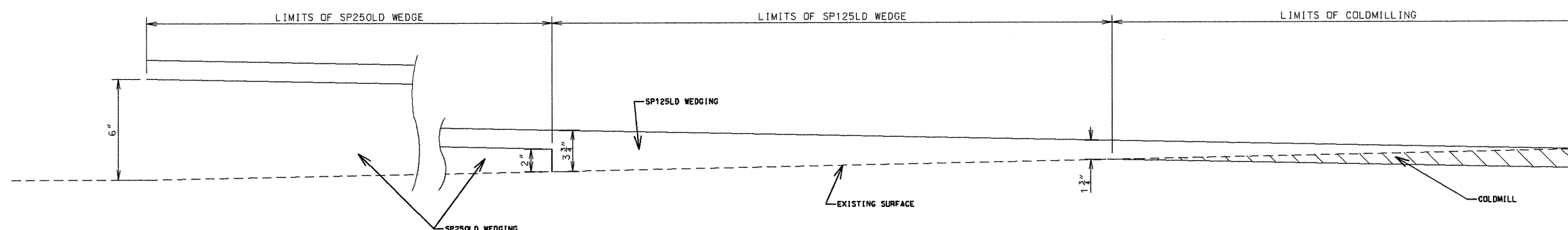
12/23/03



**ROUTE 97
TYPICAL SECTION**
STA. 50+75.00 TO STA. 3+22.36 (RT) - SOUTH
STA. 50+75.00 TO STA. 5+85.44 (LT) - NORTH



**FR 1040, FR 1050, FR 1060
TYPICAL SECTION**



SP25OLD WEDGING
STA. 155+00.00 @ 2" TO STA. 159+00.00 @ 6" (ROUTE 60)
STA. 363+75.00 @ 6" TO STA. 364+75.00 @ 2" (ROUTE 60)

SP125LD WEDGING
STA. 153+00.00 @ 1 3/4" TO STA. 155+00.00 @ 3 3/4" (ROUTE 60)
STA. 364+50.00 @ 3 3/4" TO STA. 364+90.00 @ 1 1/4" (ROUTE 60)
STA. 380+25.00 @ 1 3/4" TO STA. 381+05.00 @ 3 3/4" (ROUTE 60)
STA. 388+86.25 @ 3 3/4" TO STA. 390+86.25 @ 1 3/4" (ROUTE 60)

COLDMILLING
STA. 151+25.00 @ 1 1/4" TO STA. 153+00.00 @ 0" (ROUTE 60)
STA. 390+86.25 @ 0" TO STA. 392+61.25 @ 1 1/4" (ROUTE 60)
STA. 50+75.00 @ 1 1/4" TO STA. 52+50.00 @ 0" (ROUTE 97)
STA. 5+85.44 @ 0" TO STA. 6+85.44 @ 1 1/4" (ROUTE 97)

FINAL PLANS

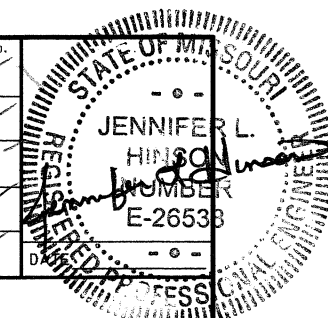
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Signature *Jennifer Hinson* Date 12/23/03

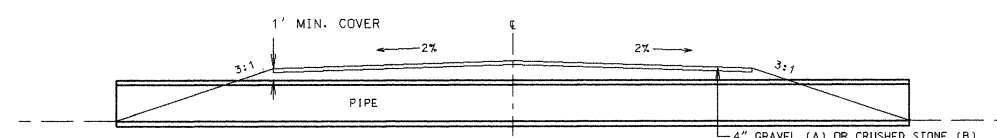
TYPICAL SECTIONS
3 OF 4

DEPTH TRANSITION DETAIL

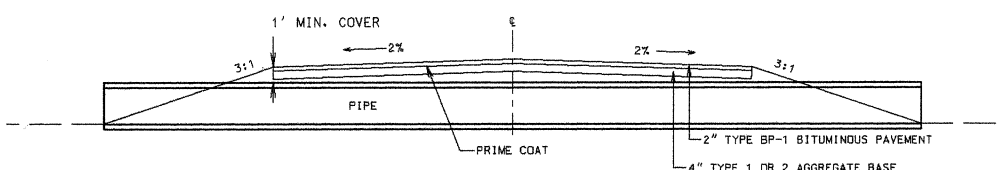
ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	5
JOB NO. J7P0352B			
PROJECT NO. F.A.F.-60-1(16)			
CONTRACT I.D. 021213-703			
COUNTY BARRY			



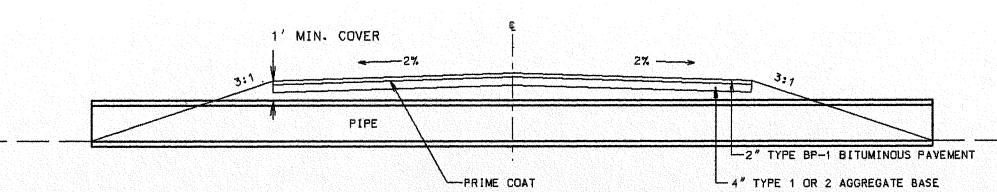
12/23/03



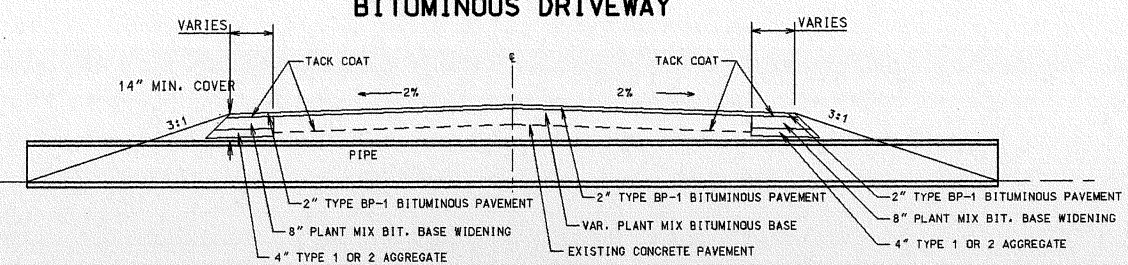
**TYPE I
GRAVEL (A) OR CRUSHED STONE (B)
AGGREGATE DRIVEWAY**



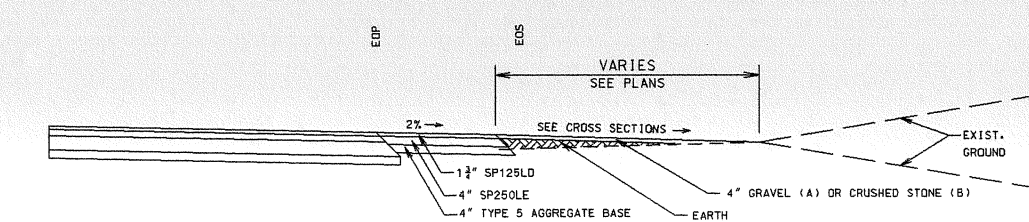
**TYPE I
BITUMINOUS DRIVEWAY**



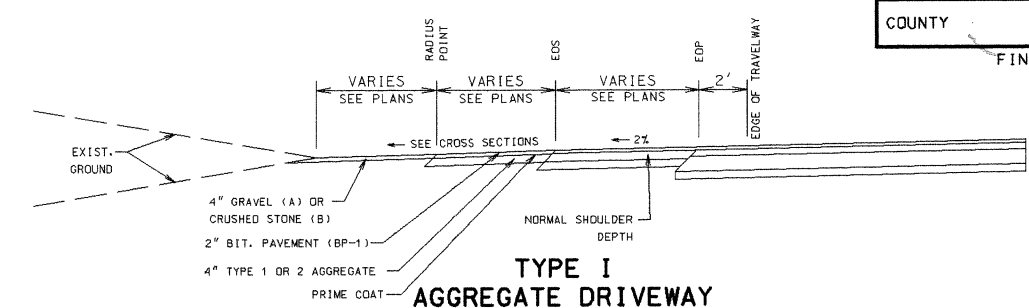
**TYPE II OR III
BITUMINOUS DRIVEWAY**



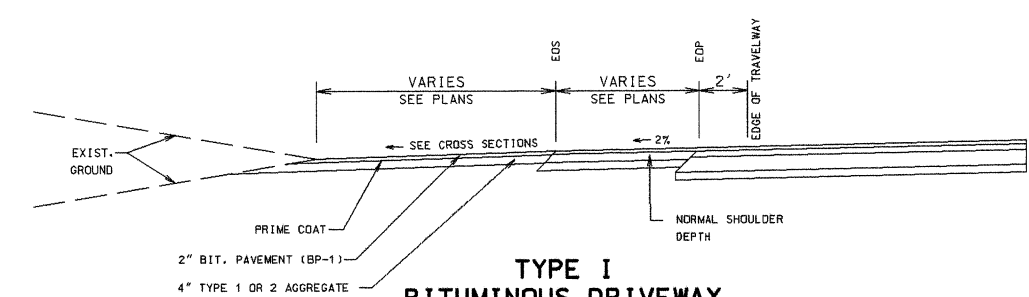
**TYPE III
EXISTING CONCRETE DRIVEWAY
WITH BITUMINOUS WIDENING AND OVERLAY
STA. 386+56
STA. 388+43**



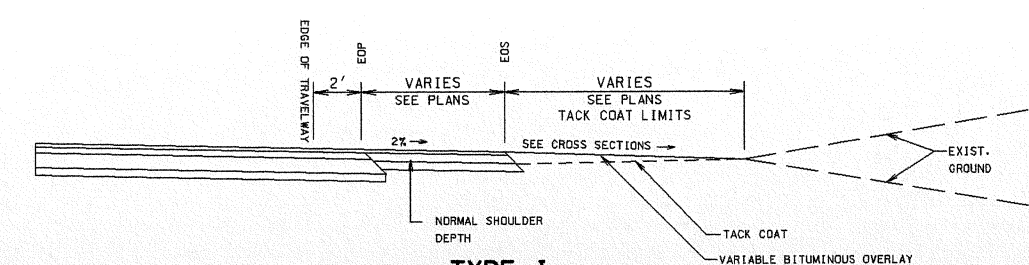
**TYPE I, II, III
AGGREGATE DRIVEWAY**



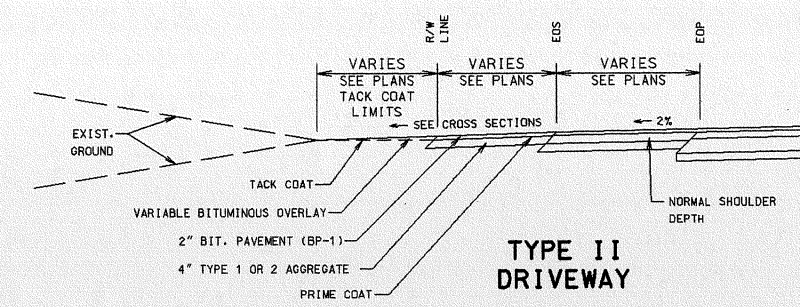
**TYPE I
AGGREGATE DRIVEWAY**



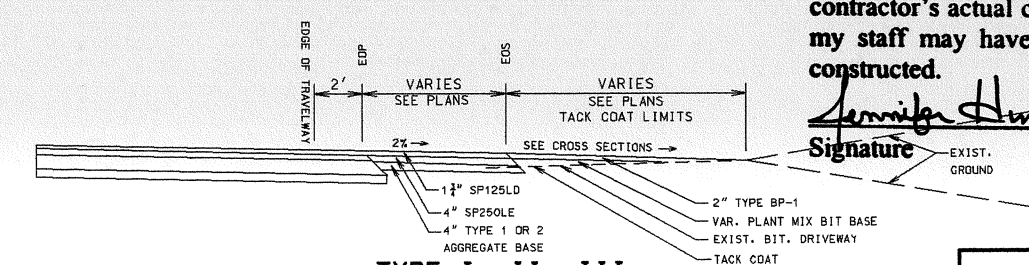
**TYPE I
BITUMINOUS DRIVEWAY**



**TYPE I
BITUMINOUS DRIVEWAY**



**TYPE II
DRIVEWAY**



**TYPE I, II, III
PAVED DRIVEWAY**

FINAL PLANS

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Jennifer L. Hinson
Signature

12/23/03
Date

TYPICAL SECTIONS
4 OF 4

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
SUMMARY OF QUANTITIES

REV. APRIL 99

SHEET 1 OF 2

STATE	JOB NO. J7P0352B	SHEET NO.
MO	PROJECT NO. FAF-60-1(16)	6
DISTRICT	CONTRACT ID 021213-703	ROUTE
07	COUNTY BARRY	60

FINAL PLANS



ITEM	DESCRIPTION	UNIT	QUANTITY
*	ROADWAY ITEMS		
201-31.00	CLEARING AND GRUBBING	LS	1
202-20.10	REMOVAL OF IMPROVEMENTS	LS	1
202-40.38	REMOVAL OF TRANSITE (CATEGORY II NON-FRIABLE)	SQFT	70
202-70.00	DISPOSAL AND PLUGGING OF WELLS	EA	1
202-99.50	DEMOLITION AND REMOVAL OF BUILDINGS - PARCEL NO. 19 (J7P0352B)	LS	1
202-99.50	DEMOLITION AND REMOVAL OF BUILDINGS - PARCEL NO. 22 (J7P0352B)	LS	1
203-10.00	CLASS A EXCAVATION	CUYD	99825
203-20.00	CLASS C EXCAVATION	CUYD	329
203-60.00	COMPACTING EMBANKMENT	CUYD	54902
203-70.75	COMPACTING IN CUT	STA	231.2
206-30.00	CLASS 3 EXCAVATION	CUYD	1648
206-55.00	TEMPORARY SHORING	LS	1
207-10.00	LINEAR GRADING CLASS 1	STA	3.5
207-20.00	LINEAR GRADING CLASS 2	STA	0
301-20.00	MINERAL AGGREGATE (BITUMINOUS BASE) PG64-22	TONS	2503
301-60.17	ASPHALT BINDER (BITUMINOUS BASE) PG 64-22	TONS	140.1
304-00.43	TYPE 1 AGGREGATE FOR BASE (4 INCHES THICK)	SQYD	77132
304-00.63	TYPE 1 AGGREGATE FOR BASE (6 INCHES THICK)	SQYD	643
310-50.01	GRAVEL (A)	CUYD	521
390-90.00	TEMPORARY SURFACING	CUYD	0
401-11.10	ASPHALT BINDER (BITUMINOUS PAVEMENT) PG 64-22 (BP-1 MIX)	TONS	73.2
401-20.10	MINERAL AGGREGATE (BITUMINOUS PAVEMENT) PG64-22(BP-1 MIX)	TONS	1071
403-90.75	BITUMINOUS TEST STRIP	EA	0
403-97.56	ASPHALT BINDER (ASPHALTIC CONCRETE) PG 64-22 (SP125LD MIX)	TONS	0
403-97.56	PG 64-22 (SP125LD MIX)		
403-97.57	MINERAL AGGREGATE (ASPHALTIC CONCRETE) PG 64-22 (SP125LD MIX)	TONS	0
403-97.57	PG 64-22 (SP125LD MIX)		
403-98.20	ASPHALT BINDER (ASPHALTIC CONCRETE) PG 64-22 (SP190LD MIX)	TONS	0
403-98.20	PG 64-22 (SP190LD MIX)		
403-98.21	MINERAL AGGREGATE (ASPHALTIC CONCRETE) PG 64-22 (SP190LD MIX)	TONS	0
403-98.21	PG 64-22 (SP190LD MIX)		
403-98.76	ASPHALT BINDER (ASPHALTIC CONCRETE) PG 64-22 (SP250LD MIX)	TONS	0
403-98.76	PG 64-22 (SP250LD MIX)		
403-98.77	MINERAL AGGREGATE (ASPHALTIC CONCRETE) PG64-22 (SP250LD MIX)	TONS	0
403-98.77	PG 64-22 (SP250LD MIX)		
403-98.88	ASPHALT BINDER (ASPHALTIC CONCRETE) PG 64-22 (SP250LE MIX)	TONS	0
403-98.88	PG 64-22 (SP250LE MIX)		
403-98.89	MINERAL AGGREGATE (ASPHALTIC CONCRETE) PG 64-22 (SP250LE MIX)	TONS	0
403-98.89	PG 64-22 (SP250LE MIX)		
407-10.05	TACK COAT	GAL	3090
408-10.10	PRIME-LIQUID ASPHALT MC 30	GAL	1360
601-20.00	SPECIAL FIELD LABORATORIES	LS	1

ITEM	DESCRIPTION	UNIT	QUANTITY
604-40.13	PIPE COLLAR, TYPE C	EA	12
608-30.00	CONCRETE MEDIAN STRIP	SOYD	144.0
609-10.10	CONCRETE CURB (6 IN. HEIGHT AND UNDER) TYPE S	LF	286
609-10.41	CONCRETE GUTTER TYPE A	LF	44
609-10.51	CURB AND GUTTER TYPE A	LF	40
609-60.20	FURNISHING TYPE 2 ROCK DITCH LINER	CUYD	909
609-60.42	PLACING TYPE 2 ROCK DITCH LINER	CUYD	909
609-70.00	ROCK LINING	CUYD	1158
616-10.05	CONSTRUCTION SIGNS	SQFT	1576
616-10.20	CHANNELIZER (DRUM-LIKE)	EA	250
616-10.30	TYPE III MOVEABLE BARRICADE	EA	4
616-10.71	TRAFFIC BARRIER DELINEATOR, WHITE	EA	0
616-11.30	INSTALLING GIVE EM A BRAKE, 48 IN. X 48 IN. SIGN	EA	2
616-11.32	INSTALLING 'SHOW ME PROGRESS' SIGN ASSEMBLY	EA	0
616-11.40	INSTALLING NO CENTER STRIPE SIGN	EA	15
617-36.00B	CONTRACTOR FURNISHED / RETAINED TEMPORARY CONCRETE TRAFFIC BARRIER, TYPE F	LF	750
617-50.10	RELOCATING TEMPORARY CONCRETE TRAFFIC BARRIER	LF	3112
618-10.00	MOBILIZATION	LS	1
619-10.00	PAVEMENT EDGE TREATMENT	LF	23000
620-53.01A	PREFORMED REMOVABLE MARKING TAPE 4 IN., SOLID WHITE	LF	0
620-53.03A	PREFORMED REMOVABLE MARKING TAPE 4 IN., SOLID YELLOW	LF	1980
620-60.00A	4 IN. SOLID WHITE WATERBORNE PAINT	LF	59010
620-60.01A	4 IN. SOLID YELLOW WATERBORNE PAINT	LF	51270
620-60.03A	4 IN. INTERMITTENT YELLOW WATERBORNE PAINT	LF	4420
620-61.01	WATERBORNE PAINT, LEFT ARROW (WHITE)	EA	22
620-61.02	WATERBORNE PAINT, RIGHT ARROW (WHITE)	EA	4
620-61.04	WATERBORNE PAINT, STRAIGHT-LEFT ARROW (WHITE)	EA	2
620-61.13	WATERBORNE PAINT, WORD (ONLY)	EA	0
620-61.24	WATERBORNE PAINT, 24 IN. WIDE (WHITE)	LF	88
620-61.25	WATERBORNE PAINT, 24 IN. WIDE (YELLOW)	LF	171
620-64.35A	CONCRETE TRAFFIC BARRIER MARKING, 10 IN., SOLID WHITE	LF	780
620-70.00A	PAVEMENT MARKING REMOVAL (PAINT)	LF	900
620-70.05A	PAVEMENT MARKING REMOVAL (TAPE)	LF	0
620-80.65	TEMPORARY RAISED PAVEMENT MARKER, TYPE 2	EA	3000
622-40.10	MODIFIED COLD MILLING (DEPTH TRANSITIONS)	SQYD	2347
626-10.00	BITUMINOUS RUMBLE STRIP	100F	388.5
703-20.01	CLASS B CONCRETE (CULVERTS)	CUYD	466.8
706-10.30	REINFORCING STEEL (CULVERTS)	LB	61520
725-03.15	15 IN. PIPE CULVERT GROUP B	LF	1395
725-03.18	18 IN. PIPE CULVERT GROUP B	LF	579
725-03.24	24 IN. PIPE CULVERT GROUP B	LF	354
726-13.18	18 IN. CLASS III REINFORCED CONCRETE PIPE CULVERT	LF	115
726-13.24	24 IN. CLASS III REINFORCED CONCRETE PIPE CULVERT	LF	167
726-13.30	30 IN. CLASS III REINFORCED CONCRETE PIPE CULVERT	LF	212
726-13.36	36 IN. CLASS III REINFORCED CONCRETE PIPE CULVERT	LF	380
726-13.48	48 IN. CLASS III REINFORCED CONCRETE PIPE CULVERT	LF	37
732-00.15	15 IN. GROUP B FLARED END SECTION	EA	6
732-06.18	18 IN. PRECAST CONCRETE FLARED END SECTION	EA	4
732-06.24	24 IN. PRECAST CONCRETE FLARED END SECTION	EA	2
732-06.36	36 IN. PRECAST CONCRETE FLARED END SECTION	EA	4
732-10.16	24 IN. SAFETY SLOPE END SECTION	EA	3

FINAL PLANS

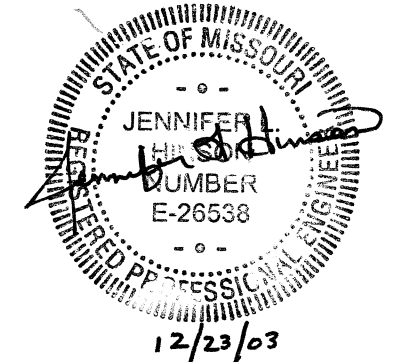
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Signature _____ Date 1-13-04

REV. APRIL 99

SHEET 2 OF 2

FINAL PLANS ✓



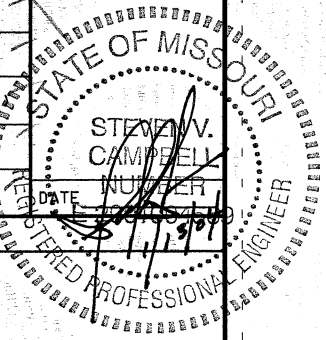
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PROJ. ACCEPT:	11-13-03
PREPARED BY:	Ken Dink 12-23-03
CHECKED BY:	John Eggebo 12/23/03
REVIEWED BY:	12/23/03
DIST. OFFICE:	Melissa L. Hatcher 1-7-04
SUPPORT CTR:	Cheryl A. Hatcher 4-14-04

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	8
JOB NO.		J7P0352B	
PROJECT NO.		F.A.F.-60-1(16)	
CONTRACT I.D.		021213-70	
COUNTY		BARRY	
FINAL PLANS			



REMOVAL OF IMPROVEMENTS 1 LS	REMOVAL OF TRANSITE (CATEGORY II NON-FRIABLE) 70 SOFT	STRAW BALES (FENCE) 4576 LF
DISPOSE AND PLUG WELL 1 EA	SEEDING 37.2 ACRE	TYPE 3 MULCH 37.2 ACRE
DEMOLITION AND REMOVAL OF BUILDINGS 1 LS - Parcel 19	DEMOLITION AND REMOVAL OF BUILDINGS 1 LS - Parcel 22	TYPE 1 DITCH CHECKS 142 EA

SPECIAL FIELD LAB
1 LS

MOBILIZATION
1 LS

4" TYPE 1 AGG. BASE
77,132 SQYD

SEDIMENT BASIN
44 CUYD

EARTHWORK				
CLASS A EXC.	CLASS C EXC.	COMP. EMBANK	COMP. IN CUT	CLASS 1 LINEAR GRADING
99825 CUYD	329 CUYD	54902 CUYD	231.2 STA	3.5 STA

SEDIMENT REMOVAL
111 CUYD

TEMPORARY SEEDING
4.0 ACRE

CLEARING AND GRUBBING
1 LS

CONTRACTOR FURNISH/RETAIN TEMPORARY TYPE F CONCRETE TRAFFIC BARRIER			
STATION	LOCATION	FURNISHED TYPE F BARRIER	RELOCATED TYPE F BARRIER
160+13.93	ROUTE 60 RT	187.5	
160+13.93	ROUTE 60 LT	250.0	
163+33.86	ROUTE 60 LT	237.5	
221+82.30	ROUTE 60 LT	50	237.5
232+87.21	ROUTE 60 LT	25	225.0
185+18.26	ROUTE 60 LT		237.5
227+59.56	ROUTE 60 LT		237.5
245+14.15	ROUTE 60 LT		250.0
258+29.56	ROUTE 60 LT		250.0
273+03.51	ROUTE 60 LT		250.0
293+92.26	ROUTE 60 LT		250.0
304+55.08	ROUTE 60 LT		250.0
312+47.91	ROUTE 60 LT		250.0
345+89.28	ROUTE 60 LT		250.0
356+69.08	ROUTE 60 LT		175.0
350+78.25	ROUTE 60 LT		250.0
TOTAL		750	3112.5
USE		750 LF	3112 LF

CONT. ITEMS SHOULDERS (EXCEPTION AREA)				
TYPE BP-1 BITUMINOUS PMVT		TACK COAT	MISC. MOBILIZATION	BIT. RUMBLE STRIP
ASPH. BINDER	MIN AGGR			
15.4 TONS	256 TONS	200 GAL	1 LS	20.3 100F

MODIFIED COLD MILLING		
STATION	ROADWAY	SOYD
153+00	ROUTE 60	875.0
50+75	ROUTE 97	277.8
5+85	ROUTE 97	277.8
365+00	ROUTE 60	83.3
379+50	ROUTE 60	133.3
392+00	ROUTE 60	700.0
TOTAL		2347.2
USE		2347 SQYD

ASPHALT PAVEMENT														
SP125LD		SP250LD		SP250LE		SP190LD		PLANT MIX BITUMINOUS BASE		TYPE BP-1 BITUMINOUS PVMT		TACK	PRIME- LIQUID MC 30	BIT. RUMBLE STRIP
ASPH. BINDER	MIN AGGR	ASPH. BINDER	MIN AGGR	ASPH. BINDER	MIN AGGR	ASPH. BINDER	MIN AGGR	ASPH. BINDER	MIN AGGR	ASPH. BINDER	MIN AGGR	COAT		
703.8 TONS	11,027 TONS	920.9 TONS	16,789 TONS	265.3 TONS	23,772 TONS	56.3 TONS	882 TONS	40.1 TONS	8503 TONS	78.2 TONS	1071 TONS	3090 GAL	1360 GAL	388.5 100F

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	9
JOB NO.		J7P0352	
PROJECT NO.		F.A.F.-60-1(2)	
CONTRACT I.D.		021213-7	
COUNTY		BARRY	
DATE		12/15/2003	
ENGINEER		JENNIFER L. HUNTER	
PROJECT NUMBER		E-26538	

FINAL PLANS

12/23/03

ENTRANCE AND SIDE ROAD QUANTITIES (EXCLUDES FARM ROADS AND STATE ROUTES)

STA.	LOC.	ROAD	WIDTH	RADII	ENTR. SURF. TYPE	ENTRANCE TYPE	TYPE S CURB	TYPE A CURB & GUTTER	TYPE A GUTTER	PIPE CULVERT GROUP B			CLASS III RCP	GROUP B FLARED END SECTION	PRECAST CONCRETE FLARED END SECTION
										15"	18"	24"			
157+00	LT	ROUTE 60	60	30	AC	I									
1+78	RT	ROUTE 97	20	10	AC	I									
2+38	LT	ROUTE 97	12	10	AGGR	I									
165+00	LT	ROUTE 60	40	10	AGGR	I				66					
165+47	RT	ROUTE 60	30	10	AGGR	I				54					
170+00	LT	ROUTE 60	40	10	AGGR	I				66					
173+53	RT	ROUTE 60	20	10	AGGR	I									
183+06	LT	ROUTE 60	30	10	AGGR	I				56					
192+28	LT	ROUTE 60	20	10	AGGR	I						44			
192+46	RT	ROUTE 60	27	10	AGGR	I									
193+54	RT	ROUTE 60	27	10	AGGR	I									
194+26	LT	ROUTE 60	20	10	AGGR	I					48				
194+40	RT	ROUTE 60	12	10	AGGR	I					31				
201+81	LT	ROUTE 60	20	10	AGGR	I					48				
208+00	LT	ROUTE 60	20	10	AGGR	I					48				
212+13	LT	ROUTE 60													
215+23	LT	ROUTE 60	35	10	AGGR	I					45				
223+86	LT	ROUTE 60	35	10	AGGR	I									
230+39	RT	ROUTE 60	19	10	AC	I									
231+43	LT	ROUTE 60	32	10	AGGR	I					42				
235+65	RT	ROUTE 60	20	10	AGGR	I									
237+62	LT	ROUTE 60	42	30	AC	I I I					68				
238+68	RT	ROUTE 60	14	10	AC	I									
241+16	LT	ROUTE 60	30	10	AGGR	I					56				
242+35	LT	ROUTE 60	30	10	AGGR	I									
249+39	RT	ROUTE 60	20	10	AC	I									
250+23	LT	ROUTE 60	20	10	AGGR	I									
250+53	RT	ROUTE 60	20	10	AGGR	I									
255+37	LT	ROUTE 60	20	10	AGGR	I					46				
259+83	LT	ROUTE 60	23	10	AGGR	I						51			
262+65	LT	ROUTE 60	22	30	AC	I I I					48				
268+01	RT	ROUTE 60	22	10	AC	I									
282+35	RT	ROUTE 60	12	10	AGGR	I									
286+05	RT	ROUTE 60	20	10	AGGR	I									
286+54	LT	ROUTE 60	26	30	AC	I I I									
289+96	RT	ROUTE 60	27	10	AGGR	I									
292+55	LT	ROUTE 60	20	10	AGGR	I					46				
292+75	RT	ROUTE 60	14	10	AGGR	I									
296+80	RT	ROUTE 60	20	10	AGGR	I					30				
299+18	LT	ROUTE 60	28	30	AC	I I I					66				
301+45	LT	ROUTE 60	60	10	AC	I I I									
305+10	RT	ROUTE 60	12	10	AGGR	I					39				
305+63	LT	ROUTE 60	40	10	AGGR	I					64				
306+59	LT	ROUTE 60	12	10	AGGR	I					36				
307+50	LT	ROUTE 60	21	10	AGGR	I									
310+23	LT	ROUTE 60	20	10	AC	I						46			
311+28	RT	ROUTE 60	30	10	AGGR	I					40				
311+97	LT	ROUTE 60	12	10	AGGR	I						48			
315+50	RT	ROUTE 60	20	10	AC	I					46				
316+42	LT	ROUTE 60	20	10	AC	I						48			
317+90	RT	ROUTE 60													
11+76	RT	FR 1060	12	10	AGGR	I									
11+80	LT	FR 1060	20	10	AGGR	I					46				
318+06	LT	ROUTE 60	40	10	AC	I						55			
320+70	LT	ROUTE 60	20	10	AGGR	I					46				
SUBTOTAL (A)											128.5				

STA.	LOC.	ROAD	WIDTH	RADII	ENTR. SURF. TYPE	ENTRANCE TYPE	TYPE S CURB	TYPE A CURB & GUTTER	TYPE A GUTTER	PIPE CULVERT GROUP B			CLASS III RCP	GROUP B FLARED END SECTION	PRECAST CONCRETE FLARED END SECTION
										15"	18"	24"			
323+13	RT	ROUTE 60	20	20' RT/30' LT	AGGR	I									
323+23	LT	ROUTE 60	20	30	AC	I I									
8+87	RT	W. CRESTWOOD	20	10	AC	I					30				
324+77	LT	ROUTE 60	16	10	AGGR	I					40				
327+14	LT	ROUTE 60	18	30	AC	I I					43				
9+33	RT	E. CRESTWOOD	12	10	AC	I									
328+59	LT	ROUTE 60	15	10	AC	I					41				
328+92	RT	ROUTE 60	29	30	AC	I I					54				
329+06	LT	ROUTE 60	16	10	AC	I					42				
329+85	LT	ROUTE 60	13	10	AC	I					39				
331+91	LT	ROUTE 60	23	10	AC	I						45			
333+20	LT	ROUTE 60	18	10	AGGR	I						32			
335+90	LT	ROUTE 60	16	10	AGGR	I									
337+17	LT	ROUTE 60	12	10	AGGR	I									
339+77	RT	ROUTE 60	24	10	AC	I									
342+40	RT	ROUTE 60	44	75	AC	I I					100				
344+75	LT	ROUTE 60	14	10	AGGR	I									
345+40	RT	ROUTE 60	20	10	AC	I									
346+75	RT	ROUTE 60	13	10	AGGR	I									
352+44	RT	ROUTE 60	22	30	AC	I I					40				
355+49	LT	ROUTE 60	12	10	AGGR	I									
357+40	RT	ROUTE 60	40	30	AC	I I I					81				
357+64	LT	ROUTE 60	30	60	AC	I I I									
360+06	RT	ROUTE 60	50	20	AC	I I I					40				
360+40	LT	ROUTE 60	17	10	AGGR	I									
380+36	RT	ROUTE 60	30	30	AC	I I									
385+73	RT	ROUTE 60	30	30	AC	I I									
386+56	LT	ROUTE 60	35	30	AC OVERLAY	I I I					12				
388+43	LT	ROUTE 60	35	30	AC OVERLAY	I I I									
388+80	RT	ROUTE 60	14	10	AC	I									
SUBTOTAL (A)											128.5				
SUBTOTAL (B)											158				
PAY TOTAL											286 LF				

FINAL PLANS

I certify that this plan sheet accurately depicts the configuration and location of the roadway and all its appurtenant features, to the best of my knowledge, as I and my staff have observed the contractor's construction of this project. I specifically disclaim any responsibility for the design of this project, except as I and my staff may have modified or authorized the modification of the project design during its construction; and I disclaim responsibility for the contractor's actual construction of the project, except as I and my staff may have directed or ordered that the project be constructed.

Jennifer L. Hunter
Signature

12/23/03
Date

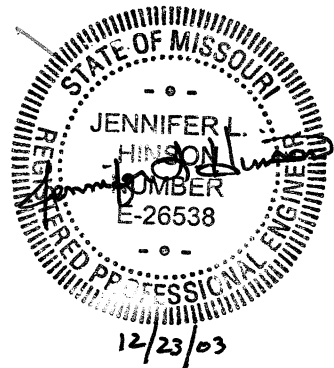
SHEET 2 OF 4

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	10
JOB NO.		J7P0352B	
PROJECT NO.		F.A.F.-60-1(16)	
CONTRACT I.D.		021213-703	
COUNTY	BARRY		DATE

SHEET 3 OF 4



CROSSROAD BOX AND PIPE CULVERTS																																						
SHEET	RDWY	STA	SIDE	BOX SIZE	CL 3 EXC	CL B CONC (CULVS)	REINF STEEL (CULVS)	CLASS III REINFORCED CONCRETE PIPE				PRECAST CONCRETE FLARED END SECTION		SAFETY SLOPED END SECTION				PIPE COLLAR	ROCK LINING	FURN. TYPE II ROCK DITCH LINER	PLACING TYPE II ROCK DITCH LINER																	
								24"	30"	36"	48"	24"	36"	24"	30"	36"	48"	TYPE C																				
13	RTE 60	158+93.43			165							2							12																			
13		160+13.93	LEFT	3 X 2	38										1		1		12																			
13		160+13.93	RIGHT	3 X 2	21											1																						
13		160+50.00			122														11																			
13		163+33.86	LEFT	6 X 4	34	19.6	2540												118																			
13		163+33.86	RIGHT	6 X 4	7	15.8	2150																															
15	RTE 60	185+18.26	LEFT	6 X 4	26	23.4	3040												66																			
19	RTE 60	221+82.30	LEFT	2 X 1.5	8									1			1		4																			
19		227+59.56	LEFT	6 X 4	21	23.3	2740												84																			
19		232+87.21	LEFT	3 X 2	4												1		61																			
20	RTE 60	245+14.15	LEFT	5 X 3	28	17.1	1960												46																			
21	RTE 60	258+29.56	LEFT	4 X 2.5	23													1	31																			
22	RTE 60	266+19.83	LEFT		53														5																			
22		266+19.83	RIGHT																																			
22		273+03.51	LEFT	4 X 2	6														12																			
24	RTE 60	277+97.52	LEFT	6 X 4	26	29	3340												76																			
25	RTE 60	293+92.26	LEFT	2 X 2	13														5																			
25		293+92.26	RIGHT	2 X 2																																		
25		304+55.08	LEFT																	14	14																	
25		304+55.08	LEFT	6 X 4	17	34.4	3920												100																			
26	RTE 60	312+47.91	LEFT	6 X 4	26	27.2	3200												51																			
28	RTE 60	338+78.29	LEFT	11 X 9	900	199.4	28490												227																			
28		338+78.29	RIGHT																895	895																		
29	RTE 60	345+89.28	LEFT	2 X 1.5	4														5																			
29		345+89.28	RIGHT	2 X 1.5	4																																	
29		350+78.25	LEFT	2 X 2	6														5																			
29		350+78.25	RIGHT	2 X 2	2																																	
29		356+69.08	LEFT	6 X 4	8	18.5	2250												89																			
29		356+69.08	RIGHT	6 X 4	9	20.2	2450																															
31	RTE 60	381+87.78	LEFT																20																			
31		381+87.78	RIGHT	6 X 2	2																																	
32	RTE 60	390+22.59	LEFT	7 X 6	35	19.7	2710												118																			
32		390+22.59	RIGHT	7 X 6	40	19.2	2730																															
TOTALS					1648	CUYD	466.8	CUYD	61520	LB	167	LF	212	LF	380	LF	37	LF	2	EA	4	EA	3	EA	5	EA	4	EA	2	EA	42	EA	1158	CUYD	909	CUYD	909	CUYD

CONCRETE MEDIAN STRIP					
RDWY	STATION		LOC	LOC	CONC
	FROM	TO			
ROUTE 60	159+17	159+35	28' RT	46' RT	22.90
ROUTE 60	159+22	159+39	28' LT	44' LT	19.10
ROUTE 60	159+74	159+92	45' RT	28' RT	20.30
ROUTE 60	159+78	159+92	42' LT	28' LT	15.10
ROUTE 97	51+71	52+47	2' LT	2' RT	33.20
ROUTE 97	0+41	1+20	2' LT	2' RT	33.40
TOTAL				144.0	SQYD

FINAL PLANS

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Signature

12/23/03
Date

REV.

SUMMARY OF QUANTITIES

EFFECTIVE: 01-01-2002
D-2BS

ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	11
JOB NO.		J7P0352B	
PROJECT NO.		F.A.F.-60-1160	
CONTRACT I.D.		021213703	
COUNTY		BARRY	
FINAL PLANS			



SIGN	SIZE (INCHES)	AREA (SQ FT)	QTY	TOTAL AREA	QTY RELOC	TOTAL RELOC AREA	DESCRIPTION
WARNING SIGNS							
WF20-4	36X36	9.00					ONE LANE ROAD AHEAD
WF20-5	36X36	9.00					RIGHT LANE/CENTER LANE/LEFT LANE CLOSED AHEAD
WF20-6a	36X36	9.00					RIGHT/CENTER/LEFT LANE CLOSED
WF21-4	36X36	9.00					ROAD WORK AHEAD
WF22-6e	21X15	2.19					WET PAINT (ARROW PIVOTS)
WO1-1L	48X48	16.0					TURN (SYMBOL LEFT ARROW)
WO1-1R	48X48	16.0					TURN (SYMBOL RIGHT ARROW)
WO1-2L	48X48	16.0					CURVE (SYMBOL LEFT ARROW)
WO1-2R	48X48	16.0					CURVE (SYMBOL RIGHT ARROW)
WO1-3L	48X48	16.0	2	32			REVERSE TURN (SYMBOL LEFT ARROW)
WO1-3R	48X48	16.0	2	32			REVERSE TURN (SYMBOL RIGHT ARROW)
WO1-4L	48X48	16.0					REVERSE CURVE (SYMBOL LEFT ARROW)
WO1-4R	48X48	16.0					REVERSE CURVE (SYMBOL RIGHT ARROW)
WO1-4bL	48X48	16.0					DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT ARROWS)
WO1-4bR	48X48	16.0					DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT ARROWS)
WO1-4cL	48X48	16.0					TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT ARROWS)
WO1-4cR	48X48	16.0					TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT ARROWS)
WO1-6	48X24	8.0					HORIZONTAL ARROW (SYMBOL)
WO1-6a	72X36	18.0					HORIZONTAL ARROW (SYMBOL ON BARRICADE)
WO1-7	48X24	8.0					DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
WO1-7a	72X36	18.0					DOUBLE HEAD HORIZONTAL ARROW (SYMBOL ON BARRICADE)
WO1-8	18X24	3.0					CHEVRON (SYMBOL)
WO1-8a	36X48	12.0					CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)
WO3-1	48X48	16.0					STOP AHEAD
WO3-2	48X48	16.0					YIELD AHEAD
WO3-3	48X48	16.0					SIGNAL AHEAD (SYMBOL)
WO4-1L	48X48	16.0					MERGE (SYMBOL FROM LEFT)
WO4-1R	48X48	16.0					MERGE (SYMBOL FROM RIGHT)
WO5-1	48X48	16.0					ROAD NARROWS
WO5-3	48X48	16.0					ONE LANE BRIDGE
WO5-5	48X48	16.0					NARROW LANES
WO6-1	48X48	16.0					DIVIDED HIGHWAY (SYMBOL)
WO6-2	48X48	16.0					DIVIDED HIGHWAY ENDS (SYMBOL)
WO6-3	48X48	16.0					TWO WAY TRAFFIC (SYMBOL)
WO7-3a	24X18	3.0					NEXT XX MILES (PLAQUE)
WO8-1	48X48	16.0					BUMP
WO8-2	48X48	16.0					DIP
WO8-3	48X48	16.0					PAVEMENT ENDS
WO8-4	48X48	16.0					SOFT SHOULDER
WO8-5	48X48	16.0					SLIPPERY WHEN WET (SYMBOL)
WO8-6	48X48	16.0					TRUCK CROSSING
WO8-6a	48X48	16.0	2	32			TRUCK ENTRANCE
WO8-7	36X36	9.0					LOOSE GRAVEL
WO8-9	48X48	16.0					LOW SHOULDER
WO8-9a	48X48	16.0	20	320			SHOULDER DROP-OFF
WO8-11	48X48	16.0					UNEVEN LANES
WO8-12	36X36	9.0					NO CENTER STRIPE
W10-1	42RND.	9.62					RAILROAD CROSSING
WO12-1	24X24	4.0					DOUBLE DOWN ARROW (SYMBOL)
WO12-2	48X48	16.0					LOW CLEARANCE (SYMBOL)
WO12-2x	24X18	3.0					LOW CLEARANCE (PLAQUE)
WO12-3a,b	144X24	24.0					OVERHEAD LOW CLEARANCE (FEET AND INCHES)
SPECIAL	120X60	50.0					LOW CLEARANCE XX' XX" XX MILES AHEAD
SPECIAL	120X60	50.0					WIDTH RESTRICTION XX' XX" XX MILES AHEAD
WO13-1	24X24	4.0	2	8			ADVISORY SPEED (PLAQUE)
WO20-2	48X48	16.0					DETOUR AHEAD
WO20-3	48X48	16.0					ROAD CLOSED AHEAD
WO20-4	48X48	16.0	4	64			ONE LANE ROAD AHEAD
WO20-5	48X48	16.0					RIGHT LANE/CENTER LANE/LEFT LANE CLOSED AHEAD
WO20-6a	48X48	16.0					RIGHT/CENTER/LEFT LANE CLOSED
WO20-7a	48X48	16.0	4	64			FLAGGER (SYMBOL)
WO20-7x	24X18	3.0	2	6			500 FT/1000 FT (PLAQUE)
WO20-7b	48X48	16.0					BE PREPARED TO STOP
WO20-9c	48X48	16.0					OPEN TRENCH
WO21-2	48X48	16.0					FRESH OIL
WO21-4	48X48	16.0	25	400			ROAD WORK AHEAD
WO21-5b	48X48	16.0	10	160			SHOULDER WORK AHEAD
WO21-7	36X36	9.0					SAND BLASTING
WO22-1	48X48	16.0					BLASTING ZONE 1000 FT

SIGN	SIZE (INCHES)	AREA (SQ FT)	QTY	TOTAL AREA	QTY RELOC	TOTAL RELOC AREA	DESCRIPTION
WARNING SIGNS (CONT.)							
WO22-2	42X36	10.5					TURN OFF 2-WAY RADIO AND PHONE
WO22-3	42X36	10.5					END BLASTING ZONE
WO25-5	30X12	2.5					1/2 MILE/1 MILE (PLAQUE)
REGULATORY SIGNS							
R1-1	48X48	13.00	2	26			STOP
R1-2	48TRI.	6.93					YIELD
R1-3	20X9	1.25					4-WAY (PLAQUE)
R1-5	20X9	1.25					3-WAY (PLAQUE)
R2-1b	36X48	12.00	18	216			SPEED LIMIT 4 @ 60, 10 @ 45, 4 @ 35
R2-5a	36X48	12.00	4	48			REDUCED SPEED AHEAD
R3-1	48X48	16.00					NO RIGHT TURN (SYMBOL)
R3-2	48X48	16.00					NO LEFT TURN (SYMBOL)
R3-3	36X36	9.00					NO TURNS
R3-4	48X48	16.00					NO U-TURN (SYMBOL)
R3-7L	30X30	6.25					LEFT LANE MUST TURN LEFT
R3-7R	30X30	6.25					RIGHT LANE MUST TURN RIGHT
R4-1	36X48	12.00					DO NOT PASS
R4-2	36X48	12.00					PASS WITH CARE
R4-7aL	36X48	12.00					KEEP LEFT (HORIZONTAL ARROW)
R4-7aR	36X48	12.00					KEEP RIGHT (HORIZONTAL ARROW)
R4-17aL	36X36	9.00					KEEP LEFT
R4-17aR	36X36	9.00					KEEP RIGHT
R5-1	30X30	6.25					DO NOT ENTER
R5-1a	36X24	6.00					WRONG WAY
R6-1L	48X18	6.00					ONE WAY ARROW (LEFT)
R6-1R	48X18	6.00					ONE WAY ARROW (RIGHT)
R6-2L	24X30	5.00					ONE WAY (LEFT)
R6-2R	24X30	5.00					ONE WAY (RIGHT)
R10-6	24X36	6.00					STOP HERE ON RED (45° ARROW)
R11-2	48X30	10.00	4	40			ROAD CLOSED
R11-3a	60X30	12.50					ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY
R11-4	60X30	12.50					ROAD CLOSED TO THRU TRAFFIC
R12-3b	36X36	9.00					TO ONCOMING TRAFFIC (PLAQUE)
S4-4	36X15	3.75					WHEN FLASHING
STOP/SLOW	18 OCT.						STOP/SLOW PADDLE (STOP/SLOW)
SUPPLEMENTAL PLATES FOR WARNING SIGNS							
WF25-6	20X6	---					BRIDGE/RAMP PLATE (USE WITH WF21-4)
WO25-1a	26X9	---					1000 FT/1500 FT PLATE
WO25-1b	38X9	---					500 FT/1000 FT PLATE
WO25-1c	34X9	---					500 FT/1000 FT PLATE
WO25-6	28X9	---					BRIDGE/RAMP PLATE (USE WITH WO21-4 OR WO5-1)
FINAL PLANS							
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GO20-1	60X48	10.00	1	10			ROAD AHEAD NEXT 5 MILES
GO20-1	60X24	10.00	2	20			ROAD WORK NEXT 5 MILES
GO20-9a	48X24	8.00	4	32			END ROAD WORK
GO20-4	36X18	4.50					END ROAD WORK
GO23-1	36X12	3.00	22	66			END ROAD WORK
MO4-1	24X12	2.00					DETOUR (ARROW LEFT)
MO4-8	24X12	2.00					DETOUR (ARROW LEFT)
MO4-8a	24X18	3.00					DETOUR (ARROW LEFT)
MO4-9L	48X36	12.00					DETOUR (ARROW LEFT)
MO4-9R	48X36	12.00					DETOUR (ARROW RIGHT)
MO4-10L	48X18	6.00					DETOUR (ARROW LEFT)
MO4-10R	48X18	6.00					DETOUR (ARROW RIGHT)
M5-1L	21X15	2.19					ADVANCE LEFT TURN ARROW
M5-1R	21X15	2.19					ADVANCE RIGHT TURN ARROW
M6-1	21X15	2.19					TURN ARROW
M6-3	21X15	2.19					STRAIGHT ARROW
COMMISSION FURNISHED SIGNS							
CONST-3A	48X48	16.00					GIVE'EM A BRAKE
CONST-3X	57X9	---					SHOW ME PROGRESS SIGNS
616-10.05	CONSTRUCTION SIGNS TOTAL						
616-10.10	RELOCATED SIGNS TOTAL						

ITEM NUMBER	TOTAL QTY	DESCRIPTION
612-10.10		TEMPORARY BARRICADE
612-10.20		RELOCATED TEMPORARY BARRICADES
612-10.40		PERMANENT BARRICADE
612-20.08		IMPACT ATTENUATOR (8 SAND BARRELS)
612-20.09		IMPACT ATTENUATOR (9 SAND BARRELS)
612-20.10		IMPACT ATTENUATOR (10 SAND BARRELS)
612-20.12		IMPACT ATTENUATOR (12 SAND BARRELS)
612-20.14		IMPACT ATTENUATOR (14 SAND BARRELS)
612-20.17		IMPACT ATTENUATOR (17 SAND BARRELS)
612-20.19		IMPACT ATTENUATOR (19 SAND BARRELS)
612-20.20		REPLACEMENT SAND BARREL
612-20.30		IMPACT ATTENUATOR (RELOCATION)
612-30.00		TRUCK MOUNTED ATTENUATOR (TMA)
616-10.20	250	CHANNELIZER (DRUM-LIKE)
616-10.25		CHANNELIZER (TRIM-LIKE)
616-10.30	4	TYPE III MOVEABLE BARRICADE
616-10.33		DIRECTIONAL INDICATOR BARRICADE
616-10.34		DIRECTIONAL INDICATOR BARRICADE, WITH LIGHT
616-10.40		FLASHING ARROW PANEL
616-10.45		TYPE I OBJECT MARKER
616-10.46		TYPE II OBJECT MARKER
616-10.47		TYPE III OBJECT MARKER
616-10.50		FLASHING ELECTRIC LIGHT
616-10.51		WARNING LIGHT, TYPE A
616-10.52		WARNING LIGHT, TYPE B
616-10.53		WARNING LIGHT, TYPE C
616-10.54		STROBE LIGHT
616-10.60		TYPE I CHANNELIZER/MARKER
616-10.70		TUBULAR MARKER
616-10.71	0	TRAFFIC BARRIER DELINEATOR, WHITE
616-10.72		TRAFFIC BARRIER DELINEATOR, AMBER
616-10.73		TRAFFIC BARRIER DELINEATOR, WHITE / AMBER
616-10.91		RADAR SPEED ADVISORY SYSTEM OPERATION
616-10.95		RADAR SPEED ADVISORY SYSTEM
616-10.96		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED
616-10.98		CHANGEABLE MESSAGE SIGN, CONTRACTOR FURNISHED, CONTRACTOR RETAINED
616-11.00		CHANGEABLE MESSAGE SIGN, SOLAR POWERED, CONTRACTOR FURNISHED, COMMISSION RETAINED
616-11.30	2	INSTALLING GIVE EM A BRAKE, 48 IN. X 48 IN. SIGN
616-11.32	0	INSTALLING SHOW ME PROGRESS SIGN ASSEMBLY
616-11.40	15	INSTALLING NO CENTER STRIPE SIGN
616-12.00		LAW ENFORCEMENT
619-10.00	23000	PAVEMENT EDGE TREATMENT
620-80.65	3000	TEMPORARY RAISED PAVEMENT MARKER
901-94.00		TEMPORARY LIGHTING
902-94.00		TEMPORARY TRAFFIC SIGNALS
902-94.01		TEMPORARY TRAFFIC SIGNALS AND LIGHTING
902-94.12		SOLAR POWERED PORTABLE TRAFFIC SIGNAL SYSTEM (COMMISSION RETAINED)
902-94.15		RELOCATION OF PORTABLE TRAFFIC SIGNAL SYSTEM

NOTE: ALL WARNING SIGNS SHALL BE FLUORESCENT ORANGE.

UTILITIES

ELECTRIC: THE EMPIRE DISTRICT ELECTRIC COMPANY
602 JOPLIN STREET
JOPLIN, MO. 64801
(417) 625 - 5100

GAS: MISSOURI GAS ENERGY
520 E. 5TH STREET
JOPLIN, MISSOURI 64801
(417) 626 - 4846

OZARK ELECTRIC COOPERATIVE INC.
P.O. BOX 420
MT. VERNON, MO. 65712
(417) 466 - 2144

PIPELINE: RAZORBACK PIPELINE
2801 W. HUDSON STREET
ROGERS, ARK. 72756
(501) 732 - 8140

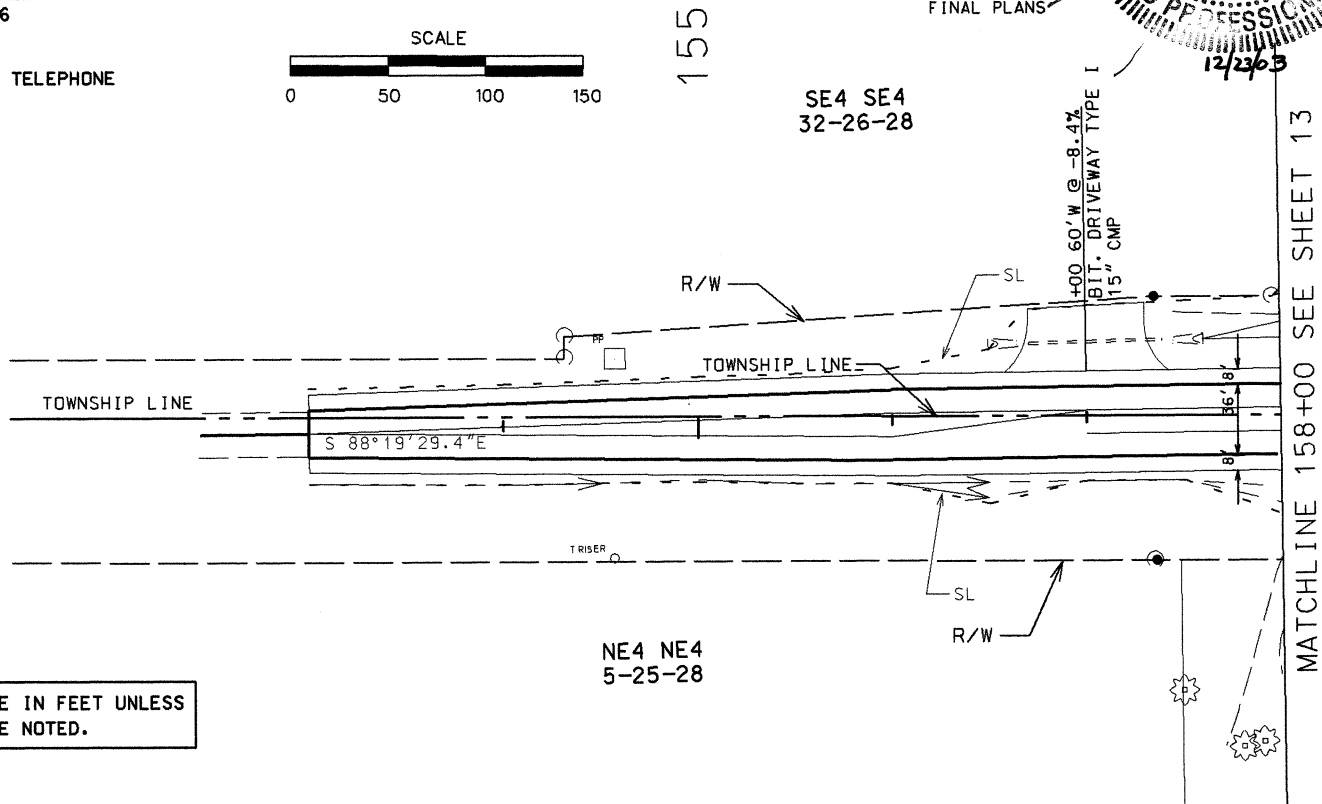
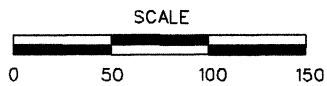
ASSOCIATED ELECTRIC COOPERATIVE
2814 S. GOLDEN
P.O. BOX 754
SPRINGFIELD, MO 65801
(417) 881 - 1204

TELEPHONE: SOUTHWESTERN BELL TELEPHONE
321 W. 8TH ST.
JOPLIN, MO. 64801
(417) 625 - 8023

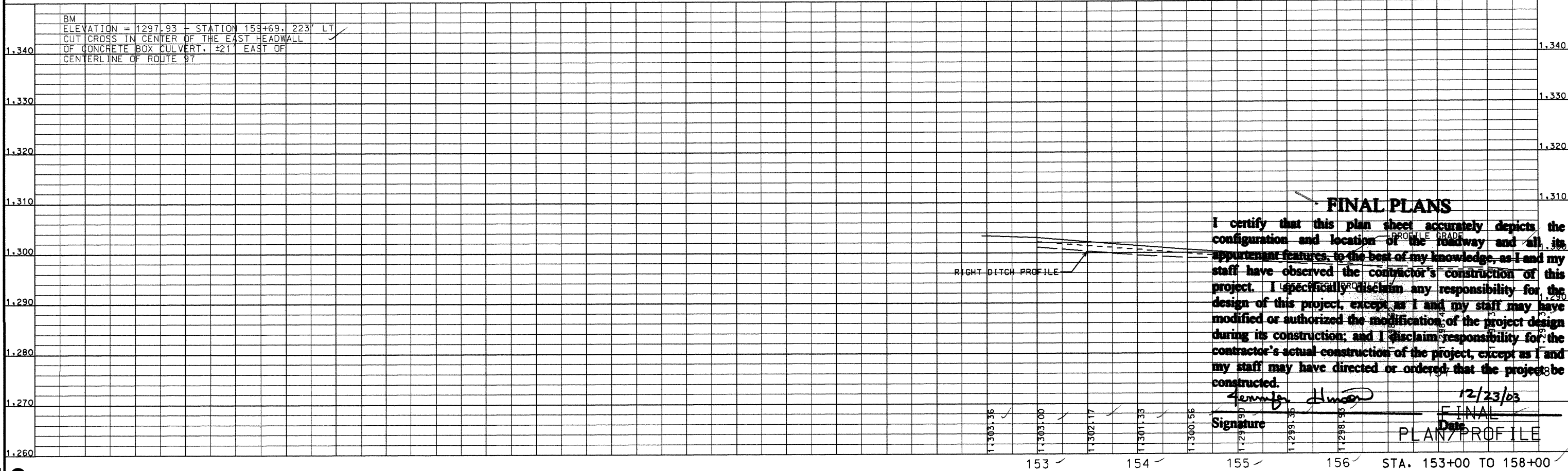
ELEC., SEWER & WATER: CITY OF MONETT
P.O. BOX 110
MONETT, MO. 65708
(417) 235 - 3763

ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	12
JOB NO. J7P0352B			
PROJECT NO. F.A.F.-60			
CONTRACT I.D. 021213			
COUNTY BARR			
DATE 10/20/2003			

STATE OF MISSOURI
JENNIFER L. HINSON
REGISTERED PROFESSIONAL ENGINEER
E-26538
12/23/03



UNITS ARE IN FEET UNLESS OTHERWISE NOTED.



FINAL PLANS

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Signature: Jennifer L. Hinson
Date: 12/23/03
FINAL
PLAN/PROFILE

STA. 153+00 TO 158+00

SE4 SE4
32-26-28

SW4 SW4
33-26-28

JERRY L. & LINDA G. MARPLES

1.05 AC NORMAL R/W
* 0.41 AC PERM ESMT (EMPIRE)
18.55 AC REMAINING

ROUTE	60	STATE	MO	DISTRICT	7	SHEET NO.	13
JOB NO.	J7P0352B						
CONTRACT ID	021213						
PROJECT NO.	F.A.F.-60						
COUNTY	BARRY						
DATE	12/23/03						
FINAL PLANS	SEE SHEET 15						

STATE OF MISSOURI
REGISTERED PROFESSIONAL ENGINEER
JENNIFER L. HINDEN
NUMBER E-26538

ROUTE 60
PI 159+56.90
 Δ 0°33'19.7" (LT)
NO CURVE

ROUTE 60
PI 162+58.32
PC 160+99.69
PRC 164+16.93
 Δ 1°35'10.3" (LT)
D 317.24'
L 158.63'
R 11,459.16'

STA. 159+56.90 RTE. 60
= STA. 52+90 RTE. 97 (NORTH)
= STA. 0+00 RTE. 97 (SOUTH)

Route 97
Intersection

ROUTE 60
PI 165+75.56
PRC 164+16.93
PT 167+34.17
 Δ 1°35'10.3" (RT)
D 317.24'
L 158.63'
R 11,459.16'

ROUTE 97
PI 52+90 BK
= 0+00.00 AH
 Δ 0°03'21.2" (RT)
NO CURVE

+38.12' W @ -0.4%
AGGR. DRIVEWAY TYPE I
2-24" GROUP B PIPES TOTALLING 52'

NW4 NW4
4-25-28

STA 158+93.43
162' X 36" CLASS III RCP
2-36" FLARED END SECTIONS

STA 160+13.93
3' X 2' BOX CULVERT
EXTENDED 58' LT, 45' RT
W/ 36" CLASS III RCP
2-36" SAFETY SLOPED END SECTIONS
2-TYPE C COLLARS
D.A.=17.0 AC
Q =26.0 CFS

STA 163+33.86
63' - 6' X 4' BOX CULVERT
EXTENDED 22' LEFT & 14' RIGHT
D.A.=77.4 AC
Q =105 CFS

STA 160+50.00
2-30" CLASS III RCP
TOTALLING 192'
4-30" SAFETY SLOPED END SECTIONS
D.A.=25.3 AC
Q =51.8 CFS

UNITS ARE IN FEET UNLESS
OTHERWISE NOTED.

1/4" ALUM. CAP AT THE SOUTHEAST
CORNER OF SECTION 32, TOWNSHIP 26
NORTH, RANGE 28 WEST WITNESSED
BY SAMUEL R. GOODMAN, LS 2031, DNR/DGLS
DOCUMENT NUMBER 750-25947.

TOWNSHIP 26 N
TOWNSHIP 25 N

ROUTE 60

ROUTE 97

159+56.90 RTE 97 (N)
= 0+00.00 RTE 97 (S)

Signature

12/23/03

Date

FINAL
PLAN

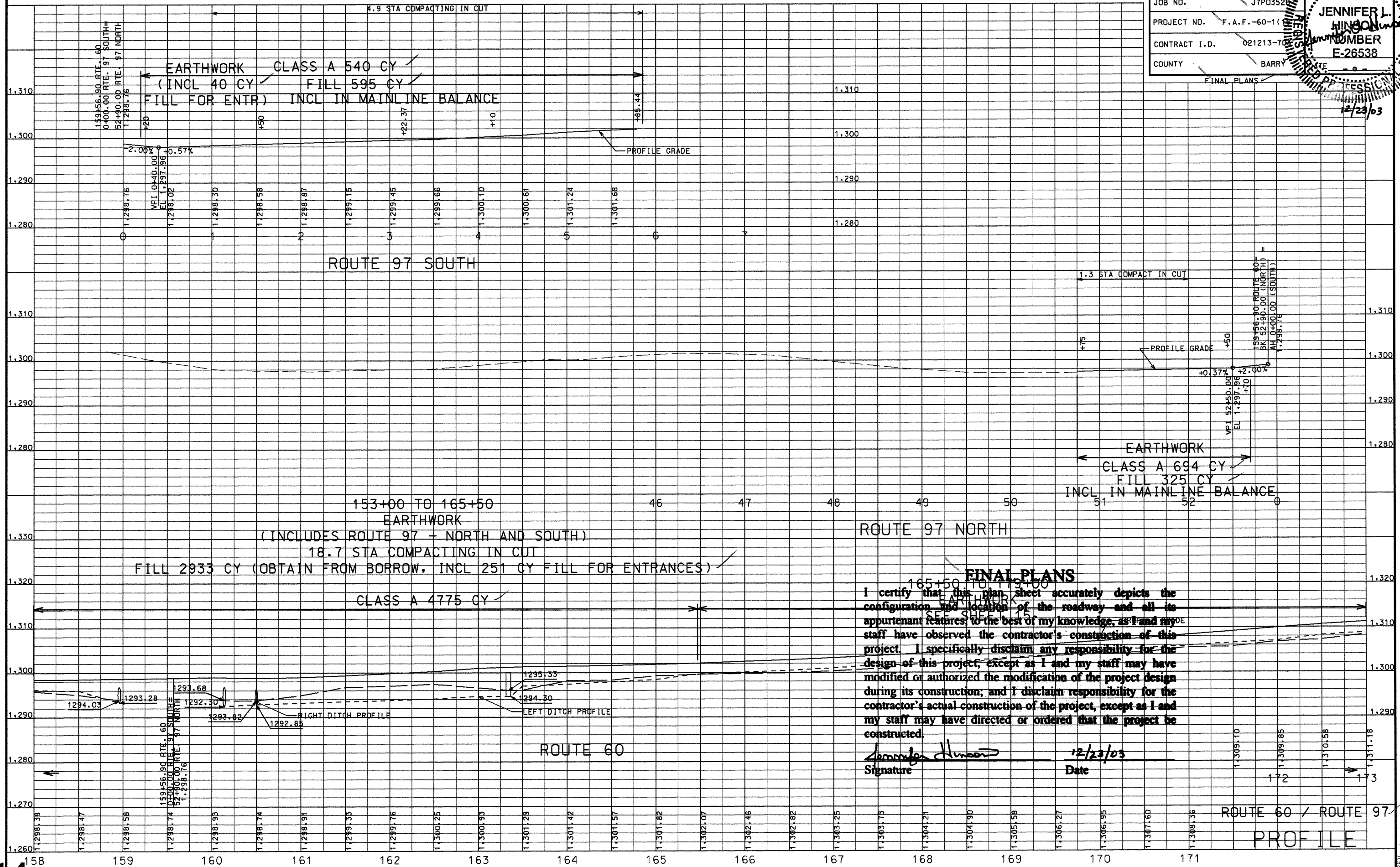
STA. 158+00 TO 173+00

ROUTE	STATE	DISTRICT	SHEET NO.
60	MO		14

JOB NO. J7P0352B
PROJECT NO. F.A.F.-60-11
CONTRACT I.D. 021213-70
COUNTY BARRY

FINAL PLANS

STATE OF MISSOURI
REGISTERED PROFESSIONAL ENGINEER
JENNIFER L. HINGSON
NUMBER E-26538
12/23/03



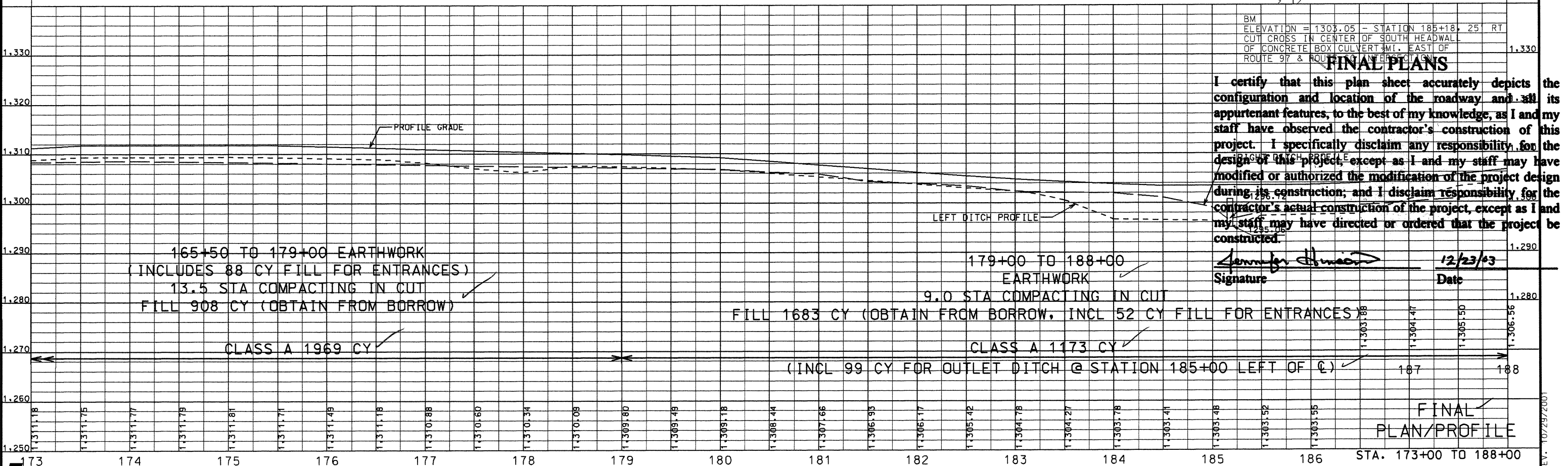
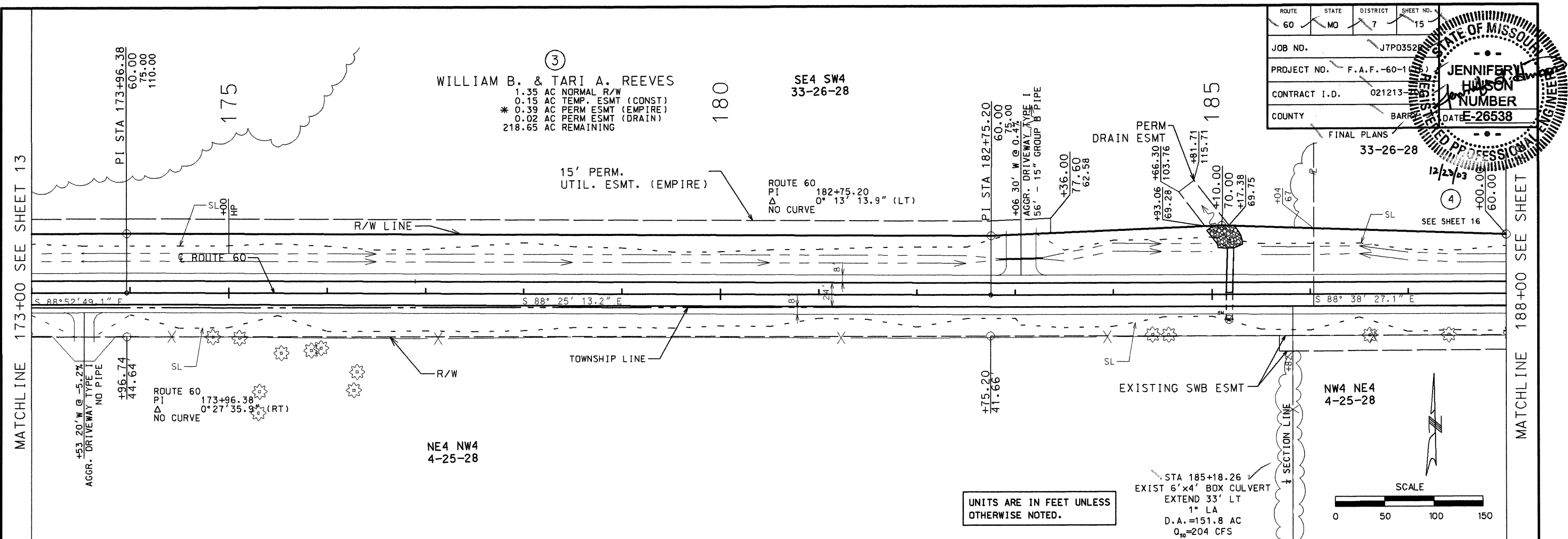
FINAL PLANS

I certify that this plan sheet accurately depicts the configuration and location of the roadway and all its appurtenant features, to the best of my knowledge, as I and my staff have observed the contractor's construction of this project. I specifically disclaim any responsibility for the design of this project, except as I and my staff may have modified or authorized the modification of the project design during its construction; and I disclaim responsibility for the contractor's actual construction of the project, except as I and my staff may have directed or ordered that the project be constructed.

Signature: Jennifer L. Hingson
Date: 12/23/03

ROUTE 60 / ROUTE 97
PROFILE

STATE OF MISSOURI
JENNIFER L. HULSON
REGISTERED PROFESSIONAL ENGINEER
NUMBER
DATE E-26538



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Signature Jennifer Hunsicker Date 12/23/03

FINAL
PLAN/PROFILE

STA. 173+00 TO 188+00

REV. 10/29/2007

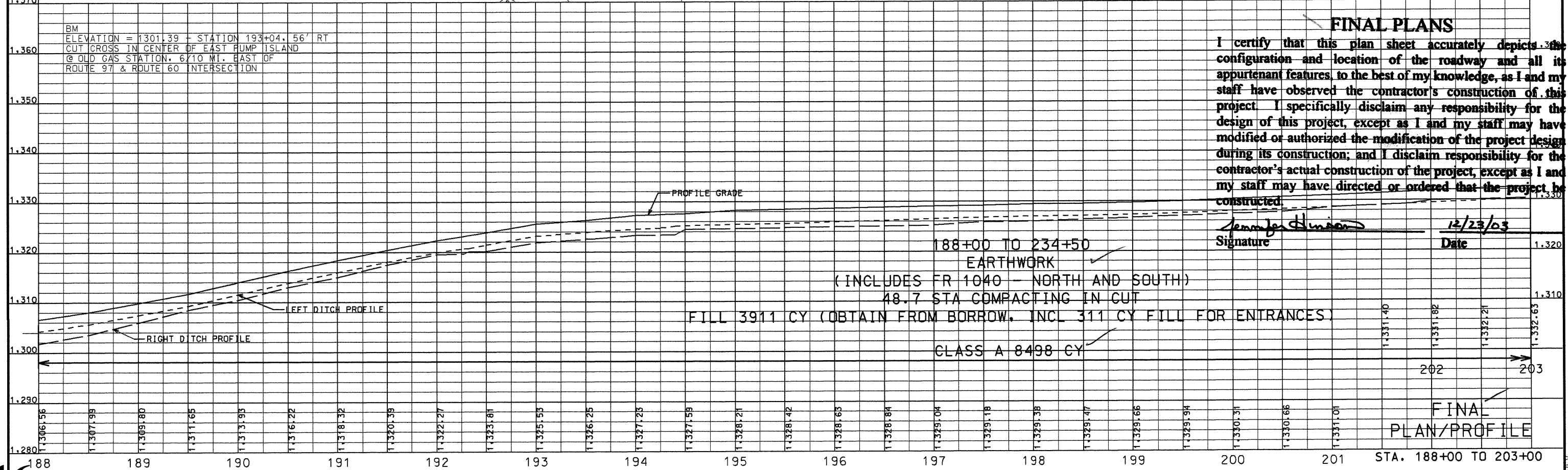
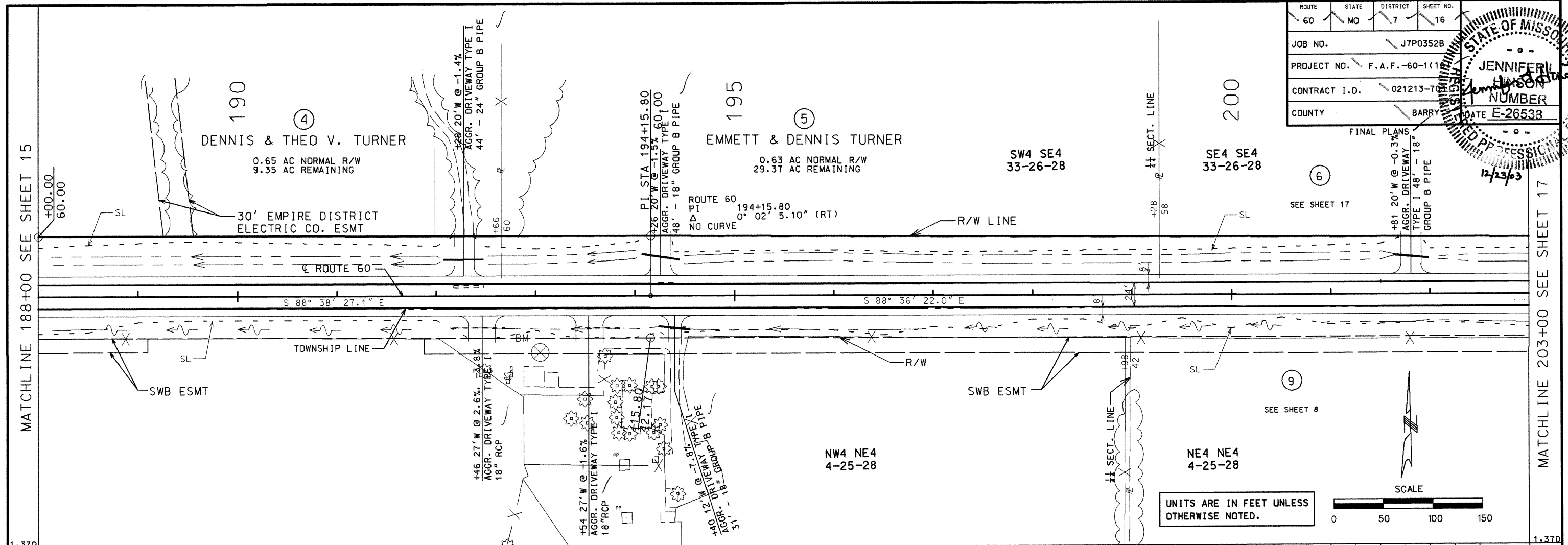
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MATCHLINE 188+00 SEE SHEET 15

MATCHLINE 203+00 SEE SHEET 17

ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	16
JOB NO. J7P0352B			
PROJECT NO. F.A.F.-60-1(1)			
CONTRACT I.D. 021213-70			
COUNTY BARRY DATE E-26538			

STATE OF MISSOURI
JENNIFER L. HENDERSON
REGISTERED PROFESSIONAL ENGINEER
12/23/03



FINAL PLANS

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Signature: *Jennifer L. Henderson* Date: 12/23/03

FINAL PLAN/PROFILE

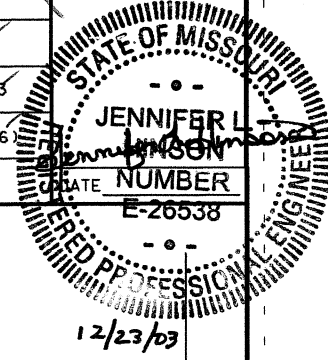
⑥
EMMETT & AMY TURNER
0.60 AC NORMAL R/W
19.40 AC REMAINING

SE4 SE4
33-26-28

⑦
EMMETT & TOM TURNER
0.36 AC NORMAL R/W
0.41 AC LIMITED ACCESS R/W
19.23 AC REMAINING

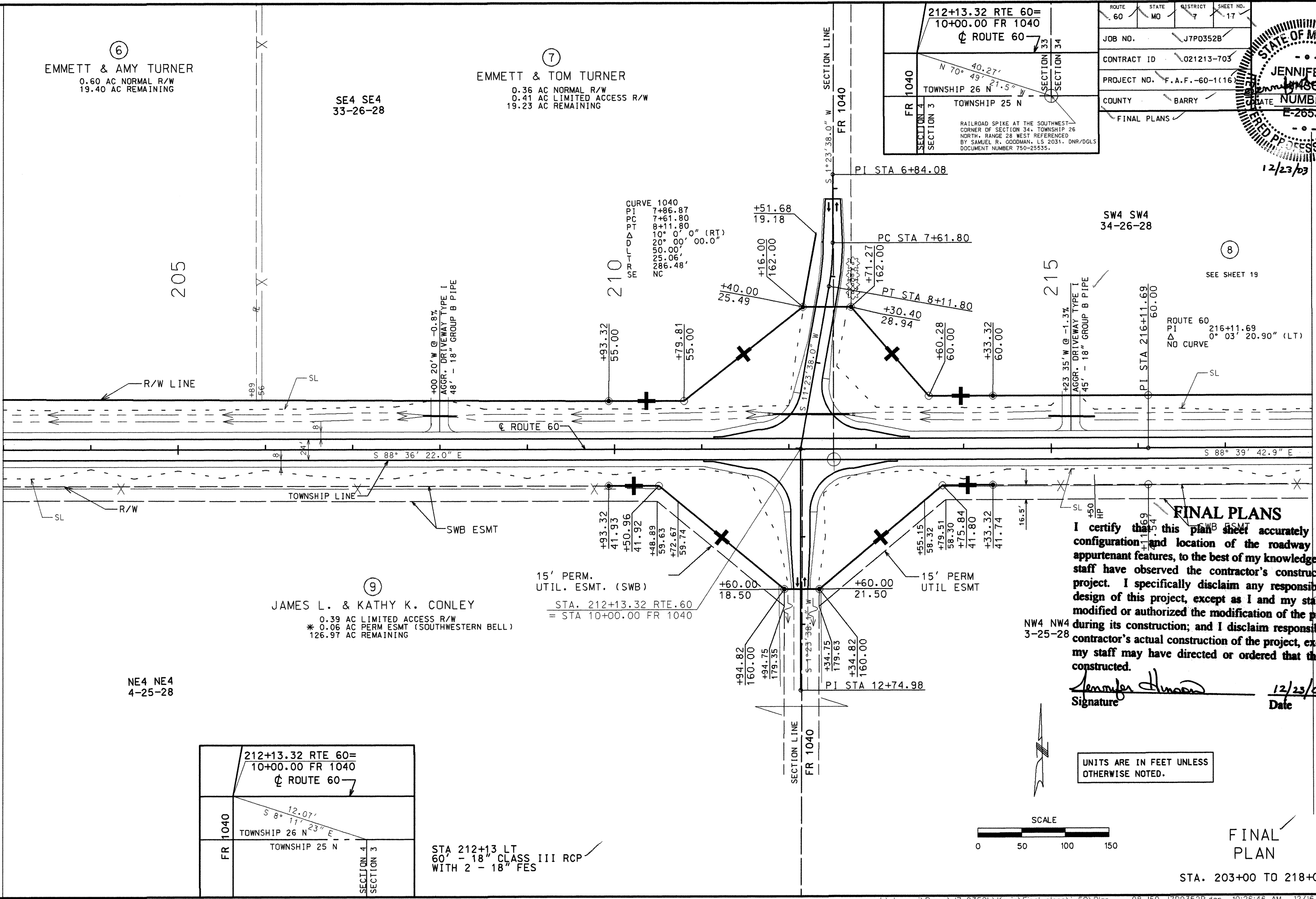
212+13.32 RTE 60= 10+00.00 FR 1040 ☉ ROUTE 60	
FR 1040	N 70° 49' 21.5" W TOWNSHIP 26 N
	TOWNSHIP 25 N
RAILROAD SPIKE AT THE SOUTHWEST CORNER OF SECTION 34, TOWNSHIP 26 NORTH, RANGE 28 WEST REFERENCED BY SAMUEL R. GOODMAN, LS 2031, DNR/DGLS DOCUMENT NUMBER 750-25535.	

ROUTE 60	STATE MO	DISTRICT 7	SHEET NO. 17
JOB NO. J7P0352B			
CONTRACT ID 021213-703			
PROJECT NO. F.A.F.-60-1(16)			
COUNTY BARRY			
FINAL PLANS			



MATCHLINE 203+00 SEE SHEET 16

MATCHLINE 218+00 SEE SHEET 19



⑨
JAMES L. & KATHY K. CONLEY
0.39 AC LIMITED ACCESS R/W
* 0.06 AC PERM ESMT (SOUTHWESTERN BELL)
126.97 AC REMAINING

NE4 NE4
4-25-28

212+13.32 RTE 60= 10+00.00 FR 1040 ☉ ROUTE 60	
FR 1040	S 8° 11' 23" E TOWNSHIP 26 N
	TOWNSHIP 25 N
SECTION 4 SECTION 3	

STA 212+13.32 LT
60' - 18" CLASS III RCP
WITH 2 - 18" FES

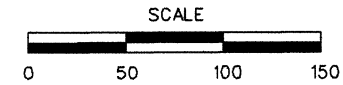
FINAL PLANS

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Jennifer L. Johnson
Signature

12/23/03
Date

UNITS ARE IN FEET UNLESS
OTHERWISE NOTED.



FINAL
PLAN

STA. 203+00 TO 218+00

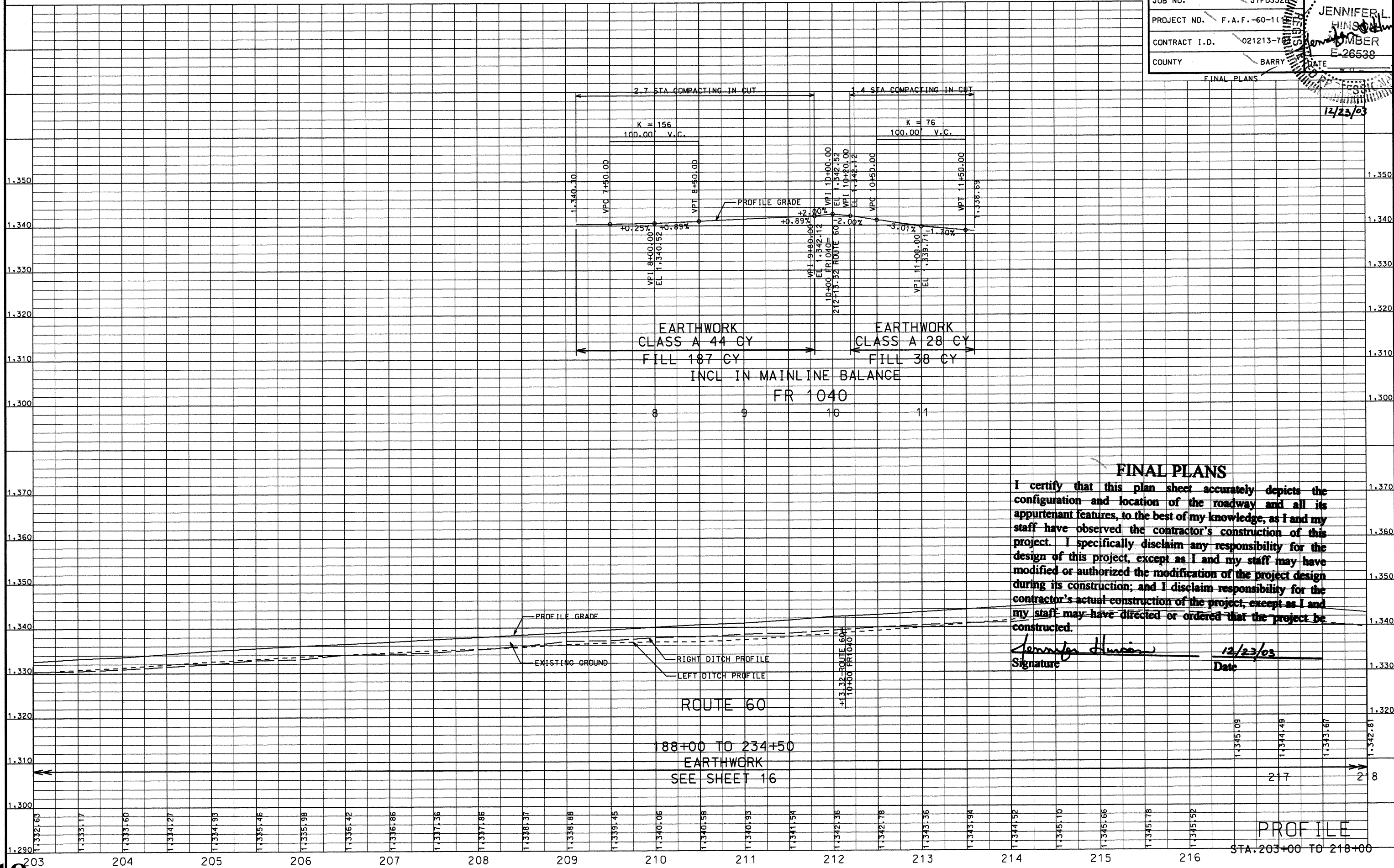
ROUTE	60	STATE	MO	DISTRICT	7	SHEET NO.	18
JOB NO.		J7P0352B					
PROJECT NO.		F.A.F.-60-1(1)					
CONTRACT I.D.		021213-7					
COUNTY		BARRY					
DATE		12/23/03					

STATE OF MISSOURI

JENNIFER L. HINSLEY

REGISTERED PROFESSIONAL ENGINEER

E-26538



FINAL PLANS

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Jennifer L. Hinsley 12/23/03
Signature Date

MATCHLINE 218+00 SEE SHEET 17

220

⑧
KENNETH & DEBRA L. TURNER
1.82 AC NORMAL R/W
0.26 AC LIMITED ACCESS R/W
0.05 AC PERM ESMT (DRAIN)
57.92 AC REMAINING

SW4 SW4
34-26-28

225

SE4 SW4
34-26-28

230

ROUTE	60	STATE	MO	DISTRICT	7	SHEET NO.	19
JOB NO.	J7P0352B						
PROJECT NO.	F.A.F.-60-1(16)						
CONTRACT I.D.	021213-703						
COUNTY	BARRY						

REGISTERED PROFESSIONAL ENGINEER
JENNIFER L. HINSON
E-26538
12/23/03

⑨

SEE SHEET 17

STA 221+82.30
2'x1.5' BOX CULVERT
EXTENDED 31' LT WITH 24" RCP
1-24" SAFETY SLOPED END SECTION
1-TYPE C COLLAR
D.A. = 5.3 AC
Q = 11.6 CFS

NW4 NW4
3-25-28

+86.35' W @ -1.8%
AGGR. DRIVEWAY TYPE I
45' - 15" GROUP PIPE

+50.00
60.00

EASEMENT
ASSOCIATED ELECTRIC

+50.00
75.00
+66.77
74.16

+08.16
138.13

+33.35
121.83

+01.38
72.43

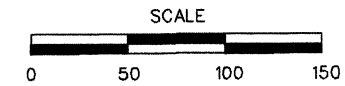
+50.00
60.00

FINAL PLANS
+33.32' W @ -3.0%
AGGR. DRIVEWAY
TYPE I
42' - 15"
GROUP B PIPE

⑩
SEE SHEET 20

MATCHLINE 233+00 SEE SHEET 20

UNITS ARE IN FEET UNLESS
OTHERWISE NOTED.



STA 232+87.21
3'x2' BOX CULVERT
EXTENDED 24' LT
W/ 36" CLASS III RCP
1-36" FLARED END SECTION
1-TYPE C COLLAR
D.A. = 27.3 AC
Q = 47.7 CFS

FINAL PLANS

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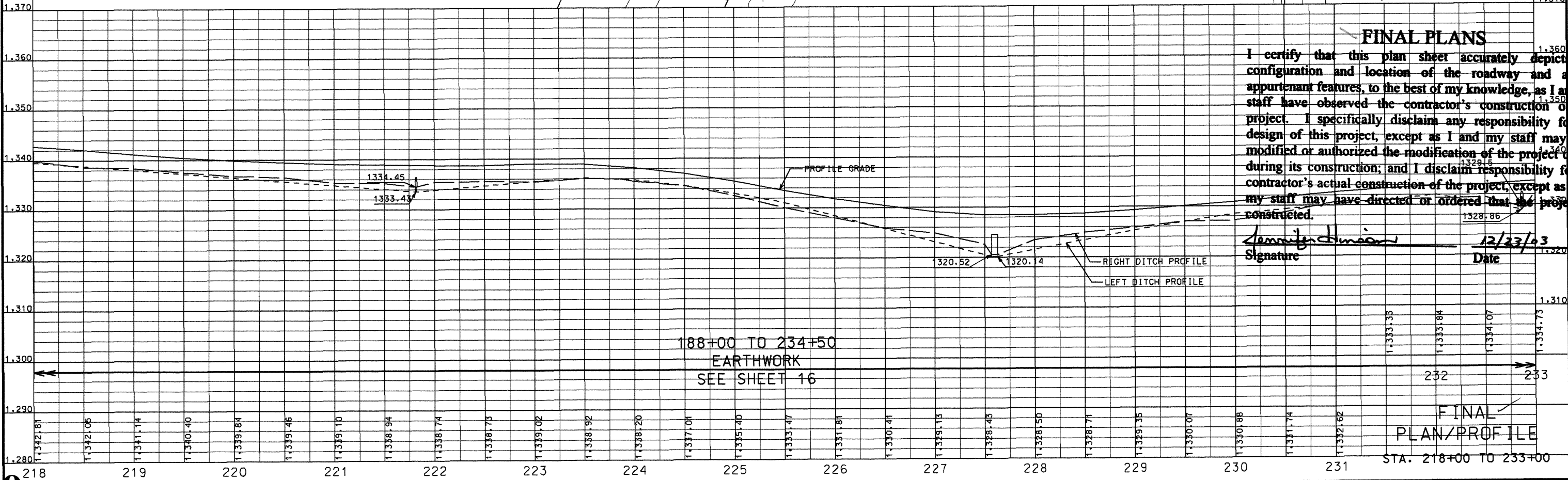
Jennifer L. Hinson
Signature

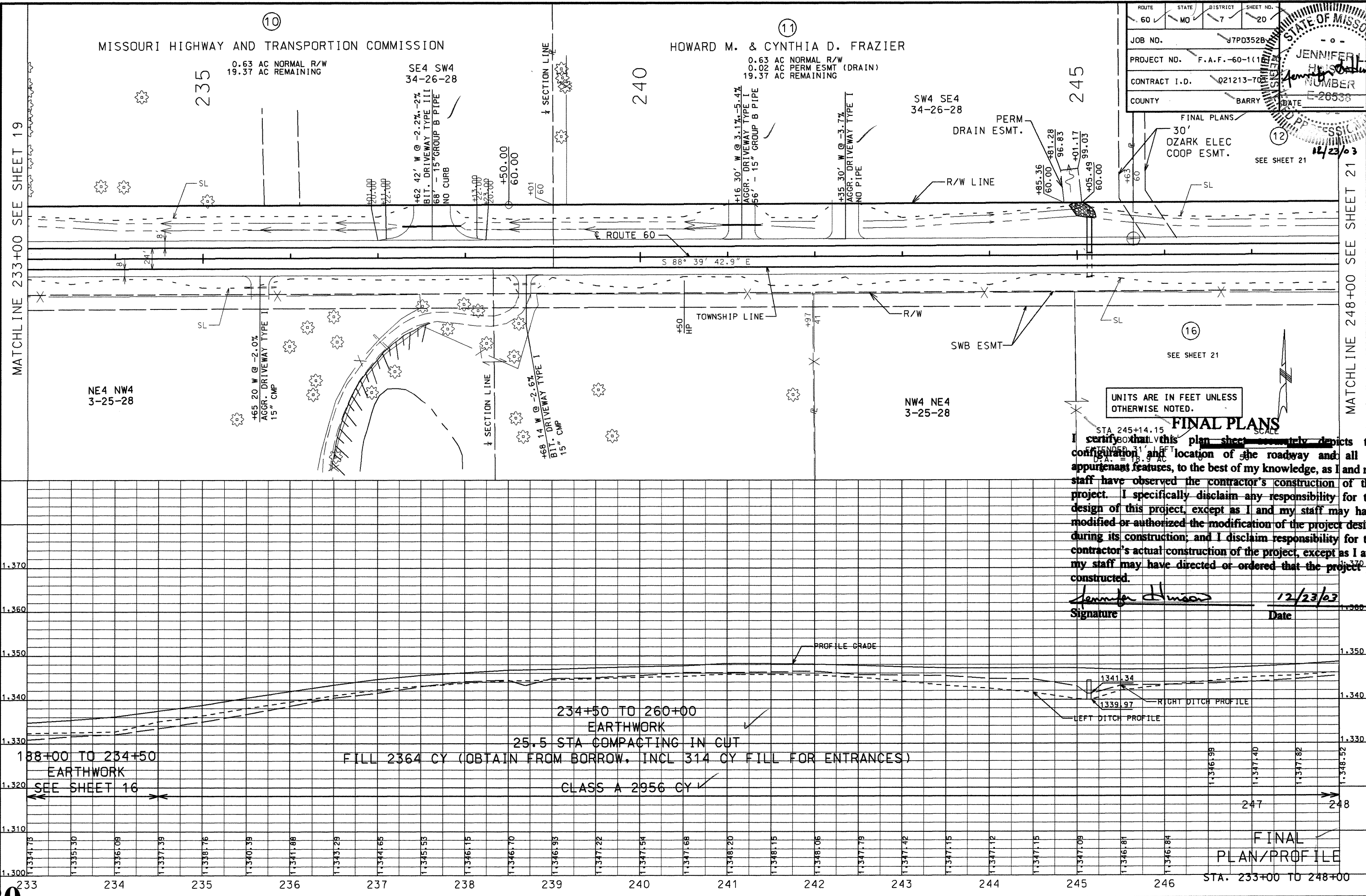
12/23/03
Date

188+00 TO 234+50
EARTHWORK
SEE SHEET 16

FINAL PLAN/PROFILE

STA. 218+00 TO 233+00





ROUTE	60	STATE	MO	DISTRICT	7	SHEET NO.	20
JOB NO.		J7P0352B					
PROJECT NO.		F.A.F.-60-1(1)					
CONTRACT I.D.		Q21213-70					
COUNTY		BARRY					

DATE: 12/23/03

FINAL PLANS

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Signature: *Jennifer Hanson* Date: 12/23/03

MATCHLINE 248+00 SEE SHEET 20

SW4 SE4
34-26-28

12
RONALD BERTALOTTO
1.25 AC NORMAL R/W
0.02 AC PERM ESMT (DRAIN)
119.45 AC REMAINING

SE4 SE4
34-26-28

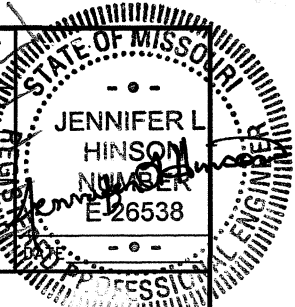
255

+37 20' W @ -5.1% -8.7%
AGGR. DRIVEWAY TYPE I
46' - 15" GROUP B PIPE

PERM
DRAIN ESMT

13
LINDA BERTALOTTO
0.19 AC NORMAL R/W
14.11 AC REMAINING
+83 23' W @ -2.6%
AGGR. DRIVEWAY TYPE I
51' - 18" GROUP B PIPE

ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	21
JOB NO. J7P0352B			
PROJECT NO. F.A.F.-60-1(1)			
CONTRACT I.D. 021213-70			
COUNTY BARRY			



12/23/03

MATCHLINE 261+00 SEE SHEET 22

NW4 NE4
3-25-28

+39 20' W @ 5.2%
BIT. DRIVEWAY TYPE I
15" CMP

+33 20' W @ -0.8%
AGGR. DRIVEWAY TYPE I
NO PIPE

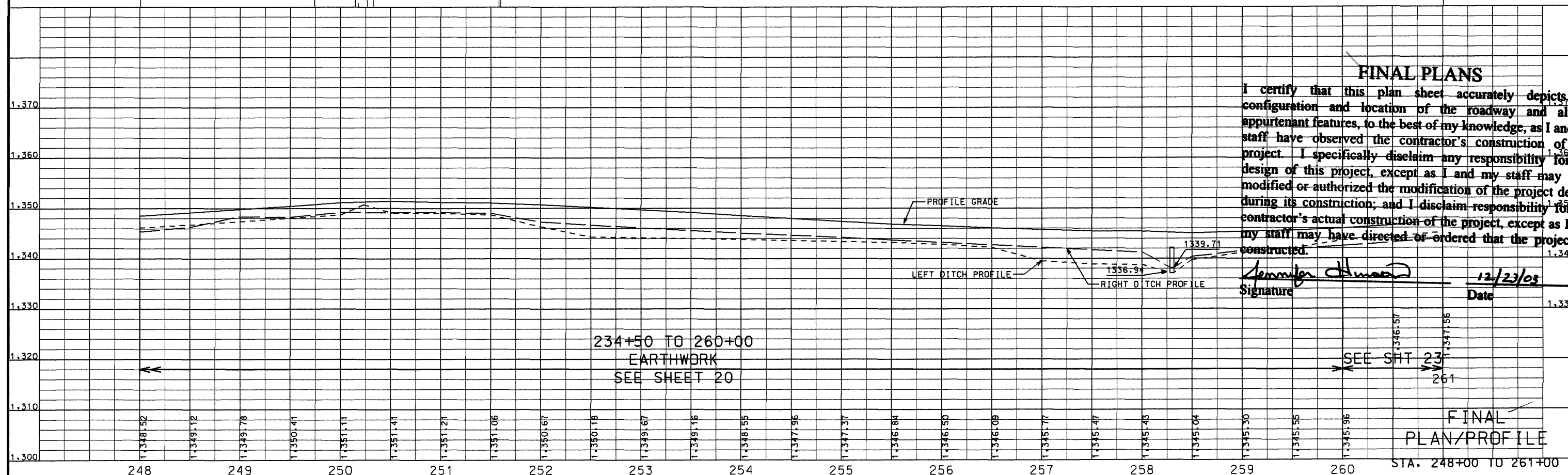
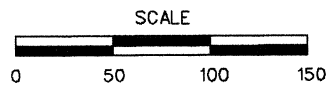
16
JAMES DOUGLAS & TINA JO WORMINGTON
0.04 AC LIMITED ACCESS R/W
* 0.03 AC PERM ESMT (SOUTHWESTERN BELL)
65.36 AC REMAINING

SW BELL
& OZARK ELECTRIC
CD. ESMT

NE4 NE4
3-25-28

STA 258+29.56
EXIST 4'x2.5' BOX CULVERT
EXTEND 32' LT WITH 48" CLASS III RCP
1-48" SAFETY SLOPED END SECTION
1-TYPE C COLLAR
D.A. = 25.1 AC
Q = 46.2 CFS

UNITS ARE IN FEET UNLESS
OTHERWISE NOTED.



FINAL PLANS

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Signature: Jennifer L. Hinson

Date: 12/23/03

FINAL
PLAN/PROFILE

STA. 248+00 TO 261+00

MATCHLINE 261+00 SEE SHEET 21

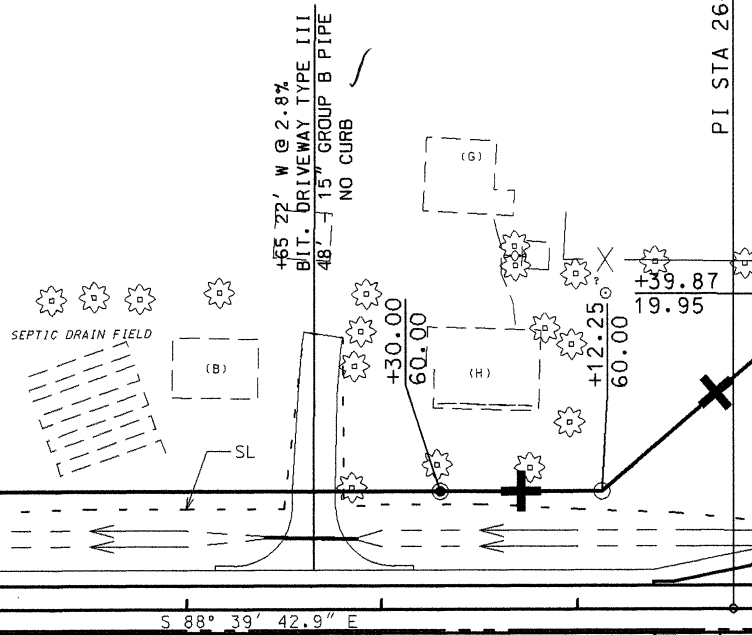
MATCHLINE 276+00 SEE SHEET 24

ROUTE 60
PI 264+79.96
Δ 0° 4' 15.8" (RT)
NO CURVE

SE4 SE4
34-26-28

DOUGLAS G. & LISA C. LAYTON

0.22 AC NORMAL R/W
0.32 AC LIMITED ACCESS R/W
4.36 AC REMAINING

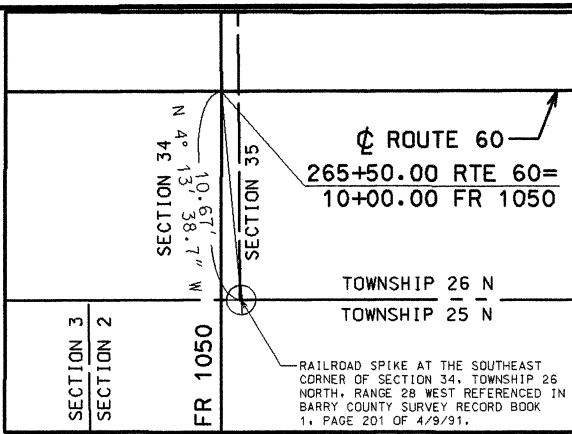


CURVE 1050-1
PI 11+37.34
PC 10+70.00
PT 12+02.28
Δ 26° 27' 20.0" (RT)
R 20° 00' 00.0"
D 132.28'
L 67.34'
T 286.48'

15' PERM. UTIL.
ESMT. (SOUTHWESTERN BELL)

NE4 NE4
3-25-28

SEE SHEET 21



SW4 SW4
35-26-28

KIRK T. WORMINGTON
1.17 AC NORMAL R/W
0.30 AC LIMITED ACCESS R/W
0.04 AC PERM ESMT (DRAIN)
78.53 AC REMAINING

A	265+70.02	167.00
B	265+79.42	129.63
C	267+09.93	40.86
D	267+70.00	40.92
E	265+66.27	178.12
F	265+81.57	182.12
G	265+92.94	138.57
H	267+14.66	55.78
I	266+88.36	55.53

NW4 NW4
2-25-28

UNITS ARE IN FEET UNLESS
OTHERWISE NOTED.

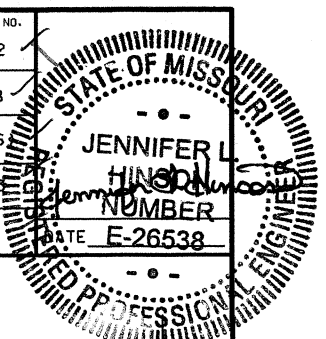
FINAL PLANS

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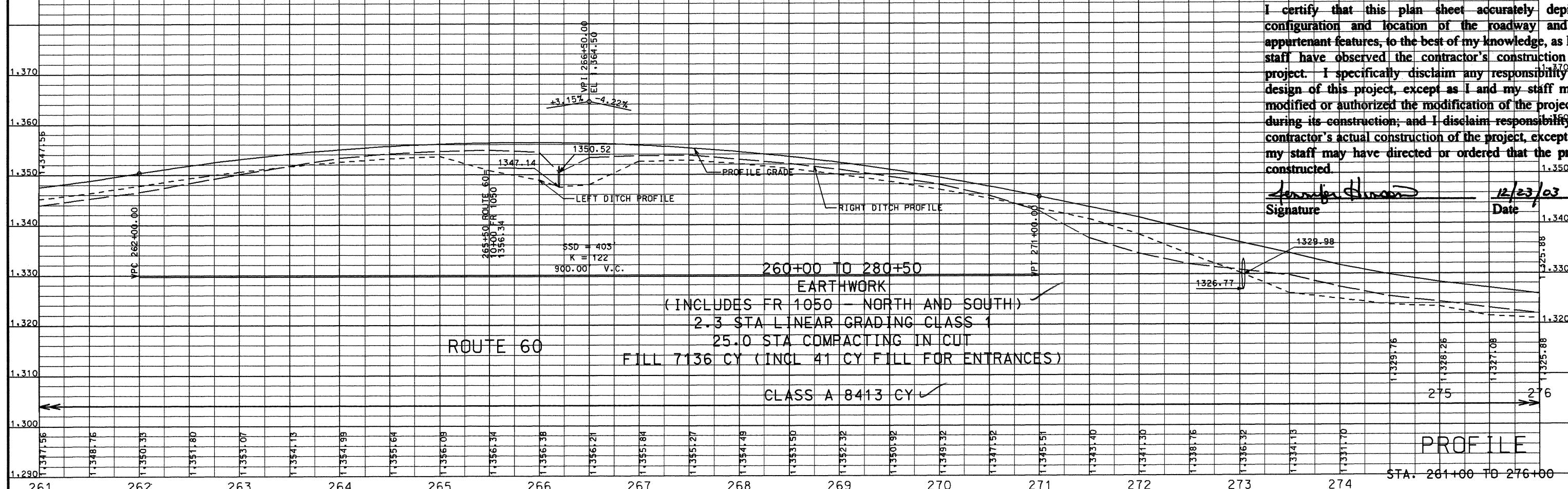
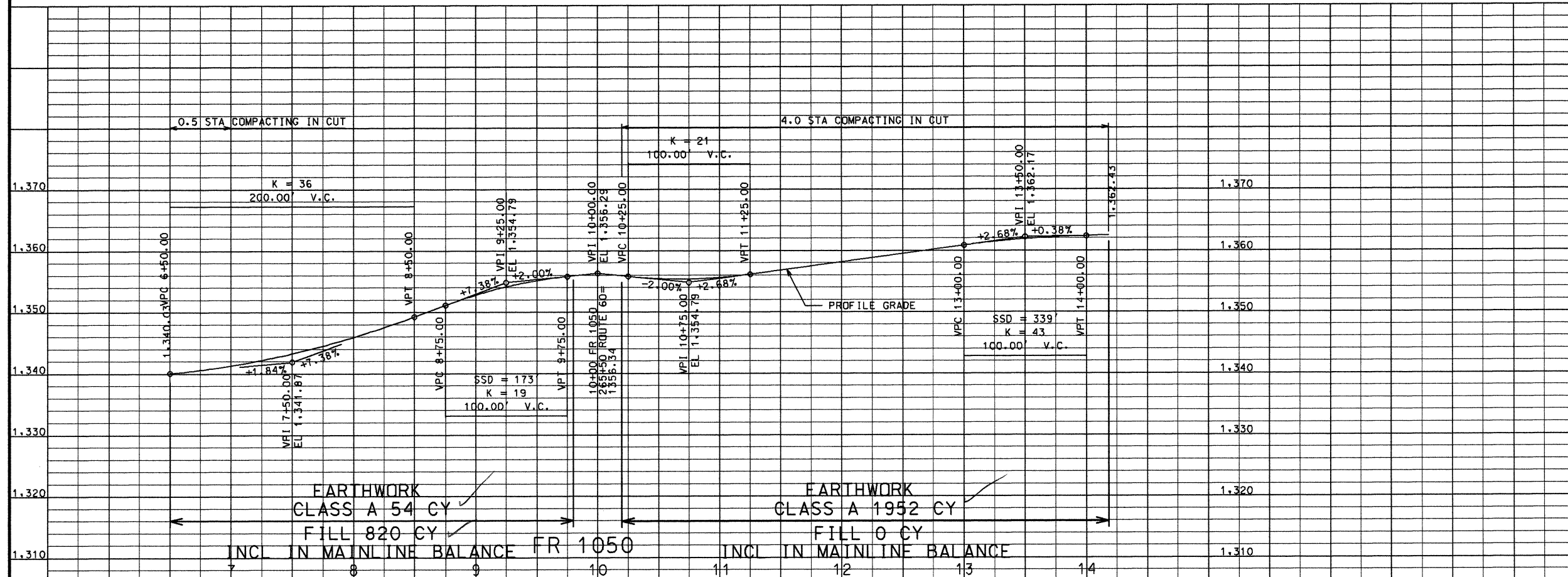
Signature: *Jennifer L. Hinson* Date: 12/23/03
FINAL PLAN
STA. 261+00 TO 276+00

STA 273+03.51
4' x 2' BOX CULVERT
EXTENDED 39' LT W/ 36" CLASS III RCP
SKEW 45° LA
1-36" FLARED END SECTION
1-TYPE C COLLAR
D.A. = 6.1 AC
Q = 13.1 CFS

STA 266+19.83
75' X 24" CLASS III RCP
1-24" SAFETY SLOPED END SECTION
1-24" FLARED END SECTION
D.A. = 11.2 AC
Q = 19.4 CFS



ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	23
JOB NO.		JTP0352B	
PROJECT NO.		F.A.F.-60-1(16)	
CONTRACT I.D.		021213-703	
COUNTY		BARRY	
FINAL PLANS			
STATE OF MISSOURI			
JENNIFER HUNSON			
REGISTERED PROFESSIONAL ENGINEER			
E-26538			
12/23/03			



FINAL PLANS

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Signature: *Jennifer Hunson* Date: 12/23/03

PROFILE

STA. 261+00 TO 276+00

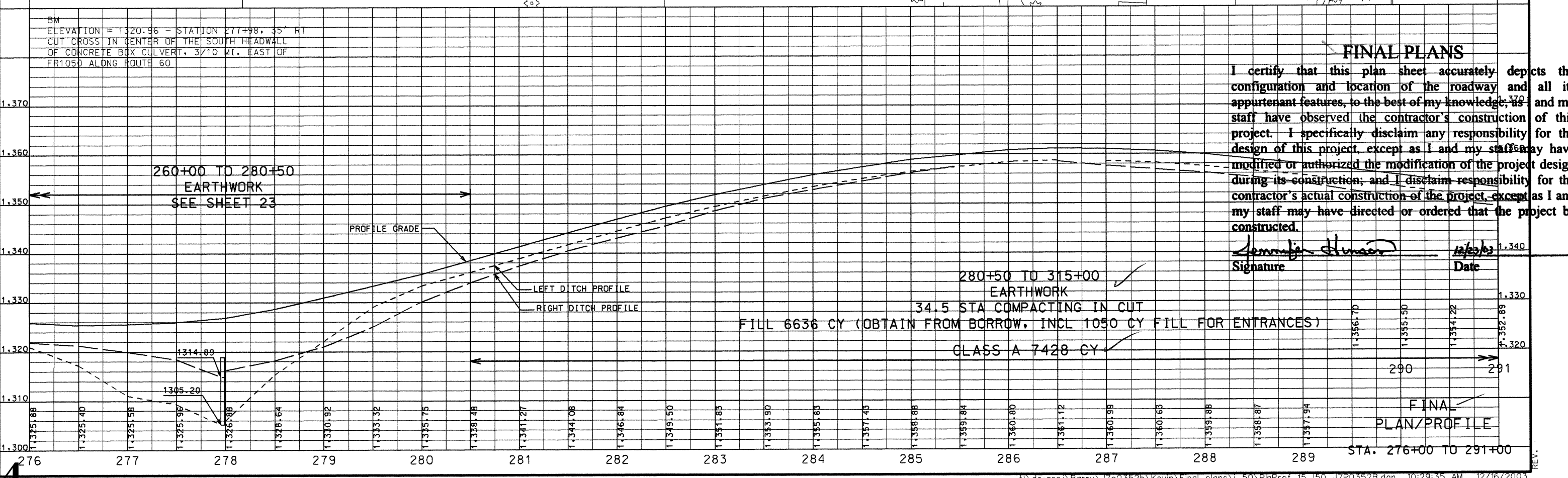
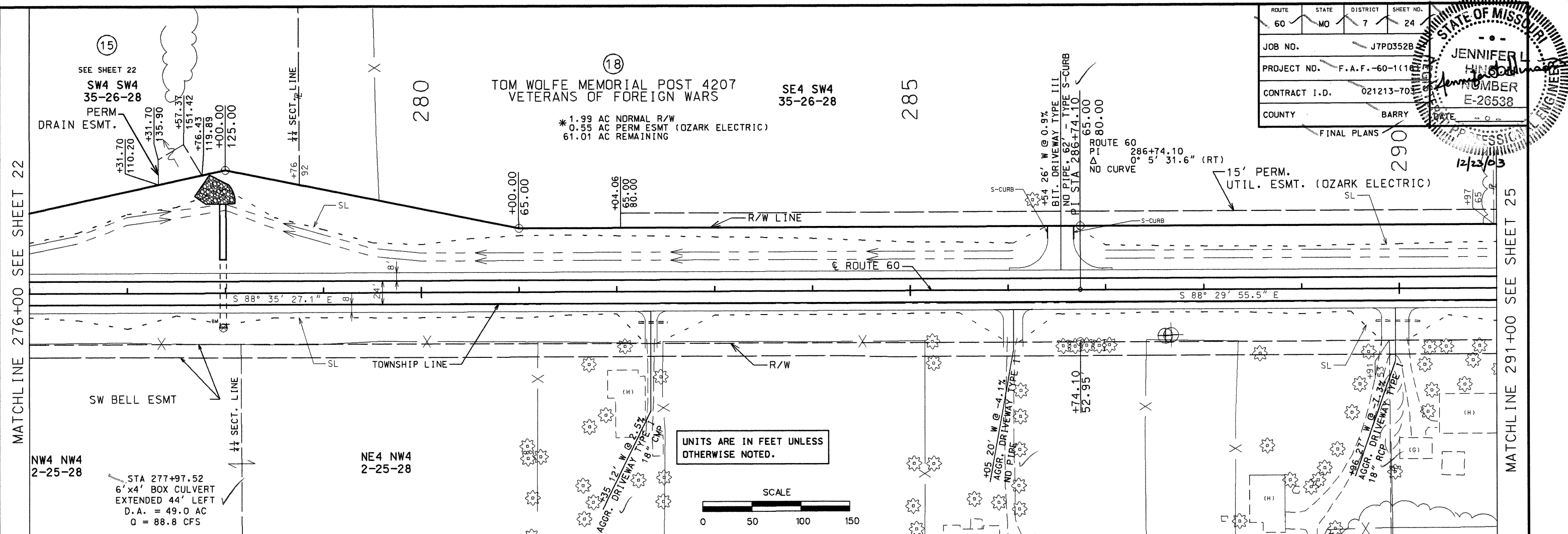
ROUTE	60	STATE	MO	DISTRICT	7	SHEET NO.	24
JOB NO.							J7PD352B
PROJECT NO.							F.A.F.-60-1(18)
CONTRACT I.D.							021213-703
COUNTY							BARRY
DATE							12/23/03

STATE OF MISSOURI

JENNIFER L. HUNTER

PROFESSIONAL ENGINEER

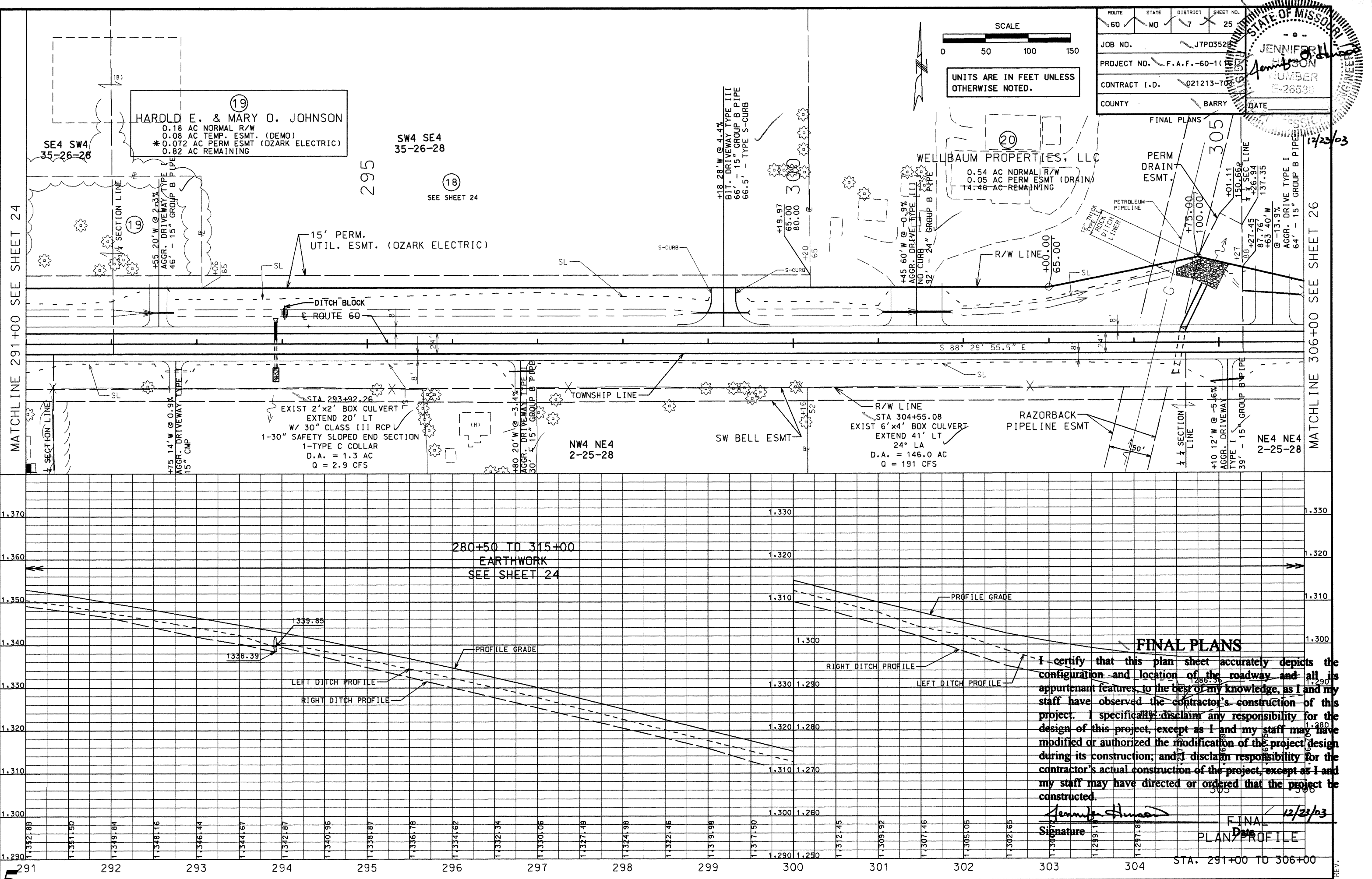
E-26538



FINAL PLANS

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Jennifer L. Hunter 12/23/03
Signature Date



ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	25
JOB NO. J7P03528			
PROJECT NO. F.A.F.-60-11			
CONTRACT I.D. 021213-70			
COUNTY BARRY DATE 12/23/03			

FINAL PLANS

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Signature: Jennifer Johnson Date: 12/23/03

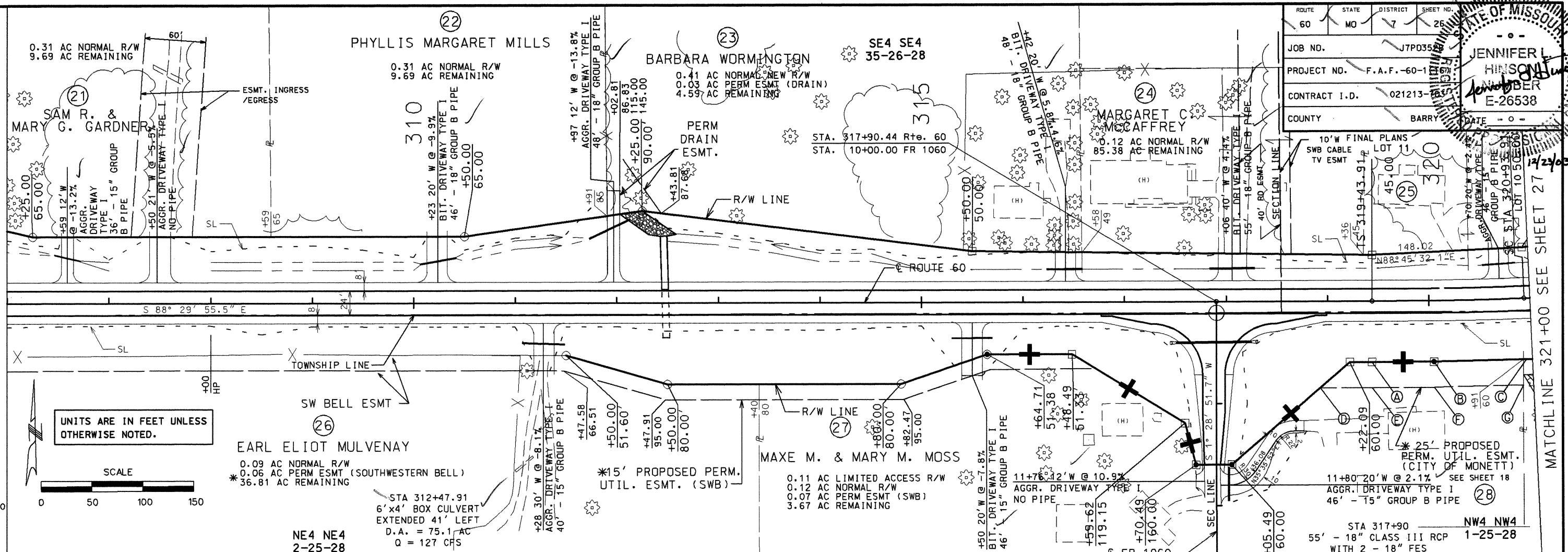
FINAL PLAN/PROFILE

MATCHLINE 306+00 SEE SHEET 25

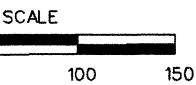
1.360
1.350

1.340
1.330
1.320
1.310
1.300
1.290
1.280
1.270
1.260

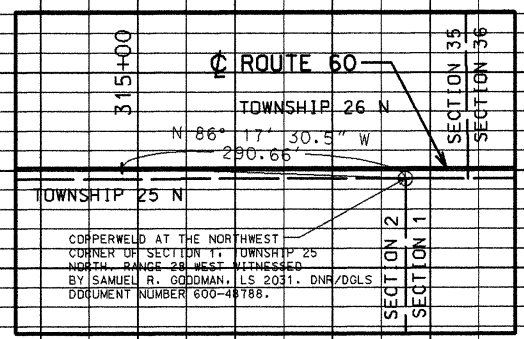
306 307 308 309 310 311 312 313 314 315 316 317 318 319



UNITS ARE IN FEET UNLESS OTHERWISE NOTED.



PT	STATION	OFFSET	FROM/TO	DIST	BEARING
A	319+43.91	60.00	A-B	61.22'	S88°37'57.8"E
B	320+04.71	60.00	B-C	91.33'	S89°46'39.0"E
C	320+33.91	60.00	C-E	51.02'	S88°29'55.0"E
D	318+32.94	65.00	E-F	61.50'	S88°37'58.0"E
E	319+43.94	65.00	E-G	88.26'	S89°46'39.0"E
F	320+04.84	65.00			
G	320+30.26	64.93			



ROUTE 60

280+50 TO 315+00
EARTHWORK
SEE SHEET 24

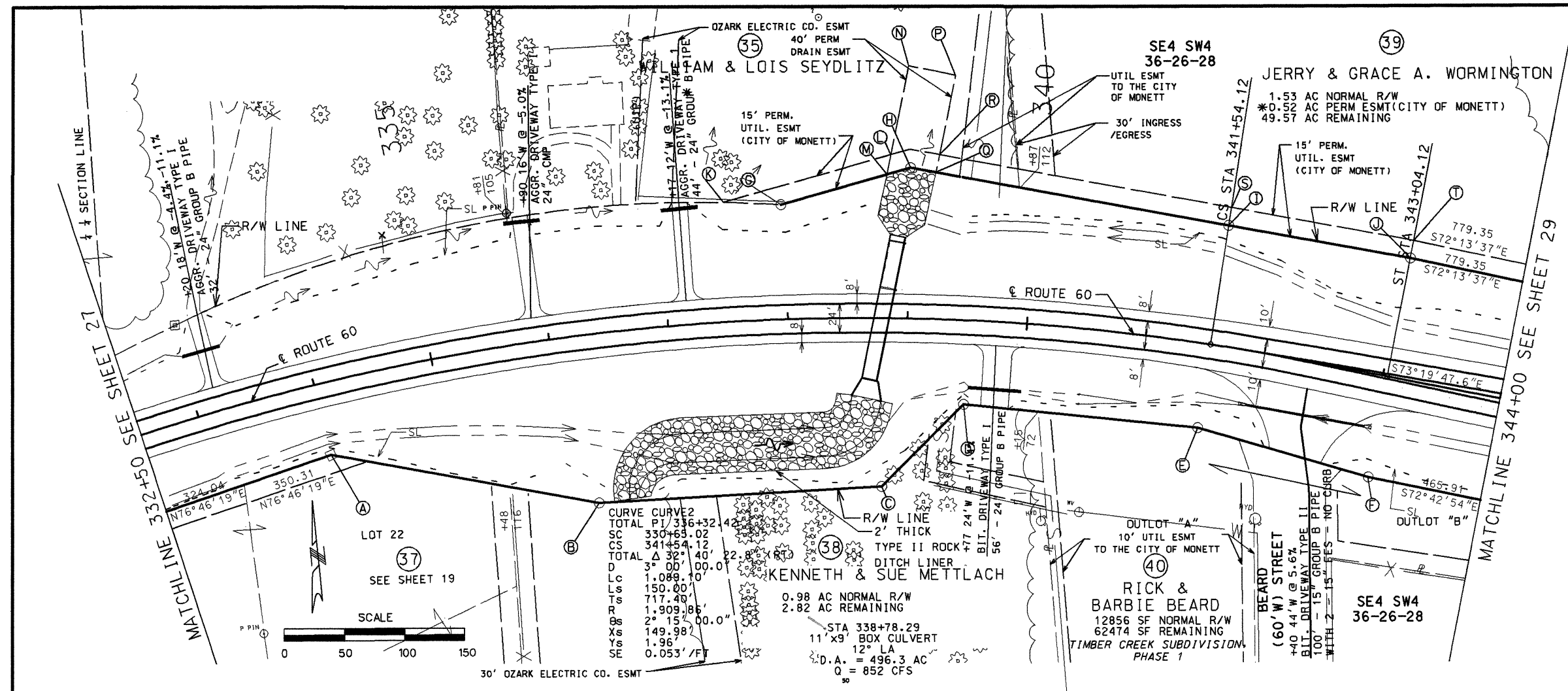
315+00 TO 342+50
EARTHWORK
SEE SHEET 27

FILL 63 CY (INCLUDING 45 CY FOR
EARTHWORK INCL IN MAINLINE GRADE
1.4 STA COMPACTING IN CUT)

I certify that this plan sheet accurately depicts the configuration and location of the roadway and all its appurtenant features, to the best of my knowledge, as I and my staff have observed the contractor's construction of this project. I specifically disclaim any responsibility for the design of this project, except as I and my staff may have modified or authorized the modification of the project design during its construction, and I disclaim responsibility for the contractor's actual construction of the project, except as I and my staff may have directed or ordered that the project be constructed.

Signature: Jennifer L. Hinson
Date: 12/23/03
FINAL PLAN/PROFILE

STA. 306+00 TO 321+00



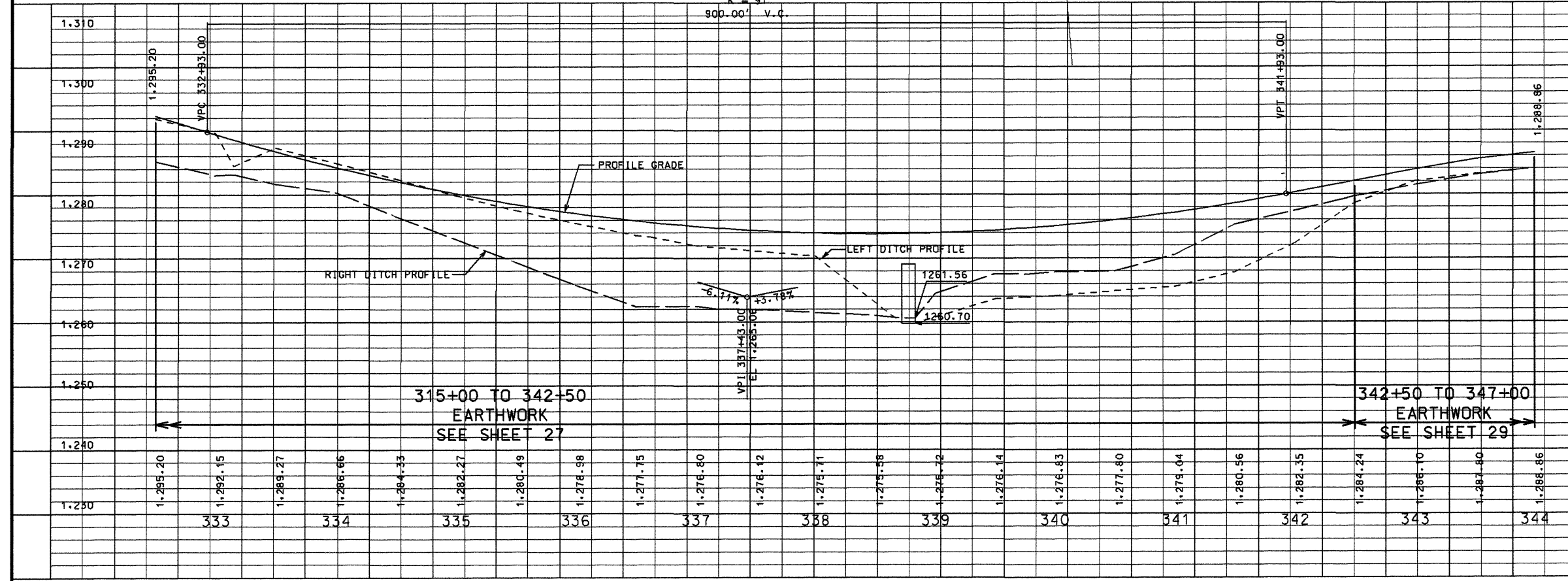
ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	28
JOB NO.		J7P0352B	
PROJECT NO.		F.A.F.-60-1(16)	
CONTRACT I.D.		021213-703	
COUNTY		BARRY	

FINAL PLANS

STATE OF MISSOURI
JENNIFER L. HINSON
REGISTERED PROFESSIONAL ENGINEER
E-26538
12/23/03

UNITS ARE IN FEET UNLESS OTHERWISE NOTED.

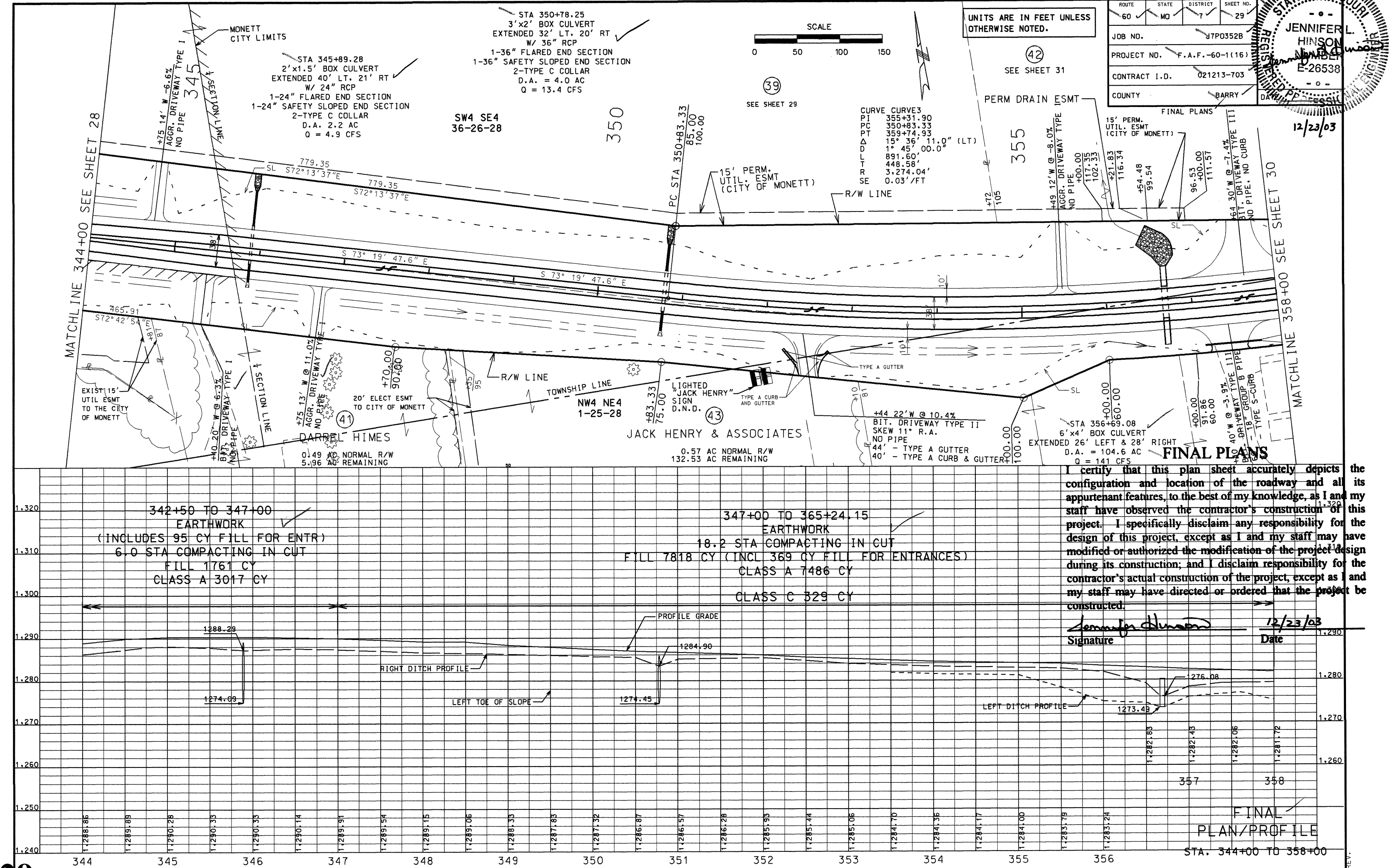
PT	STATION	OFFSET	FROM/TO	DIST	BEARING
A	334+00.00	60.00	A-B	227.57	S74°17'03"E
B	336+25.00	140.00	B-C	236.13	S87°37'42"E
C	338+80.00	140.00	C-D	96.30	N50°37'51"E
D	339+50.00	70.00	D-E	196.54	S78°38'30"E
E	341+54.12	70.00	E-F	147.81	S68°14'56"E
F	343+04.12	85.00			
G	337+97.19	95.00	G-H	112.78	N79°50'00"E
H	339+00.00	125.00	H-I	270.04	S74°05'29"E
I	341+54.12	100.00	I-J	153.92	S74°05'22"E
J	343+04.12	100.00			
K	337+51.81	99.22	K-L	145.23	N79°49'43"E
L	338+84.29	135.63			
M	338+81.36	119.06	M-N	92.20	N16°58'17"E
N	338+96.83	209.73	N-P	40.00	S73°01'43"E
P	339+32.41	202.96	P-Q	82.36	S16°58'17"W
Q	339+20.03	121.70			
R	339+22.36	136.49	R-S	248.19	S74°05'29"E
S	341+54.49	114.99	S-T	154.16	S74°05'22"E
T	343+04.16	114.99			



FINAL PLANS

I certify that this plan sheet accurately depicts the configuration and location of the roadway and all its appurtenant features, to the best of my knowledge, as I and my staff have observed the contractor's construction of this project. I specifically disclaim any responsibility for the design of this project, except as I and my staff may have modified or authorized the modification of the project design during its construction; and I disclaim responsibility for the contractor's actual construction of the project, except as I and my staff may have directed or ordered that the project be constructed.

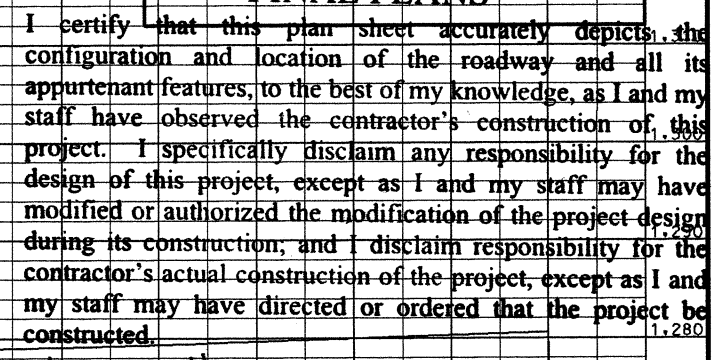
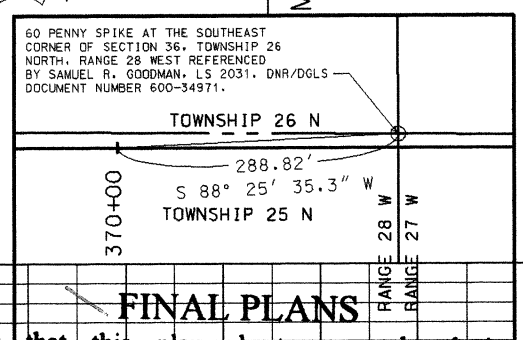
Signature: *Jennifer L. Hinson* Date: 12/23/03



ET NO. _____
30 _____
25 _____
20 _____
15 _____
10 _____
5 _____
Y _____
DATE _____

STATE OF MISSOURI
JENNIFER L. HANSEN
MISSOURI
JENNIFER L. HANSEN
MISSOURI

REV.



12/23/03
Date

FINAL
PLAN/PROFILE

STA. 358+00 TO 372+00

UNITS ARE IN FEET UNLESS OTHERWISE NOTED.

FINAL PLANS ✓

12/23/03

+56 35' W @ -2.5%
B11. OVERLAY
DRIVEWAY TYPE III
15" CMP
12' - TYPE S-CURB

MATCHLINE 387+00 SEE SHEET 32

NW4 NW4
6-25-27

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Signature

12/23/03
Date

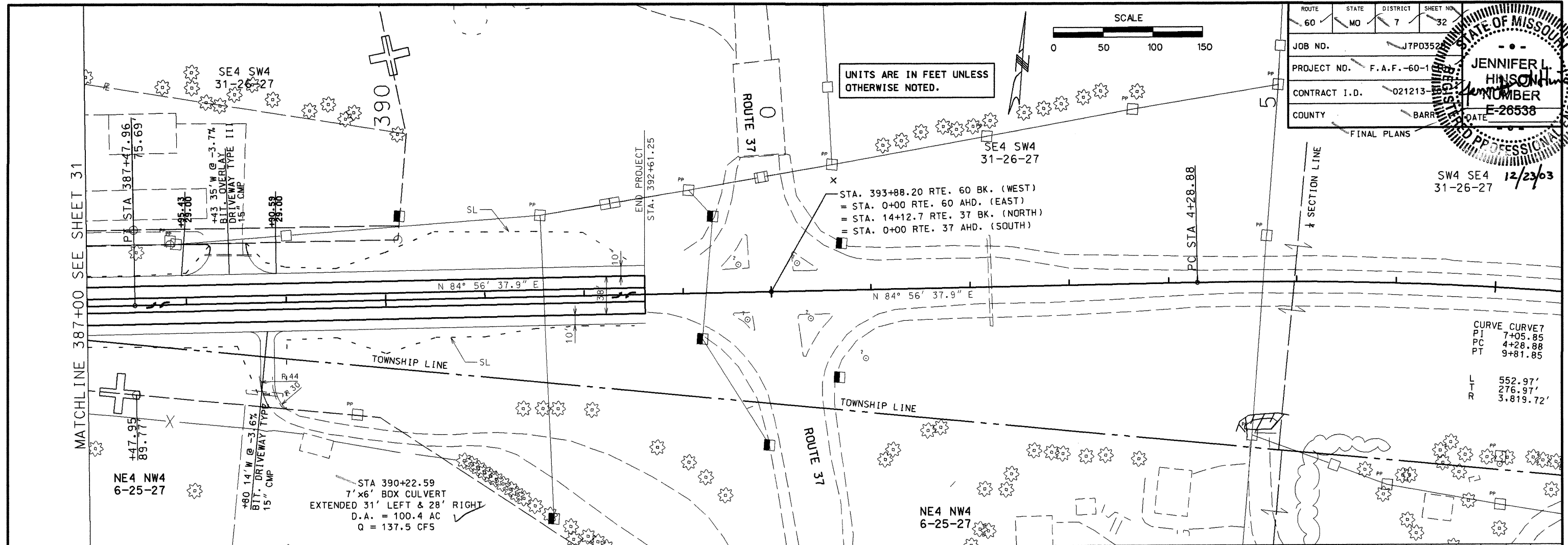
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PROJECT EXCEPTION

FINAL /
PLAN/PROFILE

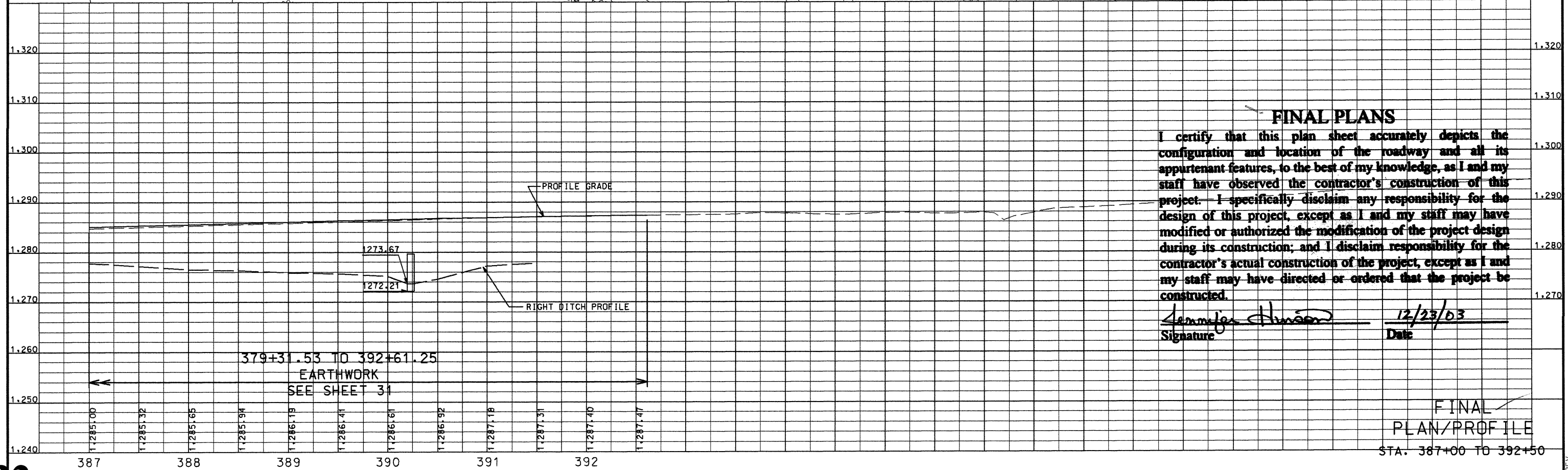
STA. 372+00 TO 387+00

t:\de-proj\Barry\J7\p0352b\Kevin\Final_plans\i_50\PinProf_22_150_J7\p0352B.dgn 10:32:55 AM 12/16/2003



ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	32
JOB NO. J7P0352			
PROJECT NO. F.A.F.-60-1			
CONTRACT I.D. 021213			
COUNTY BARR			
DATE 12/23/03			
FINAL PLANS			

STATE OF MISSOURI
JENNIFER L. HINSON
REGISTERED PROFESSIONAL ENGINEER
E-26538

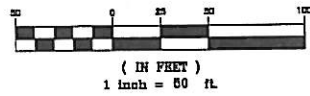


FINAL PLANS

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Signature: Jennifer L. Hinson Date: 12/23/03

FINAL
PLAN/PROFILE
STA. 387+00 TO 392+50



(IN FEET)
1 inch = 60 ft

NOTE:
ALL STATIONS AND OFFSETS ALONG HWY 60
ARE TAKEN FROM THE PROJECT BASELINE AND NOT
FROM THE NEW ROADWAY CENTERLINE
BEARINGS ARE BASED ON THE EAST LINE OF THE SOUTHEAST
QUARTER OF SEC. 36 ASSUMED TO BE N00°00'00"E

NOTE:
UTILITIES OWNERSHIPS
SEE SHEET 7

LAND SURVEY MONUMENT -
FOUND NAIL @ SW COR SEC 31, T26N, R27W - 1.04' LT OF STA. 372+88.35
WITNESSED BY JAMES E. MICHEL L.S. #2000147887

G & H CONCRETE
BK. 99, PG. 8852
0.05 AC. NEW R/W
16.50 AC. REMAIN
0.25 AC. PERM ES'MT

TOMMY J. & JUDY C. ALLCOCK
BK. 414, PG. 2649
1.90 AC. REMAIN

JUMP HOLDING, L.L.C.
(BK 99 PG 5209)
0.12 AC. NEW R/W
1.28 AC. REMAIN

EISENHOWER ROAD
P.I. = 74+32.63
Δ = 310°32' LT.
T = 50.00
L = 99.97
R = 1803.84

ROMAN CATHOLIC DIOCESE OF
SPRINGFIELD - CAPE GIREADEAU
(BK 343 PG 120)
SEE SHEET #4

375+31 CL NEW
2 - 3' H X 7' W
PRECAST R.C.B.
STRAIGHT WINGS LT
D.A. ~ 148.2 AC
Q₅₀ ~ 474.5 CFS

KEVIN M. & MELANIE A. KEELING
BK. 96, PG. 7476
0.04 AC. NEW R/W
1.10 AC. REMAIN

SCOTT & JULIE BECKWITH &
CHARLIE & MICHELE LOCHER
BK. 99, PG. 7306
SEE SHEET #4

C.E. & LUGENE ATWELL
BK. 265, PG. 190, &
BK. 286, PG. 140
1.11 AC. NEW R/W
12.96 AC. REMAIN

BEGIN PROJECT STA. 365+75
FEDERAL IMPROVEMENT BEGINS AT A POINT
APPROX. N89°59'09"W, 788.53' OF THE
S.E. CORNER OF SEC. 36, T26N, R26W

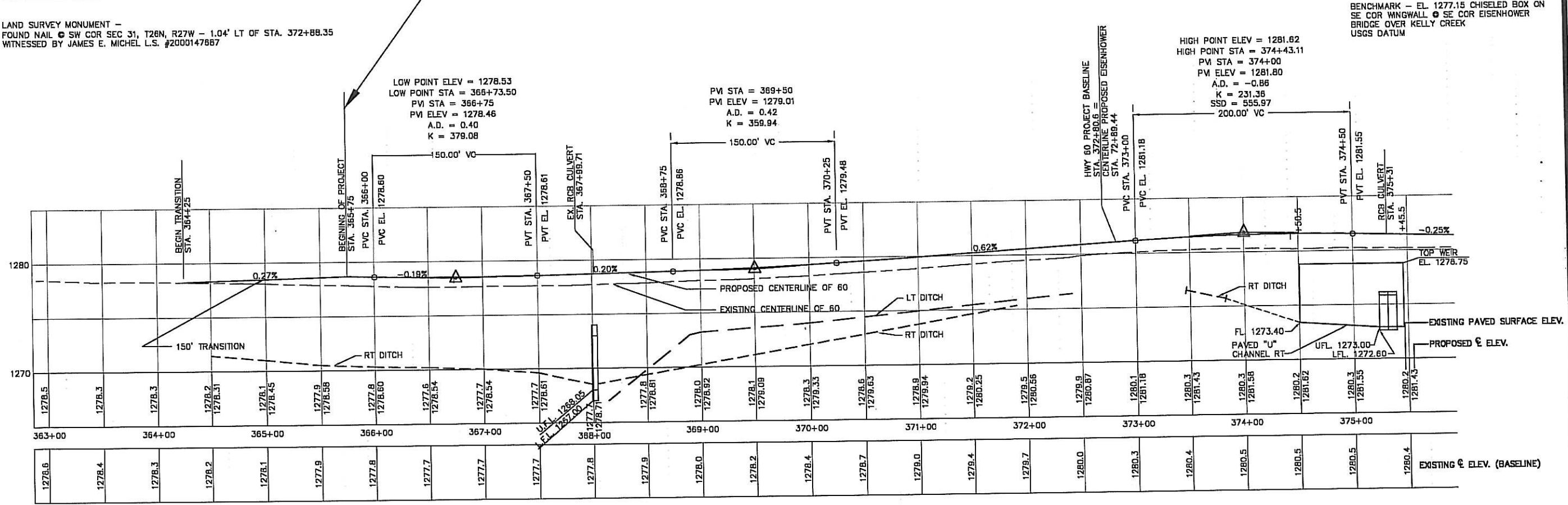
NE 1/4, NE 1/4
SEC. 36
T26N, R26W

BENCHMARK - EL. 1277.15 CHISELED BOX ON
SE COR WINGWALL @ SE COR EISENHOWER
BRIDGE OVER KELLY CREEK
USGS DATUM

LOW POINT ELEV = 1278.53
LOW POINT STA = 366+73.50
PVI STA = 366+75
PVI ELEV = 1278.46
A.D. = 0.40
K = 379.08

PVI STA = 369+50
PVI ELEV = 1279.01
A.D. = 0.42
K = 359.94

HIGH POINT ELEV = 1281.82
HIGH POINT STA = 374+43.11
PVI STA = 374+00
PVI ELEV = 1281.80
A.D. = -0.86
K = 231.38
SSD = 555.97
200.00' VC



DATE	9/14/00
SYN. FILE	132420
SYN. FILE	JM.RW.KS
SYN. FILE	RLH
SYN. FILE	KRS
SYN. FILE	KRS
SYN. FILE	9/14/00
SYN. FILE	1"=50'
SYN. FILE	3
SYN. FILE	OF

DRAWING TITLE	PLAN/PROFILE - U.S. HWY. 60
PROJECT DESCRIPTION	EISENHOWER/60 HWY. D.E.D. IMPROV. (CDBG #99-ED-1B)
CLIENT	MoDOT and the CITY OF MONETT
PROJECT LOCATION	MONETT, BARRY Co., MISSOURI
DRAW. FILE LOC. & NAME	
SYN. FILE LOC. & NAME	

NO.	REVISION DESCRIPTION	DATE
1	EASEMENT STATIONS	01/25/01

Sprengle & Associates, Inc.
Consulting Engineers & Land Surveyors

Joplin Office
1531 E. 32nd, Suite 10
Sunnyvale Center
Joplin, MO 64804
Ph. 417-782-8761
Fax 417-782-8761
info@sprengle.com

Kevin R. Sprengle, P.E.
Monett, MO 65708
Ph. 417-236-0112
Fax 417-236-0112
info@sprengle.com

SAI

KEVIN M. & MELANIE J. KEELING
BK. 96, PG. 7476
SEE SHEET #3

ROMAN CATHOLIC DIOCESE OF
SPRINGFIELD - CAPE GIREADEAU
(BK 343 PG 120)
0.30 AC. NEW R/W
6.12 AC. REMAIN
0.24 AC. PERM ES'MT

KEVIN M. & MELANIE J. KEELING
BK. 96, PG. 7476
1.12 AC. REMAIN

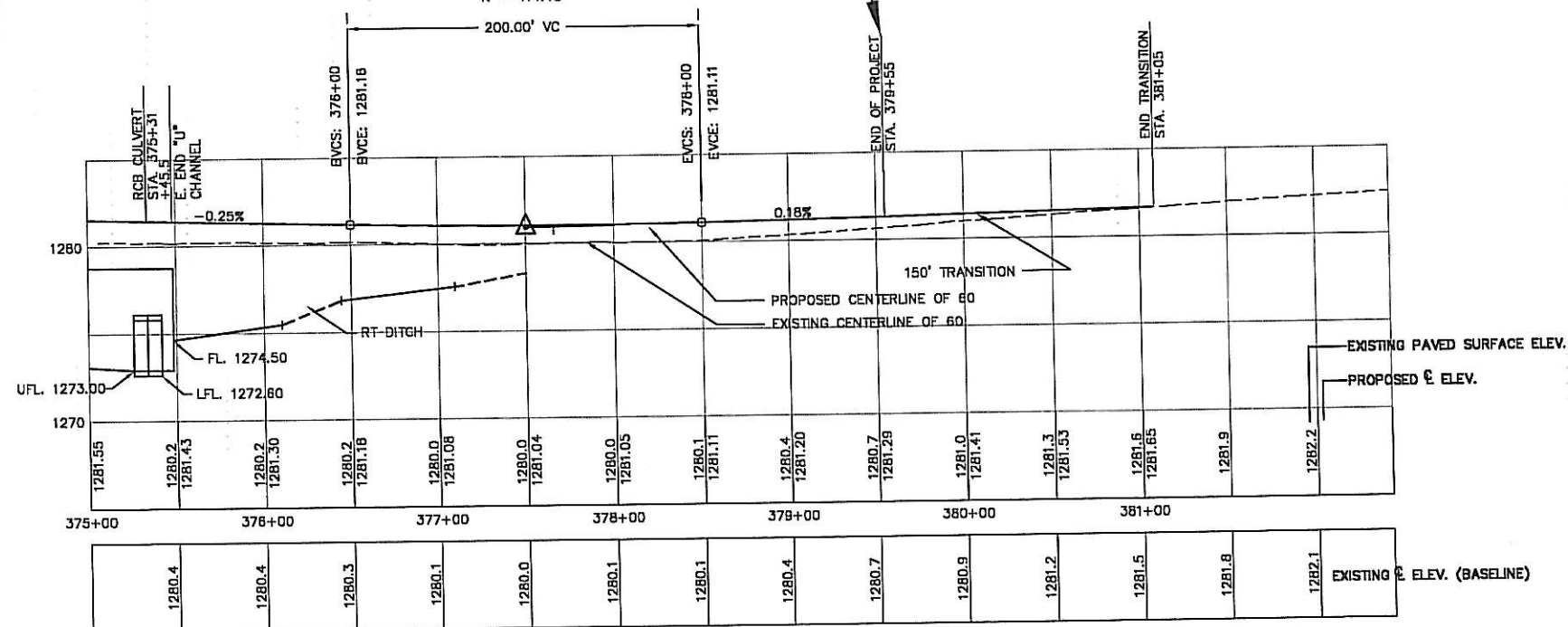
SCOTT & JULIE BECKWITH &
CHARLIE & MICHELE LOCKER
BK. 99, PG. 7306
2.04 AC. REMAIN

NOTE:
ALL STATIONS AND OFFSETS ALONG HWY 60
ARE TAKEN FROM THE PROJECT BASELINE AND NOT
FROM THE NEW ROADWAY CENTERLINE
BEARINGS ARE BASED ON THE EAST LINE OF THE SOUTHEAST
QUARTER OF SEC. 36 ASSUMED TO BE N00°00'00"E

LAND SURVEY MONUMENT -
FOUND NAIL @ SW COR SEC 31, T26N, R27W - 1.04' LT OF STA. 372+88.35
WITNESSED BY JAMES E. MICHEL L.S. #2000147887

LOW POINT ELEV = 1281.04
LOW POINT STA = 377+15.92
PVI STA = 377+00
PVI ELEV = 1280.93
A.D. = 0.42
K = 471.40

BENCHMARK - EL. 1277.15 CHISELED BOX ON
SE COR WINGWALL @ SE COR EISENHOWER
BRIDGE OVER KELLY CREEK
USGS DATUM.



PLOTTED:	9/15/00
SVY. CL.:	132420
SVY.:	JM.RW.KC
CHKD.:	KRS
DATE:	5/1/00
SCALE:	1"=50'
FW:	4
OF:	0

DRAWING TITLE:	PLAN/PROFILE - U.S. HWY. 60
PROJECT DESCRIPTION:	EISENHOWER/60 HWY. D.E.D. IMPROV. (CDBG #99-ED-18)
CLIENT:	MoDOT and the CITY OF MONETT
PROJECT LOCATION:	MONETT, BARRY Co., MISSOURI
DWG. FILE LOC. & NAME:	
SVY. FILE LOC. & NAME:	

NO.	REVISION DESCRIPTION	DATE

Sprengle & Associates, Inc.
Consulting Engineers & Land Surveyors
P.O. Box 286
508 Bond Street
Monett, MO 65708
Ph. 417-236-0112
Fax 417-236-0113
Info@sprengle.com
Kevin R. Sprengle, P.E.
Jason Eckhart, P.E.
Jim Michel, R.L.S.

SAI

ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	33
JOB NO.		J7P0352B	
PROJECT NO.		F.A.F.-60-1(16)	
CONTRACT I.D.		021213-703	
COUNTY		BARRY	
FINAL PLANS			

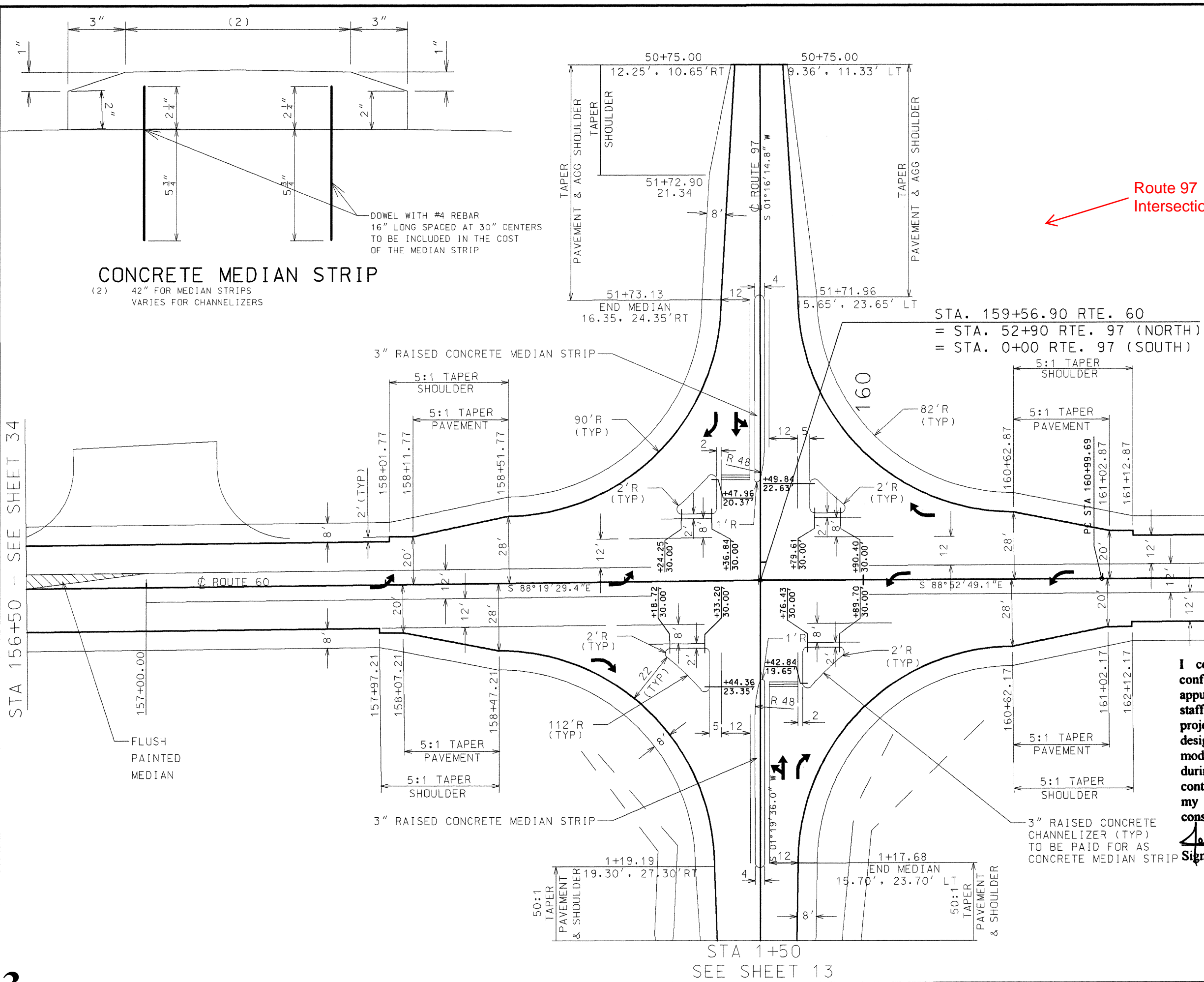
STATE OF MISSOURI

JENNIFER HINSON

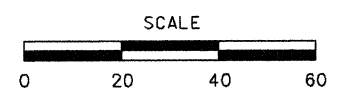
REGISTERED PROFESSIONAL ENGINEER

E-26538

12/23/03



Route 97
Intersection



FINAL PLANS

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Signature: *Jennifer Hinson* Date: 12/23/03

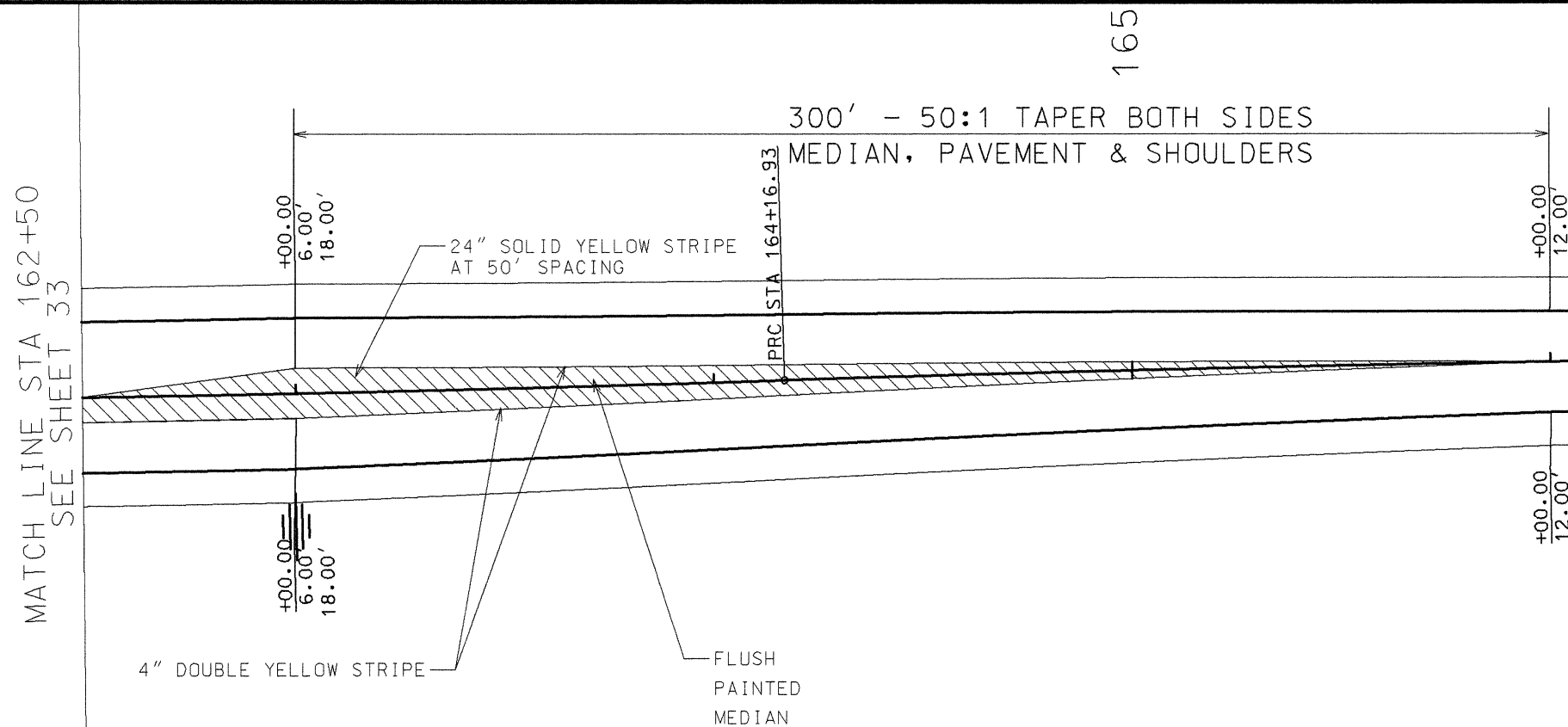
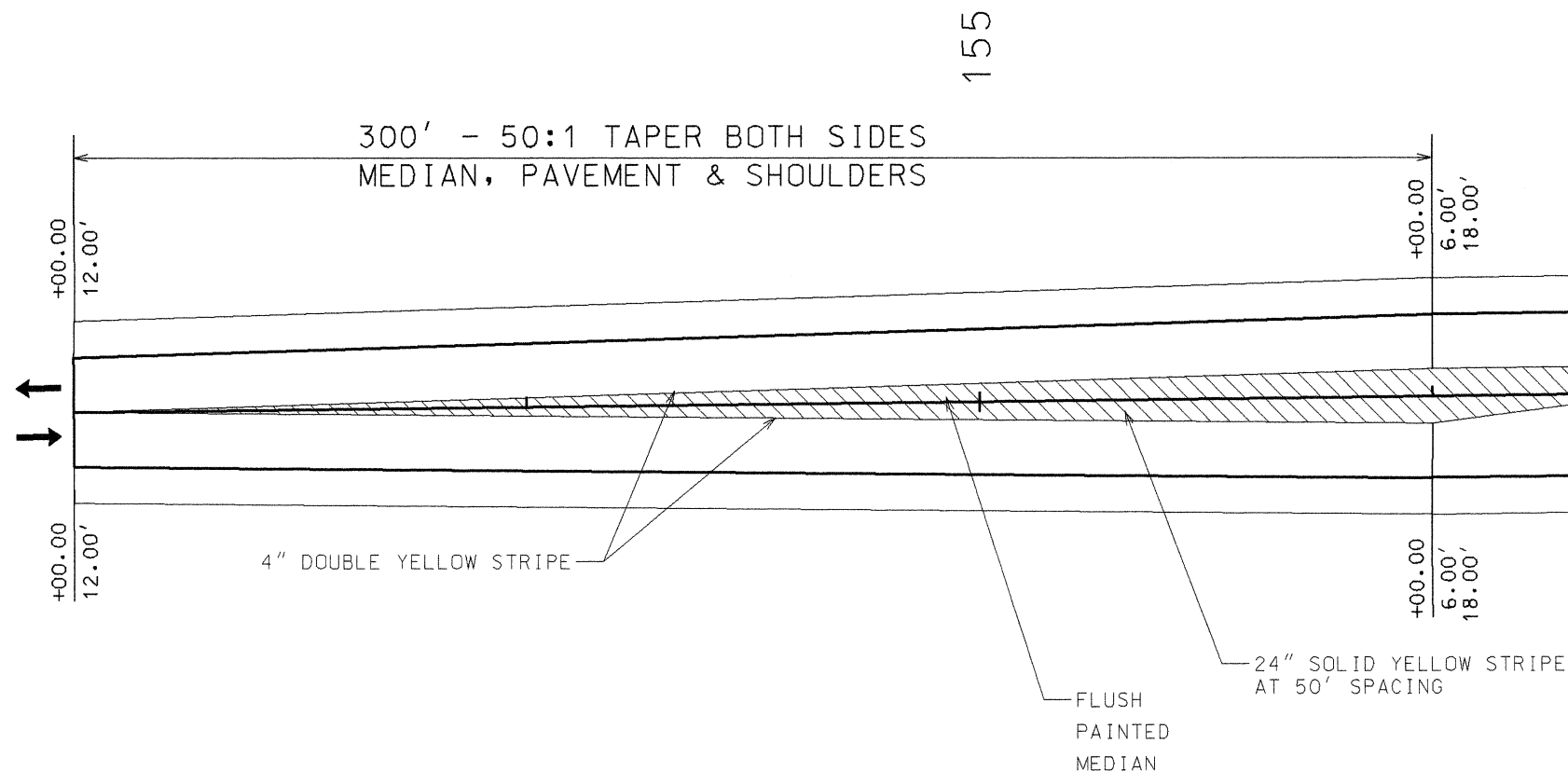
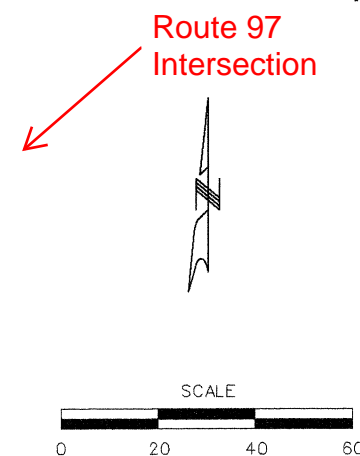
INTERSECTION
DETAIL FOR 60/97

SHEET 1 OF 2

ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	34
JOB NO. J7P0352B			
PROJECT NO. F.A.F.-60-1(1)			
CONTRACT I.D. 021213-70			
COUNTY BARRY			

FINAL PLANS

STATE OF MISSOURI
JENNIFER L. HINSON
REGISTERED PROFESSIONAL ENGINEER
NUMBER E-26538
DATE 12/23/03

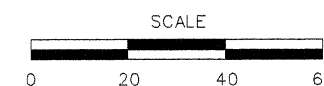


Route 97 Intersection

FINAL PLANS

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Signature *Jennifer L. Hinson* Date 12/23/03



INTERSECTION
DETAIL FOR 60/97

SHEET 2 OF 2

ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	35
JOB NO.		J7P0352B	
PROJECT NO.		F.A.F.-60-1(1)	
CONTRACT I.D.		021213-70	
COUNTY		BARRY	
FINAL PLANS			

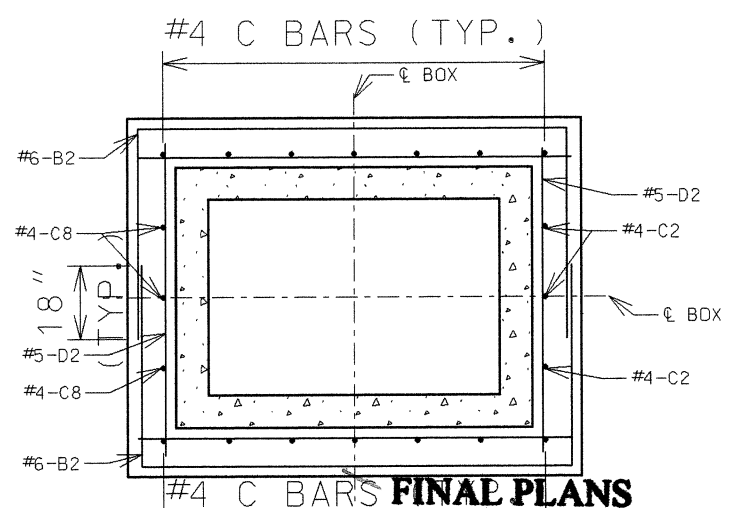
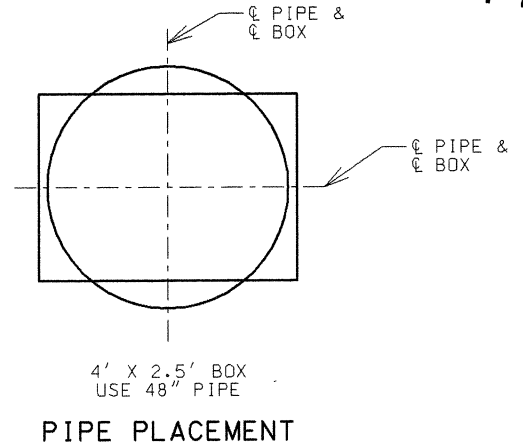
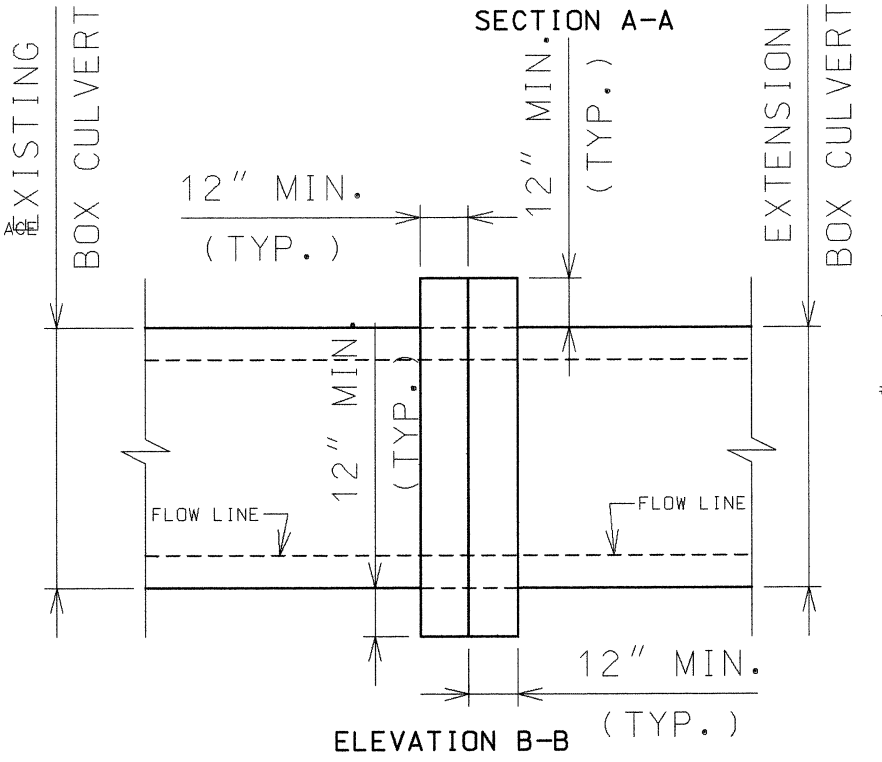
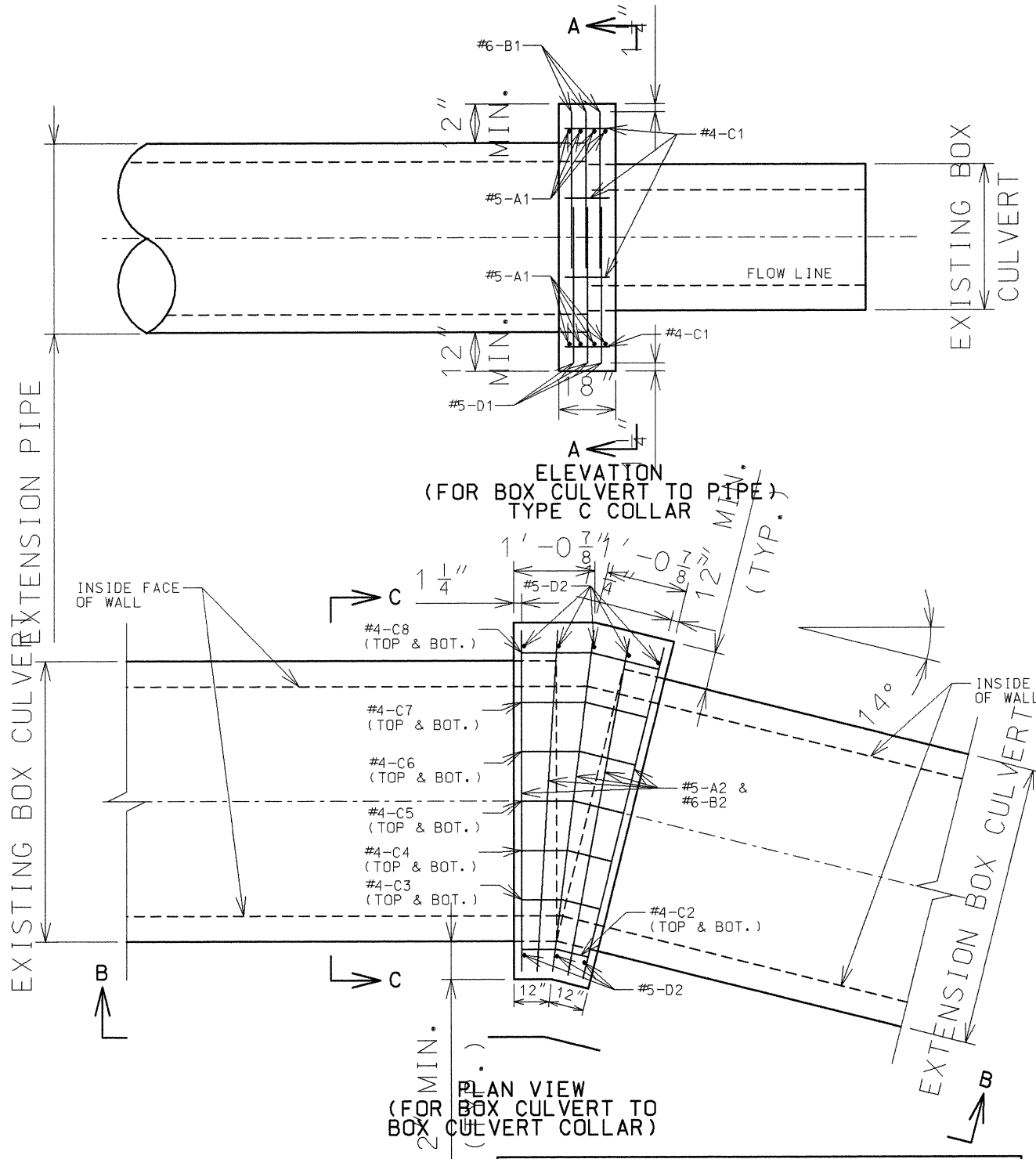
STATE OF MISSOURI

JENNIFER L. HINSON

REGISTERED PROFESSIONAL ENGINEER

E-26538

12/23/03



BILL OF REINFORCING STEEL				
NO.	SIZE & MARK	ACTUAL LENGTH	SHAPE	BENDING DIAGRAM
8	5 A1	6'-7"	20	
6	6 B1	14'-5"	10	
12	4 C1	1'-2"	20	
6	5 D1	6'-7"	20	
10	5 A2	9'-1"	20	
10	6 B2	17'-5"	10	
8	5 D2	7'-1"	20	

NOTE: ALL DIMENSIONS IN BENDING DIAGRAM ARE OUT TO OUT.

BILL OF REINFORCING STEEL								
NO.	SIZE & MARK	ACTUAL LENGTH	SHAPE	C	D	H	K	BENDING DIAGRAM
5	4 C2	1'-9"	14	10.625"	10.625"	2.625"	10.375"	
2	4 C3	2'-1"	14	12.625"	12.625"	3.000"	12.250"	
2	4 C4	2'-5"	14	14.500"	14.500"	3.500"	14.000"	
2	4 C5	2'-9"	14	16.375"	16.375"	4.000"	15.875"	
2	4 C6	3'-0"	14	18.250"	18.250"	4.375"	17.750"	
2	4 C7	3'-4"	14	20.125"	20.125"	4.875"	19.625"	
5	4 C8	3'-8"	14	22.125"	22.125"	5.375"	20.125"	

NOTE: ALL DIMENSIONS IN BENDING DIAGRAM ARE OUT TO OUT.

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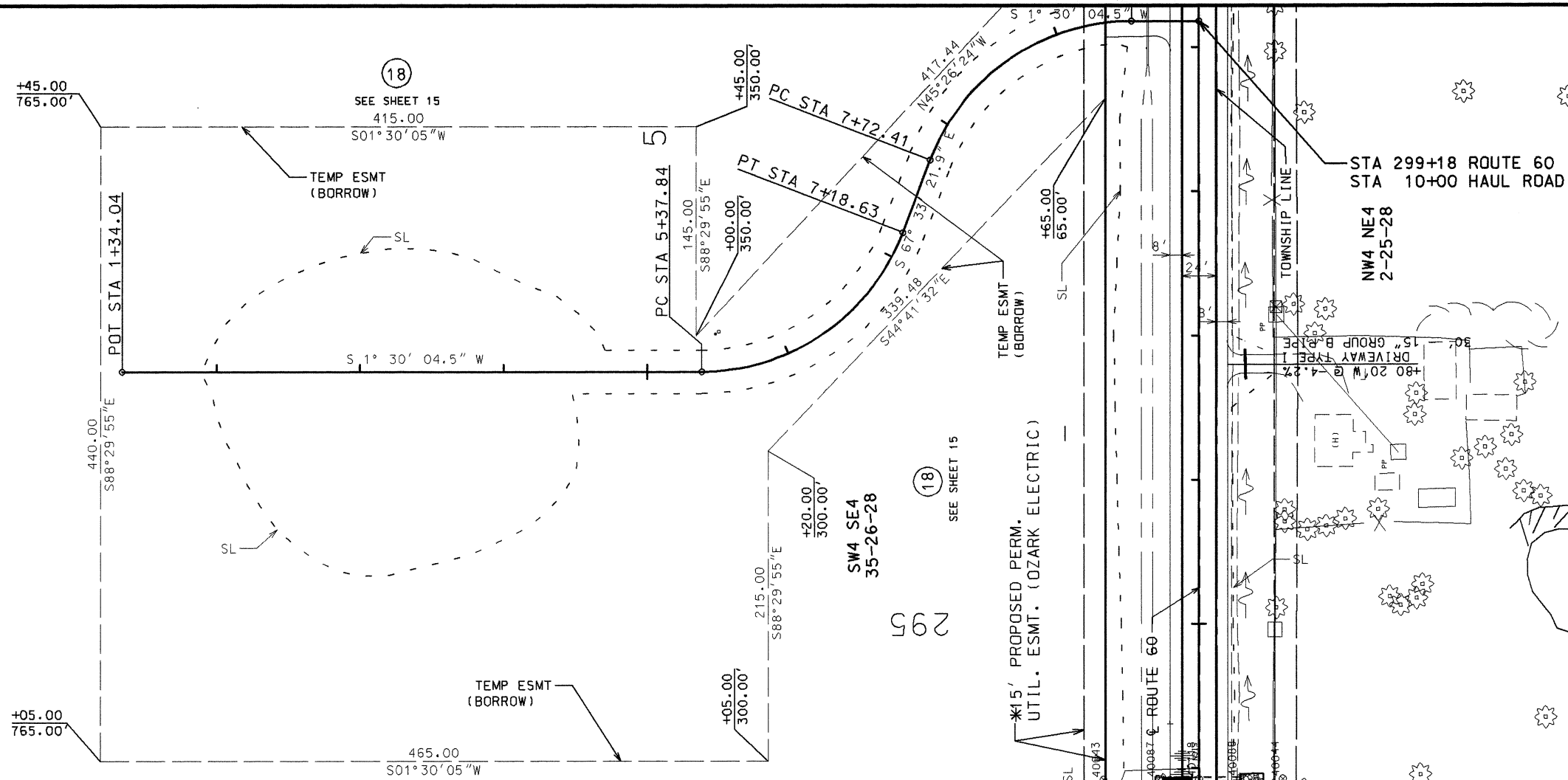
Signature: *Jennifer L. Hinson* Date: 12/23/03

SPECIAL TYPE C
PIPE COLLARS

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

CURVE HAUL_1
PI 6+41.04
PC 5+37.84
PT 7+18.63
Δ 69° 03' 26.5" (LT)
D 38° 11' 49.9"
L 180.79'
T 103.20'
R 150.00'

CURVE HAUL_2
PI 8+75.61
PC 7+72.41
PT 9+53.20
Δ 69° 03' 26.5" (RT)
D 38° 11' 49.9"
L 180.79'
T 103.20'
R 150.00'



ROUTE 60 STATE MO DISTRICT 7 SHEET NO. 36

JOB NO. J7P0352B

PROJECT NO. F.A.F.-60-1(16)

CONTRACT I.D. 021213-703

COUNTY BARRY

FINAL PLANS

STATE OF MISSOURI

JENNIFER E. HINSON

REGISTERED PROFESSIONAL ENGINEER

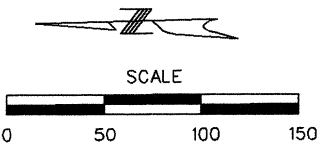
NO. 12/15/2003

E-26538

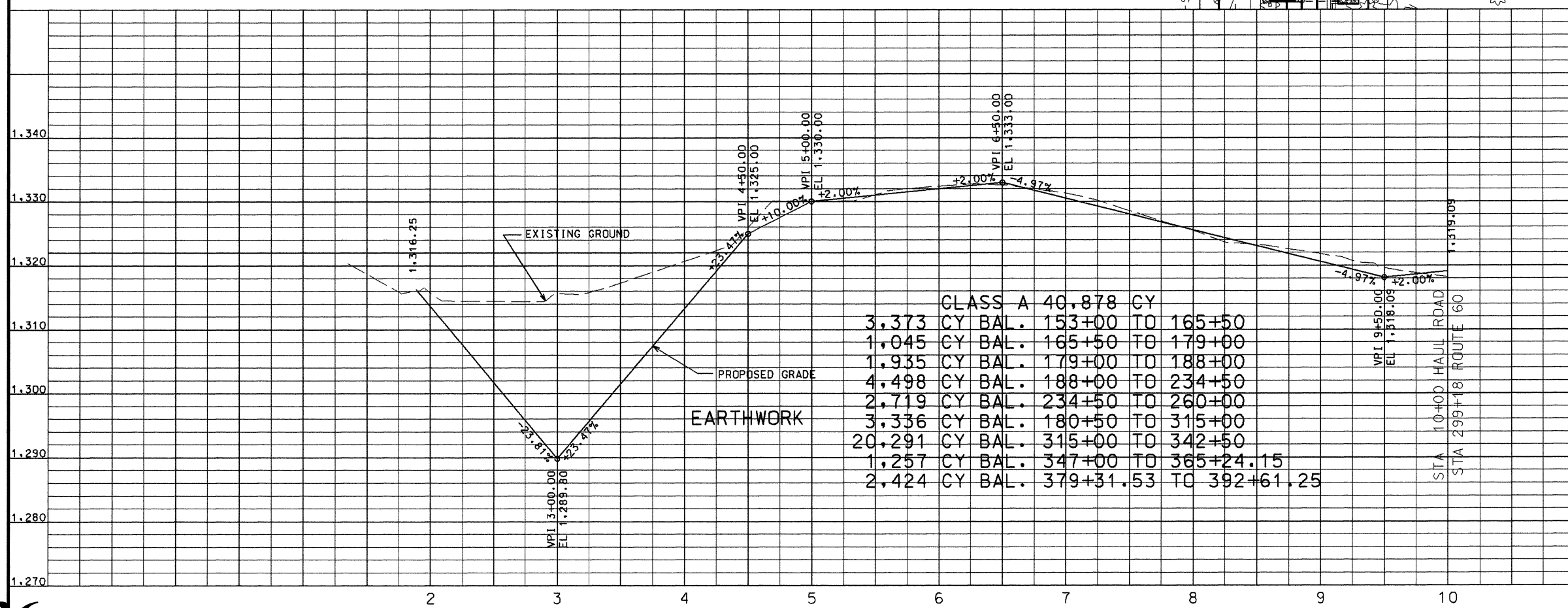
12/23/03

UTILITIES HAVE BEEN LOCATED BY THE ENGINEER FROM AVAILABLE RECORDS. THEIR LOCATIONS SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR HAS THE RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION, TO HAVE EXISTING UTILITIES FIELD LOCATED.

UNITS ARE IN FEET UNLESS OTHERWISE NOTED.



* UTILITY EASEMENTS SHOWN ARE PROPOSED: EASEMENTS ARE TO BE ASSESSED/ACQUIRED BY UTILITY COMPANY.



CLASS A	40.878	CY
3.373	CY BAL.	153+00 TO 165+50
1.045	CY BAL.	165+50 TO 179+00
1.935	CY BAL.	179+00 TO 188+00
4.498	CY BAL.	188+00 TO 234+50
2.719	CY BAL.	234+50 TO 260+00
3.336	CY BAL.	180+50 TO 315+00
20.291	CY BAL.	315+00 TO 342+50
1.257	CY BAL.	347+00 TO 365+24.15
2.424	CY BAL.	379+31.53 TO 392+61.25

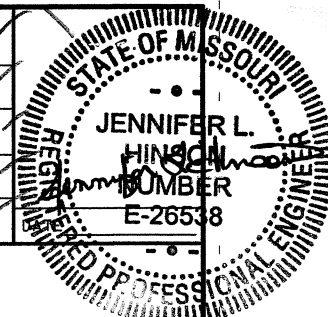
FINAL PLANS

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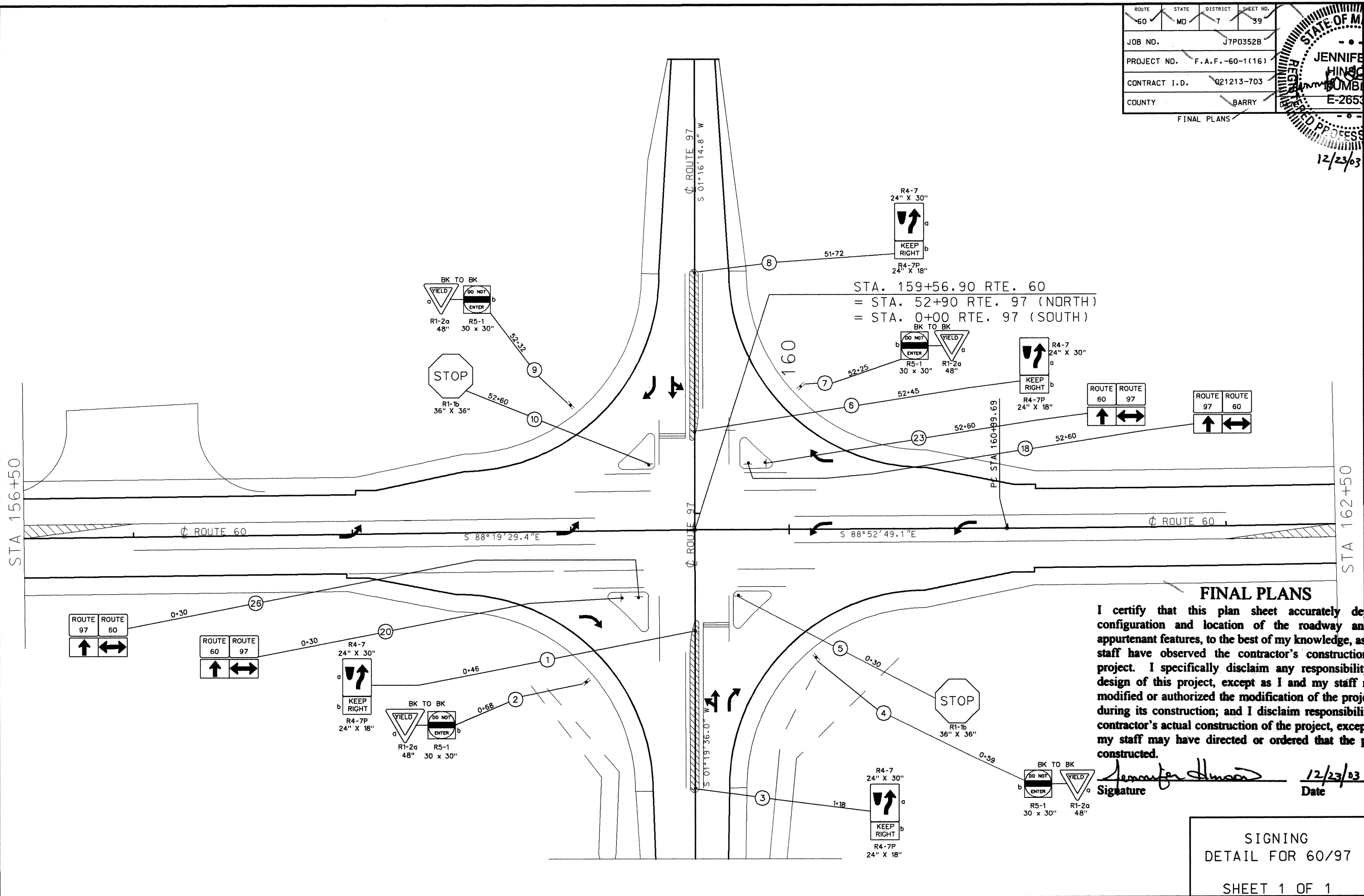
Signature: Jennifer E. Hinson Date: 12/23/03

SPECIAL SHEET
BORROW SITE
PLAN/PROFILE

ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	39
JOB NO. J7P0352B			
PROJECT NO. F.A.F.-60-1(16)			
CONTRACT I.D. Q21213-703			
COUNTY BARRY			
FINAL PLANS			



12/23/03



FINAL PLANS

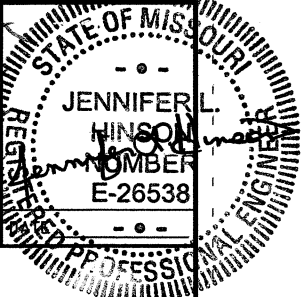
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Signature Jennifer L. Hinson Date 12/23/03

SIGNING
DETAIL FOR 60/97

SHEET 1 OF 1

ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	40
JOB NO.		J7P0352B	
PROJECT NO.		F.A.F.-60-1(16)	
CONTRACT I.D.		021213-703	
COUNTY		BARRY	
FINAL PLANS.			



12/23/03

SIGNS				PIPE POST				WOOD POSTS		BREAKAWAY ASSEMBLY	CONC FTG'S EMBD	REMARKS
SIGN NO.	STATION	LOCATION	SIGN SIZE	PIPE SIZE	POST NO. 1	LBS PER FT	TOTAL ITEM NO. 903-12.20	4"X4" ITEM NO. 903-12.60	4"X6" ITEM NO. 903-12.61	ITEM NO. 903-12.40	ITEM NO. 903-10.10	
				IN.	LIN FT		LBS	LIN FT	LIN FT	EACH	CU YDS	
1	0+46	E RTE 97	24"x30"	2 1/2	14.29	5.79	83			1	0.10	
2	0+68	49.82' RT-RTE 97	48"x48"	4	17.46	10.79	188			1	0.36	
3	1+18	E RTE 97	24"x30"	2 1/2	14.29	5.79	83			1	0.10	
6	0+59	55.44' LT-RTE 97	48"x48"	4	16.62	10.79	179			1	0.36	
5	0+30	19.87' LT-RTE 97	36"x36"	2 1/2	13.12	5.79	76			1	0.10	
6	52+45	E RTE 97	24"x30"	2 1/2	14.29	5.79	83			1	0.10	
7	52+25	48.56' RT- RTE 97	48"x48"	4	17.12	10.79	185			1	0.36	
8	51+72	E RTE 97	24"x30"	2 1/2	14.29	5.79	83			1	0.10	
9	52+32	55.45' LT-RTE 97	48"x48"	4	16.87	10.79	182			1	0.36	
10	52+60	21.15' RT-RTE 97	36"x36"	2 1/2	13.12	5.79	76			1	0.10	
12	155+99	LT	9					16				SPEED LIMIT 60
13	157+64	LT	6					16				ROUTE 60 MARKER - WEST
17	51+86	LT	6					16				ROUTE 97 MARKER - NORTH
18	52+60	N. E. ISLAND @ RTE 60/97	2 1/2	13.54	5.79	78				1	0.10	ROUTE 60 MARKER - RIGHT/LEFT ARROW
20	0+30	S. W. ISLAND @ RTE 60/97	2 1/2	13.54	5.79	78				1	0.10	ROUTE 97 MARKER - STRAIGHT ARROW
21	2+21	RT	6					16				ROUTE 97 MARKER - SOUTH
23	52+60	N. E. ISLAND @ RTE 60/97	2 1/2	13.54	5.79	78				1	0.10	ROUTE 60 MARKER - STRAIGHT ARROW
26	0+30	S. W. ISLAND @ RTE 60/97	2 1/2	13.54	5.79	78				1	0.10	ROUTE 97 MARKER - RIGHT/LEFT ARROW
---	162+50	RT	9					15				ROUTE 60 MARKER - EAST
29	165+25	RT	9					15				SPEED LIMIT 60
30	163+33	LT	18						16			DESTINATIONS
30	163+33	LT	18						17			DESTINATIONS
33	165+28	LT	12					16				MONETT MUNICIPAL AIRPORT
33	165+28	LT	12					16				MONETT MUNICIPAL AIRPORT
34	171+95	LT	7					15				JCT - ROUTE 97 MARKER
35	176+91	LT	16					16				CROSS ROAD
---	208+00	RT	16					16				CROSS ROAD
40	212+34	LT	6					16				STOP @ FR 1040
---	212+60	RT	6					15				STOP @ FR 1040
---	216+00	LT	16					17				CROSS ROAD
54	260+08	RT	9					18				CROSS ROAD
55	261+71	LT	4					15				ROUTE 60 MARKER
57	9+70	RT	6					14				STOP @ FR 1050
60	10+68	LT	9					15				STOP @ FR 1050
63	266+50	LT	9					17				CROSS ROAD
70	307+29	LT	6					14				STOP @ SUBDIVISION ENTRANCE
---	314+00	RT	9					17				SIDE ROAD
72	314+06	LT	9					17				SPEED LIMIT 60
76	10+57	LT	9					15				STOP @ FR 1060
79	319+23	LT	12					17				DESTINATIONS
79	319+23	LT	12					18				DESTINATIONS
80	323+01	LT	6					14				STOP @ W. CRESTWOOD DR.
82	323+84	LT	9					16				SIDE ROAD
84	326+84	LT	6					14				STOP @ E. CRESTWOOD DR
86	329+23	RT	6					15				STOP @ APPLE BLOSSOM LANE
87	330+77	LT	11						17			CURVE RIGHT - SPEED ADVISORY
88	331+24	RT	15						18			CURVE RIGHT - SPEED ADVISORY
---	342+40	RT	6					15				STOP @ BEARD ST.
101	344+44	RT	14						18			SPEED LIMIT 45 - CITY LIMIT MONETT
103	347+16	RT	9					16				SIDE ROAD
105	348+51	LT	15						19			CURVE LEFT - SPEED ADVISORY
---	352+72	RT	6					15				STOP @ JACK HENRY
112	357+92	LT	9					17				SIDE ROAD
113	361+80	RT	9					16				SPEED LIMIT 45
116	380+28	RT	8					16				\$1000 FINE FOR LITTERING
116	380+28	RT	8					16				\$1000 FINE FOR LITTERING
118	384+52	RT	1					16				JCT - ROUTE 37 MARKER
---	385+83	RT	6					14				STOP @ MILLER WAY
---	388+15	LT	14					15				SPEED LIMIT 45
---	388+30	RT	12						16			DESTINATIONS
---	388+30	RT	12						17			DESTINATIONS
---	391+50	LT	4					16				ROUTE 60 MARKER
TOTAL							1530	629	138	14	2.44	
USE							1530 LB	629 LF	138 LF	14 EA	2.44 CUYD	

SIGN SUMMARY					
STANDARD SIGN OR SPECIAL SIGN NUMBER	SIGN DETAIL SHEET NO.	NO. EACH	SIZE, TYPE & SQUARE FEET		
			SIZE	SHR2L-1 ITEM NO. 903-50.04	SHR1L-1 ITEM NO. 903-50.07
1, 3, 6, 8		STD	4	2' x 2.5'	20
1, 3, 6, 8		STD	4	2' x 1.5'	12
2, 4, 7, 9		STD	4	4' x 4' / 2	32
2, 4, 7, 9		STD	4	2.5' x 2.5'	25
5, 10		STD	2	3' x 3'	
TOTAL			57 SQFT	32 SQFT	2 EA

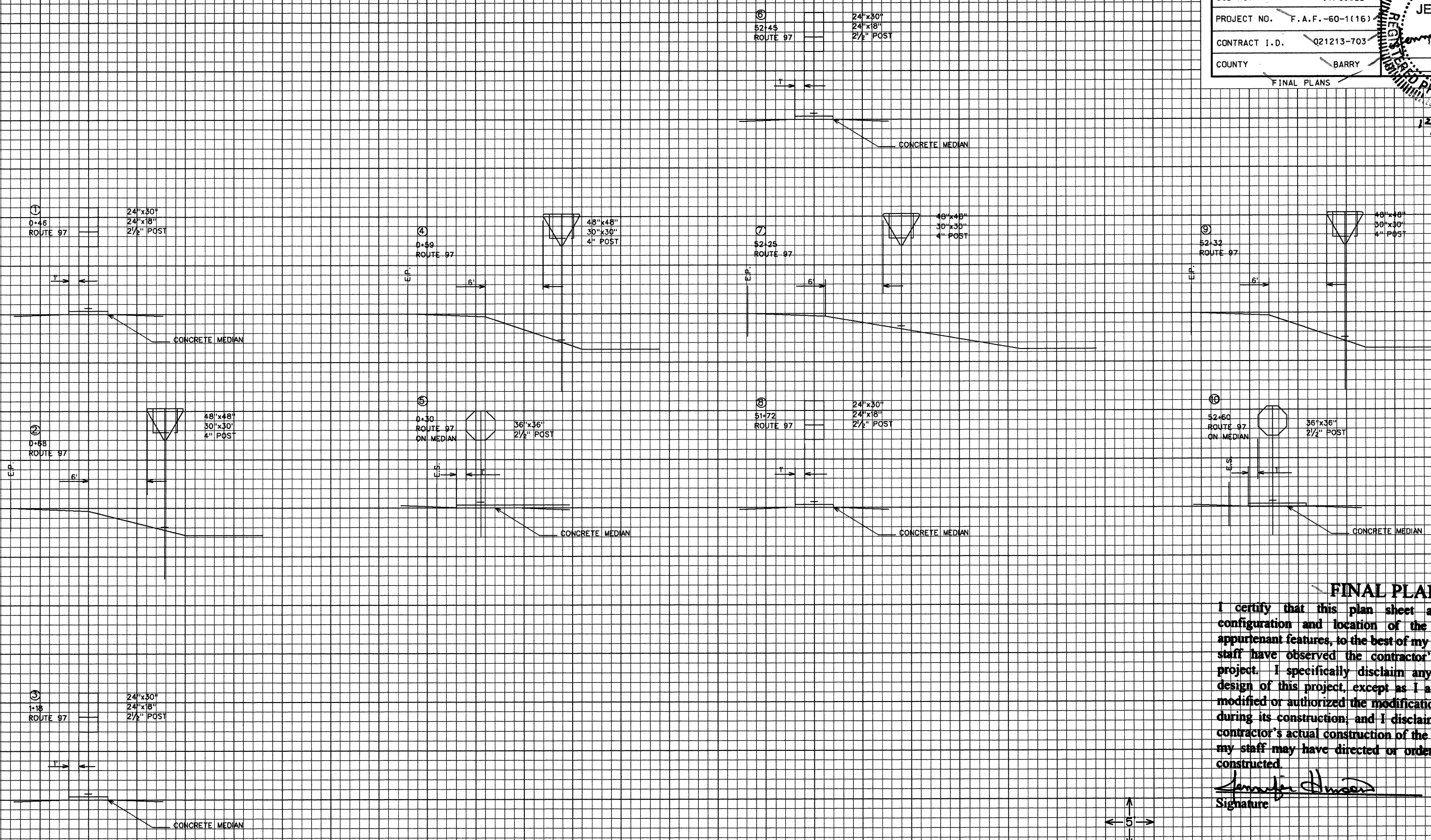
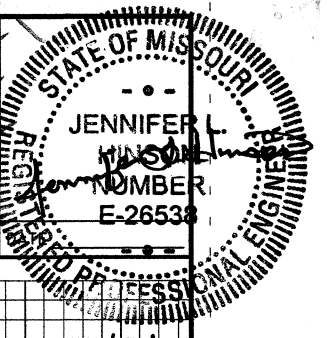
FINAL PLANS

I certify that this plan sheet accurately depicts the configuration and location of the roadway and all its appurtenant features, to the best of my knowledge, as I and my staff have observed the contractor's construction of this project. I specifically disclaim any responsibility for the design of this project, except as I and my staff may have modified or authorized the modification of the project design during its construction; and I disclaim responsibility for the contractor's actual construction of the project, except as I and my staff may have directed or ordered that the project be constructed.

Signature

12/23/03
Date

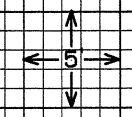
ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	41
JOB NO. J7P0352B			
PROJECT NO. F.A.F.-60-1(16)			
CONTRACT I.D. Q21213-703			
COUNTY BARRY			
FINAL PLANS			



FINAL PLANS

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Signature Jennifer L. Wilson Date 12/23/03



SIGNING
CROSS SECTIONS
SHEET 1 OF 1

ROUTE 60	STATE MO	DISTRICT 7	SHEET NO. 42
JOB NO. J7P0352B			
PROJECT NO. F.A.F.-60-10			
CONTRACT I.D. 021213-7			
COUNTY BARRY			

REGISTERED PROFESSIONAL ENGINEER
JENNIFER L. HINSON
NUMBER E-26538
DATE 12/23/03

36" FLARED END SECTION
STA. 159+12.75 - 103.28' LT.
ROUTE 60

36" FLARED END SECTION
STA. 158+81.24 - 66.35' RT.
ROUTE 60

STA. 158+93.43
SKEW 11° LA
162' x 36" CLASS III RCP
2-36" FLARED END SECTION
CLASS 3 EXC=165 CY

12 CY ROCK
LINING
LENGTH=16.5'
DEPTH=2'
AVE WIDTH=10'

162' 36" CLASS III RCP @ 0.43%
CLASS 3 EXC = 165 CY

36" SAFETY SLOPED END SECTION
STA. 160+13.74 - 78.89' LT.
ROUTE 60

TYPE C PIPE COLLAR
STA. 160+14.07 - 15.89' LT.

TYPE C PIPE COLLAR
STA. 160+13.95 - 14.36' RT.

36" SAFETY SLOPED END SECTION
STA. 160+14.15 - 65.36' RT.
ROUTE 60

STA. 160+13.93
EX 3'x2' REINF CONC BOX
W/103' x 36" CLASS III RCP
2-36" SAFETY SLOPED
END SECTIONS
2-TYPE C PIPE COLLAR
CLASS 3 EXC=59 CY

12 CY ROCK
LINING
LENGTH=16.5'
DEPTH=2'
AVE WIDTH=10'

58' - 36" CLASS III RCP @ 1.27%
CLASS 3 EXC = 38 CY

31' - EXIST 3'x2' BOX
@ 1.52 %

47' - 36" CLASS III RCP @ 0.24%
CLASS 3 EXC = 21 CY

30" SAFETY SLOPED END SECTION
STA. 160+46.50 - 49.00' LT.
30" SAFETY SLOPED END SECTION
STA. 160+53.50 - 49.00' LT.
ROUTE 60

30" SAFETY SLOPED END SECTION
STA. 160+46.50 - 48.00' RT.
30" SAFETY SLOPED END SECTION
STA. 160+53.50 - 48.00' RT.
ROUTE 60

STA. 160+50.00
192' x 36" CLASS III RCP
4-30" SAFETY SLOPED END SECTION
CLASS 3 EXC=122 CY

I certify that this plan sheet accurately depicts the configuration and location of the roadway and all its appurtenant facilities, to the best of my knowledge, as I and my staff have observed the contractor's construction of this project. I specifically disclaim any responsibility for the design of this project, except as I and my staff may have modified or authorized the modification of the project design during its construction; and I disclaim responsibility for the contractor's actual construction of the project, except as I and my staff may have directed or ordered that the project be constructed.

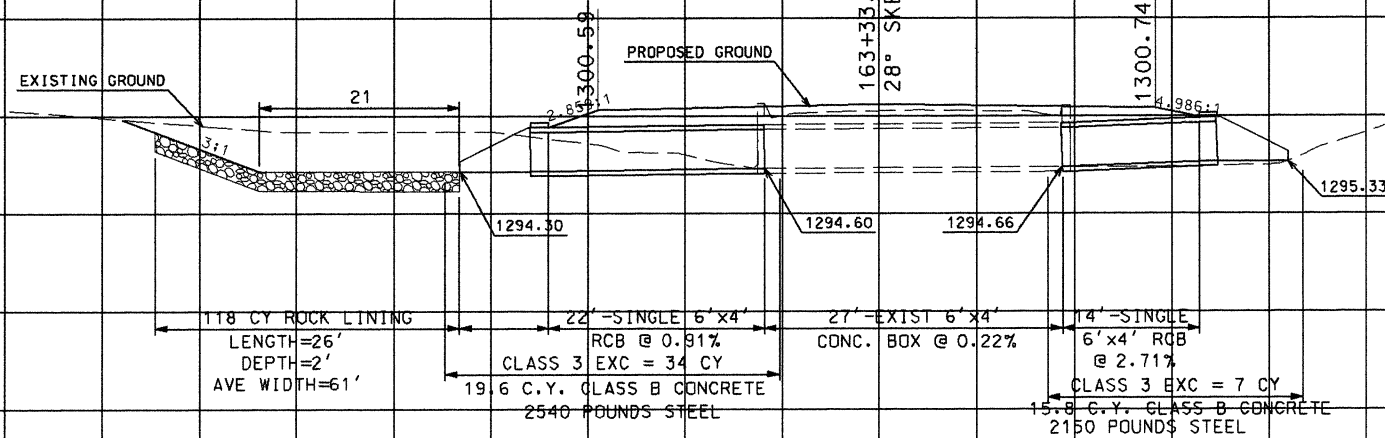
Signature
Date 12/23/03

CULVERT
SECTIONS

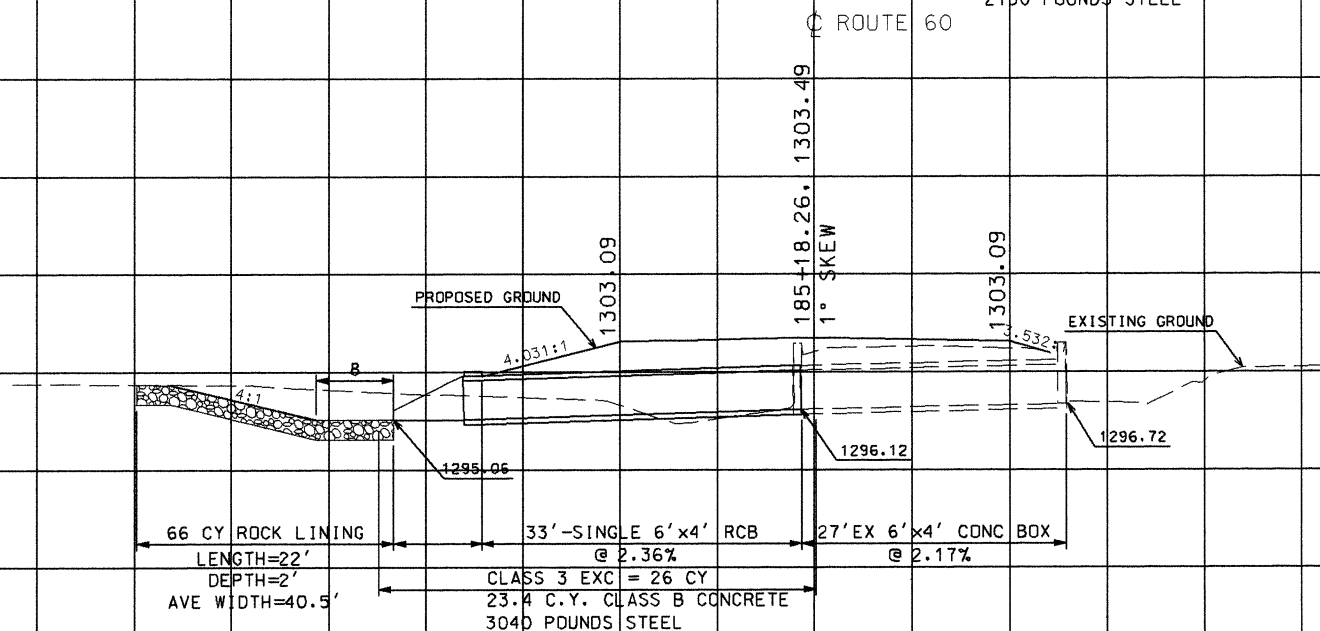
SHEET 1 OF 7

ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	43	43
JOB NO.		J7PD352B	
PROJECT NO.		F.A.F.-60-1(16)	
CONTRACT I.D.		021213-703	
COUNTY		BARRY	

STATE OF MISSOURI
JENNIFER L. HINSON
REGISTERED PROFESSIONAL ENGINEER
NUMBER E-26638
12/23/03



STA. 163+33.86 ✓
SKEW 28° RA
EX 6'x4' REINF CONC BOX
EXTEND LT W/ 22'x6'x4' R.C. BOX
EXTEND RT W/ 14'x6'x4' R.C. BOX
STD. DWG. 703.13
DESIGN FILL = 3'3" LT
DESIGN FILL = 1'8" RT
CLASS 3 EXC = 41 CY



STA. 185+18.26 ✓
SKEW 1° LA
EX 6'x4' REINF CONC BOX
EXTEND LT W/ 33'x6'x4' R.C. BOX
STD. DWG. 703.13
DESIGN FILL = 3'3"
CLASS 3 EXC = 26 CY

FINAL PLANS

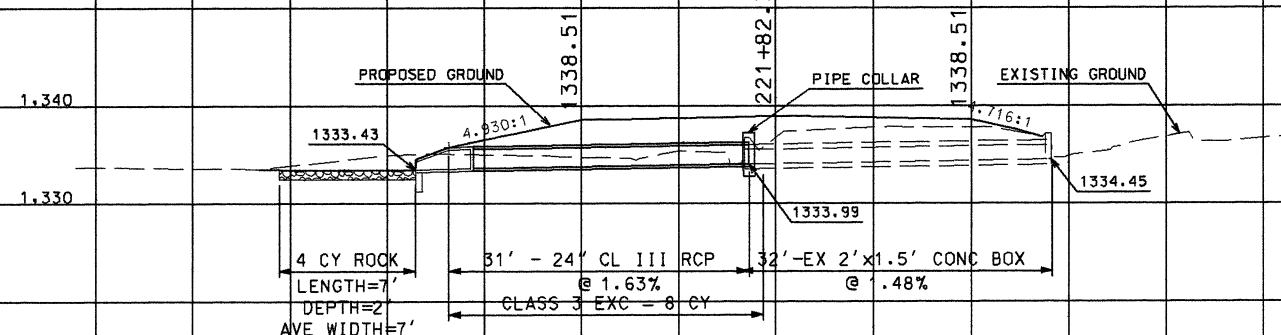
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Jennifer L. Hinson
Signature

12/23/03
Date

24" SAFETY END SECTION
STA. 221+82.60 - 37.13' LT.
ROUTE 60

TYPE C PIPE COLLAR
STA. 221+82.30
2.81' LT



STA. 221+82.30 ✓
EX 2'x1.5' REINF CONC BOX
31'x24" CLASS III RCP
1-24" SAFETY SLOPED END SECTION
1-TYPE C PIPE COLLAR
CLASS 3 EXC = 8 CY

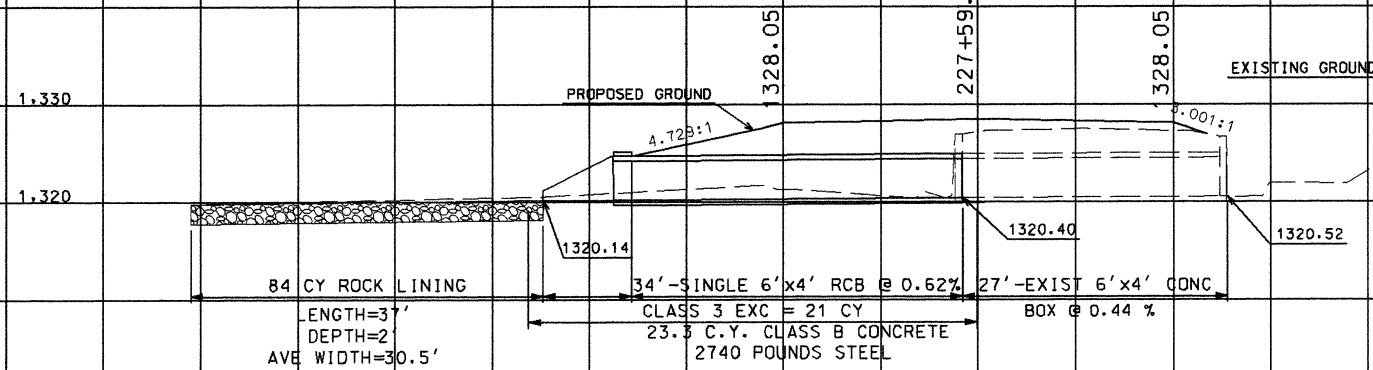
CULVERT
SECTIONS

SHEET 2 OF 7

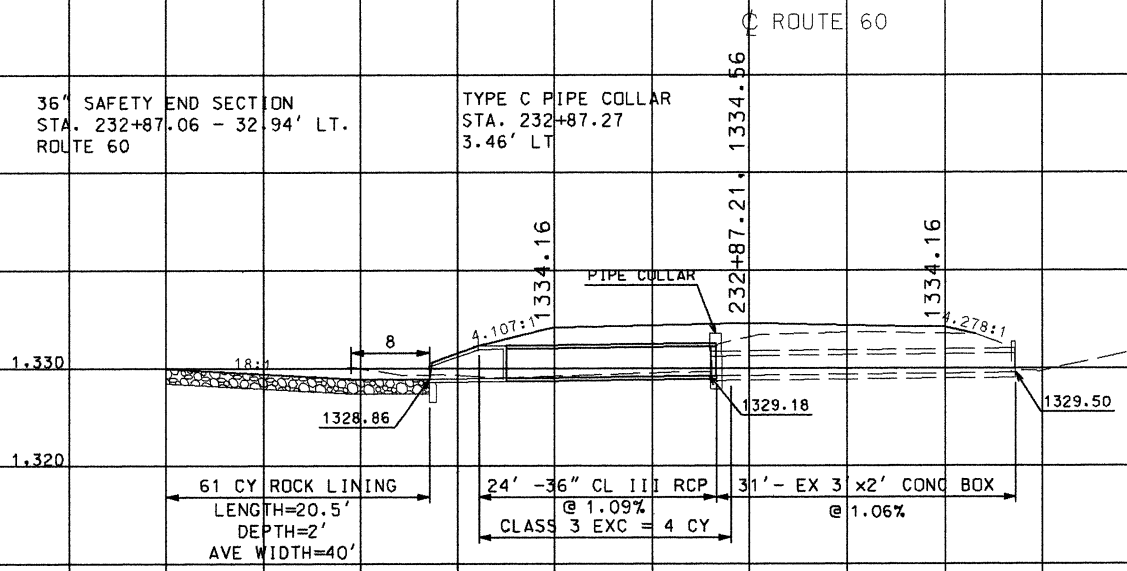
ROUTE 60	STATE MO	DISTRICT 7	SHEET NO. 44
JOB NO. J7P0352B			
PROJECT NO. F.A.F.-60-1(16)			
CONTRACT I.D. Q21213-703			
COUNTY BARRY			

FINAL PLANS

STATE OF MISSOURI
JENNIFER L. HIXSON
REGISTERED PROFESSIONAL ENGINEER
E-26538
12/23/03



STA. 227+59.56
EX 6'x4' REINF CONC BOX
EXTEND LT W/ 34'x6'x4' R.C. BOX
STD. DWG. 703.10
DESIGN FILL = 4'11"
CLASS 3 EXC = 21 CY

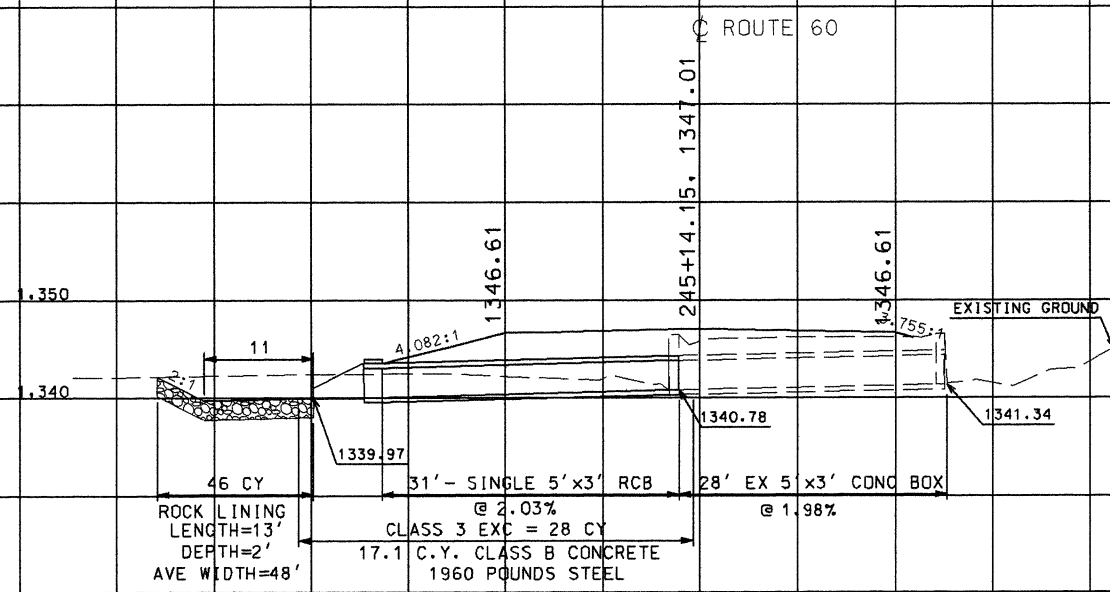


STA. 232+87.21
EX 3'x2' REINF CONC BOX
EXTEND LT W/ 24'x36" CLASS III RCP
1-36" SAFETY SLOPED END SECTION
1-TYPE C PIPE COLLAR
CLASS 3 EXC = 4 CY

FINAL PLANS

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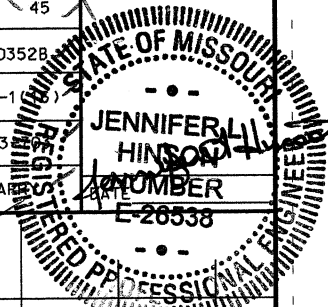
Signature *Jennifer Hixson* Date 12/23/03



STA. 245+14.15
EX 5'x3' REINF CONC BOX
EXTEND LT. 31'x5'x3' R.C. BOX
STD. DWG. 703.10
DESIGN FILL = 4'11"
CLASS 3 EXC = 28 CY

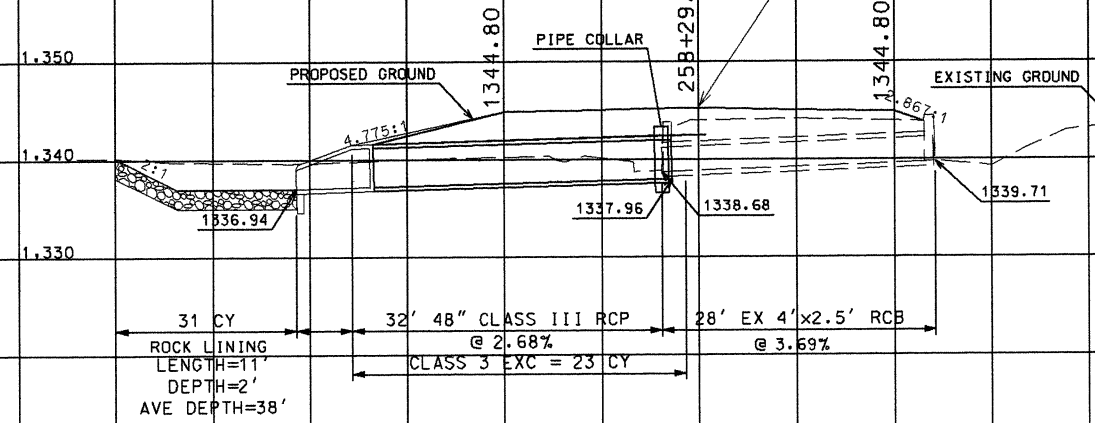
CULVERT SECTIONS
SHEET 3 OF 7

ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	45
JOB NO. J7P0352B			
PROJECT NO. F.A.F.-60-1			
CONTRACT I.D. Q21213			
COUNTY BARRETT			



48" SAFETY SLOPE END SECTION
STA. 258+29.56 - 41.37' LT.
ROUTE 60

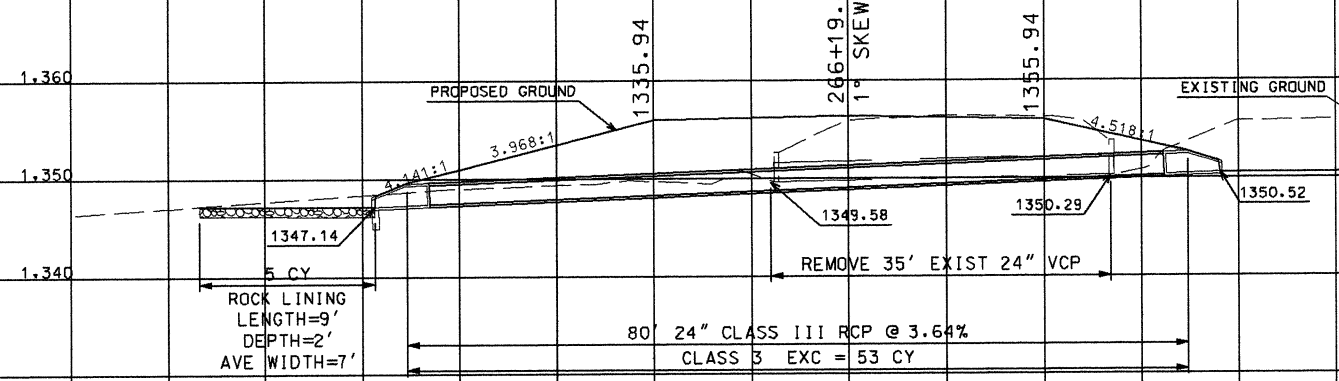
SPECIAL TYPE C PIPE COLLAR
(SEE SHEET 26 FOR ADDL INFO)
(PAID AS TYPE C COLLAR)
STA. 258+29.56
4' LT



STA. 258+29.56
EX 4'x2.5' REINF CONC BOX
EXTEND LT W/ 32'x48" CLASS III RCP
1-48" SAFETY SLOPED END SECTION
1 SPECIAL TYPE C PIPE COLLAR
(PAID AS TYPE C COLLAR)
CLASS 3 EXC = 23 CY

24" FLARED END SECTION
STA. 266+18.76 - 54.71' LT.
ROUTE 60

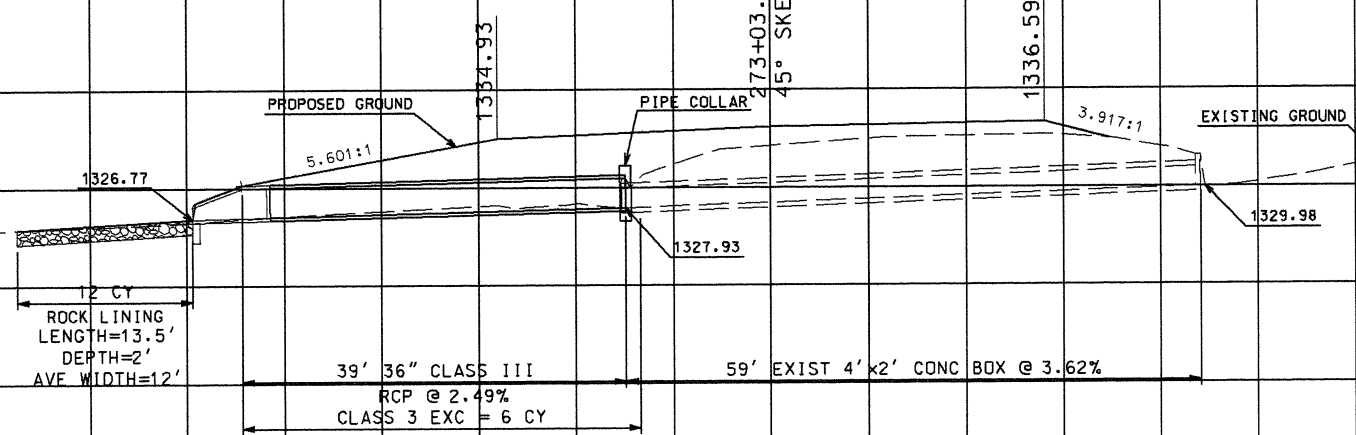
24" SAFETY END SECTION
STA. 266+20.60 - 38.15' LT.
ROUTE 60



STA. 266+19.83
SKEW 1° RA
EX 24" RCP/VCP
REPLACE W/ 75'x24" CLASS III RCP
1-24" FLARED END SECTION
1-24" SAFETY SLOPED END SECTION
CLASS 3 EXC = 53 CY

TYPE C PIPE COLLAR
STA. 273+14.20
10.36' LT

36" FLARED END SECTION
STA. 273+45.09 - 42.48' LT.
ROUTE 60



STA. 273+03.51
SKEW 45° LA
EX 4'x2' REINF CONC BOX
EXTEND LT W/ 39'x36" CLASS III RCP
1-36" FLARED END SECTION
1-TYPE C PIPE COLLAR
CLASS 3 EXC = 6 CY

FINAL PLANS

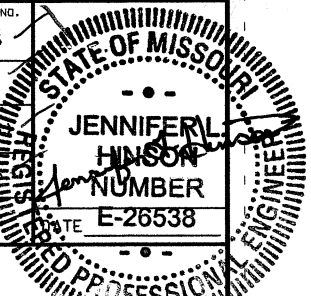
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Signature *Jennifer L. Hinson*

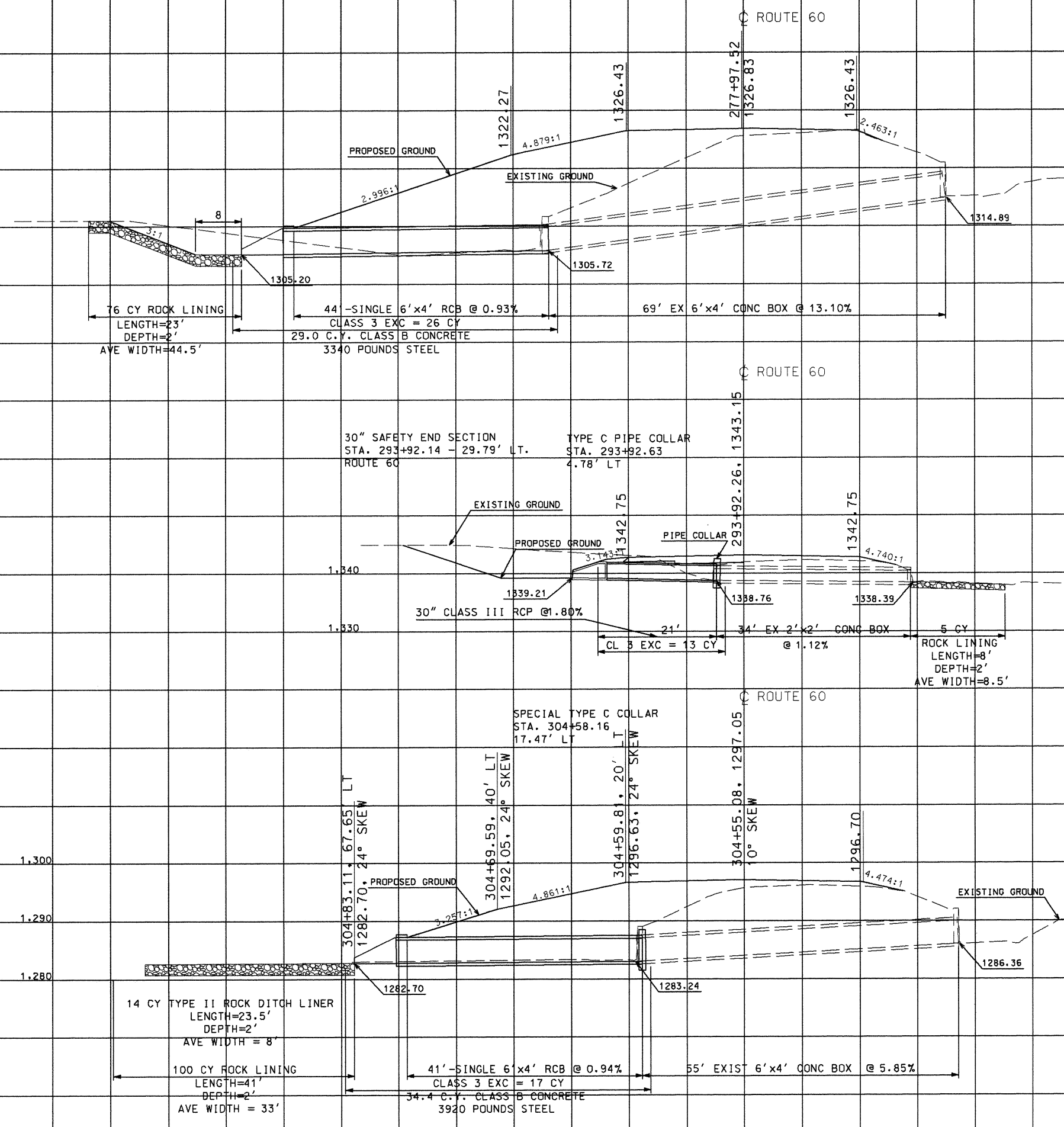
Date 12/23/03

CULVERT
SECTIONS
SHEET 4 OF 7

ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	46
JOB NO.		J7P0352B	
PROJECT NO.		F.A.F.-60-1(1)	
CONTRACT I.D.		021213-70	
COUNTY	BARRY	DATE	E-26538
FINAL PLANS			



12/23/03



STA. 277+97.52
 EX 6'x4' REINF CONC BOX
 EXTEND LT W/44'x6'x4' R.C. BOX
 STD. DWG. 703.10
 DESIGN FILL = 11'6"
 CLASS 3 EXC = 26 CY

STA. 293+92.26
 EX 2'x2' REINF CONC BOX
 EXTEND LT W/ 20'x30" CLASS III RCP
 1-30" SAFETY SLOPED END SECTION
 1-TYPE C PIPE COLLAR
 CLASS 3 EXC = 13 CY

STA. 304+55.08
 SKEW 24° LA
 EX 6'x4' REINF CONC BOX
 EXTEND LT W/41'x6'x4' R.C. BOX
 STD. DWG. 703.13
 DESIGN FILL = 8'2"
 1 SPECIAL TYPE C COLLAR
 (PMT INCL IN STL AND CL B CONC)
 CLASS 3 EXC = 17 CY

CERTIFICATION
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Jennifer L. Hinson
 Signature

12/23/03
 Date

CULVERT
 SECTIONS
 SHEET 5 OF 7

ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	47	
JOB NO. J7P0352B			
PROJECT NO. F.A.F.-60-1(1)			
CONTRACT I.D. 021213-70			
COUNTY	BARRY		

STATE OF MISSOURI

JENNIFER L. HINSON

REGISTERED PROFESSIONAL ENGINEER

NO. 021213-70

E-26538

12/23/03

STA. 312+47.91
 SKEW 1° RA
 EX 6'x4' REINF CONC BOX
 EXTEND LT W/41'x6'x4' R.C. BOX
 STD. DWG. 703.13
 DESIGN FILL = 8'2"
 CLASS 3 EXC = 26 CY

STA. 338+78.29
 SKEW 11° LA
 EX 12'x7.5' REINF CONC BOX
 REPLACE W 11'x9' R. C. BOX
 BUILD IN 3 SECTIONS
 STD. DWG. 703.14
 DESIGN FILL = 9'10" LT
 DESIGN FILL = 8'2" MIDDLE SECTION
 DESIGN FILL = 6'7" RT
 CLASS 3 EXC = 900 CY

FINAL PLANS

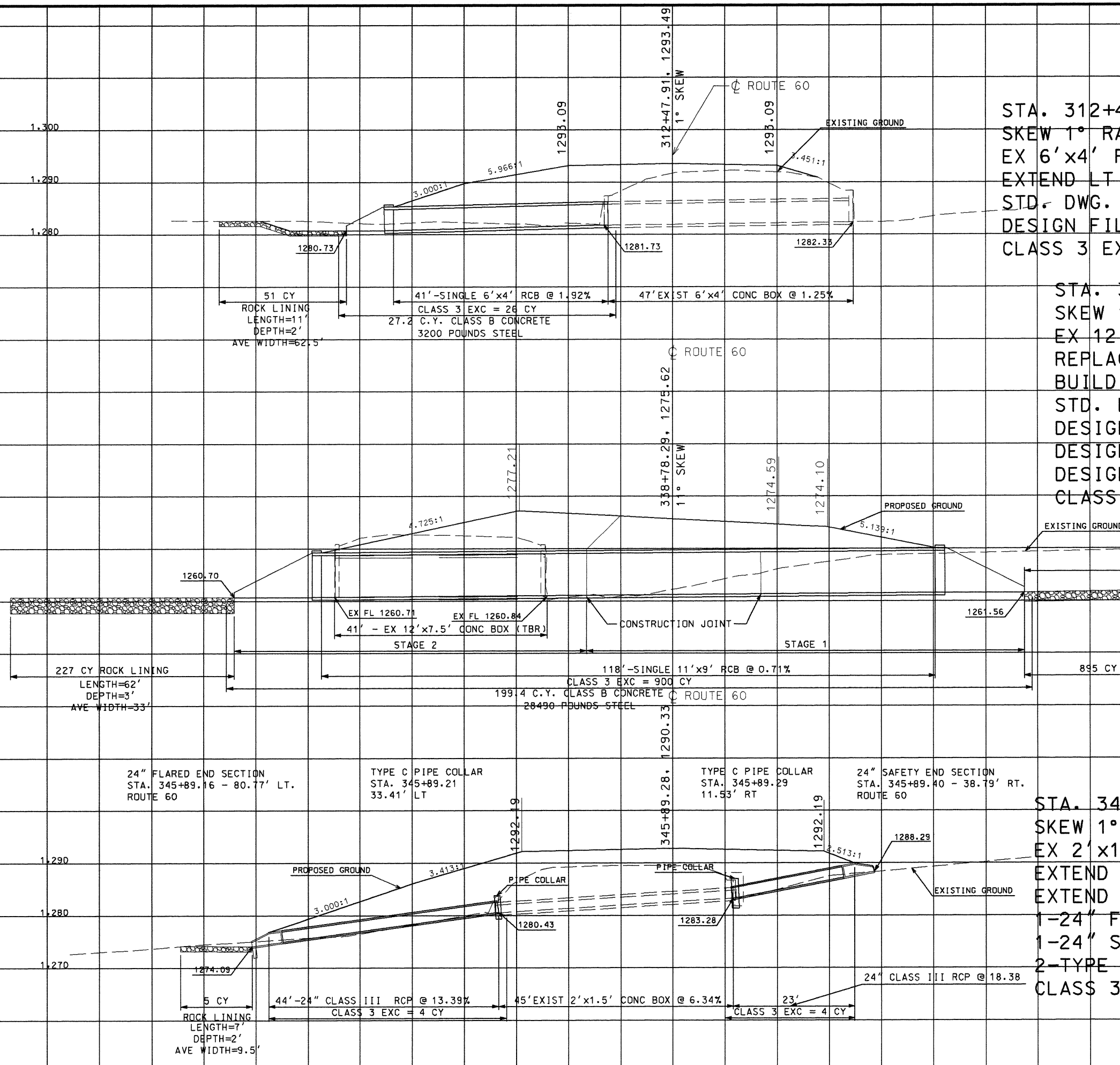
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Signature: *Jennifer L. Hinson* Date: 12/23/03

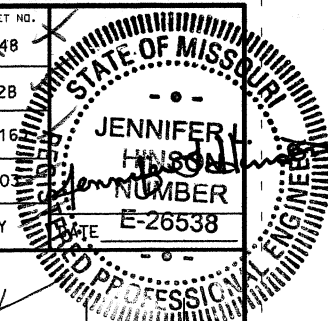
STA. 345+89.28
 SKEW 1° LA
 EX 2'x1.5' REINF CONC BOX
 EXTEND LT W/40'x24" CLASS III RCP
 EXTEND RT W/21'x24" CLASS III RCP
 1-24" FLARED END SECTION
 1-24" SAFETY SLOPED END SECTION
 2-TYPE C PIPE COLLARS
 CLASS 3 EXC = 8 CY

CULVERT SECTIONS

SHEET 6 OF 7



ROUTE	STATE	DISTRICT	SHEET NO.
60	MO	7	48
JOB NO.		J7P0352B	
PROJECT NO.		F.A.F.-60-1(16)	
CONTRACT I.D.		021213-703	
COUNTY		BARRY	



30" FLARED END SECTION
STA. 350+78.81 - 69.16' LT.
ROUTE 60

TYPE C PIPE COLLAR
STA. 350+78.35
31.48' LT

TYPE C PIPE COLLAR
STA. 350+78.28
15.76' RT

30" SAFETY END SECTION
STA. 350+78.26 - 44.90' RT.
ROUTE 60

STA. 350+78.25
EX 2'x2' REINF CONC BOX
EXTEND LT W/32'x30" CLASS III RCP
EXTEND RT W/20'x30" CLASS III RCP
1-36" FLARED END SECTION
1-36" SAFETY SLOPED END SECTION
2 TYPE C PIPE COLLARS
CLASS 3 EXC = 8 CY

STA. 356+69.08
EX 6'x4' REINF CONC BOX
EXTEND LT W/26'x6'x4' R.C. BOX
EXTEND RT W/28'x6'x4' R.C. BOX
STD. DWG. 703.10
DESIGN FILL = 4'11" LT & RT
CLASS 3 EXC = 17 CY

STA. 390+22.59
SKEW 6° LA
EX 7'x6' REINF CONC BOX
EXTEND LT W/31'x7'x6' R.C. BOX
EXTEND RT W/28'x7'x6' R.C. BOX
STD. DWG. 703.13
DESIGN FILL = 4'11" LT
DESIGN FILL = 3'3" RT
CLASS 3 EXC = 75 CY

STA. 381+87.78
SKEW 1° LA
EX 6'x2' REINF CONC BOX
EXTEND RT W/5'x48" CLASS III RCP
TYPE C PIPE COLLAR
CLASS 3 EXC = 2 CY
1-48" SAFETY SLOPED
END SECTION

48" SAFETY END SECTION
STA. 381+86.18 - 45.59' RT.
ROUTE 60

TYPE C PIPE COLLAR
STA. 381+86.51
34.88' RT

FINAL PLANS
I certify that this plan sheet accurately depicts the configuration and location of the roadway and all its appurtenant features, to the best of my knowledge, as I and my staff have observed the contractor's construction of this project. I specifically disclaim any responsibility for the design of this project, except as I and my staff may have modified or authorized the modification of the project design during its construction; and I disclaim responsibility for the contractor's actual construction of the project, except as I and my staff may have directed or ordered that the project be constructed.
Signature: Jennifer H. Moore
Date: 12/23/03
CULVERT SECTIONS
SHEET 7 OF 7

LOCATION MAP

MISSOURI
STATE HIGHWAY COMMISSION
PLAN AND PROFILE
OF PROPOSED
STATE ROAD

FEDERAL AID PROJECT
NEWTON COUNTY

COUNTY	NEWTON
STATE ROUTE NO.	60
PROJECT NO.	

F-444(2)
AEB

LIMITED ACCESS HIGHWAY
This shall be a limited access highway between Station 0+00 and Station 12+880. It shall be a divided highway with a median strip. It shall be a limited access highway with no direct access to, from, or across the highway except at designated points. It shall be a limited access highway with no direct access to, from, or across the highway except at designated points. It shall be a limited access highway with no direct access to, from, or across the highway except at designated points.



SUBMITTED BY _____ DATE _____
CHIEF ENGINEER
MISSOURI STATE HIGHWAY COMMISSION

CONVENTIONAL SIGNS

STATE AND REGIONAL LINE	LEVY
COUNTY LINE	CULVERT
CITY, VILLAGE OR BOROUGH	WATER INLET
TOWNSHIP LINE	WATER POLE
SECTION LINE	POWER POLE
GRANT LINE	TELEPHONE OR TELEGRAPH POLE
FENCE LINE	RAILROAD
GUARD RAIL	RETAINING WALL
UNFENCED PROJECT	BASE OF SURVEY LINE
RIGHT OF WAY LINE	
TRAVELING WAY	
PAVEMENT	
RETAINING WALL	
BASE OF SURVEY LINE	

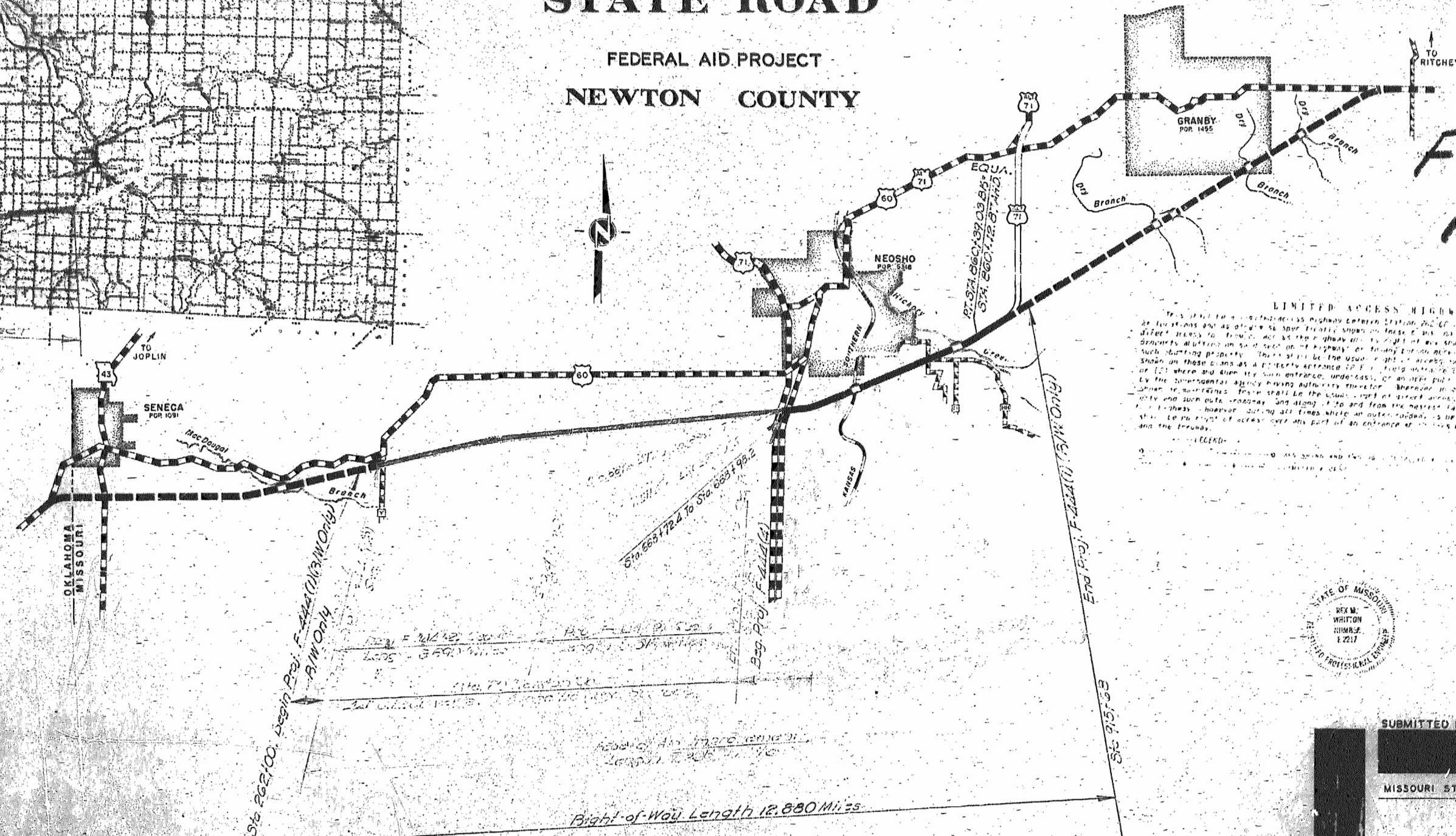
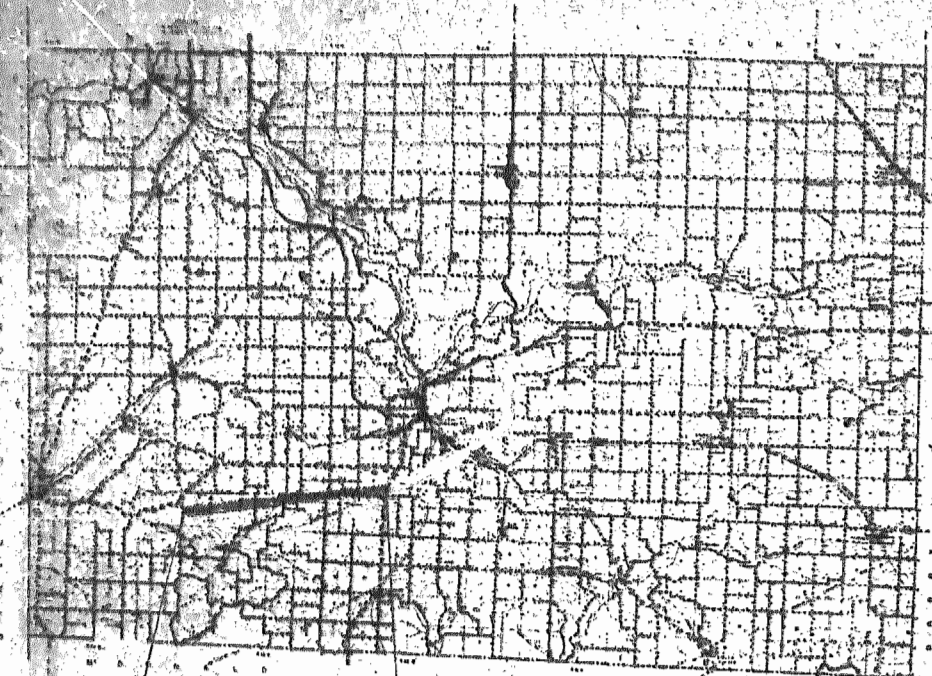
450

Right-of-Way Length 12.880 Miles

Sta 262+00: Begin Proj. F-444 (1/3 W Only)
R/W Only

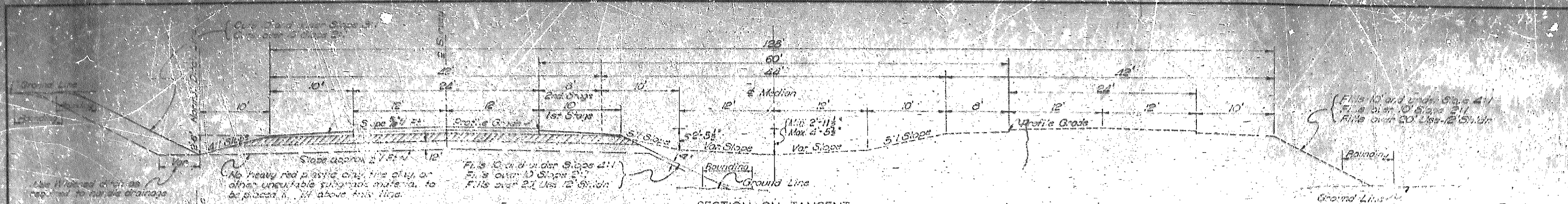
Sta 663+12.4 To Sta 663+198.2
Beg. Proj. F-444(2)

Sta 9+51.33
End Proj. F-444(2) (SW Only)

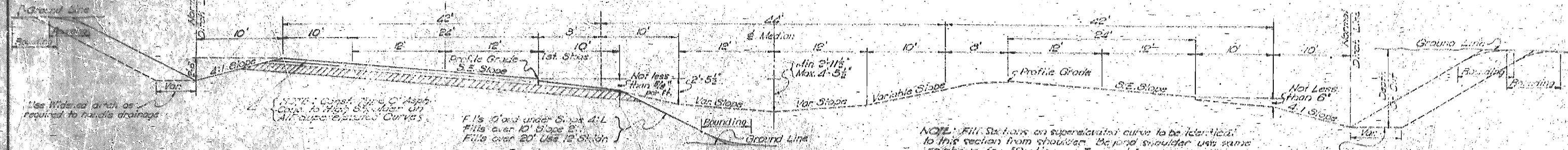


FINAL
DESIGN
SECTION
DATE
BY

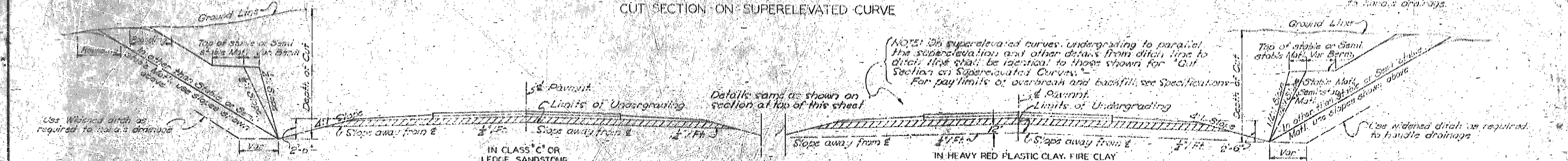
SECTION
DATE
BY



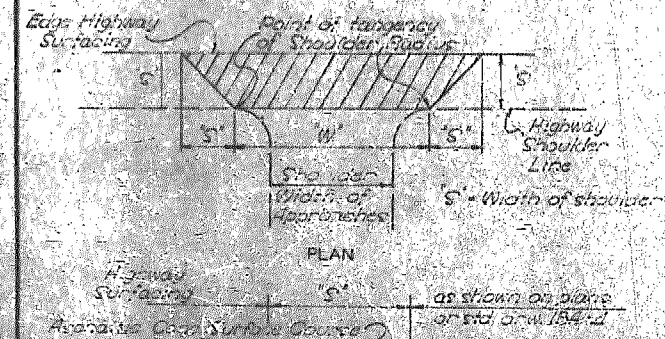
SECTION ON TANGENT



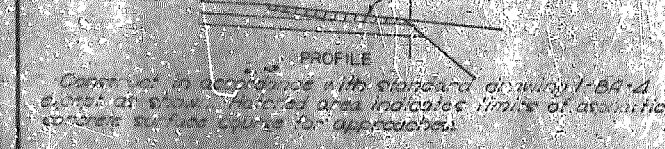
CUT SECTION ON SUPERELEVATED CURVE



HALF SECTION IN CUTS ON TANGENTS

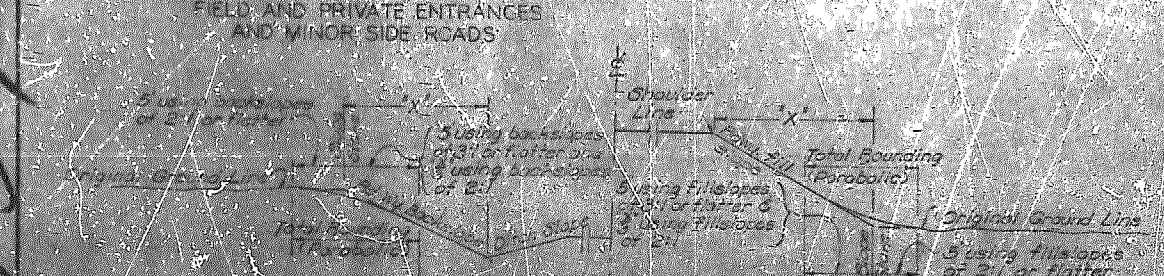


PLAN

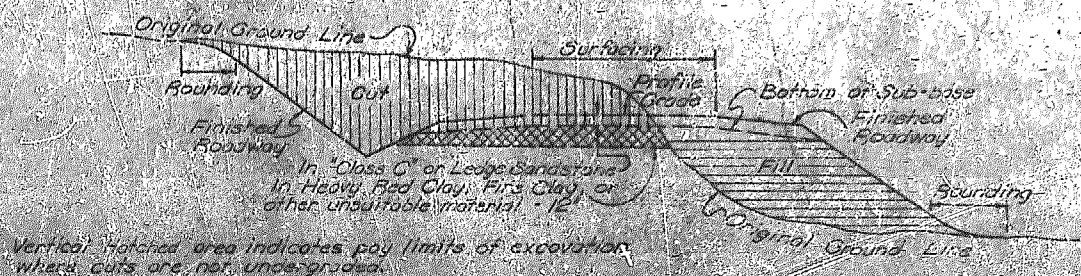


PROFILE

DETAILS OF TYPICAL PAVEMENT HALF-SECTIONS
Sta. 257+00 to Sta. 301+46.5 (Exist. Bldg. 60 Conn.) Sta. 657+96 to Sta. 677+96
Sta. 280+84.94 to Sta. 657+96
Sta. 677+96 to Sta. 887+00



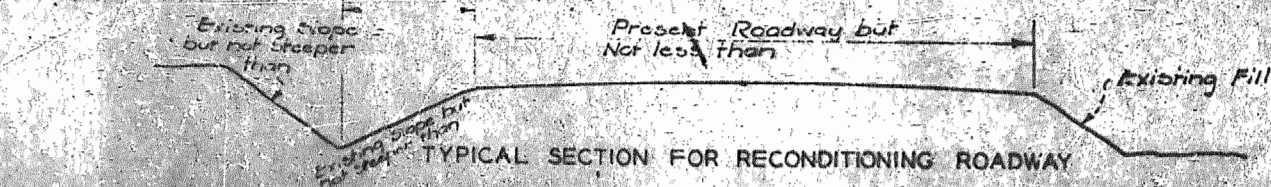
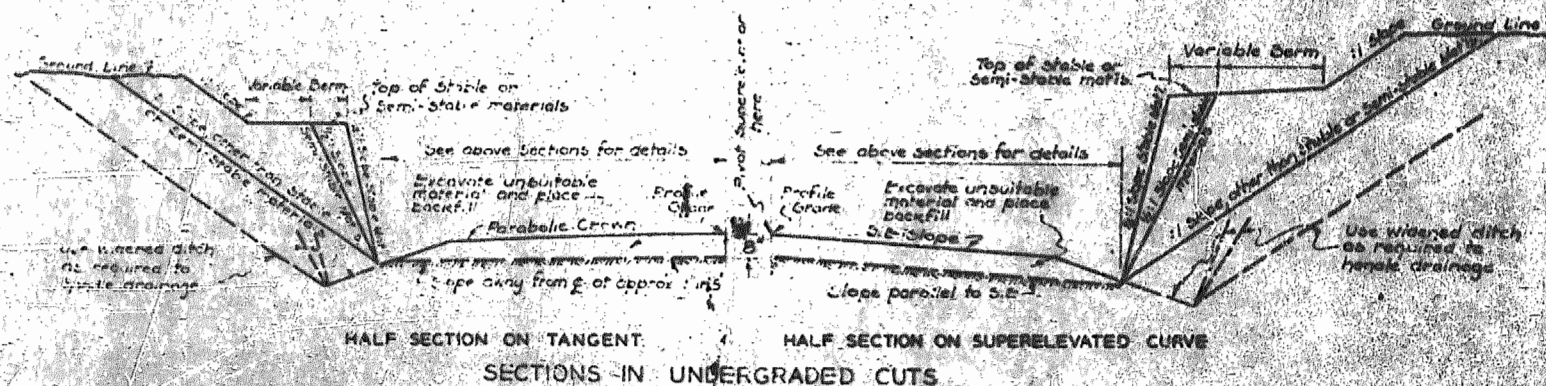
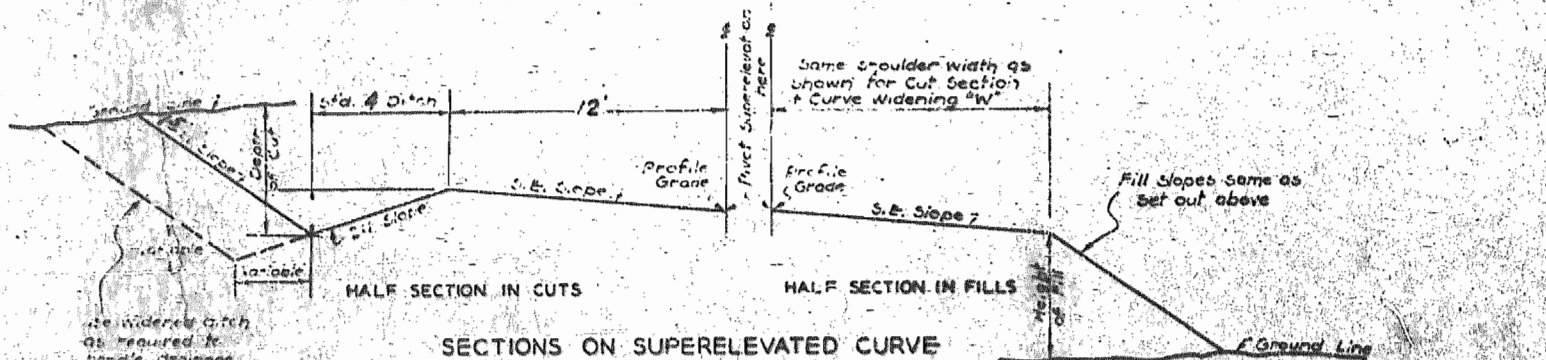
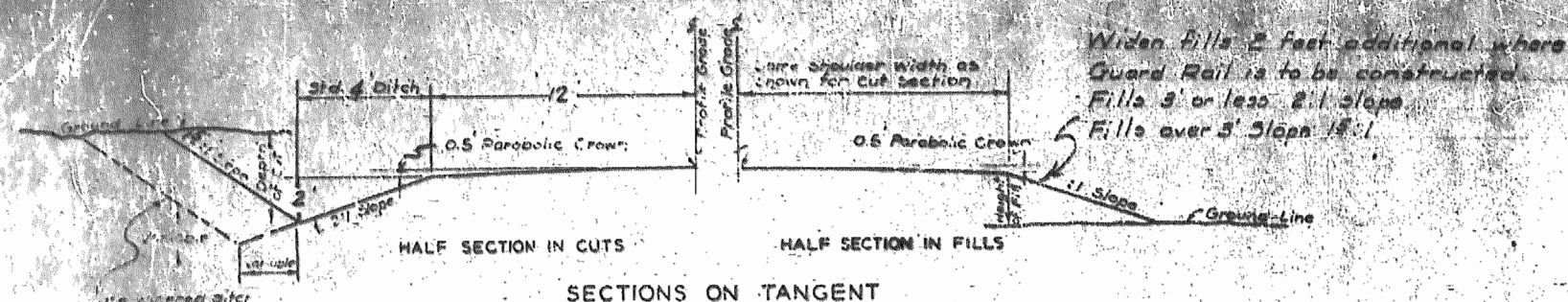
PARABOLIC ROUNDING REQUIRED AT TOP OF ROADWAY BACKSLOPES AND AT TOP OF ROADWAY FILL SLOPES



Vertical hatched area indicates pay limits of excavation where cuts are not undergraded. Oblique hatched area indicates additional area to be added to vertical hatched area included in pay limits of excavation where cuts are undergraded. For pay limits of overbreak and backfill see specifications. Horizontal hatched area indicates limits to which embankment can be constructed.

GENERAL NOTES:
For details of super-elevation and widening of horizontal curves, all pavement appurtenances, drainage items, etc. see other drawings.
In transitioning from one cut or fill slope to another use a 25' transition beginning at a point 25' back along the which would normally be the flatter slope and ending the transition at the actual point where the steeper slope is required. If the actual limits requiring a steeper slope is less than 25' in length, do not change to the steeper slope.
All information shown on these typical sections is for the purpose of indicating general design and construction details. Actual construction of roadway widths, slopes, depths, and type of ditches, undergradients, cuts, and other features shall conform to the details shown on cross sections and plan and profile sheets or as directed by the engineer.

MISSOURI STATE HIGHWAY COMMISSION
TYPICAL SECTIONS FOR
24 FT ASPHALTIC CONCRETE PAVEMENT
44 FT ROADBED
(DESIGN SPEED 50 M.P.H.)
ROUTE 60 - COUNTY HESTON
PROJ. OR SEC. F-444(2)



GENERAL NOTES

Machine Grading and Reconditioning Roadway shall be completed in accordance with these Typical Sections using the shoulders, depth of ditch except as otherwise noted on Plan Sheets and as required to provide proper drainage. Covering of at least 1 foot will be required over all drainage structures located within Machine and Reconditioning Roadway Sections.

Transitioning from one slope to another use a 25 foot length of transition.

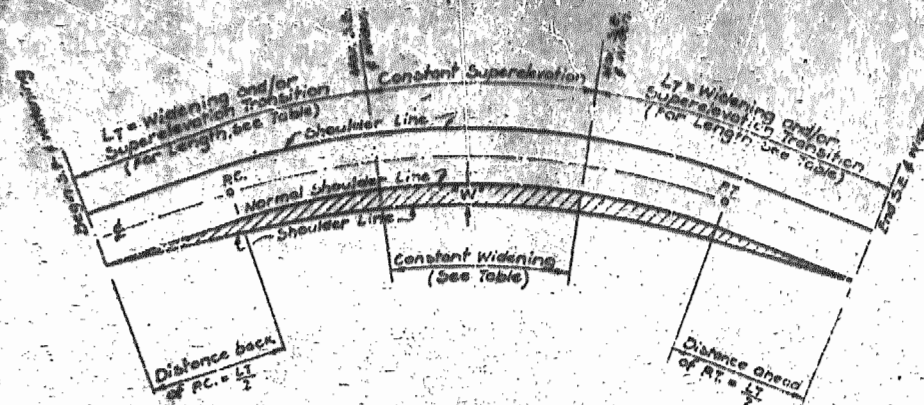
All information shown on these TYPICAL SECTIONS is for the purpose of indicating the required parabolic crown, on tangent section, and general design and construction details. Actual construction of roadbed widths, slopes, depth and width of ditches, undergraded cuts and other features shall conform to the details shown on Cross-Sections and Black Booklet Sheets or as directed by the Engineer.

Final finishing of side slopes of cuts and fills will not be required. Machine finishing to a smooth plane will be considered satisfactory.

Unless otherwise shown on the plans, the roadway ditch at all cross road culverts shall be widened to five (5) feet at the inlet with a fifty (50) foot transition to the standard roadway ditch. In "Machine Grading" limits the east of this excavation is to be included in the contract unit price for Machine Grading.

The cost of constructing Ditch Blocks in "Machine Grading" limits is to be included in the contract unit price for Machine Grading.

SCHEME OF WIDENING AND SUPERELEVATION TRANSITION.



SUPERELEVATION AND WIDENING DATA

Degree of Curve Dc	Design Speeds											
	30 or Less			35 M.P.H.			40 M.P.H.			45 M.P.H.		
	S	W	LT	S	W	LT	S	W	LT	S	W	LT
0° to 1°00'	0	0	0	0	0	0	0	0	0	0	0	0
1°00' to 1°30'	0	0	150	0	0	150	0	0	150	0	0	150
1°30' to 2°00'	0	0	150	0	0	150	0	0	150	0	0	150
2°00' to 2°30'	0	0	150	0	0	150	0	0	150	0	0	150
2°30' to 3°00'	0	0	150	0	0	150	0	0	150	0	0	150
3°00' to 3°30'	0	0	150	0	0	150	0	0	150	0	0	150
3°30' to 4°00'	0	0	150	0	0	150	0	0	150	0	0	150
4°00' to 4°30'	0	0	150	0	0	150	0	0	150	0	0	150
4°30' to 5°00'	0	0	150	0	0	150	0	0	150	0	0	150
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5°30' to 6°00'	0	0	150	0	0	150	0	0	150	0	0	150
6°00' to 6°30'	0	0	150	0	0	150	0	0	150	0	0	150
6°30' to 7°00'	0	0	150	0	0	150	0	0	150	0	0	150
7°00' to 7°30'	0	0	150	0	0	150	0	0	150	0	0	150
7°30' to 8°00'	0	0	150	0	0	150	0	0	150	0	0	150
8°00' to 8°30'	0	0	150	0	0	150	0	0	150	0	0	150
8°30' to 9°00'	0	0	150	0	0	150	0	0	150	0	0	150
9°00' to 9°30'	0	0	150	0	0	150	0	0	150	0	0	150
9°30' to 10°00'	0	0	150	0	0	150	0	0	150	0	0	150
10°00' to 10°30'	0	0	150	0	0	150	0	0	150	0	0	150
10°30' to 11°00'	0	0	150	0	0	150	0	0	150	0	0	150
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11°30' to 12°00'	0	0	150	0	0	150	0	0	150	0	0	150
12°00' to 12°30'	0	0	150	0	0	150	0	0	150	0	0	150
12°30' to 13°00'	0	0	150	0	0	150	0	0	150	0	0	150
13°00' to 13°30'	0	0	150	0	0	150	0	0	150	0	0	150
13°30' to 14°00'	0	0	150	0	0	150	0	0	150	0	0	150
14°00' to 14°30'	0	0	150	0	0	150	0	0	150	0	0	150
14°30' to 15°00'	0	0	150	0	0	150	0	0	150	0	0	150
15°00' to 15°30'	0	0	150	0	0	150	0	0	150	0	0	150
15°30' to 16°00'	0	0	150	0	0	150	0	0	150	0	0	150
16°00' to 16°30'	0	0	150	0	0	150	0	0	150	0	0	150
16°30' to 17°00'	0	0	150	0	0	150	0	0	150	0	0	150
17°00' to 17°30'	0	0	150	0	0	150	0	0	150	0	0	150
17°30' to 18°00'	0	0	150	0	0	150	0	0	150	0	0	150
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18°30' to 19°00'	0	0	150	0	0	150	0	0	150	0	0	150
19°00' to 19°30'	0	0	150	0	0	150	0	0	150	0	0	150
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24°30' to 25°00'	0	0	150	0	0	150	0	0	150	0	0	150
25°00' to 25°30'	0	0	150	0	0	150	0	0	150	0	0	150
25°30' to 26°00'	0	0	150	0	0	150	0	0	150	0	0	150
26°00' to 26°30'	0	0	150	0	0	150	0	0	150	0	0	150
26°30' to 27°00'	0	0	150	0	0	150	0	0	150	0	0	150
27°00' to 27°30'	0	0	150	0	0	150	0	0	150	0	0	150
27°30' to 28°00'	0	0	150	0	0	150	0	0	150	0	0	150
28°00' to 28°30'	0	0	150	0	0	150	0	0	150	0	0	150
28°30' to 29°00'	0	0	150	0	0	150	0	0	150	0	0	150
29°00' to 29°30'	0	0	150	0	0	150	0	0	150	0	0	150
29°30' to 30°00'	0	0	150	0	0	150	0	0	150	0	0	150

NOTES

S denotes Superlevation in feet per foot
W denotes Widening of surfacing and inside shoulder in feet
LT denotes Length of Superlevation and/or widening transition in feet
Crown is to be eliminated on all Superelevated Curves.
Values for degree of curve not shown in above table shall be identical with those for the nearest tabulated curve. In case of tie, use values for next higher degree curve.

NOTE:
Use SE, Widening & LT as listed on Plans.

MISSOURI STATE HIGHWAY COMMISSION

TYPICAL SECTIONS

FOR

24 FT GRADED EARTH

FOR

SUPPLEMENTARY ROADS

(DESIGN SPEED — M.P.H.)

ROUTE 60 COUNTY NEWTON

PROJ. 9R SEC. F-244(1), 244(2), 244(3)

ENGR. SURVEYS AND PLANS

CHIEF ENGINEER

PAGE 6

LOCATION From Route 94 Northwesterly Towards Granby
TYPE Graded Earth Culverts & 24" Reinforced Concrete Pavement

MISSOURI STATE HIGHWAY COMMISSION

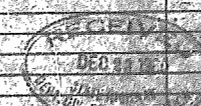
SUMMARY OF QUANTITIES

FINAL PLANS

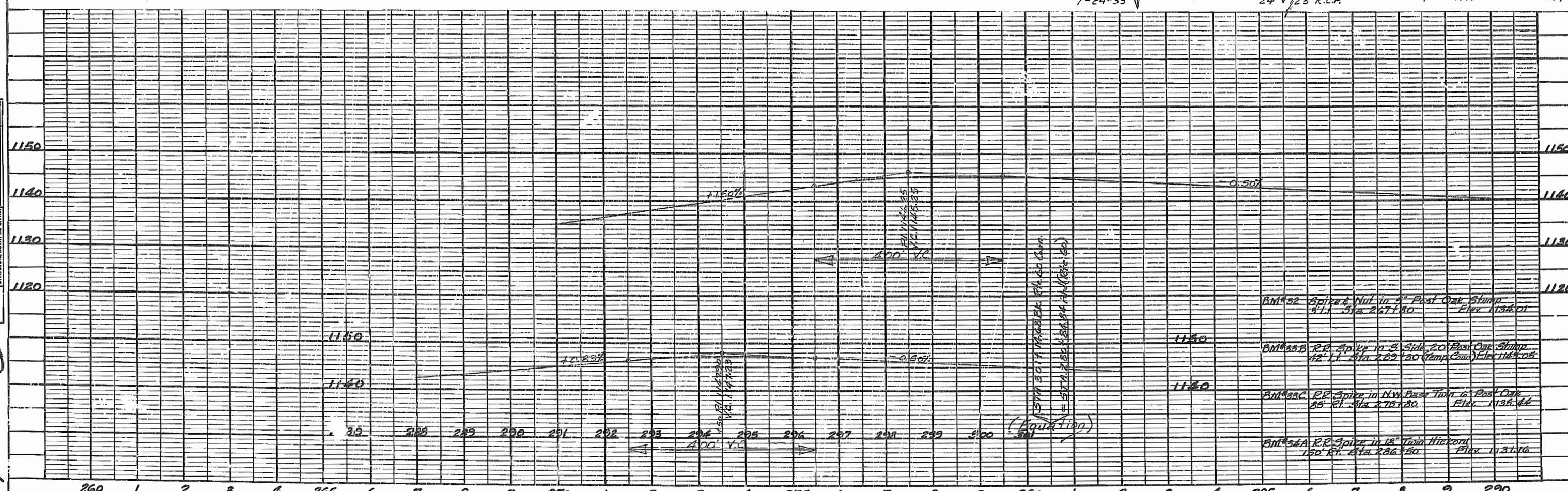
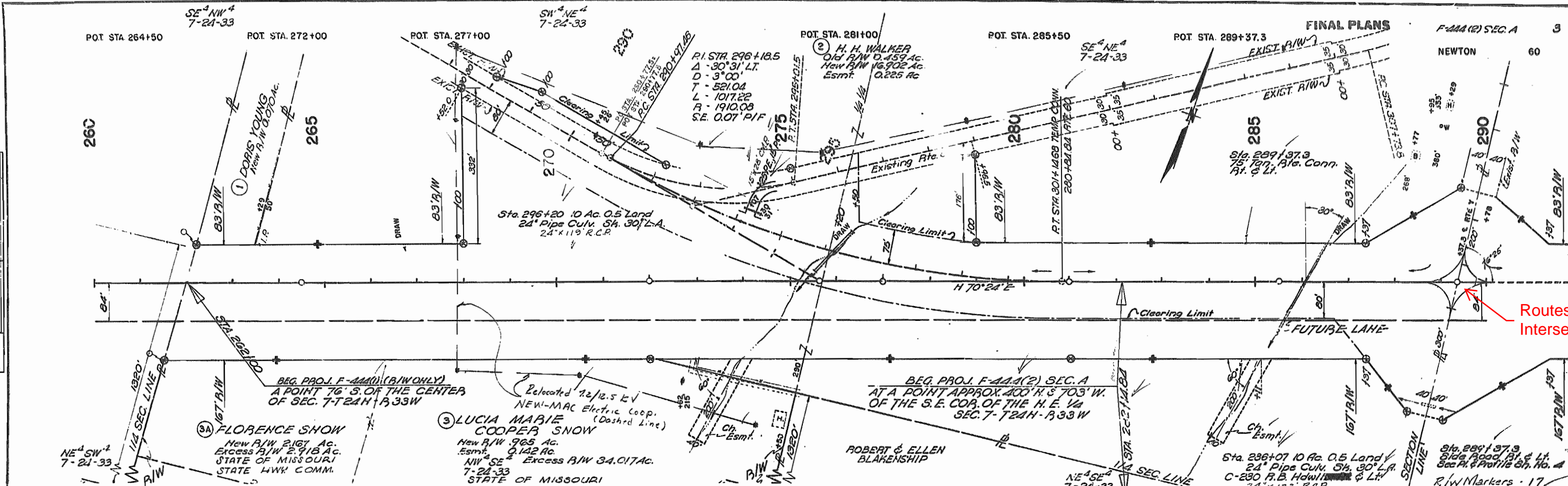
Sheet 1 of 2

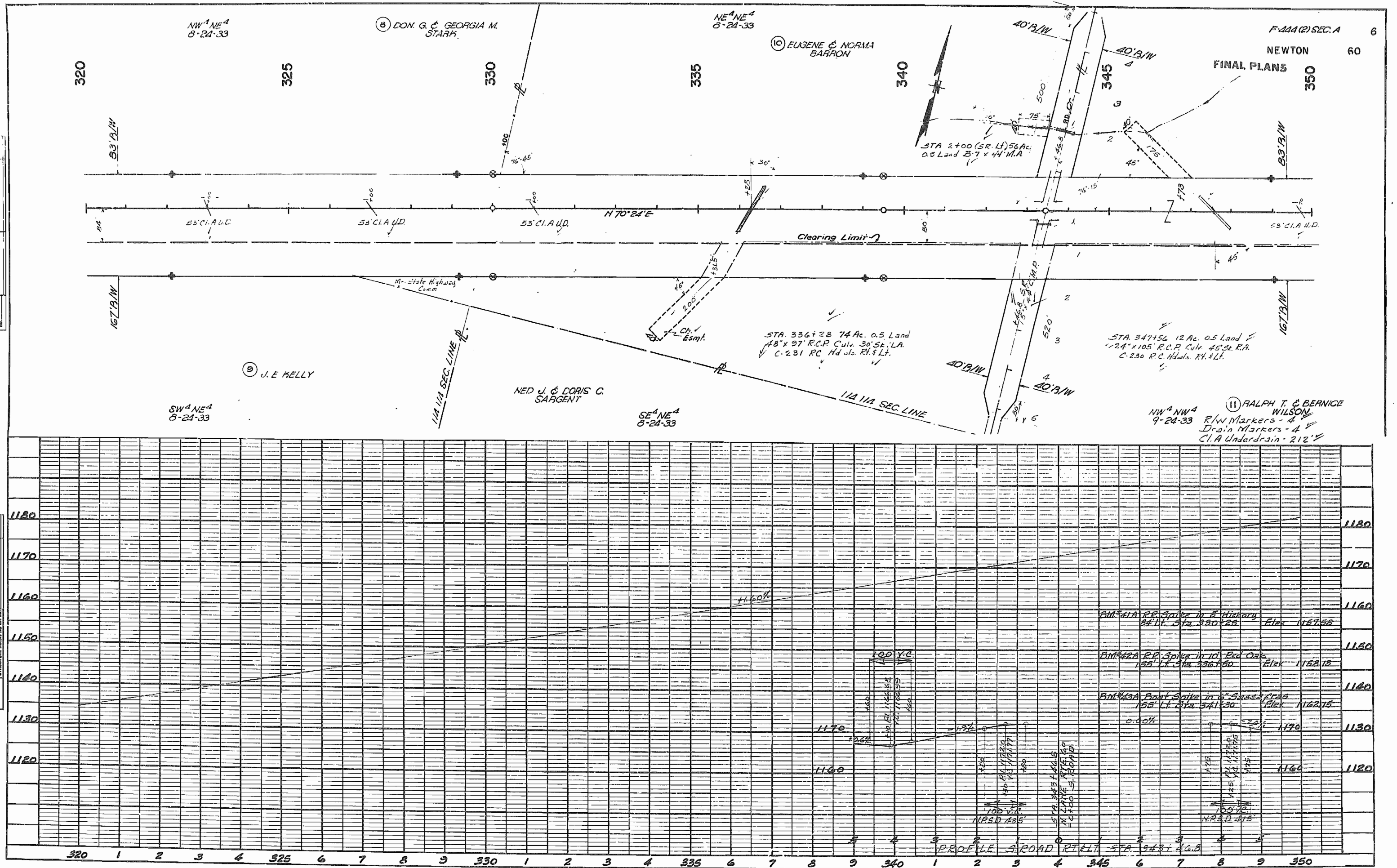
PROJECT NO.	STATE	FISCAL YEAR	EST. NO.	TOTAL SHEETS
7	MO.	1960	2-A	67
COUNTY				
NEWTON				

EXCAVATION										GENERAL SUMMARY									
Station	Class A	Borrow	Comp. Conc.	Comp. Conc. Ex.	Overhaul	Remarks	FEDERAL LENGTH	LENGTH OF PROJECT	ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS	NO. UNITS	NO. UNITS	NO. UNITS	NO. UNITS	NO. UNITS	NO. UNITS	NO. UNITS
281+00	2544	8428	2167			End of Project	281+00	End of Project	1-A	Clearing	Acres	312							
281+00	2544	8428	2167			Beginning of Project	281+00	Beginning of Project	1-B	Grubbing	Acres	312							
281+00	2544	8428	2167			Apparent Length	281+00	Apparent Length	1-D	Class A Excavation	CY	586,111							
281+00	2544	8428	2167			Exception:	281+00	Exception:	1-E	Class C Excavation	CY	0							
281+00	2544	8428	2167			Sta. 281+00 to Sta. 282+00	281+00	Sta. 281+00 to Sta. 282+00	1-F	Class 3 Excavation for Structures	CY	24025							
281+00	2544	8428	2167			Total Corrections	281+00	Total Corrections	1-K	Compacting Embankments	CY	405881							
281+00	2544	8428	2167			Federal Length	281+00	Federal Length	1-L	Compacting in Cuts	CY	40217							
281+00	2544	8428	2167				281+00		1-N	Overhaul	1/4 Mi. Yd.	42196							
281+00	2544	8428	2167				281+00		1-Z	Removing (3) Miscellaneous Items	L. Sum.	1							
281+00	2544	8428	2167				281+00		13-D	Crushed Stone (B) Surface	CY	1122							
281+00	2544	8428	2167				281+00		14-B	Class B Concrete (Box Culverts)	CY	7825							
281+00	2544	8428	2167				281+00		14-B	Class B Concrete (Other than Box Culs)	CY	715							
281+00	2544	8428	2167				281+00		18-B	12" Corr. Metal Culs. Pipe (E&SR)	L.F.	175							
281+00	2544	8428	2167				281+00		18-B	15" " " " " " " " " " " "	L.F.	270							
281+00	2544	8428	2167				281+00		18-B	18" " " " " " " " " " " "	L.F.	150							
281+00	2544	8428	2167				281+00		18-B	24" " " " " " " " " " " "	L.F.	42							
281+00	2544	8428	2167				281+00		18-B	36" " " " " " " " " " " "	L.F.	50							
281+00	2544	8428	2167				281+00		18-B	48" " " " " " " " " " " "	L.F.	98							
281+00	2544	8428	2167				281+00		18-B	54" Corr. Metal Culs. Pipe	L.F.	42							
281+00	2544	8428	2167				281+00		18-C	18" Reinf. Conc. Culs. Pipe	L.F.	225							
281+00	2544	8428	2167				281+00		18-C	24" " " " " " " " " " " "	L.F.	608							
281+00	2544	8428	2167				281+00		18-C	30" " " " " " " " " " " "	L.F.	240							
281+00	2544	8428	2167				281+00		18-C	36" " " " " " " " " " " "	L.F.	105							
281+00	2544	8428	2167				281+00		18-C	42" " " " " " " " " " " "	L.F.	105							
281+00	2544	8428	2167				281+00		18-C	48" " " " " " " " " " " "	L.F.	202							
281+00	2544	8428	2167				281+00		18-CB	48" Reinf. Conc. Culs. Pipe (Imp. to Method)	L.F.	304							
281+00	2544	8428	2167				281+00		18-A	Metal Arch Culverts (Type B-7)	L.F.	44							
281+00	2544	8428	2167				281+00		19-A	Reinforcing Steel	Pounds	92680							
281+00	2544	8428	2167				281+00		24-A	Class A Type I Ltd. Underdrains	L.F.	1875							
281+00	2544	8428	2167				281+00		24-D	Class C Underdrain (Tile)	L.F.	98							
281+00	2544	8428	2167				281+00		27-A	Guard Rail (Type A)	L.F.	1170							
281+00	2544	8428	2167				281+00		28-A	Barricades	Each	1							
281+00	2544	8428	2167				281+00		29-C	Right of Way Markers	Each	110							
281+00	2544	8428	2167				281+00		29-D	Drain Markers	Each	27							
281+00	2544	8428	2167				281+00		33-A	Removal of (3) Exist. Strauts (Culvs)	L. Sum.	1							
281+00	2544	8428	2167				281+00		37-A	Fertilizing & Mulching	Acres	469							
TOTALS										ROLLED STONE BASE									
281+00	2544	8428	2167				281+00		1-A	Water	100 Gal.	1420							
281+00	2544	8428	2167				281+00		2-A	Aggregate	Ton	122,787							
281+00	2544	8428	2167				281+00		2-B	Spreading, Shaping & Compacting (10")	Mile	757							
281+00	2544	8428	2167				281+00		2-B	Spreading, Shaping & Compacting (4")	Mile	236							
TOTALS										ASPHALTIC CONCRETE PAVEMENT									
281+00	2544	8428	2167				281+00		40-A	Primer (NIC O)	Gal.	79,201							
281+00	2544	8428	2167				281+00		7-B	Type B Asphaltic Concrete	Ton	28,024							
281+00	2544	8428	2167				281+00		7-C	Type C Asphaltic Concrete	Ton	3127							
TOTALS										SEAL COAT									
281+00	2544	8428	2167				281+00		10-A	Bituminous Material (200-250 Flon Asph)	Gal.	35429							
281+00	2544	8428	2167				281+00		10-A	Cover Material (51-112 Gr. No. 6)	Ton	1129							
TOTALS										ROADWAY CONTINGENT ITEMS									
281+00	2544	8428	2167				281+00			Placing Rock Fill	CY	357							
281+00	2544	8428	2167				281+00			15" Corr. Metal Culs. Pipe Turned over to State	L.F.	26							
281+00	2544	8428	2167				281+00			Cutting & Delivering Asphaltic Conc. Samples	Each	58							
281+00	2544	8428	2167				281+00			Tile Underdrain taken over from contractor	L.F.	1671							
TOTALS										DRAIN BASINS, DRAINS & PAVED DITCHES									
281+00	2544	8428	2167				281+00		Station	Side	Basins	Drains	Paved Ditch	CL3 Etc	Cont.	Reinf.	Remarks		
281+00	2544	8428	2167				281+00		297+41	Lt.	1	1	21	1	20	6.14	75	Flows Ahead	
281+00	2544	8428	2167				281+00		488+00	Lt.	1	1	24	1	21	6.08	80	Flows Back	
TOTALS										BARRICADES									
281+00	2544	8428	2167				281+00		Station	Location	Number	Remarks							
281+00	2544	8428	2167				281+00		297+00		1								
TOTALS										GUARD RAIL - TYPE A									
281+00	2544	8428	2167				281+00		Station	Location	Lin. Ft.	Remarks							
281+00	2544	8428	2167				281+00		270+00	Rt.	350	Fill Over 20							
281+00	2544	8428	2167				281+00		271+00	Lt.	350	" " "							
281+00	2544	8428	2167				281+00		270+00	Rt.	350	" " "							
281+00	2544	8428	2167				281+00		270+00	Rt.	220	" " "							
TOTALS										TOTAL									
281+00	2544	8428	2167				281+00		270+00		1170								



453





PROFILE		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	GRADED		
	S. M.S. NOTED		
	STRUCTURE INDICATOR CHFD.		

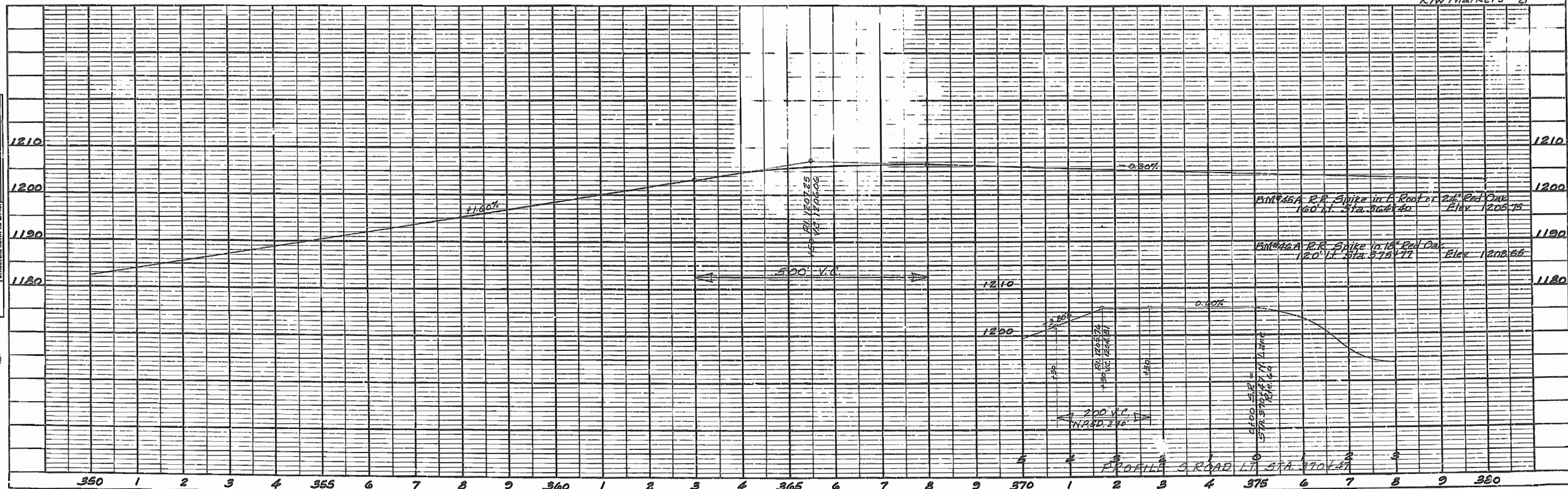
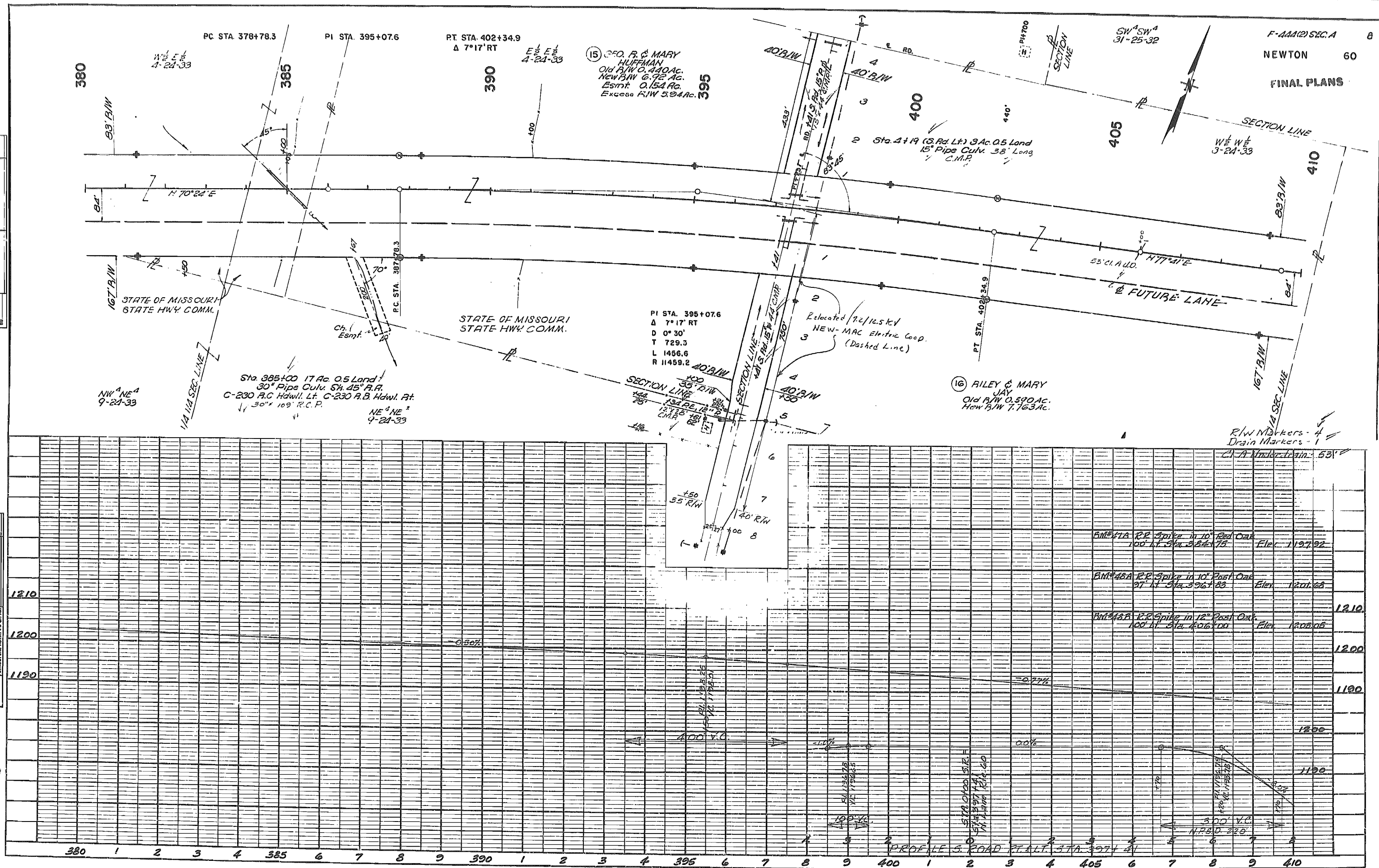


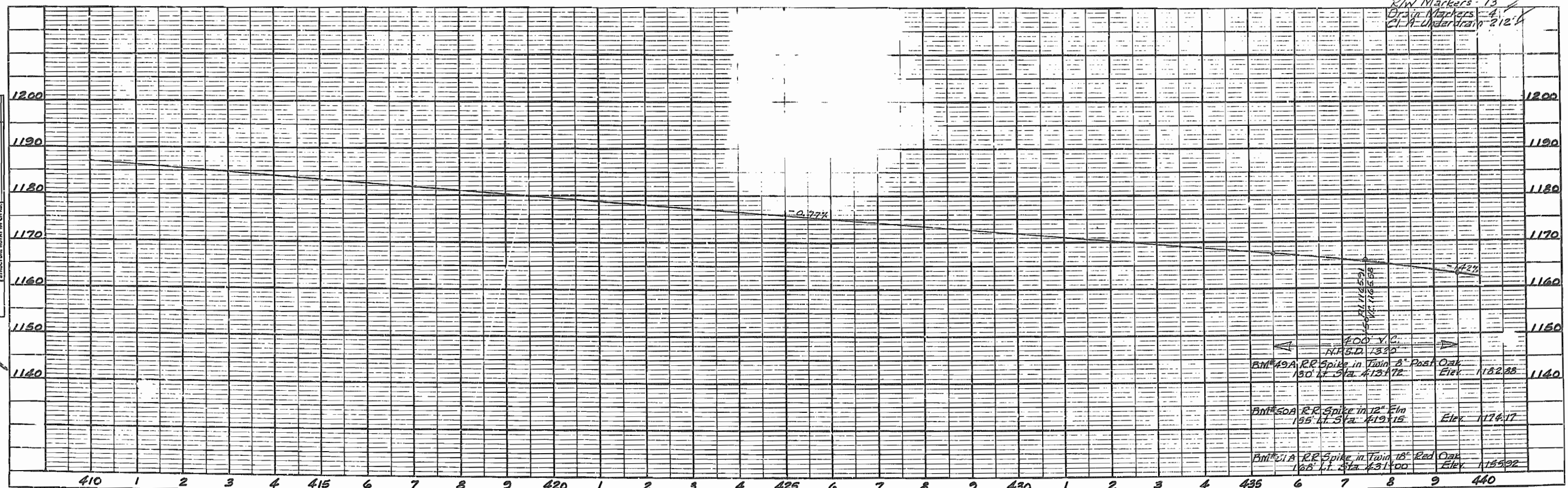
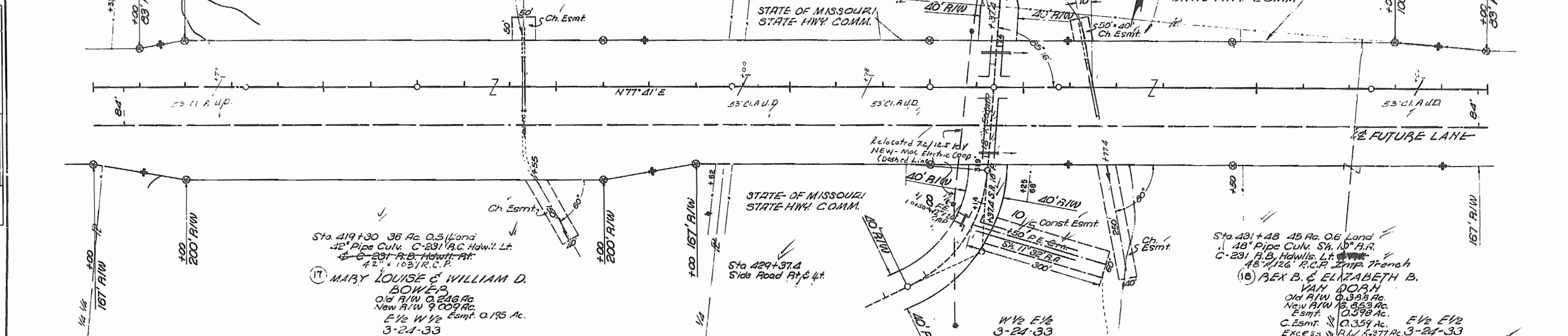
PLATE 1—PLAN-PROFILE O. P. R. & R. E. STANDARD
U. S. BLUE PRINT PAPER CO.—CHICAGO

PLAN	SUBMITTED	CY	DATE
NOTE BOOK	PLOTTED		
	ALLEGES CHECKED		
NO.	67. OF WAY CHECKED		

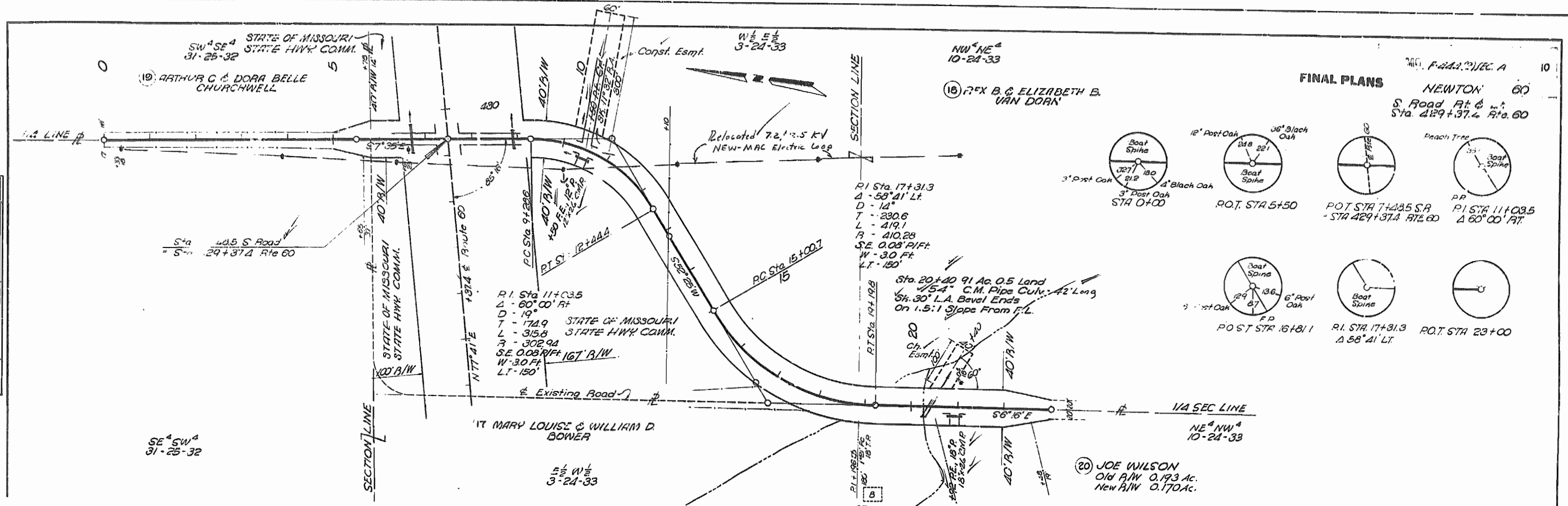
PROFILE	SUBMITTED	BY	DATE
NOTE BOOK	FLATTED		
NO.	B. M. 3 NOTED		
	STRUCTURE NOTATY'S CHFD.		



(19) ARTHUR C. & DORA BELLE
CHURCHWELL
Old R/W 0.039 Ac.
New R/W 0.092 Ac.

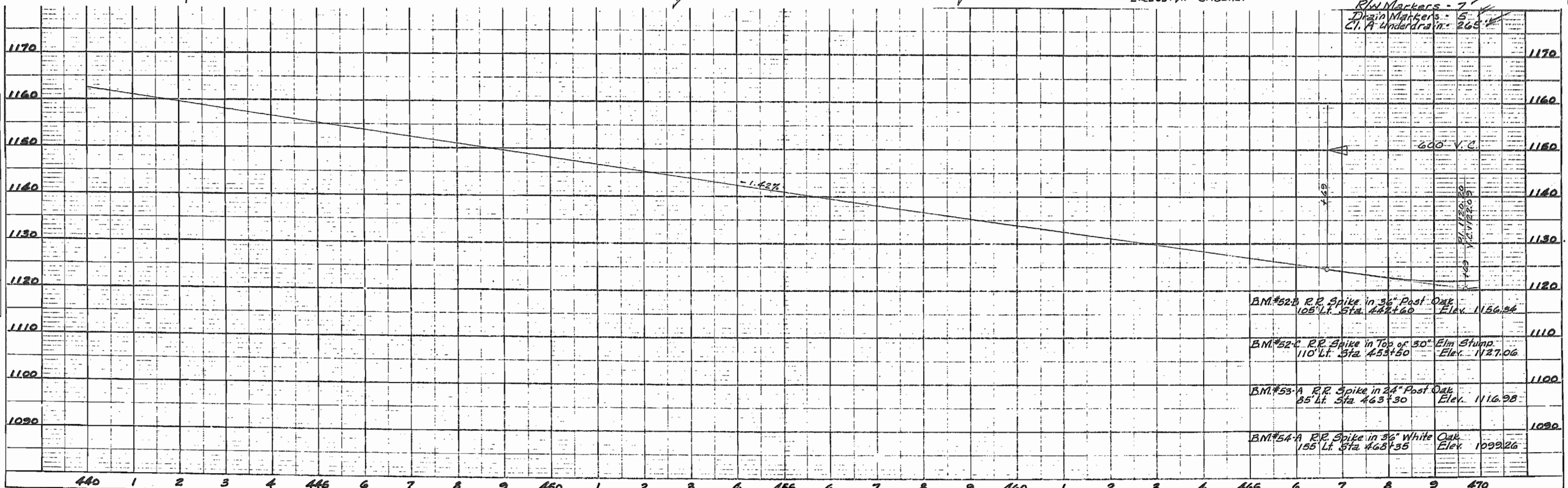
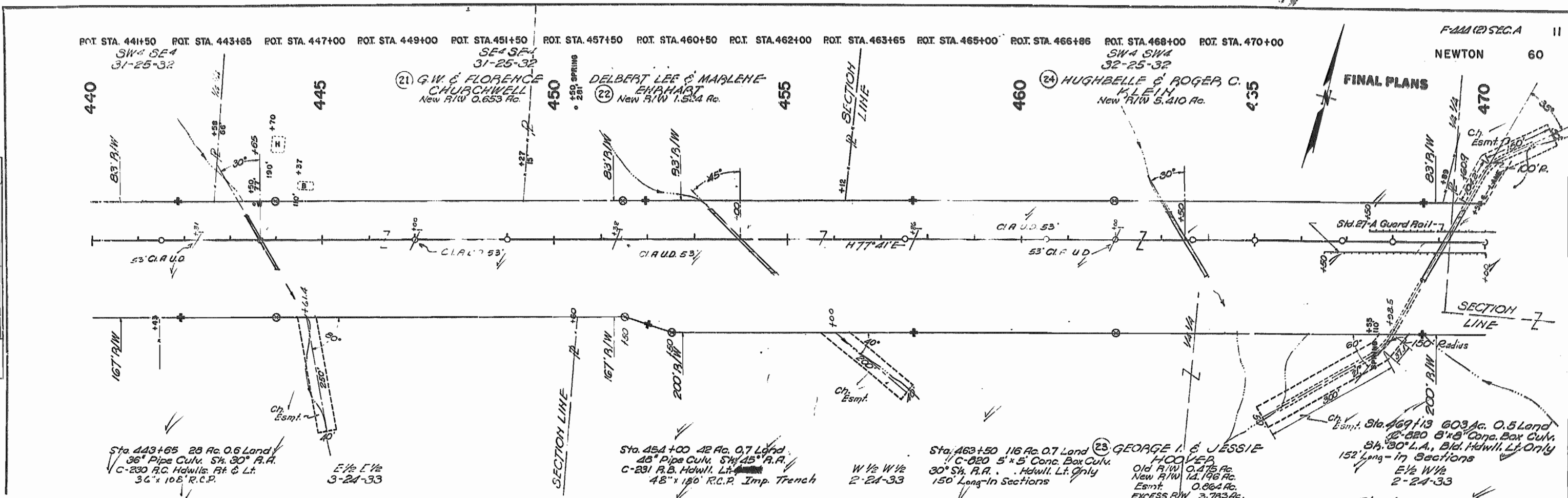


DATE	
BY	
REVISION	
NOTES	
NO.	

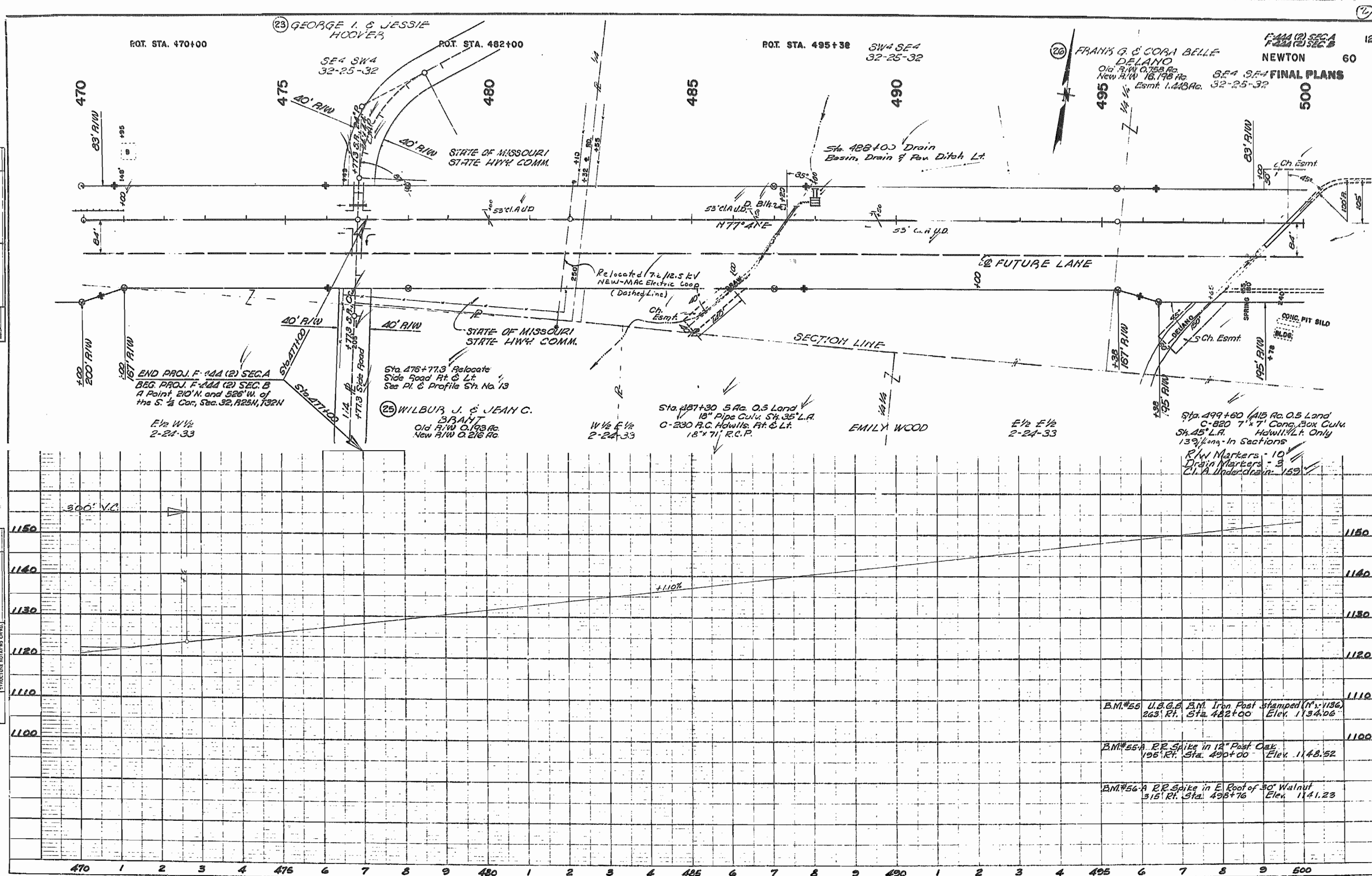


PLAN	DATE
BY	
CHECKED	
APPROVED	
REVISION	

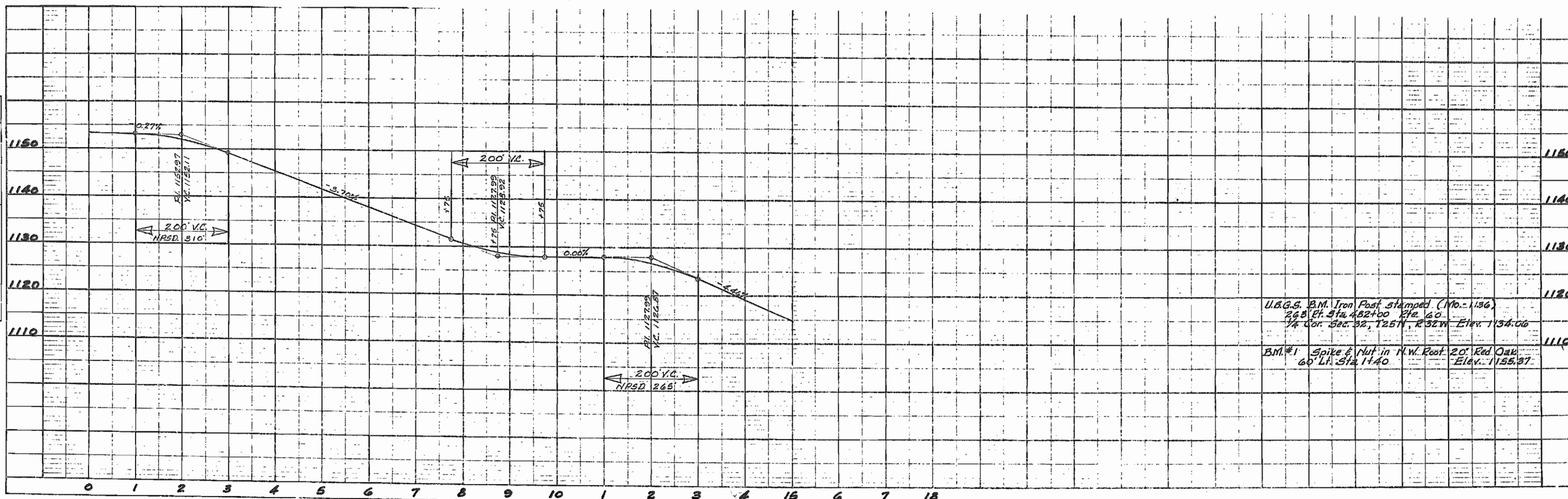
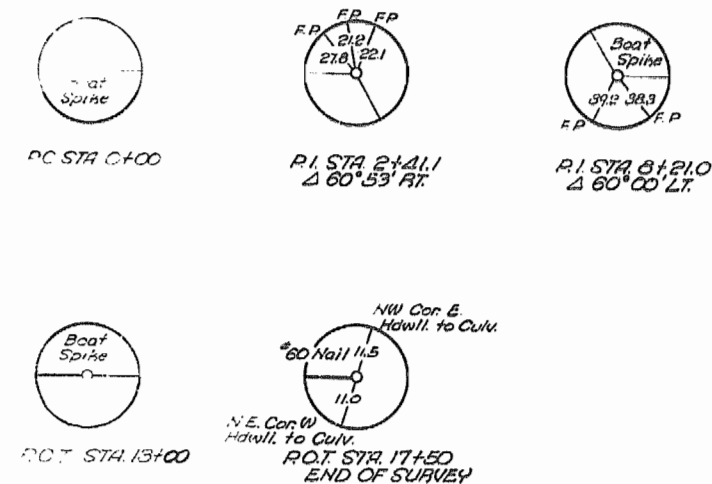
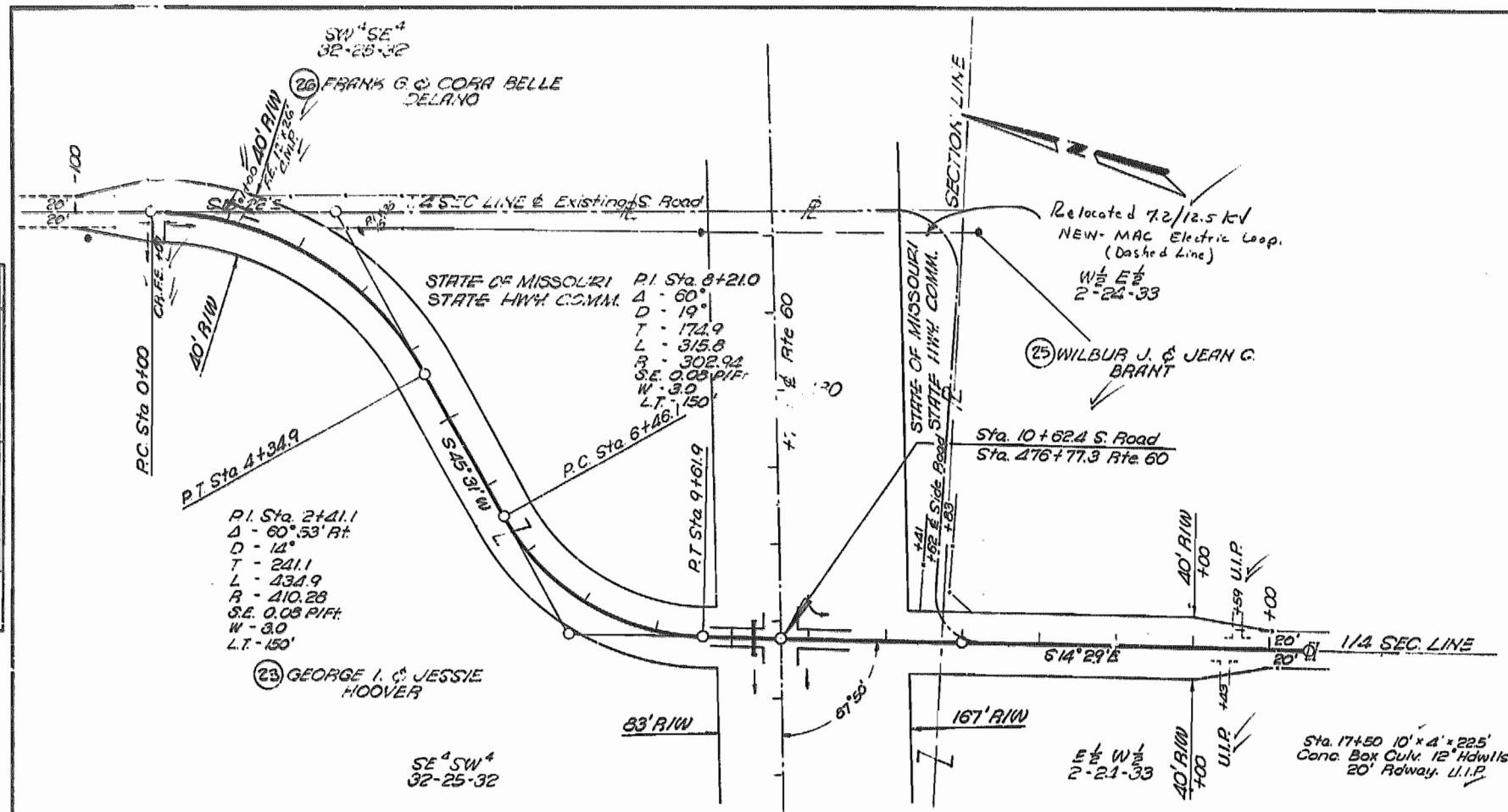
PROFILE	DATE
BY	
CHECKED	
APPROVED	
REVISION	



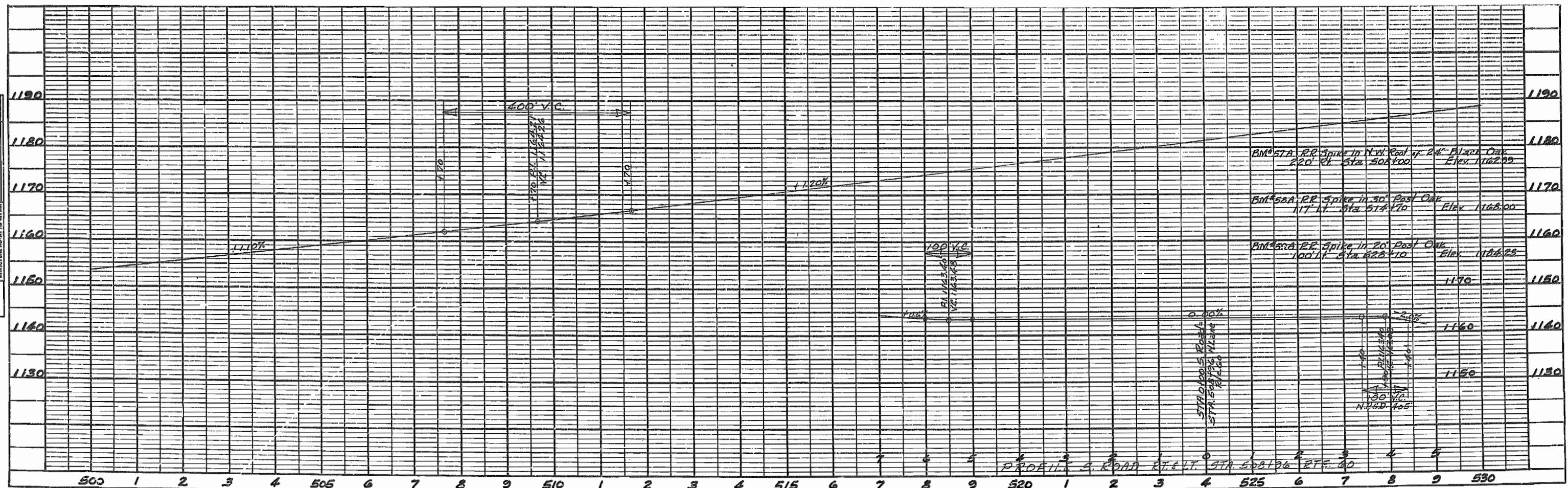
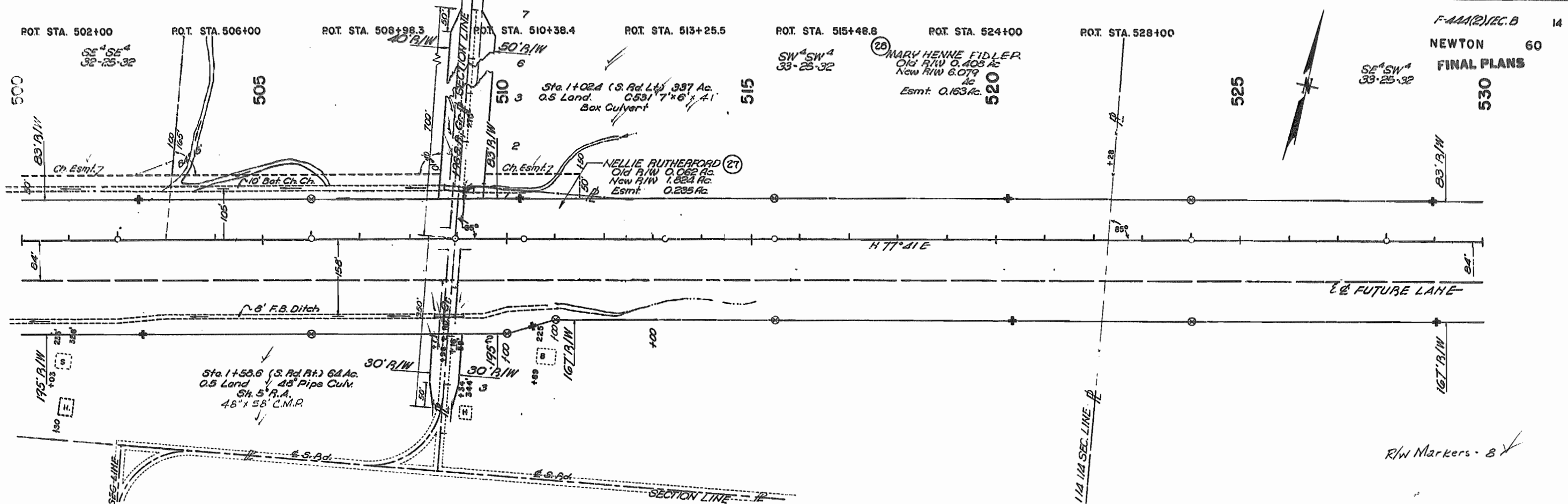
463



FINAL PLANS

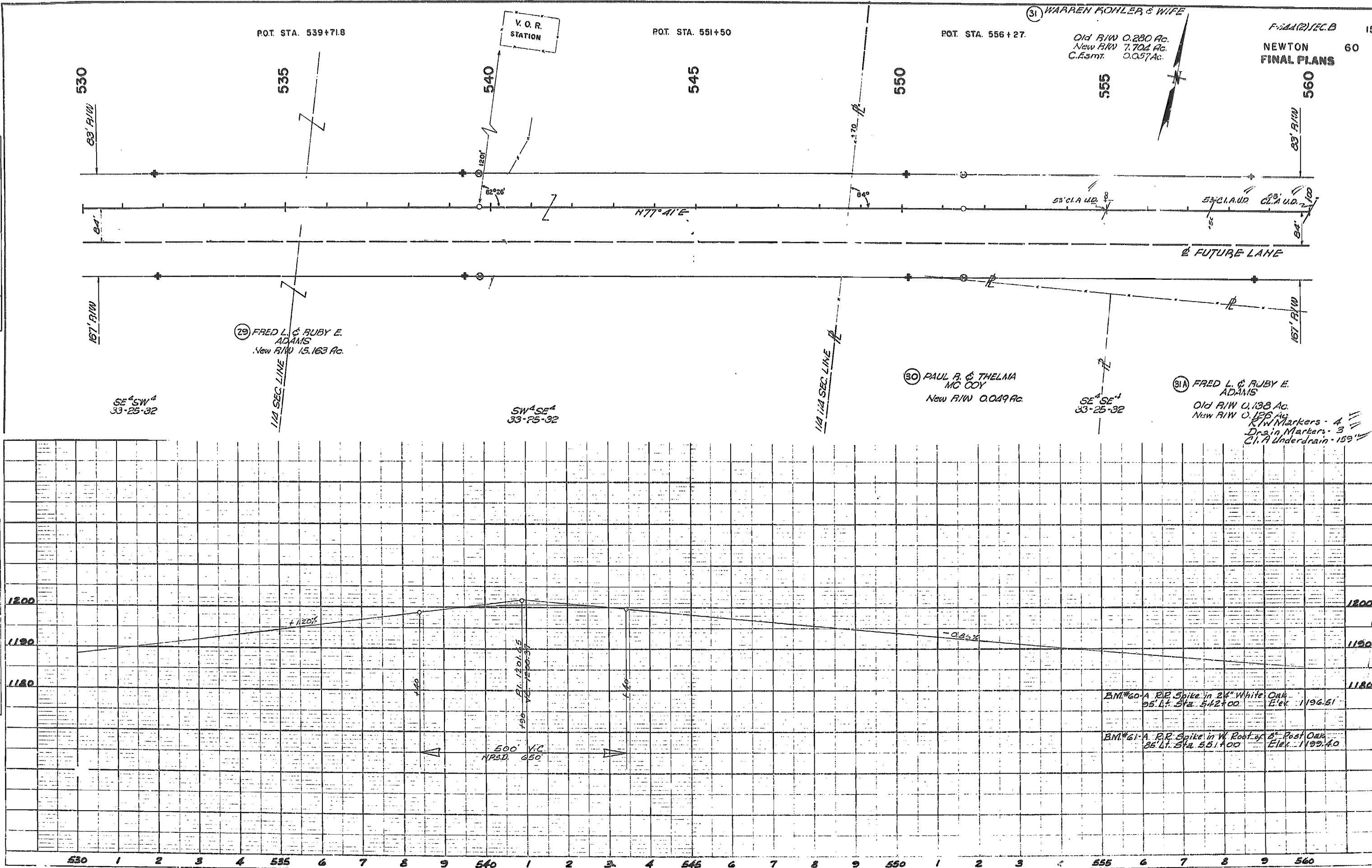


U.S.G.S. B.M. Iron Post stamped (Mo. - 1936)	
265 Ft. Sta 482+00 Ete 60	
1/4 Cor. Sec. 32, T25N, R32W Elev. 1134.06	
B.M. #1 Spike & Nut in N.W. Root 20' Red Oak	
60' Lf. Sta 1140 Elev. 1155.37	

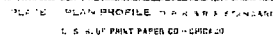
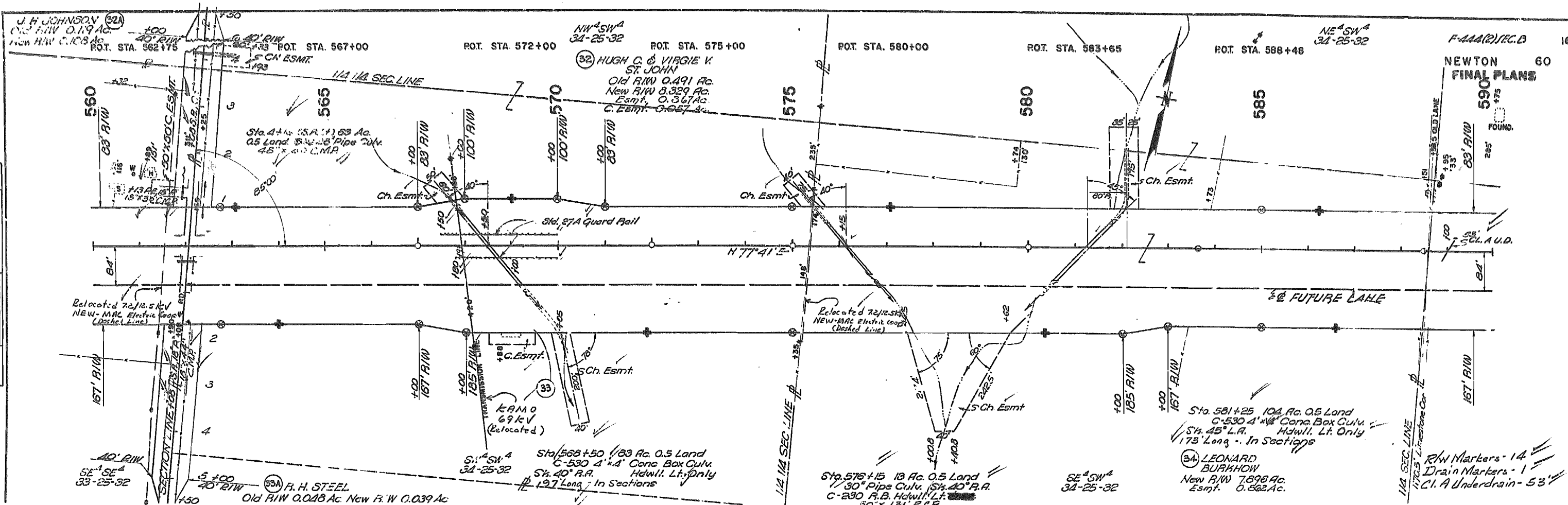


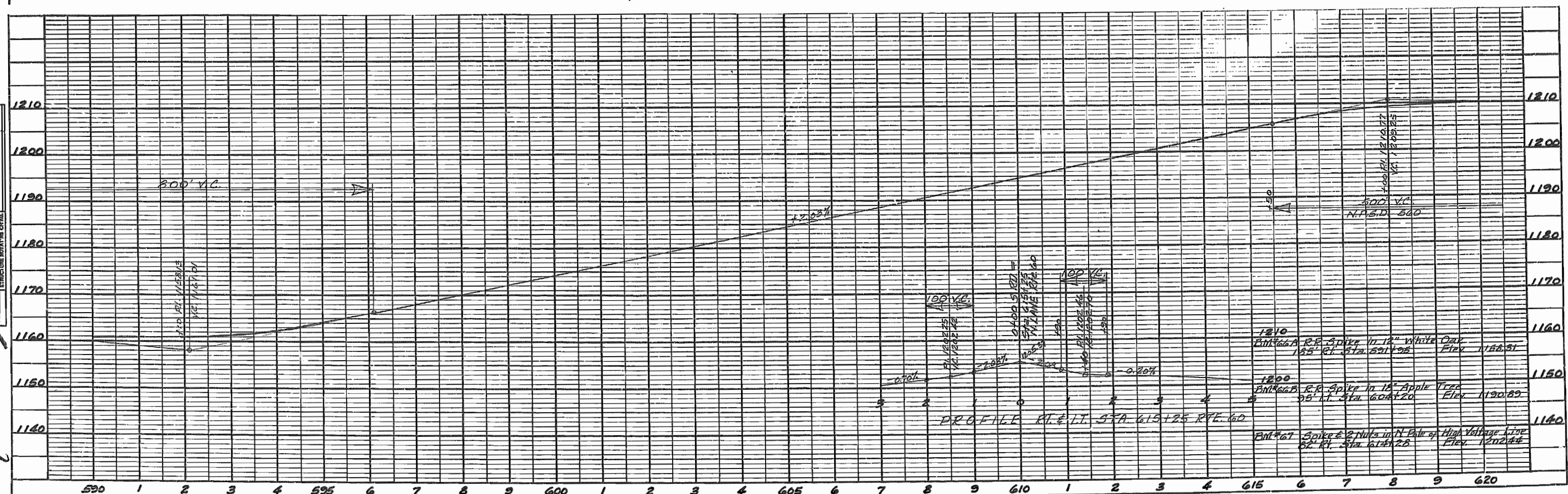
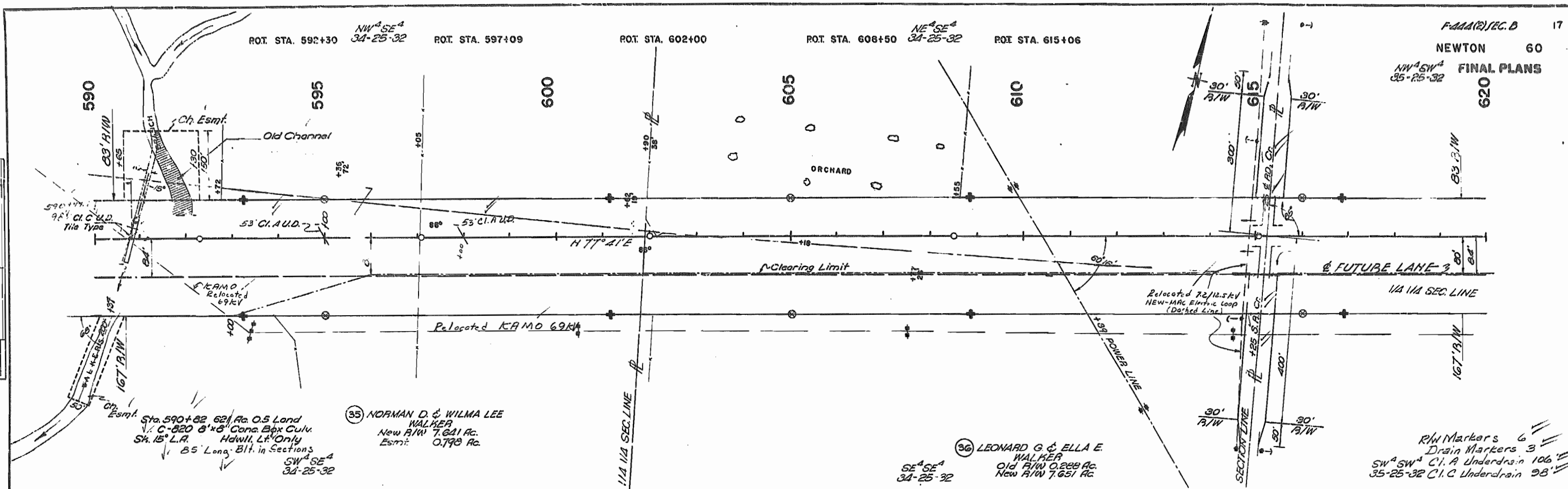
PLAN	DATE	BY	CHKD
REVISION			
1. PLATTED			
2. GRADES			
3. STRUCTURE			
4. STATUS			
5. OTHER			

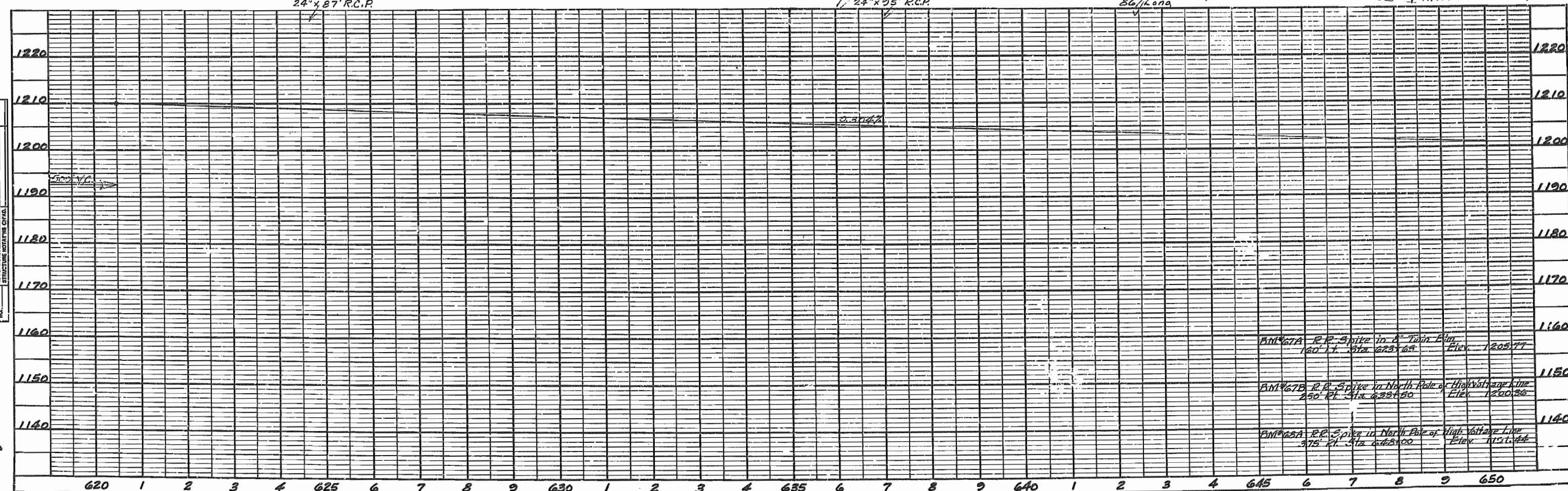
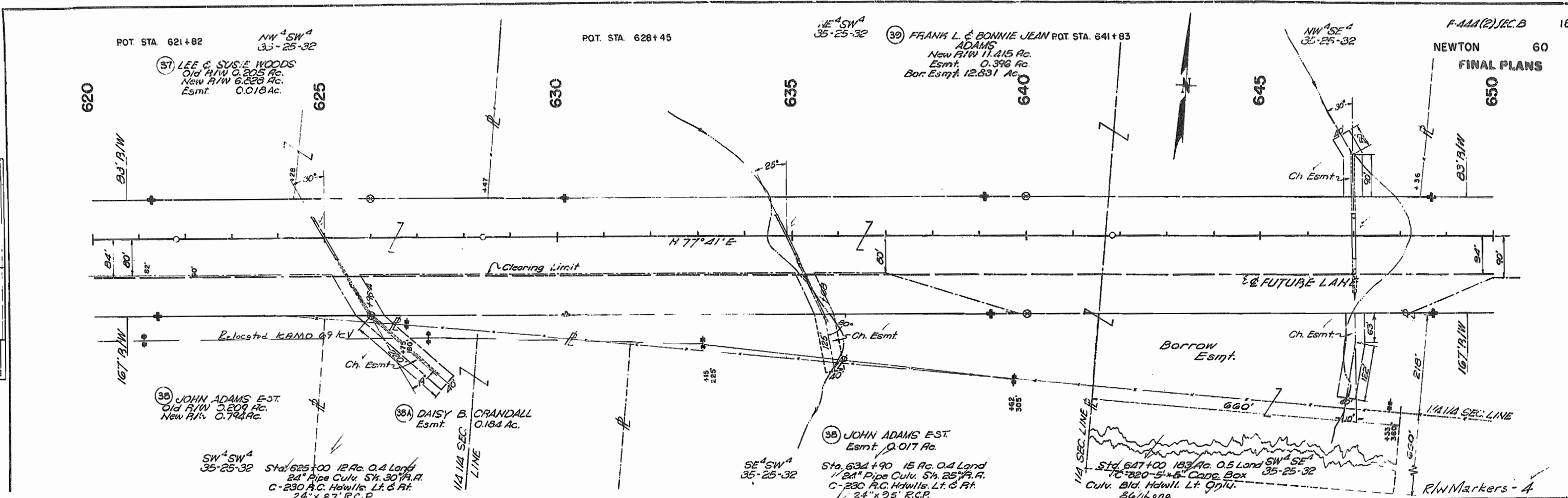
PROFILE	DATE	BY	CHKD
REVISION			
1. PLATTED			
2. GRADES			
3. STRUCTURE			
4. STATUS			
5. OTHER			



467

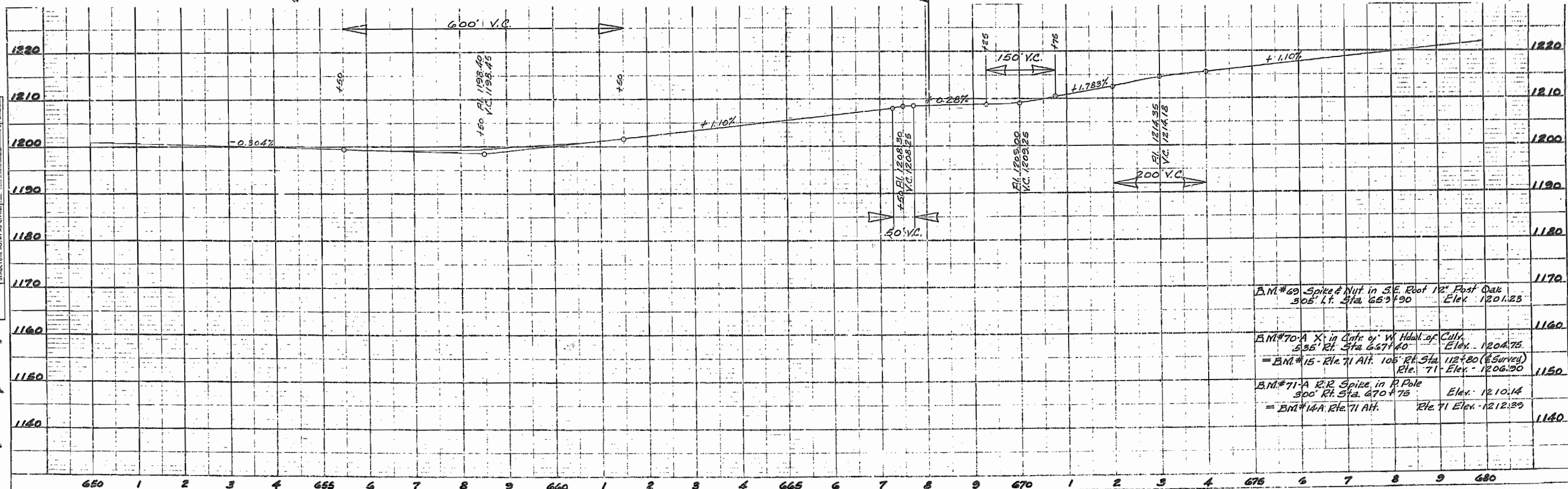
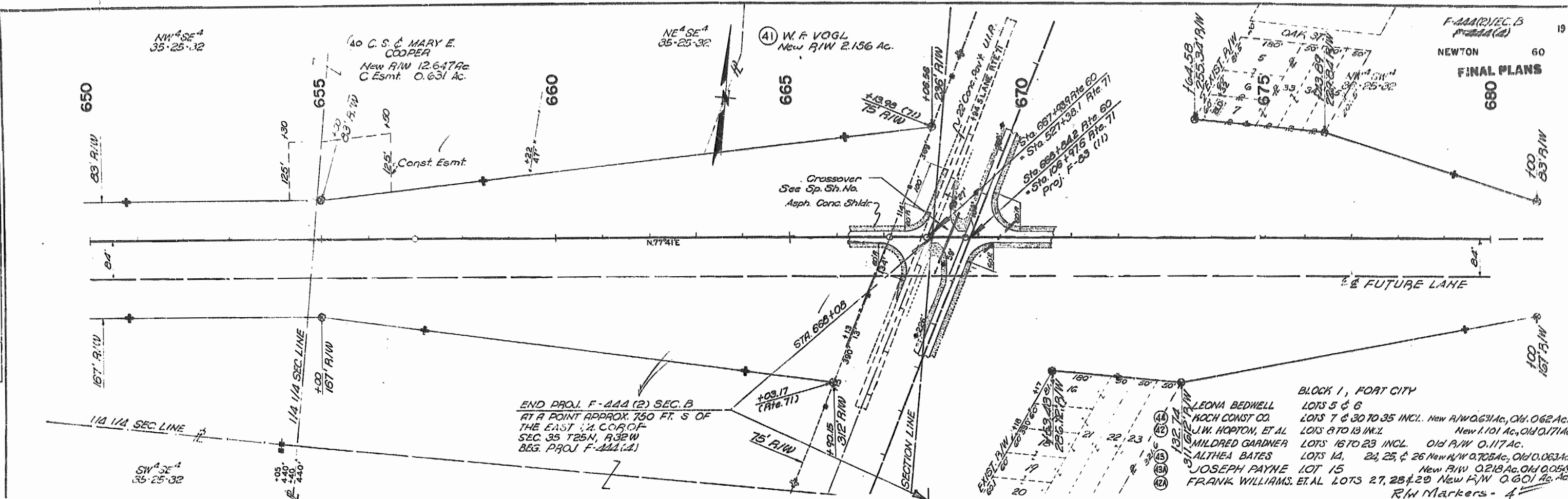






PLAN	DATE
SURVEYED	BY
NOTED	DATE
GRADES CHECKED	BY
BY	DATE

PROFILE	DATE
SURVEYED	BY
NOTED	DATE
GRADES CHECKED	BY
BY	DATE



B.M. #69 Spike & Nut in S.E. Root 12" Post Oak
305' Lt. Sta. 653+90 Elev. 1201.25

B.M. #70-A X in Ctr. of W. Hd. of Culv.
535' Rt. Sta. 667+40 Elev. 1204.75

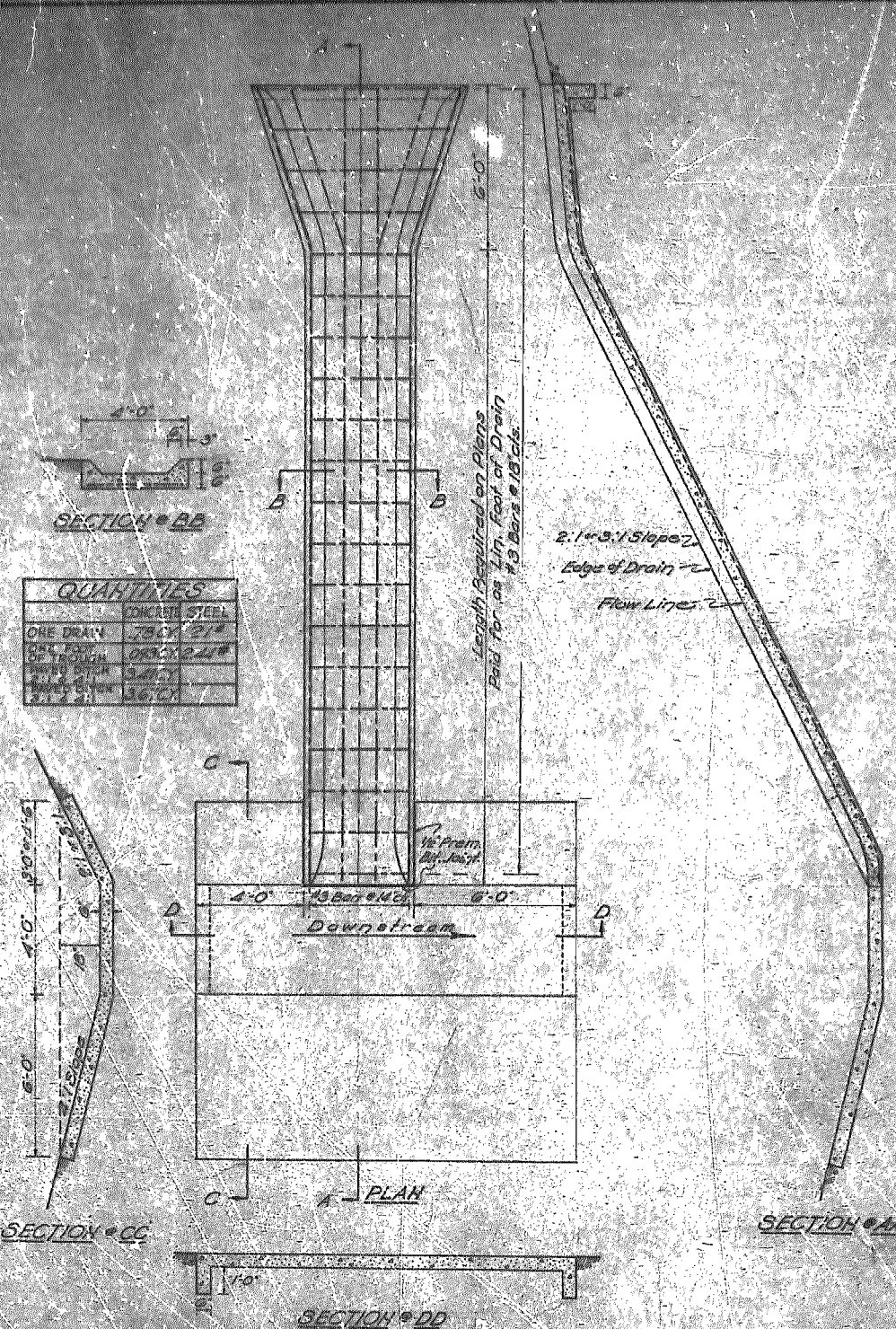
= B.M. #15 - Rte. 71 Alt. 105' Rt. Sta. 112+80 (E. Survey)
Rte. 71 Elev. 1206.30

B.M. #71-A R.R. Spike in R. Pole
300' Rt. Sta. 670+75 Elev. 1210.14

= B.M. #14A Rte. 71 Alt. Rte. 71 Elev. 1212.39

20

20



DRAIN BASIN, DRAIN, & PAVED DITCH
LT STA 297+41
LT STA 488+00

SPECIMEN SHEET NO. 2

LIST OF STANDARD PLANS

PROJ.	SHEET
F-444(2) AFB	21
CO.	RTE.
NEWTON	60

[illegible]

DESIGN DESIGNATION

A.D.T. - 1973 = 2580

A.D.T. - 2013 = 3990

D.H.V. = %

T = 9%

V = 50 M.P.H.

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION
PLANS FOR PROPOSED
STATE HIGHWAY

FEDERAL AID PROJECT

NEWTON-BARRY COUNTIES

FINAL PLAN

COUNTY NEWTON-BARRY

ROUTE 60

PROJECT STP-FY93(3)

JOB NO. J7P0360

R/W NO. J7P0360

PARTIAL LIMITED ACCESS HIGHWAY

THIS SHALL BE A PARTIAL LIMITED ACCESS HIGHWAY, EXCEPT AT LOCATIONS AND AS OTHERWISE SPECIFICALLY SHOWN ON THESE PLANS, NO ADJUTTER'S RIGHTS IN, OR OF DIRECT ACCESS TO, FROM OR ACROSS THE HIGHWAY OR ITS RIGHT-OF-WAY SHALL ATTACH OR BELONG TO ANY PROPERTY ADJUTTING ON SAID SECTION OF HIGHWAY, OR TO ANY PERSON MERELY BECAUSE OF OWNERSHIP OF SUCH ADJUTTING PROPERTY WHERE THE SYMBOL SHOWN BELOW IS SHOWN ON THE RIGHT-OF-WAY LINE.

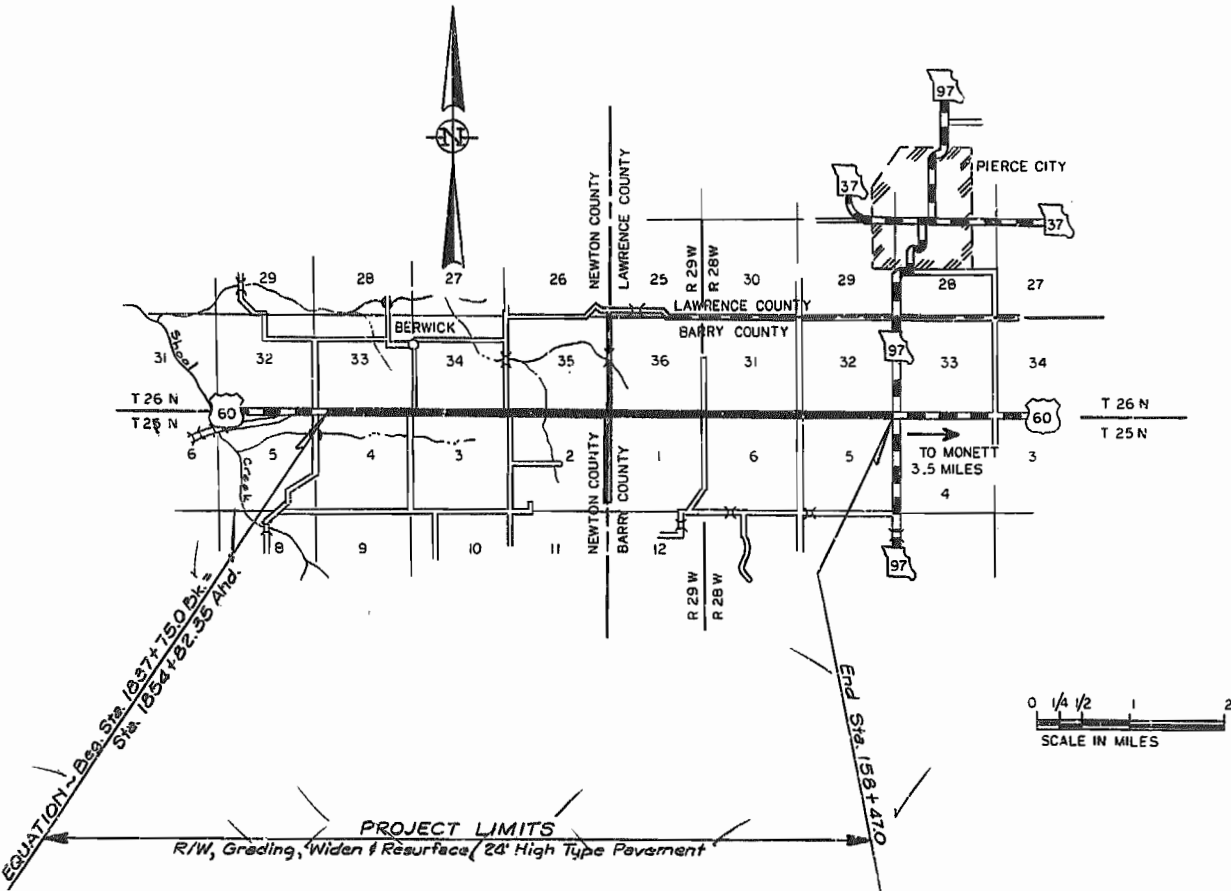


CONVENTIONAL SIGNS

(USED IN PLANS)

BUILDINGS AND STRUCTURES	
GUARD RAIL	
CONCRETE RIGHT-OF-WAY MARKER	
STEEL RIGHT-OF-WAY MARKER	
FENCE	
CHAIN LINK	
WOVEN WIRE	
GATE	
UTILITIES	
TELEPHONE	
POWER	
GAS	
WATER	

NOTE: DASHED OR OPEN SYMBOL INDICATES EXISTING FEATURE



AWARDED
SEP 08 1993

INDEX OF SHEETS

DESCRIPTION	SHEET NUMBER
TITLE SHEET	1
TYPICAL SECTIONS (2 SHEETS)	2
SUMMARY (1 SHEET)	2-A
SUMMARY (5 SHEETS)	2-B
PLAN-PROFILE	3-14
REFERENCE POINTS	15-16
SPECIAL SHEETS	
LIGHTING	
SIGNALS	
SIGNING	
CULVERT SECTIONS	29-35
BRIDGE DRAWINGS	36
STANDARD PLANS INDEX	
CROSS SECTIONS	
COMPUTER DATA	
Class 3 Exc Cross Sections	37-39

LENGTH OF PROJECT

END OF PROJECT	STA. 158+47.0
BEGINNING OF PROJECT	STA. 1854+82.35
APPARENT LENGTH	- 169,635.35 FEET
EQUATIONS AND EXCEPTIONS	
2006+94.1 Bk. =	+200,694.10 FEET
0+00 Ahd.	
112+99.56 Bk. =	- 13.54 FEET
113+13.1 Ahd.	
149+13.0 Bk. =	+ 11.60 FEET
149+01.4 Ahd.	
TOTAL CORRECTIONS	+200,692.10 FEET
NET LENGTH OF PROJECT	31,056.81 FEET
STATE LENGTH	5.882 MILES
FEDERAL LENGTH	5.882 MILES



MISSOURI HIGHWAY AND
TRANSPORTATION COMMISSION

SUBMITTED

James M. M...
CHIEF ENGINEER

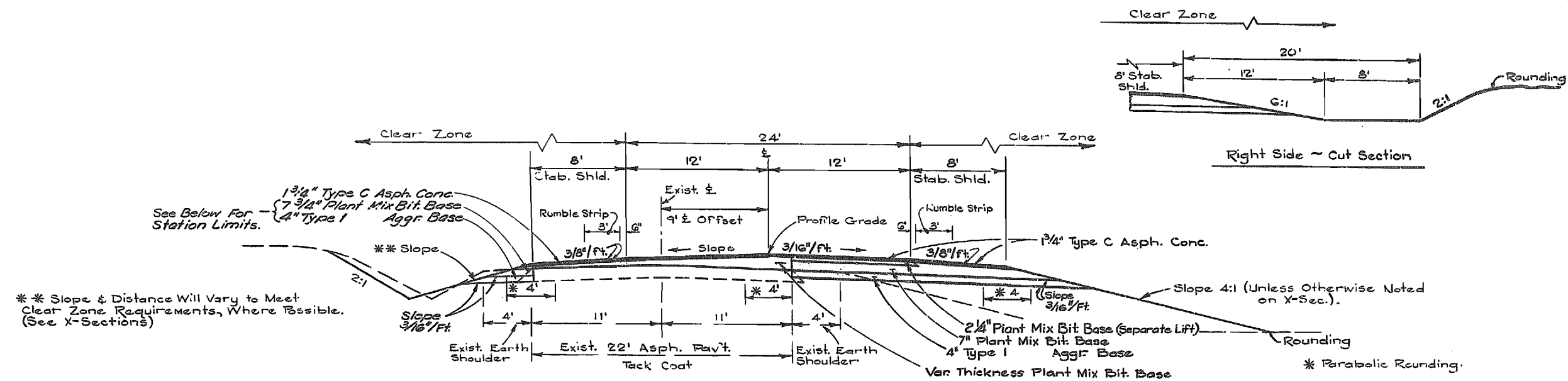
3-24-93
DATE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

DIVISION ADMINISTRATOR

DATE



Widen Left Shoulder	
Sta. 1264+00	to Sta. 1282+00
Sta. 1914+00	to Sta. 1937+00
Sta. 1949+00	to Sta. 1961+00
Sta. 1973+00	to Sta. 1998+00
Sta. 9100	to Sta. 12400
Sta. 52106.9	to Sta. 56400
Sta. 81+00	to Sta. 112+99.6
Sta. 117+00	to Sta. 130+00
Sta. 139+00	to Sta. 147+00
Sta. 152+00	to Sta. 153+4.7

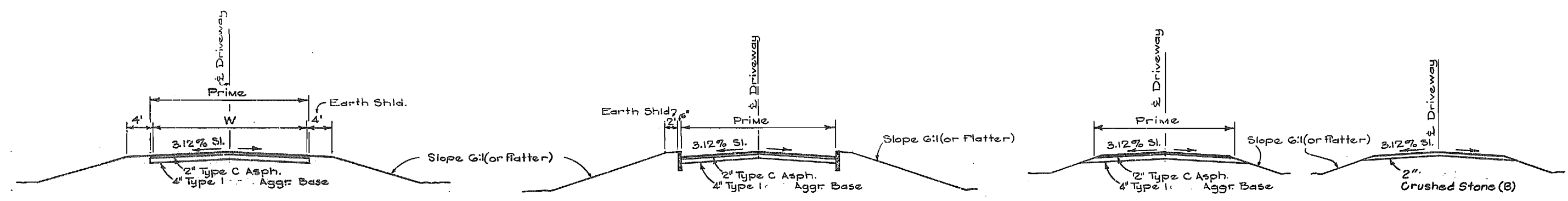
TYPICAL SECTION
Sta. 1835+62.2 TO Sta. 158+47.0

TYPICAL SECTION —
Route 60 —
Sheet 1 of 2 —

FINAL PLANS

STATE	J7P0360	SHEET NO.	2
MO.		ROUTE	60
PROJECT NO.	STP-FY93(3)		
DIST. NO.	7	COUNTY	Newton-Barry

DATE	
BY	
NO. BOOK	
NO. SHEET	
AREAS CHECKED	
NO.	

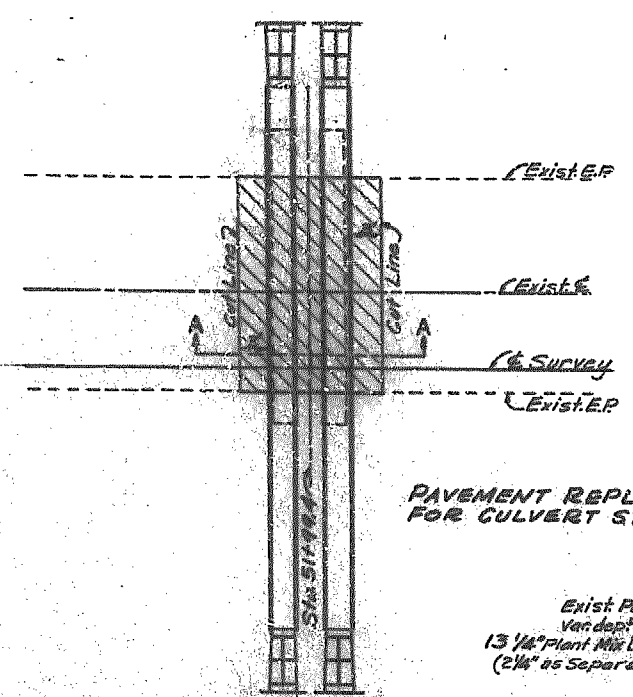


Typical Section
Type II Driveway

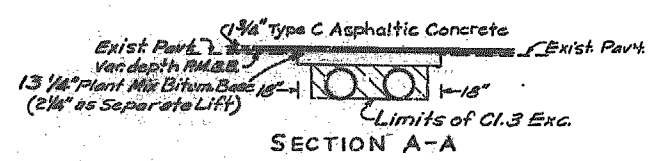
Typical Section
Type III Driveway

Typical Section
Type I Driveway
(Asph. Surf.)

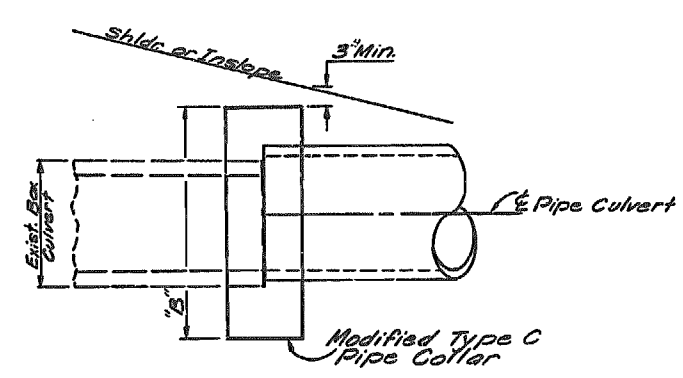
Typical Section
Type I Driveway
(Aggr. Surf.)



PAVEMENT REPLACEMENT
FOR CULVERT STA. 51+99.4



SECTION A-A



TYPICAL MODIFIED PIPE COLLAR

TYPICAL SECTION
Driveways, Pav't Replacement
And Modified Pipe Collar.
Sheet 2 of 2

SUMMARY OF QUANTITIES

sheet 1 of 1 -

STATE MO	JOB NO. J7P036D /	SHEET 1
DIST NO. 7 /	PROJECT NO. STP-FY93(3) /	21
	COUNTY Newton-Barry /	ROUTE
		60

[illegible]

ITEM	DESCRIPTION	UNIT	QUANTITY
201-10.00	CLEARING	ACRE	3.9
201-20.00	GRUBBING	ACRE	3.9
202-20.10	REMOVAL OF IMPROVEMENTS	LUMP SUM	1
203-10.00	CLASS A EXCAVATION	CU YD	74,684
203-60.00	COMPACTING EMBANKMENT	CU YD	38,593
203-70.75	COMPACTING IN CUT	STATION	328.5
205-10.00	OVERHAUL (STATION)	STA YD	16,694
206-30.00	CLASS 3 EXCAVATION	CU YD	1,049
301-10.11	ASPHALT CEMENT (BITUMINOUS BASE) AC-20	TON	2,888.9
301-20.00	MINERAL AGGREGATE (BITUMINOUS BASE)	TON	56,068
304-00.43	TYPE 1 AGGREGATE FOR BASE (4 IN. THICK)	SQ YD	101,940
310-50.01	CRUSHED STONE (B)	CU YD	189
390-90.00	TEMPORARY SURFACING	CU YD	278
403-10.11	ASPHALT CEMENT (ASPHALTIC CONCRETE) AC-20	TON	684.8
403-10.26	MINERAL AGGREGATE (ASPHALTIC CONCRETE) (TYPE C MIX)	TON	13,086
403-90.80	BITUMINOUS RUMBLE STRIP	100 FT	626
407-10.05	PAVEMENT COAT	GALLON	9110
408-10.10	PRIME-LIQUID ASPHALT MC 30	GALLON	1,660
601-10.00	FIELD LABORATORIES	LUMP SUM	1
604-40.13	PIPE COLLAR, TYPE C	EACH	19
609-10.10	CONCRETE CURB (6 IN. HEIGHT AND UNDER) TYPE C	LIN FT	122
609-10.60	PAVED DITCH	SQ YD	331.9
609-60.20	TYPE 2 ROCK DITCH LINER	CU YD	32
609-70.00	ROCK LINING	CU YD	79
611-70.20	EROSION CONTROL GEOTEXTILE	SQ YD	96
612-90.10	INSTALLING GIVE EM A BRAKE 4 FT. X 8 FT. SIGN	EACH	4
612-90.20	INSTALLING GIVE EM A BRAKE 4 FT. X 4 FT. SIGN	EACH	2
616-10.05	CONSTRUCTION SIGNS	SQ FT	1,245
616-10.10	RELOCATED SIGNS	SQ FT	0
616-10.46	TYPE II OBJECT MARKER	EACH	10
618-10.00	MOBILIZATION	LUMP SUM	1
619-10.00	PAVEMENT EDGE TREATMENT	LIN FT	31,663
620-54.04	PREFORMED SHORT TERM MARKING TAPE 4 IN., INTERMITTENT YELLOW	MILE	6
620-55.03	THERMOPLASTIC MARKING MATERIAL 4 IN., SOLID YELLOW	100 FT	340.1
620-55.04	THERMOPLASTIC MARKING MATERIAL 4 IN., INTERMITTENT YELLOW	100 FT	61.5
703-20.01	CLASS A CONCRETE (CULVERTS)	CU YD	333.4
706-10.30	REINFORCING STEEL (CULVERTS)	POUND	40,170

ITEM	DESCRIPTION	UNIT	QUANTITY
725-03.15	15 IN. PIPE CULVERT GROUP B	LIN FT	379
725-03.18	18 IN. PIPE CULVERT GROUP B	LIN FT	987
725-03.24	24 IN. PIPE CULVERT GROUP B	LIN FT	144
725-20.05	CORRUGATED METALLIC-COATED STEEL PIPE-ARCH TYPE B-5	LIN FT	54
726-13.24	24 IN. CLASS III REINFORCED CONCRETE PIPE CULVERT	LIN FT	166
726-13.30	30 IN. CLASS III REINFORCED CONCRETE PIPE CULVERT	LIN FT	114
726-13.36	36 IN. CLASS III REINFORCED CONCRETE PIPE CULVERT	LIN FT	103
732-00.36	36 IN. FLARED END SECTION	EACH	1
732-10.16	24 IN. SAFETY SLOPE END SECTION	EACH	19
732-10.17	30 IN. SAFETY SLOPE END SECTION	EACH	4
732-10.18	36 IN. SAFETY SLOPE END SECTION	EACH	5
802-50.00	TYPE 3 MULCH	ACRE	41.0
805-10.00	SEEDING	ACRE	0
805-20.00	NATIVE PLANT SEEDING	ACRE	0
806-10.10	TEMPORARY BERMS (TYPE B)	LIN FT	0
806-10.11	SLOPE DRAINS	LIN FT	0
806-10.13	STRAW BALE DITCH CHECK	EACH	237
806-10.14	BILT FENCE DITCH CHECK	EACH	331
806-10.15	SEDIMENT BASIN	CU YD	0
806-10.16	SEDIMENT REMOVAL	CU YD	32
806-10.17	TEMPORARY SEEDING AND MULCHING	ACRE	0
806-10.18	STRAW BALE (FENCE)	LIN FT	5174
CONT. 501.01	SEED	ACRE	27.2
CONT. 501.02	NATIVE PLANT SEEDING	ACRE	13.8
CONT. 501.03	FILL WELL	LUMP SUM	1
CONT. 501.04	ADJUST ENTRANCES	LUMP SUM	1
CONT. 501.05	PVMT STRIPE REMOVAL	100 FT.	7.1
CONT. 501.06	CHANNELIZERS	EACH	10
CONT. 501.07	ASPHALT DENSITY SAMPLES	EACH	34
	FOOTNOTE: (1) INCLUDES 296 1/2 CY. YDS. FOR ROUNDING.		
	ACCEPTED: April 19, 1995		
	PREPARED BY: Michael D. Copley	DATE	5-31-95
	RESIDENT ENGINEER: Ryan S. Miller	DATE	5/31/95
	DIST. OFFICE: Dan Lowery	DATE	8/22/95
	MAIN OFFICE: Mark H. Anderson	DATE	11-20-95

404

MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT
SUMMARY OF QUANTITIES

FINAL PLANS
SHEET 1 OF 5

STATE MO
DIST NO 7
JOB NO. J7P0360
PROJECT NO. STP-FY93(3)
COUNTY NEWTON-BARRY
SHEET NO 28
ROUTE 60

REMOVAL OF IMPROVEMENTS

Lump Sum = 1

CLEARING & GRUBBING

Total = 3.9 Ac.

4" TYPE S CURB

Sht.	Station	Station	Loc.	Length L.F. (Field Measured)	Remarks
5	1914+97	1915+02	Lt.	8	At entrance Sta. 1915+18
5	1915+34	1915+49	Lt.	14	At entrance Sta. 1915+18
6	1949+20	1949+30	Rt.	25	At entrance Sta. 1949+45
6	1949+60	1949+70	Rt.	25	At entrance Sta. 1949+45
14	156+75	156+85	Lt.	25	At entrance Sta. 157+00
14	157+15	157+25	Lt.	25	At entrance Sta. 157+00
Total				122	

ROCK LINING

Sht.	Sta.	Loc.	Length Ft.	Width Ft.	Depth Ft.	C.Y.	Remarks
5	1901+26.6	S.R.	18	4	1	3	Culv. Outlet S.R. Lt.
5	1913+06.5	Rt.	20	15	2	22	Culvert Outlet
6	1925+18.1	Rt.	14	6	1	3	Culvert Outlet
6	1935+67.5	Lt.	2.5	6	1	1	Culvert Outlet
6	1943+22.8	Lt.	5	6	1	1	Culvert Outlet
7	1952+12.5	Lt.	11	6	1	2	Culvert Outlet
11	77+07.4	Rt.	14	6	1	3	Culvert Outlet
11	86+88.9	Rt.	18	18	1.5	18	Culvert Outlet
12	98+98	Lt.	13	12	2	12	Culvert Outlet
13	121+16.3	Lt.	6	14	2	6	Culvert Outlet
13	140+00	Lt.	8	14	2	8	Culvert Outlet
Total =							79

MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT

SUMMARY OF QUANTITIES

FINAL PLANS
SHEET 2 OF 5

STATE MO / JOB NO. J7P0360 /
DIST NO 7 / PROJECT NO. STP-FY93(3) /
COUNTY NEWTON-BARRY /

SHEET NO 28 /

CONCRETE BOX CULVERTS (Cast in place)

Sht.	Sta.	Loc.	Std.	Size	Extend Lt.	Extend Rt.	Fill Height Ft.	Hdwl.	Cl. B Conc. C.Y.	Reinf. Steel Lbs.	Cl. 3 Excav. C.Y.	Remarks
3	1858+04.6	C.L.	703.30	4'x2.5'	--	29'	2'	1'	10.5	1220	21	Rem. hdwl. rt. & ext. rt.
4	1878+29	C.L.	703.21 & 703.24	5'x3'	--	31'	3'	1'	14.0	1700	24	Rem. hdwl. rt. & ext. rt., incl. 1-30deg. bend
5	1893+83.7	C.L.	703.30	4'x2.5'	--	28'	2'	1'	10.2	1180	26	Rem. hdwl. rt. & ext. rt.
5	1900+73	C.L.	703.21	12'x7.5'	--	29'	2'	1'	57.4	7080	81	Rem. hdwl. rt. & ext. rt.
5	1913+06.5	C.L.	703.21	5'x3'	--	29'	3'	1'	13.0	1570	23	Rem. hdwl. rt. & ext. rt.
7	1969+56.3	C.L.	703.21 & 703.24	12'x6'	--	38'	4'	1'	62.2	7390	135	Rem. hdwl. & 7.2' of box & ext. rt., incl. 1-45deg bend
8	1993+35.3	C.L.	703.30	4'x2.5'	--	28'	2'	1'	10.1	1180	28	Rem. hdwl. rt. & ext. rt.
9	14+82.7	C.L.	703.21 & 703.24	10'x5'	--	30'	3'	1'	35.0	4460	55	Rem. hdwl. rt. & ext. rt.
9	27+15.5	C.L.	703.21 & 703.25	6'x4'	--	45'	3'	1'	30.9	3680	109	Rem. hdwl. rt. & ext. rt.
10	51+01.8	C.L.	703.21	6'x4'	--	34'	2'	1'	22.6	2770	78	Rem. hdwl. rt. & ext. rt.
12	98+98	C.L.	703.30	4'x2.5'	--	32'	2'	1'	11.3	1330	45	Rem. hdwl. rt. & ext. rt.
13	121+16.3	C.L.	703.21	5'x3'	--	33'	2'	1'	16.9	1970	65	Rem. hdwl. rt. & ext. rt.
13	129+39.5	C.L.	703.21	5'x3'	9'	33'	2'	2'	22.4	2670	66	Rem. hdwl's. lt. & rt. & ext. lt. & rt.
13	140+00	C.L.	703.21	5'x3'	--	33'	2'	1'	16.9	1970	45	Rem. hdwl. rt. & ext. rt.
Total =									333.4	40170	801	

REINFORCED CONCRETE PIPE CULVERTS

Sht.	Station	Loc.	Class III R.C.P.	24" Lin. Ft.	30" Lin. Ft.	36" Lin. Ft.	Safety Slope Ea.	End Section Ea.	36" End Sect. Ea.	Type C Pipe Collar Ea.	Cl. 3 Excav. C.Y.	Remarks
4	1888+83.5	C.L.	7'lt./20'rt.	--	--	--	2	--	--	2	13	Rem. hdwl's. & extend lt & rt.
6	1925+18.1	C.L.	4'lt./20'rt.	--	--	--	2	--	--	2	9	Rem. hdwl's. & extend lt & rt.
6	1935+67.5	C.L.	6'lt./18'rt.	--	--	--	2	--	--	2	12	Rem. hdwl's. & extend lt & rt.
6	1943+22.8	C.L.	3'lt./20'rt.	--	--	--	2	--	--	2	11	Rem. hdwl's. & 2' of box lt. & ext. lt. & rt.
7	1952+12.5	C.L.	5'lt./17'rt.	--	--	--	2	--	--	2	8	Rem. hdwl's. & extend lt & rt.
8	1987+17.4	C.L.	19'rt.	--	--	--	1	--	--	1	10	Rem. hdwl. & ext. rt., U.I.P. lt.
9	24+34.2	C.L.	--	--	10'lt./21'rt.	--	--	1	1	2	21	Rem. hdwl's. & extend lt & rt.
10	37+44.8	C.L.	--	--	22'rt.	--	--	1	--	1	17	Rem. hdwl. & ext. rt., U.I.P. lt.
10	43+97.7	C.L.	--	--	18'rt.	--	--	1	--	1	12	Rem. hdwl. & ext. rt., U.I.P. lt.
10	51+99.4	C.L.	--	114'	--	4	--	--	--	--	109	Rem. exist. CMP's. & replace w/2-RCP's. @ 57' ea.
11	77+07.4	C.L.	3'lt./22'rt.	--	--	--	2	--	--	2	8	Rem. hdwl's. & 1.4' of box lt. & ext. lt. & rt.
11	86+88.9	C.L.	--	--	26'rt.	--	--	1	--	1	8	Rem. hdwl. & ext. rt., U.I.P. lt.
14	158+91.8	C.L.	--	--	6'rt.	--	--	1	--	1	10	Rem. D.I. & ext. rt., U.I.P. lt.
Total =			164'	114'	103'	13'	4'	5'	1'	13	248'	

TYPE 2 ROCK DITCH LINER & PAVED DITCH

Sht.	Station	Station	Loc.	Type	Depth	Length	Surf. Width Ft.	Type 2 Rock D.L. C.Y.	Geo.Fab. S.Y.	Paved Ditch S.Y.	Slopes	Remarks
4	1878+00	1878+27.0	Rt.	8'F.B.	1'	27.0	14.4	14.4	43.2	---	4:1, 2:1	
5	1900+73	---	CL	---	---	25'	12'	---	---	33.3'	---	Floor in Exist. Box Culv.
5	1915+49	1915+54	Lt.	---	1' 3" 4"	5'	14'	---	---	7.8	5:1, 2:1	Field drain
7	1969+56.3	---	CL	---	---	25'	12'	---	---	33.3'	---	Floor in Exist. Box Culvert
10	51+76	52+23	Lt.	V"-6'F.B.	2'9", 2'	47'	14.4-20.4	---	---	91.4'	4:1, 2:1	Culv. Outlet
10	51+87	52+49	Rt.	8'F.B.	3'6"	62'	22.4	---	---	151.1'	4:1, --	Culv. Inlet, Do not pave backslope.
11	77+07.4	---	Lt.	---	1'6"	23.5'	6.2	---	---	15.0'	4:1, --	Culv. Inlet, Pave inslope Only.
14	158+91.8	---	Lt.	V"	2.5'	40'	11.2	18.0	53.1'	---	2:1, 2:1	Culv. Outlet
Total =							32'	96'	331.9'			

MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT

SUMMARY OF QUANTITIES

FINAL PLANS
SHEET 3 OF 5

STATE MO
JOB NO. J7P0360
PROJECT NO. STP-FY93(3)
COUNTY NEWTON-BARRY
SHEET NO. 28
ROUTE 60

ENTRANCES, SIDE ROADS, CULVERT PIPES, & APPROACHES

Sht.	Sta.	Loc. Type	Std.	Overfill		Grade %	Group B		Sfty. Slip	Metal	4" Type 1	Remarks
				Width Ft.	Height Ft.		Culv. 15 in.	Pipe 18 in.				
3	1856+00	Lt.	203.61	20	1	-6.7		44				Bevel Pipe Ends 6:1
3	1856+00	Rt.	203.61	20	2.5	-1.6		64			125	Bevel Pipe Ends 6:1
4	1868+05	Rt.	203.61	48		-5.0					251	No Pipe
4	1868+39	Lt.	203.61	20		+0.5						No Pipe
4	1880+00	Lt.	203.61	20		-9.4						No Pipe
4	1884+80	Lt.	203.61	20		-1.5					53	No Pipe
4	1884+80	Rt.	203.61	20		+6.3						No Pipe
5	1894+67	Lt.	203.61	20		-6.5						No Pipe
5	1894+67	Rt.	203.61	20	1	+4.9		44				Bevel Pipe Ends 6:1
5	1900+29	Rt.	203.62	24	6	-2.0		82			389	Side Rd. Rt. - Bevel Pipe Ends 2.3:1, 6:1
5	1901+26.6	Lt.	203.62	24	4	+4.4		68			403	Side Rd. Lt. - Bevel Pipe Ends 6:1, 4:1
5	1908+19	Rt.	203.61	20		-9.1						No Pipe
5	1908+19	Lt.	203.61	20								
5	1915+18	Lt.	203.63	40	1	+2.8				64	78	Bevel Pipe Ends 6:1
6	1923+48	Lt.	203.61	20		-0.2					53	No Pipe
6	1931+03	Lt.	203.61	20	1	-0.9	36				53	Bevel Pipe Ends 6:1
6	1932+79	Lt.	203.61	20		-5.1					53	No Pipe
6	1933+00	Rt.	203.61	20		+4.0						Built By Permit
6	1933+68	Rt.	203.61	20	1	+3.9	36				97	No Pipe
6	1936+49	Lt.	203.61	20	1	-8.3	36				53	Bevel Pipe Ends 6:1
6	1940+50	Rt.	203.61	20		+4.6					97	No Pipe
6	1940+94	Lt.	203.61	20		-5.4					53	No Pipe
6	1947+62	Lt.	203.61	20	1	-5.7	36				53	Bevel Pipe Ends 6:1
6	1948+43	Lt.	203.61	20		-5.3					53	No Pipe
6	1949+45	Rt.	203.63	30		+5.9					161	No Pipe
6	1949+59	Lt.	203.61	20	1	-6.7	36				53	Bevel Pipe Ends 6:1
7	1953+81	Lt.	203.62	24		+3.2					916	Side Rd. Lt. - No Pipe
7	8+21	Lt.	203.61	20	1.5	+2.0	38				53	S. R. Lt. - 1953+81 - Bevel Pipe Ends 3:1
7	1953+81	Rt.	203.62	24	1	-0.7	52				388	Side Rd. Rt.
7	1958+00	Rt.	203.61	20		+2.0					127	No Pipe
7	1958+07	Lt.	203.61	20		-14.0					53	No Pipe
7	1973+77	Lt.	203.61	40	1	+1.8		46	2		74	6:1 Slope
8	1983+17	Lt.	203.61	20		-4.9						No Pipe
8	1983+17	Rt.	203.61	20		-6.5					125	No Pipe
8	2004+50	Rt.	203.61	20	1	0.0	40				125	Bevel Pipe Ends 6:1
8	2006+92.6	Lt.	203.62	24		+1.3					333	Side Rd. Lt. - No Pipe
8	8+40	Rt.	203.61	20		-4.5						Side Rd. Lt. - 2006+92.6
8	8+58	Lt.	203.61	20	1	+4.5	32					S. R. Lt. - 2006+92.6 - Bevel Pipe Ends 3:1
8	2006+92.6	Rt.	203.62	24	1.5	-4.7	45				352	S. R. Rt. - Bevel Pipe 3:1
8	11+50	Lt.	203.61	20		+6.0						S. R. Rt. - 2006+92.6 - No Pipe
9	10+10	Lt.	203.61	20	1	+2.6	50					Bevel Pipe Ends 6:1
9	20+47	Lt.	203.61	20		-0.6					81	No Pipe
9	26+97	Rt.	203.62	20		+2.9					153	No Pipe
10	35+92	Lt.	203.61	20		-6.8					81	No Pipe
10	41+37	Lt.	203.61	20		+1.6						No Pipe
10	53+60	Lt.	203.62	24	2	-2.8		72	2		378	Side Rd. Lt. - 6:1 Slopes
10	53+60	Rt.	203.62	24	2	-1.5		66			378	S. R. Rt. - Bevel Pipe Ends 6:1
10	58+88	Lt.	203.61	30	1	+1.3	52					Bevel Pipe Ends 6:1
11	66+66	Lt.	203.61	20	1	-0.1	44				53	Bevel Pipe Ends 6:1
11	73+53	Lt.	203.61	20	1	+1.3	36				53	Bevel Pipe Ends 6:1
11	80+00	Rt.	203.61	20		-8.5					125	No Pipe
11	89+00	Rt.	203.61	20		-8.9	49				125	No Pipe
12	91+21	Lt.	203.61	20		+4.1						No Pipe
12	106+57	Lt.	203.62	24	1.5	+0.9	70				392	S. R. Lt. - Bevel Pipe Ends 6:1
12	108+64	Lt.	203.61	20	1	-3.1	62				375	Side Rd. Rt. - No Pipe
12	112+49	Rt.	203.61	20		-3.5	42				53	Bevel Pipe Ends 6:1
12	113+93	Lt.	203.61	24		-1.0					125	No Pipe
13	125+10	Rt.	203.61	20		+0.4					53	No Pipe
13	125+10	Lt.	203.61	20								Built By Permit
13	133+03	Lt.	203.61	20	1	-7.4					53	No Pipe
13	137+00	Lt.	203.61	20		-9.1	44					Bevel Pipe Ends 6:1
13	138+15	Rt.	203.61	20		+3.1					125	No Pipe
13	144+45	Rt.	203.61	20	1	+0.1	44					Bevel Pipe Ends 6:1
13	146+23	Rt.	203.61	20	1	+2.2	38					Bevel Pipe Ends 6:1
13	149+29.4	Lt.	203.61	20		-3.6					53	No Pipe
13	149+66	Rt.	203.61	20		+2.9						No Pipe
14	157+00	Lt.	203.63	60	1	-6.3	80				169	Bevel Pipe Ends 6:1
14	1+80	Rt.	203.61	20	1	-1.6	26		2		136	Route 97 South - 3:1 Slope
				Total =	379	987	144	6	64	7585		

MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT
SUMMARY OF QUANTITIES

FINAL PLANS
SHEET 4 OF 5

STATE MO
DIST NO 7
JOB NO. J7P0360
PROJECT NO. STP-FY93(3)
COUNTY NEWTON-BARRY
SHEET NO. 2B
ROUTE 60

4" YELLOW THERMOPLASTIC MARKING MATERIAL

Station	Station	Loc.	Solid 100 Ft.	Inter. 100 Ft.
1830+81.3	1856+18	Lt.	8.30	--
1830+81.3	1834+13	Rt.	3.30	--
1834+13	1876+15	CL	--	6.20
1860+83	1868+58	Rt.	7.80	--
1869+92	1877+64	Lt.	7.70	--
1876+15	1893+32	Rt.	17.20	--
1877+64	1884+46	CL	--	1.70
1884+46	1901+84	Lt.	17.40	--
1893+32	1898+91	CL	--	1.40
1898+91	1908+05	Rt.	9.10	--
1901+84	1907+54	CL	--	1.40
1907+54	1916+92	Lt.	9.40	--
1908+05	1933+35	CL	--	6.30
1922+52	1959+01	Rt.	36.50	--
1933+35	1968+86	Lt.	35.50	--
1959+01	1980+56	CL	--	5.40
1972+01	1989+92	Rt.	17.90	--
1980+56	1998+18	Lt.	17.60	--
1989+92	0+69	CL	--	4.40
1999+34	5+04	Rt.	12.60	--
0+69	13+96	Lt.	13.30	--
5+04	11+68	CL	--	1.70
11+68	19+74	Rt.	8.10	--
13+96	26+42	CL	--	3.10
19+98	27+70	Lt.	7.70	--
26+42	40+57	Rt.	14.20	--
27+70	34+99	CL	--	1.80
34+99	49+00	Lt.	1.00	--
40+57	64+60	CL	--	6.00
50+53	57+35	Rt.	6.80	--
59+01	65+74	Lt.	6.70	--
64+60	69+92	Rt.	5.30	--
65+74	109+58	CL	--	11.00
72+46	78+28	Lt.	5.80	--
85+06	91+70	Rt.	6.60	--
93+32	100+24	Lt.	6.90	--
101+40	115+24	Rt.	13.70	--
109+58	125+49	Lt.	15.80	--
115+24	159+52	CL	--	11.10
141+65	149+17	Rt.	7.60	--
150+10	157+37	Lt.	7.30	--
Totals =			340.1	61.5

FLUSH R/W MARKERS (By Others)

Sht.	Station	Location	No.
4	1868+26.4	65' Rt.	1
6	1941+00	39' Lt.	1
7	1958+00	39' Lt.	1
7	1958+00	65' Rt.	1
10	41+31	49' Lt.	1
13	125+00	39' Lt.	1
Total =			6

TEMPORARY SEEDING & MULCHING

Total = 0 Acre

TEMPORARY EROSION AND SEDIMENT CONTROL

Straw Bale Ditch Check Each	Silt Fence Ditch Check Each	Straw Bale Fence Lin. Ft.	Temporary Slope Drain Lin. Ft.	Sediment Basin C.Y.	Sediment Removal Ditch Checks C.Y.	Temporary Berm Type B Lin. Ft.
237	331	5174	0	0	32	0
Totals						

BITUMINOUS RUMBLE STRIP

Total = 626.0/100 FT.

SEEDING

Total = 27.2 Acre

FIELD LAB

Total = 1 Lump Sum

NATIVE PLANT SEEDING

Total = 13.8 Acre

PREFORMED SHORT TERM MARKING TAPE -- 4" INTERMITTENT YELLOW

Total = 6.0 mile

MOBILIZATION

Total = 1 Lump Sum

MULCH TYPE 3

Total = 41.0 Acre

PAVEMENT STRIPE REMOVAL - PAINT

STATION	STATION	Loc	100 Ft
1830+82	1833+00	CL	2.2
1830+82	1833+00	CL	0.5
1830+82	1833+00	Rt.	2.2
1830+82	1833+00	Lt.	2.2

Total = 7.1 100 FT

SUMMARY OF QUANTITIES

0-255
REV FEB 26, 1992
FINAL PLANS

STATE MO	JOB NO. J7P0360	SHEET NO. 2B
DIST NO. 7	PROJECT NO. STP-FY93(3)	ROUTE 60
COUNTY NEWTON-BARRY		

SHEET 5 OF 5

SIGN	SIZE (INCHES)	AREA (SQ FT)	QTY	TOTAL AREA	QTY RELOC	TOTAL RELOC AREA	DESCRIPTION
WARNING SIGNS							
W01-1Lb	48X48	16.0					TURN (SYMBOL LEFT ARROW)
W01-1Rb	48X48	16.0					TURN (SYMBOL RIGHT ARROW)
W01-2Lb	48X48	16.0					CURVE (SYMBOL LEFT ARROW)
W01-2Rb	48X48	16.0					CURVE (SYMBOL RIGHT ARROW)
W01-3Lb	48X48	16.0					REVERSE TURN (SYMBOL LEFT ARROW)
W01-3Rb	48X48	16.0					REVERSE TURN (SYMBOL RIGHT ARROW)
W01-4Lb	48X48	16.0					REVERSE CURVE (SYMBOL LEFT ARROW)
W01-4Lb2	48X48	16.0					DOUBLE ARROW REVERSE CURVE (SYM LT ARROWS)
W01-4Rb	48X48	16.0					REVERSE CURVE (SYMBOL RIGHT ARROW)
W01-4Rb2	48X48	16.0					DOUBLE ARROW REVERSE CURVE (SYM RT ARROWS)
W01-6	48X24	8.0					HORIZONTAL ARROW (SYMBOL)
W01-6a	72X36	18.0					HORIZONTAL ARROW (SYMBOL)
W01-7	48X24	8.0					DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
W01-7a	72X36	18.0					DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
W01-8	18X24	3.0					CHEVRON (SYMBOL)
W03-1b	48X48	16.0					STOP AHEAD
W03-2b	48X48	16.0					YIELD AHEAD
W03-3b	48X48	16.0					SIGNAL AHEAD (SYMBOL)
W03-4b	48X48	16.0					BE PREPARED TO STOP
W04-1Lb	48X48	16.0					MERGE (SYMBOL FROM LEFT)
W04-1Rb	48X48	16.0					MERGE (SYMBOL FROM RIGHT)
W05-1a	48X48	16.0					ROAD NARROWS
W05-3a	48X48	16.0					ONE LANE BRIDGE
W06-1b	48X48	16.0					DIVIDED HIGHWAY
W06-2b	48X48	16.0					DIVIDED HIGHWAY ENDS
W06-3b	48X48	16.0					TWO WAY TRAFFIC (SYMBOL)
W06-3x	24X18	3.0					TWO WAY TRAFFIC (PLAQUE)
W08-1b	48X48	16.0					BUMP
W08-2b	48X48	16.0					DIP
W08-3	48X48	16.0					PAVEMENT ENDS
W08-4b	48X48	16.0					SOFT SHOULDER
W08-5b	48X48	16.0					SLIPPERY WHEN WET (SYMBOL)
W08-6b	48X48	16.0					TRUCK CROSSING
W08-6c	48X48	16.0					TRUCK ENT (INCLUDES W025-1a PLATE)
W08-7a	36X36	9.0					LOOSE GRAVEL
W08-9	48X48	16.0					LOW SHOULDER
W08-9La	48X48	16.0					UNEVEN PAVEMENT (SYM FOR LT DROPOFF)
W08-9Ra	48X48	16.0					UNEVEN PAVEMENT (SYM FOR RT DROPOFF)
W09-1R	48X48	16.0					RIGHT LANE ENDS (INCLUDES W025-3c PLATE)
W09-2Ra	48X48	16.0					LANE ENDS MERGE RIGHT (INCLUDES W025-3b PLATE)
W10-1a	42Dia	9.6					RAILROAD CROSSING
W012-1	24X24	4.0					DOUBLE DOWN ARROW (SYMBOL)
W012-2a	48X48	16.0					LOW CLEARANCE (SYMBOL)
W012-2x	24X18	3.0					LOW CLEARANCE (PLAQUE)
W012-3a,b	144X24	24.0					OVERHEAD LOW CLEARANCE (FEET AND INCHES)
W013-1a	24X24	4.0					ADVISORY SPEED (PLAQUE)
W020-1	48X48	16.0	19	304			ROAD CONST AHEAD (INCLUDES W025-6 PLATE)
W020-2	48X48	16.0					DETOUR AHEAD (INCLUDES W025-1b PLATE)
W020-3	48X48	16.0					ROAD CLOSED AHEAD (INCLUDES W025-1c PLATE)
W020-4a	48X48	16.0	5	80			ONE LANE ROAD AHEAD (INCLUDES W025-1a PLATE)
W020-5	48X48	16.0					RIGHT LANE CLOSED AHEAD (INCL W025-3d PLATE)
W020-6a	48X48	16.0					RIGHT LANE CLOSED (INCLUDES W025-3c PLATE)
W020-7b	48X48	16.0	5	80			FLAGGER (SYMBOL)
W020-7x	24X18	3.0					500 FT/1000 FT (PLAQUE)
W020-9c	48X48	16.0	15	240	0	0	OPEN TRENCH
W021-2b	48X48	16.0					FRESH OIL
W021-5b	48X48	16.0	7	112			SHOULDER WORK AHEAD
W021-7	36X36	9.0					SAND BLASTING
W022-1	48X48	16.0					BLASTING ZONE 1000 FT
W022-2	42X36	10.5					TURN OFF 2-WAY RADIO
W022-3	42X36	10.5					END BLASTING ZONE
W022-5	30X30	6.3	22	139			NO PASSING ZONES UNMARKED
W025-1a	26X9						1000 FT/1500 FT Plate
W025-1b	38X9						500 FT/1000 FT Plate
W025-1c	34X9						500 FT/1000 FT Plate

SIGN	SIZE (INCHES)	AREA (SQ FT)	QTY	TOTAL AREA	QTY RELOC	TOTAL RELOC AREA	DESCRIPTION
REGULATORY SIGNS							
W025-3b	30X9						LEFT Plate
W025-3c	33X9						LEFT/CENTER Plate
W025-3d	22X9						LEFT/CENTER Plate
W025-5	30X12	2.5					1/2 MILE/1 MILE (PLAQUE)
W025-6	28X9						RAMP/BRIDGE Plate
R1-1b	48X48	13.25					STOP
R1-2a	48X48X48	6.93					YIELD
R1-3	20X9	1.25					4-WAY (PLAQUE)
R1-5	20X9	1.25					3-WAY (PLAQUE)
R2-1b	36X48	12.00	16	192			SPEED LIMIT XX
R2-5	36X48	12.00	4	48			REDUCED SPEED AHEAD
R3-1b	36X36	9.00					NO RIGHT TURN (SYMBOL)
R3-2b	36X36	9.00					NO LEFT TURN (SYMBOL)
R3-3a	36X36	9.00					NO TURNS
R3-4	24X24	4.00					NO U-TURN (SYMBOL)
R3-7L	30X30	6.25					LEFT LANE MUST TURN LEFT
R3-7R	30X30	6.25					RIGHT LANE MUST TURN RIGHT
R4-1b	36X48	12.00					DO NOT PASS
R4-2b	36X48	12.00					PASS WITH CARE
R4-7Lb	36X48	12.00					KEEP LEFT (HORIZONTAL ARROW)
R4-7Rb	36X48	12.00					KEEP RIGHT (HORIZONTAL ARROW)
R4-17La	36X36	9.00					KEEP LEFT
R4-17Ra	36X36	9.00					KEEP RIGHT
R5-1	30X30	6.25					DO NOT ENTER
R5-1a	36X24	6.00					WRONG WAY
R6-1La	48X8	6.00					ONE WAY ARROW (LEFT)
R6-1Ra	48X8	6.00					ONE WAY ARROW (RIGHT)
R6-2La	24X30	5.00					ONE WAY (LEFT)
R6-2Ra	24X30	5.00					ONE WAY (RIGHT)
R11-2	48X30	10.00					ROAD CLOSED
R11-3	60X30	12.50					ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY
R11-4	60X30	12.50					ROAD CLOSED TO THRU TRAFFIC
R12-3b	36X36	9.00					TO ONCOMING TRAFFIC (PLAQUE)
S4-4a	36X18	4.50					WHEN FLASHING
GUIDE SIGNS							
G020-1	60X36	15.00	2	30			ROAD CONSTRUCTION NEXT XX MILES
G020-2	60X24	10.00	2	20			END CONSTRUCTION
M04-8a	30X15	3.13					DETOUR (PLAQUE)
M04-9L	48X36	12.00					DETOUR (LEFT ARROW)
M04-9R	48X36	12.00					DETOUR (RIGHT ARROW)
M04-10L	48X18	6.00					DETOUR (ARROW LEFT)
M04-10R	48X18	6.00					DETOUR (ARROW RIGHT)
M04-11	24X18	3.00					DETOUR ENDS
M5-1L	21X15	2.19					ADVANCE LEFT TURN ARROW
M5-1R	21X15	2.19					ADVANCE RIGHT TURN ARROW
MISCELLANEOUS SIGNS							
616-10.05							CONSTRUCTION SIGNS TOTAL
616-10.10							RELOCATED SIGNS TOTAL

ITEM NUMBER	SIZE (INS)	TOTAL QTY	DESCRIPTION
616-10.20	36X18		CHANNELIZER (DRUM)
616-10.35	8X24		TYPE I BARRICADE (ONE RAIL)
616-10.36	8X24		TYPE II BARRICADE (TWO RAILS)
616-10.40	48X96		FLASHING ARROW PANEL
616-10.45	18X18		TYPE I OBJECT MARKER
616-10.46	6X12	10	TYPE II OBJECT MARKER
616-10.47	8X24		TYPE III OBJECT MARKER
616-10.50	8		FLASHING ELECTRIC LIGHT
616-10.51			WARNING LIGHT TYPE A
616-10.52			WARNING LIGHT TYPE B
616-10.53			WARNING LIGHT TYPE C
616-10.54			STROBE LIGHT
616-10.60			RAISED PAVEMENT MARKER
616-10.70	28		FLEXIBLE DELINEATOR
619-10.00	LIN FT	3,663	PAVEMENT EDGE TREATMENT
612-10.30	72X144		MOVEABLE BARRICADE (THREE RAILS)
612-90.10		4	INSTALLING GIVE EM A BRAKE
			4'X 8' SIGNS
612-90.20		2	INSTALLING GIVE EM A BRAKE
			4'X 4' SIGNS

Right of Way Limits For This Project Extend From Sta. 1860+92 to Sta. 181+80, A Distance of 5.830 Miles.

Any work indicated on the plans that extends beyond the project limits is considered incidental to and a part of the construction of this project.

Land Survey Monument -
R.R. Spike in SW Cor. Sec. 33,
T26N R29W. & Sta. 1831+08.24.
Witnessed By Samuel R. Goodman,
L.S. 2031.

P.I. - 1830+42.65
 $\Delta - 0^{\circ} 40' R$
No Curve

SW 1/4 SW 1/4 Sec. 33
T26N - R29W

FINAL PLANS

STATE	J7P0360	SHEET NO.	3
MO.		PROJECT NO.	STP-FY93(3)
DIST. NO.	7	COUNTY	NEWTON
		ROUTE	60

DATE	BY	FINAL SURVEY	NO. BOOK	TERMINATE	AREAS CHECKED

NOTE: Bearings shown are based on previous project bearing datum.

Land Survey Monument -
R.R. Spike in NE Cor. Sec. 5,
T25N R29W. 0.1' Rt. of Sta. 1830+48.75
Witnessed By Samuel R. Goodman,
L.S. 2031.

Sta. 1854+82.35 Beg. Proj.
Federal Improvement Beg.
@ A Point Approx. 666.5' East
& 17.1' South of the S.W. Cor.
of Sec. 33, T26N, R29W

Leon & Reba L.
Bilyeu
(No Taking)

NW 1/4 NW 1/4 Sec. 4
T25N - R29W

UTILITIES OWNERSHIP

ELECTRIC:

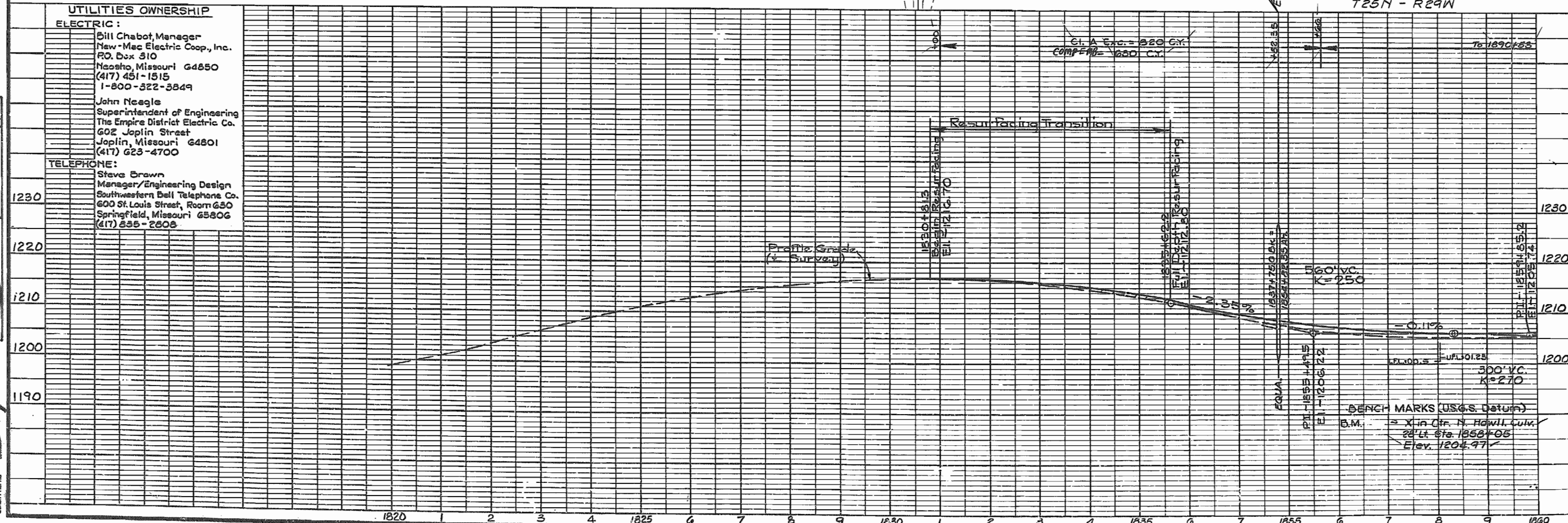
Bill Chabot, Manager
New-Mac Electric Coop., Inc.
P.O. Box 310
Neosho, Missouri 64850
(417) 451-1515
1-800-322-3849

John Neagle
Superintendent of Engineering
The Empire District Electric Co.
602 Joplin Street
Joplin, Missouri 64801
(417) 623-4700

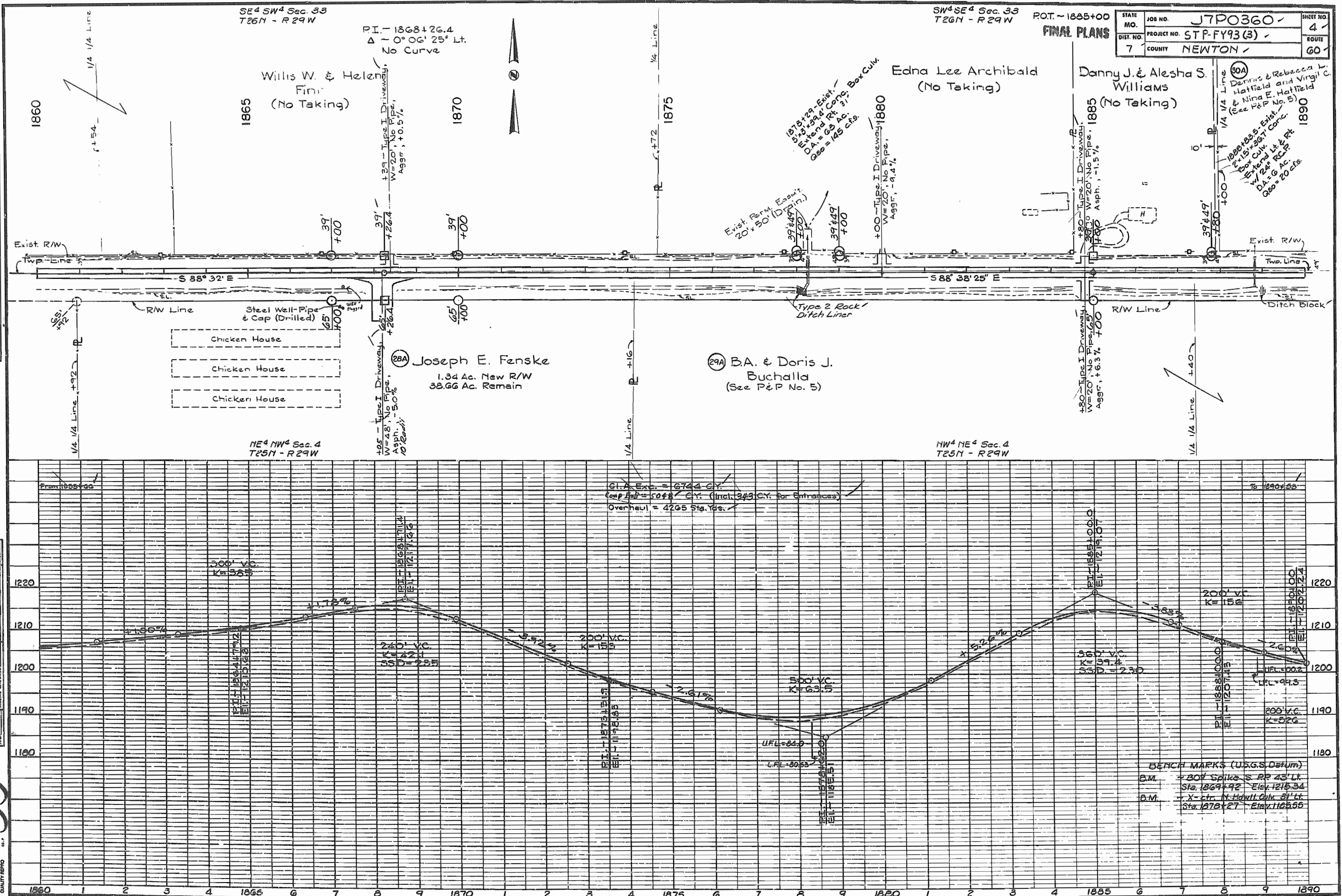
TELEPHONE:

Steve Brown
Manager/Engineering Design
Southwestern Bell Telephone Co.
600 St. Louis Street, Room 650
Springfield, Missouri 65806
(417) 855-2808

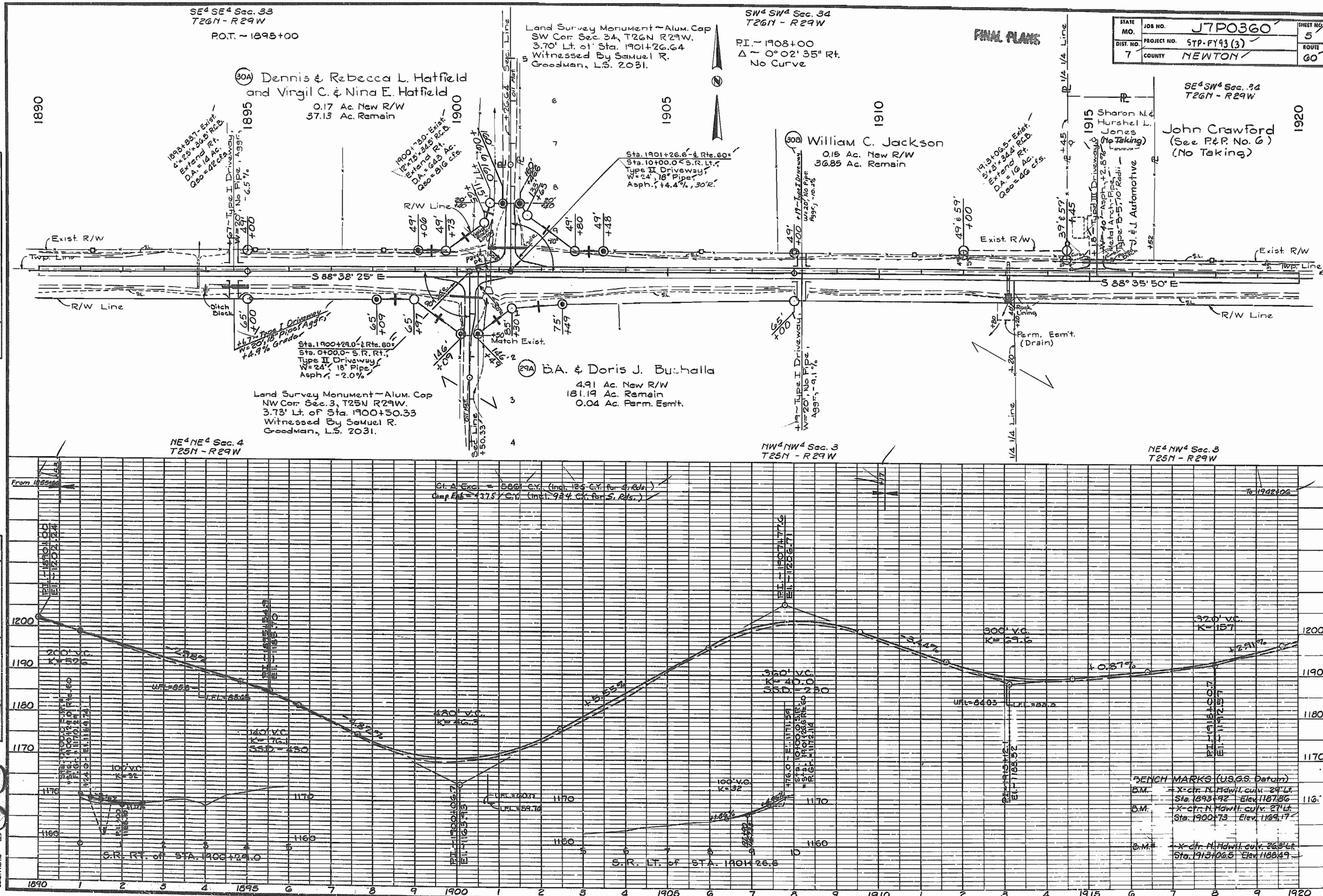
DATE	BY	FINAL SURVEY	NO. BOOK	TERMINATE	AREAS CHECKED



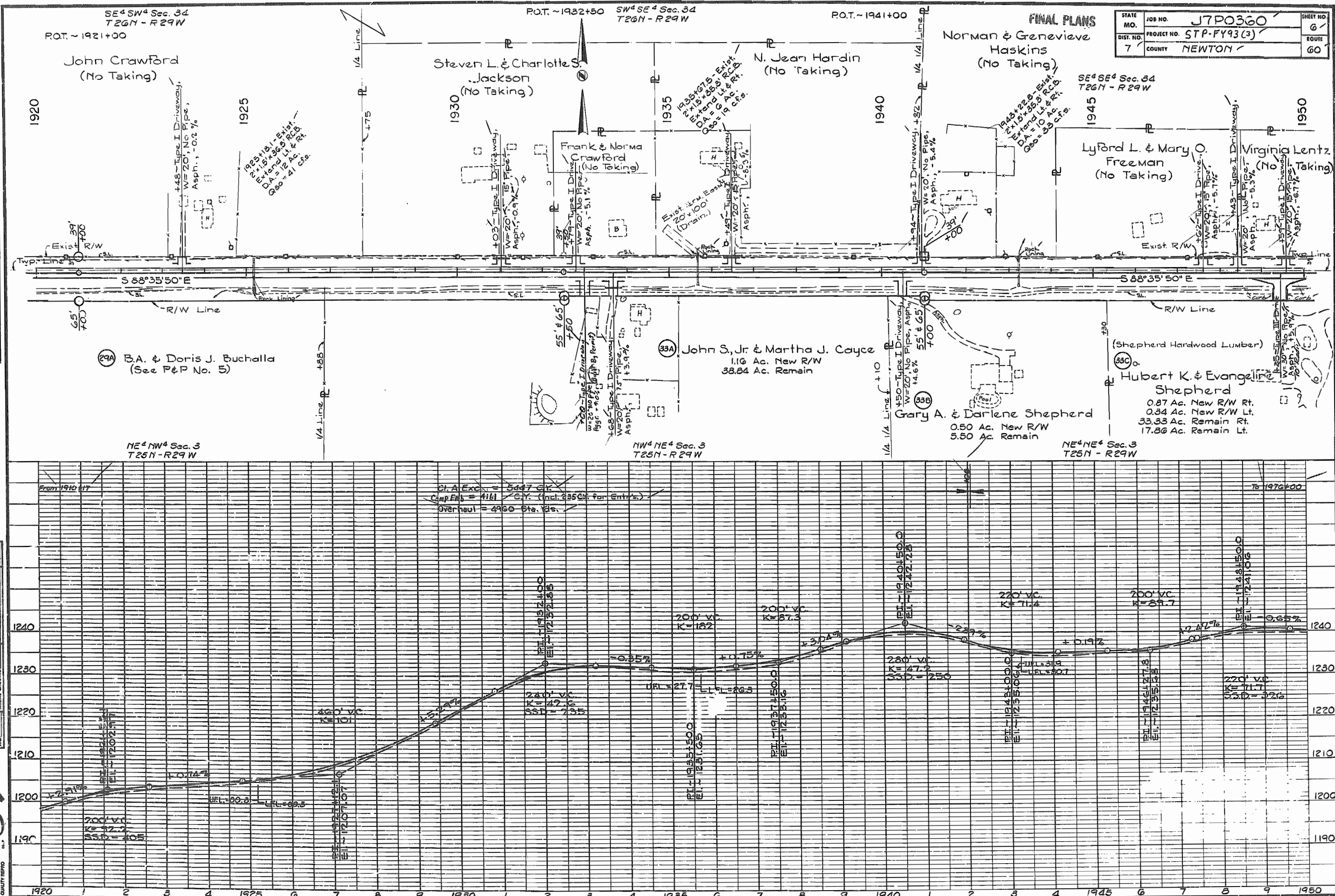
NO.	FINAL SURVEY	BY	DATE
	REVIEWED		
	PLANNED		
	TEMPLATE		
	NOISE SOURCES		
	AREAS		
	AREAS CHECKED		



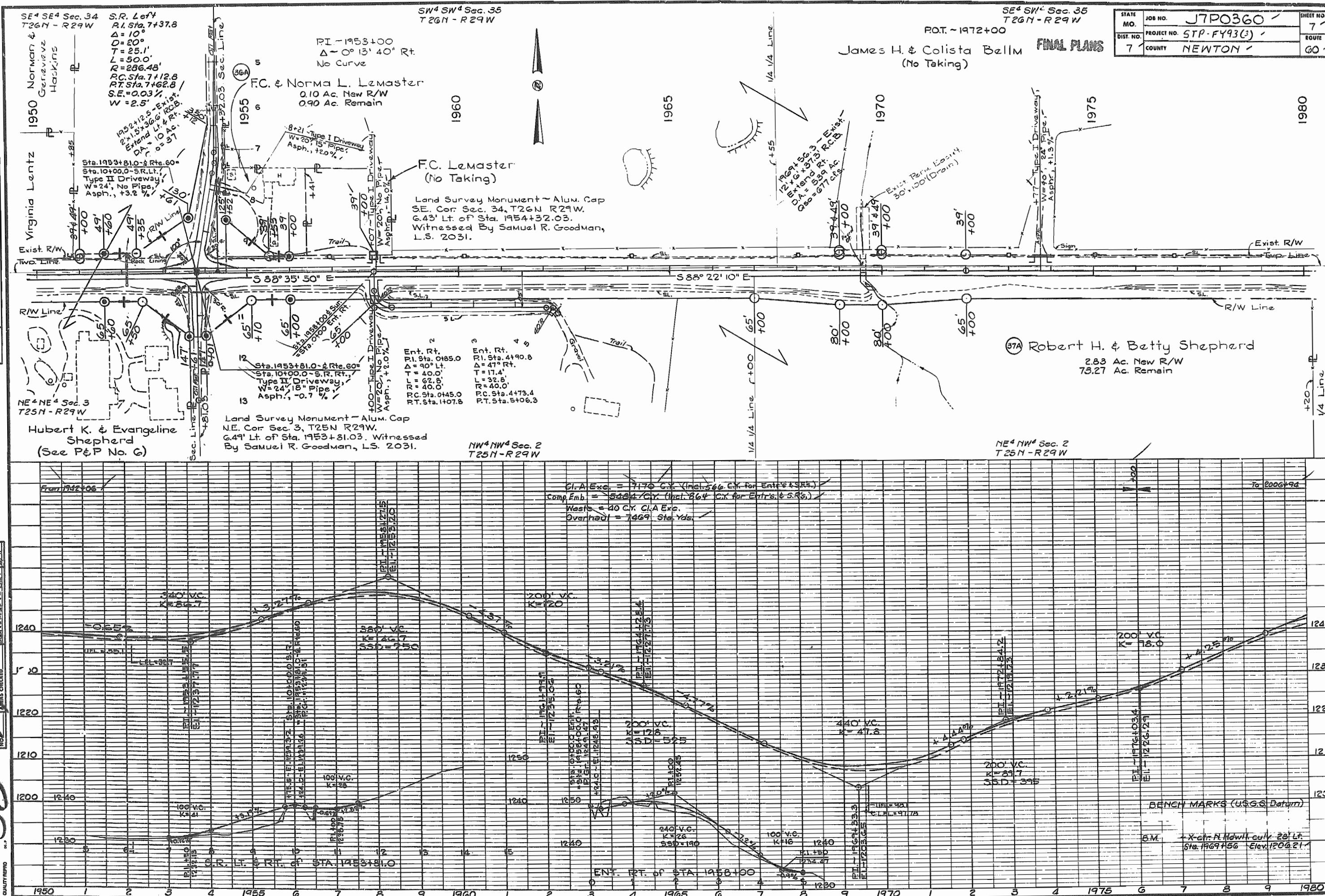
NO.	AREAS CHECKED	BY	DATE
100	100%	100%	10/10/10

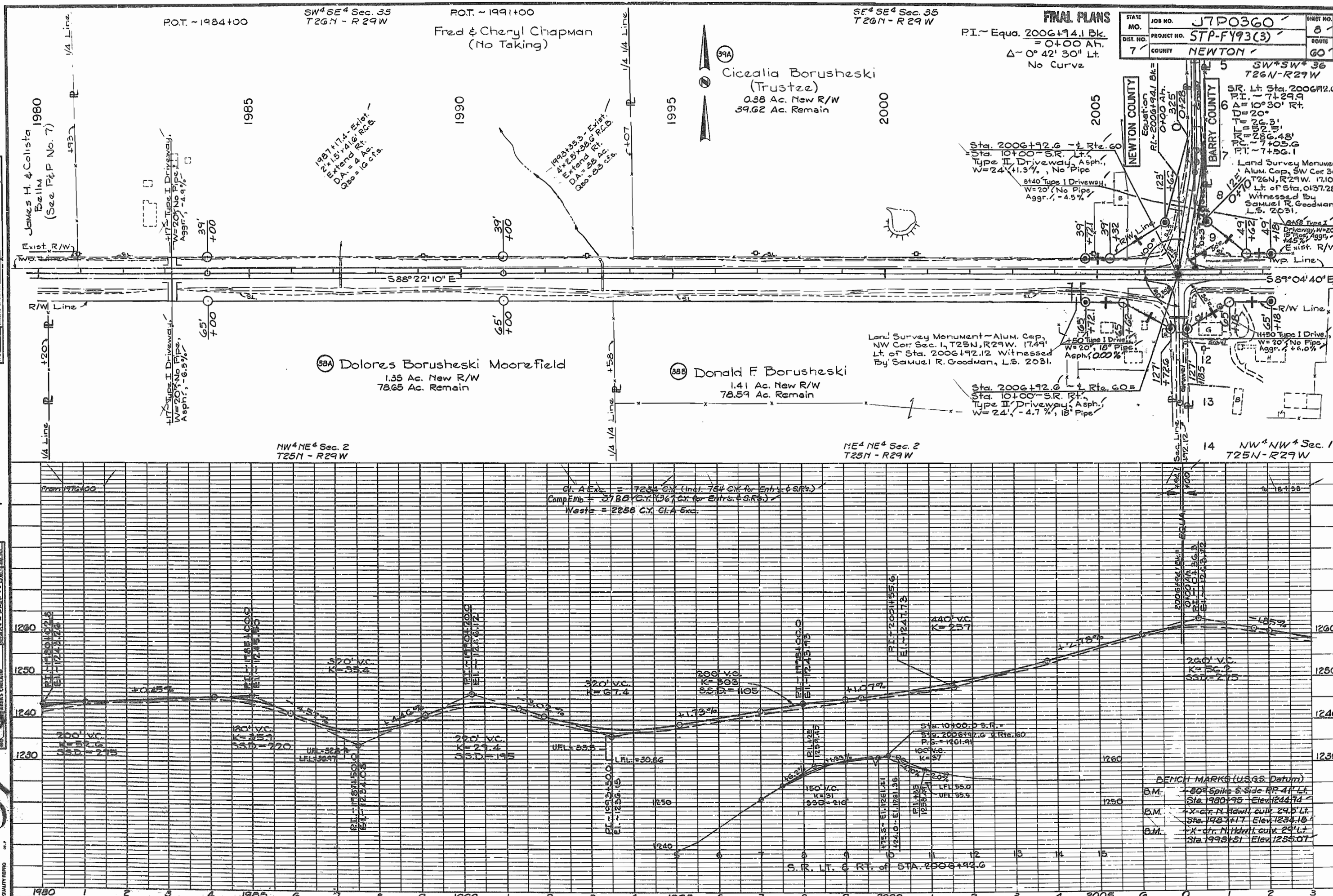


	BY	DATE
FINAL SURVEY	MAINTAINED	
FURNISHED		
NOT BOOKED	REPAIRED	
NO REPAIRS CHECKED	AS IS	
	Plan - B-607 - M.M.	6/9/1

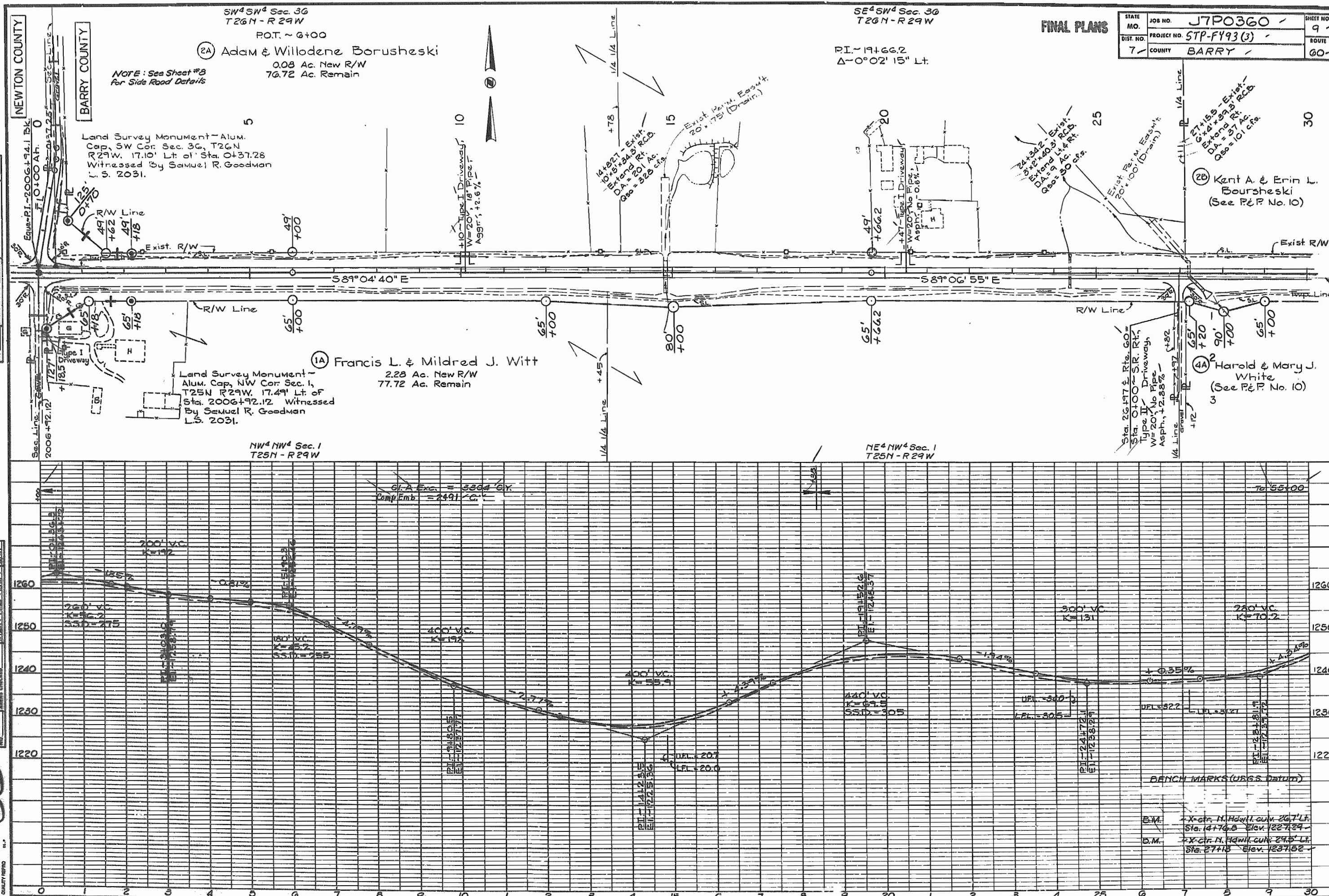


FINAL SURVEY	87	DATE
SURVEYED		
UNIT		
BY		
MOSE BOOK		6/91

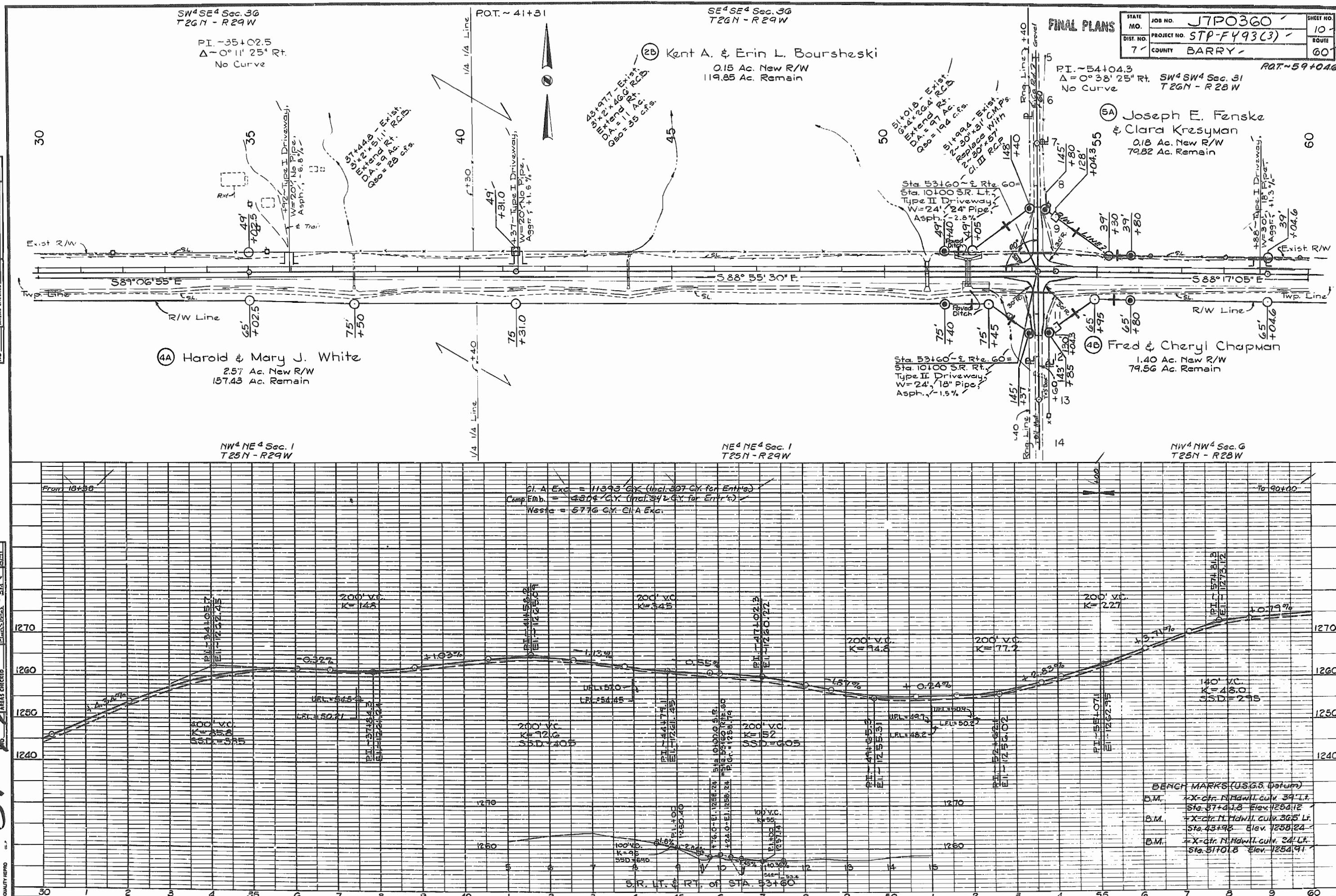




FINAL SURVEY	BY	DATE
UNIVERSITY		
COLLEGE		
NAME		
NUMBER		5/21



FINAL SURVEY	BY	DATE
SURVEYED		
NOTED		
PLOTTED		
INDEXED		
AREAS		



SW⁴SW⁴ Sec. 31
T26N - R28W

ROT. ~ 71+55.5

SE⁴SW⁴ Sec. 31
T26N - R28W

ROT. ~ 81+00

FINAL PLANS

STATE NO.	J7P0360	SHEET NO.	11
PROJECT NO.	STP-FY93(3)	ROUTE	60
DIST. NO.	7	COUNTY	BARRY

5A Joseph F. Fenske
& Clara Kreszman
(See P. & P. No. 10)

Jack M. & Mendi D. Kelley
(No Taking)

7A Edmund J. & Leonissa Fanski
0.19 Ac. New R/W
219.81 Ac. Remain

SW⁴SE⁴ Sec. 31
T26N - R28W

8/6+88.9 - Exist.
2" x 2" x 20' R.C.D.
Extend 2' to
D.A. = 9 Ac.
Qso = 29 c.f.s.

77+07.4 - Exist.
2" x 15" x 20' R.C.D. (Arch)
Extend 1' to Rt.
D.A. = 9 Ac.
Qso = 19 c.f.s.

4B Fred & Cheryl Chapman
(See P. & P. No. 10)

6B Glen D. & Clara L. Fields
1.36 Ac. New R/W
79.55 Ac. Remain

6C Ralph W. & Florene N. Towers
1.33 Ac. New R/W
78.67 Ac. Remain
0.04 Ac. Perm. Esmt.

NW⁴NW⁴ Sec. 6
T25N - R28W

NE⁴NW⁴ Sec. 6
T25N - R28W

NW⁴NE⁴ Sec. 6
T25N - R28W

GLA Exc. = 3603 G.Y.
Comp Emb. = 3232 G.Y. (Incl. 142 G.Y. for Entries)
Waste = 348 G.Y. GLA Exc.

200' VC
K=458

200' VC
K=125

200' VC
K=235

200' VC
K=192

200' VC
K=112

PI-1281.4
Elev. 1277.5

200' VC
K=134
SSD=124.5

200' VC
K=135
SSD=124.5

200' VC
K=135
SSD=124.5

200' VC
K=135
SSD=124.5

200' VC
K=135
SSD=124.5

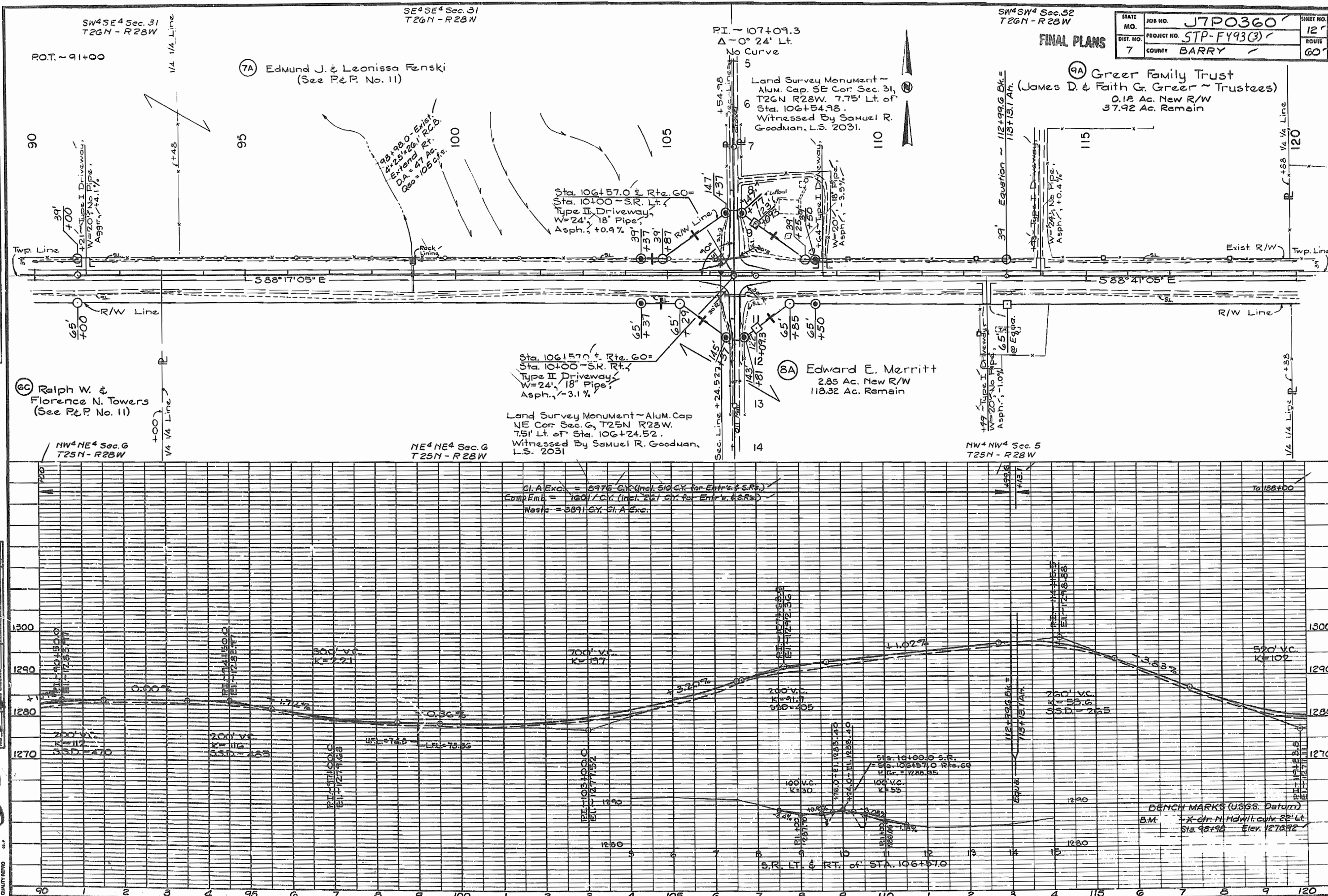
200' VC
K=135
SSD=124.5

200' VC
K=135
SSD=124.5

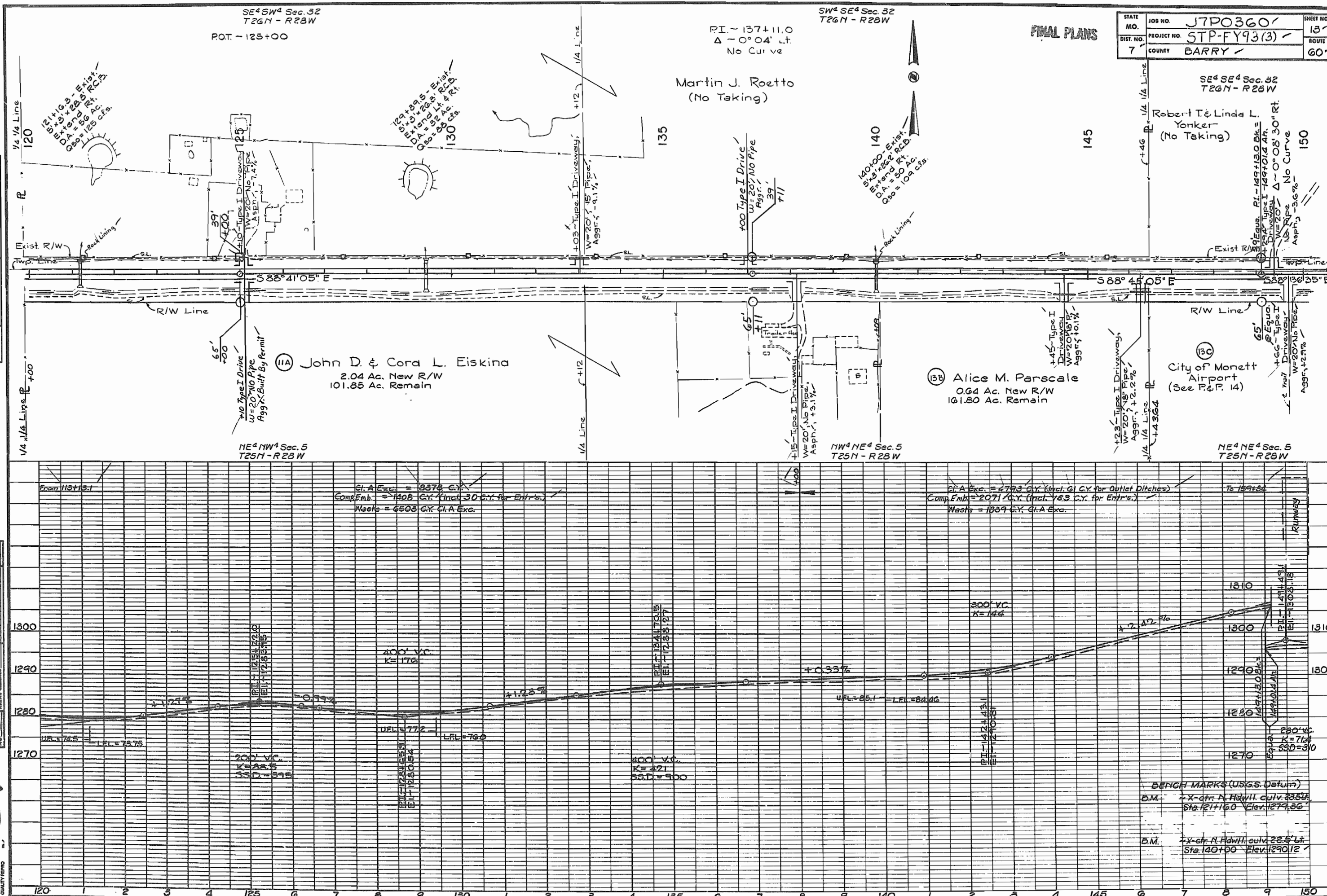
BENCH MARKS (U.S.G.S. Datum)
B.M. - 3" W. cor. lower concrete step
of porch 155' Lt.
Sta. 65+59 Elev. 1276.79

B.M. - X cor. N. Hwy. culm. 225' Lt.
Sta. 66+88 Elev. 1279.71

FRIAL SURVEY		BY	DATE
SURVAYOR			
DISTRICT			
TERRITORY			
AREA			
ASST.			
CHECKER			5/21



NO	AREA	PLANT	BY	DATE
	SURVEYED			
	MAINT			
	TRAIL			
	WATER			
	BOOK			



SE⁴SE⁴ Sec. 32
T26N - R28W

Robert T. & Linda L.
Yonker
(No Taking)

(14B) Mylo W. & Ida Jean
Allison
0.53 Ac. New R/W
1.47 Ac. Remain

Land Survey Monument,
Found Alum. Cap S.E. Cor.
Sec. 32 T26N, R28W, 9.11'
Lt. of E. Survey Sta.
159+55.96 Witnessed by
Sam Goodman, L.S. 2031.
Recorded in Barry Co.,
Book 1, Page 223.

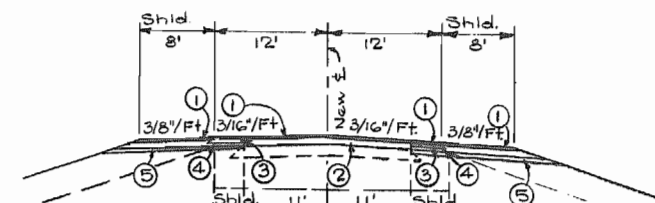
Harlan & Linda
Schnake
(No Taking)

SW⁴SW⁴ Sec. 33
T26N - R28W

(16B) Douglas W. & Deloris E. Grant
0.38 Ac. New R/W
19.62 Ac. Remain

FINAL PLANS

STATE	JOB NO.	SHEET NO.
MO.	J7P0360	14
DIST. NO.	PROJECT NO.	ROUTE
7	STP-FY93(3)	60
COUNTY	BARRY	



- 1 - 1/4" Type C Asph. Conc.
- 2 - Var. Thick. Plant Mix Bit. Base
- 3 - 2 1/4" Plant Mix Bit. Base (Separate L.F.)
- 4 - 7" Plant Mix Bit. Base
- 5 - 4" Type 1 or 2 Aggr. Base

SECTION AA
PERMANENT CONNECTION
Sta. 152+00 to 158+47.0

PERMANENT CONNECTION
Curve Data
PI=153+60.6
Δ=1°36'20" Lt.
D=0°30'
T=160.6'
L=321.1'
R=11459.16'

Curve Data
PI=156+81.7
Δ=1°36'20" Rt.
D=0°30'
T=160.6'
L=321.1'
R=11459.16'

9' Left of E. of Survey
Sta. 159+56.9 EXIST. Rte. 60 (East)
= Sta. 52+90 Rte. 97 (North)
= Sta. 0+00 Rte. 97 (South)

Route 97
Intersection

(13D) Leroy & Carol Young
0.26 Ac. New R/W
0.42 Ac. Remain

(13C) City of Monett
Airport
128 Ac. New R/W
139.41 Ac. Remain

NE⁴NE⁴ Sec. 5
T25N - R28W

Sta. 158+47.0
END PROJECT
Fed. Improv. Ends At A
Point Approx. 6.4' South
and 109.15' West of the
S.E. Cor. Sec. 32, T26N, R28W.

Land Survey Monument,
Found RR Spike NW.
Cor. Sec. 4, T25N, R28W,
9.12' Lt. of E. Survey (at E. of Rte. 60)
Sta. 159+56.61 Witnessed by
Sam Goodman, L.S. 2031.
Recorded in Barry Co.,
Book 1, Page 223.

NW⁴NW⁴ Sec. 4
T25N - R28W

Jerry M. & Virginia L.
Peters
0.24 Ac. New R/W
2.84 Ac. Remain

(15C) Alice M. Parscale
0.20 Ac. New R/W
121.63 Ac. Remain

Eq. 52+90 Rte. 97 (North)
= 0+00 Rte. 97 (South)

Route 97

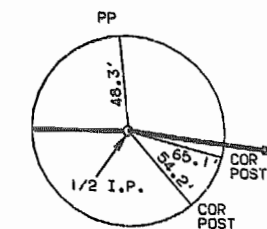
Exist. Profile Grade

BENCH MARKS (U.S.G.S Datum)

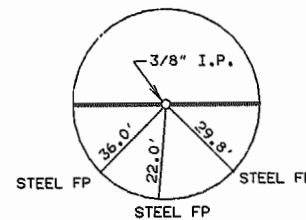
B.M. - U.S.G.S. Ref. Mark on E. Hdwr.
culv. chiseled 16 225' Lt.
Sta. 159+68 (culv. under Rte.
97 North) Elev. 1296.30

FINAL PLANS

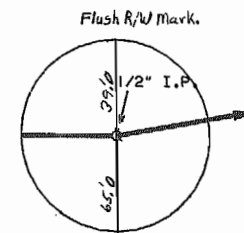
STATE	JOB NO.	J7P0360	SHEET NO.	15
DIST NO.	PROJECT NO.	STP-FY93(3)	ROUTE	60
71	COUNTY	NEWTON-BARRY		



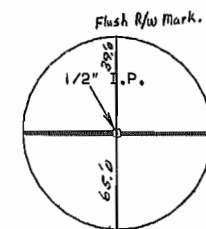
P.I. 1830+42.65
Δ-0° 40' RT.



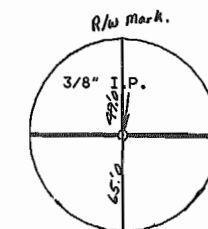
EQUA. 1837+75.0 BK.=
1854+82.35 AH.



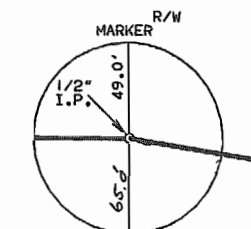
P.I. 1868+26.4
Δ-0° 06' 25" LT.



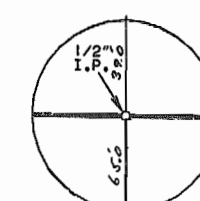
P.O.T. 1885+00



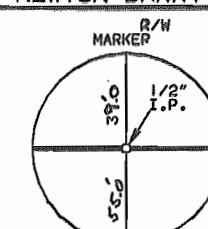
P.O.T. 1895+00



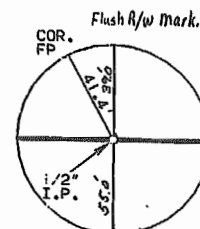
P.I. 1908+00
Δ-0° 02' 35" RT.



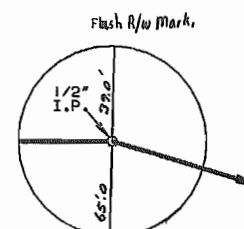
P.O.T. 1921+00



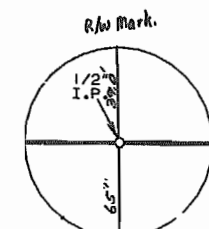
P.O.T. 1932+50



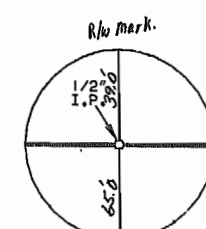
P.O.T. 1941+00



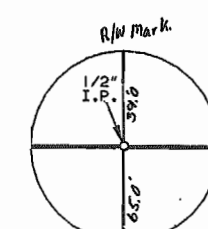
P.I. 1958+00
Δ-0° 13' 40" RT.



P.O.T. 1972+00

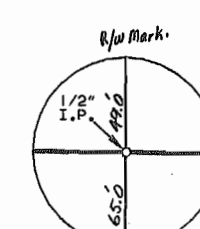


P.O.T. 1984+00

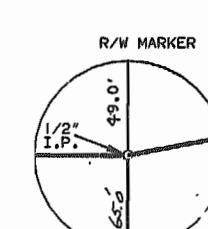


P.O.T. 1991+00

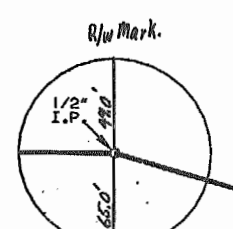
NEWTON COUNTY
BARRY COUNTY
EQUA. P.I. 2006+94.1 BK.=
0+00 AH.
Δ-0° 42' 30" LT.



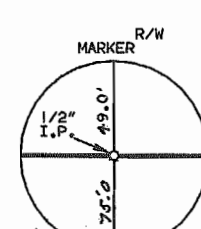
P.O.T. 6+00



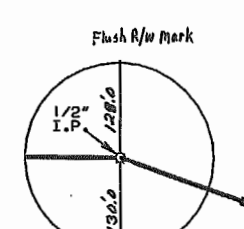
P.I. 19+66.2
Δ-0° 02' 15" LT.



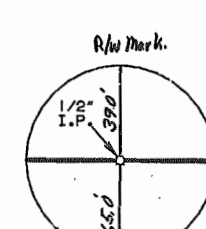
P.I. 35+02.5
Δ-0° 11' 25" RT.



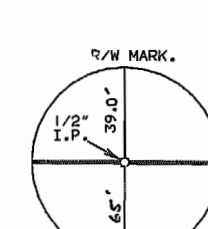
P.O.T. 41+31.0



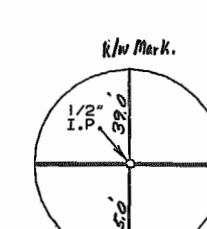
P.I. 54+04.3
Δ-0° 38' 25" RT.



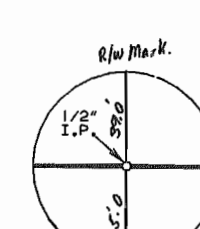
P.O.T. 59+04.6



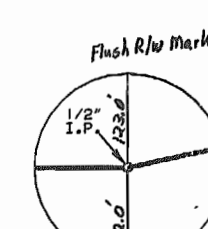
P.O.T. 71+55.5



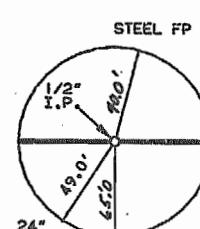
P.O.T. 81+00



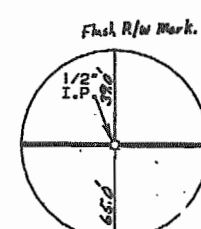
P.O.T. 91+00



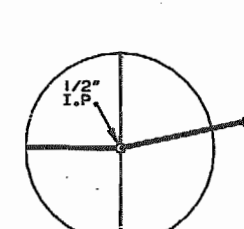
P.I. 107+09.3
Δ-0° 24' LT.



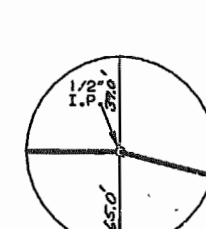
EQUA. 112+99.56 BK.=
113+13.1 AHD.



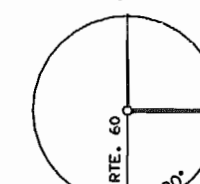
P.O.T. 125+00



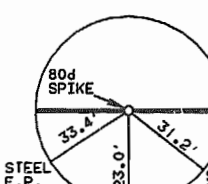
P.I. 137+11.0
Δ-0° 04' LT.



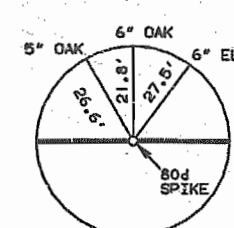
EQUA. P.I. 149+13.0 BK.=
149+01.4 AHD.
Δ-0° 08' 30" RT.



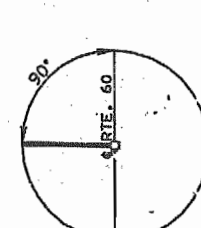
P.I. 0+00 SIDE RD. RT.=
1900+29.0 SURVEY



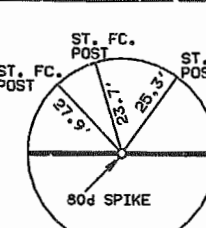
P.O.T. 2+50



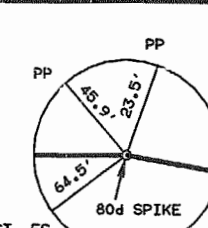
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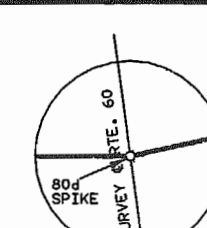
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1901+26.6 SURVEY



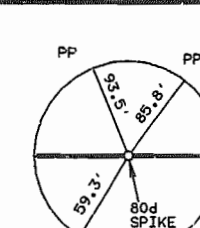
P.O.T. 1+45.66



P.I. 7+37.81
Δ-10° RT.



PI-10+00 S.R. LT & RT=
1953+81.0 RTE. 60
Δ-10° LT



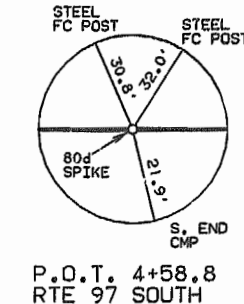
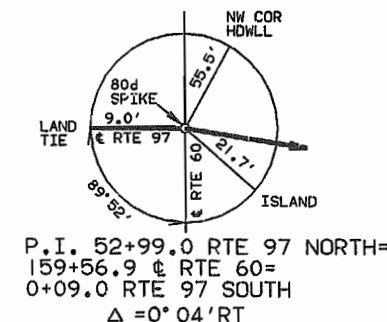
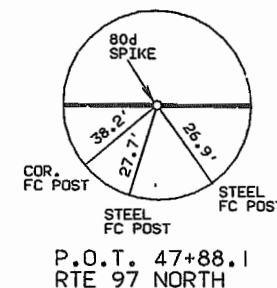
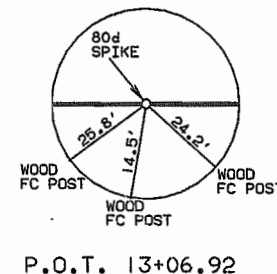
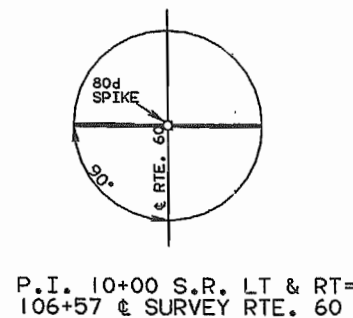
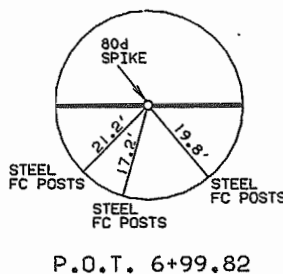
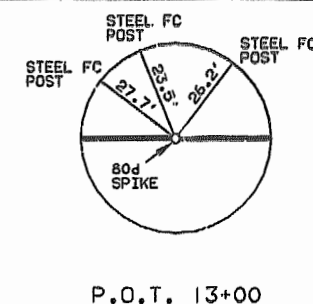
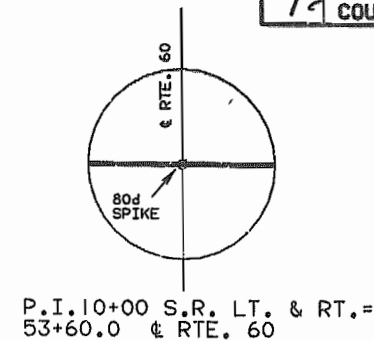
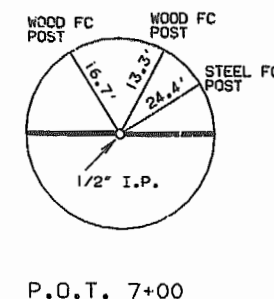
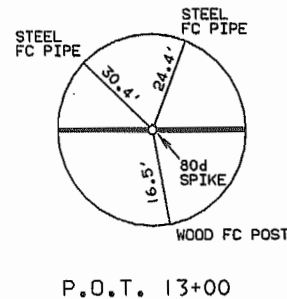
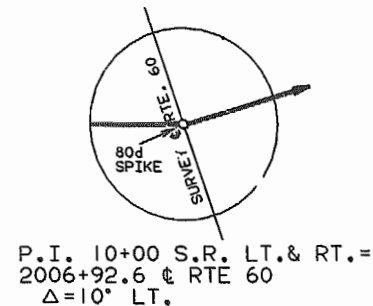
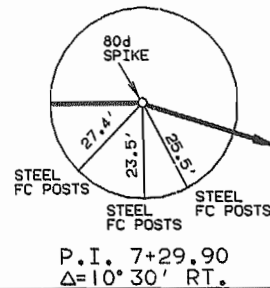
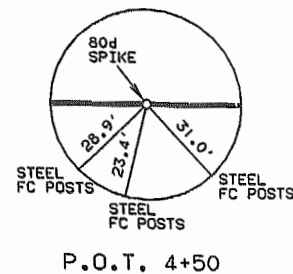
P.O.T. 13+00
NE COR
C. BLOCK BLDG.

REFERENCED POINTS
SHEET 1 OF 2

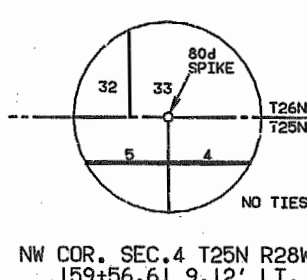
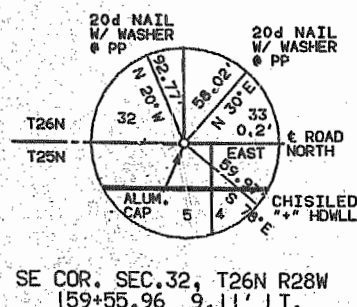
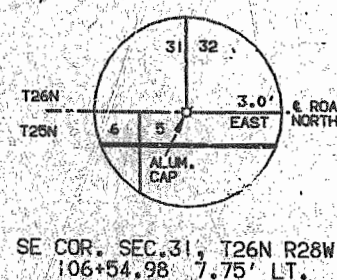
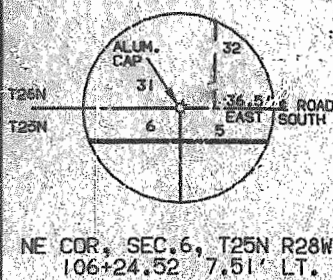
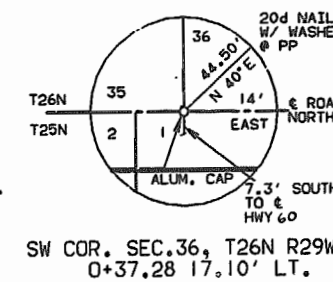
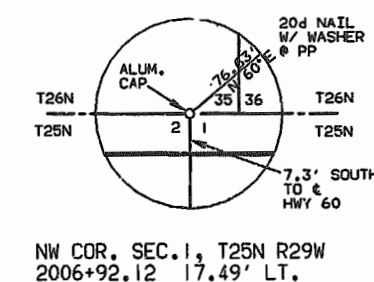
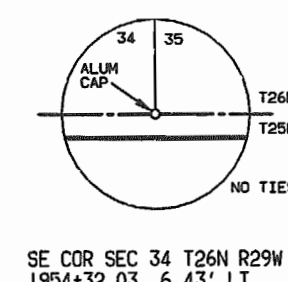
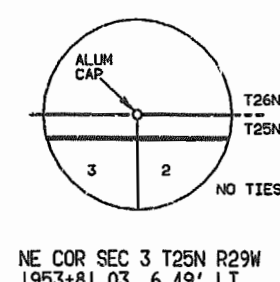
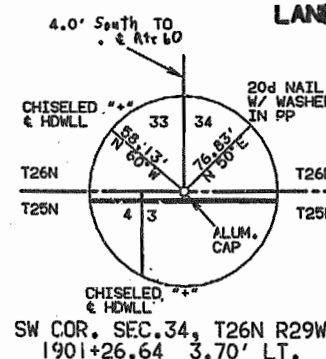
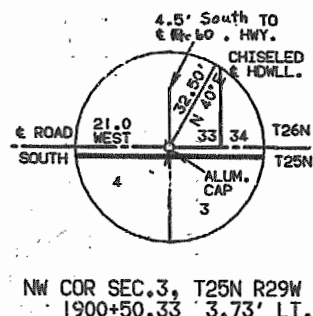
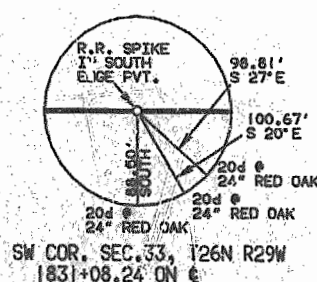
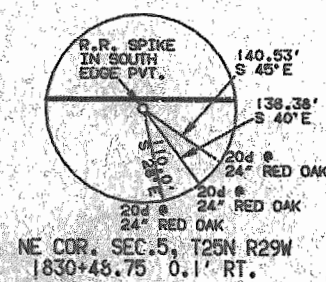
FINAL PLANS

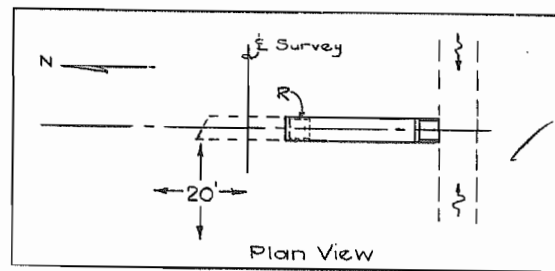
STATE MO JOB NO. J7P0360
 DIST NO 7 PROJECT NO. STP-FY93(3)
 COUNTY NEWTON-BARRY

SHEET NO 16
 ROUTE 60

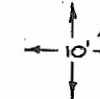


LAND TIES





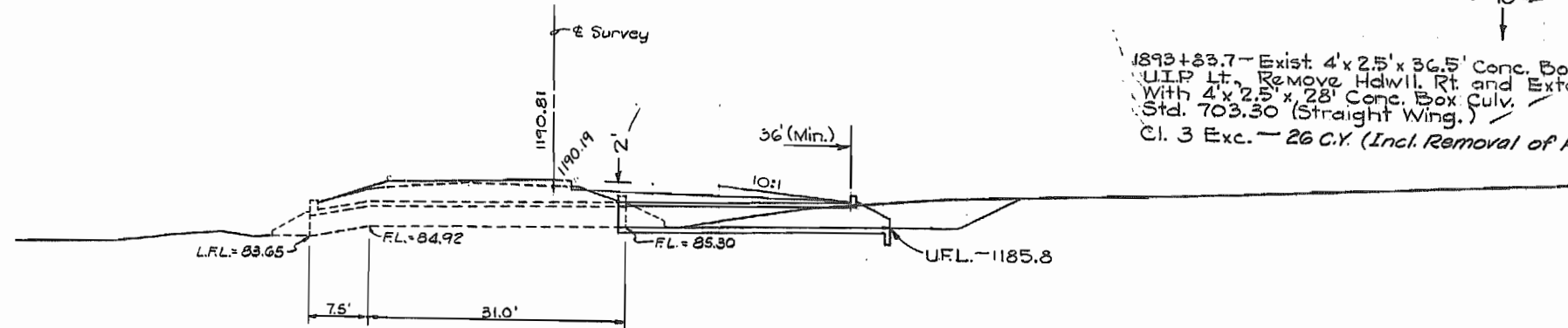
FINAL PLANS



ST. NO.	J7P0360	SHT. 29
DIST. 7	PROJ. NO. STP-FY93C3	RTE. 60
	COUNTY Newton	

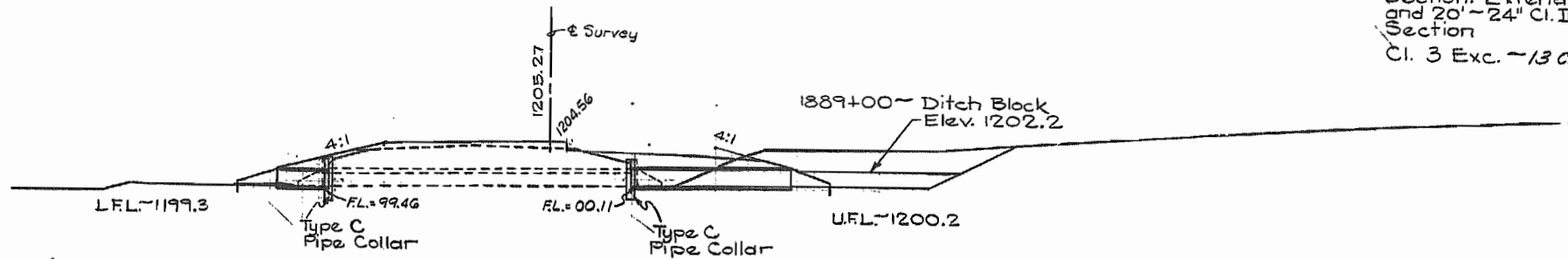
1893+83.7 - Exist 4'x2.5'x36.5' Conc. Box Culv.
 U.I.P. Lt. Remove Hdwl. Rt. and Extend
 With 4'x2.5'x28' Conc. Box Culv.
 Std. 703.30 (Straight Wing.)
 Cl. 3 Exc. - 26 C.Y. (Incl. Removal of Hdwl.)

1893+83.7



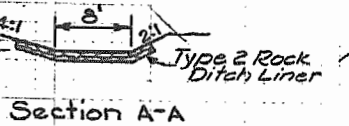
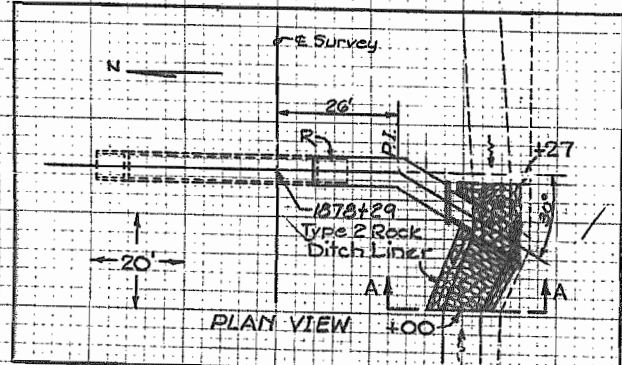
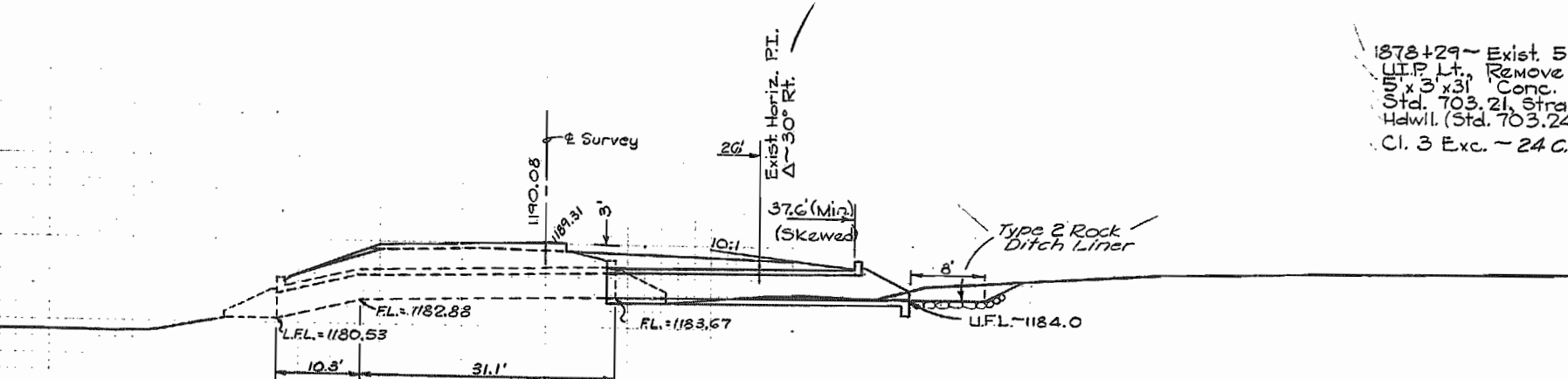
1888+83.5 - Exist 2'x1.5'x36.7' Conc. Box Culv.
 Remove Hdwl. and Extend Left With 1-Type C
 Pipe Collar, 7'-24" Cl. III R.C.P. and 1 Safety Slope End
 Section. Extend Right With 1 Type C Pipe Collar
 and 20'-24" Cl. III R.C.P. and 1 Safety Slope End
 Section
 Cl. 3 Exc. - 13 C.Y. (Incl. Removal of Hdwl.)

1888+83.5



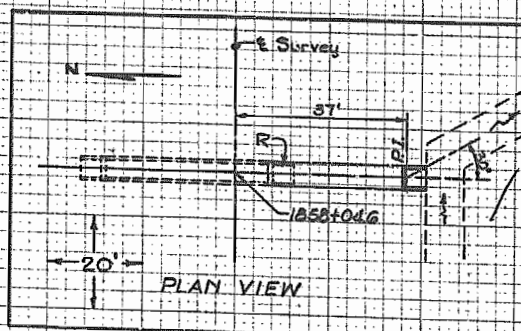
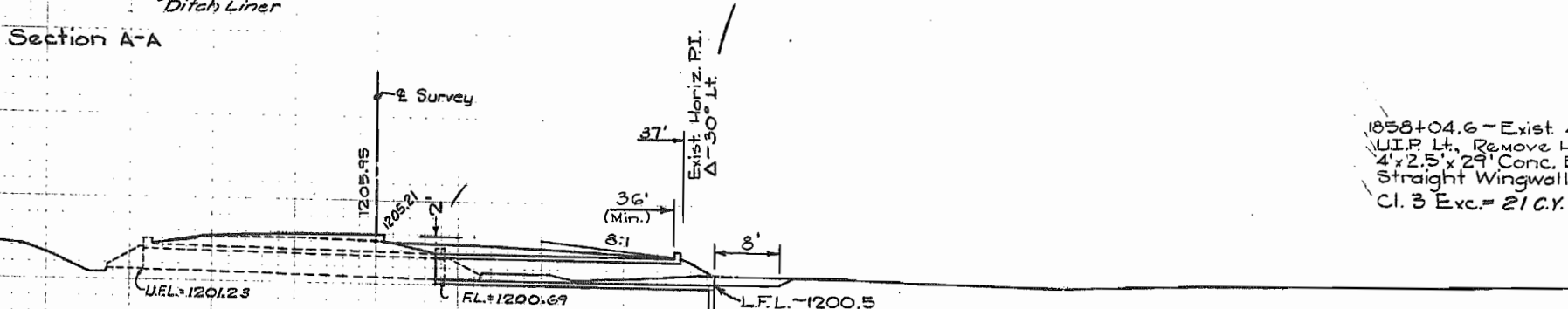
1878+29 - Exist 5'x3'x39.4' Conc. Box Culv.
 U.I.P. Lt. Remove Hdwl. Rt. and Extend. Rt. With
 5'x3'x31' Conc. Box Culv. (incl. 1-30° Bend.)
 Std. 703.21, Straight Wingwall, Skewed 30°
 Hdwl. (Std. 703.24), Cut Sections
 Cl. 3 Exc. - 24 C.Y. (Incl. Removal of Hdwl.)

1878+29



1858+04.6 - Exist 4'x2.5'x34.5' Conc. Box Culv.
 U.I.P. Lt. Remove Hdwl. and Extend Rt. with
 4'x2.5'x29' Conc. Box Culv. Std. 703.30,
 Straight Wingwall
 Cl. 3 Exc. - 21 C.Y. (Incl. Removal of Hdwl.)

1858+04.6

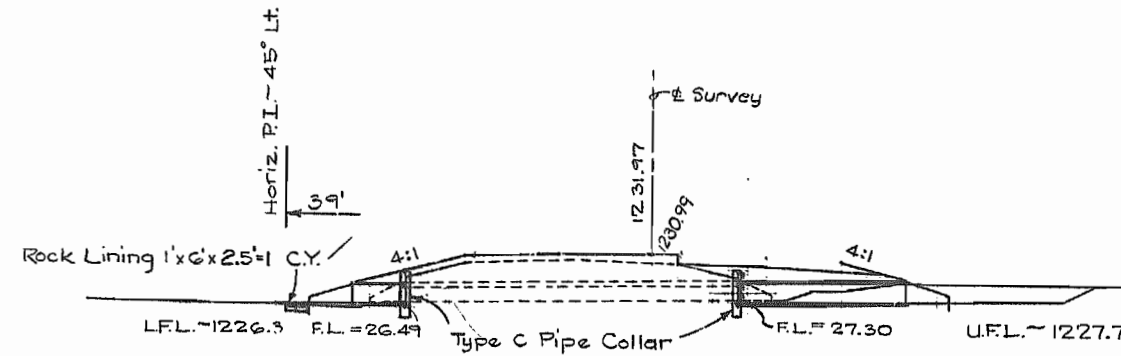


CULVERT SECTIONS
 Sheet 1 of 7

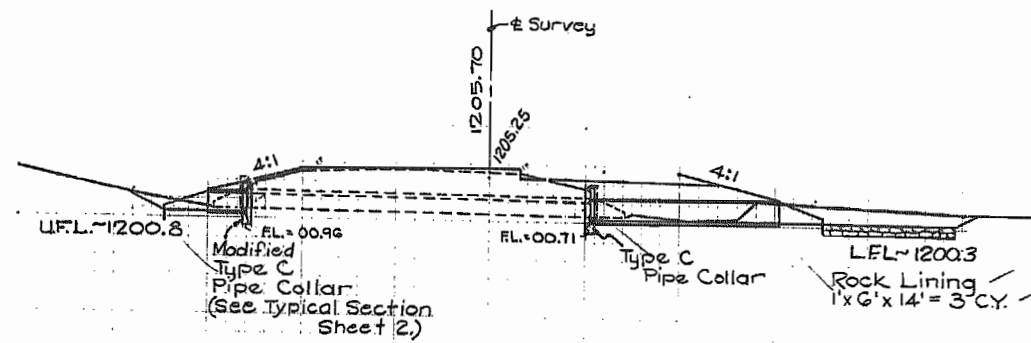
FINAL PLANS

MO. ST. JOB NO. J7P0360 SHT. 30
 PROJ. NO. STP-FY93(3) RTE. 60
 DIST. 7 COUNTY Newton

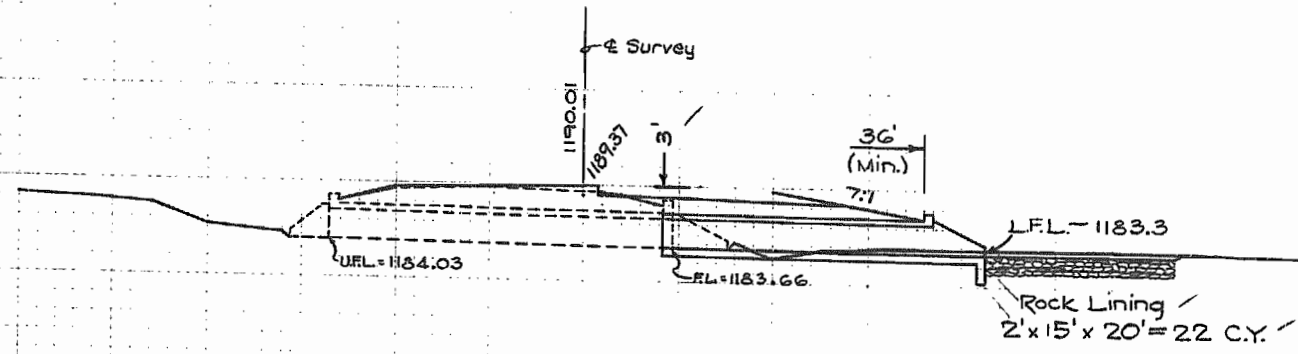
1935+67.5 ~ Exist 2' x 1.5' x 35.3' Conc. Box Culv. Remove Hdwl. and Extend Lt. With 6' x 24" Cl. III R.C.P. 1' Safety Slope End Section, and 1' Type C Pipe Collar
 Extend Rt. With 18' x 24" Cl. III R.C.P. 1' Safety Slope End Section, and 1' Type C Pipe Collar
 Cl. 3 Exc. ~ 12 C.Y. (Incl. Removal of Hdwl.) 1935+67.5



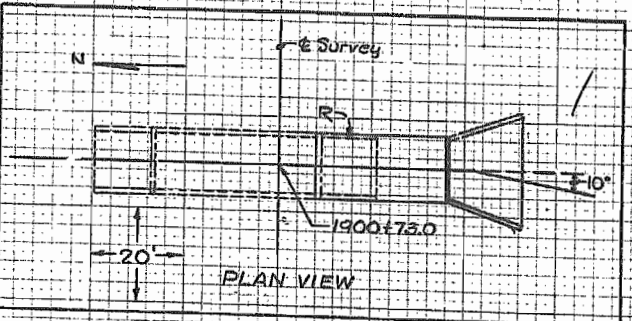
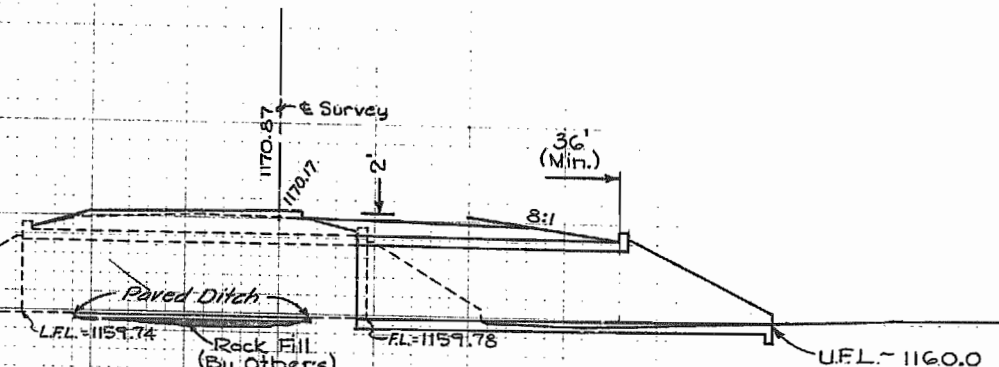
1925+18.1 ~ Exist 2' x 1.5' x 36.5' Conc. Box Culv. Remove Hdwl. and Extend Lt. With 4' x 24" Cl. III R.C.P. 1' Safety Slope End Section, and 1' Type C Pipe Collar
 Extend Right With 20' x 24" Cl. III R.C.P. 1' Safety Slope End Section, and 1' Type C Pipe Collar
 Cl. 3 Exc. ~ 9 C.Y. (Incl. Removal of Hdwl.) 1925+18.1



1913+06.5 ~ Exist 5' x 3' x 34.4' Conc. Box Culv. U.I.P. Lt. Remove Hdwl. Rt. and Extend With 5' x 3' x 29' Conc. Box Culv. ~ Straight Wings ~ Cut Sections. Std. 703.21
 Cl. 3 Exc. ~ 23 C.Y. (Incl. Removal of Hdwl.) 1913+06.5



1900+73.0 ~ Exist 12' x 7.5' x 34.5' Conc. Box Culv. U.I.P. Lt. Remove Hdwl. and Extend Rt. With 12' x 7.5' x 29' Conc. Box Culv. ~ Flared Wingwalls ~ Cut Sections. Std. 703.21
 Cl. 3 Exc. ~ 81 C.Y. (Incl. Removal of Hdwl.) 1900+73.0



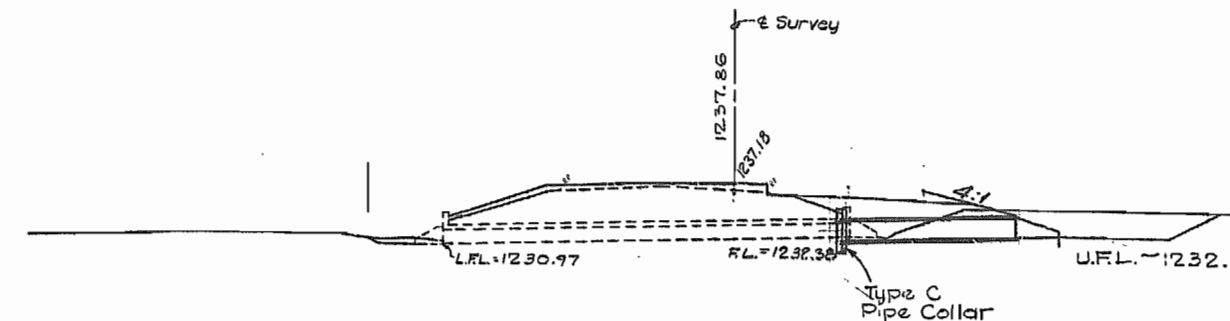
FINAL PLANS

MO.	J7P0360	SHT	31
ST.	PROJ. NO. STP-FY93(3)	RTE	60
DIST.	7	COUNTY	Newton

1987+17.4 ~ Exist. 2' x 1.5' x 41.6' Conc. Box Culvert. U.I.P. Lt. Remove Hdwl. Right and Extend With 19'-24" Cl. III R.C.P., 1-Type C Pipe Collar, and 1-Safety Slope End Section.

Cl. 3 Exc. ~ 10 C.Y. (Incl. Removal of Hdwl.)

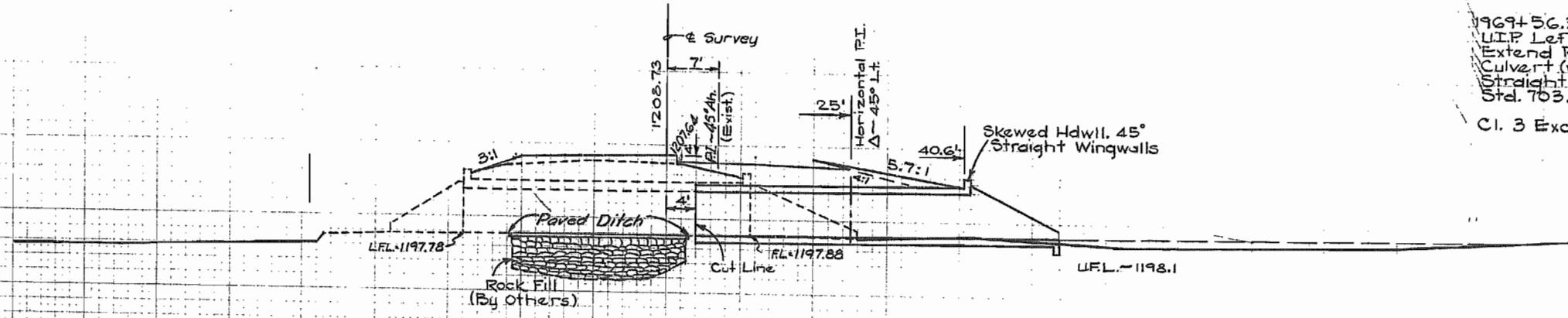
1987+17.4



1969+56.3 ~ Exist. 12' x 6' x 37.2' Conc. Box Culv. U.I.P. Left and Remove Hdwl. & 7.2' of Box Right. Extend Rt. With 88' of 12' x 6' Reinf. Conc. Box Culvert (with 1-45° Bend), 1-45° Skewed Hdwl., Straight Wingwalls.

Cl. 3 Exc. ~ 135 C.Y. (Incl. Removal of Hdwl.)

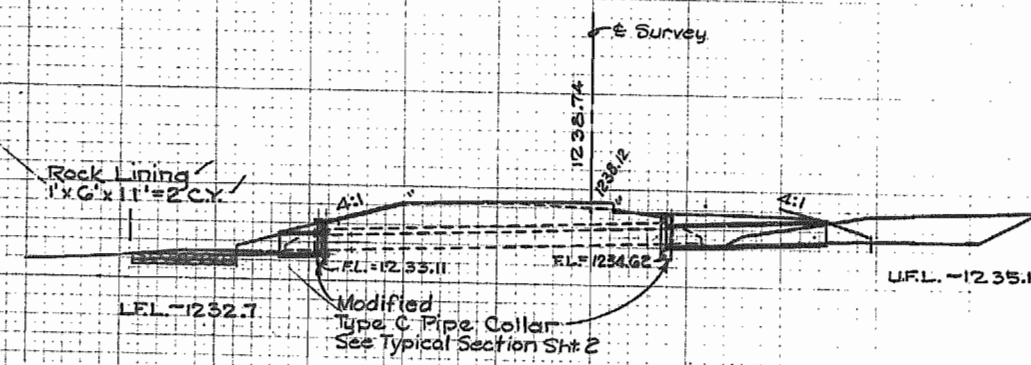
1969+56.3



1952+12.5 ~ Exist. 2' x 1.5' x 36.6' Conc. Box Culv. U.I.P. & Remove Hdwl. Extend Left With 5'-24" Cl. III R.C.P., 1-Safety Slope End Section, & 1-Type C Pipe Collar. Extend Right With 17'-24" Cl. III R.C.P., 1-Safety Slope End Section, and 1-Type C Pipe Collar.

Cl. 3 Exc. ~ 8 C.Y. (Incl. Removal of Hdwl.)

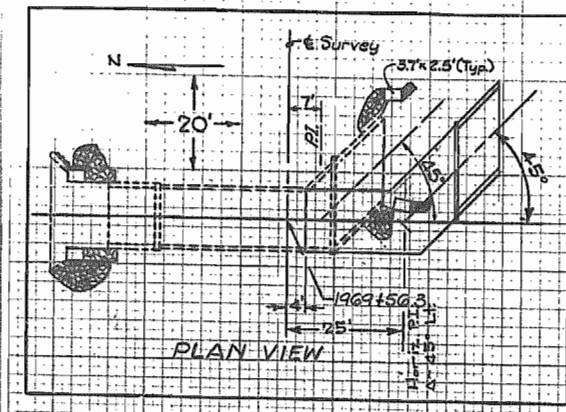
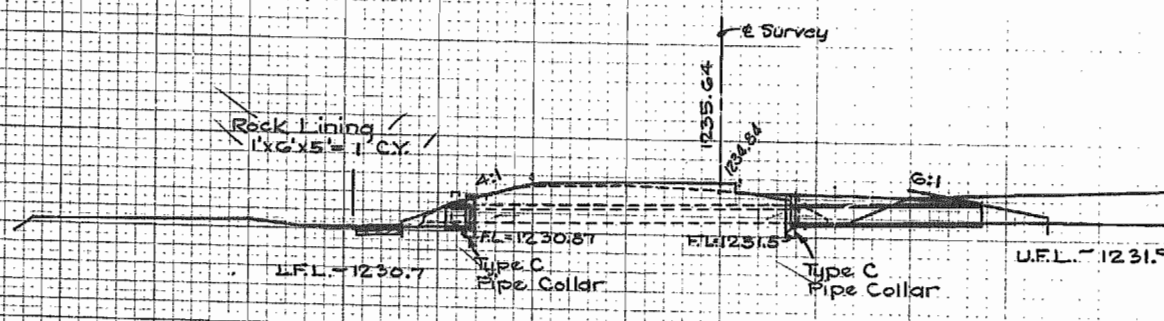
1952+12.5



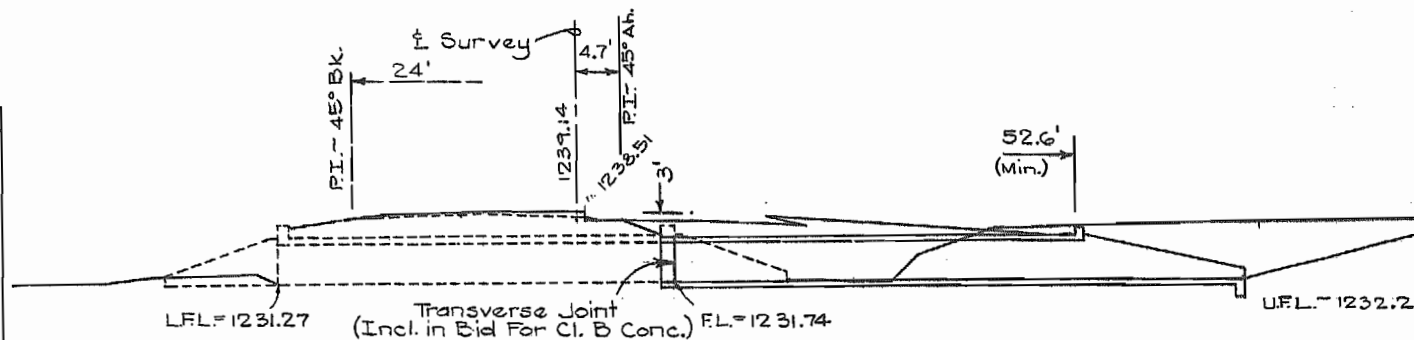
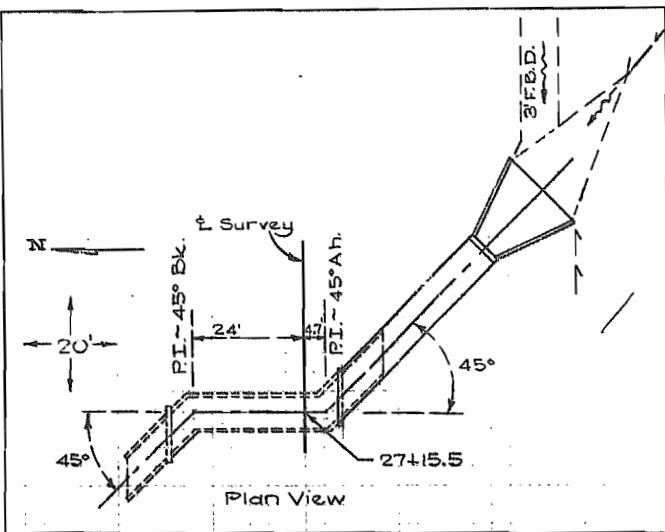
1943+22.8 ~ Exist. 2' x 1.5' x 35.3' Conc. Box Culv. U.I.P. & Remove Hdwl. and 2' of Box Left, and Remove Hdwl. Right. Extend Lt. With 3'-24" Cl. III R.C.P., 1-Safety Slope End Section, and 1-Type C Pipe Collar. Extend Rt. With 20'-24" Cl. III R.C.P., 1-Type C Pipe Collar, and 1-Safety Slope End Section.

Cl. 3 Exc. ~ 11 C.Y. (Incl. Removal of Hdwl.)

1943+22.8



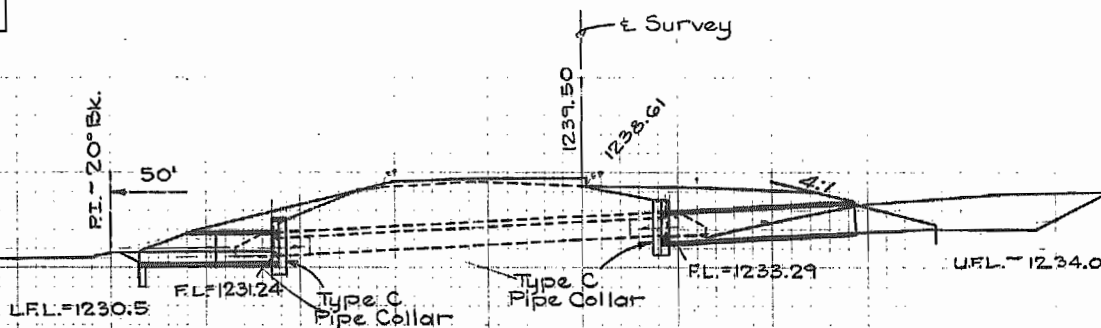
82-26



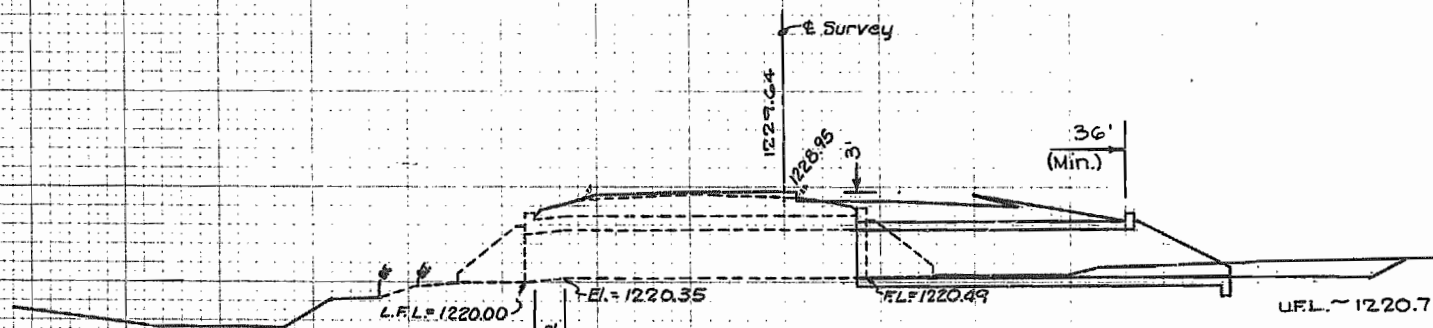
FINAL PLANS

MO. ST.	JOB NO. J7P0360	SHT. 32
DIST. 7	PROJ. NO. STP-FY93(3)	RTE. 60
	COUNTY Newton-Barry	

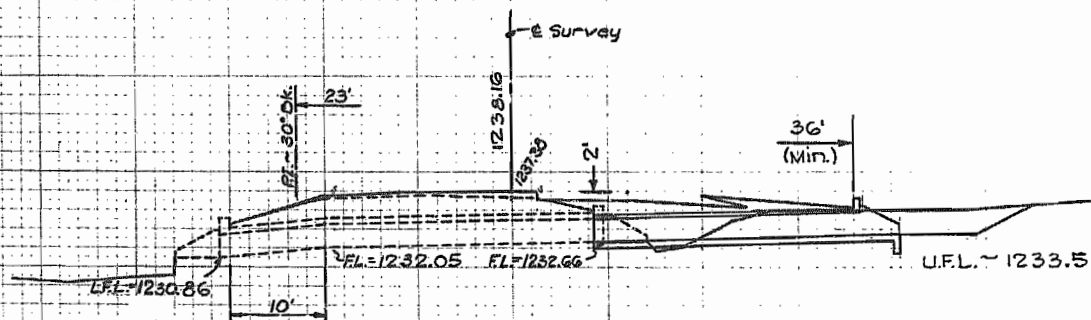
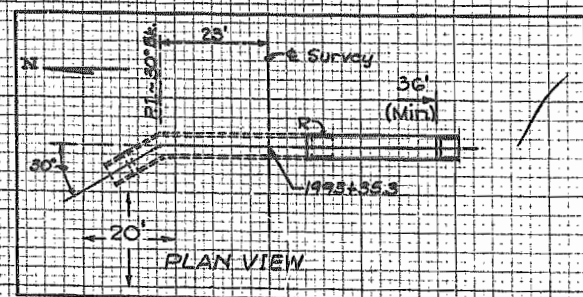
27+15.5 ~ Exist. 6'x4'x39.3' Conc. Box Culv.,
U.I.P. Left. Remove Hdwl. Rt. and Extend
With 45' of 6'x4' Conc. Box Culv.
Flared Wingwall. Std. 703.21 & 703.25 ~ Cut Sections
Cl. 3 Exc. ~ 109 C.Y. (Incl. Removal of Hdwl.)



24+34.2 ~ Exist. 3'x2'x40.3' Conc. Box Culv.,
Remove Hdwl. and Extend Left With 10' of
36" Cl. III R.C.P., 1-Type C Pipe Collar &
1-Flared End Section. Extend Right With
21' of 36" Cl. III R.C.P., 1-Safety Slope End Section,
and 1-Type C Pipe Collar.
Cl. 3 Exc. ~ 21 C.Y. (Incl. Removal of Hdwl.)

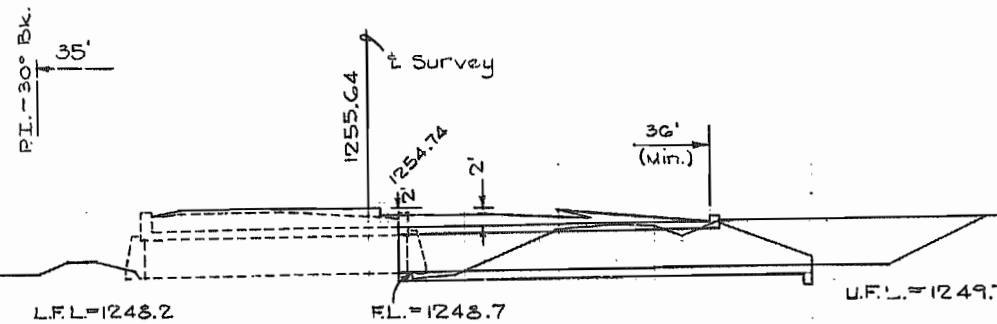
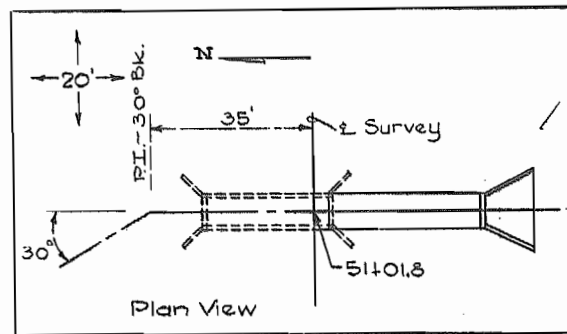


14+82.7 ~ Exist. 10'x5'x34.3' Conc. Box Culv.,
U.I.P. Left. Remove Hdwl. and Extend Right
With 30' of 10'x5' Conc. Box Culv., Straight
Wingwall. Std. 703.24
Std. 703.21 ~ Cut Sections
Cl. 3 Exc. ~ 55 C.Y. (Incl. Removal of Hdwl.)



1993+35.3 ~ Exist. 4'x2.5'x38.6' Conc. Box Culvert
U.I.P. Left. Remove Hdwl. Right and Extend With
28' of 4'x2.5' Conc. Box Culv.
Std. 703.30
Cl. 3 Exc. ~ 28 C.Y. (Incl. Removal of Hdwl.)

CULVERT SECTIONS
Sheet 4 of 7



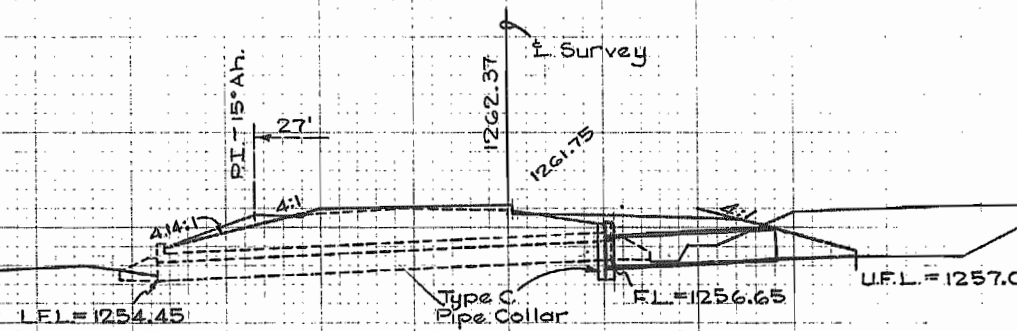
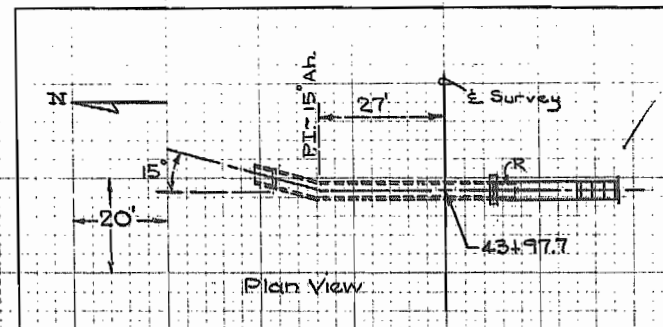
FINAL PLANS 10'

ST. MO. DIST. 7	JOB NO. J7P0360	SHT. 33
PROJ. NO. STP-FY93(3)	COUNTY: BARRY	RTE. 60

51+01.8 - Exist. 6'x4'x26.4' Conc. Box Culv. U.I.P. Left. Remove Hdwl. Rt. and Extend With 34' of 6'x4' Conc. Box Culv. Flared Wings. Std. 703.21 - Cut Sections

Cl. 3 Exc. = 78 C.Y. (Incl. Removal of Hdwl.)

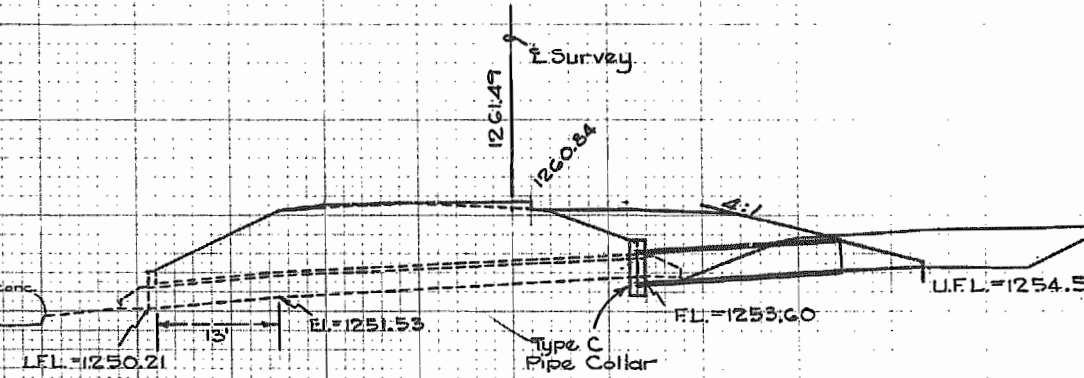
51+01.8



43+97.7 - Exist. 3'x2'x46.6' Conc. Box Culv. U.I.P. Left. Remove Hdwl. Right and Extend With 18'-36" Cl. III R.C.P. 1-Type C Pipe Collar and 1-Safety Slope End Section.

Cl. 3 Exc. = 12 C.Y. (Incl. Removal of Hdwl.)

43+97.7



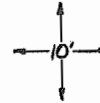
37+44.8 - Exist. 3'x2'x51.1' Conc. Box Culv. U.I.P. Left. Remove Hdwl. Rt. and Extend With 22'-36" Cl. III R.C.P. 1-Type C Pipe Collar and 1-Safety Slope End Section.

Cl. 3 Exc. = 17 C.Y. (Incl. Removal of Hdwl.)

37+44.8

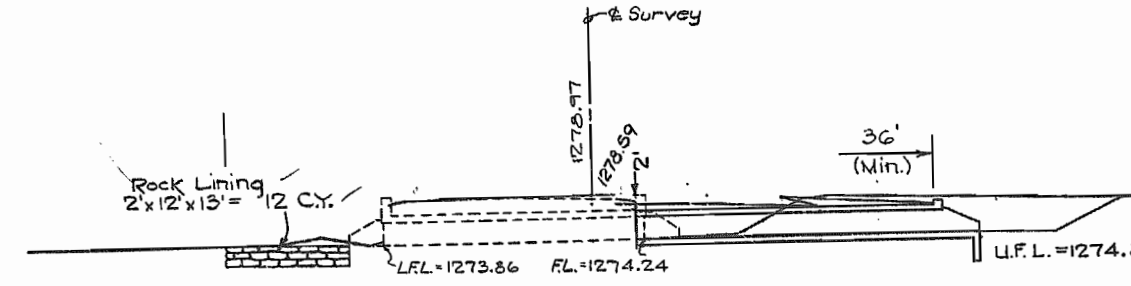
Culvert Sections
Sheet 5 of 7

FINAL PLANS

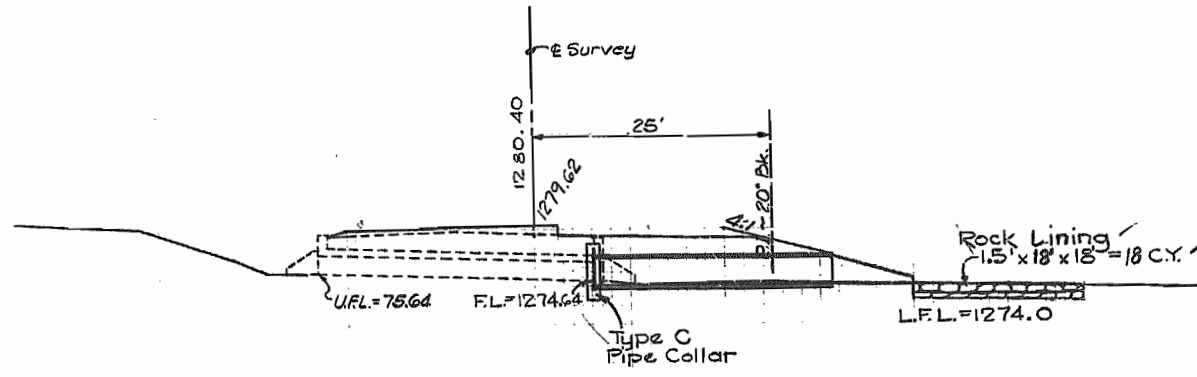


MO. ST.	JOB NO. J7P0360	SHT. 34
DIST. 7	PROJ. NO. STP-FY93(3)	RTE. 60
	COUNTY Barry	

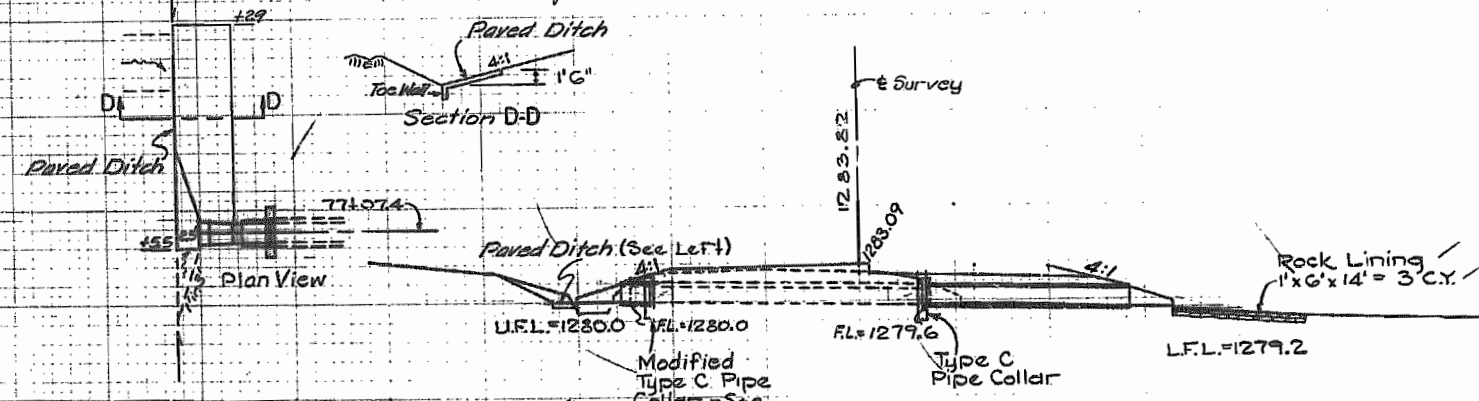
98+98.0 ~ Exist. 4'x2.5'x26.1' Conc. Box Culv. U.I.P. Left. Remove Hdwl. Right and Extend With 32' of 4'x2.5' Conc. Box Culv. Straight Wings. Std. 703.30
 Cl. 3 Exc. = 45 C.Y. (Incl. Removal of Hdwl.)
 98+98.0



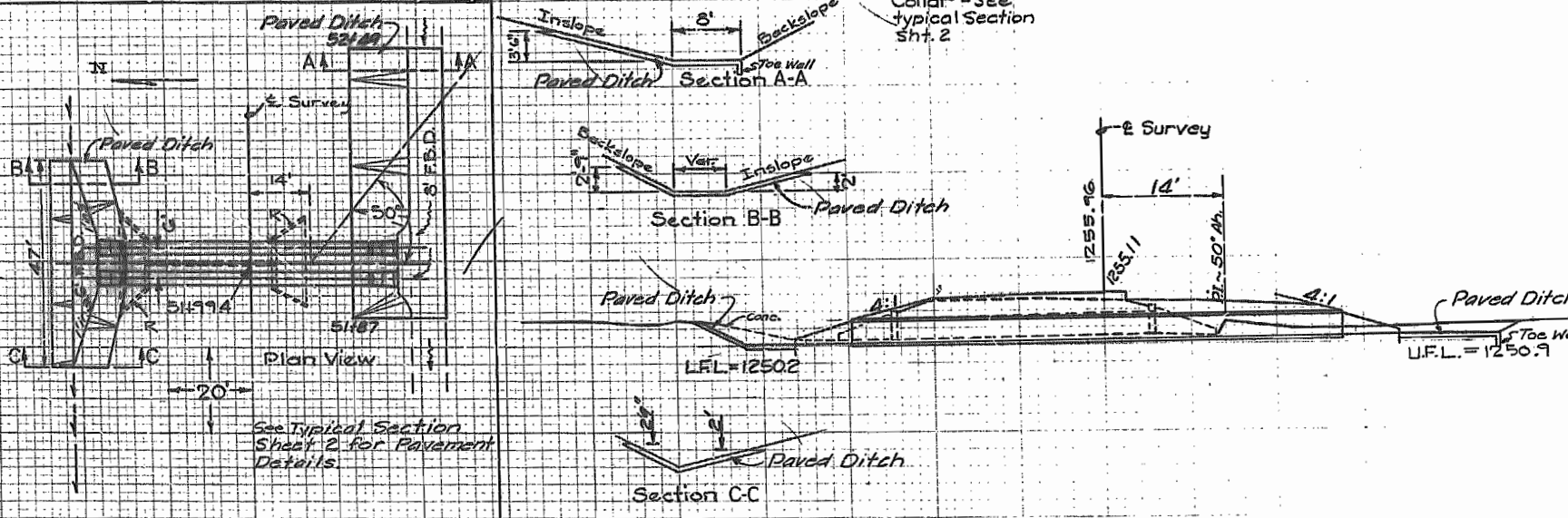
86+88.9 ~ Exist. 3'x2'x28.3' Conc. Box Culv. U.I.P. Left. Remove Hdwl. Right and Extend With 1-Type C Pipe Collar, 20'-36" Cl. III R.C.P., and 1-Safety Slope End Section.
 Cl. 3 Exc. = 8 C.Y. (Incl. Removal of Hdwl.)
 86+88.9



77+07.4 ~ Exist. 2'x1.5'x30.4' Conc. Arch Box Culvert. Remove Hdwl. & 1.4' of Box Left. Extend Left With Low-Clearance Type C Pipe Collar, 3'-24" Cl. III R.C.P., and 1-24" Safety Slope End Section. Remove Hdwl. Right and Extend With 1-Type C Pipe Collar, 22'-24" Cl. III R.C.P., and 1-24" Safety Slope End Section.
 Cl. 3 Exc. = 8 C.Y. (Incl. Removal of Hdwl/s)
 77+07.4



51+99.4 ~ Exist Double 30"x31' CMP. Remove in Stages to Handle Traffic. Install Double 30"x57' Cl. III R.C.P. With 4 Safety Slope End Sections. Space Pipes 6' Ctr. to Ctr.
 Cl. 3 Exc. = 109 C.Y. (Incl. Removal of Hdwl/s)
 51+99.4



FINAL PLANS

MO. ST.	JOB NO. J7P0360	SHT. 35
DIST. 7	PROJ. NO. STP-FY93(3)	RTE. 60
	COUNTY Barry	

158+91.8 ~ U.I.P. Exist. 3'x2'x119.6' Conc. Box Culv. (#1)
 Extend Rt. with 1- Type C Pipe Collar
 6'-36" O.I. III R.C.P. & 1-36" Safety Slope End Section
 Remove Exist. D.I. 15"x76" R.C.P. (#2) and
 24"x72" C.M.P. (#3)
 Cl. 3 Exc. = 10 C.Y. (Incl. Removal of D.I.)

158+91.8

140+00 ~ Exist. 5'x3'x26.2' Conc. Box Culv.
 U.I.P. Left.
 Remove Hdwl. Right and Extend With 33'-5'x3'
 Conc. Box Culv., Flared Wings.
 Std. 703.21 ~ Cut Sections.
 Cl. 3 Exc. = 45 C.Y. (Incl. Removal of Hdwl.)

140+00

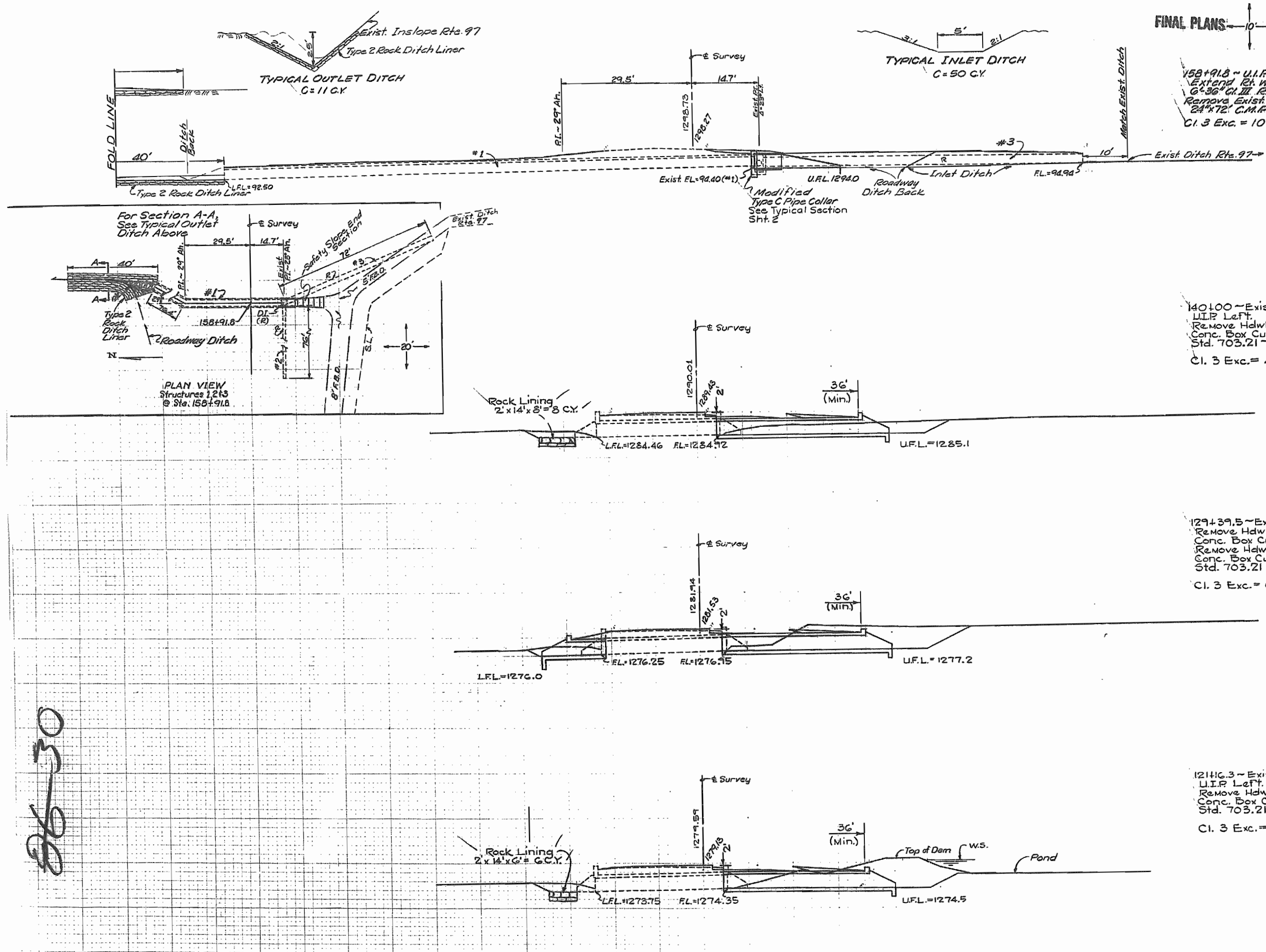
129+39.5 ~ Exist. 5'x3'x26.3' Conc. Box Culv.
 Remove Hdwl. Left and Replace With 9'-5'x3'
 Conc. Box Culv., Straight Wings.
 Remove Hdwl. Right and Extend With 33'-5'x3'
 Conc. Box Culv., Flared Wings.
 Std. 703.21 ~ Cut Sections.
 Cl. 3 Exc. = 60 C.Y. (Incl. Removal of Hdwl.)

129+39.5

121+16.3 ~ Exist. 5'x3'x28.3' Conc. Box Culv.
 U.I.P. Left.
 Remove Hdwl. Right and Extend With 33'-5'x3'
 Conc. Box Culv., Flared Wings.
 Std. 703.21 ~ Cut Sections
 Cl. 3 Exc. = 65 C.Y. (Incl. Removal of Hdwl.)

121+16.3

CULVERT SECTIONS
 Sheet 7 of 7



8630

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

STANDARD PLANS

REVISED MARCH 1, 1993

FINAL PLANS

STATE MO	JOB NO. J7P0360	SHEET NO. 36
DIST. 3	PROJECT NO. STP-FY93(3)	ROUTE
7	COUNTY Newton - Barry	60

✓	NO.	DESCRIPTION
✓	203.00E	EXCAVATION & EMBANKMENT
	203.02C	UNDERGRADING
	203.10B	TABULATED EARTHWORK & SECTION DATA
	203.20B	SUPERELEVATION SPIRALS & WIDENING (UNDIVIDED)
	203.21B	SUPERELEVATION SPIRALS & WIDENING (DIVIDED)
	203.35A	MAILBOX TURNOUTS
	203.40E	TYPICAL DETAILS-RAMPS FOR INTERCHANGES (OTHER THAN 6:1 FORESLOPE)
	203.41E	TYPICAL DETAILS-RAMPS FOR INTERCHANGES (6:1 FORESLOPE)
	203.50J	TYPICAL CROSS-OVERS (DIVIDED HIGHWAYS)
✓	203.61	DRIVEWAY TYPE I
✓	203.62	DRIVEWAY TYPE II
✓	203.63	DRIVEWAY TYPE II I
	203.64	DRIVEWAY TYPE IV
	203.65	DRIVEWAY TYPE V
	204.00D	EMBANKMENT CONTROL MEASURING DEVICES
	502.00N	CONCRETE PAVEMENT & BASE APPURTENANCES (2 SHEETS) *
	502.10F	DOWEL SUPPORTING UNITS *
	503.00J	CONCRETE APPROACH SLABS TO BRIDGES (ALSO INCLUDE 502.00)
	504.00	CONCRETE APPROACH PAVEMENT (2 SHEETS) *
	602.00A	RIGHT-OF-WAY & DRAIN MARKERS
	604.05B	PIPE CULVERT HEADWALLS - TYPE S
	604.10B	HEADWALL-WITH ENERGY DISSIPATOR - 18"
	604.11B	HEADWALL-WITH ENERGY DISSIPATOR - 24"
	604.12B	HEADWALL-WITH ENERGY DISSIPATOR - 30"
	604.13B	HEADWALL-WITH ENERGY DISSIPATOR - 36"
	604.14B	HEADWALL-WITH ENERGY DISSIPATOR - 42"
	604.15B	HEADWALL-WITH ENERGY DISSIPATOR - 48"
	604.20B	DROP INLET - TYPE B
	604.21B	DROP INLET - TYPE C
	604.22B	DROP INLET - TYPE D
	604.23B	DROP INLET - TYPE E
	604.24B	DROP INLET - TYPE EC
	604.25B	DROP INLET - TYPE F
	604.26D	DROP INLET - TYPE G
	604.27D	DROP INLET - TYPE S (3 SHEETS)
	604.28E	DROP INLET - TYPE T (ALSO INCLUDE 614.30)
	604.29C	DROP INLET - TYPE X
	604.30F	CONCRETE MANHOLES (ALSO INCLUDE 614.30)
✓	604.40E	PIPE COLLARS
	605.10A	CLASS A UNDERDRAINS
	606.00Y	GUARD RAIL (6 SHEETS) *
	606.22K	BRIDGE ANCHOR SECTION (SAFETY BARRIER CURB ON BRIDGE) (ALSO INCLUDE 606.00)
	606.23C	BRIDGE ANCHOR SECTION (THREE BEAM RAIL ON BRIDGE) (ALSO INCLUDE 606.00)
	606.30E	TERMINAL SECTION (ALSO INCLUDE 606.00)
	606.40A	GUARD CABLE
	607.10R	CHAIN LINK FENCE
	607.11B	CHAIN LINK FENCE FOR RETAINING WALLS
	607.20F	Woven WIRE FENCE (ALSO INCLUDE 607.10)

✓	NO.	DESCRIPTION
	608.00C	PAVED APPROACHES
	608.10G	CONCRETE SIDEWALK & WHEELCHAIR RAMPS
	608.20D	CONCRETE STEPS *
✓	609.00G	CONCRETE CURB - CURB & GUTTER - GUTTER
✓	609.15C	PAVED DITCHES *
	609.40E	DRAIN BASIN, SHLD. PAVE. & FILL SL. AT BR. ENDS (2 SHEETS) *
✓	609.60C	ROCK DITCH LINER *
✓	609.70C	ROCK LINING FOR CULVERT OUTLETS
	610.20E	BRICK MANHOLES (ALSO INCLUDE 614.30)
	611.60L	CONCRETE SLOPE PROTECTION
	612.10K	BARRICADES AND FLASHER SIGNS
	613.00B	PAVEMENT REPAIR
	614.10R	CURB INLETS, GRATES & BEARING PLATES
	614.30D	MANHOLE FRAMES & COVERS
	615.00A	OFFICE FOR ENGINEER
✓	616.10P	TRAFFIC CONTROL DEVICES (3 SHEETS) (ALSO INCLUDE 903.01) *
	617.00X	CONCRETE TRAFFIC BARRIER (3 SHEETS) *
	702.01F	16" CONCRETE PILES (APPROVED TYPES) (2 SHEETS)
	702.02B	CAST-IN-PLACE CONCRETE PILES (APPROVED TYPES)
✓	703.21E	CONCRETE BOX CULVERTS, H20 LOADING (3 SHEETS) (FLARED WINGS) (INCL 706.35)
✓	703.24E	CONCRETE BOX CULVERTS, SKEW DATA (703.30) (INCL 706.35)
✓	703.25E	CONCRETE BOX CULVERTS, SKEW DATA (703.21) (3 SHEETS) (FLARED WINGS) (INCL 706.35)
	703.30F	CONCRETE BOX CULVERTS, 4' SPANS & LESS-ALL LOADING (INCL 706.35)
	703.35B	CONCRETE BOX CULVERTS, CUTTING DETAILS (STRAIGHT WINGS) (INCL 706.35)
	703.36A	CONCRETE BOX CULVERTS, CUTTING DETAILS (FLARED WINGS) (INCL 706.35)
	703.50H	CONCRETE DOUBLE BOX STRUCTURE-SQUARE (INCL 706.35)
	703.51G	CONCRETE DOUBLE BOX STRUCTURE-SKEWED (INCL 706.35)
	703.52D	CONCRETE DOUBLE BOX STRUCTURE-CUT SECTIONS (INCL 706.35)
	703.54E	DOUBLE BOX STRUCTURE REINFORCEMENT-H20 OR HS20 LOADING (8 SHEETS)
	703.55E	CONCRETE DOUBLE BOX STRUCTURE (FLARED WINGS) SQUARE (INCL 706.35)
	703.56E	CONCRETE DOUBLE BOX STRUCTURE (FLARED WINGS) SKEWED (INCL 706.35)
	703.60C	CONCRETE BOX STRUCTURE-PIPE INLET
	703.70D	CONCRETE TRIPLE BOX STRUCTURE-SQUARE (2 SHEETS) (INCL 706.35)
	703.71D	CONCRETE TRIPLE BOX STRUCTURE-SKEWED (2 SHEETS) (INCL 706.35)
	703.72D	CONCRETE TRIPLE BOX STRUCTURE-(FLARED WINGS) (SQUARE) (2 SHEETS) (INCL 706.35)
	703.73D	CONCRETE TRIPLE BOX STRUCTURE-(FLARED WINGS) (SKEWED) (2 SHEETS) (INCL 706.35)
	703.74D	CONCRETE TRIPLE BOX STRUCTURE-CUT SECTIONS (INCL 706.35)
	703.76B	CONCRETE TRIPLE BOX STRUCTURE REINFORCEMENT-H20 OR HS20 LOADING (5 SHEETS)
	706.30E	REINFORCING BAR SUPPORTS
✓	706.35E	BAR SUPPORTS FOR CONCRETE REINFORCEMENT
	712.40E	STEEL DAMS FOR BRIDGES (6" CHANNEL)
✓	725.31C	METAL CURTAIN WALL AND METAL INLETS
	726.30C	CULVERT INSTALLATION METHODS
	731.00S	PRECAST MANHOLES (ALSO INCL 614.30)
	731.10K	PRECAST DROP INLETS (4 SHEETS) (ALSO INCL 614.30 & 614.10)

✓	NO.	DESCRIPTION
✓	732.00L	FLARED END SECTION (2 SHEETS)
✓	732.10	SAFETY SLOPE END SECTIONS (2 SHEETS) *
	806.02A	STAPLE PLACEMENT FOR PLASTIC NETTING
		HIGHWAY LIGHTING
	901.00P	POLES & APPURTENANCES-30' (3 SHEETS)
	901.01U	POLES & APPURTENANCES-45' (3 SHEETS)
	901.05A	CONTROL PANEL CABINET DETAILS (2 SHEETS) (SEE NOTE)
	901.12C	POLE MOUNT CONT STA-SECONDARY SERV-480 V MULTI CIR (NOT METERED)
	901.15E	POLE MOUNT CONT STA-SEC SERV-120,240, & 480 V MULTI CIR
	901.16D	POLE MOUNT CONT STA-SEC SERV-480 V MULTI CIR (METERED)
	901.18D	POLE MOUNT CONT STA-SEC SERV-120/240 V MULTI CIR
	901.19D	POLE MOUNT CONT STA-SEC SERV-240 V MULTI CIR (NOT METERED)
	901.20D	POLE MOUNT CONT STA-SEC SERV-120/240 V MULTI CIR (SIG METERED)
	901.22E	POLE MOUNT CONT STA-SEC SERV-120/240 & 480 V MULTI CIR (BOTH METERED)
	901.23E	POLE MOUNT CONT STA-SEC SERV-240 V MULTI CIR (METERED)
	901.24D	POLE MOUNT CONT STA-SEC SERV-240 V MULTI CIR (LIGHTS & SIGNALS-BOTH METERED)
	901.25D	BASE MOUNT CONT STA-SEC SERV-120/240 V MULTI CIR
		NOTE: ALSO INCLUDE 901.05 WITH 901.12 THROUGH 901.25 EXCEPT 901.18
		TRAFFIC SIGNALS
	902.00F	SIGNAL HEADS, LENSES AND MOUNTING
	902.10J	PULL BOXES, CONTROLLERS, COND LOCATION
	902.15D	POWER SUPPLY ASSEMBLY
	902.21B	TELEPHONE INTERCONNECT
	902.30H	CONCRETE BASES *
	902.40J	TUBULAR STEEL POST
	902.50F	DETECTORS
	902.60F	SPAN WIRE DETAILS-STEEL POST
	902.70D	SPAN WIRE DETAILS-WOOD POLE
	902.80A	TRAFFIC SIGNAL SYMBOLS
		HIGHWAY SIGNING
✓	903.01C	ALPHABETS (2 SHEETS)
	903.02Y	HIGHWAY SIGNING (7 SHEETS)
	903.03AP	SIGN MOUNTING DETAILS (5 SHEETS)
	903.04D	WEIGH STATION SIGNING
	903.05C	TUBULAR SPAN SUPPORT-ONE TUBE, TYPE S
	903.06C	TUBULAR SPAN SUPPORT-TWO TUBE, TYPE S
	903.07C	TUBULAR CANTILEVER SUPPORTS, TYPE C
	903.08C	TUBULAR BUTTERFLY SUPPORTS, TYPE B
	903.09D	LIGHTING SUPPORT BRACKET *
	903.10T	SIGN TRUSSES-OVERHEAD ALUMINUM (8 SHEETS) (INCL 903.03)
	903.12N	SIGN TRUSSES-BUTTERFLY & CANTILEVER-STEEL (7 SHEETS) (INCL 903.03)
	903.60S	SIGN TRUSSES-OVERHEAD STEEL (7 SHEETS) (INCL 903.03)

NOTES:
PLANS FOR THIS PROJECT WERE DEVELOPED USING DRAWINGS FROM THIS INDEX

* REVISED OR NEW SINCE JAN. 1, 1992.

NAME	DATE	INITIAL	SURVEY	REMARKS
Fullerton	11/90			
Wagoner, Fullerton	6/94		6 C & D	
Wagoner, Fullerton	6/94		6 C & D	
Wagoner	6/94			
Fullerton	6/94			

ORIGINAL	SURVEY	NOTED	DATE
SURVEYED	PLOTTED	BY	
TEMPLATE			
AREAS			
AREAS CHECKED			

Class 3 EIG 30. DCY

Add 2.1 (27.8)

Curv.

54.2' Rt. E Survey
Class 3 Exc. 68'

Add 2.1 CY To Volume For New Toewall
(27.83' x 0.875' x 2.230' ÷ 27)

Class 3 EXC.15.7 CY

37.3' Rt. E Survey
Class 3 Exc. 26

Class 3 EXC. 16.7CY

21' R. & Survey
Class 3 Exc. 24'

Add 1.2 C.Y. To Volume For Old Toewall
(16.1' x 0.875' x 2.330' ÷ 27)

Class 3 Exe. 15.6C4.

9' R. & Survey AND.
Class 3 Exc 51

A hand-drawn sketch of a rectangular structure, possibly a window or door frame. The sketch includes the following details:

- A central rectangular opening.
- Dimensions: 11632 (top), $18''$ (left), and $18''$ (right).
- Labels: $2.6.7$ (top right) and 2 Culv. (bottom center).
- Arrows pointing outwards from the corners of the rectangle.

9' Rt. E Survey BK.
Class 3 Exc. 164

6.5' Rt. & Survey
Class 3 Exc. 172'

Culvert Section Rt.
@ Sta. 1900+73
Class 3 Exc. 78.0 CY
class 3 for Toe walls ± 3.3 cy
Total class 3 81.3 cy
use 81.0 cy

CLASS III EXCAVATION

7

60

Class 3 Ex. 24.7cy. $\frac{1}{2}$ e calv.

← 2 e cu/v

FINAN.	11-11-44	Fullerton	6/19/44
SURVEY	ACK'D	Allyson Fullerton w/1/2	6/19/44
ACK'D	ACK'D	Wayne, Fullerton	6/19/44
ACK'D	ACK'D	Fullerton	6/19/44

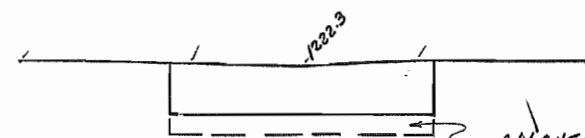
ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTED	PLOTTED		
NOTE BOOK	TEMPLATE		
INDEX	APPEAR UNDER		

FINAL SURVEY
NOTE: BUSHES
NO. 1

ORIGINAL SURVEY
NOTE: BUSHES
NO. 1

34

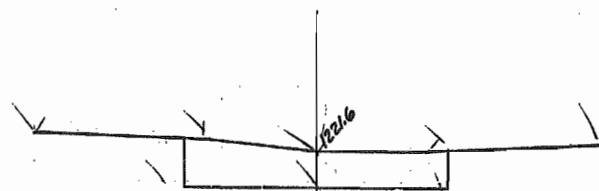
Total C = 55 CY. Class III Exc.



48.47' Rt. & Survey
Class 3 Exc. 39

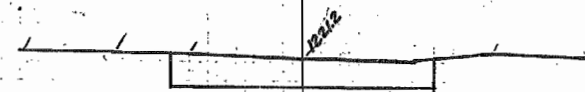
Add 0.45 CY. To Volume For New Toewall
(14.08' x 1.04' x 0.83 ÷ 27 = 0.45 CY.)

Class 3 Exc. 125 CY



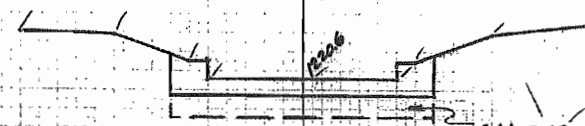
35' Rt. & Survey
Class 3 Exc. 31

Class 3 Exc. 100 CY



25' Rt. & Survey
Class 3 Exc. 23

Class 3 Exc. 66 CY



16.5' Rt. & Survey
Class 3 Exc. 19

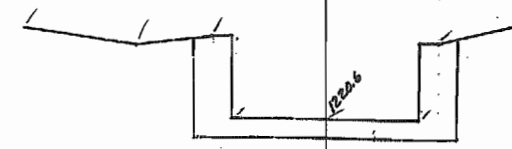
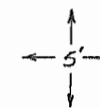
Add 0.45 CY. To Volume For Existing Toewall
(14.08' x 1.04' x 0.83 ÷ 27 = 0.45 CY.)

Class 3 Exc. 39 CY

FINAL PLANS

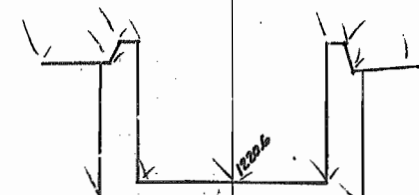
STATE: MO. JOB NO. JTP0360
PROJECT: STP-FY93(3)
SHEET: 7
DATE: Newton-Barry

11 NO. 39
12 NO. 60

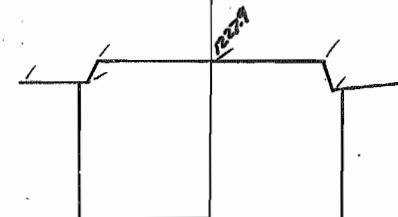


Class 3 Exc. 5.7 CY

12.5' Rt. & Survey
Class 3 Exc. 33

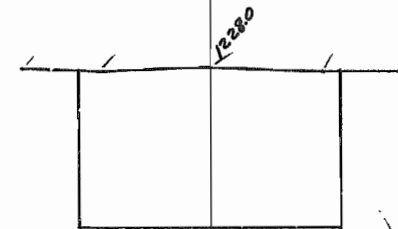


8.47' Rt. & Survey
(A.H.D.)
Class 3 Exc. 44



8.47' Rt. & Survey
(B.K.)
Class 3 Exc. 116

C = 10.1'



6.14' Rt. & Survey
Class 3 Exc. 119

Culvert Section Rt.
@ Sta. 14+82.7
Class 3 Exc. 53.8
Class 3 Exc for Toewalls + 0.9
Total Class 3 Exc 54.7
use 55.0

CLASS III EXCAVATION

A-9-2

INDEX OF SHEETS	
TITLE SHEET	1
TYPICAL SECTIONS (Sheet 1)	2
SUMMARY (Sheet 1)	2-A
PLAN-PROFILE & B SHEETS	3-15
REFERENCE POINTS	16-17
SPECIAL SHEETS	18-19
LIGHTING	
SIGNALS	
SIGNING	
CULVERT SECTIONS	
BRIDGE PLANS	27-30
STANDARDS	21
CROSS SECTIONS	1-11
COMPUTED DATA	22-23

DESIGN DESIGNATION
 A.D.T. (1982) = 1650
 A.D.T. (1982) = 2500
 D.H.V. (1982) = 250
 D=30%
 T=10%
 V=70 m.p.h.

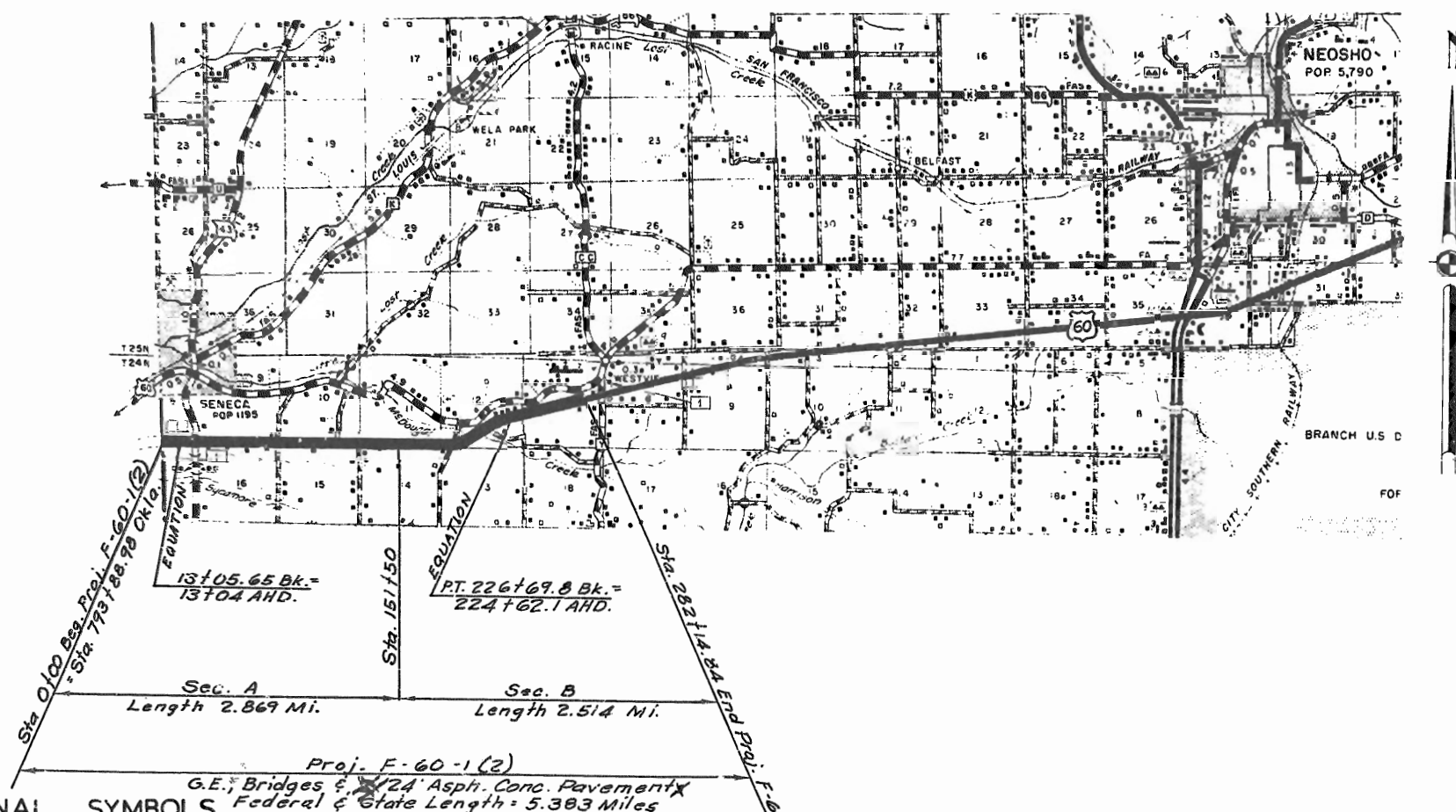
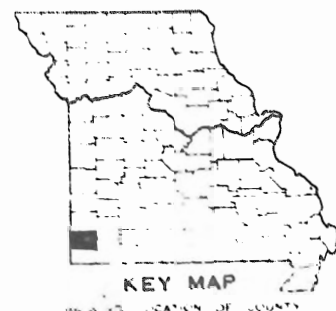
MISSOURI STATE HIGHWAY COMMISSION PLAN AND PROFILE OF PROPOSED STATE ROAD

FEDERAL AID PROJECT
NEWTON COUNTY

LIMITED ACCESS HIGHWAY
 This shall be a limited access highway between Station 13+05.65 and Station 22+62.1. Except at location and as otherwise specifically shown on these plans, no abutter's rights, or of direct access to, from, or across the highway or its right of way shall attach or belong to any property abutting on said section of highway or to any person merely because of ownership of such abutting property. There shall be the usual right of access over any location either (1) shown on these plans as a property entrance (P.E.), field entrance (F.E.), or private underpass, or (2) where and when any such entrance, underpass, or an adjacent public highway is being maintained by the governmental agency having authority therefor. When an adjacent outer-roadway is so shown or maintained, there shall be the usual right of direct access between the abutting property and such outer-roadway to which access is not specifically prohibited by the special symbol denoting "No Right of Access" as shown on the plans, and along it to and from the nearest lane of the thruway or a public highway.

LEGEND
 BEGINNING AND ENDING OF LIMITED ACCESS
 LIMITED ACCESS
 NO RIGHT OF ACCESS OR CROSSING OF LINKS BEARING THIS SYMBOL WILL BE PERMITTED UNDER ANY CIRCUMSTANCES.

COUNTY	NEWTON
STATE ROUTE NO.	60
PROJECT NO.	F-60-1(2)
A & B	
FINAL PLANS	



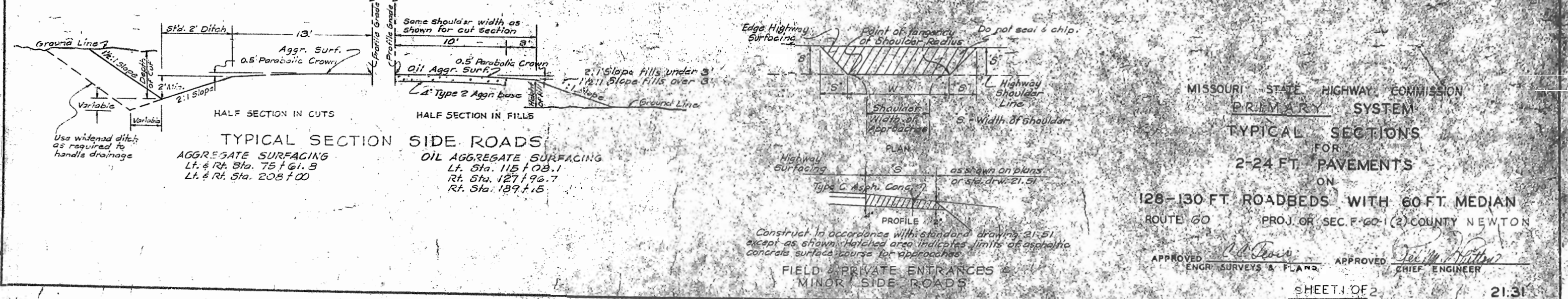
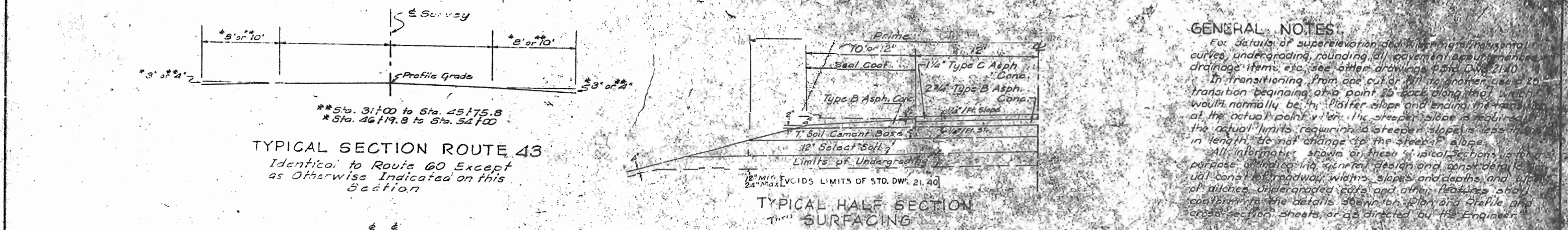
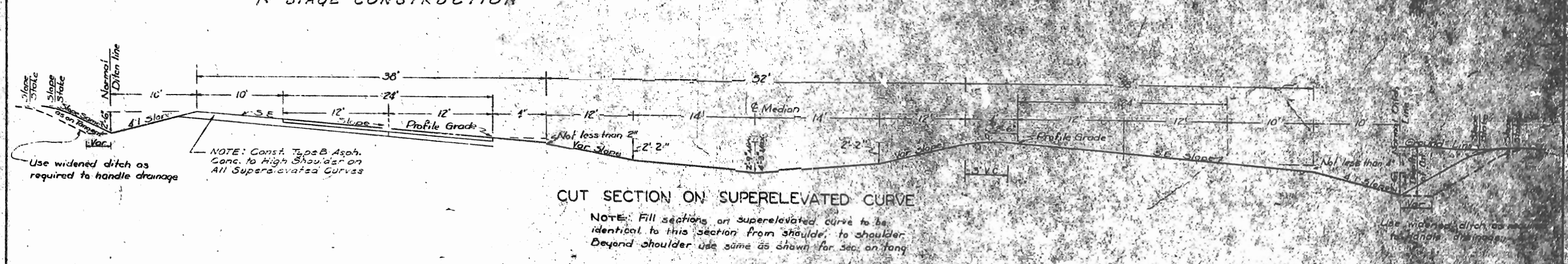
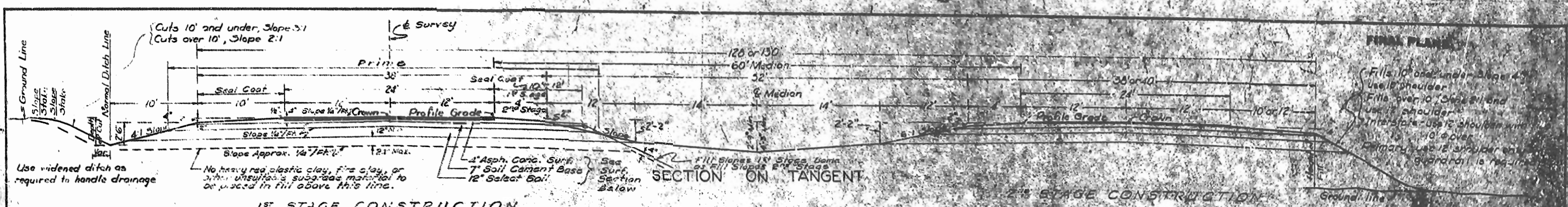
CONVENTIONAL SYMBOLS	
STATE LINE	---
COUNTY LINE	---
CITY LIMITS	=====
TOWNSHIP OR RANGE LINE	-----
OTHER LAND SURVEY LINES	-----
FENCE LINE	-----
GUARD RAIL	-----
PROPERTY LINE	-----
RIGHT OF WAY LINE	-----
RIGHT OF WAY MARKER	-----
RAILROAD	-----
SURVEY CENTER-LINE	-----
CULVERT	-----
OVERHEAD TELEPHONE NEW	-----
OVERHEAD TELEPHONE EXIST.	-----

TITLE SHEET LEGEND	
EXISTING BUILDINGS & STRUCTURES	---
GROUND LINE	---
GRADE LINE	---
OVERHEAD POWER-EXIST	---
OVERHEAD POWER-NEW	---
UNDERGROUND GAS-NEW	---
UNDERGROUND WATER-EXIST	---
INTERCHANGE	---
GRADE SEPARATION	---
CONSTRUCTION IDENTIFICATION SIGNS	---

Not Dual P.V.



SUBMITTED BY	DATE
CHIEF ENGINEER MISSOURI STATE HIGHWAY COMMISSION DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS	
APPROVED:	
DIVISION ENGINEER	DATE



GENERAL NOTES

For details of super-elevation and widening of horizontal curves, undergrading, rounding, all pavement appurtenances, drainage items, etc. see other drawings and Data 2140.

In transitioning from one cut or fill to another, use a 20' transition beginning at a point 25' back along that which would normally be the flatter slope and ending the transition at the actual point where the steeper slope is required. The actual limits requiring a steeper slope is less than in length, do not change to the steeper slope.

All information shown on these typical sections is for the purpose of indicating general design and construction details. All constant roadway widths, slopes and depths, and type of ditches, undergrades, cuts and other features, shall conform to the details shown on plan and profile and cross-section sheets, or as directed by the Engineer.

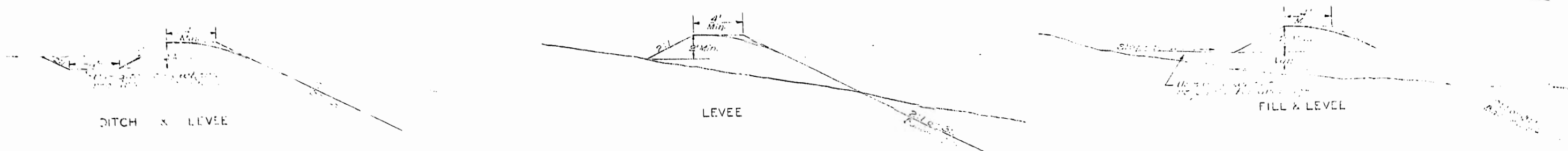
MISSOURI STATE HIGHWAY COMMISSION
PRIMARY SYSTEM
TYPICAL SECTIONS
FOR
2-24 FT. PAVEMENTS
ON
120-130 FT. ROADBEDS WITH 60 FT. MEDIAN
ROUTE 60 PROJ. OR SEC. F-60-1(2) COUNTY NEWTON

APPROVED *[Signature]* ENGR. SURVEYS & PLANS
APPROVED *[Signature]* CHIEF ENGINEER

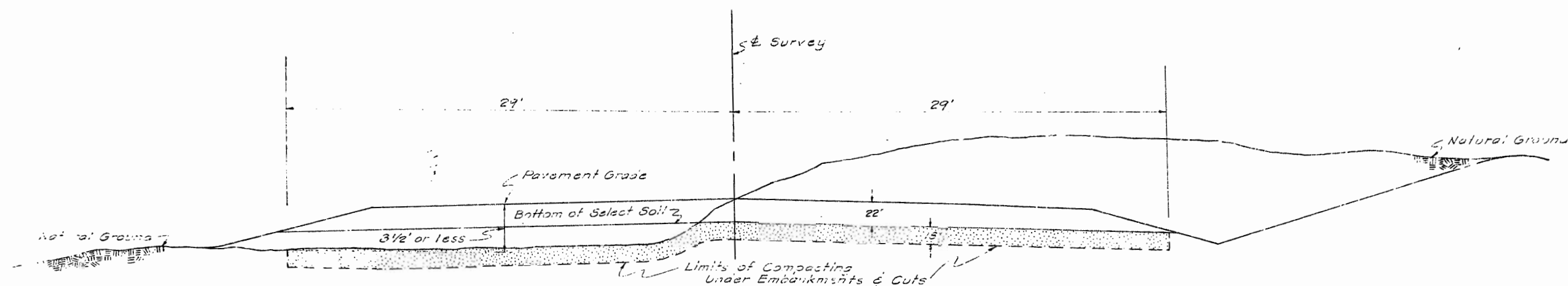
SHEET 1 OF 2 21.31

FED. ROAD DIST. NO.	STATE	FEDERAL PROJECT No. & SEC.	SHEET NO.
5	MO.	F-60-1(2)	
DIST. NO.	COUNTY	ROUTE	SEC.
7	NEWTON	60	

FINAL PLANS



TYPICAL SECTIONS FOR INTERCEPTION DITCH AND LEVEE



SKETCH SHOWING CUT COMPACTION PAY LIMITS

TYPICAL SECTION
showing
CUT COMPACTION PAY LIMITS

FINAL
DESIGNED
SURVEY
NOTED BOOK
NO.

ORIGINAL
SURVEY
NOTED BOOK
NO.

160

LOCATION OKLAHOMA STATE LINE EASTERLY TO WESTVIEW

MISSOURI STATE HIGHWAY COMMISSION

Sheet 1 of 2

TYPE GRADING CULVERTS: 1-24" ASPHALTIC CONCRETE PAVEMENT

SUMMARY OF QUANTITIES

FINAL PLANS

FED. ROAD DIST. No.	STATE	PROJECT	SPECIAL YEAR	RECENT No.	TOTAL RISES
6	MO.	F-60-1 (2)		2A	
DIST. No.		COUNTY		REMARKS	
7		NEWTON		60	

[illegible]

Project Accepted June 6, 1966

Prepared By C. R. Baughen Date June 14 1966

Checked in Dist. Office By D. C. Hammill Date 6/15 19 66

Checked in Central Office By W. J. Barker Date 7/25 1916

Revised By _____ Date _____ 19__

LOCATION OKLAHOMA STATE LINE EASTERLY TO WESTVIEW

MISSOURI STATE HIGHWAY COMMISSION

Sheet 2 of 2

TYPE GRADING CULVERTS 1-24 ASPHALTIC CONCRETE PAVEMENT

SUMMARY OF QUANTITIES

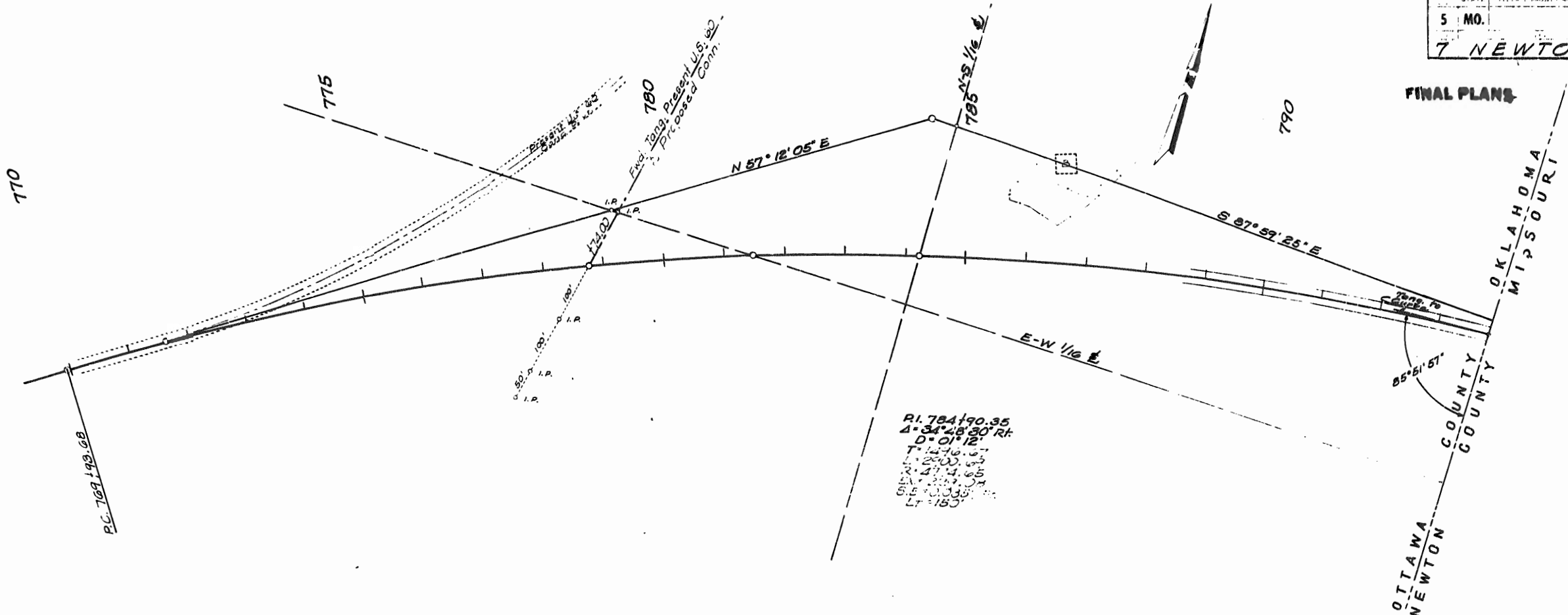
FINAL PLANS

FED. ROAD DIST. No.	STATE	PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	MO.	F-60-1(2)		2A	
DIST. No.	COUNTY	ROUTE	SEC. No.		
7	NEWTON	68			

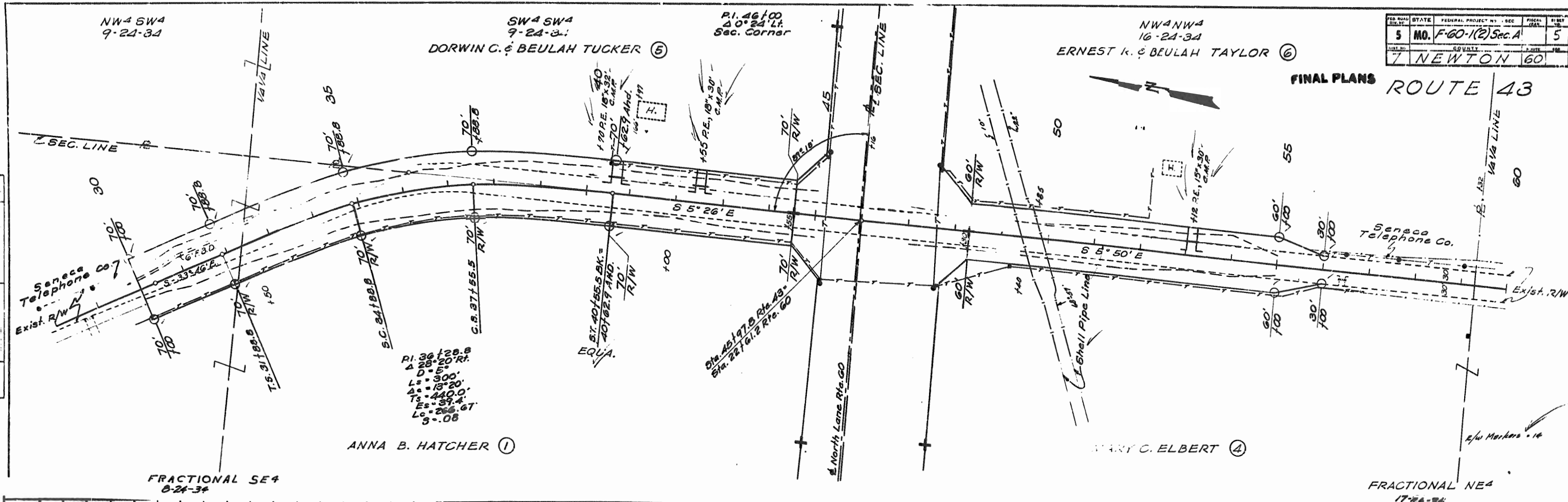
PAVED DITCHES										LENGTH OF PROJECT				GENERAL SUMMARY				
Station	Station	Location	Width	Depth	Remarks	Station	Station	Location	Width	End of Project	Station	Feet	Feet	ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS	NO. UNITS
151.100	151.105	LL	2	2.5	See Sheet #16	170.100	170.105	LL	2	Beginning of Project	Station							
168.100	170.100	LL	2	2.5		180.100	180.105	LL	2	Apparent Length								
183.105	184.100	LL	2	2.5		192.100	192.105	LL	2	Equations and Exceptions:								
202.100	211.100	LL	2	2.5		202.100	211.100	LL	2									
TOTAL										6276								
INTERCEPTION DITCH																		
Station	Station	Location	Width	Depth	Remarks	Station	Station	Location	Width	End of Project	Station	Feet	Feet	ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS	NO. UNITS
3100	3170	LL				3170	3200	LL		State Length =								
3170	32100	LL				32100	3220	LL		Federal Length =								
32100	32200	LL				32200	32300	LL										
32200	32300	LL				32300	32400	LL										
32400	32500	LL				32500	32600	LL										
32600	32700	LL				32700	32800	LL										
32800	32900	LL				32900	33000	LL										
33000	33100	LL				33100	33200	LL										
33200	33300	LL				33300	33400	LL										
33400	33500	LL				33500	33600	LL										
33600	33700	LL				33700	33800	LL										
33800	33900	LL				33900	34000	LL										
34000	34100	LL				34100	34200	LL										
34200	34300	LL				34300	34400	LL										
34400	34500	LL				34500	34600	LL										
34600	34700	LL				34700	34800	LL										
34800	34900	LL				34900	35000	LL										
35000	35100	LL				35100	35200	LL										
35200	35300	LL				35300	35400	LL										
35400	35500	LL				35500	35600	LL										
35600	35700	LL				35700	35800	LL										
35800	35900	LL				35900	36000	LL										
36000	36100	LL				36100	36200	LL										
36200	36300	LL				36300	36400	LL										
36400	36500	LL				36500	36600	LL										
36600	36700	LL				36700	36800	LL										
36800	36900	LL				36900	37000	LL										
37000	37100	LL				37100	37200	LL										
37200	37300	LL				37300	37400	LL										
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37600	37700	LL				37700	37800	LL										
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38000	38100	LL				38100	38200	LL										
38200	38300	LL				38300	38400	LL										
38400	38500	LL				38500	38600	LL										
38600	38700	LL				38700	38800	LL										
38800	38900	LL				38900	39000	LL										
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41000	41100	LL				41100	41200	LL										
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41400	41500	LL				41500	41600	LL										
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41800	41900	LL				41900	42000	LL										
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42200	42300	LL				42300	42400	LL										
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51000	51100	LL				51100	51200	LL										
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51600	51700	LL				51700	51800	LL										
51800	51900	LL				51900	52000	LL										
52000	52100	LL				52100	52200	LL										
52200	52300	LL				52300	52400	LL										
52400	52500	LL				52500	52600	LL										
52600	52700	LL				52700	52800	LL										
52800	52900	LL		</														

PLAN	DATE
NOTED	BY
NOTED	BY
NOTED	BY
NOTED	BY

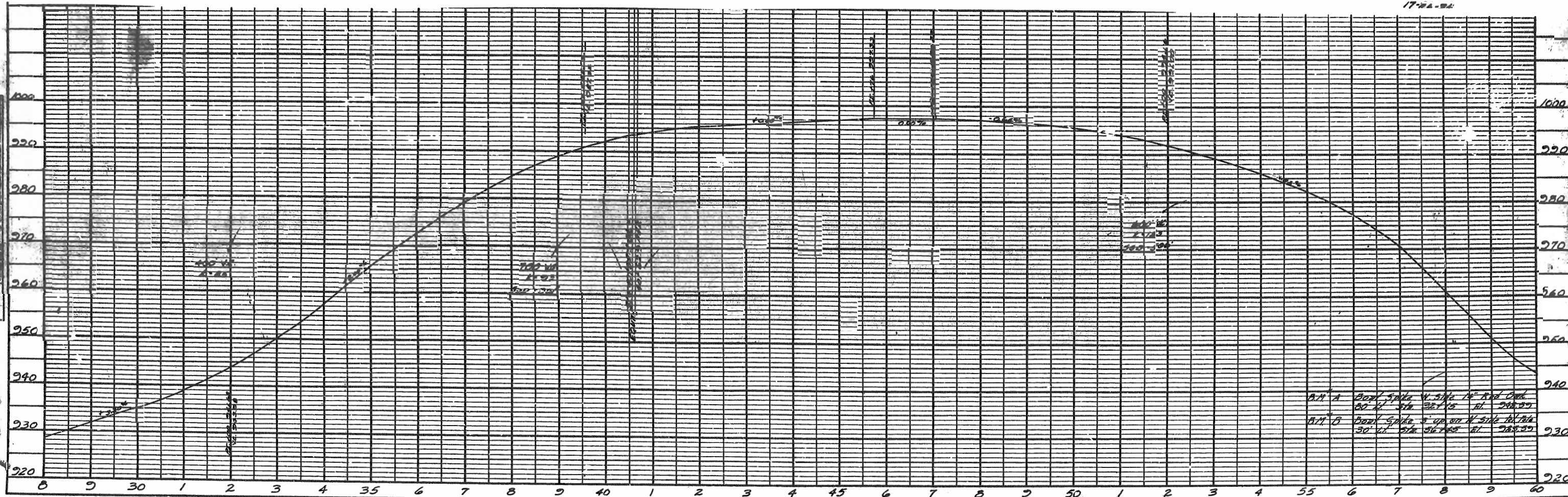
STATE	PROJECT NO.	DATE
5 MO.		
7 NEWTON GO		



PLAN
 SHOWN
 PLATTED
 DATE
 BY
 CHECKED
 BY

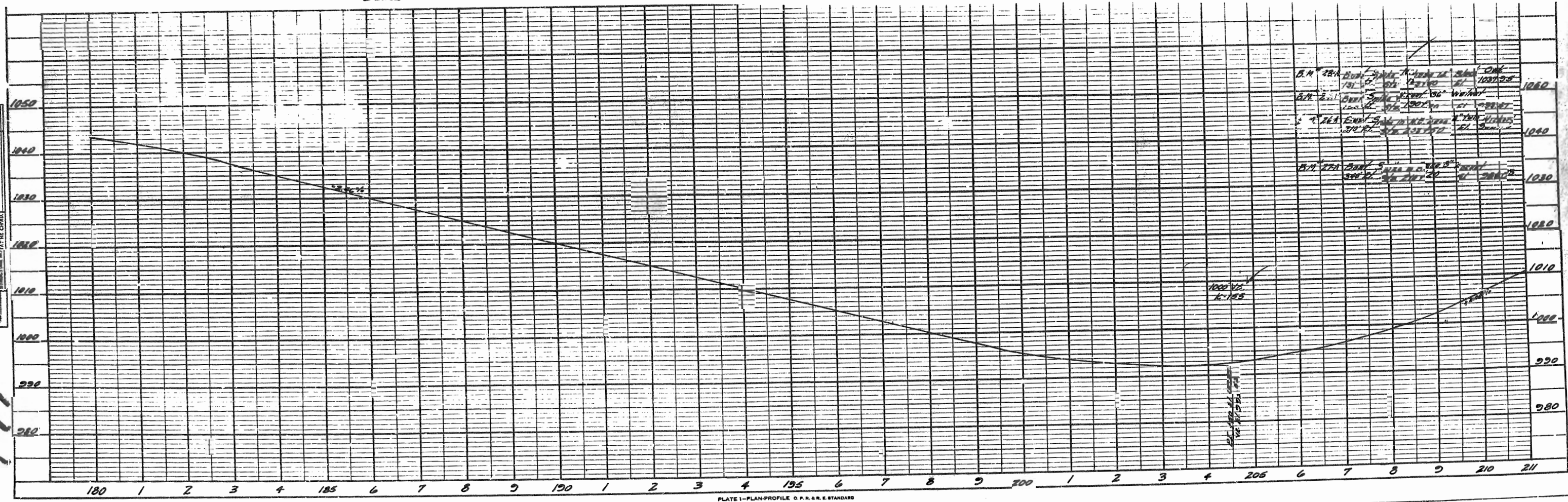
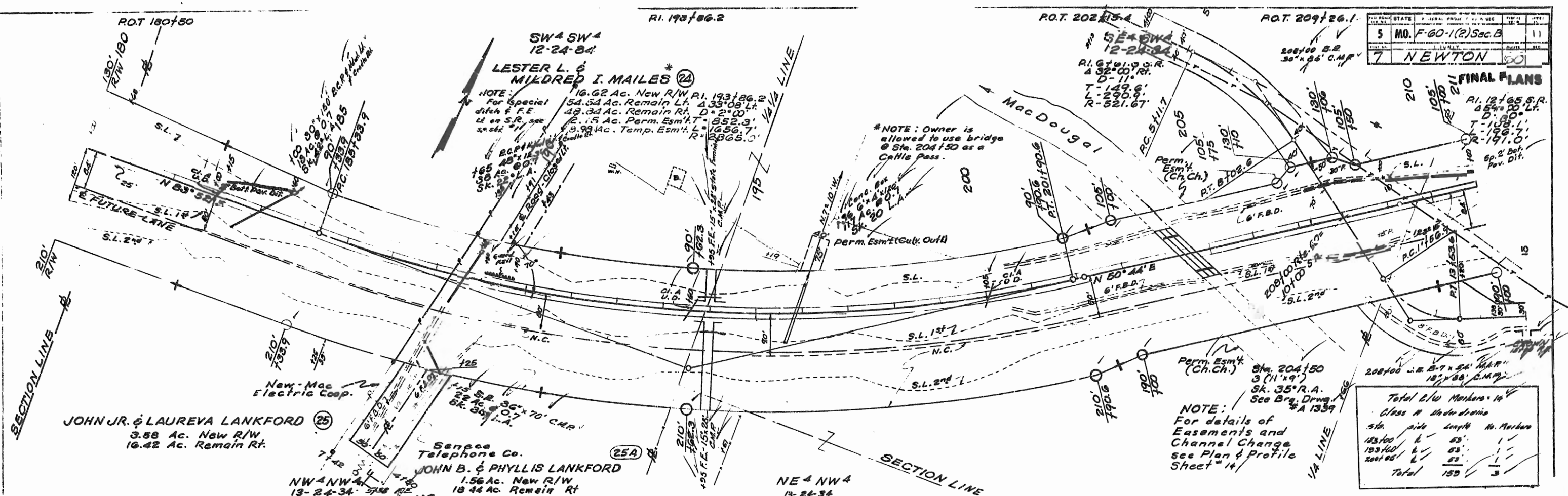


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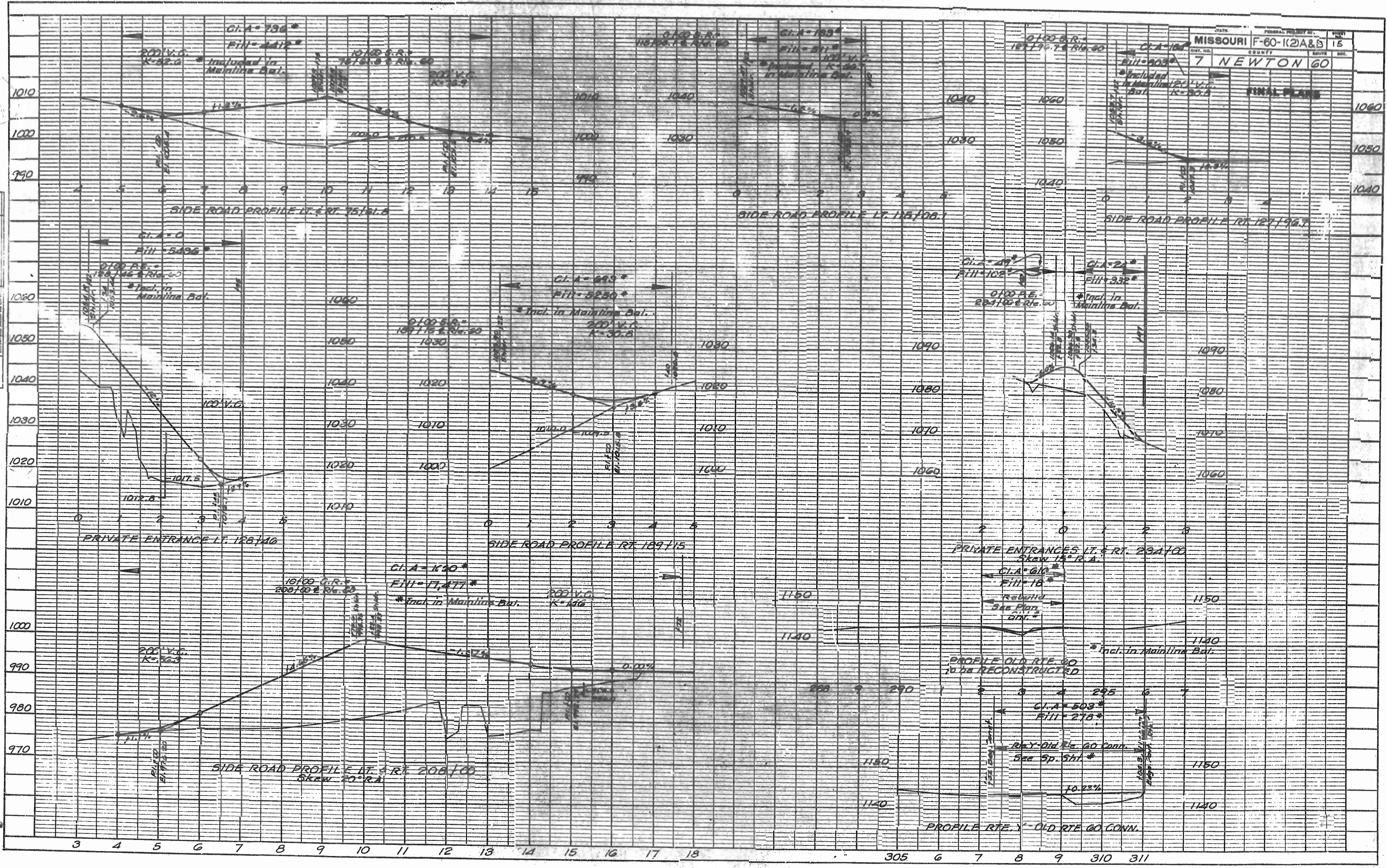


PLAN
CHECKED
DATE
BY

PROF
CHECKED
DATE
BY

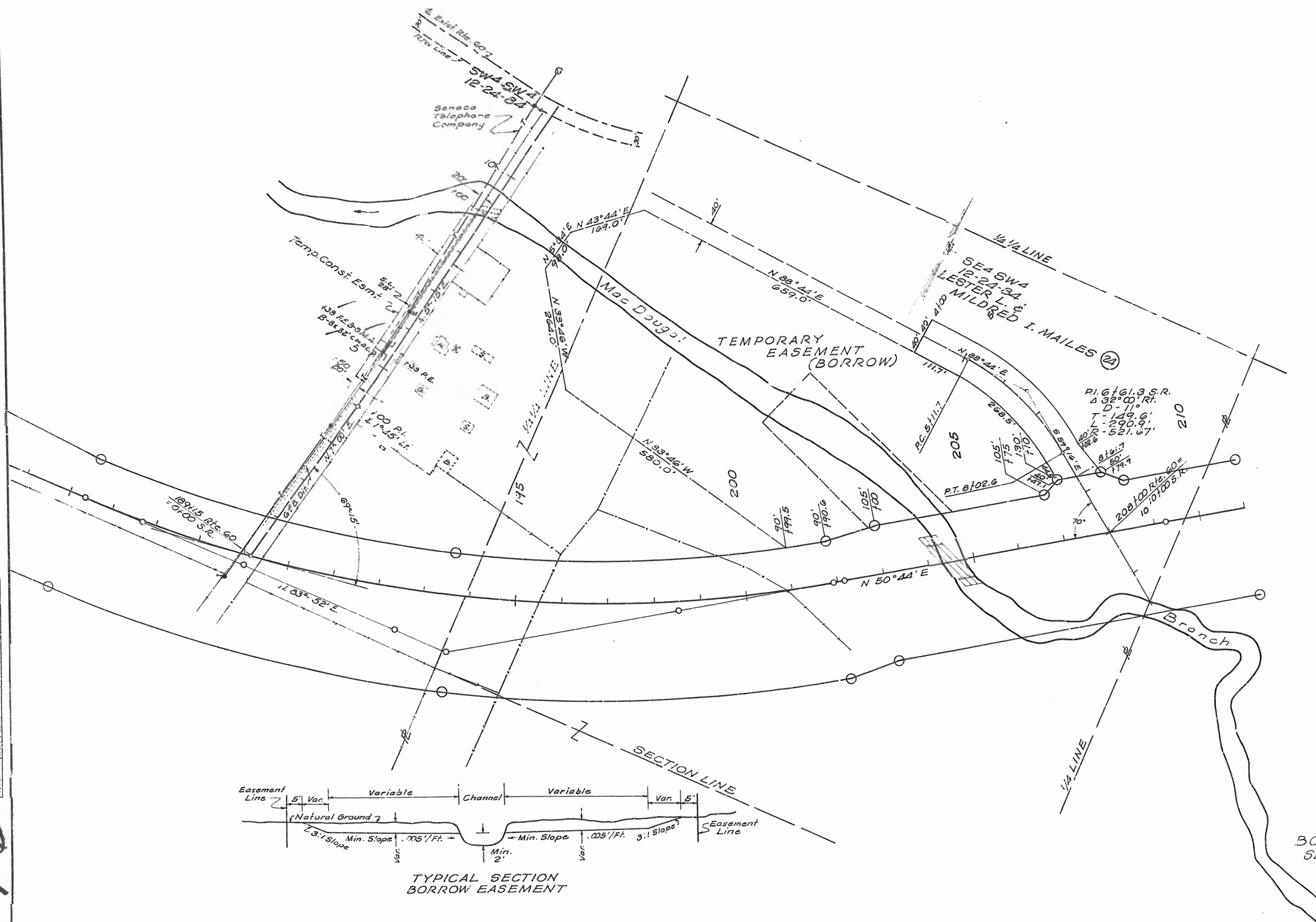


PROFILE
 SHEET NO.
 PROJECT NO.
 DATE
 DRAWN BY
 CHECKED BY
 IN CHARGE



15

FINAL PLANS



BORROW EASEMENT
SE 1/4 SW 1/4 & SW 1/4 SW 1/4
12-24-34

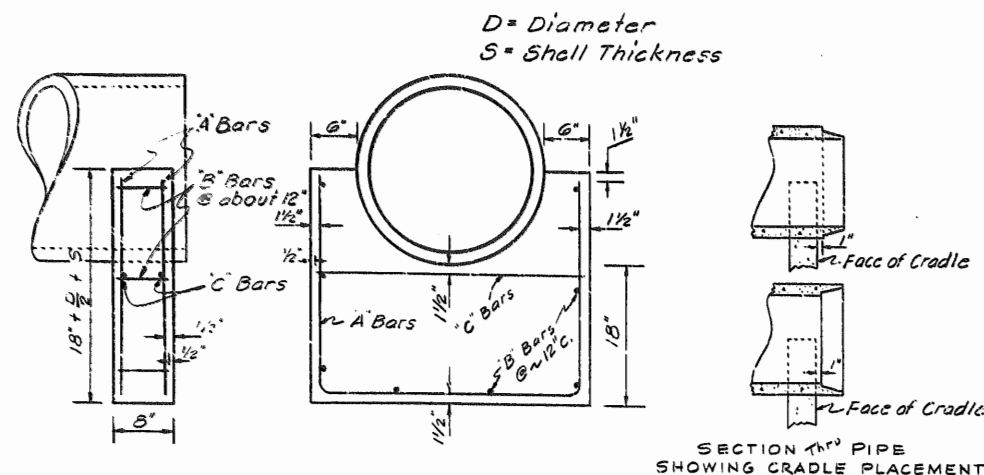
SPECIAL
SHEET
NO. 1

DATE	BY	CHECKED
FINAL SURVEY	NOTED	NO.
NO.		

DATE	BY	CHECKED
ORIGINAL SURVEY	NOTED	NO.
NO.		

176

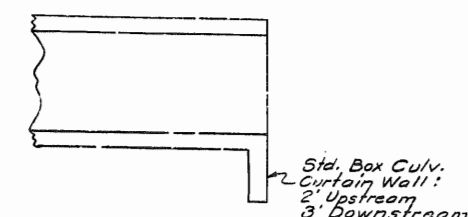
FINAL PLANS



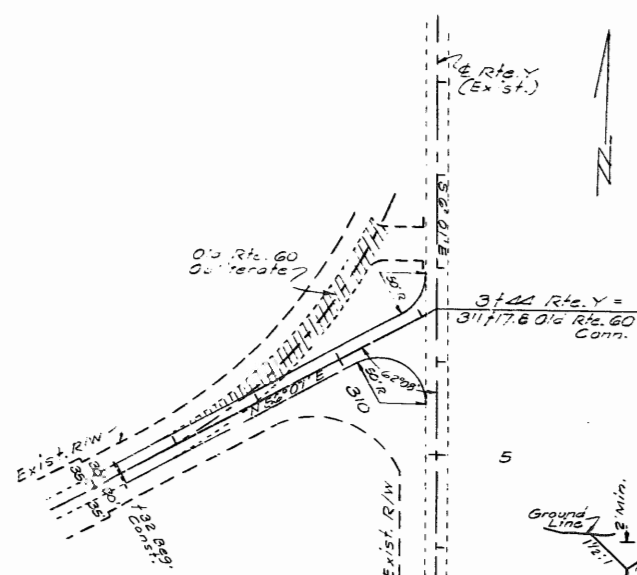
CONCRETE PIPE CRADLE
Not to Scale - Follow Dimensions

CONCRETE CRADLE QUANTITIES

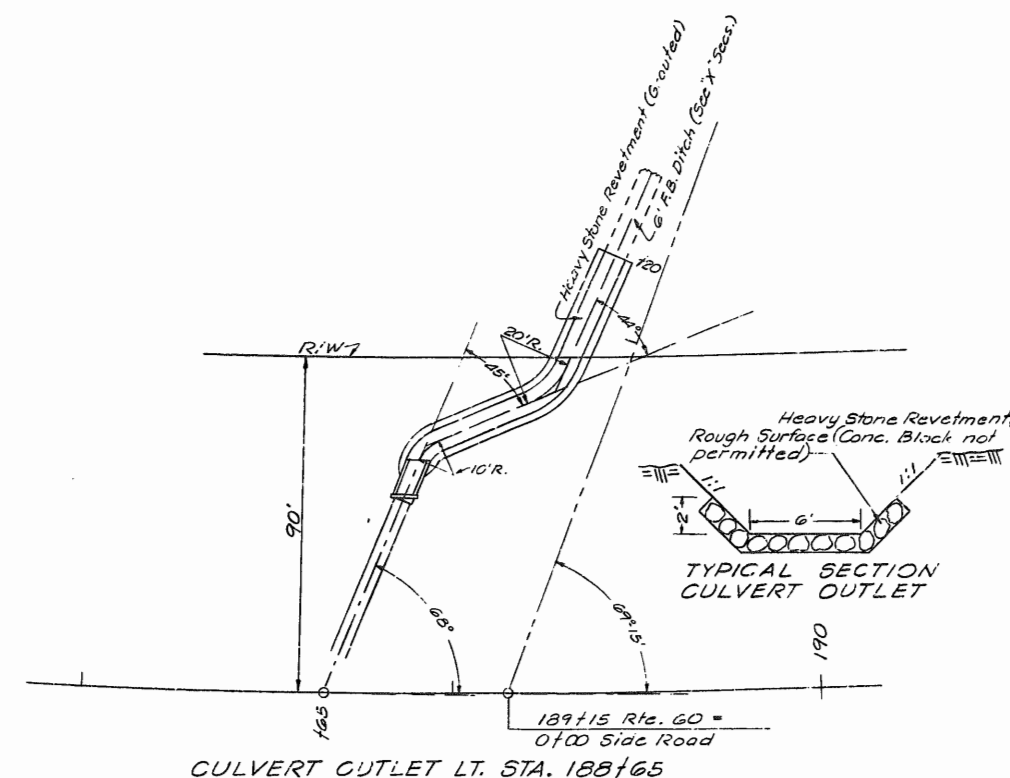
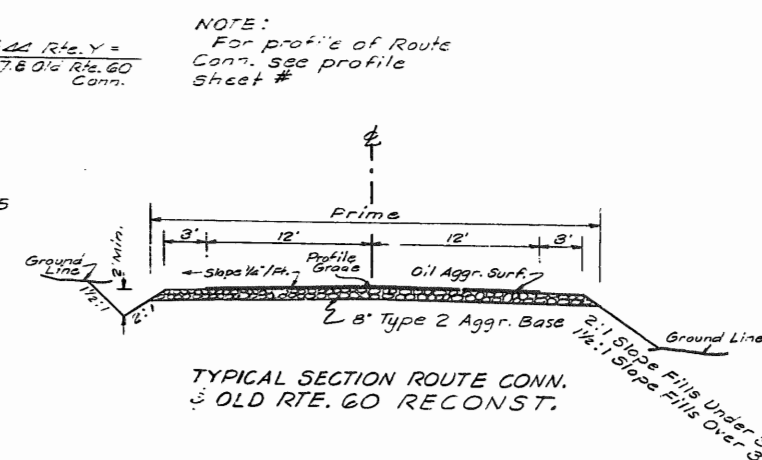
Pipe Size	Class Pipe	C.Y. Conc.	Pounds	Reinf. Steel #1	Reinf. Steel #4
				No. Lgth.	No. Lgth.
24"	III	.17	19	2 97"	9 7"
24"	V	.18	19	2 99"	9 7"
30"	III	.21	22	2 110"	10 7"
36"	III	.24	24	2 123"	11 7"
36"	IV	.25	25	2 127"	11 7"
36"	V	.25	25	2 127"	11 7"
42"	III	.28	27	2 137"	12 7"
42"	IV	.30	28	2 141"	13 7"
48"	III	.33	29	2 151"	13 7"



BOX CULV. CURTAIN WALLS
WHERE HDWLLS. ARE NOT USED



PLAN of ROUTE CONN.
Between
OLD ROUTE 60 & ROUTE Y



SPECIAL
SHEET
NO. 2

LIST OF STANDARD PLANS

PROJ.	SHEET
F-60-1(2) AFB	18
CO.	RTE.
NEWTON	60

[illegible]

Your Company Name Here

This is your address
Your City, State, Zip Code

Your Tagline Here

File Name : 0219_US60_MO97_August2021

Site Code : 0219

Start Date : 8/25/2021

Page No : 1

Groups Printed- All Vehicles (no classification)

	MO 97 Southbound					US 60 Westbound					MO 97 Northbound					US 60 Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
06:00 AM	3	2	10	0	15	3	16	1	0	20	5	2	3	0	10	4	13	2	0	19	64
06:15 AM	3	0	6	0	9	9	17	4	0	30	2	2	1	0	5	0	29	0	0	29	73
06:30 AM	5	3	13	0	21	7	12	2	0	21	9	4	2	0	15	4	30	3	0	37	94
06:45 AM	5	7	13	0	25	13	15	6	0	34	9	6	2	0	17	2	28	7	0	37	113
Total	16	12	42	0	70	32	60	13	0	105	25	14	8	0	47	10	100	12	0	122	344
07:00 AM	5	6	11	0	22	11	27	4	0	42	5	6	3	0	14	1	19	7	0	27	105
07:15 AM	6	4	11	0	21	15	29	3	0	47	5	6	2	0	13	3	29	8	0	40	121
07:30 AM	2	3	13	0	18	8	20	4	0	32	6	10	1	0	17	1	26	10	0	37	104
07:45 AM	5	5	18	0	28	7	22	6	0	35	4	5	2	0	11	0	31	12	0	43	117
Total	18	18	53	0	89	41	98	17	0	156	20	27	8	0	55	5	105	37	0	147	447
08:00 AM	8	9	16	0	33	6	14	10	0	30	2	4	2	0	8	1	24	5	0	30	101
08:15 AM	6	1	11	0	18	12	22	7	0	41	2	3	1	0	6	0	27	3	0	30	95
08:30 AM	2	4	12	0	18	6	27	5	0	38	9	4	0	0	13	2	29	3	0	34	103
08:45 AM	4	5	11	0	20	11	33	5	0	49	3	4	3	0	10	0	25	5	0	30	109
Total	20	19	50	0	89	35	96	27	0	158	16	15	6	0	37	3	105	16	0	124	408
09:00 AM	8	5	6	0	19	13	26	2	0	41	4	2	2	0	8	3	24	2	0	29	97
09:15 AM	4	5	10	0	19	7	32	1	0	40	5	4	2	0	11	4	31	2	0	37	107
09:30 AM	3	3	8	0	14	10	25	4	0	39	4	4	0	0	8	2	23	8	0	33	94
09:45 AM	2	1	9	0	12	11	27	1	0	39	4	1	2	0	7	4	24	1	0	29	87
Total	17	14	33	0	64	41	110	8	0	159	17	11	6	0	34	13	102	13	0	128	385
10:00 AM	3	5	6	0	14	6	23	4	0	33	3	5	0	0	8	2	24	2	0	28	83
10:15 AM	3	3	8	0	14	6	33	2	0	41	8	6	4	0	18	4	35	4	0	43	116
10:30 AM	5	6	10	0	21	14	20	4	0	38	4	2	2	0	8	1	29	3	0	33	100
10:45 AM	2	3	6	0	11	10	40	6	0	56	5	2	1	0	8	2	26	2	0	30	105
Total	13	17	30	0	60	36	116	16	0	168	20	15	7	0	42	9	114	11	0	134	404
11:00 AM	7	2	12	0	21	8	32	2	0	42	8	3	1	0	12	0	22	9	0	31	106
11:15 AM	4	4	11	0	19	7	31	8	0	46	4	6	2	0	12	2	37	7	0	46	123
11:30 AM	7	5	11	0	23	11	27	3	0	41	2	2	0	0	4	3	18	5	0	26	94
11:45 AM	3	3	8	0	14	11	29	5	0	45	6	6	2	0	14	0	25	3	0	28	101
Total	21	14	42	0	77	37	119	18	0	174	20	17	5	0	42	5	102	24	0	131	424
12:00 PM	8	3	6	0	17	7	30	6	0	43	4	2	2	0	8	1	28	4	0	33	101
12:15 PM	5	4	11	0	20	7	33	8	0	48	6	3	3	0	12	2	24	4	0	30	110
12:30 PM	6	5	11	0	22	7	32	1	0	40	2	3	3	0	8	0	36	6	0	42	112
12:45 PM	5	4	11	0	20	9	22	5	0	36	8	2	2	0	12	8	40	3	0	51	119
Total	24	16	39	0	79	30	117	20	0	167	20	10	10	0	40	11	128	17	0	156	442

Your Company Name Here

This is your address
Your City, State, Zip Code
Your Tagline Here

File Name : 0219_US60_MO97_August2021

Site Code : 0219

Start Date : 8/25/2021

Page No : 2

Groups Printed- All Vehicles (no classification)

	MO 97 Southbound					US 60 Westbound					MO 97 Northbound					US 60 Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
01:00 PM	3	6	11	0	20	9	29	3	0	41	6	1	1	0	8	5	36	3	0	44	113
01:15 PM	2	3	6	0	11	12	32	4	0	48	5	5	2	0	12	1	33	5	0	39	110
01:30 PM	4	5	4	0	13	14	27	5	0	46	4	3	2	0	9	4	30	2	0	36	104
01:45 PM	3	2	5	0	10	9	36	5	0	50	5	4	1	0	10	1	15	3	0	19	89
Total	12	16	26	0	54	44	124	17	0	185	20	13	6	0	39	11	114	13	0	138	416
02:00 PM	5	3	11	0	19	10	41	7	0	58	4	7	3	0	14	1	31	5	0	37	128
02:15 PM	5	3	16	0	24	12	32	6	0	50	5	3	1	0	9	4	40	0	0	44	127
02:30 PM	3	3	10	0	16	10	52	1	0	63	3	3	0	0	6	3	27	3	0	33	118
02:45 PM	10	3	9	0	22	13	40	5	0	58	5	4	4	0	13	0	31	0	0	31	124
Total	23	12	46	0	81	45	165	19	0	229	17	17	8	0	42	8	129	8	0	145	497
03:00 PM	6	1	13	0	20	13	43	6	0	62	1	5	2	0	8	2	39	11	0	52	142
03:15 PM	4	3	6	0	13	16	40	7	0	63	5	9	2	0	16	1	33	5	0	39	131
03:30 PM	8	6	11	0	25	11	40	10	0	61	4	8	2	0	14	3	35	2	0	40	140
03:45 PM	4	6	9	0	19	12	41	5	0	58	5	4	3	0	12	6	48	7	0	61	150
Total	22	16	39	0	77	52	164	28	0	244	15	26	9	0	50	12	155	25	0	192	563
04:00 PM	7	8	15	0	30	12	40	1	0	53	9	11	1	0	21	2	29	3	0	34	138
04:15 PM	6	5	8	0	19	20	51	7	0	78	7	5	1	0	13	2	33	8	0	43	153
04:30 PM	4	7	12	0	23	14	39	7	0	60	11	4	0	0	15	3	30	8	0	41	139
04:45 PM	5	4	10	0	19	12	32	7	0	51	6	9	2	0	17	2	31	9	0	42	129
Total	22	24	45	0	91	58	162	22	0	242	33	29	4	0	66	9	123	28	0	160	559
05:00 PM	5	5	7	0	17	16	46	7	0	69	6	6	3	0	15	5	45	8	0	58	159
05:15 PM	5	6	12	0	23	15	41	3	0	59	3	2	4	0	9	2	32	7	0	41	132
05:30 PM	13	5	13	0	31	16	47	10	0	73	7	6	4	0	17	4	38	5	0	47	168
05:45 PM	5	6	11	0	22	19	29	5	0	53	4	7	1	0	12	2	25	5	0	32	119
Total	28	22	43	0	93	66	163	25	0	254	20	21	12	0	53	13	140	25	0	178	578
06:00 PM	3	6	9	0	18	19	38	6	0	63	3	2	1	0	6	0	23	3	0	26	113
06:15 PM	9	6	14	0	29	8	22	4	0	34	2	3	1	0	6	3	20	4	0	27	96
06:30 PM	8	3	10	0	21	8	28	10	0	46	3	7	0	0	10	3	30	1	0	34	111
06:45 PM	0	8	7	0	15	7	25	0	0	32	3	2	1	0	6	2	24	2	0	28	81
Total	20	23	40	0	83	42	113	20	0	175	11	14	3	0	28	8	97	10	0	115	401
Grand Total	256	223	528	0	1007	559	1607	250	0	2416	254	229	92	0	575	117	1514	239	0	1870	5868
Apprch %	25.4	22.1	52.4	0		23.1	66.5	10.3	0		44.2	39.8	16	0		6.3	81	12.8	0		
Total %	4.4	3.8	9	0	17.2	9.5	27.4	4.3	0	41.2	4.3	3.9	1.6	0	9.8	2	25.8	4.1	0	31.9	

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File Name : 0216_US60_Hammer_August2021

Site Code : 0216

Start Date : 8/25/2021

Page No : 1

Groups Printed- All Vehicles (no classification)

	Hammer Southbound					US 60 Westbound					Hammer Northbound					US 60 Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
06:00 AM	1	2	3	0	6	1	28	1	0	30	4	0	0	0	4	0	35	0	0	35	75
06:15 AM	0	0	1	0	1	0	35	0	0	35	5	1	0	0	6	0	47	0	0	47	89
06:30 AM	1	0	1	0	2	1	44	2	0	47	5	2	1	0	8	0	69	1	0	70	127
06:45 AM	1	1	1	0	3	2	40	4	0	46	8	2	2	0	12	1	64	1	0	66	127
Total	3	3	6	0	12	4	147	7	0	158	22	5	3	0	30	1	215	2	0	218	418
07:00 AM	3	0	1	0	4	2	54	7	0	63	8	0	2	0	10	1	65	2	0	68	145
07:15 AM	1	1	4	0	6	0	50	4	0	54	10	5	2	0	17	0	61	4	0	65	142
07:30 AM	2	0	7	0	9	2	51	1	0	54	9	7	1	0	17	0	75	2	0	77	157
07:45 AM	1	3	3	0	7	4	42	6	0	52	11	1	4	0	16	3	84	1	0	88	163
Total	7	4	15	0	26	8	197	18	0	223	38	13	9	0	60	4	285	9	0	298	607
08:00 AM	0	2	1	0	3	1	50	8	0	59	10	2	0	0	12	2	56	0	0	58	132
08:15 AM	0	1	1	0	2	1	34	5	0	40	8	3	1	0	12	0	52	1	0	53	107
08:30 AM	0	3	0	0	3	1	52	5	0	58	5	2	1	0	8	0	27	1	0	28	97
08:45 AM	1	2	2	0	5	2	36	3	0	41	5	1	0	0	6	2	51	0	0	53	105
Total	1	8	4	0	13	5	172	21	0	198	28	8	2	0	38	4	186	2	0	192	441
09:00 AM	1	0	2	0	3	2	54	3	0	59	7	3	2	0	12	2	52	0	0	54	128
09:15 AM	0	2	1	0	3	1	57	5	0	63	3	2	2	0	7	1	52	1	0	54	127
09:30 AM	0	2	1	0	3	1	44	7	0	52	6	1	0	0	7	1	50	0	0	51	113
09:45 AM	1	2	2	0	5	1	44	3	0	48	7	0	0	0	7	1	64	0	0	65	125
Total	2	6	6	0	14	5	199	18	0	222	23	6	4	0	33	5	218	1	0	224	493
10:00 AM	0	0	0	0	0	0	45	2	0	47	3	3	0	0	6	1	49	0	0	50	103
10:15 AM	0	0	1	0	1	1	68	1	0	70	2	1	0	0	3	1	51	1	0	53	127
10:30 AM	0	1	3	0	4	0	44	4	0	48	2	2	0	0	4	0	62	0	0	62	118
10:45 AM	0	1	0	0	1	0	71	2	0	73	5	0	1	0	6	1	41	0	0	42	122
Total	0	2	4	0	6	1	228	9	0	238	12	6	1	0	19	3	203	1	0	207	470
11:00 AM	1	1	0	0	2	1	55	4	0	60	7	1	2	0	10	3	44	1	0	48	120
11:15 AM	0	4	0	0	4	0	62	4	0	66	5	2	0	0	7	0	54	0	0	54	131
11:30 AM	1	2	0	0	3	0	61	4	0	65	1	0	0	0	1	0	49	0	0	49	118
11:45 AM	2	0	1	0	3	1	68	6	0	75	8	3	4	0	15	0	52	1	0	53	146
Total	4	7	1	0	12	2	246	18	0	266	21	6	6	0	33	3	199	2	0	204	515
12:00 PM	0	2	1	0	3	1	68	9	0	78	2	0	1	0	3	0	53	0	0	53	137
12:15 PM	0	3	0	0	3	3	60	9	0	72	3	1	1	0	5	0	60	0	0	60	140
12:30 PM	0	2	2	0	4	1	61	4	0	66	9	1	2	0	12	0	60	1	0	61	143
12:45 PM	2	3	1	0	6	2	60	5	0	67	7	0	0	0	7	1	47	0	0	48	128
Total	2	10	4	0	16	7	249	27	0	283	21	2	4	0	27	1	220	1	0	222	548

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File Name : 0216_US60_Hammer_August2021

Site Code : 0216

Start Date : 8/25/2021

Page No : 2

Groups Printed- All Vehicles (no classification)

	Hammer Southbound					US 60 Westbound					Hammer Northbound					US 60 Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
01:00 PM	0	1	0	0	1	0	61	4	0	65	4	1	0	0	5	0	48	0	0	48	119
01:15 PM	0	2	1	0	3	3	54	4	0	61	4	1	1	0	6	0	61	0	0	61	131
01:30 PM	0	2	3	0	5	1	65	5	0	71	5	0	2	0	7	1	49	0	0	50	133
01:45 PM	1	1	0	0	2	2	61	6	0	69	5	1	1	0	7	1	62	0	0	63	141
Total	1	6	4	0	11	6	241	19	0	266	18	3	4	0	25	2	220	0	0	222	524
02:00 PM	0	1	0	0	1	2	74	7	0	83	5	2	1	0	8	2	57	0	0	59	151
02:15 PM	0	0	2	0	2	1	76	3	0	80	6	1	1	0	8	1	58	1	0	60	150
02:30 PM	1	5	0	0	6	2	74	5	0	81	9	5	1	0	15	1	75	0	0	76	178
02:45 PM	1	0	0	0	1	3	73	4	0	80	9	2	0	0	11	1	50	1	0	52	144
Total	2	6	2	0	10	8	297	19	0	324	29	10	3	0	42	5	240	2	0	247	623
03:00 PM	1	5	1	0	7	2	61	4	0	67	4	1	0	0	5	0	66	0	0	66	145
03:15 PM	1	4	0	0	5	3	67	8	0	78	9	3	0	0	12	1	63	1	0	65	160
03:30 PM	1	2	0	0	3	4	88	13	0	105	11	1	0	0	12	0	68	0	0	68	188
03:45 PM	2	2	1	0	5	5	94	11	0	110	5	2	0	0	7	2	54	1	0	57	179
Total	5	13	2	0	20	14	310	36	0	360	29	7	0	0	36	3	251	2	0	256	672
04:00 PM	3	4	0	0	7	3	95	10	0	108	7	1	0	0	8	2	99	0	0	101	224
04:15 PM	1	3	4	0	8	5	90	8	0	103	6	2	1	0	9	0	63	1	0	64	184
04:30 PM	0	1	1	0	2	2	95	13	0	110	9	7	0	0	16	2	96	3	0	101	229
04:45 PM	0	2	0	0	2	3	76	6	0	85	11	2	2	0	15	1	83	1	0	85	187
Total	4	10	5	0	19	13	356	37	0	406	33	12	3	0	48	5	341	5	0	351	824
05:00 PM	0	2	1	0	3	7	97	10	0	114	9	1	0	0	10	0	60	3	0	63	190
05:15 PM	1	4	2	0	7	3	94	16	0	113	10	7	1	0	18	0	81	2	0	83	221
05:30 PM	0	2	1	0	3	2	80	11	0	93	4	4	1	0	9	2	57	0	0	59	164
05:45 PM	1	1	0	0	2	1	84	8	0	93	5	1	0	0	6	0	67	1	0	68	169
Total	2	9	4	0	15	13	355	45	0	413	28	13	2	0	43	2	265	6	0	273	744
06:00 PM	0	2	0	0	2	3	67	6	0	76	15	2	0	0	17	1	62	1	0	64	159
06:15 PM	1	1	0	0	2	2	78	4	0	84	7	0	1	0	8	0	65	1	0	66	160
06:30 PM	0	2	2	0	4	2	61	7	0	70	5	3	0	0	8	0	51	1	0	52	134
06:45 PM	1	3	1	0	5	1	51	3	0	55	5	1	0	0	6	1	60	0	0	61	127
Total	2	8	3	0	13	8	257	20	0	285	32	6	1	0	39	2	238	3	0	243	580
Grand Total	35	92	60	0	187	94	3254	294	0	3642	334	97	42	0	473	40	3081	36	0	3157	7459
Apprch %	18.7	49.2	32.1	0		2.6	89.3	8.1	0		70.6	20.5	8.9	0		1.3	97.6	1.1	0		
Total %	0.5	1.2	0.8	0	2.5	1.3	43.6	3.9	0	48.8	4.5	1.3	0.6	0	6.3	0.5	41.3	0.5	0	42.3	



SW MoDOT
3025 E. Kearney
M.P.O. Box 868
Springfield, Missouri, United States 65801
417-621-6571 lori.palmer@modot.mo.gov

Count Name: US 60 at Oak Ridge Neosho
Site Code: 7GST
Start Date: 09/13/2018
Page No: 1

Turning Movement Data

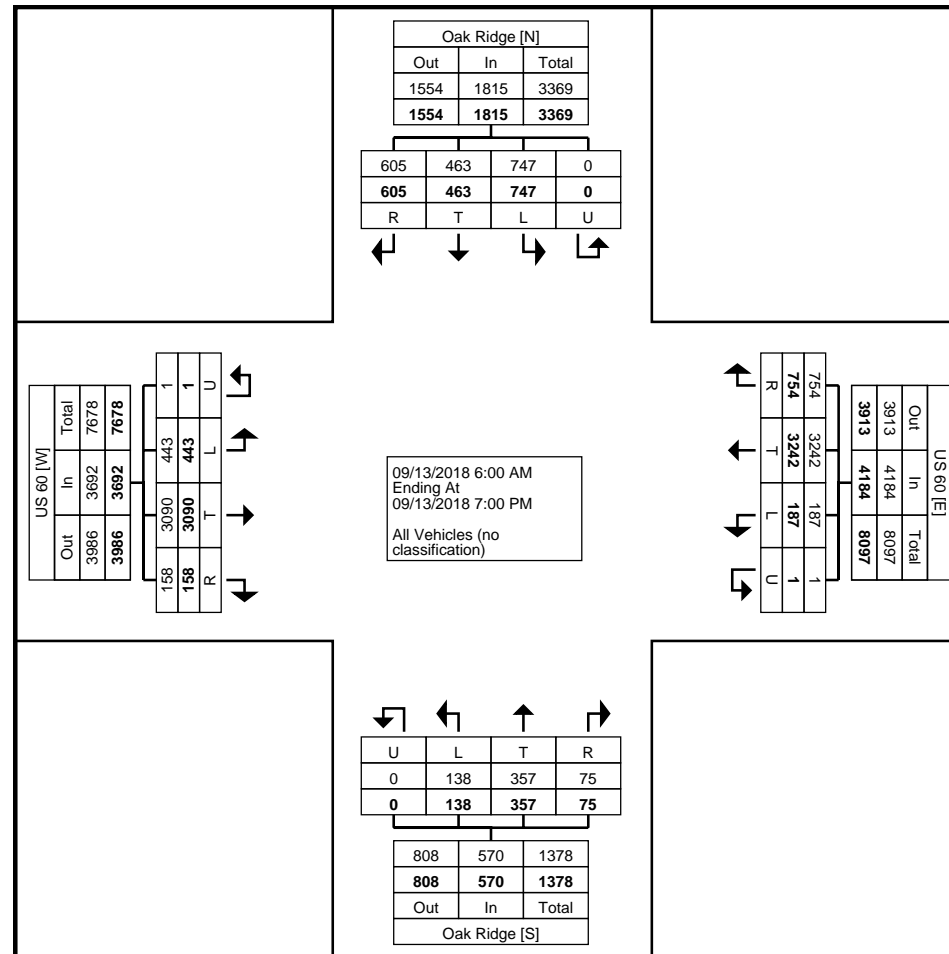
Start Time	Oak Ridge Southbound					US 60 Westbound					Oak Ridge Northbound					US 60 Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
6:00 AM	4	3	5	0	12	3	35	0	0	38	0	0	3	0	3	1	22	2	0	25	78
6:15 AM	7	3	12	0	22	7	43	5	0	55	0	2	1	0	3	2	20	5	0	27	107
6:30 AM	3	5	12	0	20	12	55	2	0	69	0	2	1	0	3	2	27	9	0	38	130
6:45 AM	10	18	5	0	33	15	63	5	0	83	1	6	0	0	7	2	34	2	0	38	161
Hourly Total	24	29	34	0	87	37	196	12	0	245	1	10	5	0	16	7	103	18	0	128	476
7:00 AM	10	4	15	0	29	20	62	5	0	87	1	7	5	0	13	0	31	4	0	35	164
7:15 AM	15	8	17	0	40	23	90	5	0	118	0	9	5	0	14	2	57	5	0	64	236
7:30 AM	21	8	14	0	43	22	80	6	0	108	0	8	2	0	10	2	50	3	0	55	216
7:45 AM	17	15	13	0	45	16	86	11	0	113	0	7	0	0	7	4	60	9	0	73	238
Hourly Total	63	35	59	0	157	81	318	27	0	426	1	31	12	0	44	8	198	21	0	227	854
8:00 AM	9	12	11	0	32	15	62	11	0	88	3	7	1	0	11	10	60	5	0	75	206
8:15 AM	8	6	7	0	21	14	53	1	0	68	2	2	8	0	12	9	45	4	0	58	159
8:30 AM	8	7	7	0	22	11	49	4	0	64	0	7	0	0	7	1	41	8	0	50	143
8:45 AM	7	10	12	0	29	15	44	6	0	65	1	2	4	0	7	5	44	3	0	52	153
Hourly Total	32	35	37	0	104	55	208	22	0	285	6	18	13	0	37	25	190	20	0	235	661
9:00 AM	5	3	9	0	17	10	45	4	0	59	0	2	2	0	4	4	33	6	0	43	123
9:15 AM	10	6	9	0	25	9	59	2	0	70	0	5	0	0	5	1	48	8	0	57	157
9:30 AM	4	7	10	0	21	8	45	1	0	54	0	6	2	0	8	4	53	5	0	62	145
9:45 AM	13	8	3	0	24	14	46	1	0	61	0	8	0	0	8	1	48	9	0	58	151
Hourly Total	32	24	31	0	87	41	195	8	0	244	0	21	4	0	25	10	182	28	0	220	576
10:00 AM	2	6	8	0	16	5	62	3	0	70	0	3	1	0	4	3	46	7	0	56	146
10:15 AM	13	5	6	0	24	12	54	2	0	68	0	3	0	0	3	1	37	9	1	48	143
10:30 AM	10	5	10	0	25	7	52	2	0	61	0	8	3	0	11	0	63	5	0	68	165
10:45 AM	9	13	12	0	34	9	56	7	0	72	0	7	2	0	9	3	35	6	0	44	159
Hourly Total	34	29	36	0	99	33	224	14	0	271	0	21	6	0	27	7	181	27	1	216	613
11:00 AM	8	8	9	0	25	9	62	1	0	72	2	6	4	0	12	0	52	11	0	63	172
11:15 AM	8	7	13	0	28	26	53	3	0	82	1	9	3	0	13	1	46	7	0	54	177
11:30 AM	11	11	20	0	42	12	50	4	1	67	0	8	0	0	8	2	56	7	0	65	182
11:45 AM	11	10	20	0	41	16	49	6	0	71	0	8	1	0	9	4	35	5	0	44	165
Hourly Total	38	36	62	0	136	63	214	14	1	292	3	31	8	0	42	7	189	30	0	226	696
12:00 PM	6	9	9	0	24	16	44	2	0	62	2	4	5	0	11	2	63	8	0	73	170
12:15 PM	7	16	15	0	38	9	60	2	0	71	0	11	2	0	13	2	63	3	0	68	190
12:30 PM	10	14	13	0	37	13	55	1	0	69	1	6	2	0	9	3	59	6	0	68	183
12:45 PM	11	9	9	0	29	6	53	3	0	62	1	5	3	0	9	6	63	9	0	78	178
Hourly Total	34	48	46	0	128	44	212	8	0	264	4	26	12	0	42	13	248	26	0	287	721
1:00 PM	11	7	12	0	30	7	59	2	0	68	4	6	2	0	12	4	67	8	0	79	189
1:15 PM	12	4	16	0	32	9	46	1	0	56	4	6	2	0	12	2	51	14	0	67	167
1:30 PM	13	8	18	0	39	10	56	3	0	69	1	3	5	0	9	4	52	9	0	65	182

1:45 PM	14	12	13	0	39	12	70	3	0	85	3	3	0	0	6	3	62	4	0	69	199
Hourly Total	50	31	59	0	140	38	231	9	0	278	12	18	9	0	39	13	232	35	0	280	737
2:00 PM	11	6	19	0	36	15	71	3	0	89	1	10	1	0	12	3	66	8	0	77	214
2:15 PM	9	7	15	0	31	5	49	3	0	57	0	3	3	0	6	4	59	6	0	69	163
2:30 PM	10	9	10	0	29	22	64	2	0	88	2	5	0	0	7	3	56	7	0	66	190
2:45 PM	10	15	11	0	36	13	61	4	0	78	3	15	3	0	21	2	62	7	0	71	206
Hourly Total	40	37	55	0	132	55	245	12	0	312	6	33	7	0	46	12	243	28	0	283	773
3:00 PM	10	11	18	0	39	19	63	3	0	85	2	9	3	0	14	7	59	13	0	79	217
3:15 PM	32	22	29	0	83	22	63	4	0	89	3	8	6	0	17	8	84	9	0	101	290
3:30 PM	23	8	27	0	58	36	81	3	0	120	10	28	8	0	46	3	92	11	0	106	330
3:45 PM	16	16	15	0	47	27	76	7	0	110	5	8	9	0	22	5	87	13	0	105	284
Hourly Total	81	57	89	0	227	104	283	17	0	404	20	53	26	0	99	23	322	46	0	391	1121
4:00 PM	12	9	13	0	34	19	74	3	0	96	4	7	4	0	15	3	82	13	0	98	243
4:15 PM	17	12	18	0	47	17	81	2	0	100	3	13	3	0	19	2	105	7	0	114	280
4:30 PM	15	9	21	0	45	17	75	5	0	97	2	8	2	0	12	2	95	16	0	113	267
4:45 PM	11	8	22	0	41	14	83	6	0	103	2	15	6	0	23	1	98	14	0	113	280
Hourly Total	55	38	74	0	167	67	313	16	0	396	11	43	15	0	69	8	380	50	0	438	1070
5:00 PM	23	10	36	0	69	24	96	4	0	124	1	8	8	0	17	2	87	16	0	105	315
5:15 PM	23	11	21	0	55	23	92	3	0	118	1	8	2	0	11	4	94	18	0	116	300
5:30 PM	15	8	22	0	45	27	84	7	0	118	1	10	4	0	15	6	87	14	0	107	285
5:45 PM	17	11	20	0	48	23	74	2	0	99	1	8	2	0	11	5	72	16	0	93	251
Hourly Total	78	40	99	0	217	97	346	16	0	459	4	34	16	0	54	17	340	64	0	421	1151
6:00 PM	8	10	21	0	39	9	75	1	0	85	4	7	0	0	11	2	86	18	0	106	241
6:15 PM	9	3	12	0	24	6	51	5	0	62	1	2	3	0	6	3	74	8	0	85	177
6:30 PM	16	6	21	0	43	11	77	2	0	90	1	4	0	0	5	1	63	11	0	75	213
6:45 PM	11	5	12	0	28	13	54	4	0	71	1	5	2	0	8	2	59	13	0	74	181
Hourly Total	44	24	66	0	134	39	257	12	0	308	7	18	5	0	30	8	282	50	0	340	812
Grand Total	605	463	747	0	1815	754	3242	187	1	4184	75	357	138	0	570	158	3090	443	1	3692	10261
Approach %	33.3	25.5	41.2	0.0	-	18.0	77.5	4.5	0.0	-	13.2	62.6	24.2	0.0	-	4.3	83.7	12.0	0.0	-	-
Total %	5.9	4.5	7.3	0.0	17.7	7.3	31.6	1.8	0.0	40.8	0.7	3.5	1.3	0.0	5.6	1.5	30.1	4.3	0.0	36.0	-
All Vehicles (no classification)	605	463	747	0	1815	754	3242	187	1	4184	75	357	138	0	570	158	3090	443	1	3692	10261
% All Vehicles (no classification)	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0



SW MoDOT
3025 E. Kearney
M.P.O. Box 868
Springfield, Missouri, United States 65801
417-621-6571 lori.palmer@modot.mo.gov

Count Name: US 60 at Oak Ridge Neosho
Site Code: 7GST
Start Date: 09/13/2018
Page No: 3



Turning Movement Data Plot



SW MoDOT
3025 E. Kearney
M.P.O. Box 868
Springfield, Missouri, United States 65801
417-621-6571 lori.palmer@modot.mo.gov

Count Name: US 60 at Oak Ridge Neosho
Site Code: 7GST
Start Date: 09/13/2018
Page No: 4

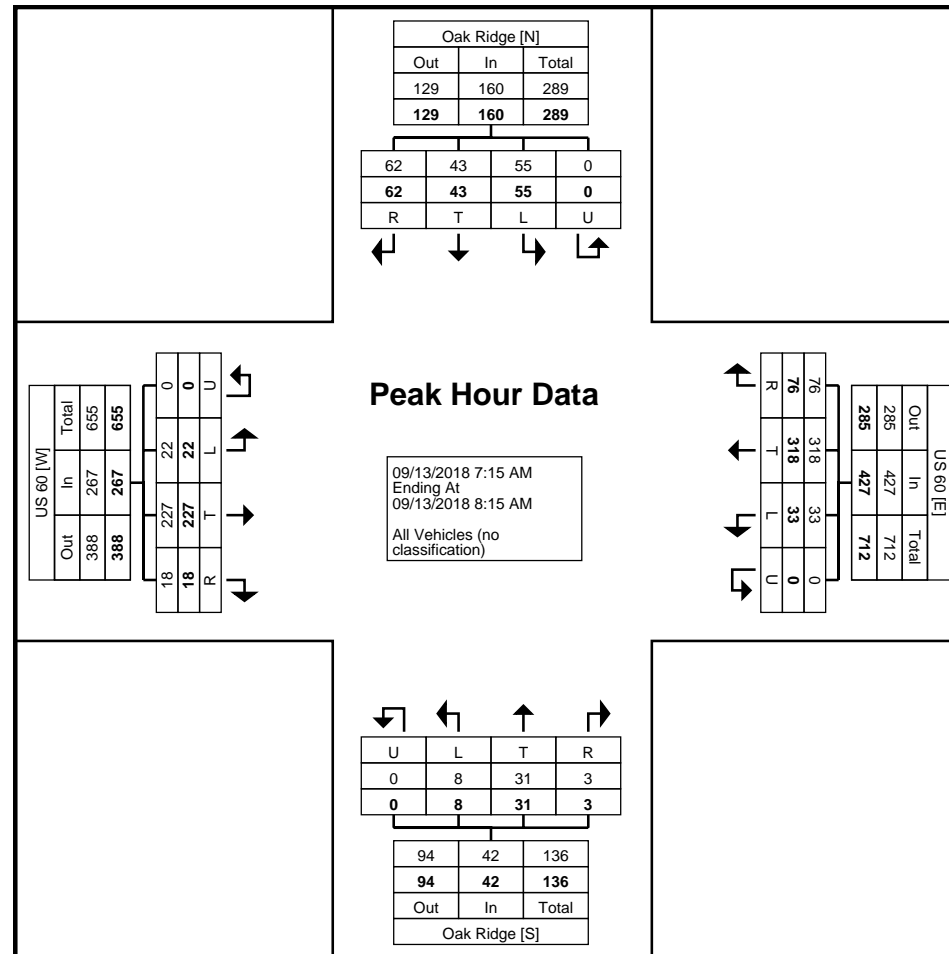
Turning Movement Peak Hour Data (7:15 AM)

Start Time	Oak Ridge Southbound					US 60 Westbound					Oak Ridge Northbound					US 60 Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
7:15 AM	15	8	17	0	40	23	90	5	0	118	0	9	5	0	14	2	57	5	0	64	236
7:30 AM	21	8	14	0	43	22	80	6	0	108	0	8	2	0	10	2	50	3	0	55	216
7:45 AM	17	15	13	0	45	16	86	11	0	113	0	7	0	0	7	4	60	9	0	73	238
8:00 AM	9	12	11	0	32	15	62	11	0	88	3	7	1	0	11	10	60	5	0	75	206
Total	62	43	55	0	160	76	318	33	0	427	3	31	8	0	42	18	227	22	0	267	896
Approach %	38.8	26.9	34.4	0.0	-	17.8	74.5	7.7	0.0	-	7.1	73.8	19.0	0.0	-	6.7	85.0	8.2	0.0	-	-
Total %	6.9	4.8	6.1	0.0	17.9	8.5	35.5	3.7	0.0	47.7	0.3	3.5	0.9	0.0	4.7	2.0	25.3	2.5	0.0	29.8	-
PHF	0.738	0.717	0.809	0.000	0.889	0.826	0.883	0.750	0.000	0.905	0.250	0.861	0.400	0.000	0.750	0.450	0.946	0.611	0.000	0.890	0.941
All Vehicles (no classification)	62	43	55	0	160	76	318	33	0	427	3	31	8	0	42	18	227	22	0	267	896
% All Vehicles (no classification)	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0



SW MoDOT
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M.P.O. Box 868
Springfield, Missouri, United States 65801
417-621-6571 lori.palmer@modot.mo.gov

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Page No: 5



Turning Movement Peak Hour Data Plot (7:15 AM)



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417-621-6571 lori.palmer@modot.mo.gov

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Site Code: 7GST
Start Date: 09/13/2018
Page No: 6

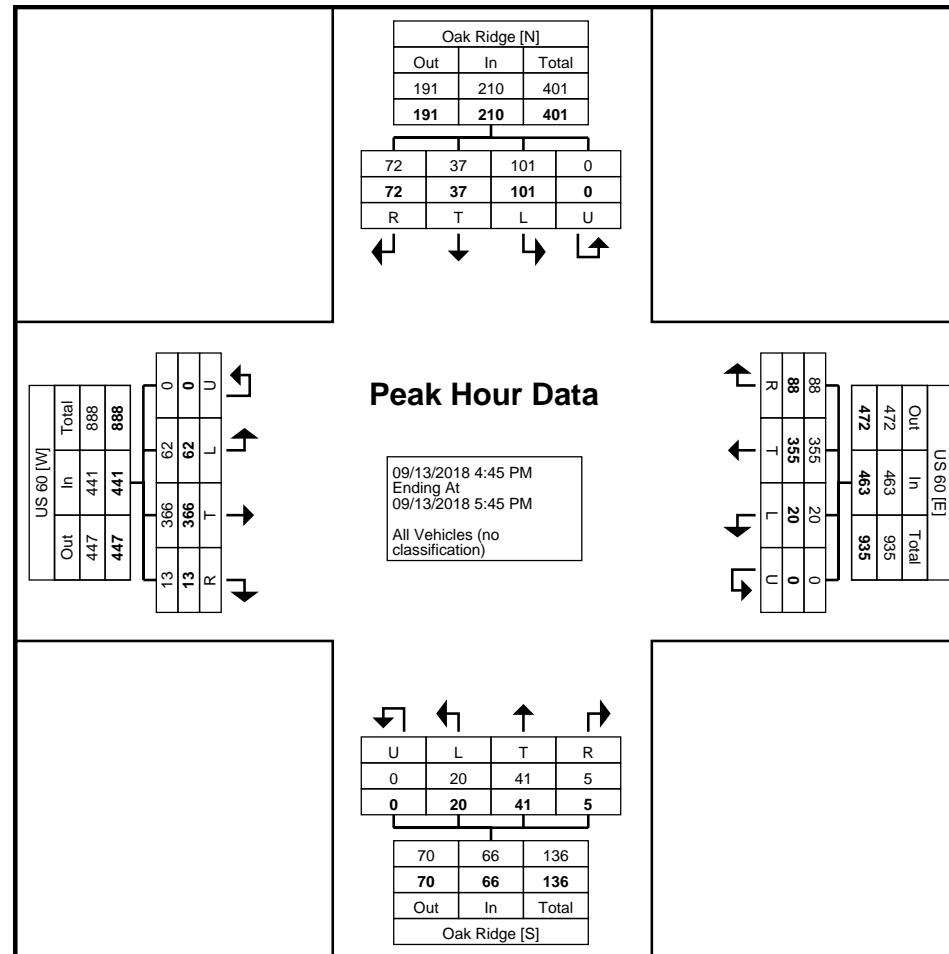
Turning Movement Peak Hour Data (4:45 PM)

Start Time	Oak Ridge Southbound					US 60 Westbound					Oak Ridge Northbound					US 60 Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
4:45 PM	11	8	22	0	41	14	83	6	0	103	2	15	6	0	23	1	98	14	0	113	280
5:00 PM	23	10	36	0	69	24	96	4	0	124	1	8	8	0	17	2	87	16	0	105	315
5:15 PM	23	11	21	0	55	23	92	3	0	118	1	8	2	0	11	4	94	18	0	116	300
5:30 PM	15	8	22	0	45	27	84	7	0	118	1	10	4	0	15	6	87	14	0	107	285
Total	72	37	101	0	210	88	355	20	0	463	5	41	20	0	66	13	366	62	0	441	1180
Approach %	34.3	17.6	48.1	0.0	-	19.0	76.7	4.3	0.0	-	7.6	62.1	30.3	0.0	-	2.9	83.0	14.1	0.0	-	-
Total %	6.1	3.1	8.6	0.0	17.8	7.5	30.1	1.7	0.0	39.2	0.4	3.5	1.7	0.0	5.6	1.1	31.0	5.3	0.0	37.4	-
PHF	0.783	0.841	0.701	0.000	0.761	0.815	0.924	0.714	0.000	0.933	0.625	0.683	0.625	0.000	0.717	0.542	0.934	0.861	0.000	0.950	0.937
All Vehicles (no classification)	72	37	101	0	210	88	355	20	0	463	5	41	20	0	66	13	366	62	0	441	1180
% All Vehicles (no classification)	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0



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M.P.O. Box 868
Springfield, Missouri, United States 65801
417-621-6571 lori.palmer@modot.mo.gov

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Site Code: 7GST
Start Date: 09/13/2018
Page No: 7



Turning Movement Peak Hour Data Plot (4:45 PM)



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M.P.O. Box 868
Springfield, Missouri, United States 65801
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Start Date: 09/13/2018
Page No: 8



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3025 E. Kearney
M.P.O. Box 868
Springfield, Missouri, United States 65801
417-621-6571 lori.palmer@modot.mo.gov

Count Name: RT Z @ Hartley Jasper 7GST Feb
2020
Site Code:
Start Date: 02/04/2020
Page No: 1

Turning Movement Data

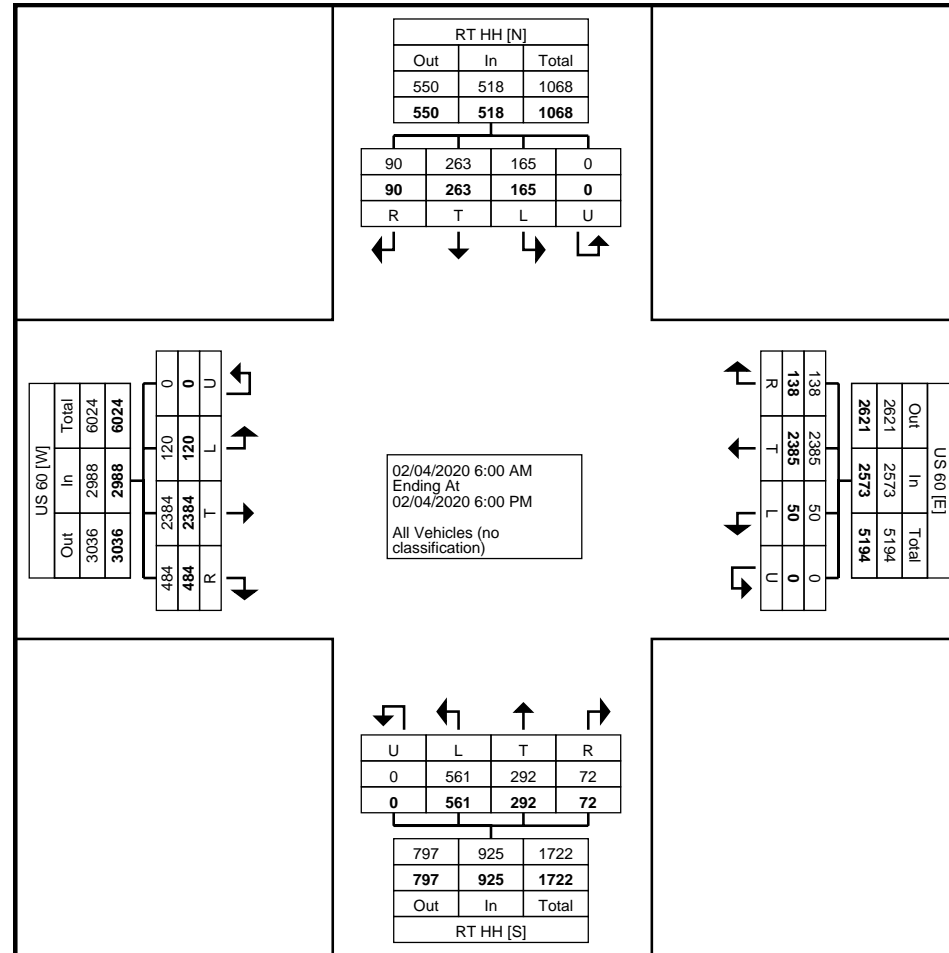
Start Time	RT HH Southbound					US 60 Westbound					RT HH Northbound					US 60 Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
6:00 AM	0	1	5	0	6	0	26	0	0	26	0	3	11	0	14	2	22	0	0	24	70
6:15 AM	1	2	4	0	7	0	31	0	0	31	0	4	6	0	10	3	19	0	0	22	70
6:30 AM	1	3	0	0	4	3	71	1	0	75	3	3	16	0	22	1	15	2	0	18	119
6:45 AM	1	7	1	0	9	0	73	0	0	73	4	5	20	0	29	6	29	0	0	35	146
Hourly Total	3	13	10	0	26	3	201	1	0	205	7	15	53	0	75	12	85	2	0	99	405
7:00 AM	0	5	1	0	6	2	57	2	0	61	1	7	16	0	24	10	42	0	0	52	143
7:15 AM	3	1	8	0	12	6	70	3	0	79	5	10	31	0	46	1	29	4	0	34	171
7:30 AM	3	2	5	0	10	3	73	3	0	79	2	14	24	0	40	6	34	1	0	41	170
7:45 AM	1	4	2	0	7	3	82	0	0	85	2	23	19	0	44	8	37	0	0	45	181
Hourly Total	7	12	16	0	35	14	282	8	0	304	10	54	90	0	154	25	142	5	0	172	665
8:00 AM	3	2	4	0	9	5	59	0	0	64	0	6	15	0	21	7	30	1	0	38	132
8:15 AM	1	2	2	0	5	1	61	1	0	63	1	2	15	0	18	7	37	0	0	44	130
8:30 AM	1	2	4	0	7	1	49	1	0	51	1	8	14	0	23	7	28	0	0	35	116
8:45 AM	1	2	1	0	4	1	44	2	0	47	1	12	15	0	28	4	34	2	0	40	119
Hourly Total	6	8	11	0	25	8	213	4	0	225	3	28	59	0	90	25	129	3	0	157	497
9:00 AM	3	3	1	0	7	3	49	1	0	53	1	4	11	0	16	7	37	2	0	46	122
9:15 AM	0	7	3	0	10	1	60	2	0	63	2	4	13	0	19	4	28	1	0	33	125
9:30 AM	3	5	1	0	9	6	43	2	0	51	1	2	6	0	9	11	45	1	0	57	126
9:45 AM	0	2	2	0	4	1	40	2	0	43	1	7	7	0	15	7	21	4	0	32	94
Hourly Total	6	17	7	0	30	11	192	7	0	210	5	17	37	0	59	29	131	8	0	168	467
10:00 AM	3	3	4	0	10	4	35	1	0	40	3	9	5	0	17	4	35	3	0	42	109
10:15 AM	2	2	3	0	7	3	29	0	0	32	1	3	5	0	9	7	34	1	0	42	90
10:30 AM	2	2	2	0	6	3	57	0	0	60	0	5	15	0	20	9	30	2	0	41	127
10:45 AM	1	3	0	0	4	5	41	0	0	46	1	8	10	0	19	7	34	0	0	41	110
Hourly Total	8	10	9	0	27	15	162	1	0	178	5	25	35	0	65	27	133	6	0	166	436
11:00 AM	1	4	1	0	6	5	40	1	0	46	1	4	15	0	20	8	53	2	0	63	135
11:15 AM	3	5	6	0	14	5	30	0	0	35	2	4	16	0	22	6	25	2	0	33	104
11:30 AM	2	8	2	0	12	3	35	3	0	41	3	2	10	0	15	11	49	2	0	62	130
11:45 AM	0	3	4	0	7	2	42	2	0	46	2	3	11	0	16	8	35	2	0	45	114
Hourly Total	6	20	13	0	39	15	147	6	0	168	8	13	52	0	73	33	162	8	0	203	483
12:00 PM	2	9	5	0	16	1	51	2	0	54	2	4	4	0	10	9	44	0	0	53	133
12:15 PM	0	6	2	0	8	2	40	2	0	44	1	6	12	0	19	7	57	0	0	64	135
12:30 PM	1	4	3	0	8	1	34	2	0	37	1	6	10	0	17	12	61	2	0	75	137
12:45 PM	2	4	4	0	10	2	46	0	0	48	2	5	6	0	13	7	50	5	0	62	133
Hourly Total	5	23	14	0	42	6	171	6	0	183	6	21	32	0	59	35	212	7	0	254	538
1:00 PM	1	6	2	0	9	2	49	3	0	54	1	8	11	0	20	9	36	5	0	50	133

1:15 PM	1	7	4	0	12	4	58	0	0	62	3	6	14	0	23	9	51	1	0	61	158
1:30 PM	2	7	2	0	11	2	52	0	0	54	0	2	9	0	11	5	48	1	0	54	130
1:45 PM	0	6	1	0	7	1	48	2	0	51	0	5	9	0	14	7	58	4	0	69	141
Hourly Total	4	26	9	0	39	9	207	5	0	221	4	21	43	0	68	30	193	11	0	234	562
2:00 PM	1	8	1	0	10	2	52	1	0	55	4	8	11	0	23	11	88	3	0	102	190
2:15 PM	4	6	4	0	14	3	40	0	0	43	2	5	13	0	20	10	59	3	0	72	149
2:30 PM	1	6	6	0	13	7	47	0	0	54	1	5	6	0	12	17	59	5	0	81	160
2:45 PM	3	4	5	0	12	4	42	1	0	47	2	9	15	0	26	14	62	2	0	78	163
Hourly Total	9	24	16	0	49	16	181	2	0	199	9	27	45	0	81	52	268	13	0	333	662
3:00 PM	6	7	6	0	19	3	57	1	0	61	2	8	3	0	13	15	71	6	0	92	185
3:15 PM	0	12	3	0	15	4	59	0	0	63	0	7	9	0	16	21	81	7	0	109	203
3:30 PM	6	13	7	0	26	3	55	0	0	58	0	7	6	0	13	16	104	6	0	126	223
3:45 PM	4	15	12	0	31	2	57	2	0	61	4	7	13	0	24	25	82	7	0	114	230
Hourly Total	16	47	28	0	91	12	228	3	0	243	6	29	31	0	66	77	338	26	0	441	841
4:00 PM	3	6	4	0	13	3	34	1	0	38	7	5	12	0	24	20	78	5	0	103	178
4:15 PM	1	10	3	0	14	5	51	0	0	56	0	7	14	0	21	16	86	4	0	106	197
4:30 PM	3	5	4	0	12	2	36	0	0	38	0	7	7	0	14	22	77	6	0	105	169
4:45 PM	2	11	7	0	20	4	64	2	0	70	0	4	12	0	16	15	84	4	0	103	209
Hourly Total	9	32	18	0	59	14	185	3	0	202	7	23	45	0	75	73	325	19	0	417	753
5:00 PM	1	9	5	0	15	4	54	1	0	59	1	4	3	0	8	25	88	5	0	118	200
5:15 PM	5	10	3	0	18	7	51	1	0	59	0	6	10	0	16	21	61	5	0	87	180
5:30 PM	3	7	2	0	12	1	53	0	0	54	1	5	16	0	22	12	64	1	0	77	165
5:45 PM	2	5	4	0	11	3	58	2	0	63	0	4	10	0	14	8	53	1	0	62	150
Hourly Total	11	31	14	0	56	15	216	4	0	235	2	19	39	0	60	66	266	12	0	344	695
Grand Total	90	263	165	0	518	138	2385	50	0	2573	72	292	561	0	925	484	2384	120	0	2988	7004
Approach %	17.4	50.8	31.9	0.0	-	5.4	92.7	1.9	0.0	-	7.8	31.6	60.6	0.0	-	16.2	79.8	4.0	0.0	-	-
Total %	1.3	3.8	2.4	0.0	7.4	2.0	34.1	0.7	0.0	36.7	1.0	4.2	8.0	0.0	13.2	6.9	34.0	1.7	0.0	42.7	-
All Vehicles (no classification)	90	263	165	0	518	138	2385	50	0	2573	72	292	561	0	925	484	2384	120	0	2988	7004
% All Vehicles (no classification)	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0



SW MoDOT
3025 E. Kearney
M.P.O. Box 868
Springfield, Missouri, United States 65801
417-621-6571 lori.palmer@modot.mo.gov

Count Name: RT Z @ Hartley Jasper 7GST Feb
2020
Site Code:
Start Date: 02/04/2020
Page No: 3



Turning Movement Data Plot



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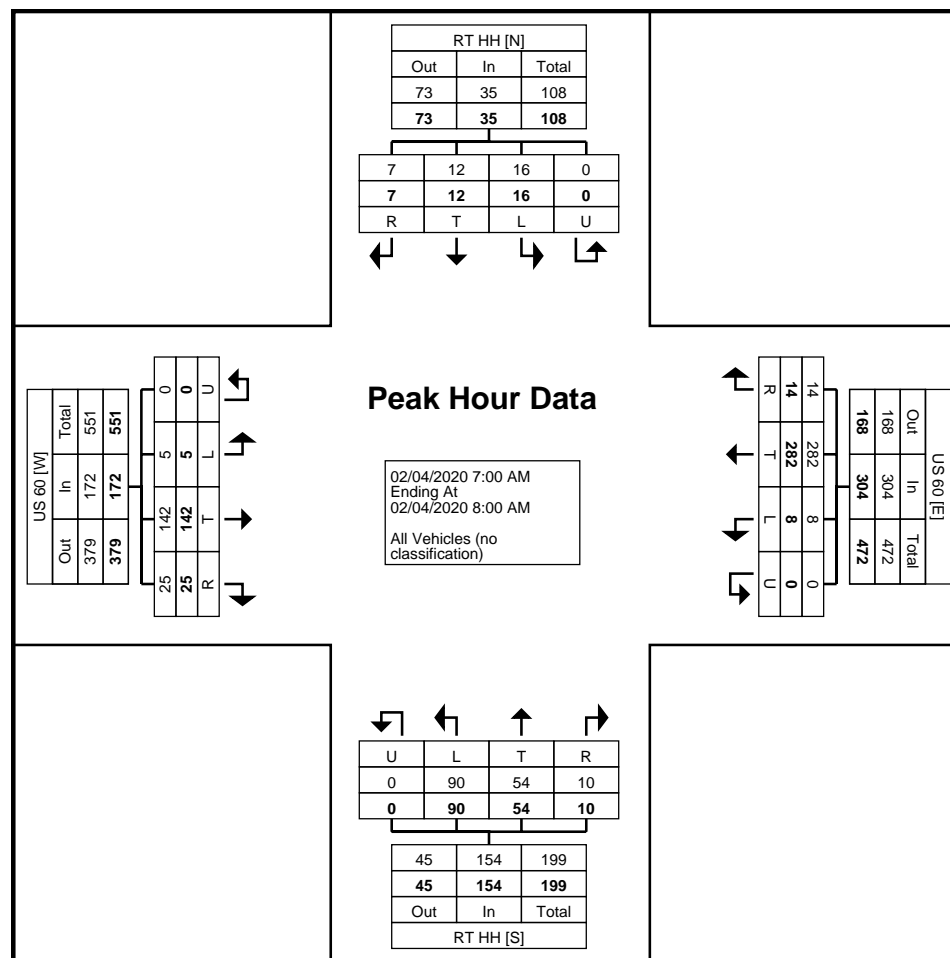
Turning Movement Peak Hour Data (7:00 AM)

Start Time	RT HH Southbound					US 60 Westbound					RT HH Northbound					US 60 Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
7:00 AM	0	5	1	0	6	2	57	2	0	61	1	7	16	0	24	10	42	0	0	52	143
7:15 AM	3	1	8	0	12	6	70	3	0	79	5	10	31	0	46	1	29	4	0	34	171
7:30 AM	3	2	5	0	10	3	73	3	0	79	2	14	24	0	40	6	34	1	0	41	170
7:45 AM	1	4	2	0	7	3	82	0	0	85	2	23	19	0	44	8	37	0	0	45	181
Total	7	12	16	0	35	14	282	8	0	304	10	54	90	0	154	25	142	5	0	172	665
Approach %	20.0	34.3	45.7	0.0	-	4.6	92.8	2.6	0.0	-	6.5	35.1	58.4	0.0	-	14.5	82.6	2.9	0.0	-	-
Total %	1.1	1.8	2.4	0.0	5.3	2.1	42.4	1.2	0.0	45.7	1.5	8.1	13.5	0.0	23.2	3.8	21.4	0.8	0.0	25.9	-
PHF	0.583	0.600	0.500	0.000	0.729	0.583	0.860	0.667	0.000	0.894	0.500	0.587	0.726	0.000	0.837	0.625	0.845	0.313	0.000	0.827	0.919
All Vehicles (no classification)	7	12	16	0	35	14	282	8	0	304	10	54	90	0	154	25	142	5	0	172	665
% All Vehicles (no classification)	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0



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Page No: 5



Turning Movement Peak Hour Data Plot (7:00 AM)



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Page No: 6

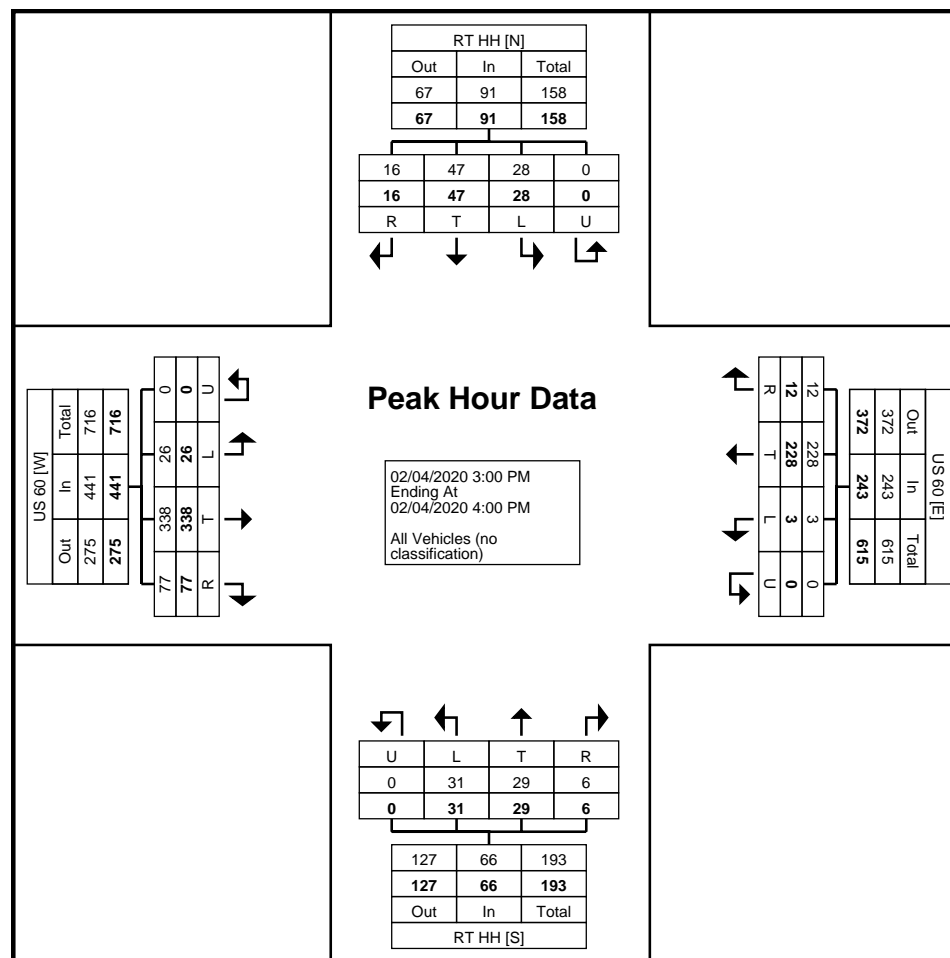
Turning Movement Peak Hour Data (3:00 PM)

Start Time	RT HH Southbound					US 60 Westbound					RT HH Northbound					US 60 Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
3:00 PM	6	7	6	0	19	3	57	1	0	61	2	8	3	0	13	15	71	6	0	92	185
3:15 PM	0	12	3	0	15	4	59	0	0	63	0	7	9	0	16	21	81	7	0	109	203
3:30 PM	6	13	7	0	26	3	55	0	0	58	0	7	6	0	13	16	104	6	0	126	223
3:45 PM	4	15	12	0	31	2	57	2	0	61	4	7	13	0	24	25	82	7	0	114	230
Total	16	47	28	0	91	12	228	3	0	243	6	29	31	0	66	77	338	26	0	441	841
Approach %	17.6	51.6	30.8	0.0	-	4.9	93.8	1.2	0.0	-	9.1	43.9	47.0	0.0	-	17.5	76.6	5.9	0.0	-	-
Total %	1.9	5.6	3.3	0.0	10.8	1.4	27.1	0.4	0.0	28.9	0.7	3.4	3.7	0.0	7.8	9.2	40.2	3.1	0.0	52.4	-
PHF	0.667	0.783	0.583	0.000	0.734	0.750	0.966	0.375	0.000	0.964	0.375	0.906	0.596	0.000	0.688	0.770	0.813	0.929	0.000	0.875	0.914
All Vehicles (no classification)	16	47	28	0	91	12	228	3	0	243	6	29	31	0	66	77	338	26	0	441	841
% All Vehicles (no classification)	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0



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M.P.O. Box 868
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Page No: 7



Turning Movement Peak Hour Data Plot (3:00 PM)



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2020
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Start Date: 02/04/2020
Page No: 8

Your Company Name Here

This is your address
Your City, State, Zip Code

Your Tagline Here

File Name : 0218_US60_RTS M_W_August2021

Site Code : 0218

Start Date : 8/25/2021

Page No : 1

Groups Printed- All Vehicles (no classification)

	RTS M/W Southbound					US 60 Westbound					RTS M/W Northbound					US 60 Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
06:00 AM	1	1	1	0	3	0	18	2	0	20	4	3	1	0	8	0	15	1	0	16	47
06:15 AM	1	0	1	0	2	0	13	0	0	13	3	1	2	0	6	1	25	2	0	28	49
06:30 AM	7	1	0	0	8	1	17	1	0	19	6	2	2	0	10	2	22	1	0	25	62
06:45 AM	5	1	0	0	6	0	18	2	0	20	3	0	1	0	4	3	20	4	0	27	57
Total	14	3	2	0	19	1	66	5	0	72	16	6	6	0	28	6	82	8	0	96	215
07:00 AM	4	5	1	0	10	0	20	8	0	28	3	2	3	0	8	2	12	2	0	16	62
07:15 AM	9	7	3	0	19	3	33	11	0	47	6	0	5	0	11	1	27	1	0	29	106
07:30 AM	7	3	1	0	11	0	29	2	0	31	2	4	6	0	12	1	21	7	0	29	83
07:45 AM	2	5	0	0	7	0	26	3	0	29	6	1	6	0	13	2	19	4	0	25	74
Total	22	20	5	0	47	3	108	24	0	135	17	7	20	0	44	6	79	14	0	99	325
08:00 AM	2	0	2	0	4	1	13	4	0	18	2	1	3	0	6	2	16	2	0	20	48
08:15 AM	1	5	0	0	6	2	20	1	0	23	2	2	1	0	5	2	24	3	0	29	63
08:30 AM	2	1	1	0	4	1	20	4	0	25	2	1	9	0	12	0	15	0	0	15	56
08:45 AM	2	1	0	0	3	2	24	2	0	28	3	3	0	0	6	2	18	2	0	22	59
Total	7	7	3	0	17	6	77	11	0	94	9	7	13	0	29	6	73	7	0	86	226
09:00 AM	1	0	0	0	1	1	32	1	0	34	1	1	2	0	4	1	16	0	0	17	56
09:15 AM	2	1	2	0	5	2	23	9	0	34	6	0	0	0	6	2	17	0	0	19	64
09:30 AM	3	0	1	0	4	2	15	1	0	18	0	0	5	0	5	1	15	2	0	18	45
09:45 AM	1	1	2	0	4	3	27	1	0	31	6	0	2	0	8	2	15	1	0	18	61
Total	7	2	5	0	14	8	97	12	0	117	13	1	9	0	23	6	63	3	0	72	226
10:00 AM	1	1	2	0	4	0	19	0	0	19	2	0	0	0	2	1	22	0	0	23	48
10:15 AM	0	0	1	0	1	1	30	1	0	32	5	1	3	0	9	0	23	2	0	25	67
10:30 AM	0	4	2	0	6	0	22	3	0	25	2	0	5	0	7	3	18	0	0	21	59
10:45 AM	1	5	2	0	8	1	24	2	0	27	4	0	2	0	6	2	20	0	0	22	63
Total	2	10	7	0	19	2	95	6	0	103	13	1	10	0	24	6	83	2	0	91	237
11:00 AM	0	3	0	0	3	1	30	1	0	32	4	3	1	0	8	1	22	1	0	24	67
11:15 AM	3	3	0	0	6	1	26	2	0	29	4	0	0	0	4	0	16	2	0	18	57
11:30 AM	4	2	3	0	9	0	23	5	0	28	5	0	0	0	5	4	20	2	0	26	68
11:45 AM	2	3	0	0	5	0	20	3	0	23	4	3	3	0	10	1	25	1	0	27	65
Total	9	11	3	0	23	2	99	11	0	112	17	6	4	0	27	6	83	6	0	95	257
12:00 PM	1	0	0	0	1	0	22	1	0	23	6	2	2	0	10	5	19	1	0	25	59
12:15 PM	3	1	0	0	4	0	28	2	0	30	4	0	2	0	6	3	28	0	0	31	71
12:30 PM	2	2	1	0	5	3	25	1	0	29	7	1	3	0	11	4	28	2	0	34	79
12:45 PM	3	1	0	0	4	1	23	2	0	26	5	1	2	0	8	2	21	1	0	24	62
Total	9	4	1	0	14	4	98	6	0	108	22	4	9	0	35	14	96	4	0	114	271

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File Name : 0218_US60_RTS M_W_August2021

Site Code : 0218

Start Date : 8/25/2021

Page No : 2

Groups Printed- All Vehicles (no classification)

	RTS M/W Southbound					US 60 Westbound					RTS M/W Northbound					US 60 Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
01:00 PM	2	0	0	0	2	5	25	5	0	35	5	2	0	0	7	1	32	1	0	34	78
01:15 PM	0	0	1	0	1	1	20	1	0	22	2	4	4	0	10	1	29	2	0	32	65
01:30 PM	1	4	3	0	8	1	26	2	0	29	9	2	1	0	12	2	14	1	0	17	66
01:45 PM	1	1	0	0	2	3	19	4	0	26	3	0	2	0	5	2	25	4	0	31	64
Total	4	5	4	0	13	10	90	12	0	112	19	8	7	0	34	6	100	8	0	114	273
02:00 PM	1	0	2	0	3	2	31	3	0	36	2	3	1	0	6	0	21	2	0	23	68
02:15 PM	1	1	9	0	11	1	22	2	0	25	1	2	3	0	6	2	32	1	0	35	77
02:30 PM	4	1	0	0	5	3	36	4	0	43	5	4	4	0	13	1	21	3	0	25	86
02:45 PM	6	1	0	0	7	2	44	3	0	49	1	1	3	0	5	2	34	3	0	39	100
Total	12	3	11	0	26	8	133	12	0	153	9	10	11	0	30	5	108	9	0	122	331
03:00 PM	0	3	2	0	5	1	29	4	0	34	5	1	0	0	6	2	25	7	0	34	79
03:15 PM	7	2	1	0	10	4	32	4	0	40	3	0	7	0	10	5	36	5	0	46	106
03:30 PM	2	2	1	0	5	1	26	2	0	29	2	3	4	0	9	4	43	3	0	50	93
03:45 PM	1	3	2	0	6	0	31	7	0	38	3	3	5	0	11	5	34	5	0	44	99
Total	10	10	6	0	26	6	118	17	0	141	13	7	16	0	36	16	138	20	0	174	377
04:00 PM	1	1	2	0	4	3	32	5	0	40	4	3	3	0	10	3	23	6	0	32	86
04:15 PM	0	4	0	0	4	1	28	5	0	34	2	0	1	0	3	4	29	4	0	37	78
04:30 PM	0	1	2	0	3	1	37	5	0	43	7	2	2	0	11	3	25	5	0	33	90
04:45 PM	2	1	0	0	3	2	20	5	0	27	7	2	4	0	13	2	30	3	0	35	78
Total	3	7	4	0	14	7	117	20	0	144	20	7	10	0	37	12	107	18	0	137	332
05:00 PM	2	3	2	0	7	1	25	4	0	30	3	6	4	0	13	5	37	3	0	45	95
05:15 PM	4	4	1	0	9	2	23	6	0	31	6	0	5	0	11	3	38	6	0	47	98
05:30 PM	2	0	0	0	2	2	31	5	0	38	7	1	0	0	8	1	24	5	0	30	78
05:45 PM	2	4	2	0	8	0	31	4	0	35	8	3	2	0	13	4	19	4	0	27	83
Total	10	11	5	0	26	5	110	19	0	134	24	10	11	0	45	13	118	18	0	149	354
06:00 PM	3	1	1	0	5	0	11	4	0	15	2	1	2	0	5	5	22	2	0	29	54
06:15 PM	2	3	1	0	6	1	27	2	0	30	3	2	3	0	8	4	18	6	0	28	72
06:30 PM	1	6	5	0	12	3	8	6	0	17	6	1	5	0	12	4	25	1	0	30	71
06:45 PM	1	2	3	0	6	1	16	7	0	24	7	0	0	0	7	4	17	1	0	22	59
Total	7	12	10	0	29	5	62	19	0	86	18	4	10	0	32	17	82	10	0	109	256
Grand Total	116	105	66	0	287	67	1270	174	0	1511	210	78	136	0	424	119	1212	127	0	1458	3680
Apprch %	40.4	36.6	23	0		4.4	84.1	11.5	0		49.5	18.4	32.1	0		8.2	83.1	8.7	0		
Total %	3.2	2.9	1.8	0	7.8	1.8	34.5	4.7	0	41.1	5.7	2.1	3.7	0	11.5	3.2	32.9	3.5	0	39.6	

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File Name : 0214_60_CC_Y_Neosho_July2021

Site Code : 0214

Start Date : 7/21/2021

Page No : 1

Groups Printed- All Vehicles (no classification)

	RT CC/Y Southbound					US 60 Westbound					Northbound Approach Northbound					US 60 Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
06:00 AM	2	1	6	0	9	2	17	0	0	19	4	2	1	0	7	0	26	2	0	28	63
06:15 AM	1	1	7	0	9	1	23	0	0	24	2	8	2	0	12	0	29	1	0	30	75
06:30 AM	1	2	2	0	5	1	26	0	0	27	4	3	1	0	8	0	37	2	0	39	79
06:45 AM	3	2	6	0	11	3	23	1	0	27	3	5	0	0	8	0	27	0	0	27	73
Total	7	6	21	0	34	7	89	1	0	97	13	18	4	0	35	0	119	5	0	124	290
07:00 AM	2	2	5	0	9	6	38	0	0	44	7	1	0	0	8	0	32	1	0	33	94
07:15 AM	1	0	4	0	5	0	37	0	0	37	2	10	0	0	12	0	37	2	0	39	93
07:30 AM	2	2	4	0	8	2	33	1	0	36	6	8	1	0	15	0	43	3	0	46	105
07:45 AM	4	2	4	0	10	3	53	2	0	58	4	3	3	0	10	0	44	2	0	46	124
Total	9	6	17	0	32	11	161	3	0	175	19	22	4	0	45	0	156	8	0	164	416
08:00 AM	1	1	10	0	12	1	26	2	0	29	7	2	0	0	9	2	23	2	0	27	77
08:15 AM	3	2	9	0	14	3	40	2	0	45	5	1	1	0	7	1	36	3	0	40	106
08:30 AM	2	0	5	0	7	4	34	0	0	38	8	7	0	0	15	1	27	3	0	31	91
08:45 AM	4	1	4	0	9	3	34	1	0	38	8	6	0	0	14	0	37	2	0	39	100
Total	10	4	28	0	42	11	134	5	0	150	28	16	1	0	45	4	123	10	0	137	374
09:00 AM	3	0	4	0	7	3	28	5	0	36	3	2	0	0	5	1	27	4	0	32	80
09:15 AM	1	0	7	0	8	3	42	2	0	47	5	0	1	0	6	1	38	5	0	44	105
09:30 AM	3	1	1	0	5	0	46	0	0	46	2	3	1	0	6	0	34	1	0	35	92
09:45 AM	0	7	2	0	9	1	47	0	0	48	2	4	1	0	7	0	26	3	0	29	93
Total	7	8	14	0	29	7	163	7	0	177	12	9	3	0	24	2	125	13	0	140	370
10:00 AM	1	2	2	0	5	3	52	3	0	58	3	2	2	0	7	3	28	1	0	32	102
10:15 AM	2	4	4	0	10	3	44	3	0	50	0	5	0	0	5	0	35	1	0	36	101
10:30 AM	0	5	4	0	9	1	48	4	0	53	9	4	1	0	14	2	51	2	0	55	131
10:45 AM	6	2	2	0	10	2	45	4	0	51	4	2	2	0	8	3	41	0	0	44	113
Total	9	13	12	0	34	9	189	14	0	212	16	13	5	0	34	8	155	4	0	167	447
11:00 AM	3	4	3	0	10	3	38	0	0	41	4	2	1	0	7	0	39	2	0	41	99
11:15 AM	3	2	4	0	9	2	52	5	0	59	3	4	2	0	9	0	48	3	0	51	128
11:30 AM	4	3	3	0	10	3	44	3	0	50	3	2	1	0	6	0	38	2	0	40	106
11:45 AM	2	6	3	0	11	6	53	5	0	64	1	2	0	0	3	4	44	3	0	51	129
Total	12	15	13	0	40	14	187	13	0	214	11	10	4	0	25	4	169	10	0	183	462
12:00 PM	2	4	5	0	11	2	54	3	0	59	5	0	2	0	7	1	45	1	0	47	124
12:15 PM	2	2	8	0	12	5	55	2	0	62	4	4	1	0	9	2	31	3	0	36	119
12:30 PM	4	1	1	0	6	4	53	3	0	60	3	4	0	0	7	1	37	3	0	41	114
12:45 PM	3	6	3	0	12	7	63	6	0	76	4	3	1	0	8	2	38	2	0	42	138
Total	11	13	17	0	41	18	225	14	0	257	16	11	4	0	31	6	151	9	0	166	495

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File Name : 0214_60_CC_Y_Neosho_July2021

Site Code : 0214

Start Date : 7/21/2021

Page No : 2

Groups Printed- All Vehicles (no classification)

	RT CC/Y Southbound					US 60 Westbound					Northbound Approach Northbound					US 60 Eastbound					Int. Total
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
01:00 PM	2	5	4	0	11	5	56	4	0	65	7	5	0	0	12	1	43	2	0	46	134
01:15 PM	3	3	8	0	14	2	56	5	0	63	2	7	2	0	11	0	53	5	0	58	146
01:30 PM	5	6	6	0	17	5	50	10	1	66	7	8	0	0	15	0	48	4	0	52	150
01:45 PM	1	4	2	0	7	7	48	1	0	56	4	1	0	0	5	1	39	1	0	41	109
Total	11	18	20	0	49	19	210	20	1	250	20	21	2	0	43	2	183	12	0	197	539
02:00 PM	2	4	1	0	7	6	54	1	0	61	3	4	1	0	8	0	47	2	0	49	125
02:15 PM	2	2	7	0	11	4	41	3	0	48	3	2	0	0	5	0	50	3	0	53	117
02:30 PM	4	3	5	0	12	6	41	3	0	50	3	5	0	0	8	0	40	4	0	44	114
02:45 PM	3	2	9	0	14	4	48	3	0	55	0	2	1	0	3	0	52	1	0	53	125
Total	11	11	22	0	44	20	184	10	0	214	9	13	2	0	24	0	189	10	0	199	481
03:00 PM	2	6	7	0	15	4	53	5	0	62	2	6	0	0	8	0	47	3	0	50	135
03:15 PM	2	4	7	0	13	9	43	7	0	59	4	7	1	0	12	0	68	4	0	72	156
03:30 PM	1	5	3	0	9	7	57	6	0	70	5	3	2	0	10	4	57	3	0	64	153
03:45 PM	6	3	5	0	14	12	56	12	0	80	2	3	0	0	5	1	55	1	0	57	156
Total	11	18	22	0	51	32	209	30	0	271	13	19	3	0	35	5	227	11	0	243	600
04:00 PM	7	12	4	0	23	12	60	3	0	75	9	2	0	0	11	1	59	1	0	61	170
04:15 PM	7	6	9	0	22	9	68	11	0	88	4	3	0	0	7	0	40	7	0	47	164
04:30 PM	6	6	6	0	18	12	63	2	0	77	5	6	1	0	12	2	64	3	0	69	176
04:45 PM	7	9	7	0	23	7	65	4	0	76	3	7	0	0	10	0	46	8	0	54	163
Total	27	33	26	0	86	40	256	20	0	316	21	18	1	0	40	3	209	19	0	231	673
05:00 PM	5	7	1	0	13	6	61	3	0	70	3	7	1	0	11	0	54	7	0	61	155
05:15 PM	3	4	8	0	15	5	85	4	0	94	3	4	3	0	10	0	61	4	0	65	184
05:30 PM	5	9	2	0	16	5	66	8	0	79	9	9	1	0	19	0	41	2	0	43	157
05:45 PM	5	9	5	0	19	7	54	6	0	67	5	5	0	0	10	1	47	6	0	54	150
Total	18	29	16	0	63	23	266	21	0	310	20	25	5	0	50	1	203	19	0	223	646
06:00 PM	4	8	8	0	20	12	57	6	0	75	3	5	2	0	10	1	39	5	0	45	150
06:15 PM	5	10	8	0	23	3	55	6	0	64	3	3	2	0	8	1	36	3	0	40	135
06:30 PM	6	6	6	0	18	7	51	4	0	62	1	1	0	1	3	0	37	1	0	38	121
06:45 PM	6	7	4	0	17	6	31	5	0	42	2	4	0	0	6	2	47	2	0	51	116
Total	21	31	26	0	78	28	194	21	0	243	9	13	4	1	27	4	159	11	0	174	522
Grand Total	164	205	254	0	623	239	2467	179	1	2886	207	208	42	1	458	39	2168	141	0	2348	6315
Apprch %	26.3	32.9	40.8	0		8.3	85.5	6.2	0		45.2	45.4	9.2	0.2		1.7	92.3	6	0		
Total %	2.6	3.2	4	0	9.9	3.8	39.1	2.8	0	45.7	3.3	3.3	0.7	0	7.3	0.6	34.3	2.2	0	37.2	