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# SUPPLEMENTAL INFORMATION

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## BLUE RIDGE ROAD (CR 84) PAVEMENT PRESERVATION

TOWNS OF MINERVA & NORTH HUDSON, NY

MAY 2016

D034909  
PIN 1759.99

**Prepared For:**

ESSEX COUNTY  
DEPARTMENT OF PUBLIC WORKS  
8053 U.S. ROUTE 9  
ELIZABETHTOWN, NY 12932

**Prepared By:**

GREENMAN-PEDERSEN, INC  
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October 27, 2015

Greenman-Pedersen, Inc.  
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phone: (518) 453-9431 fax: (518) 453-9458

Attn: Ludwig M. Bach, P.E.

Re: Geotechnical Evaluation  
Blue Ridge Road (CR 84) Reconstruction  
Essex County, New York  
Empire Project No. AE-15-026

Dear Mr. Bach:

Presented herein are the results of a geotechnical engineering evaluation performed by Empire Geo-Services, Inc. along Blue Ridge Road in the town of North Hudson, Essex County, New York. The evaluation included an investigation of the site's existing pavement and subsurface conditions, and an engineering analysis of the conditions encountered as such relate to the planned improvements.

This work was performed under the terms of our proposal number PA-14-168 (last revised August 25, 2015) which was authorized by Greenman-Pedersen, Inc. (GPI) by way of a subconsultant agreement for design services entered into on or about August 27, 2015.

## 1.0 BACKGROUND

As we understand it, roadway improvements and/or reconstruction is planned along a 15.87 mile stretch of Blue Ridge Road (County Route 84), roughly from its intersection with Interstate 87 to the Newcomb town line. This investigation and report addresses only the 1.25 mile section that passes through NYS Wild Forest Lands ("Forever Wild"). Refer to the site location map, Figure 1.

The existing roadway consists of one travel lane in each direction with an asphalt pavement surface; it is located in a primarily rural area. The Forever Wild section exhibits excessive bumpiness and cracking in places, along with frequent patches. It is anticipated that the Forever Wild section will receive full depth pavement reconstruction (and that pavement preservation [Hot-In-Place] will be utilized elsewhere).

MEMBER

According to traffic data furnished by GPI, the average daily traffic (ADT) is currently 445 vehicles per day. At the design life twenty years on, an ADT of 543 is predicted assuming an annual growth rate of 1.0 percent. The indicated average daily truck traffic is 14 percent of total volume.

## 2.0 SUBSURFACE EXPLORATION

### Pavement Cores/Test Borings and Auger Probes

Subsurface conditions along the roadway were investigated through the completion of two pavement cores/shallow test borings, designated as C-1 and C-2, along with ten auger probes (P-1A, P-1B, P-2A, P-2B and so on). The test locations were selected by GPI as shown on the attached pavement core location plan (drawing no. COR-1). The probes were performed just off the edge of pavement, with the A-series along the south side of the road and the B-series along the north side.

The cores/test borings were performed by our drilling and materials testing affiliate, SJB Services, Inc., and were generally completed as follows:

- The pavement cores were performed with a portable electric pavement coring machine equipped with a 4-inch diameter thin-wall bit, and were extended through whatever surface paving materials were in-place. The retrieved cores were kept for further examination in the laboratory, where they were measured and photographed.
- To allow characterization of the pavement subbase and underlying subgrade, split spoon sampling was performed to a nominal depth of six feet or refusal at each core location, whereby continuous 1 $\frac{3}{8}$ -inch diameter samples of the subbase/subgrade were retrieved and SPT N-values were measured. The sampling was performed in general accordance with ASTM D1586.
- Upon completion of sampling, each core/borehole location was backfilled with granular fill, and was finished at-grade with asphalt cold patch to approximately match the existing pavement section.

The recovered cores and soil samples were transported to Empire's office for visual classification by a geologist or geotechnical engineer, whereby the asphalt cores were measured, photographed, and described based on layer thickness and apparent weathering. The soil samples were described based on estimation of grain size distribution, and characteristics such as color, consistency, moisture, etc.

Individual subsurface logs were prepared based on the visual classifications and the driller's field notes. The logs are presented in Attachment A, together with a summary sheet and key which explains the terms and symbols used in their preparation. Photographs of each pavement core are presented in Attachment B.

At each of the auger probe locations, the augers were advanced to a depth of five feet or refusal (whichever was less) with no soil sampling. Results of the auger probes are

summarized in section 3.0 herein.

#### Laboratory Testing

Limited laboratory testing of the recovered samples was performed to confirm the visual classifications and to provide soil index properties; results of this testing are presented in Attachment C.

### **3.0 SUBSURFACE CONDITIONS**

Refer to the individual subsurface logs for the specific conditions encountered at each test core/boring location. A summary of these conditions by stratum is provided below.

#### Pavement Core Locations

Asphalt pavement thickness was found to be 2½ inches at C-1, where the core was recovered in one piece with top and binder layers tightly bound together. At C-2, the total pavement thickness was 3½ inches; however upon removal this core was found to be separated at the top/binder joint, and some fracturing was present in the binder layer.

Subbase material below the existing pavements consisted of gravelly sand with trace amounts of silt (which is apparently either partly or wholly comprised of old asphalt pavement millings). Apparent subbase thickness was about 6 inches at C-1 and 12 inches at C-2; a woven geotextile was present between the subbase and underlying subgrade in each case. It should be understood the subbase characterization and measurement was compromised by limited sight/access through the core holes; additionally, coarser materials present in the subbase may not be fully represented in the recovered samples due to the relatively small sampler diameter. The depths/thicknesses and transitions from subbase to subgrade materials as indicated on the subsurface logs should be considered approximate. A summary table of pavement core and subbase findings is included with the subsurface logs.

Subgrade soils at C-1 consisted of gravelly sands with lesser amounts of silt, tending to become finer in composition and more silty with depth; it appears these are fill soils, as a piece of asphalt was noted in the 4-6 feet sample interval. At C-2, the subgrades were comprised of silts and sands with occasional minor amounts of gravel; also note that a dark brown/black organic silt seam was present from 2.5 to 2.8 feet below ground surface.

We estimate that subgrade soils in the area of C-1 would qualify among the A-1 group using the AASHTO soil classification system, while those in the area of C-2 would qualify among the A-2 group (or substantially lower, depending on the prevalence of the organic silt seam).

For information purposes, the Geologic Map of New York - Adirondack Sheet (New York State Education Department, 1970) indicates that bedrock beneath the project area consists of metanorthosite and anorthositic gneiss of igneous origin.

### Groundwater Observations

Roadway subbase soils were for the most part well-drained and free of generalized groundwater conditions at the time of investigation, although the underlying subgrade soils became very moist to wet at relatively shallow depth. Wet subgrades may become more prevalent during seasonally wet periods and following heavy or extended periods of precipitation. Perched water conditions may also result from intermittent and variable frost penetration. It should be expected that groundwater conditions, and the extent of any perched water, will vary with location and with seasonal fluctuations in precipitation and runoff.

### Auger Probe Locations

Findings at the auger probe locations are summarized in the following table, with comments reported by the driller where applicable:

Auger Probe Summary			
Probe No.	Total Depth (ft)	Refusal?	Comments
P-1A	2.0	Yes	
P-1B	3.2	Yes	Boney sand & gravel; cuttings wet at 2.5 ft.
P-2A	5.0	No	
P-2B	2.1	Yes	Cuttings wet at 1.0 ft.
P-3A	2.1	Yes	Cuttings wet at 1.5 ft.
P-3B	4.3	Yes	Rugged, boney; water level at 0.6 ft. in borehole
P-4A	5.0	No	Cuttings wet at 3.5 ft.
P-4B	3.6	Yes	Rugged, boney; cuttings wet at 2.5 ft.
P-5A	5.0	No	Sand & gravel; cuttings wet at 4.0 ft.
P-5B	5.0	No	Sandy to 4.5 ft., then boney

## **4.0 CONCLUSIONS AND RECOMMENDATIONS**

### **4.1 Asphalt Pavement**

Our investigation revealed generally adequate subgrade conditions for new pavement, although some subgrade and drainage improvements may be necessary in places. Note the seam of organics found in the C-2 area, and that wet soils were commonly observed at relatively shallow depth in the auger probes. Also note that existing pavements seem to generally exhibit excessive deterioration, and this may be an indication of inadequate subbase/subgrade drainage, an overall paving section of insufficient thickness, age, or some combination of these factors.

Of course, areas requiring specific subgrade or drainage improvements may be found during construction, or may have been identified by other field investigation outside the scope of this study. Such instances, if any, should be addressed on a case-by-case basis.

Flexible pavement design recommendations are provided in the sections that follow. Note that in accordance with our proposal, a new pavement design in general conformance with the NYSDOT Comprehensive Pavement Design Manual per the ESAL-based design methodology (SuperPave) has been provided, this representing a full-depth reconstruction of the roadway option.

#### **4.1.1 NYSDOT Asphalt Pavement Design**

The NYSDOT Comprehensive Pavement Design Manual (July 2002) provides both conventional and ESAL-based pavement design procedures. Depending on the actual length of the project, cost factors, and other considerations outside the scope of this report, either may be applicable to this project. The design options presented are applicable to county and state highways and are not intended for town and local roads.

##### **4.1.1.a ESAL-Based Pavement Design**

The pavement design manual indicates that projects over 1.5 km (0.94 mile) in length should be designed in accordance with ESAL-based design procedures, in which the key variable is the anticipated amount of truck traffic. The truck traffic is measured and converted to a number of 80 kN (18 kip) ESALs. For flexible (hot mix asphalt, or HMA) pavements, another key variable is the load carrying capability of the materials below the pavement, or the Subgrade Resilient Modulus ( $M_r$ ).

ESAL-based pavement design is intended to promote long lasting, low maintenance and smooth riding road surfaces through the use of relatively thick flexible pavement subbase courses, and subsurface drainage via a treated permeable base with continuous edge drains and frequent outlets. The manual stipulates that ESAL calculation and pavement thickness be determined on the basis of a 50 year design life.

##### ESAL Calculation

Based on the traffic information provided, and the NYSDOT procedure for calculating ESALs by the AASHTO “simple” method, we estimate a total 50-year 18 kip ESAL count of approximately 995,000.

##### Subgrade Resilient Modulus, $M_r$

According to section 6.6.2 of the pavement design manual,  $M_r$  values from 34 to 48 MPa (about 5,000 to 7,000 psi) are characteristic of fine to medium-grained soil and are typical values for most NYS roadway subgrades. Based on the conditions disclosed, and in the interest of simplicity, a single design  $M_r$  value of 28 MPa (about 4,000 psi) is considered appropriate for this project, and has been used for the purposes of pavement design herein. Note that some reduction has been taken to account for the wet subgrades and potential for

organics that was revealed.

#### Hot Mix Asphalt Thickness

Table 4-5 in the pavement design manual indicates a total HMA thickness of 165 mm (approximately 6.5 inches) is required for the roadway pavement section under the ESAL and  $M_r$  conditions determined. No subgrade enhancement with select granular material is required, according to the table. The following individual HMA layer thicknesses are recommended:

- Top - 40 mm (approx. 1½ inches)
- Binder - 50 mm (approx. 2 inches)
- Base - 75 mm (rounded up to nearest 25 mm increment; approx. 3 inches)

The recommended individual SuperPave top, binder and base course items to be utilized are as follows (from design manual table 6-2 and as specified in section 6.2):

- Asphalt Concrete Top Course - Item No. 402.1263QR
- Asphalt Concrete Binder Course - Item No. 402.1969QR
- Asphalt Concrete Base Course - Item No. 402.3769QR

The SuperPave item numbers are partially based on a calculated 20-year ESAL count of approximately 396,000, which is used in determining the nominal maximum aggregate size and pay item for each HMA course (section 6.2.2 in the design manual).

#### **4.1.1.b Conventional Pavement Design**

##### Hot Mix Asphalt Thickness

Based on an Annual Average Daily Traffic count of less than 4,000 vehicles, irrespective of truck traffic, Table 4-1 in the pavement design manual indicates the following required material thicknesses:

- Top and Binder Combined - 80 mm (approx. 3¼ inches)
- Base - 75 mm (approx. 3 inches)

The top course should be placed with a minimum lift thickness of 40 mm (approx. 1½ inches). Note that if the top course is placed at this minimum thickness, the binder course should be 50 mm thick (approx. 2 inches, minimum lift thickness for the specified binder maximum aggregate size of 19.0 mm – this would effectively increase the binder and top total thickness to 90 mm). The recommended individual SuperPave top, binder and base course items are listed in the previous section.

#### **4.1.1.c Drainage, Subbase and Subgrade**

##### Drainage System

Adequate subsurface pavement drainage should be provided, in accordance with section

9.3 of the pavement design manual. As indicated therein, a minimum 100 mm (4 inch) thick asphalt treated permeable base (ATPB) layer should be provided between the HMA and subbase stone layers, in conjunction with continuous 100 mm diameter underdrains along the roadway edges.

Where the new roadway meets existing pavement sections of intersecting or adjoining roadways, some adjustment to that recommended herein may be necessary to accommodate the transition from new to existing pavements. Failure to provide adequate drainage will shorten pavement life.

#### Subbase Thickness

In accordance with section 6.5 (and table 4-1, conventional pavement thickness guide) of the pavement design manual, a minimum 300 mm (12 inch) thick subbase course should be provided as a structural component beneath the HMA and asphalt treated permeable base layers, and above the subgrade. The material should meet the requirements of Section 304 of the NYSDOT Standard Specifications. It may be necessary to increase the subbase course thickness in places to improve subgrade conditions and to promote drainage to underdrains.

With subbase at the specified thickness, a structural number (SN) of about 4.2 (not counting the ATPB layer) is provided by the NYSDOT ESAL-based design. The NYSDOT conventional pavement design section provides an SN of about 4.1 (again, not counting the ATPB layer).

#### Subgrade Considerations

In preparing roadway subgrades, any organic, deleterious fill or otherwise unsuitable material which is found should be removed in its entirety. Replacement material and general embankment fill should be as described in section 203-1.08 - Suitable Material of the NYSDOT Standard Specifications.

Subgrades which are found to be unstable should be improved. Subgrade improvement methods are discussed in section 6.6.1 of the pavement design manual. In general, unstable areas should be undercut and replaced with select granular material which meets the requirements of Item 203.20 - Select Granular Subgrade, of the NYSDOT Standard Specifications. The findings of the subsurface investigation indicate that subgrades may require improvement in places.

## 5.0 CONCLUDING REMARKS

Please contact us at your convenience should you have any questions or wish to discuss this report. Important information which should be reviewed regarding the use and interpretation of this report is presented in Attachment D.

Sincerely,  
**EMPIRE GEO-SERVICES, INC.**



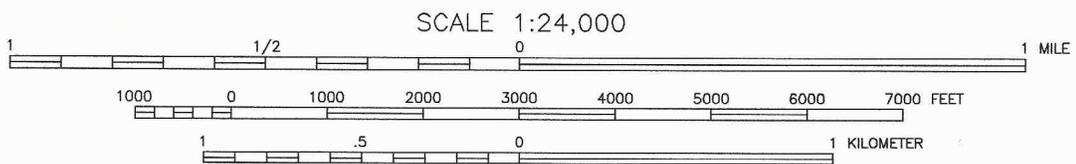
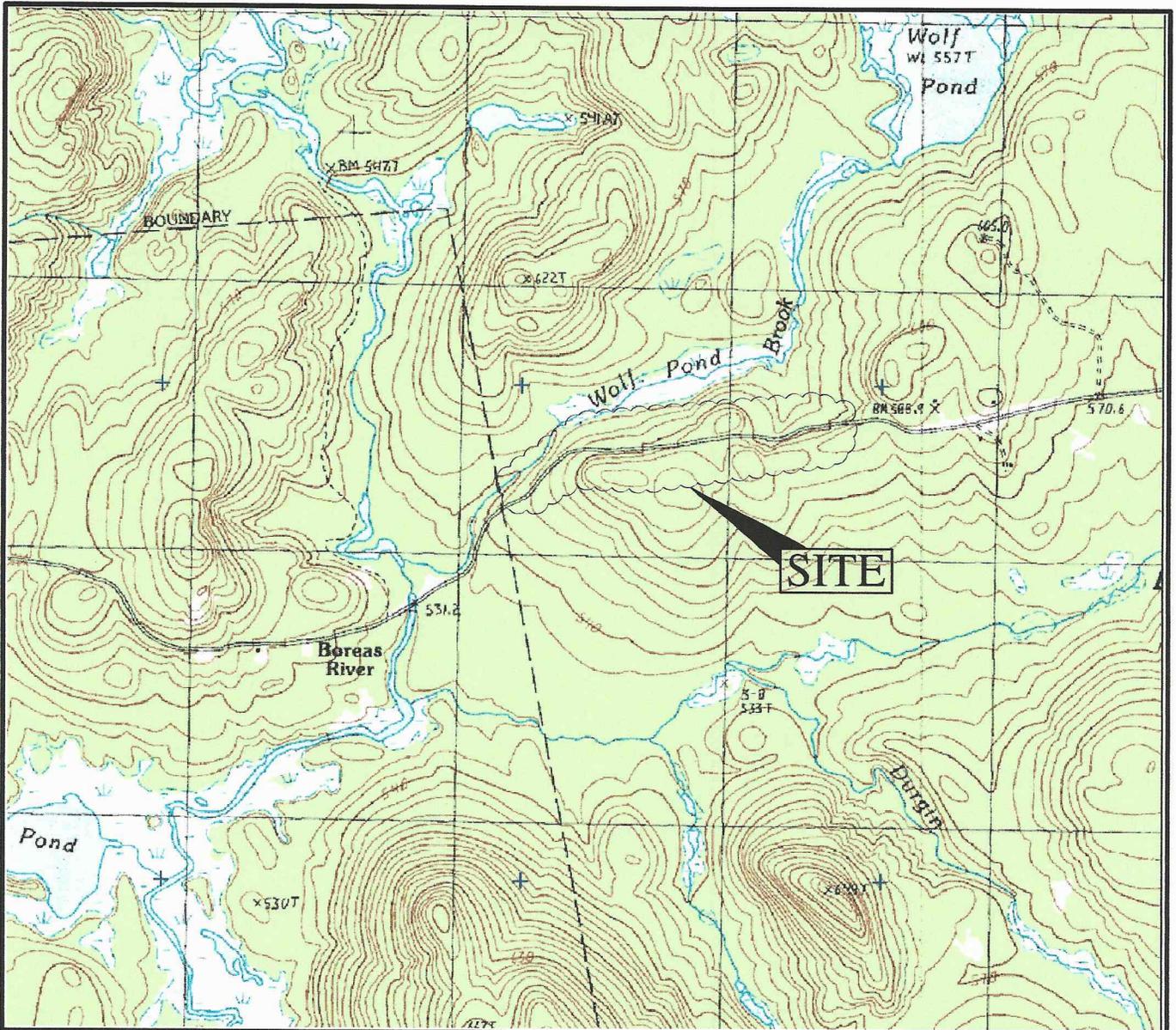
John S. Hutchison, P.E.  
Geotechnical Engineer

enc: Figures and Attachments A, B, C and D



**Figures**

*Site Location Map*  
*Subsurface Investigation Plan*



CONTOUR INTERVAL 6 METERS  
 DATUM IS MEAN SEA LEVEL



SOURCE: BLUE RIDGE, NY USGS 7.5' QUADRANGLE (1989).

**EMPIRE****GEO**  
**SERVICES INC**  
 a subsidiary of SJB Services, Inc.

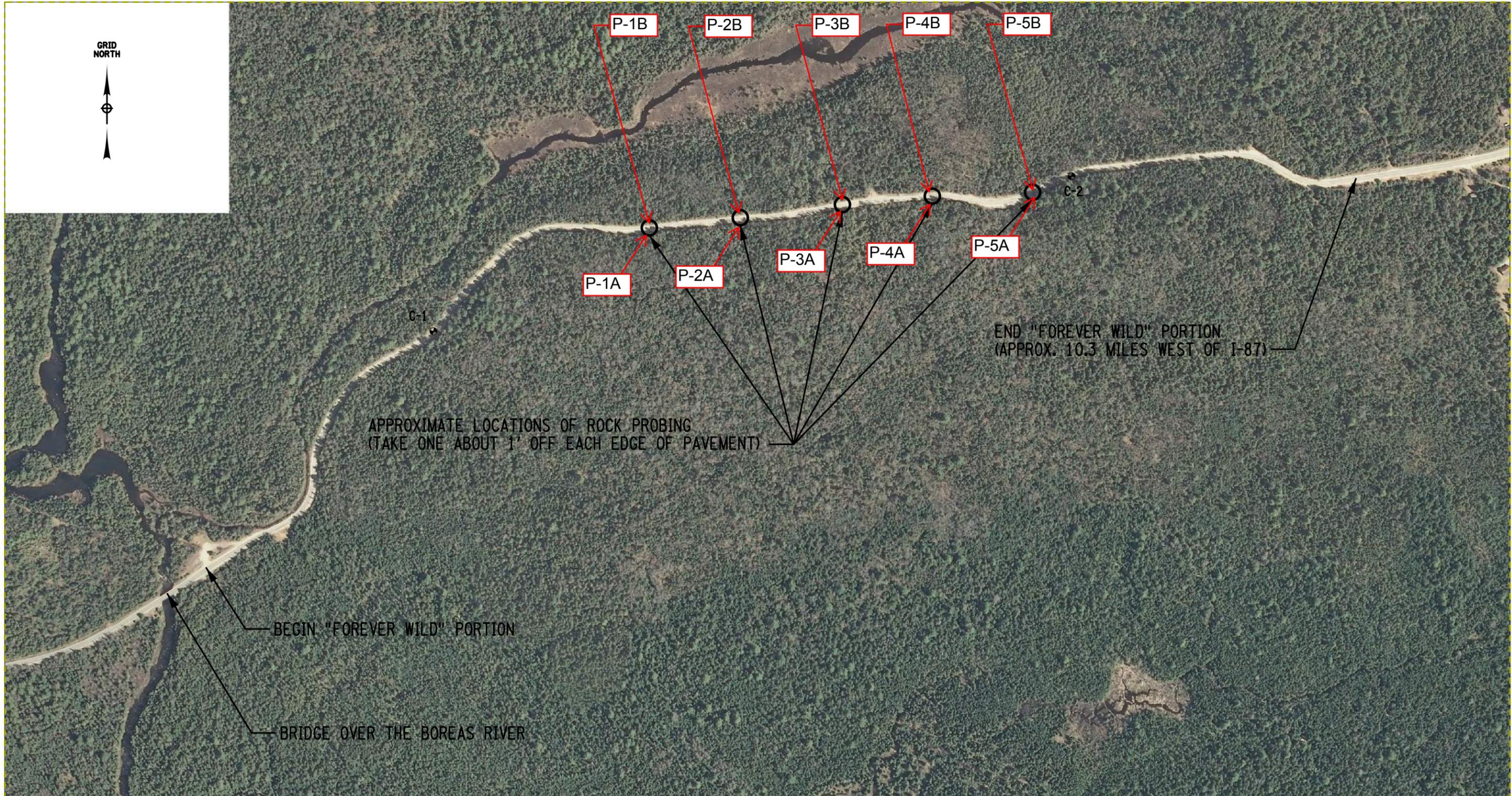
**SITE LOCATION MAP**

**GEOTECHNICAL EVALUATION**  
**BLUE RIDGE ROAD RECONSTRUCTION**  
**ESSEX COUNTY, NEW YORK**

SCALE: AS SHOWN
DATE: 10/15
DRAWN BY: jsh
REV'D BY:
DWG. FILE: ae15026
PROJ. No.: AE-15-026
FIGURE No.: 1

FILE NAME = ...Pavement Core Locations.dgn  
 DATE/TIME = 9/15/2015  
 USER = \$NTUSER\$

DESIGN SUPERVISOR C. CORNWELL  
 JOB MANAGER E. SNYDER  
 DESIGN L. BACH  
 CHECK E. SNYDER  
 DRAFTING L. BACH  
 CHECK E. SNYDER  
 PROJECT MANAGER E. SNYDER



AFFIX SEAL: GREENMAN - PEDERSEN, INC ON:	ALTERED BY: ON:
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AS-BUILT REVISIONS  
 DESCRIPTION OF ALTERATIONS:  
**NOT FOR CONSTRUCTION**

COUNTY ROUTE 84 (BLUE RIDGE RD)	PIN 1759.99 CR 84	BRIDGES 3302660 3302650 3302670	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NUMBER D034909
COUNTY: ESSEX	REGION: 1			<b>PAVEMENT CORING LOCATION PLAN</b>	DRAWING NO. <b>COR-1</b> SHEET NO. <b>1</b>

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

**GPI** GREENMAN-PEDERSEN, INC.  
 CONSULTING ENGINEERS

ESSEX COUNTY  
 DEPARTMENT OF PUBLIC WORKS

**ATTACHMENT A**

*Subsurface Logs and Key*

**Summary of Pavement Core Findings**  
 Blue Ridge Road – County Route 84  
 Essex County, New York

Location	Total Asphalt Thickness	Top <sup>1</sup>	Binder <sup>1</sup> or Base	Asphalt Treated Base Layer	Subbase		Comments
					Type	Thickness	
C-1	2 1/2"	7/8"	1 5/8"	-	Gravelly Sand <sup>2</sup>	± 6"	Core removed in one piece; woven geotextile at subbase/subgrade interface
C-2	3 1/2"	1 1/4"	2 1/2"	-	Gravelly Sand <sup>2</sup>	± 12"	Top and binder layers removed separately, some fracturing in binder layer; woven geotextile at subbase/subgrade interface

Notes: 1) Distinction between top and binder made on the basis of apparent maximum aggregate size (top roughly 3/8", binder roughly 3/4").  
 2) Subbase material appears to consist of asphalt pavement millings (partly or wholly).

DATE:  
 START 9/22/2015  
 FINISH 9/22/2015

**SJB SERVICES, INC.**  
**SUBSURFACE LOG**



PROJ. NO. AE-15-026  
 HOLE NO. C-1  
 SURF. ELEV. -  
 G.W. DEPTH See notes

SHEET 1 OF 1

PROJECT: Proposed Roadway Improvements  
County Route 84 (Blue Ridge Road)

LOCATION Town of North Hudson  
Essex County, New York

DEPTH (ft.)	SAMPLE NO.	BLOWS ON SAMPLER					REC. (ft.)	SOIL OR ROCK CLASSIFICATION	NOTES
		0/6	6/12	12/18	18/24	N			
	1	7	12	13	10	25	1.7	Asphalt pavement and subbase, then Fill: Brown f-c SAND, little gravel, trace silt (Moist - Firm) - grades some Gravel	
	2	14	13	8	6	21	1.8		
5	3	6	7	8	12	15	1.0		
								End of Boring at 6.0'	No measurable groundwater in borehole upon completion of sampling (mucky at bottom).
10									
15									
20									Pavement section consists of 2-1/2" asphalt pavement over approx. 6" subbase consisting of Dark Brown/Gray f-c SAND, some Gravel, trace silt (may be partly or wholly comprised of old asphalt pavement millings). Layer of woven geotextile noted at subbase/subgrade interface.
25									
30									
35									
40									

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW CLASSIFICATION: Visual by  
 DRILLER: T. Farrell DRILL RIG TYPE: CME-550X Geotechnical Engineer  
 METHOD OF INVESTIGATION Electric core machine w/ thin wall bit, ASTM D1586

- All recovered samples will be retained for approximately sixty (60) days, at which time the samples will be discarded unless directed otherwise. -

DATE: \_\_\_\_\_  
 START 9/22/2015  
 FINISH 9/22/2015

**SJB SERVICES, INC.**  
**SUBSURFACE LOG**



PROJ. NO. AE-15-026  
 HOLE NO. C-2  
 SURF. ELEV. -  
 G.W. DEPTH See notes

SHEET 1 OF 1

PROJECT: Proposed Roadway Improvements  
County Route 84 (Blue Ridge Road)

LOCATION Town of North Hudson  
Essex County, New York

DEPTH (ft.)	SAMPLE NO.	BLOWS ON SAMPLER					REC. (ft.)	SOIL OR ROCK CLASSIFICATION	NOTES
		0/6	6/12	12/18	18/24	N			
	1	7	20	14	15	34	1.1	Asphalt pavement and subbase, then: Brown SILT & f. SAND, trace gravel (Moist - Compact) - Dark Brown/Black Organic Silt seam noted 2.5'-2.8' Brown Sandy SILT (Moist to Very Moist - Firm) - grades f-m SAND & SILT, little gravel (Moist to Wet - Loose)	
	2	6	5	6	4	11	1.5		
5	3	4	5	5	6	10	1.7		
								End of Boring at 6.0'	No measurable groundwater in borehole upon completion of sampling.
10									
15									
20									Pavement section consists of 3-1/2" asphalt pavement over approx. 12" subbase consisting of Dark Brown/Gray f-c SAND, some Gravel, trace silt (may be partly or wholly comprised of old asphalt pavement millings). Layer of woven geotextile noted at subbase/subgrade interface.
25									
30									
35									
40									

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW  
 DRILLER: T. Farrell DRILL RIG TYPE: CME-550X CLASSIFICATION: Visual by Geotechnical Engineer  
 METHOD OF INVESTIGATION Electric core machine w/ thin wall bit, ASTM D1586

- All recovered samples will be retained for approximately sixty (60) days, at which time the samples will be discarded unless directed otherwise. -

DATE \_\_\_\_\_  
 STARTED 7/29/09  
 FINISHED 7/30/09  
 SHEET 1 OF 1



# SJB SERVICES, INC. SUBSURFACE LOG

PROJ. No. AE-09-099  
 HOLE No. B-1  
 SURF. ELEV. 325.6  
 G.W. DEPTH see notes

PROJECT \_\_\_\_\_ LOCATION \_\_\_\_\_

DEPTH (ft)	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					BLOWS ON CASING C	SOIL OR ROCK CLASSIFICATION	NOTES
			0/6	6/12	12/18	18/24	N			
0										
1		1	3	3	4	8	7	10	3" TOPSOIL	Groundwater at 10' upon completion, and 5' 24 hrs. after completion
1.5								15	Brown SILT, some Sand, trace clay, ML (Moist-Loose)	
5.0								50/.5	Gray SHALE, medium hard, weathered, thin bedded, some fractures	
5										Run#1, 2.5'-5.0' 95% Recovery 50% RQD

**TABLE I**

	Split Spoon Sample
	Shelby Tube Sample
	Geoprobe Macro-Core
	Auger or Test Pit Sample
	Rock Core

**TABLE II**

Identification of soil type is made on basis of an estimate of particle sizes, and in the case of fine grained soils also on basis of plasticity.

Soil Type	Soil Particle Size	
Boulder	>12"	
Cobble	3" - 12"	
Gravel - Coarse	3" - 3/4"	Coarse Grained (Granular)
- Fine	3/4" - #4	
Sand - Coarse	#4 - #10	Cohesive
- Medium	#10 - #40	
- Fine	#40 - #200	
Silt - Non Plastic (Granular)	<#200	
Clay - Plastic (Cohesive)		

**TABLE III**

The following terms are used in classifying soils consisting of mixtures of two or more soil types. The estimate is based on weight of total sample.

Term	Percent of Total Sample
"and"	35 - 50
"some"	20 - 35
"little"	10 - 20
"trace"	less than 10

(When sampling gravelly soils with a standard split spoon, the true percentage of gravel is often not recovered due to the relatively small sampler diameter.)

**TABLE IV**

The relative compactness or consistency is described in accordance with the following terms:

Granular Soils		Cohesive Soils	
Term	Blows per Foot, N	Term	Blows per Foot, N
Loose	<11	Very Soft	<3
Firm	11 - 30	Soft	3 - 5
Compact	31 - 50	Medium	6 - 15
Very Compact	>50	Stiff	16 - 25
		Hard	>25

(Large particles in the soils will often significantly influence the blows per foot recorded during the penetration test)

**TABLE V**

<b>Varved</b>	Horizontal uniform layers or seams of soil(s).
<b>Layer</b>	Soil deposit more than 6" thick.
<b>Seam</b>	Soil deposit less than 6" thick.
<b>Parting</b>	Soil deposit less than 1/8" thick.
<b>Laminated</b>	Irregular, horizontal and angled seams and partings of soil(s).

**TABLE VI**

Rock Classification Term	Meaning	Rock Classification Term	Meaning
Hardness	- Soft	Bedding	- Laminated (<1")
	- Medium Hard		- Thin Bedded (1" - 4")
	- Hard		- Bedded (4" - 12")
	- Very Hard		- Thick Bedded (12" - 36")
Weathering	- Very Weathered	- Massive (>36")	Natural breaks in Rock Layers
	- Weathered		
	- Sound		

(Fracturing refers to natural breaks in the rock oriented at some angle to the rock layers)

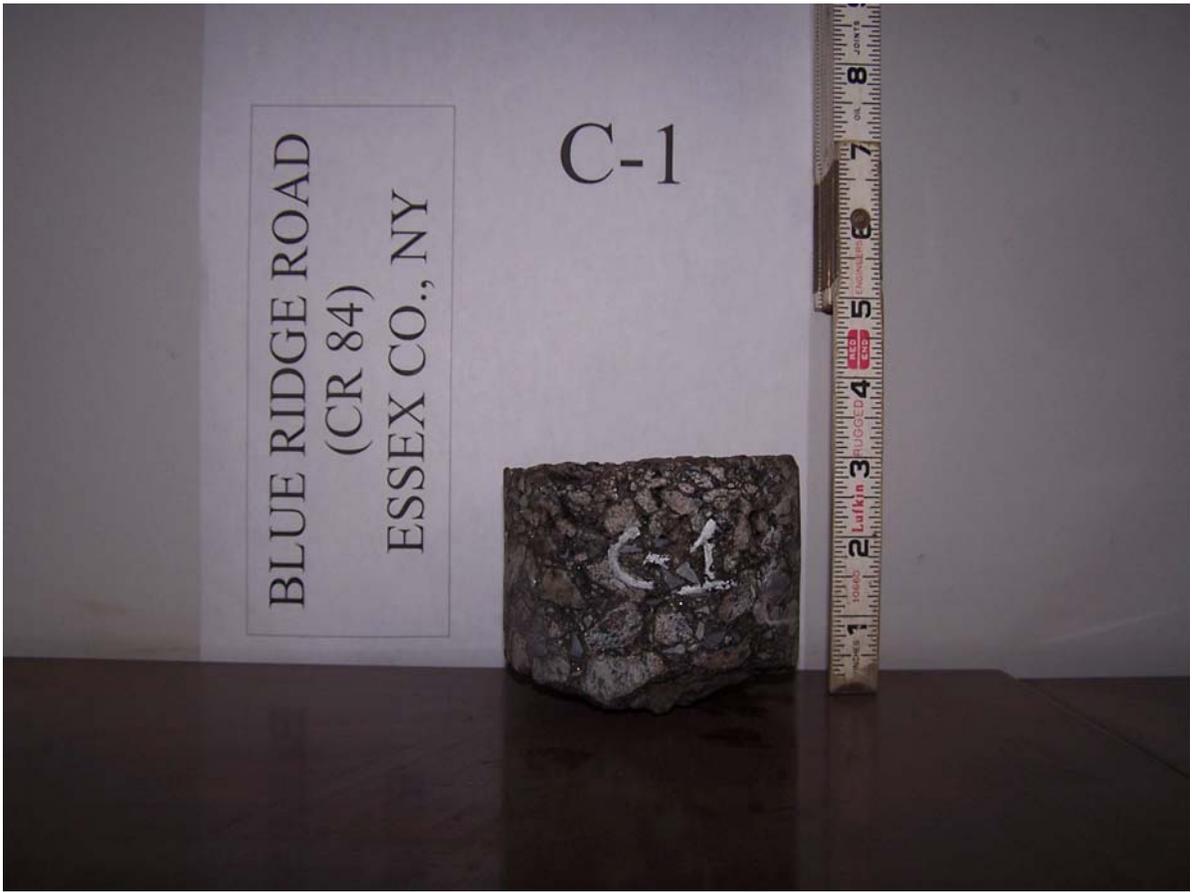
## GENERAL INFORMATION & KEY TO SUBSURFACE LOGS

The Subsurface Logs attached to this report present the observations and mechanical data collected by the driller at the site, supplemented by classification of the material removed from the borings as determined through visual identification by technicians in the laboratory. It is cautioned that the materials removed from the borings represent only a fraction of the total volume of the deposits at the site and may not necessarily be representative of the subsurface conditions between adjacent borings or between the sampled intervals. The data presented on the Subsurface Logs together with the recovered samples provide a basis for evaluating the character of the subsurface conditions relative to the project. The evaluation must consider all the recorded details and their significance relative to each other. Often analyses of standard boring data indicate the need for additional testing or sampling procedures to more accurately evaluate the subsurface conditions. Any evaluation of the contents of this report and recovered samples must be performed by qualified professionals. The following information defines some of the procedures and terms used on the Subsurface Logs to describe the conditions encountered, consistent with the numbered identifiers shown on the Key opposite this page.

1. The figures in the Depth column define the scale of the Subsurface Log.
2. The Samples column shows, graphically, the depth range from which a sample was recovered. See Table I for descriptions of the symbols used to represent the various types of samples.
3. The Sample No. is used for identification on sample containers and/or Laboratory Test Reports.
4. Blows on Sampler - shows the results of the "Penetration Test", recording the number of blows required to drive a split spoon sampler into the soil. The number of blows required for each six inches is recorded. The first 6 inches of penetration is considered a seating drive. The number of blows required for the second and third 6 inches of penetration is termed the penetration resistance, N. The outside diameter of the sampler, hammer weight and length of drop are noted at the bottom of the Subsurface Log.
5. Blows on Casing - Shows the number of blows required to advance the casing a distance of 12 inches. The casing size, hammer weight, and length of drop are noted at the bottom of the Subsurface Log. If the casing is advanced by means other than driving, the method of advancement will be indicated in the Notes column or under the Method of Investigation at the bottom of the Subsurface Log. Alternatively, sample recovery may be shown in this column, or other data consistent with the column heading.
6. All recovered soil samples are reviewed in the laboratory by an engineering technician, geologist or geotechnical engineer, unless noted otherwise. Visual descriptions are made on the basis of a combination of the driller's field descriptions and noted observations together with the sample as received in the laboratory. The method of visual classification is based primarily on the Unified Soil Classification System (ASTM D 2487) with regard to the particle size and plasticity (See Table No. II), and the Unified Soil Classification System group symbols for the soil types are sometimes included with the soil classification. Additionally, the relative portion, by weight, of two or more soil types is described for granular soils in accordance with "Suggested Methods of Test for Identification of Soils" by D.M. Burmister, ASTM Special Technical Publication 479, June 1970. (See Table No. III). Description of the relative soil density or consistency is based upon the penetration records as defined in Table No. IV. The description of the soil moisture is based upon the relative wetness of the soil as recovered and is described as dry, moist, wet and saturated. Water introduced into the boring either naturally or during drilling may have affected the moisture condition of the recovered sample. Special terms are used as required to describe soil deposition in greater detail; several such terms are listed in Table V. When sampling gravelly soils with a standard two inch diameter split spoon, the true percentage of gravel is often not recovered due to the relatively small sampler diameter. The presence of boulders and large gravel is sometimes, but not necessarily, detected by an evaluation of the casing and sampler blows or through the "action" of the drill rig as reported by the driller.
7. Rock description is based on review of the recovered rock core and the driller's notes. Frequently used rock classification terms are included in Table VI.
8. The stratification lines represent the approximate boundary between soil types and the transition may be gradual. Solid stratification lines delineate apparent changes in soil type, based upon review of recovered soil samples and the driller's notes. Dashed lines convey a lesser degree of certainty with respect to either a change in soil type or where such change may occur.
9. Miscellaneous observations and procedures noted by the driller are shown in this column, including water level observations. It is important to realize the reliability of the water level observations depends upon the soil type (water does not readily stabilize in a hole through fine grained soils), and that any drill water used to advance the boring may have influenced the observations. The ground water level will fluctuate seasonally, typically. One or more perched or trapped water levels may exist in the ground seasonally. All the available readings should be evaluated. If definite conclusions cannot be made, it is often prudent to examine the conditions more thoroughly through test pit excavations or groundwater observation wells.
10. The length of core run is defined as the length of penetration of the core barrel. Core recovery is the length of core recovered divided by the core run. The RQD (Rock Quality Designation) is the total length of pieces of NX core exceeding 4 inches divided by the core run. The size core barrel used is also noted in the Method of Investigation at the bottom of the Subsurface Log.

**ATTACHMENT B**

*Pavement Core Photographs*



Pavement core at C-1



Pavement core at C-2

**ATTACHMENT C**

*Laboratory Test Results*



## Laboratory Test Report

Project: Geotechnical Investigation  
Blue Ridge Road (CR 84) Improvements  
Essex County, New York

Client: Greenman-Pedersen, Inc.

Date: October 27, 2015

Project No.: AE-15-026

Report No.: LTR-1

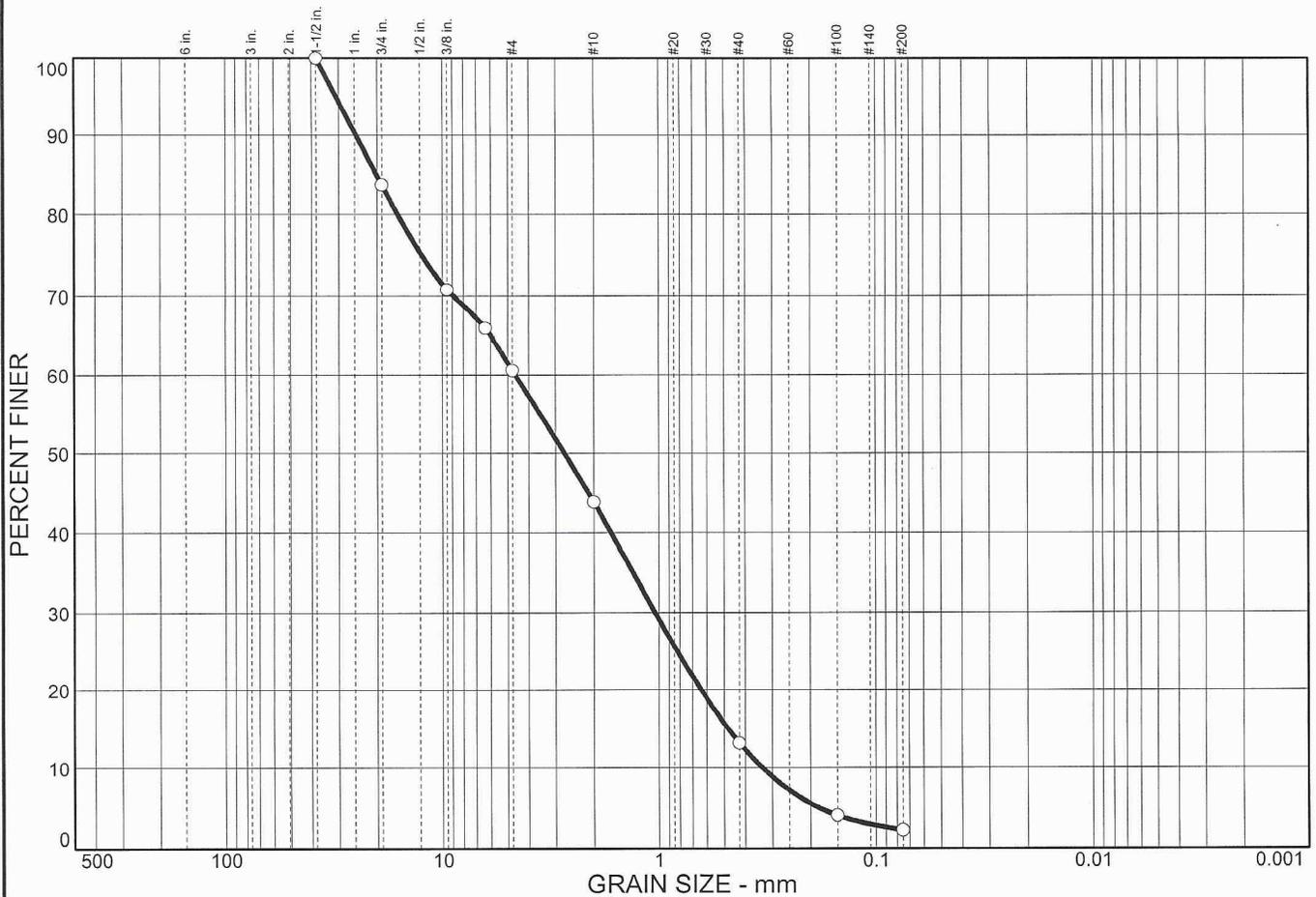
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### ASTM D2216 - Laboratory Determination of Water (Moisture) Content of Soil and Rock

Sample Identification	Natural Moisture Content, %
C-1, S-1, 0'-2'	5.0
C-1, S-2, 2'-4'	3.1
C-2, S-1, 0'-2'	4.6
C-2, S-3, 4'-6'	31.1

# Particle Size Distribution Report



<b>% COBBLES</b>	<b>% GRAVEL</b>	<b>% SAND</b>	<b>% SILT</b>	<b>% CLAY</b>
0.0	39.4	58.4	2.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.5 in.	100.0		
3/4 in.	83.7		
3/8 in.	70.8		
1/4 in.	66.0		
#4	60.6		
#10	43.8		
#40	13.1		
#100	4.0		
#200	2.2		

**Soil Description**

Dark Brown/Black SAND and GRAVEL, trace silt

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>85</sub>= 20.2              D<sub>60</sub>= 4.61              D<sub>50</sub>= 2.74  
D<sub>30</sub>= 1.05              D<sub>15</sub>= 0.481              D<sub>10</sub>= 0.335  
C<sub>u</sub>= 13.78              C<sub>c</sub>= 0.71

**Classification**

USCS=                      AASHTO=

**Remarks**

\* (no specification provided)

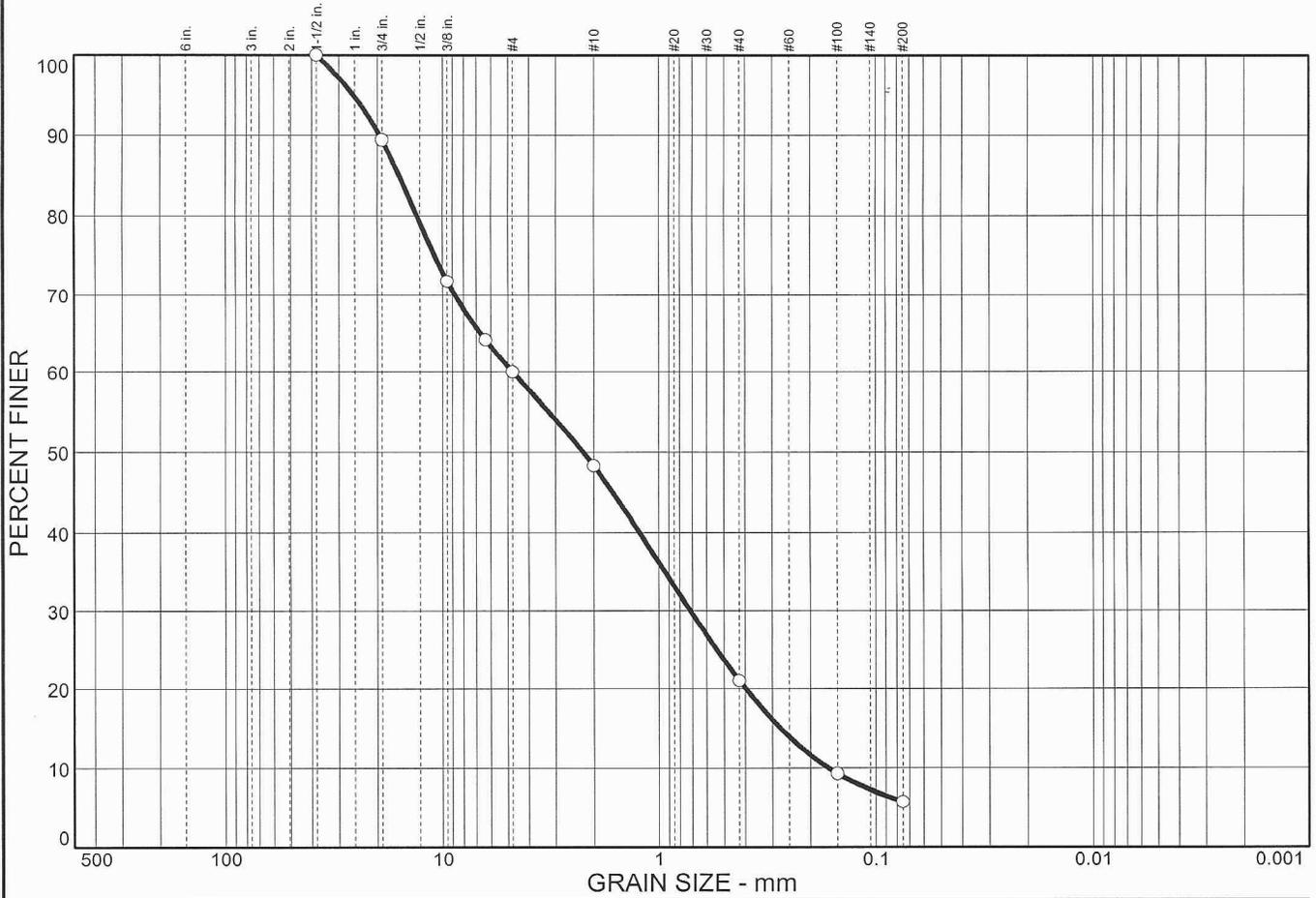
Sample No.: 5-100  
Location: C-1, S-1

Source of Sample:

Date:  
Elev./Depth: 0'-2'

<h2 style="margin: 0;">SJB SERVICES, INC.</h2>	<p>Client: GPI  Project: Pavement Improvement Project  Blue Ridge Road  Project No: AE-15-026</p>
<b>Plate</b>	

# Particle Size Distribution Report



<b>% COBBLES</b>	<b>% GRAVEL</b>	<b>% SAND</b>	<b>% SILT</b>
0.0	40.0	54.2	5.8

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.5 in.	100.0		
3/4 in.	89.4		
3/8 in.	71.8		
1/4 in.	64.2		
#4	60.0		
#10	48.3		
#40	21.0		
#100	9.3		
#200	5.8		

**Soil Description**

Brown SAND and GRAVEL, trace silt

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>85</sub>= 15.9              D<sub>60</sub>= 4.75              D<sub>50</sub>= 2.24  
D<sub>30</sub>= 0.717              D<sub>15</sub>= 0.275              D<sub>10</sub>= 0.165  
C<sub>u</sub>= 28.78              C<sub>c</sub>= 0.66

**Classification**

USCS=                      AASHTO=

**Remarks**

\* (no specification provided)

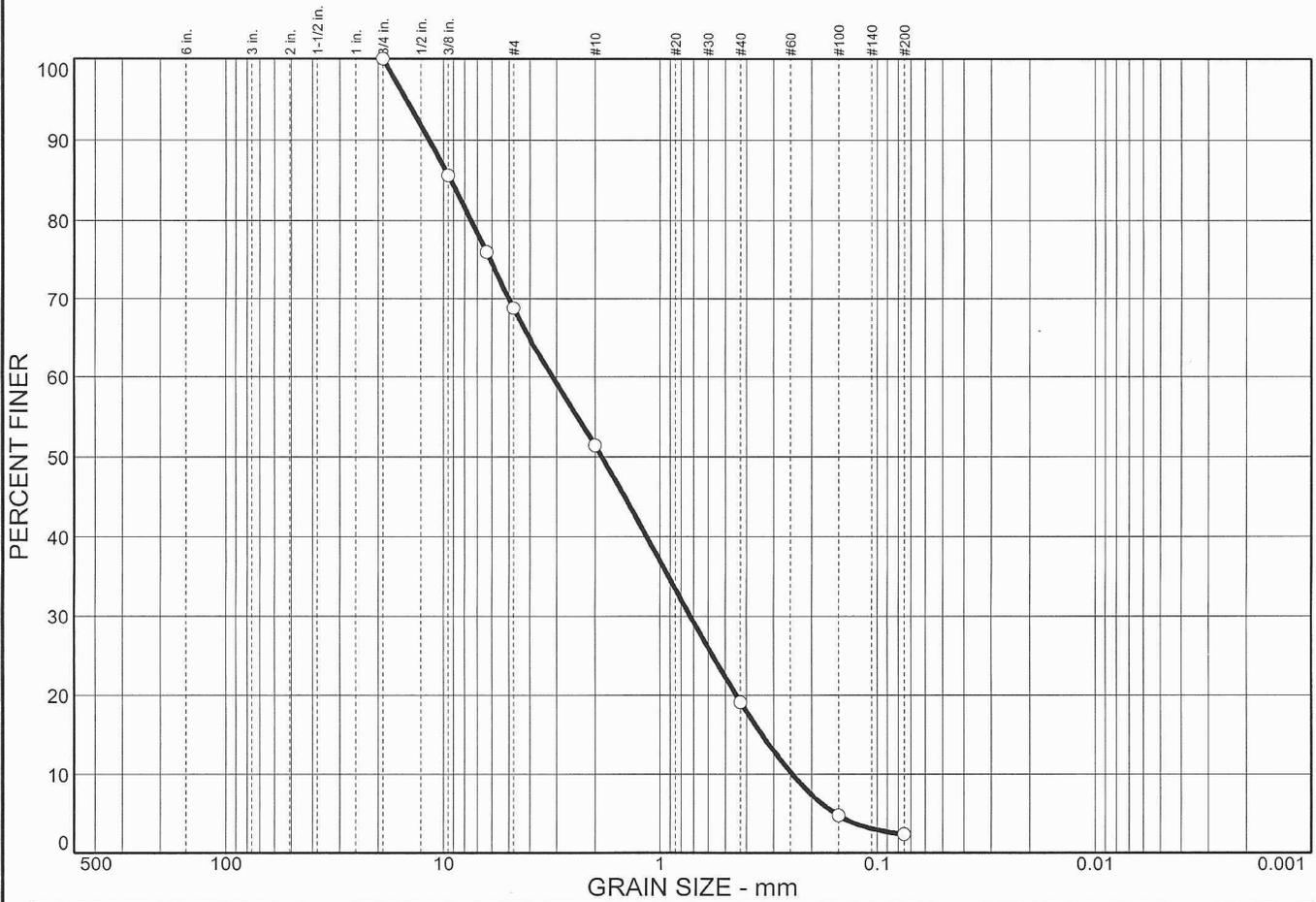
Sample No.: 5-101  
Location: C-1, S-2

Source of Sample:

Date:  
Elev./Depth: 2'-4'

<h2 style="margin: 0;">SJB SERVICES, INC.</h2>	<p>Client: GPI</p> <p>Project: Pavement Improvement Project  Blue Ridge Road</p> <p>Project No: AE-15-026</p> <p style="text-align: right;">Plate</p>
--	---

# Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	31.2	66.5	2.3	2.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4 in.	100.0		
3/8 in.	85.6		
1/4 in.	76.0		
#4	68.8		
#10	51.4		
#40	19.1		
#100	4.7		
#200	2.3		

**Soil Description**

Dark Brown/Black SAND and GRAVEL, trace silt

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>85</sub>= 9.27                      D<sub>60</sub>= 3.14                      D<sub>50</sub>= 1.86  
D<sub>30</sub>= 0.727                      D<sub>15</sub>= 0.339                      D<sub>10</sub>= 0.246  
C<sub>u</sub>= 12.75                      C<sub>c</sub>= 0.69

**Classification**

USCS=                      AASHTO=

**Remarks**

\* (no specification provided)

Sample No.: 5-102                      Source of Sample:                      Date:                      Elev./Depth: 0'-2'

Location: C-2, S-1

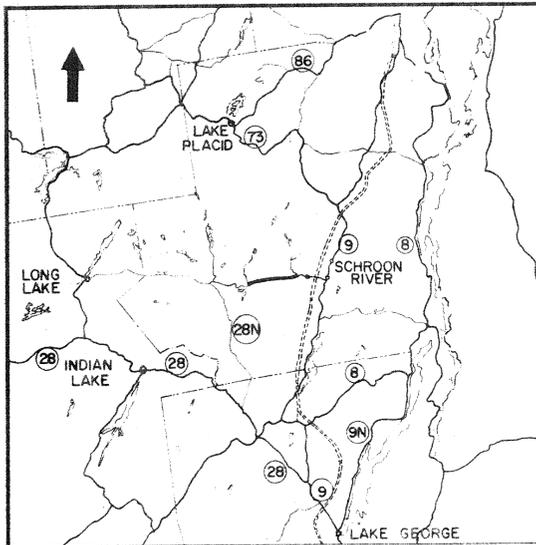
<h2 style="margin: 0;">SJB SERVICES, INC.</h2>	<p>Client: GPI</p> <p>Project: Pavement Improvement Project Blue Ridge Road</p> <p>Project No: AE-15-026</p> <p style="text-align: right;">Plate</p>
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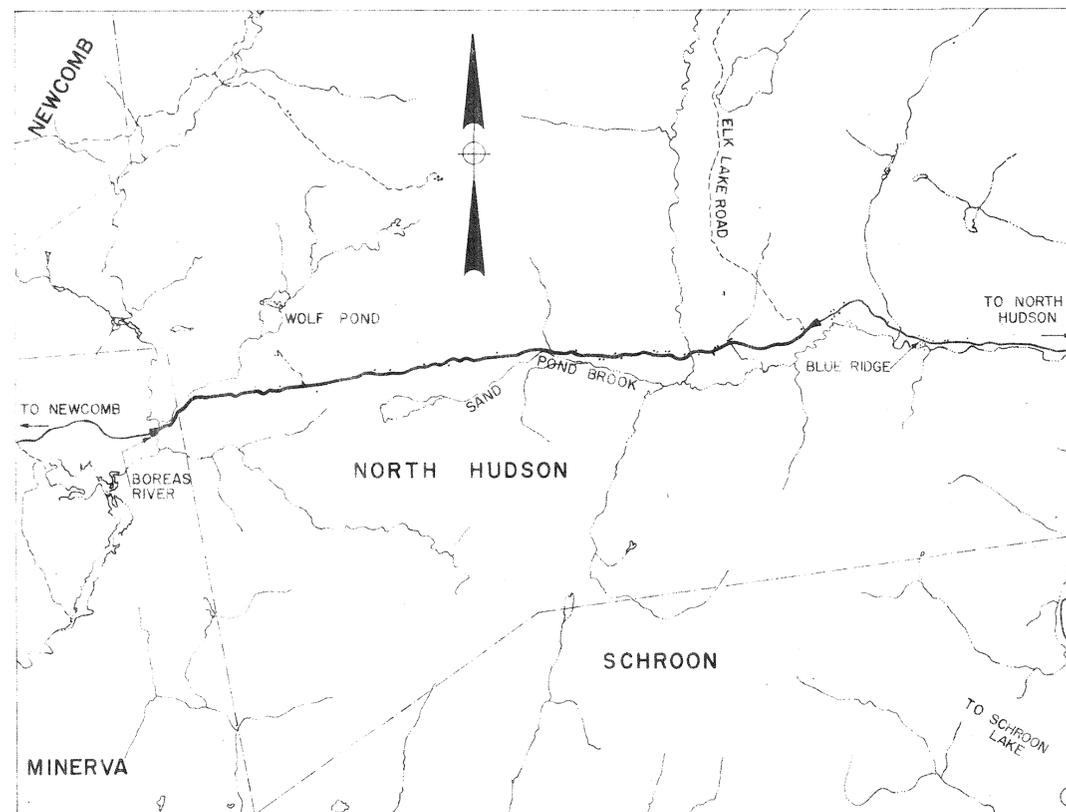


FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
TAHAMUS - SCHROON RIVER PART 5				



0 5 10 20 MILES

# LOCATION PLAN



1/2 0 1 2 3 4  
SCALE IN MILES

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASSOC. CIVIL ENGINEER, CONSTRUCTION

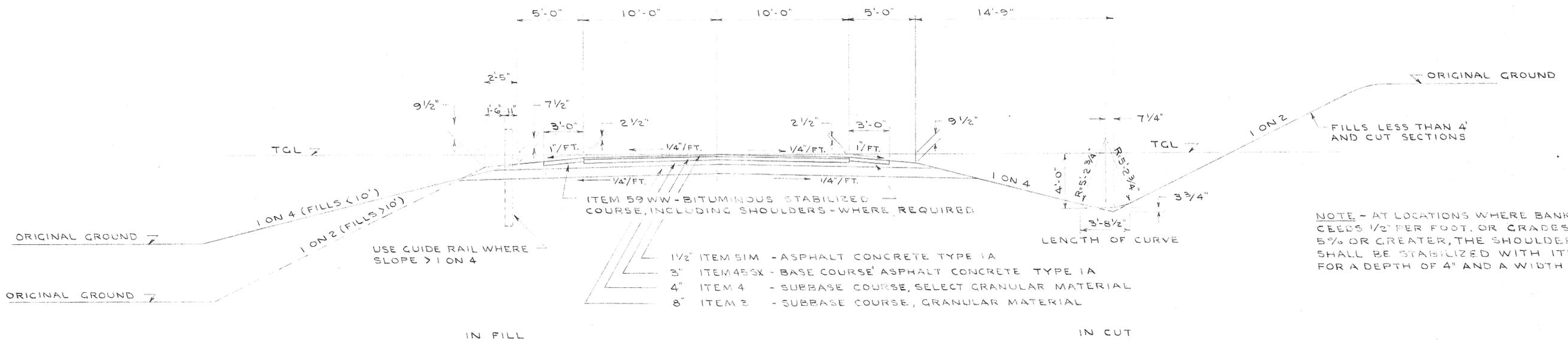
APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASST. DISTRICT ENGINEER

DESIGNED BY \_\_\_\_\_  
TRACED BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

**INFORMATION PRINT**

PREPARED & RECOMMENDED BY  
**RIST BRIGHT & FROST**  
CONSULTING ENGINEERS GLENS FALLS, N. Y.  
PARTNER-IN-CHARGE \_\_\_\_\_ DATE \_\_\_\_\_

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		1	1
TAHAWUS-SCHROON RIVER PT. V				



RECOMMENDED TYPICAL SECTION  
LOCATION PLAN  
SCALE 1/4" = 1'-0"

NOTE - AT LOCATIONS WHERE BANK EXCEEDS 1/2" PER FOOT, OR GRADES ARE 5% OR GREATER, THE SHOULDERS SHALL BE STABILIZED WITH ITEM 59WW FOR A DEPTH OF 4" AND A WIDTH OF 3'-0"

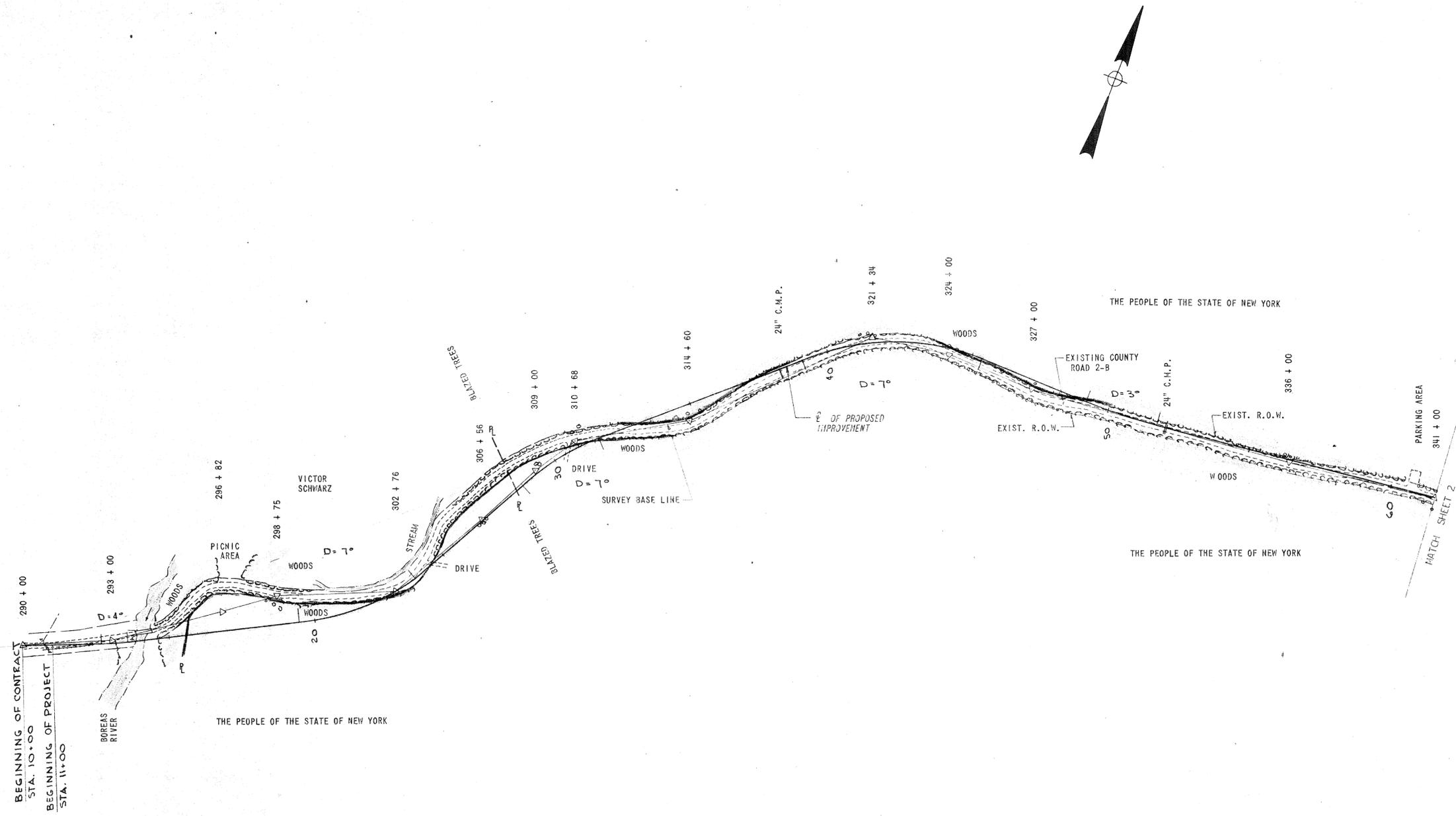
APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASSOC. CIVIL ENGINEER, CONSTRUCTION

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASST. DISTRICT ENGINEER

DESIGNED BY AUSTIN  
TRACED BY CONRADY  
CHECKED BY AUSTIN

INFORMATION PRINT  
PREPARED & RECOMMENDED BY  
**RIST BRIGHT & FROST**  
CONSULTING ENGINEERS GLENS FALLS, N. Y.  
PARTNER-IN-CHARGE \_\_\_\_\_ DATE \_\_\_\_\_

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		1	
TAHAWUS - SCHROON RIVER PART 5				



LOCATION PLAN  
SCALE: 1" = 200'

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASSOC. CIVIL ENGINEER CONSTRUCTION

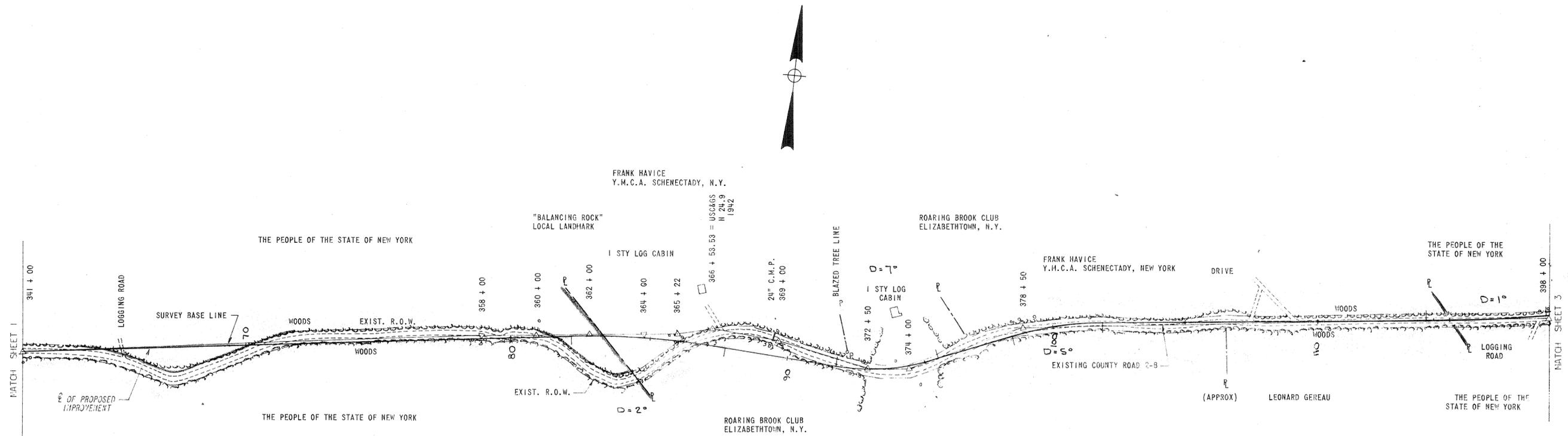
APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASST. DISTRICT ENGINEER

DESIGNED BY \_\_\_\_\_  
TRACED BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

INFORMATION PRINT

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**RIST BRIGHT & FROST**  
CONSULTING ENGINEERS  
N.Y.S.P.E.  
PARTNER-IN-CHARGE LIC. NO. 36235 DATE \_\_\_\_\_  
GLENS FALLS, N.Y.

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		2	
TAHAWUS - SCHROON RIVER PART 5				



LOCATION PLAN  
SCALE: 1" = 200'

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASSOC. CIVIL ENGINEER CONSTRUCTION

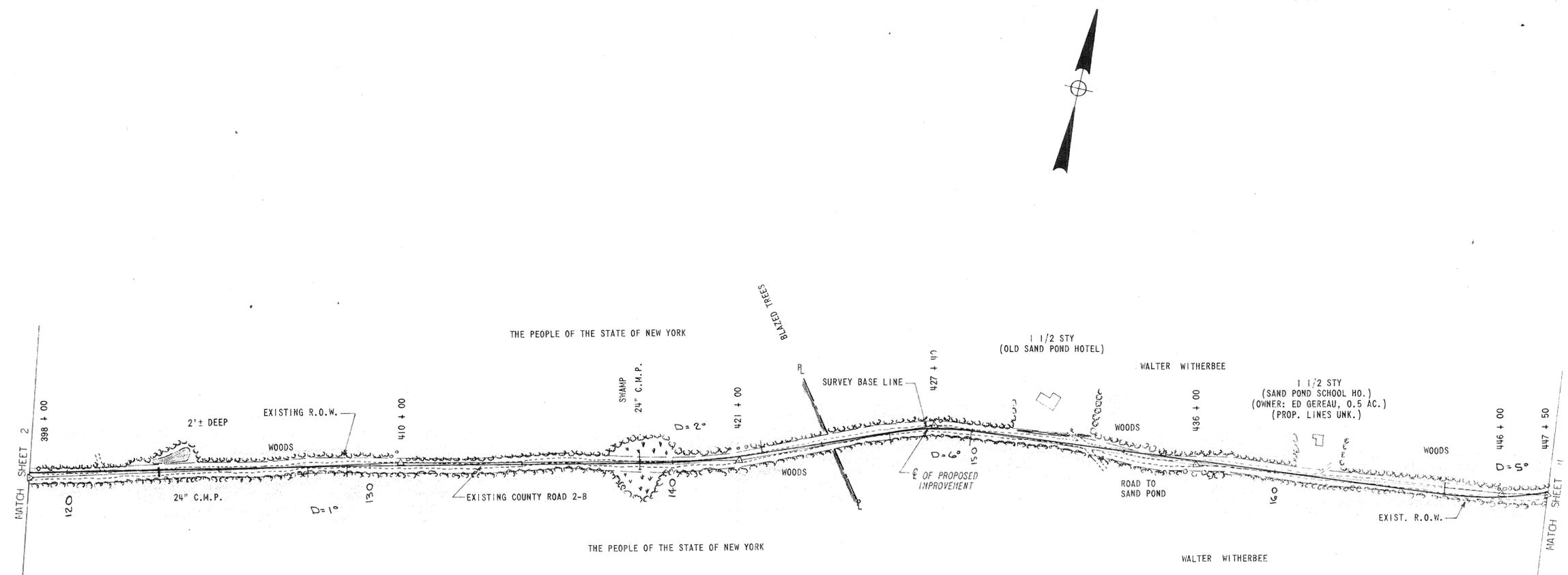
APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASST. DISTRICT ENGINEER

DESIGNED BY \_\_\_\_\_  
TRACED BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

INFORMATION PRINT

PREPARED & RECOMMENDED BY  
**RIST BRIGHT & FROST**  
CONSULTING ENGINEERS GLENS FALLS, N.Y.  
N.Y. S. P. E.  
PARTNER-IN-CHARGE LIC. NO. 36235 DATE \_\_\_\_\_

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		3	
TAHANUS - SCHROON RIVER PART 5				



APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASSOC. CIVIL ENGINEER CONSTRUCTION

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASST. DISTRICT ENGINEER

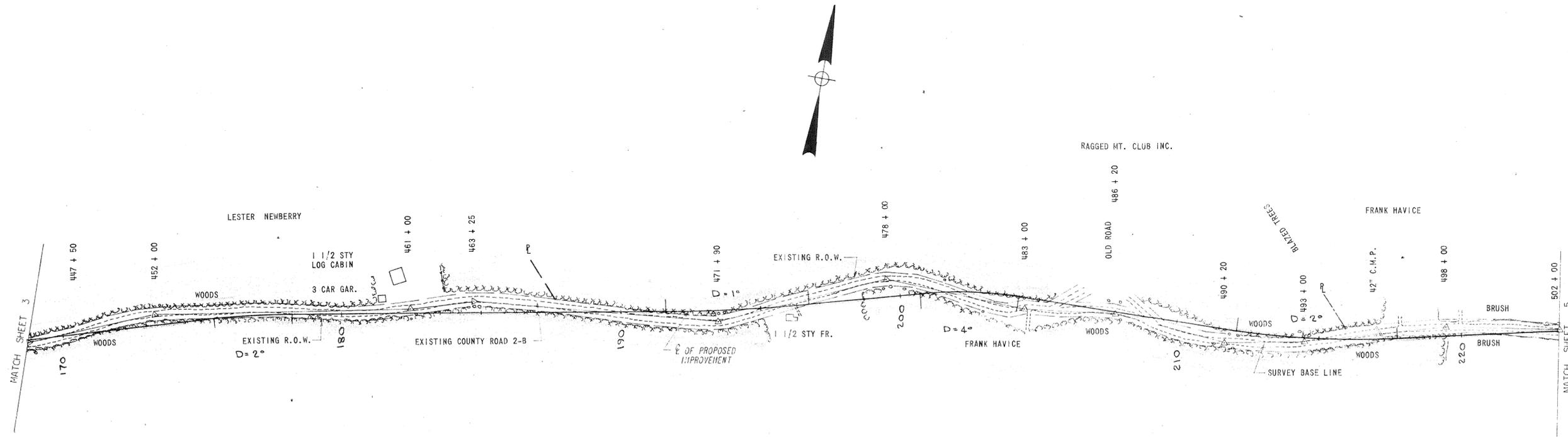
LOCATION PLAN  
 SCALE: 1" = 200'

DESIGNED BY \_\_\_\_\_  
 TRACED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

**INFORMATION PRINT**

PREPARED & RECOMMENDED BY  
**RIST BRIGHT & FROST**  
 CONSULTING ENGINEERS GLENS FALLS, N.Y.  
 N.Y.S.P.E.  
 PARTNER-IN-CHARGE LIC. NO. 36235 DATE \_\_\_\_\_

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		4	
TAHANUS - SCHROOE RIVER PART 5				



LOCATION PLAN  
SCALE: 1" = 200'

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASSOC. CIVIL ENGINEER, CONSTRUCTION

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASST. DISTRICT ENGINEER

DESIGNED BY \_\_\_\_\_  
TRACED BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

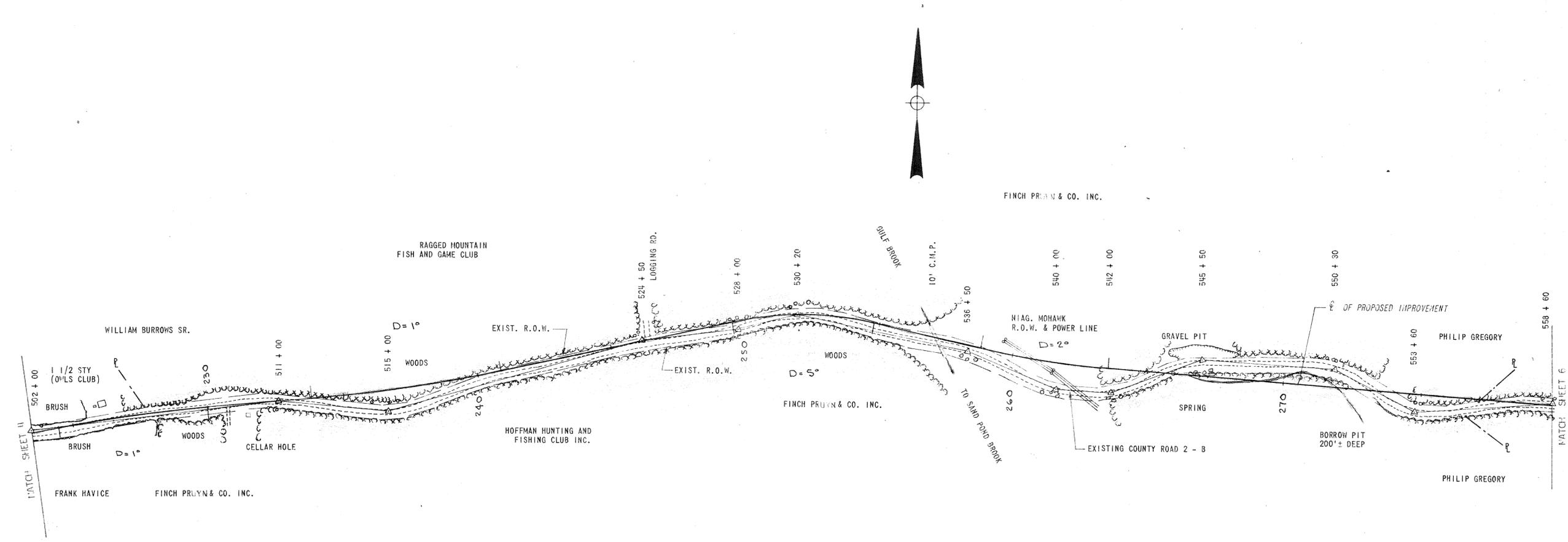
INFORMATION PRINT

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CONSULTING ENGINEERS GLENS FALLS, N.Y.  
N.Y.S.P.E.  
PARTNER-IN-CHARGE LIC. NO. 36235 DATE \_\_\_\_\_

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		5	
TAHAWUS - SCHROON RIVER PART 5				

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASSOC. CIVIL ENGINEER. CONSTRUCTION

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASST. DISTRICT ENGINEER



LOCATION PLAN  
 SCALE: 1" = 200'

DESIGNED BY \_\_\_\_\_  
 TRACED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

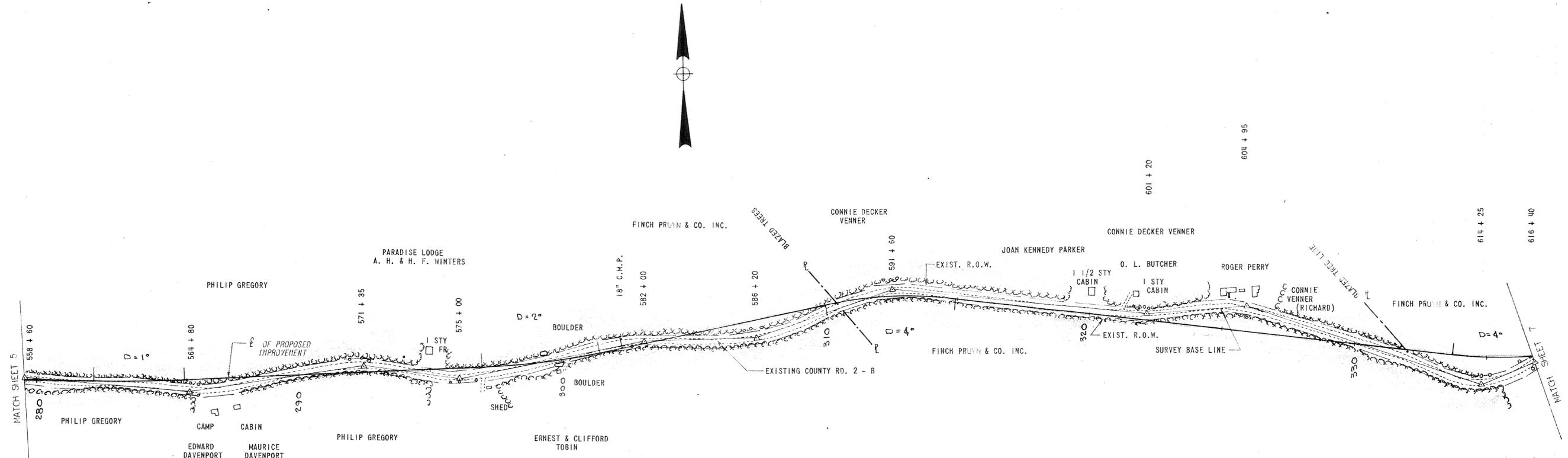
INFORMATION PRINT

PREPARED & RECOMMENDED BY  
**RIST BRIGHT & FROST**  
 CONSULTING ENGINEERS GLENS FALLS, N.Y.  
 N.Y.S.P.E.  
 PARTNER-IN-CHARGE LIC. NO. 36235 DATE \_\_\_\_\_

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		6	
TAHAMUS - SCHROOM RIVER PART 5				

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASSOC. CIVIL ENGINEER, CONSTRUCTION

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASST. DISTRICT ENGINEER



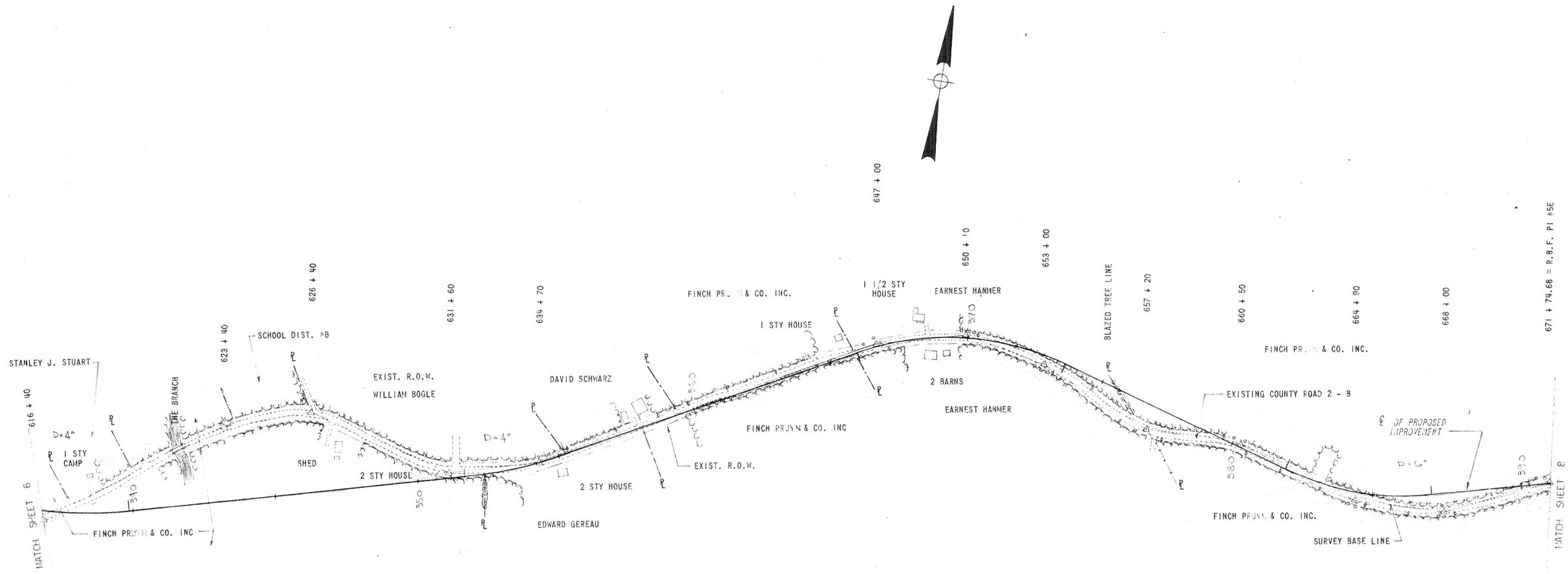
LOCATION PLAN  
 SCALE: 1" = 200'

DESIGNED BY \_\_\_\_\_  
 TRACED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

INFORMATION PRINT

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**RIST BRIGHT & FROST**  
 CONSULTING ENGINEERS GLENS FALLS, N.Y.  
 N.Y.S.P.E.  
 PARTNER-IN-CHARGE LIC. No. 36235 DATE \_\_\_\_\_

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		7	
TAHAMUS - SCHROON RIVER PART 5				



APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASSOC. CIVIL ENGINEER CONSTRUCTION

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASST. DISTRICT ENGINEER

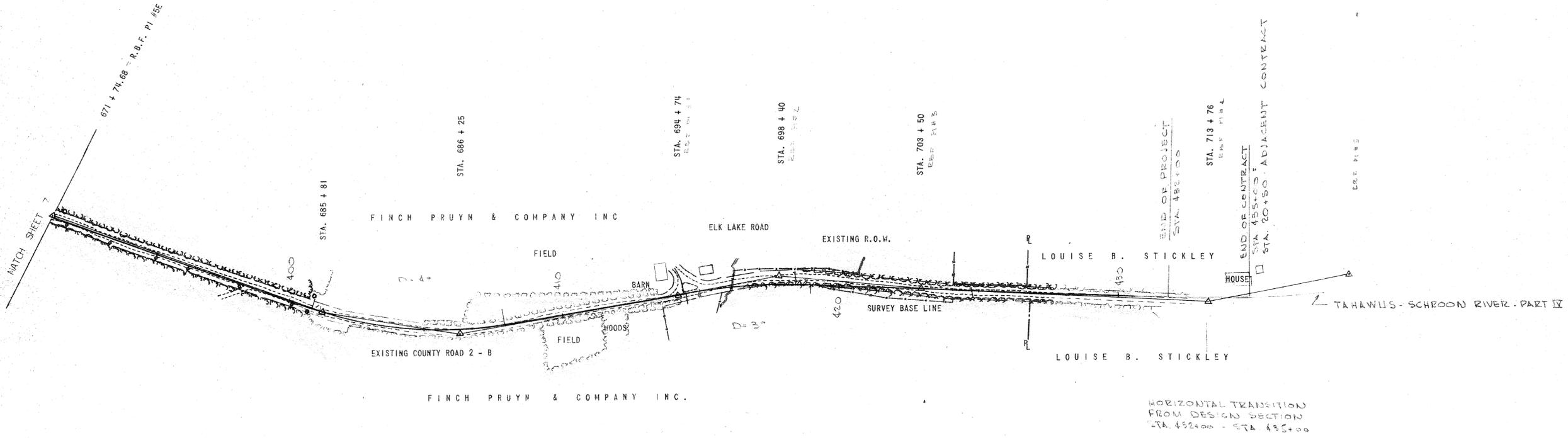
DESIGNED BY \_\_\_\_\_  
 TRACED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

LOCATION PLAN  
 SCALE: 1" = 200'

**INFORMATION PRINT**

PREPARED & RECOMMENDED BY  
**RIST BRIGHT & FROST**  
 CONSULTING ENGINEERS GLENS FALLS, N.Y.  
 N.Y.S.P.E.  
 PARTNER-IN-CHARGE LIC. NO. 36235 DATE \_\_\_\_\_

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		8	
TAHAWUS - SCHROON RIVER PART 5				



LOCATION PLAN  
SCALE: 1" = 200'

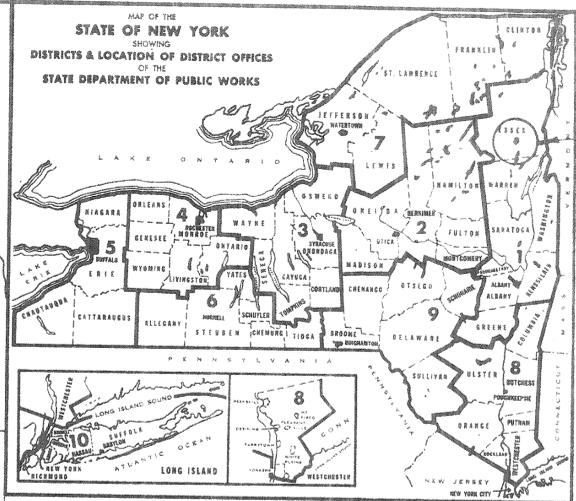
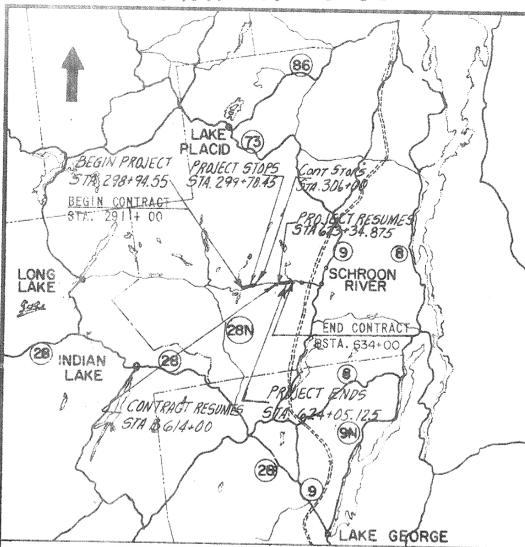
APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASSOC. CIVIL ENGINEER, CONSTRUCTION

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASST. DISTRICT ENGINEER

DESIGNED BY \_\_\_\_\_  
TRACED BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

INFORMATION PRINT

PREPARED & RECOMMENDED BY  
**RIST BRIGHT & FROST**  
CONSULTING ENGINEERS  
N.Y.S.P.E.  
PARTNER-IN-CHARGE LIC. NO. 36235 DATE \_\_\_\_\_  
GLENS FALLS, N.Y.



STATE OF NEW YORK  
DEPARTMENT OF PUBLIC WORKS  
DIVISION OF CONSTRUCTION

PLANS FOR CONSTRUCTING WITH FEDERAL AID PORTIONS OF THE  
**TAHAWUS - SCHROOM RIVER, PART 5, COUNTY ROAD 2B, BRIDGE Nos. 1 & 2**  
From Station 291+00 to Station 306+00 and Station 614+00 B.L. to Station 634+00 B.L., a length of 0.66 mile  
of which 0.28 mile is in the Town of Minerva and 0.38 mile is in the Town of North Hudson

30 SHEETS F.A. PROJECT No. 5-1047 (9) CONTRACT No. F.A.S.S. 65-12  
ESSEX COUNTY

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.	5-1047(9)	1	30
TAHAWUS - SCHROOM RIVER - PART V - ESSEX COUNTY				
BRIDGE NOS. 1 AND 2				

**TYPE OF CONSTRUCTION**  
Subbase Course, Granular Material 0.58 Mile  
Misc. Work 0.08 Mile  
Including  
Bridge No. 1 over Boreas River, 1 Span Comp. Beam, 84'± Total Length  
Bridge No. 2 over The Branch River, 1 Span Comp. Beam, 70'± Total Length

**STANDARD STRUCTURE SHEETS**  
50-34, 58-60, 61-75R1, 62-6, 63-7, 63-17, 63-52, 64-19, 64-19A, 64-43A, 64-43B, 64-43C, 64-45, 64-45A, 64-45B, 64-51, 65-15R1, 65-41R1

All work contemplated under this contract to be covered by and in conformity with the specifications adopted January 2, 1962 as amended by Addenda No. 1 thru No. 25, except as modified on these plans and in the itemized Proposal.

0 5 10 20 MILES  
LOCATION MAP

APPROXIMATE LOCATION:

THIS TOTAL PROJECT IS ON ESSEX COUNTY ROAD 2B. THE FIRST PART OF THE PROJECT BEGINS 0.1 MILES WEST OF THE BOREAS RIVER CROSSING AND ENDS 0.1 MILES EAST OF THIS CROSSING. ALL WORK IS IN THE TOWN OF MINVERVA, ESSEX COUNTY.

THE SECOND PART OF THE PROJECT BEGINS 0.1 MILES WEST OF THE BRANCH RIVER CROSSING. THE PROJECT ENDS 0.1 MILES EAST OF THE BRANCH RIVER CROSSING. ALL WORK IS IN THE TOWN OF NORTH HUDSON.

MAINTENANCE AND PROTECTION OF TRAFFIC:

MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE COMPLETED WITH THROUGHOUT THE LENGTH AND DURATION OF THE CONTRACT IN ACCORDANCE WITH ALL THE PROVISIONS OF ITEM 76, REQUIREMENT C.

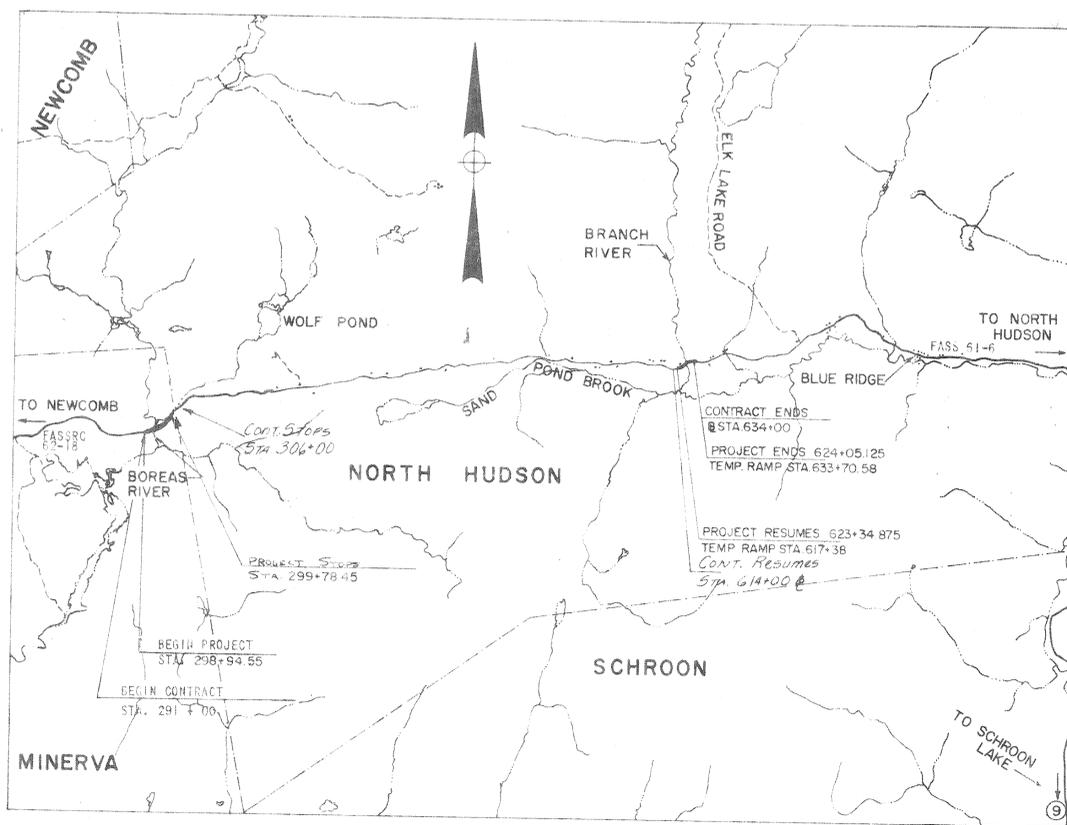
Sheet No.	Description
1	Title
2	Typical Sections
3	Highway Table of Quantities, Bench Marks and Base Line Data
4-9	50'± Scale Plans & Profiles
10-11	Base Line Ties
12	Bridge No. 1 & No. 2 Notes & Quantities
13-30	Bridge No. 1 & No. 2 Plans

THIS CONTRACT GRADING AND STRUCTURES ONLY.

REVIEWED BY: D.H. Ruddy DATED July 1, 1965  
D. H. RUDDY

RECOMMENDED FOR APPROVAL BY:  
W.A. Christman  
ENGINEER OF LOCATION AND DESIGN  
DISTRICT NO. 1  
DATED July 6, 1965

DESIGNED BY AUSTIN  
TRACED BY GILBERT  
CHECKED BY AUSTIN



1/2 0 1 2 3 4  
SCALE IN MILES

TAHAWUS - SCHROOM RIVER - PART V

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY:  
Frank J. Fuller  
DISTRICT ENGINEER, DISTRICT NO. 1  
DATED July 7, 1965

APPROVED FOR ESSEX COUNTY BY:  
James P. Madigan  
SUPERINTENDENT OF HIGHWAYS  
DATED March 10, 1965

NEW YORK STATE DEPARTMENT OF PUBLIC WORKS DIVISION OF CONSTRUCTION	
Approved	<u>July 16, 1965</u>
<u>Robert W. Sweet</u> ROBERT W. SWEET Chief Engineer	
Approved	<u>July 15, 1965</u>
<u>V. J. Burns</u> V. J. BURNS Deputy Chief Engineer	
Approved	<u>7-15, 1965</u>
<u>Paul D. Smith</u> PAUL D. SMITH Asst. Deputy Chief Engineer	

PREPARED & RECOMMENDED BY  
R.I. FRIST ASSOCIATES  
CONSULTING ENGINEERS  
PARTNER-IN-CHARGE  
GLENS FALLS, N.Y.  
DATE MARCH 10, 1965

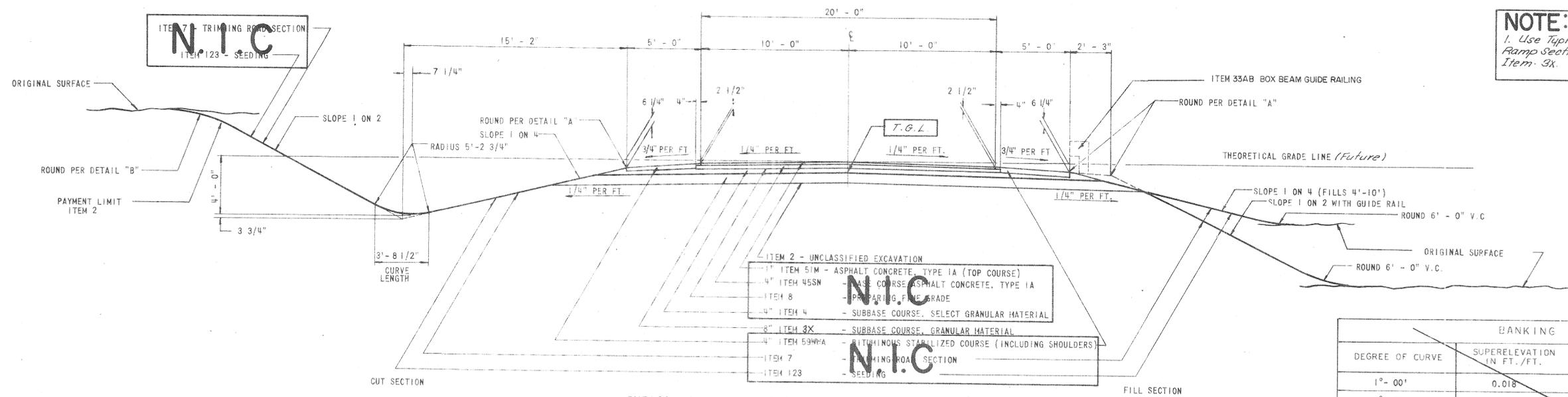
APPROVED D.H. Ruddy DATE July 1, 1965  
ASSOC. CIVIL ENGINEER, CONSTRUCTION

APPROVED F.W. Jones DATE July 5, 1965  
ASST. DISTRICT ENGINEER

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.	5-1047(9)	2	30
TAHAWUS - SCHROON RIVER - PART V - ESSEX COUNTY				
BRIDGE NOS. 1 AND 2				

- TYPICAL SECTION NOTES FOR TRANSITION AREAS
- STA. 293 + 00 TO STA. 295 + 00  
TRANSITION SLOPES AND DITCHES TO MEET EXISTING
  - STA. 303 + 50 TO STA. 305 + 25  
TRANSITION ROADWAY FROM 20' TO 18'  
TRANSITION SHOULDERS FROM 5' TO 0'  
TRANSITION SLOPES AND DITCHES TO MEET EXISTING

**NOTE:**  
1. Use Typical Normal Section as Proposed Temporary Ramp Section With Theoretical Grade Line at Top of Item 3X.

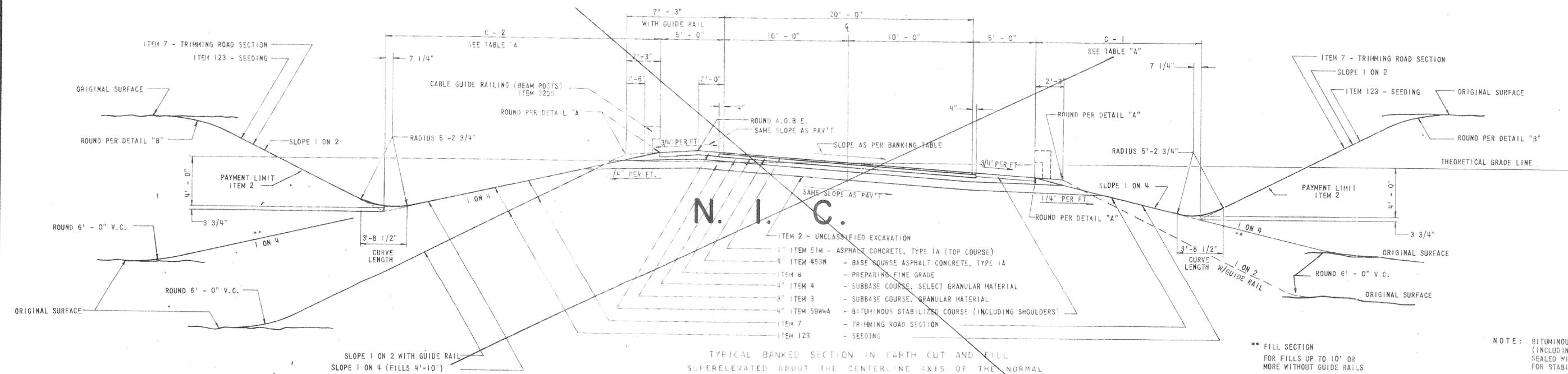


- ITEM 2 - UNCLASSIFIED EXCAVATION
- 1" ITEM 51M - ASPHALT CONCRETE, TYPE IA (TOP COURSE)
  - 4" ITEM 45SN - BASE COURSE ASPHALT CONCRETE, TYPE IA
  - ITEM 8 - PREPARING FINE GRADE
  - 4" ITEM 4 - SUBBASE COURSE, SELECT GRANULAR MATERIAL
  - 8" ITEM 3X - SUBBASE COURSE, GRANULAR MATERIAL
  - 4" ITEM 59WVA - BITUMINOUS STABILIZED COURSE (INCLUDING SHOULDERS)
  - ITEM 7 - TRIMMING ROAD SECTION
  - ITEM 123 - SEEDING

**BANKING TABLE**

DEGREE OF CURVE	SUPERELEVATION IN FT./FT.	C-1 VARIABLE DISTANCE	C-2 VARIABLE DISTANCE
1°-00'	0.018	15' - 2"	17' - 4 3/8"
2°-00'	0.036	14' - 6 3/4"	18' - 2 3/4"
3°-00'	0.051	13' - 1 1/2"	18' - 11 3/8"
4°-00'	0.062	13' - 6 3/16"	19' - 5 11/16"
6°-00'	0.076	12' - 11 1/2"	20' - 1 3/4"

TYPICAL NORMAL SECTION IN EARTH CUT AND FILL  
NORMAL PAVEMENT CROWN  
SCALE: 1/4" = 1' - 0"



- ITEM 2 - UNCLASSIFIED EXCAVATION
- 1" ITEM 51M - ASPHALT CONCRETE, TYPE IA (TOP COURSE)
  - 4" ITEM 45SN - BASE COURSE ASPHALT CONCRETE, TYPE IA
  - ITEM 8 - PREPARING FINE GRADE
  - 4" ITEM 4 - SUBBASE COURSE, SELECT GRANULAR MATERIAL
  - 8" ITEM 3 - SUBBASE COURSE, GRANULAR MATERIAL
  - 4" ITEM 59WVA - BITUMINOUS STABILIZED COURSE (INCLUDING SHOULDERS)
  - ITEM 7 - TRIMMING ROAD SECTION
  - ITEM 123 - SEEDING

TYPICAL BANKED SECTION IN EARTH CUT AND FILL  
SUPERELEVATED ABOUT THE CENTERLINE AXIS OF THE NORMAL PAVEMENT - CURVE RIGHT, READ OPPOSITE HAND FOR CURVE LEFT  
SCALE: 1/4" = 1' - 0"

\*\* FILL SECTION FOR FILLS UP TO 10' OR MORE WITHOUT GUIDE RAILS

NOTE: BITUMINOUS STABILIZED COURSE (INCLUDING SHOULDERS) TO BE SEALED WITH ITEM 260 - SEAL COAT FOR STABILIZED SHOULDERS.

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASSOC. CIVIL ENGINEER, CONSTRUCTION

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASST. DISTRICT ENGINEER

DESIGNED BY AUSTIN  
TRACED BY BRONS  
CHECKED BY AUSTIN

PREPARED & RECOMMENDED BY  
RIST - FROST ASSOCIATES  
CONSULTING ENGINEERS  
GLENS FALLS, N.Y.  
N.Y.S. P.E.  
PARTNER-IN-CHARGE  
LIC. NO. 23669X-Y DATE MARCH 10, 1988

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
I	N.Y.	5-1047(9)	3	30
TAHANUS - SCHROON RIVER - PART V - ESSEX COUNTY				
BRIDGE NOS. 1 AND 2				

APPROVED DATE \_\_\_\_\_  
ASSOC. CIVIL ENGINEER, CONSTRUCTION

APPROVED DATE \_\_\_\_\_  
ASST. DISTRICT ENGINEER

P.T. NO.	BASE LINE DATA			CO-ORDINATES	
	STATION	AZIMUTH	DISTANCE	NORTH	SOUTH
1	290 + 00.00	64°- 08' - 56"	300.00	22,644.99	36,097.98
2	293 + 00.00	52°- 14' - 18"	382.00	22,775.80	36,367.95
3	296 + 82.00	50°- 34' - 19"	193.00	23,009.73	36,669.95
4	298 + 75.00	64°- 49' - 11"	401.00	23,132.30	36,819.03
5	302 + 76.00	25°- 40' - 00"	380.00	23,302.92	37,181.92
6	306 + 56.00	23°- 02' - 22"	244.00	23,645.42	37,346.51
7	309 + 00.00	29°- 17' - 36"	168.00	23,869.96	37,442.01
8	310 + 68.00	56°- 47' - 45"	392.00	24,016.47	37,524.21
9	314 + 60.00	41°- 53' - 40"	674.00	24,231.14	37,852.20
10	321 + 34.00	80°- 34' - 35"	266.00	24,732.85	38,302.27
11	324 + 00.00	91°- 31' - 36"	300.00	24,776.41	38,564.68
12	327 + 00.00	84°- 24' - 05"	900.00	24,768.41	38,864.58
13	336 + 00.00	82°- 01' - 40"	500.00	24,856.22	39,760.28
14	341 + 00.00	82°- 35' - 22"	1,700.00	24,925.56	40,255.45
15	358 + 00.00	83°- 51' - 30"	200.00	25,144.83	41,941.25
16	360 + 00.00	83°- 50' - 12"	200.00	25,166.22	42,140.10
17	362 + 00.00	83°- 48' - 47"	200.00	25,187.70	42,338.95
18	364 + 00.00	83°- 45' - 49"	122.00	25,209.25	42,537.78
19	365 + 22.00	75°- 15' - 50"	131.53	25,222.50	42,659.06
20	366 + 53.53	95°- 41' - 39"	246.47	25,255.96	42,786.26
21	369 + 00.00	102°- 26' - 08"	350.00	25,231.51	43,031.52
22	372 + 50.00	84°- 43' - 03"	150.00	25,156.14	43,373.31
23	374 + 00.00	52°- 42' - 51"	450.00	25,159.95	43,522.57
24	378 + 50.00	83°- 12' - 54"	950.00	25,376.24	43,922.60
25	398 + 00.00	76°- 15' - 03"	200.00	25,606.62	45,258.94
26	410 + 00.00	80°- 17' - 45"	100.00	25,850.97	47,033.80
27	421 + 00.00	70°- 34' - 33"	640.00	26,036.39	48,118.06
28	427 + 40.00	90°- 09' - 22"	650.00	26,249.23	48,721.63
29	436 + 00.00	87°- 20' - 44"	1,000.00	26,246.89	49,581.63
30	446 + 00.00	81°- 49' - 13"	150.00	26,293.20	50,560.56
31	447 + 50.00	67°- 07' - 21"	450.00	26,306.74	50,729.94
32	452 + 00.00	78°- 38' - 36"	900.00	26,481.68	51,144.55
33	461 + 00.00	72°- 28' - 51"	225.00	26,658.91	52,026.92
34	463 + 25.00	84°- 43' - 13"	865.00	26,726.64	52,241.49
35	471 + 90.00	64°- 55' - 34"	610.00	26,806.23	53,102.82
36	478 + 00.00	92°- 05' - 29"	500.00	27,064.74	53,655.33
37	483 + 00.00	82°- 32' - 24"	320.00	27,046.50	54,155.00
38	486 + 20.00	94°- 41' - 53"	400.00	27,088.04	54,472.29
39	490 + 20.00	78°- 51' - 54"	280.00	27,055.28	54,870.95
40	493 + 00.00	74°- 06' - 23"	500.00	27,109.36	55,145.68
41	498 + 00.00	81°- 33' - 32"	400.00	27,246.28	55,626.56
42	502 + 00.00	82°- 10' - 50"	900.00	27,305.00	56,022.23
43	511 + 00.00	94°- 46' - 28"	400.00	27,427.45	56,913.86
44	515 + 00.00	73°- 18' - 46"	950.00	27,394.15	57,312.47
45	524 + 50.00	82°- 34' - 17"	350.00	27,666.94	58,222.47
46	528 + 00.00	75°- 50' - 55"	220.00	27,712.20	58,569.53
47	530 + 20.00	102°- 08' - 13"	630.00	27,765.98	58,782.85
48	536 + 50.00	113°- 15' - 31"	350.00	27,633.53	59,398.77
49	540 + 00.00	94°- 12' - 49"	200.00	27,495.32	59,720.33
50	542 + 00.00	69°- 15' - 20"	350.00	27,480.62	59,919.78
51	545 + 50.00	93°- 59' - 05"	480.00	27,604.59	60,247.09
52	550 + 30.00	118°- 42' - 03"	330.00	27,571.24	60,725.93

P.L. NO.	BASE LINE DATA			CO-ORDINATES	
	STATION	AZIMUTH	DISTANCE	NORTH	SOUTH
52	550 + 30.00	118°- 42' - 03"	330.00	27,571.24	60,725.93
53	533 + 60.00	86°- 31' - 34"	500.00	27,412.76	61,015.39
54	558 + 60.00	98°- 10' - 59"	620.00	27,443.06	61,514.47
55	564 + 80.00	84°- 20' - 37"	655.00	27,354.81	62,128.16
56	571 + 35.00	100°- 48' - 35"	365.00	27,413.37	62,779.97
57	575 + 00.00	80°- 10' - 20"	700.00	27,350.91	63,138.49
58	582 + 00.00	90°- 18' - 25"	420.00	27,470.39	63,828.22
59	586 + 20.00	72°- 30' - 16"	540.00	27,468.14	64,248.21
60	591 + 60.00	98°- 05' - 34"	960.00	27,630.48	64,763.23
61	601 + 20.00	88°- 38' - 45"	375.00	27,495.34	65,713.67
62	604 + 95.00	111°- 52' - 10"	930.00	27,504.20	66,088.57
63	614 + 25.00	70°- 46' - 21"	215.00	27,157.78	66,951.64
64	616 + 40.00	50°- 40' - 52"	700.00	27,228.59	67,154.65
65	623 + 40.00	72°- 47' - 03"	300.00	27,683.27	67,725.81
66	626 + 40.00	106°- 54' - 28"	520.00	27,722.07	68,012.37
67	631 + 60.00	75°- 48' - 53"	310.00	27,570.83	68,509.89
68	634 + 70.00	62°- 27' - 31"	1,230.00	27,643.80	68,810.44
69	647 + 00.00	76°- 40' - 22"	310.00	28,215.54	69,301.05
70	650 + 10.00	103°- 50' - 13"	290.00	28,287.00	70,202.71
71	653 + 00.00	115°- 17' - 51"	420.00	28,217.64	70,484.29
72	657 + 20.00	92°- 05' - 22"	330.00	28,038.17	70,864.01
73	660 + 50.00	109°- 19' - 13"	440.00	28,025.14	71,193.79
74	664 + 90.00	83°- 40' - 04"	310.00	27,880.56	71,609.02
75	668 + 00.00	67°- 18' - 35"	374.68	27,882.36	71,919.01
76	671 + 74.68	77°- 56' - 20"	1,012.74	28,026.89	72,264.69
77	681 + 87.40	66°- 51' - 47"	494.39	28,238.51	73,255.06
78	686 + 81.79	49°- 00' - 23"	792.86	28,432.77	73,709.68
79	694 + 74.65	48°- 00' - 23"	792.86	28,363.21	74,298.97
80	698 + 40.63	48°- 55' - 11"	365.98	29,203.70	74,574.84
81	703 + 50.97	65°- 04' - 34"	510.34	29,418.77	75,047.65
82	713 + 76.54	62°- 46' - 34"	1,025.57	29,887.93	75,949.61
83	718 + 88.83	49°- 02' - 27"	512.29		

ITEM	DESCRIPTION	UNIT	PROPOSED
1	Clearing and Grubbing	LS	Nec
1W	Furnishing Water Equipment	LS	Nec
1WA	Applying Water	M Gal.	100
2	Unclassified Excavation	CY	40,000
2EFG	Selected Granular Fill	CY	165
3X	Subbase Crse Granular Mat.	CY	2,702
5T	Trench & Culvert Excavation	CY	70
6EX	Engineer's Office Type A	LS	Nec
14M24	Culvert Pipe - Opt. 24" Dia. 14 Ga. or Cl. III	LF	172
14ESM24	End Sections - Opt. 24" Dia	Ea	4
16	Fur. & Applying Cal. Chloride	Ton	10
20	Class B Conc. for Structures	CY	3
28	Bar Reinforcement for Struct.	Lb.	100
33AB	Box Beam Guide Railing	LF	600
34A	Guide Posts (Wood)	Ea.	10
76	Maint. & Prot. of Traffic Reg. C	LS	Nec.
77A	Temp. Struc. & Approaches (Mod.)	LS	Nec.
116S	Project Survey and Stake out	LS	NEC.

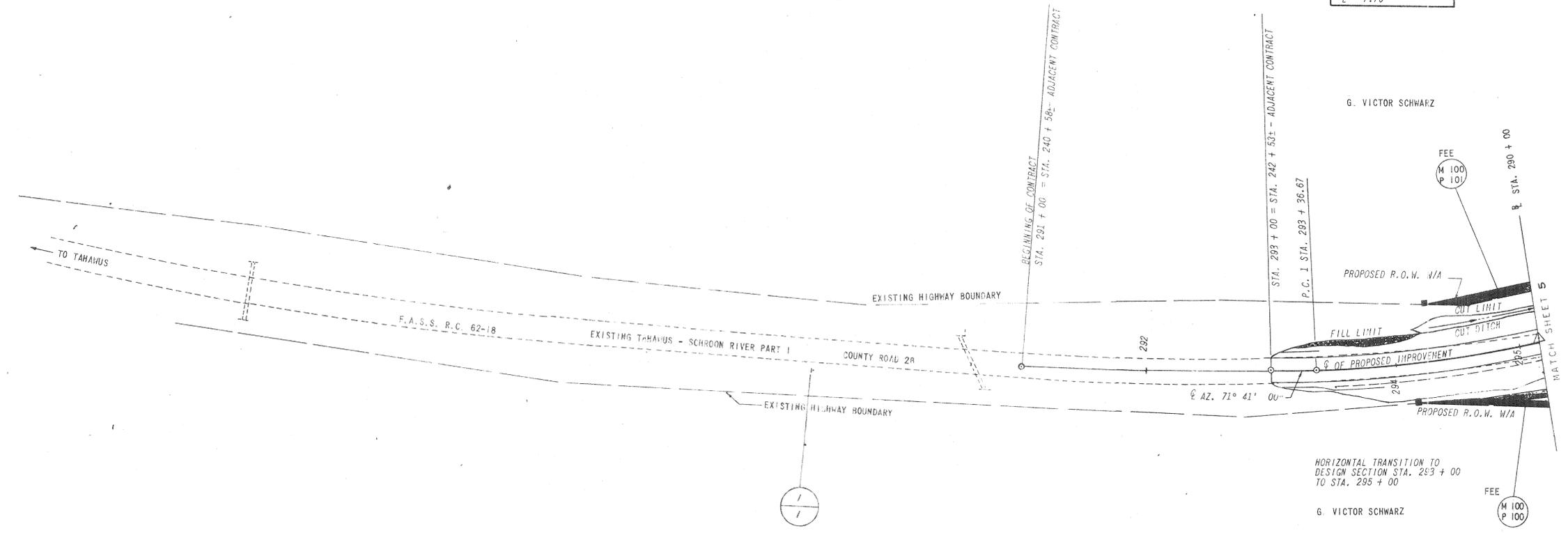
P.L. NO.	BASE LINE DATA			CO-ORDINATES	
	STATION	AZIMUTH	DISTANCE	NORTH	SOUTH
SUB-LOOP A DATA					
"A" 3 + 00				22,623.59	36,390.77
"A" 5 + 00 = B 293 + 73.02	10°- 03' - 13"	200.00		22,820.52	36,425.68
"A" 6 + 75	339°- 49' - 73"	175.00		22,984.78	36,365.33
SUB-LOOP C DATA					
C 616 + 40 = B 616 + 40				27,228.59	67,154.65
C 617 + 40.20	76°- 41' - 07"	100.20		27,251.66	67,252.16
C 620 + 57.05	76°- 42' - 02"	316.85		27,324.55	67,560.51
C 622 + 59.93 = D 5 + 00	76°- 43' - 42"	202.88		27,371.12	67,757.97
C 625 + 56.09	76°- 43' - 22"	296.16		27,439.14	68,046.21
C 626 + 99.52	76°- 46' - 22"	143.43		27,471.96	68,185.84
C 628 + 96.39	76°- 08' - 47"	196.87		27,519.10	68,376.98
C 630 + 39.73 B 631 + 60.00	68°- 40' - 17"	143.34		27,570.83	68,509.89
SUB-LOOP D DATA					
D 3 + 00				27,181.31	67,820.97
D 5 + 00 = C 622 + 59.93	161°- 38' - 17"	200.00		27,371.12	67,757.97
D 7 + 45.06	324°- 18' - 17"	245.06		27,570.15	67,614.98
SUB-LOOP E DATA					
E 0 + 00 = B 694 + 74.65				28,963.21	74,298.97
E 2 + 65.00	314°- 36' - 09"	265.00		29,149.29	74,110.29
E 5 + 90.00	345°- 34' - 39"	325.00		29,464.05	74,029.34

- HIGHWAY NOTES:
- CO-ORDINATES REFER TO ARBITRARY GRID SET BY N.Y.S.D.P.H.
  - AZIMUTHS REFER TO TRUE NORTH AT MERIDIAN 74° - 20'.
  - ALL ELEVATIONS REFER TO USC & GS DATUM.
  - HORIZONTAL CURVES COMPUTED BY ARC LENGTH.
  - SPIRAL CURVES COMPUTED FROM TABLES IN "TRANSITION CURVES FOR HIGHWAYS" BY JOSEPH BARNET.
  - CONTROL POINTS ON SURVEY BASELINE ARE NAILS, R.R. SPIKES, OR STEEL PINS.
  - ALL SURVEY BASELINE TIES ARE NAILS WITH PAINT, UNLESS OTHERWISE NOTED ON PLANS.

BENCH MARK DATA				
NO.	ELEVATION	STATION	OFF SET	DESCRIPTION
29	1734.58	294 + 40	6' LT.	N.E. CORNER EAST BRIDGE ABD.
30	1747.04	300 + 79	25' RT.	OH ROCK
31	1794.86	310 + 67	33' LT.	U-BOLT SIDE 36" W. PINE
32	1838.81	320 + 51	34' LT.	OH ROCK
33	1872.64	339 + 00	23' LT.	U-BOLT IN 10" SPRUCE
34	1907.25	339 + 70	9' RT.	U-BOLT IN 36" W. PINE
35	1858.96	348 + 51	1' LT.	CHISELED SQUARE TOP 5" ROCK
36	1917.84	359 + 57	20' LT.	OH ROCK
N 248 USC&GS	1931.84	366 + 53.53		STANDARD DISC
38	1896.83	381 + 98	31' LT.	U-BOLT IN 24" PINE
39	1861.05	389 + 84	30' LT.	U-BOLT IN 6" CEDAR
40	1880.84	398 + 76	30' LT.	U-BOLT IN 10" SPRUCE
41	1906.60	409 + 71	24' LT.	U-BOLT IN 8" SPRUCE
M 249 USC&GS	1878.02	417 + 20	17' LT.	STANDARD DISC
43	1972.65	432 + 98	20' RT.	12" SCOTCH PINE
44	2012.23	441 + 53	30' LT.	6" MAPLE
45	2003.89	450 + 55	40' LT.	24" MAPLE
46	2013.97	460 + 50	20' RT.	12" SCOTCH PINE
47	1969.86	470 + 98	17' LT.	6" SPRUCE
48	1884.59	481 + 62	4' RT.	8" MAPLE
49	1818.08	489 + 90	10' RT.	OH BOULDER
50	1770.16	502 + 20	14' LT.	12" MAPLE
51	1740.52	510 + 30	40' LT.	OH BOULDER
52	1681.28	520 + 32	35' LT.	8" THIN POPLAR
53	1624.00	531 + 75	57' LT.	10" BEECH
54	1545.96	541 + 85	10' LT.	7" BEECH
55	1484.28	550 + 25	34' LT.	8" POPLAR
56	1418.43	561 + 00	21' LT.	8" POPLAR
J 249 USC&GS	1847.13	572 + 78	55' LT.	STANDARD DISC
58	1329.41	581 + 02	20' RT.	R.R. SPIKE SIDE 14" MAPLE
59	1311.42	593 + 02	16' RT.	R.R. SPIKE SIDE 20" MAPLE
60	1296.65	601 + 38	17' RT.	R.R. SPIKE SIDE 12" MAPLE STUMP
61	1294.16	611 + 65	12' RT.	R.R. SPIKE SIDE 10" BIRCH
H 249 USC&GS	1243.50	625 + 68	36' LT.	STANDARD DISC
63	1250.57	634 + 98	15' LT.	R.R. SPIKE SIDE 1

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.	5-1047(9)	A	30
TAHAWUS - SCHROON RIVER - PART V - ESSEX COUNTY				
BRIDGE NOS. 1 AND 2				

CURVE DATA  
 $D = 6^{\circ} - 00'$   
 $\Delta = 14^{\circ} - 30' - 00''$   
 $R = 954.93'$   
 $T = 121.48'$   
 $Lc = 241.67'$   
 $E = 7.70'$



PLAN  
 SCALE: 1" = 50'

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASSOC. CIVIL ENGINEER, CONSTRUCTION

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASST. DISTRICT ENGINEER

DESIGNED BY AUSTIN  
 TRACED BY LAWSON  
 CHECKED BY AUSTIN

PREPARED & RECOMMENDED BY  
 RIST - FRIST ASSOCIATES  
 CONSULTING ENGINEERS  
 GLENS FALLS, N.Y.  
 PARTNER-IN-CHARGE LIC. NO. 298694-X DATE MARCH 10, 1948

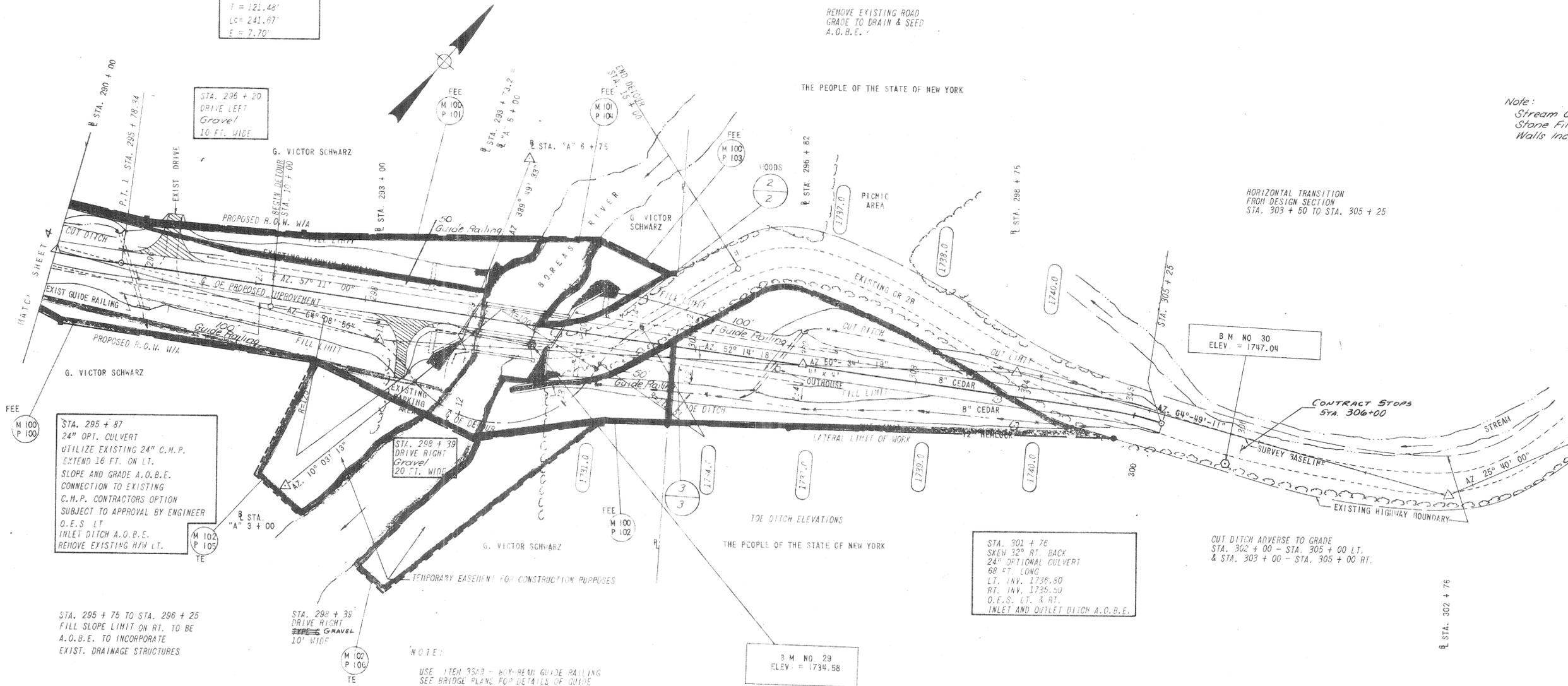
FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.	5-1047(9)	5	30
TAHAWUS - SCHROON RIVER - PART V - ESSEX COUNTY				
BRIDGE NOS. 1 AND 2				

**CURVE DATA**

D = 6° - 00'
= 14° - 30' - 00"
R = 954.93'
T = 121.48'
Lc = 241.67'
E = 7.70'

APPROVED DATE \_\_\_\_\_  
ASSOC. CIVIL ENGINEER, CONSTRUCTION

APPROVED DATE \_\_\_\_\_  
ASST. DISTRICT ENGINEER



Note:  
Stream Channel Excavation and Stone Filling Adjacent to Wing Walls included in this Contract

**SPECIAL NOTES:**

THE CONTRACTOR SHALL NOTE THE LOCATION OF THE DETOUR ALIGNMENT AND SHALL NOT DISTURB TREES ON THE LANDS OF THE PEOPLE OF THE STATE OF NEW YORK IN ANY MANNER WHILE CONSTRUCTING THE TEMPORARY DETOUR.

THE CONTRACTOR SHALL PERFORM HIS TEMPORARY CROSSING OF THE BOREAS RIVER IN SUCH A MANNER AS TO ALLOW A MINIMUM OF EARTH TO ENTER THE STREAM. A "PIPE AND FILL" METHOD OF CROSSING WILL NOT BE ALLOWED.

THE CONTRACTOR SHALL CONSTRUCT TEMPORARY BRIDGING. THE METHOD OF CONSTRUCTING THE DETOUR MUST HAVE WRITTEN APPROVAL OF THE ENGINEER AND A DULY AUTHORIZED REPRESENTATIVE OF THE CONSERVATION DEPARTMENT PRIOR TO THE COMMENCEMENT OF WORK.

PAYMENT FOR THE TEMPORARY STRUCTURE AND APPROACH SHALL BE UNDER ITEM 77A - TEMPORARY STRUCTURES AND APPROACHES.

**PROJECT LIMITS**

STA. 288 + 94.15 TO STA. 289 + 78.43  
BUILD NEW STRUCTURE OVER THE BOREAS RIVER. SEE BRIDGE NO. 1 PLAN.

PLAN  
SCALE: 1" = 50'

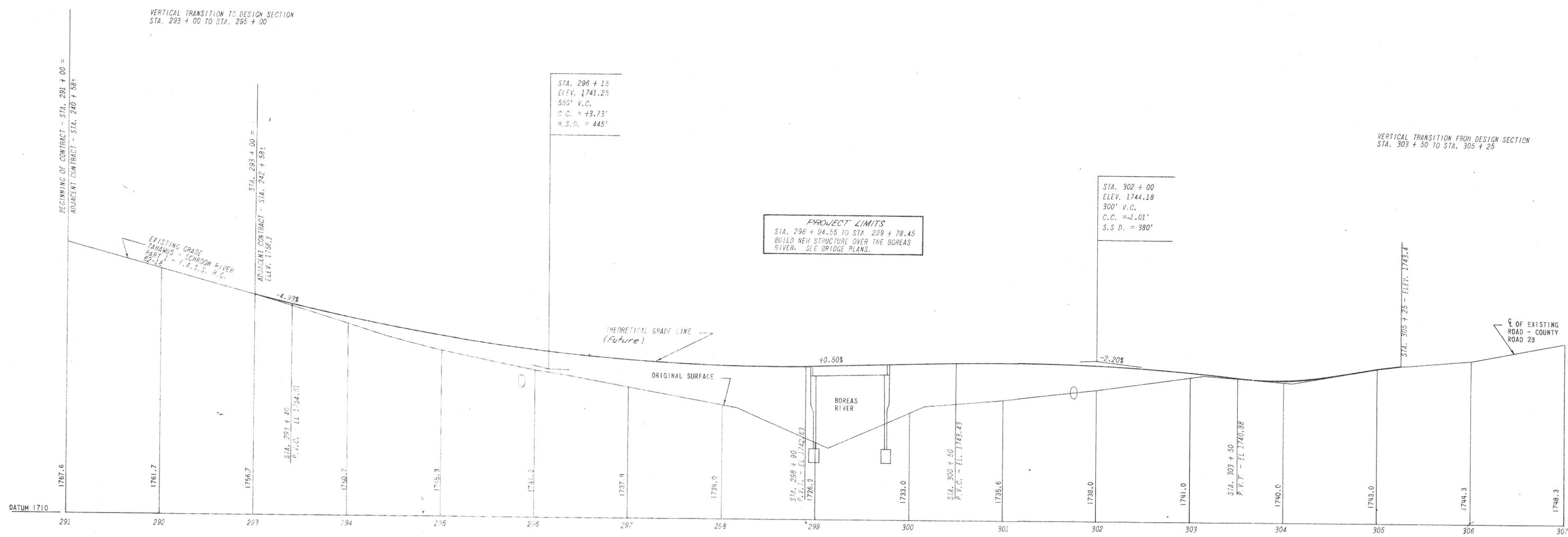
DESIGNED BY AUSTIN  
TRACED BY LAWSON  
CHECKED BY AUSTIN

PREPARED & RECOMMENDED BY  
RIST, FROST & ASSOCIATES  
CONSULTING ENGINEERS  
GLENS FALLS, N.Y.  
PARTNER-IN-CHARGE: DATE: MARCH 1982

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.	5-1047(9)	6	30
TAHAWUS - SCHROON RIVER - PART V - ESSEX COUNTY				
BRIDGE NOS. 1 AND 2				

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASSOC. CIVIL ENGINEER, CONSTRUCTION

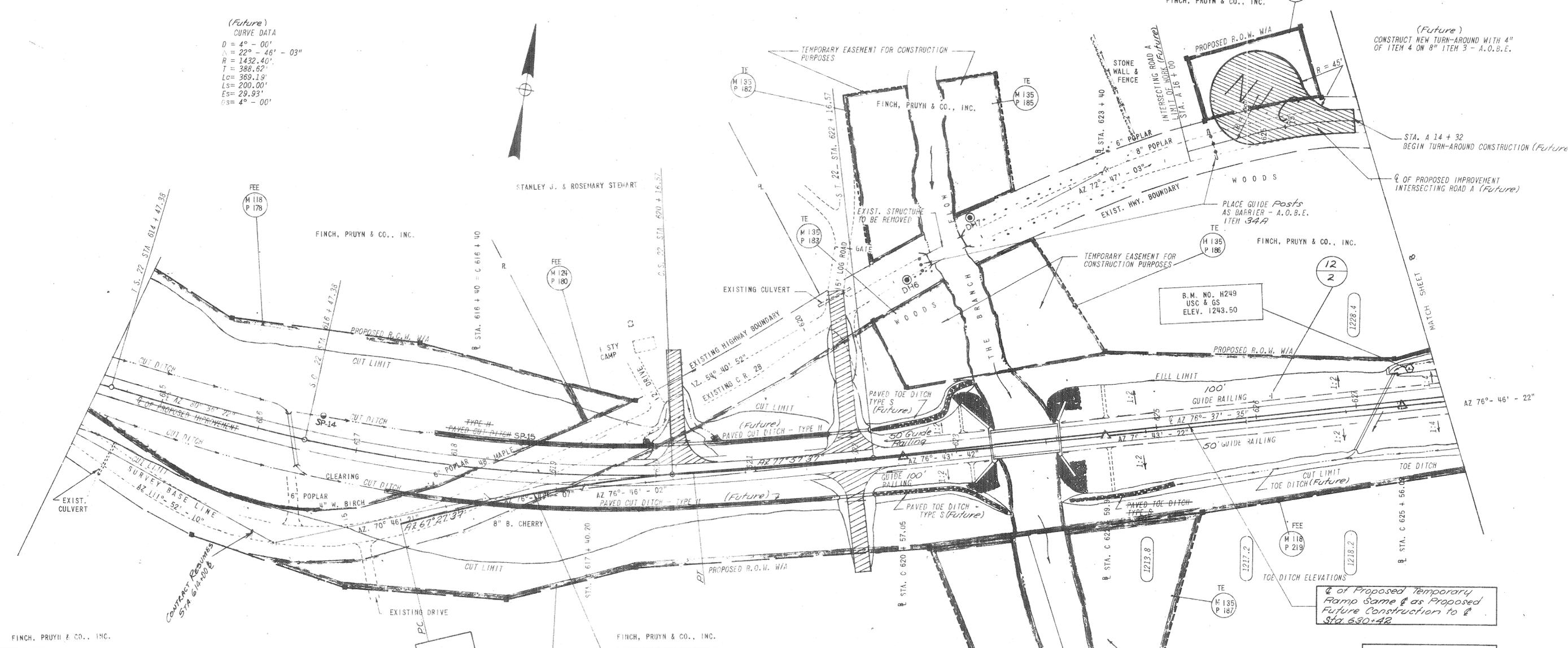
APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASST. DISTRICT ENGINEER



FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.	5-1047(9)	7	30

TANAMUS - SCHROON RIVER - PART V - ESSEX COUNTY  
BRIDGE NOS. 1 AND 2

(Future)  
CURVE DATA  
D = 4° - 00'  
Δ = 22° - 46' - 03"  
R = 1432.40'  
T = 388.62'  
LC = 369.19'  
LS = 200.00'  
ES = 29.93'  
BS = 4° - 00'



Notes:  
1. Meet Existing County Road 2B at Temporary Ramp Sta. 617+38  
2. Retain Existing CR 2B to Allow Access to Private Dwellings and Camps  
3. Stream Channel Excavation, Stone Filling at Wingwalls and Removal of Existing Superstructure and Abutments Included in This Contract  
Paved Ditches and Ditch-Crossing Pipes are in Future Contract

Temporary Ramp Curve Data  
Δ = 10° - 30'  
D = 3° - 30'  
LC = 300'  
T = 1500'  
R = 1632.39'  
PC Sta 617+38  
PT Sta 620+38

PROJECT LIMITS  
STA. 623 + 34.875 TO STA. 624 + 05.125  
BUILD NEW STRUCTURE OVER THE BRANCH  
SEE BRIDGE NO. 2 PLANS.

STA. 627 + 22  
24" OPTIONAL CULTURE  
SKEW 33° RT. BACK  
88 FT. LONG  
LT. INV. 1228.00  
RT. INV. 1218.80  
L TYPE HEADWALL LT.  
O.E.S. RT.  
INLET & OUTLET DITCH A.O.B.E.

PLAN  
SCALE: 1" = 50'

NOTE: USE ITEM 3340 - BOX BEAM GUIDE RAILINGS  
SEE BRIDGE PLANS FOR GUIDE RAILINGS AT  
BRIDGE, 100' on Approach, 50'  
on off Side.

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASSOC. CIVIL ENGINEER, CONSTRUCTION

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASST. DISTRICT ENGINEER

DESIGNED BY AUSTIN  
TRACED BY DAVIDSON  
CHECKED BY AUSTIN

PREPARED & RECOMMENDED BY  
RIST - FRIST ASSOCIATES  
CONSULTING ENGINEERS N.Y.S. P.E. GLENS FALLS, N.Y.  
PARTNER-IN-CHARGE  
DATE MARCH 10, 1968

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.	6-1047(9)	8	30
TAHAWUS - SCHROON RIVER - PART V - ESSEX COUNTY				
BRIDGE NOS. 1 AND 2				

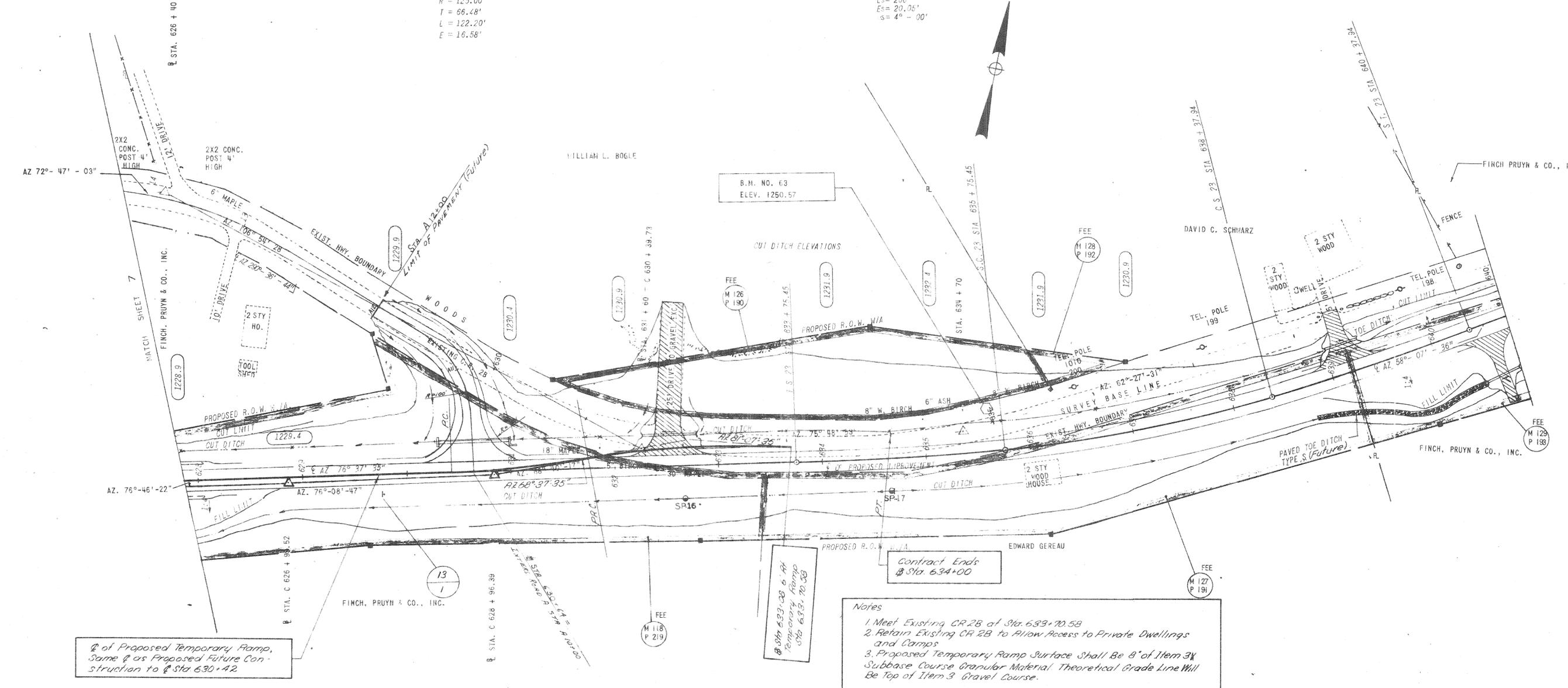
(Future)  
INTERSECTING ROAD A  
HORIZONTAL TRANSITION  
FROM DESIGN SECTION  
STA. A 12 + 00 TO STA. A 13 + 00

INTERSECTING ROAD A  
CURVE DATA (Future)  
= 56° - 00' - 51"  
R = 125.00'  
T = 66.48'  
L = 122.20'  
E = 16.58'

(Future)  
CURVE DATA  
D = 4° - 00'  
= 18° - 29' - 59"  
T = 333.45'  
Lc = 262.49'  
Ls = 200'  
Es = 20.06'  
s = 4° - 00'

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASSOC. CIVIL ENGINEER, CONSTRUCTION

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASST. DISTRICT ENGINEER



Q of Proposed Temporary Ramp,  
Same Q as Proposed Future Con-  
struction to Q Sta 630+42

Sta 633+00 to 633+70.00  
Temporary Ramp  
Slope 6:1

Notes  
1. Meet Existing CR 2B at Sta. 633+70.58  
2. Retain Existing CR 2B to Allow Access to Private Dwellings and Camps  
3. Proposed Temporary Ramp Surface Shall Be 8" of Item 3X Subbase Course Granular Material. Theoretical Grade Line Will Be Top of Item 3 Gravel Course.

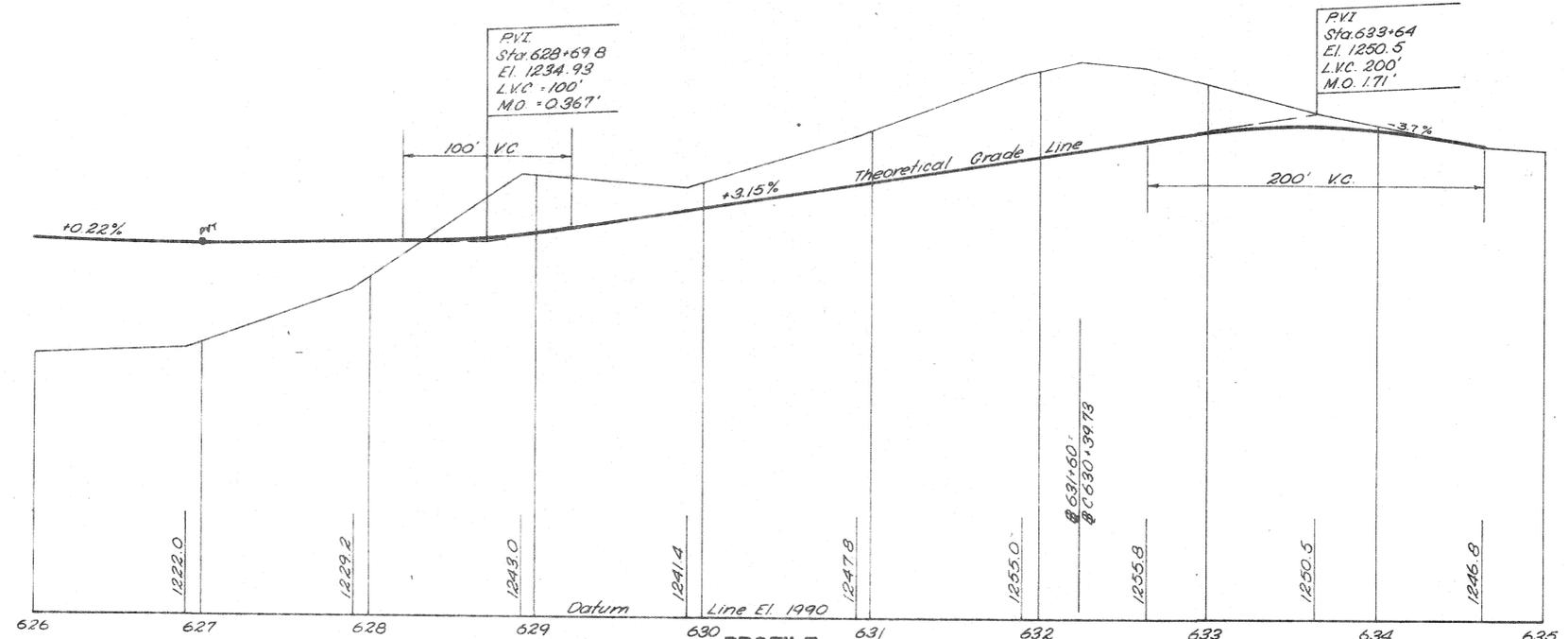
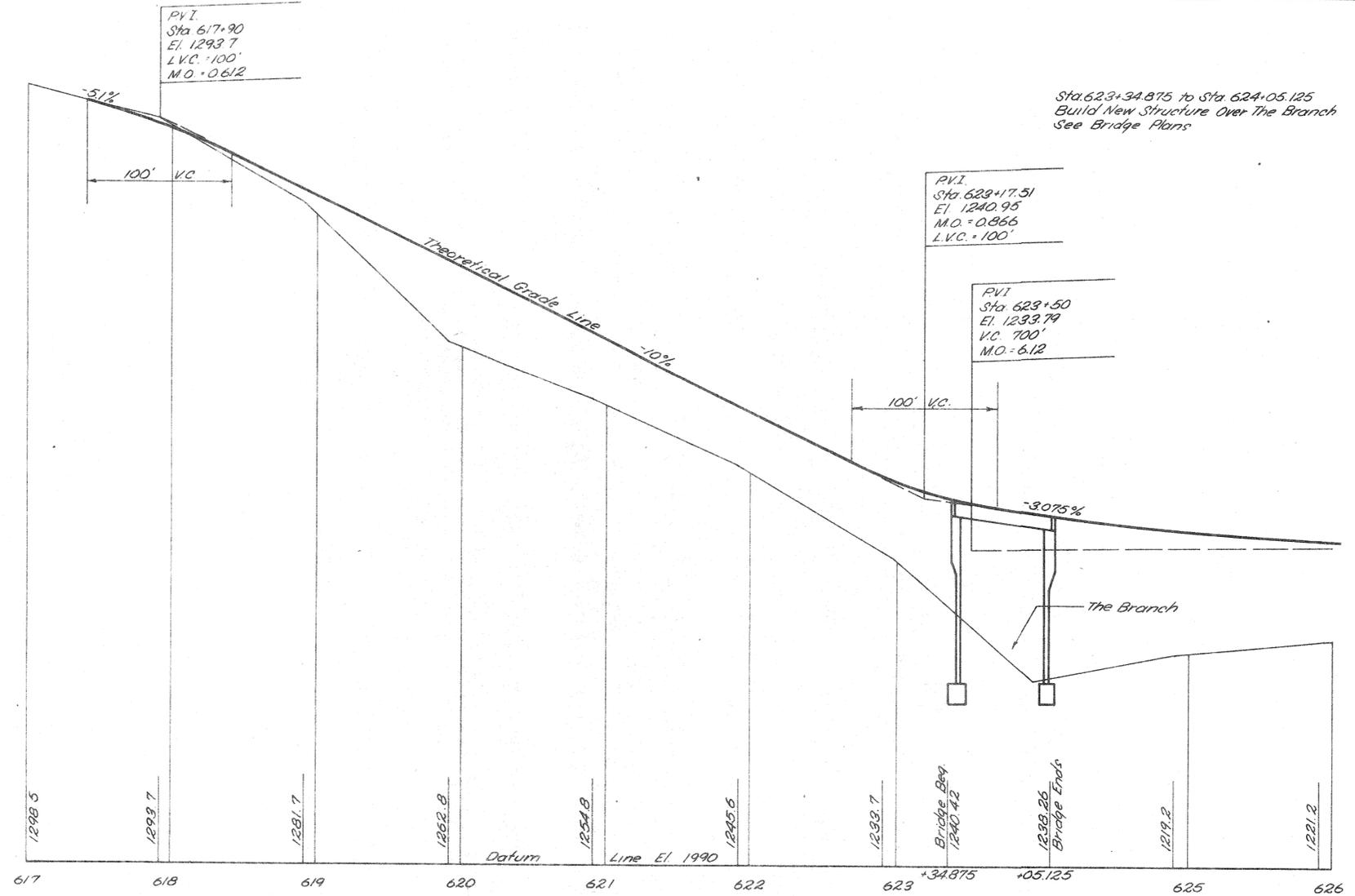
Temporary Ramp Curve Data	
Reverse Curve	
Curve - 1	Curve - 2
= 8°-00'-00"	= 12°-30'-00"
D = 6°-11'	D = 6°-16'
R = 929.50	R = 913.19
T = 65.0'	T = 100.0'
Lc = 129.22	Lc = 199.36
PC Sta 630+42	PRC Sta 631+71.22
PRC Sta 631+71.22	PT Sta 633+70.58

PLAN  
SCALE: 1" = 50'

DESIGNED BY AUSTIN  
TRACED BY DAVIDSON  
CHECKED BY AUSTIN

PREPARED & RECOMMENDED BY  
RIST - FROST ASSOCIATES  
CONSULTING ENGINEERS N.Y.S. P.E. GLENS FALLS, N.Y.  
PARTNER-IN-CHARGE LIC. NO. 29869-X DATE MARCH 10, 1964

FED. ROAD REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEET
1	N. Y.	5-1047(9)	9	30
TAHAWUS - SCHROON RIVER, PT. 5 - ESSEX COUNTY				
BRIDGE NOS. 1 AND 2				

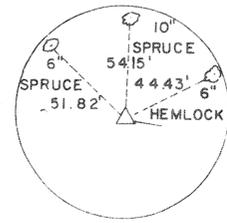


PROFILE  
HORIZ. 1" = 50'  
VERT. 1" = 10'

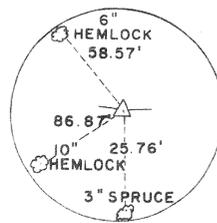
PROFILE  
STA. 615+00-STA. 635+00

IN CHARGE OF \_\_\_\_\_  
DESIGNED BY \_\_\_\_\_  
ESTIMATE BY \_\_\_\_\_  
TRACED BY R. J. Lopez

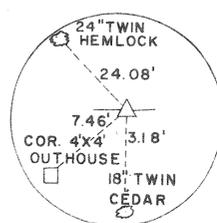
FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.	5-1047(9)	10/10	30
TAHAWUS - SCHROON RIVER - PART V - ESSEX COUNTY				
BRIDGE NOS. 1 AND 2				



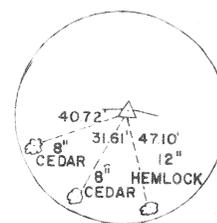
STA 290+00



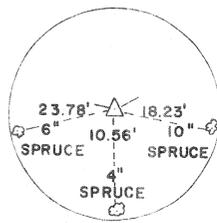
STA 293+00



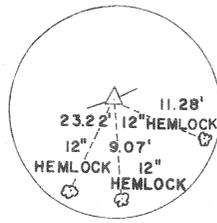
STA 296+82



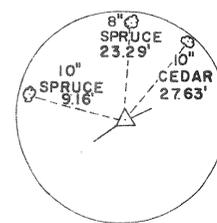
STA 298+75



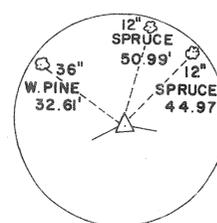
STA 302+76



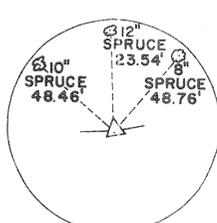
STA 306+56



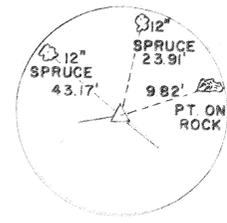
STA 309+00



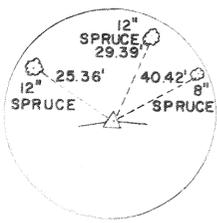
STA 310+68



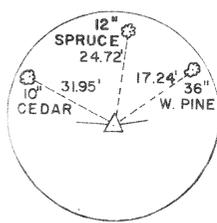
STA 314+60



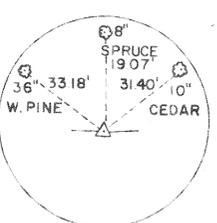
STA 321+34



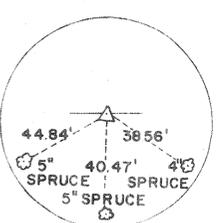
STA 324+00



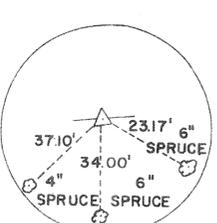
STA 327+00



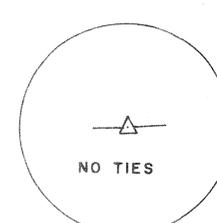
STA 336+00



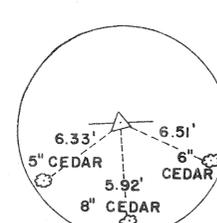
STA 341+00



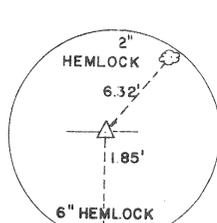
STA 358+00



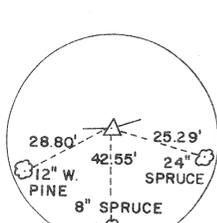
STA 360+00



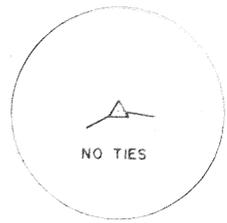
STA 362+00



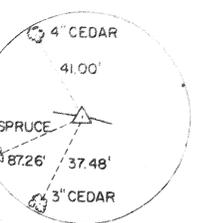
STA 364+00



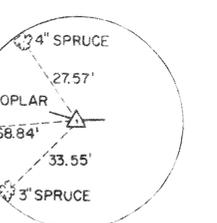
STA 365+22



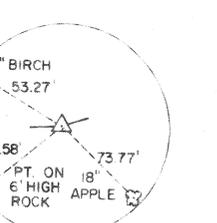
STA 366+53.53



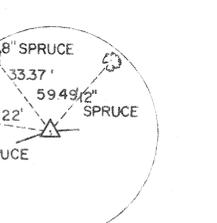
STA 369+00



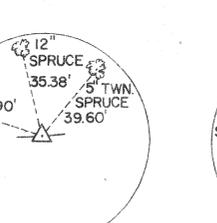
STA 372+50



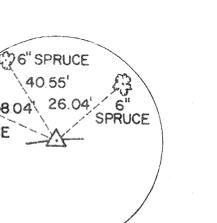
STA 374+00



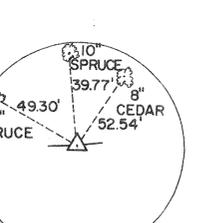
STA 378+50



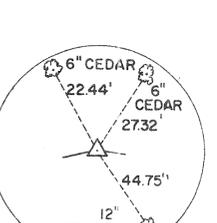
STA 398+00



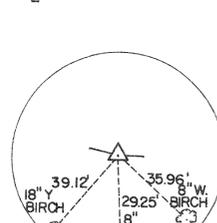
STA 410+00



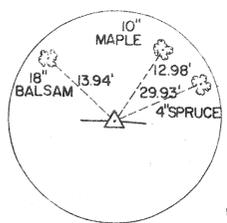
STA 421+00



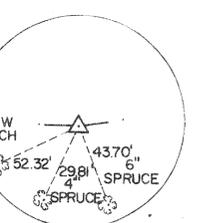
STA 427+40



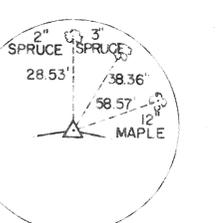
STA 436+00



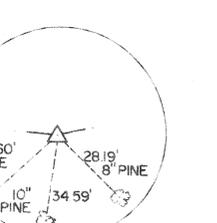
STA 446+00



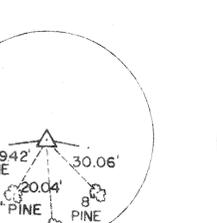
STA 447+50



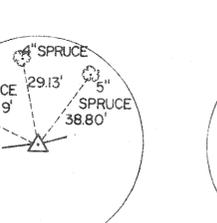
STA 452+00



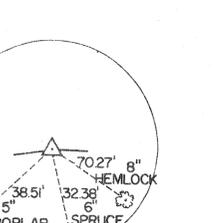
STA 461+00



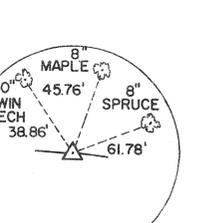
STA 463+25



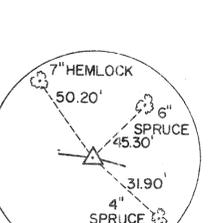
STA 471+90



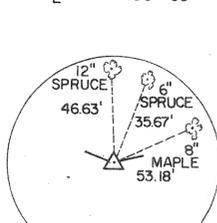
STA 478+00



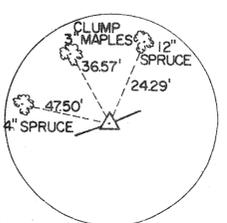
STA 483+00



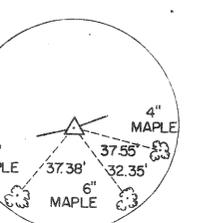
STA 486+20



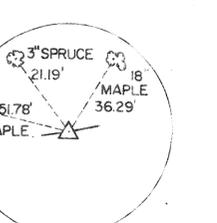
STA 490+20



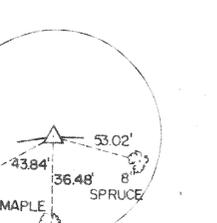
STA 493+00



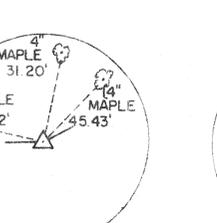
STA 498+00



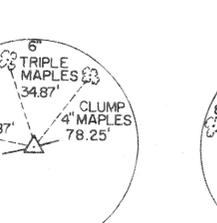
STA 502+00



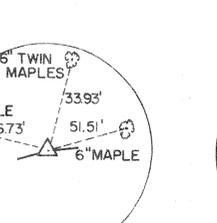
STA 511+00



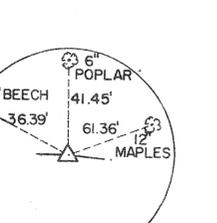
STA 515+00



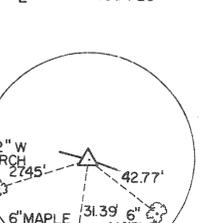
STA 524+50



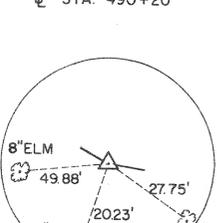
STA 528+00



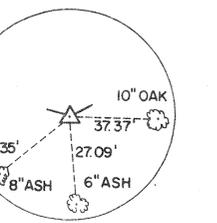
STA 530+20



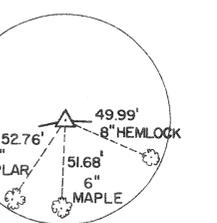
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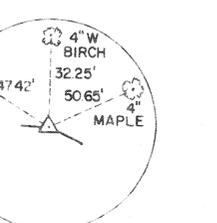
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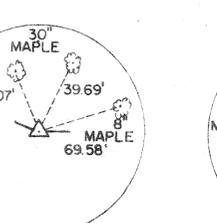
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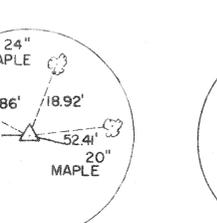
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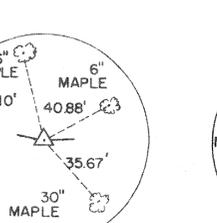
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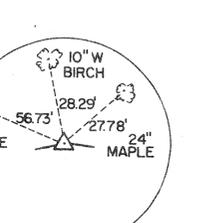
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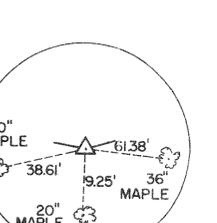
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STA 564+80



STA 571+35



STA 575+00

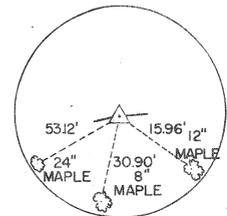
APPROVED DATE \_\_\_\_\_  
ASSOC. CIVIL ENGINEER CONSTRUCTION

APPROVED DATE \_\_\_\_\_  
ASST. DISTRICT ENGINEER

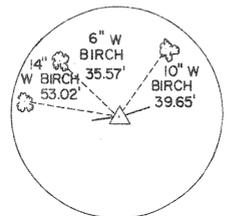
DESIGNED BY AUSTIN  
TRACED BY WINCHELL  
CHECKED BY AUSTIN

PREPARED & RECOMMENDED BY  
RIST - FROST ASSOCIATES  
CONSULTING ENGINEERS  
GLENS FALLS, N.Y.  
PARTNER-IN-CHARGE LIC. NO. 29869X-X DATE MARCH 10, 1985

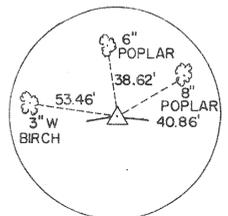
FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.	5-1047 (9)	11	30
TAHAWUS - SCHRÖON RIVER - PART V - ESSEX COUNTY				
BRIDGE NOS. 1 AND 2				



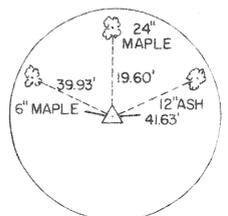
STA. 582+00



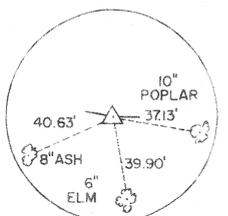
STA. 586+20



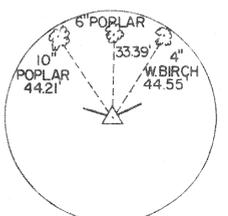
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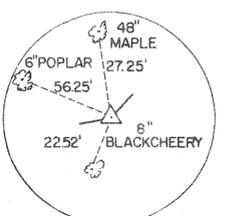
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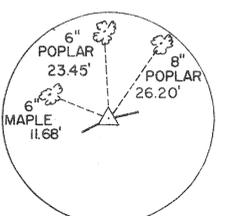
STA. 604+95



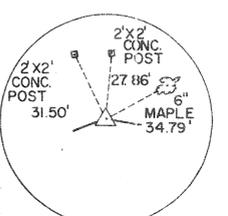
STA. 614+25



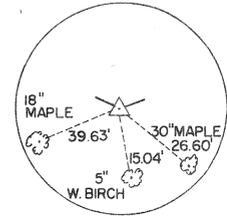
STA. 616+40



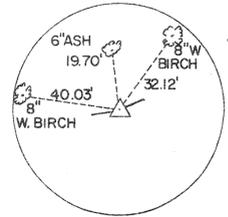
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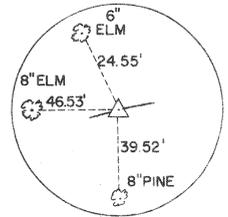
STA. 626+40



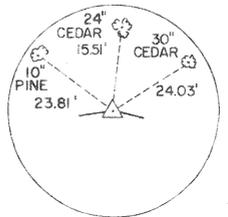
STA. 631+60



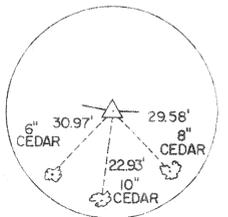
STA. 634+70



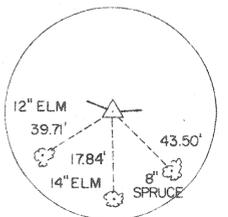
STA. 647+00



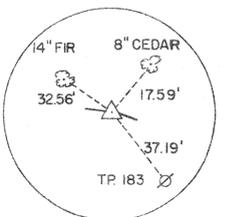
STA. 650+10



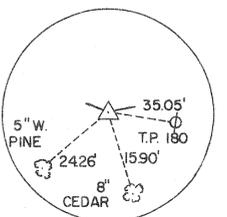
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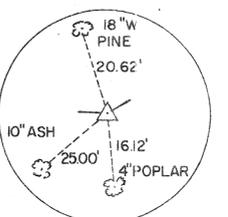
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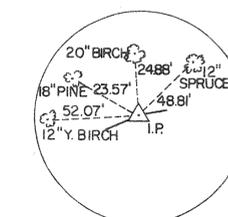
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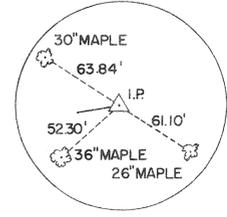
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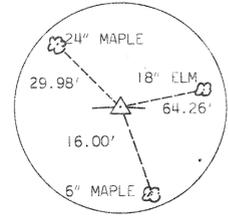
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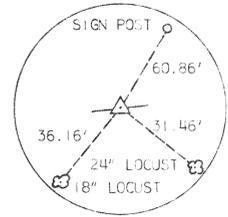
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R.B.F. PI. 5E



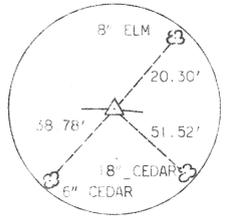
STA. 681+87.40  
R.B.F. PI. 6F



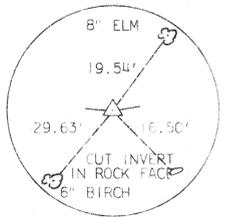
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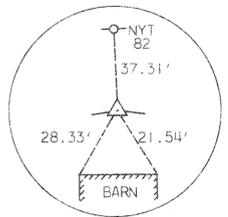
STA. 694+74.65  
R.B.F. PI. 0+00



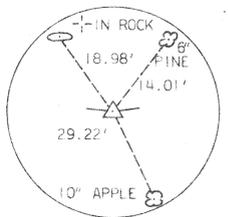
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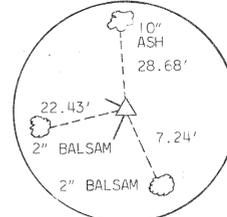
STA. 703+50.97



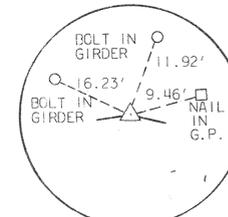
STA. 713+76.54



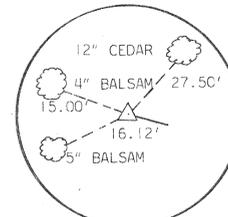
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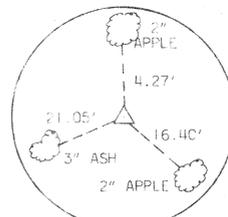
STA. "A" = 3+00



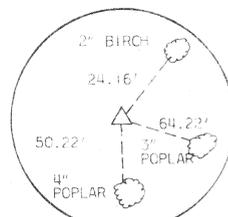
STA. "A" = 5+00 =  
STA. 293+73.02



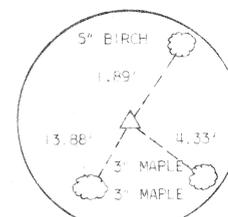
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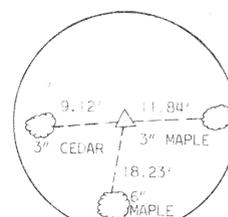
STA. "C" 617+40.20



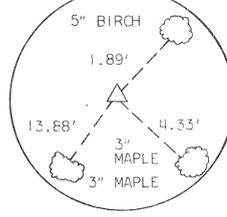
STA. "C" 620+57.05



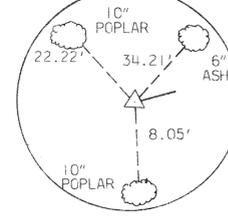
STA. "C" 622+59.93 =  
STA. "D" 5+00



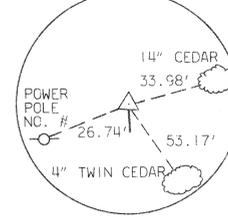
STA. "C" 625+56.09



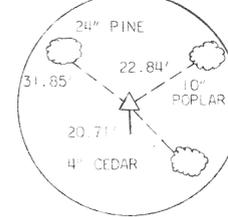
STA. "D" 5+00 =  
STA. "C" 622+59.93



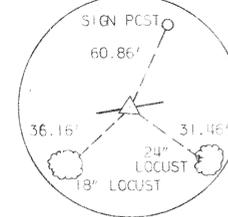
STA. "D" 7+45.06



STA. "E" 2+65



STA. "E" 5+90



STA. "E" 0+00 =  
STA. 694+74.65

DESIGNED BY AUSTIN  
TRACED BY BRONZ  
CHECKED BY AUSTIN

PREPARED & RECOMMENDED BY  
RISI - FROST ASSOCIATES  
CONSULTING ENGINEERS  
GLENS FALLS, N.Y.  
PARTNER-IN-CHARGE DATE MARCH 1980

APPROVED DATE \_\_\_\_\_  
ASSOC. CIVIL ENGINEER, CONSTRUCTION

APPROVED DATE \_\_\_\_\_  
ASST. DISTRICT ENGINEER

## GENERAL NOTES

Design Specifications AASHO 1961 modified and American Welding Society 1963 modified. The stresses assumed for design purposes conform to 1961 AASHO Specifications with the 28 day concrete (f'c) = 3000 psi minimum. L.L. HS20-63T

Material and Construction Specifications: Specifications of N.Y.S. Department of Public Works dated January 2, 1962 with current additions and modifications.

The Contractor's attention is directed to the Special Notes for this structure which appear in the proposal. Particular attention should be given to the foundation note which briefly outlines the anticipated subsurface conditions at the site of the structure and which specifies certain requirements relative to construction.

The cost of furnishing and placing water used for sodding and selected granular fill will be paid for under Item 1W and 1WA of the highway portion of the contract.

Reinforcing bars shall be lapped a minimum of 20 diameters.

For identification plate details see Standard Sheet 65-41R1

All joint material, joint fillers, asbestos sheet packing and asphalt roofing felt will be paid for under the various items of the contract.

Welded joints shall be radiographed in conformance with the requirements of the New York Specifications for Radiographic Inspection. The joints to be radiographed are described therein.

The A.W.S. Specification, Table 2, "Minimum Preheat and Interpass Temperature" shall apply with the following modifications:

Plate Thickness	A-7, A-373, A-36, A-441 & Weldable A-242
to 3/4" incl.	50°F
over 3/4" to 1 1/2" incl.	70°F
over 1 1/2" to 2 1/2" incl.	150°F
over 2 1/2"	250°F

Existing superstructure is to be removed under Item 81A.

### Concrete and Cement Items:

Description	Item No.	Type of Cement
Mass Concrete Abutments and Retaining Walls	20	2
Structural Slabs	18M	2
Sidewalks (Substructure & Superstructure)	18	2
Abutment Header	18	2
Heavily Reinforced Sections (Steel spacing less than 6")	18	2

## SUPERSTRUCTURE NOTES

After all superstructure steel has been erected and braced in its final position, elevations shall be taken on the top of the steel at the centerline of web at each centerline of bearing, center of the span and at other locations where theoretical bottom of the slab elevations are indicated on the plans.

The depth of haunch required to position the slab forms will be equal to the difference between the bottom of slab elevations and the top of steel elevations plus the deflection due to superimposed dead load.

*ASTM-A-449 bolts may be substituted for ASTM-A-325 anchor bolts*

All bearings are to be field welded to beams or girders. If the Contractor elects to use corrugated metal forms for the structural slab the details of these forms shall be submitted to the Deputy Chief Engineer (Design) for approval, prior to their use. The Contractor's attention is directed to additional notes appearing in the proposal relative to corrugated metal forms.

All **connection plates** used in pairs shall be placed in intimate contact with both flanges. This may be accomplished by cutting the stiffeners to fit or by cutting the stiffeners 1/8 inch short and then placing the stiffener tightly against the tension flange and welding the opposite end to the compression flange. When intermediate stiffeners, used in pairs, are cut to fit they shall be welded to the web only.

All **connection plates** used singly shall be placed tightly against the tension flange and welded to the compression flange and web.

When the particular type of weld joint preparation is not shown on the plans by symbol or otherwise, any joint considered prequalified by Paragraph 213 of the A.W.S. Specification D 2.0-63 may be used except that backing strips or plates when used, shall be removed after welding and the joint ground smooth unless otherwise specified. When the prequalified joints used place a limit on the maximum thickness of plates joined, this thickness shall always refer to the thickness of material at the edge of the heat affected zone of the thicker plate.

## SUBSTRUCTURE NOTES

Top of backwall on which asbestos sheet packing is to be placed shall be steel trowel finished.

Bituminous Material, Item 61, shall be applied to the backs of all abutments and wingwalls above top of footings, where fill is in contact with the walls.

Epoxy Protective Coating for Concrete shall be applied to the following surfaces: Abutments - All exposed pedestal surfaces, top of abutments, exposed vertical surfaces of backwall and curtain walls facing the superstructure.

For design purposes the foundation pressure does not exceed 3.5 tons per square foot for the Boreas and Branch abutments and wingwalls.

The existing substructures for Bridge no. 1 shall be removed to a point 1'-0" minimum below the stream bed. Those portions of the substructures lying outside of the limits of Item 5B shall be removed under Item 2 and included in the Highway Estimate.

## STREAM CONSERVATION

During the course of construction, the Contractor shall conduct his operations in such a manner to prevent or reduce to a minimum any damage to the stream from pollution by debris, sediment, or other foreign material, or from the manipulation of equipment and/or materials in or near the stream. He shall not return directly to the stream, or to a ditch immediately flowing into the stream, any water that has been used for wash purposes or other similar operations which cause the water to become polluted with sand, silt, cement, oil or other impurities.

If any water is used from the stream, the Contractor shall construct any intake or temporary dam required to protect and maintain rights and to sustain fish life downstream.

Construction vehicles and equipment shall not enter waters of fishing streams except as permitted by Engineer.

No excavation or removal of any material from stream beds shall be done except in conjunction with footings of structures or in rechanneled sections provided for in the plans.

Cofferdams required in the construction of structures in fishing streams shall be constructed of sheet piling.

Discharge from a cofferdam or any other construction activity shall not enter a stream directly unless the discharge is as clear as the flowing stream. If necessary the Contractor shall construct a settlement basin to retain the discharge a sufficient period of time in order that the discharge entering the stream will be clear. Before starting such operations the Contractor shall contact the Engineer in order that the methods employed will have prior approval of the Department.

FED. RD. PROJ. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
	NEW YORK	S-1047(9)	12	30

TAHAWUS - SCHROON RIVER PT. 5  
COUNTY ROAD 2B ESSEX COUNTY  
BRIDGE NOS. 1 AND 2

ITEM	ESTIMATE DESCRIPTION	UNIT	BR. NO. 2		BR. NO. 1	
			NEAT	PROPOSED	BOREAS NEAT	BOREAS PROPOSED
2UF	Underdrain Filter	C.Y.	14	20	8	10
2EF-B	Selected Granular Fill	C.Y.	1187	1190	776	780
5B	Structure Excavation	C.Y.	591	600	492	500
11H-6	Perf. Corr. Metal Pipe Underdrain, 6" Dia. 18 Ga.	L.F.	209	210	96	100
6BA	Concrete Cylinder Curing Box	Ea.			1	1
18	Cl. A. Conc. for Structures	C.Y.	12	15	13	15
18M	Cl. A. Conc. for Structures	C.Y.	50	50	59	60
20	Cl. B. Conc. for Structures	C.Y.	694	700	500	500
24 A	Bagged Screened Aggregate	C.Y.	105	110	91	100
28	Bar Reinf. for Structures	Lbs.	46000	46000	37927	38000
28 C	Shear Connectors	L.F.	258	260	310	310
29	Structural Steel	Lbs.	46651	46700	68434	68500
30	Miscellaneous Metals	Lbs.	800	800	800	800
37SX	Metal Railing - 2 Rail	L.F.	150	150	174	180
61	Bituminous Material	Gal.	160	160	120	120
78 C	Heavy Stone Filling	C.Y.	270	270	242	250
81A	Removing Existing Superstructure	L.S.	Nec.	Nec.	Nec.	Nec.
82F	Cofferdams	S.F.	4300	4300	3191	3200
94SBT	Stone Curb (Bridge Type)	L.F.	140	140	172	180
124	Sodding	S.Y.	80	80	60	60
363 F	Epoxy Protective Coating for Concrete	S.F.	520	520	606	610

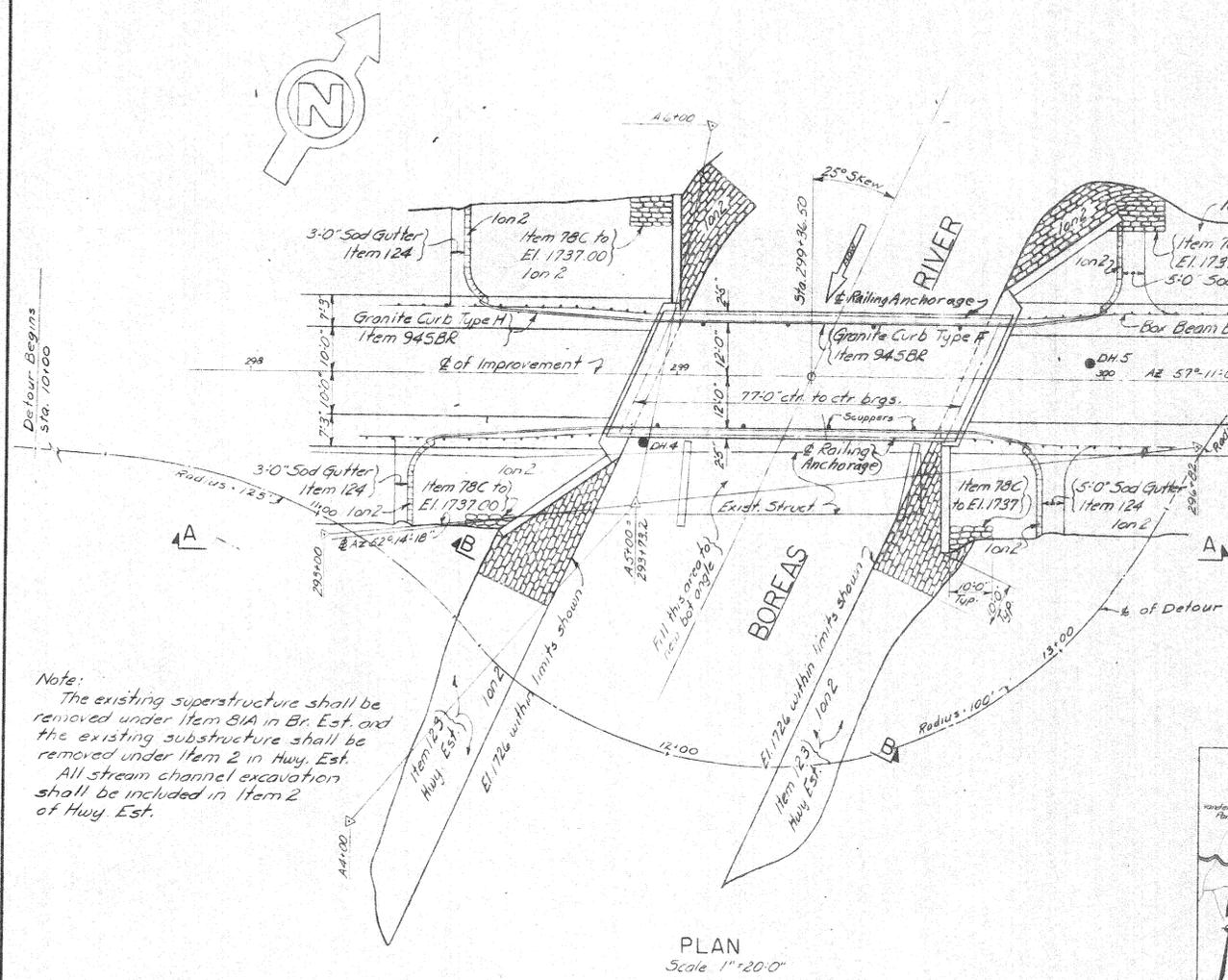
PROJECT ENGINEER: *D. J. ...*  
 IN CHARGE OF: *J. H. ...*  
 DESIGNED BY: *J. H. ...*  
 DESIGN CHECKED BY: *H. A. ...*  
 DETAILED BY: *H. A. ...*  
 DETAIL CHECKED BY: *J. H. ...*

BRIDGE NO. 1 — € STA. 299+36.50  
 BRIDGE NO. 2 — € STA. 623+70.00

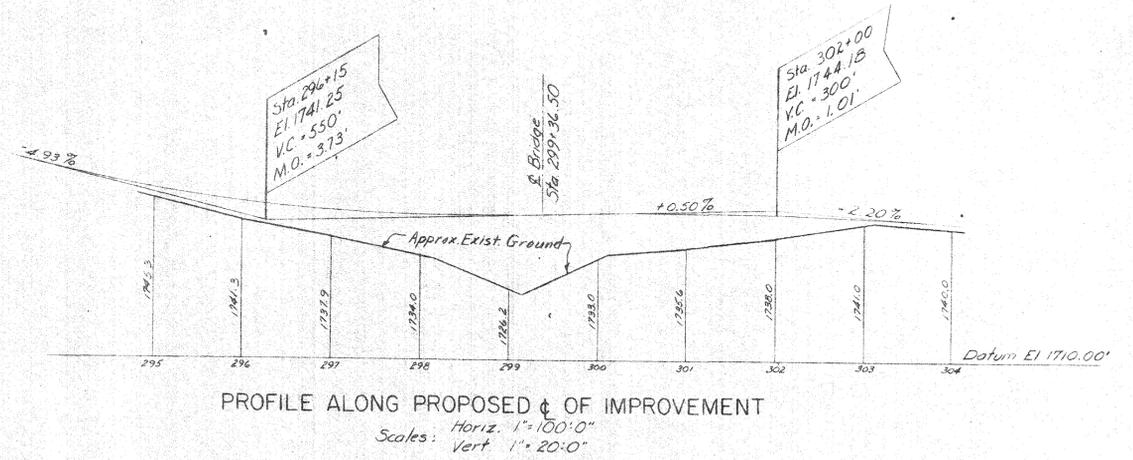
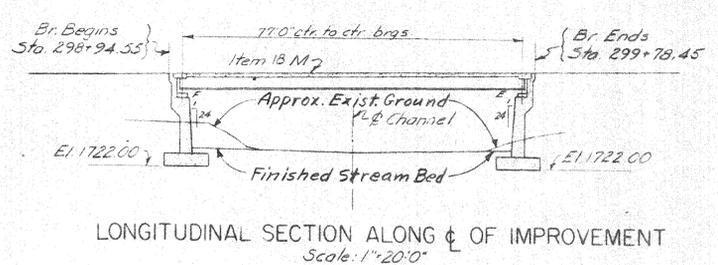
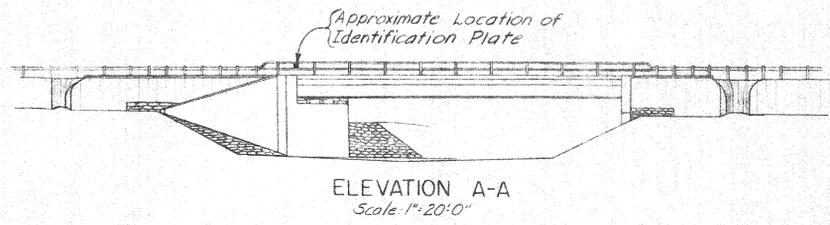
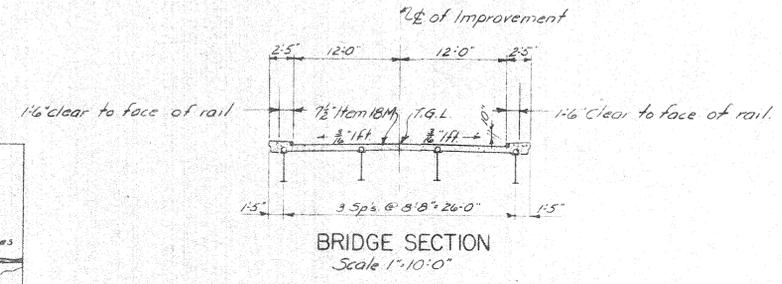
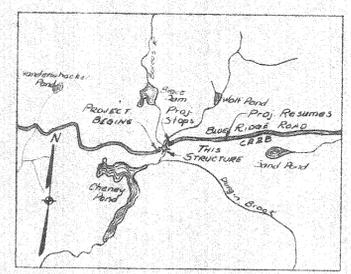
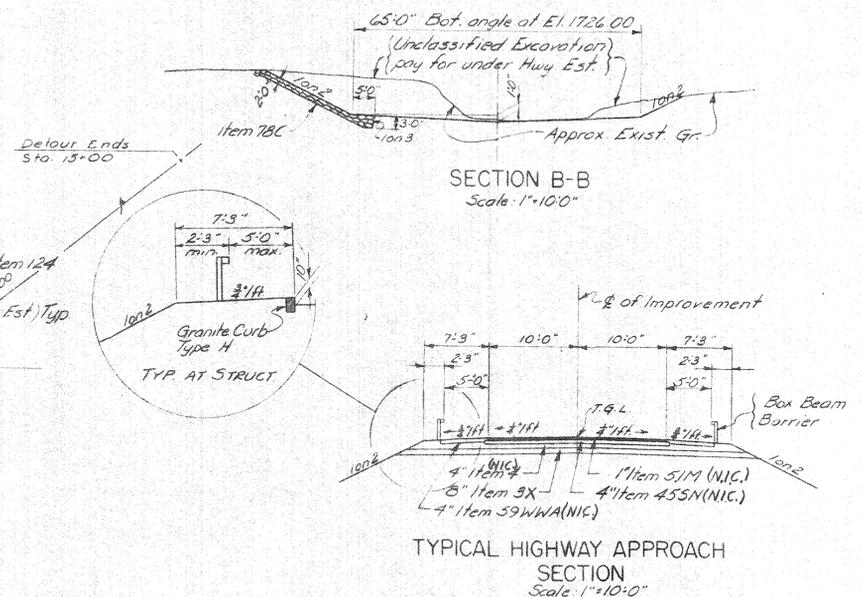
NOTES & ESTIMATE

FED. RD. REG. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
	NEW YORK	5-10A7(9)	13	30

TAHAWUS - SCHROON RIVER PT. 5  
 COUNTY ROAD 2B ESSEX COUNTY



Note:  
 The existing superstructure shall be removed under Item 81A in Br. Est. and the existing substructure shall be removed under Item 2 in Hwy. Est.  
 All stream channel excavation shall be included in Item 2 of Hwy. Est.

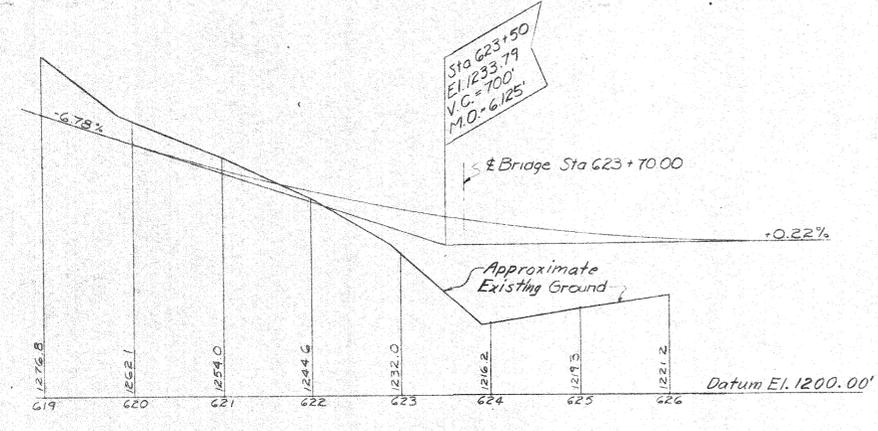
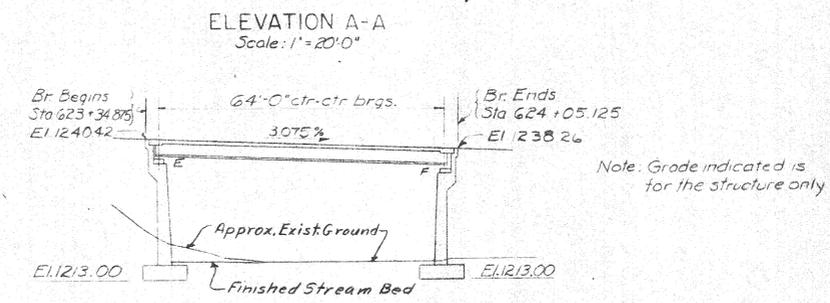
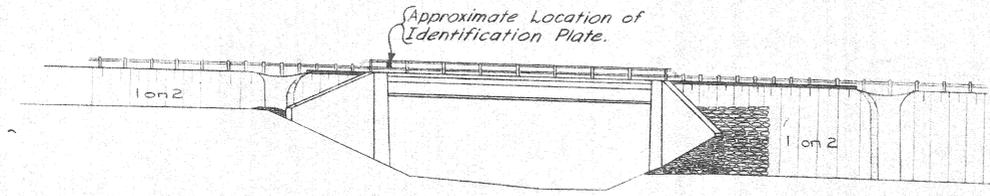
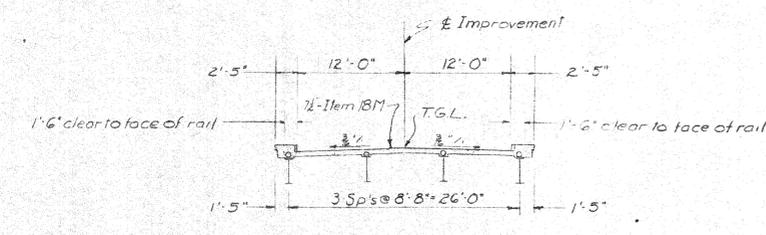
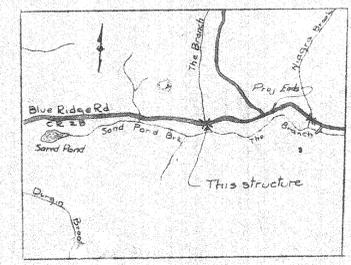
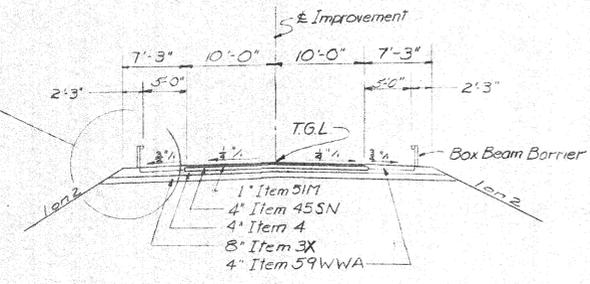
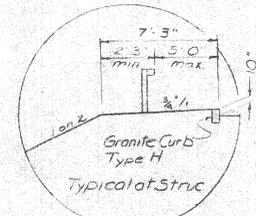
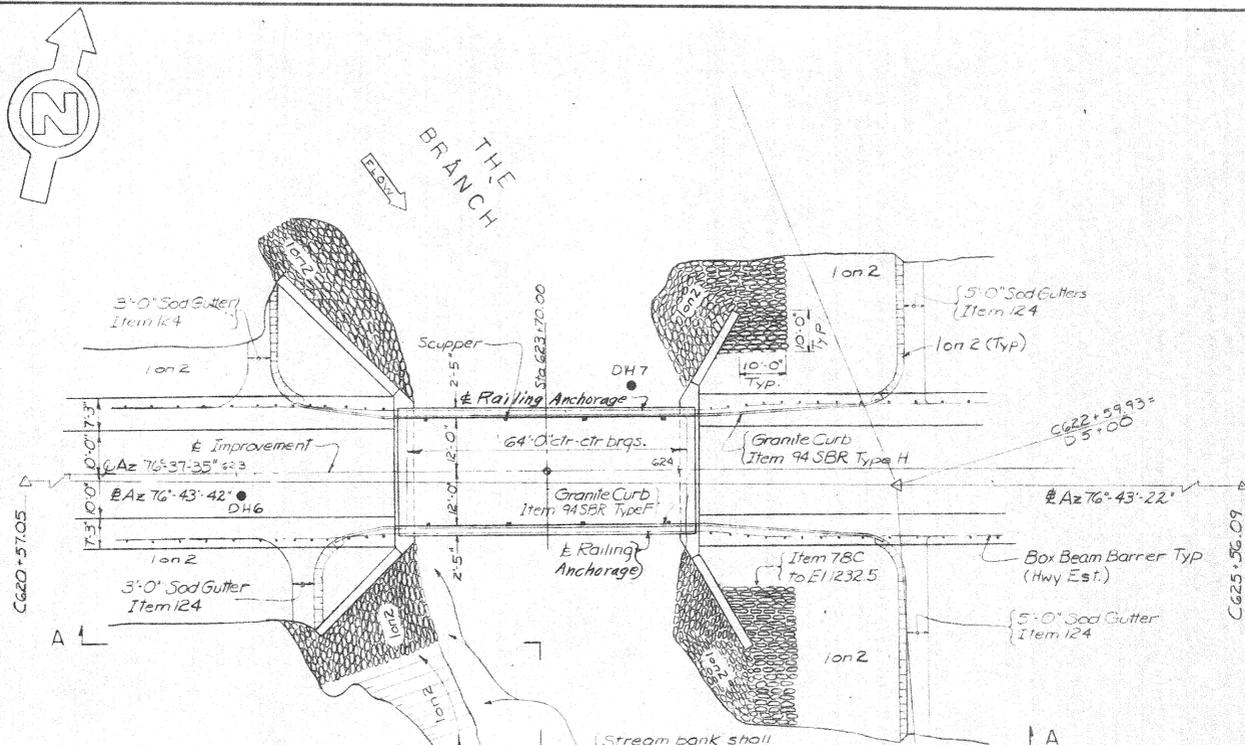


PROJECT ENGINEER D. J. [Signature]  
 IN CHARGE OF [Signature]  
 DESIGNED BY \_\_\_\_\_  
 DESIGN CHECKED BY \_\_\_\_\_  
 DETAILED BY [Signature]  
 DETAIL CHECKED BY [Signature]

BRIDGE NO. 1 — CL STA. 299+36.50  
 BRIDGE NO. 2 — CL STA. 623+70.00

BOREAS RIVER  
 LAYOUT—BR NO. 1

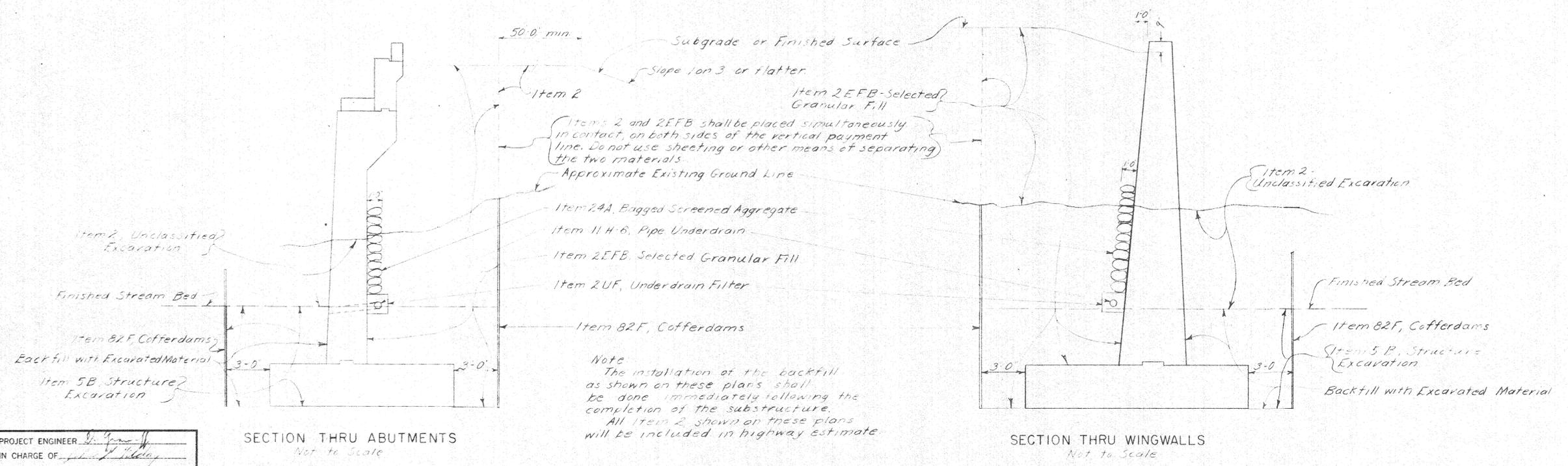
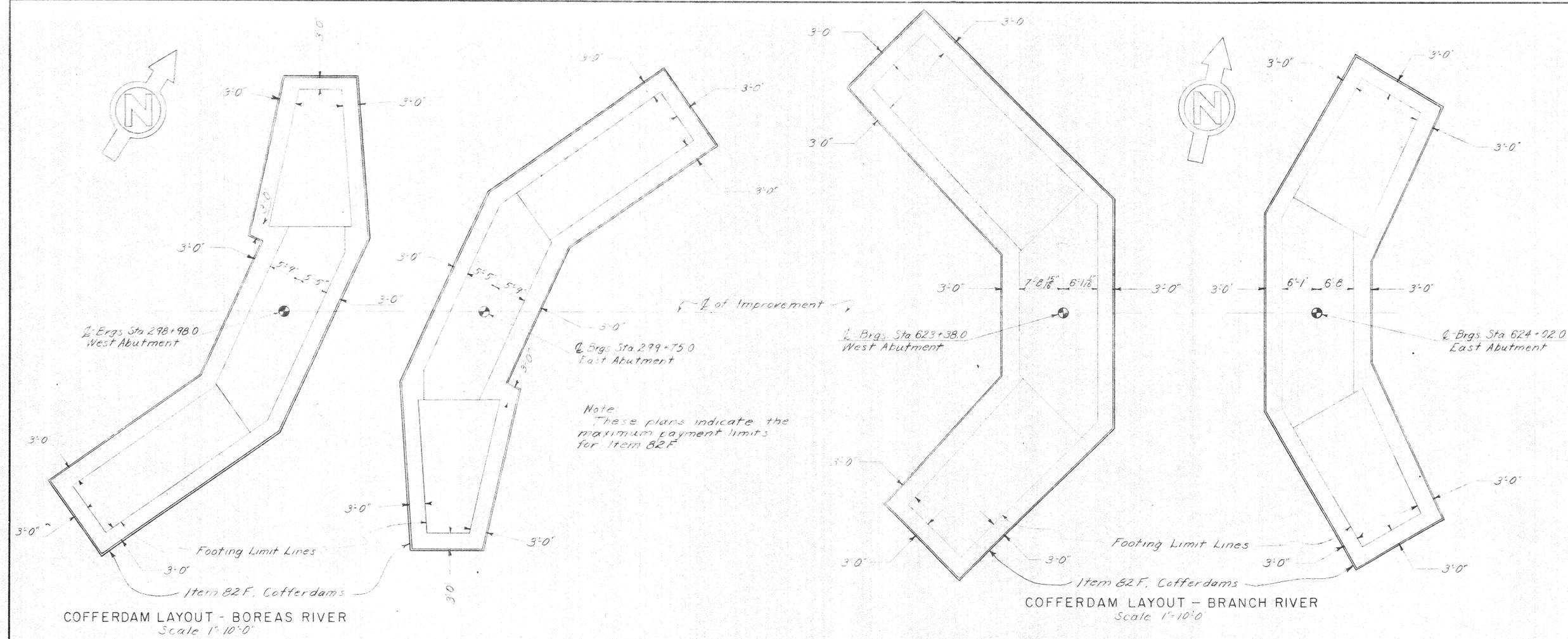
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	NEW YORK	5-1047(9)	1A	30
TAHAWUS-SCHROON RIVER			PT 5	
COUNTY ROAD 2B			ESSEX COUNTY	



PROJECT ENGINEER  
IN CHARGE OF  
DESIGNED BY  
DESIGN CHECKED BY  
DETAILED BY  
DETAIL CHECKED BY

BRIDGE NO. 1 — STA 299+36.50  
BRIDGE NO. 2 — STA 623+70.00  
BRANCH RIVER  
LAYOUT BR. NO. 2  
DRAWING NO. 3 OF 19

FED. RD. REG. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
	NEW YORK	5-1047(9)	15	30
TAHAWUS-SCHROON RIVER			PT 5	
COUNTY ROAD 2B			ESSEX COUNTY	



PROJECT ENGINEER *[Signature]*  
 IN CHARGE OF *[Signature]*  
 DESIGNED BY *[Signature]*  
 DESIGN CHECKED BY *[Signature]*  
 DETAILED BY *[Signature]*  
 DETAIL CHECKED BY *[Signature]*

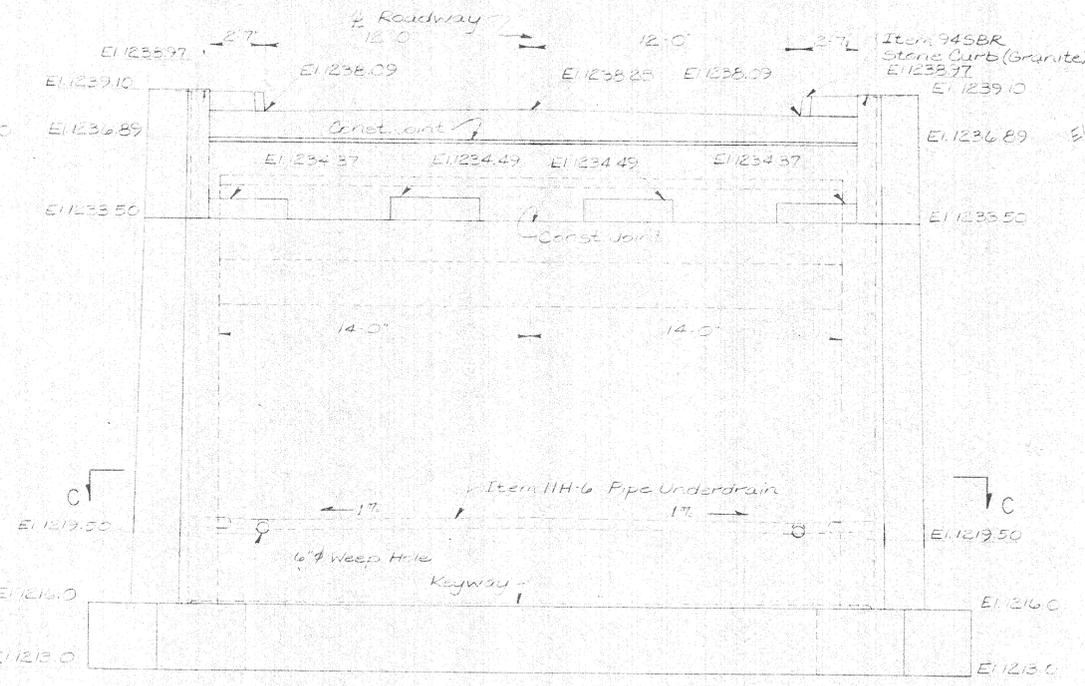
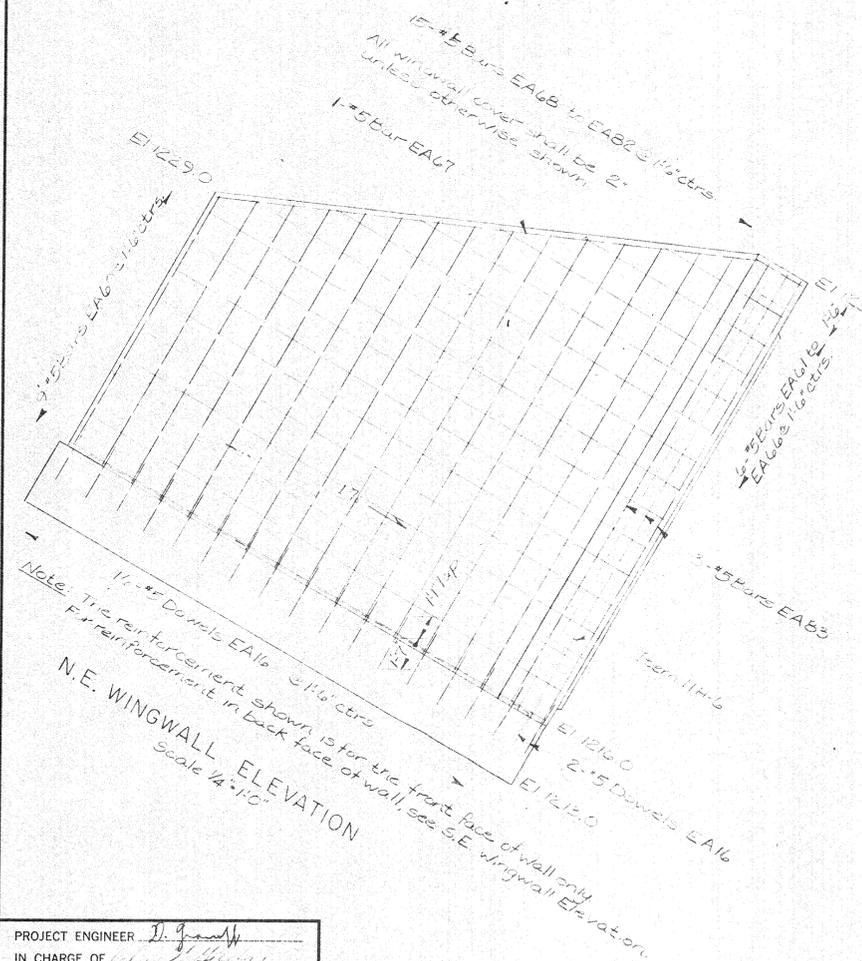
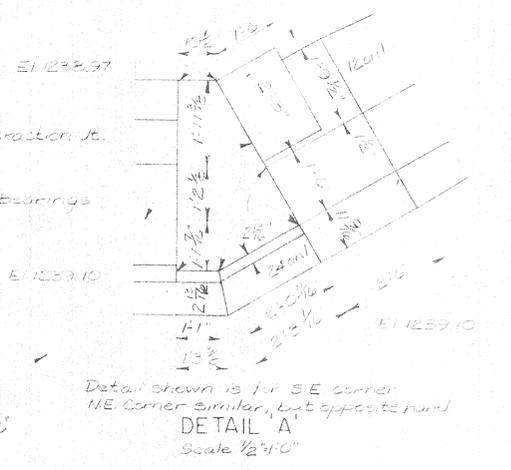
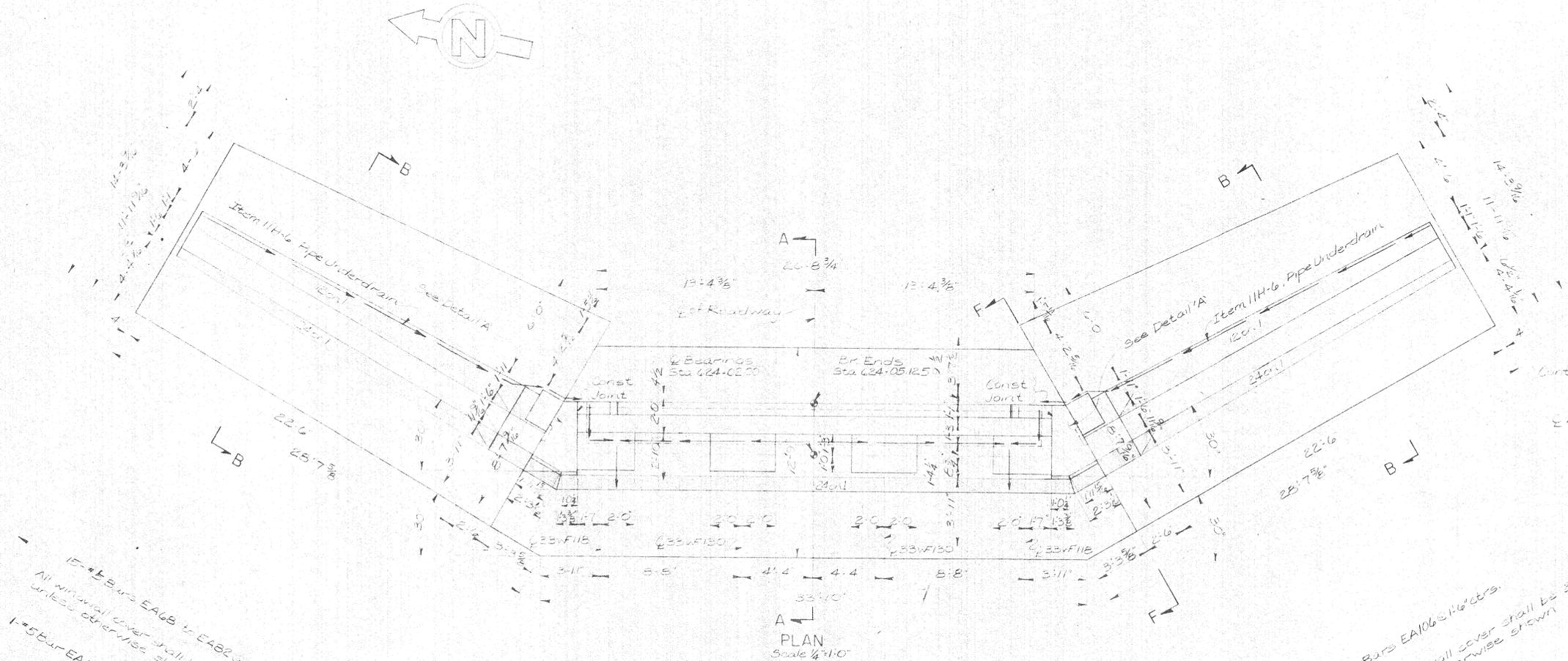
BRIDGE NO. 1 — c STA. 299+36.50  
 BRIDGE NO. 2 — c STA. 623+70.00

EXCAVATION, BACKFILL &  
 COFFERDAM PAYMENT LINES

DRAWING NO. 4 OF 19







PROJECT ENGINEER *D. Gandy*  
IN CHARGE OF *D. Gandy*  
DESIGNED BY *Harold A. Wabers*  
DESIGN CHECKED BY *W. B. ...*  
DETAILED BY *C. J. ...*  
DETAIL CHECKED BY *W. B. ...*

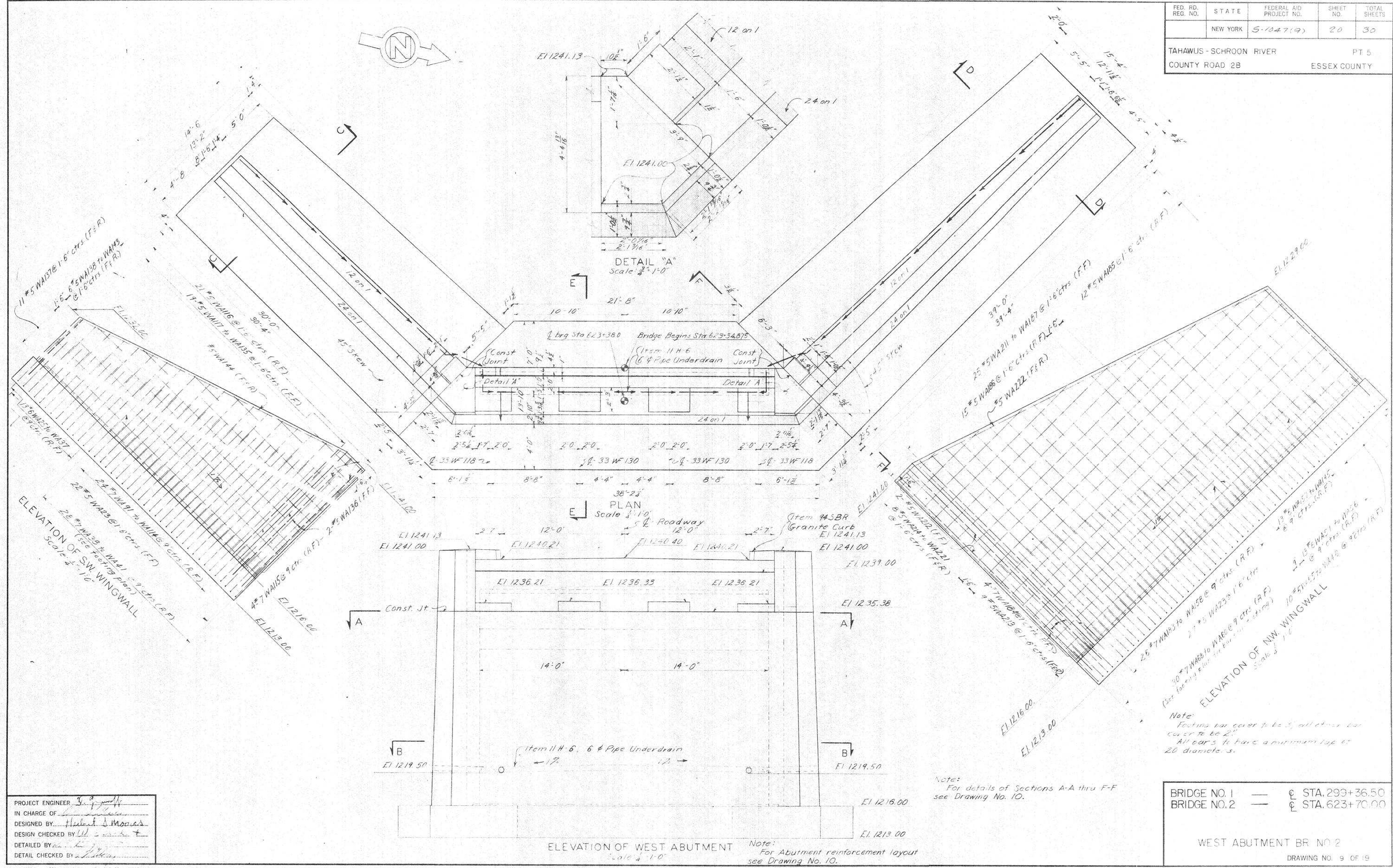
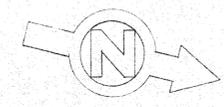
Note:  
For detail of Section F-F see Drawing No. 10.  
For details of Sections A-A thru C-C see Drawing No. 8.

BRIDGE NO. 1 — @ STA. 299+36.50  
BRIDGE NO. 2 — @ STA. 623+70.00

EAST ABUTMENT-BR. NO. 2  
DRAWING NO. 7 OF 19



FED. RD. REG. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
	NEW YORK	5-1047(9)	20	30
TAHAWUS - SCHROON RIVER			PT 5	
COUNTY ROAD 2B			ESSEX COUNTY	



PROJECT ENGINEER *[Signature]*  
 IN CHARGE OF *[Signature]*  
 DESIGNED BY *[Signature]*  
 DESIGN CHECKED BY *[Signature]*  
 DETAILED BY *[Signature]*  
 DETAIL CHECKED BY *[Signature]*

Note:  
 For details of Sections A-A thru F-F  
 see Drawing No. 10.

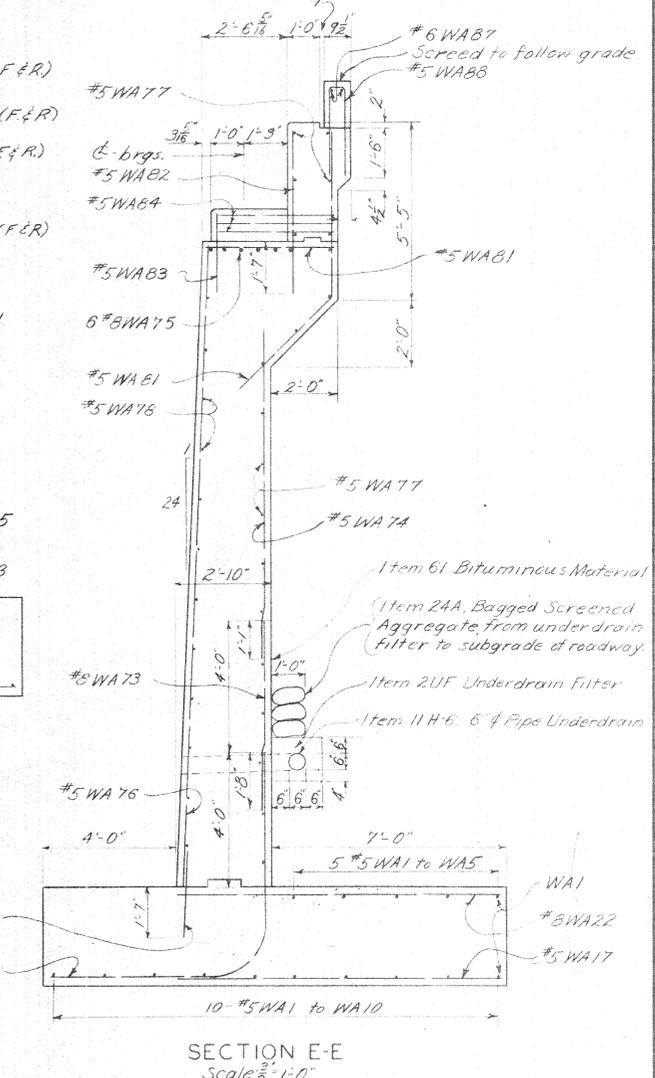
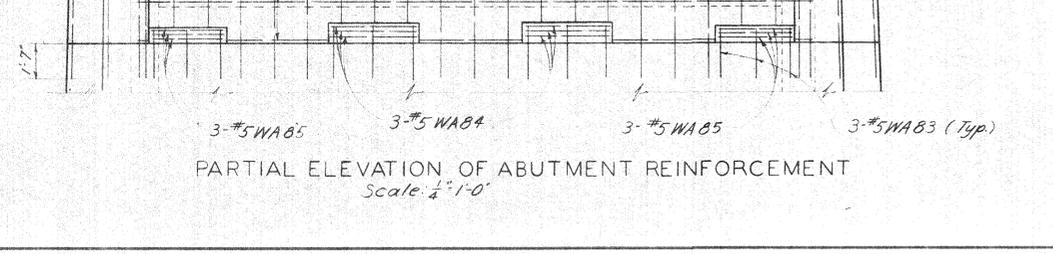
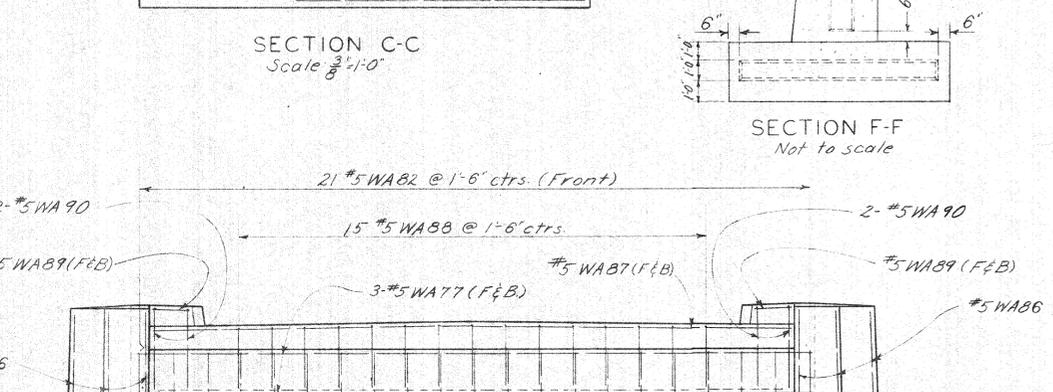
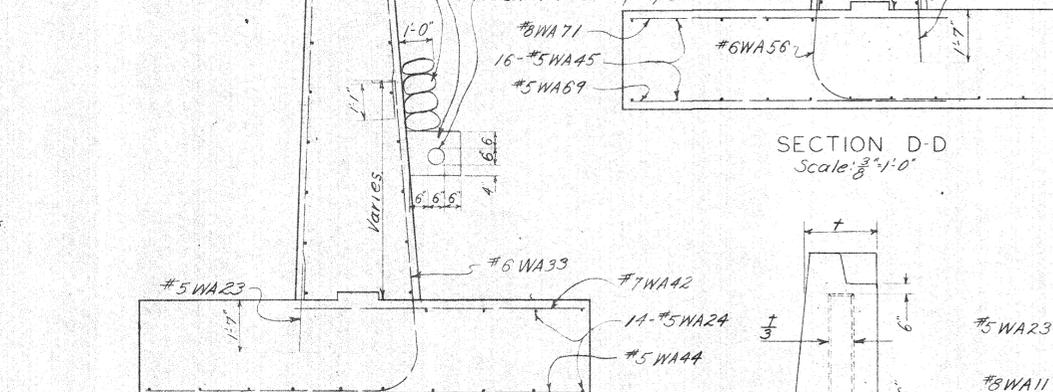
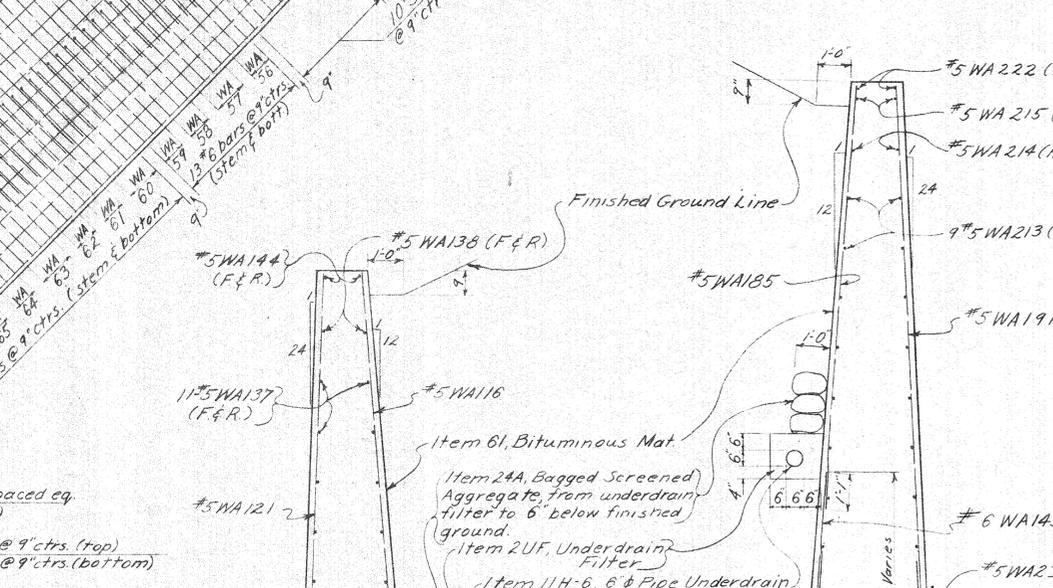
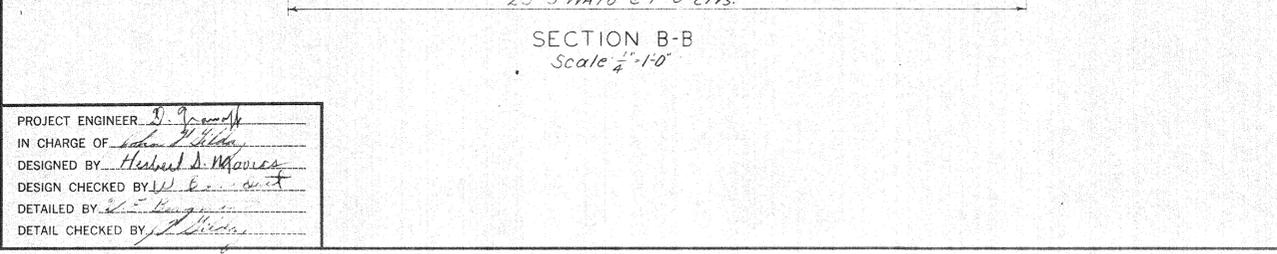
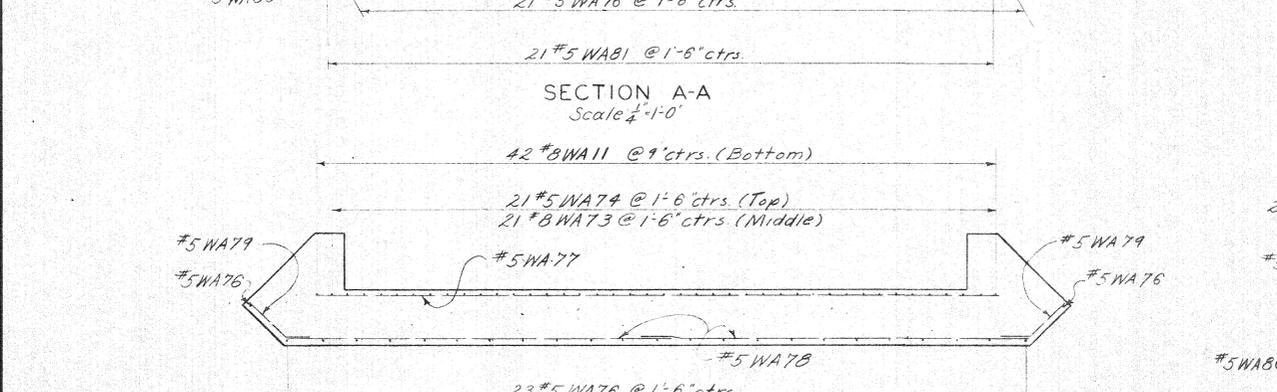
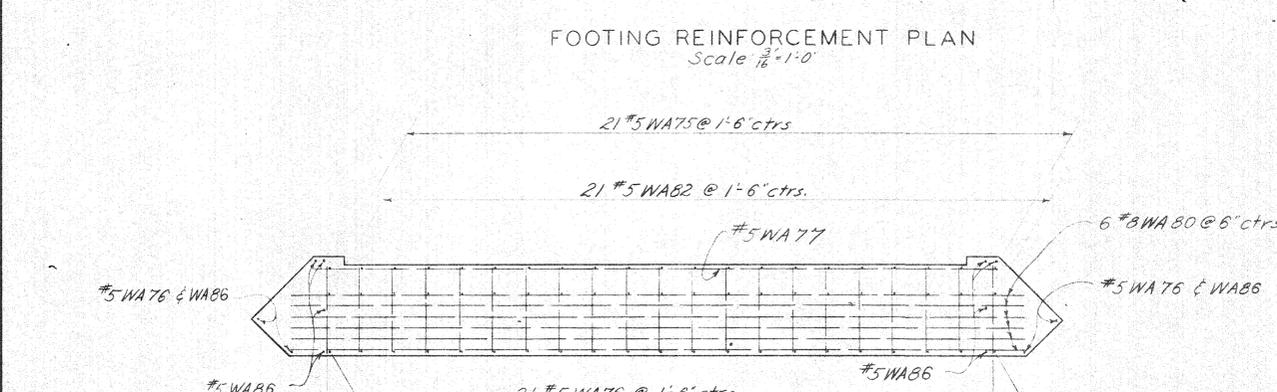
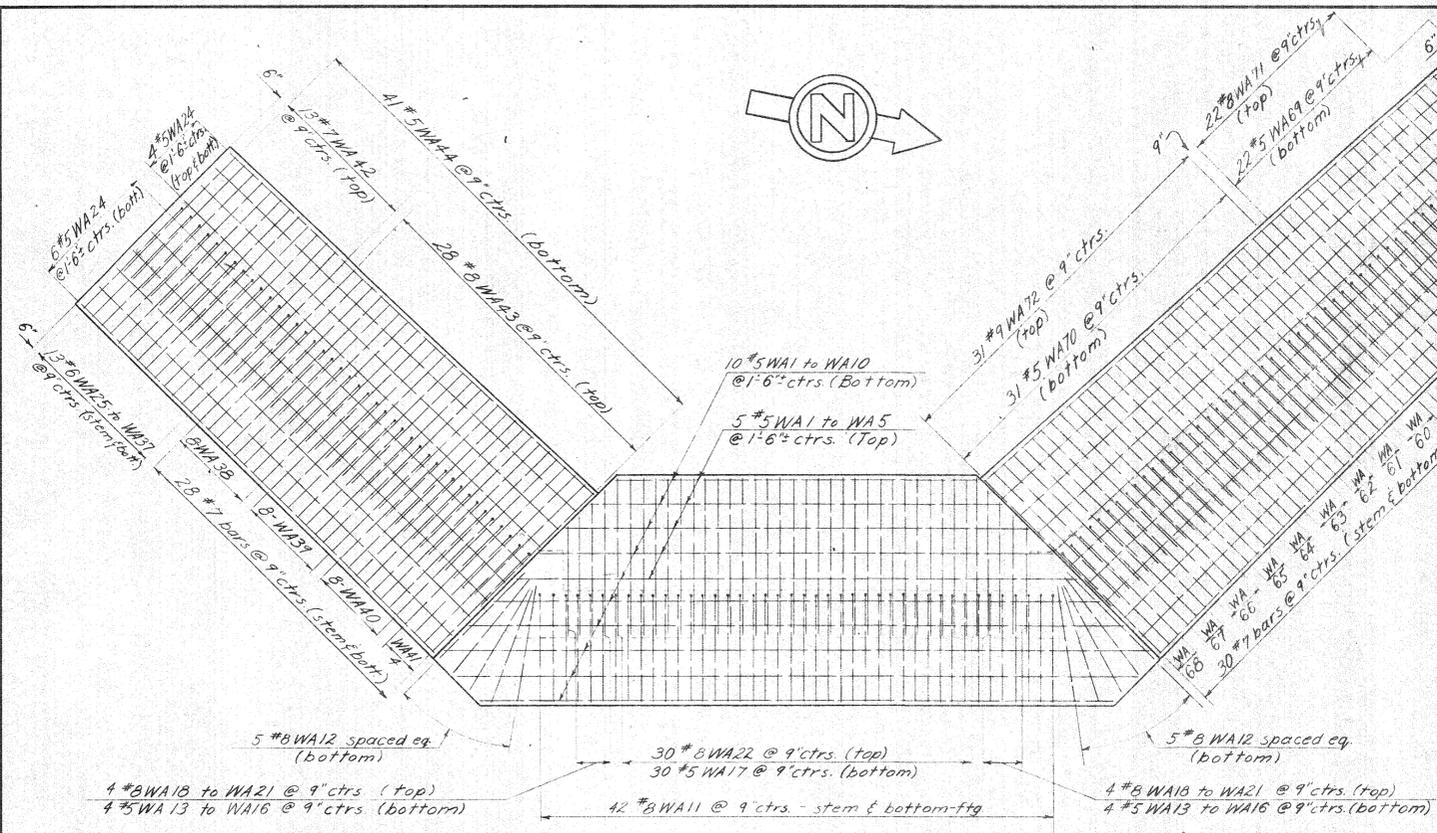
BRIDGE NO. 1 ———— @ STA. 299+36.50  
 BRIDGE NO. 2 ———— @ STA. 623+70.00

WEST ABUTMENT BR NO 2

DRAWING NO. 9 OF 19

FED. RD. REG. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
	NEW YORK	5-1047(9)	21	30

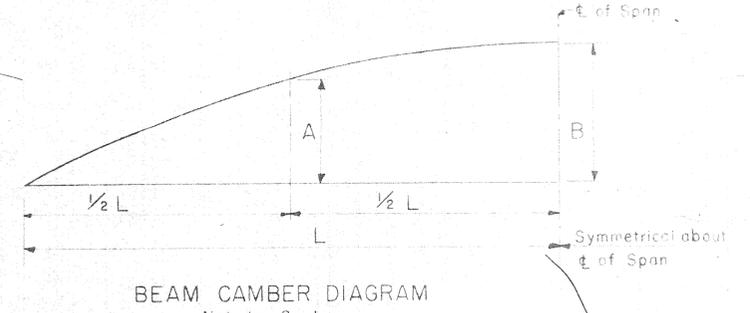
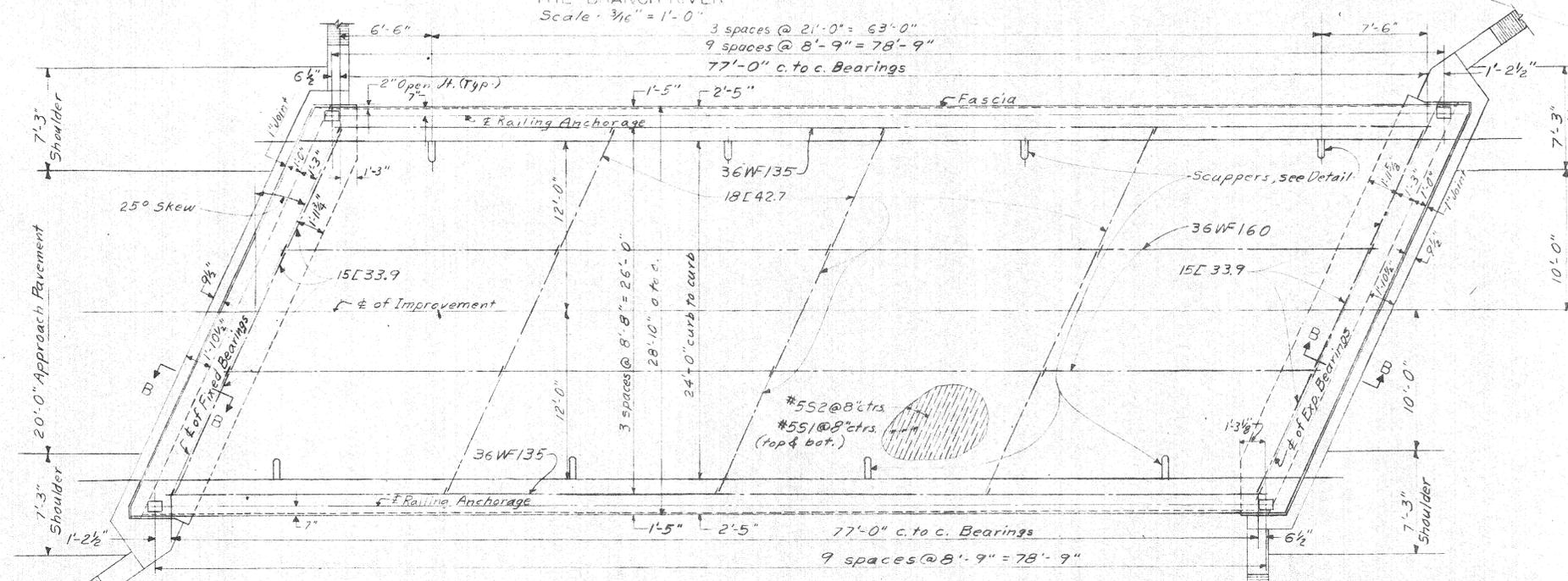
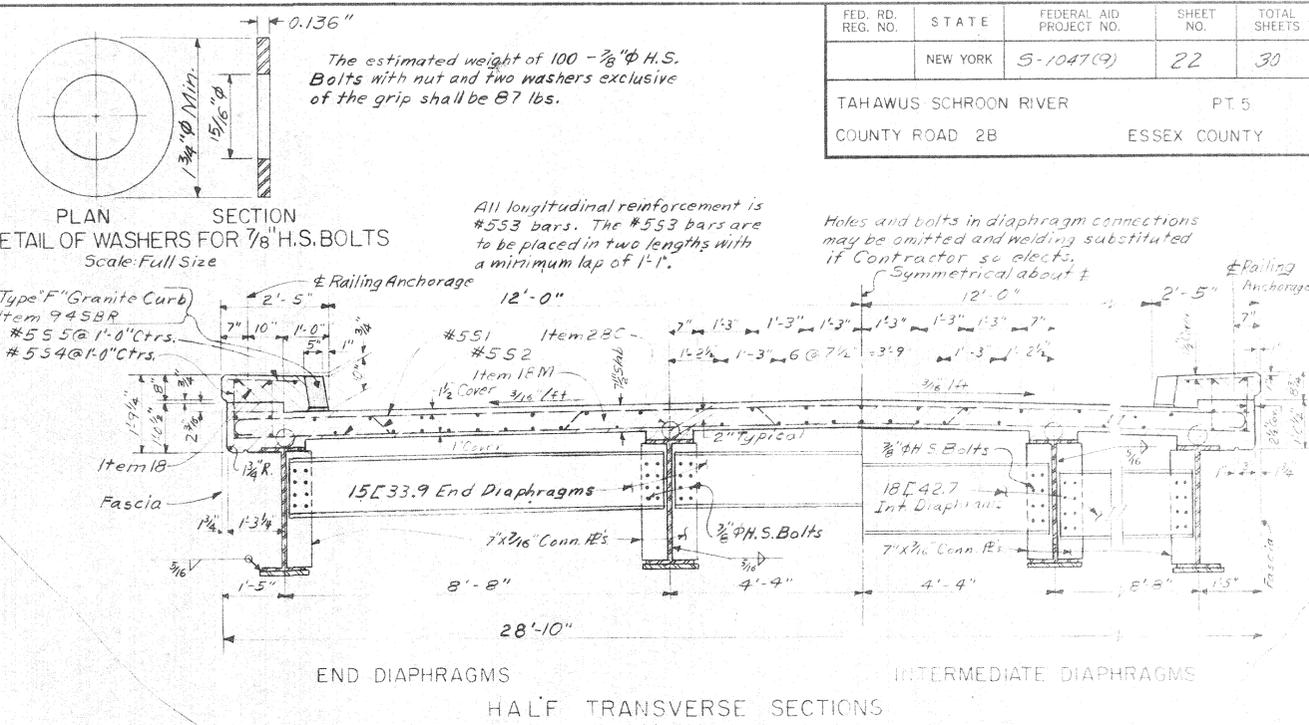
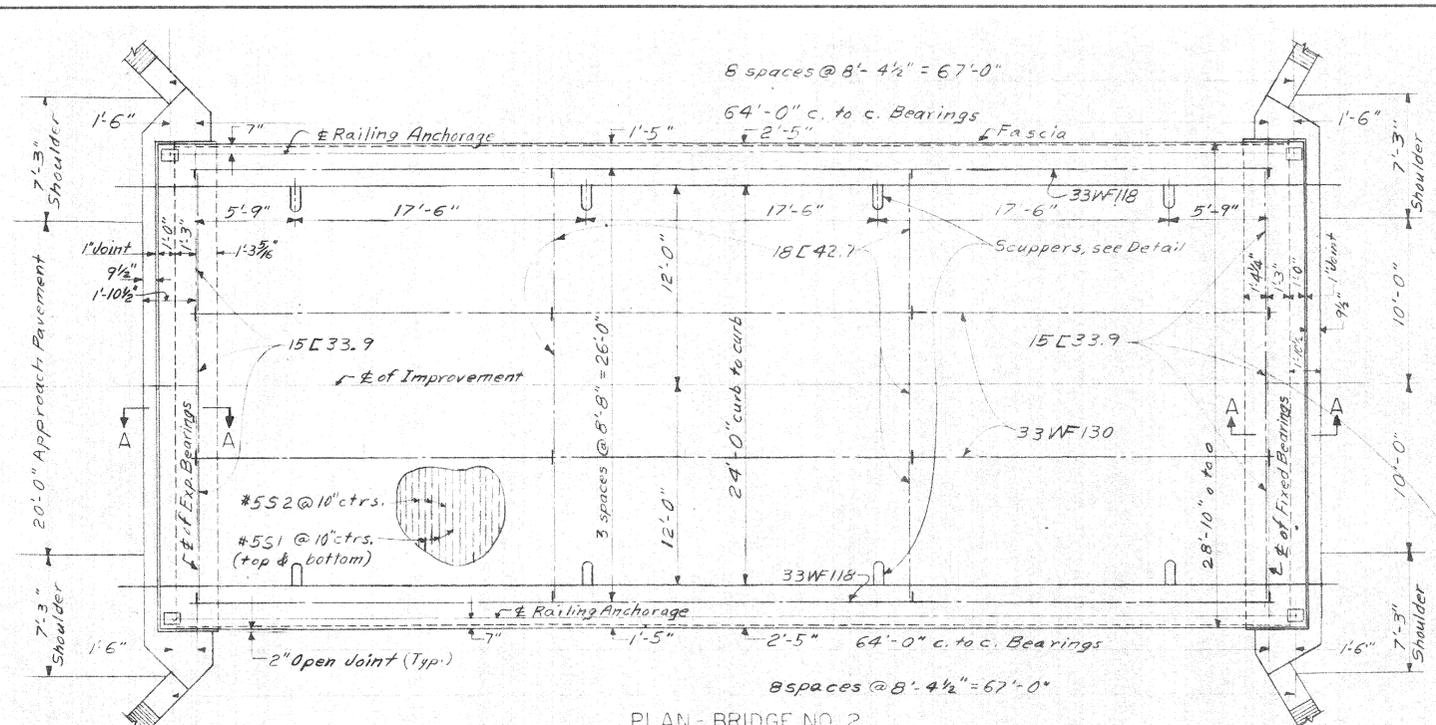
TAHAWUS-SCHROON RIVER PT. 5  
COUNTY ROAD 2B ESSEX COUNTY



PROJECT ENGINEER: D. J. [Signature]  
 IN CHARGE OF: [Signature]  
 DESIGNED BY: Herbert A. Mauer  
 DESIGN CHECKED BY: [Signature]  
 DETAILED BY: [Signature]

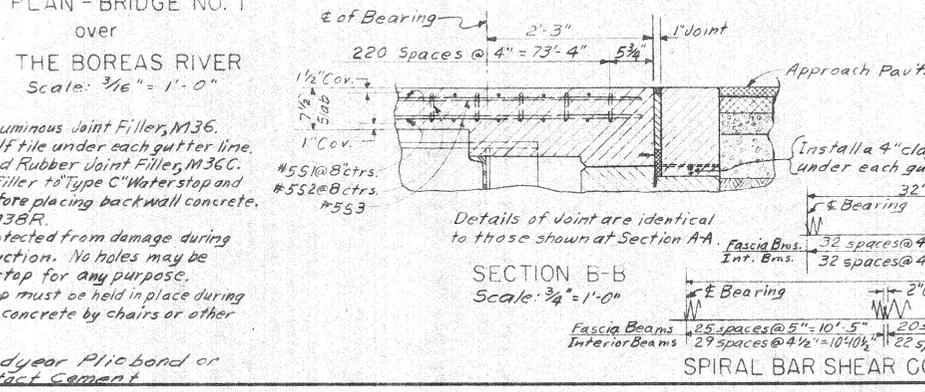
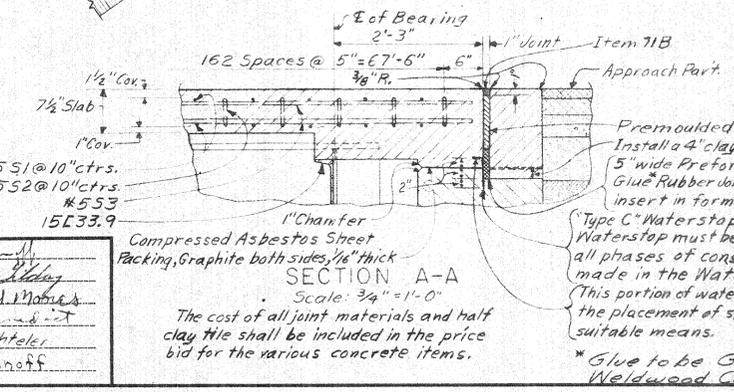
BRIDGE NO. 1	—	℄ STA. 299+36.50
BRIDGE NO. 2	—	℄ STA. 623+70.00

WEST ABUTMENT BR NO. 2  
DRAWING NO. 10 OF 19



BRIDGE	BEAM	L	1/2 L	A1	A2	A3	B1	B2	B3	COVER PLATE	
No. 2	Fascia	32.0'	16.0'	0.19"	0.86"	1 1/16"	0.25"	1.14"	1 1/16"	14" x 3/4" x 50'-3"	35.7 #/ft
No. 2	Interior	32.0'	16.0'	0.19"	0.99"	3/16"	0.25"	1.32"	1 9/16"	14" x 1" x 51'-6"	47.6 #/ft
No. 1	Fascia	38.5'	19.25'	0.32"	1.25"	1 9/16"	0.43"	1.68"	2 1/8"	14" x 1 1/8" x 61'-6"	56.53 #/ft
No. 1	Interior	38.5'	19.25'	0.32"	1.41"	1 3/4"	0.43"	1.88"	2 5/16"	14" x 1 1/4" x 61'-5"	62.5 #/ft

A1 & B1 = Steel Deflection  
A2 & B2 = Superimposed Dead Load Deflection  
A3 & B3 = Camber  
Cover Plates are symmetrical about ¢ of Span.



BRIDGE No.	Beam Position	¢ Bearing West Abut.	1/4 Point	¢ Span	3/4 Point	¢ Bearing East Abut.
2	Fascia	1239.49	1239.00	1238.505	1238.01	1237.52
2	Interior	1239.63	1239.14	1238.645	1238.15	1237.66
1	South Fascia	1741.80	1741.89	1741.99	1742.09	1742.18
1	South Interior	1741.96	1742.05	1742.15	1742.25	1742.34
1	North Interior	1741.98	1742.07	1742.17	1742.27	1742.36
1	North Fascia	1741.87	1741.96	1742.06	1742.16	1742.25

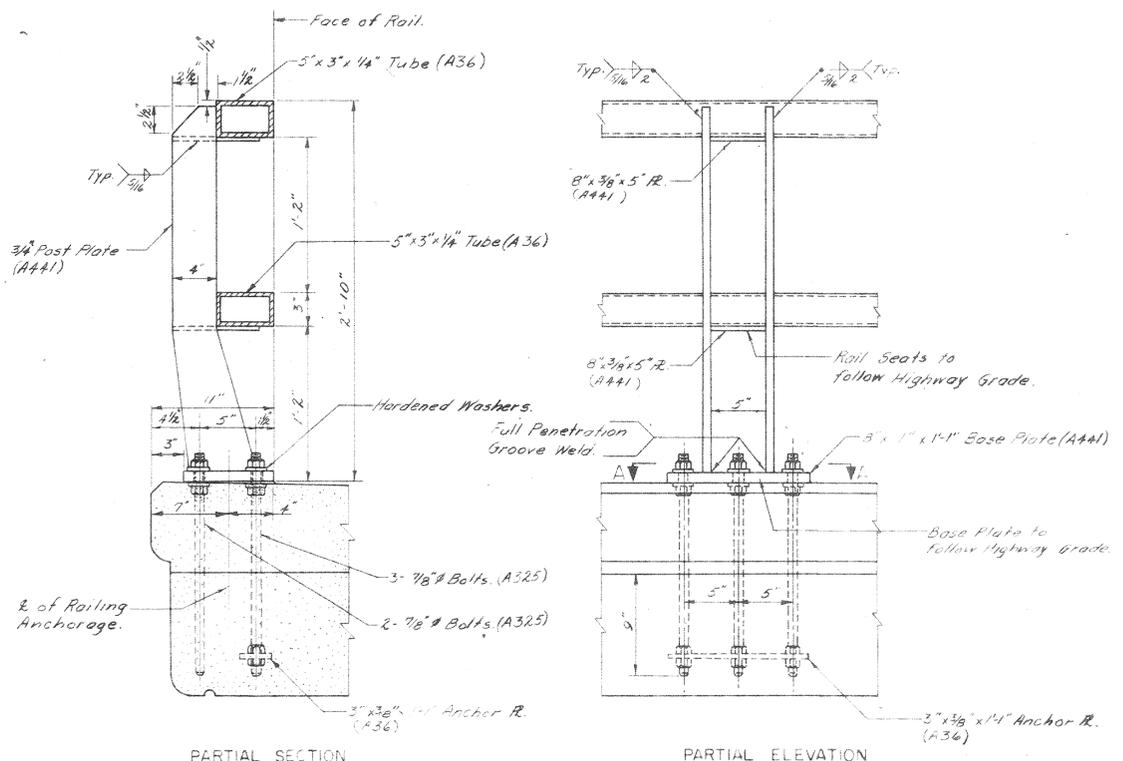
PROJECT ENGINEER: *[Signature]*  
IN CHARGE OF: *[Signature]*  
DESIGNED BY: *[Signature]*  
DESIGN CHECKED BY: *[Signature]*  
DETAILED BY: *[Signature]*  
DETAIL CHECKED BY: *[Signature]*

BRIDGE NO. 1 — ¢ STA. 299+36.50  
BRIDGE NO. 2 — ¢ STA. 623+70.00

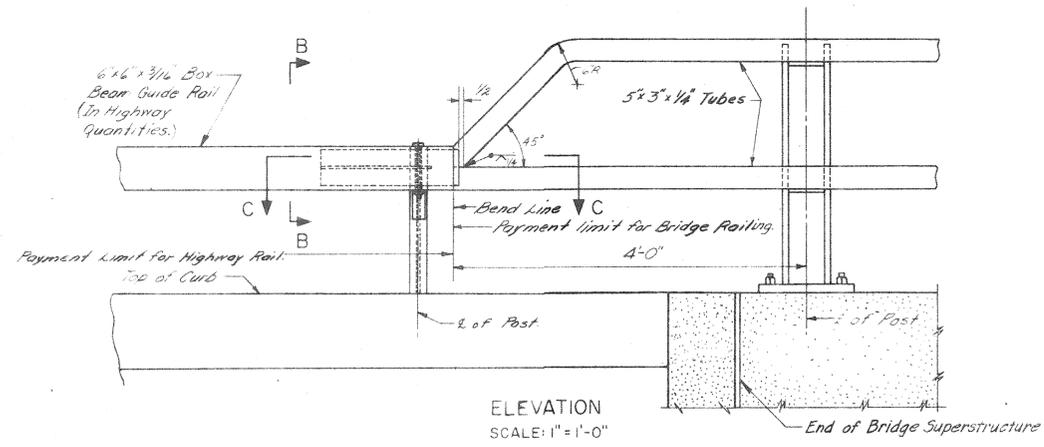
SUPERSTRUCTURE

DRAWING NO. 11 OF 19



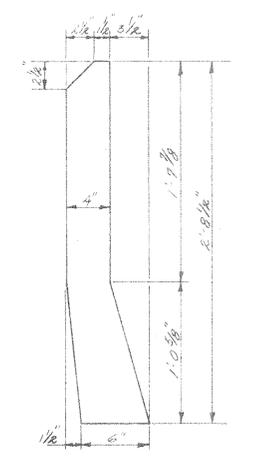


PARTIAL SECTION  
 BRIDGE RAILING DETAILS  
 SCALE: 1/2"=1'-0"

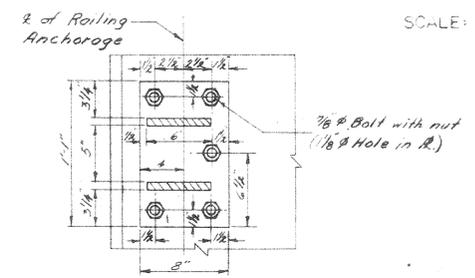


ELEVATION  
 SCALE: 1"=1'-0"

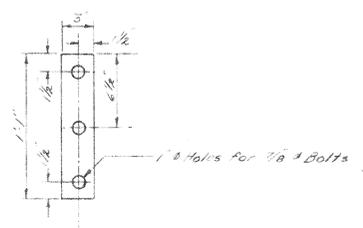
Note:  
 These details are drawn for Bridge No. 2.  
 The details shown for the end of railing will be exactly the same for Bridge No. 1.



POST PLATE (2) REQ'D PER POST  
 SCALE: 1 1/2"=1'-0"

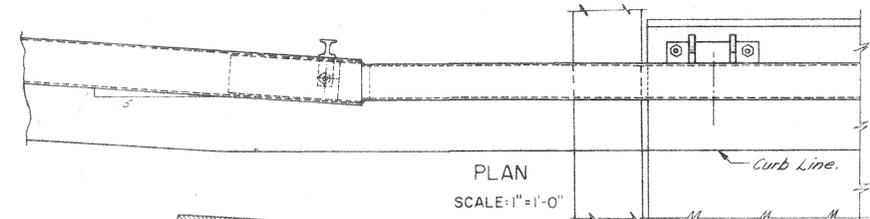


SECTION A-A  
 SCALE: 1 1/2"=1'-0"

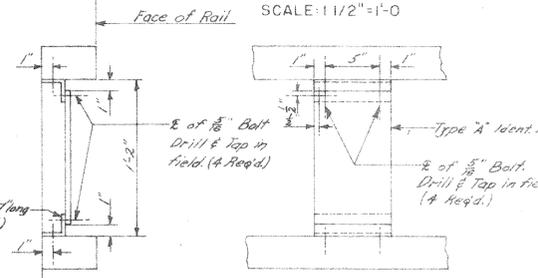


ANCHOR PLATE  
 SCALE: 1 1/2"=1'-0"

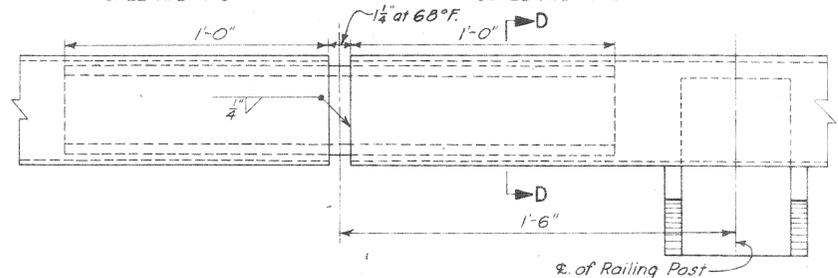
NOTE: All welds indicated on this sheet as field welds may be performed in the shop or at the option of the Contractor.



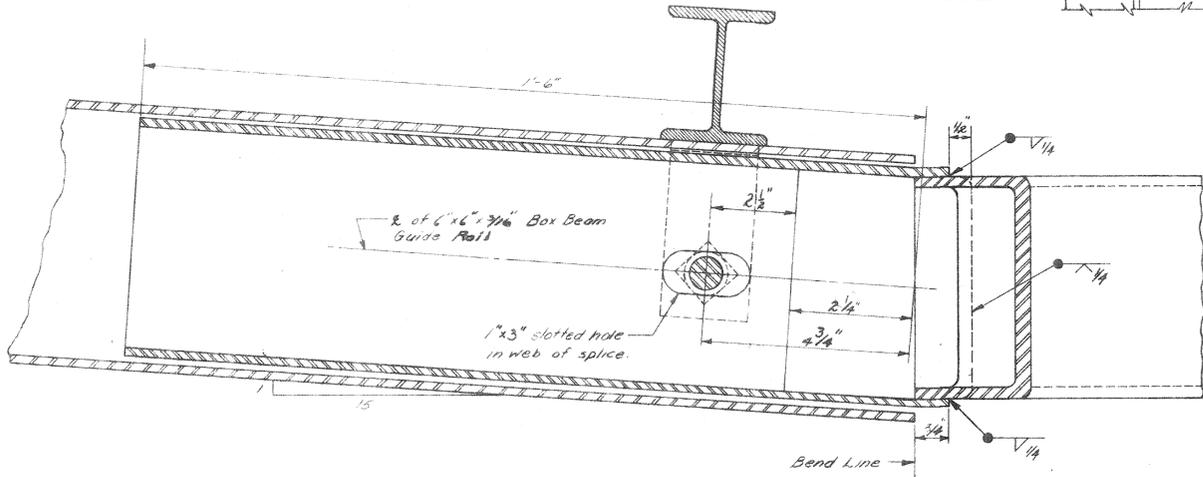
PLAN  
 SCALE: 1"=1'-0"



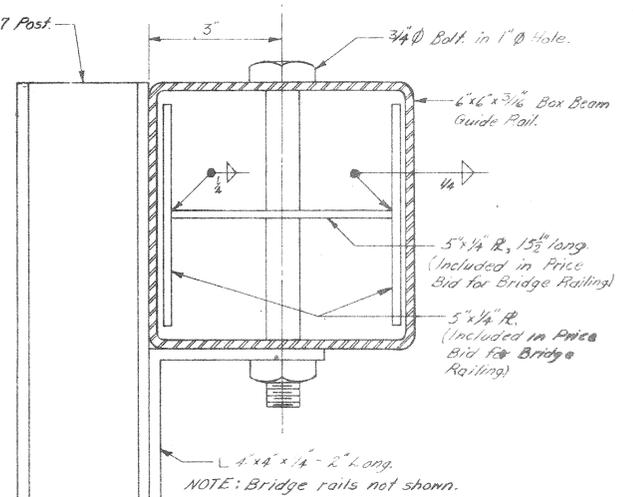
IDENTIFICATION PLATE  
 SCALE: 1 1/2"=1'-0"



PLAN OF SPLICE IN RAIL  
 SCALE: 3"=1'-0"

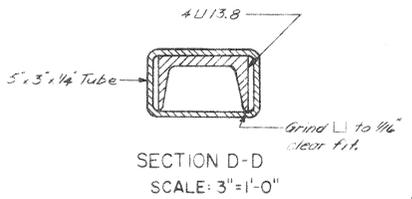


SECTION C-C  
 SCALE: 1/2"=1'



SECTION B-B  
 SCALE: 1/2"=1'

NOTE: Bridge rails not shown.



SECTION D-D  
 SCALE: 3"=1'-0"

**RAILING NOTES**

All railings are to be fabricated and erected so that the rails are parallel to each other and to the parapet and so that the posts are truly vertical.  
 Since the finished railings must meet all requirements of fit, alignment, grade and verticality of post to the full satisfaction of the Engineer, it is suggested that complete field measurements be made before any shop fabrication is performed.  
 Tubular steel rails, rail seats, steel posts, base plates, expansion joint and splice joint assemblies and shims shall be paid for under the railing item.

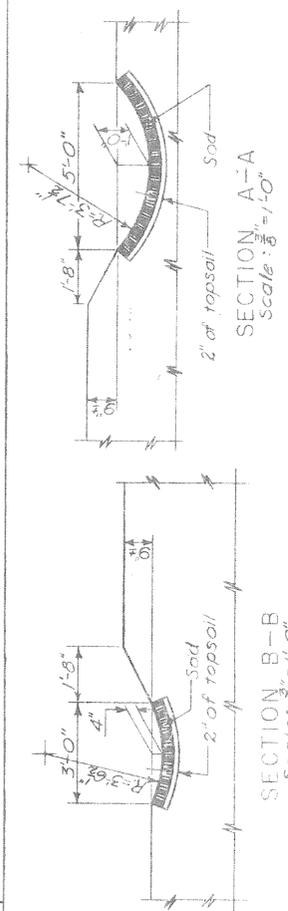
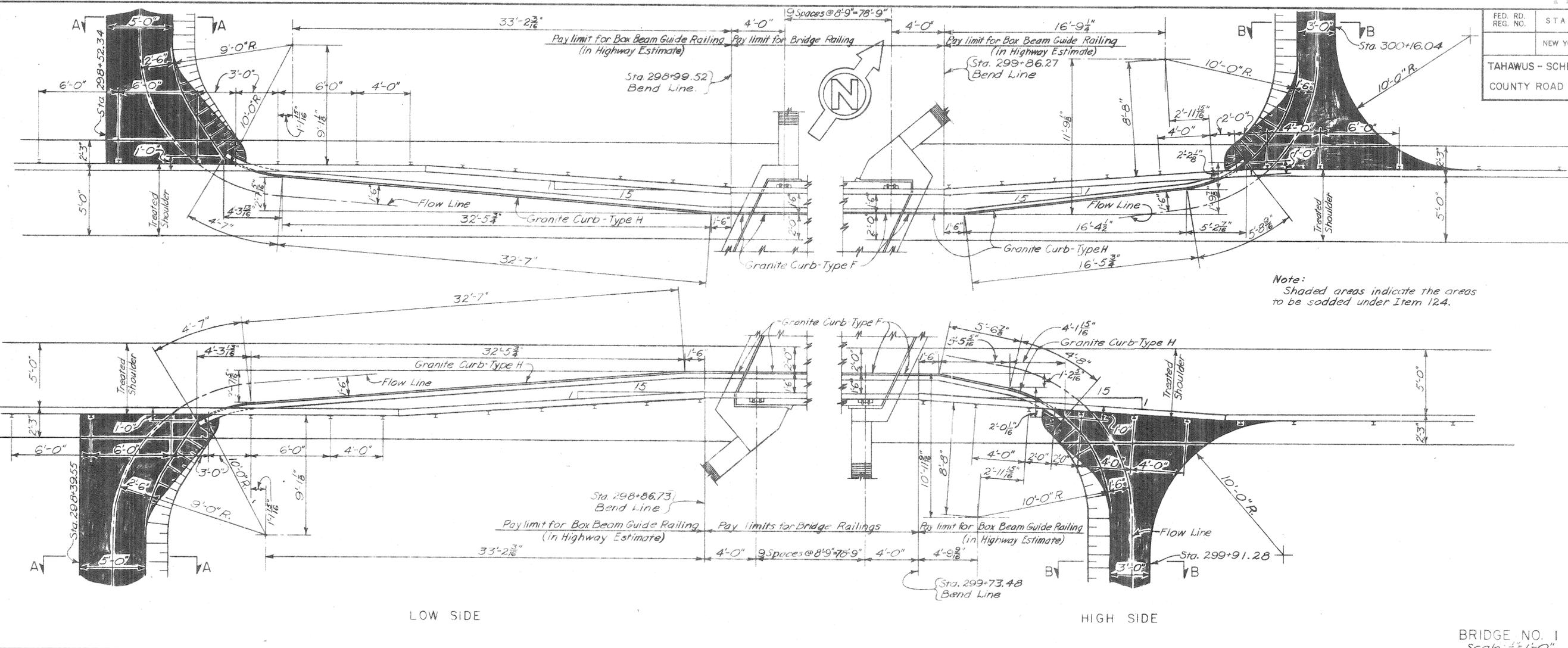
Anchor bolts, nuts, washers and anchor plates shall be paid for under the structural steel item.  
 After the anchor bolt nuts have been placed and tightened to the satisfaction of the Engineer, bolts shall be cut off 1/8 inch above the nut and peened.  
 Rails must be continuous over a minimum of three posts.  
 Welding shall be performed using either class E-7016, E-7018 or E-7028 electrodes or, for submerged arc welding grade SAW-2. Attention is directed to the preheat requirements for welded Highway and Railway Bridges.

PROJECT ENGINEER  
 IN CHARGE OF  
 DESIGNED BY  
 DESIGN CHECKED BY  
 DETAILED BY  
 DETAIL CHECKED BY

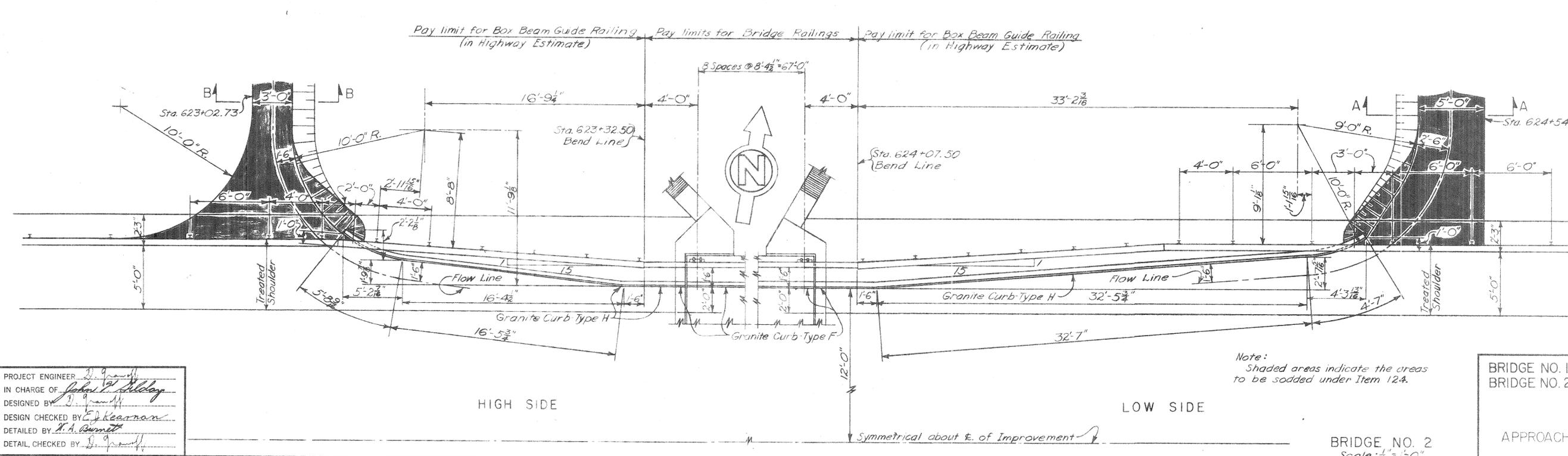
BRIDGE NO. 1 — STA. 299+36.50  
 BRIDGE NO. 2 — STA. 623+70.00

STEEL BRIDGE RAILING - 2 RAILS

FED. RD. REG. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
	NEW YORK	5-1047(9)	25	30
TAHAWUS - SCHROON RIVER			PT. 5	
COUNTY ROAD 2B			ESSEX COUNTY	



BRIDGE NO. 1  
Scale: 1/4" = 1'-0"



BRIDGE NO. 1 — Sta. 299+36.50  
BRIDGE NO. 2 — Sta. 623+70.00

BRIDGE NO. 2  
Scale: 1/4" = 1'-0"  
APPROACH DRAINAGE DETAILS  
DRAWING NO. 14 OF 19

PROJECT ENGINEER: *[Signature]*  
IN CHARGE OF: *[Signature]*  
DESIGNED BY: *[Signature]*  
DESIGN CHECKED BY: *[Signature]*  
DETAILED BY: *[Signature]*  
DETAIL CHECKED BY: *[Signature]*

SUPERSTRUCTURE												
MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	LOCATION
S1	#5	220	31'-3"	Str.								Trans. top & bott. slab
S2	#5	111	33'-2"	Str.	3'-4"	4'-4"	4'-4"	7"	5"	7"	28'-11"	Trans. top of slab
S3	#5	124	41'-5"	Str.								Long. top & bott. slab
S4	#5	148	3'-10"	Str.	1'-3 3/4"	11"	3"					Stirrups in fascia slab to sidewalk
S5	#5	150	7'-10"	Str.								Trans. in top of sidewalk
S6	#4	24	2'-6"	Str.	5 3/4"	5"	3 3/4"	5 3/4"				Long. at scuppers

EAST AND WEST ABUTMENTS												
MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	LOCATION
A1	#7	20	10'-2"	VII	4'-3"	3'-7"	2'-4"	1'-6"				Abutment footing and stem
A2	#7	8	5'-3"	Str.								Trans. bott. of toe abutment footing
A3	#5	41	8'-3"	Str.								Trans. bott. of heel abutment footing
A4	#6	41	8'-3"	Str.								Trans. bott. of heel abutment footing
A5	#5	2	30'-6"	Str.								Long. top and bott. abutment footing
A6	#5	2	32'-0"	Str.								Long. top and bott. abutment footing
A7	#5	2	33'-6"	Str.								Long. top and bott. abutment footing
A8	#5	2	35'-0"	Str.								Long. top and bott. abutment footing
A9	#5	2	36'-6"	Str.								Long. top and bott. abutment footing
A10	#5	2	38'-0"	Str.								Long. top and bott. abutment footing
A11	#5	2	39'-6"	Str.								Long. top and bott. abutment footing
A12	#5	1	37'-10"	Str.								Long. bott. abutment footing
A13	#5	1	32'-4"	Str.								Long. bott. abutment footing
A14	#5	64	3'-0"	Str.								Dowels from face stem and wingwalls
A15	#5	13	8'-6"	II	2'-2 1/2"	4'-6"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A16	#5	1	8'-9"	II	2'-4 1/2"	4'-7"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A17	#5	1	8'-11"	II	2'-6 1/2"	4'-7"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A18	#5	1	9'-2"	II	2'-9 1/2"	4'-7"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A19	#5	1	9'-4"	II	2'-11 1/2"	4'-7"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A20	#5	1	9'-6"	II	3'-1 1/2"	4'-7"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A21	#5	1	9'-9"	II	3'-4 1/2"	4'-7"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A22	#5	1	9'-11"	II	3'-6 1/2"	4'-7"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A23	#5	1	10'-2"	II	3'-8 1/2"	4'-8"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A24	#5	1	10'-5"	II	3'-11 1/2"	4'-8"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A25	#5	1	10'-7"	II	4'-1 1/2"	4'-8"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A26	#5	1	10'-9"	II	4'-3 1/2"	4'-8"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A27	#5	1	11'-0"	II	4'-6 1/2"	4'-8"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A28	#5	1	11'-2"	II	4'-8 1/2"	4'-8"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A29	#5	1	11'-4"	II	4'-10 1/2"	4'-8"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A30	#5	1	11'-7"	II	5'-1 1/2"	4'-8"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A31	#5	1	11'-9"	II	5'-3 1/2"	4'-8"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A32	#5	1	11'-11"	II	5'-5 1/2"	4'-8"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A33	#5	1	12'-3"	II	5'-8 1/2"	4'-9"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A34	#5	1	12'-5"	II	5'-10 1/2"	4'-9"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A35	#5	1	12'-7"	II	6'-0 1/2"	4'-9"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A36	#5	1	12'-10"	II	6'-3 1/2"	4'-9"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A37	#5	1	13'-0"	II	6'-5 1/2"	4'-9"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A38	#5	1	13'-2"	II	6'-7 1/2"	4'-9"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A39	#5	1	13'-5"	II	6'-10 1/2"	4'-9"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A40	#5	4	13'-8"	II	7'-0 1/2"	4'-10"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A41	#5	82	7'-3"	Str.								Trans. in heel of wingwall footing
A42	#5	14	31'-0"	Str.								Long. in top and bott. of wingwall footing
A43	#5	1	7'-5"	II	2'-2 1/2"	3'-5"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A44	#5	1	7'-6"	II	2'-2 1/2"	3'-6"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A45	#5	1	7'-7"	II	2'-2 1/2"	3'-7"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A46	#5	1	7'-8"	II	2'-2 1/2"	3'-8"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A47	#5	1	7'-9"	II	2'-2 1/2"	3'-9"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A48	#5	1	7'-10"	II	2'-2 1/2"	3'-10"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A49	#5	1	7'-11"	II	2'-2 1/2"	3'-11"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A50	#5	1	8'-0"	II	2'-2 1/2"	4'-0"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A51	#5	1	8'-1"	II	2'-2 1/2"	4'-1"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A52	#5	1	8'-2"	II	2'-2 1/2"	4'-2"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A53	#5	1	8'-3"	II	2'-2 1/2"	4'-3"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A54	#5	1	8'-4"	II	2'-2 1/2"	4'-4"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A55	#5	1	8'-5"	II	2'-6 1/2"	4'-5"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A56	#5	1	9'-2"	II	2'-10 1/2"	4'-6"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A57	#5	1	9'-6"	II	3'-1 1/2"	4'-7"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A58	#5	1	9'-11"	II	3'-5 1/2"	4'-8"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A59	#5	1	10'-3"	II	3'-9 1/2"	4'-9"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A60	#5	1	10'-8"	II	4'-0 1/2"	4'-10"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A61	#5	1	11'-0"	II	4'-3 1/2"	4'-11"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A62	#5	1	11'-5"	II	4'-7 1/2"	5'-0"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A63	#5	1	11'-9"	II	4'-10 1/2"	5'-1"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A64	#5	1	12'-2"	II	5'-2 1/2"	5'-2"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A65	#5	1	12'-6"	II	5'-5 1/2"	5'-3"	1'-9 1/2"	1'-1"				Wingwall footing and stem

PROJECT ENGINEER: *J. G. ...*  
 IN CHARGE OF: *John T. ...*  
 DESIGNED BY: *...*  
 DESIGN CHECKED BY: *...*  
 DETAILED BY: *W. A. ...*  
 DETAIL CHECKED BY: *...*

EAST AND WEST ABUTMENTS CONT.												
MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	LOCATION
A66	#5	1	12'-11"	II	5'-9 1/2"	5'-4"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A67	#5	1	13'-3"	II	6'-0 1/2"	5'-5"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A68	#5	1	13'-8"	II	6'-4 1/2"	5'-6"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A69	#5	1	14'-0"	II	6'-7 1/2"	5'-7"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A70	#5	1	14'-5"	II	6'-11 1/2"	5'-8"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A71	#5	1	14'-6"	II	6'-11 1/2"	5'-9"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A72	#5	1	14'-7"	II	6'-11 1/2"	5'-10"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A73	#5	1	4'-6"	II	6'-11 1/2"	5'-11"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A74	#5	1	14'-9"	II	6'-11 1/2"	6'-0"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A75	#5	1	14'-10"	II	6'-11 1/2"	6'-1"	1'-9 1/2"	1'-1"				Wingwall footing and stem
A76	#5	2	4'-11"	Str.								Trans. in heel of wingwall footing (top & bott.)
A77	#5	2	5'-7"	Str.								Trans. in heel of wingwall footing (top & bott.)
A78	#5	2	5'-3"	Str.								Trans. in heel of wingwall footing (top & bott.)
A79	#5	2	5'-3"	Str.								Trans. in heel of wingwall footing (top & bott.)
A80	#5	2	5'-7"	Str.								Trans. in heel of wingwall footing (top & bott.)
A81	#5	2	5'-9"	Str.								Trans. in heel of wingwall footing (top & bott.)
A82	#5	2	5'-0"	Str.								Trans. in heel of wingwall footing (top & bott.)
A83	#5	2	6'-2"	Str.								Trans. in heel of wingwall footing (top & bott.)
A84	#5	2	6'-4"	Str.								Trans. in heel of wingwall footing (top & bott.)
A85	#5	2	6'-6"	Str.								Trans. in heel of wingwall footing (top & bott.)
A86	#5	2	6'-8"	Str.								Trans. in heel of wingwall footing (top & bott.)
A87	#5	2	6'-10"	Str.								Trans. in heel of wingwall footing (top & bott.)
A88	#5	2	7'-1"	Str.								Trans. in heel of wingwall footing (top & bott.)
A89	#5	2	7'-3"	Str.								Trans. in heel of wingwall footing (top & bott.)
A90	#5	2	7'-5"	Str.								Trans. in heel of wingwall footing (top & bott.)
A91	#5	2	7'-7"	Str.								Trans. in heel of wingwall footing (top & bott.)
A92	#5	2	7'-9"	Str.								Trans. in heel of wingwall footing (top & bott.)
A93	#5	2	8'-3"	Str.								Trans. in heel of wingwall footing (top & bott.)
A94	#5	2	8'-2"	Str.								Trans. in heel of wingwall footing (top & bott.)
A95	#5	2	8'-4"	Str.								Trans. in heel of wingwall footing (top & bott.)
A96	#5	2	8'-6"	Str.								Trans. in heel of wingwall footing (top & bott.)
A97	#5	2	8'-8"	Str.								Trans. in heel of wingwall footing (top & bott.)
A98	#5	2	8'-10"	Str.								Trans. in heel of wingwall footing (top & bott.)
A99	#5	2	9'-7"	Str.								Trans. in heel of wingwall footing (top & bott.)
A100	#5	2	9'-3"	Str.								Trans. in heel of wingwall footing (top & bott.)
A101	#5	2	9'-5"	Str.								Trans. in heel of wingwall footing (top & bott.)
A102	#5	2	9'-7"	Str.								





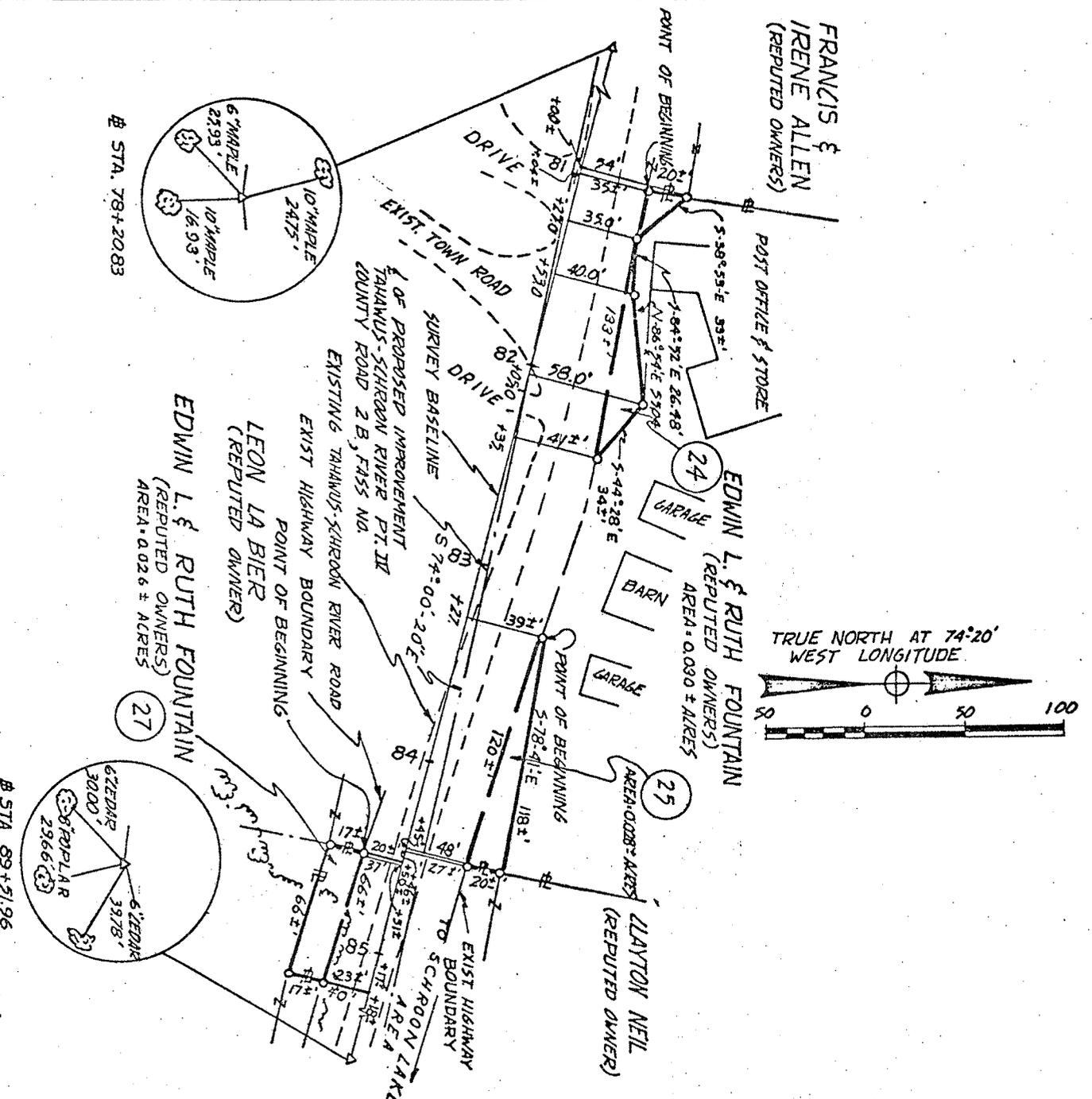
WEST ABUTMENT												
MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	LOCATION
WA140	#5	2	18'-1"	Str.								Horiz. in South Wingwall - Front & Back
WA141	#5	2	13'-6"	Str.								Horiz. in South Wingwall - Front & Back
WA142	#5	2	8'-11"	Str.								Horiz. in South Wingwall - Front & Back
WA143	#5	2	4'-4"	Str.								Horiz. in South Wingwall - Front & Back
WA144	#5	2	3'-3"	Str.	28'-11"	2'-4"	8'-3/4"	2'-2 1/2"				Horiz. in Top of South Wingwall - Front & Back
WA145	#6	1	3'-9"	Str.								Vertical in North Wingwall - Back
WA146	#6	1	4'-0"	Str.								Vertical in North Wingwall - Back
WA147	#6	1	4'-3"	Str.								Vertical in North Wingwall - Back
WA148	#6	1	4'-6"	Str.								Vertical in North Wingwall - Back
WA149	#6	1	4'-9"	Str.								Vertical in North Wingwall - Back
WA150	#6	1	5'-0"	Str.								Vertical in North Wingwall - Back
WA151	#6	1	5'-3"	Str.								Vertical in North Wingwall - Back
WA152	#6	1	5'-6"	Str.								Vertical in North Wingwall - Back
WA153	#6	1	5'-9"	Str.								Vertical in North Wingwall - Back
WA154	#6	1	6'-0"	Str.								Vertical in North Wingwall - Back
WA155	#6	1	6'-3"	Str.								Vertical in North Wingwall - Back
WA156	#6	1	6'-6"	Str.								Vertical in North Wingwall - Back
WA157	#6	1	6'-9"	Str.								Vertical in North Wingwall - Back
WA158	#7	1	5'-8"	Str.								Vertical in North Wingwall - Back
WA159	#7	1	5'-11"	Str.								Vertical in North Wingwall - Back
WA160	#7	1	6'-2"	Str.								Vertical in North Wingwall - Back
WA161	#7	1	6'-5"	Str.								Vertical in North Wingwall - Back
WA162	#7	1	6'-8"	Str.								Vertical in North Wingwall - Back
WA163	#7	1	6'-11"	Str.								Vertical in North Wingwall - Back
WA164	#7	1	7'-2"	Str.								Vertical in North Wingwall - Back
WA165	#7	1	7'-5"	Str.								Vertical in North Wingwall - Back
WA166	#7	1	7'-8"	Str.								Vertical in North Wingwall - Back
WA167	#7	1	7'-11"	Str.								Vertical in North Wingwall - Back
WA168	#7	1	8'-2"	Str.								Vertical in North Wingwall - Back
WA169	#7	1	8'-5"	Str.								Vertical in North Wingwall - Back
WA170	#7	1	8'-8"	Str.								Vertical in North Wingwall - Back
WA171	#7	1	8'-11"	Str.								Vertical in North Wingwall - Back
WA172	#7	1	9'-2"	Str.								Vertical in North Wingwall - Back
WA173	#7	1	9'-5"	Str.								Vertical in North Wingwall - Back
WA174	#7	1	9'-8"	Str.								Vertical in North Wingwall - Back
WA175	#7	1	9'-11"	Str.								Vertical in North Wingwall - Back
WA176	#7	1	10'-2"	Str.								Vertical in North Wingwall - Back
WA177	#7	1	10'-5"	Str.								Vertical in North Wingwall - Back
WA178	#7	1	10'-8"	Str.								Vertical in North Wingwall - Back
WA179	#7	1	10'-11"	Str.								Vertical in North Wingwall - Back
WA180	#7	1	11'-2"	Str.								Vertical in North Wingwall - Back
WA181	#7	1	11'-5"	Str.								Vertical in North Wingwall - Back
WA182	#7	1	11'-8"	Str.								Vertical in North Wingwall - Back
WA183	#7	1	11'-11"	Str.								Vertical in North Wingwall - Back
WA184	#7	4	12'-0"	Str.								Vertical in North Wingwall - Back
WA185	#5	12	12'-10"	Str.								Vertical in North Wingwall - Back
WA186	#5	15	14'-0"	Str.								Vertical in North Wingwall - Back
WA187	#5	1	12'-9"	Str.								Vertical in North Wingwall - Front
WA188	#5	1	13'-3"	Str.								Vertical in North Wingwall - Front
WA189	#5	1	13'-9"	Str.								Vertical in North Wingwall - Front
WA190	#5	1	14'-3"	Str.								Vertical in North Wingwall - Front
WA191	#5	1	14'-9"	Str.								Vertical in North Wingwall - Front
WA192	#5	1	15'-3"	Str.								Vertical in North Wingwall - Front
WA193	#5	1	15'-9"	Str.								Vertical in North Wingwall - Front
WA194	#5	1	16'-3"	Str.								Vertical in North Wingwall - Front
WA195	#5	1	16'-9"	Str.								Vertical in North Wingwall - Front
WA196	#5	1	17'-3"	Str.								Vertical in North Wingwall - Front
WA197	#5	1	17'-9"	Str.								Vertical in North Wingwall - Front
WA198	#5	1	18'-3"	Str.								Vertical in North Wingwall - Front
WA199	#5	1	18'-9"	Str.								Vertical in North Wingwall - Front
WA200	#5	1	19'-3"	Str.								Vertical in North Wingwall - Front
WA201	#5	1	19'-9"	Str.								Vertical in North Wingwall - Front
WA202	#5	1	20'-3"	Str.								Vertical in North Wingwall - Front
WA203	#5	1	20'-9"	Str.								Vertical in North Wingwall - Front
WA204	#5	1	21'-3"	Str.								Vertical in North Wingwall - Front
WA205	#5	1	21'-9"	Str.								Vertical in North Wingwall - Front
WA206	#5	1	22'-3"	Str.								Vertical in North Wingwall - Front
WA207	#5	1	22'-9"	Str.								Vertical in North Wingwall - Front
WA208	#5	1	23'-3"	Str.								Vertical in North Wingwall - Front
WA209	#5	1	23'-9"	Str.								Vertical in North Wingwall - Front
WA210	#5	1	24'-3"	Str.								Vertical in North Wingwall - Front
WA211	#5	1	24'-9"	Str.								Vertical in North Wingwall - Front
WA212	#5	2	24'-10"	Str.								Vertical in North Wingwall - Front
WA213	#5	15	35'-10"	Str.								Horiz. in North Wingwall - Front & Back

WEST ABUTMENT CONT.												
MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	LOCATION
WA214	#5	2	36'-5"	Str.								Horiz. in North Wingwall - Front & Back
WA215	#5	2	37'-0"	Str.								Horiz. in North Wingwall - Front & Back
WA216	#5	2	27'-8"	Str.								Horiz. in North Wingwall - Front & Back
WA217	#5	2	22'-8"	Str.								Horiz. in North Wingwall - Front & Back
WA218	#5	2	18'-1"	Str.								Horiz. in North Wingwall - Front & Back
WA219	#5	2	13'-6"	Str.								Horiz. in North Wingwall - Front & Back
WA220	#5	2	8'-11"	Str.								Horiz. in North Wingwall - Front & Back
WA221	#5	2	4'-4"	Str.								Horiz. in North Wingwall - Front & Back
WA222	#5	2	40'-9"	XIV	38'-5"	2'-4"	6'-3/4"	2'-2 1/2"				Horiz. in Top of North Wingwall - Front & Back

EAST ABUTMENT												
MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	LOCATION
EA1	#5	2	26'-8"	Str.								Long in Abutment Footing - Top & Bottom
EA2	#5	2	28'-5"	Str.								Long in Abutment Footing - Top & Bottom
EA3	#5	2	30'-2"	Str.								Long in Abutment Footing - Top & Bottom
EA4	#5	2	37'-7"	Str.								Long in Abutment Footing - Top & Bottom
EA5	#5	2	33'-8"	Str.								Long in Abutment Footing - Top & Bottom
EA6	#5	2	35'-5"	Str.								Long in Abutment Footing - Top & Bottom
EA7	#5	1	37'-2"	Str.								Long in Abutment Footing - Bottom
EA8	#5	1	38'-11"	Str.								Long in Abutment Footing - Bottom
EA9	#5	1	34'-0"	Str.								Long in Abutment Footing - Bottom
EA10	#5	22	8'-10"	Str.								Trans. in Abutment Footing - Top & Bottom
EA11	#6	47	13'-5"	VII	6'-6"	4'-11"	2'-0"	1'-3"				Trans. in Abutment Footing into Stem
EA12	#5	2	7'-8"	Str.								Trans. in Abutment Footing - Top & Bottom
EA13	#5	2	4'-1"	Str.								Trans. in Abutment Footing - Top & Bottom
EA14	#5	6	4'-0"	Str.								Skewed in Abutment Footing - Top
EA15	#5	8	7'-0"	Str.								Skewed in Abutment Footing - Bottom
EA16	#5	4	2'-8"	Str.								Dowels in Abutment & Wingwall Footings
EA17	#5	38	25'-0"	Str.								Long in Wingwall Footings - Top & Bottom
EA18	#7	26	8'-6"	Str.								Trans. in Wingwall Footings - Top
EA19	#8	20	9'-4"	Str.								Trans. in Wingwall Footings - Top
EA20	#8	22	10'-3"	Str.								Trans. in Wingwall Footings - Top
EA21	#5	26	8'-6"	Str.								Trans. in Wingwall Footings - Bottom
EA22	#5	20	9'-4"	Str.								Trans. in Wingwall Footings - Bottom
EA23	#5	22	10'-3"	Str.								Trans. in Wingwall Footings - Bottom
EA24	#5	2	10'-8"	II	2'-9"	6'-1/2"	1'-9/2"	1'-1"				Trans. in Wingwall Footings into Stem
EA25	#5	2	11'-0"	II	3'-1"	6'-1/2"	1'-9/2"	1'-1"				Trans. in Wingwall Footings into Stem
EA26	#5	2	11'-5"	II	3'-5"	6'-2"	1'-9/2"	1'-1"				Trans. in Wingwall Footings into Stem
EA27	#5	2	11'-9"	II	3'-9"	6'-2"	1'-9/2"	1'-1"				Trans. in Wingwall Footings into Stem
EA28	#5	2	12'-2"	II	4'-1"	6'-3"	1'-9/2"	1'-1"				Trans. in Wingwall Footings into Stem
EA29	#5	2	12'-6"	II	4'-5"	6'-3"	1'-9/2"	1'-1"				Trans. in Wingwall Footings into Stem
EA30	#5	2	12'-11"	II	4'-9"	6'-4"	1'-9/2"	1'-1"				Trans. in Wingwall Footings into Stem
EA31	#5	2	13'-3"	II	5'-1"	6'-4"	1'-9/2"	1'-1"				Trans. in Wingwall Footings into Stem
EA32	#5	2	13'-7"	II	5'-5"	6'-4"	1'-9/2"	1'-1"				Trans. in Wingwall Footings into Stem
EA33	#6	4	11'-1"	II	2'-9"	6'-3"	2'-1"	1'-3"				Trans. in Wingwall Footings into Stem
EA34	#6	6	11'-2"	II	2'-9"	6'-4"	2'-1"	1'-3"				Trans. in Wingwall Footings into Stem
EA35	#6	6	11'-3"	II	2'-9"	6'-5"	2'-1"	1'-3"				Trans. in Wingwall Footings into Stem
EA36	#6	4	11'-4"	II	2'-9"	6'-6"	2'-1"	1'-3"				Trans. in Wingwall Footings into Stem
EA37	#7	6	11'-8"	II	2'-9"	6'-5"	2'-1"	1'-3"				Trans. in Wingwall Footings into Stem
EA38	#7	6	11'-7"	II	2'-9"	6'-6"	2'-1"	1'-3"				Trans. in Wingwall Footings into Stem
EA39	#7	6	11'-10"	II	2'-9"	6'-7"	2'-1"	1'-3"				Trans. in Wingwall Footings into Stem
EA40	#7	6	11'-11"	II	2'-9"	6'-8"	2'-1"	1'-3"				Trans. in Wingwall Footings into Stem
EA41	#7	6	12'-0"	II	2'-9"	6'-9"	2'-1"	1'-3"				Trans. in Wingwall Footings into Stem
EA42	#5	28	17'-4"	Str.								Vertical in Abutment Stem - Front
EA43	#5	24	10'-7"	Str.								Vertical in Abutment Stem - Back
EA44	#5	24	16'-4"	Str.								Horiz. in Abutment Stem - Front
EA45	#5	24	3'-4"	XIV	2'-3"	1'-1"	6'-1/2"	1'-1/2"				Horiz. in Abutment Stem - Front
EA46	#5	13	31'-0"	Str.								Horiz. in Abutment Stem - Back
EA47	#8	6	31'-0"	Str.								Long in Bridge Seat
EA48	#5	22	3'-0"	Str.								Trans. in Bridge Seat
EA49	#5	22	5'-0"	Str.								Vertical in Backwall - Front
EA50	#5	22	9'-2"	XIV	5'-3"	3'-11"	2'-9"	2'-9"				Vertical in Backwall into Stem - Back
EA51	#5	6	29'-0"	Str.								Horiz. in Backwall - Front & Back
EA52	#5	12	2'-6"	Str.								Vertical in Pedestals
EA53	#5	6	10'-4"	IV	3'-5"	3'-8"	3'-5"					Stirrups in Interior Pedestals
EA54	#5	2	29'-0"	Str.								Horiz. in Backwall - Top
EA55	#5	18	5'-6"	IV	2'-7"	6"						





ROBERT MOIR, JEREMIAH FINCH  
ESTATE, FINCH PRUYN & 10 INC.  
HELEN FOULDS ESTATE  
(REPUTED OWNERS)

TAMAWUS-SCHROON RIVER, PART IV, COUNTY ROAD 28, F.A.S.S. NO. , ESSEX COUNTY  
MAP NO. 13  
PARCEL NOS. 24, 25 & 27  
SHEET 1 OF 1 SHEET

TOTAL AREA 0.094 ± ACRES

EDWIN L. & RUTH FOUNTAIN  
(REPUTED OWNERS)

MAP AND DESCRIPTION OF PROPERTY NECESSARY TO BE ACQUIRED FOR PURPOSES CONNECTED WITH THE COUNTY ROAD SYSTEM OF ESSEX COUNTY, STATE OF NEW YORK, PURSUANT TO SECTION 118 OF THE HIGHWAY LAW.

ALL THOSE PIECES OR PARCELS OF PROPERTY HERINAFTER DESIGNATED AS PARCEL NOS. 24, 25 & 27, SITUATE IN THE TOWN OF NORTH HUDSON, COUNTY OF ESSEX, STATE OF NEW YORK, TO BE ACQUIRED IN FEE FOR THE TAMAWUS-SCHROON RIVER, PART IV, COUNTY ROAD 28, F.A.S.S. NO. , AS SHOWN ON THE ACCOMPANYING MAP AND DESCRIBED AS FOLLOWS:

PARCEL NO. 24

BEGINNING AT A POINT ON THE NORTHERLY BOUNDARY OF THE ABOVE EXISTING TAMAWUS-SCHROON RIVER ROAD AT THE INTERSECTION OF THE SAID BOUNDARY WITH THE DIVISION LINE BETWEEN THE PROPERTY OF EDWIN L. & RUTH FOUNTAIN (REPUTED OWNERS) ON THE EAST, AND THE PROPERTY OF FRANCIS & IRENE ALLEN (REPUTED OWNERS) ON THE WEST SAID POINT BEING 35± FEET DISTANT NORTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 81+04± OF THE HERINAFTER DESCRIBED SURVEY BASE LINE FOR THE CONSTRUCTION OF THE TAMAWUS-SCHROON RIVER, PART IV, COUNTY ROAD 28, F.A.S.S. NO. ; THENCE NORTHERLY ALONG SAID DIVISION LINE 20± FEET TO A POINT 54 FEET DISTANT NORTHERLY, MEASURED AT RIGHT ANGLES FROM STATION 81+00± OF SAID DIVISION LINE; THENCE SOUTH 38°-53' EAST, 33± FEET TO A POINT 35.0 FEET DISTANT NORTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 81+27.0 OF SAID BASE LINE; THENCE SOUTH 84°-52' EAST, 28.48 FEET TO A POINT 40.0 FEET DISTANT NORTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 81+53.0 OF SAID BASE LINE; THENCE NORTH 86°-54' EAST, 55.04 FEET TO A POINT 58.0 FEET DISTANT NORTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 82+05.0 OF SAID BASE LINE; THENCE SOUTH 44°-28' EAST, 34± FEET TO A POINT ON THE NORTHERLY BOUNDARY OF SAID EXISTING HIGHWAY, THE LAST MENTIONED POINT BEING 41± FEET DISTANT NORTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 82+35 OF SAID BASE LINE; THENCE WESTERLY ALONG THE LAST MENTIONED BOUNDARY OF SAID EXISTING HIGHWAY 133± FEET TO THE POINT OF BEGINNING; BEING 0.030 ACRES MORE OR LESS.

PARCEL NO. 25

BEGINNING AT A POINT ON THE NORTHERLY BOUNDARY OF THE ABOVE EXISTING TAMAWUS-SCHROON RIVER SAID POINT BEING 39± FEET DISTANT NORTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 83+27 OF THE HERINAFTER DESCRIBED SURVEY BASE LINE FOR THE CONSTRUCTION OF THE TAMAWUS-SCHROON RIVER, PART IV, COUNTY ROAD 28, F.A.S.S. NO. ; THENCE SOUTH 78°-41' EAST, 118± FEET TO A POINT ON THE DIVISION LINE BETWEEN THE PROPERTY OF EDWIN L. & RUTH FOUNTAIN (REPUTED OWNERS) ON THE WEST AND THE PROPERTY OF CLAYTON NEIL (REPUTED OWNER) ON THE EAST, THE LAST MENTIONED POINT BEING 48 FEET DISTANT NORTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 84+45± OF SAID BASE LINE; THENCE SOUTHERLY ALONG SAID DIVISION LINE 20± FEET TO A POINT ON THE NORTHERLY BOUNDARY OF SAID EXISTING HIGHWAY, THE LAST MENTIONED POINT BEING 27± FEET DISTANT NORTHERLY MEASURED AT RIGHT ANGLES, FROM STATION 84+61± OF SAID BASE LINE; THENCE NORTHWESTERLY ALONG THE LAST MENTIONED BOUNDARY OF SAID EXISTING HIGHWAY 120± FEET TO THE POINT OF BEGINNING; BEING 0.028 ACRES MORE OR LESS.

PARCEL NO. 27

BEGINNING AT A POINT ON THE SOUTHERLY BOUNDARY OF THE ABOVE EXISTING TAMAWUS-SCHROON RIVER ROAD AT THE INTERSECTION OF THE SAID BOUNDARY WITH THE DIVISION LINE BETWEEN THE PROPERTY OF EDWIN L. & RUTH FOUNTAIN (REPUTED OWNERS) ON THE EAST, AND THE PROPERTY OF LEON LABIER (REPUTED OWNER) ON THE WEST SAID POINT BEING 20± FEET DISTANT SOUTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 84+50± OF THE HERINAFTER DESCRIBED SURVEY BASE LINE FOR THE CONSTRUCTION OF THE TAMAWUS-SCHROON RIVER, PART IV, COUNTY ROAD 28, F.A.S.S. NO. ; THENCE SOUTHWESTERLY ALONG SAID DIVISION LINE 17± FEET TO A POINT ON THE DIVISION LINE BETWEEN THE PROPERTY OF EDWIN L. & RUTH FOUNTAIN (REPUTED OWNERS) ON THE NORTH AND THE PROPERTY OF ROBERT MOIR & OTHERS (REPUTED OWNERS) ON THE SOUTH, THE LAST MENTIONED POINT BEING 37 FEET DISTANT SOUTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 84+51± OF THE SAID BASE LINE; THENCE EASTERLY ALONG SAID DIVISION LINE 66± FEET TO ITS INTERSECTION WITH THE DIVISION LINE BETWEEN THE PROPERTY OF EDWIN L. & RUTH FOUNTAIN (REPUTED OWNERS) ON THE WEST AND THE PROPERTY OF ROBERT MOIR & OTHERS (REPUTED OWNERS) ON THE EAST, THE LAST MENTIONED POINT BEING 40 FEET DISTANT SOUTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 85+18± OF THE SAID BASE LINE; THENCE NORTHERLY ALONG SAID DIVISION LINE 17± FEET TO A POINT ON THE SOUTHERLY BOUNDARY OF SAID EXISTING HIGHWAY, THE LAST MENTIONED POINT BEING 23± FEET DISTANT SOUTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 85+17± OF SAID BASE LINE; THENCE WESTERLY ALONG THE LAST MENTIONED BOUNDARY OF SAID EXISTING HIGHWAY 66± FEET TO THE POINT OF BEGINNING; BEING 0.026 ACRES MORE OR LESS.

THE ABOVE MENTIONED SURVEY BASE LINE IS A PORTION OF THE 1960 SURVEY BASE LINE FOR THE TAMAWUS-SCHROON RIVER, PART IV, COUNTY ROAD 28, F.A.S.S. NO. , AND IS DESCRIBED AS FOLLOWS:

BEGINNING AT STATION 78+20.83; THENCE SOUTH 74°-00'-20" EAST, 1131.13 FEET TO STATION 89+51.96.

ALL BEARINGS REFERRED TO TRUE NORTH AT THE 74° 20' MERIDIAN OF WEST LONGITUDE.

IT IS HEREBY CERTIFIED THAT THIS IS AN ACCURATE DESCRIPTION AND MAP MADE FROM AN ACCURATE SURVEY.

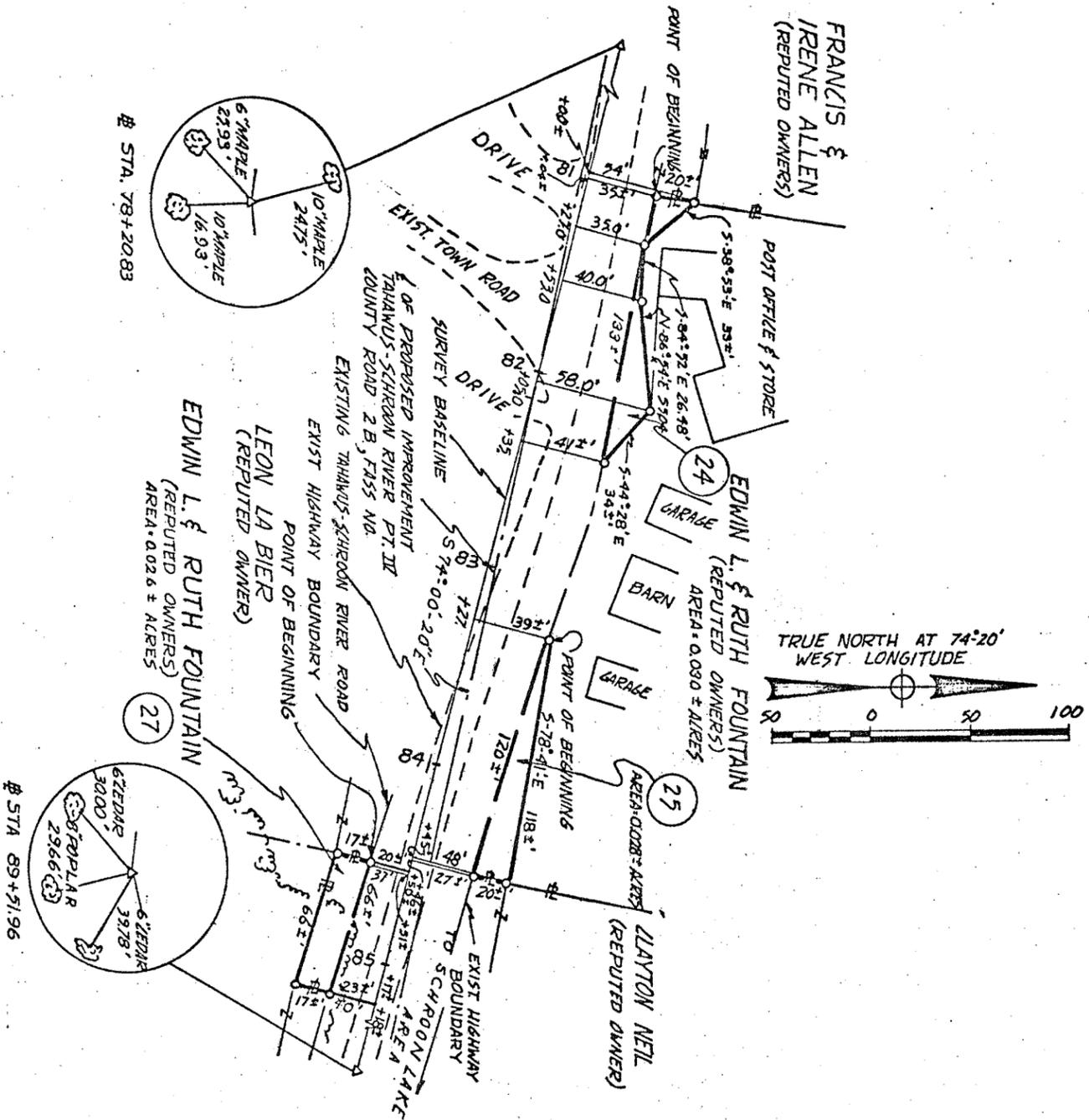
RIST, BRIGHT AND FROST  
CONSULTING ENGINEERS

DATE April 12 19 61

JOHN K. BRIGHT  
N.Y.S. P.E. LIC. NO. 36235

APPROVED THIS 23rd DAY OF May, 1961

Frank J. Feller  
DISTRICT ENGINEER



ROBERT MOIR, JEREMIAH FINCH  
ESTATE, FINCH PRUYN & LO INC.  
HELEN FOLDS ESTATE  
(REPUTED OWNERS)

TAHAVUS-SCHROON RIVER, PART IV, COUNTY ROAD 28, F.A.S.S. NO. , ESSEX COUNTY  
MAP NO. 13  
PARCEL NOS. 24, 25 & 27  
SHEET 1 OF 1 SHEET

EDWIN L. & RUTH FOUNTAIN  
(REPUTED OWNERS)

TOTAL AREA 0.084+ ACRES  
FEE

MAP AND DESCRIPTION OF PROPERTY NECESSARY TO BE ACQUIRED FOR PURPOSES CONNECTED WITH THE COUNTY ROAD SYSTEM OF ESSEX COUNTY, STATE OF NEW YORK, PURSUANT TO SECTION 118 OF THE HIGHWAY LAW.

ALL THOSE PIECES OR PARCELS OF PROPERTY HERINAFTER DESIGNATED AS PARCEL NOS. 24, 25 & 27, SITUATE IN THE TOWN OF NORTH HUDSON, COUNTY OF ESSEX, STATE OF NEW YORK, TO BE ACQUIRED IN FEE FOR THE TAHAVUS-SCHROON RIVER, PART IV, COUNTY ROAD 28, F.A.S.S. NO. , AS SHOWN ON THE ACCOMPANYING MAP AND DESCRIBED AS FOLLOWS:

PARCEL NO. 24

BEGINNING AT A POINT ON THE NORTHERLY BOUNDARY OF THE ABOVE EXISTING TAHAVUS-SCHROON RIVER ROAD AT THE INTERSECTION OF THE SAID BOUNDARY WITH THE DIVISION LINE BETWEEN THE PROPERTY OF EDWIN L. & RUTH FOUNTAIN (REPUTED OWNERS) ON THE EAST, AND THE PROPERTY OF FRANCIS & IRENE ALLEN (REPUTED OWNERS) ON THE WEST SAID POINT BEING 35+ FEET DISTANT NORTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 81+04.2 OF THE HERINAFTER DESCRIBED SURVEY BASE LINE FOR THE CONSTRUCTION OF THE TAHAVUS-SCHROON RIVER, PART IV, COUNTY ROAD 28, F.A.S.S. NO. ; THENCE NORTHERLY ALONG SAID DIVISION LINE TO A POINT 54 FEET DISTANT NORTHERLY, MEASURED AT RIGHT ANGLES FROM STATION 81+00.0 OF SAID BASE LINE; THENCE SOUTH 38°-53' EAST, 33+ FEET TO A POINT 35.0 FEET DISTANT NORTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 81+27.0 OF SAID BASE LINE; THENCE SOUTH 84°-52' EAST, 26.48 FEET TO A POINT 40.0 FEET DISTANT NORTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 81+53.0 OF SAID BASE LINE; THENCE NORTH 86°-54' EAST, 55.04 FEET TO A POINT 58.0 FEET DISTANT NORTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 82+05.0 OF SAID BASE LINE; THENCE SOUTH 44°-28' EAST, 34+ FEET TO A POINT ON THE NORTHERLY BOUNDARY OF SAID EXISTING HIGHWAY, THE LAST MENTIONED POINT BEING 41+ FEET DISTANT NORTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 82+35 OF SAID BASE LINE; THENCE WESTERLY ALONG THE LAST MENTIONED BOUNDARY OF SAID EXISTING HIGHWAY 133+ FEET TO THE POINT OF BEGINNING; BEING 0.030 ACRES MORE OR LESS.

PARCEL NO. 25

BEGINNING AT A POINT ON THE NORTHERLY BOUNDARY OF THE ABOVE EXISTING TAHAVUS-SCHROON RIVER ROAD SAID POINT BEING 39+ FEET DISTANT NORTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 83+27 OF THE HERINAFTER DESCRIBED SURVEY BASE LINE FOR THE CONSTRUCTION OF THE TAHAVUS-SCHROON RIVER, PART IV, COUNTY ROAD 28, F.A.S.S. NO. ; THENCE SOUTH 78°-41' EAST, 118+ FEET TO A POINT ON THE DIVISION LINE BETWEEN THE PROPERTY OF EDWIN L. & RUTH FOUNTAIN (REPUTED OWNERS) ON THE WEST AND THE PROPERTY OF CLAYTON NEIL (REPUTED OWNER) ON THE EAST, THE LAST MENTIONED POINT BEING 48 FEET DISTANT NORTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 84+45 OF SAID BASE LINE; THENCE SOUTHWESTERLY ALONG SAID DIVISION LINE 20+ FEET TO A POINT ON THE NORTHERLY BOUNDARY OF SAID EXISTING HIGHWAY, THE LAST MENTIONED POINT BEING 27+ FEET DISTANT, NORTHERLY MEASURED AT RIGHT ANGLES, FROM STATION 84+66+ OF SAID BASE LINE; THENCE NORTHWESTERLY ALONG THE LAST MENTIONED BOUNDARY OF SAID EXISTING HIGHWAY 120+ FEET TO THE POINT OF BEGINNING; BEING 0.028 ACRES MORE OR LESS.

PARCEL NO. 27

BEGINNING AT A POINT ON THE SOUTHERLY BOUNDARY OF THE ABOVE EXISTING TAHAVUS-SCHROON RIVER ROAD AT THE INTERSECTION OF THE SAID BOUNDARY WITH THE DIVISION LINE BETWEEN THE PROPERTY OF EDWIN L. & RUTH FOUNTAIN (REPUTED OWNERS) ON THE EAST, AND THE PROPERTY OF LEON LABIER (REPUTED OWNER) ON THE WEST SAID POINT BEING 20+ FEET DISTANT SOUTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 84+50+ OF THE HERINAFTER DESCRIBED SURVEY BASE LINE FOR THE CONSTRUCTION OF THE TAHAVUS-SCHROON RIVER, PART IV, COUNTY ROAD 28, F.A.S.S. NO. ; THENCE SOUTHWESTERLY ALONG SAID DIVISION LINE 17+ FEET TO A POINT ON THE DIVISION LINE BETWEEN THE PROPERTY OF EDWIN L. & RUTH FOUNTAIN (REPUTED OWNERS) ON THE NORTH AND THE PROPERTY OF ROBERT MOIR & OTHERS (REPUTED OWNERS) ON THE SOUTH, THE LAST MENTIONED POINT BEING 37 FEET DISTANT SOUTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 84+51+ OF THE SAID BASE LINE; THENCE EASTERLY ALONG SAID DIVISION LINE 66+ FEET TO ITS INTERSECTION WITH THE DIVISION LINE BETWEEN THE SAID BASE LINE; THE LAST MENTIONED POINT BEING 40 FEET DISTANT SOUTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 85+18+ OF THE SAID BASE LINE; THENCE NORTHERLY ALONG SAID DIVISION LINE 17+ FEET TO A POINT ON THE SOUTHERLY BOUNDARY OF SAID EXISTING HIGHWAY, THE LAST MENTIONED POINT BEING 23+ FEET DISTANT SOUTHERLY, MEASURED AT RIGHT ANGLES, FROM STATION 85+17+ OF SAID BASE LINE; THENCE WESTERLY ALONG THE LAST MENTIONED BOUNDARY OF SAID EXISTING HIGHWAY 66+ FEET TO THE POINT OF BEGINNING; BEING 0.028 ACRES MORE OR LESS.

THE ABOVE MENTIONED SURVEY BASE LINE IS A PORTION OF THE 1960 SURVEY BASE LINE FOR THE TAHAVUS-SCHROON RIVER, PART IV, COUNTY ROAD 28, F.A.S.S. NO. , AND IS DESCRIBED AS FOLLOWS:

BEGINNING AT STATION 78+20.83; THENCE SOUTH 74°-00'-20" EAST, 1131.13 FEET TO STATION 89+51.96.

ALL BEARINGS REFERRED TO TRUE NORTH AT THE 74° 20' MERIDIAN OF WEST LONGITUDE.

IT IS HEREBY CERTIFIED THAT THIS IS AN ACCURATE DESCRIPTION AND MAP MADE FROM AN ACCURATE SURVEY.

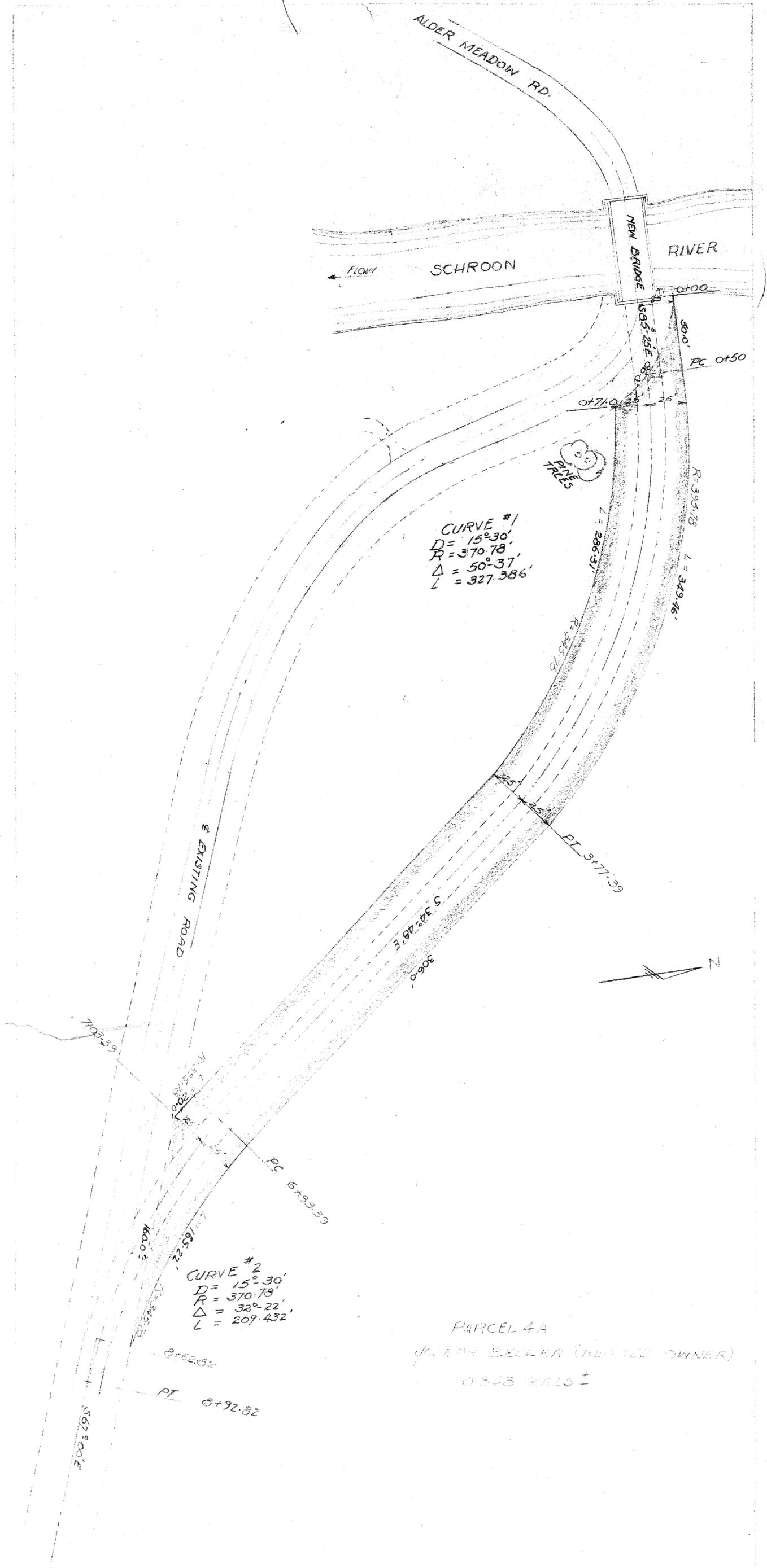
RIST, BRIGHT AND FROST  
CONSULTING ENGINEERS

JOHN K. BRIGHT  
N.Y.S. P.E. LIC. NO. 96235

DATE April 12 19 61

APPROVED THIS 22nd DAY OF May, 19 61

FRANK J. FULMER  
DISTRICT ENGINEER



**Parcel No. 4A (To be conveyed to Town of Schroon by Joseph Becker.)**

Beginning at a point in the northerly boundary of the right of way of the existing town highway known as Alder Meadow Road, said point being 25 ft. distant northerly, measured at right angles from station 0+00, of the hereinafter described survey base line, which is also the center line of the proposed improvement, for the realignment of Alder Meadow Road; thence running easterly 50 ft., along a line which is parallel to and distant 25 ft. from said survey base line; thence running southeasterly, curving to the right on a radius of 395.78 ft., along a line which is parallel to and distant 25 ft. from said survey base line, a distance of 349.46 ft., more or less, to a point of tangency which is 25 ft., distant northeasterly, measured at right angles from station 3+77.39 of said survey base line; thence south 34° 48' east a distance of 306.0 ft. to a point in the northerly boundary of the right of way of the existing town highway, said point being 25 ft., distant northerly, measured at right angles from station 6+83.39 of said survey base line; thence curving to the left, on a radius of 345.78 ft., along a line which is parallel to and distant 25 ft. northeasterly from said survey base line, a distance of 165.22 ft., to a point in the northerly boundary of the right of way of the existing town highway, said point being 25 ft., distant northerly, measured at right angles from station 8+62.82 of said survey base line; thence north 67° 00' West, along the northerly bounds of said existing right of way, a distance of 160.0 ft., more or less, to a point which is 25 ft., distant southwesterly, measured at right angles from station 7+03.39, more or less, of said base line; thence curving to the right, on a radius of 395.78 ft., along a line which is parallel to and distant 25 ft. southwesterly from said survey base line, a distance of 20 ft. to a point of tangency which is 25 ft., distant southwesterly, measured at right angles from station 6+83.39 of said base line; thence North 34° 48' West, a distance of 306.0 ft. to a point of curvature which is 25 ft., distant southwesterly measured at right angles from station 3+77.39 of said survey base line; thence curving to the left, on a radius of 345.78 ft., along a line which is parallel to and distant 25 ft. southwesterly from said survey base line; a distance of 286.31 ft., more or less, to a point in the northeasterly bounds of the right of way of the existing town highway, said point being 25 ft., distant southwesterly, measured at right angles from station 0+71.0 more or less, of said survey base line; thence northwesterly, along the northeasterly bounds of said existing right of way, a distance of 86.0 ft., more or less, to the point of beginning, containing 0.848 acres of land, more or less.

The above mentioned survey base line is a revision to a portion of the June 14, 1966 survey base line for the Realignment of Alder Meadow Road, and is also the center line of the proposed improvement, and is bounded and described as follows: Beginning at station 0+00 which is a point in the center of the easterly end of the new bridge, known as Alder Meadow Bridge, across the Schroon River; thence S 86° 25' E a distance of 50.0 ft. to a point of curvature of curve #1 at station 0+50; thence curving to the right, on a radius of 370.78 ft., a distance of 327.386' to a point of tangency at station 3+77.39; thence S 34° 48' E a distance of 306.0 ft., to station 6+83.39 being the point of curvature of curve #2; thence curving to the left, on a radius of 370.78 ft., a distance of 209.432 ft. to the point of tangency at station 8+92.82 in the center of the existing Alder Meadow Road.

All bearings are referred to magnetic north as the needle pointed June 14, 1966.

SURVEY OF ALDER MEADOW BRIDGE AND APPROACHES  
 SHOWING PROPOSED REALIGNMENT AND RECONSTRUCTION  
 TOWN OF SCHROON, ESSEX COUNTY, NEW YORK  
 JUNE 14, 1966 SCALE: 1" = 50'

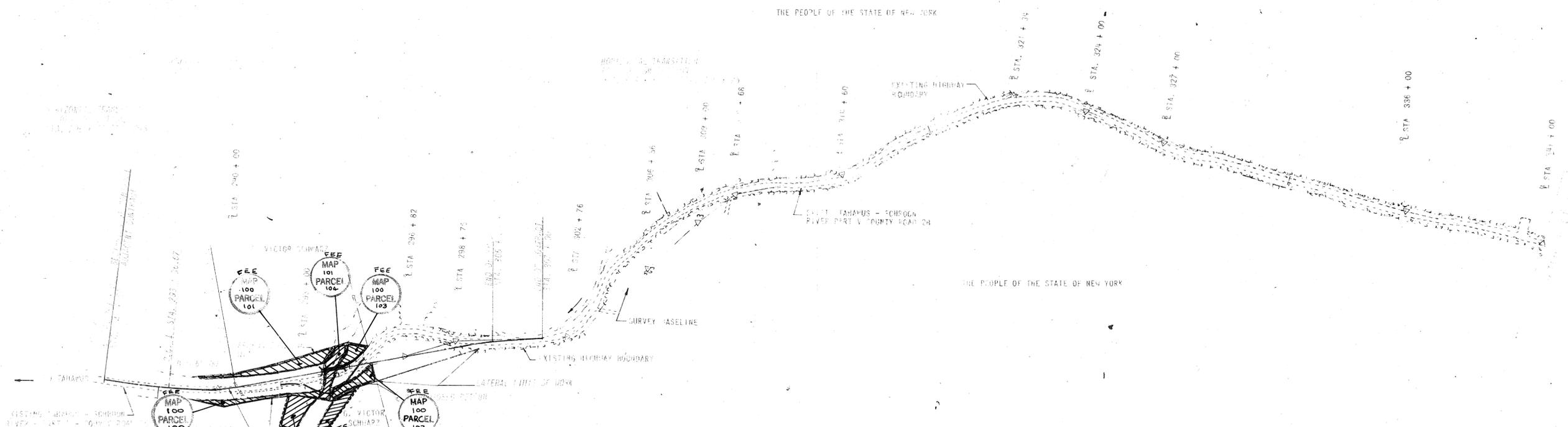
REVISION FEB 15, 1972

ESSEX COUNTY HIGHWAY DEPT.  
 DRAWN BY *J. Becker*

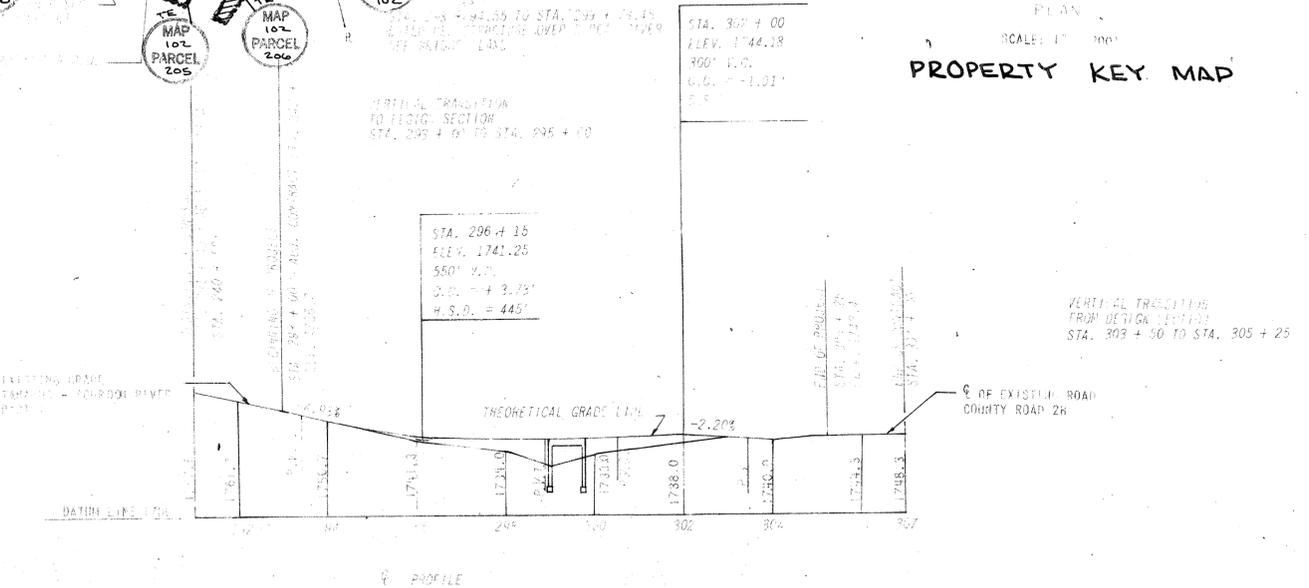
FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
	N.Y.		19	93
TAHAPUS - SCHROON RIVER - PART V - ESSEX COUNTY				

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASOC. CIVIL ENGINEER, CONSTRUCTION

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASST. DISTRICT ENGINEER



PLAN  
 SCALE: 1" = 100'  
**PROPERTY KEY MAP**

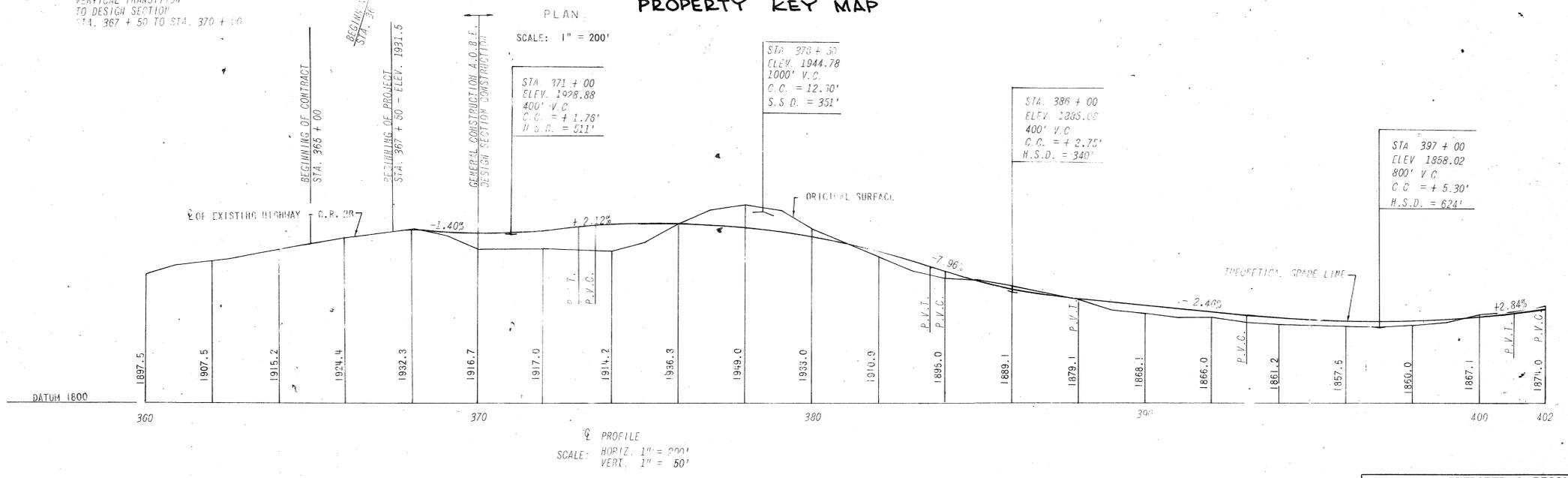
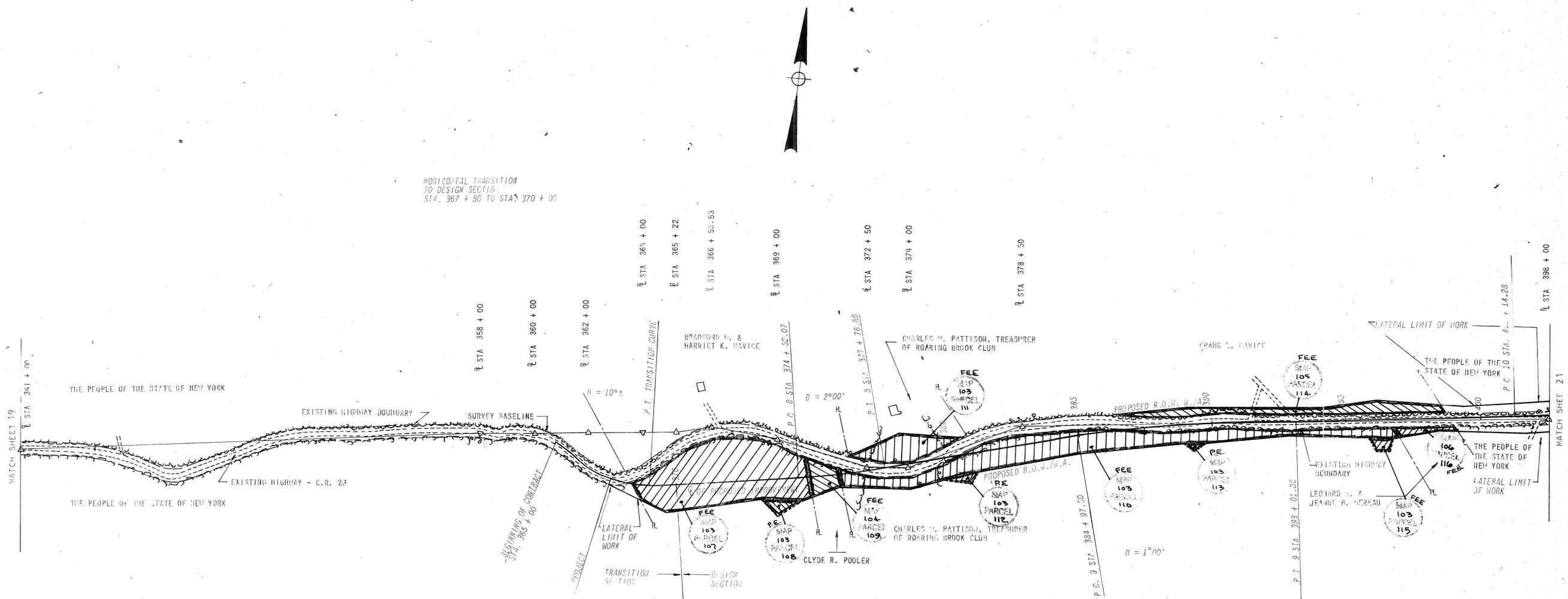


DESIGNED BY \_\_\_\_\_  
 TRACED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

SCALE: HORIZ. 1" = 200'  
 VERT. 1" = 50'

PREPARED & RECOMMENDED BY  
 CONSULTING ENGINEERS  
 PARTNER-IN-CHARGE  
 GLENS FALLS, N.Y.  
 NO. 29869X-Y  
 DATE \_\_\_\_\_

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
I	NY		20	93
TAMMUS - SCHROON RIVER - PART V - ESSEX COUNTY				



APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASST. DISTRICT ENGINEER

DESIGNED BY \_\_\_\_\_  
TRACED BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

DESIGNED BY AUSTIN  
TRACED BY ALLEN  
CHECKED BY AUSTIN

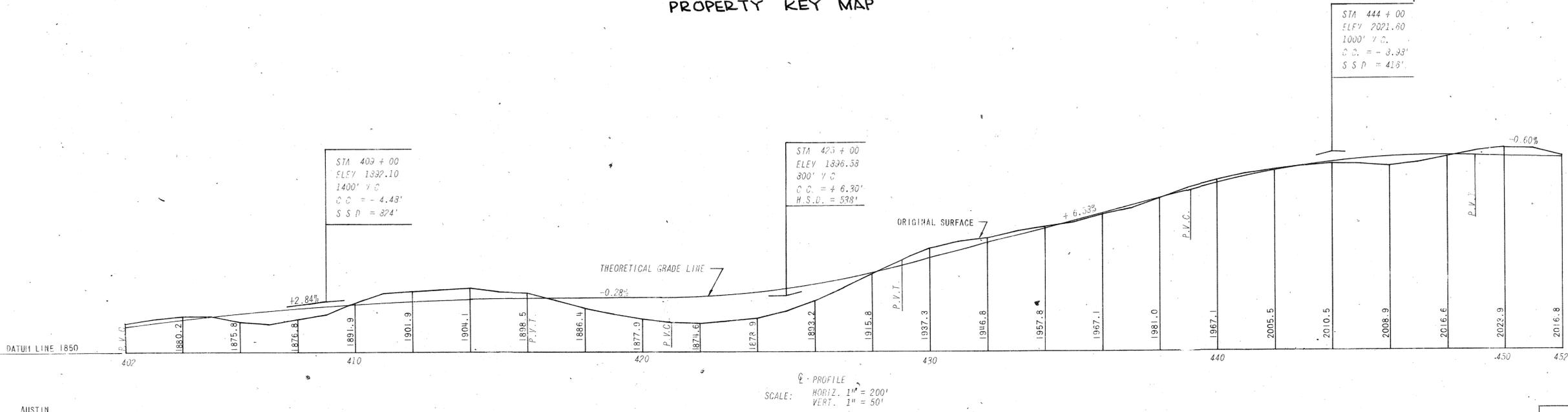
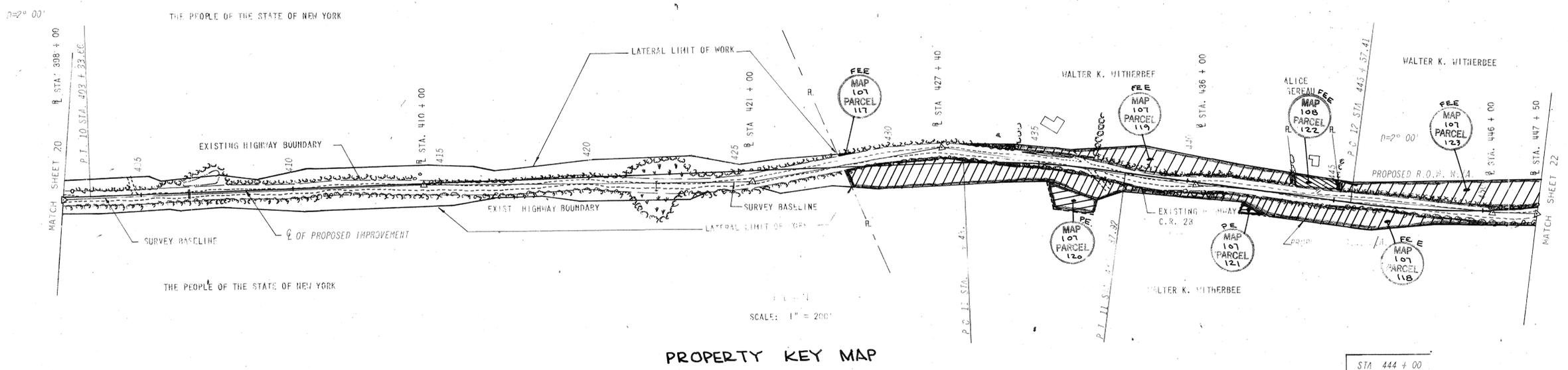
PREPARED & RECOMMENDED BY  
RIST - FRGST ASSOCIATES  
CONSULTING ENGINEERS  
PARTNER-IN-CHARGE LIC NO 29869X-X DATE \_\_\_\_\_

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		21	93

TAHAWUS - SCHROON RIVER - PART V - ESSEX COUNTY

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASSOC. CIVIL ENGINEER, CONSTRUCTION

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASST. DISTRICT ENGINEER



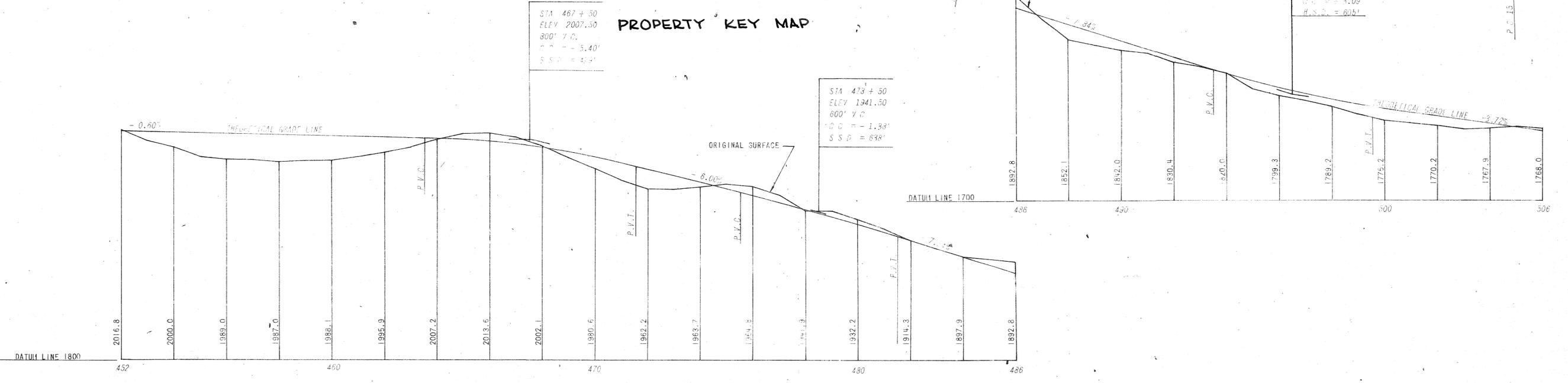
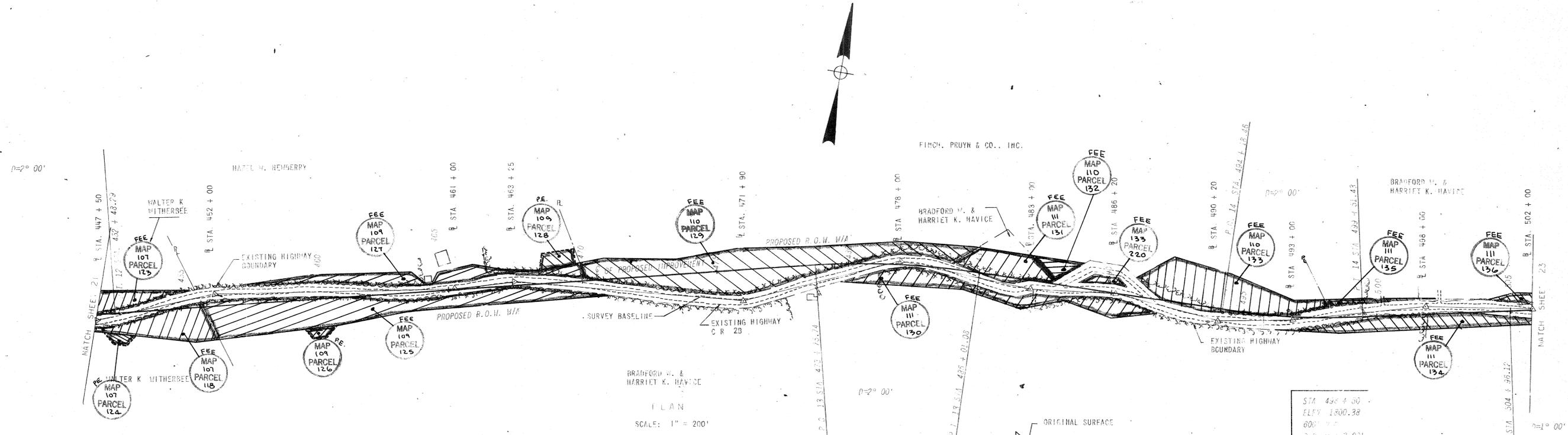
DESIGNED BY AUSTIN  
 TRACED BY ALLER  
 CHECKED BY AUSTIN

PREPARED & RECOMMENDED BY  
 FRIST - FROST ASSOCIATES  
 CONSULTING ENGINEERS  
 PARTNER-IN-CHARGE LIC NO 29863X-X DATE

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		22	93
TAHAWUS - SCHRÖON RIVER - PART V - ESSEX COUNTY				

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASSOC. CIVIL ENGINEER CONSTRUCTION

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASST. DISTRICT ENGINEER



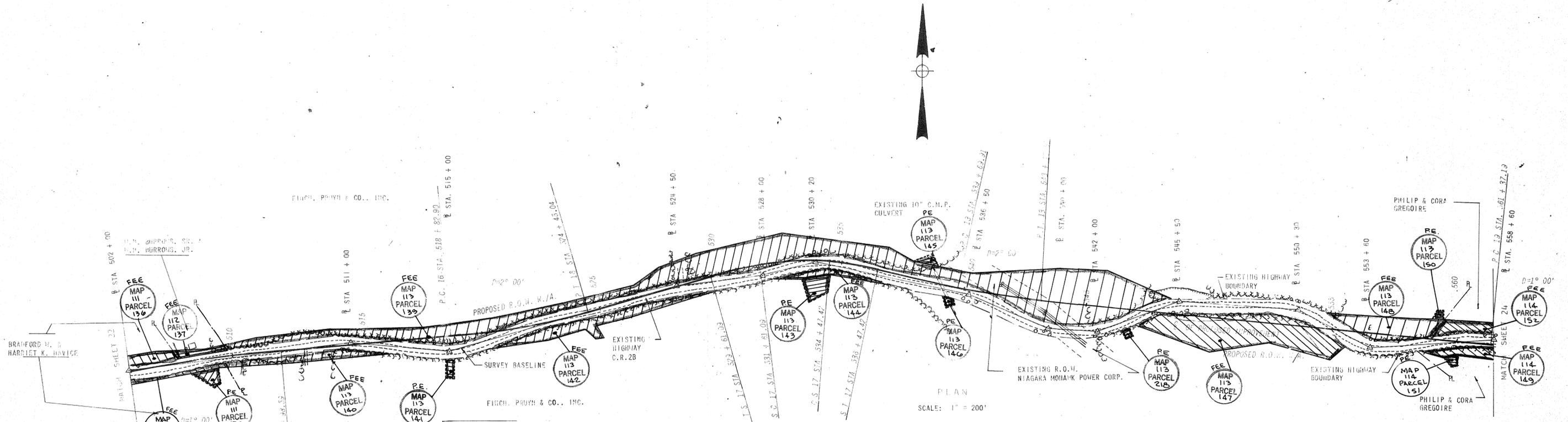
DESIGNED BY AUSTIN  
 TRACED BY ALLEN  
 CHECKED BY AUSTIN

PREPARED & RECOMMENDED BY  
 RIST - FROST ASSOCIATES  
 CONSULTING ENGINEERS  
 NYS P.E. GLENS FALLS, N.Y.  
 PARTNER-IN-CHARGE LIC. NO. 29869X-X DATE

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N Y		23	90
TAHAWUS - SCHROON RIVER - PART V - ESSEX COUNTY				

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASST. DISTRICT ENGINEER

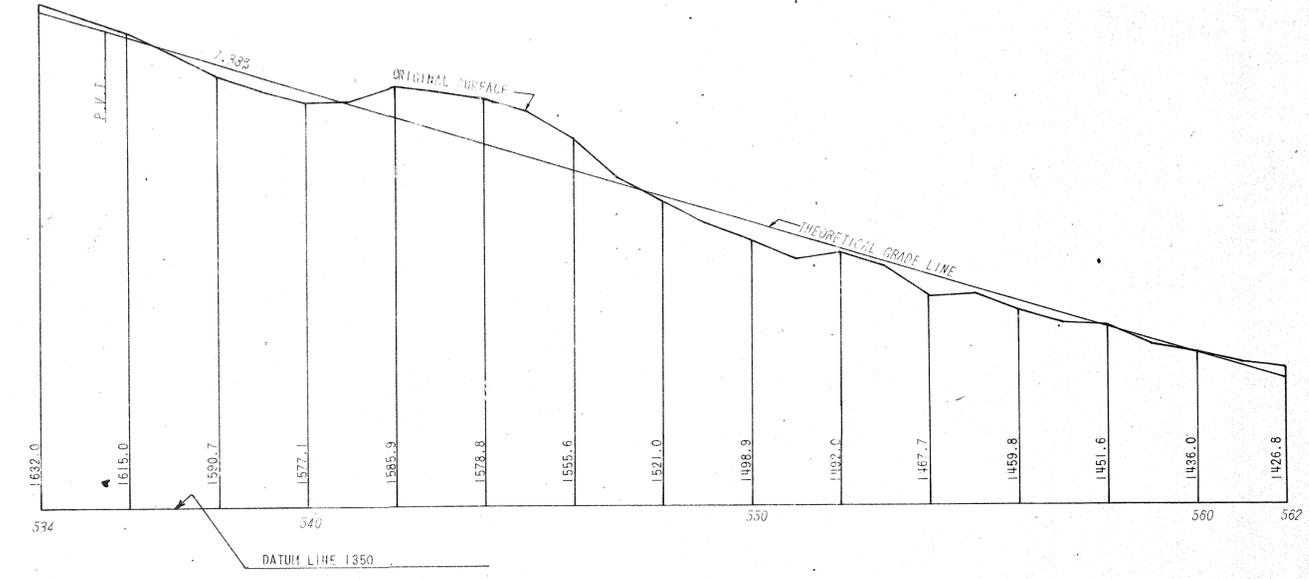
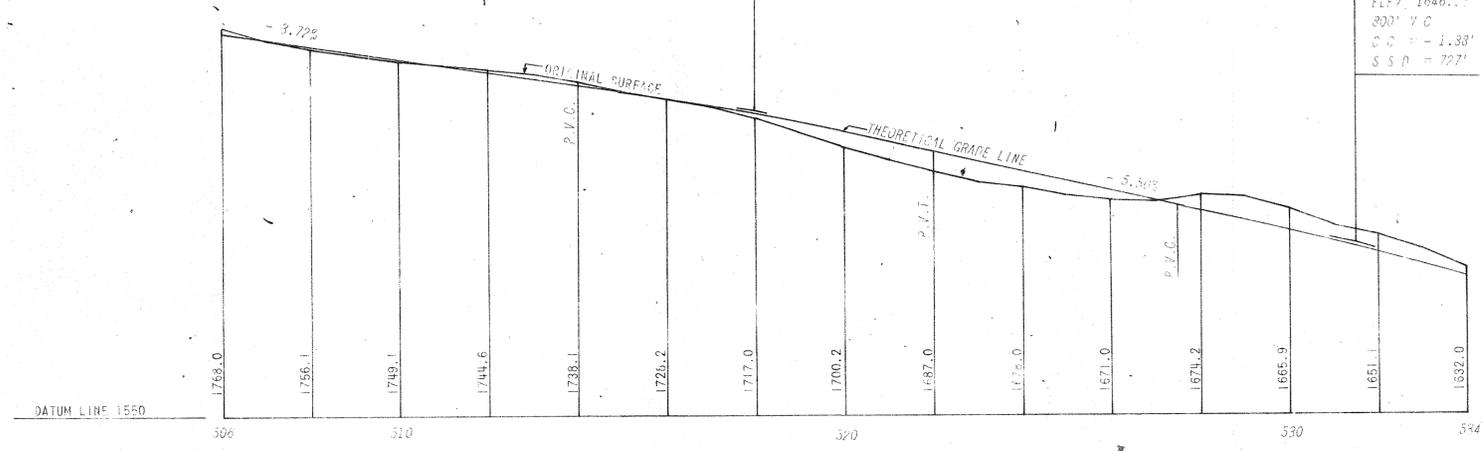
APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASST. DISTRICT ENGINEER



**PROPERTY KEY MAP**

STA 518 + 00  
 ELEV. 1720.40  
 300' Y.C.  
 C.C. = -1.78'  
 S.S.P. = 747'

STA 531 + 50  
 ELEV. 1646.15  
 300' Y.C.  
 C.C. = -1.38'  
 S.S.P. = 727'



PROFILE  
 SCALE: - HORIZ. 1" = 200'  
 VERT. 1" = 30'

DESIGNED BY AUSTIN  
 TRACED BY ALLEN  
 CHECKED BY AUSTIN

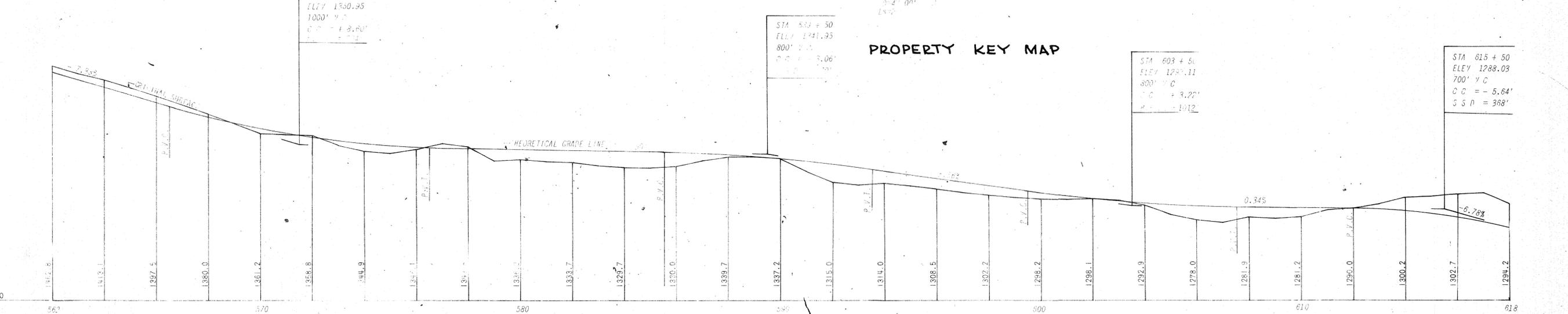
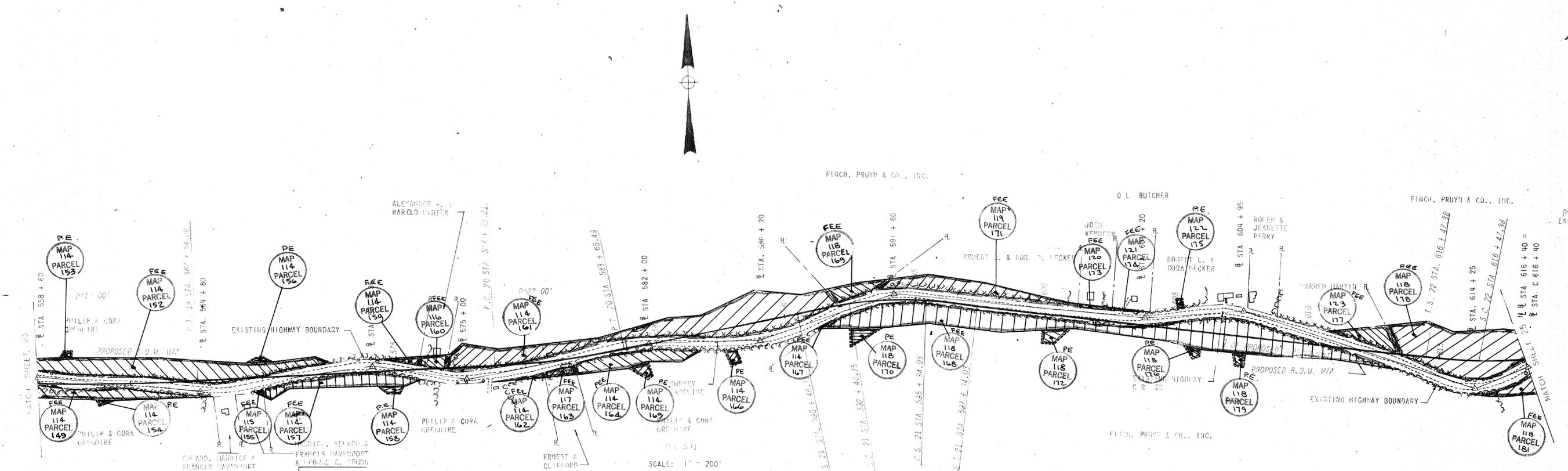
PREPARED & RECOMMENDED BY  
**RIST - FROST ASSOCIATES**  
 CONSULTING ENGINEERS  
 N.Y.S. P.E.  
 GLENS FALLS, N.Y.  
 PARTNER-IN-CHARGE LIC. NO. 23869X-X DATE \_\_\_\_\_

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N. Y.		24	93

TAHAWUS - SCHROON RIVER - PART V - ESSEX COUNTY

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASSOC. CIVIL ENGINEER, CONSTRUCTION

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
ASST. DISTRICT ENGINEER



DESIGNED BY AUSTIN  
 TRACED BY ALLEN  
 CHECKED BY AUSTIN

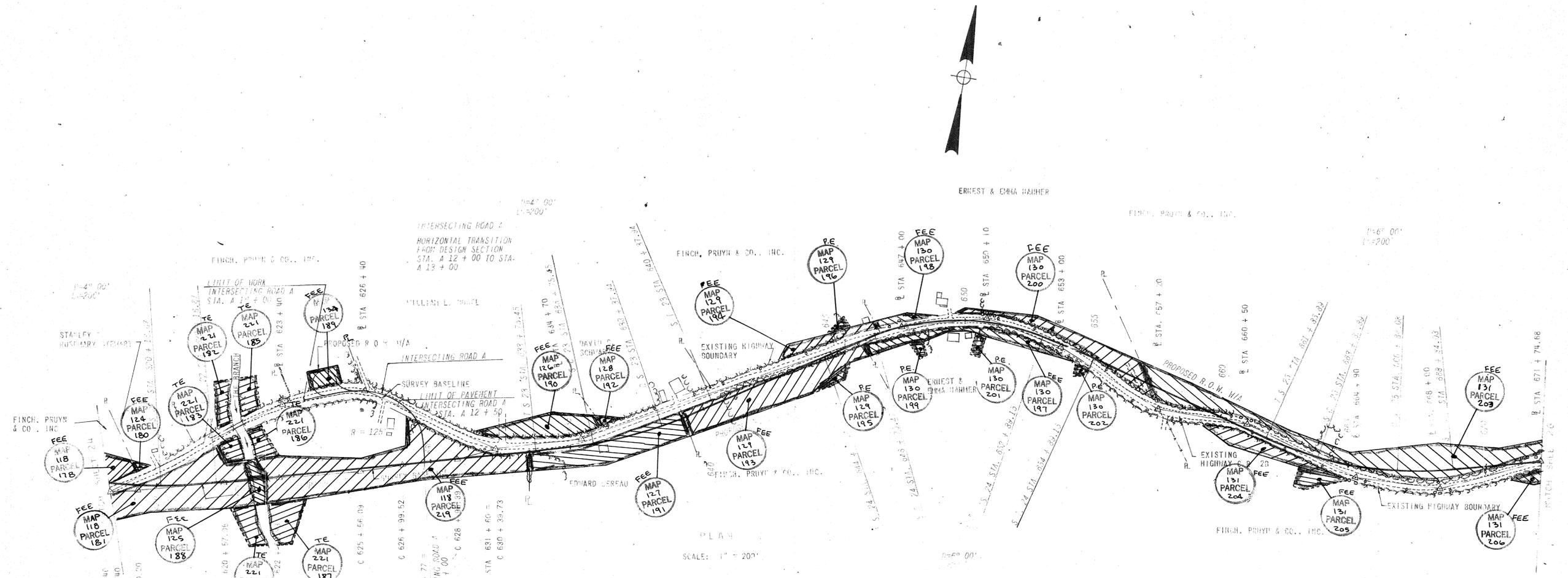
PROFILE  
 SCALE: HORIZ. 1" = 200'  
 VERT. 1" = 50'

PREPARED & RECOMMENDED BY  
 RIST - FROST ASSOCIATES  
 CONSULTING ENGINEERS  
 GLENS FALLS, N. Y.  
 PARTNER-IN-CHARGE LIC. NO. 29869X-X DATE \_\_\_\_\_

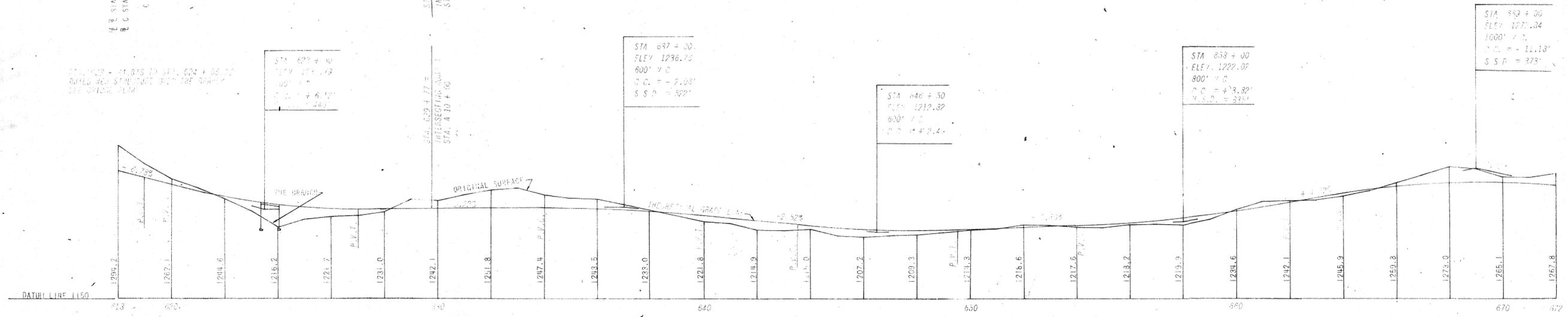
FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N Y		25	93
TAHAWUS - SCHROON RIVER - PART V - ESSEX COUNTY				

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASSOC. CIVIL ENGINEER - CONSTRUCTION

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASST. DISTRICT ENGINEER



PROPERTY KEY MAP



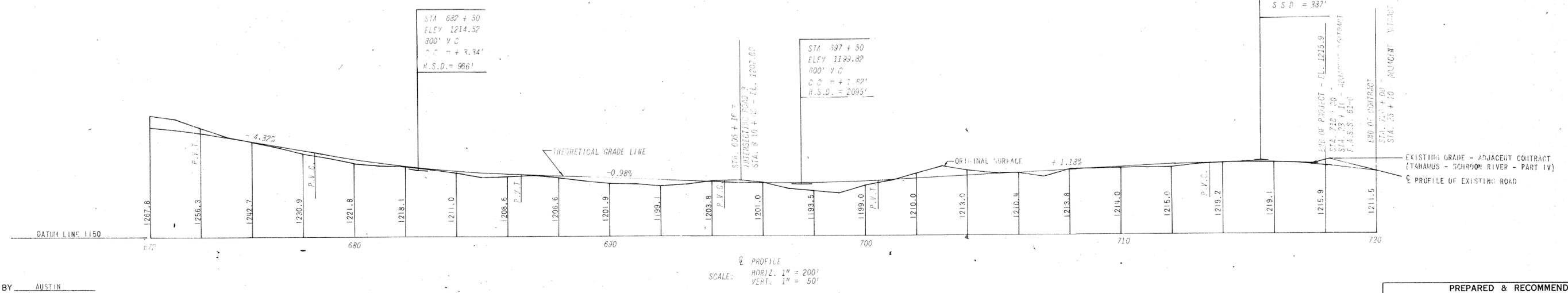
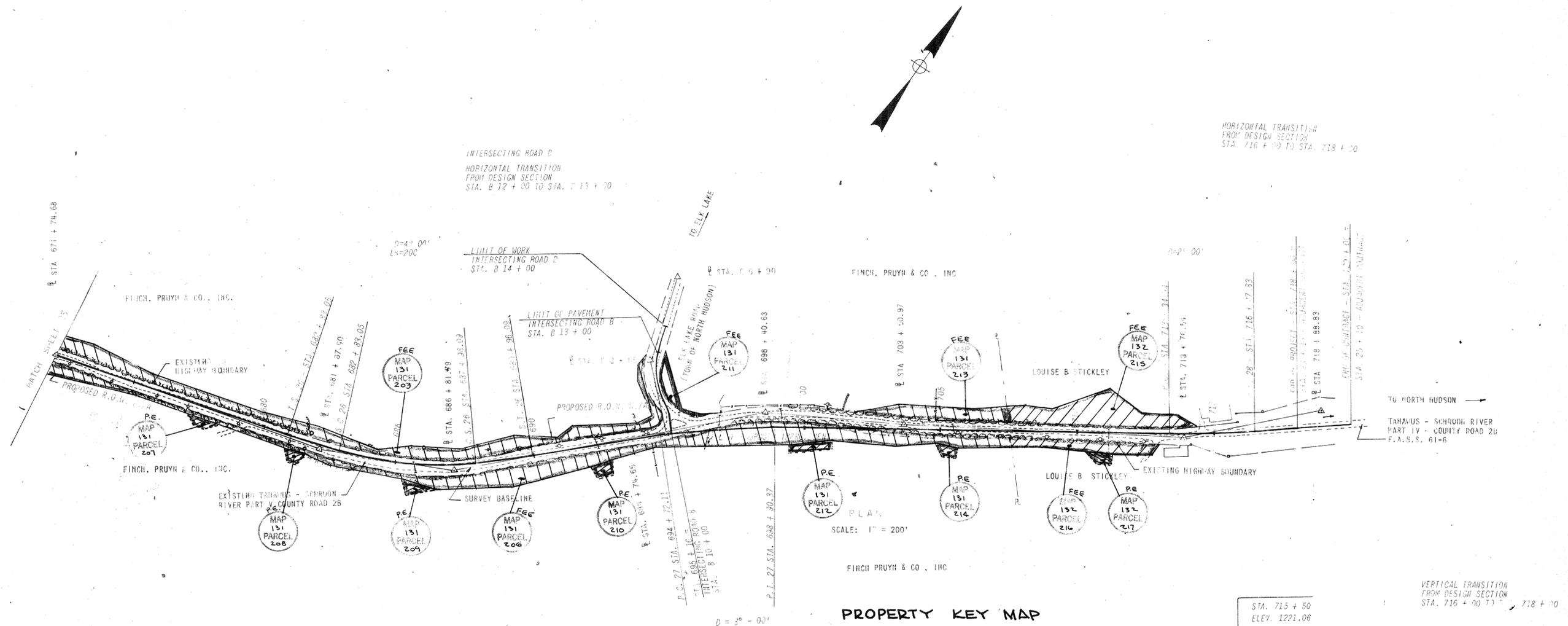
DESIGNED BY \_\_\_\_\_ AUSTIN  
 TRACED BY \_\_\_\_\_ ALLEN  
 CHECKED BY \_\_\_\_\_ AUSTIN

PREPARED & RECOMMENDED BY  
 RIST - FROST ASSOCIATES  
 CONSULTING ENGINEERS GLENS FALLS, N.Y.  
 PARTNER-IN-CHARGE LIG. NO. 29869X-A DATE \_\_\_\_\_

FED. ROAD REG. NO.	STATE OF	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		26	93
TAHAWUS - SCHROON RIVER - PART V - ESSEX COUNTY				

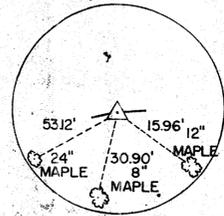
APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASSOC. CIVIL ENGINEER. CONSTRUCTION

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
 ASST. DISTRICT ENGINEER

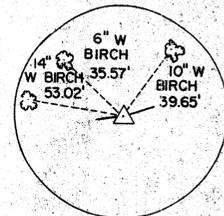


DESIGNED BY AUSTIN  
 TRACED BY ALLEN  
 CHECKED BY AUSTIN

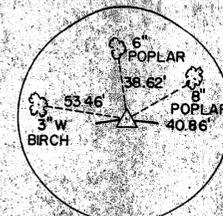
PREPARED & RECOMMENDED BY  
 RIST - FROST ASSOCIATES  
 CONSULTING ENGINEERS N.Y.S. P.E. GLENS FALLS, N.Y.  
 PARTNER-IN-CHARGE LIC NO 29869X-X DATE \_\_\_\_\_



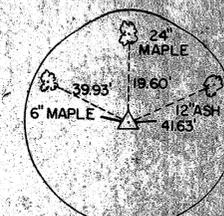
STA. 582+00



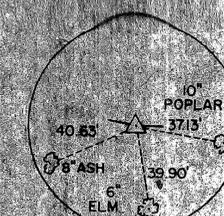
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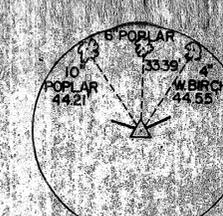
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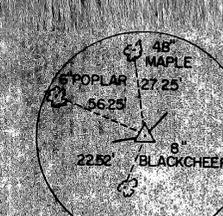
STA. 601+20



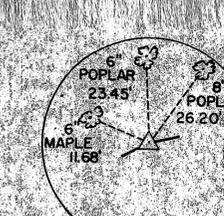
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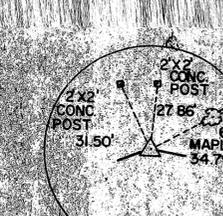
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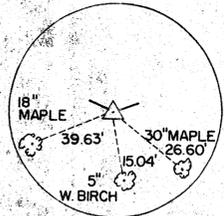
STA. 616+40



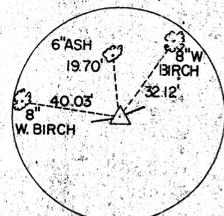
STA. 623+40



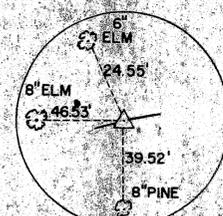
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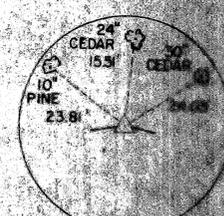
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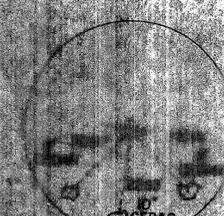
STA. 634+70



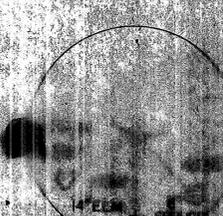
STA. 647+00



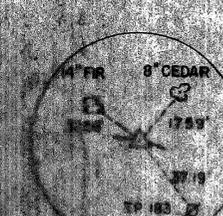
STA. 650+10



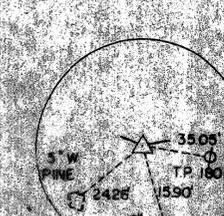
STA. 653+00



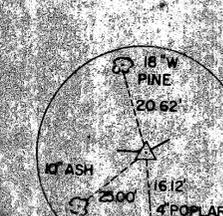
STA. 657+20



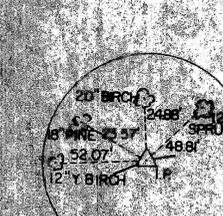
STA. 660+50



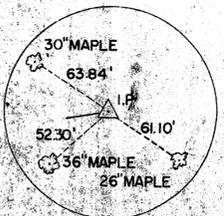
STA. 664+90



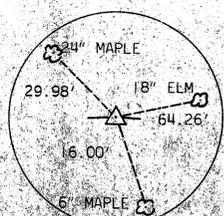
STA. 668+00



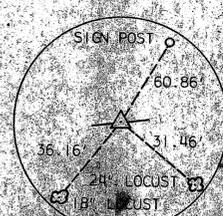
STA. 671+74.68



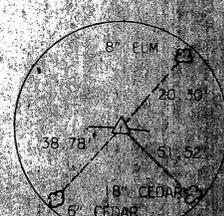
STA. 681+87.40



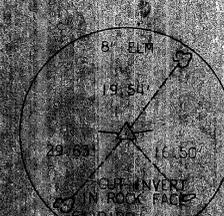
STA. 686+81.79



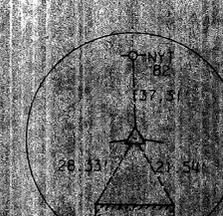
STA. 694+74.65



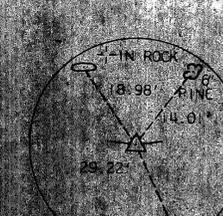
STA. 698+40.63



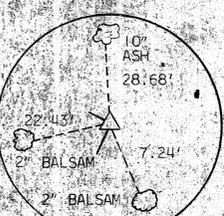
STA. 703+50.97



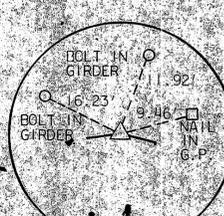
STA. 713+76.24



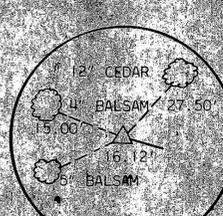
STA. 718+88.83



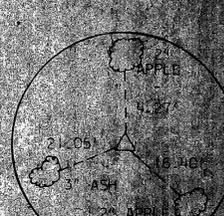
STA. 719+3+00



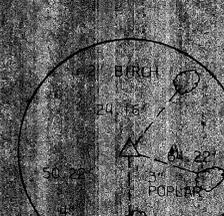
STA. 723+75.02



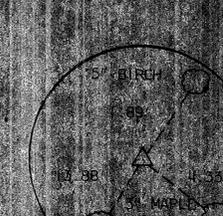
STA. 726+75



STA. 727+40.20



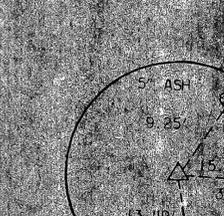
STA. 729+620+127.05



STA. 729+622+139.93



STA. 730+5+00



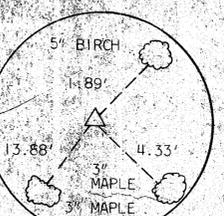
STA. 730+625+56.09



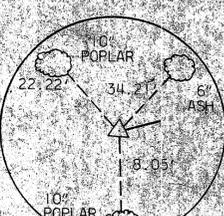
STA. 730+628+99.52



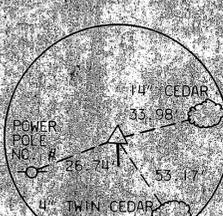
STA. 730+629+188



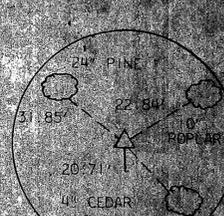
STA. 730+622+59.93



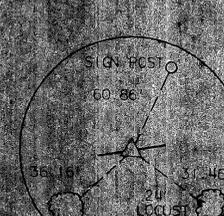
STA. 730+627+45.06



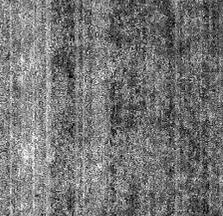
STA. 730+621+65



STA. 730+625+90



STA. 730+624+00

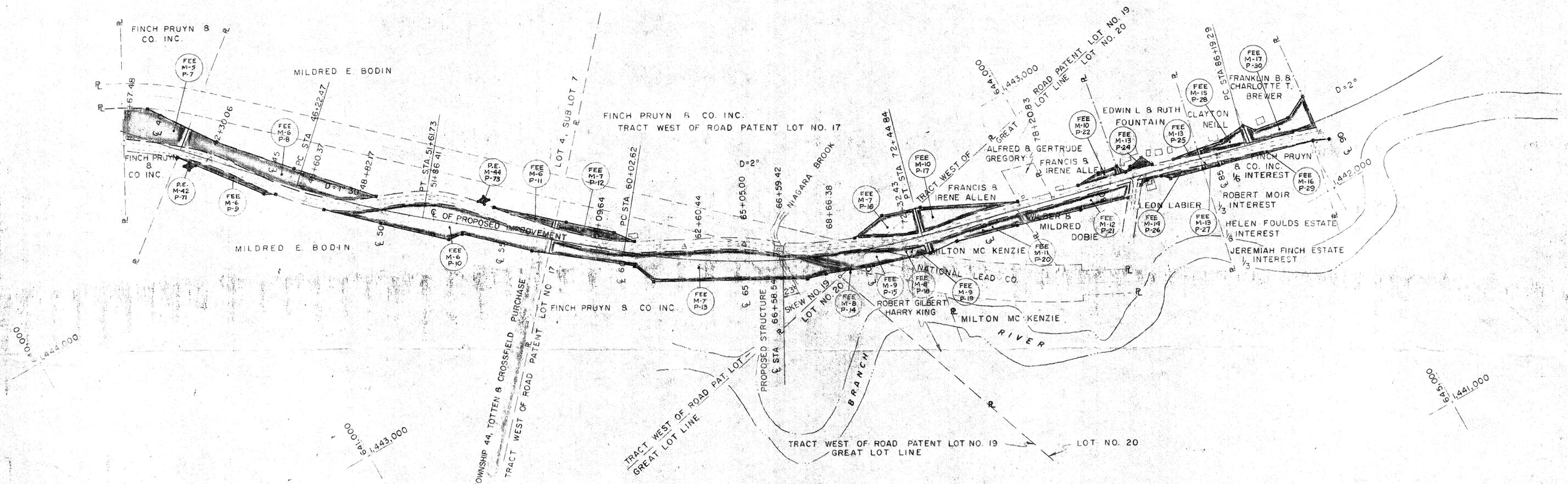


STA. 730+624+74.65

APPROVED DATE \_\_\_\_\_  
 ASSOC. CIVIL ENGINEER, CONSTRUCTION

APPROVED DATE \_\_\_\_\_  
 ASST. DISTRICT ENGINEER

DESIGNED BY AUSTIN  
 TRACED BY BRONZ  
 CHECKED BY AUSTIN



PLAN  
SCALE: 1" = 200'

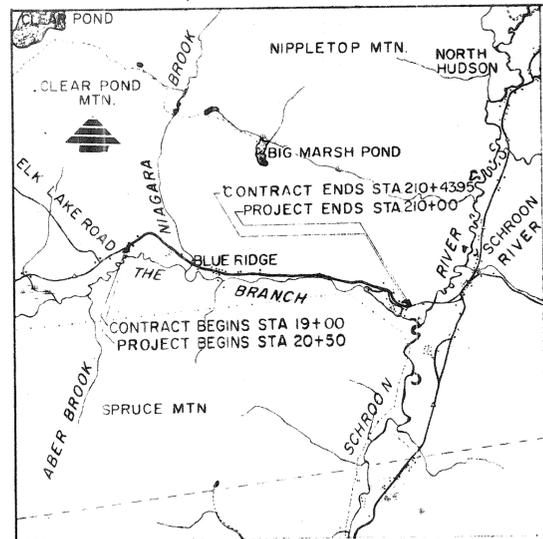
MAP NO.	PARCEL NO.	REPUTED OWNERS	TYPE TAKING	REMARKS
5	7	FINCH PRUYN & CO. INC.	FEE	
6	8	MILDRED E. BODIN	FEE	
6	9	MILDRED E. BODIN	FEE	
6	10	MILDRED E. BODIN	FEE	
6	11	MILDRED E. BODIN	FEE	
42	71	MILDRED E. BODIN	P.E.	
44	73	MILDRED E. BODIN	P.E.	
7	12	FINCH PRUYN & CO. INC.	FEE	
7	13	FINCH PRUYN & CO. INC.	FEE	
7	16	FINCH PRUYN & CO. INC.	FEE	
8	14	ROBERT GILBERT & HARRY KING	FEE	REV. 5/24/61
8	18	ROBERT GILBERT & HARRY KING	FEE	REV. 5/24/61
9	15	NATIONAL LEAD COMPANY	FEE	REV. 5/24/61

MAP NO.	PARCEL NO.	REPUTED OWNERS	TYPE TAKING	REMARKS
9	19	NATIONAL LEAD COMPANY	FEE	REV. 5/24/61
10	17	FRANCES & IRENE ALLEN	FEE	
10	22	FRANCES & IRENE ALLEN	FEE	
11	20	MILTON MC KENZIE	FEE	
12	21	WILBER & MILDRED DOBIE	FEE	
13	24	EDWIN L. & RUTH FOUNTAIN	FEE	
13	25	EDWIN L. & RUTH FOUNTAIN	FEE	
13	27	EDWIN L. & RUTH FOUNTAIN	FEE	
14	26	LEON LABIER	FEE	
15	28	CLAYTON NEILL	FEE	
16	29	ROBERT MOIR, JEREMIAH FINCH ESTATE, FINCH PRUYN & CO. INC., HELEN FOULDS ESTATE.	FEE	
17	30	FRANKLYN B. & CHARLOTTE T. BREWER	FEE	

FOR LEGEND SEE SHEET NO. 1

REVISIONS	DRAWN BY	PALMER	<b>PROPERTY APPROPRIATION KEY MAP</b>	<b>2</b>
	CHECKED	KUROSAKA		
	SCALE	1" = 200'		
	ISSUE DATE	4/17-61		
PARTNER-IN-CHARGE		PROJ.	100	REV. NO.
RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK				

DATE  
APPROVED  
ASSOC. CIVIL ENG. CONSTRUCTION



APPROXIMATE LOCATION:  
PROJECT BEGINS 0.36 MI. EAST OF ELK LAKE ROAD INTERSECTION AND RUNS IN AN EASTERLY DIRECTION FOR 3.588 MI. END OF PROJECT BEING 0.7 MI. WEST OF INTERSECTION OF RT.9 AND COUNTY ROAD 2-B ALL CONSTRUCTION IS IN THE COUNTY OF ESSEX.

MAINTENANCE AND PROTECTION OF TRAFFIC:

MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE COMPLIED WITH THROUGHOUT THE LENGTH AND DURATION OF THE CONTRACT UNDER THE PROVISIONS OF ITEM 76Y.

DESIGN TRAFFIC DATA:

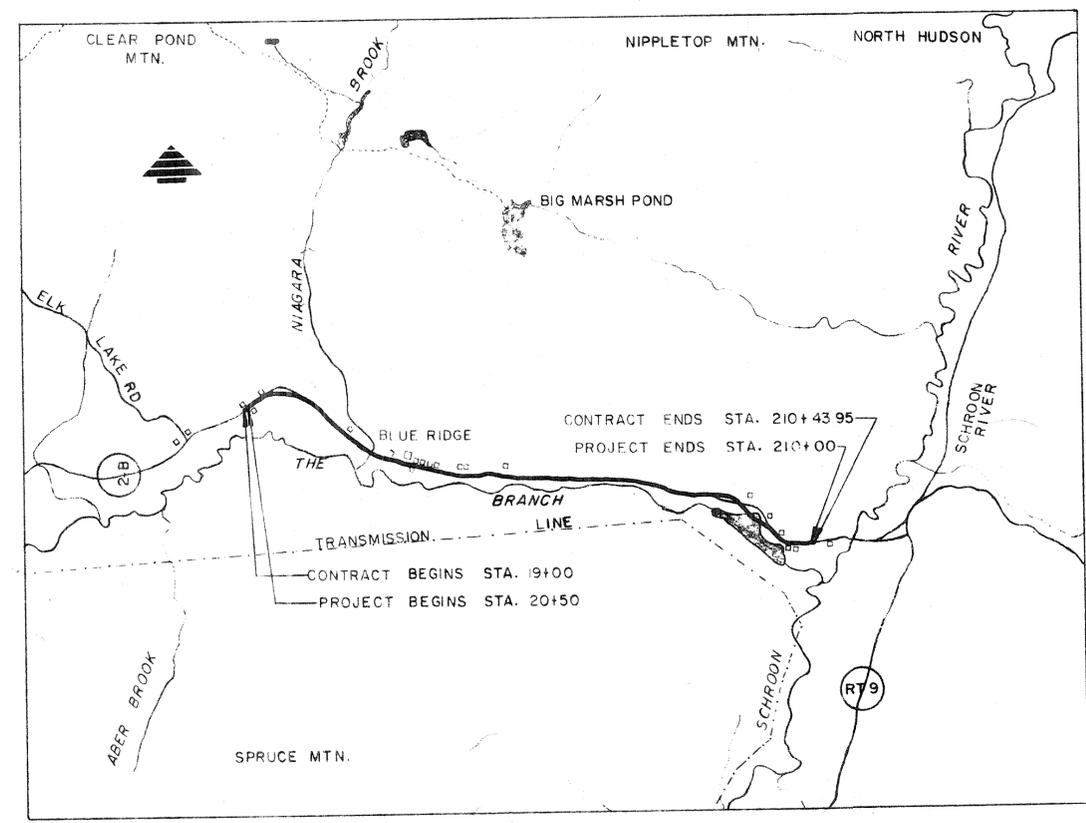
DESIGN CLASS 8 M  
ESTIMATED 1980 TRAFFIC D.H. 24  
A.A.D.T. 266  
MAX. GRADE 10%  
MIN. RADIUS 477.465 FT.  
MIN. S.S.D. 216 FT.

HIGHWAY	LIMITS	MILES	AGENCY	JURISDICTION
C.R. 2-B	Q STA. 19+00 TO Q STA. 210+43.95	3.62	ESSEX CO.	HWY. LAW SECT. 129

DATE  
APPROVED  
ASSISTANT DISTRICT ENGINEER

MADE BY HEWELL DATED 1-12-61  
CHECKED BY BOUCHARD DATED 1-16-61  
TRACED BY WINCHELL DATED 2-22-61  
CHECKED BY AUSTIN DATED 2-24-61

NH-02.03m



TAHAWUS - SCHROON RIVER PART IV

SCALE: 1" = 1/2 MILE

FED. ROAD REGNO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		1	52

TAHAWUS - SCHROON RIVER PART III

STANDARD STRUCTURE SHEETS  
40-101R, 50-34, 55-17A, 56-1, 56-43R, 56-52, 57-8, 58-45A, 58-60, 58-101, 58-101A, 58-101B, 60-19A, 60-3, 60-41, 60-53, S-1-60, S-40-60,

ADVANCE PRINT

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
*Frank J. Fuller*  
ENGINEER DISTRICT NO 1  
DATED *June 2, 1961* 19 *61*

APPROVED FOR ESSEX COUNTY BY  
*James A. DeLeon*  
SUPT OF HIGHWAYS  
DATED *2-25* 19 *61*



PREPARED AND RECOMMENDED BY  
RIST BRIGHT AND FROST  
CONSULTING ENGINEERS  
JOHN K. BRIGHT  
N.Y.S. P.E. LIC. NO. 36235  
DATE *2-24-61*

SYMBOLS	
SYMBOL	DESCRIPTION
	☉ OF PROPOSED IMPROVEMENT WITH STATION
	PROPOSED TAKING LINE - RIGHT OF WAY
	GUIDE RAILING
	CUT OR FILL LIMIT - LIMIT OF CONSTRUCTION
	BASE LINE
	EXISTING ROAD
	EXISTING RIGHT OF WAY
	PROPERTY LINE
	STONE WALL
	FENCE
	TREE LINE
	BASE LINE STATION
	RIGHT OF WAY MONUMENT
	CENTER LINE CURVE CONTROL
	WATER COURSE
	CHISLED CROSS IN ROCK
	BORING LOCATION
	TREE
	TELEPHONE OR POWER POLE
	EXISTING GUIDE RAILING
	SHOULDER STABILIZATION 10 FT. WIDE
	SHOULDER STABILIZATION 3 OR 5 FT. WIDE
	DITCH LINE
	PAVED DITCH OR CONCRETE GUTTER
	DRIVEWAY CONSTRUCTION LIMITS W/EDGE OF ROAD AND SHOULDER
	CORRUGATED METAL PIPE W/DIRECTION OF FLOW
	METAL END SECTION
	L TYPE HEAD WALL
	DROP INLET
	APPROXIMATE LOCATION OF SIGNS
	SIGN TEXT & LOCATION NUMBER
	RIP - RAP

INDEX	
SHEET	DESCRIPTION
1	TITLE SHEET. 2640' PLAN
2	INDEX. SYMBOLS
3	TYPICAL SECTIONS
4	TYPICAL SECTIONS
5	TYPICAL SECTIONS
6	TYPICAL SECTIONS
7	ESTIMATE OF QUANTITIES
8	CONTROL DATA
9	TABLES
10	TABLES
11	200' PLAN AND PROFILE - STA. 0400 TO STA. 40+00
12	200' PLAN AND PROFILE - STA. 40+00 TO STA. 90+00
13	200' PLAN AND PROFILE - STA. 90+00 TO STA. 145+00
14	200' PLAN AND PROFILE - STA. 145+00 TO STA. 190+00
15	200' PLAN AND PROFILE - STA. 190+00 TO STA. 222+00
16	MULTI - PLATE PIPE ARCH - STA. 143+00
17	DRAINAGE DETAILS
18	TYPICAL INTERSECTIONS AND DRIVEWAYS
19	LOCATION OF SIGNS. SIGN TEXT DATA CHART.
20	50' PLAN - STA. 13400 TO STA. 27+00
21	50' PROFILE - STA. 13400 TO STA. 27+00
22	50' PLAN - STA. 27+00 TO STA. 41+00
23	50' PROFILE - STA. 27+00 TO STA. 41+00
24	50' PLAN - STA. 41+00 TO STA. 55+00
25	50' PROFILE - STA. 41+00 TO STA. 55+00
26	50' PLAN - STA. 55+00 TO 69+00
27	50' PROFILE - STA. 55+00 TO 69+00
28	50' PLAN - STA. 69+00 TO STA. 83+00
29	50' PROFILE - STA. 69+00 TO STA. 83+00
30	50' PLAN - STA. 83+00 TO STA. 97+00
31	50' PROFILE - STA. 83+00 TO STA. 97+00
32	50' PLAN - STA. 97+00 TO STA. 111+00
33	50' PROFILE - STA. 97+00 TO STA. 111+00
34	50' PLAN - STA. 111+00 TO STA. 125+00
35	50' PROFILE - STA. 111+00 TO STA. 125+00
36	50' PLAN - STA. 125+00 TO STA. 139+00
37	50' PROFILE - STA. 125+00 TO STA. 139+00
38	50' PLAN - STA. 139+00 TO STA. 153+00
39	50' PROFILE - STA. 139+00 TO STA. 153+00
40	50' PLAN - STA. 153+00 TO STA. 167+00
41	50' PROFILE - STA. 153+00 TO STA. 167+00
42	50' PLAN - STA. 167+00 TO STA. 181+00
43	50' PROFILE - STA. 167+00 TO STA. 181+00
44	50' PLAN - STA. 181+00 TO STA. 195+00
45	50' PROFILE - STA. 181+00 TO STA. 195+00
46	50' PLAN - STA. 195+00 TO STA. 212+00
47	50' PROFILE - STA. 195+00 TO STA. 212+00
1	BRIDGE SITE PLAN
2	PLAN
3	SECTIONS
4	WINGWALL ELEVATIONS
5	DETAILS AND BAR LIST

ADVANCE PRINT

PREPARED PURSUANT TO THE HIGHWAY  
LAW AND RECOMMENDED BY

*Frank J. Smith*

ENGINEER DISTRICT NO 1

DATED June 2 19 61

APPROVED FOR ESSEX COUNTY  
BY

*James G. Mulvaney*

SUPT OF HIGHWAYS

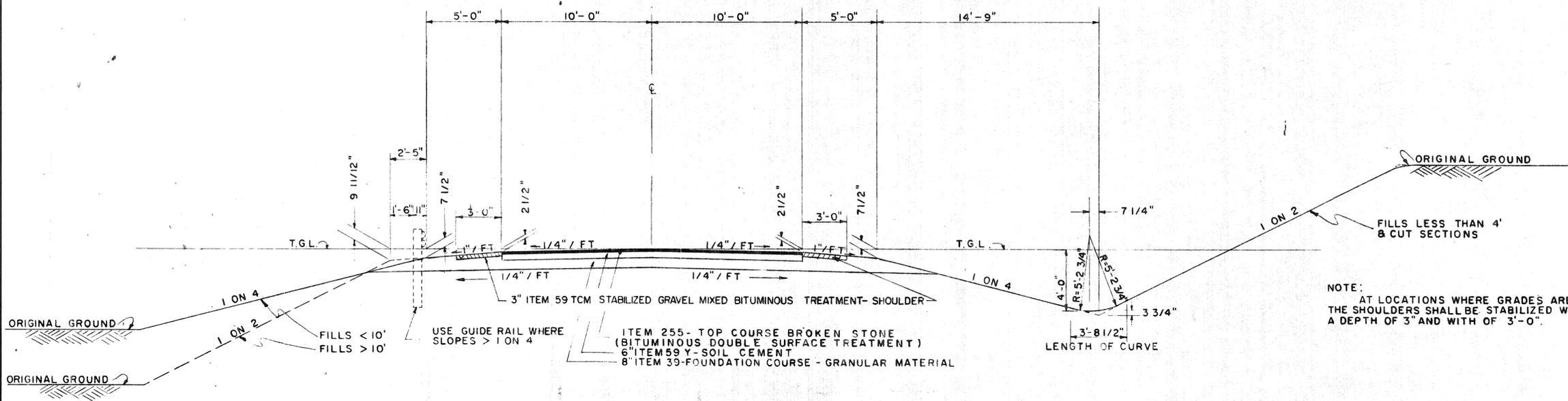
DATED 2-25 19 61

REVISIONS	DRAWN BY	DEICH	<b>INDEX &amp; SYMBOLS</b>	<b>RIST BRIGHT AND FROST</b> CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ.	100
	CHECKED	AUSTIN			REV. NO.	2
	SCALE	NO SCALE				
	ISSUE DATE	2 23 61				
	PARTNER-IN-CHARGE	<i>Frank Bright</i>				

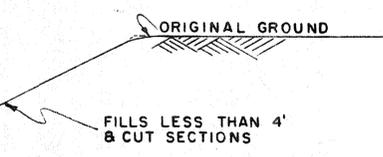
FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		3	52
TAHAWUS-SCHROON RIVER PART IX				

SLOPE H'/FT	SLOPE X"	RADIUS "R" FT	CURVE TANG.	CURVE EXT.	K FT.	L FT.	C FT.
3/4"	1 ON 2	21.76	4.43	0.44	4.42	3.96	0.46
3/4"	1 ON 2	23.61	4.80	0.48	4.79	4.29	0.50
3/4"	1 ON 4	21.90	20.04	0.09	2.00	1.94	0.09
1"	1 ON 2	23.01	4.43	0.43	4.42	3.96	0.44
1"	1 ON 2	24.96	4.81	0.46	4.79	4.30	0.48
1"	1 ON 4	24.76	20.07	0.06	2.00	1.97	0.06

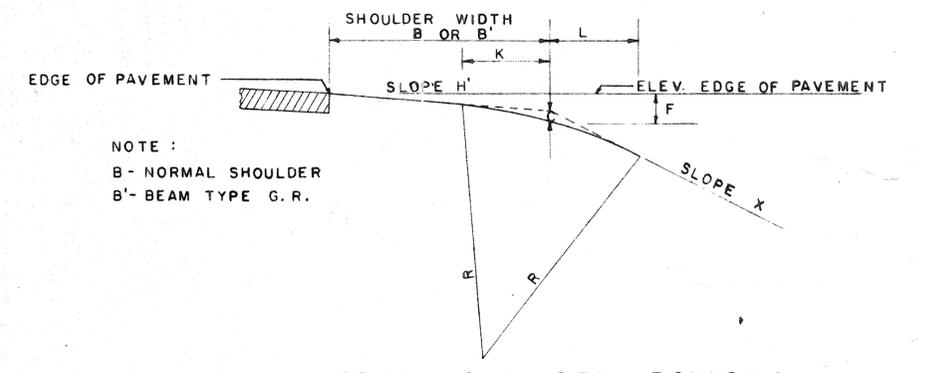
SLOPE H'/FT	"F" SLOPE X=1 ON 4		"F" SLOPE X=1 ON 5		"F" SLOPE X=1 ON 2	
	B	3/4"	B	3/4"	B	3/4"
5'	0.40	0.50	0.38	0.48	7'-5"	0.92
6'	0.47	0.58	0.45	0.56	8'-5"	0.97
7'	0.53	0.66	0.51	0.64	9'-5"	1.05
8'	0.59	0.75	0.57	0.73	10'-5"	1.11
9'	0.65	0.83	0.63	0.81	11'-5"	1.17
10'	0.72	0.91	0.70	0.89	12'-5"	1.24



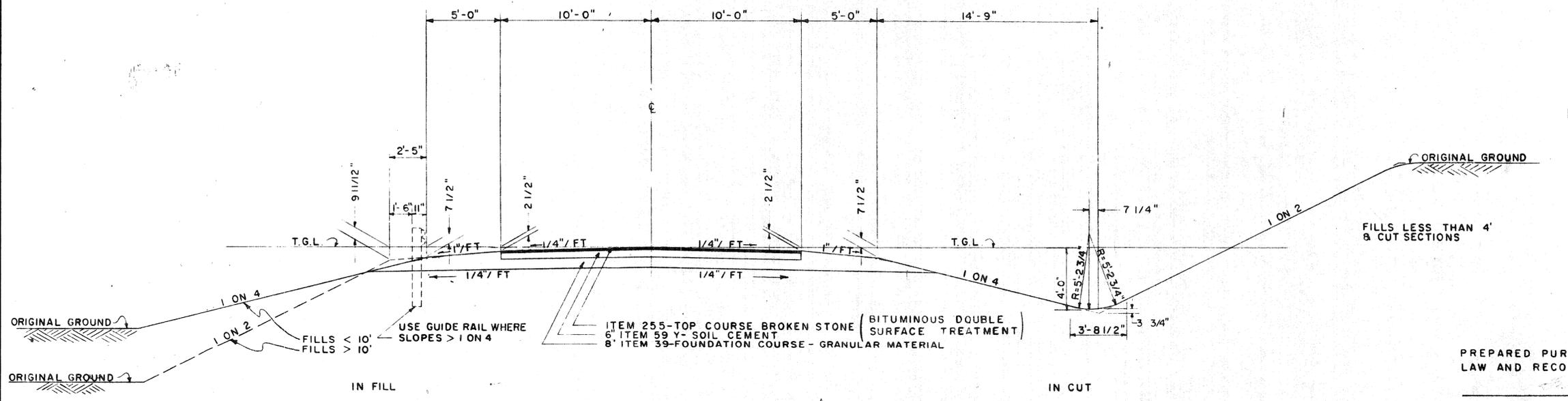
NORMAL CROWNED SECTION WITH STABILIZED SHOULDERS  
SCALE: 1/4" = 1'-0"



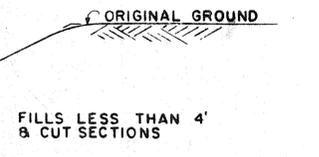
NOTE:  
AT LOCATIONS WHERE GRADES ARE 5% OR GREATER THE SHOULDERS SHALL BE STABILIZED WITH ITEM 59 TCM FOR A DEPTH OF 3" AND WITH OF 3'-0".



NORMAL SHOULDER ROUNDING  
DETAIL A  
NO SCALE



NORMAL CROWNED SECTION  
SCALE: 1/4" = 1'-0"



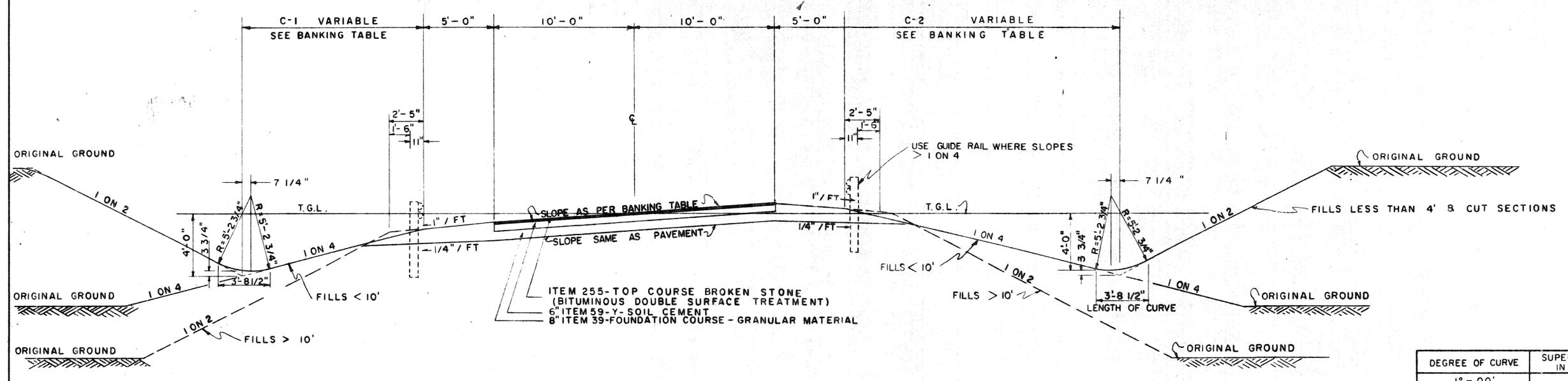
ADVANCE PRINT

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
ENGINEER DISTRICT NO. 1  
DATED June-2 19 61

APPROVED FOR ESSEX COUNTY BY  
Supt. of Highways  
DATED 2-25 19 61

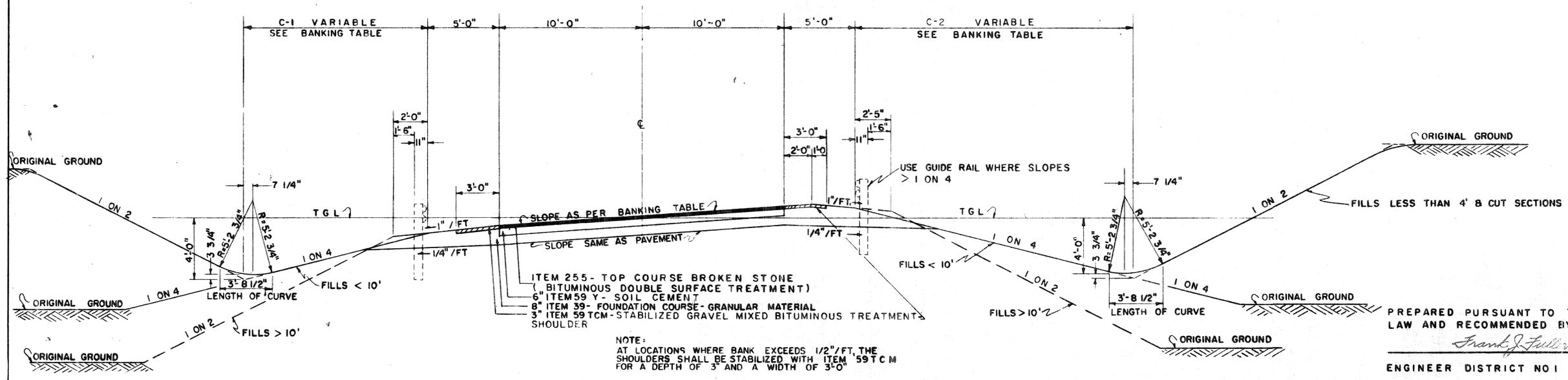
REVISIONS	DRAWN BY	DEICH	<b>TYPICAL SECTIONS</b>	DRAWING NO. <b>33</b>
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-23-61		
PARTNER-IN-CHARGE			PROJ. NO. 100	REV. NO.

**RIST BRIGHT AND FROST**  
CONSULTING ENGINEERS  
GLENS FALLS, NEW YORK



**TYPICAL BANKED SECTION**  
SCALE: 1/4" = 1'-0"

DEGREE OF CURVE	SUPERELEVATION IN FT. / FT.	C-1 VARIABLE DISTANCE	C-2 VARIABLE DISTANCE
1°-00'	.021	14'-9"	17'-3"
1°-30'	.021	14'-9"	17'-3"
2°-00'	.024	14'-6 1/2"	17'-6"
2°-30'	.029	14'-4"	17'-9"
3°-00'	.035	14'-1 1/2"	18'-0"
4°-00'	.045	13'-8 1/2"	18'-6"
6°-00'	.060	13'-1"	19'-3"
7°-30'	.069	12'-10 1/2"	19'-6"
8°-00'	.071	12'-8"	19'-9"
10°-00'	.078	12'-5 1/2"	20'-0"
12°-00'	.080	12'-3"	20'-3"



**TYPICAL BANKED SECTION WITH STABILIZED SHOULDERS**  
SCALE: 1/4" = 1'-0"

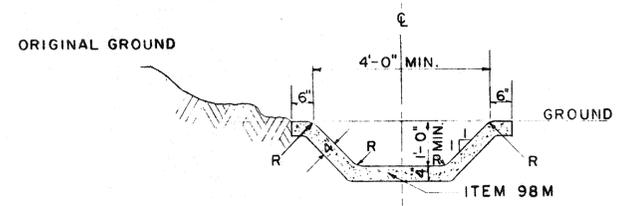
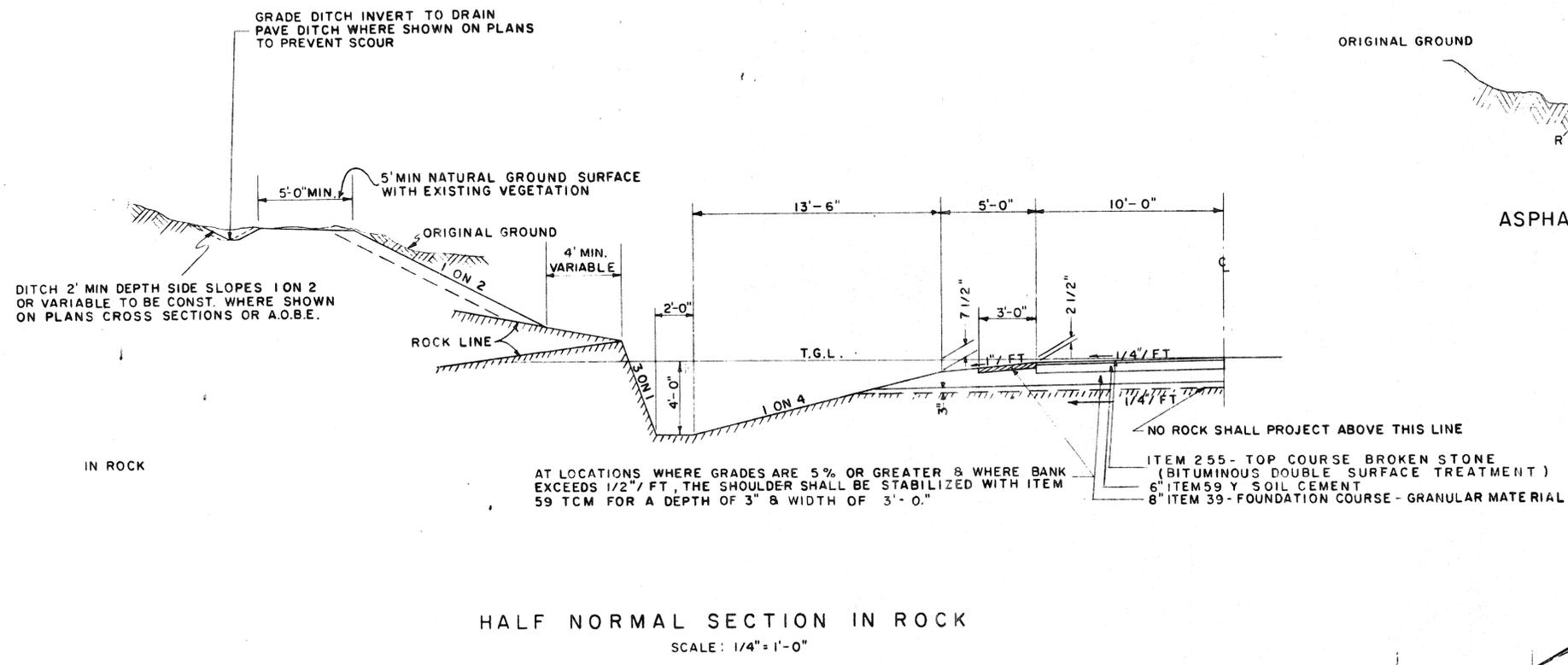
ADVANCE PRINT

PREPARED PURSUANT TO THE HIGHWAY  
LAW AND RECOMMENDED BY  
*Frank J. Fuller*  
ENGINEER DISTRICT NO 1  
DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY  
BY  
*Harold A. Nolan*  
SUPT OF HIGHWAYS  
DATED 2-25 19 61

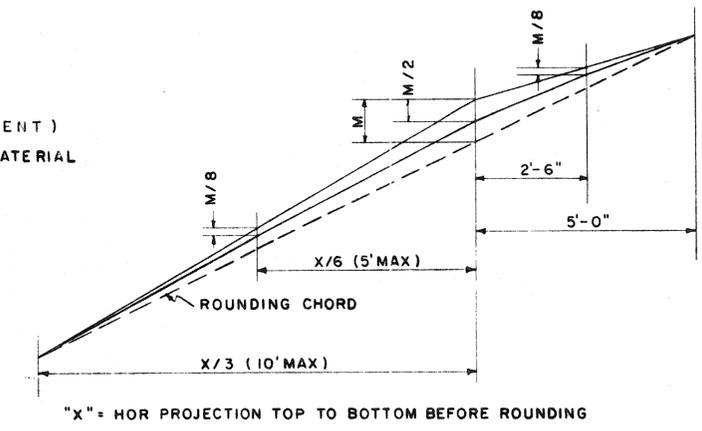
REVISIONS	DRAWN BY	WINCHELL	<b>TYPICAL SECTIONS</b>	DRAWING NO.  1
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-61		
PARTNER-IN-CHARGE		RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100	REV. NO.

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		5	52
TAHAWUS - SCHROON RIVER PART IX				

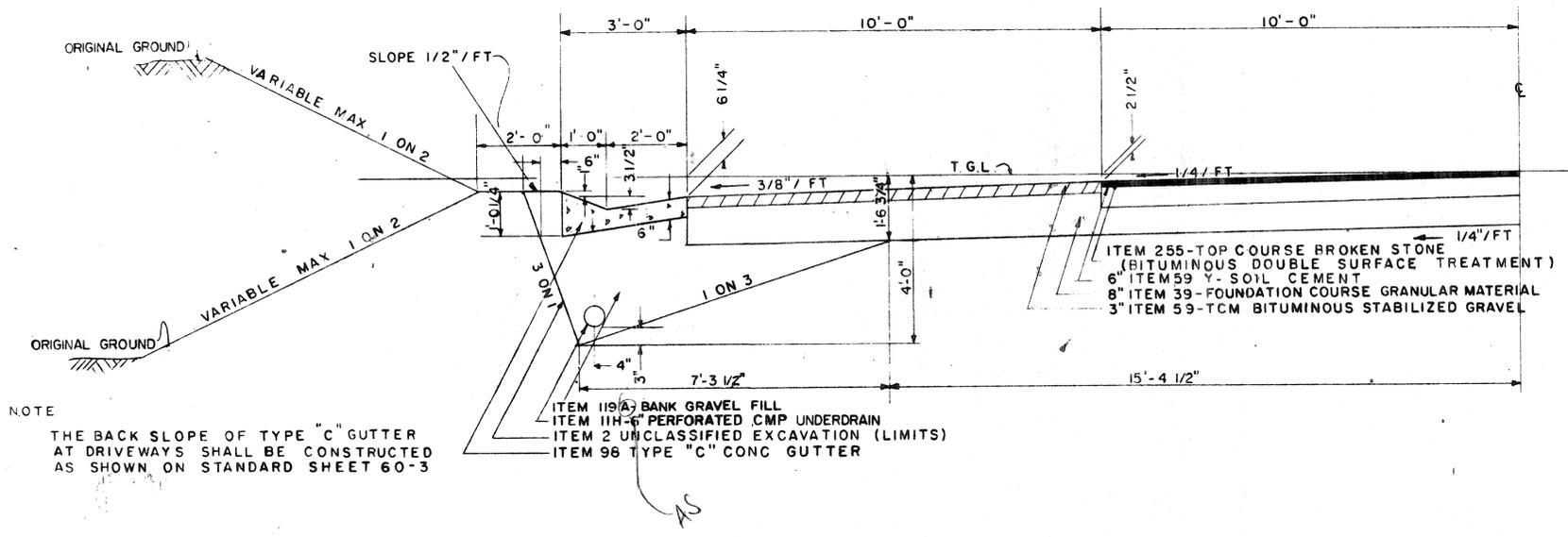


ASPHALT INTERCEPTOR DITCH	
STATION TO STATION	SIDE
170 + 50 - 175 + 50	LT
183 + 50 - 188 + 00	LT
194 + 10 - 194 + 60	LT

ASPHALT INTERCEPTOR DITCH  
SCALE 1/2" = 1'-0"



ROUNDING AT TOP OF CUT SLOPE - DETAIL "B"  
NO SCALE



SPECIAL SECTION STA. 75+00 TO 86+00 ON LEFT  
SCALE 1/2" = 1'-0"

ADVANCE PRINT

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY

ENGINEER DISTRICT NO 1

DATED 6-2-61 19 61

APPROVED FOR ESSEX COUNTY BY

SUPT OF HIGHWAYS

DATED 2-25 19 61

REVISIONS	DRAWN BY	PALMER	TYPICAL SECTIONS	DRAWING NO. 5
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-61		
PARTNER-IN-CHARGE			RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. NO. 100



ESTIMATE OF QUANTITIES (HIGHWAY PORTION)				
ITEM NO.	ITEM	UNIT	HIGHWAY TOTAL	
			NEAT	ROUND
1	CLEARING & GRUBBING	L.S.	NEC.	NEC.
1S	COMPACTION CONTROL BUILDING	EA.	1	1
1W	FURNISHING WATER EQUIPMENT	L.S.	NEC.	NEC.
1WA	APPLYING WATER	M/GALS.	3,264	3,590
2	UNCLASSIFIED EXCAVATION	C.Y.	266,458	293,104
2EF-B	SELECTED FILL	C.Y.	2,455	2,701
4X	CLASSIFIED ROCK EXCAVATION	C.Y.	102	115
5	TRENCH, CULVERT & BRIDGE EXCAVATION	C.Y.	3,295	3,625
5R	TRENCH, CULVERT & BRIDGE EXCAVATION (ROCK)	C.Y.	77	85
7	TRIMMING ROADWAY SECTION	LF. RD.	19,140	19,330
8X	PREPARING FINE GRADE	S.Y.	42,757	43,190
11-12	CORRUGATED METAL PIPE - 12" DIAMETER	L.F.	412	472
11-24	CORRUGATED METAL PIPE - 24" DIAMETER	L.F.	2,134	2,254
11-36	CORRUGATED METAL PIPE - 36" DIAMETER	L.F.	488	548
11-42	CORRUGATED METAL PIPE - 42" DIAMETER	L.F.	60	66
11-ES-24	GALVANIZED METAL END SECTION - 24" DIAMETER	EA.	5	5
11-ES-36	GALVANIZED METAL END SECTION - 36" DIAMETER	EA.	1	1
11-ES-42	GALVANIZED METAL END SECTION - 42" DIAMETER	EA.	1	1
11-H-6	PERFORATED CMP UNDERDRAIN - 6" DIAMETER	L.F.	1,276	1,340
12PL9-6 B	CORRUGATED PLATE PIPE & ARCH - 9'-6" X 6'-5" - 8 GAGE	L.F.	125	138
15-2	PORTLAND CEMENT - TYPE 2	BBL.	4,336	4,770
15-2A	PORTLAND CEMENT - TYPE 2A	BBL.	159	175
16-A	FURNISH & APPLY CALCIUM CHLORIDE	TON	150	165
20-S	CLASS 1 CONCRETE	C.Y.	18	20
28	BAR REINFORCEMENT FOR STRUCTURES	LB.	216	227
30	MISCELLANEOUS METALS	LB.	1,532	1,609
33A	BEAM TYPE GUIDE RAILING (WOOD POST)	L.F.	11,383	11,992
34A	GUIDE POSTS (WOOD)	EA.	61	65
39	FOUNDATION COURSE - GRANULAR MATERIAL	C.Y.	20,694	22,260
59 TCM	STABILIZED GRAVEL - MIXED BITUMINOUS TREATMENT (SHOULDERS)	C.Y.	409	430
59Y	SOIL CEMENT STABILIZED BASE COURSE	C.Y.	7,126	7,840
70B	BITUMINOUS MATERIAL - ASPHALT EMULSION - GRADE C	GAL.	41,045	43,097
70H	BITUMINOUS MATERIAL - ASPHALT EMULSION - ROAD MIX	GAL.	6,953	7,300
76	MAINTENANCE & PROTECTION OF TRAFFIC	L.S.	NEC.	NEC.

ESTIMATE OF QUANTITIES (HIGHWAY PORTION)				
ITEM NO.	ITEM	UNIT	HIGHWAY TOTAL	
			NEAT	ROUND
78S	SPECIAL STONE FILLING	C.Y.	119	127
80	DRY RIP-RAP	C.Y.	111	122
81A	REMOVE EXISTING SUPER STRUCTURES	L.S.	NEC.	NEC.
89	REMOVE OLD BITUMINOUS CARPET	S.Y.	6,793	7,135
98C	CONCRETE GUTTER - TYPE "C"	S.Y.	425	468
98M	ASPHALT CONCRETE GUTTER	TON	518	570
102 DI	DROP INLETS	C.Y.	15	17
104	R.O.W. MARKERS (OPTIONAL)	EA.	172	184
116	STAKEOUT OF CONSTRUCTION	L.S.	NEC.	NEC.
119A	BANK GRAVEL FILL	C.Y.	600	660
1200	DISPOSAL OF BUILDINGS	L.S.	NEC.	NEC.
255	TOP COURSE BROKEN STONE (BITUMINOUS DOUBLE SURFACE TREATMENT)	S.Y.	43,754	47,035
473-9B	GROUND MOUNTED TRAFFIC WARNING SIGN 6.25 S.F.	EA	12	12
473-10C	GROUND MOUNTED TRAFFIC WARNING SIGN 9 S.F.	EA	1	1
473-11	GROUND MOUNTED TRAFFIC & REGULATORY SIGNS 12.5 S.F.	EA	8	8
* 123	SEEDING	ACRES	26.8	29.5
1216-1	TREE PLANTING (SPRING MAPLE)	EA	25	25

ADVANCE PRINT

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY \_\_\_\_\_ APPROVED FOR ESSEX COUNTY BY Harold A. Holman

ENGINEER DISTRICT NO 1 Supt. of Highways

DATED 6-2 19 61 DATED 2-25 19 61

REVISIONS	DRAWN BY	HEWELL	DRAWING NO.
	CHECKED	AUSTIN	
	SCALE	NO SCALE	
	ISSUE DATE	2-25-61	
PARTNER-IN-CHARGE <u>R.B. Bright</u>			<b>ESTIMATE OF QUANTITIES</b> <b>7</b> REV. NO.
RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK			

HORIZONTAL ALIGNMENT DATA			
CONTROL	STATION	COORDINATES	
		NORTH	EAST
BEGIN CONT.	19+00.00	1,443,900.35	639,033.30
PT-1	23+12.33	1,444,122.23	639,380.66
TS-2	31+00.49	1,444,570.25	640,029.10
SC-2	33+00.49	1,444,674.04	640,199.74
PI-2		1,444,908.56	640,518.74
CS-2	39+14.41	1,444,611.59	640,780.58
ST-2	41+14.41	1,444,473.89	640,925.26
PC-3	46+22.47	1,444,102.82	641,272.29
PI-3		1,443,905.56	641,456.77
PT-3	51+61.73	1,443,736.22	641,667.17
PC-4	60+02.62	1,443,209.00	642,322.26
PI-4		1,442,813.36	642,813.85
PT-4	72+44.84	1,442,660.88	643,426.18
PC-5	86+19.29	1,442,327.75	644,759.90
PI-5		1,442,201.98	645,268.99
PT-5	96+57.06	1,442,263.85	645,789.97
TS-6	101+26.31	1,442,319.19	646,255.95
SC-6	102+76.31	1,442,334.93	646,405.11
PI-6		1,442,368.70	646,672.90
CS-6	108+08.53	1,442,302.91	646,934.66
ST-6	109+58.53	1,442,269.30	647,080.84
TS-7	111+57.33	1,442,222.23	647,273.99
SC-7	113+07.33	1,442,190.56	647,420.57
PI-7		1,442,150.58	647,568.03
CS-7	116+03.86	1,442,189.02	647,715.90
ST-7	117+53.86	1,442,219.16	647,862.80
TS-8	119+36.94	1,442,260.65	648,041.11
SC-8	120+86.94	1,442,289.51	648,188.23
PI-8		1,442,309.01	648,248.99
CS-8	122+10.00	1,442,294.17	648,311.05
ST-8	123+60.00	1,442,276.55	648,459.94
TS-9	127+21.21	1,442,221.62	648,816.94
SC-9	128+71.21	1,442,201.40	648,965.56
PI-9		1,442,176.99	649,107.00
CS-9	131+54.61	1,442,201.01	649,248.51
ST-9	133+04.61	1,442,220.82	649,397.18
PC-10	135+72.59	1,442,260.83	649,662.16
PI-10		1,442,341.21	650,194.31
PT-10	146+29.81	1,442,176.32	650,706.62
TS-11	159+42.32	1,441,774.18	651,956.01
SC-11	160+92.32	1,441,732.94	652,100.15
PI-11		1,441,685.02	652,233.01
CS-11	163+62.73	1,441,723.20	652,368.99
ST-11	165+12.73	1,441,753.89	652,515.74
TS-12	166+34.93	1,441,782.80	652,634.48
SC-12	167+84.93	1,441,813.18	652,781.29
PI-12		1,441,846.01	652,894.00
CS-12	170+09.72	1,441,808.09	653,005.10
ST-12	171+59.72	1,441,771.07	653,150.38
PC-13	177+27.76	1,441,511.69	653,695.61
PI-13		1,441,538.50	653,946.00
PT-13	182+49.15	1,441,442.86	654,188.70
TS-14	186+36.31	1,441,300.91	654,548.91
SC-14	188+36.31	1,441,214.96	654,729.06
PI-14		1,441,196.35	654,814.23
CS-14	189+87.54	1,441,113.05	654,839.95
ST-14	191+87.54	1,440,940.79	654,940.78
"BACK"	191+92.01		
"AHEAD"	191+92.01		
TS-15	193+87.48	1,440,765.62	655,027.52
SC-15	195+87.48	1,440,593.36	655,128.35
PI-15		1,440,486.00	655,165.99
CS-15	197+84.22	1,440,468.17	655,278.35
ST-15	199+84.22	1,440,399.75	655,465.86
TS-16	203+99.88	1,440,284.84	655,865.33
SC-16	205+99.88	1,440,243.18	656,060.54
PI-16		1,440,205.42	656,141.44
CS-16	207+54.76	1,440,257.27	656,214.12
ST-16	209+54.76	1,440,333.79	656,398.48
END CONT.	210+43.95	1,440,373.64	656,478.27

BASE LINE DATA				
STATION	AZIMUTH	DISTANCE (FEET)	COORDINATES	
			NORTH	EAST
PI-3	8+76.36	62°-46'-30"	1,025.57	1,443,420.15
PI-4	19+01.93	49°-02'-20"	512.29	1,443,889.33
PI-5	24+14.22	62°-51'-50"	357.93	1,444,225.16
PI-6	27+72.15	56°-30'-00"	482.76	1,444,388.41
PI-7	32+54.91	73°-18'-00"	250.33	1,444,654.86
PI-8	35+05.24	190°-40'-20"	362.24	1,444,726.79
PI-9	38+67.48	128°-46'-00"	362.58	1,444,604.85
PI-10	42+30.06	142°-15'-10"	430.31	1,444,377.82
PI-11	46+60.37	126°-31'-30"	221.80	1,444,037.57
PI-12	48+82.17	110°-14'-50"	304.24	1,443,905.56
PI-13	51+86.41	136°-31'-50"	723.23	1,443,800.27
PI-14	59+09.64	118°-58'-00"	350.80	1,443,275.39
PI-15	62+60.44	116°-10'-40"	244.56	1,443,105.50
PI-16	65+05.00	127°-18'-20"	154.42	1,442,997.61
PI-17	66+59.42	117°-21'-00"	206.94	1,442,904.02
PI-18	68+66.36	114°-59'-40"	366.07	1,442,808.95
PI-19	72+32.43	109°-40'-20"	588.40	1,442,654.27
PI-20	78+20.83	105°-59'-40"	1,131.13	1,442,535.23
PI-21	89+51.96	89°-12'-20"	323.67	1,442,223.56
PI-22	92+75.63	82°-08'-30"	380.80	1,442,228.05
PI-23	96+56.43	89°-31'-50"	301.86	1,442,280.11
PI-24	99+58.29	80°-35'-40"	316.79	1,442,282.58
PI-25	102+75.08	91°-50'-40"	467.07	1,442,334.35
PI-26	107+42.15	103°-08'-40"	626.35	1,442,319.32
PI-27	113+68.50	92°-11'-40"	236.26	1,442,176.88
PI-28	116+04.76	77°-32'-10"	567.55	1,442,167.83
PI-29	121+72.31	106°-25'-50"	427.14	1,442,169.50
PI-30	125+99.45	94°-18'-20"	374.98	1,442,169.50
PI-31	129+74.43	80°-13'-30"	531.43	1,442,141.35
PI-32	135+05.86	88°-48'-40"	232.06	1,442,231.58
PI-33	137+37.92	101°-39'-10"	292.86	1,442,236.39
PI-34	140+30.78	80°-36'-50"	490.77	1,442,177.24
PI-35	144+40.55	111°-13'-00"	508.60	1,442,244.07
PI-36	149+49.15	102°-42'-00"	386.09	1,442,060.01
PI-37	153+35.24	114°-04'-40"	344.37	1,441,975.13
PI-38	156+79.16	96°-22'-50"	426.98	1,441,834.65
PI-39	161+06.59	110°-42'-00"	313.37	1,441,787.20
PI-40	164+19.96	79°-00'-00"	190.90	1,441,676.43
PI-41	166+10.86			1,441,712.66

BASE LINE DATA				
STATION	AZIMUTH	DISTANCE FEET	COORDINATES	
			NORTH	EAST
PI-42	168+17.51	64°-25'-00"	206.65	1,441,802.10
PI-43	170+01.62	88°-52'-00"	184.11	1,441,805.74
PI-44	172+47.54	107°-41'-00"	245.92	1,441,731.04
PI-45	176+58.38	102°-22'-10"	410.84	1,441,643.03
PI-46	180+51.28	107°-04'-30"	392.90	1,441,527.67
PI-47	183+45.35	121°-12'-30"	294.07	1,441,375.30
PI-48	186+12.06	107°-06'-10"	266.71	1,441,296.86
PI-49	190+98.29	95°-51'-20"	486.23	1,441,247.25
PI-50	192+67.06	129°-46'-30"	168.77	1,441,139.20
PI-51	196+14.99	185°-33'-30"	347.93	1,440,792.91
PI-52	198+01.65	160°-37'-10"	186.66	1,440,616.83
PI-53	200+10.52	133°-13'-30"	208.87	1,440,473.78
PI-54	203+89.15	107°-03'-50"	378.63	1,440,362.68
PI-55	207+04.22	117°-20'-30"	315.07	1,440,217.97
PI-56	210+55.65	87°-24'-00"	351.43	1,440,233.91
PI-57	213+92.42	61°-23'-40"	336.77	1,440,395.15

BENCH MARK DATA				
NO	ELEVATION	STATION	OFFSET	DESCRIPTION
1	1204.64	0+78	12' LT	SPIKE IN POLE NO. 161
2	1203.82	9+31	34' RT	SPIKE IN 18" TWIN WHITE BIRCH TREE.
3	1206.25	21+11	70' RT	□ CUT IN A ROCK
4	1198.75	31+32	48' LT	SPIKE IN 14" CEDAR TREE
5	1202.81	41+42	34' LT	SPIKE IN BASE OF 8" CEDAR
6	1214.42	50+29	19' RT	SPIKE IN BASE OF 18" CEDAR
7	1190.82	60+83	75' RT	SPIKE IN BASE OF 12" PINE
8	1152.94	70+26	30' LT	SPIKE IN BASE OF 12" CEDAR
9	1165.55	76+93	33' RT	SPIKE IN BASE OF 26" TWIN GRAY BIRCH
10	1091.80	100+53	75' LT	SPIKE IN BASE OF 36" ELM
11	1079.31	107+62	27' LT	SPIKE IN 24" MAPLE
12	1030.61	118+15	32' RT	SPIKE IN 6" POPLAR
13	1017.29	127+19	29' RT	SPIKE IN BASE OF 12" PINE
14	986.51	138+13	17' RT	SPIKE IN BASE OF 24" PINE
15	971.35	153+86	28' LT	SPIKE IN BASE OF 18" PINE
16	959.43	163+66	32' RT	SPIKE IN 18" HEMLOCK
17	914.09	172+87	36' RT	SPIKE IN 12" MAPLE
18	904.81	183+64	33' RT	SPIKE IN 18" POPLAR
19	881.75	203+30	30' RT	SPIKE IN 24" TWIN ELM
20	862.86	214+18	40' RT	SPIKE IN 14" PINE
21	859.46			□ CUT ON S.W. COR. OF CONC. H.W. OF BRIDGE OVER THE SCHROON RIVER
		STATION		
	1113.74	87+47	6' RT	USC&GS E-249 CONC. MON.
	970.20	143+43	36' RT	USC&GS D-249 CONC. MON.
	882.70	191+00	225' LT	USC&GS C-249 CONC. MON.

HIGHWAY NOTES

COORDINATES REFER TO NYS PLANE COORDINATE SYSTEM, EAST ZONE, AZIMUTHS REFER TO TRUE NORTH AT MERIDIAN 74°-20'

ALL ELEVATIONS REFER TO USC&GS DATUM

HORIZONTAL CURVES COMPUTED BY ARC LENGTH

SPIRAL CURVES COMPUTED FROM TABLES IN "TRANSITION CURVES FOR HIGHWAYS" BY JOSEPH BARNETT

ALL CONTROL POINTS ON SURVEY BASELINE ARE 5/8" Ø STEEL RODS, CENTER PUNCHED, UNLESS OTHERWISE NOTED ON PLANS

ALL TIES ARE NAIL WITH WASHER AND A PAINTED BLAZE, UNLESS OTHERWISE NOTED ON PLANS

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	NY		8	52

TAHAWUS-SCHROON RIVER PART IV

RIGHT ANGLE OFFSETS

STATION	STATION	DISTANCE	RIGHT LEFT
PI-1	19+01.93	0	PI-4
PT-1	23+09.16	45.10'	RT
TS-2	31+06.12	2.98'	RT
PI-2	35+64.05	214.06'	RT
ST-2	40+99.86	18.65'	LT
P.C-3	46+04.96	35.01'	LT
PI-3	48+82.17	0	PI-2
P.T-3	51+38.17	86.06'	RT
P.C-4	60+13.96	18.13'	RT
PI-4	66+54.59	117.66'	RT
P.T-4	72+52.23	10.84'	LT
P.C-5	86+26.91	15.22'	LT
PI-5	91+52.46	24.36'	RT
P.T-5	96+77.24	16.43'	RT
TS-6	101+46.86	5.87'	LT
PI-6	105+63.31	43.65'	LT
ST-6	109+78.08	3.73'	LT
TS-7	111+76.88	1.82'	LT
PI-7	114+77.28	22.15'	RT
ST-7	117+78.44	14.18'	LT
TS-8	119+61.51	16.21'	LT
PI-8	121+72.31	18.75'	LT
		N 4°-26'-10"W	
ST-8	123+77.15	46.05'	LT
TS-9	127+51.90	63.74'	LT
PI-9	130+52.36	22.74'	LT
ST-9	133+45.78	16.66'	LT
P.C-10	136+10.83	27.08'	LT
PI-10	141+73.66	142.58'	LT
P.T-10	146+75.51	18.54'	LT
TS-11	159+94.28	25.65'	RT
PI-11	162+94.82	38.11'	RT
ST-11	165+84.15	46.99'	LT
TS-12	167+16.42	27.00'	LT
PI-12	169+75.03	40.80'	LT
ST-12	172+30.32	36.53'	LT
P.C-13	178+43.76	11.34'	LT
PI-13	180+57.16	16.22'	LT
P.T-13	182+70.65	56.07'	LT
TS-14	187+04.67	29.73'	LT
PI-14	189+84.49	44.09'	RT
ST-14	194+61.26	100.58'	RT
TS-15	196+43.68	0.68'	RT
PI-15	199+53.48	36.84'	RT
ST-15	202+55.07	2.38'	RT
TS-16	206+65.26	55.14'	LT
PI-16	209+70.20	24.64'	RT
ST-16	212+55.18	4.95'	LT

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		9	52
<b>TAHAWUS - SCHROON RIVER PART IX</b>				

TABLE OF EXCAVATION AND EMBANKMENT			
STATION TO STATION	EXCAVATION CUBIC YARDS	EMBANKMENT	
19+00 - 39+46	16,906	23,425	
39+46 - 59+45	10,633	24,798	
59+45 - 79+45	25,262	9,371	
79+45 - 99+38	41,807	16,710	
99+38 - 119+38	34,424	13,571	
119+38 - 139+37	9,073	26,497	
139+37 - 159+37	17,140	22,677	
159+37 - 179+36	47,780	8,479	
179+36 - 199+32	25,714	24,165	
199+32 - 210+43.95	11,336	3,296	
SUBTOTAL	240,075	172,989	
UNSUITABLE	5,128	5,128	
BENCHING	5,075		
STRIPPING	3,994	3,994	
BOULDER UNDERCUT	1,315	1,315	
DRAINAGE SHEETS	3,866		
DRIVEWAYS	344	1,217	
INTERSECTIONS	98	105	
TOTAL	259,895	189,823	

EARTHWORK SUMMARY	
UNCLASSIFIED EXCAVATION	C.Y.
ROADWAY EXCAVATION FROM EARTHWORK SHEETS	240,075
BORROW	6,563
FROM DRAINAGE SHEETS	3,866
INTERSECTIONS	98
DRIVEWAYS	344
BENCHING	5,075
BOULDER UNDERCUT	1,315
STRIPPING	3,994
REMOVAL OF UNSUITABLE MATERIAL	5,128
TOTAL ITEM # 2	266,458

TRENCH, CULVERT AND BRIDGE EXCAVATION	
DESCRIPTION	C.Y.
FROM DRAINAGE SHEETS	3295
FROM STRUCTURE SHEETS (5 X)	412
TOTAL ITEM # 5	3707

TABLE OF STRUCTURES				
STATION	DESCRIPTION	SIZE	REMARKS	
22+60	NEW C.M.P. CULVERT	24" X 112"	NEW 24" CMP CULVERT - 112 L.F. RIP-RAP LEFT - 30° SKEW RIGHT BACK REMOVE EXISTING CMP.	
25+43	NEW C.M.P. CULVERT	24" X 102"	NEW 24" CMP CULVERT - 102 L.F. METAL END SECTION LEFT - REMOVE EXISTING CMP-RIGHT DITCH AS NECESSARY.	
30+80	NEW C.M.P. CULVERT	24" X 82"	NEW 24" CMP CULVERT - 82 L.F. METAL END SECTION LEFT - REMOVE EXISTING CMP AT STATION 30+75 - RIGHT DITCH AS NECESSARY.	
36+00	NEW C.M.P. CULVERT	24" X 74"	NEW 24" CMP CULVERT - 74 L.F. - DROP INLET LEFT - REMOVE EXISTING CMP AT STATION 35+38 - RIGHT DITCH AS NECESSARY.	
38+50	NEW C.M.P. CULVERT	24" X 92"	NEW 24" CMP CULVERT - 92 L.F. - METAL END SECTION LEFT - REMOVE EXISTING CMP - RIGHT DITCH AS NECESSARY.	
41+95	NEW C.M.P. CULVERT	24" X 70"	NEW 24" CMP CULVERT - 70 L.F. RIP-RAP LEFT - 30° SKEW RIGHT BACK - RIGHT DITCH AS NECESSARY.	
53+30	NEW C.M.P. CULVERT	24" X 106"	NEW 24" CMP CULVERT - 106 L.F. - RIP-RAP RIGHT - 30° SKEW RIGHT BACK.	
56+35	NEW C.M.P. CULVERT	24" X 116"	NEW 24" CMP CULVERT - 116 L.F. - DROP INLET RIGHT.	
66+61.54	NEW CONCRETE CULVERT	12" X 12" X 67'	NEW 12" X 12" TWIN BOX CONCRETE CULVERT - 67 L.F. - 23° SKEW LEFT BACK - REMOVE EXISTING STRUCTURE - SEE BRIDGE DATA.	
71+00	NEW C.M.P. CULVERT	24" X 60"	NEW 24" CMP CULVERT - 60 L.F. - RIP-RAP LEFT - 20° SKEW LEFT BACK	
TOWN ROAD 1+00	NEW C.M.P. CULVERT	24" X 100"	NEW 24" CMP CULVERT - 100 L.F. RIP-RAP RIGHT & LEFT 15° SKEW RIGHT BACK - LEFT DITCH AS NECESSARY.	
81+72	NEW C.M.P. CULVERT	24" X 60"	NEW 24" CMP CULVERT - 60 L.F. DROP INLET - RIGHT DITCH AS NECESSARY.	
86+62	NEW C.M.P. CULVERT	24" X 80"	NEW 24" CMP CULVERT - 80 L.F. - RIP-RAP LEFT - 30° SKEW LEFT BACK	
90+20	NEW C.M.P. CULVERT	24" X 76"	NEW 24" CMP CULVERT - 76 L.F. - RIP-RAP LEFT & RIGHT - 35° SKEW LEFT BACK - RIGHT DITCH AS NECESSARY.	
94+50	NEW C.M.P. CULVERT	24" X 164"	NEW 24" CMP CULVERT - 164 L.F. - METAL END SECTION LEFT & RIGHT, SEE SPECIAL DETAIL.	
102+00	NEW C.M.P. CULVERT	36" X 104"	NEW 36" CMP CULVERT - 104 L.F. - RIP-RAP LEFT - 20° SKEW LEFT BACK - REMOVE EXISTING TERRA COTTA PIPE.	
107+88	NEW C.M.P. CULVERT	24" X 80"	NEW 24" CMP CULVERT - 80 L.F. - RIP-RAP LEFT - 30° SKEW LEFT BACK.	
111+88	NEW C.M.P. CULVERT	24" X 64"	NEW 24" CMP CULVERT - 64 L.F. - L TYPE HEADWALL & RIP-RAP LEFT.	
116+88	NEW C.M.P. CULVERT	24" X 110"	NEW 24" CMP CULVERT - 110 L.F. - L TYPE HEADWALL & RIP-RAP LEFT 30° SKEW LEFT BACK.	
122+00	NEW C.M.P. CULVERT	24" X 110"	NEW 24" CMP CULVERT - 110 L.F. - L TYPE HEADWALL & RIP-RAP LEFT 30° SKEW LEFT BACK.	
127+37	NEW C.M.P. CULVERT	24" X 74"	NEW 24" CMP CULVERT - 74 L.F. - METAL END SECTION LEFT.	
143+80	NEW MULTI-PLATE PIPE ARCH CULVERT	9'-6" SPAN 6'-5" RISE X 125'	NEW 9'-6" SPAN X 6'-5" RISE MULTI-PLATE PIPE ARCH CULVERT - 8 GAGE - 125 L.F. CUTOFF WALL & RIP-RAP LEFT & RIGHT - 37°-30' SKEW LEFT BACK - REMOVE EXISTING CONCRETE BOX CULVERT.	
154+00	NEW C.M.P. CULVERT	24" X 86"	NEW 24" CMP CULVERT - 86 L.F. - DROP INLET LEFT - 30° SKEW RIGHT BACK - RIGHT DITCH AS NECESSARY.	
161+58	NEW C.M.P. CULVERT	36" X 78"	NEW 36" CMP CULVERT - 78 L.F. - DROP INLET LEFT.	
164+57	NEW C.M.P. CULVERT	24" X 94"	NEW 24" CMP CULVERT - 94 L.F. RIP-RAP LEFT - 30° SKEW LEFT BACK - RIGHT DITCH AS NECESSARY.	
168+55	NEW C.M.P. CULVERT	36" X 80"	NEW 36" CMP CULVERT - 80 L.F. - RIP-RAP LEFT - 30° SKEW LEFT BACK.	
173+86	NEW C.M.P. CULVERT	36" X 74"	NEW 36" CMP CULVERT - 74 L.F. - METAL END SECTION LEFT.	
177+18	NEW C.M.P. CULVERT	36" X 82"	NEW 36" CMP CULVERT - 82 L.F. - RIP-RAP LEFT - 30° SKEW LEFT BACK.	
180+60	NEW C.M.P. CULVERT	36" X 70"	NEW 36" CMP CULVERT - 70 L.F. DROP INLET LEFT - RIGHT DITCH AS NECESSARY.	
184+05	NEW C.M.P. CULVERT	24" X 70"	NEW 24" CMP CULVERT - 70 L.F. - RIP-RAP LEFT - 30° SKEW LEFT BACK - RIGHT DITCH AS NECESSARY.	
191+50	NEW C.M.P. CULVERT	42" X 60"	NEW 42" CMP CULVERT - 60 L.F. - METAL END SECTION LEFT.	
196+83	NEW C.M.P. CULVERT	24" X 88"	NEW 24" CMP CULVERT - 88 L.F. - RIP-RAP LEFT - 30° SKEW RIGHT BACK.	
208+50	NEW C.M.P. CULVERT	24" X 64"	NEW 24" CMP CULVERT - 64 L.F. - RIP-RAP LEFT - 30° SKEW LEFT BACK - RIGHT DITCH AS NECESSARY.	

OR AS ORDERED BY THE ENGINEER

TABLE OF LENGTHS					
DESCRIPTION	STATION TO STATION	DESCRIPTION	WIDTH & TYPE	L.F.	MILES
BEGIN CONTRACT	19+00 - 191+87.54	EQUALITY BACK	20' ASPH.	17,287.54	3.274
EQUALITY AHEAD	191+92.01 - 210+43.95	END CONTRACT	CONC. & SOIL CEMENT	1,851.94	0.351
BEGIN PROJECT	20+50 - 191+87.54	EQUALITY BACK		17,137.54	3.246
EQUALITY AHEAD	191+92.01 - 210+00	END PROJECT		1,807.99	0.342
TOTAL PROJECT LENGTH				18,945.53	3.588
TOTAL CONTRACT LENGTH				19,139.48	3.625

RECAPITULATION						
HIGHWAY	MUNICIPALITY	COUNTY	PROJECT LENGTH		CONTRACT LENGTH	
			L.F.	MILES	L.F.	MILES
COUNTY ROAD 2 B	TOWN OF NORTH HUDSON	ESSEX	18,945.53	3,588	19,139.48	3.625

TYPE "C" CONCRETE GUTTER			
STATION TO STATION	SIDE	LENGTH	WIDTH
75+00	86+25	LT.	1125'
82+00	83+25	RT.	125'
1250 X 3.06 = 3825 S.F.			
3825 X 1/9 = 425 S.Y.			
OR AS ORDERED BY THE ENGINEER			

TABLE OF UNDERDRAIN		
STATION TO STATION	SIDE	LENGTH
75+00	86+30	LT.
82+00	83+35	RT.
TOTAL		1276'
OR AS ORDERED BY THE ENGINEER		

TABLE OF EXISTING STRUCTURES TO BE REMOVED		
STATION	DESCRIPTION	SIZE
22+77	C.M.P. CULVERT	18" X 32'
25+43	C.M.P. CULVERT	18" X 22'
30+75	C.M.P. CULVERT	18" X 34'
35+58	C.M.P. CULVERT	15" X 26'
36+22	C.M.P. CULVERT	15" X 28'
37+95	C.M.P. CULVERT	12" X 30'
66+60	STRUCTURE	10' X 12' X 32'
72+48	C.M.P. CULVERT	12" X 24'
87+43	C.M.P. CULVERT	12" X 14'
87+86	C.M.P. CULVERT	18" X 30'
OR AS ORDERED BY THE ENGINEER		

TABLE OF EXISTING STRUCTURES TO BE REMOVED		
STATION	DESCRIPTION	SIZE
102+00	TERRA COTTA CULVERT	18" X 24'
143+75	CONCRETE BOX CULVERT	7' X 7' X 20'
145+37	C.M.P. CULVERT	14" X 22'
161+54	C.M.P. CULVERT	14" X 26'
168+38	C.M.P. CULVERT	14" X 24'
170+20	C.M.P. CULVERT	18" X 30'
170+64	C.M.P. CULVERT	18" X 30'
173+88	C.M.P. CULVERT	12" X 22'
180+57	C.M.P. CULVERT	14" X 28'
OR AS ORDERED BY THE ENGINEER		

**ADVANCE PRINT**

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY

APPROVED FOR ESSEX COUNTY BY

ENGINEER DISTRICT NO 1

SUPT OF HIGHWAYS

DATED 6-2 19 61

DATED 2-25 19 61

REVISIONS	DRAWN BY	DEICH	DRAWING NO.
	CHECKED	AUSTIN	
	SCALE	NO SCALE	
	ISSUE DATE	2-24-61	
PARTNER-IN-CHARGE		RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	
PROJECT NO. 100		REV. NO.	

GUIDE POSTS ( WOOD )		
STATION	SIDE	NUMBER
22+19	RT.	1
22+86	LT.	1
25+40	RT.	1
25+46	LT.	1
30+78	RT.	1
30+82	LT.	1
35+98	RT.	1
36+00	LT.	1
38+48	RT.	1
38+52	LT.	1
41+73	RT.	1
42+10	LT.	1
53+13	RT.	1
53+65	LT.	1
56+35	RT.	1
56+38	LT.	1
70+88	LT.	1
71+14	RT.	1
80+51	RT.	1
81+48	RT.	1
81+72	RT.	1
86+43	LT.	1
86+81	RT.	1
90+02	LT.	1
90+41	RT.	1
94+50	RT.	1
94+50	LT.	1
101+85	LT.	1
102+12	RT.	1
107+69	LT.	1
108+07	RT.	1
111+69	LT.	1
111+98	RT.	1
116+72	LT.	1
117+22	RT.	1
121+79	LT.	1
122+27	RT.	1
127+37	RT.	1
127+40	LT.	1
153+71	RT.	1
154+17	LT.	1
161+55	RT.	1
161+58	LT.	1
164+39	LT.	1
164+83	RT.	1
168+37	LT.	1
168+72	RT.	1
173+86	LT.	1
173+86	RT.	1
177+03	LT.	1
177+38	RT.	1
180+56	RT.	1
180+60	LT.	1
183+86	LT.	1
184+20	RT.	1
191+50	LT.	1
191+50	RT.	1
196+52	RT.	1
197+05	LT.	1
208+35	LT.	1
208+65	RT.	1

TOTAL = 61  
NOTE POSTS WILL BE PLACED AS ORDERED BY THE ENGINEER

ASPHALT INTERCEPTOR DITCH				
STATION TO STATION	SIDE	LENGTH	WIDTH	
170+50	175+50	LT.	500'	5'
183+50	188+00	LT.	450'	5'
194+10	194+60	LT.	50'	5'
TOTAL 1000 X 5.828 = 5828 S.F.				
OR AS ORDERED BY THE ENGINEER				

STABILIZED SHOULDER				
STATION TO STATION	SIDE	LENGTH	WIDTH	
32+08	40+08	RT.	800'	3'
32+08	40+08	LT.	800'	3'
62+00	67+50	LT.	550'	3'
62+00	67+50	RT.	550'	3'
74+50	86+50	LT.	1200'	10'
78+50	81+30	RT.	280'	3'
81+90	83+60	RT.	170'	5'
106+50	111+00	LT.	450'	3'
106+50	111+00	RT.	450'	3'
112+62	116+50	LT.	388'	3'
112+62	116+50	RT.	388'	3'
120+25	122+71	RT.	246'	3'
120+25	122+71	LT.	246'	3'
128+60	131+64	LT.	304'	3'
128+60	131+64	RT.	304'	3'
160+33	170+71	LT.	1038'	3'
160+33	170+71	RT.	1038'	3'
185+00	190+70	LT.	570'	3'
185+00	190+70	RT.	570'	3'
194+92	198+78	LT.	386'	3'
194+92	198+78	RT.	386'	3'
205+05	208+50	LT.	345'	3'
205+05	208+50	RT.	345'	3'
10,434 X 3 = 31,302				
170 X 5 = 850				
1,200 X 10 = 12,000				
TOTAL = 44,152 S.F.				
44,152 X 1/9 = 4,906 S.Y.				
4,906 X 1/12 = 409 C.Y.				
OR AS ORDERED BY THE ENGINEER				

ASPHALT CONCRETE GUTTER				
STATION TO STATION	SIDE	LENGTH	WIDTH	
35+70	36+00	LT.	30'	5'
36+00	36+42	LT.	42'	5'
56+10	56+60	RT.	50'	5'
60+75	66+65	RT.	596'	5'
63+50	66+15	LT.	274'	5'
78+50	80+00	RT.	150'	5'
88+25	88+59	RT.	34'	5'
106+50	111+00	LT.	450'	5'
153+90	154+45	LT.	55'	5'
161+30	161+85	LT.	55'	5'
162+05	167+50	LT.	545'	5'
180+35	180+85	LT.	50'	5'
185+00	187+95	LT.	295'	5'
185+00	185+50	RT.	50'	5'
TOTAL 2,676 X 5.828 = 15,596 S.F.				
OR AS ORDERED BY THE ENGINEER				

BEAM TYPE GUIDE RAIL			
STATION TO STATION	SIDE	LENGTH	
20+37	28+12	RT.	775'
21+37	26+12	LT.	475'
52+37	60+12	LT.	775'
54+87	60+12	RT.	525'
65+82	67+07	LT.	125'
66+32	67+57	RT.	125'
92+82	95+57	RT.	275'
101+75	105+00	RT.	325'
105+75	122+50	RT.	1675'
125+74	129+49	LT.	375'
130+74	136+49	RT.	575'
138+74	143+99	LT.	525'
139+74	145+99	RT.	625'
150+24	156+49	RT.	625'
153+24	161+99	LT.	275'
160+74	163+99	RT.	325'
165+73	169+48	RT.	575'
173+73	176+98	RT.	325'
179+23	181+98	RT.	275'
186+23	194+98	RT.	875'
187+94	---	LT.	25'
188+23	191+98	LT.	375'
196+70	202+95	RT.	625'
TOTAL END SECTIONS			11,275
TOTAL			11,383
OR AS ORDERED BY THE ENGINEER			

DRIVEWAYS			
STATION	TYPE	SIDE	L.F. PIPE 12"
19+70	M	LT.	—
26+20	G	LT.	—
36+54	G	LT.	26'
51+45	G	RT.	40'
61+14	G	LT.	—
67+22	G	LT.	—
67+70	G	RT.	—
77+57	G	LT.	—
78+55	M	LT.	—
79+00	M	LT.	—
80+70	---	---	---
82+42	M	LT.	—
80+85	G	RT.	—
82+07	M	RT.	—
83+30	M	LT.	—
85+10	M	LT.	—
87+47	M	LT.	18'
88+72	G	RT.	26'
97+04	G	LT.	24'
97+65	G	RT.	36'
101+38	G	RT.	18'
137+37	M	RT.	18'
185+60	G	RT.	20'
186+13	G	RT.	—
192+84	M	LT.	46'
193+47	G	LT.	30'
195+72	G	LT.	32'
200+30	G	LT.	—
201+75	G	LT.	20'
204+96	G	RT.	28'
206+81	G	LT.	30'
OR AS ORDERED BY THE ENGINEER			

TABLE OF CURVES			
STATION MID POINT	DEGREE	LENGTH	SUPER ELEV. FT./ FT.
19+03	1°-00'	818.1'	0.021
36+07	10°-00'	613.9'	0.078
48+92	1°-30'	539.3'	0.021
66+24	2°-00'	1242.2'	0.024
91+38	2°-00'	1037.8'	0.024
105+42	3°-00'	532.2'	0.035
114+56	6°-00'	296.5'	0.060
121+48	8°-00'	123.1'	0.071
130+13	4°-00'	283.4'	0.045
140+99	2°-30'	1052.2'	0.029
162+28	7°-30'	270.4'	0.069
168+97	8°-00'	224.8'	0.071
179+88	1°-00'	521.4'	0.021
189+12	12°-00'	151.2'	0.080
196+86	12°-00'	196.7'	0.080
206+77	12°-00'	154.9'	0.080

TABLE OF INTERSECTIONS		
STATION	SIDE	TYPE
81+63	RT.	M
OR AS ORDERED BY THE ENGINEER		

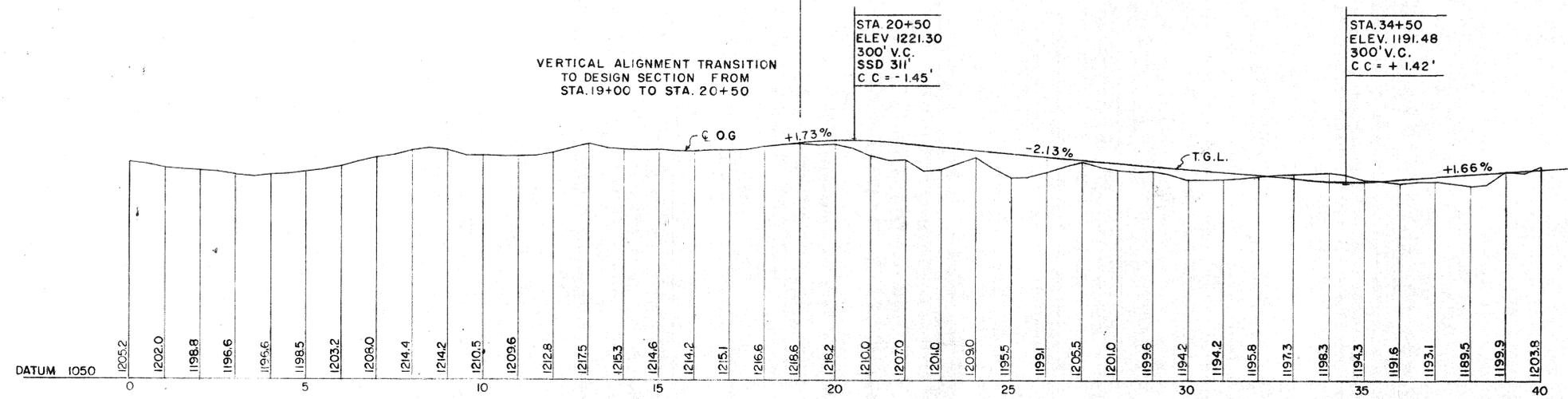
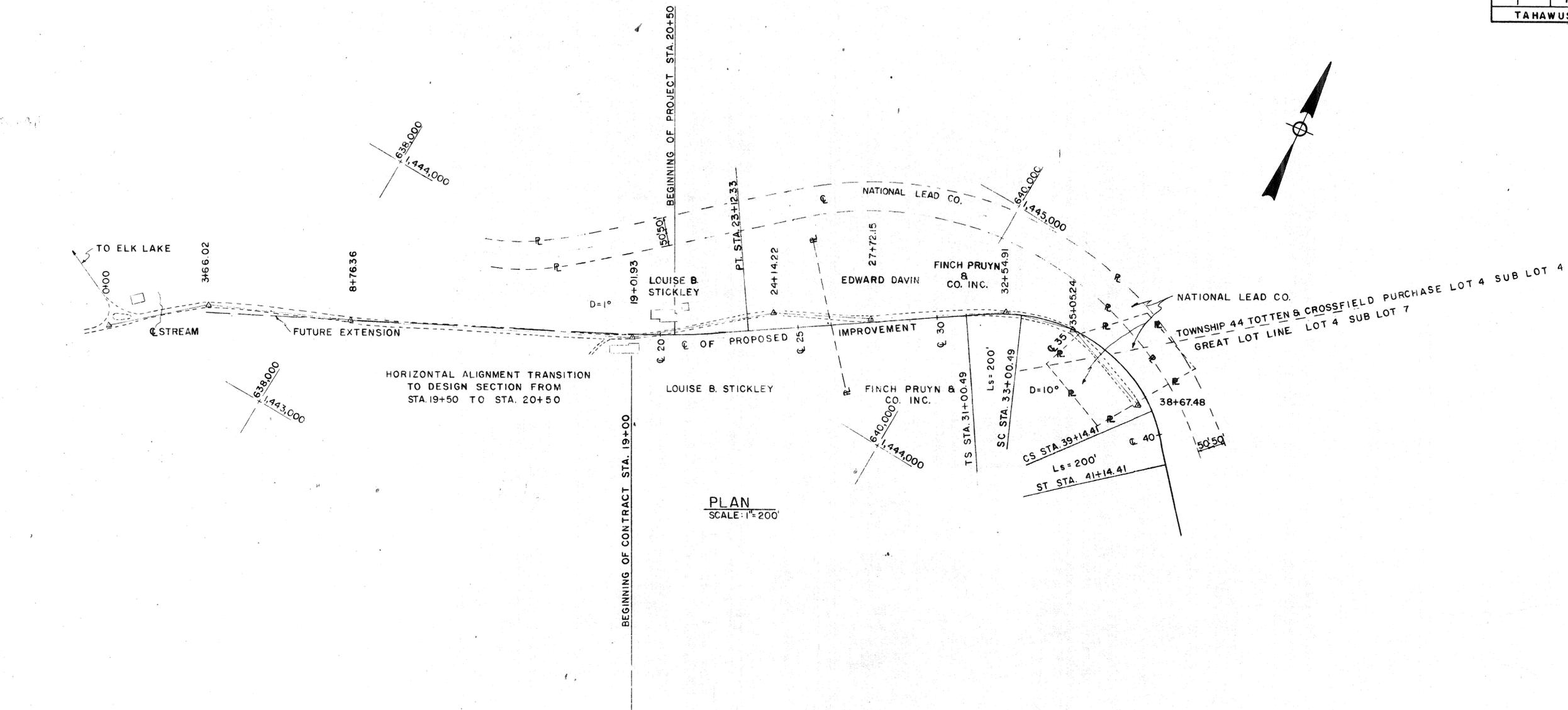
ADVANCE PRINT

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
ENGINEER DISTRICT NO 1  
DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY BY  
*Samuel C. Pollock*  
SUPT OF HIGHWAYS  
DATED 2-25 19 61

REVISIONS	DRAWN BY	HEWELL	DRAWING NO. <b>10</b>
	CHECKED	AUSTIN	
	SCALE	NO SCALE	
	ISSUE DATE	2-25-61	
PARTNER-IN-CHARGE		TABLES	
RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK		PROJ. REV. NO.	

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		11	52
TAHAWUS - SCHROON RIVER			PART	IV

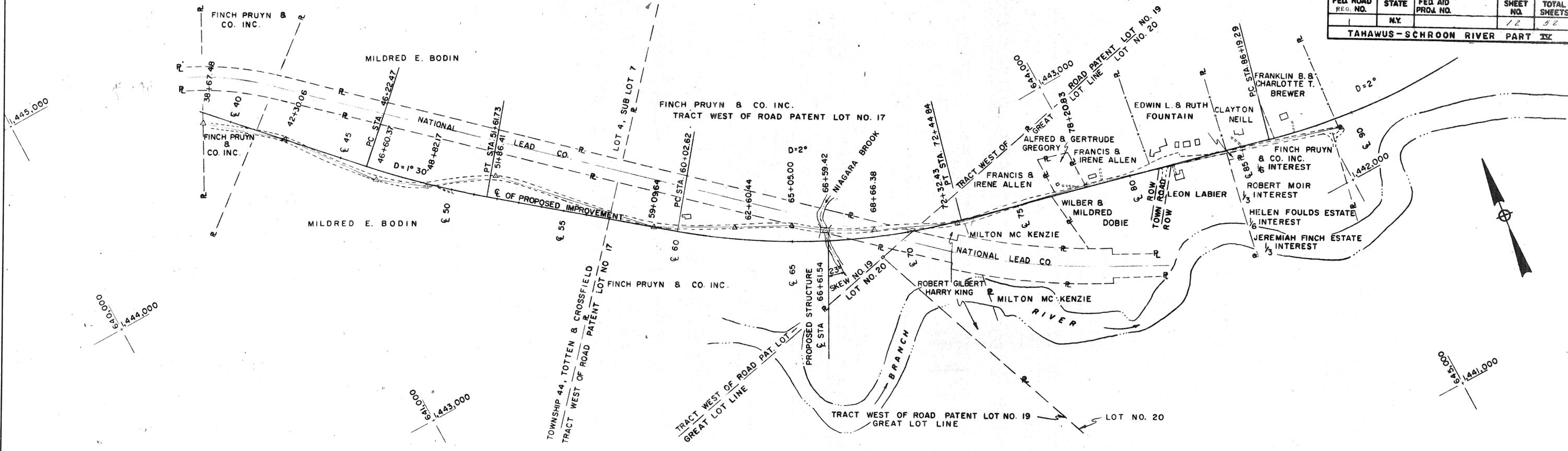


ADVANCE PRINT

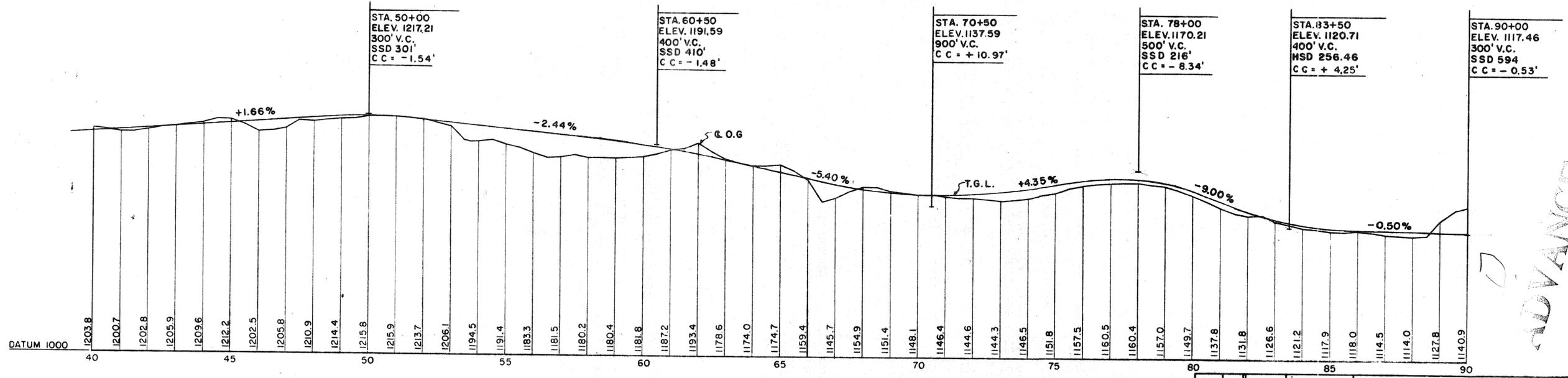
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	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-63		
PARTNER-IN-CHARGE		RIST BRIGHT AND FROST	PROJ.	100
		CONSULTING ENGINEERS	REV. NO.	
		GLENS FALLS, NEW YORK		

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	N.Y.		12	52

TANAWUS-SCHROON RIVER PART IV



PLAN  
SCALE: 1" = 200'



PROFILE  
SCALE: HORIZ. 1" = 200'  
VERT. 1" = 50'

REVISIONS	DATE	BY	DESCRIPTION

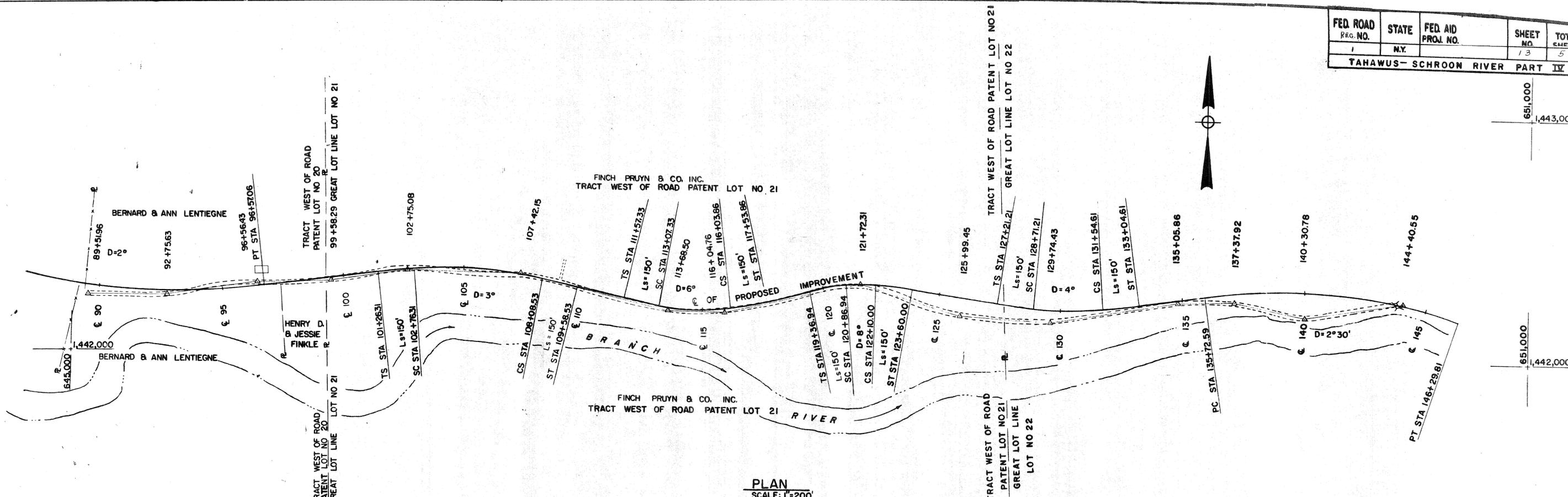
DRAWN BY	DAVIDSON
CHECKED	AUSTIN
SCALE	AS NOTED
ISSUE DATE	2-26-61

<b>PLAN &amp; PROFILE</b> <b>STA. 40+00 TO STA. 90+00</b>		DRAWING NO. <b>12</b>
<b>RIST BRIGHT AND FROST</b> CONSULTING ENGINEERS GLENS FALLS, NEW YORK		PROJ. NO. 100
PARTNER-IN-CHARGE		REV. NO.

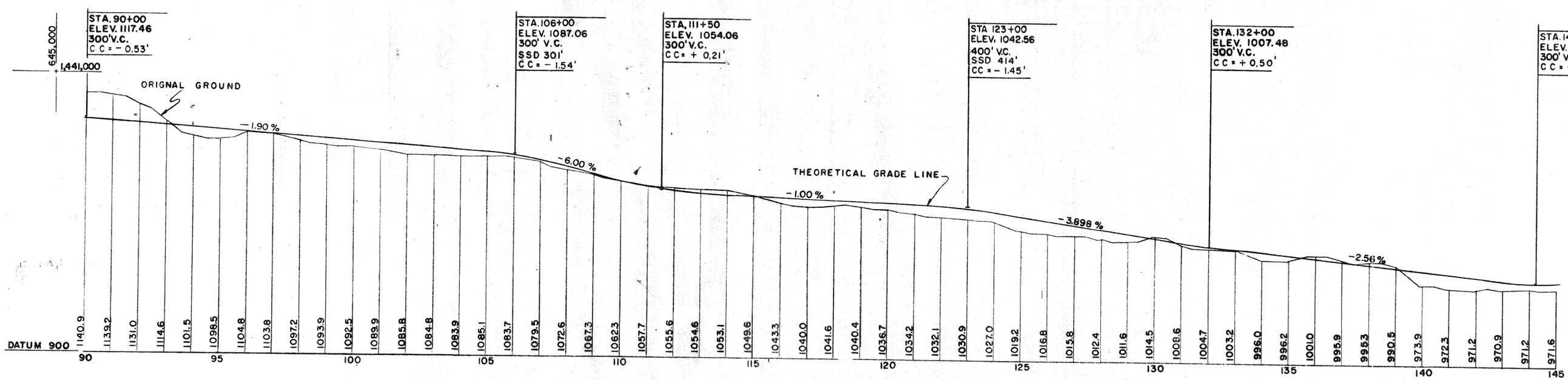
ADVANCE PRINT

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		13	52

TAHAWUS-SCHROON RIVER PART IX



PLAN  
SCALE: 1"=200'



PROFILE  
SCALE: HORIZ. 1"=200'  
VERT. 1"=50'

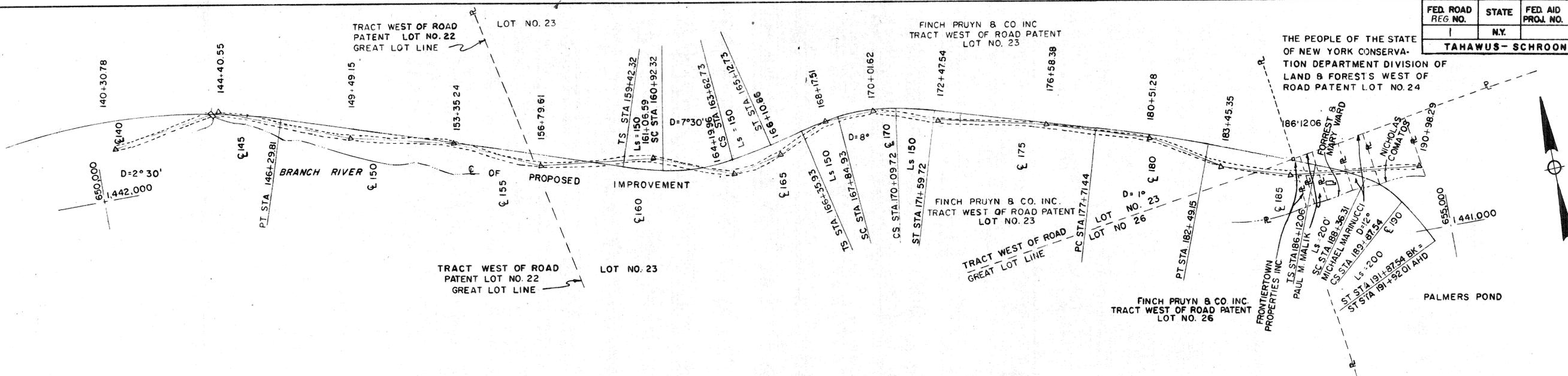
ADVANCE PRINT

REVISIONS	DRAWN BY	HEWELL	<b>PLAN &amp; PROFILE</b> <b>STA. 90+00 TO STA. 145+00</b> <b>RIST BRIGHT AND FROST</b> CONSULTING ENGINEERS GLENS FALLS, NEW YORK	DRAWING NO.	13
	CHECKED	AUSTIN		PROJ.	100
	SCALE	AS NOTED		REV. NO.	
	ISSUE DATE	7-2-61			

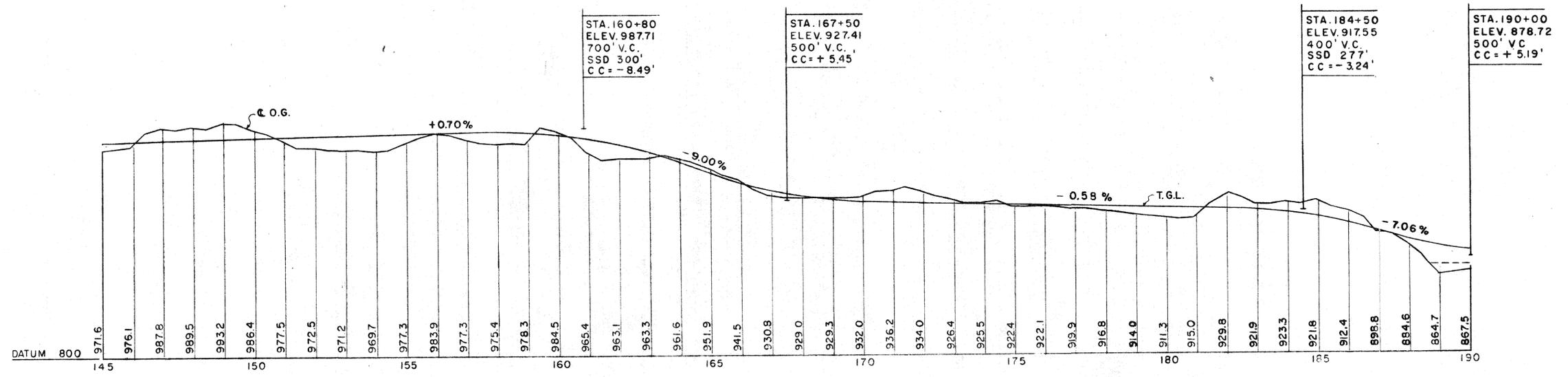
FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		14	52

**TAHAWUS-SCHROON RIVER PART IV**

THE PEOPLE OF THE STATE OF NEW YORK CONSERVATION DEPARTMENT DIVISION OF LAND & FORESTS WEST OF ROAD PATENT LOT NO. 24



**PLAN**  
SCALE: 1"=200'

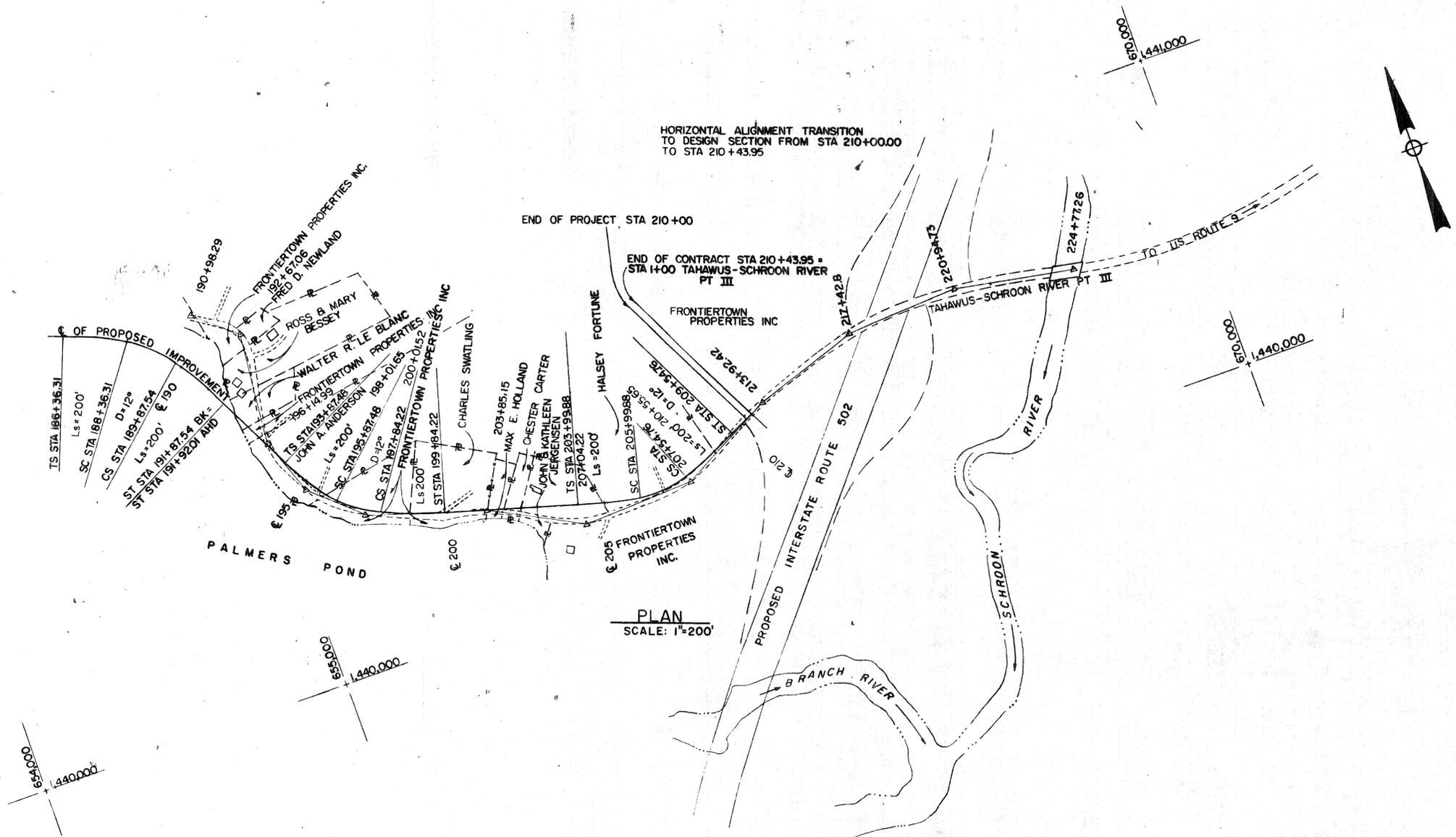


**PROFILE**  
SCALE: HORIZ. 1"=200'  
VERT. 1"=50'

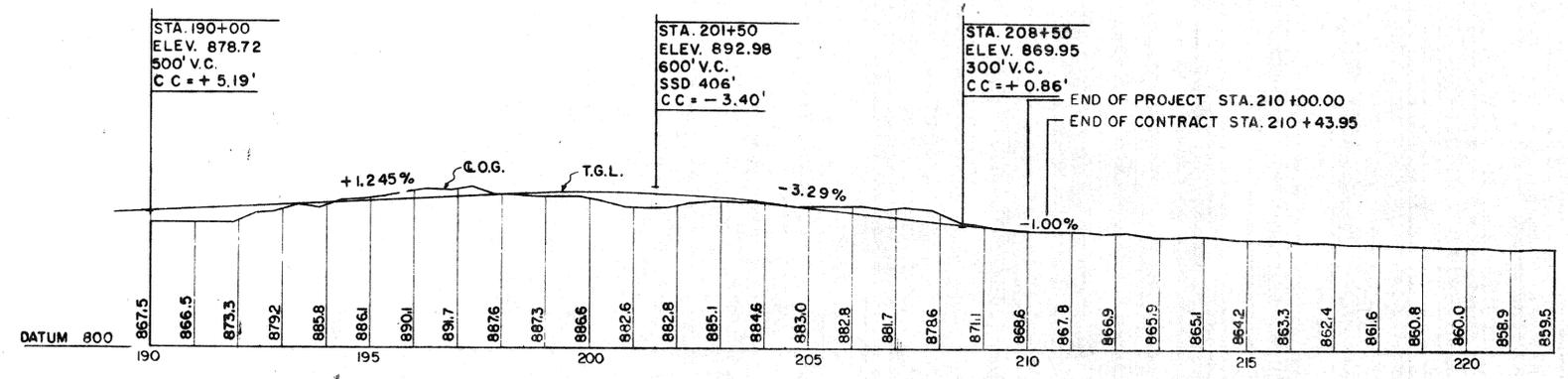
**ADVANCE PRINT**

REVISIONS	DRAWN BY	PALMER	<b>PLAN &amp; PROFILE</b> <b>STA. 145+00 TO STA. 190+00</b> RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100 REV. NO.
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-2-11		
PARTNER-IN-CHARGE			DRAWING NO.	14

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	N.Y.		15	52
TAHAWUS-SCHROON RIVER PART IX				



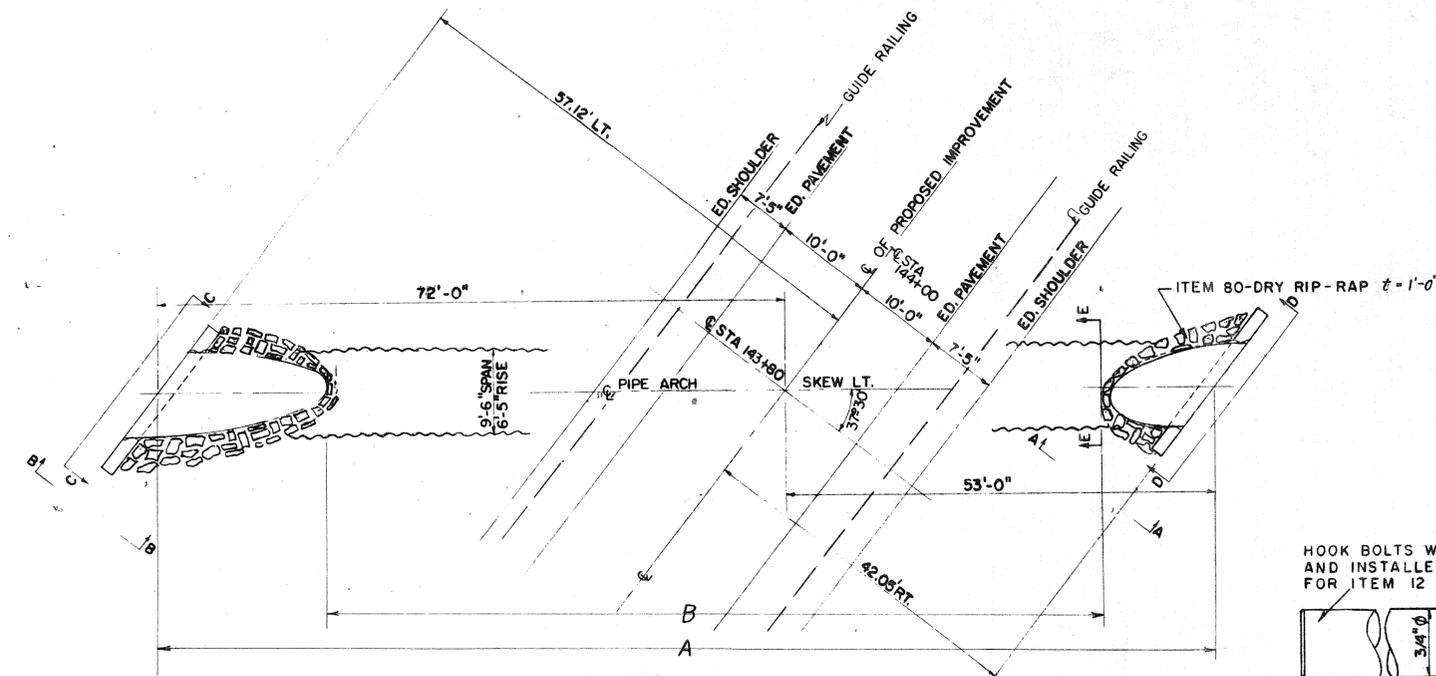
PLAN  
SCALE: 1"=200'



PROFILE  
SCALE: HORIZ 1"=200'  
VERT 1"=50'

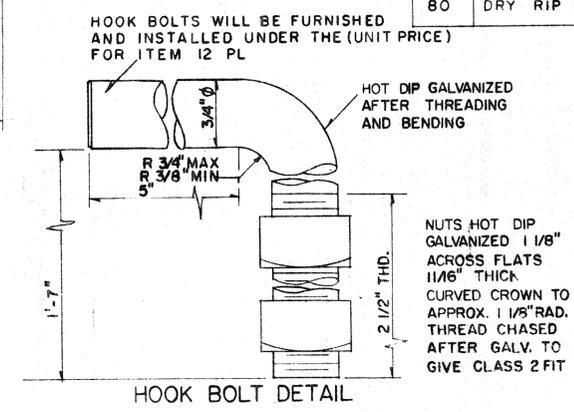
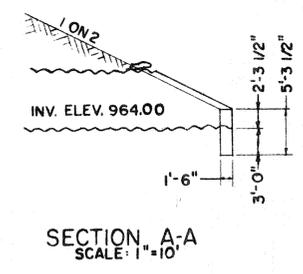
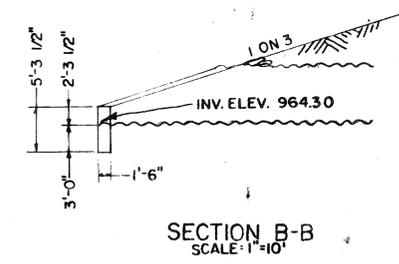
ADVANCE PRINT

REVISIONS	DRAWN BY	DEICH	<b>PLAN &amp; PROFILE</b> <b>STA. 190+00 TO STA. 222+00</b>	DRAWING NO. <b>15</b>
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-61		
			<b>RIST BRIGHT AND FROST</b> CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100 REV. NO.
PARTNER-IN-CHARGE				

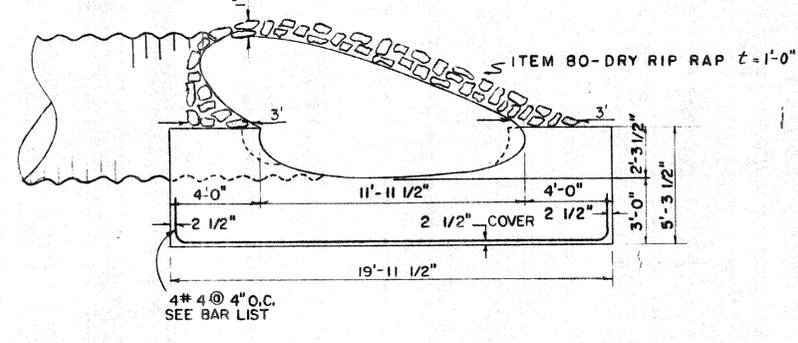
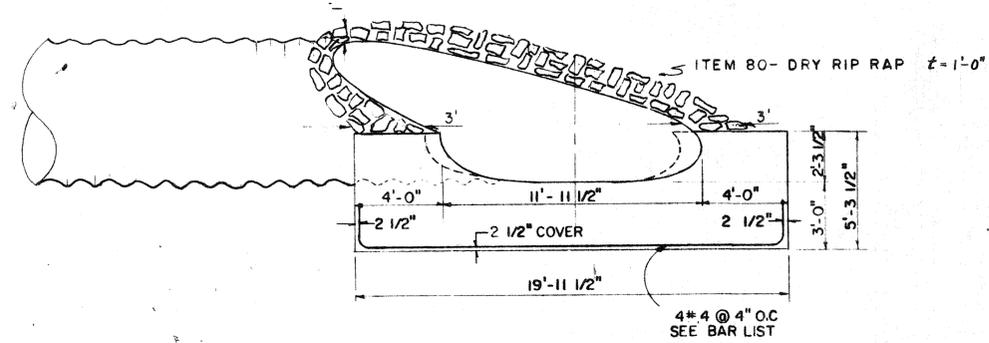
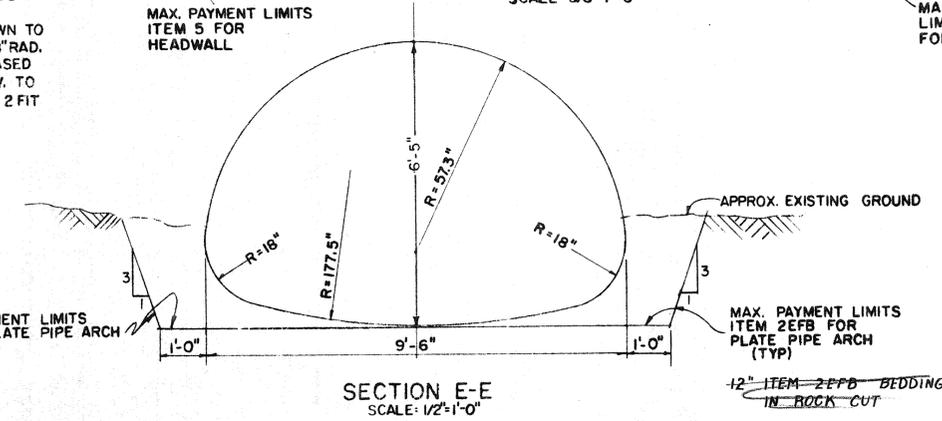
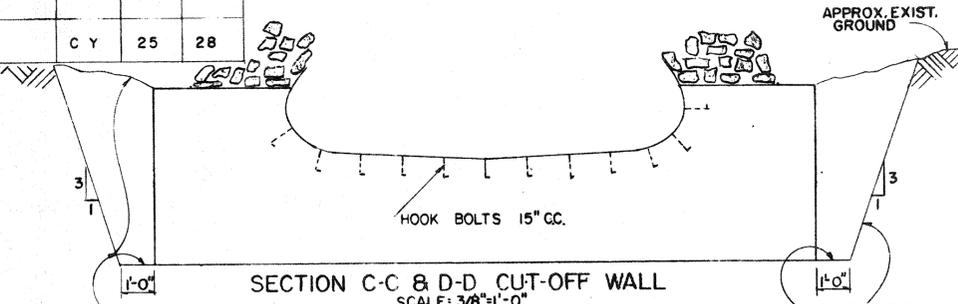


SUMMARY OF QUANTITIES				
ITEM	DESCRIPTION	UNIT	NEAT	ROUND
2EFB	SELECTED FILL	C.Y.	489	538
5	TRENCH, CULVERT, AND BRIDGE EXCAVATION	C.Y.	229	252
12 PL	CORRUGATED PLATE PIPE ARCHES 9'-6" SPAN, 6'-5" RISE # 8 GAGE	L.F.	125	138
15-2A	PORTLAND CEMENT TYPE 2A	BBL	14	16
20-S	CLASS 1 CONCRETE	C.Y.	10	11
28RR	BAR REINFORCEMENT FOR STRUCTURE	L.B.	122	128
4X	CLASSIFIED ROCK EXCAVATION	C.Y.	20	22
80	DRY RIP RAP	C.Y.	25	28

- NOTE:
- DESIGN SPECIFICATIONS AASHO 1957
  - LOADING AASHO H-20-S16-44
  - IF UNSUITABLE MATERIAL IS FOUND UNDER THE PLATE-PIPE ARCH, IT SHALL BE REMOVED AND REPLACED WITH ITEM 2EFB.
  - ALL CONCRETE SHALL BE CLASS 1 CONCRETE.
  - ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMF'D ONE INCH.
  - DETAILED ERECTION INSTRUCTIONS ARE TO BE SHIPPED WITH THE STRUCTURE



BAR LIST				
SIZE	NO.	LGT	DESCRIPTION	
#4	8	22'-8 1/2"	1'-0"	1'-0"
			12" R	12" R
			1'-7"	1'-7"
			17'-6 1/2"	



ADVANCE PRINT

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY

ENGINEER DISTRICT NO 1

DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY BY

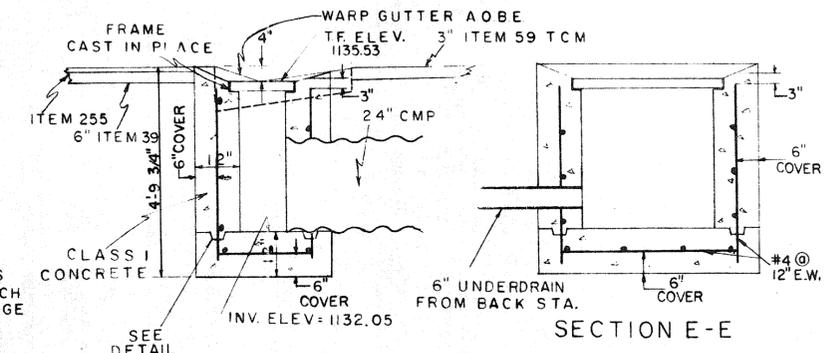
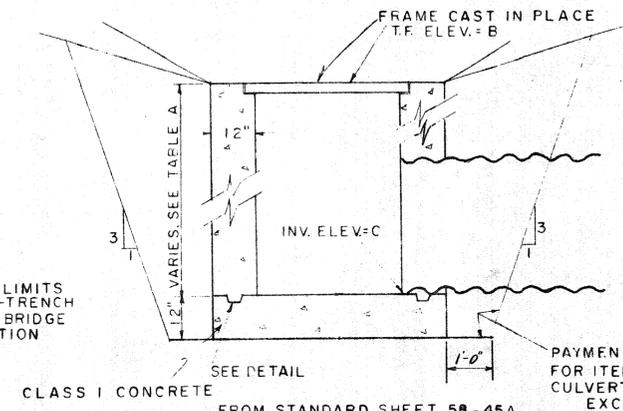
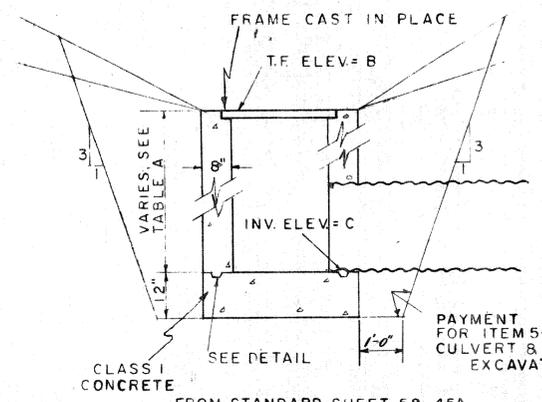
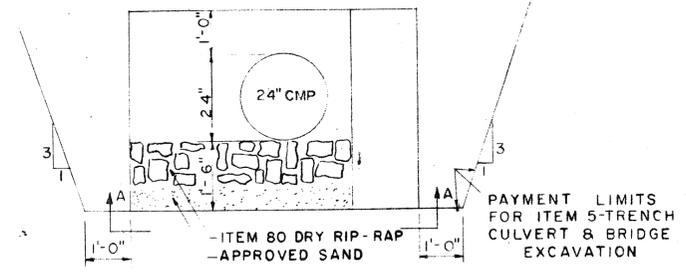
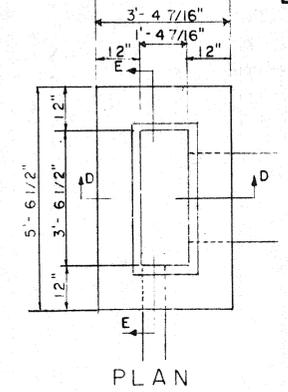
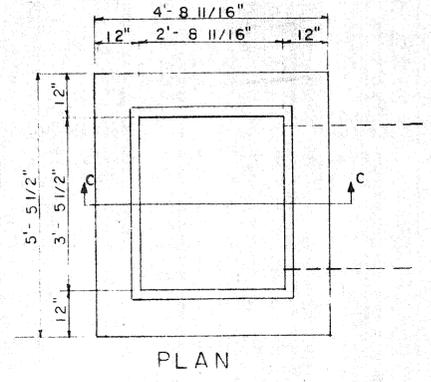
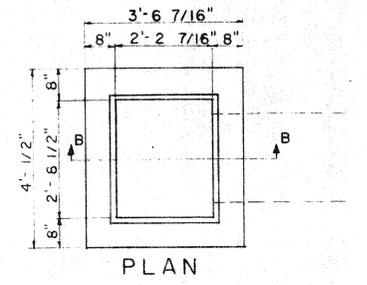
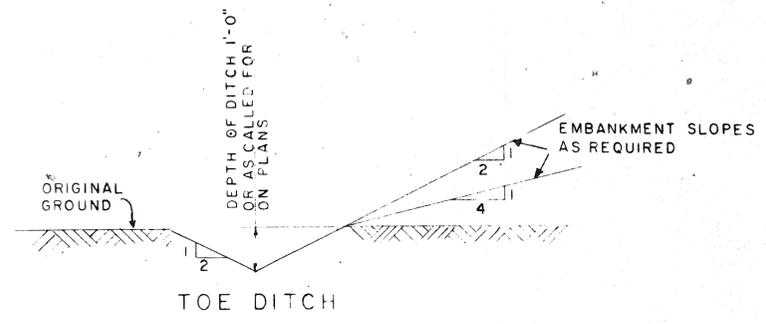
Supt. of Highways

DATED 2-25 19 61

REVISIONS	DRAWN BY	DEICH	<b>MULTI-PLATE PIPE ARCH STA 143+80</b>	DRAWING NO. <b>16</b>
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-26-61		
PARTNER-IN-CHARGE		RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. NO. 100	REV. NO.

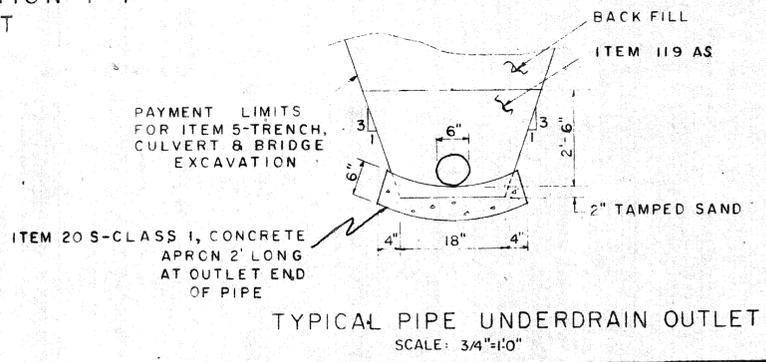
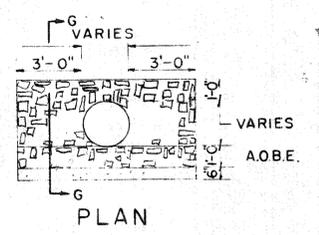
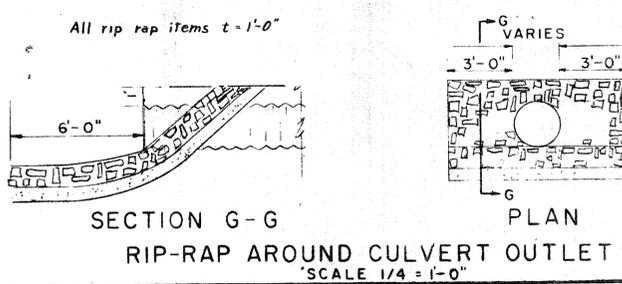
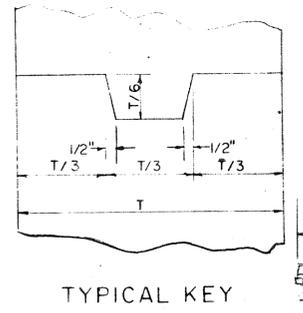
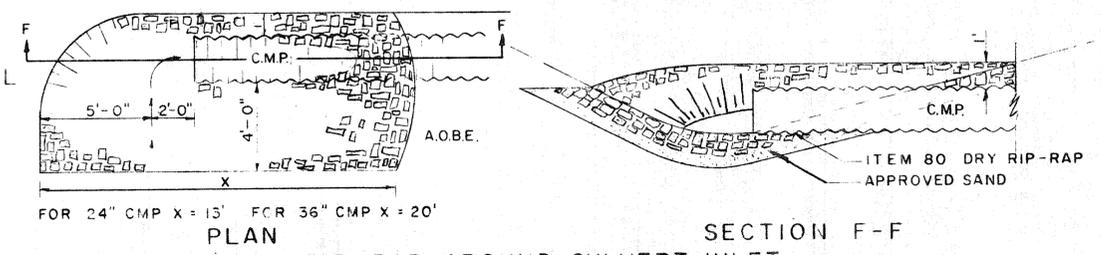
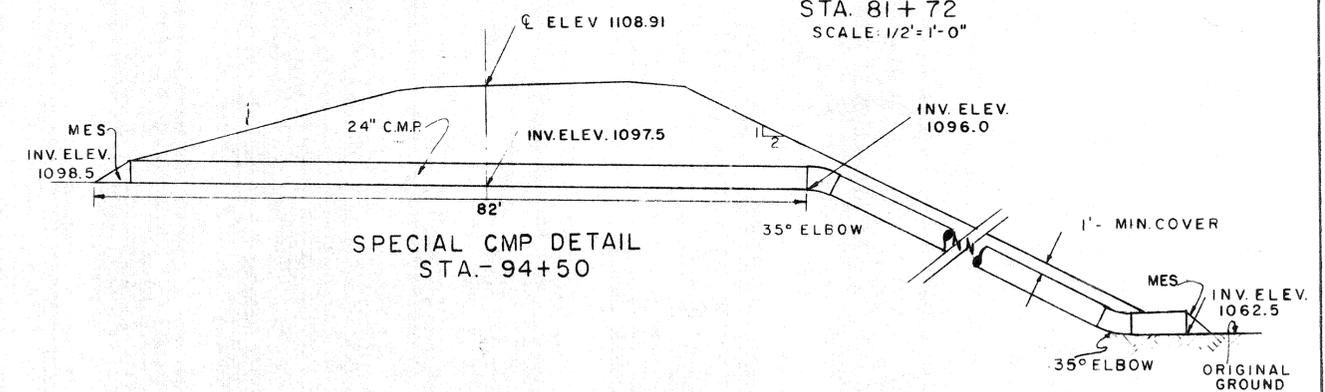
NO.	SIZE	LENGTH	LOCATION	TYPE
11	#4	3'-9"	VERT	STR
6	#4	4'-6"	HORIZ	STR
8	#4	4'-4"	HORIZ	STR
6	#4	2'-10"	TRAN SLAB	STR
4	#4	5'-0"	LONG SLAB	STR

BAR LIST



DROP INLET TABULATION

STATION	DI LOCATION	SIZE CMP	A	B T.F. ELEV.	C INV. ELEV.
36+00	LT	24"	2'-6 1/4"	1189.42	1186.90
56+35	RT	24"	4'-0"	1184.00	1180.00
154+16	LT	24"	7'-0"	978.00	971.00
161+58	LT	36"	4'-2 3/8"	966.70	961.50
180+60	LT	36"	4'-0"	915.00	911.00



ADVANCE PRINT

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY

APPROVED FOR ESSEX COUNTY BY

ENGINEER DISTRICT NO. 1

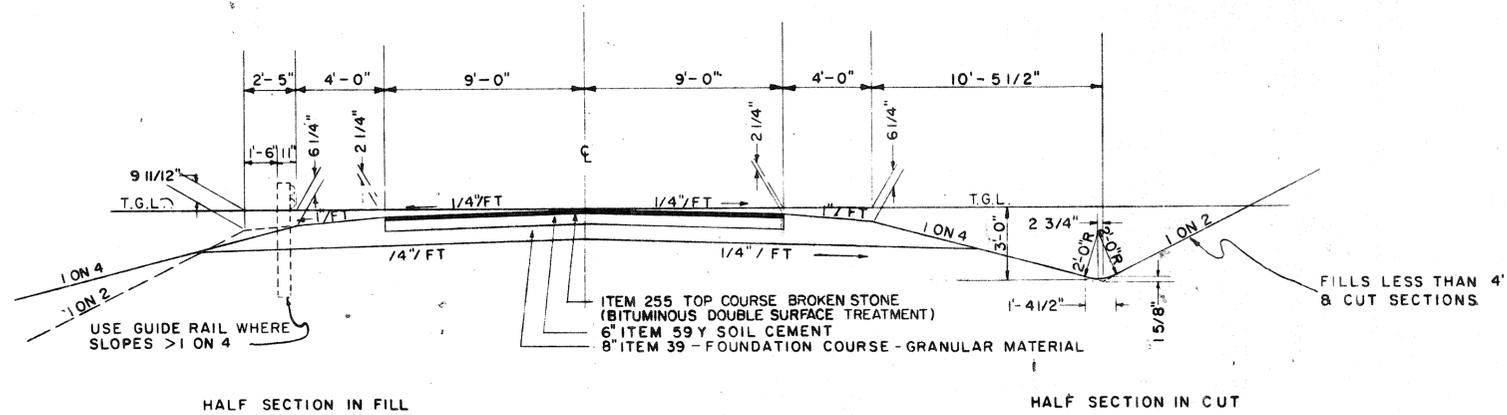
DATED 6-2 19 61

SUPT. OF HIGHWAYS

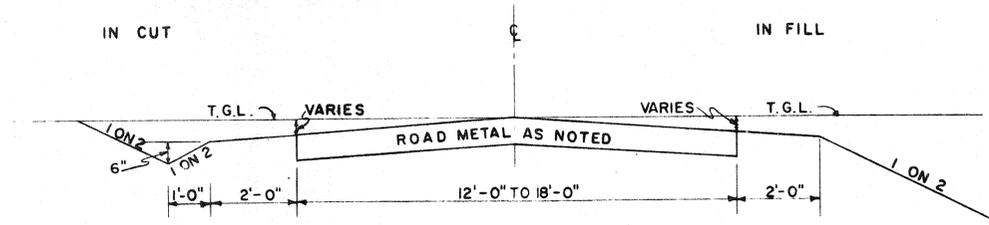
DATED 2-25 19 61

REVISIONS	DRAWN BY PALMER	DRAINAGE DETAILS	DRAWING NO. 17
	CHECKED AUSTIN		
	SCALE AS NOTED		
	ISSUE DATE 2-24 61		
PARTNER-IN-CHARGE		RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100 REV. NO.

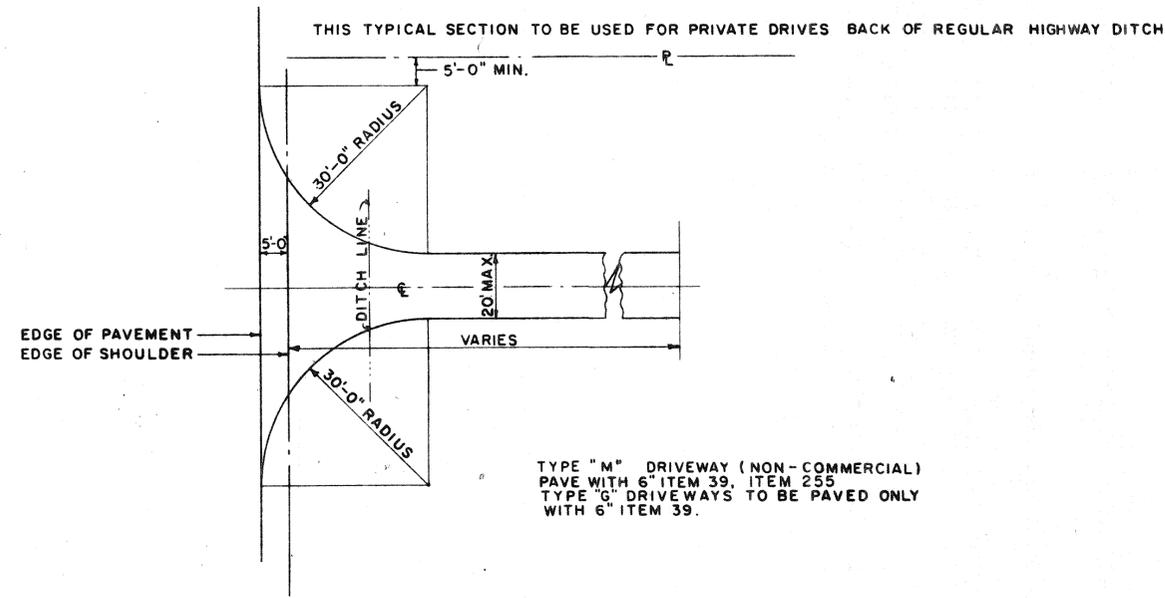
FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		18	52
TAHAWUS - SCHROON RIVER PART III				



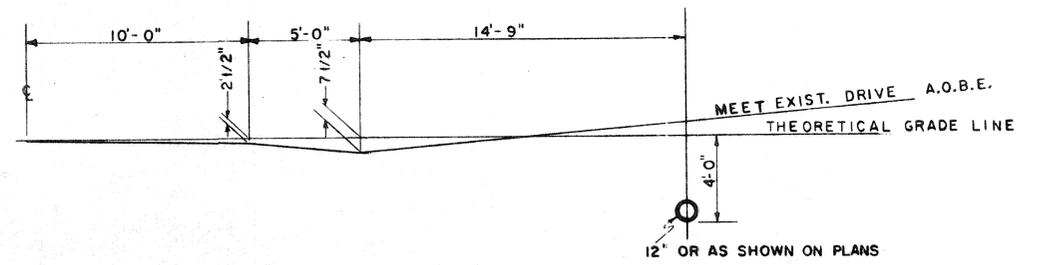
TYPICAL SECTION FOR INTERSECTING ROADS  
SCALE: 1/4" = 1'-0"



TYPICAL SECTION FOR DRIVEWAYS  
SCALE: 1/2" = 1'-0"



PLAN - DRIVEWAY DETAIL  
SCALE: 1/6" = 1'-0"



TYPICAL DRIVEWAY SECTION LONGITUDINAL  
SCALE: 1/4" = 1'-0"

ADVANCE PRINT

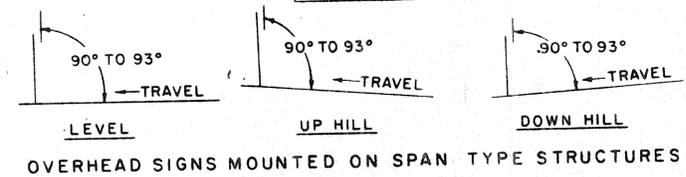
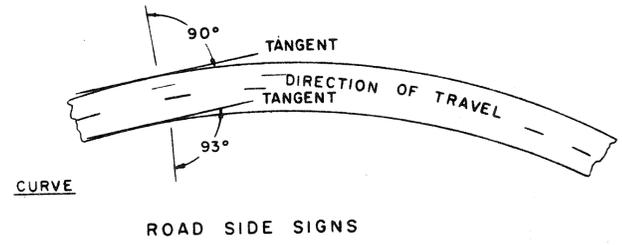
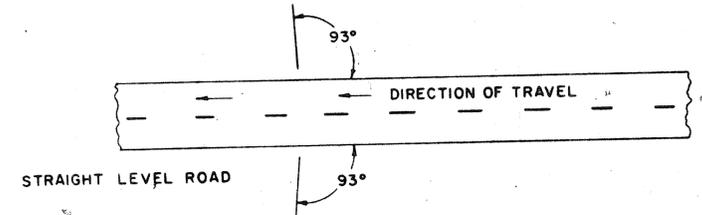
PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
*Frank J. Palmer*  
ENGINEER DISTRICT NO 1  
DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY BY  
*Harold A. DeLeon*  
SUPT OF HIGHWAYS  
DATED 2-25 19 61

REVISIONS	DRAWN BY	PALMER	<b>TYPICAL INTERSECTIONS AND DRIVEWAYS</b>	DRAWING NO. <b>188</b>
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-61		
<i>John Bright and Frost</i> PARTNER-IN-CHARGE			<b>RIST BRIGHT AND FROST</b> CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100 REV. NO.

LOCATION OF SIGNS			
TEXT NO.	LOCATION NO.	STATION	SIDE
7	1	22+50±	LT.
9	2	28+50±	RT.
8	3	43+64±	LT.
4	4	73+00±	RT.
5	5	78+05±	RT.
6	6	86+80±	LT.
2	7	108+82±	RT.
1	8	116+62±	RT.
1	9	120+29±	LT.
2	10	124+46±	RT.
2	11	126+35±	LT.
1	12	135+80±	LT.
4	13	154+50±	RT.
3	14	156+67±	RT.
3	15	174+35±	LT.
9	16	183+86±	RT.
8	17	191+32±	RT.
8	18	194+42±	LT.
8	19	201+50±	RT.
9	20	202+34±	LT.
9	21	212+09±	LT.

SIGN TEXT DATA CHART								C O L O R		TYPE OF MOUNTING
ITEM NO.	LOCATION NO.	TEXT NO.	T E X T	LETTER SIZE	APPROX. SIZE OF SIGN	TRAFFIC COMMISSION NO.	BACKGROUND	CHARACTERS		
473-98	8,9,12	1	6.25 S.F.	SEE N.Y.S. TRAFFIC MANUAL	30" X 30"	W 2 - R	Y - REFL.	B-NON REFL.	9B	
473-98	7,10,11	2	6.25 S.F.		30" X 30"	W 2 - L	Y - REFL.	B-NON REFL.	9B	
473-98	14,15	3	6.25 S.F.		30" X 30"	W 5 - L	Y - REFL.	B-NON REFL.	9B	
473-98	4,13	4	HILL 6.25 S.F.		30" X 30"	W - 126	Y - REFL.	B-NON REFL.	9B	
473-98	5	5	6.25 S.F.		30" X 30"	W - 11	Y - REFL.	B-NON REFL.	9B	
473-98	6	6	6.25 S.F.		30" X 30"	W - 11	Y - REFL.	B-NON REFL.	9B	
473-10C	1	7	PAVEMENT ENDS 9 S.F.		36" X 36"	W - 97A	Y - REFL.	B-NON REFL.	10C	
473-11	3,17,18,19	8	12.5 S.F. TOP BOTTOM	SPEED LIMIT XX	30" X 30" 30" X 30"	W 2 - L W - 141	Y - REFL. Y - REFL.	B-NON REFL. B-NON REFL.	11	
473-11	2,16,20,21	9	12.5 S.F. TOP BOTTOM	SPEED LIMIT XX	30" X 30" 30" X 30"	W 2 - R W - 141	Y - REFL. Y - REFL.	B-NON REFL. B-NON REFL.	11	



NOTE (1) USE 45 M.P.H. STATED SPEED (W - 141) SIGNS AT LOCATIONS 2 AND 3.  
 (2) USE 40 M.P.H. STATED SPEED (W - 141) SIGNS AT LOCATIONS 16,17,18,19,20 AND 21.  
 (3) FOR TYPE OF MOUNTING - SEE STANDARD MOUNTINGS FOR SMALL SIGNS - D.P.W. S-40-60.

SIGN POSITIONING TO MINIMIZE SPECULAR GLARE

GENERAL NOTE  
 DUE TO THE NUMEROUS VARIATIONS IN ROAD CURVES AND GRADES, A GENERAL RULE IS NOT ALWAYS APPLICABLE. ALSO THE UNEVENNESS IN SOME SIGN FACES WILL ADD ANOTHER VARIABLE.

- NOTES
- LETTERS, NUMERALS, SYMBOLS AND BORDERS OR ANY PARTS OF THESE SHALL HEREAFTER BE REFERRED TO AS "CHARACTERS"
  - ALL SIGNS SHALL BE MOUNTED A MINIMUM OF 5'-0" ABOVE PAVEMENT EDGE.
  - PLACEMENT OF SIGNS WILL BE NORMAL SHOULDER + 2'-0".
  - WHERE THE SYMBOL XX APPEARS ON THE PLANS, THE ACTUAL SPEED WILL BE SUPPLIED BY THE DISTRICT ENGINEER PRIOR TO FABRICATION OF THE SIGN PANELS.

L E G E N D					
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
W	WHITE OR SILVER	CAPS.	CAPITAL LETTERS	GR. MTD.	GROUND MOUNTED
G	GREEN	U.C.	UPPER CASE LETTERS	O.H.	OVERHEAD MOUNTED
Y	YELLOW	L.C.	LOWER CASE LETTERS	C.S.M.	CANTILEVER MOUNTED SINGLE MAST ARM
B	BLACK	D	DEMOUNTABLE TYPE CHARACTERS	C.D.M.	CANTILEVER MOUNTED DOUBLE MAST ARM
BL	BLUE	N.D.	NON DEMOUNTABLE CHARACTERS	C.C.M.	CANTILEVER CENTER MOUNTED
R	RED				
REFL.	REFLECTORIZED			F.S.	FRACTION SQUARE
NON REFL.	NON REFLECTORIZED			S.P.	SINGLE POST
				D.P.	DOUBLE POST

ADVANCE PRINT

REVISIONS	DRAWN BY	DAVIDSON	LOCATION OF SIGNS SIGN TEXT DATA CHART	DRAWING NO. <b>19</b>
	CHECKED	AUSTIN		
	SCALE	AS SHOWN		
	ISSUE DATE	2.26.61		
PARTNER-IN-CHARGE			RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100 REV. NO.

# SCHEDULE A

LOCATION AND QUANTITY OF PAYMENT ITEMS

STATION TO STATION	SIDE	ITEM	NEAT QUANTITY B UNIT	REMARKS
HIGHWAY				
STA. 19+00 TO 210+43.95	L&R	123	26.8 ACRES	ALL DISTURBED AREAS WITHIN NORMAL LIMITS OF CONSTRUCTION AS SHOWN ON THE PLANS AND IN SECTIONS EXCEPT ROCK SURFACES.
BRIDGES (NIAGARA BROOK)		123	0 ACRES	ITEM 123 FOR BRIDGE AREAS INCLUDED IN HIGHWAY QUANTITY ABOVE.
		124	66 S.Y.	AS SHOWN ON THE BRIDGE PLANS
HIGHWAY				
STA. 60+10 - 61+10	L	127S-1	3 EA.	NORWAY MAPLE
STA. 76+80 - 78+20	L	127S-1	4 EA.	NORWAY MAPLE
STA. 81+70 - 82+60	R	127S-1	3 EA.	NORWAY MAPLE
STA. 84+40 - 86+00	L	127S-1	5 EA.	NORWAY MAPLE
STA. 95+10 - 97+25	L	127S-1	5 EA.	NORWAY MAPLE
STA. 202+30 - 203+80	L	127S-1	5 EA.	NORWAY MAPLE

# SCHEDULE B

DETAIL SPECIFICATIONS TO ACCOMPANY 1957 PUBLIC WORKS SPECIFICATIONS

ITEM NO.	PAR. NO.	DESCRIPTION
		<b>CLEARING AND GRUBBING</b> CLEARING SHALL EXTEND 10 FEET BEYOND TOP OF SLOPE IN CUT AND BOTTOM OF SLOPE IN FILL. RETAIN NATURAL GROWTH INCLUDING UNDERBRUSH BETWEEN ABOVE LIMITS AND R.O.W. EXCEPT AS ORDERED BY ENGINEER, AND CLEAR ONLY TO TOP OF SLOPE IN LANDS OF THE PEOPLE OF THE STATE OF NEW YORK.
		<b>APPLYING WATER</b> AREAS - SEE SCHEDULE A (WHERE ITEM 124 IS USED) RATES - 5 GALS. PER SQ. YD. MIN. APPLICATION OR AS ORDERED BY ENGINEER. QUANTITIES INCLUDED IN HIGHWAY ESTIMATE.
		(CONTINUED BELOW)
		<b>SEEDING</b> A. AREAS - SEE SCHEDULE A AND PLANS B. SEEDS - SEE SCHEDULE D AND AS SPECIFIED FOR M - 58 SEEDS LIME - M - 52, AGRICULTURAL LIME FERTILIZER - M - 54 TYPE 2 OR (1-1-1) MULCH - M - 56 HAY OR M - 57 STRAW MEETING SPECIFICATIONS FOR ITEM 126 MULCHING. NO SOIL AMENDMENTS. LIME 1 TON PER ACRE FERTILIZER 100 LBS. N <sub>2</sub> PER ACRE SEEDING RATE 70 LBS. LIVE SEED PER ACRE PLUS 65 POUNDS OF CEREAL RYE SEEDING DATES - ANY SEASON OF YEAR WITH APPROVAL OF ENGINEER. C.4 RATE OF MULCH - 3 TONS PER ACRE MULCH ANCHORAGE - SOFT EMULSION SIMILAR TO AMERICAN BITUMULS SOIL COVER HAVING A SOFT BASE WITH HIGH PENETRATION AND SLOW SETTING QUALITIES OR M - 5 ITEM 70M MULCH ANCHORAGE RATE - 200 GALS. PER ACRE OF BITUMULS SOIL COVER OR 300 GALS. PER ACRE OF ITEM 70M.
		<b>SODDING</b> A. AREAS - SEE SCHEDULE A B. SOD - M - 59, TYPE NO. 1 PEGGING STAKES M - 62, (1" X 2" X 8" MIN.) OTHER MATERIALS AS SPECIFIED FOR 123 ABOVE C.3 SODDING SHALL BE LAID AS SHOWN ON STANDARD SHEET 50 - 34 C.6 ALL SODDING SHALL BE PEGGED.
		<b>APPLYING WATER (CONT'D.)</b> AREAS - SEE SCHEDULE A (WHERE ITEM 127S IS USED) RATES - 5 GALS. PER S.Y. OR 1" LAYER OF WATER ON EACH PLANT PIT OR AS ORDERED BY ENGINEER. QUANTITY INCLUDED IN HIGHWAY ESTIMATE
		<b>PLANTING</b> A LOCATIONS - SEE SCHEDULE A B-1 PLANTS - SEE SCHEDULE C B-2 PLANTING MATERIALS: TOPSOIL - M-47, TOPSOIL FROM BORROW MULCH - WOOD CHIPS FERTILIZER - M-54, TYPE 3 - TYPE 11 C-1 PLANTING SEASONS - APRIL 1 TO MAY 15 AND OCT. 1 TO NOV. 15 OR AS APPROVED C-2 PLANTING SOIL ; 3 LBS OF BONE MEAL AND 3 LBS. OF 10-6-4 PER C.Y. EXCESS SOIL SHALL BE REMOVED FROM THE SITE AT THE CONTRACTORS EXPENSE C-3 MULCH SHALL BE PLACED TO A DEPTH OF 3" IN THE PLANT SAUCER. PLANTING DETAILS SHALL BE AS SHOWN ON STD. SHEET 50-35R E MEASUREMENT AND PAYMENT - NO PAYMENT FOR WATER USED DURING THE PERIOD OF ESTABLISHMENT WILL BE MADE AS SUCH COST IS INCLUDED IN THE BID PRICE

# SCHEDULE C

DETAIL SPECIFICATIONS FOR PLANTS

ITEM & SUBITEM	QUAN.	GENUS & SPECIES	ABBR.	COMMON NAME	SIZE	ROOTS	BALL DIA. ROOT SPRD.	PIT DIA.	SOURCE	CROWN	SPACING
127S-1	25	ACER PLATINOIDES	AC.P.	NORWAY MAPLE	2"-2 1/2"	B&B	24"	48"	N.G.		

## SUMMARY NEAT & ROUNDED QUANTITIES

	ITEM 123		ITEM 124		ITEM 127S	
	ACRES		S.Y.		EACH	
	NEAT	ROUNDED	NEAT	ROUNDED	NEAT	ROUNDED
HIGHWAY	26.8	29.5			25	25
BRIDGES	0	0	66	73		
TOTAL	26.8	29.5	66	73	25	25

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		19A	53

## ROADSIDE DEVELOPMENT SHEET

TAHAWUS - SCHROON RIVER PART IV

# SCHEDULE D

DETAIL SPECIFICATIONS FOR SEEDS

NAME	VARIETY	C- POUNDS PURE LIVE SEED PER ACRE		
		A	B	C
RED FESCUE (FESTUCA RUBRA)	COMMERCIAL	80		30
CANADA BLUE GRASS (POA COMPRESSA)	COMMERCIAL	75		15
PERENNIAL RYE GRASS (LOLIUM PERENNE)	COMMERCIAL	85		15
BIRDSFOOT TREFOIL (LOTUS CORNICULATUS)	CERTIFIED EMPIRE	40	80	5
WILD WHITE CLOVER (TRIFOLIUM REPENS VAR.)	KENT WILD	60	85	5
	TOTAL PLS/ACRE			70
COVER CROP RYE (SECALE CEREAL) (ANY TIME OF YEAR)	COMMERCIAL	90		56

## SUMMARY

ITEM	TOTAL QUANTITY ROUNDED	NAME OF ITEM
123	29.5 ACRES	SEEDING
124	73 S.Y.	SODDING
127S-1	25 EACH	PLANTING ACER PLATINOIDES

ADVANCE PRINT

RIST, BRIGHT AND FROST CONSULTING ENGINEERS  
GLENS FALLS, N.Y.

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY

ENGINEER, DISTRICT NO. 1

6-2-61

MADE BY AUSTIN  
TRACED BY DEICH  
CHECKED BY *Everett S. MacQuestion*  
JOHN K. BRIGHT  
PARTNER - IN - CHARGE

KEY TO ABBREVIATIONS	
B&B - BALLED AND BURLAPPED	F.G. - FIELD GROWN
B&P - BALLED AND PLATFORMED	M.C.D. - MINIMUM GROWN DIAMETER
B.R. - BARE ROOT	N.G. - NURSERY GROWN
C - COLLECTED	

DATE  
APPROVED  
ASSOC. CIVIL ENGR. CONSTRUCTION

DATE  
APPROVED  
ASSISTANT DISTRICT ENGINEER

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	N.Y.		20	52
TANAWUS - SCHROON RIVER PART IX				

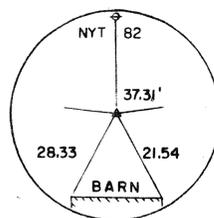
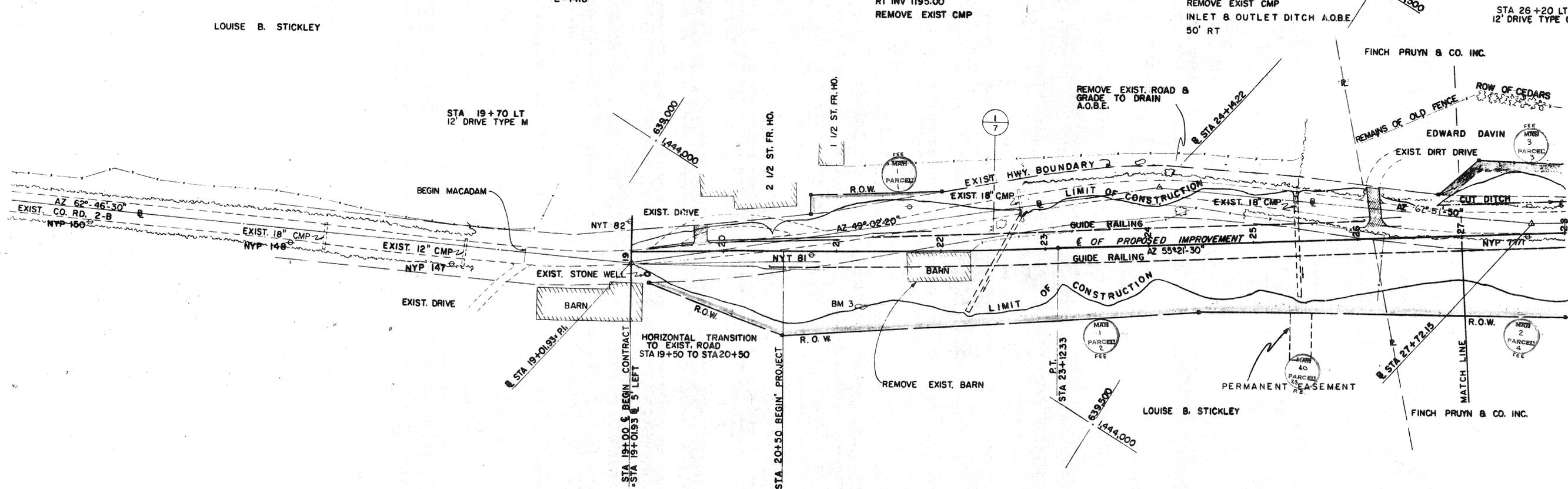


CURVE DATA  
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 R = 5729.58'  
 T = 409.72  
 Lc = 816.06  
 E = 14.6

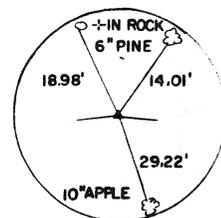
STA 22+60  
 24" CMP  
 SKEW 30° RT  
 112 FT LONG  
 RIP RAP LT  
 LT INV 1202.40  
 RT INV 1195.00  
 REMOVE EXIST CMP

STA 25+43  
 24" CMP  
 102 FT LONG  
 MES LT  
 LT INV 1198.60  
 RT INV 1189.50  
 REMOVE EXIST CMP  
 INLET & OUTLET DITCH A.O.B.E.  
 50' RT

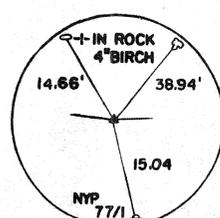
LOUISE B. STICKLEY



@ STA 19+01.93



@ STA 24+14.22



@ STA 27+72.15

PLAN  
 SCALE: 1" = 50'

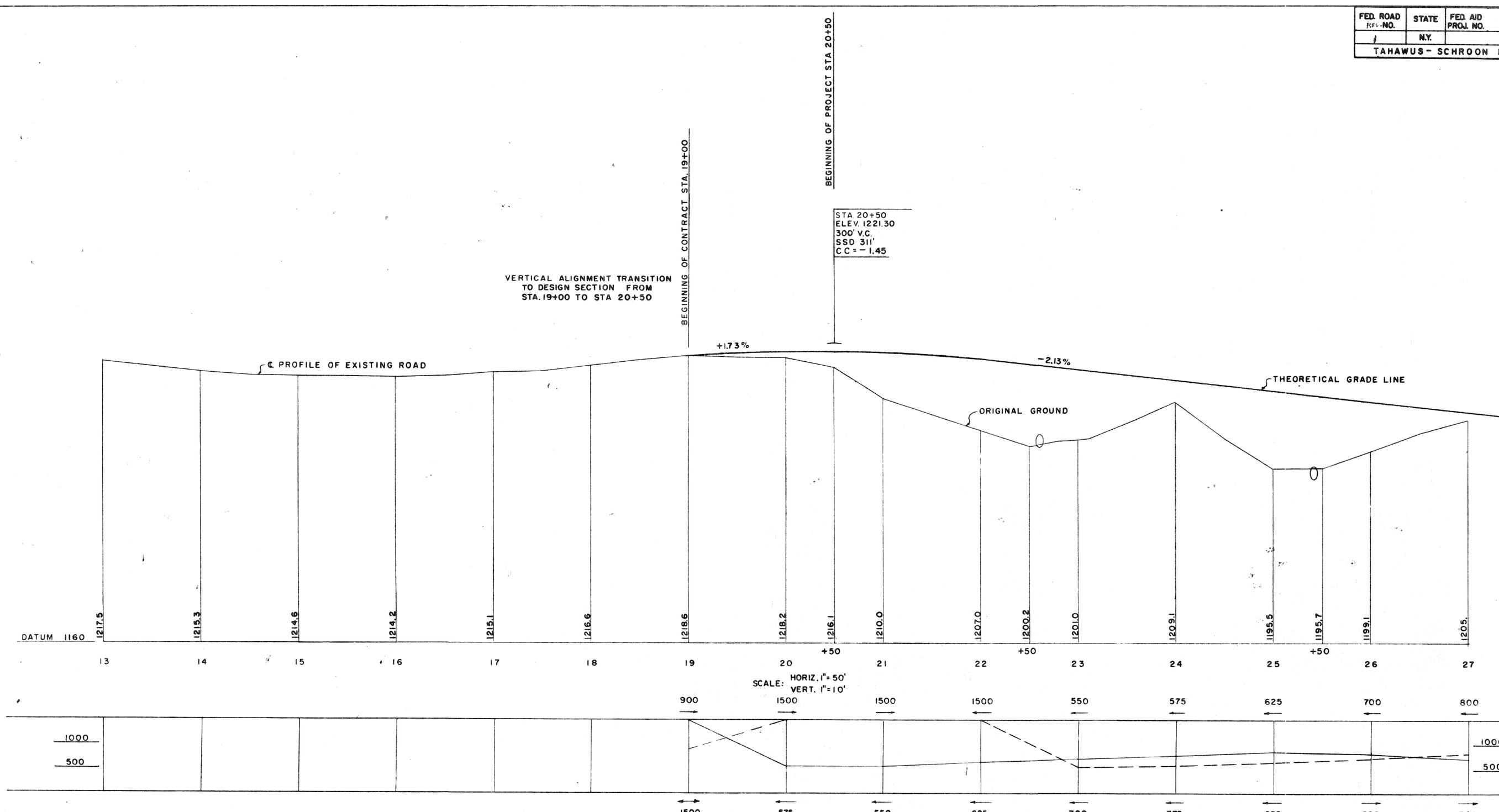
ADVANCE PRINT

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
 \_\_\_\_\_  
 ENGINEER DISTRICT NO. 1.  
 DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY BY  
 \_\_\_\_\_  
 SUPT. OF HIGHWAYS  
 DATED 2-25 19 61

REVISIONS	DRAWN BY	DAVIDSON	PLAN STA. 13+00 TO STA. 27+00	DRAWING NO. <b>20</b>
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-61		
	PARTNER-IN-CHARGE	RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100	REV. NO.

FED. ROAD Proj. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		21	
TAHAWUS - SCHROON RIVER PART IV				



STA 20+50  
ELEV. 1221.30  
300' V.C.  
SSD 311'  
CC = -1.45

VERTICAL ALIGNMENT TRANSITION  
TO DESIGN SECTION FROM  
STA. 19+00 TO STA. 20+50

BEGINNING OF CONTRACT STA. 19+00

BEGINNING OF PROJECT STA. 20+50

SCALE: HORIZ. 1" = 50'  
VERT. 1" = 10'

MINIMUM SIGHT DISTANCE GRAPH

EXPLANATION: THE MINIMUM SIGHT DISTANCE FROM 0' TO 1500' ON THE VERTICAL CURVES AND PROFILE TANGENTS IS SHOWN NUMERICALLY ABOVE THE UPPER LINE OF THE SIGHT GRAPH AND BY THE PLOTTED DASH LINE. THE MINIMUM SIGHT DISTANCE ON THE HORIZONTAL CURVES AND TANGENTS IS SHOWN NUMERICALLY BELOW THE LOWER LINE OF THE GRAPH AND BY THE PLOTTED FULL LINE, VERTICAL CURVE SIGHT DISTANCES AND HORIZONTAL OR ALIGNMENT SIGHT DISTANCES ARE COMPUTED, NOTED AND PLOTTED, EACH INDEPENDENT OF THE OTHER, THE GRAPH AT ONCE SHOWS WHETHER PROFILE OR ALIGNMENT IS RESPONSIBLE FOR THE MINIMUM SIGHT DISTANCE SHOWN FOR ANY PARTICULAR STATION. THE ARROWS SHOW THE DIRECTION OF THE OBSERVER'S LINE OF SIGHT CORRESPONDING TO THE MINIMUM SIGHT DISTANCE SHOWN AT ANY PARTICULAR POINT. THE HEIGHT OF THE OBSERVER'S EYE, IS ASSUMED AT 44" ABOVE GROUND AND OF THE OBJECT AT 44" ABOVE GROUND.

**ADVANCE PRINT**

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
 APPROVED FOR ESSEX COUNTY BY  
*David A. Hudson*  
 ENGINEER DISTRICT NO. 1  
 SUPT. OF HIGHWAYS  
 DATED \_\_\_\_\_ 19\_\_\_\_ DATED 2-25 19 6

REVISIONS	DRAWN BY	PALMER	PROFILE STA. 13+00 TO STA. 27+00	DRAWN 2
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-6		
PARTNER-IN-CHARGE		<i>John Bright</i>	RIST BRIGHT AND FROST CONSULTING ENGINEERS GLEN FALLS, NEW YORK	PROJ. 100
REV. NO.				

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	N.Y.		22	52
TAHAWUS-SCHROON RIVER PART IV				



STA. 36+00  
24" CMP  
74 FT LONG  
SPECIAL DI. LT  
LT INV. 1186.90  
RT INV. 1186.40  
INLET & OUTLET DITCH A.O.B.E.  
50 FT ON RIGHT  
REMOVE EXISTING CMP'S

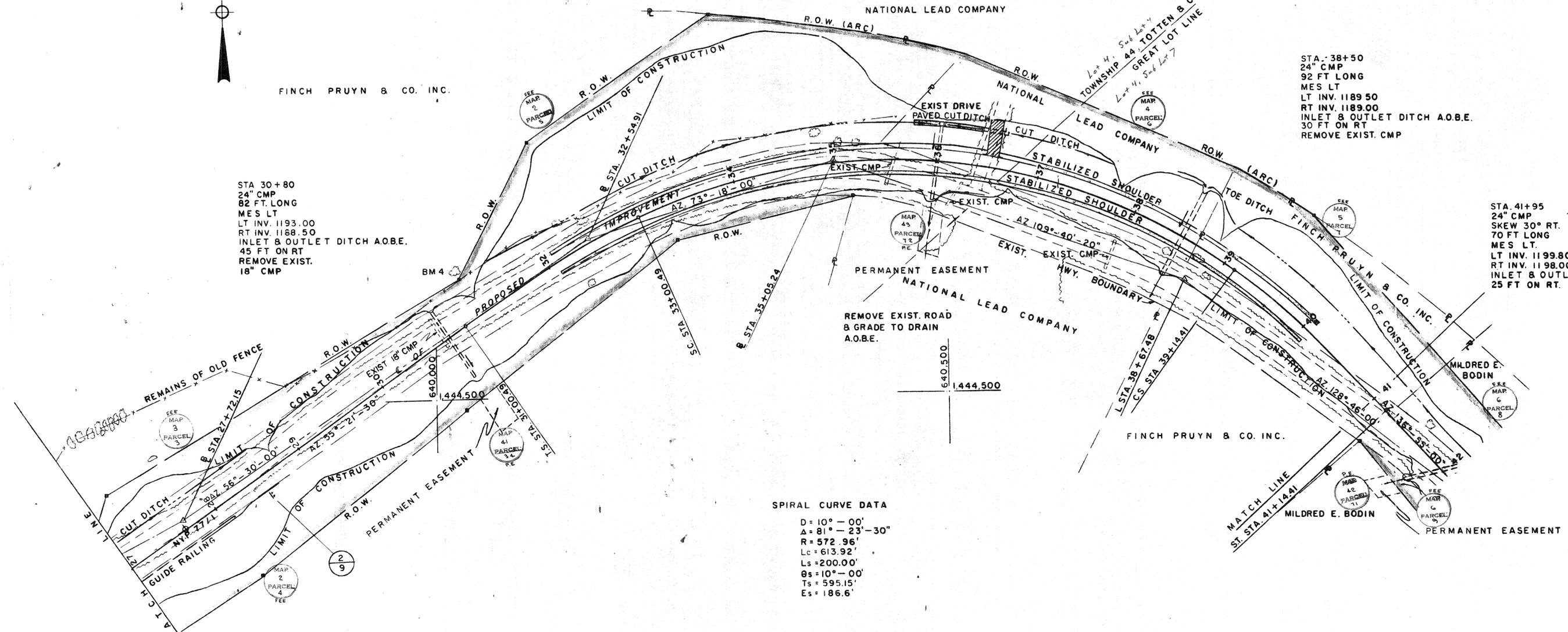
STA. 36+41 TO STA 36+67  
36 FT. LT.  
12" CMP  
26 FT. LONG

STA. 36+54 LT.  
12" DRIVE TYPE G

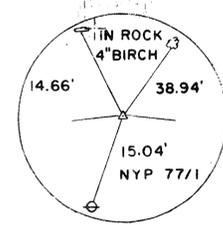
STA. 38+50  
24" CMP  
92 FT LONG  
MES LT  
LT INV. 1189.50  
RT INV. 1189.00  
INLET & OUTLET DITCH A.O.B.E.  
30 FT ON RT  
REMOVE EXIST. CMP

STA. 41+95  
24" CMP  
SKEW 30° RT.  
70 FT LONG  
MES LT.  
LT INV. 1199.80  
RT INV. 1198.00  
INLET & OUTLET DITCH A.O.B.E.  
25 FT ON RT.

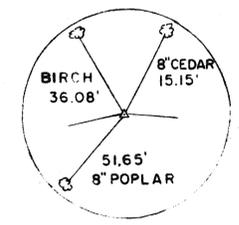
STA 30+80  
24" CMP  
82 FT. LONG  
MES LT  
LT INV. 1193.00  
RT INV. 1188.50  
INLET & OUTLET DITCH A.O.B.E.  
45 FT ON RT  
REMOVE EXIST.  
18" CMP



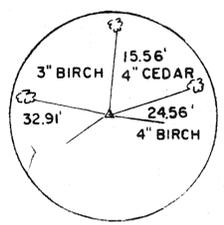
**SPIRAL CURVE DATA**  
 D = 10° - 00'  
 Δ = 81° - 23' - 30"  
 R = 572.96'  
 Lc = 613.92'  
 Ls = 200.00'  
 Os = 10° - 00'  
 Ts = 595.15'  
 Es = 186.6'



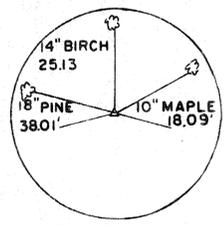
⊙ STA. 27+72.15



⊙ STA. 32+54.91



⊙ STA. 35+05.24



⊙ STA. 38+67.48

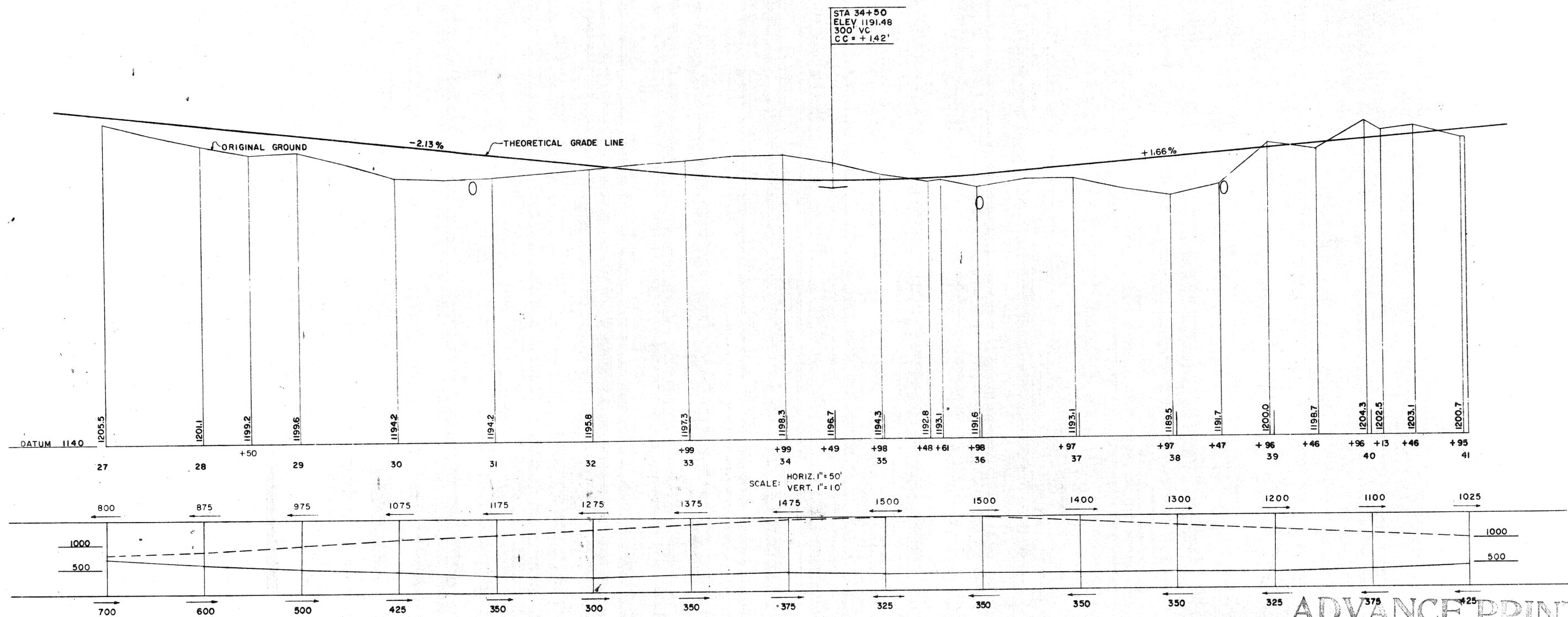
**PLAN**  
SCALE: 1" = 50'

**ADVANCE PRINT**

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
 ENGINEER DISTRICT NO. 1.  
 DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY BY  
 Supt. of Highways  
 DATED 2-25 19 61

REVISIONS	DRAWN BY	HEWELL	<b>PLAN</b> STA. 27+00 TO STA. 41+00	DRAWING NO. <b>22</b>
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-61		
PARTNER-IN-CHARGE			RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. NO. 100
REV. NO.				



MINIMUM SIGHT DISTANCE GRAPH  
 NOTE: SEE SHEET 21 FOR EXPLANATION

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
*Frank J. Austin*  
 ENGINEER DISTRICT NO. 1  
 DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY BY  
*Harold A. Podewan*  
 SUPT. OF HIGHWAYS  
 DATED 2-25 19 61

ADVANCE PRINT

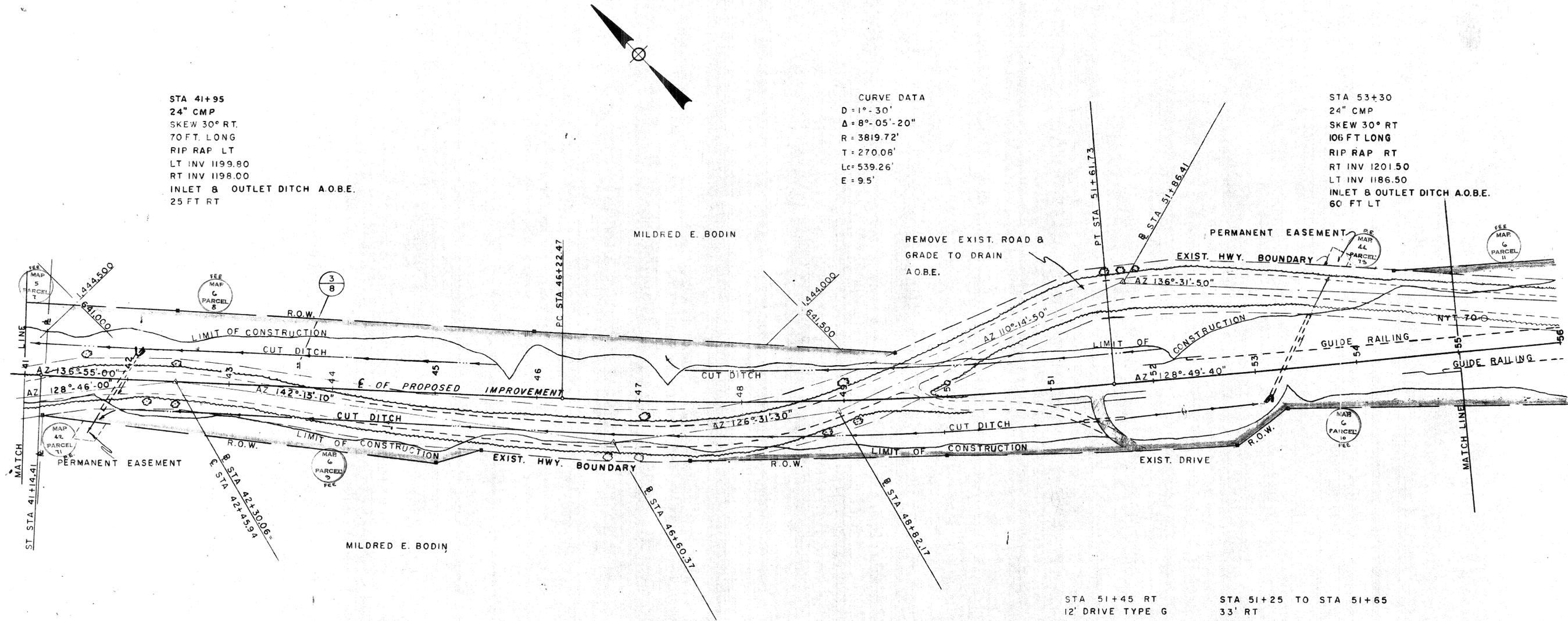
REVISIONS	DRAWN BY	DEICH	PROFILE STA. 27+00 TO STA. 41+00	DRAWING NO. 233
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	7-2-61		
PARTNER-IN-CHARGE		<i>Bl. K. Frost</i>	RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. NO. 100
REV. NO.				

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		24	52
TAHAWUS- SCHROON RIVER PART IV				

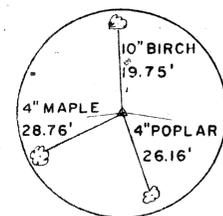
STA 41+95  
24" CMP  
SKEW 30° RT.  
70 FT. LONG  
RIP RAP LT  
LT INV 1199.80  
RT INV 1198.00  
INLET & OUTLET DITCH A.O.B.E.  
25 FT RT

CURVE DATA  
D = 1°-30'  
Δ = 8°-05'-20"  
R = 3819.72'  
T = 270.06'  
Lc = 539.26'  
E = 9.5'

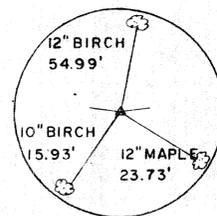
STA 53+30  
24" CMP  
SKEW 30° RT  
106 FT LONG  
RIP RAP RT  
RT INV 1201.50  
LT INV 1186.50  
INLET & OUTLET DITCH A.O.B.E.  
60 FT LT



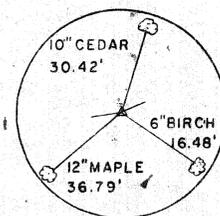
PLAN  
SCALE: 1" = 50'



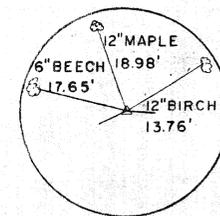
STA 42+30.06



STA 46+60.37



STA 48+82.17



STA 51+86.41

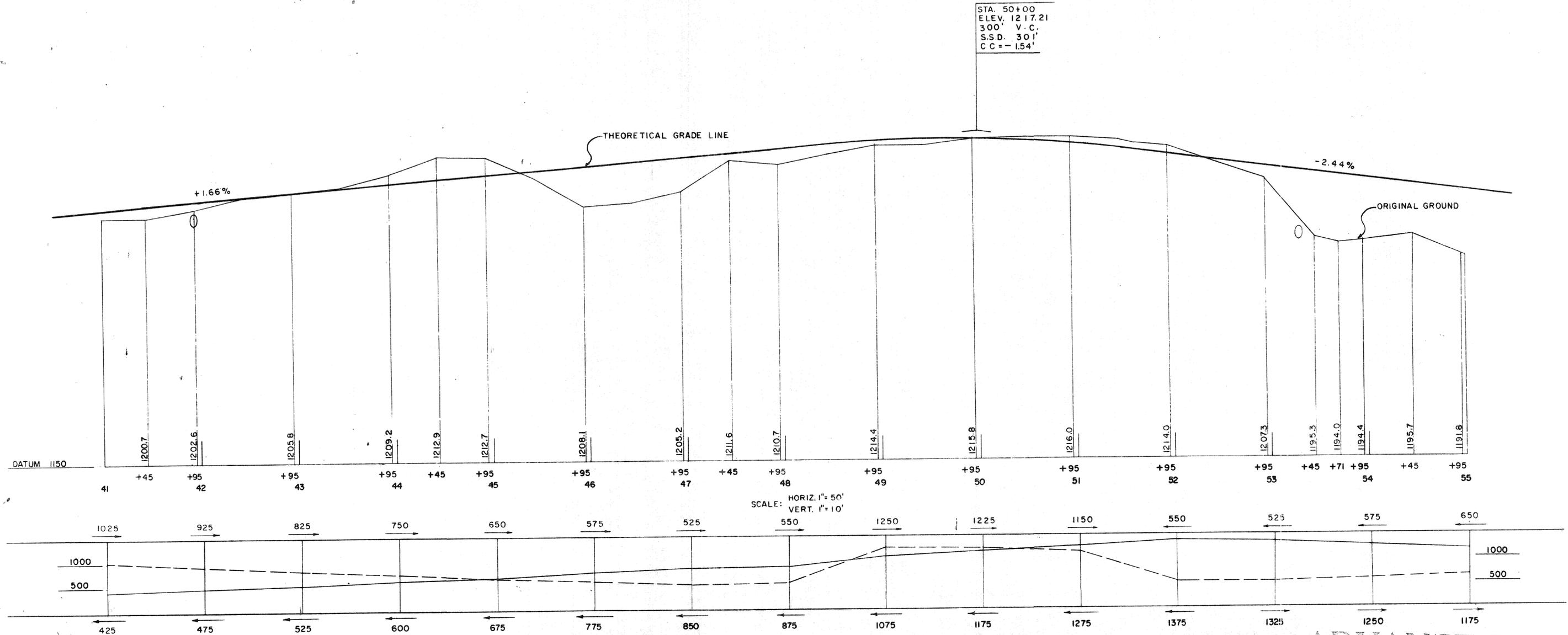
ADVANCE PRINT

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
*Frank J. ...*  
ENGINEER DISTRICT NO. 1  
DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY BY  
*Paul A. ...*  
SUPT. OF HIGHWAYS  
DATED 2-25 19 61

REVISIONS	DRAWN BY	PALMER	PLAN STA. 41+00 TO STA. 55+00	DRAWING NO. 24
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-61		
PARTNER-IN-CHARGE		<i>John K. Bright</i>	RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100
REV. NO.				

STA. 50+00  
 ELEV. 1217.21  
 300' V.C.  
 S.S.D. 30'  
 C.C. = -1.54'



MINIMUM SIGHT DISTANCE GRAPH  
 NOTE: SEE SHEET 21 FOR EXPLANATION

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
 ENGINEER DISTRICT NO. 1  
 DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY BY  
 Supt. of Highways  
 DATED 2-25 19 61

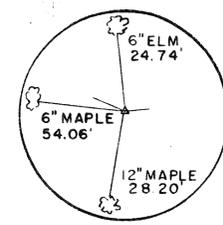
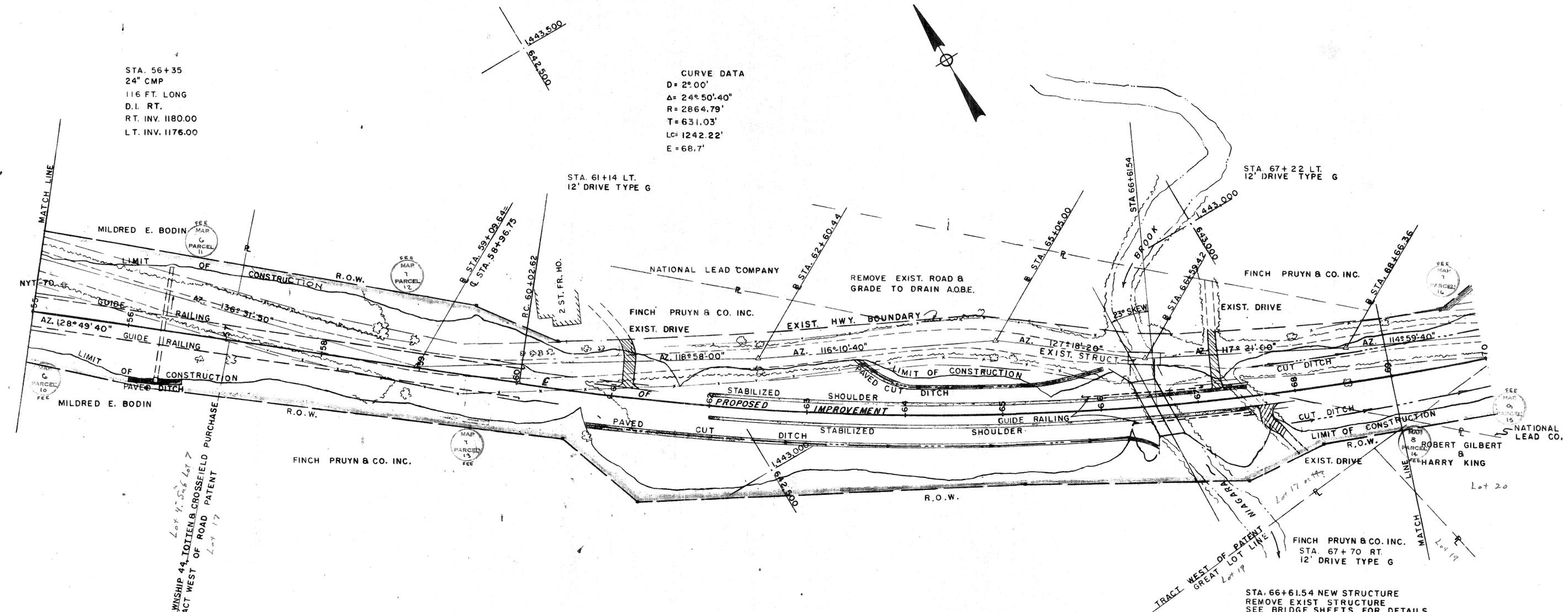
ADVANCE PRINT

REVISIONS	DRAWN BY	WINCHELL	<b>PROFILE</b> STA. 41+00 TO STA. 55+00	DRAWING NO.	25	
	CHECKED	AUSTIN		PROJ. 100		
	SCALE	AS NOTED				REV. NO.
	ISSUE DATE	7-28-61				
PARTNER-IN-CHARGE		RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK				

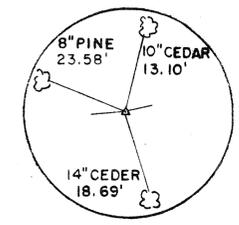
FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		26	52
TAHAWUS - SCHROON RIVER PART IV				

STA. 56+35  
24" CMP  
116 FT. LONG  
D.I. RT.  
RT. INV. 1180.00  
LT. INV. 1176.00

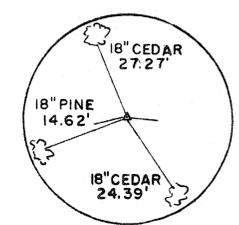
CURVE DATA  
D = 2° 00'  
Δ = 24° 50' 40"  
R = 2864.79'  
T = 631.03'  
LC = 1242.22'  
E = 68.7'



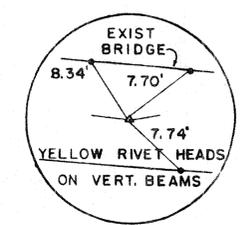
@ STA. 59+09.64



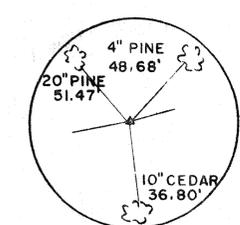
@ STA. 62+60.44



@ STA. 65+05.00



@ STA. 66+59.42



@ STA. 68+66.36

PLAN  
SCALE: 1" = 50'

ADVANCE PRINT

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY

ENGINEER DISTRICT NO. 1.

ATED 6-2 19 61

APPROVED FOR ESSEX COUNTY BY

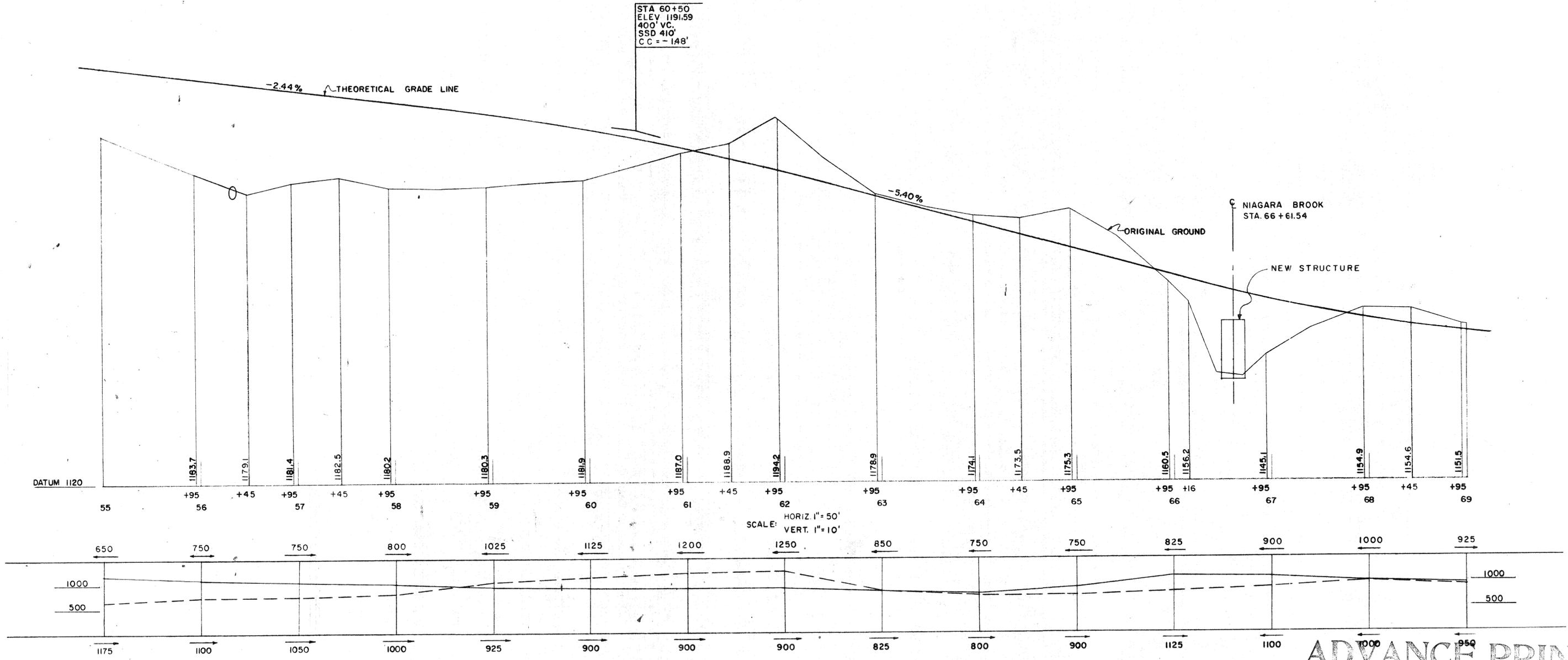
SUPT. OF HIGHWAYS

DATED 2-25 19 61

REVISIONS	DRAWN BY	DEICH	PLAN STA. 55+00 TO STA. 69+00	DRAWING NO. 26
	CHECKED	AUTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-61		
PARTNER-IN-CHARGE			PROJ. 100	REV. NO.

RIST BRIGHT AND FROST  
CONSULTING ENGINEERS  
GLENS FALLS, NEW YORK

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		27	52
TANAWUS - SCHROON RIVER PART III				



MINIMUM SIGHT DISTANCE GRAPH  
NOTE: SEE SHEET 21 FOR EXPLANATION

PREPARED PURSUANT TO THE HIGHWAY  
LAW AND RECOMMENDED BY  
*Frank J. Fuller*  
ENGINEER DISTRICT NO. 1  
DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY  
BY  
*Harold M. ...*  
SUPT. OF HIGHWAYS  
DATED 2-25 19 61

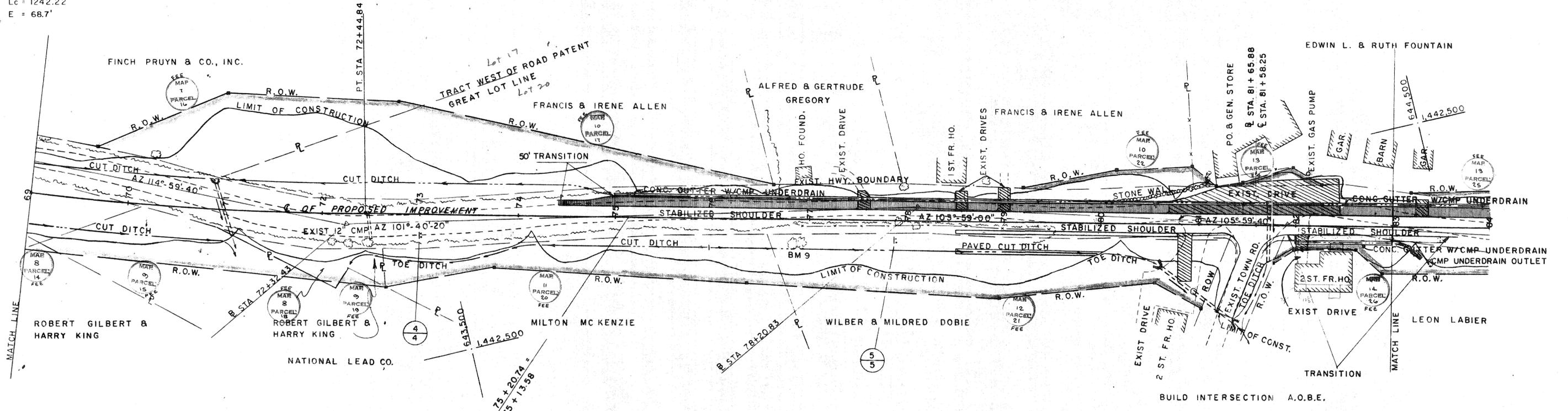
ADVANCE PRINT

REVISIONS	DRAWN BY	LA ROSE	PROFILE STA. 55+00 TO STA. 69+00	DRAWING NO. 27
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-61		
PARTNER-IN-CHARGE		RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100	REV. NO.

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	NY		28	52
TAHAWUS - SCHROON RIVER PART IV				

CURVE DATA  
D = 2°-00'  
Δ = 24°-50'-40"  
R = 2864.79'  
T = 631.03'  
Lc = 1242.22'  
E = 68.7'

STA 77+57 LT 12' DRIVE TYPE G    STA 78+55 LT 12' DRIVE TYPE M    STA 79+00 LT 12' DRIVE TYPE M    STA 80+70 TO STA 82+42 LT VARIES TYPE M    STA 83+30 LT 12' DRIVE TYPE M



STA 71+00  
24" CMP  
SKEW 20° LT  
60 FT LONG  
RIP RAP LT  
LT INV 1144.40  
RT INV 1142.00  
REMOVE EXIST CMP AT  
STA 72+50

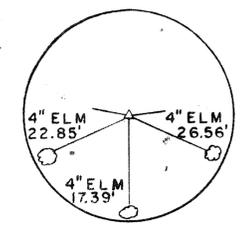
STA 80+85 RT  
14' DRIVE TYPE G

TOWN ROAD  
STA 1+00  
24" CMP  
SKEW 15° RT  
100 FT LONG  
RIP RAP LT & RT  
RT INV 1139.50  
LT INV 1123.50

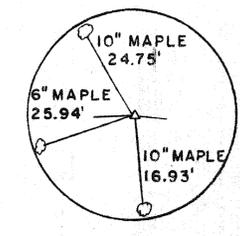
STA 81+72  
24" CMP  
60 FT LONG  
SPEC. D.I. LT  
LT INV 1132.00  
RT INV 1130.00

STA 82+07 RT  
12' DRIVE TYPE M

PLAN  
SCALE: 1" = 50'



STA 72+32.43



STA 78+20.83

# ADVANCE PRINT

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY

*Frank J. Fuller*  
ENGINEER DISTRICT NO. 1.

DATED 6-2 19 61

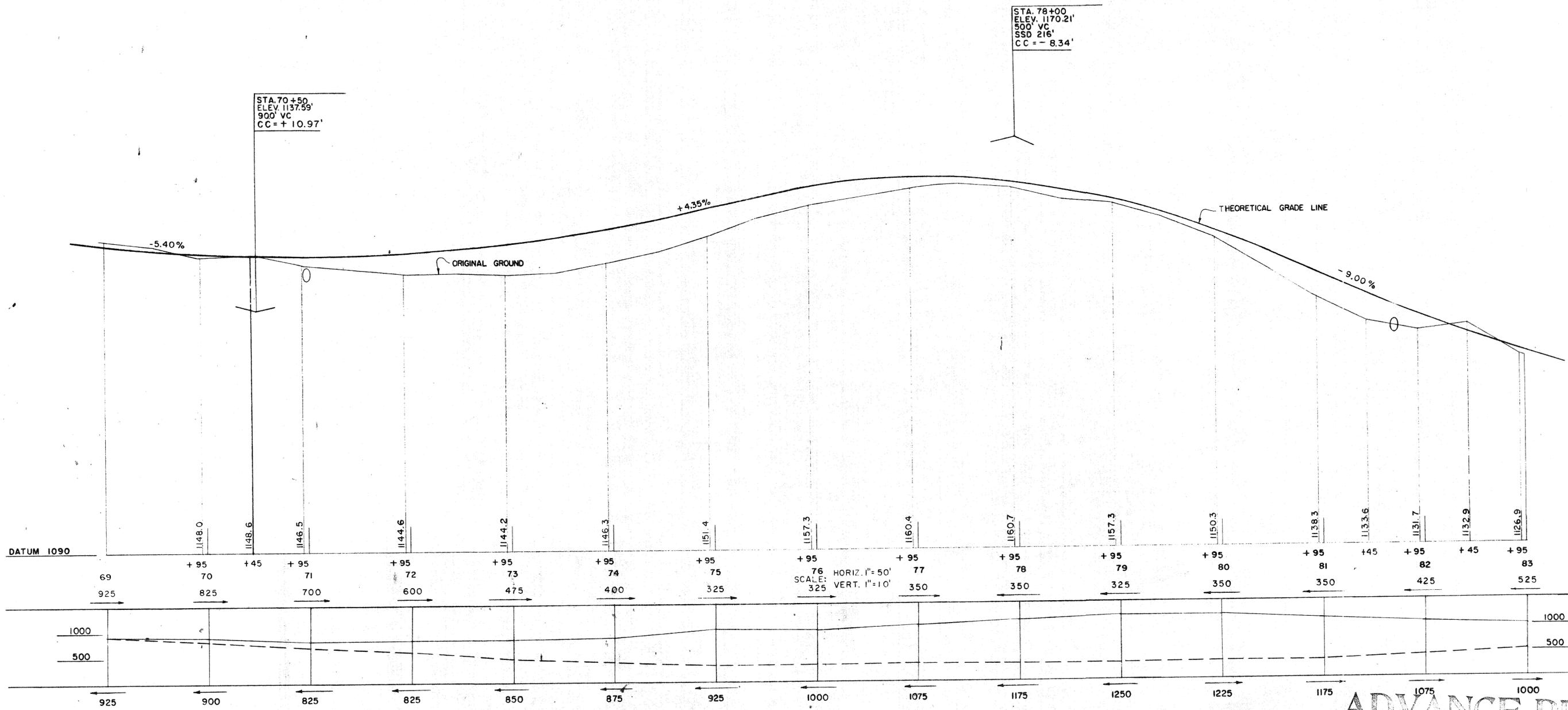
APPROVED FOR ESSEX COUNTY BY

*Samuel A. Mahan*  
SUPT. OF HIGHWAYS

DATED 2-25 19 61

REVISIONS	DRAWN BY	WINCHELL	<b>PLAN</b> STA. 69+00 TO STA. 83+00	DRAWING NO. <b>288</b>
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-61		
PARTNER-IN-CHARGE		<i>W. R. Bright</i>	PROJ. NO. 100	REV. NO.
RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK				

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		29	52
TAHAWUS - SCHROON RIVER PART IV				



MINIMUM SIGHT DISTANCE GRAPH  
NOTE: SEE SHEET 21 FOR EXPLANATION

PREPARED PURSUANT TO THE HIGHWAY  
LAW AND RECOMMENDED BY  
*Frank J. Fuller*  
ENGINEER DISTRICT NO. 1  
DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY  
BY  
*Arnold Dolan*  
SUPT. OF HIGHWAYS  
DATED 2-25 19 61

REVISIONS	DRAWN BY	DAVIDSON	PROFILE STA. 69+00 TO STA. 83+00 RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	DRAWING NO. 29
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-21-61		
PARTNER-IN-CHARGE		<i>Frank J. Fuller</i>	PROJ. 100	REV. NO.

STA 86+62  
24" CMP  
SKEW 30° LT  
80 FT LONG  
RIP RAP LT  
LT INV 1115.40  
RT INV 1112.60

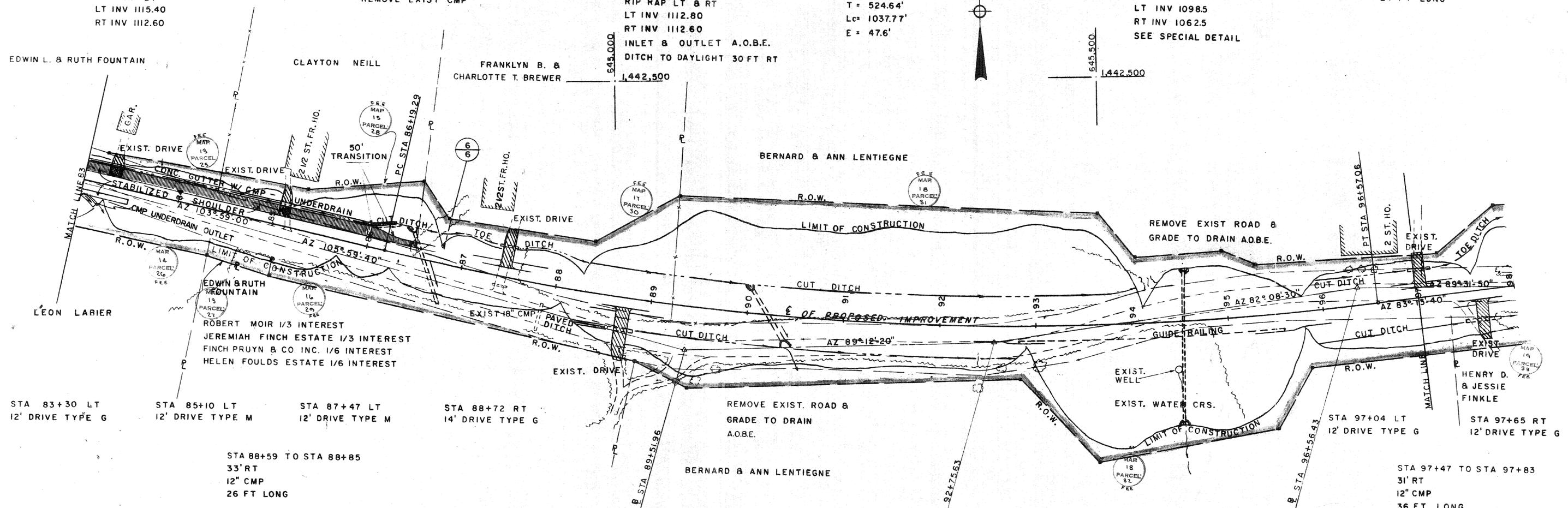
STA 87+38 TO STA 87+56  
32' LT  
12" CMP  
18 FT LONG  
REMOVE EXIST CMP

STA 90+20  
24" CMP  
SKEW 35° LT  
76 FT LONG  
RIP RAP LT & RT  
LT INV 1112.80  
RT INV 1112.60  
INLET & OUTLET A.O.B.E.  
DITCH TO DAYLIGHT 30 FT RT

CURVE DATA  
D = 2°-00'  
Δ = 20°-45'-20"  
R = 2864.79'  
T = 524.64'  
Lc = 1037.77'  
E = 47.6'

STA 94+50  
24" CMP  
164 FT LONG  
MES LT & RT  
LT INV 1098.5  
RT INV 1062.5  
SEE SPECIAL DETAIL

STA 96+92 TO STA 97+16  
29' LT  
12" CMP  
24 FT LONG



STA 83+30 LT  
12' DRIVE TYPE G

STA 85+10 LT  
12' DRIVE TYPE M

STA 87+47 LT  
12' DRIVE TYPE M

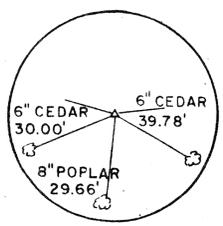
STA 88+72 RT  
14' DRIVE TYPE G

REMOVE EXIST. ROAD &  
GRADE TO DRAIN  
A.O.B.E.

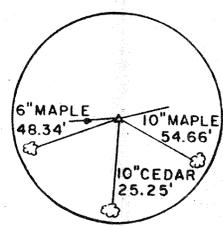
STA 97+04 LT  
12' DRIVE TYPE G

STA 97+65 RT  
12' DRIVE TYPE G

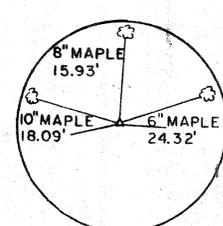
STA 97+47 TO STA 97+83  
31' RT  
12" CMP  
36 FT LONG



STA 89+51.96



STA 92+75.63



STA 96+56.43

PLAN  
SCALE: 1" = 50'

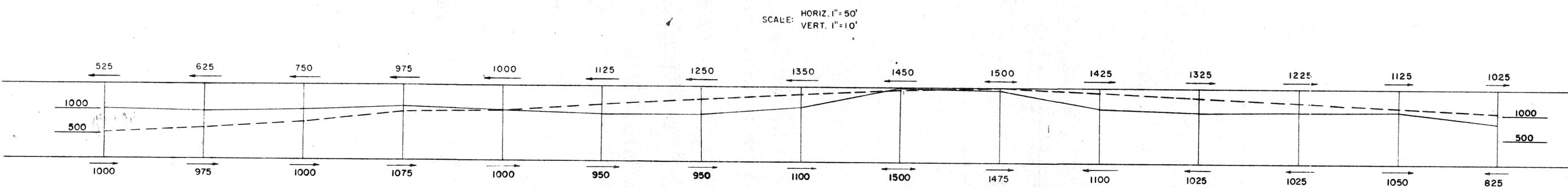
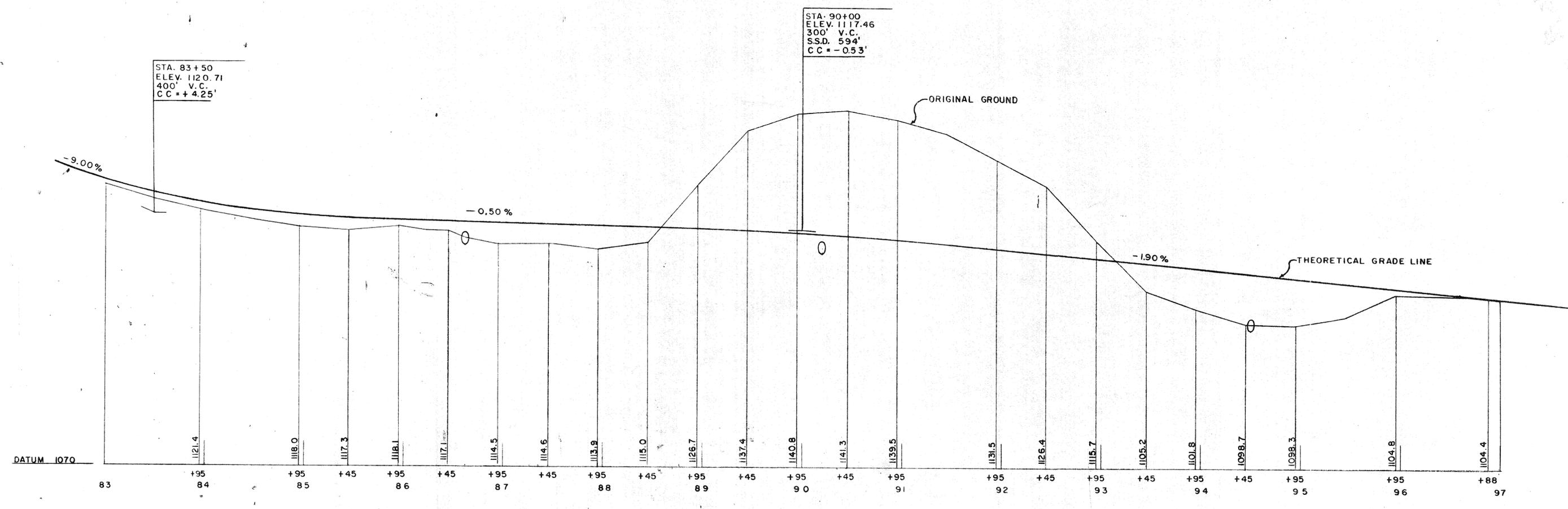
ADVANCE PRINT

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
*Frank J. Austin*  
 ENGINEER DISTRICT NO. 1.  
 DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY BY  
*James A. Dolan*  
 SUPT. OF HIGHWAYS  
 DATED 2-25 19 61

REVISIONS	DRAWN BY	LA ROSE	PLAN STA. 83+00 TO STA. 97+00	DRAWING NO. 30
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-61		
	PARTNER-IN-CHARGE	<i>John K. Bright</i>	PROJ. 100	REV. NO.
RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK				

FED. ROAD PROJ. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	NY		31	52
TAHAWUS-SCHROON RIVER PART III				



MINIMUM SIGHT DISTANCE GRAPH  
NOTE: SEE SHEET 21 FOR EXPLANATION

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
*Frank J. Sullivan*  
ENGINEER DISTRICT NO. 1  
DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY BY  
*Frank J. Sullivan*  
SUPT. OF HIGHWAYS  
DATED 2-25 19 61

REVISIONS	DRAWN BY	HEWELL	PROFILE STA. 83+00 TO STA. 97+00	DRAWING NO. 31
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-61		
PARTNER-IN-CHARGE			RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100 REV. NO.

FED. ROAD RE. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		32	52

**TAHAWUS-SCHROON RIVER PART IX**

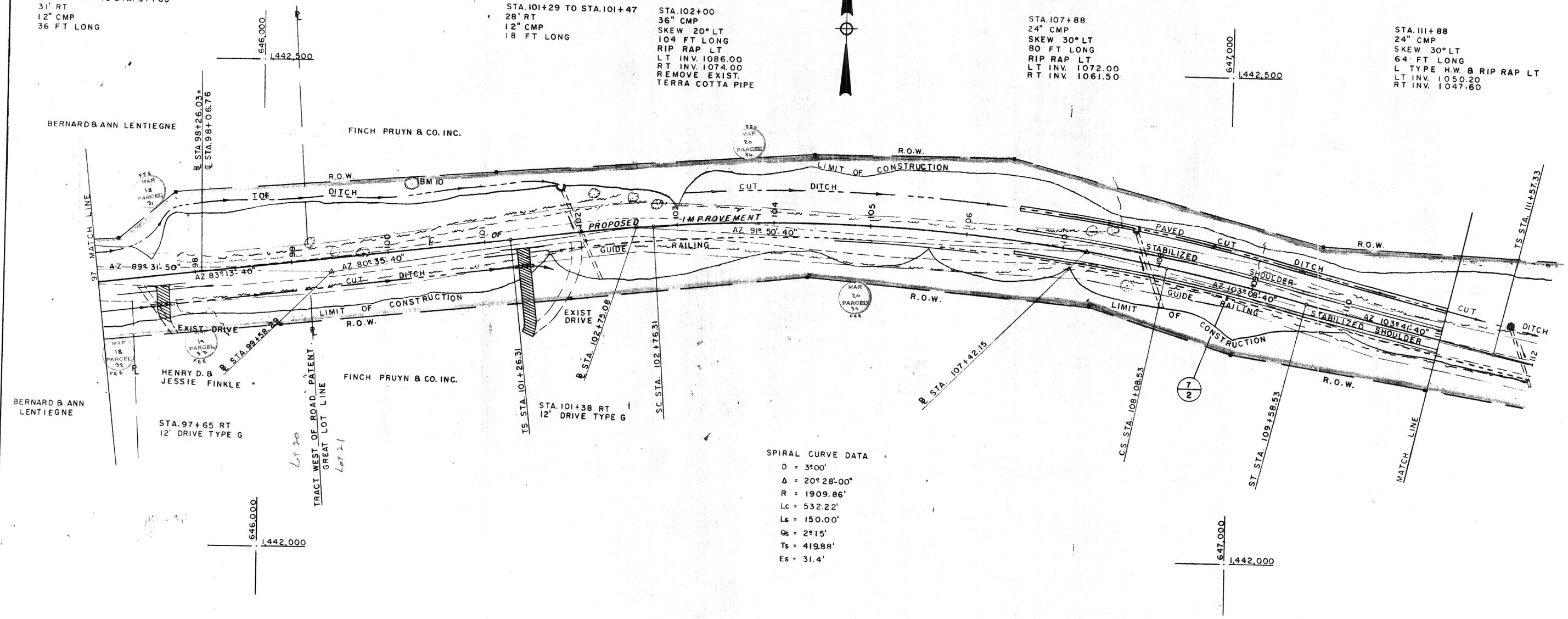
STA. 97+47 TO STA. 97+83  
31' RT  
12" CMP  
36 FT LONG

STA. 101+29 TO STA. 101+47  
28' RT  
12" CMP  
18 FT LONG

STA. 102+00  
36" CMP  
SKEW 20° LT  
104 FT LONG  
RIP RAP LT  
LT INV. 1086.00  
RT INV. 1074.00  
REMOVE EXIST.  
TERRA COTTA PIPE

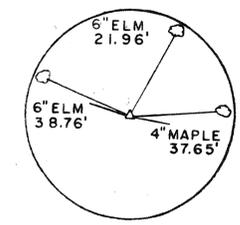
STA. 107+88  
24" CMP  
SKEW 30° LT  
80 FT LONG  
RIP RAP LT  
LT INV. 1072.00  
RT INV. 1061.50

STA. 111+88  
24" CMP  
SKEW 30° LT  
64 FT LONG  
L TYPE H.W. 8 RIP RAP LT  
LT INV. 1050.20  
RT INV. 1047.60

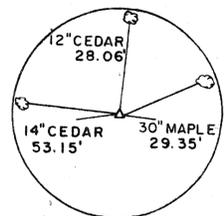


**SPIRAL CURVE DATA**  
D = 3°00'  
Δ = 20° 28' 00"  
R = 1909.86'  
Lc = 532.22'  
Ls = 150.00'  
Qs = 2°15'  
Ts = 419.88'  
Es = 31.4'

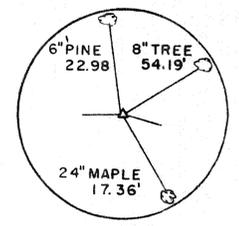
**PLAN**  
SCALE: 1" = 50'



Q STA. 99+58.29



Q STA. 102+75.08



Q STA. 107+42.15

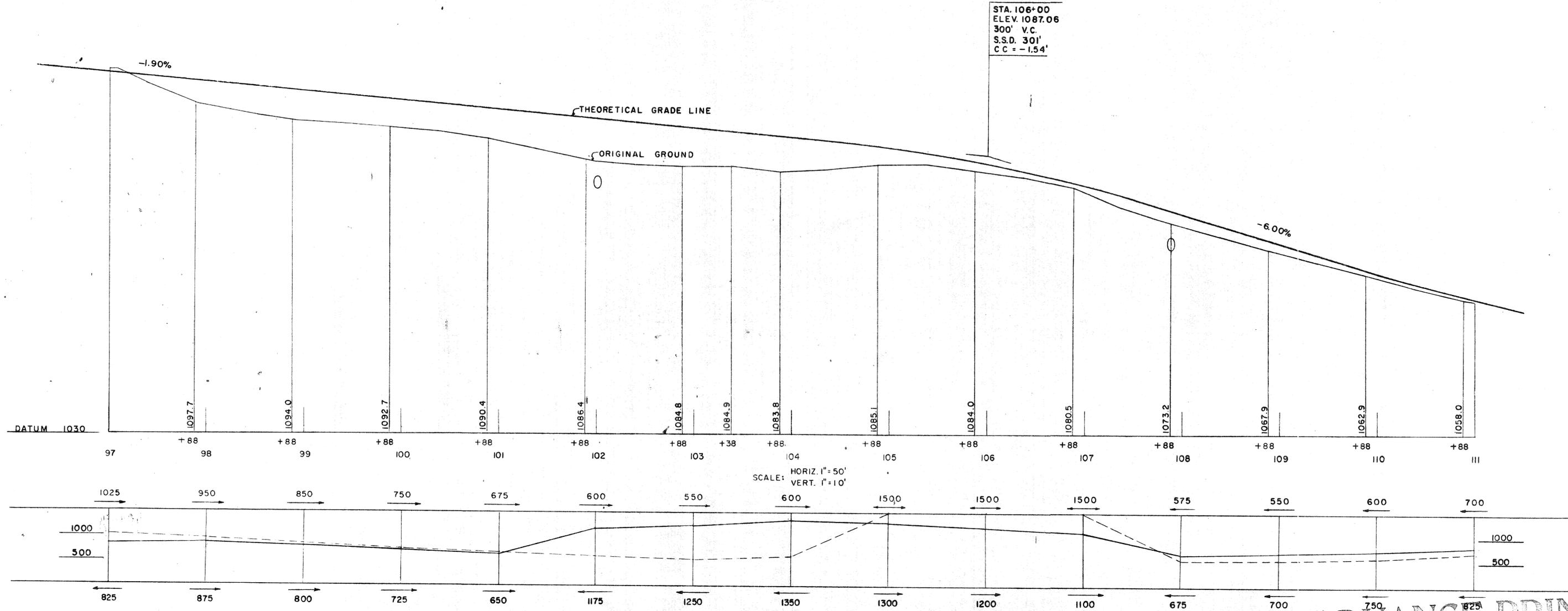
**ADVANCE PRINT**

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
*Frank J. Fuller*  
ENGINEER DISTRICT NO 1  
DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY BY  
*David A. Madson*  
S.U.P.T. OF HIGHWAYS  
DATED 2-25 19 61

REVISIONS	DRAWN BY	DAVIDSON	PLAN STA. 97+00 TO STA. 111+00	DRAWING NO. <b>32</b>
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE			
	PARTNER-IN-CHARGE	<i>David A. Madson</i>	RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100 REV. NO.

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	N.Y.		33	52
TAHAWUS-SCHROON RIVER PART II				



MINIMUM SIGHT DISTANCE GRAPH  
NOTE: SEE SHEET 21 FOR EXPLANATION

**ADVANCE PRINT**

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
*Frank J. ...*  
ENGINEER DISTRICT NO. 1

APPROVED FOR ESSEX COUNTY BY  
*Lorena Nolan*  
S.U.P.T. OF HIGHWAYS

DATED 6-2 19 61 DATED 2-25 19 61

REVISIONS	DRAWN BY	PALMER	<b>PROFILE</b>	DRAWING NO.
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-61		
<i>R. K. Bright</i> PARTNER-IN-CHARGE			<b>STA. 97+00 TO STA. 111+00</b> <b>RIST BRIGHT AND FROST</b> CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100 REV. NO.

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	N.Y.		34	52
TANAWUS-SCHROON RIVER PART IV				

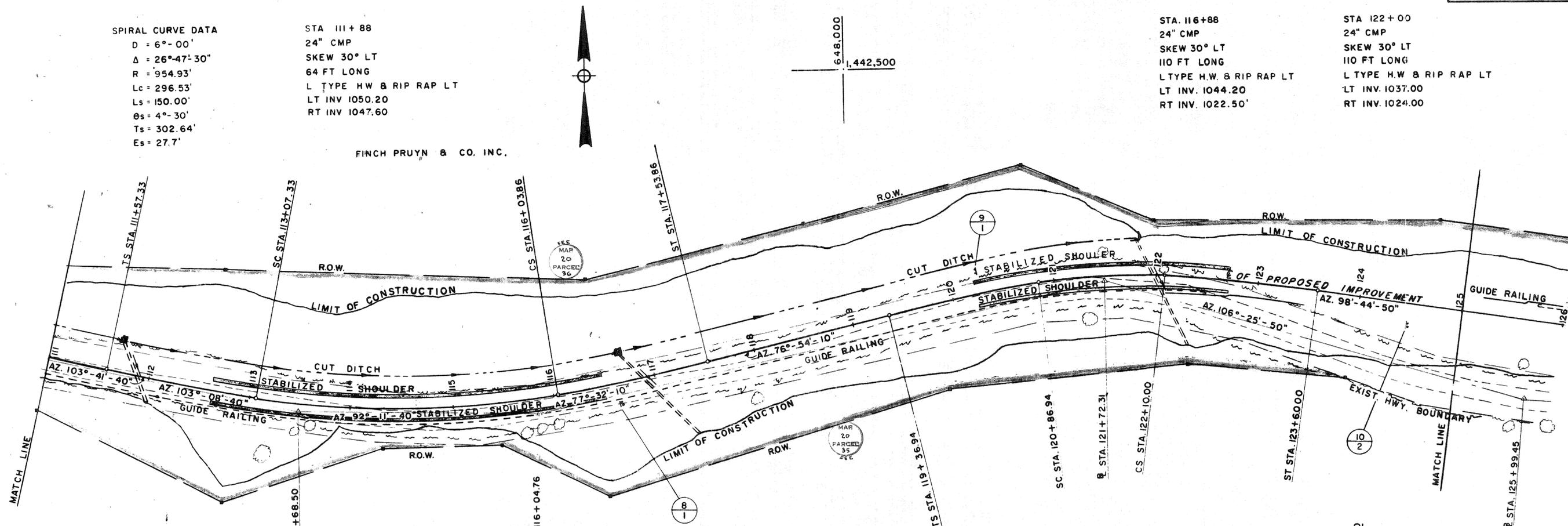
SPIRAL CURVE DATA  
D = 6°-00'  
Δ = 26°-47'-30"  
R = 954.93'  
Lc = 296.53'  
Ls = 150.00'  
Os = 4°-30'  
Ts = 302.64'  
Es = 27.7'

STA 111+88  
24" CMP  
SKEW 30° LT  
64 FT LONG  
L TYPE HW & RIP RAP LT  
LT INV 1050.20  
RT INV 1047.60

STA. 116+88  
24" CMP  
SKEW 30° LT  
110 FT LONG  
L TYPE H.W. & RIP RAP LT  
LT INV. 1044.20  
RT INV. 1022.50'

STA 122+00  
24" CMP  
SKEW 30° LT  
110 FT LONG  
L TYPE H.W & RIP RAP LT  
LT INV. 1037.00  
RT INV. 1024.00

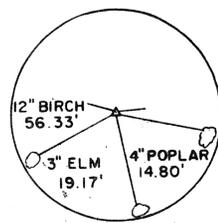
FINCH PRUYN & CO. INC.



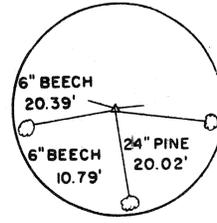
FINCH PRUYN & CO. INC.

SPIRAL CURVE DATA  
D = 8°-00'  
Δ = 21°-50'-40"  
R = 716.20'  
Lc = 123.06'  
Ls = 150.00'  
Os = 6°-00'  
Ts = 213.43'  
Es = 14.5'

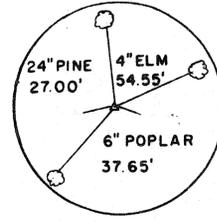
REMOVE EXIST. ROAD  
& GRADE TO DRAIN  
A.O.B.E.



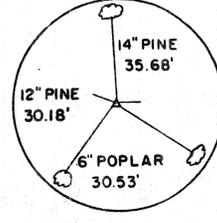
STA. 113+68.50



STA. 116+04.76



STA. 121+72.31



STA. 125+99.45

PLAN  
SCALE: 1" = 50'

ADVANCE PRINT

PREPARED PURSUANT TO THE HIGHWAY  
LAW AND RECOMMENDED BY

APPROVED FOR ESSEX COUNTY  
BY

ENGINEER DISTRICT NO 1

SUPT OF HIGHWAYS

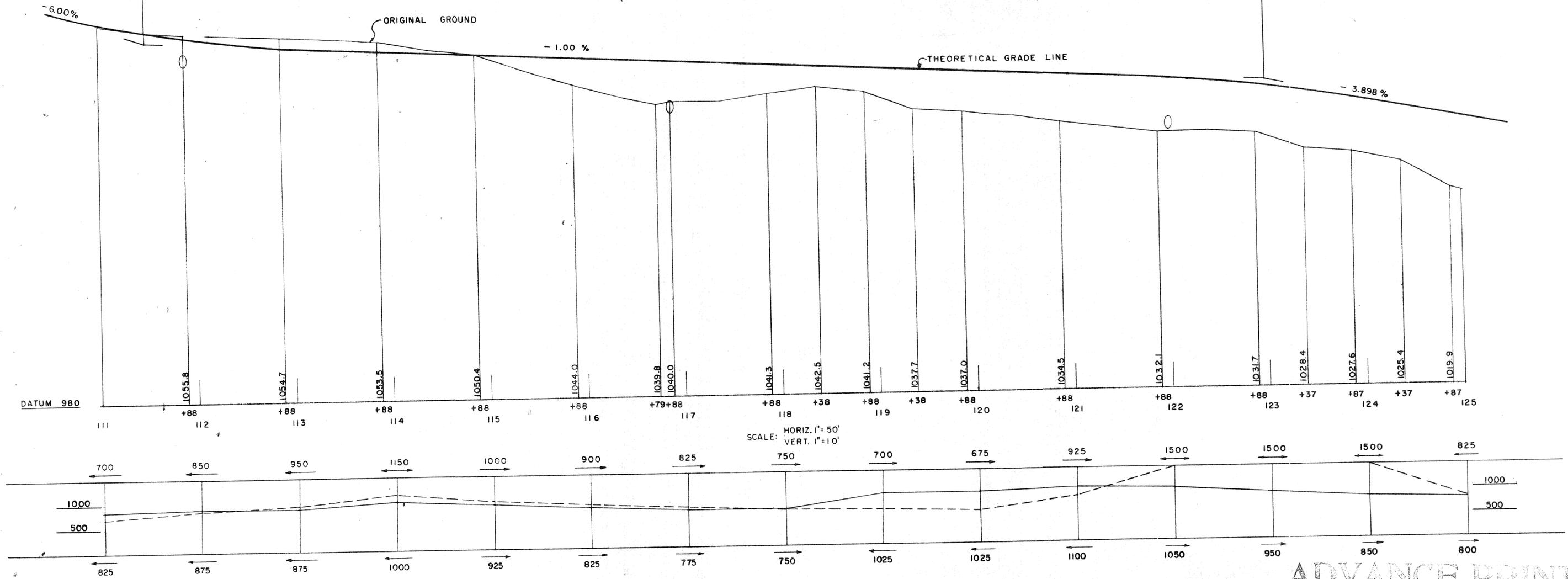
DATED 6-2 19 61

DATED 2-25 19 61

REVISIONS	DRAWN BY	HEWELL	PLAN STA. 111+00 TO STA. 125+00	DRAWING NO. 34
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-61		
PARTNER-IN-CHARGE		RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100	REV. NO.

STA. 23+00  
ELEV. 1042.56  
400' V.C.  
SSD 414'  
C.C. = -1.45'

STA. 111+50  
ELEV. 1054.06  
300' V.C.  
C.C. = +1.88'



MINIMUM SIGHT DISTANCE GRAPH  
NOTE: SEE SHEET 21 FOR EXPLANATION

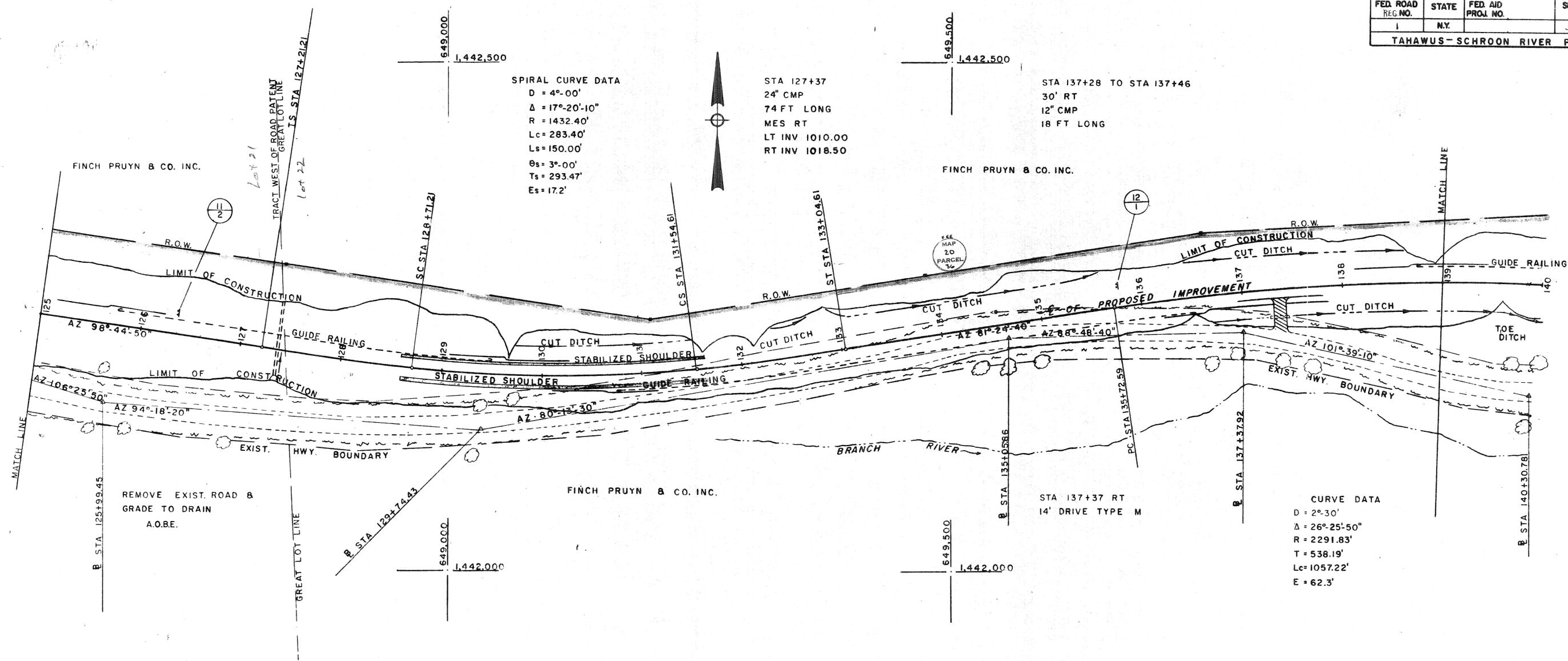
**ADVANCE PRINT**

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
*Mont J. Tul*  
ENGINEER DISTRICT NO. 1  
DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY BY  
*Harold A. Pasko*  
S.U.P.T. OF HIGHWAYS  
DATED 2-25 19 61

REVISIONS	DRAWN BY	DEICH	<b>PROFILE</b> STA. 111+00 TO STA. 125+00	DRAWING NO. <b>35</b>
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-61		
PARTNER-IN-CHARGE <i>John Bright</i>			RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100 REV. NO.

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		36	52
TAHAWUS-SCHROON RIVER PART IV				

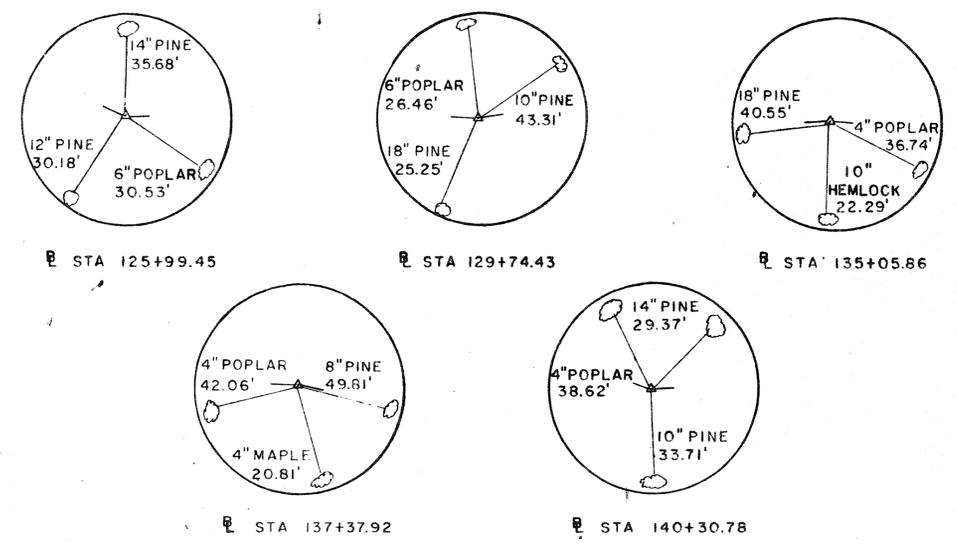


**SPIRAL CURVE DATA**  
 D = 4°-00'  
 Δ = 17°-20'-10"  
 R = 1432.40'  
 Lc = 283.40'  
 Ls = 150.00'  
 θs = 3°-00'  
 Ts = 293.47'  
 Es = 17.2'

STA 127+37  
 24" CMP  
 74 FT LONG  
 MES RT  
 LT INV 1010.00  
 RT INV 1018.50

STA 137+28 TO STA 137+46  
 30' RT  
 12" CMP  
 18 FT LONG

**CURVE DATA**  
 D = 2°-30'  
 Δ = 26°-25'-50"  
 R = 2291.83'  
 T = 538.19'  
 Lc = 1057.22'  
 E = 62.3'



**PLAN**  
 SCALE: 1" = 50'

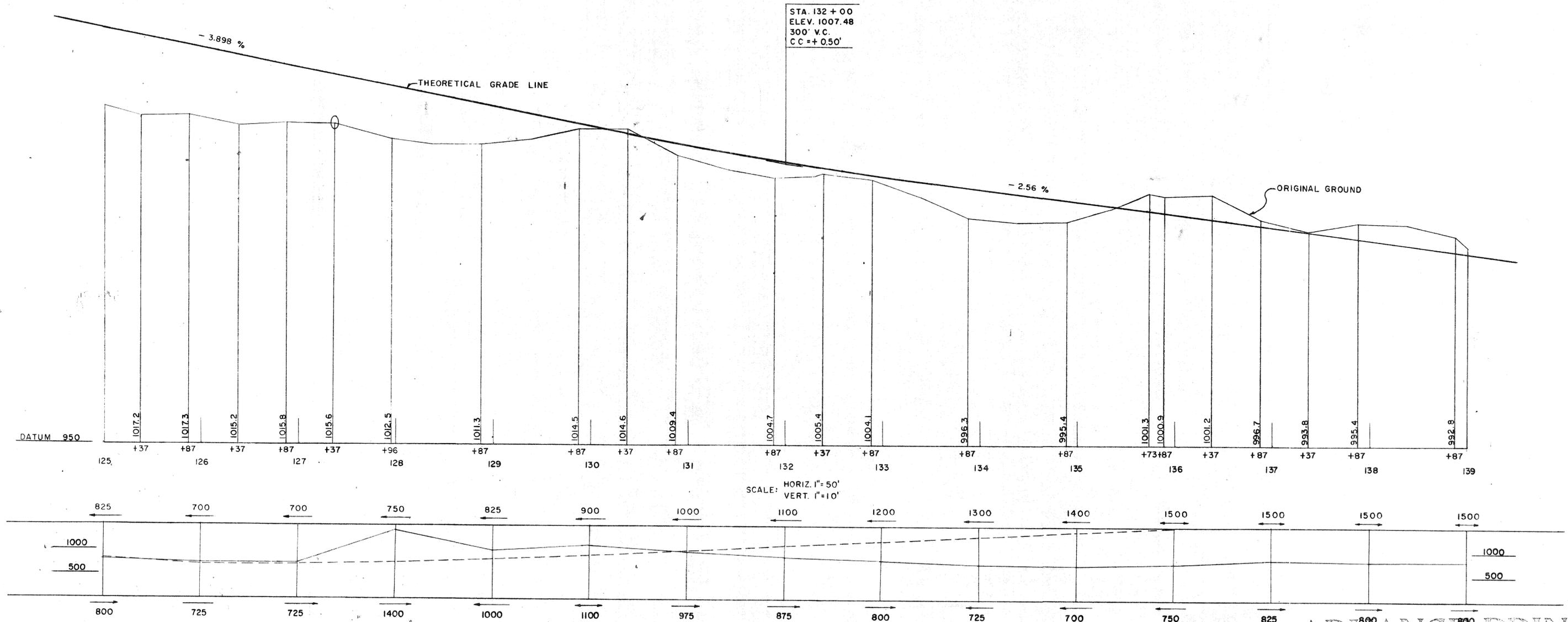
# ADVANCE PRINT

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY:  
*Frank J. Sullivan*  
 ENGINEER DISTRICT NO 1  
 DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY BY:  
*David A. Sullivan*  
 Supt. of Highways  
 DATED 2-25 19 61

REVISIONS	DRAWN BY	PALMER	PLAN STA. 125+00 TO STA. 139+00	DRAWING NO. 36
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-25-61		
PARTNER-IN-CHARGE			RIST BRIGHT AND FROST CONSULTING ENGINEERS GLEN FALLS, NEW YORK	PROJ. 100 REV. NO.

FED. ROAD REF. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		37	52
TAHAWUS - SCHROON RIVER PART IV				



MINIMUM SIGHT DISTANCE GRAPH  
NOTE: SEE SHEET 21 FOR EXPLANATION

PREPARED PURSUANT TO THE HIGHWAY  
LAW AND RECOMMENDED BY

APPROVED FOR ESSEX COUNTY  
BY

ENGINEER DISTRICT NO 1

SUPT OF HIGHWAYS

DATED 6-2 19 61

DATED 2-25 19 61

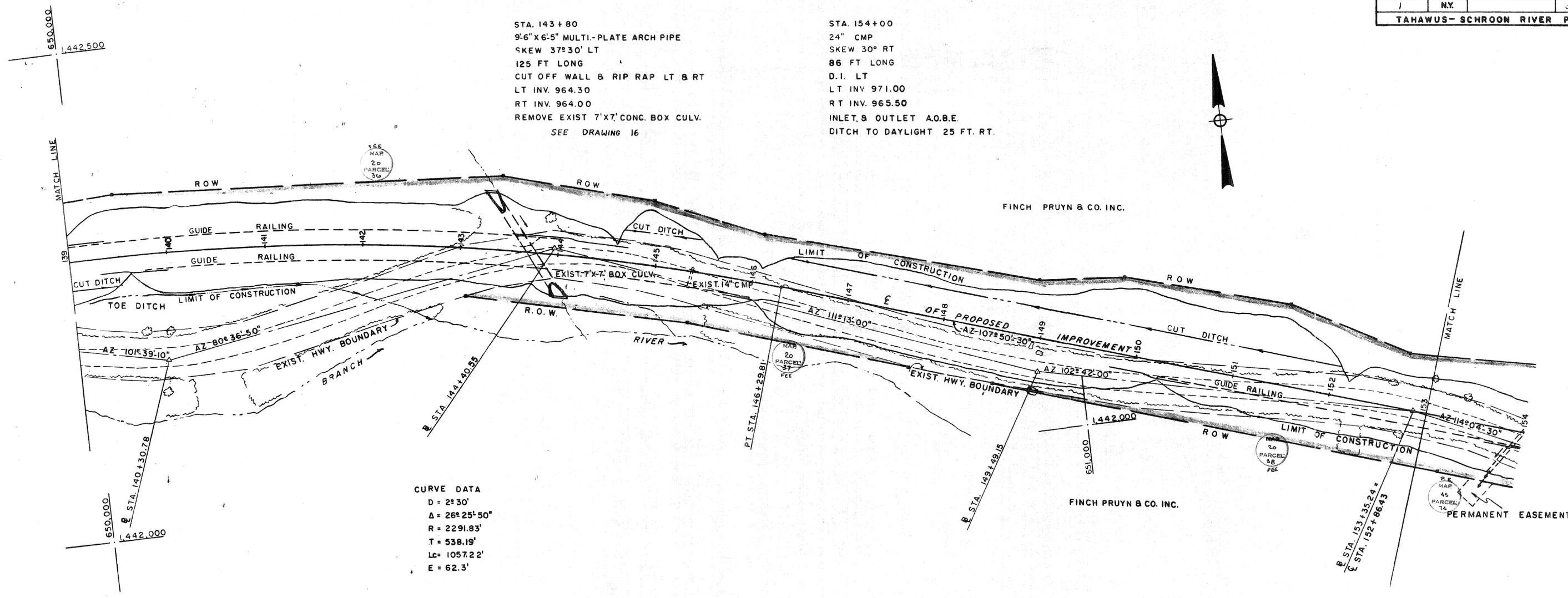
ADVANCE PRINT

REVISIONS	DRAWN BY	WINCHELL	PROFILE STA. 125+00 TO STA. 139+00	DRAWING NO. 337
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-22-61		
	PARTNER-IN-CHARGE		RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100 REV. NO.

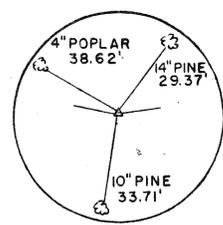
FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		38	52
TAHAWUS-SCHROON RIVER PART II				

STA. 143+80  
 9'-6" X 6'-5" MULTI-PLATE ARCH PIPE  
 SKEW 37°30' LT  
 125 FT LONG  
 CUT OFF WALL & RIP RAP LT & RT  
 LT INV. 964.30  
 RT INV. 964.00  
 REMOVE EXIST 7'X7' CONC. BOX CULV.  
 SEE DRAWING 16

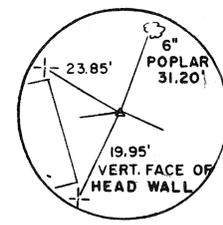
STA. 154+00  
 24" CMP  
 SKEW 30° RT  
 86 FT LONG  
 D.I. LT  
 LT INV. 971.00  
 RT INV. 965.50  
 INLET & OUTLET A.O.B.E.  
 DITCH TO DAYLIGHT 25 FT. RT.



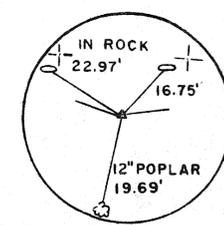
CURVE DATA  
 D = 2°30'  
 Δ = 26°25'50"  
 R = 2291.83'  
 T = 538.19'  
 Lc = 1057.22'  
 E = 62.3'



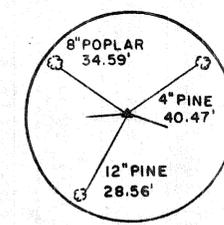
STA. 140+30.78



STA. 144+40.55



STA. 149+49.15



STA. 153+35.24

PLAN  
 SCALE: 1" = 50'

ADVANCE PRINT

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY

APPROVED FOR ESSEX COUNTY BY  
*David A. Madigan*

ENGINEER DISTRICT NO 1

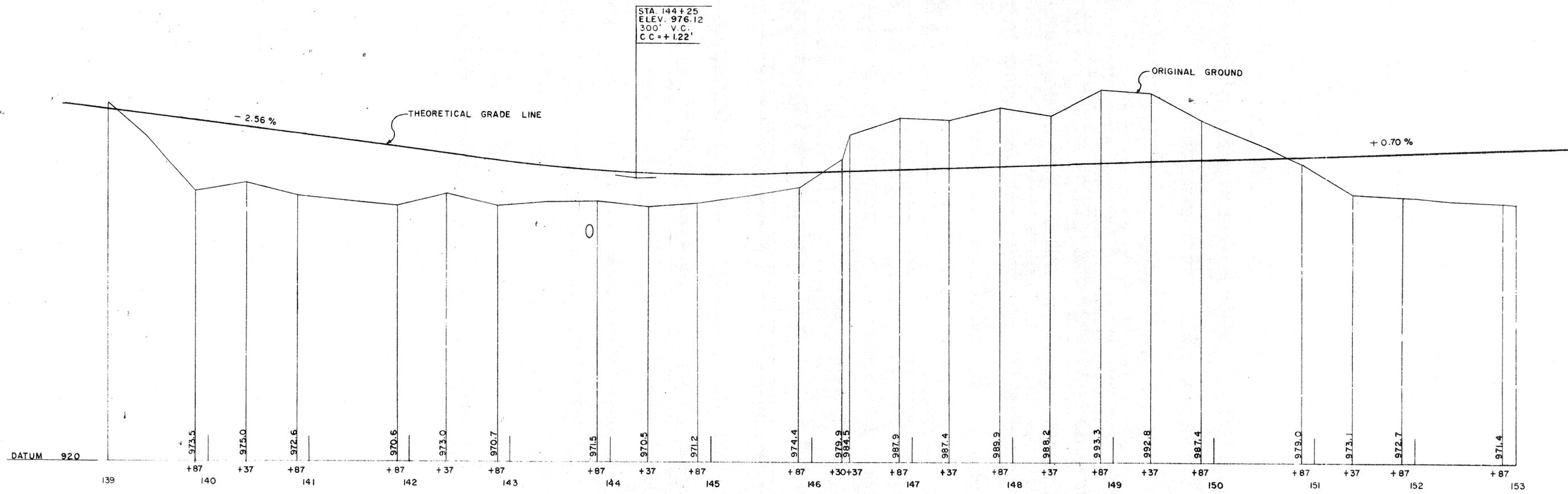
SUPT OF HIGHWAYS

DATED 6-2 19 61

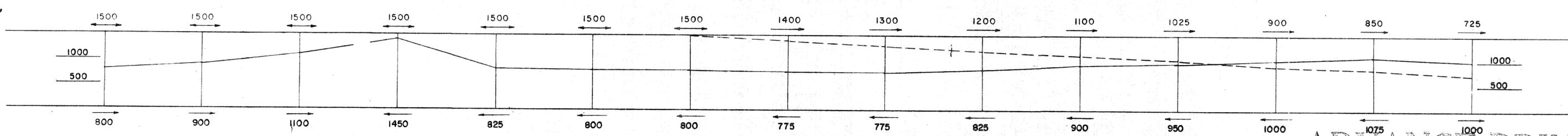
DATED 2-25 19 61

REVISIONS	DRAWN BY	DEICH	PLAN STA. 139+00 TO STA. 153+00	DRAWING NO. 33 88
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE			
PARTNER-IN-CHARGE			RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100
REV. NO.				

FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		39	52
TAHAWUS - SCHROON RIVER PART IX				



SCALE: HORIZ. 1" = 50'  
VERT. 1" = 10'



MINIMUM SIGHT DISTANCE GRAPH  
NOTE: SEE SHEET 21 FOR EXPLANATION

ADVANCE PRINT

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY

APPROVED FOR ESSEX COUNTY BY

ENGINEER DISTRICT NO. 1

DATED 6-2 19 61

SUPT. OF HIGHWAYS

DATED 2-25 19 61

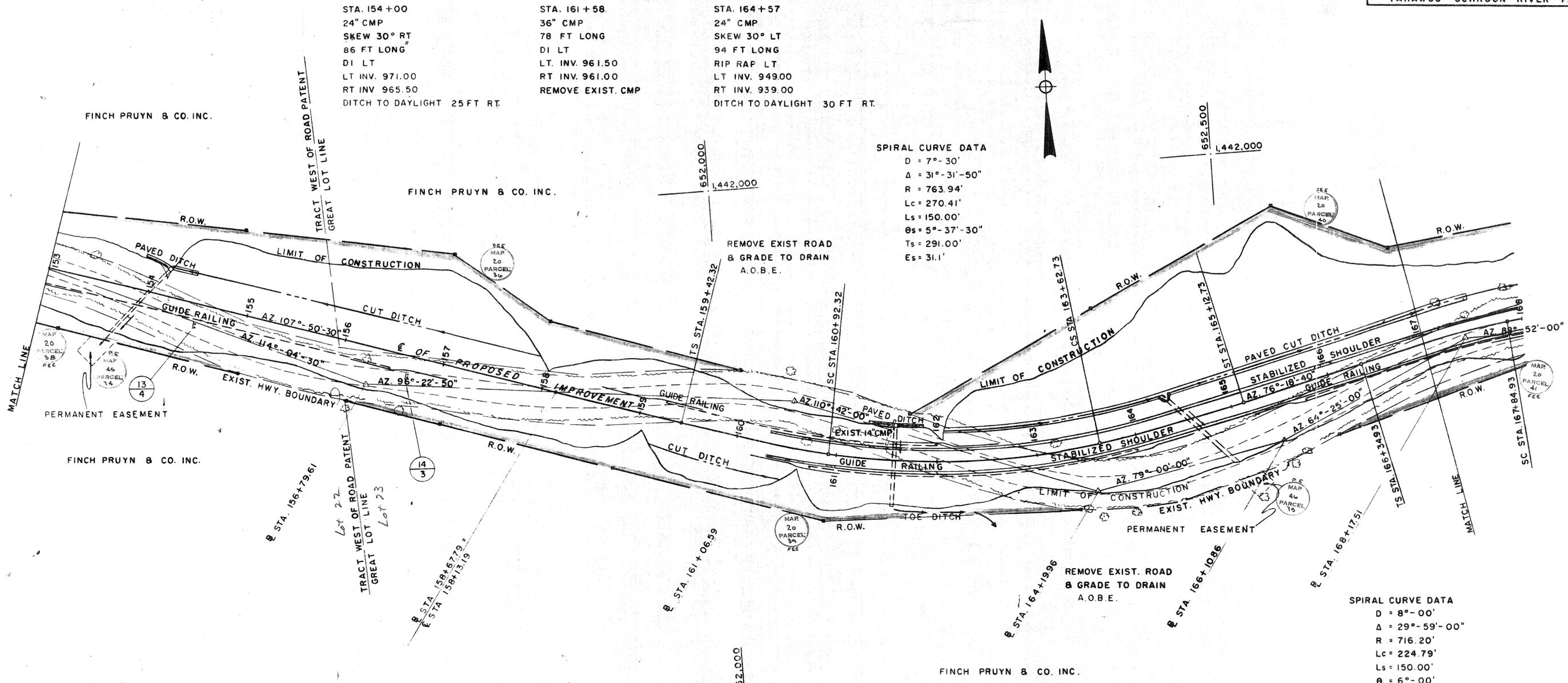
REVISIONS	DRAWN BY	LA ROSE	PROFILE STA. 139+00 TO STA. 153+00	DRAWING NO. 339D
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-61		
PARTNER-IN-CHARGE		RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100	REV. NO.

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	NY		40	52
TAHAWUS - SCHROON RIVER PART IX				

STA. 154+00 24" CMP SKEW 30° RT 86 FT LONG DI LT LT INV. 971.00 RT INV. 965.50 DITCH TO DAYLIGHT 25 FT RT.	STA. 161+58 36" CMP 78 FT LONG DI LT LT INV. 961.50 RT INV. 961.00 REMOVE EXIST. CMP	STA. 164+57 24" CMP SKEW 30° LT 94 FT LONG RIP RAP LT LT INV. 949.00 RT INV. 939.00 DITCH TO DAYLIGHT 30 FT RT.
---	--	--

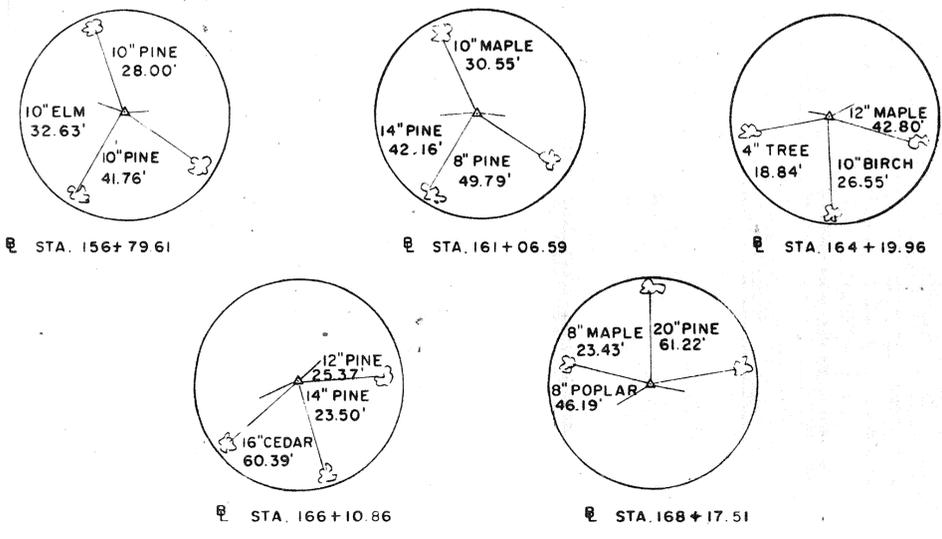
SPIRAL CURVE DATA  
D = 7°-30'  
Δ = 31°-31'-50"  
R = 763.94'  
Lc = 270.41'  
Ls = 150.00'  
θs = 5°-37'-30"  
Ts = 291.00'  
Es = 31.1'

SPIRAL CURVE DATA  
D = 8°-00'  
Δ = 29°-59'-00"  
R = 716.20'  
Lc = 224.79'  
Ls = 150.00'  
θ = 6°-00'  
Ts = 267.11'  
Es = 26.6'



PLAN  
SCALE: 1" = 50'

ADVANCE PRINT



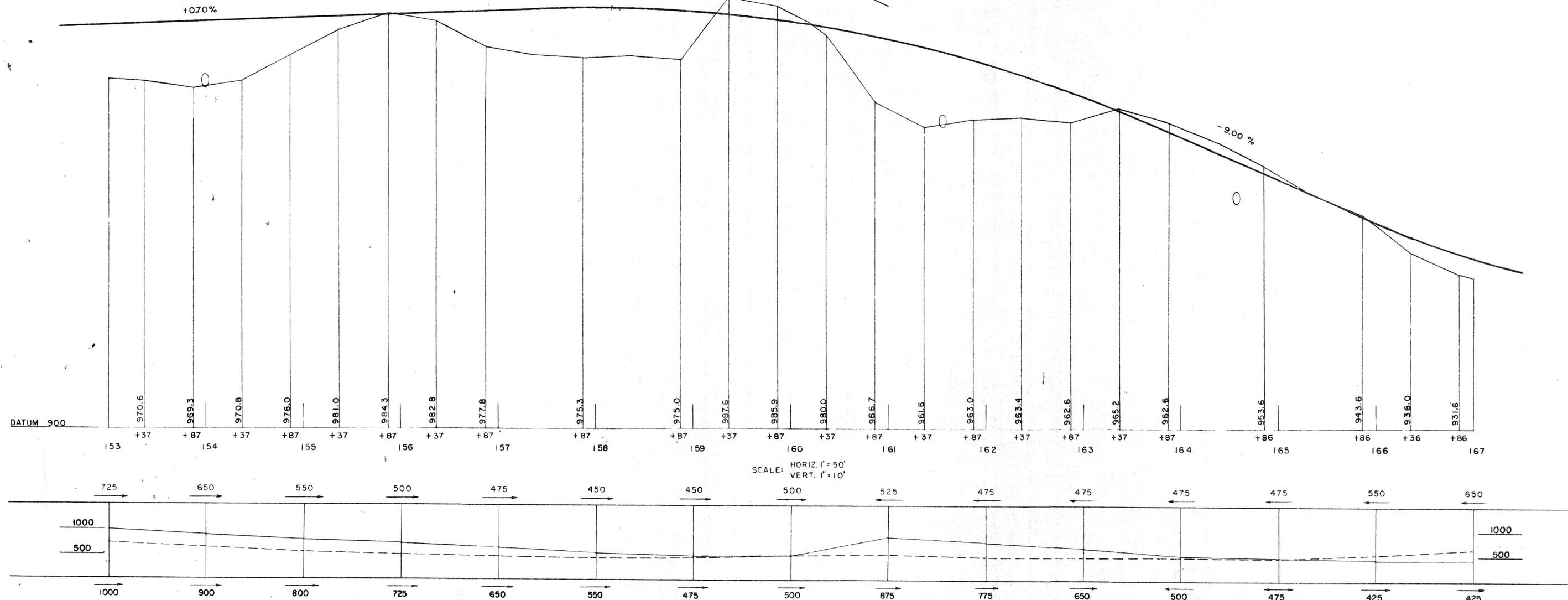
PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
*Frank J. Fuller*  
ENGINEER DISTRICT NO 1  
DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY BY  
*Harold A. Palmer*  
Supt of HIGHWAYS  
DATED 2-25 19 61

REVISIONS	DRAWN BY	WINCHELL	PLAN STA. 153+00 TO STA. 167+00 RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100	DRAWING NO. 10
	CHECKED	AUSTIN			
	SCALE	AS NOTED			
	ISSUE DATE	2-24-61			
PARTNER-IN-CHARGE			REV. NO.		

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		41	52
TAMAWUS - SCHROON RIVER PART IV				

STA. 160+80  
 ELEV. 987.71  
 700' V.C.  
 SSD - 300'  
 CC = - 8.49'



MINIMUM SIGHT DISTANCE GRAPH  
 NOTE: SEE SHEET 21 FOR EXPLANATION

**ADVANCE PRINT**

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY

APPROVED FOR ESSEX COUNTY BY *Harold A. Madson*  
 Supt. of Highways

ENGINEER DISTRICT NO. 1  
 DATED 6-2 19 61

REVISIONS	DRAWN BY	DAVIDSON	<b>PROFILE</b> <b>STA. 153+00 TO STA. 167+00</b>	DRAWING NO. <b>11</b>
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	7-24-61		
PARTNER-IN-CHARGE		RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. NO. 100	REV. NO.

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		42	52

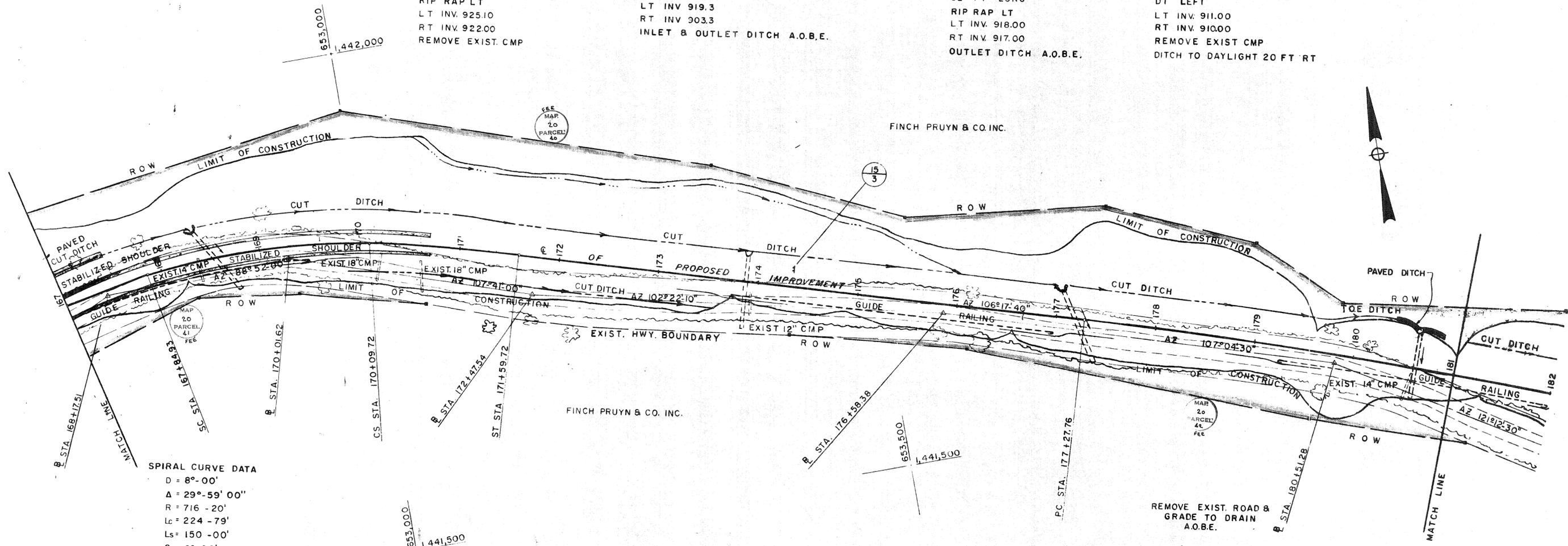
TAHAWUS-SCHROON RIVER PART III

STA. 168+55  
 36" CMP  
 SKEW 30° LT  
 80' FT LONG  
 RIP RAP LT  
 LT INV. 925.10  
 RT INV. 922.00  
 REMOVE EXIST. CMP

STA. 173+86  
 36" CMP  
 78' LONG  
 MES LT  
 LT INV. 919.3  
 RT INV. 903.3  
 INLET & OUTLET DITCH A.O.B.E.

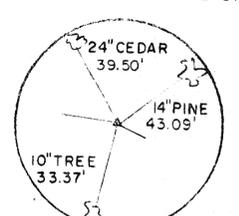
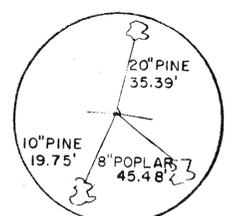
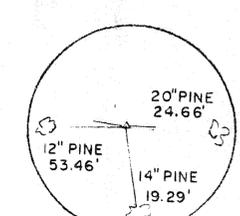
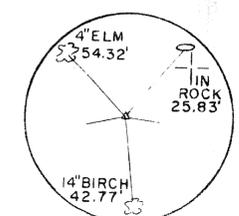
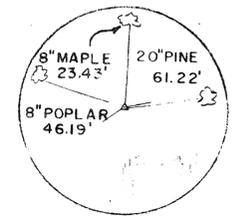
STA. 177+18  
 36" CMP  
 SKEW 30° LT  
 82' FT LONG  
 RIP RAP LT  
 LT INV. 918.00  
 RT INV. 917.00  
 OUTLET DITCH A.O.B.E.

STA. 180+60  
 36" CMP  
 70' FT LONG  
 DI LEFT  
 LT INV. 911.00  
 RT INV. 910.00  
 REMOVE EXIST. CMP  
 DITCH TO DAYLIGHT 20 FT RT



SPIRAL CURVE DATA  
 D = 8°-00'  
 Δ = 29°-59' 00"  
 R = 716 - 20'  
 Lc = 224 - 79'  
 Ls = 150 - 00'  
 Gs = 6°-00'  
 Ts = 267.11'  
 Es = 26.6'

CURVE DATA  
 D = 1°00'  
 Δ = 5°12'-50"  
 R = 5729.58'  
 T = 260.87'  
 Lc = 521.39'  
 E = 5.9'



PLAN  
 SCALE: 1" = 50'

# ADVANCE PRINT

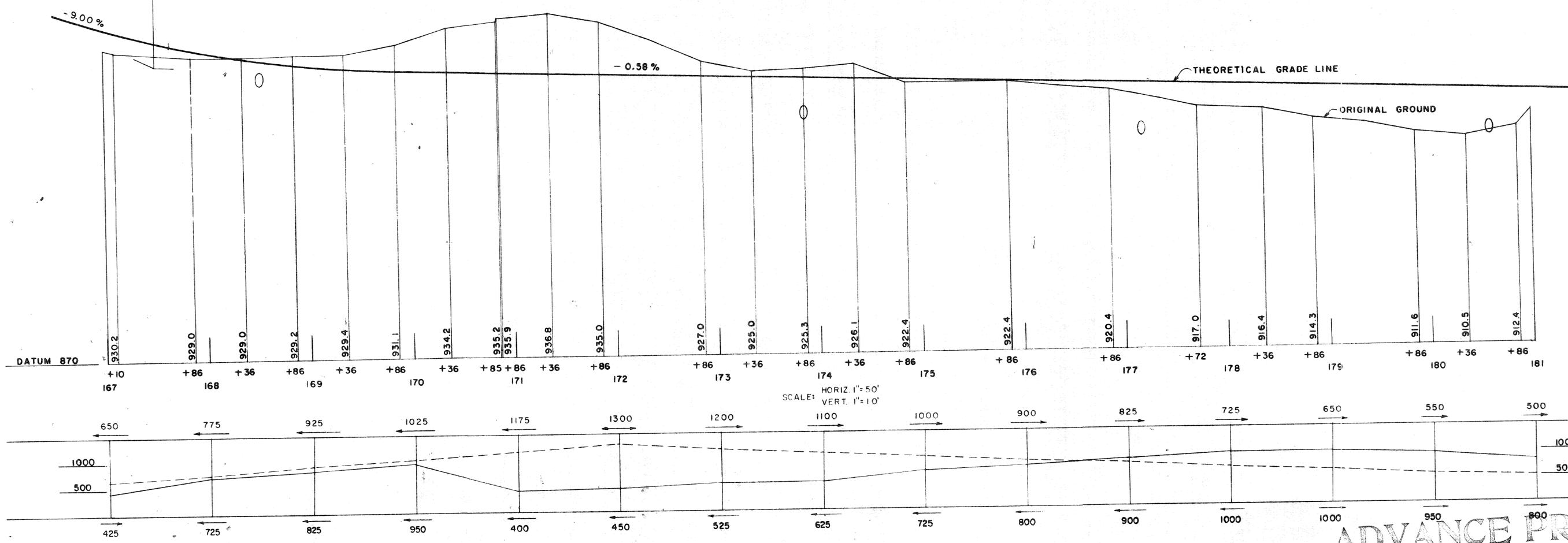
PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
*Frank J. Fuller*  
 ENGINEER DISTRICT NO 1  
 DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY BY  
*James A. Malon*  
 SUPT OF HIGHWAYS  
 DATED 2-25 19 61

REVISIONS	DRAWN BY	LA ROSE	PLAN STA. 167+00 TO STA. 181+00	DRAWING NO. 112
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	7-24-60		
PARTNER-IN-CHARGE			RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. NO. 100

FED. ROAD REF. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		43	52
TAHAWUS - SCHROON RIVER PART IV				

STA. 167+50  
ELEV. 927.41  
500' V.C.  
C.C. = + 5.45'



MINIMUM SIGHT DISTANCE GRAPH  
NOTE: SEE SHEET 21 FOR EXPLANATION

PREPARED PURSUANT TO THE HIGHWAY  
LAW AND RECOMMENDED BY

APPROVED FOR ESSEX COUNTY  
BY

ENGINEER DISTRICT NO. 1.

SUPT OF HIGHWAYS

DATED 6-2 19 61

DATED 2-25 19 61

**ADVANCE PRINT**

REVISIONS	DRAWN BY	HEWELL	PROFILE STA. 167+00 TO STA. 181+00	DRAWING NO. 133
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-25-61		
PARTNER-IN-CHARGE			RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100 REV. NO.

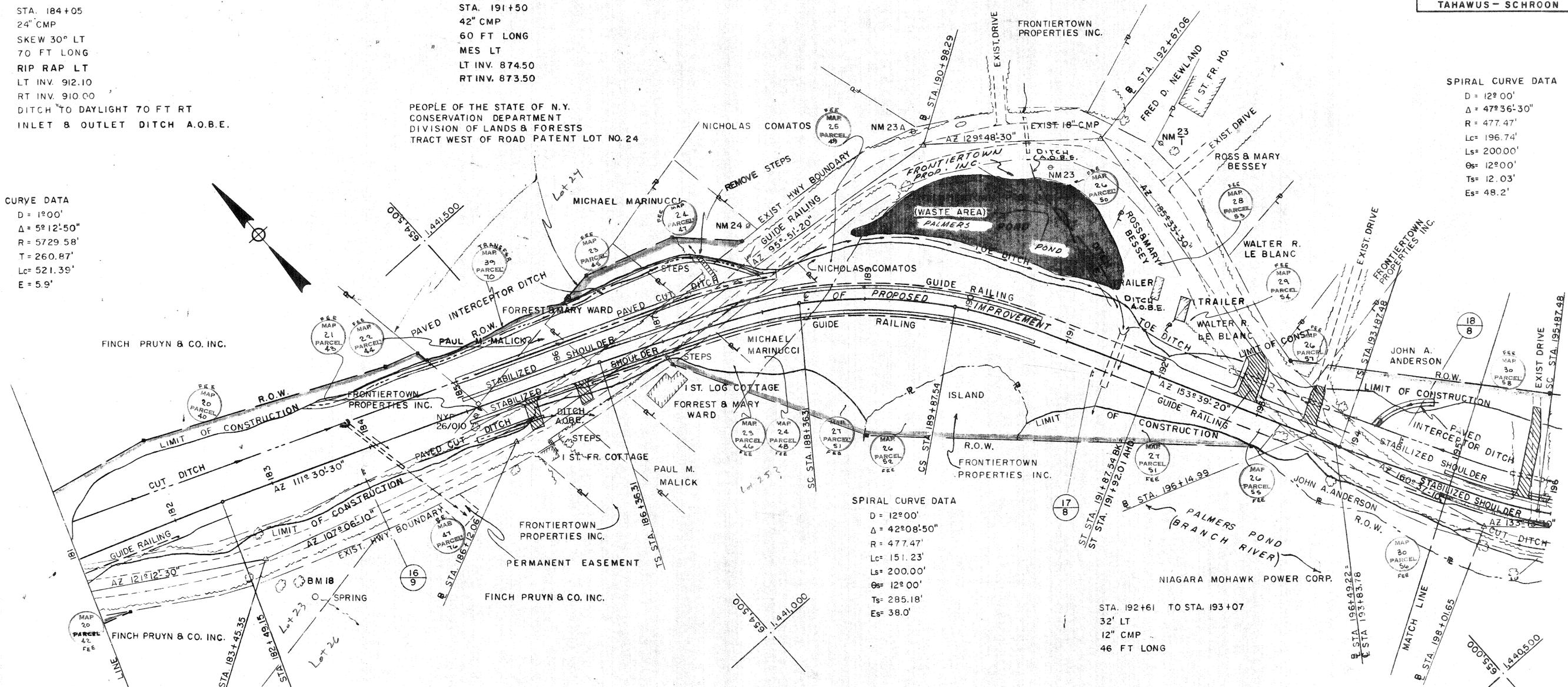
STA. 184+05  
24" CMP  
SKEW 30° LT  
70 FT LONG  
RIP RAP LT  
LT INV. 912.10  
RT INV. 910.00  
DITCH TO DAYLIGHT 70 FT RT  
INLET & OUTLET DITCH A.O.B.E.

STA. 191+50  
42" CMP  
60 FT LONG  
MES LT  
LT INV. 874.50  
RT INV. 873.50

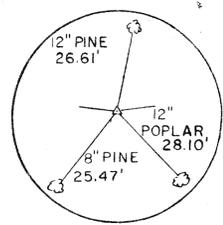
PEOPLE OF THE STATE OF N.Y.  
CONSERVATION DEPARTMENT  
DIVISION OF LANDS & FORESTS  
TRACT WEST OF ROAD PATENT LOT NO. 24

CURVE DATA  
D = 1°00'  
Δ = 5°12'50"  
R = 5729.58'  
T = 260.87'  
Lc = 521.39'  
E = 5.9'

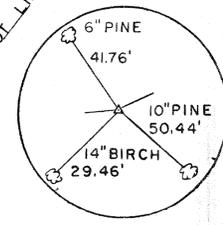
SPIRAL CURVE DATA  
D = 12°00'  
Δ = 47°36'30"  
R = 477.47'  
Lc = 196.74'  
Ls = 200.00'  
Os = 12°00'  
Ts = 12.03'  
Es = 48.2'



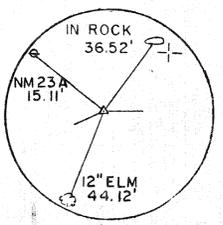
SPIRAL CURVE DATA  
D = 12°00'  
Δ = 42°08'50"  
R = 477.47'  
Lc = 151.23'  
Ls = 200.00'  
Os = 12°00'  
Ts = 285.18'  
Es = 38.0'



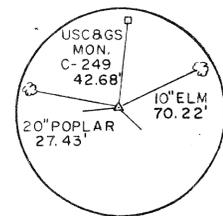
STA. 183+45.35



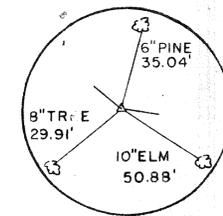
STA. 186+12.06



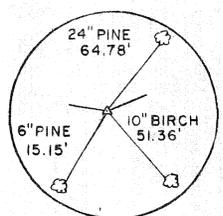
STA. 190+98.29



STA. 192+67.06



STA. 196+14.99



STA. 198+01.65

STA. 185+60 RT  
12' DRIVE TYPE G

STA. 185+50 TO STA. 185+70  
30' RT  
12" CMP  
20 FT LONG

STA. 186+13 RT  
12' DRIVE TYPE G

STA. 193+32 TO STA. 193+62  
32' LT  
12" CMP  
30 FT LONG

STA. 193+47 LT  
12' DRIVE TYPE G

STA. 192+84 LT  
18' DRIVE TYPE M

STA. 195+72 LT  
12' DRIVE TYPE G

STA. 195+56 TO STA. 195+88  
32' LT  
12" CMP  
32 FT LONG

**ADVANCE PRINT**

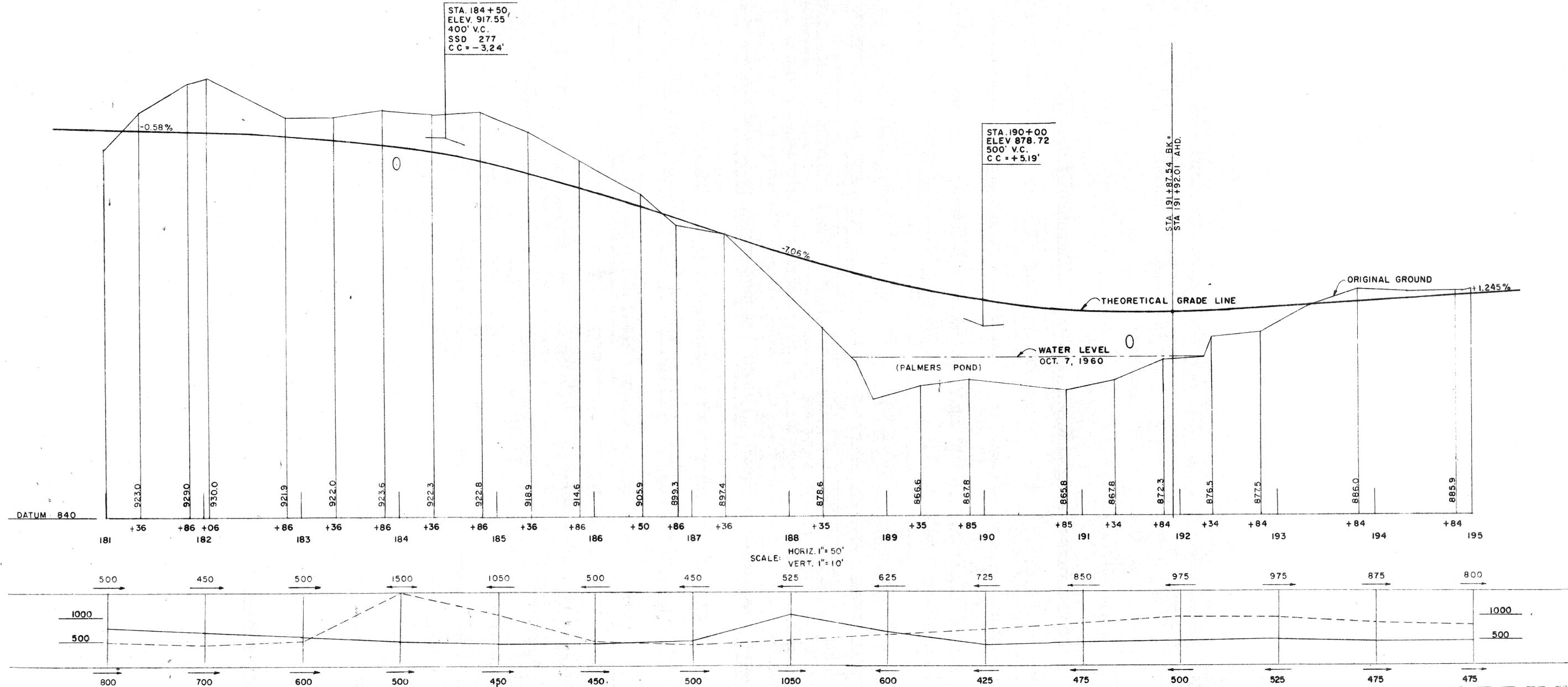
PREPARED PURSUANT TO THE HIGHWAY  
LAW AND RECOMMENDED BY  
*Frank J. Fuller*  
ENGINEER DISTRICT NO 1  
DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY  
BY  
*David A. Madigan*  
SUPT. OF HIGHWAYS  
DATED 2-25 19 61

PLAN  
SCALE: 1" = 50'

REVISIONS	DRAWN BY	DAVIDSON	PLAN STA. 181+00 TO STA. 195+00	DRAWING NO. 111
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-61		
PARTNER-IN-CHARGE			RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100
			REV. NO.	

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	N.Y.		45	52
TAHAWUS - SCHROON RIVER PART III				



MINIMUM SIGHT DISTANCE GRAPH  
 NOTE: SEE SHEET 21 FOR EXPLANATION

PREPARED PURSUANT TO THE HIGHWAY  
 LAW AND RECOMMENDED BY

APPROVED FOR ESSEX COUNTY  
 BY

ENGINEER DISTRICT NO. 1

SUPT. OF HIGHWAYS

DATED 6-2 19 61

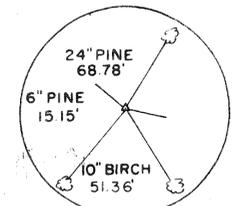
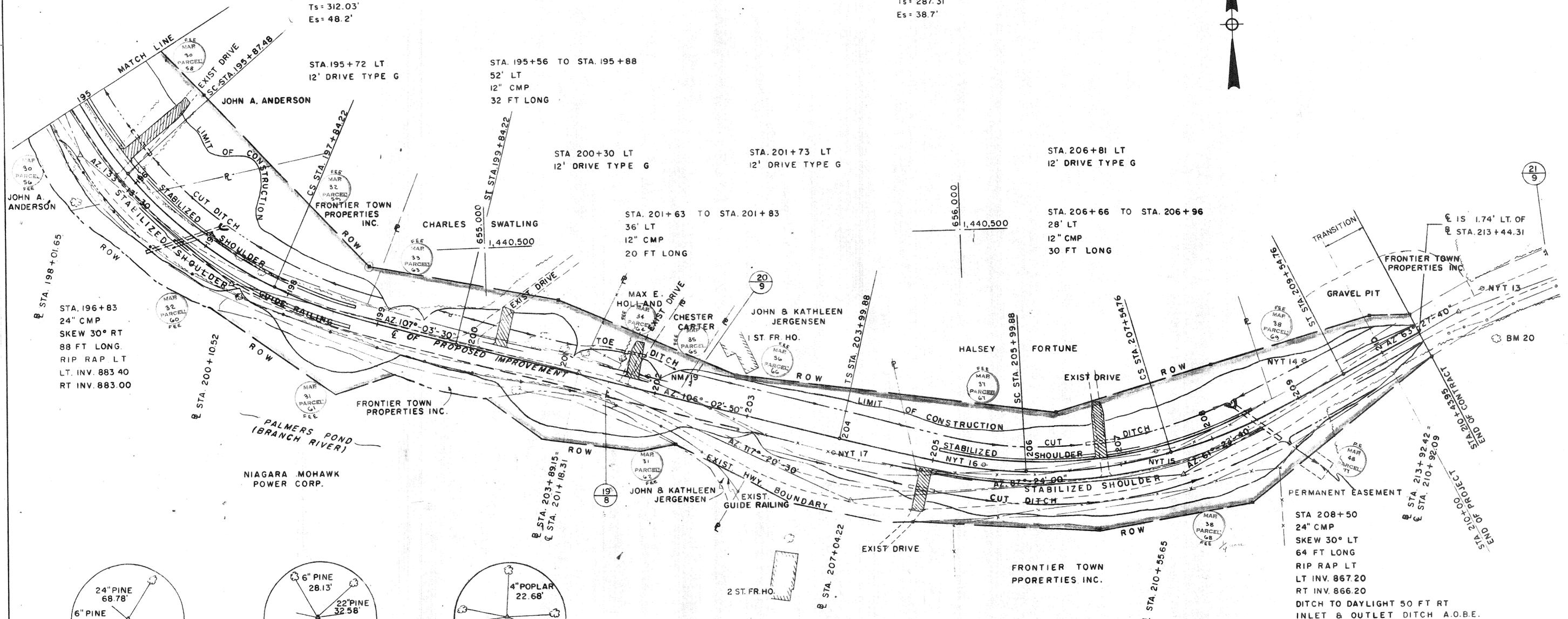
DATED 2-25 19 61

ADVANCE PRINT

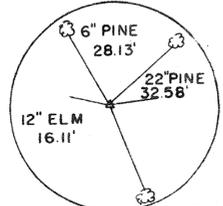
REVISIONS	DRAWN BY	PALMER	PROFILE STA. 181 + 00 TO STA. 195 + 00	DRAWING NO. 15
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-25-61		
PARTNER-IN-CHARGE		RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100	REV. NO.

SPIRAL CURVE DATA  
 D = 12°-00'  
 Δ = 47°-36'-30"  
 R = 477.47'  
 Lc = 196.74'  
 Ls = 200.00'  
 θs = 12°-00'  
 Ts = 312.03'  
 Es = 48.2'

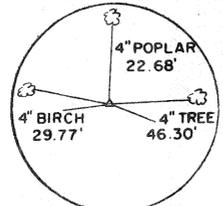
SPIRAL CURVE DATA  
 D = 12°-00'  
 Δ = 42°-35'-10"  
 R = 477.47'  
 Lc = 154.88'  
 Ls = 200.00'  
 θs = 12°-00'  
 Ts = 287.31'  
 Es = 38.7'



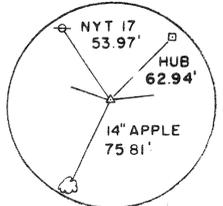
STA. 198+01.65



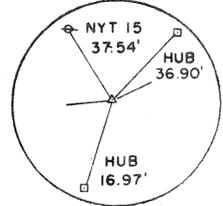
STA. 200+10.52



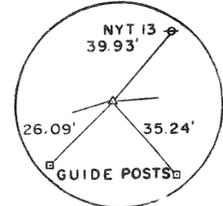
STA. 203+89.15



STA. 207+04.22



STA. 210+55.65



STA. 213+92.42

PLAN  
 SCALE: 1" = 50'

ADVANCE PRINT

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
 ENGINEER DISTRICT NO 1  
 DATED 6-2 19 61

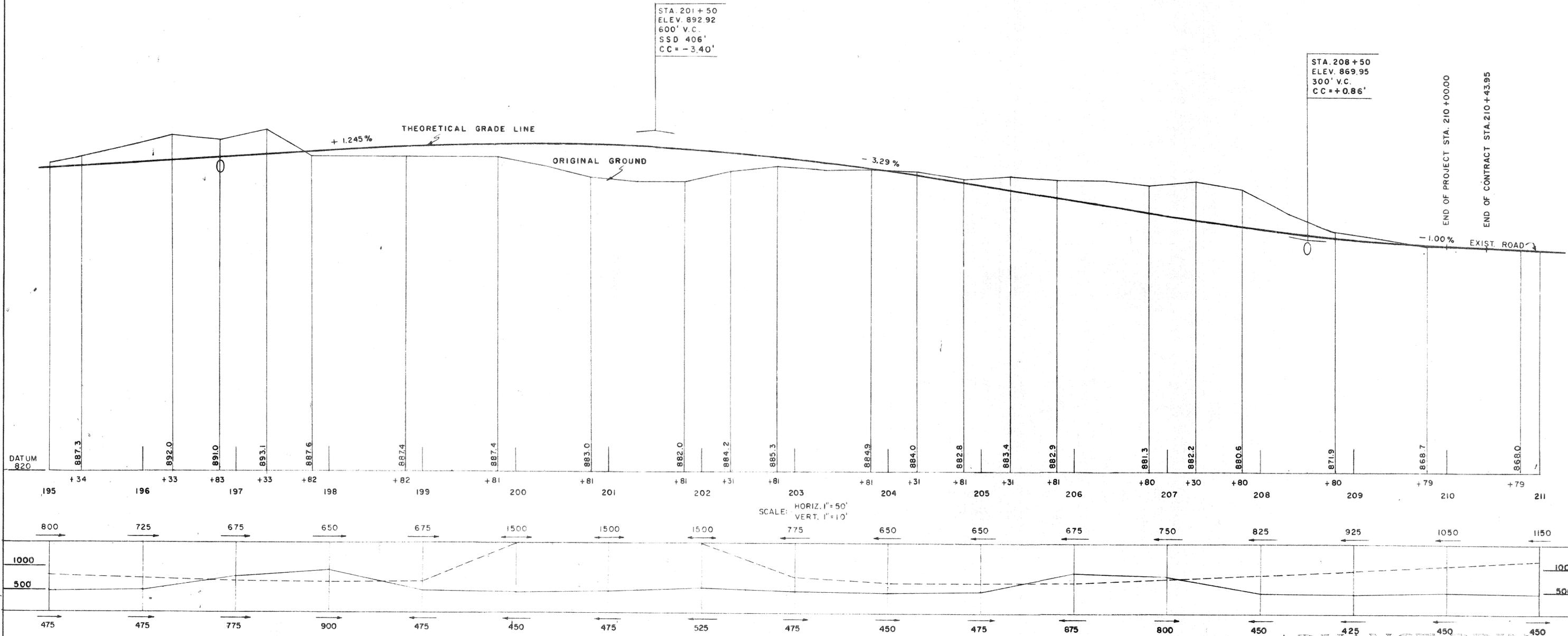
APPROVED FOR ESSEX COUNTY BY  
 SUPT OF HIGHWAYS  
 DATED 2-25 19 61

REVISIONS	DRAWN BY	HEWELL	PLAN STA. 195+00 TO STA. 211+00	DRAWING NO. 16
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-61		
PARTNER-IN-CHARGE			RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100 REV. NO.

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	N.Y.		47	52
TAHAWUS - SCHROON RIVER PART II				

STA. 201 + 50  
ELEV. 892.92  
600' V.C.  
SSD 406'  
CC = - 3.40'

STA. 208 + 50  
ELEV. 869.95  
300' V.C.  
CC = + 0.86'



MINIMUM SIGHT DISTANCE GRAPH  
NOTE: SEE SHEET 21 FOR EXPLANATION

PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
 APPROVED FOR ESSEX COUNTY BY  
 ENGINEER DISTRICT NO. 1  
 SUPT. OF HIGHWAYS  
 DATED 6-2 19 61  
 DATED 2-25 19 61

ADVANCE PRINT

REVISIONS	DRAWN BY	DEICH	PROFILE STA. 195+00 TO STA. 211+00	DRAWING NO. 17
	CHECKED	AUSTIN		
	SCALE	AS NOTED		
	ISSUE DATE	2-24-61		
PARTNER-IN-CHARGE		RIST BRIGHT AND FROST CONSULTING ENGINEERS GLENS FALLS, NEW YORK	PROJ. 100	REV. NO.

FED. ROAD REG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	N.Y.		48	52
TAHAWUS - SCHROON RIVER PART IV				

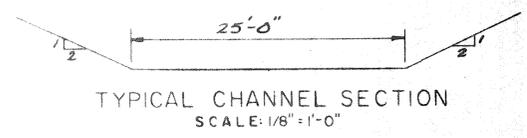
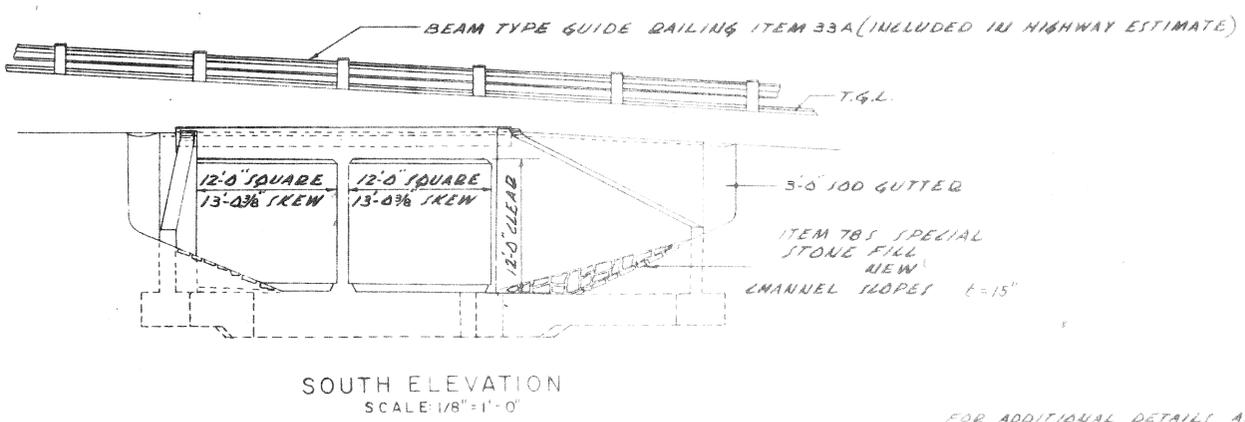
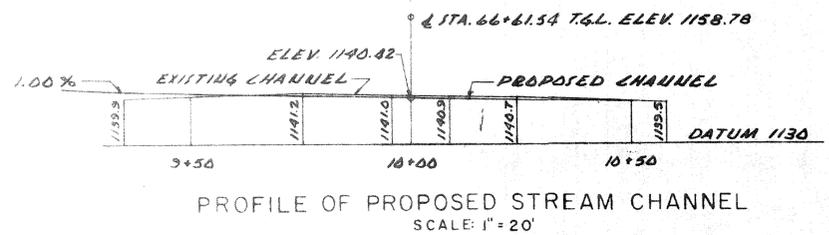
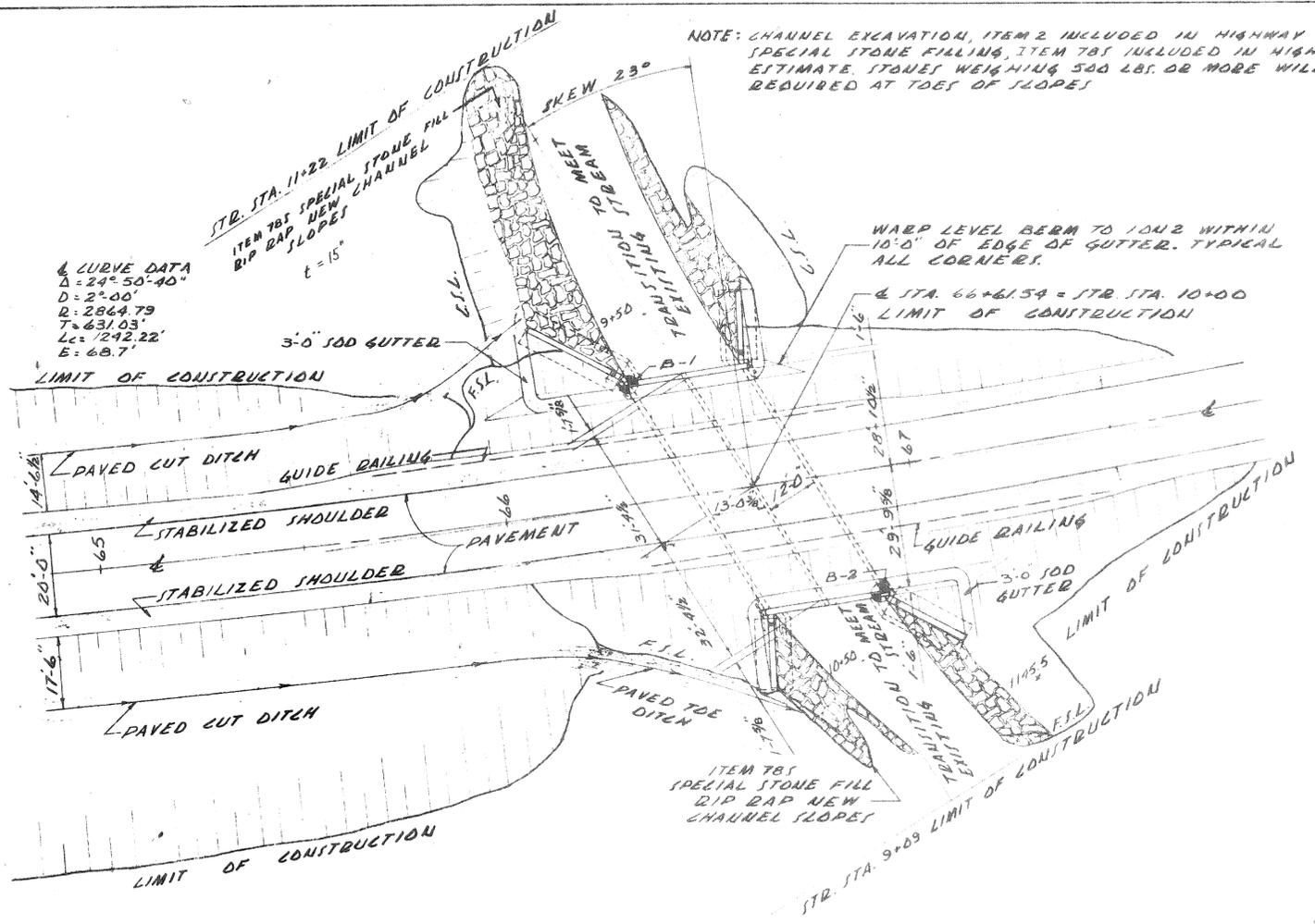
### ESTIMATE OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QUANTITY	
			NEAT	ROUND
2EFB	SELECTED FILL	CY	1000	1100
5X	TRENCH, CULVERT AND BRIDGE EXCAVATION	CY	412	453
15-2A	PORTLAND CEMENT-TYPE 2A	BBL	601	661
18X	CLASS 1A CONCRETE FOR STRUCTURES	CY	313	329
20X	CLASS 1 CONCRETE FOR STRUCTURES	CY	157	165
28BR	BAR REINFORCEMENT FOR STRUCTURES	LB	42,453	44,576
61	BITUMINOUS MATERIAL	GAL	174	183
15N	NATURAL CEMENT	BBL	86	95
12A	SODDING	S.F.	66	73

GENERAL NOTES

USE ITEM 18X IN THE BOX AND ITEM 20X IN THE WINGWALLS & FOOTINGS  
 ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED ONE INCH.  
 MAXIMUM BEARING PRESSURE SHALL BE 2 1/2 TONS PER SQ. FT..  
 DESIGNED IN ACCORDANCE WITH A.A.S.H.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES 1957 AS MODIFIED BY THE NEW YORK STATE DEPARTMENT OF PUBLIC WORKS. \*STANDARD PRACTICES FOR DESIGN OF BRIDGE STRUCTURES\* WITH CURRENT ADDITIONS AND MODIFICATIONS.  
 LIVE LOAD H20 - S16 - 44  
 FOR MATERIAL AND CONSTRUCTION - NEW YORK STATE DEPARTMENT OF PUBLIC WORKS. \*PUBLIC WORKS SPECIFICATIONS\* OF JAN. 2, 1957 WITH CURRENT ADDITIONS AND MODIFICATIONS AND STANDARD SPECIAL SPECIFICATIONS.  
 MINIMUM LAP FOR BAR REINFORCEMENT SPLICES SHALL BE 24 BAR DIAMETERS.  
 THERE WILL BE NO MORE THAN 2 CONSTRUCTION JOINTS IN THE BARREL, SPACED AS DIRECTED BY THE ENGINEER.  
 IDENTIFICATION PLATES SHALL BE FURNISHED FREE OF CHARGE TO THE CONTRACTOR AND SHALL BE INSTALLED BY THE CONTRACTOR. FOR DETAILS OF INSTALLATION, SEE STATE STANDARD SHEETS 40 - 101R AND 60 - 41.

NOTE: CHANNEL EXCAVATION, ITEM 2 INCLUDED IN HIGHWAY ESTIMATE.  
 SPECIAL STONE FILLING, ITEM 7B5 INCLUDED IN HIGHWAY ESTIMATE. STONES WEIGHING 500 LBS. OR MORE WILL BE REQUIRED AT TOES OF SLOPES



PREPARED PURSUANT TO THE HIGHWAY LAW AND RECOMMENDED BY  
*Frank J. Frost*  
 ENGINEER DISTRICT NO 1  
 DATED 6-2 19 61

APPROVED FOR ESSEX COUNTY BY  
*Robert G. Dalton*  
 SUPT OF HIGHWAYS  
 DATED 2-25 19 61

FOR ADDITIONAL DETAILS AND INFORMATION REFER TO STATE STANDARD SHEET 40-101R, 58-101, 58-101A, 58-101B, 60-41

REVISIONS	DRAWN BY	W.J.L.	<b>BRIDGE SITE PLAN</b>	DRAWING NO. <b>1</b>
	CHECKED	G.K.		
	SCALE	AS NOTED		
	ISSUE DATE	2/28/61		
PARTNER-IN-CHARGE			<b>RIST BRIGHT AND FROST</b>	PROJ. NO. 100
			CONSULTING ENGINEERS GLENS FALLS, NEW YORK	REV. NO.