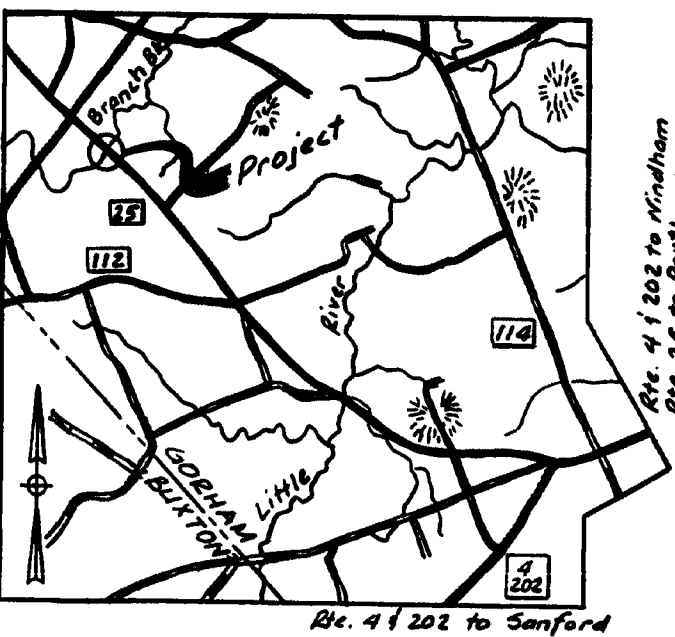
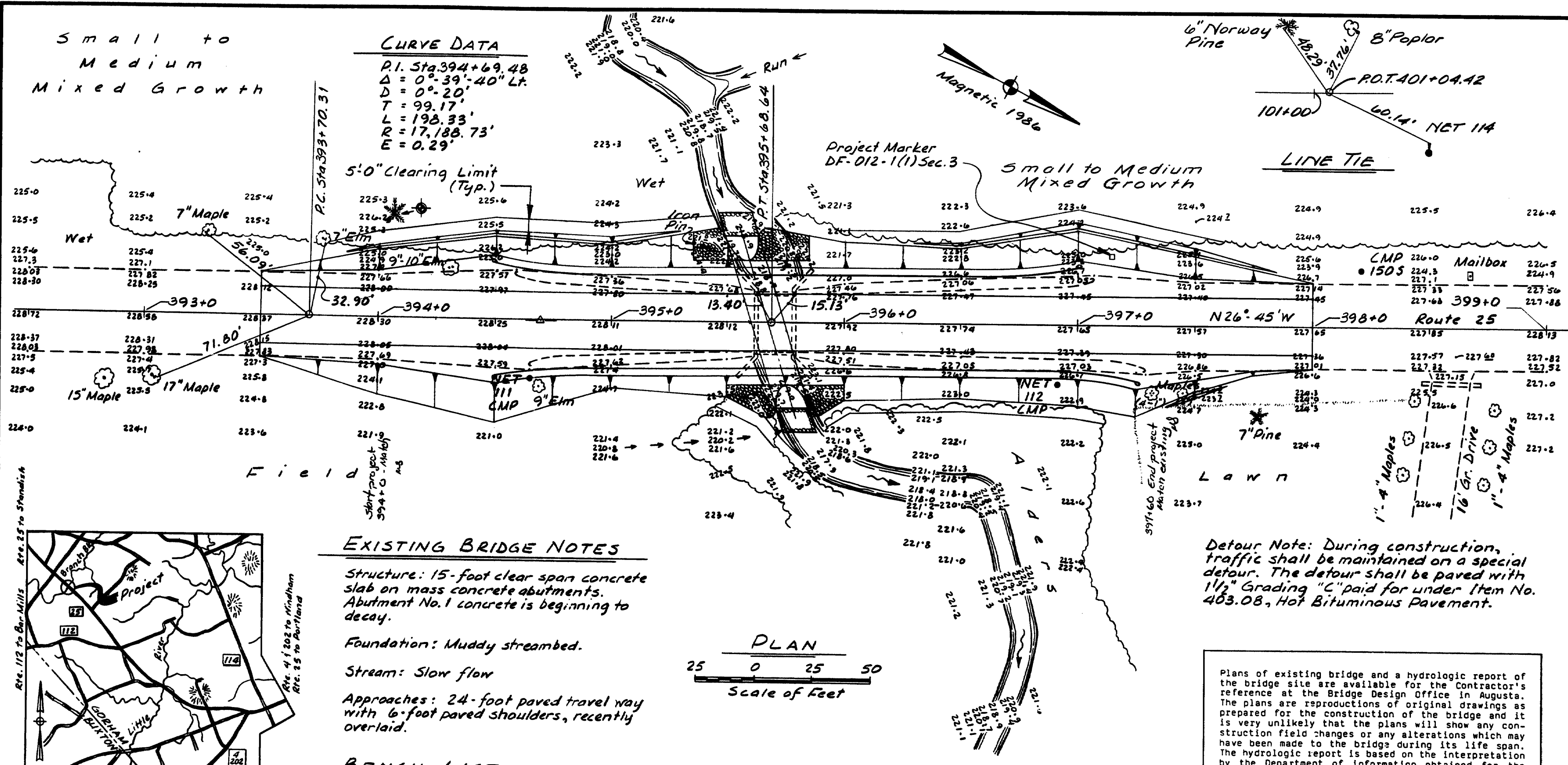


Small to  
Medium  
Mixed Growth

#### CURVE DATA

P.I. Sta. 394+69.48  
Δ = 0° 39' 40" Lt.  
D = 0° 20' 40" Lt.  
T = 99.17'  
L = 198.33'  
R = 17,188.73'  
E = 0.29'

5'0" Clearing Limit  
(Typ.)



#### EXISTING BRIDGE NOTES

Structure: 15-foot clear span concrete slab on mass concrete abutments.  
Abutment No. 1 concrete is beginning to decay.

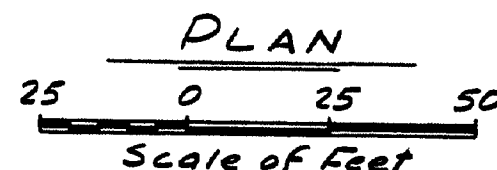
Foundation: Muddy streambed.

Stream: Slow flow

Approaches: 24-foot paved travel way with 6-foot paved shoulders, recently overlaid.

#### BENCH LIST

BM 94: VSR in 20" Pine Sta. 394+07.44 Lt. EL. 227.34  
BM 90: VS in tipped 6" Maple Sta. 389+96.42 Lt. EL. 227.33



Detour Note: During construction, traffic shall be maintained on a special detour. The detour shall be paved with 1 1/2" Grading "C" paid for under Item No. 403.08, Hot Bituminous Pavement.

Plans of existing bridge and a hydrologic report of the bridge site are available for the Contractor's reference at the Bridge Design Office in Augusta. The plans are reproductions of original drawings as prepared for the construction of the bridge and it is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span. The hydrologic report is based on the interpretation by the Department of Information obtained for the subject site and no assurance is given that the information or the conclusions of the report will be representative of actual conditions at the time of construction.

#### SPECIFICATIONS

DESIGN: Load Factor Design per AASHTO Standard Specifications for Highway Bridges 1983 and Interim Specifications thru 1988.

CONTRACT: State of Maine, Department of Transportation, Standard Specifications Highways & Bridges, Revision of July 1988.

#### DESIGN LOADING

LIVE LOAD: HS25

#### TRAFFIC DATA

AADT 1987: 7,350  
AADT 2007: 11,700  
DHY: 1,294  
T%: 10  
D%: 60  
Bk P2.5: 201

#### HYDROLOGIC DATA

Drainage Area = 4.74 sq. mi  
Design Discharge (Q50) = 575 cfs  
Check Discharge (Q100) = 650 cfs  
Headwater Elev. (Q50) = 225.7'  
Headwater Elev. (Q100) = 226.4'  
Discharge Velocity (Q50) 7.4 fps  
Discharge Velocity (Q100) 8.5 fps  
Area of Opening 93 sq. ft.

#### GENERAL NOTES

1. Do not excavate for Aggregate Subbase Course where existing material is suitable as determined by the Engineer. Payment for shaping and compacting of the existing subbase and layers of new subbase six inches or less thick, in areas where the Engineer directs the Contractor not to excavate to the subgrade line shown on the plans, will be in accordance with Sub-section 104.03, Extra Work.

2. Sodded gutters shall be constructed, after paving and shoulder work is completed, where it is apparent that runoff will cause continual erosion.

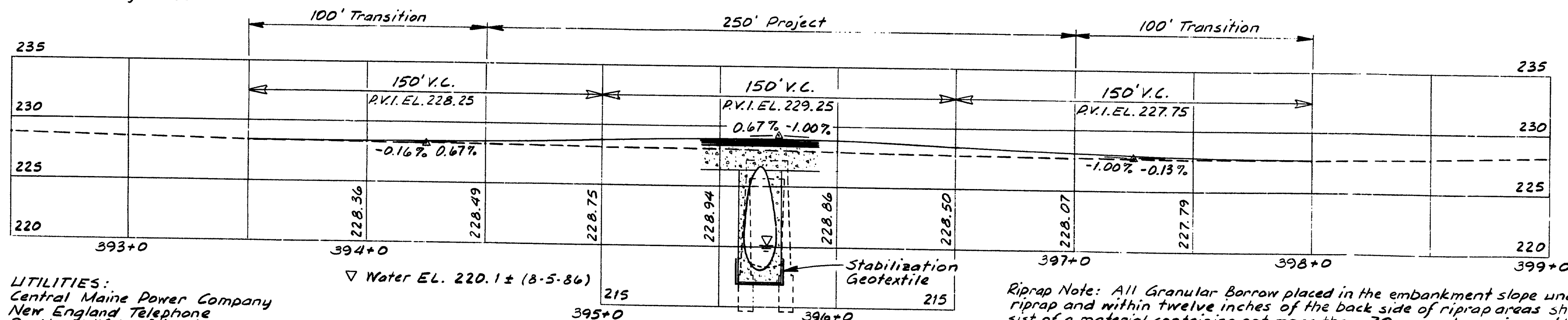
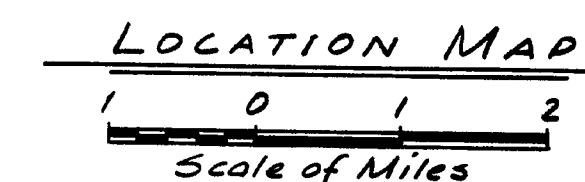
3. The existing beam-type guard rail, including the Breakaway Cable Terminals, shall be removed and reset (and new lengths added) to the limits shown. Any damaged or unusable portions, as determined by the Engineer, shall be replaced. Payment will be made under the appropriate guard rail items.

Survey Book No. 12/164  
Bridge No. 2370

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

HIGGINS BRIDGE  
OVER  
BRANCH BROOK  
IN THE TOWN OF  
GORHAM  
CUMBERLAND COUNTY  
GENERAL PLAN

SHEET 1 OF 5 AUGUSTA, MAINE



#### PROFILE

Riprap Note: All Granular Borrow placed in the embankment slope under the riprap and within twelve inches of the back side of riprap areas shall consist of a material containing not more than 70 percent passing a 1/4 inch mesh sieve and not more than 10 percent passing a 200 mesh sieve. The cost of furnishing and placing the material will be paid for under the Contract unit price per cubic yard of Granular Borrow.

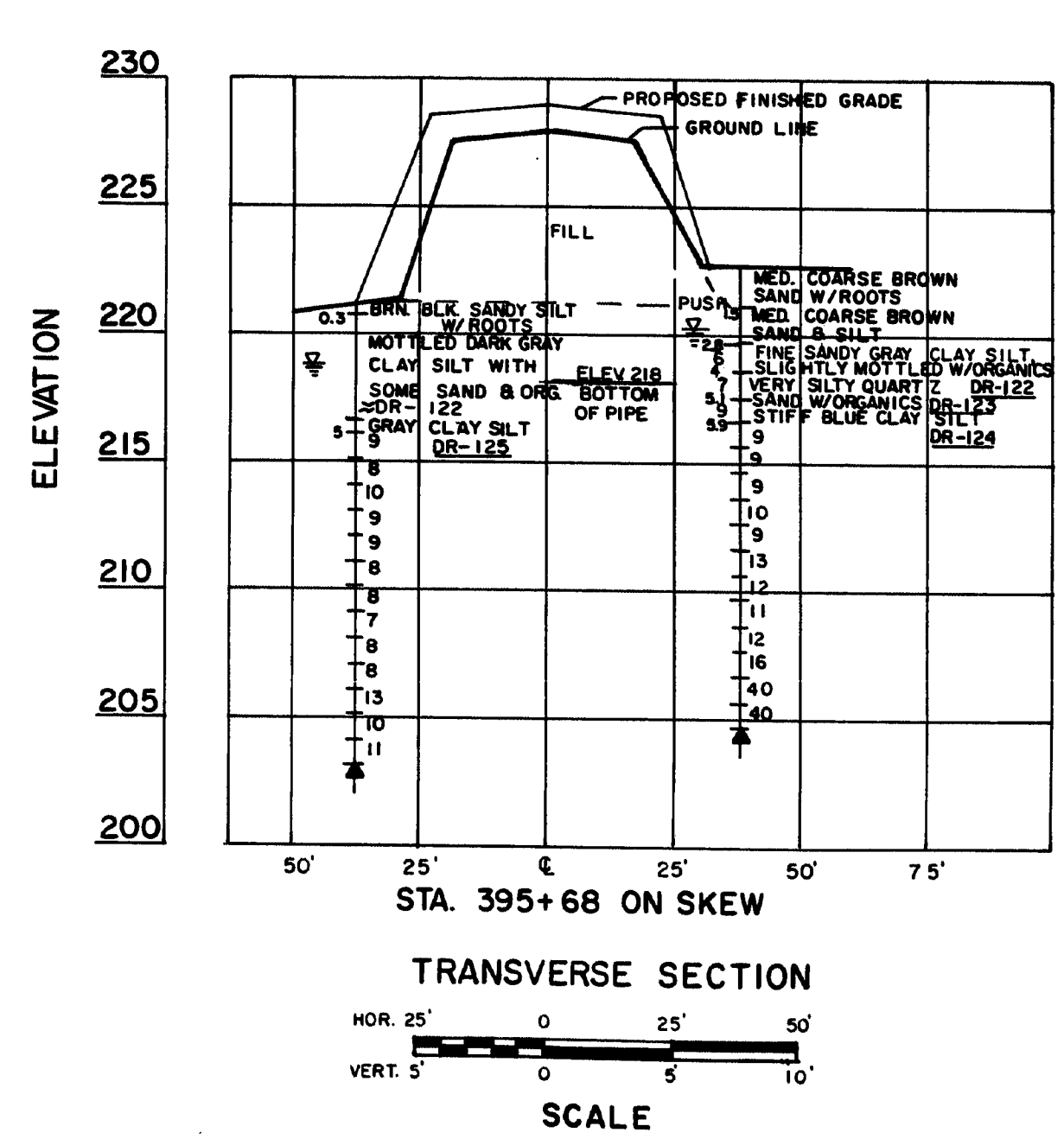
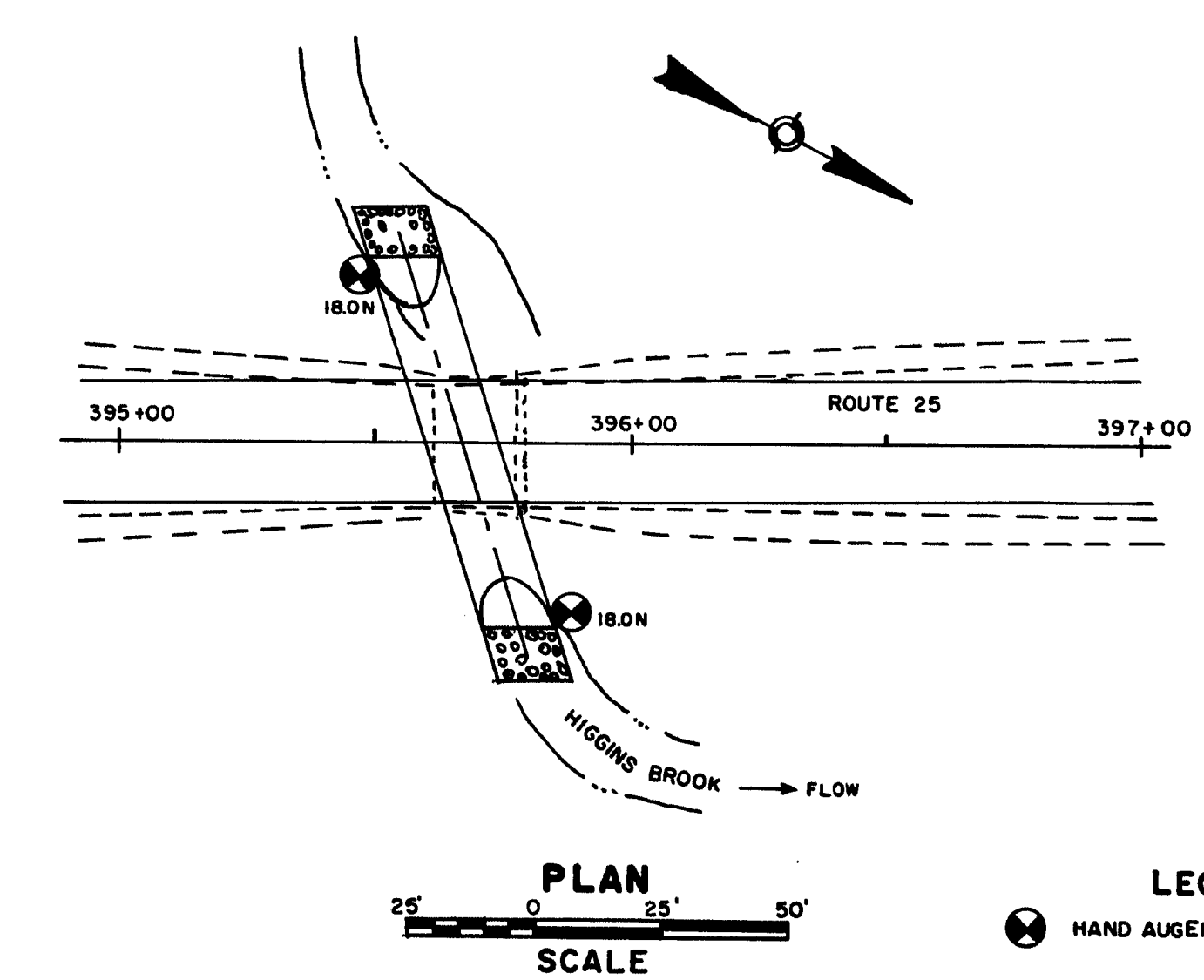
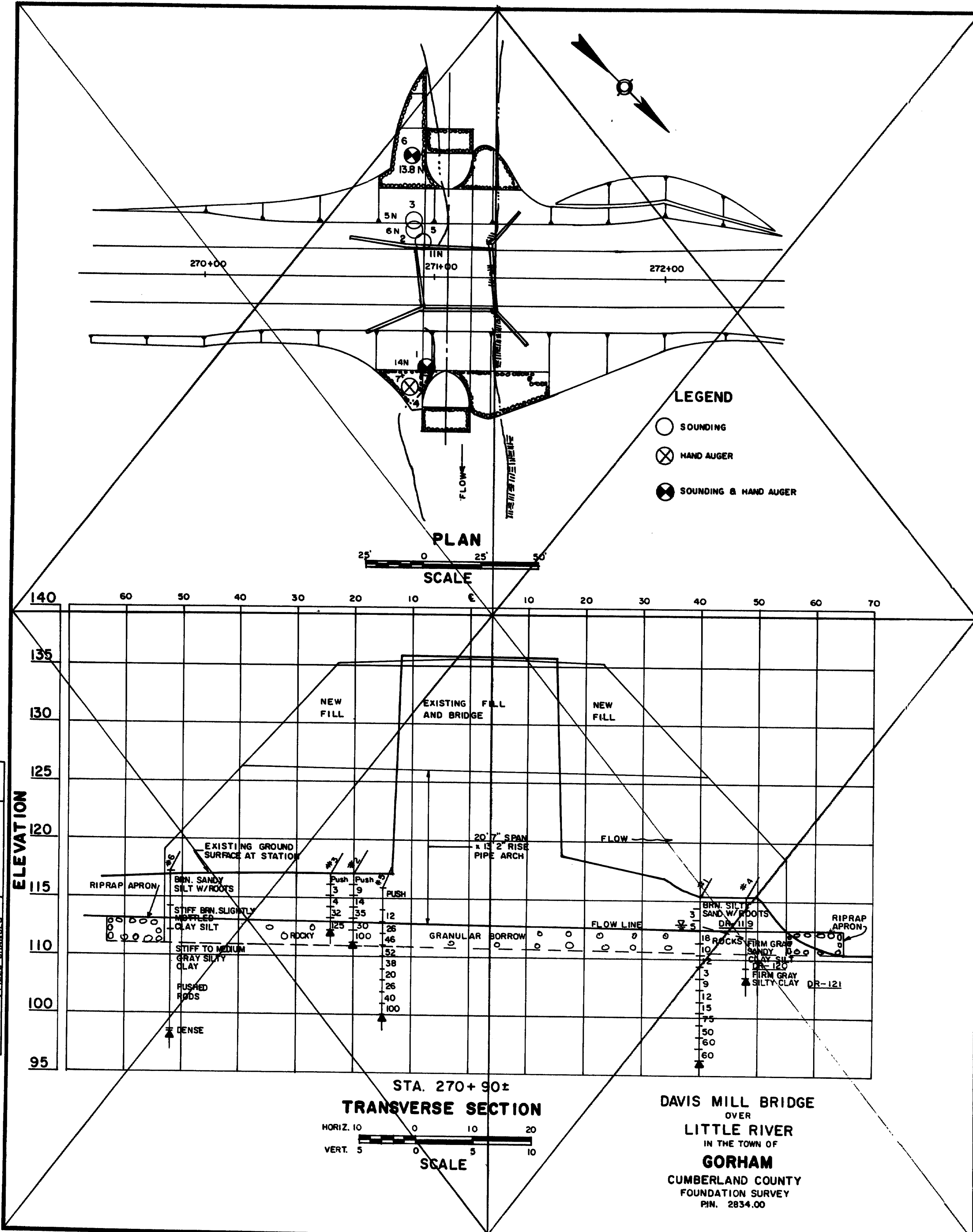
105-88

Plotted by DMD 12-86

| PROJECT           | DESIGN | ENGINEER | DATE   |
|-------------------|--------|----------|--------|
| DESIGN - DETAILED | ECT    | D. Dwyer | Jan 78 |
| CHECKED           | CTM    |          | 7-88   |
| REVISIONS         |        |          |        |
| FIELD CHANGES     |        |          |        |

LIMITATIONS:  
Central Maine Power Company  
New England Telephone  
Portland Water District  
Public Cable Company

| F.R.S.A.<br>REV. NO. | STATE | PROJECT NUMBER | SHEET<br>NO. | TOTAL<br>SHEETS |
|----------------------|-------|----------------|--------------|-----------------|
| 1                    | MAINE | 2839.00        | 15           | 32              |



**105-89**

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

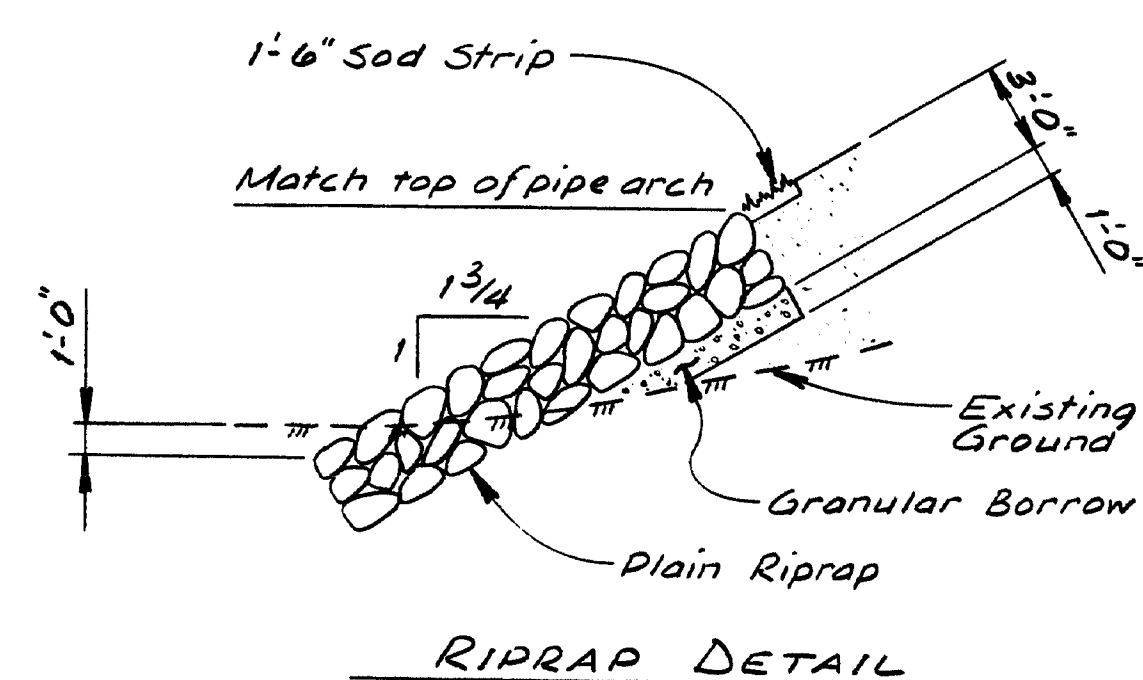
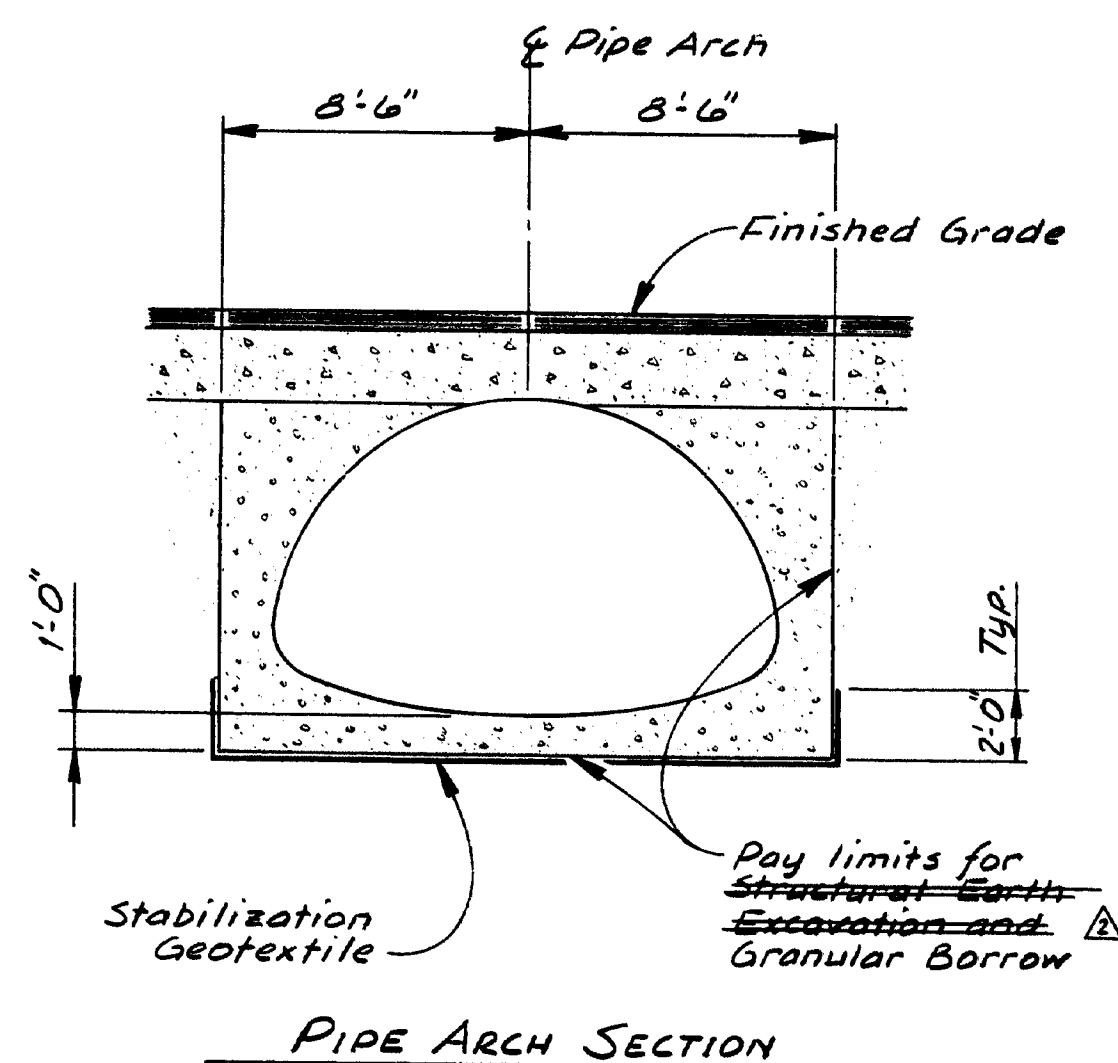
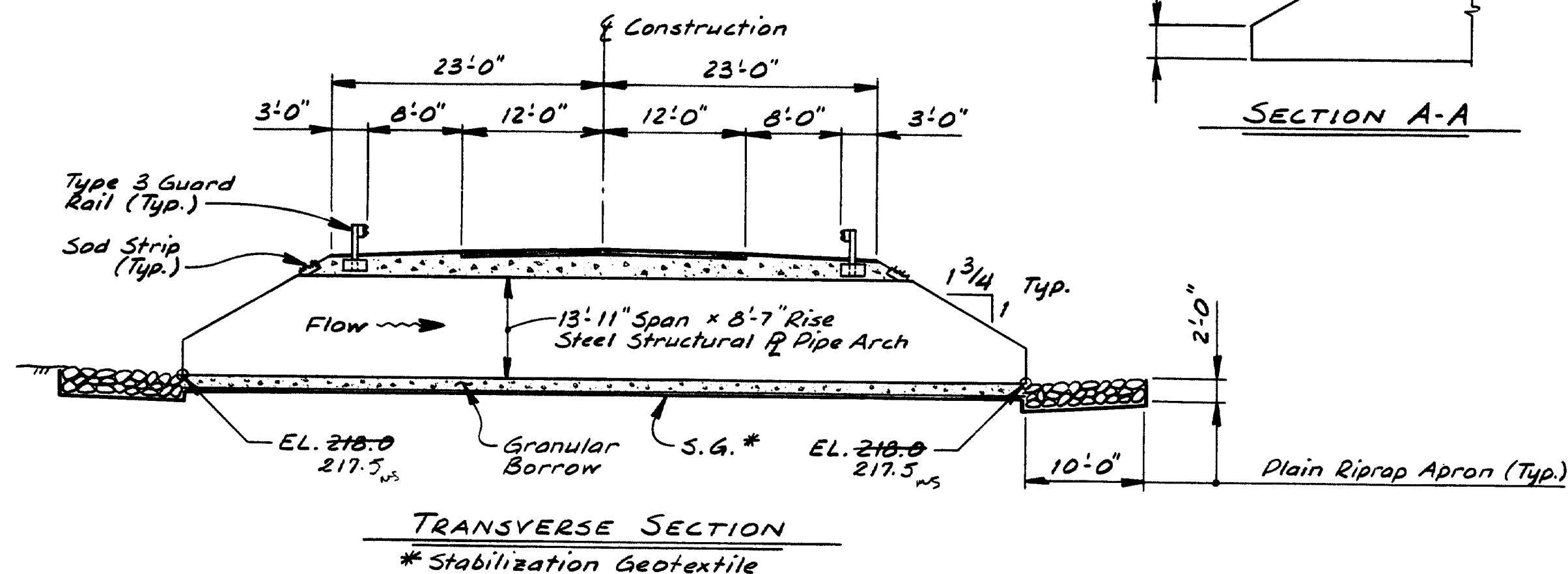
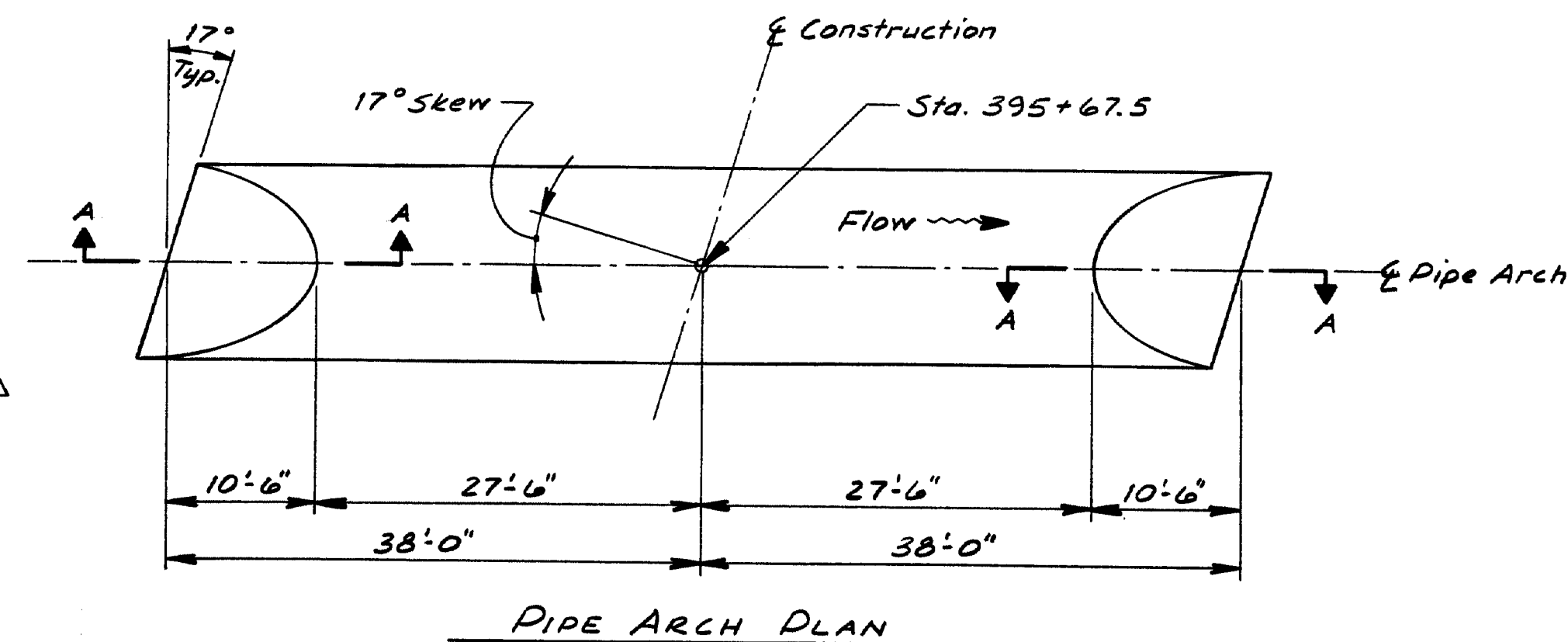
HIGGINS BRIDGE  
OVER  
BRANCH BROOK  
IN THE TOWN OF  
GORHAM  
CUMBERLAND COUNTY  
FOUNDATION SURVEY

SHEET 2 OF 5 AUGUSTA, MAINE

|                         |            |
|-------------------------|------------|
| PROJECT DESIGN ENGINEER | DATE       |
| DESIGN - DETAILED       | 10/20/2010 |
| CHECKED                 | 10/20/2010 |
| REVISIONS               | 1-01       |
| FIELD CHANGES           |            |
| PLANS                   |            |

BRWING 44129 2010-1

| ESTIMATED QUANTITIES |                                                       |                |                 |
|----------------------|-------------------------------------------------------|----------------|-----------------|
| Item                 | Description                                           | Quantity       | Unit            |
| 202.19               | Removing Existing Bridge                              | 1              | L.S.            |
| 203.20               | Common Excavation                                     | 1160           | C.Y.            |
| 203.24               | Common Borrow                                         | 10             | C.Y.            |
| 203.25               | Granular Borrow                                       | 285            | C.Y.            |
| <del>206.06</del>    | <del>Structural Earth Excavation - Drainage and</del> |                |                 |
|                      | <del>Minor Structures, Below Grade</del>              | <del>120</del> | <del>C.Y.</del> |
| 301.09               | Plant Mix Bituminous Base Course, Grading "B"         | 240            | Ton             |
| 304.10               | Aggregate Subbase Course - Gravel                     | 1680           | C.Y.            |
| 403.07               | Hot Bituminous Pavement, Grading "B"                  | 115            | Ton             |
| 403.08               | Hot Bituminous Pavement, Grading "C"                  | 265            | Ton             |
| 509.12               | 167-Inch Span x 103-Inch Rise Steel                   |                |                 |
|                      | Structural Plate Pipe Arch (25,200 Lb.)               | 1              | L.S.            |
| 510.10               | Special Detour, 22-Foot Roadway Width,                |                |                 |
|                      | Vehicle and Pedestrian Traffic Not Separated          | 1              | L.S.            |
| 606.351              | Guard Rail Delineator Post Remove and Reset           | 4              | Each            |
| 606.36               | Guard Rail, Remove and Reset                          | 450            | L.F.            |
| 606.367              | Replace Unusable Existing Guard Rail Post             | 6              | Each            |
| 606.55               | Guard Rail Type 3 - Single Rail                       | 75             | L.F.            |
| 610.08               | Plain Riprap                                          | 180            | C.Y.            |
| 615.07               | Loam                                                  | 60             | C.Y.            |
| 616.08               | Sodding                                               | 20             | S.Y.            |
| 618.14               | Seeding, Method No. 2                                 | 11             | Unit            |
| 619.12               | Mulch                                                 | 11             | Unit            |
| 620.54               | Stabilization Geotextile                              | 250            | S.Y.            |
| 627.61               | 4 Inch Solid White Pavement Marking Line              | 900            | L.F.            |
| 627.64               | 4 Inch Broken Yellow Pavement Marking Line            | 450            | L.F.            |
| 627.68               | Temp. 4" Painted Pav. Mark. Line, Yellow or White     | 2500           | L.F.            |
| 637.07               | Sprinkling                                            | 17             | M.G.            |
| 637.08               | Calcium Chloride                                      | 2              | Ton             |
| 639.19               | Field Office Type "B"                                 | 0.3            | Each            |
| 652.31               | Type 1 Barricade                                      | 10             | Each            |
| 652.33               | Drum                                                  | 10             | Each            |
| 652.34               | Cone                                                  | 10             | Each            |
| 652.35               | Construction Signs                                    | 300            | S.F.            |
| 652.361              | Maintenance of Traffic Control Devices                | 0.3            | L.S.            |
| 652.38               | Flagger                                               | 50             | M.H.            |
| 656.50               | Baled Hay, In Place                                   | 6              | Each            |
| 656.51               | Sandbags, In Place                                    | 6              | Each            |
| 656.63               | Temporary Silt Fence                                  | 200            | L.F.            |
| 659.10               | Mobilization                                          | 0.24           | L.S.            |



Note: 6" of gravel substrate installed in structure as per permit NS

NOTE: All material placed below EL. 222.0 shall be Granular Borrow. See Note No. 2, this sheet.

△ Addendum No. 2

### CONSTRUCTION NOTES

1. One 167-inch span by 103-inch rise steel structural plate pipe arch is required. Top plates shall be 0.138 inch, and bottom and corner plates shall be 0.188 inch.

2. Granular Borrow shall meet the requirements of Sub-section 703.19, Material for Underwater Backfill.

3. Riprap adjacent to the pipe arch shall be carefully placed so as not to damage the pipe arch and so that the finished slope will match the ends of the pipe arch. Any extra labor, material or equipment used will be considered incidental to Item No. 610.08, Plain Riprap.

4. Place an 18-inch wide strip of sod along the top of the riprap and over the pipe arch at both ends.

5. Guard rail posts within the limits of the structure shall be cut to length in the field as required to clear the structure by a minimum of six inches. Cut posts shall be imbedded nine inches in a concrete base two feet square by one foot thick. The concrete mix shall be as approved by the Engineer. Any costs for this work will be considered incidental to the guard rail pay items.

6. The existing bridge shall be removed in its entirety.

7. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.

8. For easements, construction limits and right of way lines, refer to Right of Way Map.

9. The clearing limits shown on the plans are approximate. The exact limits will be established in the field by the Engineer. Payment for clearing will be considered incidental to contract items.

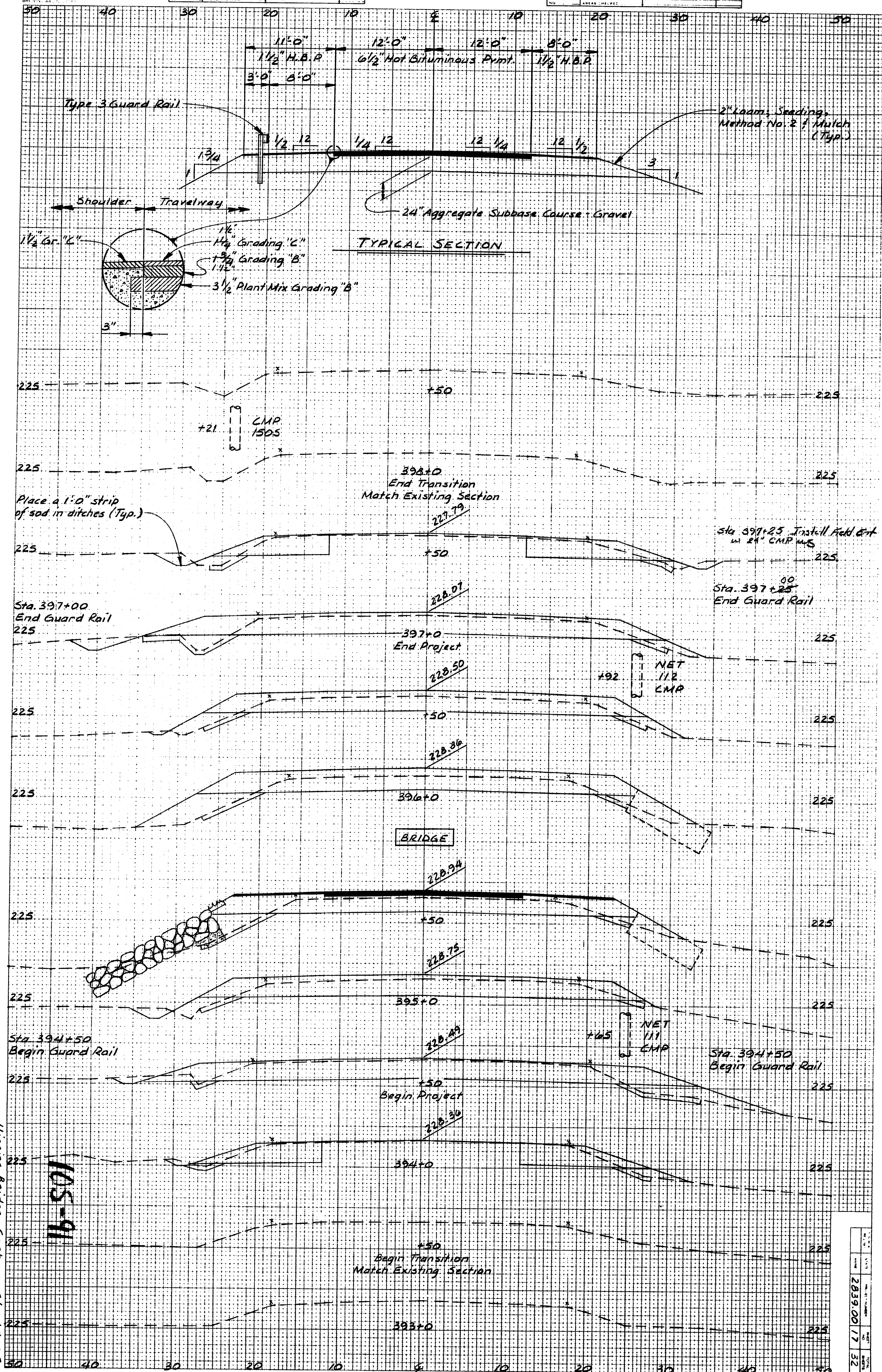
10. Breakaway Cable Terminals shall be installed concurrent with each section of beam guard rail. Payment will be made under Item No. 606.36.

105-90

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

HIGGINS BRIDGE  
OVER  
BRANCH BROOK  
IN THE TOWN OF  
GORHAM  
CUMBERLAND COUNTY  
QUANTITIES AND DETAILS

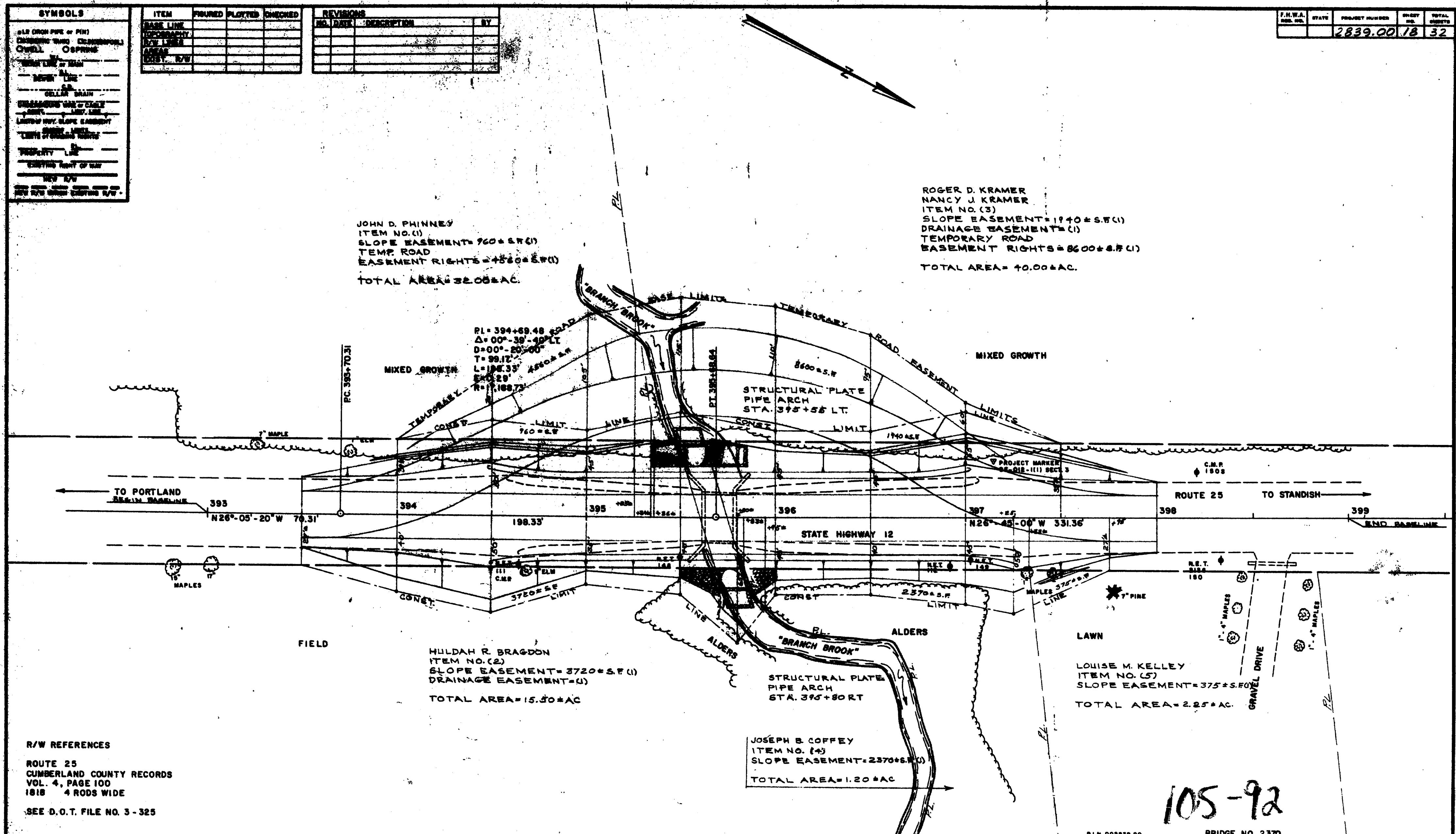
|                        |           |     |      |
|------------------------|-----------|-----|------|
| Plans Checked RTA 1-80 |           |     |      |
| FINAL<br>SURVEY        | SURVEYED  | BY  | DATE |
|                        | PLATTED   | GMD | 1-88 |
| NOTE BOOK              | TEMP. ATE | GMD | 1-88 |
|                        | AREAS     |     |      |



| SYMBOLS                    |  |
|----------------------------|--|
| ALL (IRON PIPE OR PIN)     |  |
| CONCRETE WALL - CUMBERLAND |  |
| OVERALL - CUMBERLAND       |  |
| RIGHT LINE - 2" DIA        |  |
| SEWER LINE                 |  |
| CELLAR DRAIN               |  |
| GRASSY BANK - 10' WIDE     |  |
| LANDSCAPE - 10' WIDE       |  |
| TEMPORARY ROAD EASEMENT    |  |
| LIMIT OF EASEMENT          |  |
| PROPERTY LINE              |  |
| EXISTING RIGHT OF WAY      |  |
| NEW R/W                    |  |
| NEW R/W WITH EXISTING R/W  |  |

| ITEM                       | PIECED | PLOTTED | CHECKED | REVISIONS | NO. | DATE | DESCRIPTION | BY |
|----------------------------|--------|---------|---------|-----------|-----|------|-------------|----|
| BASE LINE                  |        |         |         |           |     |      |             |    |
| TEMPORARY ROAD EASEMENT    |        |         |         |           |     |      |             |    |
| STRUCTURAL PLATE PIPE ARCH |        |         |         |           |     |      |             |    |
| BRANCH BROOK               |        |         |         |           |     |      |             |    |
| ALDERS                     |        |         |         |           |     |      |             |    |
| MAPLES                     |        |         |         |           |     |      |             |    |
| GRASS                      |        |         |         |           |     |      |             |    |
| CONST. E/W                 |        |         |         |           |     |      |             |    |

| F.H.W.A. | STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
|----------|-------|----------------|-----------|--------------|
|          |       | 2839.00        | 18        | 32           |



R/W REFERENCES  
ROUTE 25  
CUMBERLAND COUNTY RECORDS  
VOL. 4, PAGE 100  
1818 4 RODS WIDE  
SEE D.O.T. FILE NO. 3-325

| PLAN FILED IN PLAN BOOK |         | PAGE                     |                |
|-------------------------|---------|--------------------------|----------------|
| NO.                     | GRANTOR | COUNTY RECORD INSTRUMENT | DATE BOOK PAGE |
|                         |         |                          |                |
|                         |         |                          |                |
|                         |         |                          |                |
|                         |         |                          |                |
|                         |         |                          |                |
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|                         |         |                          |                |

| MAINE STATE COORDINATE SYSTEM - ZONE |       |      |                      |       |      |
|--------------------------------------|-------|------|----------------------|-------|------|
| CONTROL MONUMENTS                    |       |      | TRAV. CONTROL POINTS |       |      |
| STATION                              | NORTH | EAST | NUMBER               | NORTH | EAST |
|                                      |       |      |                      |       |      |
|                                      |       |      |                      |       |      |
|                                      |       |      |                      |       |      |
|                                      |       |      |                      |       |      |
|                                      |       |      |                      |       |      |

105-92

BRIDGE NO. 2370  
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
RIGHT OF WAY MAP  
STATE HIGHWAY 12  
GORHAM CUMBERLAND COUNTY  
FEDERAL AID PROJECT NO. F-012-1(38)

APPROVED:  
DATE: FEBRUARY 1988  
SCALE: 1 INCH = 25 FEET  
SHEET NO. 1 OF 1 SHEETS  
D.O.T. FILE NO. 3-361

RICHARD A. COLEMAN CHIEF ENGINEER