

All Granular Borrow placed in the embankment slope under the riprap and within 12 inches of the back side of the riprap areas shall consist of a material containing not more than 10 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 Item 203.25, Granular Borrow.

### SCOPE OF WORK (Whitney Brook Bridge)

Widen superstructure downstream and remove existing upstream sidewalk to facilitate 44 feet curb to curb with a new 5 foot sidewalk located downstream. Remove existing wearing surface to top of existing slab. Add new bituminous wearing surface with membrane waterproofing, 2-bar aluminum bridge railing upstream and 3-bar aluminum bridge railing with poles downstream. Widening to be concrete T-beams as shown. Abutments to be widened downstream. Widened portions to be cantilever type with front batters similar to existing. Abutments are to rest on spread footings.

Stage construction with a minimum of 19 feet for two way traffic shall be maintained.

### SPECIFICATIONS

DESIGN: Load Factor Design per AASHTO Standard Specifications for Highway Bridges 1983 and Interim Specifications 1984 thru 1987.  
CONTRACT: State of Maine Department of Transportation Standard Specifications Highway Bridges, Edition of 1988.

DESIGN LOADING: ... Live Load: ... HS25

### MATERIALS

CONCRETE: ... Footings Class B, All other Class A  
REINFORCING STEEL: ... ASTM A615 Grade 60

### BASIC DESIGN STRESSES

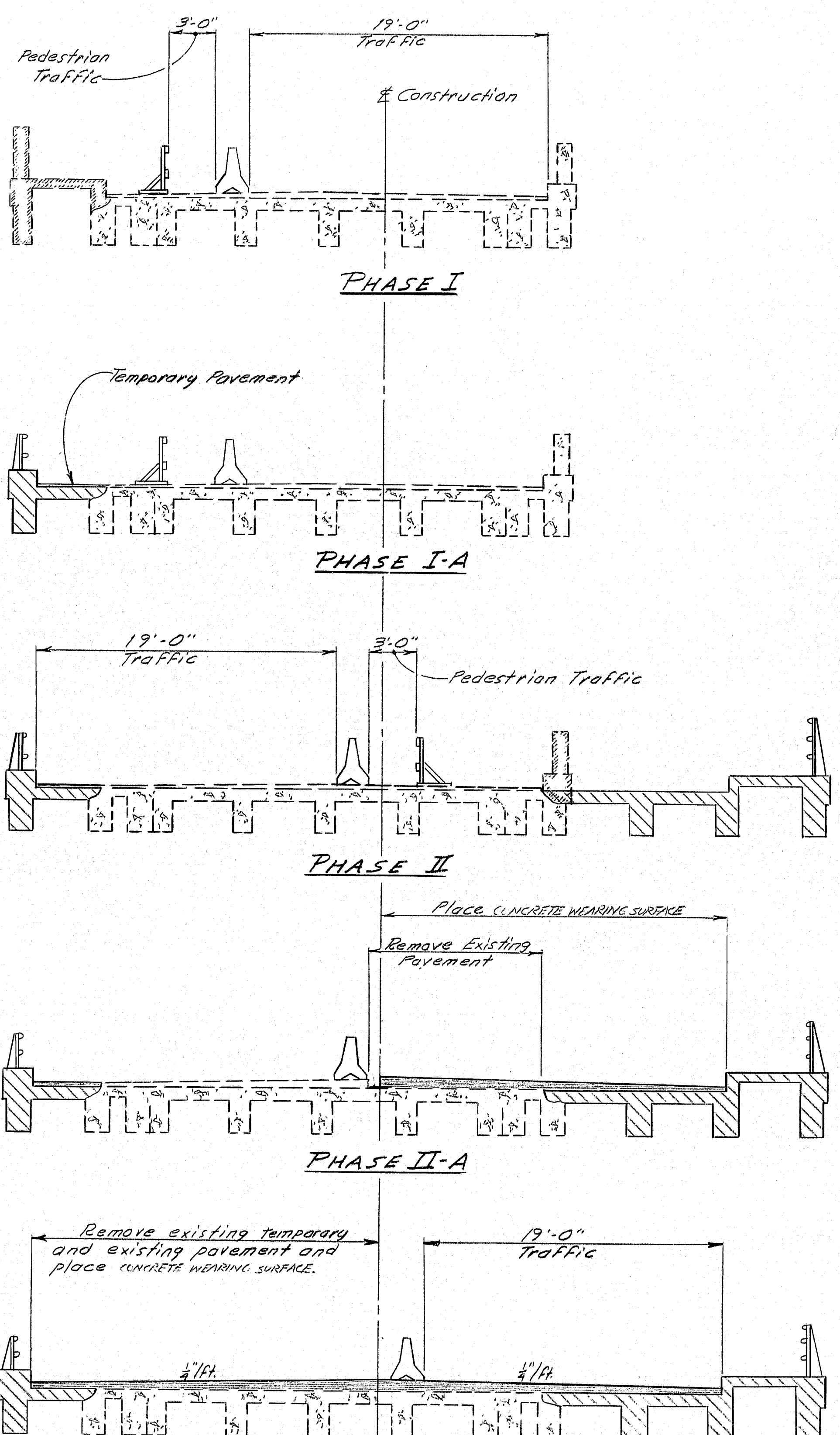
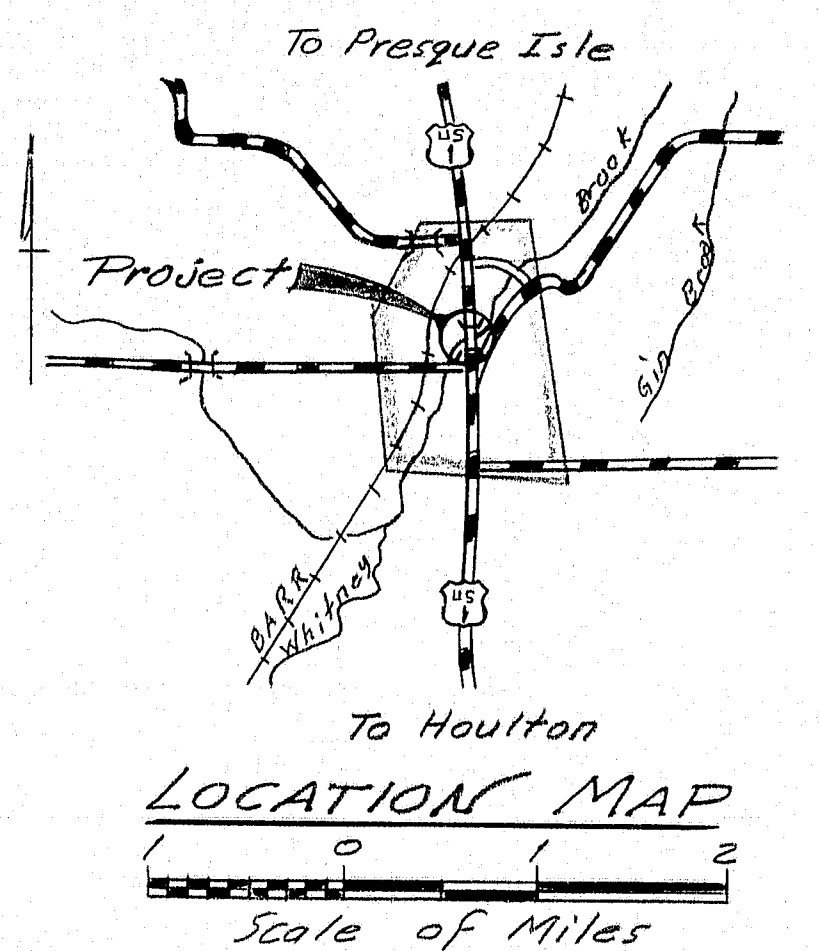
CONCRETE: ...  $f_c = 3,000 \text{ PSI}$   
REINFORCING STEEL: ...  $f_y = 60,000 \text{ PSI}$

### INDEX OF BRIDGE PLANS

- General Plan
- Foundation Survey
- Abutments
- T-Beams
- Superstructure
- Reinforcing Steel Schedule
- BRIDGE STANDARDS
- BD 401-89 ... Aluminum Bridge Railing 2-bar
- BD 402-89 ... Aluminum Bridge Railing 3-bar
- BD 403-89 ... Aluminum Bridge Railing Pole Panel
- BD 201-89 ... Concrete End Post

### TRAFFIC DATA

AADT... 1989... 3740  
AADT... 2009... 5240  
DHV... 576  
T%... 17  
D%... 55  
V... 4A  
18 kips... P25... 2.17



- SYMBOLS**
- New Concrete (plan elevation)
  - New Concrete (section)
  - Existing Material (to be removed)
  - Existing Concrete (to remain)
  - Hot Bituminous Pavement

### CONSTRUCTION NOTES

- All utility facilities shall be adjusted by the respective utilities unless noted.
- Place an 18 inch wide strip of sod on the side slopes along the top of the riprap.
- All embankment material, except as otherwise shown, placed below elev. 400 shall be granular borrow meeting the requirements of Subsection 703.19, Material for Underwater Backfill.
- Reinforcing steel shall have zincs cover unless otherwise indicated.
- Protective coating for concrete surfaces shall be applied to the following areas:  
Bottom and outside face of exterior T-beams.  
Fascia, top and face of sidewalk & curb.  
Exposed areas of concrete end posts.  
End of slab (1 foot down from top of concrete slab).
- Place 4 inch diameter drains in the breastwall and wingwalls at 15 feet maximum spacing. Exact location to be determined.
- Maximum calculated footing pressure is 2.8 tons per sq. ft.
- Adjust reinforcing steel to fit around drains in an approved manner. Do not cut transverse reinforcing bars.
- Mortar for grouting reinforcing steel dowels shall contain an approved non-shrink additive. Payment for drilling and grouting of dowels shall be incidental to Item 503.13, Reinforcing Steel Placement.
- Removal of existing concrete rail and rail posts shall be incidental to Item 202.12, Removing Existing Structural Concrete.
- Excavate a pool in the streambed adjacent to abutment No. 2 downstream wing of similar proportions as the existing part of the existing downstream wing as directed in coordination with the IF&W regional biologist. Payment will be made under Item 203.20 Common Excavation.
- Buildings 12 to 24 inch lying on the stream bottom within the limits of the abutment widenings shall be scattered over the stream channel between the abutments. Payment will be considered incidental to Item 206.082 Structural Earth Excavation-Major Structures.
- A suitable pedestrian barrier shall be provided and maintained as directed. Payment shall be considered incidental to related contract items.
- All base or deteriorated concrete on the exposed faces of the existing T-beams and substructure shall be removed and patched as directed. Payment will be made under the provisions of subsection 104.03, Extra Work.
- W-Beam Terminal Connector (BES-79) shall be incidental to Item 606.55, Guard Rail Type 3- Single Rail.
- In areas where concrete is to be cast against the existing structure, the existing concrete shall be cleaned and etched in a manner approved. Any loose or deteriorated concrete encountered during this process shall be removed. Payment for this work shall be considered incidental to related contract items.

### REFERENCES

Survey Book Nos.: 59485 Topo #1,  
59484 Topo #2, 59780 X-sections #1  
Bridge No. 2942

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

WHITNEY BROOK BRIDGE  
IN THE TOWN OF  
BRIDGEWATER  
ARROOSTOOK COUNTY  
GENERAL PLAN  
SHEET 1 OF 10 AUGUSTA, MAINE

103-469

PROJECT DESIGN ENGINEER	DATE
JTB	8-29
CHECKED	DATE
WJA	2-97
PLANS	FIELD CHANGES
DESIGN - DETAILED	
CHECKED	
APPROVED	