STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND
PUBLIC FACILITIES
SOUTHEAST REGION
DESIGN AND CONSTRUCTION DIVISION

PETERSBURG, ALASKA

TWIN CREEK
CULVERT REPLACEMENT
PROJECT NO. STP-0937(26)/71646
BRIDGE, EXCAVATION,
PAVING & GUARDRAIL CONNECTIONS

DESIGN DESIGNATION
A.D.T. 1995: 560
A.D.T. 2015: 640
D.H.V. 13.6%: 90
V: 13.6%: 50 M.P.H.
E.A.L.: 100,000

DESIGN DESIGNATION
LENGTH OF PROJECT: 135
LENGTH OF PAVING: 125
WIDTH OF PAVING: 36" TO 32"

VICINITY MAP

ASBUILT PLANS
CONTRACTOR: ROCK-N-ROAD CONSTR.
ORIGINAL CONTRACT AMOUNT: $653,980.00
PROJECT ENGR.: THAD HOPPER
START DATE: 6-14-96
END DATE: 9-16-96

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
PUBLIC FACILITIES
SOUTHEAST REGION DESIGN SECTION

APPROVED
Regional Transportation Engineer

APPROVED
Engineering Design

PROJECT NUMBER:
71646

AS-BUILT
NOTE: DATE: 12/22/95
SHEET 1 OF 16
GENERAL NOTES
1. VERTICAL AND HORIZONTAL ALIGNMENTS SHOWN ON THESE PLANS ARE SUBJECT TO MINOR REVISIONS.
2. THE LOCATION OF ALL UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY, AND SHOULD BE VERIFIED BY CONTRACTOR.
3. ALL WASTE MATERIAL SHALL BE PLACED OUTSIDE THE PROJECT LIMITS AT A LOCATION PROVIDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.

BASIS OF SURVEY CONTROL

HORIZONTAL CONTROL

THE BASIS OF CONTROL IS THE BEARING BETWEEN DOT/RR HIGHWAY MONUMENTS MH-16 (PROJECT COORDINATES OF N 84117.986, E 210985.685) AND MH-17 (PROJECT COORDINATES OF N 82042.523, E 212843.493) OR 5 114' 50" W MH-16 IS A DOT/RR MONUMENT IN A ALUMINUM CASE SET IN THE LEFT SHOULDER OF MH16 HIGHWAY AT STATION 329+65, 13.10' LT.
MH-17 IS A DOT/RR MONUMENT IN A ALUMINUM CASE SET IN THE LEFT SHOULDER OF MH16 HIGHWAY AT STATION 329+30, 13.0' LT.

VERTICAL CONTROL

THE BASIS OF VERTICAL CONTROL IS THE TOP OF THE BRASS CAP IN AN ALUMINUM CASE, DESIGNATED AS MH-16 HAVING AN ELEVATION OF 217.74 M.L.L.W. AS DETERMINED DURING PROJECT 7096 MH16 HIGHWAY DRAINAGE AT PARKSER'S LAND.

LABELING INDEX

1. 2" ASPHALT PAVEMENT
2. 4" CRUSHED AGGREGATE BASE COURSE
3. "A" BORROW TYPE "A"
4. STEEL POST GUARDRAIL

BASIS OF ESTIMATE

ITEM NO. ESTIMATING FACTOR
2000 1.85 TONS/CT
8000 1.78 TONS/CT
4000 11.82 CT/IN DEPTH
4030 6.06 CT/IN DEPTH
4040 0.25 GAL/GAL 256 GAL/TON

AS-BUILT

NOTE: DO NOT SCALE FROM THESE PLANS—USE DIMENSIONS.

TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

Petersburg
FSG-Twin Creek
Culvert Replacement
STP-0037 (06) 71946

TYPICAL RECONSTRUCTION AREA SECTION
STA. "0" 328+50 TO 329+70 & STA. "0" 329+65 TO 329+85

PAVEMENT JOINT DETAIL

THIS SHEET REPLACES ATTACHMENT #3, K0006-04.2.
### ESTIMATE OF QUANTITIES

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>ITEM</th>
<th>UNIT</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>10271</td>
<td>DBE ADJUSTMENT</td>
<td>CONTINGENT SUM</td>
<td>ALL REQUIRED</td>
</tr>
<tr>
<td>20271</td>
<td>REMOVAL OF PAVEMENT (APPROX. 510 SF)</td>
<td>LUMP SUM</td>
<td>ALL REQUIRED</td>
</tr>
<tr>
<td>30271</td>
<td>REMOVAL OF SILVER TIRE (APPROX. 234 LF)</td>
<td>LUMP SUM</td>
<td>ALL REQUIRED</td>
</tr>
<tr>
<td>30371</td>
<td>UNCLASSIFIED EXCAVATION (5,000 CY)</td>
<td>LUMP SUM</td>
<td>ALL REQUIRED</td>
</tr>
<tr>
<td>30471</td>
<td>CRUSHED AGGREGATE BASE COURSE (APPROX. 17 TONS)</td>
<td>LUMP SUM</td>
<td>ALL REQUIRED</td>
</tr>
<tr>
<td>4071</td>
<td>ASPHALT CONCRETE PAVEMENT (APPROX. 82 TONS)</td>
<td>LUMP SUM</td>
<td>ALL REQUIRED</td>
</tr>
<tr>
<td>4072</td>
<td>ASPHALT CEMENT (APPROX. 18 TONS)</td>
<td>LUMP SUM</td>
<td>ALL REQUIRED</td>
</tr>
<tr>
<td>50171</td>
<td>CLASS A CONCRETE</td>
<td>LUMP SUM</td>
<td>ALL REQUIRED</td>
</tr>
<tr>
<td>50271</td>
<td>PRESTRESSED CONCRETE STRUCTURAL MEMBERS (3&quot;-2&quot; GALE TEES)</td>
<td>EACH</td>
<td>6</td>
</tr>
<tr>
<td>50371</td>
<td>REINFORCING STEEL</td>
<td>LUMP SUM</td>
<td>ALL REQUIRED</td>
</tr>
<tr>
<td>50571</td>
<td>WATERPROOFING</td>
<td>LINEAR FOOT</td>
<td>430 YD</td>
</tr>
<tr>
<td>50671</td>
<td>STRUCTURAL STEEL, PULLED</td>
<td>LINEAR FOOT</td>
<td>122 YD</td>
</tr>
<tr>
<td>50672</td>
<td>STRUCTURAL STEEL, DRIVEN</td>
<td>LINEAR FOOT</td>
<td>122 YD</td>
</tr>
<tr>
<td>50771</td>
<td>METAL BRIDGE RAIL</td>
<td>LINEAR FOOT</td>
<td>180</td>
</tr>
<tr>
<td>50871</td>
<td>MEMBRANE WATERPROOFING</td>
<td>LUMP SUM</td>
<td>ALL REQUIRED</td>
</tr>
<tr>
<td>50971</td>
<td>N-BEAM GUARDRAIL</td>
<td>LINEAR FOOT</td>
<td>1506 (=)</td>
</tr>
<tr>
<td>50972</td>
<td>THICK BEAM GUARDRAIL</td>
<td>LINEAR FOOT</td>
<td>75</td>
</tr>
<tr>
<td>50973</td>
<td>REMOVAL AND DISPOSAL OF GUARDRAIL</td>
<td>LINEAR FOOT</td>
<td>997 (=)</td>
</tr>
<tr>
<td>50974</td>
<td>END ANCHORAGE</td>
<td>EACH</td>
<td>1</td>
</tr>
<tr>
<td>51171</td>
<td>ROADWAY, CLASS 3</td>
<td>CUBIC YARD</td>
<td>850.007</td>
</tr>
<tr>
<td>51271</td>
<td>GEOTEXILE EROSION CONTROL, CLASS A</td>
<td>SQUARE YARD</td>
<td>23,300 (=)</td>
</tr>
<tr>
<td>51371</td>
<td>GEOTEXILE SEGMENT CONTROL</td>
<td>LINEAR FOOT</td>
<td>300</td>
</tr>
<tr>
<td>51471</td>
<td>MONITORING AND DOCUMENTATION</td>
<td>LUMP SUM</td>
<td>ALL REQUIRED</td>
</tr>
<tr>
<td>51472</td>
<td>EROSION &amp; POLLUTION CONTROL, ADMINISTRATION</td>
<td>LUMP SUM</td>
<td>ALL REQUIRED</td>
</tr>
<tr>
<td>51473</td>
<td>EROSION &amp; POLLUTION CONTROL</td>
<td>LUMP SUM</td>
<td>ALL REQUIRED</td>
</tr>
<tr>
<td>54171</td>
<td>CONSTRUCTION SURVEYING</td>
<td>LUMP SUM</td>
<td>ALL REQUIRED</td>
</tr>
<tr>
<td>54271</td>
<td>TRAFFIC MAINTENANCE</td>
<td>LUMP SUM</td>
<td>ALL REQUIRED</td>
</tr>
<tr>
<td>54371</td>
<td>CONSTRUCTION SIGN</td>
<td>EACH PER DAY</td>
<td>500 (=)</td>
</tr>
<tr>
<td>54372</td>
<td>TYPE IV BARRIERS</td>
<td>EACH PER DAY</td>
<td>800 (=)</td>
</tr>
<tr>
<td>54373</td>
<td>TRAFFIC CONES</td>
<td>EACH PER DAY</td>
<td>3,000 (=)</td>
</tr>
<tr>
<td>54374</td>
<td>BULK</td>
<td>EACH PER DAY</td>
<td>1,000 (=)</td>
</tr>
<tr>
<td>54571</td>
<td>FLASHERS</td>
<td>LUMP SUM</td>
<td>ALL REQUIRED</td>
</tr>
<tr>
<td>54671</td>
<td>BRIDGE DETOUR CROSSING</td>
<td>LUMP SUM</td>
<td>ALL REQUIRED</td>
</tr>
</tbody>
</table>

---

**POSSIBLE WASTE DISPOSAL AREA**

**TYPICAL SECTION WASTE DISPOSAL AREA**

*NOTE: DO NOT SCALE FROM THESE PLANS—USE DIMENSIONS*
COIL ANCHOR LAYOUT

PLAN

93'-2" (Final Girders Length Adjust for shortening & shrinkage)

104 Pairs of G403

ELEVATION

GIRDER NOTES:

Alternative designs are allowed per Section 502 of the Specifications.
Concrete for girders shall be normal weight having the following strengths:
Air-entrained concrete:

G403 (Standard) 180 ft-lb @ 28 Days

Design is based on the following Steel Stress:

 Pretensioning: 30 ksi
Posttensioning: 180 ksi

Approximate girder weight = 52 lb/ft

Deflects from match grade & component for camber - see Specifications. The roadway surface of beam members shall have a wood or magnesium finish. Surface under rolling curbs shall be roughened.

Order pay items shall include the cost of epoxy-coated reinforcing steel and all structural steel required.

All girders shall have recessed coil anchor inserts as shown for field leveling girders during installation.
TYPICAL SECTION

BASE PLATE DETAIL

PLATE WASHER C

No Scale

No Scale

THREE BEAM TRANSITION BRACKET

WITH END TUBE

TWIN CREEK BRIDGE
ROUTE NO. FAS 937

METAL BRIDGE RAILING

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

ANCHOR PLATE DETAIL

ATTACHMENT TO 2-TUBE BRIDGE RAIL

No Scale

No Scale

No Scale

No Scale