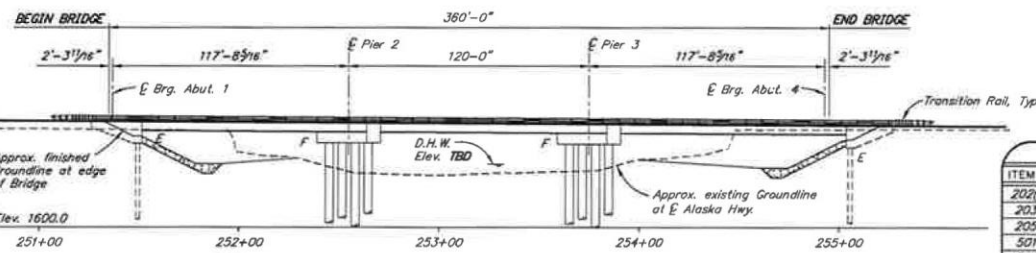
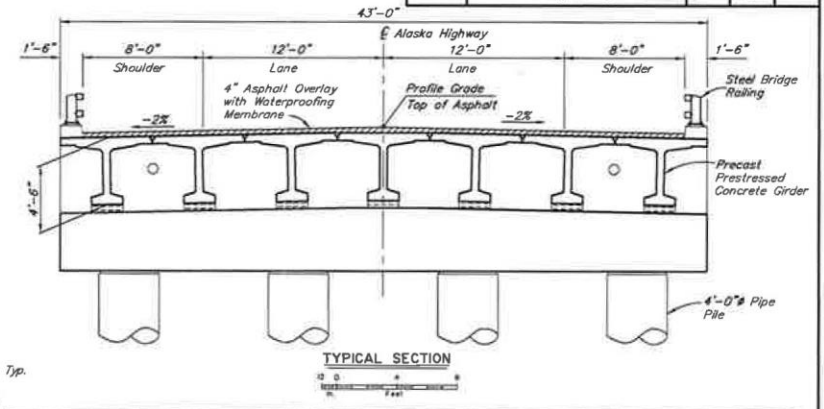
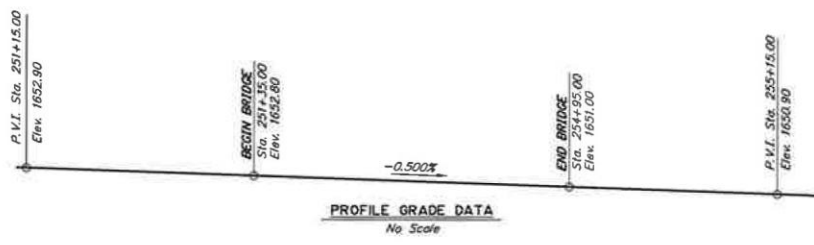


STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0A21011/263280000	2017	N1	



BRIDGE BASIS OF ESTIMATE						
ITEM NO.	ITEM	PAY UNIT	ESTIMATING UNIT	SUBST.	SUPERST.	TOTAL
202(23)	Removal of Existing Bridge No. 506	LS	SF			
203(3)	Unclassified Excavation	CY	CY			
205(3)	Structural Fill	CY	CY			
501(1)	Class A Concrete	LS	CY			
501(7)	Precast Concrete Member (118x54" Decked Bulb-Tees)	EA	EA			
503(1)	Reinforcing Steel	LS	LBS			
503(2)	Epoxy-Coated Reinforcing Steel	LS	LBS			
505(5A)	Furnish Structural Steel Piles (2" Dia. Pipe)	LF	LF			
505(5B)	Furnish Structural Steel Piles (4" Dia. Pipe)	LF	LF			
505(6A)	Drive Structural Steel Piles (2" Dia. Pipe)	EA	EA			
505(6B)	Drive Structural Steel Piles (4" Dia. Pipe)	EA	EA			
507(1)	Steel Bridge Railing	LF	LF			
508(1)	Waterproofing Membrane	LS	SF			
520(1)	Temporary Crossings	LS	SF			
606(16)	Transition Rail	EA	EA			
611(1)	Riprap, Class II	CY	CY			
631(2)	Geotextile, Erosion Control, Class I	SF	SF			

Item numbers are for reference only. Quantities shown are not necessarily the pay quantities nor the total quantity of the particular item.

BRIDGE DRAWING INDEX	
TITLE	DWG. NO.
GENERAL LAYOUT	1
SITE PLAN	2
RIPRAP LAYOUT	3
RIPRAP DETAILS	4
ABUTMENT 1	5
ABUTMENT 4	6
ABUTMENT DETAILS	7
WINGWALLS	8
PIERS	9
PIER DETAILS	10
FRAMING PLAN AND TYPICAL SECTION	11
GIRDERS SPANS 1 AND 3	12
GIRDERS SPAN 2	13
GIRDER DETAILS	14
APPROACH SLABS	15
STEEL BRIDGE RAILING	16
TEST BORING LOGS AND LOCATIONS	17-

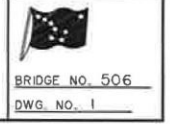
PRELIMINARY PLAN

① Approximate location of Bridge Number Plate.

DESIGNED BY: Leslie Daugherty	CHECKED: Engineer	LAYOUT BY: Leslie Daugherty	CHECKED BY: Engineer
DRAWN BY: Sam Sells	CHECKED: Leslie Daugherty	SPECIFICATIONS BY: Leslie Daugherty	P S & E COMPARED: Engineer
QUANTITIES BY: Leslie Daugherty	CHECKED: Engineer	APPROVAL RECOMMENDED BY: Ron Pratt	

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
 BRIDGE SECTION
 332 Channel Drive
 Juneau, Alaska 99801
 907-466-2975

TOK RIVER BRIDGE
 ALASKA HIGHWAY
 GENERAL LAYOUT



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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0A21011/2631298000	2017	N2	

GENERAL NOTES

DESIGN:..... AASHTO LRFD Bridge Design Specifications, 2014 Edition, with latest interim specifications.
 Seismic design per AASHTO Guide Specifications for LRFD Seismic Bridge Design, 2011 with latest interim revisions.

LIVE LOAD:..... HL-93

DEAD LOAD:..... Includes 50 psf for all wearing surfaces.

SEISMIC PARAMETERS:..... PGA = 0.14
 S_s = 0.32
 S₁ = 0.18
 Site Class = D
 Liquefaction Potential = Moderate
 AASHTO 7% probability of exceedance in 75 years.

REINFORCEMENT:..... ASTM A706, Grade 60, F_y = 60,000 psi
 ASTM A970 Headed bars, Class HA.
 Space reinforcement evenly unless otherwise noted.

PRESTRESSED CONCRETE:..... See "GIRDERS" Dwg.

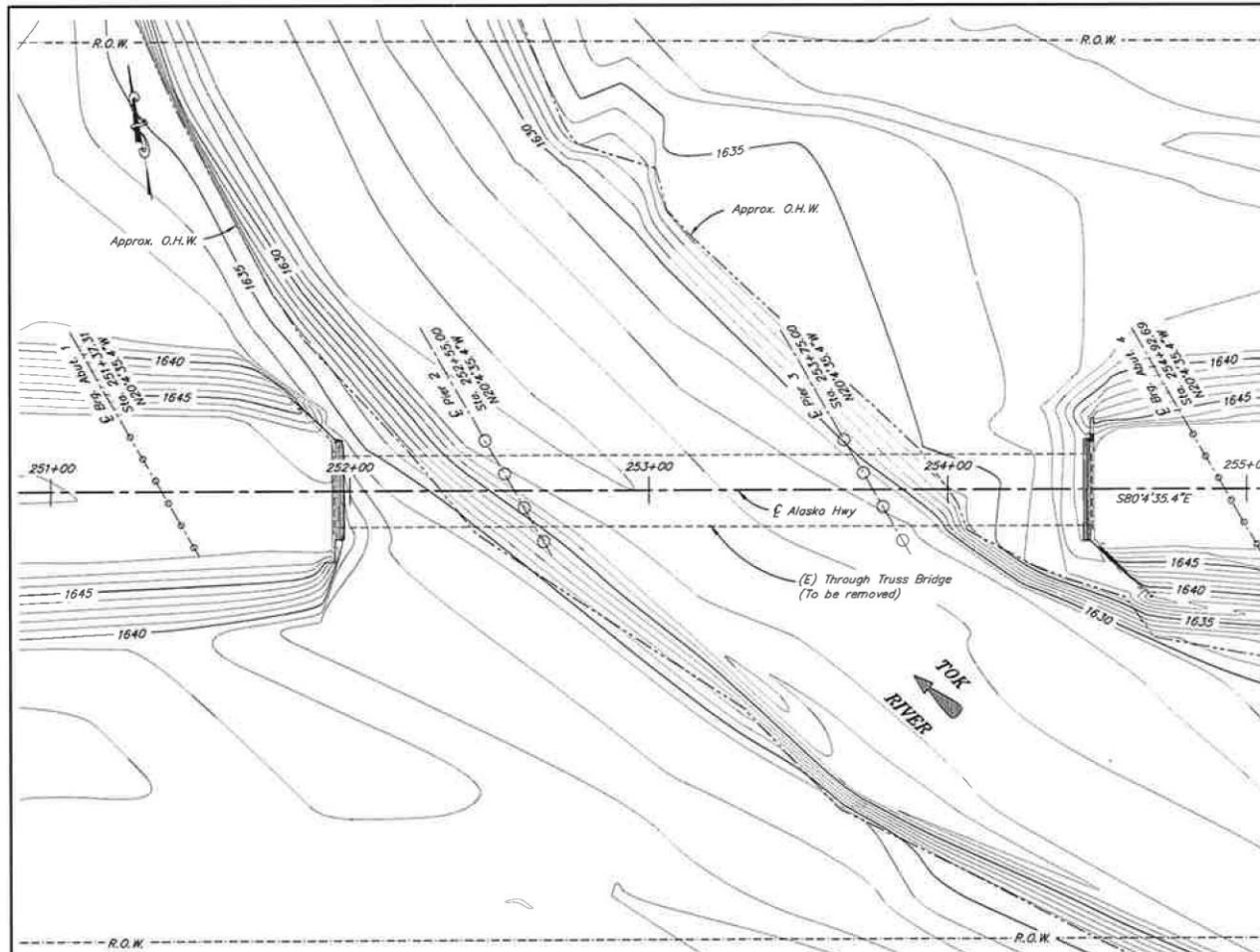
CONCRETE:..... Class A Concrete unless otherwise noted, f'_c = 4000 psi

STRUCTURAL STEEL:..... ASTM A709, Grade 36T3, F_y = 36,000 psi
 Galvanize structural steel in accordance with AASHTO M111 unless shown otherwise.

STRUCTURAL STEEL PILING:..... Pipe Piles - API 5L X52 PSL2, F_y = 52,000 psi
 Pile Tip reinforcing is required.

ABBREVIATIONS:

- | | |
|-------------------------|--------------------------------------|
| ℄ = centerline | Hwy. = highway |
| ℄ = plate | Jt. = joint |
| & = and | ksf = 1000 pounds per square foot |
| ⊙ = at | LB = pound |
| ∅ = diameter | LF = linear foot |
| ± = approximate | LS = lump sum |
| Abut. = abutment | Lt. = left |
| Approx. = approximate | max. = maximum |
| b.f. = back/dirt face | min. = minimum |
| bot. = bottom | n.f. = near face |
| br. = bridge | No. = number |
| btwn. = between | o.c. = on center |
| Brg. = Bearing | O.H.W. = ordinary high water |
| C.I.P. = cast in place | psf = pounds per square foot |
| Clr. = clear, clearance | psi = pounds per square inch |
| CY = cubic yard | PVC = point of vertical curve |
| dia. = diameter | PVI = point of vertical intersection |
| Dwg. = drawing | PVT = point of vertical tangent |
| E. = expansion | R.O.W. = right of way |
| (E) = existing | Rt. = right |
| EA = each | spc. = space, spaces |
| Elev. = elevation | Sta. = station |
| e.f. = each face | SF = square feet |
| e.w. = each way | Symm. = symmetric |
| F = fixed | Typ. = typical |
| f.f. = front/air face | w/ = with |



PRELIMINARY PLAN

LOCATION	PILE TYPE	DRIVING CRITERIA			DESIGN DATA		
		MINIMUM PENETRATION (ft)	ESTIMATED PILE TIP ELEVATION (ft)	DRIVING RESISTANCE (k)	STRENGTH FACTORED LOAD (k)	NORMAL RESISTANCE (k)	RESISTANCE FACTOR, φ
Abutment 1	2'-0" x 1/2" Pipe						
Pier 2	4'-0" x 1" Pipe						
Pier 3	4'-0" x 1" Pipe						
Abutment 4	2'-0" x 1/2" Pipe						

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DESIGNED BY: Leslie Daugherty	CHECKED: Engineer	HYDRAULICS BY: Engineer	CHECKED BY: Engineer
DRAWN BY: Sam Sells	CHECKED: Leslie Daugherty	FOUNDATIONS REVIEWED BY: Engineer	
QUANTITIES BY: Leslie Daugherty	CHECKED: Engineer		

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TOK RIVER BRIDGE
 ALASKA HIGHWAY
 SITE PLAN

