

# Preliminary Engineering Report—Addendum

*Addendum to June 14, 2014 Preliminary Engineering Report*



**STERLING**  
HIGHWAY MILE POST 45 TO 60  
ALASKA

*Prepared for:*



**State of Alaska  
Department of Transportation and  
Public Facilities**

*Prepared by:*

**HDR  
2525 C Street, Suite 500  
Anchorage, Alaska 99503**

**May 2018**

# Sterling Highway Milepost 45-60 Project

## Preliminary Engineering Report—Addendum

May 2018

Prepared by:

*HDR, Inc., Anchorage, Alaska*

Prepared for:

*Alaska Department of Transportation and Public Facilities*

A Preliminary Engineering Report (PER) for the Sterling Highway Milepost (MP) 45-60 Project was created by consultant HDR for the Alaska Department of Transportation and Public Facilities (DOT&PF) in June 2014. This Addendum provides key updates to that document to reflect relatively minor changes made since that time. This Addendum was updated in conjunction with release of the Final Environmental Impact Statement (EIS) in March 2018 and updated again in conjunction with the Record of Decision for the project in May 2018, with the plan set for the selected Juneau Creek Alternative finalized to reflect project decisions in August 2018.

**Design Criteria.** Table 1, Project Design Criteria, in Section 3.0 of the PER has been modified in the “Illumination” row to indicate that intersections of the new highway and “old” highway would be illuminated. This change was made per DOT&PF in response to changing Department policy and comments made on the Draft Supplemental EIS.

**Build Alternatives Description.** The build alternatives have been modified slightly. Stationing has been altered slightly. The locations of walls and guardrails in Section 9.0 differ slightly from those shown in the original PER. The locations of these features are shown in the updated plan and profile sheets (Appendix A update) and have been accounted for in cost estimate tables (Appendix B update). In Appendix A, for the Cooper Creek and Juneau Creek Variant alternatives, sheets that have been altered are reproduced for this Addendum, and each altered sheet includes a note describing the change. The G South Alternative was initially identified as the preferred alternative in December 2015, following the publication of the PER in 2014. In 2017, the Juneau Creek Alternative was identified as the preferred alternative. In Appendix A, all sheets for the G South Alternative and the Juneau Creek Alternative have been included in this update.

Near MP 57, the Kenai River has been eroding the embankment of the existing highway. DOT&PF has implemented temporary erosion protection and is undertaking a permanent spot fix at this location as a separate project on a shorter timeline than the Sterling Highway MP 45-60 project. The two projects have been coordinated, and the plan and profile sheets in Appendix A reflect a minor realignment of the highway to better match the anticipated fix under the more immediate erosion project. This realignment effort also involved addressing comments from the U.S. Fish and Wildlife Service (manager of the



surrounding lands in this area) by separating east-bound and west-bound passing lanes and shortening the overall length of passing lanes in this area. These changes apply to all build alternatives.

Near MP 54.9, a wall has been added to avoid the need for a large cut and expansion of the existing right-of-way into Cook Inlet Region, Inc. Native corporation land. This applies to the Cooper Creek and G South alternatives.

Near MP 52.6, the alignment was moved slightly to the south to avoid any impact outside the existing right-of-way on Cook Inlet Region, Inc. Native corporation land, and the lane configurations have changed to accommodate a project by the U.S. Forest Service to update the entry/exit (turn lanes and acceleration lanes) to the Russian River Campground and associated facilities in this location. These changes apply to the Cooper Creek and G South alternatives.

At two or more locations under each alternative, pullouts and parking have been added.

Trailhead parking access for Resurrection Pass Trail has been added west of the Juneau Creek Bridge along with a pullout east of the bridge. This change applies to the Juneau Creek and Juneau Creek Variant alternatives.

Underpasses have been added to accommodate Forest Service roads at Station 1504+00 and Station 1580+00. This change applies to the Juneau Creek and Juneau Creek Variant alternatives.

Bridges over the Kenai River (Cooper Creek and G South alternatives) reflect minor changes to ensure wildlife passage on both sides of the river. Other wildlife crossings are anticipated and would be incorporated during final design when locations are refined. Locations indicated in the Final EIS and ROD for wildlife crossings are indicated in the Juneau Creek Alternative plan set. Engineering drawings of the proposed wildlife crossings for other alternatives are included in Appendix I of the Final EIS. The cost of the proposed mitigation has been included in the updated cost estimates presented in this document.

A separated path has been added, as discussed immediately below.

**Separated Path.** In response to comments on the Final EIS (March 2018), this Addendum was further updated to include a separated, multi-use, non-motorized path along the new highway from Quartz Creek Road (approximately MP 44.9) to the area of the intersection of the new highway and “old” Sterling Highway (approximately MP 46.7). This was in response to comments about the Juneau Creek Alternative as the preferred alternative, and the pathway was designed around the Juneau Creek Alternative. However, for purposes of the decision made in the Record of Decision, this mitigation measure applies to all build alternatives.

In total, approximately 9,000 linear feet (LF) of pathway has been added south of the proposed Sterling Highway alignment. The alignment is shown on the Juneau Creek Alternative plan sheets that are attached to this Addendum as part of Appendix A. The path is intended to replace the function of an existing “safety trail” which currently runs north of the existing highway and which otherwise will be interrupted by the highway improvements. Approximately 2,350 LF of the pathway alignment is over existing Sterling Highway asphalt which has been identified as “to be demolished” in the plans. The

remaining alignment mostly lies on top of existing roadbed that sits within the footprint for the Sterling Highway improvements. The pathway would not require any expansion of the right-of-way. Where the path follows the winding alignment of the existing highway, it would be separated from the new highway at varying distances. Where the path is adjacent to the new highway, it would be located behind a guardrail for separation and safety.

For the two Juneau Creek alternatives and the G South Alternative, pathway construction would terminate at the “old” Sterling Highway, where the new alignment would deviate from the existing. Connection across the “old” highway could be via a pedestrian tunnel at the intersection or via an at-grade crossing several hundred feet west of the intersection, to be determined during final design. For the Cooper Creek Alternative, pathway construction would terminate in the same area, with a crossing of the highway to make a connection with the existing “Safety Trail.”

The pathway follows FHWA’s Shared Use Path Design Guidelines. The pathway is shown at 10 feet width with an additional 2-foot-wide shoulder on each side at a 6:1 slope. Surfacing of the pathway should be firm and stable to accommodate federal accessibility requirements. One possible surfacing option would involve recycling and compacting the existing Sterling Highway asphalt to create the pathway surface. Areas where the pathway alignment sits within the “to be demolished” section could be compacted in place, while runs of pathway within the proposed highway footprint could be surfaced with asphalt from the existing roadway stockpiled for placement on the pathway. The grades for the pathway should not exceed ADA required maximum grades. The requirements indicate a 5% desired maximum grade, with runs no longer than 200 feet at 8.3% allowed with provision of “rest area” landings for user recovery.

The cost of the pathway is anticipated to be approximately \$50,000. This is anticipated to be accommodated within the existing construction budget (which included contingency costs) presented in this Addendum.

**Construction Sequencing.** Construction sequencing (phasing) addressed in Section 12.0 of the PER has been refined in a required Financial Plan for the preferred (Juneau Creek) alternative. The Financial Plan is published as Appendix H of the Final EIS, and its general findings regarding project phasing have been applied to the other build alternatives. The sequencing presented in the Financial Plan is the most up to date information on this subject. Final decisions about sequencing are likely to have some effect on the earthwork calculations in the PER (Section 10.0). The earthwork calculations will be refined in final design.

**Right-of-Way and Access Control.** Section 13.0 of the PER cites the *Updated Conceptual Stage Relocation Study* (2011) and indicates it is an appendix to the PER. The relocation study has been updated further and is now a 2016 document. It is published on the project web site and as an appendix to the Final EIS.

**Construction Costs.** Construction costs presented in Table 14 (Section 15.0) of the PER, and in greater detail in Appendix B, and summarized in the EIS Executive Summary, have been revised to reflect inflation and mitigation proposed in the Final EIS. This includes line items for major mitigation expenses

associated with wetlands, wildlife, and cultural resource impacts that have been refined since publication of the Draft SEIS. The updated costs are presented in a revised Table 14 on the next page, in an updated Appendix B (attached), and in the Final EIS.

**Table 14: Projected Project Construction Costs**

<b>CONSTRUCTION COSTS</b>				
	<b>Cooper Creek</b>	<b>G South</b>	<b>Juneau Creek</b>	<b>Juneau Creek Variant</b>
<b>Basic Roadway Costs</b>	\$99,308,614	\$93,492,389	\$103,881,361	\$105,129,558
<b>Bridge and Structure Costs</b>	\$77,739,256	\$88,297,404	\$56,399,387	\$59,772,813
<b>Contingency (20%)</b>	\$35,409,574	\$36,357,959	\$32,056,150	\$32,980,474
<b>Construction Administration (15%)</b>	\$31,868,617	\$32,722,163	\$28,850,535	\$29,682,427
<b>Construction Total</b>	<b>\$244,326,061</b>	<b>\$250,869,914</b>	<b>\$221,187,433</b>	<b>\$227,565,271</b>
<b>Wildlife Impact Mitigation</b>	\$7,500,000	\$6,945,000	\$9,700,000	\$9,700,000
<b>Wetland Impact Mitigation</b>	\$700,000	\$1,500,000	\$2,500,000	\$2,300,000
<b>Section 106 Mitigation</b>	\$4,175,000	\$4,000,000	\$3,175,000	\$4,025,000
<b>Design (12%)</b>	\$29,319,127	\$30,104,390	\$26,542,492	\$27,307,833
<b>Utility Costs</b>	\$2,300,000	\$800,000	\$800,000	\$800,000
<b>ROW</b>	\$5,572,795	\$2,896,601	\$2,877,323	\$2,812,634
<b>Subtotal</b>	<b>\$293,892,983</b>	<b>\$297,115,905</b>	<b>\$266,782,248</b>	<b>\$274,510,738</b>
<b>ICAP (5%)</b>	\$14,694,649	\$14,855,795	\$13,339,112	\$13,725,537
<b>Grand Total</b>	<b>\$308,600,000</b>	<b>\$312,000,000</b>	<b>\$280,100,000</b>	<b>\$288,200,000</b>

**Appendices**

**Appendix A: Build Alternative Plan Sets.** Revised. See attached replacement plan sheets and revised plan sets.

**Appendix B: Cost Estimate Summary Sheets.** Revised. See attached.

**Appendix C: Sterling Highway Milepost 45 to 60 2014 Traffic Study Update.** No change.

**Appendix D: Sterling Highway Milepost 45-60 Preliminary Bridge Structures Technical Report.** No change.

**Appendix E: Updated Conceptual Stage Relocation Study.** The Updated Conceptual Stage Relocation Study was updated in January 2016. It is published on the project web site, is part of the Final EIS as Appendix B, and is available through DOT&PF Central Region in Anchorage.

## Appendix A Update: Build Alternative Plan Sets

Several plan sheets under each of the Build alternatives have been updated to reflect changes. For the Cooper Creek and Juneau Creek Variant alternatives, the sheets presented are only those where there have been changes. The G South Alternative, which had been identified as the preferred alternative in 2015, has been reprinted in its entirety to eliminate station equations and provide a clean plan set. The Juneau Creek Alternative, which is the selected alternative identified in the Final Environmental Impact Statement and Record of Decision, also is presented as a full plan set. The Juneau Creek Alternative plan set also has incorporated wildlife crossing structures and all detail sheets showing, for example, trail re-routing and temporary construction roads.

The plan sheets and preliminary design provided have been used to obtain a footprint and Rough Order of Magnitude costs for each alternative and more refined design in locations where conflicts or other special concerns were identified and needed to be addressed during the course of revising the EIS between draft and final. Design decisions and analysis have occurred using geotechnical findings based on spot site investigations and an overview of the general project area. Differing conditions are likely to be found during more in-depth investigations performed during project design and pre-construction efforts. Similarly, the design is based on an existing ground surface located through LiDAR which has a vertical  $\pm 2$ -foot margin of error. Standard engineering practice assumes a physical survey will be required in some locations of the project where ROW is a factor or where it is desired to restrict the project footprint near sensitive areas proposed to be avoided prior to construction through final design efforts. The engineering cost estimates in Appendix B, Cost Estimate Summary Sheets, are based off of updated quantities developed through CAD and other engineering software platforms and may not precisely match the quantities shown in some of the plan sheet tables in the original Appendix A.

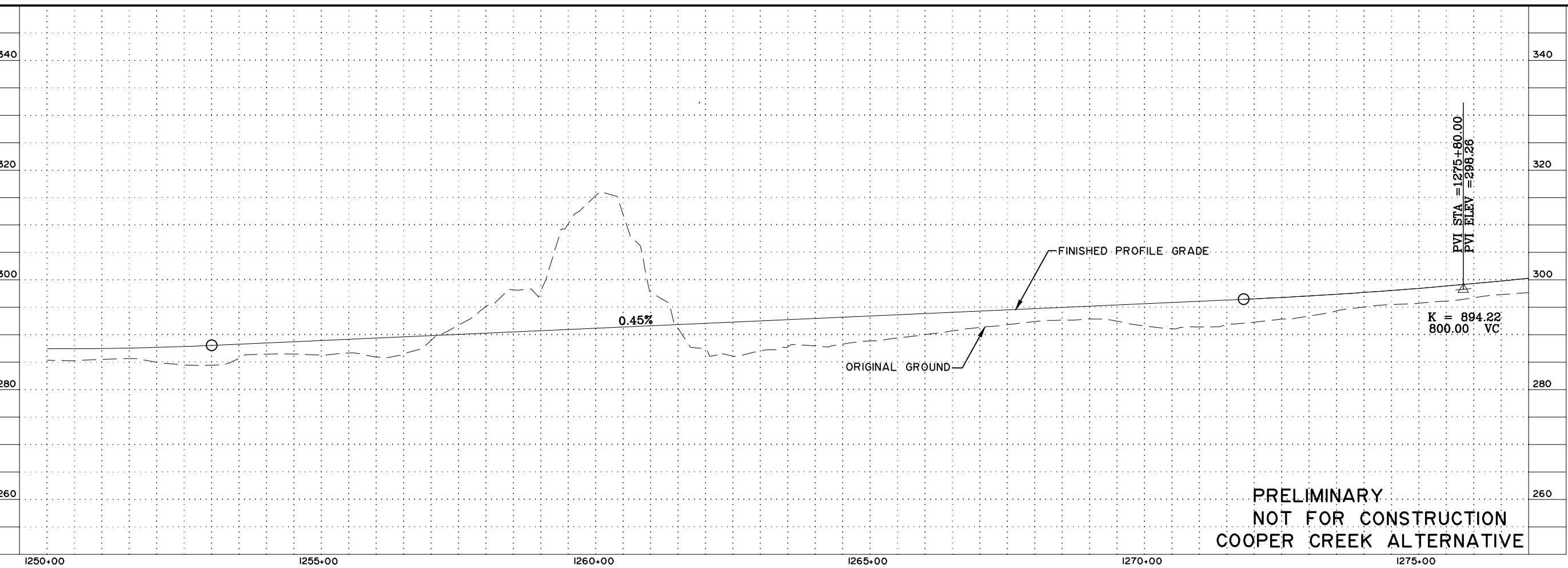
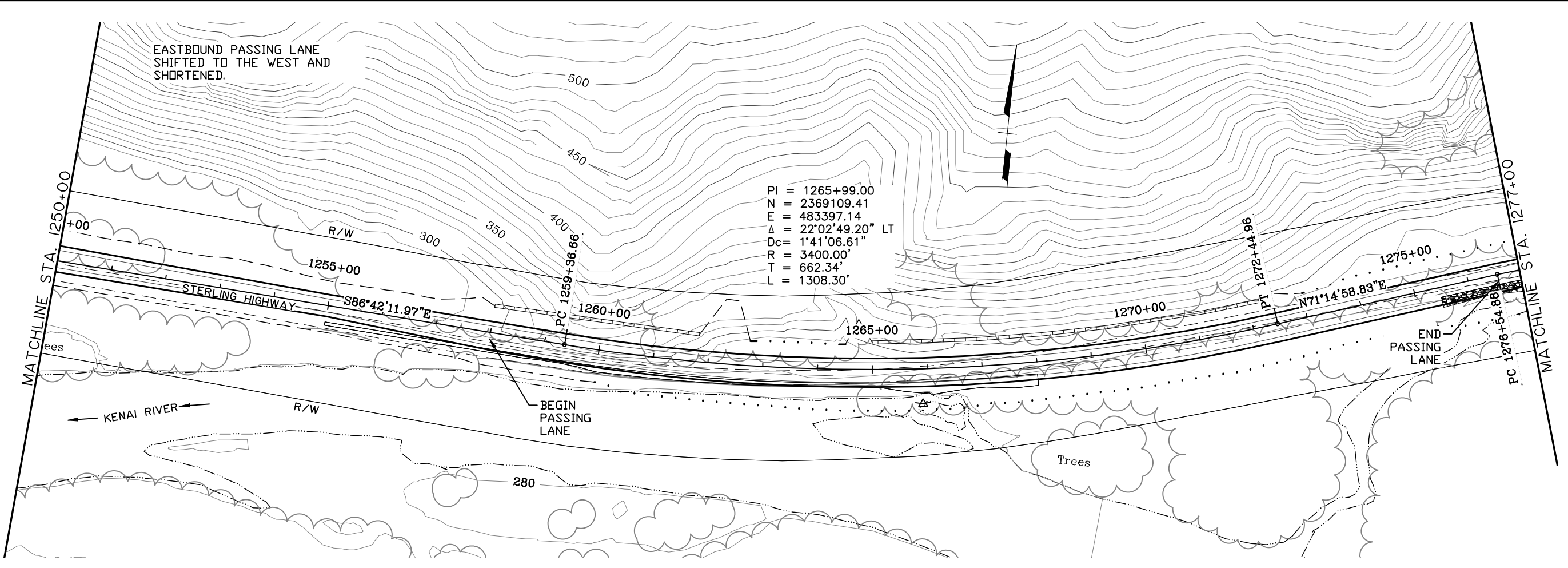
## **Cooper Creek Alternative**

Updated Plan and Profile Sheets

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 DRAFTER BY: SBB

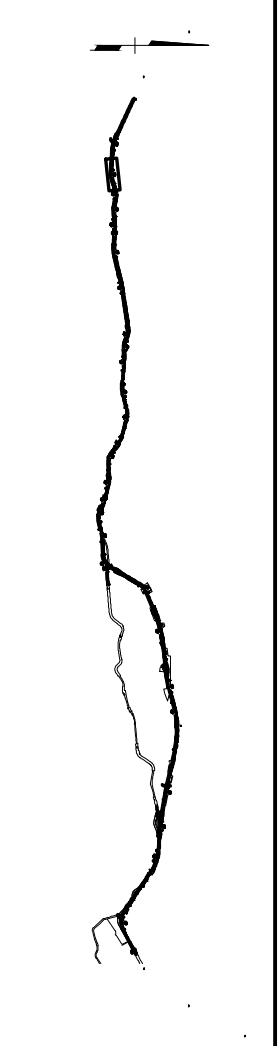
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PRELIMINARY  
 NOT FOR CONSTRUCTION  
 COOPER CREEK ALTERNATIVE

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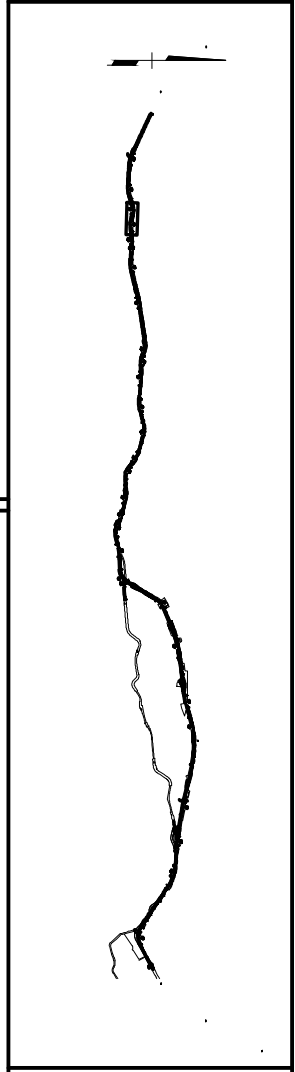
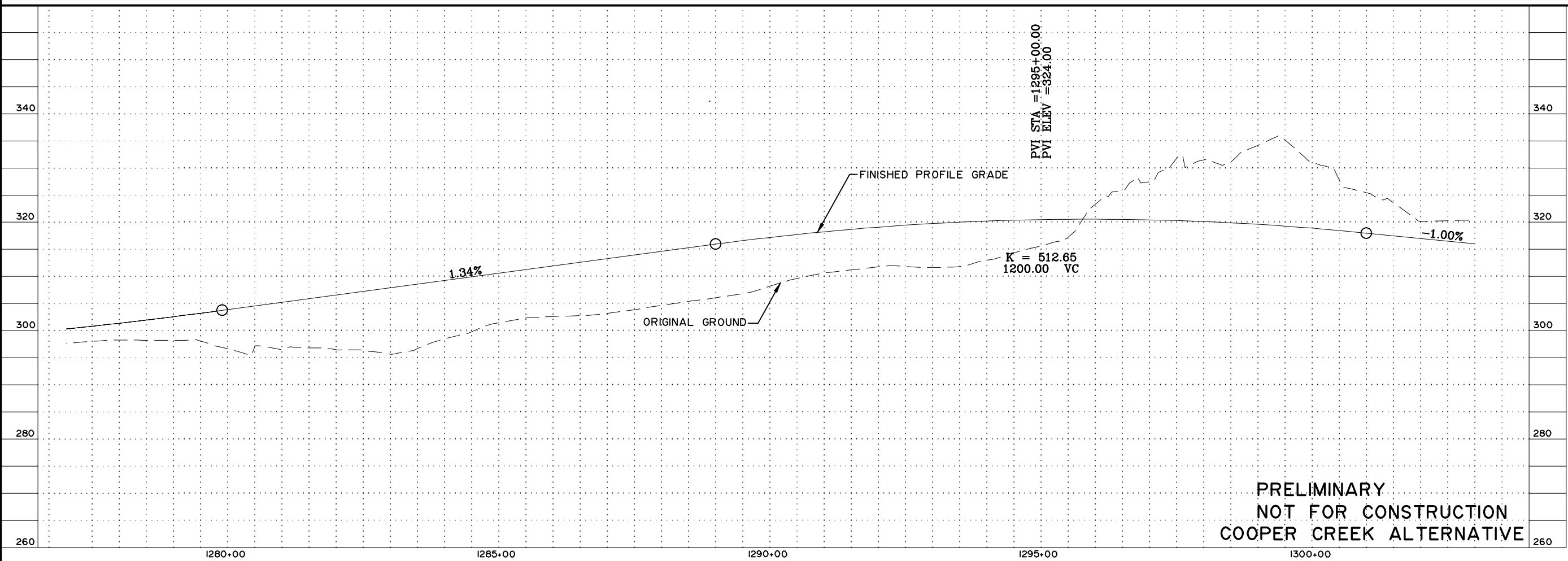
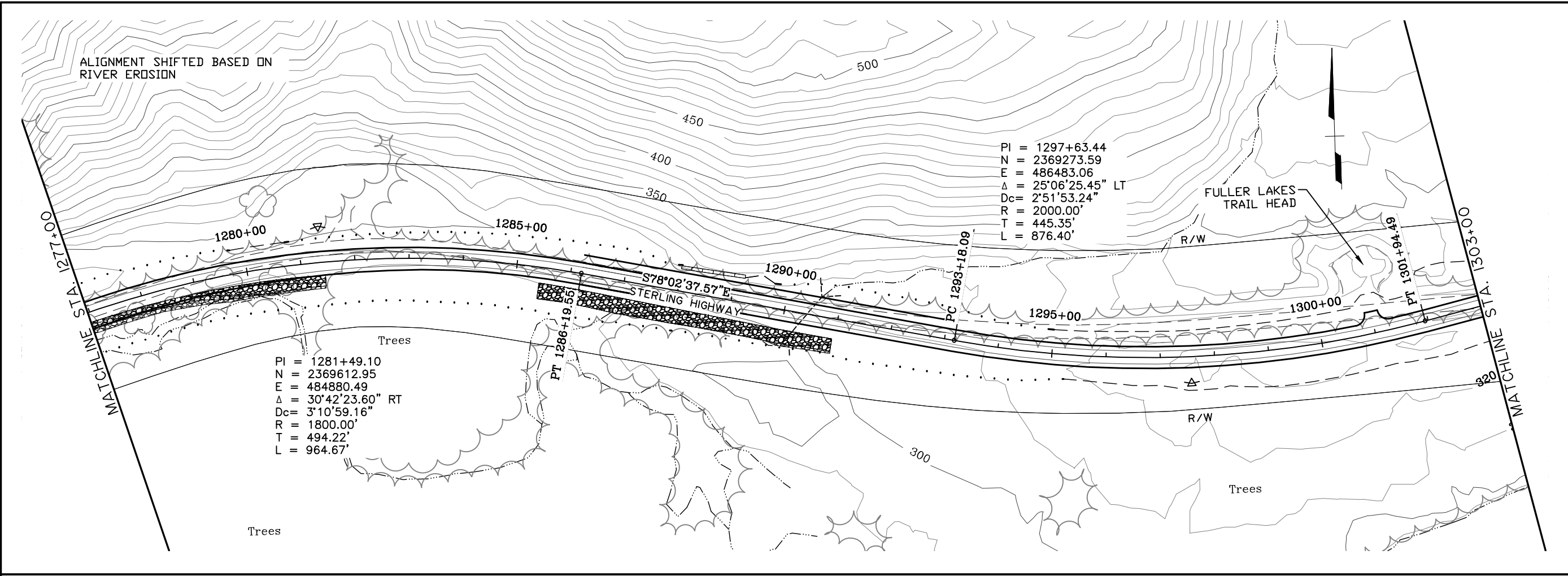
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 AND  
 PUBLIC FACILITIES

STERLING HIGHWAY  
 M.P. 45-60

COOPER CREEK ALT.  
 PLAN AND PROFILE  
 STA 1250+00 TO 1277+00

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COOPER CREEK ALTERNATIVE**

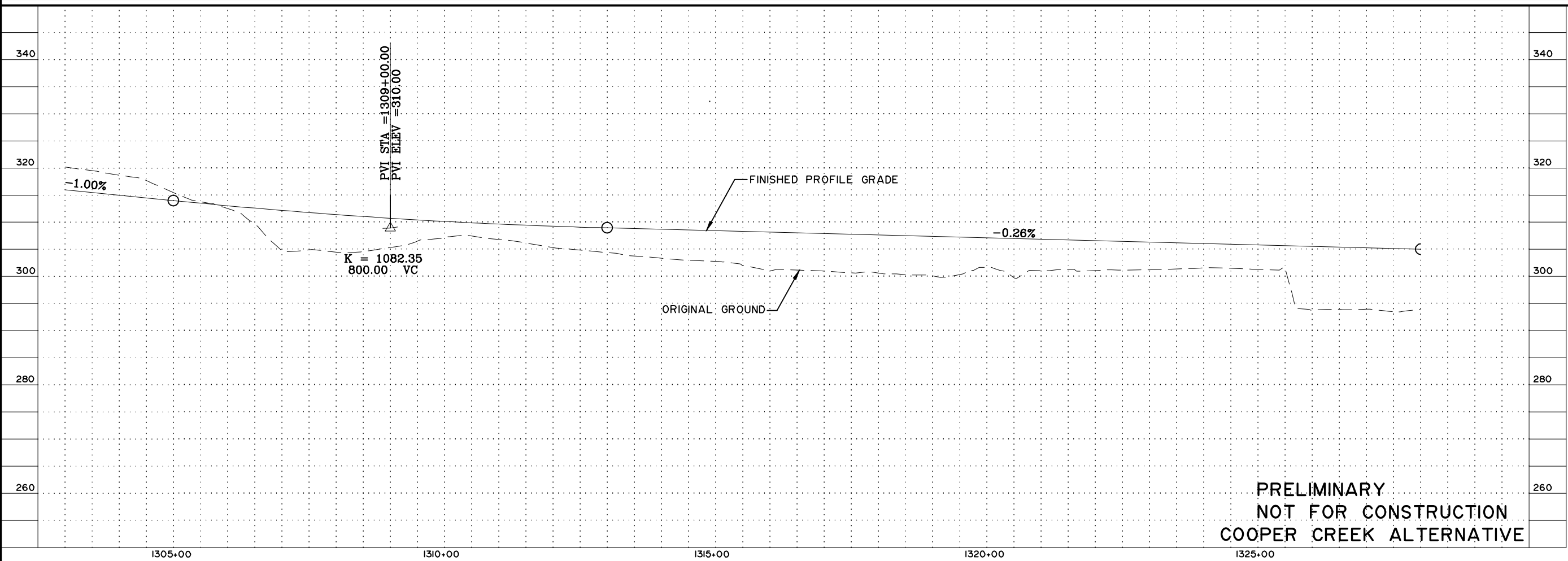
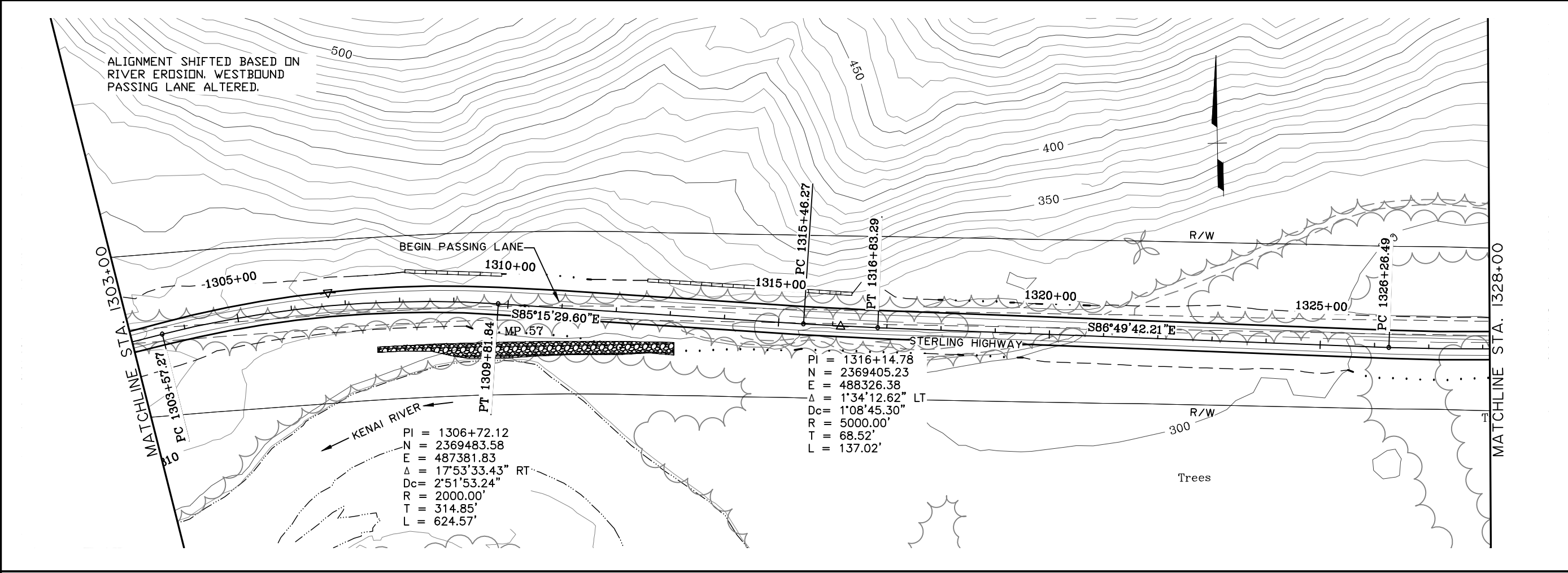


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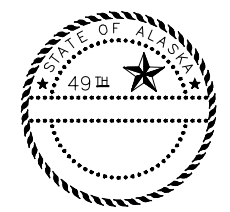
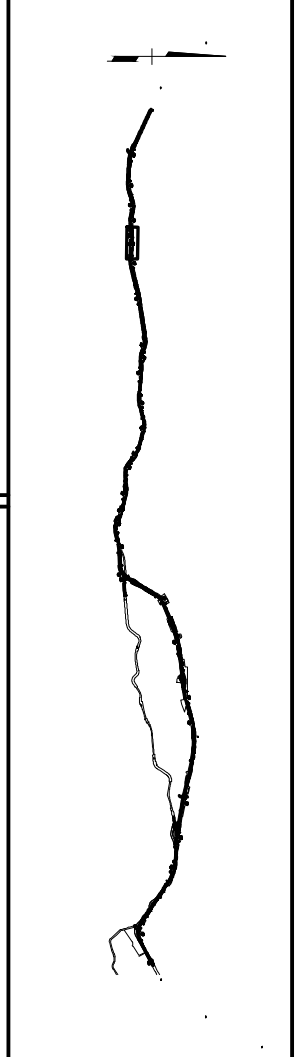
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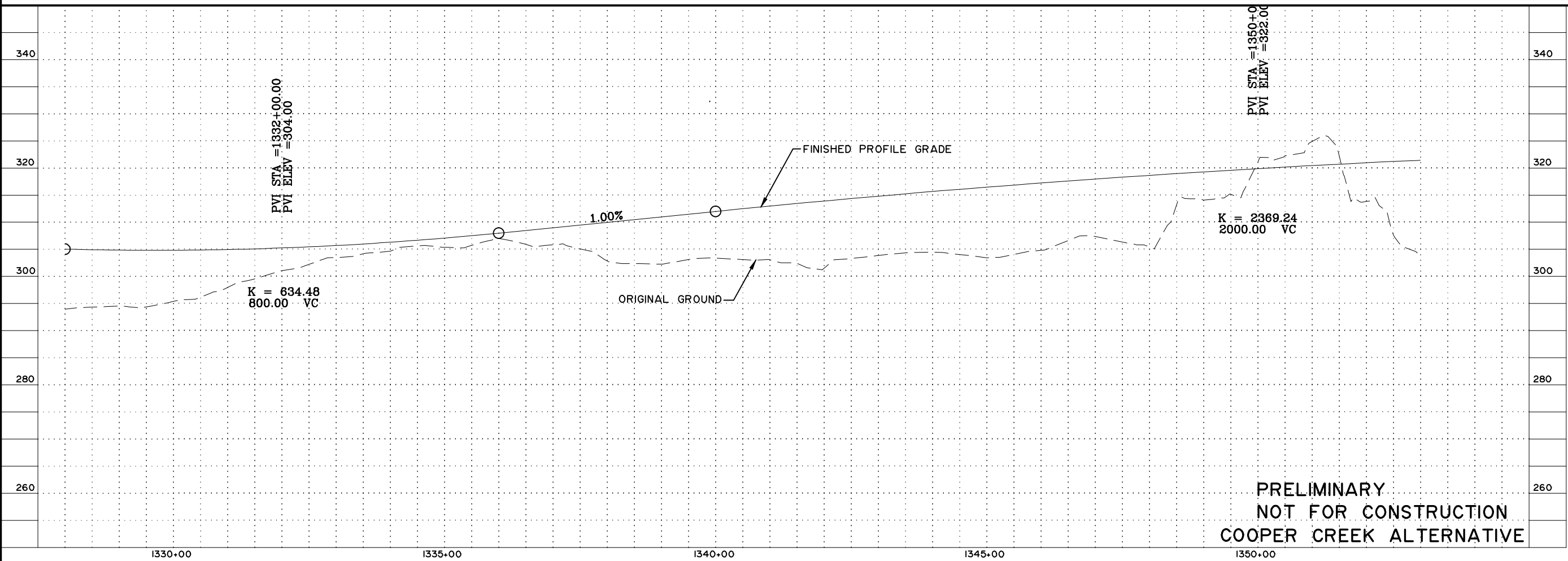
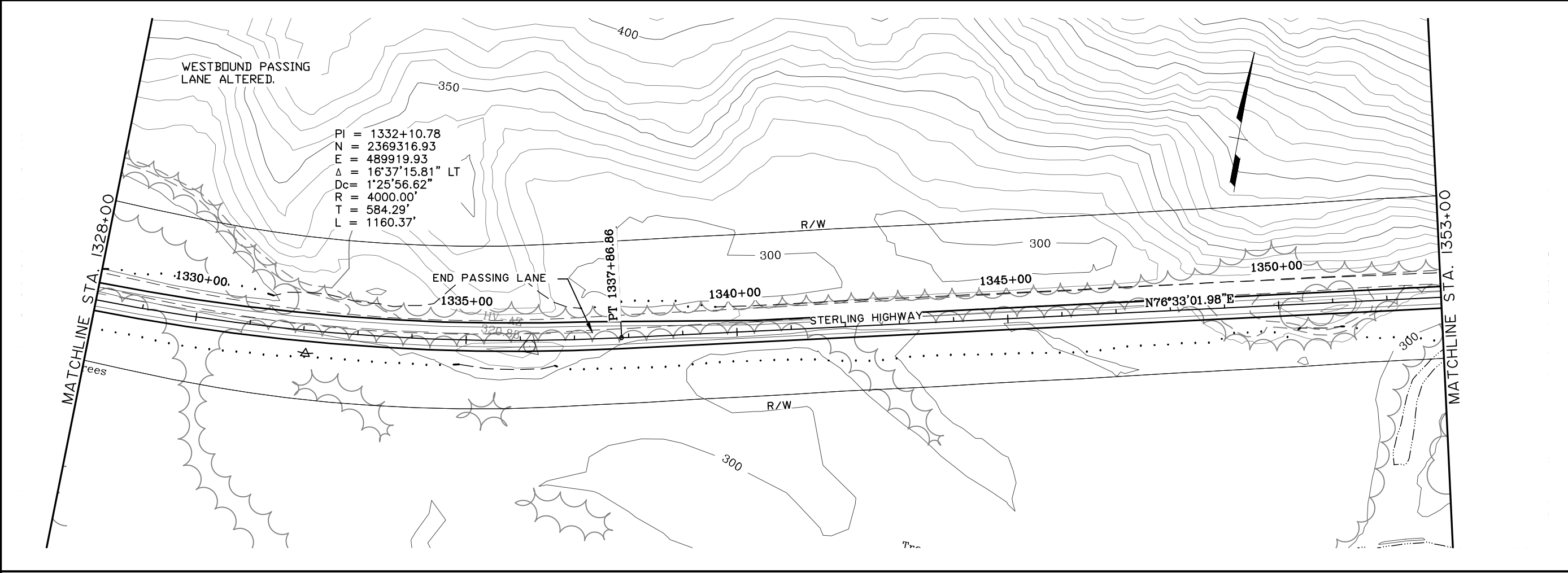
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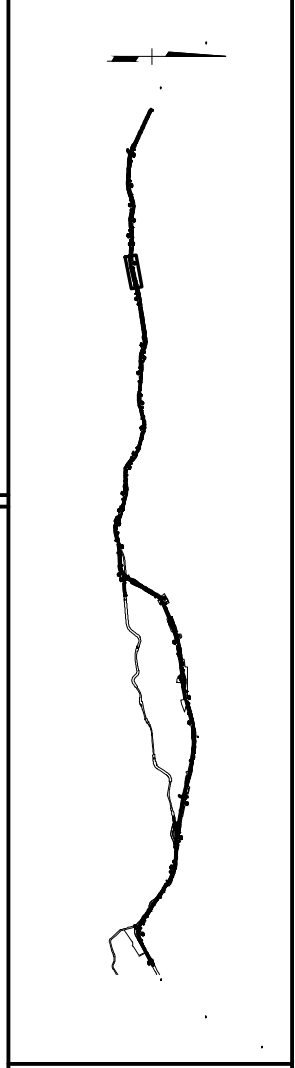
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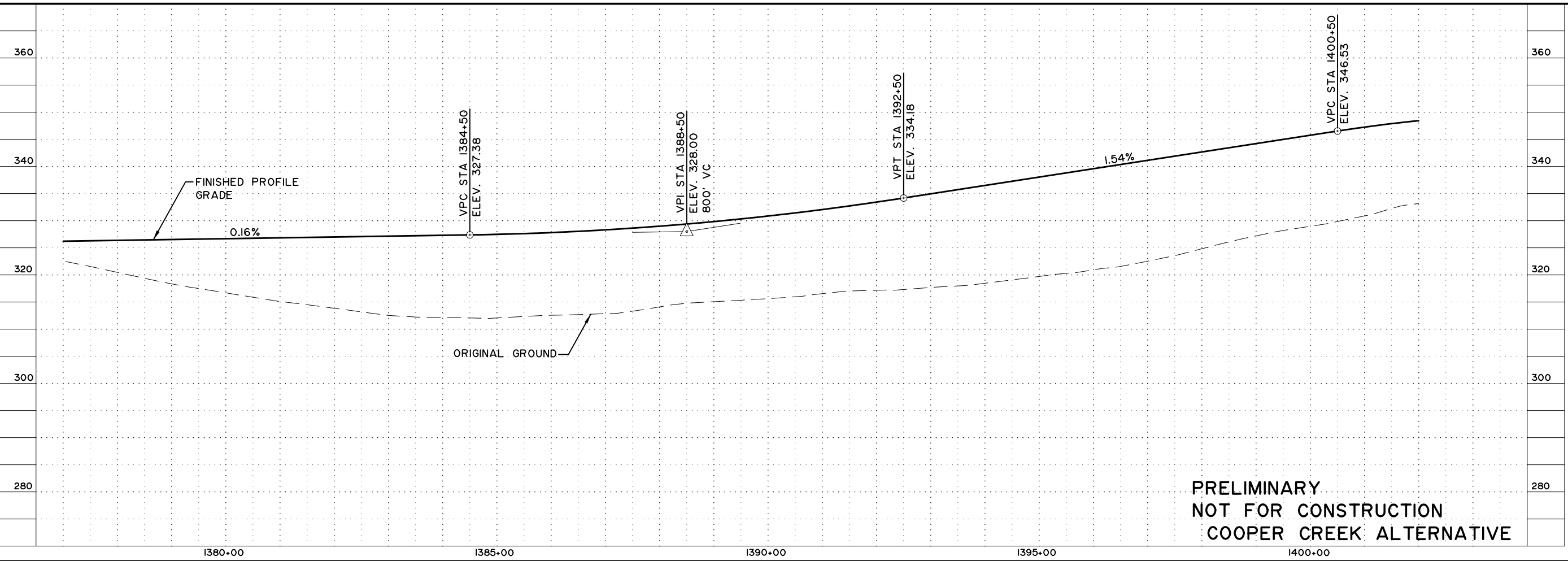
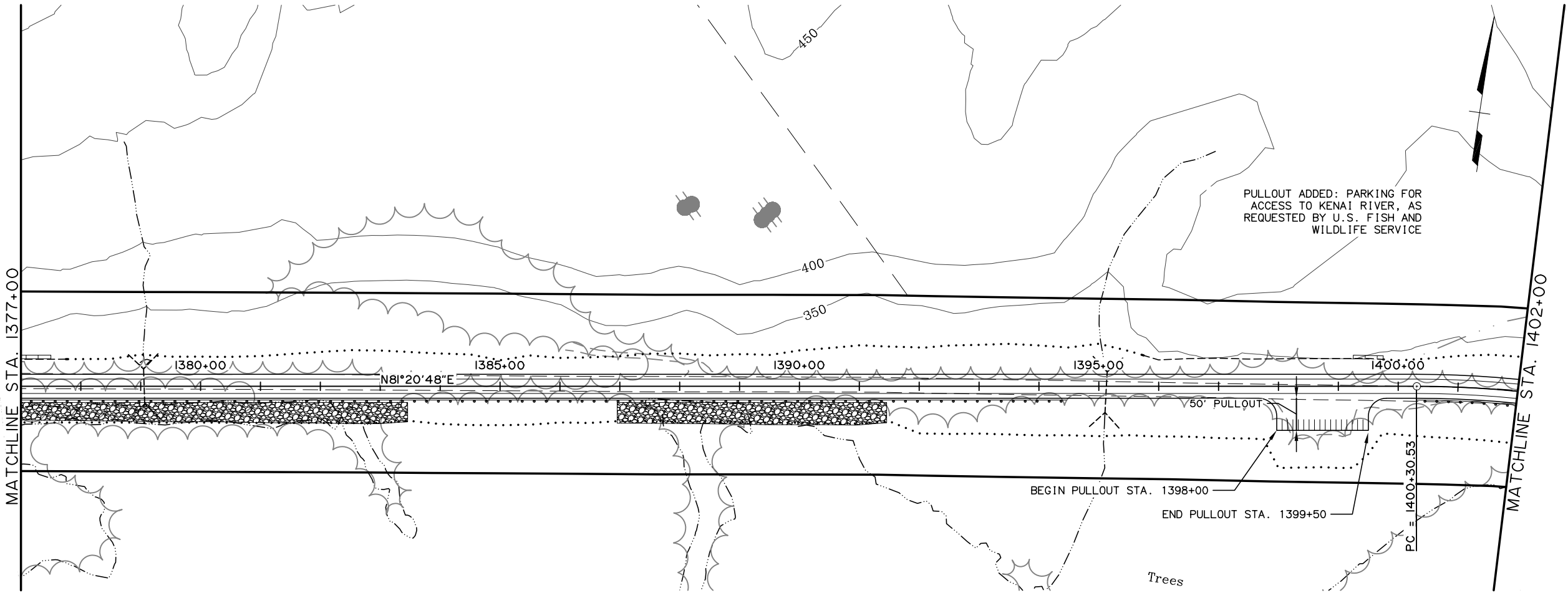
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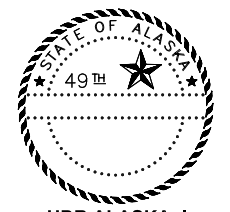
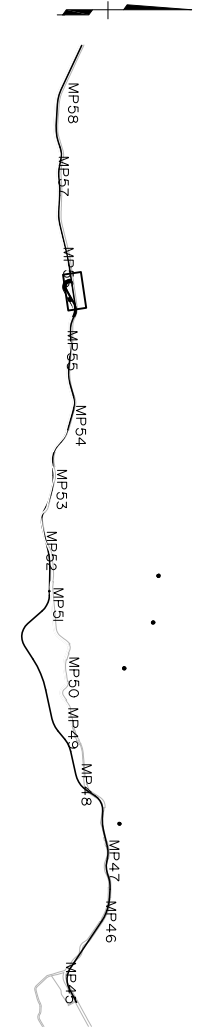
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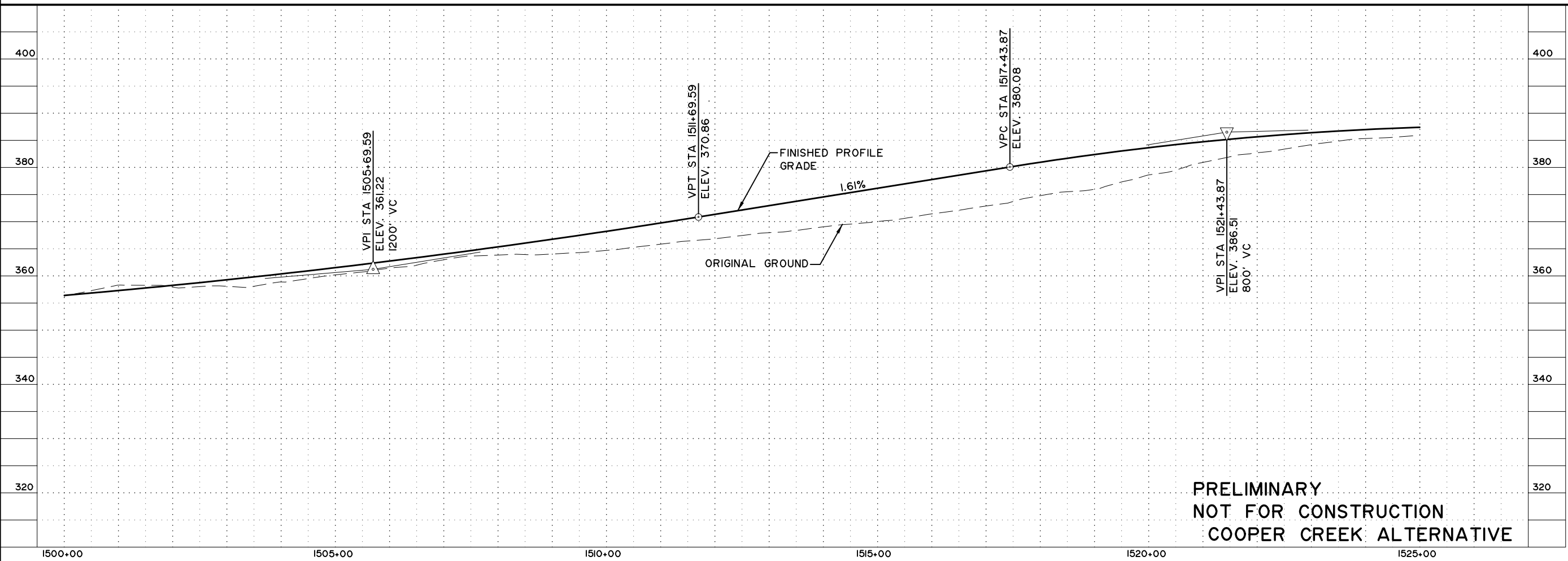
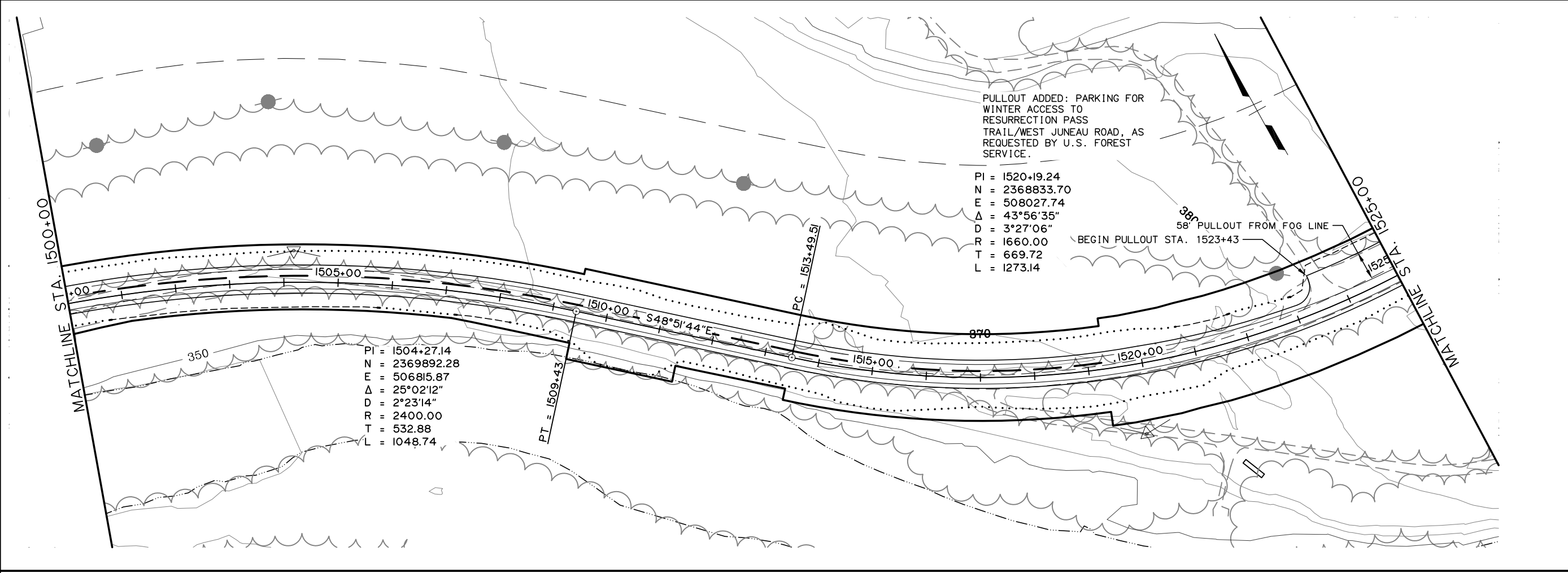
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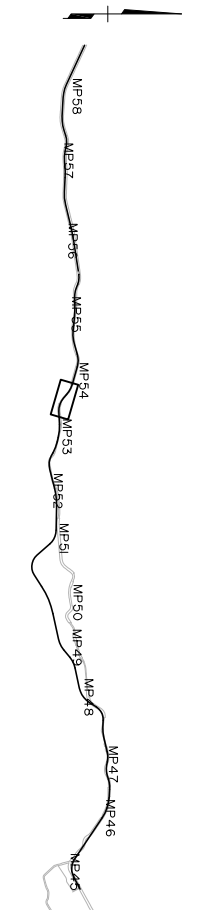
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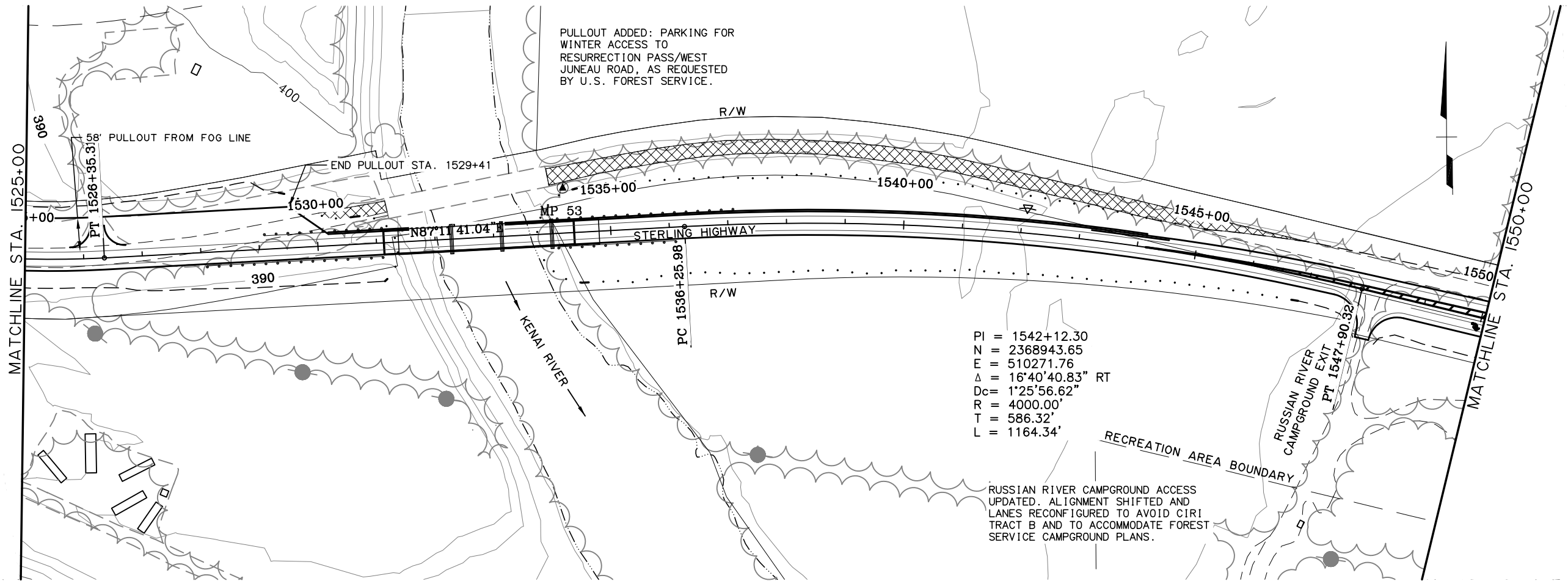


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 COOPER CREEK ALT.  
 PLAN AND PROFILE  
 STA 1500+00 TO 1525+00

**PRELIMINARY**  
**NOT FOR CONSTRUCTION**  
**COOPER CREEK ALTERNATIVE**

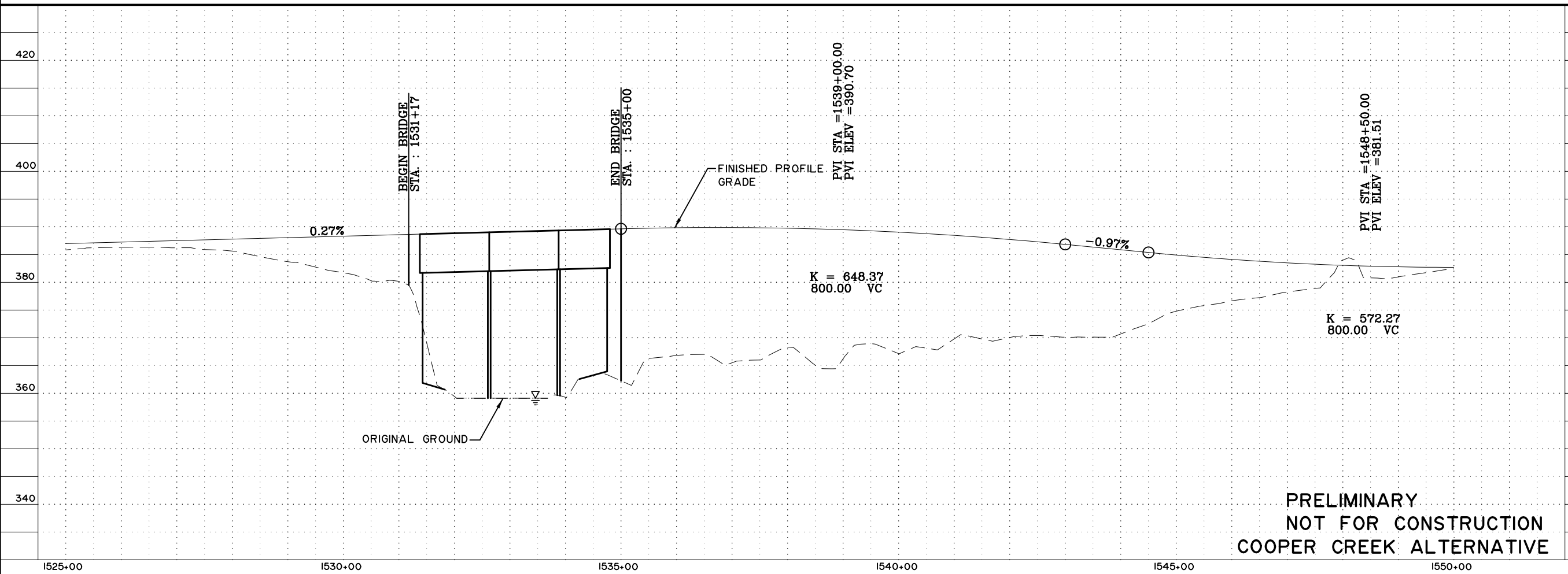
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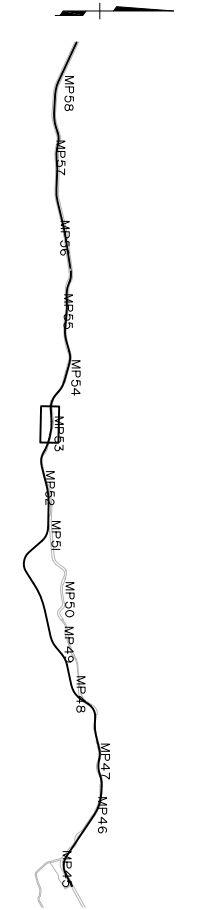
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 T = 586.32'  
 L = 1164.34'

RUSSIAN RIVER CAMPGROUND ACCESS UPDATED. ALIGNMENT SHIFTED AND LANES RECONFIGURED TO AVOID CIRI TRACT B AND TO ACCOMMODATE FOREST SERVICE CAMPGROUND PLANS.



PRELIMINARY  
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 COOPER CREEK ALTERNATIVE

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 AND  
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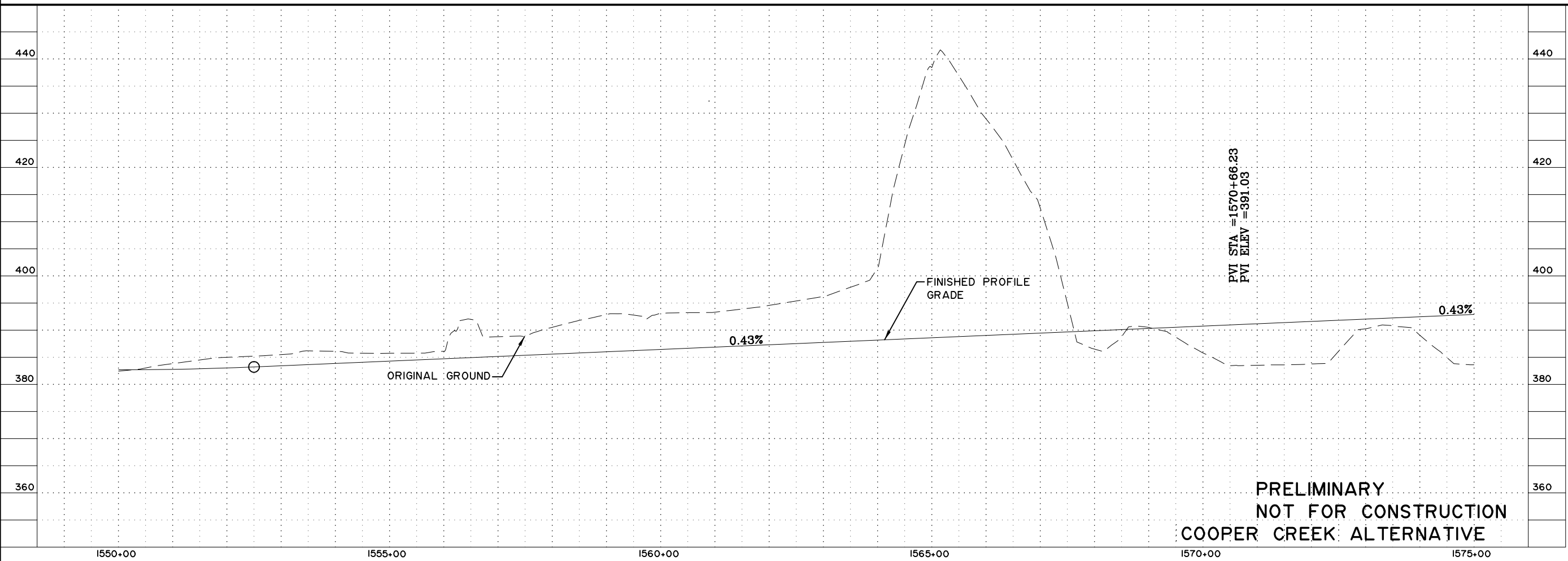
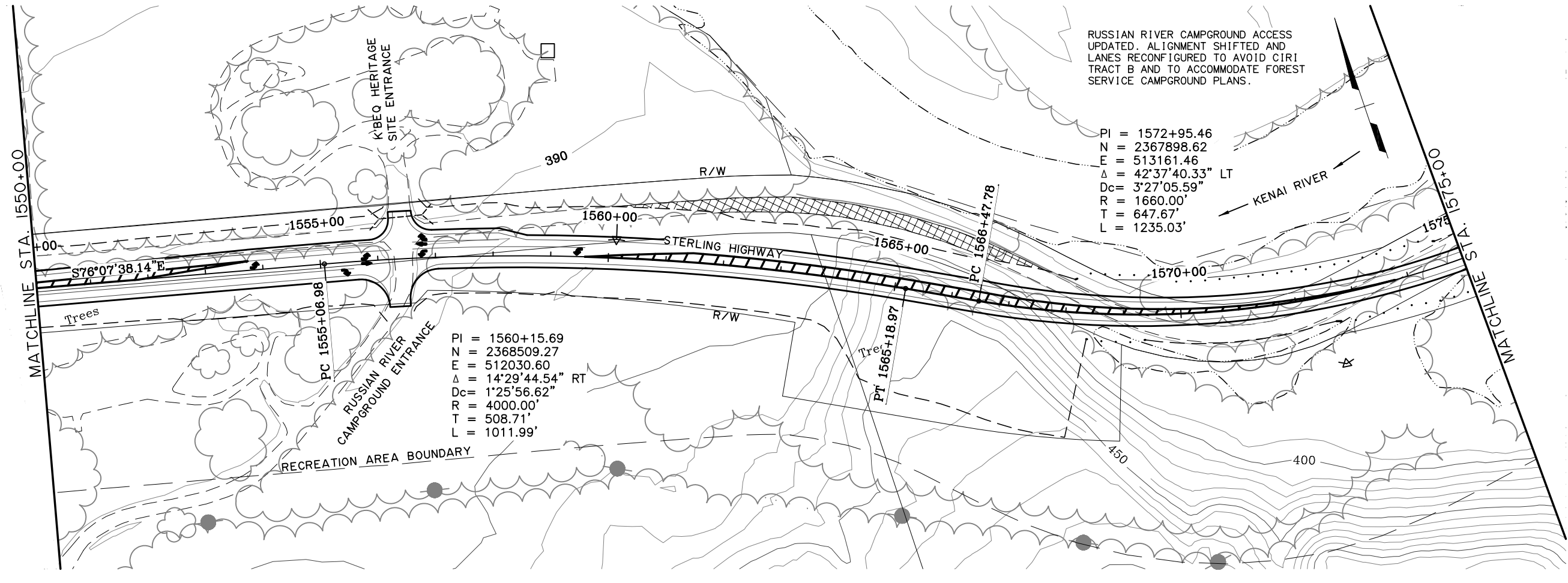
STERLING HIGHWAY  
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COOPER CREEK ALT.  
 PLAN AND PROFILE  
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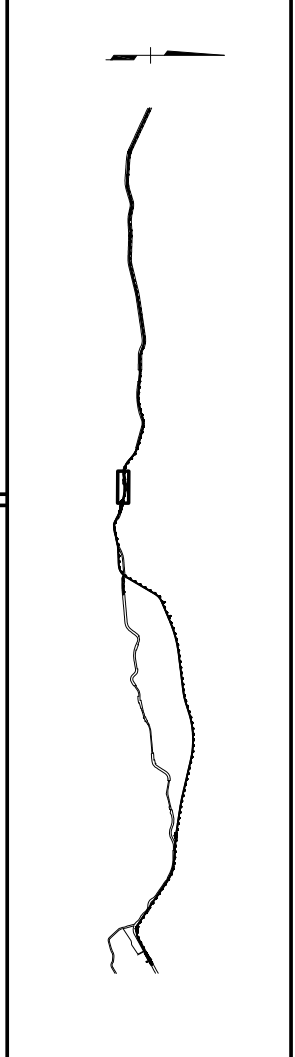
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 DRAFTED BY: CDB

SPECIFICATIONS



**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 COOPER CREEK ALTERNATIVE**

SHEET NO.	TOTAL SHEETS	
F14	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



STATE OF ALASKA  
 49<sup>TH</sup>

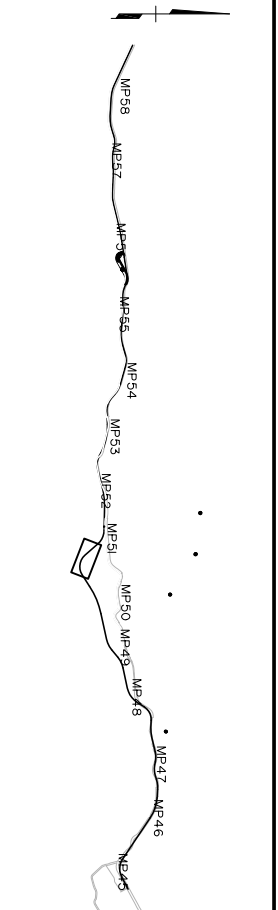
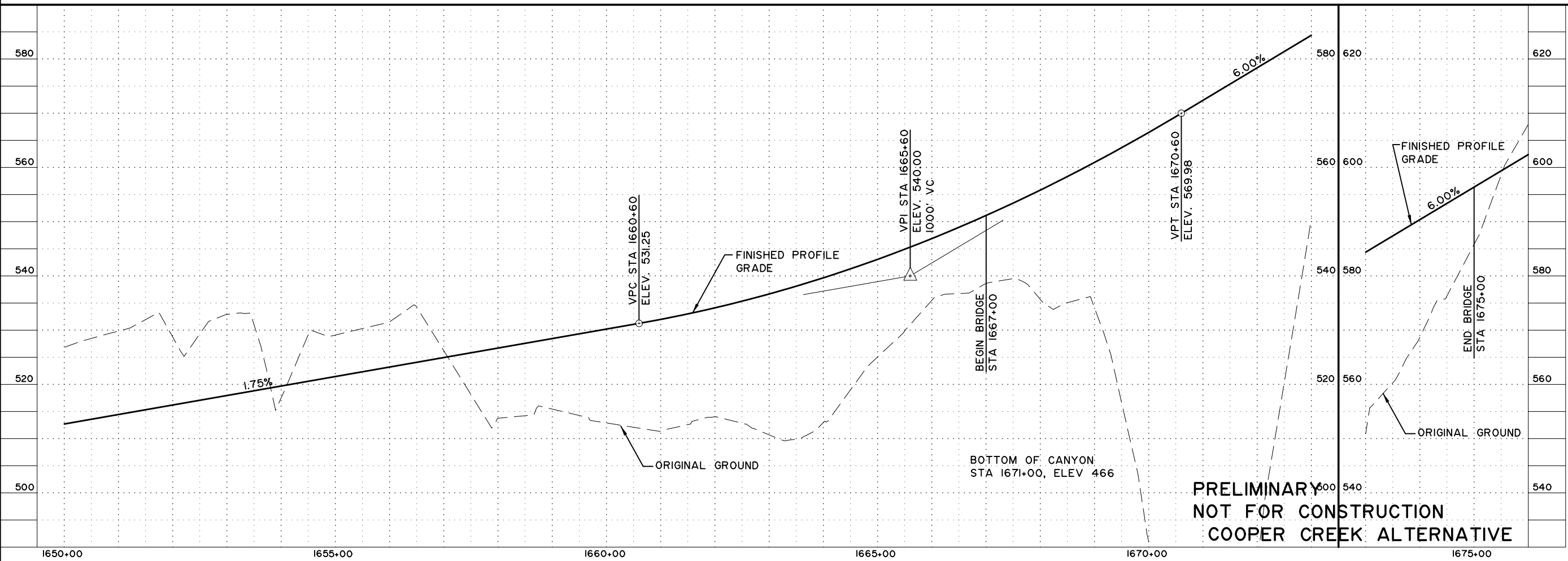
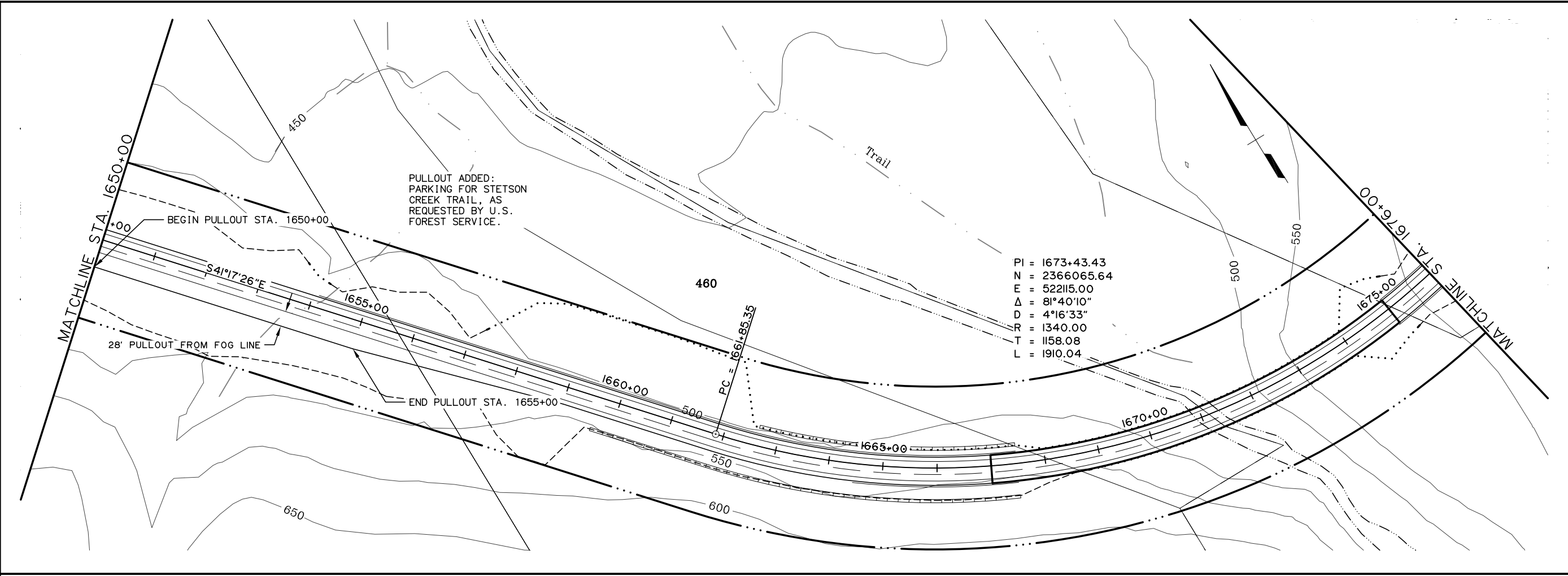
**HDR ALASKA, Inc.**

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES

**STERLING HIGHWAY  
 M.P. 45-60**

COOPER CREEK ALT.  
 PLAN AND PROFILE  
 STA 1550+00 TO 1575+00

SHEET NO.	TOTAL SHEETS	
F18	F32	
STATE	YEAR	
ALASKA	2016	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



SPECIFICATIONS  
 COMPUTER DESIGNATION: PROJECT\04\1800\CIVIL\4800-CC.FOJ\_1100\_03/14/06\_at\_16.53\_by\_ahp  
 VIEW: CC18.F\_D0765\_CC18.F\_D1065\_CC18.H\_L6000  
 XREF: 4800\_BD02\_4800\_DESIGN\_01\_4800\_SURVEY\_A-02.PP  
 DESIGNED BY: EPL  
 DRAFTED BY: GDB

**PRELIMINARY**  
**NOT FOR CONSTRUCTION**  
**COOPER CREEK ALTERNATIVE**



**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
**COOPER CREEK ALT.**  
**PLAN AND PROFILE**  
 STA 1650+00 TO 1676+00

## **G South Alternative**

Updated Plan and Profile Sheets F1-F34 (*stationing updated end to end*)

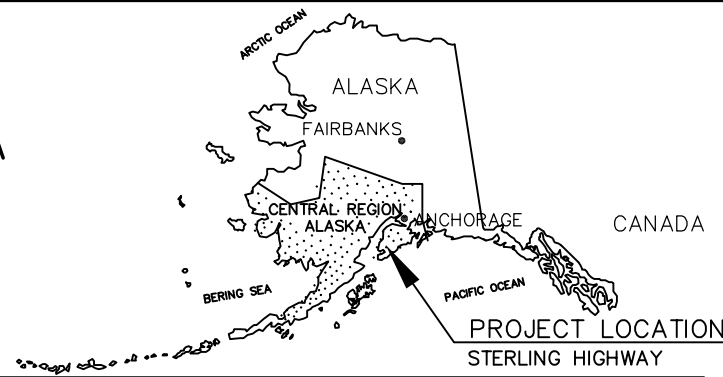


# STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

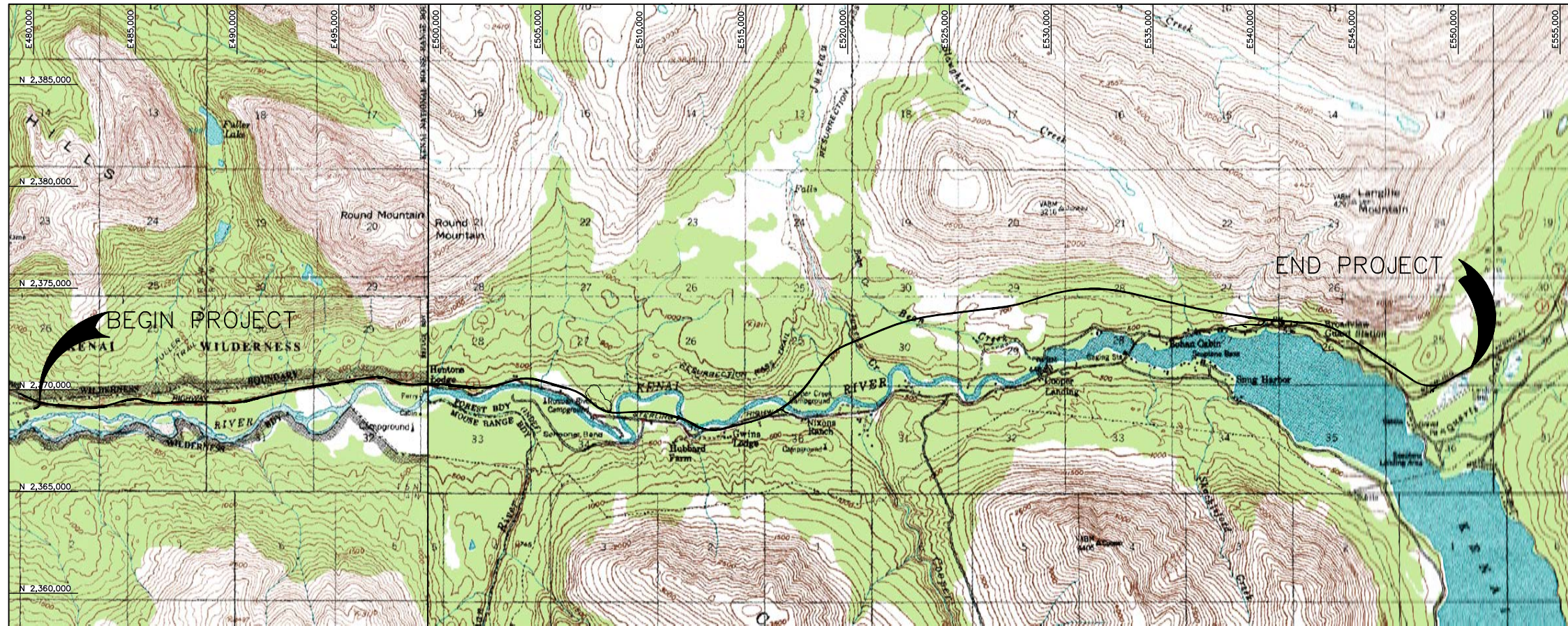
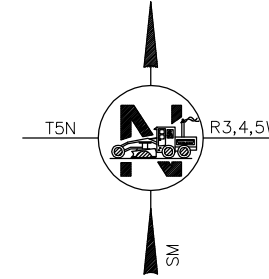
PROPOSED HIGHWAY PROJECT  
F-021-2 (15) / 53014

STERLING HIGHWAY  
MILEPOST 45 TO 60  
(G SOUTH ALTERNATIVE)



REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
No.	DATE	DESCRIPTION	ALASKA	F-021-2 (15) / 53014	2006	A1	41
			ROUTE: 11000		MILEPOINT: 116.0 TO 129.0		

INDEX	
SHEET NO.	DESCRIPTION
A1	TITLE SHEET
B1 TO B3	TYPICAL SECTIONS
B4 TO B5	SLOPE DETAILS
F1 TO F31	PLAN & PROFILE SHEETS
G1 TO G2	SIDE STREETS
H1 TO H2	MATERIAL AND WASTE AREAS



PRELIMINARY  
NOT FOR CONSTRUCTION

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

PLANS DEVELOPED BY:  
R&M CONSULTANTS, INC.

APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_  
REGIONAL PRECONSTRUCTION ENGINEER

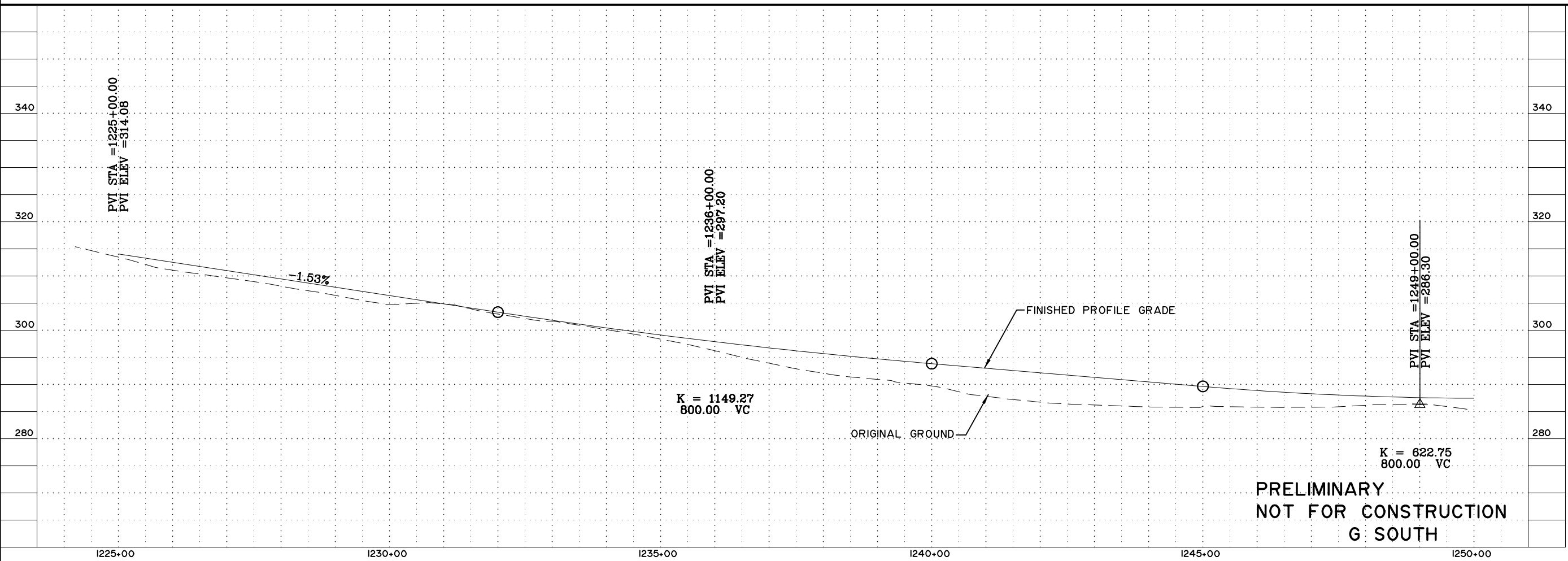
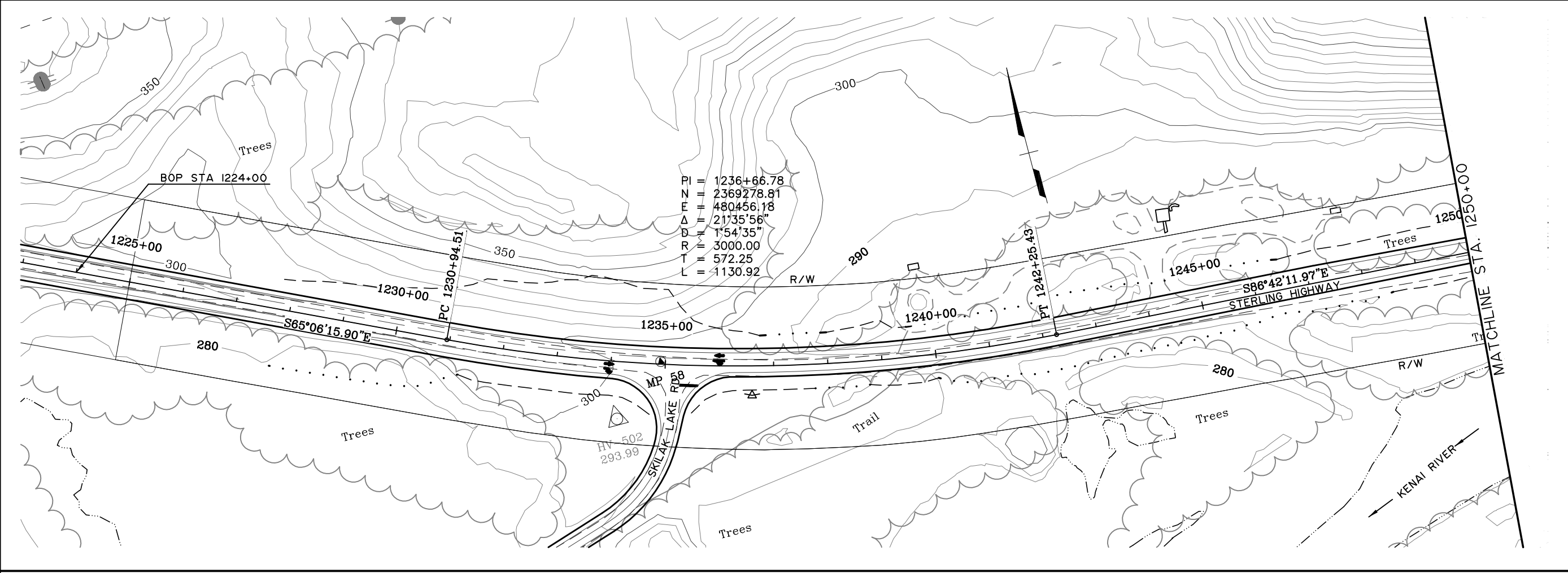
CONCUR: \_\_\_\_\_ DATE \_\_\_\_\_  
DIRECTOR, CONSTRUCTION & OPERATIONS

CERTIFIED TRUE & CORRECT AS-BUILT OF ACTUAL FIELD CONDITIONS:  
\_\_\_\_\_  
CONSTRUCTION PROJECT MANAGER

DESIGNED BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 DRAFTED BY: \_\_\_\_\_  
 SPECIFICATIONS: \_\_\_\_\_  
 STANDARDS: \_\_\_\_\_  
 COMPUTER DESIGNATION: \_\_\_\_\_  
 DATE: 11/14/06  
 SCALE: AS SHOWN  
 PROJECT: 11000  
 SHEET: 116.0 TO 129.0  
 DRAWING: 116.0 TO 129.0

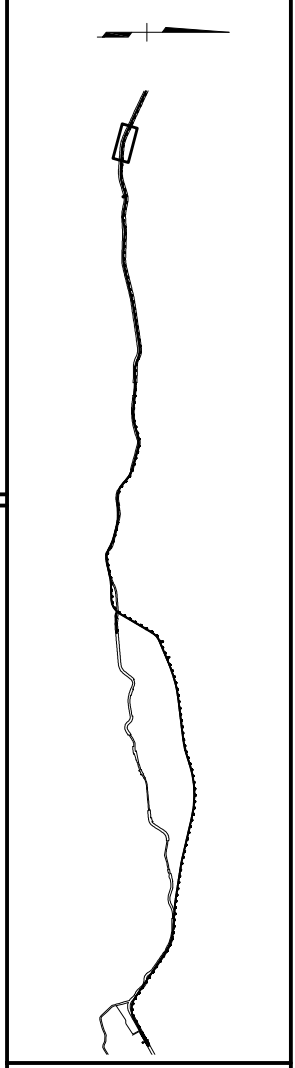


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 SPECIFICATIONS  
 DESIGNED BY: EPL  
 CHECKED BY: EPL  
 DRAFTED BY: CUB



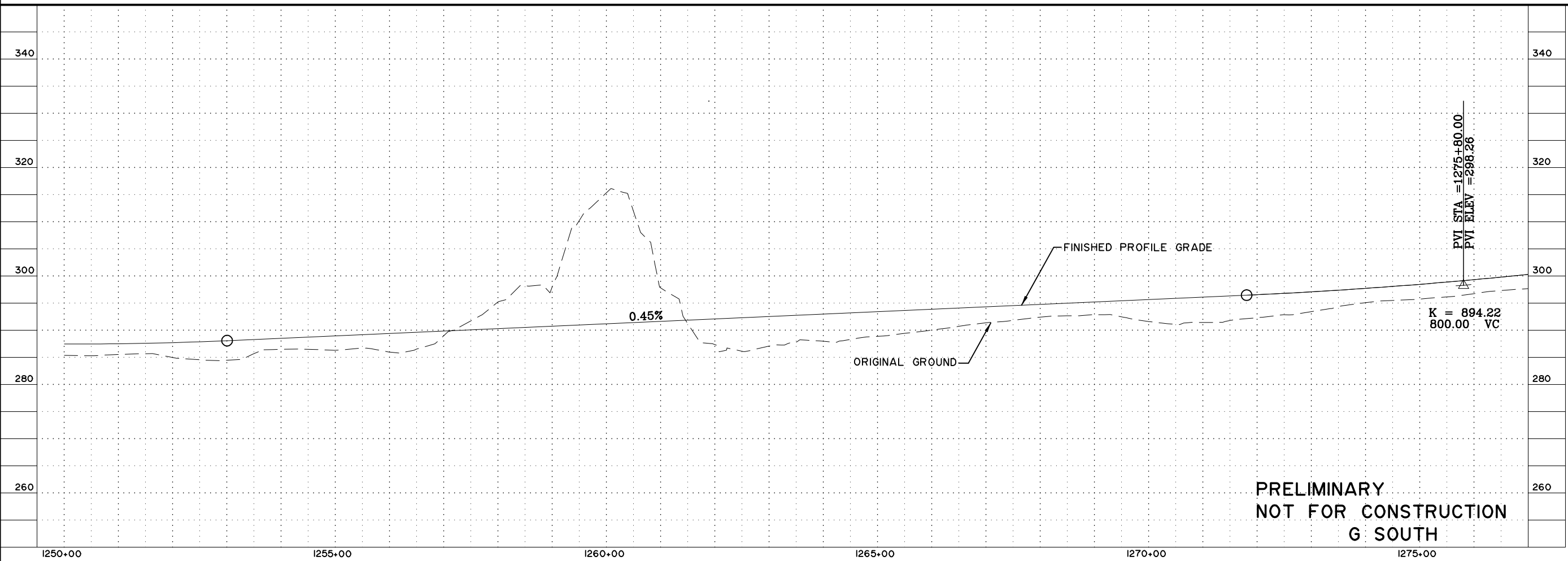
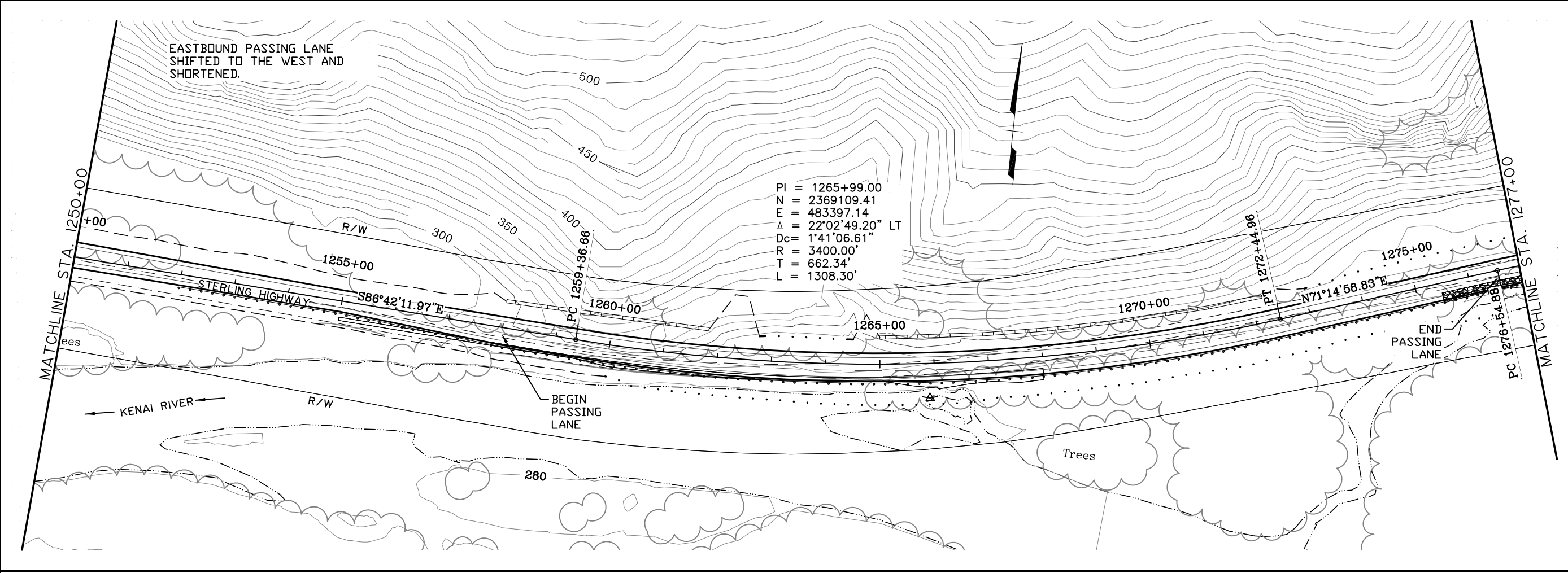
**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

SHEET NO.	TOTAL SHEETS	
FI	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



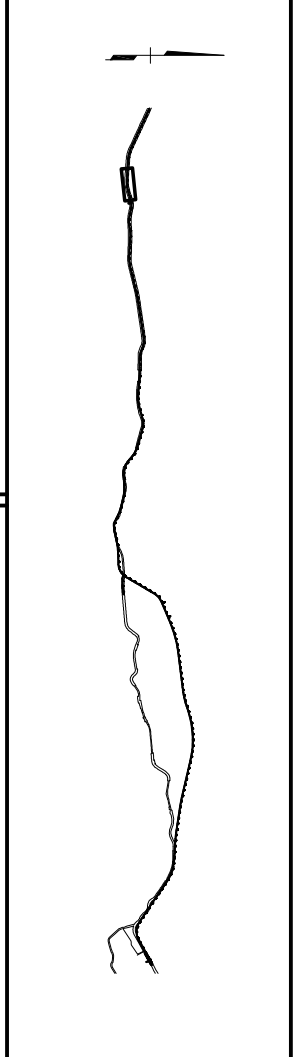
**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1225+00 TO 1250+00

VIEW: GS.F02.F.D0755.GS.F02.F.00655.GS.F02.H.1.5000  
 XREF: 4800.BD02.4800.DESIGN.OI.4800.SURVEY.A.02.PP.ROWBAE.COMPUTER.DESIGNATION.ProjectLOA.041800.CWIN.4800.GS.F01.L100.03/15/06.at.10.39.by.asp  
 SPECIFICATIONS  
 DESIGNED BY: EPL  
 DRAFTED BY: CBR



**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

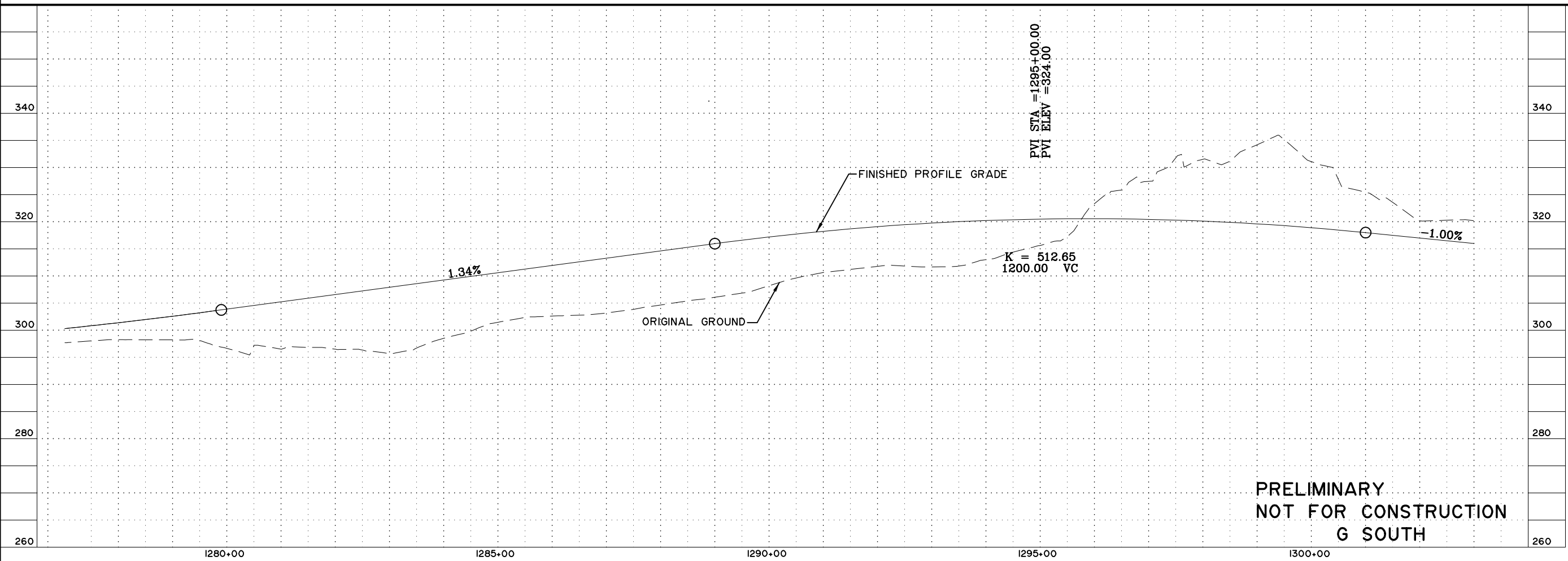
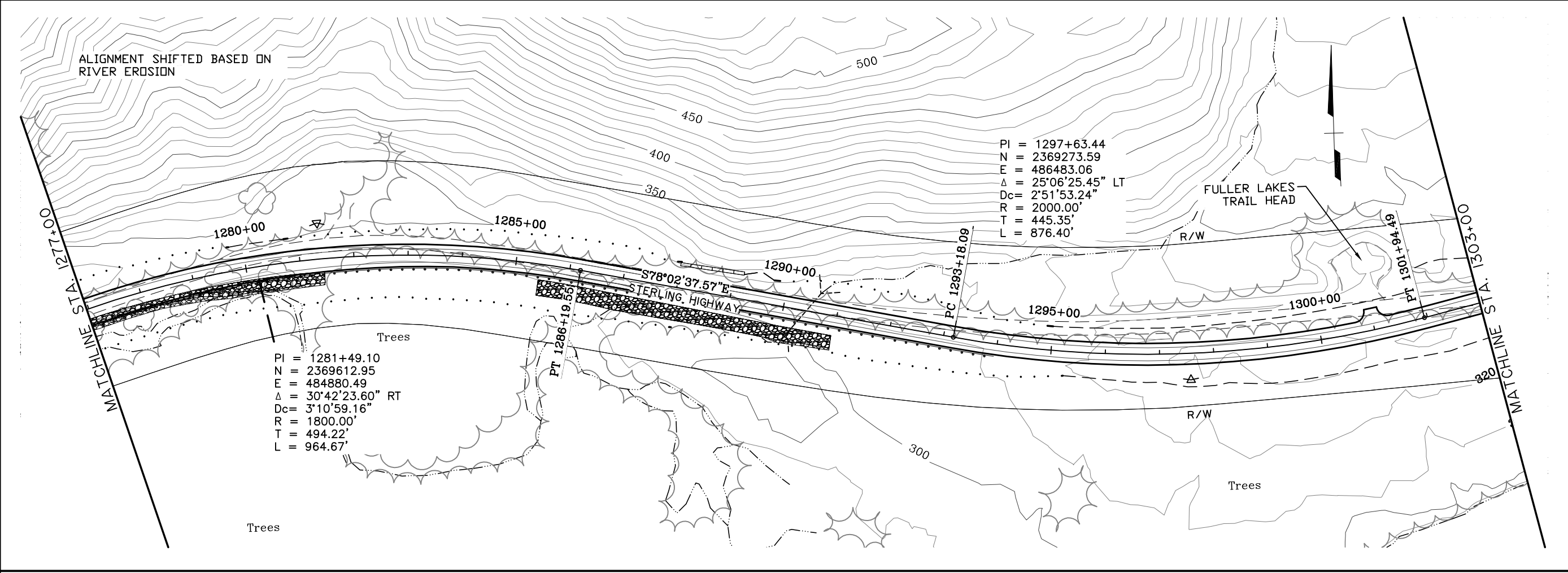
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STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-02-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



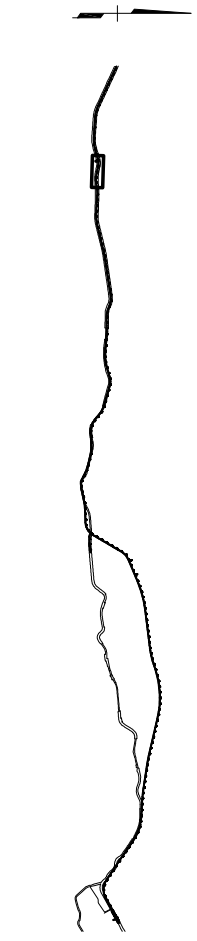
**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
 STERLING HIGHWAY  
 M.P. 45-60  
 "G" SOUTH  
 PLAN AND PROFILE  
 STA 1250+00 TO 1277+00

SHEET NO.	TOTAL SHEETS	
F3	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION

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 CHECKED BY: EPL  
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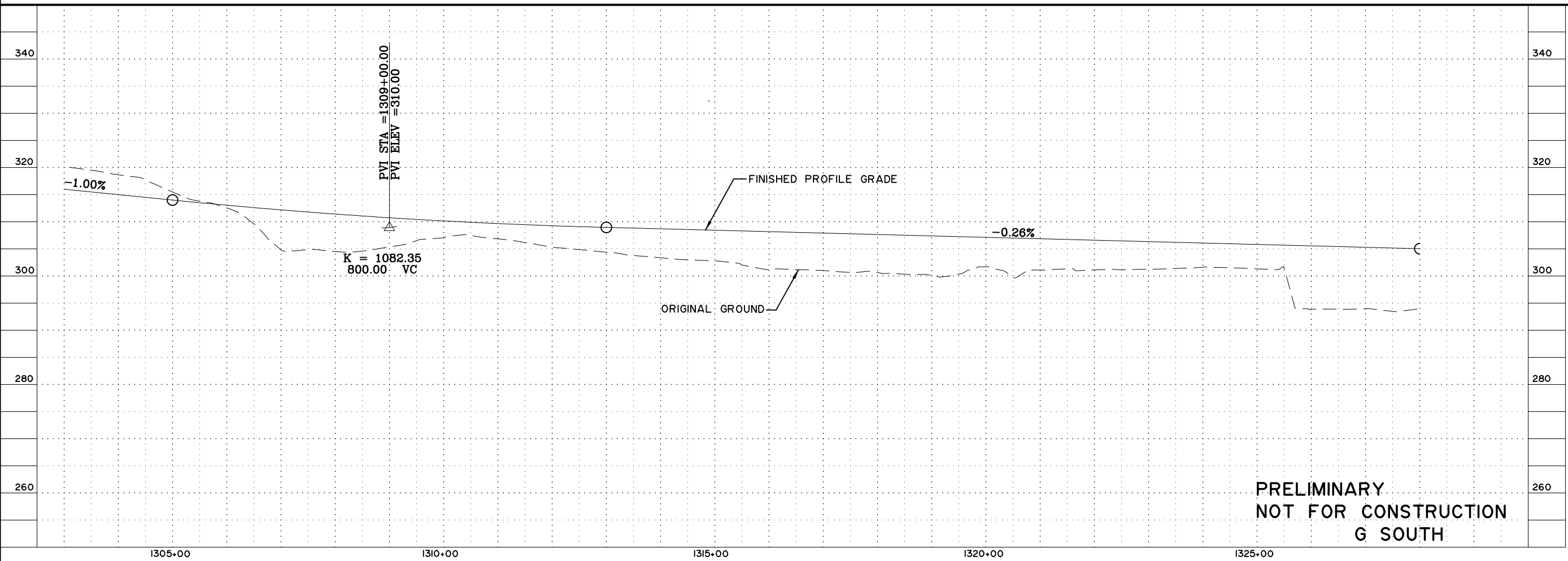
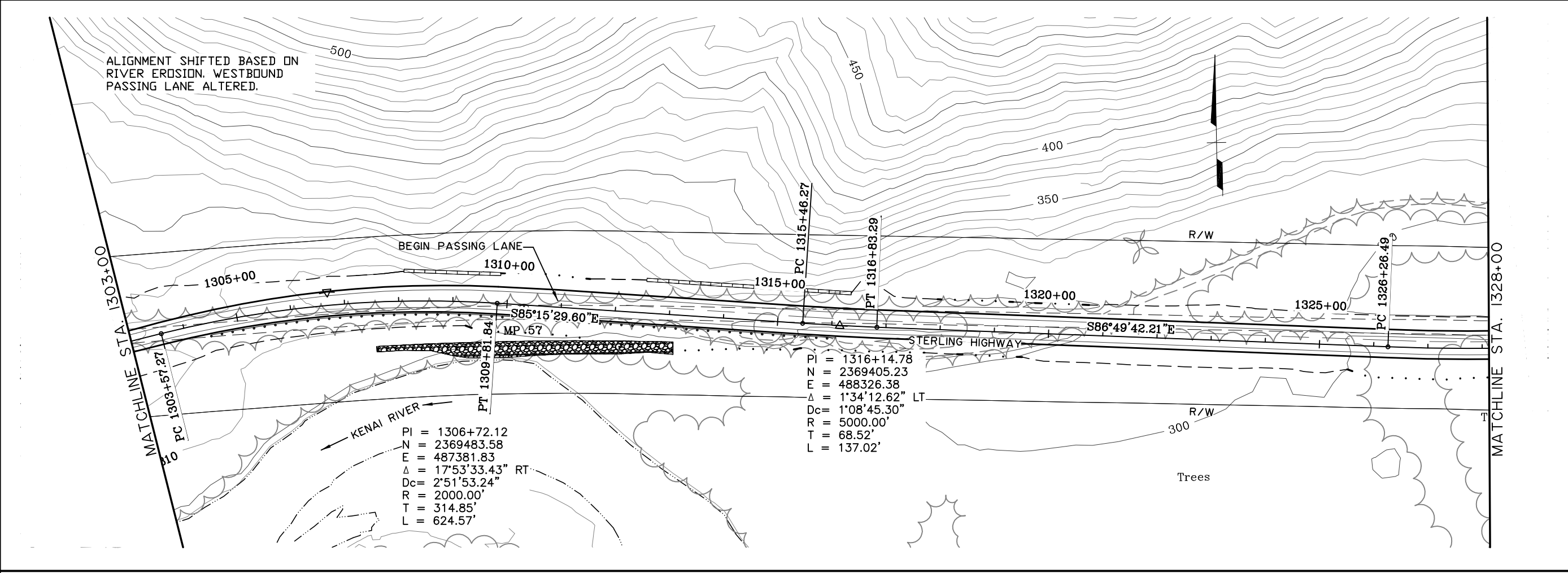


**PRELIMINARY  
NOT FOR CONSTRUCTION  
G SOUTH**



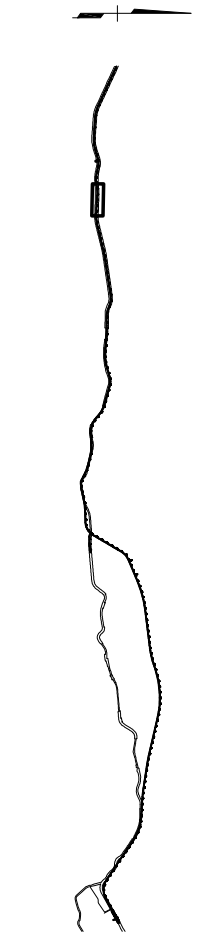
**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1277+00 TO 1303+00

VIEW: GS-F04.F\_00765\_GS-F04.F\_0056\_GS-F04.F\_0056\_GS-F04.F\_0056\_GS-F04.F\_0056  
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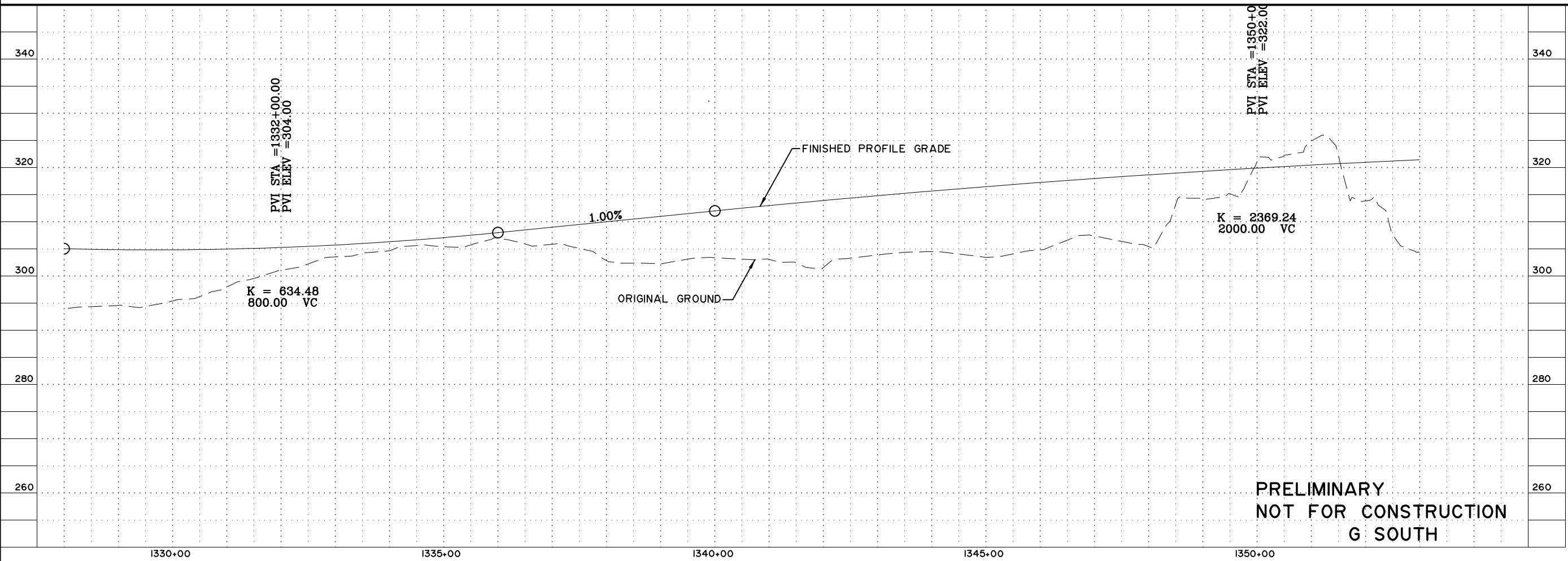
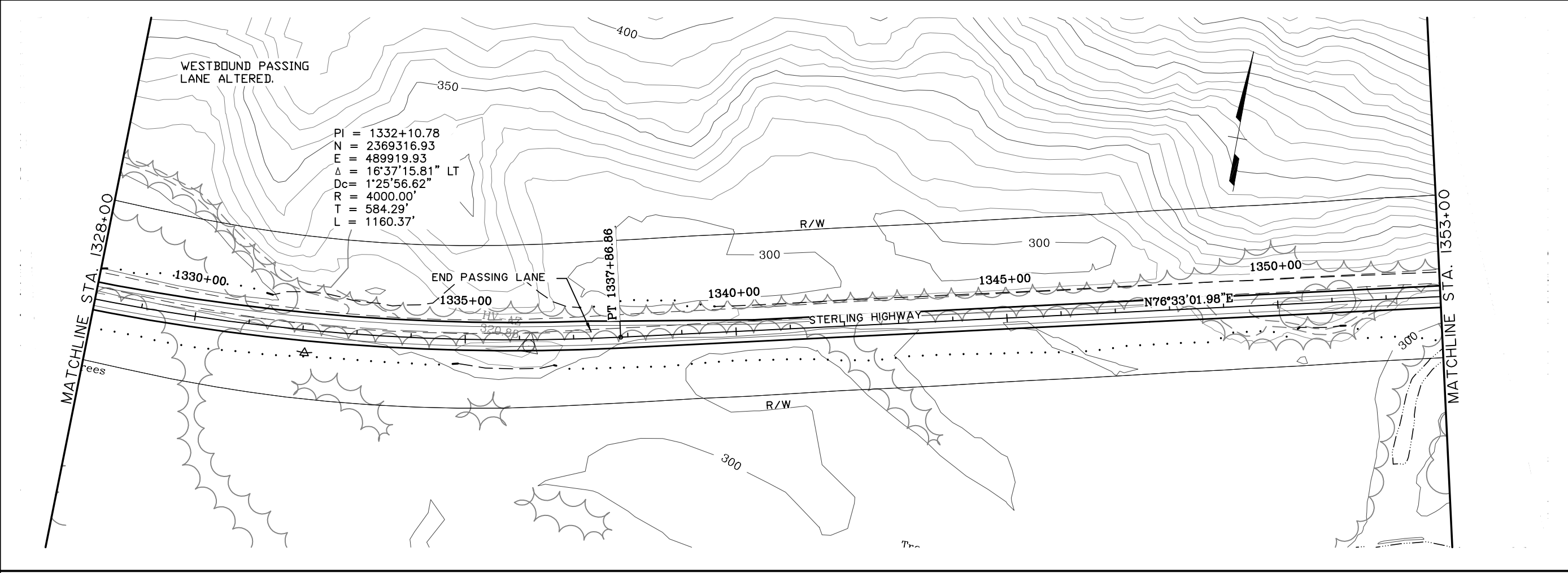
**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

SHEET NO.	TOTAL SHEETS	
F4	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION

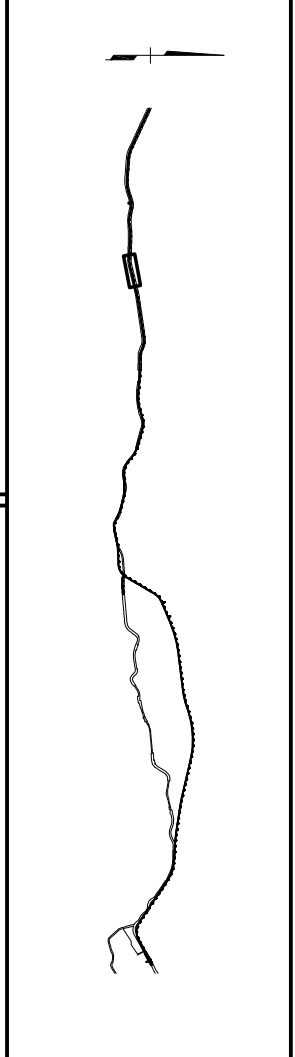


**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
 STERLING HIGHWAY  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1303+00 TO 1328+00

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 CHECKED BY: EPL  
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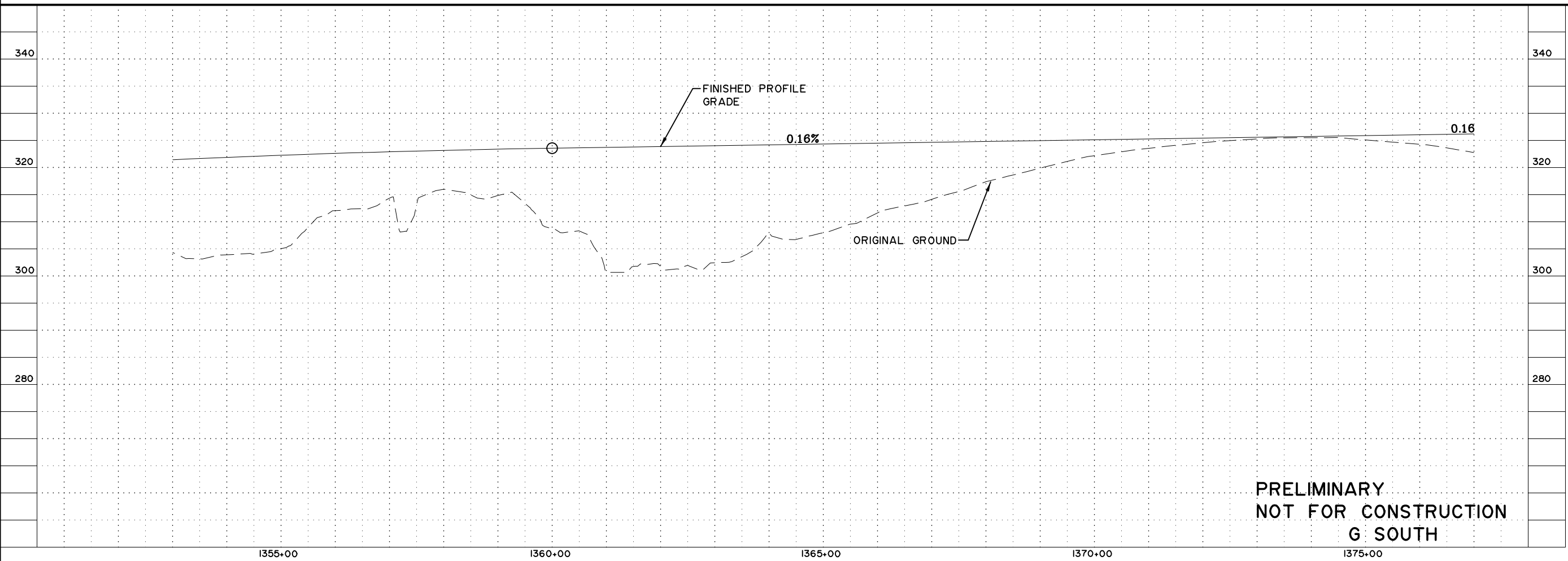
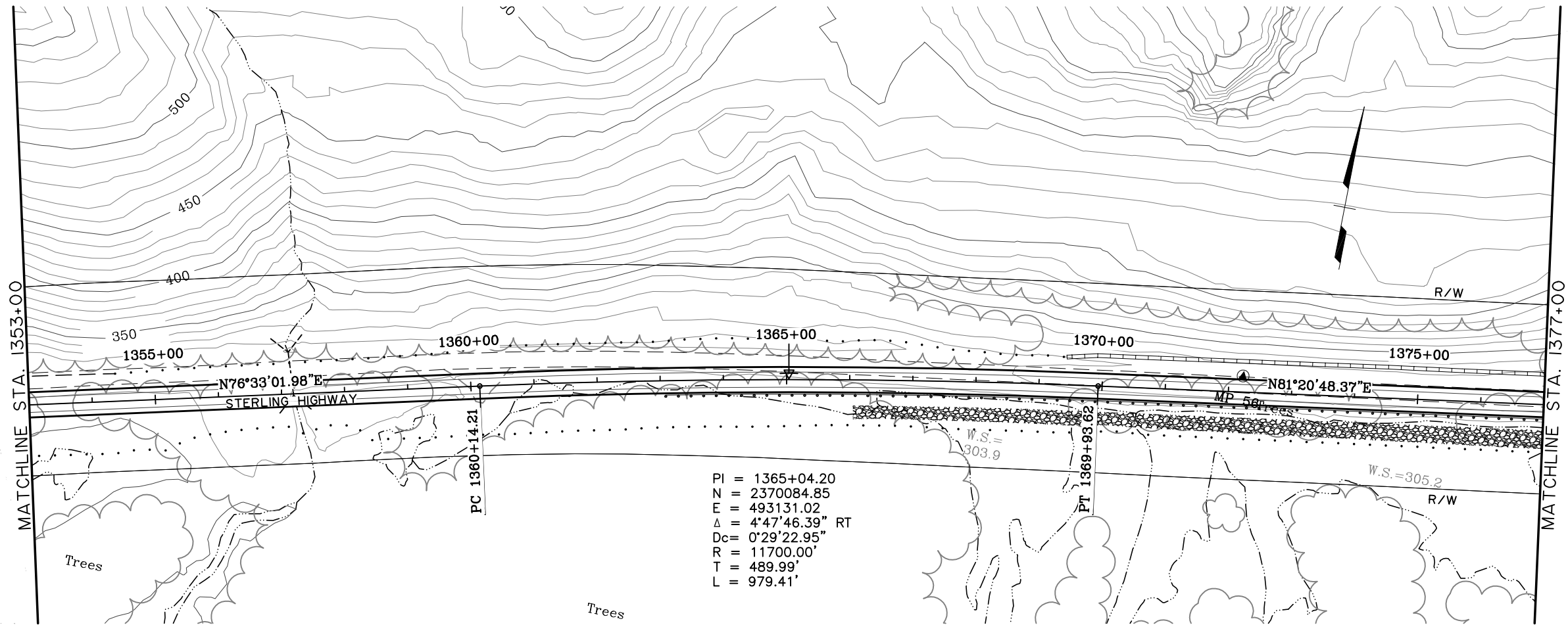


SHEET NO.	TOTAL SHEETS	
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STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



  
**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
 STERLING HIGHWAY  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1328+00 TO 1353+00

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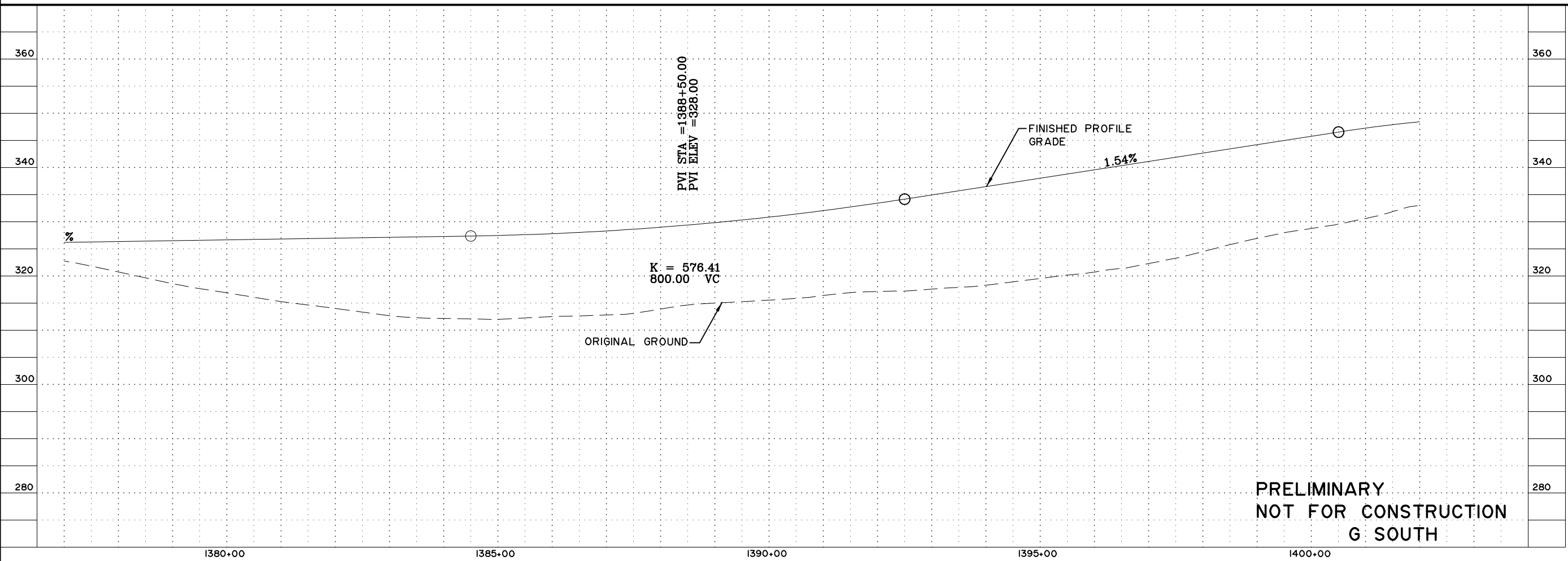
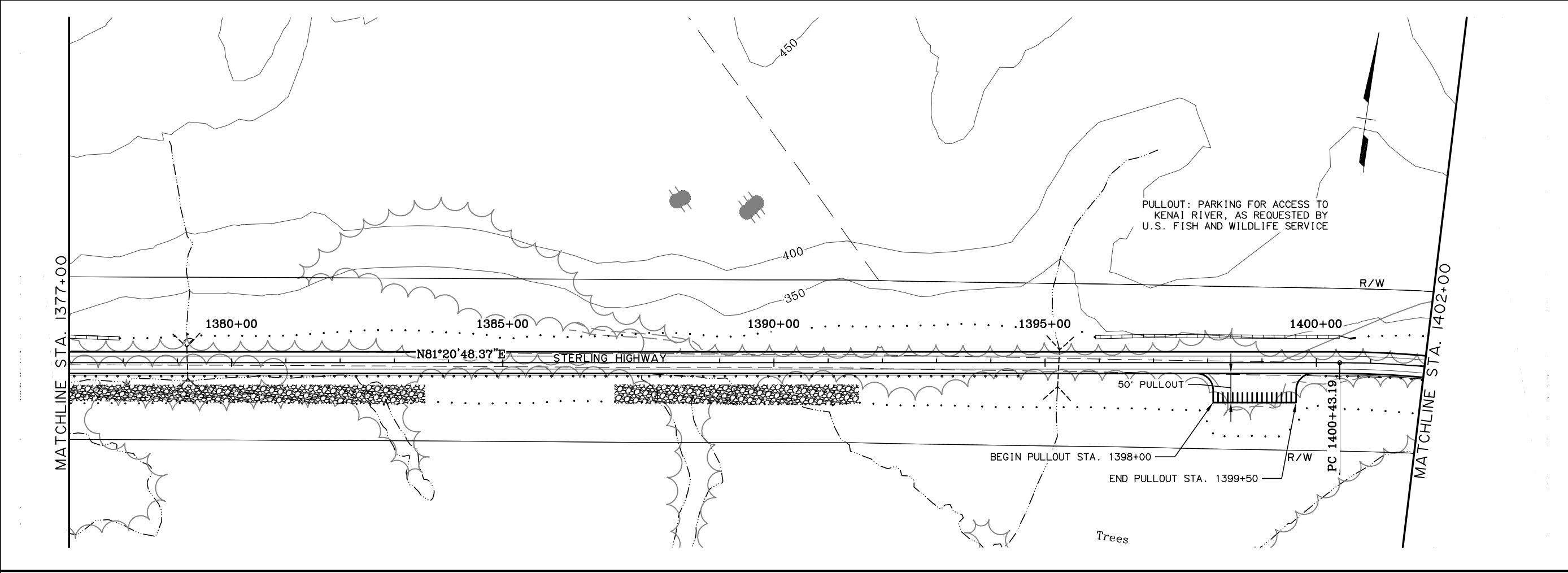
**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

SHEET NO.	TOTAL SHEETS	
F6	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



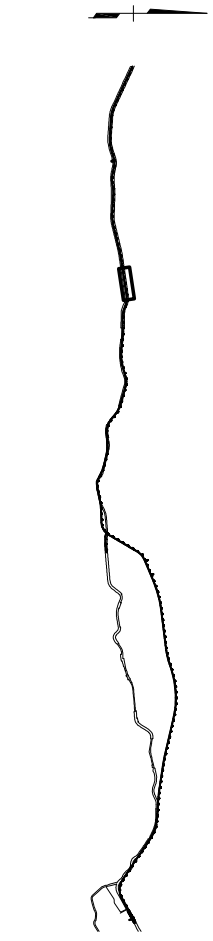
**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1353+00 TO 1377+00

VIEW: GS-F07-F-00765\_GS-F07-F-00665\_GS-F07-H-15000  
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 SPECIFICATIONS  
 DESIGNED BY: EPL  
 DRAFTED BY: CBR



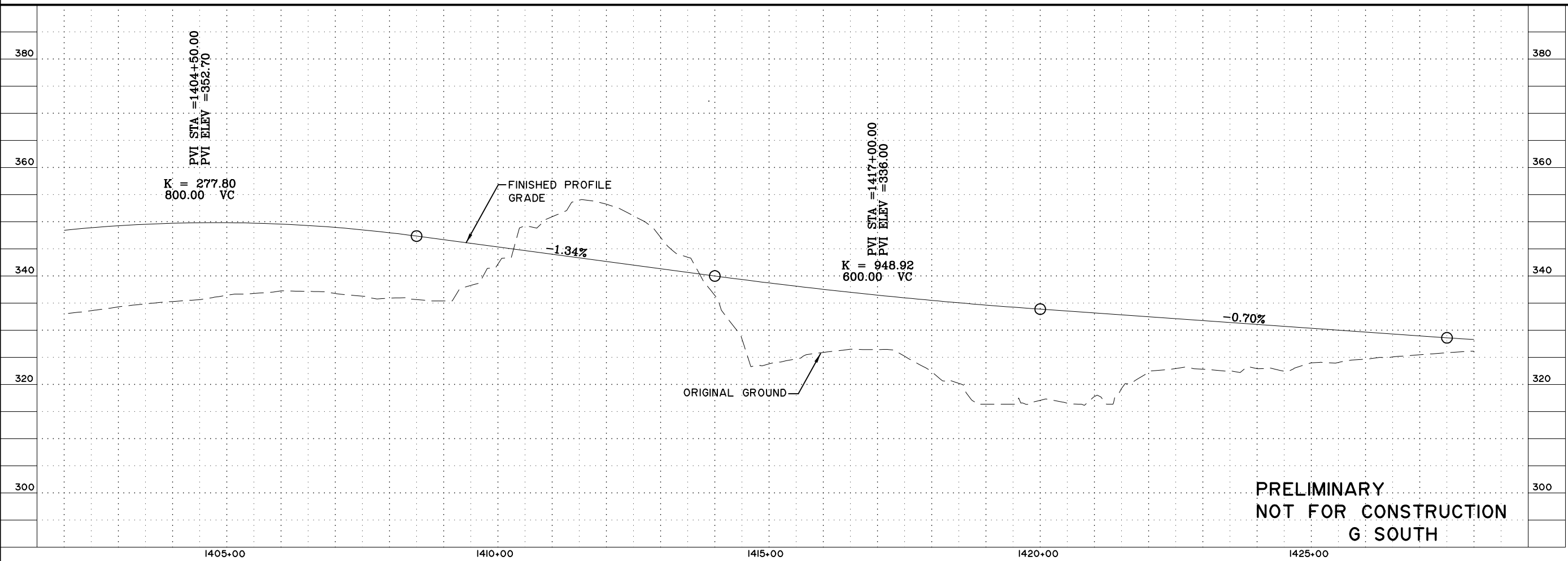
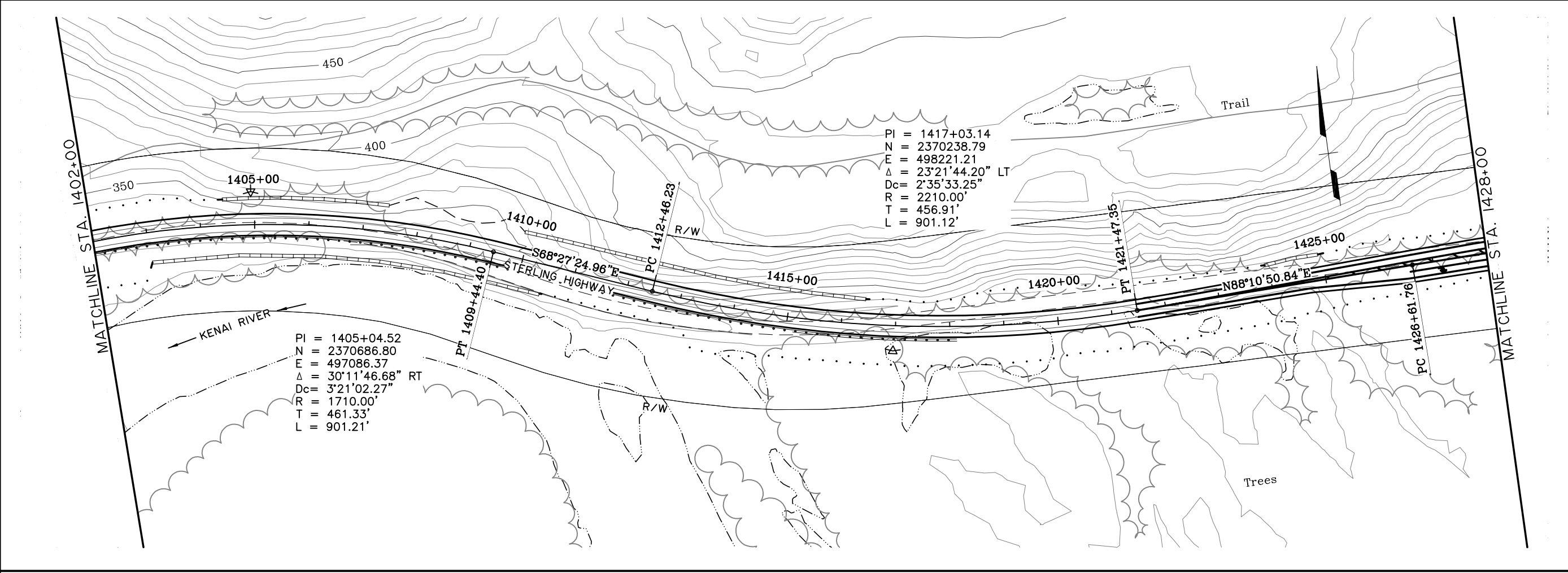
**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

SHEET NO.	TOTAL SHEETS	
F7	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-02I-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1377+00 TO 1402+00

VIEW: GS.F08.F.D0785.GS.F08.F.D0655.GS.F08.H.L5000  
 XREF: 4800.BD02.4800.DESIGN.OI.4800.SURVEY.A.02.PP.ROWBAR  
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 COMPUTER DESIGNATION Project:LOA1.041800.Civil.4800.GS.F.OI.L100.03/15/06.at.10.39.by.app  
 DESIGNED BY: EPL  
 DRAFTED BY: CBR



**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

SHEET NO.	TOTAL SHEETS	
F8	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION

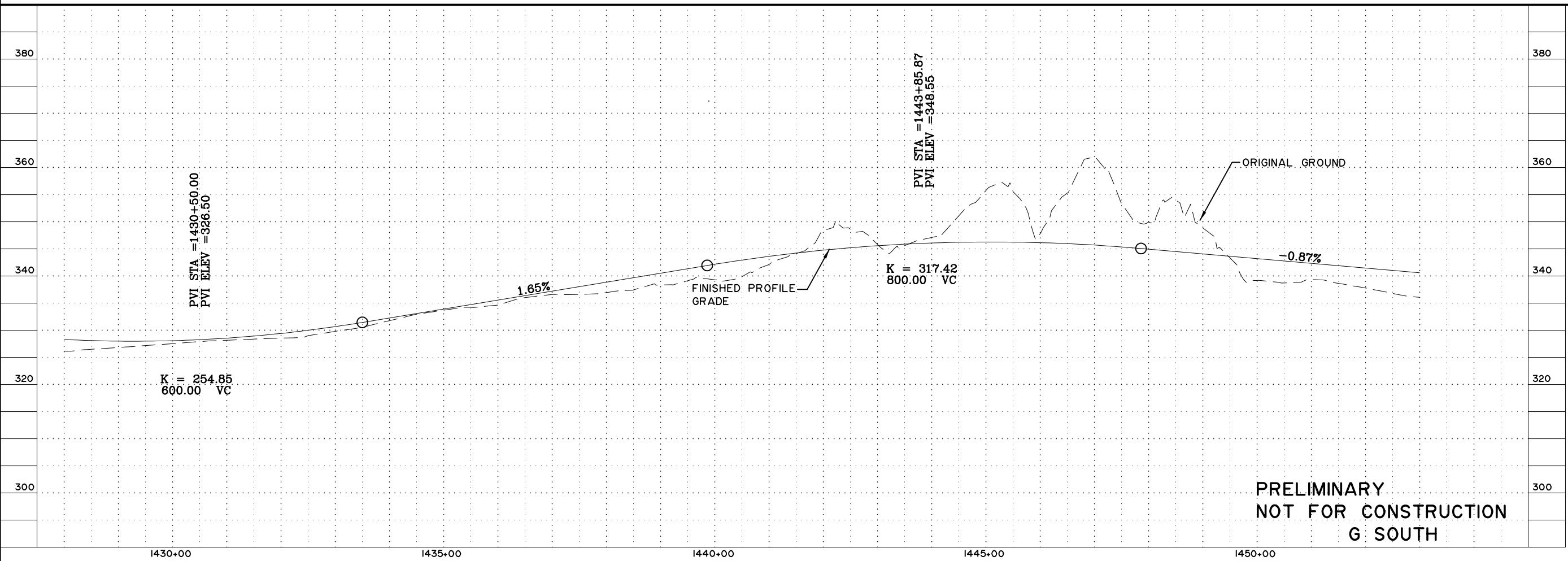
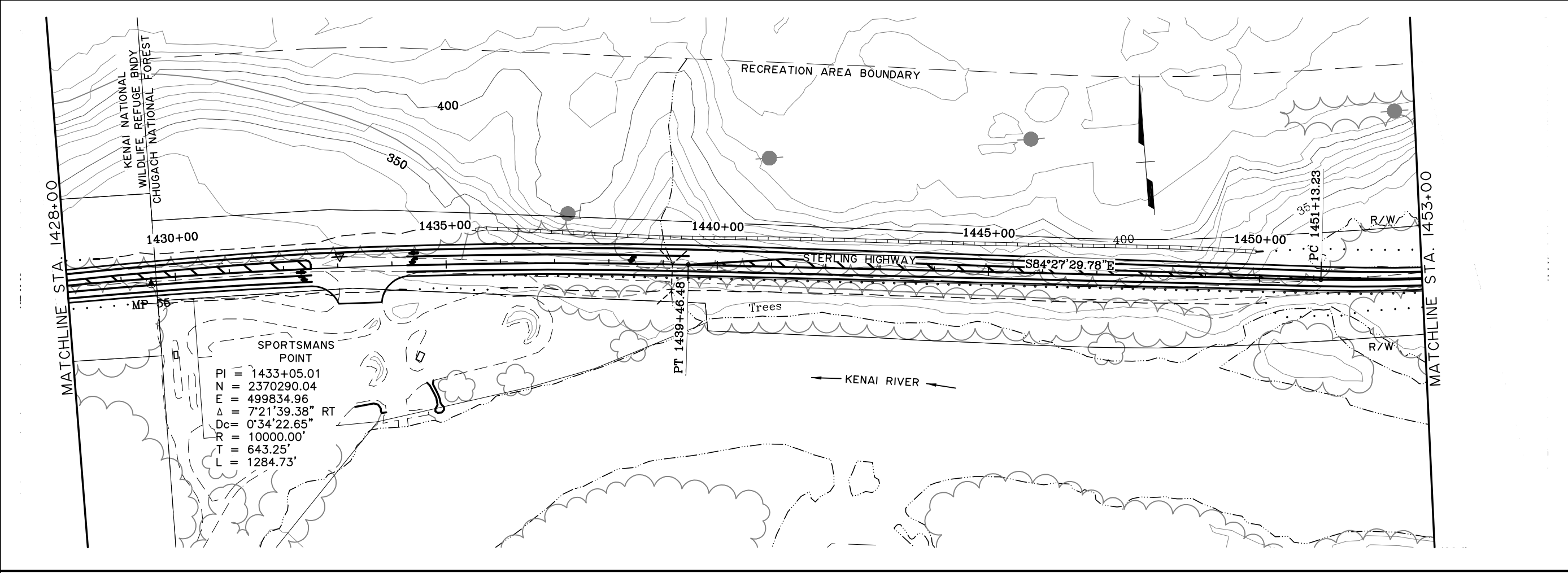


**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
**STERLING HIGHWAY  
 M.P. 45-60**  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1402+00 TO 1428+00

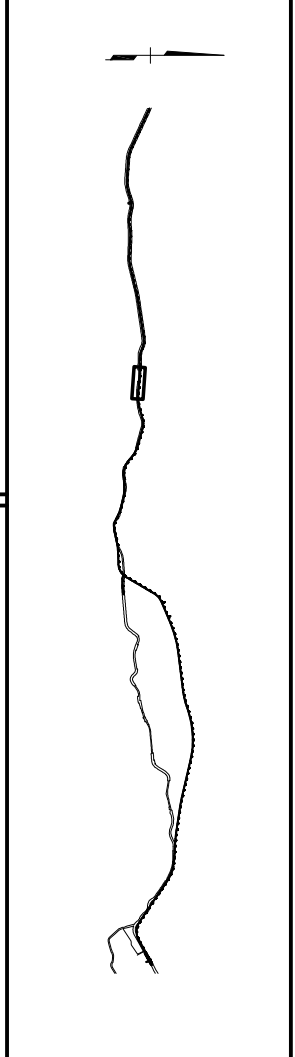


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SPECIFICATIONS  
 DESIGNED BY: EPL  
 CHECKED BY: EPL  
 DRAFTED BY: CDB



SHEET NO.	TOTAL SHEETS	
F9	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-02I-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



STATE OF ALASKA  
 49<sup>TH</sup>

HDR ALASKA, Inc.

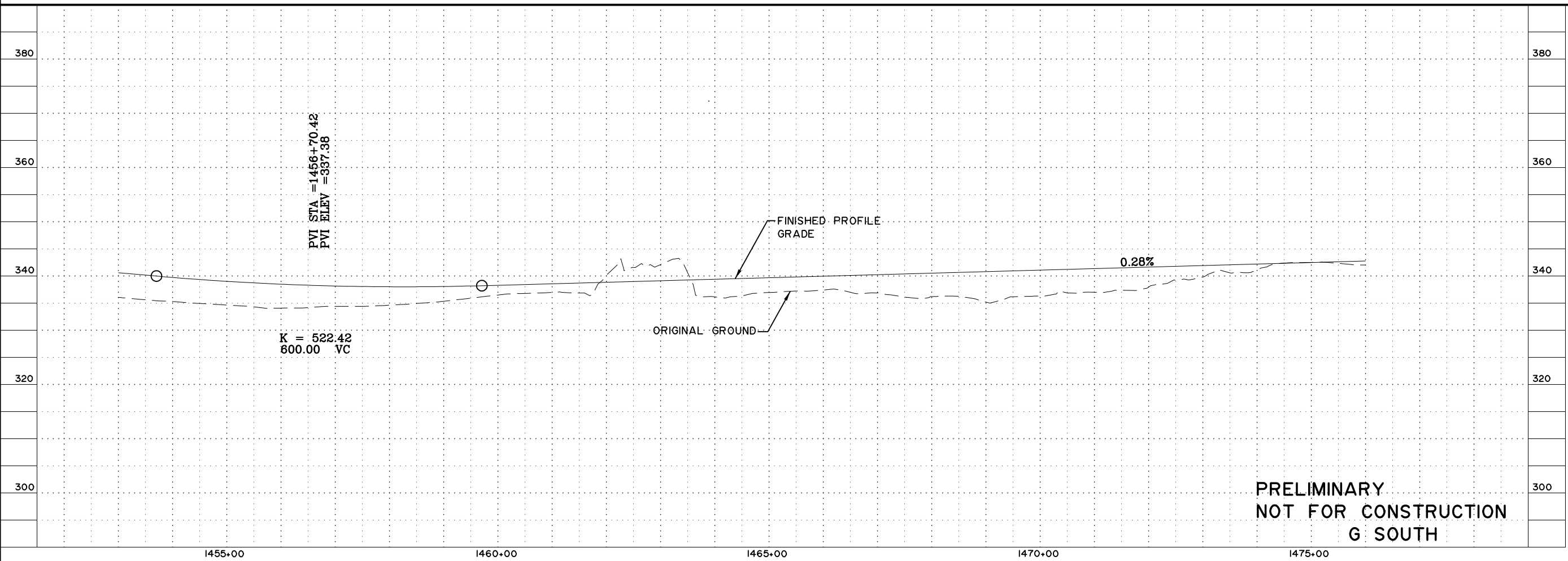
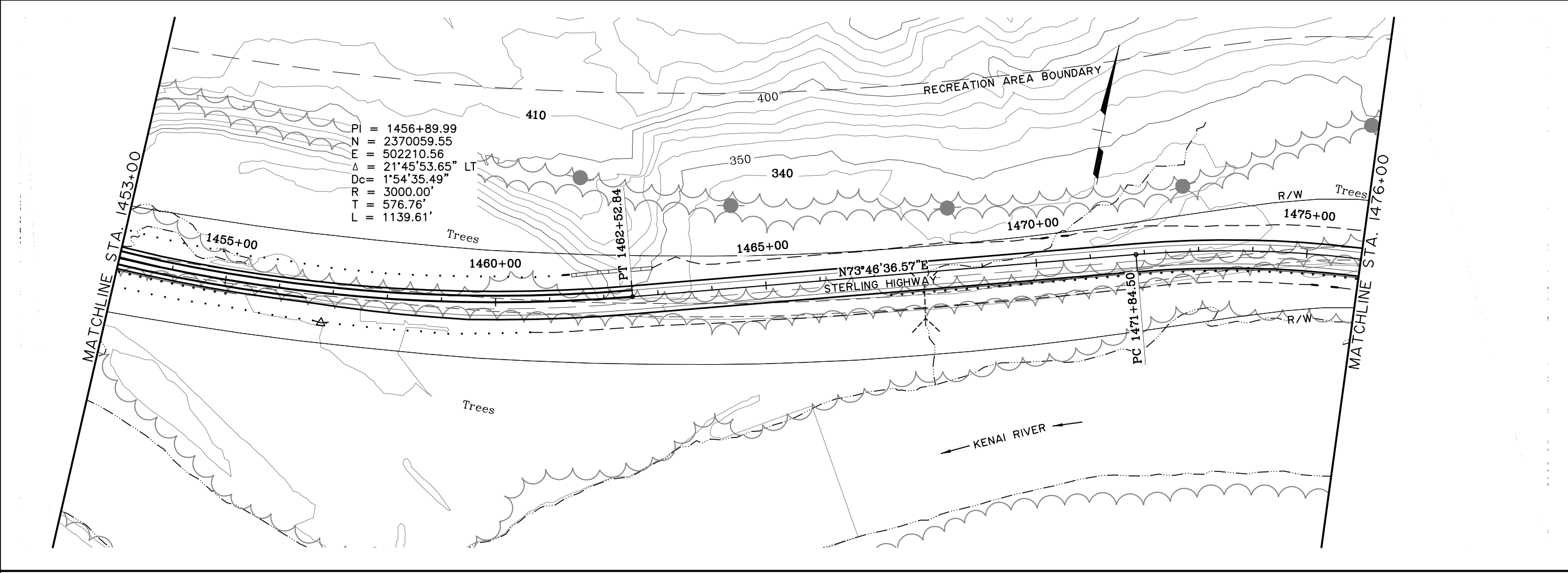
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES

STERLING HIGHWAY  
 M.P. 45-60

G SOUTH  
 PLAN AND PROFILE  
 STA 1428+00 TO 1453+00

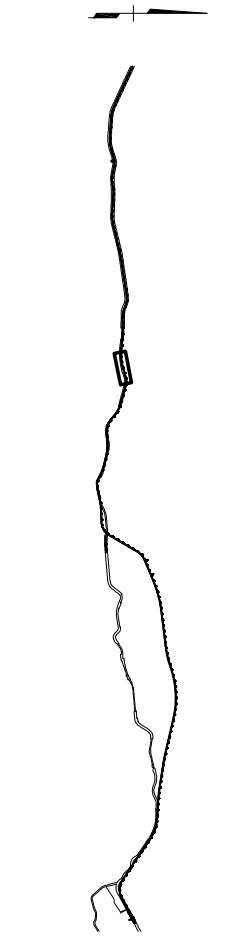
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 NOT FOR CONSTRUCTION  
 G SOUTH**

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 CHECKED BY: EPL  
 DRAFTED BY: CBR  
 PROJECT DESIGNATION: F-021-2(15)/53014  
 COMPUTER DESIGNATION: Project\01\4800\_Civil\4800\_GS-FIO\_H\_5000\_03/15/06\_at\_10.39\_by\_esp



**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

SHEET NO.	TOTAL SHEETS	
F10	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



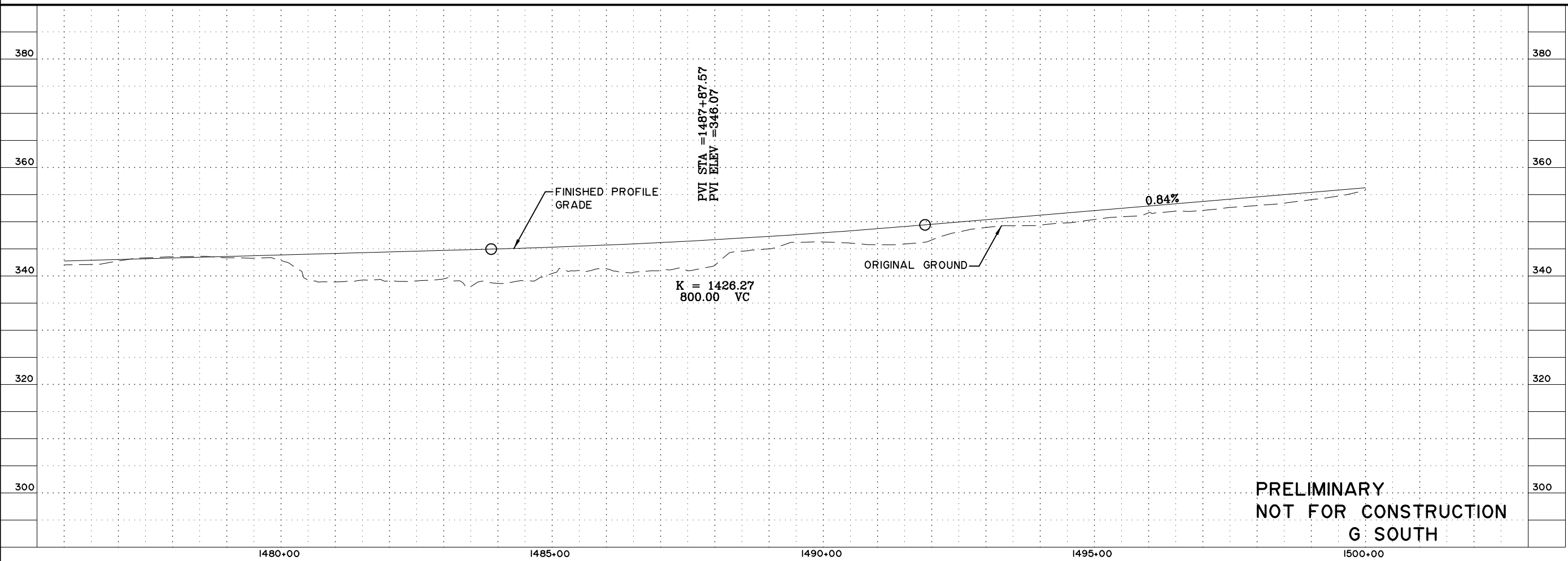
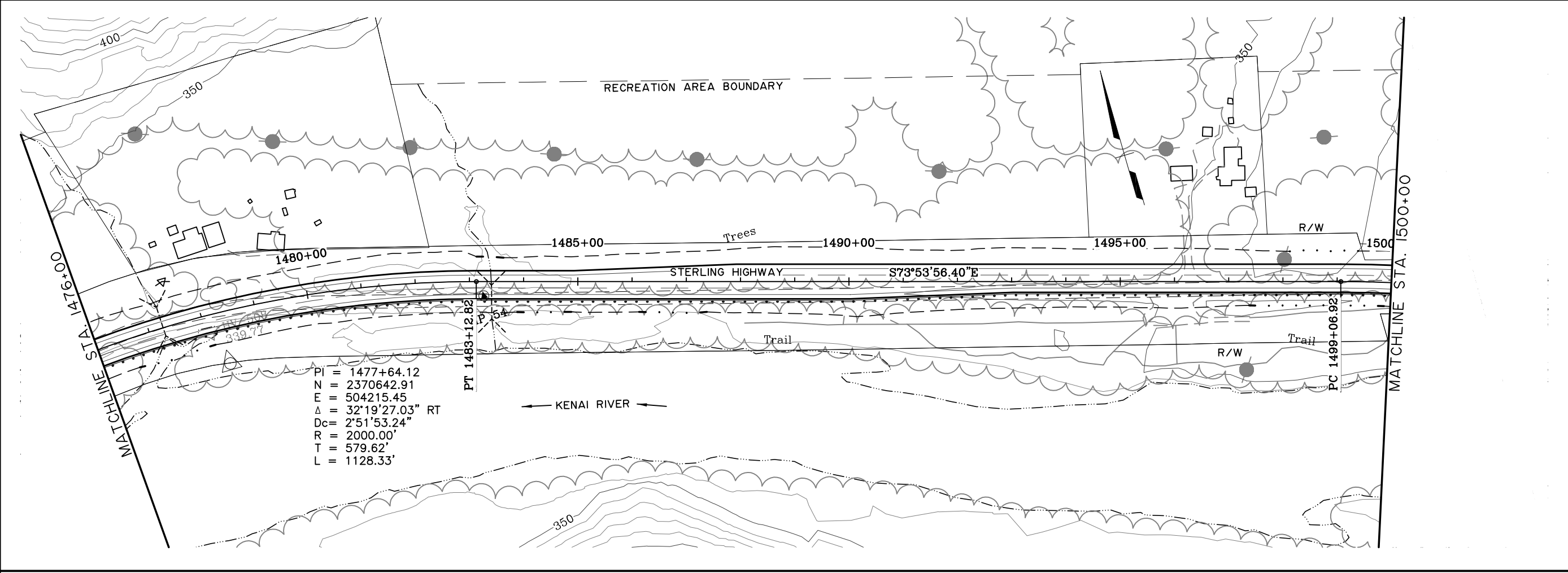
STATE OF ALASKA  
 49<sup>TH</sup>

**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
 STERLING HIGHWAY  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1458+00 TO 1476+00

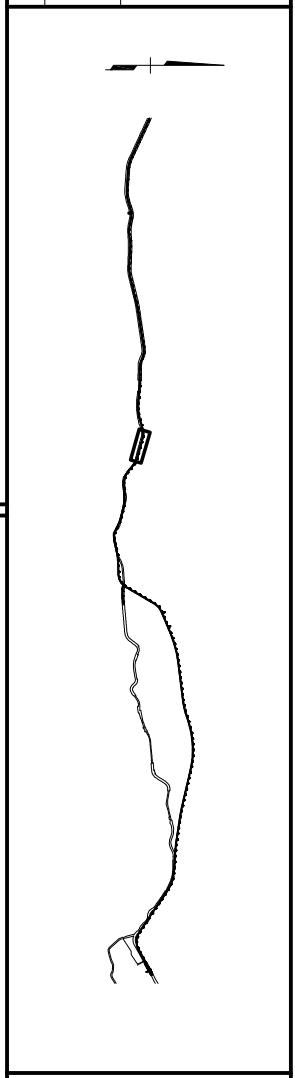
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SPECIFICATIONS  
 COMPUTER DESIGNATION Project\01\4800\_GS-FIL-F\_1100\_03/15/06\_at\_10.39\_by\_arp



SHEET NO.	TOTAL SHEETS	
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STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION

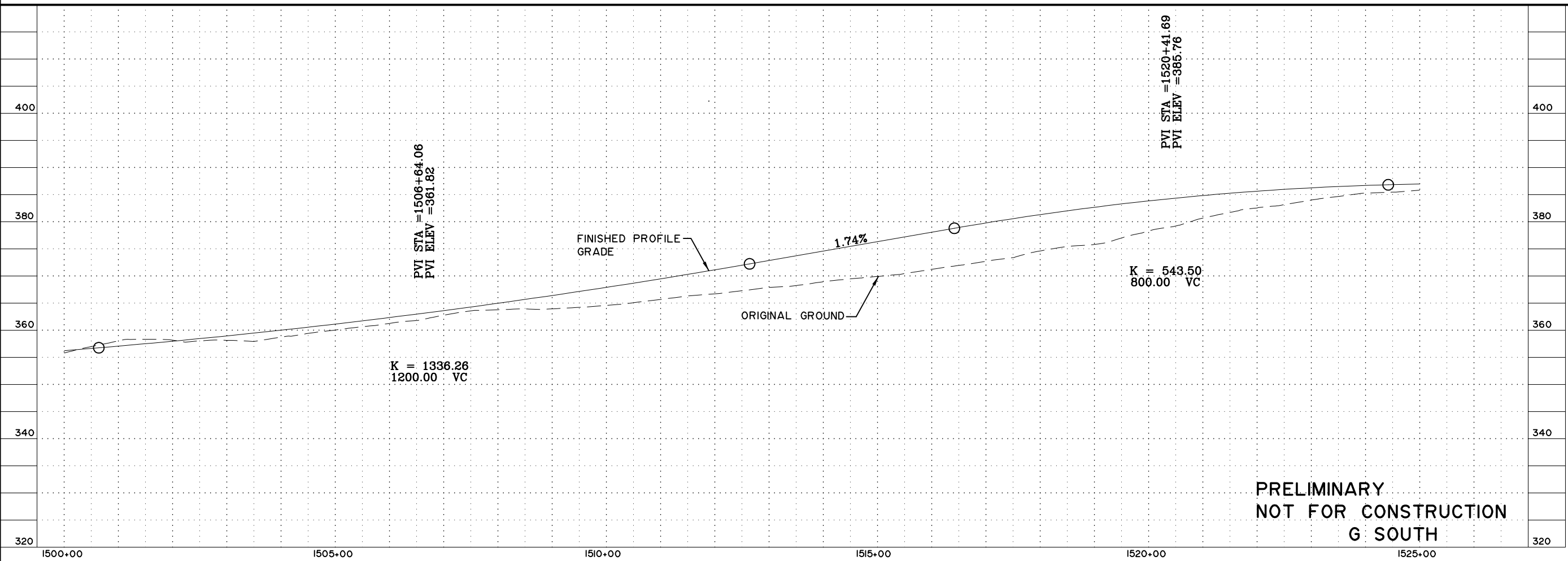
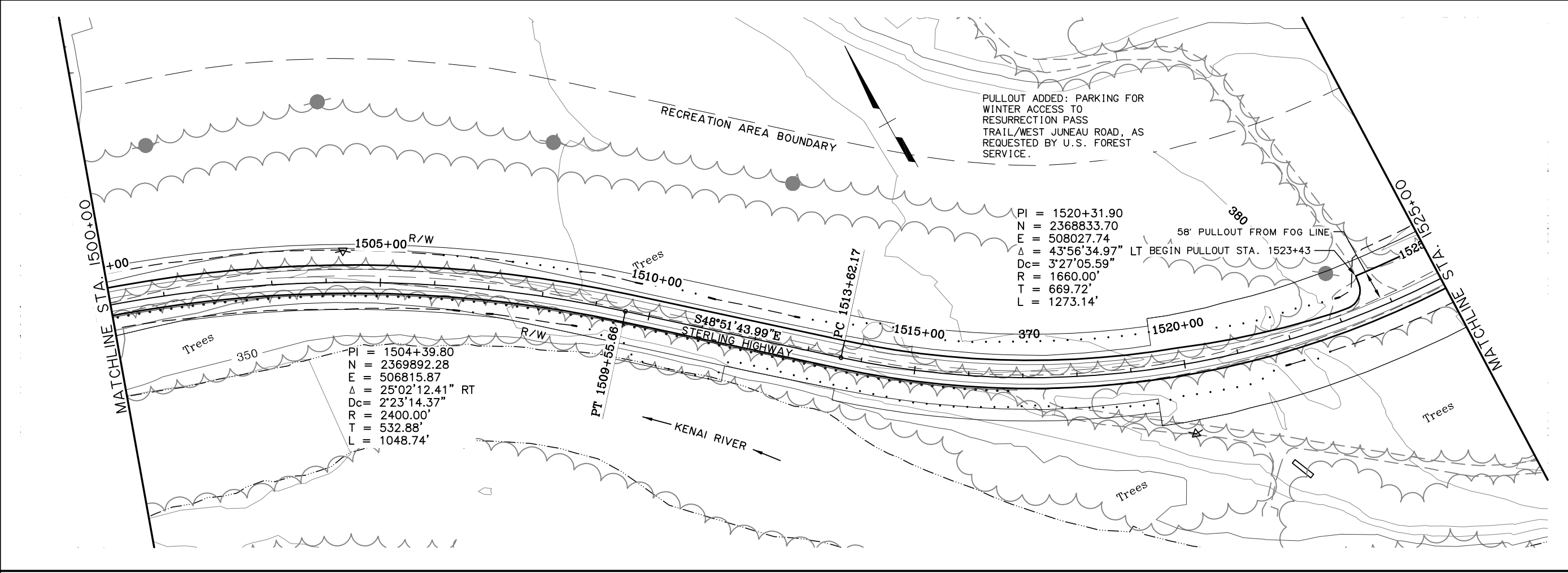


**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
 STERLING HIGHWAY  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1476+00 TO 1500+00

**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

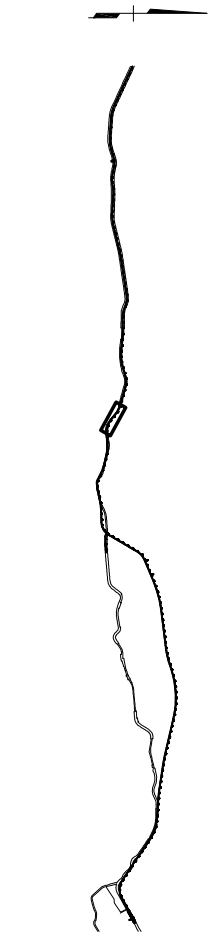
VIEW: GS-F12.F, D0755, GS-F12.F, D1055, GS-F12.H, L15000, XREF: 4800-BD02, 4800-DESIGN-01, 4800-SURVEY, A-02-PP, ROWBAR, COMPUTER DESIGNATION Project: 01, 041800, C:\N\4800-GS-F01, L100, 03/15/06, at 10:39 by: aep

SPECIFICATIONS  
 DESIGNED BY: EPL  
 CHECKED BY: EPL  
 DRAFTED BY: CBR



PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH

SHEET NO.	TOTAL SHEETS	
F12	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



HDR ALASKA, Inc.

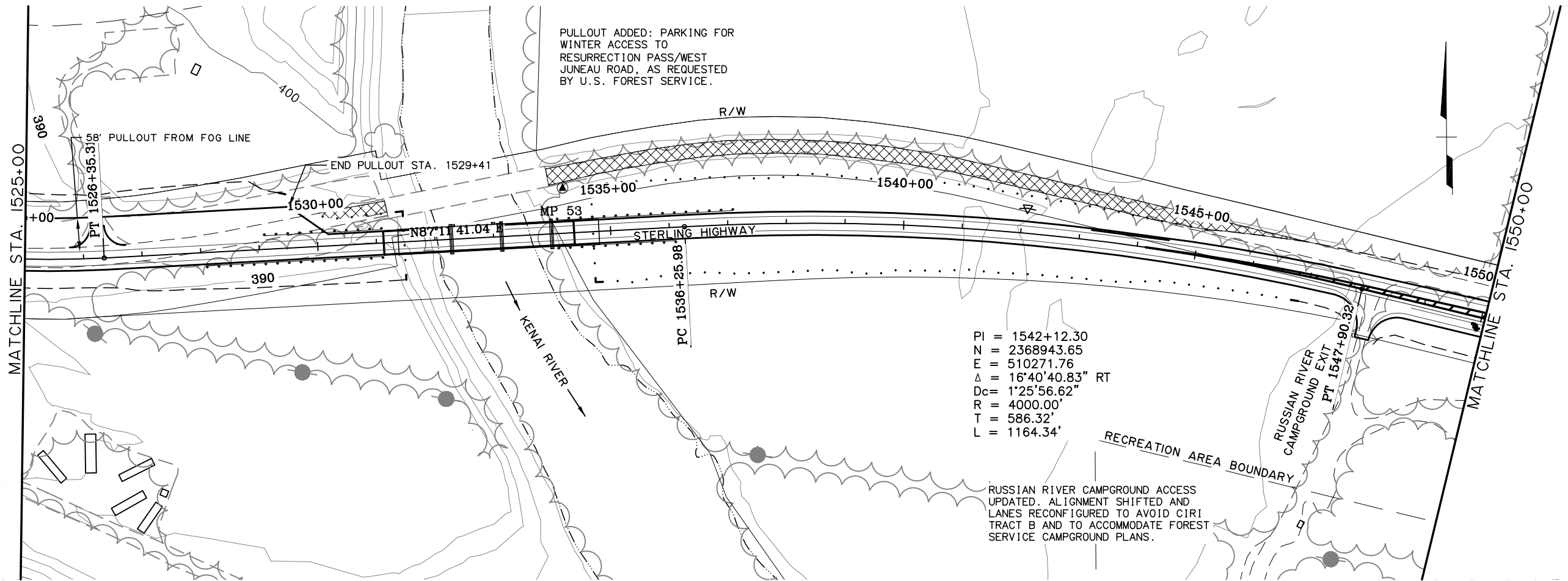
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES

STERLING HIGHWAY  
 M.P. 45-60

G SOUTH  
 PLAN AND PROFILE  
 STA 1500+00 TO 1525+00

VIEW: GS-F13.F, 007255, GS-F13.F, D1055, GS-F13.H, L5000, XREF: 4800-BD02, 4800-DESIGN-01, 4800-SURVEY, A-02-PP, ROWBAR, COMPUTER DESIGNATION Project\01\0418000\_Civil\4800-GS-F13.L100\_03/15/06\_at\_10.39\_by\_arp

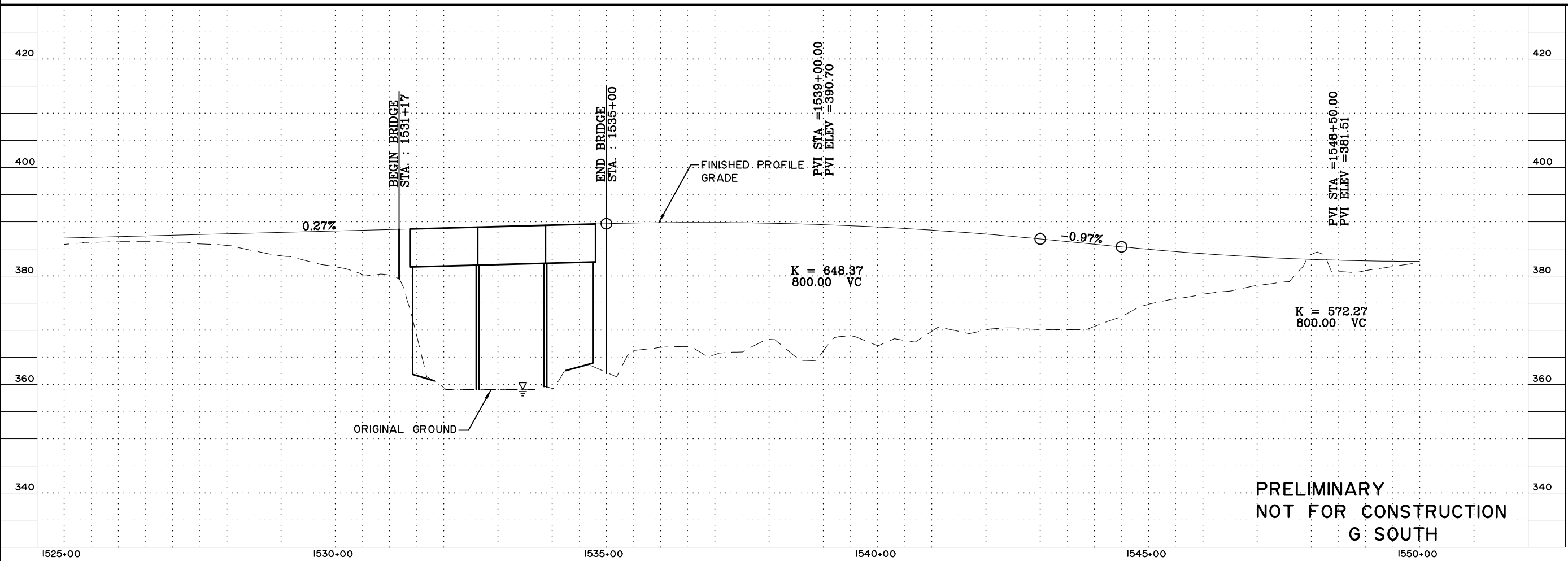
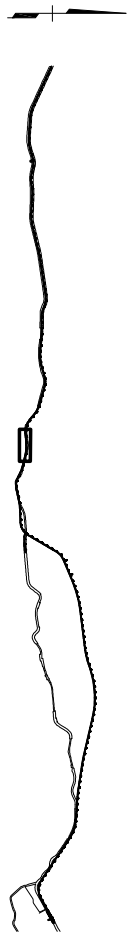
SPECIFICATIONS  
 DESIGNED BY: EPL  
 CHECKED BY: EPL  
 DRAFTED BY: CBR



PI = 1542+12.30  
 N = 2368943.65  
 E = 510271.76  
 $\Delta = 16^{\circ}40'40.83''$  RT  
 Dc = 1'25'56.62"  
 R = 4000.00'  
 T = 586.32'  
 L = 1164.34'

RUSSIAN RIVER CAMPGROUND ACCESS UPDATED. ALIGNMENT SHIFTED AND LANES RECONFIGURED TO AVOID CIRI TRACT B AND TO ACCOMMODATE FOREST SERVICE CAMPGROUND PLANS.

SHEET NO.	TOTAL SHEETS	
F13	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-02I-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



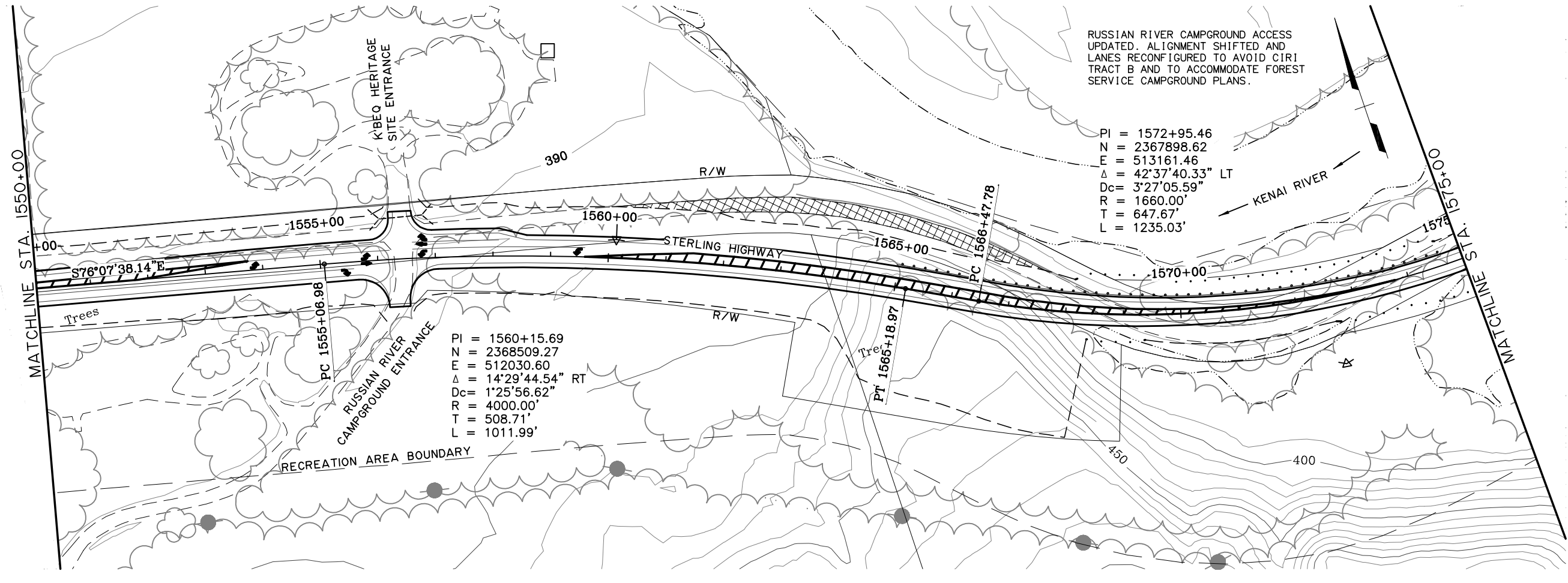
**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**



**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
**STERLING HIGHWAY  
 M.P. 45-60**  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1525+00 TO 1550+00

VIEW: GS-F14\_F-00765\_GS-F14\_F-D1055\_GS-F14\_H-15000  
 XREF: 4800-BD02\_4800-DESIGN-01\_4800-SURVEY\_A-02-PP\_ROWBAE-COMPUTER-DESIGNATION-PROJECT-01-041800\_CWIN-4800-GS-F01-1100\_03/15/06\_at\_10.39\_by\_ahp

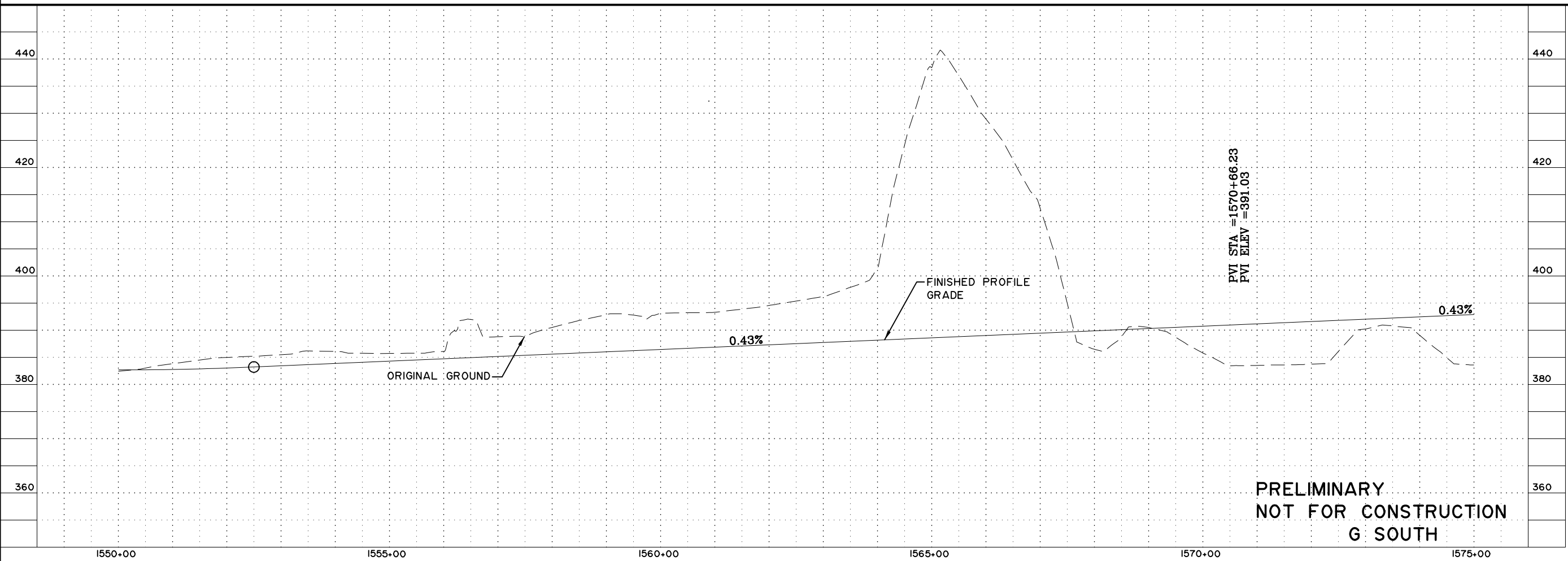
SPECIFICATIONS  
 DESIGNED BY: EPL  
 CHECKED BY: EPL  
 DRAFTED BY: CDB



RUSSIAN RIVER CAMPGROUND ACCESS  
 UPDATED. ALIGNMENT SHIFTED AND  
 LANES RECONFIGURED TO AVOID CIRI  
 TRACT B AND TO ACCOMMODATE FOREST  
 SERVICE CAMPGROUND PLANS.

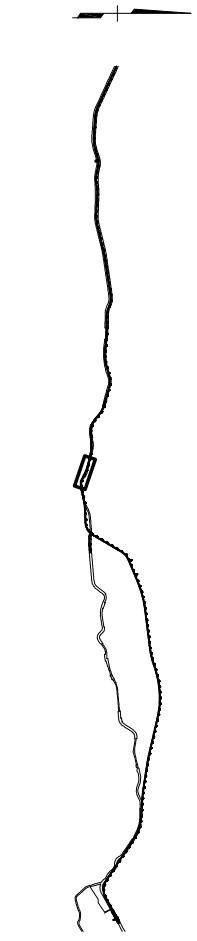
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 E = 513161.46  
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 Dc = 3'27'05.59"  
 R = 1660.00'  
 T = 647.67'  
 L = 1235.03'

PI = 1560+15.69  
 N = 2368509.27  
 E = 512030.60  
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 Dc = 1'25'56.62"  
 R = 4000.00'  
 T = 508.71'  
 L = 1011.99'



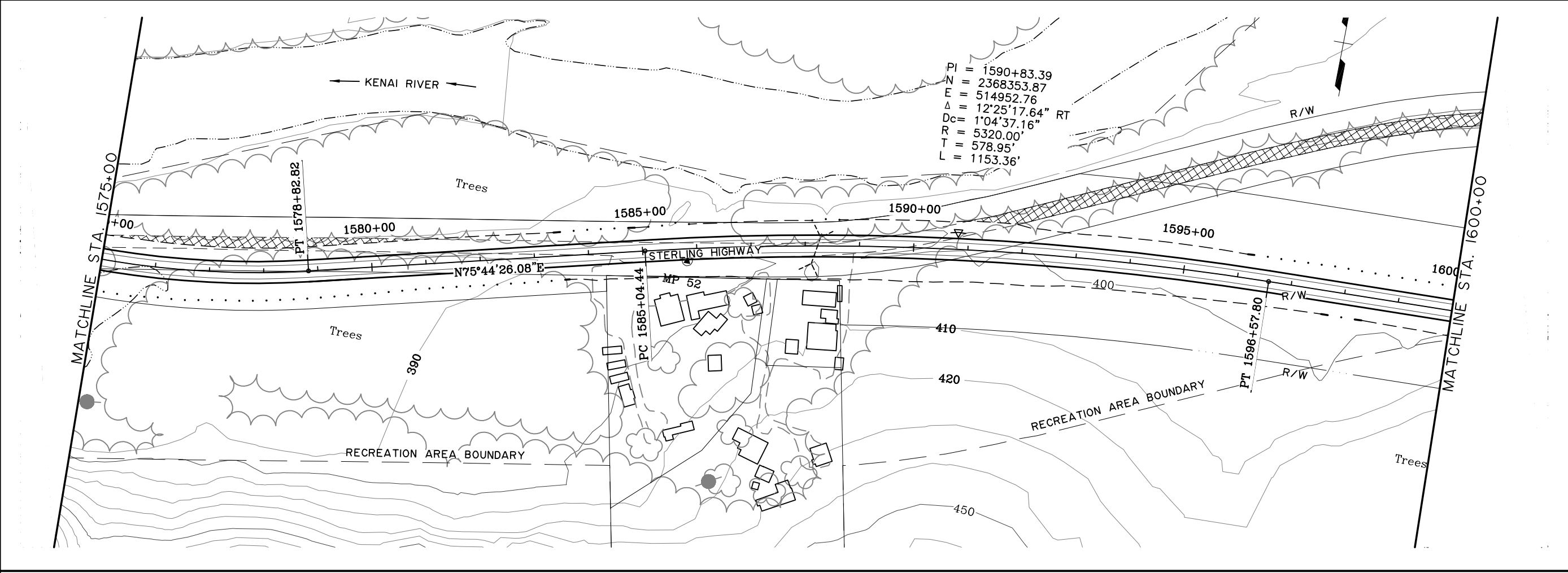
**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

SHEET NO.	TOTAL SHEETS	
F14	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION

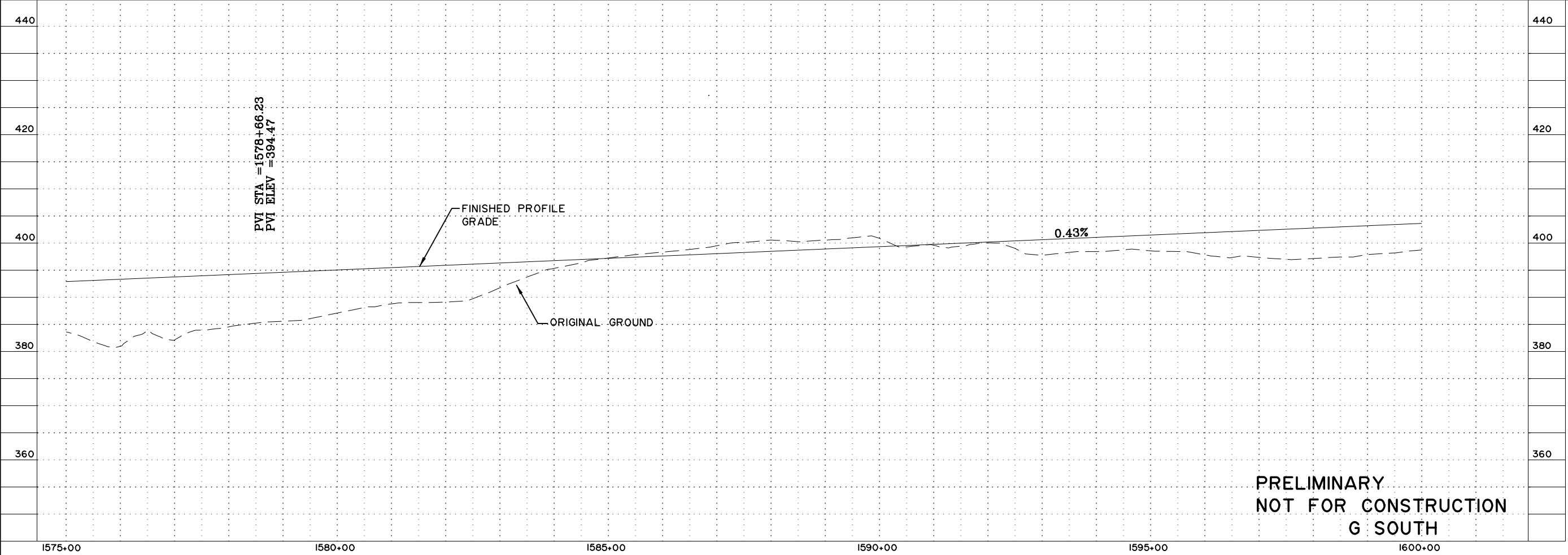


**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
 STERLING HIGHWAY  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1550+00 TO 1575+00

VIEW: GS-F15.F\_007755\_GS-F15.F\_D1055\_GS-F15.H\_15000  
 XREF: 4800-BD02\_4800-DESIGN-01\_4800-SURVEY\_A-02-PP\_ROWBAE  
 SPECIFICATIONS  
 DESIGNED BY: EPL  
 CHECKED BY: EPL  
 DRAFTED BY: CDB

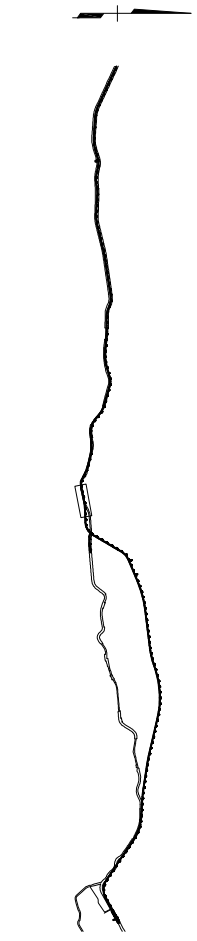


PI = 1590+83.39  
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 E = 514952.76  
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 Dc =  $1^\circ 04' 37.16''$   
 R = 5320.00'  
 T = 578.95'  
 L = 1153.36'



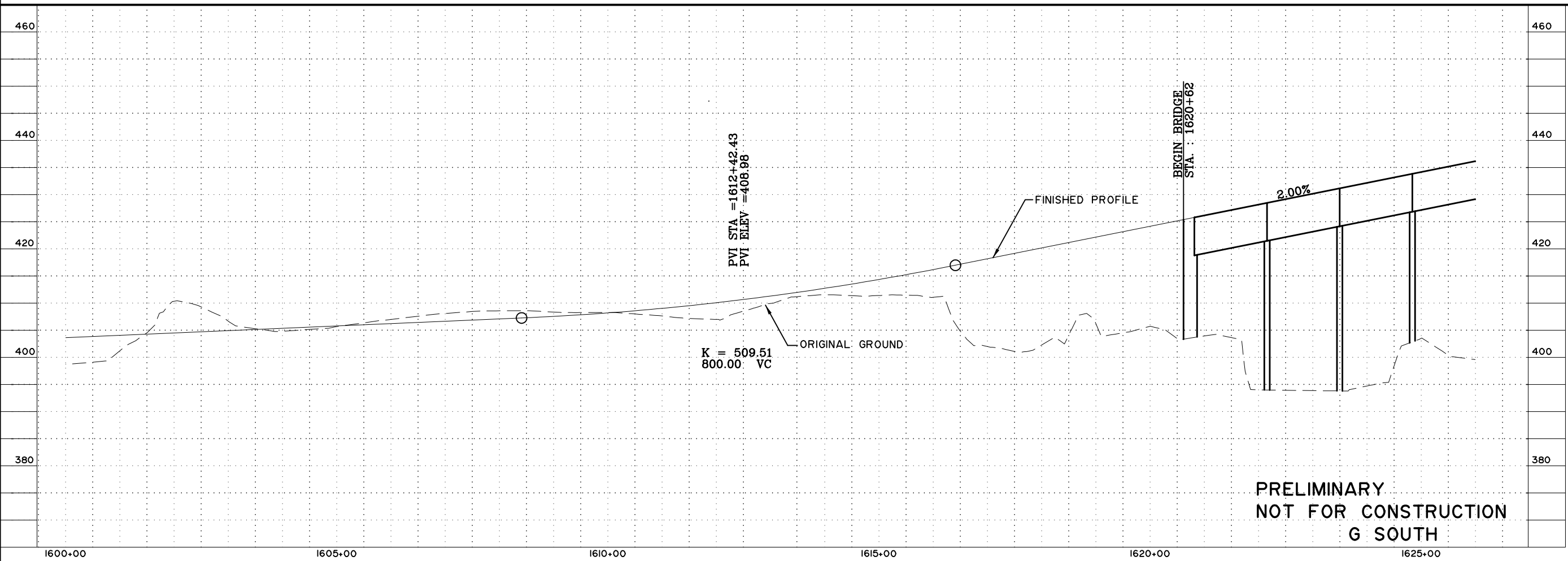
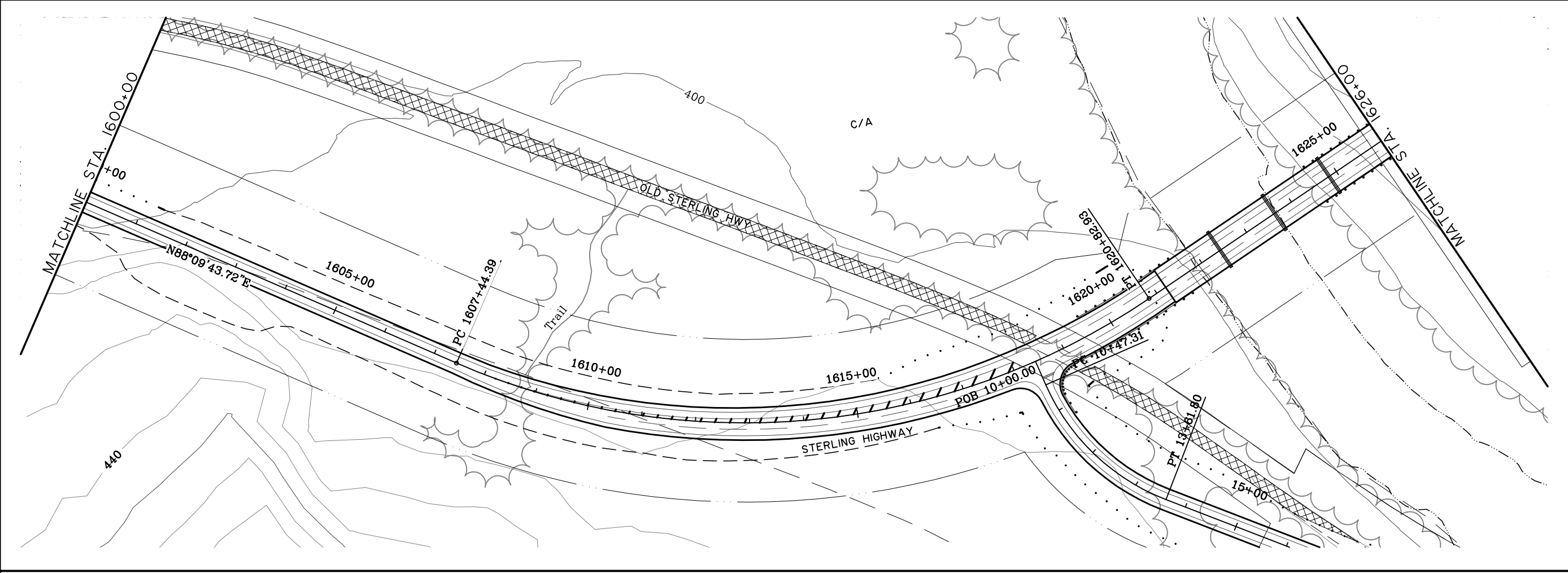
**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

SHEET NO.	TOTAL SHEETS	
F15	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



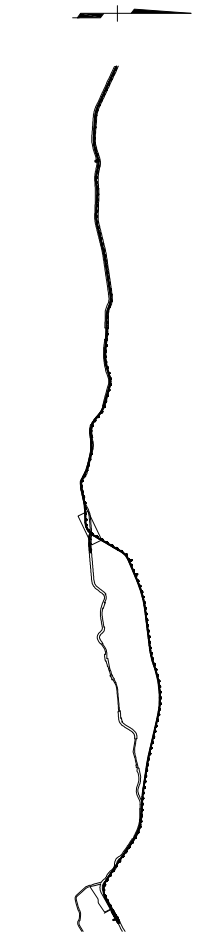
**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
 STERLING HIGHWAY  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1575+00 TO 1600+00

VIEW: CS-F16.F 00765 CS-F16.F\_D1055 CS-F16.H 15000  
 XREF: 4800-BD02, 4800-DESIGN-01, 4800-SURVEY-A-02-PP, ROWBAR, COMPUTER DESIGNATION PROJECT\01\041800\ CIVIL\4800-CS-F01-L100\_03/15/06\_at\_10.39\_by\_ahp  
 SPECIFICATIONS  
 DESIGNED BY: EPL  
 CHECKED BY: EPL  
 DRAFTED BY: CBR



**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

SHEET NO.	TOTAL SHEETS	
F16	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



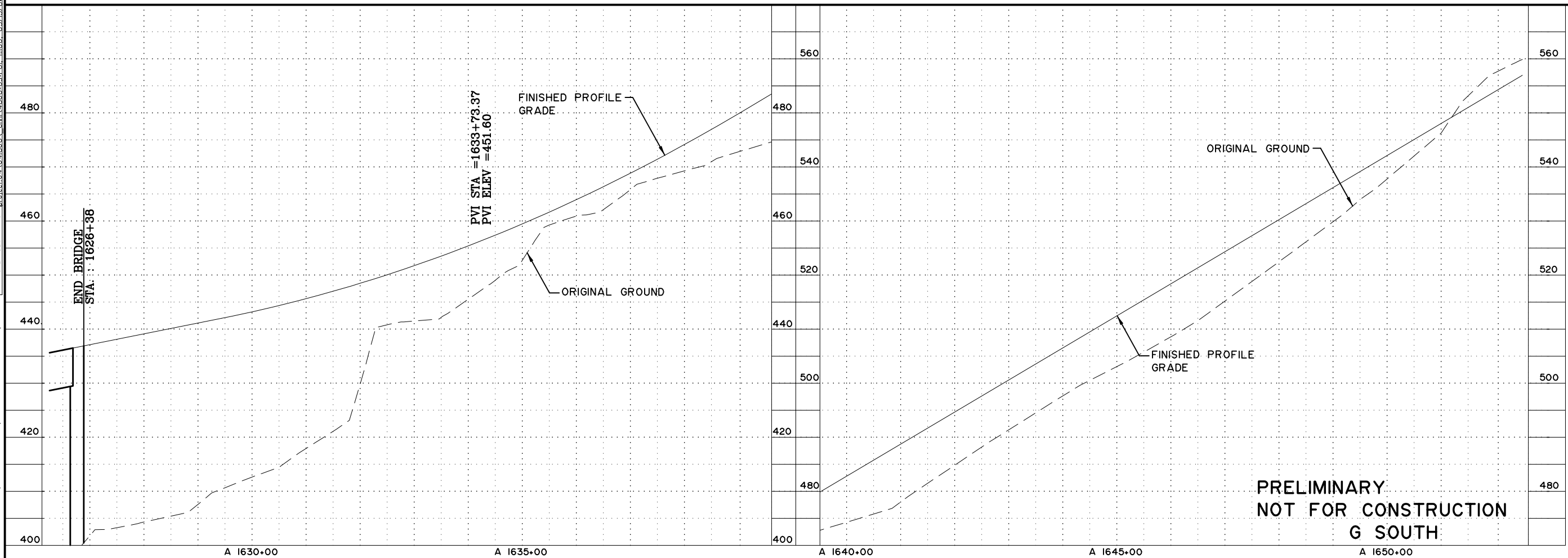
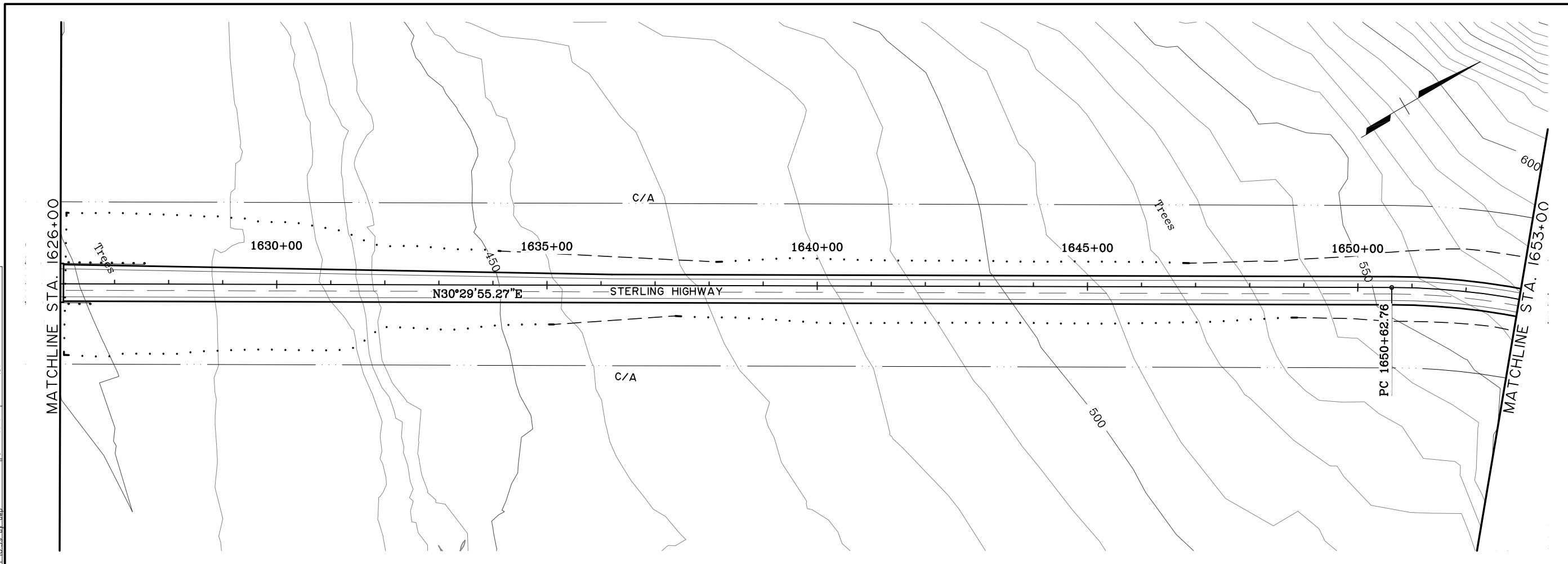
**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1600+00 TO 1626+00



DESIGNED BY: EPL  
 CHECKED BY: EPL  
 DRAFTED BY: CDB

SPECIFICATIONS  
 PROJECT: 4800-BD02, 4800-DESIGN-01, 4800-SURVEY, A-02-PP, ROWBAR, COMPUTER DESIGNATION PROJECT: 01, 041800, C:\N\4800-DESIGN-01, 03/15/06, at 10.39 by app

VIEW: 05-F17, F, 00755, 05-F17, F, D1055, 05-F17, H, L, 5000, XREF: 4800-BD02, 4800-DESIGN-01, 4800-SURVEY, A-02-PP, ROWBAR, COMPUTER DESIGNATION PROJECT: 01, 041800, C:\N\4800-DESIGN-01, 03/15/06, at 10.39 by app



**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

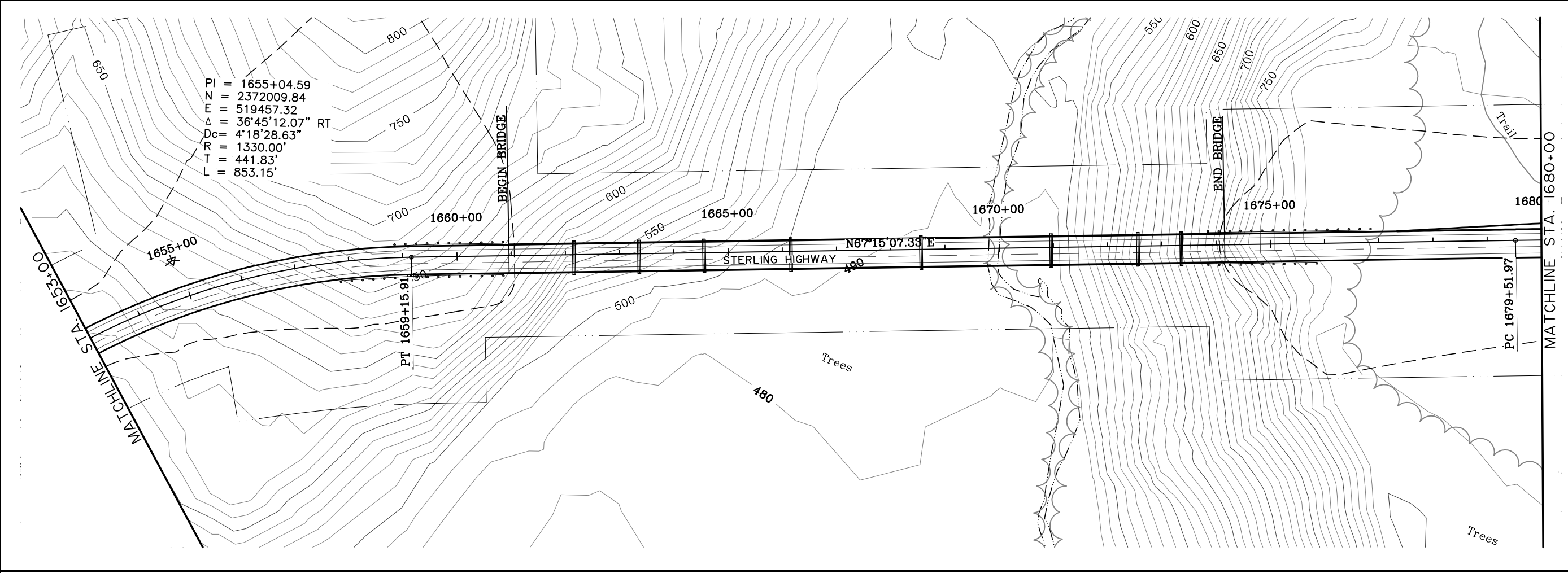
SHEET NO.	TOTAL SHEETS	
F17	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



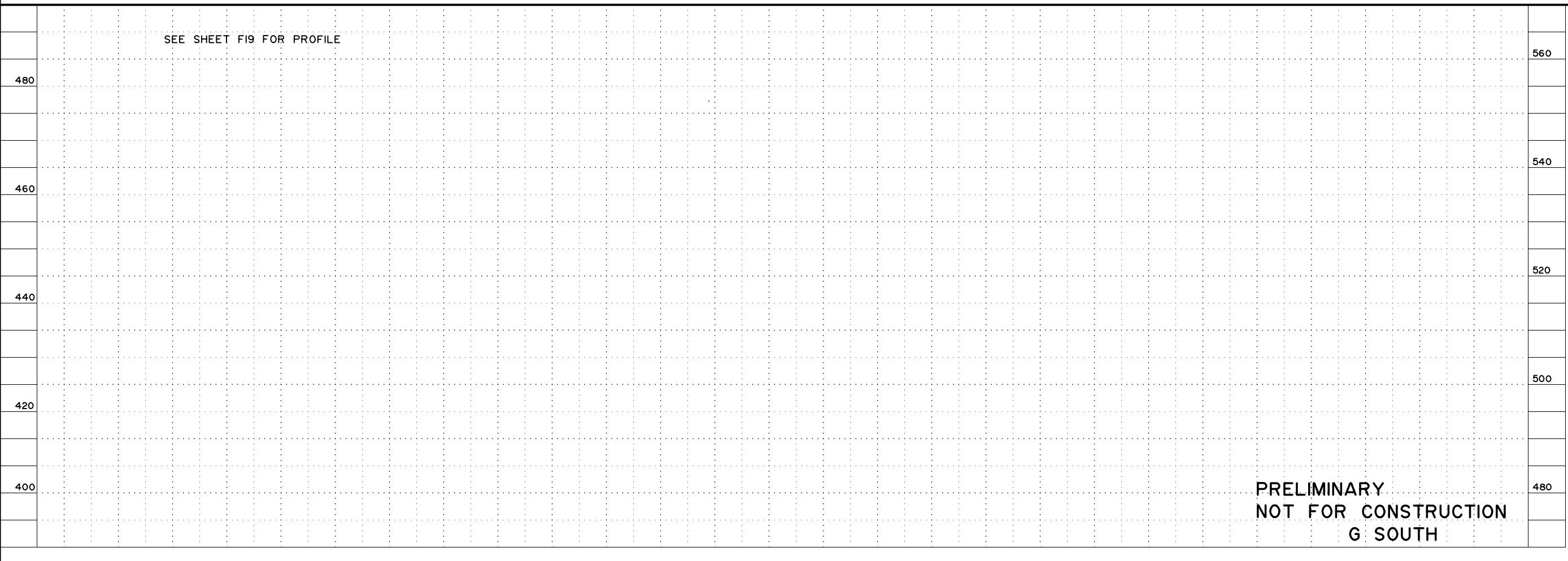
**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
 STERLING HIGHWAY  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1626+00 TO 1653+00

VIEW: GS-F17\_F\_00755\_GS-F17\_F\_D1055\_GS-F17\_H\_L5000  
 XREF: 4800\_BD02\_4800-DESIGN-01\_4800-SURVEY\_A-02-PP\_ROWBALECOMPUTER DESIGNATION Project\01\041800\_Civil\4800\_GS-F01\_L100\_03/15/06\_at\_10.39\_by\_arp

SPECIFICATIONS  
 DESIGNED BY  
 DRAFTED BY

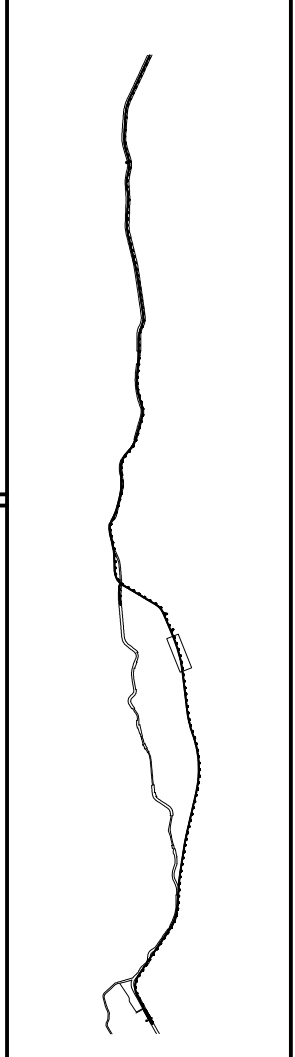


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 Dc = 4'18"28.63"  
 R = 1330.00'  
 T = 441.83'  
 L = 853.15'



**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

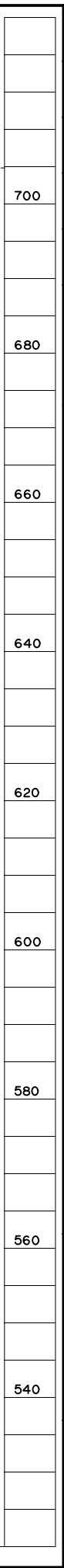
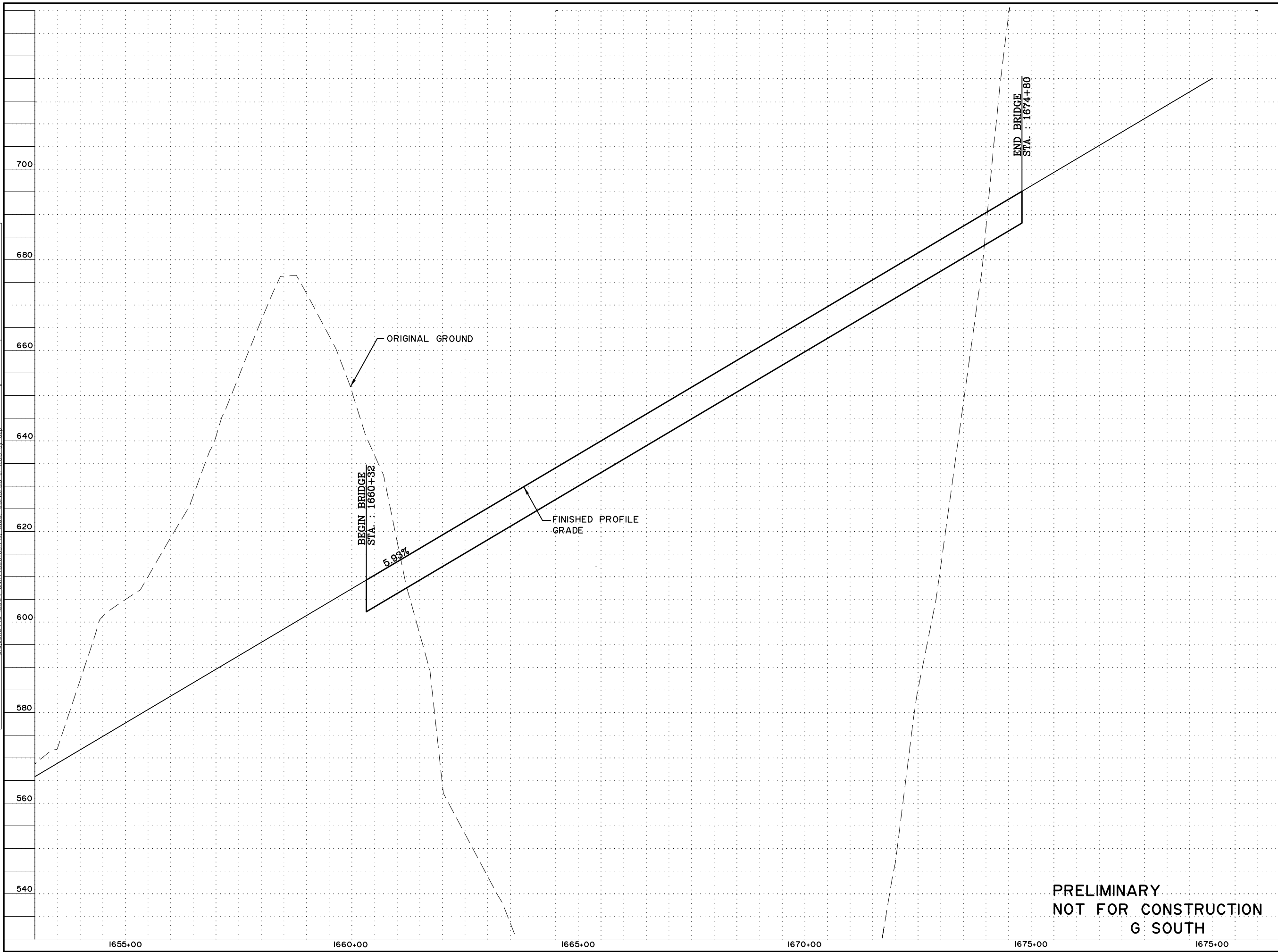
SHEET NO.	TOTAL SHEETS	
F18	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-02-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



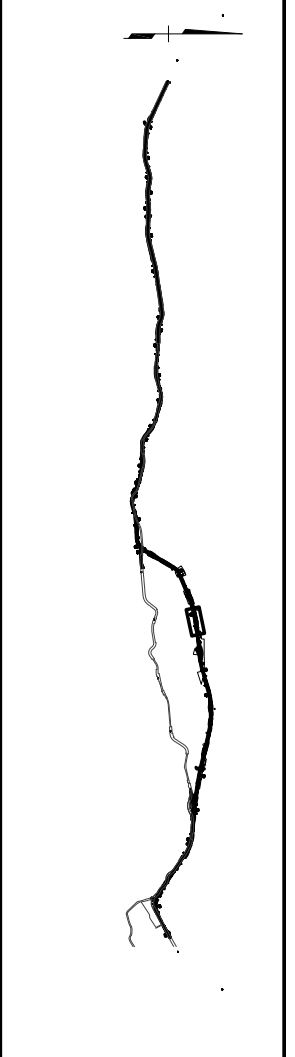
**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1653+00 TO 1680+00

DESIGNED BY: EPL  
 CHECKED BY: EPL  
 DRAFTED BY: CDR  
 SPECIFICATIONS STANDARDS COMPUTER DESIGNATION: PROJECT: 04-10-418000-01\4800-GS-F19-1100-03/15/06-01-1100-by-cep

VIEW: GS-F19\_F\_D0795\_GS-F19\_F\_D1055\_GS-F19\_H\_L\_5000  
 XREF: 4800-8002\_4800-DESIGN-01



SHEET NO.	TOTAL SHEETS	
F19	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION
680		

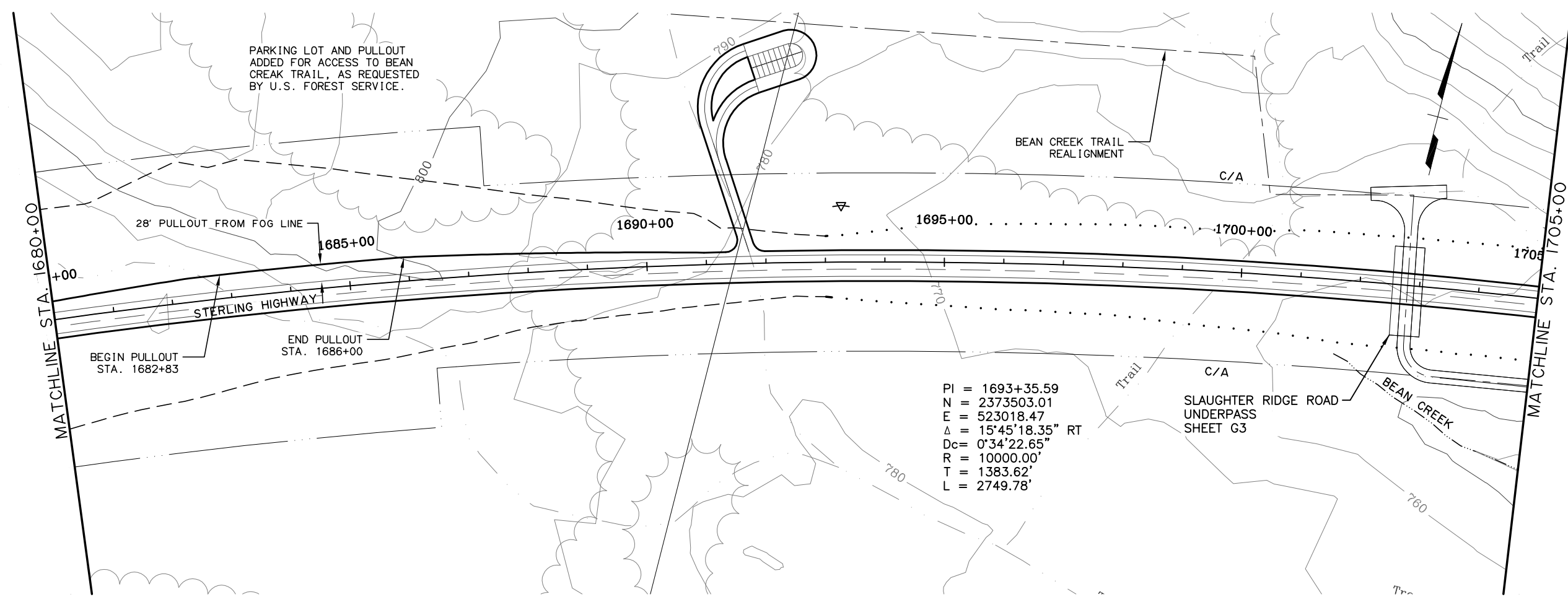


**PRELIMINARY**  
**NOT FOR CONSTRUCTION**  
**G SOUTH**

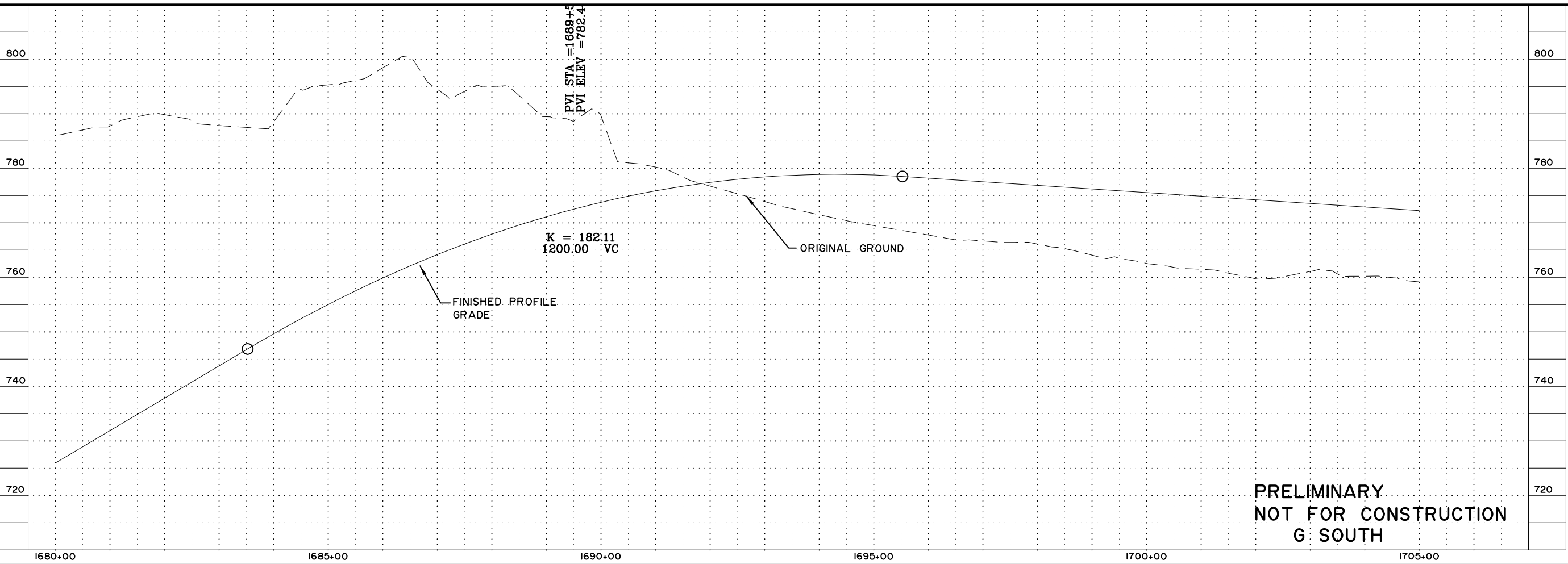


**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
 STERLING HIGHWAY  
 M.P. 45-60  
 G SOUTH  
 PROFILE  
 STA 1653+00 TO 1675+00

VIEW: GS.F20.F.00755.GS.F20.F.00655.GS.F20.H.1.0000  
 XREF: 4800.BD02.4800.DESIGN.01.4800.SURVEY.A.02.PP.ROWBAE  
 COMPUTER DESIGNATION Project\04\4800\GVIN\4800.GS.F20.H.100\_03/15/06.at.10.06.by.arp  
 SPECIFICATIONS  
 DESIGNED BY  
 CHECKED BY  
 DRAFTED BY  
 CUB

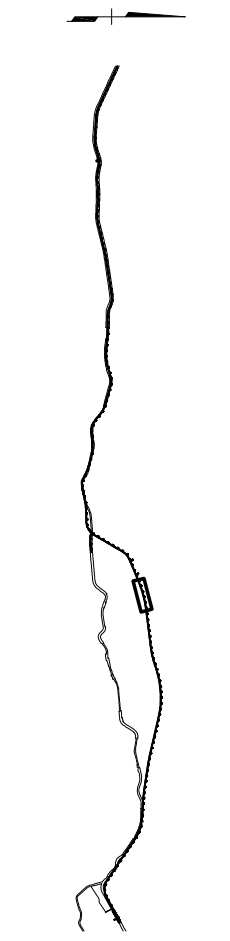



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 L = 2749.78'



**PRELIMINARY**  
**NOT FOR CONSTRUCTION**  
**G SOUTH**

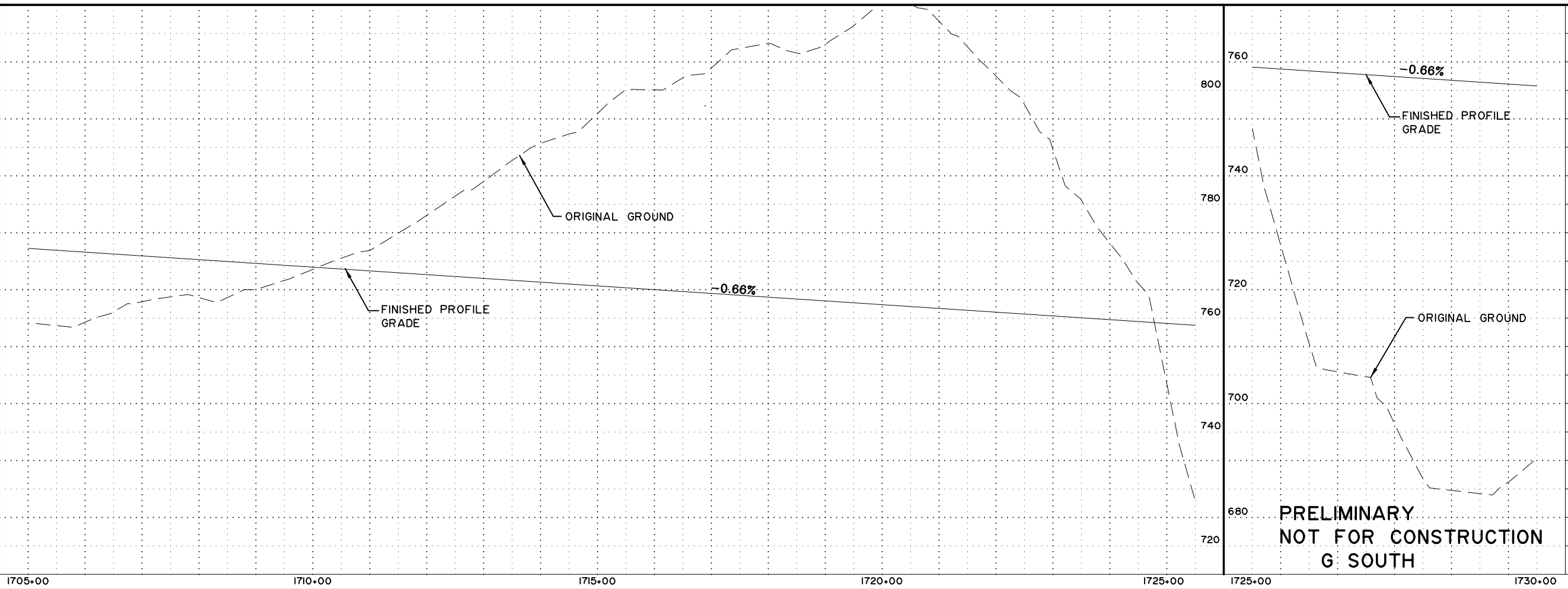
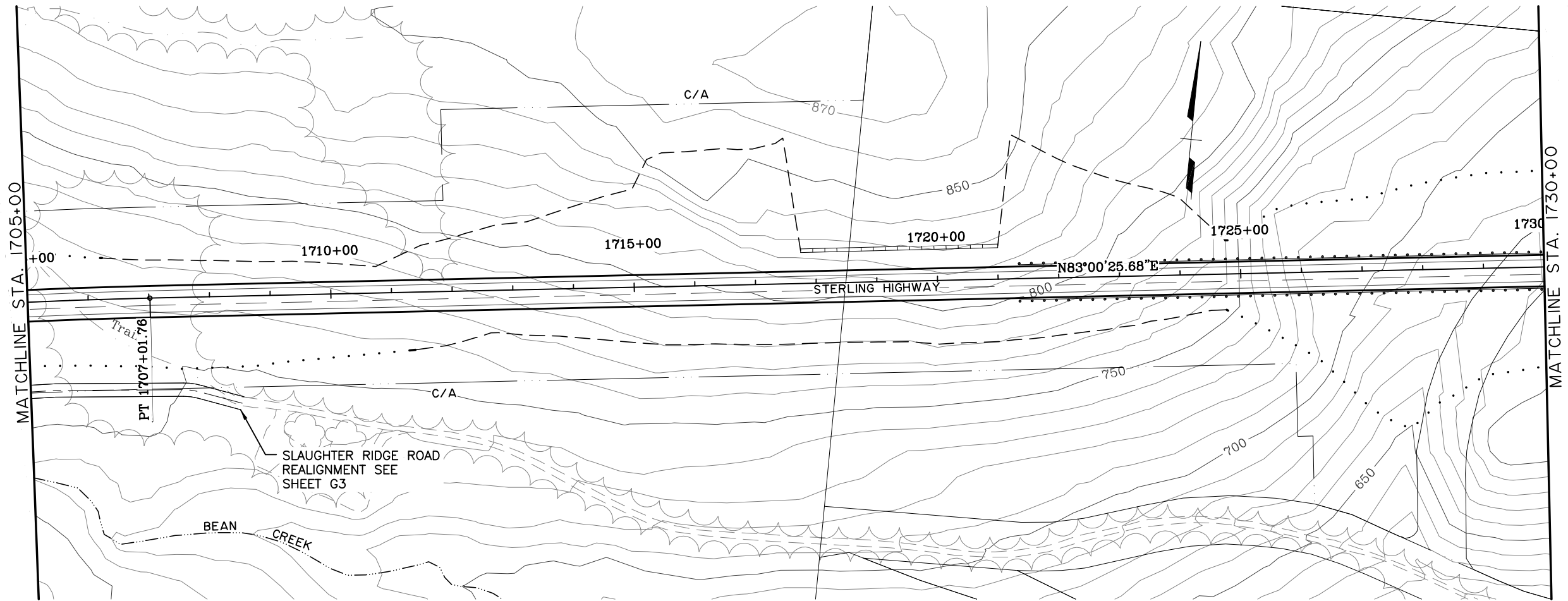
SHEET NO.	TOTAL SHEETS	
F20	F31	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



  
**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
**G SOUTH**  
 PLAN AND PROFILE  
 STA 1680+00 TO 1705+00

VIEW: GS.F21.F.00745.GS.F21.F.D1055.GS.F21.H.15000.XREF: 4800-8002\_4800-DESIGN-01\_4800-SURVEY\_A-02.PP\_ROWBAE\COMPUTER DESIGNATION PROJECT\04\248000\CVIN\4800-GS.F20\_1100\_03/15/06.at 11:06 by cep

SPECIFICATIONS  
 DESIGNED BY: EPL  
 CHECKED BY: GDB  
 DRAFTED BY: GDB



**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

SHEET NO.	TOTAL SHEETS	
F21	F31	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION

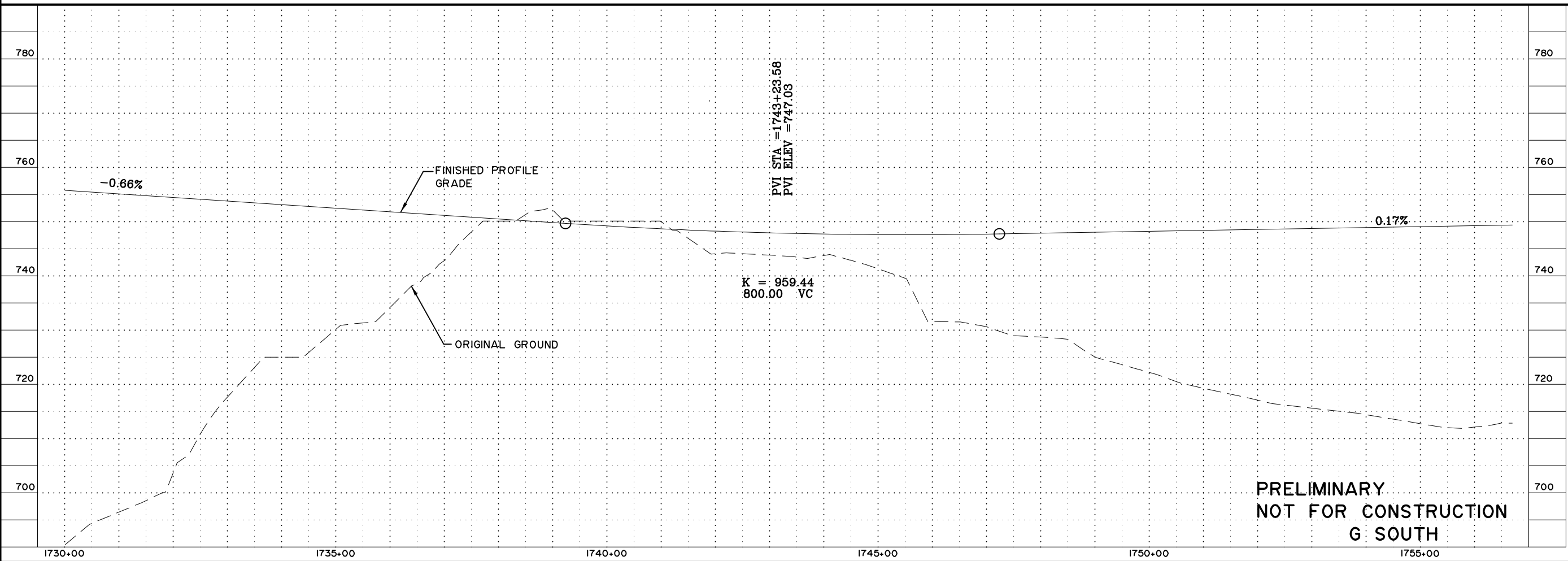
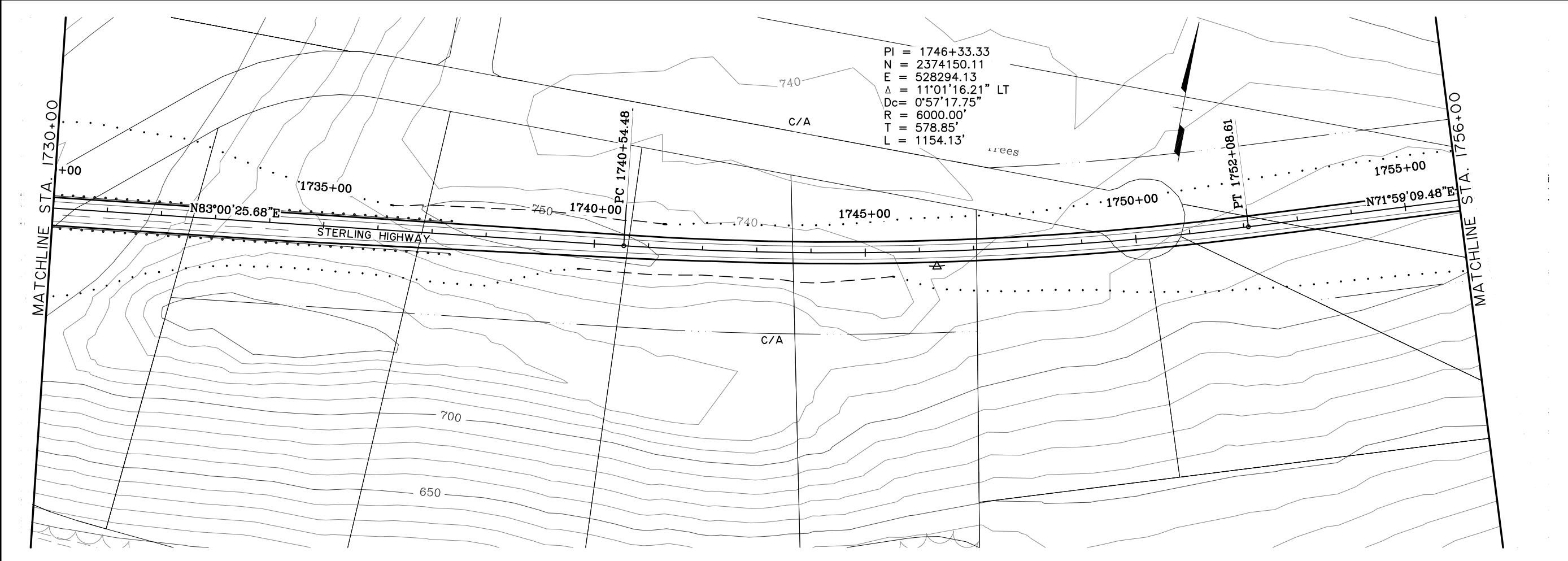


**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
 STERLING HIGHWAY  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1705+00 TO 1730+00

VIEW: GS-F22-F-DO755\_GS-F22-F-DIV55\_GS-F22-H-15000  
 XREF: 4800-5D02\_4800-DESIGN-01\_4800-SURVEY\_A-02.PP\_ROWBAE\COMPUTER DESIGNATION Project\04\248000\_Civil\4800-GS-F22\_H100\_03/15/06\_at\_1006\_by\_cep

DESIGNED BY: EPL  
 CHECKED BY: EPL  
 DRAFTED BY: GDB

SPECIFICATIONS



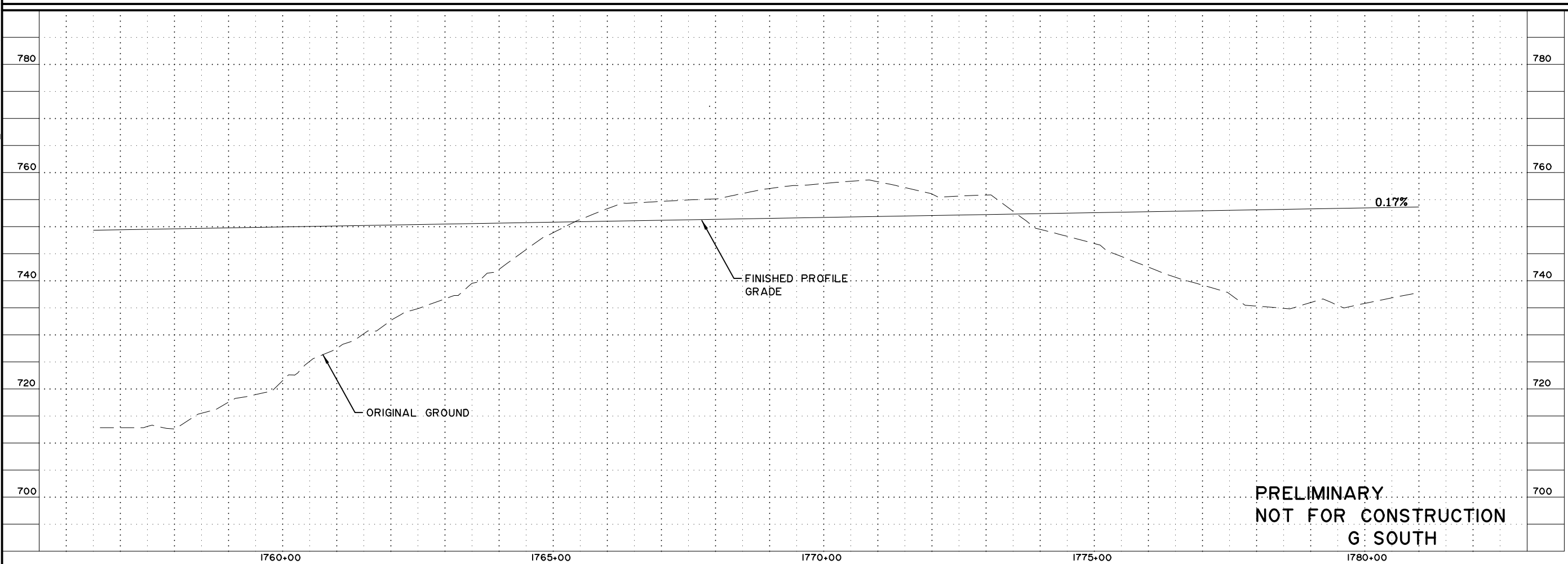
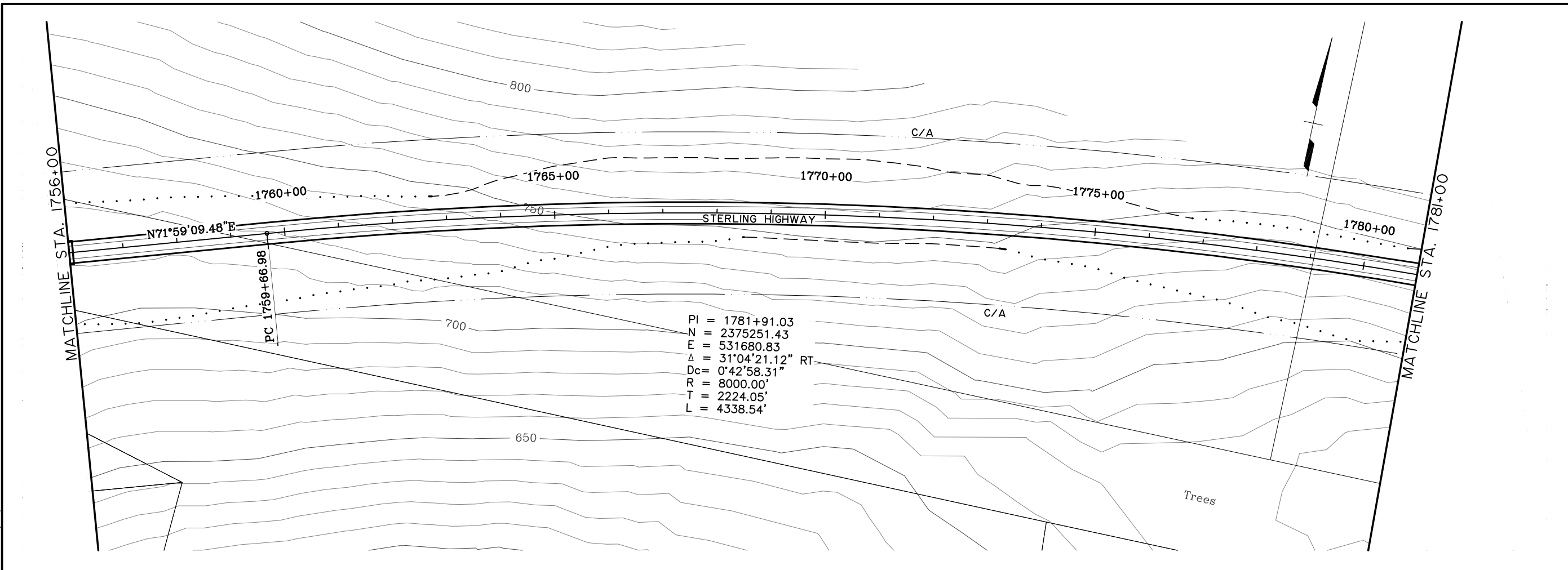
PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH

SHEET NO.	TOTAL SHEETS	
F22	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



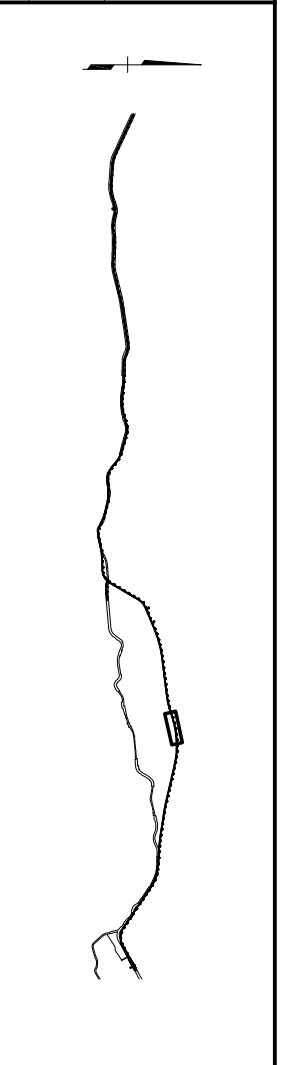
HDR ALASKA, Inc.  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
 STERLING HIGHWAY  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1730+00 TO 1756+00


VIEW: GS-F23-F-00755, GS-F23-F-00755, GS-F23-H-15000, XREF: 4800-BD02, 4800-DESIGN-01, 4800-SURVEY-A-02.PP, ROWBAR, COMPUTER DESIGNATION PROJECT\04\800\GS-F23-H-15000\_03\15\06.dwg, 03/15/06, at 1:06 by           
 SPECIFICATIONS  
 DESIGNED BY:           
 CHECKED BY:           
 DRAFTED BY:         



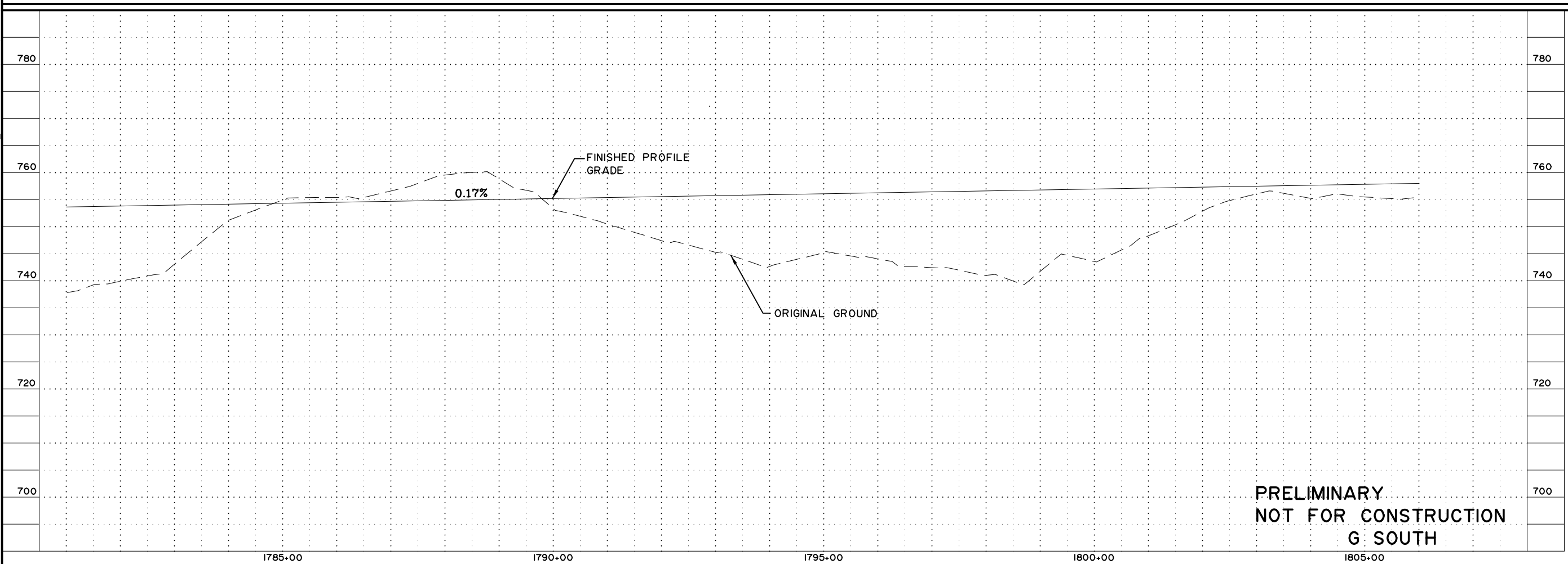
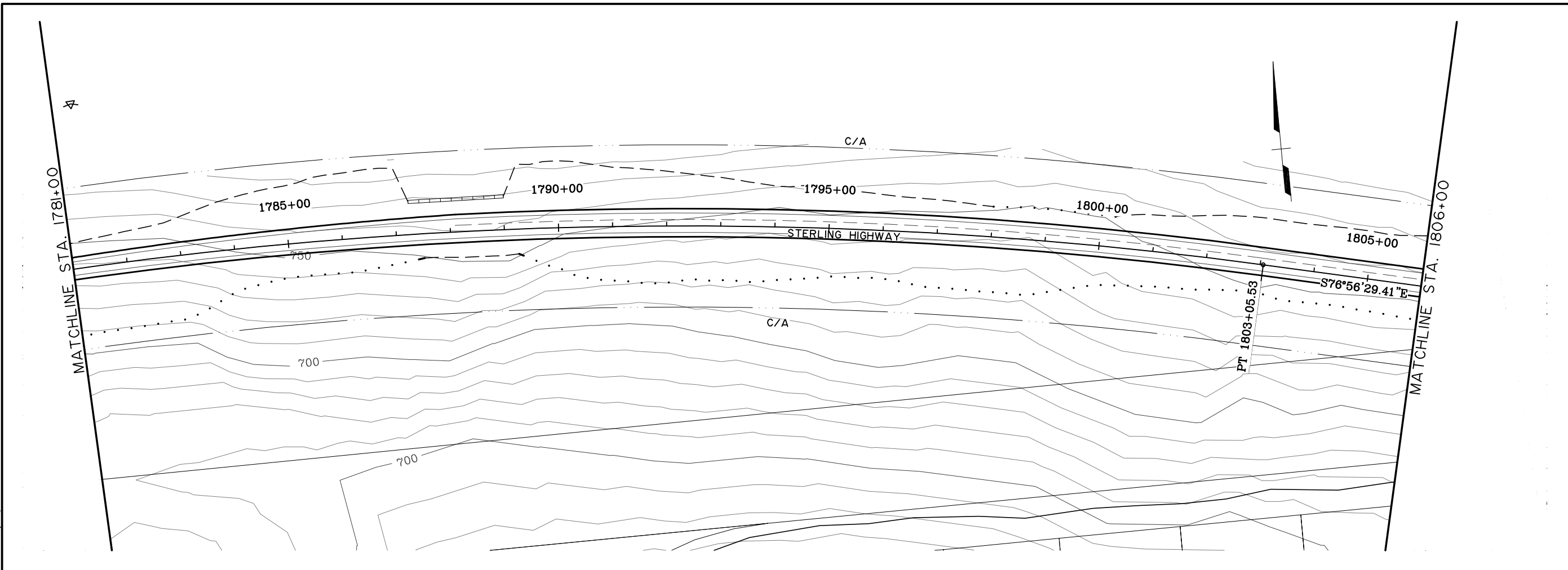
**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

SHEET NO.	TOTAL SHEETS	
F23	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



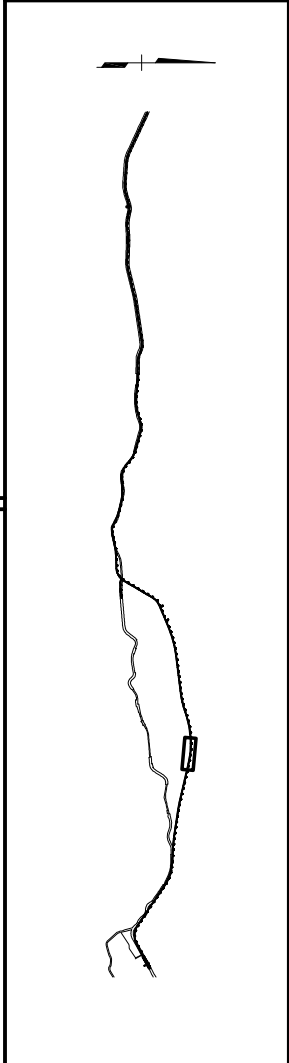

  
**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
**G SOUTH**  
 PLAN AND PROFILE  
 STA 1756+00 TO 1781+00

VIEW: GS.F24.F.D0755.GS.F24.F.D0655.GS.F24.H.I.5000  
 XREF: 4800.BD02.4800.DESIGN.OI.4800.SURVEY.A-02.PP.ROWBA  
 SPECIFICATIONS  
 DESIGNED BY: EPL  
 CHECKED BY: GDB  
 DRAFTED BY: GDB  
 PROJECT DESIGNATION: PROJECT\04\21800\civil\4800.GS.F20.L100\_03/15/06.at.1006.by.cdp



PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH

SHEET NO.	TOTAL SHEETS	
F24	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



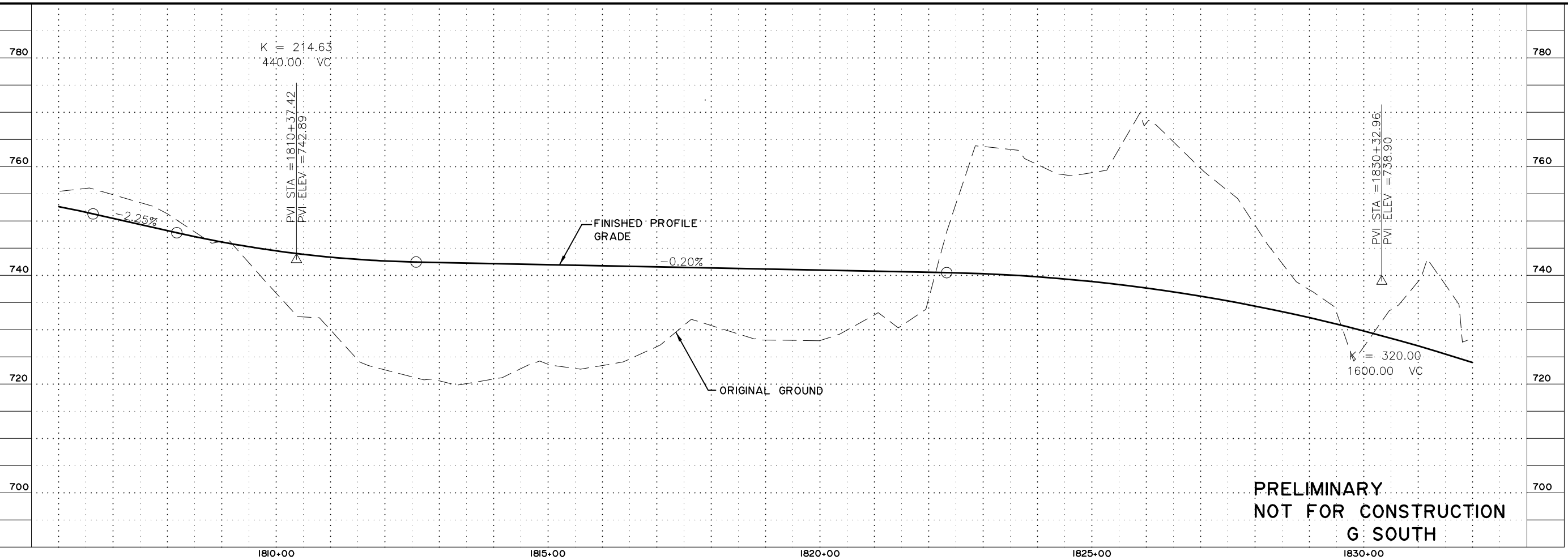
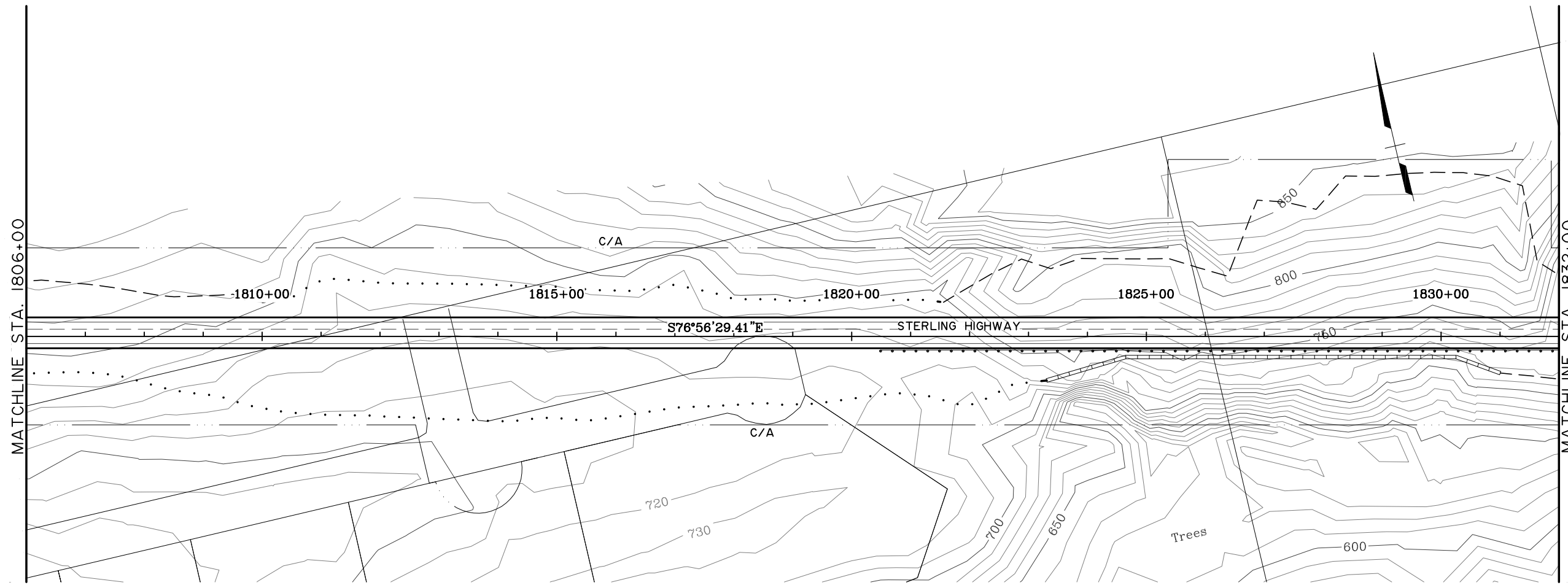
HDR ALASKA, Inc.  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
 STERLING HIGHWAY  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1781+00 TO 1806+00



VIEW: GS.F25.F.D0755.GS.F25.F.D0755.GS.F25.H.1.5000  
 XREF: 4800.BD02.4800.DESIGN.OI.4800.SURVEY.A-02.PP.ROWBAR  
 SPECIFICATIONS  
 DESIGNED BY: EPL  
 CHECKED BY: EPL  
 DRAFTED BY: GSB

MATCHLINE STA. 1806+00


MATCHLINE STA. 1832+00



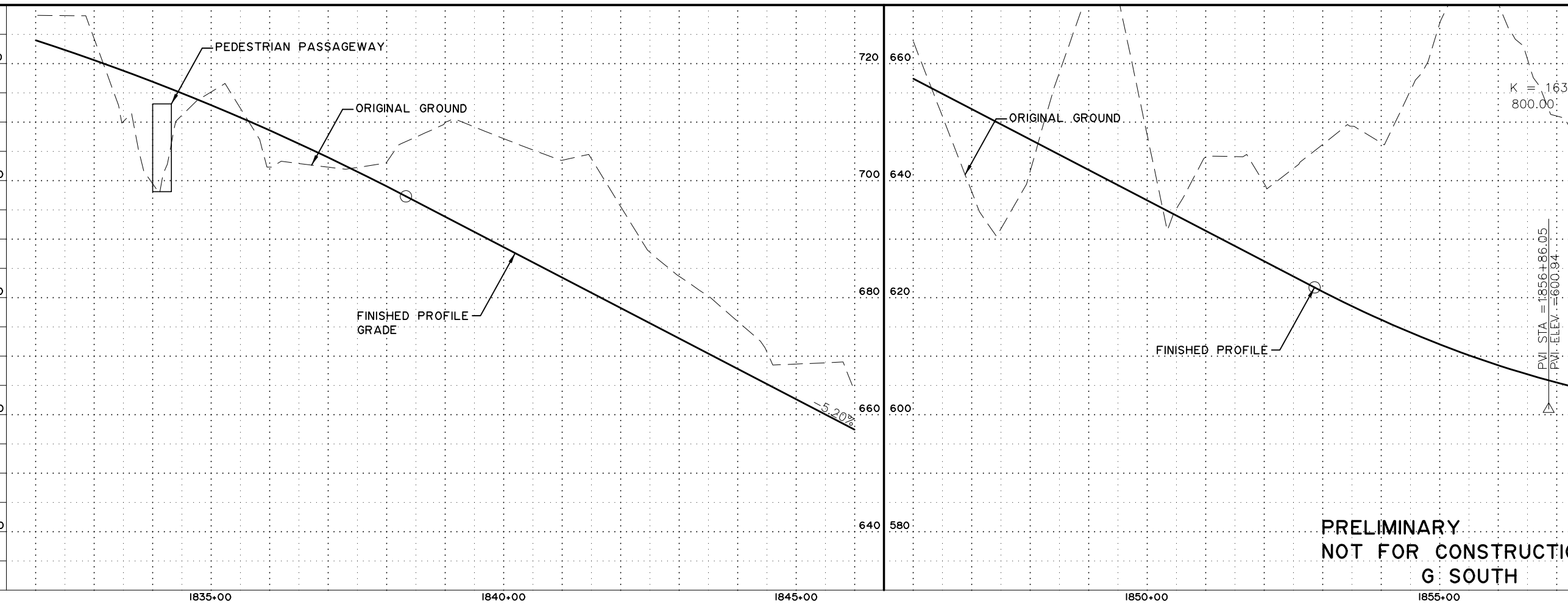
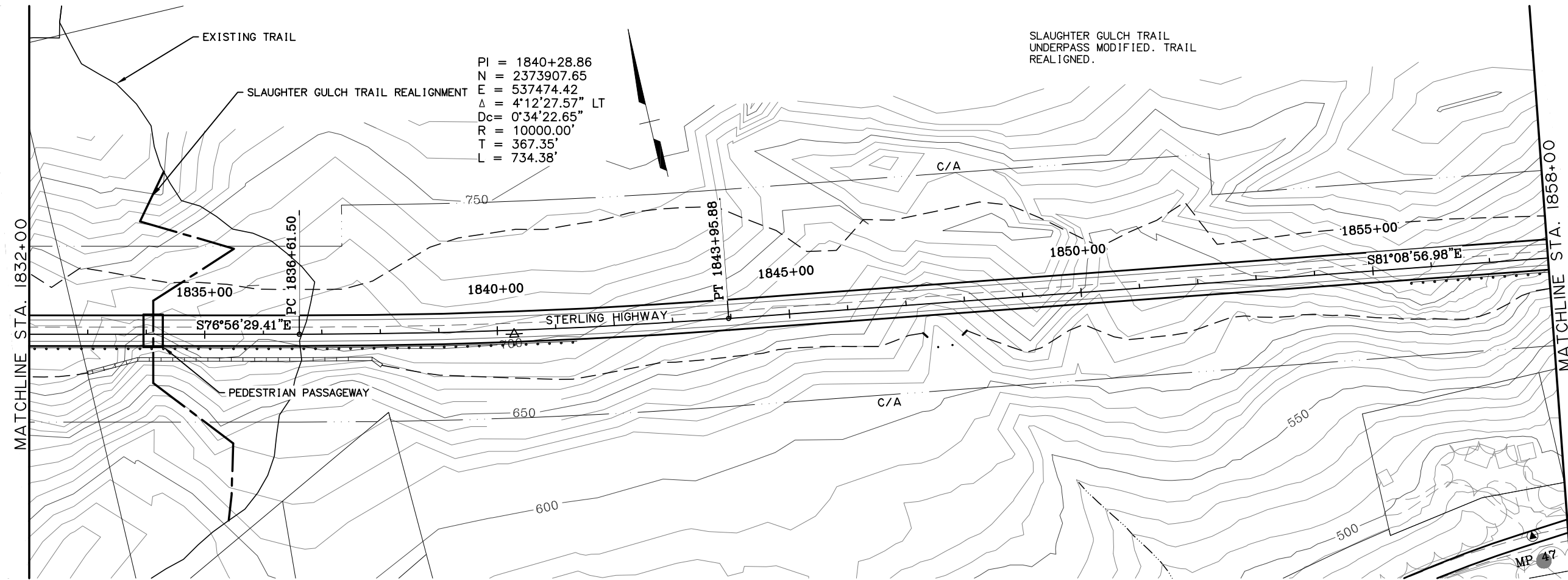
**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

SHEET NO.	TOTAL SHEETS	
F25	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



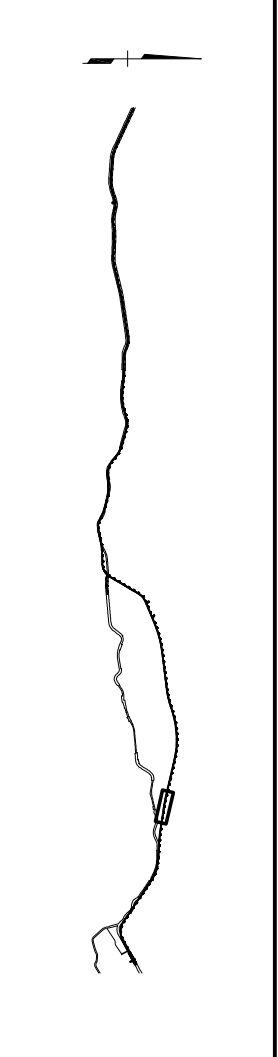
  
**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
**G SOUTH**  
 PLAN AND PROFILE  
 STA 1806+00 TO 1832+00

VIEW: GS-F26-F-D0785\_GS-F26-F-01065\_GS-F26-H-1-5000  
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 SPECIFICATIONS  
 DESIGNED BY: EPL  
 CHECKED BY: EPL  
 DRAFTED BY: GDB



**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

SHEET NO.	TOTAL SHEETS	
F26	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



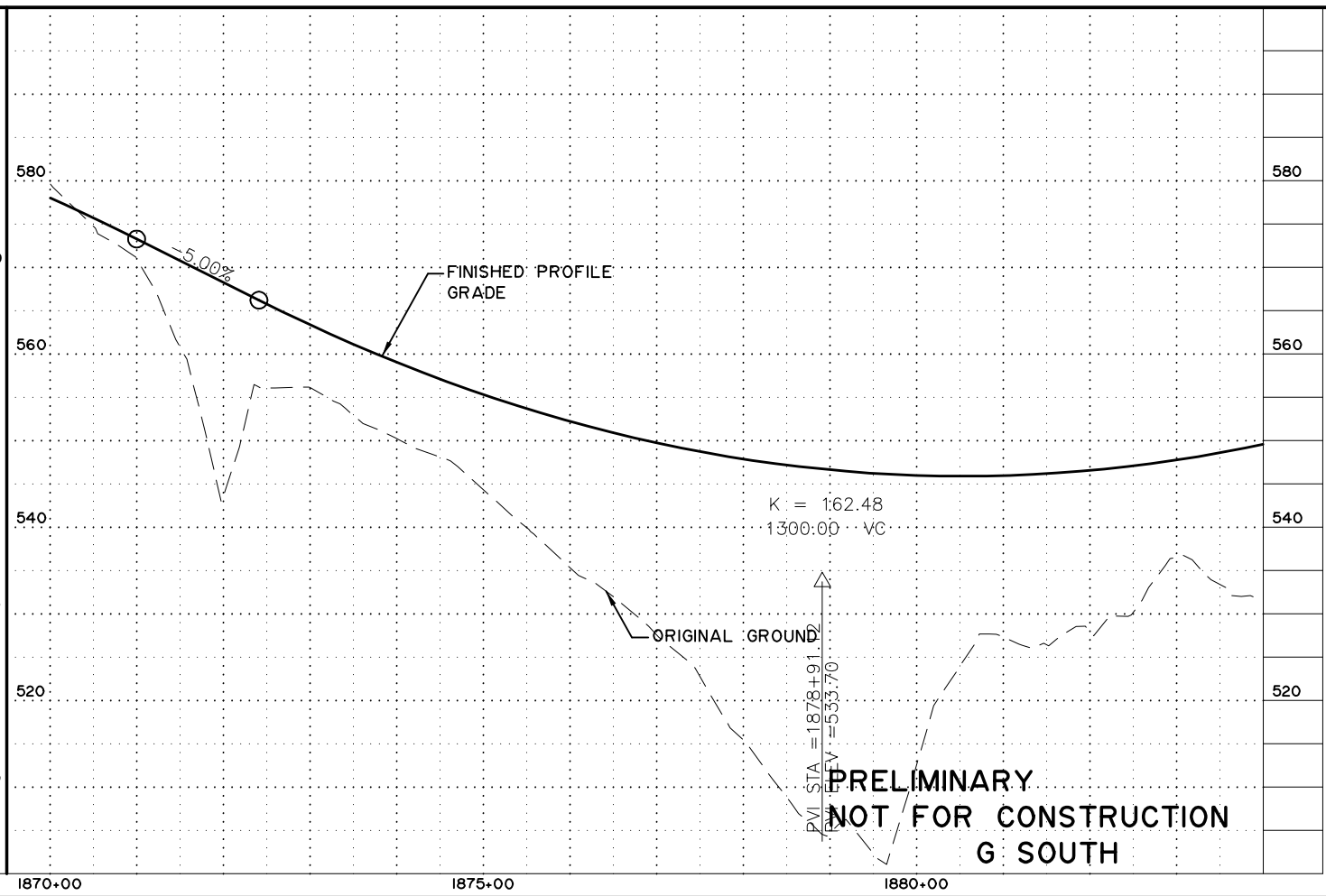
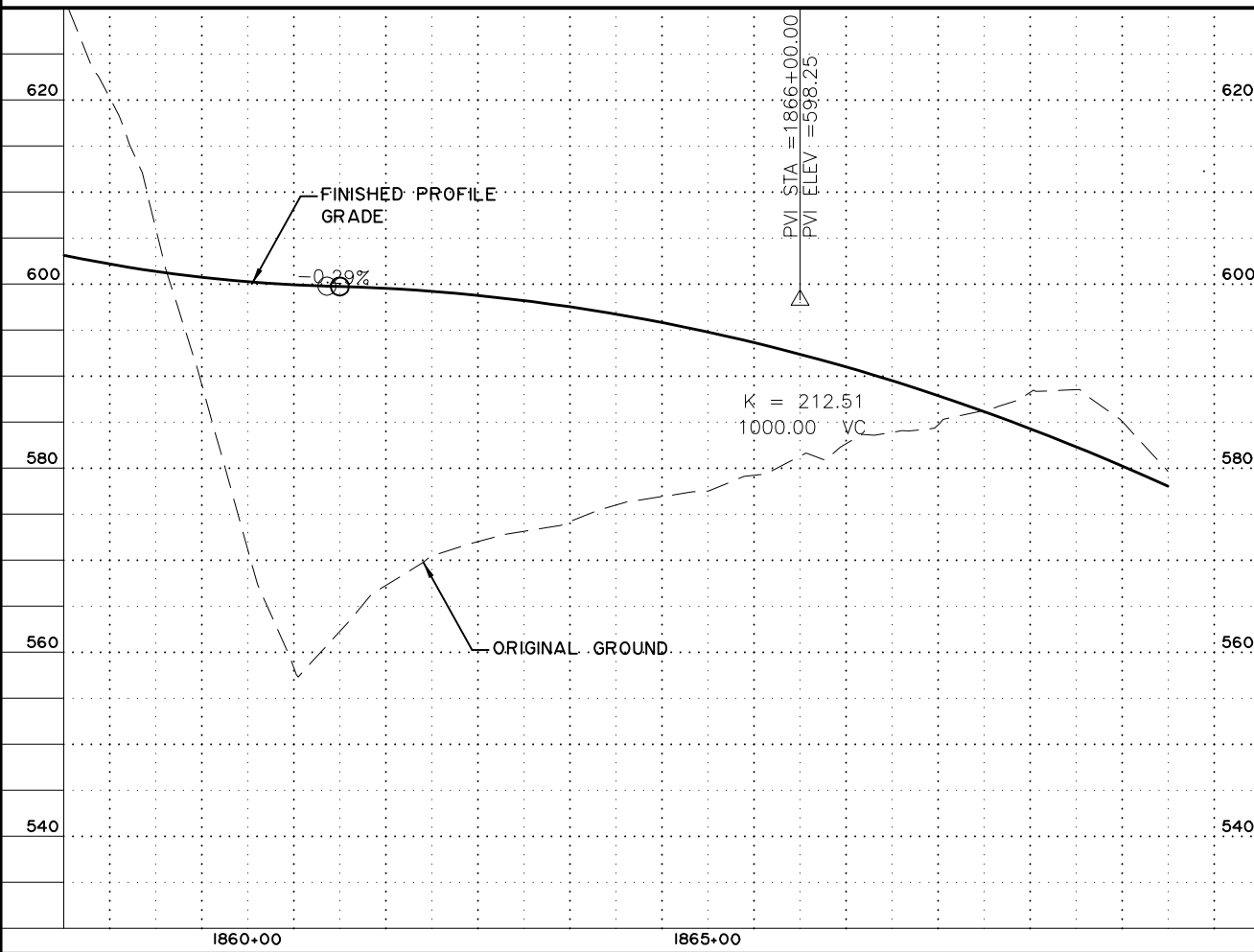
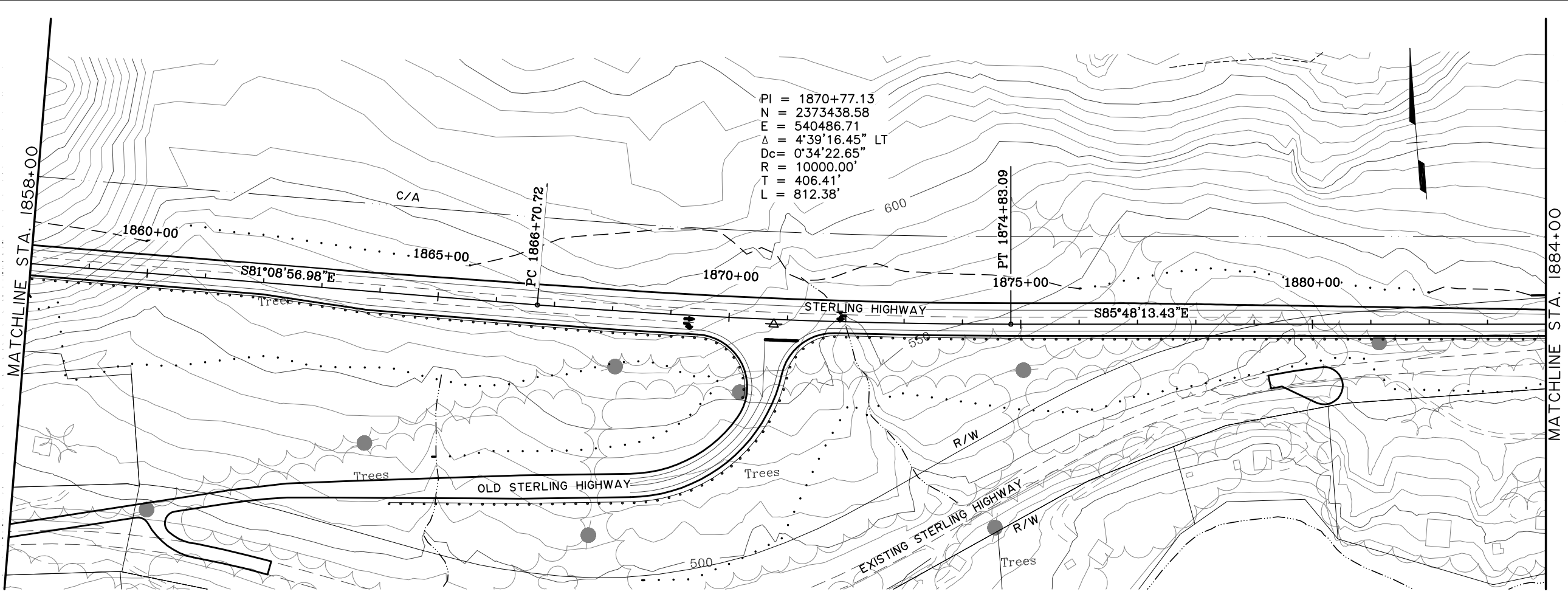
STATE OF ALASKA  
 49th

**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
 STERLING HIGHWAY  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1832+00 TO 1858+00

DESIGNED BY: EPL  
 CHECKED BY: GDB  
 DRAFTED BY: GDB

VIEW: GS-F27-F-D0755, GS-F27-F-D0755, GS-F27-H-15000  
 XREF: 4800-BD02, 4800-DESIGN-01, 4800-SURVEY-A-02.PP, ROWBA, ROWBA, COMPUTER DESIGNATION PROJECT: 0418000, CIVIL: 4800-GS-F27, L100\_03/15/06, at 1:06 by cep

SPECIFICATIONS  
 1. 4800-DESIGN-01, 4800-SURVEY-A-02.PP, ROWBA, ROWBA, COMPUTER DESIGNATION PROJECT: 0418000, CIVIL: 4800-GS-F27, L100\_03/15/06, at 1:06 by cep



**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

SHEET NO.	TOTAL SHEETS	
F27	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION

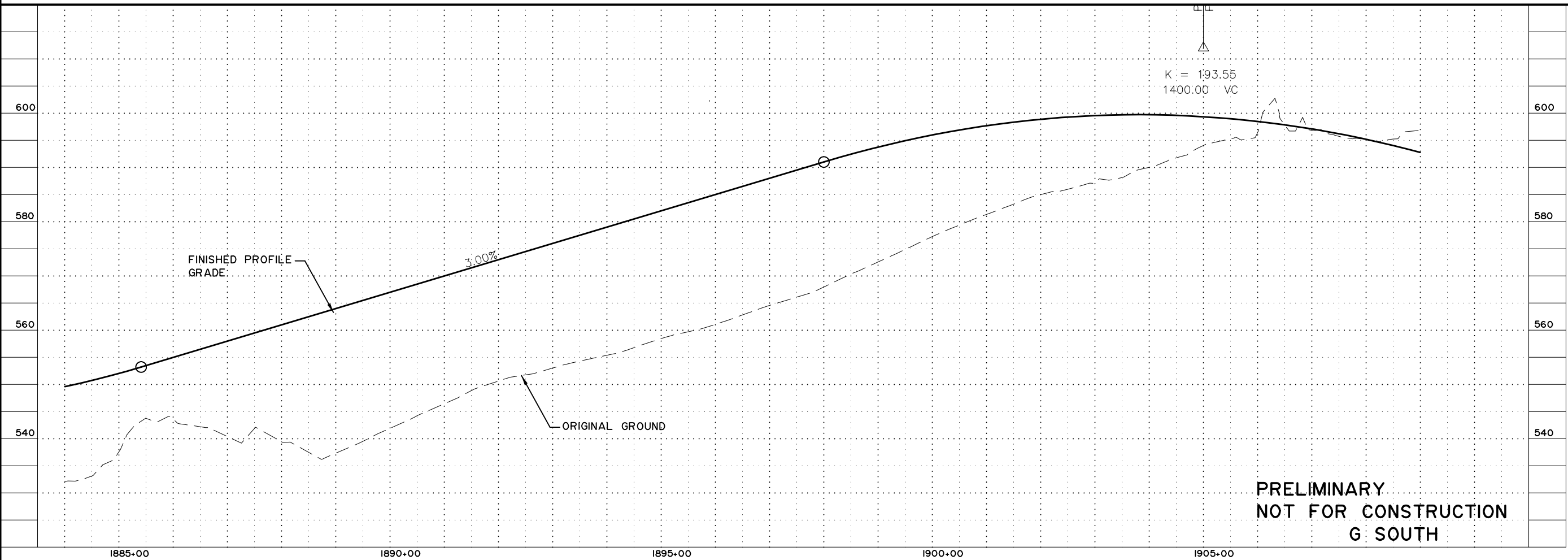
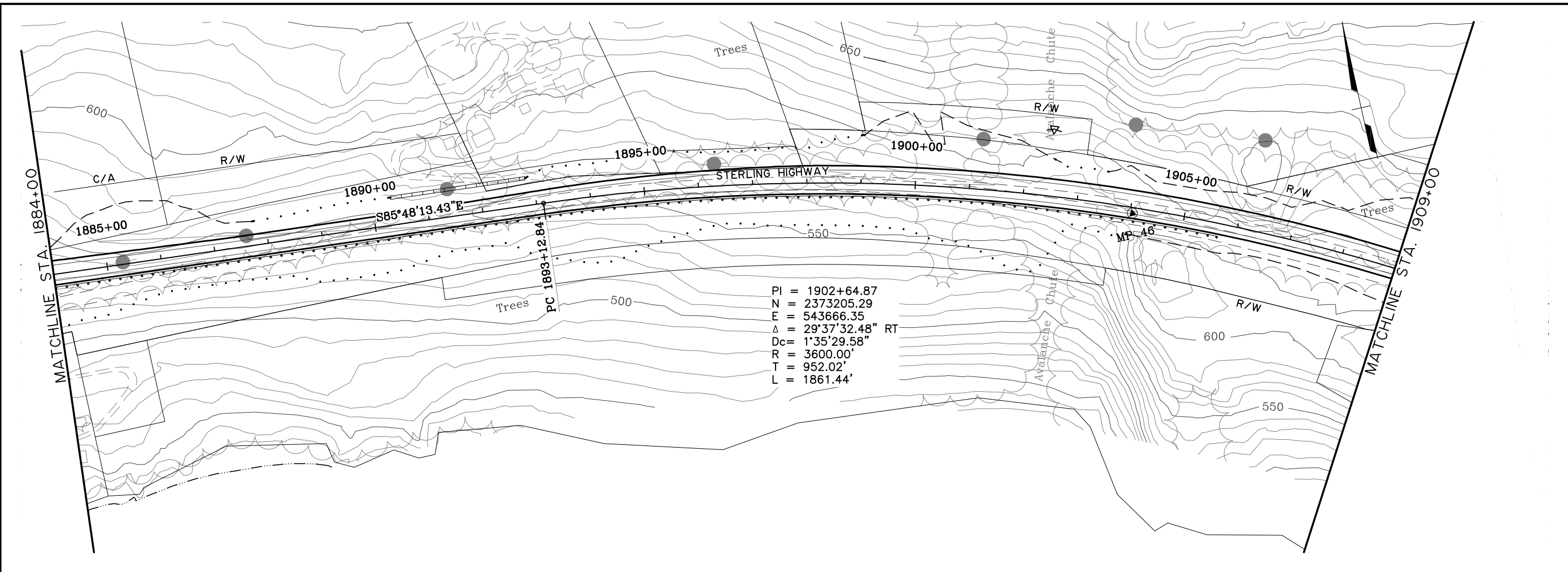


**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1858+00 TO 1884+00

VIEW: GS-F28-F-D0755\_GS-F28-F-D0655\_GS-F28-H-145000\_XREF: 4800-BD02\_4800-DESIGN-01\_4800-SURVEY\_A-02.PP\_ROWBAE\COMPUTER DESIGNATION Project\0418000\_Civil\4800-GS-F28-H-145000\_03/15/06.dwg at 11:06 by -cnp

DESIGNED BY: EPL  
 CHECKED BY: GDB  
 DRAFTED BY: GDB

SPECIFICATIONS  
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 2. AASHTO 1998  
 3. AASHTO 1998



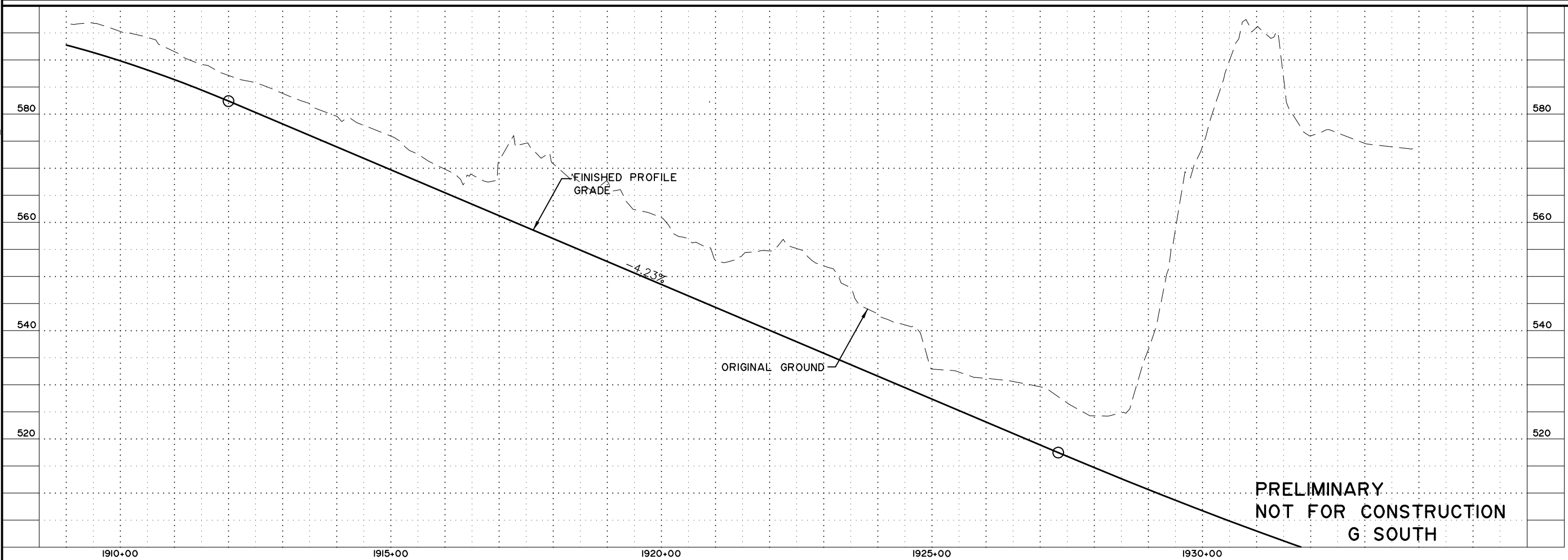
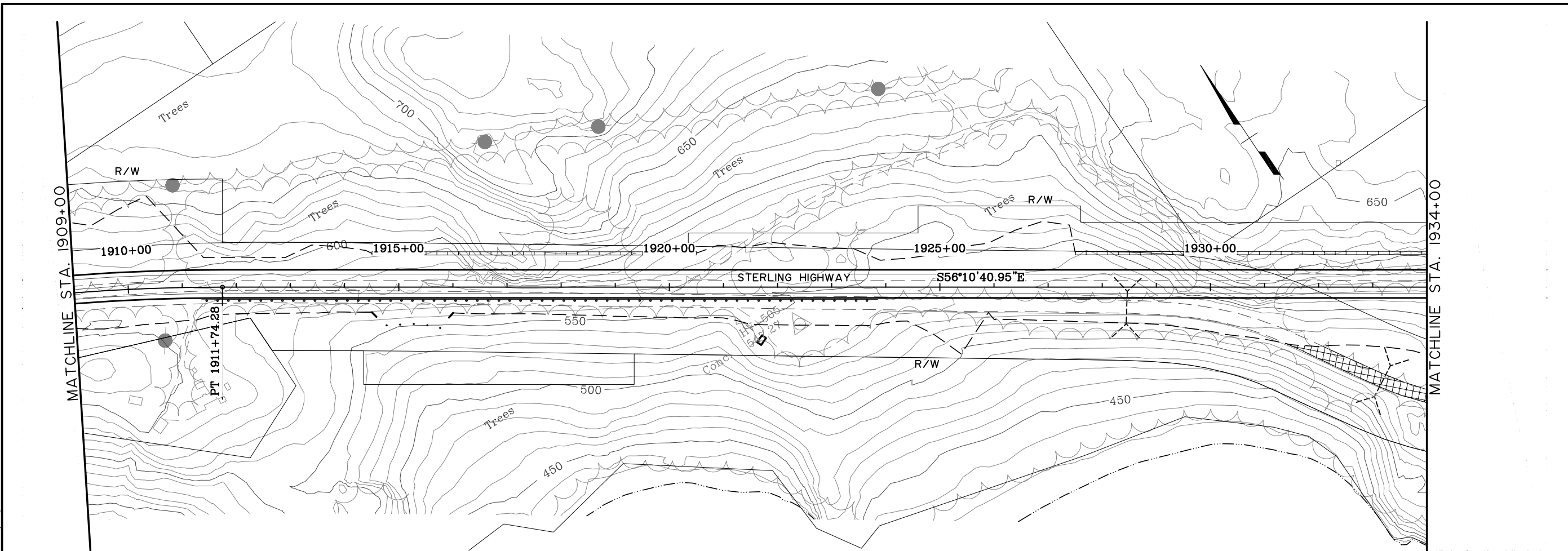
**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

SHEET NO.	TOTAL SHEETS	
F28	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



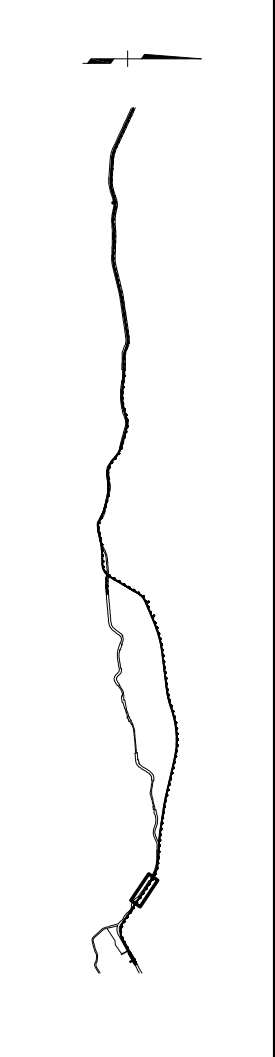
**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
 STERLING HIGHWAY  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1884+00 TO 1909+00

SPECIFICATIONS  
 VIEW: GS.F29.F.00755.GS.F29.F.DIV55.GS.F29.H.1.5000  
 XREF: 4800.BD02.4800.DESIGN.OI.4800.SURVEY.A.02.PP.ROWBAR  
 COMPUTER DESIGNATION Project:LOA\248000\civil\4800.GS.F29.H.00\_03/15/06.at.1E06.by.csp  
 DESIGNED BY: EPL  
 CHECKED BY: EPL  
 DRAFTED BY: GDB



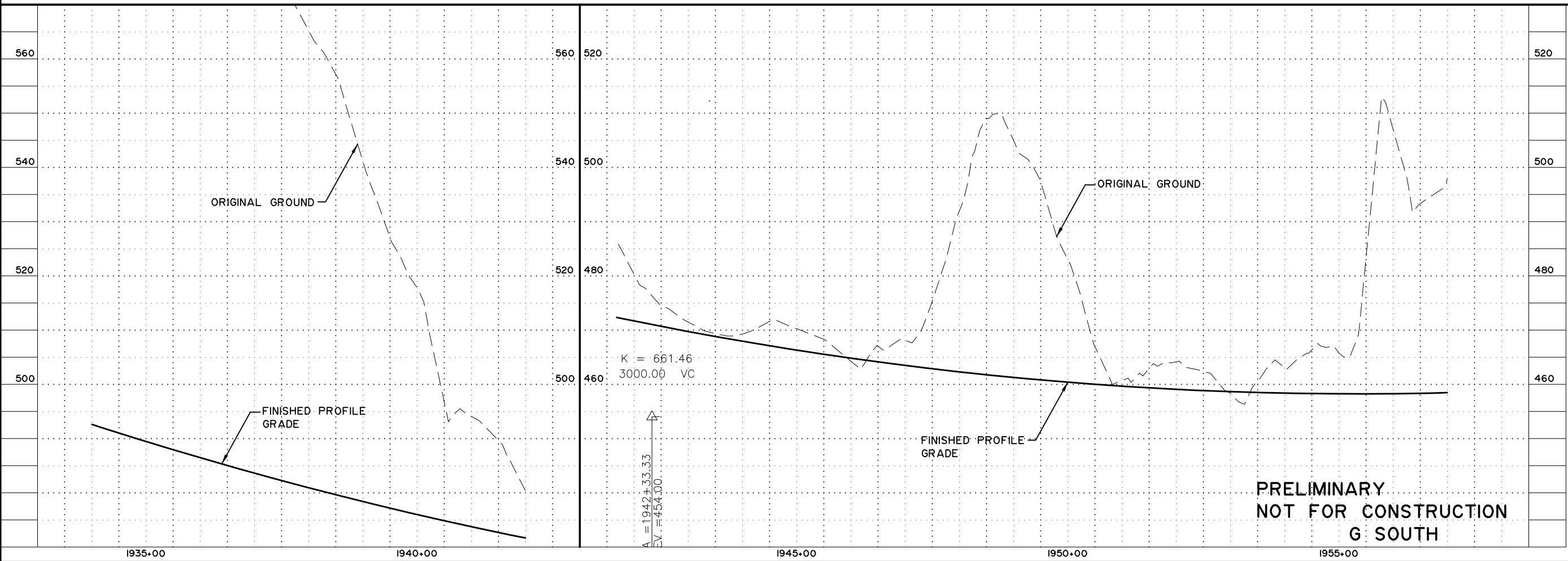
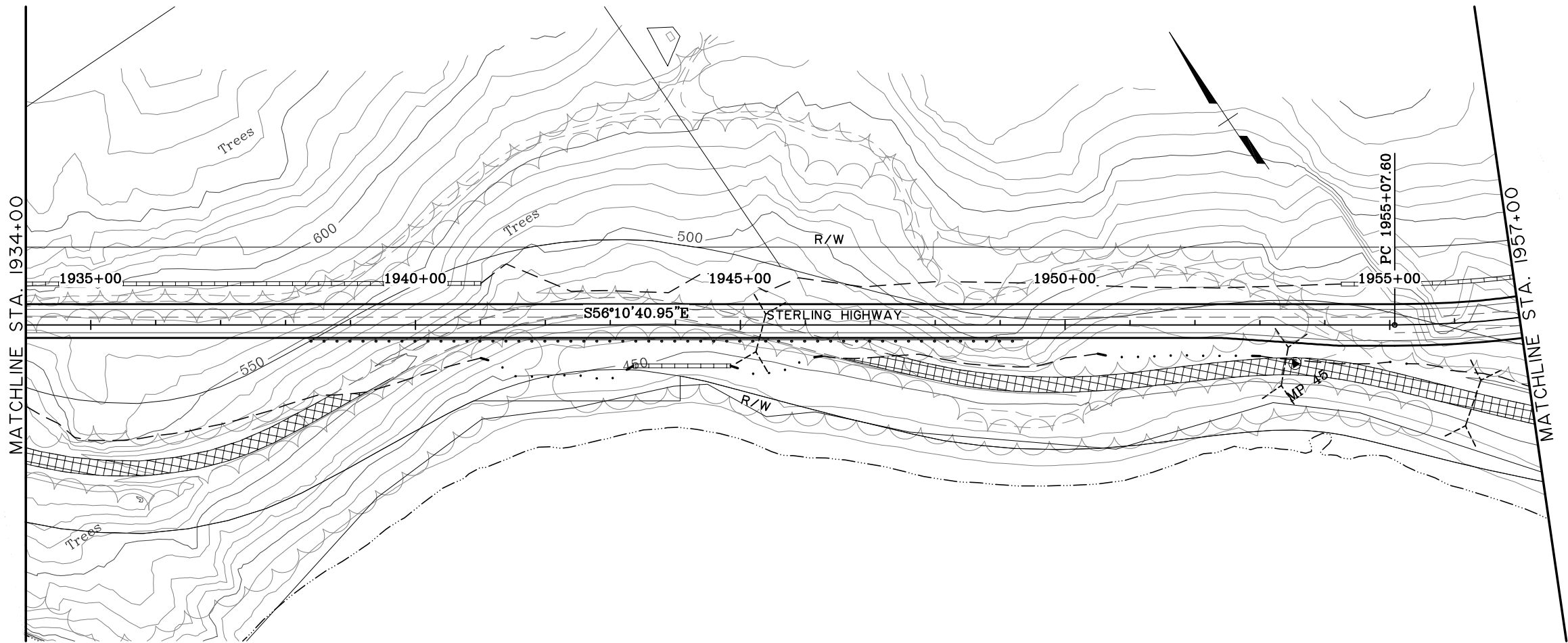
**PRELIMINARY**  
**NOT FOR CONSTRUCTION**  
**G SOUTH**

SHEET NO.	TOTAL SHEETS	
F29	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



  
**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
**G SOUTH**  
 PLAN AND PROFILE  
 STA 1909+00 TO 1934+00

VIEW: GS.F30.F.D0755.GS.F30.F.D0655.GS.F30.H.I.8000  
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 SPECIFICATIONS  
 DESIGNED BY: EPL  
 CHECKED BY: CDB  
 DRAFTED BY: CDB  
 COMPUTER DESIGNATION: Project\LOA\248000\Civil\4800.GS.F30.H.I.8000\_03/15/06.at.1E06.by.cdb



**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

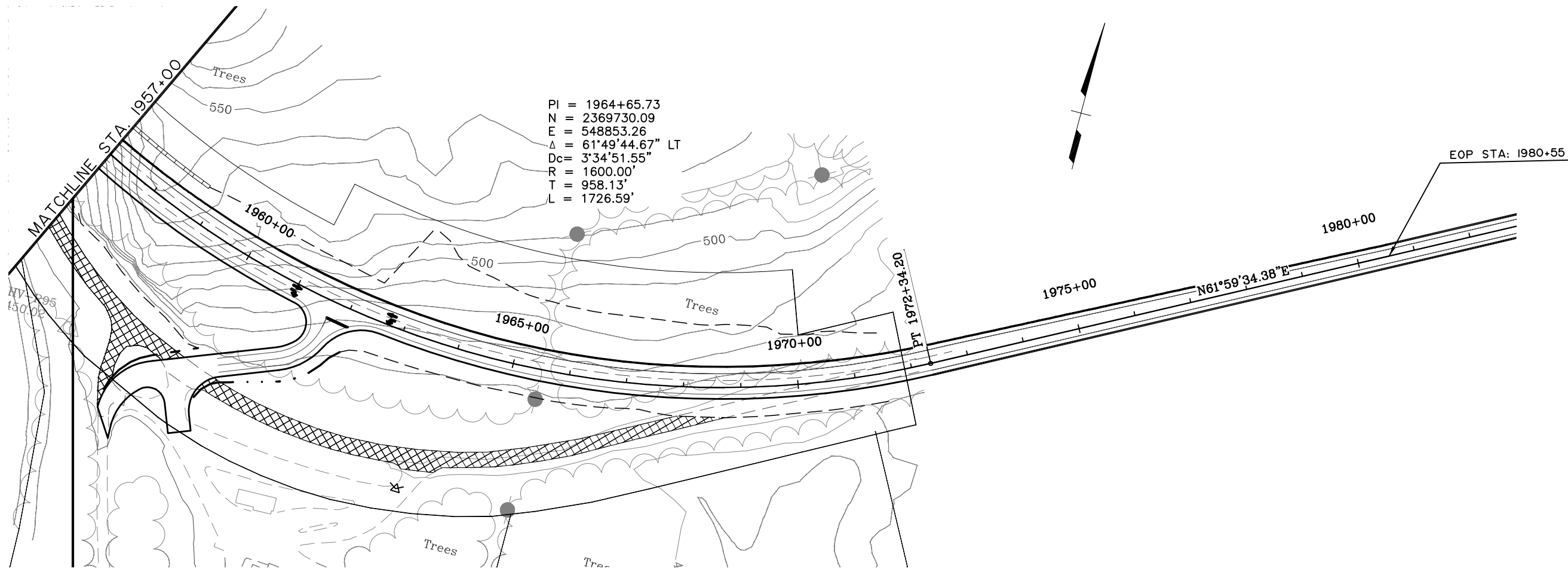
SHEET NO.	TOTAL SHEETS	
F30	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1934+00 TO 1957+00

VIEW: CS\F31\F\_00745\_CS\F31\_F\_D0055\_CS\F31\_H\_L0000\_XREF: 4800-0002\_4800-DESIGN-01\_4800-SURVEY-A-02.PP\_ROWBAE\COMPUTER DESIGNATION Project\04\248000\Civil\4800-SS-F20\_L100\_03/15/06\_at\_1006\_by\_cep

SPECIFICATIONS  
 DESIGNED BY: EPL  
 CHECKED BY: CDB  
 DRAFTED BY: CDB

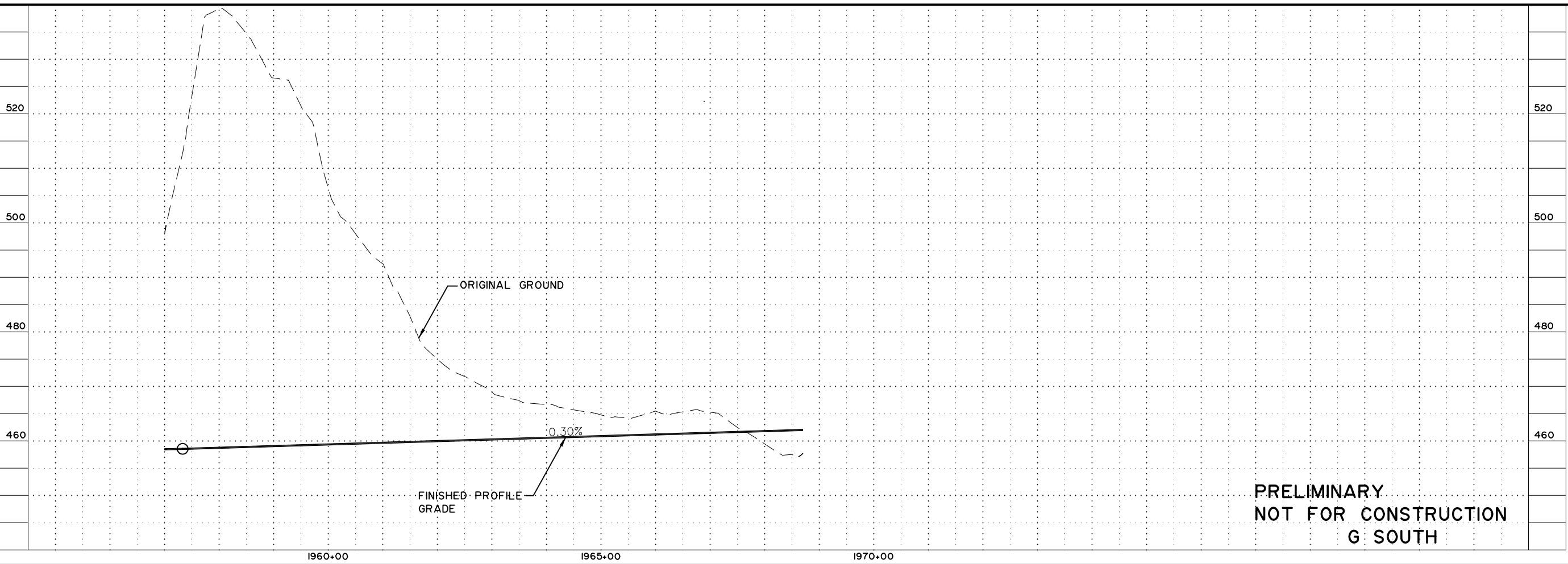


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 $D_c = 3^{\circ}34'51.55''$   
 R = 1600.00'  
 T = 958.13'  
 L = 1726.59'

AV 095  
 150.00'

EOP STA: 1980+55

1975+00 N61°59'34.38\"/>



ORIGINAL GROUND

FINISHED PROFILE GRADE

0.30%

**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 G SOUTH**

SHEET NO.	TOTAL SHEETS	
F31	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 G SOUTH  
 PLAN AND PROFILE  
 STA 1957+00 TO END

## **Juneau Creek Alternative**

Updated Plan and Profile Sheets

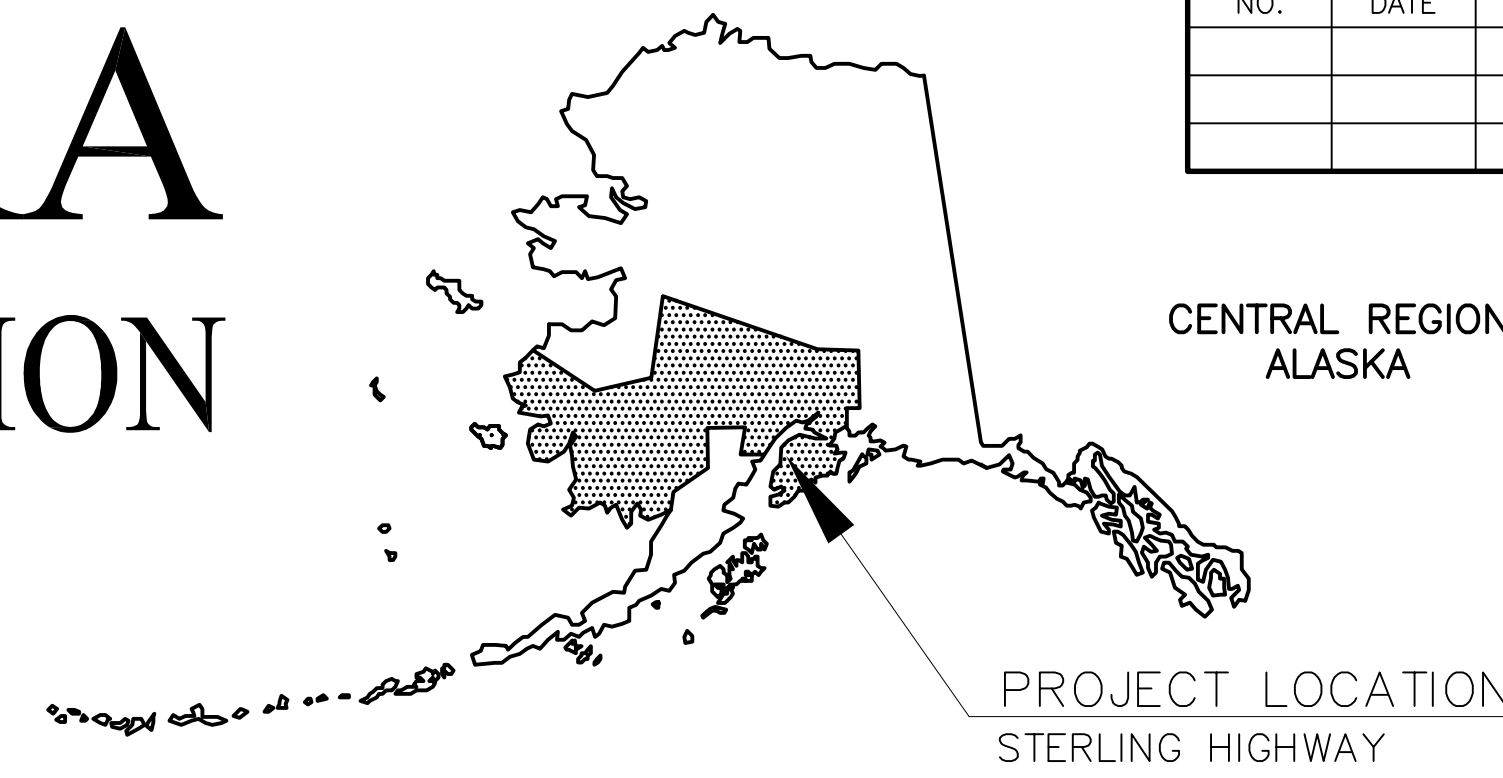


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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	F-021-2(15)/53014	2018	A1	46

# STATE OF ALASKA

## DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES



### PROPOSED HIGHWAY PROJECT

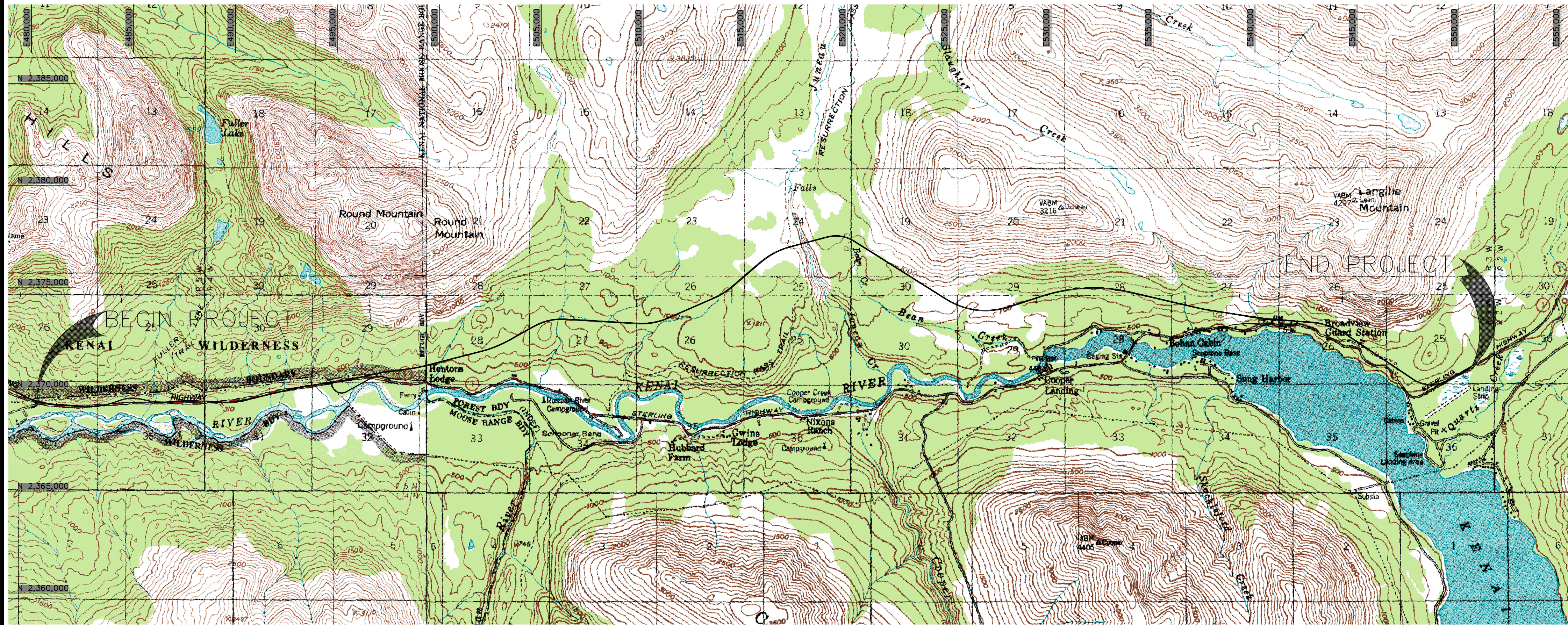
# STERLING HIGHWAY

## MILEPOST 45 TO 60 (JUNEAU CREEK ALTERNATIVE)

### PROJECT NO. F-021-2(15)/53014

#### GRADING, PAVING, PATHWAYS, AND STRIPING

INDEX	
SHEET NO.	DESCRIPTION
A1	TITLE SHEET
B1 TO B3	TYPICAL SECTIONS
B4 TO B5	SLOPE DETAILS
F1 TO F32	PLAN & PROFILE SHEETS
G1 TO G8	DETAILS



PLANS DEVELOPED BY: HDR, Inc.

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
 4111 AVIATION AVENUE, ANCHORAGE, AK 99502  
 (907)269-0590

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APPROVED:

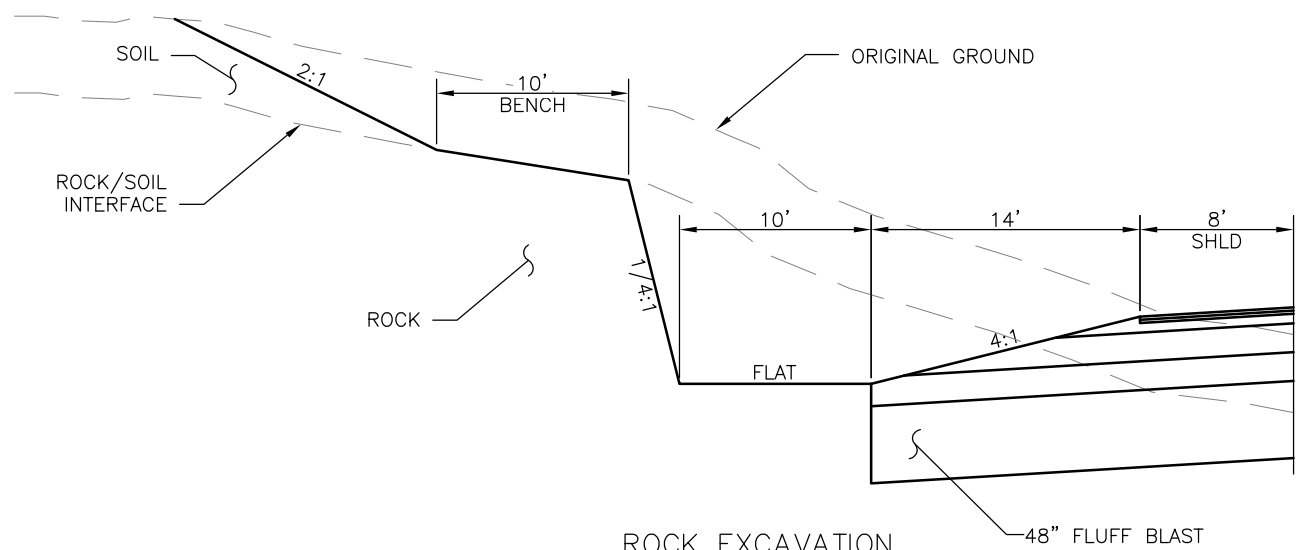
REGIONAL PRE-CONSTRUCTION ENGINEER	DATE
CONCUR:	
REGIONAL CONSTRUCTION ENGINEER	DATE



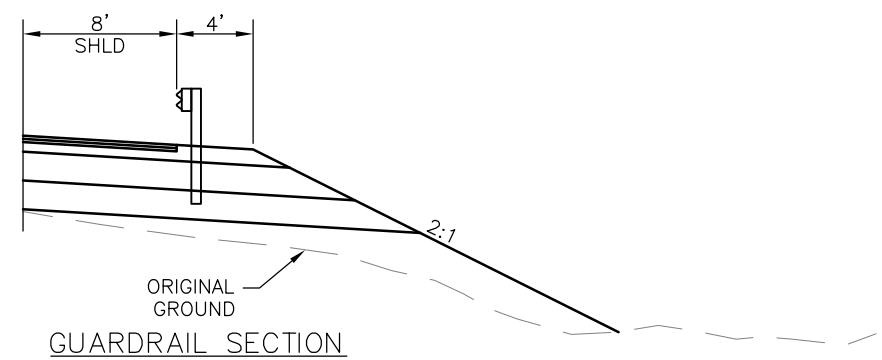
REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-021-2(15)/53014	2018	B1	B5

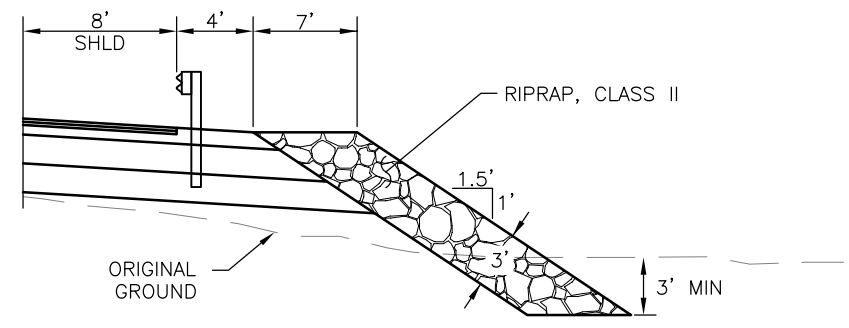
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 CHECKED BY: JWM  
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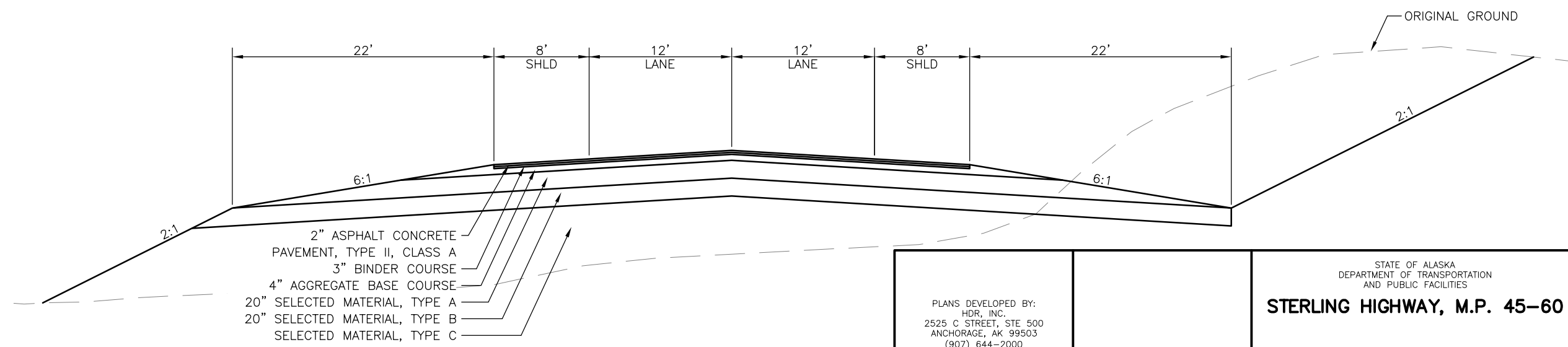
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- STA 1335+00 LT TO STA 1336+50 LT
- STA 1395+50 LT TO STA 1399+00 LT
- STA 1414+00 RT TO STA 1417+50 RT
- STA 1414+00 LT TO STA 1427+00 LT
- STA 1435+50 LT TO STA 1442+50 LT
- STA 1452+50 LT TO STA 1457+00 LT
- STA 1460+50 LT TO STA 1465+50 LT
- STA 1460+50 RT TO STA 1466+50 RT
- STA 1470+50 LT TO STA 1471+00 LT
- STA 1480+00 LT TO STA 1485+50 LT
- STA 1816+00 LT TO STA 1820+50 LT
- STA 1845+00 LT TO STA 1852+00 LT
- STA 1877+50 LT TO STA 1880+00 LT
- STA 1897+00 LT TO STA 1898+50 LT
- STA 1897+00 RT TO STA 1899+50 RT
- STA 1904+00 LT TO STA 1905+50 LT
- STA 1908+50 LT TO STA 1913+00 LT
- STA 1920+50 LT TO STA 1933+50 LT
- STA 1923+50 RT TO STA 1933+00 RT
- STA 1939+00 LT TO STA 1955+00 LT



- STA 1268+00 RT TO STA 1275+50 RT
- STA 1281+50 RT TO STA 1285+50 RT
- STA 1383+50 RT TO STA 1387+00 RT
- STA 1391+50 RT TO STA 1412+00 RT
- STA 1422+00 RT TO STA 1452+00 RT
- STA 1657+00 LT TO STA 1668+00 LT
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- STA 1721+00 RT TO STA 1730+00 RT
- STA 1806+00 RT TO STA 1835+00 RT
- STA 1855+50 RT TO STA 1899+50 RT
- STA 1909+50 RT TO STA 1918+00 RT
- STA 1938+00 RT TO STA 1943+00 RT



- STA 1255+00 RT TO STA 1268+00 RT
- STA 1275+50 RT TO STA 1281+50 RT
- STA 1285+50 RT TO STA 1291+00 RT
- STA 1307+50 RT TO STA 1313+00 RT
- STA 1366+00 RT TO STA 1383+50 RT
- STA 1387+00 RT TO STA 1391+50 RT



STERLING HIGHWAY  
 STA 1224+00 TO STA 1967+50

PLANS DEVELOPED BY:  
 HDR, INC.  
 2525 C STREET, STE 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES

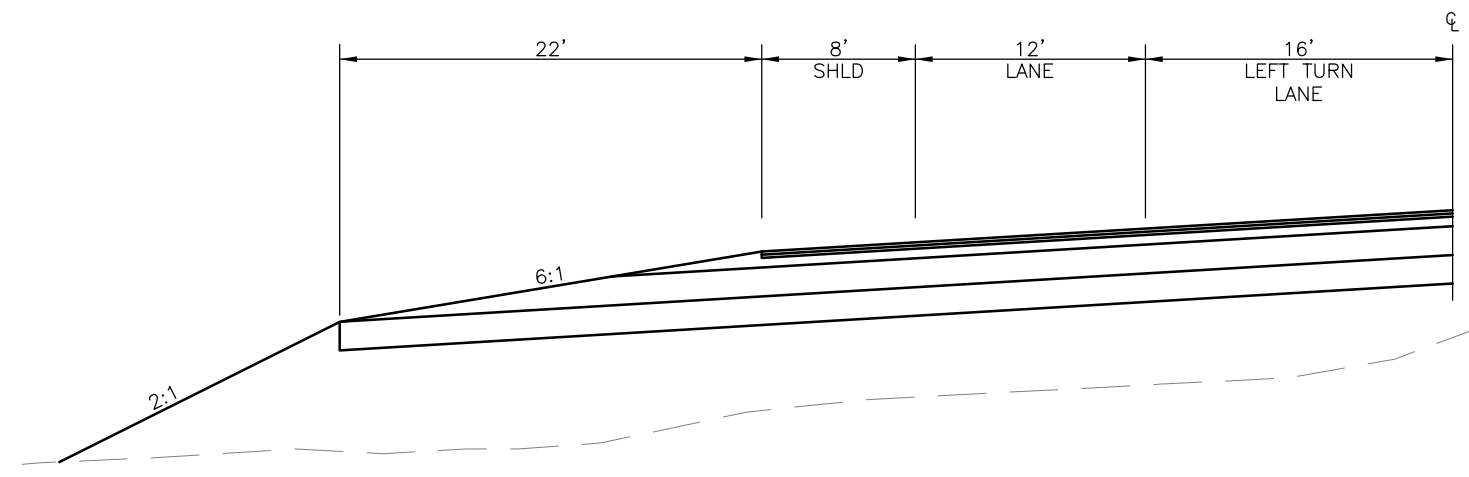
**STERLING HIGHWAY, M.P. 45-60**

**JUNEAU CREEK ALTERNATIVE  
 TYPICAL SECTIONS**

REVISIONS		
NO.	DATE	DESCRIPTION

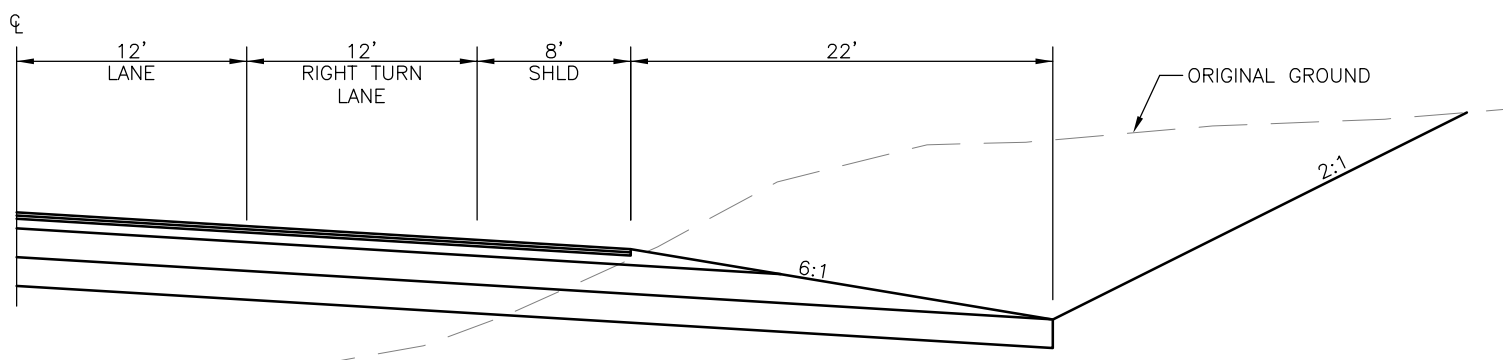
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-021-2(15)/53014	2018	B2	B5

DESIGNED BY: JLB  
 CHECKED BY: JWM  
 DRAFTED BY: JSRB  
 XREFS  
 SCALE: NTS  
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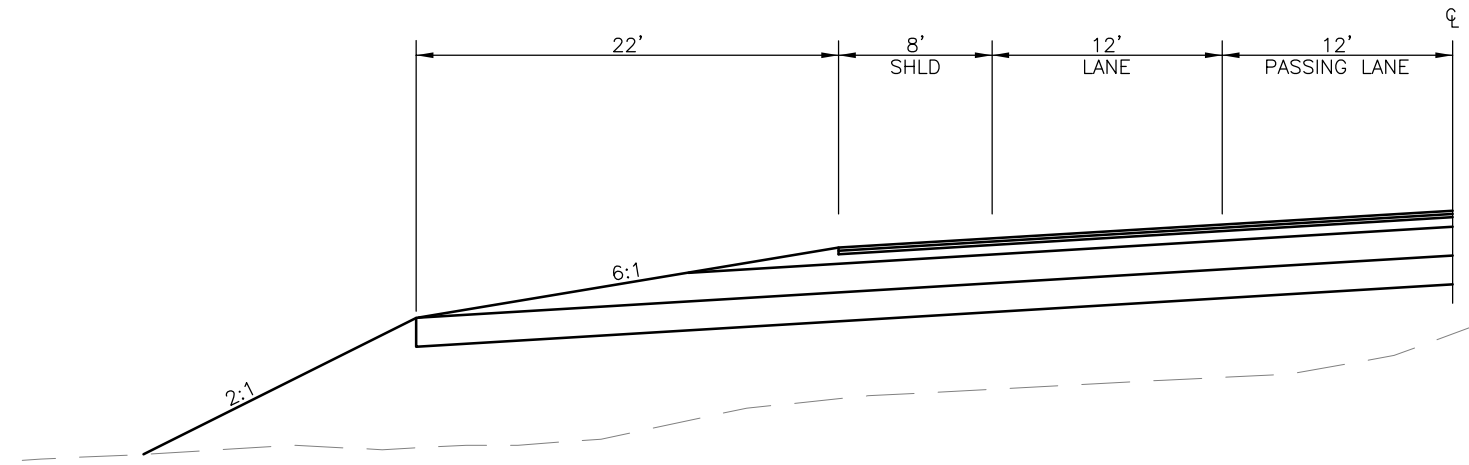
**LEFT TURN LANE**

STA 1235+12 LT TO STA 1247+15 LT SKILAK LAKE ROAD WB  
 STA 1380+95 LT TO STA 1398+29 LT OLD STERLING HWY, WB  
 (LEFT TURN LANE CENTERED ON CENTERLINE)  
 STA 1866+50 LT TO STA 1872+44 LT OLD STERLING HWY WB  
 STA 1958+50 LT TO STA 1969+24 LT QUARTZ CREEK ROAD WB



**RIGHT TURN LANE**

STA 1227+80 RT TO STA 1234+60 RT SKILAK LAKE ROAD EB  
 STA 1373+76 RT TO STA 1380+50 RT OLD STERLING HWY EB  
 STA 1860+68 RT TO STA 1866+50 RT OLD STERLING HWY EB  
 STA 1951+11 RT TO STA 1958+50 RT QUARTZ CREEK ROAD EB



**PASSING LANE**

STA 1258+00 RT TO STA 1276+53 RT EB PASSING  
 STA 1310+82 LT TO STA 1380+95 LT WB PASSING  
 STA 1380+50 RT TO STA 1609+80 RT EB PASSING  
 STA 1582+31 LT TO STA 1744+88 LT WB PASSING  
 STA 1739+80 RT TO STA 1769+80 RT EB PASSING  
 STA 1784+80 LT TO STA 1863+60 LT WB PASSING  
 STA 1894+85 LT TO STA 1956+50 LT WB PASSING

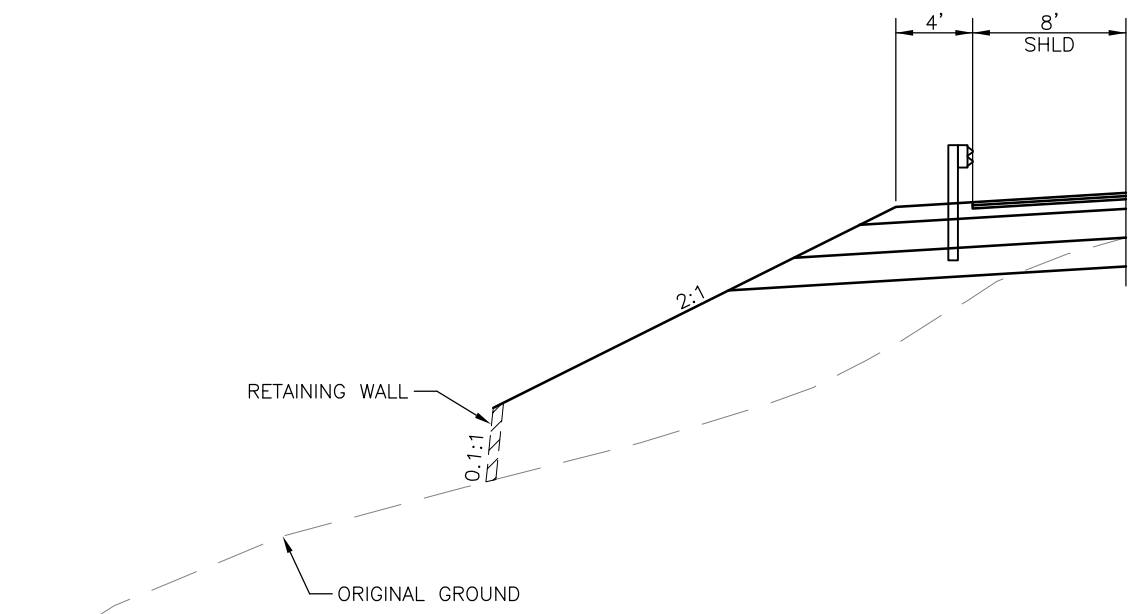
PLANS DEVELOPED BY:  
 HDR, INC.  
 2525 C STREET, STE 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY, M.P. 45-60**  
  
**JUNEAU CREEK ALTERNATIVE  
 TYPICAL SECTIONS**

DESIGNED BY: JLB  
 CHECKED BY: JWM  
 DRAFTED BY: JSRB  
 XREFS  
 SCALE: NTS  
 LAYOUT: B3  
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 TIME: 3:44 PM  
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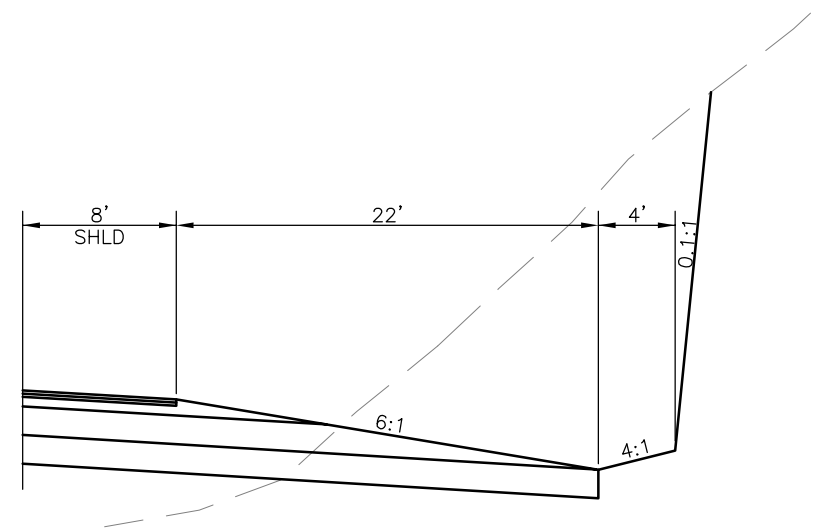
REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-021-2(15)/53014	2018	B3	B5



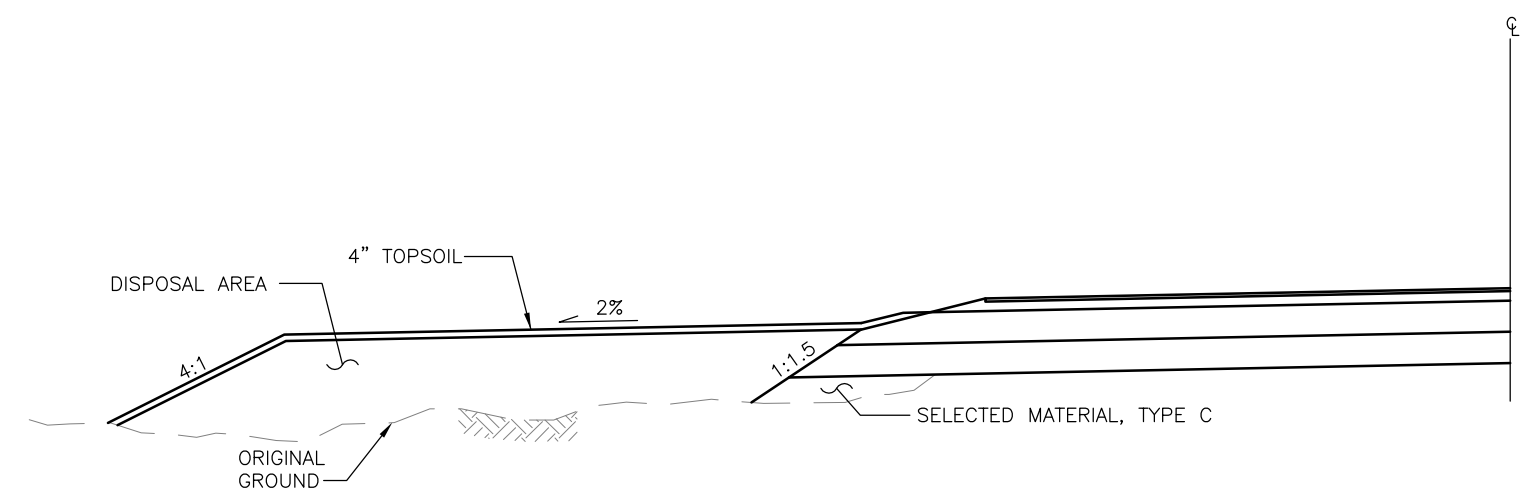
STERLING HIGHWAY  
FILL RETAINING WALLS

STATION FROM	STATION TO	MAX. HT	AVE. HT	AREA
1239+35 RT	1241+21 RT	4	3	550
1399+50 RT	1405+50 RT	35	20	13,000
1825+50 RT	1827+00 RT	21	17	2,550
1830+50 RT	1833+50 RT	37	14	4,525
1873+50 RT	1877+50 RT	37	25	10,425
1939+50 RT	1941+50 RT	13	11	2,275



STERLING HIGHWAY  
CUT RETAINING WALLS

STATION FROM	STATION TO	MAX. HT	AVE. HT	AREA
1258+00 LT	1259+25 LT	34	22	2,125
1261+50 LT	1262+50 LT	35	20	1,950
1265+00 LT	1272+50 LT	26	16	12,250
1288+50 LT	1289+00 LT	4	4	175
1313+50 LT	1315+50 LT	4	3	500
1348+50 LT	1351+00 LT	5	4	1,025
1368+00 LT	1377+50 LT	18	11	11,050
1405+00 LT	1409+00 LT	19	13	5,650
1887+00 LT	1889+00 LT	14	12	2,400
1911+50 LT	1912+00 LT	6	6	300



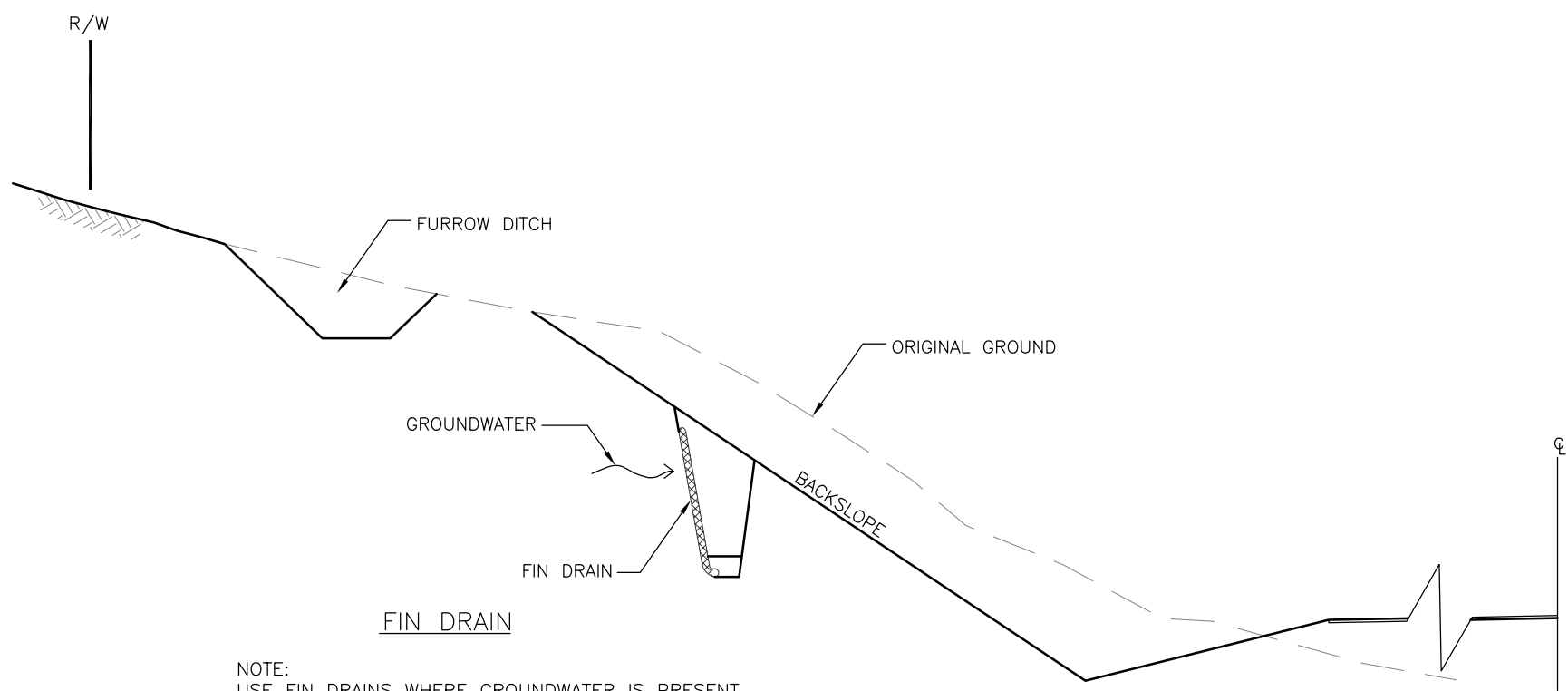
DISPOSAL AREAS

PLANS DEVELOPED BY:  
 HDR, INC.  
 2525 C STREET, STE 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

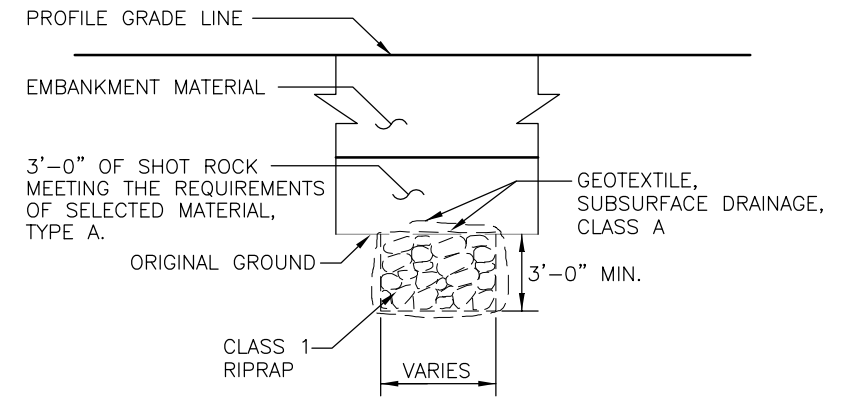
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY, M.P. 45-60**  
  
**JUNEAU CREEK ALTERNATIVE  
 TYPICAL SECTIONS**

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION					
			ALASKA	F-021-2(15)/53014	2018	B4	B5

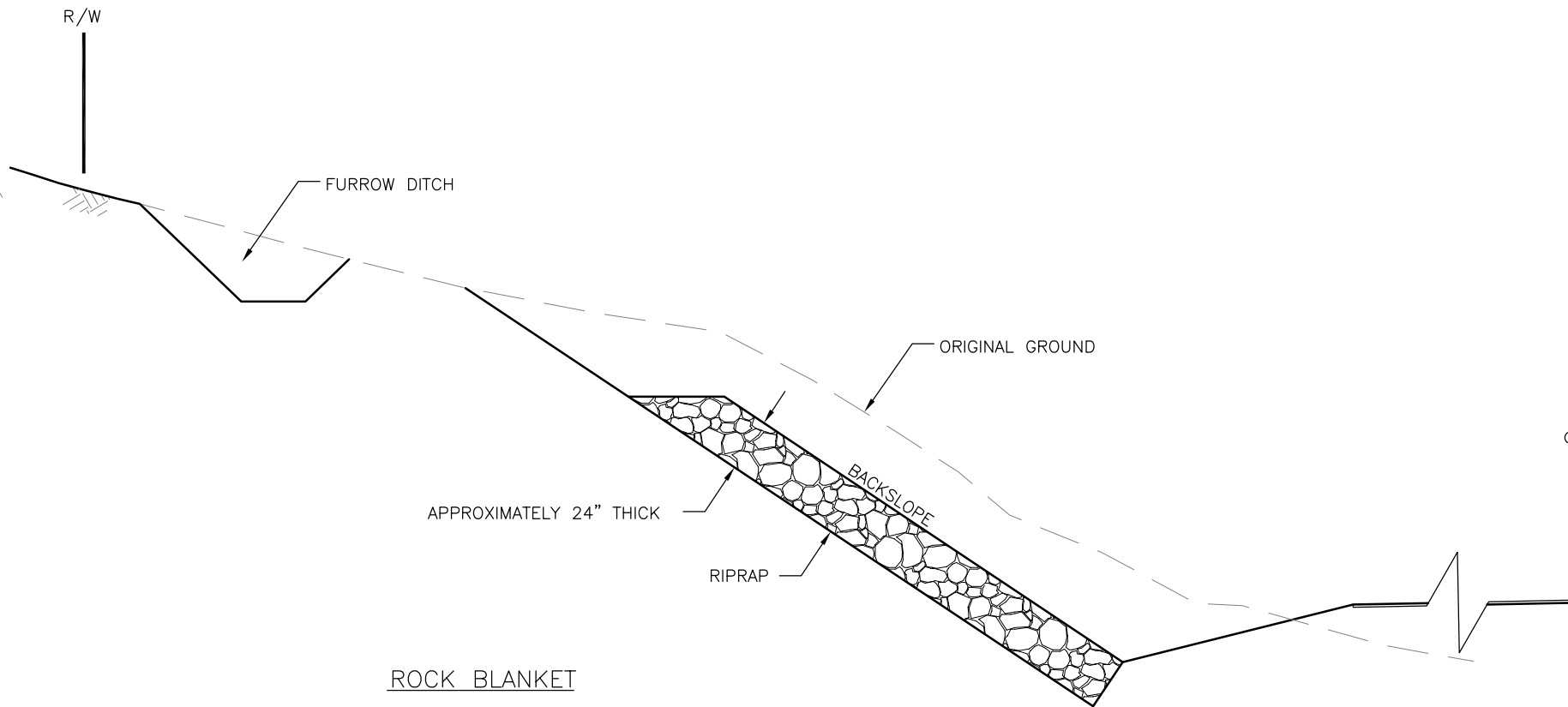
DESIGNED BY: JLB  
 CHECKED BY: JMW  
 DRAFTED BY: JSRB  
 XREFS  
 SCALE: NTS  
 LAYOUT: B4  
 DATE: 8/16/2018 3:44 PM  
 DRAWING LOCATION: C:\pwworking\sea\dl748762\4800-F-B01.dwg



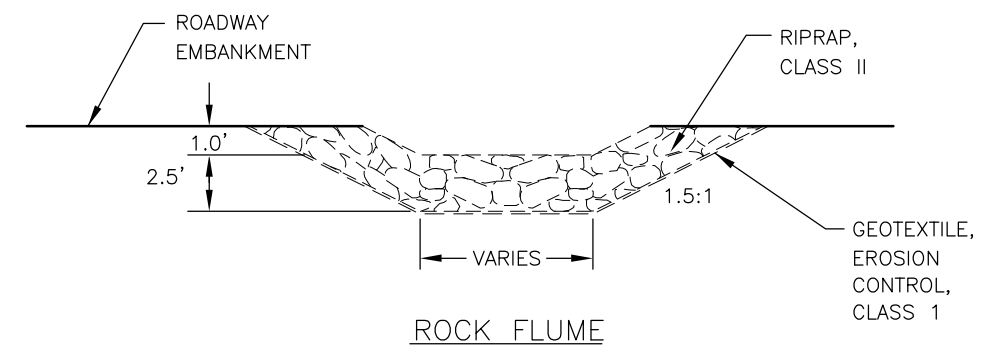
NOTE:  
 USE FIN DRAINS WHERE GROUNDWATER IS PRESENT.  
 INTERCEPT GROUND WATER AND CONVEY TO OUTFALL  
 USING A PIPED SYSTEM PROTECTED FROM FREEZING.  
 FIN DRAIN LOCATION TO BE DETERMINED DURING DESIGN.  
 DO NOT PLACE FIN DRAIN IN BOTTOM OF FURROW  
 OR ROADWAY DITCHES.



NOTE:  
 USE WHERE ROADWAYS CROSS OVER  
 SUBTERRANEAN DRAINAGE.



NOTE:  
 USE ROCK BLANKETS ON BACK SLOPES THAT EXPOSE THIXOTROPIC SOIL.



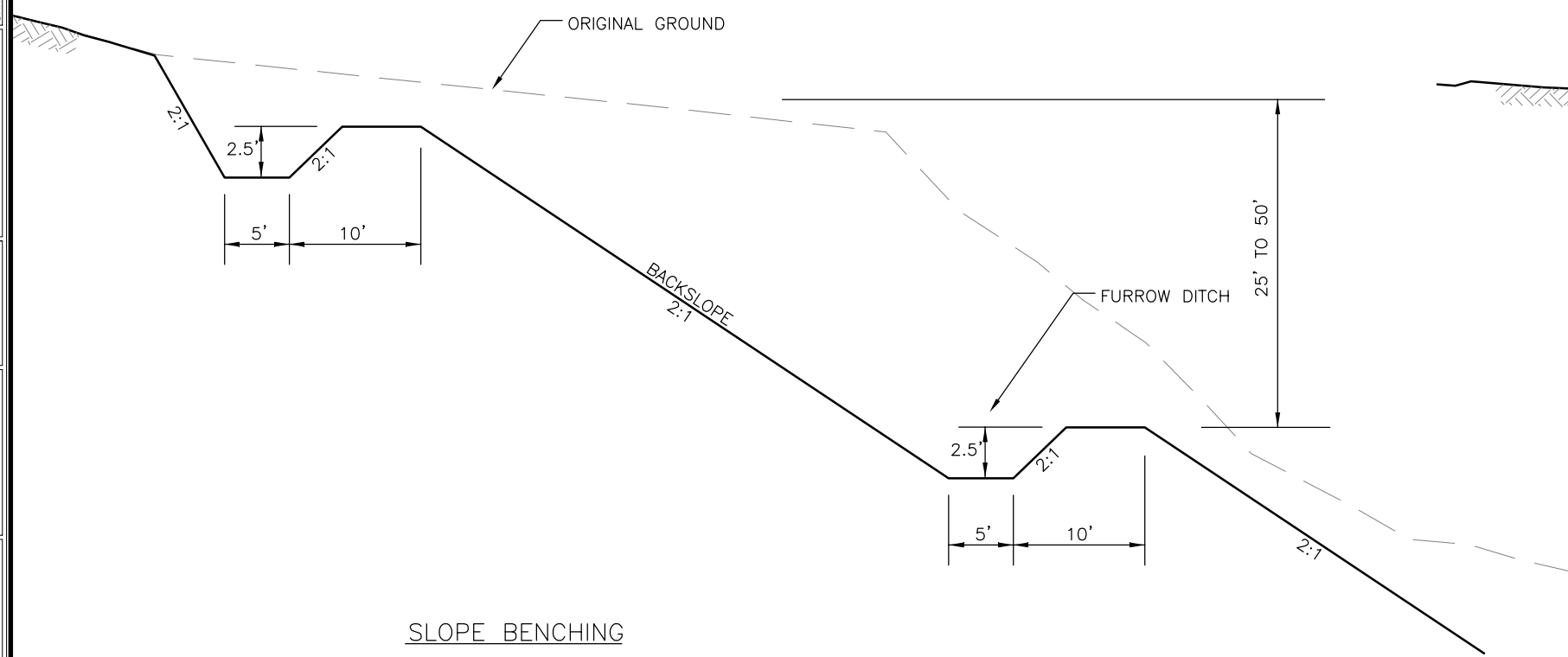
PLANS DEVELOPED BY:  
 HDR, INC.  
 2525 C STREET, STE 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY, M.P. 45-60**  
**JUNEAU CREEK ALTERNATIVE  
 TYPICAL SECTIONS**

REVISIONS		
NO.	DATE	DESCRIPTION

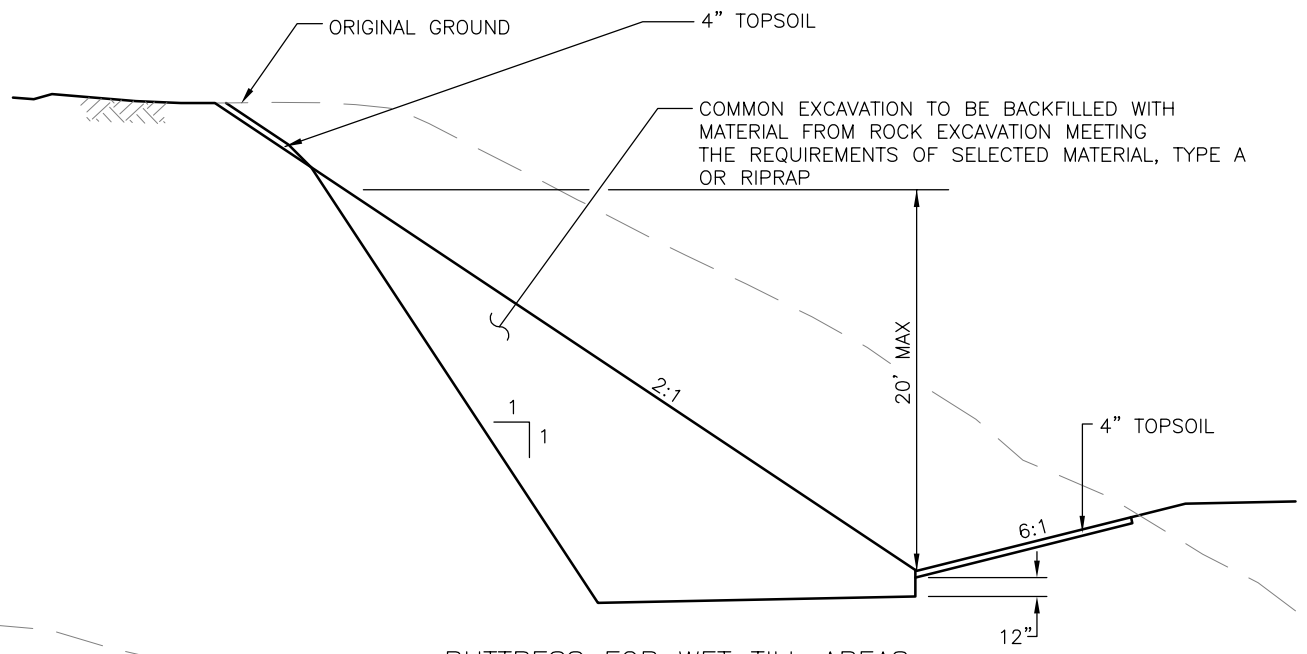
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-021-2(15)/53014	2018	B5	B5

DESIGNED BY: JLB  
 CHECKED BY: JWM  
 DRAFTED BY: JSRB  
 XREFS  
 SCALE: NTS  
 LAYOUT: B5  
 DATE: 8/16/2018 3:44 PM  
 DRAWING LOCATION: C:\pwworking\sea\dl748762\4800-F-B01.dwg



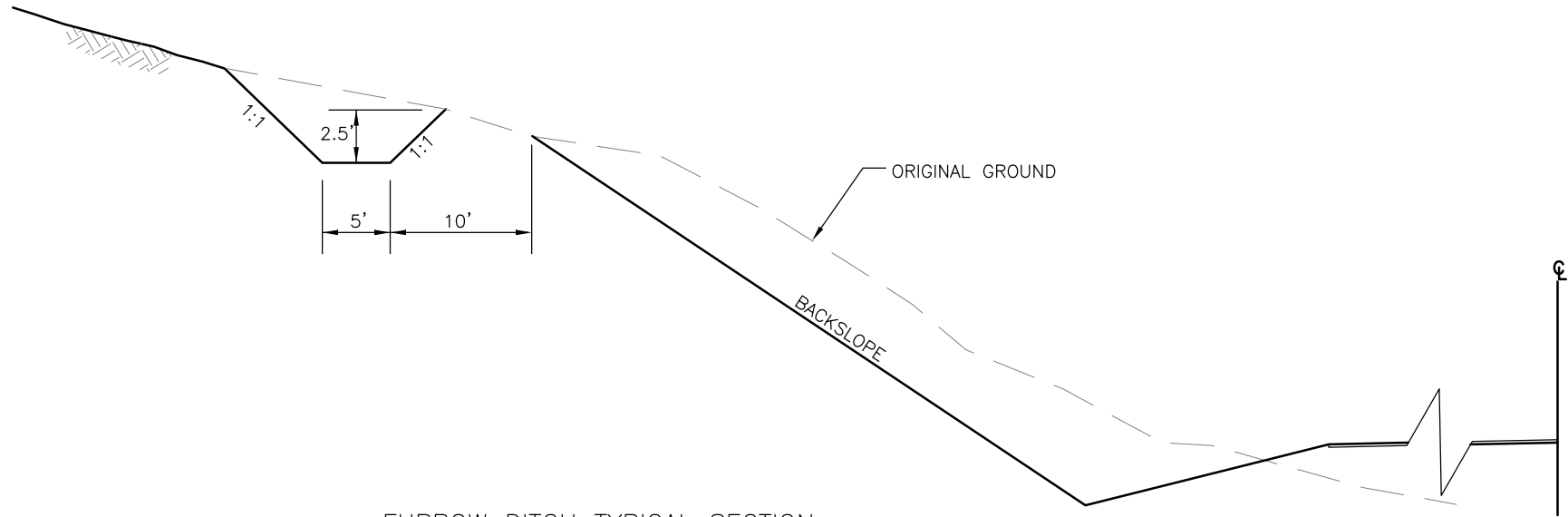
**SLOPE BENCHING**

NOTE:  
CONSIDER SLOPE BENCHING ON TILL BACKSLOPES GREATER THAN 50 FT HIGH.



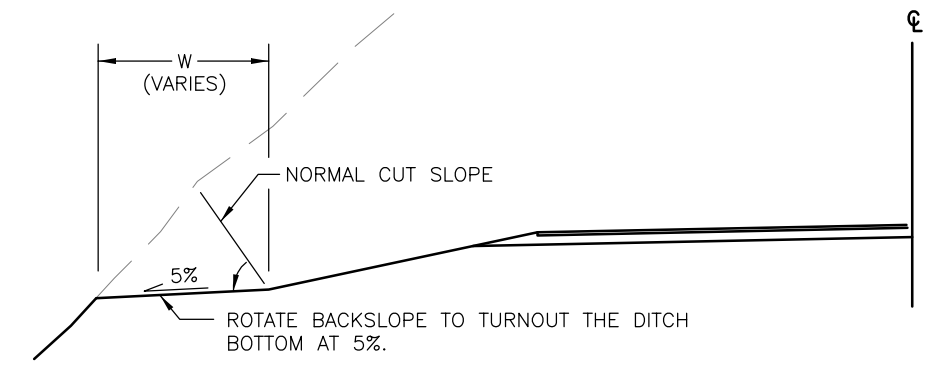
**BUTTRESS FOR WET TILL AREAS**

NOTE  
USE BUTTRESS IN TILL AREAS WITH HIGH GROUNDWATER.



**FURROW DITCH TYPICAL SECTION**

NOTE:  
USE FURROW DITCHES ABOVE CUTS GREATER THAN 30 FT.



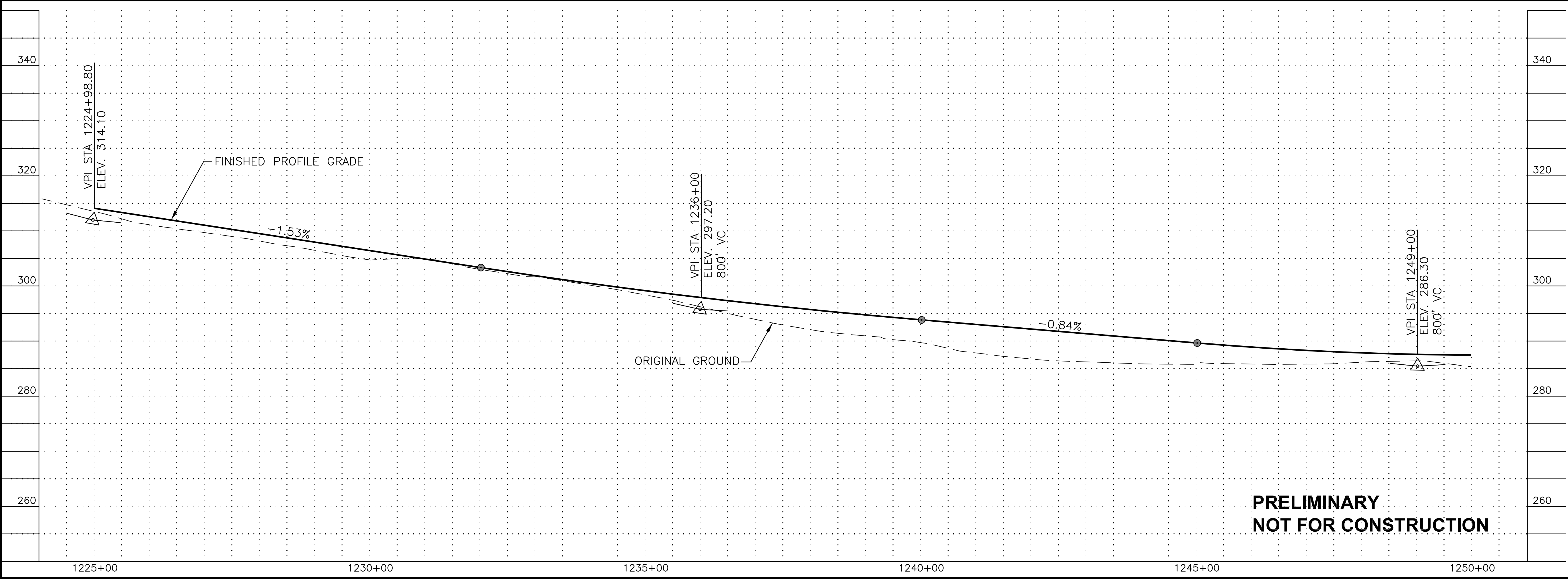
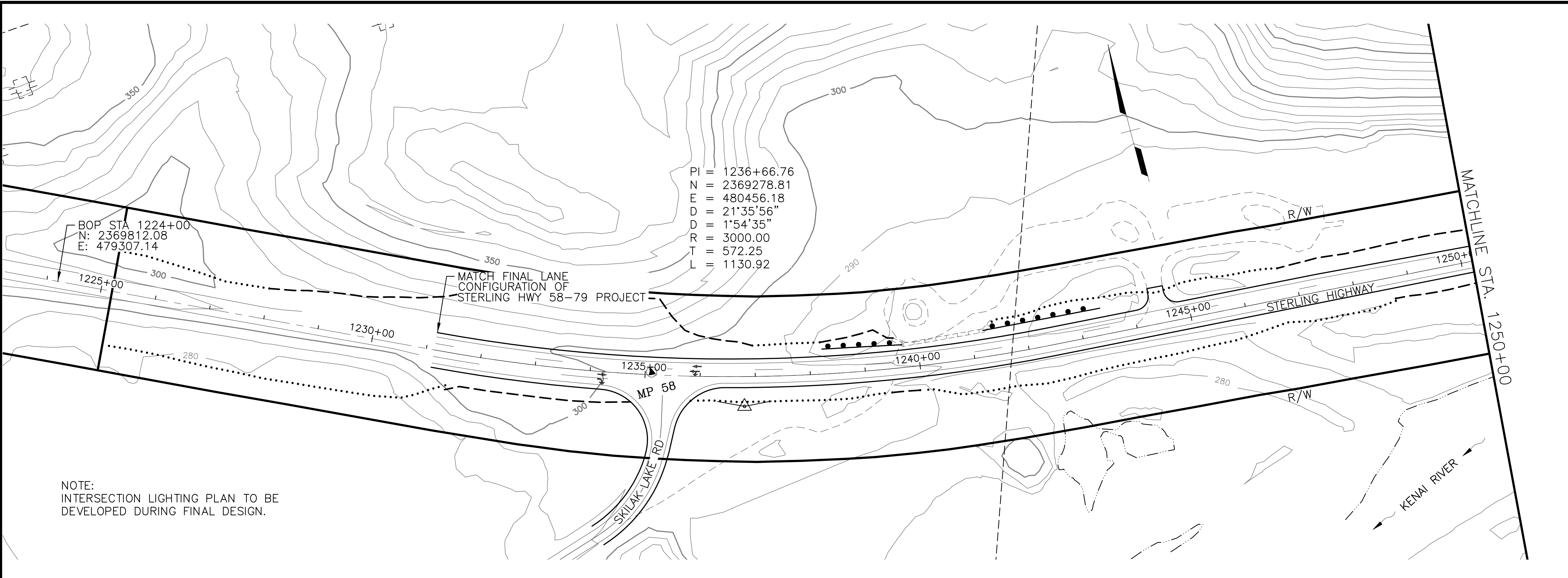
**TYPICAL DITCH BOTTOM TURNOUT**

NOTE  
TURN DITCHES OUT WHERE APPLICABLE TO CREATE A PLEASING AND NATURAL ROADWAY APPEARANCE.

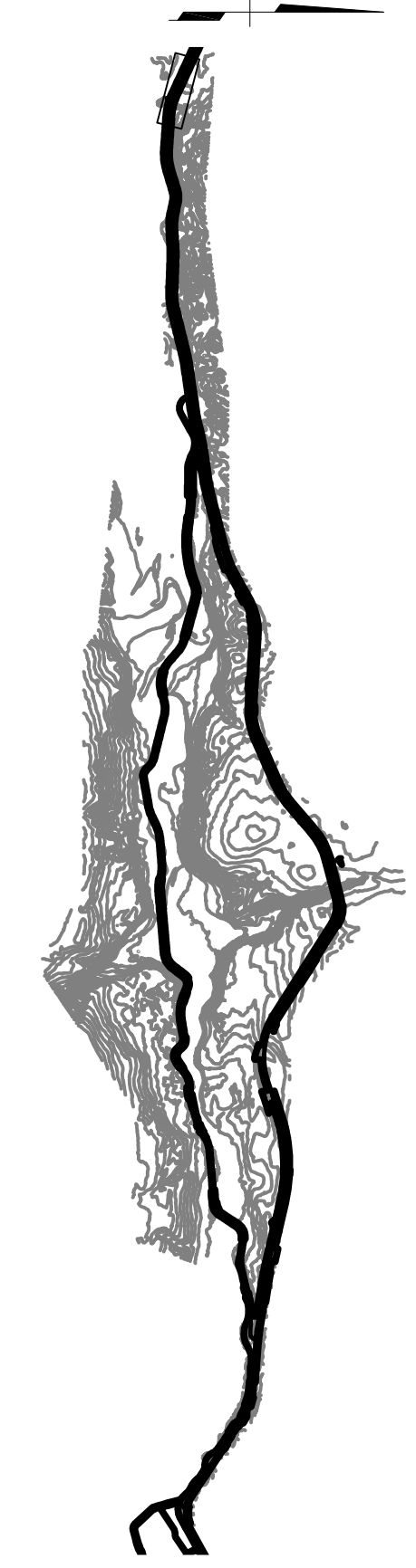
PLANS DEVELOPED BY:  
HDR, INC.  
2525 C STREET, STE 500  
ANCHORAGE, AK 99503  
(907) 644-2000

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
**STERLING HIGHWAY, M.P. 45-60**  
  
**JUNEAU CREEK ALTERNATIVE  
TYPICAL SECTIONS**

SRB  
 DRAFTED  
 JW  
 CHECKED  
 JB  
 DESIGNED  
 FT  
 LAYOUT  
 PM  
 12:19  
 8/17/2018



SHEET NO.	TOTAL SHEETS
F1	F32
STATE	YEAR
ALASKA	2018
PROJECT DESIGNATION	
F-021-2(15)/53014	
NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

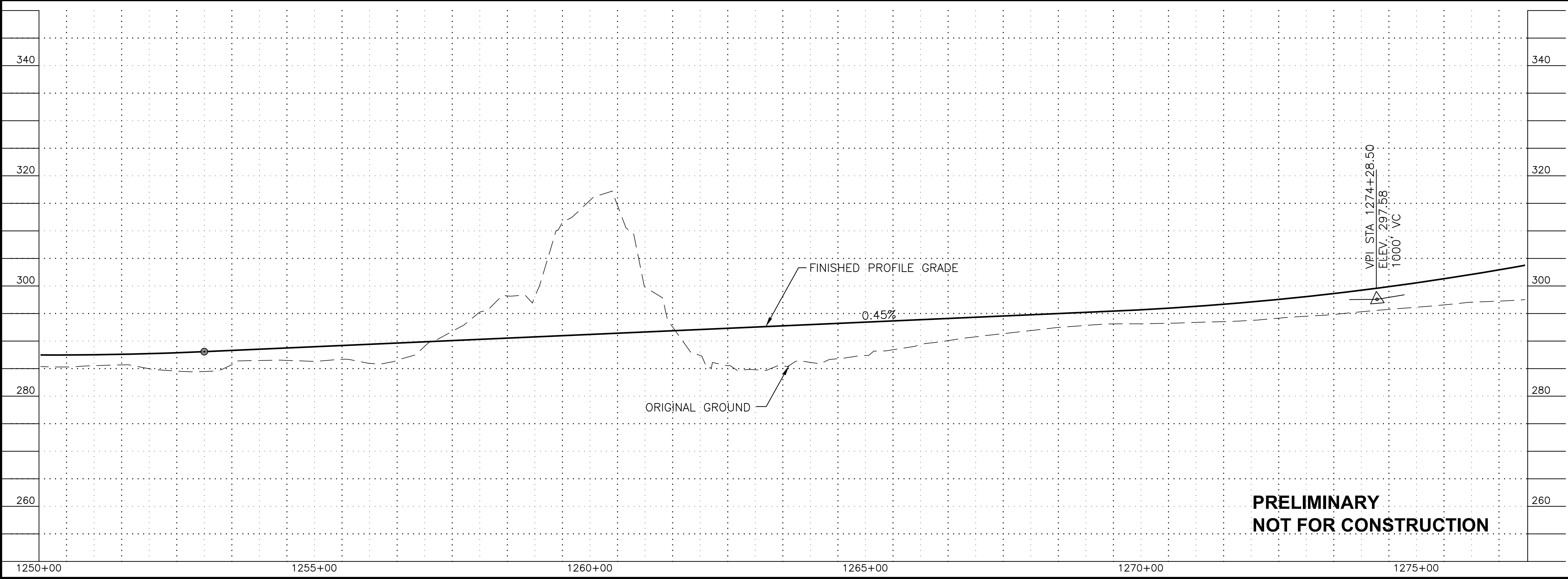
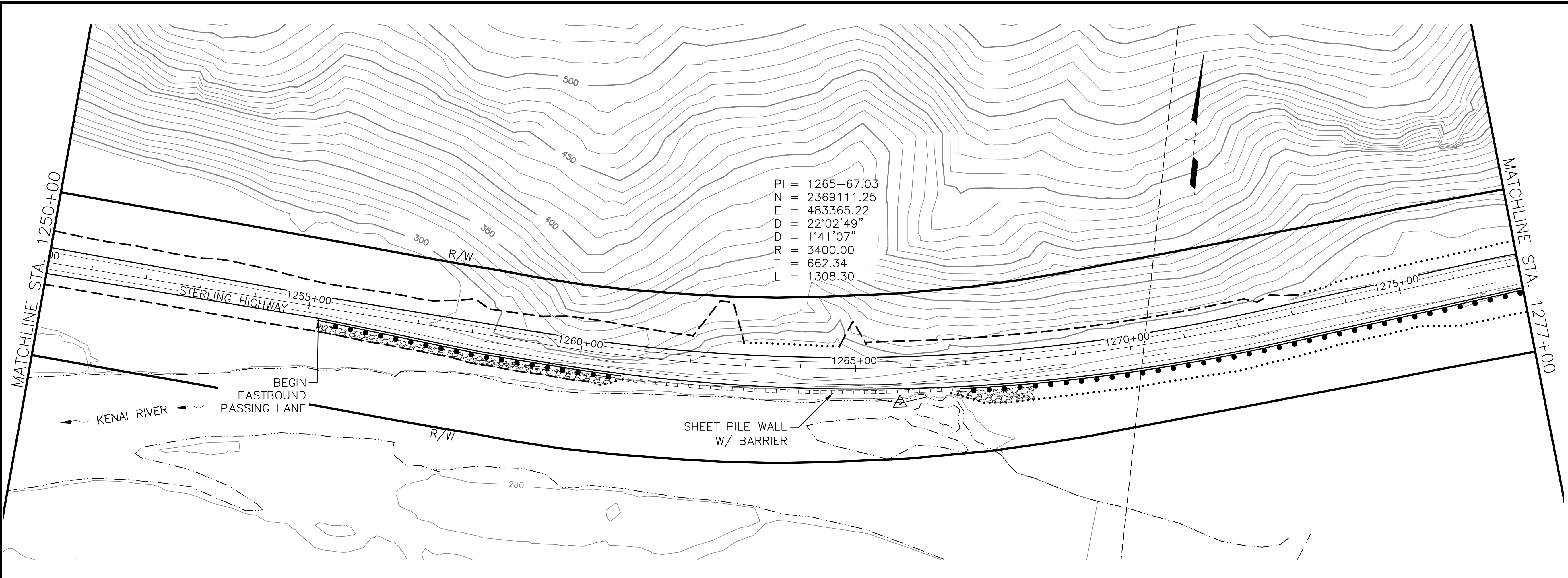
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES

**STERLING HIGHWAY**  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE

**PLAN AND PROFILE**  
**STA 1225+00 TO STA 1250+00**

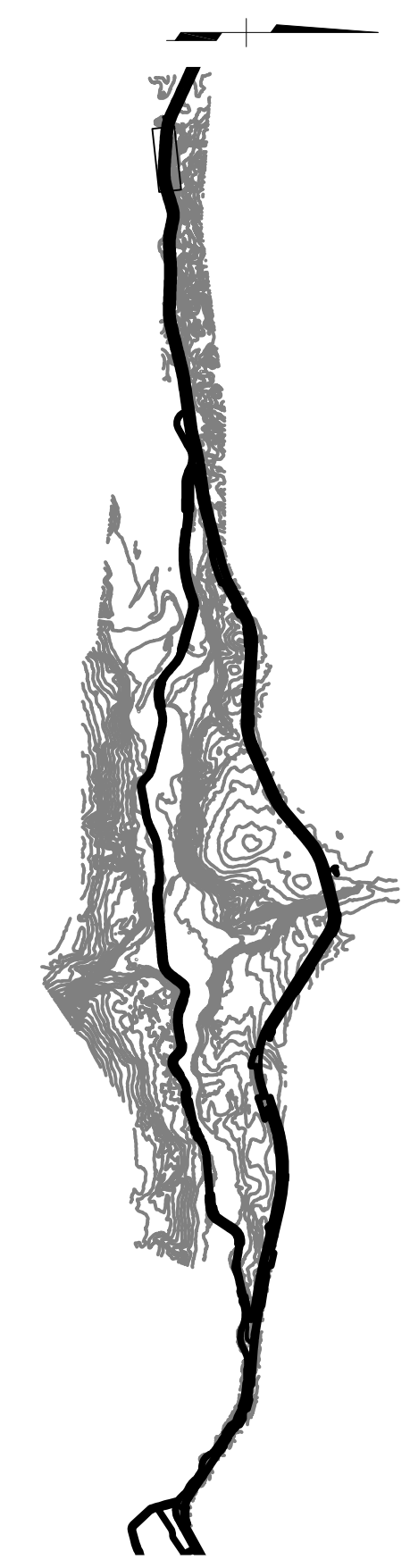
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DATE/TIME 8/17/2018 12:19 PM LAYOUT F2 DESIGNED JB CHECKED JW DRAFTED SRB



**PRELIMINARY  
NOT FOR CONSTRUCTION**

SHEET NO.	TOTAL SHEETS
F2	F32
STATE	YEAR
ALASKA	2018
PROJECT DESIGNATION	
F-021-2(15)/53014	
NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



**HDR, Inc.**  
2525 C STREET, STE. 500  
ANCHORAGE, AK 99503  
(907) 644-2000

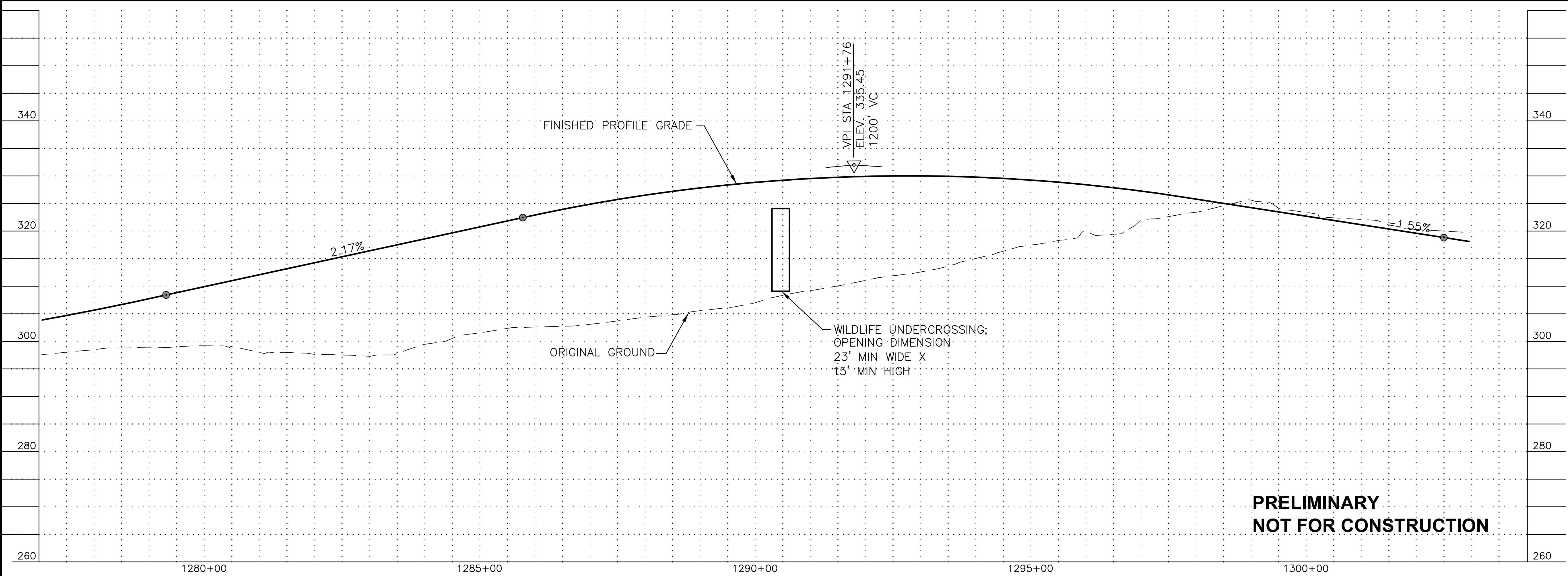
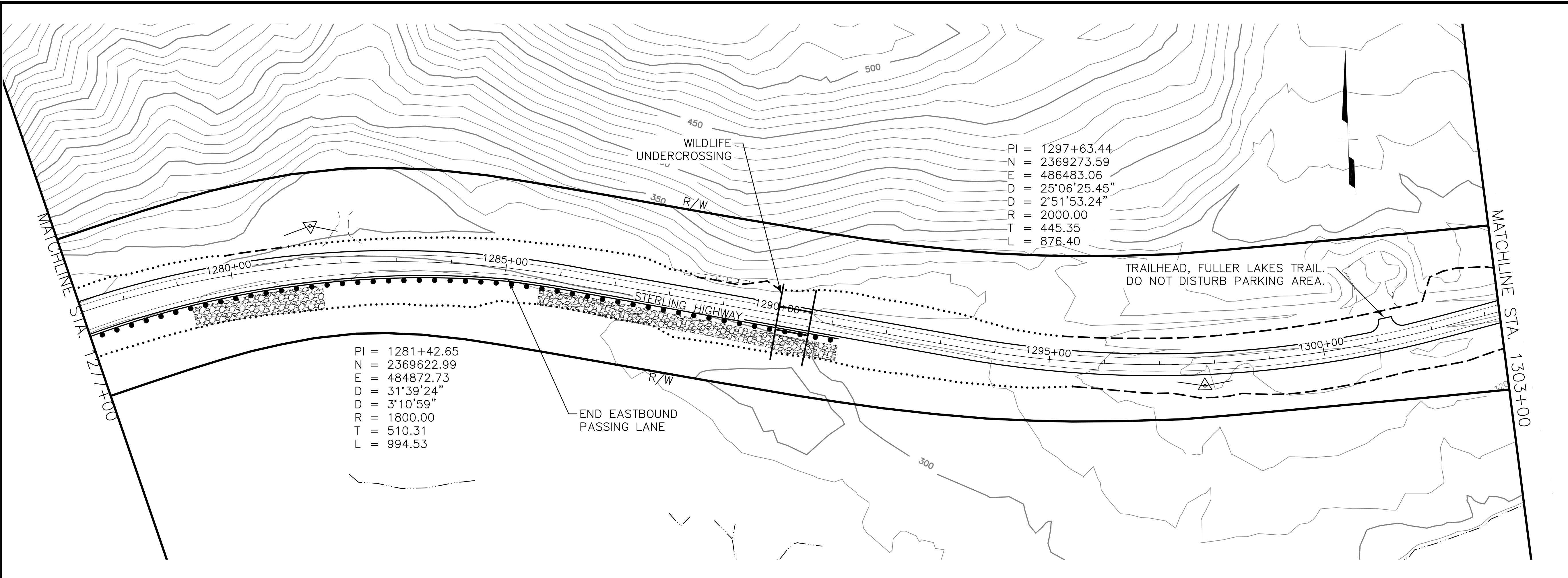
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

**STERLING HIGHWAY**  
M.P. 45-60  
JUNEAU CREEK  
ALTERNATIVE

**PLAN AND PROFILE**  
STA 1250+00 TO STA 1277+00

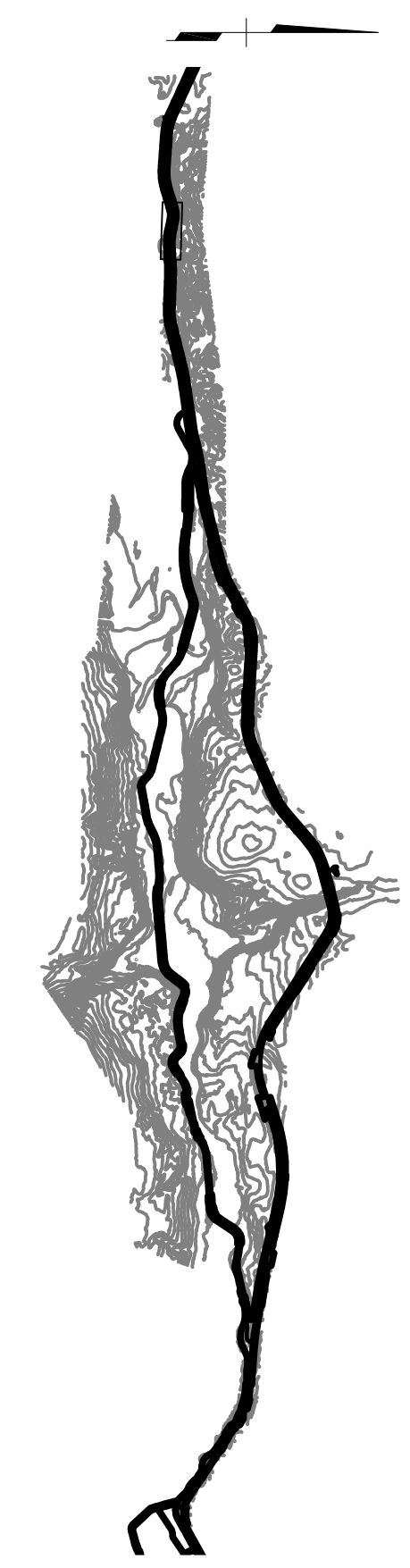


SRB  
 DRAFTED  
 JW  
 CHECKED  
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 DESIGNED  
 F3  
 LAYOUT  
 PM  
 12:19  
 8/17/2018



**PRELIMINARY  
NOT FOR CONSTRUCTION**

SHEET NO.	TOTAL SHEETS
F3	F32
STATE	YEAR
ALASKA	2018
PROJECT DESIGNATION	
F-021-2(15)/53014	
NO.	REVISION
NO.	REVISION
NO.	REVISION



**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 STERLING HIGHWAY  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE

**PLAN AND PROFILE  
 STA 1277+00 TO STA 1303+00**

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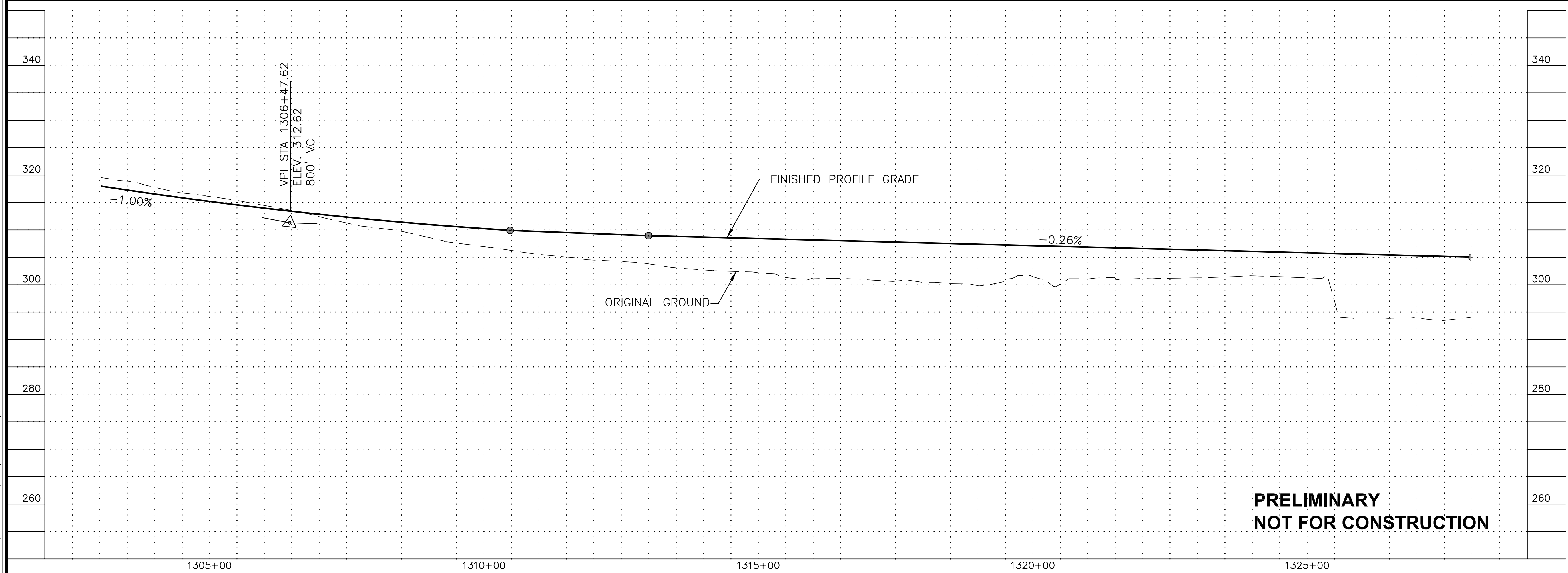
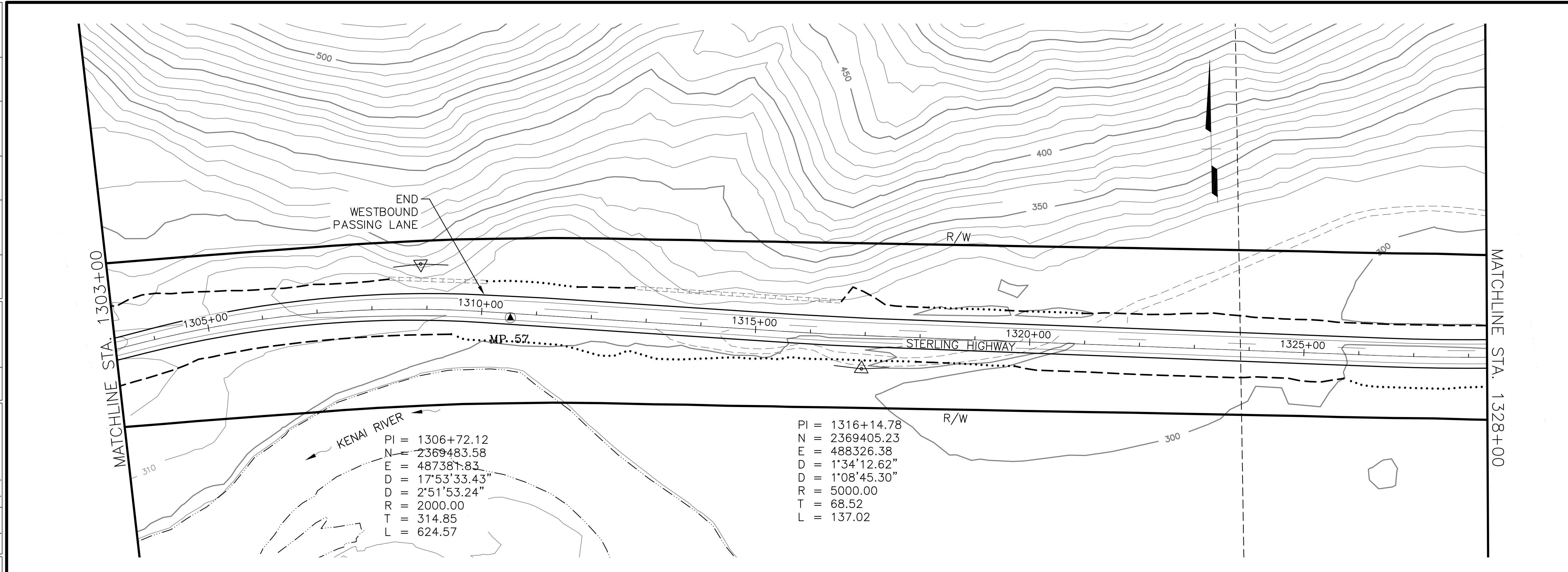
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SHEET NO.	TOTAL SHEETS
F4	F32
STATE	YEAR
ALASKA	2018
PROJECT DESIGNATION	
F-021-2(15)/53014	
NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



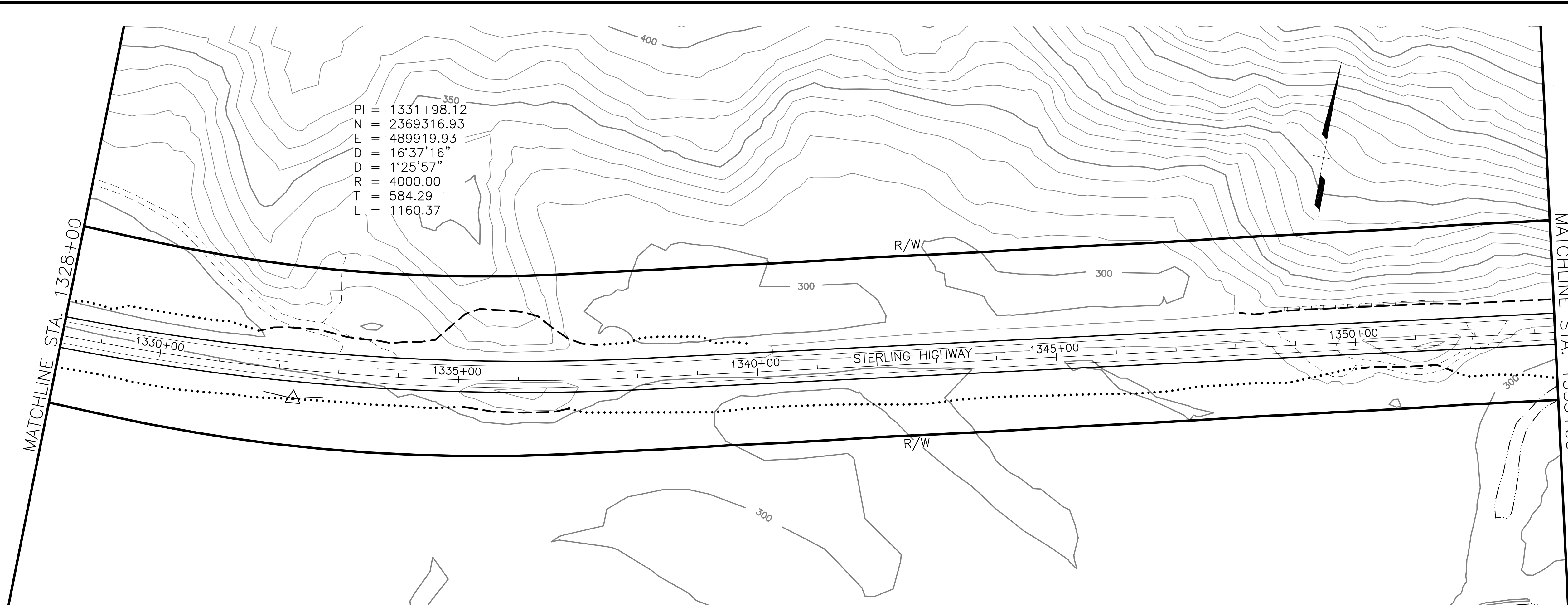
**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE  
**PLAN AND PROFILE**  
**STA 1303+00 TO STA 1328+00**



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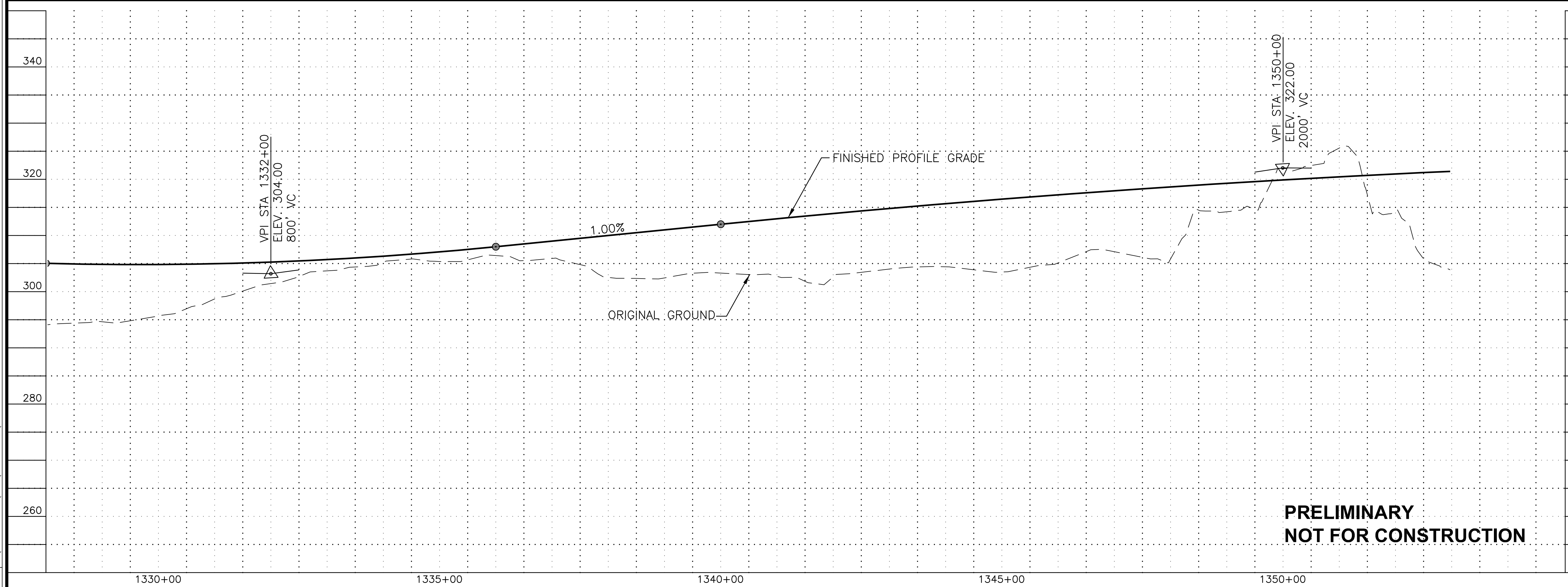
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SHEET NO.	TOTAL SHEETS
F5	F32
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
**F-021-2(15)/53014**

NO.	REVISION



**PRELIMINARY  
 NOT FOR CONSTRUCTION**

**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

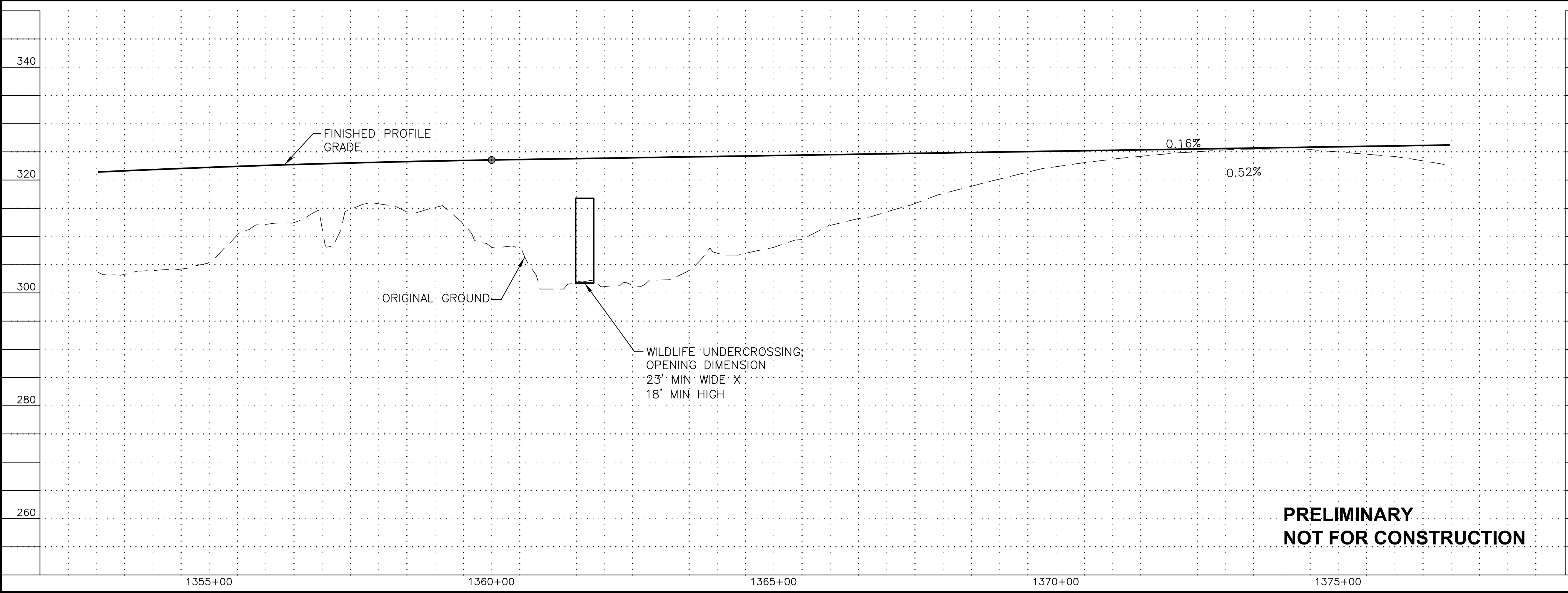
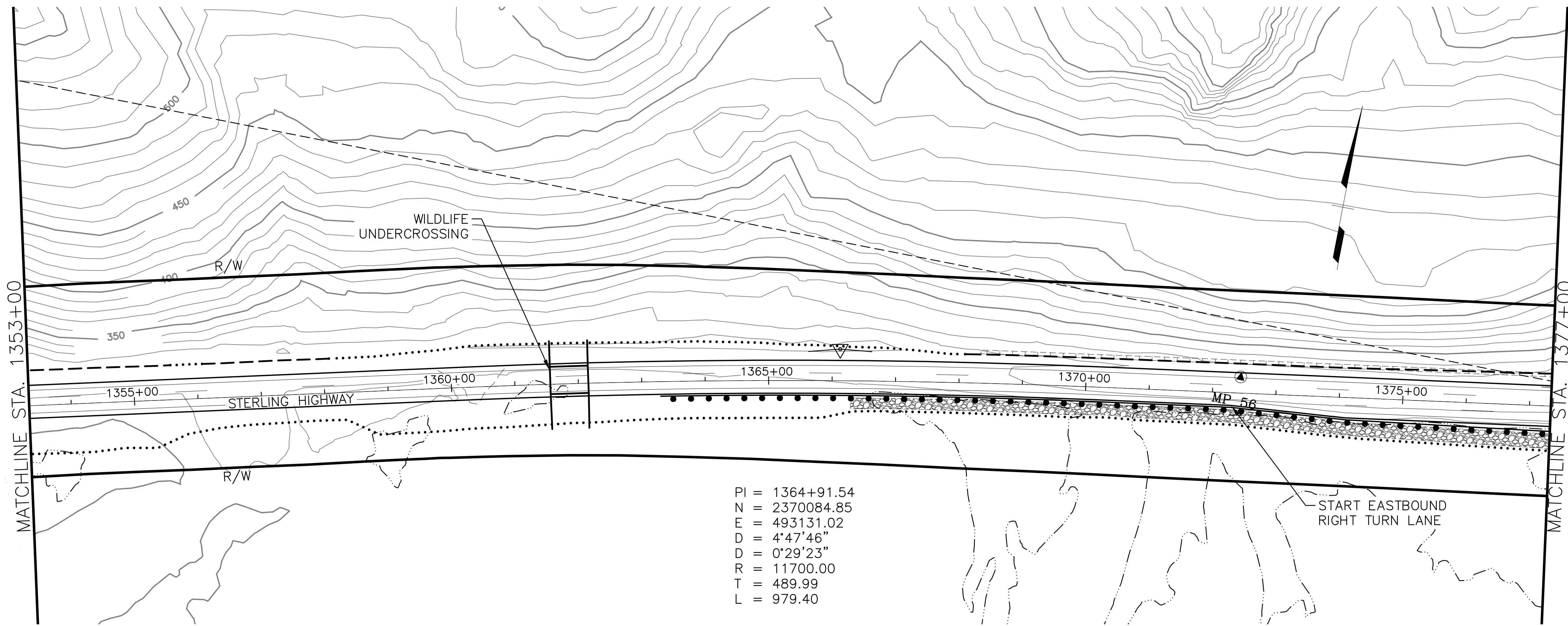
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE

**PLAN AND PROFILE  
 STA 1328+00 TO STA 1353+00**

FILE C:\PWORKING\SEA\DT1748762\_4800-F-F01.DWG



DATE/TIME 8/17/2018 12:19 PM [LAYOUT] F6 [DESIGNED] JB [CHECKED] JW [DRAFTED] SRB

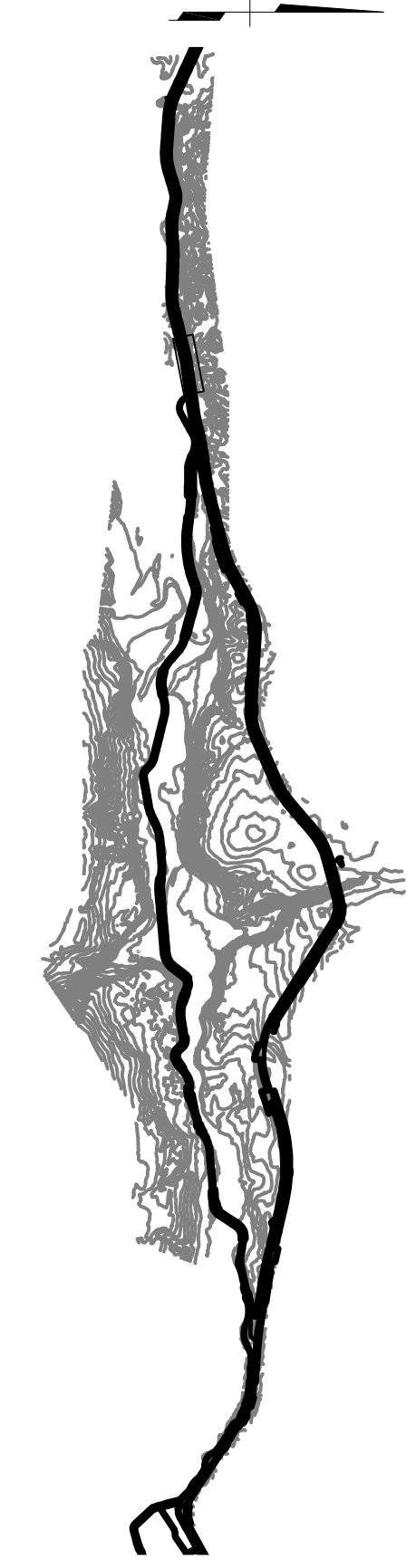


**PRELIMINARY  
NOT FOR CONSTRUCTION**

SHEET NO.	TOTAL SHEETS
F6	F32
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
**F-021-2(15)/  
53014**

NO.	REVISION



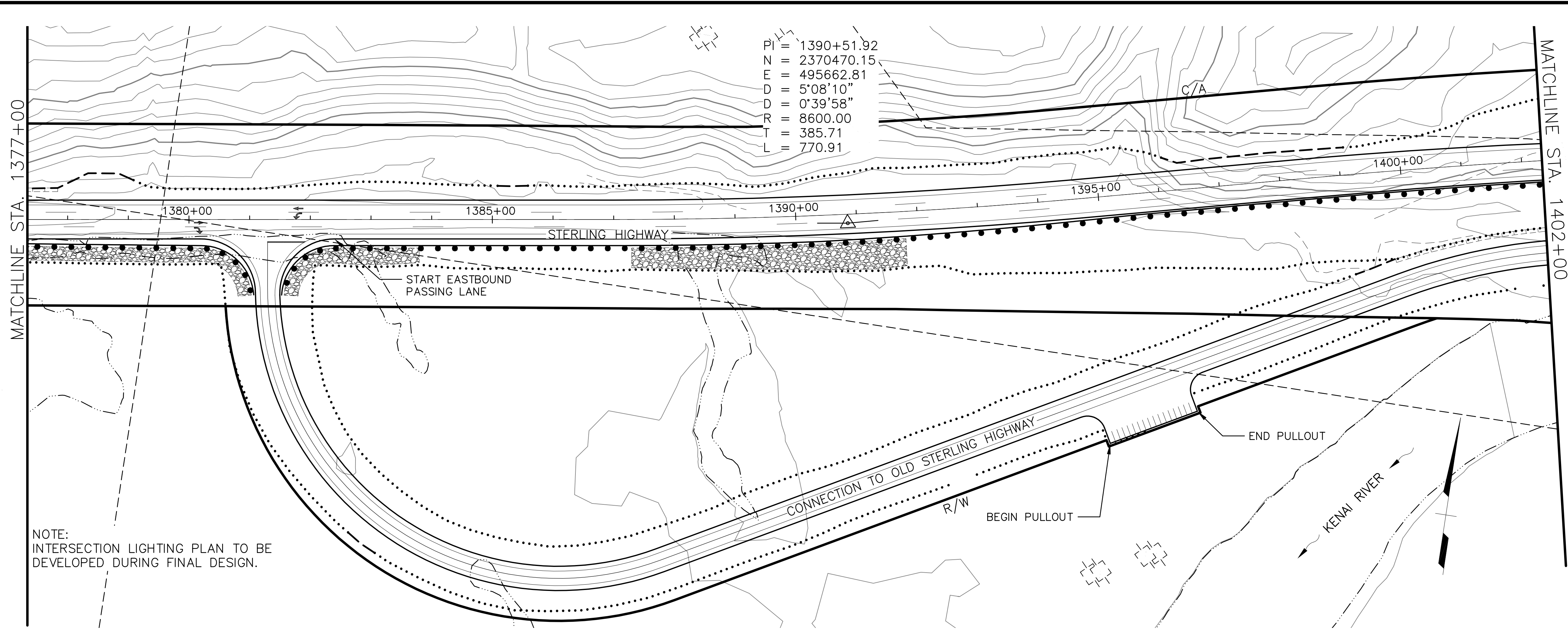
**HDR, Inc.**  
2525 C STREET, STE. 500  
ANCHORAGE, AK 99503  
(907) 644-2000

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
**STERLING HIGHWAY  
M.P. 45-60  
JUNEAU CREEK  
ALTERNATIVE**

**PLAN AND PROFILE  
STA 1353+00 TO STA 1377+00**

DATE/TIME 8/17/2018 12:19 PM [LAYOUT] F7 [DESIGNED] JB [CHECKED] JW [DRAFTED] SRB

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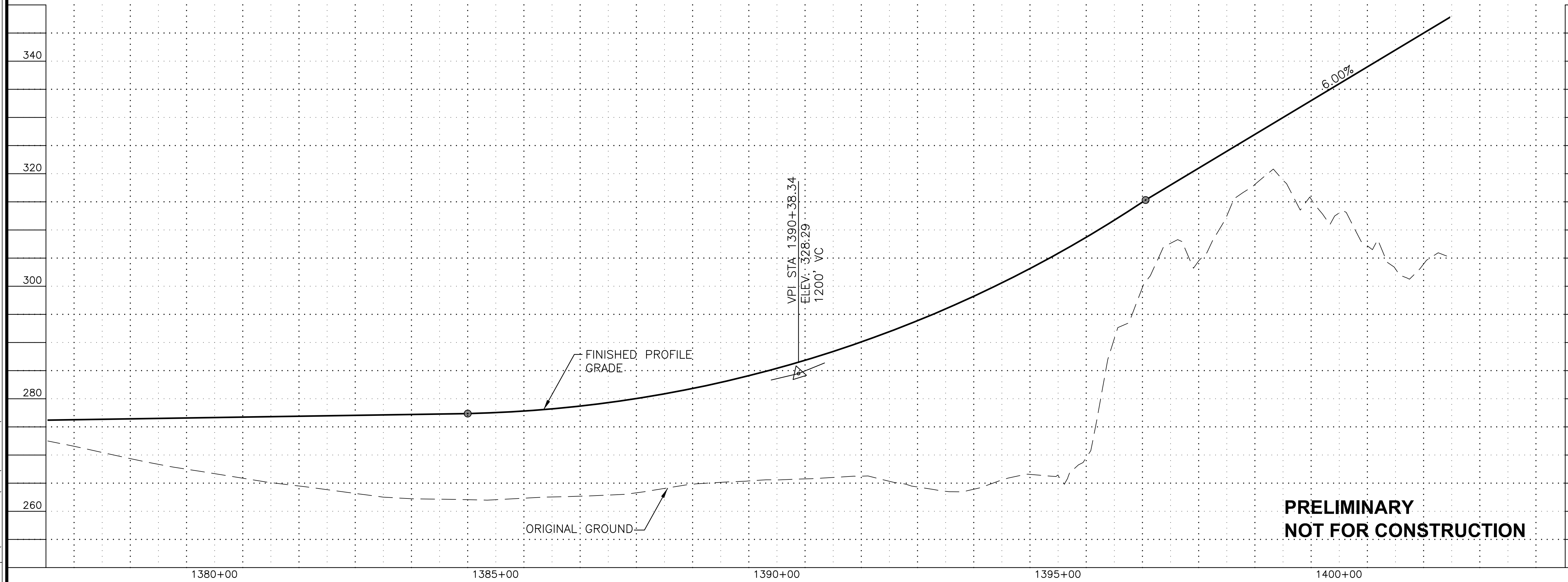


NOTE:  
INTERSECTION LIGHTING PLAN TO BE  
DEVELOPED DURING FINAL DESIGN.

SHEET NO.	TOTAL SHEETS
F7	F32
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
**F-021-2(15)/53014**

NO.	REVISION

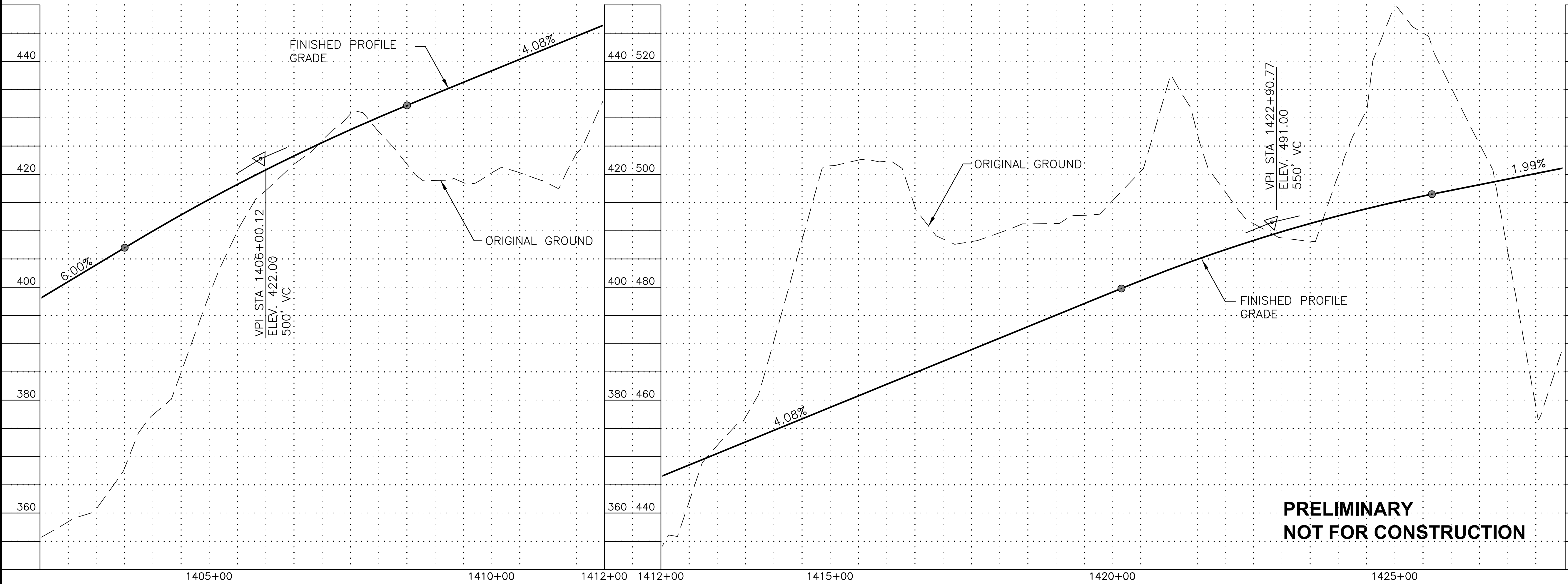
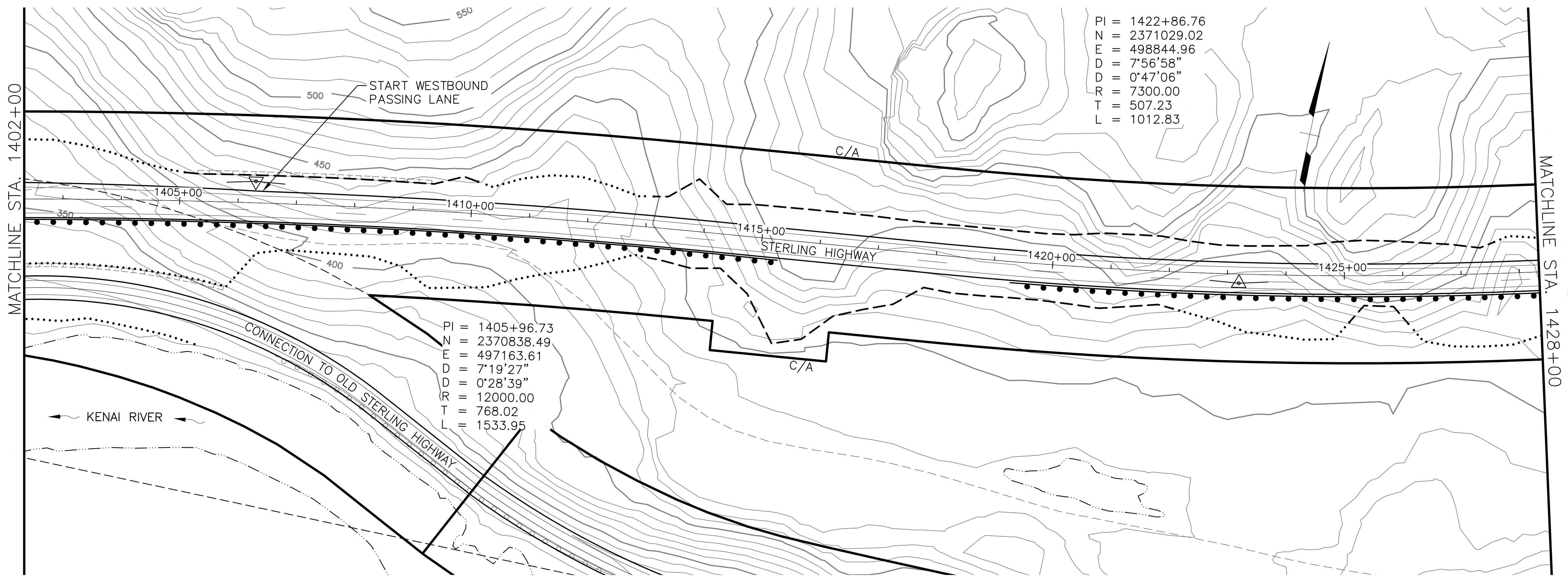


**HDR, Inc.**  
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ANCHORAGE, AK 99503  
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STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
**STERLING HIGHWAY**  
M.P. 45-60  
JUNEAU CREEK  
ALTERNATIVE

**PLAN AND PROFILE**  
STA 1377+00 TO STA 1402+00

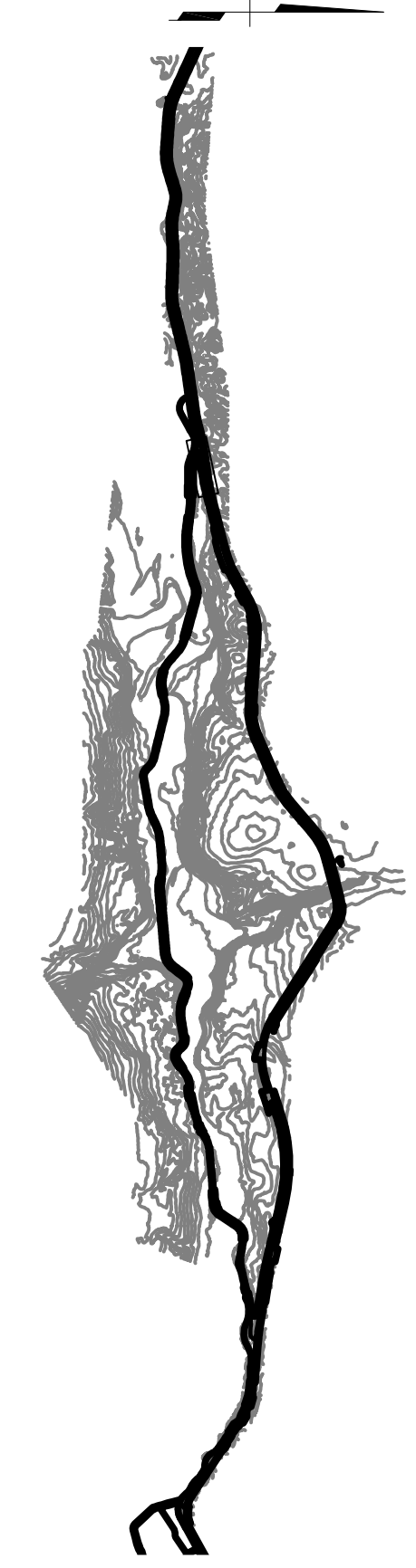
DATE/TIME 8/17/2018 12:19 PM LAYOUT F8 DESIGNED JB CHECKED JW DRAFTED SRB



SHEET NO.	TOTAL SHEETS
F8	F32
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
**F-021-2(15)/53014**

NO.	REVISION



**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE

**PLAN AND PROFILE**  
**STA 1402+00 TO STA 1428+00**



DATE/TIME 8/17/2018 12:20 PM [LAYOUT] F9 DESIGNED JB CHECKED JW DRAFTED SRB

SHEET NO.	TOTAL SHEETS
F9	F32
STATE	YEAR
ALASKA	2018

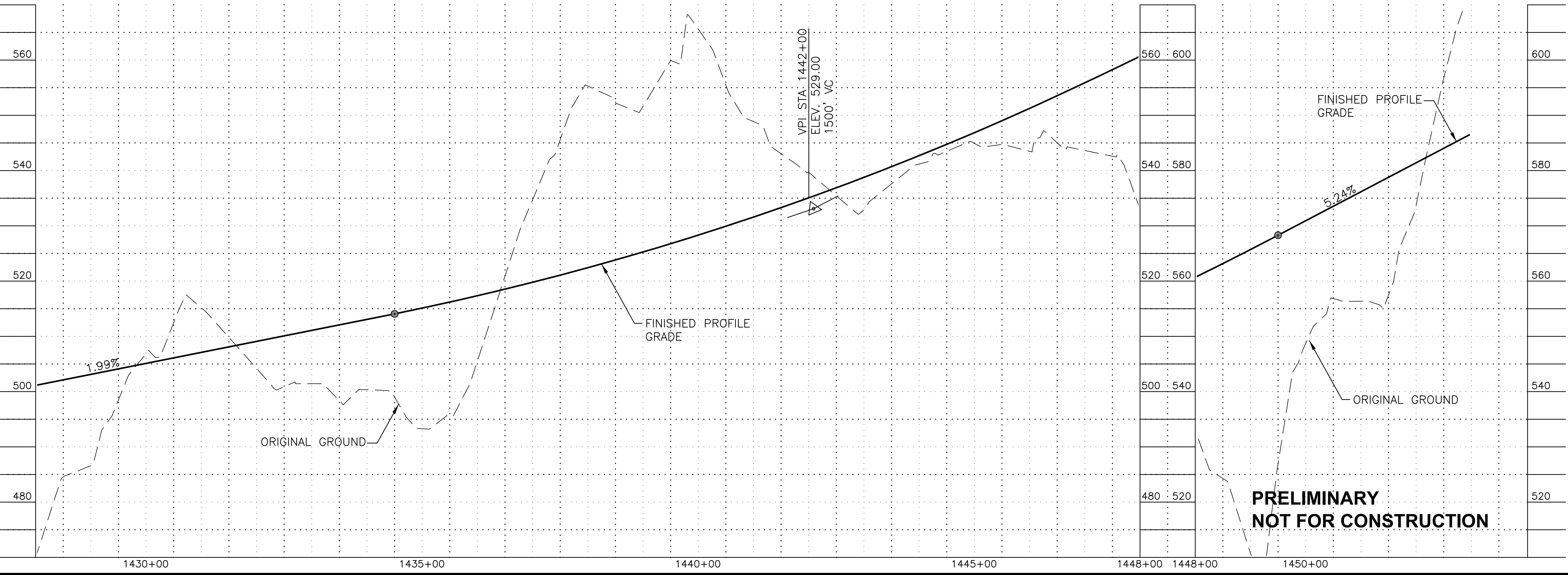
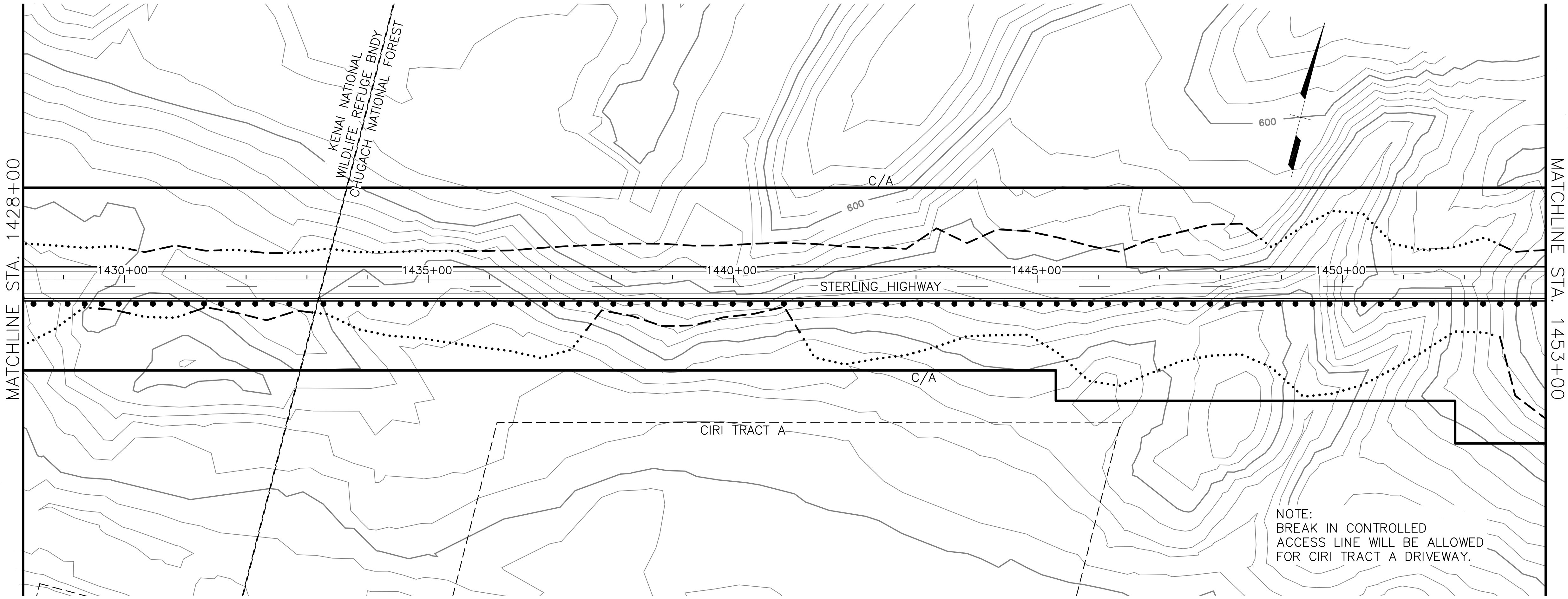
PROJECT DESIGNATION  
**F-021-2(15)/53014**

NO.	REVISION



**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE  
**PLAN AND PROFILE**  
**STA 1428+00 TO STA 1453+00**





SRB DRAFTED  
 JW CHECKED  
 JB DESIGNED  
 F10  
 8/17/2018 12:20 PM  
 LAYOUT  
 DATE/TIME

SHEET NO.	TOTAL SHEETS
F10	F32
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
**F-021-2(15)/53014**

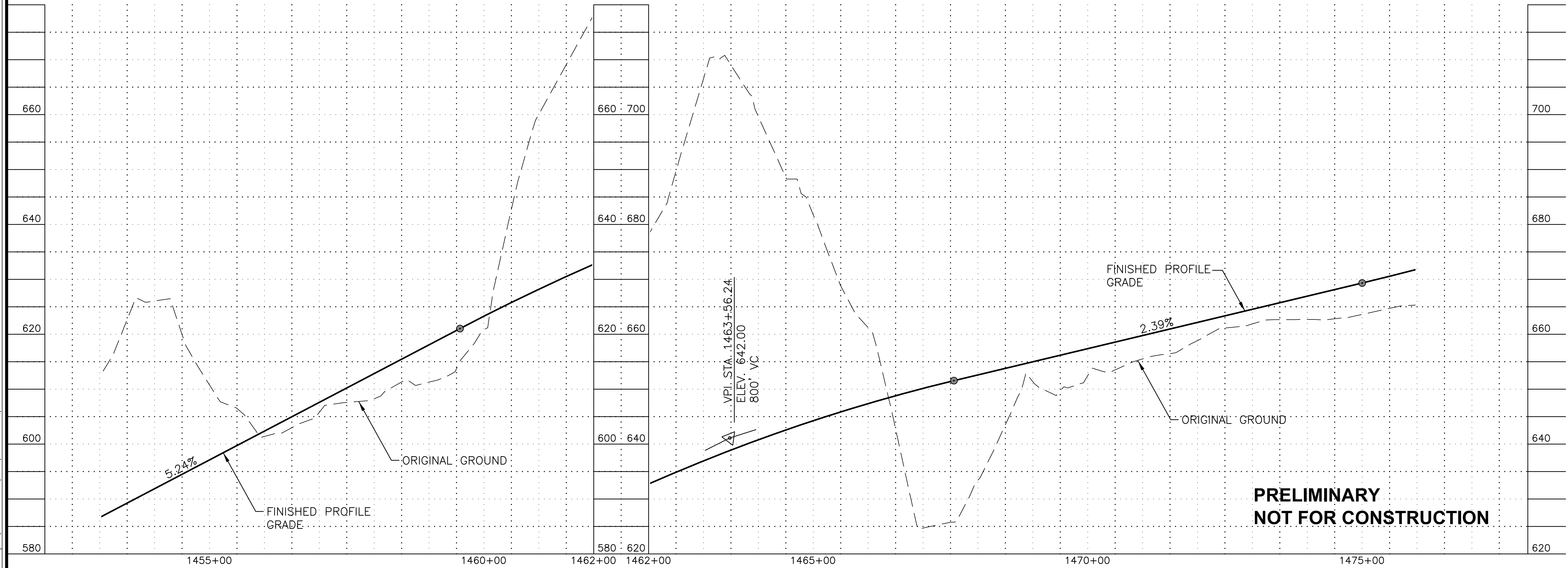
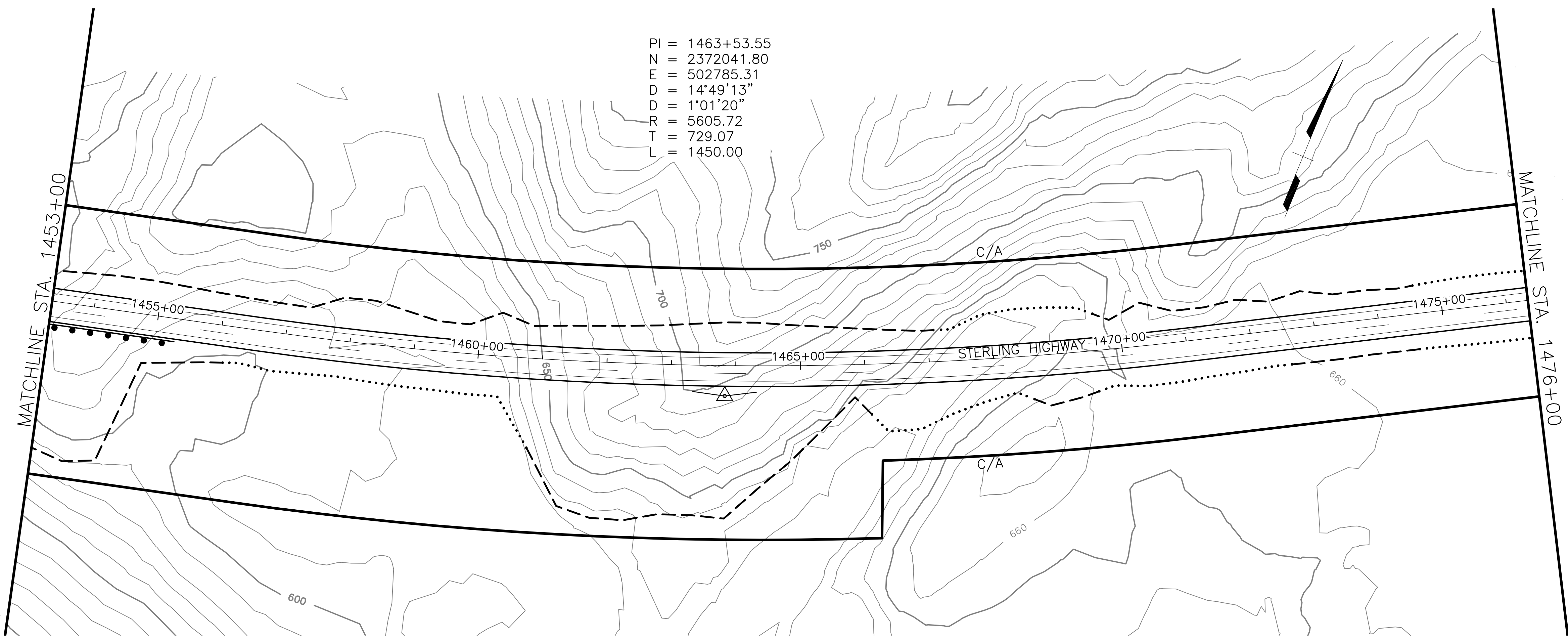
NO.	REVISION



**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

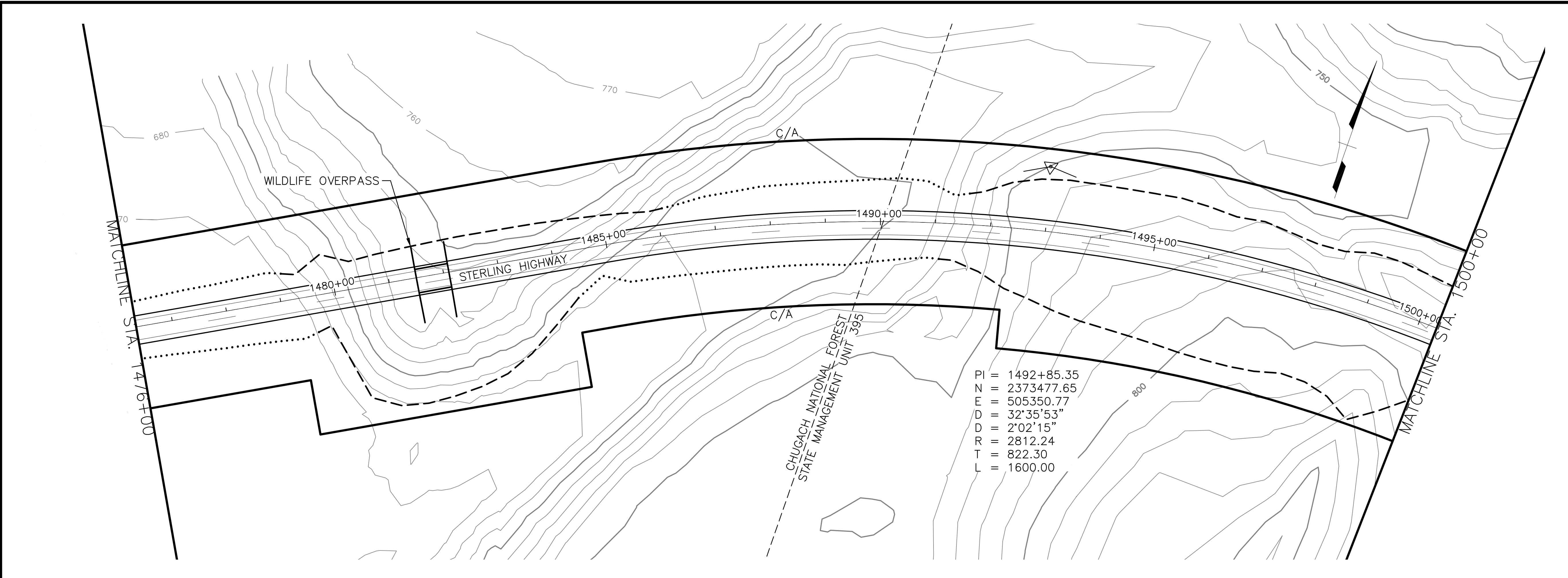
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE  
**PLAN AND PROFILE**  
**STA 1453+00 TO STA 1476+00**

PI = 1463+53.55  
 N = 2372041.80  
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 D = 1°01'20"  
 R = 5605.72  
 T = 729.07  
 L = 1450.00

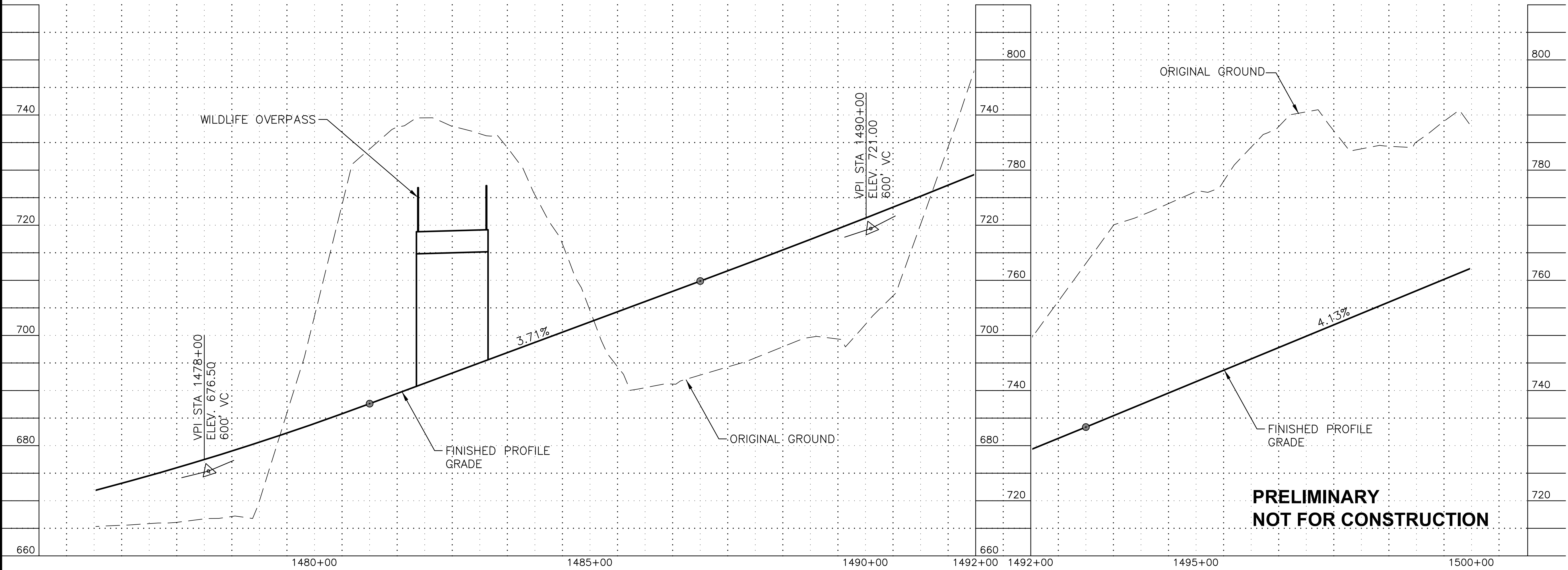


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DATE/TIME 8/17/2018 12:20 PM LAYOUT F11 DESIGNED JB CHECKED JW DRAFTED SRB



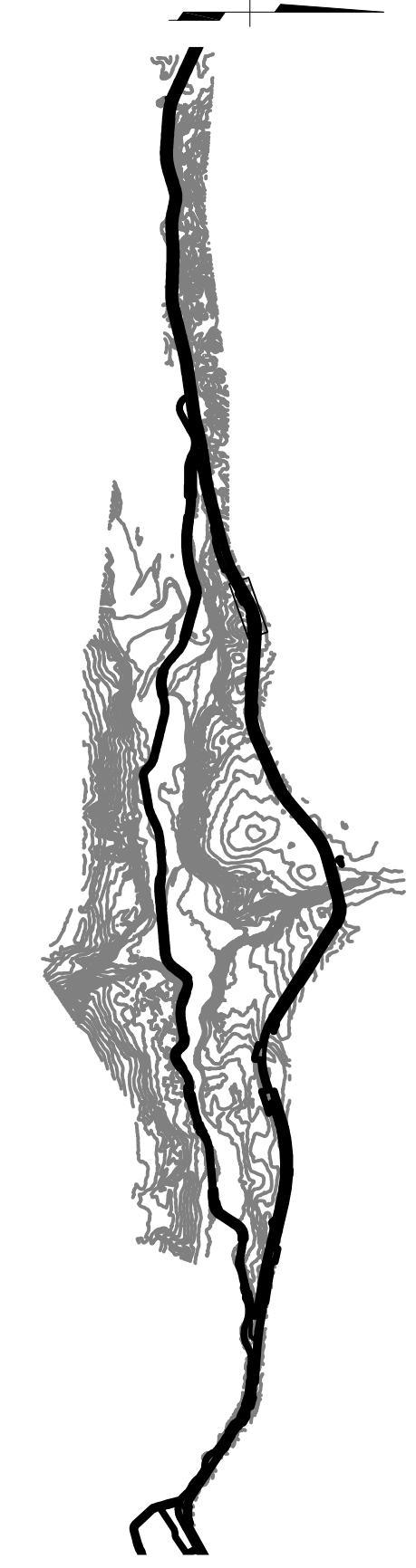
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SHEET NO.	TOTAL SHEETS
F11	F32
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
**F-021-2(15)/53014**

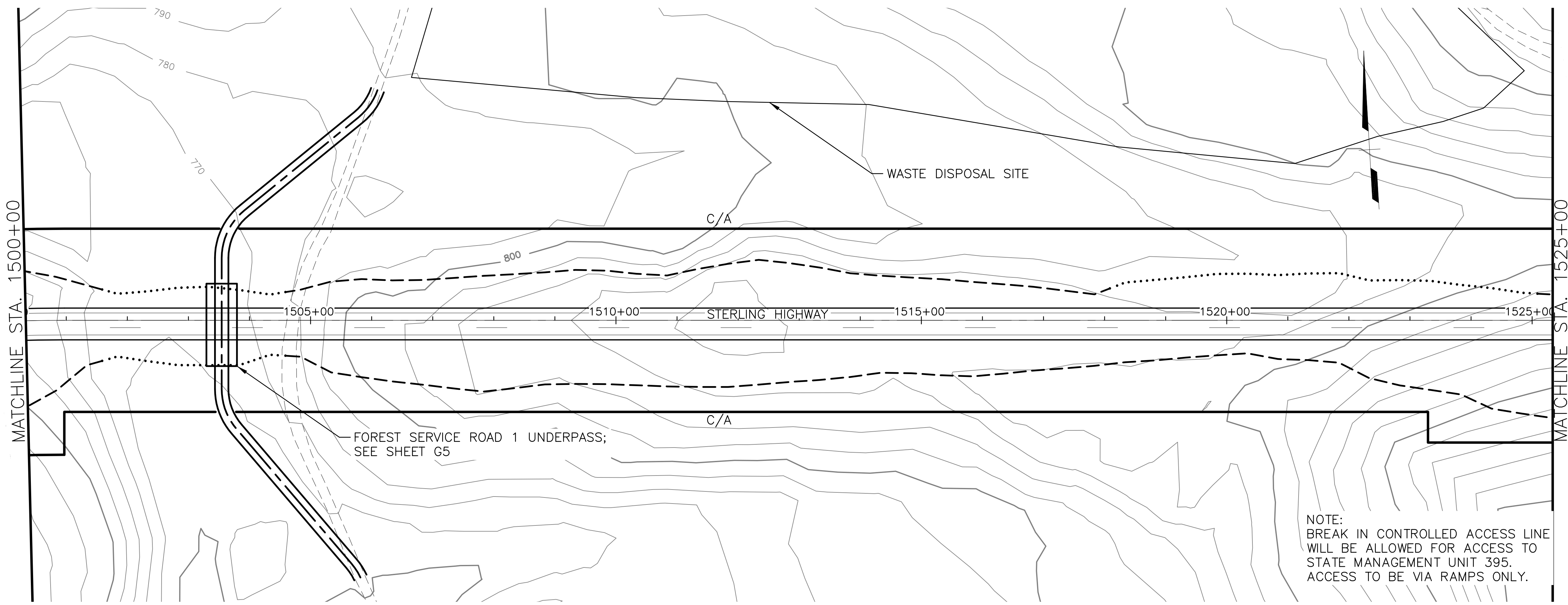
NO.	REVISION



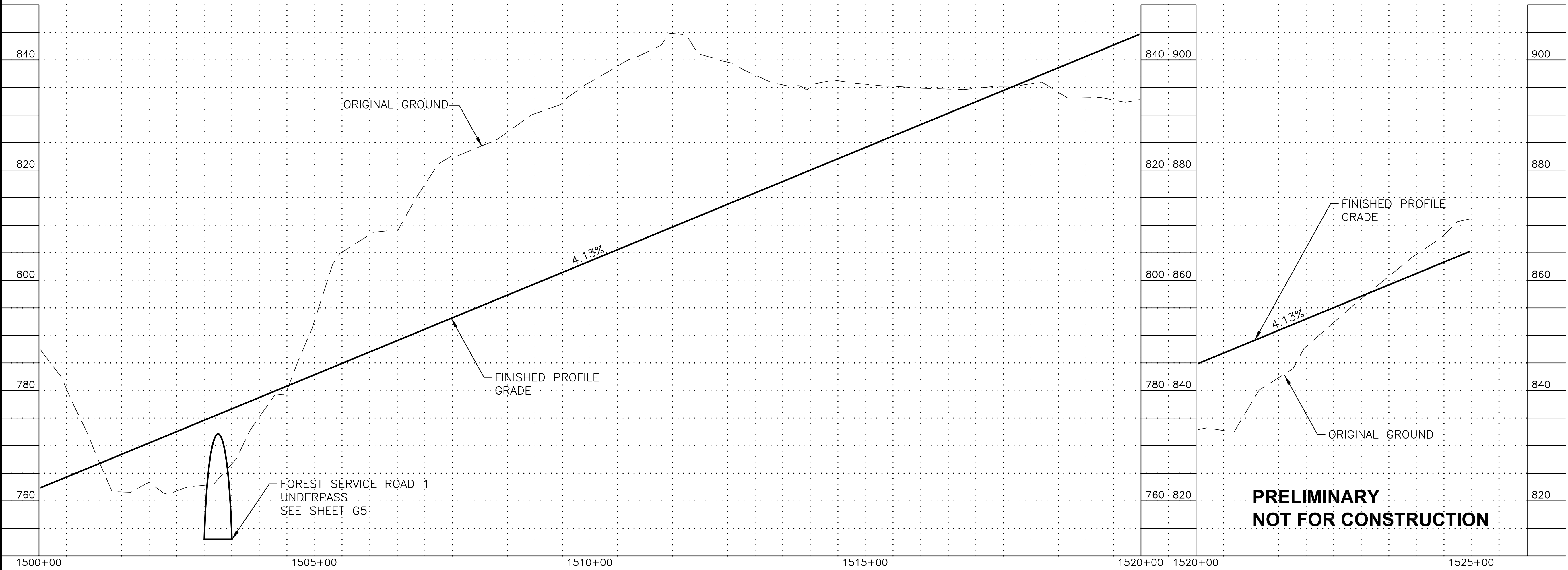
**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE  
**PLAN AND PROFILE**  
**STA 1476+00 TO STA 1500+00**

DATE/TIME 8/17/2018 12:20 PM [LAYOUT] F12 [DESIGNED] JB [CHECKED] JW [DRAFTED] SRB



NOTE:  
BREAK IN CONTROLLED ACCESS LINE  
WILL BE ALLOWED FOR ACCESS TO  
STATE MANAGEMENT UNIT 395.  
ACCESS TO BE VIA RAMPS ONLY.

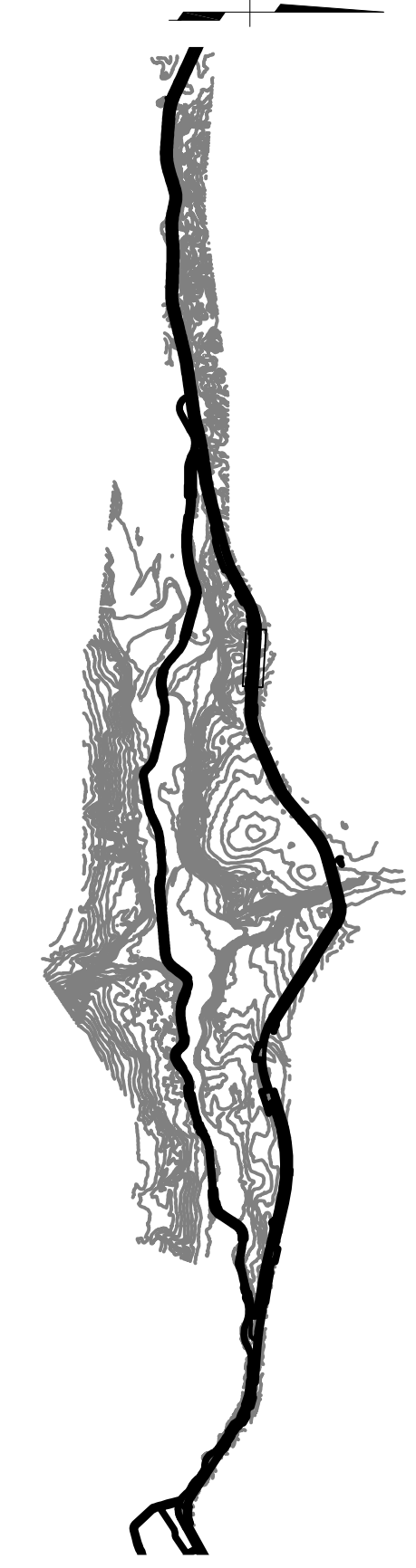


**PRELIMINARY  
NOT FOR CONSTRUCTION**

SHEET NO.	TOTAL SHEETS
F12	F32
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
**F-021-2(15)/  
53014**

NO.	REVISION



**HDR, Inc.**  
2525 C STREET, STE. 500  
ANCHORAGE, AK 99503  
(907) 644-2000

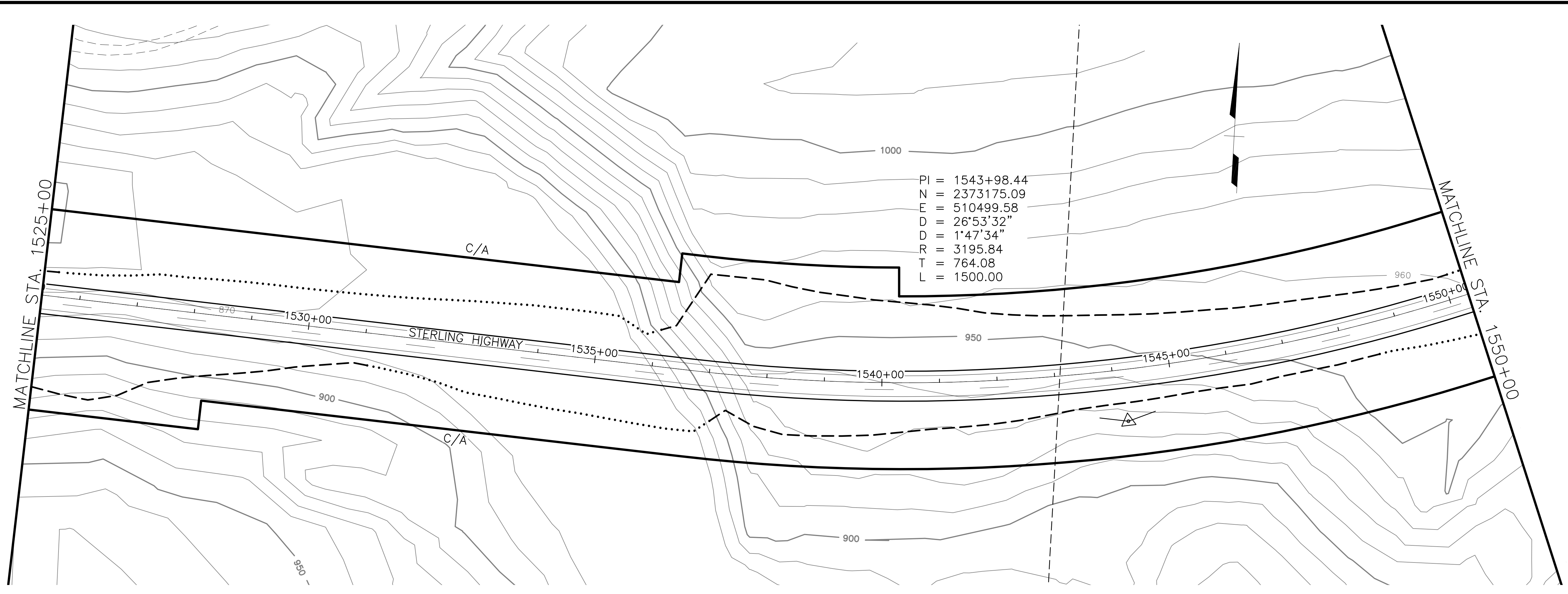
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
**STERLING HIGHWAY  
M.P. 45-60  
JUNEAU CREEK  
ALTERNATIVE**

**PLAN AND PROFILE  
STA 1500+00 TO STA 1525+00**

FILE C:\P\WORKING\SEA\DT1748762\_4800-F-F01.DWG



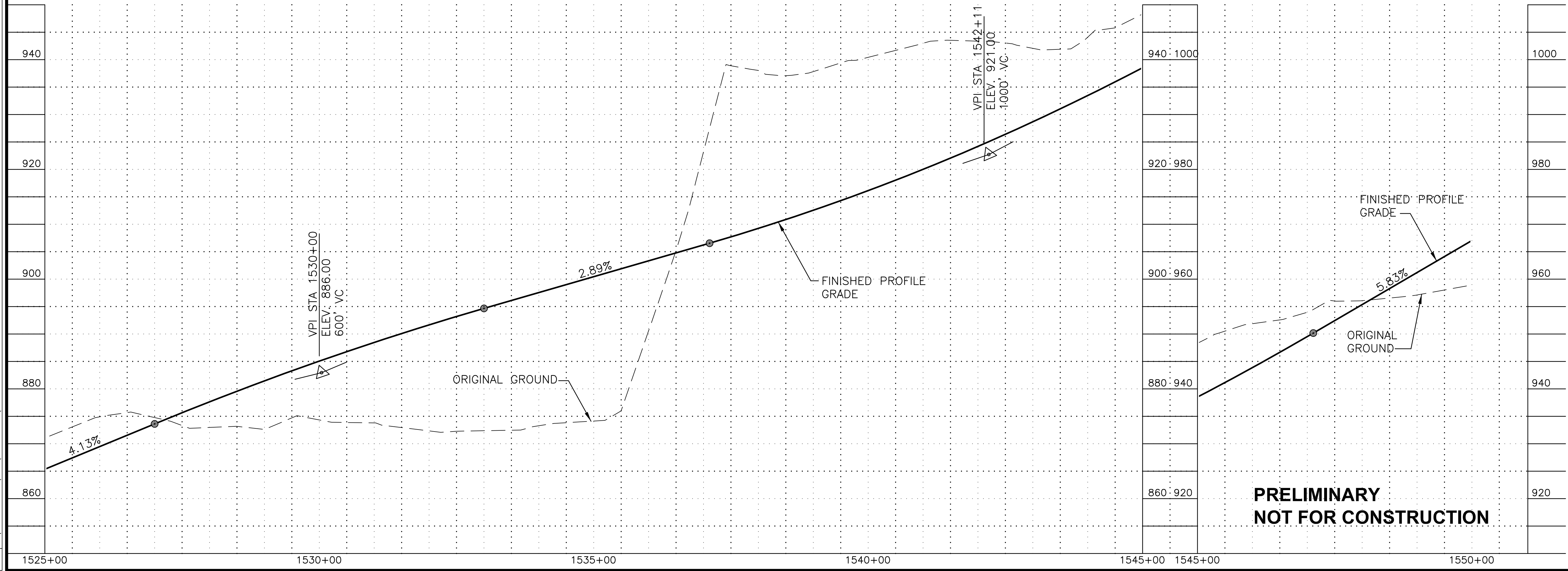
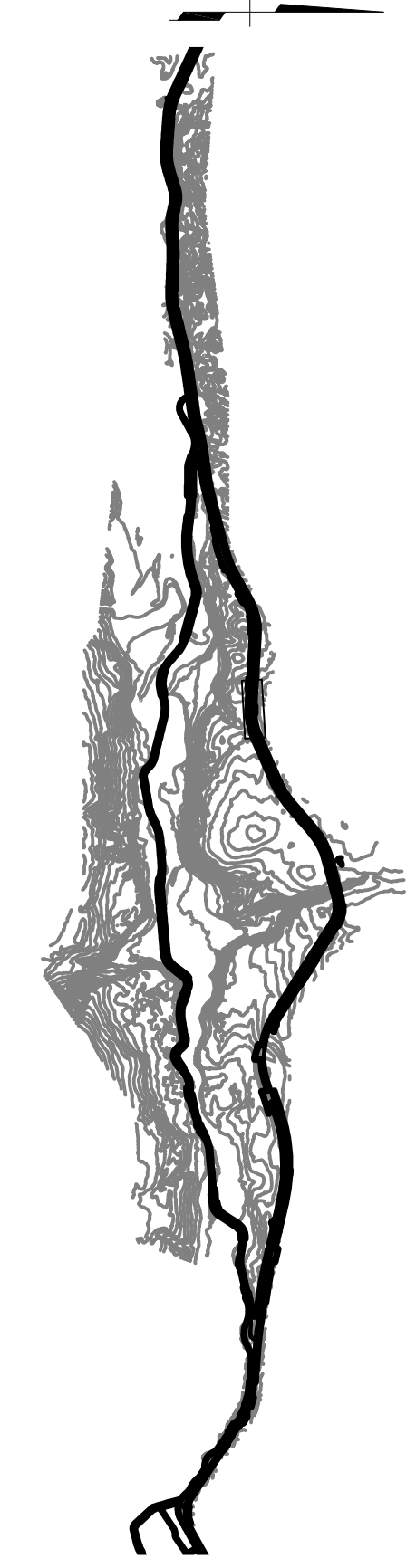
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SHEET NO.	TOTAL SHEETS
F13	F32
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
F-021-2(15)/53014

NO.	REVISION

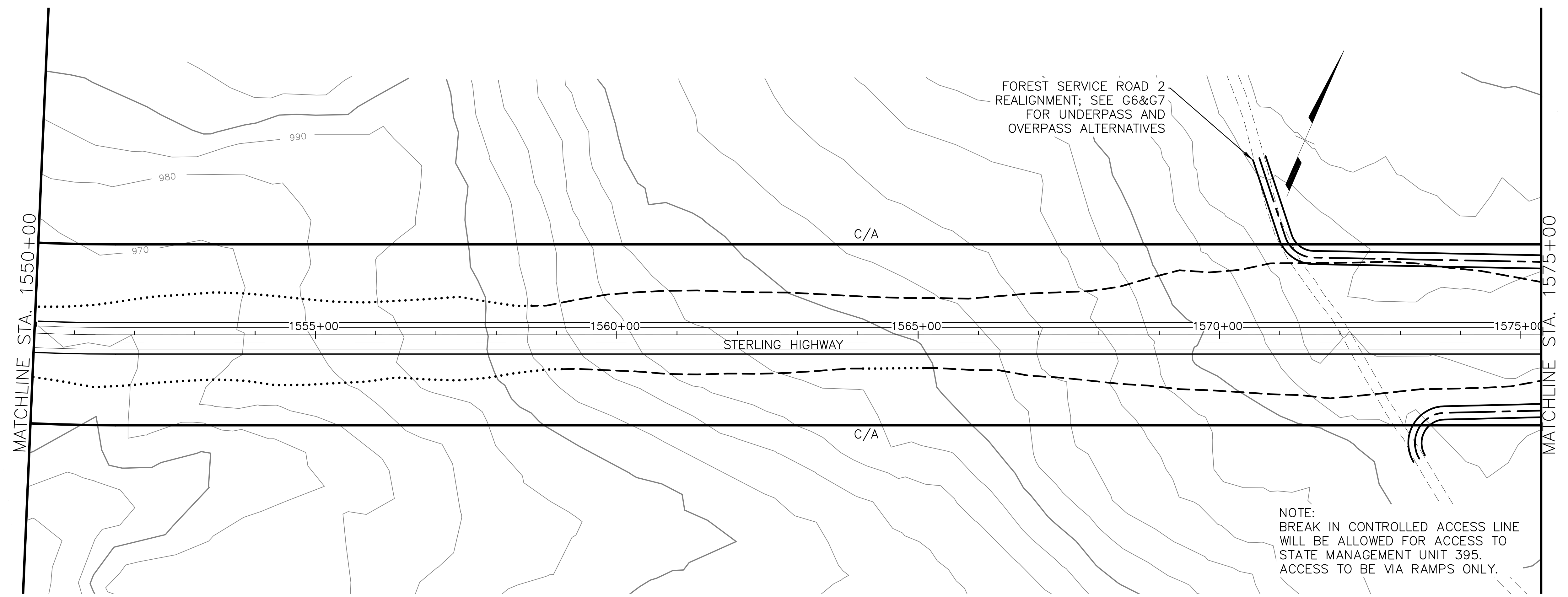


**HDR, Inc.**  
2525 C STREET, STE. 500  
ANCHORAGE, AK 99503  
(907) 644-2000

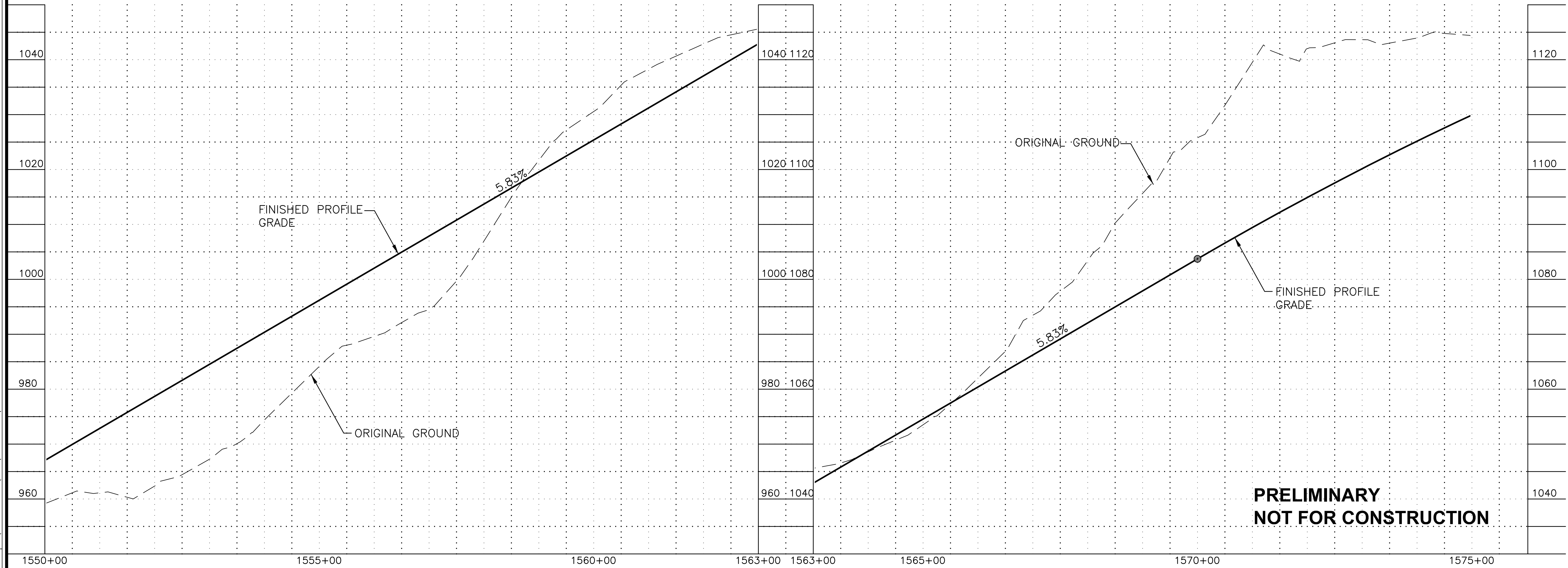
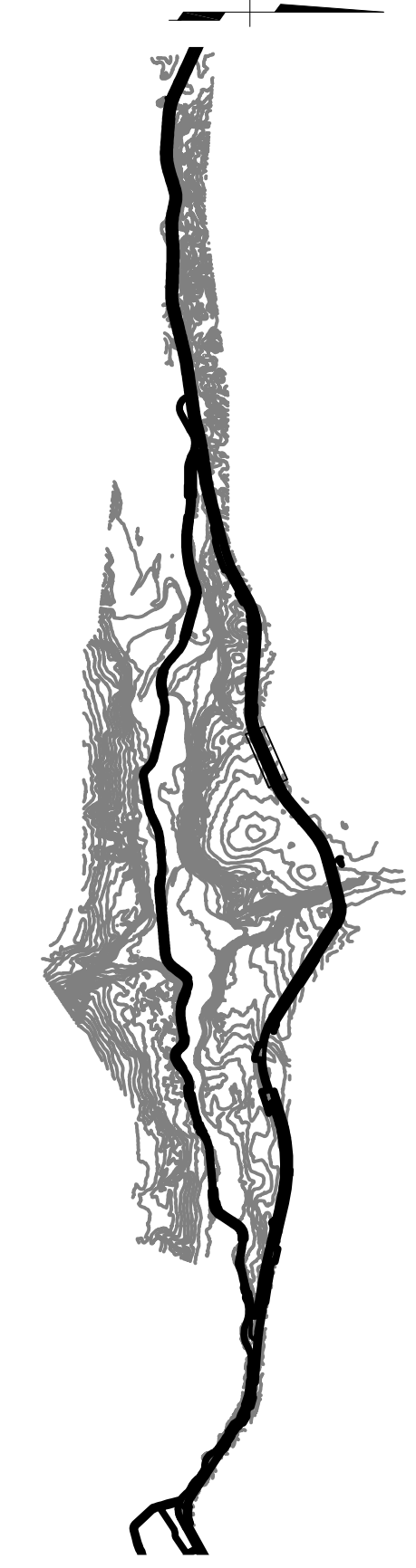
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
STERLING HIGHWAY  
M.P. 45-60  
JUNEAU CREEK  
ALTERNATIVE  
PLAN AND PROFILE  
STA 1525+00 TO STA 1550+00

DATE/TIME 8/17/2018 12:20 PM [LAYOUT] F14 [DESIGNED] JB [CHECKED] JW [DRAFTED] SRB

SHEET NO.	TOTAL SHEETS
F14	F32
STATE	YEAR
ALASKA	2018
PROJECT DESIGNATION	
F-021-2(15)/53014	
NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



NOTE:  
BREAK IN CONTROLLED ACCESS LINE  
WILL BE ALLOWED FOR ACCESS TO  
STATE MANAGEMENT UNIT 395.  
ACCESS TO BE VIA RAMPS ONLY.



**PRELIMINARY  
NOT FOR CONSTRUCTION**

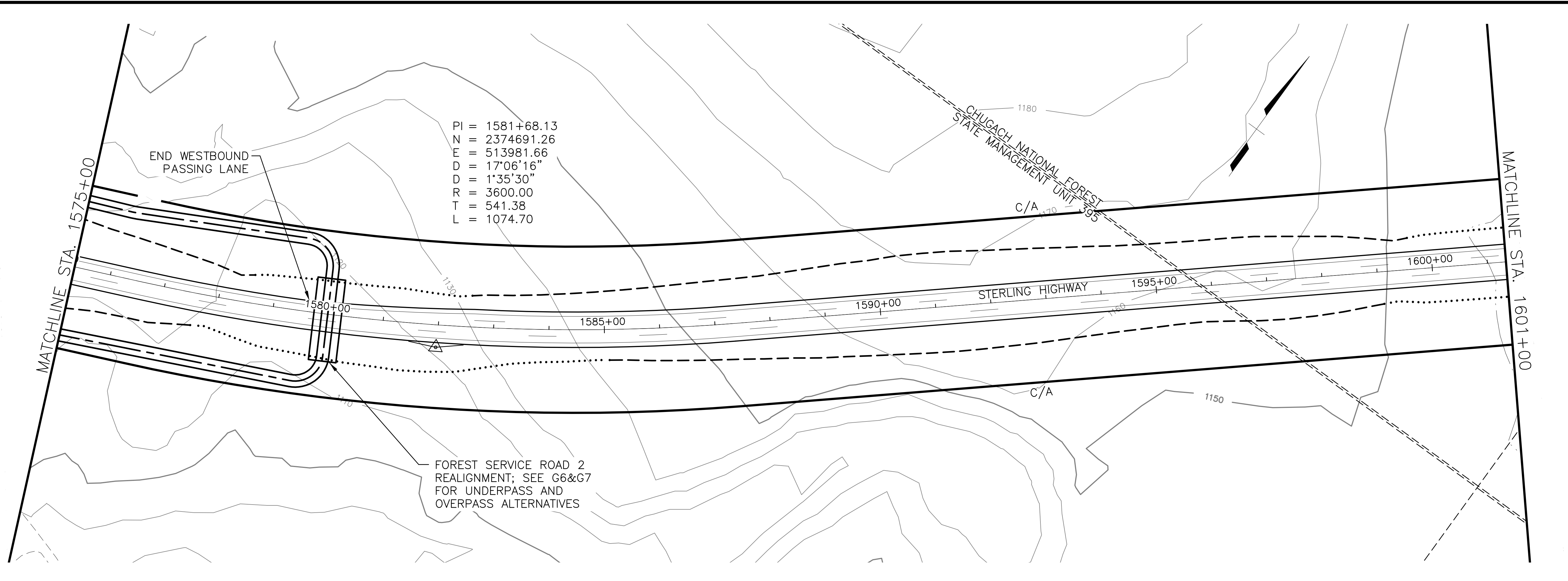
**HDR, Inc.**  
2525 C STREET, STE. 500  
ANCHORAGE, AK 99503  
(907) 644-2000

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

**STERLING HIGHWAY  
M.P. 45-60  
JUNEAU CREEK  
ALTERNATIVE**

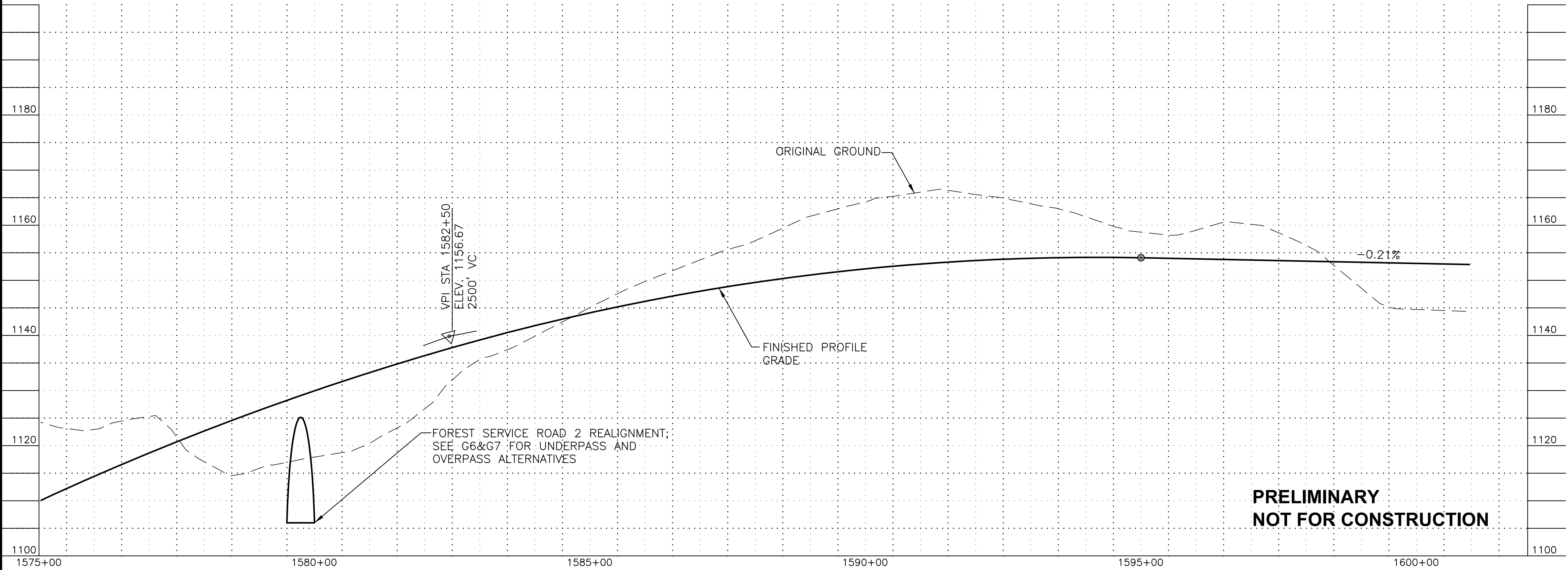
**PLAN AND PROFILE  
STA 1550+00 TO STA 1575+00**

SRB  
 DRAFTED  
 JW  
 CHECKED  
 JB  
 DESIGNED  
 F15  
 LAYOUT  
 12:20 PM  
 8/17/2018  
 DATE/TIME



PI = 1581+68.13  
 N = 2374691.26  
 E = 513981.66  
 D = 17°06'16"  
 D = 1°35'30"  
 R = 3600.00  
 T = 541.38  
 L = 1074.70

FOREST SERVICE ROAD 2  
 REALIGNMENT; SEE G6&G7  
 FOR UNDERPASS AND  
 OVERPASS ALTERNATIVES

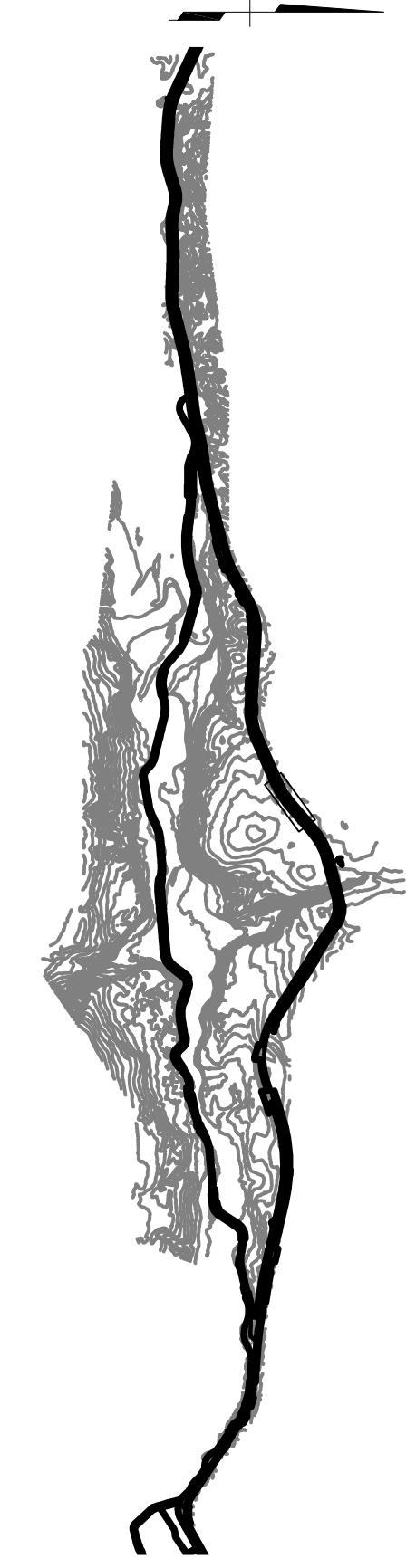


**PRELIMINARY  
NOT FOR CONSTRUCTION**

SHEET NO.	TOTAL SHEETS
F15	F32
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
**F-021-2(15)/  
53014**

NO.	REVISION



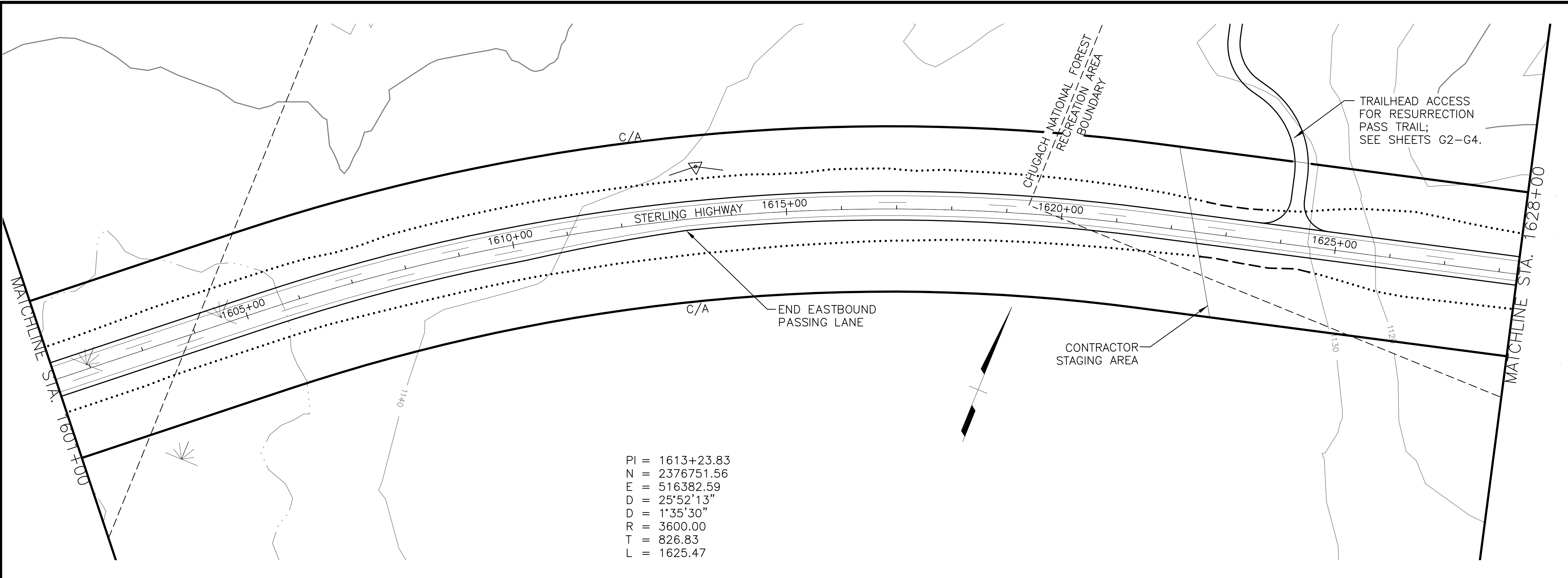
**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE**

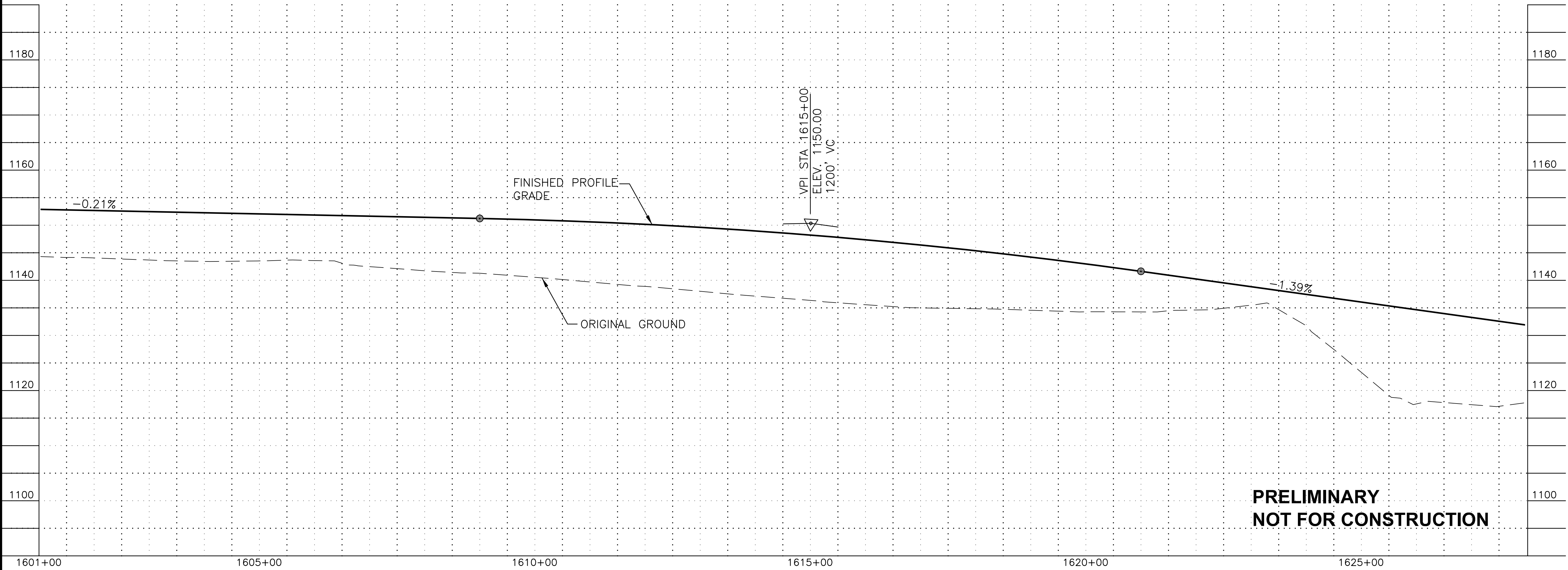
**PLAN AND PROFILE  
 STA 1575+00 TO STA 1601+00**

FILE C:\PWORKING\SEA\DT1748762\_4800-F-F01.DWG

SRB  
 DRAFTED  
 JW  
 CHECKED  
 JB  
 DESIGNED  
 F16  
 LAYOUT  
 12:20 PM  
 8/17/2018  
 DATE/TIME



PI = 1613+23.83  
 N = 2376751.56  
 E = 516382.59  
 D = 25°52'13"  
 D = 1°35'30"  
 R = 3600.00  
 T = 826.83  
 L = 1625.47



**PRELIMINARY  
NOT FOR CONSTRUCTION**

SHEET NO.	TOTAL SHEETS
<b>F16</b>	<b>F32</b>
STATE	YEAR
<b>ALASKA</b>	<b>2018</b>

PROJECT DESIGNATION  
**F-021-2(15)/  
 53014**

NO.	REVISION



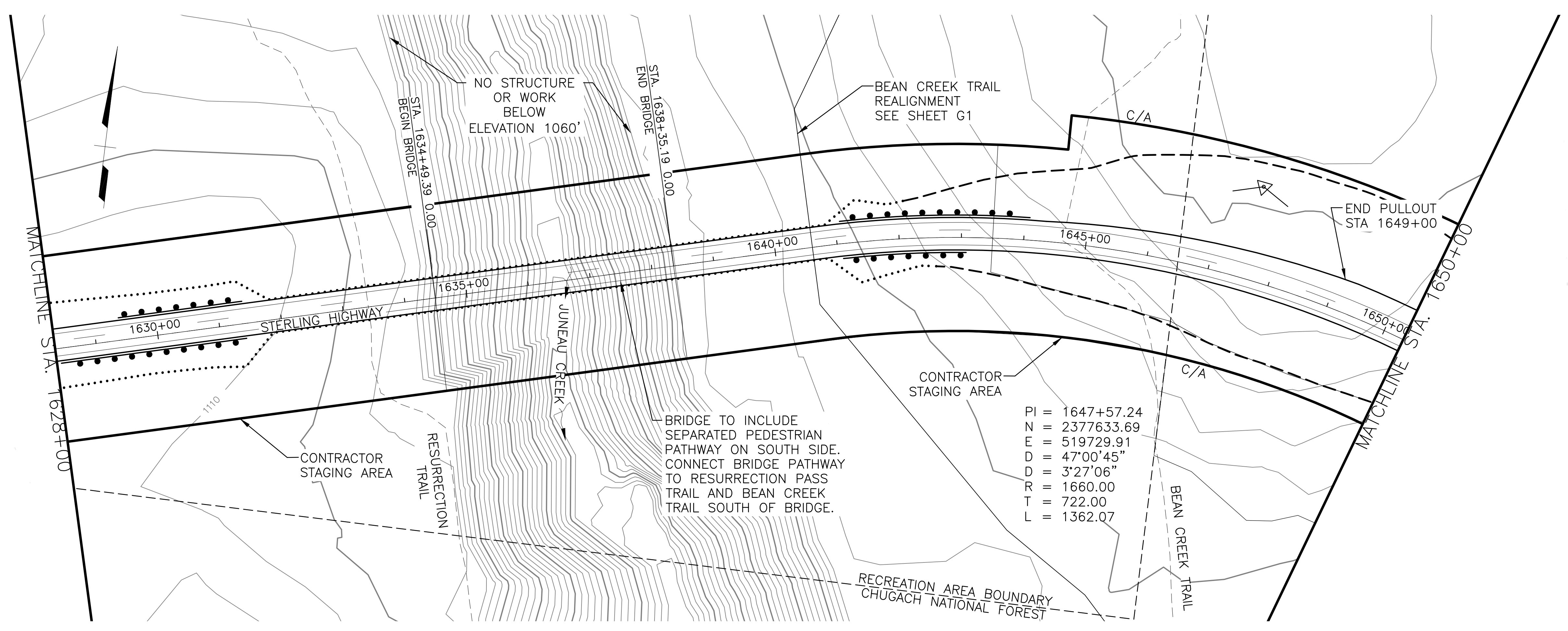
**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE**  
**PLAN AND PROFILE  
 STA 1601+00 TO STA 1628+00**

FILE C:\PWORKING\SEA\DT1748762\_4800-F-F01.DWG



FILE C:\PWORKING\SEA\DT\48762\4800-F-F01.DWG DATE/TIME 8/17/2018 12:20 PM LAYOUT F17 DESIGNED JB CHECKED JW DRAFTED SRB



SEE SHEET F18 FOR PROFILE

**PRELIMINARY  
NOT FOR CONSTRUCTION**

SHEET NO.	TOTAL SHEETS
F17	F32
STATE	YEAR
ALASKA	2018
PROJECT DESIGNATION	
F-021-2(15)/53014	
NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

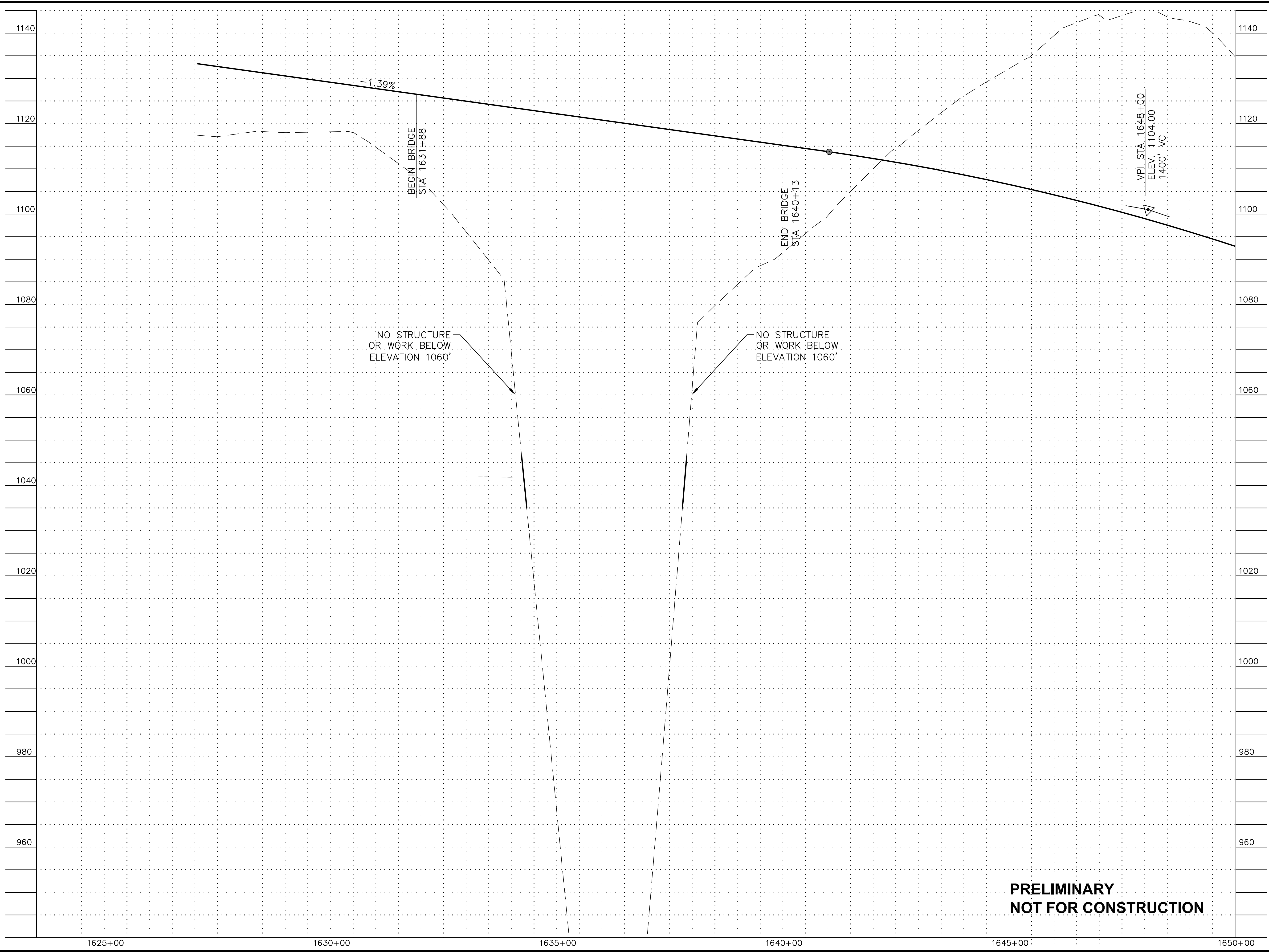


**HDR, Inc.**  
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ANCHORAGE, AK 99503  
(907) 644-2000

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
**STERLING HIGHWAY**  
M.P. 45-60  
JUNEAU CREEK  
ALTERNATIVE  
**PLAN AND PROFILE**  
STA 1628+00 TO STA 1650+00



FILE C:\PWORKING\SEA\DT1748762\_4800-F-F01.DWG DATE/TIME 8/17/2018 12:20 PM LAYOUT F18 DESIGNED JB CHECKED JW DRAFTED SRB



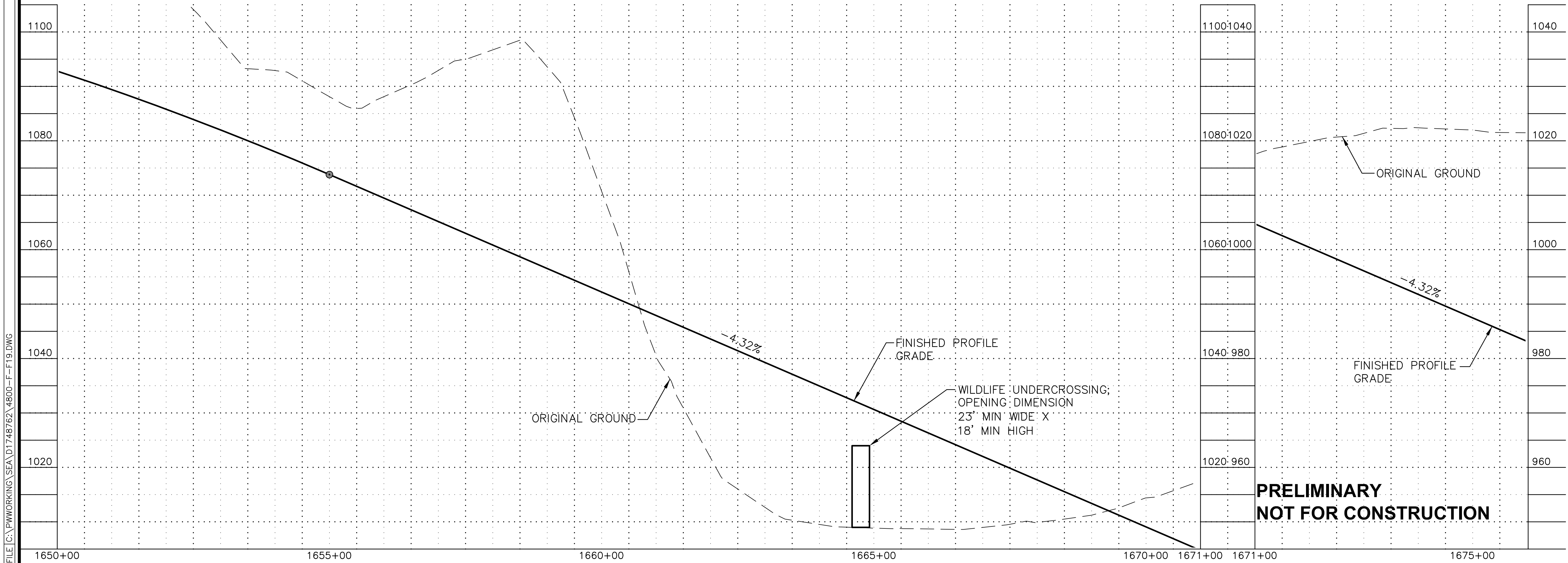
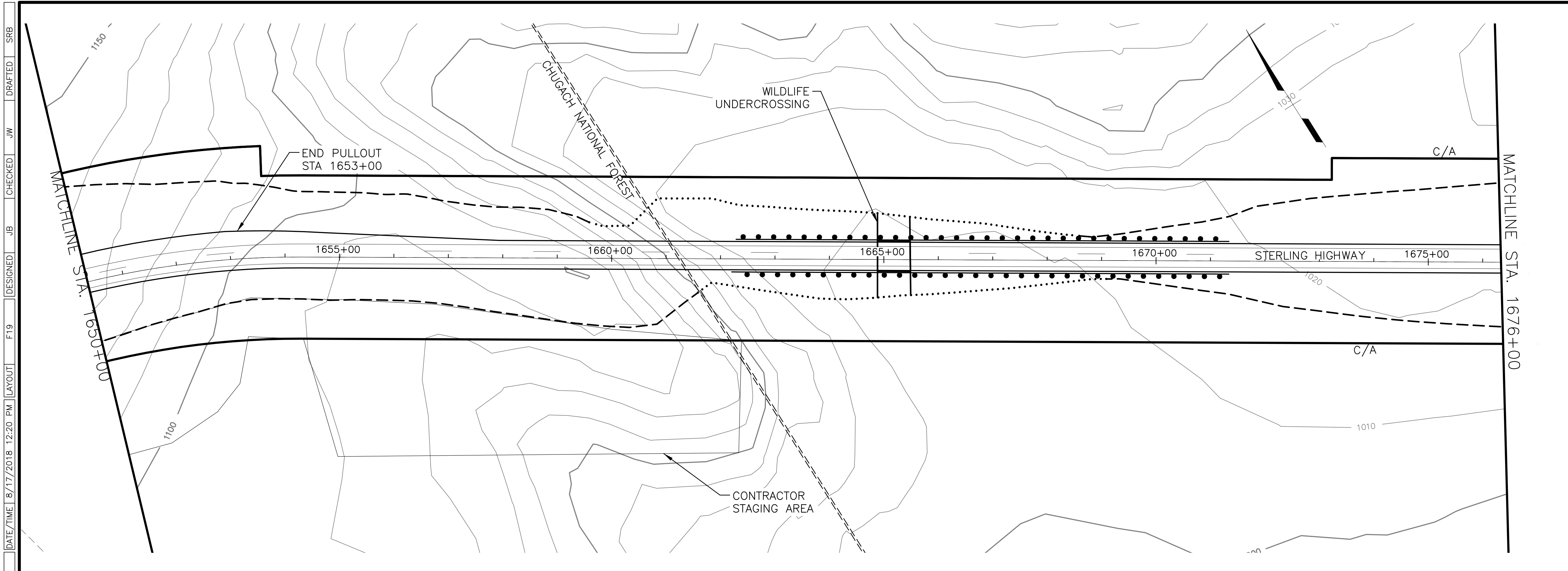
SHEET NO.	TOTAL SHEETS
F18	F32
STATE	YEAR
ALASKA	2018
PROJECT DESIGNATION	
F-021-2(15)/53014	
NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



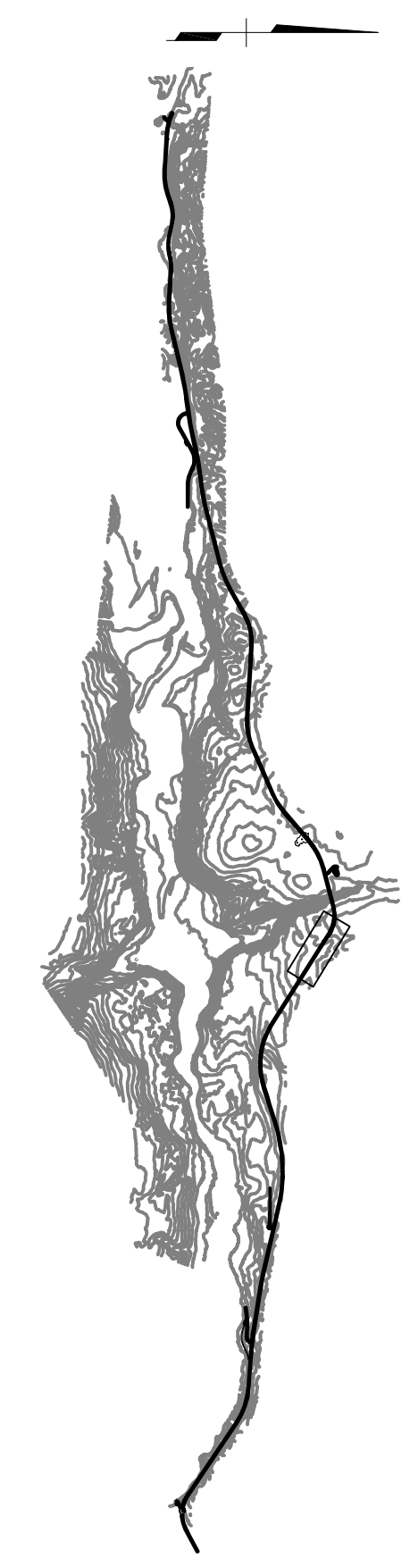
**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE  
**PLAN AND PROFILE**  
 STA 1601+00 TO STA 1628+00

**PRELIMINARY  
 NOT FOR CONSTRUCTION**



SHEET NO.	TOTAL SHEETS
F19	F32
STATE	YEAR
ALASKA	2018
PROJECT DESIGNATION	
F-021-2(15)/53014	
NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



**HDR, Inc.**  
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 ANCHORAGE, AK 99503  
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STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES

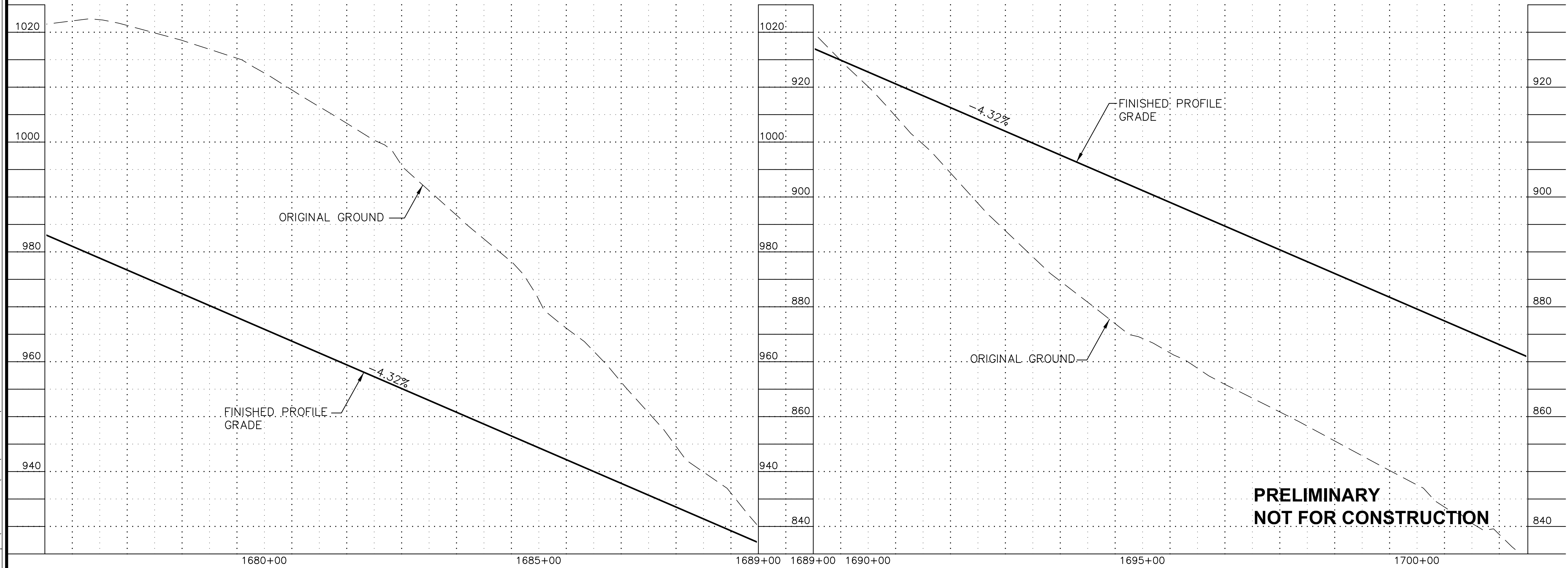
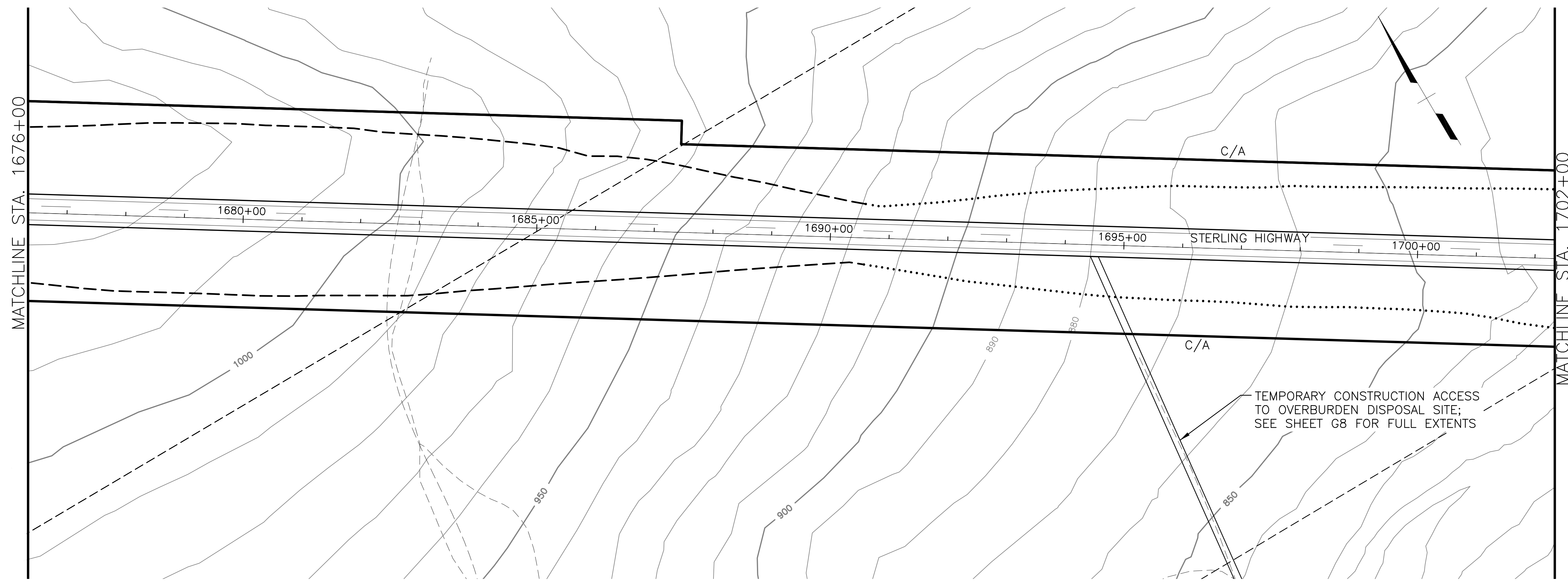
STERLING HIGHWAY  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE

**PLAN AND PROFILE  
 STA 1650+00 TO STA 1676+00**

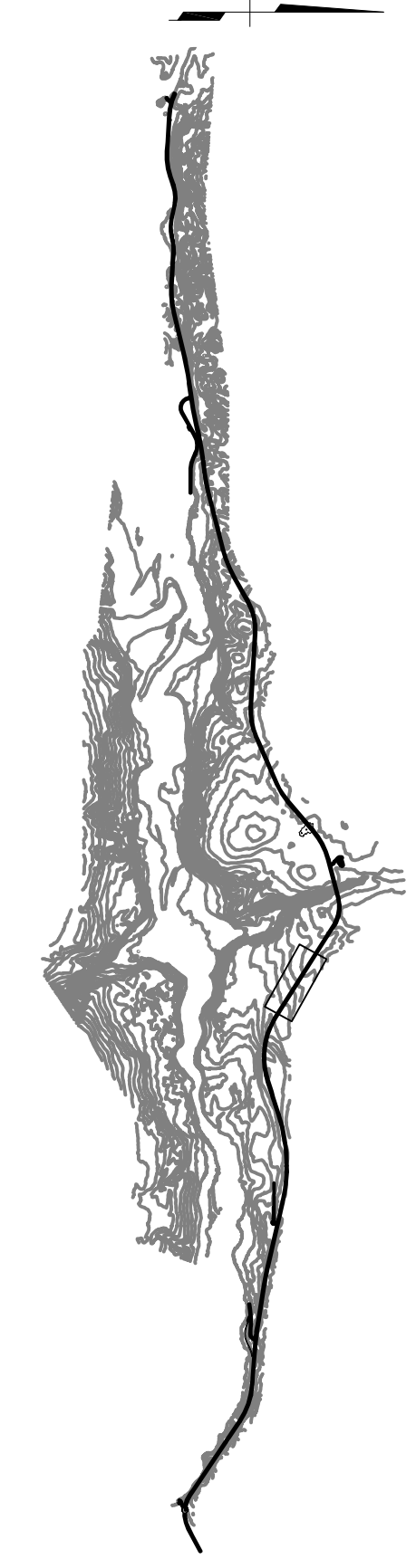
DATE/TIME 8/17/2018 12:20 PM LAYOUT F19 DESIGNED JB CHECKED JW DRAFTED SRB

FILE C:\PWORKING\SEA\DT1748762\_4800-F-F19.DWG

DATE/TIME 8/17/2018 12:20 PM LAYOUT F20 DESIGNED JB CHECKED JW DRAFTED SRB



SHEET NO.	TOTAL SHEETS
F20	F32
STATE	YEAR
ALASKA	2018
PROJECT DESIGNATION	
F-021-2(15)/53014	
NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

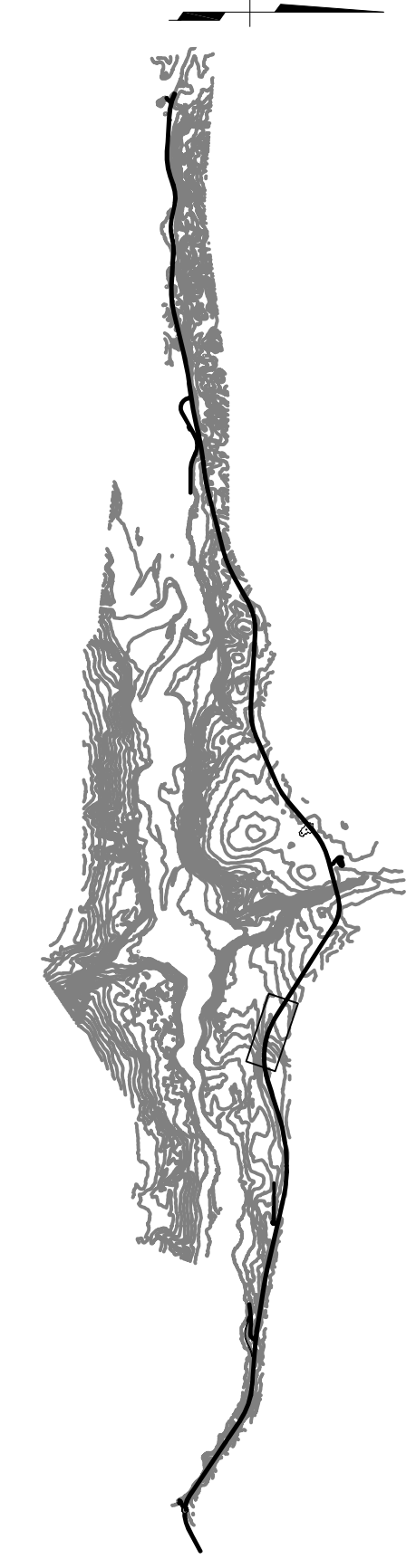
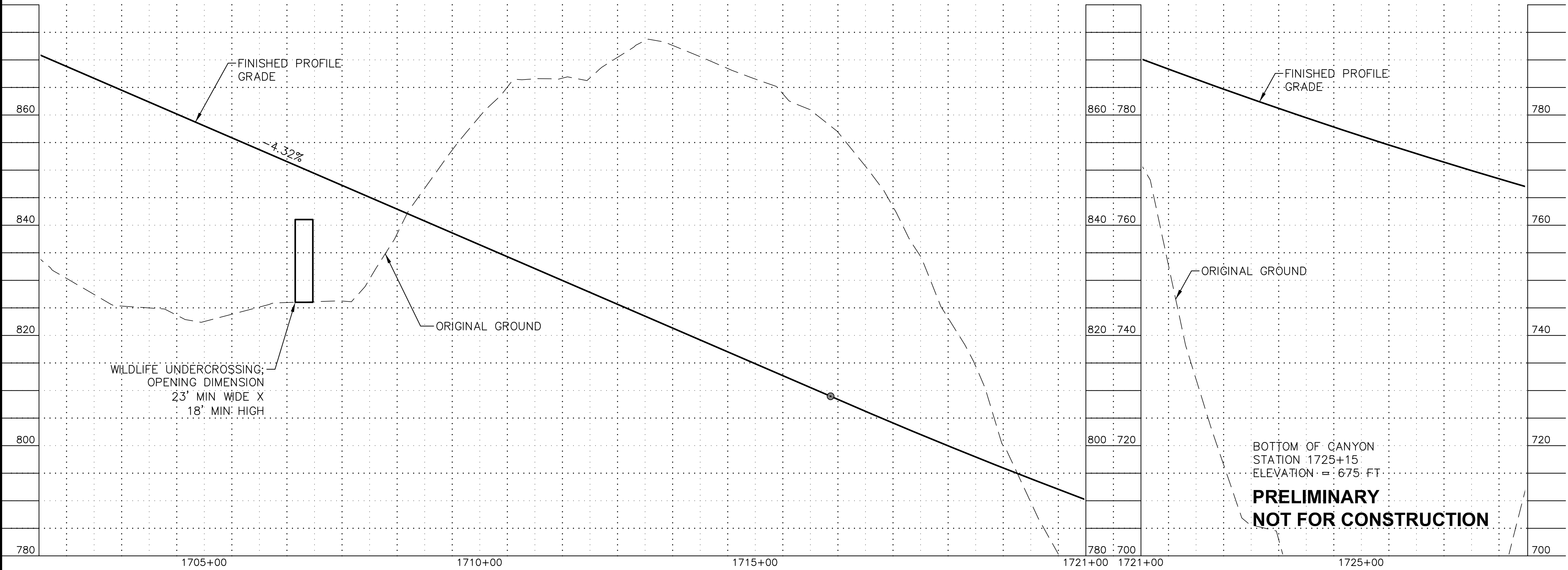
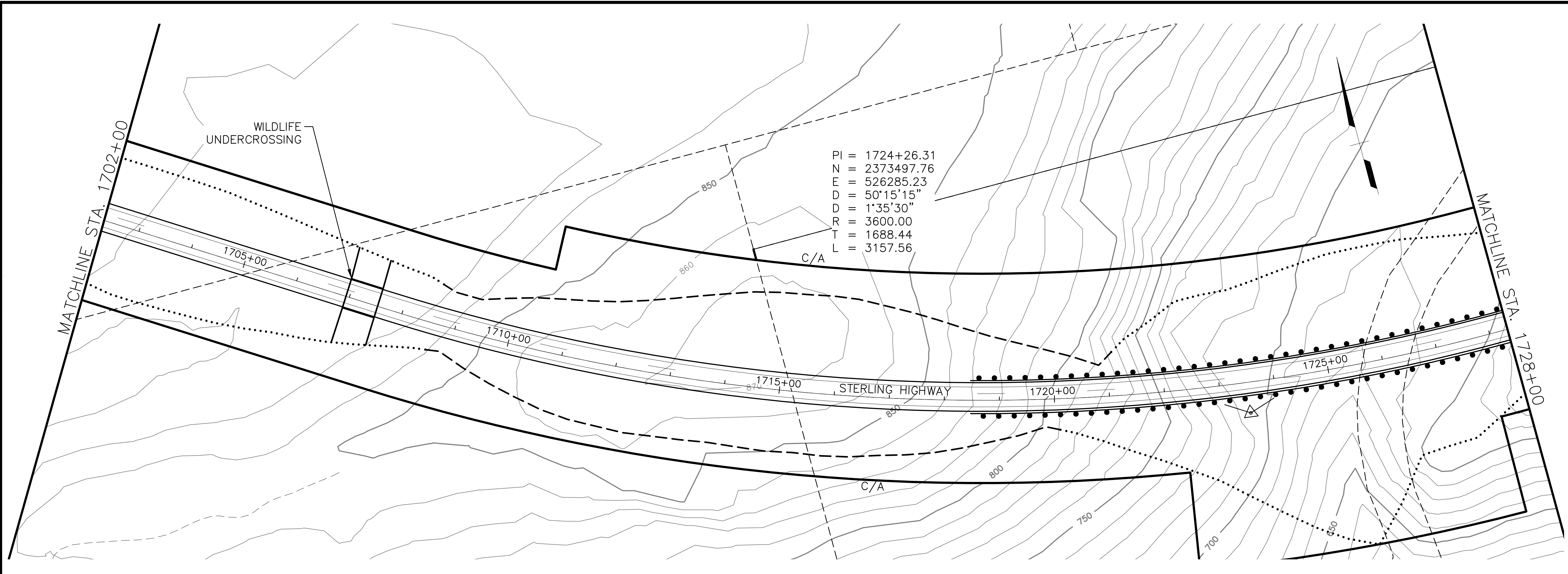


**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE  
**PLAN AND PROFILE**  
**STA 1676+00 TO STA 1702+00**

DATE/TIME 8/17/2018 12:20 PM LAYOUT F21 DESIGNED JB CHECKED JW DRAFTED SRB

SHEET NO.	TOTAL SHEETS
F21	F32
STATE	YEAR
ALASKA	2018
PROJECT DESIGNATION	
F-021-2(15)/53014	
NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

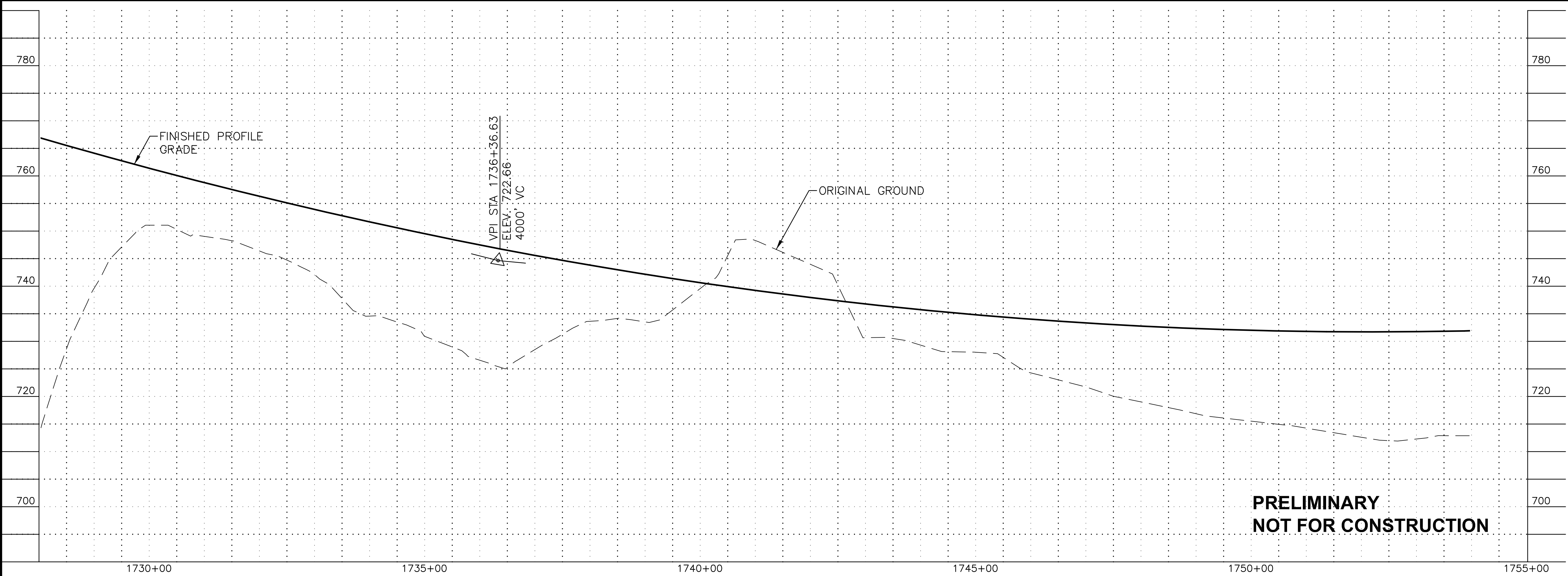
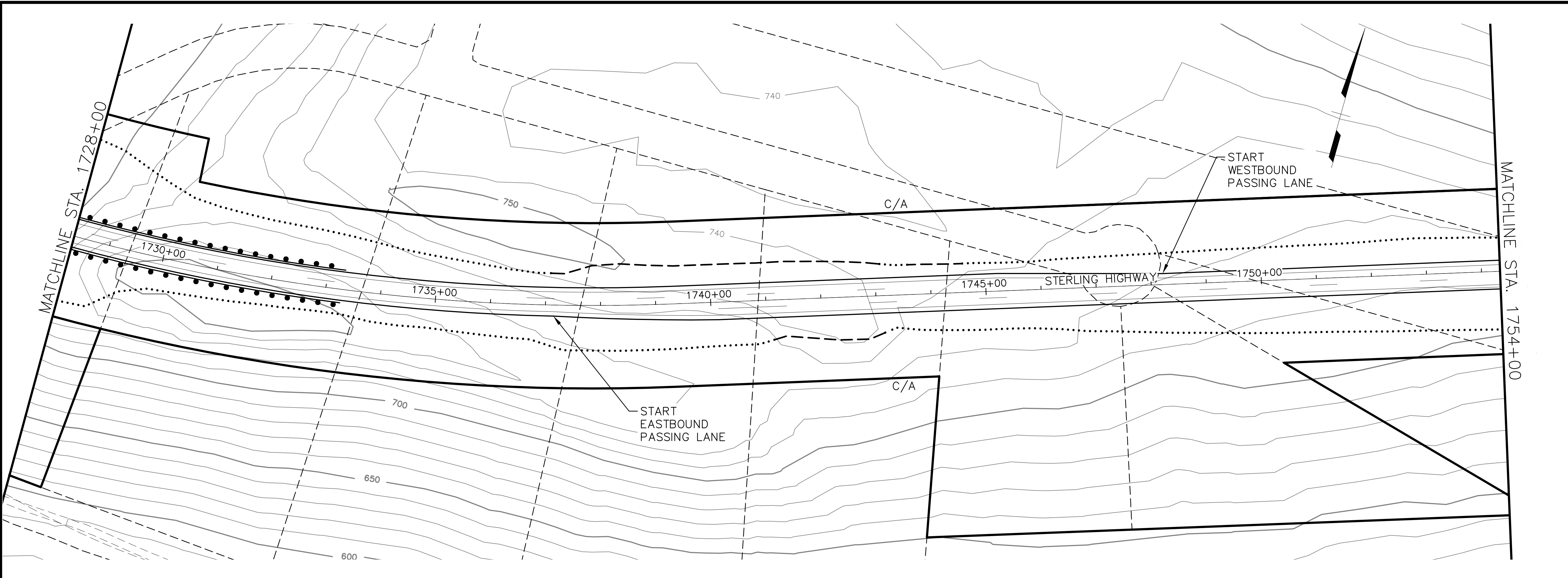
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES

**STERLING HIGHWAY**  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE

**PLAN AND PROFILE**  
**STA 1702+00 TO STA 1728+00**



DATE/TIME 8/17/2018 12:20 PM [LAYOUT] F22 [DESIGNED] JB [CHECKED] JW [DRAFTED] SRB

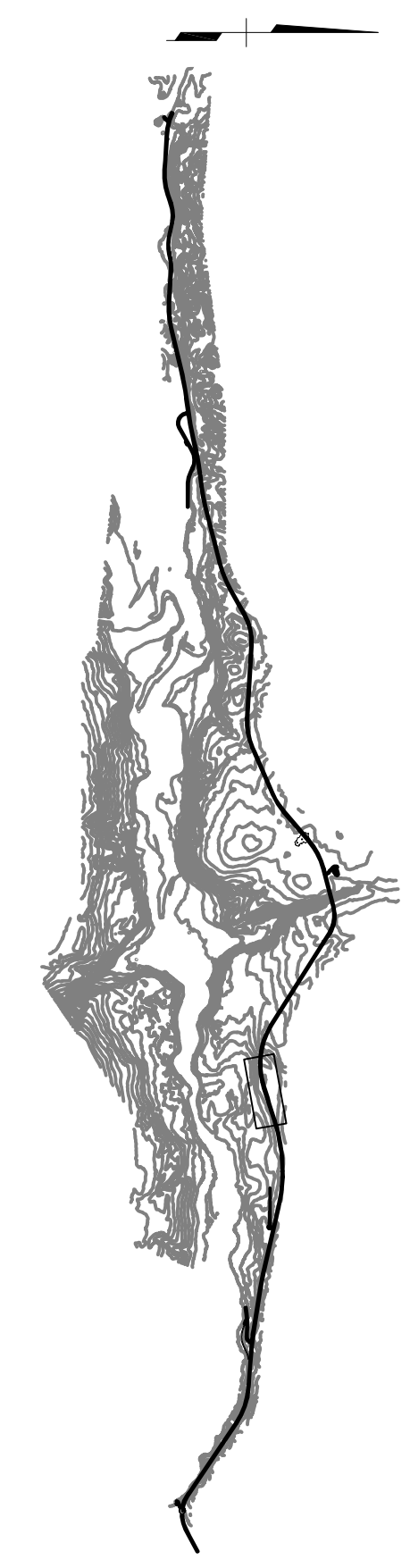


**PRELIMINARY  
NOT FOR CONSTRUCTION**

SHEET NO.	TOTAL SHEETS
F22	F32
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
**F-021-2(15)/53014**

NO.	REVISION



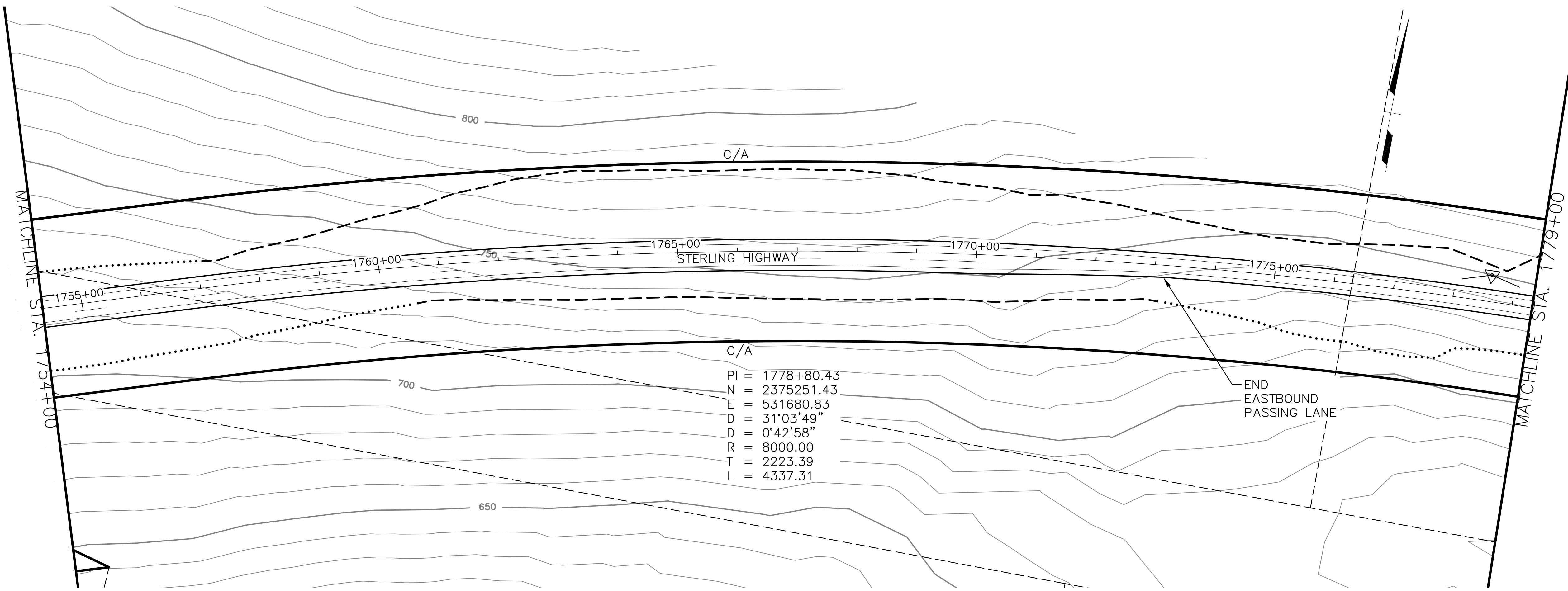
**HDR, Inc.**  
2525 C STREET, STE. 500  
ANCHORAGE, AK 99503  
(907) 644-2000

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
**STERLING HIGHWAY**  
M.P. 45-60  
JUNEAU CREEK  
ALTERNATIVE

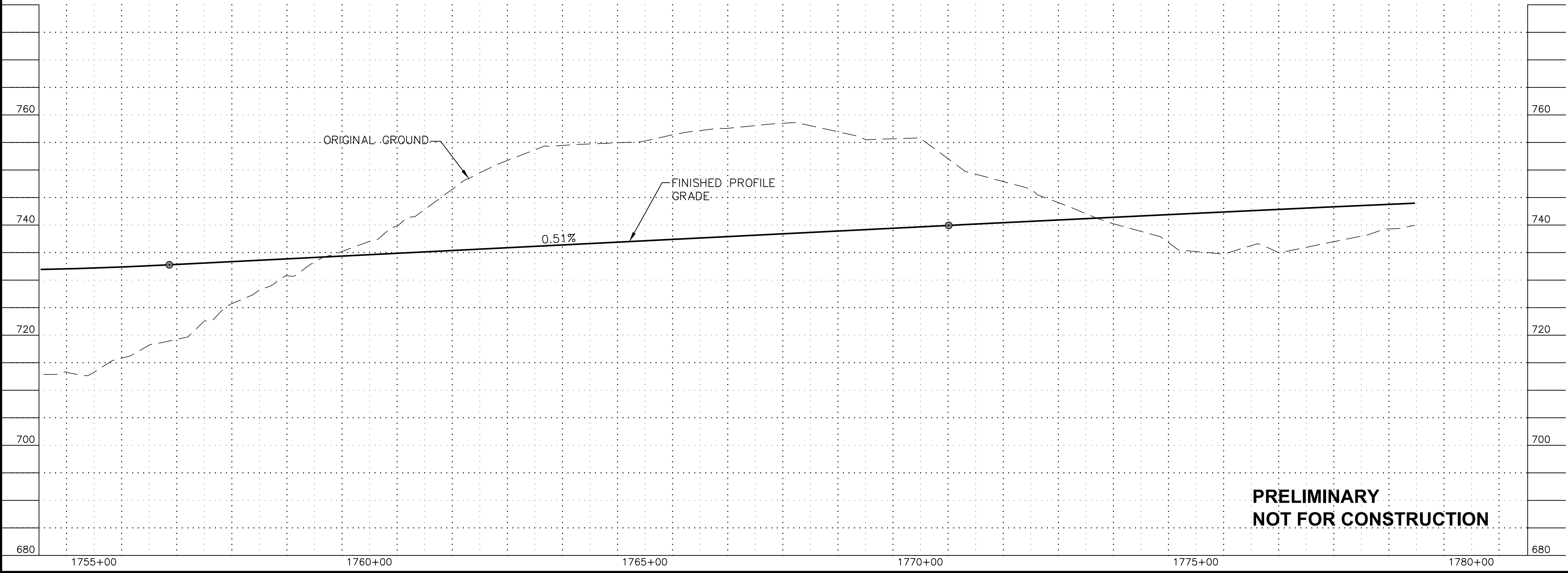
**PLAN AND PROFILE**  
STA 1728+00 TO STA 1754+00

FILE C:\PWORKING\SEA\DT1748762\4800-F-F19.DWG

DATE/TIME 8/17/2018 12:20 PM [LAYOUT] F23 DESIGNED JB CHECKED JW DRAFTED SRB



C/A  
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 E = 531680.83  
 D = 31°03'49"  
 R = 8000.00  
 T = 2223.39  
 L = 4337.31

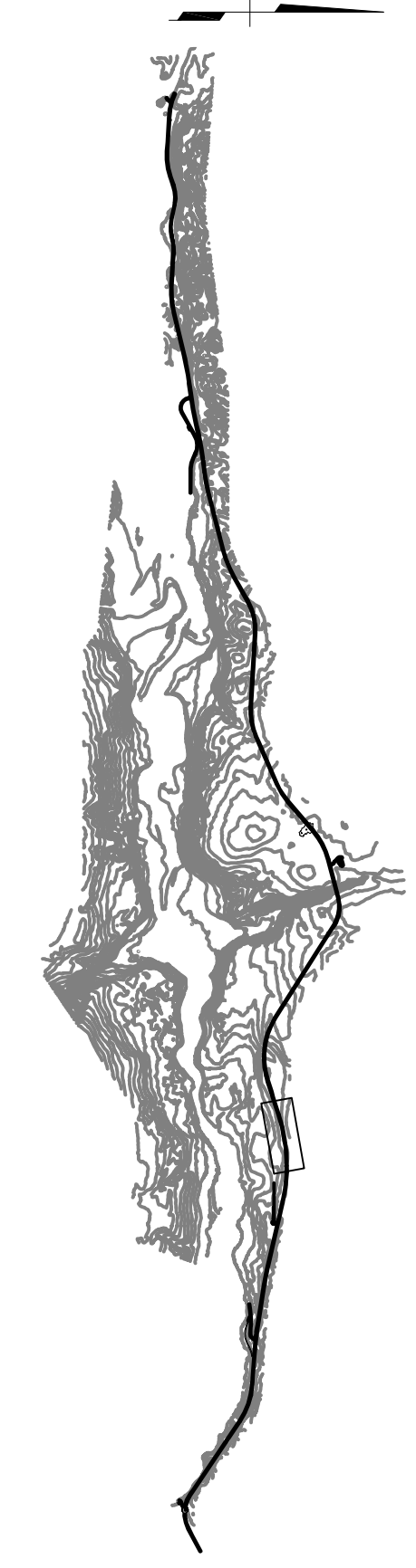


**PRELIMINARY  
 NOT FOR CONSTRUCTION**

SHEET NO.	TOTAL SHEETS
F23	F32
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
**F-021-2(15)/  
 53014**

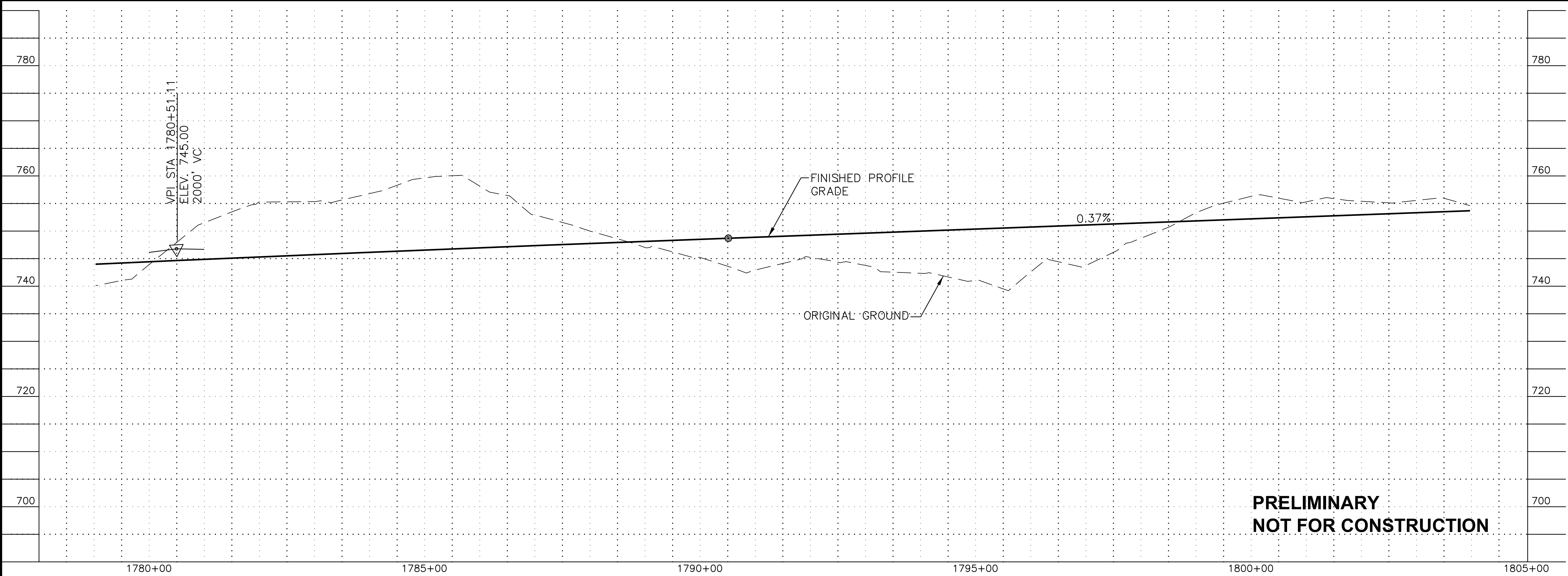
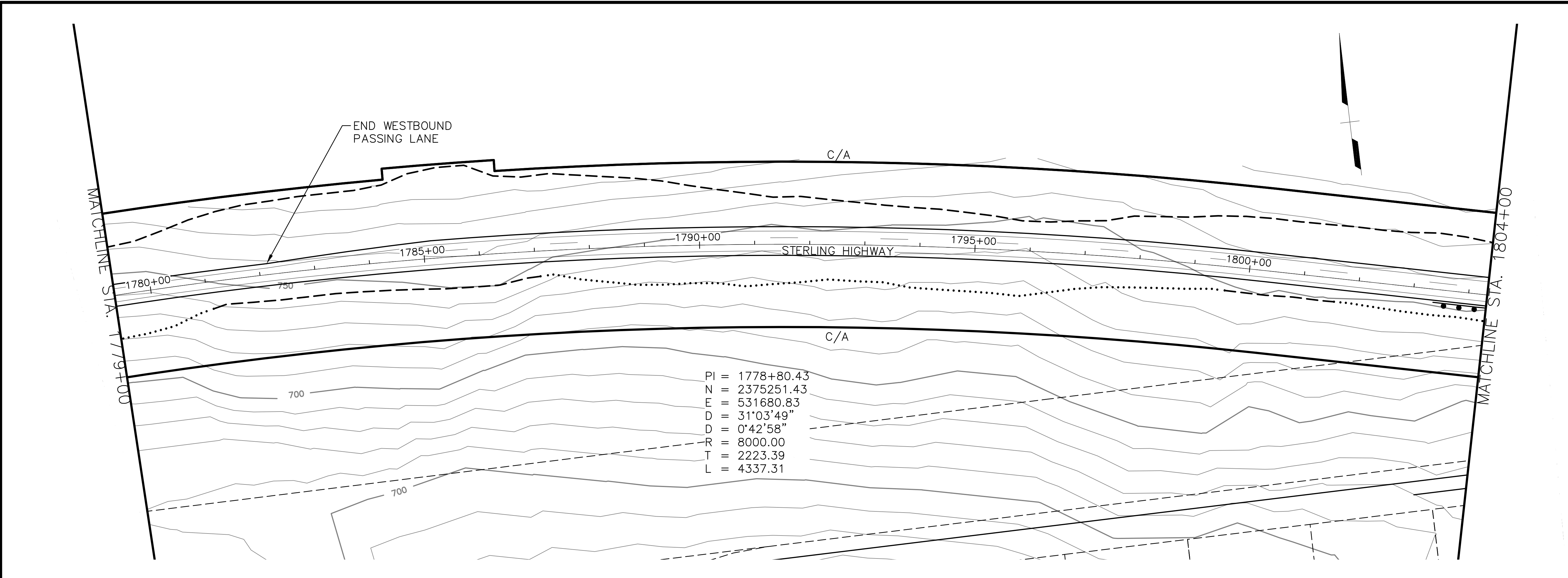
NO.	REVISION



**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE**  
**PLAN AND PROFILE  
 STA 1754+00 TO STA 1779+00**

DATE/TIME 8/17/2018 12:21 PM LAYOUT F24 DESIGNED JB CHECKED JW DRAFTED SRB



**PRELIMINARY  
NOT FOR CONSTRUCTION**

SHEET NO.	TOTAL SHEETS
F24	F32
STATE	YEAR
ALASKA	2018
PROJECT DESIGNATION	
F-021-2(15)/53014	
NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



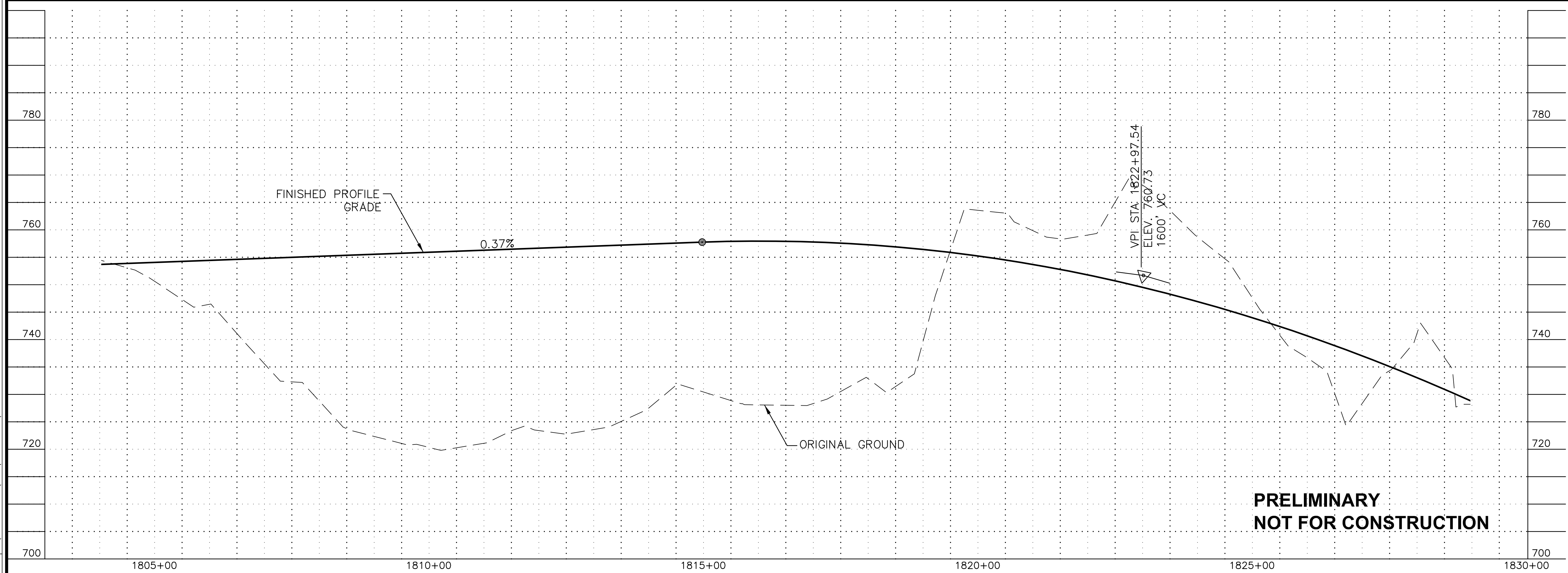
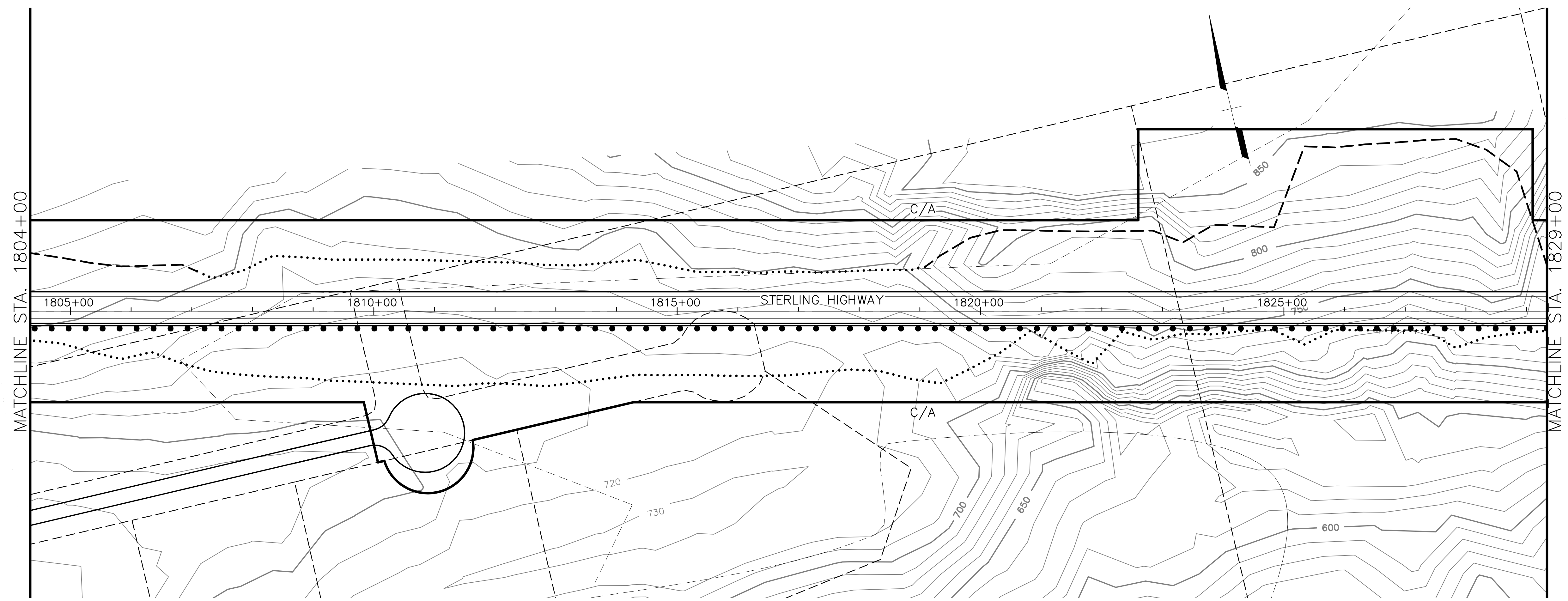
**HDR, Inc.**  
2525 C STREET, STE. 500  
ANCHORAGE, AK 99503  
(907) 644-2000

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

**STERLING HIGHWAY**  
M.P. 45-60  
JUNEAU CREEK  
ALTERNATIVE

**PLAN AND PROFILE**  
STA 1779+00 TO STA 1804+00

DATE/TIME 8/17/2018 12:21 PM [LAYOUT] F25 DESIGNED JB CHECKED JW DRAFTED SRB



**PRELIMINARY  
NOT FOR CONSTRUCTION**

SHEET NO.	TOTAL SHEETS
F25	F32
STATE	YEAR
ALASKA	2018
PROJECT DESIGNATION	
F-021-2(15)/53014	
NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES

**STERLING HIGHWAY**  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE

**PLAN AND PROFILE**  
 STA 1804+00 TO STA 1829+00



SRB  
 DRAFTED  
 JW  
 CHECKED  
 JB  
 DESIGNED  
 F26  
 LAYOUT  
 PM  
 12:21  
 8/17/2018

SHEET NO.	TOTAL SHEETS
F26	F32
STATE	YEAR
ALASKA	2018

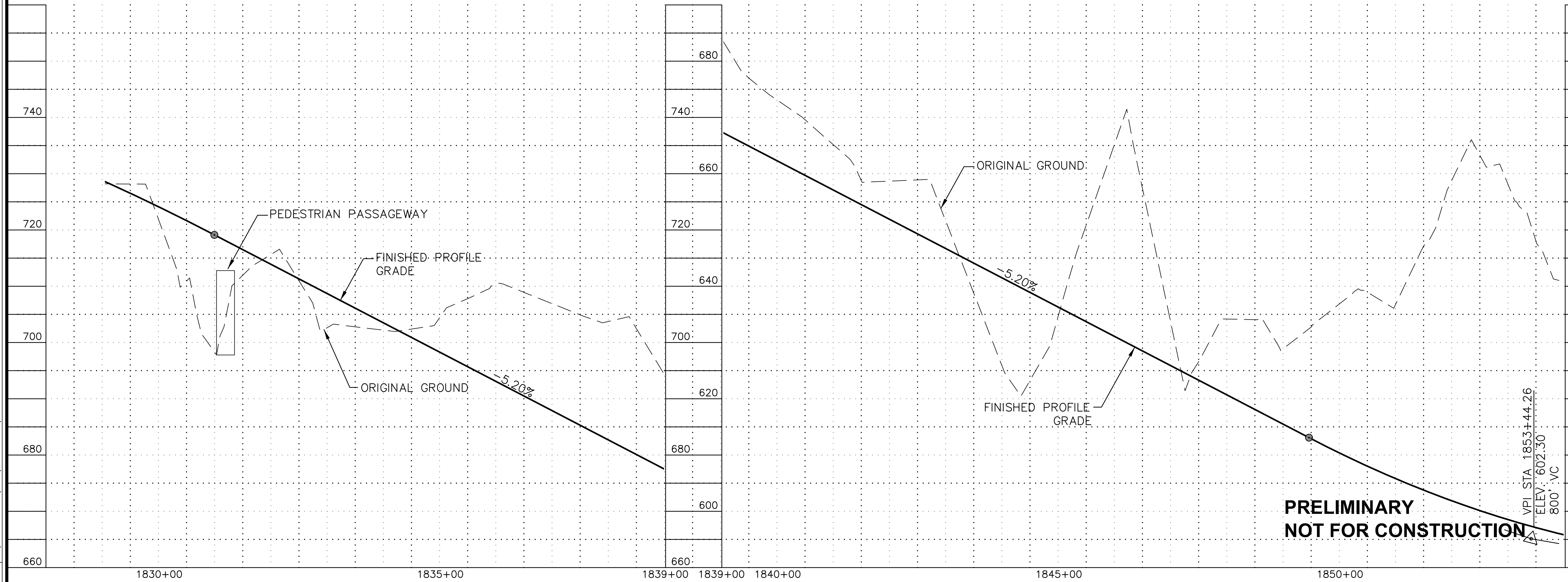
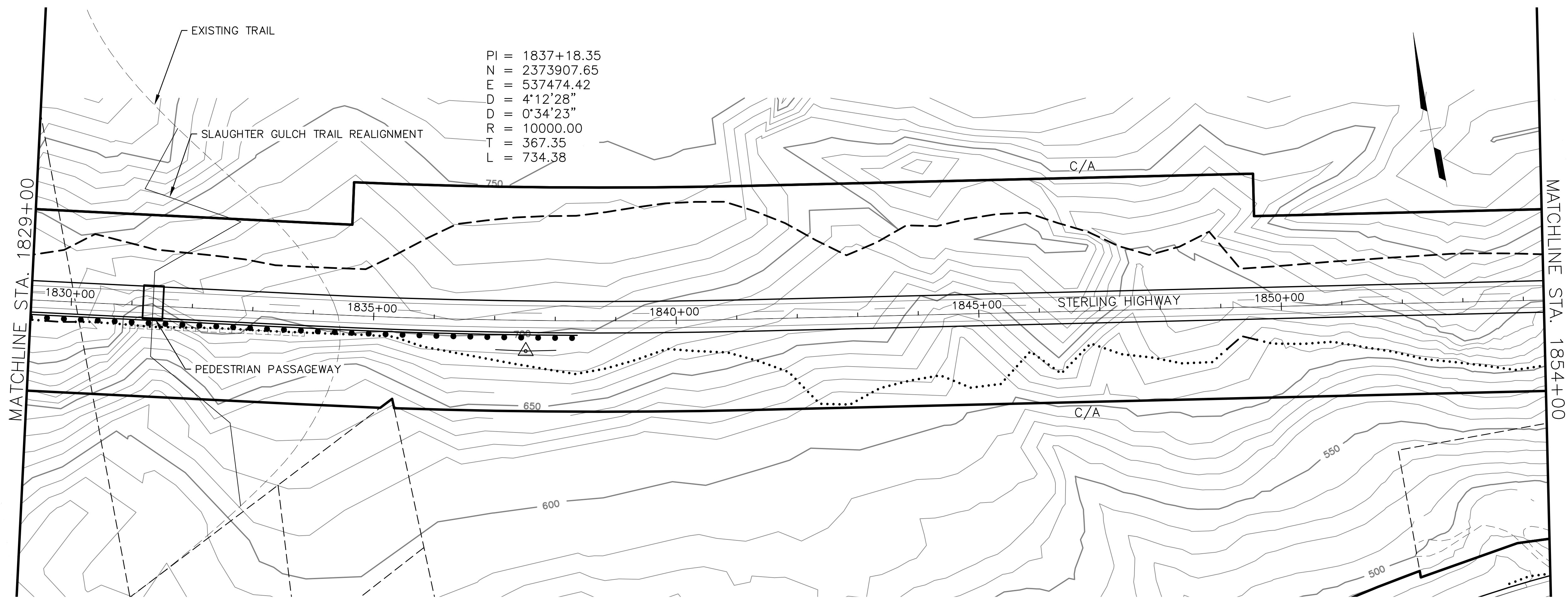
PROJECT DESIGNATION  
**F-021-2(15)/53014**

NO.	REVISION



**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
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STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE  
**PLAN AND PROFILE**  
**STA 1829+00 TO STA 1854+00**

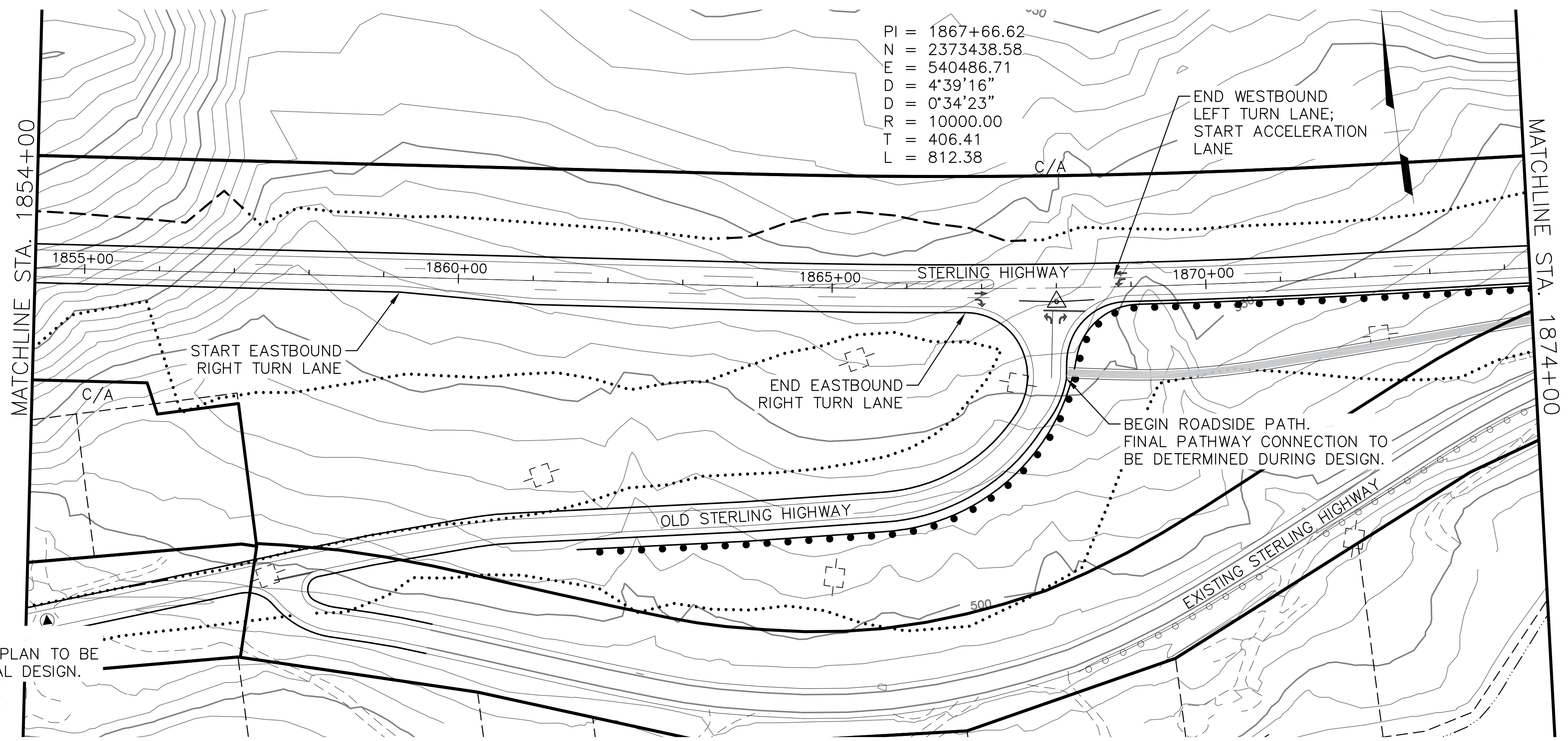


**PRELIMINARY**  
**NOT FOR CONSTRUCTION**

FILE C:\PWORKING\SEA\DT1748762\_4800-F-F19.DWG

SRB  
DRAFTED  
JW  
CHECKED  
JB  
DESIGNED  
F27  
LAYOUT  
PM  
12:21  
8/17/2018

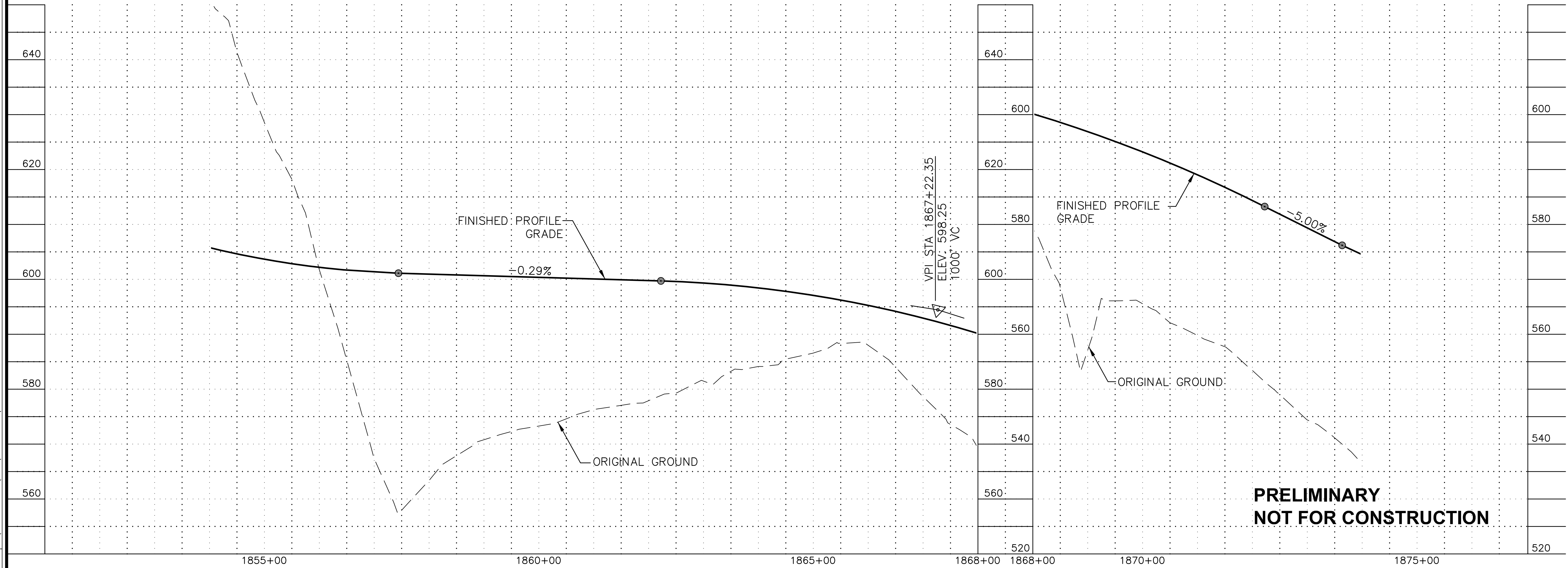
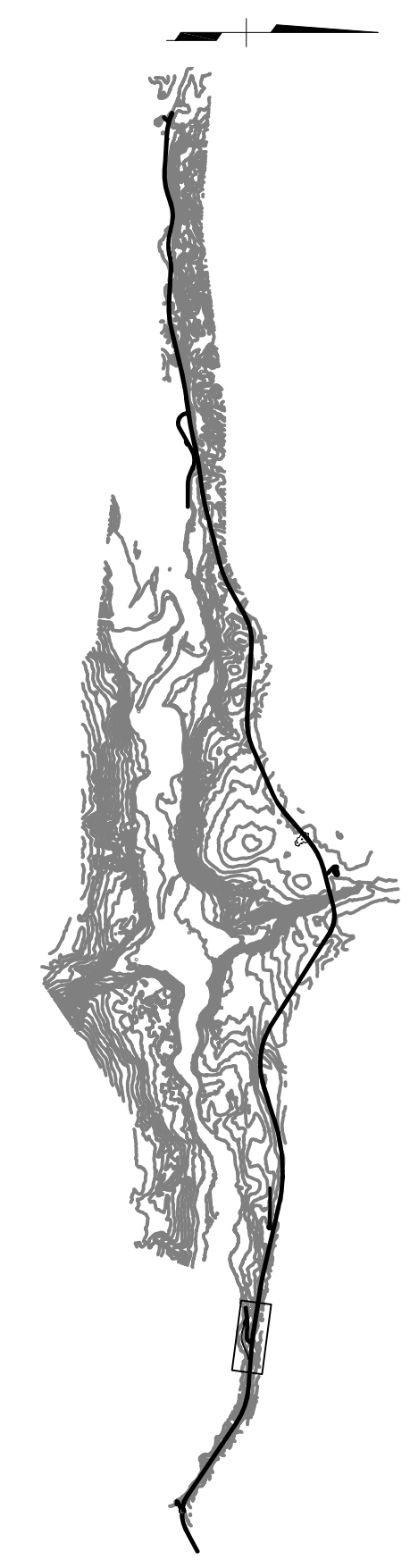
FILE C:\PWORKING\SEA\DT1748762\_4800-F-F19.DWG



NOTE:  
INTERSECTION LIGHTING PLAN TO BE  
DEVELOPED DURING FINAL DESIGN.

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E = 540486.71  
D = 4'39'16"  
D = 0'34'23"  
R = 10000.00  
T = 406.41  
L = 812.38

SHEET NO.	TOTAL SHEETS
F27	F32
STATE	YEAR
ALASKA	2018
PROJECT DESIGNATION	
F-021-2(15)/53014	
NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



**PRELIMINARY  
NOT FOR CONSTRUCTION**

**HDR, Inc.**  
2525 C STREET, STE. 500  
ANCHORAGE, AK 99503  
(907) 644-2000

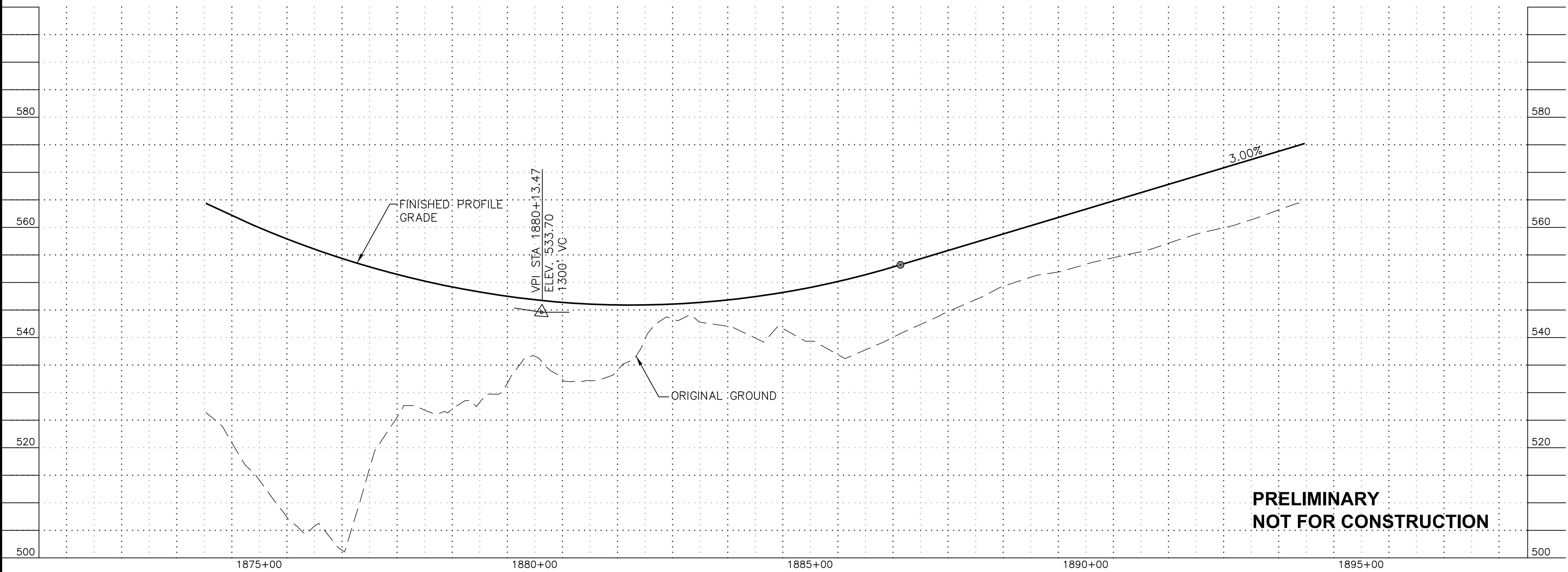
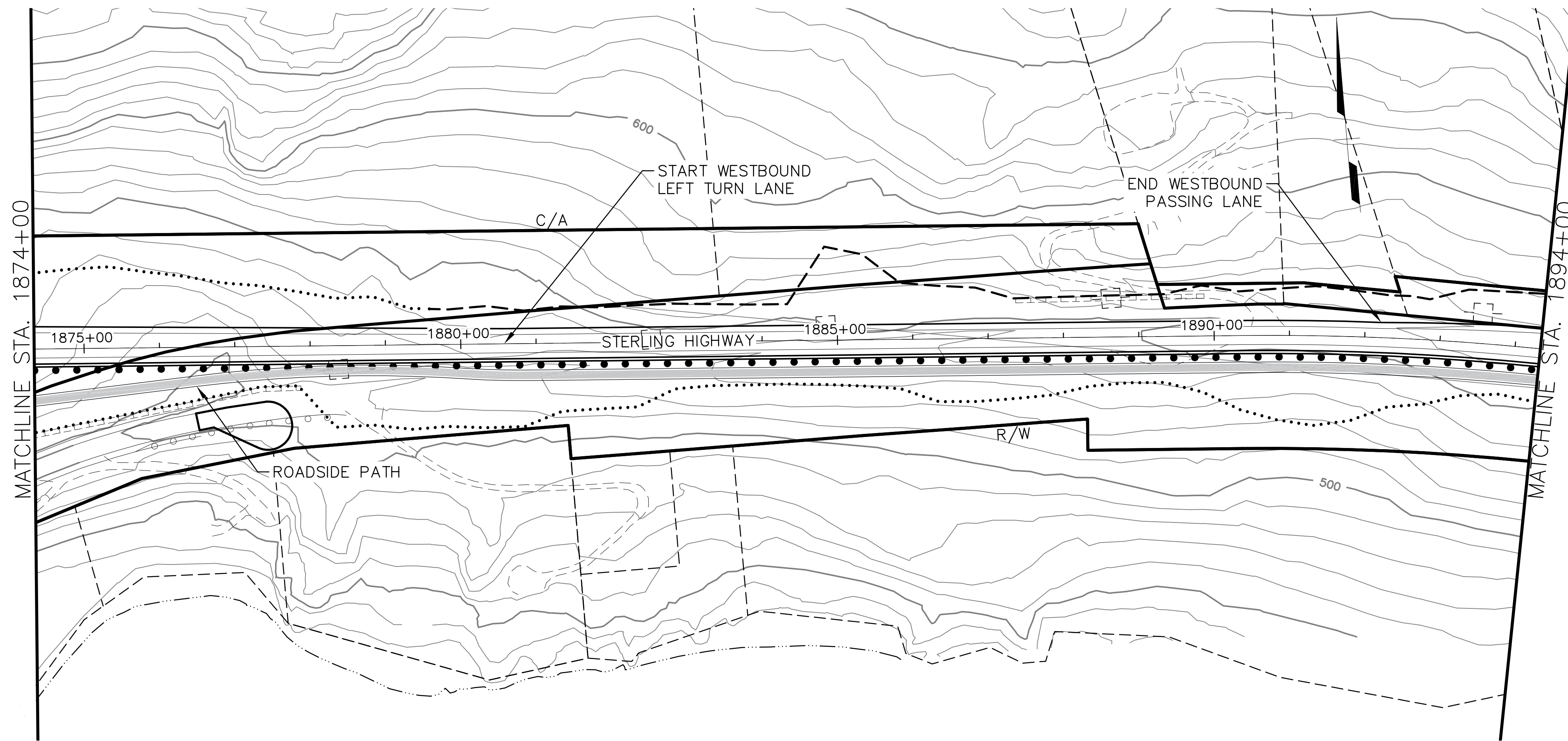
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

**STERLING HIGHWAY  
M.P. 45-60  
JUNEAU CREEK  
ALTERNATIVE**

**PLAN AND PROFILE  
STA 1854+00 TO STA 1874+00**



DATE/TIME 8/17/2018 12:21 PM LAYOUT F28 DESIGNED JB CHECKED JW DRAFTED SRB

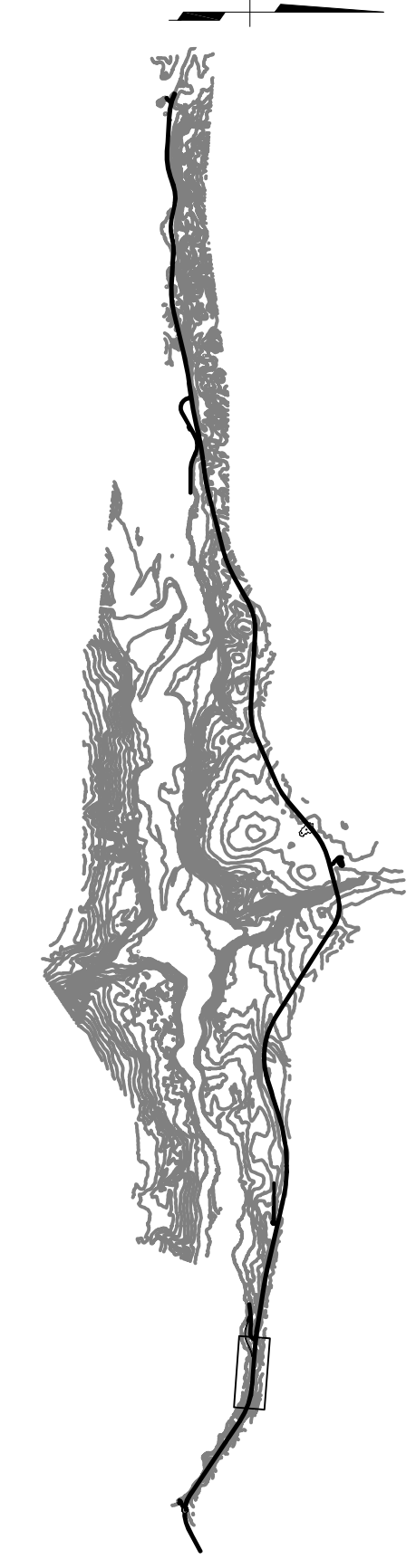


**PRELIMINARY  
NOT FOR CONSTRUCTION**

SHEET NO.	TOTAL SHEETS
F28	F32
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
**F-021-2(15)/53014**

NO.	REVISION



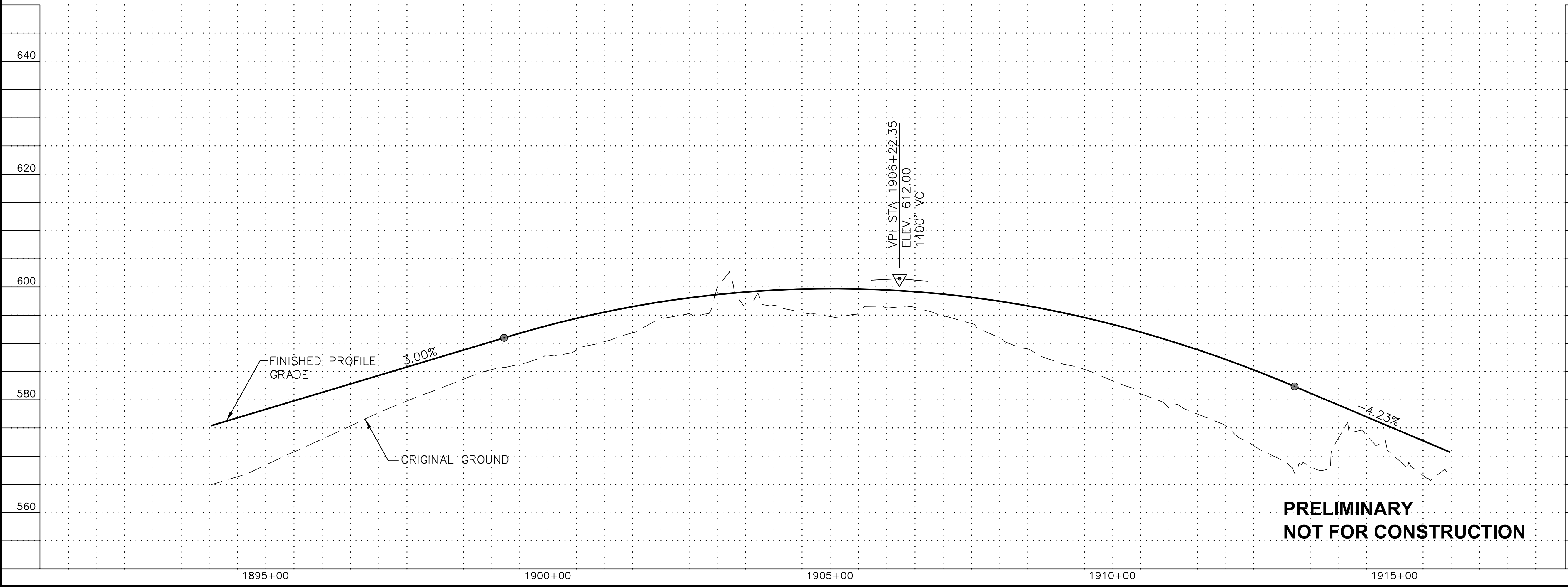
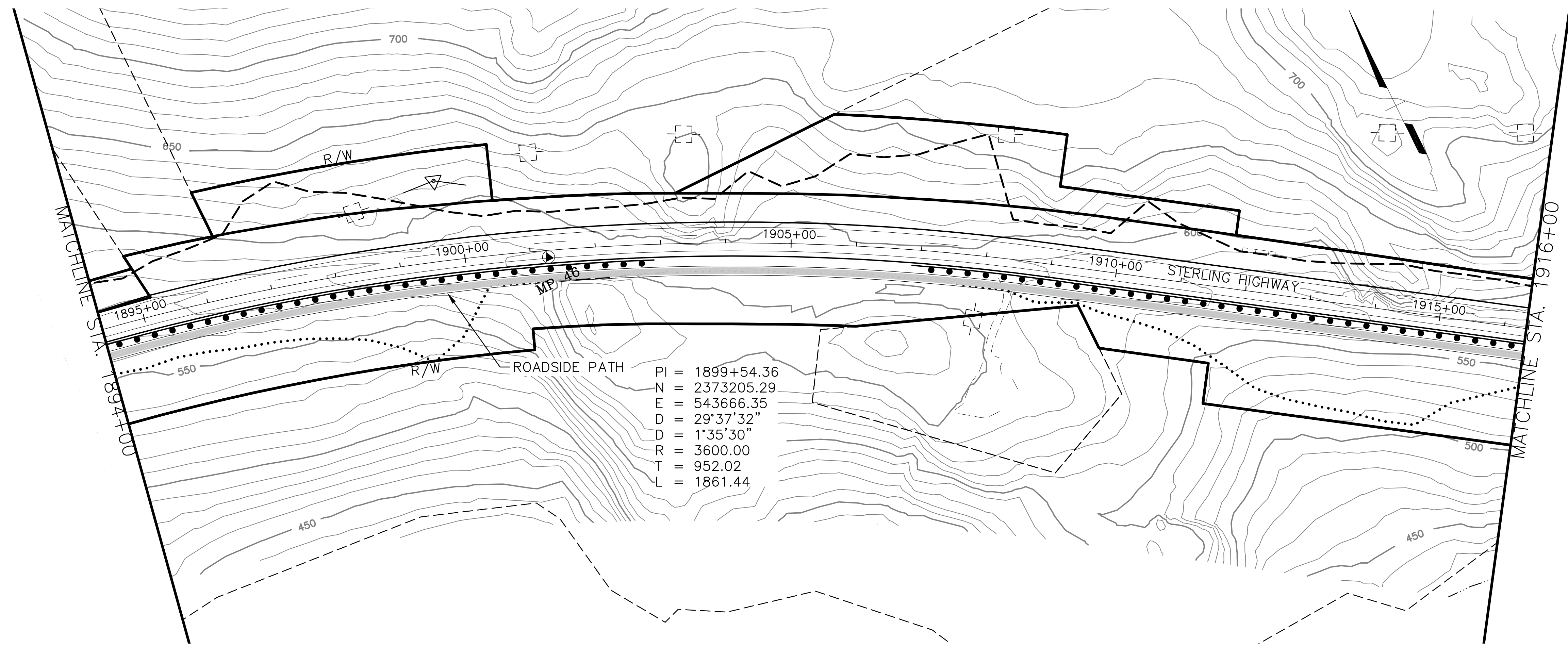
**HDR, Inc.**  
2525 C STREET, STE. 500  
ANCHORAGE, AK 99503  
(907) 644-2000

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
**STERLING HIGHWAY  
M.P. 45-60  
JUNEAU CREEK  
ALTERNATIVE**

**PLAN AND PROFILE  
STA 1874+00 TO STA 1894+00**



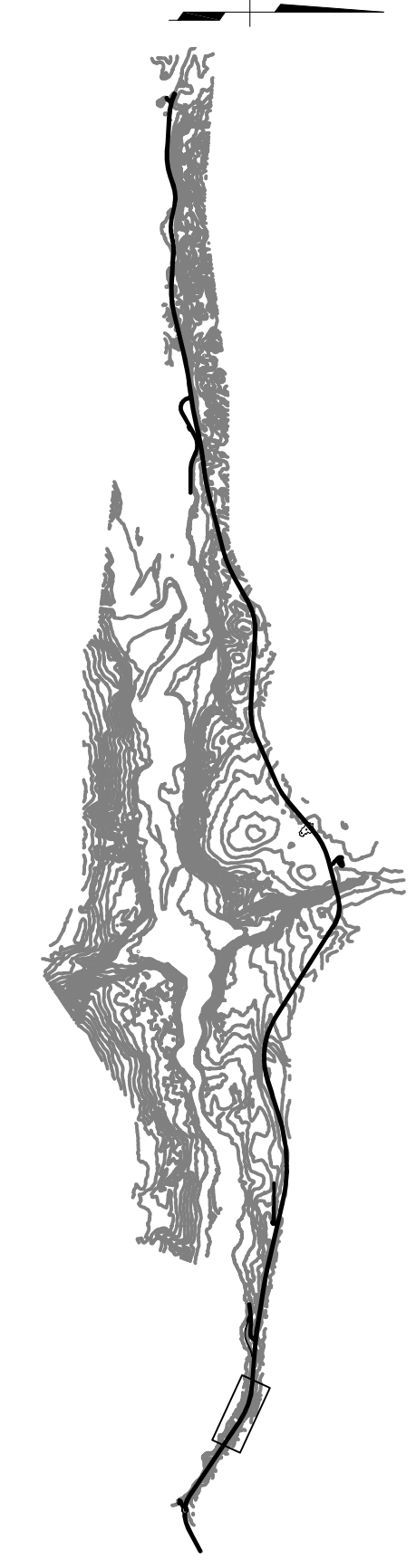
DATE/TIME 8/17/2018 12:21 PM LAYOUT F29 DESIGNED JB CHECKED JW DRAFTED SRB



SHEET NO.	TOTAL SHEETS
F29	F32
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
**F-021-2(15)/53014**

NO.	REVISION



**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE

**PRELIMINARY  
 NOT FOR CONSTRUCTION**

**PLAN AND PROFILE  
 STA 1894+00 TO STA 1916+00**



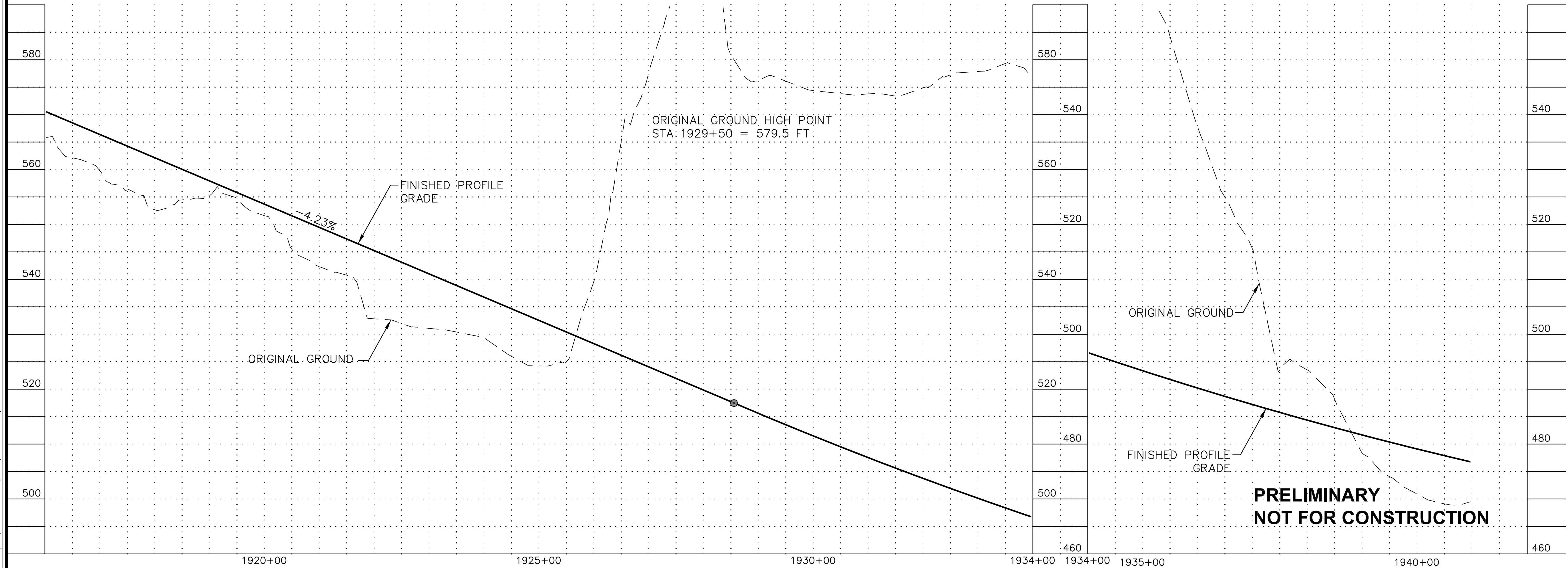
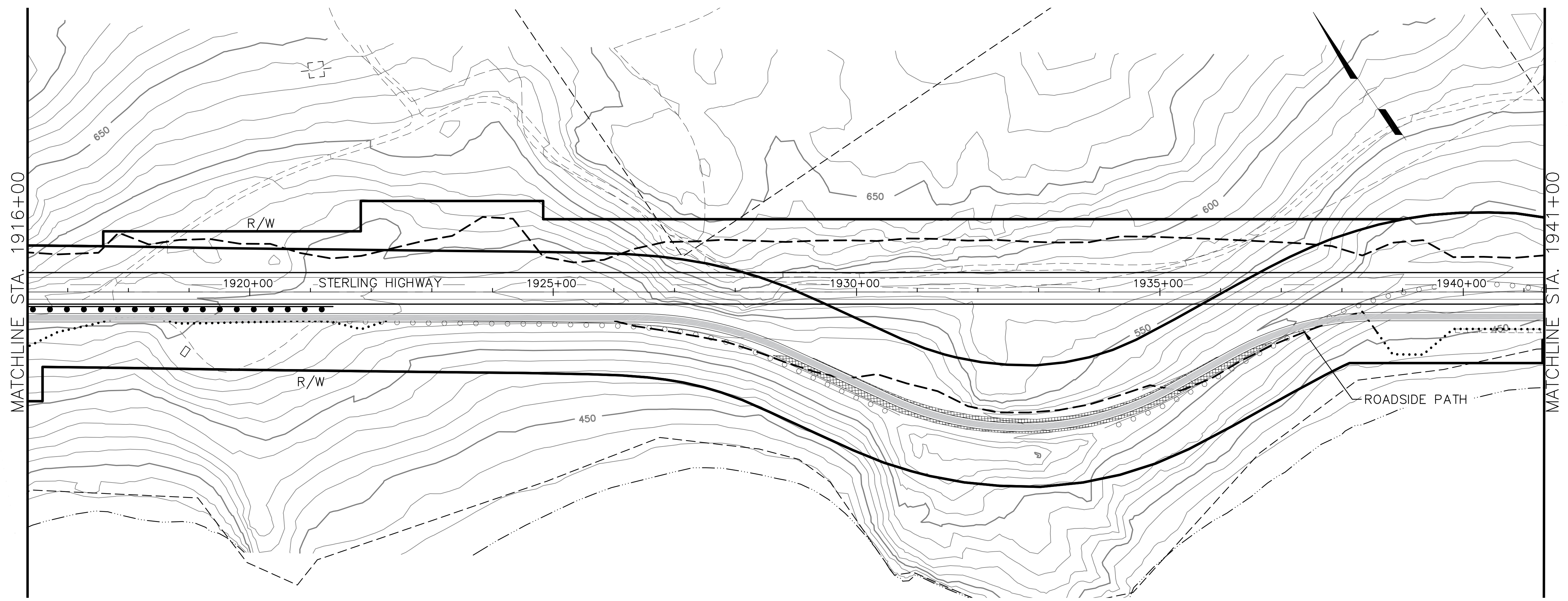
SRB  
 DRAFTED  
 JW  
 CHECKED  
 JB  
 DESIGNED  
 F30  
 LAYOUT  
 PM  
 12:21  
 8/17/2018

SHEET NO.	TOTAL SHEETS
F30	F32
STATE	YEAR
ALASKA	2018
PROJECT DESIGNATION	
F-021-2(15)/53014	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE  
**PLAN AND PROFILE**  
**STA 1916+00 TO STA 1941+00**



FILE C:\PWORKING\SEA\DT1748762\_4800-F-F19.DWG



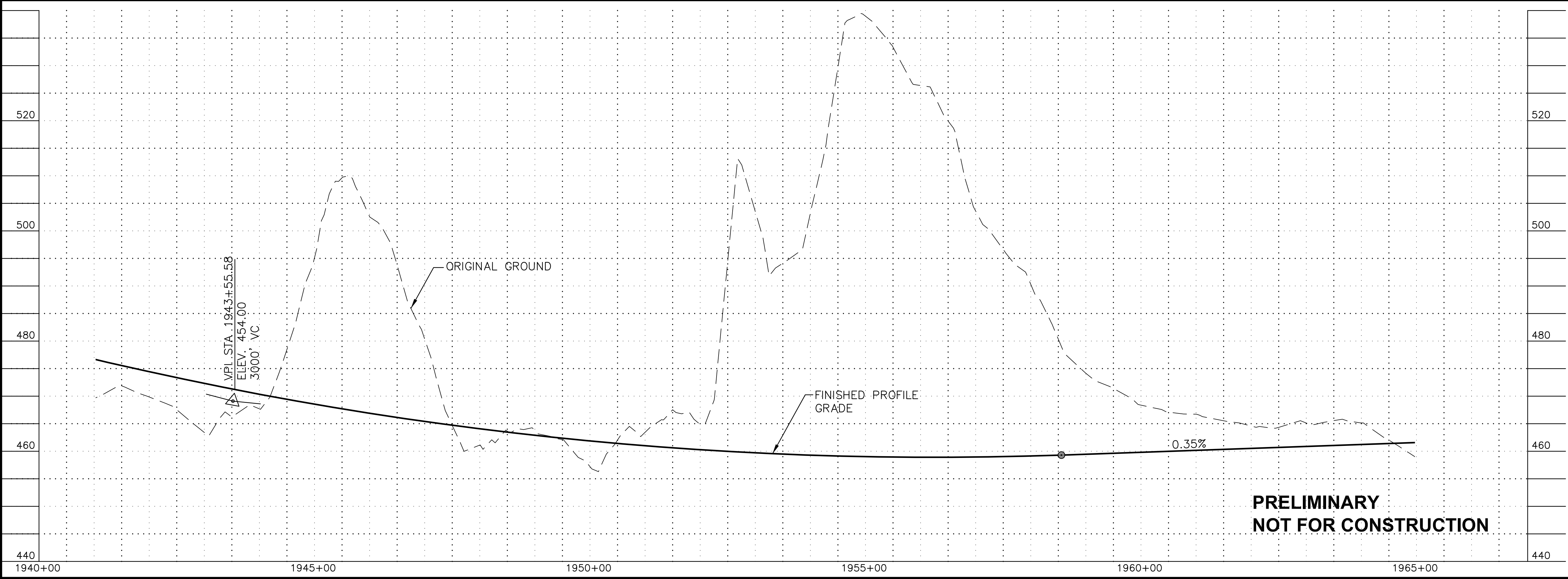
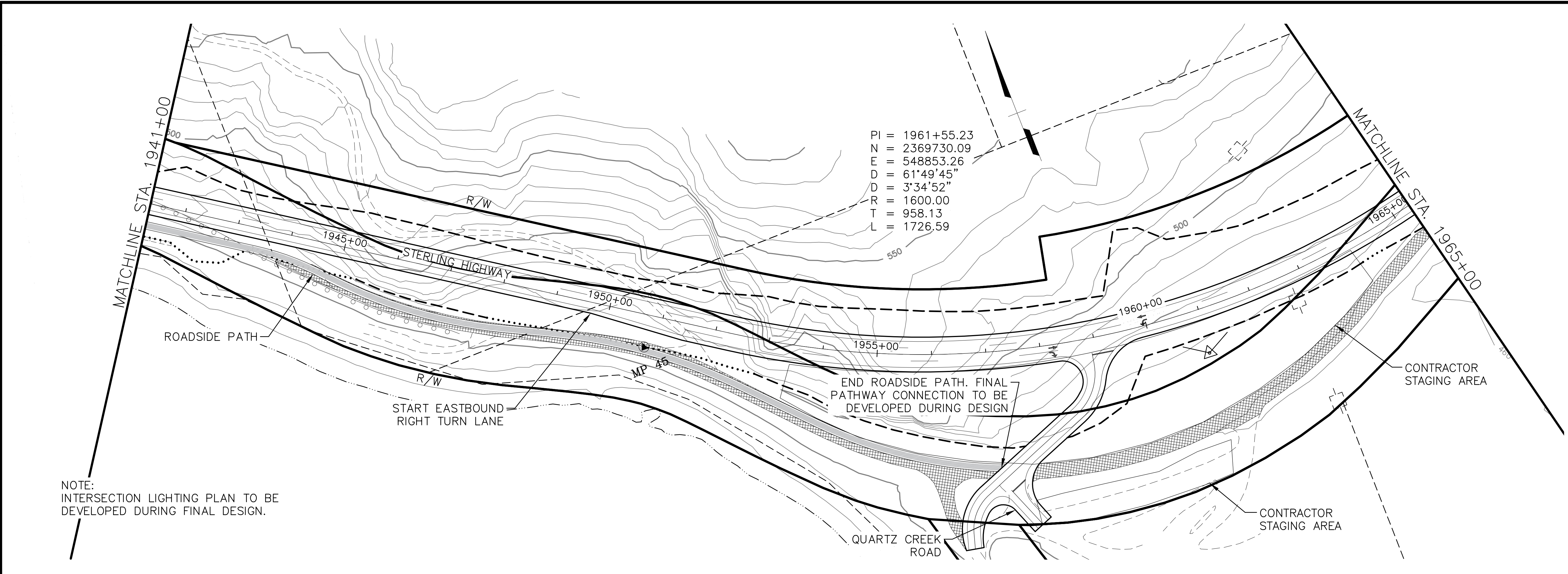
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 F31  
 LAYOUT  
 12:21 PM  
 8/17/2018  
 DATE/TIME  
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SHEET NO.	TOTAL SHEETS
F31	F32
STATE	YEAR
ALASKA	2018
PROJECT DESIGNATION	
F-021-2(15)/53014	
NO.	REVISION
NO.	REVISION
NO.	REVISION

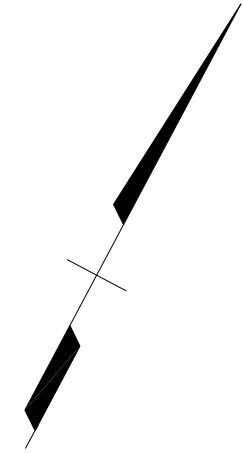
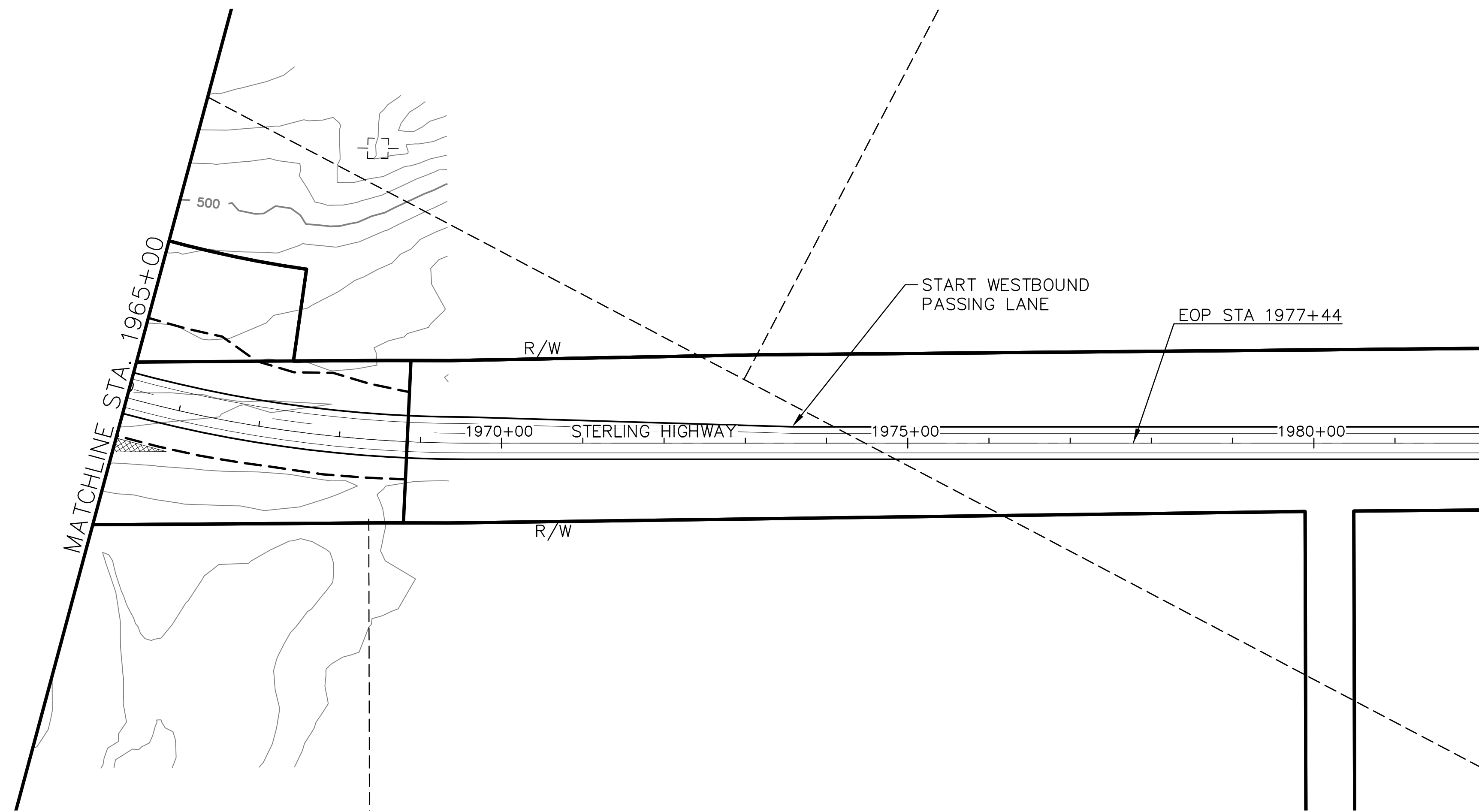


**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

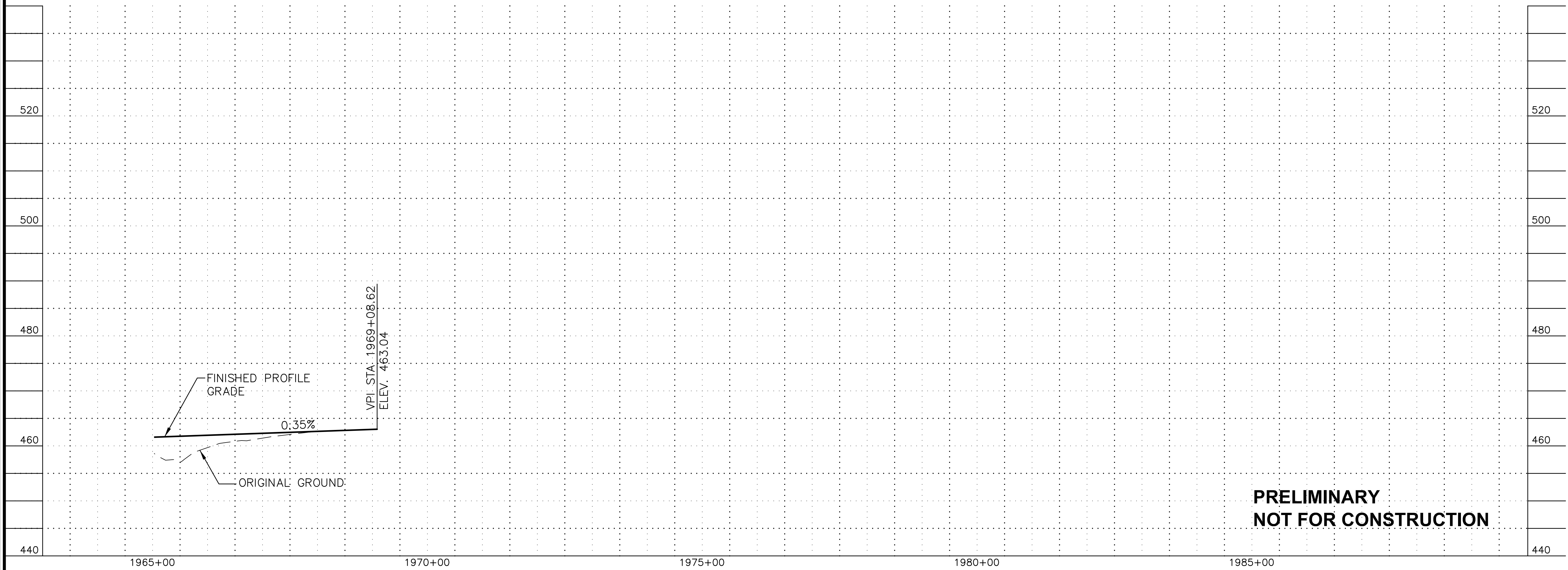
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE  
**PLAN AND PROFILE**  
**STA 1941+00 TO STA 1965+00**



SRB DRAFTED JW CHECKED JB DESIGNED F32 LAYOUT 8/17/2018 12:21 PM DATE/TIME F32 8/17/2018 12:21 PM LAYOUT



NOTE:  
ADDITIONAL SURVEY DATA TO BE  
COLLECTED PRIOR TO DESIGN

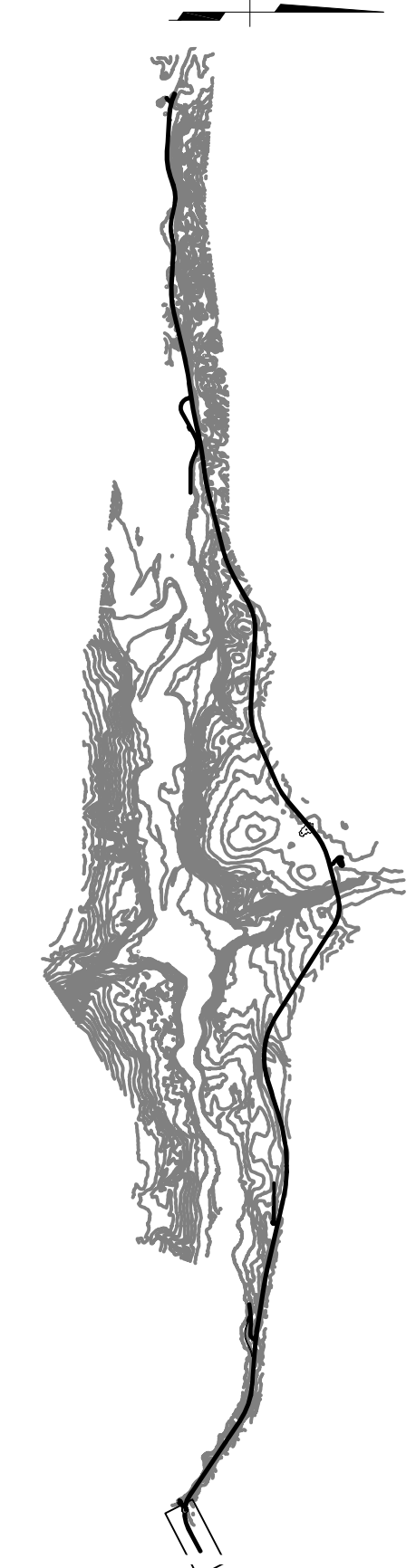


**PRELIMINARY  
NOT FOR CONSTRUCTION**

SHEET NO.	TOTAL SHEETS
F32	F32
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
**F-021-2(15)/  
53014**

NO.	REVISION

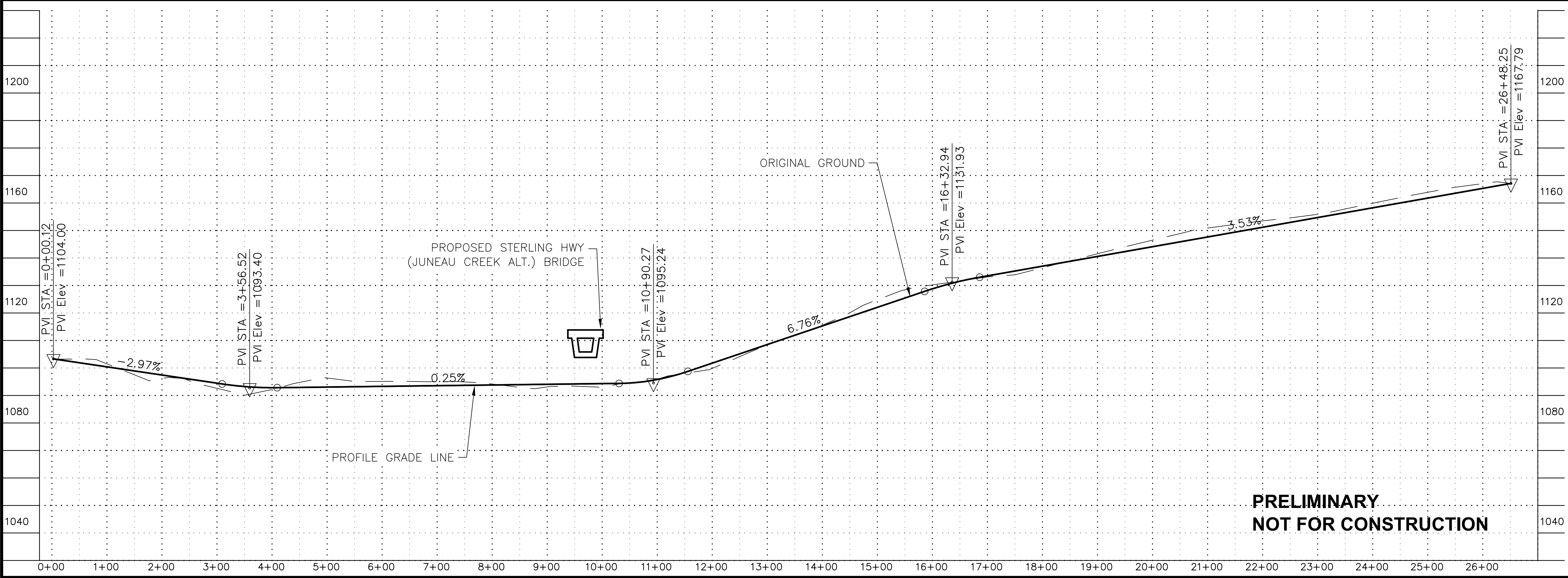
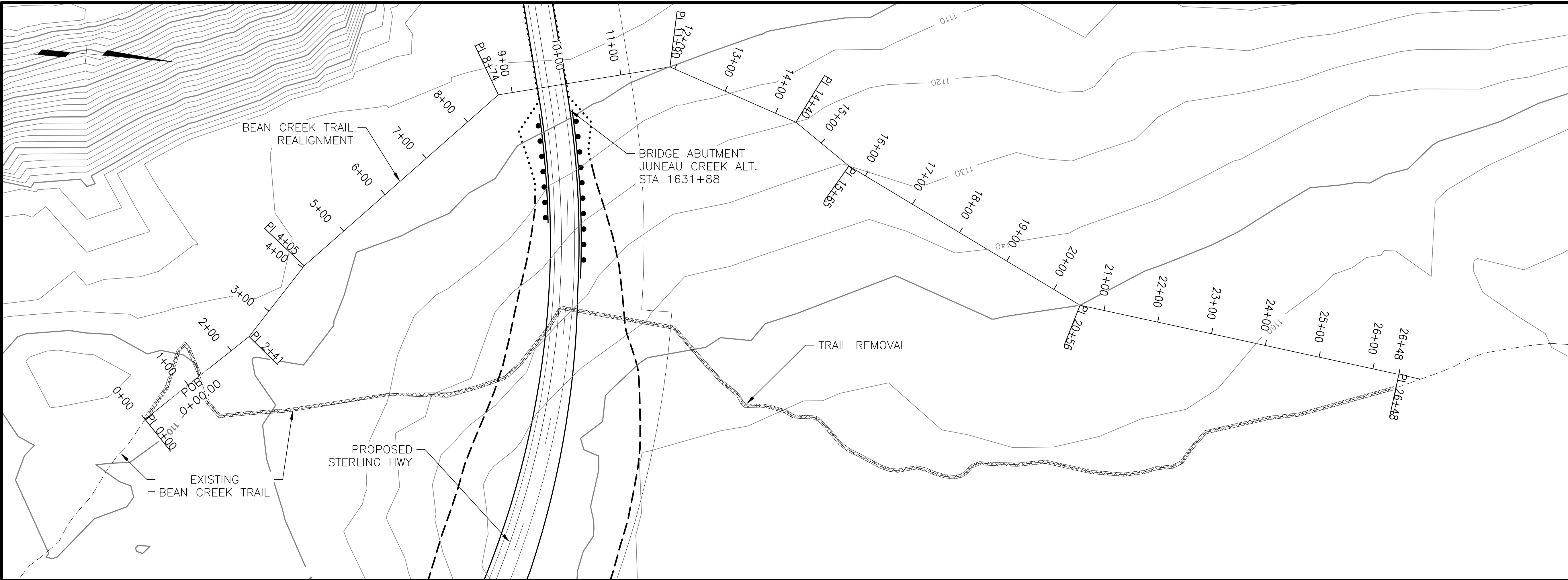


**HDR, Inc.**  
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ANCHORAGE, AK 99503  
(907) 644-2000

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
**STERLING HIGHWAY  
M.P. 45-60  
JUNEAU CREEK  
ALTERNATIVE**  
**PLAN AND PROFILE  
STA 1965+00 TO STA 1985+00**



FILE C:\PWORKING\SEA\1748762\_4800-F-001.DWG DATE/TIME 8/17/2018 12:56 PM LAYOUT G1 DESIGNED JB CHECKED JW DRAFTED SRB

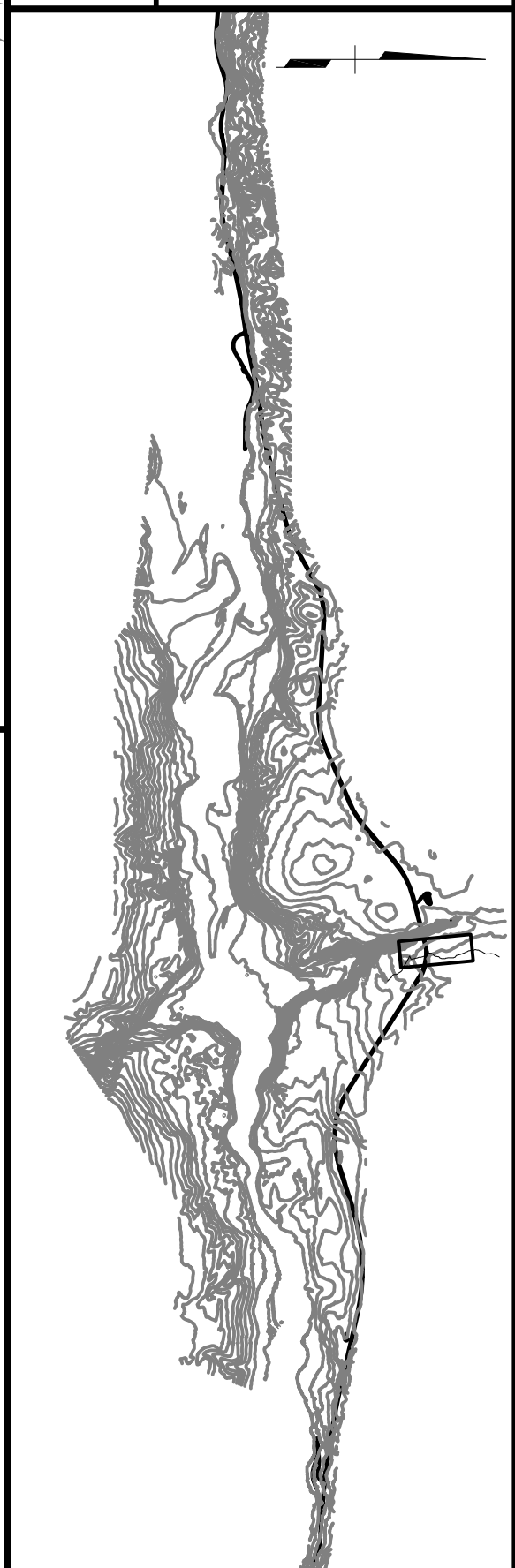


**PRELIMINARY  
NOT FOR CONSTRUCTION**

SHEET NO.	TOTAL SHEETS
G1	G8
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
**F-021-2(15)/  
53014**

NO.	REVISION



**HDR, Inc.**  
2525 C STREET, STE. 500  
ANCHORAGE, AK 99503  
(907) 644-2000

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
**STERLING HIGHWAY  
M.P. 45-60  
JUNEAU CREEK  
ALTERNATIVE  
BEAN CREEK TRAIL  
PLAN AND PROFILE**

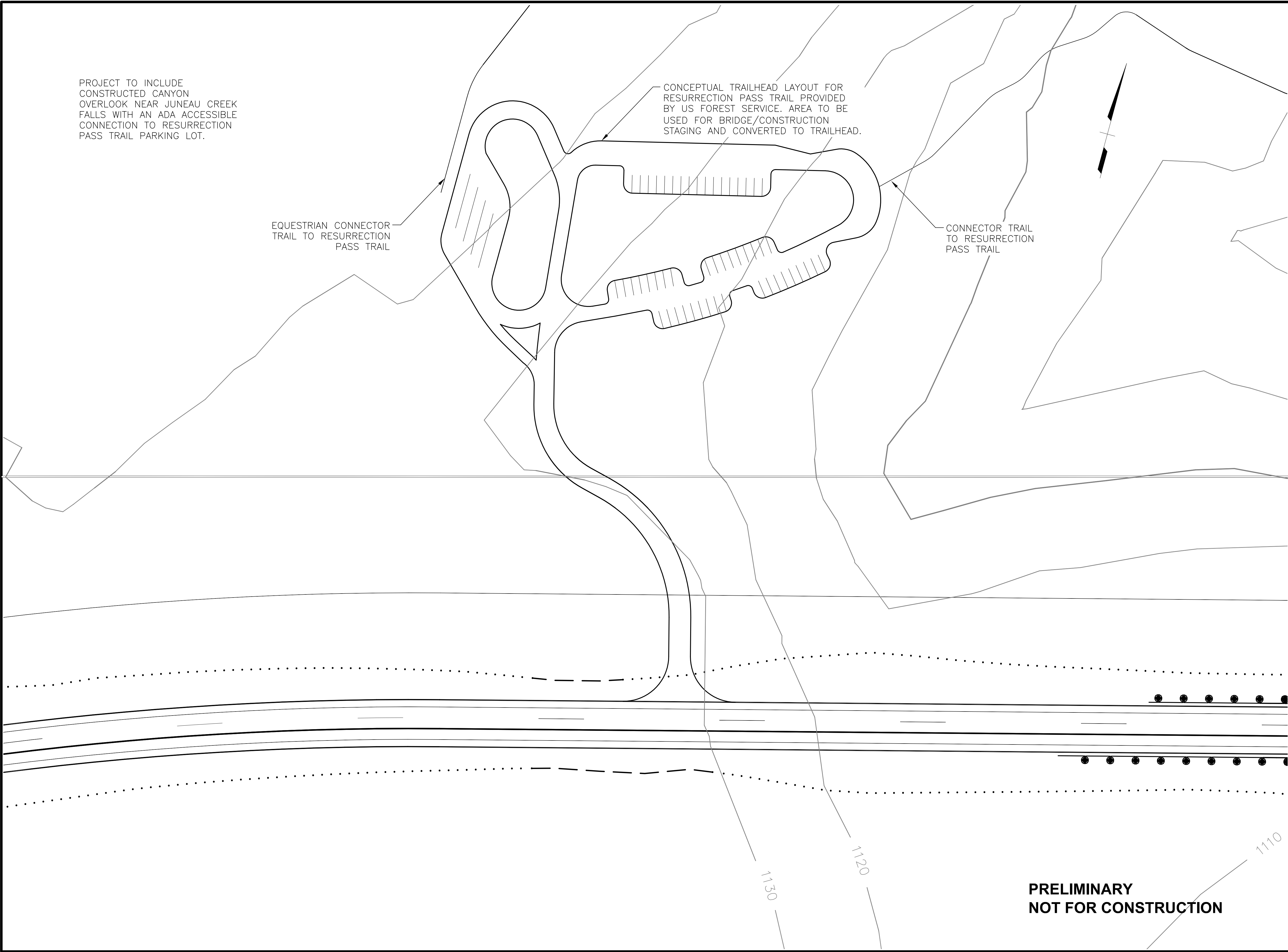
FILE C:\PWORKING\SEA\DT1748762\4800-F-001.DWG DATE/TIME 8/17/2018 12:29 PM LAYOUT G2 DESIGNED JB CHECKED JW DRAFTED SRB

PROJECT TO INCLUDE CONSTRUCTED CANYON OVERLOOK NEAR JUNEAU CREEK FALLS WITH AN ADA ACCESSIBLE CONNECTION TO RESURRECTION PASS TRAIL PARKING LOT.

EQUESTRIAN CONNECTOR TRAIL TO RESURRECTION PASS TRAIL

CONCEPTUAL TRAILHEAD LAYOUT FOR RESURRECTION PASS TRAIL PROVIDED BY US FOREST SERVICE. AREA TO BE USED FOR BRIDGE/CONSTRUCTION STAGING AND CONVERTED TO TRAILHEAD.

CONNECTOR TRAIL TO RESURRECTION PASS TRAIL



**PRELIMINARY  
NOT FOR CONSTRUCTION**

SHEET NO.	TOTAL SHEETS
<b>G2</b>	<b>G8</b>
STATE	YEAR
<b>ALASKA</b>	<b>2018</b>
PROJECT DESIGNATION	
<b>F-021-2(15)/53014</b>	
NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

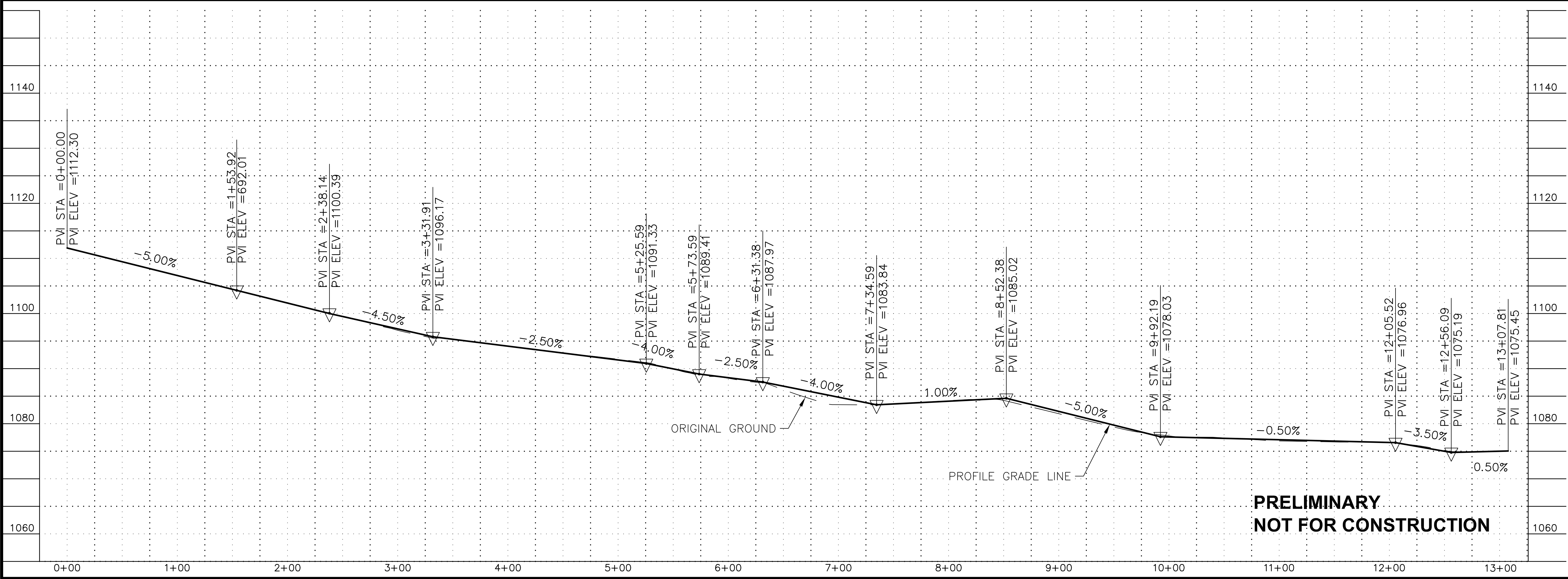
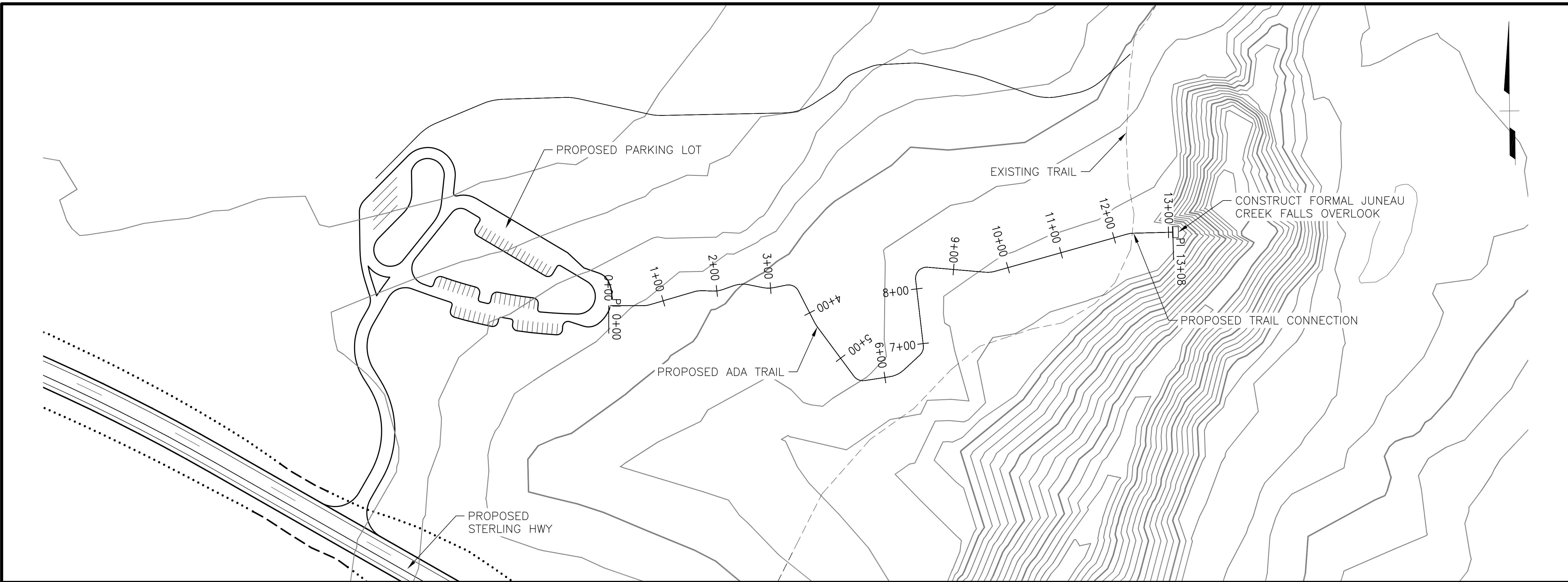


**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES

**STERLING HIGHWAY  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE  
 RESURRECTION TRAIL  
 RECREATION AREA**

FILE C:\PWORKING\SEA\1748762\_4800-F-001.DWG DATE/TIME 8/17/2018 12:10 PM LAYOUT G3 DESIGNED JW CHECKED JW DRAFTED SRB



**PRELIMINARY  
NOT FOR CONSTRUCTION**

SHEET NO.	TOTAL SHEETS
G3	G8
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
**F-021-2(15)/  
53014**

NO.	REVISION

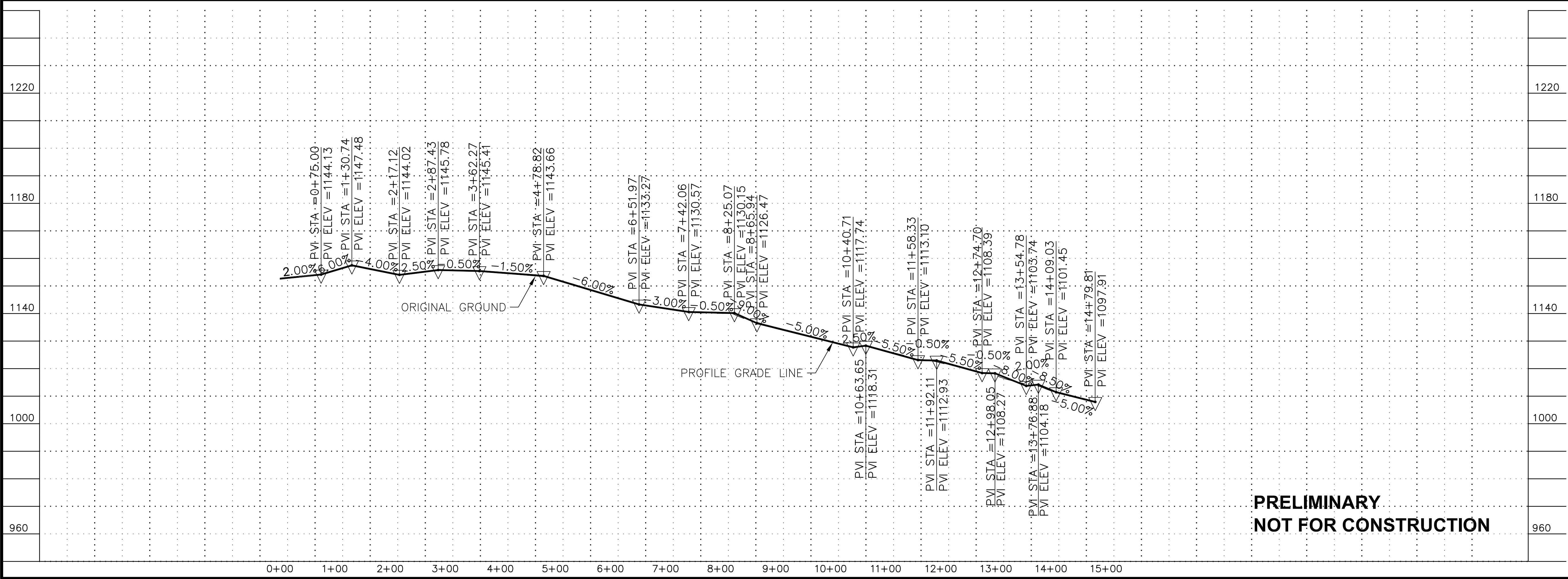
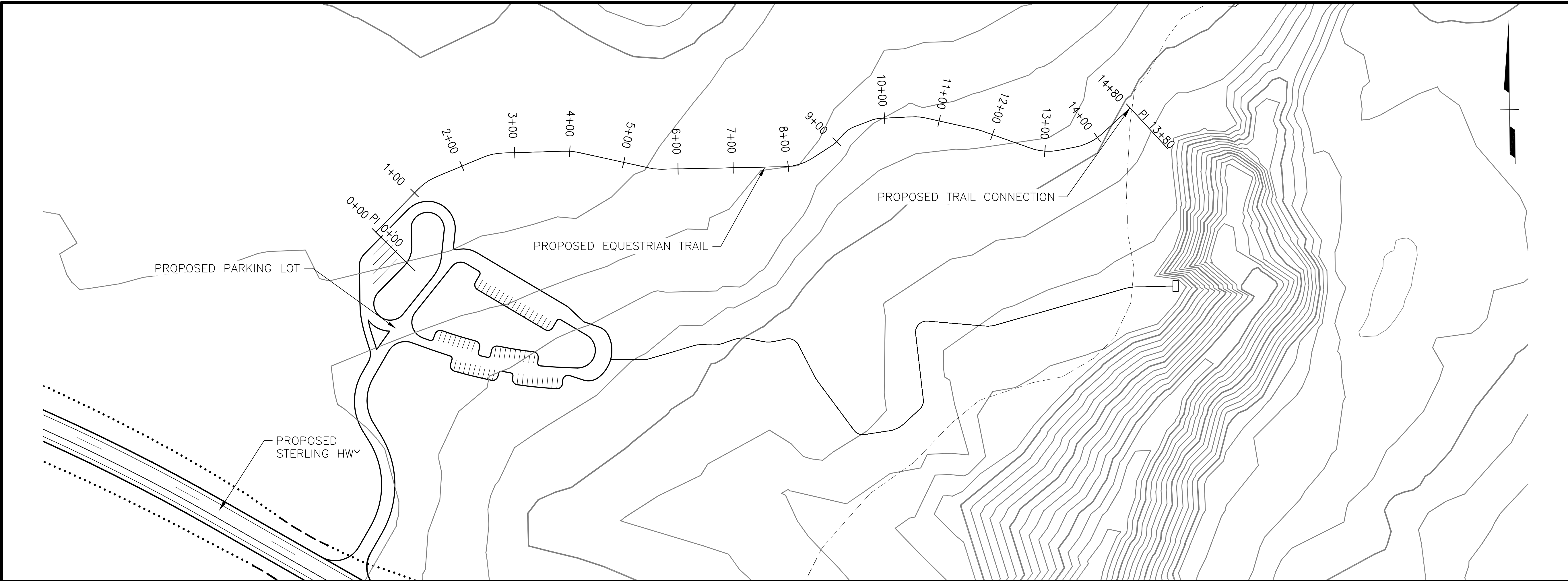


**HDR, Inc.**  
2525 C STREET, STE. 500  
ANCHORAGE, AK 99503  
(907) 644-2000

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
**STERLING HIGHWAY  
M.P. 45-60  
JUNEAU CREEK  
ALTERNATIVE  
ADA TRAIL  
PLAN AND PROFILE**



FILE C:\PWORKING\SEA\1748762\4800-F-001.DWG DATE/TIME 8/17/2018 12:10 PM [LAYOUT] G4 [DESIGNED] JB [CHECKED] JW [DRAFTED] SRB



**PRELIMINARY  
NOT FOR CONSTRUCTION**

SHEET NO.	TOTAL SHEETS
G4	G8
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
**F-021-2(15)/  
53014**

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



**HDR, Inc.**  
2525 C STREET, STE. 500  
ANCHORAGE, AK 99503  
(907) 644-2000

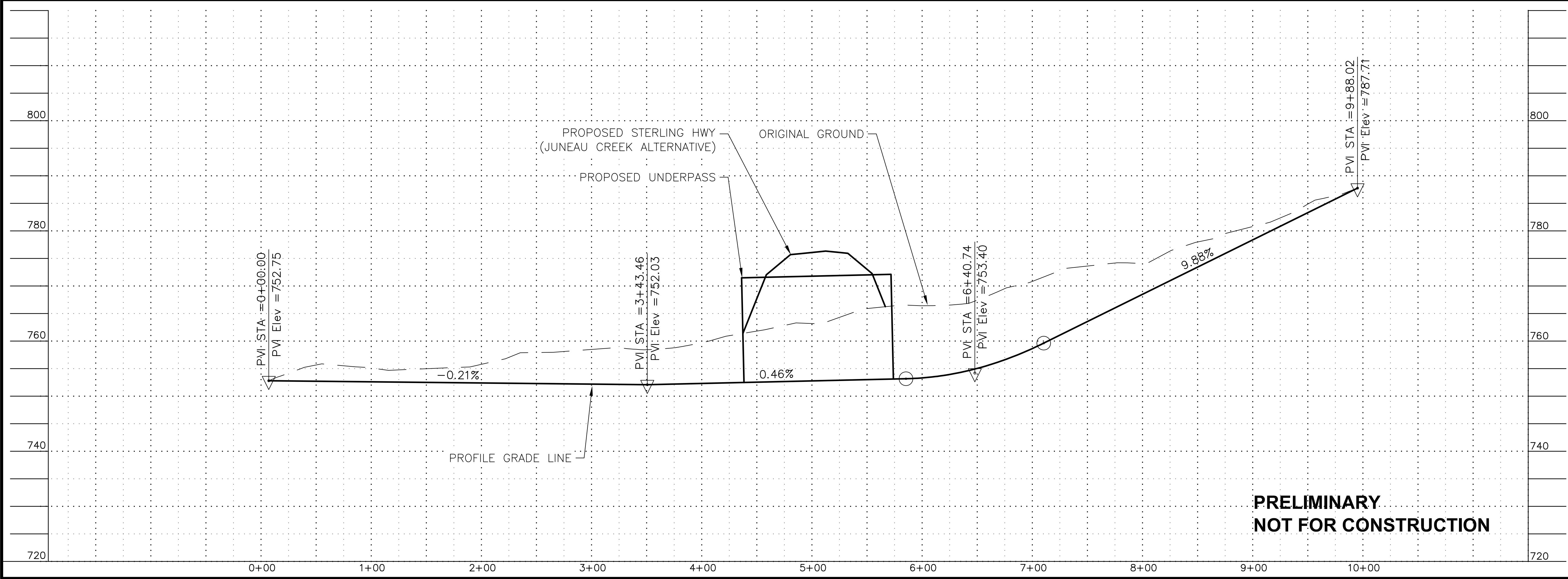
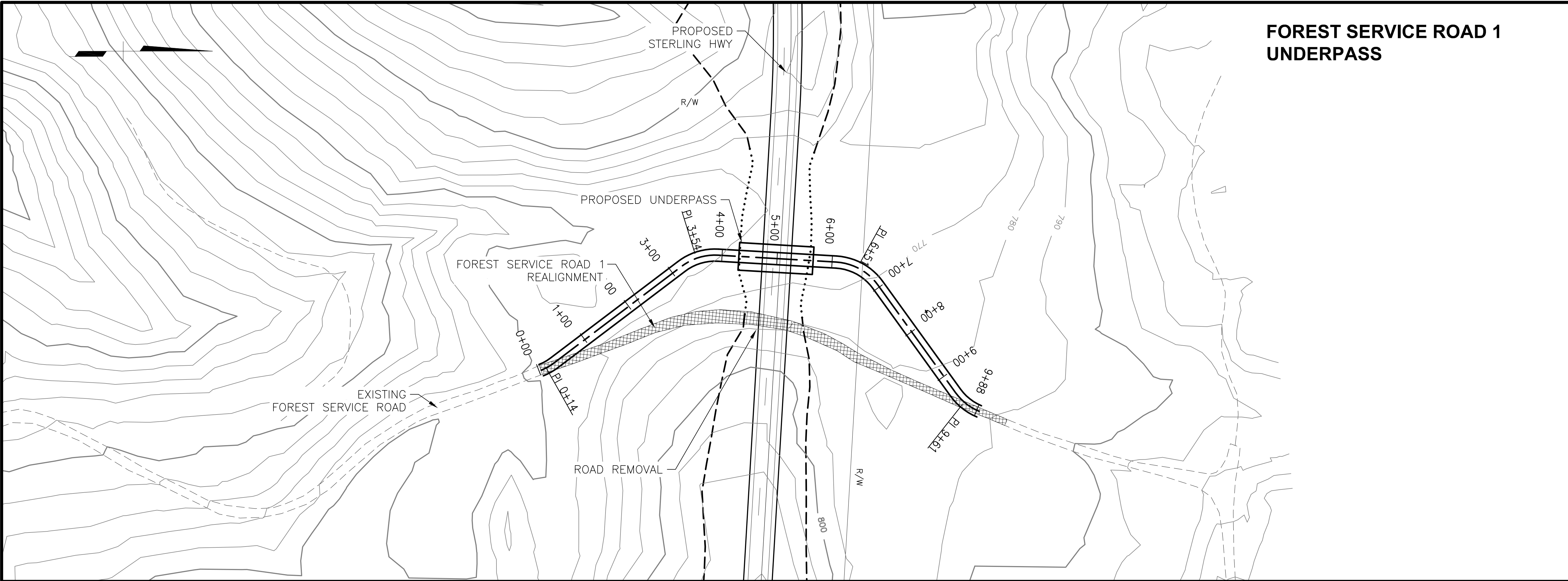
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

**STERLING HIGHWAY  
M.P. 45-60  
JUNEAU CREEK  
ALTERNATIVE  
EQUESTRIAN TRAIL  
PLAN AND PROFILE**

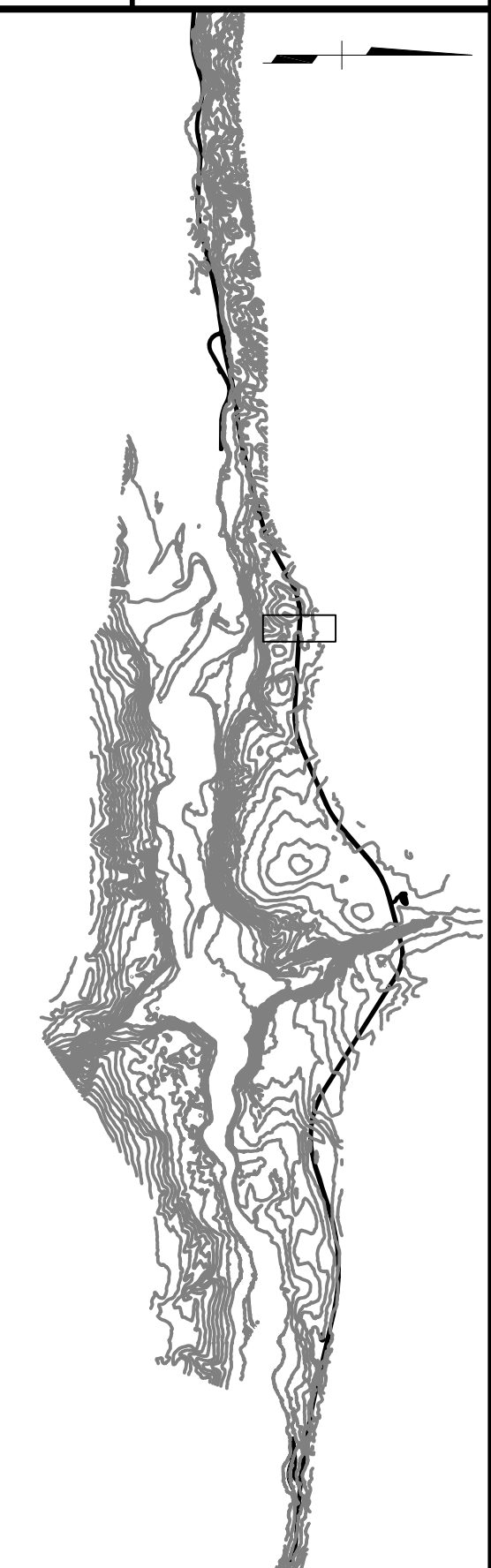
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DRAFTED  
JW  
CHECKED  
JB  
DESIGNED  
GS  
LAYOUT  
PM 12:10  
8/17/2018  
DATE/TIME  
F-601.DWG  
SEA\DT1748762\4800-F-601.DWG

# FOREST SERVICE ROAD 1 UNDERPASS

SHEET NO.	TOTAL SHEETS
G5	G8
STATE	YEAR
ALASKA	2018
PROJECT DESIGNATION	
F-021-2(15)/53014	
NO.	REVISION
NO.	REVISION
NO.	REVISION
NO.	REVISION



**PRELIMINARY  
NOT FOR CONSTRUCTION**



**HDR, Inc.**  
2525 C STREET, STE. 500  
ANCHORAGE, AK 99503  
(907) 644-2000

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

**STERLING HIGHWAY  
M.P. 45-60  
JUNEAU CREEK  
ALTERNATIVE  
FOREST SERVICE ROAD 1  
PLAN AND PROFILE**

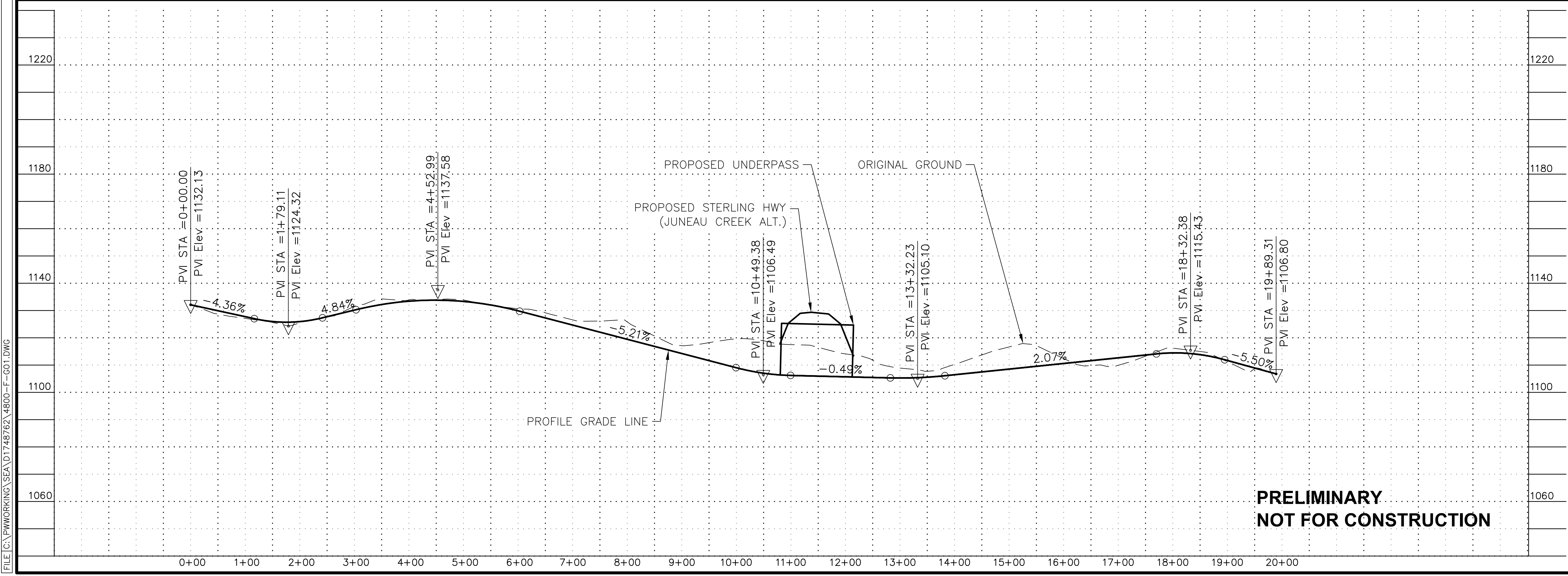
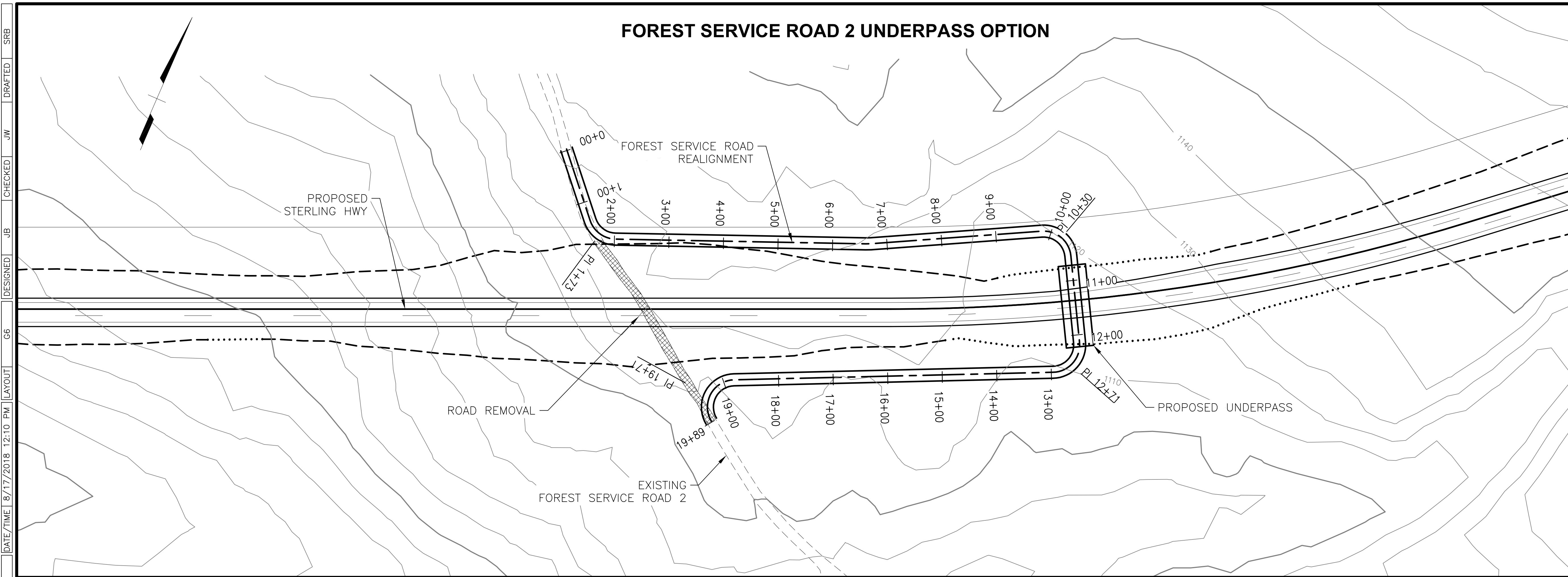


# FOREST SERVICE ROAD 2 UNDERPASS OPTION

SHEET NO.	TOTAL SHEETS
G6	G8
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
**F-021-2(15)/53014**

NO.	REVISION



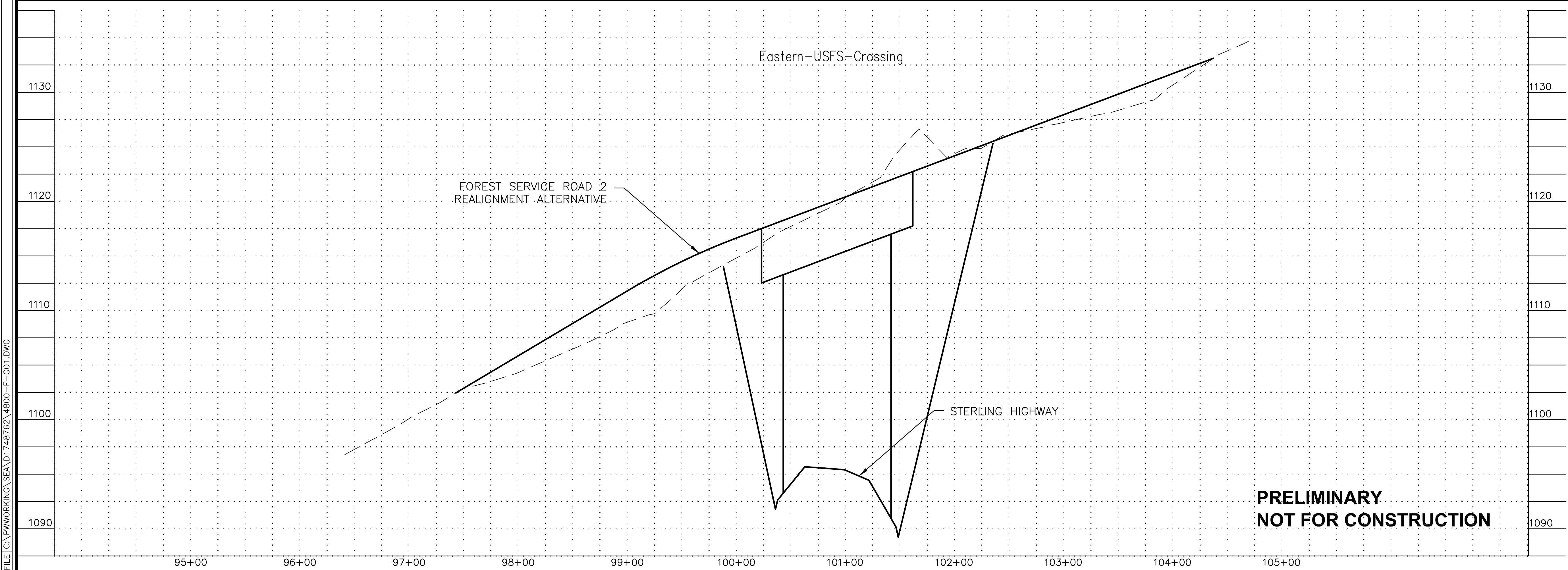
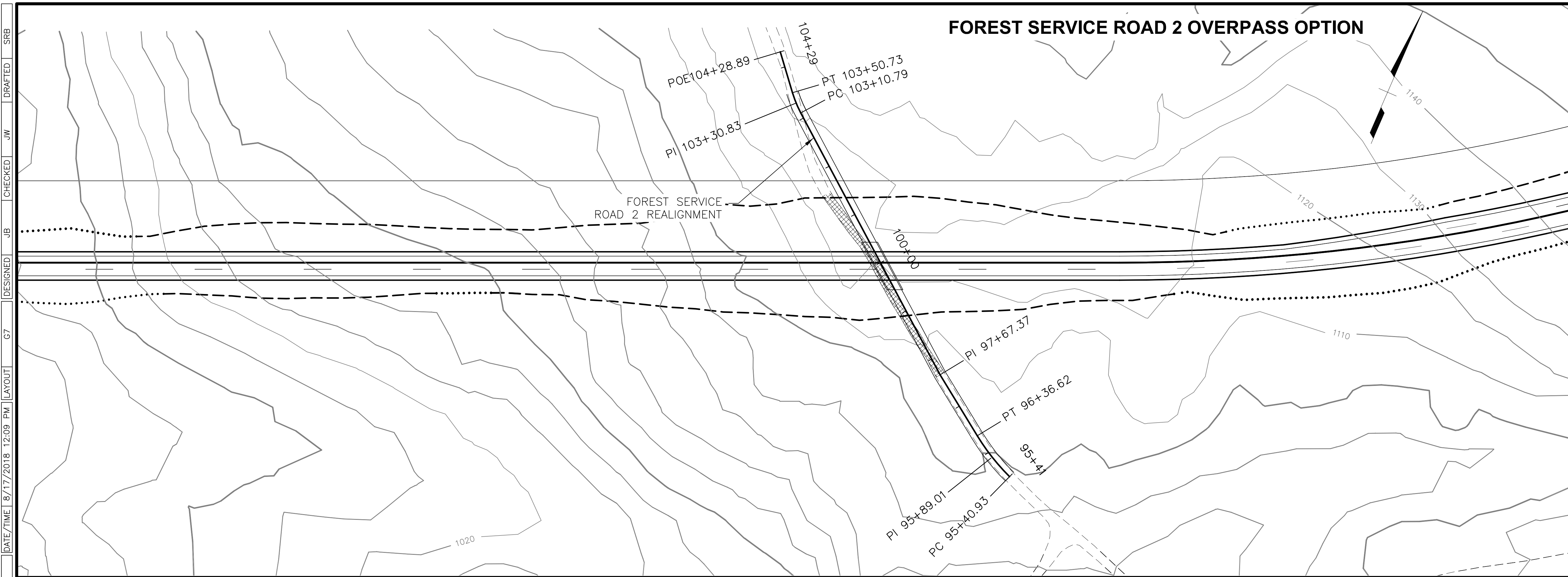
**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE  
 FOREST SERVICE  
 ROAD 2 UNDERPASS  
 PLAN AND PROFILE

**PRELIMINARY  
 NOT FOR CONSTRUCTION**

FILE C:\PWORKING\SEA\1748762\_4800-F-001.DWG  
 DATE/TIME 8/17/2018 12:10 PM  
 LAYOUT G6  
 DESIGNED JB  
 CHECKED JW  
 DRAFTED SRB

# FOREST SERVICE ROAD 2 OVERPASS OPTION



**PRELIMINARY  
NOT FOR CONSTRUCTION**

SHEET NO.	TOTAL SHEETS
G7	G8
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
**F-021-2(15)/  
53014**

NO.	REVISION
NO.	REVISION
NO.	REVISION
NO.	REVISION



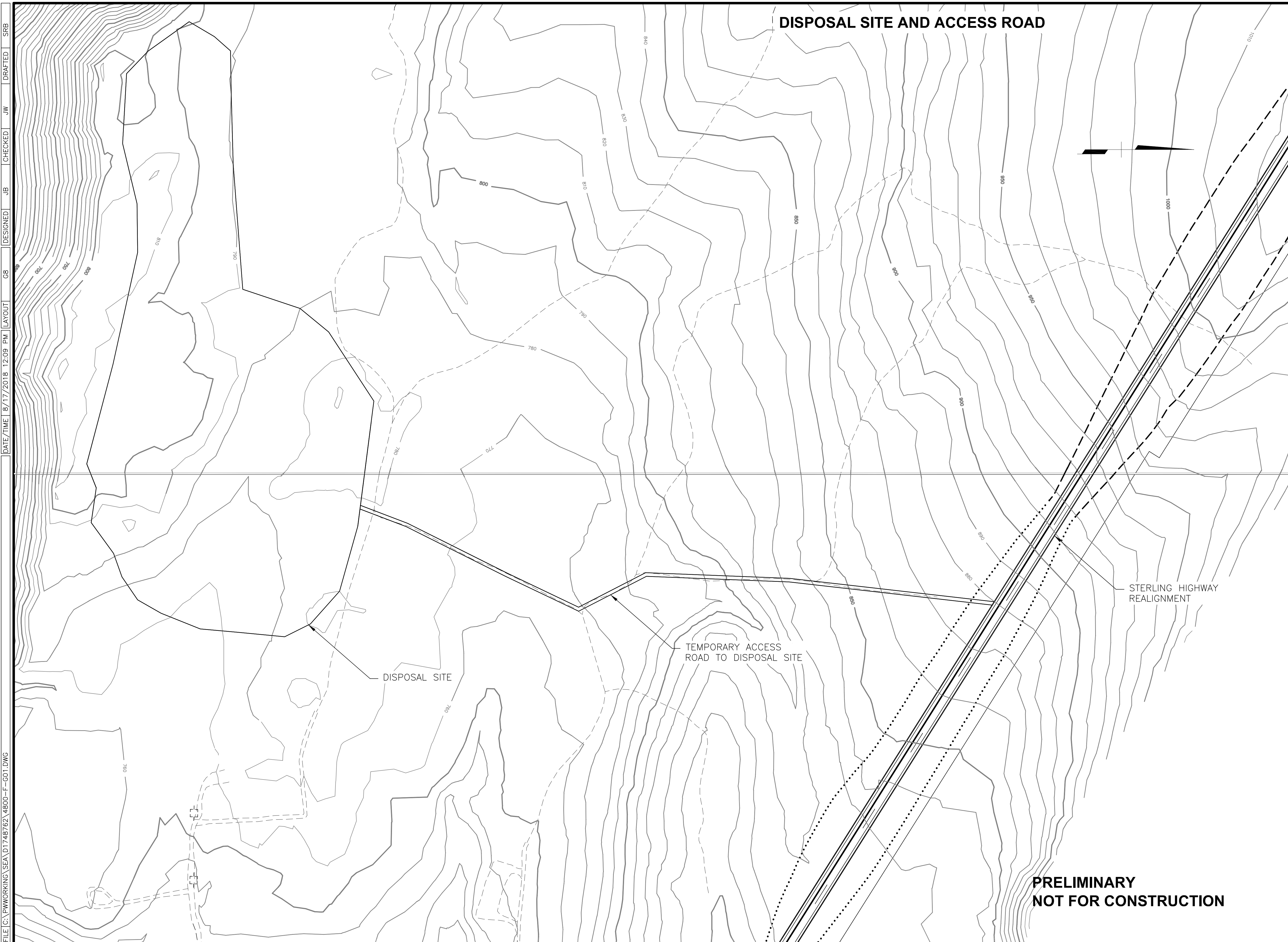
**HDR, Inc.**  
2525 C STREET, STE. 500  
ANCHORAGE, AK 99503  
(907) 644-2000

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
**STERLING HIGHWAY  
M.P. 45-60  
JUNEAU CREEK  
ALTERNATIVE  
FOREST SERVICE ALIGNMENT  
OVERPASS ALTERNATIVE**

SRB DRAFTED JW CHECKED JB DESIGNED G7 DATE/TIME 8/17/2018 12:09 PM LAYOUT

FILE C:\PWORKING\SEA\DT1748762\_4800-F-001.DWG

**DISPOSAL SITE AND ACCESS ROAD**



SHEET NO.	TOTAL SHEETS
G8	G8
STATE	YEAR
ALASKA	2018

PROJECT DESIGNATION  
**F-021-2(15)/53014**

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



**HDR, Inc.**  
 2525 C STREET, STE. 500  
 ANCHORAGE, AK 99503  
 (907) 644-2000

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**STERLING HIGHWAY**  
 M.P. 45-60  
 JUNEAU CREEK  
 ALTERNATIVE  
 DISPOSAL SITE AND  
 ACCESS ROAD

**PRELIMINARY  
 NOT FOR CONSTRUCTION**

FILE C:\PWORKING\SEA\DT1748762\_4800-F-001.DWG DATE/TIME 8/17/2018 12:09 PM [LAYOUT] G8 [DESIGNED] JB [CHECKED] JW [DRAFTED] SRB

## **Juneau Creek Variant Alternative**

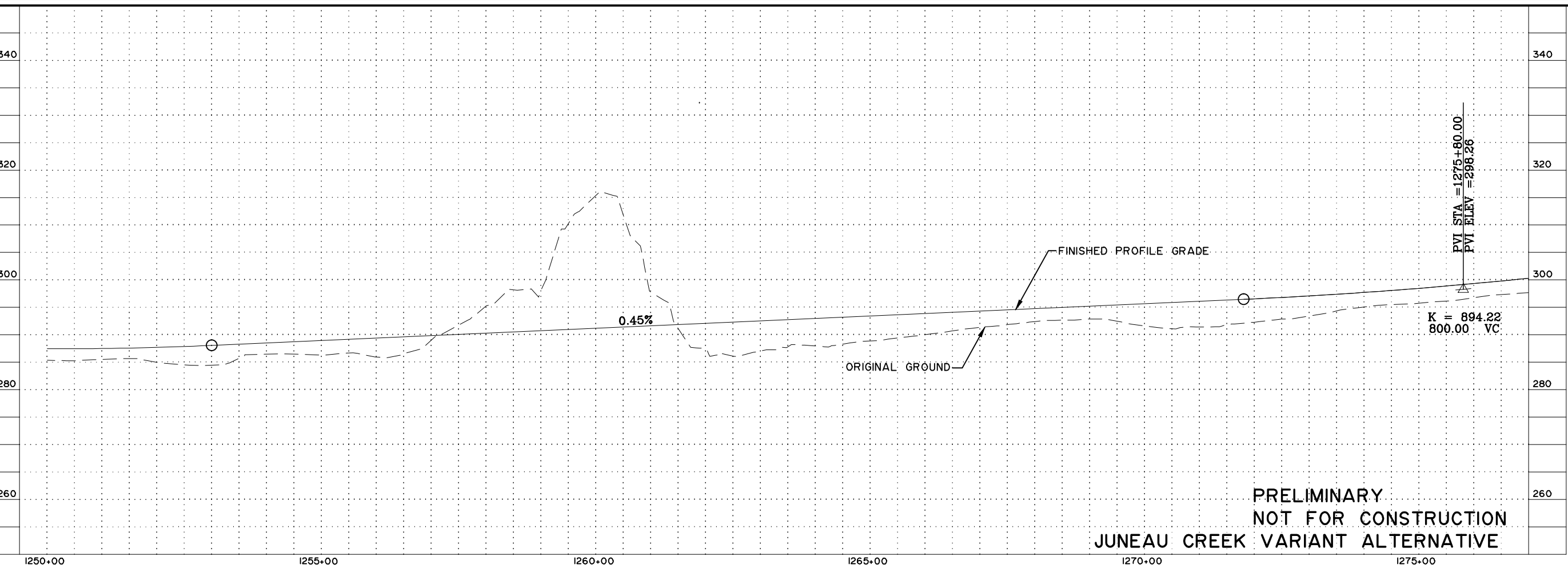
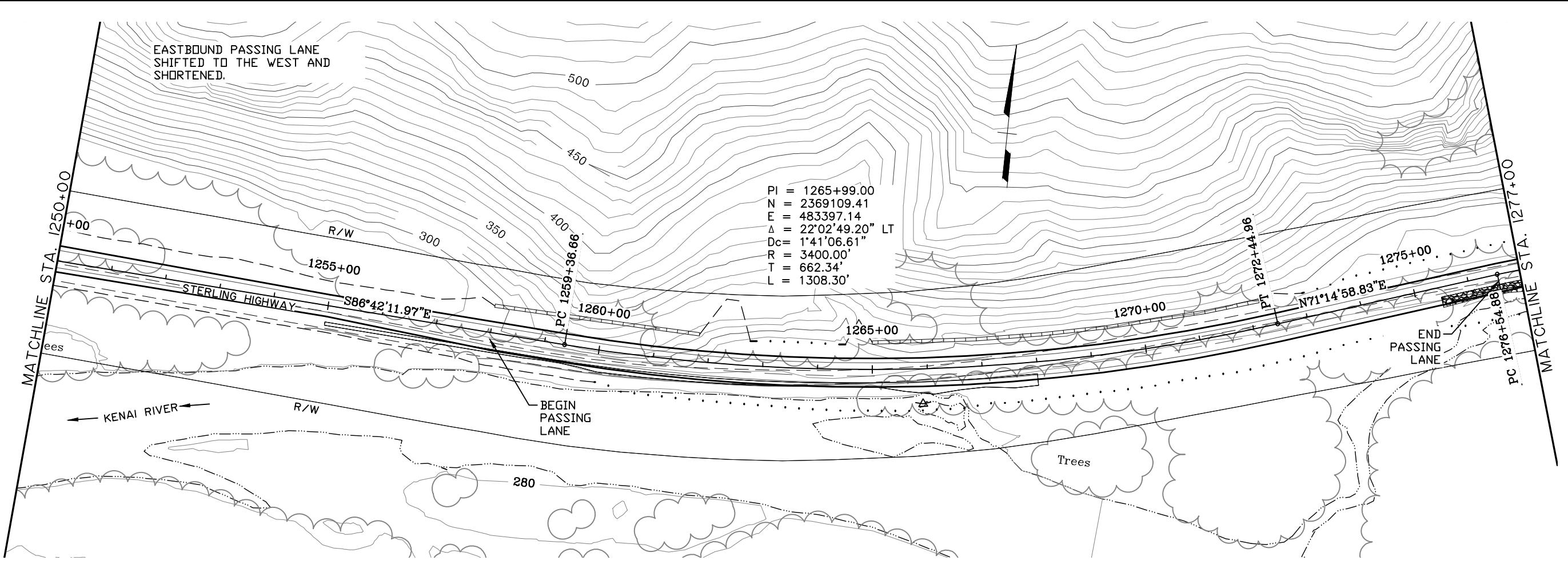
Updated Plan and Profile Sheets



DESIGNED BY: EPL  
 CHECKED BY: EPL  
 DRAFTER BY: SSB

SPECIFICATIONS  
 STANDARDS  
 REVISIONS  
 COMPUTER DESIGNATION  
 PROJECT: 04180001\_04180001\_Civil\_4800\_GS-F01\_H100\_03/15/06\_at\_10:39\_by\_omp

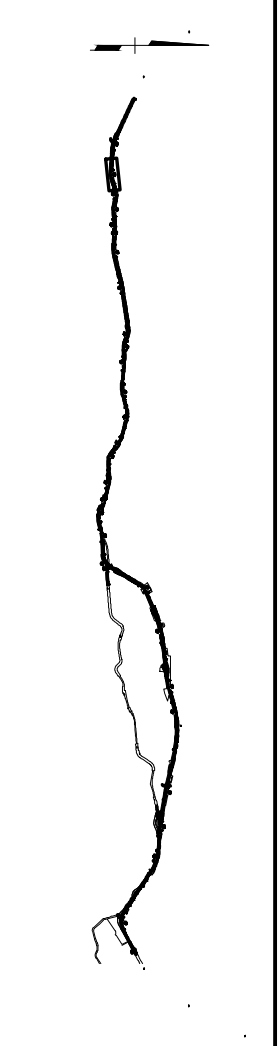
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 XREF: 4800-BD02\_4800-DESIGN-01\_4800-SURVEY-A-02-PP\_ROWBA



**PRELIMINARY  
 NOT FOR CONSTRUCTION**

**JUNEAU CREEK VARIANT ALTERNATIVE**

SHEET NO.	TOTAL SHEETS	
F2	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



**HDR ALASKA, Inc.**

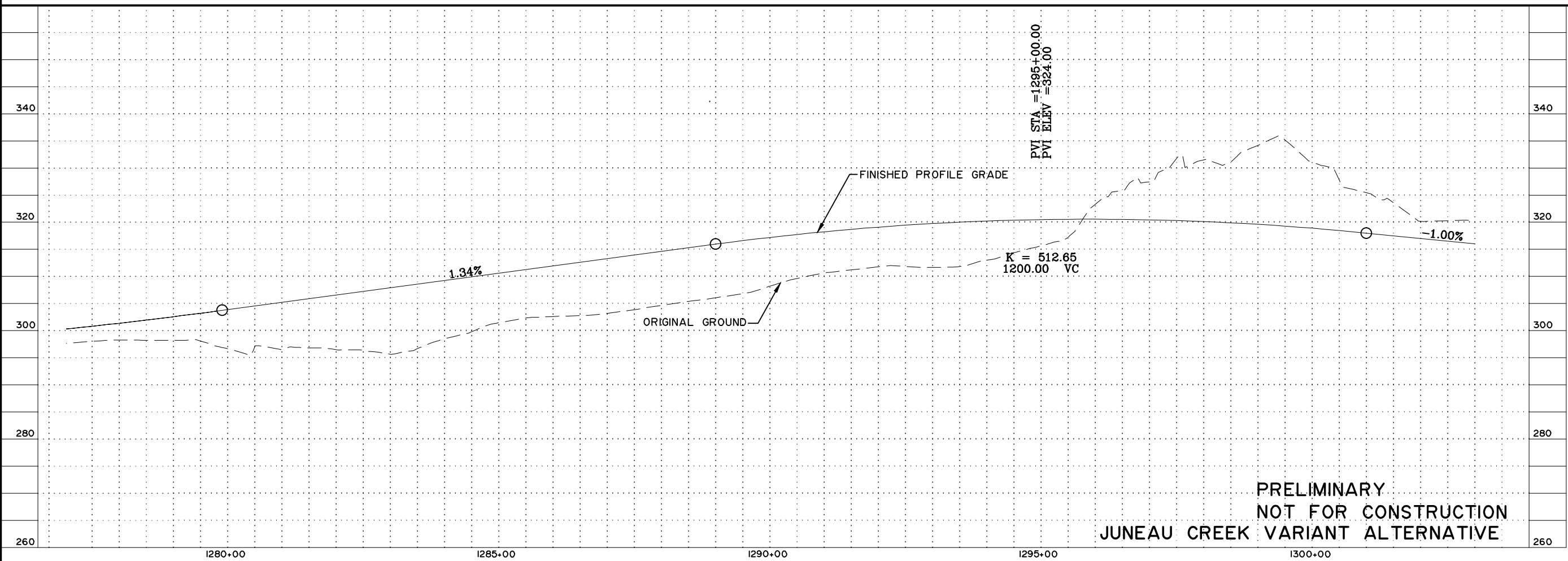
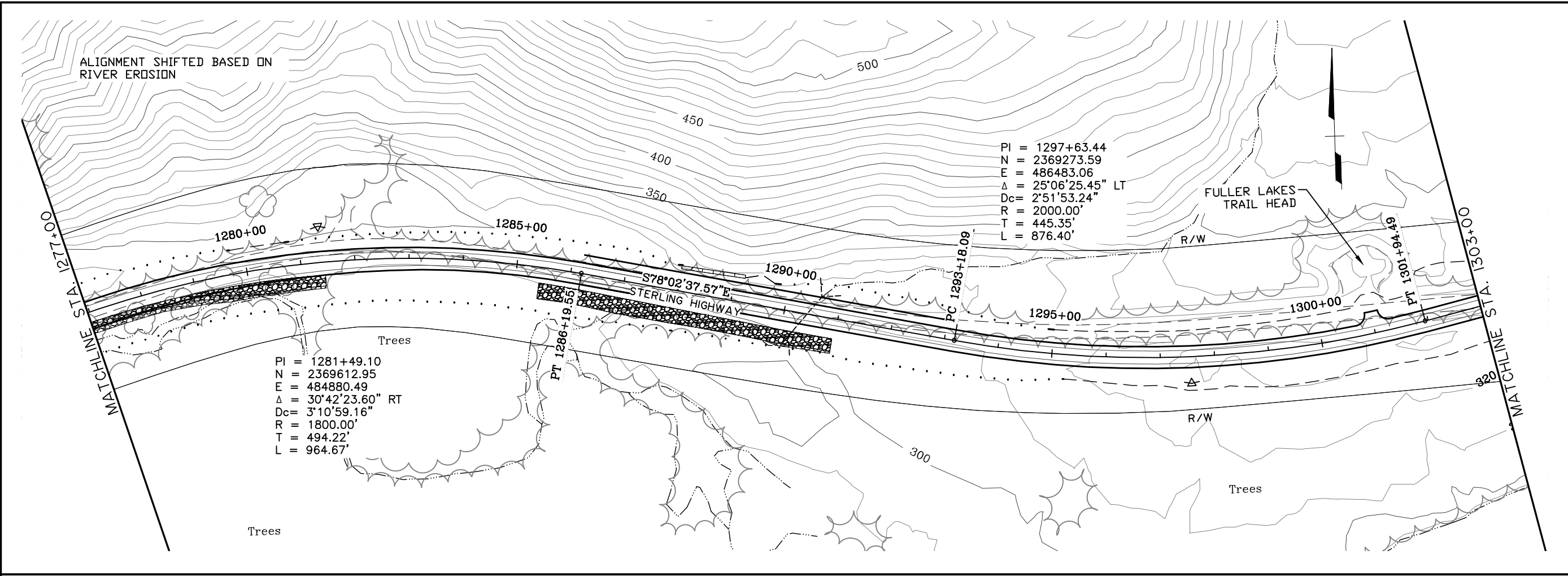
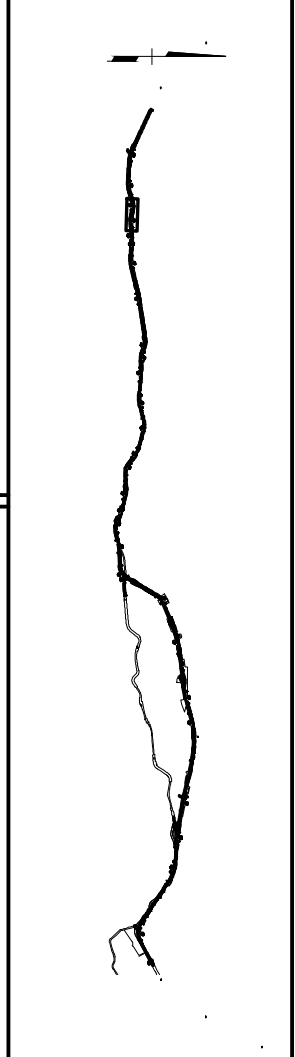
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES

**STERLING HIGHWAY  
 M.P. 45-60**

J.C. VARIANT 3  
 PLAN AND PROFILE  
 STA 1250+00 TO 1277+00



SHEET NO.	TOTAL SHEETS	
F3	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



PRELIMINARY  
NOT FOR CONSTRUCTION  
JUNEAU CREEK VARIANT ALTERNATIVE



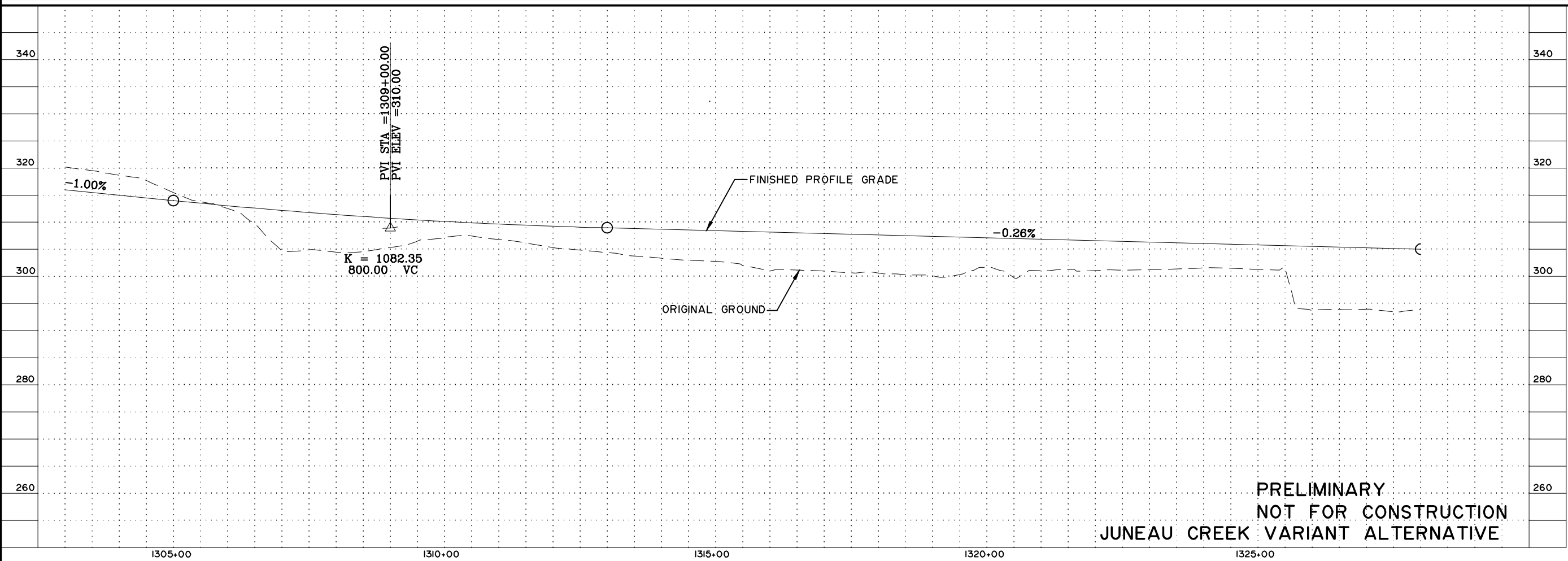
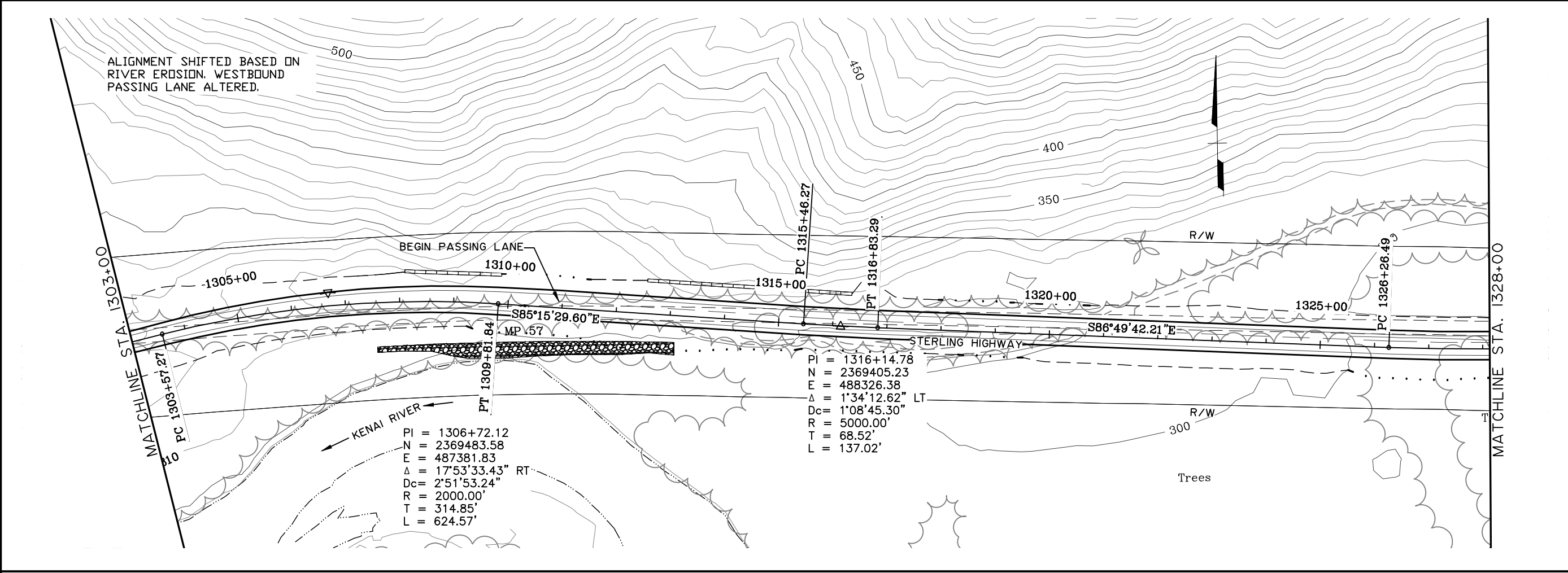
HDR ALASKA, Inc.  
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND  
PUBLIC FACILITIES  
STERLING HIGHWAY  
M.P. 45-60  
J.C. VARIANT 3  
PLAN AND PROFILE  
STA 1277+00 TO 1303+00

SPECIFICATIONS: 4800-BD02, 4800-DESIGN-01, 4800-SURVET, A-02-PP, ROWBA  
 STANDARDS: 4800-DESIGN-01, 4800-SURVET, A-02-PP, ROWBA  
 TITLES: 4800-DESIGN-01, 4800-SURVET, A-02-PP, ROWBA  
 DESIGNED BY: EPL  
 CHECKED BY: EPL  
 DRAWN BY: SSB  
 VIEW: 4800-F, D0765, 4800-DESIGN-01, 4800-SURVET, A-02-PP, ROWBA  
 XREF: 4800-BD02, 4800-DESIGN-01, 4800-SURVET, A-02-PP, ROWBA  
 PROJECT: 4800-DESIGN-01, 4800-SURVET, A-02-PP, ROWBA  
 DATE: 03/15/06 at 10:39 by amp

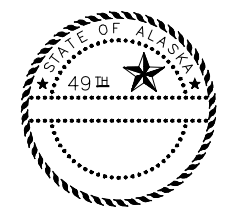
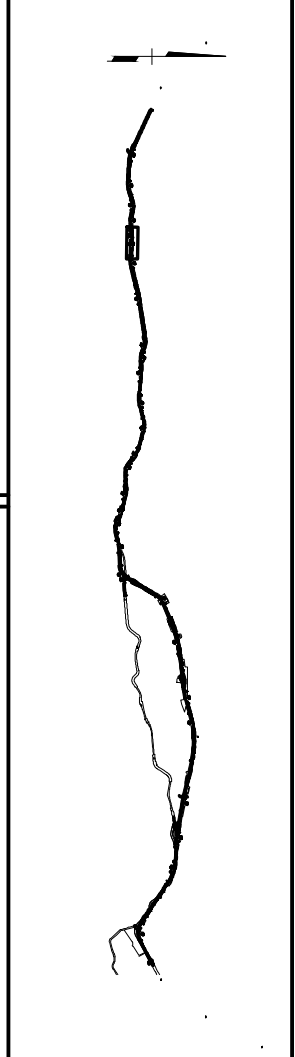
DESIGNED BY: EPL  
 CHECKED BY: EPL  
 DRAFTER BY: SBB

SPECIFICATIONS  
 STANDARDS  
 COMPUTER DESIGNATION  
 PROJECT: 0410418000\_Civil\_4800\_GS-F04\_H00\_03/15/06\_at\_10:39\_by\_omp

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SHEET NO.	TOTAL SHEETS	
F4	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



HDR ALASKA, Inc.

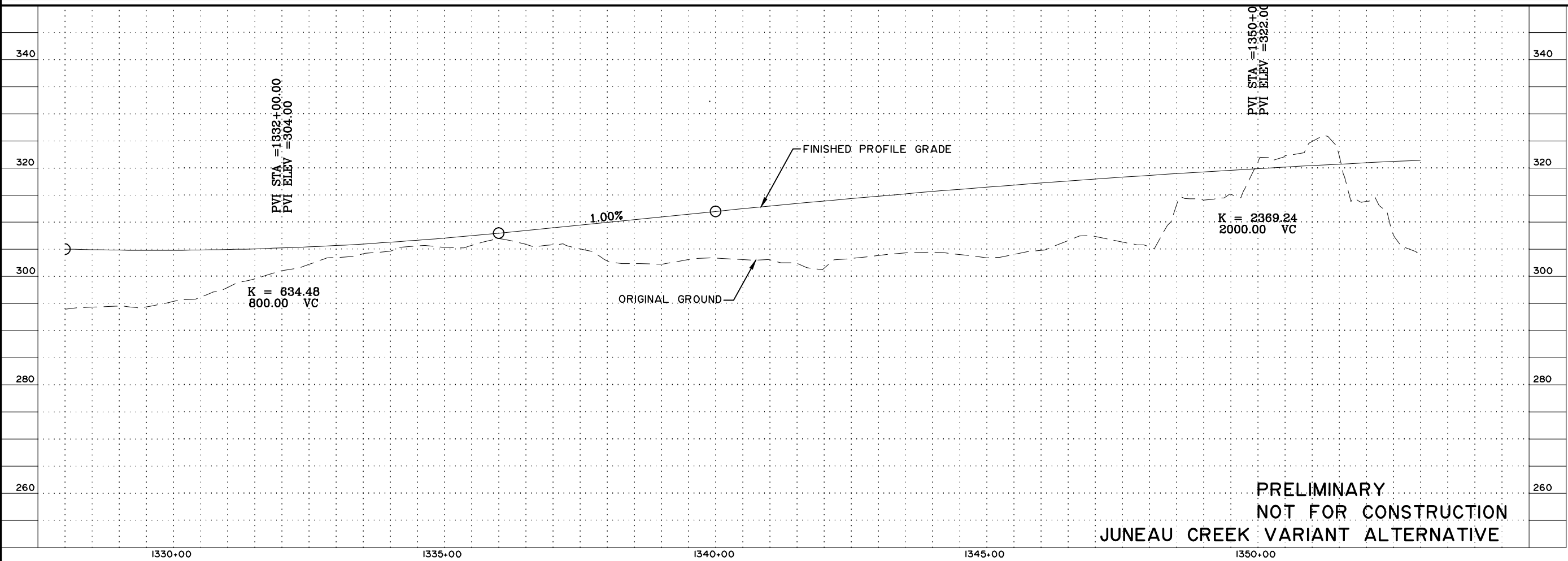
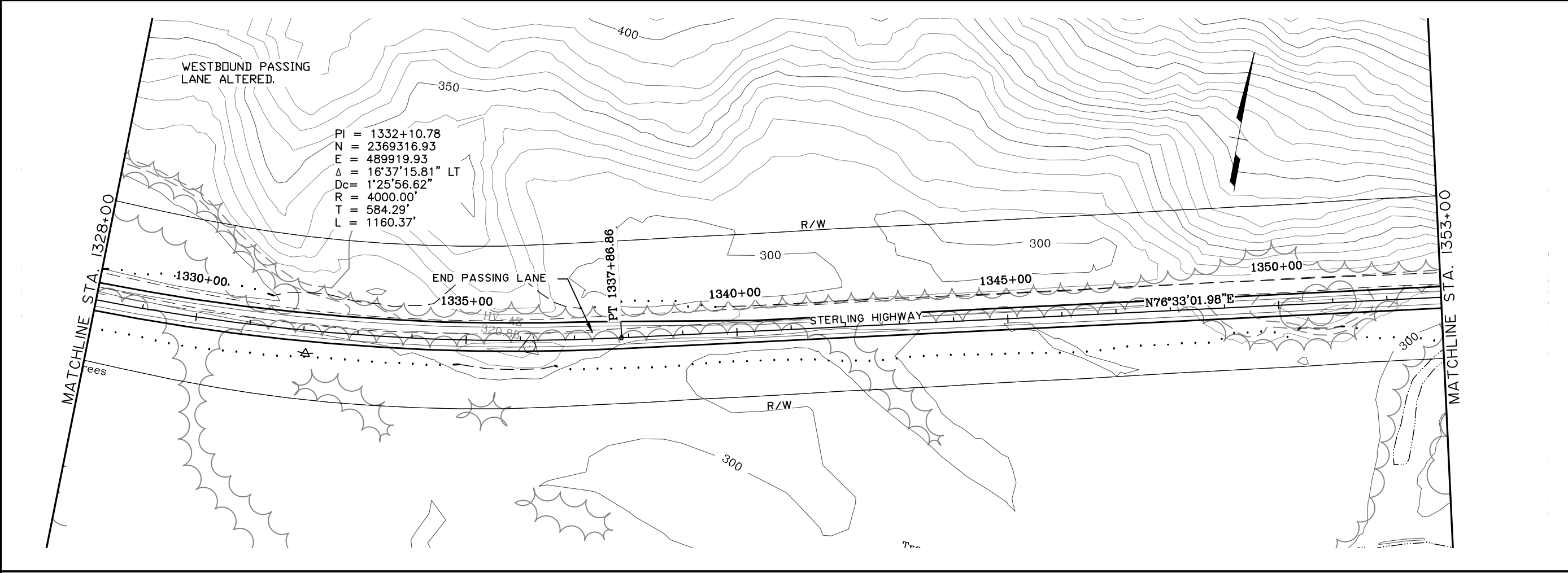
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES

STERLING HIGHWAY  
 M.P. 45-60

J.C. VARIANT 3  
 PLAN AND PROFILE  
 STA 1303+00 TO 1328+00

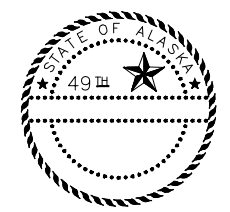
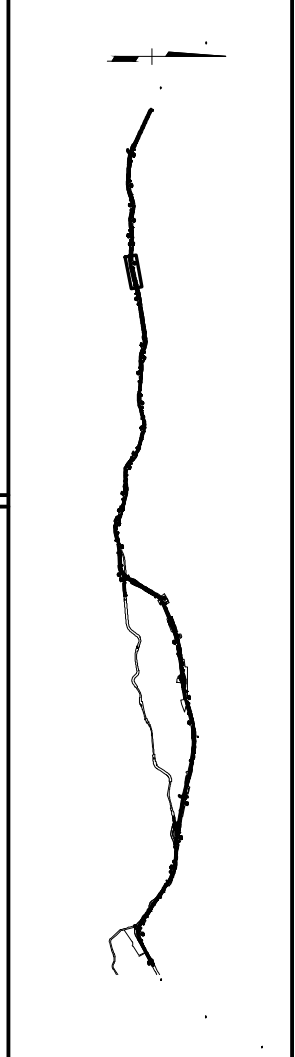
PRELIMINARY  
 NOT FOR CONSTRUCTION  
 JUNEAU CREEK VARIANT ALTERNATIVE

VIEW: GS-F05-F-00755\_GS-F05-F-00755\_GS-F05-F-00755\_H-10-500  
 XREF: 4800-BD02\_4800-DESIGN-01\_4800-SURVEY-A-02-PP\_ROWBA  
 SPECIFICATIONS  
 TITLES  
 DESIGNED BY  
 CHECKED BY  
 DRAFTER BY  
 PROJECT DESIGNATION  
 PROJECT NO.  
 DATE  
 DRAWN BY



**PRELIMINARY  
 NOT FOR CONSTRUCTION  
 JUNEAU CREEK VARIANT ALTERNATIVE**

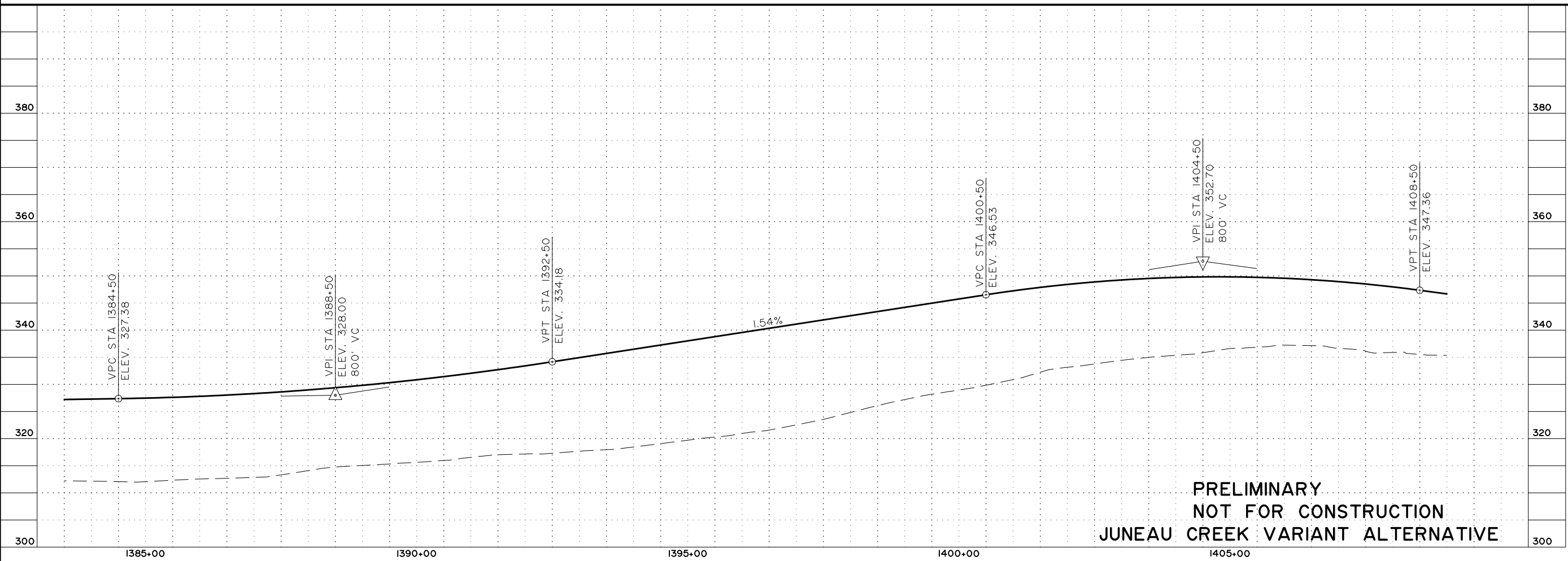
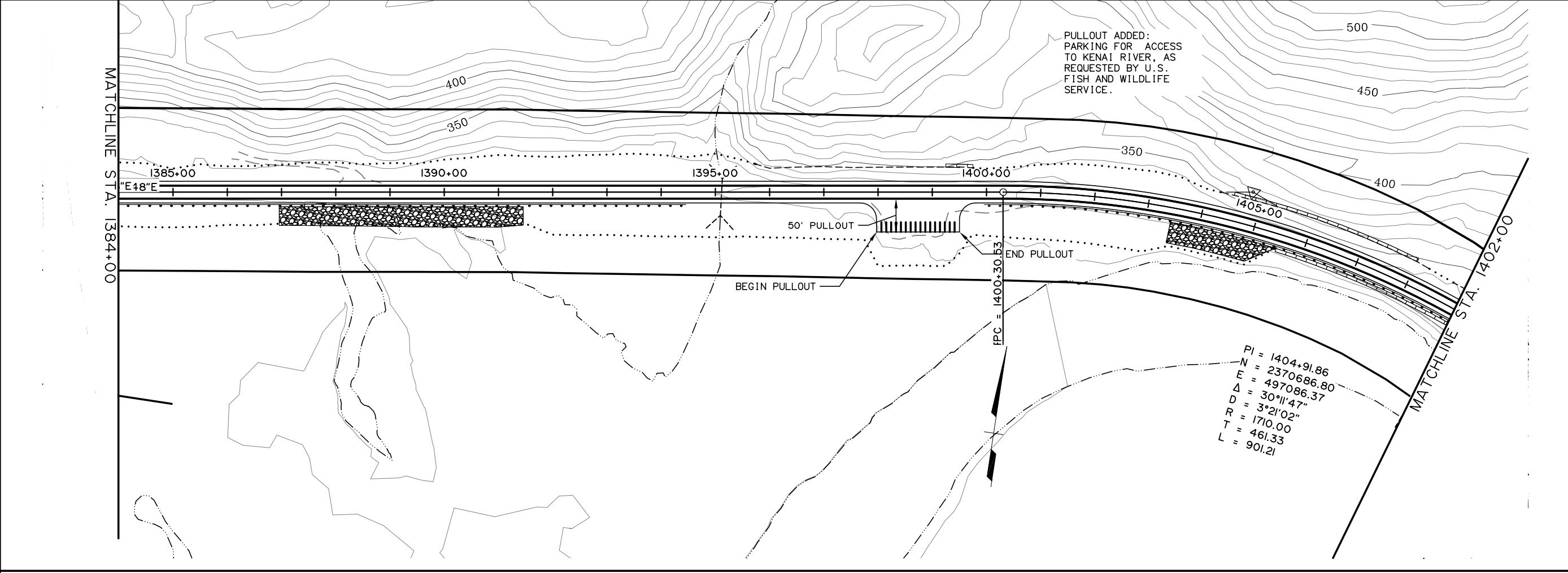
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F5	F34	
STATE	YEAR	
ALASKA	2014	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
**STERLING HIGHWAY  
 M.P. 45-60**  
 J.C. VARIANT 3  
 PLAN AND PROFILE  
 STA 1328+00 TO 1353+00

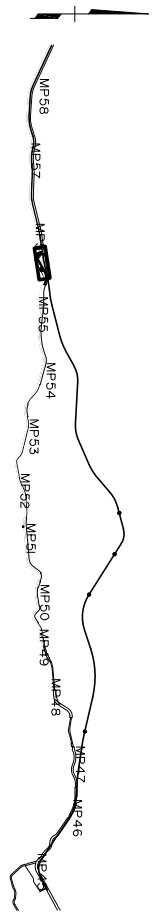
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SPECIFICATIONS  
 DESIGNED BY: EPL  
 DRAFTED BY: GDB



PRELIMINARY  
 NOT FOR CONSTRUCTION  
 JUNEAU CREEK VARIANT ALTERNATIVE

SHEET NO.	TOTAL SHEETS	
F8	F32	
STATE	YEAR	
ALASKA	2016	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION

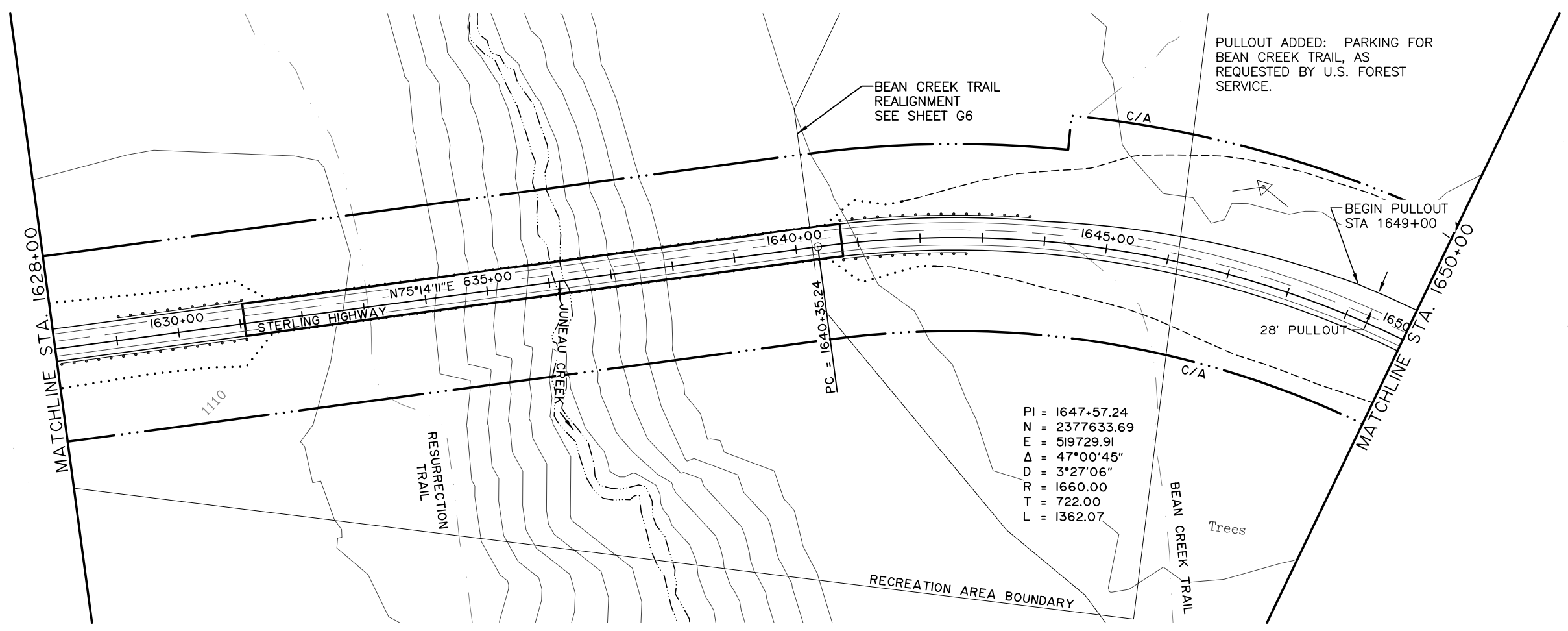


STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
 STERLING HIGHWAY  
 M.P. 45-60  
 J.C. VARIANT 3  
 PLAN AND PROFILE  
 STA 1377+00 TO 1402+00

DESIGNED BY	EPL
CHECKED BY	EPL
DRAFTED BY	CDP

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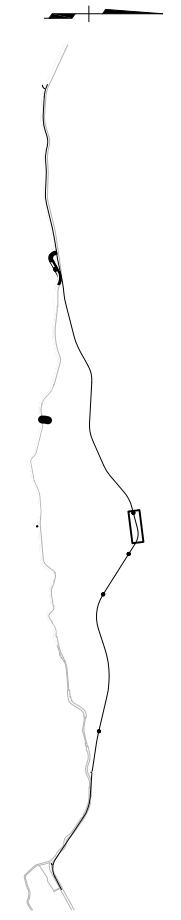
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SEE SHEET F18 FOR PROFILE

**PRELIMINARY  
 NOT FOR CONSTRUCTION**  
 JUNEAU CREEK VARIANT ALTERNATIVE

SHEET NO.	TOTAL SHEETS	
F17	F32	
STATE	YEAR	
ALASKA	2016	
PROJECT DESIGNATION		
F-02I-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



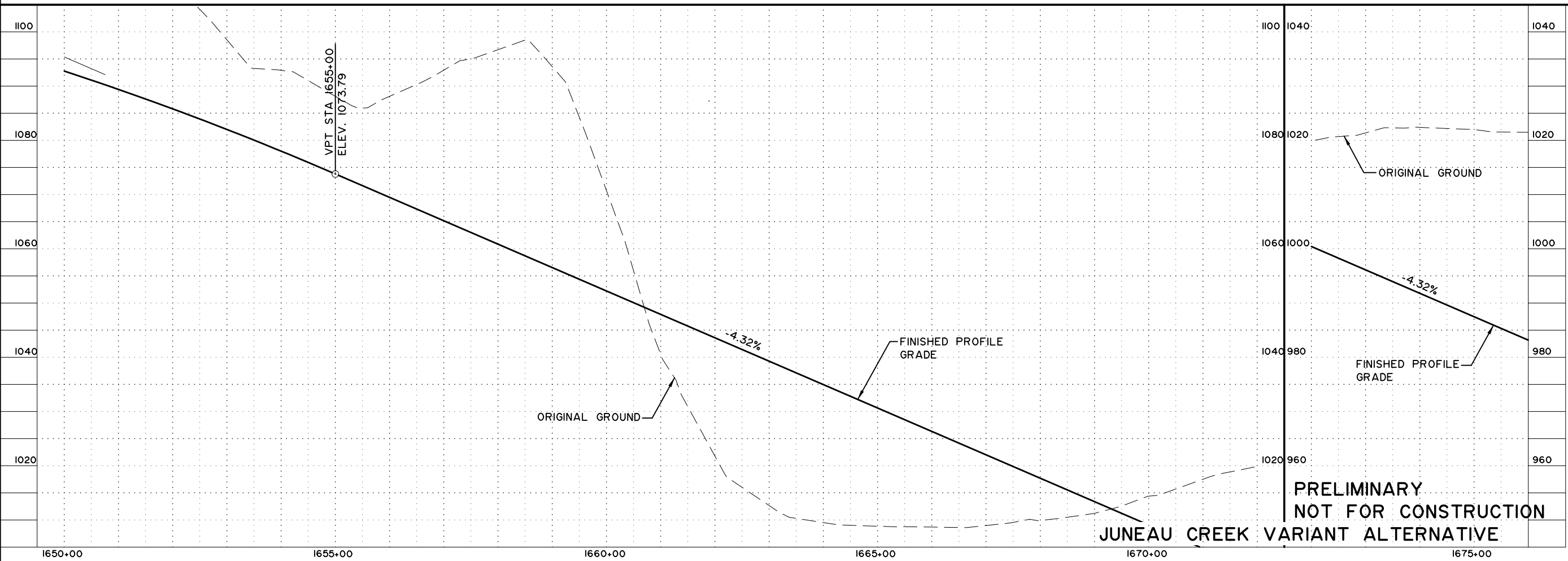
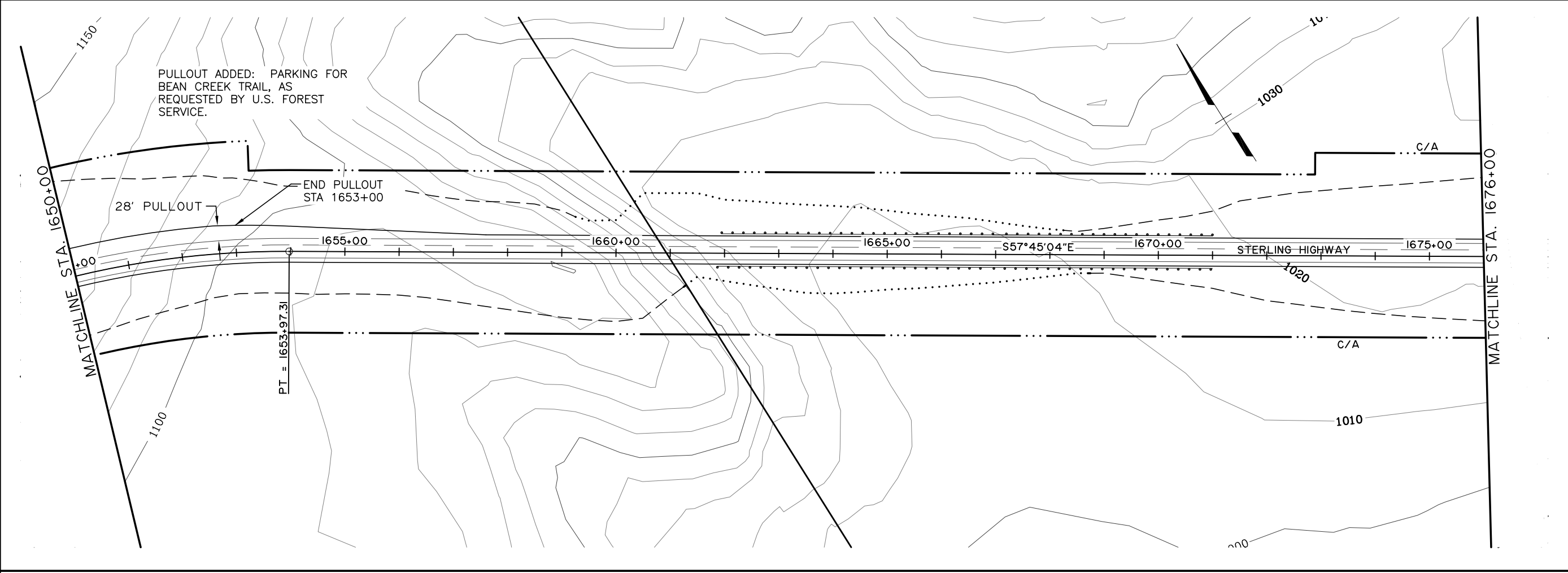
**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
 STERLING HIGHWAY  
 M.P. 45-60  
 J.C. VARIANT 3  
 PLAN AND PROFILE  
 STA 1628+00 TO 1650+00



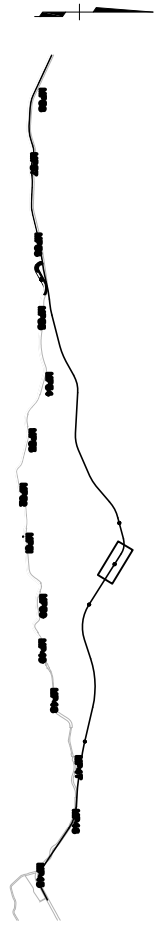
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SPECIFICATIONS

DESIGNED BY	EPL
DRAFTED BY	GBR



SHEET NO.	TOTAL SHEETS	
F19	F32	
STATE	YEAR	
ALASKA	2016	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



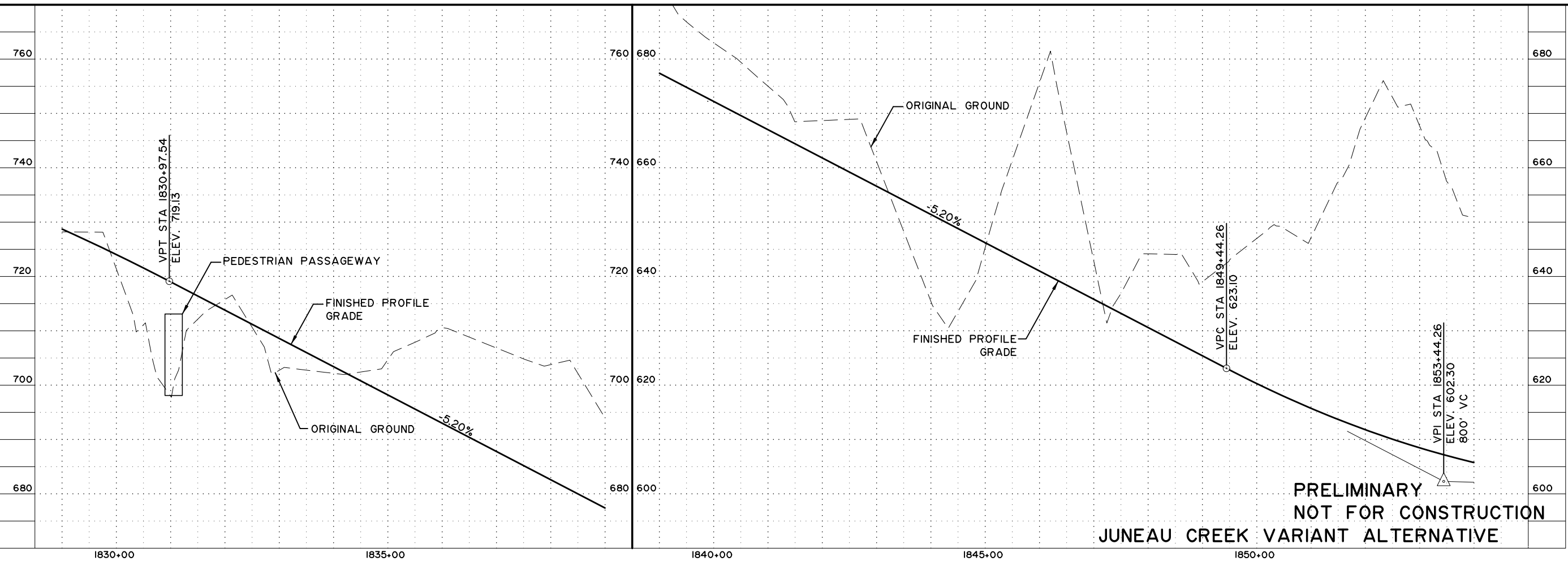
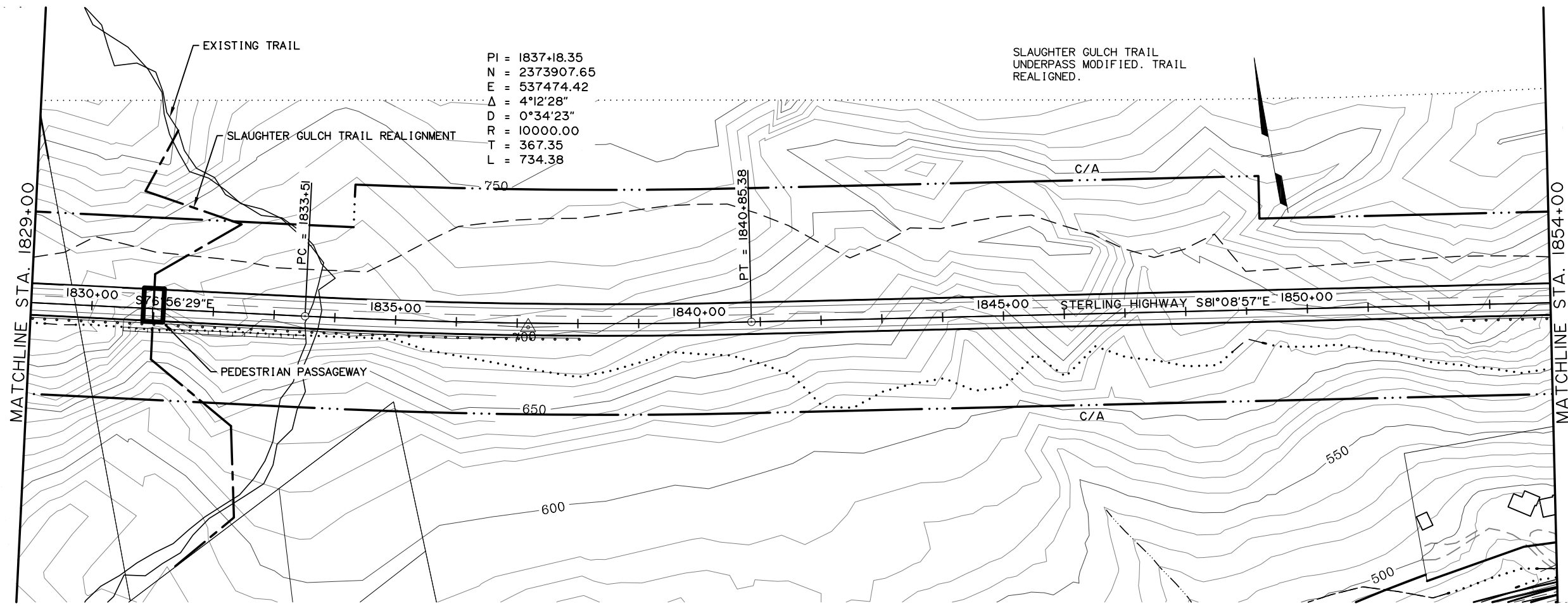
HDR ALASKA, Inc.

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND  
PUBLIC FACILITIES

STERLING HIGHWAY  
M.P. 45-60

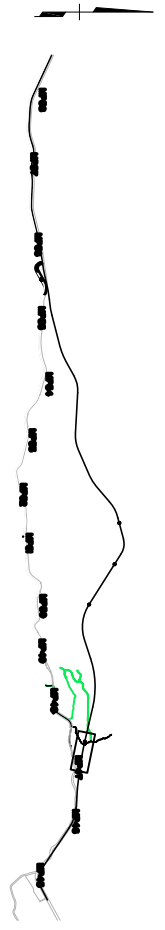
J.C. VARIANT 3  
PLAN AND PROFILE  
STA 1650+00 TO 1676+00

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 SPECIFICATIONS  
 DESIGNED BY: EPL  
 DRAFTED BY: GDB  
 COMPUTER DESIGNATION: Project\01\4800\_Civil\4800-FEB\_11\00\_03\15\06\_41\_10\_20\_by\_ghp



**PRELIMINARY  
 NOT FOR CONSTRUCTION**  
**JUNEAU CREEK VARIANT ALTERNATIVE**

SHEET NO.	TOTAL SHEETS	
F26	F32	
STATE	YEAR	
ALASKA	2016	
PROJECT DESIGNATION		
F-021-2(15)/53014		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION



**HDR ALASKA, Inc.**  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND  
 PUBLIC FACILITIES  
 STERLING HIGHWAY  
 M.P. 45-60  
 J.C. VARIANT 3  
 PLAN AND PROFILE  
 STA 1829+00 TO 1854+00

## **Appendix B Update: Cost Estimate Summary Sheets**

The cost estimate summary sheets have been updated to reflect minor design changes, inflation, and refined mitigation estimates.

**STERLING HIGHWAY, MP 45-60**

Cooper Creek Alternative  
COST ESTIMATE

<b>Length</b>	BOP 1224+00.00	EOP 1983+45.00	Length (ft) 75945.00	Length (mi) 14.4
<b>Length New Highway (from intersection to intersection of the old Hwy)</b>	Int with Old Hwy 1617+75.00	Int with Old Hwy 1803+00.00	Length (ft) 18525.00	Length (mi) 3.5

**TYPICAL SECTION**

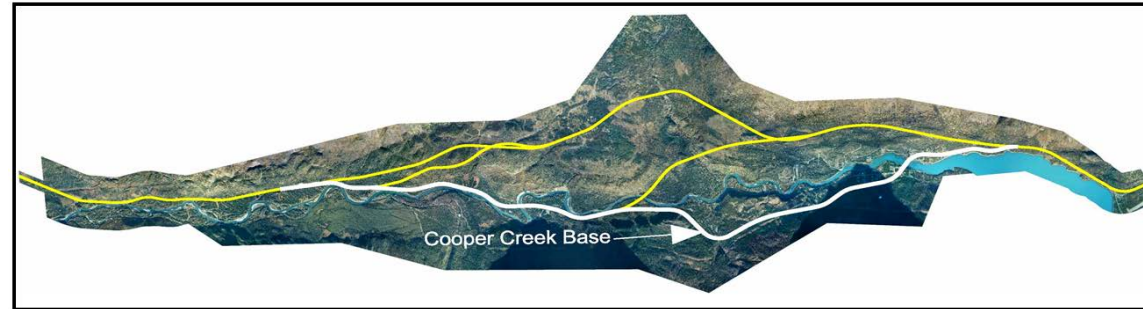
Proposed 2-Lane Sterling Highway: 8' - 12' - 12' - 8' = 40-feet  
 Proposed 2-Lane Sterling Highway W/ Lt Turn Lane: 8' - 12' - 16' - 12' - 8' = 56-feet  
 Proposed 2-Lane Sterling Highway W/ Rt Turn Lane: 8' - 12' - 12' - 12' - 8' = 52-feet  
 Proposed 2-Lane Sterling Highway W Passing Lane: 8' - 12' - 12' - 12' - 8' = 52-feet

**STRUCTURAL SECTION (inches)**

ACP Type II =	2"	
Binder =	3"	
ABC =	4"	
Borrow "A" =	20"	Combined and listed as "Borrow A" for Cost Estimating Purposes
Borrow "B" =	20"	
Borrow "C" =	varies	

**STRUCTURES (feet)**

Crossing	Beg Sta	End Sta	Width
Schooner Bend Bridge	1531+00	1534+25	40
Cooper Creek Crossing	1667+00	1675+00	52
Kenai River Crossing	1809+65	1816+35	78



**ASSUMPTIONS:**

Clear Zone: 30-feet  
Slopes: 6:1 (22'); 2:1

DESCRIPTION	ITEM No	Pay Unit	Unit Price	Quantity	Amount
CLEARING AND GRUBBING	201 (3A)	ACRE	\$5,977.97	200	\$1,195,594.15
REMOVAL OF STRUCTURES AND OBSTRUCTIONS	202 (1)	LUMP SUM	\$437,086.27	1	\$437,086.27
REMOVAL OF PAVEMENT	202 (2)	SQUARE YARD	\$5.32	180,000	\$958,208.93
REMOVAL AND DISPOSAL OF CULVERT PIPE	202 (4A)	LUMP SUM	\$43,708.63	1	\$43,708.63
COMMON EXCAVATION	203 (1)	CUBIC YARD	\$7.28	2,182,200	\$15,896,827.48
ROCK EXCAVATION	203 (2)	CUBIC YARD	\$17.48	915,000	\$15,997,357.32
BORROW, TYPE A	203 (6A)	TON	\$12.67	618,100	\$7,828,837.85
BORROW, TYPE B	203 (6B)	TON	\$7.28	265,000	\$1,930,464.34
BORROW, TYPE C	203 (6C)	TON	\$5.83	200,000	\$1,165,563.37
OBLITERATION OF ROADWAY	203 (9)	SQUARE YARD	\$2.19	40,000	\$87,417.25
CRUSHED AGGREGATE BASE COURSE	301 (1)	TON	\$37.56	127,000	\$4,770,321.02
ASPHALT TREATED BASE COURSE	306 (1)	TON	\$55.36	77,000	\$4,263,048.04
ASPHALT CONCRETE PAVEMENT, TYPE II, CLASS A	401 (1)	TON	\$78.43	54,000	\$4,235,003.71
ASPHALT CEMENT, GRADE AC-5	401 (4)	TON	\$863.59	3,000	\$2,590,767.19
CLASS A CONCRETE	501 (1)	LUMP SUM	\$72,847.71	1	\$72,847.71
MECHANICALLY STABILIZED EMBANKMENT RETAINING WALL	511 (1)	SQUARE FOOT	\$65.56	83,400	\$5,467,949.18
FIN DRAIN	603 (7-150)	LINEAR FOOT	\$58.28	11,000	\$641,059.86
24 INCH PIPE	603 (17-24)	LINEAR FOOT	\$127.10	3,600	\$457,562.25
36 INCH PIPE	603 (17-36)	LINEAR FOOT	\$186.23	1,600	\$297,964.38
48 INCH PIPE	603 (17-48)	LINEAR FOOT	\$248.71	5,200	\$1,293,310.98
144 INCH PIPE	603 (17-144)	LINEAR FOOT	\$746.14	1,200	\$895,369.14
END SECTION FOR 24 INCH PIPE	603 (20-24)	EACH	\$840.82	90	\$75,674.03
END SECTION FOR 36 INCH PIPE	603 (20-36)	EACH	\$1,007.40	60	\$60,444.10
END SECTION FOR 48 INCH PIPE	603 (20-48)	EACH	\$1,266.60	40	\$50,663.89
W-BEAM GUARDRAIL	606 (1)	LINEAR FOOT	\$30.17	22,500	\$678,731.33
REMOVAL AND DISPOSING OF GUARDRAIL	606 (6)	LINEAR FOOT	\$9.46	12,000	\$113,461.88
PARALLEL GUARDRAIL TERMINAL	606 (13)	EACH	\$4,370.86	34	\$148,609.33
TRANSITION RAIL	606 (16)	EACH	\$2,913.91	12	\$34,966.90
DITCH LINING	610 (317)	SQUARE YARD	\$29.14	23,000	\$670,198.94
RIPRAP, CLASS II	611 (1B)	CUBIC YARD	\$118.31	14,000	\$1,656,284.47
STANDARD SIGN	615 (1)	SQUARE FOOT	\$101.99	1,800	\$183,576.23
DOUBLE THAW PIPE	616 (5)	LINEAR FOOT	\$36.42	6,400	\$233,112.67
SEEDING	618 (2)	POUND	\$49.54	8,000	\$396,291.55
WATER FOR SEEDING	618 (3)	M GAL	\$13.11	8,000	\$104,900.70
TOPSOIL	620 (1)	SQUARE YARD	\$6.50	880,000	\$5,721,794.77
SLOPE REINFORCEMENT	637 (1)	LUMP SUM	\$4,618,362.17	1	\$4,618,362.17
MOBILIZATION AND DEMOBILIZATION	640 (1)	LUMP SUM	\$8,300,000.00	1	\$8,300,000.00
EROSION AND POLLUTION CONTROL ADMINISTRATION	641 (1)	LUMP SUM	\$75,000.00	1	\$75,000.00
EROSION AND POLLUTION CONTROL	641 (3)	LUMP SUM	\$300,000.00	1	\$300,000.00
SILT FENCE	641 (4)	LINEAR FOOT	\$5.83	45,000	\$262,251.78
CONSTRUCTION SURVEYING	642 (1)	LUMP SUM	\$740,000.00	1	\$740,000.00
THREE PERSON SURVEY PARTY	642 (3)	hour	\$355.32	300	\$106,595.89
TRAFFIC MAINTENANCE	643 (2)	LUMP SUM	\$350,000.00	1	\$350,000.00
PERMANENT CONSTRUCTION SIGNS	643 (3)	LUMP SUM	\$17,483.45	1	\$17,483.45
FLAGGING	643 (15)	LUMP SUM	\$875,000.00	1	\$875,000.00
TRAFFIC CONTROL DEVICES	643 (25)	CONTINGENT SUM	\$1,450,000.00	1	\$1,450,000.00
ENGINEERING TRANSPORTATION	644 (8)	EACH	\$36,423.86	14	\$509,933.98
WIDE PAD DOZER 48 KW MINIMUM	646 (1)	hour	\$174.83	1,000	\$174,834.51
METHYL METHACRYLATE PAVEMENT MARKINGS	670 (10)	LUMP SUM	\$874,172.53	1	\$874,172.53

<b>ROADWAY SUBTOTAL</b>	<b>\$99,308,614</b>
<b>BRIDGE SUBTOTAL</b>	<b>\$77,739,256</b>
<b>CONTINGENCY (20%)</b>	<b>\$35,409,574</b>
<b>CONSTRUCTION ENGINEERING (15%)</b>	<b>\$31,868,617</b>
<b>CONSTRUCTION COSTS SUBTOTAL</b>	<b>\$244,326,061</b>
<b>WILDLIFE IMPACT MITIGATION</b>	<b>\$7,500,000</b>
<b>WETLAND IMPACT MITIGATION</b>	<b>\$700,000</b>
<b>SECTION 106</b>	<b>\$4,175,000</b>
<b>DESIGN ENGINEERING (12%)</b>	<b>\$29,319,127</b>
<b>UTILITIES</b>	<b>\$2,300,000</b>
<b>ROW</b>	<b>\$5,572,795</b>
<b>SUBTOTAL</b>	<b>\$293,892,983</b>
<b>ICAP (5%)</b>	<b>\$14,694,649</b>
<b>GRAND TOTAL</b>	<b>\$308,600,000</b>

ITEM	FACTOR	QUANTITY
Select Material Type C (tons)	140 lb/ft <sup>3</sup>	200,000
Select Material Type B (tons)	140 lb/ft <sup>3</sup>	265,000
Select Material Type A (tons)	145 lb/ft <sup>3</sup>	618,100
Crushed Aggregate Base Course (tons)	145 lb/ft <sup>3</sup>	40,000
Asphalt Treated Aggregate Base Course (tons)	148 lb/ft <sup>3</sup>	127,000
ACP (tons)	152 lb/ft <sup>3</sup>	77,000
ATB AC Oil (tons)	5.5 % of ATB	6,985

SUMMARY	
Borrow Type C (CY--ft <sup>3</sup> )	105,820 2,857,143
Borrow Type B (CY--ft <sup>3</sup> )	140,212 3,785,714
Borrow Type A (CY--ft <sup>3</sup> )	315,760 8,525,517
Aggregate Base Course (CY--ft <sup>3</sup> )	20,434 551,724
ATB (CY--ft <sup>3</sup> )	63,564 1,716,216
ACP (CY--ft <sup>3</sup> )	37,524 1,013,158

GUARDRAIL (LF)	
Segment:	Length
1255+00 RT TO 1268+00 RT	1,300
1268+00 RT TO 1275+50 RT	750
1275+50 RT TO 1281+50 RT	600
1281+50 RT TO 1285+50 RT	400
1285+50 RT TO 1291+00 RT	550
1307+50 RT TO 1313+00 RT	550
1366+00 RT TO 1383+50 RT	1,750
1383+50 RT TO 1387+00 RT	350
1387+00 RT TO 1391+50 RT	450
1403+50 RT TO 1405+50 RT	200
1405+50 RT TO 1409+50 RT	400
1409+50 RT TO 1415+00 RT	550
1415+00 RT TO 1424+50 RT	950
1438+50 RT TO 1452+00 RT	1,350
1568+00 LT TO 1571+50 LT	350
1657+00 LT TO 1667+50 LT	1,050
1856+00 RT TO 1864+00 RT	800
1877+00 RT TO 1883+00 RT	600
1899+00 RT TO 1903+50 RT	450
1918+50 RT TO 1921+00 RT	250
1944+00 RT TO 1949+00 RT	500
OFF-MAINLINE	8,350
<b>TOTAL:</b>	<b>22,500</b>

MSE RETAINING WALLS (SF)			
Location	Length	Height	Face
1258+00 LT TO 1259+25 LT	125	22	2,125
1261+50 LT TO 1262+50 LT	100	20	1,950
1265+00 LT TO 1272+50 LT	750	16	12,250
1288+50 LT TO 1289+00 LT	50	4	175
1313+50 LT TO 1315+50 LT	200	3	500
1348+50 LT TO 1351+00 LT	250	4	1,025
1370+00 LT TO 1377+50 LT	750	7	5,550
1399+25 LT TO 1399+75 LT	50	5	125
1404+50 LT TO 1408+00 LT	350	12	3,950
1405+50 RT TO 1409+00 RT	350	8	2,875
1409+75 LT TO 1410+75 LT	100	26	1,275
1414+50 LT TO 1415+50 LT	100	15	1,500
1641+00 RT TO 1642+50 RT	150	18	2,875
1659+50 RT TO 1667+50 RT	800	20	15,850
1662+50 LT TO 1667+50 LT	500	29	14,500
1893+50 LT TO 1895+50 LT	200	17	3,400
1916+00 LT TO 1918+50 LT	250	8	1,850
1946+00 RT TO 1947+50 RT	150	9	1,400
OFF-MAINLINE			10,225
<b>TOTAL:</b>			<b>83,400</b>

Bridge Rail Connections	
Structures:	3
x4	12
<b>TOTAL:</b>	<b>12</b>

Guardrail End Sections	
Rail Runs	21
X1 (Opposing Traffic)	21
Clear Zone Need	13
<b>TOTAL:</b>	<b>34</b>

Bridge Structure Costs				
Crossing	SF	Cost (\$/SF)	Revised Cost (\$/SF)	Bridge Cost
Dam Access Road	8448		\$267.73	\$2,261,801.34
Cooper Creek	52452	\$800.00	\$690.92	\$36,240,226.09
Kenai River @ Cooper Landing	52260	\$675.00	\$582.97	\$30,465,761.45
Kenai River @ Schooners	16250	\$625.00	\$539.78	\$8,771,467.16
<b>Totals</b>				<b>\$77,739,256.04</b>

Bridge Structure Cost Revision Assumptions: From the Bridge Report the most expensive bridge option was used to provide a conservative estimate, the cost per sq ft from the bridge report was adjusted to construction only costs by dividing by 1.55 (55% increase over basic furnishing and installation costs) and then including 10% for detours and 15% for mobilization. This number was then brought to 2014 Dollars via AK CPI inflation averages between 2011 and 2014.

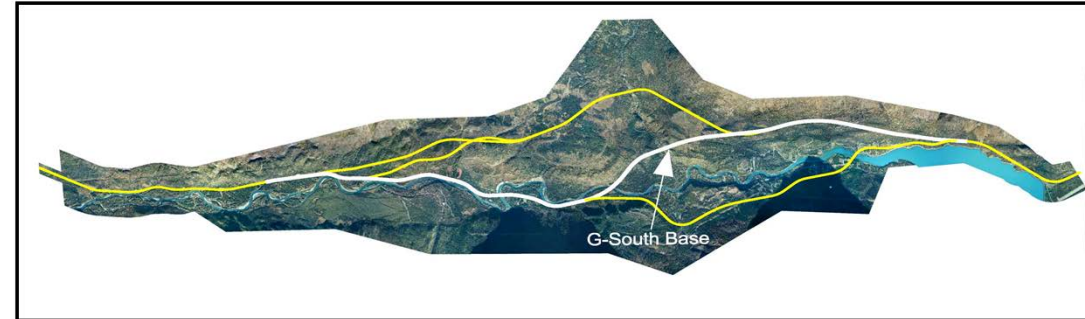
\*Right-of-Way costs estimate the land payment portion only of ROW acquisition. It does not address the other per parcel costs of ROW acquisition. Furthermore, these costs only consider privately owned land impacted by the alternatives. Impacted parcels owned by federal, state, and municipal agencies are assumed to be acquired in lieu of fee.

\*\* The bridge costs are taken from the Preliminary Bridge Structures Technical Memo August 2011 and are not intended to reflect actual construction costs but rather to be used for cost comparisons between alternatives.

**STERLING HIGHWAY, MP 45-60**

G South Alternative  
COST ESTIMATE

<b>Length</b>	BOP	EOP	Length (ft)	Length (mi)
	1224+00.00	1976+17.00	75217.00	14.2
<b>Length New Highway (from intersection to intersection of the old Hwy)</b>	Int with Old Hwy	Int with Old Hwy	Length (ft)	Length (mi)
	1610+25.00	1866+25.00	25600.00	4.8
<b>TYPICAL SECTION</b>				
	<b>Proposed 2-Lane Sterling Highway: 8' - 12' - 12' - 8' = 40-feet</b> <b>Proposed 2-Lane Sterling Highway W/ Lt Turn Lane: 8' - 12' - 16' - 12' - 8' = 56-feet</b> <b>Proposed 2-Lane Sterling Highway W/ Rt Turn Lane: 8' - 12' - 12' - 12' - 8' = 52-feet</b> <b>Proposed 2-Lane Sterling Highway W Passing Lane: 8' - 12' - 12' - 12' - 8' = 52-feet</b>			
<b>STRUCTURAL SECTION (inches)</b>				
	ACP Type II =	2"		
	Binder =	3"		
	ABC =	4"		
	Borrow "A" =	20"	Combined and listed as "Borrow A" for	
	Borrow "B" =	20"	Cost Estimating Purposes	
	Borrow "C" =	varies		
<b>STRUCTURES (feet)</b>				
	<b>Crossing</b>	<b>Beg Sta</b>	<b>End Sta</b>	<b>Width</b>
	Schooner Bend Bridge	1531+00	1534+25	40
	Kenai River Crossing	1616+40	1621+26	52
	Juneau Creek Crossing	1656+80	1670+00	52



DESCRIPTION	ITEM No	Pay Unit	Unit Price	Quantity	Amount
CLEARING AND GRUBBING	201 (3A)	ACRE	\$5,977.97	200	\$1,195,594.15
REMOVAL OF STRUCTURES AND OBSTRUCTIONS	202 (1)	LUMP SUM	\$437,086.27	1	\$437,086.27
REMOVAL OF PAVEMENT	202 (2)	SQUARE YARD	\$5.32	150,000	\$798,507.44
REMOVAL AND DISPOSAL OF CULVERT PIPE	202 (4A)	LUMP SUM	\$43,708.63	1	\$43,708.63
COMMON EXCAVATION	203 (1)	CUBIC YARD	\$7.28	2,445,700	\$17,816,364.66
ROCK EXCAVATION	203 (2)	CUBIC YARD	\$17.48	980,000	\$17,133,781.61
BORROW, TYPE A	203 (6A)	TON	\$12.67	591,100	\$7,486,856.58
BORROW, TYPE B	203 (6B)	TON	\$7.28	245,000	\$1,784,768.92
BORROW, TYPE C	203 (6C)	TON	\$5.83	403,824	\$2,353,410.33
CRATERING OF ROADWAY	203 (9)	SQUARE YARD	\$2.19	30,000	\$65,562.94
CRUSHED AGGREGATE BASE COURSE	301 (1)	TON	\$37.56	145,939	\$5,481,704.23
ASPHALT TREATED BASE COURSE	306 (1)	TON	\$55.36	74,000	\$4,096,955.26
ASPHALT CONCRETE PAVEMENT, TYPE II, CLASS A	401 (1)	TON	\$78.43	54,909	\$4,306,289.50
ASPHALT CEMENT, GRADE AC-5	401 (4)	TON	\$863.59	2,900	\$2,504,408.28
CLASS A CONCRETE	501 (1)	LUMP SUM	\$72,847.71	1	\$72,847.71
MECHANICALLY STABILIZED EMBANKMENT RETAINING WALL	511 (1)	SQUARE FOOT	\$65.56	62,250	\$4,081,293.01
FIN DRAIN	603 (7-150)	LINEAR FOOT	\$58.28	14,000	\$815,894.36
24 INCH PIPE	603 (17-24)	LINEAR FOOT	\$127.10	3,600	\$457,562.25
36 INCH PIPE	603 (17-36)	LINEAR FOOT	\$186.23	1,600	\$297,964.38
48 INCH PIPE	603 (17-48)	LINEAR FOOT	\$248.71	5,200	\$1,293,310.98
144 INCH PIPE	603 (17-144)	LINEAR FOOT	\$746.14	1,200	\$895,369.14
END SECTION FOR 24 INCH PIPE	603 (20-24)	EACH	\$840.82	90	\$75,674.03
END SECTION FOR 36 INCH PIPE	603 (20-36)	EACH	\$1,007.40	60	\$60,444.10
END SECTION FOR 48 INCH PIPE	603 (20-48)	EACH	\$1,266.60	40	\$50,663.89
W-BEAM GUARDRAIL	606 (1)	LINEAR FOOT	\$30.17	30,000	\$904,975.10
REMOVAL AND DISPOSING OF GUARDRAIL	606 (6)	LINEAR FOOT	\$9.46	11,000	\$104,006.73
PARALLEL GUARDRAIL TERMINAL	606 (13)	EACH	\$4,370.86	34	\$148,609.33
TRANSITION RAIL	606 (16)	EACH	\$2,913.91	12	\$34,966.90
DITCH LINING	610 (3)?	SQUARE YARD	\$29.14	23,000	\$670,198.94
RIPRAP, CLASS II	611 (1B)	CUBIC YARD	\$118.31	14,000	\$1,656,284.47
STANDARD SIGN	615 (1)	SQUARE FOOT	\$101.99	1,800	\$183,576.23
DOUBLE THAW PIPE	616 (5)	LINEAR FOOT	\$36.42	6,400	\$233,112.67
SEEDING	618 (2)	POUND	\$49.54	8,000	\$396,291.55
WATER FOR SEEDING	618 (3)	M GAL	\$13.11	8,000	\$104,900.70
TOPSOIL	620 (1)	SQUARE YARD	\$6.50	880,000	\$5,721,794.77
SLOPE REINFORCEMENT	637 (1)	LUMP SUM	\$1,400,917.52	1	\$1,400,917.52
MOBILIZATION AND DEMOBILIZATION	640 (1)	LUMP SUM	\$2,913,908.44	1	\$2,913,908.44
EROSION AND POLLUTION CONTROL ADMINISTRATION	641 (1)	LUMP SUM	\$43,708.63	1	\$43,708.63
EROSION AND POLLUTION CONTROL	641 (3)	LUMP SUM	\$218,543.13	1	\$218,543.13
SILT FENCE	641 (4)	LINEAR FOOT	\$5.83	45,000	\$262,251.76
CONSTRUCTION SURVEYING	642 (1)	LUMP SUM	\$728,477.11	1	\$728,477.11
THREE PERSON SURVEY PARTY	642 (3)	HOURLY	\$355.32	300	\$106,595.89
TRAFFIC MAINTENANCE	643 (2)	LUMP SUM	\$291,390.84	1	\$291,390.84
PERMANENT CONSTRUCTION SIGNS	643 (3)	LUMP SUM	\$17,483.45	1	\$17,483.45
FLAGGING	643 (15)	LUMP SUM	\$728,477.11	1	\$728,477.11
TRAFFIC CONTROL DEVICES	643 (25)	CONTINGENT SUM	\$1,456,954.22	1	\$1,456,954.22
ENGINEERING TRANSPORTATION	644 (8)	EACH	\$36,423.86	14	\$509,933.98
WIDE PAD DOZER 48 KW MINIMUM	646 (1)	HOURLY	\$174.83	1,000	\$174,834.51
METHYL METHACRYLATE PAVEMENT MARKINGS	670 (10)	LUMP SUM	\$874,172.53	1	\$874,172.53
<b>ROADWAY SUBTOTAL</b>					<b>\$93,492,389</b>
<b>BRIDGE SUBTOTAL</b>					<b>\$88,297,404</b>
<b>CONTINGENCY (20%)</b>					<b>\$36,357,959</b>
<b>CONSTRUCTION ENGINEERING (15%)</b>					<b>\$32,722,163</b>
<b>CONSTRUCTION COSTS SUBTOTAL</b>					<b>\$250,869,914</b>
<b>WILDLIFE IMPACT MITIGATION</b>					<b>\$6,945,000</b>
<b>WETLAND IMPACT MITIGATION</b>					<b>\$1,500,000</b>
<b>SECTION 106</b>					<b>\$4,000,000</b>
<b>DESIGN ENGINEERING (12%)</b>					<b>\$30,104,390</b>
<b>UTILITIES</b>					<b>\$800,000</b>
<b>ROW</b>					<b>\$2,896,601</b>
<b>SUBTOTAL</b>					<b>\$297,115,905</b>
<b>ICAP (5%)</b>					<b>\$14,855,795</b>
<b>GRAND TOTAL</b>					<b>\$312,000,000</b>

**ASSUMPTIONS:**

Clear Zone: 30-feet  
Slopes: 6:1 (22'); 2:1

**TABLE of ESTIMATING FACTORS**

ITEM	FACTOR	QUANTITY
Select Material Type C (tons)	140 lb/ft <sup>3</sup>	403,824
Select Material Type B (tons)	140 lb/ft <sup>3</sup>	245,000
Select Material Type A (tons)	145 lb/ft <sup>3</sup>	591,100
Crushed Aggregate Base Course (tons)	145 lb/ft <sup>3</sup>	30,000
Asphalt Treated Aggregate Base Course (tons)	148 lb/ft <sup>3</sup>	145,939
ACP (tons)	152 lb/ft <sup>3</sup>	74,000
ATB AC Oil (tons)	5.5 % of ATB	8,027

**SUMMARY**

Borrow Type C (CY--R3)	213,663	5,768,909
Borrow Type B (CY--R3)	129,630	3,500,000
Borrow Type A (CY--R3)	301,967	8,153,103
Aggregate Base Course (CY--R1)	15,326	413,793
ATB (CY--R1)	73,043	1,972,150
ACP (CY--R1)	36,062	973,684

**GUARDRAIL (LF)**

Segment:	Length
1255+00 RT TO 1268+00 RT	1,300
1268+00 RT TO 1275+50 RT	750
1275+50 RT TO 1281+50 RT	600
1281+50 RT TO 1285+50 RT	400
1285+50 RT TO 1291+00 RT	550
1307+50 RT TO 1313+00 RT	550
1366+00 RT TO 1383+50 RT	1,750
1383+50 RT TO 1387+00 RT	350
1387+00 RT TO 1391+50 RT	450
1400+00 RT TO 1405+50 RT	550
1405+50 RT TO 1409+50 RT	450
1409+50 RT TO 1415+00 RT	550
1438+50 RT TO 1452+00 RT	1,350
1568+00 LT TO 1571+50 LT	350
1720+00 LT TO 1730+00 LT	1,000
1819+00 RT TO 1834+00 RT	1,500
1854+25 RT TO 1898+25 RT	4,400
1910+00 RT TO 1916+50 RT	650
1937+00 RT TO 1942+00 RT	500
OFF-MAINLINE	12,000
<b>TOTAL:</b>	<b>30,000</b>

**MSE RETAINING WALLS (SF)**

Location	Length	Height	Face
1258+00 LT TO 1259+25 LT	125	22	2,125
1261+50 LT TO 1262+50 LT	100	19	1,850
1265+00 LT TO 1272+50 LT	1,250	16	12,100
1288+50 LT TO 1289+00 LT	50	5	225
1313+50 LT TO 1315+50 LT	200	3	625
1348+50 LT TO 1350+00 LT	150	4	550
1370+00 LT TO 1377+50 LT	750	8	6,000
1399+25 LT TO 1399+75 LT	50	5	125
1404+50 LT TO 1408+00 LT	350	11	4,275
1405+50 RT TO 1409+00 RT	350	8	2,925
1410+00 LT TO 1410+75 LT	75	26	1,275
1414+50 LT TO 1415+50 LT	100	16	1,575
1820+00 RT TO 1820+50 RT	50	3	125
1824+50 RT TO 1826+00 RT	150	18	2,750
1829+50 RT TO 1833+50 RT	400	12	4,600
1872+50 RT TO 1876+50 RT	400	25	10,150
1886+00 LT TO 1888+50 LT	250	8	1,975
1910+50 LT TO 1911+00 LT	50	5	250
1939+00 RT TO 1940+50 RT	150	12	1,825
OFF-MAINLINE			6,250
<b>TOTAL:</b>			<b>62,250</b>

**Bridge Rail Connections**

Structures:	3
x4	12
<b>TOTAL:</b>	<b>12</b>

**Guardrail End Sections**

Rail Runs	19
X1 (Opposing Traffic)	19
Clear Zone Need	15
<b>TOTAL:</b>	<b>34</b>

**Bridge Structure Costs**

Crossing	SF	Cost (\$/SF)	Revised Cost (\$/SF)	Bridge Cost
Forest Service Crossing	8448	\$267.73		\$2,261,801.34
Kenai River	37908	\$625.00	\$539.78	\$20,462,078.58
Juneau Creek	82212	\$800.00	\$690.92	\$56,802,056.50
Kenai River at Schooners	16250	\$625.00	\$539.78	\$8,771,467.16
<b>Totals</b>				<b>\$88,297,403.58</b>

Bridge Structure Cost Revision Assumptions: From the Bridge Report the most expensive bridge option was used to provide a conservative estimate, the cost per sq ft from the bridge report was adjusted to construction only costs by dividing by 1.55 (55% increase over basic furnishing and installation costs) and then including 10% for detours and 15% for mobilization. This number was then brought to 2014 Dollars via AK CPI inflation averages between 2011 and 2014.

\*Right-of-Way costs estimate the land payment portion only of ROW acquisition. It does not address the other per parcel costs of ROW acquisition. Furthermore, these costs only consider privately owned land impacted by the alternatives. Impacted parcels owned by federal, state, and municipal agencies are assumed to be acquired in lieu of fee.

\*\* The bridge costs are taken from the Preliminary Bridge Structures Technical Memo August 2011 and are not intended to reflect actual construction costs but rather to be used for cost comparisons between alternatives.



**STERLING HIGHWAY, MP 45-60**

Juneau Creek Alternative  
COST ESTIMATE

<b>Length Total</b>	BOP	EOP	Length (ft)	Length (mi)
	1224+00.00	1977+44.00	75344.00	14.3
<b>Length New Highway (from intersection to intersection of the old Hwy)</b>	Int with Old Hwy	Int with Old Hwy	Length (ft)	Length (mi)
	1381+00.00	1867+50.00	48650.00	9.2

**TYPICAL SECTION**

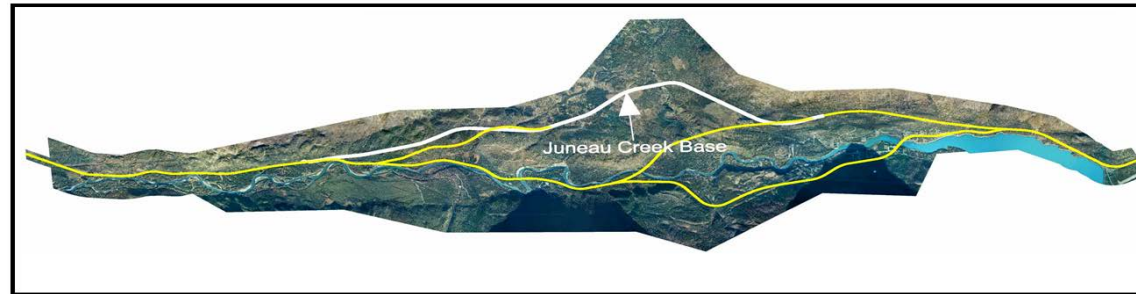
Proposed 2-Lane Sterling Highway: 8' - 12' - 12' - 8' = 40-feet  
 Proposed 2-Lane Sterling Highway W/ Lt Turn Lane: 8' - 12' - 16' - 12' - 8' = 56-feet  
 Proposed 2-Lane Sterling Highway W/ Rt Turn Lane: 8' - 12' - 12' - 12' - 8' = 52-feet  
 Proposed 2-Lane Sterling Highway W Passing Lane: 8' - 12' - 12' - 12' - 8' = 52-feet

**STRUCTURAL SECTION (inches)**

ACP Type II = 2"  
 Binder = 3"  
 ABC = 4"  
 Borrow "A" = 20" Combined and listed as "Borrow A" for Cost Estimating Purposes  
 Borrow "B" = 20"  
 Borrow "C" = varies

**STRUCTURES (feet)**

Crossing Juneau Creek Beg Sta 1631+50± End Sta 1640+00± Width 62



**ASSUMPTIONS:**

Clear Zone: 30-feet  
 Slopes: 6:1 (22'); 2:1

DESCRIPTION	ITEM No	Pay Unit	Unit Price	Quantity	Amount
CLEARING AND GRUBBING	201 (3A)	ACRE	\$5,977.97	270	\$1,614,052.10
REMOVAL OF STRUCTURES AND OBSTRUCTIONS	202 (1)	LUMP SUM	\$437,086.27	0	\$0.00
REMOVAL OF PAVEMENT	202 (2)	SQUARE YARD	\$5.32	81,000	\$431,194.02
REMOVAL AND DISPOSAL OF CULVERT PIPE	202 (4A)	LUMP SUM	\$43,708.63	1	\$43,708.63
COMMON EXCAVATION	203 (1)	CUBIC YARD	\$7.28	2,231,600	\$16,256,695.17
ROCK EXCAVATION	203 (2)	CUBIC YARD	\$17.48	1,500,000	\$26,225,175.94
BORROW, TYPE A	203 (6A)	TON	\$12.67	637,600	\$8,075,824.33
BORROW, TYPE C	203 (6C)	TON	\$5.83	440,000	\$2,564,239.42
OBSTRUCTION OF ROADWAY	203 (9)	SQUARE YARD	\$2.19	20,000	\$43,708.63
CRUSHED AGGREGATE BASE COURSE	301 (1)	TON	\$37.56	125,000	\$4,695,197.86
ASPHALT TREATED BASE COURSE	306 (1)	TON	\$55.36	76,000	\$4,207,683.78
ASPHALT CONCRETE PAVEMENT, TYPE II, CLASS A	401 (1)	TON	\$78.43	53,000	\$4,156,577.71
ASPHALT CEMENT, GRADE AC-5	401 (4)	TON	\$863.59	2,900	\$2,504,408.28
CLASS A CONCRETE	501 (1)	LUMP SUM	\$72,847.71	1	\$72,847.71
MECHANICALLY STABILIZED EMBANKMENT RETAINING WALL	511 (1)	SQUARE FOOT	\$65.56	71,450	\$4,684,472.05
FIN DRAIN	603 (7-150)	LINEAR FOOT	\$58.28	1,500	\$87,417.25
24 INCH PIPE	603 (17-24)	LINEAR FOOT	\$127.10	3,600	\$457,562.25
36 INCH PIPE	603 (17-36)	LINEAR FOOT	\$186.23	1,600	\$297,964.38
48 INCH PIPE	603 (17-48)	LINEAR FOOT	\$248.71	5,200	\$1,293,310.98
144 INCH PIPE	603 (17-144)	LINEAR FOOT	\$746.14	1,200	\$895,369.14
END SECTION FOR 24 INCH PIPE	603 (20-24)	EACH	\$840.82	90	\$75,674.03
END SECTION FOR 36 INCH PIPE	603 (20-36)	EACH	\$1,007.40	60	\$60,444.10
END SECTION FOR 48 INCH PIPE	603 (20-48)	EACH	\$1,266.60	40	\$50,663.89
W-BEAM GUARDRAIL	606 (1)	LINEAR FOOT	\$30.17	34,000	\$1,025,638.45
REMOVAL AND DISPOSING OF GUARDRAIL	606 (6)	LINEAR FOOT	\$9.46	9,500	\$89,823.99
PARALLEL GUARDRAIL TERMINAL	606 (13)	EACH	\$4,370.88	30	\$131,125.88
TRANSITION RAIL	606 (16)	EACH	\$2,913.91	4	\$11,655.63
DITCH LINING	610 (3?)	SQUARE YARD	\$29.14	23,000	\$670,198.94
RIPRAP, CLASS II	611 (1B)	CUBIC YARD	\$118.31	11,000	\$1,301,366.37
STANDARD SIGN	615 (1)	SQUARE FOOT	\$101.99	1,800	\$183,576.23
DOUBLE THAW PIPE	616 (5)	LINEAR FOOT	\$36.42	6,400	\$233,112.67
SEEDING	618 (2)	POUND	\$49.54	8,000	\$396,291.55
WATER FOR SEEDING	618 (3)	M GAL	\$13.11	8,000	\$104,900.70
TOPSOIL	620 (1)	SQUARE YARD	\$6.50	1,000,000	\$6,502,039.52
SLOPE REINFORCEMENT	637 (1)	LUMP SUM	\$1,400,917.52	1	\$1,400,917.52
MOBILIZATION AND DEMOBILIZATION	640 (1)	LUMP SUM	\$7,400,000.00	1	\$7,400,000.00
EROSION AND POLLUTION CONTROL ADMINISTRATION	641 (1)	LUMP SUM	\$81,250.00	1	\$81,250.00
EROSION AND POLLUTION CONTROL	641 (3)	LUMP SUM	\$325,000.00	1	\$325,000.00
SILT FENCE	641 (4)	LINEAR FOOT	\$5.83	45,000	\$262,251.76
CONSTRUCTION SURVEYING	642 (1)	LUMP SUM	\$740,000.00	1	\$740,000.00
THREE PERSON SURVEY PARTY	642 (3)	HOURLY	\$355.32	300	\$106,595.89
TRAFFIC MAINTENANCE	643 (2)	LUMP SUM	\$350,000.00	1	\$350,000.00
PERMANENT CONSTRUCTION SIGNS	643 (3)	LUMP SUM	\$17,483.45	1	\$17,483.45
FLAGGING	643 (15)	LUMP SUM	\$745,000.00	1	\$745,000.00
TRAFFIC CONTROL DEVICES	643 (25)	CONTINGENT SUM	\$1,450,000.00	1	\$1,450,000.00
ENGINEERING TRANSPORTATION	644 (8)	EACH	\$36,423.86	14	\$509,933.98
WIDE PAD DOZER 48 KW MINIMUM	646 (1)	HOURLY	\$174.83	1,000	\$174,834.51
METHYL METHACRYLATE PAVEMENT MARKINGS	670 (10)	LUMP SUM	\$874,172.53	1	\$874,172.53

<b>ROADWAY SUBTOTAL</b>	<b>\$103,881,361</b>
<b>BRIDGE SUBTOTAL</b>	<b>\$56,399,387</b>
<b>CONTINGENCY (20%)</b>	<b>\$32,056,150</b>
<b>CONSTRUCTION ENGINEERING (15%)</b>	<b>\$28,850,535</b>
<b>CONSTRUCTION COSTS SUBTOTAL</b>	<b>\$221,187,433</b>
<b>WILDLIFE IMPACT MITIGATION</b>	<b>\$9,700,000</b>
<b>WETLAND IMPACT MITIGATION</b>	<b>\$2,500,000</b>
<b>SECTION 106</b>	<b>\$3,175,000</b>
<b>DESIGN ENGINEERING (12%)</b>	<b>\$26,542,492</b>
<b>UTILITIES</b>	<b>\$800,000</b>
<b>ROW</b>	<b>\$2,877,323</b>
<b>SUBTOTAL</b>	<b>\$266,782,248</b>
<b>ICAP (5%)</b>	<b>\$13,339,112</b>
<b>GRAND TOTAL</b>	<b>\$280,100,000</b>

TABLE of ESTIMATING FACTORS		
ITEM	FACTOR	QUANTITY
Select Material Type C (tons)	140 lb/ft <sup>3</sup>	440,000
Select Material Type B (tons)	140 lb/ft <sup>3</sup>	
Select Material Type A (tons)	145 lb/ft <sup>3</sup>	637,600
Crushed Aggregate Base Course (tons)	145 lb/ft <sup>3</sup>	125,000
Asphalt Treated Aggregate Base Course (tons)	148 lb/ft <sup>3</sup>	76,000
ACP (tons)	152 lb/ft <sup>3</sup>	53,000
ATB AC Oil (tons)	5.5 % of ATB	4,180

SUMMARY		
Borrow Type C (CY--ft <sup>3</sup> )	232,804	6,285,714
Borrow Type B (CY--ft <sup>3</sup> )		
Borrow Type A (CY--ft <sup>3</sup> )	325,722	8,794,483
Aggregate Base Course (CY--ft <sup>3</sup> )	63,857	1,724,138
ATB (CY--ft <sup>3</sup> )	38,038	1,027,027
ACP (CY--ft <sup>3</sup> )	25,828	697,368

GUARDRAIL (LF)	
Segment:	Length
1255+00 RT TO 1268+00 RT	1,300
1268+00 RT TO 1275+50 RT	750
1275+50 RT TO 1281+50 RT	600
1281+50 RT TO 1285+50 RT	400
1285+50 RT TO 1291+00 RT	550
1307+50 RT TO 1313+00 RT	550
1366+00 RT TO 1383+50 RT	1,750
1383+50 RT TO 1387+00 RT	350
1387+00 RT TO 1391+50 RT	450
1391+50 RT TO 1412+00 RT	2,050
1422+00 RT TO 1452+00 RT	3,000
1657+00 LT TO 1668+00 RT	1,100
1657+00 RT TO 1668+00 RT	1,100
1721+00 LT TO 1730+00 LT	900
1721+00 RT TO 1730+00 RT	900
1806+00 RT TO 1835+00 RT	2,900
1855+50 RT TO 1899+50 RT	4,400
1909+50 RT TO 1918+00 RT	900
1938+00 RT TO 1943+00 RT	500
OFF-MAINLINE	10,850
<b>TOTAL:</b>	<b>34,000</b>

MSE RETAINING WALLS (SF)			
Location	Length	Height	Face
1258+00 LT TO 1259+25 LT	125	22	2,125
1261+50 LT TO 1262+50 LT	100	20	1,950
1265+00 LT TO 1272+50 LT	750	16	12,250
1288+50 LT TO 1289+00 LT	50	4	175
1313+50 LT TO 1315+50 LT	200	3	500
1348+50 LT TO 1351+00 LT	250	4	1,025
1368+00 LT TO 1377+50 LT	950	11	11,050
1399+50 RT TO 1405+50 RT	600	20	13,000
1405+00 LT TO 1409+00 LT	400	13	5,650
1825+50 RT TO 1827+00 RT	150	17	2,550
1830+50 RT TO 1833+50 RT	300	14	4,525
1873+50 RT TO 1877+50 RT	400	25	10,425
1887+00 LT TO 1889+00 LT	200	12	2,400
1911+50 LT TO 1912+00 LT	50	6	300
1939+50 RT TO 1941+50 RT	200	11	2,275
<b>OFF MAINLINE</b>			<b>1,250</b>
<b>TOTAL:</b>			<b>71,450</b>

Bridge Rail Connections	
Structures:	1
x4	4
<b>TOTAL:</b>	<b>4</b>

Guardrail End Sections	
Rail Runs	19
X1 (Opposing Traffic)	19
Clear Zone Need	11
<b>TOTAL:</b>	<b>30</b>

Bridge Structure Costs				
Crossing	SF	Cost (\$/SF)	Revised Cost (\$/SF)	Bridge Cost
Forest Service Crossing 1	8448	\$267.73	\$267.73	\$2,261,801.34
Forest Service Crossing 2	8448	\$267.73	\$267.73	\$2,261,801.34
Juneau Creek	75082	\$800.00	\$690.92	\$51,875,784.63

Bridge Structure Cost Revision Assumptions: From the Bridge Report the most expensive bridge option was used to provide a conservative estimate, the cost per sq ft from the bridge report was adjusted to construction only costs by dividing by 1.55 (55% increase over basic furnishing and installation costs) and then including 10% for detours and 15% for mobilization. This number was then brought to 2014 Dollars via AK CPI inflation averages between 2011 and 2014.

\*Right-of-Way costs estimate the land payment portion only of ROW acquisition. It does not address the other per parcel costs of ROW acquisition. Furthermore, these costs only consider privately owned land impacted by the alternatives. Impacted parcels owned by federal, state, and municipal agencies are assumed to be acquired in lieu of fee.

\*\* The bridge costs are taken from the Preliminary Bridge Structures Technical Memo August 2011 and are not intended to reflect actual construction costs but rather to be used for cost comparisons between alternatives.

**STERLING HIGHWAY, MP 45-60**

Juneau Creek Variant Alternative  
COST ESTIMATE

<b>Length Total</b>	BOP	Match Sta	Match Sta	End Station	Length	Ft
	1224+00.00	1556+73.19	1553+92.81	1977+44.00	75624.38	Mi
<b>Length New Highway (from intersection to intersection of the old Hwy)</b>	Int with Old Hwy	Match Sta	Match Sta	Int with Old Hwy	Length	Ft
	1430+75.00	1556+73.19	1553+92.81	1867+50.00	43955.38	Mi

**TYPICAL SECTION**

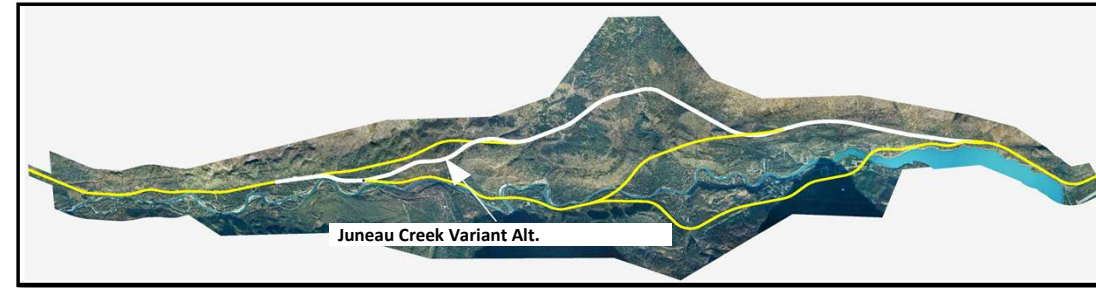
Proposed 2-Lane Sterling Highway: 8' - 12' - 12' - 8' = 40-feet  
 Proposed 2-Lane Sterling Highway W/ Lt Turn Lane: 8' - 12' - 16' - 12' - 8' = 56-feet  
 Proposed 2-Lane Sterling Highway W/ Rt Turn Lane: 8' - 12' - 12' - 12' - 8' = 52-feet  
 Proposed 2-Lane Sterling Highway W Passing Lane: 8' - 12' - 12' - 12' - 8' = 52-feet

**STRUCTURAL SECTION (inches)**

ACP Type II =	2"	
Binder =	3"	
ABC =	4"	
Borrow "A" =	20"	Combined and listed as "Borrow 'A'" for
Borrow "B" =	20"	Cost Estimating Purposes
Borrow "C" =	varies	

**STRUCTURES (feet)**

<b>Crossing</b>	<b>Beg Sta</b>	<b>End Sta</b>	<b>Width</b>
Juneau Creek	1631+50±	1640+00±	62
Sterling Highway Reconnection	1433+00±	1434+60±	62



**ASSUMPTIONS:**

Clear Zone: 30-feet  
Slopes: 6:1 (22'); 2:1

DESCRIPTION	ITEM No	Pay Unit	Unit Price	Quantity	Amount
CLEARING AND GRUBBING	201 (3A)	ACRE	\$5,977.97	270	\$1,614,052.10
REMOVAL OF STRUCTURES AND OBSTRUCTIONS	202 (1)	LUMP SUM	\$437,086.27	0	\$0.00
REMOVAL OF PAVEMENT	202 (2)	SQUARE YARD	\$5.32	81,000	\$431,194.02
REMOVAL AND DISPOSAL OF CULVERT PIPE	202 (4A)	LUMP SUM	\$43,708.63	1	\$43,708.63
COMMON EXCAVATION	203 (1)	CUBIC YARD	\$7.28	1,651,525	\$12,030,983.07
ROCK EXCAVATION	203 (2)	CUBIC YARD	\$17.48	1,697,900	\$29,685,153.19
BORROW TYPE A	203 (6A)	TON	\$12.67	640,994	\$8,118,815.80
BORROW TYPE C	203 (6C)	TON	\$5.63	427,682	\$2,492,450.87
OBLETION OF ROADWAY	203 (9)	SQUARE YARD	\$2.19	20,000	\$43,708.63
CRUSHED AGGREGATE BASE COURSE	301 (1)	TON	\$37.56	179,891	\$6,756,973.78
ASPHALT TREATED BASE COURSE	306 (1)	TON	\$55.36	77,162	\$4,271,992.50
ASPHALT CONCRETE PAVEMENT, TYPE II, CLASS A	401 (1)	TON	\$78.43	51,441	\$4,034,314.54
ASPHALT CEMENT, GRADE AC-5	401 (4)	TON	\$863.59	2,829	\$2,443,315.46
CLASS A CONCRETE	501 (1)	LUMP SUM	\$72,847.71	1	\$72,847.71
MECHANICALLY STABILIZED EMBANKMENT RETAINING WALL	511 (1)	SQUARE FOOT	\$65.56	71,450	\$4,684,472.05
FIN DRAIN	603 (7-150)	LINEAR FOOT	\$58.28	1,500	\$87,417.25
24 INCH PIPE	603 (17-24)	LINEAR FOOT	\$127.10	3,600	\$457,562.25
36 INCH PIPE	603 (17-36)	LINEAR FOOT	\$186.23	1,600	\$297,964.36
48 INCH PIPE	603 (17-48)	LINEAR FOOT	\$248.71	5,200	\$1,293,310.98
144 INCH PIPE	603 (17-144)	LINEAR FOOT	\$746.14	1,200	\$895,369.14
END SECTION FOR 24 INCH PIPE	603 (20-24)	EACH	\$840.82	90	\$75,674.03
END SECTION FOR 36 INCH PIPE	603 (20-36)	EACH	\$1,007.40	60	\$60,444.10
END SECTION FOR 48 INCH PIPE	603 (20-48)	EACH	\$1,266.60	40	\$50,663.89
W-BEAM GUARDRAIL	606 (1)	LINEAR FOOT	\$30.17	34,000	\$1,025,638.45
REMOVAL AND DISPOSING OF GUARDRAIL	606 (6)	LINEAR FOOT	\$9.46	9,500	\$89,823.99
PARALLEL GUARDRAIL TERMINAL	606 (13)	EACH	\$4,370.86	30	\$131,125.88
TRANSITION RAIL	606 (16)	EACH	\$2,913.91	4	\$11,655.63
DITCH LINING	610 (3/7)	SQUARE YARD	\$29.14	23,000	\$670,198.94
RIPRAP CLASS II	611 (1B)	CUBIC YARD	\$118.31	11,000	\$1,301,366.37
STANDARD SIGN	615 (1)	SQUARE FOOT	\$101.99	1,800	\$183,576.23
DOUBLE THAW PIPE	616 (5)	LINEAR FOOT	\$36.42	6,400	\$233,112.67
SEEDING	618 (2)	POUND	\$49.54	8,000	\$396,291.55
WATER FOR SEEDING	618 (3)	M GAL	\$13.11	8,000	\$104,900.70
TOPSOIL	620 (1)	SQUARE YARD	\$6.50	1,000,000	\$6,502,039.52
SLOPE REINFORCEMENT	637 (1)	LUMP SUM	\$1,400,917.52	1	\$1,400,917.52
MOBILIZATION AND DEMOBILIZATION	640 (1)	LUMP SUM	\$7,500,000.00	1	\$7,500,000.00
EROSION AND POLLUTION CONTROL ADMINISTRATION	641 (1)	LUMP SUM	\$81,250.00	1	\$81,250.00
EROSION AND POLLUTION CONTROL	641 (3)	LUMP SUM	\$325,000.00	1	\$325,000.00
SILT FENCE	641 (4)	LINEAR FOOT	\$5.83	45,000	\$262,251.76
CONSTRUCTION SURVEYING	642 (1)	LUMP SUM	\$740,000.00	1	\$740,000.00
THREE PERSON SURVEY PARTY	642 (3)	HOURLY	\$355.32	300	\$106,595.89
TRAFFIC MAINTENANCE	643 (2)	LUMP SUM	\$350,000.00	1	\$350,000.00
PERMANENT CONSTRUCTION SIGNS	643 (3)	LUMP SUM	\$17,483.45	1	\$17,483.45
FLAGGING	643 (15)	LUMP SUM	\$745,000.00	1	\$745,000.00
TRAFFIC CONTROL DEVICES	643 (25)	CONTINGENT SUM	\$1,450,000.00	1	\$1,450,000.00
ENGINEERING TRANSPORTATION	644 (8)	EACH	\$36,423.86	14	\$509,933.98
WIDE PAD DOZER 48 KW MINIMUM	646 (1)	HOURLY	\$174.83	1,000	\$174,834.51
METHYL METHACRYLATE PAVEMENT MARKINGS	670 (10)	LUMP SUM	\$874,172.53	1	\$874,172.53
<b>ROADWAY SUBTOTAL</b>					<b>\$105,129,558</b>
<b>BRIDGE SUBTOTAL</b>					<b>\$59,772,813</b>
<b>CONTINGENCY (20%)</b>					<b>\$32,980,474</b>
<b>CONSTRUCTION ENGINEERING (15%)</b>					<b>\$29,682,427</b>
<b>CONSTRUCTION COSTS SUBTOTAL</b>					<b>\$227,565,271</b>
<b>WILDLIFE IMPACT MITIGATION</b>					<b>\$9,700,000</b>
<b>WETLAND IMPACT MITIGATION</b>					<b>\$2,300,000</b>
<b>SECTION 106</b>					<b>\$4,025,000</b>
<b>DESIGN ENGINEERING (12%)</b>					<b>\$27,307,833</b>
<b>UTILITIES</b>					<b>\$800,000</b>
<b>ROW</b>					<b>\$2,812,634</b>
<b>SUBTOTAL</b>					<b>\$274,510,738</b>
<b>ICAP (5%)</b>					<b>\$13,725,537</b>
<b>GRAND TOTAL</b>					<b>\$288,200,000</b>

TABLE of ESTIMATING FACTORS		
ITEM	FACTOR	QUANTITY
Select Material Type C (tons)	140 lb/ft <sup>3</sup>	427,682
Select Material Type B (tons)	140 lb/ft <sup>3</sup>	0
Select Material Type A (tons)	145 lb/ft <sup>3</sup>	640,994
Crushed Aggregate Base Course (tons)	145 lb/ft <sup>3</sup>	179,891
Asphalt Treated Aggregate Base Course (tons)	148 lb/ft <sup>3</sup>	77,162
ACP (tons)	152 lb/ft <sup>3</sup>	51,441
ATB AC Oil (tons)	5.5 % of ATB	4,244

SUMMARY		
Borrow Type C (CY--r3)	226,287	6,109,739
Borrow Type B (CY--r3)	0	0
Borrow Type A (CY--r3)	327,456	8,841,300
Aggregate Base Course (CY--r3)	91,898	2,481,249
ATB (CY--r3)	38,619	1,042,724
ACP (CY--r3)	25,069	676,856

GUARDRAIL (LF)	
Segment:	Length
1255+00 RT TO 1268+00 RT	1,300
1268+00 RT TO 1275+50 RT	750
1275+50 RT TO 1281+50 RT	600
1281+50 RT TO 1285+50 RT	400
1285+50 RT TO 1291+00 RT	550
1307+50 RT TO 1313+00 RT	550
1366+00 RT TO 1383+50 RT	1,750
1383+50 RT TO 1387+00 RT	350
1387+00 RT TO 1391+50 RT	450
1391+50 RT TO 1412+00 RT	2,050
1422+00 RT TO 1452+00 RT	3,000
1657+00 LT TO 1668+00 LT	1,100
1657+00 RT TO 1668+00 RT	1,100
1721+00 LT TO 1730+00 LT	900
1721+00 RT TO 1730+00 RT	900
1806+00 RT TO 1835+00 RT	2,900
1855+50 RT TO 1899+50 RT	4,400
1909+50 RT TO 1918+00 RT	900
1938+00 RT TO 1943+00 RT	500
OFF-MAINLINE	10,850
<b>TOTAL:</b>	<b>34,000</b>

MSE RETAINING WALLS (SF)			
Location	Length	Height	Face
1258+00 LT TO 1259+25 LT	125	22	2,125
1261+50 LT TO 1262+50 LT	100	20	1,950
1265+00 LT TO 1272+50 LT	750	16	12,250
1288+50 LT TO 1289+00 LT	50	4	175
1313+50 LT TO 1315+50 LT	200	3	500
1348+50 LT TO 1351+00 LT	250	4	1,025
1368+00 LT TO 1377+50 LT	950	11	11,050
1399+50 RT TO 1405+50 RT	600	20	13,000
1405+00 LT TO 1409+00 LT	400	13	5,650
1825+50 RT TO 1827+00 RT	150	17	2,550
1830+50 RT TO 1833+50 RT	300	14	4,525
1873+50 RT TO 1877+50 RT	400	25	10,425
1887+00 LT TO 1889+00 LT	200	12	2,400
1911+50 LT TO 1912+00 LT	50	6	300
1939+50 RT TO 1941+50 RT	200	11	2,275
<b>OFF MAINLINE</b>			<b>1,250</b>
<b>TOTAL:</b>			<b>71,450</b>

Bridge Rail Connections	
Structures:	1
x4	4
<b>TOTAL:</b>	<b>4</b>

Guardrail End Sections	
Rail Runs	19
X1 (Opposing Traffic)	19
Clear Zone Need	11
<b>TOTAL:</b>	<b>30</b>

Bridge Structure Costs			
Crossing	SF	Cost (\$/SF)	Bridge Cost
Forest Service Crossing 1	8448	\$267.73	\$2,261,801.34
Forest Service Crossing 2	8448	\$267.73	\$2,261,801.34
Juneau Creek	75082	\$800.00	\$59,865,600.00
Sterling Highway (Sportmans)	8680	\$450.00	\$3,906,000.00
<b>Totals</b>			<b>\$68,235,202.68</b>

Bridge Structure Cost Revision Assumptions: From the Bridge Report the most expensive bridge option was used to provide a conservative estimate, the cost per sq ft from the bridge report was adjusted to construction only costs by dividing by 1.55 (55% increase over basic furnishing and installation costs) and then including 10% for detours and 15% for mobilization. This number was then brought to 2014 Dollars via AK CPI inflation averages between 2011 and 2014.

\*Right-of-Way costs estimate the land payment portion only of ROW acquisition. It does not address the other per parcel costs of ROW acquisition. Furthermore, these costs only consider privately owned land impacted by the alternatives. Impacted parcels owned by federal, state, and municipal agencies are assumed to be acquired in lieu of fee.

\*\* The bridge costs are taken from the Preliminary Bridge Structures Technical Memo August 2011 and are not intended to reflect actual construction costs but rather to be used for cost comparisons between alternatives.