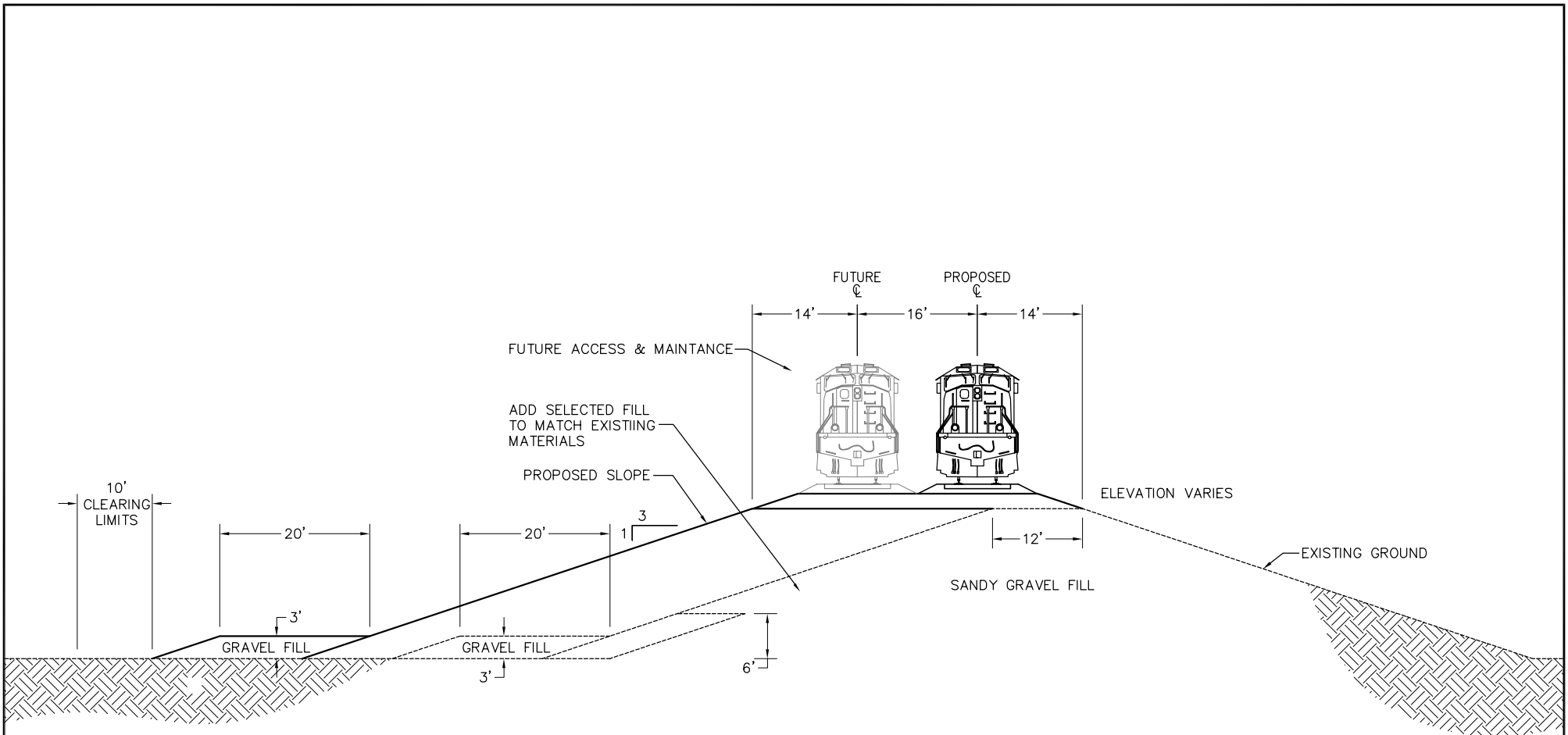



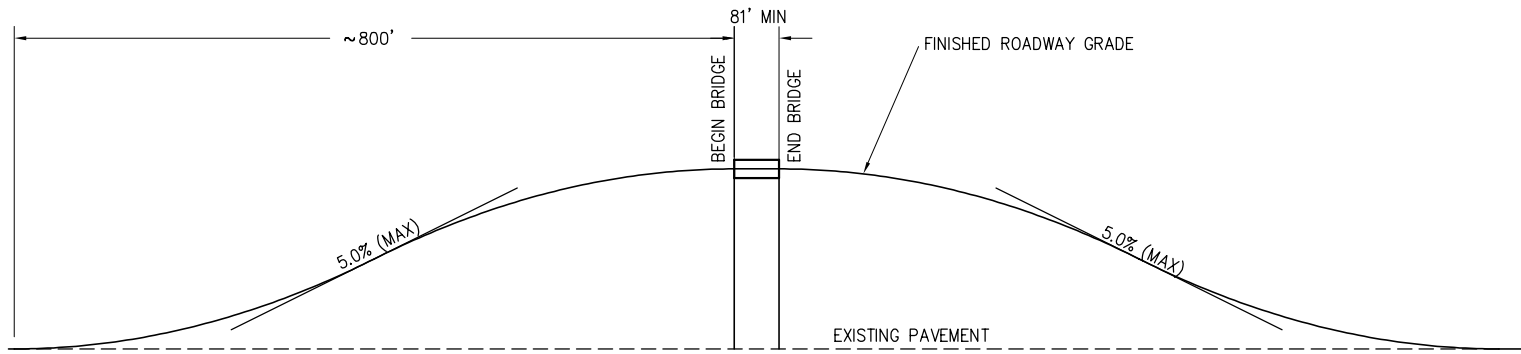
Appendix D



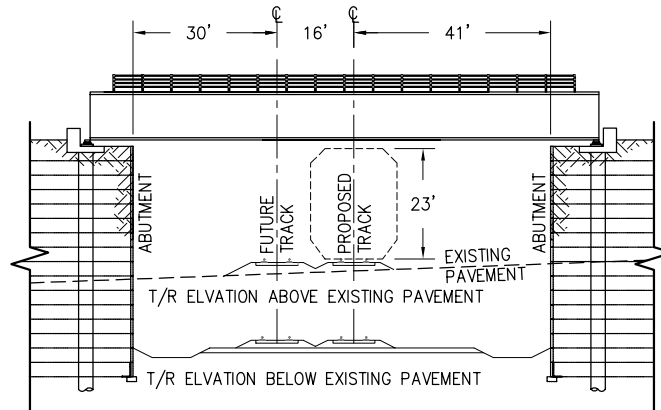
CHENA PUMP ALTERNATE
LEVEE TYPICAL SECTION

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TITLE: APPENDIX D-1 CHENA PUMP ALTERNATE LEVEE TYPICAL SECTION		
DESIGNED BY: _____	SCALE: AS NOTED	AFE NO.:
DRAWN BY: _____	DATE: 01-26-2007	ACAD FILE: LEVEE TYPICAL SECTION
CHECKED BY: _____		PAGE NO.
APPROVED BY: _____		D-1 OF P2

INH
 ENGINEERING/SURVEYING
 & LANDSCAPE ARCHITECTURE
Tryck Nyman Hayes, Inc.
 911 W. 8TH AVENUE, SUITE 300
 ANCHORAGE, AK 99501-3497
 TEL: (907) 279-0543 - FAX: (907) 276-7679



TYPICAL ROAD OVER RAIL PROFILE



TYPICAL ROAD OVER RAIL SECTION

NOTES:

1. HORIZONTAL DIMENSIONS ARE FOR PERPENDICULAR CROSSING ANGLES. LENGTH WILL INCREASE IF BRIDGE ALIGNMENT IS AT A SKEW.
2. VERTICAL CURVES DESIGNED USING K-VALUE OF 150 PER AASHTO GREEN BOOK TABLE III-32.



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PROJECT:

**FAIRBANKS - NORTH POLE REALIGNMENT
PHASE III - TECHNICAL ANALYSIS**

TITLE:

**APPENDIX D-2
CHENA PUMP ALTERNATE
ROAD OVER RAIL PROFILE**

DESIGNED BY: _____

SCALE: AS NOTED

AFE NO.:

DRAWN BY: _____

ACAD FILE: ROAD OVER RAIL CHENA

CHECKED BY: _____

DATE: 01-26-2007

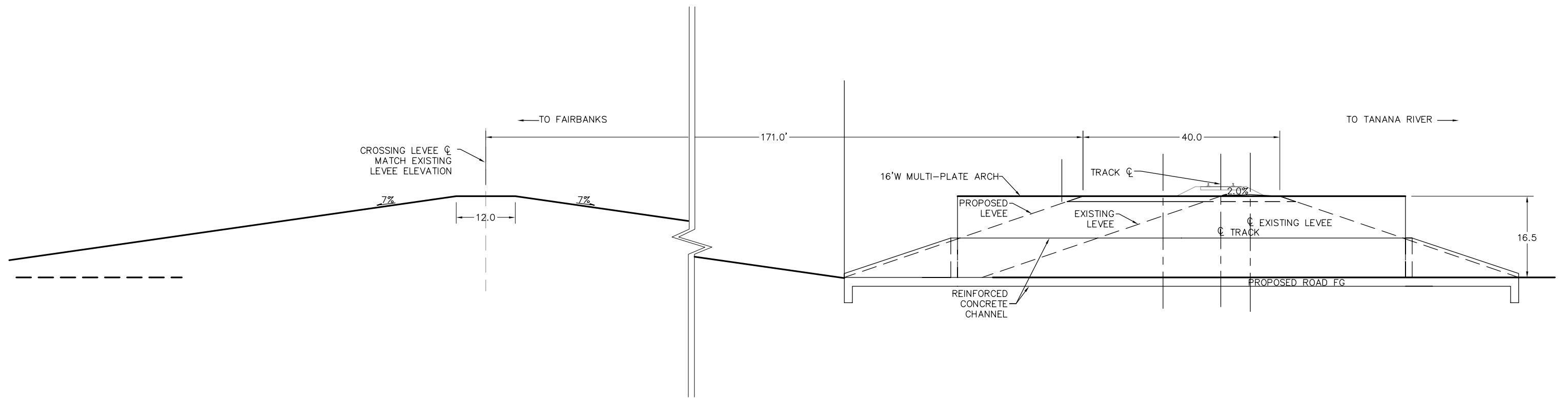
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APPROVED BY: _____

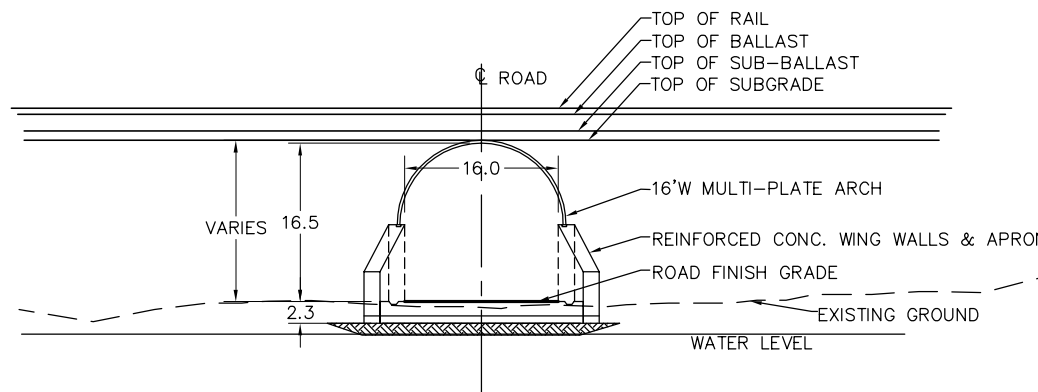
D2 OF P2



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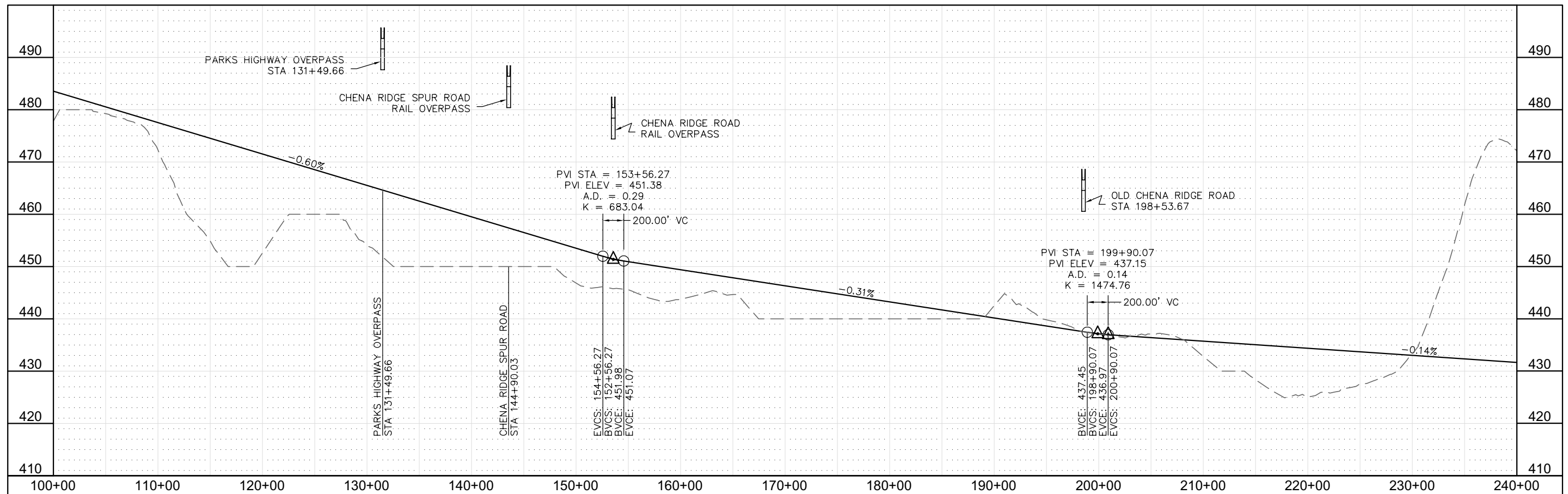
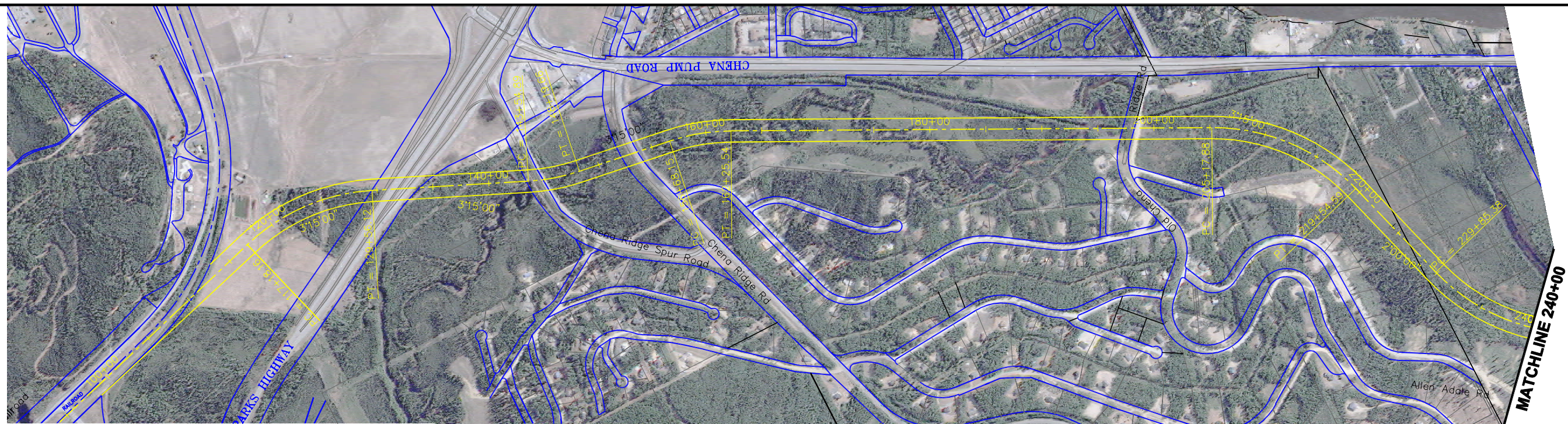
STEEL PLATE ARCH UNDERCROSSING SECTION



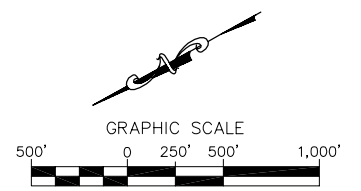
STEEL MULTI-PLATE ARCH UNDERCROSSING PROFILE



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PROJECT: FAIRBANKS - NORTH POLE REALIGNMENT PHASE III - TECHNICAL ANALYSIS		
TITLE: APPENDIX D-3 LEVEE CROSSING W/STEEL MULTI-PLATE ARCH		
DESIGNED BY: _____	SCALE: AS NOTED	DATE NO.: _____
DRAWN BY: _____	DATE: 01-26-2007	ACAD FILE: crossing under levee.dwg
CHECKED BY: _____		PAGE NO. _____
APPROVED BY: _____		D-3 OF P2



LEGEND	
	Existing Railroad Centerline
	Proposed Railroad Centerline
	Proposed Railroad at Levee
	Existing ROW
	Proposed ROW
	Proposed Bridge (Plan)
	Proposed Bridge (Profile)
	Edge of Pavement

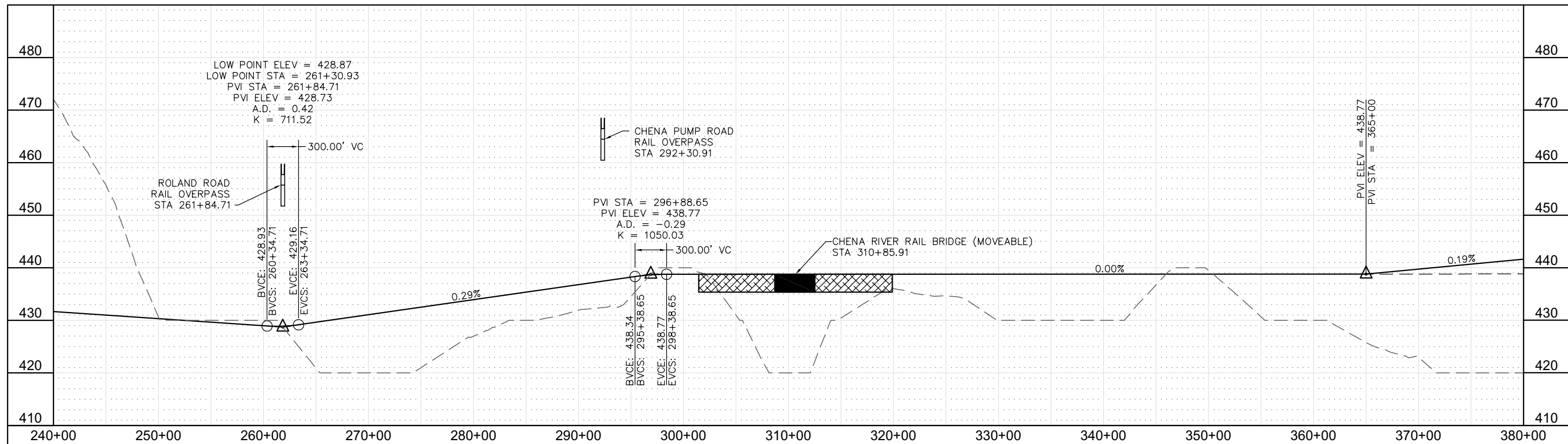
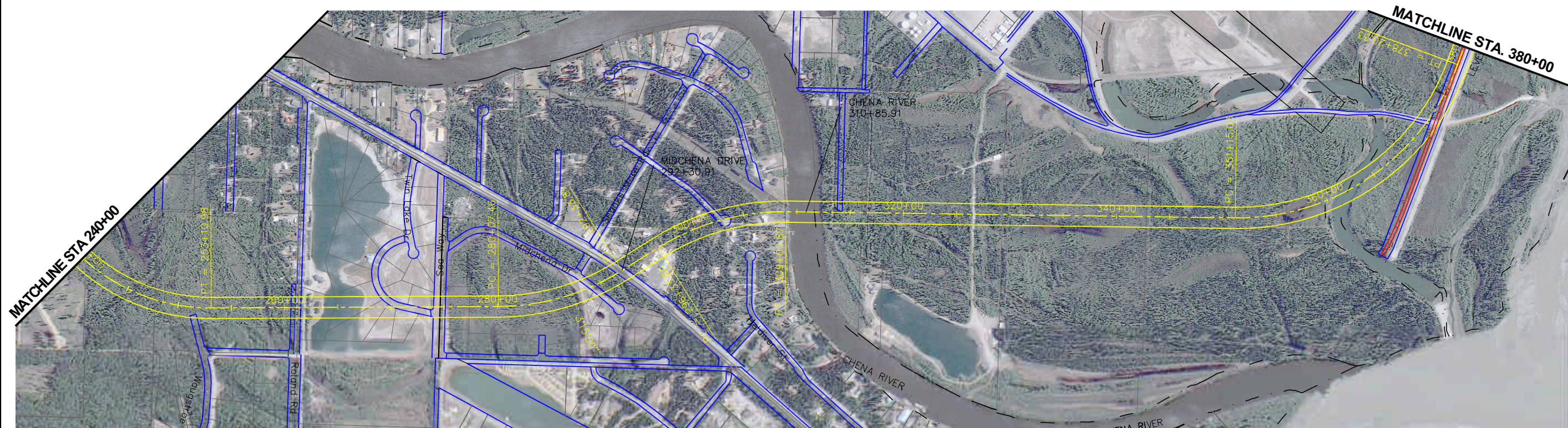


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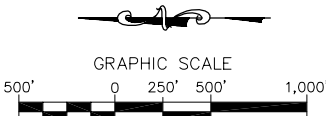
PROJECT: FAIRBANKS - NORTH POLE REALIGNMENT
PHASE III - TECHNICAL ANALYSIS

TITLE: APPENDIX D-4
CHENA PUMP ALTERNATE
OPTION 1

DESIGNED BY: _____	SCALE: AS NOTED	AFE NO.: _____
DRAWN BY: _____	DATE: 01-26-2007	ACAD FILE: Chena-Pump-P&P_D4
CHECKED BY: _____		PAGE NO. _____
APPROVED BY: _____		D4 OF P2



LEGEND			
	Existing Railroad Centerline		Proposed Bridge (Plan)
	Proposed Railroad Centerline		Proposed Bridge (Profile)
	Proposed Railroad at Levee		Edge of Pavement
	Existing ROW		
	Proposed ROW		

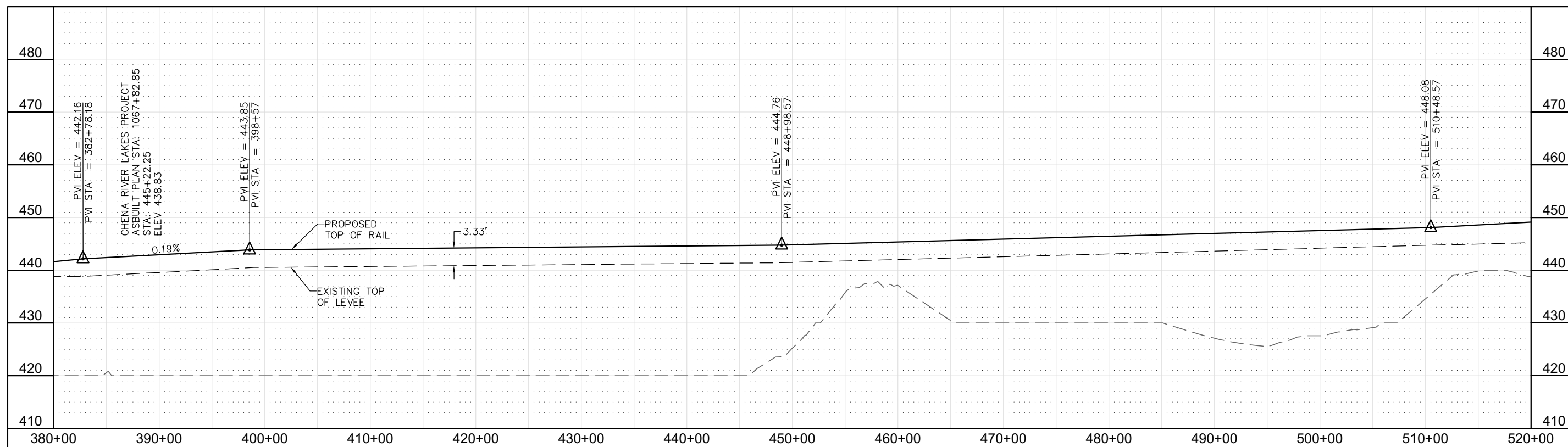
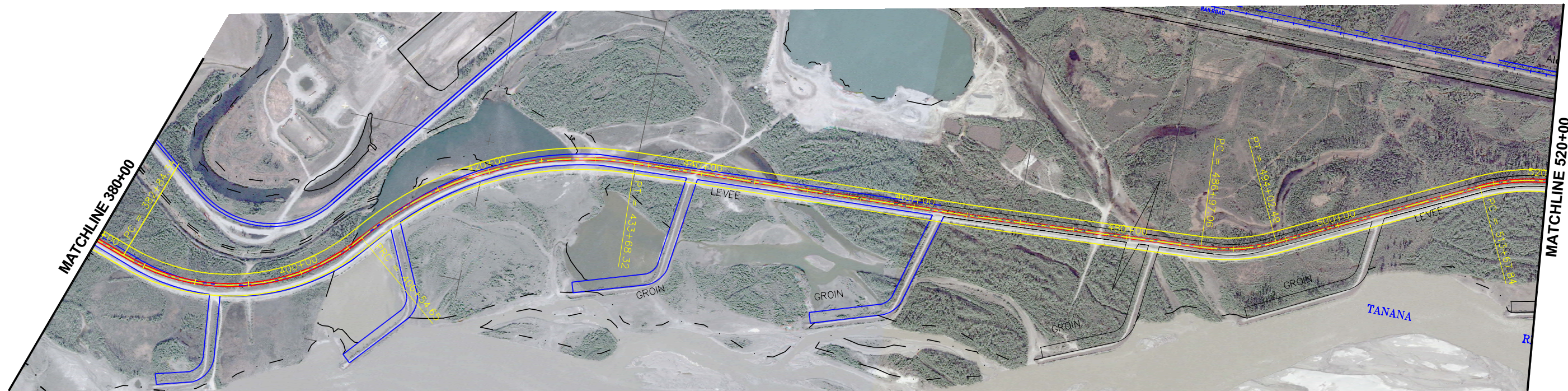


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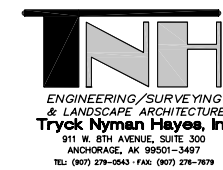
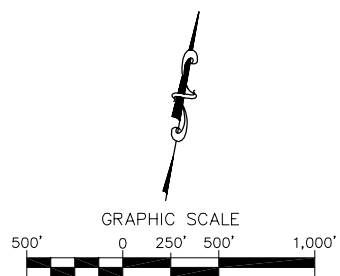
PROJECT: **FAIRBANKS - NORTH POLE REALIGNMENT**
PHASE III - TECHNICAL ANALYSIS

TITLE: **APPENDIX D-5**
CHENA PUMP ALTERNATE
OPTION 1

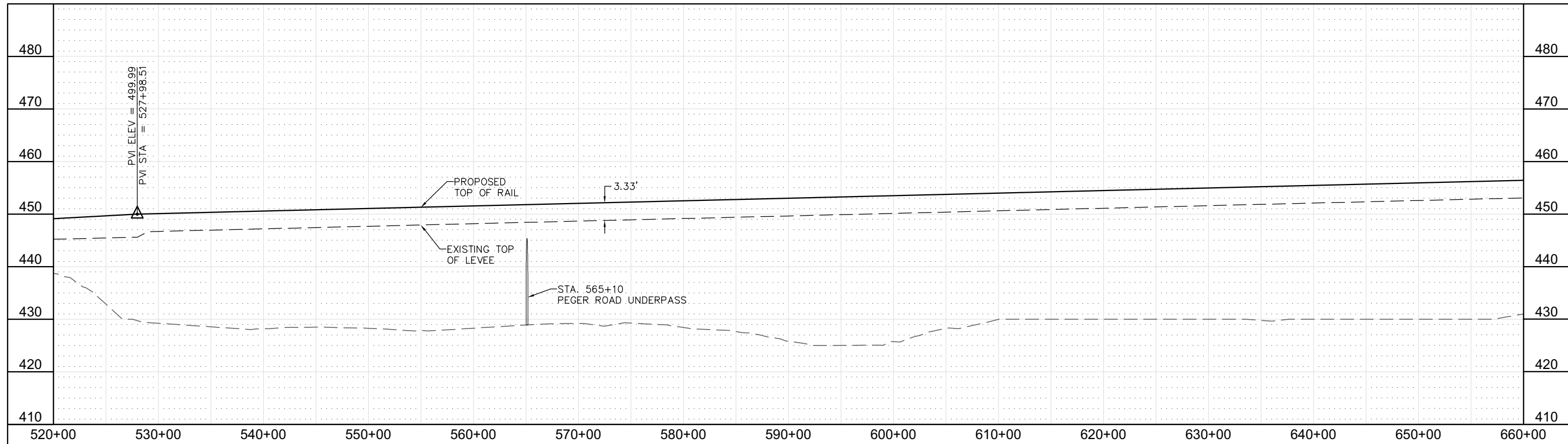
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CHECKED BY: _____		PAGE NO. _____
APPROVED BY: _____		D5 OF P2



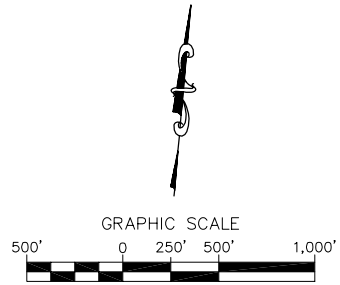
LEGEND			
	Existing Railroad Centerline		Proposed Bridge (Plan)
	Proposed Railroad Centerline		Proposed Bridge (Profile)
	Proposed Railroad at Levee		Edge of Pavement
	Existing ROW		
	Proposed ROW		



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PROJECT: FAIRBANKS - NORTH POLE REALIGNMENT PHASE III - TECHNICAL ANALYSIS		
TITLE: APPENDIX D-6 CHENA PUMP ALTERNATE OPTION 1		
DESIGNED BY: _____	SCALE: AS NOTED	AFE NO.: _____
DRAWN BY: _____	DATE: 01-26-2007	ACAD FILE: Chena-Pump-P&P_D4
CHECKED BY: _____		PAGE NO. _____
APPROVED BY: _____		D6 OF P2



LEGEND			
	Existing Railroad Centerline		Proposed Bridge (Plan)
	Proposed Railroad Centerline		Proposed Bridge (Profile)
	Proposed Railroad at Levee		Edge of Pavement
	Existing ROW		
	Proposed ROW		

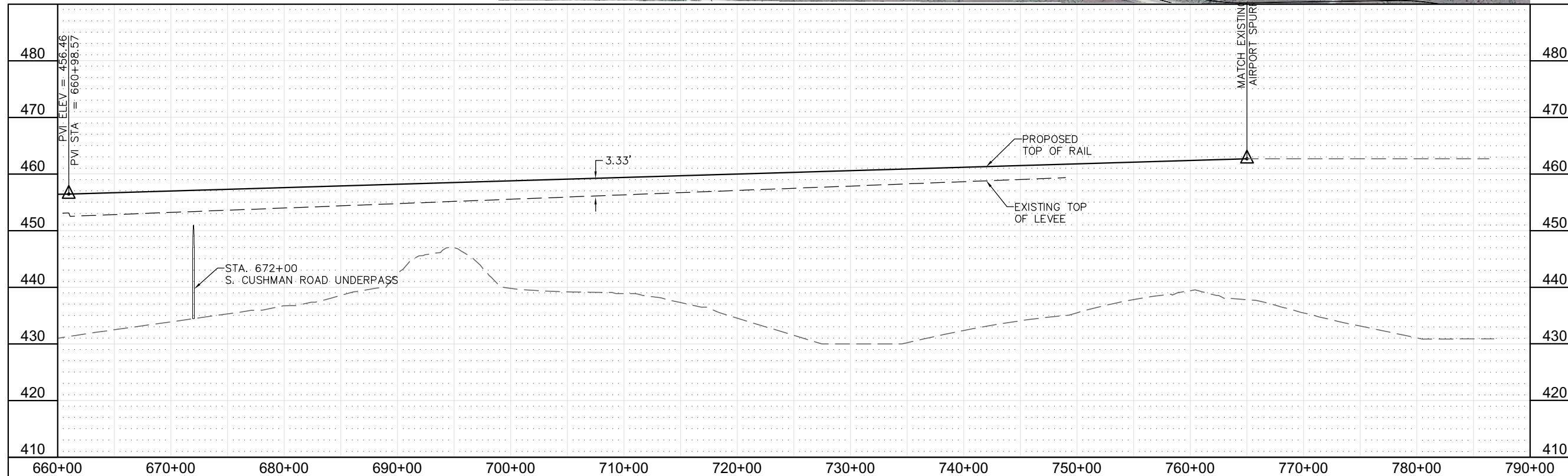


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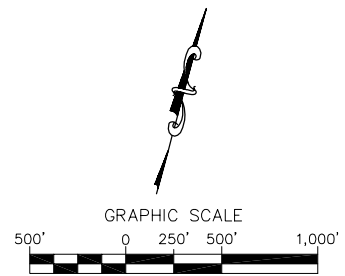
PROJECT:
FAIRBANKS - NORTH POLE REALIGNMENT
PHASE III - TECHNICAL ANALYSIS

TITLE:
 APPENDIX D-7
 CHENA PUMP ALTERNATE
 OPTION 1

DESIGNED BY: _____	SCALE: AS NOTED	AFE NO.: _____
DRAWN BY: _____	DATE: 01-26-2007	ACAD FILE: Chena-Pump-P&P_D4-
CHECKED BY: _____		PAGE NO. _____
APPROVED BY: _____		D7 OF P2



LEGEND			
	Existing Railroad Centerline		Proposed Bridge (Plan)
	Proposed Railroad Centerline		Proposed Bridge (Profile)
	Proposed Railroad at Levee		Edge of Pavement
	Existing ROW		
	Proposed ROW		

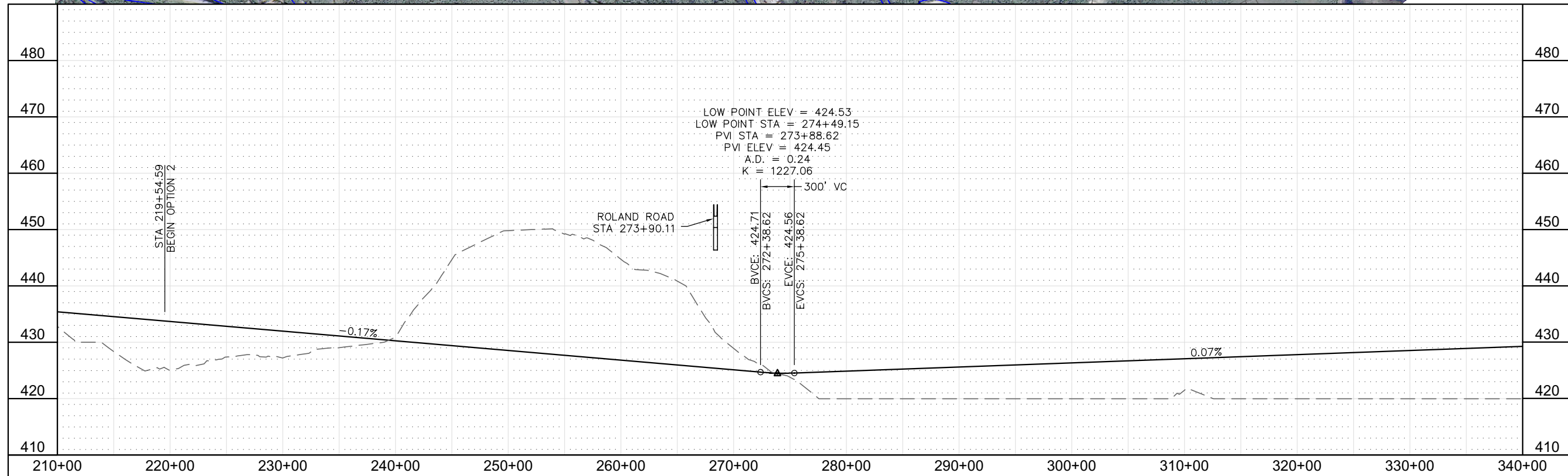
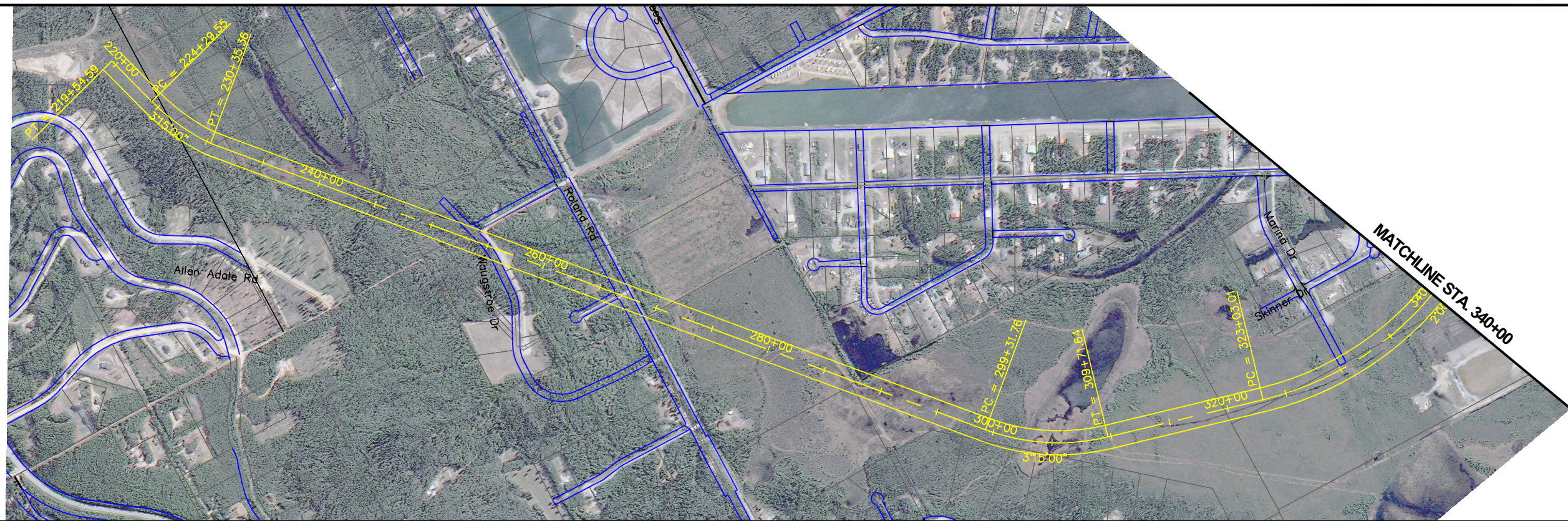


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PROJECT: **FAIRBANKS - NORTH POLE REALIGNMENT
PHASE III - TECHNICAL ANALYSIS**

TITLE: APPENDIX D-8
CHENA PUMP ALTERNATE
OPTION 1

DESIGNED BY: _____	SCALE: AS NOTED	AFE NO.: _____
DRAWN BY: _____	DATE: 01-26-2007	ACAD FILE: Chena-Pump-P&P_D4
CHECKED BY: _____		PAGE NO. _____
APPROVED BY: _____		D8 OF P2

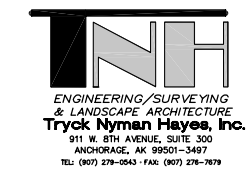
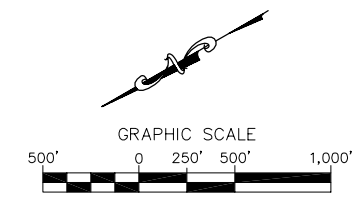


LOW POINT ELEV = 424.53
 LOW POINT STA = 274+49.15
 PVI STA = 273+88.62
 PVI ELEV = 424.45
 A.D. = 0.24
 K = 1227.06

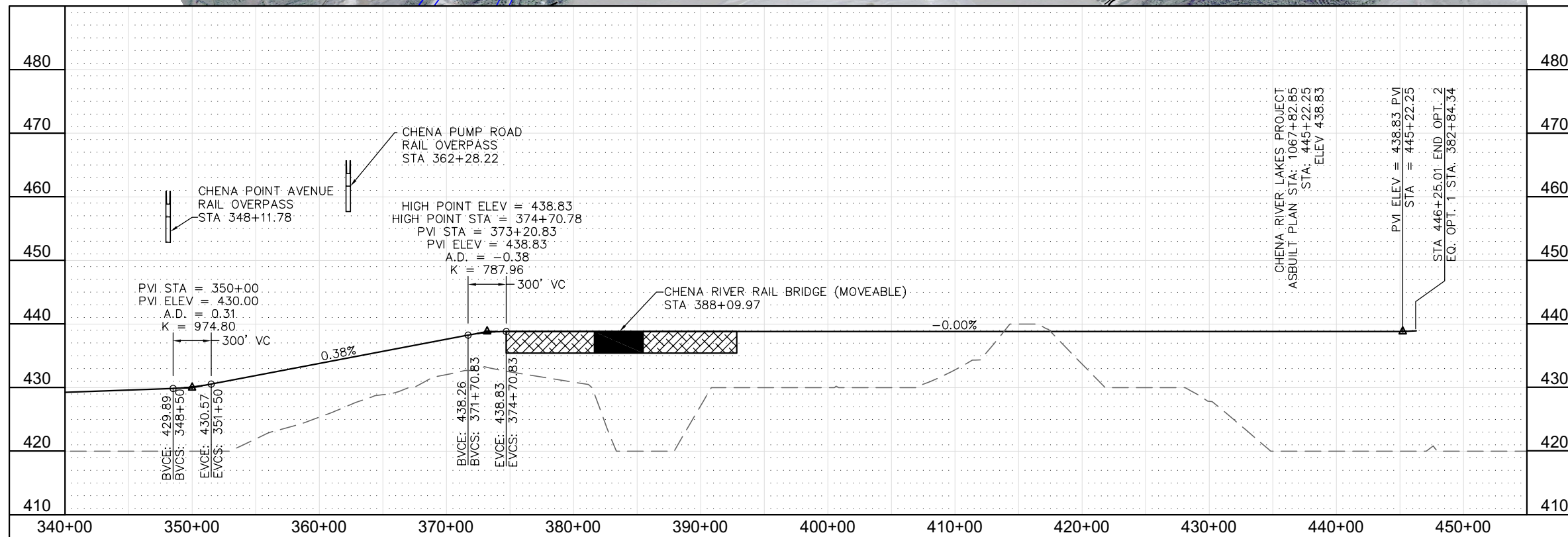
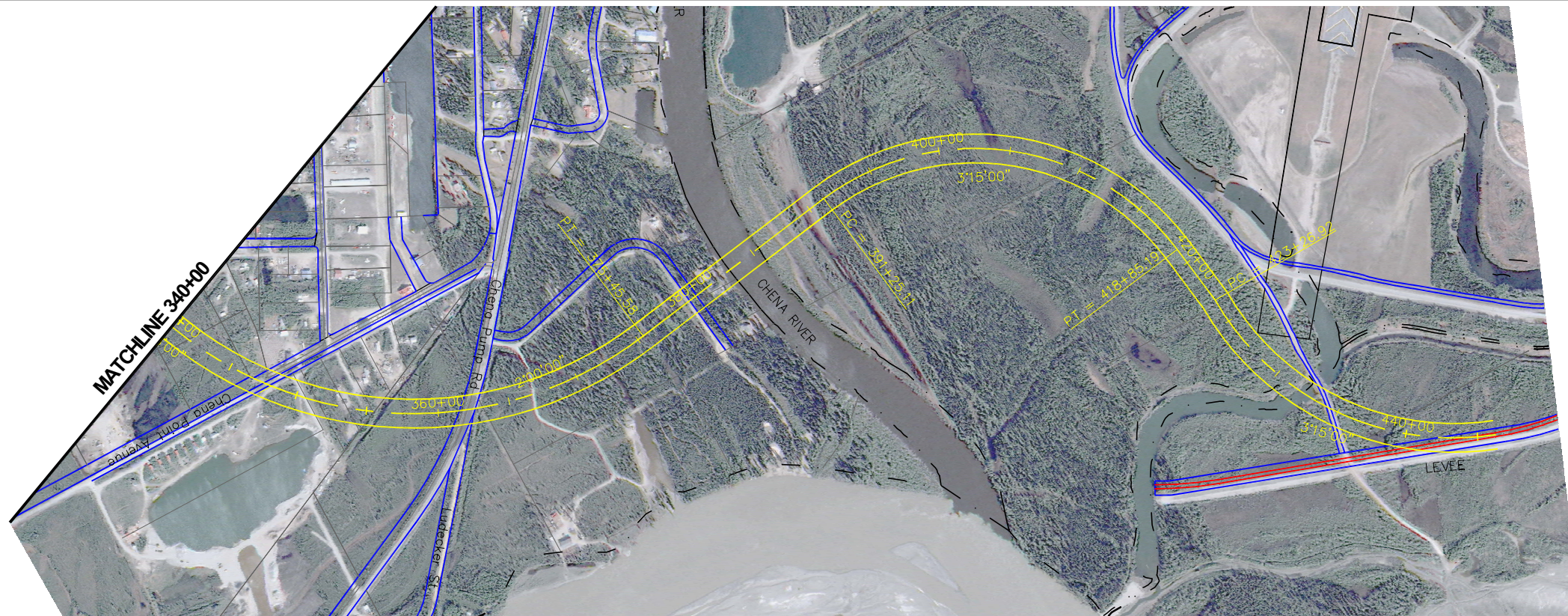
ROLAND ROAD
 STA 273+90.11

BVCE: 424.71
 BVCS: 272+38.62
 EVCE: 424.56
 EVCS: 275+38.62
 300' VC

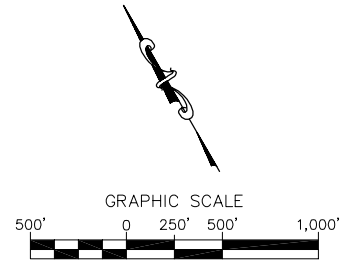
LEGEND	
	Existing Railroad Centerline
	Proposed Railroad Centerline
	Proposed Railroad at Levee
	Existing ROW
	Proposed ROW
	Proposed Bridge (Plan)
	Proposed Bridge (Profile)
	Edge of Pavement



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PROJECT: FAIRBANKS - NORTH POLE REALIGNMENT PHASE III - TECHNICAL ANALYSIS		
TITLE: APPENDIX D-9 CHENA PUMP ALTERNATE OPTION 2		
DESIGNED BY: _____	SCALE: AS NOTED	AFE NO.: _____
DRAWN BY: _____	DATE: 01-26-2007	ACAD FILE: Chena-Pump-P&P_D4
CHECKED BY: _____		PAGE NO. _____
APPROVED BY: _____		D9 OF P2



LEGEND	
	Existing Railroad Centerline
	Proposed Railroad Centerline
	Proposed Railroad at Levee
	Existing ROW
	Proposed ROW
	Proposed Bridge (Plan)
	Proposed Bridge (Profile)
	Edge of Pavement

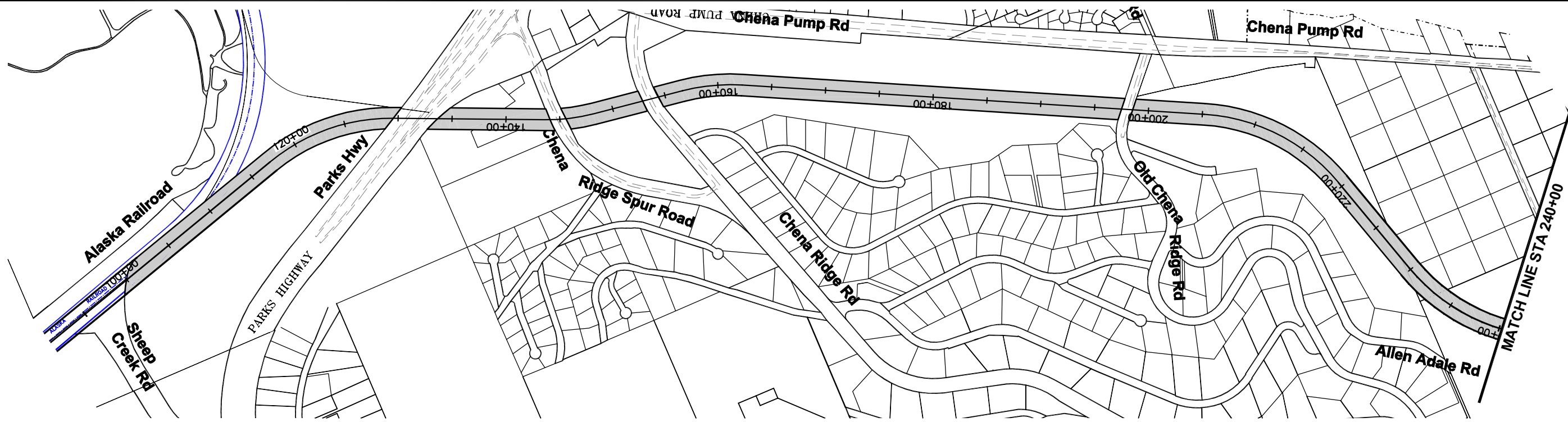


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FAIRBANKS - NORTH POLE REALIGNMENT
PHASE III - TECHNICAL ANALYSIS

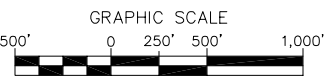
TITLE: APPENDIX D-10
 CHENA PUMP ALTERNATE
 OPTION 2


DESIGNED BY: _____	SCALE: AS NOTED	AFE NO.: _____
DRAWN BY: _____	DATE: 01-26-2007	ACAD FILE: Chena-Pump-P&P_D4
CHECKED BY: _____		PAGE NO. _____
APPROVED BY: _____		D10 OF P2

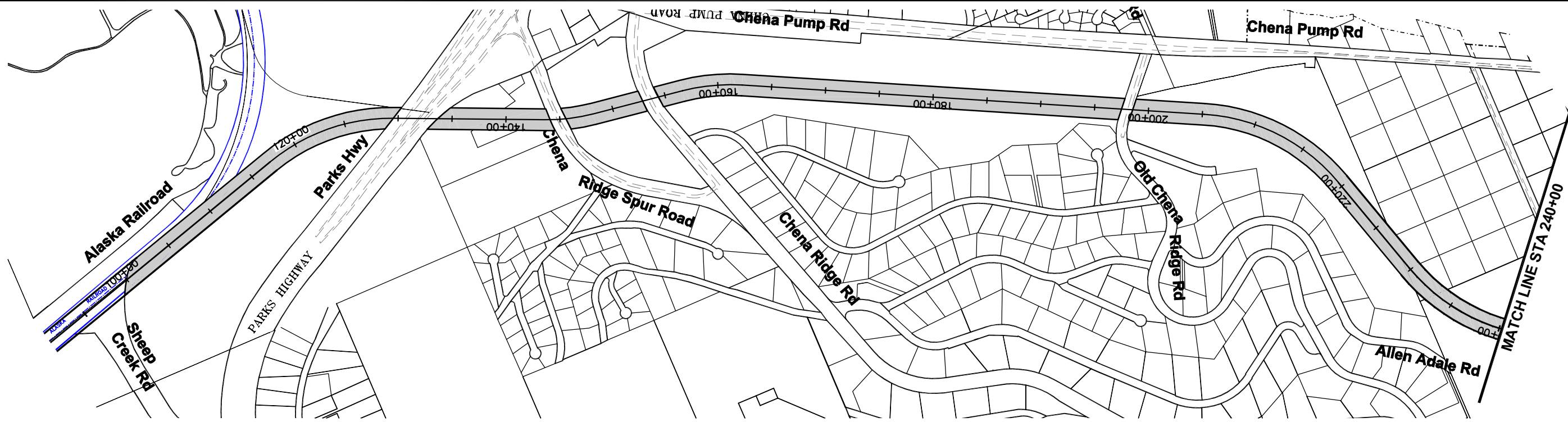


**OPTION 1 ESTIMATED
102 PARCELS AFFECTED**





-  Existing Railroad Centerline
-  Proposed Railroad Centerline
-  Proposed ROW & Parcel Impacts
-  Proposed top of Levee with Railroad

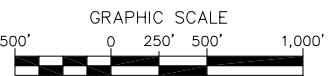



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PROJECT: FAIRBANKS - NORTH POLE REALIGNMENT PHASE III - TECHNICAL ANALYSIS		
TITLE: APPENDIX D-11 CHENA PUMP ALTERNATE OPTION 1 ESTIMATED PROPERTY IMPACTS		
DESIGNED BY: _____	SCALE: AS NOTED	AFE NO.: _____
DRAWN BY: _____	DATE: 01-26-2007	ACAD FILE: Chena-Pump-ROW IMPACTS
CHECKED BY: _____		PAGE NO. _____
APPROVED BY: _____		D11 OF P2

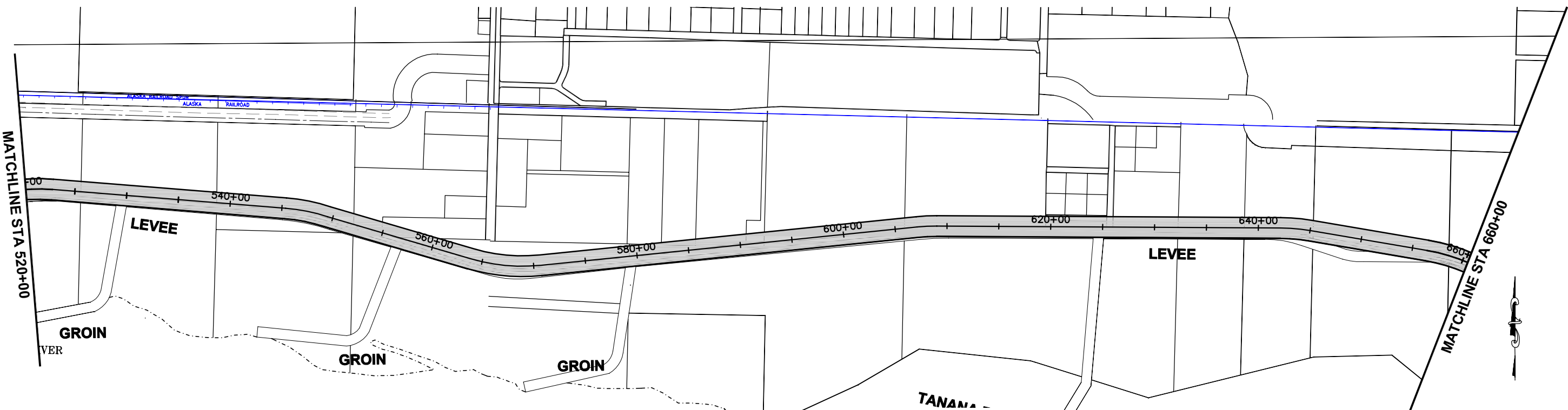
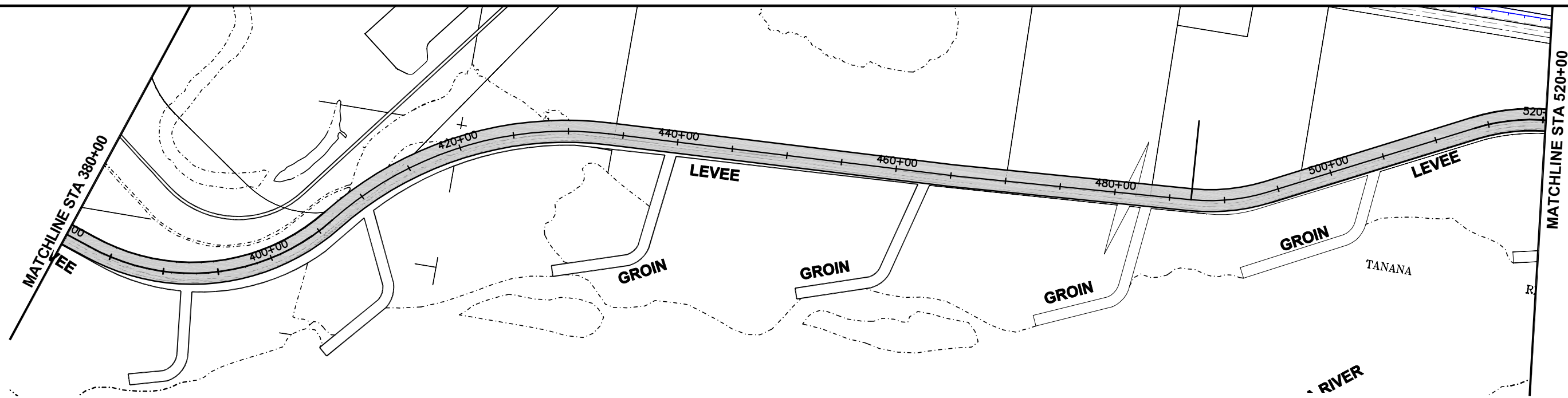


**OPTION 1 ESTIMATED
102 PARCELS AFFECTED**

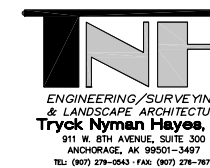
-  Existing Railroad Centerline
-  Proposed Railroad Centerline
-  Proposed ROW & Parcel Impacts
-  Proposed top of Levee with Railroad




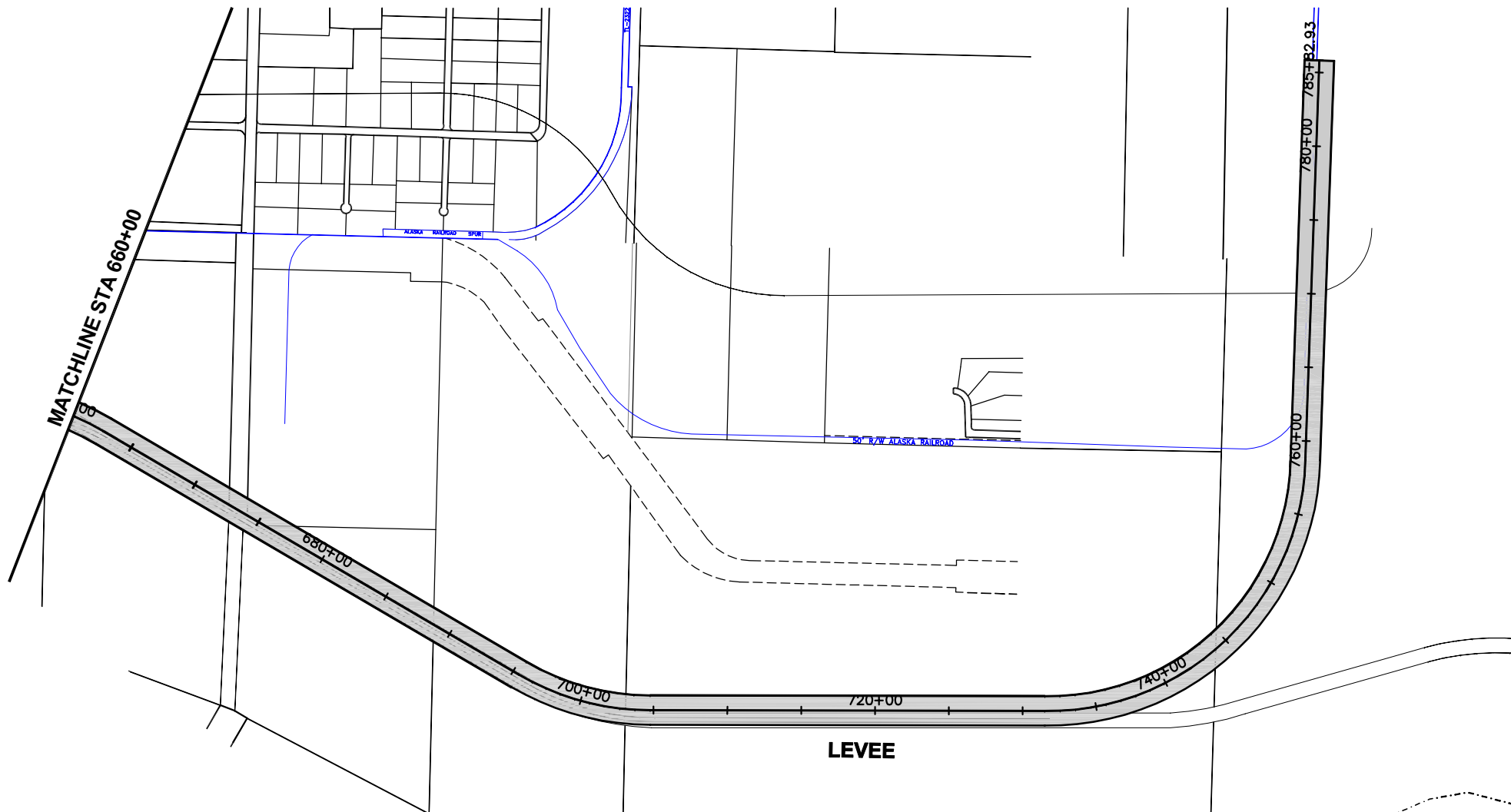
 ALASKA RAILROAD CORPORATION OFFICE OF THE CHIEF ENGINEER P.O. BOX 107500, ANCHORAGE, ALASKA 99510-7500 (907) 265-2456		
PROJECT: FAIRBANKS - NORTH POLE REALIGNMENT PHASE III - TECHNICAL ANALYSIS		
TITLE: APPENDIX D-11 CHENA PUMP ALTERNATE OPTION 1 ESTIMATED PROPERTY IMPACTS		
DESIGNED BY: _____	SCALE: AS NOTED	AFE NO.: _____
DRAWN BY: _____	DATE: 01-26-2007	ACAD FILE: Chena-Pump-ROW IMP
CHECKED BY: _____		PAGE NO. _____
APPROVED BY: _____		D11 OF P2



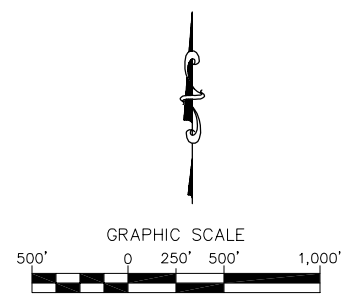
- Existing Railroad Centerline
- Proposed Railroad Centerline
- Proposed ROW & Parcel Impacts
- Proposed top of Levee with Railroad



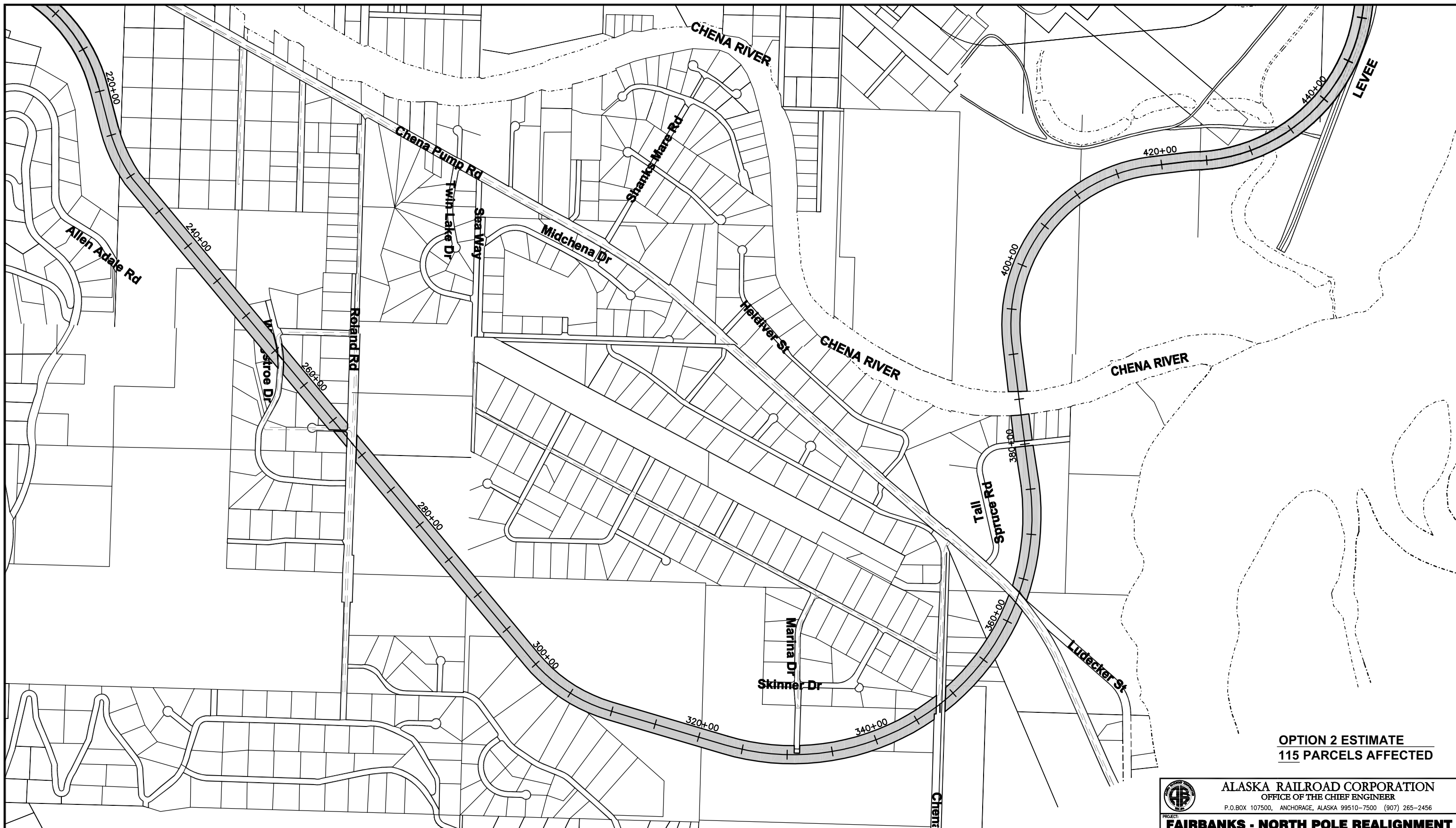
 ALASKA RAILROAD CORPORATION OFFICE OF THE CHIEF ENGINEER P.O. BOX 107500, ANCHORAGE, ALASKA 99510-7500 (907) 265-2456		
PROJECT: FAIRBANKS - NORTH POLE REALIGNMENT PHASE III - TECHNICAL ANALYSIS		
TITLE: APPENDIX D-12 CHENA PUMP ALTERNATE OPTION 1 ESTIMATED PROPERTY IMPACTS		
DESIGNED BY: _____	SCALE: AS NOTED	AFE NO.: _____
DRAWN BY: _____	DATE: 01-26-2007	ACAD FILE: Chena-Pump-ROW IMPACTS
CHECKED BY: _____		PAGE NO. _____
APPROVED BY: _____		D12 OF P2



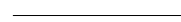



- Existing Railroad Centerline
- - - Proposed Railroad Centerline
- █ Proposed ROW & Parcel Impacts
- ==== Proposed top of Levee with Railroad

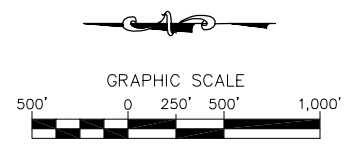



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PROJECT: FAIRBANKS - NORTH POLE REALIGNMENT PHASE III - TECHNICAL ANALYSIS		
TITLE: APPENDIX D-13 CHENA PUMP ALTERNATE OPTION 1 ESTIMATED PROPERTY IMPACTS		
DESIGNED BY: _____	SCALE: AS NOTED	AFE NO.: _____
DRAWN BY: _____	DATE: 01-26-2007	ACAD FILE: Chena-Pump-ROW IMPACTS
CHECKED BY: _____	APPROVED BY: _____	PAGE NO. _____
		D13 OF P2

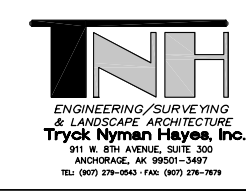
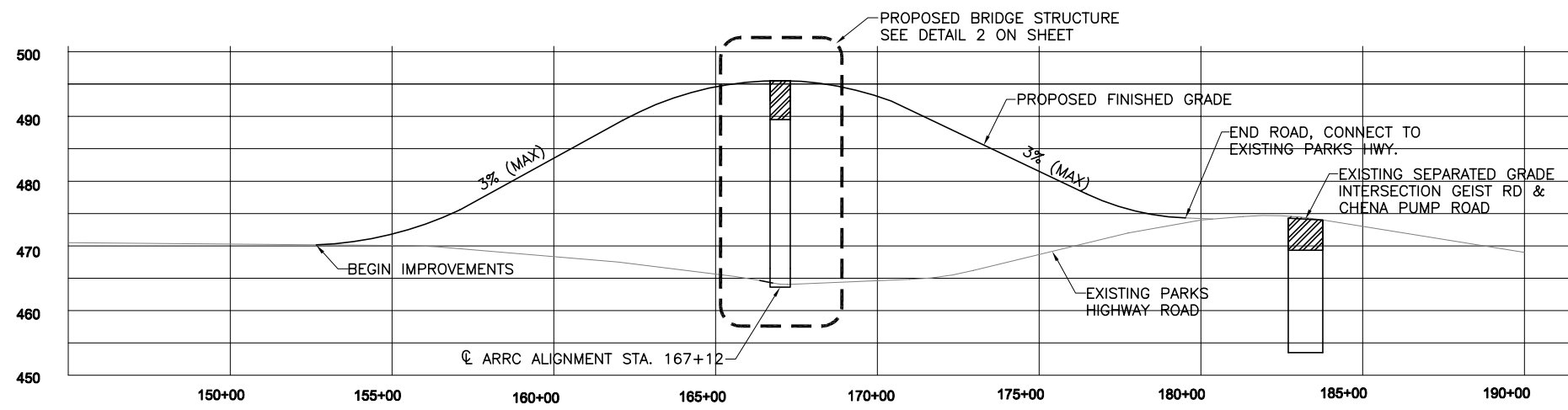
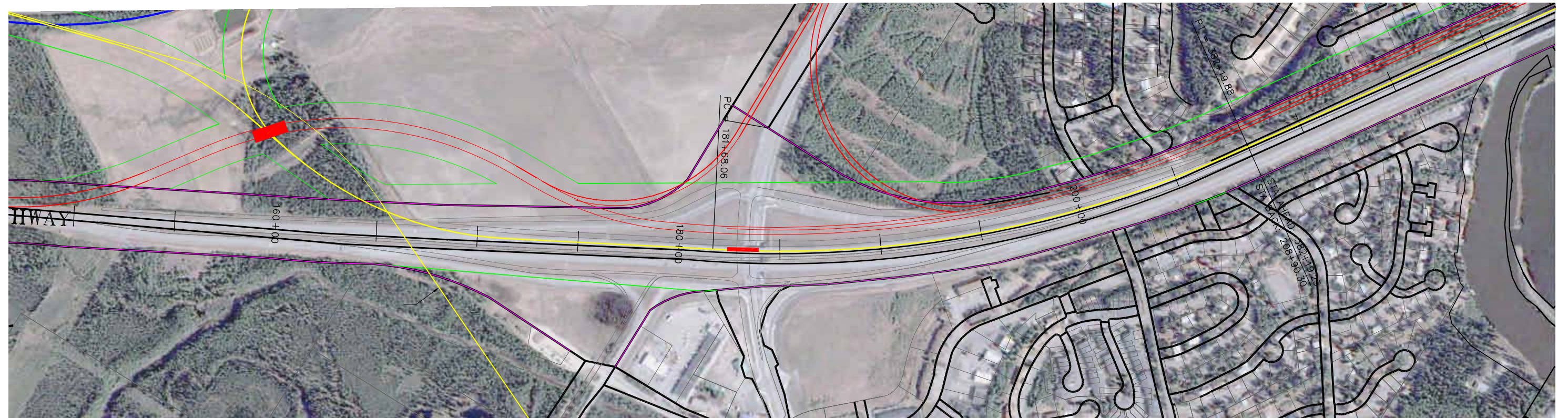



**OPTION 2 ESTIMATE
115 PARCELS AFFECTED**

-  Existing Railroad Centerline
-  Proposed Railroad Centerline
-  Proposed ROW & Parcel Impacts
-  Proposed top of Levee with Railroad



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FAIRBANKS - NORTH POLE REALIGNMENT PHASE III - TECHNICAL ANALYSIS		
TITLE: APPENDIX D-14 CHENA PUMP ALTERNATE OPTION 2 ESTIMATED PROPERTY IMPACTS		
DESIGNED BY: _____	SCALE: AS NOTED	AFE NO.: _____
DRAWN BY: _____	DATE: 01-26-2007	ACAD FILE: Chena-Pump-ROW IMP
CHECKED BY: _____		PAGE NO. _____
APPROVED BY: _____		D14 OF P2



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PROJECT: FAIRBANKS - NORTH POLE REALIGNMENT PHASE III - TECHNICAL ANALYSIS		
TITLE: APPENDIX D-15 CHENA PUMP ALTERNATES 1 & 2 PARKS HIGHWAY MODIFICATIONS		
DESIGNED BY: _____	SCALE: AS NOTED	AFE NO.: _____
DRAWN BY: _____	DATE: 01-26-2007	ACAD FILE: bypass20061106-p&t
CHECKED BY: _____		PAGE NO. _____
APPROVED BY: _____		D15 OF P2