

DESIGNED BY
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SCALE

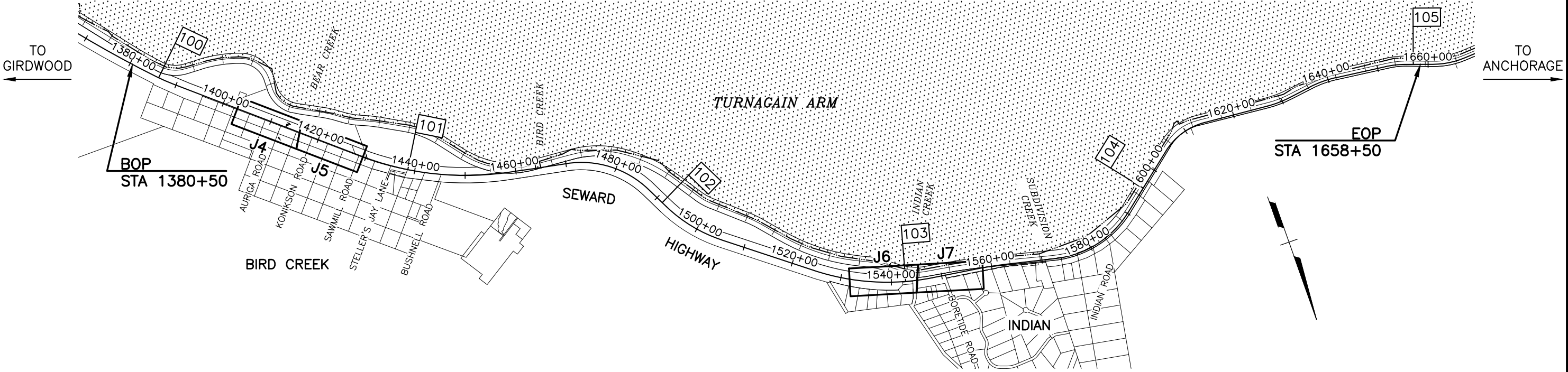
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DATE TIME
8/5/2016 10:04 AM

DRAWING LOCATION
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REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION					
			ALASKA	0A31056/Z583890000 0001497/Z570880000	2016	J1	J8


PROJECT CONSTRUCTION PHASING AND TRAFFIC CONTROL PLAN			
PHASE	ROADWAY AND PATHWAY TRAFFIC HANDLING	GENERAL PROJECT LOCATION	CONSTRUCTION ACTIVITY DESCRIPTION
1	MINOR DELAYS MAY OCCUR FOR CONSTRUCTION OF TEMPORARY DETOURS.	BEAR CREEK, NORTH SIDE OF ROADWAY FROM 1405+00 TO 1423+50.	REALIGN BEAR CREEK CULVERT.
		INDIAN CREEK, SOUTH SIDE OF ROADWAY FROM 1534+00 TO 1547+00.	REPLACE INDIAN CREEK BRIDGE.
2	ONE LANE OF TEMPORARY BRIDGE MAY CLOSE TO ACCOMMODATE BRIDGE WORK. USE OF FLAGGERS TO REGULATE ONE LANE TRAFFIC.	INDIAN CREEK, SOUTH SIDE OF ROADWAY FROM 1534+00 TO 1547+00.	NEW BRIDGE INSTALLATION.
3	CLOSE PATHWAY SPUR TO NORTH SIDE.	BEAR CREEK PEDESTRIAN TUNNEL, 1415+00.	REALIGN BEAR CREEK CULVERT.
4	MINOR DELAYS MAY OCCUR FOR THE WIDENING OF EMBANKMENT.	FROM 1415+00 TO 1443+00 AND 1540+00 TO 1565+00.	WIDEN EMBANKMENT FOR LEFT HAND TURN LANES.
5	TEMPORARY ONE LANE CLOSURES WITH FLAGGERS REGULATING THE FLOW OF TRAFFIC.	ENTIRE LENGTH OF PROJECT.	FOAM STABILIZED BASE COURSE ASPHALT PAVEMENT REHABILITATION AND CULVERT REPLACEMENT.



SCHEMATIC LAYOUT

PLANS-IN-HAND AUGUST 2016

PLANS DEVELOPED BY:
R&M CONSULTANTS, INC.
9101 VANGUARD DRIVE
ANCHORAGE, AK 99507
(907) 522-1707
CERT. OF AUTH. NO. AECC111



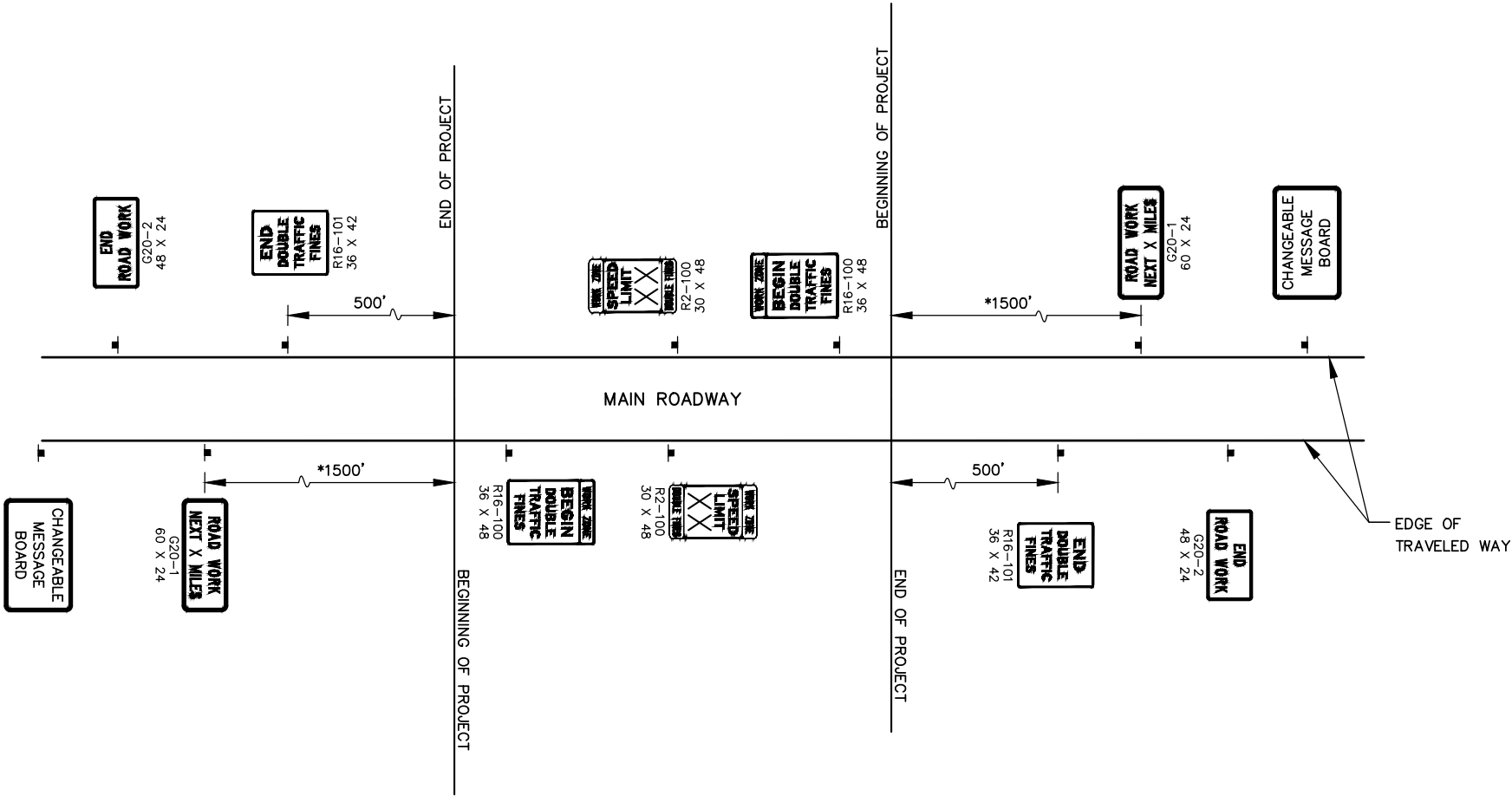
R&M CONSULTANTS, INC.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

SEWARD HWY: MP 100-105
IMPROVEMENTS &
HSIP: CR TRAFFIC SAFETY
CORRIDOR LEFT TURN LANES

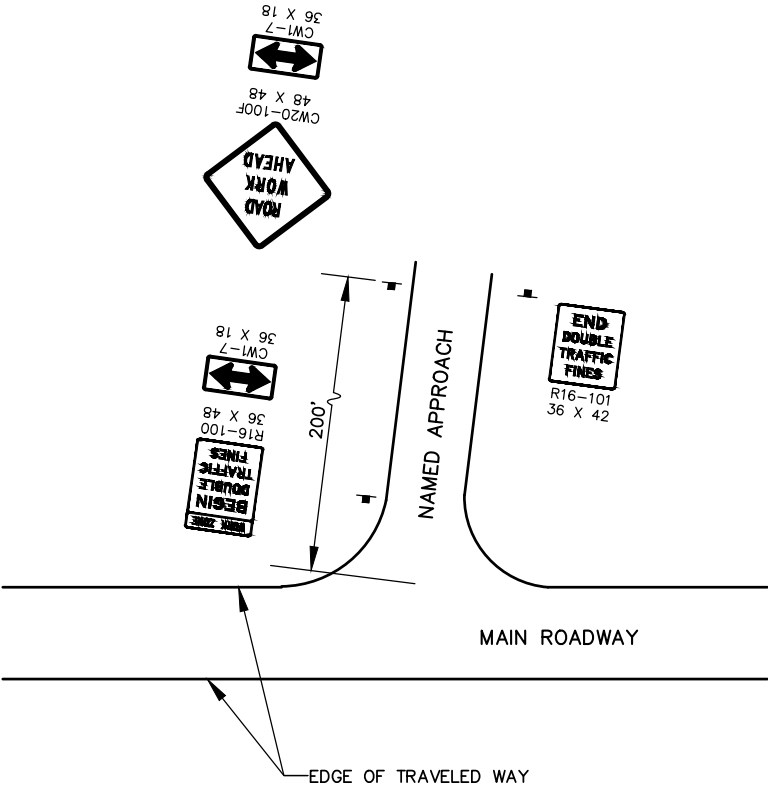
PROJECT CONSTRUCTION PHASING
AND TRAFFIC HANDLING

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION	ALASKA	0A31056/Z583890000 0001497/Z570880000	2016	J2	J8



PERMANENT CONSTRUCTION SIGNING

* LOCATION TO BE DETERMINED BY PROJECT ENGINEER.



PERMANENT CONSTRUCTION SIGNING

SIDE STREETS

NOTES:

1. SPEED LIMIT TO BE DETERMINED BY THE PROJECT ENGINEER.
2. SEE STANDARD DRAWING C-04.12 FOR SPACING OF DOUBLE FINE SIGNS AND SPEED LIMIT SIGNS.
3. CHANGEABLE MESSAGE BOARD SHALL BE USED FOR ADVANCED NOTIFICATION. LOCATION OF CHANGEABLE MESSAGE BOARDS SHALL BE DETERMINED BY THE ENGINEER.

PLANS-IN-HAND AUGUST 2016

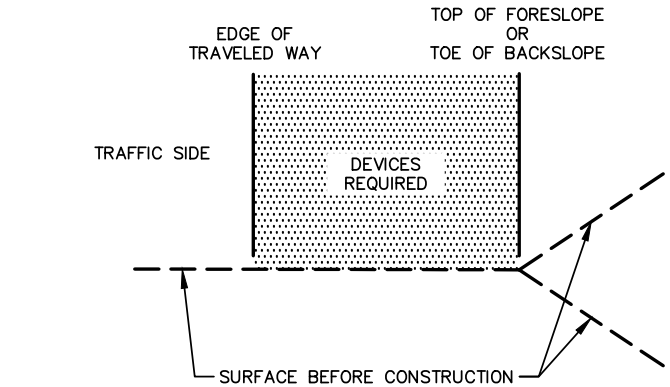
PLANS DEVELOPED BY:
R&M CONSULTANTS, INC.
9101 VANGUARD DRIVE
ANCHORAGE, AK 99507
(907) 522-1707
CERT. OF AUTH. NO. AECC111

R&M CONSULTANTS, INC.

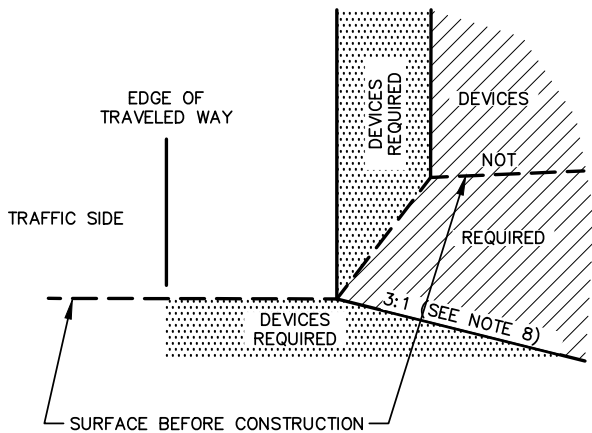
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

SEWARD HWY: MP 100-105
IMPROVEMENTS &
HSIP: CR TRAFFIC SAFETY
CORRIDOR LEFT TURN LANES
PERMANENT CONSTRUCTION
SIGN DETAIL
WITH MESSAGE BOARD

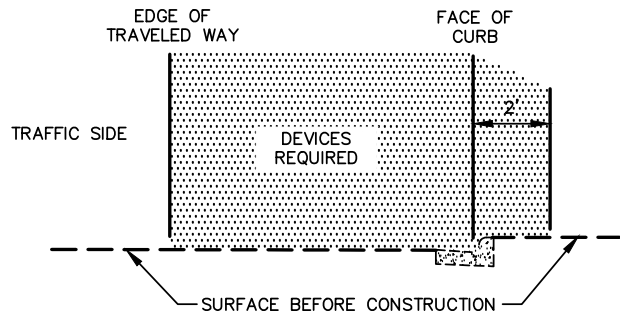
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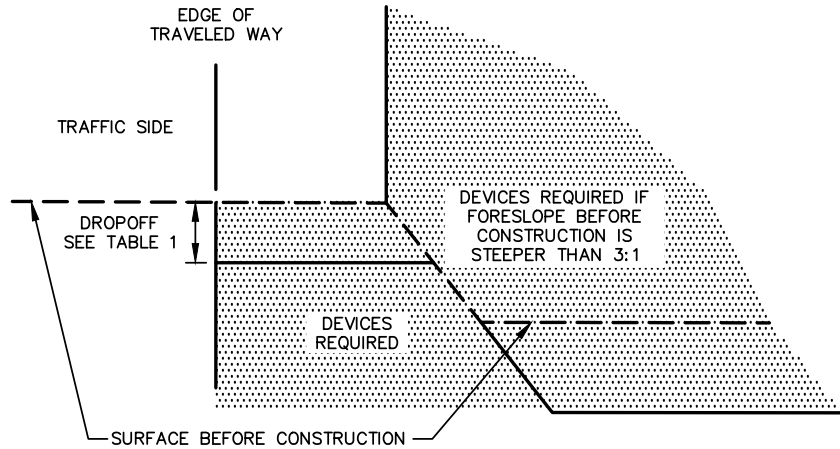
EMBANKMENT SECTION



BACKSLOPE SECTION



CURB AND GUTTER SECTION



FORESLOPE SECTION

LEGEND

WORK AREA WHERE TRAFFIC CONTROL DEVICES ARE REQUIRED

WORK AREA WHERE TRAFFIC CONTROL DEVICES ARE NOT REQUIRED

SURFACE BEFORE CONSTRUCTION

CONSTRUCTION AREA BOUNDARY

TABLE 1 TRAFFIC CONTROL DEVICES REQUIRED FOR VERTICAL DROPOFFS ≤ 4 FEET FROM TRAVELED WAY*			
ROADWAY TYPE	DROPOFF ≤ 2"	2"< DROPOFF ≤ 12"	DROPOFF ≥ 12"
AVERAGE DAILY TRAFFIC > 4000 OR SPEED > 40 MPH	TAPER ASPHALT AT 1:1 OR ~45°	TYPE II BARRICADES OR DRUMS	TEMPORARY PORTABLE CONCRETE BARRIER OR TEMPORARY GUARDRAIL
ALL OTHER ROADWAYS	NONE REQUIRED	TUBULAR CANDLES OR DELINEATORS	TYPE II BARRICADES OR DRUMS

* SPACE THE DEVICES IN ACCORDANCE WITH REQUIREMENTS FOR SPACING TYPE II BARRICADES AND DRUMS SET FORTH IN THE ALASKA TRAFFIC MANUAL.

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION	ALASKA	0A31056/Z583890000 0001497/Z570880000	2016	J3	J8

- NOTES:**
- TRAFFIC CONTROL DEVICES REQUIRED BY THE GUIDELINES ON THIS SHEET ARE INTENDED FOR CONDITIONS WHICH WILL BE IN PLACE LONGER THAN ONE CONTINUOUS WORK SHIFT. AN APPROVED TRAFFIC CONTROL PLAN IS REQUIRED PRIOR TO BEGINNING WORK.
 - THE GROUND CROSS SECTION AT A LOCATION BEFORE CONSTRUCTION DETERMINES WHETHER TRAFFIC CONTROL DEVICES ARE NEEDED AT THE SAME LOCATION DURING CONSTRUCTION.
 - GUARDRAIL EXISTING AT A LOCATION BEFORE CONSTRUCTION SHALL REMAIN IN PLACE DURING CONSTRUCTION OR APPROVED ALTERNATE DEVICES INSTALLED.
 - INSTALL TRAFFIC CONTROL DEVICES BETWEEN THE EDGE OF TRAVELED WAY AND THE WORK AREA ON ANY ROADWAY OPENED TO TRAFFIC WHEN REQUIRED BY THIS DRAWING.
 - EXISTING ROADWAY ALIGNMENTS INSTALL TRAFFIC CONTROL DEVICES WHEN WORK OCCURS IN THE DEVICES REQUIRED AREAS SHOWN ON THIS DRAWING.
 - DETOURS, TEMPORARY ROADWAYS, OR NEW ROADWAYS NOT YET COMPLETE. INSTALL TRAFFIC CONTROL DEVICES WHEN ANY OF THE FOLLOWING CONDITIONS EXIST:
 - THE HORIZONTAL OR VERTICAL CURVATURE IS MORE SEVERE THAN BEFORE CONSTRUCTION BEGAN.
 - THE ROADWAY OR SHOULDER WIDTH IS LESS THAN BEFORE CONSTRUCTION BEGAN.
 - THE BACKSLOPE OR FORESLOPE IS STEEPER THAN BEFORE CONSTRUCTION BEGAN.
 - THE HEIGHT OF THE FORESLOPE IS GREATER THAN BEFORE CONSTRUCTION BEGAN.
 - DROPOFFS:

INSTALL TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE FORESLOPE SECTION DETAIL AND TABLE 1.
 - ON ANY NEWLY CONSTRUCTED SLOPE STEEPER THAN 4:1 TO 3:1 PROVIDE A TEN FOOT FLAT RECOVERY AREA AT THE TOE OF SLOPE OR INSTALL TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE FORESLOPE SECTION DETAIL.
 - TRAFFIC CONTROL DEVICE REQUIREMENTS:
 - ON ROADWAYS WITH A SPEED LIMIT GREATER THAN 40 MILES PER HOUR OR AVERAGE DAILY TRAFFIC VOLUME GREATER THAN 4000 VEHICLES PER DAY INSTALL TEMPORARY PORTABLE CONCRETE BARRIER OR TEMPORARY GUARDRAIL. ON MULTI-LANE ROADWAYS CLOSE THE LANE CLOSEST TO THE WORK AREA AND INSTALL DRUMS.

TERMINATE RUNS OF TEMPORARY PORTABLE CONCRETE BARRIER USING ONE OF THE FOLLOWING THREE METHODS:

 - TEMPORARY CRASH ATTENUATOR.
 - RIGID TO SEMI-RIGID GUARDRAIL TRANSITION WITH SLOTTED RAIL TERMINAL OR OTHER APPROVED CRASHWORTHY END TREATMENT.
 - FLARE THE ENDS OF THE TEMPORARY BARRIER AWAY FROM THE ROADWAY AT A RATE OF 15:1 ON A TRANSVERSE SLOPE OF 10:1 OR FLATTER TO THE OUTSIDE EDGE OF THE CLEAR ZONE AND INSTALL A SLOPING END TREATMENT, PER STANDARD DRAWING G-46.11.

TERMINATE RUNS OF TEMPORARY GUARDRAIL USING EITHER OF THE FOLLOWING TWO METHODS:

 - SLOTTED RAIL TERMINAL OR OTHER APPROVED CRASHWORTHY END TREATMENT.
 - FLARE THE ENDS OF THE TEMPORARY GUARDRAIL AWAY FROM THE ROADWAY AT A RATE OF 15:1 ON TRANSVERSE SLOPE OF 10:1 OR FLATTER TO THE OUTSIDE EDGE OF THE CLEAR ZONE.
 - ON ALL OTHER ROADWAYS INSTALL TYPE II BARRICADES, DRUMS OR DELINEATORS WHEN DEVICES ARE REQUIRED. SPACE THE DEVICES IN ACCORDANCE WITH THE REQUIREMENTS FOR SPACING TYPE II BARRICADES AND DRUMS SET FORTH IN THE ALASKA TRAFFIC MANUAL.
 - DO NOT CONSTRUCT VERTICAL DROP OFFS GREATER THAN 1.5" WITHIN THE TRAFFIC LANE OR ACTIVE WHEEL TRACK. PROVIDE 2' OF SHY DISTANCE FROM EDGE OF ALL TRAFFIC CONTROL DEVICES TO THE EDGE OF THE TRAVELED WAY.

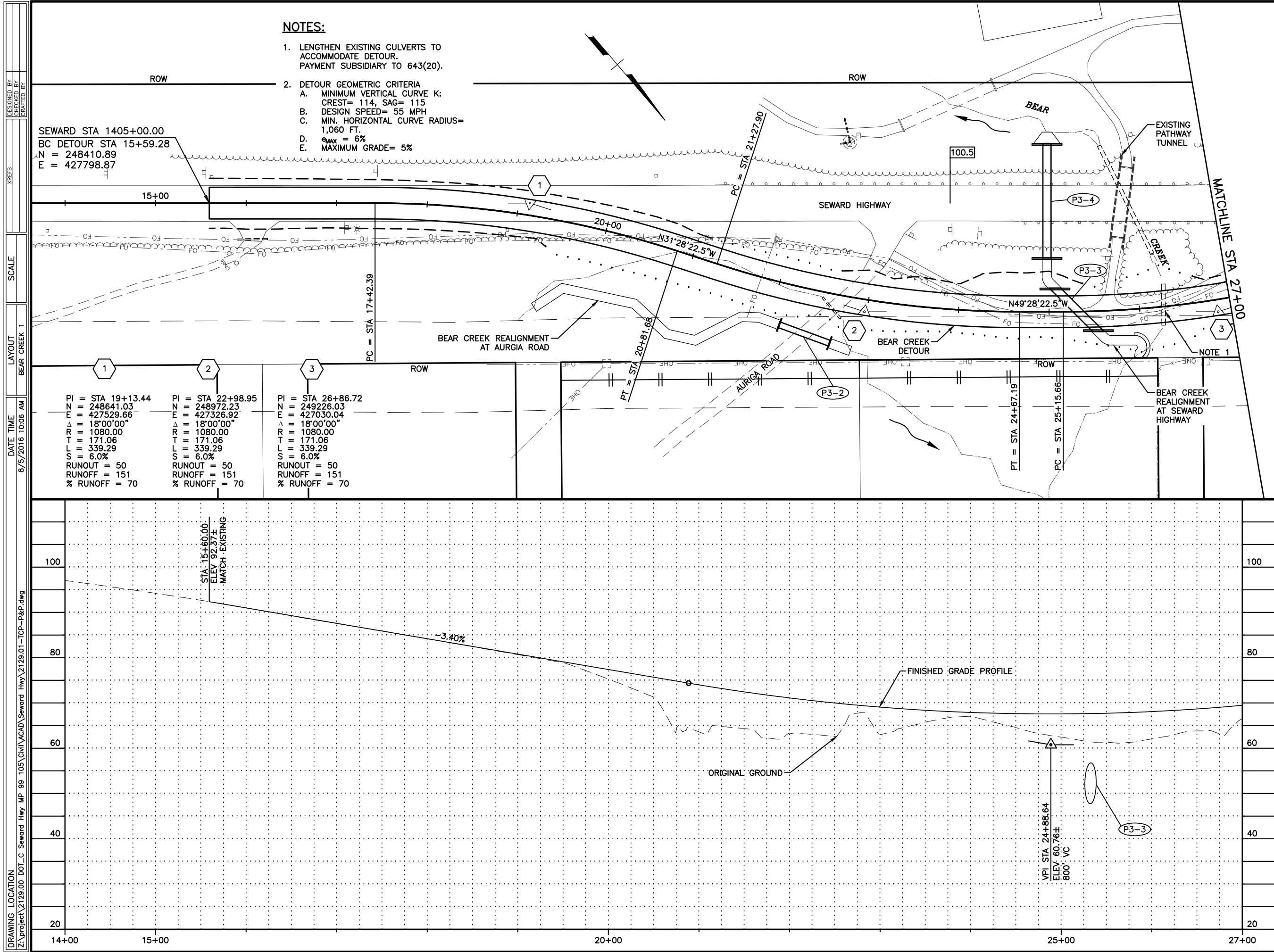
PLANS-IN-HAND AUGUST 2016

PLANS DEVELOPED BY:
R&M CONSULTANTS, INC.
9101 VANGUARD DRIVE
ANCHORAGE, AK 99507
(907) 522-1707
CERT. OF AUTH. NO. AECC111



R&M CONSULTANTS, INC.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
**SEWARD HWY: MP 100-105
IMPROVEMENTS &
HSIP: CR TRAFFIC SAFETY
CORRIDOR LEFT TURN LANES**
TRAFFIC CONTROL DEVICES
FOR ROADSIDES



SHEET NO.	TOTAL SHEETS	
J4	J8	
STATE	YEAR	
ALASKA	2016	
PROJECT DESIGNATION		
0A31056/Z583890000 0001497/Z570880000		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION
PLANS-IN-HAND AUGUST 2016		

TO ANCHORAGE

105

EOP STA 1658+50

INDIAN RD

104

103

102

SEWARD HIGHWAY

BIRD CREEK

BUSHNELL RD

SAWMILL RD

BEAR CREEK

BOP STA 1380+50

TO GIRLWOOD

PLANS DEVELOPED BY:
R&M CONSULTANTS, INC.
9101 VANGUARD DR.
ANCHORAGE, AK 99507
(907) 522-1707
CERT. OF AUTH. NO. AECC111

STATE OF ALASKA
49th
Name
License #
REGISTERED PROFESSIONAL ENGINEER

R&M CONSULTANTS, INC.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

SEWARD HWY: MP 100-105
IMPROVEMENTS &
HSIP: CR TRAFFIC SAFETY
CORRIDOR LEFT TURN LANES
TRAFFIC CONTROL PLAN AND
PROFILE: BEAR CREEK
STA 14+00-27+00

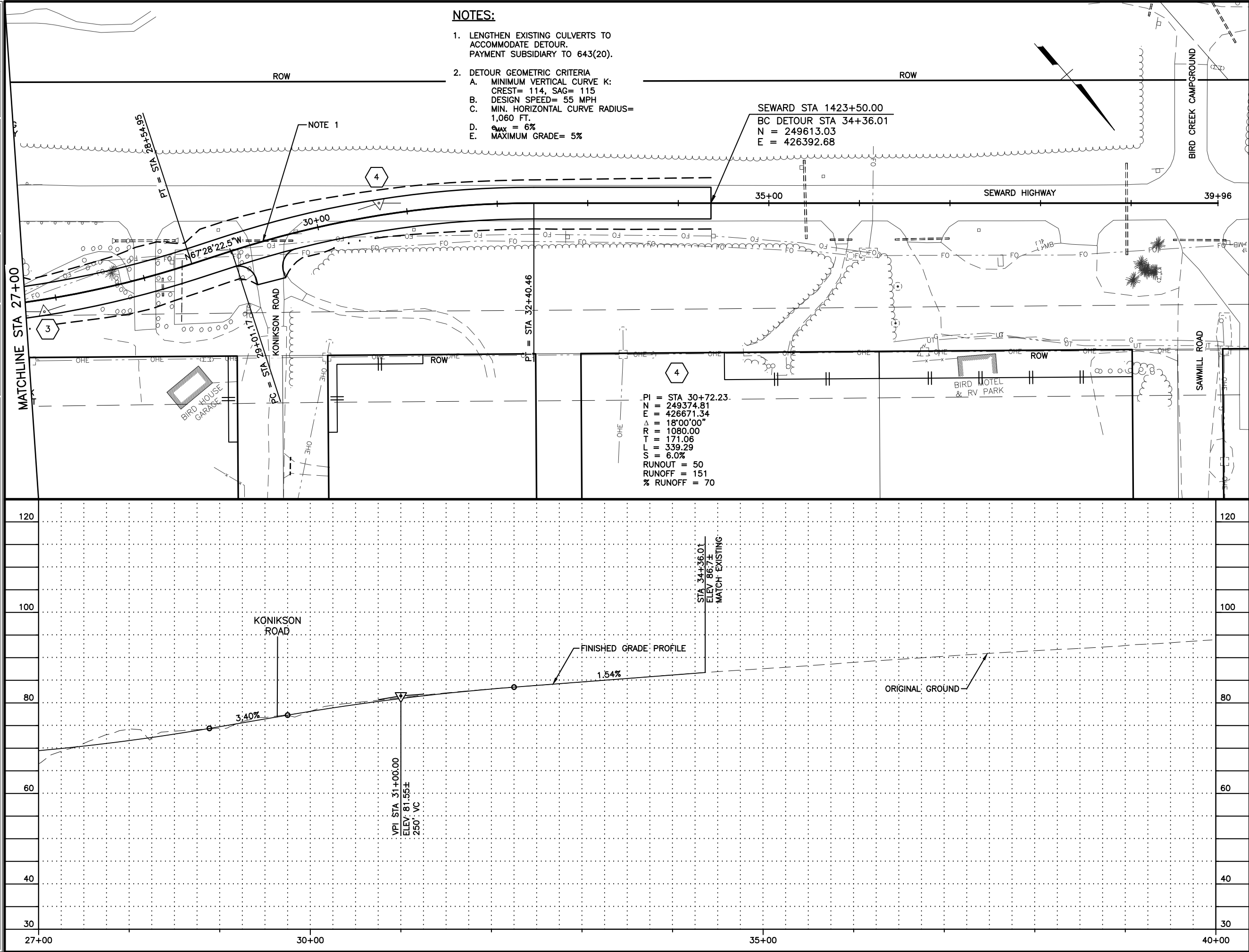
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DATE TIME
8/5/2016 10:06 AM

LAYOUT
BEAR CREEK 2

SCALE
XREES

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SHEET NO.	TOTAL SHEETS	
J5	J8	
STATE	YEAR	
ALASKA	2016	
PROJECT DESIGNATION		
0A31056/Z583890000 0001497/Z570880000		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION
PLANS-IN-HAND AUGUST 2016		

TO ANCHORAGE
TO GIRDWOOD

PLANS DEVELOPED BY:
R&M CONSULTANTS, INC.
9101 VANGUARD DR.
ANCHORAGE, AK 99507
(907) 522-1707
CERT. OF AUTH. NO. AECC111

STATE OF ALASKA
49th
Name
License #
REGISTERED PROFESSIONAL ENGINEER

R&M CONSULTANTS, INC.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

SEWARD HWY: MP 100-105
IMPROVEMENTS &
HSIP: CR TRAFFIC SAFETY
CORRIDOR LEFT TURN LANES
TRAFFIC CONTROL PLAN AND
PROFILE: BEAR CREEK
STA 27+00-40+00

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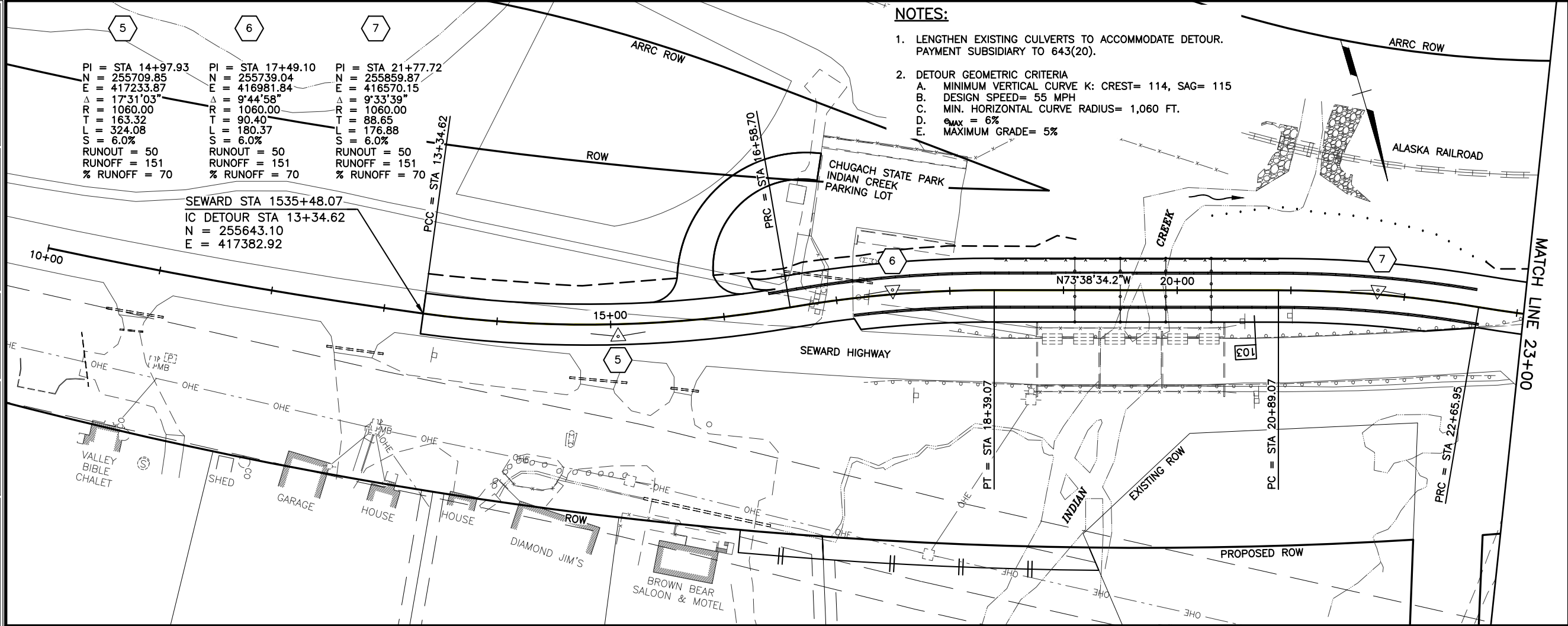
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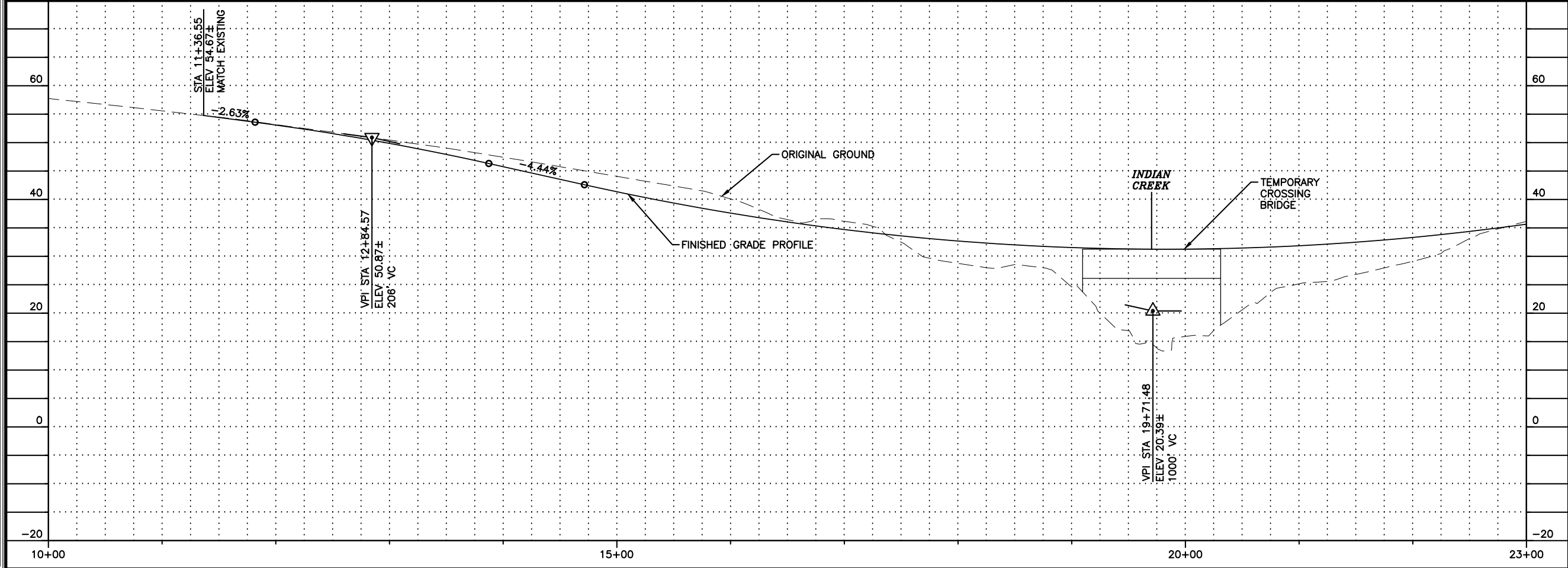
LAYOUT
INDIAN CREEK 1

DATE TIME
8/5/2016 10:06 AM



NOTES:

1. LENGTHEN EXISTING CULVERTS TO ACCOMMODATE DETOUR.
PAYMENT SUBSIDIARY TO 643(20).
2. DETOUR GEOMETRIC CRITERIA
 - A. MINIMUM VERTICAL CURVE K: CREST= 114, SAG= 115
 - B. DESIGN SPEED= 55 MPH
 - C. MIN. HORIZONTAL CURVE RADIUS= 1,060 FT.
 - D. e_{max} = 6%
 - E. MAXIMUM GRADE= 5%



SHEET NO.	TOTAL SHEETS	
J6	J8	
STATE	YEAR	
ALASKA	2016	
PROJECT DESIGNATION		
0A31056/Z583890000		
0001497/Z570880000		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION
PLANS-IN-HAND AUGUST 2016		

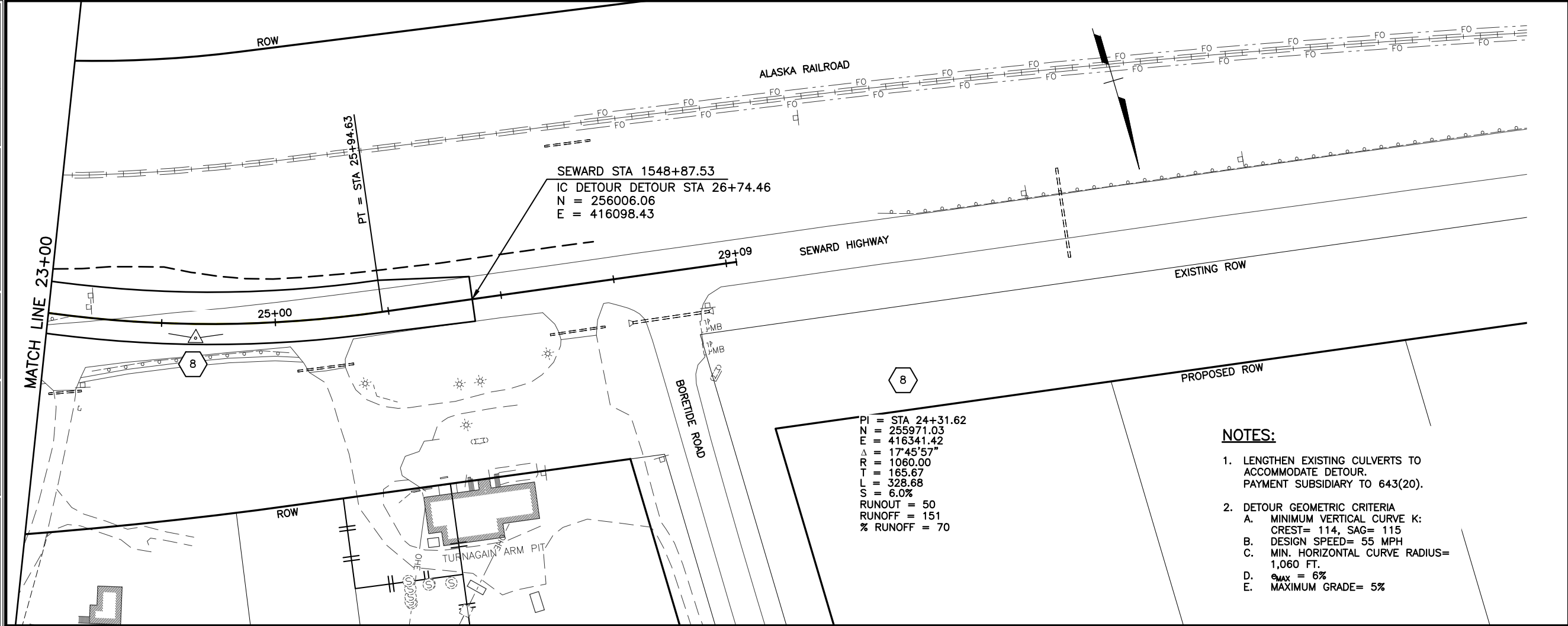
PLANS DEVELOPED BY:
R&M CONSULTANTS, INC.
9101 VANGUARD DR.
ANCHORAGE, AK 99507
(907) 522-1707
CERT. OF AUTH. NO. AECC111

R&M CONSULTANTS, INC.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

SEWARD HWY: MP 100-105
IMPROVEMENTS &
HSIP: CR TRAFFIC SAFETY
CORRIDOR LEFT TURN LANES
TRAFFIC CONTROL PLAN AND
PROFILE: INDIAN CREEK
STA 13+20-26+20

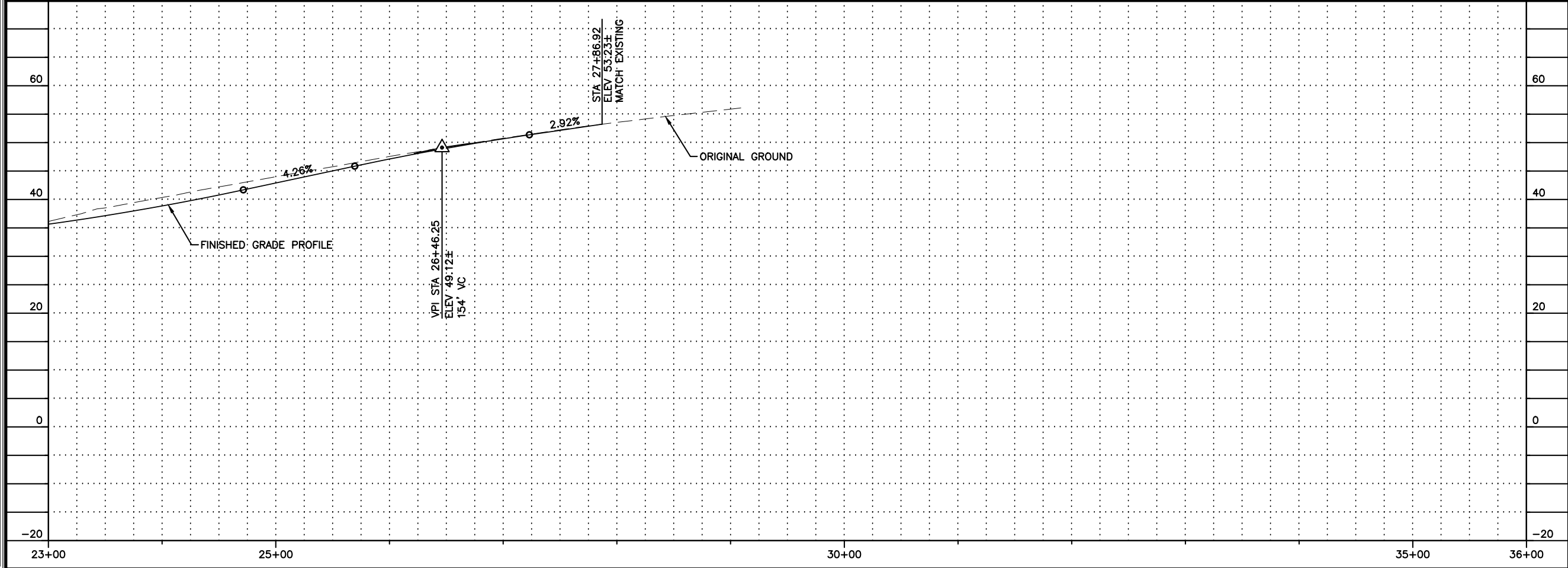
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LAYOUT
INDIAN CREEK 2
DATE
TIME
8/5/2016 10:06 AM
DRAWING LOCATION
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PI = STA 24+31.62
N = 255971.03
E = 416341.42
 $\Delta = 17^\circ 45' 57''$
R = 1060.00
T = 165.67
L = 328.68
S = 6.0%
RUNOUT = 50
RUNOFF = 151
% RUNOFF = 70

NOTES:

- LENGTHEN EXISTING CULVERTS TO ACCOMMODATE DETOUR.
PAYMENT SUBSIDIARY TO 643(20).
- DETOUR GEOMETRIC CRITERIA
 - MINIMUM VERTICAL CURVE K:
CREST= 114, SAG= 115
 - DESIGN SPEED= 55 MPH
 - MIN. HORIZONTAL CURVE RADIUS= 1,060 FT.
 - $e_{max} = 6\%$
 - MAXIMUM GRADE= 5%



SHEET NO.	TOTAL SHEETS	
J7	J8	
STATE	YEAR	
ALASKA	2016	
PROJECT DESIGNATION		
0A31056/Z583890000		
0001497/Z570880000		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION
PLANS-IN-HAND AUGUST 2016		

TO ANCHORAGE

TO GIRDWOOD

INDIAN RD

BOREIDE RD

INDIAN CREEK

SEWARD HIGHWAY

BIRD CREEK

BUSHNELL RD

SAWMILL RD

BEAR CREEK

BOP STA 1380+50

EOP STA 1658+50

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STATE OF ALASKA
49 TH
Name
License #
REGISTERED PROFESSIONAL ENGINEER

R&M CONSULTANTS, INC.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

SEWARD HWY: MP 100-105
IMPROVEMENTS &
HSIP: CR TRAFFIC SAFETY
CORRIDOR LEFT TURN LANES
TRAFFIC CONTROL PLAN AND
PROFILE: INDIAN CREEK
STA 13+20-26+20

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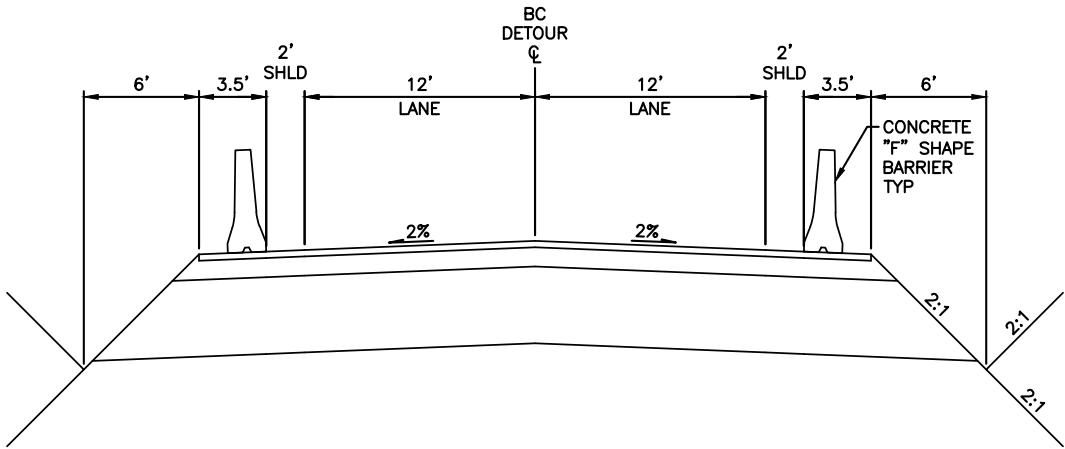
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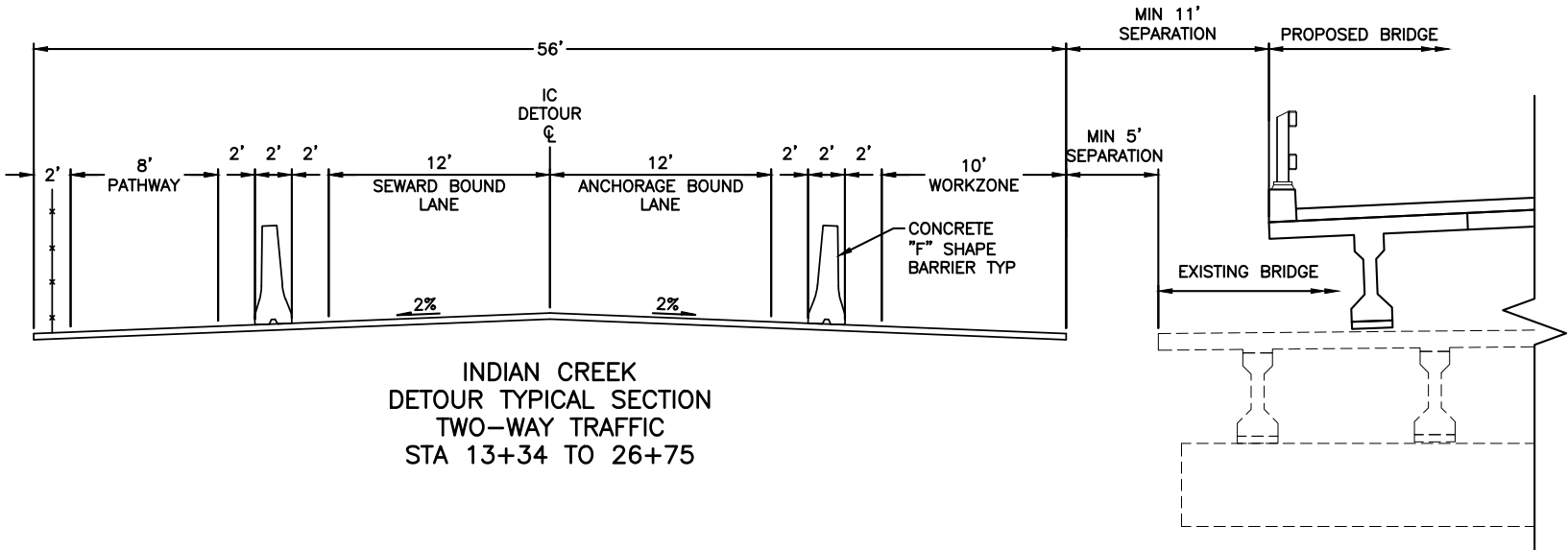
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REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION					
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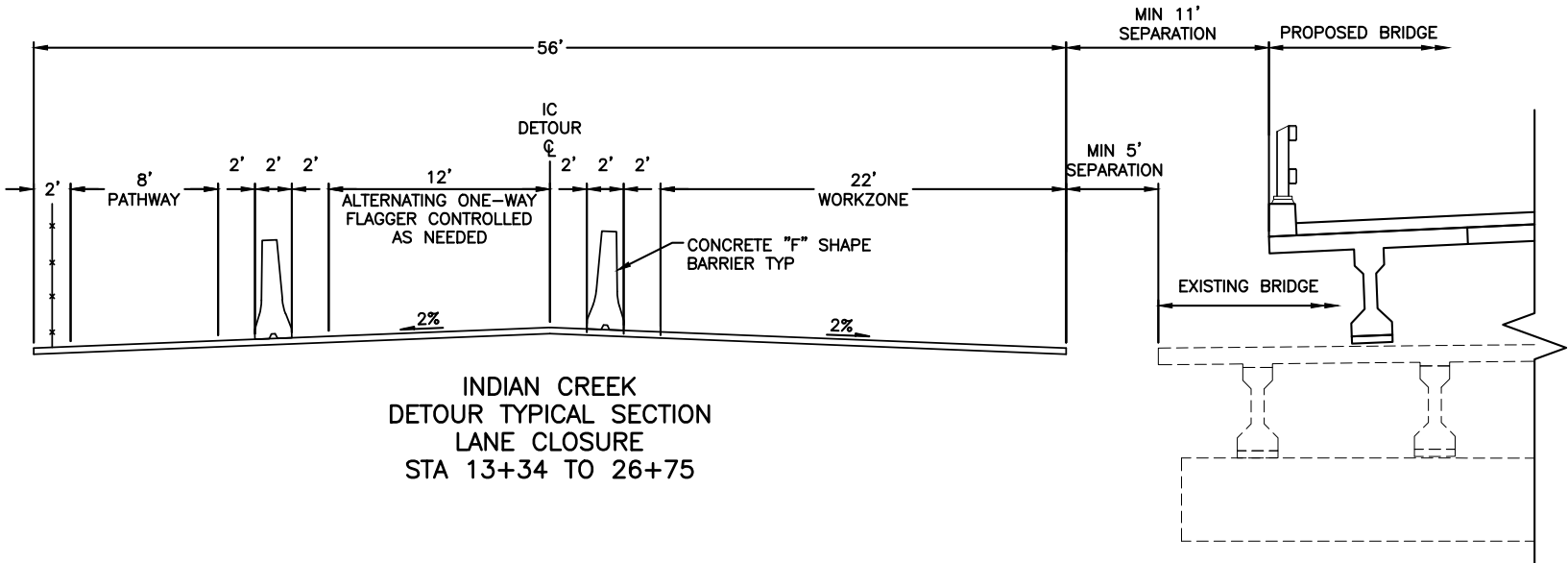


BEAR CREEK DETOUR
STA 15+60 TO 34+36

2" HOT MIX ASPHALT
6" AGGREGATE BASE COURSE, GRADING D-1
24" SELECTED MATERIAL, TYPE A



INDIAN CREEK
DETOUR TYPICAL SECTION
TWO-WAY TRAFFIC
STA 13+34 TO 26+75



INDIAN CREEK
DETOUR TYPICAL SECTION
LANE CLOSURE
STA 13+34 TO 26+75

PLANS-IN-HAND AUGUST 2016

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9101 VANGUARD DRIVE
ANCHORAGE, AK 99507
(907) 522-1707
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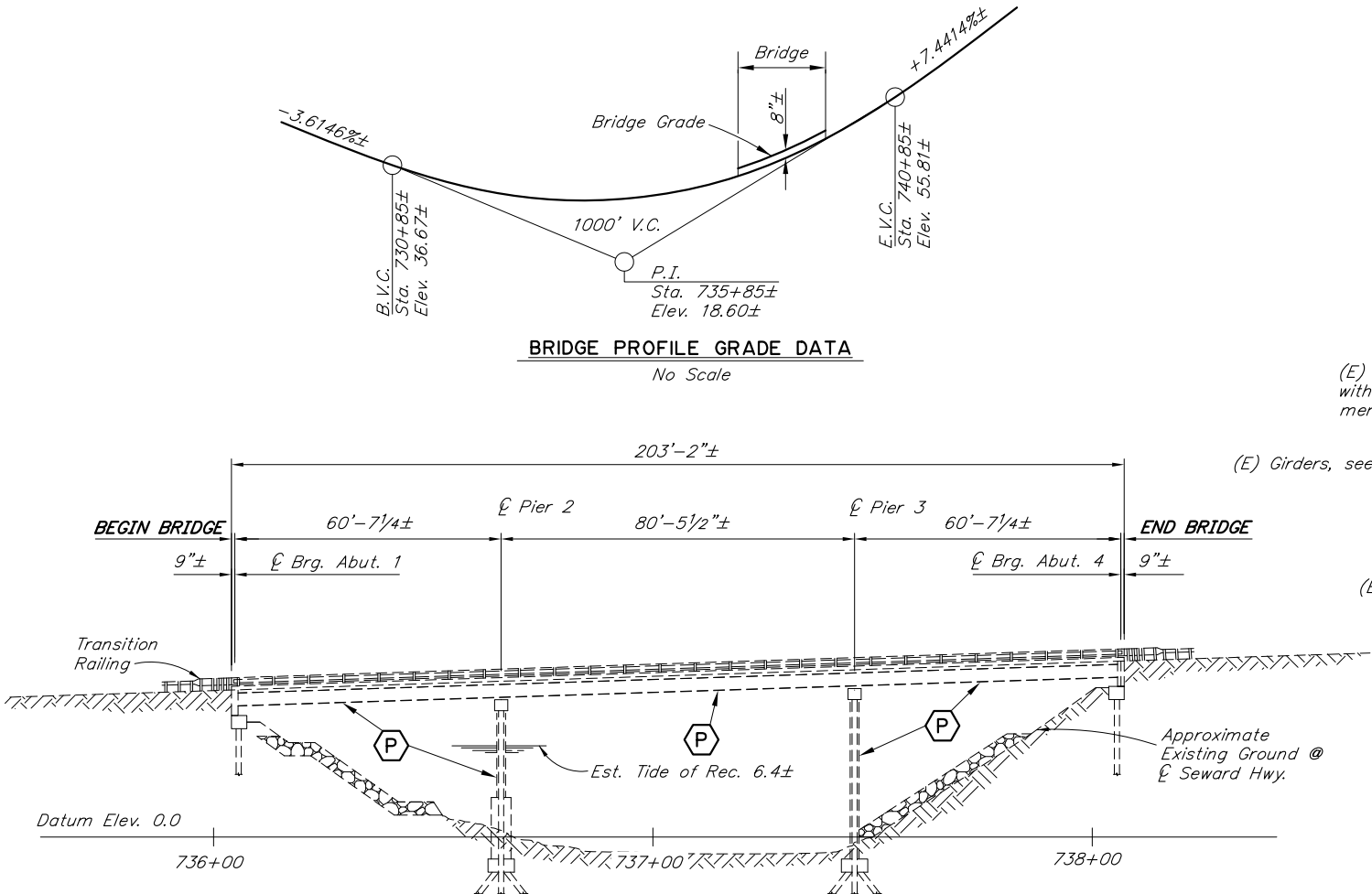


STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

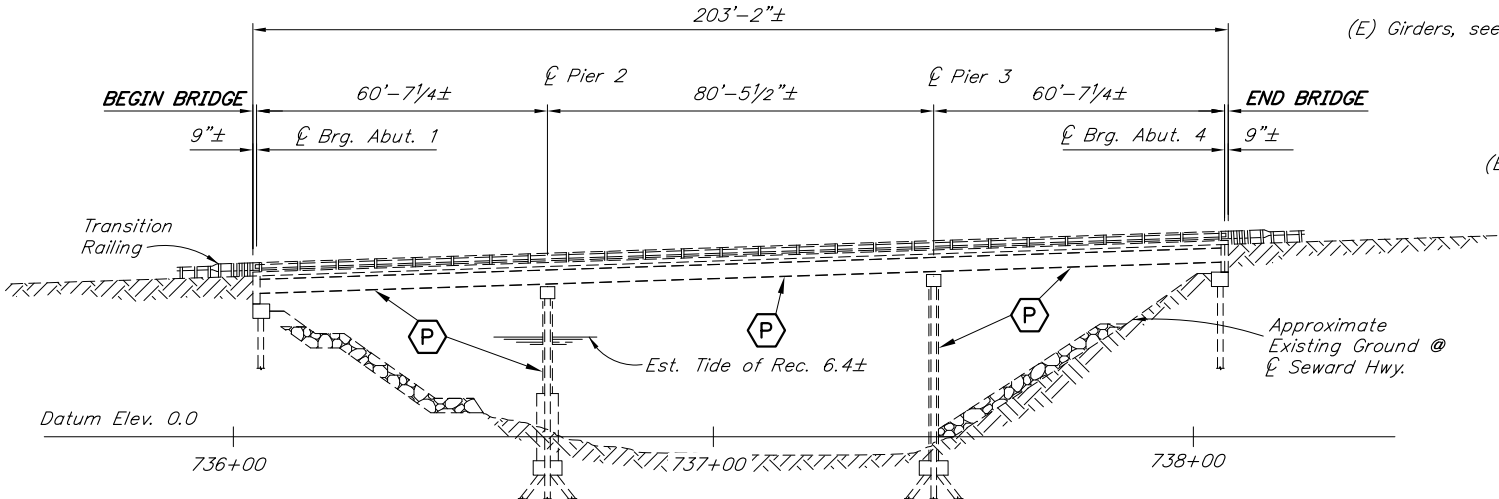
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IMPROVEMENTS &
HSIP: CR TRAFFIC SAFETY
CORRIDOR LEFT TURN LANES

TRAFFIC CONTROL PLAN
DETOUR TYPICAL SECTIONS

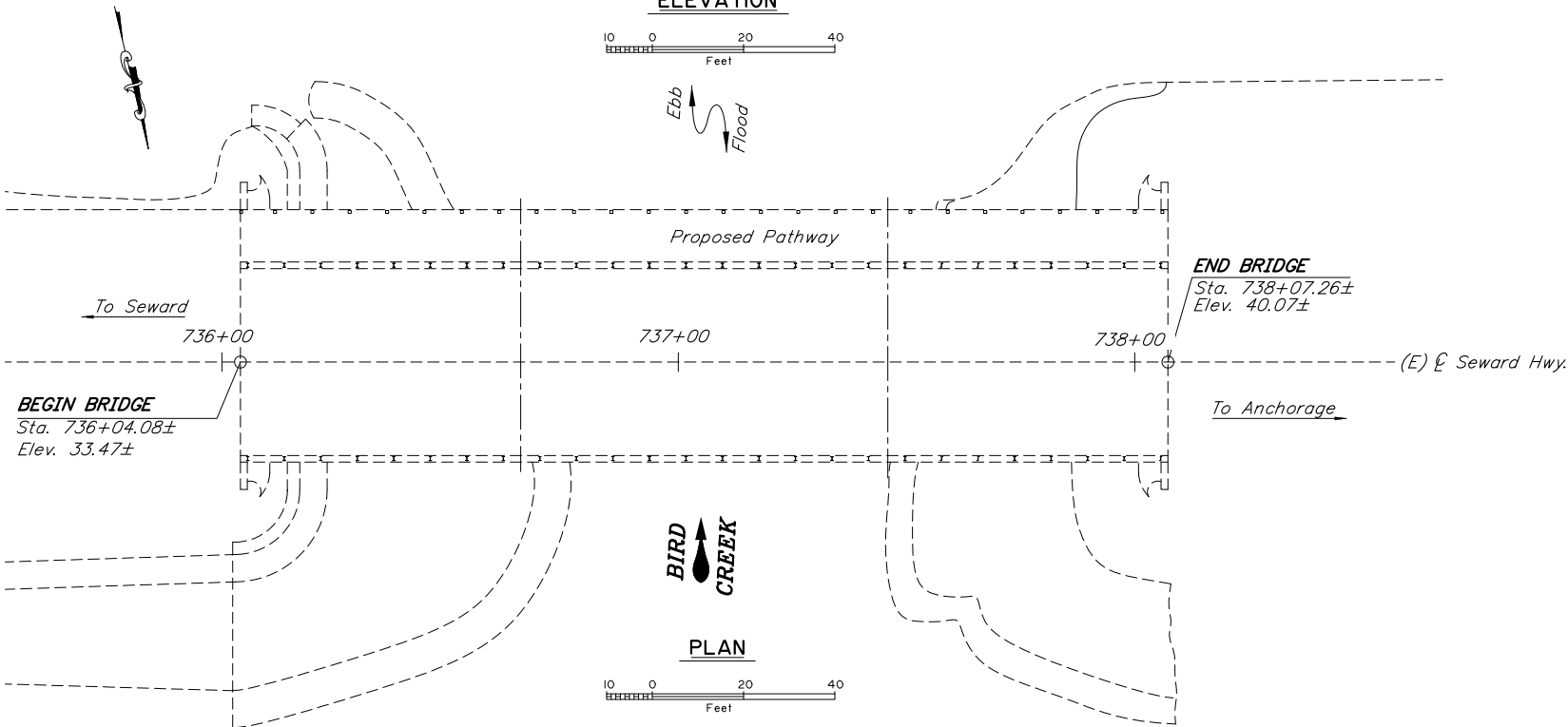
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ALASKA	Project Number	2016	N1	3



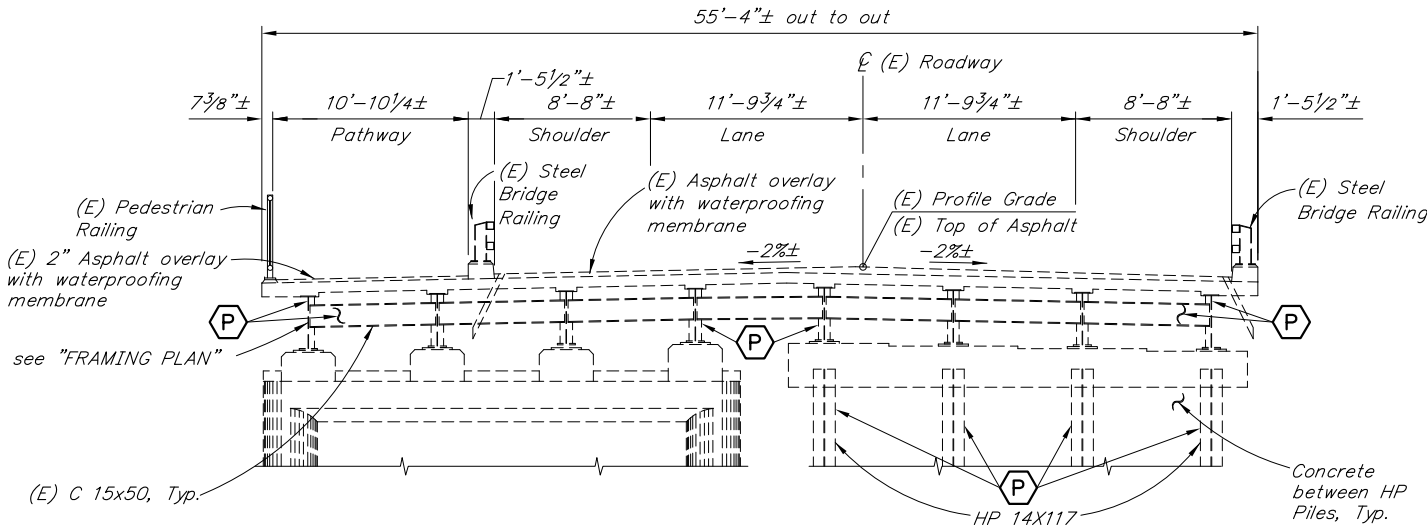
BRIDGE PROFILE GRADE DATA
No Scale



ELEVATION



PLAN



TYPICAL SECTION

BRIDGE DRAWING INDEX	
TITLE	DWG. NO.
GENERAL LAYOUT	1
BASIS OF ESTIMATE	2
FRAMING PLAN	3

LEGEND	
	= Remove and Replace Paint

REHABILITATION PRELIMINARY PLAN

NOTES:
(E) = Existing
----- = Existing
———— = Proposed

Elevations, Bearings and dimensions are based on "AS-BUILT" plans. Verify all controlling field dimensions before ordering or fabricating any material.

DESIGNED BY: Jesse Escamilla III	CHECKED: Engineer	LAYOUT BY: Jesse Escamilla III	CHECKED BY: Engineer
DRAWN BY: Ken Huse	CHECKED: Jesse Escamilla III	SPECIFICATIONS BY: Jesse Escamilla III	P S & E COMPARED: Engineer
QUANTITIES BY: Jesse Escamilla III	CHECKED: Engineer	APPROVAL RECOMMENDED BY:	Engineer

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

BIRD CREEK
SEWARD HIGHWAY
GENERAL LAYOUT



BRIDGE NO. 643
DWG. NO. 1

SLAB BASIS OF ESTIMATE						
ITEM NO.	ITEM	PAY UNIT	ESTIMATING UNIT	SUBST.	SUPERST.	TOTAL

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

GENERAL NOTES

DESIGN:..... AASHTO LRFD Bridge Design Specifications, 2014 Edition, with latest interim specifications.

Seismic design per AASHTO Guide Specifications for LRFD Seismic Bridge Design, 2011 with latest interim revisions.

DESIGN LOAD:..... TL-5

REINFORCEMENT:..... ASTM A706, Grade 60, Fy = 60,000 psi
Space reinforcement evenly unless otherwise noted.

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

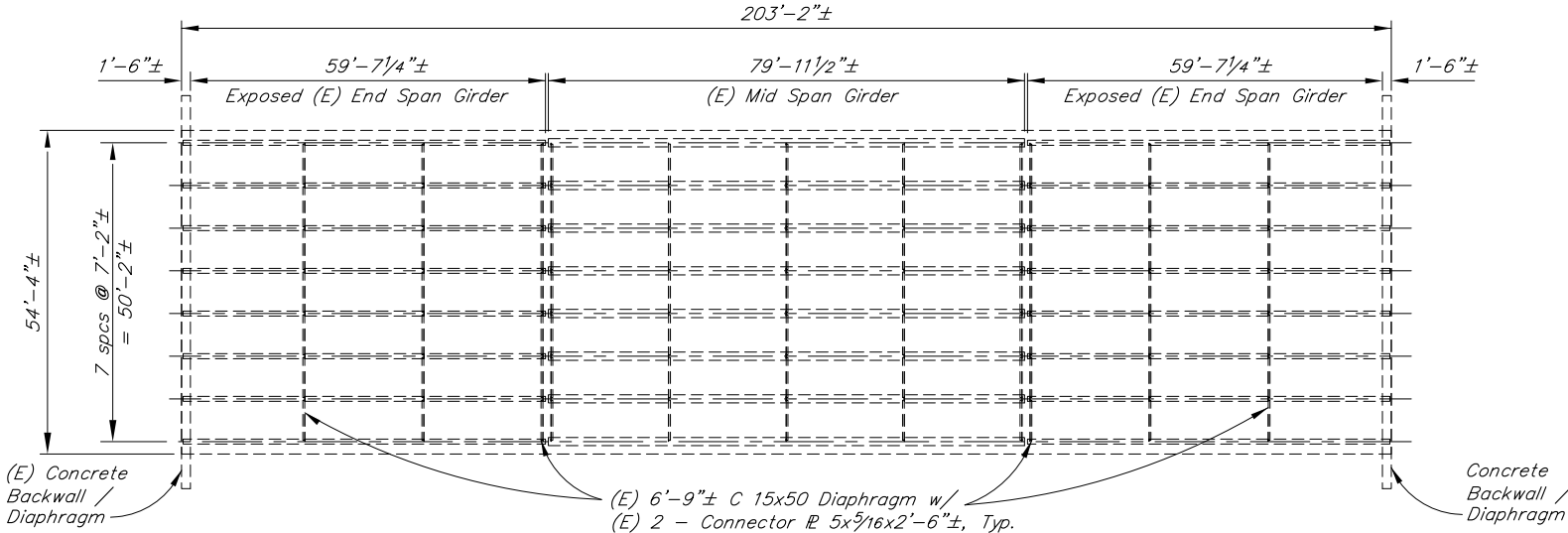
STRUCTURAL STEEL:..... ASTM A709, Grade 36T3, Fy = 36,000 psi
Galvanize structural steel in accordance with AASHTO M111 unless shown otherwise.

ABBREVIATIONS:

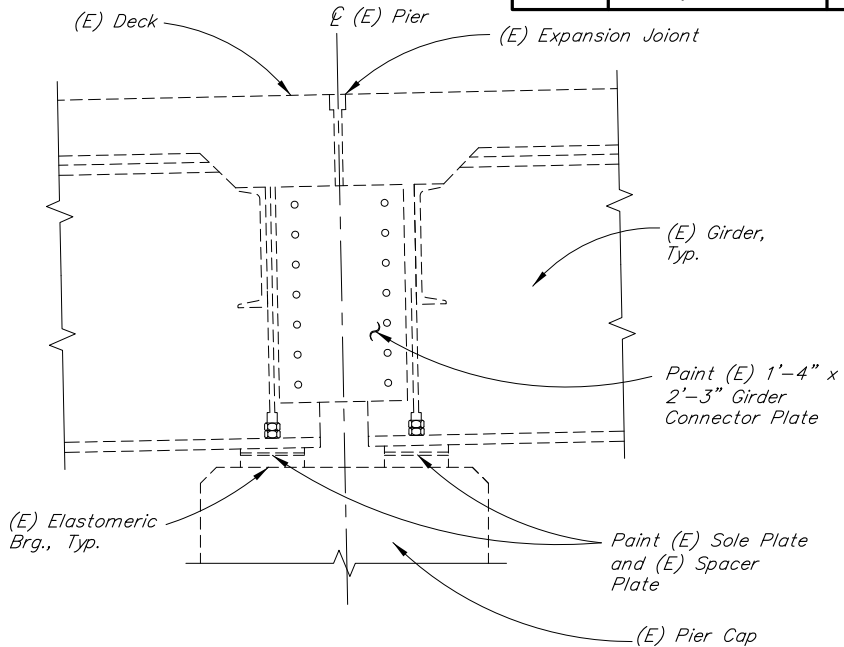
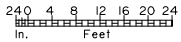
C	= centerline	f.f.	= front/air face
Pl	= plate	Hwy.	= highway
&	= and	H.S.	= high strength
@	= at	Int.	= interior
Ø	= diameter	Jt.	= joint
±	= approximate	ksf	= 1000 pounds per square foot
Abut.	= abutment	LB	= pound
Approx.	= approximate	LF	= linear foot
b.f.	= back/dirt face	LS	= lump sum
bot.	= bottom	Lt.	= left
Br.	= bridge	max.	= maximum
btwn.	= between	min.	= minimum.
Brg.	= Bearings	N/A	= not applicable
C.I.P.	= cast in place	n.f.	= near face
C.G.	= center of gravity	No.	= number
Clr.	= clear, clearance	o.c.	= on center
CMP	= corrugated metal pipe	R/W	= right of way
CY	= cubic yard	Rt.	= right
dia.	= diameter	Rd.	= road
Dwg.	= drawing	spcs.	= space, spaces
E	= expansion	Sta.	= station
(E)	= existing	Std.	= standard
EA	= each	SF	= square feet
Elev.	= elevation	Symm.	= symmetric
e.f.	= each face	Typ.	= typical
e.w.	= each way	VPC	= point of vertical curve
Ext.	= exterior	VPI	= point of vertical intersection
F	= fixed	VPT	= point of vertical tangent

PRELIMINARY PLAN

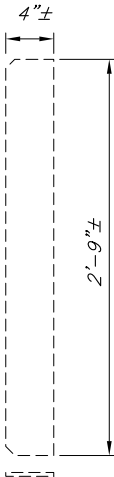
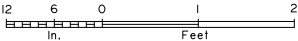
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Project Number	2016	N3	3



FRAMING PLAN



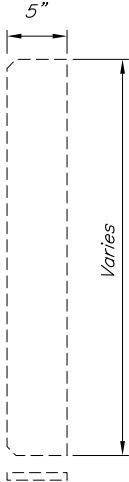
CONNECTOR PLATE AND BEARING DETAIL



TRANSVERSE STIFFENER

PL 5/16"±

Profile Length:
8 5/8"±



BEARING STIFFENER

PL 5/8"±

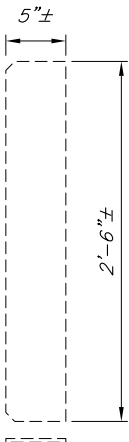
Profile Length:
11 1/4"±



CONNECTOR L

L 5X5X5 1/16X2'-6"±

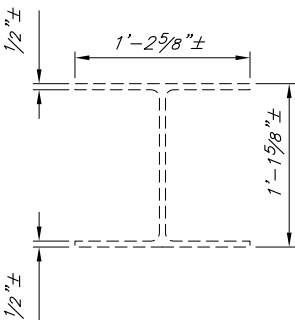
Profile Length:
1'-7 5/8"±



CONNECTOR PLATE

PL 5/16"±

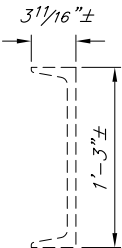
Profile Length:
10 5/8"±



HP PILES

HP 14X117

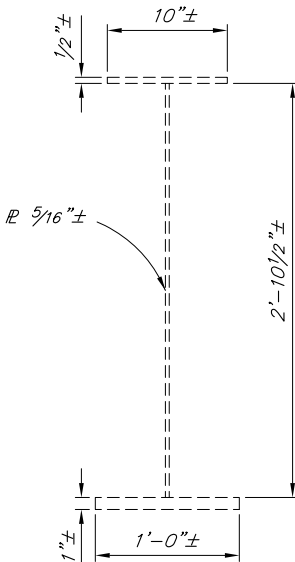
Profile Length:
6'-11 3/8"±



DIAPHRAGMS

C 15X50

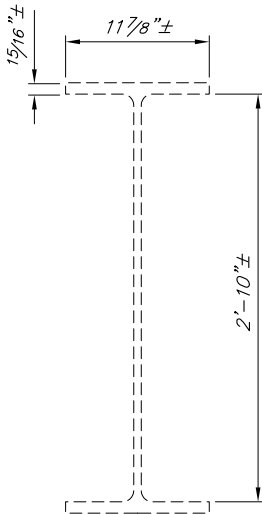
Profile Length:
3'-6"±



END SPAN GIRDER

Built Up

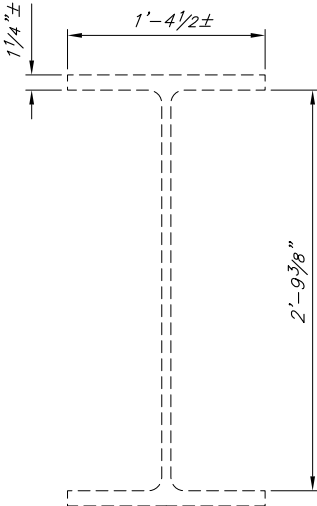
Profile Length:
9'-7 3/8"±



END SPAN GIRDER

W 36X150

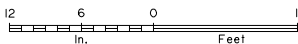
Profile Length:
9'-8 3/4"±



MID SPAN GIRDERS

W 36X230

Profile Length:
11'-2 1/4"±



PRELIMINARY PLAN

NOTES:

- (E) = Existing
- = Existing
- = Proposed

DESIGNED BY:
Jesse Escamilla III

CHECKED: Engineer

DRAWN BY:
Ken Huse

CHECKED: Jesse Escamilla III

QUANTITIES BY:
Jesse Escamilla III

CHECKED: Engineer

REHABILITATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

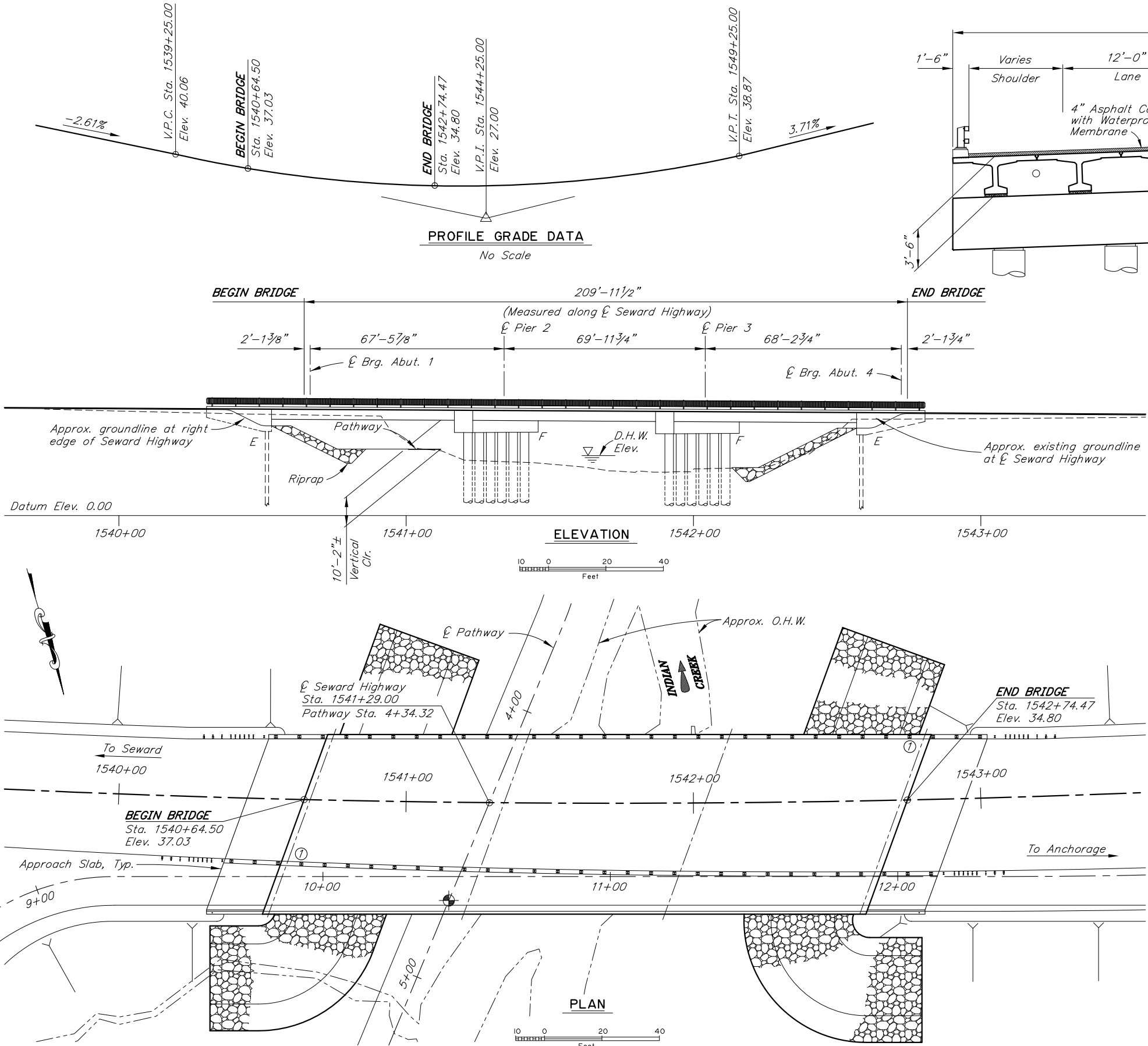
BIRD CREEK BRIDGE
SEWARD HIGHWAY
FRAMING PLAN



BRIDGE NO. 643

DWG. NO. 3

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Project Number	2016	N1	TtShts



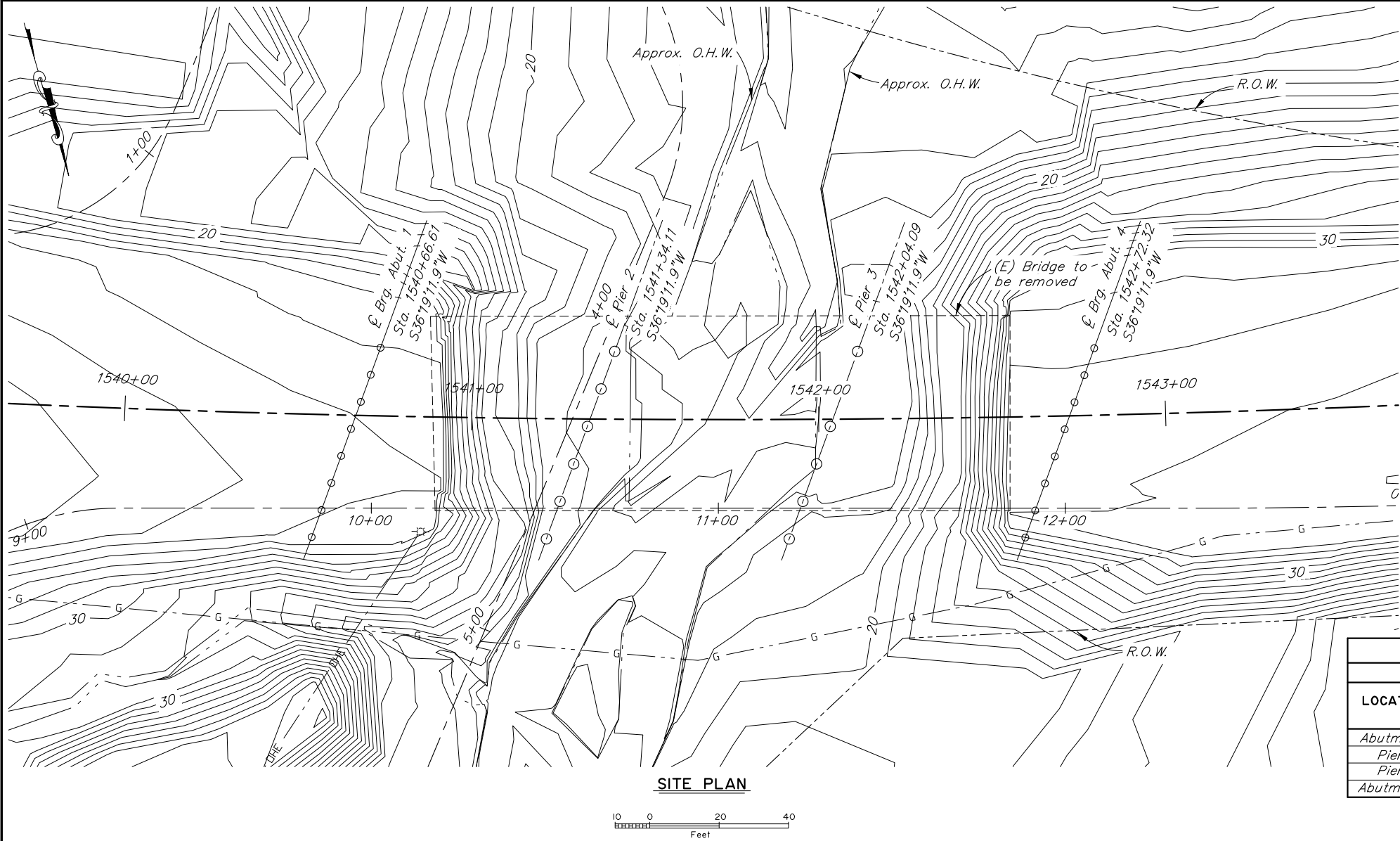
DESIGNED BY: Jesse Escamilla III	CHECKED: Engineer	LAYOUT BY: Engineer	CHECKED BY: Engineer
DRAWN BY: Sam Sollie	CHECKED: Jesse Escamilla III	SPECIFICATIONS BY: Jesse Escamilla III	P S & E COMPARED: Engineer
QUANTITIES BY: Jesse Escamilla III	CHECKED: Engineer	APPROVAL RECOMMENDED BY: Engineer	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

INDIAN CREEK
SEWARD HIGHWAY
GENERAL LAYOUT



BRIDGE NO. 644
DWG. NO. 1



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Project Number	2016	N2	Ttlshs

GENERAL NOTES

DESIGN:..... AASHTO LRFD Bridge Design Specifications, 2016 Edition, with latest interim specifications.

Seismic design per AASHTO Guide Specifications for LRFD Seismic Bridge Design, 2011 with latest interim revisions.

LIVE LOAD:..... HL-93

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

SEISMIC PARAMETERS:..... PGA = 0.53
S_s = 1.19
S_i = 0.48
Site Class = D
Liquefaction Potential = High
AASHTO 7% probability of exceedance in 75 years.

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

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

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

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

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

PILE DATA TABLE							
		DRIVING CRITERIA			DESIGN DATA		
LOCATION	PILE TYPE	MINIMUM PENETRATION (ft)	ESTIMATED PILE TIP ELEVATION (ft)	DRIVING RESISTANCE (K)	STRENGTH FACTORED LOAD (K)	NOMINAL RESISTANCE (K)	RESISTANCE FACTOR, φ
Abutment 1	2'-0"Øx½ Pipe						
Pier 2	3'-0"Øx¾ Pipe						
Pier 3	3'-0"Øx¾ Pipe						
Abutment 4	2'-0"Øx½ Pipe						

BRIDGE SHEET ABBREVIATIONS:

℄	= centerline	Hwy.	= highway
℄	= plate	H.S.	= high strength
&	= and	Int.	= interior
@	= at	Jt.	= joint
Ø	= diameter	ksf	= 1000 pounds per square foot
±	= approximate	LB	= pound
Abut.	= abutment	LF	= linear foot
Approx.	= approximate	LS	= lump sum
b.f.	= back/dirt face	Lt.	= left
bot.	= bottom	max.	= maximum
Br.	= bridge	min.	= minimum.
btwn.	= between	N/A	= not applicable
Brg.	= Bearings	n.f.	= near face
C.I.P.	= cast in place	No.	= number
C.J.	= center of gravity	o.c.	= on center
Clr.	= clear, clearance	O.H.W.	= ordinary high water
CY	= cubic yard	PVC	= point of vertical curve
dia.	= diameter	PVI	= point of vertical intersection
Dwg.	= drawing	PVT	= point of vertical tangent
E	= expansion	R/W	= right of way
(E)	= existing	Rt.	= right
EA	= each	Rd.	= road
Elev.	= elevation	spcs.	= space, spaces
e.f.	= each face	Sta.	= station
e.w.	= each way	Std.	= standard
Ext.	= exterior	SF	= square feet
F	= fixed	Symm.	= symmetric
f.f.	= front/air face	Typ.	= typical

PRELIMINARY PLAN

BRIDGE BASIS OF ESTIMATE						
ITEM NO.	ITEM	PAY UNIT	ESTIMATING UNIT	SUBST.	SUPERST.	TOTAL
202(23)	Removal of Existing Bridge No. 644	LS	SF			
205(1)	Excavation for Structures	CY	CY			
205(3)	Structural Fill	CY	CY			
501(1)	Class A Concrete	LS	CY			
501(7)	Precast Concrete Member (68'-6" Decked Bulb-Tee)	EA	EA			
503(1)	Reinforcing Steel	LS	LBS			
503(2)	Epoxy-Coated Reinforcing Steel	LS	LBS			
505(5A)	Furnish Structural Steel Piles (2'-0" Pipe)	LF	LF			
505(5B)	Furnish Structural Steel Piles (3'-0" Pipe)	LF	LF			
505(6A)	Drive Structural Steel Piles (2'-0" Pipe)	EA	EA			
505(6B)	Drive Structural Steel Piles (3'-0" Pipe)	EA	EA			
507(1)	Steel Bridge Railing	LF	LF			
507(2)	Pedestrian Railing	LF	LF			
508(1)	Waterproofing Membrane	LS	SF			
606(16)	Transition Rail	EA	EA			
611(1)	Riprap, Class II	CY	CY			
631(2)	Geotextile, Erosion Control, Class 1	SY	SY			

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

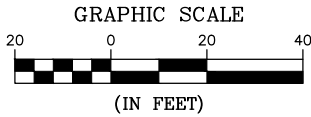
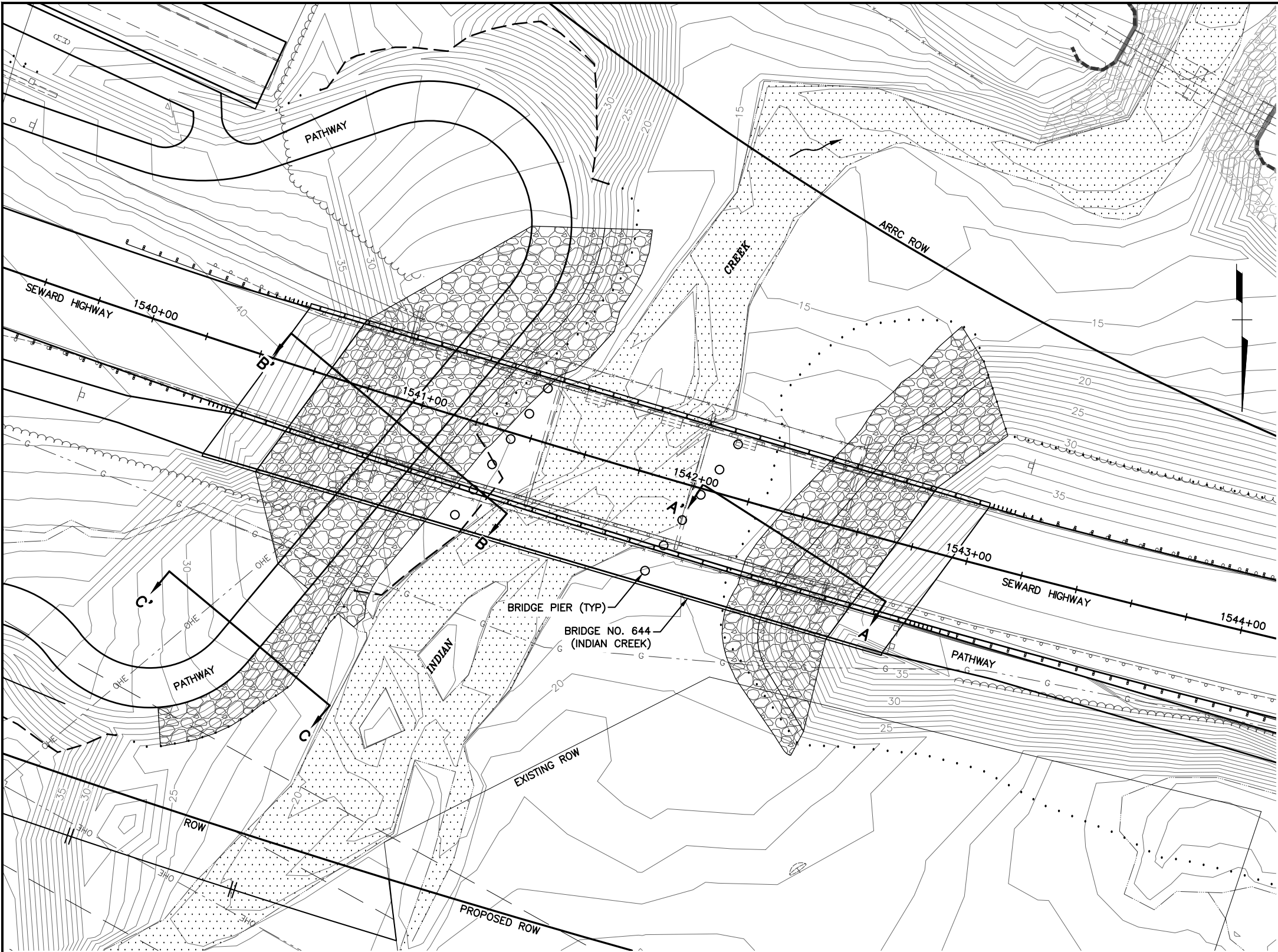
DESIGNED BY: Jesse Escamilla III	CHECKED: Engineer	HYDRAULICS BY: Engineer	CHECKED BY: Engineer
DRAWN BY: Sam Sollie	CHECKED: Jesse Escamilla III	FOUNDATIONS REVIEWED BY: Engineer	
QUANTITIES BY: Jesse Escamilla III	CHECKED: Engineer		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

INDIAN CREEK
SEWARD HIGHWAY
SITE PLAN



BRIDGE NO. 644
DWG. NO. 2



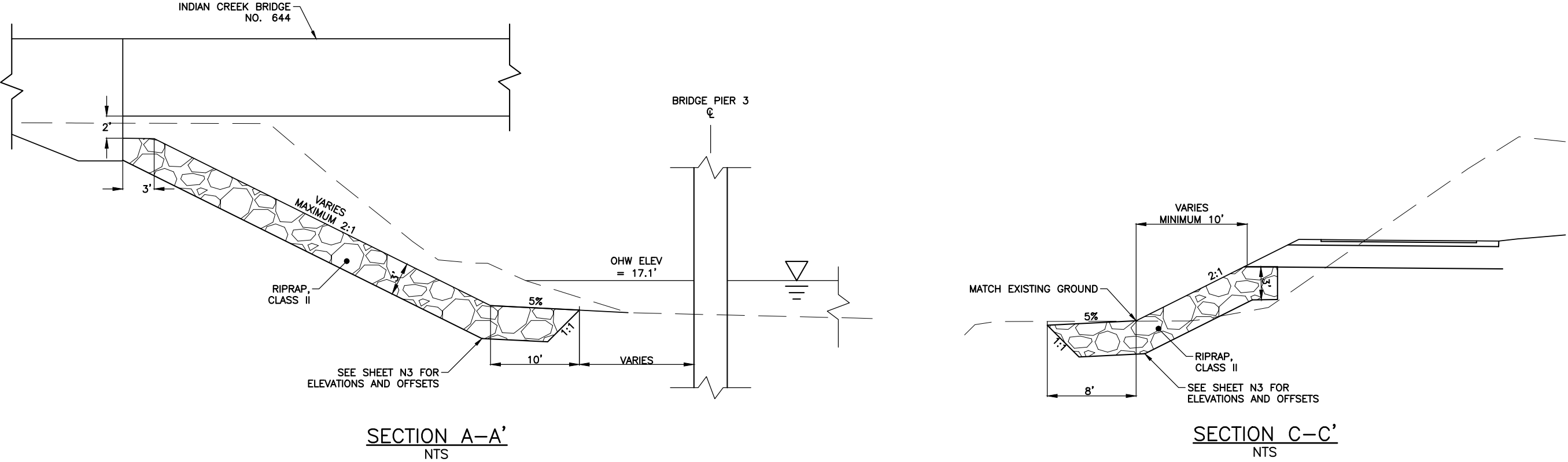
- NOTES:**
- 1. TO BE COMPLETED.
 - 2. TO BE COMPLETED.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0A31056/Z583890000	2016	N6	N7

RIPRAP LAYOUT SCHEDULE			
POINT	STATION	OFFSET	REMARKS
1	TO BE COMPLETED		
2			
3			
4			
5			
6			
7			
8			
9			
10			

DESIGNED BY: XXXX	CHECKED: XXXX	PLANS DEVELOPED BY: R&M CONSULTANTS, INC. 9101 VANGUARD DR ANCHORAGE, AK 99507 (907) 522-1707 CERT. OF AUTH. NO. AECC111	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION		INDIAN CREEK BRIDGE SEWARD HIGHWAY RIPRAP LAYOUT	 BRIDGE NO. 644 DWG. NO. 6
DRAWN BY: J SHAW	CHECKED: XXXX					
QUANTITIES BY: XXXX	CHECKED: XXXX					

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0A31056/Z583890000	2016	N7	N7



NOTES:

1. TO BE COMPLETED.
2. TO BE COMPLETED.

DESIGNED BY: XXXX	CHECKED: XXXX	PLANS DEVELOPED BY: R&M CONSULTANTS, INC. 9101 VANGUARD DR ANCHORAGE, AK 99507 (907) 522-1707 CERT. OF AUTH. NO. AECC111	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION		INDIAN CREEK BRIDGE SEWARD HIGHWAY RIPRAP LAYOUT	 BRIDGE NO. 644 DWG. NO. 7
DRAWN BY: J SHAW	CHECKED: XXXX					
QUANTITIES BY: XXXX	CHECKED: XXXX					