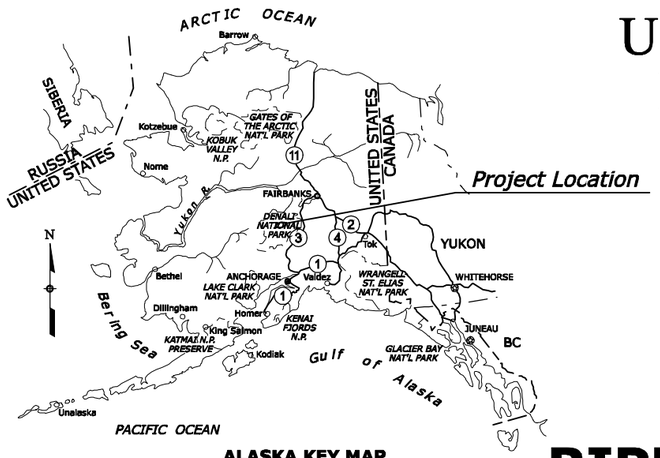
STATE	PROJECT	SHEET NUMBER
AK	PRA DENA 10(32)	A.1

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION



ALASKA KEY MAP

PLANS FOR PROPOSED PROJECT

AK PRA DENA 10(32) NPS PKG NO 138720

RIPRAP PLACEMENT AT TOKLAT REST STOP

DENALI NATIONAL PARK
DENALI BOROUGH
ALASKA

LENGTH SCHEDULE A: 0.104 MILES
LENGTH SCHEDULE B: 0.146 MILES
LENGTH SCHEDULE C: 0.179 MILES

INDEX TO SHEETS

A. GENERAL INFORMATION
A.1 TITLE SHEET
A.2 PLAN SYMBOLS AND ABBREVIATIONS
A.3 VICINITY MAP
A.4 TOKLAT MAINTENANCE CAMP AREA MAP

B. SUMMARIES
B.1 SUMMARY OF QUANTITIES, SCHEDULE A, B & C

C. TYPICAL SECTIONS
C.1 TABULATION OF QUANTITIES
C.2 STREAM BARB AND RIPRAP REVETMENT, TYPICAL DETAILS
C.3 REVETMENT AND ACCESS RAMP DETAILS

D. PLANS
D.1-2 RIPRAP REVETMENT PLANS AND PROFILES

E. TEMPORARY TRAFFIC CONTROL
E.1 TEMPORARY TRAFFIC CONTROL ADVANCE SIGNING PLAN
E.2 CONSTRUCTION FENCING DETAIL
E.3 CONSTRUCTION SIGN INSTALLATION, WOOD POSTS

TYPE OF CONSTRUCTION:

Riprap revetment and stream barbs installation.

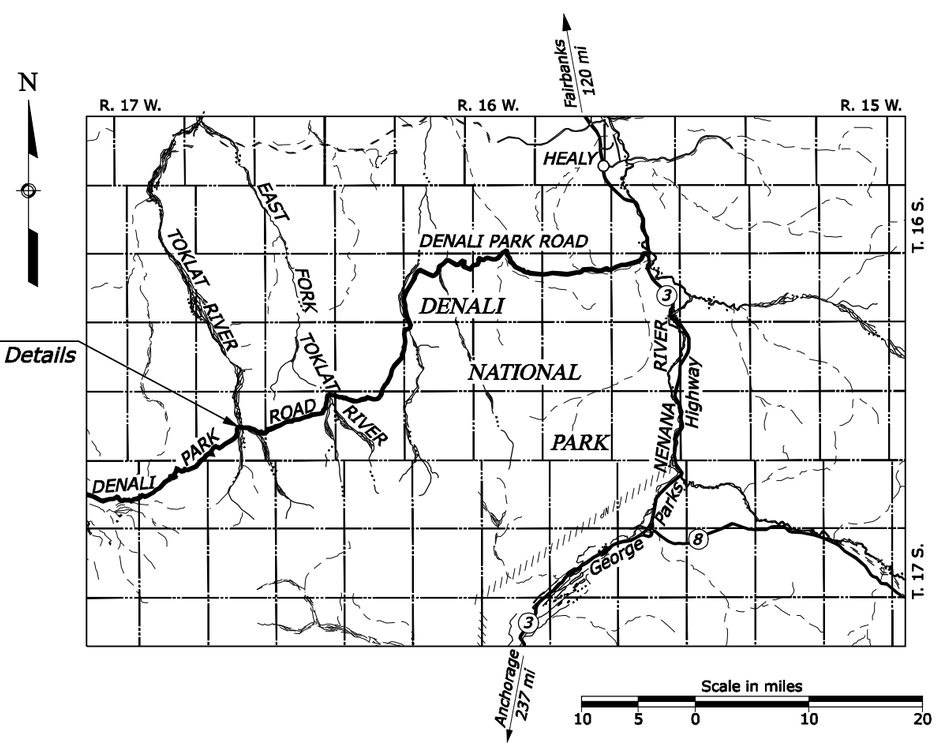
DESIGN DESIGNATION:

ADT (YEAR)	N/A
ADT (YR+20)	N/A
V	N/A
e (max)	N/A

SPECIFICATION:

Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03 US Customary Units

PROJECT SITE
See Sheet A.4 for Details



FEDERAL LANDS HIGHWAY
COMMITMENT TO EXCELLENCE

PLANS PREPARED BY
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
WESTERN FEDERAL LANDS HIGHWAY DIVISION
VANCOUVER, WASHINGTON

PROJECT MANAGER
B. CHON

RECOMMENDED:

/s/ Clara H. Conner — DATE 01/12/09
Director of Project Delivery,
Western Federal Lands Highway Division

/s/ Elwood Lynn — DATE 01/12/09
for Denali Park Superintendent,
National Park Service

APPROVED:

/s/ Victor Knox — DATE 01/12/09
for Regional Director, Alaska Region,
National Park Service

NPS Pkg. No. 138720 NPS Drwg. No. 184/80256

12/2008 R. JOHNSON Checked by: 12/2008 W. McQUISTON Designed by: 21-JAN-2009 3:24PM IP_PWP:dms18110\dena1032aa.dgn [US_Int2D]

STATE	PROJECT	SHEET NUMBER
AK	PRA DENA 10(32)	A.2

Δ	total central angle
Δc	curve central angle
Ø	diameter
θs	spiral central angle
abut.	abutment
ADT	average daily traffic
AH	ahead
appr.	approach
BK	back
BM	bench mark
BP	balance point
br.	bridge
brg.	bearing
cc or c. to c.	center to center
℄	centerline
clr.	clear
CMP	corrugated metal pipe
col.	column
conc.	concrete
conn.	connection
constr. jt.	construction joint
cont.	continuous
CS	point of curve to spiral
ctrs.	centers
CUFT	cubic foot (feet)
culv.	culvert
CUYD	cubic yard(s)
D	diameter
DHV	design hourly volume
dia.	diameter
diag.	diagonal
diaph.	diaphragm
dist.	distance
drwg(s).	drawing(s)
E	east
e	superelevation rate
El. 94.16 ft	elevation with number
elev.	elevation
emb.	embankment
EP	edge of pavement
EQ or eq.	equation
ER	edge of road
EW	edge of water
exc.	excavation
exp. jt.	expansion joint
fin.	finish
flg.	flange
ft2	square foot
ft3	cubic foot (feet)
ftg.	footing
ga.	gage (gauge)
galv.	galvanized
hdwl.	headwall
hex.	hexagon
HW	high water
ID	inside diameter
jt.	joint
L	length of curve
lam.	lamination
lat.	latitude
LNFT	linear foot (feet)
long.	longitudinal
LPSM	lump sum
Ls	length of spiral
lt. or LT	left
LW	low water
M.L.	main line
M.P.	mile post
matl.	material
max.	maximum
MGAL	thousand gallon
min.	minimum
mon.	monument
N	north
NC	normal crown
o. c.	on center
o. to o.	out to out
OD	outside diameter
OG	original ground
PC	point of curve
PCC	point of compound curve
PCS	point of curve to spiral
PI	point of intersection
pl.	plate
POC	point on curve
POS	point on spiral
POT	point on tangent
PS	point of tangent to spiral
PSC	point of spiral to curve
PST	point of spiral to tangent
PT	point of tangent
pvmt.	pavement
R	radius
R.	range
R/W	right-of-way
rdwy.	roadway
reinf.	reinforcement
reqd.	required
rt. or RT	right
rte.	route
S	south
SADT	seasonal average daily traffic
SC	point of spiral to curve
sec.	section
shldr.	shoulder
SLRY	slurry unit
spa.	spacing, spaces or spaced
SQFT	square foot
SQYD	square yard
SRS	point of spiral to reverse spiral
SS	point of spiral to spiral (no curve)
ST	point of spiral to tangent
STA, Sta.	station
std.	standard
stgr.	stringer
stiff.	stiffener
struc.	structural
STS	point of spiral to tangent spiral
sym.	symmetrical
T	tangent distance
T.	township
TBM	temporary bench mark
thd.	thread
TS	point of tangent to spiral
Ts	tangent distance (spiraled curve)
typ.	typical
V	design speed
vph	vehicles per hour
VPI	vertical point of intersection
W	west
yd2	square yard
yd3	cubic yard(s)

NOTE:

1. Other symbols used in the plans will be shown in a legend on the appropriate plan sheet.

National Boundary
State Boundary
County Boundary
City Boundary
Township or Range Line
Section Line
Section Corner (Found, Projected) — 36 31 / 1 6
¼ Section Line
¼ Section Corner (Found, Projected) — 15 / 22
1/16 Section Line
1/16 Section Corner (Found, Projected) — 1/16 SEC.
Property Line w/Found Property Corner — P/L
Parcel Number — 400
National Park Boundary — NP
National Forest Boundary
National Wildlife Refuge Boundary — NWR
BLM Lands Boundary
Indian Reservation Boundary
Existing Roadway (Road, Paved, Gravel)
Railroad
Trail
Wattle
Silt Fence
Intermittent Drainage or Small Creek
Large Creek or River
Lake, Pond or Reservoir; Marshland
Spring or Seep
Treeline; Individual Trees
Material Source; Bore Hole; Test Pit — BH, TP
Spot Elevation; Coordinate Grid Tick — EL. 1234.56
Above Ground Tank; Underground Tank
Boulder; Well; Satellite Dish; Grave — W
Cooking Grate; Garbage Can; Picnic Table
Flagpole; Fire Hydrant
Gas & Water Meter; Gas & Water Valve — G, W
Control Point (Terestrial and GPS); Jump Hub — CP, GPS, JH

North Arrow — N

	EXISTING	PROPOSED
Slope Stake Limits — Top of Cut		
Toe of Fill		
Transition		
Fence		
Gate with Fence		
Cattleguard		
Guardrail		
Concrete Barrier		
Retaining Wall	wall face	
Signs (Single, double post; portable)		
Delineators		
Pipe Culvert (arrow shows flow)		
Pipe Culvert with End Section		
Pipe Culvert with Headwall		
Pipe Culvert with Drop Inlet	DI	DI
Box Culvert		
Underdrain	UD	UD
Overhead/Above Ground Utilities	P	P
Underground Utilities	W	W

FM = force main, FO = fiber optic, G = gas, IRR = irrigation, O = oil, P = power, SA= sanitary sewer, SD = storm drain, SS = storm sewer, STEAM = steam, T = telephone, TV = CATV, W = water

Poles (Power, Telephone, Joint Use, Light, Support w/Anchor)

Miscellaneous Utility Features — T

EM = electric meter, T = telephone pedestal, TV = CATV pedestal, UP = transformer or junction box, WF = water fountain

Building

Right-of-Way Line with Monument	R/W	R/W
Permanent Easement	P/E	P/E
Construction Easement	- no symbol -	C/E

Riprap

NO SCALE

NPS Pkg. No. 138720 NPS Drwg. No. 184/80256

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
WESTERN FEDERAL LANDS HIGHWAY DIVISION

U.S. CUSTOMARY DETAIL

PLAN SYMBOLS AND ABBREVIATIONS

DETAIL APPROVED FOR USE 11/2001
REVISED: 9/2005 1/2007

DETAIL W101-1

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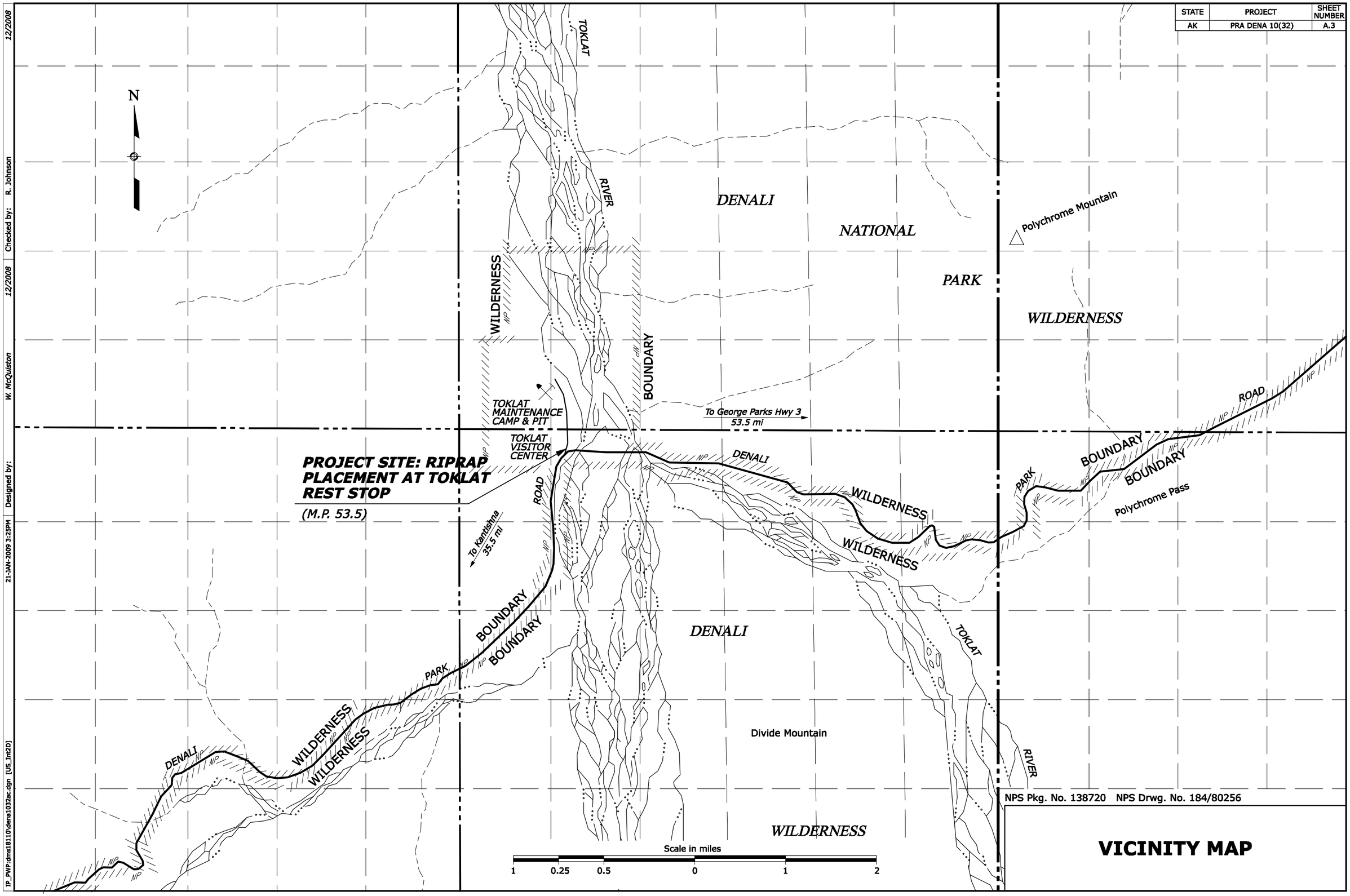
STATE	PROJECT	SHEET NUMBER
AK	PRA DENA 10(32)	A.3



NPS Pkg. No. 138720 NPS Drwg. No. 184/80256

VICINITY MAP

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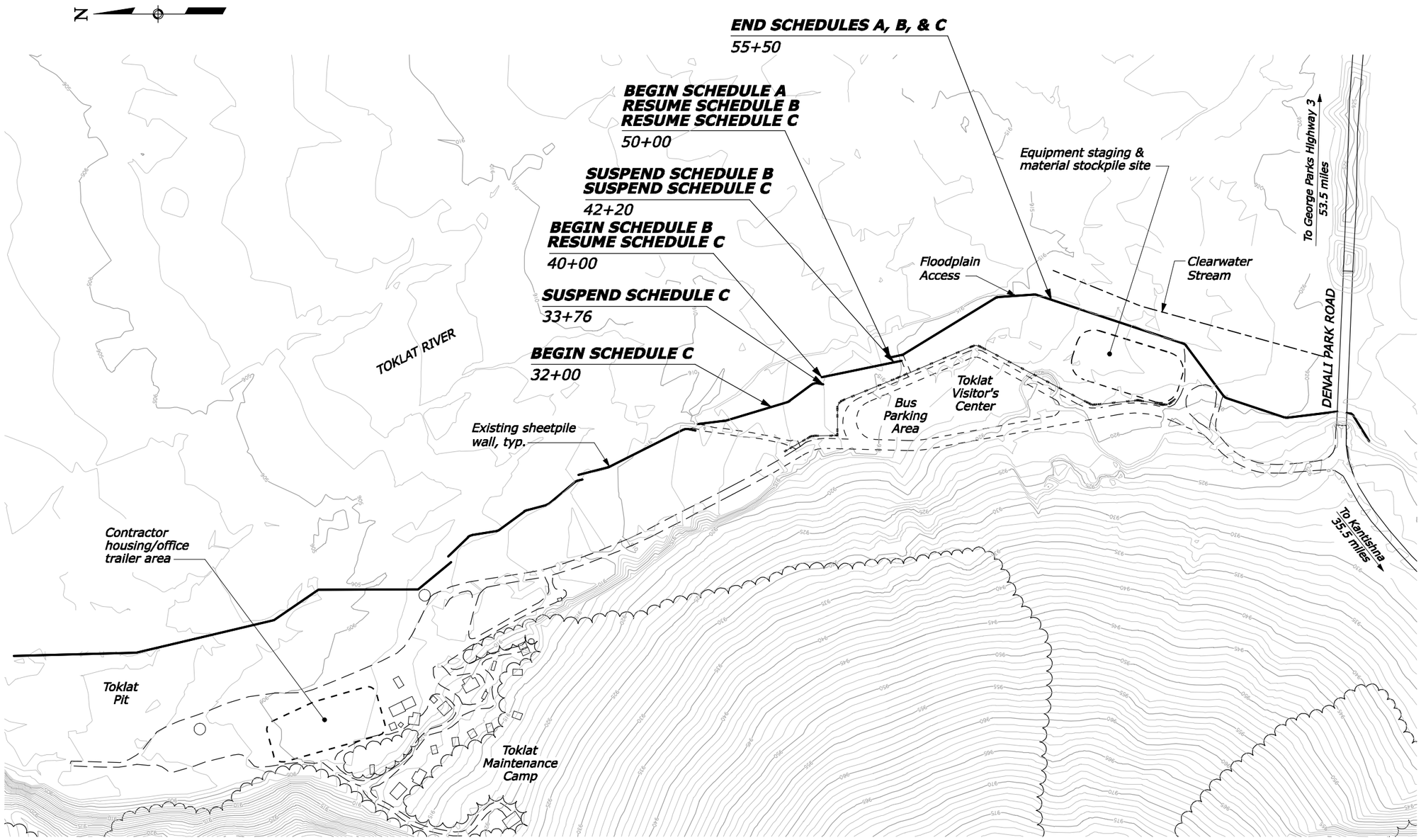
STATE	PROJECT	SHEET NUMBER
AK	PRA DENA 10(32)	A.4



NOTE:

1. The final location of all stockpiles and equipment staging areas will be determined by the CO.

Scale in feet

100 50 0 100 200 300 400 500

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TOKLAT MAINTENANCE CAMP AREA MAP

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