STATE	PROJECT	SHEET NUMBER
MT	PRA-GLAC 10(27)	A.1

U. S. DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
GLACIER NATIONAL PARK

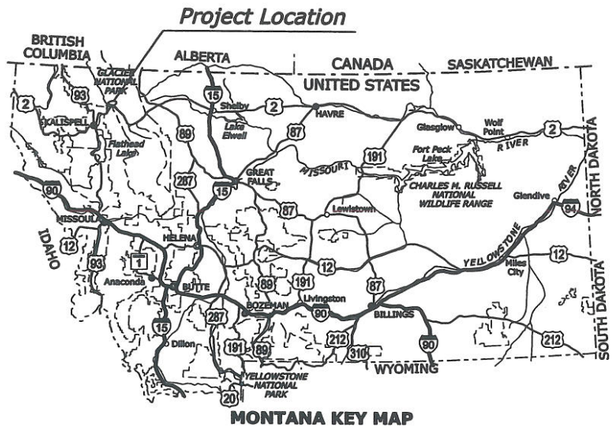
PLANS FOR PROPOSED PROJECT

MT PRA-GLAC 10(27)
NPS PKG. NO. 94633

REHABILITATE WEST ENTRANCE STATION

FLATHEAD COUNTY
MONTANA

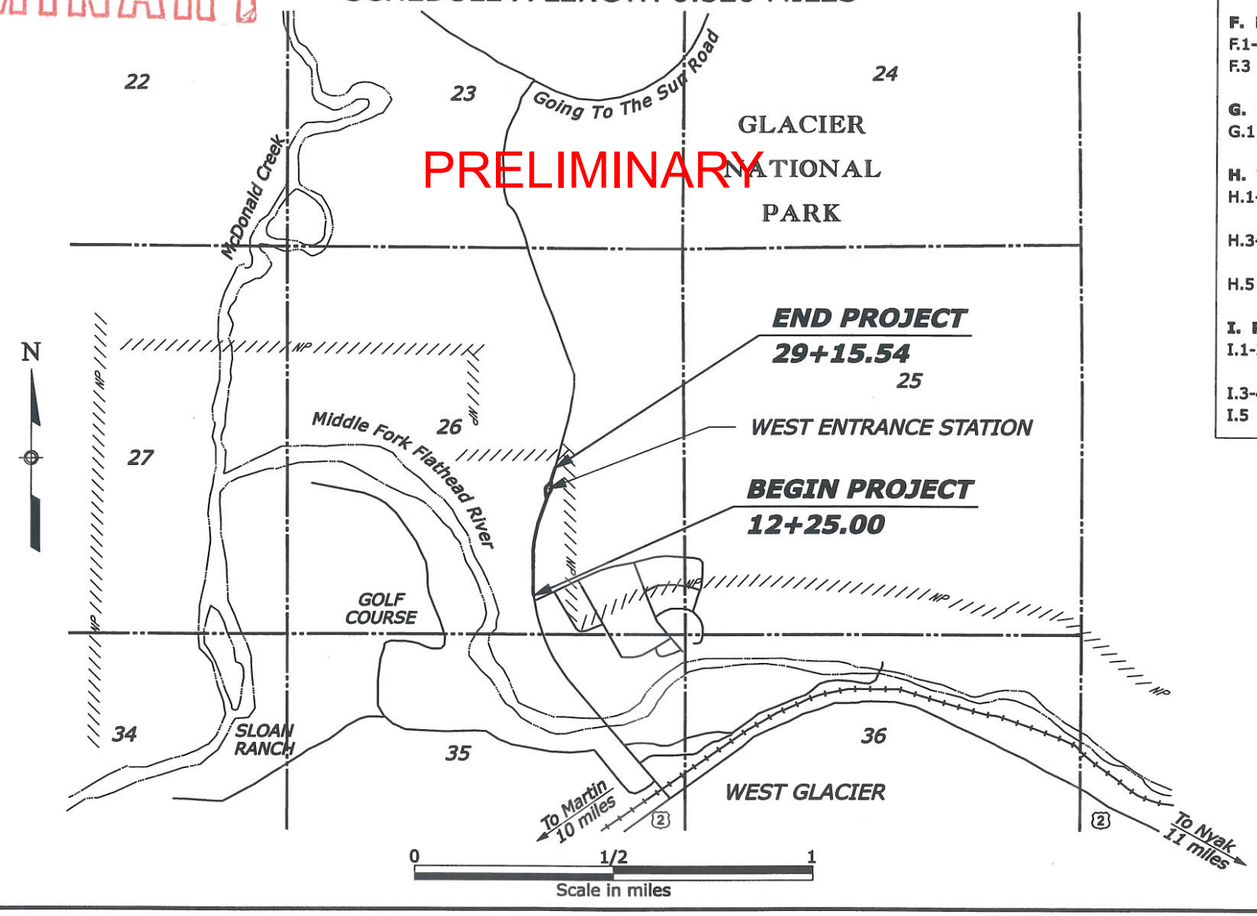
SCHEDULE A LENGTH 0.320 MILES



MONTANA KEY MAP

PRELIMINARY

WORLD HERITAGE SITE



TYPE OF CONSTRUCTION:

Grading, base, paving, and drainage

DESIGN DESIGNATION:

ADT (2005)	4000
ADT (2025)	?
V	35 MPH
e (max)	6%

SPECIFICATION:

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

FEDERAL LANDS HIGHWAY
COMMITMENT TO EXCELLENCE

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

INDEX TO SHEETS

A. GENERAL INFORMATION
A.1 TITLE SHEET
A.2 PLAN SYMBOLS AND ABBREVIATIONS
A.3 VICINITY MAP

B. SUMMARIES
B.1-2 SUMMARY OF QUANTITIES

C. TYPICAL SECTIONS
C.1 TYPICAL SECTIONS

D. PLAN-PROFILE
D.1 TABULATION OF QUANTITIES
D.2-5 PLAN AND PROFILES

E. WEST ENTRANCE STATION
E.1 TABULATION OF QUANTITIES
E.2 DEMOLITION PLAN
E.3 SITE PLAN
E.4 PANEL & JOINT LAYOUT DETAIL
E.5 REINFORCING DETAIL
E.6 PAVEMENT JOINTS DETAIL
E.7 DISCONNECT SWITCH DETAIL
E.8 STONE CURB DETAIL

F. EROSION CONTROL
F.1-2 EROSION CONTROL PLANS
F.3 SEDIMENT WATTLE

G. DRAINAGE
G.1 STANDARD UNDERDRAIN SYSTEM

H. TEMPORARY TRAFFIC CONTROL PLAN
H.1-2 TEMP. TRAFFIC CONTROL PROJECT SIGNING (CONSTRUCTION PHASE)
H.3-4 TEMP. TRAFFIC CONTROL PROJECT SIGNING (NON-CONSTRUCTION PHASE)
H.5 CONSTRUCTION SIGN INSTALLATION DETAIL

I. PERMANENT TRAFFIC CONTROL PLAN
I.1-2 PERMANENT TRAFFIC CONTROL STRIPING LAYOUT AND SIGN LOCATIONS
I.3-4 PERMANENT TRAFFIC CONTROL DETAILS
I.5 PERMANENT SIGN INSTALLATION DETAIL

CALL BEFORE YOU DIG
1-800-424-5555
ONE CALL NUMBER
48 HOUR NOTICE REQUIRED

RECOMMENDED:

_____ DATE _____
Director, Project Delivery, Western Federal Lands Highway Division

_____ DATE _____
Regional Director, West Region, National Park Service

APPROVED:

_____ DATE _____
Superintendent, Glacier National Park

NPS Pkg. No. 94633 NPS Drwg. No.

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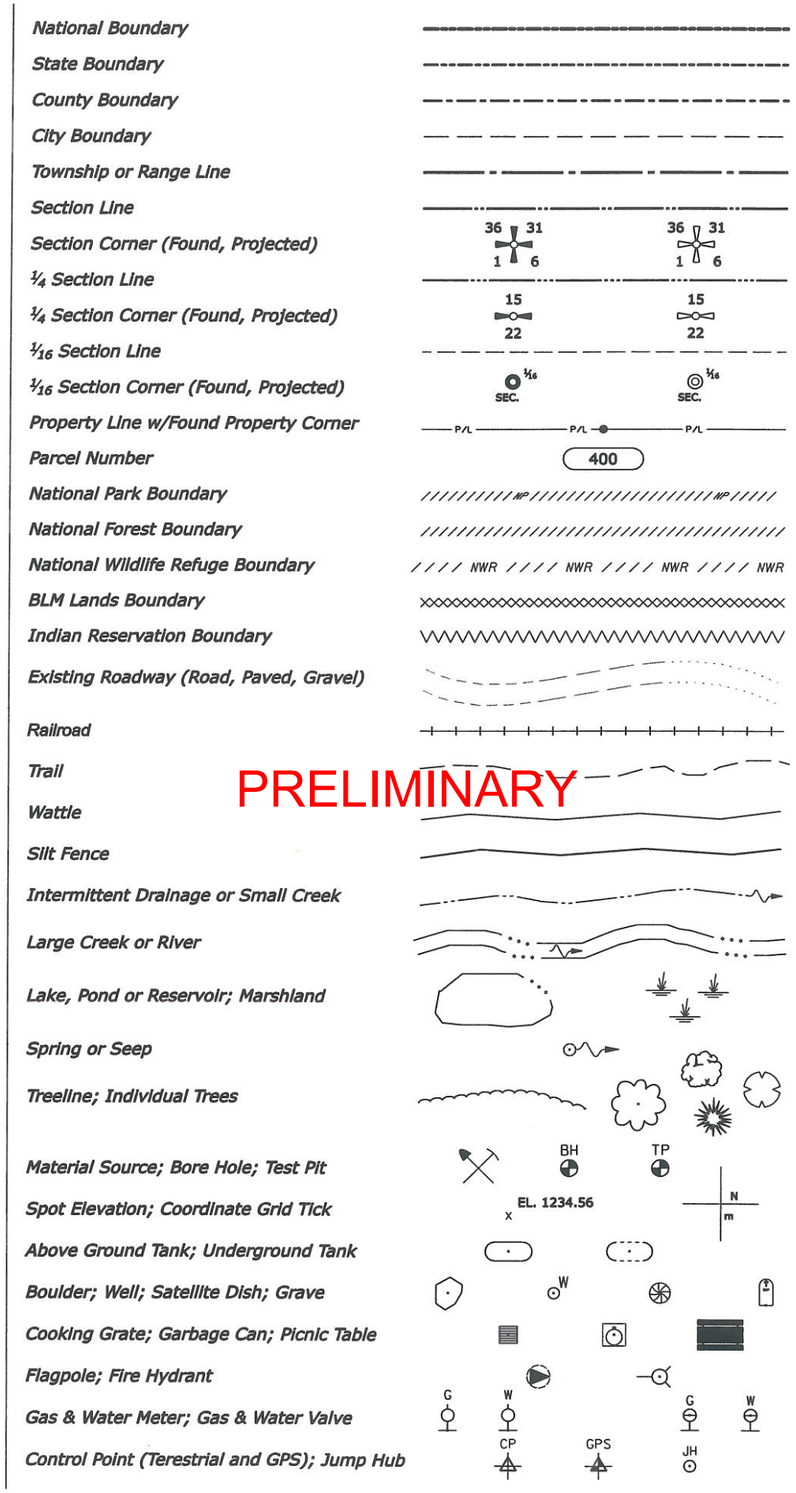
Δ	total central angle
Δc	curve central angle
Ø	diameter
θs	spiral central angle
abut.	abutment
ADT	average daily traffic
AH	ahead
appr.	approach
BK	back
BM	bench mark
BP	balance point
br.	bridge
brg.	bearing
cc or c. to c.	center to center
℄	centerline
clr.	clear
CMP	corrugated metal pipe
col.	column
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
TOC	top of curb
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)

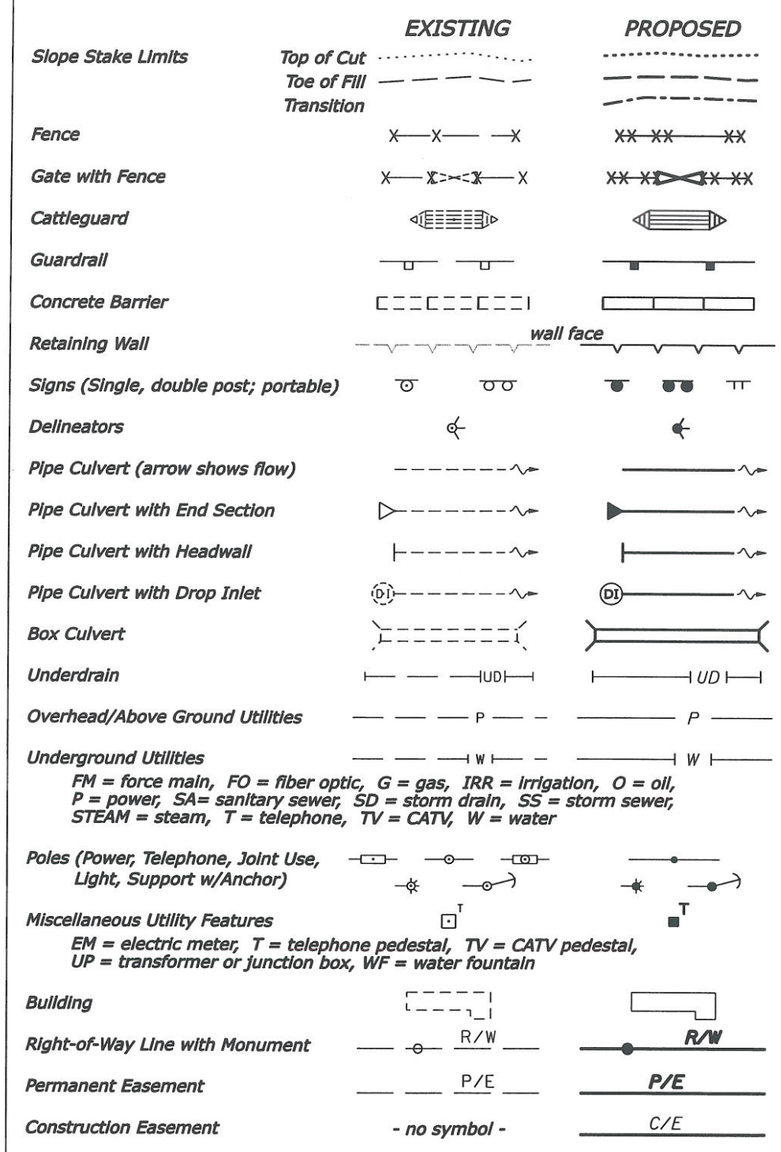
NOTE:

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



PRELIMINARY

STATE	PROJECT	SHEET NUMBER
MT	PRA-GLAC 10(27)	A.2



NO SCALE

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
DRAFT: 1/2007

DETAIL W101-1

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STATE	PROJECT	SHEET NUMBER
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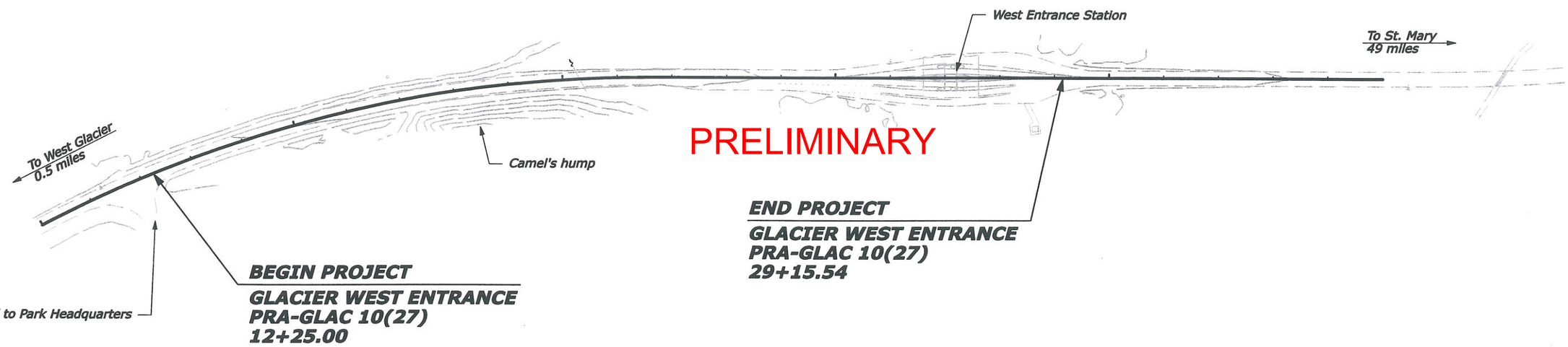

Scale in feet

100 50 0 100 200 300 400

VICINITY MAP

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STATE	PROJECT	SHEET NUMBER
MT	PRA-GLAC 10(27)	B.1

SUMMARY OF QUANTITIES

ITEM	DESCRIPTION	UNIT	C. Typical Section	D. Plan & Profile	E. Site Plan	F. Erosion Control	G. Under - drain	H. Temporary Traffic Control	I. Permanent Traffic Control							ESTIMATED QUANTITIES PLAN	ESTIMATED QUANTITIES BID SCHEDULE
	PLAN SHEET SECTION -------->>																
15101-0000	MOBILIZATION	LPSM														ALL	ALL
15705-1500	SOIL EROSION CONTROL, SEDIMENT WATTLE	LNFT				1737										1737	1,737
20103-0000	CLEARING AND GRUBBING	SQYD	3911													3911	3,911
20220-1000	REMOVAL, INDIVIDUAL TREE	EACH		59												59	59
20301-1500	REMOVAL OF LIGHT POLE	EACH			2											2	2
20303-2100	REMOVAL OF PAVEMENT, ASPHALT, 5-INCH DEPTH	SQYD		262												262	262
20303-2200	REMOVAL OF PAVEMENT, ASPHALT, 6-INCH DEPTH	SQYD		111												111	111
20401-0000	ROADWAY EXCAVATION	CUYD		938.0												938.0	938.0
20410-0000	SELECT BORROW	CUYD		1398.0												1398.0	1,398.0
20441-0000	WASTE	CUYD		745.0												745.0	745.0
25101-3000	PLACED RIPRAP, CLASS 3	CUYD		4.5												4.5	4.5
30802-2000	ROADWAY AGGREGATE, METHOD 2	TON	638.5													638.5	638.5
40301-0300	HOT ASPHALT CONCRETE PAVEMENT, GRADING C	TON	610.7													610.7	610.7
50101-0900	REINFORCED RIGID PAVEMENT, 8-INCH DEPTH, TYPE C SMOOTHNESS	SQYD	273.5													273.5	273.5
55220-0000	EXPANSION JOINTS	LNFT			216.9											216.9	216.9
60201-0600	18-INCH PIPE CULVERT	LNFT		5.1												5.1	5.1
60501-0000	STANDARD UNDERDRAIN SYSTEM	LNFT		320.4												320.4	320.4
60901-2900	CURB, STONE, TYPE 1, 6-INCH DEPTH	LNFT			110.2											110.2	110.2
61503-2000	MEDIAN, EXPOSED AGGREGATE CONCRETE	SQYD			42											42	42
61509-0000	DETECTABLE WARNING PANELS	SQYD							1.3							1.3	1.3
61904-0000	BOLLARD POST	EACH			2											2	2
62405-0300	PLACING CONSERVED TOPSOIL, 4-INCH DEPTH	SQYD		1740												1740	1,740
63301-0000	SIGN SYSTEM	EACH							125.5							125.5	125.5
63306-2100	POST, WOOD, 8-INCH DIAMETER	EACH							1							1	1
63316-1000	REMOVE AND RESET SIGN	EACH							4							4	4
63401-0300	PAVEMENT MARKINGS, TYPE B, SOLID (White)	LNFT							2654							2654	2,654
63401-0300	PAVEMENT MARKINGS, TYPE B, SOLID (Yellow)	LNFT							3701							3701	3,701
63401-0400	PAVEMENT MARKINGS, TYPE B, BROKEN (White)	LNFT							290							290	290

PRELIMINARY

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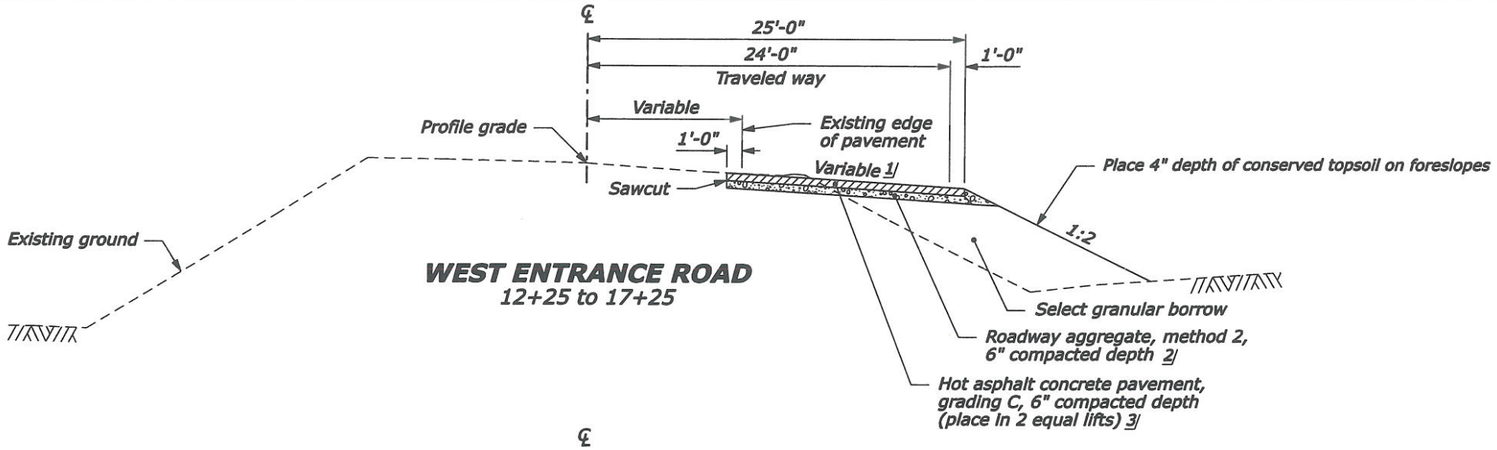
STATE	PROJECT	SHEET NUMBER
MT	PRA-GLAC 10(27)	B.2

SUMMARY OF QUANTITIES

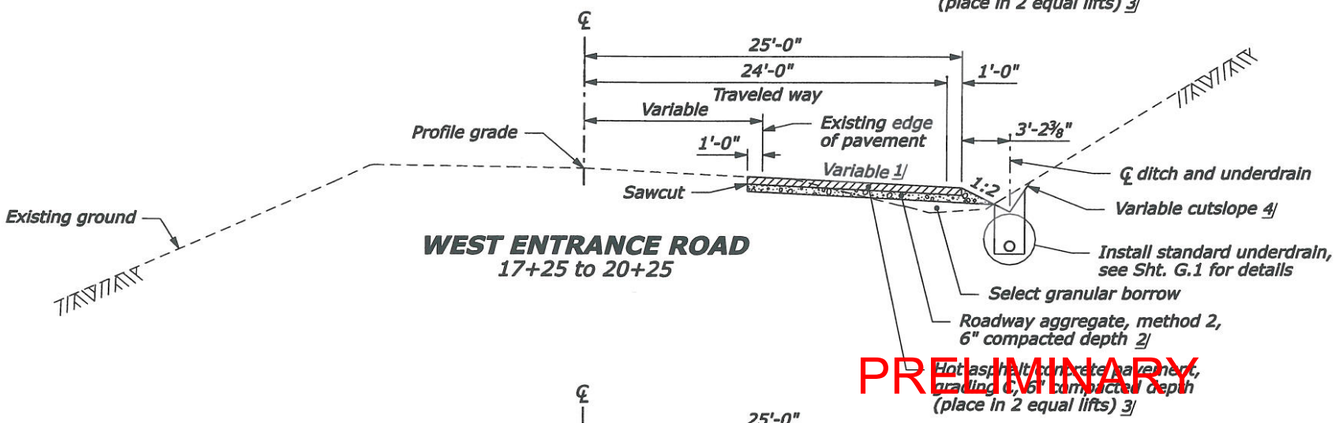
	PLAN SHEET SECTION -------->>		C. Typical Section	D. Plan & Profile	E. Site Plan	F. Erosion Control	G. Under - drain	H. Temporary Traffic Control	I. Permanent Traffic Control							ESTIMATED QUANTITIES	
ITEM	DESCRIPTION	UNIT														PLAN	BID SCHEDULE
63405-0850	PAVEMENT MARKINGS, TYPE B, ACCESSIBILITY SYMBOL	EACH							1							1	1
63502-1300	TEMPORARY TRAFFIC CONTROL, DRUM	EACH						90								90	90
63503-0700	TEMPORARY TRAFFIC CONTROL, PAVEMENT MARKINGS	LNFT						1147								1147	1,147
63503-0800	TEMPORARY TRAFFIC CONTROL, PAVEMENT MARKING REMOVAL	LNFT						1147								1147	1,147
63504-1000	TEMPORARY TRAFFIC CONTROL, CONSTRUCTION SIGN	SQFT						138.5								138.5	138.5
63602-6020	SYSTEM INSTALLATION, TRAFFIC DETECTOR WIRE LOOP	EACH			1											1	1
63610-0100	CONDUIT, 3/4-INCH, PVC	LNFT			142.6											142.6	142.6
63610-0400	CONDUIT, 1-INCH, PVC	LNFT			455.8											455.8	455.8
63610-1600	CONDUIT, 2-INCH, PVC	LNFT			44.7											44.7	44.7
63620-0000	POLE (TEMPORARY WITH DISCONNECT SWITCH)	EACH			1											1	1
63621-3000	UTILITY BOX, JUNCTION BOX	EACH			5											5	5

PRELIMINARY

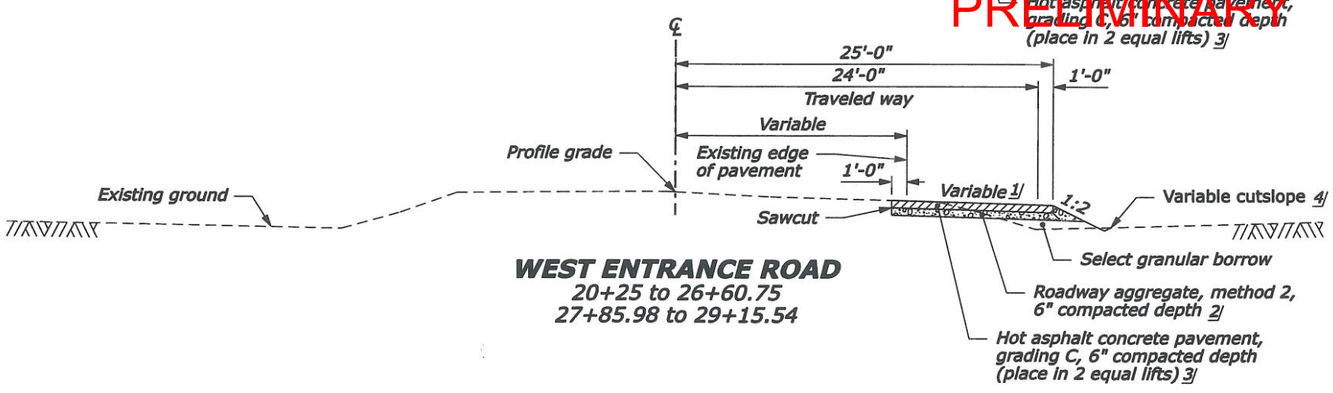
STATE	PROJECT	SHEET NUMBER
MT	PRA-GLAC 10(27)	C.1



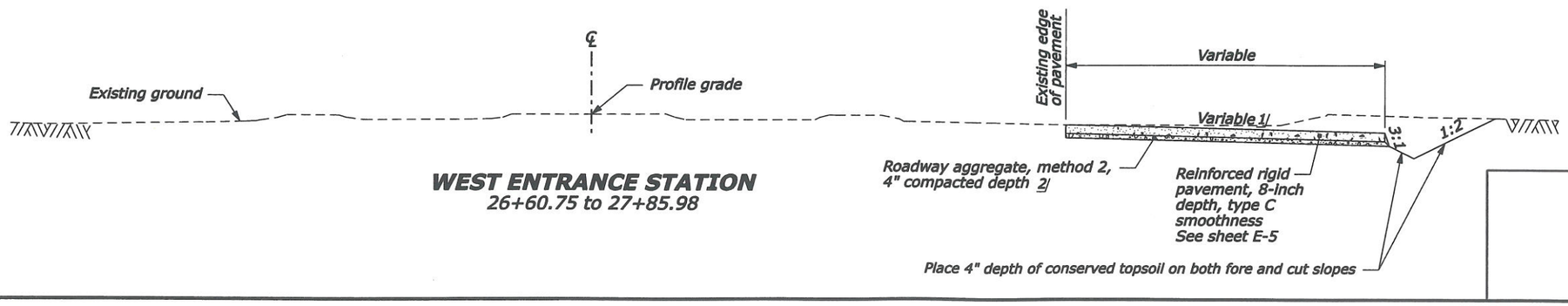
WEST ENTRANCE ROAD
12+25 to 17+25



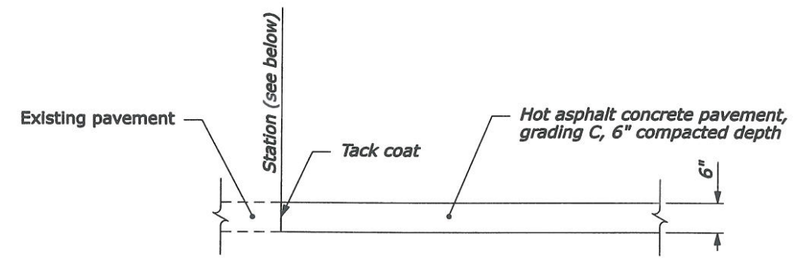
WEST ENTRANCE ROAD
17+25 to 20+25



WEST ENTRANCE ROAD
20+25 to 26+60.75
27+85.98 to 29+15.54



WEST ENTRANCE STATION
26+60.75 to 27+85.98



PAVEMENT CONNECTION DETAIL
12+25.00
29+15.54

PAVEMENT STRUCTURE QUANTITIES

ITEM	DESCRIPTION	QUANTITY
30802-2000	Roadway aggregate, method 2	638.5 tons
40301-0300	Hot asphalt concrete pavement, grading C	610.7 tons
50101-0900	Reinforced rigid pavement, 8-inch depth, type C smoothness	273.5 sqyd

FOOTNOTE:

1/ Construct as shown in the Staking Report Data Listing (FAR 52.236-4.)

2/ Roadway aggregate estimated at 1.62 tons/cuyd

3/ Hot asphalt concrete pavement estimated at 2.03 tons/cuyd

4/ Place 4" depth of conserved topsoil on both fore and cut slopes

TYPICAL SECTIONS

PRELIMINARY

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