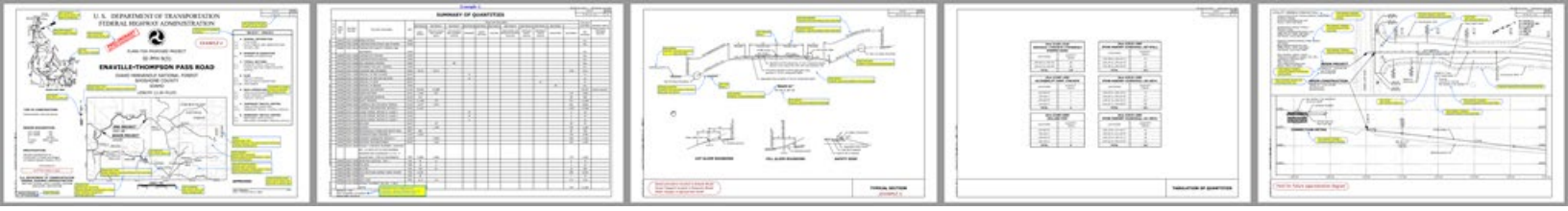


WFL Sample Plan Sheets

D Sheets

Plan and Profile Sheets

Revised: January 2026

RECORD OF REVISIONS

The following record of revisions to the *WFL Sample Plan Sheets, D Sheets, Plan and Profile Sheets* document that is offered as a "quick reference" to determine the latest changes.

DATE	SECTION	REVISION DESCRIPTION
7/2025	Plan – Profile Sheets	Utility contact information was removed as a requirement for the Plan – Profile section and reduce duplication as it is listed in the Special Contract Requirements (SCR) Section 107.
01/2026	Earthwork Summary Table	All information to be shown. Revised to include Waste classification.

GENERAL

To create the Plan-Profile Sheets in OpenRoads Designer (ORD), refer to ORD Manual chapter 14: Plan Sheet Production.

Plan Sheet Order

- SURVEY CONTROL
- TABULATION OF QUANTITIES
- EARTHWORK SUMMARY TABLE
- PLAN-PROFILE SHEETS
- DETAIL SHEETS
- STANDARD DRAWINGS

Survey Control Sheet(s)

Include the Survey Control sheet(s) by the 70% Plan-In-Hand milestone, per PS&E Continuum.

WFL Internal: Obtain the Survey Control sheet(s) from Survey.

Tabulation of Quantities

Tabulation of Quantity sheets are used to tabulate the locations, quantities, and notes pertaining to specific bid items. Include all pay items that are to be paid for under the specific section. Identify pay items in order as they appear in the FP-24 and on the Summary of Quantities.

Create all Tabulation of Quantities sheets within the sheet model in ORD to ensure proper scaling when pasting tables from Microsoft Excel. See ORD Manual chapter 14D.4, Manually Create the Sheet Model.

Earthwork Summary Table

Include an Earthwork Summary table on all projects that have earthwork. The Earthwork Summary table articulates the assumptions made for each project and clearly communicate how all earthwork is generated, where it is placed, and how it is accounted for.

The spreadsheet and template illustrate a single scenario; they both may need to be adjusted to reflect the particulars of each individual project.

TABLE SECTIONS

Column 1	Column 2	Column 3	Column 4	Column 5
	RAW DATA			
LOCATION	***Volumes_Cut*** *(Total Cut volume excluding topsoil)* *Source: ORD, Quantities by Named Boundary*	***Volumes_Fill*** *(Total Fill volume including Topsoil)* *Source: ORD Quantities by Named Boundary*	***Exist Topsoil (removed)*** *(existing topsoils in cut)* *Source: ORD Quantities by Named Boundary*	***Exist Topsoil (removed and replaced)*** *(existing topsoil in fill)* *Source: ORD Quantities by Named Boundary*
UNITS	*CUYD*	*CUYD*	*CUYD*	*CUYD*
"MAIN" 10+00 to 25+50	*16,854*	*7,410*	*843*	*371*
"MAIN" 25+50 to 28+50	*5,842*	*4,752*	*292*	*238*
"MAIN" 28+50 to 32+75	*9,630*	*10,852*	*482*	*543*
"MAIN" 32+75 to 40+00	*8,520*	*4,250*	*426*	*213*
"MAIN" 40+00 to 65+00	*2,361*	*5,489*	*624*	*127*
TOTALS	*43,207*	*32,753*	*2,667*	*1,492*

Figure 1: Table Sections, columns 1 thru 5

Column 1, Location: Identify each individual alignment, corridor or surface template where quantities could be taken from within this columns.

It may be necessary to break up an alignment as needed in the case of varying shrink/swell locations, varying depths of topsoil, and at structures (i.e. Alignments, Walls, Bridges, AOP culverts).

RAW DATA

This is the Raw earthwork data taken directly from ORD. Columns can be added in this section if needed to account for all data that is pulled from ORD. The Designer fills in the data under this section.

IMPORTANT: If columns are added or removed, update the formulas within the template to ensure the math is correctly adding the additional columns.

SOURCES: Include the source where the information is obtained. Turn the text to black for final.

Column 2, Volumes_Cut: Includes cut volumes produced from ORD once topsoil stripping has been modeled. Account for topsoil by calculating the quantity using the topsoil modelling template provided in the ORD Manual.

For example, in *Figure 2*, the values from shape "V3" should be included here. ORD will keep the excavation and topsoil values separated.

Column 3, Volumes_fill: Includes fill volumes produced from ORD including topsoil. Account for conserved topsoil by calculating the quantity using the topsoil modelling template provided in the ORD Manual.

For example, in *Figure 2*, using this method, ORD automatically adds "V1" and "V2" together.

Column 4, Exist Topsoil (removed): Include the existing topsoil value within a cut section in this column. See "V4" in figure 1. The spreadsheet calculates the effects of Topsoil within the cut section and this volume is needed for inclusion in the quantities representing excavation and will be measured for payment.

Column 5, Exist topsoil (removed and replaced): Include the existing topsoil value within a fill section in this column. See "V2" in *Figure 2*. The spreadsheet calculates the effects of the topsoil within the fill section and provides the quantity of fill or borrow needed to replace the volume removed from the stripped topsoil in the fill sections.

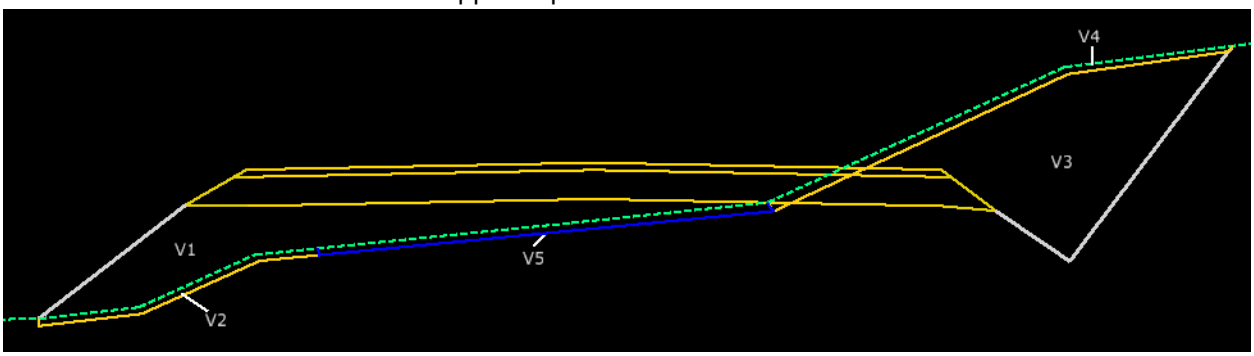


Figure 2: Topsoil template example

V1: Proposed fill (Excluding existing topsoil)

V2: Existing topsoil within fill section
V3: Proposed cut (Excluding existing topsoil)
V4: Existing topsoil within cut section
V5: Existing Asphalt

ASSUMPTIONS

Column 6	Column 7	Column 8	Column 9	Column 10
ASSUMPTIONS				
Shrink (-) / Swell (+) Factor Source: Geotech recommedation dated 12/25/22	Specific areas with unsuitable material	Assumed percent unsuitable (0%=Suitable to 100%=Unsuitable) Source: Geotechnical recommendation dated 1/1/23	Unsuitable material based on Volumes_Cut and Assumed Percent Unsuitable	Assumed Topsoil Removal / Conserved Depth Source: NPS
%	CUYD	%	CUYD	INCH
-20%	110	10%	1,685	4
30%		100%	5,842	2
10%		10%	963	5
-15%	467	15%	1,278	3
50%		100%	2,361	4
	577		12,129	

Figure 3: Table Sections columns 6 thru 10

Columns 6 through 10 are meant to document all assumptions that went into the earthwork calculations including the assumed topsoil depths, shrink/swell factors and unsuitable material assumptions.

SOURCES: Include the source where the information is obtained. Turn the text to black for final.

Column 6, Shrink/Swell factor: Geotech provides the Shrink swell factor expressed as a percentage as shown on the sample plans (ex. -10% shrink or 5% swell).

Column 7, 8 & 9, Unsuitable material: The amount of unsuitable material on a project should be discussed and recommendations provided by the Geotechnical office. The amount will typically be specified as either a set quantity (Column 7) or a percent of the total volume (Column 8), but not both. Column 9 automatically calculates the unsuitable material when a percentage is provided in Column 8.

Column 10, Topsoil removal depth: Document the assumed depth of existing topsoil that is being removed or conserved.

CUT

Column 11	Column 12	Column 13	Column 14	Column 15	Column 16
CUT					
Item 20401-0000 ROADWAY EXCAVATION	(+) Additional Excavation (See Note 2) for info only	(-) Topsoil Stripped from Cuts for info only	(-) Estimate of Unsuitable Material for info only	Total Unadjusted Excavation Available for Fill for info only	Total Adjusted Available for Embankment (adjusted based on shrink/swell factor) for info only
CUYD	CUYD	CUYD	CUYD	CUYD	CUYD
17,697		843	1,795	15,059	12,047
6,134		292	5,842	-	-
10,112	294	482	963	8,961	9,857
8,946		426	1,745	6,775	5,759
2,985	49	624	2,361	49	74
45,874	343	2,667	12,706	30,844	27,736

Figure 4: Table Sections columns 11 thru 16

Columns 11 through 16 capture and calculate the material available for embankment.

Column 11, ROADWAY EXCAVATION: Calculating the roadway excavation pay item volume including the existing topsoil in cuts.

Column 12, Additional Excavation: This column is manually inputted, this should include any excavated material that is suitable for fill on a project that is not included within the roadway corridor or ORD quantities.

For example, structure excavation for a wall, bridge, or culvert or Subexcavation. The material should be quantified on the respective sheets. Revise Note 2 to describe only the appropriate pay items the quantity is coming from.

Column 13, Topsoil Stripped from cuts: Existing topsoil in the cut

Column 14, Estimate of Unsuitable material: Includes either the specific areas called out for unsuitable material or the total unsuitable based on a percentage of the total cut.

Column 15, Total unadjusted excavation available for fill: This column calculates the fill available before accounting for the shrink/swell.

Column 16, Total adjusted excavation available for fill: This column calculates the fill available with Shrink/swell accounted for.

FILL

Column 17	Column 18	Column 19	Column 20
FILL			
Embankment for info only	(+) Additional Backfill Needed (See Note 3) for info only	(+) Topsoil stripped from embankment foundation areas for info only	Total Embankment Needed for info only
CUYD	CUYD	CUYD	CUYD
7,039		371	7,410
4,514	521	238	5,273
10,309		543	10,852
4,037		213	4,250
5,362		127	5,489
31,261	521	1,492	33,274

Figure 5: Table Sections columns 17 thru 20

Columns 17 through 20 will capture and calculate the material needed for embankment.

Column 17, Embankment: The total fill needed excluding existing topsoil.

Column 18, Additional backfill needed: This column is manually inputted, this could include any backfill that may be needed that was not modelled in the ORD fill quantities. This can include fill needed for items in other sections as well. For example, the fill needed to fill a hole for removing a large object or structure such as a drainage structure.

Column 19, Topsoil stripped from embankment foundation areas: Existing topsoil in the fill

Column 20, Total Fill Needed: This column totals up all the fill needed for the project

TOTALS

Column 21	Column 22	Column 23	Column 24	Column 25
TOTALS				
Total Fill needed for info only	*(-) Excess Available Fill (Total Adjusted Available For Embankment minus Total Embankment Needed) for info only*	*(=) **Item 20403-0000 UNCLASSIFIED BORROW***	*Waste for info only*	
CUYD	*CUYD*	*CUYD*	*CUYD in situ*	*CUYD Compacted*
0	*4,637*	*0*	*1,685*	*0*
5,273	*0*	*636*	*0*	*5,842*
995	*0*	*995*	*0*	*963*
0	*1,509*	*0*	*1,278*	*0*
5,416	*0*	*3,907*	*0*	*2,361*
11,683	*6,146*	***5,538***	*2,963*	*9,166*

Figure 6: Table Sections columns 21 thru 25

Columns 21 through 25 will calculate the total fill or waste needed for a project and determine whether the project is a borrow or waste project.

Column 21, Total Fill needed: This column calculates the total earthwork required.

Column 22, Excess Available Fill (Total adjusted available for fill less total fill needed): This column calculates the total earthwork available by subtracting the Fill quantities from the Cut quantities.

Column 23, UNCLASSIFIED BORROW: Borrow pay item. This column indicates there is not enough adjusted roadway excavation provided in this section to satisfy the required embankment for this section. The summation of this column indicates how much borrow is needed for the project.

Column 24, Waste – in situ: This column indicates the unsuitable waste material based on the shrinkage of column 6.

Column 25, Waste – Compacted: This column indicates the unsuitable material based on the swell of column 7.

Plan - Profile Sheets

The plan and profile sheets should be able to clearly communicate the design intent for the project. Items to consider when creating the plan and profile sheets:

SCALE

- Select for an appropriate scale in plan view so that the linework and design intent can be clearly communicated. 1" = 40' scale is typically recommended for the D section.

GENERAL LAYOUT

- Place the Begin project approximately in the middle of the sheet to allow space for other information (i.e. flexibility in shifting the begin project location)
- Technical group work elements (ex. Bridges, culverts)
    - Graphical representations of elements from technical groups may need to be shown. if a drawing is available it can be referenced into the plan view.
    - In profile view, provide a graphical representation of the structure. Design details are not needed.
- Avoid short distances on the final sheet (<100').
- Avoid cutting significant project elements between sheets (i.e. Bridges, intersections)
- Ensure the plan view layout at sharp horizontal curves adequately captures all necessary information.
- In plan view, the proposed alignment beginning location, should extend beyond the beginning/end of the project through the horizontal curve to the beginning of the tangent.
- In profile view, The existing ground profile should be shown beyond the beginning/end of project for a sufficient distance to show the proposed profile adequately ties in without introducing inflections.
- Guardrails, Guardwalls, Special Ditches
    - Include in the profile view, call out the transition rail and terminal sections separately
- Culverts
    - Show in profile view at the proper elevation and stationing where they intersect Centerline. Should be drawn to scale.
    - Include existing culverts in profile view
- Construction limits/Clearing limits
    - Clearing limits only need to be called out in plan view if they diverge from the construction limits
- Legends
    - Provide legends for items not called out on the sheet or identified in the Plans, Symbols and abbreviations detail sheet (I,e. subexcavation, roadway obliteration, etc..)
- Alignments
    - Each plan sheet has a reference alignment that is identified by "To be constructed"

  - Any callout on the sheet should refer to the reference alignment identified by “to be constructed” on the sheets. All location references should be in reference to this alignment

- Alignment naming
  - “To be Constructed” callout should always callout the alignment name (I,e. “Main 01” Line to be constructed), not the name of the road. See alignment naming convention here under Feature type descriptors (https://highways.dot.gov/federal-lands/cadd-support/standards/naming-ord-features).
- Item’s paid for in other sections
  - Items called out in the D sheets that are not paid for in the D sheets, should be referenced to the section they are paid for in For example: (Turnouts, “See Section XX for details”)
  - May include but not limited to: Bridges, turnouts, large culverts (> 48”), guardrail, guardwalls, walls

Project :Yellowstone River Bridge
Date of field work : July 2023
Date of update : July 2023

Project Units : US Survey foot
Coordinate system : wy_west SCALED TO GROUND
Epoch date :2010.000
Vertical datym :Orthometric elevations based on the NAVD88 GEOID12b

Use Survey Control template excel spreadsheet

POINT NUMBER	STATE PLANE COORDINATES			GEO COORDINATES				
	NORTH	EAST	ORTHOMETRIC ELEVATION	LATITUDE	LONGITUDE	ELLIPSOID HEIGHT	COMBINED FACTOR	DESCRIPTION
121	939525.161	540442.590	6236.204	44°55'09.872145"N	110°24'42.920355"W	6208.479	0.99964918	1/2" IR
122	940196.920	543607.272	6155.301	44°55'16.627130"N	110°23'58.989997"W	6127.6506	0.999652437	1/2" IR
16301	939686.304	540314.336	6219.581	44°55'11.457636"N	110°24'44.711258"W	6191.8569	0.999649998	5/8" IR w/fhwa alum cap
16302	939760.550	540872.848	6175.146	44°55'12.212792"N	110°24'36.955989"W	6147.4321	0.999652012	5/8" IR w/fhwa alum cap
16303	939740.417	541380.977	6139.023	44°55'12.034210"N	110°24'29.895385"W	6111.3174	0.999653639	5/8" IR w/fhwa alum cap
16305	939894.514	542685.536	6091.312	44°55'13.606452"N	110°24'11.779474"W	6063.6345	0.999655667	5/8" IR w/fhwa alum cap
16306	940249.797	543401.072	6148.812	44°55'17.141120"N	110°24'01.857691"W	6121.1581	0.999652785	5/8" IR w/fhwa alum cap
23304	939808.665	542034.764	6095.636	44°55'12.733621"N	110°24'20.816034"W	6067.9437	0.999655585	5/8" IR w/fhwa alum cap
23307	939863.603	543634.446	6184.665	44°55'13.338057"N	110°23'58.594414"W	6157.0074	0.999651029	5/8" IR w/fhwa alum cap
YRB1	939323.171	539882.079	6240.507	44°55'07.855859"N	110°24'50.696062"W	6212.7705	0.999649084	5/8" IR w/fhwa alum cap
YRB2	939871.595	543788.404	6187.720	44°55'13.422860"N	110°23'56.455866"W	6160.0731	0.999650854	5/8" IR w/fhwa alum cap
YRB3	939062.686	543541.829	6228.857	44°55'05.428753"N	110°23'59.837731"W	6201.1797	0.999648937	5/8" IR w/fhwa alum cap

NOTE:

1. *To precisely check distances between points as measured on the ground, inverse the state plane coordinates and divide the computed distance by a mean combined factor of the two points.*

SURVEY CONTROL

PROJECT	SHEET NUMBER
AK NPS SAMP 14(1)	D.2

Level: D_Tables
Table linked, or pasted, into Sheet model at scale = 1
Hint: To remove "gray" look, type in "RD=" into Key-In command to refresh the DGN.

Numerically order by Pay Item

Thin black line around column titles and total rows

Body text;
Font = Verdana, Italic
Size = 8

Bold outline

Thin grey lines dividing listed items

Excel settings for tables;
Row Height = 15

ROADWAY QUANTITIES

ITEM	DESCRIPTION	UNIT	LOCATION		TOTAL	NOTES
			"MAIN 01"	"MAIN 02"		
20101-0000	CLEARING AND GRUBBING	ACRE	9.1	1.9	11.0	
20401-0000	ROADWAY EXCAVATION	CUYD	11,090	7,183	18,274	Quantity excludes Conserve and Stockpile Topsoil
20403-0000	UNCLASSIFIED BORROW	CUYD	4,654	0	4,654	Includes carryover from parking areas
20410-0000	SELECT BORROW	CUYD	7,088	4,036	11,124	
30101-2000	AGGREGATE BASE GRADING D	TON	4,777	2,905	7,682	1.94 ton/cuyd
40101-5600	ASPHALT CONCRETE PAVEMENT, GYRATORY MIX, 1/2-INCH OR 3/4-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 TO <3 MILLION ESAL	TON	3,015	2,035	5,050	1.97 ton/cuyd
40105-3000	ANTISTRIP ADDITIVE, TYPE 3	TON	30	20	51	1%/ton Asphalt Concrete Pavement
40601-0000	FOG SEAL	TON	6	4	11	0.10 gal/SQYD; 233 gal/ton
40605-0000	BLOTTER	TON	106	71	177	14.75 lb/sqyd; 2000 lb/ton
40801-0000	COLD RECYCLED ASPHALT BASE COURSE	TON	2737	1705	4,442	1.97 ton/cuyd
40807-0000	LIME	TON	30	20	51	1%/ton Cold Recycled Asphalt Base
41201-0000	TACK COAT	TON	6	4	10	0.10 gal/SQYD; 233 gal/ton
62406-0200	PLACING CONSERVED TOPSOIL, 3-INCH DEPTH	ACRE	4.9	1.2	6.1	
62510-1000	SEEDING, DRY METHOD	ACRE	4.9	1.2	6.1	
62515-1000	MULCHING, DRY METHOD	ACRE	4.9	1.2	6.1	

TABULATION OF QUANTITIES (SHEET 1 OF 3)

Level: D_Tables
Table linked, or pasted, into Sheet model at scale = 1
Hint: To remove "gray" look, type in "RD=" into Key-In command to refresh the DGN.

Title text:
Font = Verdana, Italic, Bold
Size = 10

ITEM 61501-0100
SIDEWALK, CONCRETE
(CROSSWALK STAMPED EDGE)

ALIGNMENT	LOCATION			QUANTITY (SQYD)
"MAIN 01"	130+60	to	130+78	60
"MAIN 01"	144+51	to	144+69	60
			TOTAL	**120**

ITEM 61505-1000
ACCESSIBILITY RAMP, CONCRETE

Numerically order tables by pay item number.
Be consistent with either vertical or horizontal ordering.

ALIGNMENT	LOCATION	SIDE (LT/RT)	QUANTITY (EACH)
"MAIN 01"	130+69	RT	1
"MAIN 01"	130+69	LT	1
"MAIN 01"	144+60	RT	1
"MAIN 01"	144+60	LT	1
		TOTAL	**4**

Numerically order Location.

Body text;
Font = Verdana, Italic
Size = 8

ITEM 61904-0000
BOLLARD POST

ALIGNMENT	LOCATION	SIDE (LT/RT)	QUANTITY (SQYD)
"MAIN 01"	130+82	RT	3
"MAIN 01"	130+85	LT	2
"MAIN 01"	144+46	RT	2
"MAIN 01"	144+46	LT	2
		TOTAL	**9**

Total text;
Font = Verdana, Italic, Bold
Size = 8

ITEM 62010-1000
STONE MASONRY GUARDWALL (SIT WALL)

ALIGNMENT	LOCATION			SIDE (LT/RT)	QUANTITY (SQYD)
"MAIN 01"	129+08	to	130+05	LT	97
"MAIN 01"	130+35	to	130+64	RT	31
"MAIN 01"	145+50	to	146+50	RT	95
				TOTAL	**223**

Thin black line around column titles and total rows

Bold outline

Thin grey lines dividing listed items

Excel settings for tables;
Row Height = 15

ITEM 62010-1000
STONE MASONRY GUARDWALL (30-INCH)

ALIGNMENT	LOCATION			SIDE (LT/RT)	QUANTITY (SQYD)
"MAIN 01"	130+05	to	130+78	LT	73
"MAIN 01"	130+64	to	130+92	RT	47
"MAIN 01"	144+51	to	146+50	LT	212
"MAIN 01"	144+51	to	145+50	RT	99
				TOTAL	**431**

ITEM 62010-1000
STONE MASONRY GUARDWALL (42-INCH)

ALIGNMENT	LOCATION			SIDE (LT/RT)	QUANTITY (SQYD)
"MAIN 01"	130+78	to	131+20	LT	42
"MAIN 01"	130+92	to	131+20	RT	28
"MAIN 01"	144+25	to	144+51	LT	26
"MAIN 01"	144+25	to	144+51	RT	26
				TOTAL	**122**

TABULATION OF QUANTITIES
(SHEET 2 OF 3)

EARTHWORK SUMMARY TABLE

	RAW DATA				ASSUMPTIONS					CUT						FILL				TOTALS				
LOCATION	**Volumes_Cut** (Total Cut volume excluding topsoil)	**Volumes_Fill** (Total Fill volume including Topsoil)	**Exist Topsoil (removed)** (existing topsoils in cut)	**Exist Topsoil (removed and replaced)** (existing topsoil in fill)	Shrink (-) / Swell (+) Factor	Specific areas with unsuitable material	Assumed percent unsuitable (0%=Suitable to 100%=Unsuitable)	Unsuitable material based on Volumes_Cut and Assumed Percent Unsuitable	Assumed Topsoil Removal / Conserved Depth	**Item 20401-0000 ROADWAY EXCAVATION**	(+) Additional Excavation (See Note 2) for info only	(-) Topsoil Stripped from Cuts for info only	(-) Estimate of Unsuitable Material for info only	Total Unadjusted Excavation Available for Fill for info only	Total Adjusted Available for Embankment (adjusted based on shrink/swell factor) for info only	Embankment for info only	(+) Additional Backfill Needed (See Note 3) for info only	(+) Topsoil stripped from embankment foundation areas for info only	Total Embankment Needed for info only	Total Fill needed for info only	(-) Excess Available Fill (Total Adjusted Available For Embankment minus Total Embankment Needed) for info only	(=) **Item 20403-0000 UNCLASSIFIED BORROW**	Waste for info only	
UNITS	CUYD	CUYD	CUYD	CUYD	%	CUYD	%	CUYD	INCH	CUYD	CUYD	CUYD	CUYD	CUYD	CUYD	CUYD	CUYD	CUYD	CUYD	CUYD	CUYD	CUYD	CUYD in situ	CUYD Compacted
"MAIN" 10+00 to 25+50	16,854	7,410	843	371	-20%	110	10%	1,685	4	17,697		843	1,795	15,059	12,047	7,039		371	7,410	0	4,637	0	1,685	0
"MAIN" 25+50 to 28+50	5,842	4,752	292	238	30%		100%	5,842	2	6,134		292	5,842	-	-	4,514	521	238	5,273	5,273	0	636	0	5,842
"MAIN" 28+50 to 32+75	9,630	10,852	482	543	10%		10%	963	5	10,112	294	482	963	8,961	9,857	10,309		543	10,852	995	0	995	0	963
"MAIN" 32+75 to 40+00	8,520	4,250	426	213	-15%	467	15%	1,278	3	8,946		426	1,745	6,775	5,759	4,037		213	4,250	0	1,509	0	1,278	0
"MAIN" 40+00 to 65+00	2,361	5,489	624	127	50%		100%	2,361	4	2,985	49	624	2,361	49	74	5,362		127	5,489	5,416	0	3,907	0	2,361
Horsetail Parking Lot	4,000	2,700	-	90	-10%	-	10%	400	6	4,000	-	-	400	3,600	3,240	2,610		90	2,700	0	540	0	400	0
Granite Canyon Parking Lot	2,300	100	-	20	-10%	-	10%	230	6	2,300	-	-	230	2,070	1,863	80		20	100	0	1,763	-540	230	0
"APPR 01" 1+00 - 1+95	1,200	120	100	20	-5%	-	10%	120	6	1,300	-	100	120	1,080	1,026	100		20	120	0	906	-1,763	120	0
"APPR 02" 2+00 - 2+85	850	1,200	100	80	-10%	-	10%	85	6	950	-	100	85	765	689	1,120		80	1,200	512	0	-395	85	0
"APPR 03" 3+00 - 3+65	1,100	330	80	60	-10%	-	10%	110	6	1,180	120	80	110	1,110	999	270		60	330	0	669	0	110	0
"ACCESS 01" 5+00 - 6+25	850	-	50	-	0%	-	10%	85	6	900	-	50	85	765	765	-		-	-	0	765	-669	0	0
"DETR 01" 10+00 - 11+35	1,200	-	100	-	0%	-	10%	120	6	1,300	-	100	120	1,080	1,080	-		-	-	0	1,080	-765	0	0
Bridge at 10+00 (Grading)	-	-	-	-	-5%	-	10%	-	6	-	120	-	-	120	114	-		-	-	0	114	-1,080	0	0
AOP 12+00	-	-	-	-	-15%	-	10%	-	6	-	120	-	-	120	102	-	350	-	350	248	0	134	0	0
AOP 24+50	-	-	-	-	-10%	-	10%	-	6	-	105	-	-	105	95	-		-	-	0	95	0	0	0
"WALL 01" 1+00 - 3+85	-	-	-	-	-5%	-	10%	-	6	-	350	-	-	350	333	-		-	-	0	333	-95	0	0
"WALL 02" 5+00 - 7+75	-	-	-	-	-10%	-	10%	-	6	-	400	-	-	400	360	-		-	-	0	360	-333	0	0
TOTALS	54,707	37,203	3,097	1,762		577		13,279		**57,804**	1,558	3,097	13,856	42,409	38,401	35,441	871	1,762	38,074	12,443	12,770	**33**	3,908	9,166

NOTE:

1. All volumes are in-place cubic yards (i.e. in situ or compacted in place).
2. Additional excavation that is suitable for use in embankment construction (Section 209 Structural excavation, Culverts).
3. Additional material needed for embankment construction (Structural backfill).

Designer to update list to match project needs

TABULATION OF QUANTITIES (SHEET 3 OF 3)

PROJECT	SHEET NUMBER
AK NPS SAMP 14(1)	D.5

Note element; Template Annotation\General\Heading

Text element; Template Annotation\General\Subheading; Left justified

Text Style 006_Verdana_CC; Justification Left Top

BEGIN PROJECT
"MAIN 01" 110+05.00
N= 937984.0982
E= 540096.9997

BEGIN CONSTRUCTION
"MAIN 01" 110+25.00
N= 938002.4670
E= 540105.0424

Dimension element; Template Annotation\General\Plan notes Feet

Text Style 007_Verdana_Italics_CC

Construction limit

Slope stake limits

+25.00 76.50' Lt
+31.72 76.50' Lt
+77.01 26.00' Lt
+69.54 26.00' Lt
+79.54 15.00' Lt
+70.35 20.00' Rt
+25.30 15.00' Rt
+39.34 57.63' Rt
+25.00 57.63' Rt

GPS
YRB1
YB 3

50' R
40' R

111 112 113 114 115

PI 116+60.13
Δ = 28°09'18" (RT)
R = 1,190.00'
T = 298.41'
L = 584.76'
e = 3.8%

N23°38'45"E
NORTHEAST ENTRANCE ROAD
GRAND LOOP ROAD

Edges of pavement

"MAIN 01" Line to be constructed

Turnout
112+00 to 114+00
See Section X for details

PC 113+61.72

Construction limit

Template Proposed\End Conditions\Prop Clearing

Text Style 007_Verdana_Italics_CC

Note element; Template Annotation\General\Plan notes Dotted

Note element; Template Annotation\General\Plan notes Feet

Proposed pavement structure
Existing Roadway
Vertical saw cut
Tack coat face

CONNECTION DETAIL

Text element; Template Annotation\General\Heading

6,268.78
110+00
6266.87
-2.00%
-2.30%
Profile grade
Existing ground
SSD = 1174'
K = 500
150' VC

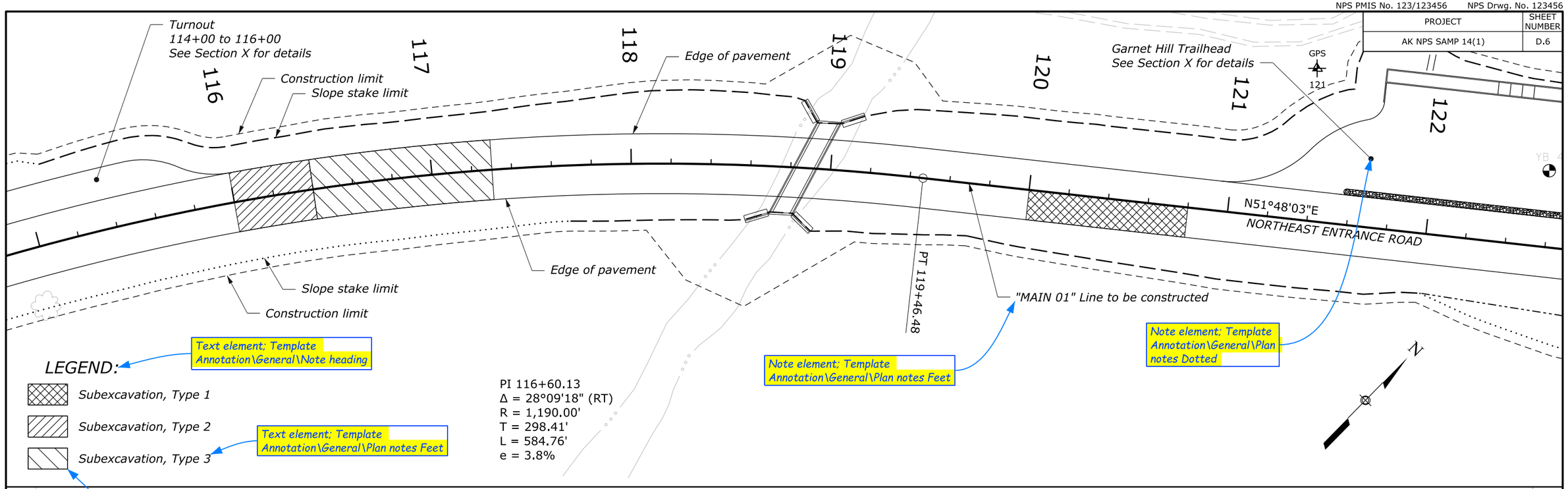
6,280
6,270
6,260
6,250

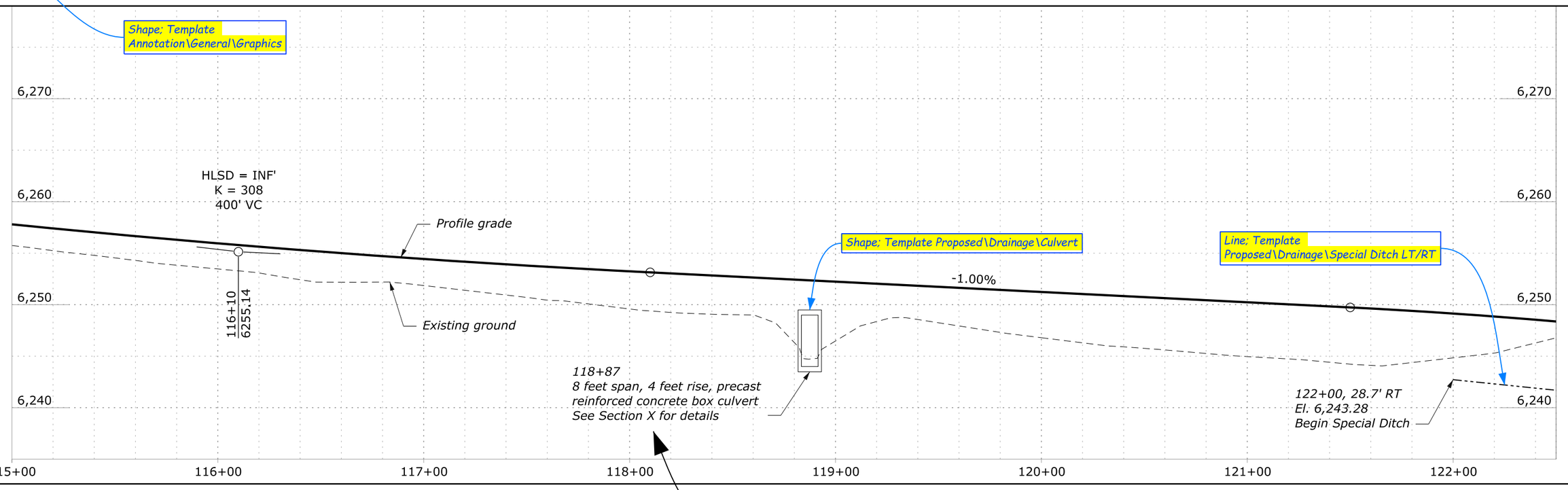
108+00 109+00 110+00 111+00 112+00 113+00 114+00 115+00

Hold for future superelevation diagram

NPS PMIS No. 123/123456 NPS Drwg. No. 123456

PROJECT	SHEET NUMBER
AK NPS SAMP 14(1)	D.6





Hold for future superelevation diagram

Fill in Section number

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29 April 2025 5:09 PM

NPS PMIS No. 123/123456 NPS Drwg. No. 123456

PROJECT	SHEET NUMBER
AK NPS SAMP 14(1)	D.7

Garnet Hill Trailhead
See Section X for details

Pattern Riprap; Cell Library Work_dd

Slope stake limit

Construction limit

123 124 125 126 127 128 129

+58.91
30.76' Lt
16' R

+70.91
30.76' Lt
16' R

+42.91
15.00' Lt

+86.16
15.00' Lt

YB 4

"MAIN 01" Line to be constructed

N51°48'03"E

NORTHEAST ENTRANCE ROAD

Edges of pavement

PC 126+43.20

Note element; Template Annotation\General\Plan notes Dotted

Yellowstone River Overlook
Trail Parking
See Section X for details

CP

Slope stake limit

Construction limit

Line; Template Proposed\Drainage\Culvert

Note element; Template Annotation\General\Plan notes Feet

PI 129+21.03
Δ = 33°57'22" (RT)
R = 910.00'
T = 277.83'
L = 539.31'
e = 5.6%

123+50
6247.73

Template Proposed\Drainage\Culvert

Dimension element; Template Annotation\General\Plan notes Feet

129+14 to 131+20.25 LT
Stone Masonry Guardwall
See Section X for details

6,250
6,240
6,230
6,220

SSD = 572'
K = 138
400' VC

123+57
42-inch equivalent diameter arch or elliptical pipe culvert and stone masonary headwall and protective apron at culvert outlet without ditch
See Section X for details

123+35, 35.7' RT
El. 6,240.51
End Special Ditch

-3.90%

Profile Grade

Existing ground

129+09
24-inch pipe culvert
See Section X for details

123+00 124+00 125+00 126+00 127+00 128+00 129+00 130+00

Hold for future superelevation diagram

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29 April 2025 5:10 PM

NPS PMIS No. 123/123456 NPS Drwg. No. 123456

PROJECT	SHEET NUMBER
AK NPS SAMP 14(1)	D.8

Construction limit
Slope stake limit
130+60 to 131+20.25 LT
MSE wall
See Section X for details
"WALL 01"
Begin Yellowstone River Bridge
131+20.25
Edges of pavement
YB 5
131
132
133
134
135
136
137
CP
16302
N
N85°45'24"E
NORTHEAST ENTRANCE ROAD
PT 131+82.50
Slope stake limit
Construction limit
"MAIN 01" Line to be constructed
Yellowstone River Bridge,
See Section X for details
"WALL 02"
Yellowstone River Overlook
Trail Parking
See Section X for details.
130+92.25 to 131+20.25 RT
MSE wall
See Section X for details
Note element; Template Annotation\General\Plan notes Feet

129+14 to 131+20.25 LT
Stone Masonry Guardwall
See Section X for details
Dimension element; Template Annotation\General\Plan notes Feet
℄ Abut. 1
℄ Pier 1
HLSD = 1667'
K = 227
500' VC
Text element; Template Annotation\General\Plan notes Feet
Profile grade
131+00
6218.48
-1.70%
Existing ground
Template Proposed\Bridge\Bridge girder
6,230
6,220
6,210
6,200
130+00
131+00
132+00
133+00
134+00
135+00
136+00
137+00

Hold for future superelevation diagram

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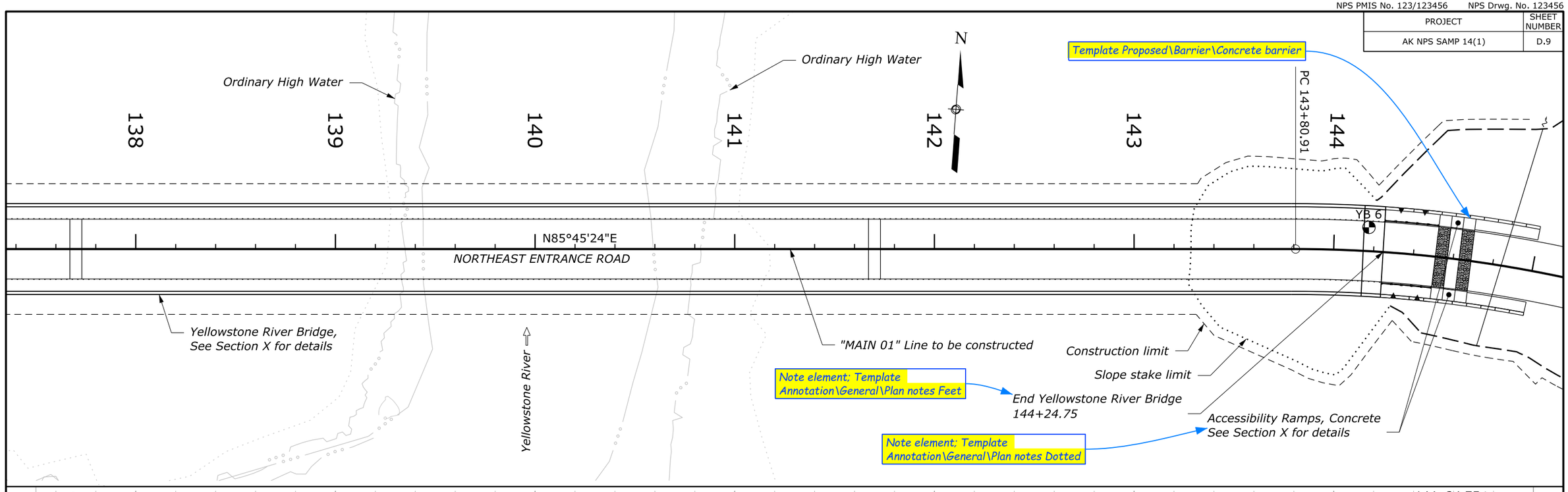
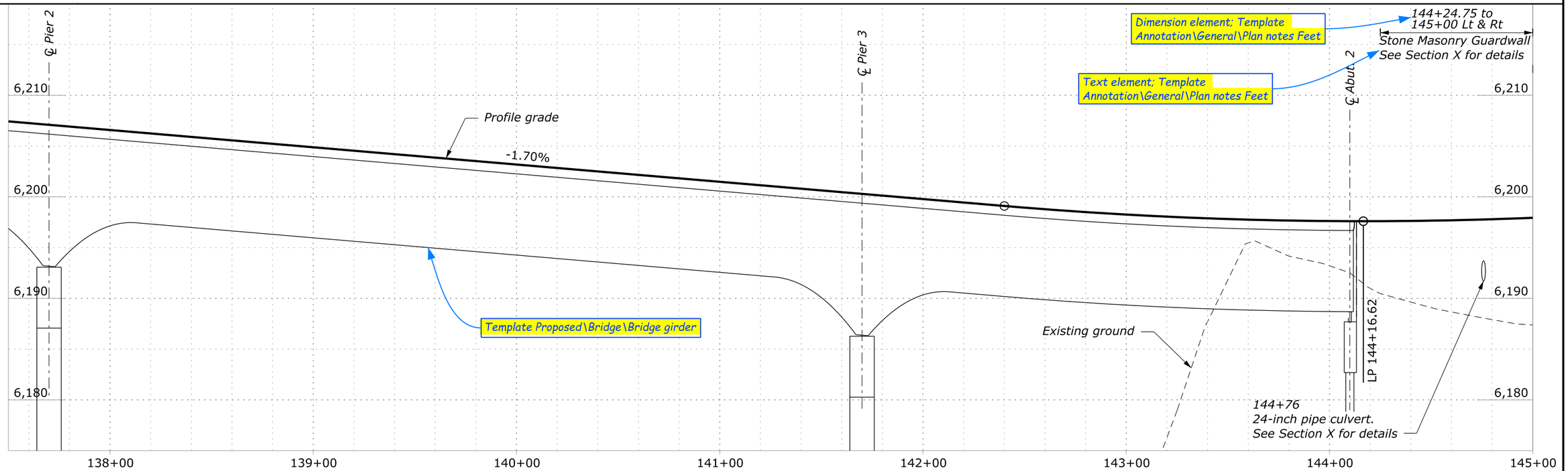
29 April 2025 5:10 PM

NPS PMIS No. 123/123456 NPS Drwg. No. 123456

PROJECT	SHEET NUMBER
AK NPS SAMP 14(1)	D.9





Hold for future superelevation diagram

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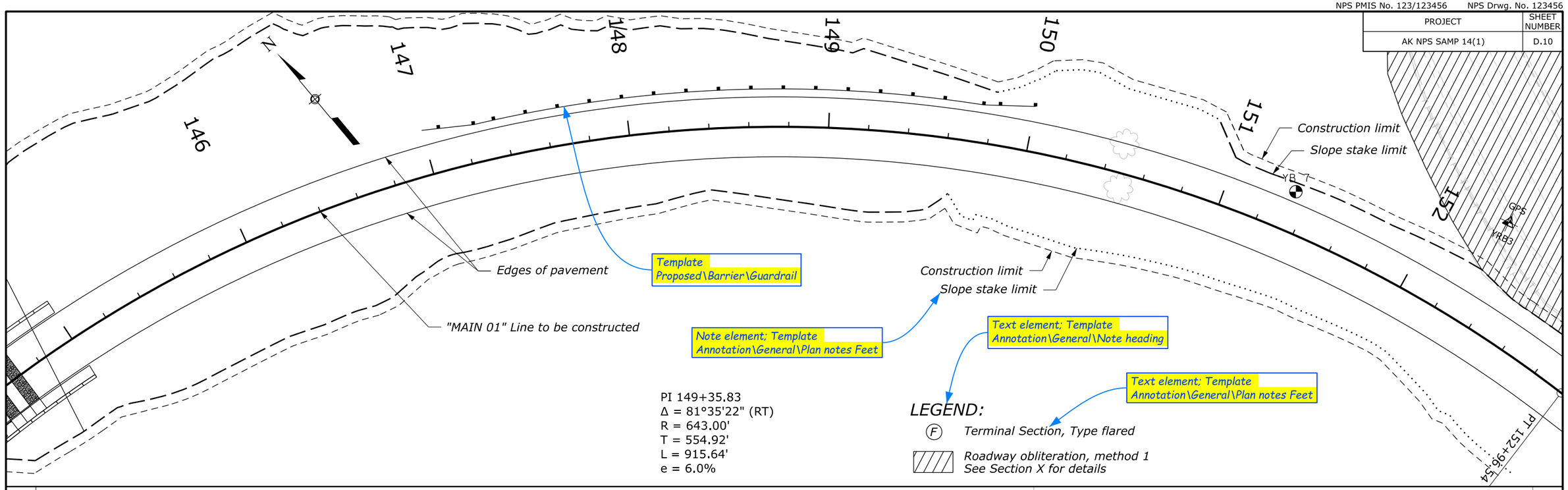
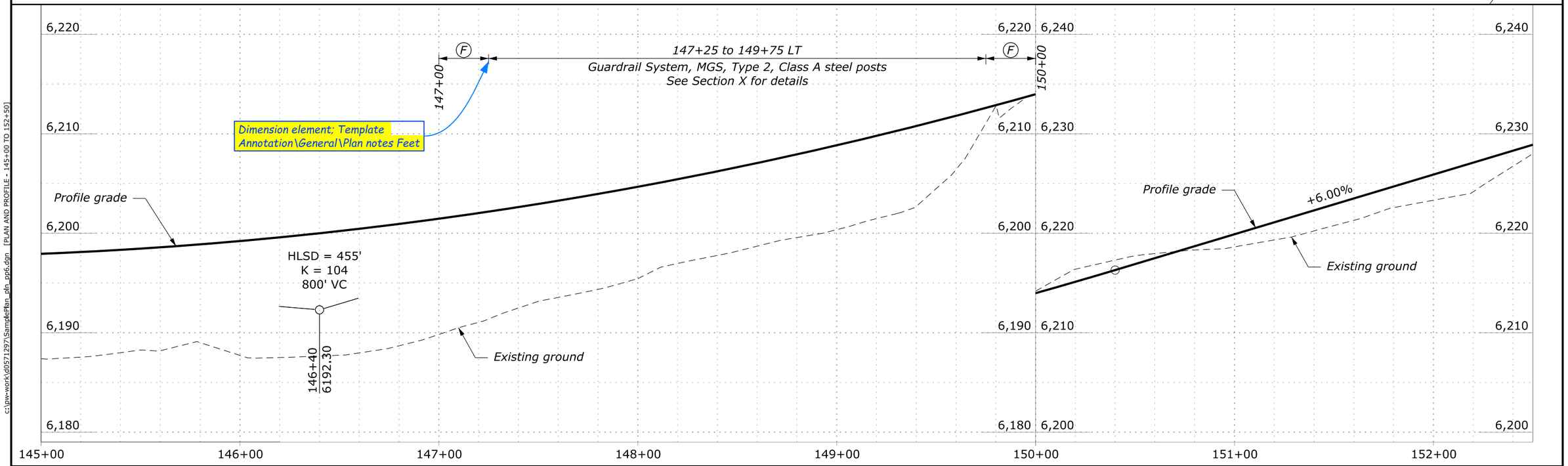
29 April 2025 5:11 PM

NPS PMIS No. 123/123456 NPS Drwg. No. 123456

PROJECT	SHEET NUMBER
AK NPS SAMP 14(1)	D.10





Hold for future superelevation diagram

PROJECT	SHEET NUMBER
WY NPS YELL 12(2)	D.11

LEGEND:

Roadway obliteration, method 1
See Section X for details

Text element; Template Annotation\General\Note heading

Text element; Template Annotation\General\Plan notes Feet

Text element; Template Annotation\General\Subheading

PI 157+19.23
Δ = 33°13'58" (LT)
R = 643.00'
T = 191.89'
L = 372.95'
e = 6.0%

"MAIN 01" 155+69.97 =
"APPR 01" 610+00.00

"MAIN 01" Line to be constructed

Turnout
159+15 to 161+15
See Section X for details

Soldier Pile Wall
157+48 to 159+70
See Section X for details

"WALL 05"

PT 159+00.29

Edge of pavement
Construction limit
Slope stake limit

PC 155+27.34

S12°39'14"E

PT 152+96.54

24" CMP

NORTHEAST ENTRANCE ROAD

Edge of pavement

PICNIC LOOP RD

Construction limit
Slope stake limit
"APPR 01"

Template Proposed\Walls\PL_MSE Wall

Turnout
156+20 to 158+10
See Section X for details

YELLOWSTONE RIVER PICNIC AREA TRAILHEAD

"APPR 02"

GPS
YRB3

Note element; Template Annotation\General\Plan notes Dotted

Existing ground

+6.00%

Profile grade

158+60
6265.50

SSD = 290'
K = 128
600' VC

"APPR 01"

156+85
Removal of pipe culvert

156+03
24-inch pipe culvert
See Section X for details

6,250
6,240
6,230
6,220
6,280
6,270
6,260

153+00 154+00 155+00 156+00 157+00 158+00 159+00 160+00

Hold for future superelevation diagram

NPS PMIS No. 123/123456 NPS Drwg. No. 123456

PROJECT	SHEET NUMBER
AK NPS SAMP 14(1)	D.12

Turnout
159+15 to 161+15
See Section X for details

"MAIN 01" 161+00.00 =
"APPR 02" 650+00.00

Text element; Template
Annotation\General\Subheading

Edge of pavement

Removal of pipe culvert

Construction limit

Slope stake limit

160 161 162 163 164 165 166

+50.00 11.00' Lt

+00.00 10.50' Lt

YB 8 S45°53'11"E

YB 9 S44°46'51"E

NORTHEAST ENTRANCE ROAD

650

YELLOWSTONE RIVER PICNIC AREA TRAILHEAD

651

"APPR 02"

Construction limit

Slope stake limit

"MAIN 01" Line to be constructed

Note element; Template
Annotation\General\Plan notes Feet

Text element; Template
Annotation\General\Plan notes Feet

PI 163+50.00 +50.00 15.00' Rt

GPS YRB2

Proposed pavement structure
Existing Roadway
Vertical saw cut
Tack coat face

CONNECTION DETAIL

Text element; Template
Annotation\General\Subheading

Note element; Template
Annotation\General\Heading

END PROJECT

END CONSTRUCTION
"MAIN 01" 166+00.00
N= 937944.7494
E= 544237.5831

Text element; Template
Annotation\General\Heading

Text element;
Style 006_Verdana_CC;
Justification Left Top

N

6,290 6,280 6,270 6,260 6,250

"APPR 02"

Profile grade
+1.30%
Existing ground

164+10 6272.65

SSD = 1244'
K = 111
100' VC

+0.40%

HLSD = INF'
K = 178
100' VC

+0.96%

165+40 6273.16

6,273.74

Removal of pipe culvert

161+06
24-inch pipe culvert
See Section X for details

160+00 161+00 162+00 163+00 164+00 165+00 166+00 167+00

Hold for future superelevation diagram

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