

**ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY ENGINEERING GROUP
ROADWAY DESIGN**

**PERKINS VALLEY TI UP
040 NA 283 F0645 01C
FEDERAL AID # 040-D(248)T**

STAGE V EARTHWORK REPORT



Prepared By: ARIZONA DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN SECTION

May 30, 2025

PERKINS VALLEY TI UP
040 NA 283 F0645 01C
FEDERAL AID # 040-D(248)T

**EARTHWORK
CALCULATION TABLE**

Calculated By: L.VASQUEZ
Checked By: J.KURLIN / M.BLALOCK

SUMMARY OF (Unadjusted) EARTHWORK			
Earthwork Section	Cut (Exc)	Fill (Emb)	Remarks
Roadway	229	33	See Earthwork - Calculation
Pipe Excavation/Backfill	0	0	
Berms	0	0	
Riprap Excavation	0	0	
Structural Excavation/Backfill	70	85	
Drainage Excavation	0	0	
Ground Compaction	0	0	Not a Compactable Area

Adjustment Notes:

1. Asphaltic Concrete Removal not removed from Earthwork.
2. Backfills are assumed imported.
3. Structure Backfill is assumed to be imported material.

EARTHWORK CALCULATION TABLE			
PRIMARY CALCULATIONS			
Shrink Not Applied	Exc(+)		Emb(-)
Roadway Excavation	229	CY	
Shrink			4 CY
Pipe Excavation	0	CY	
Shrink			0 CY
Structural Excavation	70	CY	
Shrink			0 CY
Drainage Excavation	0	CY	
Shrink			0 CY
Riprap Excavation	0	CY	
Shrink			0 CY
Borrow (In-Place)			
Embankment (Inc GC)			33
Berms			0 CY
Pipe Backfill			0 CY
Structural Backfill			85 CY
Waste			262 CY
	299	CY	-299 CY
			299 CY
Check Balance	=		0 CY

EARTHWORK FACTORS

10% Shrink

QC EARTHWORK CHECK

Sum of Total Emb & Berm See assumption 2.
33 CY

Sum of Total Shrink
4 CY

Sum of Total Exc+Borrow
299 CY

Required Dirt to Balance Earthwork
-262 CY

Positive is borrow, negative is waste

End Area Volume Report

Report Created: Friday, May 28, 2025
Time: 02:01:49 PM

Cross Section Set Name: RdEoP_NW

Alignment Name:

Input Grid Factor:

Note: All units in this report are in feet, square feet and cubic yards unless specified otherwise.

Baseline Station	----- Station Quantities -----								Mass Ordinate
	----- Cut -----				----- Fill -----				
	Factor	Area	Volume	Adjusted	Factor	Area	Volume	Adjusted	
0+00.00	1	65.218	0	0	1	25.633	0	0	0
0+03.00	1	66.379	7.31	7.31	1	18.198	2.44	2.44	4.88
0+06.00	1	67.73	7.45	7.45	1	12.152	1.69	1.69	10.64
0+09.00	1	69.702	7.64	7.64	1	8.641	1.16	1.16	17.12
0+12.00	1	72.541	7.9	7.9	1	5.954	0.81	0.81	24.21
0+15.00	1	77.092	8.31	8.31	1	3.828	0.54	0.54	31.98
0+18.00	1	47.184	6.9	6.9	1	2.013	0.32	0.32	38.56
0+21.00	1	22.864	3.89	3.89	1	0.79	0.16	0.16	42.3
0+24.00	1	26.001	2.71	2.71	1	0.084	0.05	0.05	44.96
0+27.00	1	28.48	3.03	3.03	1	0.008	0.01	0.01	47.98
0+30.00	1	30.357	3.27	3.27	1	0	0	0	51.25
0+33.00	1	31.553	3.44	3.44	1	0	0	0	54.69
0+36.00	1	31.909	3.53	3.53	1	0	0	0	58.22
0+39.00	1	31.57	3.53	3.53	1	0	0	0	61.74
0+42.00	1	31.03	3.48	3.48	1	0	0	0	65.22
0+45.00	1	30.587	3.42	3.42	1	0	0	0	68.65
0+48.00	1	30.162	3.37	3.37	1	0	0	0	72.02
0+51.00	1	29.469	3.31	3.31	1	0	0	0	75.33
0+54.00	1	28.548	3.22	3.22	1	0	0	0	78.56
0+57.00	1	27.435	3.11	3.11	1	0	0	0	81.67
0+60.00	1	26.136	2.98	2.98	1	0	0	0	84.64
0+63.00	1	24.703	2.82	2.82	1	0	0	0	87.47
0+66.00	1	23.085	2.65	2.65	1	0	0	0	90.12
0+69.00	1	21.378	2.47	2.47	1	0	0	0	92.59
0+72.00	1	19.785	2.29	2.29	1	0	0	0	94.88
0+75.00	1	18.123	2.11	2.11	1	0	0	0	96.99
0+78.00	1	16.514	1.92	1.92	1	0	0	0	98.91
0+81.00	1	14.897	1.75	1.75	1	0	0	0	100.65
0+84.00	1	13.382	1.57	1.57	1	0	0	0	102.23
0+87.00	1	12.204	1.42	1.42	1	0	0	0	103.65
0+90.00	1	11.364	1.31	1.31	1	0	0	0	104.96
0+93.00	1	11.017	1.24	1.24	1	0	0	0	106.2
0+96.00	1	11.289	1.24	1.24	1	0	0	0	107.44
0+99.00	1	11.794	1.28	1.28	1	0	0	0	108.72
1+01.43	1	12.164	1.08	1.08	1	0	0	0	109.8
Grand Total:			116.97	116.97			7.16	7.16	

End Area Volume Report

Report Created: Friday, May 25, 2025
Time: 02:04:04 PM

Cross Section Set Name: RdEoP_SW

Alignment Name:

Input Grid Factor:

Note: All units in this report are in feet, square feet and cubic yards unless specified otherwise.

Baseline Station	----- Station Quantities -----								Mass Ordinate
	----- Cut -----				----- Fill -----				
	Factor	Area	Volume	Adjusted	Factor	Area	Volume	Adjusted	
0+00.00	1	55.371	0	0	1	32.503	0	0	0
0+03.00	1	60.238	6.42	6.42	1	30.854	3.52	3.52	2.9
0+06.00	1	63.963	6.9	6.9	1	26.562	3.19	3.19	6.61
0+09.00	1	67.041	7.28	7.28	1	23.708	2.79	2.79	11.1
0+12.00	1	68.81	7.55	7.55	1	21.652	2.52	2.52	16.13
0+15.00	1	71.227	7.78	7.78	1	21.234	2.38	2.38	21.52
0+18.00	1	47.092	6.57	6.57	1	18.576	2.21	2.21	25.88
0+21.00	1	16.441	3.53	3.53	1	16.873	1.97	1.97	27.44
0+24.00	1	17.013	1.86	1.86	1	16.491	1.85	1.85	27.45
0+27.00	1	17.643	1.93	1.93	1	15.268	1.76	1.76	27.61
0+30.00	1	18.222	1.99	1.99	1	12.478	1.54	1.54	28.06
0+33.00	1	19.556	2.1	2.1	1	8.725	1.18	1.18	28.98
0+36.00	1	21.158	2.26	2.26	1	5.315	0.78	0.78	30.46
0+39.00	1	22.973	2.45	2.45	1	2.46	0.43	0.43	32.48
0+42.00	1	24.867	2.66	2.66	1	0.422	0.16	0.16	34.98
0+45.00	1	26.184	2.84	2.84	1	0	0.02	0.02	37.79
0+48.00	1	26.98	2.95	2.95	1	0	0	0	40.75
0+51.00	1	27.39	3.02	3.02	1	0	0	0	43.77
0+54.00	1	24.941	2.91	2.91	1	0	0	0	46.68
0+57.00	1	21.119	2.56	2.56	1	0.099	0.01	0.01	49.23
0+60.00	1	20.708	2.32	2.32	1	0	0.01	0.01	51.55
0+63.00	1	23.347	2.45	2.45	1	0	0	0	54
0+66.00	1	24.228	2.64	2.64	1	0	0	0	56.64
0+69.00	1	23.91	2.67	2.67	1	0	0	0	59.31
0+72.00	1	22.897	2.6	2.6	1	0	0	0	61.91
0+75.00	1	21.72	2.48	2.48	1	0	0	0	64.39
0+78.00	1	20.473	2.34	2.34	1	0	0	0	66.74
0+81.00	1	19.169	2.2	2.2	1	0	0	0	68.94
0+84.00	1	17.806	2.05	2.05	1	0	0	0	70.99
0+87.00	1	16.383	1.9	1.9	1	0	0	0	72.89
0+90.00	1	14.854	1.74	1.74	1	0	0	0	74.63
0+93.00	1	13.187	1.56	1.56	1	0	0	0	76.18
0+96.00	1	11.635	1.38	1.38	1	0	0	0	77.56
0+99.00	1	10.478	1.23	1.23	1	0	0	0	78.79
1+02.00	1	9.696	1.12	1.12	1	0	0	0	79.91
1+05.00	1	9.281	1.05	1.05	1	0	0	0	80.97
1+08.00	1	9.214	1.03	1.03	1	0	0	0	81.99
1+11.00	1	9.411	1.03	1.03	1	0	0	0	83.03
1+14.00	1	9.699	1.06	1.06	1	0	0	0	84.09
1+17.00	1	10.021	1.1	1.1	1	0	0	0	85.19
1+19.82	1	0.715	0.56	0.56	1	0	0	0	85.75
Grand Total:			112.08	112.08			26.33	26.33	