# EARTHWORK SUMMARY

**SR 89A**
**SR 89A AT PAGE SPRINGS ROAD**
**PROJECT NO. 089A YV 362 F0624 01C**
**FEDERAL AID NO. A89-B(225)T**

**PREPARED BY**
**STANLEY CONSULTANTS INC.**
**OCTOBER 2026**



# TABLE OF CONTENTS


SHEET

TITLE PAGE ..... 1

TABLE OF CONTENTS ..... 2

EARTHWORK SUMMARY CALCULATIONS ..... 3

BACK UP CALCULATIONS ..... 11

A: COMMON EXCAVATION & COMMON EMBANKMENT ..... 12
B : GROUND COMPACTION ..... 15
C : PIPE EXCAVATION & BACKFILL ..... 17
D : STRUCTURAL EXCAVATION & STRUCTURE BACKFILL ..... 20

# EARTHWORK SUMMARY CALCULATIONS

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## EARTHWORK FACTORS

## SR 89A

| Station | Shrink |
|---|---|
| OVERALL PROJECT | 10% |

For this "Earthwork Package", shrinkage of all the excavated quantities will be in accordance with the above table.

# EXCAVATION

## SR 89A

### ROADWAY EXCAVATION

| | Roadway Excavation | Total | |
|---|---|---|---|
| | SR 89A (Raw volume) | 2,715 CY | *See Exhibit A* |
| > | AC Pavement Removal (Deduct Roadway Excavation) | (487) CY | *See Exhibit A* |
| > | **Roadway Excavation available for Roadway Embankment** | **2,229 CY** | *See Exhibit A* |

### ROADWAY OVEREXCAVATION

| | Roadway Overexcavation (End Areas) | Total |
|---|---|---|
| > | SR 89A | 5,058 CY |
| > | South U-Turn | 672 CY |
| > | **Roadway Overexcavation available for Roadway Embankment** | **5,730 CY** |

### PIPE, STRUCTURAL AND DRAINAGE EXCAVATION

| | | Total | |
|---|---|---|---|
| | **Pipe Excavation** | 61 CY | *See Exhibit C* |
| > | **Structural Excavation** | 140 CY | *See Exhibit D* |
| > | **Drainage Excavation** | 699 CY | *See Exhibit C* |

### ASPHALT CONCRETE REMOVAL

| | | | | |
|---|---|---|---|---|
| > | **ASPHALT CONCRETE REMOVAL** | 782 CY | - | *See Exhibit A* |

Existing AC Pavement available for Roadway Embankment per specifications. Roadway Excavation and Embankment quantities have been adjusted for removal of AC Pavement.

## EXCAVATION SUMMARY

| | | | |
|---|---|---|---|
| > | Total Roadway Excavation | | **2,229 CY** |
| > | Total Roadway Overexcavation | | **5,730 CY** |
| | Total Pipe Excavation | | **61 CY** |
| > | Total Structural Excavation | | **140 CY** |
| > | Total Drainage Excavation | | **699 CY** |
| > | Asphalt Concrete Removal | **782 CY** | |
| | Total Excavation | | **8,859 CY** |
| | Total Shrinkage (10%) | | **(886) CY** |
| | Material Available for Embankment | | **7,973 CY** |

NOTES: Raw numbers are denoted by an *Outline*
All others are calculated from the raw numbers in the spreadsheet

> Denotes Pay Item

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# EMBANKMENT

## SR 89A

### TOTAL EMBANKMENT

| | | | | |
|---|---|---|---|---|
| | Roadway Embankment | | **4,325 CY** | *See Exhibit A* |
| > | Roadway Overexcavation | | **5,730 CY** | *See Exhibit A* |
| | Pipe Backfill | **27 CY** | | *See Exhibit C* |
| > | Structural Backfill | **193 CY** | | *See Exhibit D* |
| | Gound Compaction (0.1 Ft) | | **169 CY** | *See Exhibit B* |

| | |
|---|---|
| **Subtotal Embankment** | **10,224 CY** |

Outline

NOTES: Raw numbers are denoted by an
All others are calculated from the raw numbers in the spreadsheet

> Denotes Pay Item

**NA** - No adjustment to Embankment necessary. Pipe Bedding, Pipe Backfill, and Structure Backfill material assumed to be from off-site sources.

## EXCESS MATERIAL / WASTE

## SR 89A

### EXCESS MATERIAL / WASTE

| | |
|---|---|
| Total Excavation | **7,973 CY** |
| Total Embankment Need | **10,224 CY** |

| | |
|---|---|
| Total Borrow (In Place) | **2,251 CY** |

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## Earthwork Table as Shown on the Design Data Sheet of the Final Plans

| | EARTHWORK QUANTITIES | | |
|---|---|---|---|
| > | Roadway Excavation | | 2,229 CY |
| > | Roadway OverExcavation | | 5,730 CY |
| | Pipe Excavation | | 61 CY |
| > | Structural Excavation | | 140 CY |
| > | Drainage Excavation | | 699 CY |
| | ***Sub Total Excavation*** | | 8,859 CY |
| | ***Total Shrinkage (10%)*** | | 886 CY |
| > | AC Pavement Removal* | 782 CY | |
| | ***Total Excavation Available for Embankment*** | | 7,973 CY |
| | Roadway Embankment | | 4,325 CY |
| > | Roadway OverExcavation | | 5,730 CY |
| | Pipe Backfill | 27 CY | |
| > | Structural Backfill | 193 CY | |
| | Ground Compaction (0.1 Ft) | | 169 CY |
| | ***Total Embankment Need*** | | 10,224 CY |
| > | **Total Borrow (In Place)** | | 2,251 CY |

**NOTES:**

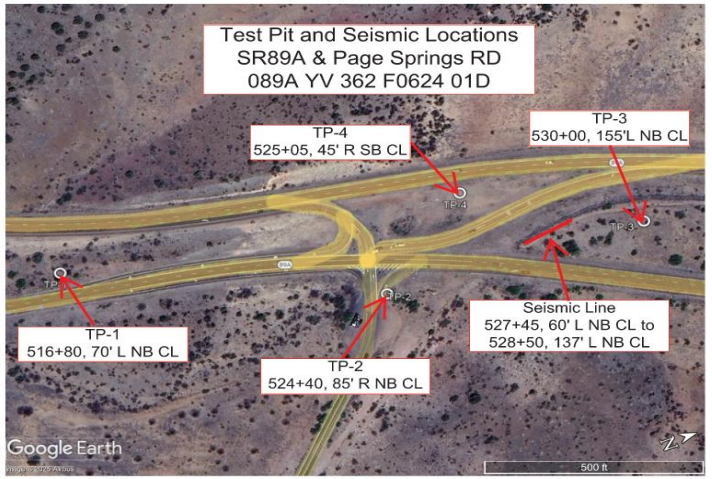
> Pay Item

* Existing AC Pavement available for Roadway Embankment per Specifications. Roadway Excavation and Embankment quantities have been adjusted for removal of AC Pavement. Thickness assumed to be 5" for this volume calculation.

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**Project:** SR 89A & Page Springs Rd **Computed:** Z. Zaragoza **Date:** 10/13/2026
**Checked:** C. Lastovica **Date:** 10/13/2026

| | Overex Check Against Existing Material and Import Borrow | | | | |
|---|---|---|---|---|---|
| | | | | | |
| **TP** | **Location** | **Sq.Ft.** | **Overex Depth** | **Cu.Ft.** | **Cu.Yd.** |
| 1 | SB Uturn Widening @ SB | 2434 | 3 | 7302 | 270 |
| 1 | SB Uturn Widening @ NB | 1434 | 3 | 4302 | 159 |
| 1 | NB Outside Widening | 3807 | 3 | 11421 | 423 |
| 1 | South Uturn | 6018 | 3 | 18054 | 669 |
| 2 | NB at Exst Intersection | 2290 | 3 | 6870 | 254 |
| 4** | SB at Exst Intersection (Available Material) | 1609 | 3 | 4827 | 179 |
| 4* | SB at Exst Intersection (Needed Material) | 1810 | 3 | 5430 | 201 |
| 3 | NB Inside Widening | 11397 | 3 | 34191 | 1266 |
| 3 | North Uturn | 8966 | 3 | 26898 | 996 |
| 4** | SB Inside Widening (Available Material) | 3304 | 3 | 9912 | 367 |
| 4* | SB Inside Widening (Needed Material) | 17467 | 3 | 52401 | 1941 |
| | | | | | |
| | **Subtotal Needed and Available Material (TP 1, 2 and 3)** | | | | **4037** |
| | **Suitable Available Material (TP 4)** | | | | **546** |
| | **Suitable Needed Material (TP 4)** | | | | **2142** |
| | **Suitable Material Import Needed for TP 4** | | | | **1596** |




**Project includes 2,251 CY of borrow, there will be enough suitable borrow material on site to provide the 3' depth of suitable material underneath new pavement.**

*Material excavated from TP 4 outside of existing pavement is assumed to be unsuitable for fill within 3 feet under new pavement.

**Existing material underneath existing pavement within TP 4 area is assumed to meet subgrade requirements

Reference dgn: f0624_Quantities_100%: https://pwlink.bentley.com/link?ds=SCI-PWINTEG-2.stanleygroup.com~3ADatasource-1&doc=b398bf4cc5864fe8bd6f425d3b877db3&app=pwe

# BACK UP CALCULATIONS

# EXHIBIT A

# COMMON EXCAVATION
# &
# COMMON EMBANKMENT

***Description: The "Common Excavation" and "Common Embankment" quantities are derived from the roadway cross-sections using the average end area method. The "Common Excavation" quantity is included in the "Total Excavation". The "Common Embankment" quantity is included in the "Total Embankment".***

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**Pavement Removal Calculations**

| | Depth | Area | Volume | |
|---|---|---|---|---|
| AC Pavement Removal (Not Associated with Roadway Excavation) | 5.0 In AC | 19,149.0 SF | 296 CY | |
| AC Pavement Removal (Deduct Roadway Excavation) | 5.0 In AC | 31,545.7 SF | 487 CY | * |
| **Total AC assumed to be removed and disposed of offsite.** | | | **782 CY** | |

| | |
|---|---|
| **Total AC included in the earthwork but deducted from available excavation** | **487 CY** |

* Reduce SR 89A Road Excavation and Add to Pavement Removal assumed to be disposed of offsite.

Note 1: Pavement Removal Area measured in CADD

pw:\\SCI-PWINTEG-2.stanleygroup.com:Datasource-1\Documents\Arizona_Department_Of_Transportation\30943 - Project Development On-Call - 2022-006.14\30943.10 - ADOT SR 89A and Page Springs Road\11-CADD\Worksets\F0624\dgn\Base Files\Model\F0264 Corridor Widening CF

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# End Area Volume Report

Report Created: Monday, November 3, 2025
Time: 3:13:46 PM

**et Name:** Exst SR 89A SB Cst CL
**nt Name:** Exst SR 89A SB Cst CL
**id Factor:**

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

**Station Quantities**

| Baseline Station | Cut | | | Fill | | |
|---|---|---|---|---|---|---|
| | Factor | Area | Volume | Factor | Area | Volume |
| 51275 | 1 | 14 | 0 | 1 | 0 | 0 |
| 51300 | 1 | 14 | 13 | 1 | 0 | 0 |
| 51400 | 1 | 15 | 53 | 1 | 0 | 0 |
| 51500 | 1 | 21 | 67 | 1 | 399 | 739 |
| 51600 | 1 | 41 | 115 | 1 | 178 | 1069 |
| 51700 | 1 | 19 | 111 | 1 | 0 | 330 |
| 51800 | 1 | 12 | 57 | 1 | 0 | 0 |
| 51900 | 1 | 33 | 82 | 1 | 0 | 0 |
| 52000 | 1 | 33 | 122 | 1 | 10 | 18 |
| 52100 | 1 | 23 | 104 | 1 | 1 | 20 |
| 52200 | 1 | 107 | 242 | 1 | 0 | 2 |
| 52300 | 1 | 81 | 348 | 1 | 0 | 0 |
| 52400 | 1 | 83 | 303 | 1 | 3 | 6 |
| 52500 | 1 | 40 | 228 | 1 | 3 | 11 |
| 52600 | 1 | 19 | 109 | 1 | 33 | 65 |
| 52700 | 1 | 36 | 101 | 1 | 74 | 198 |
| 52800 | 1 | 33 | 128 | 1 | 37 | 207 |
| 52900 | 1 | 60 | 172 | 1 | 108 | 270 |
| 53000 | 1 | 8 | 126 | 1 | 0 | 200 |
| 53100 | 1 | 5 | 25 | 1 | 1 | 1 |
| 53200 | 1 | 7 | 22 | 1 | 0 | 1 |
| 53300 | 1 | 8 | 27 | 1 | 0 | 0 |
| 53400 | 1 | 6 | 24 | 1 | 0 | 0 |
| Grand Total: | | | 2579 | | | 3137 |

Note 1: Due to the geometry of the U-turn curvature the design team determined the end area volume method was not as accurate as the triangulation method of calculating earthwork.

| | | | | | |
|---|---|---|---|---|---|
| Excavation | **2715** | (Triangulation) | Embankment | **4325** | (Triangulation) |
| | 2615 | (End Area) | | 3137 | (End Area) |
| | -4% | Difference | | -27% | Difference |

Note 2: As the U-turn earthwork volumes are primarily embankment, it made sense the end area volume calculation method wasn't accurate when calculating the embankment

# EXHIBIT B

# GROUND COMPACTION

***Description: "Ground Compaction" results in an unexcavated void that needs to be filled in with embankment material when filling on existing ground. Therefore, this quantity is added to the "Total Embankment" quantity.***

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**Ground Compaction Calculation**

| Ground Compaction | | | |
|---|---|---|---|
| **Location** | **Area** | **Depth** | **Volume** |
| SR 89A | 45,590 SF | 0.1 Ft | 4,559 CF |
| **Total** | **45,590 SF** | | **4,559 CF** |

**169 CY**

Note 1: Ground Compaction Area measured in CADD

pw:\\SCI-PWINTEG-2.stanleygroup.com:Datasource-1\Documents\Arizona_Department_Of_Transportation\30943 - Project Development On-Call - 2022-006.14\30943.10 - ADOT SR 89A and Page Springs Road\11-CADD\Worksets\F0624\dgn\Base Files\Model\F0264 Corridor Widening CF

# EXHIBIT C

# PIPE EXCAVATION & BACKFILL

***Description: "Pipe Excavation" is the sum of the volumes of the pipe, pipe trench backfill, pipe bedding, and pipe backfill. The volume of "Pipe Excavation" is available for use as pipe trench backfill and roadway embankment. "Pipe Excavation" is also available for use as pipe backfill if the material meets the requirements for pipe backfill as specified in the Special Provisions and Standard Specifications. The "Pipe Excavation" is included in the "Total Excavation". The "Pipe Trench Backfill" volume is the difference between the "Pipe Excavation" volume and the combined volume of the pipe, pipe bedding, and pipe backfill and is included in the "Total Embankment". "Pipe Backfill" and "Pipe Bedding" are not included in the "Total Embankment" because the material is assumed to be from an off site source.***

NOTE:
THE ZEROS IN PARENTHESES (0, 0.0 & 0.000) INDICATE THE DIMENSIONAL PRECISION FOR THAT COLUMN

NOTE:
FOR PIPE CULVERT PLACEMENT SEE STANDARD DRAWINGS C-13.10 AND C-13.15

NOTE:
PIPE OPTIONS SELECTED ARE THOSE REQUIRED TO MEET MINIMUM SERVICE LIFE.
ALLOWABLE PIPE OPTIONS ARE INDICATED WITH THE LETTER 'X' IN THE SPACE. BLANK SPACES ARE NOT ALLOWABLE ALTERNATES.

CSP - CORRUGATED STEEL PIPE
CAP - CORRUGATED ALUMINUM PIPE
RCP - REINFORCED CONCRETE PIPE
NRCP - NON-REINFORCED CONCRETE PIPE
NRCIPCP - NON-REINFORCED CAST-IN-PLACE CONCRETE PIPE
CHDPEP - CORRUGATED HIGH-DENSITY POLYETHYLENE PIPE
CPPP - CORRUGATED POLYPROPYLENE PIPE

| DESCRIPTION | | | | | | | | | CSP | | | | | CAP | | RCP | | NRCP | NRCIPCP | CHDPEP | CPPP | END TREATMENT | | | | | | | | | | | | | | | | | QUANTITIES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | In. | In. | Ft. | Degree | | | In. | Coating | | | | In. | | | | In. | | | | Each | | Catch Basin, Manhole, Headwall & Junction Structure | | | | | | | | | | | | | | | Cubic Yard | | | | |
| Station | Plan Reference Number | Controlling Fill Height Range ◒ | Size, Corrugated | Size, Smooth | Length (0) | Skew (0) | ◪ Corrugation | Wall Thickness (0.000) | Zinc | Bituminous Coated Zinc | Aluminum | Bituminous Coated Aluminum | ◪ Corrugation | Wall Thickness (0.000) | Uncoated | Bituminous Coated | Class - Non-Trench | Class - Trench | Class | Minimum Wall Thickness (0) | AASHTO M-294 Type S | AASHTO M-330 Type S | C-13.25 | End Section | Ea | Detail | Size, (In) Manhole | Standard or Detail | S-Single / D-Double | Location | H (0.0) | L Wing (0.0) | L 18" Slotted Drain (0) | L 24" Slotted Drain (0) | Type | Elevation (0.00) | Ft. Grate | Ft. Depth | In. | Ft. L (0.0) | Inlet Depression C-15.70 | Pipe Excavation (0) | Pipe Backfill (0) C-13.15 | Drainage Excavation (0) | Berm/Dike Embankment (0) | REMARKS |
| South U-Turn CL Sta 11+31 | 1 | 3 | 24 | | 125 | 30 Lt | A | 0.064 | X | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | 51 | 25 | | | DETAIL D1 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

CSP - CORRUGATED STEEL PIPE

| DESCRIPTION | | | | | | | | | | | | | CSP | | | | | | END TREATMENT | | | | | | | | | | | | | | QUANTITIES | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Station | Plan Reference Number | ◒ Controlling Fill Height Range | Size | Length In Place (0.0) | Skew (0) | Remove End Section | Remove Headwall | Left (0.0) | Right (0.0) | Left (0) | Right (0) | ◪ Corrugation | Wall Thickness (0.000) | Zinc | Aluminum | Bituminous | Reset Salvaged End Section | New | Detail DA | Size, (In.) Manhole | Standard or Detail | S-Single / D-Double | Location | H (0.0) | L Wing (0.0) | L 18" Slotted Drain (0) | L 24" Slotted Drain (0) | Type | Elevation (0.00) | Depth | L (0.0) | Pipe Excavation (0) | Pipe Backfill (0) C-13.15 | Drainage Excavation (0) | Berm Embankment (0) | Dike Embankment (0) | REMARKS |
| | | | PE | In. | Ft. | Degree | Each | Ft. | Ft. | In. | Each | Each | Ft. | | | | | | Each | Each | Catch Basin, Manhole, Headwall & Junction Structure | | | | | Ft. | | Grate | Ft. | Inlet Depression C-15.70 | | | Cubic Yard | | | | | |
| | | | | | | | | | Remove Existing Pipe | | Extend | | | | | | | | End Section | End Section | | | | | | | | | | | | In. | Ft. | | | | | | |
| | | | | | | | | | | | | | | | | | | | C-13.25 | | | | | | | | | | | | | | | | | | | |
| SB SR89A Sta 524+28 | 2 | 1 | 36 | 86 | 12 RT | 1 | | | 2.0 | | 10.0 | A | 0.060 | X | | | | | 1 | | | | | | | | | | | | | | 10 | 2 | 699 | | | DETAIL D2 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

# EXHIBIT D

# STRUCTURAL EXCAVATION & STRUCTURE BACKFILL

***Description: "Structural Excavation & Structure Backfill" calculations consist of the volume of Structural Excavation and the volume of Structure Backfill required to build the Box Culverts. The quantity of Structural Excavation is included in the "Total Excavation" quantity. The value of Structure Backfill is not included in the "Total Embankment" quantity because the "Structure Backfill" is assumed to be from an off site source.***

Stanley Consultants INC.

**Project:** SR 89A & Page Springs Rd
**Subject:** CBC Backfill Quantities

**Computed:** J. Lopez **Date:** 1/6/2026
**Checked:** S. Lastovic **Date:** 3/10/2026

**Ref ID:** BE 3
**Sta:** NB SR 89A 527+08

| | | |
|---|---|---|
| **Box Height (Ft)=** | 4 | |
| **Inlet Leng** | 42 | |
| **Short Wing Length (Ft)=** | 11 | |
| **Long Wing Length (Ft)=** | 14.5 | |

**Side Slope:** 4:1
**Details:** SD-6.01 SD-6.04 SD-6.08

| | |
|---|---|
| **Total Backfill (CY)=** | 50 |
| **Box Backfill (CY)=** | 38 |
| **Short Wing Backfill (CY)=** | 5 |
| **Long Wing Backfill (CY)=** | 7 |

**Wing Backfill Area 1 (SF)=** 15.615
**Wing Backfill Area 2 (SF)=** 8.625

**Notes:**

**Ref ID:** 4
**Sta:**

| | | |
|---|---|---|
| **Box Height (Ft)=** | 4 | |
| **Inlet Leng** | 45 | |
| **Outlet Length (Ft)=** | 35 | |
| **Inlet Wing Lengths (Ft)=** | 11 | 13 |
| **Outlet Wing Lengths (Ft)=** | 7 | 7 |

**Side Slope:** 4:1
**Details:** SD-6.01 SD-6.04 SD-6.10

| | |
|---|---|
| **Total Backfill (CY)=** | 95 |
| **Inlet Backfill (CY)=** | 54 |
| **Outlet Backfill (CY)=** | 41 |
| **Inlet Box Backfill (CY)=** | 40 |
| **Outlet Box Backfill (CY)=** | 32 |
| **Inlet Wings Backfill (CY)=** | 14 |
| **Outlet Wing Backfill (CY)=** | 9 |

**Wing Backfill Area 1 (SF)=** 15.615

**Notes:**

## Culvert Earthwork Summary

| Structural Excavation | |
|---|---|
| **Location** | **Volume** |
| Box Culvert 3 | 48 CF |
| Box Culvert 4 | 92 CF |
| **Total** | **140 CF** |

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# End Area Volume Report

Report Created: Monday, October 27, 2025
Time: 4:09:11 PM

**Cross Section Set Name:** Profile10
**Alignment Name:** Profile6
**Input Grid Factor:** **Note:**

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

| Baseline Station | Station Quantities - Cut | | | | Station Quantities - Fill | | | | Mass |
|---|---|---|---|---|---|---|---|---|---|
| | Factor | Area | Volume | Adjusted | Factor | Area | Volume | Adjusted | Ordinate |
| 0+00.00 | 1 | 11.507 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 0+01.00 | 1 | 12.468 | 0.44 | 0.44 | 1 | 0 | 0 | 0 | 0.44 |
| 0+02.00 | 1 | 15.105 | 0.51 | 0.51 | 1 | 0 | 0 | 0 | 0.95 |
| 0+03.00 | 1 | 17.268 | 0.6 | 0.6 | 1 | 0 | 0 | 0 | 1.55 |
| 0+04.00 | 1 | 17.563 | 0.65 | 0.65 | 1 | 0 | 0 | 0 | 2.2 |
| 0+05.00 | 1 | 17.901 | 0.66 | 0.66 | 1 | 0 | 0 | 0 | 2.86 |
| 0+06.00 | 1 | 18.256 | 0.67 | 0.67 | 1 | 0 | 0 | 0 | 3.53 |
| 0+07.00 | 1 | 18.579 | 0.68 | 0.68 | 1 | 0 | 0 | 0 | 4.21 |
| 0+08.00 | 1 | 18.81 | 0.69 | 0.69 | 1 | 0 | 0 | 0 | 4.9 |
| 0+09.00 | 1 | 19.018 | 0.7 | 0.7 | 1 | 0 | 0 | 0 | 5.6 |
| 0+10.00 | 1 | 19.259 | 0.71 | 0.71 | 1 | 0 | 0 | 0 | 6.31 |
| 0+11.00 | 1 | 19.537 | 0.72 | 0.72 | 1 | 0 | 0 | 0 | 7.03 |
| 0+12.00 | 1 | 19.851 | 0.73 | 0.73 | 1 | 0 | 0 | 0 | 7.76 |
| 0+13.00 | 1 | 20.201 | 0.74 | 0.74 | 1 | 0 | 0 | 0 | 8.5 |
| 0+14.00 | 1 | 20.587 | 0.76 | 0.76 | 1 | 0 | 0 | 0 | 9.25 |
| 0+15.00 | 1 | 20.998 | 0.77 | 0.77 | 1 | 0 | 0 | 0 | 10.02 |
| 0+16.00 | 1 | 21.397 | 0.79 | 0.79 | 1 | 0 | 0 | 0 | 10.81 |
| 0+17.00 | 1 | 21.704 | 0.8 | 0.8 | 1 | 0 | 0 | 0 | 11.61 |
| 0+18.00 | 1 | 21.794 | 0.81 | 0.81 | 1 | 0 | 0 | 0 | 12.41 |
| 0+19.00 | 1 | 21.795 | 0.81 | 0.81 | 1 | 0 | 0 | 0 | 13.22 |
| 0+20.00 | 1 | 21.794 | 0.81 | 0.81 | 1 | 0 | 0 | 0 | 14.03 |
| 0+21.00 | 1 | 21.785 | 0.81 | 0.81 | 1 | 0 | 0 | 0 | 14.83 |
| 0+22.00 | 1 | 21.76 | 0.81 | 0.81 | 1 | 0 | 0 | 0 | 15.64 |
| 0+23.00 | 1 | 21.718 | 0.81 | 0.81 | 1 | 0 | 0 | 0 | 16.45 |
| 0+24.00 | 1 | 21.661 | 0.8 | 0.8 | 1 | 0 | 0 | 0 | 17.25 |
| 0+25.00 | 1 | 21.68 | 0.8 | 0.8 | 1 | 0 | 0 | 0 | 18.05 |
| 0+26.00 | 1 | 21.84 | 0.81 | 0.81 | 1 | 0 | 0 | 0 | 18.86 |
| 0+27.00 | 1 | 22.034 | 0.81 | 0.81 | 1 | 0 | 0 | 0 | 19.67 |
| 0+28.00 | 1 | 22.136 | 0.82 | 0.82 | 1 | 0 | 0 | 0 | 20.49 |
| 0+29.00 | 1 | 22.144 | 0.82 | 0.82 | 1 | 0 | 0 | 0 | 21.31 |
| 0+30.00 | 1 | 22.14 | 0.82 | 0.82 | 1 | 0 | 0 | 0 | 22.13 |
| 0+31.00 | 1 | 22.121 | 0.82 | 0.82 | 1 | 0 | 0 | 0 | 22.95 |
| 0+32.00 | 1 | 22.086 | 0.82 | 0.82 | 1 | 0 | 0 | 0 | 23.77 |
| 0+33.00 | 1 | 22.035 | 0.82 | 0.82 | 1 | 0 | 0 | 0 | 24.58 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0+34.00 | 1 | 21.986 | 0.82 | 0.82 | 1 | 0 | 0 | 0 | 25.4 |
| 0+35.00 | 1 | 22.056 | 0.82 | 0.82 | 1 | 0 | 0 | 0 | 26.21 |
| 0+36.00 | 1 | 22.267 | 0.82 | 0.82 | 1 | 0 | 0 | 0 | 27.04 |
| 0+37.00 | 1 | 22.509 | 0.83 | 0.83 | 1 | 0 | 0 | 0 | 27.86 |
| 0+38.00 | 1 | 22.66 | 0.84 | 0.84 | 1 | 0 | 0 | 0 | 28.7 |
| 0+39.00 | 1 | 22.696 | 0.84 | 0.84 | 1 | 0 | 0 | 0 | 29.54 |
| 0+40.00 | 1 | 22.682 | 0.84 | 0.84 | 1 | 0 | 0 | 0 | 30.38 |
| 0+41.00 | 1 | 22.652 | 0.84 | 0.84 | 1 | 0 | 0 | 0 | 31.22 |
| 0+42.00 | 1 | 22.606 | 0.84 | 0.84 | 1 | 0 | 0 | 0 | 32.06 |
| 0+43.00 | 1 | 22.543 | 0.84 | 0.84 | 1 | 0 | 0 | 0 | 32.89 |
| 0+44.00 | 1 | 22.451 | 0.83 | 0.83 | 1 | 0 | 0 | 0 | 33.73 |
| 0+45.00 | 1 | 22.316 | 0.83 | 0.83 | 1 | 0 | 0 | 0 | 34.56 |
| 0+46.00 | 1 | 22.139 | 0.82 | 0.82 | 1 | 0 | 0 | 0 | 35.38 |
| 0+47.00 | 1 | 21.99 | 0.82 | 0.82 | 1 | 0 | 0 | 0 | 36.2 |
| 0+48.00 | 1 | 21.944 | 0.81 | 0.81 | 1 | 0 | 0 | 0 | 37.01 |
| 0+49.00 | 1 | 21.943 | 0.81 | 0.81 | 1 | 0 | 0 | 0 | 37.82 |
| 0+50.00 | 1 | 21.93 | 0.81 | 0.81 | 1 | 0 | 0 | 0 | 38.64 |
| 0+51.00 | 1 | 21.904 | 0.81 | 0.81 | 1 | 0 | 0 | 0 | 39.45 |
| 0+52.00 | 1 | 21.866 | 0.81 | 0.81 | 1 | 0 | 0 | 0 | 40.26 |
| 0+53.00 | 1 | 21.812 | 0.81 | 0.81 | 1 | 0 | 0 | 0 | 41.07 |
| 0+54.00 | 1 | 21.726 | 0.81 | 0.81 | 1 | 0 | 0 | 0 | 41.87 |
| 0+55.00 | 1 | 21.606 | 0.8 | 0.8 | 1 | 0 | 0 | 0 | 42.68 |
| 0+56.00 | 1 | 21.451 | 0.8 | 0.8 | 1 | 0 | 0 | 0 | 43.47 |
| 0+57.00 | 1 | 21.329 | 0.79 | 0.79 | 1 | 0 | 0 | 0 | 44.27 |
| 0+58.00 | 1 | 21.31 | 0.79 | 0.79 | 1 | 0 | 0 | 0 | 45.06 |
| 0+59.00 | 1 | 21.314 | 0.79 | 0.79 | 1 | 0 | 0 | 0 | 45.84 |
| 0+60.00 | 1 | 21.32 | 0.79 | 0.79 | 1 | 0 | 0 | 0 | 46.63 |
| 0+61.00 | 1 | 21.312 | 0.79 | 0.79 | 1 | 0 | 0 | 0 | 47.42 |
| 0+62.00 | 1 | 21.292 | 0.79 | 0.79 | 1 | 0 | 0 | 0 | 48.21 |
| 0+63.00 | 1 | 21.258 | 0.79 | 0.79 | 1 | 0 | 0 | 0 | 49 |
| 0+64.00 | 1 | 21.194 | 0.79 | 0.79 | 1 | 0 | 0 | 0 | 49.79 |
| 0+65.00 | 1 | 21.095 | 0.78 | 0.78 | 1 | 0 | 0 | 0 | 50.57 |
| 0+66.00 | 1 | 20.961 | 0.78 | 0.78 | 1 | 0 | 0 | 0 | 51.35 |
| 0+67.00 | 1 | 20.861 | 0.77 | 0.77 | 1 | 0 | 0 | 0 | 52.12 |
| 0+68.00 | 1 | 20.866 | 0.77 | 0.77 | 1 | 0 | 0 | 0 | 52.9 |
| 0+69.00 | 1 | 20.901 | 0.77 | 0.77 | 1 | 0 | 0 | 0 | 53.67 |
| 0+70.00 | 1 | 20.925 | 0.77 | 0.77 | 1 | 0 | 0 | 0 | 54.44 |
| 0+71.00 | 1 | 20.937 | 0.78 | 0.78 | 1 | 0 | 0 | 0 | 55.22 |
| 0+72.00 | 1 | 20.936 | 0.78 | 0.78 | 1 | 0 | 0 | 0 | 55.99 |
| 0+73.00 | 1 | 20.922 | 0.78 | 0.78 | 1 | 0 | 0 | 0 | 56.77 |
| 0+74.00 | 1 | 20.879 | 0.77 | 0.77 | 1 | 0 | 0 | 0 | 57.54 |
| 0+75.00 | 1 | 20.803 | 0.77 | 0.77 | 1 | 0 | 0 | 0 | 58.32 |
| 0+76.00 | 1 | 20.691 | 0.77 | 0.77 | 1 | 0 | 0 | 0 | 59.08 |
| 0+77.00 | 1 | 20.573 | 0.76 | 0.76 | 1 | 0 | 0 | 0 | 59.85 |
| 0+78.00 | 1 | 15.247 | 0.66 | 0.66 | 1 | 0 | 0 | 0 | 60.51 |
| 0+79.00 | 1 | 12.952 | 0.52 | 0.52 | 1 | 0 | 0 | 0 | 61.03 |
| 0+80.00 | 1 | 14.676 | 0.51 | 0.51 | 1 | 0 | 0 | 0 | 61.55 |
| Grand Total: | | | 61.55 | 61.55 | | | 0 | 0 | |

Stanley Consultants

# End Area Volume Report

Report Created: Wednesday, October 22, 2025
Time: 7:37:53 AM

**Cross Section Set Name:** Profile6
**Alignment Name:** Profile6
**Input Grid Factor:** **Note:** All units in this report are in feet, square feet and cubic yards unless specified otherwise.

| Baseline Station | Station Quantities - Cut | | | | Station Quantities - Fill | | | | Mass |
|---|---|---|---|---|---|---|---|---|---|
| | Factor | Area | Volume | Adjusted | Factor | Area | Volume | Adjusted | Ordinate |
| 0+00.00 | 1 | 3.208 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 0+04.00 | 1 | 17.563 | 1.54 | 1.54 | 1 | 0 | 0 | 0 | 1.54 |
| 0+08.00 | 1 | 18.81 | 2.69 | 2.69 | 1 | 0 | 0 | 0 | 4.23 |
| 0+12.00 | 1 | 19.851 | 2.86 | 2.86 | 1 | 0 | 0 | 0 | 7.1 |
| 0+16.00 | 1 | 21.397 | 3.06 | 3.06 | 1 | 0 | 0 | 0 | 10.15 |
| 0+20.00 | 1 | 21.794 | 3.2 | 3.2 | 1 | 0 | 0 | 0 | 13.35 |
| 0+24.00 | 1 | 21.661 | 3.22 | 3.22 | 1 | 0 | 0 | 0 | 16.57 |
| 0+28.00 | 1 | 22.136 | 3.24 | 3.24 | 1 | 0 | 0 | 0 | 19.81 |
| 0+32.00 | 1 | 22.086 | 3.28 | 3.28 | 1 | 0 | 0 | 0 | 23.09 |
| 0+36.00 | 1 | 22.267 | 3.29 | 3.29 | 1 | 0 | 0 | 0 | 26.38 |
| 0+40.00 | 1 | 22.682 | 3.33 | 3.33 | 1 | 0 | 0 | 0 | 29.7 |
| 0+44.00 | 1 | 22.451 | 3.34 | 3.34 | 1 | 0 | 0 | 0 | 33.05 |
| 0+48.00 | 1 | 21.944 | 3.29 | 3.29 | 1 | 0 | 0 | 0 | 36.34 |
| 0+52.00 | 1 | 21.866 | 3.25 | 3.25 | 1 | 0 | 0 | 0 | 39.58 |
| 0+56.00 | 1 | 21.451 | 3.21 | 3.21 | 1 | 0 | 0 | 0 | 42.79 |
| 0+60.00 | 1 | 21.32 | 3.17 | 3.17 | 1 | 0 | 0 | 0 | 45.96 |
| 0+64.00 | 1 | 21.194 | 3.15 | 3.15 | 1 | 0 | 0 | 0 | 49.11 |
| 0+68.00 | 1 | 20.866 | 3.12 | 3.12 | 1 | 0 | 0 | 0 | 52.22 |
| 0+72.00 | 1 | 20.936 | 3.1 | 3.1 | 1 | 0 | 0 | 0 | 55.32 |
| 0+76.00 | 1 | 20.691 | 3.08 | 3.08 | 1 | 0 | 0 | 0 | 58.4 |
| 0+80.00 | 1 | 19.398 | 2.97 | 2.97 | 1 | 0 | 0 | 0 | 61.37 |
| Grand Total: | | | 61.37 | 61.37 | | | 0 | 0 | |

# End Area Volume Report

Report Created: Tuesday, October 21, 2025
Time: 11:49:55 AM

**Cross Section Set Name:** Profile
**Alignment Name:** Profile
**Input Grid Factor:** **Note:** All units in this report are in feet, square feet and cubic yards unless specified otherwise.

| Baseline Station | Station Quantities | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Cut | | | | Fill | | | | Mass |
| | Factor | Area | Volume | Adjusted | Factor | Area | Volume | Adjusted | Ordinate |
| 0+00.00 | 1 | 9.983 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 0+02.00 | 1 | 11.72 | 0.8 | 0.8 | 1 | 0 | 0 | 0 | 0.8 |
| 0+04.00 | 1 | 14.781 | 0.98 | 0.98 | 1 | 0 | 0 | 0 | 1.79 |
| 0+06.00 | 1 | 18.611 | 1.24 | 1.24 | 1 | 0 | 0 | 0 | 3.02 |
| 0+08.00 | 1 | 22.485 | 1.52 | 1.52 | 1 | 0 | 0 | 0 | 4.54 |
| 0+10.00 | 1 | 26.347 | 1.81 | 1.81 | 1 | 0 | 0 | 0 | 6.35 |
| 0+12.00 | 1 | 30.197 | 2.09 | 2.09 | 1 | 0 | 0 | 0 | 8.45 |
| 0+13.76 | 1 | 33.572 | 2.08 | 2.08 | 1 | 0 | 0 | 0 | 10.52 |
| Grand Total: | | | 10.52 | 10.52 | | | 0 | 0 | |

# End Area Volume Report

Report Created: Tuesday, October 21, 2025
Time: 11:53:23 AM

**Cross Section Set Name:** Profile8
**Alignment Name:** Profile8
**Input Grid Factor:** **Note:** All units in this report are in feet, square feet and cubic yards unless specified otherwise.

| Baseline Station | Station Quantities | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Cut | | | | Fill | | | | Mass |
| | Factor | Area | Volume | Adjusted | Factor | Area | Volume | Adjusted | Ordinate |
| 0+00.00 | 1 | 33.495 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 0+02.00 | 1 | 28.586 | 2.3 | 2.3 | 1 | 0 | 0 | 0 | 2.3 |
| 0+04.00 | 1 | 24.203 | 1.96 | 1.96 | 1 | 0 | 0 | 0 | 4.25 |
| 0+06.00 | 1 | 19.9 | 1.63 | 1.63 | 1 | 0 | 0 | 0 | 5.89 |
| 0+07.68 | 1 | 16.555 | 1.14 | 1.14 | 1 | 0 | 0 | 0 | 7.02 |
| Grand Total: | | | 7.02 | 7.02 | | | 0 | 0 | |