raSmith

CREATIVITY BEYOND ENGINEERING

# Storm Sewer Calculations for

# Lov-It Brands Campus

## Bristol, WI

**Project No. 3230212**

**July 26th, 2024**

**PREPARED BY:**
raSmith
16745 W. Bluemound Road
Brookfield, WI 53005
PH: 262-781-1000

**BASIS OF DESIGN**

The proposed storm sewer is for the development of a proposed Lov-It Brand campus in the Town of Bristol, WI. The system is designed to convey drainage from the finished surface and buildings through pipes to the proposed wet ponds and infiltration basins. All storm sewer on site is private and subject to the Town of Bristol approval.

The storm sewer is designed to convey the 10-year storm within the pipe using a gravity design with the HGL elevation within the pipe. Design charts have been provided for the 10-year storm design. The 100-yr storm will not surcharge system rims, but in the event of fully clogged inlets, stormwater will follow a designed overland flow path.

The storm sewer network (1500) at the proposed shop is designed to convey the 200-yr storm without surcharging system rims.

SW 1/4
SEC 13
T9N, R11E

USH 151

CTH "VV"

TWIN LANE ROAD

BUILDING #1
FUTURE EXPANSION
105,875sf
FFE=922.00

BUILDING #2
FUTURE EXPANSION
105,875sf
FFE=922.00

BUILDING #3
FUTURE EXPANSION
105,875sf
FFE=922.00

BUILDING #4
FUTURE EXPANSION
105,875sf
FFE=922.00

BUILDING #5
FUTURE EXPANSION
105,875sf
FFE=922.00

BUILDING #6
FUTURE EXPANSION
105,875sf
FFE=922.00

I-39

N

GRAPHIC SCALE
100 0 100 200 400
( IN FEET )

LEGEND

INLET DRAINAGE AREAS

| DESCRIPTION | DATE |
|---|---|
| | |

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(262) 781-1000
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Brookfield, WI | Milwaukee, WI | Appleton, WI | Madison, WI
Cedarburg, WI | Naperville, IL | Irvine, CA

# LOV-IT BRANDS CAMPUS
# TOWN OF BRISTOL, WI

## INLET DRAINAGE AREAS

Know what's below.
Call before you dig.



DATE: 07/26/2024
SCALE: 1" = 200'
JOB NO. 3230212
PROJECT MANAGER: PAUL V. MCILHERAN, P.E.
DESIGNED BY: JHP
CHECKED BY: AJS3

SHEET NUMBER
HX-04

# Storm Sewer Tabulation



| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 144.588 | 0.00 | 5.18 | 0.00 | 0.00 | 4.92 | 6.0 | 8.4 | 5.7 | 27.92 | 42.24 | 5.70 | 36 | 0.40 | 910.00 | 910.58 | 912.14 | 912.40 | 913.08 | 921.29 | 105-100 |
| 2 | 1 | 78.108 | 0.00 | 4.95 | 0.00 | 0.00 | 4.70 | 6.0 | 8.0 | 5.8 | 27.16 | 42.02 | 4.67 | 36 | 0.40 | 910.58 | 910.89 | 913.00 | 913.09 | 921.29 | 920.61 | 115-105 |
| 3 | 2 | 30.215 | 0.00 | 4.95 | 0.00 | 0.00 | 4.70 | 6.0 | 7.9 | 5.8 | 27.35 | 42.03 | 4.46 | 36 | 0.40 | 910.89 | 911.01 | 913.37 | 913.40 | 920.61 | 920.74 | 120-115 |
| 4 | 3 | 306.437 | 0.00 | 2.45 | 0.00 | 0.00 | 2.33 | 6.0 | 6.2 | 6.4 | 14.92 | 25.88 | 4.18 | 30 | 0.40 | 911.51 | 912.73 | 913.72 | 914.17 | 920.74 | 920.68 | 130-120 |
| 5 | 4 | 62.741 | 2.45 | 2.45 | 0.95 | 2.33 | 2.33 | 6.0 | 6.0 | 6.5 | 15.13 | 22.66 | 5.72 | 24 | 1.00 | 912.73 | 913.36 | 914.57 | 914.76 | 920.68 | 921.74 | 135-130 |
| 6 | 3 | 74.765 | 2.50 | 2.50 | 0.95 | 2.38 | 2.38 | 6.0 | 6.0 | 6.5 | 15.43 | 22.65 | 5.95 | 24 | 1.00 | 912.01 | 912.76 | 913.72 | 914.18 | 920.74 | 921.93 | 125-120 |
| 7 | 1 | 31.335 | 0.23 | 0.23 | 0.95 | 0.22 | 0.22 | 6.0 | 6.0 | 6.5 | 1.42 | 2.29 | 3.08 | 12 | 0.41 | 912.58 | 912.71 | 913.15 | 913.28 | 921.29 | 921.86 | 110-105 |

Project File: STO 100S.stm | Number of lines: 7 | Run Date: 7/24/2024

NOTES:Intensity = 30.30 / (Inlet time + 4.40) ^ 0.66; Return period =Yrs. 10 ; c = cir e = ellip b = box

Manning's Coefficient (n) = 0.013

# Storm Sewer Tabulation



| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 144.588 | 0.00 | 5.18 | 0.00 | 0.00 | 4.92 | 6.0 | 7.6 | 8.7 | 42.97 | 42.24 | 7.36 | 36 | 0.40 | 910.00 | 910.58 | 912.14 | 913.11 | 913.08 | 921.29 | 105-100 |
| 2 | 1 | 78.108 | 0.00 | 4.95 | 0.00 | 0.00 | 4.70 | 6.0 | 7.4 | 8.9 | 41.62 | 42.02 | 5.89 | 36 | 0.40 | 910.58 | 910.89 | 913.82 | 914.12 | 921.29 | 920.61 | 115-105 |
| 3 | 2 | 30.215 | 0.00 | 4.95 | 0.00 | 0.00 | 4.70 | 6.0 | 7.3 | 8.9 | 41.84 | 42.03 | 5.92 | 36 | 0.40 | 910.89 | 911.01 | 914.53 | 914.65 | 920.61 | 920.74 | 120-115 |
| 4 | 3 | 306.437 | 0.00 | 2.45 | 0.00 | 0.00 | 2.33 | 6.0 | 6.1 | 9.6 | 22.25 | 25.88 | 4.53 | 30 | 0.40 | 911.51 | 912.73 | 915.19 | 916.09 | 920.74 | 920.68 | 130-120 |
| 5 | 4 | 62.741 | 2.45 | 2.45 | 0.95 | 2.33 | 2.33 | 6.0 | 6.0 | 9.7 | 22.47 | 22.66 | 7.15 | 24 | 1.00 | 912.73 | 913.36 | 916.41 | 917.03 | 920.68 | 921.74 | 135-130 |
| 6 | 3 | 74.765 | 2.50 | 2.50 | 0.95 | 2.38 | 2.38 | 6.0 | 6.0 | 9.7 | 22.93 | 22.65 | 7.30 | 24 | 1.00 | 912.01 | 912.76 | 915.19 | 915.96 | 920.74 | 921.93 | 125-120 |
| 7 | 1 | 31.335 | 0.23 | 0.23 | 0.95 | 0.22 | 0.22 | 6.0 | 6.0 | 9.7 | 2.11 | 2.29 | 2.69 | 12 | 0.41 | 912.58 | 912.71 | 913.82 | 913.93 | 921.29 | 921.86 | 110-105 |

Project File: STO 100S.stm | Number of lines: 7 | Run Date: 7/24/2024

NOTES:Intensity = 34.74 / (Inlet time + 2.70) ^ 0.59; Return period =Yrs. 100 ; c = cir e = ellip b = box

Manning's Coefficient (n) = 0.013

# Storm Sewer Tabulation

| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 341.720 | 2.50 | 2.50 | 0.95 | 2.38 | 2.38 | 6.0 | 6.0 | 6.5 | 15.43 | 22.63 | 6.02 | 24 | 1.00 | 911.00 | 914.42 | 912.66 | 915.84 | 912.80 | 921.93 | 205-200 |

Project File: STO 200S.stm | Number of lines: 1 | Run Date: 7/24/2024

NOTES:Intensity = 30.30 / (Inlet time + 4.40) ^ 0.66; Return period =Yrs. 10 ; c = cir e = ellip b = box

Manning's Coefficient (n) = 0.013

# Storm Sewer Tabulation

| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 341.720 | 2.50 | 2.50 | 0.95 | 2.38 | 2.38 | 6.0 | 6.0 | 9.7 | 22.93 | 22.63 | 8.13 | 24 | 1.00 | 911.00 | 914.42 | 912.66 | 916.12 | 912.80 | 921.93 | 205-200 |

Project File: STO 200S.stm | Number of lines: 1 | Run Date: 7/24/2024

NOTES:Intensity = 34.74 / (Inlet time + 2.70) ^ 0.59; Return period =Yrs. 100 ; c = cir e = ellip b = box

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# Storm Sewer Tabulation



| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 104.584 | 2.46 | 2.46 | 0.95 | 2.34 | 2.34 | 6.0 | 6.0 | 6.5 | 15.19 | 18.90 | 5.91 | 24 | 0.70 | 916.27 | 917.00 | 917.96 | 918.40 | 918.33 | 921.93 | 305-300 |

Project File: STO 300S.stm

Number of lines: 1

Run Date: 7/24/2024

NOTES:Intensity = 30.30 / (Inlet time + 4.40) ^ 0.66; Return period =Yrs. 10 ; c = cir e = ellip b = box

Manning's Coefficient (n) = 0.013

# Storm Sewer Tabulation

| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 104.584 | 2.46 | 2.46 | 0.95 | 2.34 | 2.34 | 6.0 | 6.0 | 9.7 | 22.56 | 18.90 | 7.57 | 24 | 0.70 | 916.27 | 917.00 | 917.96 | 919.16 | 918.33 | 921.93 | 305-300 |

Project File: STO 300S.stm | Number of lines: 1 | Run Date: 7/24/2024

NOTES:Intensity = 34.74 / (Inlet time + 2.70) ^ 0.59; Return period =Yrs. 100 ; c = cir e = ellip b = box

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# Storm Sewer Tabulation



| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 35.661 | 0.38 | 5.05 | 0.95 | 0.36 | 4.80 | 6.0 | 10.4 | 5.1 | 24.68 | 51.18 | 5.74 | 36 | 0.59 | 913.00 | 913.21 | 914.96 | 914.81 | 916.08 | 920.00 | 405-400 |
| 2 | 1 | 143.606 | 0.24 | 1.11 | 0.95 | 0.23 | 1.05 | 6.0 | 9.2 | 5.4 | 5.75 | 17.50 | 3.34 | 24 | 0.60 | 913.21 | 914.07 | 914.81 | 914.92 | 920.00 | 920.34 | 415-405 |
| 3 | 2 | 122.760 | 0.24 | 0.87 | 0.95 | 0.23 | 0.83 | 6.0 | 8.5 | 5.7 | 4.67 | 8.15 | 4.60 | 18 | 0.60 | 914.07 | 914.81 | 914.92 | 915.64 | 920.34 | 920.34 | 420-415 |
| 4 | 3 | 109.604 | 0.05 | 0.63 | 0.95 | 0.05 | 0.60 | 6.0 | 7.6 | 5.9 | 3.54 | 8.15 | 3.89 | 18 | 0.60 | 914.81 | 915.47 | 915.64 | 916.19 | 920.34 | 920.38 | 425-420 |
| 5 | 4 | 19.194 | 0.06 | 0.51 | 0.95 | 0.06 | 0.48 | 6.0 | 7.5 | 6.0 | 2.89 | 4.89 | 4.08 | 15 | 0.57 | 915.47 | 915.58 | 916.19 | 916.27 | 920.38 | 920.21 | 435-425 |
| 6 | 5 | 30.683 | 0.07 | 0.45 | 0.95 | 0.07 | 0.43 | 6.0 | 7.2 | 6.0 | 2.58 | 4.95 | 3.54 | 15 | 0.59 | 915.58 | 915.76 | 916.40 | 916.40 | 920.21 | 920.36 | 440-435 |
| 7 | 6 | 114.109 | 0.31 | 0.31 | 0.95 | 0.29 | 0.29 | 6.0 | 6.0 | 6.5 | 1.91 | 4.98 | 3.34 | 15 | 0.60 | 915.76 | 916.44 | 916.40 | 916.99 | 920.36 | 920.00 | 450-440 |
| 8 | 6 | 49.824 | 0.07 | 0.07 | 0.95 | 0.07 | 0.07 | 6.0 | 6.0 | 6.5 | 0.43 | 0.84 | 1.47 | 8 | 0.48 | 915.76 | 916.00 | 916.40 | 916.46 | 920.36 | 918.23 | 445-440 |
| 9 | 4 | 49.394 | 0.07 | 0.07 | 0.95 | 0.07 | 0.07 | 6.0 | 6.0 | 6.5 | 0.43 | 2.73 | 1.61 | 12 | 0.59 | 915.47 | 915.76 | 916.19 | 916.03 | 920.38 | 918.23 | 430-425 |
| 10 | 1 | 146.247 | 0.07 | 1.06 | 0.95 | 0.07 | 1.01 | 6.0 | 8.2 | 5.7 | 5.78 | 17.34 | 3.35 | 24 | 0.59 | 913.21 | 914.07 | 914.81 | 914.92 | 920.00 | 920.36 | 455-405 |
| 11 | 10 | 49.824 | 0.07 | 0.07 | 0.95 | 0.07 | 0.07 | 6.0 | 6.0 | 6.5 | 0.43 | 1.33 | 3.08 | 8 | 1.20 | 915.40 | 916.00 | 915.66 | 916.31 | 920.36 | 918.23 | 460-455 |
| 12 | 10 | 30.683 | 0.06 | 0.92 | 0.95 | 0.06 | 0.87 | 6.0 | 8.0 | 5.8 | 5.07 | 8.04 | 4.80 | 18 | 0.59 | 914.07 | 914.25 | 914.93 | 915.12 | 920.36 | 920.21 | 465-455 |
| 13 | 12 | 24.109 | 0.05 | 0.86 | 0.95 | 0.05 | 0.82 | 6.0 | 7.8 | 5.8 | 4.77 | 8.00 | 4.61 | 18 | 0.58 | 914.25 | 914.39 | 915.12 | 915.23 | 920.21 | 920.42 | 470-465 |
| 14 | 13 | 127.268 | 0.37 | 0.74 | 0.95 | 0.35 | 0.70 | 6.0 | 7.0 | 6.1 | 4.31 | 8.06 | 4.39 | 18 | 0.59 | 914.39 | 915.14 | 915.23 | 915.94 | 920.42 | 920.17 | 480-470 |
| 15 | 14 | 168.380 | 0.37 | 0.37 | 0.95 | 0.35 | 0.35 | 6.0 | 6.0 | 6.5 | 2.28 | 2.73 | 3.77 | 12 | 0.59 | 915.14 | 916.13 | 915.94 | 916.79 | 920.17 | 920.17 | 485-480 |
| 16 | 13 | 49.127 | 0.07 | 0.07 | 0.95 | 0.07 | 0.07 | 6.0 | 6.0 | 6.5 | 0.43 | 1.52 | 3.26 | 8 | 1.59 | 915.22 | 916.00 | 915.46 | 916.31 | 920.42 | 918.23 | 475-470 |
| 17 | 1 | 86.500 | 2.50 | 2.50 | 0.95 | 2.38 | 2.38 | 6.0 | 6.0 | 6.5 | 15.43 | 22.68 | 7.13 | 24 | 1.01 | 914.21 | 915.08 | 915.42 | 916.50 | 920.00 | 921.89 | 410-405 |

Project File: STO 400S.stm

Number of lines: 17

Run Date: 7/24/2024

NOTES:Intensity = 30.30 / (Inlet time + 4.40) ^ 0.66; Return period =Yrs. 10 ; c = cir e = ellip b = box

Manning's Coefficient (n) = 0.013

# Storm Sewer Tabulation



| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 35.661 | 0.38 | 5.05 | 0.95 | 0.36 | 4.80 | 6.0 | 9.0 | 8.1 | 38.86 | 51.18 | 7.81 | 36 | 0.59 | 913.00 | 913.21 | 914.96 | 915.24 | 916.08 | 920.00 | 405-400 |
| 2 | 1 | 143.606 | 0.24 | 1.11 | 0.95 | 0.23 | 1.05 | 6.0 | 8.2 | 8.5 | 8.93 | 17.50 | 3.42 | 24 | 0.60 | 913.21 | 914.07 | 915.24 | 915.41 | 920.00 | 920.34 | 415-405 |
| 3 | 2 | 122.760 | 0.24 | 0.87 | 0.95 | 0.23 | 0.83 | 6.0 | 7.7 | 8.7 | 7.20 | 8.15 | 4.44 | 18 | 0.60 | 914.07 | 914.81 | 915.53 | 916.00 | 920.34 | 920.34 | 420-415 |
| 4 | 3 | 109.604 | 0.05 | 0.63 | 0.95 | 0.05 | 0.60 | 6.0 | 7.1 | 9.0 | 5.40 | 8.15 | 4.05 | 18 | 0.60 | 914.81 | 915.47 | 916.18 | 916.36 | 920.34 | 920.38 | 425-420 |
| 5 | 4 | 19.194 | 0.06 | 0.51 | 0.95 | 0.06 | 0.48 | 6.0 | 7.0 | 9.1 | 4.39 | 4.89 | 4.51 | 15 | 0.57 | 915.47 | 915.58 | 916.40 | 916.50 | 920.38 | 920.21 | 435-425 |
| 6 | 5 | 30.683 | 0.07 | 0.45 | 0.95 | 0.07 | 0.43 | 6.0 | 6.8 | 9.2 | 3.91 | 4.95 | 3.63 | 15 | 0.59 | 915.58 | 915.76 | 916.66 | 916.74 | 920.21 | 920.36 | 440-435 |
| 7 | 6 | 114.109 | 0.31 | 0.31 | 0.95 | 0.29 | 0.29 | 6.0 | 6.0 | 9.7 | 2.84 | 4.98 | 3.05 | 15 | 0.60 | 915.76 | 916.44 | 916.96 | 917.18 | 920.36 | 920.00 | 450-440 |
| 8 | 6 | 49.824 | 0.07 | 0.07 | 0.95 | 0.07 | 0.07 | 6.0 | 6.0 | 9.7 | 0.64 | 0.84 | 1.84 | 8 | 0.48 | 915.76 | 916.00 | 916.96 | 917.10 | 920.36 | 918.23 | 445-440 |
| 9 | 4 | 49.394 | 0.07 | 0.07 | 0.95 | 0.07 | 0.07 | 6.0 | 6.0 | 9.7 | 0.64 | 2.73 | 1.83 | 12 | 0.59 | 915.47 | 915.76 | 916.36 | 916.09 | 920.38 | 918.23 | 430-425 |
| 10 | 1 | 146.247 | 0.07 | 1.06 | 0.95 | 0.07 | 1.01 | 6.0 | 7.5 | 8.8 | 8.87 | 17.34 | 3.39 | 24 | 0.59 | 913.21 | 914.07 | 915.24 | 915.41 | 920.00 | 920.36 | 455-405 |
| 11 | 10 | 49.824 | 0.07 | 0.07 | 0.95 | 0.07 | 0.07 | 6.0 | 6.0 | 9.7 | 0.64 | 1.33 | 3.46 | 8 | 1.20 | 915.40 | 916.00 | 915.73 | 916.38 | 920.36 | 918.23 | 460-455 |
| 12 | 10 | 30.683 | 0.06 | 0.92 | 0.95 | 0.06 | 0.87 | 6.0 | 7.3 | 8.9 | 7.75 | 8.04 | 4.39 | 18 | 0.59 | 914.07 | 914.25 | 915.65 | 915.82 | 920.36 | 920.21 | 465-455 |
| 13 | 12 | 24.109 | 0.05 | 0.86 | 0.95 | 0.05 | 0.82 | 6.0 | 7.2 | 8.9 | 7.29 | 8.00 | 4.13 | 18 | 0.58 | 914.25 | 914.39 | 915.97 | 916.09 | 920.21 | 920.42 | 470-465 |
| 14 | 13 | 127.268 | 0.37 | 0.74 | 0.95 | 0.35 | 0.70 | 6.0 | 6.6 | 9.3 | 6.50 | 8.06 | 3.68 | 18 | 0.59 | 914.39 | 915.14 | 916.35 | 916.84 | 920.42 | 920.17 | 480-470 |
| 15 | 14 | 168.380 | 0.37 | 0.37 | 0.95 | 0.35 | 0.35 | 6.0 | 6.0 | 9.7 | 3.39 | 2.73 | 4.32 | 12 | 0.59 | 915.14 | 916.13 | 916.95 | 918.48 | 920.17 | 920.17 | 485-480 |
| 16 | 13 | 49.127 | 0.07 | 0.07 | 0.95 | 0.07 | 0.07 | 6.0 | 6.0 | 9.7 | 0.64 | 1.52 | 2.12 | 8 | 1.59 | 915.22 | 916.00 | 916.35 | 916.48 | 920.42 | 918.23 | 475-470 |
| 17 | 1 | 86.500 | 2.50 | 2.50 | 0.95 | 2.38 | 2.38 | 6.0 | 6.0 | 9.7 | 22.93 | 22.68 | 8.14 | 24 | 1.01 | 914.21 | 915.08 | 915.87 | 916.78 | 920.00 | 921.89 | 410-405 |

Project File: STO 400S.stm | Number of lines: 17 | Run Date: 7/24/2024

NOTES:Intensity = 34.74 / (Inlet time + 2.70) ^ 0.59; Return period =Yrs. 100 ; c = cir e = ellip b = box

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# Storm Sewer Tabulation



| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 96.683 | 1.07 | 7.91 | 0.95 | 1.02 | 7.51 | 6.0 | 15.2 | 4.3 | 32.15 | 93.54 | 5.10 | 48 | 0.42 | 905.00 | 905.41 | 907.56 | 907.09 | 909.12 | 917.38 | 505-500 |
| 2 | 1 | 200.000 | 0.80 | 6.84 | 0.95 | 0.76 | 6.50 | 6.0 | 13.8 | 4.5 | 29.18 | 93.10 | 6.02 | 48 | 0.42 | 905.41 | 906.25 | 907.09 | 907.85 | 917.38 | 917.38 | 510-505 |
| 3 | 2 | 192.844 | 0.17 | 6.04 | 0.95 | 0.16 | 5.74 | 6.0 | 12.7 | 4.7 | 26.87 | 65.20 | 6.37 | 42 | 0.42 | 906.75 | 907.56 | 908.32 | 909.16 | 917.38 | 919.50 | 515-510 |
| 4 | 3 | 100.000 | 0.43 | 5.67 | 0.95 | 0.41 | 5.39 | 6.0 | 12.1 | 4.8 | 25.82 | 65.20 | 6.13 | 42 | 0.42 | 907.56 | 907.98 | 909.16 | 909.54 | 919.50 | 919.50 | 520-515 |
| 5 | 4 | 134.396 | 0.59 | 5.24 | 0.95 | 0.56 | 4.98 | 6.0 | 11.3 | 5.0 | 24.71 | 47.54 | 4.99 | 42 | 0.22 | 907.98 | 908.28 | 909.77 | 910.07 | 919.50 | 919.50 | 525-520 |
| 6 | 5 | 61.334 | 0.00 | 4.49 | 0.00 | 0.00 | 4.27 | 6.0 | 11.0 | 5.0 | 21.38 | 30.54 | 6.66 | 30 | 0.55 | 909.55 | 909.89 | 911.09 | 911.46 | 919.50 | 920.18 | 530-525 |
| 7 | 6 | 124.240 | 2.50 | 2.50 | 0.95 | 2.38 | 2.38 | 6.0 | 6.0 | 6.5 | 15.43 | 22.60 | 7.12 | 24 | 1.00 | 915.76 | 917.00 | 916.97 | 918.42 | 920.18 | 922.00 | 531-530 |
| 8 | 6 | 61.334 | 0.31 | 1.99 | 0.95 | 0.29 | 1.89 | 6.0 | 10.7 | 5.1 | 9.61 | 14.73 | 5.00 | 24 | 0.42 | 910.39 | 910.65 | 911.57 | 911.83 | 920.18 | 919.50 | 535-530 |
| 9 | 8 | 73.891 | 0.16 | 1.44 | 0.95 | 0.15 | 1.37 | 6.0 | 10.2 | 5.2 | 7.12 | 17.45 | 3.65 | 24 | 0.60 | 910.65 | 911.09 | 912.41 | 912.04 | 919.50 | 919.50 | 540-535 |
| 10 | 9 | 132.402 | 0.52 | 1.28 | 0.95 | 0.49 | 1.22 | 6.0 | 9.2 | 5.5 | 6.64 | 17.47 | 4.65 | 24 | 0.60 | 911.09 | 911.88 | 912.04 | 912.79 | 919.50 | 918.75 | 545-540 |
| 11 | 10 | 330.205 | 0.33 | 0.76 | 0.95 | 0.31 | 0.72 | 6.0 | 6.9 | 6.1 | 4.43 | 8.11 | 4.63 | 18 | 0.60 | 912.38 | 914.35 | 913.17 | 915.16 | 918.75 | 920.15 | 550-545 |
| 12 | 11 | 102.180 | 0.00 | 0.43 | 0.00 | 0.00 | 0.41 | 6.0 | 6.4 | 6.3 | 2.59 | 2.75 | 3.98 | 12 | 0.60 | 914.85 | 915.46 | 915.62 | 916.23 | 920.15 | 921.10 | 555-550 |
| 13 | 12 | 87.147 | 0.43 | 0.43 | 0.95 | 0.41 | 0.41 | 6.0 | 6.0 | 6.5 | 2.65 | 2.75 | 3.59 | 12 | 0.60 | 915.46 | 915.98 | 916.42 | 916.82 | 921.10 | 920.00 | 560-555 |
| 14 | 3 | 70.195 | 0.20 | 0.20 | 0.95 | 0.19 | 0.19 | 6.0 | 6.0 | 6.5 | 1.23 | 1.21 | 3.93 | 8 | 1.00 | 915.30 | 916.00 | 915.86 | 916.56 | 919.50 | 918.15 | 516-515 |
| 15 | 8 | 119.367 | 0.24 | 0.24 | 0.95 | 0.23 | 0.23 | 6.0 | 6.0 | 6.5 | 1.48 | 2.20 | 4.12 | 10 | 1.01 | 914.76 | 915.96 | 915.26 | 916.50 | 919.50 | 918.15 | 536-535 |
| 16 | 5 | 143.435 | 0.16 | 0.16 | 0.95 | 0.15 | 0.15 | 6.0 | 6.0 | 6.5 | 0.99 | 1.21 | 3.81 | 8 | 1.00 | 914.56 | 916.00 | 915.02 | 916.47 | 919.50 | 918.15 | 526-525 |

Project File: STO 500S.stm

Number of lines: 16

Run Date: 7/24/2024

NOTES:Intensity = 30.30 / (Inlet time + 4.40) ^ 0.66; Return period =Yrs. 10 ; c = cir e = ellip b = box

Manning's Coefficient (n) = 0.013

# Storm Sewer Tabulation



| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 96.683 | 1.07 | 7.91 | 0.95 | 1.02 | 7.51 | 6.0 | 12.3 | 7.0 | 52.62 | 93.54 | 6.86 | 48 | 0.42 | 905.00 | 905.41 | 907.56 | 907.59 | 909.12 | 917.38 | 505-500 |
| 2 | 1 | 200.000 | 0.80 | 6.84 | 0.95 | 0.76 | 6.50 | 6.0 | 11.3 | 7.3 | 47.30 | 93.10 | 7.01 | 48 | 0.42 | 905.41 | 906.25 | 907.59 | 908.31 | 917.38 | 917.38 | 510-505 |
| 3 | 2 | 192.844 | 0.17 | 6.04 | 0.95 | 0.16 | 5.74 | 6.0 | 10.6 | 7.5 | 43.18 | 65.20 | 7.24 | 42 | 0.42 | 906.75 | 907.56 | 908.83 | 909.64 | 917.38 | 919.50 | 515-510 |
| 4 | 3 | 100.000 | 0.43 | 5.67 | 0.95 | 0.41 | 5.39 | 6.0 | 10.1 | 7.7 | 41.29 | 65.20 | 4.56 | 42 | 0.42 | 907.56 | 907.98 | 910.86 | 910.96 | 919.50 | 919.50 | 520-515 |
| 5 | 4 | 134.396 | 0.59 | 5.24 | 0.95 | 0.56 | 4.98 | 6.0 | 9.6 | 7.9 | 39.22 | 47.54 | 4.12 | 42 | 0.22 | 907.98 | 908.28 | 911.44 | 911.61 | 919.50 | 919.50 | 525-520 |
| 6 | 5 | 61.334 | 0.00 | 4.49 | 0.00 | 0.00 | 4.27 | 6.0 | 9.4 | 7.9 | 33.86 | 30.54 | 6.90 | 30 | 0.55 | 909.55 | 909.89 | 912.05 | 912.47 | 919.50 | 920.18 | 530-525 |
| 7 | 6 | 124.240 | 2.50 | 2.50 | 0.95 | 2.38 | 2.38 | 6.0 | 6.0 | 9.7 | 22.93 | 22.60 | 8.12 | 24 | 1.00 | 915.76 | 917.00 | 917.43 | 918.70 | 920.18 | 922.00 | 531-530 |
| 8 | 6 | 61.334 | 0.31 | 1.99 | 0.95 | 0.29 | 1.89 | 6.0 | 9.2 | 8.0 | 15.17 | 14.73 | 4.83 | 24 | 0.42 | 910.39 | 910.65 | 913.21 | 913.48 | 920.18 | 919.50 | 535-530 |
| 9 | 8 | 73.891 | 0.16 | 1.44 | 0.95 | 0.15 | 1.37 | 6.0 | 8.8 | 8.2 | 11.18 | 17.45 | 3.56 | 24 | 0.60 | 910.65 | 911.09 | 914.03 | 914.21 | 919.50 | 919.50 | 540-535 |
| 10 | 9 | 132.402 | 0.52 | 1.28 | 0.95 | 0.49 | 1.22 | 6.0 | 8.1 | 8.5 | 10.31 | 17.47 | 3.28 | 24 | 0.60 | 911.09 | 911.88 | 914.36 | 914.64 | 919.50 | 918.75 | 545-540 |
| 11 | 10 | 330.205 | 0.33 | 0.76 | 0.95 | 0.31 | 0.72 | 6.0 | 6.6 | 9.3 | 6.68 | 8.11 | 3.78 | 18 | 0.60 | 912.38 | 914.35 | 914.89 | 916.23 | 918.75 | 920.15 | 550-545 |
| 12 | 11 | 102.180 | 0.00 | 0.43 | 0.00 | 0.00 | 0.41 | 6.0 | 6.3 | 9.5 | 3.87 | 2.75 | 4.93 | 12 | 0.60 | 914.85 | 915.46 | 916.34 | 917.54 | 920.15 | 921.10 | 555-550 |
| 13 | 12 | 87.147 | 0.43 | 0.43 | 0.95 | 0.41 | 0.41 | 6.0 | 6.0 | 9.7 | 3.94 | 2.75 | 5.02 | 12 | 0.60 | 915.46 | 915.98 | 917.83 | 918.90 | 921.10 | 920.00 | 560-555 |
| 14 | 3 | 70.195 | 0.20 | 0.20 | 0.95 | 0.19 | 0.19 | 6.0 | 6.0 | 9.7 | 1.83 | 1.21 | 5.26 | 8 | 1.00 | 915.30 | 916.00 | 915.97 | 917.59 | 919.50 | 918.15 | 516-515 |
| 15 | 8 | 119.367 | 0.24 | 0.24 | 0.95 | 0.23 | 0.23 | 6.0 | 6.0 | 9.7 | 2.20 | 2.20 | 4.59 | 10 | 1.01 | 914.76 | 915.96 | 915.45 | 916.64 | 919.50 | 918.15 | 536-535 |
| 16 | 5 | 143.435 | 0.16 | 0.16 | 0.95 | 0.15 | 0.15 | 6.0 | 6.0 | 9.7 | 1.47 | 1.21 | 4.20 | 8 | 1.00 | 914.56 | 916.00 | 915.23 | 917.35 | 919.50 | 918.15 | 526-525 |

Project File: STO 500S.stm

Number of lines: 16

Run Date: 7/24/2024

NOTES:Intensity = 34.74 / (Inlet time + 2.70) ^ 0.59; Return period =Yrs. 100 ; c = cir e = ellip b = box

Manning's Coefficient (n) = 0.013

# Storm Sewer Tabulation



| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 101.326 | 1.05 | 2.22 | 0.95 | 1.00 | 2.11 | 6.0 | 7.2 | 6.0 | 12.75 | 20.22 | 5.42 | 24 | 0.80 | 905.00 | 905.81 | 906.56 | 907.09 | 907.06 | 917.38 | 570-565 |
| 2 | 1 | 202.099 | 0.20 | 0.20 | 0.95 | 0.19 | 0.19 | 6.0 | 6.0 | 6.5 | 1.23 | 1.65 | 3.98 | 9 | 1.00 | 913.98 | 916.00 | 914.46 | 916.51 | 917.38 | 918.15 | 571-570 |
| 3 | 1 | 200.000 | 0.97 | 0.97 | 0.95 | 0.92 | 0.92 | 6.0 | 6.0 | 6.5 | 5.99 | 6.46 | 5.86 | 15 | 1.00 | 911.13 | 913.13 | 912.08 | 914.12 | 917.38 | 917.38 | 575-570 |

Project File: STO 500S.2.stm | Number of lines: 3 | Run Date: 7/24/2024

NOTES:Intensity = 30.30 / (Inlet time + 4.40) ^ 0.66; Return period =Yrs. 10 ; c = cir e = ellip b = box

Manning's Coefficient (n) = 0.013

# Storm Sewer Tabulation



| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 101.326 | 1.05 | 2.22 | 0.95 | 1.00 | 2.11 | 6.0 | 6.8 | 9.2 | 19.32 | 20.22 | 7.29 | 24 | 0.80 | 905.00 | 905.81 | 906.56 | 907.39 | 907.06 | 917.38 | 570-565 |
| 2 | 1 | 202.099 | 0.20 | 0.20 | 0.95 | 0.19 | 0.19 | 6.0 | 6.0 | 9.7 | 1.83 | 1.65 | 4.15 | 9 | 1.00 | 913.98 | 916.00 | 914.73 | 917.22 | 917.38 | 918.15 | 571-570 |
| 3 | 1 | 200.000 | 0.97 | 0.97 | 0.95 | 0.92 | 0.92 | 6.0 | 6.0 | 9.7 | 8.90 | 6.46 | 7.25 | 15 | 1.00 | 911.13 | 913.13 | 912.38 | 916.18 | 917.38 | 917.38 | 575-570 |

Project File: STO 500S.2.stm | Number of lines: 3 | Run Date: 7/24/2024

NOTES:Intensity = 34.74 / (Inlet time + 2.70) ^ 0.59; Return period =Yrs. 100 ; c = cir e = ellip b = box

Manning's Coefficient (n) = 0.013

# Storm Sewer Tabulation



| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 48.797 | 0.20 | 6.26 | 0.95 | 0.19 | 5.95 | 6.0 | 18.1 | 3.9 | 23.24 | 67.55 | 4.72 | 42 | 0.45 | 910.00 | 910.22 | 912.32 | 911.70 | 913.08 | 919.57 | 605-600 |
| 2 | 1 | 177.300 | 0.33 | 1.95 | 0.95 | 0.31 | 1.85 | 6.0 | 16.6 | 4.1 | 7.59 | 42.57 | 3.59 | 30 | 1.08 | 910.22 | 912.13 | 911.70 | 913.04 | 919.57 | 919.82 | 640-605 |
| 3 | 2 | 125.000 | 0.24 | 1.62 | 0.95 | 0.23 | 1.54 | 6.0 | 15.3 | 4.3 | 6.57 | 42.62 | 4.26 | 30 | 1.08 | 912.13 | 913.48 | 913.04 | 914.33 | 919.82 | 920.89 | 645-640 |
| 4 | 3 | 120.000 | 0.16 | 1.38 | 0.95 | 0.15 | 1.31 | 6.0 | 13.9 | 4.5 | 5.87 | 42.52 | 4.16 | 30 | 1.08 | 913.48 | 914.77 | 914.33 | 915.57 | 920.89 | 920.00 | 650-645 |
| 5 | 4 | 119.732 | 0.20 | 1.22 | 0.95 | 0.19 | 1.16 | 6.0 | 12.4 | 4.7 | 5.50 | 20.53 | 3.54 | 30 | 0.25 | 914.77 | 915.07 | 915.65 | 915.96 | 920.00 | 920.30 | 655-650 |
| 6 | 5 | 110.000 | 0.21 | 1.02 | 0.95 | 0.20 | 0.97 | 6.0 | 10.8 | 5.1 | 4.92 | 20.69 | 2.81 | 30 | 0.25 | 915.07 | 915.35 | 916.13 | 916.24 | 920.30 | 920.30 | 660-655 |
| 7 | 6 | 104.713 | 0.05 | 0.81 | 0.95 | 0.05 | 0.77 | 6.0 | 8.9 | 5.5 | 4.26 | 20.44 | 2.75 | 30 | 0.25 | 915.35 | 915.61 | 916.32 | 916.43 | 920.30 | 920.36 | 665-660 |
| 8 | 7 | 30.562 | 0.04 | 0.69 | 0.95 | 0.04 | 0.66 | 6.0 | 8.5 | 5.7 | 3.71 | 11.57 | 2.35 | 24 | 0.26 | 915.61 | 915.69 | 916.64 | 916.66 | 920.36 | 920.21 | 675-665 |
| 9 | 8 | 18.938 | 0.04 | 0.65 | 0.95 | 0.04 | 0.62 | 6.0 | 8.2 | 5.7 | 3.54 | 11.62 | 2.25 | 24 | 0.26 | 915.69 | 915.74 | 916.71 | 916.72 | 920.21 | 920.35 | 680-675 |
| 10 | 9 | 117.849 | 0.27 | 0.54 | 0.95 | 0.26 | 0.51 | 6.0 | 7.1 | 6.1 | 3.12 | 7.92 | 3.20 | 18 | 0.57 | 915.74 | 916.41 | 916.80 | 917.08 | 920.35 | 920.28 | 690-680 |
| 11 | 10 | 138.889 | 0.27 | 0.27 | 0.95 | 0.26 | 0.26 | 6.0 | 6.0 | 6.5 | 1.67 | 2.69 | 3.38 | 12 | 0.57 | 916.41 | 917.20 | 917.08 | 917.75 | 920.28 | 920.45 | 695-690 |
| 12 | 7 | 49.824 | 0.07 | 0.07 | 0.95 | 0.07 | 0.07 | 6.0 | 6.0 | 6.5 | 0.43 | 1.55 | 2.44 | 10 | 0.50 | 916.46 | 916.71 | 916.76 | 917.01 | 920.36 | 918.23 | 670-665 |
| 13 | 9 | 49.393 | 0.07 | 0.07 | 0.95 | 0.07 | 0.07 | 6.0 | 6.0 | 6.5 | 0.43 | 2.15 | 0.59 | 12 | 0.36 | 915.82 | 916.00 | 916.80 | 916.81 | 920.35 | 918.23 | 685-680 |
| 14 | 1 | 229.003 | 0.00 | 0.20 | 0.00 | 0.00 | 0.19 | 6.0 | 6.2 | 6.4 | 1.22 | 2.62 | 4.18 | 10 | 1.43 | 912.39 | 915.66 | 912.79 | 916.15 | 919.57 | 921.57 | 630-605 |
| 15 | 14 | 23.656 | 0.20 | 0.20 | 0.95 | 0.19 | 0.19 | 6.0 | 6.0 | 6.5 | 1.23 | 2.63 | 3.67 | 10 | 1.44 | 915.66 | 916.00 | 916.15 | 916.50 | 921.57 | 918.15 | 635-630 |
| 16 | 1 | 160.236 | 0.78 | 3.91 | 0.95 | 0.74 | 3.71 | 6.0 | 8.8 | 5.5 | 20.60 | 42.15 | 5.93 | 36 | 0.40 | 910.22 | 910.86 | 911.70 | 912.34 | 919.57 | 917.48 | 610-605 |
| 17 | 16 | 177.434 | 0.88 | 3.13 | 0.95 | 0.84 | 2.97 | 6.0 | 8.0 | 5.8 | 17.23 | 25.94 | 4.52 | 30 | 0.40 | 910.86 | 911.57 | 912.93 | 913.20 | 917.48 | 916.47 | 615-610 |
| 18 | 17 | 168.000 | 0.95 | 2.25 | 0.95 | 0.90 | 2.14 | 6.0 | 7.3 | 6.0 | 12.85 | 14.39 | 4.34 | 24 | 0.40 | 911.57 | 912.25 | 913.50 | 913.94 | 916.47 | 916.47 | 620-615 |
| 19 | 18 | 200.900 | 1.30 | 1.30 | 0.95 | 1.24 | 1.24 | 6.0 | 6.0 | 6.5 | 8.03 | 14.36 | 3.24 | 24 | 0.40 | 912.25 | 913.06 | 914.10 | 914.32 | 916.47 | 917.25 | 625-620 |

Project File: STO 600S.stm

Number of lines: 19

Run Date: 7/24/2024

NOTES:Intensity = 30.30 / (Inlet time + 4.40) ^ 0.66; Return period =Yrs. 10 ; c = cir e = ellip b = box

Manning's Coefficient (n) = 0.013

# Storm Sewer Tabulation



| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 48.797 | 0.20 | 6.26 | 0.95 | 0.19 | 5.95 | 6.0 | 14.2 | 6.5 | 38.72 | 67.55 | 6.41 | 42 | 0.45 | 910.00 | 910.22 | 912.32 | 912.15 | 913.08 | 919.57 | 605-600 |
| 2 | 1 | 177.300 | 0.33 | 1.95 | 0.95 | 0.31 | 1.85 | 6.0 | 13.2 | 6.8 | 12.53 | 42.57 | 4.26 | 30 | 1.08 | 910.22 | 912.13 | 912.15 | 913.32 | 919.57 | 919.82 | 640-605 |
| 3 | 2 | 125.000 | 0.24 | 1.62 | 0.95 | 0.23 | 1.54 | 6.0 | 12.3 | 7.0 | 10.76 | 42.62 | 4.94 | 30 | 1.08 | 912.13 | 913.48 | 913.32 | 914.58 | 919.82 | 920.89 | 645-640 |
| 4 | 3 | 120.000 | 0.16 | 1.38 | 0.95 | 0.15 | 1.31 | 6.0 | 11.4 | 7.3 | 9.53 | 42.52 | 4.80 | 30 | 1.08 | 913.48 | 914.77 | 914.58 | 915.80 | 920.89 | 920.00 | 650-645 |
| 5 | 4 | 119.732 | 0.20 | 1.22 | 0.95 | 0.19 | 1.16 | 6.0 | 10.3 | 7.6 | 8.82 | 20.53 | 4.03 | 30 | 0.25 | 914.77 | 915.07 | 915.91 | 916.21 | 920.00 | 920.30 | 655-650 |
| 6 | 5 | 110.000 | 0.21 | 1.02 | 0.95 | 0.20 | 0.97 | 6.0 | 9.2 | 8.0 | 7.77 | 20.69 | 3.09 | 30 | 0.25 | 915.07 | 915.35 | 916.44 | 916.54 | 920.30 | 920.30 | 660-655 |
| 7 | 6 | 104.713 | 0.05 | 0.81 | 0.95 | 0.05 | 0.77 | 6.0 | 7.9 | 8.6 | 6.60 | 20.44 | 2.88 | 30 | 0.25 | 915.35 | 915.61 | 916.63 | 916.72 | 920.30 | 920.36 | 665-660 |
| 8 | 7 | 30.562 | 0.04 | 0.69 | 0.95 | 0.04 | 0.66 | 6.0 | 7.7 | 8.7 | 5.71 | 11.57 | 2.62 | 24 | 0.26 | 915.61 | 915.69 | 916.95 | 916.97 | 920.36 | 920.21 | 675-665 |
| 9 | 8 | 18.938 | 0.04 | 0.65 | 0.95 | 0.04 | 0.62 | 6.0 | 7.5 | 8.8 | 5.44 | 11.62 | 2.48 | 24 | 0.26 | 915.69 | 915.74 | 917.03 | 917.04 | 920.21 | 920.35 | 680-675 |
| 10 | 9 | 117.849 | 0.27 | 0.54 | 0.95 | 0.26 | 0.51 | 6.0 | 6.7 | 9.2 | 4.72 | 7.92 | 3.44 | 18 | 0.57 | 915.74 | 916.41 | 917.14 | 917.34 | 920.35 | 920.28 | 690-680 |
| 11 | 10 | 138.889 | 0.27 | 0.27 | 0.95 | 0.26 | 0.26 | 6.0 | 6.0 | 9.7 | 2.48 | 2.69 | 3.26 | 12 | 0.57 | 916.41 | 917.20 | 917.47 | 918.08 | 920.28 | 920.45 | 695-690 |
| 12 | 7 | 49.824 | 0.07 | 0.07 | 0.95 | 0.07 | 0.07 | 6.0 | 6.0 | 9.7 | 0.64 | 1.55 | 2.38 | 10 | 0.50 | 916.46 | 916.71 | 916.95 | 917.07 | 920.36 | 918.23 | 670-665 |
| 13 | 9 | 49.393 | 0.07 | 0.07 | 0.95 | 0.07 | 0.07 | 6.0 | 6.0 | 9.7 | 0.64 | 2.15 | 0.82 | 12 | 0.36 | 915.82 | 916.00 | 917.14 | 917.15 | 920.35 | 918.23 | 685-680 |
| 14 | 1 | 229.003 | 0.00 | 0.20 | 0.00 | 0.00 | 0.19 | 6.0 | 6.1 | 9.6 | 1.82 | 2.62 | 4.74 | 10 | 1.43 | 912.39 | 915.66 | 912.90 | 916.26 | 919.57 | 921.57 | 630-605 |
| 15 | 14 | 23.656 | 0.20 | 0.20 | 0.95 | 0.19 | 0.19 | 6.0 | 6.0 | 9.7 | 1.83 | 2.63 | 4.32 | 10 | 1.44 | 915.66 | 916.00 | 916.26 | 916.61 | 921.57 | 918.15 | 635-630 |
| 16 | 1 | 160.236 | 0.78 | 3.91 | 0.95 | 0.74 | 3.71 | 6.0 | 7.9 | 8.6 | 31.88 | 42.15 | 6.55 | 36 | 0.40 | 910.22 | 910.86 | 912.17 | 912.81 | 919.57 | 917.48 | 610-605 |
| 17 | 16 | 177.434 | 0.88 | 3.13 | 0.95 | 0.84 | 2.97 | 6.0 | 7.3 | 8.9 | 26.38 | 25.94 | 5.37 | 30 | 0.40 | 910.86 | 911.57 | 913.53 | 914.27 | 917.48 | 916.47 | 615-610 |
| 18 | 17 | 168.000 | 0.95 | 2.25 | 0.95 | 0.90 | 2.14 | 6.0 | 6.9 | 9.1 | 19.49 | 14.39 | 6.20 | 24 | 0.40 | 911.57 | 912.25 | 914.60 | 915.85 | 916.47 | 916.47 | 620-615 |
| 19 | 18 | 200.900 | 1.30 | 1.30 | 0.95 | 1.24 | 1.24 | 6.0 | 6.0 | 9.7 | 11.92 | 14.36 | 3.80 | 24 | 0.40 | 912.25 | 913.06 | 916.15 | 916.70 | 916.47 | 917.25 | 625-620 |

Project File: STO 600S.stm

Number of lines: 19

Run Date: 7/24/2024

NOTES:Intensity = 34.74 / (Inlet time + 2.70) ^ 0.59; Return period =Yrs. 100 ; c = cir e = ellip b = box

Manning's Coefficient (n) = 0.013

# Storm Sewer Tabulation



| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 61.192 | 0.76 | 1.38 | 0.95 | 0.72 | 1.31 | 6.0 | 6.6 | 6.3 | 8.22 | 16.10 | 4.44 | 24 | 0.51 | 910.00 | 910.31 | 911.31 | 911.33 | 911.80 | 914.50 | 705-700 |
| 2 | 1 | 108.948 | 0.62 | 0.62 | 0.95 | 0.59 | 0.59 | 6.0 | 6.0 | 6.5 | 3.83 | 4.55 | 3.88 | 15 | 0.50 | 910.31 | 910.85 | 911.33 | 911.72 | 914.50 | 914.50 | 710-705 |

Project File: STO 700S.stm

Number of lines: 2

Run Date: 7/24/2024

NOTES:Intensity = 30.30 / (Inlet time + 4.40) ^ 0.66; Return period =Yrs. 10 ; c = cir e = ellip b = box

Manning's Coefficient (n) = 0.013

# Storm Sewer Tabulation



| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 61.192 | 0.76 | 1.38 | 0.95 | 0.72 | 1.31 | 6.0 | 6.4 | 9.4 | 12.33 | 16.10 | 5.65 | 24 | 0.51 | 910.00 | 910.31 | 911.31 | 911.62 | 911.80 | 914.50 | 705-700 |
| 2 | 1 | 108.948 | 0.62 | 0.62 | 0.95 | 0.59 | 0.59 | 6.0 | 6.0 | 9.7 | 5.69 | 4.55 | 4.63 | 15 | 0.50 | 910.31 | 910.85 | 912.36 | 913.21 | 914.50 | 914.50 | 710-705 |

Project File: STO 700S.stm | Number of lines: 2 | Run Date: 7/24/2024

NOTES:Intensity = 34.74 / (Inlet time + 2.70) ^ 0.59; Return period =Yrs. 100 ; c = cir e = ellip b = box

Manning's Coefficient (n) = 0.013

# Storm Sewer Tabulation



| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 104.185 | 0.00 | 1.54 | 0.00 | 0.00 | 1.46 | 6.0 | 9.5 | 5.4 | 7.84 | 16.58 | 4.28 | 24 | 0.54 | 905.00 | 905.56 | 906.33 | 906.56 | 907.25 | 918.73 | 1505-1500 |
| 2 | 1 | 196.124 | 0.00 | 1.54 | 0.00 | 0.00 | 1.46 | 6.0 | 8.3 | 5.7 | 8.33 | 16.71 | 5.22 | 24 | 0.55 | 905.56 | 906.63 | 906.56 | 907.66 | 918.73 | 918.52 | 1510-1505 |
| 3 | 2 | 111.162 | 0.00 | 1.54 | 0.00 | 0.00 | 1.46 | 6.0 | 7.7 | 5.9 | 8.63 | 16.62 | 5.25 | 24 | 0.54 | 906.63 | 907.23 | 907.66 | 908.28 | 918.52 | 918.21 | 1515-1510 |
| 4 | 3 | 96.688 | 0.00 | 1.54 | 0.00 | 0.00 | 1.46 | 6.0 | 7.1 | 6.1 | 8.91 | 16.59 | 5.30 | 24 | 0.54 | 907.23 | 907.75 | 908.28 | 908.81 | 918.21 | 914.10 | 1520-1515 |
| 5 | 4 | 16.000 | 0.61 | 0.61 | 0.95 | 0.58 | 0.58 | 6.0 | 6.0 | 6.5 | 3.77 | 6.46 | 5.06 | 15 | 1.00 | 911.34 | 911.50 | 912.03 | 912.28 | 914.10 | 913.51 | 1521-1520 |
| 6 | 4 | 75.000 | 0.00 | 0.93 | 0.00 | 0.00 | 0.88 | 6.0 | 6.7 | 6.2 | 5.50 | 7.67 | 4.72 | 18 | 0.53 | 908.25 | 908.65 | 909.19 | 909.59 | 914.10 | 914.60 | 1525-1520 |
| 7 | 6 | 75.000 | 0.00 | 0.60 | 0.00 | 0.00 | 0.57 | 6.0 | 6.1 | 6.5 | 3.68 | 10.50 | 3.29 | 18 | 1.00 | 908.65 | 909.40 | 909.94 | 910.13 | 914.60 | 914.10 | 1530-1525 |
| 8 | 7 | 16.746 | 0.60 | 0.60 | 0.95 | 0.57 | 0.57 | 6.0 | 6.0 | 6.5 | 3.70 | 6.51 | 5.05 | 15 | 1.02 | 911.33 | 911.50 | 912.01 | 912.28 | 914.10 | 913.51 | 1531-1530 |
| 9 | 6 | 10.500 | 0.33 | 0.33 | 0.95 | 0.31 | 0.31 | 6.0 | 6.0 | 6.5 | 2.04 | 3.48 | 3.57 | 12 | 0.95 | 909.15 | 909.25 | 909.94 | 909.86 | 914.60 | 914.00 | 1526-1525 |

Project File: STO 1500S.stm | Number of lines: 9 | Run Date: 7/24/2024

NOTES:Intensity = 30.30 / (Inlet time + 4.40) ^ 0.66; Return period =Yrs. 10 ; c = cir e = ellip b = box

Manning's Coefficient (n) = 0.013

# Storm Sewer Tabulation



| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 104.185 | 0.00 | 1.54 | 0.00 | 0.00 | 1.46 | 6.0 | 8.4 | 8.4 | 12.23 | 16.58 | 5.69 | 24 | 0.54 | 905.00 | 905.56 | 906.33 | 906.82 | 907.25 | 918.73 | 1505-1500 |
| 2 | 1 | 196.124 | 0.00 | 1.54 | 0.00 | 0.00 | 1.46 | 6.0 | 7.6 | 8.8 | 12.81 | 16.71 | 5.21 | 24 | 0.55 | 905.56 | 906.63 | 907.29 | 907.92 | 918.73 | 918.52 | 1510-1505 |
| 3 | 2 | 111.162 | 0.00 | 1.54 | 0.00 | 0.00 | 1.46 | 6.0 | 7.1 | 9.0 | 13.15 | 16.62 | 5.69 | 24 | 0.54 | 906.63 | 907.23 | 908.09 | 908.54 | 918.52 | 918.21 | 1515-1510 |
| 4 | 3 | 96.688 | 0.00 | 1.54 | 0.00 | 0.00 | 1.46 | 6.0 | 6.7 | 9.2 | 13.46 | 16.59 | 5.41 | 24 | 0.54 | 907.23 | 907.75 | 908.84 | 909.13 | 918.21 | 914.10 | 1520-1515 |
| 5 | 4 | 16.000 | 0.61 | 0.61 | 0.95 | 0.58 | 0.58 | 6.0 | 6.0 | 9.7 | 5.60 | 6.46 | 5.74 | 15 | 1.00 | 911.34 | 911.50 | 912.24 | 912.46 | 914.10 | 913.51 | 1521-1520 |
| 6 | 4 | 75.000 | 0.00 | 0.93 | 0.00 | 0.00 | 0.88 | 6.0 | 6.5 | 9.4 | 8.27 | 7.67 | 4.68 | 18 | 0.53 | 908.25 | 908.65 | 909.75 | 910.22 | 914.10 | 914.60 | 1525-1520 |
| 7 | 6 | 75.000 | 0.00 | 0.60 | 0.00 | 0.00 | 0.57 | 6.0 | 6.1 | 9.6 | 5.48 | 10.50 | 3.21 | 18 | 1.00 | 908.65 | 909.40 | 910.56 | 910.73 | 914.60 | 914.10 | 1530-1525 |
| 8 | 7 | 16.746 | 0.60 | 0.60 | 0.95 | 0.57 | 0.57 | 6.0 | 6.0 | 9.7 | 5.50 | 6.51 | 5.72 | 15 | 1.02 | 911.33 | 911.50 | 912.21 | 912.45 | 914.10 | 913.51 | 1531-1530 |
| 9 | 6 | 10.500 | 0.33 | 0.33 | 0.95 | 0.31 | 0.31 | 6.0 | 6.0 | 9.7 | 3.03 | 3.48 | 3.85 | 12 | 0.95 | 909.15 | 909.25 | 910.56 | 910.63 | 914.60 | 914.00 | 1526-1525 |

Project File: STO 1500S.stm | Number of lines: 9 | Run Date: 7/24/2024

NOTES:Intensity = 34.74 / (Inlet time + 2.70) ^ 0.59; Return period =Yrs. 100 ; c = cir e = ellip b = box

Manning's Coefficient (n) = 0.013

# Storm Sewer Tabulation



| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 104.185 | 0.00 | 1.54 | 0.00 | 0.00 | 1.46 | 6.0 | 8.2 | 9.3 | 13.64 | 16.58 | 5.93 | 24 | 0.54 | 905.00 | 905.56 | 906.33 | 906.98 | 907.25 | 918.73 | 1505-1500 |
| 2 | 1 | 196.124 | 0.00 | 1.54 | 0.00 | 0.00 | 1.46 | 6.0 | 7.4 | 9.7 | 14.24 | 16.71 | 5.26 | 24 | 0.55 | 905.56 | 906.63 | 907.42 | 908.08 | 918.73 | 918.52 | 1510-1505 |
| 3 | 2 | 111.162 | 0.00 | 1.54 | 0.00 | 0.00 | 1.46 | 6.0 | 7.0 | 10.0 | 14.59 | 16.62 | 5.70 | 24 | 0.54 | 906.63 | 907.23 | 908.24 | 908.67 | 918.52 | 918.21 | 1515-1510 |
| 4 | 3 | 96.688 | 0.00 | 1.54 | 0.00 | 0.00 | 1.46 | 6.0 | 6.7 | 10.2 | 14.91 | 16.59 | 5.42 | 24 | 0.54 | 907.23 | 907.75 | 908.97 | 909.30 | 918.21 | 914.10 | 1520-1515 |
| 5 | 4 | 16.000 | 0.61 | 0.61 | 0.95 | 0.58 | 0.58 | 6.0 | 6.0 | 10.7 | 6.17 | 6.46 | 5.92 | 15 | 1.00 | 911.34 | 911.50 | 912.32 | 912.50 | 914.10 | 913.51 | 1521-1520 |
| 6 | 4 | 75.000 | 0.00 | 0.93 | 0.00 | 0.00 | 0.88 | 6.0 | 6.4 | 10.4 | 9.15 | 7.67 | 5.18 | 18 | 0.53 | 908.25 | 908.65 | 909.81 | 910.38 | 914.10 | 914.60 | 1525-1520 |
| 7 | 6 | 75.000 | 0.00 | 0.60 | 0.00 | 0.00 | 0.57 | 6.0 | 6.1 | 10.6 | 6.05 | 10.50 | 3.42 | 18 | 1.00 | 908.65 | 909.40 | 910.79 | 911.04 | 914.60 | 914.10 | 1530-1525 |
| 8 | 7 | 16.746 | 0.60 | 0.60 | 0.95 | 0.57 | 0.57 | 6.0 | 6.0 | 10.7 | 6.07 | 6.51 | 5.91 | 15 | 1.02 | 911.33 | 911.50 | 912.29 | 912.50 | 914.10 | 913.51 | 1531-1530 |
| 9 | 6 | 10.500 | 0.33 | 0.33 | 0.95 | 0.31 | 0.31 | 6.0 | 6.0 | 10.7 | 3.34 | 3.48 | 4.25 | 12 | 0.95 | 909.15 | 909.25 | 910.79 | 910.89 | 914.60 | 914.00 | 1526-1525 |

Project File: STO 1500S.stm | Number of lines: 9 | Run Date: 7/24/2024

NOTES:Intensity = 36.61 / (Inlet time + 2.40) ^ 0.58; Return period =Yrs. 200 ; c = cir e = ellip b = box

Manning's Coefficient (n) = 0.013

# Storm Sewer Tabulation

| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 38.447 | 0.52 | 0.52 | 0.95 | 0.49 | 0.49 | 6.0 | 6.0 | 6.5 | 3.21 | 3.59 | 4.64 | 12 | 1.01 | 901.00 | 901.39 | 901.90 | 902.16 | 902.02 | 904.44 | 1605-1600 |

Project File: STO 1600S.stm

Number of lines: 1

Run Date: 7/24/2024

NOTES:Intensity = 30.30 / (Inlet time + 4.40) ^ 0.66; Return period =Yrs. 10 ; c = cir e = ellip b = box

Manning's Coefficient (n) = 0.013

# Storm Sewer Tabulation

| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 38.447 | 0.52 | 0.52 | 0.95 | 0.49 | 0.49 | 6.0 | 6.0 | 9.7 | 4.77 | 3.59 | 6.23 | 12 | 1.01 | 901.00 | 901.39 | 901.90 | 902.61 | 902.02 | 904.44 | 1605-1600 |

Project File: STO 1600S.stm

Number of lines: 1

Run Date: 7/24/2024

NOTES:Intensity = 34.74 / (Inlet time + 2.70) ^ 0.59; Return period =Yrs. 100 ; c = cir e = ellip b = box

Manning's Coefficient (n) = 0.013