These supplemental drainage calculations have been prepared to replace post-development calculations in the June 20, 2017 Supplemental Drainage Report, based on changes to the site plans revised on August 14, 2017. Changes were made to the drainage system to address concerns of the Zoning Board and its consultants relative to negative impacts from potential groundwater mounding and failure of the leaching beds. As indicated previously, the site has no wetlands and no piped connections to existing drainage systems, therefore, runoff must be contained on site or other means to discharge to offsite locations. Where sufficient groundwater was not encountered in the monitoring wells installed at the site to conduct in situ permeability tests, we performed additional test pits in July 2017 in the areas of the proposed leaching beds to confirm soil types and depth to estimated seasonal high water table (mottling or bedrock) in lieu of conducting a groundwater mounding analysis. Some of the previous drainage beds were reconfigured to add additional leaching area and/or additional leaching beds were added. In addition, emergency overflow pipes were added to some of the beds where discharge pipes could be provided, and equalizer pipes were added between other beds where discharge points are not available.

Some of the major changes are as follows:
- Split up and/or reconfigured leaching chamber beds 2, 4, 5, and 6.
- Added roof drains to units 24-28 to reduce flow to the cul de sac and leaching bed 7 (these roof areas were removed from the post-development watershed areas).
- Emergency overflow pipes have been added to most of the leaching chamber beds per Comment 22 from Beta Engineering in their July 10, 2017 review letter (See plan for locations and inverts). Overflow pipes to the town’s detention basin are not feasible due to the relatively high elevation of this basin and its location upgradient from most of the project site.

Please note, there is no increase in offsite runoff conditions based on a comparison of the pre-development and post-development calculations as summarized in the table attached (only the post-development flow to Design Point 3 has changed).
### Comparison of Pre- & Post-Development Runoff Rates

#### Design Point 1 – Flow to depression @ North of driveway

<table>
<thead>
<tr>
<th></th>
<th>Pre development</th>
<th>Post development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>100 Year Storm (6.70”)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To Design Point 1</td>
<td>2.20 cfs</td>
<td>0.00* cfs</td>
</tr>
<tr>
<td></td>
<td>0.158 af</td>
<td>0.00 af</td>
</tr>
</tbody>
</table>

#### Design Point 2 – Flow to depression South of driveway

<table>
<thead>
<tr>
<th></th>
<th>Pre development</th>
<th>Post development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>100 Year Storm (6.70”)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To Design Point 2</td>
<td>0.87 cfs</td>
<td>0.04 cfs</td>
</tr>
<tr>
<td></td>
<td>0.062 af</td>
<td>0.003 af</td>
</tr>
</tbody>
</table>

#### Design Point 3 – Flow to Corner of N/F Coyne and Gross

<table>
<thead>
<tr>
<th></th>
<th>Pre development</th>
<th>Post development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>100 Year Storm (6.70”)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To Design Point 3</td>
<td>7.51 cfs</td>
<td>7.14 cfs</td>
</tr>
<tr>
<td></td>
<td>0.761 af</td>
<td>0.404 af</td>
</tr>
</tbody>
</table>

#### Design Point 4 – Flow to existing town basin

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<thead>
<tr>
<th></th>
<th>Pre development</th>
<th>Post development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>100 Year Storm (6.70”)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To Design Point 4</td>
<td>0.64 cfs</td>
<td>0.46 cfs</td>
</tr>
<tr>
<td></td>
<td>0.136 af</td>
<td>0.088 af</td>
</tr>
</tbody>
</table>

#### Design Point 5 – Flow to depression at rear of property

<table>
<thead>
<tr>
<th></th>
<th>Pre development</th>
<th>Post development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>100 Year Storm (6.70”)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To Design Point 5</td>
<td>0.48 cfs</td>
<td>0.00** cfs</td>
</tr>
<tr>
<td></td>
<td>0.087 af</td>
<td>0.00** af</td>
</tr>
</tbody>
</table>

* Runoff to Design Point 1 and is contained within leaching chamber LC10A.
** Runoff to Design Point 5 is contained onsite and recharged within the natural depression which is modeled as pond 8P in the post-development calcs.
POST-DEVELOPMENT HYDROLOGY CALCULATIONS

All design points-100 year storm
Based on Site Plans, revised 8/14/17
Summary for Pond 3P: Leaching Chamber Bed #4

Inflow Area = 1.007 ac, 47.31% Impervious, Inflow Depth = 2.85” for 100 yr event
Inflow  = 4.61 cfs @ 12.11 hrs, Volume= 0.239 af
Outflow  = 4.18 cfs @ 12.16 hrs, Volume= 0.239 af, Atten= 9%, Lag= 2.5 min
Discarded  = 0.11 cfs @ 11.05 hrs, Volume= 0.058 af
Primary  = 4.07 cfs @ 12.16 hrs, Volume= 0.181 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 202.36’ @ 12.16 hrs  Surf.Area= 0.013 ac  Storage= 0.024 af

Plug-Flow detention time=13.2 min calculated for 0.239 af (100% of inflow)
Center-of-Mass det. time= 13.1 min (773.6 - 760.5)

<table>
<thead>
<tr>
<th>Volume</th>
<th>Invert</th>
<th>Avail.Storage</th>
<th>Storage Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1A</td>
<td>199.00’</td>
<td>0.014 af</td>
<td>16.75&quot;W x 33.00’L x 3.71’H Field A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.047 af Overall - 0.012 af Embedded = 0.035 af x 40.0% Voids</td>
</tr>
<tr>
<td>#2A</td>
<td>199.50’</td>
<td>0.012 af</td>
<td>Cultec R-280HD x 12 Inside #1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Effective Size= 46.9&quot;W x 26.0&quot;H =&gt; 6.07 sf x 7.00’L = 42.5 cf</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Overall Size= 47.0&quot;W x 26.5&quot;H x 8.00’L with 1.00’ Overlap</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Row Length Adjustment= +1.00’ x 6.07 sf x 3 rows</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.026 af Total Available Storage</td>
</tr>
</tbody>
</table>

Storage Group A created with Chamber Wizard

<table>
<thead>
<tr>
<th>Device</th>
<th>Routing</th>
<th>Invert</th>
<th>Outlet Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Discarded</td>
<td>199.00’</td>
<td>8.270 in/hr Exfiltration over Surface area</td>
</tr>
<tr>
<td>#2</td>
<td>Primary</td>
<td>200.00’</td>
<td>12.0” Round Culvert</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>L= 60.0’ CPP, projecting, no headwall, Ke= 0.900</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Inlet / Outlet Invert= 200.00’ / 198.80’ S= 0.0200 ‘/’ Cc= 0.900</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>n= 0.011 PVC, smooth interior, Flow Area= 0.79 sf</td>
</tr>
</tbody>
</table>

Discarded OutFlow Max=0.11 cfs @ 11.05 hrs HW=199.04’ (Free Discharge)
usahaan 1=Exfiltration (Exfiltration Controls 0.11 cfs)

Primary OutFlow Max=4.07 cfs @ 12.16 hrs HW=202.36’ (Free Discharge)
usahaan 2=Culvert (Inlet Controls 4.07 cfs @ 5.18 fps)

Summary for Pond 10P: Leaching Chamber Bed #1A

Inflow Area = 0.451 ac, 40.52% Impervious, Inflow Depth = 2.86” for 100 yr event
Inflow  = 1.78 cfs @ 12.09 hrs, Volume= 0.108 af
Outflow  = 0.05 cfs @ 11.45 hrs, Volume= 0.082 af, Atten= 97%, Lag= 0.0 min
Discarded  = 0.05 cfs @ 11.45 hrs, Volume= 0.082 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 197.46’ @ 15.92 hrs  Surf.Area= 0.021 ac  Storage= 0.070 af

Plug-Flow detention time=479.6 min calculated for 0.082 af (77% of inflow)
Center-of-Mass det. time= 408.5 min (1,219.4 - 810.9)
Volume | Invert | Avail.Storage | Storage Description
---|---|---|---
#1A | 191.50’ | 0.038 af | **19.50’W x 47.37’L x 6.00’H Field A**
#2A | 192.50’ | 0.033 af | **Cultec R-902HD x 22 Inside #1**

Effective Size= 69.8”W x 48.0”H => 17.65 sf x 3.67’L = 64.7 cf
Overall Size= 78.0”W x 48.0”H x 4.10’L with 0.44’ Overlap
2 Rows of 11 Chambers
Cap Storage= +2.8 cf x 2 x 2 rows = 11.0 cf

0.071 af Total Available Storage

---

Storage Group A created with Chamber Wizard

Device | Routing | Invert | Outlet Devices
---|---|---|---
#1 Discarded | 191.50’ | **2.410 in/hr Exfiltration over Surface area**

**Discarded OutFlow** Max=0.05 cfs @ 11.45 hrs HW=191.56’ (Free Discharge)

1=Exfiltration (Exfiltration Controls 0.05 cfs)

---

**Summary for Pond LC 4B: Leaching Chamber Bed #4B**

| Inflow Area | 1.007 ac, 47.31% Impervious, Inflow Depth = 4.20” for 100 yr event |
| Inflow | 4.91 cfs @ 12.09 hrs, Volume= 0.353 af |
| Outflow | 4.70 cfs @ 12.11 hrs, Volume= 0.353 af, Atten= 4%, Lag= 1.5 min |
| Discarded | 0.09 cfs @ 9.70 hrs, Volume= 0.114 af |
| Primary | 4.61 cfs @ 12.11 hrs, Volume= 0.239 af |

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 204.45’ @ 12.11 hrs Surf.Area= 0.011 ac Storage= 0.016 af

Plug-Flow detention time= 10.9 min calculated for 0.353 af (100% of inflow)
Center-of-Mass det. time= 10.9 min (825.7 - 814.7 )

---

Volume | Invert | Avail.Storage | Storage Description
---|---|---|---
#1A | 202.00’ | 0.008 af | **14.50’W x 33.50’L x 2.54’H Field A**
#2A | 202.50’ | 0.008 af | **Cultec R-150XLHD x 12 Inside #1**

Effective Size= 29.8”W x 18.0”H => 2.65 sf x 10.25’L = 27.2 cf
Overall Size= 33.0”W x 18.5”H x 11.00’L with 0.75’ Overlap
Row Length Adjustment= +0.75’ x 2.65 sf x 4 rows

0.016 af Total Available Storage

---

Storage Group A created with Chamber Wizard

Device | Routing | Invert | Outlet Devices
---|---|---|---
#1 Discarded | 202.00’ | **8.270 in/hr Exfiltration over Surface area**
#2 Primary | 202.80’ | **10.0” Round Culvert X 2.00**

L= 20.0’ CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 202.80’ / 202.00’ S= 0.0400 ‘/’ Cc= 0.900
n= 0.011 PVC, smooth interior, Flow Area= 0.55 sf
**Discarded OutFlow** Max=0.09 cfs @ 9.70 hrs HW=202.03’ (Free Discharge)

**→1=Exfiltration** (Exfiltration Controls 0.09 cfs)

**Primary OutFlow** Max=4.60 cfs @ 12.11 hrs HW=204.45’ (Free Discharge)

**→2=Culvert** (Inlet Controls 4.60 cfs @ 4.22 fps)

### Summary for Pond LC-1: Leaching Chamber Bed #1

<table>
<thead>
<tr>
<th>Volume</th>
<th>Invert</th>
<th>Avail.Storage</th>
<th>Storage Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1A</td>
<td>192.00’</td>
<td>0.029 af</td>
<td>14.50’W x 84.75’L x 3.29’H Field A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Overall - 0.020 af Embedded = 0.073 af x 40.0% Voids</td>
</tr>
<tr>
<td>#2A</td>
<td>192.75’</td>
<td>0.020 af</td>
<td>Cultec R-150XLHD x 32 Inside #1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Effective Size= 29.8’W x 18.0’H =&gt; 2.65 sf x 10.25’L = 27.2 cf</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Overall Size= 33.0’W x 18.5’H x 11.00’L with 0.75’ Overlap</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Row Length Adjustment= +0.75’ x 2.65 sf x 4 rows</td>
</tr>
</tbody>
</table>

0.049 af  Total Available Storage

Storage Group A created with Chamber Wizard

<table>
<thead>
<tr>
<th>Device</th>
<th>Routing</th>
<th>Invert</th>
<th>Outlet Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Discarded</td>
<td>192.00’</td>
<td><strong>2.410 in/hr Exfiltration over Surface area</strong></td>
</tr>
</tbody>
</table>

**Discarded OutFlow** Max=0.07 cfs @ 10.89 hrs HW=192.03’ (Free Discharge)

**→1=Exfiltration** (Exfiltration Controls 0.07 cfs)

### Summary for Pond LC-2: Leaching Chamber Bed #2

<table>
<thead>
<tr>
<th>Volume</th>
<th>Invert</th>
<th>Avail.Storage</th>
<th>Storage Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>192.00’</td>
<td>0.029 af</td>
<td>14.50’W x 84.75’L x 3.29’H Field A</td>
</tr>
</tbody>
</table>

0.093 af Overall - 0.020 af Embedded = 0.073 af x 40.0% Voids

**Culvert** (Inlet Controls 4.60 cfs @ 4.22 fps)

**Primary OutFlow** Max=4.60 cfs @ 12.11 hrs HW=204.45’ (Free Discharge)

**→2=Culvert** (Inlet Controls 4.60 cfs @ 4.22 fps)
OE-3012 Post Prelim 6.15.17

Volume Invert Avail.Storage Storage Description
#1A 203.00’ 0.020 af 16.00’W x 58.50’L x 3.54’H Field A
0.076 af Overall - 0.026 af Embedded = 0.050 af x 40.0% Voids
#2A 203.50’ 0.026 af Cultec R-330XLHD x 21 Inside #1
Effective Size= 47.8”W x 30.0”H => 7.45 sf x 7.00’L = 52.2 cf
Overall Size= 52.0”W x 30.5”H x 8.50’L with 1.50’ Overlap
Row Length Adjustment= +1.50’ x 7.45 sf x 3 rows

0.046 af Total Available Storage

Storage Group A created with Chamber Wizard

Device Routing Invert Outlet Devices
#1 Discarded 203.00’ 1.020 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.02 cfs @ 10.67 hrs HW=203.04’ (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.02 cfs)

Summary for Pond LC-2A(1): Leaching Chamber Bed #2A(1)

Inflow Area = 0.413 ac, 69.29% Impervious, Inflow Depth = 5.19” for 100 yr event
Inflow = 2.23 cfs @ 12.12 hrs, Volume= 0.178 af
Outflow = 1.85 cfs @ 12.18 hrs, Volume= 0.163 af, Atten= 17%, Lag= 3.9 min
Discarded = 0.01 cfs @ 6.99 hrs, Volume= 0.029 af
Primary = 1.83 cfs @ 12.18 hrs, Volume= 0.133 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 200.46’@ 12.18 hrs Surf.Area= 0.014 ac Storage= 0.035 af

Plug-Flow detention time=110.3 min calculated for 0.162 af (91% of inflow)
Center-of-Mass det. time=65.7 min (858.7 - 793.1 )

Volume Invert Avail.Storage Storage Description
#1A 196.00’ 0.020 af 13.17”W x 47.50’L x 4.54’H Field A
0.065 af Overall - 0.015 af Embedded = 0.050 af x 40.0% Voids
#2A 197.00’ 0.015 af Cultec R-330XLHD x 12 Inside #1
Effective Size= 47.8”W x 30.0”H => 7.45 sf x 7.00’L = 52.2 cf
Overall Size= 52.0”W x 30.5”H x 8.50’L with 1.50’ Overlap
Row Length Adjustment= +1.50’ x 7.45 sf x 2 rows

0.035 af Total Available Storage

Storage Group A created with Chamber Wizard

Device Routing Invert Outlet Devices
#1 Discarded 196.00’ 1.020 in/hr Exfiltration over Surface area
#2 Primary 198.70’ 6.0” Round Culvert X 2.00
L= 10.0’ CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 198.70’ / 198.00’ S= 0.0700 /’ Cc= 0.900
n= 0.015 Corrugated PE, smooth interior, Flow Area= 0.20 sf
Discarded OutFlow Max=0.01 cfs @ 6.99 hrs  HW=196.05’ (Free Discharge)

Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=1.83 cfs @ 12.18 hrs  HW=200.46’ (Free Discharge)

Culvert (Inlet Controls 1.83 cfs @ 4.66 fps)

Summary for Pond LC-2A(2): Leaching Chamber Bed #2A(2)

Inflow Area = 0.413 ac, 69.29% Impervious, Inflow Depth = 3.87” for 100 yr event
Inflow = 1.83 cfs @ 12.18 hrs, Volume = 0.133 af
Outflow = 0.03 cfs @ 11.69 hrs, Volume = 0.050 af, Attenuation = 98%, Lag = 0.0 min
Discarded = 0.03 cfs @ 11.69 hrs, Volume = 0.050 af

Routing by Stor-Ind method, Time Span = 0.00-30.00 hrs, dt = 0.01 hrs
Peak Elev = 198.53’ @ 17.89 hrs Surf.Area = 0.032 ac Storage = 0.107 af

Plug-Flow detention time = 526.2 min calculated for 0.050 af (37% of inflow)
Center-of-Mass det. time = 439.0 min (1,249.7 - 810.6)

<table>
<thead>
<tr>
<th>Volume</th>
<th>Invert</th>
<th>Avail.Storage</th>
<th>Storage Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1A</td>
<td>193.00’</td>
<td>0.050 af</td>
<td>17.75’W x 78.37’L x 5.75’H Field A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Overall - 0.060 af Embedded = 0.124 af x 40.0% Voids</td>
</tr>
<tr>
<td>#2A</td>
<td>193.75’</td>
<td>0.060 af</td>
<td>Cultec R-902HD x 40 Inside #1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Effective Size = 69.8”W x 48.0”H =&gt; 17.65 sf x 3.67”L = 64.7 cf</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Overall Size= 78.0”W x 48.0”H x 4.10”L with 0.44’ Overlap</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 Rows of 20 Chambers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cap Storage= +2.8 cf x 2 x 2 rows = 11.0 cf</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.109 af Total Available Storage</td>
</tr>
</tbody>
</table>

Storage Group A created with Chamber Wizard

Device Routing Invert Outlet Devices
#1 Discarded 193.00’ 1.020 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.03 cfs @ 11.69 hrs  HW=193.07’ (Free Discharge)

Exfiltration (Exfiltration Controls 0.03 cfs)

Summary for Pond LC-2B: Leaching Chamber Bed #2B

Inflow Area = 0.106 ac, 52.96% Impervious, Inflow Depth = 4.53” for 100 yr event
Inflow = 0.55 cfs @ 12.09 hrs, Volume = 0.040 af
Outflow = 0.01 cfs @ 9.52 hrs, Volume = 0.017 af, Attenuation = 98%, Lag = 0.0 min
Discarded = 0.01 cfs @ 9.52 hrs, Volume = 0.017 af

Routing by Stor-Ind method, Time Span = 0.00-30.00 hrs, dt = 0.01 hrs
Peak Elev = 203.62’ @ 18.98 hrs Surf.Area = 0.009 ac Storage = 0.028 af

Plug-Flow detention time = 461.4 min calculated for 0.017 af (43% of inflow)
Center-of-Mass det. time = 342.6 min (1,149.8 - 807.2)
Summary for Pond LC-3: Leaching Chamber Bed #3

Inflow Area = 0.230 ac, 64.54% Impervious, Inflow Depth = 4.97" for 100 yr event
Inflow = 1.30 cfs @ 12.09 hrs, Volume= 0.095 af
Outflow = 0.40 cfs @ 12.41 hrs, Volume= 0.095 af, Atten= 70%, Lag= 19.4 min
Discarded = 0.18 cfs @ 11.65 hrs, Volume= 0.085 af
Primary = 0.22 cfs @ 12.41 hrs, Volume= 0.011 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 199.41′ @ 12.41 hrs Surf.Area= 0.021 ac Storage= 0.024 af

Plug-Flow detention time=27.0 min calculated for 0.095 af (100% of inflow)
Center-of-Mass det. time=27.0 min ( 823.7 - 796.6 )

Volume Invert Avail.Storage Storage Description
#1A 197.50′ 0.016 af 12.25′W x 75.50′L x 2.54′H Field A
0.054 af Overall - 0.013 af Embedded = 0.041 af x 40.0% Voids
#2A 198.00′ 0.013 af Cultec R-150XLHD x 21 Inside #1
Effective Size= 29.8′W x 18.0′H => 2.65 sf x 10.25′L = 27.2 cf
Overall Size= 33.0′W x 18.5′H x 11.00′L with 0.75′ Overlap
Row Length Adjustment= +0.75′ x 2.65 sf x 3 rows

0.030 af Total Available Storage

Storage Group A created with Chamber Wizard

Device Routing Invert Outlet Devices
#1 Discarded 197.50′ 8.270 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.01 cfs @ 9.52 hrs HW=198.06′ (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.01 cfs)
Discarded OutFlow  Max=0.18 cfs @ 11.65 hrs  HW=197.53’ (Free Discharge)
1=Exfiltration  (Exfiltration Controls 0.18 cfs)

Primary OutFlow  Max=0.22 cfs @ 12.41 hrs  HW=199.41’ (Free Discharge)
2=Culvert  (Inlet Controls 0.22 cfs @ 2.53 fps)

Summary for Pond LC-5: Leaching Chamber Bed #5

Inflow Area = 0.287 ac, 28.02% Impervious, Inflow Depth = 3.47” for 100 yr event
Inflow = 1.17 cfs @ 12.09 hrs, Volume= 0.083 af
Outflow = 0.03 cfs @ 10.76 hrs, Volume= 0.049 af, Atten= 97%, Lag= 0.0 min
Discarded = 0.03 cfs @ 10.76 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 216.50’ @ 17.51 hrs  Surf.Area= 0.029 ac  Storage= 0.053 af

Plug-Flow detention time=476.5 min calculated for 0.049 af (60% of inflow)
Center-of-Mass det. time=366.5 min ( 1,197.2 - 830.7 )

<table>
<thead>
<tr>
<th>Volume</th>
<th>Invert</th>
<th>Avail.Storage</th>
<th>Storage Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1A</td>
<td>213.50’</td>
<td>0.029 af</td>
<td>29.67”W x 42.50’L x 3.54’H Field A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.103 af Overall - 0.031 af Embedded = 0.071 af x 40.0% Voids</td>
</tr>
<tr>
<td>#2A</td>
<td>214.00’</td>
<td>0.031 af</td>
<td>Cultec R-330XLHD x 25 Inside #1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Effective Size= 47.8”W x 30.0”H =&gt; 7.45 sf x 7.00’L = 52.2 cf</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Overall Size= 52.0”W x 30.5”H x 8.50’L with 1.50’ Overlap</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Row Length Adjustment= +1.50’ x 7.45 sf x 5 rows</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.060 af Total Available Storage</td>
</tr>
</tbody>
</table>

Storage Group A created with Chamber Wizard

Device  Routing  Invert  Outlet Devices
#1  Discarded  213.50’  1.020 in/hr Exfiltration over Surface area

Discarded OutFlow  Max=0.03 cfs @ 10.76 hrs  HW=213.54’ (Free Discharge)
1=Exfiltration  (Exfiltration Controls 0.03 cfs)

Summary for Pond LC-5A: Leaching Chamber Bed #5A

Inflow Area = 0.361 ac, 45.26% Impervious, Inflow Depth = 4.10” for 100 yr event
Inflow = 1.73 cfs @ 12.09 hrs, Volume= 0.123 af
Outflow = 0.03 cfs @ 9.81 hrs, Volume= 0.049 af, Atten= 98%, Lag= 0.0 min
Discarded = 0.03 cfs @ 9.81 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 213.63’ @ 20.20 hrs  Surf.Area= 0.027 ac  Storage= 0.090 af

Plug-Flow detention time=470.2 min calculated for 0.049 af (39% of inflow)
Center-of-Mass det. time=348.0 min ( 1,165.0 - 816.9 )
<table>
<thead>
<tr>
<th>Volume</th>
<th>Invert</th>
<th>Avail.Storage</th>
<th>Storage Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1A</td>
<td>208.00’</td>
<td>0.043 af</td>
<td><strong>33.25’W x 35.37’L x 5.75’H Field A</strong>&lt;br&gt;0.155 af Overall - 0.048 af Embedded = 0.107 af x 40.0% Voids</td>
</tr>
<tr>
<td>#2A</td>
<td>208.75’</td>
<td>0.048 af</td>
<td><strong>Cultec R-902HD x 32</strong> Inside #1&lt;br&gt;Effective Size= 69.8’W x 48.0’H =&gt; 17.65 sf x 3.67’L = 64.7 cf&lt;br&gt;Overall Size= 78.0’W x 48.0’H x 4.10’L with 0.44’ Overlap&lt;br&gt;4 Rows of 8 Chambers&lt;br&gt;Cap Storage= +2.8 cf x 2 x 4 rows = 22.1 cf</td>
</tr>
</tbody>
</table>

0.091 af Total Available Storage

Storage Group A created with Chamber Wizard

**Discarded OutFlow** Max=0.03 cfs @ 9.81 hrs HW=208.06’ (Free Discharge)<br>↑1=Efiltration (Exfiltration Controls 0.03 cfs)

**Summary for Pond LC-6: Leaching Chamber Bed #6**

<table>
<thead>
<tr>
<th>Device</th>
<th>Routing</th>
<th>Invert</th>
<th>Outlet Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Discarded</td>
<td>208.00’</td>
<td><strong>1.020 in/hr Exfiltration over Surface area</strong></td>
</tr>
<tr>
<td>#2</td>
<td>Primary</td>
<td>210.00’</td>
<td></td>
</tr>
</tbody>
</table>

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs<br>Peak Elev= 212.39’ @ 12.43 hrs Surf.Area= 0.025 ac Storage= 0.039 af

Plug-Flow detention time=50.4 min calculated for 0.133 af (100% of inflow)<br>Center-of-Mass det. time= 50.4 min (867.3 - 816.9)

<table>
<thead>
<tr>
<th>Volume</th>
<th>Invert</th>
<th>Avail.Storage</th>
<th>Storage Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1A</td>
<td>210.00’</td>
<td>0.021 af</td>
<td><strong>16.08’W x 67.33’L x 3.21’H Field A</strong>&lt;br&gt;0.080 af Overall - 0.027 af Embedded = 0.053 af x 40.0% Voids</td>
</tr>
<tr>
<td>#2A</td>
<td>210.50’</td>
<td>0.027 af</td>
<td><strong>Cultec R-280HD x 27</strong> Inside #1&lt;br&gt;Effective Size= 46.9’W x 26.0’H =&gt; 6.07 sf x 7.00’L = 42.5 cf&lt;br&gt;Overall Size= 47.0’W x 26.5’H x 8.00’L with 1.00’ Overlap&lt;br&gt;Row Length Adjustment= +1.00’ x 6.07 sf x 3 rows</td>
</tr>
</tbody>
</table>

0.048 af Total Available Storage

Storage Group A created with Chamber Wizard

<table>
<thead>
<tr>
<th>Device</th>
<th>Routing</th>
<th>Invert</th>
<th>Outlet Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Discarded</td>
<td>210.00’</td>
<td><strong>8.270 in/hr Exfiltration over Surface area</strong></td>
</tr>
<tr>
<td>#2</td>
<td>Primary</td>
<td>212.00’</td>
<td><strong>8.0” Round Culvert</strong>&lt;br&gt;L= 30.0’ CPP, projecting, no headwall, Ke= 0.900&lt;br&gt;Inlet / Outlet Invert= 212.00’ / 210.00’ S = 0.0667 '/' Cc= 0.900&lt;br&gt;n= 0.011 PVC, smooth interior, Flow Area= 0.35 sf</td>
</tr>
</tbody>
</table>
Discarded OutFlow  Max=0.21 cfs @ 11.64 hrs  HW=210.03’ (Free Discharge)

1=Exfiltration (Exfiltration Controls 0.21 cfs)

Primary OutFlow  Max=0.36 cfs @ 12.43 hrs  HW=212.39’ (Free Discharge)

2=Culvert (Inlet Controls 0.36 cfs @ 1.68 fps)

Summary for Pond LC-6(2): Leaching Chamber Bed #6(2)

| Inflow Area | 0.391 ac, 56.26% Impervious, Inflow Depth = 0.36” for 100 yr event |
| Inflow     | 0.36 cfs @ 12.43 hrs, Volume= 0.012 af |
| Outflow    | 0.08 cfs @ 12.28 hrs, Volume= 0.012 af, Atten= 78%, Lag= 0.0 min |
| Discarded  | 0.08 cfs @ 12.28 hrs, Volume= 0.012 af |

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 209.76’ @ 12.82 hrs  Surf.Area= 0.010 ac  Storage= 0.007 af

Plug-Flow detention time= 36.1 min calculated for 0.012 af (100% of inflow)
Center-of-Mass det. time= 36.1 min ( 788.8 - 752.6 )

Volume Invert Avail.Storage Storage Description
#1A 208.50’ 0.008 af 16.50’W x 25.25’L x 2.54’H Field A
Overall Size= 29.8’W x 18.0’H => 2.65 sf x 10.25’L = 27.2 cf
Effective Size= 22.6’W x 17.8’H x 2.54’H with 0.75’ Overlap
Row Length Adjustment= +0.75’ x 2.65 sf x 4 rows

0.013 af Total Available Storage

Storage Group A created with Chamber Wizard

Discarded OutFlow  Max=0.08 cfs @ 12.28 hrs  HW=208.53’ (Free Discharge)

1=Exfiltration (Exfiltration Controls 0.08 cfs)

Summary for Pond LC-6A: Leaching Chamber Bed #6A

| Inflow Area | 0.243 ac, 66.13% Impervious, Inflow Depth = 4.31” for 100 yr event |
| Inflow     | 1.22 cfs @ 12.09 hrs, Volume= 0.087 af |
| Outflow    | 0.17 cfs @ 11.67 hrs, Volume= 0.087 af, Atten= 86%, Lag= 0.0 min |
| Discarded  | 0.17 cfs @ 11.67 hrs, Volume= 0.087 af |

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 216.18’ @ 12.63 hrs  Surf.Area= 0.020 ac  Storage= 0.027 af

Plug-Flow detention time= 48.1 min calculated for 0.087 af (100% of inflow)
Center-of-Mass det. time= 48.1 min ( 860.2 - 812.2 )
Volume | Invert | Avail.Storage | Storage Description |
--- | --- | --- | --- |
#1A  | 214.00’ | 0.021 af | **14.17’W x 62.50’L x 3.54’H Field A**  
0.072 af Overall - 0.020 af Embedded = 0.052 af x 40.0% Voids |
#2A  | 214.50’ | 0.020 af | **Cultec R-330XLHD x 16 Inside #1**  
Effective Size= 47.8”W x 30.0”H => 7.45 sf x 7.00’L = 52.2 cf  
Overall Size= 52.0”W x 30.5”H x 8.50’L with 1.50’ Overlap  
Row Length Adjustment= +1.50’ x 7.45 sf x 2 rows |

0.041 af | Total Available Storage |

Storage Group A created with Chamber Wizard

Device | Routing | Invert | Outlet Devices |
--- | --- | --- | --- |
#1 Discarded | 214.00’ | **8.270 in/hr Exfiltration over Surface area** |

Discarded OutFlow Max=0.17 cfs @ 11.67 hrs  
HW=214.04’ (Free Discharge)  
1=Exfiltration (Exfiltration Controls 0.17 cfs)

Summary for Pond LC-7: Leaching Chamber Bed #7

Inflow Area = 0.822 ac, 41.73% Impervious, Inflow Depth = 3.07” for 100 yr event  
Inflow = 2.94 cfs @ 12.09 hrs, Volume= 0.210 af  
Outflow = 0.42 cfs @ 11.73 hrs, Volume= 0.210 af, Atten= 86%, Lag= 0.0 min  
Discarded = 0.42 cfs @ 11.73 hrs, Volume= 0.210 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
Peak Elev= 216.16’ @ 12.69 hrs  
Surf.Area= 0.050 ac  
Storage= 0.064 af  
Plug-Flow detention time= 48.4 min calculated for 0.210 af (100% of inflow)  
Center-of-Mass det. time= 48.4 min ( 888.1 - 839.7 )

Volume | Invert | Avail.Storage | Storage Description |
--- | --- | --- | --- |
#1A  | 214.00’ | 0.037 af | **39.25’W x 56.00’L x 2.54’H Field A**  
0.128 af Overall - 0.035 af Embedded = 0.093 af x 40.0% Voids |
#2A  | 214.50’ | 0.035 af | **Cultec R-150XLHD x 55 Inside #1**  
Effective Size= 29.8”W x 18.0”H => 2.65 sf x 10.25’L = 27.2 cf  
Overall Size= 33.0”W x 18.5”H x 11.00’L with 0.75’ Overlap  
Row Length Adjustment= +0.75’ x 2.65 sf x 11 rows |

0.072 af | Total Available Storage |

Storage Group A created with Chamber Wizard

Device | Routing | Invert | Outlet Devices |
--- | --- | --- | --- |
#1 Discarded | 214.00’ | **8.270 in/hr Exfiltration over Surface area** |

Discarded OutFlow Max=0.42 cfs @ 11.73 hrs  
HW=214.03’ (Free Discharge)  
1=Exfiltration (Exfiltration Controls 0.42 cfs)
Summary for Pond LC4A: Leaching Chamber Bed #4A

Inflow Area = 0.308 ac, 62.97% Impervious, Inflow Depth = 4.75" for 100 yr event
Inflow = 1.69 cfs @ 12.09 hrs, Volume= 0.122 af
Outflow = 1.07 cfs @ 12.18 hrs, Volume= 0.122 af, Atten= 37%, Lag= 5.8 min
Discarded = 0.14 cfs @ 11.44 hrs, Volume= 0.091 af
Primary = 0.93 cfs @ 12.18 hrs, Volume= 0.031 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 199.22’ @ 12.18 hrs    Surf.Area= 0.017 ac    Storage= 0.024 af

Plug-Flow detention time=29.7 min calculated for 0.122 af (100% of inflow)
Center-of-Mass det. time=29.7 min ( 831.8 - 802.1 )

<table>
<thead>
<tr>
<th>Volume</th>
<th>Invert</th>
<th>Avail.Storage</th>
<th>Storage Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1A</td>
<td>196.80’</td>
<td>0.016 af</td>
<td>13.33’W x 55.00’L x 3.21’H Field A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.054 af Overall - 0.014 af Embedded = 0.040 af x 40.0% Voids</td>
</tr>
<tr>
<td>#2A</td>
<td>197.30’</td>
<td>0.014 af</td>
<td>Cultec R-280HD x 14 Inside #1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Effective Size= 46.9”W x 26.0”H =&gt; 6.07 sf x 7.00’L = 42.5 cf</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Overall Size= 47.0”W x 26.5”H x 8.00’L with 1.00’ Overlap</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Row Length Adjustment= +1.00’ x 6.07 sf x 2 rows</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.030 af Total Available Storage</td>
</tr>
</tbody>
</table>

Storage Group A created with Chamber Wizard

Device Routing Invert Outlet Devices
#1 Discarded 196.80’ 8.270 in/hr Exfiltration over Surface area
#2 Primary 198.40’ 8.0” Round Culvert
L= 10.0’ CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 198.40’ / 198.00’ S= 0.0400 ”’ Cc= 0.900
n= 0.011 PVC, smooth interior, Flow Area= 0.35 sf

Discarded OutFlow Max=0.14 cfs @ 11.44 hrs HW=196.83’ (Free Discharge)
 primary OutFlow Max=0.93 cfs @ 12.18 hrs HW=199.22’ (Free Discharge)

Summary for Pond RG10: Rain Garden 10

Inflow Area = 0.193 ac, 27.46% Impervious, Inflow Depth = 3.47” for 100 yr event
Inflow = 0.81 cfs @ 12.08 hrs, Volume= 0.056 af
Outflow = 0.81 cfs @ 12.08 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.2 min
Discarded = 0.02 cfs @ 12.08 hrs, Volume= 0.019 af
Primary = 0.80 cfs @ 12.08 hrs, Volume= 0.037 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 199.85’ @ 12.08 hrs    Surf.Area= 293 sf    Storage= 84 cf

Plug-Flow detention time=21.3 min calculated for 0.056 af (100% of inflow)
Center-of-Mass det. time=21.3 min ( 851.1 - 829.8 )
### Volume

<table>
<thead>
<tr>
<th>Volume</th>
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<th>Avail.Storage</th>
<th>Storage Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>199.50'</td>
<td>168 cf</td>
<td>Custom Stage Data (Irregular) listed below (Recalc)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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</tr>
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<tbody>
<tr>
<td>199.50</td>
<td>193</td>
<td>53.0</td>
<td>0</td>
<td>0</td>
<td>193</td>
</tr>
<tr>
<td>200.10</td>
<td>379</td>
<td>72.0</td>
<td>168</td>
<td>168</td>
<td>386</td>
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### Device Routing

<table>
<thead>
<tr>
<th>Device</th>
<th>Routing</th>
<th>Invert</th>
<th>Outlet Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Primary</td>
<td>199.80'</td>
<td>2.0&quot; x 2.0&quot; Horiz. Orifice/Grate X 36.00 C= 0.600 Limited to weir flow at low heads</td>
</tr>
<tr>
<td>#2</td>
<td>Discarded</td>
<td>199.50'</td>
<td>2.410 in/hr Exfiltration over Surface area</td>
</tr>
</tbody>
</table>

**Discarded OutFlow** Max=0.02 cfs @ 12.08 hrs HW=199.85’ (Free Discharge)  
2=Exfiltration (Exfiltration Controls 0.02 cfs)

**Primary OutFlow** Max=0.79 cfs @ 12.08 hrs HW=199.85’ (Free Discharge)  
1=Orifice/Grate (Weir Controls 0.79 cfs @ 0.71 fps)
Summary for Pond 2P: Leaching Chamber Bed #10A

Inflow Area = 0.352 ac, 7.02% Impervious, Inflow Depth = 1.40" for 100 yr event
Inflow = 1.12 cfs @ 12.09 hrs, Volume= 0.041 af
Outflow = 0.04 cfs @ 11.97 hrs, Volume= 0.041 af, Atten= 96%, Lag= 0.0 min
Discarded = 0.04 cfs @ 11.97 hrs, Volume= 0.041 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 194.63' @ 14.10 hrs Surf.Area= 0.016 ac Storage= 0.031 af

Plug-Flow detention time= 340.2 min calculated for 0.041 af (100% of inflow)
Center-of-Mass det. time= 340.1 min ( 1,099.7 - 759.6 )

Volume Invert Avail.Storage Storage Description
#1A 191.00' 0.021 af 14.33'W x 49.00'L x 3.96'H Field A
#2A 191.75' 0.012 af Cultec R-280HD x 12 Inside #1

0.033 af Total Available Storage

Storage Group A created with Chamber Wizard

Device Routing Invert Outlet Devices
#1 Discarded 191.00' 2.410 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.04 cfs @ 11.97 hrs HW=191.04' (Free Discharge)
1 Exfiltration (Exfiltration Controls 0.04 cfs)

Summary for Pond 8P: Flow to depression at stone wall

Inflow Area = 1.124 ac, 12.20% Impervious, Inflow Depth = 1.26" for 100 yr event
Inflow = 1.29 cfs @ 12.11 hrs, Volume= 0.118 af
Outflow = 0.18 cfs @ 13.44 hrs, Volume= 0.118 af, Atten= 86%, Lag= 79.7 min
Discarded = 0.18 cfs @ 13.44 hrs, Volume= 0.118 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 216.37' @ 13.44 hrs Surf.Area= 3,258 sf Storage= 1,623 cf

Plug-Flow detention time= 116.5 min calculated for 0.118 af (100% of inflow)
Center-of-Mass det. time= 116.5 min ( 1,011.9 - 895.4 )

Volume Invert Avail.Storage Storage Description
#1 215.40' 2,082 cf Custom Stage Data (Irregular) Listed below (Recalc)

215.40 494 95.0 2,082 2,082 494
216.50 3,813 278.0 2,082 2,082 5,930
Summary for Pond 13P: Rain Garden 10A

Inflow Area = 0.352 ac, 7.02% Impervious, Inflow Depth = 2.78" for 100 yr event
Inflow = 1.17 cfs @ 12.08 hrs, Volume= 0.082 af
Outflow = 1.16 cfs @ 12.09 hrs, Volume= 0.082 af, Attn= 0%, Lag= 0.5 min
Discarded = 0.04 cfs @ 12.09 hrs, Volume= 0.040 af
Primary = 1.12 cfs @ 12.09 hrs, Volume= 0.041 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 197.56' @ 12.09 hrs  Surf.Area= 754 sf  Storage= 336 cf

Plug-Flow detention time=45.3 min calculated for 0.081 af (100% of inflow)
Center-of-Mass det. time= 45.3 min ( 891.0 - 845.7 )

Summary for Pond 14P: existing detention basin

Inflow Area = 1.441 ac, 10.65% Impervious, Inflow Depth = 0.73" for 100 yr event
Inflow = 0.47 cfs @ 12.46 hrs, Volume= 0.088 af
Outflow = 0.46 cfs @ 12.52 hrs, Volume= 0.088 af, Attn= 1%, Lag= 3.5 min
Discarded = 0.46 cfs @ 12.52 hrs, Volume= 0.088 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 208.04' @ 12.52 hrs  Surf.Area= 2,024 sf  Storage= 78 cf

Plug-Flow detention time= 2.9 min calculated for 0.088 af (100% of inflow)
Center-of-Mass det. time = 2.9 min (947.1 - 944.2)

<table>
<thead>
<tr>
<th>#1</th>
<th>Invert</th>
<th>Avail.Storage</th>
<th>Storage Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>208.00</td>
<td>1,882</td>
<td>211.0</td>
<td>0</td>
</tr>
<tr>
<td>209.00</td>
<td>7,002</td>
<td>471.0</td>
<td>4,171</td>
</tr>
<tr>
<td>213.00</td>
<td>12,526</td>
<td>578.0</td>
<td>38,524</td>
</tr>
</tbody>
</table>

Device Routing Invert Outlet Devices

<table>
<thead>
<tr>
<th>#1</th>
<th>Primary</th>
<th>208.42'</th>
<th>30.0'' Round Culvert</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>L = 50.0' CMP, square edge headwall, Ke = 0.500</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Inlet / Outlet Invert = 208.42' / 207.92' S = 0.0100 '/' Cc = 0.900</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>n = 0.030 Corrugated metal, Flow Area = 4.91 sf</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#2</th>
<th>Discarded</th>
<th>208.00'</th>
<th>12.060 in/hr Exfiltration over Surface area</th>
</tr>
</thead>
</table>

Discarded OutFlow Max = 0.57 cfs @ 12.52 hrs HW = 208.04' (Free Discharge)

Primary OutFlow Max = 0.00 cfs @ 0.00 hrs HW = 208.00' (Free Discharge)