



Drainage Diagram for 8163.01_hydrocad_exist_SEND
 Prepared by {enter your company name here} 3/27/2015
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Area Listing (all nodes)

<u>Area (acres)</u>	<u>CN</u>	<u>Description (subcats)</u>
0.052	80	>75% Grass cover, Good, HSG D (11S)
0.085	82	Woods/grass comb., Fair, HSG D (12S)
0.131	89	Dirt roads, HSG D (5S,9S)
0.339	98	Paved parking & roofs (2B,3S,4S,7S,8S,10S)
<hr/>		
0.607		

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Type II 24-hr Chit-10yr-24hr Rainfall=3.20"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 2B: Exist Redem

Runoff Area=1,060 sf Runoff Depth>2.75"

Flow Length=73' Slope=0.0100 '/' Tc=1.5 min CN=98 Runoff=0.12 cfs 0.006 af

Subcatchment 3S: Paved Lot

Runoff Area=5,744 sf Runoff Depth>2.75"

Flow Length=40' Slope=0.0600 '/' Tc=0.5 min CN=98 Runoff=0.67 cfs 0.030 af

Subcatchment 4S: Exist Deli

Runoff Area=1,394 sf Runoff Depth>2.75"

Flow Length=20' Slope=1.0000 '/' Tc=0.1 min CN=98 Runoff=0.16 cfs 0.007 af

Subcatchment 5S: Dirt Lot

Runoff Area=4,555 sf Runoff Depth>1.94"

Flow Length=80' Slope=0.0600 '/' Tc=0.8 min CN=89 Runoff=0.42 cfs 0.017 af

Subcatchment 7S: Exist Deli

Runoff Area=1,394 sf Runoff Depth>2.75"

Flow Length=20' Slope=1.0000 '/' Tc=0.1 min CN=98 Runoff=0.16 cfs 0.007 af

Subcatchment 8S: Paved Lot

Runoff Area=4,275 sf Runoff Depth>2.75"

Flow Length=116' Slope=0.0600 '/' Tc=1.1 min CN=98 Runoff=0.49 cfs 0.022 af

Subcatchment 9S: Dirt Lot

Runoff Area=1,142 sf Runoff Depth>1.94"

Flow Length=80' Slope=0.0600 '/' Tc=0.8 min CN=89 Runoff=0.11 cfs 0.004 af

Subcatchment 10S: Exist home

Runoff Area=893 sf Runoff Depth>2.75"

Flow Length=15' Slope=1.0000 '/' Tc=0.1 min CN=98 Runoff=0.10 cfs 0.005 af

Subcatchment 11S: Flat Land

Runoff Area=2,263 sf Runoff Depth>1.27"

Flow Length=180' Slope=0.0500 '/' Tc=28.7 min CN=80 Runoff=0.06 cfs 0.006 af

Subcatchment 12S: Steep Land

Runoff Area=3,706 sf Runoff Depth>1.41"

Flow Length=37' Slope=0.5300 '/' Tc=3.2 min CN=82 Runoff=0.25 cfs 0.010 af

Reach 2R: Pine St.

Inflow=0.83 cfs 0.037 af

Outflow=0.83 cfs 0.037 af

Pond 1CB: cb3

Peak Elev=476.30' Inflow=0.10 cfs 0.005 af

18.0" x 242.0' Culvert Outflow=0.10 cfs 0.005 af

Pond 1MH: MH1

Peak Elev=476.30' Inflow=0.10 cfs 0.005 af

18.0" x 242.0' Culvert Outflow=0.10 cfs 0.005 af

Link 3L: (new Link)

Inflow=2.46 cfs 0.114 af

Primary=2.46 cfs 0.114 af

Total Runoff Area = 0.607 ac Runoff Volume = 0.114 af Average Runoff Depth = 2.26"**44.15% Pervious Area = 0.268 ac 55.85% Impervious Area = 0.339 ac**

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Type II 24-hr Chit-10yr-24hr Rainfall=3.20"

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Subcatchment 2B: Exist Redem

Runoff = 0.12 cfs @ 11.90 hrs, Volume= 0.006 af, Depth> 2.75"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-10yr-24hr Rainfall=3.20"

Area (sf)	CN	Description
1,060	98	Paved parking & roofs
1,060		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	73	0.0100	0.81		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 2.20"

Subcatchment 3S: Paved Lot

Runoff = 0.67 cfs @ 11.89 hrs, Volume= 0.030 af, Depth> 2.75"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-10yr-24hr Rainfall=3.20"

Area (sf)	CN	Description
5,744	98	Paved parking & roofs
5,744		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	40	0.0600	1.47		Sheet Flow, Parking Lot Smooth surfaces n= 0.011 P2= 2.20"

Subcatchment 4S: Exist Deli

Runoff = 0.16 cfs @ 11.89 hrs, Volume= 0.007 af, Depth> 2.75"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-10yr-24hr Rainfall=3.20"

Area (sf)	CN	Description
1,394	98	Paved parking & roofs
1,394		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	20	1.0000	3.95		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 2.20"

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Type II 24-hr Chit-10yr-24hr Rainfall=3.20"

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Subcatchment 5S: Dirt Lot

Runoff = 0.42 cfs @ 11.90 hrs, Volume= 0.017 af, Depth> 1.94"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-10yr-24hr Rainfall=3.20"

Area (sf)	CN	Description
4,555	89	Dirt roads, HSG D
4,555		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	80	0.0600	1.69		Sheet Flow, Dirt Parking Lot Smooth surfaces n= 0.011 P2= 2.20"

Subcatchment 7S: Exist Deli

Runoff = 0.16 cfs @ 11.89 hrs, Volume= 0.007 af, Depth> 2.75"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-10yr-24hr Rainfall=3.20"

Area (sf)	CN	Description
1,394	98	Paved parking & roofs
1,394		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	20	1.0000	3.95		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 2.20"

Subcatchment 8S: Paved Lot

Runoff = 0.49 cfs @ 11.90 hrs, Volume= 0.022 af, Depth> 2.75"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-10yr-24hr Rainfall=3.20"

Area (sf)	CN	Description
4,275	98	Paved parking & roofs
4,275		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	116	0.0600	1.82		Sheet Flow, Parking Lot Smooth surfaces n= 0.011 P2= 2.20"

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Type II 24-hr Chit-10yr-24hr Rainfall=3.20"

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Subcatchment 9S: Dirt Lot

Runoff = 0.11 cfs @ 11.90 hrs, Volume= 0.004 af, Depth> 1.94"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-10yr-24hr Rainfall=3.20"

Area (sf)	CN	Description
1,142	89	Dirt roads, HSG D
1,142		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	80	0.0600	1.69		Sheet Flow, Dirt Parking Lot Smooth surfaces n= 0.011 P2= 2.20"

Subcatchment 10S: Exist home

Runoff = 0.10 cfs @ 11.89 hrs, Volume= 0.005 af, Depth> 2.75"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-10yr-24hr Rainfall=3.20"

Area (sf)	CN	Description
893	98	Paved parking & roofs
893		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	15	1.0000	3.73		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 2.20"

Subcatchment 11S: Flat Land

Runoff = 0.06 cfs @ 12.24 hrs, Volume= 0.006 af, Depth> 1.27"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-10yr-24hr Rainfall=3.20"

Area (sf)	CN	Description
2,263	80	>75% Grass cover, Good, HSG D
2,263		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.7	180	0.0500	0.10		Sheet Flow, Grass woods Woods: Light underbrush n= 0.400 P2= 2.20"

Subcatchment 12S: Steep Land

Runoff = 0.25 cfs @ 11.94 hrs, Volume= 0.010 af, Depth> 1.41"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-10yr-24hr Rainfall=3.20"

Area (sf)	CN	Description
3,706	82	Woods/grass comb., Fair, HSG D
3,706		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	37	0.5300	0.20		Sheet Flow, Grass woods Woods: Light underbrush n= 0.400 P2= 2.20"

Reach 2R: Pine St.

Inflow Area = 0.164 ac, Inflow Depth > 2.75" for Chit-10yr-24hr event
Inflow = 0.83 cfs @ 11.89 hrs, Volume= 0.037 af
Outflow = 0.83 cfs @ 11.89 hrs, Volume= 0.037 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond 1CB: cb3

Inflow Area = 0.021 ac, Inflow Depth > 2.75" for Chit-10yr-24hr event
Inflow = 0.10 cfs @ 11.89 hrs, Volume= 0.005 af
Outflow = 0.10 cfs @ 11.89 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min
Primary = 0.10 cfs @ 11.89 hrs, Volume= 0.005 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 476.30' @ 11.89 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	476.10'	18.0" x 242.0' long Culvert CMP, square edge headwall, Ke= 0.500 Outlet Invert= 474.90' S= 0.0050 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=0.10 cfs @ 11.89 hrs HW=476.30' (Free Discharge)
↑**1=Culvert** (Barrel Controls 0.10 cfs @ 1.09 fps)

Pond 1MH: MH1

Inflow Area = 0.021 ac, Inflow Depth > 2.75" for Chit-10yr-24hr event
Inflow = 0.10 cfs @ 11.89 hrs, Volume= 0.005 af
Outflow = 0.10 cfs @ 11.89 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min
Primary = 0.10 cfs @ 11.89 hrs, Volume= 0.005 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

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Type II 24-hr Chit-10yr-24hr Rainfall=3.20"

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Peak Elev= 476.30' @ 11.89 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	476.10'	18.0" x 242.0' long Culvert CMP, square edge headwall, Ke= 0.500 Outlet Invert= 474.90' S= 0.0050 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=0.10 cfs @ 11.89 hrs HW=476.30' (Free Discharge)↑**1=Culvert** (Barrel Controls 0.10 cfs @ 1.09 fps)**Link 3L: (new Link)**

Inflow Area = 0.607 ac, Inflow Depth > 2.26" for Chit-10yr-24hr event
 Inflow = 2.46 cfs @ 11.90 hrs, Volume= 0.114 af
 Primary = 2.46 cfs @ 11.90 hrs, Volume= 0.114 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

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Type II 24-hr Chit-1yr-24hr Rainfall=2.10"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 2B: Exist Redem

Runoff Area=1,060 sf Runoff Depth>1.75"

Flow Length=73' Slope=0.0100 '/' Tc=1.5 min CN=98 Runoff=0.08 cfs 0.004 af

Subcatchment 3S: Paved Lot

Runoff Area=5,744 sf Runoff Depth>1.75"

Flow Length=40' Slope=0.0600 '/' Tc=0.5 min CN=98 Runoff=0.43 cfs 0.019 af

Subcatchment 4S: Exist Deli

Runoff Area=1,394 sf Runoff Depth>1.75"

Flow Length=20' Slope=1.0000 '/' Tc=0.1 min CN=98 Runoff=0.11 cfs 0.005 af

Subcatchment 5S: Dirt Lot

Runoff Area=4,555 sf Runoff Depth>1.03"

Flow Length=80' Slope=0.0600 '/' Tc=0.8 min CN=89 Runoff=0.23 cfs 0.009 af

Subcatchment 7S: Exist Deli

Runoff Area=1,394 sf Runoff Depth>1.75"

Flow Length=20' Slope=1.0000 '/' Tc=0.1 min CN=98 Runoff=0.11 cfs 0.005 af

Subcatchment 8S: Paved Lot

Runoff Area=4,275 sf Runoff Depth>1.75"

Flow Length=116' Slope=0.0600 '/' Tc=1.1 min CN=98 Runoff=0.32 cfs 0.014 af

Subcatchment 9S: Dirt Lot

Runoff Area=1,142 sf Runoff Depth>1.03"

Flow Length=80' Slope=0.0600 '/' Tc=0.8 min CN=89 Runoff=0.06 cfs 0.002 af

Subcatchment 10S: Exist home

Runoff Area=893 sf Runoff Depth>1.75"

Flow Length=15' Slope=1.0000 '/' Tc=0.1 min CN=98 Runoff=0.07 cfs 0.003 af

Subcatchment 11S: Flat Land

Runoff Area=2,263 sf Runoff Depth>0.55"

Flow Length=180' Slope=0.0500 '/' Tc=28.7 min CN=80 Runoff=0.03 cfs 0.002 af

Subcatchment 12S: Steep Land

Runoff Area=3,706 sf Runoff Depth>0.65"

Flow Length=37' Slope=0.5300 '/' Tc=3.2 min CN=82 Runoff=0.12 cfs 0.005 af

Reach 2R: Pine St.

Inflow=0.54 cfs 0.024 af

Outflow=0.54 cfs 0.024 af

Pond 1CB: cb3

Peak Elev=476.27' Inflow=0.07 cfs 0.003 af

18.0" x 242.0' Culvert Outflow=0.07 cfs 0.003 af

Pond 1MH: MH1

Peak Elev=476.27' Inflow=0.07 cfs 0.003 af

18.0" x 242.0' Culvert Outflow=0.07 cfs 0.003 af

Link 3L: (new Link)

Inflow=1.49 cfs 0.068 af

Primary=1.49 cfs 0.068 af

Total Runoff Area = 0.607 ac Runoff Volume = 0.068 af Average Runoff Depth = 1.34"**44.15% Pervious Area = 0.268 ac 55.85% Impervious Area = 0.339 ac**

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Type II 24-hr Chit-1yr-24hr Rainfall=2.10"

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Subcatchment 2B: Exist Redem

Runoff = 0.08 cfs @ 11.90 hrs, Volume= 0.004 af, Depth> 1.75"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-1yr-24hr Rainfall=2.10"

Area (sf)	CN	Description
1,060	98	Paved parking & roofs
1,060		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	73	0.0100	0.81		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 2.20"

Subcatchment 3S: Paved Lot

Runoff = 0.43 cfs @ 11.89 hrs, Volume= 0.019 af, Depth> 1.75"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-1yr-24hr Rainfall=2.10"

Area (sf)	CN	Description
5,744	98	Paved parking & roofs
5,744		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	40	0.0600	1.47		Sheet Flow, Parking Lot Smooth surfaces n= 0.011 P2= 2.20"

Subcatchment 4S: Exist Deli

Runoff = 0.11 cfs @ 11.89 hrs, Volume= 0.005 af, Depth> 1.75"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-1yr-24hr Rainfall=2.10"

Area (sf)	CN	Description
1,394	98	Paved parking & roofs
1,394		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	20	1.0000	3.95		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 2.20"

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Type II 24-hr Chit-1yr-24hr Rainfall=2.10"

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Subcatchment 5S: Dirt Lot

Runoff = 0.23 cfs @ 11.90 hrs, Volume= 0.009 af, Depth> 1.03"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-1yr-24hr Rainfall=2.10"

Area (sf)	CN	Description
4,555	89	Dirt roads, HSG D
4,555		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	80	0.0600	1.69		Sheet Flow, Dirt Parking Lot Smooth surfaces n= 0.011 P2= 2.20"

Subcatchment 7S: Exist Deli

Runoff = 0.11 cfs @ 11.89 hrs, Volume= 0.005 af, Depth> 1.75"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-1yr-24hr Rainfall=2.10"

Area (sf)	CN	Description
1,394	98	Paved parking & roofs
1,394		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	20	1.0000	3.95		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 2.20"

Subcatchment 8S: Paved Lot

Runoff = 0.32 cfs @ 11.90 hrs, Volume= 0.014 af, Depth> 1.75"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-1yr-24hr Rainfall=2.10"

Area (sf)	CN	Description
4,275	98	Paved parking & roofs
4,275		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	116	0.0600	1.82		Sheet Flow, Parking Lot Smooth surfaces n= 0.011 P2= 2.20"

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Type II 24-hr Chit-1yr-24hr Rainfall=2.10"

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Subcatchment 9S: Dirt Lot

Runoff = 0.06 cfs @ 11.90 hrs, Volume= 0.002 af, Depth> 1.03"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-1yr-24hr Rainfall=2.10"

Area (sf)	CN	Description
1,142	89	Dirt roads, HSG D
1,142		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	80	0.0600	1.69		Sheet Flow, Dirt Parking Lot Smooth surfaces n= 0.011 P2= 2.20"

Subcatchment 10S: Exist home

Runoff = 0.07 cfs @ 11.89 hrs, Volume= 0.003 af, Depth> 1.75"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-1yr-24hr Rainfall=2.10"

Area (sf)	CN	Description
893	98	Paved parking & roofs
893		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	15	1.0000	3.73		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 2.20"

Subcatchment 11S: Flat Land

Runoff = 0.03 cfs @ 12.25 hrs, Volume= 0.002 af, Depth> 0.55"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-1yr-24hr Rainfall=2.10"

Area (sf)	CN	Description
2,263	80	>75% Grass cover, Good, HSG D
2,263		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.7	180	0.0500	0.10		Sheet Flow, Grass woods Woods: Light underbrush n= 0.400 P2= 2.20"

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Type II 24-hr Chit-1yr-24hr Rainfall=2.10"

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Subcatchment 12S: Steep Land

Runoff = 0.12 cfs @ 11.94 hrs, Volume= 0.005 af, Depth> 0.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chit-1yr-24hr Rainfall=2.10"

Area (sf)	CN	Description
3,706	82	Woods/grass comb., Fair, HSG D
3,706		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	37	0.5300	0.20		Sheet Flow, Grass woods Woods: Light underbrush n= 0.400 P2= 2.20"

Reach 2R: Pine St.

Inflow Area = 0.164 ac, Inflow Depth > 1.75" for Chit-1yr-24hr event
 Inflow = 0.54 cfs @ 11.89 hrs, Volume= 0.024 af
 Outflow = 0.54 cfs @ 11.89 hrs, Volume= 0.024 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond 1CB: cb3

Inflow Area = 0.021 ac, Inflow Depth > 1.75" for Chit-1yr-24hr event
 Inflow = 0.07 cfs @ 11.89 hrs, Volume= 0.003 af
 Outflow = 0.07 cfs @ 11.89 hrs, Volume= 0.003 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.07 cfs @ 11.89 hrs, Volume= 0.003 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 476.27' @ 11.89 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	476.10'	18.0" x 242.0' long Culvert CMP, square edge headwall, Ke= 0.500 Outlet Invert= 474.90' S= 0.0050 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=0.06 cfs @ 11.89 hrs HW=476.26' (Free Discharge)↑**1=Culvert** (Barrel Controls 0.06 cfs @ 0.96 fps)**Pond 1MH: MH1**

Inflow Area = 0.021 ac, Inflow Depth > 1.75" for Chit-1yr-24hr event
 Inflow = 0.07 cfs @ 11.89 hrs, Volume= 0.003 af
 Outflow = 0.07 cfs @ 11.89 hrs, Volume= 0.003 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.07 cfs @ 11.89 hrs, Volume= 0.003 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

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Type II 24-hr Chit-1yr-24hr Rainfall=2.10"

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Peak Elev= 476.27' @ 11.89 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	476.10'	18.0" x 242.0' long Culvert CMP, square edge headwall, Ke= 0.500 Outlet Invert= 474.90' S= 0.0050 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=0.06 cfs @ 11.89 hrs HW=476.26' (Free Discharge)↑**1=Culvert** (Barrel Controls 0.06 cfs @ 0.96 fps)**Link 3L: (new Link)**

Inflow Area = 0.607 ac, Inflow Depth > 1.34" for Chit-1yr-24hr event
 Inflow = 1.49 cfs @ 11.90 hrs, Volume= 0.068 af
 Primary = 1.49 cfs @ 11.90 hrs, Volume= 0.068 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

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Type II 24-hr Chitt-2 yr-24hr Rainfall=2.30"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 2B: Exist Redem

Runoff Area=1,060 sf Runoff Depth>1.93"

Flow Length=73' Slope=0.0100 '/' Tc=1.5 min CN=98 Runoff=0.08 cfs 0.004 af

Subcatchment 3S: Paved Lot

Runoff Area=5,744 sf Runoff Depth>1.93"

Flow Length=40' Slope=0.0600 '/' Tc=0.5 min CN=98 Runoff=0.48 cfs 0.021 af

Subcatchment 4S: Exist Deli

Runoff Area=1,394 sf Runoff Depth>1.93"

Flow Length=20' Slope=1.0000 '/' Tc=0.1 min CN=98 Runoff=0.12 cfs 0.005 af

Subcatchment 5S: Dirt Lot

Runoff Area=4,555 sf Runoff Depth>1.19"

Flow Length=80' Slope=0.0600 '/' Tc=0.8 min CN=89 Runoff=0.27 cfs 0.010 af

Subcatchment 7S: Exist Deli

Runoff Area=1,394 sf Runoff Depth>1.93"

Flow Length=20' Slope=1.0000 '/' Tc=0.1 min CN=98 Runoff=0.12 cfs 0.005 af

Subcatchment 8S: Paved Lot

Runoff Area=4,275 sf Runoff Depth>1.93"

Flow Length=116' Slope=0.0600 '/' Tc=1.1 min CN=98 Runoff=0.35 cfs 0.016 af

Subcatchment 9S: Dirt Lot

Runoff Area=1,142 sf Runoff Depth>1.19"

Flow Length=80' Slope=0.0600 '/' Tc=0.8 min CN=89 Runoff=0.07 cfs 0.003 af

Subcatchment 10S: Exist home

Runoff Area=893 sf Runoff Depth>1.93"

Flow Length=15' Slope=1.0000 '/' Tc=0.1 min CN=98 Runoff=0.07 cfs 0.003 af

Subcatchment 11S: Flat Land

Runoff Area=2,263 sf Runoff Depth>0.67"

Flow Length=180' Slope=0.0500 '/' Tc=28.7 min CN=80 Runoff=0.03 cfs 0.003 af

Subcatchment 12S: Steep Land

Runoff Area=3,706 sf Runoff Depth>0.78"

Flow Length=37' Slope=0.5300 '/' Tc=3.2 min CN=82 Runoff=0.14 cfs 0.006 af

Reach 2R: Pine St.

Inflow=0.59 cfs 0.026 af

Outflow=0.59 cfs 0.026 af

Pond 1CB: cb3

Peak Elev=476.27' Inflow=0.07 cfs 0.003 af

18.0" x 242.0' Culvert Outflow=0.07 cfs 0.003 af

Pond 1MH: MH1

Peak Elev=476.27' Inflow=0.07 cfs 0.003 af

18.0" x 242.0' Culvert Outflow=0.07 cfs 0.003 af

Link 3L: (new Link)

Inflow=1.67 cfs 0.076 af

Primary=1.67 cfs 0.076 af

Total Runoff Area = 0.607 ac Runoff Volume = 0.076 af Average Runoff Depth = 1.50"**44.15% Pervious Area = 0.268 ac 55.85% Impervious Area = 0.339 ac**

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Type II 24-hr Chitt-2 yr-24hr Rainfall=2.30"

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Subcatchment 2B: Exist Redem

Runoff = 0.08 cfs @ 11.90 hrs, Volume= 0.004 af, Depth> 1.93"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chitt-2 yr-24hr Rainfall=2.30"

Area (sf)	CN	Description
1,060	98	Paved parking & roofs
1,060		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	73	0.0100	0.81		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 2.20"

Subcatchment 3S: Paved Lot

Runoff = 0.48 cfs @ 11.89 hrs, Volume= 0.021 af, Depth> 1.93"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chitt-2 yr-24hr Rainfall=2.30"

Area (sf)	CN	Description
5,744	98	Paved parking & roofs
5,744		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	40	0.0600	1.47		Sheet Flow, Parking Lot Smooth surfaces n= 0.011 P2= 2.20"

Subcatchment 4S: Exist Deli

Runoff = 0.12 cfs @ 11.89 hrs, Volume= 0.005 af, Depth> 1.93"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chitt-2 yr-24hr Rainfall=2.30"

Area (sf)	CN	Description
1,394	98	Paved parking & roofs
1,394		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	20	1.0000	3.95		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 2.20"

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Type II 24-hr Chitt-2 yr-24hr Rainfall=2.30"

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Subcatchment 5S: Dirt Lot

Runoff = 0.27 cfs @ 11.90 hrs, Volume= 0.010 af, Depth> 1.19"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chitt-2 yr-24hr Rainfall=2.30"

Area (sf)	CN	Description
4,555	89	Dirt roads, HSG D
4,555		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	80	0.0600	1.69		Sheet Flow, Dirt Parking Lot Smooth surfaces n= 0.011 P2= 2.20"

Subcatchment 7S: Exist Deli

Runoff = 0.12 cfs @ 11.89 hrs, Volume= 0.005 af, Depth> 1.93"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chitt-2 yr-24hr Rainfall=2.30"

Area (sf)	CN	Description
1,394	98	Paved parking & roofs
1,394		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	20	1.0000	3.95		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 2.20"

Subcatchment 8S: Paved Lot

Runoff = 0.35 cfs @ 11.90 hrs, Volume= 0.016 af, Depth> 1.93"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chitt-2 yr-24hr Rainfall=2.30"

Area (sf)	CN	Description
4,275	98	Paved parking & roofs
4,275		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	116	0.0600	1.82		Sheet Flow, Parking Lot Smooth surfaces n= 0.011 P2= 2.20"

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Type II 24-hr Chitt-2 yr-24hr Rainfall=2.30"

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Subcatchment 9S: Dirt Lot

Runoff = 0.07 cfs @ 11.90 hrs, Volume= 0.003 af, Depth> 1.19"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chitt-2 yr-24hr Rainfall=2.30"

Area (sf)	CN	Description
1,142	89	Dirt roads, HSG D
1,142		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	80	0.0600	1.69		Sheet Flow, Dirt Parking Lot Smooth surfaces n= 0.011 P2= 2.20"

Subcatchment 10S: Exist home

Runoff = 0.07 cfs @ 11.89 hrs, Volume= 0.003 af, Depth> 1.93"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chitt-2 yr-24hr Rainfall=2.30"

Area (sf)	CN	Description
893	98	Paved parking & roofs
893		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	15	1.0000	3.73		Sheet Flow, Roof Smooth surfaces n= 0.011 P2= 2.20"

Subcatchment 11S: Flat Land

Runoff = 0.03 cfs @ 12.25 hrs, Volume= 0.003 af, Depth> 0.67"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chitt-2 yr-24hr Rainfall=2.30"

Area (sf)	CN	Description
2,263	80	>75% Grass cover, Good, HSG D
2,263		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.7	180	0.0500	0.10		Sheet Flow, Grass woods Woods: Light underbrush n= 0.400 P2= 2.20"

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Type II 24-hr Chitt-2 yr-24hr Rainfall=2.30"

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Subcatchment 12S: Steep Land

Runoff = 0.14 cfs @ 11.94 hrs, Volume= 0.006 af, Depth> 0.78"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Chitt-2 yr-24hr Rainfall=2.30"

Area (sf)	CN	Description
3,706	82	Woods/grass comb., Fair, HSG D
3,706		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	37	0.5300	0.20		Sheet Flow, Grass woods Woods: Light underbrush n= 0.400 P2= 2.20"

Reach 2R: Pine St.

Inflow Area = 0.164 ac, Inflow Depth > 1.93" for Chitt-2 yr-24hr event
 Inflow = 0.59 cfs @ 11.89 hrs, Volume= 0.026 af
 Outflow = 0.59 cfs @ 11.89 hrs, Volume= 0.026 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond 1CB: cb3

Inflow Area = 0.021 ac, Inflow Depth > 1.93" for Chitt-2 yr-24hr event
 Inflow = 0.07 cfs @ 11.89 hrs, Volume= 0.003 af
 Outflow = 0.07 cfs @ 11.89 hrs, Volume= 0.003 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.07 cfs @ 11.89 hrs, Volume= 0.003 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 476.27' @ 11.89 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	476.10'	18.0" x 242.0' long Culvert CMP, square edge headwall, Ke= 0.500 Outlet Invert= 474.90' S= 0.0050 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=0.07 cfs @ 11.89 hrs HW=476.27' (Free Discharge)↑**1=Culvert** (Barrel Controls 0.07 cfs @ 0.99 fps)**Pond 1MH: MH1**

Inflow Area = 0.021 ac, Inflow Depth > 1.93" for Chitt-2 yr-24hr event
 Inflow = 0.07 cfs @ 11.89 hrs, Volume= 0.003 af
 Outflow = 0.07 cfs @ 11.89 hrs, Volume= 0.003 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.07 cfs @ 11.89 hrs, Volume= 0.003 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

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Type II 24-hr Chitt-2 yr-24hr Rainfall=2.30"

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Peak Elev= 476.27' @ 11.89 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	476.10'	18.0" x 242.0' long Culvert CMP, square edge headwall, Ke= 0.500 Outlet Invert= 474.90' S= 0.0050 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=0.07 cfs @ 11.89 hrs HW=476.27' (Free Discharge)↑**1=Culvert** (Barrel Controls 0.07 cfs @ 0.99 fps)**Link 3L: (new Link)**

Inflow Area = 0.607 ac, Inflow Depth > 1.50" for Chitt-2 yr-24hr event
 Inflow = 1.67 cfs @ 11.90 hrs, Volume= 0.076 af
 Primary = 1.67 cfs @ 11.90 hrs, Volume= 0.076 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs