Logan-Union-Champaign
regional planning commission

Director: Bradley J. Bodenmiller

*****This meeting will take place by remote access only. Please see page 2 of this agenda for information required to join this virtual meeting.*****

Zoning & Subdivision Committee

Thursday, October 8, 2020, 12:15 pm

- Minutes from last meeting of September 10, 2020

1. Review of Darby Braeside Amended Preliminary Plat (Union County) – Staff Report by Brad Bodenmiller

2. Review of Pioneer Crossing Preliminary Plat (Union County) – Staff Report by Brad Bodenmiller

3. Review of VN-3 Phase 1 Final Plat (Union County) – Staff Report by Brad Bodenmiller

4. Review of LUC Model Text: Agritourism – Staff Report by Aaron Smith

Members:
Tyler Bumbalough – City of Urbana Engineer
Scott Coleman – Logan County Engineer
Weston R. Dodds – City of Bellefontaine Code Enforcement
Ashley Gaver – City of Marysville
Charles Hall – Union County Commissioner
Steve McCall – Champaign County Engineer
Bill Narducci – Union County Engineer's Office
Tammy Noble – City of Dublin Planning
Tom Scheiderer – Jefferson & Zane Township Zoning Inspector
Jeff Stauch – Union County Engineer
Robert A. Yoder – North Lewisburg Administrator
Brad Bodenmiller – LUC
Heather Martin – LUC
Aaron Smith – LUC

10820 St. Rt. 347, PO Box 219
East Liberty, Ohio 43319
• Phone: 937-666-3431 •
• Email: luc-rpc@lucplanning.com • Web: www.lucplanning.com

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Access to anyone wishing to attend this meeting will be remotely/virtually only using Zoom.

Go to : https://us02web.zoom.us/j/82118146621
Meeting ID : 821 1814 6621
Participant ID : n/a
Password : 656363

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+1 312 626 6799 (Chicago)
+1 669 900 6833 (San Jose)
+1 253 215 8782 (Tacoma)
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Staff Report – Darby Braeside

Applicant:	**Darby Braeside, LLC** c/o Wayne Ballantyne 1119 Regency Drive Columbus, OH 43220 wayneballant@gmail.com **The Mannik and Smith Group, Inc.** c/o Randy Van Tilburg, PE 1160 Dublin Road Columbus, OH 43215 rvantilburg@manniksmithgroup.com
Request:	Approval of the Darby Braeside – Amended Preliminary Plat.
Location:	Located west of State Route 736, east of the Big Darby Creek, and between Robinson Road and US Hwy 42 in Darby & Jerome Township, Union County.

Staff Analysis:	This Preliminary Plat involves 61.621 acres of land and 28 single-family residential lots. Acreages: ○ 5.171 acres in right-of-way ○ 52.359 acres in single-family residential lots ○ 4.091 acres in open space Proposed utilities: ○ Water service proposed is private, on-site wells ○ Sanitary service proposed is private, on-site treatment systems Preliminary Plat: ○ The original Preliminary Plat was approved in June 2015 with a subsequent Extension in April 2017. ○ The Phase 1 Final Plat was approved in October 2015. ○ The Amended Preliminary Plat was approved in December 2017 with a subsequent Extension in November 2019. ○ The Phase 2 Final Plat was approved in April 2018. • **Union County Engineer's Office** ○ No comments received to date. Comments from the Engineer's Office are anticipated 10-06-20.

	• **Union County Soil & Water Conservation District**
	  ○ No comments received as of 09-30-20.
	• **Union County Health Department**
	  ○ The Health Department submitted comments in an email dated 09-23-20. The Board of Health and Environmental Health Division are familiar with this subdivision; and have approved the proposed lots within to be serviced by both individual household sewage treatment systems and private water systems.
	• **City of Marysville**
	  ○ The City emailed on 10-01-20, that it has no comments.
	• **Village of Plain City**
	  ○ The Village submitted comments in an email dated 09-30-20. Some of those comments are listed below and summarized for reference. (Please refer to email for all comments.)
	  1. The subdivision is within the Village's Wellhead Protection Overlay District. The Village is not requesting any changes to the Plat but wanted to make note of this.
	• **Jerome Township**
	  ○ Jerome Township submitted two comments letters, one dated 09-28-20 and the other dated 10-02-20. Some of those comments are listed below and summarized for reference. (Please refer to letters for all comments.)
	  1. Sheet 1: The RU District front yard setback is 50'. The Plat notes a different front yard setback, which is not consistent with the Zoning Resolution. If the applicant wishes to retain an 80' ***private*** front yard setback, such a note should be included on the plat or in the deed restrictions.
	  2. Sheet 2 & 3: Various setbacks are depicted. Some of the lot lines are not being correctly interpreted as side or rear lot lines. At a minimum, the applicant should use the term "Building Setback" throughout. Ideally, side and rear yard setbacks would be removed and dealt with at the zoning phase as noted in Misc. Note #27.

	3. The 10-02-20 Fire Division letter listed requirements from the 2017 Ohio Fire Code and NFPA. Although those codes are separate and distinct from the Subdivision Regulations, the comments were shared with the applicant. • **Darby Township** o No comments received as of 09-30-20. • **ODOT District 6** o No comments received as of 09-30-20. • **Union Rural Electric** o No comments received as of 09-30-20. • **LUC Regional Planning Commission** 1. Please review rear lot line dimensions of Lot 47 and Lot 48. Should these sum to L9 (§313, 15.)? 2. Please provide additional dimensioning on south line of Lot 49 (§313, 15.). 3. Is the rear lot line dimension missing on Lot 40 (§313, 15.)? 4. Lot 48 appears twice. See Claverhouse Court (§313, 15.). 5. The Base Flood Elevation shall be determined and shown. Minimum first floor elevations shall be shown for all lots located within Flood Hazard Areas (§313, 17.). 6. Easements for water and sewer must be a minimum of 20' and 10' for other utilities (§313, 12.; §414). 7. Note: All plats shall contain a restriction that no permanent structures or plantings, etc. shall be permitted in the easement areas (§323, 7.). 8. A letter from Jerome Township certifying that the Final Plat conforms with the Township's zoning is required before any approval of the Final Plat may be granted (§401; §412, 1.; §413, 2.). 9. All bonds, surety, letters of credit, etc. shall be approved by the County Commissioners before any approval of the Final Plat may be granted (§326).

Staff Recommendations:	Staff recommends ***APPROVAL*** of Darby Braeside – Amended Preliminary Plat with the ***condition*** that all

	comments/modifications from LUC and reviewing agencies, related to Subdivision Regulation requirements, shall be incorporated into the Construction Drawings and Final Plat. The developer shall ensure that prior to Final Plat submittal, all requirements and items outlined in the Union County Subdivision Regulations are incorporated in the Final Plat ***prior*** to submittal.

Z&S Committee Recommendations:	

Logan-Union-Champaign
regional planning commission

Director: Bradley J. Bodenmiller

Application for Preliminary Plat Approval

Date: September 17, 2020

Name of Subdivision: Darby Braeside
Location: 8673 SR 736, Plain City, OH 43064
Township: Jerome Military Survey: VMS, 3484
Complete Parcel(s) Identification Number (PIN): 1500160020000

Have **ALL** Sketch Plan review letters been obtained? Yes (Engineer, SWCD, Board of Health)

Name of Applicant: Darby Braeside, LLC
Address: 1119 Regency Drive
City: Columbus State: OH Zip: 43220
Phone: 614-406-7514 Fax: Email: WayneBallant@gmail.com

Name of Owner of property to be subdivided: Darby Braeside, LLC
Address: 1119 Regency Drive
City: Columbus State: OH Zip: 43220
Phone: 614-406-7514 Fax: Email: WayneBallant@gmail.com

Name of Applicant's Surveyor or Engineer: The Mannik and Smith Group, Inc.
Address: 1160 Dublin Road
City: Columbus State: OH Zip: 43215
Phone: 614-441-4222 Fax: Email: RVantilburg@manniksmithgroup.com

Proposed Acreage to be Subdivided: 61.62 acres, 7.83 acres of which is open space.

Current Zoning Classification: U1

Proposed Zoning Changes: U1

Proposed Land Use: Single Family Residential

Development Characteristics
Number of proposed lots: 28 Typical lot width (feet): 200
Number of proposed units: 28 Typical lot area (sq. ft.): 90000
Single Family Units: 28 Multi-Family Units: No

Acreage to be devoted to recreation, parks or open space: 7.83 acres

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Recreation facilities to be provided: N/A

Do you propose deed restrictions? (If yes, attach a copy): Yes X No ____ (See attached Design Guide)

1. Proposed method of Supplying Water Service: On-Site Well

2. Proposed method of Sanitary Waste Disposal: On-Site Septic
(If on-site disposal systems are proposed, please attach letter certifying the County Board of Health approval)

3. Requests for Variances from Subdivision Regs: None
(If yes, please explain variances and reason for variances)

List all proposed improvements and utilities and state your intention to install or provide a guarantee prior to final plat approval:

	Improvement	Installation	Guarantee
a.	Roads		Bond with Union County
b.	Electric Utilities		URE Letter
c.	Storm Water Management System		Per Construction Drawings
d.			
e.			

For Official Use

Date filed: _____ Filing Fee: _____

Date of Meeting of Planning Commission: _____

Action by Planning Commission: _____

If rejected, reason(s) for: _____

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Preliminary Plat Review Checklist

#	Required Item Description	Have	Need
1	Drawn at a scale not less than 1:100 and shall be on one or more sheets 24" X 36"	X	
2	Proposed name of the subdivision, which shall not duplicate or closely approximate the name of any other subdivision in the county.	X	
3	Location by section, range, and township or Virginia Military Survey (VMS).	X	
4	Names, addresses and telephone numbers of the owner, subdivider, and professional surveyor or professional engineer who prepared the plat; and the name, address and telephone number of the professional surveyor who performed the boundary survey.	X	
5	Date of survey.	X	
6	Scale of the plat, north point, and date.	X	
7	Boundaries of the subdivision and its acreage.	X	
8	Names of adjacent subdivisions, owners of record of adjoining parcels of unsubdivided land, and the location of their boundary lines.	X	
9	Locations, widths, and names of existing streets, railroad rights-of-way, easements, parks, permanent buildings, and corporation and township lines; location of wooded areas and other significant natural features; soil types and soil type limits; limits of Flood Hazard zones.	X	
10	Zoning classification of the tract and adjoining properties.	X	
11	Existing contours (USGS datum) at an interval of not greater than two feet if the slope of the ground is fifteen percent or less; and not greater than five feet where the slope is more than fifteen percent.	X	
12	Existing sewers, water and gas mains, culverts and other underground structures, and electric and telephone poles and lines and other above ground structures within and adjacent to the tract.	X	
13	Layout, names and widths of proposed streets and easements.	X	
14	Building setback lines with dimensions.	X	
15	Layout and dimensions of all proposed water and sewer lines, showing their connections with the existing systems, and all proposed easements for utility, water and sewer lines.	N/A	
16	Layout, numbers and approximate dimensions of each lot. When lots are located on a curve or when side lot lines are not at ninety degree angles, the width at the building line shall be shown, if it is less than the frontage width. Location of access from lots to the proposed streets shall be shown.	X	
17	Parcels of land to be reserved for public use or to be reserved by covenant for residents of the subdivision.	X	

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18	The limits of all Flood Hazard Areas (zone A, AE, B, and X) as determined by the Federal Emergency Management Agency (show the FEMA map number and date). The Base Flood Elevation shall be determined and shown. Minimum first floor elevations shall be shown for all lots located within Flood Hazard Areas.	X	

Supplementary Information			
19	Statement of proposed use of lots, giving the type and number of dwelling units; and type of business or industry if use is not residential.	X	
20	Description of proposed covenants and restrictions.	X	
21	Description of proposed zoning changes.	N/A	
22	Typical sections and tentative profiles of streets and other related improvements as required in Article 5. Calculations as required to justify horizontal and vertical curves, pipe sizes, etc. The County Engineer shall have approved the layout and design of the lots, streets and other improvements prior to the Preliminary Plat approval.	X	
23	A preliminary drainage plan which shall identify adequate drainage outlets and shall contain adequate measures for control of erosion and siltation and for surface water management in accordance with Article 5 and the Technical Design Standards. The County Soil and Water Conservation District shall have approved the preliminary drainage plan prior to Preliminary Plat approval.	X	
24	If the subdivider proposes individual household sewage systems, the County Board of Health or the OEPA shall have approved the use of individual household sewage systems prior to the Preliminary Plat approval.	PENDING	
25	If the subdivider proposes individual household wells, the subdivider shall supply evidence acceptable to the County Board of Health of the availability of satisfactory water. The County Board of Health or the OEPA shall have approved the use of individual household wells prior to the Preliminary Plat approval.	PENDING	
26	Letters from utility companies, as required, indicates approval of easement locations and widths prior to the Preliminary Plat approval.	PENDING	
27	A vicinity map at scale of generally not more than six thousand feet to an inch shall be shown on, or shall accompany, the Preliminary Plat. This map shall show all existing subdivisions, roads, and tract lines, together with the names of the owners of land immediately adjoining the proposed subdivision and between it and the nearest existing thoroughfares. It shall also show the most advantageous connections between the roads in the proposed subdivision and those of the neighboring areas.	X	
28	Preliminary Plat Fees: Payment/Check made out to LUC Regional Planning Commission, based on the current fee schedule.	X	

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Darby Braeside, LLC
1119 Regency Drive
Columbus, OH 43220
September 17, 2020

Mr. Bradley J. Bodenmiller
LUC Regional Planning Commission
10820 St. Rt. 347
East Liberty, Ohio 43319

Re: Darby Braeside, Phase 3
Amended Preliminary Plat Application

Dear Mr. Bodenmiller,

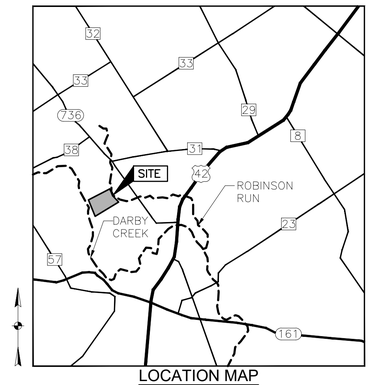
Please find the attached application and requisite supporting documents for the amended preliminary plat for the Darby Braeside subdivision. Please schedule us for the October 8, 2020 Preliminary Plat Subdivision hearing. The applicable acreage is 61.62. I have accordingly affixed a check for $3,889.10, representing the $500 application fee plus $55 per acre for 61.62 acres.

Please contact me if you require more information.

Respectfully,

Wayne Ballantyne
Managing Member
Darby Braeside, LLC

DARBY BRAESIDE
PHASE 3
PRELIMINARY ENGINEERING PLANS
STREET, STORM, AND GRADING PLANS
SEPTEMBER 17, 2020
UNION COUNTY, OHIO
TOWNSHIPS OF JEROME AND DARBY



LOCATION MAP
NOT TO SCALE

PROJECT DESCRIPTION

PHASE 3 CONSISTS OF A SUBDIVISION WITH 28 RESIDENTIAL LOTS (AVERAGING 4 DWELLING UNITS), OPEN SPACE RESERVES, AND 3 NEW ROADWAYS.

SITE ZONING

JEROME TOWNSHIP ZONING: RU – RURAL RESIDENTIAL DISTRICT
DARBY TOWNSHIP ZONING: U-1 – RURAL UNDEVELOPED DISTRICT

STANDARD DRAWINGS

THE STANDARD CONSTRUCTION DRAWINGS LISTED ON THESE PLANS SHALL BE CONSIDERED A PART THEREOF:

ODOT	UNION COUNTY
CB 1.1	11 16
CB 1.2	12 17
HW 2.1	13 18
	15 19

DETENTION SUMMARY

DETENTION FOR PHASE 3 IS TO BE PROVIDED BY TWO WET BASINS. THE WET BASINS AND A BIORETENTION FACILITY ARE USED FOR WATER QUALITY PURPOSES.

FLOOD NOTE

AREA ALONG WEST PROPERTY LINE IS LOCATED WITHIN FLOOD ZONE "A" ACCORDING TO FEMA MAP NUMBER 39159C0370D PANEL 370 DATED DECEMBER 16, 2008.

BENCHMARKS

THE ELEVATIONS ARE BASED ON GPS OBSERVATIONS USING THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION VRS SYSTEM. THE STATE PLANE COORDINATE SYSTEM, OHIO NORTH ZONE, NORTH AMERICAN DATUM OF 1983, ALSO KNOWN AS NAD83 (2011 ADJUSTMENT), WITH A NAVD88.

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CENTER LINE OF STATE ROUTE 736 AS BEING S 32°08'12" E., ALSO BASED ON GPS OBSERVATIONS USING THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION VRS SYSTEM AND THE STATE PLANE COORDINATE SYSTEM, OHIO NORTH ZONE.

UTILITY COMPANIES

COLUMBIA GAS OF OHIO
970 W. GOODALE AVE. COLUMBUS, OH
43212 614-460-2079

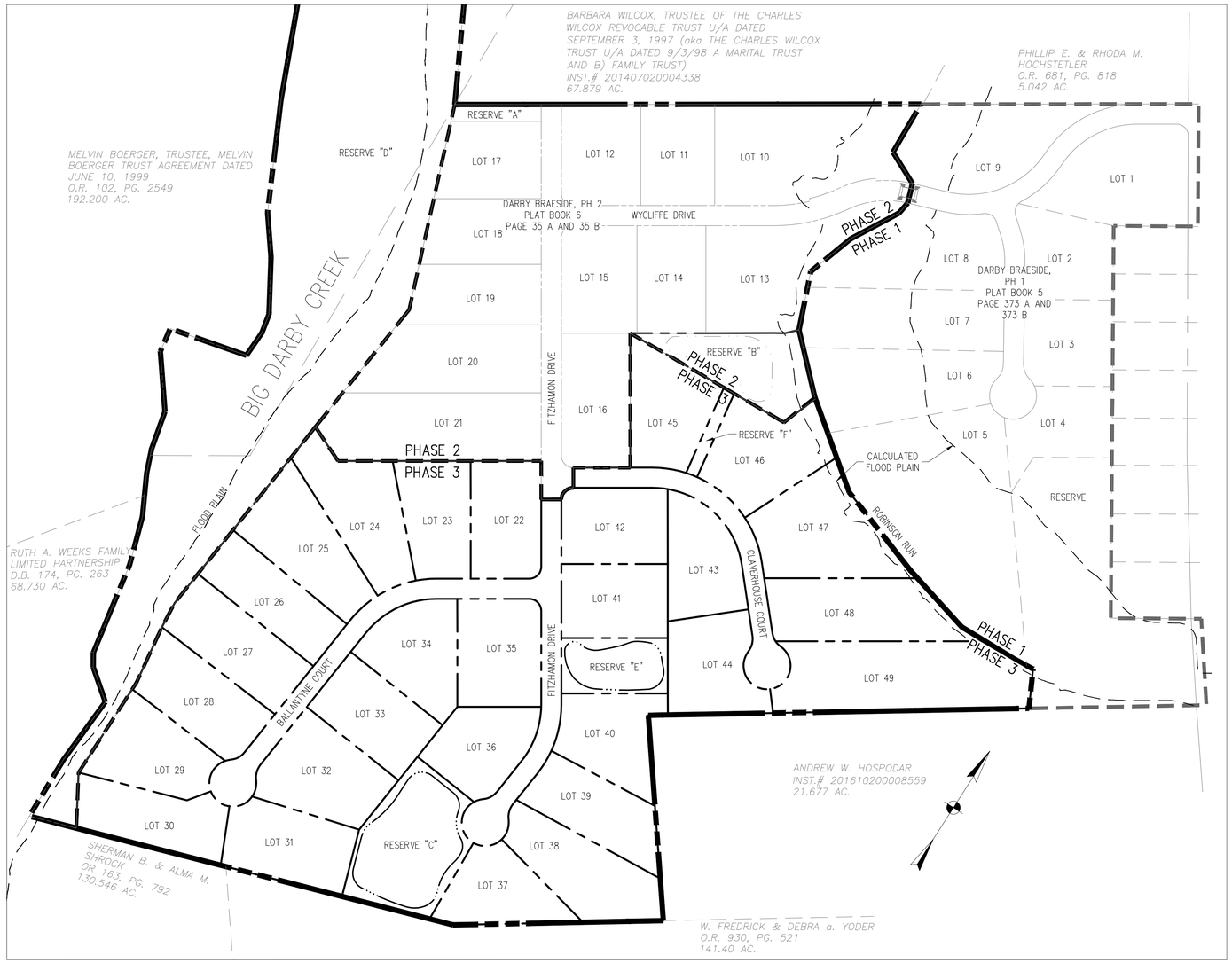
FRONTIER COMMUNICATIONS
1360 COLUMBUS-SANDUSKY RD.
MARION, OH 43302 740-383-0551

UNION RURAL ELECTRIC
15461 U.S. 36 E
MARYSVILLE, OH 43040
1-800-642-1826

UNION COUNTY ENGINEERING
233 WEST SIXTH ST.
MARYSVILLE, OH 43040
937-645-3018

TIME WARNER COMMUNICATIONS
11 SOUTH MULBERRY ST.
MT. VERNON, OH 43050
1-800-617-4311

OHIO Utilities Protection SERVICE
811 or 1-800-362-2764
Call Before You Dig



INDEX MAP
SCALE: 1" = 200'

ENGINEER

THE MANNIK & SMITH GROUP, INC.
1160 DUBLIN ROAD, SUITE 650
COLUMBUS, OHIO 43215
CONTACT: RANDY L. VANTILBURG, PE.
PHONE: 614-441-4222
EMAIL: RVanTilburg@MANNIKSMITHGROUP.COM

OWNER/APPLICANT

DARBY BRAESIDE, LLC
1119 REGENCY DRIVE
COLUMBUS, OHIO 43220
CONTACT: WAYNE BALLANTYNE
EMAIL: WAYNEBALLANT@GMAIL.COM

SURVEYOR

J. & J. SURVEYING SERVICES, INC.
7509 EAST MAIN ST. SUITE 104
REYNOLDSBURG, OHIO 43068
CONTACT: JOHN W. WETHERILL
EMAIL: JOHN.WETHERILL@JJSURVEYINGOHIO.COM

SHEET INDEX

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SOILS MAP	11
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ENGINEER'S CERTIFICATION

THIS IS TO CERTIFY THAT GOOD ENGINEERING PRACTICES HAVE BEEN USED IN THE DESIGN OF THIS PROJECT. ALL STANDARDS OF UNION COUNTY, AS WELL AS OTHER RELEVANT MINIMUM STANDARDS HAVE BEEN MET EXCEPT, WHERE, IN THE ENGINEER'S OPINION, A STANDARD GREATER THAN MINIMUM IS REQUIRED. ALL CARE HAS BEEN TAKEN TO ASSURE THAT THE CONSTRUCTION AND IMPLEMENTATION OF THIS PROJECT DOES NOT IMPEDE PUBLIC SAFETY OR CONVENIENCE.

RANDAL L. VANTILBURG, PE DATE

NO.	DATE	BY	DESCRIPTION
			PRELIMINARY NOT FOR CONSTRUCTION

1160 DUBLIN ROAD
SUITE 100
COLUMBUS, OH 43215
TEL: 614.441.4222
FAX: 888.488.7340

PROJECT DATE: 09/17/2020
PROJECT NO: D3280003
DRAWN BY: DJJ
CHECKED BY: RLV

TECHNICAL SKILL. CREATIVE SPIRIT.
Mannik Smith GROUP
www.MannikSmithGroup.com

PREPARED FOR:
Darby Braeside
DARBY BRAESIDE, LLC
8673 SR 736
JEROME TOWNSHIP
PLAIN CITY, OH 43064

PRELIMINARY PLAN FOR
DARBY BRAESIDE
PHASE 3
PLAIN CITY, OHIO

TITLE SHEET

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GENERAL CONSTRUCTION NOTES:

THE CURRENT UNION COUNTY AND OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS INCLUDING ALL SUPPLEMENTS THERETO, TOGETHER WITH THE REQUIREMENTS OF UNION COUNTY IN FORCE ON THE DATE OF THE CONTRACT, SHALL GOVERN ALL MATERIALS, METHODS OF CONSTRUCTION, AND WORKMANSHIP INVOLVED IN THE IMPROVEMENTS SHOWN ON THESE PLANS, EXCEPT, AS SUCH SPECIFICATIONS ARE MODIFIED BY THE FOLLOWING SPECIFICATIONS OR BY THE CONSTRUCTION DETAILS SET FORTH HEREIN.

THE CONTRACTOR SHALL NOTIFY UNION COUNTY ENGINEER 24 HOURS PRIOR TO CONSTRUCTION.

THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS.

THE CONTRACTOR SHALL CONFINE HIS ACTIVITIES TO THE PROPOSED ON-SITE CONSTRUCTION AREAS OR THE EXISTING RIGHT-OF-WAYS, CONSTRUCTION AND PERMANENT EASEMENTS AND SHALL NOT TRESPASS UPON OTHER PRIVATE PROPERTY WITHOUT THE WRITTEN CONSENT OF THE OWNER. IN GENERAL, LOTS SHALL BE PROTECTED FROM DISTURBANCE OR CONSTRUCTION TRAFFIC SO THAT FUTURE ON-SITE SANITARY SYSTEMS REMAIN VIABLE.

ALL ITEMS OF WORK CALLED FOR ON THE PLANS FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED SHALL BE PERFORMED BY THE CONTRACTOR AND THE COST OF THE SAME SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS RELATED ITEMS.

ALL FIELD TILE BROKEN DURING EXCAVATION SHALL BE REPLACED TO ORIGINAL CONDITION OR CONNECTED TO THE STORM SEWER SYSTEM AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCH MARKS, PROPERTY CORNERS, REFERENCE POINTS, STAKES AND OTHER SURVEY REFERENCE MONUMENTS OR MARKERS. IN CASES OF WILLFUL OR CARELESS DESTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF MARKERS. RESETTING OF MARKERS SHALL BE PERFORMED BY AN OHIO PROFESSIONAL SURVEYOR.

THE CONTRACTOR SHALL DISPOSE OF ALL SURPLUS EXCAVATION, AS DIRECTED BY THE OWNER.

THE DESIGN ENGINEER WILL NOT BE RESPONSIBLE FOR MEANS, METHODS, PROCEDURES, TECHNIQUES, OR SEQUENCES OF CONSTRUCTION THAT ARE NOT SPECIFIED HEREIN. THE DESIGN ENGINEER WILL NOT BE RESPONSIBLE FOR SAFETY ON THE JOB SITE, OR FOR FAILURE BY THE CONTRACTOR TO PERFORM WORK ACCORDING TO CONTRACT DOCUMENTS.

THE CONTRACTOR AND SUB-CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SUB-CONTRACTOR TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.

ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE "OHIO MANUAL OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION AND MAINTENANCE OPERATIONS", COPIES OF WHICH ARE AVAILABLE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, BUREAU OF TRAFFIC, 25 SOUTH FRONT STREET, COLUMBUS, OHIO 43215.

THE IDENTITY AND LOCATION OF THE EXISTING UNDERGROUND FACILITIES KNOWN TO BE LOCATED IN THE CONSTRUCTION AREA HAVE BEEN SHOWN ON THE PLANS AS ACCURATELY AS PROVIDED BY THE OWNER OF THE UNDERGROUND UTILITY. UNION COUNTY AND/OR ENGINEER ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OR THE DEPTHS OF THE UNDERGROUND FACILITIES WHETHER SHOWN ON THE PLANS OR NOT.

SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

THE CONTRACTOR SHALL CAUSE NOTICE TO BE GIVEN TO THE OHIO UTILITIES PROTECTION SERVICE (TELEPHONE 800-362-2764 – TOLL FREE) AND TO THE OWNERS OF UNDERGROUND UTILITY FACILITIES SHOWN ON THE PLANS WHO ARE NOT MEMBERS OF A REGISTERED UNDERGROUND PROTECTION SERVICE IN ACCORDANCE WITH SECTION 153.64 OF THE REVISED CODE. THE ABOVE MENTIONED NOTICE SHALL BE GIVEN AT LEAST TWO WORKING DAYS PRIOR TO START OF CONSTRUCTION.

UNLESS OTHERWISE NOTED ON THE PLANS ALL STORM SEWERS SHALL BE SMOOTH WALLED ADS N-12 PIPE AS MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS INCORPORATED. THIS ALSO INCLUDES ANY AND ALL UNDERDRAIN PIPES FOR THE ROADWAY/LEACHFIELD SYSTEMS INSTALLED FOR THE PROJECT. GRANULAR BACKFILL SHALL BE USED IN ALL INSTANCES OF PAVEMENT CROSSINGS. MATERIALS SHALL BE COMPACTED GRANULAR MATERIAL, ITEM 304, PLACED WITHIN LIMITS SHOWN ON THE PLAN INCLUDING AROUND ALL INLET STRUCTURES. GRANULAR BACKFILL SHALL EXTEND FROM THE BOTTOM OF THE TRENCH TO A PLANE 6-INCHES BELOW THE SUBGRADE.

WHERE THE STORM SEWER CROSSES A PROPOSED RIGHT-OF-WAY THE TRENCH BACKFILL SHALL BE COMPACTED GRANULAR MATERIAL, ITEM 304, FROM THE BOTTOM OF THE TRENCH TO A PLANE 6-INCHES BELOW THE SUBGRADE. THE LIMITS OF PLACEMENT SHALL BE FROM RIGHT-OF-WAY LINE TO RIGHT-OF-WAY LINE. ALL OTHER TRENCH BACKFILL SHALL BE COMPACTED TYPE C, UNLESS OTHERWISE NOTED ON THE PLANS. COST OF BACKFILL TO BE INCLUDED IN THE PRICE BID FOR THE VARIOUS SEWER ITEMS.

PIPE WITH LESS THAN ONE FOOT OF COVER TO SURFACE OF PAVEMENT SHALL BE REINFORCED CONCRETE PIPE, CLASS V, OR SHALL BE CONCRETE ENCASED.

CONTRACTOR SHALL MAKE PROVISIONS FOR OUTLETTING ROADWAY UNDERDRAINS. THESE SHALL INCLUDE, WHERE APPLICABLE, CROSSING OF STREETS, CONNECTION TO HEADWALLS, AND OUTLETTING INTO DITCHES PER UNDERDRAIN OUTLET DETAIL.

ALL UTILITY AND STORMWATER EASEMENT AREAS MUST BE CLEAR OF TREES AND OTHER VEGETATION.



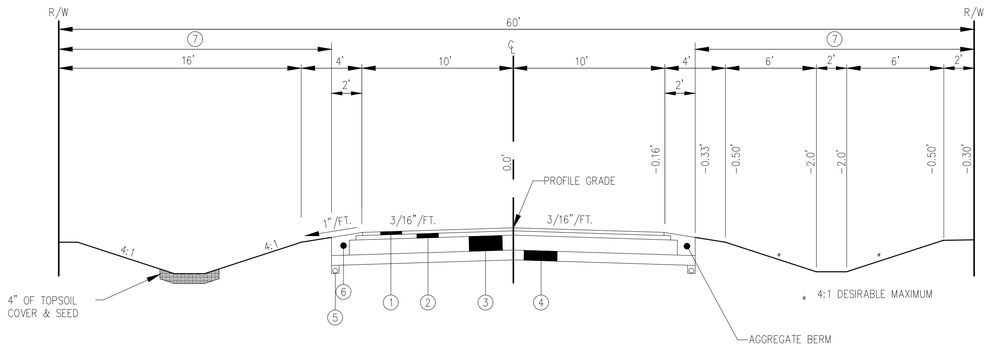
ENTRY FEATURE

ENTRY FEATURE TO BE INSTALLED WILL NOT INCLUDE GATE HARDWARE SHOWN IN THIS PHOTO.



MAILBOX CBU

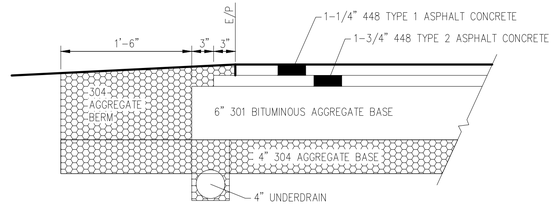
THE CBU SHOWN IS FOR REFERENCE. THE OWNER SHALL SELECT SIMILAR CBU AND COLOR.



1. ITEM 441 (448) , 1-1/4" TYPE 1 HOT-MIXED, HOT-LAID ASPHALT CONCRETE
2. ITEM 441 (448) 1-3/4" TYPE 2 HOT-MIXED, HOT-LAID ASPHALT CONCRETE
3. ITEM 301, 6" BITUMINOUS AGGREGATE BASE IN 2 LIFTS
4. ITEM 304, 4" AGGREGATE BASE
5. ITEM 605, 4" BASE PIPE UNDER DRAIN
6. ITEM 304 AGGREGATE BERM
7. ITEM 659 SEEDING AND MULCHING

TYPICAL PAVEMENT SECTION

NO SCALE



PAVEMENT SECTION DETAIL

NO SCALE

PRELIMINARY
NOT FOR CONSTRUCTION

NO.	DATE	BY	DESCRIPTION

1160 DUBLIN ROAD
SUITE 100
COLUMBUS, OH 43215
TEL: 614.441.4222
FAX: 888.488.7340

PROJECT DATE: 09/17/2020
PROJECT NO: D3290003
DRAWN BY: DJJ
CHECKED BY: RLV

TECHNICAL SKILL. CREATIVE SPIRIT.
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PREPARED FOR:
Dugre Braeside
DARBY BRAESIDE, LLC
8673 SR 736
JEROME TOWNSHIP
PLAIN CITY, OH 43064

PRELIMINARY PLAN FOR
DARBY BRAESIDE
PHASE 3
PLAIN CITY, OHIO

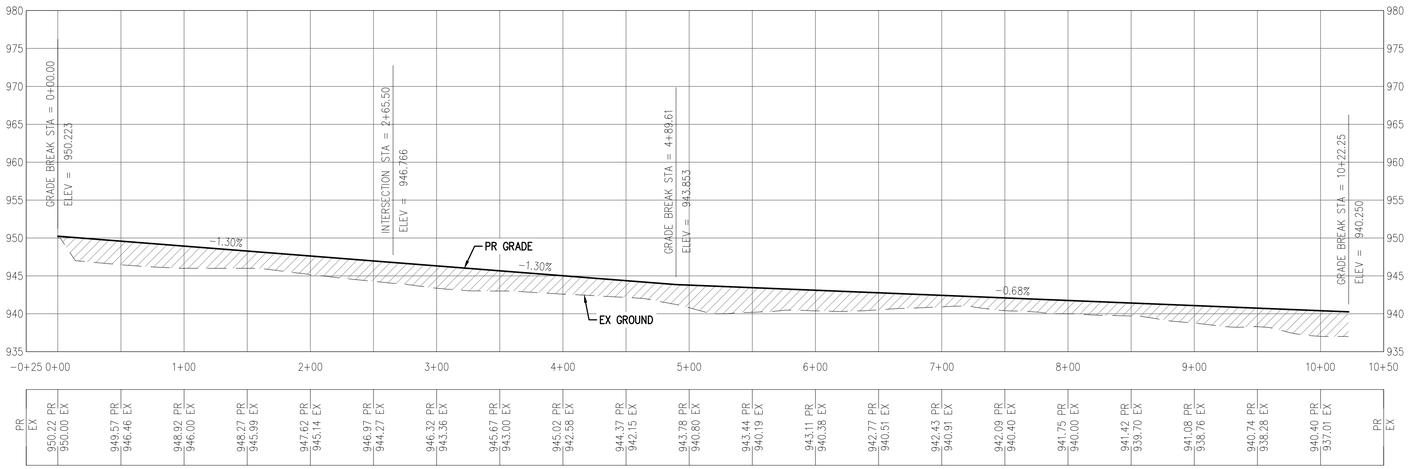
GENERAL NOTES AND DETAILS

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LEGEND

- ST — STORM
- STORM INLET
- STORM HEADWALL
- (X) — STORM STRUCTURE NUMBER
- P/L — PROPERTY LINE
- R/W — RIGHT OF WAY
- ROAD C/L
- P/L — SUBDIVISION BOUNDARY LINE
- SUBDIVISION PHASE LINE
- EASEMENT, PER LABEL
- XX' BSL — BUILDING SETBACK LINE (DIMS. TYP. ALL PROPERTIES)
- EX TREELINE
- EX TREE
- ROCK CHANNEL PROTECTION

LOT 42
LOT 41
LOT 40
LOT 39
LOT 38
LOT 37
LOT 36
LOT 35
LOT 34
LOT 23
LOT 22
PROPOSED RETENTION RESERVE "E"
PROPOSED RETENTION RESERVE "C"
BUILDING ENVELOPE
PHASE 2
PHASE 3
CLAVERHOUSE COURT
N57° 20' 29.20"E 235.216'
END PHASE 2
START PHASE 3
ENTRY FEATURE SEE DETAIL SHEET 2
MAILBOX CBU SEE DETAIL SHEET 2
FITZHAMON DR. STA 2+65.50
BALLANTYNE CT. STA 30+00.00
FITZHAMON DRIVE
S32° 39' 30.80"E 610.183'
15' UTILITY EASEMENT (TYP.)
BALLANTYNE COURT
S57° 20' 29.20"W 340.870'
DRAINAGE EASEMENT
20' DRAINAGE EASEMENT
CURVE DATA
Δ=038°38'07"
L=202.29'
T=105.16'
R=300.00'
CH DIST=198.48'
S5° 58' 36.16"W 208.493'
10+21.97
DRIVE PIPE (TYP.)
30' BSL
20' BSL
80' BSL
90°



NO.	DESCRIPTION	DATE	BY
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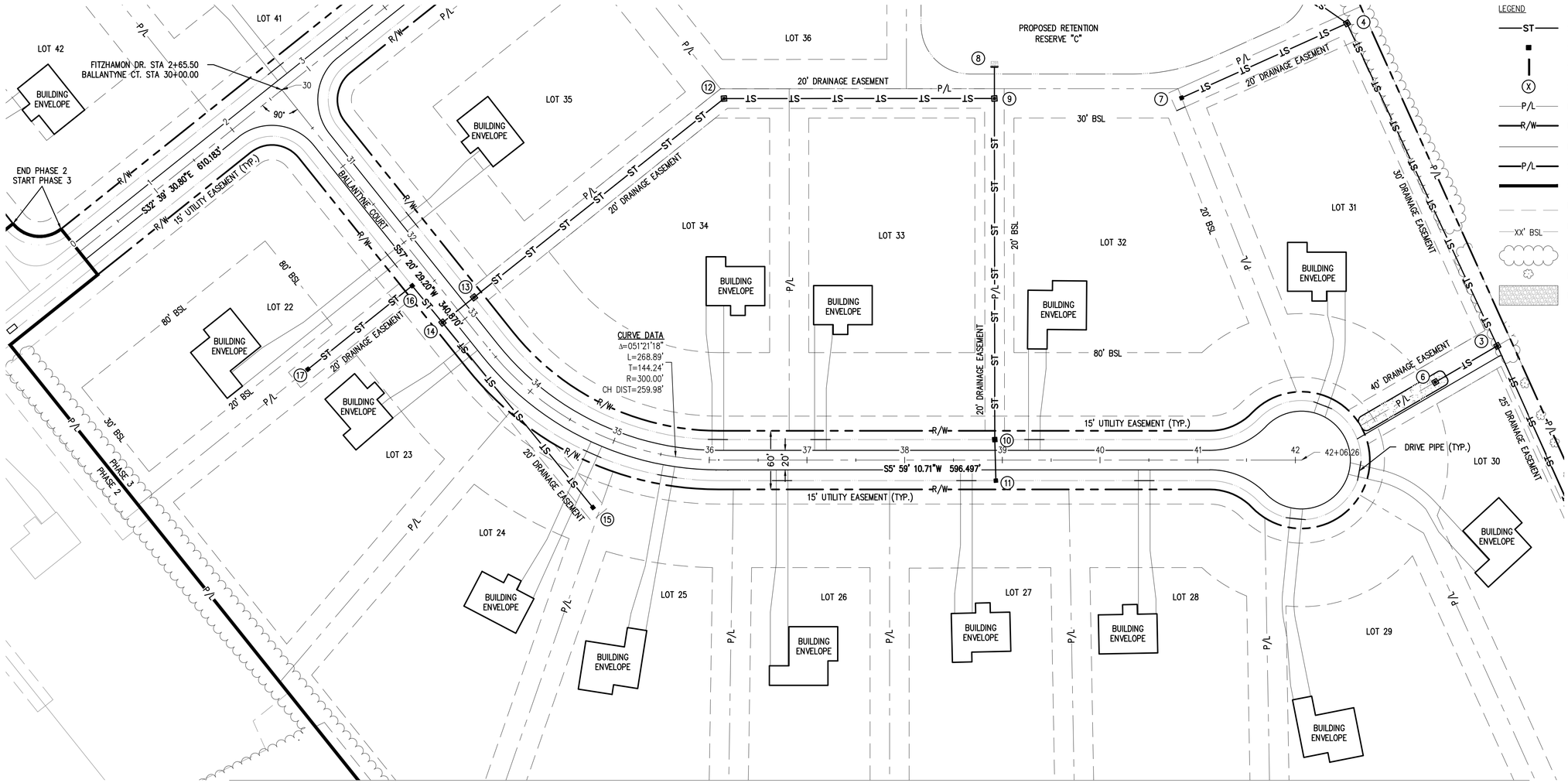
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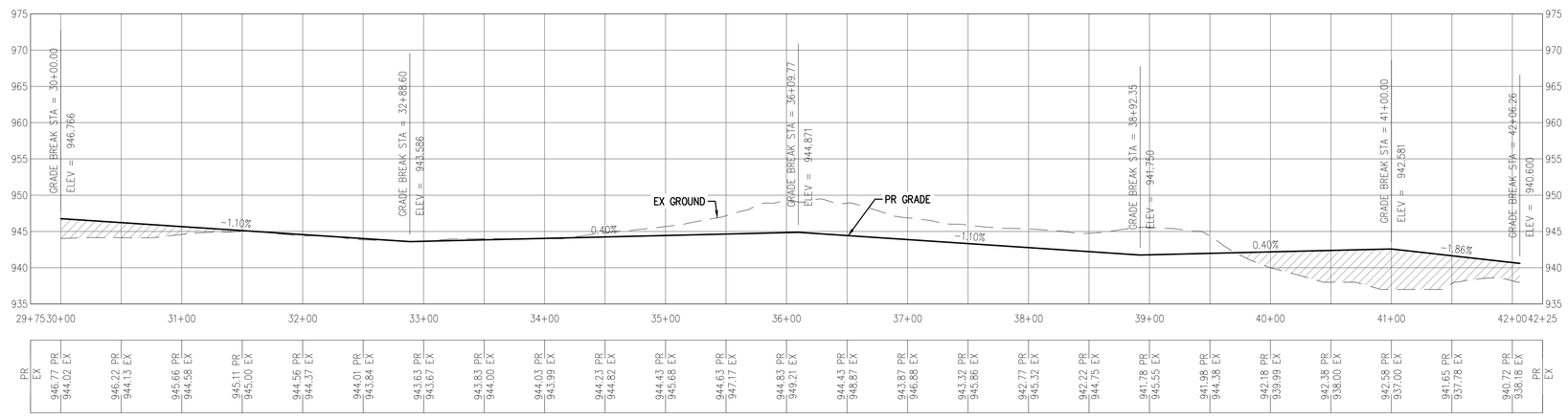
PREPARED FOR:
Doyle Braeside
DARBY BRAESIDE, LLC
8673 SR 736
JEROME TOWNSHIP
PLAIN CITY, OH 43064

PRELIMINARY PLAN FOR
DARBY BRAESIDE
PHASE 3
PLAIN CITY, OHIO

FITZHAMON DRIVE PLAN AND PROFILE

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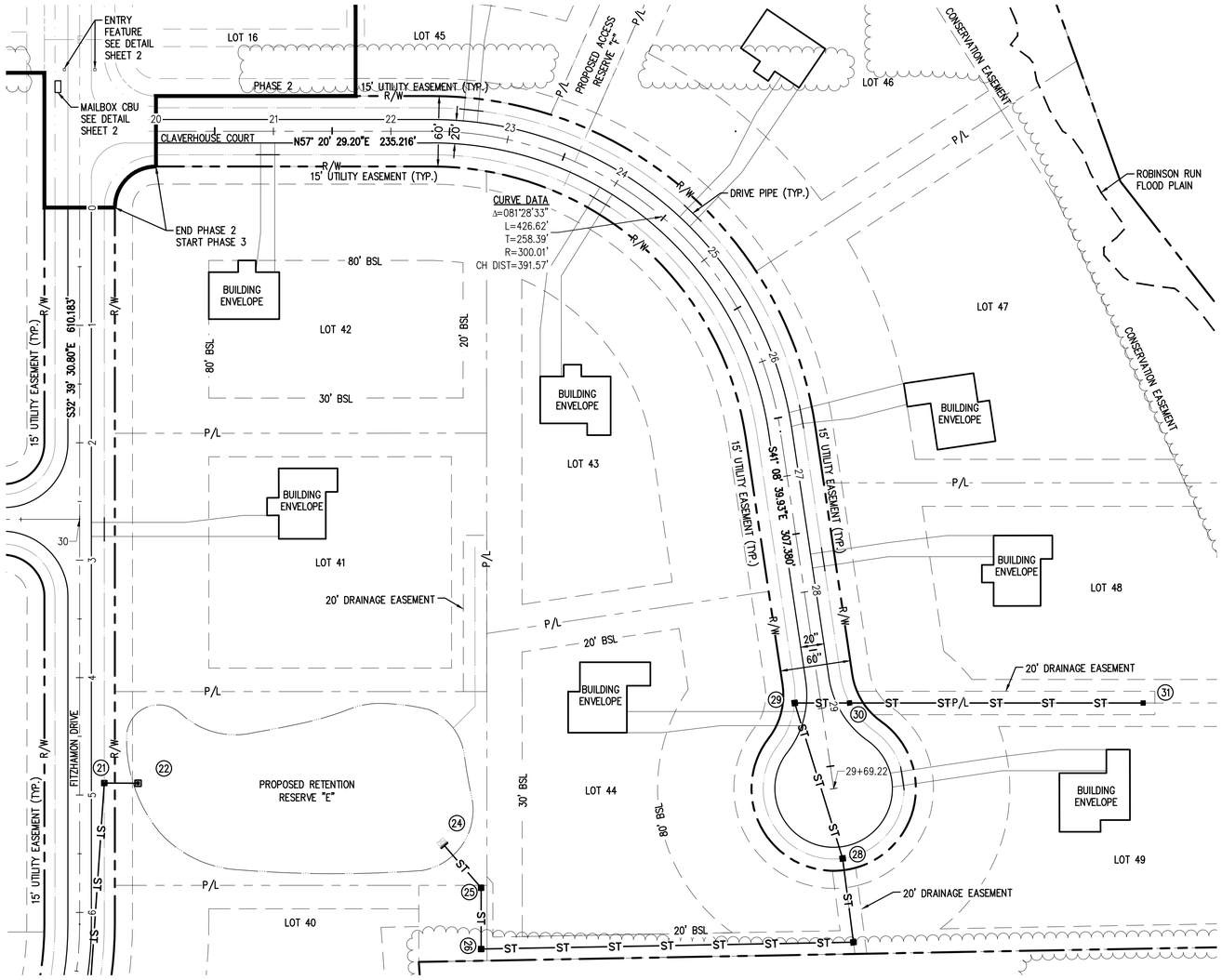
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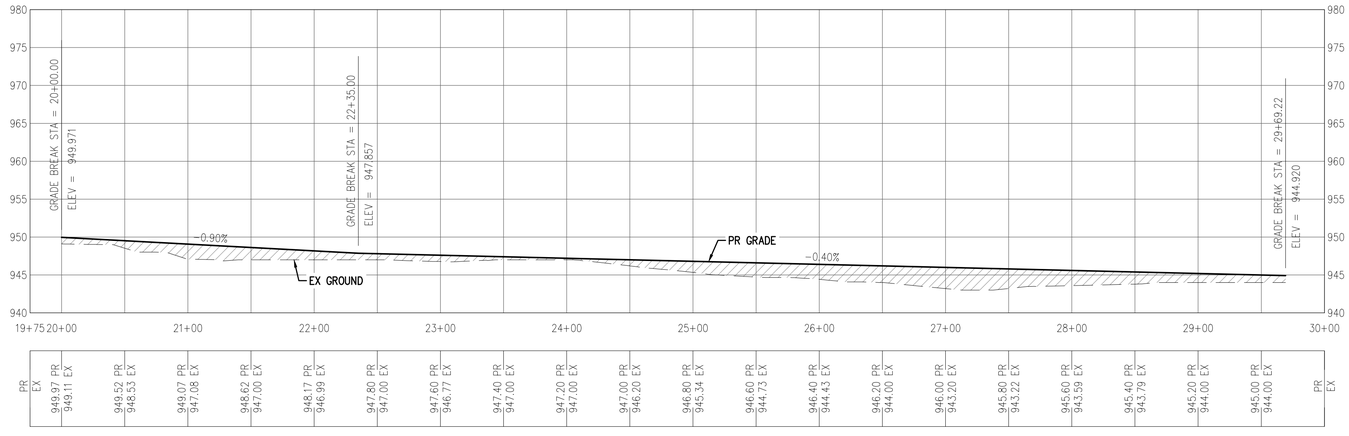
PREPARED FOR:
Doyle Braeside
DARBY BRAESIDE, LLC
9673 SR 736
JEROME TOWNSHIP
PLAIN CITY, OH 43064

PRELIMINARY PLAN FOR
DARBY BRAESIDE PHASE 3
PLAIN CITY, OHIO

BALLANTYNE COURT PLAN AND PROFILE

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LEGEND

- ST — STORM
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- (X) — STORM STRUCTURE NUMBER
- P/L — PROPERTY LINE
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- SUBDIVISION PHASE LINE
- EASEMENT, PER LABEL
- XX' BSL — BUILDING SETBACK LINE (DIMS. TYP. ALL PROPERTIES)
- EX TREELINE
- EX TREE
- ROCK CHANNEL PROTECTION

1"=10' VERTICAL
1"=60' HORIZONTAL
0 30 60 120

NO.	DATE	BY	DESCRIPTION
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PREPARED FOR:
Doyle Braeside
DARBY BRAESIDE, LLC
8673 SR 736
JEROME TOWNSHIP
PLAIN CITY, OH 43064

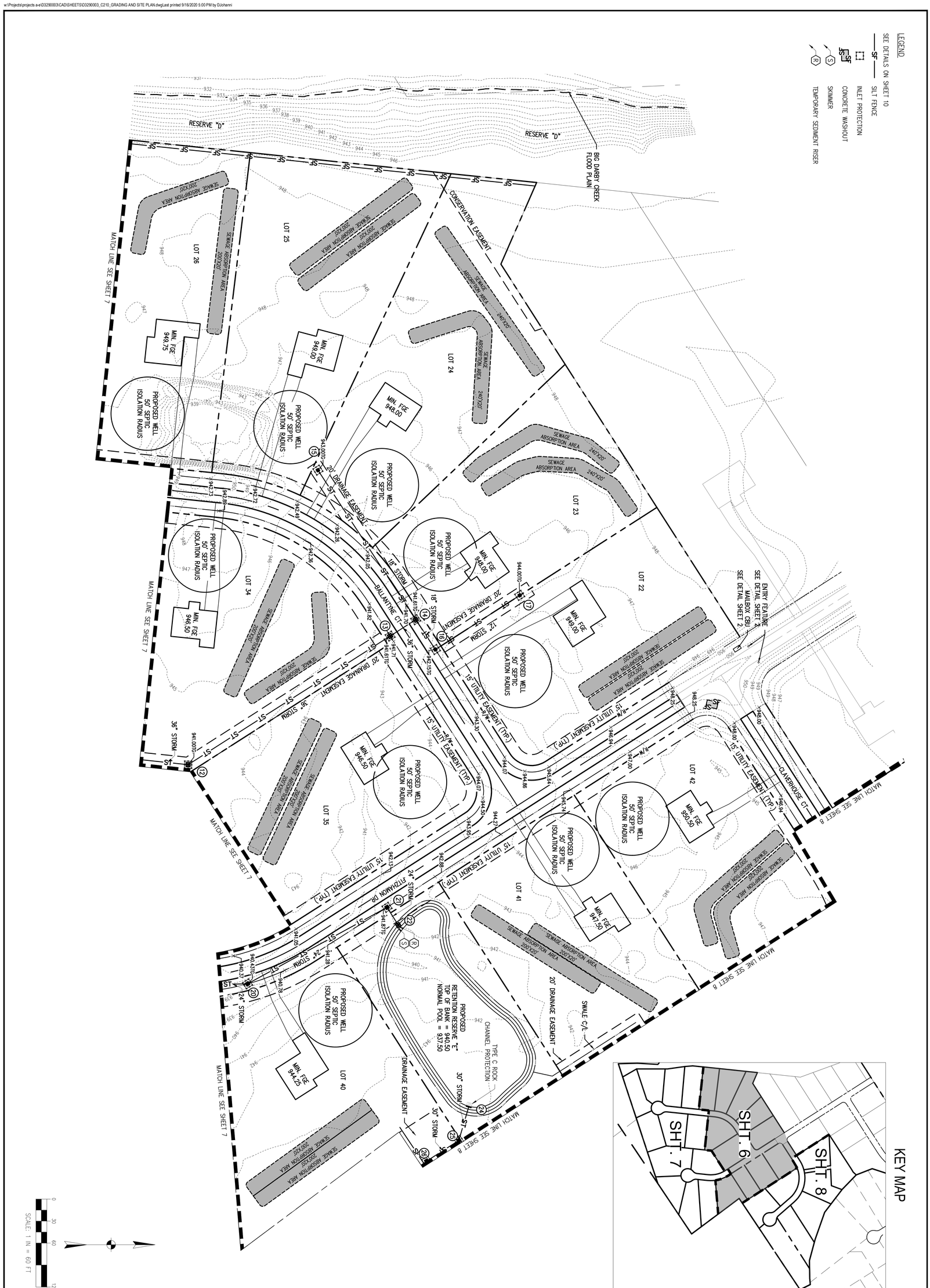
PRELIMINARY PLAN FOR
DARBY BRAESIDE
PHASE 3
PLAIN CITY, OHIO

CLAVERHOUSE COURT PLAN AND PROFILE

5 / 14

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SITE LAYOUT AND GRADING PLAN

PRELIMINARY PLAN FOR

DARBY BRAESIDE PHASE 3

PLAIN CITY, OHIO

PREPARED FOR:

DARBY BRAESIDE, LLC
8673 SR 736
JEROME TOWNSHIP
PLAIN CITY, OH 43064

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FAX: 888.488.7340

PROJECT DATE:	09/17/2020
PROJECT NO:	D3290003
DRAWN BY:	DJJ
CHECKED BY:	RLV

NO.	DATE	BY	DESCRIPTION

PRELIMINARY
NOT FOR CONSTRUCTION

LEGEND

SEE DETAILS ON SHEET 10

SF SILT FENCE

INLET PROTECTION

CONCRETE WASHOUT

S SKIMMER

R TEMPORARY SEDIMENT RISER

MATCH LINE SEE SHEET 6

MATCH LINE SEE SHEET 6

MATCH LINE SEE SHEET 6

RESERVE "D"

LOT 27

LOT 33

LOT 36

LOT 39

LOT 38

LOT 32

LOT 28

LOT 37

LOT 29

LOT 31

LOT 30

BIG DARBY CREEK FLOOD PLAIN

BALLANTYNE CT

FITZHAMON DR

PROPOSED WELL 50' SEPTIC ISOLATION RADIUS

MIN. FGE 946.50

MIN. FGE 949.00, 942.00 *WALKOUT

MIN. FGE 944.00

MIN. FGE 945.50, 938.50 *WALKOUT

MIN. FGE 943.75

MIN. FGE 945.50, 938.50 *WALKOUT

MIN. FGE 942.50

MIN. FGE 941.50

MIN. FGE 943.00

MIN. FGE 942.00

MIN. FGE 942.00

SEWAGE ABSORPTION AREA 200'X20'

SEWAGE ABSORPTION AREA 240'X20'

SEWAGE ABSORPTION AREA 166'X20'

SEWAGE ABSORPTION AREA 120'X20'

24" STORM

12" STORM

36" STORM

15" STORM

20' DRAINAGE EASEMENT

15' UTILITY EASEMENT (TYP.)

TYPE C ROCK CHANNEL PROTECTION

PROPOSED RETENTION RESERVE "C" TOP OF BANK = 937.00 NORMAL POOL = 934.00

40' DRAINAGE EASEMENT

30' DRAINAGE EASEMENT

25' DRAINAGE EASEMENT

PR BIORETENTION

941.85 940.96 940.95 939.95 939.78TG 939.78TG 940.08 940.39 940.35 940.37 940.37 940.21 940.21 941.40 940.05 940.05 939.94 939.28 939.09 938.43 938.61 938.19 937.78 938.75TG 934.75TG 936.40TG 935.07TG 938.23TG 939.68 939.68 939.20TG 939.20TG 938.99 938.89 938.89 938.34 938.53 937.79 937.70 938.18 937.67 936.68 937.27 936.95

KEY MAP



0 30 60 120

SCALE: 1 IN = 60 FT

PRELIMINARY NOT FOR CONSTRUCTION

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SUITE 100
COLUMBUS, OH 43215
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PREPARED FOR:
Dugan Braeside
DARBY BRAESIDE, LLC
8673 SR 736
JEROME TOWNSHIP
PLAIN CITY, OH 43064

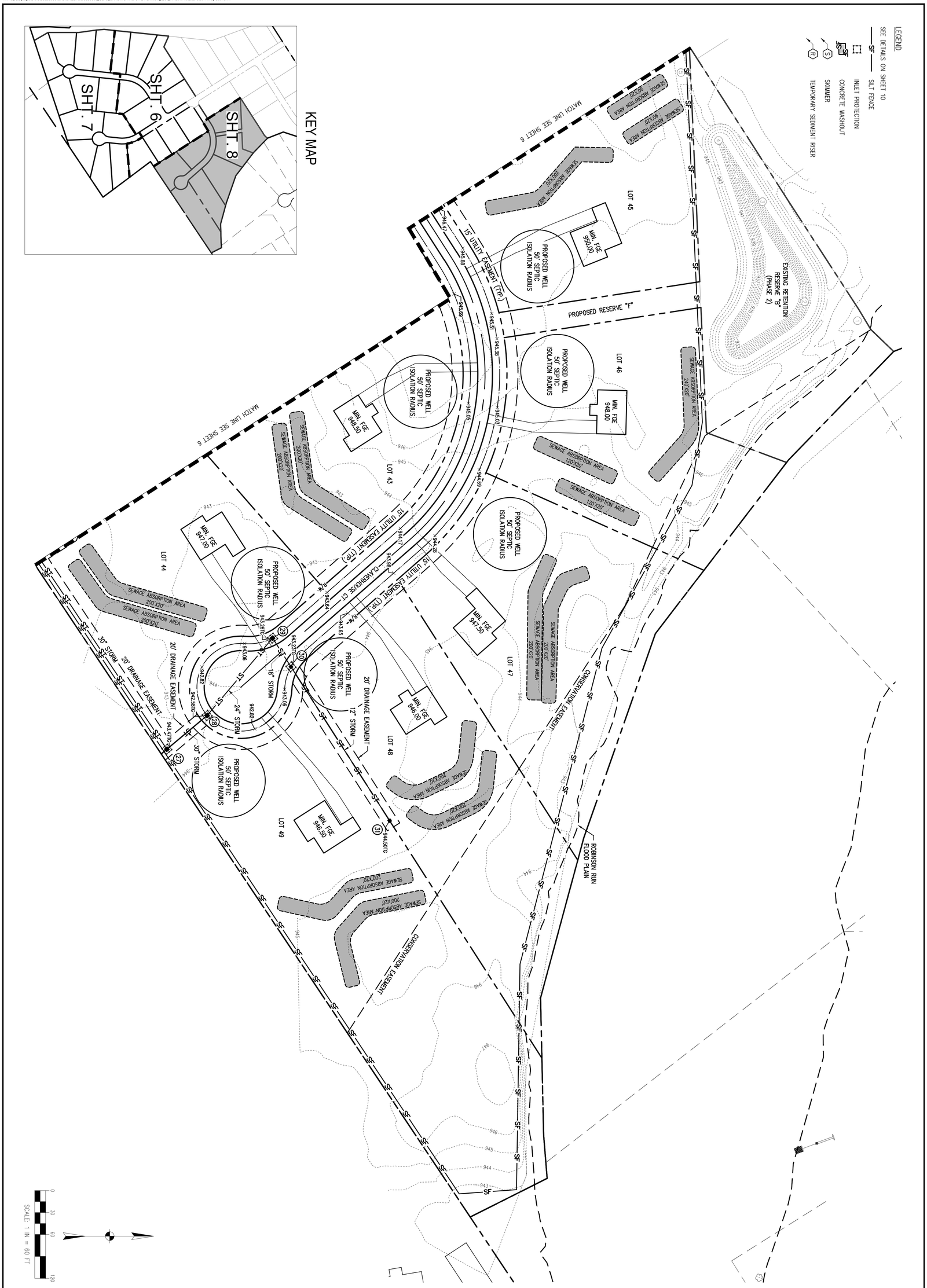
PRELIMINARY PLAN FOR
DARBY BRAESIDE PHASE 3
PLAIN CITY, OHIO

SITE LAYOUT AND GRADING PLAN

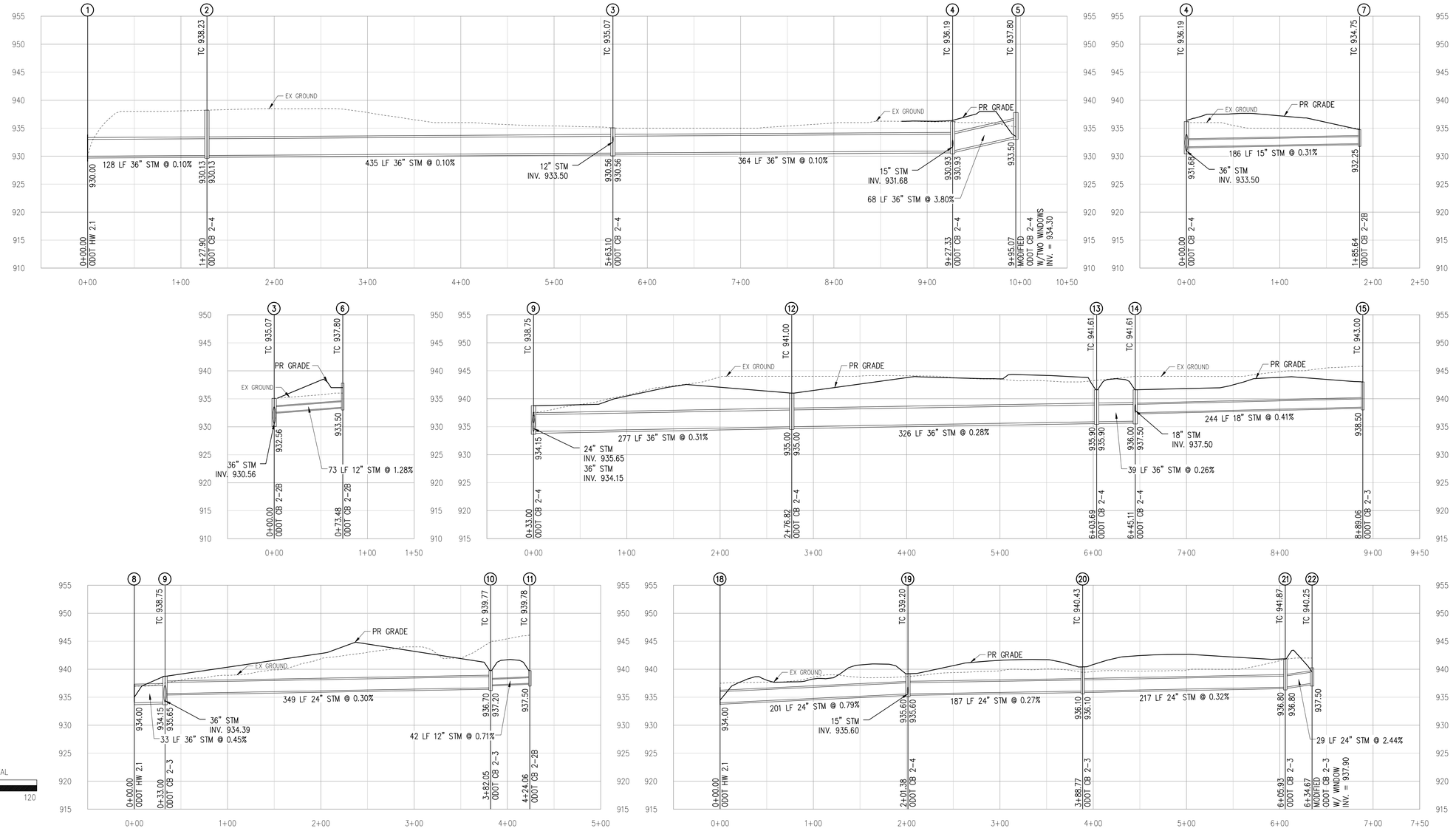
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8 / 14	SITE LAYOUT AND GRADING PLAN	PRELIMINARY PLAN FOR DARBY BRAESIDE PHASE 3 PLAIN CITY, OHIO	PREPARED FOR: DARBY BRAESIDE, LLC 8673 SR 736 JEROME TOWNSHIP PLAIN CITY, OH 43064	Mannik Smith GROUP TECHNICAL SKILL. CREATIVE SPIRIT. www.MannikSmithGroup.com	1160 DUBLIN ROAD SUITE 100 COLUMBUS, OH 43215 TEL: 614.441.4222 FAX: 888.488.7340 PROJECT DATE: 09/17/2020 PROJECT NO: D3290003 DRAWN BY: DJJ CHECKED BY: RLV	NO. / DATE / BY / DESCRIPTION	PRELIMINARY NOT FOR CONSTRUCTION



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SUITE 100
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PROJECT DATE: 09/17/2020
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PREPARED FOR:
Dave Braeside
DARBY BRAESIDE, LLC
8673 SR 736
JEROME TOWNSHIP
PLAIN CITY, OH 43064

PRELIMINARY PLAN FOR
DARBY BRAESIDE
PHASE 3
PLAIN CITY, OHIO

STORM SEWER PROFILES

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SITE NARRATIVE

PLAN DESIGNER:	THE MANNIK & SMITH GROUP, INC. 1160 DUBLIN ROAD, SUITE 100 COLUMBUS, OHIO 43215 CONTACT: RANDY VANTILBURG, P.E. PHONE: (614)-441-4222 EMAIL: RVANTILBURG@MANNIKSMITHGROUP.COM
OWNER/DEVELOPER:	DARBY BRAESIDE, LLC 1119 REGENCY DRIVE COLUMBUS, OHIO 43220 CONTACT: WAYNE BALLANTYNE EMAIL: WAYNEBALLANT@GMAIL.COM
SITE CONTACT:	CONTACT: RANDY VANTILBURG, P.E. PHONE: 614-441-4222 EMAIL: RVANTILBURG@MANNIKSMITHGROUP.COM
PROJECT DESCRIPTION:	CONSTRUCTION OF PHASE 3 OF THE DARBY BRAESIDE SUBDIVISION, INCLUDING THREE ROADWAYS, 27 RESIDENTIAL LOTS, AND TWO DETENTION FACILITIES.
ADJACENT AREAS:	THE SITE IS BOUNDED BY RESIDENTIAL PHASES 1 AND 2 (NORTH), ROBINSON RUN (EAST), AGRICULTURAL LAND (SOUTH), AND BIG DARBY CREEK (WEST).
PROJECT SITE AREA:	SITE AREA: 61.78 AC TOTAL DISTURBED AREA: 57.93 AC PRE-DEVELOPED IMPERVIOUS AREA / % : 0.00 AC / 0.00 % POST-DEVELOPED IMPERVIOUS AREA / % : 8.45 AC / 13.68 %
RUNOFF COEFFICIENTS:	PRE-DEVELOPED: 0.50 POST-DEVELOPED: 0.52
EXISTING SITE CONDITIONS:	AGRICULTURAL LAND.
SOILS:	NAME: CROSBY, FOX, GLYNWOOD SILT LOAMS, 0-2% SLOPES, HSG C
RECEIVING STREAM/ SURFACE WATER:	BIG DARBY CREEK
EROSION AND SEDIMENT CONTROL MEASURES:	INLET PROTECTION SEDIMENT BASIN CONSTRUCTION ENTRANCE SEDIMENT FENCE
PERMANENT STABILIZATION:	THE SITE WILL BE STABILIZED BY USE OF SEEDING OR SODDING IN GRASS AREAS.
POST-CONSTRUCTION STORM WATER MANAGEMENT:	WET EXTENDED DETENTION
CONSTRUCTION SEQUENCE:	1. ESTABLISH A DESIGNATED CONSTRUCTION ENTRANCE/EXIT. 2. INSTALL PERIMETER SEDIMENT FENCE. 3. CLEAR THE EXISTING VEGETATION AND COMMENCE ROUGH GRADING. 4. INSTALL PERMANENT STORM SEWER AND INLET PROTECTION. 5. CONSTRUCT ROADWAYS. 6. FINE GRADE AND STABILIZE DISTURBED AREAS. 7. UPON PERMANENT STABILIZATION OF THE SITE, CONTACT UNION COUNTY TO REQUEST A SITE ASSESSMENT PRIOR TO REMOVING TEMPORARY SEDIMENT CONTROL MEASURES. 8. REMOVE SEDIMENT FENCE.
OEPA NPDES PERMIT:	TBD

EROSION CONTROL GENERAL NOTES

IT IS THE CONTRACTORS RESPONSIBILITY TO MAINTAIN THE SEDIMENTATION AND EROSION CONTROL FEATURES ON THIS PROJECT. ANY SEDIMENT OR DEBRIS WHICH HAS REDUCED THE EFFICIENCY OF A CONTROL SHALL BE REMOVED IMMEDIATELY. SHOULD A STRUCTURE OR FEATURE BECOME DAMAGED, THE CONTRACTOR SHALL REPAIR OR REPLACE AT NO ADDITIONAL COST TO THE OWNER.

NOT ALL EROSION CONTROL MEASURES SHOWN WILL BE IN USE AT THE SAME TIME. PHASING SHALL BE DETERMINED BY THE CONTRACTOR AND EROSION CONTROL DEVICES SHALL BE MODIFIED ACCORDINGLY.

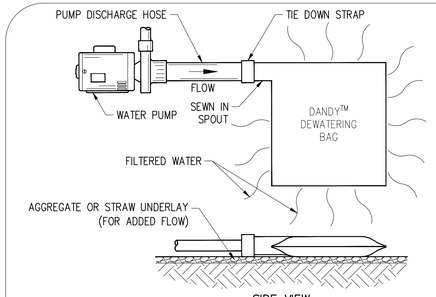
STREET CLEANING (ON AND AS-NEEDED BASIS) IS REQUIRED THROUGH THE DURATION OF THIS CONSTRUCTION PROJECT. THIS INCLUDES SWEEPING, POWER CLEANING, AND, IF NECESSARY, MANUAL REMOVAL OF DIRT OR MUD IN THE STREET GUTTERS.

THIS PLAN MUST BE POSTED ON-SITE. A COPY OF THE SWPPP PLAN AND THE APPROVED EPA STORMWATER PERMIT (WITH THE SITE-SPECIFIC NOI NUMBER) SHALL BE KEPT ON-SITE AT ALL TIMES.

DIRECT DISCHARGE OF SEDIMENT LADEN WATER TO THE CITY'S SEWER SYSTEM OR A RECEIVING STREAM IS A VIOLATION OF OHIO EPA AND UNION COUNTY REGULATIONS. THE CONTRACTOR WILL BE HELD LIABLE FOR THE VIOLATION AND SUBSEQUENT FINES.

ALL INLETS RECEIVING FLOW FROM RUNOFF, PUMPING ACTIVITIES, OR OTHER DIRECT DISCHARGES SHALL BE FITTED WITH AN INLET PROTECTION DEVICE THAT IS PROPERLY SIZED AND SECURED TO REDUCE THE DISCHARGE OF SEDIMENT INTO THE STORM SEWER SYSTEM AND RECEIVING STREAM. INLET PROTECTION IS REQUIRED ON ALL INLETS RECEIVING DISCHARGE REGARDLESS OF WHETHER OR NOT THE INLET IS TRIBUTARY TO ANY DOWNSTREAM EROSION AND SEDIMENT CONTROLS.

ALL EROSION AND SEDIMENT CONTROL PRACTICES ARE SUBJECT TO FIELD MODIFICATION AT THE DISCRETION OF UNION COUNTY AND/OR THE OHIO EPA.

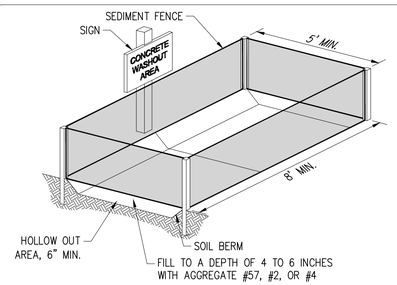


SIDE VIEW

NOTE:
DISCHARGE HOSES USED DURING PUMPING ACTIVITIES SHALL BE FITTED WITH SEDIMENT BAGS THAT ARE PROPERLY SIZED PER MANUFACTURER'S RECOMMENDATIONS REGARDLESS OF WHAT OTHER SEDIMENT CONTROLS ARE IN PLACE FURTHER DOWNSTREAM. SEDIMENT BAGS MUST BE PROPERLY SECURED TO THE DISCHARGE HOSE AND PLACED OVER VEGETATED AREAS, WHERE FEASIBLE, DURING DISCHARGE.

DANDY DEWATERING BAG ™

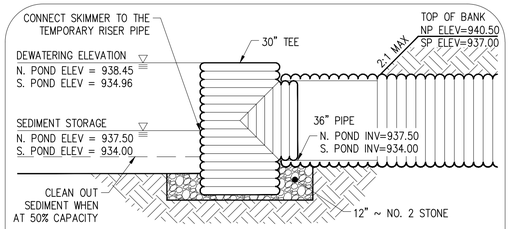
NOT TO SCALE



NOTES:
1. CONCRETE TRUCKS SHALL UTILIZE AREAS TO WASH OUT TRUCK CHUTES.
2. ACCUMULATED CONCRETE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY.

CONCRETE WASHOUT AREA

NOT TO SCALE

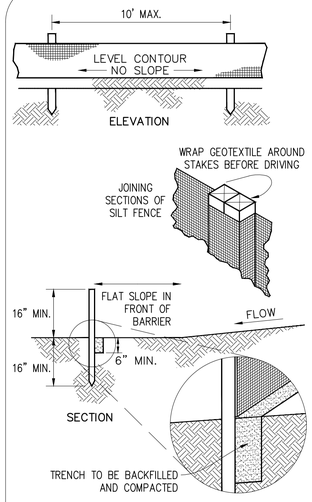


TEMPORARY SEDIMENT CONTROL RISER PIPE DETAIL

NOT TO SCALE

TEMPORARY SEDIMENT BASIN SIZING

	NORTH POND	SOUTH POND
DRAINAGE AREA	14.43 AC.	41.14 AC.
DISTURBED AREA	13.95 AC.	26.29 AC.
SEDIMENT STORAGE VOLUME REQUIRED (134 CY / ACRE DRAINAGE)	1934 CY	5513 CY
SEDIMENT STORAGE VOLUME PROVIDED	7179 CY	29330 CY
DEWATERING VOLUME REQUIRED (67 CY / ACRE DRAINAGE)	967 CY	2757 CY
DEWATERING VOLUME PROVIDED	976 CY	2774 CY



* NOTE: THE USE OF STRAW WATTLES HAS PROVEN TO BE A VERSATILE AND EFFECTIVE ESC BMP, ESPECIALLY IN RESIDENTIAL SETTINGS. STRAW WATTLES MAY BE SUBSTITUTED FOR SILT FENCE IN LINEAR INSTALLATIONS.

SPECIFICATIONS FOR SILT FENCE

1. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
2. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS THAT MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
3. ENDS OF THE SILT FENCES SHALL BE BROUGHT UPSLOPE SLIGHTLY SO THAT WATER PONDED BY THE SILT FENCE WILL BE PREVENTED FROM FLOWING AROUND THE ENDS.
4. SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
5. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FEET (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.
6. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
7. THE SILT FENCE SHALL BE PLACED IN AN EXCAVATED OR SLICED TRENCH CUT A MINIMUM OF 6 INCHES DEEP. THE TRENCH SHALL BE MADE WITH A TRENCHER, CABLE LAYING MACHINE, SLICING MACHINE, OR OTHER SUITABLE DEVICE THAT WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.
8. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE. A MINIMUM OF 8 INCHES OF GEOTEXTILE MUST BE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6-INCH DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED ON BOTH SIDES OF THE FABRIC.
9. SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST WITH A MINIMUM 6-IN. OVERLAP PRIOR TO DRIVING INTO THE GROUND.
10. MAINTENANCE-SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER THE FABRIC OR AROUND THE FENCE ENDS, OR IN ANY OTHER WAY ALLOWS A CONCENTRATED FLOW DISCHARGE, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1)THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 2)ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3)OTHER PRACTICES SHALL BE INSTALLED.

SEDIMENT DEPOSITS SHALL BE ROUTINELY REMOVED WHEN THE DEPOSIT REACHES APPROXIMATELY ONE-HALF OF THE HEIGHT OF THE SILT FENCE.

SILT FENCES SHALL BE INSPECTED AFTER EACH RAINFALL AND AT LEAST DAILY DURING A PROLONGED RAINFALL. THE LOCATION OF EXISTING SILT FENCE SHALL BE REVIEWED DAILY TO ENSURE ITS PROPER LOCATION AND EFFECTIVENESS. IF DAMAGED, THE SILT FENCE SHALL BE REPAIRED IMMEDIATELY.

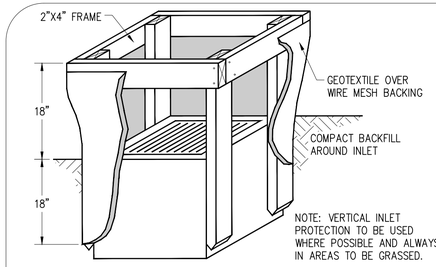
CRITERIA FOR SILT FENCE MATERIALS

1. FENCE POST - THE LENGTH SHALL BE A MINIMUM OF 32 INCHES. WOOD POSTS WILL BE 2-BY-2-IN. NOMINAL DIMENSIONED HARDWOOD OF SOUND QUALITY. THEY SHALL BE FREE OF KNOTS, SPLITS AND OTHER VISIBLE IMPERFECTIONS, THAT WILL WEAKEN THE POSTS. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FT. POSTS SHALL BE DRIVEN A MINIMUM 16 INCHES INTO THE GROUND, WHERE POSSIBLE. IF NOT POSSIBLE, THE POSTS SHALL BE ADEQUATELY SECURED TO PREVENT OVERTURNING OF THE FENCE DUE TO SEDIMENT/WATER LOADING.
2. SILT FENCE FABRIC - SEE CHART BELOW.

FABRIC PROPERTIES	VALUES	TEST METHOD
Minimum Tensile Strength	120 lbs. (535 N)	ASTM D 4632
Maximum Elongation at 60 lbs	50%	ASTM D 4632
Minimum Puncture Strength	50 lbs (220 N)	ASTM D 4833
Minimum Tear Strength	40 lbs (180 N)	ASTM D 4533
Apparent Opening Size	0.84 mm	ASTM D 4751
Minimum Permittivity	1X10-2 sec.-1	ASTM D 4491
UV Exposure Strength Retention	70%	ASTM G 4355

SEDIMENT FENCE BARRIER

NOT TO SCALE

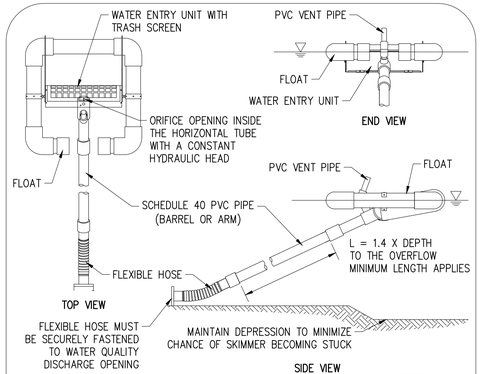


CONSTRUCTION SPECIFICATIONS:

1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE INLET BECOMES FUNCTIONAL.
2. THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH AT LEAST 18 INCHES.
3. THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2-INCH BY 4-INCH CONSTRUCTION GRADE LUMBER. THE 2-INCH BY 4-INCH POSTS SHALL BE DRIVEN ONE (1) FT. INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2-INCH BY 4-INCH FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6 INCHES BELOW ADJACENT ROADS IF PONDED WATER WILL POSE A SAFETY HAZARD TO TRAFFIC.
4. WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.
5. GEOTEXTILE MATERIAL SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20-40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY. IT SHALL EXTEND FROM THE TOP OF THE FRAME TO 18 INCHES BELOW THE INLET NOTCH ELEVATION. THE GEOTEXTILE SHALL OVERLAP ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.
6. BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6-INCH LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.
7. A COMPACTED EARTH DIKE OR CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION. THE TOP OF THE DIKE SHALL BE AT LEAST 6 INCHES HIGHER THAN THE TOP OF THE FRAME.

FILTER FABRIC INLET PROTECTION

NOT TO SCALE



SKIMMER SPECIFICATIONS			
	SKIMMER DIAMETER SIZE (INCHES)	SKIMMER ORIFICE DIAMETER (INCHES)	SKIMMER PIPE LENGTH (FEET)
NORTH POND	4.0	3.2	4.2
SOUTH POND	6.0	5.1	4.2

NOTE: PROPOSED SKIMMER SHALL BE A FAIRCLOTH SKIMMER OR EQUIVALENT

GENERAL NOTES:

1. PROPER DESIGN MUST BE COMPLETED TO MINIMIZE PIPING AROUND DISCHARGE PIPE.
2. PROPER ORIFICE OPENING MUST BE SELECTED TO ENSURE POND DRAINS IN CORRECT AMOUNT OF TIME. MODIFICATIONS MAY BE REQUIRED IF FIELD CONDITIONS WARRANT A CHANGE.
3. EMBANKMENT MUST BE COMPACTED TO DESIGN SPECIFICATIONS.
4. EMERGENCY SPILLWAY MUST BE CORRECTLY SIZED AND EROSION PROTECTION INSTALLED.
5. EROSION PROTECTION MUST BE INSTALLED ALONG THE EMBANKMENT AND AT THE DISCHARGE END OF THE PIPE.
6. INSPECT SYSTEM REGULARLY TO ENSURE IT IS FUNCTIONING IN A CORRECT MANNER.
7. EIGHT SIZES OF SKIMMERS ARE AVAILABLE, REFER TO THE FLOW SHEET, CUT SHEET, AND INSTRUCTIONS ON WEB SITE FOR EACH SIZE.

SKIMMER DETAIL

NOT TO SCALE

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NOT FOR CONSTRUCTION

1160 DUBLIN ROAD
SUITE 100
COLUMBUS, OH 43215
TEL: 614.441.4222
FAX: 888.488.7340

PROJECT DATE: 09/17/2020
PROJECT NO: D3290003
DRAWN BY: DJJ
CHECKED BY: RLV

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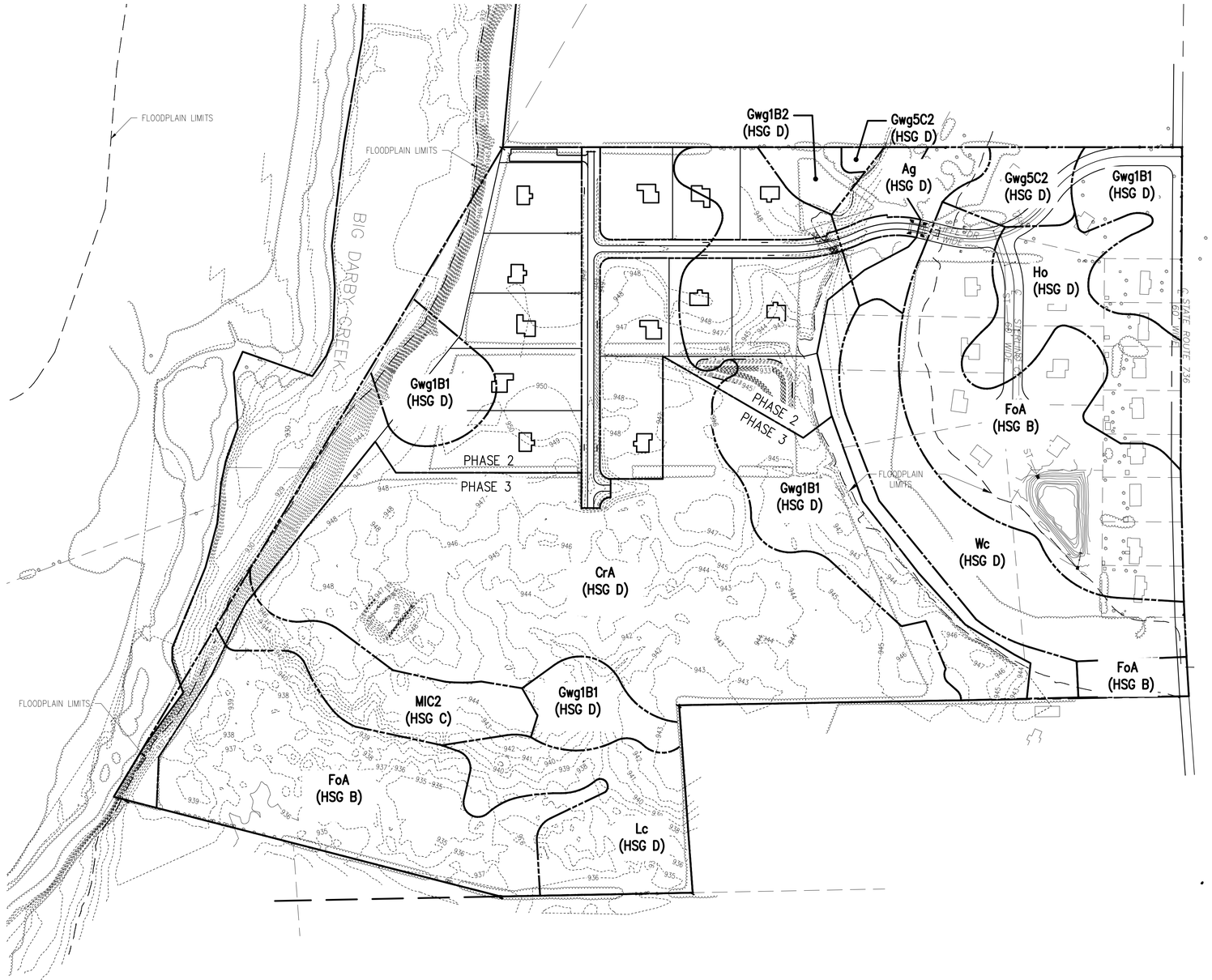
PREPARED FOR:
Darby Braeside
DARBY BRAESIDE, LLC
8673 SR 736
JEROME TOWNSHIP
PLAIN CITY, OH 43064

PRELIMINARY PLAN FOR
DARBY BRAESIDE
PHASE 3
PLAIN CITY, OHIO

STORMWATER POLLUTION PREVENTION PLAN NOTES AND DETAILS

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LEGEND

Ag	–	ALGIERS SILT LOAM
CrA	–	CROSBY SILT LOAM, SOUTHERN OHIO TILL PLAIN, 0–2 PERCENT SLOPES.
FoA	–	FOX SILT LOAM, TILL PLAIN, 0–2 PERCENT SLOPES.
Gwg1B1	–	GLYNWOOD SILT LOAM, GROUND MORAINE, 2–6 PERCENT SLOPES.
Gwg1B2	–	GLYNWOOD SILT LOAM, GROUND MORAINE, 2–6 PERCENT SLOPES, ERODED.
Gwg5C2	–	GLYNWOOD CLAY LOAM, GROUND MORAINE, 6–12 PERCENT SLOPES, ERODED.
Ho	–	HOMER SILT LOAM
Wc	–	WESTLAND SILTY CLAY LOAM

0 100 200 400

SCALE: 1 IN = 200 FT

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SUITE 100
COLUMBUS, OH 43215
TEL: 614.441.4222
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DARBY BRAESIDE, LLC
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JEROME TOWNSHIP
PLAIN CITY, OH 43064

PRELIMINARY PLAN FOR
DARBY BRAESIDE PHASE 3
PLAIN CITY, OHIO

SOILS MAP

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LEGEND

- SOIL SAMPLE LOCATIONS
- PROPOSED STORM STRUCTURE
- ST — PROPOSED STORM SEWER

NOTE:
THE SEPTIC AREA FOOTPRINTS AS SHOWN ON THIS PLAN REPRESENT REPRESENTATIVE DESIGNS ADEQUATE FOR 4 BEDROOMS. FURTHER EVALUATIONS WILL NEED TO BE COMPLETED BY THE HOME BUILDER, AS THE FINAL DESIGN AND LAYOUT MUST BE REVIEWED AND APPROVED BY THE UNION COUNTY HEALTH DEPARTMENT PRIOR TO PERMITTING.

KEY MAP



BIG DARBY CREEK FLOOD PLAIN
RESERVE "D"
CONSERVATION EASEMENT
MATCH LINE SEE SHEET 14
CLAVERHOUSE CT
BALLANTYNE CT
FITZHAMON DR
20' DRAINAGE EASEMENT
15' UTILITY EASEMENT (TYP.)
DRAINAGE EASEMENT
PROPOSED RETENTION RESERVE "E" NORMAL POOL=937.50
LOT 22
LOT 23
LOT 24
LOT 25
LOT 26
LOT 34
LOT 35
LOT 41
LOT 42
LOT 40
SEWAGE ABSORPTION AREA 200'X20'
SEWAGE ABSORPTION AREA 240'X20'
PROPOSED WELL 50' SEPTIC ISOLATION RADIUS
MIN. FGE 949.00
MIN. FGE 948.00
MIN. FGE 950.50
MIN. FGE 947.50
MIN. FGE 946.50
MIN. FGE 949.75
MIN. FGE 944.25
MATCH LINE SEE SHEET 13

SCALE: 1 IN = 60 FT

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SUITE 100
COLUMBUS, OH 43215
TEL: 614.441.4222
FAX: 888.488.7340

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CHECKED BY: RLV

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PREPARED FOR:
Duke Braeside
DARBY BRAESIDE, LLC
8673 SR 736
JEROME TOWNSHIP
PLAIN CITY, OH 43064

PRELIMINARY PLAN FOR
DARBY BRAESIDE PHASE 3
PLAIN CITY, OHIO

SEPTIC PLAN

12 / 14

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LEGEND

- SOIL SAMPLE LOCATIONS
- PROPOSED STORM STRUCTURE
- ST — PROPOSED STORM SEWER

NOTE:
THE SEPTIC AREA FOOTPRINTS AS SHOWN ON THIS PLAN REPRESENT REPRESENTATIVE DESIGNS ADEQUATE FOR 4 BEDROOMS. FURTHER EVALUATIONS WILL NEED TO BE COMPLETED BY THE HOME BUILDER, AS THE FINAL DESIGN AND LAYOUT MUST BE REVIEWED AND APPROVED BY THE UNION COUNTY HEALTH DEPARTMENT PRIOR TO PERMITTING.

MATCH LINE SEE SHEET 12

RESERVE "D"

BIG DARBY CREEK FLOOD PLAIN

BALLANTYNE CT

FITZHAMON DR

LOT 27 · LOT 28 · LOT 29 · LOT 30 · LOT 31 · LOT 32 · LOT 33 · LOT 36 · LOT 37 · LOT 38 · LOT 39

PROPOSED WELL 50' SEPTIC ISOLATION RADIUS

SEWAGE ABSORPTION AREA 200'X20'

SEWAGE ABSORPTION AREA 120'X20'

SEWAGE ABSORPTION AREA 240'X20'

SEWAGE ABSORPTION AREA 166'X20'

MIN. FGE 949.00, 942.00 *WALKOUT

MIN. FGE 944.00

MIN. FGE 946.50

MIN. FGE 945.50, 938.50 *WALKOUT

MIN. FGE 943.75

MIN. FGE 945.50, 938.50 *WALKOUT

MIN. FGE 942.50

MIN. FGE 941.50

MIN. FGE 943.00

MIN. FGE 942.00

MIN. FGE 942.00

15' UTILITY EASEMENT (TYP.) R/W

20' DRAINAGE EASEMENT

40' DRAINAGE EASEMENT

30' DRAINAGE EASEMENT

25' DRAINAGE EASEMENT

PROPOSED RETENTION RESERVE "C" NORMAL POOL: 934.00

S-27 · S-29 · S-30 · S-38

27-1 · 27-2 · 28-1 · 28-2 · 28-3 · 29-1 · 29-2 · 30-1 · 30-2 · 31-1 · 31-2 · 32-1 · 32-2 · 33-1 · 33-2 · 36-2 · 36-3 · 37-1 · 38-1 · 38-2 · 39-1 · 39-2 · r-1 · r-2 · r-3

KEY MAP



0 30 60 120
SCALE: 1 IN = 60 FT

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NO.	DATE	BY	DESCRIPTION

1160 DUBLIN ROAD
SUITE 100
COLUMBUS, OH 43215
TEL: 614.441.4222
FAX: 888.488.7340

PROJECT DATE: 09/17/2020
PROJECT NO: D3290003
DRAWN BY: DJJ
CHECKED BY: RLV

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PREPARED FOR:
Dugan Braeside
DARBY BRAESIDE, LLC
8673 SR 736
JEROME TOWNSHIP
PLAIN CITY, OH 43064

PRELIMINARY PLAN FOR
DARBY BRAESIDE PHASE 3
PLAIN CITY, OHIO

SEPTIC PLAN

13 / 14

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LEGEND

- SOIL SAMPLE LOCATIONS
- PROPOSED STORM STRUCTURE
- ST — PROPOSED STORM SEWER

NOTE:
THE SEPTIC AREA FOOTPRINTS AS SHOWN ON THIS PLAN REPRESENT REPRESENTATIVE DESIGNS ADEQUATE FOR 4 BEDROOMS. FURTHER EVALUATIONS WILL NEED TO BE COMPLETED BY THE HOME BUILDER, AS THE FINAL DESIGN AND LAYOUT MUST BE REVIEWED AND APPROVED BY THE UNION COUNTY HEALTH DEPARTMENT PRIOR TO PERMITTING.

EXISTING BASIN RESERVE "B" (PHASE 2)

PROPOSED RESERVE "F"

LOT 45 — LOT 46 — LOT 47 — LOT 48 — LOT 49 — LOT 44 — LOT 43

MIN. FGE 950.00 — MIN. FGE 948.00 — MIN. FGE 947.50 — MIN. FGE 946.00 — MIN. FGE 946.50 — MIN. FGE 947.00 — MIN. FGE 946.50

SEWAGE ABSORPTION AREA 200'X20'

PROPOSED WELL 50' SEPTIC ISOLATION RADIUS

15' UTILITY EASEMENT (TYP.)

20' DRAINAGE EASEMENT

CLAYERHOUSE CT.

CONSERVATION EASEMENT

ROBINSON RUN FLOOD PLAIN

MATCH LINE SEE SHEET 12

MATCH LINE SEE SHEET 12

KEY MAP



SCALE: 1 IN = 60 FT

NO.	DATE	BY	DESCRIPTION
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1160 DUBLIN ROAD
SUITE 100
COLUMBUS, OH 43215
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DARBY BRAESIDE, LLC
8671 SR 736
JEROME TOWNSHIP
PLAIN CITY, OH 43064

PRELIMINARY PLAN FOR
DARBY BRAESIDE
PHASE 3
PLAIN CITY, OHIO

SEPTIC PLAN

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PRELIMINARY SUBDIVISION PLAT FOR DARBY BRAESIDE PHASE 3

JEROME TOWNSHIP, UNION COUNTY, OHIO

V.M.S. 3484

STANDARD DEED RESTRICTIONS FOR UNION COUNTY

RESIDENTIAL and COMMERCIAL

1. THERE SHALL BE NO DISCHARGE IN TO ANY STREAMS OR STORM WATER OUTLETS OF ANY WASTE MATERIALS IN VIOLATION OF APPLICABLE LOCAL, STATE, OR FEDERAL REGULATIONS.

2. NO PERMANENT STRUCTURES, PLANTINGS, ETC. SHALL BE PERMITTED IN EASEMENT AREAS.

3. GRADING OF THE STORM WATER DETENTION AREAS SHALL NOT BE CHANGED.

4. MAINTENANCE OF DRAINAGE DITCHES, DETENTION AREAS, AND/OR DRAINAGE SWALES SHALL BE THE RESPONSIBILITY OF UNION COUNTY ENGINEER'S OFFICE, AND USWCD THROUGH THE DITCH MAINTENANCE PROGRAM. REPAIRS SHALL BE MADE IMMEDIATELY. EXISTING DRAIN TILES IN THE SUBDIVISION SHALL BE RE-ROUTED SO THAT DRAINAGE ENTERING TILES WILL CONTINUE TO FLOW FREELY.

5. THE LOT OWNER AND HIS SUCCESSORS AND ASSIGNS AGREE TO ASSUME ANY AND ALL DITCH MAINTENANCE CHARGES WHICH ARE ESTABLISHED BY THE UNION COUNTY COMMISSIONERS FOR THIS SUBDIVISION.

6b. NO CONSTRUCTION MAY BEGIN OR BUILDING STARTED WITHOUT THE INDIVIDUAL LOT OWNER OBTAINING ZONING, BUILDING, SEPTIC SEWAGE DISPOSAL, WATER WELL, AND DRIVEWAY PERMITS.ZONING PERMITS ARE OBTAINED FROM THE TOWNSHIP ZONING INSPECTOR. BUILDING PERMITS ARE OBTAINED FROM THE UNION COUNTY BUILDING REGULATION DEPARTMENT AND DRIVEWAY PERMITS ARE OBTAINED FROM THE UNION COUNTY ENGINEER'S OFFICE. SEPTIC SEWAGE DISPOSAL AND WATER WELL PERMITS ARE OBTAINED FROM THE UNION COUNTY HEALTH DEPARTMENT.

8. ALL CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE TOWNSHIP, UNION COUNTY, AND OTHER APPLICABLE CODE AUTHORITIES.

9. FOR ANY BUILDING PROPOSED TO BE BUILT WITHIN THE 100-YEAR FLOOD ZONE, THE STANDARDS OF THE UNION COUNTY FLOOD DAMAGE PREVENTION RESOLUTION MUST BE MET. NO CONSTRUCTION MAY BEGIN OR BUILDING STARTED WITHIN A DESIGNATED FLOOD HAZARD AREA PRIOR TO THE ISSUANCE OF A FLOOD HAZARD PERMIT BY THE UNION COUNTY BUILDING REGULATION DEPARTMENT.

RESIDENTIAL ONLY

11. DOWNSPOUT DRAINS SHALL NOT BE CONNECTED DIRECTLY TO THE ROADWAY UNDER DRAINS.

14a. REGULAR MAINTENANCE OF THE STORM WATER DETENTION AREAS IS THE RESPONSIBILITY OF THE UNION COUNTY ENGINEER'S OFFICE AND USWCD THROUGH THE DITCH MAINTENANCE PROGRAM. UPON WHICH THE EASEMENT FOR THE DETENTION AREA IS LOCATED .

15. WHEN DRIVEWAYS FOR EACH LOT ARE CONSTRUCTED, A DRIVE PIPE SHALL BE INSTALLED PER THE SCHEDULE ON THE FINAL ENGINEERING PLAN. THE DRIVE PIPE SHALL BE APPROVED AND INSPECTED BY THE UNION COUNTY ENGINEER'S OFFICE.

MISCELLANEOUS RESTRICTIONS/NOTES

24. THIS SUBDIVISION IS LOCATED ADJACENT TO LAND WHICH MAY BE USED FOR AGRICULTURAL/FARMING PURPOSES. LOT OWNERS CAN EXPECT NOISE FROM FARM MACHINERY, DUST FROM FARMING OPERATIONS, THE APPLICATION OF CHEMICALS TO THE SOIL AND CROPS, ODORS AND NOISE FROM LIVESTOCK, AND OTHER TYPICAL FARMING NUISANCES. OWNERS CAN EXPECT FARMING OPERATIONS TO HAPPEN DAY OR NIGHT. YOU CAN EXPECT HUNTING ON AGRICULTURAL LAND. DO NOT EXPECT TO USE AGRICULTURAL LAND FOR YOUR PURPOSES WITHOUT FIRST GETTING PERMISSION FROM THE LANDOWNER. DO NOT ALLOW YOUR CHILDREN OR YOUR PETS TO PLAY ON AGRICULTURAL LAND. DO NOT DISCARD CLIPPINGS AND TRIMMINGS FROM LAWNS, TREES, BUSHES, PLANTS, ETC. OR OTHER WASTES THAT YOU MAY GENERATE ON AGRICULTURAL LAND. DISPOSE OF ALL WASTES APPROPRIATELY. ADDITIONALLY, THERE MAY BE EXISTING DITCHES, SURFACE SWALES OR UNDERGROUND TILES THAT DRAIN WATER FROM ADJACENT LAND ON TO OR THROUGH YOUR PROPERTY. YOU HAVE A LEGAL RESPONSIBILITY TO ALLOW THE REASONABLE FLOW OF WATER ON TO OR THROUGH YOUR PROPERTY FROM UP GROUND PROPERTIES. YOU ALSO HAVE A LEGAL RESPONSIBILITY TO MAINTAIN AND REPAIR ANY EXISTING DITCHES, SURFACE SWALES OR UNDERGROUND TILE ON YOUR PROPERTY.

26. FEMA ZONE: AT THE TIME OF PLATTING, ALL OF THE SUBDIVISION IS IN ZONE X (areas determined to be out of the 500-year floodplain) AS SAID ZONE IS DESIGNATED AND DELINEATED ON THE FEMA FLOOD INSURANCE RATE MAP FOR UNION COUNTY, OHIO AND UNINCORPORATED AREAS, MAP NUMBERS 39159C0370D WITH EFFECTIVE DATE OF DECEMBER 16, 2008.

27. MINIMUM SETBACKS: ZONING REGULATIONS FOR DARBY BRAESIDE PHASE 2 SUBDIVISION IN EFFECT AT THE TIME OF PLATTING OF DARBY BRAESIDE PHASE 1 SUBDIVISION SPECIFY THE FOLLOWING DIMENSIONS FOR THE MINIMUM FRONT, SIDE AND REAR YARD SETBACKS FOR EACH LOT:
FRONT 80 FEET
SIDE 20 FEET
REAR 30 FEET
SAID ZONING REGULATIONS AND ANY AMENDMENTS THERETO PASSED SUBSEQUENT TO ACCEPTANCE OF THIS PLAT, SHOULD BE REVIEWED TO DETERMINE THE THEN CURRENT REQUIREMENTS. THIS NOTICE IS SOLELY FOR THE PURPOSE OF NOTIFYING THE PUBLIC OF THE EXISTENCE, AT THE TIME OF PLATTING, OF CERTAIN ZONING REGULATIONS APPLICABLE TO THIS PROPERTY. THIS NOTICE SHALL NOT BE INTERPRETED AS CREATING PLAT OR SUBDIVISION RESTRICTIONS, PRIVATE USE RESTRICTIONS, COVENANTS RUNNING WITH THE LAND OR TITLE ENCUMBRANCES OF ANY NATURE, AND IS FOR INFORMATION PURPOSES ONLY.

28. UTILITY PROVIDERS: BUYERS OF THE LOTS IN THIS SUBDIVISION ARE HEREBY NOTIFIED THAT, AT THE TIME OF PLATTING, UTILITY SERVICE TO THIS SUBDIVISION FOR ELECTRIC POWER IS PROVIDED BY UNION RURAL ELECTRIC, TELEPHONE SERVICE IS PROVIDED BY FRONTIER COMMUNICATIONS.

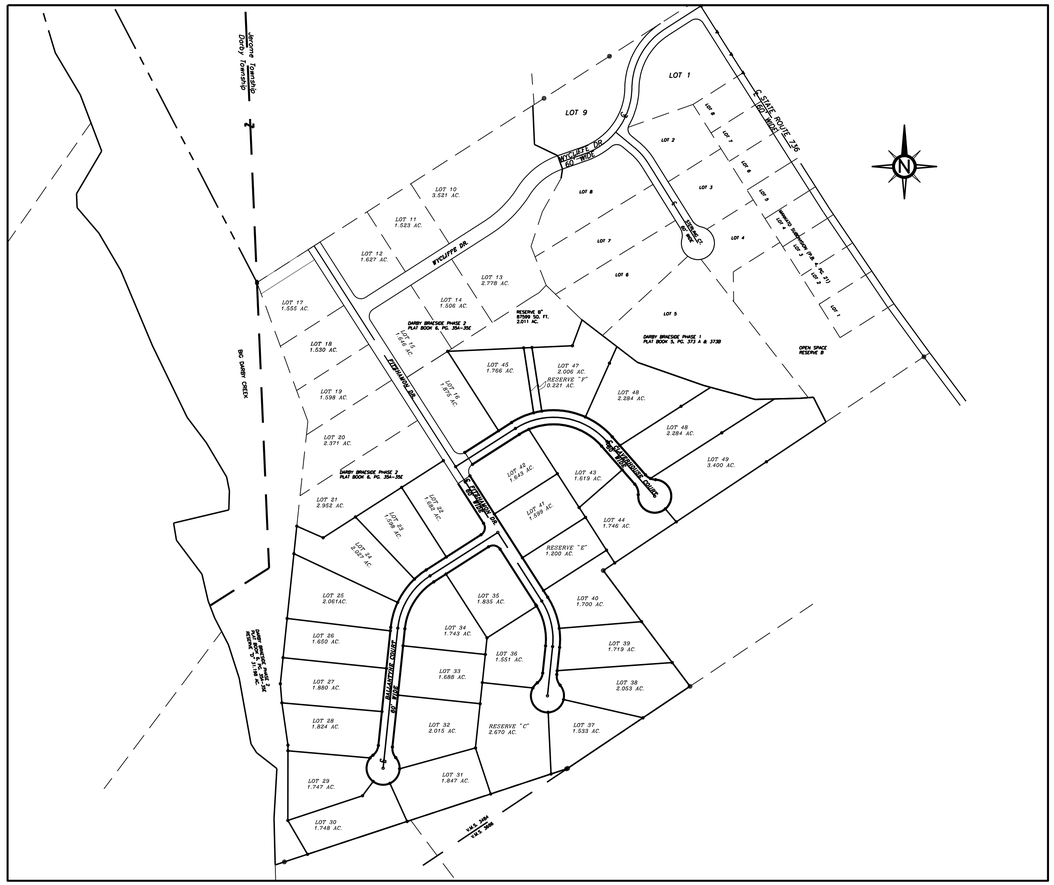
29. SCHOOL DISTRICT: AT THE TIME OF PLATTING, ALL OF THE SUBDIVISION IS IN THE JONATHAN ALDER LOCAL SCHOOL DISTRICT.

31. THE CONSERVATION EASEMENT AREAS ARE PART OF INDIVIDUAL LOT(S). IN SUCH CASES, THE OWNER(S) OF THE LOT(S) AFFECTED BY THE CONSERVATION EASEMENT SHALL BE RESPONSIBLE FOR DOING AND/OR REFRAINING FROM DOING CERTAIN ACTS WITHIN THE CONSERVATION EASEMENT IN ORDER TO PRESERVE IT IN ITS NATURAL STATE. WITHIN SAID CONSERVATION EASEMENT ON LOTS THERE SHALL BE NO BUILDINGS, EXCAVATING, REMOVAL OR QUARRYING OF TOP SOIL, SAND, GRAVEL, ROCK, MINERALS AND/OR MATERIALS OR CHANGE IN THE TOPOGRAPHY OF THE GRADE WITHIN THE CONSERVATION EASEMENT IN ANY MANNER, OTHER THAN THAT CAUSED BY THE FORCES OR NATURE OR AS RESERVED WITHIN THE CONSERVATION EASEMENT.

32. RESERVE D HAS BEEN CREATED FOR THE PURPOSE OF PRESERVING, PROTECTING, AND CONSERVING THOSE AREAS OF THE SUBDIVISION ADJACENT TO THE BIG DARBY CREEK WHILE ALLOWING FOR PASSIVE ENJOYMENT OF THE RESERVE BY THE HOMEOWNERS. THIS RESERVE SHALL BE KEPT IN ITS ACTUAL STATE. AS HEREIN USED, THE TERM NATURAL STATE IS INTENDED TO MEAN THAT NO BUILDINGS, BILLBOARDS, SIGNS OR OTHER STRUCTURES MAY BE CONSTRUCTED WITHIN THE RESERVE, PROVIDED, HOWEVER, TWO STRUCTURES MAY BE CONSTRUCTED WITHIN THE RESERVE: A CANOE STORAGE AND PICNIC SHELTER. THE HOMEOWNERS ASSOCIATION MAY MOVE DIRT, EXCAVATE OR BRING IN FILL OR MATERIAL FOR THE PRESERVATION OF EXISTING PATHWAYS THROUGH CONSERVATION EASEMENT.

33. OTHER RESERVE AREAS (C, E, AND F) SHALL BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.

34. THE UNDERSIGNED OWNERS DARBY BRAESIDE, LLC GRANTOR OF THE WITHIN PLATTED LAND, DO HEREBY GRANT UNTO ELECTRIC PROVIDER UNION RURAL ELECTRIC COOPERATIVE, PHONE, CABLE, FIBER (FRONTIER COMMUNICATIONS, CHARTER COMMUNICATIONS, WOW) AND THEIR SUCCESSORS AND ASSIGNS (GRANTEES). A PERMANENT EASEMENT ("UTILITY EASEMENT"), UNDER, OVER AND THROUGH ALL SUB LOTS AND ALL LANDS OWNED BY THE GRANTOR SHOWN HEREON AND PARALLEL WITH THE CONTIGUOUS RIGHT-OF-WAY FOR WYCLIFF DRIVE AND FITZHAMON DRIVE AND ALSO UPON LAND BETWEEN LOTS AS TO THE SERVICE METER TO BE INSTALLED UPON THE GRANTOR PROPERTY ("UTILITY EASEMENT"), THE CENTERLINE OF WHICH SHALL BE THE LOCATION OF THE INSTALLATIONS (AS DEFINED), DEPICTED HEREON TO CONSTRUCT, PLACE, OPERATE, MAINTAIN, REPAIR, RECONSTRUCT OR RELOCATE SUCH UNDERGROUND ELECTRIC, PHONE, FIBER AND CABLE, DUCTS, CONDUITS, PIPES, SURFACE MOUNTED TRANSFORMERS AND PEDESTALS OR BELOW GROUND MOUNTED, CONCRETE PADS AND (OTHER FACILITIES AS NAMED) FOR PUBLIC AND PRIVATE USE AT SUCH LOCATIONS AS THE GRANTEES MAY DETERMINE UPON, WITHIN, AND ACROSS SAID EASEMENT PREMISES (UTILITY EASEMENTS). NO PERMANENT STRUCTURES, PLANTINGS, ETC. SHALL BE PERMITTED IN THE EASEMENT AREAS. SAID EASEMENT RIGHTS SHALL INCLUDE THE RIGHT, WITHOUT LIABILITY THEREFORE TO REMOVE TREES AND LANDSCAPING, INCLUDING LAWNS WITHIN AND WITHOUT SAID EASEMENT PREMISES, WHICH MAY INTERFERE WITH THE INSTALLATION AND MAINTENANCE, RIGHT TO INSTALL, REPAIR, AUGMENT, AND MAINTAIN SERVICE CABLES, AND PIPE LINES OUTSIDE THE ABOVE DESCRIBED EASEMENT PREMISES OR THE RIGHT OF ACCESS, INGRESS AND EGRESS TO AND FROM ANY OF THE WITHIN DESCRIBED PREMISES FOR EXERCISING ANY OF THE RIGHT-OF-WAY AND EASEMENT GRANT.



AREA MAP

NOT TO SCALE



LOCATION MAP

NO SCALE

OWNER

DARBY BRAESIDE, LLC
1119 REGENCY DRIVE
COLUMBUS, OHIO 43220

SURVEYOR

J&J SURVEYING SERVICES, INC.
JOHN W. WETHERILL P.S.
7509 E. MAIN ST., SUITE 104
REYNOLDSBURG, OH 43068
(614) 866-9158

GENERAL DEVELOPMENT SUMMARY

TOTAL AREA (ACRES) PHASE 3 61.621 AC

AREA IN JEROME TWP. 61.621 AC.

AREA IN RESERVES "C"=2.670 AC, "E"=1.200 AC. & "E"=0.221

AREA IN RIGHT OF WAYS (60')
PHASE 3 5.171 AC.

NUMBER OF LOTS 28 LOT AREA 52.359 AC.
80' FRONT SETBACK (FROM RIGHT OF WAY)
20' SIDE YARD SETBACK
30' REAR YARD SETBACK

DEDICATION

KNOW ALL MEN BY THESE PRESENTS THAT DARBY BRAESIDE LLC, OWNER OF THE LAND INDICATED ON THE ACCOMPANYING PLAT, HAS AUTHORIZED THE PLATTING THEREOF AND DOES HEREBY DEDICATE THE STREETS, EASEMENTS AND RESERVE AREAS TO THE PUBLIC USE FOREVER.

WITNESS:

_____ _____
OWNER

_____

STATE OF OHIO
COUNTY OF UNION

BEFORE ME A NOTARY PUBLIC IN AND FOR SAID COUNTY PERSONALLY CAME

_____ WHO ACKNOWLEDGED THE SIGNING OF THE FOREGOING INSTRUMENT TO BE THEIR VOLUNTARY ACT AND DEED FOR THE USE AND PURPOSES THEREIN EXPRESSED. IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND AFFIXED MY OFFICIAL SEAL THIS __ DAY OF _____ , 2020.

BY _____
NOTARY PUBLIC
MY COMMISSION EXPIRES _____

RIGHTS-OF-WAY FOR PUBLIC STREETS AND ROADS HEREIN DEDICATED TO PUBLIC USE ARE HEREBY APPROVED THIS ___ DAY OF _____, 2020 FOR THE COUNTY OF UNION, STATE OF OHIO. STREET IMPROVEMENTS WITHIN SAID DEDICATED RIGHTS-OF-WAY SHALL NOT BE ACCEPTED FOR PUBLIC USE UNLESS AND UNTIL CONSTRUCTION IS COMPLETED AND ACCEPTED AS SUCH BY UNION COUNTY. IN ADDITION, STREET IMPROVEMENTS WITHIN SAID DEDICATED RIGHTS-OF-WAY SHALL NOT BE ACCEPTED FOR PUBLIC MAINTENANCE UNTIL THE MAINTENANCE PERIOD TRANSPIRES AND THE STREET IMPROVEMENTS ARE ACCEPTED FOR PUBLIC MAINTENANCE BY UNION COUNTY.

AUDITOR'S PARCEL ACREAGE

THIS PLAT CONSISTS OF 61.621 ACRES FROM AUDITOR'S PARCEL NO. 1500160020000 (DARBY BREASIDE INCORPORATED, I NST.# 201511250009701)

BASIS OF BEARINGS

Bearings are based on the centerline of State Route 736 as being S 32°08'12" E, based on GPS observations using the State of Ohio Department of Transportation VRS System, the State Plane Coordinate System, Ohio North Zone, North American Datum of 1983, also known as NAD83 (2011 Adjustment)

SURVEYOR'S CERTIFICATE

THE ACCOMPANYING PLAT REPRESENTS A SUBDIVISION OF LAND IN THE VIRGINIA MILITARY SURVEY No. 3484, JEROME TOWNSHIP AND DARBY TOWNSHIP, UNION COUNTY, OHIO.

THE TRACT HAS AN AREA OF 5.171 ACRES IN RIGHT OF WAYS, 4.091 ACRES IN RESERVES AND 52.359 ACRES IN LOTS FOR A TOTAL OF 61.621 ACRES.

ALL MEASUREMENTS ARE IN FEET AND DECIMALS OF A FOOT. ALL MEASUREMENTS ON CURVES ARE ARC DISTANCES.

THE SUBDIVISION IS WITHIN FLOOD ZONE X PER FIRM RATE MAP 39159C0370D, EFFECTIVE DATE DECEMBER 16, 2008 UNLESS OTHERWISE SHOWN.

I HEREBY CERTIFY THAT THE ACCOMPANYING PLAT IS A CORRECT REPRESENTATION OF DARBY BRAESIDE PHASE 3 AS SURVEYED MARCH, 2017.

MONUMENTS HAVE BEEN PLACED AS INDICATED. MONUMENTS SHOWN THUS "o " WILL BE SET AT ALL LOT CORNERS AND ALL POINTS OF CURVATURE AND TANGENCY ALONG THE STREET RIGHT-OF-WAY LINE AFTER CONSTRUCTION AND PRIOR TO THE SALE OF ANY LOTS. ALL SAID MONUMENTS SET WILL BE 5/8" REBAR 30 INCHES LONG WITH A YELLOW PLASTIC CAP STAMPED "J&J SURVEYING".

_____ DATE
JOHN W. WETHERILL, P.S
PROFESSIONAL SURVEYOR #S-7811

APPROVALS

Reviewed this _____ day of _____, 2020 _____ Chairman, Jerome Township Trustees.

Reviewed this _____ day of _____, 2020 _____ Chairman, Darby Township Trustees.

Approved this _____ day of _____, 2020 _____ County Enginner

Approved this _____day of _____, 2020_____County Health Dept.

Approved this _____day of _____, 2020_____ Logan-Union-Champaign Regional Planning Commission

Approved this _____day of _____, 2020 _____

_____

_____
County Commissioners

Transferred this_____day of _____, 2020_____
County Auditor

Filed for Record this_____ day of _____, 2020, at _____m.

Recorded this _____day of _____, 2020 in Plat Cabinet _____ slide_____

_____
County Recorder

LOT 11
1.523 AC.

LOT 12
1.627 AC.

WYCLIFFE DR.

FOUND STONE

LOT 13
2.778 AC.

LOT 14
1.506 AC.

LOT 17
1.555 AC.

DARBY BRAESIDE PHASE 2
PLAT BOOK 6, PG. 35A–35E

LOT 15
1.646 AC.

LOT 18
1.530 AC.

BIG DARBY CREEK

FITZHAMON DR.

LOT 19
1.598 AC.

LOT 16
1.875 AC.

LOT 20
2.371 AC.

LOT 21
2.952 AC.

LOT 25
2.061AC.

LOT 24
2.027 AC.

LOT 23
1.598 AC.

LOT 22
1.682 AC.

LOT 42
1.643 AC.

LOT 41
1.599 AC.

LOT 45
1.766 AC.

LOT 47
2.006 AC.

RESERVE "F"
0.221 AC.

RESERVE B"
87599 SQ. FT.
2.011 AC.

LOT 7

LOT 6

LOT 5

LOT 4

STERLING CT.
60' WIDE

MANKATO SUBDIVISION (P.B. 4, PG. 21)
LOT 4
LOT 3
LOT 2
LOT 1

DARBY BRAESIDE PHASE 1
PLAT BOOK 5, PG. 373 A & 373B

OPEN SPACE
RESERVE B

LOT 43
1.619 AC.

LOT 44
1.746 AC.

LOT 48
2.284 AC.

LOT 49
3.400 AC.

LOT 40
1.700 AC.

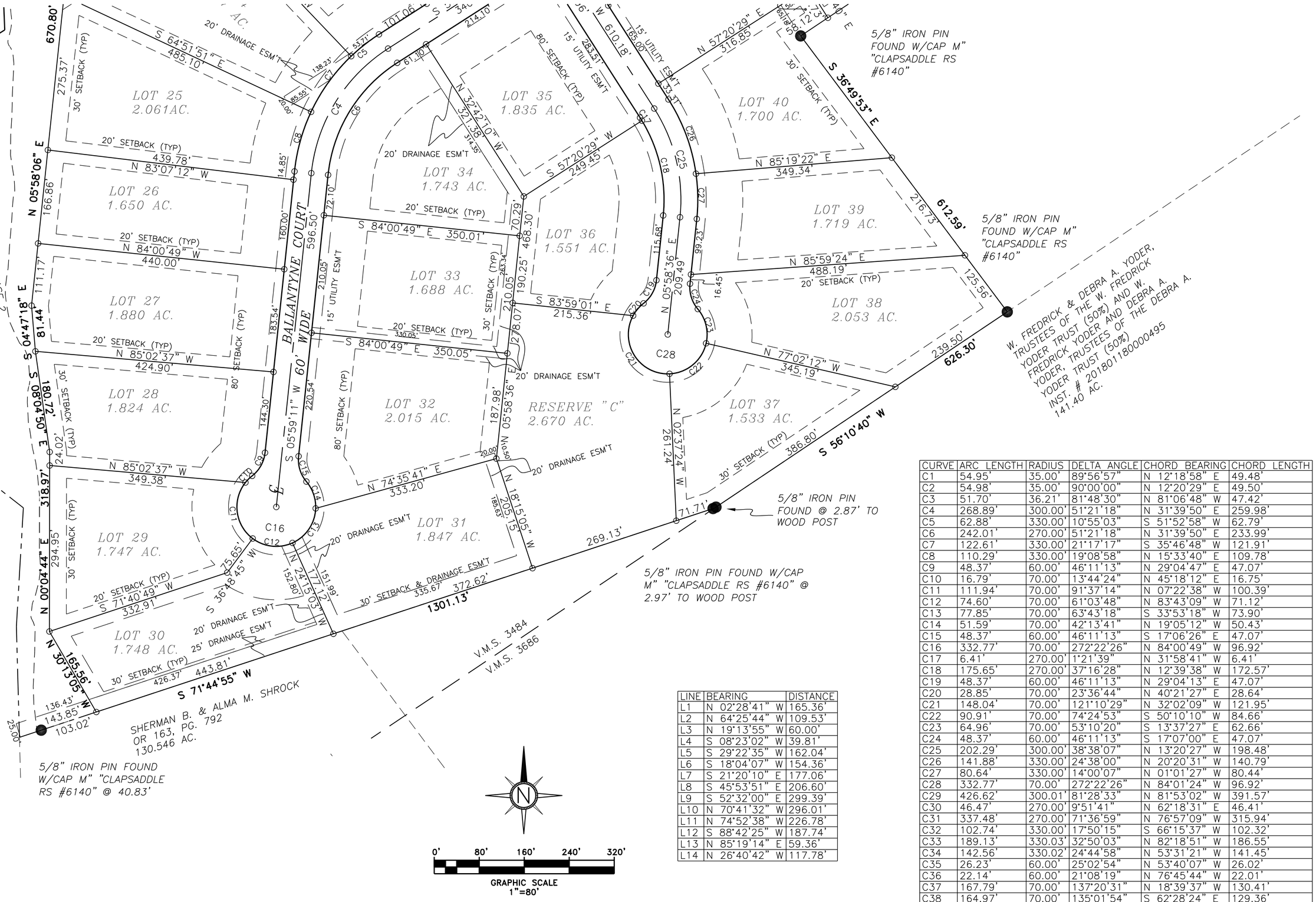
LOT 35
1.835 AC.

RESERVE "E"
1.200 AC.

CLAVERHOUSE COURT
60' WIDE

FITZHAMON DR.
60' WIDE

N 87°27'15" E 528.88'
322.25'
171.42'
35.20'
S 20°26'55" W
116.89'
185.80'
109.18'
L9
L10
296.01'
31.64'
L11
195.14'
L12
82.45'
105.29'
L13
L14
326.57'
76.89'
S 08°43'58" E
277.82'
272.16'
N 24°06'15" E
S 32°39'31" E
399.77'
30' SETBACK (TYP)
20' SETBACK (TYP)
CONSERVATION ESM'T
148.60'
S 57°20'29" W 456.35'
265.49'
624.21'
N 57°20'29" E
761.43'
1132.88'
S 56°17'37" W
S 39°59'21" W
71.94'
313.33'
S 36°49'53" E
S 57°20'29" W
604.62'
232.00'
210.08'
S 66°21'17" E
121.70'
162.54'
485.10'
S 64°51'51" E
670.80'
275.37'
117.39'
N 43°34'34" W
362.80'
N 32°42'10" W
350.17'
N 57°19'59" E
316.58'
N 32°42'04" W
393.60'
N 48°51'20" E
242.64'
N 57°20'29" E
316.74'
N 32°39'31" W
344.96'
610.18'
S 57°20'29" W
340.87'
214.10'
101.06'
61.10'
283.51'
N 57°20'29" E
316.85'
N 32°42'10" W
321.
N 57°20'29" W
235.22'
170.00'
64.98'
60.00'
114.77'
192.15'
315.26'
220.00'
223.08'
133.11'
164.95'
80.46'
N 32°42'04" W
220.05'
165.00'
DRAINAGE ESM'T
RESERVE "E"
1.200 AC.
5/8" IRON PIN
FOUND W/CAP M"
"CLAPSADDLE RS
#6140"
ANDREW W. HOSPODAR
INST.# 201610200008559
21.677 AC.
0' 80' 160' 240' 320'
GRAPHIC SCALE
1"=80'
1/2



CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	54.95'	35.00'	89°56'57"	N 12°18'58" E	49.48'
C2	54.98'	35.00'	90°00'00"	N 12°20'29" E	49.50'
C3	51.70'	36.21'	81°48'30"	N 81°06'48" W	47.42'
C4	268.89'	300.00'	51°21'18"	N 31°39'50" E	259.98'
C5	62.88'	330.00'	10°55'03"	S 51°52'58" W	62.79'
C6	242.01'	270.00'	51°21'18"	N 31°39'50" E	233.99'
C7	122.61'	330.00'	21°17'17"	S 35°46'48" W	121.91'
C8	110.29'	330.00'	19°08'58"	N 15°33'40" E	109.78'
C9	48.37'	60.00'	46°11'13"	N 29°04'47" E	47.07'
C10	16.79'	70.00'	13°44'24"	N 45°18'12" E	16.75'
C11	111.94'	70.00'	91°37'14"	N 07°22'38" W	100.39'
C12	74.60'	70.00'	61°03'48"	N 83°43'09" W	71.12'
C13	77.85'	70.00'	63°43'18"	S 33°53'18" W	73.90'
C14	51.59'	70.00'	42°13'41"	N 19°05'12" W	50.43'
C15	48.37'	60.00'	46°11'13"	S 17°06'26" E	47.07'
C16	332.77'	70.00'	272°22'26"	N 84°00'49" W	96.92'
C17	6.41'	270.00'	1°21'39"	N 31°58'41" W	6.41'
C18	175.65'	270.00'	37°16'28"	N 12°39'38" W	172.57'
C19	48.37'	60.00'	46°11'13"	N 29°04'13" E	47.07'
C20	28.85'	70.00'	23°36'44"	N 40°21'27" E	28.64'
C21	148.04'	70.00'	121°10'29"	N 32°02'09" W	121.95'
C22	90.91'	70.00'	74°24'53"	S 50°10'10" W	84.66'
C23	64.96'	70.00'	53°10'20"	S 13°37'27" E	62.66'
C24	48.37'	60.00'	46°11'13"	S 17°07'00" E	47.07'
C25	202.29'	300.00'	38°38'07"	N 13°20'27" W	198.48'
C26	141.88'	330.00'	24°38'00"	N 20°20'31" W	140.79'
C27	80.64'	330.00'	14°00'07"	N 01°01'27" W	80.44'
C28	332.77'	70.00'	272°22'26"	N 84°01'24" W	96.92'
C29	426.62'	300.01'	81°28'33"	N 81°53'02" W	391.57'
C30	46.47'	270.00'	9°51'41"	N 62°18'31" E	46.41'
C31	337.48'	270.00'	71°36'59"	N 76°57'09" W	315.94'
C32	102.74'	330.00'	17°50'15"	S 66°15'37" W	102.32'
C33	189.13'	330.03'	32°50'03"	N 82°18'51" W	186.55'
C34	142.56'	330.02'	24°44'58"	N 53°31'21" W	141.45'
C35	26.23'	60.00'	25°02'54"	N 53°40'07" W	26.02'
C36	22.14'	60.00'	21°08'19"	N 76°45'44" W	22.01'
C37	167.79'	70.00'	137°20'31"	N 18°39'37" W	130.41'
C38	164.97'	70.00'	135°01'54"	S 62°28'24" E	129.36'
C39	48.37'	60.00'	46°11'13"	N 18°03'03" W	47.07'
C40	48.37'	60.00'	46°11'13"	S 64°14'16" E	47.07'
C41	332.77'	70.00'	272°22'26"	N 48°51'20" E	96.92'
C42	35.07'	330.01'	6°05'17"	S 78°13'26" W	35.05'

LINE	BEARING	DISTANCE
L1	N 02°28'41" W	165.36'
L2	N 64°25'44" W	109.53'
L3	N 19°13'55" W	60.00'
L4	S 08°23'02" W	39.81'
L5	S 29°22'35" W	162.04'
L6	S 18°04'07" W	154.36'
L7	S 21°20'10" E	177.06'
L8	S 45°53'51" E	206.60'
L9	S 52°32'00" E	299.39'
L10	N 70°41'32" W	296.01'
L11	N 74°52'38" W	226.78'
L12	S 88°42'25" W	187.74'
L13	N 85°19'14" E	59.36'
L14	N 26°40'42" W	117.78'

DARBY BRAESIDE

Development Standards and Design Guidelines

September 2020

Darby Braeside

On the banks of the Big Darby Creek.

As the last development permitted on the now-protected Big Darby Creek, Darby Braeside is an extraordinary gated community, thoughtfully created to capture the rural sophistication of Union County.

614.282.7555 | DarbyBraeside.com | Live@DarbyBraeside.com

8673 SR 736 | Plain City, Ohio 43064



Introduction and Design Intent

The purpose of this Design Guideline is to provide the architectural and landscape guidance necessary to achieve the vision of Darby Braeside and maintain the integrity of this distinctive community. These guidelines are intended to encourage design professionals to create architecturally significant designs that draw inspiration from American architectural styles and build continuity within Darby Braeside, with thoughtful consideration given to orientation, scale and proportion, rooflines, massing, features and details, materials, texture, color and elevations. Years of care and planning have been given to the development of Darby Braeside – these guidelines were established to enhance the natural surroundings and qualities of the Big Darby Creek, enrich the rural sophistication of Jerome Township, ensure consistent standards of construction and to safeguard the value of the home owner's investment.

Architectural Scaling

"Primary structures" shall be natural or simulated brick, stone or clapboard, and stucco shall be used in moderation. The height, form and scale of architectural elements shall follow American architectural styles and move subtly between the historic and the modern.

Architectural elements include, but are not limited to:

- Windows
- Doors
- Columns
- Shutters
- Hyphens
- Pavilions

American architectural styles include:

- Georgian
- Farmhouse | Contemporary Farmhouse
- Craftsman
- Colonial
- English Country
- Country French
- Coastal

General Notes

Each lot in Darby Braeside is unique and may have architectural guidelines specific to the lot.

Prior to submittal of architectural plans, a concept meeting with the Darby Braeside Architectural Review Board (DRB) shall be required for purchasers of lots in Darby Braeside. This service is offered to all purchasers of lots, and approved builders and architects. All intereseted builders must be pre-approved before submitted to the DRB.

Final architectural and preliminary landscape plans are required to be formally submitted, reviewed and approved by DRB prior to commencement of construction and installation of materials related to the home's construction. The Architectural Review Process outlines the steps for approval. Architectural designs will be reviewed within 30 days of receipt of the Architectural Review Submittal Form, plans and the Architectural Approval Fee of $800.

Final landscape plans must be formally submitted for approval a minimum of 30 days prior to installation of any related materials. Landscape designs will be reviewed within 21 days of receipt of final plans and the Landscape Approval Fee of $300.

Failure to adhere to the approved plans and forms is a violation of Design Guidelines and may result in the issuance of a Stop Work Order and other measures deemed necessary by DRB.

Subject to change without notice.

B. Single Family Lot Development Standards

1. Single Family Lot Development Matrix		LOT TYPE		
		Main Drive Lots	Cul de sac Lots	Creek Side Lots
Primary Structure and Garages	Build-To-Zone			
	Front Setback [1,2]	80 feet as indicated on Final Plat		
	Side Setback [3]	20 feet		
	Rear Setback	30 feet		
	Ranch-Min. Bldg. SF [7]	2,500 sq. ft.	2,500 sq. ft.	2,500 sq. ft.
	1 ½, 2, 2 ½ Story-Min. Bldg. SF [7]	2,800 sq. ft.	2,800 sq. ft.	2,800 sq. ft.
	Max Lot Impervious Coverage [5]	45%		
	Architectural Styles	Rural, sophisticated and blending with the environment. See Architectural Pattern Book (or example character images)		
	Special Architectural Treatment	As corner lots or lots terminating views or vistas, the following lots will be held to a higher architectural standard by the DRB: 1, 9, 12,15, 16, 27, 28, 35, 36, and 37		
Garage and Auto-court	Garage Door Min. Width/Car	8 feet	8 feet	8 feet
	Cars Min/Max (Attached to house)	2 / 4 (6)	2 / 4 (6)	2 / 4 (6)
	Front Setback	See garage setback standards		
	Side Driveway Setback	10 feet	10 feet	10 feet
	Rear Driveway Setbacks	30 feet	30 feet	30 feet
	Driveway Max Width	16 feet	16 feet	16 feet
	Auto-court Max Width [6]	25 feet	25 feet	25 feet
	Driveway Materials	Permitted: Asphalt, stamped concrete, pavers or any approved combination with hard surface apron subject to township and county specifications.		
	Driveway Apron Materials	Asphalt, stamped concrete or pavers.		
	Auto-court Materials	Permitted: Concrete, pavers, stamped concrete, asphalt, or any approved combination with hard surface apron subject to township and county specifications.		

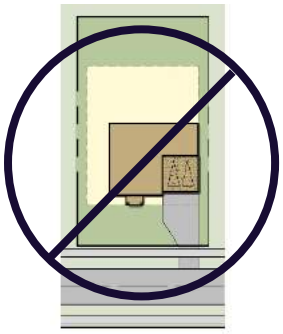
		LOT TYPE		
		Main Drive Lots	Cul de sac Lots	Creek Side Lots
Accessory Buildings	Front Setback [1,2]	80 feet and within the Build-To Zone		
	Side Setback [3]	20 feet		
	Rear Setback	30 feet		
	Max Number of Buildings	3	3	3
	Max Aggregate Building SF	1,750 sq. ft.		
	Accessory Building Materials	All accessory buildings shall be consistent with building architecture and materials. Pre-constructed storage, garages or other structures (except play houses) are prohibited.		
	Architectural Styles	This architectural style shall capture the rural sophistication of Union County, incorporate American architectural styles and blend with the environment. See Architectural Selection Portfolio.		
	Existing Trees	Existing trees shall be preserved as much as possible. Home siting shall attempt to preserve existing trees. See Landscape Section for preservation and replacement procedures.		

1. Corner Lots apply front setback lines to both street frontages.
2. Orientation of homes on lot is subject to DRB approval.
3. Side setbacks are required to be approximately equal excluding easements.
4. Homes greater than 2 stories or 35 ft require DRB approval. Note on application.
5. Impervious lot coverage shall include structures, parking, auto-courts, driveways (except pervious gravel), pedestrian walks, patios (except decks) and other hard surfaces or paved areas.
6. Excludes garage and porch width.
7. House size should not exceed 20% of the total lot size.

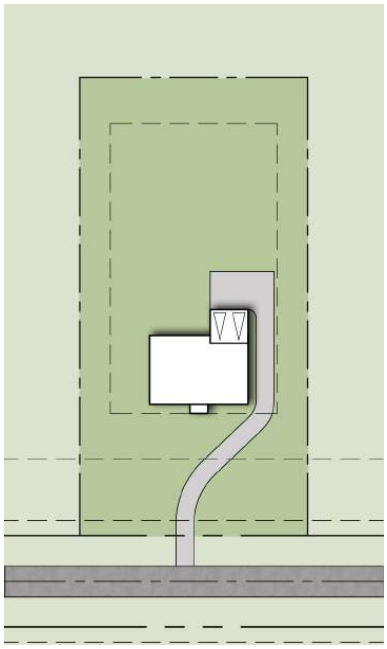
4. Single Family Building Placement and Orientation

Example House & Garage Orientations

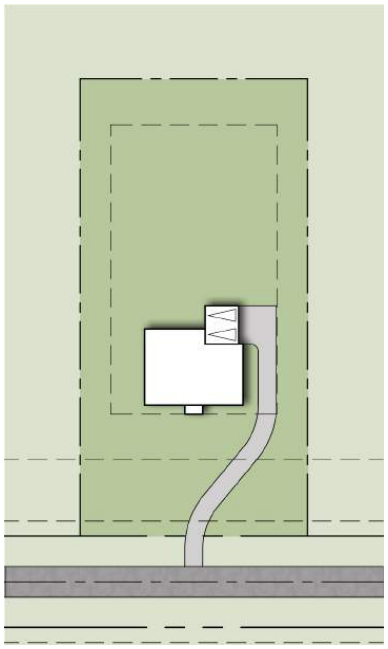
Front Load Garage Prohibited



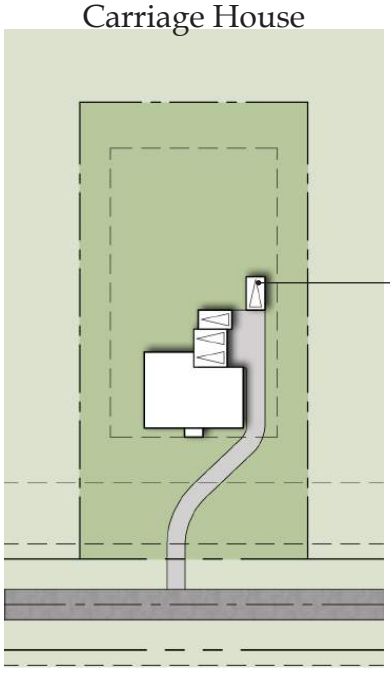
Rear Load



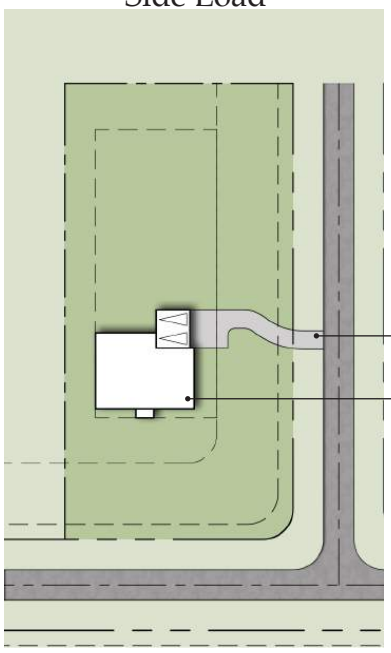
Side Load



Side Load with 4th Car Carriage House

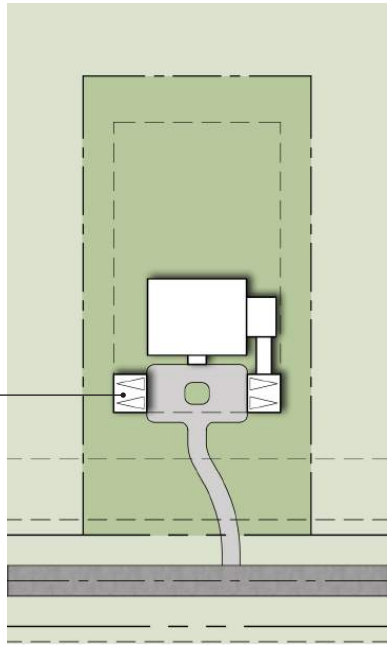


Corner Lot Side Load

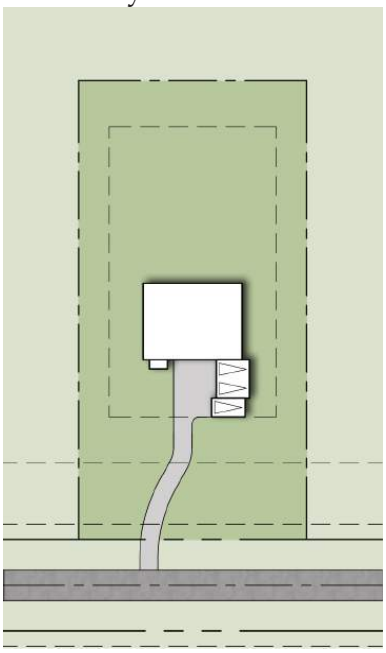


Example House & Garage Orientations

Courtyard Side Load with 3rd and 4th Car Carriage House



Courtyard Side Load



5. Single Family Architecture Requirements

All homes should follow traditional historic examples as outlined in the Darby Braeside Pattern Book. Style and character can follow historic examples without being literal duplications, applied in a Neo-traditional manner. Diversity of architectural styles is encouraged in order to provide visual interest and distinctive character throughout Darby Braeside. The following matrix outlines architectural requirements that must be incorporated into all home designs and subject to **DRB** approval. **All four elevations** must meet the same level of design, including use of **water tables**, trim, and materials.

	Configuration	Materials	Technique & Colors
Building Walls and Elements	• Walls must consist of natural or natural appearing materials. • Glass openings should be between 20% of the entire wall. • Siding should be traditional profiles such as 4"-8" horizontal beveled. • Brick shall be laid in a traditional masonry pattern. • Stone should be laid in a random ashlar pattern. • Brick or stone facing on the full front of home is required to also be on the side elevations or terminate at an appropriate location. • Building elements should be based on traditional historic examples. Refer to the Pattern Book. • Blank or empty side elevations are not permitted. • Exposed concrete or block foundations shall not be permitted. Visible foundations shall be finished with veneer, brick, or stone. Paint shall not be an acceptable finish. Another style appropriate material may be used with DRB approval. • Decks, patios, and exit stairs must be submitted for DRB approval, with materials noted.	• Brick shall be earth tone colors in standard sizes, see selection. • Stone shall be natural or simulated material, see selection. • Precast concrete with the appearance of traditional limestone shall be permitted. • Stucco and EIFS shall be used only in moderation and shall not be permitted on the ground level. Stucco and EIFS must be detailed to look like traditional cornices, soffits, etc. Stucco is only permitted as a primary building material on Italianate style homes and requires DRB approval. • Siding shall be wood or simulated wood (vinyl and aluminum siding shall be prohibited). See selection. • Columns, cornices, and similar elements should be of natural materials or simulated natural materials, such as wood, brick or stone. See selection.	• Brick may have the appearance of painted or "washed" if in context with the architectural theme being portrayed and only in limited situations. • Wall colors should be appropriate to the architectural style of the home. Diversity of color is encouraged throughout the development. High chroma, bright colors should be avoided. • Homes with brick or stone on the front elevation shall include a matching brick or stone plinth on side elevations with a minimum height of 24 inches. • Exposed PVC, such as for vents, utility service, etc., is required to be located on the rear elevation or the rear half of a side elevation and be painted to match the color of adjacent materials and finishes.

	Configuration	Materials	Technique & Colors
Windows, Garages & Doors	• All windows and doors are required to have trim, with the exception of facades composed of masonry. • Garages are required to be side loaded and any additional garage space above 4 cars must be provided with a detached carriage house, except courtyard where a 3 and 3 configuration is acceptable. • Style appropriate carriage doors are required on all garages. All carriage doors require glazing and style appropriate details.	• Glazing, wood trim, wood grids. Wood with aluminum or vinyl clad, or approved vinyl are acceptable. • Glass shall be clear. Windows only on garage doors or into bathrooms may be clear, frosted, tinted, or stained glass. • Front doors shall be of a style appropriate to the style of the house. • Garage doors may be natural or synthetic materials with natural appearance.	• Grids and windows shall be appropriate in style to the house. Grids shall have a minimum width of 3/4” • Windows shall be consistent on all four sides
Roofs & Fireplaces	• Sloped roof are required on all homes. • Pitched roofs shall have 8” overhangs, or as appropriate for the style of the house. • Doghouse and cantilevered chimneys shall be prohibited.	• Natural or simulated slate or tile. • Dimensional shingles (40-50 year). • Wood shakes • Copper. • Single-ply membrane roofs allowed when hidden from public view. • Painted metal	• Use of cornice lines are encouraged. • Bright colored roofs are not allowed.
Lighting	• All lighting is to be directed downward. • Sconce lights shall not be mounted higher than 7’ above finished floor elevation. • Porch light fixtures shall not be mounted higher than 12’ above finished floor elevation. • Lamp posts shall be located within 20’ of the house and shall not encroach into sideyard setbacks • Site lighting shall be downlights and full cut-off. Spotlights and floodlights shall be attached to the house. Uplights shall be prohibited. • Landscape uplighting may be permitted with DRB approval.	• Antiqued and painted materials including brass, steel, aluminum and copper are acceptable. • Fixtures with exposed bulbs are not permitted.	• Lighting should display a uniform, comfortable and warm appearance.

C. Single Family Lot Landscape Design Standards

1. Residential Neighborhood Landscape Standards



Design Intent: Purpose and design intent of this subchapter is to outline design quality parameters for the residential sub areas throughout Darby Braeside, as well as promote the preservation and replacement of trees removed through development. These guidelines are provided as recommendations for various site conditions and design elements. The following matrix identifies the specific minimum site design and landscaping requirements. All site layouts and planting plans and shall be subject to design review and approval by the DRB prior to any site work or installation. Landscape plans must be submitted indicating landscaping for the entire lot, including required landscaping, utility screening, and intended outdoor living areas such as patios or decks and play equipment. All side entry garages must be screened from adjacent lots. The landscape plans exclusive of seed/sod, and irrigation systems should cost a minimum of $10,000.

2. Single Family Lot Zone Diagram



Street Zone is the 50 foot setback from street right-of-way that is reserved for street trees and meadow grasses that help to develop the character of the community.

Front Yard Zone is the area between the 50 foot setback line of the Street Zone to the front line of the primary structures. See Landscape Requirements 2 a. Foundation Planting, 2 c. Additional Foundation Planting and 4. Trees.

Side Yard Zone is the area between the front and rear corner of the primary structures to the side lot lines. See Landscape Requirements 2 b. Secondary Foundation Planting, 2 c. Additional Foundation Planting and 4. Trees.

Rear Yard Zone is the area between the rear line of the primary structures to the rear lot line.

Build-To Zone is the 90 foot area, 80 to 140 feet from the street right of way, designated for placement of the front building lines and can vary within this range.

3. Single Family Lot Development Matrix

Landscape Requirements	Main Drive Lots	Cul de sac Lots	Creek Side Lots
1. Lot Entries			
a. Driveways	Driveways shall not exceed sixteen feet in width (excluding auto-courts).Driveway gates, piers, and lights shall be prohibited within any front or side yard setback.		
b. Auto-courts	Auto-courts of side-loaded garages shall be screened from the street and from adjoining lots with a 4 foot screen consisting of hedge, plantings, decorative fence, or walls complimentary with building architecture and materials.		
2. Landscaping			
a. Foundation Planting: Primary Street Frontage	• A planting bed shall be provided along the length of the entire elevation fronting a primary street, except for locations of doors and garage access and shall be a minimum depth of 6 feet at any point. • The planting beds shall have one (1) ornamental tree and a continuous, full coverage planting of shrubs at minimum size at installation. Plantings shall be a mix of small and intermediate sizes, a mix of species, and a mix of evergreen and deciduous materials. • Planting should be designed to coordinate with the architectural features of the adjoining building elevations.		
b. Secondary Foundation Planting: Corner lots, secondary street frontage, or other side elevations with exposed views (per DRB) *The landscape plan must be approved by the DBR.*	• A planting bed shall be provided along the length of the entire elevation fronting a secondary street, except for locations of doors and garage access and shall be a minimum depth of 3 feet at any point. • The planting beds shall be a continuous, full coverage planting of shrubs at minimum size at installation. Plantings shall be a mix of small and intermediate sizes, a mix of species, and a mix of evergreen and deciduous materials. • Planting should be designed to coordinate with the architectural features of the adjoining building elevations. • Corner lots, lots adjoining common open space, and lots that terminate streets or prominent vistas will be held to a higher standard of design and may be required to provide additional landscaping to meet DRB approval.		

Landscape Requirements	Main Drive Lots	Cul de sac Lots	Creek Side Lots
c. Foundation Planting: Minimum Plant Quantities	The Landscape Plan must be approved by the DRB.		
d. Foundation Planting: Additional Plant Qualities	The Landscape Plan must be approved by the DRB.		
3. Tree Preservation and Replacement	The Landscape Plan must be approved by the DRB.		

4. Trees	• Front Yard Zone: Trees may be arranged along the driveway or in clumps with in the Front Yard Zone.
	  • 30 feet from Street Zone-2 shade trees (min.)
	  • 31-59 feet from Street Zone-4 shade trees (min.)
	  • 60-90 feet from Street Zone-6 shade trees (min.)
	• Side Yard Zone: One shade tree and one ornamental tree is required in the Side Yard Zone per side elevation. Trees should be arranged to break up the building elevations or to correspond with building architecture.		

Landscape Requirements	Main Drive Lots	Cul de sac Lots	Creek Side Lots

5. Plant Material Specifications at installation	• Deciduous shade trees: 2.5 inch caliper
	• Ornamental Trees: 1.5 inch caliper (if multi-stem: 6′ tall)
	• Small Shrubs (Plants that mature to a height of up to 36 inches)
	  • 18 inches minimum height
	• Intermediate Shrubs (Plants shall mature to a height of 36 inches to 7 ft)
	  • 24 inches Minimum Height.
	• All front-yard trees shall be selected from the approved plant list.
	• All plants shall meet or exceed the standards defined in ANSI Z60.1: American Standards for Nursery Stock.		

6. Lawn	For all lots, lawn may be seed or sod. Some lots will be required to have meadow grasses, to a varying degree, to the front of the house, in the Street Zone, these areas can be identified on the master plan.		
7. Service Screening	• All utility meters, air conditioning equipment, exhaust pipes, valve covers, irrigation equipment, other service structures, and architectural bump-outs shall be located to the side or rear of the building and shall be screened from view from any street. • Screen materials may include evergreen shrubs, a mix of evergreen and deciduous shrubs, decorative fences, or walls. • All materials shall be consistent with the home's architecture and landscaping and shall reach a mature height that at minimum matches the height of the item being screened. • Exposed PVC vents, pipes, and risers shall be painted to blend with architecture. Utilities permitted within front yards with DRB approval shall be screened.		
8. Mailbox	Mailbox, post, and address numbers and name plates shall be of a standard style specified by DRB. All lots in Phase 3 will be served by a cluster mailbox.		
9. Recreational Facilities	e.g. pools, tennis courts and basketball courts, must be located at the rear of the house and require DRB approval. All ancillary structures require DRB approval. Non-permanent basketball hoops are permitted on side driveways with DRB approval		
10. LP6 Fuel Tanks	All LP6 fuel tanks are to be buried.		
11. Satellite Dishes	All satellite dishes are limited to 2/lot and are to be hidden from the street.		

Fencing

1) Permitted fencing:

a) Open fences: A fence constructed for its functional, ornamental or decorative effect and, when viewed at right angles, having not less than 50 percent of its vertical surface area open to light and air. See Detail for examples.

i) Open or partially open, (ornamental or decorative) fences shall be permitted and shall be no greater than four feet in height above the established grade, unless otherwise permitted herein. The partially open or open fence may be located only within the buildable area of the lot. These fences may be used to enclose the entire perimeter of the rear yard.

ii) Partially open or open accent fences may be located within the buildable area forward of the primary structure if limited to four feet in height and designed to only partially enclose an area.

iii) Wire mesh fencing may be permitted when permanently fastened to the inside of a permitted open or partially open fence, with DRB approval.

iv) Pool fencing shall be ornamental and the appearance and shall meet the approval of the DRB. Height and design parameters shall otherwise be governed by applicable state and local laws or health department regulations.

v) Open fences include 2, 3, and 4 rail fence, split rail fence, accent fence, and wrought iron fence.

vi) Partially open fences include picket fence, arbor fence, and trellis fence.

b) Solid fences: A fence designed to inhibit public view and provide seclusion and, when viewed at right angles, having more than 50% of its vertical surface area closed to light and air.
See Detail for examples.

i) Solid fences shall be permitted only in rear yards and shall be no greater than four feet in height, unless otherwise permitted herein, and shall not be used to enclose the entire perimeter of the property.

ii) Such fences shall be located within the buildable area of the lot and only be used to enclose a deck or patio.

iii) Solid fences shall not be located within a required side and rear yard and design and appearance must be approved by the DRB.

iv) Solid fences include board on board fence, alternating board on board fence, louver fence, ventilating fence, solid picket fence, stockade fence, palisade fence, and wall, stone or brick.

2) A maximum of 20% of the lot may be fenced.

3) Prohibited fencing

a) Chainlink,

b) Electrified, barbed wire, razor wire, and stockade fences.

c) Vinyl clad, plastic or pvc (polyvinylchloride) fences.

4) Other fencing:

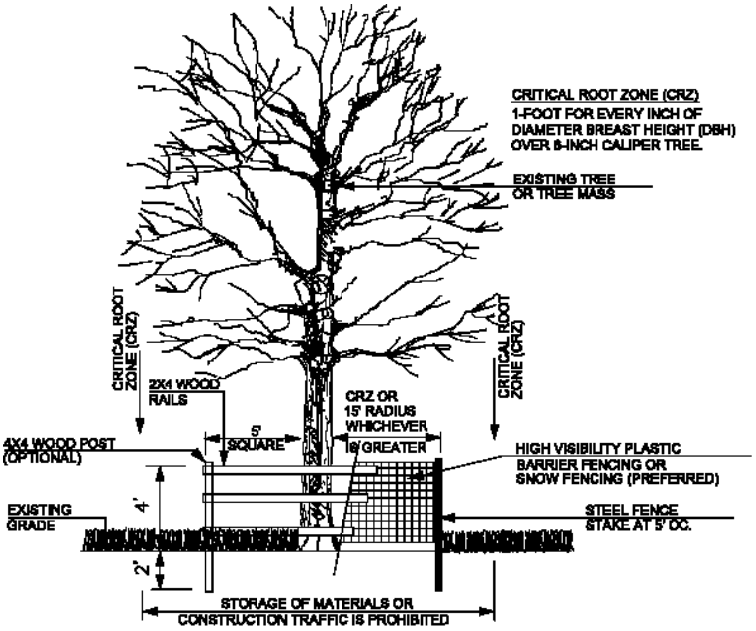
a) The DRB may permit other fences similar in character and design to one or more of the permitted fences herein, upon application.

5) The use of landscape buffers using mixed plant material is encouraged where screening is desired.

4. Single Family Lot Landscape Design Diagram



5. Details



a. Tree Protection Detail

6. Reference Images





Plant List: Front Yard Shade Trees	
Botanical Name	**Common Name**
Acer platanoides	Norway Maple
Acer rubrum	Red Maple
Acer saccharum	Sugar Maple
Acer x freemanii	Freeman Maple (various cultivars)
Betula nigra 'Heritage'	Heritage River Birch
Carpinus betulus	European Hornbeam
Carpinus caroliniana	American Hornbeam
Carya ovata	Shagbark Hickory
Corylus colurna	Turkish Filbert
Fagus grandiflora	American Beech
Fagus sylvatica	European Beech
Ginkgo biloba	Ginko
Gleditsia triacanthos var. inermis	Thornless Honeylocust
Gymnocladus dioica	Kentucky Coffeetree
Liquidambar styraciflua	Sweetgum
Lirodendron tulipifera	Tuliptree
Nyssa sylvatica	Blackgum
Quercus alba	White Oak
Quercus palustris	Pin Oak
Quercus rubra	Red Oak
Quercus shumardii	Shumard Oak
Ulmus x (various improved varieties)	Elm
Zelkova serrata	Zelkova

Plant List: Ornamental Trees

Botanical Name	Common Name
Acer ginnala	Amur Maple
Acer grisseum	Paperbark Maple
Acer palmatum	Japanese Maple
Acer tataricum	Tatarian Maple
Amelanchier laevis	Alleghany Serviceberry
Amelanchier x grandiflora	Apple Serviceberry
Betula nigra 'Fox Valley'	Fox Valley River Birch
Cercis canadensis	Redbud
Cornus alternifolia	Pagoda Dogwood
Cornus kousa chinensis	Chinese Dogwood
Cornus mas	Cornelian Cherry
Crataegus (various)	Hawthorn
Halesia carolina	Carolina Silverbell
Magnolia virginana	Sweetbay Magnolia
Malus (various)	Flowering Crabapple
Prunus (various)	Flowering Cherry / Plum
Quercus glandulifera	Konara Oak
Sassafras albidum	Sassafras
Syringa reticulata	Japanese Tree Lilac

Notes: Each species of plant has unique growth characteristics. Likewise, each species of plant has varying needs for particular site conditions. Plants from this list should be matched to appropriate locations, considering the unique conditions of each site, including soil characteristics, drainage, micro climate and seasonal changes, maintenance availability. Plants should be scrutinized for ultimate size, growth rate, and need for maintenance, so as not to over-grow their intended locations. No plant stops growing once it reaches it's "mature" size. It is recommended that a horticulturist and/or a landscape architect be consulted when choosing landscape materials and locations.

County Engineer
Environmental Engineer
Building Department
233 W. Sixth Street
Marysville, Ohio 43040
P 937. 645. 3018
F 937. 645. 3161
www.co.union.oh.us/engineer

Marysville Operations Facility
16400 County Home Road
Marysville, Ohio 43040
P 937. 645. 3017
F 937. 645. 3111

Richwood Outpost
190 Beatty Avenue
Richwood, Ohio 43344

***Public Service** with integrity*

October 5, 2020

Bradley Bodenmiller
LUC Regional Planning Commission
Box 219
East Liberty, Ohio 43319

Re: Darby Braeside – Amended Preliminary Plat Review

Brad,

We have completed our review for the above preliminary plat, received by our office on September 24, 2020. We recommend it be approved with the below modifications and recommendations. Items listed below should be addressed in the final construction drawings or resolved as indicated.

1. While this is an amended preliminary plat, the layout matches the general intent and character of the previously approved preliminary plats submitted for this project since it was submitted in 2008. Over the past several years however, emergency access and connectivity has become an issue of concern with subdivision planning and roadway layout. Because this is an amendment, we feel that it is an appropriate time to revisit the roadway layout for this purpose, and would like to see the potential for additional right of way dedicated within this development for future connection to the Yoder or Schrock property to the south. The roadway design can still include a cul-de-sac to provide for vehicular turnaround, but a stub should be added with a barricade and signage that the roadway may be extended to the adjacent property in the future to notify prospective residents of this possibility.
2. Provide information regarding any multi-use paths or trails and fencing/landscaping to be constructed on the construction drawings.
3. All appropriate OEPA/ODNR/ACOE permitting will be required prior to the start of construction.
4. All stormwater infrastructure and drainage easements will be reviewed in more detail during the final construction drawing review process.
5. Detail all flood routing swales, including 100 year water surface elevations, ensuring at least 1’ of freeboard between the 100 year water surface and the finished grade elevations of all building structures.
6. Provide a stormwater management report for review.
7. Provide detailed construction drawings to private utility providers.

In accordance with the Subdivision Regulations of Union County, additional information is required from the developer prior to final plat approvals, including but not limited to final construction documents. It is the responsibility of the developer to become familiar with the regulations and file requisite information within the time frames outlined in the regulations. Should you have any questions or concerns, feel free to contact me at (937) 645-3165.

Bill Narducci

Bill Narducci, P.E.
Assistant County Engineer
Union County Engineer

Cc: Jeremy Burrey, USWCD (via email)

Brad Bodenmiller

From: Jeremy Hoyt <jhoyt@marysvilleohio.org>
Sent: Thursday, October 1, 2020 10:46 AM
To: Brad Bodenmiller
Cc: Chad Green
Subject: October LUC Meeting

Brad,

The City of Marysville has the following comments regarding this month's submittals:

Darby Braeside - Amended Preliminary Plat

- The City of Marysville has no comments regarding this item.

Darby Braeside, Phase 3 - Final Plat

- The City of Marysville has no comments regarding this item.

Glacier Park Neighborhood Section 12, Phase 5 - Final Plat

- Label the additional utility easement width for the portion containing the public waterline between Mangrove Loop and Wells Road.
- Provide the official record and volume for the utility easement along Wells Road located just east of this site.

Pioneer Crossing - Preliminary Plat

- On the title sheet, please add the City of Marysville as the wastewater provider for this development.
- All references to this development's pump station shall clearly state that this infrastructure is intended to be "private".
- Ensure all adjacent properties have access to the public sanitary sewer.
- Based on your preliminary analysis, there is adequate pumping capacity within our existing Pump Station #3 (within the New California development) to permit this project (188 lots) to connect to the existing sanitary sewers tributary to this pump station. Due to this additional flow, there may be additional improvements (i.e. wet well relining / refabbing, flow meter replacement, etc.) required to be shared by both the City and Developer on a percentage basis. Additional calculations and development information will be needed to determine the exact connection point within the New California subdivision. The exact locations and details of this connection can be determined during the final engineering process.
- For future looping (i.e. redundancy) purposes, a public waterline shall be installed along Street "K". This waterline will eventually connect to water infrastructure along New California Drive on the Crager parcel.

Village Neighborhood Section 3, Phase 1 - Final Plat

- Provide a fifteen (15) foot utility easement along the entire frontage of the future Hyland-Croy Road extension (within DOS-D).

Village Neighborhood Section 4, Phase 3 - Final Plat

- The City of Marysville has no comments regarding this item.

Warner Industrial Corporate Center - Final Plat

- Please remove the duplicate language at the beginning of the "water and sanitary easement" description.
- Per the approved construction plans, a twenty (20) foot water and sanitary easement along the proposed Industrial Parkway right-of-way.
- Please provide a thirty (30) foot water and sanitary easement along the frontage of Lot 1.
- Please update the easement width and title within Detail B.

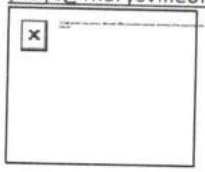
Please do not hesitate to contact me with any further questions.

Thanks,
Jeremy

--

Jeremy Hoyt, P.E.
City Engineer / Deputy Public Service Director
City of Marysville, Ohio

209 South Main Street
Marysville, Ohio 43040
(937)645-7358 (office)
(937)645-7351 (fax)
jhoyt@marysvilleohio.org



Brad Bodenmiller

From: Jim Cogar <jim.cogar@uchd.net>
Sent: Wednesday, September 23, 2020 12:55 PM
To: Brad Bodenmiller
Subject: Re: Darby Braeside - Health District Confirmation

Hi Brad,

Thank you for the email. The Union County Board of Health (BOH) and the Environmental Health Division within the Union County Health Department (UCHD) are familiar with Darby Braeside Subdivision; and have approved the proposed lots within said subdivision to be serviced by both individual household sewage treatment systems (STS) and private water systems (PWS). Our office continues to work closely with the subdivider as future phases are amended and or individual lot configurations are revised. Any and all previous approvals made by the BOH and UCHD pertaining to STS and PWS usage in Darby Braeside Subdivision are still in effect.

Please feel free to contact me if you have any questions.

Sincerely,

Jim Cogar R.S.
Deputy Director
Environmental Health Division
Union County Health Department
940 London Ave. Suite 1100
Marysville, Ohio 43040
Main: 937-642-2053
Direct: 937-645-2041
jim.cogar@uchd.net



A nationally accredited health district since March 2017.

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This message and any response to it may constitute a public record and thus may be publicly available to anyone who requests it.

On Wed, Sep 23, 2020 at 8:42 AM Brad Bodenmiller <bradbodenmiller@lucplanning.com> wrote:

> Jim,

Good morning! All I am looking for to move-forward with this Amended Preliminary Plat is a letter or email confirming the Board of Health has approved the use of individual household sewage systems and individual household wells. (See attached section of Subdivision Regulations.) I believe those two approvals already occurred, and am just looking for confirmation from you those are still effective.

Bradley Bodenmiller

Director | LUC Regional Planning Commission

P.O. Box 219 | 10820 State Route 347 | East Liberty, Ohio 43319

P: (937) 666-3431 | www.lucplanning.com

9777 Industrial Parkway
Plain City, Ohio 43064
614-873-4480

Jerome Township Zoning Department

September 28, 2020

Bradley J. Bodenmiller, Director
LUC Regional Planning Commission
10820 St. Rt. 347
East Liberty, Ohio 43319

Re.: Darby Braeside Phase 3 – Preliminary Plat

Dear Mr. Bodenmiller,

I have received your notification of application for approval of the preliminary plat known as Darby Braeside Phase 3 – Preliminary Plat. Based on the provisions of the Township Zoning Resolution, my comments are as follows:

1) This development is zoned RU, Rural Residential District. The required building setbacks are as follows:
   1. Front Yard Setback – 50ft
   2. Side Yard Setback – 20ft
   3. Rear Yard Setback – 30ft
2) The plat notes a front yard setback on page 1 that is not consistent with the RU, Rural Residential District development standards as noted above.
3) Zoning Staff notes that the definition of “setback” in the Subdivision Regulations refers to only to the front yard setback as defined in the Zoning Resolution. In addition, the terminology “Front Yard Setback, “Side Yard Setback, and “Rear Yard Setback” is used on page 1, while various “setbacks” on are noted on pages 2 and 3. Furthermore, some of the lot lines are not being correctly interpreted as side or rear lot lines, and vice versa. At minimum, the applicant should use the term “Building Setback” throughout, and but ideally, side and rear yard setbacks would be removed from the plat and dealt with at the zoning phase as noted in Misc. Note #27.
4) If they applicant wishes to retain the 80ft required front yard as a private setback, they should include a note and/or include that information in their deed restrictions. Please note this is not a requirement of the zoning district in which the development is located.

As per usual practice, I plan to attend the meeting of the Commission's Zoning & Subdivision Committee, and will be available to answer any additional questions at that time.

Sincerely,

Eric Snowden

Eric Snowden
Zoning Inspector/Coordinator
Jerome Township, Union County, Ohio

Jerome Township Division of Fire

9689 US Rte 42 N.
Plain City, Ohio 43064
614-873-8990 (O)
614-873-3501 (F)

10-2-2020

To: Brad Bodenmiller
LUC Regional Planning Commission

Wayne Ballant
Darby Braeside
1119 Regency Drive
Columbus, Ohio 43215

We have reviewed the Amended Preliminary Plat for Darby Braeside and wanted to provide the following comments for the upcoming LUC meeting on October 8, 2020.

1. The 20' street width is the minimum street width as outlined in the 2017 Ohio Fire Code. Although this is the minimum street width the fire division would prefer street width to be a minimum of 26' to allow for the navigation of fire apparatus.
2. All Cul-de-sacs shall be a minimum of 96' in diameter exclusive of the shoulders per the 2017 edition of the Ohio Fire Code.
3. The 2017 edition of the Ohio Fire Code limits the number of single-family units in a development to 30 units without a secondary emergency access. The plans do not indicate a provision for an emergency access point.
    a. The only provision would be to provide all homes with residential sprinklers systems for fire protection.
4. The plans indicate the construction of retention ponds in reserve area "E" and Reserve area "C". Both retention ponds will require the installation of a dry hydrant that meets the National Fire Protection Association specifications to allow for adequate water supply in the event of a fire in the development.

Please let me know if you have any questions or concerns.

Respectfully

Douglas Stewart

Fire Chief

Jerome Township



Division of Fire

9689 US Rte 42 N.
Plain City, Ohio 43064
614-873-8990 (O)
614-873-3501 (F)

Brad Bodenmiller

From: Taylor Brill <tbrill@plain-city.com>
Sent: Wednesday, September 30, 2020 1:13 PM
To: Brad Bodenmiller
Subject: Darby Braeside

Hello,

The Darby Braeside-Preliminary Plat is within the Village of Plain City's Wellhead Protection Overlay District. The Village is not requesting any changes to the proposed Plat, just wanted to make note of this.

If you have any questions or concerns please let me know.

Best,

Taylor Brill
Zoning Official
Village of Plain City
www.plain-city.com
800 Village Blvd. (physical)
PO Box 167 (mailing)
Plain City, OH 43064
T: 614-873-3527 x 105
F: 614-873-9970

Brad Bodenmiller

From: Jeremy Burrey <jburrey@unioncountyohio.gov>
Sent: Thursday, October 1, 2020 2:03 PM
To: Brad Bodenmiller
Subject: RE: Preliminary Drainage - Darby Braeside Amended Preliminary Plat

Yes. With no Comments.

From: Brad Bodenmiller <bradbodenmiller@lucplanning.com>
Sent: Thursday, October 1, 2020 1:52 PM
To: Jeremy Burrey <jburrey@unioncountyohio.gov>
Subject: Preliminary Drainage - Darby Braeside Amended Preliminary Plat

Jeremy,

Good afternoon! Is the preliminary drainage plan for the **Darby Braeside – Amended Preliminary Plat** approved?

Bradley Bodenmiller
Director | LUC Regional Planning Commission
P.O. Box 219 | 10820 State Route 347 | East Liberty, Ohio 43319
P: (937) 666-3431 | www.lucplanning.com

Staff Report – Pioneer Crossing

Applicant:	**Pulte Homes of Ohio, LLC** c/o Matthew Callahan 475 Metro Place South Dublin, OH 43017 matthew.callahan@pulte.com **Kimley-Horn and Associates, Inc.** c/o Kevin Kershner 2400 Corporate Exchange Drive, Suite 120 Columbus, OH 43231 kevin.kershner@kimley-horn.com
Request:	Approval of the Pioneer Crossing – Preliminary Plat.
Location:	Located south of US Hwy 33 and Industrial Parkway and east of US Hwy 42 in Jerome Township, Union County.

Staff Analysis:	This Preliminary Plat involves 111.15 acres of land and 187 single-family residential lots. Acreages: ○ The total acres of right-of-way was not provided ○ The total acres of single-family residential lots was not provided ○ 53.55 acres of open space Proposed utilities: ○ City of Marysville ○ City of Marysville • **Union County Engineer's Office** ○ No comments received to date. Comments from the Engineer's Office are anticipated 10-06-20. • **Union County Soil & Water Conservation District** ○ Soil & Water submitted comments in an email dated 10-01-20. Some of those comments are listed below and summarized for reference. (Please refer to email for all comments.) 1. Lots 156, 181, 25, 26, and 65: Drainage easements cross-over the parcel lines onto these lots. It is preferred these easements be included within open space, rather than on individual lots.

2. Caution: Curbing for the road may be over the wetland delineation beside lot 65.

- **Union County Health Department**
  - No comments received as of 09-30-20. Standard comments from the Health Department are below:
    1. "All efforts should be made to provide a point of connection (via easements and/or services lines) to both water and sewer to any adjacent home, business, or any other facility that is serviced by a private water system (PWS) and or sewage treatment system (STS)."
    2. "Any home, business, or other structure that is currently being serviced by a private STS and ends up being situated within 200' of a sanitary sewer easement, shall be brought to the attention of the Union County Health Department."
    3. "If at any time during development of the subdivision a PWS (well, cistern, etc.) or STS is found, our office shall be immediately contacted for inspection. Proper permitting must be obtained for sealing and or abandonment of a PWS and STS."

- **City of Marysville**
  - The City submitted comments in an email dated 10-01-20. Some of those comments are listed below and summarized for reference. (Please refer to email for all comments.)
    1. Title sheet: Add City of Marysville to the wastewater provider for development.
    2. All references to this development's pump station shall clearly state this infrastructure is intended to be "private".
    3. Ensure all adjacent properties have access to the public sanitary sewer.
    4. Based on the developer's preliminary analysis, Pump Station #3 within New California has adequate pumping capacity for Pioneer Crossing. Due to the additional flow, there may be additional improvements required to be shared by both the City and Developer. Additional calculations and information will be needed to determine the exact

connection point within New California during the Final Engineering process.

5. For future looping purposes, a public waterline shall be installed along Street "K".

- **Jerome Township**
  - Jerome Township submitted two comments letters, one dated 09-30-20 and the other dated 10-02-20. Some of those comments are listed below and summarized for reference. (Please refer to letters for all comments.)
    1. Some of the lot lines are not being correctly interpreted as side or rear lot lines, and vice versa.
    2. Sheet 10: A different spelling is used for "Sagewood Street" on this sheet.

- **ODOT District 6**
  - No comments received as of 09-30-20.

- **Union Rural Electric**
  - No comments received as of 09-30-20.

- **Dayton Power & Light**
  - No comments received as of 09-30-20.

- **LUC Regional Planning Commission**
  1. The road name labels "Sagewood Street" and "Brindlewood Drive" alternate locations.
  2. Add dimensioning of entire proposed right-of-way. There are sections where it appears to be missing (§313, 6.; §313, 12.).
  3. Add dimensioning of entire open space. There are sections where it appears to be missing (§313, 16.).
  4. There is a note on the plat that lot lines are conceptual and subject to change. Please note, changing of lots or addition of right-of-way may require an Amended Preliminary Plat before any Final Plat can be approved (§320).
  5. Easements for water and sewer must be a minimum of 20' and 10' for other utilities (§313, 12.; §414).
  6. Note: All plats shall contain a restriction that no permanent structures or plantings, etc. shall be permitted in the easement areas (§323, 7.).
  7. A letter from Jerome Township certifying that the Final Plat conforms with the Township's zoning is

	required before any approval of the Final Plat may be granted (§401; §412, 1.; §413, 2.). 8. All bonds, surety, letters of credit, etc. shall be approved by the County Commissioners before any approval of the Final Plat may be granted (§326).

Staff Recommendations:	Staff recommends ***APPROVAL*** of Pioneer Crossing – Preliminary Plat with the ***condition*** that all comments/modifications from LUC and reviewing agencies shall be incorporated into the Construction Drawings and Final Plat. The developer shall ensure that prior to Final Plat submittal, all requirements and items outlined in the Union County Subdivision Regulations are incorporated in the Final Plat ***prior*** to submittal.

Z&S Committee Recommendations:	

Logan-Union-Champaign
regional planning commission

Director: Bradley J. Bodenmiller

Application for Preliminary Plat Approval

Date: September 17, 2020

Name of Subdivision: Pioneer Crossing
Location: South of SR 42 and west of Industrial Parkway
Township: Jerome Military Survey:
Complete Parcel(s) Identification Number (PIN): 1500070570000, 1500070580000, & 1500220140000

Have **ALL** Sketch Plan review letters been obtained? Yes (Engineer, SWCD, Board of Health)

Name of Applicant: Pulte Homes of Ohio, LLC
Address: 475 Metro Place South
City: Dublin State: Ohio Zip: 43017
Phone: (614) 376-1018 Fax: (614) 356-6102 Email: matthew.callahan@pulte.com

Name of Owner of property to be subdivided: 3 Properties - See attachment 1
Address:
City: State: Zip:
Phone: Fax: Email:

Name of Applicant's Surveyor or Engineer: Kimley-Horn and Associates, Inc.
Address: 2400 Corporate Exchange Dr., Suite 120
City: Columbus State: Ohio Zip: 43231
Phone: (614) 472-8963 Fax: Email: kevin.kershner@kimley-horn.com

Proposed Acreage to be Subdivided: 111.52 Ac +/-

Current Zoning Classification: PRD

Proposed Zoning Changes: PRD

Proposed Land Use: Residential Development

Development Characteristics
Number of proposed lots: 187 Typical lot width (feet): 65
Number of proposed units: 187 Typical lot area (sq. ft.): 8,125
Single Family Units: 187 Multi-Family Units: N/A

Acreage to be devoted to recreation, parks or open space: 44.6 Acres

10820 St Rt 347, PO Box 219
East Liberty, Ohio 43319
• Phone: 937-666-3431 •
• Email: luc-rpc@lucplanning.com • Web: www.lucplanning.com

Logan-Union-Champaign
regional planning commission

Director: Bradley J. Bodenmiller

Recreation facilities to be provided: Wooded park including a multi-use trail & Neighborhood parks

Do you propose deed restrictions? (If yes, attach a copy): Yes X No ____

1. Proposed method of Supplying Water Service: City of Marysville

2. Proposed method of Sanitary Waste Disposal: City of Marysville
   (If on-site disposal systems are proposed, please attach letter certifying the County Board of Health approval)

3. Requests for Variances from Subdivision Regs: Two Variance requests - see attachment 2
   (If yes, please explain variances and reason for variances)

List all proposed improvements and utilities and state your intention to install or provide a guarantee prior to final plat approval:

Improvement	Installation	Guarantee
a. Public Roadway's	X	
b. Storm sewers and stormwater management facilities	X	
c. Sanitary sewer collection system	X	
d. Waterline distribution system	X	
e.		

For Official Use

Date filed: _____ Filing Fee: _____

Date of Meeting of Planning Commission: _____

Action by Planning Commission: _____

If rejected, reason(s) for: _____

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East Liberty, Ohio 43319
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Logan-Union-Champaign
regional planning commission

Director: Bradley J. Bodenmiller

Preliminary Plat Review Checklist

#	Required Item Description	Have	Need
1	Drawn at a scale not less than 1:100 and shall be on one or more sheets 24" X 36"	X	
2	Proposed name of the subdivision, which shall not duplicate or closely approximate the name of any other subdivision in the county.	X	
3	Location by section, range, and township or Virginia Military Survey (VMS).	X	
4	Names, addresses and telephone numbers of the owner, subdivider, and professional surveyor or professional engineer who prepared the plat; and the name, address and telephone number of the professional surveyor who performed the boundary survey.	X	
5	Date of survey.	X	
6	Scale of the plat, north point, and date.	X	
7	Boundaries of the subdivision and its acreage.	X	
8	Names of adjacent subdivisions, owners of record of adjoining parcels of unsubdivided land, and the location of their boundary lines.	X	
9	Locations, widths, and names of existing streets, railroad rights-of-way, easements, parks, permanent buildings, and corporation and township lines; location of wooded areas and other significant natural features; soil types and soil type limits; limits of Flood Hazard zones.	X	
10	Zoning classification of the tract and adjoining properties.	X	
11	Existing contours (USGS datum) at an interval of not greater than two feet if the slope of the ground is fifteen percent or less; and not greater than five feet where the slope is more than fifteen percent.	X	
12	Existing sewers, water and gas mains, culverts and other underground structures, and electric and telephone poles and lines and other above ground structures within and adjacent to the tract.	X	
13	Layout, names and widths of proposed streets and easements.	X	
14	Building setback lines with dimensions.	X	
15	Layout and dimensions of all proposed water and sewer lines, showing their connections with the existing systems, and all proposed easements for utility, water and sewer lines.	X	
16	Layout, numbers and approximate dimensions of each lot. When lots are located on a curve or when side lot lines are not at ninety degree angles, the width at the building line shall be shown, if it is less than the frontage width. Location of access from lots to the proposed streets shall be shown.	X	
17	Parcels of land to be reserved for public use or to be reserved by covenant for residents of the subdivision.	X	

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• Phone: 937-666-3431 •
• Email: luc-rpc@lucplanning.com • Web: www.lucplanning.com

18	The limits of all Flood Hazard Areas (zone A, AE, B, and X) as determined by the Federal Emergency Management Agency (show the FEMA map number and date). The Base Flood Elevation shall be determined and shown. Minimum first floor elevations shall be shown for all lots located within Flood Hazard Areas.	X	

Supplementary Information			
19	Statement of proposed use of lots, giving the type and number of dwelling units; and type of business or industry if use is not residential.	X	
20	Description of proposed covenants and restrictions.	X	
21	Description of proposed zoning changes.	X	
22	Typical sections and tentative profiles of streets and other related improvements as required in Article 5. Calculations as required to justify horizontal and vertical curves, pipe sizes, etc. The County Engineer shall have approved the layout and design of the lots, streets and other improvements prior to the Preliminary Plat approval.	X	
23	A preliminary drainage plan which shall identify adequate drainage outlets and shall contain adequate measures for control of erosion and siltation and for surface water management in accordance with Article 5 and the Technical Design Standards. The County Soil and Water Conservation District shall have approved the preliminary drainage plan prior to Preliminary Plat approval.	X	
24	If the subdivider proposes individual household sewage systems, the County Board of Health or the OEPA shall have approved the use of individual household sewage systems prior to the Preliminary Plat approval.	N/A	
25	If the subdivider proposes individual household wells, the subdivider shall supply evidence acceptable to the County Board of Health of the availability of satisfactory water. The County Board of Health or the OEPA shall have approved the use of individual household wells prior to the Preliminary Plat approval.	N/A	
26	Letters from utility companies, as required, indicates approval of easement locations and widths prior to the Preliminary Plat approval.	X	
27	A vicinity map at scale of generally not more than six thousand feet to an inch shall be shown on, or shall accompany, the Preliminary Plat. This map shall show all existing subdivisions, roads, and tract lines, together with the names of the owners of land immediately adjoining the proposed subdivision and between it and the nearest existing thoroughfares. It shall also show the most advantageous connections between the roads in the proposed subdivision and those of the neighboring areas.	X	
28	Preliminary Plat Fees: Payment/Check made out to LUC Regional Planning Commission, based on the current fee schedule.	X	

PRELIMINARY PLAT / PRELIMINARY ENGINEERING PLAN
FOR
PIONEER CROSSING

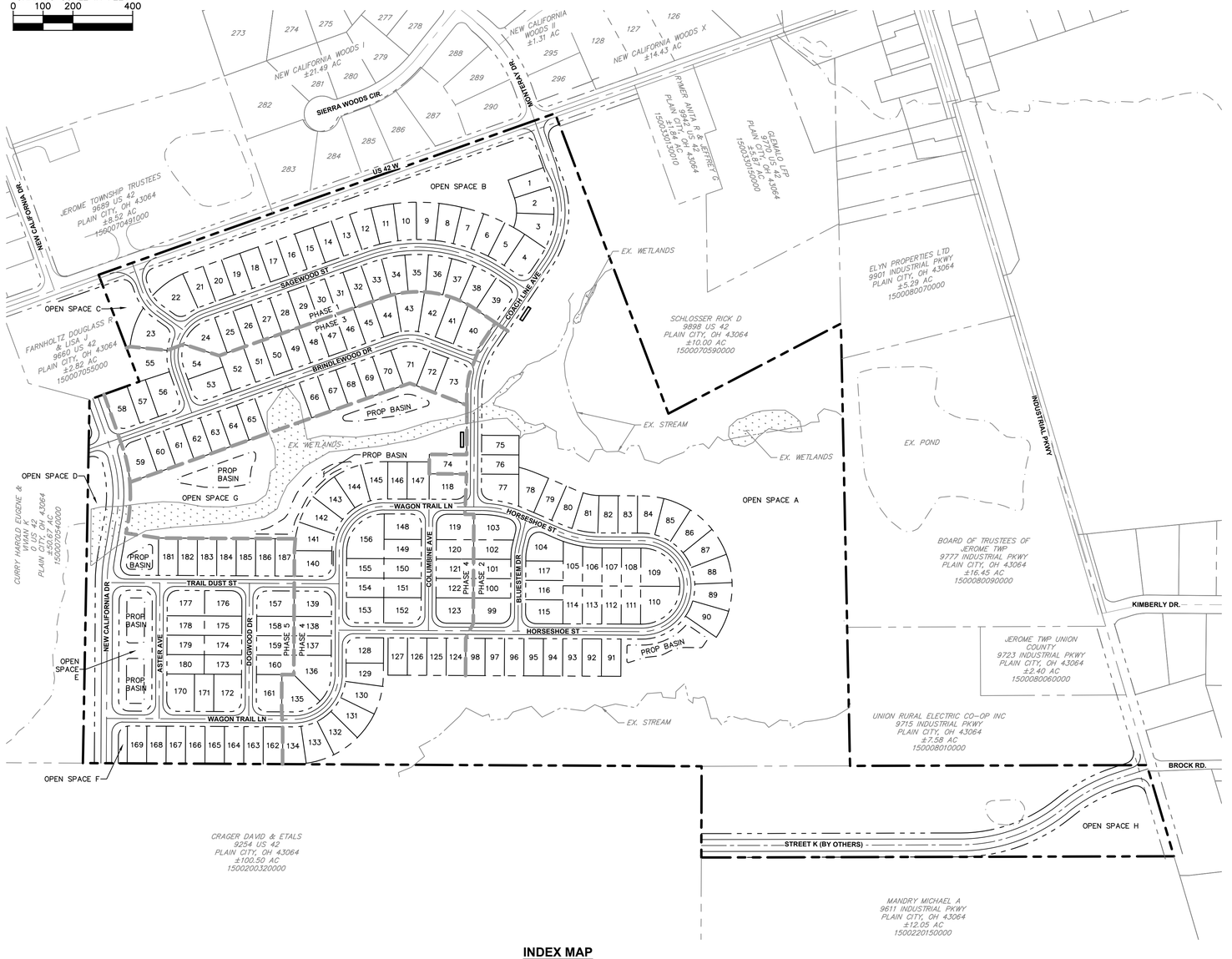
VIRGINIA MILITARY SURVEY NO. 1440
JEROME TOWNSHIP, UNION COUNTY, OH

SEPTEMBER 17, 2020

SHEET INDEX	
SHEET NUMBER	SHEET TITLE
1	TITLE SHEET
2	TYPICAL SECTIONS
3	EXISTING CONDITIONS
4	EXISTING CONDITIONS
5	PRELIMINARY PLAT
6	PRELIMINARY PLAT
7	PRELIMINARY PLAT
8	PRELIMINARY PLAT
9	PRELIMINARY PLAT
10	COMPOSITE UTILITY PLAN
11	GRADING & UTILITY PLAN
12	GRADING & UTILITY PLAN
13	GRADING & UTILITY PLAN
14	GRADING & UTILITY PLAN
15	STREET PROFILES
16	STREET PROFILES
17	STREET PROFILES
18	STREET PROFILES
19	STREET PROFILES
20	STREET PROFILES
21	PRE-DEVELOPED TRIBUTARY MAP
22	POST-DEVELOPED TRIBUTARY MAP
23	EROSION & SEDIMENT CONTROL PLAN
24	SIGHT DISTANCE
25	SIGHT DISTANCE
L1.01	PLANTING PLAN OVERALL

NORTH

GRAPHIC SCALE IN FEET
0 100 200 400



REFERENCES

1. EXISTING BASE MAP INFORMATION OBTAINED FROM A BOUNDARY SURVEY PERFORMED BY CESO, INC IN SEPTEMBER 2020 AND UNION COUNTY AUDITOR, ACCESSED AUGUST 2020.
2. EXISTING TOPOGRAPHIC INFORMATION IS BASED ON LIDAR DATA OBTAINED FROM UNION COUNTY AUDITOR, ACCESSED AUGUST 2020.
3. SOILS INFORMATION IS PER USDA WEB SOIL SURVEY, ACCESSED AUGUST 2020.

FLOOD PLAIN

ALL OF PIONEER CROSSING DEVELOPMENT IS IN THE FLOOD HAZARD ZONE X (OUTSIDE OF 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP, MAP NUMBER 39159C0388D, EFFECTIVE DATE 12/16/2008

UTILITY COMPANIES

ELECTRIC:
UNION RURAL ELECTRIC
15461 U.S. HIGHWAY 36
MARYSVILLE, OH 43040
(937) 642-1826

PHONE:
FRONTIER
19 E. CENTRAL AVE. #1944
DELAWARE, OH 43015
(740) 383-0686

FIBER OPTIC:
WIDE OPEN WEST
3765 CORPORATE DR.
COLUMBUS, OH 43231
(614) 948-4653

CABLE: CHARTER SPECTRUM
3760 INTERCHANGE DR.
COLUMBUS, OH 43204
(614) 255-6349

WATER:
CITY OF MARYSVILLE
209 SOUTH MAIN ST.
MARYSVILLE, OH 43040
(937) 645-7358

ELECRIC:
DAYTON POWER & LIGHT
1900 DRYDEN RD.
DAYTON, OH 45439
(937) 554-9063

FIBER OPTIC:
FIBER FARMS
484 EAST MIAMI ST.
DEGRAFF, OH 43318
(918) 295-7156

FIBER OPTIC:
ZAYO FIBER SOLUTIONS
4199 KINDROSS LAKES PKWY.
SUITE 10
RICHFIELD, OH 44286
(918) 295-7156

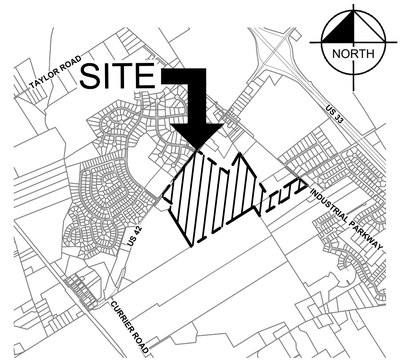
GAS:
COLUMBIA GAS OF OHIO
1600 DUBLIN ROAD
COLUMBUS, OHIO 43215
(614) 481-1057

LIGHTING & SIGNAL:
ODOT, DISTRICT 6
400 EAST WILLIAM ST.
DELAWARE, OH 43015
(740) 815-6015

VARIANCE TABLE				
NO.	DESIGN SECTION	VARIANCE REQUEST	APROVAL	DATE
1	SECTION 406: ROAD OR STREET RIGHT-OF-WAY AND PAVEMENT WIDTHS	MINIMUM RIGHT-OF-WAY WIDTH OF 50 FEET FOR COLLECTOR STREETS AND LOCAL STREET OR ROADS		
2	SECTION 412: BLOCKS	PERMIT BLOCK LENGTHS GREATER THAN 1,500 FEET AND LESS THAN 500 FEET, NO SIDEWALKS REQUIRED MID-BLOCK ARE OVER 900 FEET IN LENGTH		

INDEX MAP

SCALE: 1"=200'



VICINITY MAP

SCALE: 1"=2000'

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

SITE STATISTICS

CURRENT ZONING:	PRD/R-3
TOTAL SITE ACREAGE:	111.15 AC
TOTAL OPEN SPACE:	±53.55 AC
TOTAL NUMBER OF DWELLING UNITS	187
GROSS DENSITY:	1.68 UNITS/AC

OPEN SPACE SUMMARY

A:	39.24 AC	WOODED PARK
B:	2.74 AC	PERIMETER OPEN SPACE
C:	0.36 AC	PERIMETER OPEN SPACE
D:	0.95 AC	PERIMETER OPEN SPACE
E:	1.01 AC	NEIGHBORHOOD PARK
F:	0.08 AC	PERIMETER OPEN SPACE
G:	7.52 AC	NEIGHBORHOOD PARK
H:	1.65 AC	PERIMETER OPEN SPACE
TOTAL:	53.55 AC	

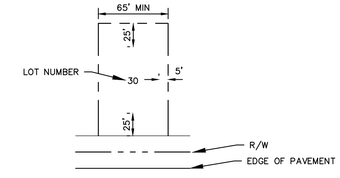
NOTE: OPEN SPACE AREAS ARE SUBJECT TO CHANGE PRIOR TO FINAL PLATTING. THE APPROVED ZONING REQUIRES A MINIMUM OPEN SPACE OF 40% OF THE GROSS AREA OR 44.6 ACRES.

PROJECT PHASING

PHASE 1:	39 LOTS
PHASE 2:	44 LOTS
PHASE 3:	34 LOTS
PHASE 4:	39 LOTS
PHASE 5:	31 LOTS
TOTAL:	187 LOTS

SITE DATA TABLE

MINIMUM LOT AREA:	8,125 SQ FT
MINIMUM LOT WIDTH:	65 FT
MAXIMUM LOT COVERAGE:	35% BUILDING 65% IMPERVIOUS AREA
MINIMUM FRONT YARD SETBACK:	25 FT
MINIMUM SIDE YARD SETBACK:	5 FT
MINIMUM REAR YARD SETBACK:	25 FT
S.R. 42 PROPERTY LINE SETBACK:	50 FT
S.R. 42 BUILDING SETBACK:	80 FT
TERRAIN CLASSIFICATION:	LEVEL



TYPICAL LOT DETAIL
NOT TO SCALE

NOTES

1. DESIGN, USE, LANDSCAPING, AND OWNERSHIP OF THE PROPOSED OPEN SPACE SHALL BE AS FOLLOWS:
   - WOOD PARKS – ALL OR PORTION OF THIS OPEN SPACE MAY BE OWNED AND MAINTAINED BY THE TOWNSHIP UPON ACCEPTANCE BY THE TRUSTEES OR BY THE MASTER HOMEOWNERS ASSOCIATION.
   - NEIGHBORHOOD PARKS – ALL THIS OPEN SPACE WILL BE OWNED AND MAINTAINED BY MASTER HOMEOWNERS ASSOCIATION.
   - PERIMETER BUFFER – ALL THIS OPEN SPACE WILL BE OWNED AND MAINTAINED BY MASTER HOMEOWNERS ASSOCIATION.
2. SANITARY SEWER AND WATER SERVICE TO BE PROVIDED BY THE CITY OF MARYSVILLE AND DESIGNED PER MARYSVILLE STANDARDS.
3. STREETS AND STORMWATER MANAGEMENT SHALL MEET THE STANDARDS OF UNION COUNTY.
4. PARKING SHALL NOT BE PERMITTED ON THE SIDE OF THE STREET WHERE FIRE HYDRANTS ARE INSTALLED.
5. LOTS SHALL BE GRADED SO AS TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS. THE GRADE AWAY FROM THE FOUNDATION WALL SHALL FALL A MINIMUM OF 6 INCHES WITHIN THE FIRST 10 FEET.
6. STORMWATER MANAGEMENT BASINS WILL BE PROVIDED WITH FINAL ENGINEERING PLANS TO HOLD THE POST-DEVELOPED RUNOFF RATES EQUAL TO THE CRITICAL STORM PRE-DEVELOPED RATES.
7. FUTURE WALKING PATH THROUGH WOODED AREA TO BE PROVIDED BY PULTE. FINAL WALKING PATH LOCATION TO BE DETERMINED BY JEROME TOWNSHIP AND PULTE HOMES.
8. BE ADVISED: A SUBSURFACE DRAINAGE SYSTEM MAY EXIST ON THIS SITE. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING DRAIN PIPES OR TILES ENCOUNTERED IN THE FIELD AND IF DA,AGED, REPAIR OR REPLACE THEM IMMEDIATELY WITH THE SAME SIZE AND QUALITY OF MATERIALS AS FOUND. ALL DRAINAGE TILES ENCOUNTERED IN THE FIELD SHALL BE CONNECTED TO THE STORM SEWER SYSTEM AT A STRUCTURE.

PROPERTY OWNERS
BRC II LLC
985 N HIGH ST, SUITE 200
COLUMBUS, OH 43201

JANIE COLLINS TRUSTEE
9758 US 42
PLAIN CITY, OH 43064

DOROTHY BLANKENSHIP
9645 INDUSTRIAL PKWY
PLAIN CITY, OH 43064

DEVELOPER
PULTE HOMES OF OHIO, LLC
475 METRO PLACE SOUTH
DUBLIN, OH 43017
TEL:(614) 376-1018
CONTACTS: MATT CALLAHAN
EMAIL: MATTHEW.CALLAHAN@PULTE.COM

CIVIL ENGINEER
KIMLEY-HORN AND ASSOCIATES, INC
2400 CORPORATE EXCHANGE DR, SUITE 120
COLUMBUS, OH 43231
TEL: (614) 472-8963
CONTACT: KEVIN KERSHNER
EMAIL: KEVIN.KERSHNER@KIMLEY-HORN.COM

SURVEYOR
CESO, INC.
2800 CORPORATE EXCHANGE DR, SUITE 160
COLUMBUS, OH 43231
TEL:(614) 794-7080
CONTACTS: JEFF MILLER
EMAIL: JEFF.MILLER@CESOINC.COM

No.	REVISIONS	DATE	BY

Kimley»Horn

© 2020 KIMLEY-HORN AND ASSOCIATES, INC.

2400 CORPORATE EXCHANGE
DRIVE, SUITE 120
COLUMBUS, OH 43231
PHONE: 614-492-6696
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED
DESIGNED BY: SMV
DRAWN BY: NSM
CHECKED BY: KDK

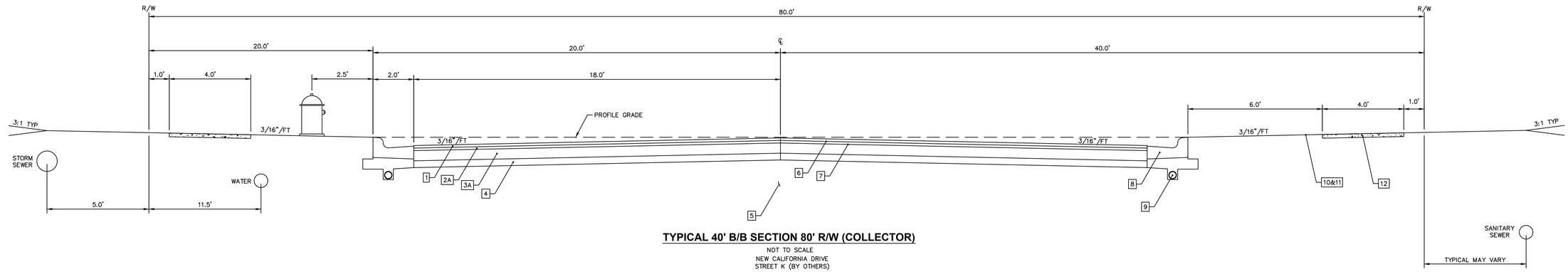
TITLE SHEET

PIONEER CROSSING
JEROME TOWNSHIP
UNION COUNTY, OHIO

ORIGINAL ISSUE: 9/17/2020
KHA PROJECT NO. 190013008
SHEET NUMBER 1
OF 26

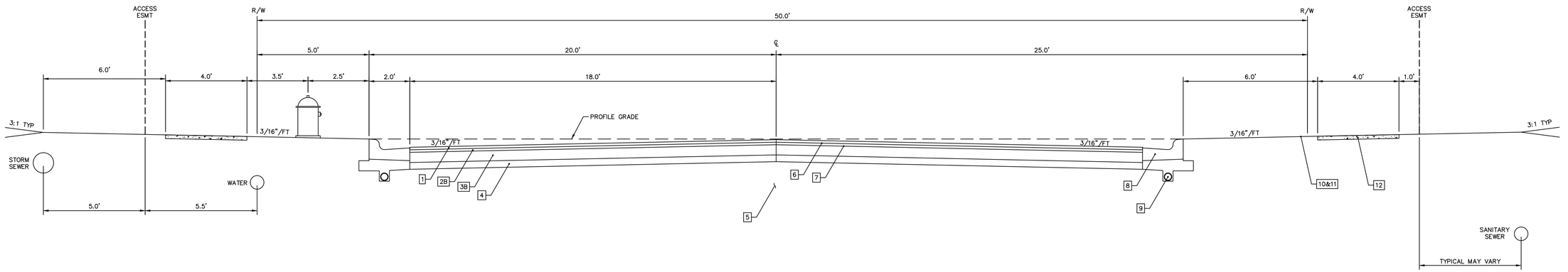
Drawing name: K:\CLB_LDEV\190013008_Pulte_Pioneer Crossing-Union County\2 Design\CAD\PlanSheets\Preliminary Plan\Title Sheet.dwg Layout1 Sep 17, 2020 12:14pm by Nick.McCall
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION



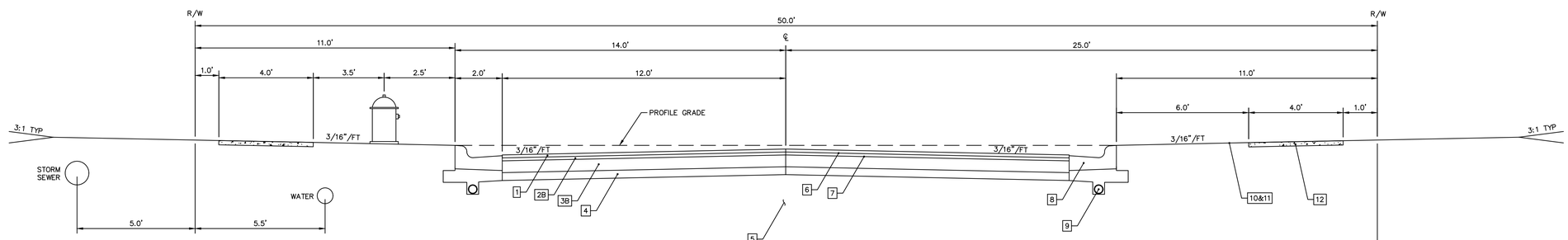
TYPICAL 40' B/B SECTION 80' R/W (COLLECTOR)

NOT TO SCALE
NEW CALIFORNIA DRIVE
STREET K (BY OTHERS)



TYPICAL 40' B/B SECTION 50' R/W (LOCAL)*

NOT TO SCALE
*COACH LINE AVE. TO 150' SOUTH OF SR 42



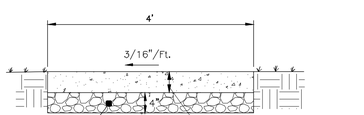
TYPICAL 28' B/B SECTION 50' R/W (LOCAL)

NOT TO SCALE
COACH LINE AVE. (150' SOUTH OF SR 42)
BRINDLEWOOD DR.
SAGEWOOD ST.
TEMP. RIGHT-IN RIGHT-OUT
TRAIL DUST ST.
WAGON TRAIL LN.
HORSESHOE ST.
ASTER AVE.
COLUMBINE AVE.
BLUESTEM DR.

NOTE: S.R. 42 IMPROVEMENTS BY ODOT – PROJECT UNI-42-3.91 / 4.38 PID 107822

PAVEMENT LEGEND

1. ITEM 441 – 1-1/4" ASPHALT SURFACE COURSE, HEAVY TRAFFIC, TYPE 1 (448) PG 64-22
2A. ITEM 441 – 2-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, HEAVY TRAFFIC, TYPE 1 (448) PG 64-22
2B. ITEM 441 – 1-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, HEAVY TRAFFIC, TYPE 1 (448) PG 64-22
3A. ITEM 301 – 7.5" BITUMINOUS AGGREGATE BASE
3B. ITEM 301 – 6" BITUMINOUS AGGREGATE BASE
4. ITEM 304 – 4" CRUSHED AGGREGATE BASE
5. ITEM 204 – SUBGRADE COMPACTION
6. ITEM 407 – TACK COAT FOR INTERMEDIATE COURSE (0.1 GAL/SY)
7. ITEM 407 – TACK COAT (0.075 GAL/SY)
8. ITEM 609 – COMBINATION CURB AND GUTTER (PER UNION COUNTY STD DWG 07)
9. ITEM 605 – 4" PIPE UNDERDRAIN
10. ITEM 659 – SEEDING AND MULCHING
11. ITEM 653 – 3" TOPSOIL
12. ITEM 608 – 4" CONCRETE WALK



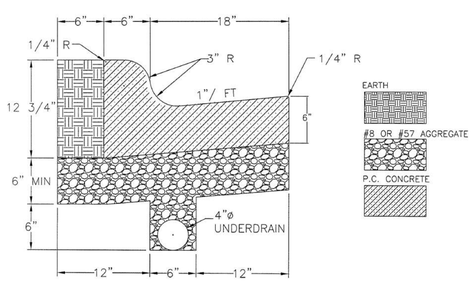
Item 304, Crushed Aggregate Base Cost to be Included in the Price Bid for ODOT CMS Item 608, Sidewalk, Sq. Ft.

4" Concrete Walk, Item 608

Sidewalk Joints (Price shall be included w/Item 608) Shall be in Accordance With ODOT CMS Item 608.03 Unless Otherwise Detailed as a part of the Architectural Plans.

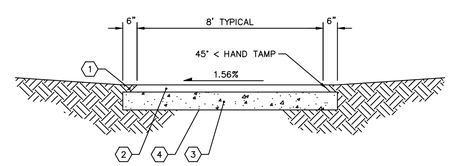
TYPICAL SIDEWALK SECTION

NOT TO SCALE



CONCRETE COMBINED CURB & GUTTER (STD DWG 07)

NOT TO SCALE



NOTES:
1. ANGLE HAND TAMP AT 45°
2. ITEM 441 – 2.5" ASPHALT CONCRETE SURFACE COURSE (LIGHT TRAFFIC), PG 64-22
3. ITEM 304 – 6" AGGREGATE BASE
4. ITEM 204 – SUBGRADE COMPACTION

ASPHALT MULTIUSE PATH DETAIL

NOT TO SCALE

NOTE

ALL DIMENSIONS ON UTILITIES SHOWN IN THESE SECTIONS ARE TYPICAL AND ACTUAL LOCATION MAY VARY PER PLAN.

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COLUMBUS, OH 43231
PHONE: 614-434-6696
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED
DESIGNED BY: SMV
DRAWN BY: NSM
CHECKED BY: KDK

TYPICAL SECTIONS

PIONEER CROSSING
JEROME TOWNSHIP
UNION COUNTY, OHIO

ORIGINAL ISSUE: 9/17/2020
KHA PROJECT NO. 190013008
SHEET NUMBER
2
OF 26

Drawing name: K:\CLB_JDEV\190013008_Pulte_Pioneer Crossing_Union County\2 Design\CAD\PlanSheets\Preliminary Plan\Typical Sections.dwg Layout1 Sep 17, 2020 11:17am by: ryan.grasely
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EX 8" SAN SEWER
JEROME TOWNSHIP PARK
TOWNSHIP PARK DRIVE AND PARKING LOW
EX 8" WM
EX 10' SAN SEWER EASEMENT
NEW CALIFORNIA DR.
EX SAN SEWER
TOWNSHIP FIRE STATION DRIVE
EX OVERHEAD PHONE AND CABLE
EX POND
JEROME TOWNSHIP TRUSTEES
9689 US 42
PLAIN CITY, OH 43064
±8.52 AC
1500070491000
EX ZONING RU
NEW CALIFORNIA WOODS I
±21.49 AC
EX ZONING PD
SCHLOSSER RICK D
9898 US 42
PLAIN CITY, OH 43064
±10.00 AC
1500070590000
EX ZONING RU
US-42
EX URE OVERHEAD 3 PH POWER
EX 4" COLUMBIA GAS
EX 12" WM
EXISTING BUILDING TO BE DEMOLISHED
EX 36" ADS CULVERT
FARNHOLTZ DOUGLASS R & LISA J
9660 US 42
PLAIN CITY, OH 43064
±2.82 AC
150007055000
EX ZONING RU
EX WETLAND
CURRY HAROLD EUGENE & VIVIAN K
0 US 42
PLAIN CITY, OH 43064
±50.67 AC
1500070540000
EX ZONING RU
COLLINS JANIE TRUSTEE
9758 US 42
PLAIN CITY, OH 43064
±60.02 AC
1500070570000
EX ZONING RU
BRC II LLC
0 US 42
PLAIN CITY, OH 43064
±40.79 AC
1500070580000
EX ZONING RU
EX TREELINE
EX STREAM
200' RIPARIAN SETBACK (100' FROM ℄ OF STREAM)
CRAGER DAWD & ETALS
9254 US 42
PLAIN CITY, OH 43064
±100.50 AC
1500200320000
EX ZONGING RU
Gwe1B1
Ble1B1
Gwd5C2
Ble1A1
Gwd1C1

MATCH LINE - SEE SHEET 4

NORTH

GRAPHIC SCALE IN FEET
0 50 100 200

SOIL INDEX

Ble1A1 – BLOUNT SILT LOAM, END MORAINE, 0 TO 2 PERCENT SLOPES (SOIL GROUP D).

Blg1B1 – BLOUNT SILT LOAM, END MORAINE, 2 TO 4 PERCENT SLOPES (SOIL GROUP D).

Gwd1C1 – GLYNWOOD SILT LOAM, 6 TO 12 PERCENT SLOPES (SOIL GROUP D).

Gwd5C2 – GLYNWOOD SILT LOAM, 6 TO 12 PERCENT SLOPES, ERODED (SOIL GROUP D).

Gwe1B1 – GLYNWOOD SILT LOAM, END MORAINE, 2 TO 6 PERCENT SLOPES (SOIL GROUP D).

LEGEND

EX. MAJOR CONTOUR
EX. MINOR CONTOUR
EX. WATER LINE
EX. SANITARY SEWER LINE
EX. PROPERTY LINE
EX. PROPERTY BOUNDARY
EX. MUNICIPALITY LINE
EX. RIGHT-OF-WAY
EX. PAVEMENT
EX. BUILDING
EX. EASEMENT
EX. STREAM
EX. WETLAND
EX. SOIL BOUNDARY
Gwd5C2
EX. SOIL TYPE
EX. TREE LINE

No.	REVISIONS	DATE	BY

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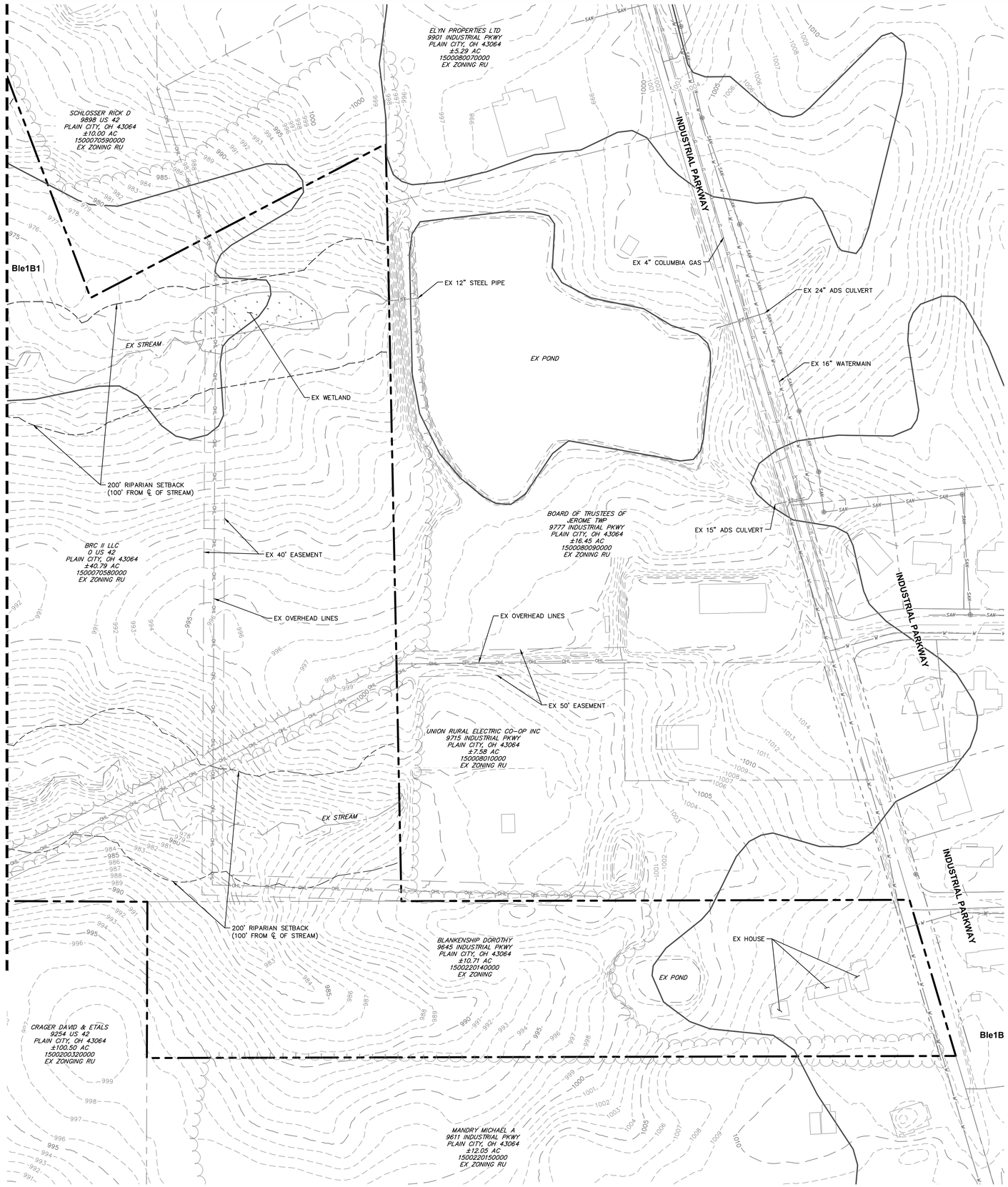
SCALE: AS NOTED
DESIGNED BY: SMV
DRAWN BY: NSM
CHECKED BY: KDK

EXISTING CONDITIONS

PIONEER CROSSING
JEROME TOWNSHIP
UNION COUNTY, OHIO

ORIGINAL ISSUE: 9/17/2020
KHA PROJECT NO. 190013008
SHEET NUMBER
3
OF 26

Drawing name: K:\CLB_LDEV\190013008_Pulte_Pioneer Crossing_Union County\2 Design\CAD\PlanSheets\Preliminary Plan\Existing Conditions.dwg Layout: (2) Sep 17, 2020 11:17am by: ryan.grassby
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GRAPHIC SCALE IN FEET
0 50 100 200

SOIL INDEX

Ble1A1 – BLOUNT SILT LOAM, END MORAINE, 0 TO 2 PERCENT SLOPES (SOIL GROUP D).

Blg1B1 – BLOUNT SILT LOAM, END MORAINE, 2 TO 4 PERCENT SLOPES (SOIL GROUP D).

Gwd1C1 – GLYNWOOD SILT LOAM, 6 TO 12 PERCENT SLOPES (SOIL GROUP D).

Gwd5C2 – GLYNWOOD SILT LOAM, 6 TO 12 PERCENT SLOPES, ERODED (SOIL GROUP D).

Gwe1B1 – GLYNWOOD SILT LOAM, END MORAINE, 2 TO 6 PERCENT SLOPES (SOIL GROUP D).

LEGEND

- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- EX. WATER LINE
- EX. SANITARY SEWER LINE
- EX. PROPERTY LINE
- EX. PROPERTY BOUNDARY
- EX. MUNICIPALITY LINE
- EX. RIGHT-OF-WAY
- EX. PAVEMENT
- EX. BUILDING
- EX. EASEMENT
- EX. STREAM
- EX. WETLAND
- EX. SOIL BOUNDARY
- Gwd5C2 — EX. SOIL TYPE
- EX. TREE LINE

No.	REVISIONS	DATE	BY

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DRAWN BY: NSM
CHECKED BY: KDK

PIONEER CROSSING
JEROME TOWNSHIP
UNION COUNTY, OHIO

EXISTING CONDITIONS

ORIGINAL ISSUE: 9/17/2020
KHA PROJECT NO. 190013008
SHEET NUMBER
4
OF 26

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PRELIMINARY
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NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

JEROME TOWNSHIP TRUSTEES
9689 US 42
PLAIN CITY, OH 43064
±8.52 AC
1500070491000

FARNHOLTZ DOUGLASS R & LISA J
9660 US 42
PLAIN CITY, OH 43064
±2.82 AC
150007055000

US 42 W

N38°01'00"E 1621.28'

SR 42 ℄

EX EOP

EX 60.0' R/W

PR 70.0' R/W

PR 15' EASEMENT

PR 10' SANITARY EASEMENT

EXISTING 10' EASEMENT

PR 10' STORM EASEMENT, TYP.

PR 20' SANITARY EASEMENT, TYP.

PR 15' SANITARY EASEMENT, TYP.

SAGEWOOD ST.

BRINDLEWOOD DR.

NEW CALIFORNIA DR.

MATCH LINE - SEE SHEET 6

MATCH LINE - SEE SHEET 7

OPEN SPACE B
2.74 AC

OPEN SPACE C
0.36 AC

OPEN SPACE G
7.51 AC

DRAINAGE EASEMENT

EXISTING WETLANDS

NOTE: PROPOSED RIGHT-IN RIGHT-OUT TO BE REMOVED AT THE TIME THE PROPOSED NEW CALIFORNIA DRIVE IS CONNECTED TO SR 42. THE REMAINING PORTION OF THE RIGHT-IN RIGHT-OUT WILL BE DETERMINED BY JEROME TOWNSHIP. THE TOWNSHIP MAY CONTINUE TO OWN AND MAINTAIN AS AN EMERGENCY ACCESS / PEDESTRIAN PATH OR IF DESIRED BY THE TRUSTEES, THE R/W MAY BE ABANDONED IN WHICH CASE THE HOA SHALL BE OBLIGATED TO TAKE OWNERSHIP AND MAINTENANCE.

CURVE TABLE						
CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA	TANGENT
C4	500.00'	468.75'	S64°52'26"W	451.77'	53°42'52"	253.20'
C5	150.00'	106.13'	N58°17'09"E	103.93'	40°32'18"	55.39'
C6	150.00'	91.20'	S69°24'03"E	89.80'	34°50'07"	47.06'

LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- PROPOSED PROPERTY LINE
- PROPOSED RIGHT-OF-WAY
- PROPOSED CENTERLINE
- PROPOSED FACE OF CURB
- PROPOSED SIDEWALK
- PROPOSED BUILDING

NOTE

LOT LINES, EASEMENTS, AND SITE/UTILITY LAYOUT ARE CONCEPTUAL AND SUBJECT TO CHANGE DURING FINAL ENGINEERING.

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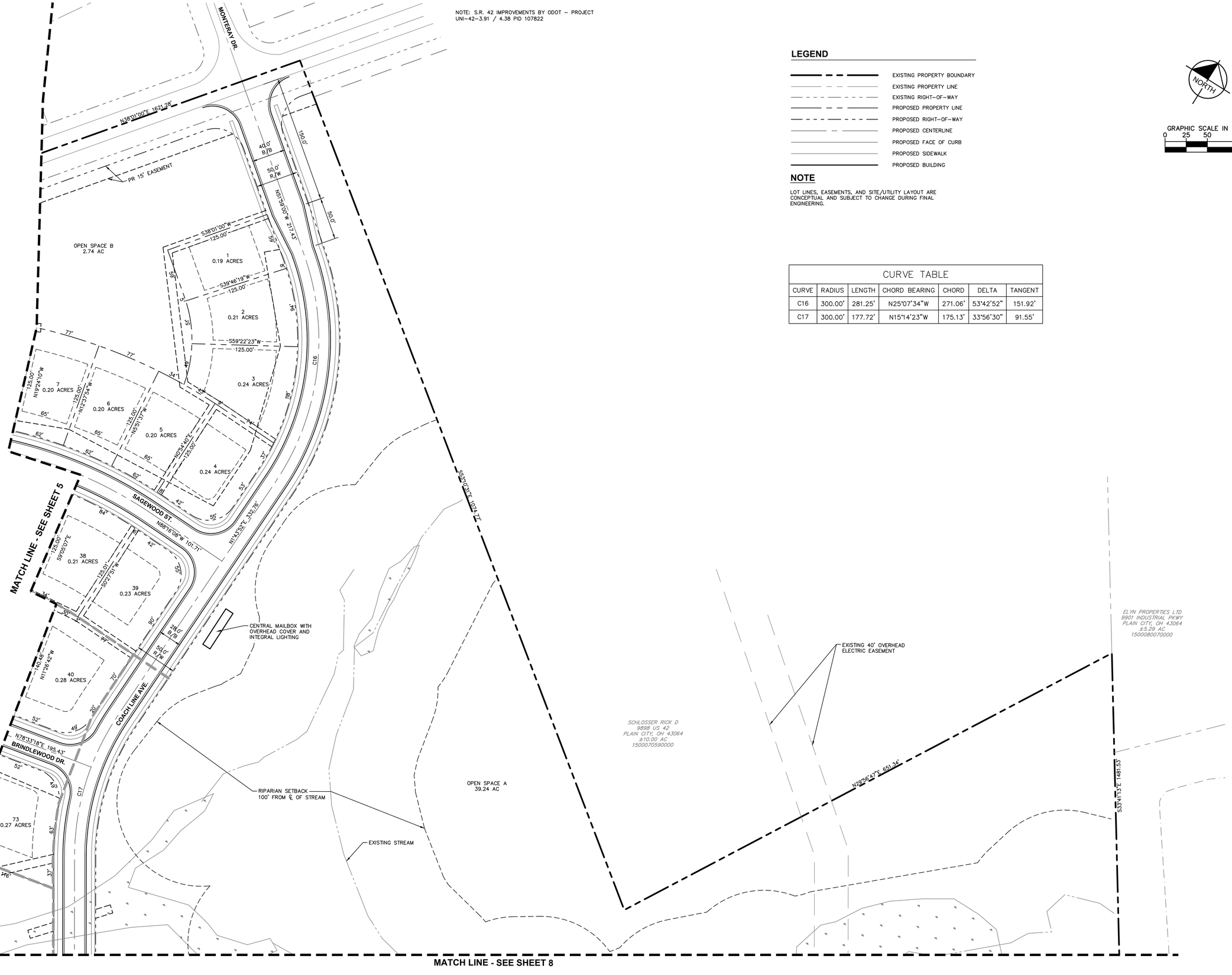
PIONEER CROSSING
JEROME TOWNSHIP
UNION COUNTY, OHIO

PRELIMINARY PLAT

ORIGINAL ISSUE: 9/17/2020
KHA PROJECT NO. 190013008
SHEET NUMBER
5
OF 26

Drawing name: K:\GA_JDEV\190013008_Pulte_Pioneer Crossing_Union County\2 Design\CAD\PlanSheets\Preliminary Plan\Site Plan.dwg Layout: 2 Sep 17, 2020 11:17am bjr ryan.grassy
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NOTE: S.R. 42 IMPROVEMENTS BY ODOT – PROJECT UNI-42-3.91 / 4.38 PID 107822



LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- PROPOSED PROPERTY LINE
- PROPOSED RIGHT-OF-WAY
- PROPOSED CENTERLINE
- PROPOSED FACE OF CURB
- PROPOSED SIDEWALK
- PROPOSED BUILDING

NOTE

LOT LINES, EASEMENTS, AND SITE/UTILITY LAYOUT ARE CONCEPTUAL AND SUBJECT TO CHANGE DURING FINAL ENGINEERING.

NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

CURVE TABLE						
CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA	TANGENT
C16	300.00'	281.25'	N25°07'34"W	271.06'	53°42'52"	151.92'
C17	300.00'	177.72'	N15°14'23"W	175.13'	33°56'30"	91.55'

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SCALE: AS NOTED
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DRAWN BY: NSM
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PRELIMINARY PLAT

PIONEER CROSSING

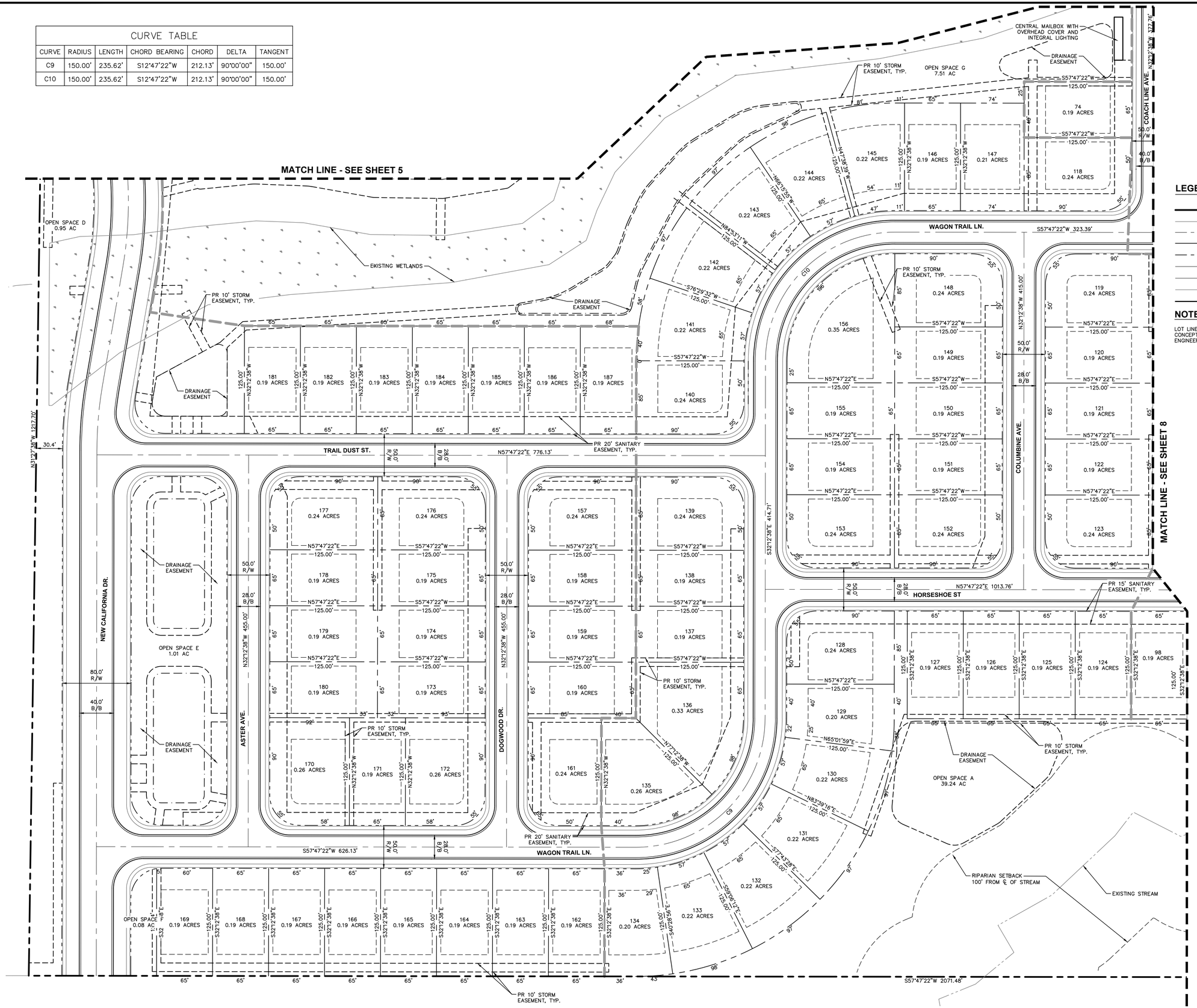
JEROME TOWNSHIP
UNION COUNTY, OHIO

ORIGINAL ISSUE:
9/17/2020

KHA PROJECT NO.
190013008

SHEET NUMBER
6
OF 26

CURVE TABLE						
CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA	TANGENT
C9	150.00'	235.62'	S12°47'22"W	212.13'	90°00'00"	150.00'
C10	150.00'	235.62'	S12°47'22"W	212.13'	90°00'00"	150.00'



NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- PROPOSED PROPERTY LINE
- PROPOSED RIGHT-OF-WAY
- PROPOSED CENTERLINE
- PROPOSED FACE OF CURB
- PROPOSED SIDEWALK
- PROPOSED BUILDING

NOTE

LOT LINES, EASEMENTS, AND SITE/UTILITY LAYOUT ARE CONCEPTUAL AND SUBJECT TO CHANGE DURING FINAL ENGINEERING.

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PIONEER CROSSING

JEROME TOWNSHIP
UNION COUNTY, OHIO

PRELIMINARY PLAT

ORIGINAL ISSUE: 9/17/2020
KHA PROJECT NO. 190013008
SHEET NUMBER 7
OF 26

Drawing name: K:\CLB_LDEV\190013008_Pulte_Pioneer Crossing_Union County\2_Design\CAD\PlanSheets\Preliminary Plan\Site Plan.dwg Layout: 3 Sep 17, 2020 11:17am bjr.rom.grassy
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MATCH LINE - SEE SHEET 6

MATCH LINE - SEE SHEET 7

COACH LINE AVE.

50.0' R/W

40.0' B/B

BLUESTEM DR.

50.0' R/W

28.0' B/B

HORSESHOE ST.

HORSESHOE ST.

DRAINAGE EASEMENT

EXISTING STREAM

RIPARIAN SETBACK 100' FROM ℄ OF STREAM

PR 10' STORM EASEMENT, TYP.

PR 15' SANITARY EASEMENT, TYP.

OPEN SPACE A 39.24 AC

PROPOSED 8' ASPHALT MULTI-USE PATH. FINAL LOCATION TO BE DETERMINED BY DEVELOPER AND TOWNSHIP TRUSTEES

EXISTING 40' OVERHEAD ELECTRIC EASEMENT

S33°41'13"E 1481.53'

S57°47'22"W 2071.48'

MATCH LINE - SEE SHEET 9

GRAPHIC SCALE IN FEET
0 25 50 100

LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- PROPOSED PROPERTY LINE
- PROPOSED RIGHT-OF-WAY
- PROPOSED CENTERLINE
- PROPOSED FACE OF CURB
- PROPOSED SIDEWALK
- PROPOSED BUILDING

NOTE

LOT LINES, EASEMENTS, AND SITE/UTILITY LAYOUT ARE CONCEPTUAL AND SUBJECT TO CHANGE DURING FINAL ENGINEERING.

CURVE TABLE

CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA	TANGENT
C11	350.00'	141.14'	S69°20'30"W	140.18'	23°06'16"	71.54'
C12	350.00'	141.14'	S69°20'30"W	140.18'	23°06'16"	71.54'
C13	152.50'	479.09'	N32°12'38"W	305.00'	180°00'00"	INFINITY'
C14	150.00'	34.31'	N25°39'30"W	34.23'	13°06'16"	17.23'

No.	REVISIONS	DATE	BY

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PHONE: 614-454-6596
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SCALE: AS NOTED | DESIGNED BY: SMV | DRAWN BY: NSM | CHECKED BY: KDK

PRELIMINARY PLAT

PIONEER CROSSING

JEROME TOWNSHIP
UNION COUNTY, OHIO

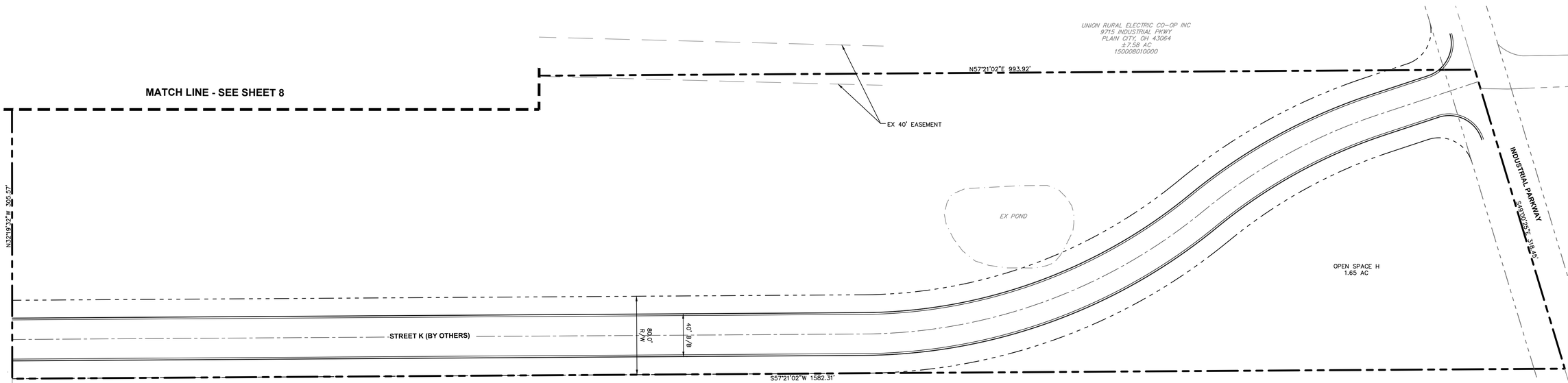
ORIGINAL ISSUE: 9/17/2020

KHA PROJECT NO. 190013008

SHEET NUMBER 8 OF 26

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GRAPHIC SCALE IN FEET
0 ## #### ####

LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- PROPOSED PROPERTY LINE
- PROPOSED RIGHT-OF-WAY
- PROPOSED CENTERLINE
- PROPOSED FACE OF CURB
- PROPOSED SIDEWALK
- PROPOSED BUILDING

NOTE

LOT LINES, EASEMENTS, AND SITE/UTILITY LAYOUT ARE CONCEPTUAL AND SUBJECT TO CHANGE DURING FINAL ENGINEERING.

NOTE: FUTURE STREET K WILL BE CONSTRUCTED BY OTHERS. CONSTRUCTION OF THE ROAD IS NOT REQUIRED TO APPROVE ANY FINAL PLATS FOR PIONEER CROSSING.

No.	REVISIONS	DATE	BY

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SCALE: AS NOTED
DESIGNED BY: SMV
DRAWN BY: NSM
CHECKED BY: KDK

PRELIMINARY PLAT

PIONEER CROSSING

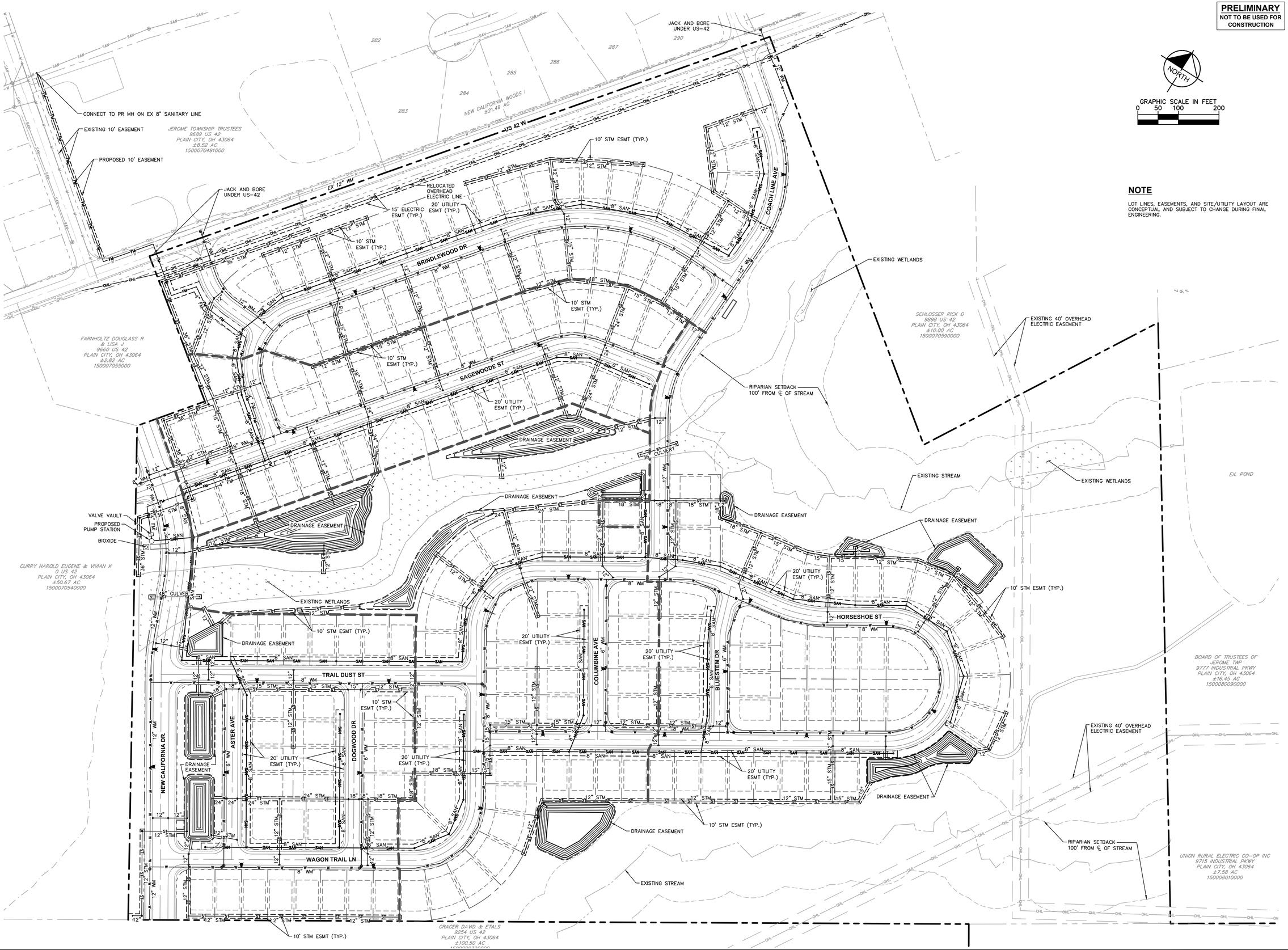
JEROME TOWNSHIP
UNION COUNTY, OHIO

ORIGINAL ISSUE:
9/17/2020

KHA PROJECT NO.
190013008

SHEET NUMBER
9
OF 26

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION



NOTE

LOT LINES, EASEMENTS, AND SITE/UTILITY LAYOUT ARE CONCEPTUAL AND SUBJECT TO CHANGE DURING FINAL ENGINEERING.

GRAPHIC SCALE IN FEET
0 50 100 200

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DRIVE, SUITE 120
COLUMBUS, OH 43231
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SCALE: AS NOTED
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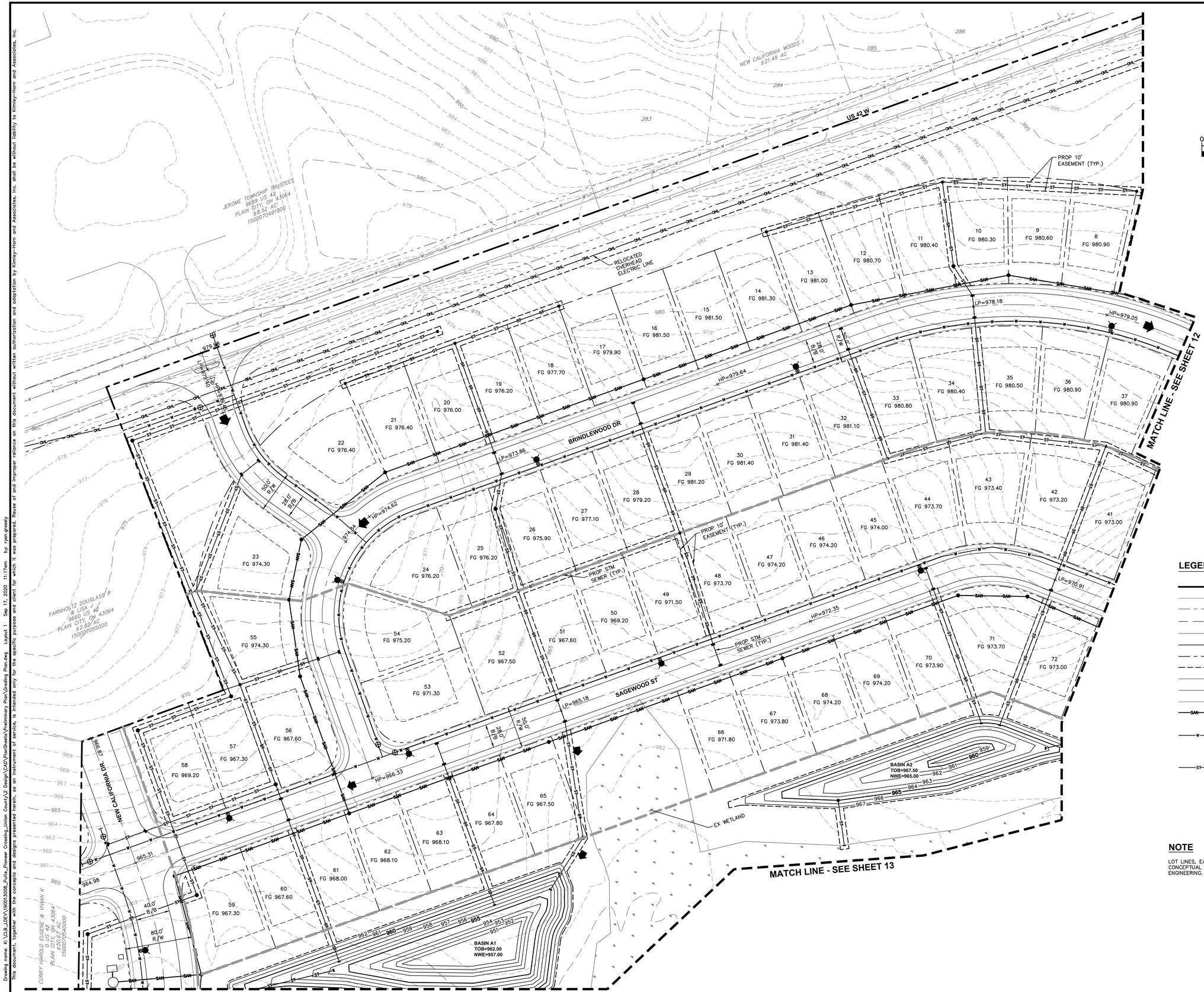
PIONEER CROSSING
JEROME TOWNSHIP
UNION COUNTY, OHIO

COMPOSITE UTILITY PLAN

ORIGINAL ISSUE: 9/17/2020
KHA PROJECT NO. 190013008
SHEET NUMBER 10
OF 26

Drawing name: K:\CLB_JSE\190013008_Pulte_Pioneer Crossing_Union County\2 Design\CAD\PlanSheets\Preliminary Plan\Utility Plan.dwg Layout 1 Sep 17, 2020 11:17am by: ryan.grassley
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PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION



LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- EXISTING STREAM
- PROPOSED PROPERTY LINE
- PROPOSED RIGHT-OF-WAY
- PROPOSED EASEMENT
- PROPOSED CENTERLINE
- PROPOSED FACE OF CURB
- PROPOSED SIDEWALK
- PROPOSED SANITARY SEWER
- PROPOSED SANITARY MH
- PROPOSED WATER MAIN
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- PROPOSED STORM SEWER LINE
- PROPOSED CATCH BASIN
- PROPOSED CURB INLET
- PROPOSED HEADWALL
- FLOOD ROUTING ARROW

NOTE

LOT LINES, EASEMENTS, AND SITE/UTILITY LAYOUT ARE CONCEPTUAL AND SUBJECT TO CHANGE DURING FINAL ENGINEERING.

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PHONE: 614-442-6696
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SCALE: AS NOTED
DESIGNED BY: SMV
DRAWN BY: NSM
CHECKED BY: KDK

GRADING & UTILITY PLAN

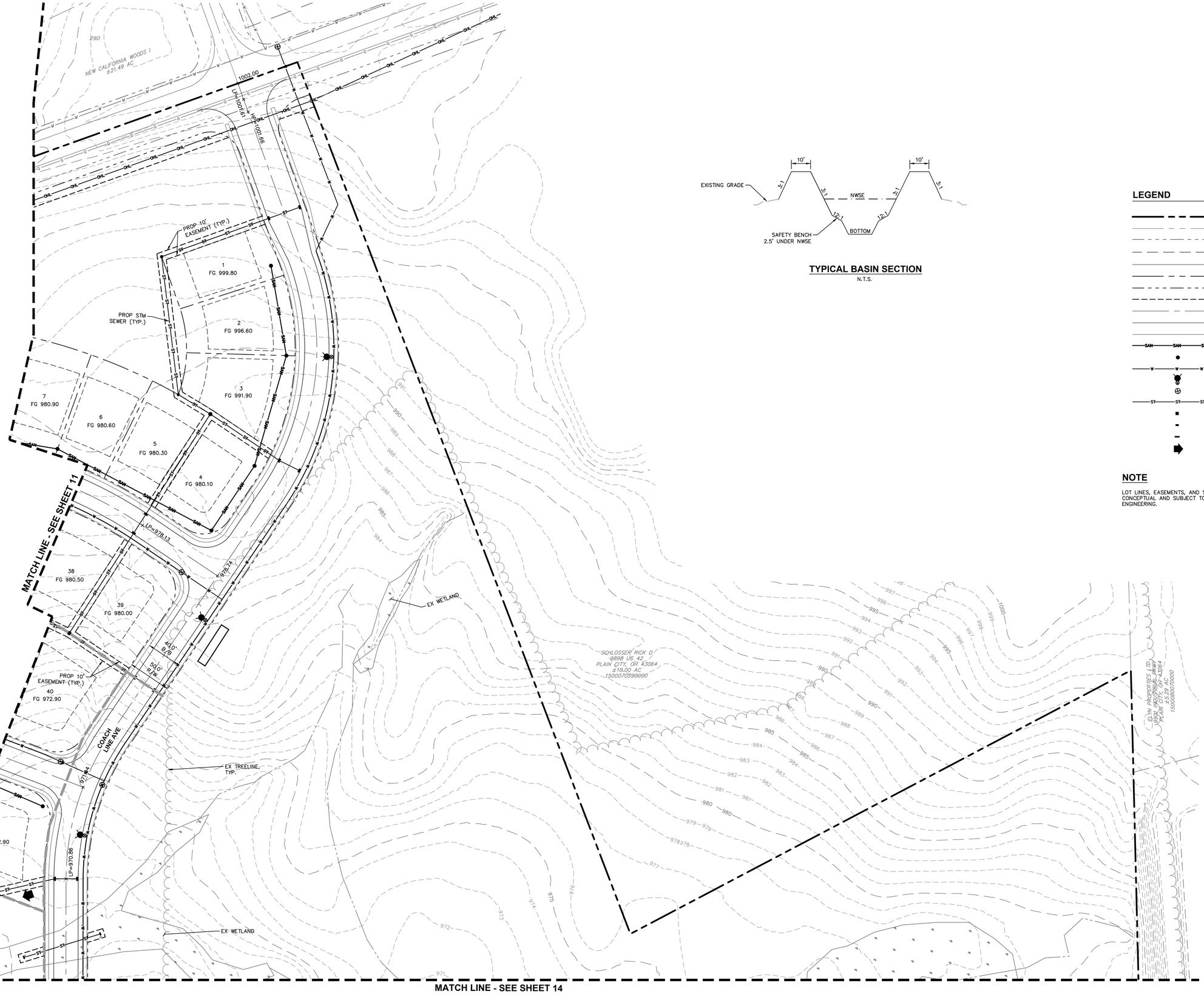
PIONEER CROSSING

JEROME TOWNSHIP
UNION COUNTY, OHIO

ORIGINAL ISSUE: 9/17/2020
KHA PROJECT NO. 190013008
SHEET NUMBER 11
OF 26

Drawing name: K:\CLB_LDEV\190013008_Pulte_Pioneer Crossing_Union County\2 Design\CAD\PlanSheets\Preliminary Plan\Grading Plan.dwg Layout: 1 Sep 17, 2020 11:17am bpr.ramgrassly
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TYPICAL BASIN SECTION
N.T.S.

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- EXISTING STREAM
- PROPOSED PROPERTY LINE
- PROPOSED RIGHT-OF-WAY
- PROPOSED EASEMENT
- PROPOSED CENTERLINE
- PROPOSED FACE OF CURB
- PROPOSED SIDEWALK
- PROPOSED SANITARY SEWER
- PROPOSED SANITARY MH
- PROPOSED WATER MAIN
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- PROPOSED STORM SEWER LINE
- PROPOSED CATCH BASIN
- PROPOSED CURB INLET
- PROPOSED HEADWALL
- FLOOD ROUTING ARROW

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GRADING & UTILITY PLAN

PIONEER CROSSING
JEROME TOWNSHIP
UNION COUNTY, OHIO

ORIGINAL ISSUE:
9/17/2020

KHA PROJECT NO.
190013008

SHEET NUMBER
12
OF 26

Drawing name: K:\CLD_LDEV\190013008_Pulte_Pioneer Crossing_Union County\2 Design\CAD\PlanSheets\Preliminary Plan\Grading Plan.dwg Layout: 3 Sep 17, 2020 11:17am by: ryan.grassy
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PRELIMINARY
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NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

MATCH LINE - SEE SHEET 11

MATCH LINE - SEE SHEET 14

NEW CALIFORNIA DR.

TRAIL DUST ST

WAGON TRAIL LN

HORSESHOE ST

ASTER AVE

DOGWOOD DR

COLUMBINE AVE

PROP 10' EASEMENT (TYP.)

PROP STM SEWER (TYP.)

EX WETLAND

BASIN A3 (DRY)
TOB=964.5
BOTTOM=960.5

BASIN A4 (DRY)
TOB=960.00
BOTTOM=956.00

BASIN A5
TOB=960.00
NWE=957.00

BASIN B
TOB=958.00
NWE=955.00

WQ A1
TOP=967.50
BOTTOM=963.50

WQ C
TOP=976.00
BOTTOM=970.00

CRAGER DAVID & ETALS
9254 US 42
PLAIN CITY, OH 43064
±100.50 AC
1500200320000

CURRY HAROLD EUGENE & VIVIAN K
9254 US 42
PLAIN CITY, OH 43064
±50.67 AC
1500200340000

LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- EXISTING STREAM
- PROPOSED PROPERTY LINE
- PROPOSED RIGHT-OF-WAY
- PROPOSED EASEMENT
- PROPOSED CENTERLINE
- PROPOSED FACE OF CURB
- PROPOSED SIDEWALK
- PROPOSED SANITARY SEWER
- PROPOSED SANITARY MH
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GRADING & UTILITY PLAN

PIONEER CROSSING

JEROME TOWNSHIP
UNION COUNTY, OHIO

ORIGINAL ISSUE:
9/17/2020

KHA PROJECT NO.
190013008

SHEET NUMBER
13
OF 26

MATCH LINE - SEE SHEET 12

MATCH LINE - SEE SHEET 13

PRELIMINARY
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NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- EXISTING STREAM
- PROPOSED PROPERTY LINE
- PROPOSED RIGHT-OF-WAY
- PROPOSED EASEMENT
- PROPOSED CENTERLINE
- PROPOSED FACE OF CURB
- PROPOSED SIDEWALK
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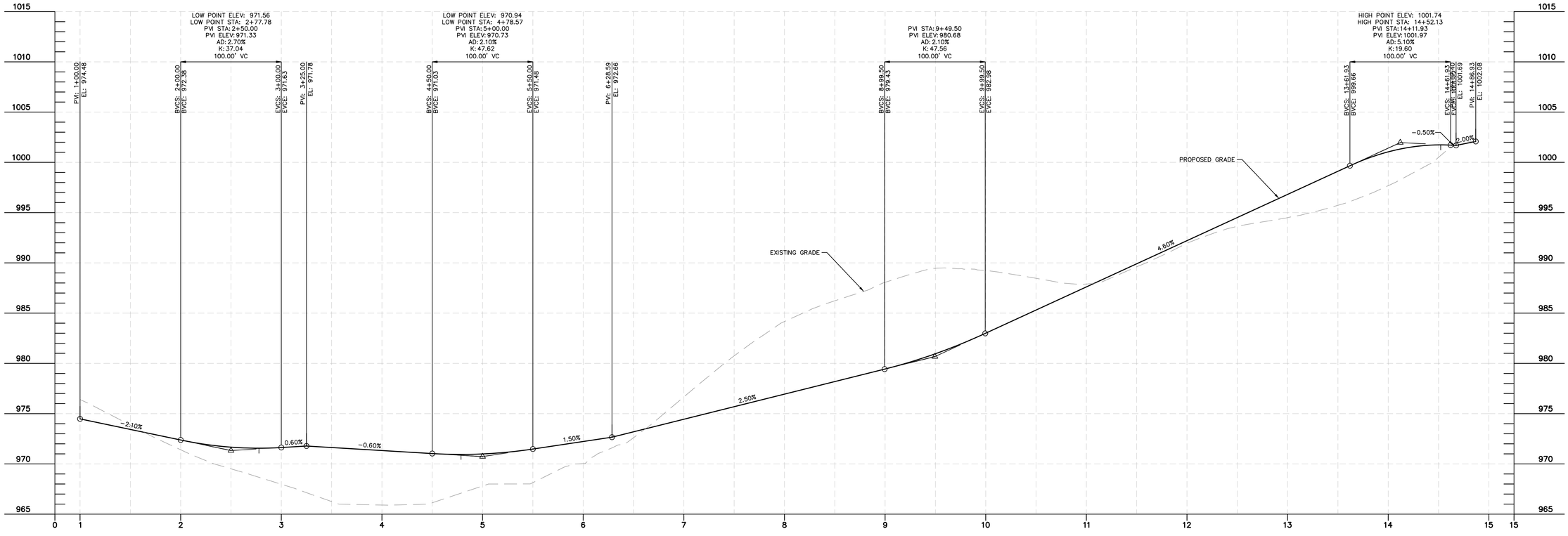
GRADING & UTILITY PLAN

PIONEER CROSSING

JEROME TOWNSHIP
UNION COUNTY, OHIO

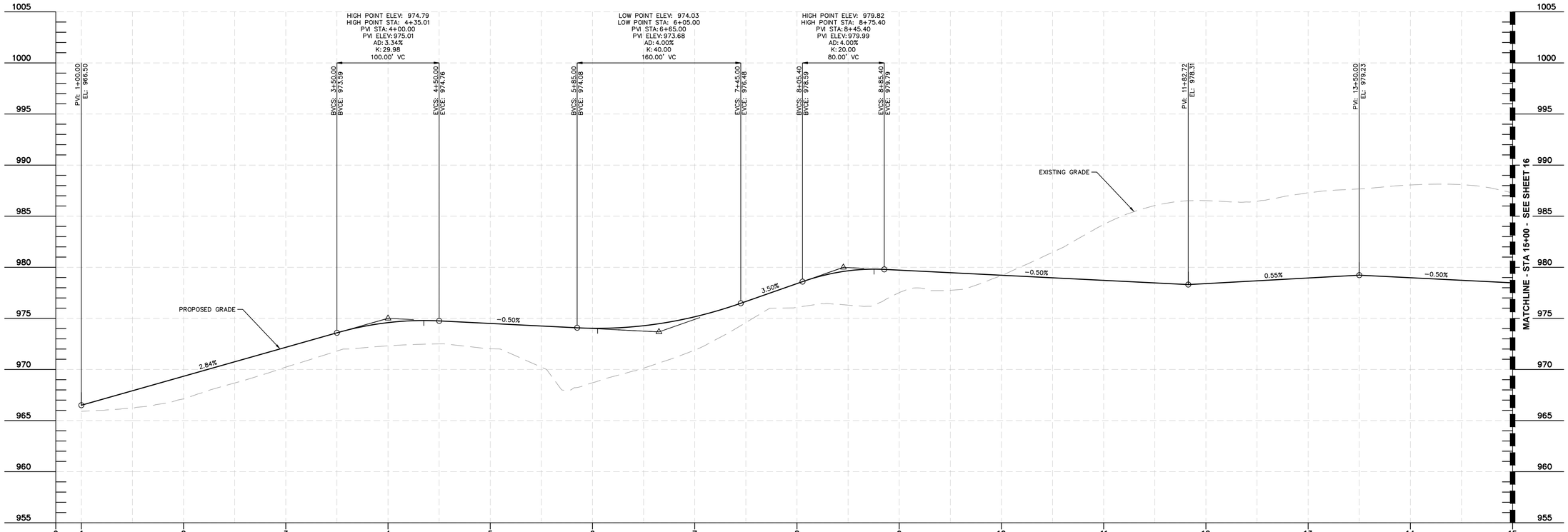
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KHA PROJECT NO. 190013008
SHEET NUMBER 14 OF 26

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COACH LINE AVENUE PROFILE STA 1+00 TO 14+86.93

SCALE: H: 1" = 50' V: 1" = 5'



BRINDLEWOOD DRIVE PROFILE STA 1+00 TO 15+00

SCALE: H: 1" = 50' V: 1" = 5'

Drawing name: K:\CLE_LDEV\190013008_Pulte_Pioneer Crossing_Union County\2 Design\CAD\PlanSheets\Preliminary Plan\Street Profiles.dwg Layout: 1 Sep 17, 2020 11:17am by: ryan.grassly
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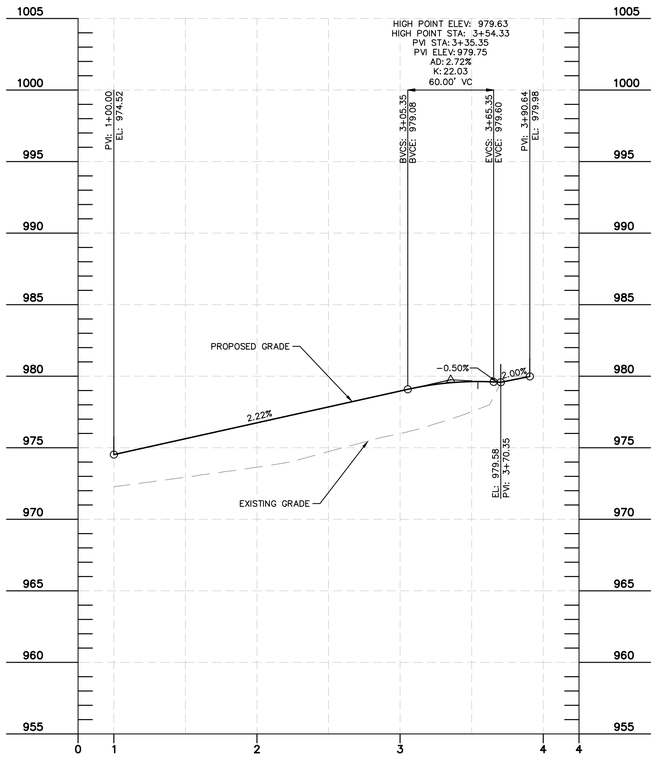
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CHECKED BY: KDK

STREET PROFILES

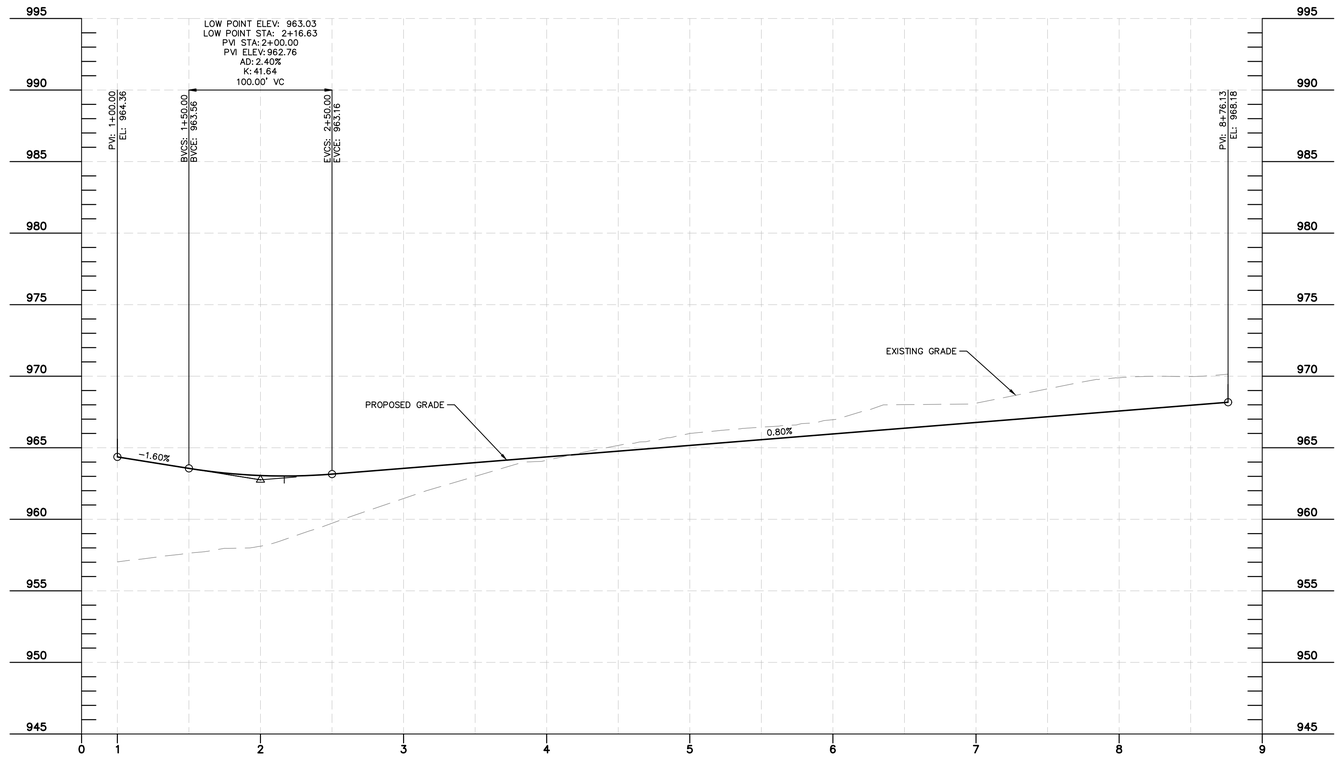
PIONEER CROSSING

JEROME TOWNSHIP
UNION COUNTY, OHIO

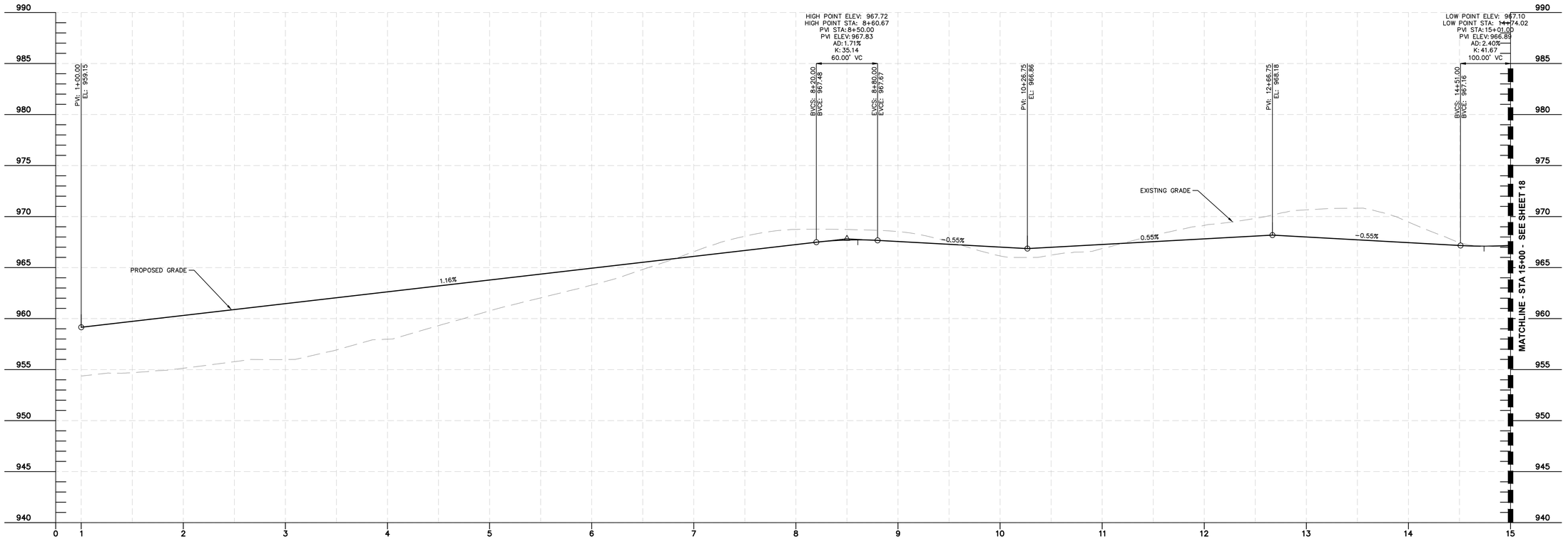
ORIGINAL ISSUE: 9/17/2020
KHA PROJECT NO. 190013008
SHEET NUMBER
15
OF 26



TEMPORARY RIGHT-IN RIGHT-OUT PROFILE STA 1+00 TO 3+90.64
SCALE: H: 1" = 50' V: 1" = 5'



TRAIL DUST STREET PROFILE STA 1+00 TO 8+76.13
SCALE: H: 1" = 50' V: 1" = 5'



WAGON TRAIL LANE PROFILE STA 1+00 TO 15+00
SCALE: H: 1" = 50' V: 1" = 5'

Drawing name: K:\CLG_LDEV\190013008_Pulte_Pioneer Crossing_Union County\2 Design\CAD\PlanSheets\Preliminary Plan\Street Profiles.dwg Layout 3 Sep 17, 2020 11:17am by: ryan.grassly
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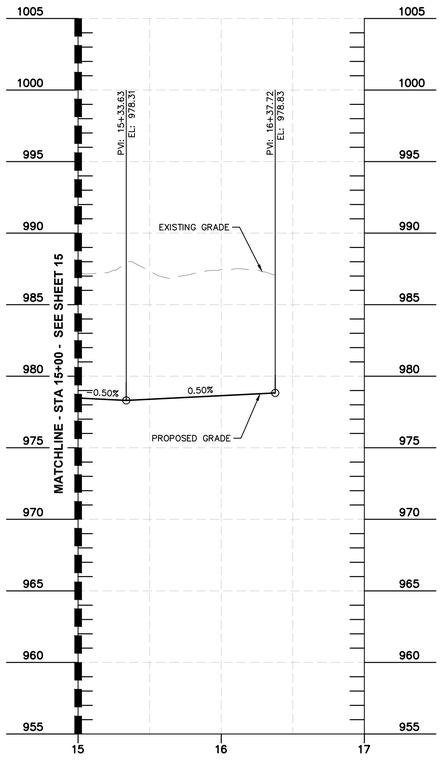
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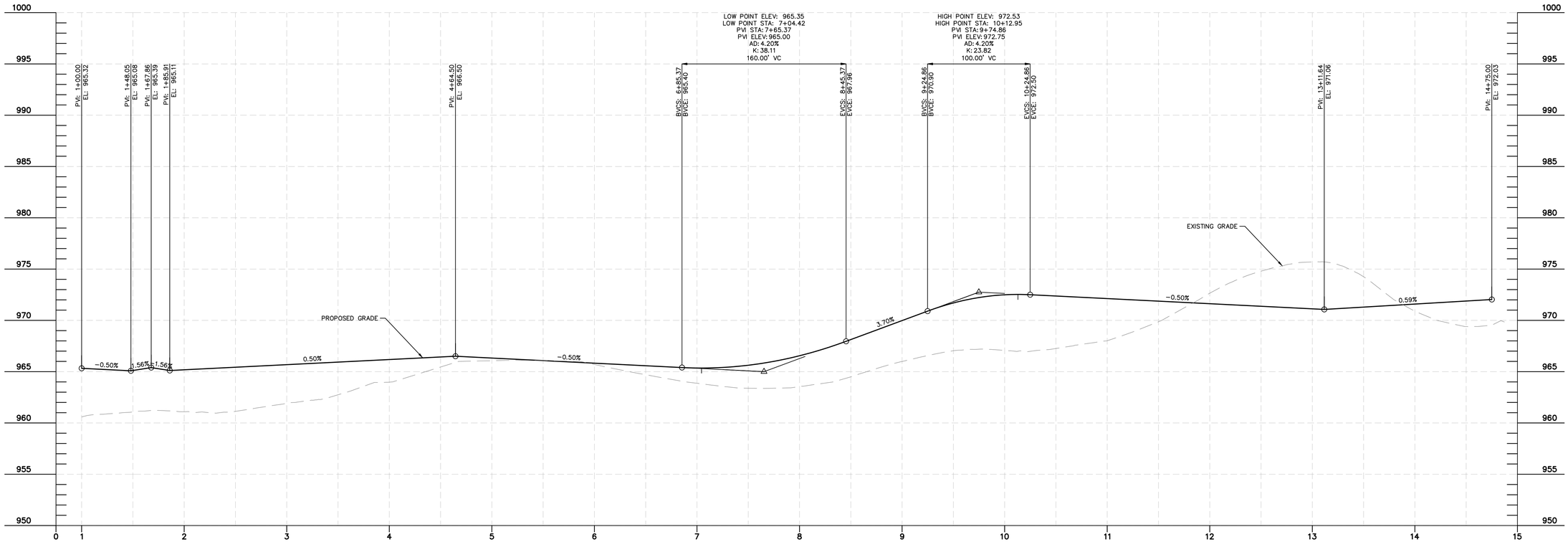
STREET PROFILES

PIONEER CROSSING
JEROME TOWNSHIP
UNION COUNTY, OHIO

ORIGINAL ISSUE: 9/17/2020
KHA PROJECT NO. 190013008
SHEET NUMBER
16
OF 26



BRINDLEWOOD DRIVE PROFILE STA 15+00 TO 16+37.72
SCALE: H: 1" = 50' V: 1" = 5'



SAGEWOOD STREET PROFILE STA 1+00 TO 14+75
SCALE: H: 1" = 50' V: 1" = 5'

Drawing name: K:\CLG_LDEV\190013008_Pulte_Pioneer Crossing_Union County\2 Design\CAD\PlanSheets\Preliminary Plan\Street Profiles.dwg Layout 2 Sep 17, 2020 11:17am by: ryan.grassly
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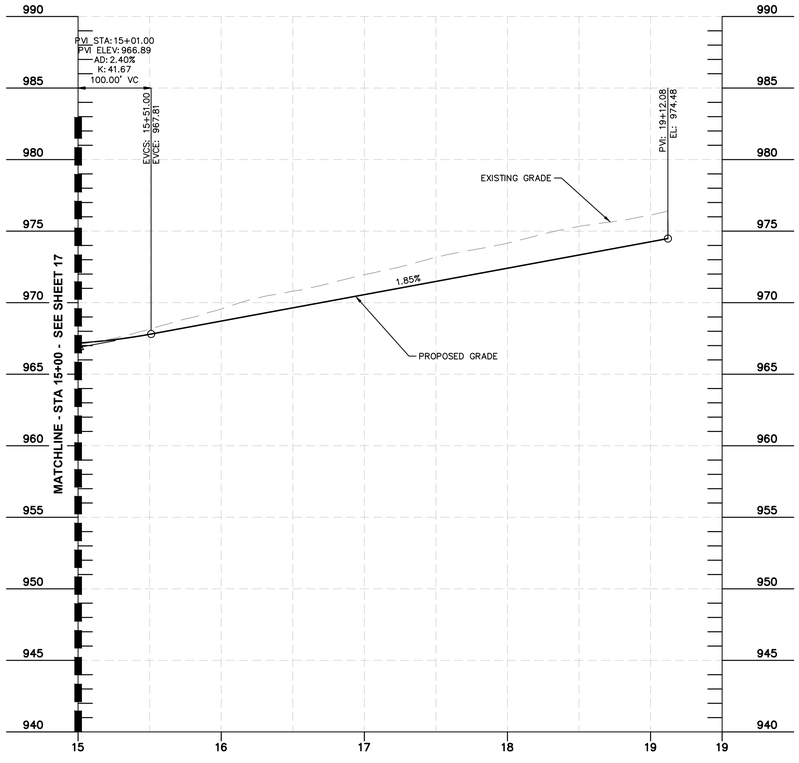
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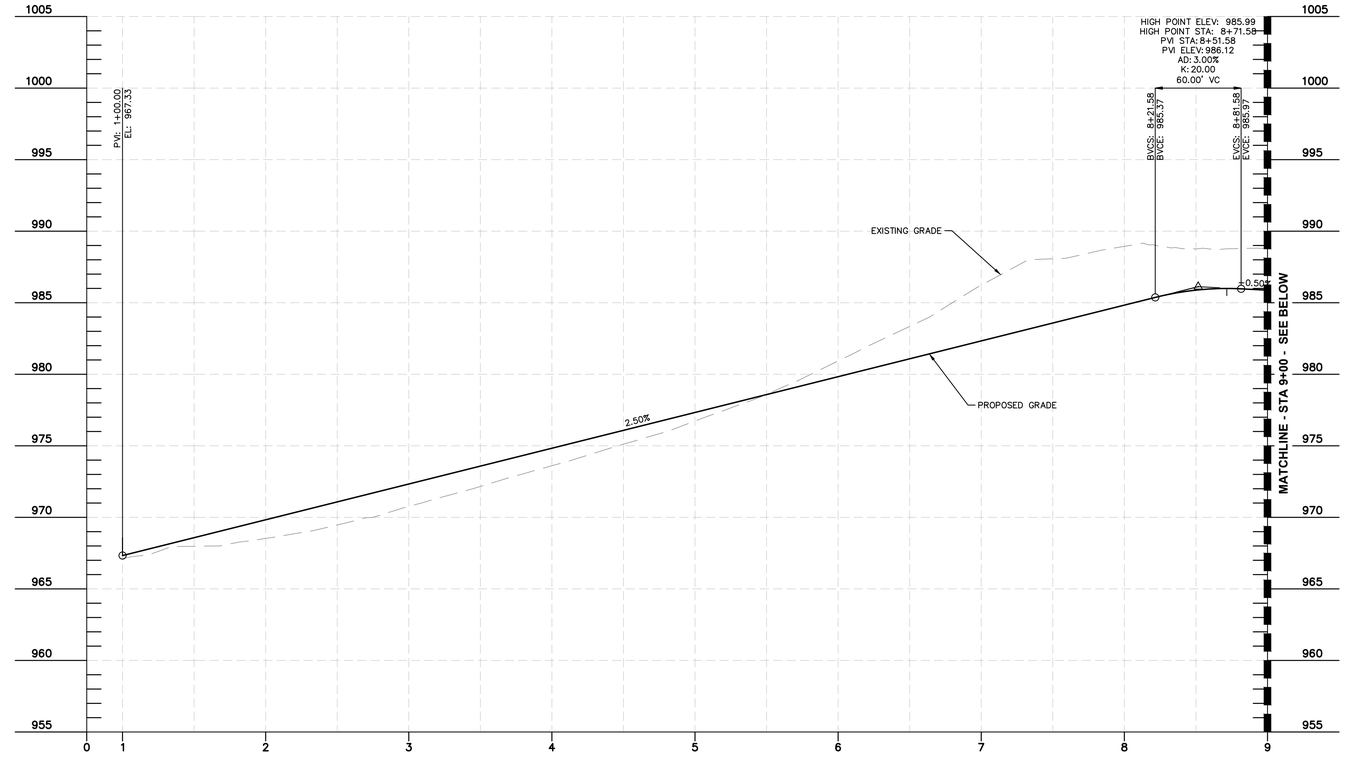
STREET PROFILES

PIONEER CROSSING
JEROME TOWNSHIP
UNION COUNTY, OHIO

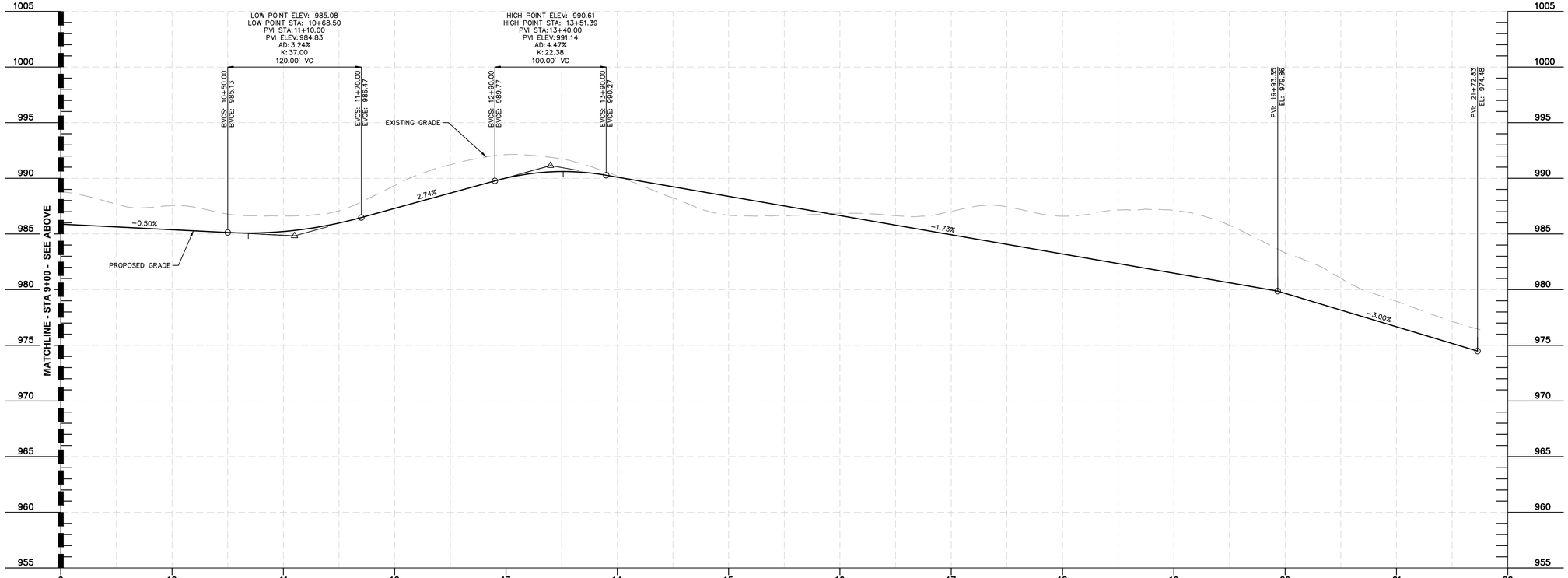
ORIGINAL ISSUE: 9/17/2020
KHA PROJECT NO. 190013008
SHEET NUMBER
17
OF 26



WAGON TRAIL LANE PROFILE STA 15+00 TO 19+12.08
SCALE: H: 1" = 50' V: 1" = 5'



HORSESHOE STREET PROFILE STA 1+00 TO 9+00
SCALE: H: 1" = 50' V: 1" = 5'



HORSESHOE STREET PROFILE STA 9+00 TO 21+72.83
SCALE: H: 1" = 50' V: 1" = 5'

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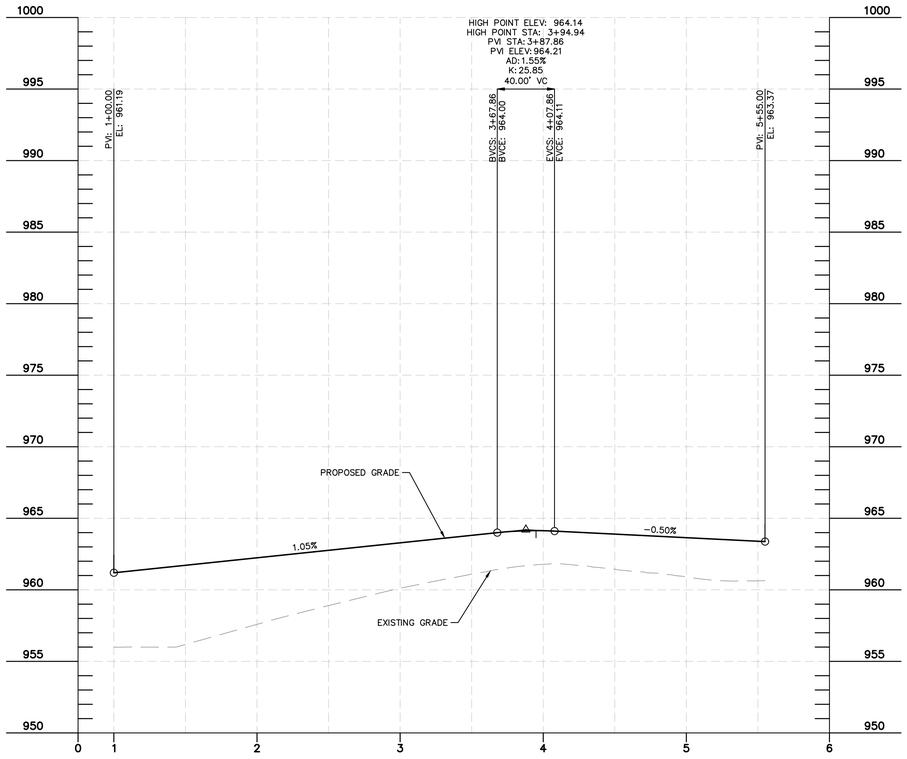
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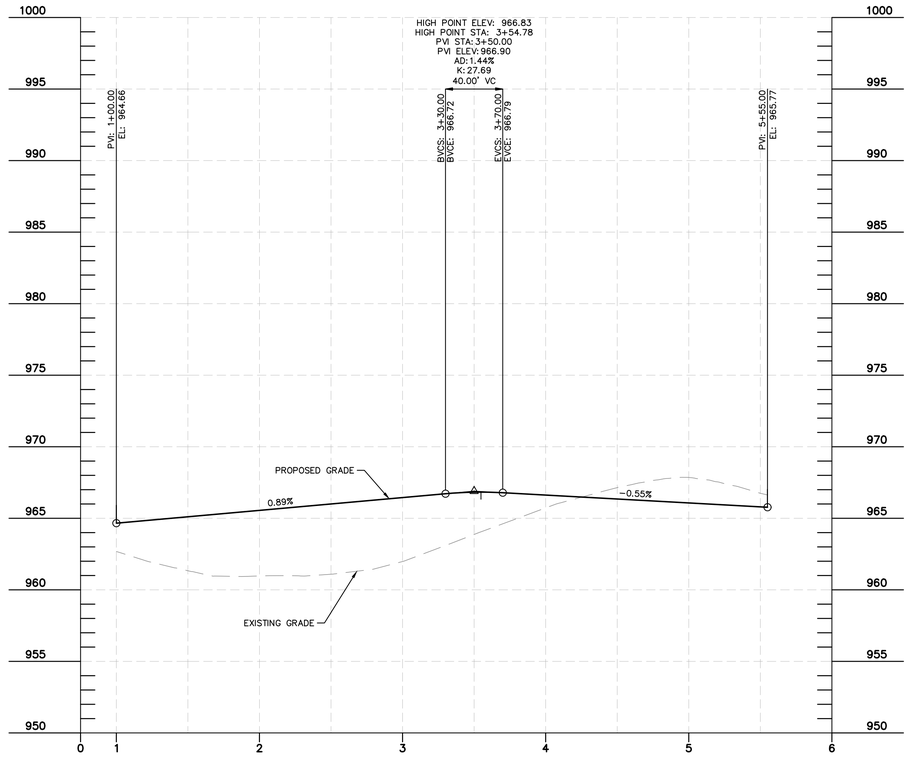
STREET PROFILES

PIONEER CROSSING
JEROME TOWNSHIP
UNION COUNTY, OHIO

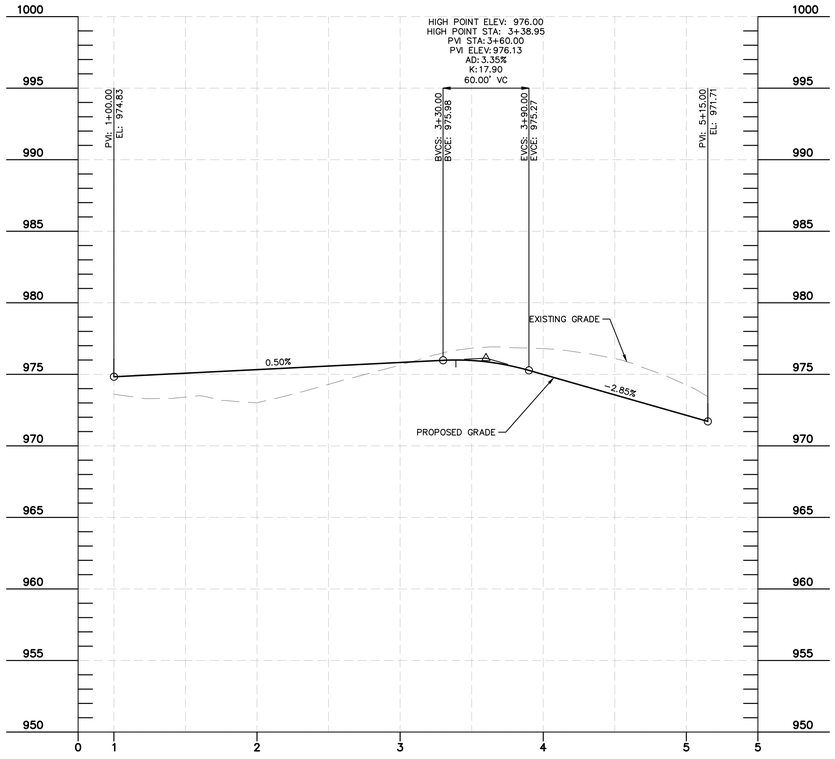
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SHEET NUMBER
18
OF 26



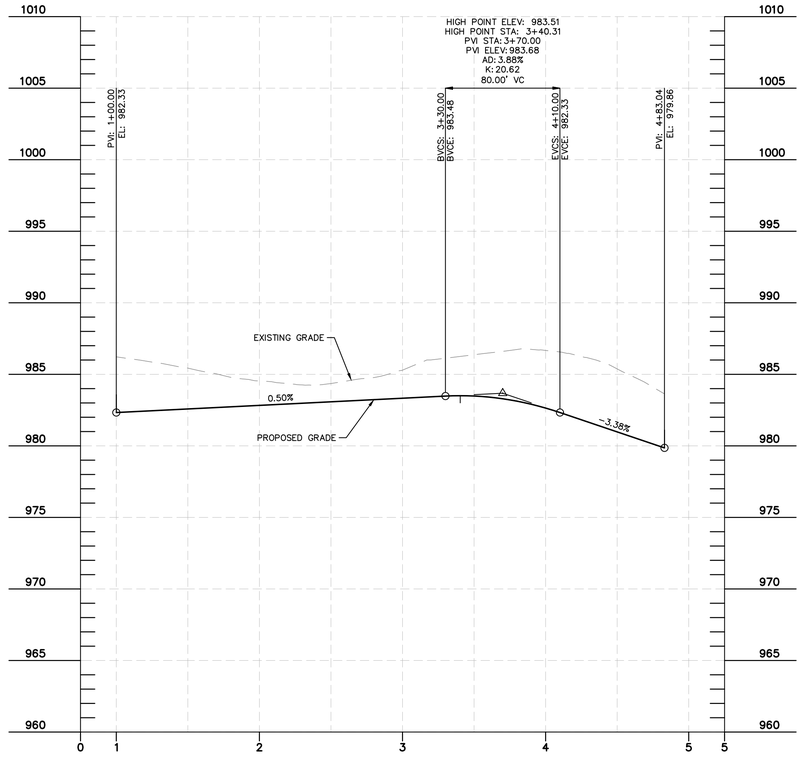
ASTER AVENUE PROFILE STA 1+00 TO 5+55
SCALE: H: 1" = 50' V: 1" = 5'



DOGWOOD DRIVE PROFILE STA 1+00 TO 5+55
SCALE: H: 1" = 50' V: 1" = 5'



COLUMBINE AVENUE STA 1+00 TO 5+15
SCALE: H: 1" = 50' V: 1" = 5'



BLUESTEM DRIVE PROFILE STA 1+00 TO 4+83.04
SCALE: H: 1" = 50' V: 1" = 5'

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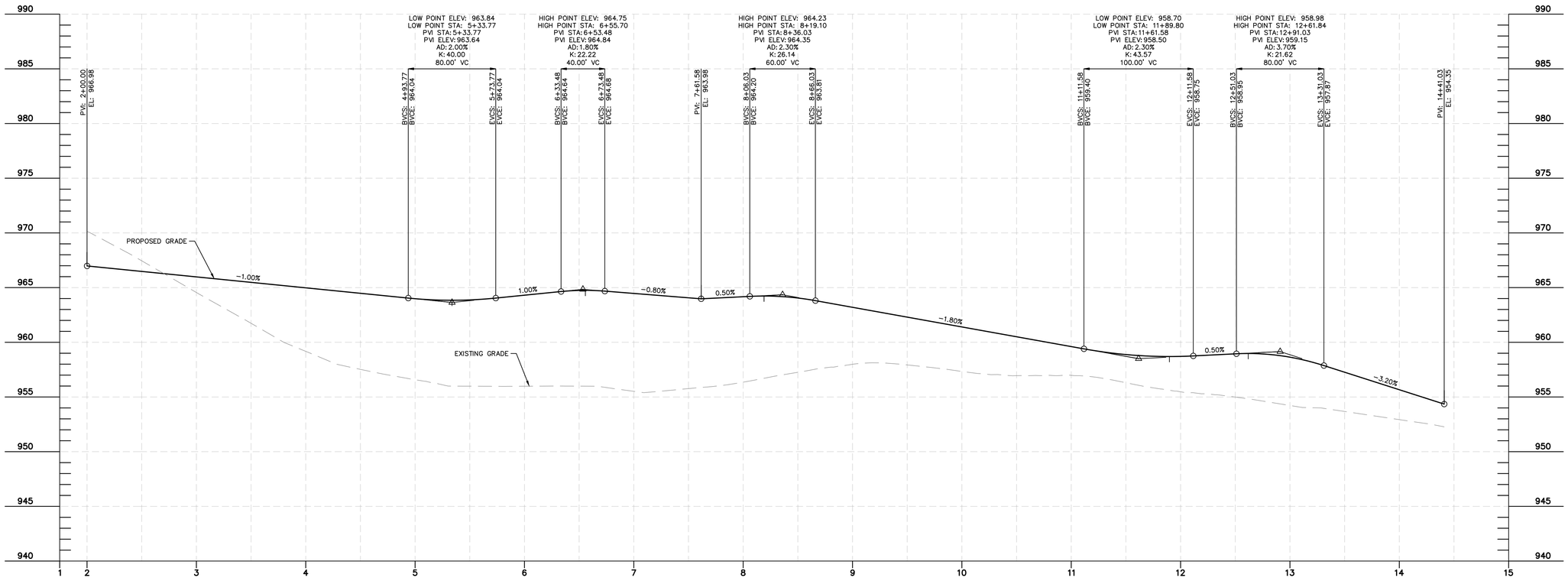
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SCALE: AS NOTED
DESIGNED BY: SMV
DRAWN BY: NSM
CHECKED BY: KDK

STREET PROFILES

PIONEER CROSSING
JEROME TOWNSHIP
UNION COUNTY, OHIO

ORIGINAL ISSUE: 9/17/2020
KHA PROJECT NO. 190013008
SHEET NUMBER
19
OF 26



NEW CALIFORNIA DRIVE PROFILE STA 2+00 TO 14+41.03

SCALE: H: 1" = 50' V: 1" = 5'

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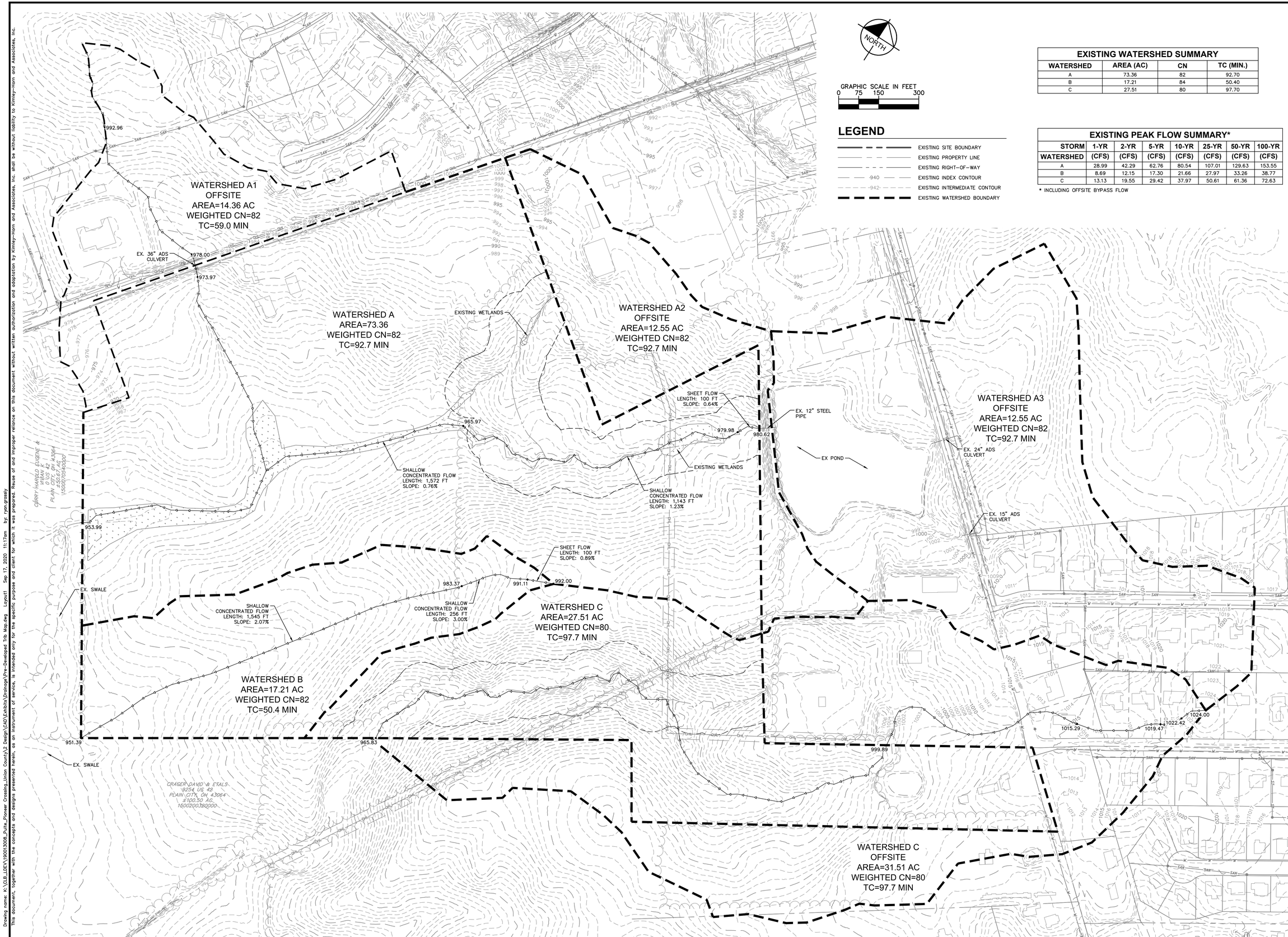
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PIONEER CROSSING

JEROME TOWNSHIP
UNION COUNTY, OHIO

STREET PROFILES

ORIGINAL ISSUE: 9/17/2020
KHA PROJECT NO. 190013008
SHEET NUMBER
20
OF 26



EXISTING WATERSHED SUMMARY

WATERSHED	AREA (AC)	CN	TC (MIN.)
A	73.36	82	92.70
B	17.21	84	50.40
C	27.51	80	97.70

EXISTING PEAK FLOW SUMMARY*

STORM	1-YR	2-YR	5-YR	10-YR	25-YR	50-YR	100-YR
WATERSHED	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)
A	28.99	42.29	62.76	80.54	107.01	129.63	153.55
B	8.69	12.15	17.30	21.66	27.97	33.26	38.77
C	13.13	19.55	29.42	37.97	50.61	61.36	72.63

* INCLUDING OFFSITE BYPASS FLOW

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2400 CORPORATE EXCHANGE
DRIVE, SUITE 120
COLUMBUS, OH 43231
PHONE: 614 - 474-6896
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED
DESIGNED BY: SMV
DRAWN BY: NSM
CHECKED BY: KDK

PRE-DEVELOPED TRIBUTARY MAP

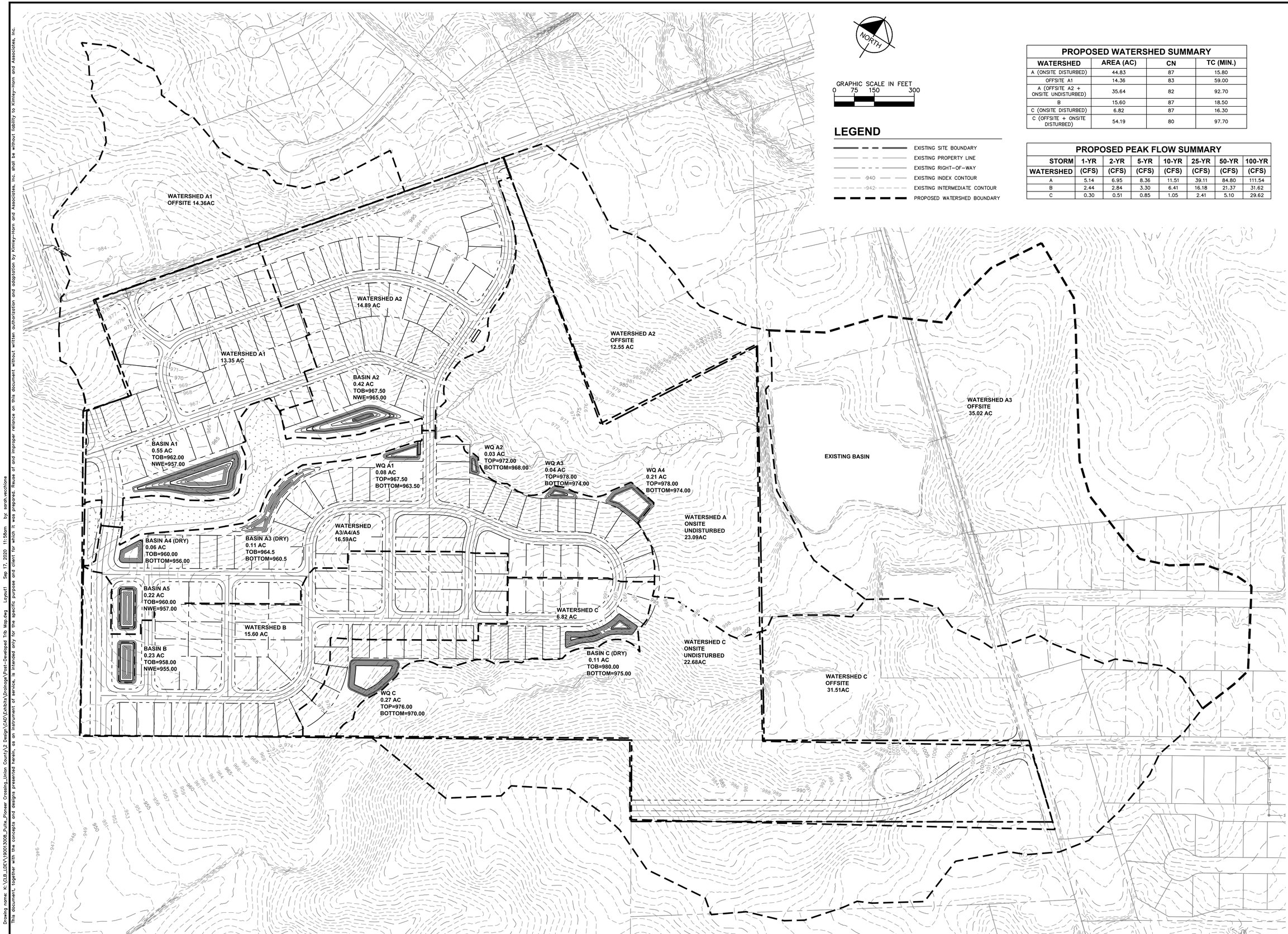
PIONEER CROSSING
JEROME TOWNSHIP
UNION COUNTY, OHIO

ORIGINAL ISSUE:
9/17/2020

KHA PROJECT NO.
190013008

SHEET NUMBER
21
OF 26

Drawing name: K:\GA_ATL\190013008_Pulte_Pioneer Crossing_Union County\2 Design\CAD\Exhibits\Drainage\Post-Developed Trib Map.dwg Layout: Sep 17, 2020 11:58am by: sarah.vecchione
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LEGEND

- EXISTING SITE BOUNDARY
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- 940 EXISTING INDEX CONTOUR
- 942 EXISTING INTERMEDIATE CONTOUR
- PROPOSED WATERSHED BOUNDARY

PROPOSED WATERSHED SUMMARY

WATERSHED	AREA (AC)	CN	TC (MIN.)
A (ONSITE DISTURBED)	44.83	87	15.80
OFFSITE A1	14.36	83	59.00
A (OFFSITE A2 + ONSITE UNDISTURBED)	35.64	82	92.70
B	15.60	87	18.50
C (ONSITE DISTURBED)	6.82	87	16.30
C (OFFSITE + ONSITE DISTURBED)	54.19	80	97.70

PROPOSED PEAK FLOW SUMMARY

STORM	1-YR	2-YR	5-YR	10-YR	25-YR	50-YR	100-YR
WATERSHED	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)
A	5.14	6.95	8.36	11.51	39.11	84.80	111.54
B	2.44	2.84	3.30	6.41	16.18	21.37	31.62
C	0.30	0.51	0.85	1.05	2.41	5.10	29.62

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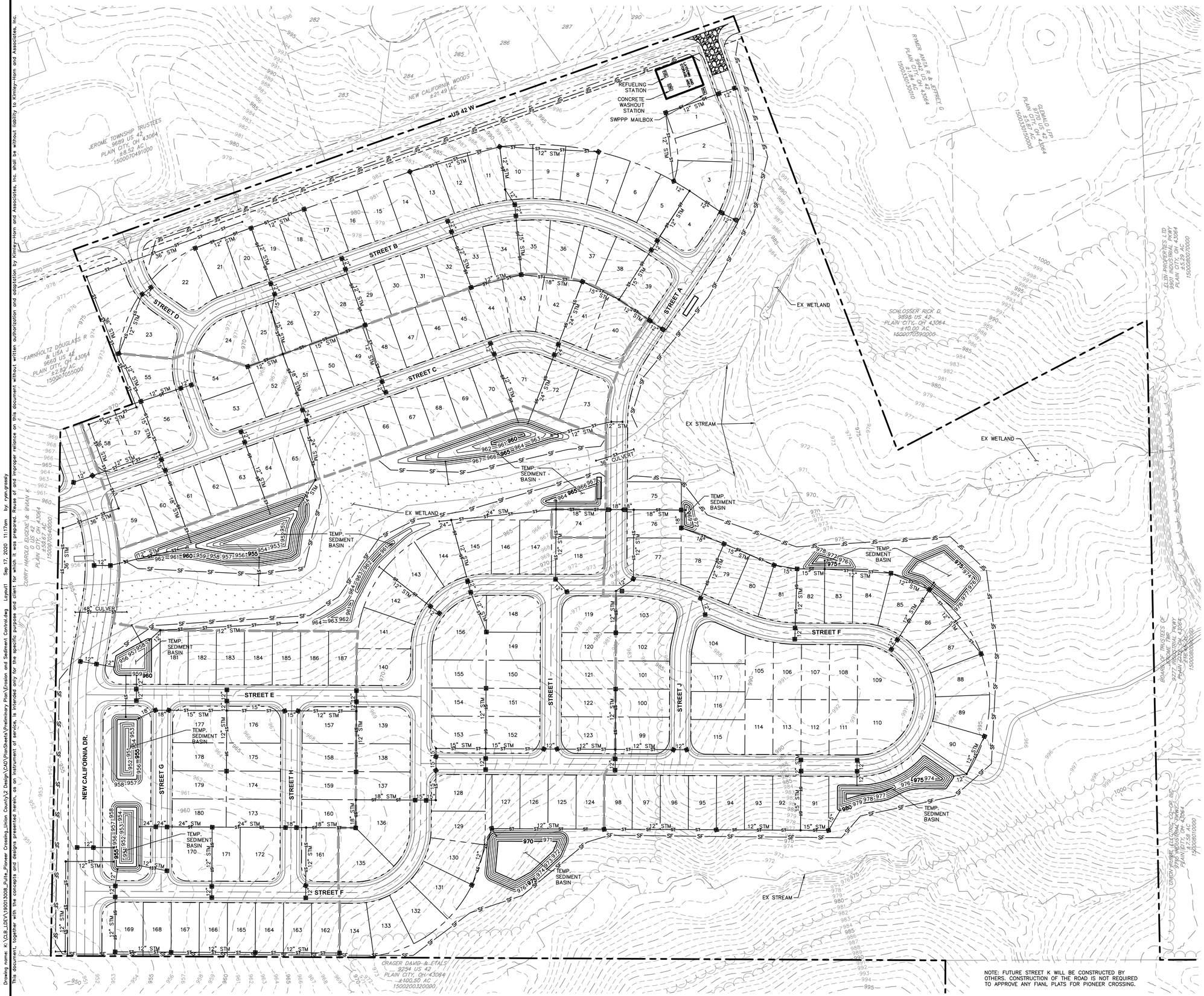
POST-DEVELOPED TRIBUTARY MAP

PIONEER CROSSING
JEROME TOWNSHIP
UNION COUNTY, OHIO

ORIGINAL ISSUE:
9/17/2020

KHA PROJECT NO.
190013008

SHEET NUMBER
22
OF 26



NOTE: FUTURE STREET K WILL BE CONSTRUCTED BY OTHERS. CONSTRUCTION OF THE ROAD IS NOT REQUIRED TO APPROVE ANY FIANL PLATS FOR PIONEER CROSSING.

NORTH

GRAPHIC SCALE IN FEET
0 50 100 200

LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- EXISTING WATERLINE
- EXISTING FIRE HYDRANT
- EXISTING SANITARY SEWER
- EXISTING SANITARY MANHOLE
- EXISTING STREAM
- PROPOSED PROPERTY LINE
- PROPOSED RIGHT-OF-WAY
- PROPOSED CENTERLINE
- PROPOSED BACK OF CURB
- PROPOSED SIDEWALK
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED STORM SEWER LINE
- PROPOSED CATCH BASIN
- PROPOSED CURB INLET
- PROPOSED HEADWALL
- PROPOSED INLET PROTECTION
- PROPOSED SEDIMENT FENCE
- CWA — PROPOSED CONCRETE WASHOUT
- FUEL — PROPOSED REFUELING AREA

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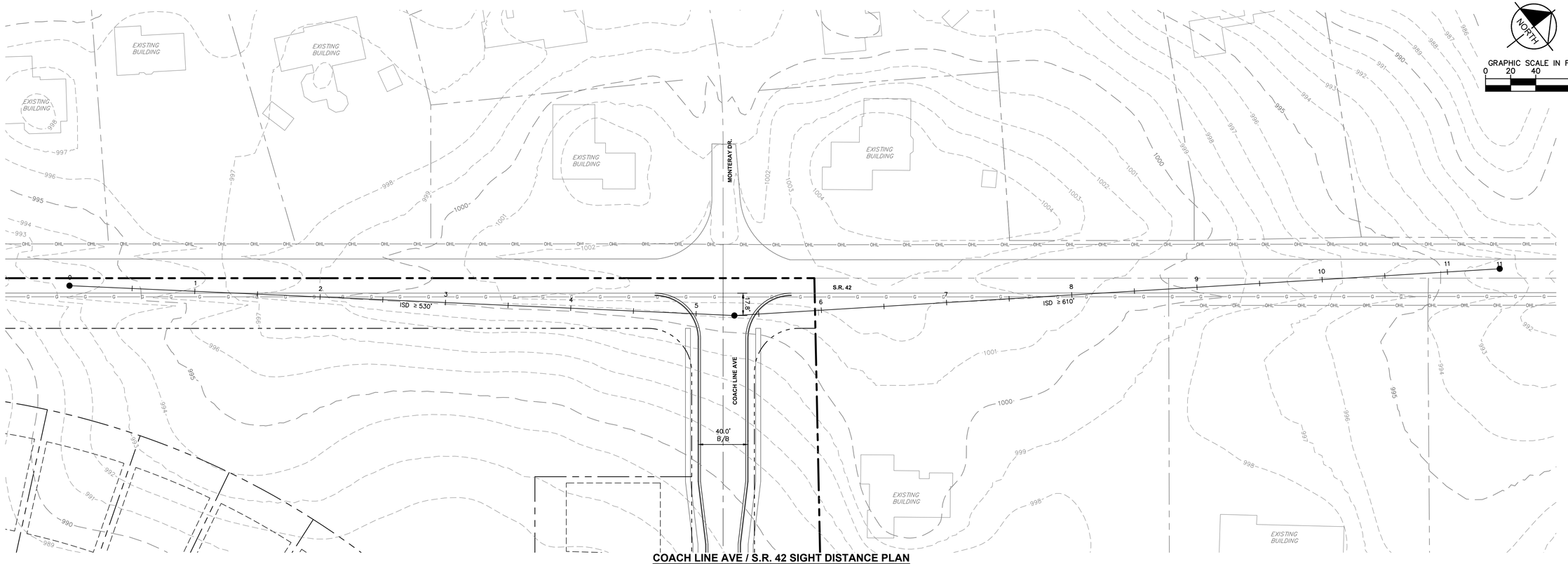
EROSION & SEDIMENT CONTROL PLAN

PIONEER CROSSING

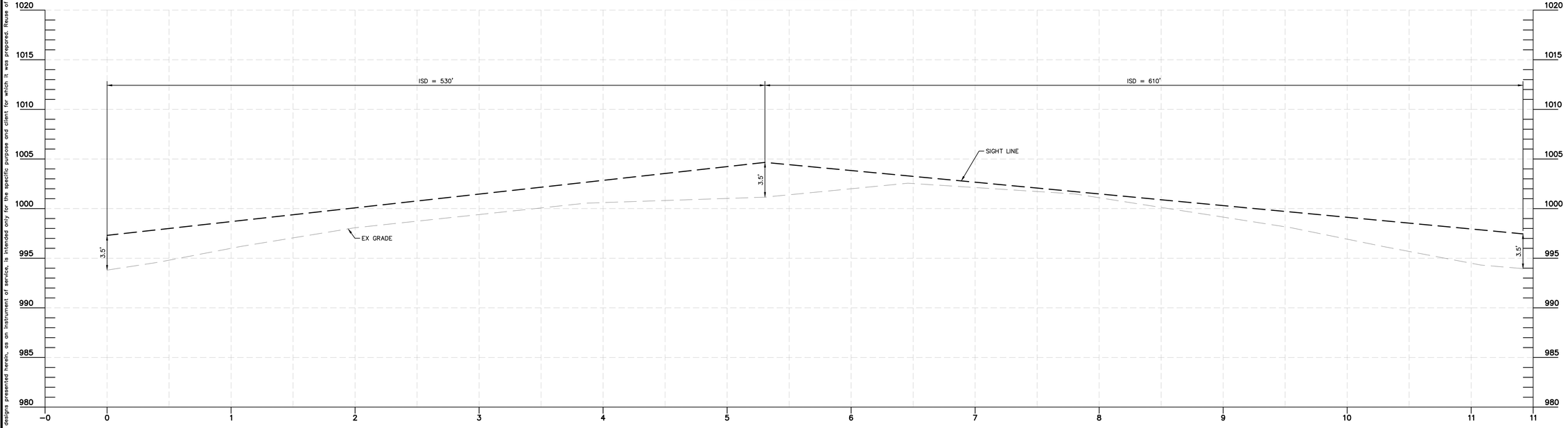
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UNION COUNTY, OHIO

ORIGINAL ISSUE: 9/17/2020
KHA PROJECT NO. 190013008
SHEET NUMBER 23
OF 26

Drawing name: K:\CLB_LDEV\190013008_Pulte_Pioneer Crossing_Union County\2 Design\CAD\PlanSheets\Preliminary Plan\Erosion and Sediment Control.dwg Layout1 Sep 17, 2020 11:17am by ryan.grassby
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COACH LINE AVE / S.R. 42 SIGHT DISTANCE PLAN
DESIGN SPEED = 55 MPH



COACH LINE AVE / S.R. 42 SIGHT DISTANCE PROFILE
SCALE: H: 1" = 40' V: 1" = 5'

LEGEND

- EX. PROPERTY LINE
- EX. PROPERTY BOUNDARY
- EX. RIGHT-OF-WAY
- EX. PAVEMENT
- EX. BUILDING
- EX. STREAM
- PROPOSED RIGHT-OF-WAY
- PROPOSED PROPERTY LINE
- PROPOSED CENTERLINE
- PROPOSED EDGE OF PAVEMENT
- SIGHT LINE

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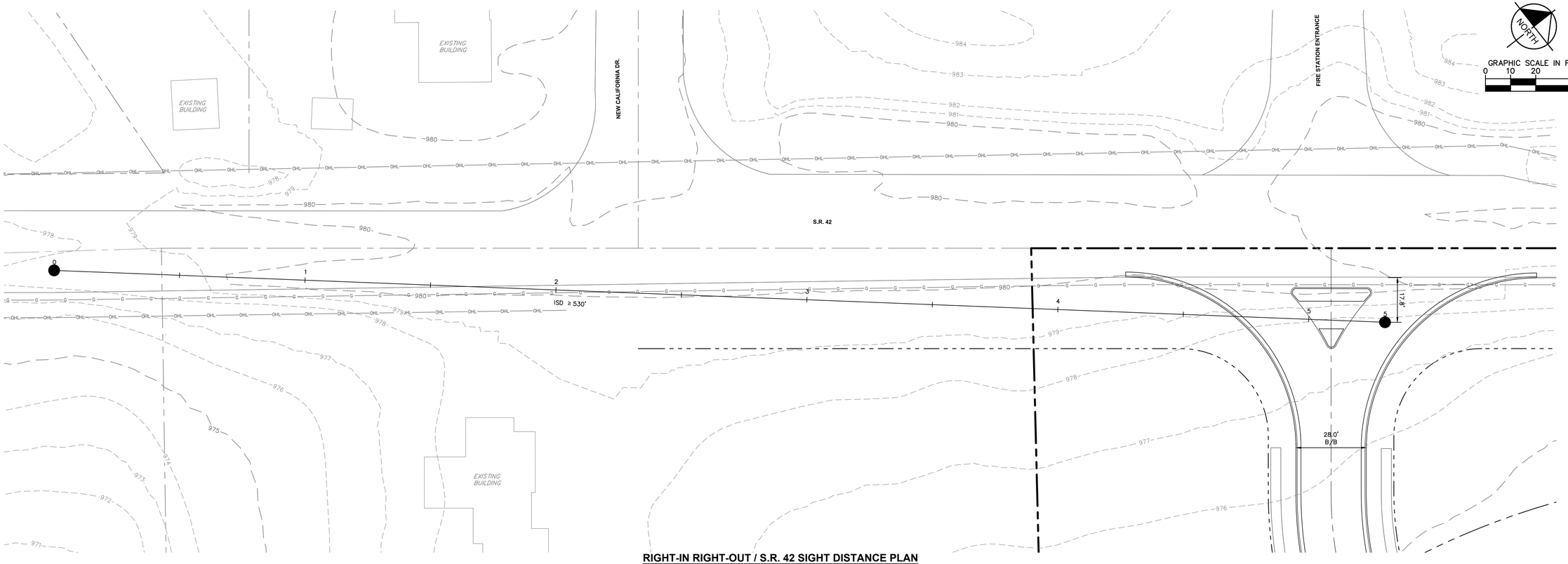
SIGHT DISTANCE

PIONEER CROSSING
JEROME TOWNSHIP
UNION COUNTY, OHIO

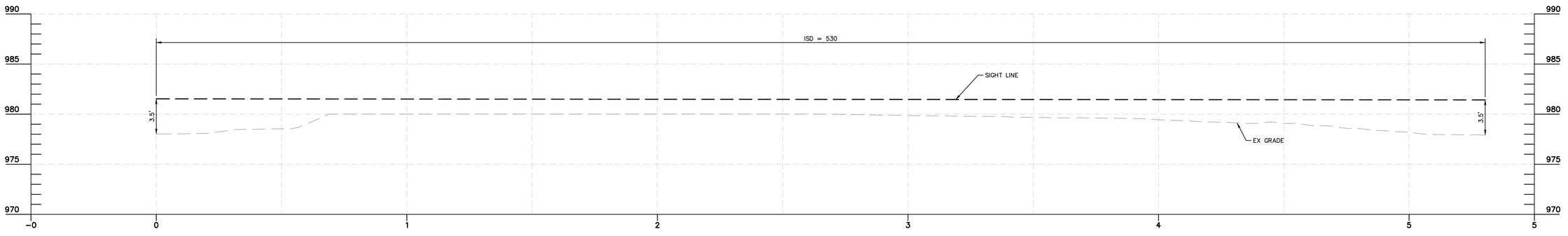
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RIGHT-IN RIGHT-OUT / S.R. 42 SIGHT DISTANCE PLAN
DESIGN SPEED = 55 MPH



RIGHT-IN RIGHT-OUT / S.R. 42 SIGHT DISTANCE PROFILE
SCALE: H: 1" = 20' V: 1" = 5'

LEGEND

- EX. PROPERTY LINE
- EX. PROPERTY BOUNDARY
- EX. RIGHT-OF-WAY
- EX. PAVEMENT
- EX. BUILDING
- EX. STREAM
- PROPOSED RIGHT-OF-WAY
- PROPOSED PROPERTY LINE
- PROPOSED CENTERLINE
- PROPOSED EDGE OF PAVEMENT
- SIGHT LINE

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SIGHT DISTANCE

PIONEER CROSSING
JEROME TOWNSHIP
UNION COUNTY, OHIO

ORIGINAL ISSUE: 9/17/2020
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SHEET NUMBER
25
OF 26

GENERAL NOTES

1. EACH CONTRACTOR IS TO VERIFY WITH OWNER AND UTILITY COMPANIES THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION, TO DETERMINE IN THE FIELD THE ACTUAL LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL CALL UTILITY PROTECTION SERVICE 72 HOURS PRIOR TO CONSTRUCTION.
2. EXAMINE FINISH SURFACE, GRADES, TOPSOIL QUALITY AND DEPTH. DO NOT START ANY WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. VERIFY LIMITS OF WORK BEFORE STARTING.
3. CONTRACTOR RESPONSIBLE FOR COST OF REPAIRS TO EXISTING SITE CONDITIONS WHEN DAMAGED BY CONTRACTOR. REPAIR TO THE SATISFACTION OF THE OWNER.
4. ALL PLANT MASSES TO BE CONTAINED WITHIN 3" DEEP HARDWOOD BARK MULCH BED.
5. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN LAWN AREAS.
6. FINE GRADE LAWN AREAS TO PROVIDE A SMOOTH AND CONTINUAL GRADE FREE OF IRREGULARITIES OR DEPRESSIONS.
7. CONTRACTOR SHALL SEED OR SOD ALL AREAS DISTURBED DURING CONSTRUCTION, SEE PLAN.
8. ALL PLANTS SHALL MEET OR EXCEED STANDARDS SET IN THE U.S.A. STANDARD FOR NURSERY STOCK.
9. ALL PLANTING OPERATIONS SHALL ADHERE TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS.
10. LANDSCAPE BUFFER PLANTINGS ON THE NORTHERN PERIMETER OF THE SITE (BOTH EAST AND WEST OF STEITZ ROAD) MAY BE ALTERED, BASED ON THE EXISTING VEGETATION, IN ORDER TO CREATE A CONSISTENT BUFFER.

LEGEND

- ST - STREET TREE
- DT - DECIDUOUS SHADE TREE
- OT - ORNAMENTAL TREE
- EV - EVERGREEN TREE
- NATURALIZED / NO-MOW AREA

0' 30' 60' 120'

NORTH

EDGE
330 WEST SPRING STREET, SUITE 350
COLUMBUS, OH 43215
P 614.486.3343
www.edgela.com

PulteGroup

SCHEMATIC LANDSCAPE PLAN
PIONEER CROSSING
JEROME TWP., UNION CTY., OHIO

PLANTING PLAN OVERALL

REVISIONS

MARK	DATE	DESCRIPTION

Date 07.31.20
Job No. 20072

SHEET
PRELIMINARY

L1.01

Kimley»Horn

September 17, 2020

Brad Bodenmiller
Director LUC Regional Planning
10820 St. Rt. 347, PO Box 219,
East Liberty, OH 43319

Re: Pioneer Crossing Preliminary Plat

Dear Mr. Bodenmiller:

We are submitting the Pioneer Crossing Preliminary Plat for your review and LUC approval. Enclosed are 14 full size copies of the preliminary plat, LUC application, CD with all submittal items, and a check in the amount of $10,785.00 for the required application fees. Also, enclosed is a copy of the preliminary stormwater management report, two variance requests, applicant property owners, utility feasibility letters, and draft deed restrictions for the project.

We are requesting the preliminary plat to be considered at the next available LUC Planning Commission meeting.

If you have any questions or require any additional information, please contact me at 614-348-0765.

Sincerely,



Kevin Kershner, P.E.
Kimley-Horn and Associates, Inc.
Phone: 614-472-8963
Email: Kevin.Kershner@kimley-horn.com

PARCEL 1

Property Owner:
Janie Collins Trustee

Property Address:
9758 US 42
Plain City, Ohio 43064

Parcel ID Number:
15-0007057.0000

PARCEL 2

Property Owner:
BRC II LLC

Address:
US 42
Plain City, Ohio 43064

Parcel ID Number:
15-0007058.0000

PARCEL 3

Property Owner:
Dorothy Blankenship

Address:
9645 Industrial Parkway
Plain City, Ohio 43064

Parcel ID Number:
15-0022014.0000

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DECLARATION OF COVENANTS

EASEMENTS, RESTRICTIONS AND ASSESSMENTS AND ASSESSMENT LIENS

FOR

PIONEER CROSSING

[DRAFT-Submitted for Zoning purposes only. May, 2019

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Exhibit B.....Additional Easement Areas

DECLARATION OF COVENANTS, EASEMENTS, RESTRICTIONS AND ASSESSMENTS AND ASSESSMENT LIENS FOR TARLTON MEADOWS

This Declaration of Covenants, Easements, Restrictions and Assessments and Assessment Liens (the "**Declaration**") is made on or as of this _____ day of _____, 2015, by DEVELOPER, INC., an Ohio corporation, whose address is 475 Metro Place S., Dublin, Ohio 43017 ("**Developer**").

Background

1. Developer is the owner in fee simple of the real estate identified and described on Exhibit A, attached hereto and made a part hereof by this reference (the "**Subject Property**").

2. The Subject Property is being developed and built as a residential subdivision of lots for single-family homes known as PIONEER CROSSING(the "**Community**") and may include public or private streets, associated improvements, landscaped areas, entranceway and community border features, reserves, open or green spaces, and storm water drainage facilities.

3. Developer desires hereby to restrict the use and occupancy of the Subject Property and provide for the preservation of the values of and amenities in the Community for the benefit of the present and future Owners of the Lots and the Improvements constructed on them.

4. Developer hereby declares that all of the Subject Property shall be encumbered with the following covenants, easements, restrictions and conditions which shall run with the land and be binding on all parties having any right, title or interest in the Subject Property, or any part thereof, their heirs, successors and assigns, including the future Owners of any Lot, the Developer, the Developer's successors and assigns, and any utility companies, whether public or private, who are granted rights herein.

5. Further, Developer deems it desirable for the accomplishment of these objectives to create an association to which is delegated and assigned the non-exclusive right and obligation to administer and enforce the provisions hereof, to own certain property, to have easement rights with respect to certain property, to administer such property, and to collect and disburse funds necessary to accomplish these objectives. Accordingly, Developer shall cause to be incorporated a homeowners' association under and pursuant to the laws of Ohio, whose Members are and will be all of the Owners of a Lot or Lots in the Community.

COVENANTS, EASEMENTS, RESTRICTIONS, ASSESSMENTS AND ASSESSMENT LIENS

NOW THEREFORE, in pursuance of a general plan for the protection, benefit, and mutual advantages of the property in the Community, Developer hereby declares that all of the Subject Property shall be held, developed, improved, encumbered, sold, conveyed and occupied subject to the following covenants, easements, and restrictions:

1. DEFINITIONS.

The following terms used in this Declaration shall have these meanings, unless the context requires otherwise:

(a) "**Additional Easement Areas**"-- those areas, whether or not shown on the plat of the Community, which Developer has determined shall be subject to further easements for the benefit of the Community.

(b) "**Additional Property**" -- property that may in the future be subjected to the plan for the Community provided hereby, and consists of such property as Developer, in its sole discretion, may from time to time determine and designate as Additional Property.

(c) "**Architectural Review Committee**" -- the group of individuals having the power and authority to establish and enforce architectural standards governing the construction of Improvements in the Community.

(d) "**Articles" and "Articles of Incorporation**" -- the articles, when filed with the Secretary of State of Ohio, incorporating PIONEER CROSSING Homeowners' Association, Inc. (the "**Association**") as a non-profit corporation under the provisions of Chapter 1702 of the Revised Code of Ohio ("**Chapter 1702**").

(e) "**Assessments**" - charges levied by the Association on Lots and their Owners, consisting of Operating Assessments, Special Assessments, and Individual Lot Assessments.

(f) "**Association**" -- an association of all of the Owners of Lots in the Community, at any time, except Owners of Exempt Property with respect to that property. The Association is being incorporated as an Ohio non-profit corporation named "PIONEER CROSSINGHomeowners' Association, Inc."

(g) "**Board**" -- the Board of Directors of the Association.

(h) "**Code of Regulations**" and "**Code**" -- the Code of Regulations of the Association (sometimes referred to as "bylaws") created under and pursuant to the provisions of Chapter 1702, providing certain operating rules and procedures for the Association.

(i) "**Common Elements**" -- all real and personal property now or hereafter acquired by the Association, or benefited by easement to it, pursuant to the provisions hereof, or otherwise, for the common use and the enjoyment of the Owners, or for the operation of the Association. The Common Elements may include open spaces, Reserves, entranceway and community border features, detention areas, and other property designated by Developer or the Board (as the Board will be constituted following the Turnover Date) to be Common Elements, and benefiting the Owners of the Lots in the Community.

(j) "**Common Expense**" - costs and expenses incurred by the Association in fulfilling its functions pursuant to the provisions of the Governing Documents.

(k) "**Community**" or "TARLTON MEADOWS" – all property that at any time has been subjected to the provisions of this Declaration, and initially includes all of the property described in Exhibit A, and which may be expanded to encompass all or any part of the Additional Property.

(l) "**Developer**" -- DEVELOPER, Inc. and any successor or assign to which it specifically assigns any of its rights and which assumes its obligations hereunder by a written instrument.

(m) "**Exempt Property**" -- means the portion of the real property comprising the Community (a) now or hereafter dedicated to common public use or owned by the United States, the State of Ohio, the County, the City, any school board, or similar governmental body, or any instrumentality or agency or any such entity, for so long as any such entity or any such instrumentality or agency shall be the owner thereof, or (b) owned by the Association; provided in either such case, the same is not utilized as a residence.

(n) "**Governing Documents**" -- the Association's Articles of Incorporation, Code of Regulations, its Rules, and all amendments thereto, this Declaration, and all amendments thereto, and applicable building and zoning laws and ordinances.

(o) "**Improvements**" -- all buildings, outbuildings, garages and structures; overhead, aboveground and underground installations, including without limitation, utility facilities and systems, lines, pipes, wires, towers, cables, conduits, poles, antennae and satellite dishes; flagpoles; swimming pools; swing-sets, playground equipment, playhouses and forts; tennis and all other types of permanently installed recreational courts, fixtures and facilities; slope and drainage features, structures and conditions; roads, driveways, uncovered parking areas and other paved areas; fences, trellises, walls, retaining walls, exterior stairs, decks, patios and porches; planted trees, hedges, shrubs and other forms of landscaping; and all other improvements and/or structures of every type.

(p) "**Individual Lot Assessment**" -- an assessment that the Board may levy upon a Lot and its Owners to reimburse the Association for costs incurred solely on behalf of that Lot, or the Owners thereof, including without limitation, costs associated with making repairs that are the responsibility of the Owner of that Lot; costs of additional insurance premiums reasonably allocable to an Owner because of use of Improvements on that Lot; costs of any utility expenses chargeable to an Owner but not separately billed by the utility company; administrative charges for violations of the Governing Documents, late charges, and interest on delinquent assessments, and costs of collection of delinquent obligations to the Association, including attorneys fees and court costs, and all other charges reasonably determined to be chargeable solely to a Lot and its Owners.

(q) "**Lot**" -- a separate parcel of real property now or hereafter identified upon a recorded subdivision plat of property in the Community, or any portion thereof, or recorded re-subdivision thereof, and any other separate parcel of real property designated as a Lot by Developer, and subjected to the provisions of this Declaration, excluding the Common Elements and any portion of the Community dedicated for public use.

(r) "**Manager**" -- the person or entity retained by the Board to assist in the management of the Association.

(s) "**Member**" -- any person or entity meeting the requirement for membership in the Association.

(t) "**Occupant**" -- a person lawfully residing in a dwelling on a Lot, regardless of whether that person is an Owner.

(u) "**Operating Assessments**" -- an assessment that the Board may levy upon all Lots, other than Exempt Property, and their Owners, pursuant to the terms of this Declaration, to provide funds to pay Common Expenses, that is, funds needed to meet cash requirements of the Association for its operations and reasonable reserves.

(v) "**Owner**" and "**Lot Owner**" -- the record Owner, whether one or more Persons, of fee simple title to a Lot, excluding vendors under recorded land installment contracts, but including the vendees, and excluding the Developer and all others having an interest merely as security for performance of an obligation.

(w) "**Person**" -- a natural individual, trustee, corporation, partnership, limited liability company, or other legal entity capable of holding title to real property.

(x) "**Reserves**" -- one or more of the Reserves or open spaces in the Community, as delineated and shown on a recorded plat and subjected to the provisions hereof.

(y) "**Rules**" -- the rules and regulations governing use of property in the Community as may be established by the Board from time to time.

(z) "**Special Assessment**" -- an assessment that the Board may levy upon all Lots, except Exempt Property, to pay for unanticipated operating deficiencies, or to pay for capital expenditures not regularly budgeted and not to be paid out of monetary reserves, such as costs for major capital improvement replacements and for major new capital improvements, or any other similar purpose determined appropriate by the Board.

(aa) "**Turnover Date**" -- the date on which Developer relinquishes its exclusive right to appoint all members of the Board, which date shall be no later than the date when the Community has been fully developed, and all Lots have been deeded to bona fide purchasers, provided Developer reserves the right, in its sole and unfettered discretion, to turn over control of the Association, or selected functions thereof, at such earlier time as it determines in its sole discretion.

2. GOALS.

The covenants, easements, conditions and restrictions contained in this Declaration are declared to be in furtherance of the following purposes:

(a) Promotion of the health, safety and welfare of all Owners and Occupants of property in the Community;

(b) Ownership, administration, preservation, beautification and maintenance of the Community's Common Elements and all Improvements thereon;

(c) Enforcement of architectural controls and restrictions applicable to the Community;

(d) Compliance with all zoning and similar governmental regulations applicable to the Community; and

(e) Provide for mandatory membership of Lot Owners in the Community, as it may be constituted, from time to time, in the Association, and the assessment and collection of funds to fulfill its objectives.

3. THE ASSOCIATION.

3.1. Purposes.

The Association shall apply all funds received by it pursuant hereto, and all other funds and property received by it from any source, to the fulfillment of the purposes of the Association as hereinbefore provided. The purposes of the Association are to:

(a) To own, repair, maintain, regulate the use of, and to have easements with respect to various facilities and amenities in the Community that benefit all of the Community and its Owners and Occupants, including, without limiting the generality of the foregoing, the Common Elements and such other Improvements and amenities as designated to be Common Elements by Developer, and after the Turnover Date, by the Board;

(b) administer and enforce the provisions of the Governing Documents; and

(c) assess, collect and disburse funds necessary to fulfill these purposes.

3.2. Mandatory Membership.

Every Lot Owner shall be a Member of the Association. In the case of a Lot that is the subject of a recorded land installment contract, the vendee or vendees under that installment contract and not the vendor shall, while holding such interest, be a Member of the Association. There shall only be one membership per Lot. In the event the fee simple interest in a Lot, or ownership of the vendee interest in a Lot, is held by more than one Person, the co-interest holders of such interests while holding such interests shall have only one membership in the Association as tenants-in-common, with respect to that Lot. Such membership is appurtenant to and inseparable from such interests. Status as a Member shall automatically transfer to the transferee of that interest at the time the fee simple interest is transferred of record. Initially those Lots to which these membership provisions apply shall be those Lots that are subjected hereby to the provision of this Declaration, but as portions of the Additional Property or additional portions of the Community are subdivided and platted into Lots, and the Lots therein

subjected by amendments hereto to the plan hereof, membership in the Association shall extend to and encompass the holders of fee simple interests in those Lots, and holders of vendee interests under recorded land installment contracts with respect to those Lots, on the same basis as set forth herein for membership. The foregoing is not intended to include Persons who hold an interest merely as security for the performance of an obligation and the giving of a security interest or mortgage shall not terminate the membership of any Owner, provided further, there shall not be a membership appurtenant to a Lot dedicated to common public use or owned by any governmental body, instrumentality or agency for so long as such body, instrumentality or agency owns that Lot and so long as it is not utilized as a residence, nor for a Lot, if any, that becomes a Common Element, for so long as it remains a Common Element. Voting and all other matters regarding the governance and operation of the Association shall be as set forth in the Governing Documents.

3.3. Powers; Authority; Duties.

The Association shall have all the rights, powers, and duties established, invested, or imposed in it pursuant to the Governing Documents, and the laws of the State of Ohio applicable with respect to Ohio non-profit corporations. Among other things, the Association, through its Board, shall have the power to acquire, own and convey real estate, hold easements with respect to, and maintain the Common Elements, enforce and administer the Declaration, Rules, restrictions and covenants applicable to the Community, sue and be sued, levy and collect assessments, collect and maintain reserves for replacements or anticipated expenditures, enter into contracts, mortgage and pledge all revenue received and to be received and/or to assign and pledge all revenues received or to be received by it under any provisions of these covenants, including, but not limited to, the proceeds of the assessments payable hereunder, and take such other actions as it deems appropriate to its purposes. The Association shall not be obligated to spend in any particular time period all the sums collected or received by it in such time period or in any other time period and may carry forward, as surplus, any balances remaining; nor shall the Association be obligated to apply any such surpluses to the reduction of the amount of the assessment in any year, but may carry forward from year to year and time to time such surplus as the Board in its absolute discretion may determine to be desirable for the greater financial security of the Association and the effectuation of its purposes.

3.4. Other Agreements.

The Association shall have the power and authority to contract with any person, corporation, firm or other entity, for the exercise of any one or more of the various powers and authority granted to and duties to be performed by the Association hereunder, and to delegate such powers and authority to any agent or employee of the Association, and the exercise of those powers and authority by such person, corporation, firm, entity, agent or employee shall be deemed the exercise of those powers and authority by the Association, except that no independent contractor shall be deemed by virtue of these provisions to be the agent of the Association. There shall be no requirement of any bond or surety for the Association, its agents, employees, or others assuring the exercise of the powers and authority granted hereunder, except as the Board shall in its sole discretion deem necessary or desirable for the safeguarding of any funds received by the Association. The Association may enter into agreements with other community, subdivision and condominium associations and/or master associations pursuant to

which the Association agrees (i) to share in the cost of maintaining, repairing and replacing landscaping, storm water retention facilities, mounding, fencing and any other improvements or services that benefit the Community or the Members; and (ii) grant reciprocal rights, licenses and/or easements to members of each such associations to use and enjoy each other's common elements, subject to such rules and regulations, restrictions and fees as the Association may determine from time to time.

3.5. Rules and Regulations.

The Association may make and enforce reasonable Rules governing the use, operation and/or maintenance of the property which is a part of the Community, which shall be consistent with the other provisions of the Governing Documents. The Association shall have the power to impose sanctions on Members and Owners for any infraction of the Governing Documents, including the provisions hereof and the Rules, which such sanctions may include without limitation: (i) reasonable monetary administrative charges which shall be considered Individual Lot Assessments; (ii) suspension of the right to vote as a Member of the Association; and (iii) suspension of the right of the Owner and that Owner's Occupants, licensees, and invitees, to use the Common Elements or any part thereof. In addition, the Board shall have the power to seek relief, including injunctive relief, in any court for violations or to abate violations of the provisions of the Governing Documents. If the Board expends funds for attorneys' fees or litigation expenses in connection with the enforcement of any provision of the Governing Documents, the amount so expended shall be due and payable by the Owner of the Lot whose Owner, Occupant, licensee or invitee violated the provisions of the Governing Documents, and the same shall be an Individual Lot Assessment against such Owner's Lot.

3.6. Implied Rights.

The Association may exercise any other right or privilege given to it expressly by the laws of the State of Ohio or any provision of the Governing Documents, and every other right or privilege reasonably implied from the existence of any right or privilege granted thereby, or reasonably necessary to effect any such right or privilege.

3.7. Managing Agent.

The Board may retain and employ on behalf of the Association a Manager, which may be Developer, and may delegate to the Manager such duties as the Board might otherwise be authorized or obligated to perform. The compensation of the Manager shall be a Common Expense. The term of any management agreement shall not exceed one year and shall allow for termination by either party, without cause and without penalty, upon no more than ninety (90) days prior written notice.

3.8. Insurance.

(a) Fire and Extended (Special Form) Coverage. The Association shall, with respect to insurable property or interests owned by it, obtain and maintain insurance for all buildings, structures, fixtures and equipment and common personal property, now or at any time hereafter constituting a part of the Common Elements, against loss or damage

by fire, lightning, and such other perils as are ordinarily insured against by standard coverage endorsements, with such limits, deductibles, and coverage as is deemed appropriate by the Board. This insurance:

(i) shall provide that no assessment may be made against a first mortgage lender, or its insurer or guarantor, and that any assessment under such policy made against others may not become a lien on any Lot, or other property, and its appurtenant interest, superior to the lien of a first mortgage;

(ii) shall be obtained from an insurance company authorized to write such insurance in the State of Ohio which has a current rating of Class A-/VIII, or better, as determined by the then latest edition of Best's Insurance Reports or its successor guide;

(iii) shall be written in the name of the Association;

(iv) shall not be cancelled upon less than thirty (30) days notice to the Association; and

(v) unless otherwise determined by the Board, shall contain a waiver of subrogation of rights by the carrier as to the Association, its officers and directors, and all Owners.

(b) Liability Coverage. The Association shall obtain and maintain a Commercial General Liability policy of insurance covering all of the Common Elements and the functions of the Association insuring the Association, the directors, and its Members, with such limits as the Board may determine, but no less than the greater of (a) the amounts generally required by private institutional mortgage investors for projects similar in construction, location and use, and (b) $1,000,000, for bodily injury, including deaths of persons, and property damage, arising out of a single occurrence. This insurance shall contain a "severability of interest" endorsement which shall preclude the insurer from denying the claim of any Member because of negligent acts of the Association, the Board, or other Members, and shall include, without limitation, coverage for legal liability of the insureds for property damage, bodily injuries and deaths of persons in connection with the operation, maintenance or use of the Common Elements, and other legal liability, including liability under contractual indemnity clauses and liability arising out of lawsuits related to any employment contracts of the Association. Each such policy must provide that it may not be canceled or substantially modified by any party, without at least thirty (30) days prior written notice to the Association.

(c) Other. The Association may, in the Board's discretion, obtain and maintain the following insurance: (a) fidelity bond coverage for all officers, directors, Board members and employees of the Association and all other persons handling or responsible for handling funds of the Association, (b) officers' and directors' liability insurance, (c) workers' compensation insurance, (d) additional insurance against such other hazards and casualties as is required by law, and (e) any other insurance the Board deems necessary.

(d) Use of Proceeds. In the event of damage or destruction of any portion of the Common Elements, the Association shall promptly repair or replace the same, to the extent that insurance proceeds are available. Each Member hereby appoints the Association as its attorney-in-fact for such purpose. If such proceeds are insufficient to cover the cost of the repair or replacement, then the Board may levy a Special Assessment pursuant to the provisions hereof to cover the additional costs.

3.9. Condemnation.

The Association shall represent the Members in any condemnation proceedings or in negotiations, settlements and agreements with the condemning authority for acquisition of the Common Elements, or any portion thereof. Each Member hereby irrevocably appoints the Association as its attorney-in-fact for such purpose. The awards or proceeds of any condemnation action shall be payable to the Association, to be held and used for the benefit of the Members, as determined by the Board.

3.10. Books; Records.

Upon reasonable request of any Member, the Association shall be required to make reasonably available for inspection by any Member all books, records and financial statements of the Association, except for those items deemed privileged, protected, or confidential in accordance with applicable law, rules or regulations. The Association may charge a reasonable fee to cover the administrative costs of handling, copying, delivering, etc., the requested documents.

4. THE COMMON ELEMENTS.

Developer may, from time to time, at Developer's option, convey to the Association, for the use and benefit of the Association and the Owners and Occupants, real or personal property, or any interest therein, as part of the Common Elements, provided that property is free and clear of all encumbrances except real estate taxes and assessments, if any, not presently due and payable, zoning and building laws, ordinances and regulations, legal highways and restrictions, conditions, easements of record, including, to the extent Developer so determines, those contained herein, and all other liens and encumbrances of record or otherwise affecting the property. All such Common Elements shall consist solely of property (i) benefiting two or more Lots, Owners, and/or Occupants in the Community, as the same may from time to time be constituted; or (ii) as required by zoning. In addition, the Developer may also grant such easements to the Association as the Developer, in its sole discretion, determines to be of benefit to the Community, as the Community may be constituted from time to time. The Association may also acquire, hold, manage, operate, maintain, improve, mortgage and dispose of tangible and intangible personal property and real property in addition to that property conveyed to it by Developer.

5. ASSESSMENTS.

5.1. Types of Assessments.

Subject to the provisions of this Article, each Lot Owner, shall be subject to the following Assessments, which by acceptance of a deed to a Lot (whether or not it shall be so expressed in such deed) covenants and agrees to pay to: (a) Operating Assessments, (b) Special Assessments, and (c) Individual Lot Assessments, all of which are to be established and collected as hereinafter provided. No Owner may gain exemption from liability for any Assessment by waiving or foregoing the use or enjoyment of any of the Common Elements or by abandoning that Owner's Lot.

5.2. Operating Assessments.

For the purposes of providing funds to pay:

- the cost of the maintenance, repair, replacement, and other services to be provided by the Association;
- the costs for insurance and bond premiums to be provided and paid for by the Association;
- the cost for utility services, if any, charged to or otherwise properly payable by the Association;
- the costs for construction of new capital improvements on Common Elements not replacing capital improvements installed by Developer;
- the estimated amount required to be collected to maintain a general operating reserve to assure availability of funds for normal operations of the Association, in an amount deemed adequate by the Board;
- an amount deemed adequate by the Board to maintain a reserve for the cost of unexpected repairs and replacements of capital improvements and for the repair and replacement of major improvements for which cash reserves over a period of time in excess of one year ought to be maintained; and
- the costs for the operation, management and administration of the Association, including, but not limited to, fees for property management, landscaping, mowing, planting, lighting, pavement maintenance, snow and ice removal and mitigation, fees for legal and accounting services, costs of mailing, postage, supplies and materials for operating the Association, and the salaries, wages, payroll charges and other costs to perform these services, and any other costs of operations of the Association not otherwise specifically excluded;

the Board shall establish, levy and collect Operating Assessments against each Lot and its Owners subject to the same, an equal pro rata share of such costs, in accordance with the following:

(a) Initial Period. Commencing the first day of the first full month after a Lot with a dwelling constructed thereon has been conveyed by Developer to a home purchaser, each Lot Owner shall be subject to and pay to the Association an Operating Assessment for the remainder of the calendar year, as determined by the Board, prorated in the proportion that the number of full calendar months remaining in the calendar year from the date of the closing of the conveyance of the Lot is to twelve (12). This amount may have been prepaid by the Developer and if so, a credit back to the Developer will be collected at the closing on the Lot.

(b) Subsequent Calendar Year. Prior to January 1 (or a reasonable time thereafter) of each calendar year thereafter, the Board shall establish a budget for anticipated operating expenses for the next following Operating Assessment period commencing January 1 and ending the following December 31, and apportion the amount so determined in equal shares among all Lots in the Community that have had a dwelling constructed thereon and that have been conveyed to a bona fide home purchaser, and assess each such Lot and its Owner or Owners for the apportioned amount.

(c) Due Dates. The Operating Assessments shall be due in monthly, quarterly, semi-annual, or annual installments, as the Board may determine. Except for the initial payment of Operating Assessments, notice of Operating Assessments, or if payable in installments, the dates those installments are due, shall be given to a Lot Owner not less than thirty (30) days prior to the date the Operating Assessment, or first installment thereof, is due.

5.3. Special Assessments.

The Board may levy against all Lots subject to Operating Assessments, and their Owners, Special Assessments to pay for capital expenditures, interest expense on indebtedness incurred for the purpose of making capital expenditures and not to be paid out of reserves, unanticipated operating deficiencies or any other purpose determined appropriate by the Board in furtherance of its functions hereunder. Those Special Assessments shall be allocated among Lots on the same basis as Operating Assessments are to be allocated, and shall be due and payable on such basis and at such times as the Board directs, provided that no such Special Assessment shall be due and payable on fewer than thirty (30) days written notice.

5.4. Individual Lot Assessments.

The Board may levy an Individual Lot Assessment against any Lot Owner to reimburse the Association for costs incurred on behalf of that Lot, or as a consequence of any act or omission by any Owner, Occupant, or invitee thereof, including without limitation, costs associated with making repairs that are the responsibility of the Owner; costs of additional insurance premiums specifically allocable to an Owner; costs of any utility expenses chargeable to an Owner but not separately billed by the utility company; and all other administrative and enforcement charges, including attorneys' fees, incurred by the Association reasonably

determined to be an Individual Lot Assessment by the Board. By way of illustration, and not of limitation, the Board may levy an Individual Lot Assessment in the nature of an administrative charge reasonably determined by the Board against any Lot Owner who violates any provision of the Governing Documents, or who suffers or permits the Members, guests, invitees or tenants of that Owner's Lot to violate the same or any provision of the Governing Documents, including the restrictions contained herein and in the Rules. Upon its determination to levy an Individual Lot Assessment, the Board shall give the affected Lot Owner written notice and the right to be heard by the Board or a duly appointed committee thereof in connection with such Individual Lot Assessment no fewer than ten (10) days prior to the effective date of the levy of any such Lot Assessment.

5.5. Remedies.

(a) Acceleration. If any installment of an Assessment, or portion thereof, is not paid within ten (10) days after the same has become due, the Board, at its option, without demand or notice, may call the entire balance of the Assessment due.

(b) Late Charge. If any portion of any Assessment remains unpaid for ten (10) days after all or any part thereof shall become due and payable, the Board may charge interest on the entire unpaid balance from and after that date at the lesser of (i) the "prime rate" charged locally by a nationally recognized bank in the Columbus area plus five percent (5%) per annum or (ii) the highest rate permitted by law, together with a reasonable administrative collection charge, as established by the Board.

(c) Liability for Unpaid Assessments. Each Assessment or installment of an Assessment, together with interest thereon and any and all costs of collection, including reasonable attorneys' fees, shall become the joint and several personal obligation of the Owners of the Lot charged the same, beginning on the date the Assessment or installment thereof becomes due and payable. The Board may authorize the Association to institute and prosecute to completion an action at law on behalf of the Association against the Owner or Owners personally obligated to pay any delinquent Assessment, and/or an action to foreclose the Association's lien or liens against a Lot or Lots for unpaid Assessments owed by that Lot and the Owner or Owners thereof. In any such action, interests and costs of such action, including reasonable attorneys' fees, shall be added to the amounts owed by the Owner or Owners and the Lot to the extent permitted by Ohio law.

(d) Liens. All unpaid Assessments, or portions thereof, together with any interest and charges thereon or costs of collection, shall constitute a continuing charge in favor of the Association and a lien on the Lot against which the Assessment was levied. If any Assessment, or portion thereof, remains unpaid for ten (10) days after it is due, then the Board may authorize any Officer or appointed agent of the Association to file a certificate of lien for all or any part of the unpaid balance of that Assessment, together with interest and collection costs, including attorneys' fees, with the appropriate governmental office. The certificate shall contain a description of the Lot which the lien encumbers, the name of the Owner or Owners of that Lot, and the amount of the unpaid portion of the Assessment. The certificate may be signed by any Officer, authorized agent or the Manager of the Association or its authorized representative. Upon the filing of the

certificate, the subject Lot shall be encumbered by a continuing lien in favor of the Association. The Assessment lien shall remain valid for a period of five (5) years from the date such certificate is duly filed, unless the lien is released earlier or satisfied in the same manner provided by the law of the State of Ohio for the release and satisfaction of mortgages on real property, or until the lien is discharged by the final judgment or order of any court having jurisdiction.

(e) Subordination of Lien. The lien of the Assessments provided for herein shall be subject and subordinate to the lien of any duly executed first mortgage on a Lot recorded prior to the date on which such lien of the Association is perfected by recording a certificate of lien, and any holder of such first mortgage which comes into possession of a Lot pursuant to the remedies provided in the mortgage, foreclosure of the mortgage, or deed or assignment in lieu of foreclosure, and any purchaser at a foreclosure sale, shall take the property free of any claims for unpaid Assessments against the mortgaged Lot which became due and payable prior, in the case of foreclosure, to the date of the sale, and, in all other cases, to the date legal title vested in the successor Owner.

(f) Contested Lien. Any Owner or Owners who believe that an Assessment chargeable to that Owner or Owner's Lot, and for which a certificate of lien has been filed by the Association has been improperly charged against that Lot or Unit, may bring an action in the Court of Common Pleas in the county where the Subject Property is located for the discharge of that lien and/or for a declaratory judgment that such Assessment was unlawful. The filing of such action shall not be grounds for an offset or to withhold payment. In any such action, if it is finally determined that all or a portion of the Assessment has been improperly charged to that Lot, the Court shall make such order as is just, which may provide for a discharge of record of all or a portion of that lien and a refund of an Assessment or portion thereof determined to be unlawful.

(g) Estoppel Certificate. The Board shall, within a reasonable time following receipt of a written demand and for a reasonable charge, furnish a certificate signed by the President or other designated representative of the Association, setting forth whether the Assessments on a specified Lot have been paid. This certificate shall be conclusive evidence of payment of any Assessment therein stated to have been paid.

(h) Suspension of Vote and Use of Common Elements. If any Assessment remains unpaid for thirty (30) days after it becomes due, then the delinquent Owner's voting rights upon Association matters and privileges to use the Common Elements, shall be suspended until such Assessment is paid. In any case, suspension of any such rights shall be subject to the right of an Owner, Occupant, or their licensees or invitees, to necessary ingress and egress to and from that Owner's Lot.

6. MAINTENANCE.

6.1. Maintenance by Association.

Subject only to budgetary limitations and the right of the Board to exercise reasonable business judgment, the Association shall maintain and keep the Common Elements in good,

clean, attractive, and sanitary condition, order and repair. This maintenance shall include, without limitation, maintenance, repair, and replacement of all Improvements situated upon the Common Elements, including but not limited to the Reserves, any open spaces, signage, entranceways, community border areas, the maintenance, repair and replacement of any Additional Easement Areas (except as provided for in 6.5 below), and the maintenance, repair and replacement of all personal property used in connection with the operation of the Association.

6.2. Maintenance by Owner.

Each Owner or Occupant shall repair, replace, and maintain in good order and condition, at that Person's expense, all portions of Improvements on and equipment and components located upon that Owner's Lot. This maintenance responsibility includes, without limitation, promptly furnishing all necessary materials and performing or causing to be performed at that Owner's expense all maintenance, repairs and replacements of Improvements on such Lot. No Lot or other Improvement shall be permitted to become overgrown, unsightly or fall into disrepair. Each Owner shall maintain that Owner's Lot in accordance with the Rules and the requirements set forth by the Association as provided for herein.

6.3. Right of Association to Repair Lot.

In the event any Owner fails to maintain that Owner's Lot in the manner required herein, and that Lot remains in disrepair for a period of thirty (30) days after notification by Developer or the Association to said Owner, and if the Board or Developer determines that any maintenance of that Lot or Improvements thereon is necessary to ensure public safety, to permit reasonable use or enjoyment of the Common Elements by Owners, to prevent damage to or destruction of any other part of the Common Elements, to preserve the value of the Community, or to comply with the Rules or the terms of this Declaration, then the Board or Developer may authorize its employees or agents to enter the Lot at any reasonable time to complete the necessary maintenance, and the Board may levy an Individual Lot Assessment for all reasonable expenses incurred or, if performed by Developer, those expenses shall be reimbursed by the Owner to Developer.

6.4. Damage to Common Elements By Owner or Occupant.

In the event the need for maintenance or repair of any part of any Common Element is caused by the negligent or intentional act of any Lot Owner or Occupant, or that Person's licensees or invitees, or in the event any Common Element is damaged by any Owner or Occupant, or that Person's licensees, or invitees, then the Board may maintain, repair, and\or replace the same and the cost thereof shall constitute an Individual Lot Assessment against such Lot and its Owner. The determination that such maintenance, repair or replacement is necessary and\or has been caused so caused, shall be made by the Board in its sole discretion. The Association shall be entitled to enter a Lot to repair or maintain any Common Elements adjacent to such Lot.

6.5. Additional Easement Areas.

The Additional Easement Areas shown on Exhibit B attached hereto shall be maintained as follows: [***to be determined as necessary***].

7. ARCHITECTURAL STANDARDS.

All property at any time subject to the provisions hereof shall be governed and controlled by the following:

7.1. Architectural Review Committee.

The Architectural Review Committee shall be a committee consisting of three (3) persons. Until the Turnover Date, Developer shall have the sole and exclusive right to appoint and remove all three (3) members of the Architectural Review Committee, at will. After that date, the Board shall have the right to appoint all three (3) members to the Architectural Review Committee. The Architectural Review Committee shall have the exclusive authority, by action of two (2) or more of the members thereof, at a private or public meeting, to determine the architectural standards which shall govern the construction of Improvements on a Lot. Each Owner covenants and agrees by acceptance of a deed to a Lot, to comply with, and to cause that Owner's Lot and any Occupant thereof to comply with the standards adopted by the Architectural Review Committee. No Improvement shall be placed, erected or installed on a Lot, and no construction (which term shall include in its definition staking, clearing, excavation, grading and other site work) shall be commenced or continued until and unless the Owner first obtains the written approval thereof by the Architectural Review Committee and otherwise complies with any zoning and building regulations and all provisions hereof.

7.2. Modifications.

Except as otherwise provided herein, the Architectural Review Committee shall have jurisdiction over all construction, modifications, additions or alterations of Improvements on or to a Lot. No person shall construct any Improvement on any Lot, including without limitation, alter surfaces of existing Improvements, change paint colors or roofing materials, construct or modify fencing, install any permanent recreational device, swing-set, playground, basketball hoop, or other similar Improvement, change the grade or contour of any Lot, change the material of any driveway, modify the exterior lighting, change the mailbox or address marker, construct any porch, deck, patio, gazebo, or pool, modify any landscaping, install any signs or satellite dishes not otherwise permitted herein or by federal law, without the prior written consent of the Architectural Review Committee. Owners shall submit plans and specifications showing the nature, kind, shape, color, size, materials and location of Improvements and alterations to the Architectural Review Committee for its approval. Nothing contained herein shall be construed to limit the right of an Owner to remodel or decorate interior Improvements without such approval.

7.3. Variances.

To avoid unnecessary hardship and/or to overcome practical difficulties in the application of the provisions of these provisions, the Architectural Review Committee shall have the authority to grant reasonable variances from the provisions hereof, provided that the activity or condition is not prohibited by applicable law, including but not limited to township zoning or county building regulations; and provided further that, in the judgment of the Architectural Review Committee, the variance is in the best interests of the community and is within the spirit of the standards of the Architectural Review Committee. No variance granted pursuant hereto shall constitute a waiver of any provision hereof as applied to any other person or any other part of the Community.

7.4. Improvements by Developer.

Notwithstanding the foregoing to the contrary, all Improvements and landscaping constructed by the Developer, its agents, or its successors and/or assigns shall be deemed to comply in all respects with this Declaration and the requirements of the Architectural Review Committee, and the Developer, its successors and assigns, shall have the exclusive right to approve the initial construction of a residence upon any Lot even following the Turnover Date.

7.5. Liability Relating to Approvals.

Neither Developer, the Association, the Board, the Architectural Review Committee, nor any member thereof, nor any of their respective heirs, personal representatives, successors and assigns, shall be liable to anyone submitting plans and specifications for approval by reason of mistakes of judgment, negligence, or nonfeasance arising out of, or in connection with the approval or disapproval or failure to approve the same. Every Person and Lot Owner who submits plans and/or specifications or otherwise requests approval from the Architectural Review Committee agrees, by submission thereof, that they will not bring any action or suit, seek damages, or otherwise attempt to compel the approval of the same. Each Lot Owner shall be responsible for ensuring that any Improvements constructed on their Lot comply with any zoning ordinances and any easements, covenants and conditions of record.

8. USE RESTRICTIONS.

The following restrictions and covenants concerning the use of each Lot and occupancy of Improvements thereon shall run with the land and be binding upon the Developer and every Owner or Occupant, their respective heirs, successors and assigns, as well as their family members, guests, licensees and invitees:

8.1. Use of Lots.

Except as otherwise specifically provided in this Declaration, no dwelling on a Lot, nor any portion of any Lot, shall be used for any purpose other than that of a residence for individuals living together as a single housekeeping unit, and uses customarily incidental thereto, Specifically, no dwelling may be used as a rooming house, group home, commercial foster home, fraternity or sorority house, or any similar type of lodging, care or treatment facility. In

addition, no building shall be erected, altered, placed, or permitted to remain on any Lot other than one single-family dwelling not to exceed two and one-half stories in height, and each such dwelling shall have an attached two car garage. No bi-level homes shall be permitted. As used herein, "bi-level home" shall mean a home having two levels with an integral garage on the lower level. No home shall be constructed on any Lot having a garage with a lower elevation than the street elevation such that the garage and/or driveway are depressed below the finished grade of the Lot. No structure of a temporary character, such as a trailer, tent, shack, vehicle port, barn, pet dwelling including pet fenced in pet areas behind houses, or other outbuilding shall be used on any Lot at any time as a residence either temporarily or permanently; provided, however, that nothing herein shall prevent the use of trailers or temporary buildings by Developer or builders approved by Developer, for sales and construction management and related uses during the construction and sale of homes in the Community or home remodeling after initial construction. All homes shall comply with material standards as approved under the applicable zoning text and/or by Liberty Township or Union County for this Community and by the Architectural Review Committee.

8.2. Minimum Square Footages.

No dwelling shall be permitted on any Lot on which the floor area of the main structure is less than what is required by the applicable zoning and subdivision control requirements governing Lots located in the Community.

8.3. Use of Common Elements.

The Common Elements may be used only in accordance with the purposes for which intended and for any reasonable purposes incidental to the residential use of Lots. All uses of the Common Elements shall benefit or promote the health, safety, welfare, convenience, comfort, recreation, and/or enjoyment of the Owners and/or Occupants, and shall comply with the provisions of this Declaration and all other Governing Documents, and the laws of the State.

8.4. Hazardous Actions or Materials.

Nothing shall be done or kept in or on any Lot or in or on any portion of the Common Elements that is unlawful or hazardous, that might reasonably be expected to increase the cost of casualty or public liability insurance covering the Common Elements, or that might or that does unreasonably disturb the quiet occupancy of any Person residing on any other Lot. These provisions shall not be construed so as to prohibit Developer or any other builder in the Community from construction activities consistent with reasonable or customary residential construction practices.

8.5. Signs.

No signs of any character shall be erected, posted or displayed upon property in the Community, except: (i) marketing signs installed by Developer while marketing Lots and residences for sale; (ii) street and identification signs installed by the Association, Developer, or any governmental agency; (iii) on the Common Elements, signs regarding and regulating the use of the Common Elements, provided they are approved by the Board; (iv) on any Lot, one

temporary real estate sign not to exceed six (6) square feet in area advertising that such Lot is for sale; and (v) except to the extent preempted by federal law, up to three (3) temporary political signs of not more than six (6) square feet each, expressing support for or opposition to an individual candidate or issue which is the subject of a current election, provided the same comply with any local ordinances and any Rules established by the Board. No signs shall be placed in the Common Elements.

8.6. Animals.

Except as hereinafter provided, no animals, reptiles, livestock or poultry of any kind shall be raised, bred or kept on any Lot, or in or upon any part of the Common Elements. Notwithstanding the foregoing, household domestic pets, not bred or maintained for commercial purposes, may be maintained in a dwelling on a Lot, provided that: (i) the maintaining of animals shall be subject to such rules and regulations as the Board may from time to time promulgate, including, without limitation, the right to place limitations on the size, number and type of such pets, and the right to levy administrative and enforcement charges against persons who do not clean up after their pets; and (ii) the right of an Owner or Occupant to maintain an animal in a dwelling on a Lot shall be subject to termination if the Board, in its full and complete discretion, determines that maintenance of the animal constitutes a nuisance, creates a detrimental effect on the Community or other Lots or Occupants, or possession of which violates any law, rule or ordinance promulgated by a governmental or quasi-governmental entity. Any animal defined as "vicious" or "dangerous" pursuant to the provisions of Ohio Revised Code Chapter 955, as the same may be amended from time to time, is specifically prohibited. Outdoor doghouses, animal cages or runs are prohibited without the express prior approval of the Architectural Review Committee.

8.7. Nuisances.

No noxious or offensive trade or activity shall be permitted on any property in the Community or within any dwelling located on any Lot. No soil shall be removed for any commercial purpose.

8.8. Business.

No industry, business, trade, occupation or profession of any kind may be conducted, operated or established on any Lot, without the prior written approval of the Board. Notwithstanding the foregoing, (i) a "home office" use is permitted, provided such use does not entail any non-resident employees, generate any traffic or additional parking, require any signage, and is operated in compliance with all laws including any Rules established by the Board and applicable Liberty Township regulations; (ii) an Owner or Occupant may maintain a personal or professional library, keep personal business or professional records or accounts, conduct personal business, make professional telephone calls or correspond in or from a residence; and (iii) during the construction and initial sales period, Lots, including dwellings and Improvements constructed thereon, and Common Elements may be used for construction and sales purposes, including the construction and operation of sales models and/or trailers by Developer and by builders and developers as approved by Developer, in its sole discretion, until

dwellings have been constructed on all Lots and all Lots with dwellings on them have been conveyed to bona fide residential home purchasers.

8.9. Storage.

No storage buildings, barns or sheds of any kind are permitted on any Lot. This section shall not apply to any storage as may be necessary during the construction or remodeling of homes on the Lots.

8.10. Hotel/Transient Uses.

No Lot or Improvement thereon may be used for hotel or transient uses, including without limitation, uses in which an Occupant is provided customary hotel services such as room service for food and beverage, maid service, furnishing laundry and linen, or similar services, or leases to roomers or boarders.

8.11. Vehicles.

The Board is granted the power and the authority to create and enforce reasonable Rules concerning placement and the parking of any vehicle permitted on or in the Community. In addition to its authority to levy Individual Lot Assessments as administrative charges for the violation of the Rules, the Board shall be authorized to cause the removal of any vehicle violating this Declaration or such Rules.

Except as specified below, no trucks, no prohibited commercial vehicles, no boats, no trailers, no campers and no mobile homes shall be parked or stored on any street or on any Lot in the Community (except in the attached garage) for any time period longer than forty-eight (48) hours in any thirty (30) day period, provided, however, that nothing contained herein shall prohibit the reasonable use of such vehicles as may be necessary during construction of residences on the Lots.

For the purpose of this section, the terms “truck” and “prohibited commercial vehicle” shall include all vehicles that have a length of more than 21 feet and all vehicles that include any visible exterior storage of tools or materials; provided, however, that up to two (2) ladders may be visible. Dump trucks, tow trucks, flat bed car hauling trucks, panel trucks and vans larger than one-ton capacity, pickup trucks larger than one ton capacity, and semi type tractors and trailers, shall in every instance be considered to be to be a prohibited truck and/or a prohibited commercial vehicle. For the purpose of this section, the word “trailer” shall include landscaping trailer, open bed trailer, trailer coach, house trailer, mobile home, automobile trailer, camp car, camper or any other vehicle, whether or not self-propelled, constructed or existing in such a manner as would permit use and occupancy thereof, or for storage or the conveyance of personal property, whether resting on wheels, jacks, tires or other foundation.

Furthermore, no automobile, truck, or other motor-driven vehicle, or trailer, in a condition where it is unlicensed, unregistered, apparently inoperable, extensively damaged, disabled, dismantled, or otherwise not in a condition to be lawfully operated upon the public highway, or any vehicle component or part, shall be placed, parked or stored in any visible

location on or in front of a Lot or residence for a period of time longer than thirty (30) days. After this time the vehicle, trailer or part shall be deemed to be a nuisance, and shall be removed.

8.12. Trash.

Except for the reasonably necessary activities of Developer during the original development of the Community, no burning or storage of trash of any kind shall be permitted in the Community. All trash shall be deposited in covered, sanitary containers, and these containers shall at all times be screened from view from any other Lot or street, except when temporarily placed outside for trash collection. No emptied trash containers shall be allowed to remain visible for more than eight hours following the trash pick-up.

8.13. Antennae.

No outside television or radio aerial or antenna, or other aerial or antenna, including satellite receiving dishes, for reception or transmission, shall be maintained on a Lot, to the extent permissible under applicable statutes and regulations, including those administered by the Federal Communications Commission, except that this restriction shall not apply to satellite dishes with a diameter less than one (l) meter, erected or installed to minimize visibility from the street which the dwelling fronts. Notwithstanding the foregoing, roof-mounted satellite dishes are to be limited to the maximum extent possible by law.

8.14. Utility Lines.

All new utility lines in the Community shall be underground, subject only to the exceptions required by governmental authorities having jurisdiction, utility companies, Developer, and the Board.

8.15. Tanks.

No tanks for the storage of propane gas, fuel oil or any other combustible substance shall be permitted to be located above or beneath the ground of any Lot except that propane gas grills are permitted. This section shall not apply during the construction of any homes on the Lots or to any Lot containing Developer's sales trailer.

8.16. Street Tree.

Developer may designate one or more trees as deemed necessary by Developer along the street in front of each Lot at a ratio of 1 tree per 40' on center as a "street tree". If Developer determines to designate street tree(s) then each Lot Owner agrees to care for, and, if necessary, replace such tree or trees at the Owner's expense with a like type of tree having a caliper greater than or equal to 2".

8.17. Mailbox.

Developer may designate and require a curbside mailbox for each Lot, with a design and composition that will provide uniformity to the subdivision. Each mailbox shall have the street

numbers for the Lot on each side of such mailbox. If the mailbox is damaged, destroyed or deteriorates, then each Owner, at such Owner's expense, shall repair or replace such mailbox with an identical mailbox, or if unavailable, with another of a like kind, design, pattern and color as the initial mailbox.

8.18. Yard Lights and Lamp Posts.

All yard lights and lamp posts, if any, shall conform to the standards set forth by the Architectural Review Committee. If a yard light or lamp post is damaged, destroyed or deteriorates, then each Owner, at such Owner's expense, shall repair or replace such yard light and/or lamp post with an identical yard light or lamppost, or if unavailable, with another of a like kind, design, pattern and color as the initial yard light and/or initial lamp post.

8.19. Fencing.

No perimeter fencing shall be allowed on any Lot. Fencing may be permitted for privacy around decks, patios, hot tubs, etc., and shall not exceed 42 inches in height, but may be required to include landscaping screening where utilitized by the Architectural Review Committee. No chain link and no wire fencing shall be permitted. Fence posts may be no higher than 6 inches above the top rail, with the exception of fencing around swimming pool which shall be a minimum of 54 inches in height. Fences shall be at least 50% open. Pool fencing may be aluminum or wrought iron and must comply with applicable Township and County Codes. The Developer may install fencing as part of entry feature improvements and landscape buffering and/or screening along adjacent properties, which shall be maintained by the Association.

8.20. Swimming Pools/Hot Tubs.

No above-ground swimming pool extending twelve (12) inches or more above the finished grade of the Lot shall be permitted upon any Lot except that this restriction shall not prohibit the installation of a hot tub that is properly screened. In the event that an in-ground swimming pool is permitted to be installed on a Lot and applicable governmental safety regulations require a fence, then such fence shall be permitted notwithstanding any provision of Section 8.19 to the contrary, provided such fence shall be subject to prior written approval of the Architectural Review Committee as to design and location on the Lot.

8.21. Compliance with Zoning.

Certain provisions of this Declaration may have been included herein as a result of governmental requirements established through the zoning and development plan approval processes in the State, County, and/or Liberty Township in which the Subject Property is located. Compliance with all such governmental requirements, for so long as such requirements are effective and binding, and as such requirements may be amended or modified, is required by this Declaration.

8.22. Miscellaneous.

The following Improvements shall not be permitted on any Lot in the Community:

(a) outdoor clotheslines;

(b) window air conditioning units on any window facing a street;

(c) wind turbines or similar wind-powered energy generating equipment;

(d) solar panels

9. EASEMENTS AND LICENSES.

9.1. Easement of Access and Enjoyment Over Common Elements.

Every Owner shall have a right and easement (in common with all other Owners) of enjoyment in, over, and upon the Common Elements, which rights shall be appurtenant to, and shall pass with the title to, that Person's Lot, subject to the terms and limitations set forth herein, and subject to the Rules. An Owner may delegate that Person's rights of access and enjoyment to Occupants, licensees and invitees.

9.2. Right of Entry for Repair.

The duly authorized agents, officers, contractors, and employees of the Association shall have a right of entry and access to the property subject hereto, including without limitation the Lots, for the purpose of exercising the Association's rights, or performing the Association's obligations as set forth herein. The Association may enter any Lot to remove or correct any violation of any provision hereof, or any Rule, or to maintain, repair, and replace the Common Elements and/or Additional Easement Areas, but only during reasonable hours and after providing reasonable advance notice to the Owner, except in cases of an emergency.

9.3. Easement for Utilities and Other Purposes.

The Board or Developer may convey easements over the Common Elements to any entity for the purpose of constructing, installing, maintaining, and operating poles, pipes, conduit, wires, ducts, cables, and other equipment necessary to furnish electrical, gas, sewer, water, telephone, cable television, and other similar utility or security services, whether of public or private nature, to the Community and to any entity for such other purposes as the Board or Developer deems appropriate; provided that such equipment or the exercise of such easement rights shall not unreasonably interfere with any Owners' use and enjoyment of that Owner's Lot. The Board or Developer may grant such easements over all portions of the Community for the benefit of adjacent properties as the Board or Developer deems appropriate; provided that the grant of such easements imposes no undue, unreasonable, or material burden or cost upon any property in the Community, and further provided that the Board or Developer may not convey any easement over a Lot without the prior written consent of the Owner of such Lot (which consent shall not be unreasonably withheld, delayed or conditioned).

9.4. Easement for Services.

A non-exclusive easement is hereby granted to all police, firemen, ambulance operators, mail carriers, delivery persons, cable and television repair personnel, garbage removal personnel, and all similar persons, and to the local governmental authorities and the Association (but not to the public in general) to enter upon the Common Elements and the Lots to perform their duties.

9.5. General.

Unless specifically limited herein otherwise, the easements described herein shall run with the land and pass with the title to the benefited and burdened properties, shall be appurtenant to the properties benefited and burdened thereby, shall be enforceable by the owners of the properties benefited thereby, and shall be perpetual. The easements and grants provided herein shall in no way affect any other recorded grant or easement. Failure to refer specifically to any or all of the easements and/or rights described in this Declaration in any deed of conveyance or in any mortgage or other evidence of obligation shall not defeat or fail to reserve said rights or easements but the same shall be deemed conveyed or encumbered, as the case may be, along with the Lot.

10. UTILITY SERVICES.

Each Lot Owner by acceptance of a deed to a Lot agrees to pay for utility services separately metered or separately charged by the utility company to that Lot, and to reimburse the Association for that Owner's Lot's share of any utility cost that the Board, or its designee, reasonably determines is attributable to use by the occupants of that Owner's Lot. The Association shall arrange for the provision of utility services, if any, to the Common Elements and shall pay the costs of such services separately metered to the Association.

11. MISCELLANEOUS.

11.1. Term.

The provisions hereof shall bind and run with the land for a term of thirty (30) years from and after the date that this Declaration is filed for recording with the Recorder of Union County, Ohio and thereafter shall automatically renew forever for successive periods of ten (10) years each, unless earlier terminated with the consent of Members exercising not less than seventy-five percent (75%) of the voting power of all Members.

11.2. Enforcement.

The provisions hereof may be enforced by any proceeding at law or in equity by Developer, any Owner, the Association, the Architectural Review Committee, and each of their respective heirs, successors and assigns, against any Person(s) violating, or attempting to violate, any covenant, restriction, or Rule to restrain and/or to enjoin any violation, to obtain a decree for specific performance as to removal of any nonconforming Improvement, and to recover all damages, costs of enforcement and any other costs incurred (including without limitation

reasonable attorneys' fees) in connection with any violation. The failure or forbearance to enforce any covenant or restriction herein contained shall in no event be deemed a waiver of these rights.

11.3. Amendments.

Until the Turnover Date, Developer may, in its sole and absolute discretion, unilaterally amend the provisions hereof at any time and from time to time, without the consent of any other Owners. Any such amendment may impose covenants, conditions, restrictions and easements in addition to those set forth herein including, without limitation, restrictions on use and covenants to pay additional charges with respect to the maintenance and improvement of any property in the Community. After the Turnover Date, Developer may unilaterally amend the provisions hereof, without the consent of any other Owners, if such amendment is: (a) necessary to bring any provision hereof into compliance with any applicable governmental statute, rule, regulation or judicial order; (b) necessary to enable any reputable title insurance company to issue title insurance coverage on the Lots; (c) necessary to conform to the requirements of the United States Federal Housing Administration or the Veterans Administration, or (d) necessary to correct errors; provided, however, any such amendment shall not materially adversely affect the title to any Lot unless the Owner or Owners have thereof consented to such amendment in writing. No amendment may remove, revoke, or modify any right or privilege of Developer without the written consent of Developer or the assignee of such right or privilege. Developer shall have the right and power, but neither the duty nor the obligation, in its sole and absolute discretion and by its sole act, to subject all or any part of the Additional Property to the provisions hereof at any time and from time to time by executing and recording in the appropriate governmental office an amendment to this Declaration specifying that such Additional Property is part of the Community. An amendment hereby made by Developer shall not require the joinder or signature of the Association, other Owners, mortgagees, or any other person. In addition, such amendments to this Declaration may contain such supplementary, additional, different, new, varied, revised or amended provisions and memberships as may be necessary or appropriate, as determined by Developer, to reflect and address the different character or intended development of any such Additional Property.

In addition, this Declaration may be amended or modified after the Turnover Date with the approval of Owners holding not less than seventy-five percent (75%) of the voting power of all Owners in the Association; provided, however, that the consent of Developer shall be required for any amendment or modification which affects Developer's rights hereunder, and further provided that the consent of all Owners shall be required for any amendment which effects a change in the voting power of any Owner, the method of allocating Common Expenses among Owners, or the fundamental purpose for which the Association is organized. Any amendment to this Declaration adopted with the aforesaid consent shall be executed with the same formalities as to execution as observed in this Declaration by the president and the secretary of the Association, and shall contain their certifications that the amendment was duly adopted in accordance with the requirements of this paragraph. Any amendment so adopted and executed shall be effective upon the filing of the same with the County Recorder of the County in which the Community is located.

11.4. Developer's Rights to Complete Development.

Developer shall have the unrestricted right to: (a) complete the development, construction, promotion, marketing, sale, resale and leasing of properties; (b) construct or alter Improvements on any property owned by Developer; (c) construct, maintain and operate model homes, offices for construction, sales or leasing purposes, storage areas, construction yards or similar facilities on any property owned by Developer or the Association; or (d) post signs incidental to the development, construction, promotion, marketing, sale and leasing of property within the Community, in compliance with Township regulations. Further, Developer shall have the right of ingress and egress through the streets, paths and walkways located in the Community for any purpose whatsoever, including, but not limited to, purposes related to the construction, maintenance and operation of Improvements. Nothing contained herein shall limit the rights of Developer or require Developer to obtain approval to: (i) excavate, cut, fill or grade any property owned by Developer; (ii) construct, alter, remodel, demolish, replace, or use any Improvements on any Common Elements or any property owned by Developer as a construction office, model home or real estate sales or leasing office in connection with the sale of any property or Lot; or (iii) require Developer to seek or obtain the approval of the Association or the Architectural Review Committee for any activity or Improvement on any Common Elements or any property owned by Developer. Nothing in this Section shall limit or impair the reserved rights of Developer as elsewhere provided in this Declaration.

11.5. Mortgagee Rights.

A holder or insurer of a first mortgage upon any Lot, upon written request to the Association (which request shall state the name and address of such holder or insurer and a description of the Lot) shall be entitled to timely written notice of:

(a) Any proposed amendment of this Declaration;

(b) Any proposed termination of the Association; and

(c) Any default under the provisions hereof which gives rise to a cause of action by the Association against the Owner of the Lot subject to the mortgage of such holder or insurer, where the default has not been cured in sixty (60) days following the date a notice describing a default is sent to an Owner.

Each holder and insurer of a first mortgage on any Lot shall be entitled, upon written request and at such mortgagee's expense, to inspect the books and records of the Association during normal business hours.

11.6. Indemnification.

The Association shall indemnify, defend and hold every Officer, Director, and agent of the Association harmless against any and all claims, liabilities, and expenses, including attorneys' fees, reasonably incurred by or imposed upon any Officer, Director, or agent in connection with any action, suit, or other proceeding (including settlement of any suit or proceeding, if approved by the Board) to which he/she may be a party by reason of being or

having been an Officer, Director, or agent. The Officers, Directors, and agents of the Association shall not be liable for any mistake of judgment, negligent or otherwise, except for their own individual willful misconduct, bad faith or gross negligence. The Officers, Directors, and agents of the Association shall have no personal liability with respect to any contract or other commitment made by them, in good faith, on behalf of the Association, and the Association shall indemnify and forever hold each such Officer, Director, and agent free from and harmless against any and all liability to others on account of any such contract or commitment. Any right to indemnification provided herein shall not be exclusive of any other rights to which any Officer, Director, or agent, or former Officer, Director, or agent may be entitled by law or the provisions of any other Governing Document.

11.7. Mutuality.

All restrictions, conditions and covenants contained herein are made for the direct, mutual, and reciprocal benefit of Developer, the Association, and the present and future Owners of Lots in the Community, and each part thereof, and their respective personal representatives, heirs, successors, and assigns; the provisions hereof shall create mutual equitable servitudes upon the property submitted to these restrictions and each part thereof in favor of each other part thereof; and any property referred to herein as benefited hereby; the provisions hereof shall create reciprocal rights and obligations between the respective Owners of all such property and privity of contract and estate between all Owners thereof; and the provisions hereof shall, as to the Owner of any such property and those Owners respective heirs, personal representatives, successors and assigns, operate as covenants running with the land for the benefit of all such property and the Owners thereof.

11.8. Severability.

If any article, section, paragraph, sentence, clause or word herein is held by a court of competent jurisdiction to be in conflict with any law, or unenforceable, then the requirements of such law shall prevail and the conflicting provision or language shall be deemed void in such circumstance; provided that the remaining provisions or language of this Declaration shall continue in full force and effect.

11.9. Enforcement; Waiver.

Failure of Developer, the Association or any Owner to enforce any provision of this Declaration or the Rules in any manner shall not constitute a waiver of any right to enforce any violation of such provision. By accepting a deed to a Lot, each Owner is deemed to waive the defenses of laches and statute of limitations in connection with the enforcement by the Association of the provisions hereof or the Rules.

11.10. Notices.

Notices, demands or other communications to an Owner shall be given in writing by personal delivery, or posting at the Lot if a residence has been constructed on such Lot, or by depositing such notice in the United States Mail, first class, postage prepaid, to the address of the Owner of the Lot as shown by the records of the Association, or as otherwise designated in

writing by the Owner. Any demand, notice or other communication or action given or taken hereunder or by one of the joint Owners of a Lot shall be deemed to be given, taken, or received by all such joint Owners.

11.11. Exhibits.

The Exhibits hereto are a part of this Declaration as if set forth in full herein.

11.12. Construction.

In interpreting words and phrases herein, unless the context shall otherwise provide or require, the singular shall include the plural, the plural shall include the singular, and the use of any gender shall include all genders. Any rule of construction to the effect that any ambiguities are to be resolved against the party who drafted the document shall not be utilized in interpreting this Declaration and the Exhibits hereto.

11.13. Captions.

The caption of each article, section and paragraph of this Declaration is inserted only for convenience and does not define, limit or describe the scope or intent of its provisions.

11.14. Additional Disclosures.

[***to be determined as necessary***]

IN TESTIMONY WHEREOF, Developer has caused the execution of this Declaration on the date first set forth above.

DEVELOPER, INC.,
an Ohio corporation

By:_____/DRAFT/_____

STATE OF OHIO :
:
COUNTY OF UNION :

The foregoing instrument was acknowledged before me this _____ day of _____, 2015, by _____ _____,_____of DEVELOPER, Inc., an Ohio corporation, on behalf of that corporation.

_____
Notary Public

This instrument prepared by:
Thomas L. Hart, Esq.
ISAAC WILES BURKHOLDER & TEETOR LLC
Two Miranova Place, Ste. 700
Columbus, OH 43215
(614) 221-2121

EXHIBIT A

SUBJECT PROPERTY

EXHIBIT B

ADDITIONAL EASEMENT AREAS

PRELIMINARY STORMWATER MANAGEMENT REPORT – PIONEER CROSSING

Jerome Township
Union County, Ohio

Prepared by:
Kimley-Horn and Associates, Inc.
2400 Corporate Exchange, Suite 120
Columbus, OH 43231
Contact: Kevin Kershner, PE

Prepared on: September 17, 2020

Kimley»Horn

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Exhibit 4. Groundwater Recharge Calculations

Exhibit 5: Culvert Calculations

1. PROJECT DESCRIPTION

The proposed development is located on the south side of US-42 W between Currier Road and Industrial Parkway, directly west of the Jerome Township Park in Union County, Ohio. The development is bordered on the north by single-family homes, on the south and west by existing agricultural land, and on the east by a combination of woods, open space, and single-family homes. The development site consists of three existing drainage areas that generally flow southwest across the site, all ultimately tributary to Sugar Run which is a tributary of the Big Darby Creek.

The proposed development consists of 187 new detached single-family homes with public streets with associated stormwater, sanitary sewer and water utilities. Proposed stormwater basins to be built within the development will provide stormwater management and water quality treatment for the new development. Release from the stormwater basins will be to the existing wetlands on the southwest property line, existing swale at the south corner of the site, and to an existing stream to the southeast. No improvements are planned offsite to the existing outlets.

The stormwater basins for the Pioneer Crossing stormwater management will be sized to handle stormwater for the site and for the offsite pass through tributary. The basins will meet the current design requirements set forth by the Union County Technical Design Standards and the Ohio Protection Agency (EPA) General Permit OHC000005.

1.1. Pre-Development Conditions

The proposed Pioneer Crossing development site is approximately 111.52 acres of undeveloped land used for agricultural purposes, comprised of row crops, as well as wooded area. The site generally drains to the southwest. Existing soils are Type D with minimal slope towards the southern and western property lines and curve numbers in the mid-80s.

Three watersheds, each with unique outlet points, exist on the site. Watershed A drains the northern portion of the site to the southwest property line through an existing wetland, Watershed B drains the middle portion of the site and flows to an existing swale at the south corner of the site, and Watershed C drains the southern portion of the site to an existing stream that drains south onto the Craiger Property. See Tables 1-3 for existing release rates and Exhibit 3 for the pre-development tributary area map.

<u>Pre-Developed Watershed A Characteristics</u>
Summary: Drains northern portion of the site. Flows into an existing wetland ultimately tributary to Sugar Run which is a tributary to the Big Darby Creek.
Outlet: Existing wetland along the southwest property line
Area = 73.36 acres
Weighted Curve Number = 82
Time of Concentration = 92.7 minutes

Watershed A1 Offsite Pass-Through Characteristics
Area = 14.36 acres
Weighted Curve Number = 83
Time of Concentration = 59.0 minutes

Watershed A2 Offsite Pass-Through Characteristics
Area = 12.55 acres
Weighted Curve Number = 82
Time of Concentration = 92.7 minutes

Watershed A3 Offsite Pass-Through Characteristics
Area = 35.02 acres
Weighted Curve Number = 84
Time of Concentration = 29.4 minutes

Pre-Developed Watershed B Characteristics
Summary: Drains small middle portion of the site. Flows offsite near the south corner of the property to an existing ditch. .
Outlet: Existing swale that flows southwest along the Curry and Craiger Property line.
Area = 17.21 acres
Weighted Curve Number = 84
Time of Concentration = 50.4 minutes

Pre-Developed Watershed C Characteristics
Summary: Drains small southern portion of the site. Flows to an existing stream that drains south onto the Craiger Property tributatry to Sugar Run which is a tributary to the Big Darby Creek.
Outlet: Existing stream
Area = 27.51 acres
Weighted Curve Number = 80
Time of Concentration = 97.7 minutes

Watershed C Offsite Pass-Through Characteristics
Area = 35.51 acres
Weighted Curve Number = 80
Time of Concentration = 97.7 minutes

1.2. Post-Development Conditions

The proposed Pioneer Crossing development will consist of 187 new detached single-family homes. The post-developed stormwater management will be based on the requirements of the Union County Technical Design Standards. Using the critical storm method, the peak rate of runoff under post-development conditions is to be equal to a one year pre-developed runoff rate up to the critical storm year, while the peak rate of runoff for all storms greater than or equal to the critical storm shall be limited to the pre-development runoff rate from the same frequency storm. The critical storm was determined to be the 5-year based on the percent increase in total runoff volume due to development. Refer to Tables 1-3 for allowable release rate calculations.

Table 1A: Preliminary Development Plan Storm Event Release Rates for Watershed A

Storm Event	Onsite Developable Area Pre-Developed Peak Discharge (CFS)	Offsite A1 Pass-Through Area Peak Discharge (CFS)	Offsite A2 Pass-Through Area Peak Discharge (CFS)	Offsite A3 Pass-Through Area Peak Discharge (CFS)**	Allowable Post-Developed Release Rate Including Offsite Flows (CFS)	Calculated Post-Developed Release Rate Including Offsite Flows (CFS)*
1-year	18.53	5.99	3.44	1.03	28.99	5.14
2-year	27.11	8.49	4.95	1.74	28.99	6.95
5-year	40.21	12.24	7.24	3.07	28.99	8.36
10-year	51.45	15.41	9.21	4.47	80.54	11.51
25-year	68.03	20.05	12.08	6.85	107.01	39.11
50-year	82.07	23.95	14.50	9.11	129.63	84.80
100-year	96.84	28.03	17.05	11.63	153.55	111.54

*All proposed release rates basin elevations are preliminary and are subject to change due to final engineering. Release rate will not increase to a rate greater than allowable.
**Flow represents estimated release rate from existing basin.

Table 1B: Preliminary Development Plan Storm Event Release Rates for Watershed A

Storm Event	Basin A1 Release (CFS)*	Basin A1 WSE (FT)*	Basin A2 Release (CFS)*	Basin A2 WSE (FT)*	Basin A3 Release (CFS)*	Basin A3 WSE (FT)*
1-year	0.43	958.23	3.82	965.38	0.89	957.90
2-year	0.51	958.65	5.40	965.99	1.04	958.20
5-year	0.83	959.18	6.33	966.92	1.20	958.62
10-year	2.04	959.38	8.14	967.60	1.33	958.98
25-year	2.80	959.83	33.39	968.24	2.92	959.29
50-year	3.22	960.25	77.27	968.95	4.31	959.51
100-year	3.60	960.69	102.60	969.29	5.34	959.78

*All proposed release rates and basin elevations are preliminary and are subject to change due to final engineering. Release rate will not increase to a rate greater than allowable.

Table 2: Preliminary Development Plan Storm Event Release Rates for Watershed B				
Storm Event	Onsite Developable Area Pre-Developed Peak Discharge (CFS)	Allowable Post-Developed Release Rate (CFS)	Calculated Post-Developed Release Rate (CFS)*	Basin B WSE (FT)
1-year	8.69	8.69	2.44	956.45
2-year	12.15	8.69	2.84	957.19
5-year	17.30	8.69	3.30	958.19
10-year	21.66	21.66	6.41	958.77
25-year	27.97	27.97	16.18	959.22
50-year	33.26	33.26	21.37	959.64
100-year	38.77	38.77	31.62	959.99

*All proposed rel6ase rates and basin elevations are preliminary and are subject to change due to final engineering. Release rate will not increase to a rate greater than allowable.

Table 3: Preliminary Development Plan Storm Event Release Rates for Watershed C					
Storm Event	Onsite Developable Area Pre-Developed Peak Discharge (CFS)	Offsite Pass-Through Area Peak Discharge (CFS)	Allowable Post-Developed Release Rate Including Offsite Flows (CFS)	Calculated Post-Developed Release Rate Including Offsite Flows (CFS)*	Basin C WSE (FT)
1-year	6.12	7.01	13.13	0.30	977.76
2-year	9.11	10.44	13.13	0.51	978.22
5-year	13.71	15.71	13.13	0.85	978.74
10-year	17.70	20.27	37.97	1.05	979.24
25-year	23.59	27.02	50.61	2.41	979.71
50-year	28.60	32.76	61.36	5.10	979.94
100-year	33.85	38.78	72.63	29.62	981.16

*All proposed release rates and basin elevations are preliminary and are subject to change due to final engineering. Release rate will not increase to a rate greater than allowable.

2. DESIGN SUMMARY

The proposed basins for Pioneer Crossing will be designed using HydroCAD software to accomplish the detention and water quality requirements for the development. An SCS Type II 24-hour storm will be modeled using rainfall depths obtained from the National Oceanic and Atmospheric Administration Atlas 14 precipitation frequency estimates.

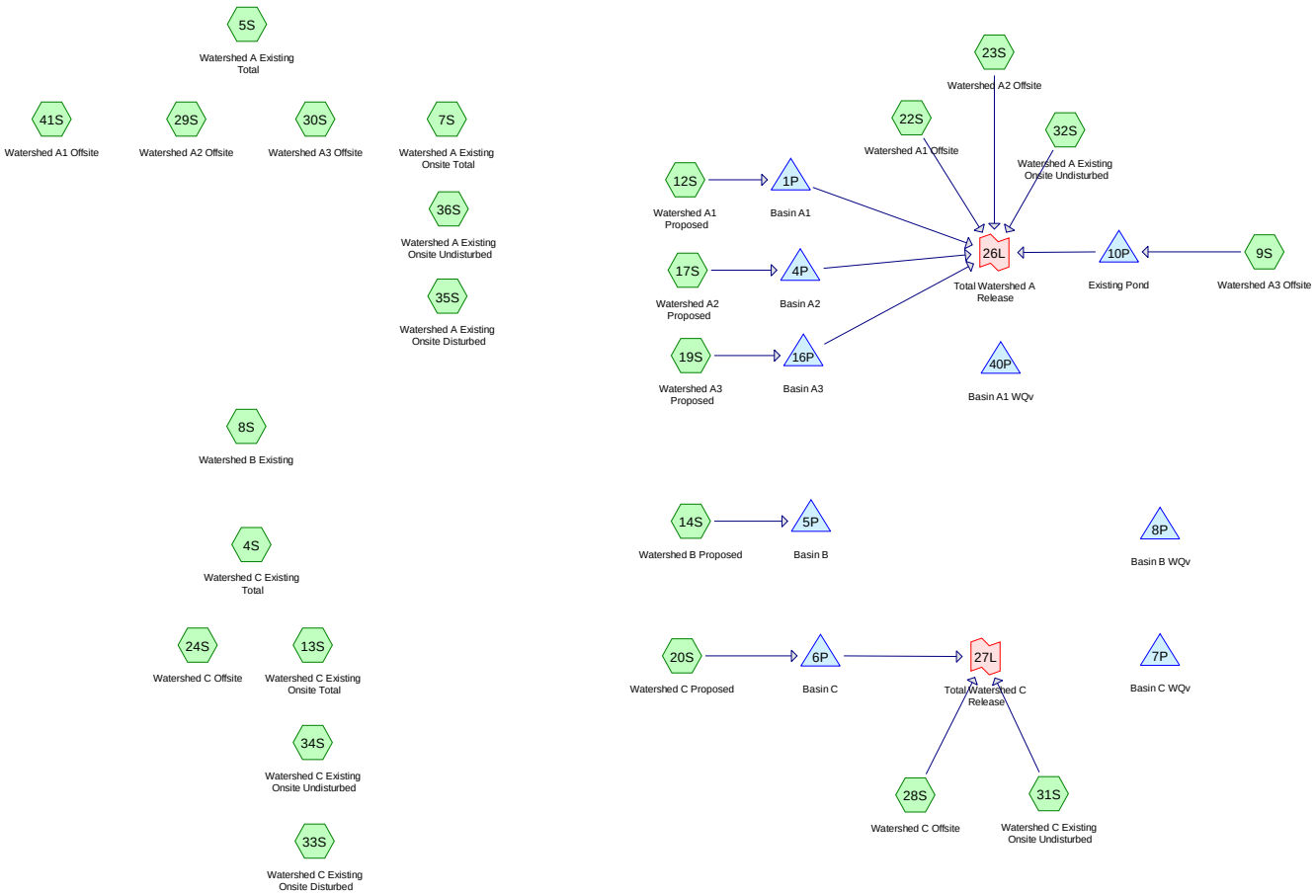
3. CONCLUSION

The proposed Pioneer Crossing Development will require onsite stormwater management for the development. Post-developed outlet design will maintain the same number of watersheds and release points. The stormwater management will be designed to meet the requirements of the Union County Technical Design Standards and the Ohio EPA General Permit OHC000005 for providing onsite detention and water quality treatment. The proposed stormwater management basins are designed to detain the post-developed release rate back to the 1-year pre-developed release rate up to the critical storm year and to detain the post-developed release rate for every year thereafter back to the same frequency storm pre-developed release rate. The proposed stormwater management system should not pose a threat to property and public safety downstream of the proposed development.

4. ENGINEERING NARRATIVE

Street K will be designed by others on the 10-acre Blankenship property in the southeast corner of the site and will include its own stormwater management. The street, classified as a Minor Collector is 40 feet wide, will be extended in the future.

Exhibit 1 – Preliminary HydroCAD Model



Routing Diagram for Pioneer Crossing-PRELIM-UPDATE - kdk
Prepared by Kimley-Horn, Printed 9/17/2020
HydroCAD® 10.00-22 s/n 09843 © 2018 HydroCAD Software Solutions LLC

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
65.410	87	1/4 acre lots, 38% imp, HSG D (12S, 14S, 17S, 19S, 20S)
107.080	80	>75% Grass cover, Good, HSG D (4S, 5S, 7S, 9S, 13S, 22S, 30S, 41S)
93.310	85	Legumes, straight row, Good, HSG D (5S, 7S, 8S)
32.020	98	Paved parking, HSG D (4S, 5S, 7S, 9S, 13S, 22S, 30S, 41S)
118.770	77	Woods, Good, HSG D (4S, 5S, 7S, 8S, 13S, 22S, 41S)
25.100	82	Woods, Grass (23S, 29S)
45.360	80	Woods, Grass (31S, 34S)
63.020	80	Woods, Grass, HSG D (24S, 28S)
89.590	82	Woods, Grass, Row Crops (32S, 35S, 36S)
4.830	80	Woods, Grass, Row Crops (33S)
18.520	79	Woods/grass comb., Good, HSG D (9S, 30S)
663.010	**82**	**TOTAL AREA**

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
498.130	HSG D	4S, 5S, 7S, 8S, 9S, 12S, 13S, 14S, 17S, 19S, 20S, 22S, 24S, 28S, 30S, 41S
164.880	Other	23S, 29S, 31S, 32S, 33S, 34S, 35S, 36S
663.010		**TOTAL AREA**

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	65.410	0.000	65.410	1/4 acre lots, 38% imp	12S, 14S, 17S, 19S, 20S
0.000	0.000	0.000	107.080	0.000	107.080	>75% Grass cover, Good	4S, 5S, 7S, 9S, 13S, 22S, 30S, 41S
0.000	0.000	0.000	93.310	0.000	93.310	Legumes, straight row, Good	5S, 7S, 8S
0.000	0.000	0.000	32.020	0.000	32.020	Paved parking	4S, 5S, 7S, 9S, 13S, 22S, 30S, 41S
0.000	0.000	0.000	118.770	0.000	118.770	Woods, Good	4S, 5S, 7S, 8S, 13S, 22S, 41S
0.000	0.000	0.000	63.020	70.460	133.480	Woods, Grass	23S, 24S, 28S, 29S, 31S, 34S
0.000	0.000	0.000	0.000	94.420	94.420	Woods, Grass, Row Crops	32S, 33S, 35S, 36S
0.000	0.000	0.000	18.520	0.000	18.520	Woods/grass comb., Good	9S, 30S
0.000	**0.000**	**0.000**	**498.130**	**164.880**	**663.010**	**TOTAL AREA**	

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Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	9S	0.00	0.00	160.0	0.0200	0.012	24.0	0.0	0.0
2	12S	0.00	0.00	700.0	0.0380	0.012	12.0	0.0	0.0
3	14S	0.00	0.00	700.0	0.0038	0.012	12.0	0.0	0.0
4	17S	0.00	0.00	750.0	0.0380	0.012	12.0	0.0	0.0
5	19S	0.00	0.00	430.0	0.0380	0.012	12.0	0.0	0.0
6	20S	0.00	0.00	1,000.0	0.0380	0.012	12.0	0.0	0.0
7	22S	0.00	0.00	90.0	0.0450	0.120	24.0	0.0	0.0
8	30S	0.00	0.00	160.0	0.0200	0.012	24.0	0.0	0.0
9	41S	0.00	0.00	90.0	0.0450	0.120	24.0	0.0	0.0
10	1P	957.00	956.50	100.0	0.0050	0.120	24.0	0.0	0.0
11	4P	962.00	961.50	50.0	0.0100	0.120	24.0	0.0	0.0
12	5P	954.00	953.00	100.0	0.0100	0.012	24.0	0.0	0.0
13	6P	976.00	975.00	100.0	0.0100	0.012	24.0	0.0	0.0
14	7P	988.00	986.00	100.0	0.0200	0.012	24.0	0.0	0.0
15	8P	988.00	986.00	100.0	0.0200	0.012	24.0	0.0	0.0
16	10P	994.00	980.00	80.0	0.1750	0.012	24.0	0.0	0.0
17	16P	957.00	956.00	50.0	0.0200	0.012	24.0	0.0	0.0
18	40P	957.00	956.50	100.0	0.0050	0.120	24.0	0.0	0.0

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 4S: Watershed C Existing Total Runoff Area=59.020 ac 6.98% Impervious Runoff Depth=0.67"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=13.13 cfs 3.289 af

Subcatchment 5S: Watershed A Existing Total Runoff Area=93.840 ac 4.24% Impervious Runoff Depth=0.76"
Flow Length=2,815' Tc=92.7 min CN=82 Runoff=25.71 cfs 5.968 af

Subcatchment 7S: Watershed A Existing Onsite Runoff Area=73.360 ac 0.65% Impervious Runoff Depth=0.71"
Flow Length=2,815' Tc=92.7 min CN=81 Runoff=18.53 cfs 4.371 af

Subcatchment 8S: Watershed B Existing Runoff Area=17.210 ac 0.00% Impervious Runoff Depth=0.87"
Flow Length=1,901' Tc=50.4 min CN=84 Runoff=8.69 cfs 1.243 af

Subcatchment 9S: Watershed A3 Offsite Runoff Area=35.020 ac 22.87% Impervious Runoff Depth=0.87"
Flow Length=949' Tc=29.4 min CN=84 Runoff=25.79 cfs 2.529 af

Subcatchment 12S: Watershed A1 Proposed Runoff Area=10.040 ac 38.00% Impervious Runoff Depth=1.04"
Flow Length=800' Tc=15.8 min CN=87 Runoff=13.04 cfs 0.870 af

Subcatchment 13S: Watershed C Existing Runoff Area=27.510 ac 9.09% Impervious Runoff Depth=0.67"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=6.12 cfs 1.533 af

Subcatchment 14S: Watershed B Proposed Runoff Area=15.600 ac 38.00% Impervious Runoff Depth=1.04"
Flow Length=800' Tc=18.5 min CN=87 Runoff=18.70 cfs 1.352 af

Subcatchment 17S: Watershed A2 Proposed Runoff Area=17.910 ac 38.00% Impervious Runoff Depth=1.04"
Flow Length=850' Tc=15.9 min CN=87 Runoff=23.20 cfs 1.553 af

Subcatchment 19S: Watershed A3 Proposed Runoff Area=4.990 ac 38.00% Impervious Runoff Depth=1.04"
Flow Length=530' Tc=15.3 min CN=87 Runoff=6.58 cfs 0.433 af

Subcatchment 20S: Watershed C Proposed Runoff Area=16.870 ac 38.00% Impervious Runoff Depth=1.04"
Flow Length=1,100' Tc=16.3 min CN=87 Runoff=21.62 cfs 1.463 af

Subcatchment 22S: Watershed A1 Offsite Runoff Area=14.360 ac 17.13% Impervious Runoff Depth=0.81"
Flow Length=2,626' Tc=59.0 min CN=83 Runoff=5.99 cfs 0.974 af

Subcatchment 23S: Watershed A2 Offsite Runoff Area=12.550 ac 0.00% Impervious Runoff Depth=0.76"
Flow Length=2,815' Tc=92.7 min CN=82 Runoff=3.44 cfs 0.798 af

Subcatchment 24S: Watershed C Offsite Runoff Area=31.510 ac 0.00% Impervious Runoff Depth=0.67"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=7.01 cfs 1.756 af

Subcatchment 28S: Watershed C Offsite Runoff Area=31.510 ac 0.00% Impervious Runoff Depth=0.67"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=7.01 cfs 1.756 af

Subcatchment 29S: Watershed A2 Offsite Runoff Area=12.550 ac 0.00% Impervious Runoff Depth=0.76"
Flow Length=2,815' Tc=92.7 min CN=82 Runoff=3.44 cfs 0.798 af

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Subcatchment 30S: Watershed A3 Offsite Runoff Area=35.020 ac 22.87% Impervious Runoff Depth=0.87"
Flow Length=949' Tc=29.4 min CN=84 Runoff=25.79 cfs 2.529 af

Subcatchment 31S: Watershed C Existing Runoff Area=22.680 ac 0.00% Impervious Runoff Depth=0.67"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=5.05 cfs 1.264 af

Subcatchment 32S: Watershed A Existing Runoff Area=23.090 ac 0.00% Impervious Runoff Depth=0.76"
Flow Length=2,815' Tc=92.7 min CN=82 Runoff=6.33 cfs 1.468 af

Subcatchment 33S: Watershed C Existing Runoff Area=4.830 ac 0.00% Impervious Runoff Depth=0.67"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=1.07 cfs 0.269 af

Subcatchment 34S: Watershed C Existing Runoff Area=22.680 ac 0.00% Impervious Runoff Depth=0.67"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=5.05 cfs 1.264 af

Subcatchment 35S: Watershed A Existing Runoff Area=43.410 ac 0.00% Impervious Runoff Depth=0.76"
Flow Length=2,815' Tc=92.7 min CN=82 Runoff=11.89 cfs 2.761 af

Subcatchment 36S: Watershed A Existing Runoff Area=23.090 ac 0.00% Impervious Runoff Depth=0.76"
Flow Length=2,815' Tc=92.7 min CN=82 Runoff=6.33 cfs 1.468 af

Subcatchment 41S: Watershed A1 Offsite Runoff Area=14.360 ac 17.13% Impervious Runoff Depth=0.81"
Flow Length=2,626' Tc=59.0 min CN=83 Runoff=5.99 cfs 0.974 af

Pond 1P: Basin A1 Peak Elev=958.23' Storage=24,200 cf Inflow=13.04 cfs 0.870 af
Primary=0.43 cfs 0.800 af Secondary=0.00 cfs 0.000 af Outflow=0.43 cfs 0.800 af

Pond 4P: Basin A2 Peak Elev=965.38' Storage=30,694 cf Inflow=23.20 cfs 1.553 af
Primary=3.82 cfs 1.550 af Secondary=0.00 cfs 0.000 af Outflow=3.82 cfs 1.550 af

Pond 5P: Basin B Peak Elev=956.45' Storage=26,692 cf Inflow=18.70 cfs 1.352 af
Outflow=2.44 cfs 1.352 af

Pond 6P: Basin C Peak Elev=977.76' Storage=50,845 cf Inflow=21.62 cfs 1.463 af
Outflow=0.30 cfs 1.178 af

Pond 7P: Basin C WQv Peak Elev=990.90' Storage=32,748 cf Inflow=0.00 cfs 0.000 af
Outflow=0.31 cfs 0.752 af

Pond 8P: Basin B WQv Peak Elev=990.90' Storage=30,600 cf Inflow=0.00 cfs 0.000 af
Outflow=0.76 cfs 0.671 af

Pond 10P: Existing Pond Peak Elev=994.37' Storage=74,624 cf Inflow=25.79 cfs 2.529 af
24.0" Round Culvert n=0.012 L=80.0' S=0.1750 '/' Outflow=1.03 cfs 2.043 af

Pond 16P: Basin A3 Peak Elev=957.90' Storage=8,329 cf Inflow=6.58 cfs 0.433 af
Outflow=0.89 cfs 0.433 af

Pond 40P: Basin A1 WQv Peak Elev=959.10' Storage=44,326 cf Inflow=0.00 cfs 0.000 af
Outflow=1.29 cfs 0.967 af

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Link 26L: Total Watershed A Release

Inflow=19.58 cfs 8.066 af
Primary=19.58 cfs 8.066 af

Link 27L: Total Watershed C Release

Inflow=12.32 cfs 4.199 af
Primary=12.32 cfs 4.199 af

Total Runoff Area = 663.010 ac Runoff Volume = 42.683 af Average Runoff Depth = 0.77"
91.42% Pervious = 606.134 ac 8.58% Impervious = 56.876 ac

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Summary for Subcatchment 4S: Watershed C Existing Total

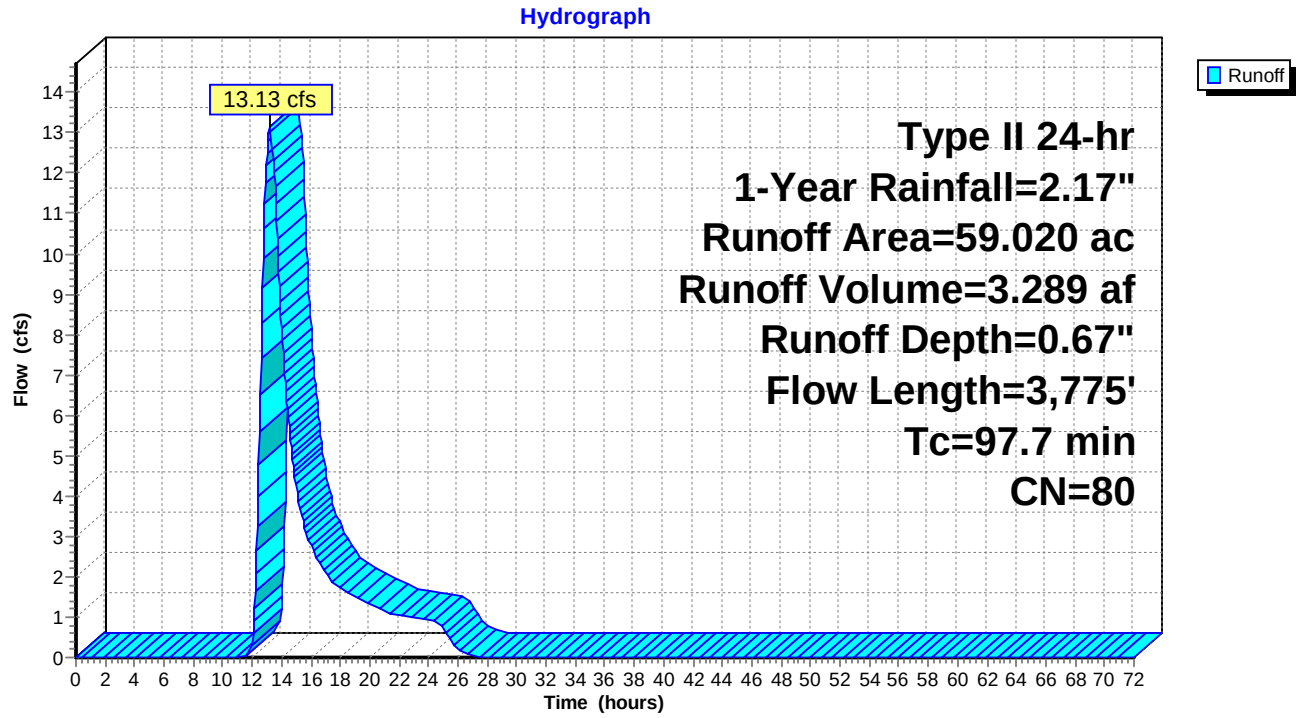
Runoff = 13.13 cfs @ 13.17 hrs, Volume= 3.289 af, Depth= 0.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

Area (ac)	CN	Description
29.570	77	Woods, Good, HSG D
4.120	98	Paved parking, HSG D
25.330	80	>75% Grass cover, Good, HSG D
59.020	80	Weighted Average
54.900		93.02% Pervious Area
4.120		6.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 4S: Watershed C Existing Total



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Summary for Subcatchment 5S: Watershed A Existing Total

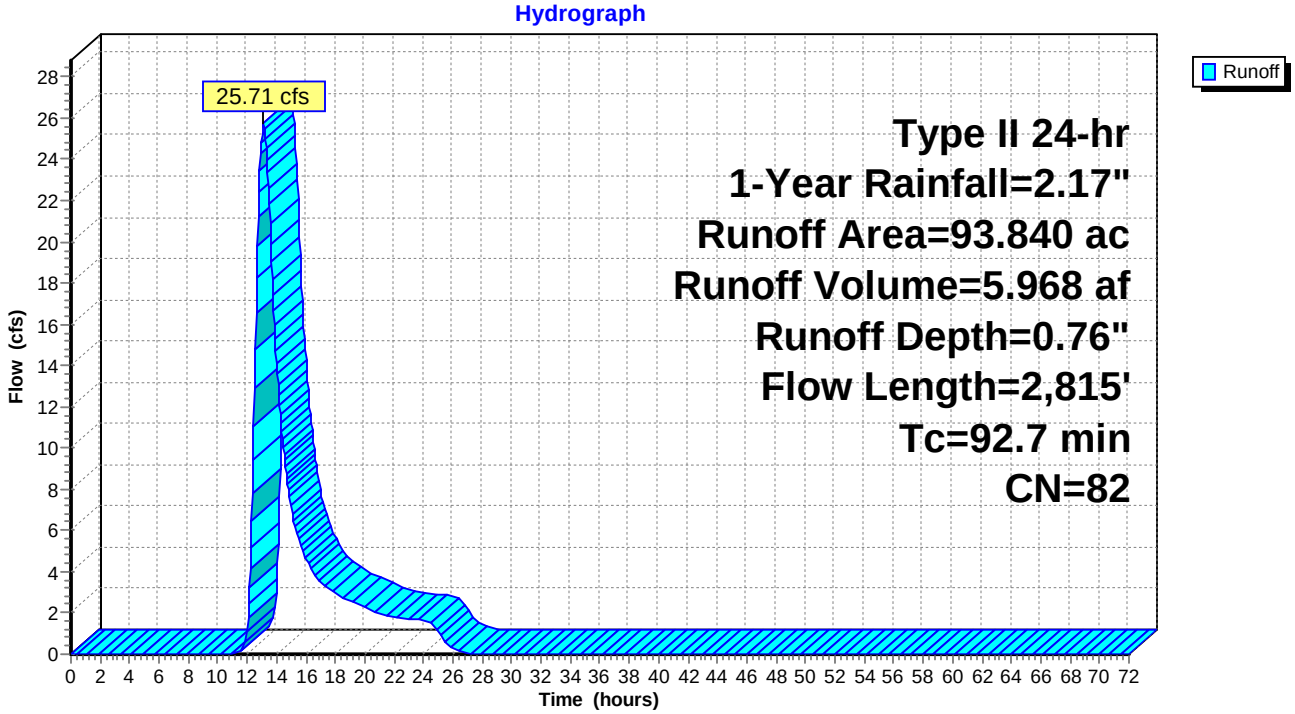
Runoff = 25.71 cfs @ 13.10 hrs, Volume= 5.968 af, Depth= 0.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

Area (ac)	CN	Description
19.270	80	>75% Grass cover, Good, HSG D
31.720	77	Woods, Good, HSG D
38.870	85	Legumes, straight row, Good, HSG D
3.980	98	Paved parking, HSG D
93.840	82	Weighted Average
89.860		95.76% Pervious Area
3.980		4.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 5S: Watershed A Existing Total



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Summary for Subcatchment 7S: Watershed A Existing Onsite Total

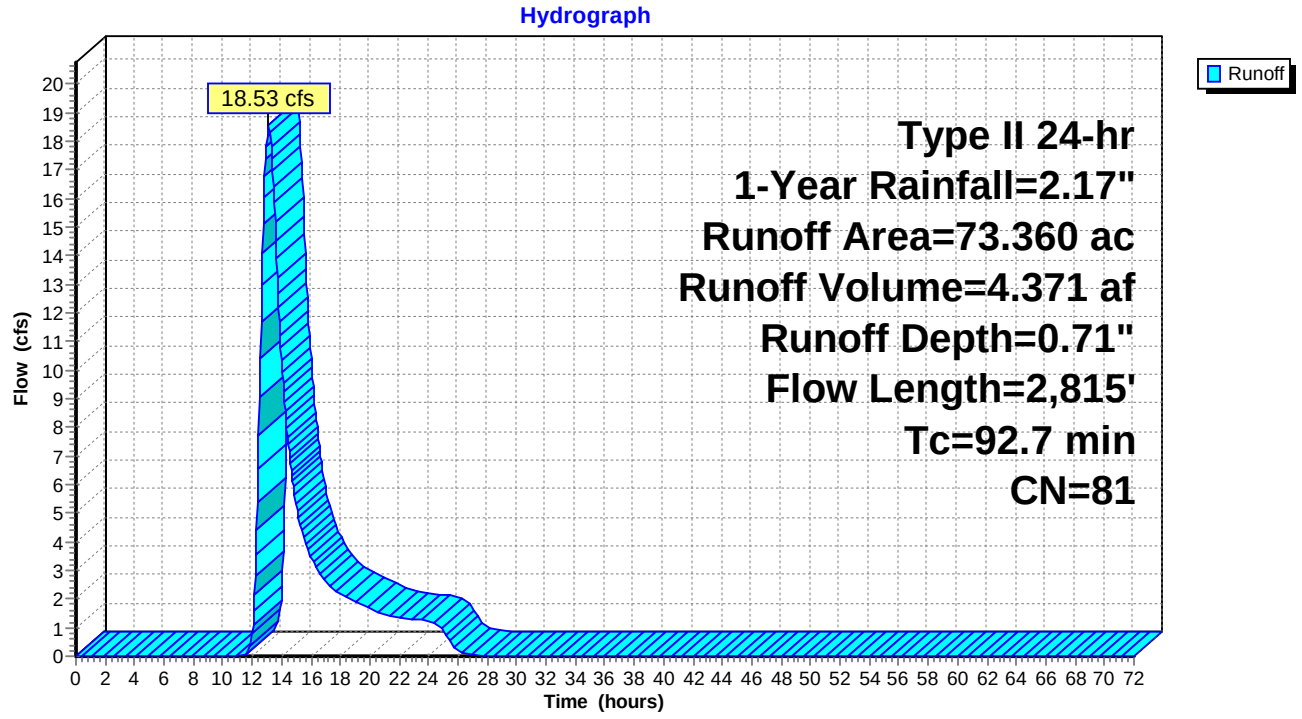
Runoff = 18.53 cfs @ 13.10 hrs, Volume= 4.371 af, Depth= 0.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

Area (ac)	CN	Description
2.290	80	>75% Grass cover, Good, HSG D
31.720	77	Woods, Good, HSG D
38.870	85	Legumes, straight row, Good, HSG D
0.480	98	Paved parking, HSG D
73.360	81	Weighted Average
72.880		99.35% Pervious Area
0.480		0.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 7S: Watershed A Existing Onsite Total



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Summary for Subcatchment 8S: Watershed B Existing

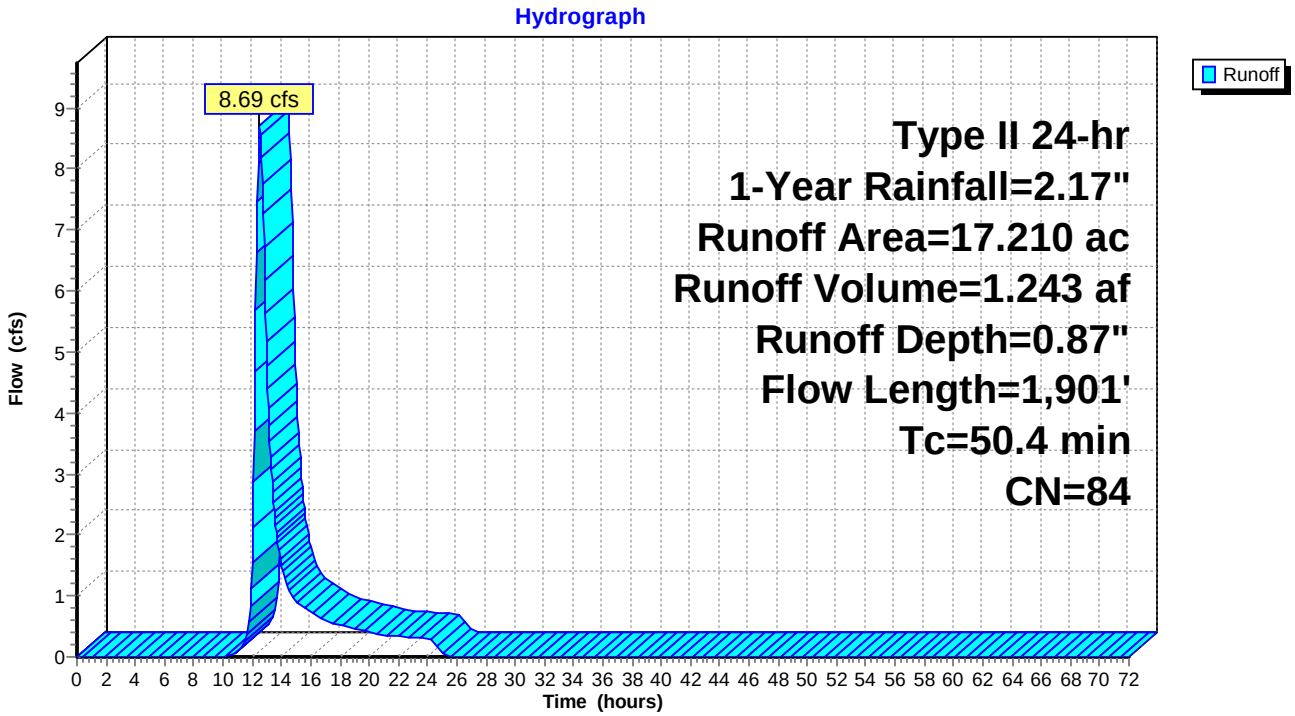
Runoff = 8.69 cfs @ 12.52 hrs, Volume= 1.243 af, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

Area (ac)	CN	Description
1.640	77	Woods, Good, HSG D
15.570	85	Legumes, straight row, Good, HSG D
17.210	84	Weighted Average
17.210		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
33.6	100	0.0089	0.05		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
4.9	256	0.0300	0.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
11.9	1,545	0.0207	2.16		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
50.4	1,901	Total			

Subcatchment 8S: Watershed B Existing



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Summary for Subcatchment 9S: Watershed A3 Offsite

Runoff = 25.79 cfs @ 12.25 hrs, Volume= 2.529 af, Depth= 0.87"

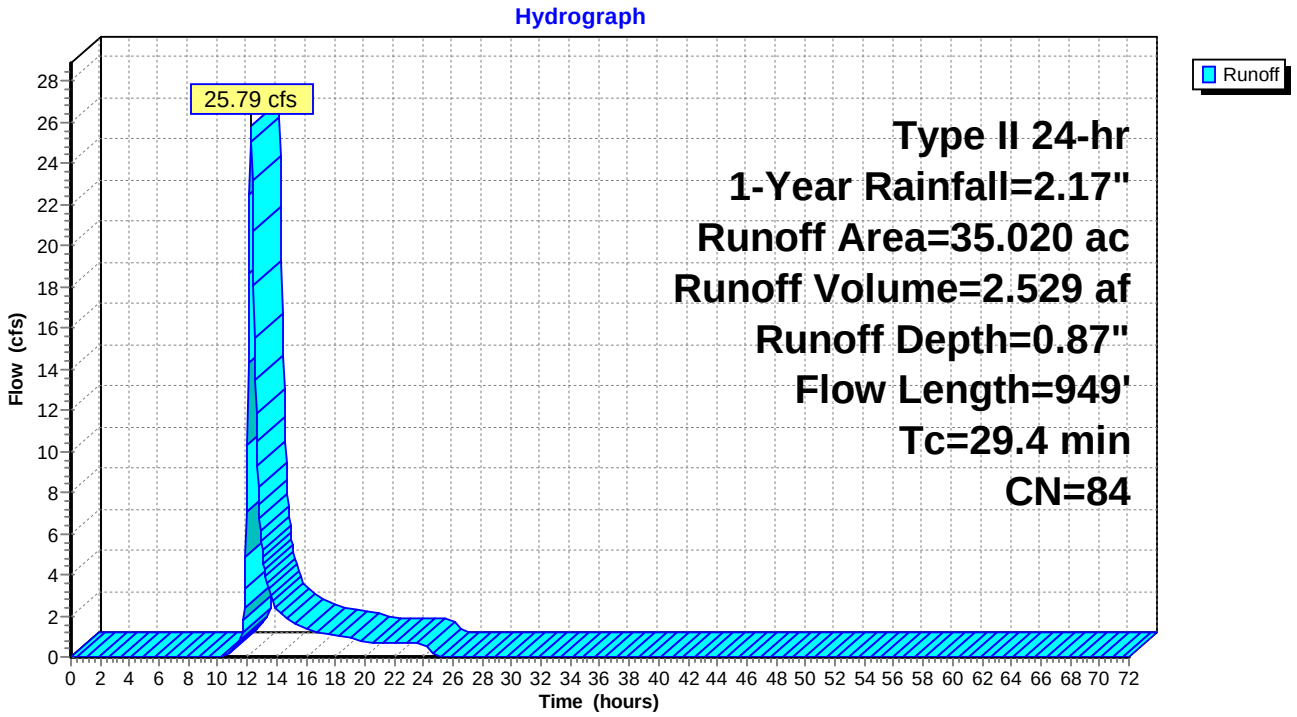
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

Area (ac)	CN	Description
9.260	79	Woods/grass comb., Good, HSG D
8.010	98	Paved parking, HSG D
17.750	80	>75% Grass cover, Good, HSG D
35.020	84	Weighted Average
27.010		77.13% Pervious Area
8.010		22.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.3	100	0.0089	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.8	405	0.0199	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
7.1	284	0.0179	0.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.2	160	0.0200	11.03	34.66	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012
29.4	949	Total			

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Subcatchment 9S: Watershed A3 Offsite



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Summary for Subcatchment 12S: Watershed A1 Proposed

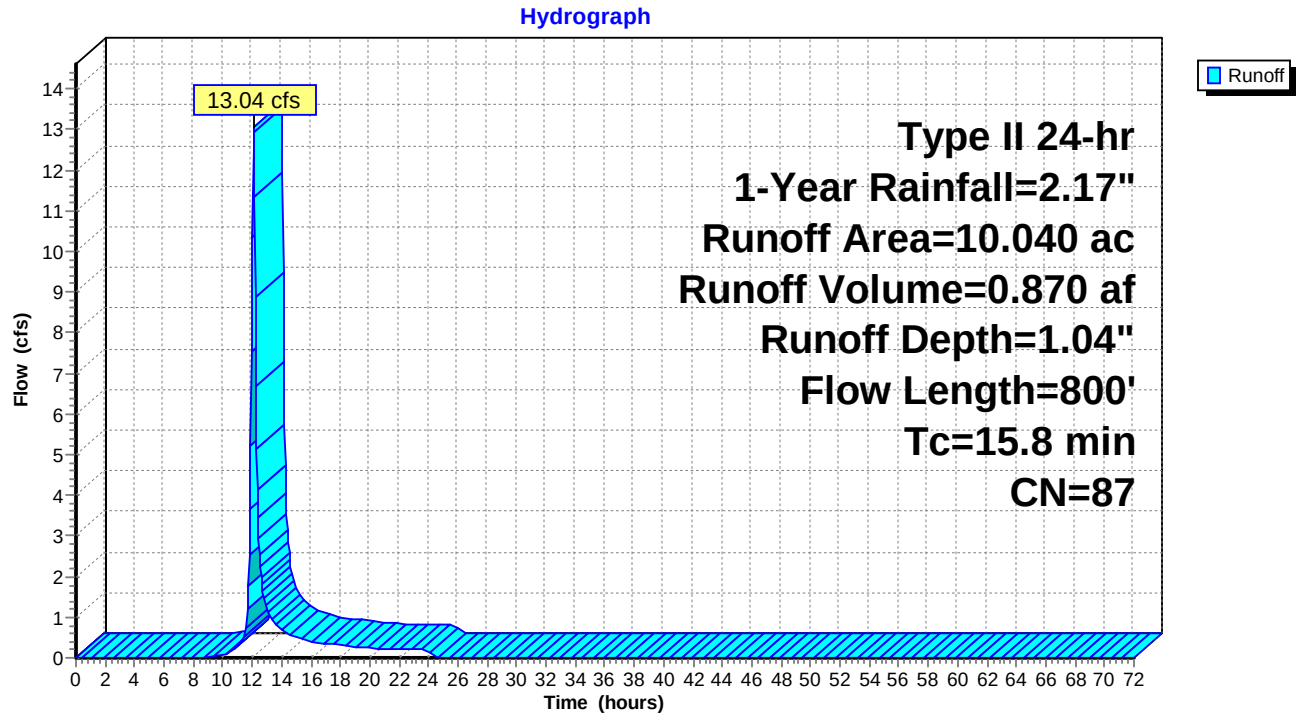
Runoff = 13.04 cfs @ 12.08 hrs, Volume= 0.870 af, Depth= 1.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

Area (ac)	CN	Description
10.040	87	1/4 acre lots, 38% imp, HSG D
6.225		62.00% Pervious Area
3.815		38.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.2	700	0.0380	9.58	7.52	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
15.8	800	Total			

Subcatchment 12S: Watershed A1 Proposed



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Summary for Subcatchment 13S: Watershed C Existing Onsite Total

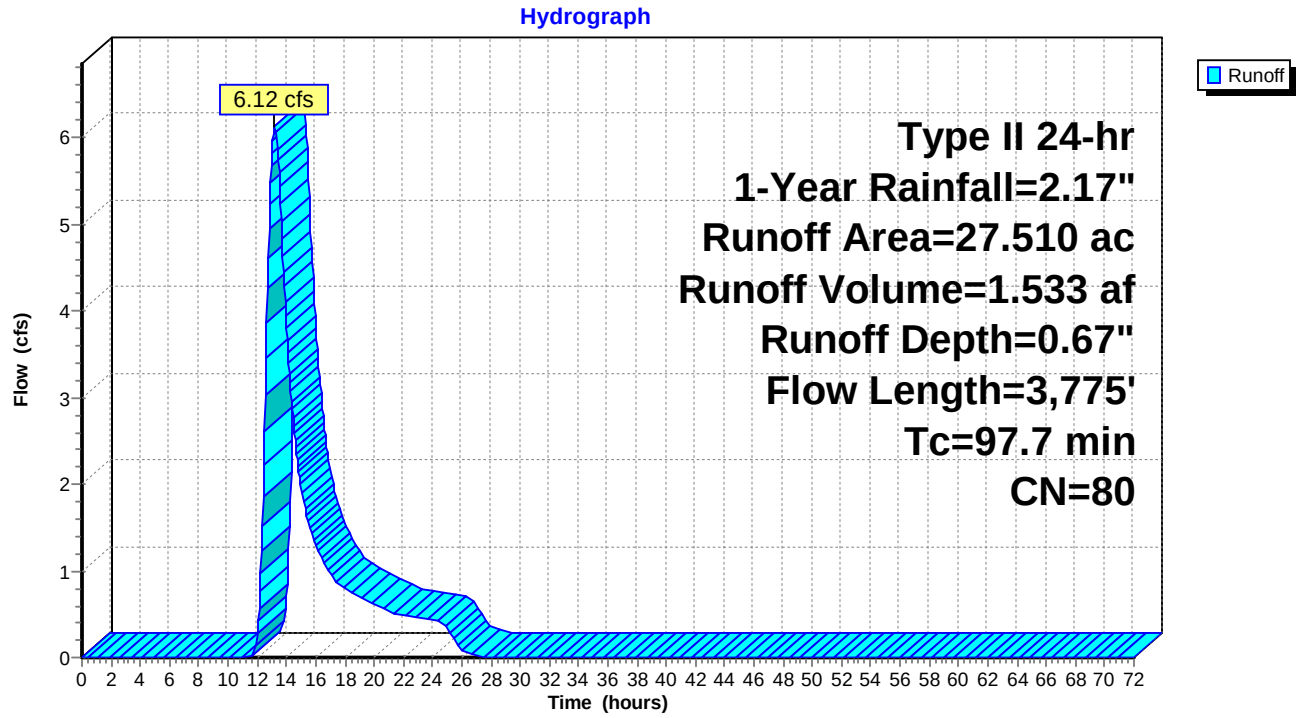
Runoff = 6.12 cfs @ 13.17 hrs, Volume= 1.533 af, Depth= 0.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

Area (ac)	CN	Description
19.500	77	Woods, Good, HSG D
2.500	98	Paved parking, HSG D
5.510	80	>75% Grass cover, Good, HSG D
27.510	80	Weighted Average
25.010		90.91% Pervious Area
2.500		9.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 13S: Watershed C Existing Onsite Total



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Summary for Subcatchment 14S: Watershed B Proposed

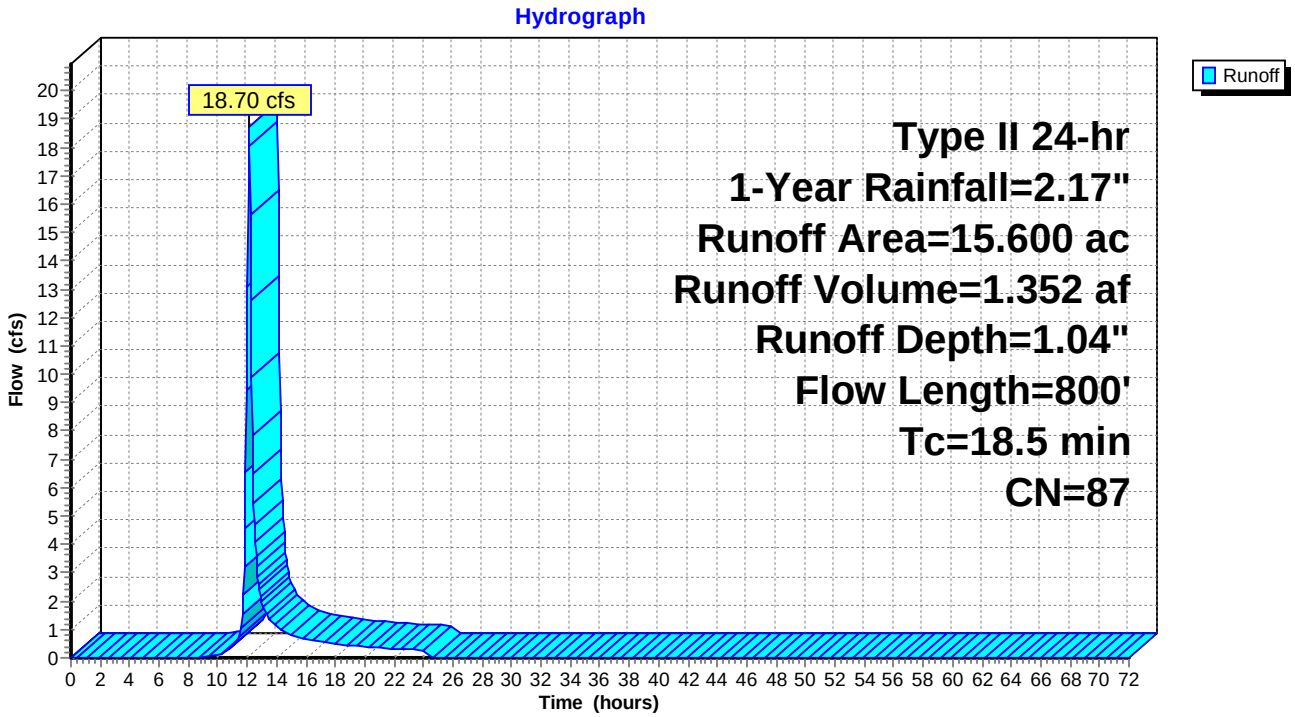
Runoff = 18.70 cfs @ 12.11 hrs, Volume= 1.352 af, Depth= 1.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

Area (ac)	CN	Description
15.600	87	1/4 acre lots, 38% imp, HSG D
9.672		62.00% Pervious Area
5.928		38.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
3.9	700	0.0038	3.03	2.38	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
18.5	800	Total			

Subcatchment 14S: Watershed B Proposed



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Summary for Subcatchment 17S: Watershed A2 Proposed

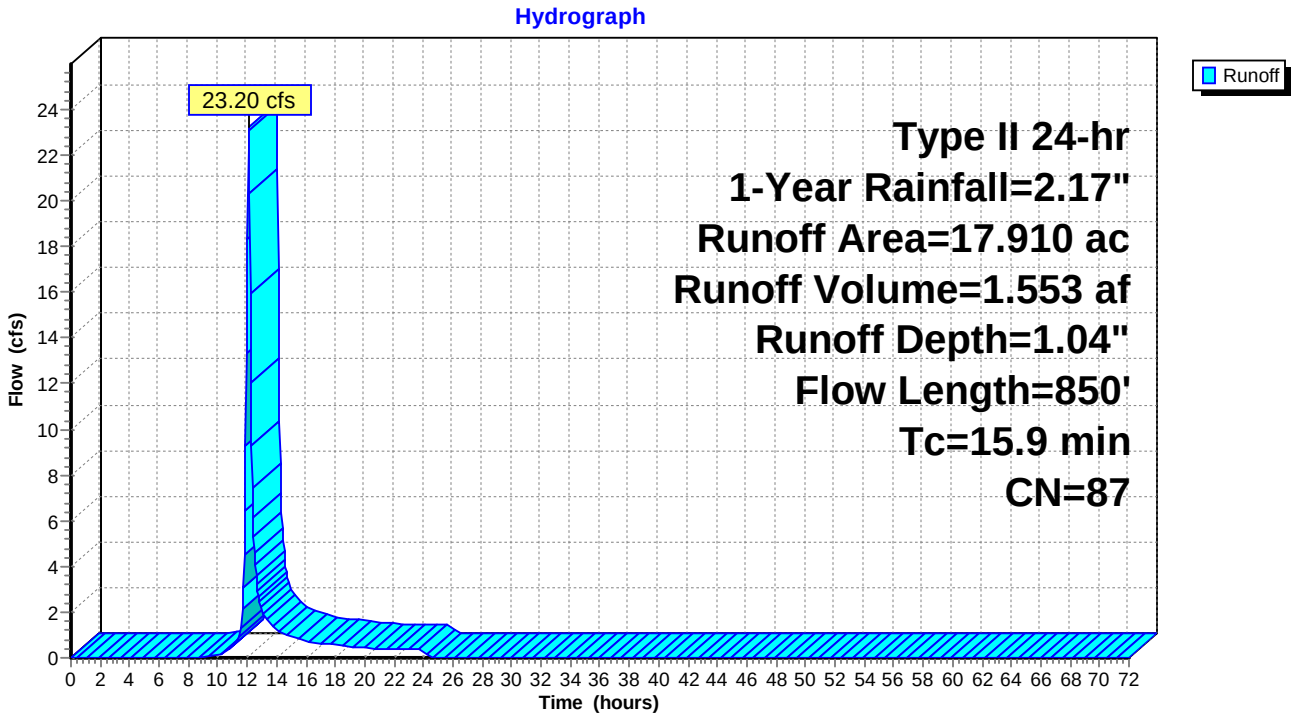
Runoff = 23.20 cfs @ 12.08 hrs, Volume= 1.553 af, Depth= 1.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

Area (ac)	CN	Description
17.910	87	1/4 acre lots, 38% imp, HSG D
11.104		62.00% Pervious Area
6.806		38.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.3	750	0.0380	9.58	7.52	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
15.9	850	Total			

Subcatchment 17S: Watershed A2 Proposed



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Summary for Subcatchment 19S: Watershed A3 Proposed

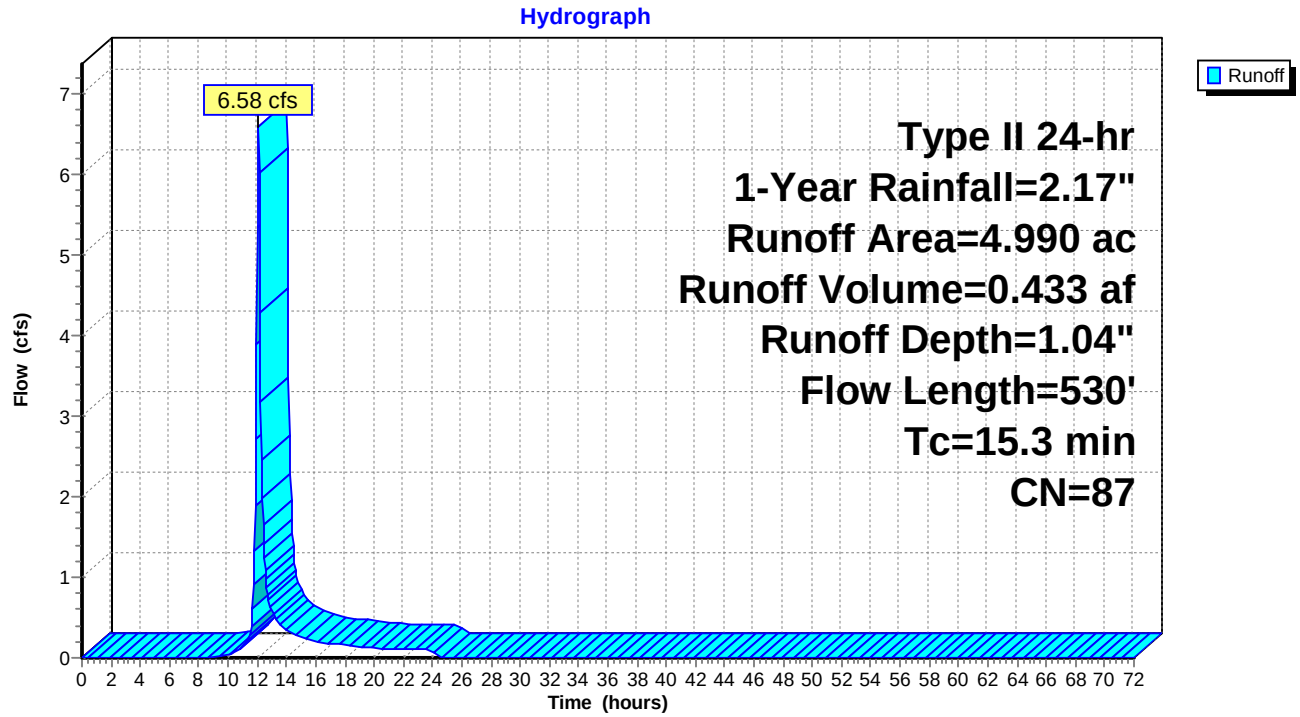
Runoff = 6.58 cfs @ 12.08 hrs, Volume= 0.433 af, Depth= 1.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

Area (ac)	CN	Description
4.990	87	1/4 acre lots, 38% imp, HSG D
3.094		62.00% Pervious Area
1.896		38.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
0.7	430	0.0380	9.58	7.52	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
15.3	530	Total			

Subcatchment 19S: Watershed A3 Proposed



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Summary for Subcatchment 20S: Watershed C Proposed

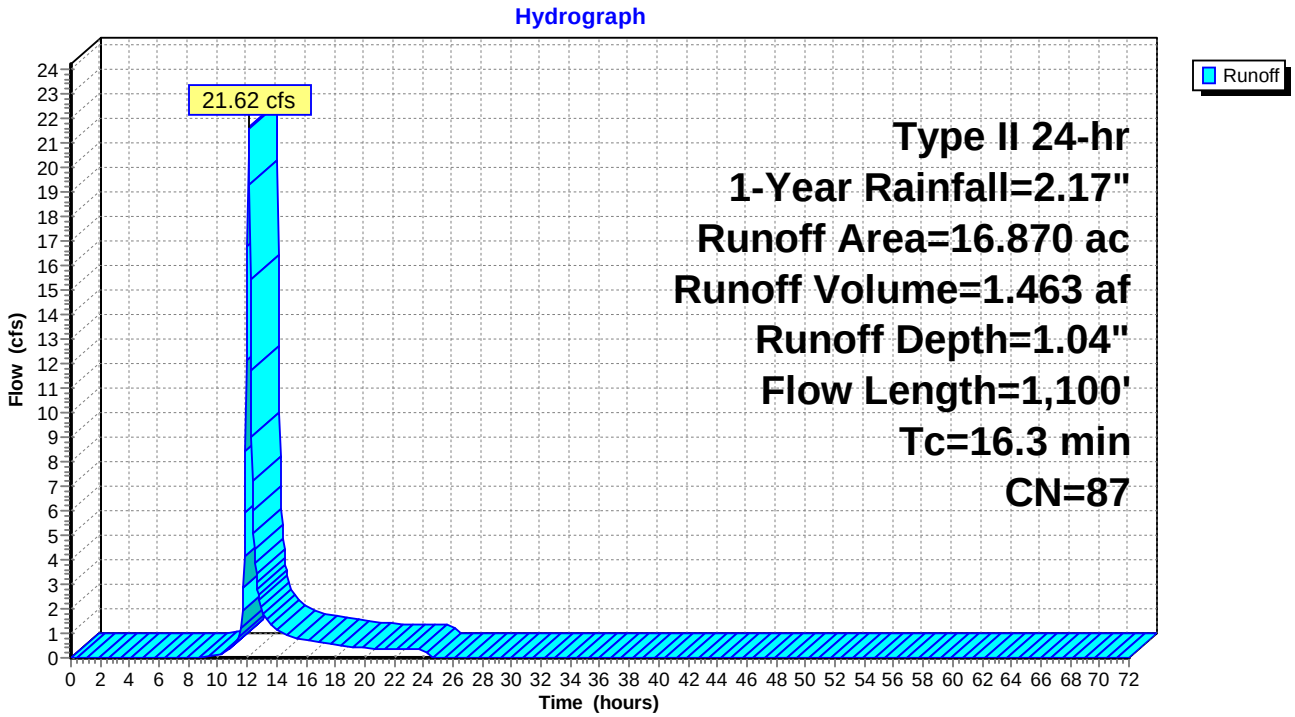
Runoff = 21.62 cfs @ 12.09 hrs, Volume= 1.463 af, Depth= 1.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

Area (ac)	CN	Description
16.870	87	1/4 acre lots, 38% imp, HSG D
10.459		62.00% Pervious Area
6.411		38.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.7	1,000	0.0380	9.58	7.52	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
16.3	1,100	Total			

Subcatchment 20S: Watershed C Proposed



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Summary for Subcatchment 22S: Watershed A1 Offsite

Runoff = 5.99 cfs @ 12.64 hrs, Volume= 0.974 af, Depth= 0.81"

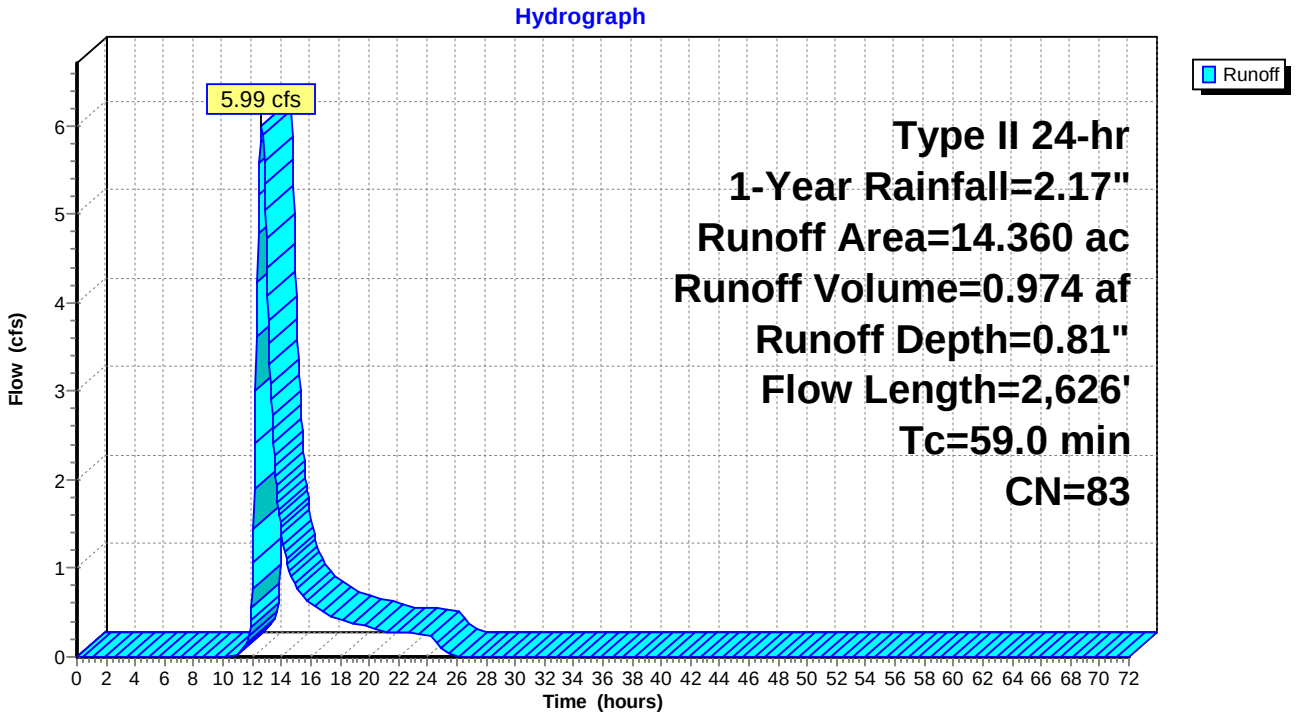
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

Area (ac)	CN	Description
9.590	80	>75% Grass cover, Good, HSG D
2.310	77	Woods, Good, HSG D
2.460	98	Paved parking, HSG D
14.360	83	Weighted Average
11.900		82.87% Pervious Area
2.460		17.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.6	100	0.0133	0.06		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
4.4	237	0.0325	0.90		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
9.4	617	0.0242	1.09		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	90	0.0450	1.65	5.20	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.120
15.7	1,582	0.0126	1.68		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
59.0	2,626	Total			

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Subcatchment 22S: Watershed A1 Offsite



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Summary for Subcatchment 23S: Watershed A2 Offsite

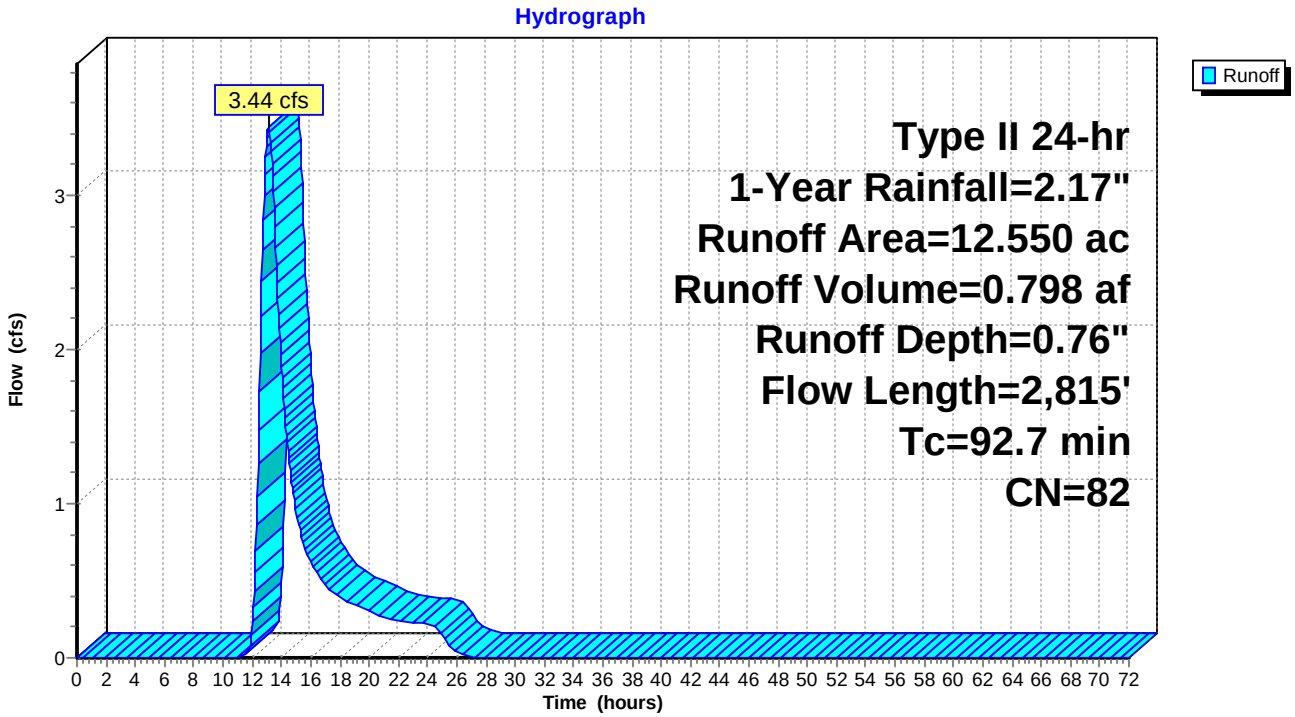
Runoff = 3.44 cfs @ 13.10 hrs, Volume= 0.798 af, Depth= 0.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

	Area (ac)	CN	Description
*	12.550	82	Woods, Grass
	12.550		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 23S: Watershed A2 Offsite



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Summary for Subcatchment 24S: Watershed C Offsite

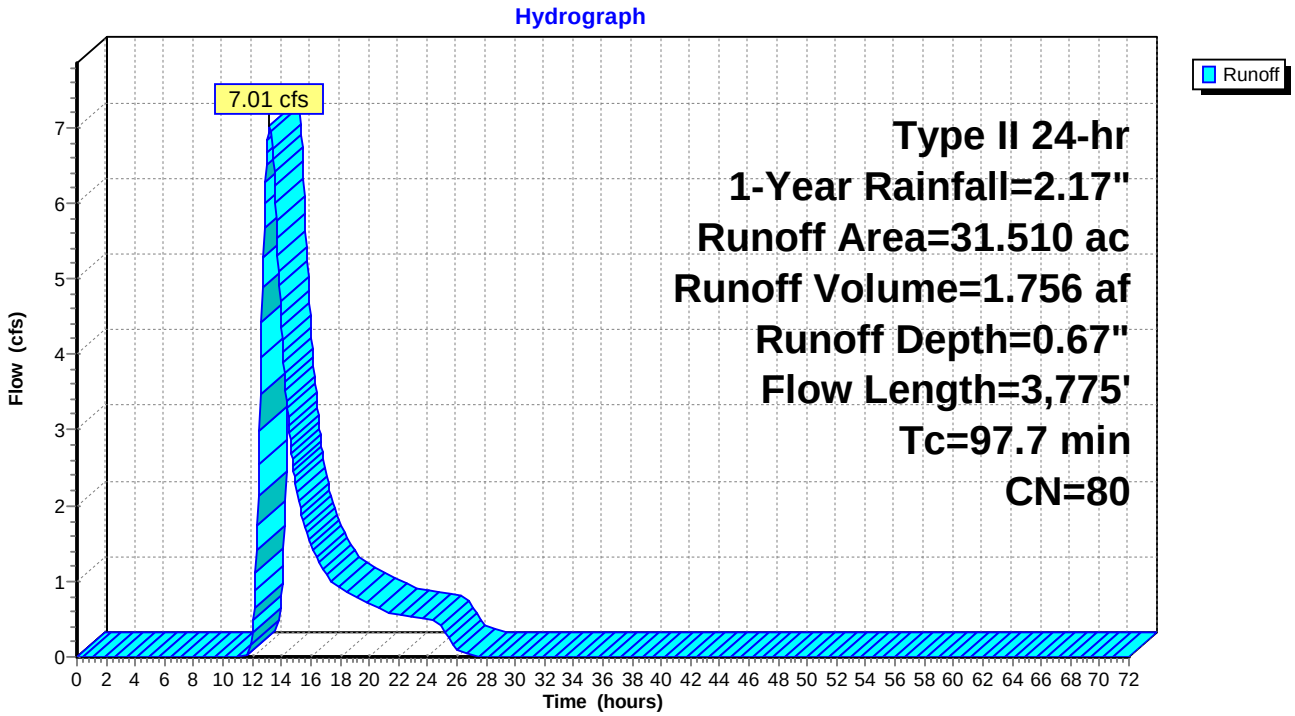
Runoff = 7.01 cfs @ 13.17 hrs, Volume= 1.756 af, Depth= 0.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

	Area (ac)	CN	Description
*	31.510	80	Woods, Grass, HSG D
	31.510		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 24S: Watershed C Offsite



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Summary for Subcatchment 28S: Watershed C Offsite

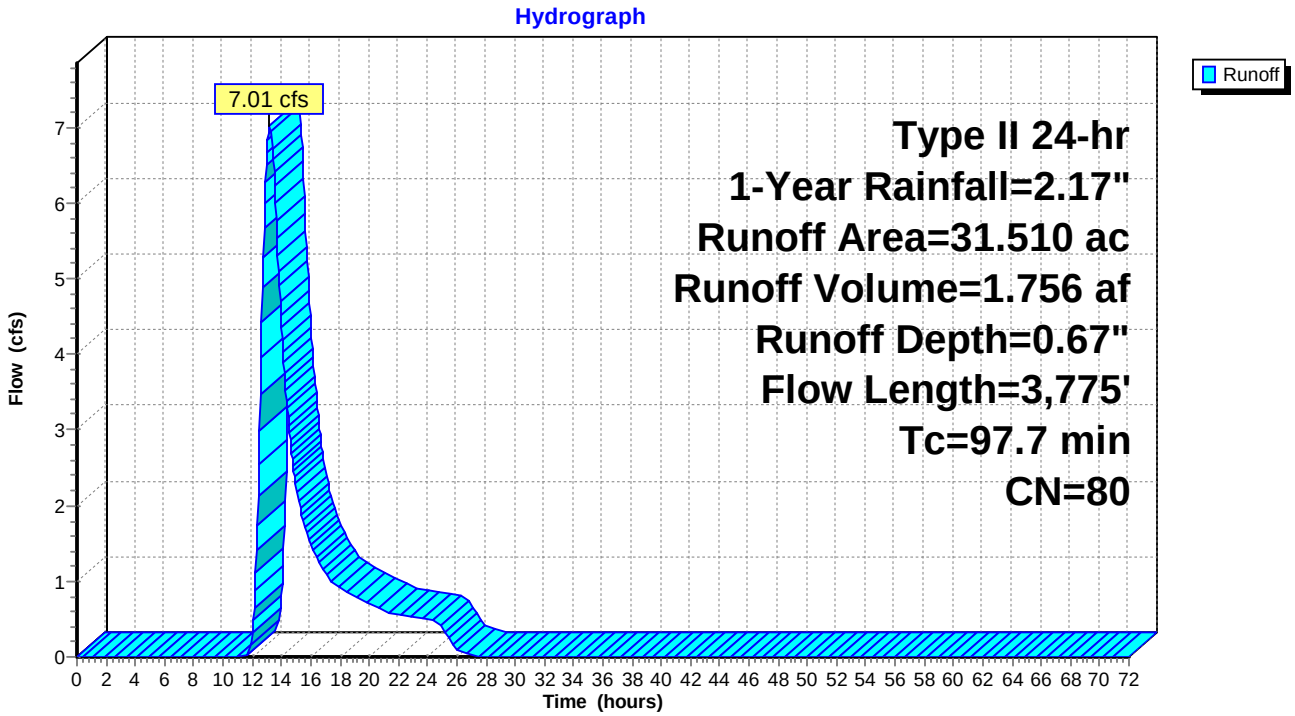
Runoff = 7.01 cfs @ 13.17 hrs, Volume= 1.756 af, Depth= 0.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

	Area (ac)	CN	Description
*	31.510	80	Woods, Grass, HSG D
	31.510		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 28S: Watershed C Offsite



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Summary for Subcatchment 29S: Watershed A2 Offsite

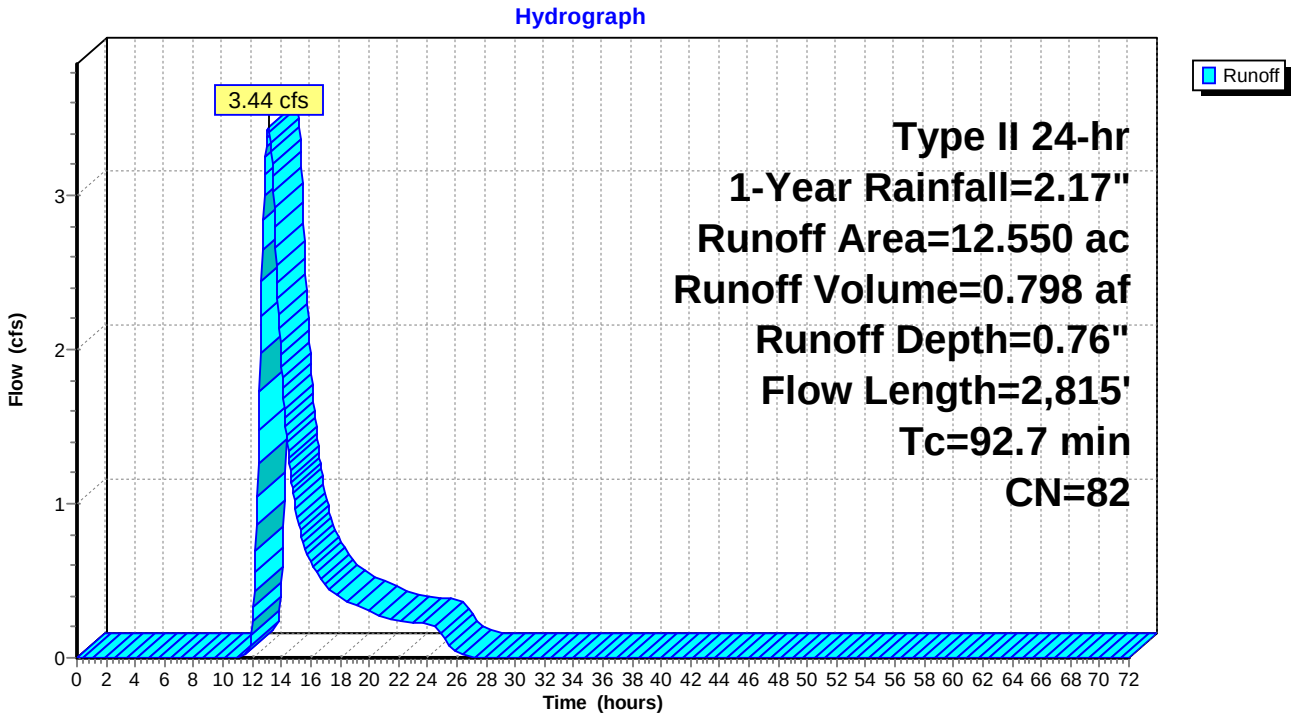
Runoff = 3.44 cfs @ 13.10 hrs, Volume= 0.798 af, Depth= 0.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

	Area (ac)	CN	Description
*	12.550	82	Woods, Grass
	12.550		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 29S: Watershed A2 Offsite



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Summary for Subcatchment 30S: Watershed A3 Offsite

Runoff = 25.79 cfs @ 12.25 hrs, Volume= 2.529 af, Depth= 0.87"

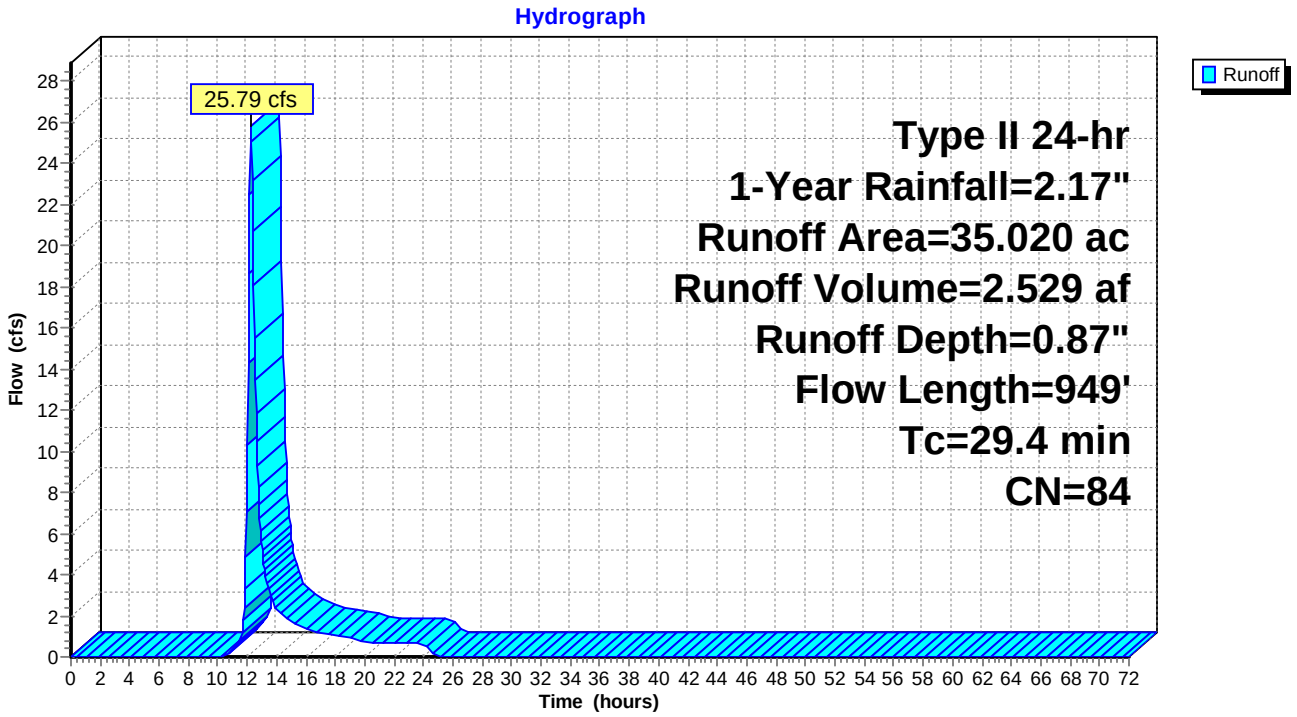
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

Area (ac)	CN	Description
9.260	79	Woods/grass comb., Good, HSG D
8.010	98	Paved parking, HSG D
17.750	80	>75% Grass cover, Good, HSG D
35.020	84	Weighted Average
27.010		77.13% Pervious Area
8.010		22.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.3	100	0.0089	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.8	405	0.0199	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
7.1	284	0.0179	0.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.2	160	0.0200	11.03	34.66	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012
29.4	949	Total			

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Subcatchment 30S: Watershed A3 Offsite



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Summary for Subcatchment 31S: Watershed C Existing Onsite Undisturbed

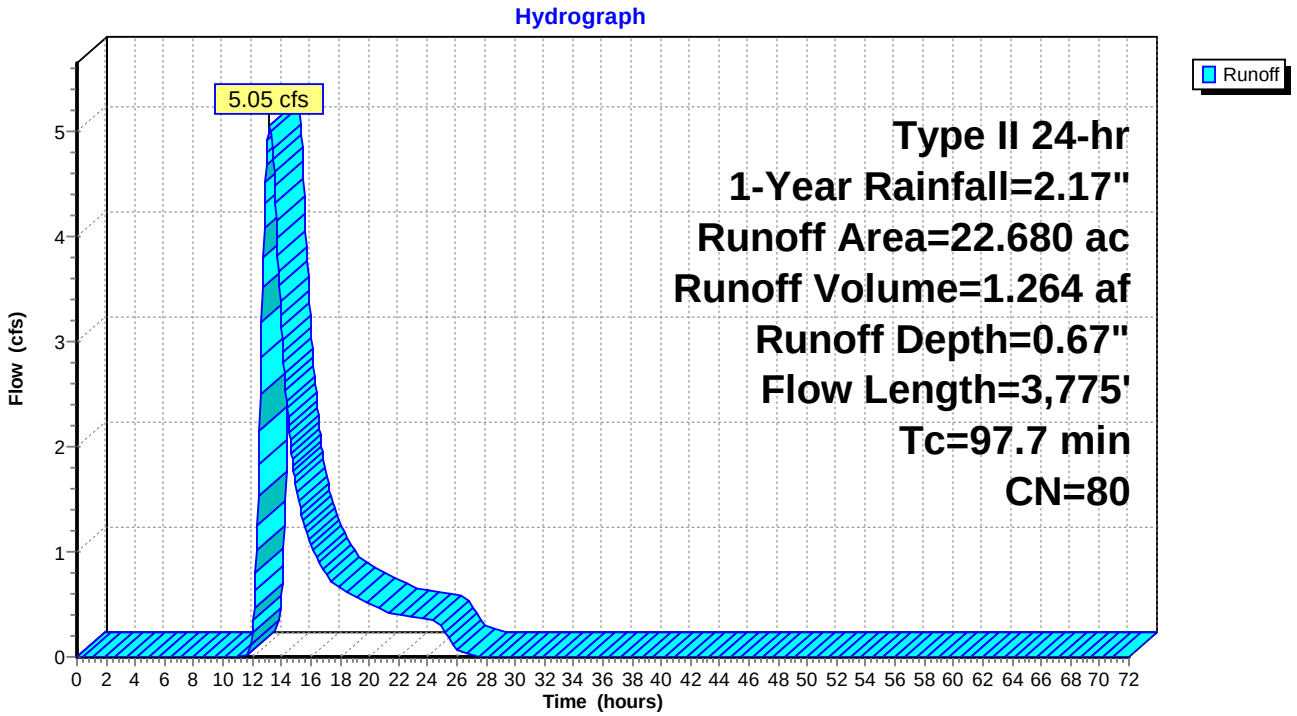
Runoff = 5.05 cfs @ 13.17 hrs, Volume= 1.264 af, Depth= 0.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

	Area (ac)	CN	Description
*	22.680	80	Woods, Grass
	22.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 31S: Watershed C Existing Onsite Undisturbed



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Summary for Subcatchment 32S: Watershed A Existing Onsite Undisturbed

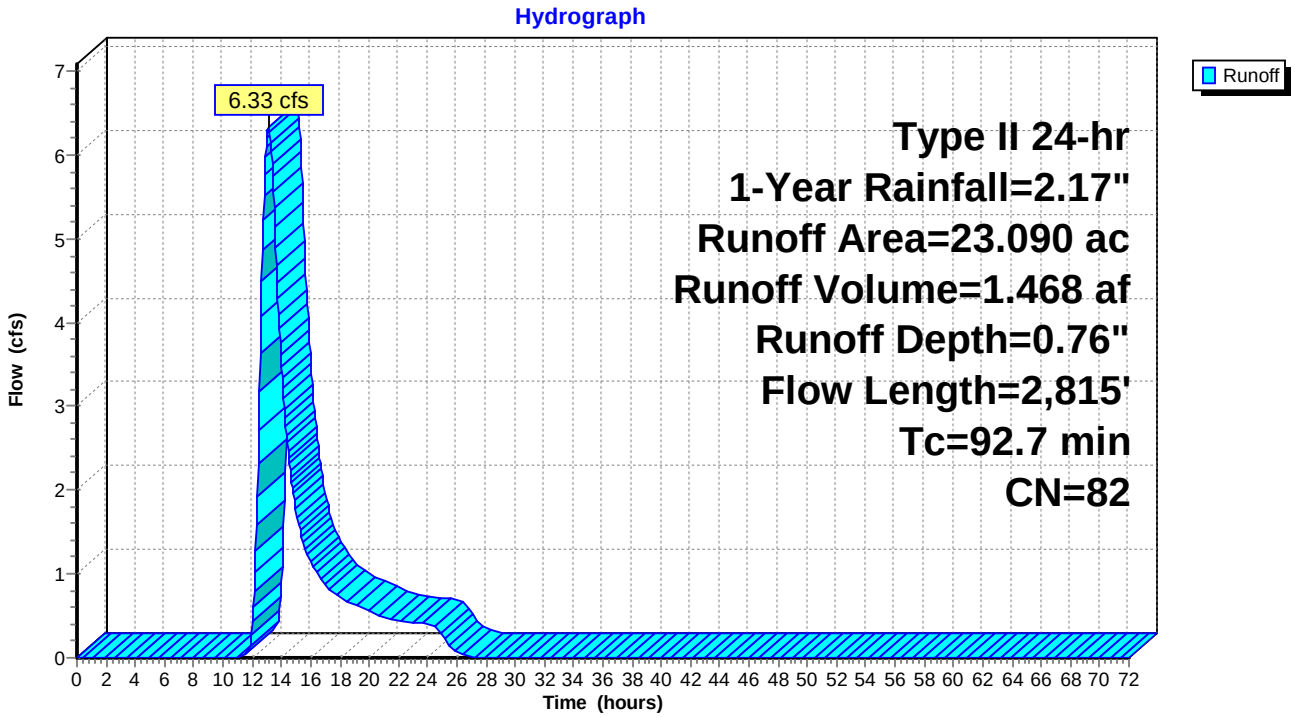
Runoff = 6.33 cfs @ 13.10 hrs, Volume= 1.468 af, Depth= 0.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

	Area (ac)	CN	Description
*	23.090	82	Woods, Grass, Row Crops
	23.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 32S: Watershed A Existing Onsite Undisturbed



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Summary for Subcatchment 33S: Watershed C Existing Onsite Disturbed

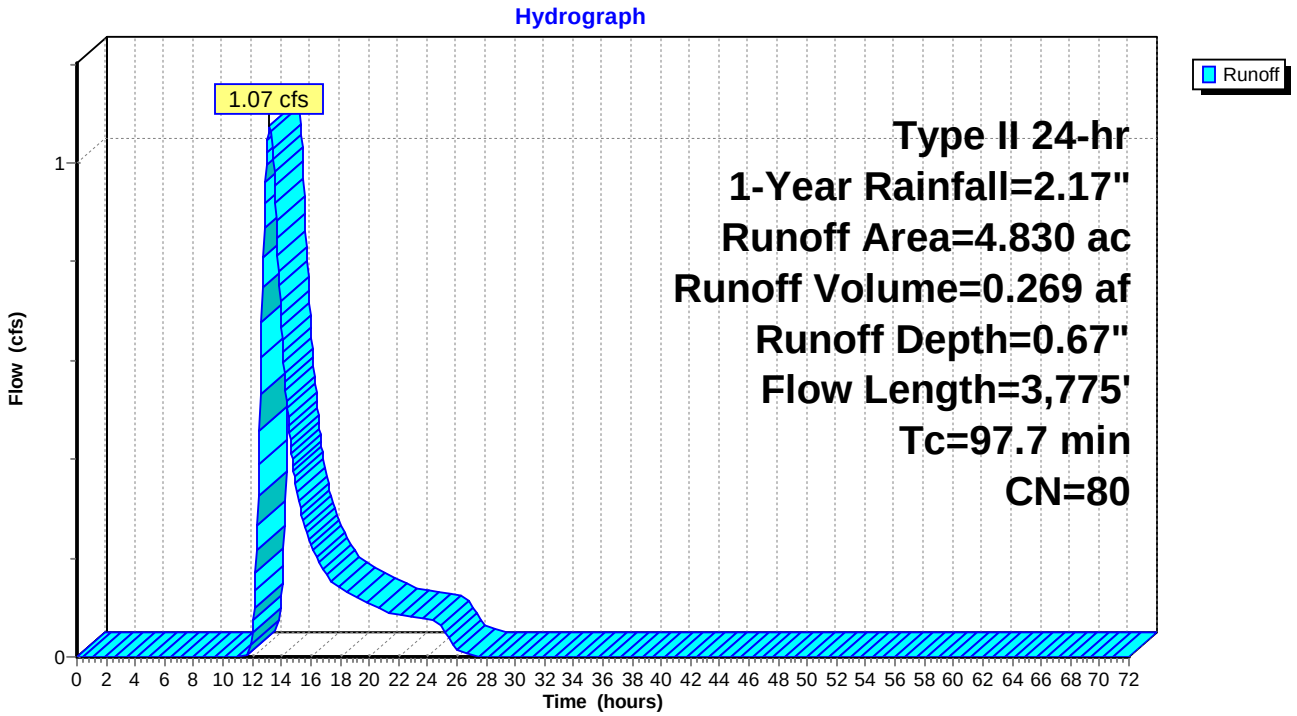
Runoff = 1.07 cfs @ 13.17 hrs, Volume= 0.269 af, Depth= 0.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

	Area (ac)	CN	Description
*	4.830	80	Woods, Grass, Row Crops
	4.830		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 33S: Watershed C Existing Onsite Disturbed



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Summary for Subcatchment 34S: Watershed C Existing Onsite Undisturbed

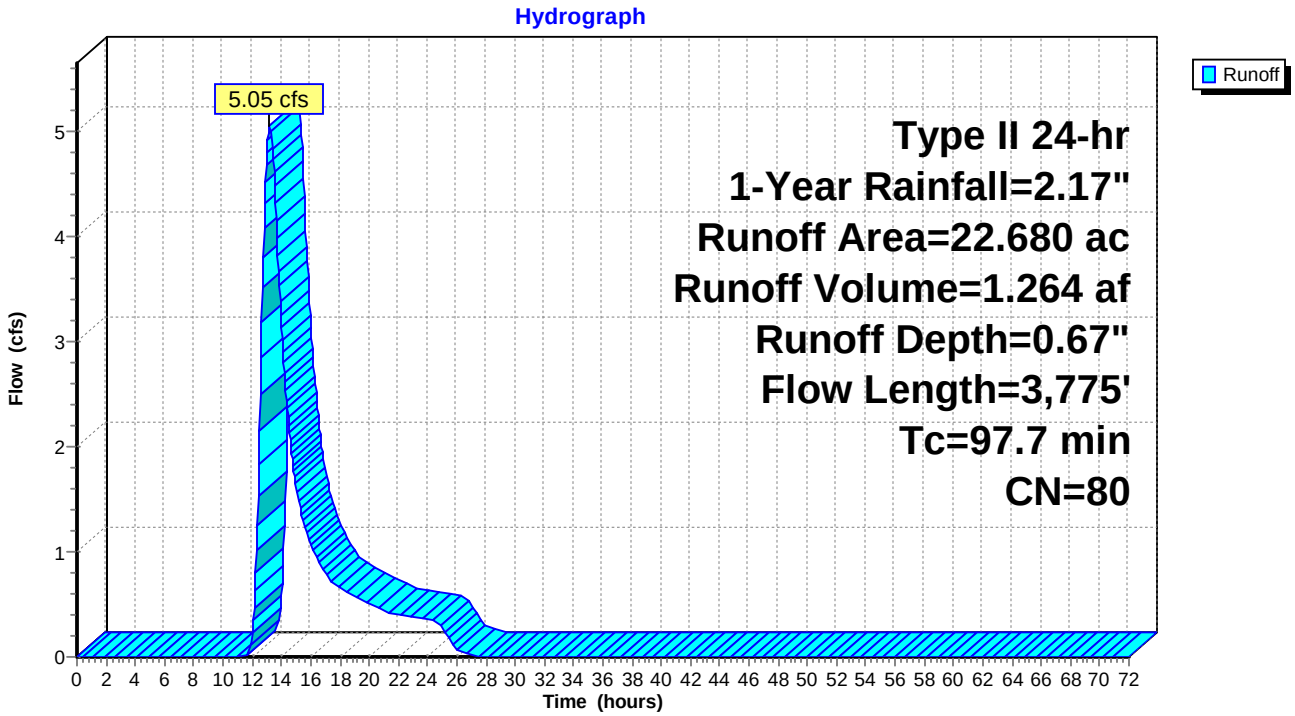
Runoff = 5.05 cfs @ 13.17 hrs, Volume= 1.264 af, Depth= 0.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

	Area (ac)	CN	Description
*	22.680	80	Woods, Grass
	22.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 34S: Watershed C Existing Onsite Undisturbed



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Summary for Subcatchment 35S: Watershed A Existing Onsite Disturbed

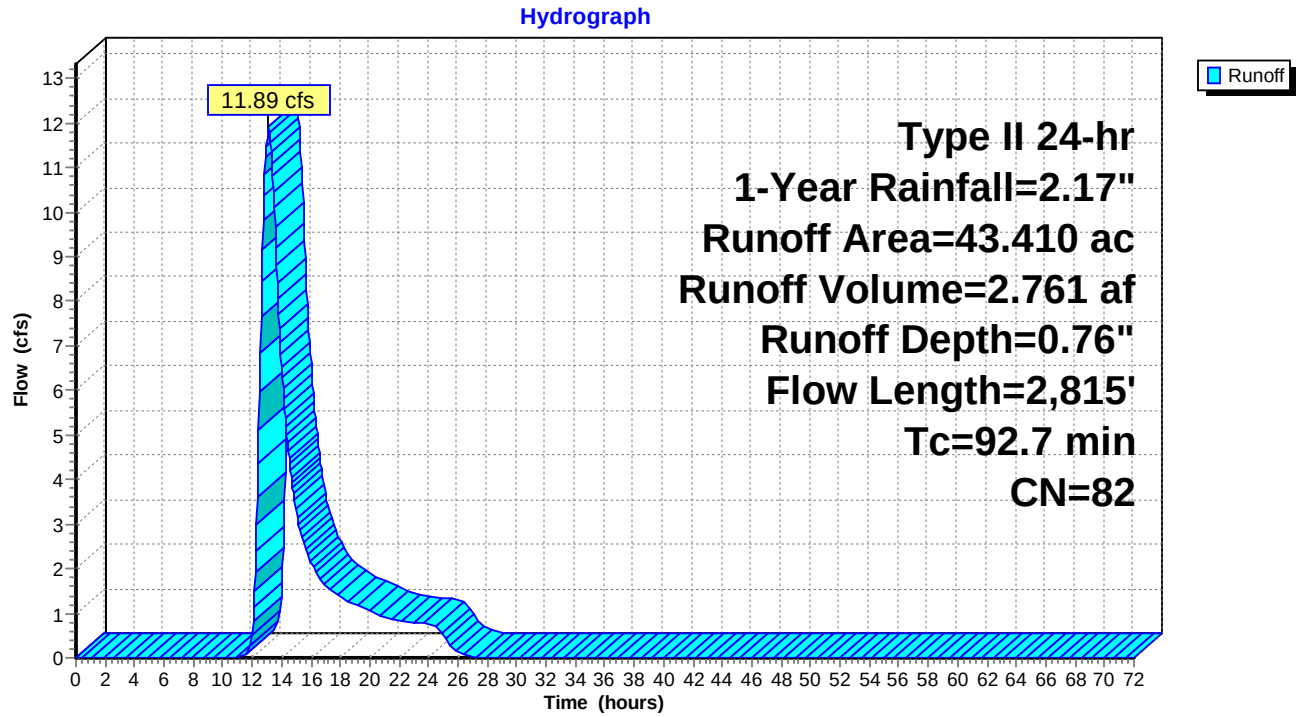
Runoff = 11.89 cfs @ 13.10 hrs, Volume= 2.761 af, Depth= 0.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

	Area (ac)	CN	Description
*	43.410	82	Woods, Grass, Row Crops
	43.410		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 35S: Watershed A Existing Onsite Disturbed



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Summary for Subcatchment 36S: Watershed A Existing Onsite Undisturbed

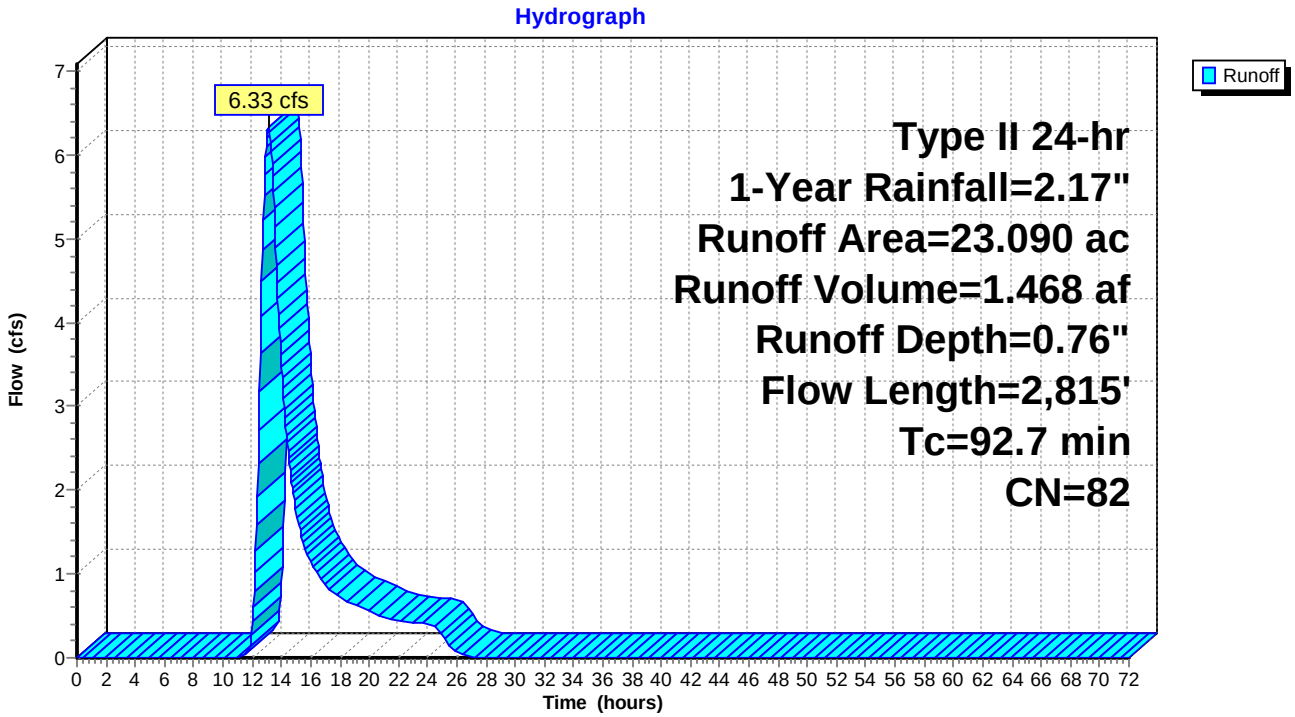
Runoff = 6.33 cfs @ 13.10 hrs, Volume= 1.468 af, Depth= 0.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

	Area (ac)	CN	Description
*	23.090	82	Woods, Grass, Row Crops
	23.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 36S: Watershed A Existing Onsite Undisturbed



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Summary for Subcatchment 41S: Watershed A1 Offsite

Runoff = 5.99 cfs @ 12.64 hrs, Volume= 0.974 af, Depth= 0.81"

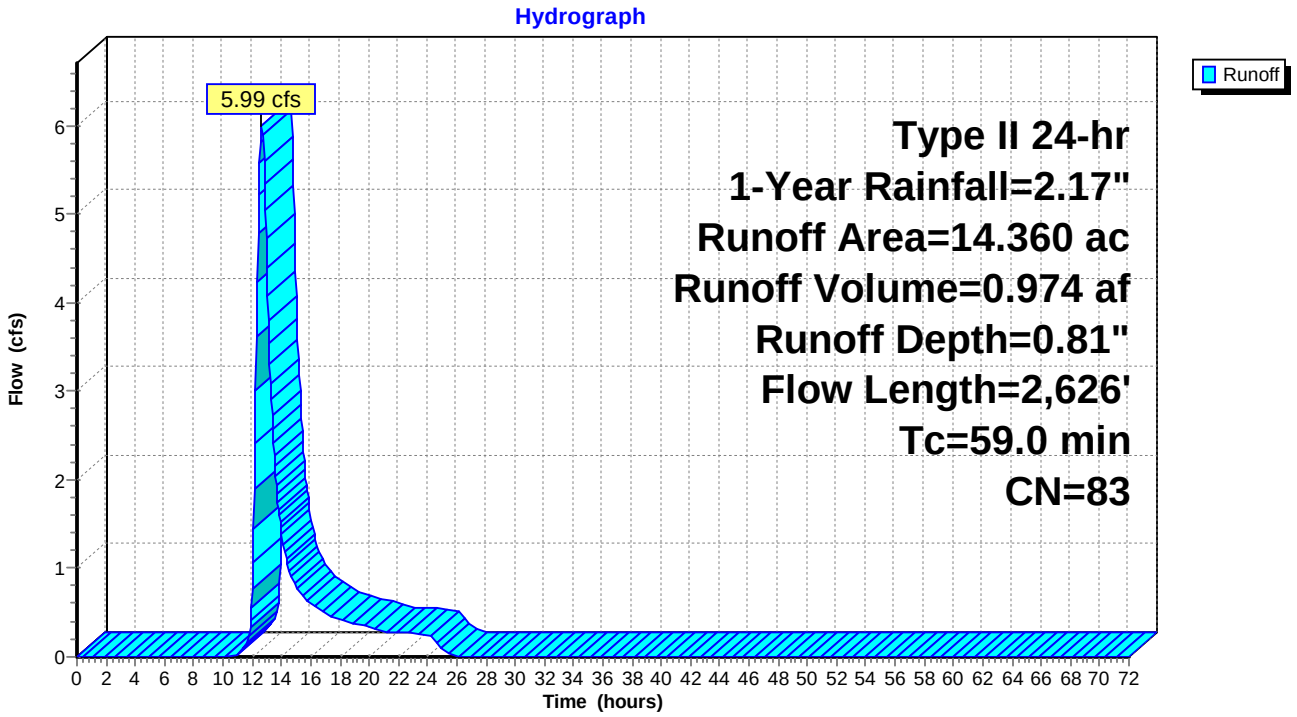
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.17"

Area (ac)	CN	Description
9.590	80	>75% Grass cover, Good, HSG D
2.310	77	Woods, Good, HSG D
2.460	98	Paved parking, HSG D
14.360	83	Weighted Average
11.900		82.87% Pervious Area
2.460		17.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.6	100	0.0133	0.06		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
4.4	237	0.0325	0.90		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
9.4	617	0.0242	1.09		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	90	0.0450	1.65	5.20	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.120
15.7	1,582	0.0126	1.68		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
59.0	2,626	Total			

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Subcatchment 41S: Watershed A1 Offsite



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Summary for Pond 1P: Basin A1

Inflow Area = 10.040 ac, 38.00% Impervious, Inflow Depth = 1.04" for 1-Year event
Inflow = 13.04 cfs @ 12.08 hrs, Volume= 0.870 af
Outflow = 0.43 cfs @ 15.86 hrs, Volume= 0.800 af, Atten= 97%, Lag= 226.4 min
Primary = 0.43 cfs @ 15.86 hrs, Volume= 0.800 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 958.23' @ 15.86 hrs Surf.Area= 21,624 sf Storage= 24,200 cf

Plug-Flow detention time= 779.5 min calculated for 0.800 af (92% of inflow)
Center-of-Mass det. time= 736.6 min (1,578.9 - 842.3)

Volume	Invert	Avail.Storage	Storage Description
#1	957.00'	129,041 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
957.00	17,908	0	0
958.00	20,912	19,410	19,410
959.00	24,072	22,492	41,902
960.00	27,332	25,702	67,604
961.00	30,693	29,013	96,617
962.00	34,155	32,424	129,041

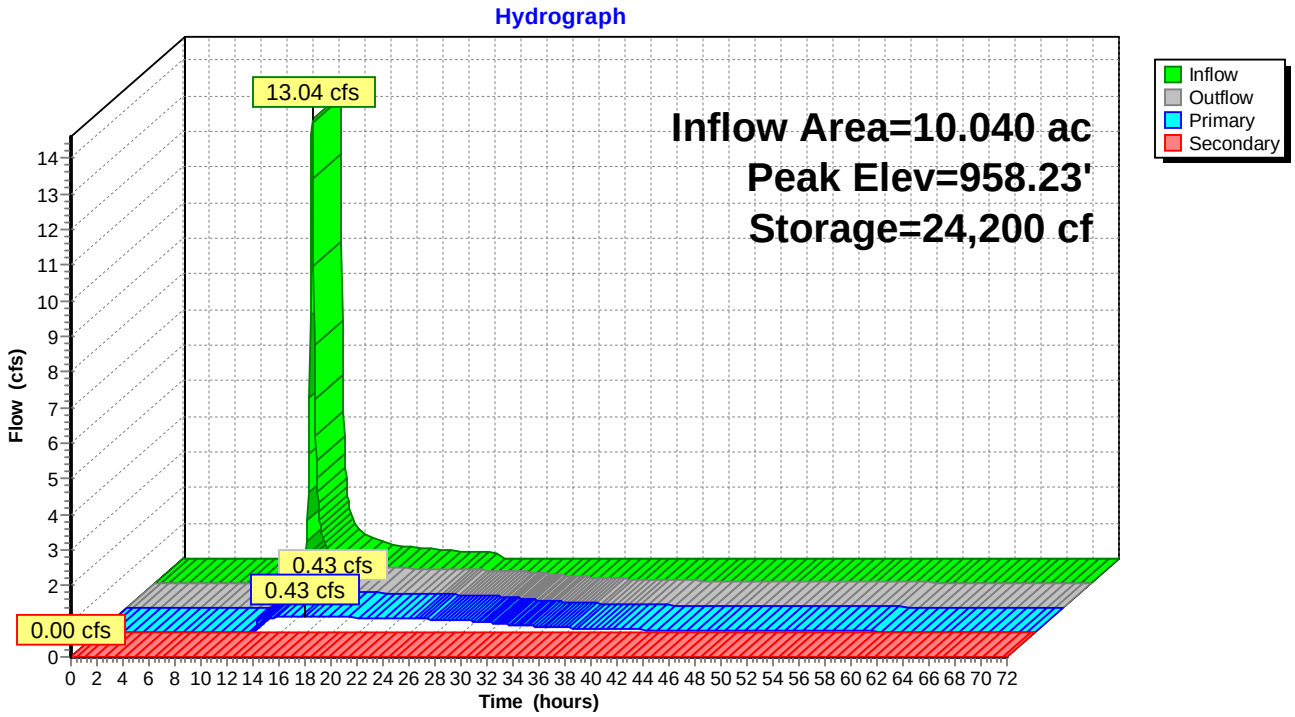
Device	Routing	Invert	Outlet Devices
#1	Primary	957.00'	**24.0" Round Culvert** L= 100.0' Ke= 0.200 Inlet / Outlet Invert= 957.00' / 956.50' S= 0.0050 '/' Cc= 0.900 n= 0.120, Flow Area= 3.14 sf
#2	Device 1	957.00'	**4.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	959.10'	**18.0" W x 4.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#4	Secondary	961.00'	**20.0' long x 15.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.43 cfs @ 15.86 hrs HW=958.23' (Free Discharge)
└**1=Culvert** (Passes 0.43 cfs of 0.94 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.43 cfs @ 4.95 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=957.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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Pond 1P: Basin A1



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Summary for Pond 4P: Basin A2

Inflow Area = 17.910 ac, 38.00% Impervious, Inflow Depth = 1.04" for 1-Year event
Inflow = 23.20 cfs @ 12.08 hrs, Volume= 1.553 af
Outflow = 3.82 cfs @ 12.57 hrs, Volume= 1.550 af, Atten= 84%, Lag= 29.4 min
Primary = 3.82 cfs @ 12.57 hrs, Volume= 1.550 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 965.38' @ 12.57 hrs Surf.Area= 14,330 sf Storage= 30,694 cf

Plug-Flow detention time= 194.0 min calculated for 1.549 af (100% of inflow)
Center-of-Mass det. time= 194.5 min (1,036.9 - 842.4)

Volume	Invert	Avail.Storage	Storage Description
#1	962.00'	80,000 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
962.00	4,000	0	0
963.00	7,000	5,500	5,500
964.00	10,000	8,500	14,000
965.00	13,000	11,500	25,500
966.00	16,500	14,750	40,250
967.00	19,750	18,125	58,375
968.00	23,500	21,625	80,000

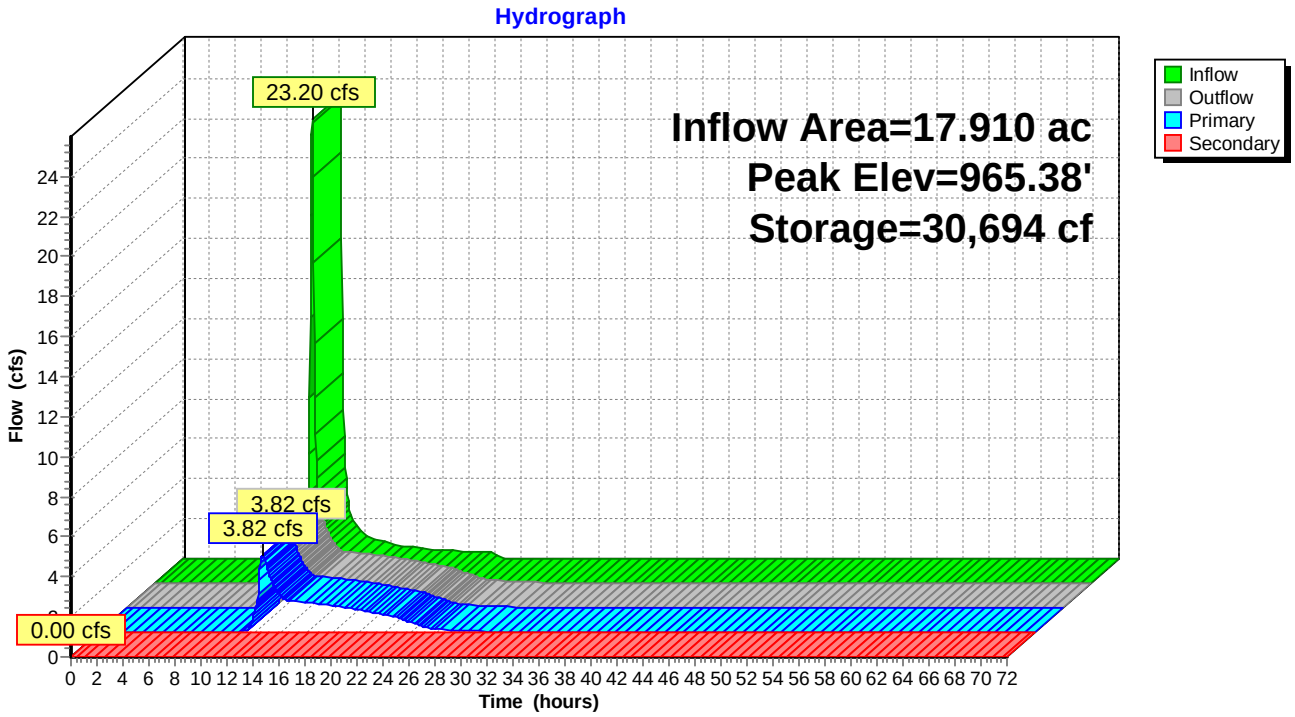
Device	Routing	Invert	Outlet Devices
#1	Primary	962.00'	**24.0" Round Culvert** L= 50.0' Ke= 0.200 Inlet / Outlet Invert= 962.00' / 961.50' S= 0.0100 '/' Cc= 0.900 n= 0.120, Flow Area= 3.14 sf
#2	Device 1	962.00'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	965.00'	**18.0" W x 4.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#4	Secondary	967.50'	**15.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=3.83 cfs @ 12.57 hrs HW=965.38' (Free Discharge)
└**1=Culvert** (Passes 3.83 cfs of 4.69 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 1.67 cfs @ 8.52 fps)
  └**3=Orifice/Grate** (Orifice Controls 2.15 cfs @ 2.15 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=962.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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Pond 4P: Basin A2



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Summary for Pond 5P: Basin B

Inflow Area = 15.600 ac, 38.00% Impervious, Inflow Depth = 1.04" for 1-Year event
Inflow = 18.70 cfs @ 12.11 hrs, Volume= 1.352 af
Outflow = 2.44 cfs @ 12.79 hrs, Volume= 1.352 af, Atten= 87%, Lag= 40.5 min
Primary = 2.44 cfs @ 12.79 hrs, Volume= 1.352 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 956.45' @ 12.79 hrs Surf.Area= 13,603 sf Storage= 26,692 cf

Plug-Flow detention time= 151.3 min calculated for 1.352 af (100% of inflow)
Center-of-Mass det. time= 151.1 min (995.9 - 844.8)

Volume	Invert	Avail.Storage	Storage Description
#1	954.00'	88,920 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) x 1.3

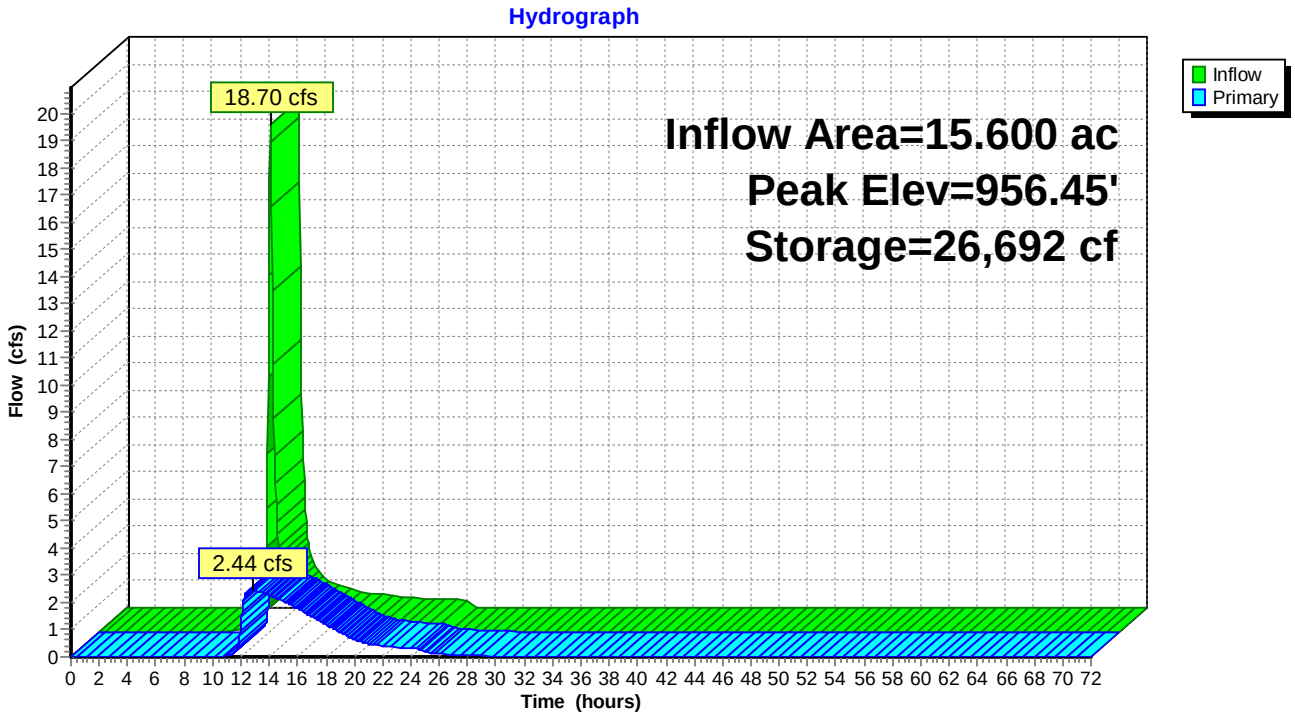
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
954.00	6,300	0	0
955.00	8,000	7,150	7,150
956.00	9,700	8,850	16,000
957.00	11,400	10,550	26,550
958.00	13,100	12,250	38,800
959.00	14,800	13,950	52,750
960.00	16,500	15,650	68,400

Device	Routing	Invert	Outlet Devices
#1	Primary	954.00'	**24.0" Round Culvert** L= 100.0' Ke= 0.200 Inlet / Outlet Invert= 954.00' / 953.00' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	954.00'	**8.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	958.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	959.50'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=2.44 cfs @ 12.79 hrs HW=956.45' (Free Discharge)
- **1=Culvert** (Passes 2.44 cfs of 21.48 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 2.44 cfs @ 7.00 fps)
  - **3=Orifice/Grate** (Controls 0.00 cfs)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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Pond 5P: Basin B



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Summary for Pond 6P: Basin C

Inflow Area = 16.870 ac, 38.00% Impervious, Inflow Depth = 1.04" for 1-Year event
Inflow = 21.62 cfs @ 12.09 hrs, Volume= 1.463 af
Outflow = 0.30 cfs @ 24.10 hrs, Volume= 1.178 af, Atten= 99%, Lag= 720.7 min
Primary = 0.30 cfs @ 24.10 hrs, Volume= 1.178 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 977.76' @ 24.10 hrs Surf.Area= 32,709 sf Storage= 50,845 cf

Plug-Flow detention time= 1,548.5 min calculated for 1.178 af (81% of inflow)
Center-of-Mass det. time= 1,466.6 min (2,309.4 - 842.8)

Volume	Invert	Avail.Storage	Storage Description
#1	976.00'	135,000 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) x 2.5

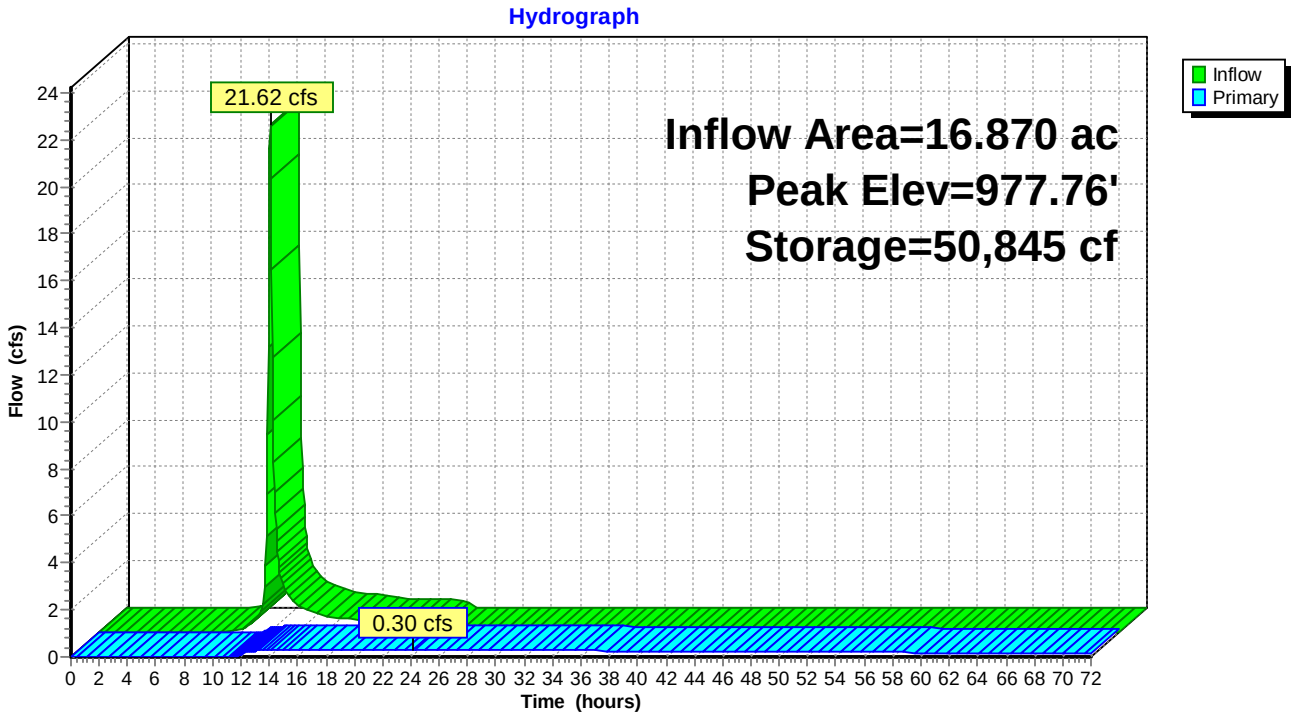
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
976.00	10,000	0	0
977.00	11,750	10,875	10,875
978.00	13,500	12,625	23,500
979.00	15,250	14,375	37,875
980.00	17,000	16,125	54,000

Device	Routing	Invert	Outlet Devices
#1	Primary	976.00'	**24.0" Round Culvert** L= 100.0' Ke= 0.200 Inlet / Outlet Invert= 976.00' / 975.00' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	976.00'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	978.00'	**6.0" W x 3.0" H Vert. Orifice/Grate** C= 0.600
#4	Primary	979.50'	**5.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.30 cfs @ 24.10 hrs HW=977.76' (Free Discharge)
- **1=Culvert** (Passes 0.30 cfs of 14.74 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.30 cfs @ 6.16 fps)
  - **3=Orifice/Grate** (Controls 0.00 cfs)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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Pond 6P: Basin C



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Summary for Pond 7P: Basin C WQv

Inflow	=	0.00 cfs @	0.00 hrs,	Volume=	0.000 af
Outflow	=	0.31 cfs @	0.00 hrs,	Volume=	0.752 af, Atten= 0%, Lag= 0.0 min
Primary	=	0.31 cfs @	0.00 hrs,	Volume=	0.752 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Starting Elev= 990.90' Surf.Area= 36,387 sf Storage= 32,748 cf
Peak Elev= 990.90' @ 0.00 hrs Surf.Area= 36,387 sf Storage= 32,748 cf

Plug-Flow detention time= (not calculated: no plugs found)
Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	990.00'	145,548 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) x 1.8

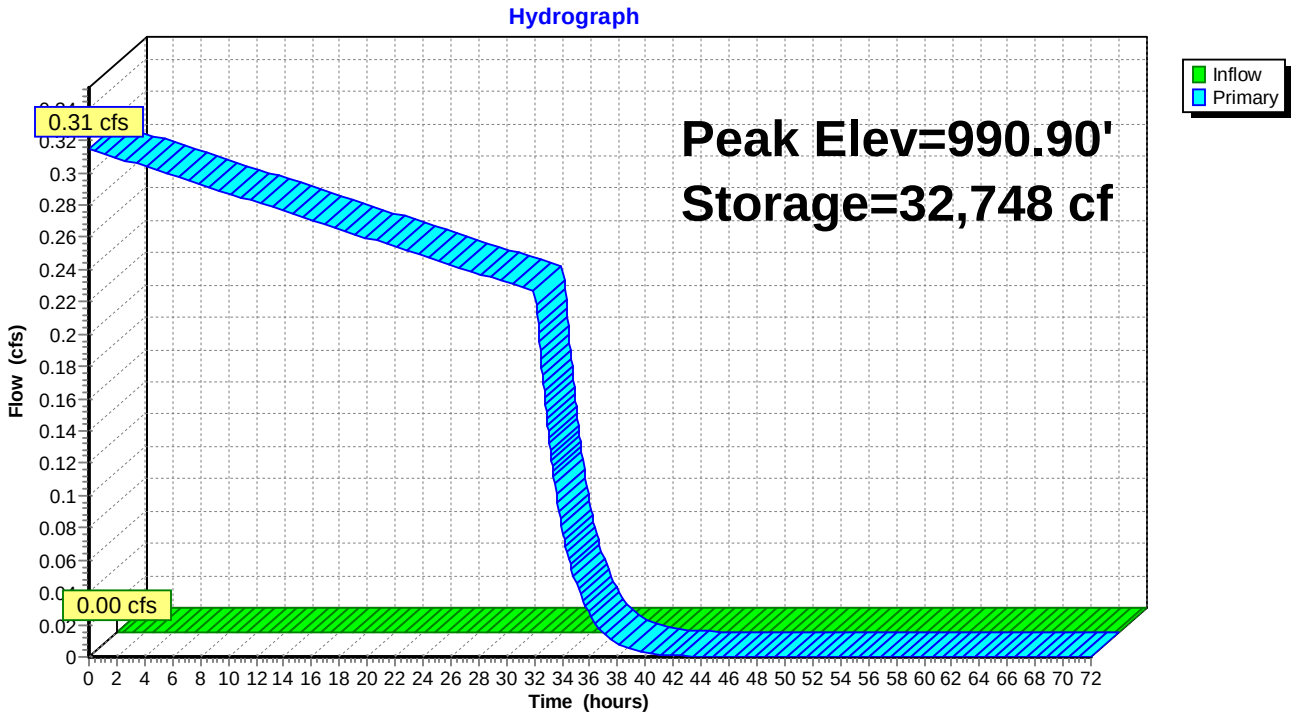
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
990.00	20,215	0	0
994.00	20,215	80,860	80,860

Device	Routing	Invert	Outlet Devices
#1	Primary	988.00'	**24.0" Round Culvert** L= 100.0' Ke= 0.200 Inlet / Outlet Invert= 988.00' / 986.00' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	989.00'	**3.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.31 cfs @ 0.00 hrs HW=990.90' (Free Discharge)
↑—**1=Culvert** (Passes 0.31 cfs of 26.06 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 0.31 cfs @ 6.41 fps)

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Pond 7P: Basin C WQv



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Summary for Pond 8P: Basin B WQv

Inflow	=	0.00 cfs @	0.00 hrs,	Volume=	0.000 af
Outflow	=	0.76 cfs @	0.00 hrs,	Volume=	0.671 af, Atten= 0%, Lag= 0.0 min
Primary	=	0.76 cfs @	0.00 hrs,	Volume=	0.671 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Starting Elev= 990.90' Surf.Area= 34,000 sf Storage= 30,600 cf
Peak Elev= 990.90' @ 0.00 hrs Surf.Area= 34,000 sf Storage= 30,600 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	990.00'	136,000 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) x 1.7

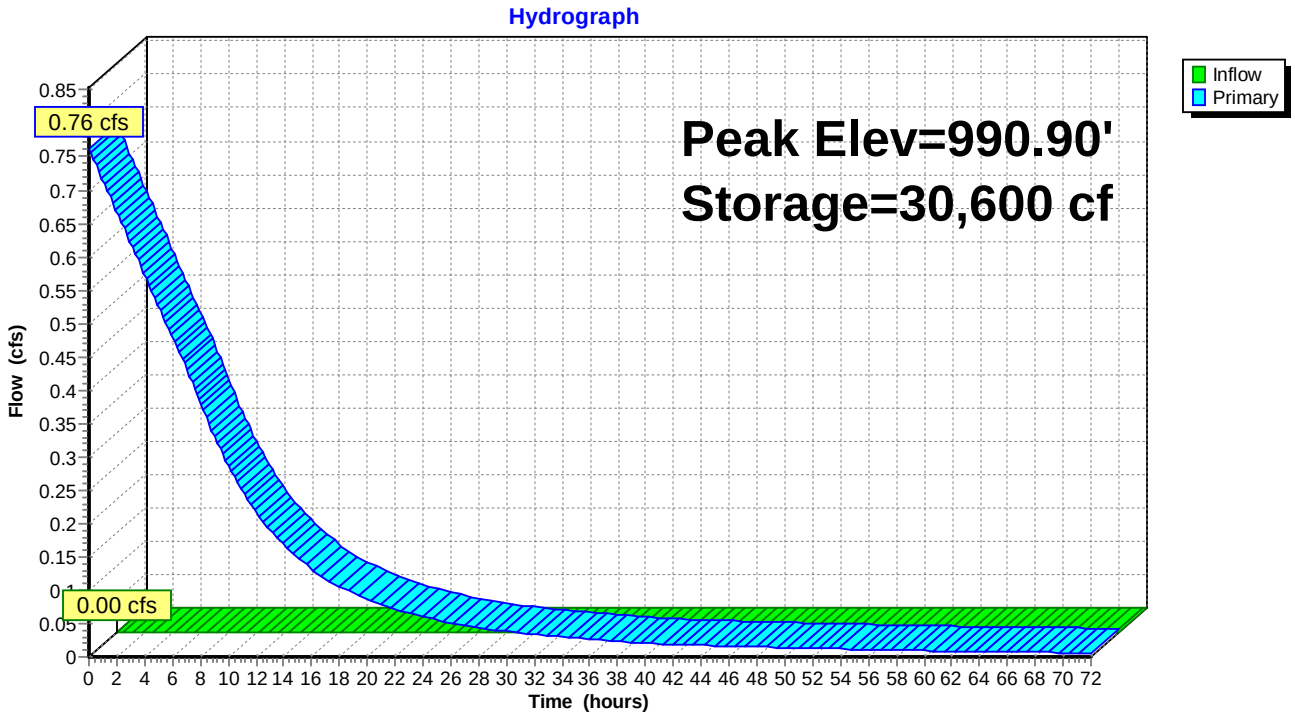
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
990.00	20,000	0	0
994.00	20,000	80,000	80,000

Device	Routing	Invert	Outlet Devices
#1	Primary	988.00'	**24.0" Round Culvert** L= 100.0' Ke= 0.200 Inlet / Outlet Invert= 988.00' / 986.00' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	990.00'	**6.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.76 cfs @ 0.00 hrs HW=990.90' (Free Discharge)
↑—**1=Culvert** (Passes 0.76 cfs of 26.06 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 0.76 cfs @ 3.88 fps)

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Pond 8P: Basin B WQv



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Summary for Pond 10P: Existing Pond

Inflow Area = 35.020 ac, 22.87% Impervious, Inflow Depth = 0.87" for 1-Year event
Inflow = 25.79 cfs @ 12.25 hrs, Volume= 2.529 af
Outflow = 1.03 cfs @ 18.00 hrs, Volume= 2.043 af, Atten= 96%, Lag= 344.7 min
Primary = 1.03 cfs @ 18.00 hrs, Volume= 2.043 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 994.37' @ 18.00 hrs Surf.Area= 201,938 sf Storage= 74,624 cf

Plug-Flow detention time= 1,006.7 min calculated for 2.042 af (81% of inflow)
Center-of-Mass det. time= 924.4 min (1,791.7 - 867.3)

Volume	Invert	Avail.Storage	Storage Description
#1	994.00'	403,876 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

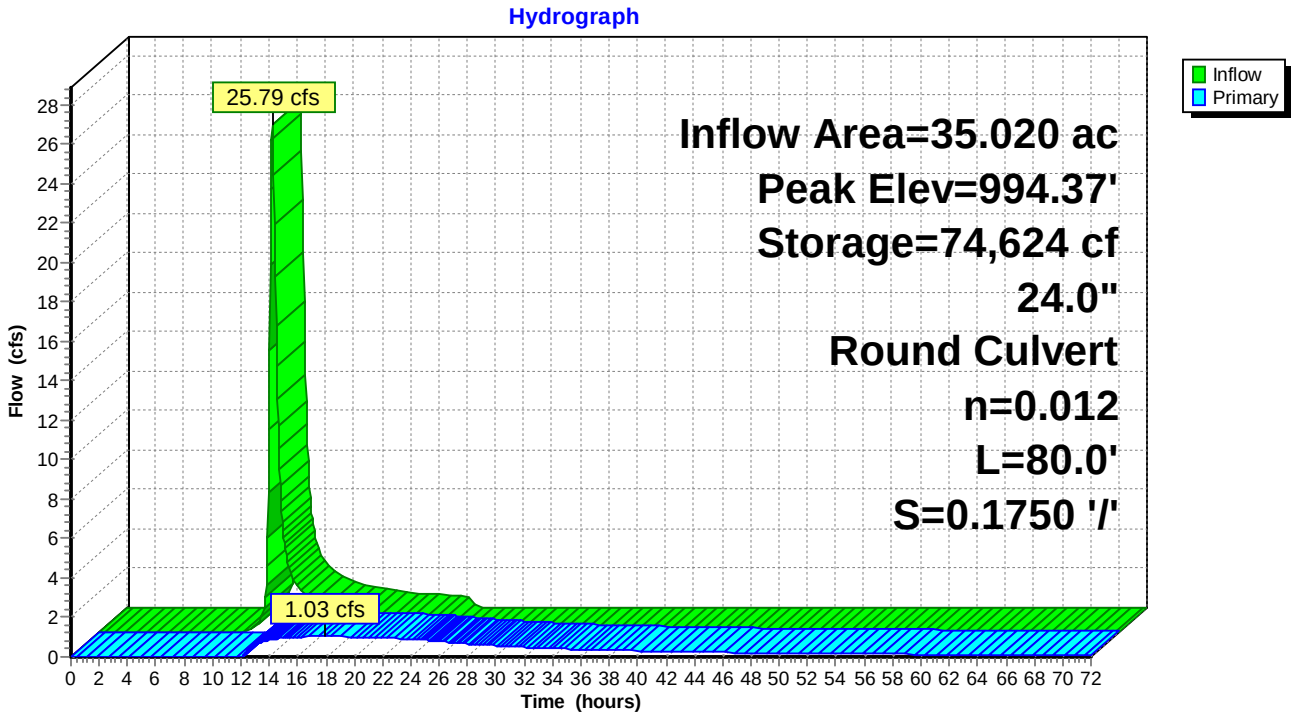
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
994.00	201,938	0	0
995.00	201,938	201,938	201,938
996.00	201,938	201,938	403,876

Device	Routing	Invert	Outlet Devices
#1	Primary	994.00'	**24.0" Round Culvert** L= 80.0' Ke= 0.200 Inlet / Outlet Invert= 994.00' / 980.00' S= 0.1750 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=1.03 cfs @ 18.00 hrs HW=994.37' (Free Discharge)
1=Culvert (Inlet Controls 1.03 cfs @ 2.59 fps)

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Pond 10P: Existing Pond



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Summary for Pond 16P: Basin A3

Inflow Area = 4.990 ac, 38.00% Impervious, Inflow Depth = 1.04" for 1-Year event
Inflow = 6.58 cfs @ 12.08 hrs, Volume= 0.433 af
Outflow = 0.89 cfs @ 12.64 hrs, Volume= 0.433 af, Atten= 86%, Lag= 33.7 min
Primary = 0.89 cfs @ 12.64 hrs, Volume= 0.433 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 957.90' @ 12.64 hrs Surf.Area= 10,329 sf Storage= 8,329 cf

Plug-Flow detention time= 138.1 min calculated for 0.433 af (100% of inflow)
Center-of-Mass det. time= 137.8 min (979.6 - 841.8)

Volume	Invert	Avail.Storage	Storage Description
#1	957.00'	94,800 cf	**Custom Stage Data (Prismatic)** Listed below

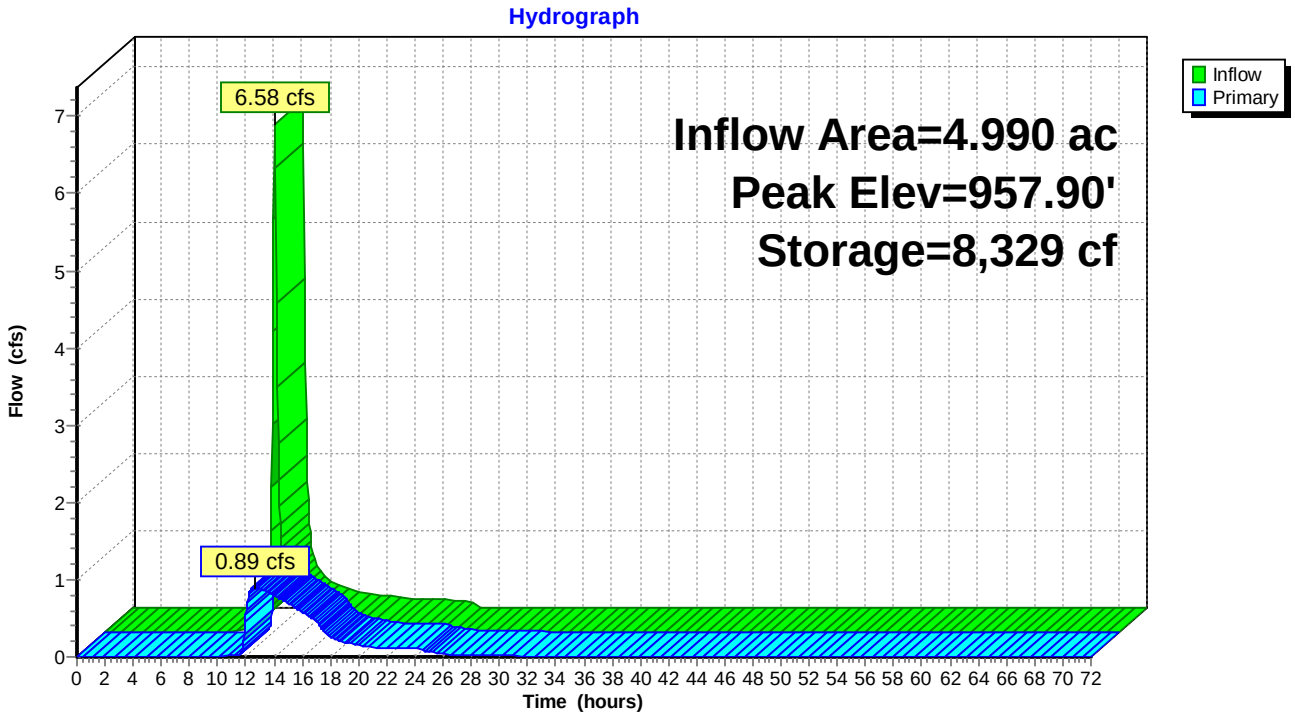
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
957.00	8,000	0	0
958.00	10,600	9,300	9,300
959.00	13,200	11,900	21,200
960.00	15,800	14,500	35,700
961.00	18,400	17,100	52,800
962.00	21,000	19,700	72,500
963.00	23,600	22,300	94,800

Device	Routing	Invert	Outlet Devices
#1	Primary	957.00'	**24.0" Round Culvert** L= 50.0' Ke= 0.200 Inlet / Outlet Invert= 957.00' / 956.00' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	956.00'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	959.00'	**18.0" W x 4.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#4	Primary	962.00'	**15.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.89 cfs @ 12.64 hrs HW=957.90' (Free Discharge)
- **1=Culvert** (Passes 0.89 cfs of 5.49 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.89 cfs @ 4.56 fps)
  - **3=Orifice/Grate** (Controls 0.00 cfs)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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Pond 16P: Basin A3



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Summary for Pond 40P: Basin A1 WQv

Inflow	=	0.00 cfs @	0.00 hrs,	Volume=	0.000 af
Outflow	=	1.29 cfs @	0.00 hrs,	Volume=	0.967 af, Atten= 0%, Lag= 0.0 min
Primary	=	1.29 cfs @	0.00 hrs,	Volume=	0.967 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Starting Elev= 959.10' Surf.Area= 24,398 sf Storage= 44,326 cf
Peak Elev= 959.10' @ 0.00 hrs Surf.Area= 24,398 sf Storage= 44,326 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	957.00'	129,041 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

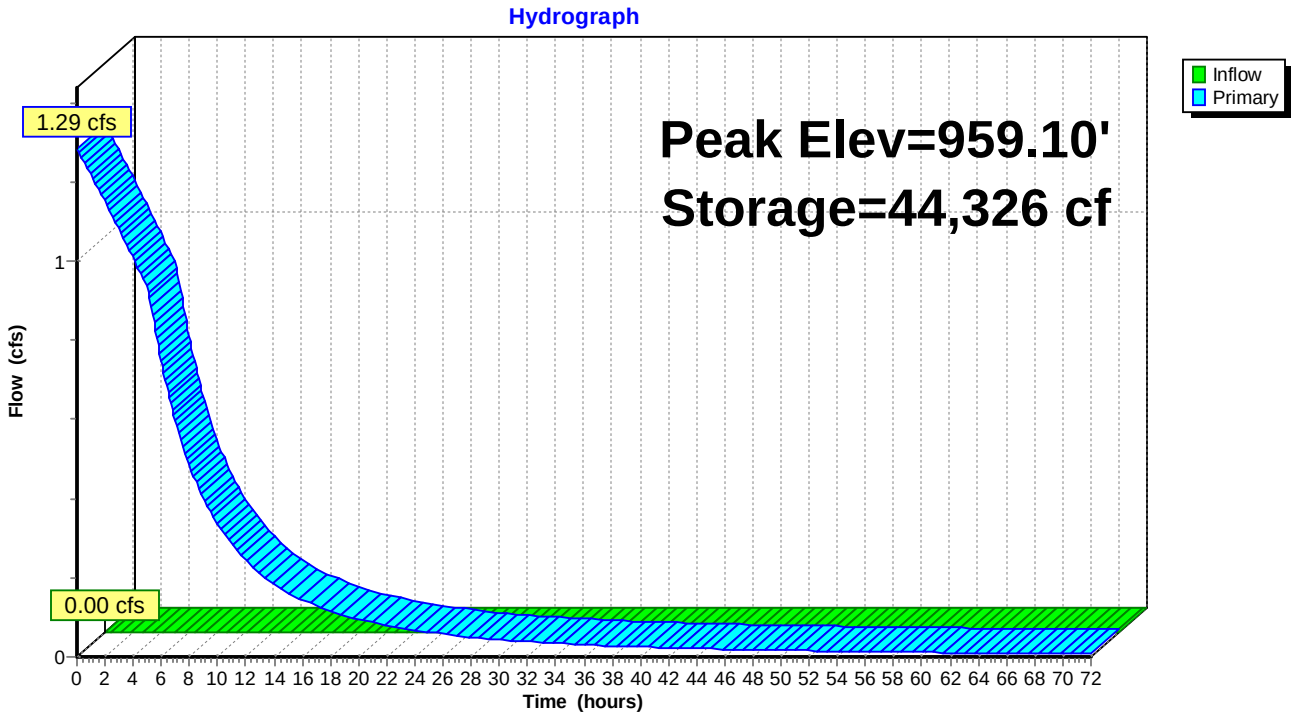
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
957.00	17,908	0	0
958.00	20,912	19,410	19,410
959.00	24,072	22,492	41,902
960.00	27,332	25,702	67,604
961.00	30,693	29,013	96,617
962.00	34,155	32,424	129,041

Device	Routing	Invert	Outlet Devices
#1	Primary	957.00'	**24.0" Round Culvert** L= 100.0' Ke= 0.200 Inlet / Outlet Invert= 957.00' / 956.50' S= 0.0050 '/' Cc= 0.900 n= 0.120, Flow Area= 3.14 sf
#2	Device 1	957.00'	**6.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=1.29 cfs @ 0.00 hrs HW=959.10' (Free Discharge)
↑**1=Culvert** (Passes 1.29 cfs of 2.37 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 1.29 cfs @ 6.55 fps)

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Pond 40P: Basin A1 WQv



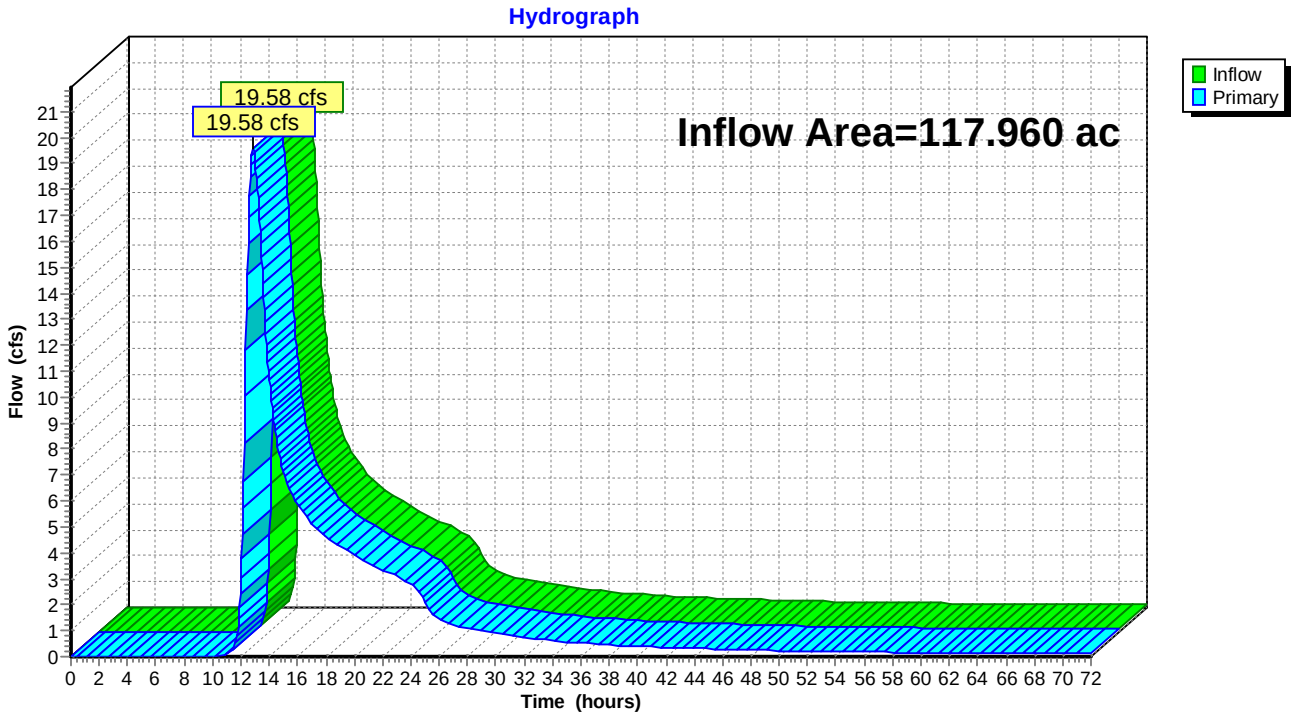
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Summary for Link 26L: Total Watershed A Release

Inflow Area = 117.960 ac, 19.49% Impervious, Inflow Depth > 0.82" for 1-Year event
Inflow = 19.58 cfs @ 12.85 hrs, Volume= 8.066 af
Primary = 19.58 cfs @ 12.85 hrs, Volume= 8.066 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 26L: Total Watershed A Release



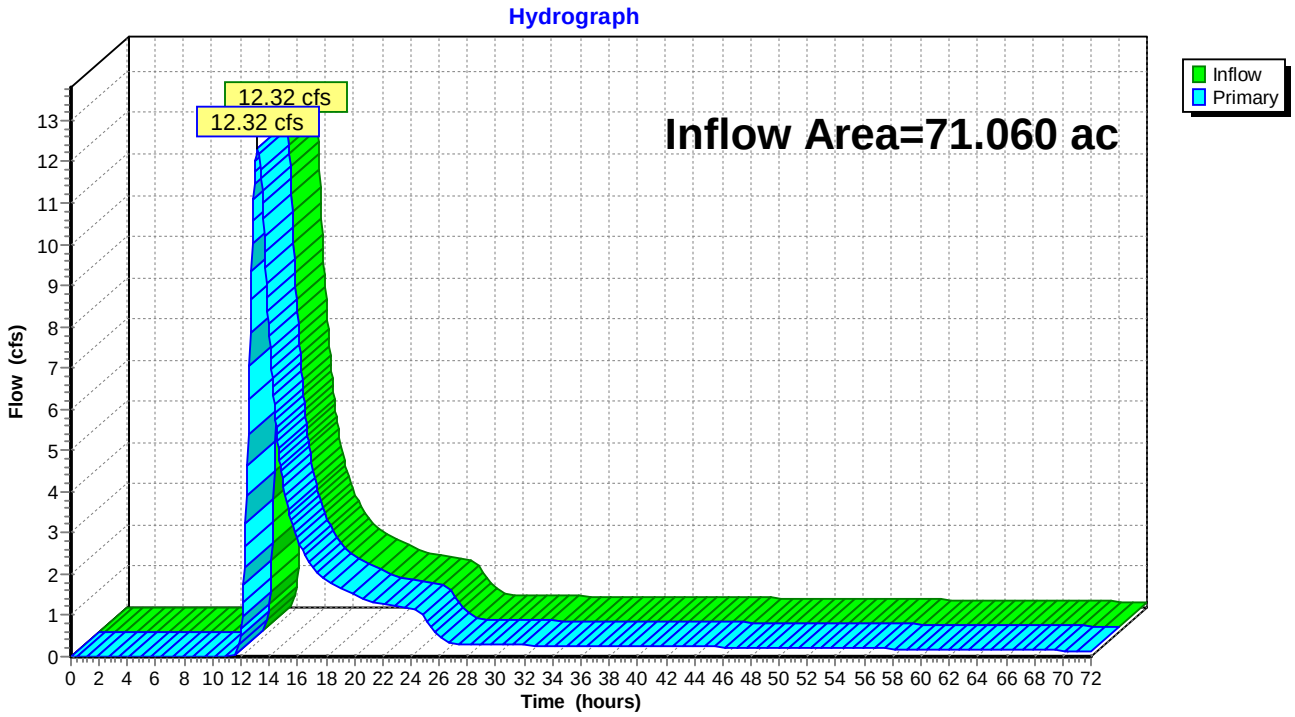
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Summary for Link 27L: Total Watershed C Release

Inflow Area = 71.060 ac, 9.02% Impervious, Inflow Depth > 0.71" for 1-Year event
Inflow = 12.32 cfs @ 13.17 hrs, Volume= 4.199 af
Primary = 12.32 cfs @ 13.17 hrs, Volume= 4.199 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 27L: Total Watershed C Release



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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 4S: Watershed C Existing Total Runoff Area=59.020 ac 6.98% Impervious Runoff Depth=0.95"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=19.55 cfs 4.681 af

Subcatchment 5S: Watershed A Existing Total Runoff Area=93.840 ac 4.24% Impervious Runoff Depth=1.06"
Flow Length=2,815' Tc=92.7 min CN=82 Runoff=37.04 cfs 8.325 af

Subcatchment 7S: Watershed A Existing Onsite Runoff Area=73.360 ac 0.65% Impervious Runoff Depth=1.01"
Flow Length=2,815' Tc=92.7 min CN=81 Runoff=27.11 cfs 6.156 af

Subcatchment 8S: Watershed B Existing Runoff Area=17.210 ac 0.00% Impervious Runoff Depth=1.19"
Flow Length=1,901' Tc=50.4 min CN=84 Runoff=12.15 cfs 1.701 af

Subcatchment 9S: Watershed A3 Offsite Runoff Area=35.020 ac 22.87% Impervious Runoff Depth=1.19"
Flow Length=949' Tc=29.4 min CN=84 Runoff=35.91 cfs 3.462 af

Subcatchment 12S: Watershed A1 Proposed Runoff Area=10.040 ac 38.00% Impervious Runoff Depth=1.39"
Flow Length=800' Tc=15.8 min CN=87 Runoff=17.42 cfs 1.160 af

Subcatchment 13S: Watershed C Existing Runoff Area=27.510 ac 9.09% Impervious Runoff Depth=0.95"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=9.11 cfs 2.182 af

Subcatchment 14S: Watershed B Proposed Runoff Area=15.600 ac 38.00% Impervious Runoff Depth=1.39"
Flow Length=800' Tc=18.5 min CN=87 Runoff=25.01 cfs 1.803 af

Subcatchment 17S: Watershed A2 Proposed Runoff Area=17.910 ac 38.00% Impervious Runoff Depth=1.39"
Flow Length=850' Tc=15.9 min CN=87 Runoff=30.99 cfs 2.070 af

Subcatchment 19S: Watershed A3 Proposed Runoff Area=4.990 ac 38.00% Impervious Runoff Depth=1.39"
Flow Length=530' Tc=15.3 min CN=87 Runoff=8.79 cfs 0.577 af

Subcatchment 20S: Watershed C Proposed Runoff Area=16.870 ac 38.00% Impervious Runoff Depth=1.39"
Flow Length=1,100' Tc=16.3 min CN=87 Runoff=28.87 cfs 1.950 af

Subcatchment 22S: Watershed A1 Offsite Runoff Area=14.360 ac 17.13% Impervious Runoff Depth=1.12"
Flow Length=2,626' Tc=59.0 min CN=83 Runoff=8.49 cfs 1.345 af

Subcatchment 23S: Watershed A2 Offsite Runoff Area=12.550 ac 0.00% Impervious Runoff Depth=1.06"
Flow Length=2,815' Tc=92.7 min CN=82 Runoff=4.95 cfs 1.113 af

Subcatchment 24S: Watershed C Offsite Runoff Area=31.510 ac 0.00% Impervious Runoff Depth=0.95"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=10.44 cfs 2.499 af

Subcatchment 28S: Watershed C Offsite Runoff Area=31.510 ac 0.00% Impervious Runoff Depth=0.95"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=10.44 cfs 2.499 af

Subcatchment 29S: Watershed A2 Offsite Runoff Area=12.550 ac 0.00% Impervious Runoff Depth=1.06"
Flow Length=2,815' Tc=92.7 min CN=82 Runoff=4.95 cfs 1.113 af

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Subcatchment 30S: Watershed A3 Offsite Runoff Area=35.020 ac 22.87% Impervious Runoff Depth=1.19"
Flow Length=949' Tc=29.4 min CN=84 Runoff=35.91 cfs 3.462 af

Subcatchment 31S: Watershed C Existing Runoff Area=22.680 ac 0.00% Impervious Runoff Depth=0.95"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=7.51 cfs 1.799 af

Subcatchment 32S: Watershed A Existing Runoff Area=23.090 ac 0.00% Impervious Runoff Depth=1.06"
Flow Length=2,815' Tc=92.7 min CN=82 Runoff=9.11 cfs 2.048 af

Subcatchment 33S: Watershed C Existing Runoff Area=4.830 ac 0.00% Impervious Runoff Depth=0.95"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=1.60 cfs 0.383 af

Subcatchment 34S: Watershed C Existing Runoff Area=22.680 ac 0.00% Impervious Runoff Depth=0.95"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=7.51 cfs 1.799 af

Subcatchment 35S: Watershed A Existing Runoff Area=43.410 ac 0.00% Impervious Runoff Depth=1.06"
Flow Length=2,815' Tc=92.7 min CN=82 Runoff=17.14 cfs 3.851 af

Subcatchment 36S: Watershed A Existing Runoff Area=23.090 ac 0.00% Impervious Runoff Depth=1.06"
Flow Length=2,815' Tc=92.7 min CN=82 Runoff=9.11 cfs 2.048 af

Subcatchment 41S: Watershed A1 Offsite Runoff Area=14.360 ac 17.13% Impervious Runoff Depth=1.12"
Flow Length=2,626' Tc=59.0 min CN=83 Runoff=8.49 cfs 1.345 af

Pond 1P: Basin A1 Peak Elev=958.65' Storage=33,597 cf Inflow=17.42 cfs 1.160 af
Primary=0.51 cfs 1.082 af Secondary=0.00 cfs 0.000 af Outflow=0.51 cfs 1.082 af

Pond 4P: Basin A2 Peak Elev=965.99' Storage=40,068 cf Inflow=30.99 cfs 2.070 af
Primary=5.40 cfs 2.067 af Secondary=0.00 cfs 0.000 af Outflow=5.40 cfs 2.067 af

Pond 5P: Basin B Peak Elev=957.19' Storage=37,411 cf Inflow=25.01 cfs 1.803 af
Outflow=2.84 cfs 1.802 af

Pond 6P: Basin C Peak Elev=978.22' Storage=66,239 cf Inflow=28.87 cfs 1.950 af
Outflow=0.51 cfs 1.507 af

Pond 7P: Basin C WQv Peak Elev=990.90' Storage=32,748 cf Inflow=0.00 cfs 0.000 af
Outflow=0.31 cfs 0.752 af

Pond 8P: Basin B WQv Peak Elev=990.90' Storage=30,600 cf Inflow=0.00 cfs 0.000 af
Outflow=0.76 cfs 0.671 af

Pond 10P: Existing Pond Peak Elev=994.48' Storage=97,733 cf Inflow=35.91 cfs 3.462 af
24.0" Round Culvert n=0.012 L=80.0' S=0.1750 '/' Outflow=1.74 cfs 2.948 af

Pond 16P: Basin A3 Peak Elev=958.20' Storage=11,686 cf Inflow=8.79 cfs 0.577 af
Outflow=1.04 cfs 0.577 af

Pond 40P: Basin A1 WQv Peak Elev=959.10' Storage=44,326 cf Inflow=0.00 cfs 0.000 af
Outflow=1.29 cfs 0.967 af

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Link 26L: Total Watershed A Release

Inflow=28.48 cfs 11.180 af
Primary=28.48 cfs 11.180 af

Link 27L: Total Watershed C Release

Inflow=18.25 cfs 5.804 af
Primary=18.25 cfs 5.804 af

Total Runoff Area = 663.010 ac Runoff Volume = 59.371 af Average Runoff Depth = 1.07"
91.42% Pervious = 606.134 ac 8.58% Impervious = 56.876 ac

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Summary for Subcatchment 4S: Watershed C Existing Total

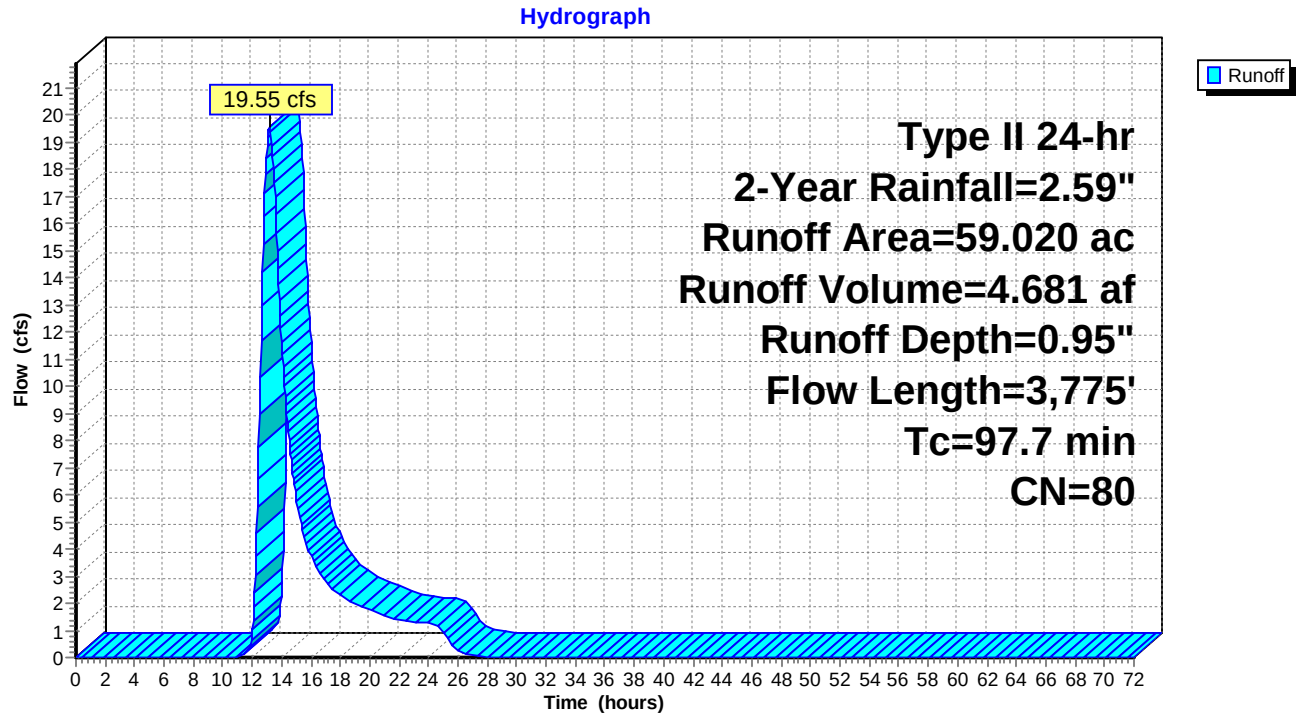
Runoff = 19.55 cfs @ 13.15 hrs, Volume= 4.681 af, Depth= 0.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

Area (ac)	CN	Description
29.570	77	Woods, Good, HSG D
4.120	98	Paved parking, HSG D
25.330	80	>75% Grass cover, Good, HSG D
59.020	80	Weighted Average
54.900		93.02% Pervious Area
4.120		6.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 4S: Watershed C Existing Total



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Summary for Subcatchment 5S: Watershed A Existing Total

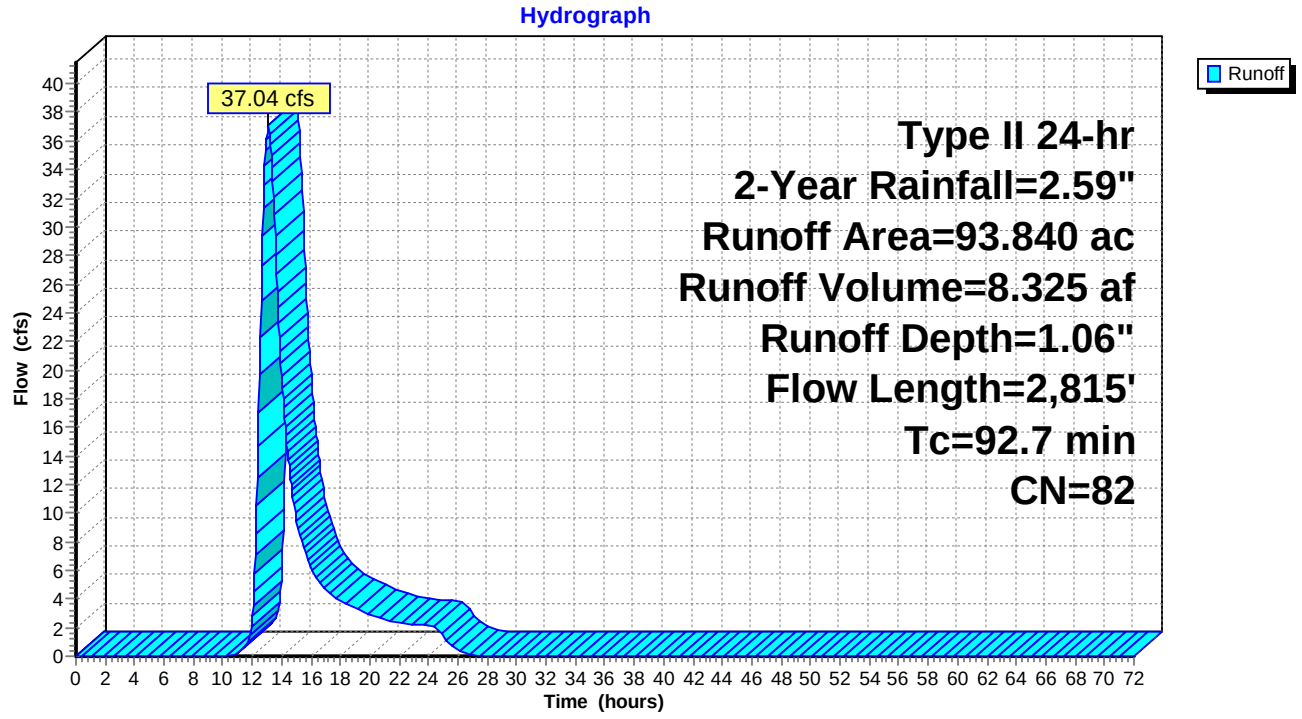
Runoff = 37.04 cfs @ 13.09 hrs, Volume= 8.325 af, Depth= 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

Area (ac)	CN	Description
19.270	80	>75% Grass cover, Good, HSG D
31.720	77	Woods, Good, HSG D
38.870	85	Legumes, straight row, Good, HSG D
3.980	98	Paved parking, HSG D
93.840	82	Weighted Average
89.860		95.76% Pervious Area
3.980		4.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 5S: Watershed A Existing Total



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Summary for Subcatchment 7S: Watershed A Existing Onsite Total

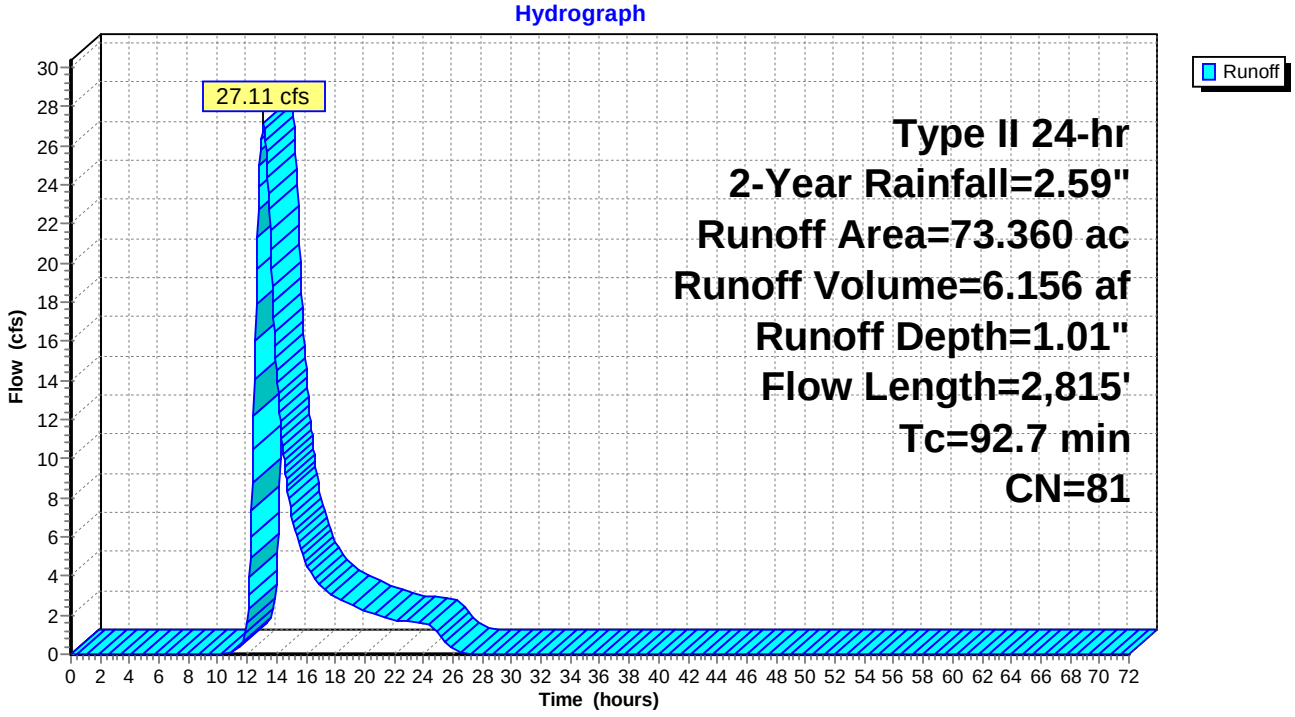
Runoff = 27.11 cfs @ 13.09 hrs, Volume= 6.156 af, Depth= 1.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

Area (ac)	CN	Description
2.290	80	>75% Grass cover, Good, HSG D
31.720	77	Woods, Good, HSG D
38.870	85	Legumes, straight row, Good, HSG D
0.480	98	Paved parking, HSG D
73.360	81	Weighted Average
72.880		99.35% Pervious Area
0.480		0.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 7S: Watershed A Existing Onsite Total



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Summary for Subcatchment 8S: Watershed B Existing

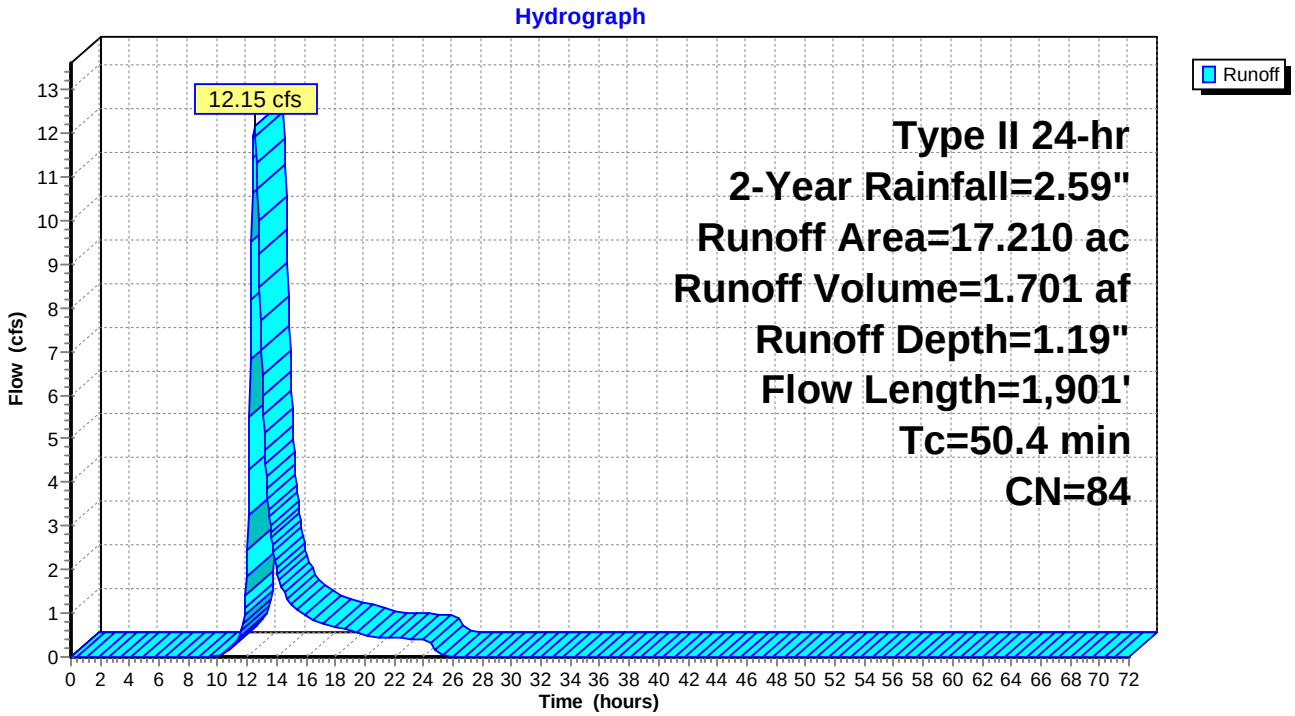
Runoff = 12.15 cfs @ 12.51 hrs, Volume= 1.701 af, Depth= 1.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

Area (ac)	CN	Description
1.640	77	Woods, Good, HSG D
15.570	85	Legumes, straight row, Good, HSG D
17.210	84	Weighted Average
17.210		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
33.6	100	0.0089	0.05		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
4.9	256	0.0300	0.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
11.9	1,545	0.0207	2.16		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
50.4	1,901	Total			

Subcatchment 8S: Watershed B Existing



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Summary for Subcatchment 9S: Watershed A3 Offsite

Runoff = 35.91 cfs @ 12.25 hrs, Volume= 3.462 af, Depth= 1.19"

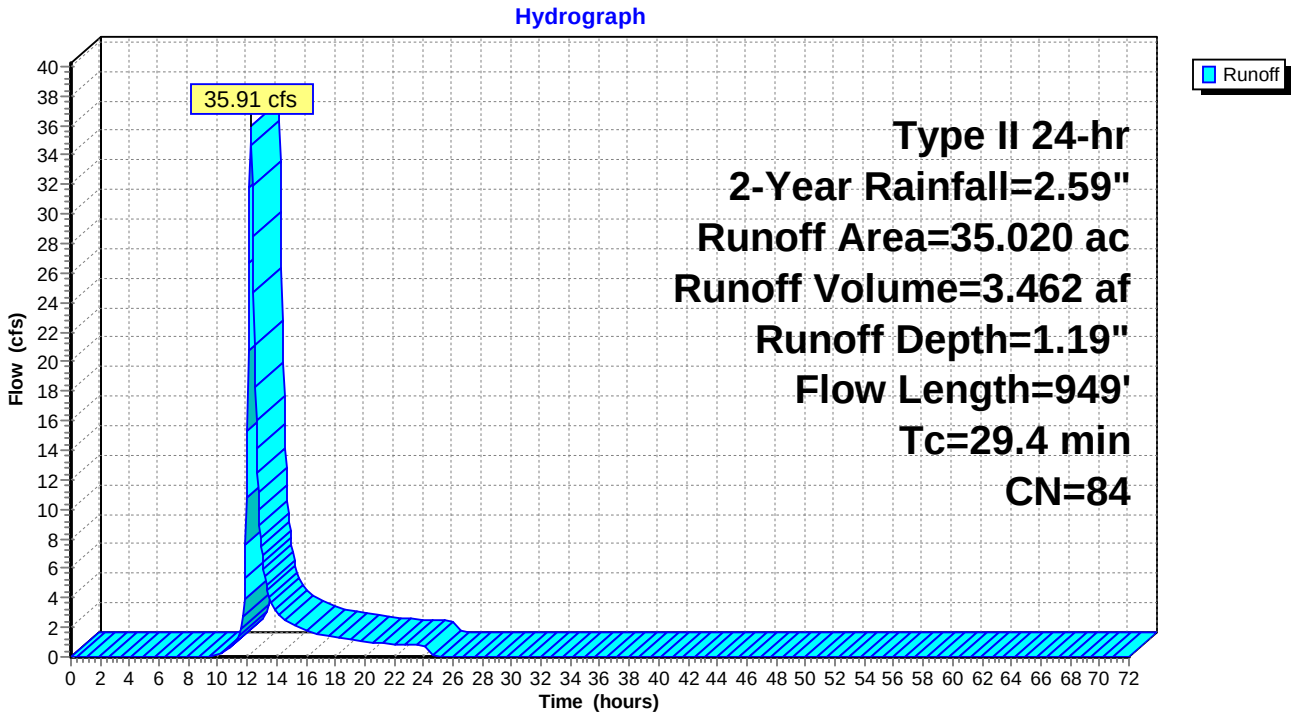
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

Area (ac)	CN	Description
9.260	79	Woods/grass comb., Good, HSG D
8.010	98	Paved parking, HSG D
17.750	80	>75% Grass cover, Good, HSG D
35.020	84	Weighted Average
27.010		77.13% Pervious Area
8.010		22.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.3	100	0.0089	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.8	405	0.0199	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
7.1	284	0.0179	0.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.2	160	0.0200	11.03	34.66	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012
29.4	949	Total			

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Subcatchment 9S: Watershed A3 Offsite



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Summary for Subcatchment 12S: Watershed A1 Proposed

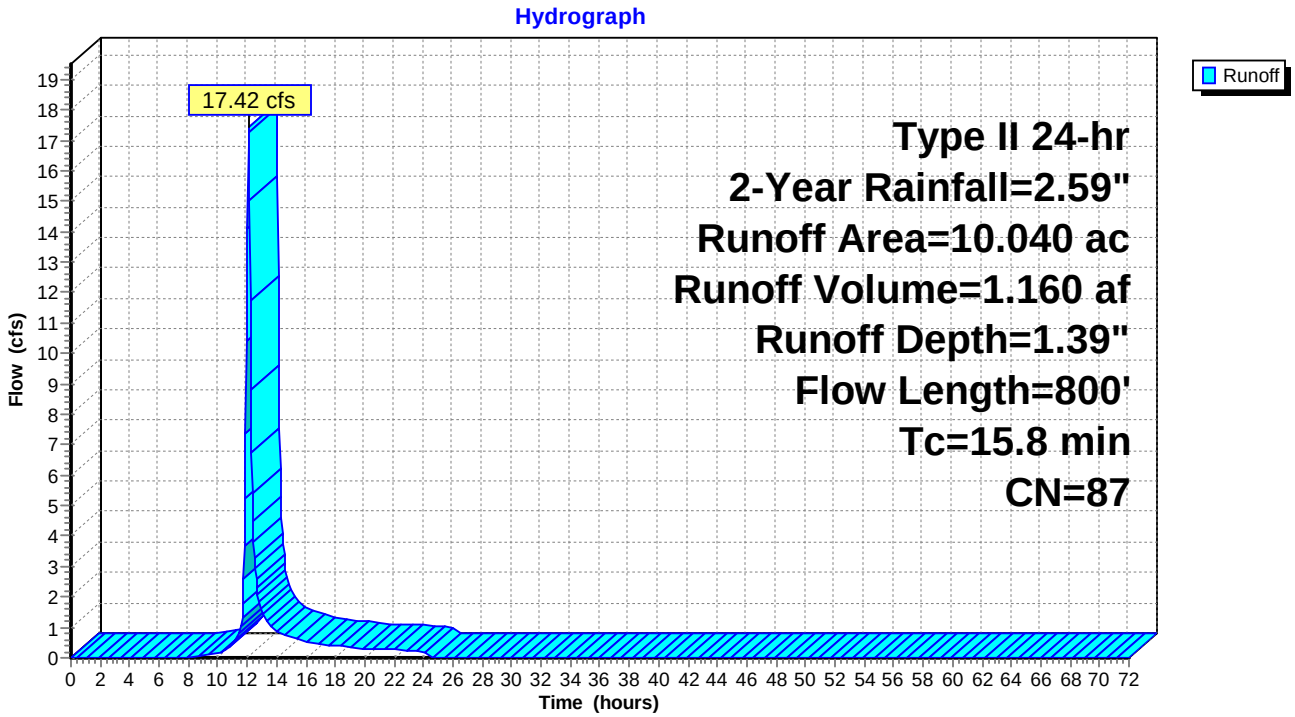
Runoff = 17.42 cfs @ 12.08 hrs, Volume= 1.160 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

Area (ac)	CN	Description
10.040	87	1/4 acre lots, 38% imp, HSG D
6.225		62.00% Pervious Area
3.815		38.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.2	700	0.0380	9.58	7.52	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
15.8	800	Total			

Subcatchment 12S: Watershed A1 Proposed



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Summary for Subcatchment 13S: Watershed C Existing Onsite Total

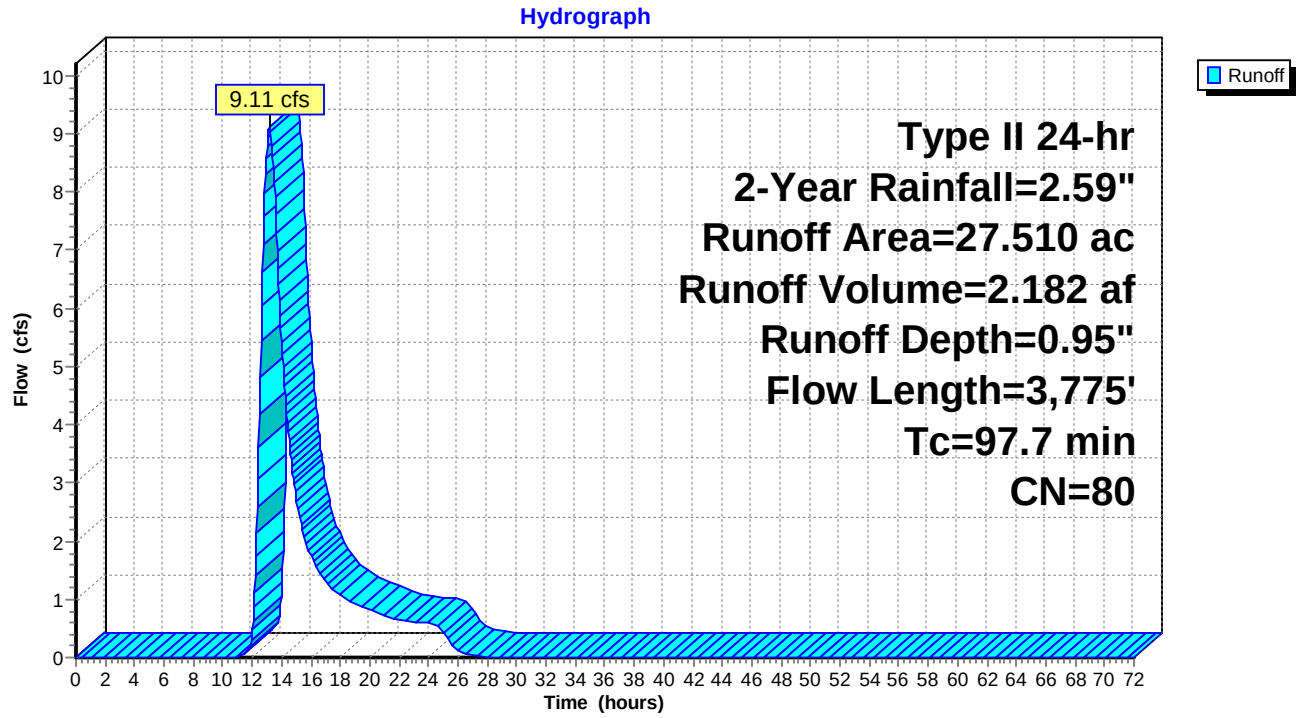
Runoff = 9.11 cfs @ 13.15 hrs, Volume= 2.182 af, Depth= 0.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

Area (ac)	CN	Description
19.500	77	Woods, Good, HSG D
2.500	98	Paved parking, HSG D
5.510	80	>75% Grass cover, Good, HSG D
27.510	80	Weighted Average
25.010		90.91% Pervious Area
2.500		9.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 13S: Watershed C Existing Onsite Total



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Summary for Subcatchment 14S: Watershed B Proposed

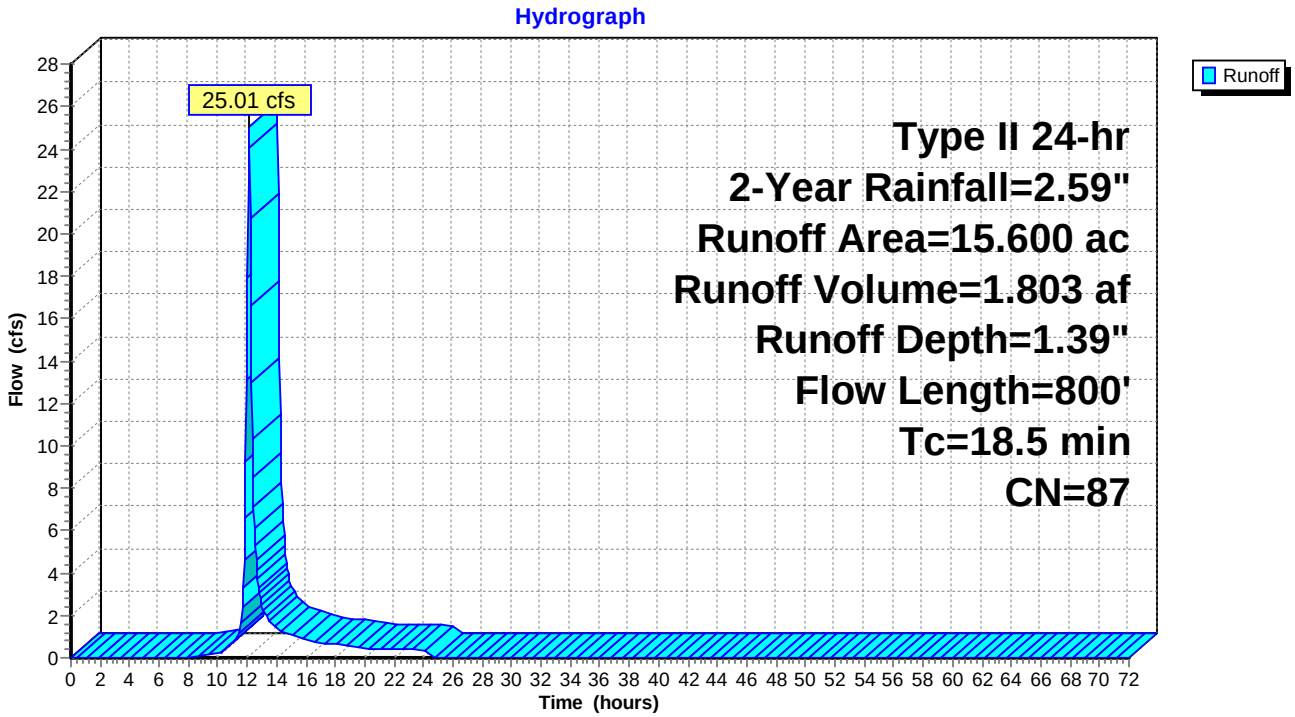
Runoff = 25.01 cfs @ 12.11 hrs, Volume= 1.803 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

Area (ac)	CN	Description
15.600	87	1/4 acre lots, 38% imp, HSG D
9.672		62.00% Pervious Area
5.928		38.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
3.9	700	0.0038	3.03	2.38	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
18.5	800	Total			

Subcatchment 14S: Watershed B Proposed



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Summary for Subcatchment 17S: Watershed A2 Proposed

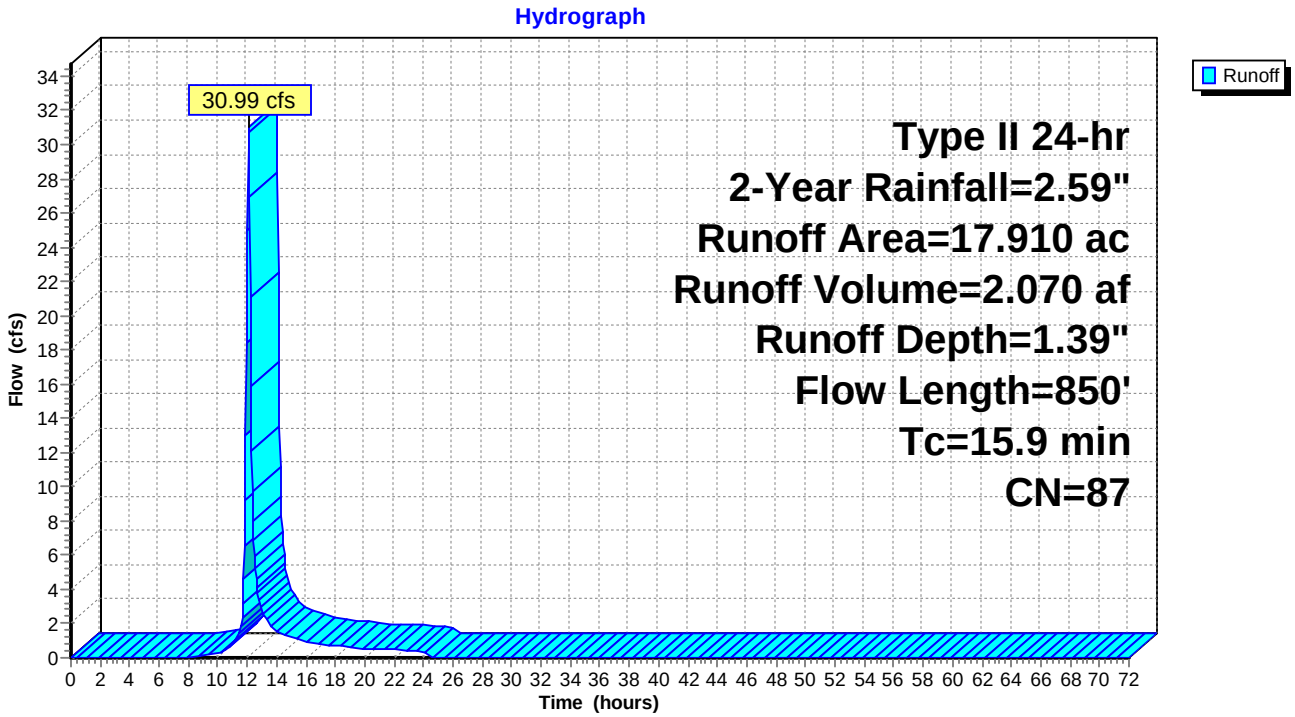
Runoff = 30.99 cfs @ 12.08 hrs, Volume= 2.070 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

Area (ac)	CN	Description
17.910	87	1/4 acre lots, 38% imp, HSG D
11.104		62.00% Pervious Area
6.806		38.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.3	750	0.0380	9.58	7.52	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
15.9	850	Total			

Subcatchment 17S: Watershed A2 Proposed



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Summary for Subcatchment 19S: Watershed A3 Proposed

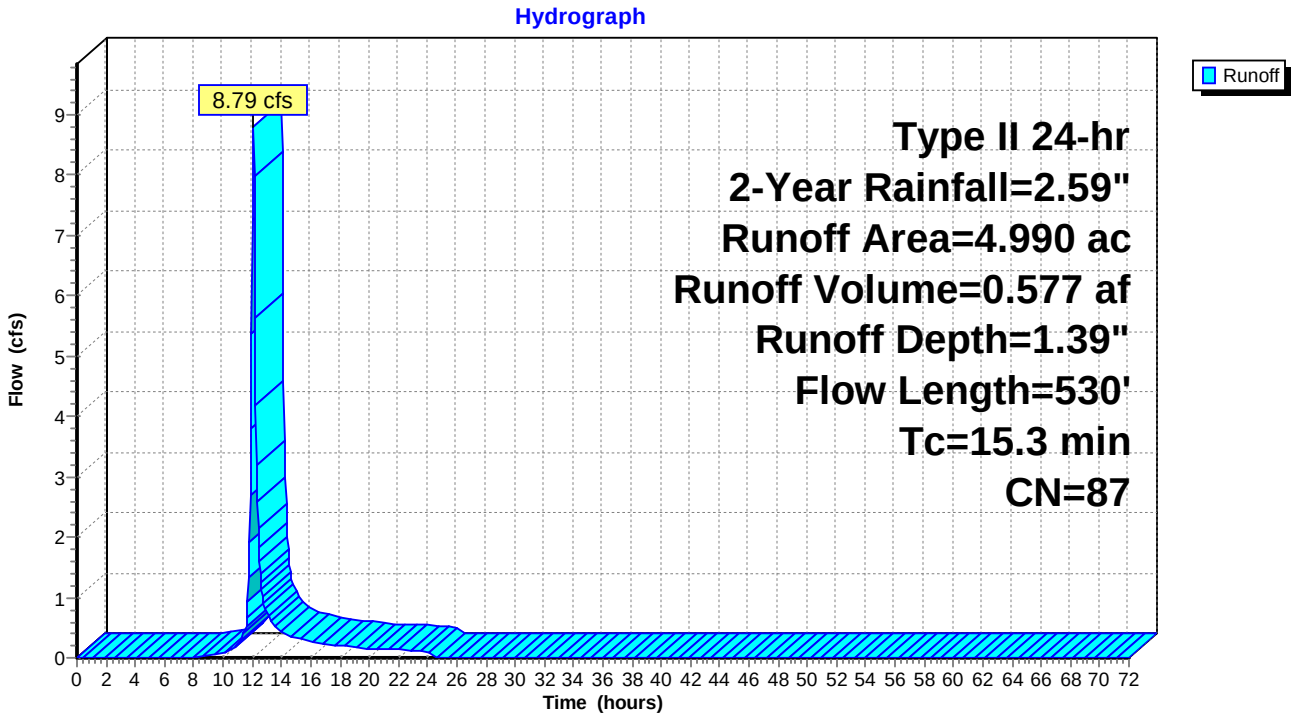
Runoff = 8.79 cfs @ 12.08 hrs, Volume= 0.577 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

Area (ac)	CN	Description
4.990	87	1/4 acre lots, 38% imp, HSG D
3.094		62.00% Pervious Area
1.896		38.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
0.7	430	0.0380	9.58	7.52	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
15.3	530	Total			

Subcatchment 19S: Watershed A3 Proposed



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Summary for Subcatchment 20S: Watershed C Proposed

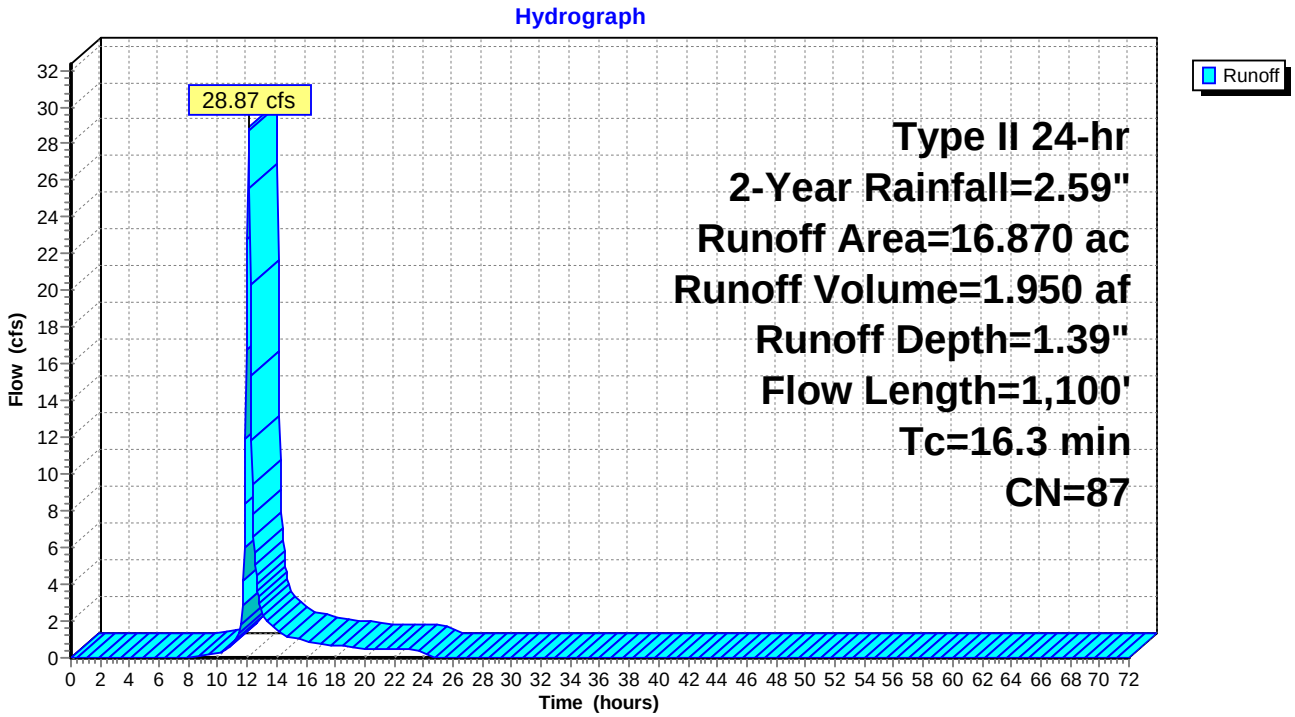
Runoff = 28.87 cfs @ 12.09 hrs, Volume= 1.950 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

Area (ac)	CN	Description
16.870	87	1/4 acre lots, 38% imp, HSG D
10.459		62.00% Pervious Area
6.411		38.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.7	1,000	0.0380	9.58	7.52	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
16.3	1,100	Total			

Subcatchment 20S: Watershed C Proposed



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Summary for Subcatchment 22S: Watershed A1 Offsite

Runoff = 8.49 cfs @ 12.64 hrs, Volume= 1.345 af, Depth= 1.12"

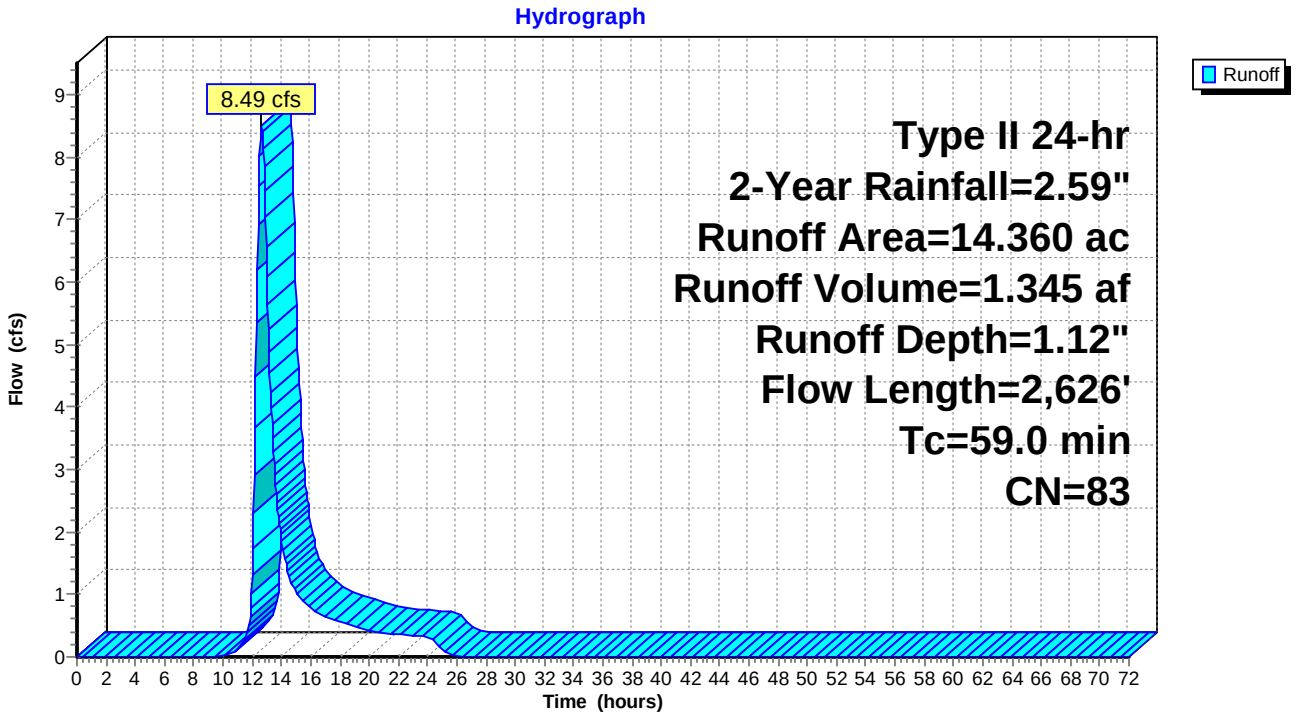
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

Area (ac)	CN	Description
9.590	80	>75% Grass cover, Good, HSG D
2.310	77	Woods, Good, HSG D
2.460	98	Paved parking, HSG D
14.360	83	Weighted Average
11.900		82.87% Pervious Area
2.460		17.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.6	100	0.0133	0.06		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
4.4	237	0.0325	0.90		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
9.4	617	0.0242	1.09		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	90	0.0450	1.65	5.20	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.120
15.7	1,582	0.0126	1.68		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
59.0	2,626	Total			

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Subcatchment 22S: Watershed A1 Offsite



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Summary for Subcatchment 23S: Watershed A2 Offsite

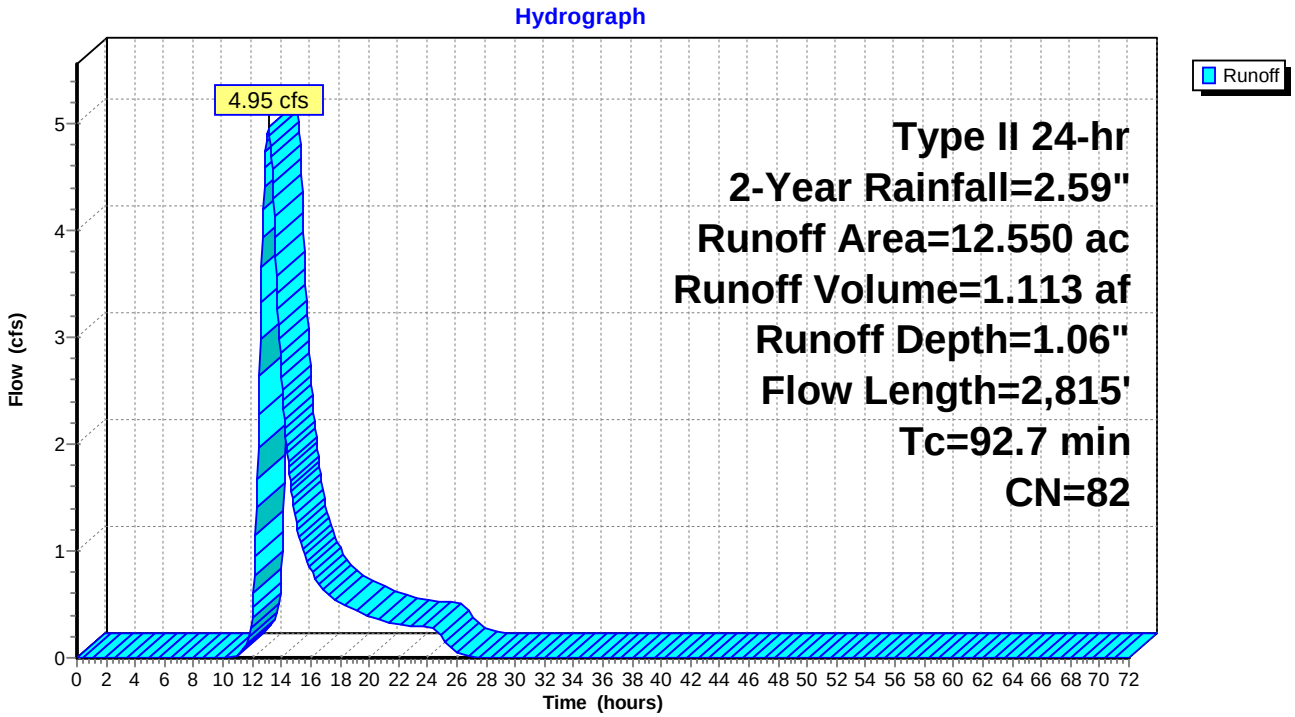
Runoff = 4.95 cfs @ 13.09 hrs, Volume= 1.113 af, Depth= 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

	Area (ac)	CN	Description
*	12.550	82	Woods, Grass
	12.550		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 23S: Watershed A2 Offsite



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Summary for Subcatchment 24S: Watershed C Offsite

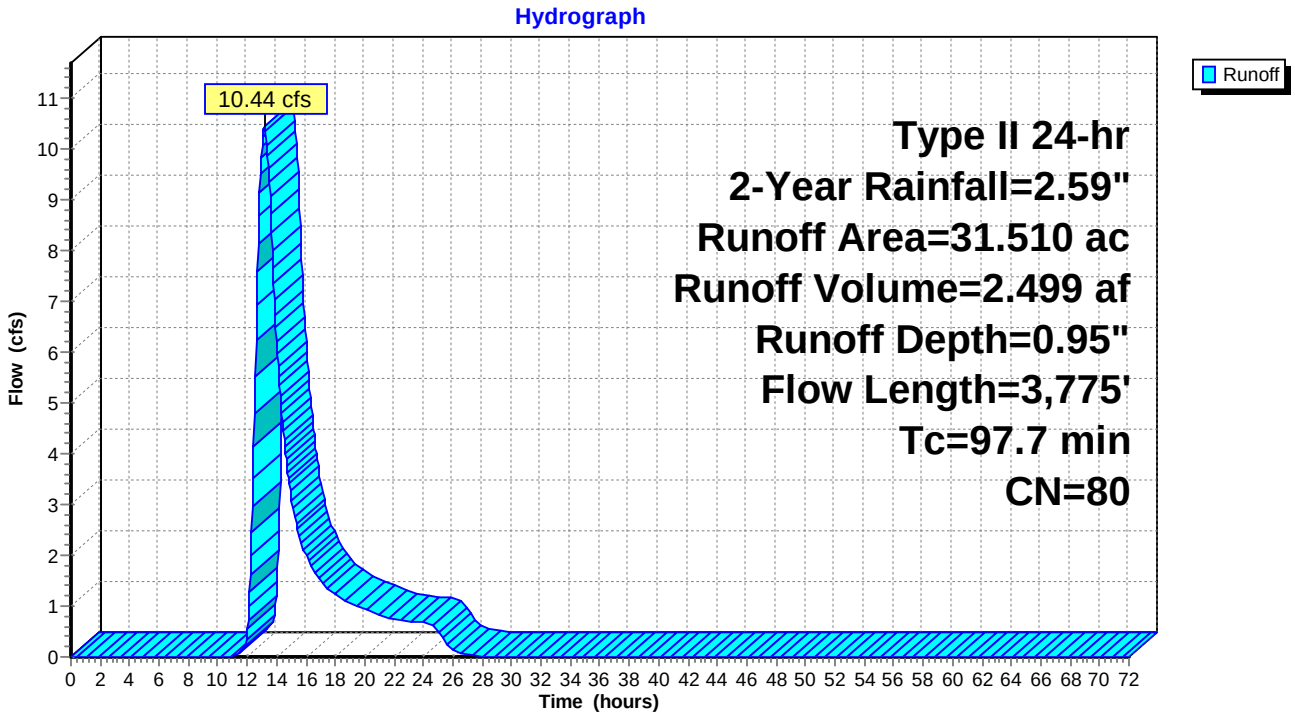
Runoff = 10.44 cfs @ 13.15 hrs, Volume= 2.499 af, Depth= 0.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

	Area (ac)	CN	Description
*	31.510	80	Woods, Grass, HSG D
	31.510		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 24S: Watershed C Offsite



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Summary for Subcatchment 28S: Watershed C Offsite

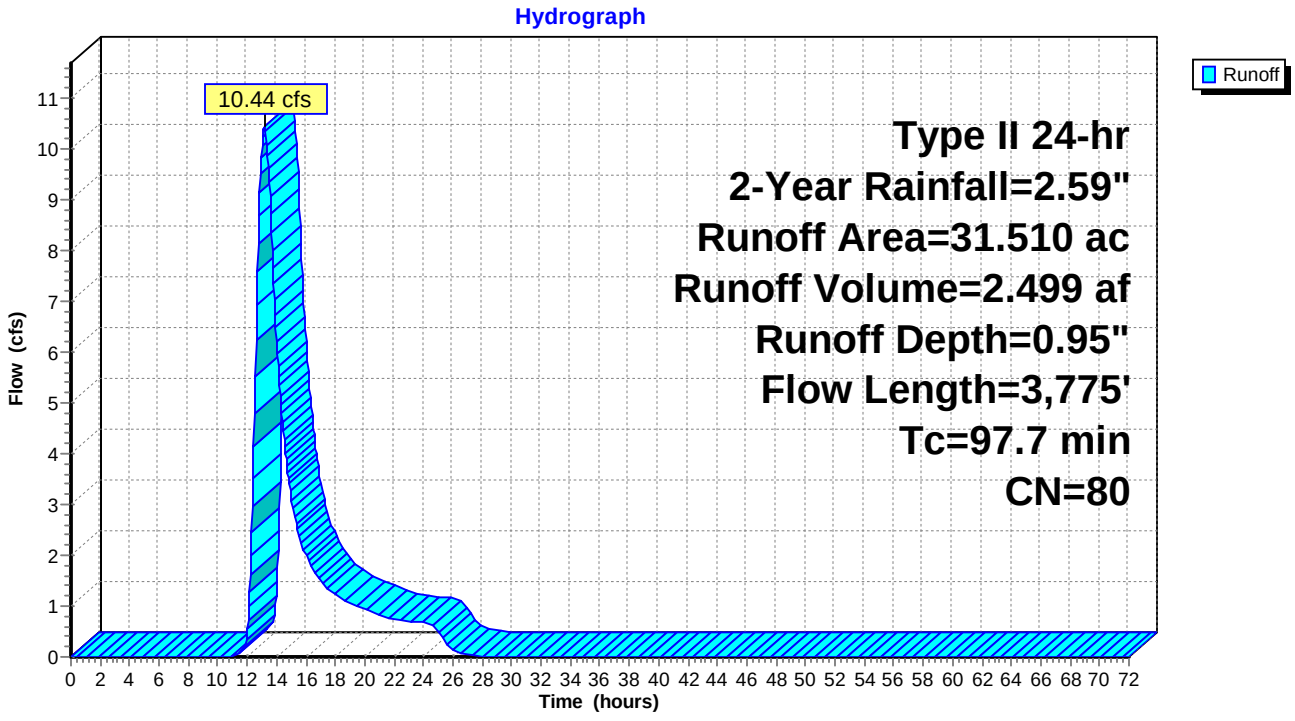
Runoff = 10.44 cfs @ 13.15 hrs, Volume= 2.499 af, Depth= 0.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

	Area (ac)	CN	Description
*	31.510	80	Woods, Grass, HSG D
	31.510		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 28S: Watershed C Offsite



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Summary for Subcatchment 29S: Watershed A2 Offsite

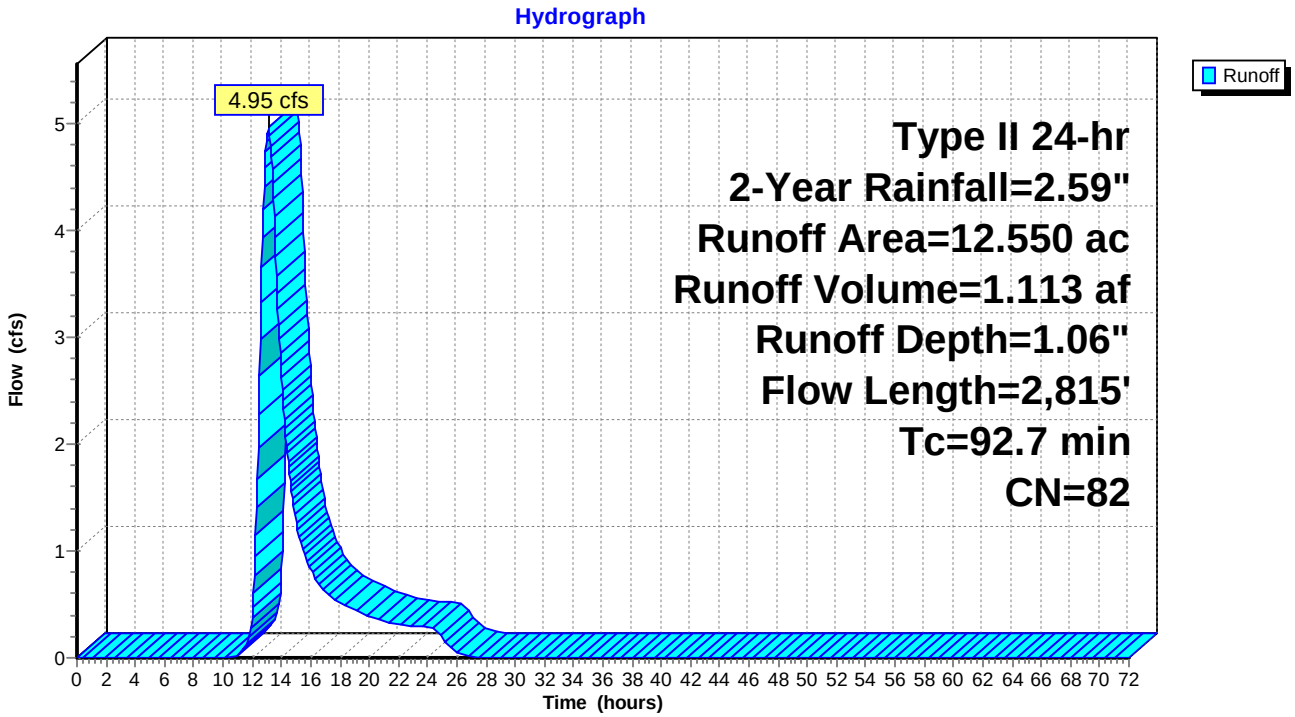
Runoff = 4.95 cfs @ 13.09 hrs, Volume= 1.113 af, Depth= 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

	Area (ac)	CN	Description
*	12.550	82	Woods, Grass
	12.550		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 29S: Watershed A2 Offsite



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Summary for Subcatchment 30S: Watershed A3 Offsite

Runoff = 35.91 cfs @ 12.25 hrs, Volume= 3.462 af, Depth= 1.19"

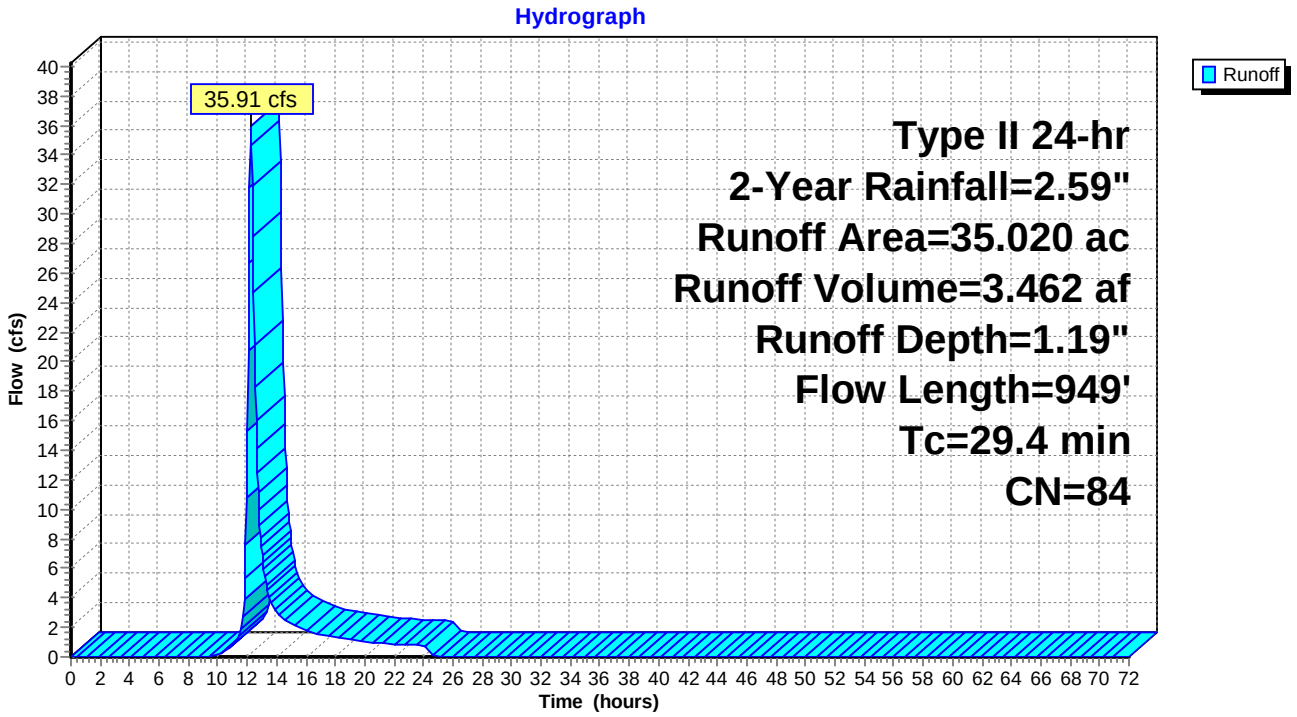
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

Area (ac)	CN	Description
9.260	79	Woods/grass comb., Good, HSG D
8.010	98	Paved parking, HSG D
17.750	80	>75% Grass cover, Good, HSG D
35.020	84	Weighted Average
27.010		77.13% Pervious Area
8.010		22.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.3	100	0.0089	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.8	405	0.0199	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
7.1	284	0.0179	0.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.2	160	0.0200	11.03	34.66	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012
29.4	949	Total			

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Subcatchment 30S: Watershed A3 Offsite



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Summary for Subcatchment 31S: Watershed C Existing Onsite Undisturbed

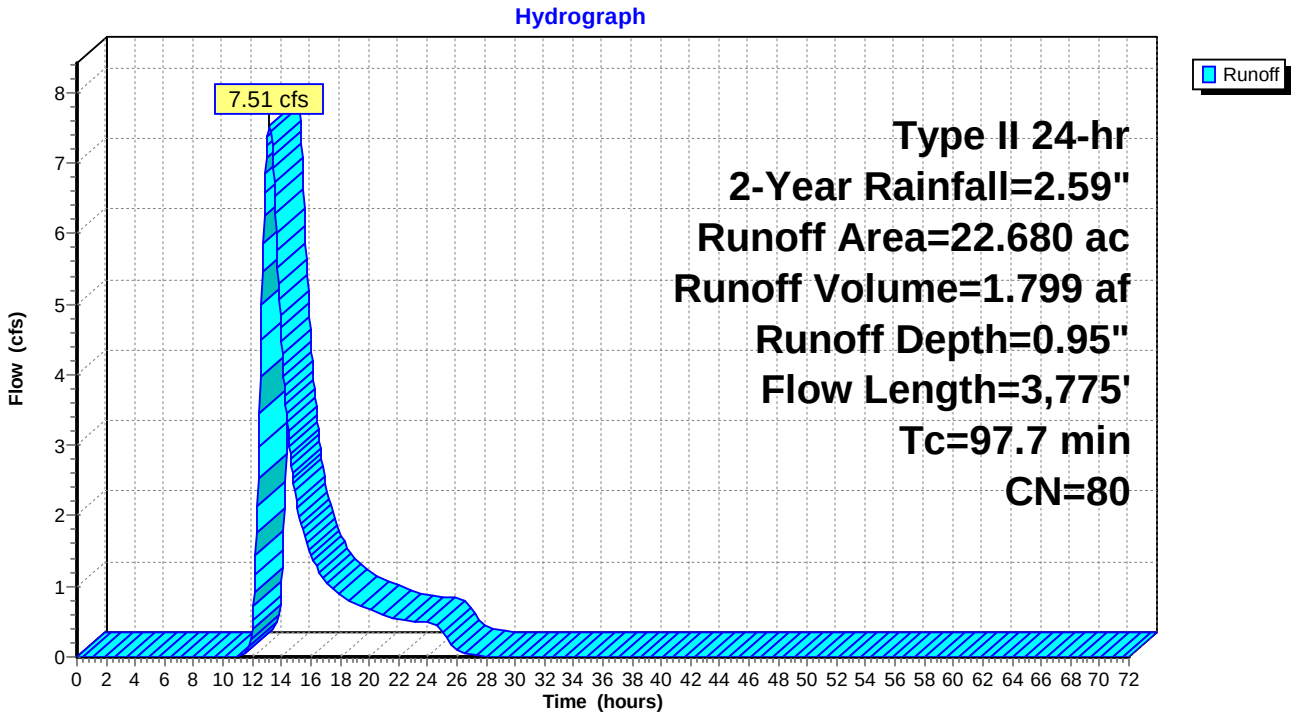
Runoff = 7.51 cfs @ 13.15 hrs, Volume= 1.799 af, Depth= 0.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

	Area (ac)	CN	Description
*	22.680	80	Woods, Grass
	22.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 31S: Watershed C Existing Onsite Undisturbed



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Summary for Subcatchment 32S: Watershed A Existing Onsite Undisturbed

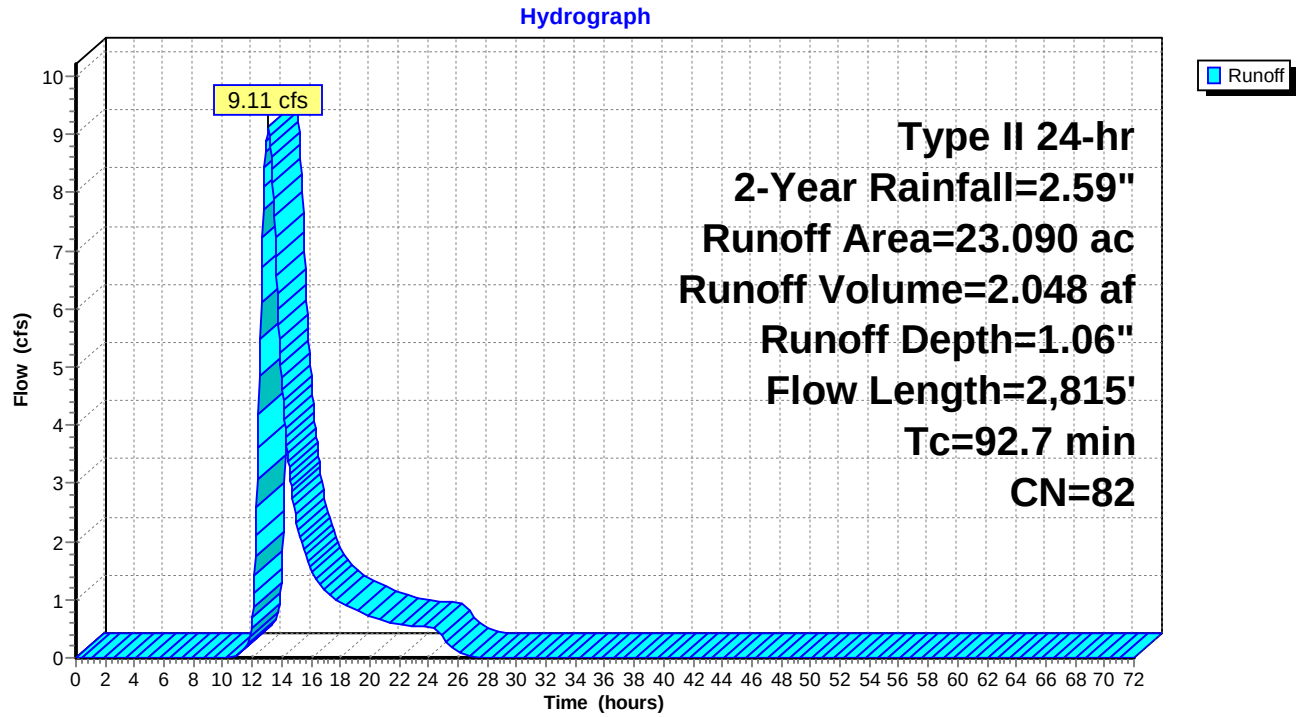
Runoff = 9.11 cfs @ 13.09 hrs, Volume= 2.048 af, Depth= 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

	Area (ac)	CN	Description
*	23.090	82	Woods, Grass, Row Crops
	23.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 32S: Watershed A Existing Onsite Undisturbed



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Summary for Subcatchment 33S: Watershed C Existing Onsite Disturbed

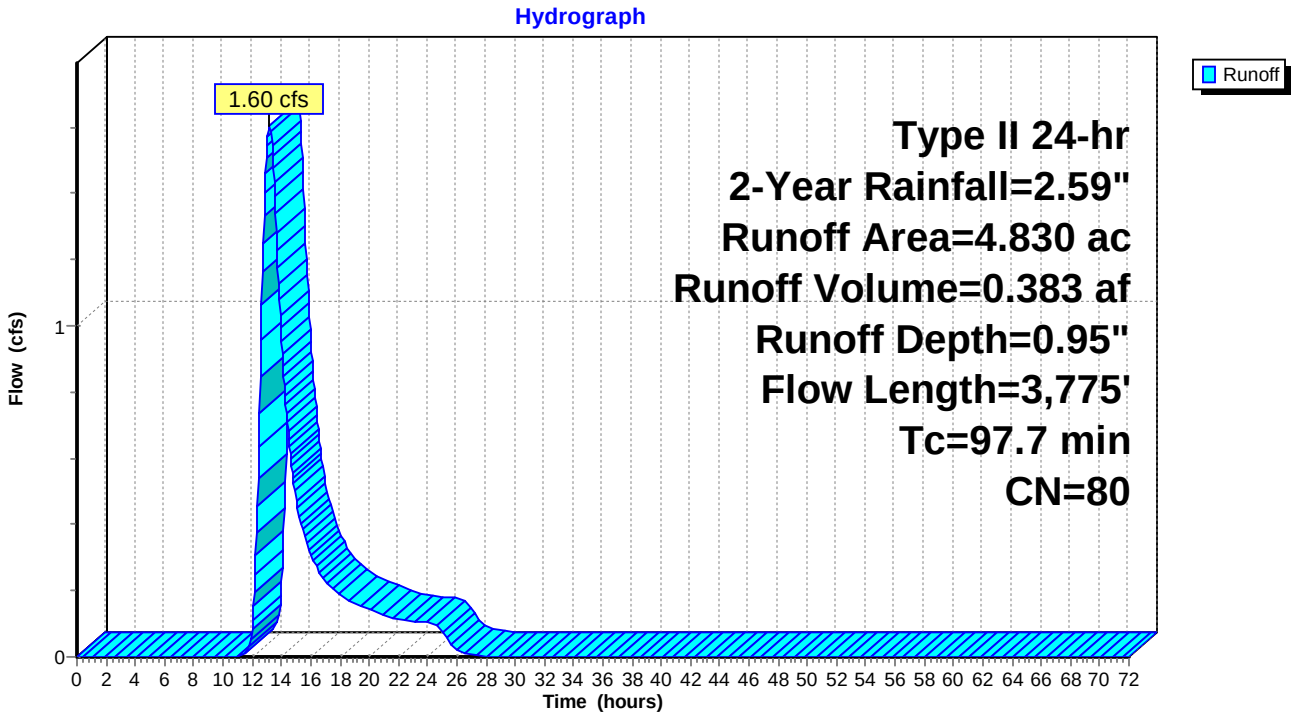
Runoff = 1.60 cfs @ 13.15 hrs, Volume= 0.383 af, Depth= 0.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

	Area (ac)	CN	Description
*	4.830	80	Woods, Grass, Row Crops
	4.830		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 33S: Watershed C Existing Onsite Disturbed



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Summary for Subcatchment 34S: Watershed C Existing Onsite Undisturbed

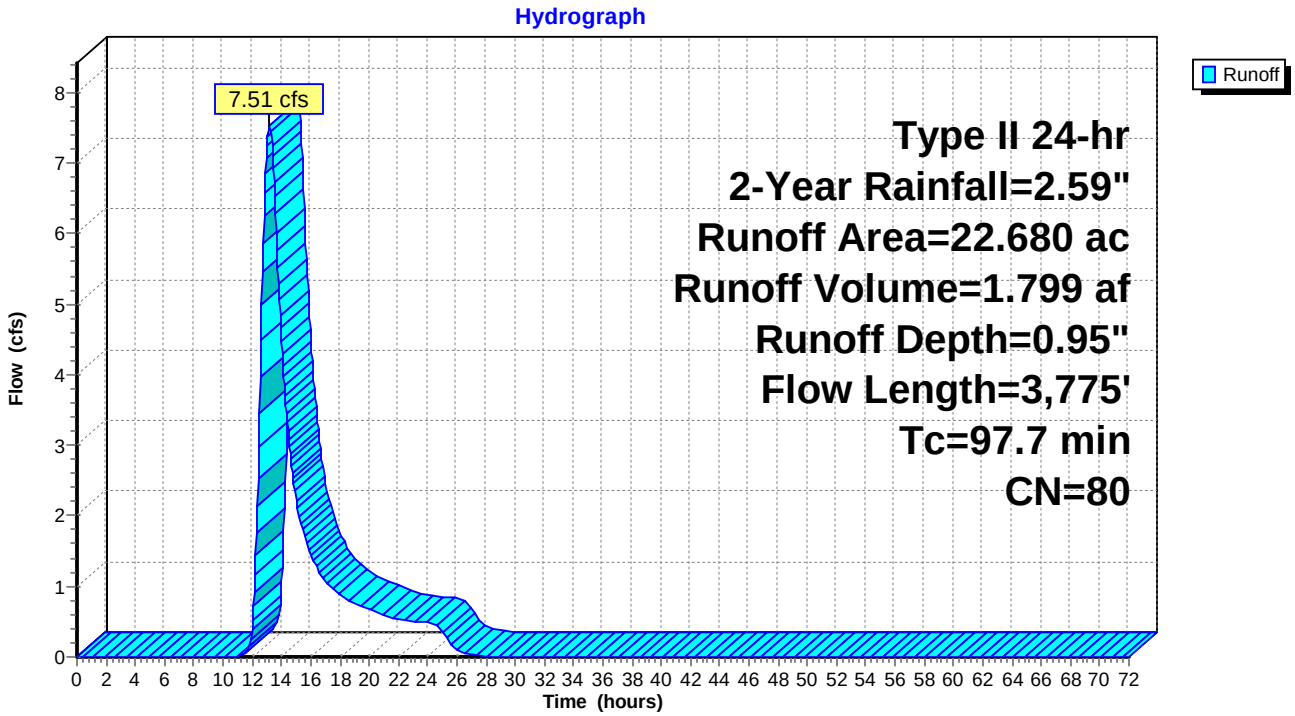
Runoff = 7.51 cfs @ 13.15 hrs, Volume= 1.799 af, Depth= 0.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

	Area (ac)	CN	Description
*	22.680	80	Woods, Grass
	22.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 34S: Watershed C Existing Onsite Undisturbed



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Summary for Subcatchment 35S: Watershed A Existing Onsite Disturbed

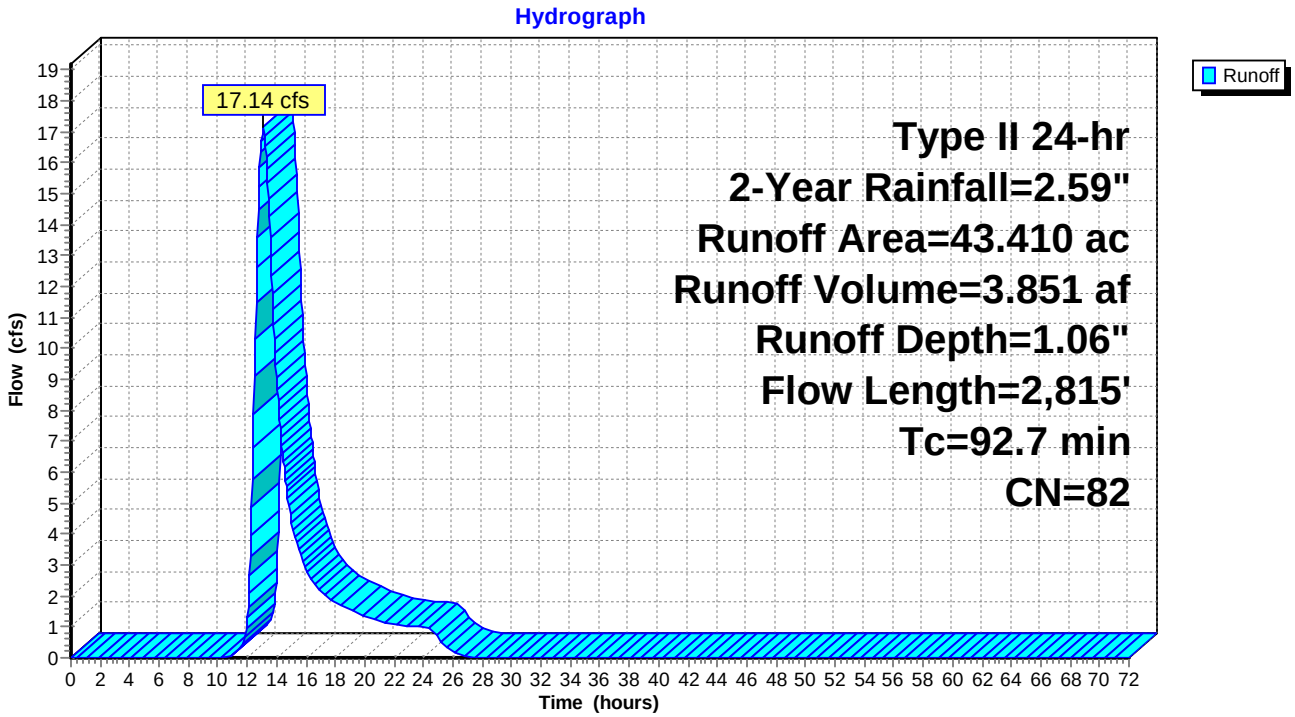
Runoff = 17.14 cfs @ 13.09 hrs, Volume= 3.851 af, Depth= 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

	Area (ac)	CN	Description
*	43.410	82	Woods, Grass, Row Crops
	43.410		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 35S: Watershed A Existing Onsite Disturbed



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Summary for Subcatchment 36S: Watershed A Existing Onsite Undisturbed

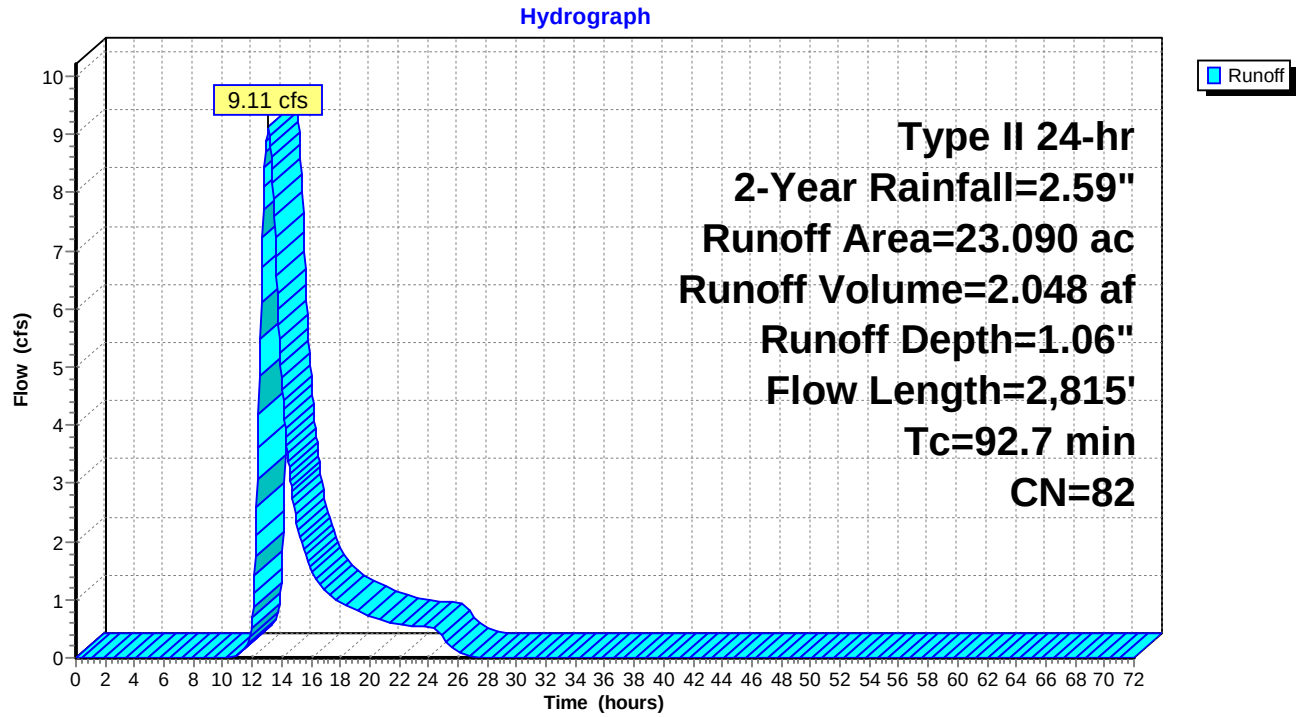
Runoff = 9.11 cfs @ 13.09 hrs, Volume= 2.048 af, Depth= 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

	Area (ac)	CN	Description
*	23.090	82	Woods, Grass, Row Crops
	23.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 36S: Watershed A Existing Onsite Undisturbed



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Summary for Subcatchment 41S: Watershed A1 Offsite

Runoff = 8.49 cfs @ 12.64 hrs, Volume= 1.345 af, Depth= 1.12"

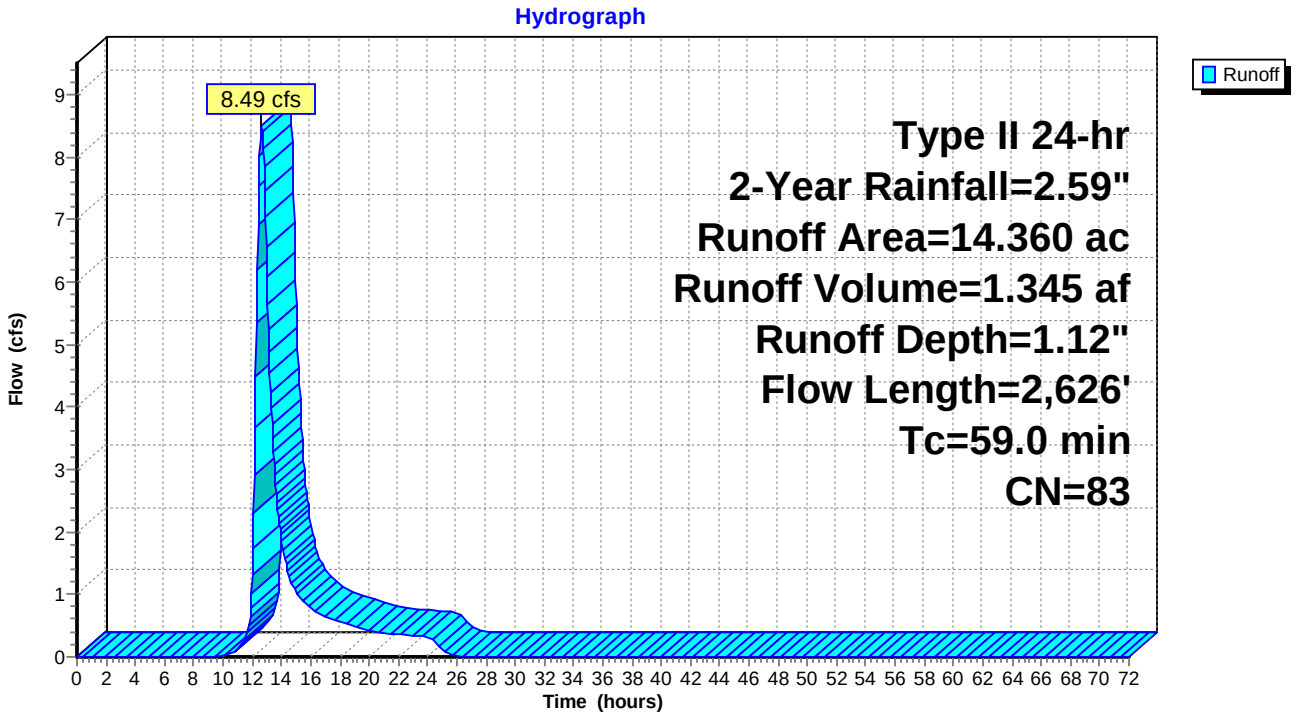
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.59"

Area (ac)	CN	Description
9.590	80	>75% Grass cover, Good, HSG D
2.310	77	Woods, Good, HSG D
2.460	98	Paved parking, HSG D
14.360	83	Weighted Average
11.900		82.87% Pervious Area
2.460		17.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.6	100	0.0133	0.06		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
4.4	237	0.0325	0.90		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
9.4	617	0.0242	1.09		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	90	0.0450	1.65	5.20	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.120
15.7	1,582	0.0126	1.68		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
59.0	2,626	Total			

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Subcatchment 41S: Watershed A1 Offsite



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Summary for Pond 1P: Basin A1

Inflow Area = 10.040 ac, 38.00% Impervious, Inflow Depth = 1.39" for 2-Year event
Inflow = 17.42 cfs @ 12.08 hrs, Volume= 1.160 af
Outflow = 0.51 cfs @ 16.11 hrs, Volume= 1.082 af, Atten= 97%, Lag= 241.8 min
Primary = 0.51 cfs @ 16.11 hrs, Volume= 1.082 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 958.65' @ 16.11 hrs Surf.Area= 22,956 sf Storage= 33,597 cf

Plug-Flow detention time= 852.5 min calculated for 1.081 af (93% of inflow)
Center-of-Mass det. time= 817.1 min (1,651.2 - 834.1)

Volume	Invert	Avail.Storage	Storage Description
#1	957.00'	129,041 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
957.00	17,908	0	0
958.00	20,912	19,410	19,410
959.00	24,072	22,492	41,902
960.00	27,332	25,702	67,604
961.00	30,693	29,013	96,617
962.00	34,155	32,424	129,041

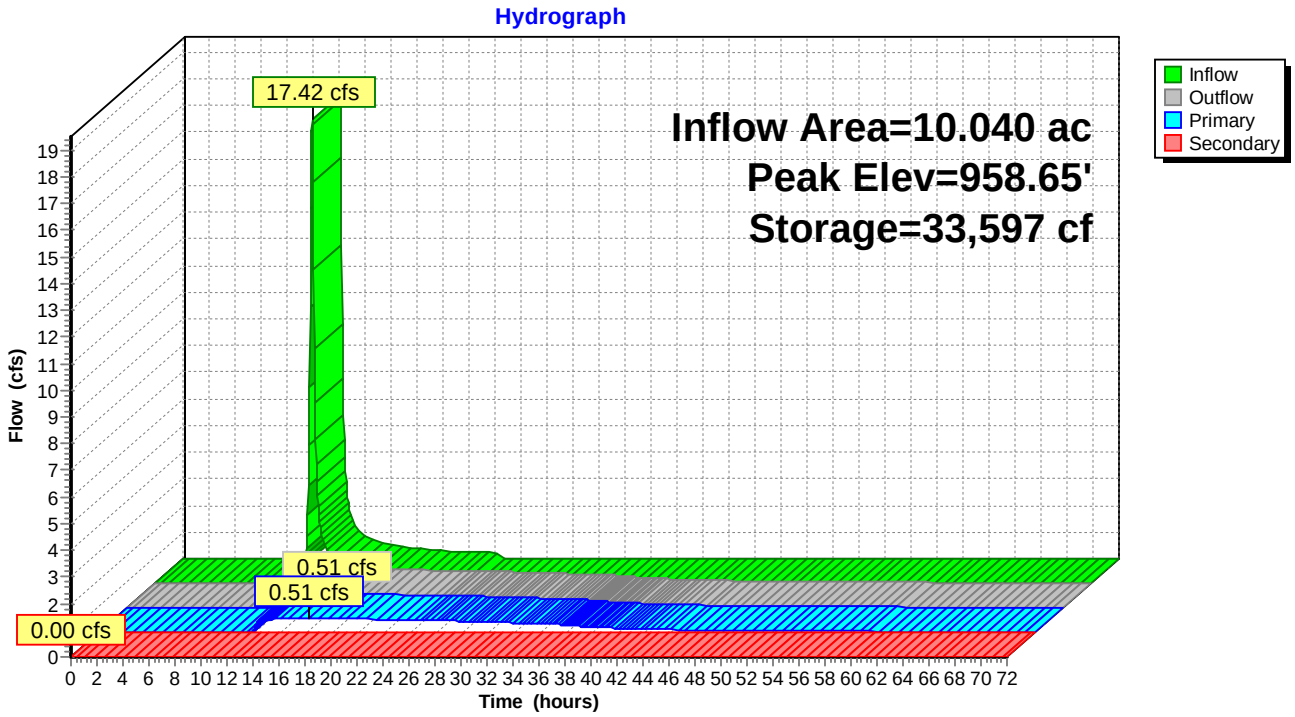
Device	Routing	Invert	Outlet Devices
#1	Primary	957.00'	**24.0" Round Culvert** L= 100.0' Ke= 0.200 Inlet / Outlet Invert= 957.00' / 956.50' S= 0.0050 '/' Cc= 0.900 n= 0.120, Flow Area= 3.14 sf
#2	Device 1	957.00'	**4.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	959.10'	**18.0" W x 4.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#4	Secondary	961.00'	**20.0' long x 15.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.51 cfs @ 16.11 hrs HW=958.65' (Free Discharge)
└**1=Culvert** (Passes 0.51 cfs of 1.63 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.51 cfs @ 5.86 fps)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=957.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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Pond 1P: Basin A1



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Summary for Pond 4P: Basin A2

Inflow Area = 17.910 ac, 38.00% Impervious, Inflow Depth = 1.39" for 2-Year event
Inflow = 30.99 cfs @ 12.08 hrs, Volume= 2.070 af
Outflow = 5.40 cfs @ 12.54 hrs, Volume= 2.067 af, Atten= 83%, Lag= 27.4 min
Primary = 5.40 cfs @ 12.54 hrs, Volume= 2.067 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 965.99' @ 12.54 hrs Surf.Area= 16,461 sf Storage= 40,068 cf

Plug-Flow detention time= 177.4 min calculated for 2.067 af (100% of inflow)
Center-of-Mass det. time= 176.5 min (1,010.6 - 834.2)

Volume	Invert	Avail.Storage	Storage Description
#1	962.00'	80,000 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
962.00	4,000	0	0
963.00	7,000	5,500	5,500
964.00	10,000	8,500	14,000
965.00	13,000	11,500	25,500
966.00	16,500	14,750	40,250
967.00	19,750	18,125	58,375
968.00	23,500	21,625	80,000

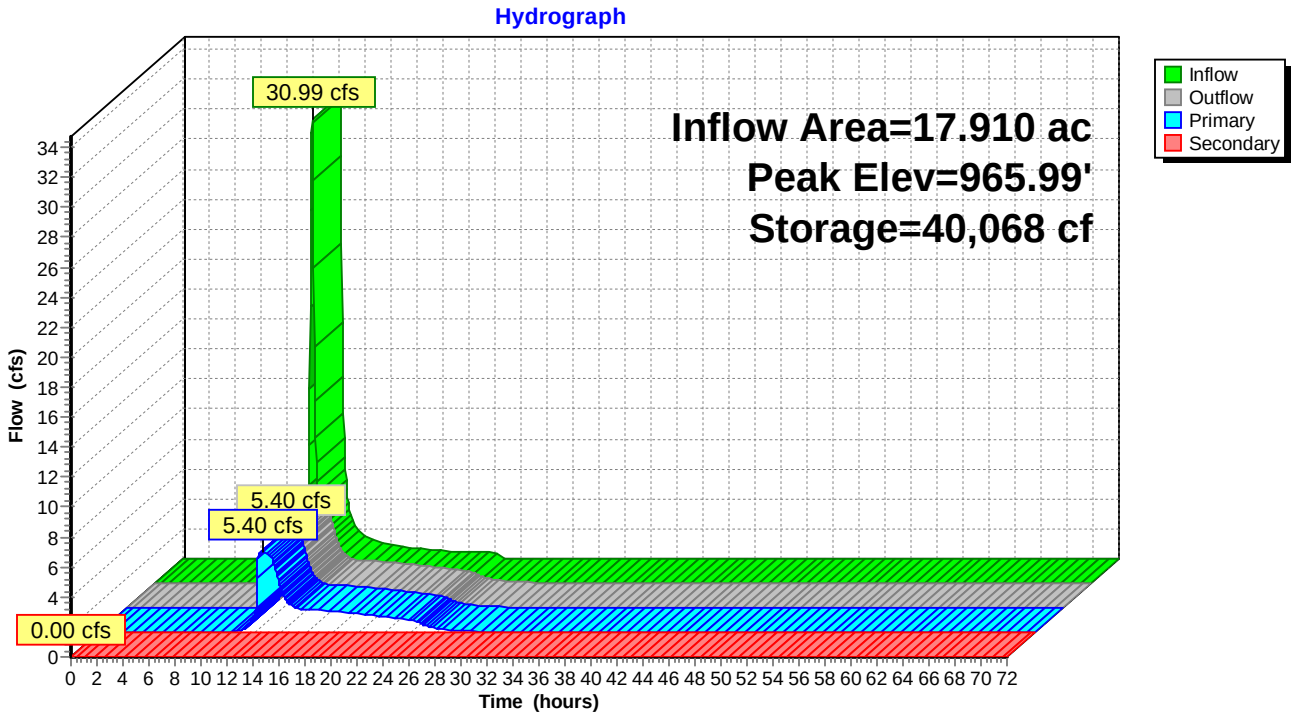
Device	Routing	Invert	Outlet Devices
#1	Primary	962.00'	**24.0" Round Culvert** L= 50.0' Ke= 0.200 Inlet / Outlet Invert= 962.00' / 961.50' S= 0.0100 '/' Cc= 0.900 n= 0.120, Flow Area= 3.14 sf
#2	Device 1	962.00'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	965.00'	**18.0" W x 4.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#4	Secondary	967.50'	**15.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=5.40 cfs @ 12.54 hrs HW=965.99' (Free Discharge)
└**1=Culvert** (Barrel Controls 5.40 cfs @ 1.72 fps)
  └**2=Orifice/Grate** (Passes < 1.83 cfs potential flow)
  └**3=Orifice/Grate** (Passes < 4.36 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=962.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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Pond 4P: Basin A2



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Summary for Pond 5P: Basin B

Inflow Area = 15.600 ac, 38.00% Impervious, Inflow Depth = 1.39" for 2-Year event
Inflow = 25.01 cfs @ 12.11 hrs, Volume= 1.803 af
Outflow = 2.84 cfs @ 12.86 hrs, Volume= 1.802 af, Atten= 89%, Lag= 44.9 min
Primary = 2.84 cfs @ 12.86 hrs, Volume= 1.802 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 957.19' @ 12.86 hrs Surf.Area= 15,246 sf Storage= 37,411 cf

Plug-Flow detention time= 169.5 min calculated for 1.802 af (100% of inflow)
Center-of-Mass det. time= 169.3 min (1,005.9 - 836.6)

Volume	Invert	Avail.Storage	Storage Description
#1	954.00'	88,920 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) x 1.3

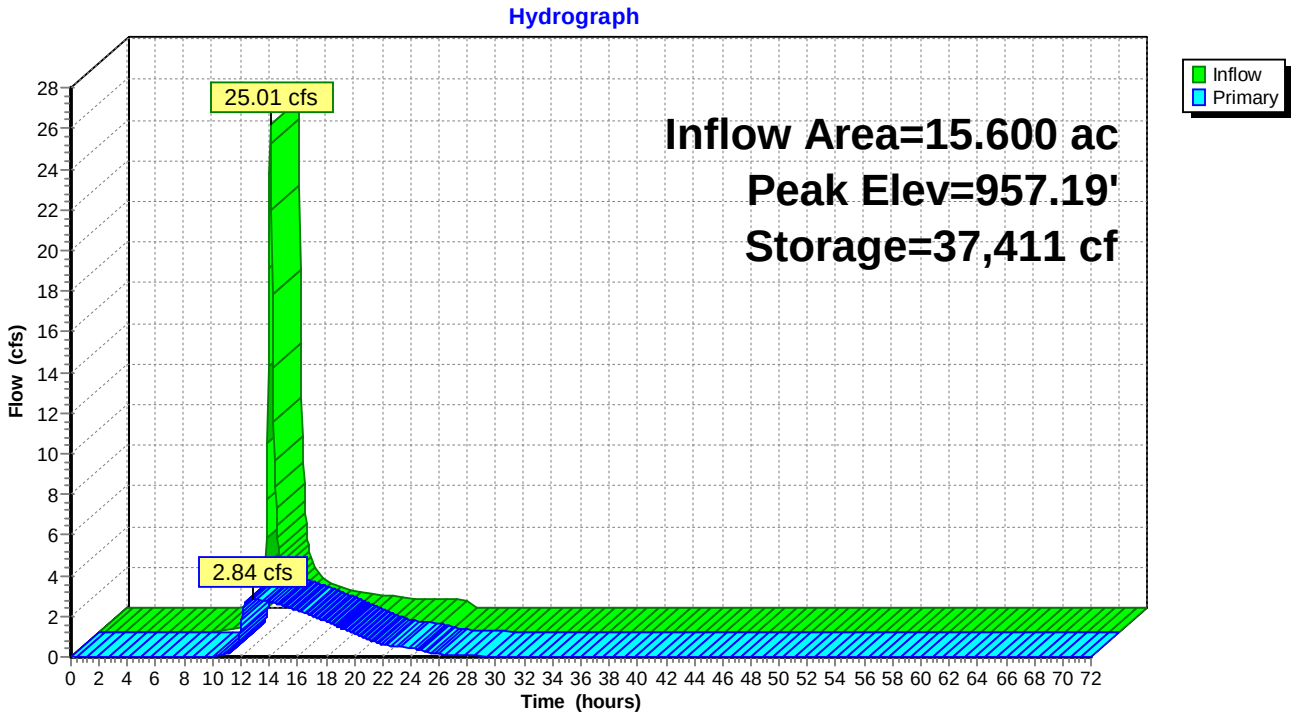
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
954.00	6,300	0	0
955.00	8,000	7,150	7,150
956.00	9,700	8,850	16,000
957.00	11,400	10,550	26,550
958.00	13,100	12,250	38,800
959.00	14,800	13,950	52,750
960.00	16,500	15,650	68,400

Device	Routing	Invert	Outlet Devices
#1	Primary	954.00'	**24.0" Round Culvert** L= 100.0' Ke= 0.200 Inlet / Outlet Invert= 954.00' / 953.00' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	954.00'	**8.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	958.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	959.50'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=2.84 cfs @ 12.86 hrs HW=957.19' (Free Discharge)
- **1=Culvert** (Passes 2.84 cfs of 24.82 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 2.84 cfs @ 8.14 fps)
  - **3=Orifice/Grate** (Controls 0.00 cfs)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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Pond 5P: Basin B



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Summary for Pond 6P: Basin C

Inflow Area = 16.870 ac, 38.00% Impervious, Inflow Depth = 1.39" for 2-Year event
Inflow = 28.87 cfs @ 12.09 hrs, Volume= 1.950 af
Outflow = 0.51 cfs @ 19.92 hrs, Volume= 1.507 af, Atten= 98%, Lag= 470.2 min
Primary = 0.51 cfs @ 19.92 hrs, Volume= 1.507 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 978.22' @ 19.92 hrs Surf.Area= 34,707 sf Storage= 66,239 cf

Plug-Flow detention time= 1,501.6 min calculated for 1.506 af (77% of inflow)
Center-of-Mass det. time= 1,412.9 min (2,247.5 - 834.5)

Volume	Invert	Avail.Storage	Storage Description
#1	976.00'	135,000 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) x 2.5

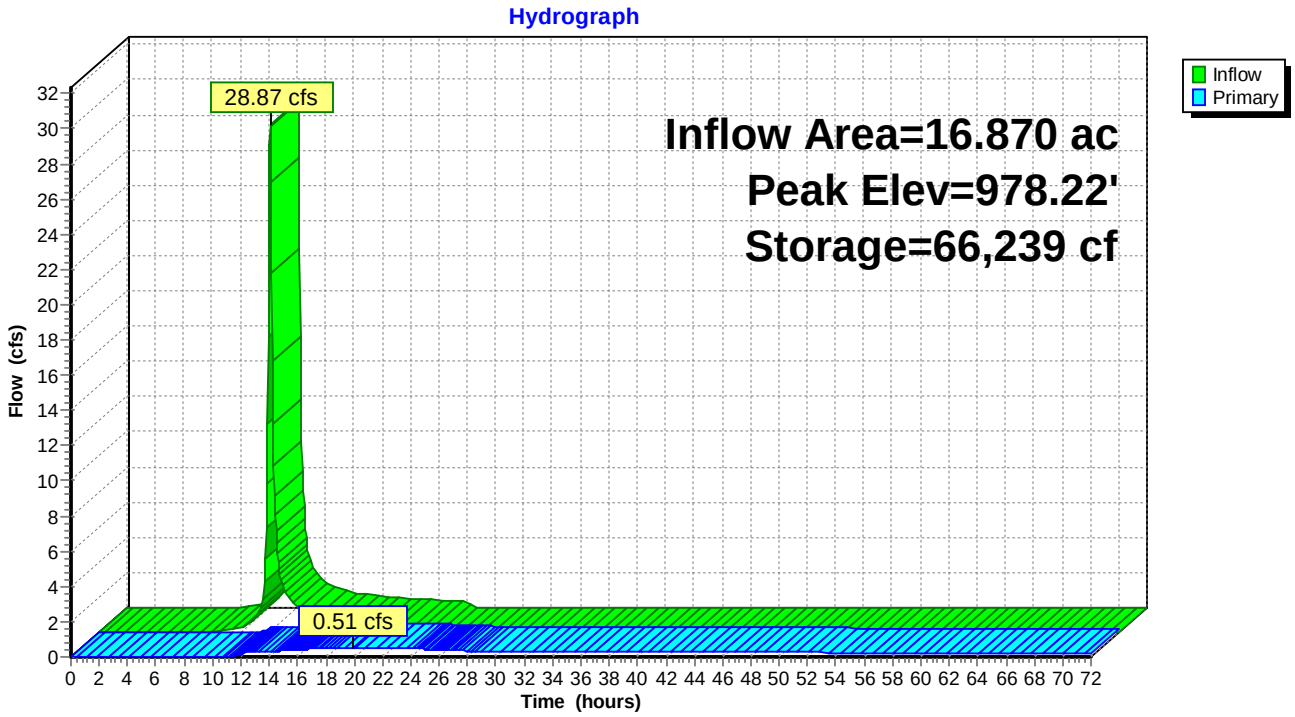
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
976.00	10,000	0	0
977.00	11,750	10,875	10,875
978.00	13,500	12,625	23,500
979.00	15,250	14,375	37,875
980.00	17,000	16,125	54,000

Device	Routing	Invert	Outlet Devices
#1	Primary	976.00'	**24.0" Round Culvert** L= 100.0' Ke= 0.200 Inlet / Outlet Invert= 976.00' / 975.00' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	976.00'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	978.00'	**6.0" W x 3.0" H Vert. Orifice/Grate** C= 0.600
#4	Primary	979.50'	**5.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.51 cfs @ 19.92 hrs HW=978.22' (Free Discharge)
- **1=Culvert** (Passes 0.51 cfs of 19.68 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.34 cfs @ 6.97 fps)
  - **3=Orifice/Grate** (Orifice Controls 0.16 cfs @ 1.50 fps)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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Pond 6P: Basin C



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Summary for Pond 7P: Basin C WQv

Inflow	=	0.00 cfs @	0.00 hrs,	Volume=	0.000 af
Outflow	=	0.31 cfs @	0.00 hrs,	Volume=	0.752 af, Atten= 0%, Lag= 0.0 min
Primary	=	0.31 cfs @	0.00 hrs,	Volume=	0.752 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Starting Elev= 990.90' Surf.Area= 36,387 sf Storage= 32,748 cf
Peak Elev= 990.90' @ 0.00 hrs Surf.Area= 36,387 sf Storage= 32,748 cf

Plug-Flow detention time= (not calculated: no plugs found)
Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	990.00'	145,548 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) x 1.8

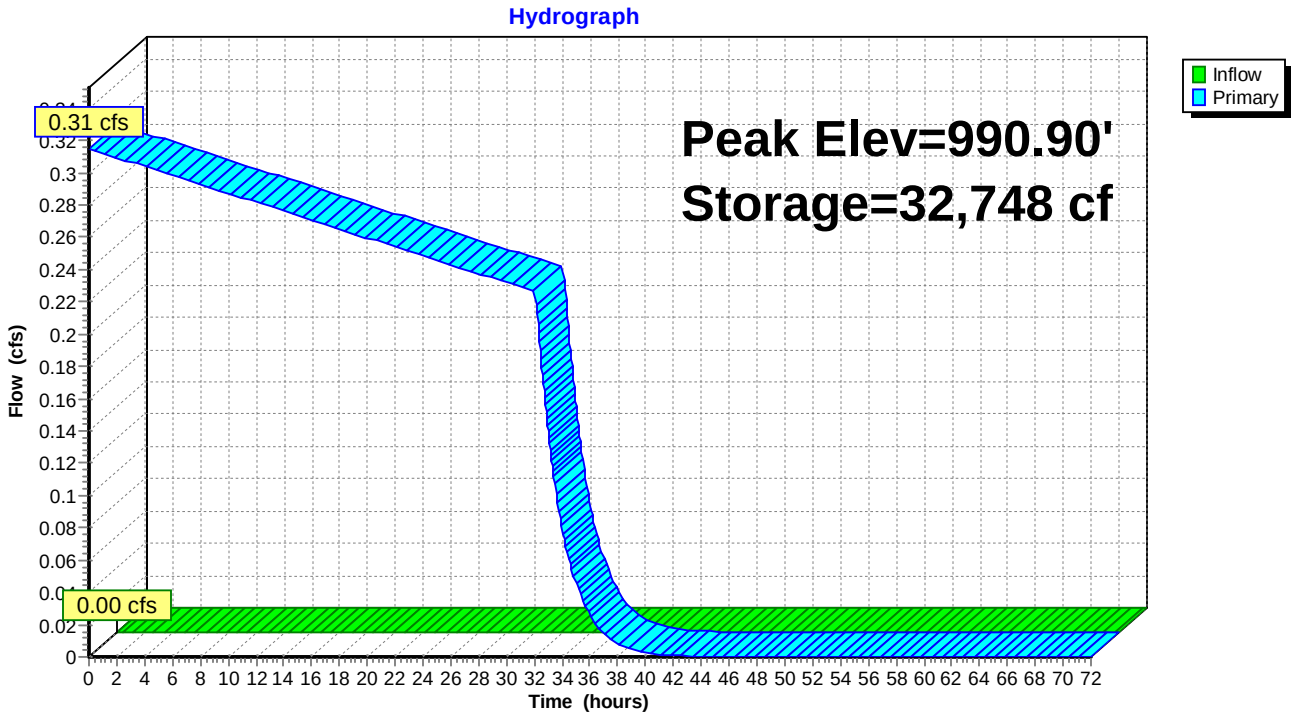
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
990.00	20,215	0	0
994.00	20,215	80,860	80,860

Device	Routing	Invert	Outlet Devices
#1	Primary	988.00'	**24.0" Round Culvert** L= 100.0' Ke= 0.200 Inlet / Outlet Invert= 988.00' / 986.00' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	989.00'	**3.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.31 cfs @ 0.00 hrs HW=990.90' (Free Discharge)
↑—**1=Culvert** (Passes 0.31 cfs of 26.06 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 0.31 cfs @ 6.41 fps)

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Pond 7P: Basin C WQv



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Summary for Pond 8P: Basin B WQv

Inflow	=	0.00 cfs @	0.00 hrs,	Volume=	0.000 af
Outflow	=	0.76 cfs @	0.00 hrs,	Volume=	0.671 af, Atten= 0%, Lag= 0.0 min
Primary	=	0.76 cfs @	0.00 hrs,	Volume=	0.671 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Starting Elev= 990.90' Surf.Area= 34,000 sf Storage= 30,600 cf
Peak Elev= 990.90' @ 0.00 hrs Surf.Area= 34,000 sf Storage= 30,600 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	990.00'	136,000 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) x 1.7

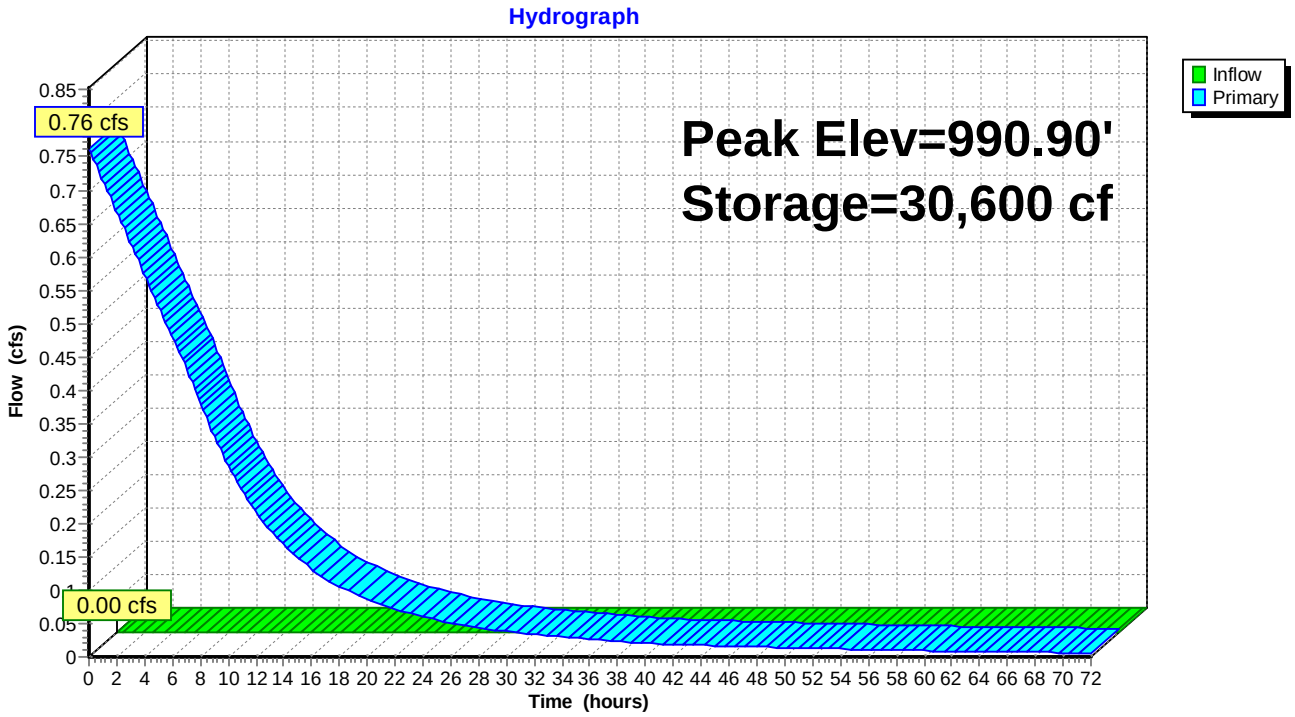
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
990.00	20,000	0	0
994.00	20,000	80,000	80,000

Device	Routing	Invert	Outlet Devices
#1	Primary	988.00'	**24.0" Round Culvert** L= 100.0' Ke= 0.200 Inlet / Outlet Invert= 988.00' / 986.00' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	990.00'	**6.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.76 cfs @ 0.00 hrs HW=990.90' (Free Discharge)
↑—**1=Culvert** (Passes 0.76 cfs of 26.06 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 0.76 cfs @ 3.88 fps)

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Pond 8P: Basin B WQv



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Summary for Pond 10P: Existing Pond

Inflow Area = 35.020 ac, 22.87% Impervious, Inflow Depth = 1.19" for 2-Year event
Inflow = 35.91 cfs @ 12.25 hrs, Volume= 3.462 af
Outflow = 1.74 cfs @ 16.10 hrs, Volume= 2.948 af, Atten= 95%, Lag= 231.5 min
Primary = 1.74 cfs @ 16.10 hrs, Volume= 2.948 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 994.48' @ 16.10 hrs Surf.Area= 201,938 sf Storage= 97,733 cf

Plug-Flow detention time= 888.6 min calculated for 2.946 af (85% of inflow)
Center-of-Mass det. time= 820.8 min (1,678.9 - 858.1)

Volume	Invert	Avail.Storage	Storage Description
#1	994.00'	403,876 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

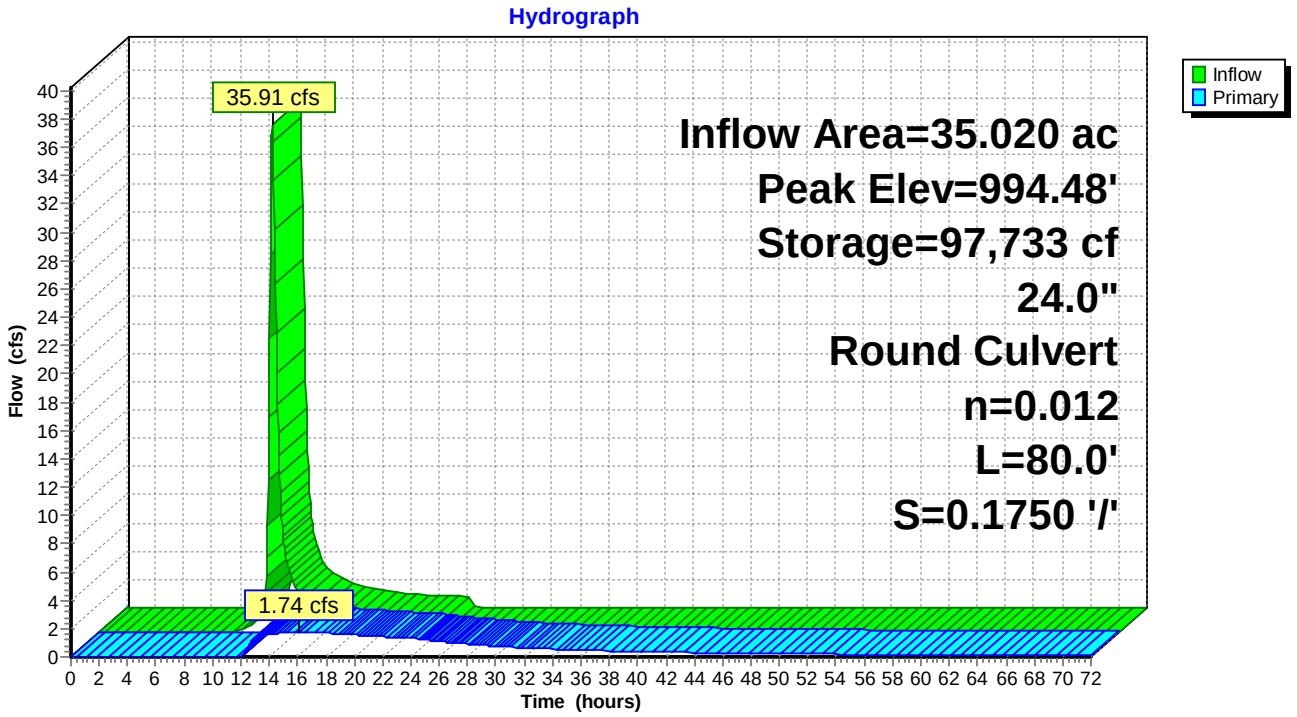
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
994.00	201,938	0	0
995.00	201,938	201,938	201,938
996.00	201,938	201,938	403,876

Device	Routing	Invert	Outlet Devices
#1	Primary	994.00'	**24.0" Round Culvert** L= 80.0' Ke= 0.200 Inlet / Outlet Invert= 994.00' / 980.00' S= 0.1750 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=1.74 cfs @ 16.10 hrs HW=994.48' (Free Discharge)
1=Culvert (Inlet Controls 1.74 cfs @ 2.96 fps)

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Pond 10P: Existing Pond



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Summary for Pond 16P: Basin A3

Inflow Area = 4.990 ac, 38.00% Impervious, Inflow Depth = 1.39" for 2-Year event
Inflow = 8.79 cfs @ 12.08 hrs, Volume= 0.577 af
Outflow = 1.04 cfs @ 12.69 hrs, Volume= 0.577 af, Atten= 88%, Lag= 37.1 min
Primary = 1.04 cfs @ 12.69 hrs, Volume= 0.577 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 958.20' @ 12.69 hrs Surf.Area= 11,121 sf Storage= 11,686 cf

Plug-Flow detention time= 150.1 min calculated for 0.577 af (100% of inflow)
Center-of-Mass det. time= 149.7 min (983.3 - 833.6)

Volume	Invert	Avail.Storage	Storage Description
#1	957.00'	94,800 cf	**Custom Stage Data (Prismatic)** Listed below

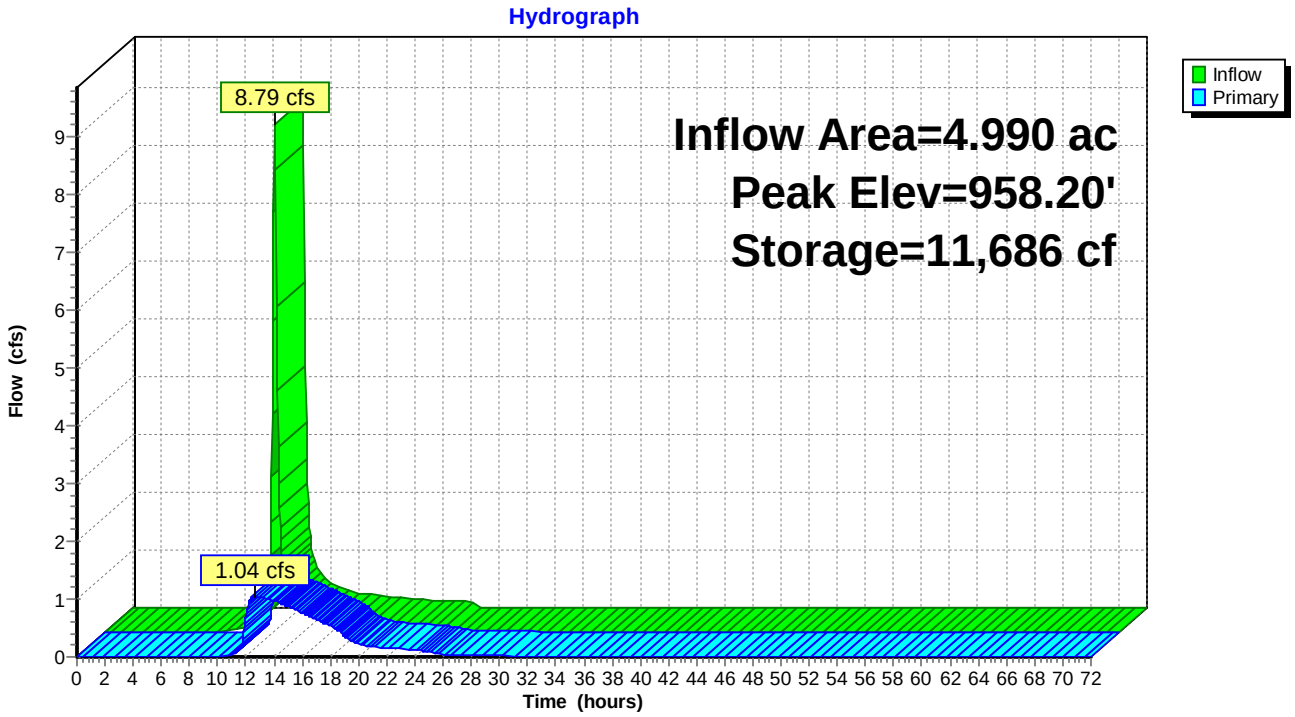
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
957.00	8,000	0	0
958.00	10,600	9,300	9,300
959.00	13,200	11,900	21,200
960.00	15,800	14,500	35,700
961.00	18,400	17,100	52,800
962.00	21,000	19,700	72,500
963.00	23,600	22,300	94,800

Device	Routing	Invert	Outlet Devices
#1	Primary	957.00'	**24.0" Round Culvert** L= 50.0' Ke= 0.200 Inlet / Outlet Invert= 957.00' / 956.00' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	956.00'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	959.00'	**18.0" W x 4.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#4	Primary	962.00'	**15.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=1.04 cfs @ 12.69 hrs HW=958.20' (Free Discharge)
- **1=Culvert** (Passes 1.04 cfs of 9.18 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 1.04 cfs @ 5.28 fps)
  - **3=Orifice/Grate** (Controls 0.00 cfs)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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Pond 16P: Basin A3



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Summary for Pond 40P: Basin A1 WQv

Inflow	=	0.00 cfs @	0.00 hrs,	Volume=	0.000 af
Outflow	=	1.29 cfs @	0.00 hrs,	Volume=	0.967 af, Atten= 0%, Lag= 0.0 min
Primary	=	1.29 cfs @	0.00 hrs,	Volume=	0.967 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Starting Elev= 959.10' Surf.Area= 24,398 sf Storage= 44,326 cf
Peak Elev= 959.10' @ 0.00 hrs Surf.Area= 24,398 sf Storage= 44,326 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	957.00'	129,041 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

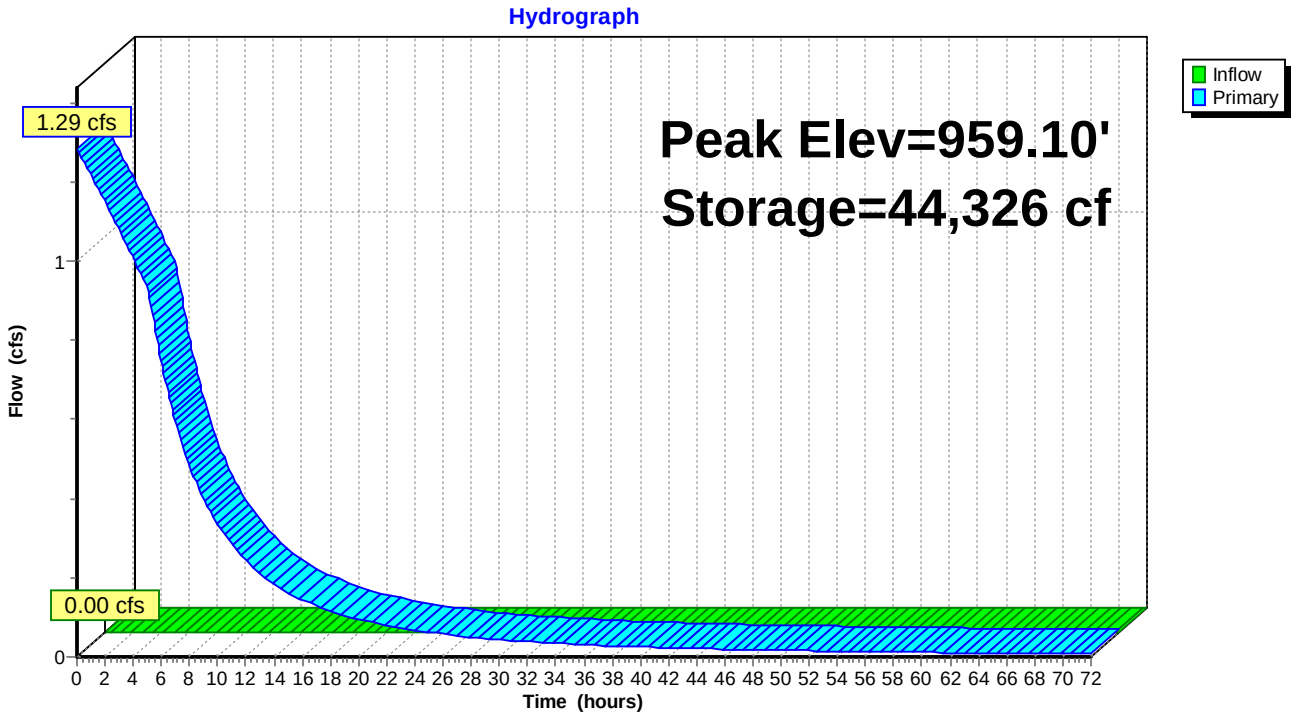
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
957.00	17,908	0	0
958.00	20,912	19,410	19,410
959.00	24,072	22,492	41,902
960.00	27,332	25,702	67,604
961.00	30,693	29,013	96,617
962.00	34,155	32,424	129,041

Device	Routing	Invert	Outlet Devices
#1	Primary	957.00'	**24.0" Round Culvert** L= 100.0' Ke= 0.200 Inlet / Outlet Invert= 957.00' / 956.50' S= 0.0050 '/' Cc= 0.900 n= 0.120, Flow Area= 3.14 sf
#2	Device 1	957.00'	**6.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=1.29 cfs @ 0.00 hrs HW=959.10' (Free Discharge)
↑**1=Culvert** (Passes 1.29 cfs of 2.37 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 1.29 cfs @ 6.55 fps)

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Pond 40P: Basin A1 WQv



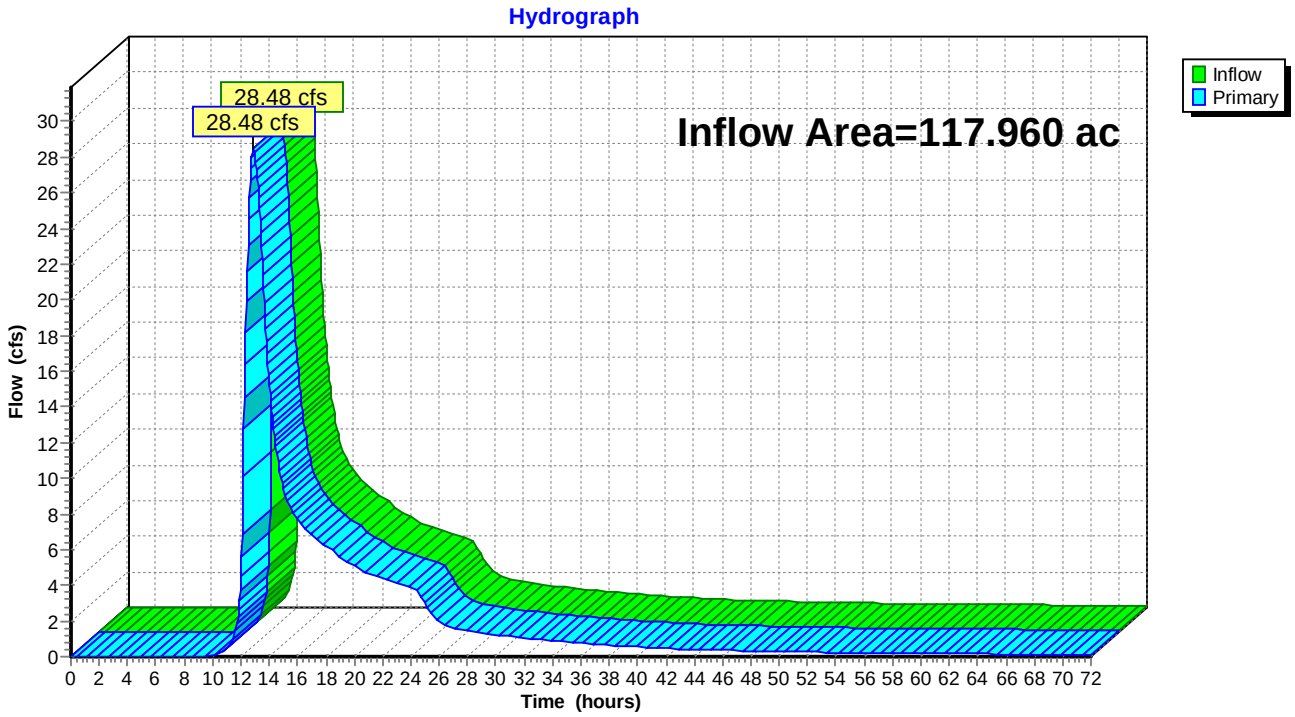
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Summary for Link 26L: Total Watershed A Release

Inflow Area = 117.960 ac, 19.49% Impervious, Inflow Depth > 1.14" for 2-Year event
Inflow = 28.48 cfs @ 12.87 hrs, Volume= 11.180 af
Primary = 28.48 cfs @ 12.87 hrs, Volume= 11.180 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 26L: Total Watershed A Release



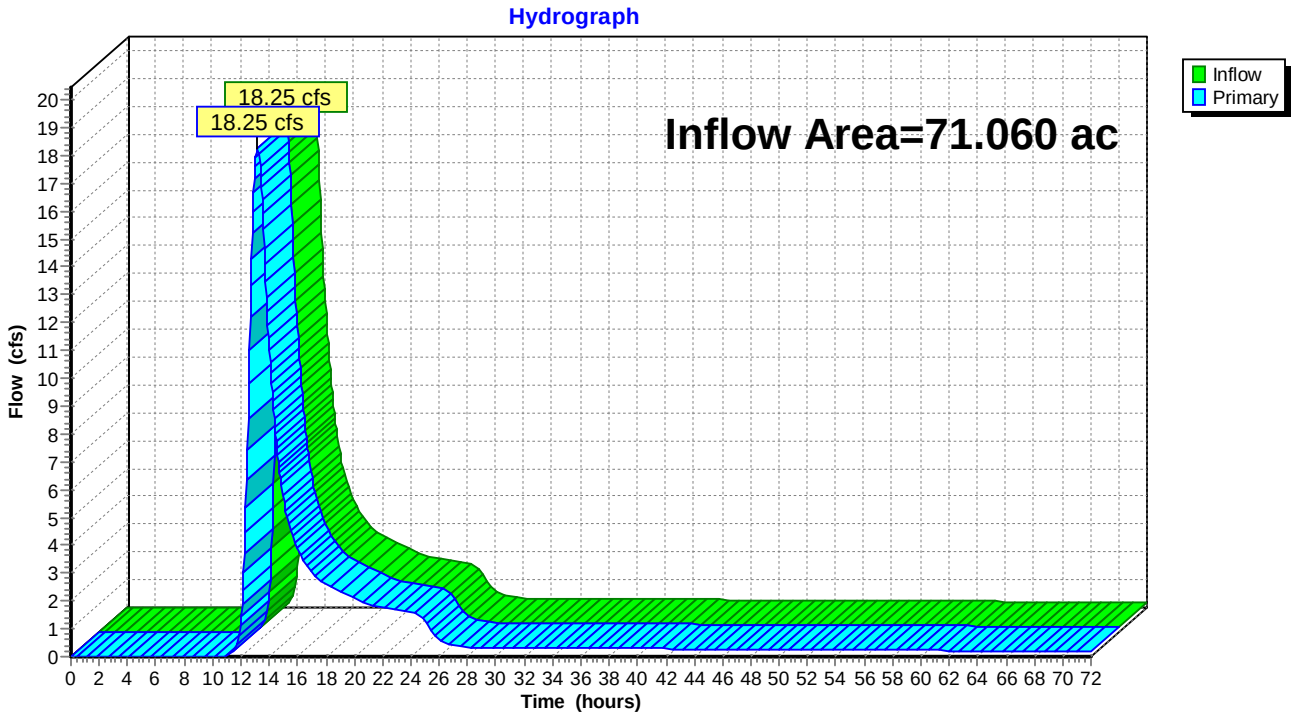
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Summary for Link 27L: Total Watershed C Release

Inflow Area = 71.060 ac, 9.02% Impervious, Inflow Depth > 0.98" for 2-Year event
Inflow = 18.25 cfs @ 13.15 hrs, Volume= 5.804 af
Primary = 18.25 cfs @ 13.15 hrs, Volume= 5.804 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 27L: Total Watershed C Release



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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 4S: Watershed C Existing Total Runoff Area=59.020 ac 6.98% Impervious Runoff Depth=3.32"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=72.63 cfs 16.307 af

Subcatchment 5S: Watershed A Existing Total Runoff Area=93.840 ac 4.24% Impervious Runoff Depth=3.51"
Flow Length=2,815' Tc=92.7 min CN=82 Runoff=127.49 cfs 27.462 af

Subcatchment 7S: Watershed A Existing Onsite Runoff Area=73.360 ac 0.65% Impervious Runoff Depth=3.41"
Flow Length=2,815' Tc=92.7 min CN=81 Runoff=96.84 cfs 20.866 af

Subcatchment 8S: Watershed B Existing Runoff Area=17.210 ac 0.00% Impervious Runoff Depth=3.71"
Flow Length=1,901' Tc=50.4 min CN=84 Runoff=38.77 cfs 5.324 af

Subcatchment 9S: Watershed A3 Offsite Runoff Area=35.020 ac 22.87% Impervious Runoff Depth=3.71"
Flow Length=949' Tc=29.4 min CN=84 Runoff=113.38 cfs 10.834 af

Subcatchment 12S: Watershed A1 Proposed Runoff Area=10.040 ac 38.00% Impervious Runoff Depth=4.02"
Flow Length=800' Tc=15.8 min CN=87 Runoff=49.20 cfs 3.365 af

Subcatchment 13S: Watershed C Existing Runoff Area=27.510 ac 9.09% Impervious Runoff Depth=3.32"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=33.85 cfs 7.601 af

Subcatchment 14S: Watershed B Proposed Runoff Area=15.600 ac 38.00% Impervious Runoff Depth=4.02"
Flow Length=800' Tc=18.5 min CN=87 Runoff=70.91 cfs 5.228 af

Subcatchment 17S: Watershed A2 Proposed Runoff Area=17.910 ac 38.00% Impervious Runoff Depth=4.02"
Flow Length=850' Tc=15.9 min CN=87 Runoff=87.47 cfs 6.002 af

Subcatchment 19S: Watershed A3 Proposed Runoff Area=4.990 ac 38.00% Impervious Runoff Depth=4.02"
Flow Length=530' Tc=15.3 min CN=87 Runoff=24.83 cfs 1.672 af

Subcatchment 20S: Watershed C Proposed Runoff Area=16.870 ac 38.00% Impervious Runoff Depth=4.02"
Flow Length=1,100' Tc=16.3 min CN=87 Runoff=81.53 cfs 5.653 af

Subcatchment 22S: Watershed A1 Offsite Runoff Area=14.360 ac 17.13% Impervious Runoff Depth=3.61"
Flow Length=2,626' Tc=59.0 min CN=83 Runoff=28.03 cfs 4.322 af

Subcatchment 23S: Watershed A2 Offsite Runoff Area=12.550 ac 0.00% Impervious Runoff Depth=3.51"
Flow Length=2,815' Tc=92.7 min CN=82 Runoff=17.05 cfs 3.673 af

Subcatchment 24S: Watershed C Offsite Runoff Area=31.510 ac 0.00% Impervious Runoff Depth=3.32"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=38.78 cfs 8.706 af

Subcatchment 28S: Watershed C Offsite Runoff Area=31.510 ac 0.00% Impervious Runoff Depth=3.32"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=38.78 cfs 8.706 af

Subcatchment 29S: Watershed A2 Offsite Runoff Area=12.550 ac 0.00% Impervious Runoff Depth=3.51"
Flow Length=2,815' Tc=92.7 min CN=82 Runoff=17.05 cfs 3.673 af

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Subcatchment 30S: Watershed A3 Offsite Runoff Area=35.020 ac 22.87% Impervious Runoff Depth=3.71"
Flow Length=949' Tc=29.4 min CN=84 Runoff=113.38 cfs 10.834 af

Subcatchment 31S: Watershed C Existing Runoff Area=22.680 ac 0.00% Impervious Runoff Depth=3.32"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=27.91 cfs 6.266 af

Subcatchment 32S: Watershed A Existing Runoff Area=23.090 ac 0.00% Impervious Runoff Depth=3.51"
Flow Length=2,815' Tc=92.7 min CN=82 Runoff=31.37 cfs 6.757 af

Subcatchment 33S: Watershed C Existing Runoff Area=4.830 ac 0.00% Impervious Runoff Depth=3.32"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=5.94 cfs 1.335 af

Subcatchment 34S: Watershed C Existing Runoff Area=22.680 ac 0.00% Impervious Runoff Depth=3.32"
Flow Length=3,775' Tc=97.7 min CN=80 Runoff=27.91 cfs 6.266 af

Subcatchment 35S: Watershed A Existing Runoff Area=43.410 ac 0.00% Impervious Runoff Depth=3.51"
Flow Length=2,815' Tc=92.7 min CN=82 Runoff=58.98 cfs 12.704 af

Subcatchment 36S: Watershed A Existing Runoff Area=23.090 ac 0.00% Impervious Runoff Depth=3.51"
Flow Length=2,815' Tc=92.7 min CN=82 Runoff=31.37 cfs 6.757 af

Subcatchment 41S: Watershed A1 Offsite Runoff Area=14.360 ac 17.13% Impervious Runoff Depth=3.61"
Flow Length=2,626' Tc=59.0 min CN=83 Runoff=28.03 cfs 4.322 af

Pond 1P: Basin A1 Peak Elev=960.69' Storage=87,142 cf Inflow=49.20 cfs 3.365 af
Primary=3.60 cfs 3.270 af Secondary=0.00 cfs 0.000 af Outflow=3.60 cfs 3.270 af

Pond 4P: Basin A2 Peak Elev=969.29' Storage=80,000 cf Inflow=87.47 cfs 6.002 af
Primary=8.23 cfs 4.489 af Secondary=94.37 cfs 1.510 af Outflow=102.60 cfs 5.999 af

Pond 5P: Basin B Peak Elev=959.99' Storage=88,794 cf Inflow=70.91 cfs 5.228 af
Outflow=31.62 cfs 5.227 af

Pond 6P: Basin C Peak Elev=981.16' Storage=135,000 cf Inflow=81.53 cfs 5.653 af
Outflow=29.62 cfs 4.929 af

Pond 7P: Basin C WQv Peak Elev=990.90' Storage=32,748 cf Inflow=0.00 cfs 0.000 af
Outflow=0.31 cfs 0.752 af

Pond 8P: Basin B WQv Peak Elev=990.90' Storage=30,600 cf Inflow=0.00 cfs 0.000 af
Outflow=0.76 cfs 0.671 af

Pond 10P: Existing Pond Peak Elev=995.39' Storage=279,701 cf Inflow=113.38 cfs 10.834 af
24.0" Round Culvert n=0.012 L=80.0' S=0.1750 '/' Outflow=11.63 cfs 10.247 af

Pond 16P: Basin A3 Peak Elev=959.78' Storage=32,535 cf Inflow=24.83 cfs 1.672 af
Outflow=5.34 cfs 1.672 af

Pond 40P: Basin A1 WQv Peak Elev=959.10' Storage=44,326 cf Inflow=0.00 cfs 0.000 af
Outflow=1.29 cfs 0.967 af

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Link 26L: Total Watershed A Release

Inflow=96.31 cfs 34.430 af
Primary=96.31 cfs 34.430 af

Link 27L: Total Watershed C Release

Inflow=72.78 cfs 19.901 af
Primary=72.78 cfs 19.901 af

Total Runoff Area = 663.010 ac Runoff Volume = 194.634 af Average Runoff Depth = 3.52"
91.42% Pervious = 606.134 ac 8.58% Impervious = 56.876 ac

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Summary for Subcatchment 4S: Watershed C Existing Total

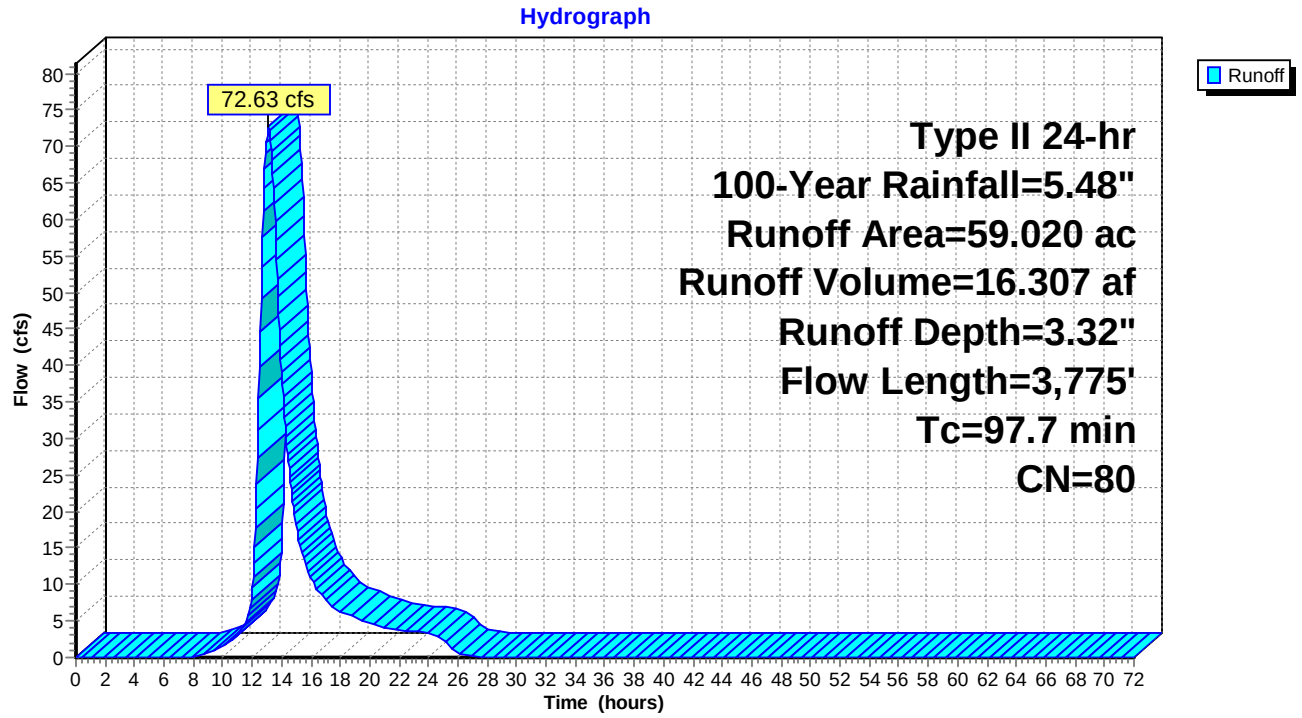
Runoff = 72.63 cfs @ 13.12 hrs, Volume= 16.307 af, Depth= 3.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

Area (ac)	CN	Description
29.570	77	Woods, Good, HSG D
4.120	98	Paved parking, HSG D
25.330	80	>75% Grass cover, Good, HSG D
59.020	80	Weighted Average
54.900		93.02% Pervious Area
4.120		6.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 4S: Watershed C Existing Total



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Summary for Subcatchment 5S: Watershed A Existing Total

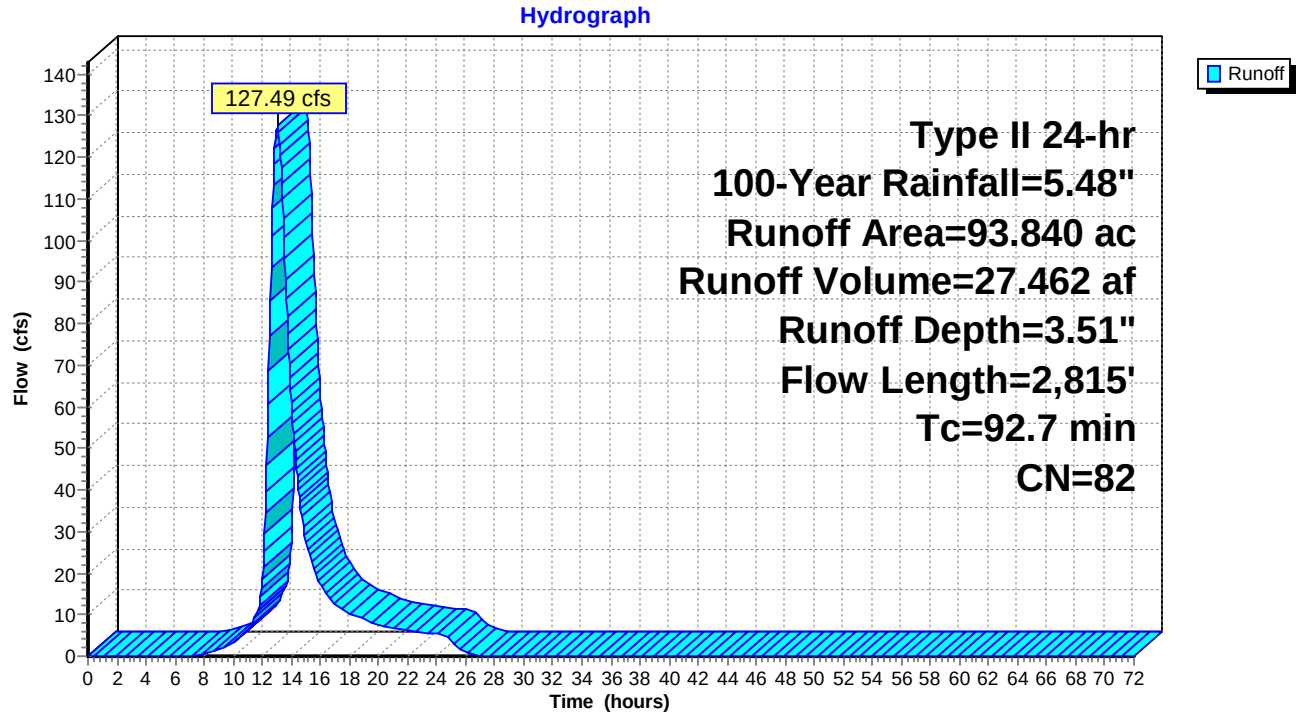
Runoff = 127.49 cfs @ 13.04 hrs, Volume= 27.462 af, Depth= 3.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

Area (ac)	CN	Description
19.270	80	>75% Grass cover, Good, HSG D
31.720	77	Woods, Good, HSG D
38.870	85	Legumes, straight row, Good, HSG D
3.980	98	Paved parking, HSG D
93.840	82	Weighted Average
89.860		95.76% Pervious Area
3.980		4.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 5S: Watershed A Existing Total



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Summary for Subcatchment 7S: Watershed A Existing Onsite Total

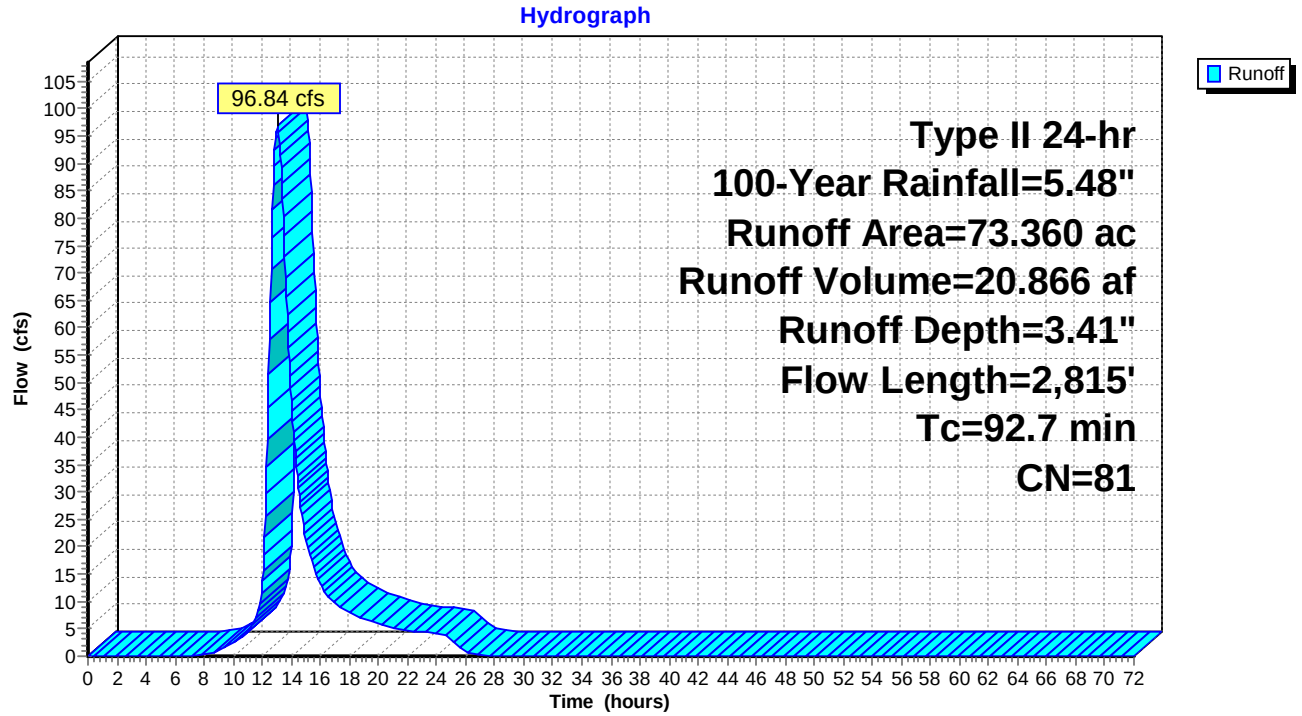
Runoff = 96.84 cfs @ 13.05 hrs, Volume= 20.866 af, Depth= 3.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

Area (ac)	CN	Description
2.290	80	>75% Grass cover, Good, HSG D
31.720	77	Woods, Good, HSG D
38.870	85	Legumes, straight row, Good, HSG D
0.480	98	Paved parking, HSG D
73.360	81	Weighted Average
72.880		99.35% Pervious Area
0.480		0.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 7S: Watershed A Existing Onsite Total



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Summary for Subcatchment 8S: Watershed B Existing

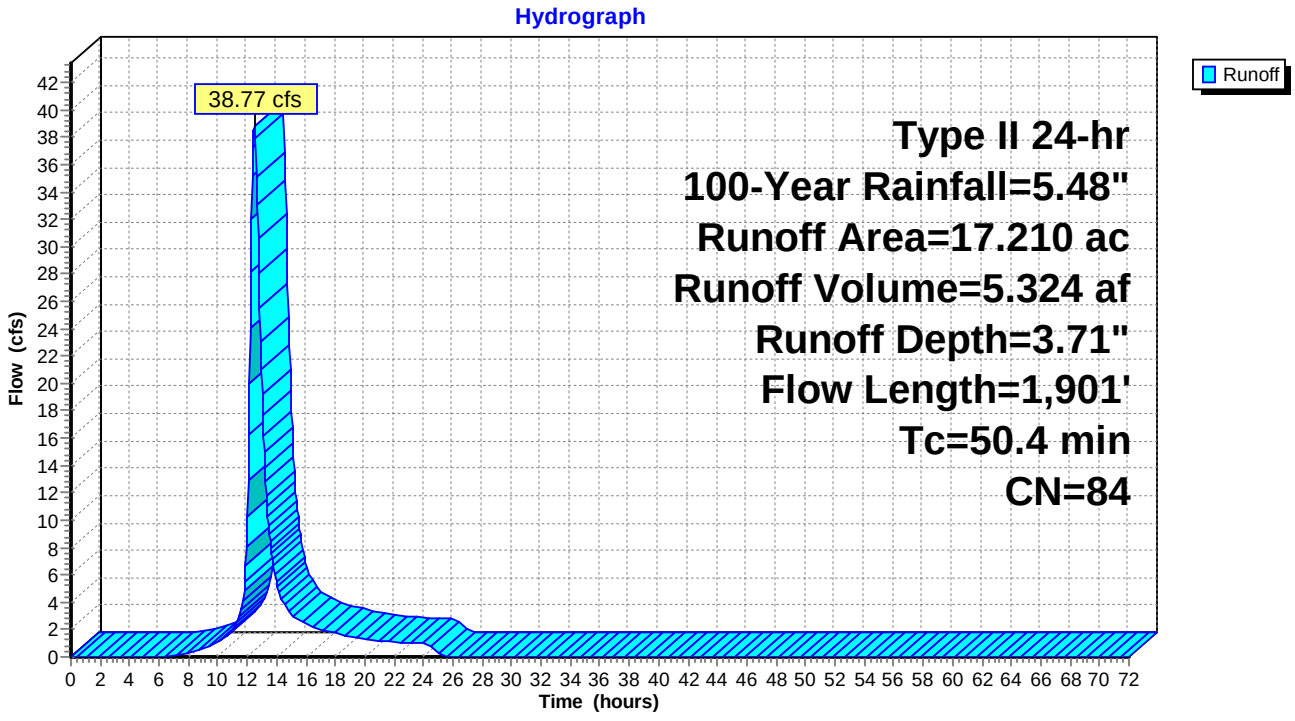
Runoff = 38.77 cfs @ 12.49 hrs, Volume= 5.324 af, Depth= 3.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

Area (ac)	CN	Description
1.640	77	Woods, Good, HSG D
15.570	85	Legumes, straight row, Good, HSG D
17.210	84	Weighted Average
17.210		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
33.6	100	0.0089	0.05		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
4.9	256	0.0300	0.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
11.9	1,545	0.0207	2.16		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
50.4	1,901	Total			

Subcatchment 8S: Watershed B Existing



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Summary for Subcatchment 9S: Watershed A3 Offsite

Runoff = 113.38 cfs @ 12.23 hrs, Volume= 10.834 af, Depth= 3.71"

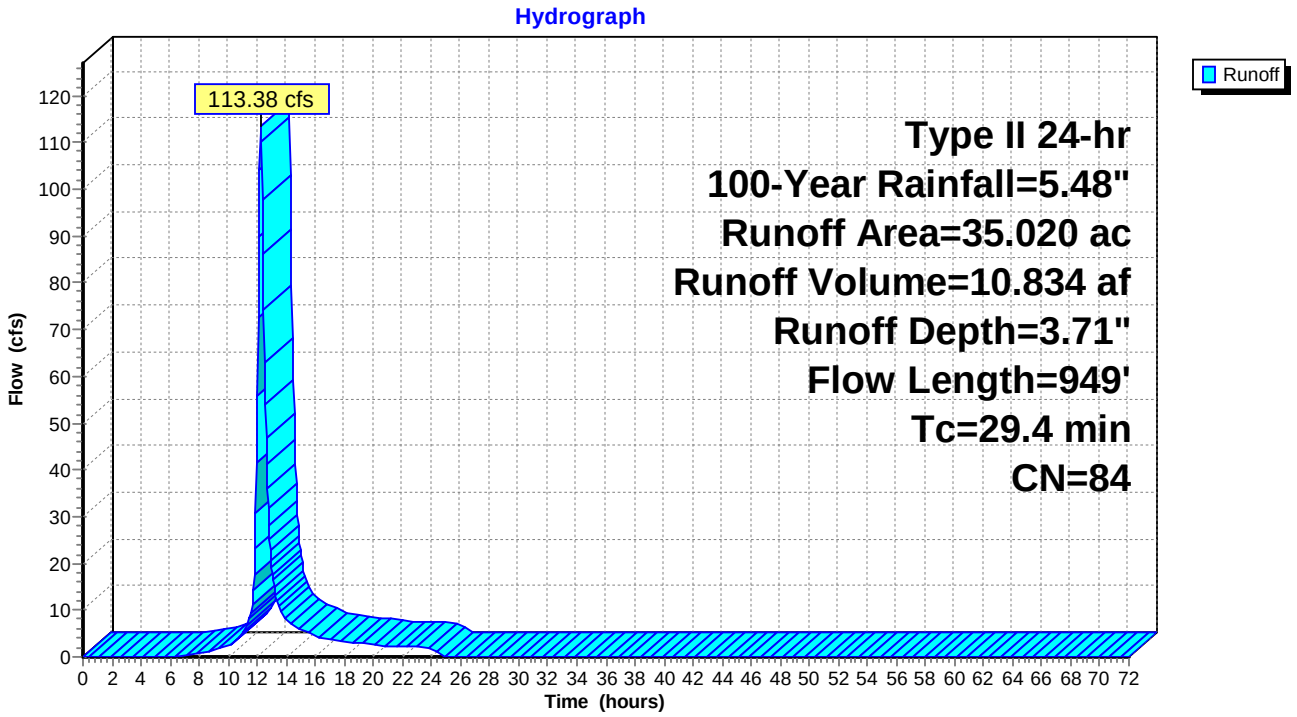
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

Area (ac)	CN	Description
9.260	79	Woods/grass comb., Good, HSG D
8.010	98	Paved parking, HSG D
17.750	80	>75% Grass cover, Good, HSG D
35.020	84	Weighted Average
27.010		77.13% Pervious Area
8.010		22.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.3	100	0.0089	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.8	405	0.0199	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
7.1	284	0.0179	0.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.2	160	0.0200	11.03	34.66	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012
29.4	949	Total			

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Subcatchment 9S: Watershed A3 Offsite



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Summary for Subcatchment 12S: Watershed A1 Proposed

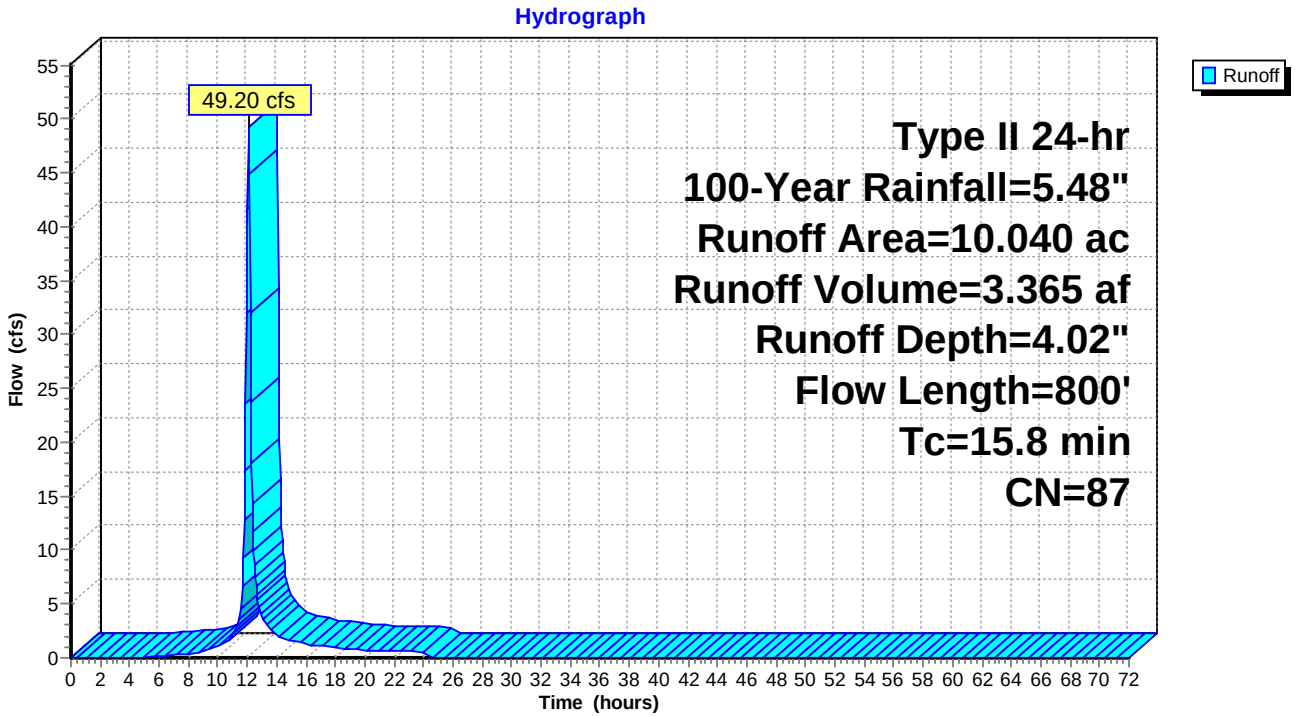
Runoff = 49.20 cfs @ 12.07 hrs, Volume= 3.365 af, Depth= 4.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

Area (ac)	CN	Description
10.040	87	1/4 acre lots, 38% imp, HSG D
6.225		62.00% Pervious Area
3.815		38.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.2	700	0.0380	9.58	7.52	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
15.8	800	Total			

Subcatchment 12S: Watershed A1 Proposed



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Summary for Subcatchment 13S: Watershed C Existing Onsite Total

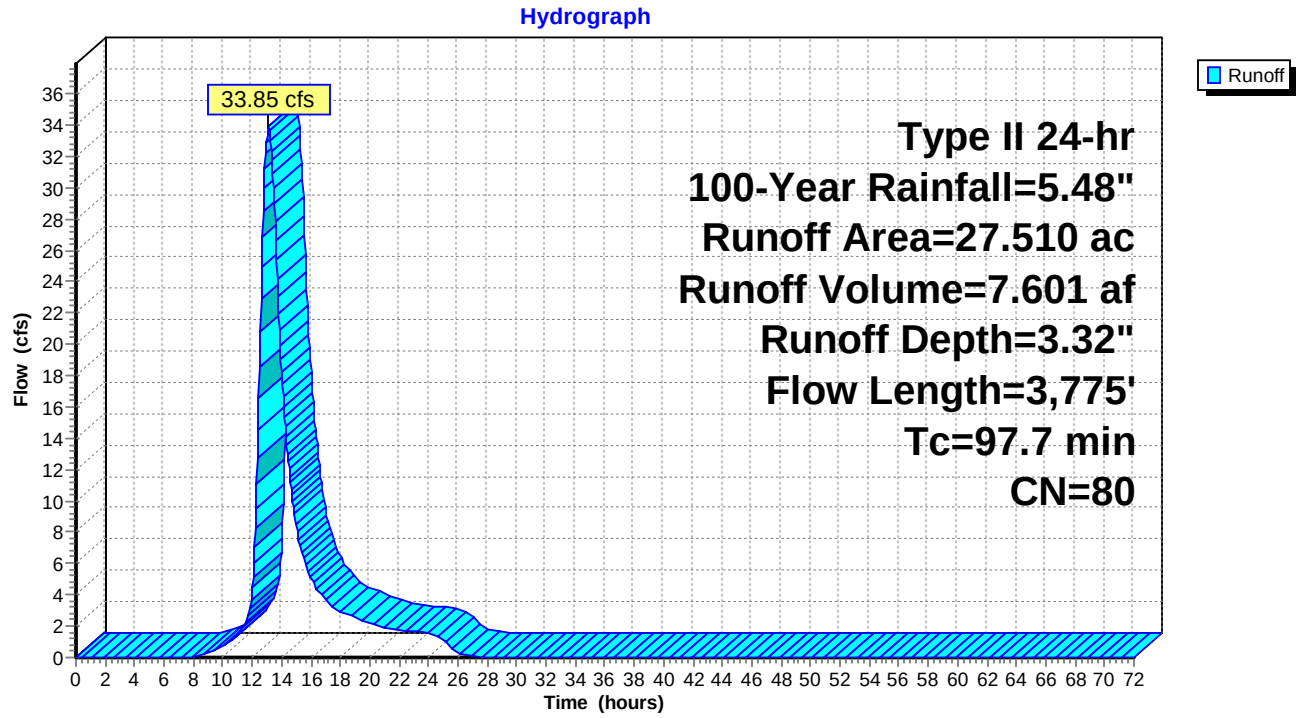
Runoff = 33.85 cfs @ 13.12 hrs, Volume= 7.601 af, Depth= 3.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

Area (ac)	CN	Description
19.500	77	Woods, Good, HSG D
2.500	98	Paved parking, HSG D
5.510	80	>75% Grass cover, Good, HSG D
27.510	80	Weighted Average
25.010		90.91% Pervious Area
2.500		9.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 13S: Watershed C Existing Onsite Total



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Summary for Subcatchment 14S: Watershed B Proposed

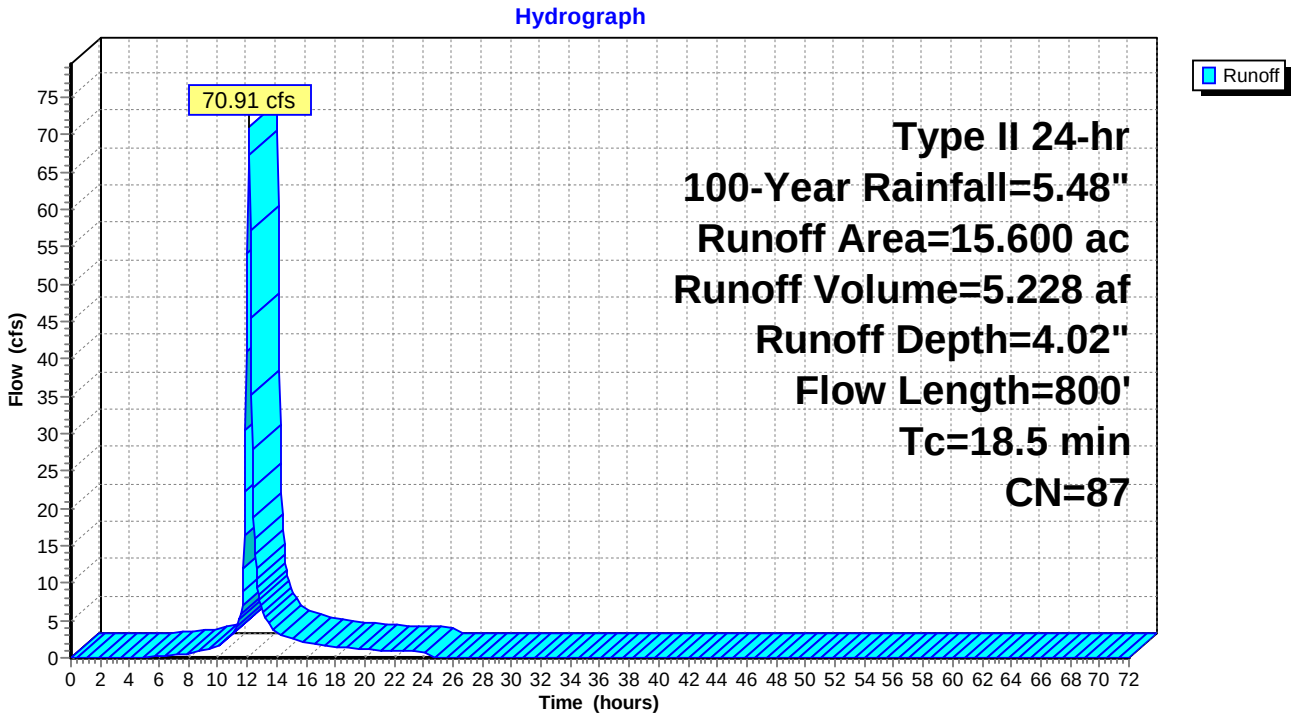
Runoff = 70.91 cfs @ 12.10 hrs, Volume= 5.228 af, Depth= 4.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

Area (ac)	CN	Description
15.600	87	1/4 acre lots, 38% imp, HSG D
9.672		62.00% Pervious Area
5.928		38.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
3.9	700	0.0038	3.03	2.38	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
18.5	800	Total			

Subcatchment 14S: Watershed B Proposed



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Summary for Subcatchment 17S: Watershed A2 Proposed

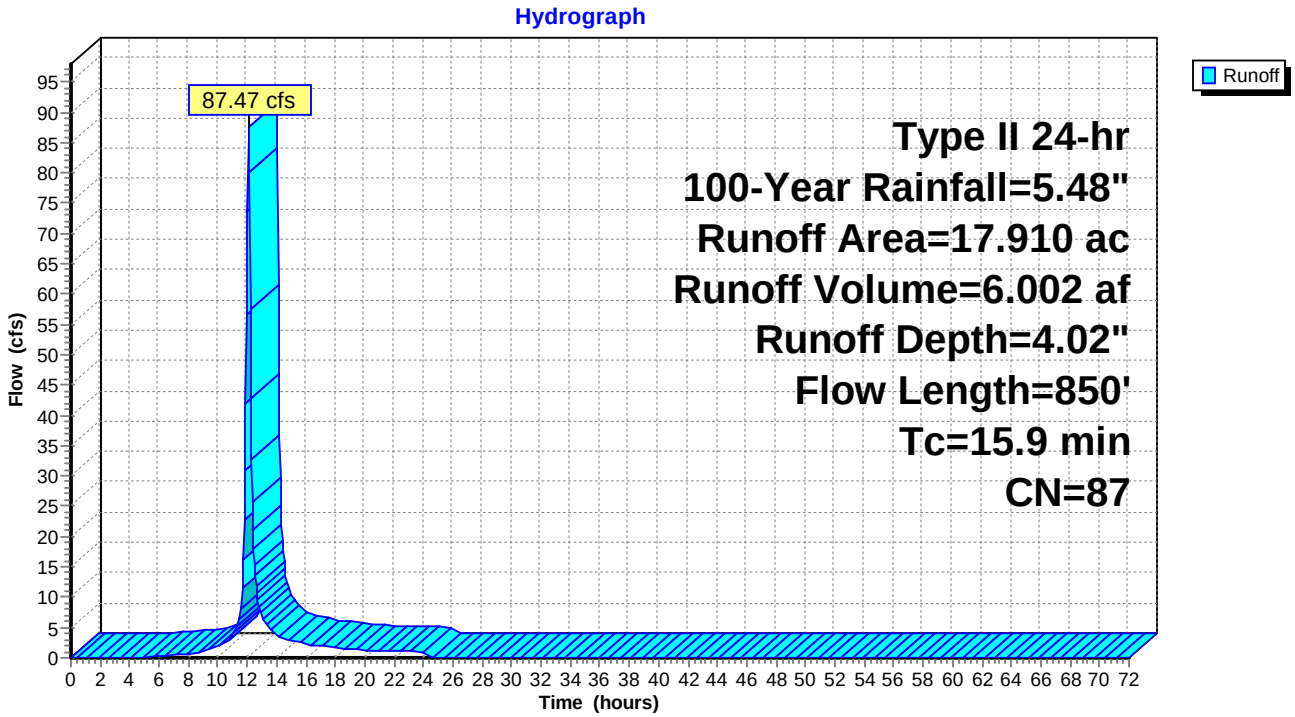
Runoff = 87.47 cfs @ 12.08 hrs, Volume= 6.002 af, Depth= 4.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

Area (ac)	CN	Description
17.910	87	1/4 acre lots, 38% imp, HSG D
11.104		62.00% Pervious Area
6.806		38.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.3	750	0.0380	9.58	7.52	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
15.9	850	Total			

Subcatchment 17S: Watershed A2 Proposed



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Summary for Subcatchment 19S: Watershed A3 Proposed

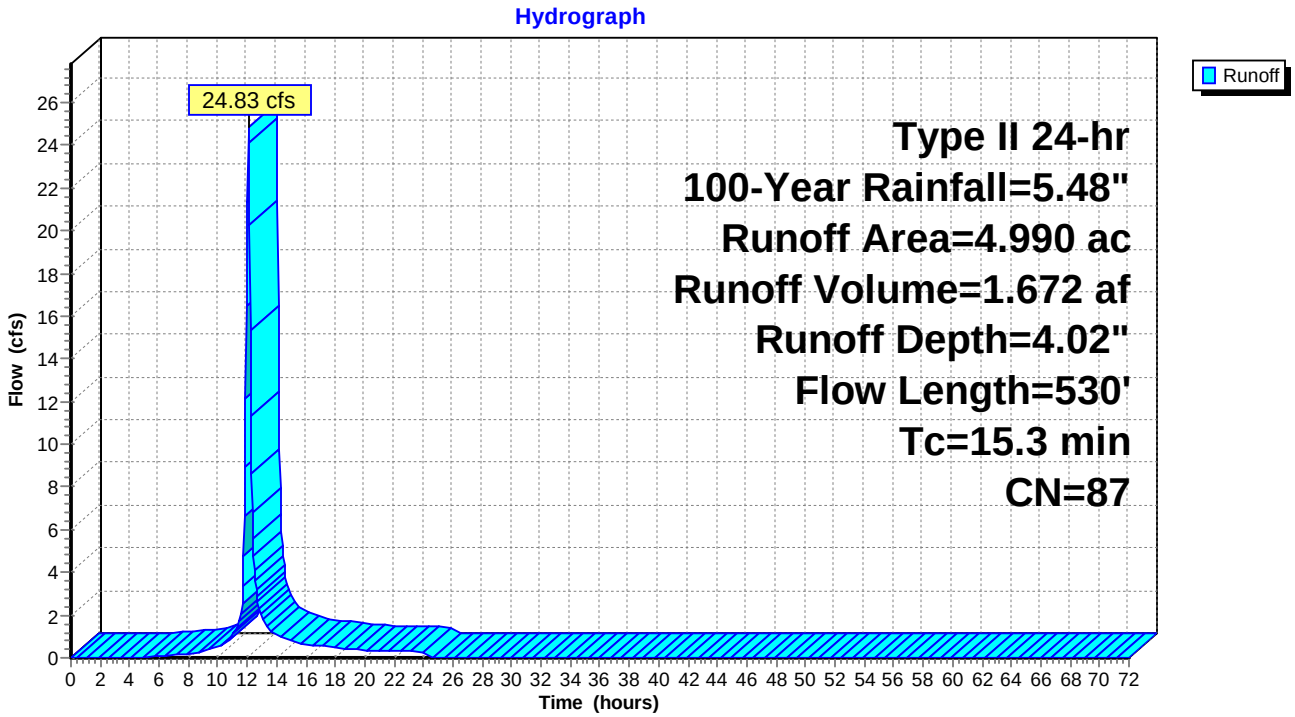
Runoff = 24.83 cfs @ 12.07 hrs, Volume= 1.672 af, Depth= 4.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

Area (ac)	CN	Description
4.990	87	1/4 acre lots, 38% imp, HSG D
3.094		62.00% Pervious Area
1.896		38.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
0.7	430	0.0380	9.58	7.52	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
15.3	530	Total			

Subcatchment 19S: Watershed A3 Proposed



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Summary for Subcatchment 20S: Watershed C Proposed

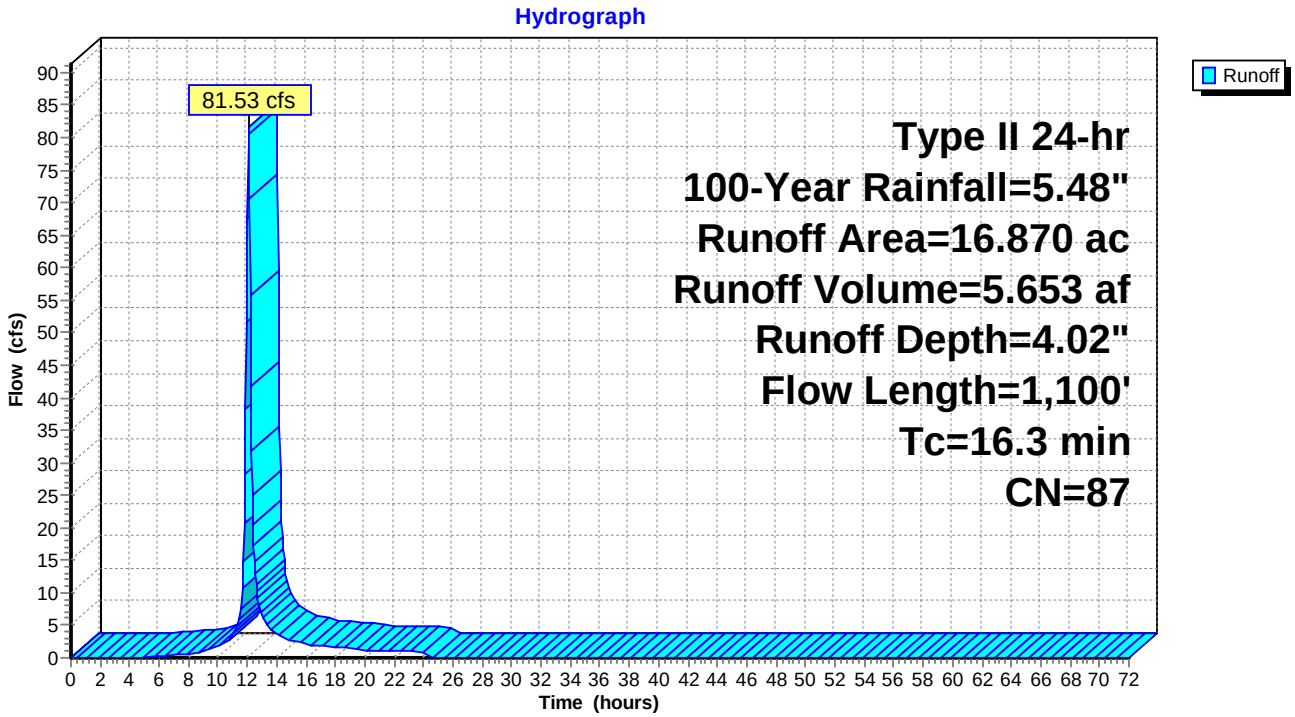
Runoff = 81.53 cfs @ 12.08 hrs, Volume= 5.653 af, Depth= 4.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

Area (ac)	CN	Description
16.870	87	1/4 acre lots, 38% imp, HSG D
10.459		62.00% Pervious Area
6.411		38.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
1.7	1,000	0.0380	9.58	7.52	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
16.3	1,100	Total			

Subcatchment 20S: Watershed C Proposed



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Summary for Subcatchment 22S: Watershed A1 Offsite

Runoff = 28.03 cfs @ 12.61 hrs, Volume= 4.322 af, Depth= 3.61"

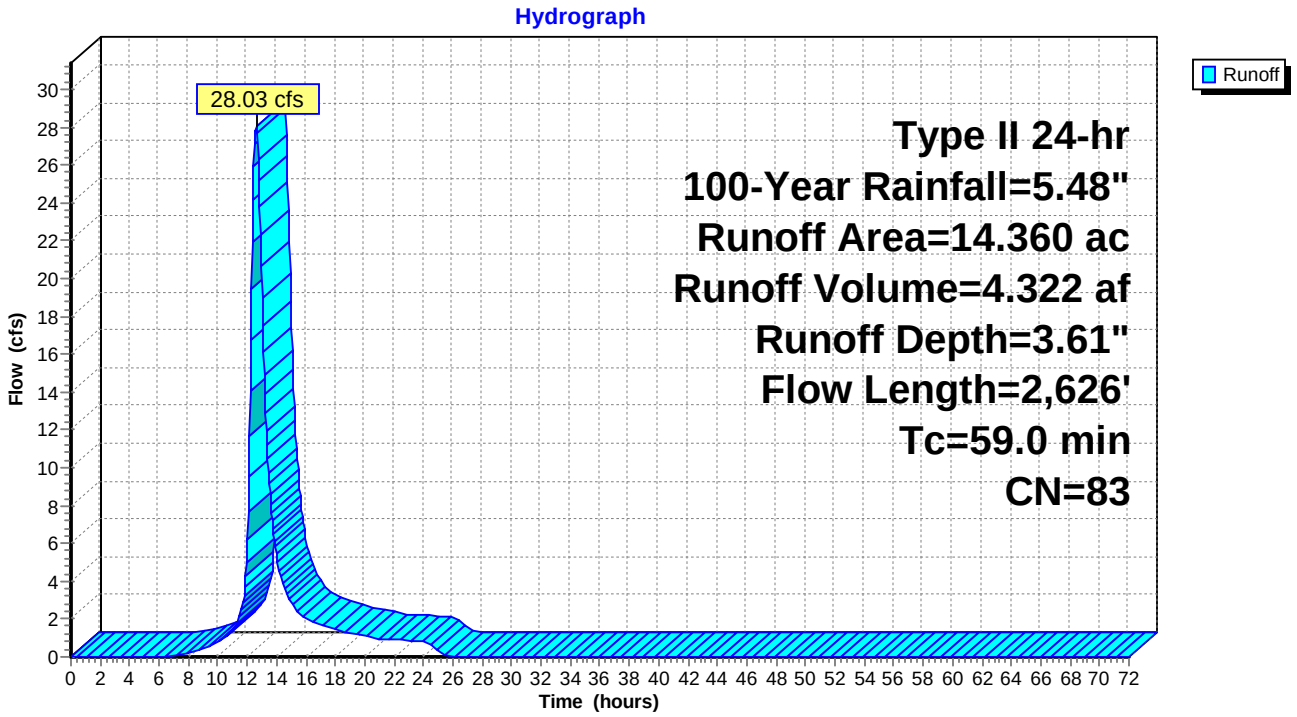
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

Area (ac)	CN	Description
9.590	80	>75% Grass cover, Good, HSG D
2.310	77	Woods, Good, HSG D
2.460	98	Paved parking, HSG D
14.360	83	Weighted Average
11.900		82.87% Pervious Area
2.460		17.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.6	100	0.0133	0.06		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
4.4	237	0.0325	0.90		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
9.4	617	0.0242	1.09		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	90	0.0450	1.65	5.20	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.120
15.7	1,582	0.0126	1.68		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
59.0	2,626	Total			

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Subcatchment 22S: Watershed A1 Offsite



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Summary for Subcatchment 23S: Watershed A2 Offsite

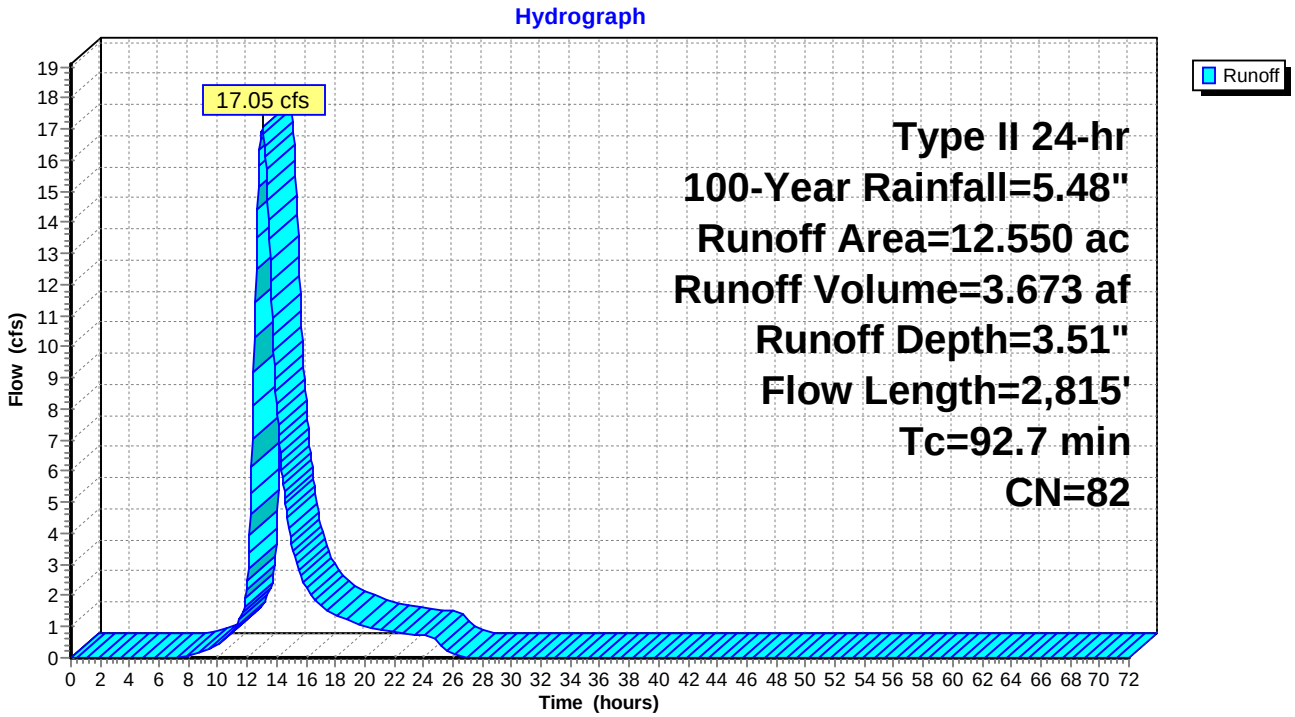
Runoff = 17.05 cfs @ 13.04 hrs, Volume= 3.673 af, Depth= 3.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

	Area (ac)	CN	Description
*	12.550	82	Woods, Grass
	12.550		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 23S: Watershed A2 Offsite



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Summary for Subcatchment 24S: Watershed C Offsite

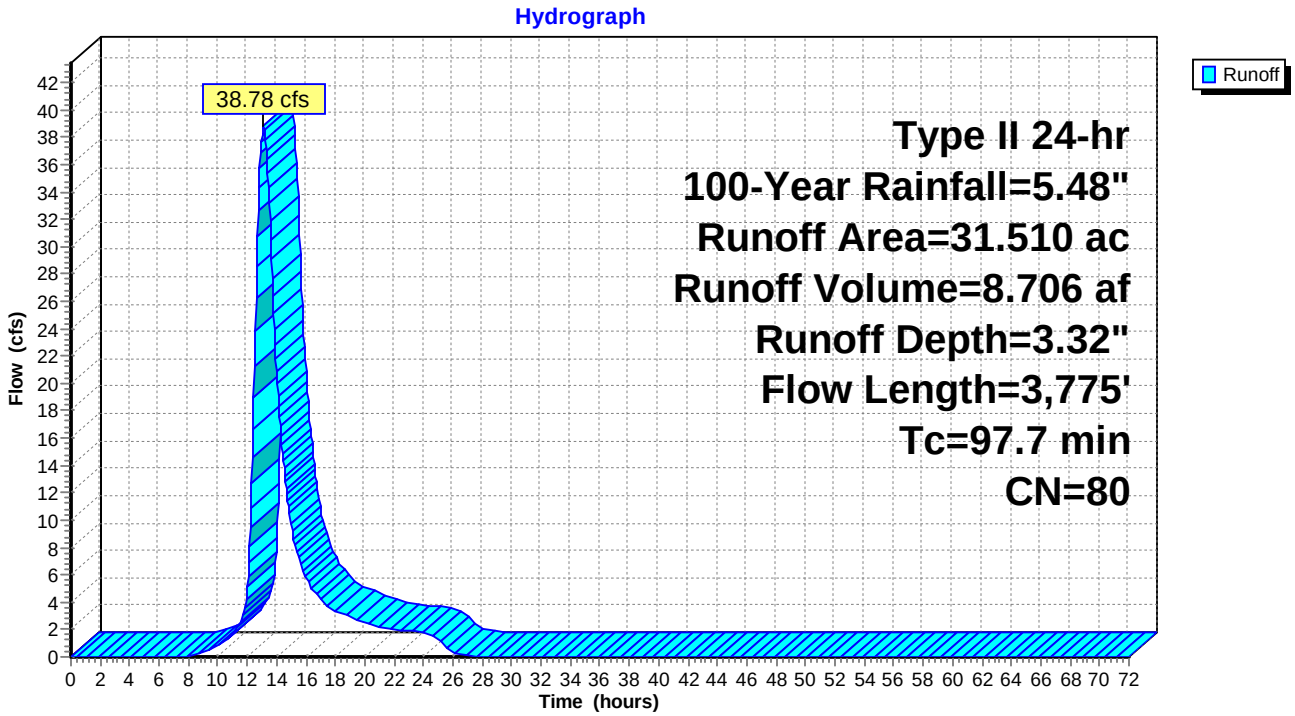
Runoff = 38.78 cfs @ 13.12 hrs, Volume= 8.706 af, Depth= 3.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

	Area (ac)	CN	Description
*	31.510	80	Woods, Grass, HSG D
	31.510		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 24S: Watershed C Offsite



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Summary for Subcatchment 28S: Watershed C Offsite

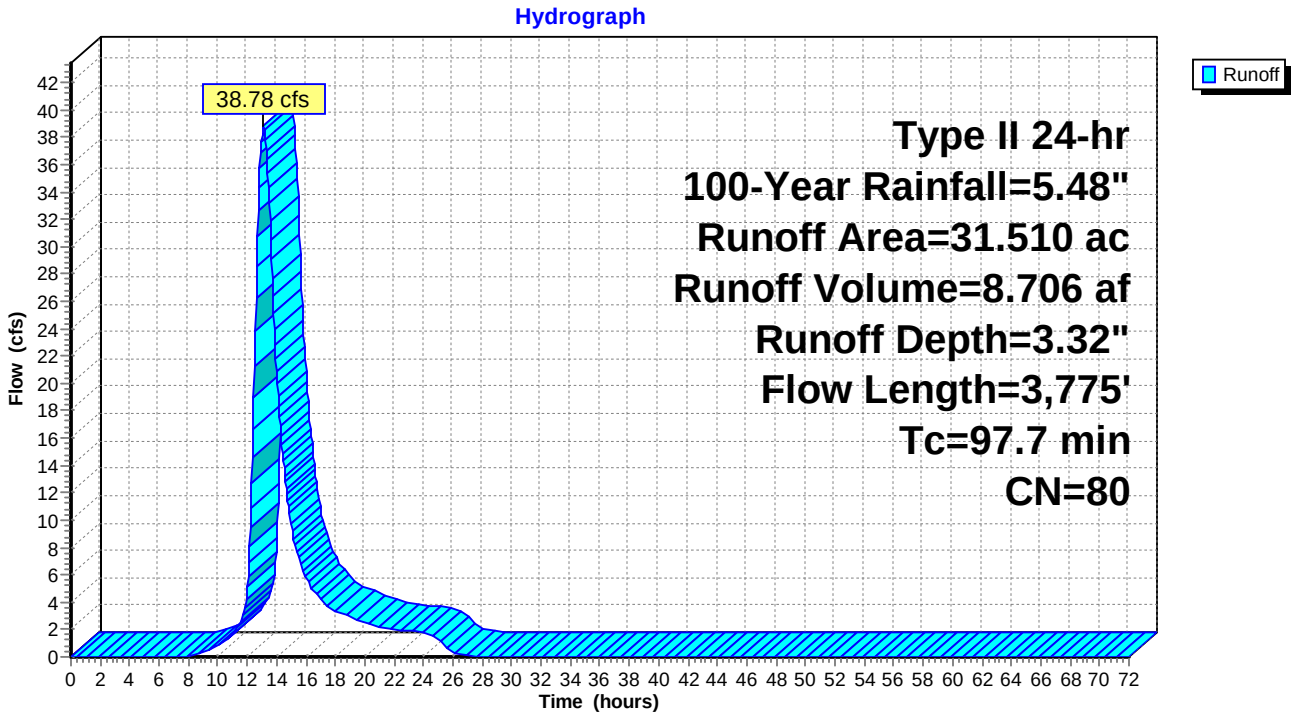
Runoff = 38.78 cfs @ 13.12 hrs, Volume= 8.706 af, Depth= 3.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

	Area (ac)	CN	Description
*	31.510	80	Woods, Grass, HSG D
	31.510		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 28S: Watershed C Offsite



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Summary for Subcatchment 29S: Watershed A2 Offsite

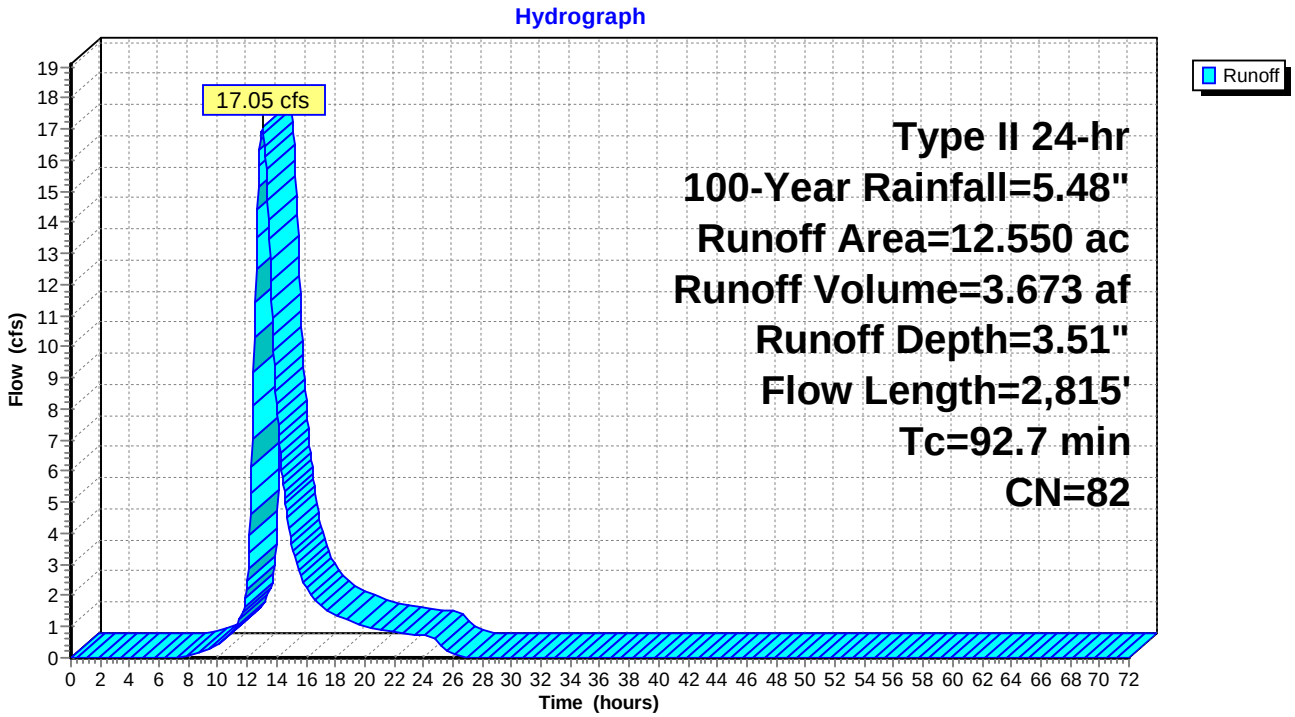
Runoff = 17.05 cfs @ 13.04 hrs, Volume= 3.673 af, Depth= 3.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

	Area (ac)	CN	Description
*	12.550	82	Woods, Grass
	12.550		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 29S: Watershed A2 Offsite



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Summary for Subcatchment 30S: Watershed A3 Offsite

Runoff = 113.38 cfs @ 12.23 hrs, Volume= 10.834 af, Depth= 3.71"

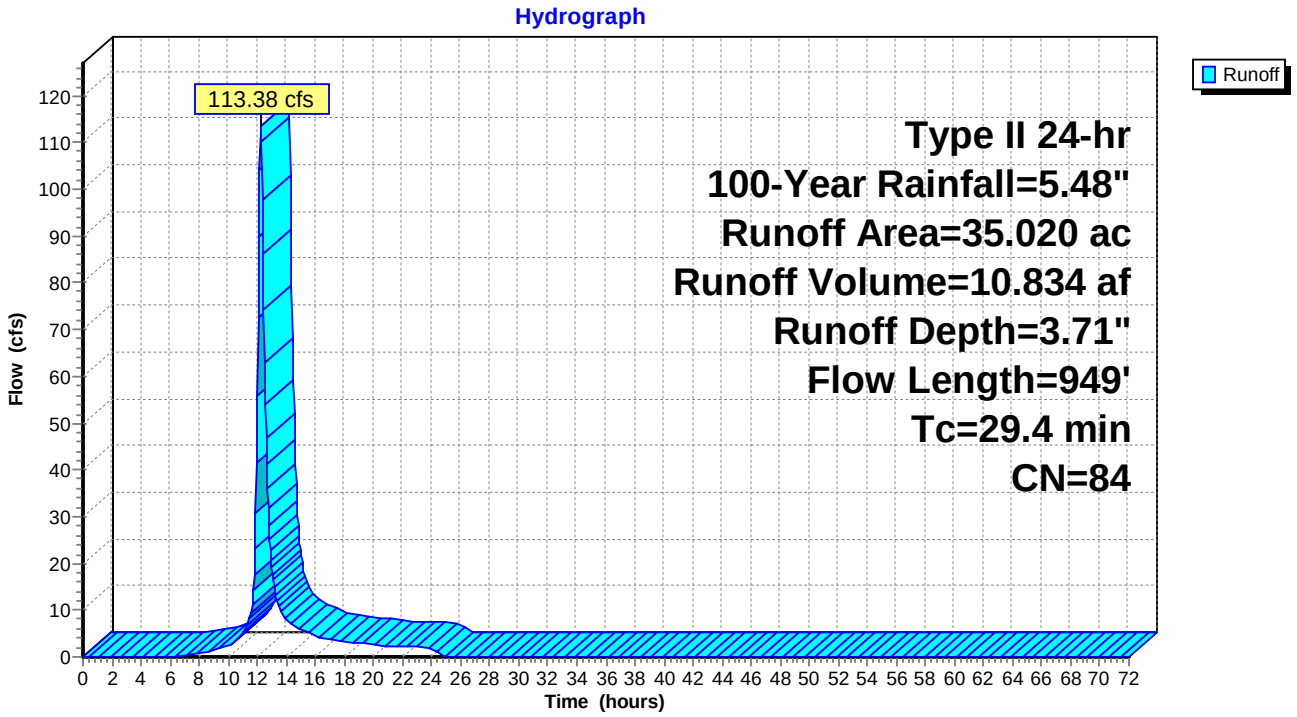
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

Area (ac)	CN	Description
9.260	79	Woods/grass comb., Good, HSG D
8.010	98	Paved parking, HSG D
17.750	80	>75% Grass cover, Good, HSG D
35.020	84	Weighted Average
27.010		77.13% Pervious Area
8.010		22.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.3	100	0.0089	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
6.8	405	0.0199	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
7.1	284	0.0179	0.67		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.2	160	0.0200	11.03	34.66	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012
29.4	949	Total			

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Subcatchment 30S: Watershed A3 Offsite



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Summary for Subcatchment 31S: Watershed C Existing Onsite Undisturbed

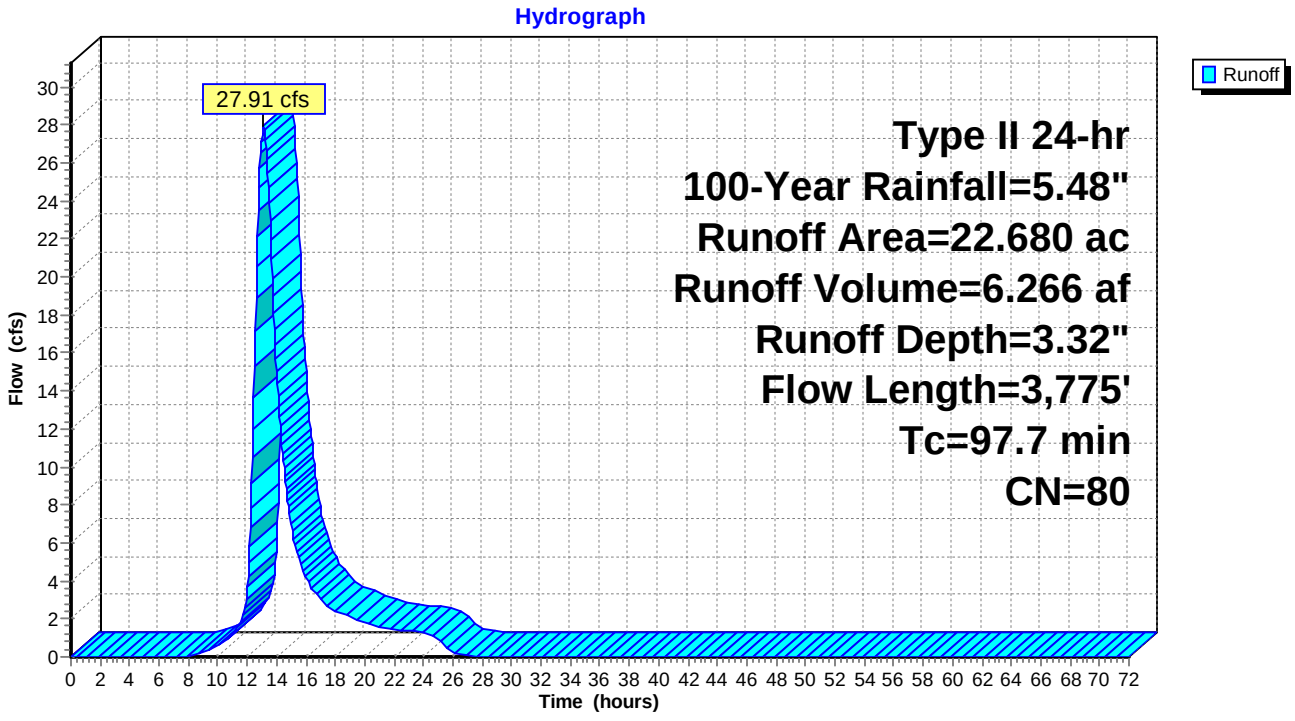
Runoff = 27.91 cfs @ 13.12 hrs, Volume= 6.266 af, Depth= 3.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

	Area (ac)	CN	Description
*	22.680	80	Woods, Grass
	22.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 31S: Watershed C Existing Onsite Undisturbed



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Summary for Subcatchment 32S: Watershed A Existing Onsite Undisturbed

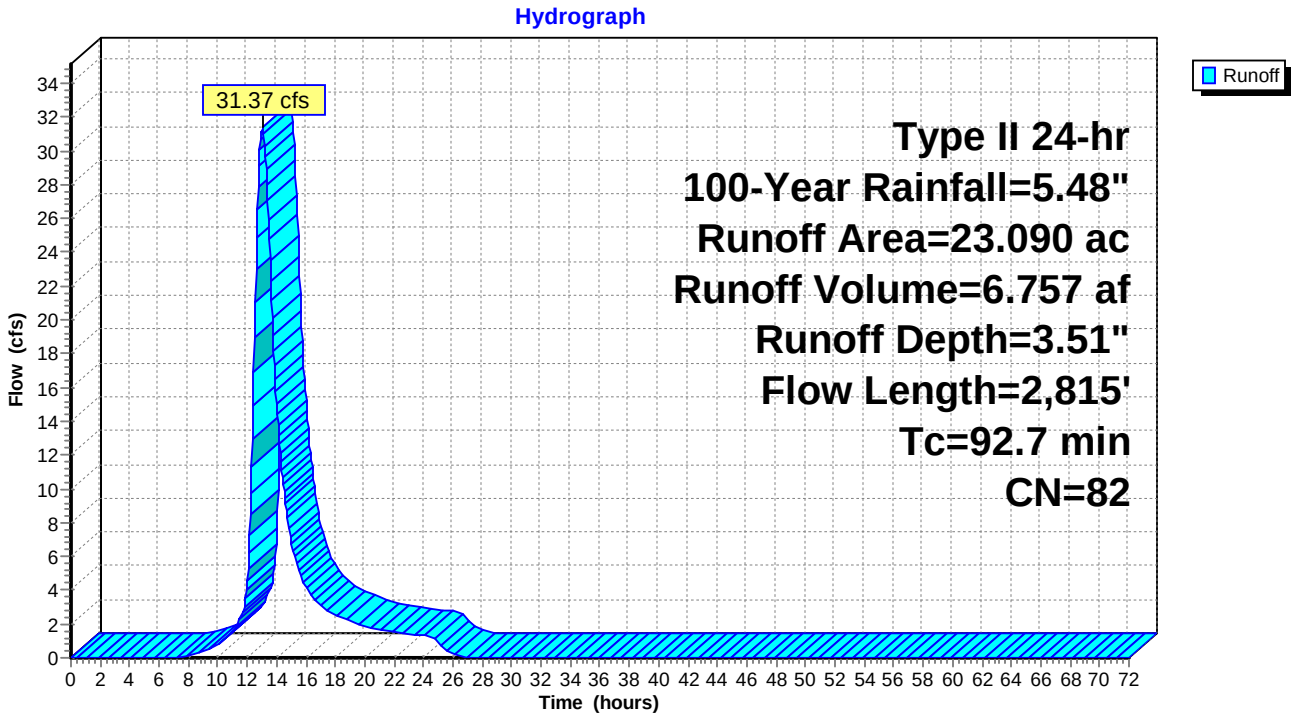
Runoff = 31.37 cfs @ 13.04 hrs, Volume= 6.757 af, Depth= 3.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

	Area (ac)	CN	Description
*	23.090	82	Woods, Grass, Row Crops
	23.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 32S: Watershed A Existing Onsite Undisturbed



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Summary for Subcatchment 33S: Watershed C Existing Onsite Disturbed

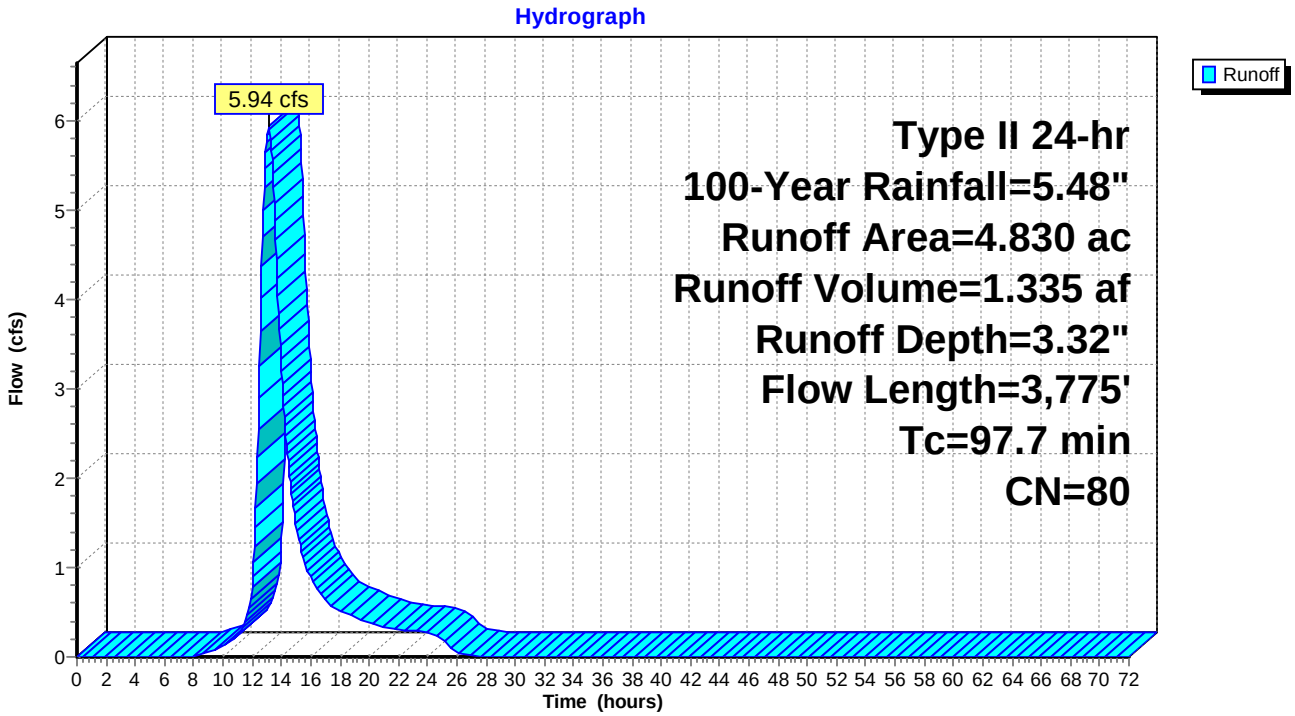
Runoff = 5.94 cfs @ 13.12 hrs, Volume= 1.335 af, Depth= 3.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

	Area (ac)	CN	Description
*	4.830	80	Woods, Grass, Row Crops
	4.830		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 33S: Watershed C Existing Onsite Disturbed



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Summary for Subcatchment 34S: Watershed C Existing Onsite Undisturbed

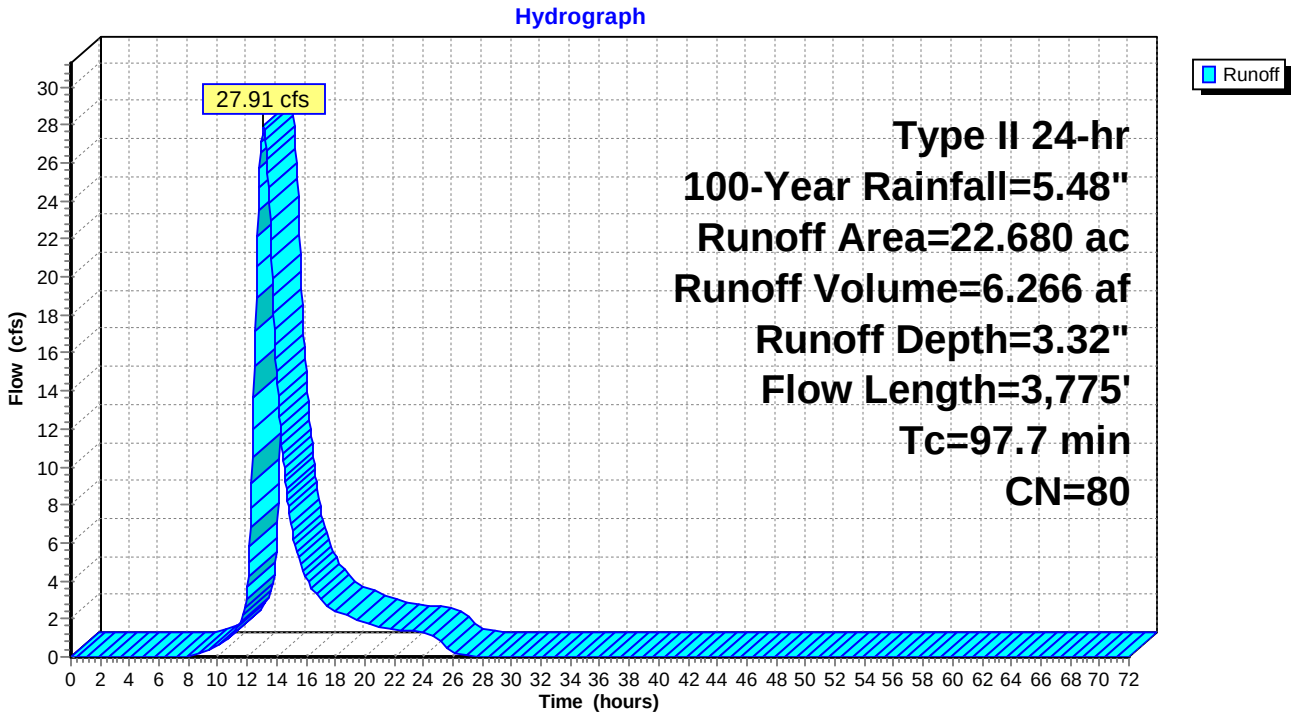
Runoff = 27.91 cfs @ 13.12 hrs, Volume= 6.266 af, Depth= 3.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

	Area (ac)	CN	Description
*	22.680	80	Woods, Grass
	22.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	100	0.1580	0.34		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.50"
10.2	405	0.0176	0.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	870	0.0177	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
67.1	2,400	0.0142	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.7	3,775	Total			

Subcatchment 34S: Watershed C Existing Onsite Undisturbed



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Summary for Subcatchment 35S: Watershed A Existing Onsite Disturbed

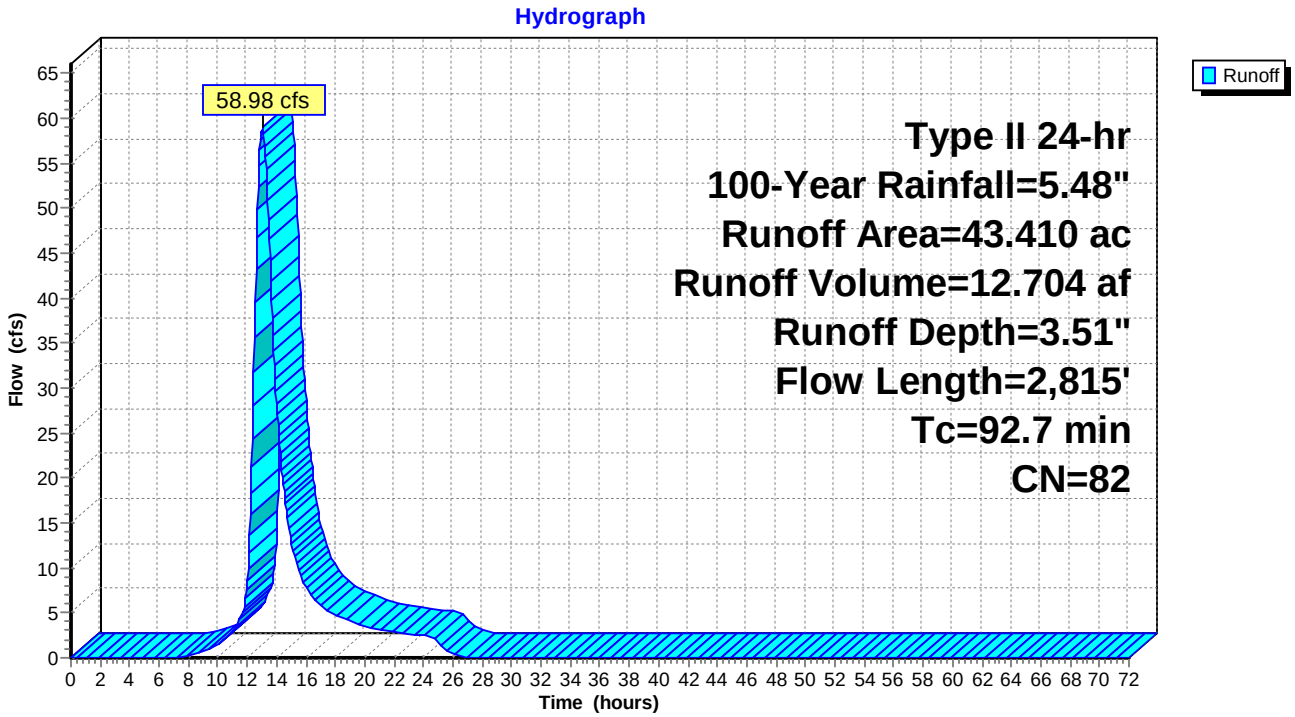
Runoff = 58.98 cfs @ 13.04 hrs, Volume= 12.704 af, Depth= 3.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

	Area (ac)	CN	Description
*	43.410	82	Woods, Grass, Row Crops
	43.410		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 35S: Watershed A Existing Onsite Disturbed



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Summary for Subcatchment 36S: Watershed A Existing Onsite Undisturbed

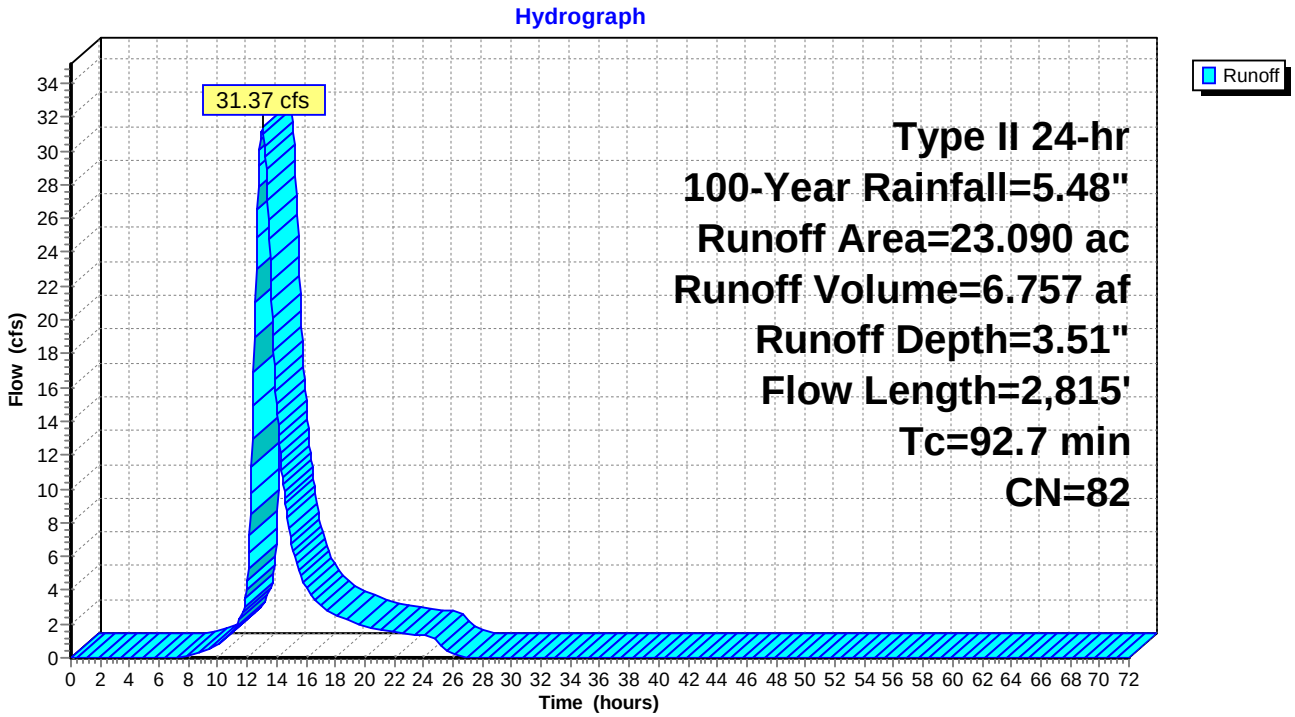
Runoff = 31.37 cfs @ 13.04 hrs, Volume= 6.757 af, Depth= 3.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

	Area (ac)	CN	Description
*	23.090	82	Woods, Grass, Row Crops
	23.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.3	100	0.0064	0.04		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
34.4	1,143	0.0123	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
20.0	1,572	0.0076	1.31		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
92.7	2,815	Total			

Subcatchment 36S: Watershed A Existing Onsite Undisturbed



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Summary for Subcatchment 41S: Watershed A1 Offsite

Runoff = 28.03 cfs @ 12.61 hrs, Volume= 4.322 af, Depth= 3.61"

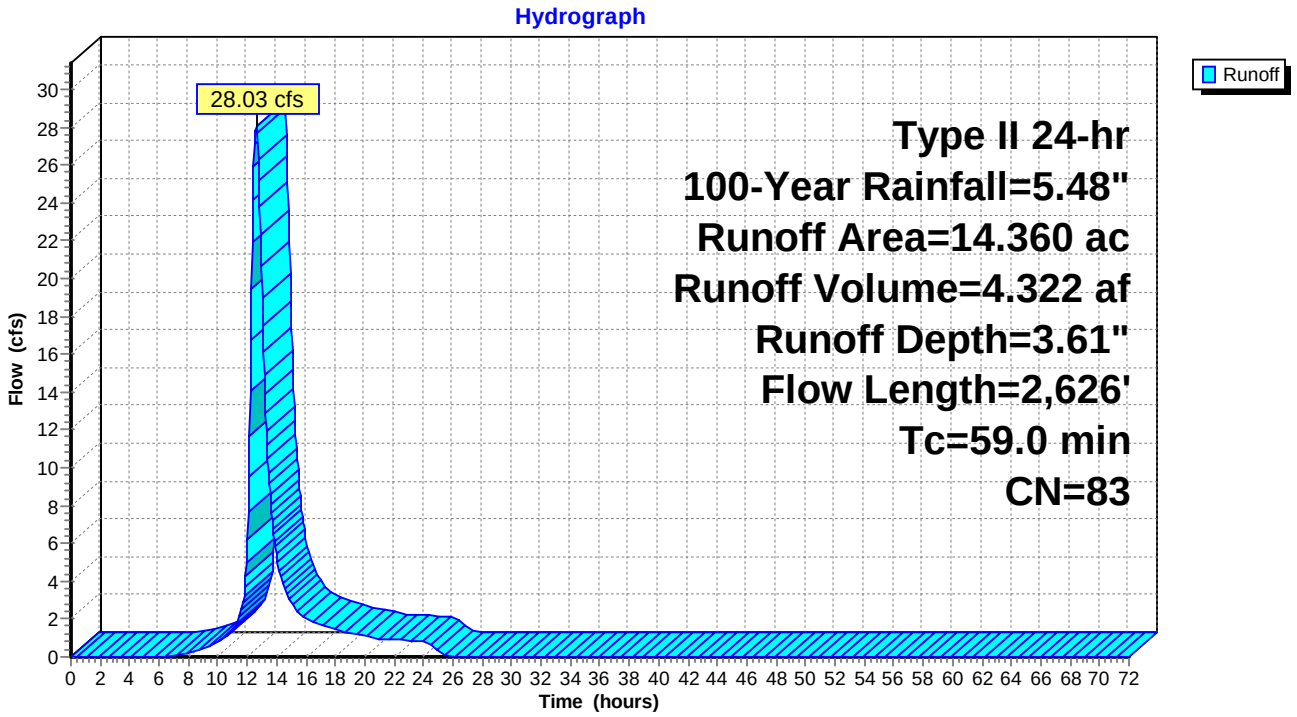
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.48"

Area (ac)	CN	Description
9.590	80	>75% Grass cover, Good, HSG D
2.310	77	Woods, Good, HSG D
2.460	98	Paved parking, HSG D
14.360	83	Weighted Average
11.900		82.87% Pervious Area
2.460		17.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.6	100	0.0133	0.06		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.50"
4.4	237	0.0325	0.90		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
9.4	617	0.0242	1.09		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.9	90	0.0450	1.65	5.20	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.120
15.7	1,582	0.0126	1.68		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
59.0	2,626	Total			

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Subcatchment 41S: Watershed A1 Offsite



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Summary for Pond 1P: Basin A1

Inflow Area = 10.040 ac, 38.00% Impervious, Inflow Depth = 4.02" for 100-Year event
Inflow = 49.20 cfs @ 12.07 hrs, Volume= 3.365 af
Outflow = 3.60 cfs @ 13.07 hrs, Volume= 3.270 af, Atten= 93%, Lag= 59.9 min
Primary = 3.60 cfs @ 13.07 hrs, Volume= 3.270 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 960.69' @ 13.07 hrs Surf.Area= 29,637 sf Storage= 87,142 cf

Plug-Flow detention time= 558.5 min calculated for 3.268 af (97% of inflow)
Center-of-Mass det. time= 543.1 min (1,346.9 - 803.8)

Volume	Invert	Avail.Storage	Storage Description
#1	957.00'	129,041 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
957.00	17,908	0	0
958.00	20,912	19,410	19,410
959.00	24,072	22,492	41,902
960.00	27,332	25,702	67,604
961.00	30,693	29,013	96,617
962.00	34,155	32,424	129,041

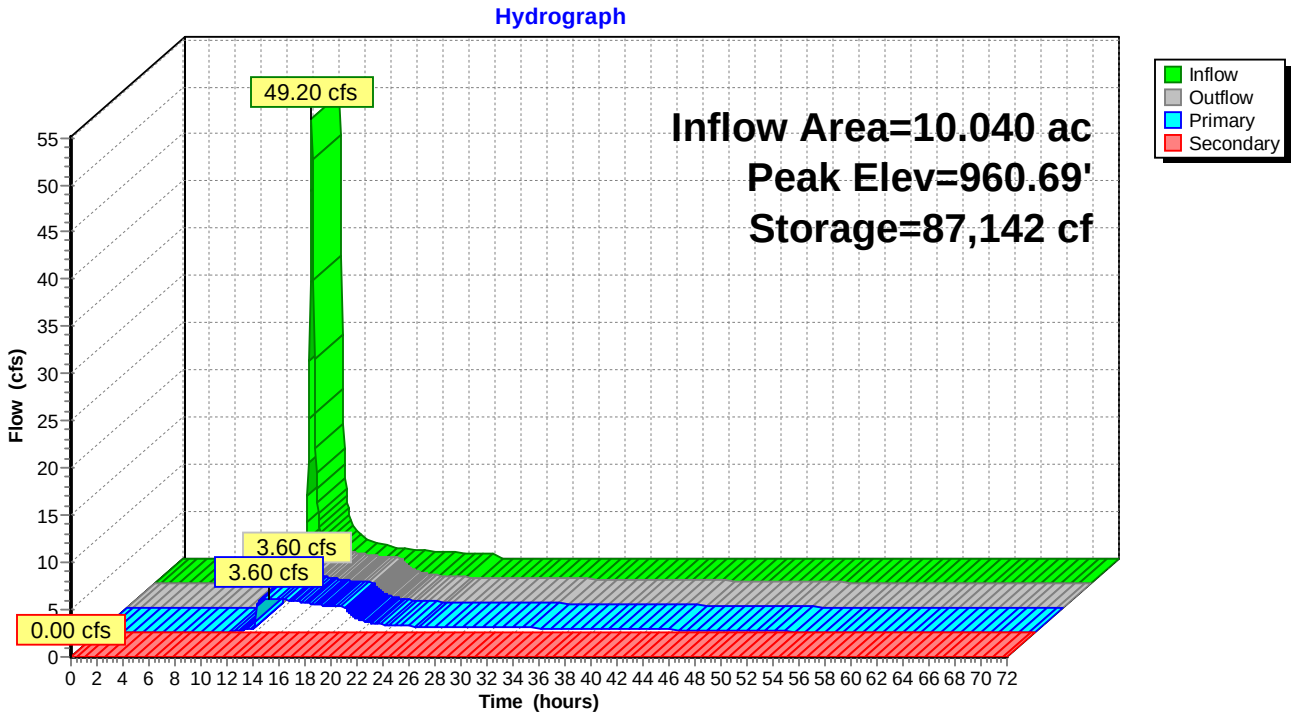
Device	Routing	Invert	Outlet Devices
#1	Primary	957.00'	**24.0" Round Culvert** L= 100.0' Ke= 0.200 Inlet / Outlet Invert= 957.00' / 956.50' S= 0.0050 '/' Cc= 0.900 n= 0.120, Flow Area= 3.14 sf
#2	Device 1	957.00'	**4.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	959.10'	**18.0" W x 4.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#4	Secondary	961.00'	**20.0' long x 15.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=3.60 cfs @ 13.07 hrs HW=960.69' (Free Discharge)
└**1=Culvert** (Barrel Controls 3.60 cfs @ 1.14 fps)
└**2=Orifice/Grate** (Passes < 0.79 cfs potential flow)
└**3=Orifice/Grate** (Passes < 5.73 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=957.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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Pond 1P: Basin A1



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Summary for Pond 4P: Basin A2

Inflow Area = 17.910 ac, 38.00% Impervious, Inflow Depth = 4.02" for 100-Year event
Inflow = 87.47 cfs @ 12.08 hrs, Volume= 6.002 af
Outflow = 102.60 cfs @ 12.14 hrs, Volume= 5.999 af, Atten= 0%, Lag= 4.1 min
Primary = 8.23 cfs @ 12.14 hrs, Volume= 4.489 af
Secondary = 94.37 cfs @ 12.14 hrs, Volume= 1.510 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 969.29' @ 12.14 hrs Surf.Area= 23,500 sf Storage= 80,000 cf

Plug-Flow detention time= 129.7 min calculated for 5.994 af (100% of inflow)
Center-of-Mass det. time= 130.6 min (934.6 - 803.9)

Volume	Invert	Avail.Storage	Storage Description
#1	962.00'	80,000 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
962.00	4,000	0	0
963.00	7,000	5,500	5,500
964.00	10,000	8,500	14,000
965.00	13,000	11,500	25,500
966.00	16,500	14,750	40,250
967.00	19,750	18,125	58,375
968.00	23,500	21,625	80,000

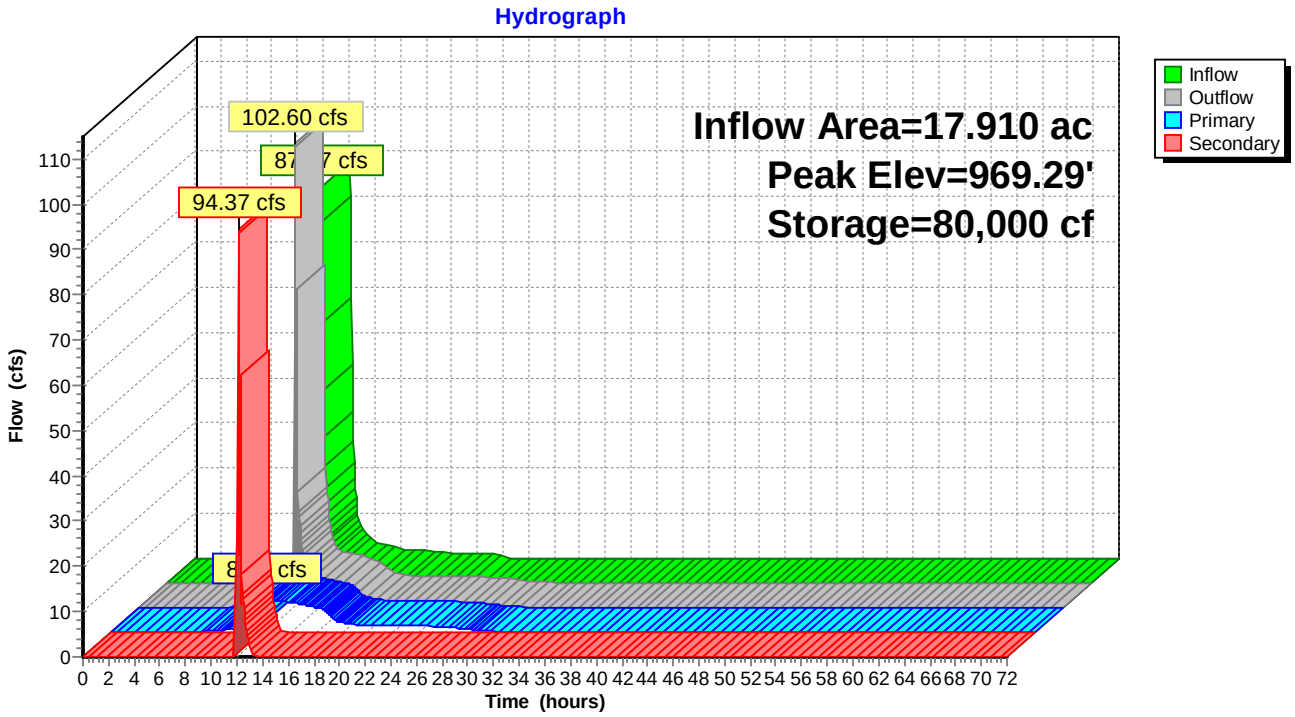
Device	Routing	Invert	Outlet Devices
#1	Primary	962.00'	**24.0" Round Culvert** L= 50.0' Ke= 0.200 Inlet / Outlet Invert= 962.00' / 961.50' S= 0.0100 '/' Cc= 0.900 n= 0.120, Flow Area= 3.14 sf
#2	Device 1	962.00'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	965.00'	**18.0" W x 4.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#4	Secondary	967.50'	**15.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=8.16 cfs @ 12.14 hrs HW=969.18' (Free Discharge)
└**1=Culvert** (Barrel Controls 8.16 cfs @ 2.60 fps)
  └**2=Orifice/Grate** (Passes < 2.49 cfs potential flow)
  └**3=Orifice/Grate** (Passes < 9.65 cfs potential flow)

Secondary OutFlow Max=87.62 cfs @ 12.14 hrs HW=969.20' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 87.62 cfs @ 3.44 fps)

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Pond 4P: Basin A2



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Summary for Pond 5P: Basin B

Inflow Area = 15.600 ac, 38.00% Impervious, Inflow Depth = 4.02" for 100-Year event
Inflow = 70.91 cfs @ 12.10 hrs, Volume= 5.228 af
Outflow = 31.62 cfs @ 12.33 hrs, Volume= 5.227 af, Atten= 55%, Lag= 13.3 min
Primary = 31.62 cfs @ 12.33 hrs, Volume= 5.227 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 959.99' @ 12.33 hrs Surf.Area= 21,437 sf Storage= 88,794 cf

Plug-Flow detention time= 158.3 min calculated for 5.227 af (100% of inflow)
Center-of-Mass det. time= 158.1 min (964.4 - 806.3)

Volume	Invert	Avail.Storage	Storage Description
#1	954.00'	88,920 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) x 1.3

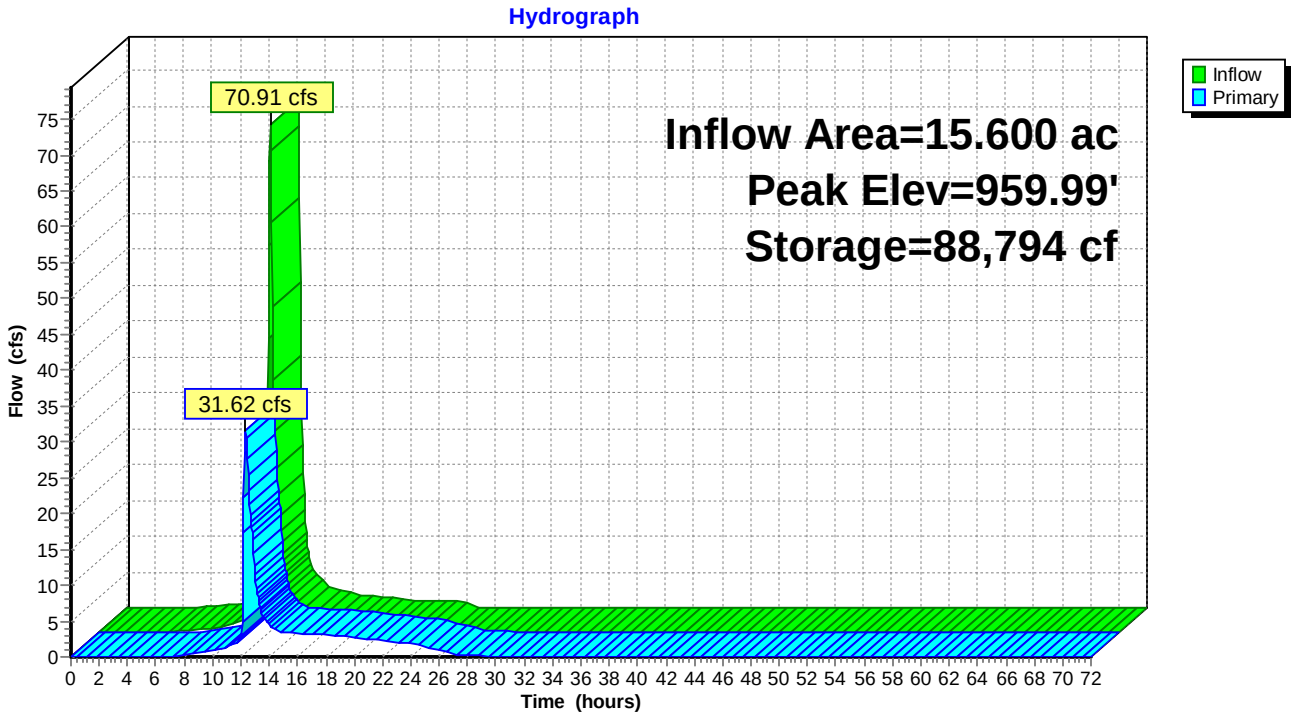
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
954.00	6,300	0	0
955.00	8,000	7,150	7,150
956.00	9,700	8,850	16,000
957.00	11,400	10,550	26,550
958.00	13,100	12,250	38,800
959.00	14,800	13,950	52,750
960.00	16,500	15,650	68,400

Device	Routing	Invert	Outlet Devices
#1	Primary	954.00'	**24.0" Round Culvert** L= 100.0' Ke= 0.200 Inlet / Outlet Invert= 954.00' / 953.00' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	954.00'	**8.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	958.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	959.50'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=31.40 cfs @ 12.33 hrs HW=959.99' (Free Discharge)
- **1=Culvert** (Passes 22.45 cfs of 37.44 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 4.00 cfs @ 11.45 fps)
  - **3=Orifice/Grate** (Orifice Controls 18.45 cfs @ 5.87 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 8.95 cfs @ 1.83 fps)

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Pond 5P: Basin B



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Summary for Pond 6P: Basin C

Inflow Area = 16.870 ac, 38.00% Impervious, Inflow Depth = 4.02" for 100-Year event
Inflow = 81.53 cfs @ 12.08 hrs, Volume= 5.653 af
Outflow = 29.62 cfs @ 12.36 hrs, Volume= 4.929 af, Atten= 64%, Lag= 16.6 min
Primary = 29.62 cfs @ 12.36 hrs, Volume= 4.929 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 981.16' @ 12.36 hrs Surf.Area= 42,500 sf Storage= 135,000 cf

Plug-Flow detention time= 787.1 min calculated for 4.925 af (87% of inflow)
Center-of-Mass det. time= 727.7 min (1,532.0 - 804.3)

Volume	Invert	Avail.Storage	Storage Description
#1	976.00'	135,000 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) x 2.5

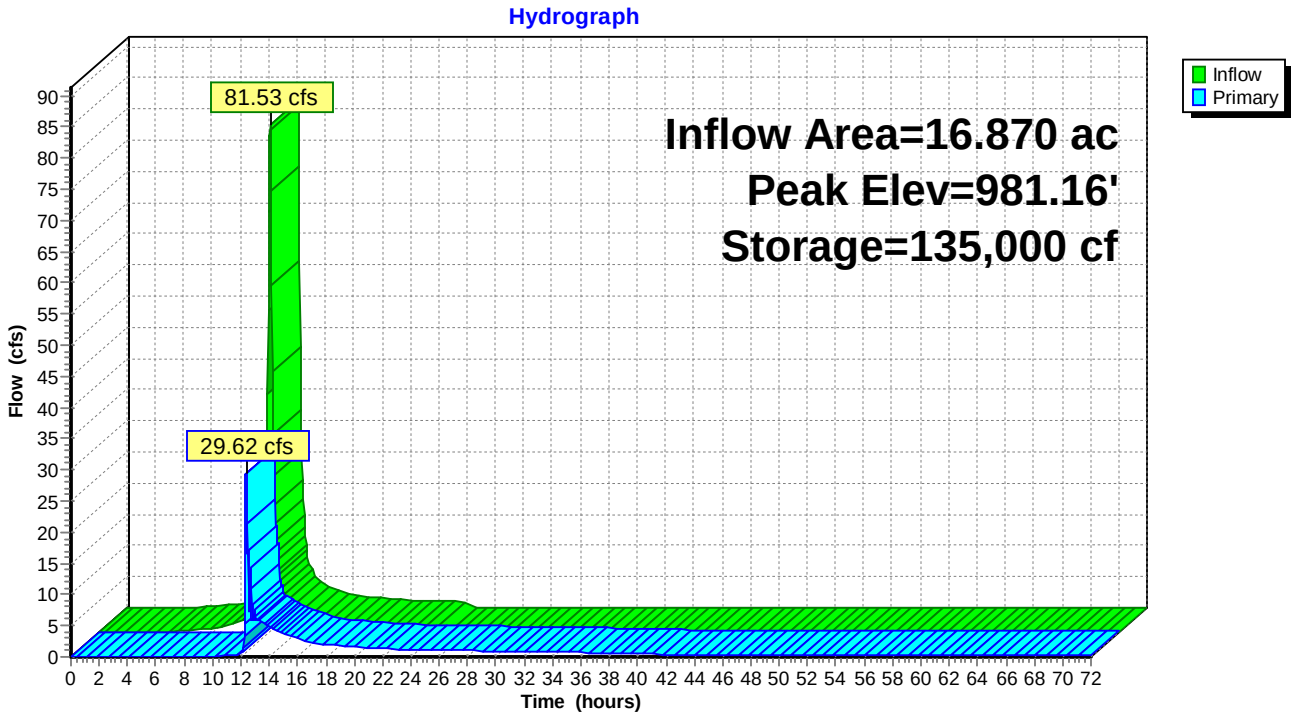
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
976.00	10,000	0	0
977.00	11,750	10,875	10,875
978.00	13,500	12,625	23,500
979.00	15,250	14,375	37,875
980.00	17,000	16,125	54,000

Device	Routing	Invert	Outlet Devices
#1	Primary	976.00'	**24.0" Round Culvert** L= 100.0' Ke= 0.200 Inlet / Outlet Invert= 976.00' / 975.00' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	976.00'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	978.00'	**6.0" W x 3.0" H Vert. Orifice/Grate** C= 0.600
#4	Primary	979.50'	**5.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=27.09 cfs @ 12.36 hrs HW=981.05' (Free Discharge)
- **1=Culvert** (Passes 1.55 cfs of 33.73 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.52 cfs @ 10.69 fps)
  - **3=Orifice/Grate** (Orifice Controls 1.03 cfs @ 8.23 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 25.54 cfs @ 3.30 fps)

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Pond 6P: Basin C



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Summary for Pond 7P: Basin C WQv

Inflow	=	0.00 cfs @	0.00 hrs,	Volume=	0.000 af
Outflow	=	0.31 cfs @	0.00 hrs,	Volume=	0.752 af, Atten= 0%, Lag= 0.0 min
Primary	=	0.31 cfs @	0.00 hrs,	Volume=	0.752 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Starting Elev= 990.90' Surf.Area= 36,387 sf Storage= 32,748 cf
Peak Elev= 990.90' @ 0.00 hrs Surf.Area= 36,387 sf Storage= 32,748 cf

Plug-Flow detention time= (not calculated: no plugs found)
Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	990.00'	145,548 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) x 1.8

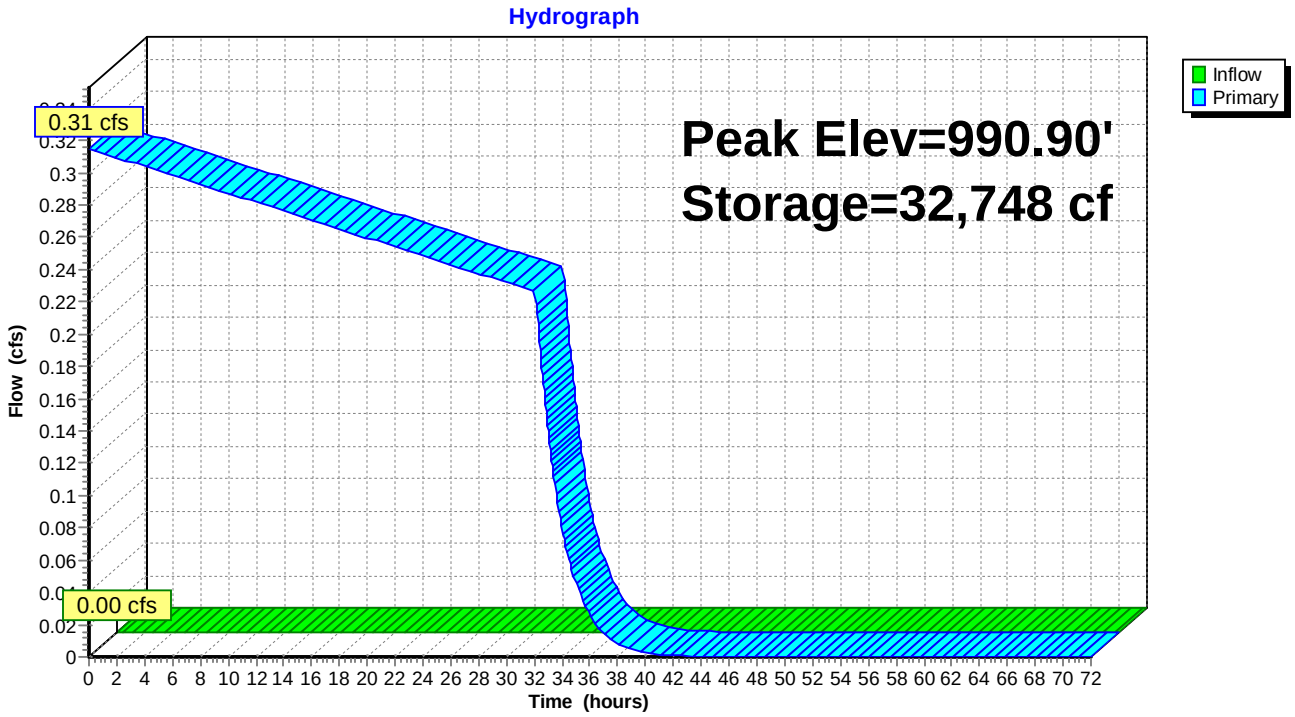
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
990.00	20,215	0	0
994.00	20,215	80,860	80,860

Device	Routing	Invert	Outlet Devices
#1	Primary	988.00'	**24.0" Round Culvert** L= 100.0' Ke= 0.200 Inlet / Outlet Invert= 988.00' / 986.00' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	989.00'	**3.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.31 cfs @ 0.00 hrs HW=990.90' (Free Discharge)
↑—**1=Culvert** (Passes 0.31 cfs of 26.06 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 0.31 cfs @ 6.41 fps)

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Pond 7P: Basin C WQv



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Summary for Pond 8P: Basin B WQv

Inflow	=	0.00 cfs @	0.00 hrs,	Volume=	0.000 af
Outflow	=	0.76 cfs @	0.00 hrs,	Volume=	0.671 af, Atten= 0%, Lag= 0.0 min
Primary	=	0.76 cfs @	0.00 hrs,	Volume=	0.671 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Starting Elev= 990.90' Surf.Area= 34,000 sf Storage= 30,600 cf
Peak Elev= 990.90' @ 0.00 hrs Surf.Area= 34,000 sf Storage= 30,600 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	990.00'	136,000 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) x 1.7

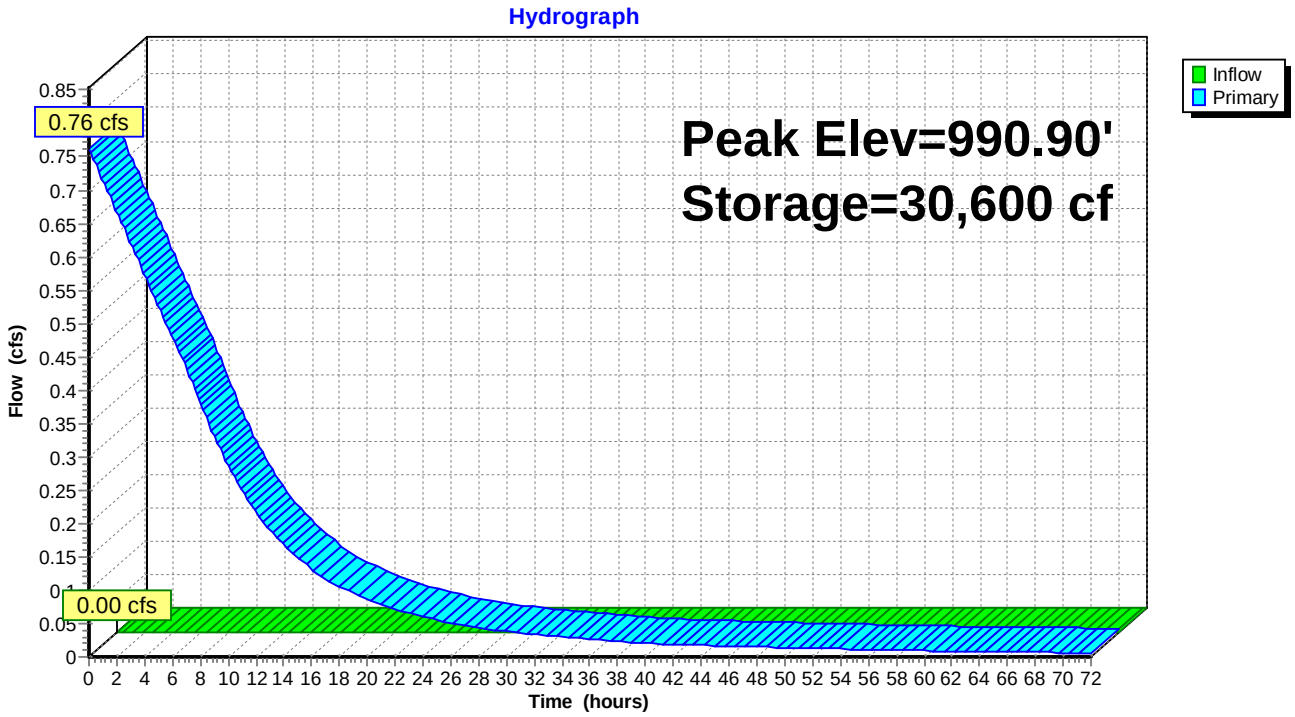
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
990.00	20,000	0	0
994.00	20,000	80,000	80,000

Device	Routing	Invert	Outlet Devices
#1	Primary	988.00'	**24.0" Round Culvert** L= 100.0' Ke= 0.200 Inlet / Outlet Invert= 988.00' / 986.00' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	990.00'	**6.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.76 cfs @ 0.00 hrs HW=990.90' (Free Discharge)
↑—**1=Culvert** (Passes 0.76 cfs of 26.06 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 0.76 cfs @ 3.88 fps)

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Pond 8P: Basin B WQv



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Summary for Pond 10P: Existing Pond

Inflow Area = 35.020 ac, 22.87% Impervious, Inflow Depth = 3.71" for 100-Year event
Inflow = 113.38 cfs @ 12.23 hrs, Volume= 10.834 af
Outflow = 11.63 cfs @ 13.41 hrs, Volume= 10.247 af, Atten= 90%, Lag= 71.0 min
Primary = 11.63 cfs @ 13.41 hrs, Volume= 10.247 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 995.39' @ 13.41 hrs Surf.Area= 201,938 sf Storage= 279,701 cf

Plug-Flow detention time= 538.8 min calculated for 10.240 af (95% of inflow)
Center-of-Mass det. time= 509.7 min (1,335.3 - 825.6)

Volume	Invert	Avail.Storage	Storage Description
#1	994.00'	403,876 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

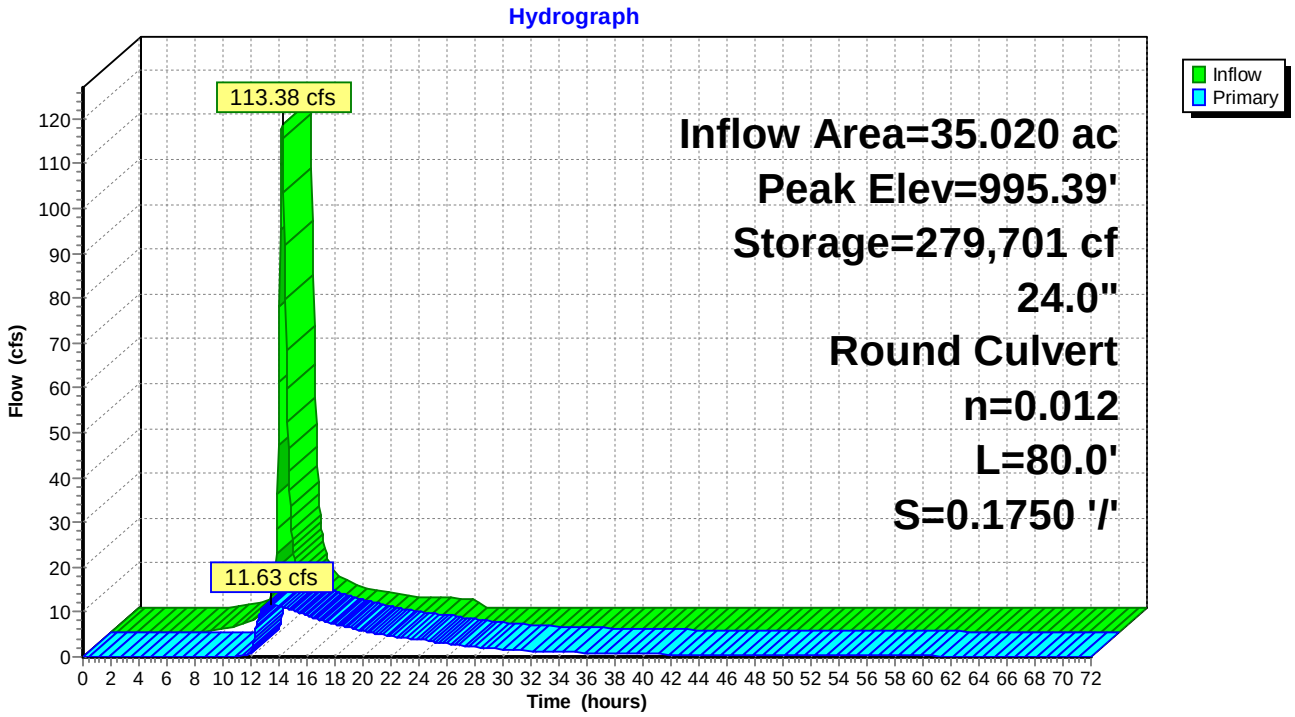
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
994.00	201,938	0	0
995.00	201,938	201,938	201,938
996.00	201,938	201,938	403,876

Device	Routing	Invert	Outlet Devices
#1	Primary	994.00'	**24.0" Round Culvert** L= 80.0' Ke= 0.200 Inlet / Outlet Invert= 994.00' / 980.00' S= 0.1750 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=11.63 cfs @ 13.41 hrs HW=995.39' (Free Discharge)
↳**1=Culvert** (Inlet Controls 11.63 cfs @ 5.01 fps)

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Pond 10P: Existing Pond



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Summary for Pond 16P: Basin A3

Inflow Area = 4.990 ac, 38.00% Impervious, Inflow Depth = 4.02" for 100-Year event
Inflow = 24.83 cfs @ 12.07 hrs, Volume= 1.672 af
Outflow = 5.34 cfs @ 12.42 hrs, Volume= 1.672 af, Atten= 78%, Lag= 21.0 min
Primary = 5.34 cfs @ 12.42 hrs, Volume= 1.672 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 959.78' @ 12.42 hrs Surf.Area= 15,233 sf Storage= 32,535 cf

Plug-Flow detention time= 163.1 min calculated for 1.671 af (100% of inflow)
Center-of-Mass det. time= 164.0 min (967.3 - 803.4)

Volume	Invert	Avail.Storage	Storage Description
#1	957.00'	94,800 cf	**Custom Stage Data (Prismatic)** Listed below

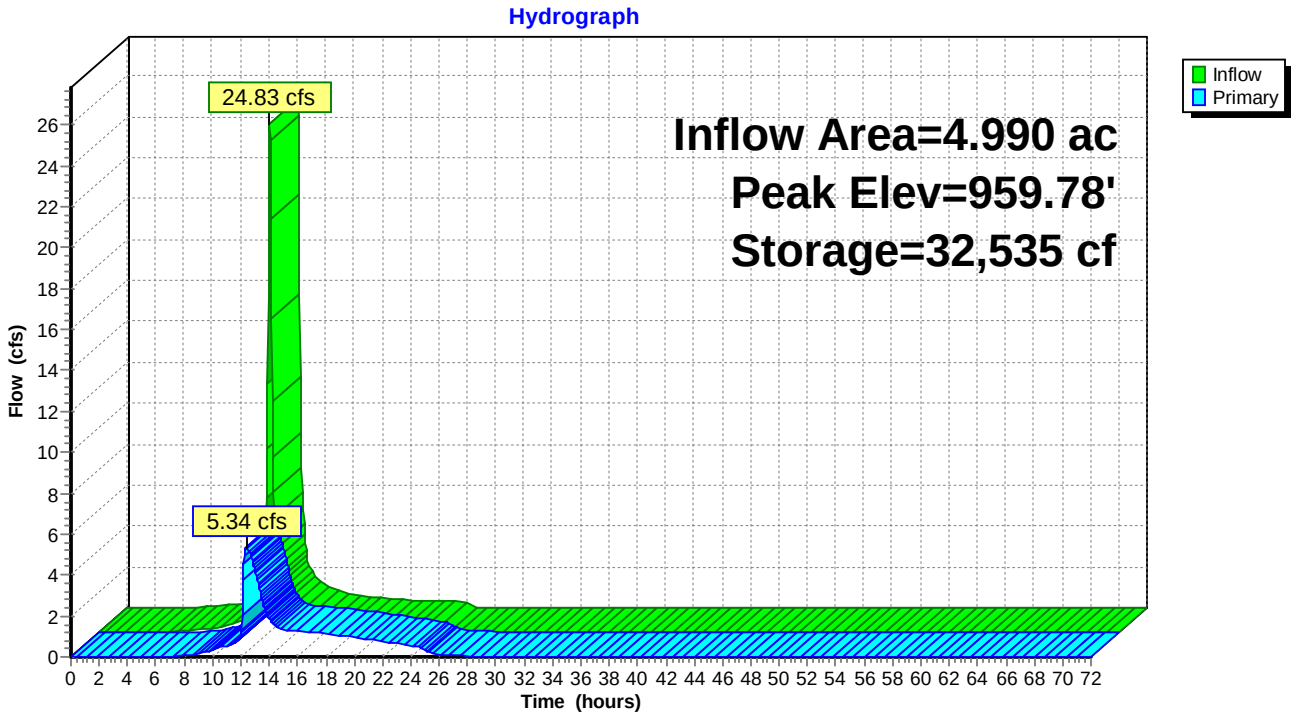
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
957.00	8,000	0	0
958.00	10,600	9,300	9,300
959.00	13,200	11,900	21,200
960.00	15,800	14,500	35,700
961.00	18,400	17,100	52,800
962.00	21,000	19,700	72,500
963.00	23,600	22,300	94,800

Device	Routing	Invert	Outlet Devices
#1	Primary	957.00'	**24.0" Round Culvert** L= 50.0' Ke= 0.200 Inlet / Outlet Invert= 957.00' / 956.00' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	956.00'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	959.00'	**18.0" W x 4.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#4	Primary	962.00'	**15.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=5.34 cfs @ 12.42 hrs HW=959.78' (Free Discharge)
- **1=Culvert** (Passes 5.34 cfs of 25.23 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 1.58 cfs @ 8.03 fps)
  - **3=Orifice/Grate** (Orifice Controls 3.76 cfs @ 3.76 fps)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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Pond 16P: Basin A3



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Summary for Pond 40P: Basin A1 WQv

Inflow	=	0.00 cfs @	0.00 hrs,	Volume=	0.000 af
Outflow	=	1.29 cfs @	0.00 hrs,	Volume=	0.967 af, Atten= 0%, Lag= 0.0 min
Primary	=	1.29 cfs @	0.00 hrs,	Volume=	0.967 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Starting Elev= 959.10' Surf.Area= 24,398 sf Storage= 44,326 cf
Peak Elev= 959.10' @ 0.00 hrs Surf.Area= 24,398 sf Storage= 44,326 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	957.00'	129,041 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

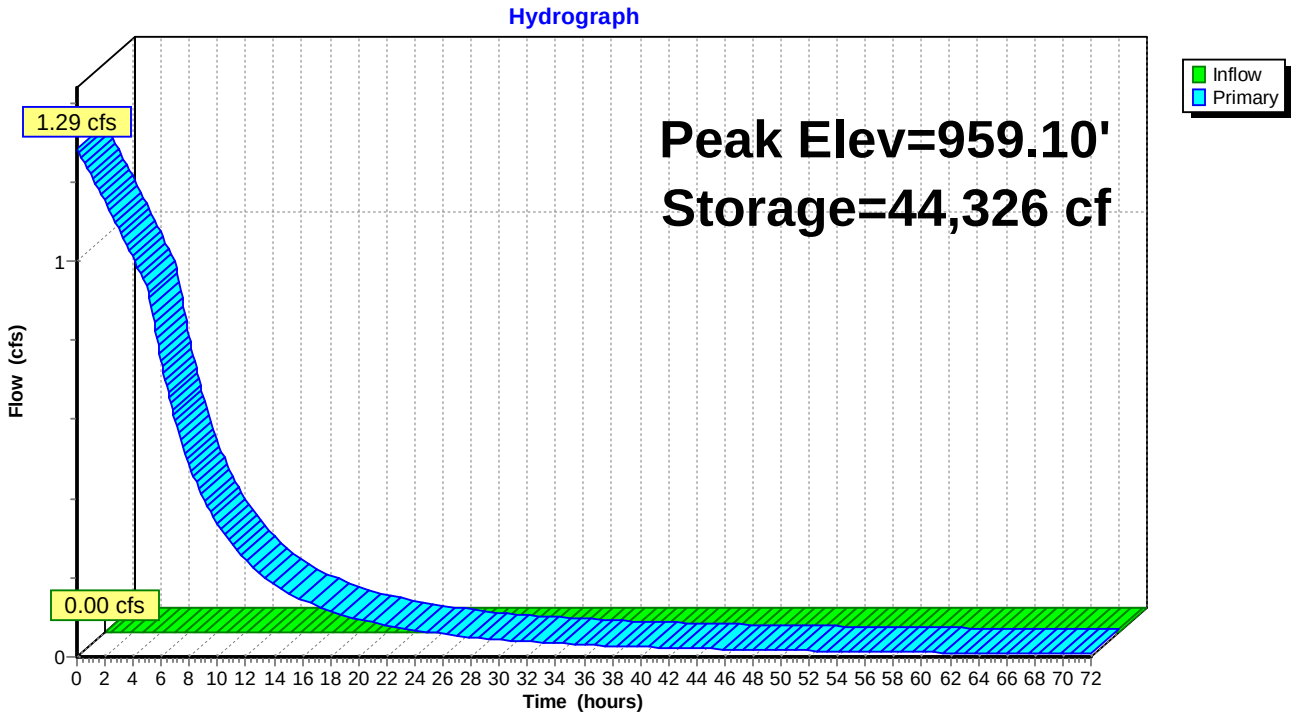
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
957.00	17,908	0	0
958.00	20,912	19,410	19,410
959.00	24,072	22,492	41,902
960.00	27,332	25,702	67,604
961.00	30,693	29,013	96,617
962.00	34,155	32,424	129,041

Device	Routing	Invert	Outlet Devices
#1	Primary	957.00'	**24.0" Round Culvert** L= 100.0' Ke= 0.200 Inlet / Outlet Invert= 957.00' / 956.50' S= 0.0050 '/' Cc= 0.900 n= 0.120, Flow Area= 3.14 sf
#2	Device 1	957.00'	**6.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=1.29 cfs @ 0.00 hrs HW=959.10' (Free Discharge)
↑**1=Culvert** (Passes 1.29 cfs of 2.37 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 1.29 cfs @ 6.55 fps)

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Pond 40P: Basin A1 WQv



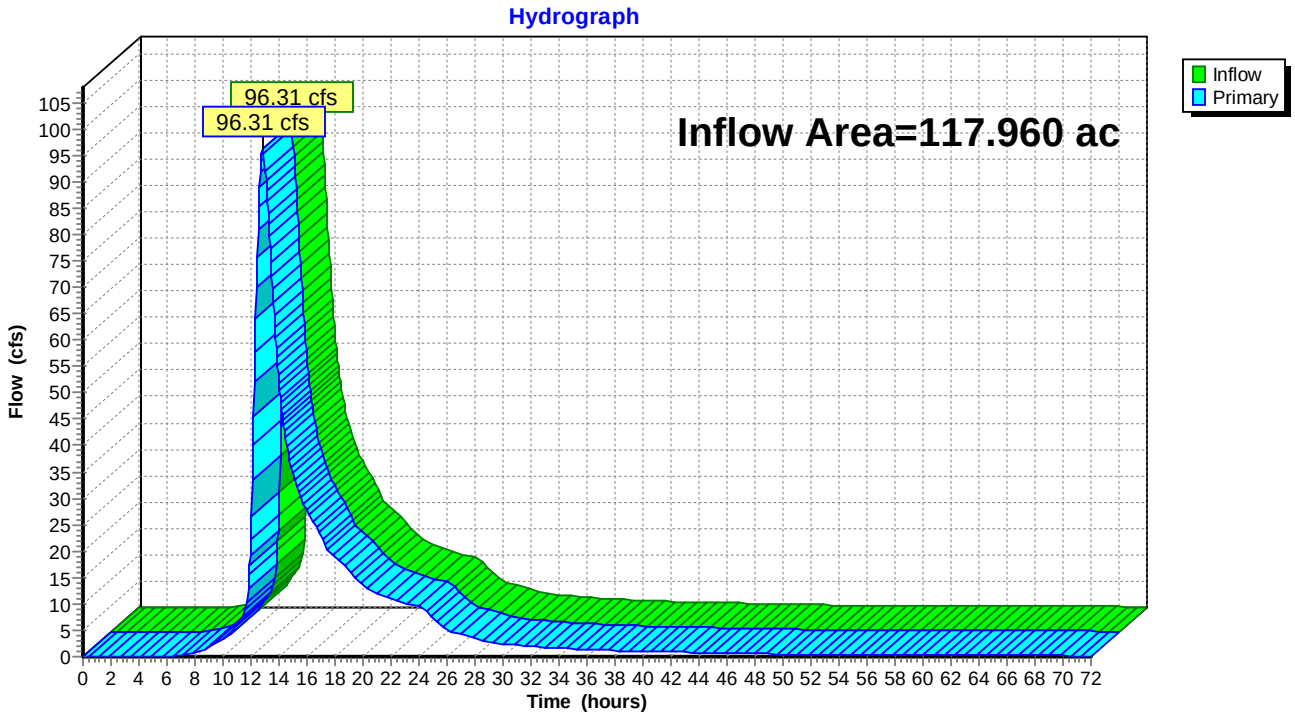
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Summary for Link 26L: Total Watershed A Release

Inflow Area = 117.960 ac, 19.49% Impervious, Inflow Depth > 3.50" for 100-Year event
Inflow = 96.31 cfs @ 12.84 hrs, Volume= 34.430 af
Primary = 96.31 cfs @ 12.84 hrs, Volume= 34.430 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 26L: Total Watershed A Release



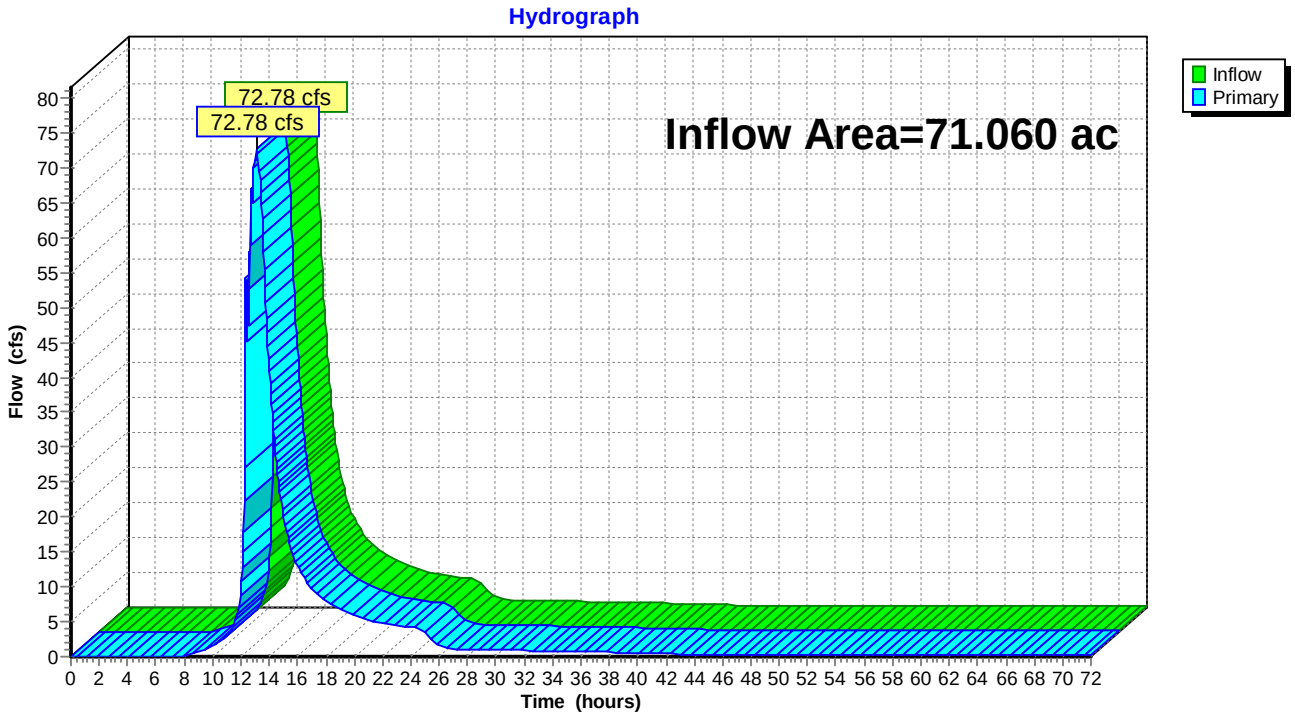
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Summary for Link 27L: Total Watershed C Release

Inflow Area = 71.060 ac, 9.02% Impervious, Inflow Depth > 3.36" for 100-Year event
Inflow = 72.78 cfs @ 13.07 hrs, Volume= 19.901 af
Primary = 72.78 cfs @ 13.07 hrs, Volume= 19.901 af, Atten= 0%, Lag= 0.0 min

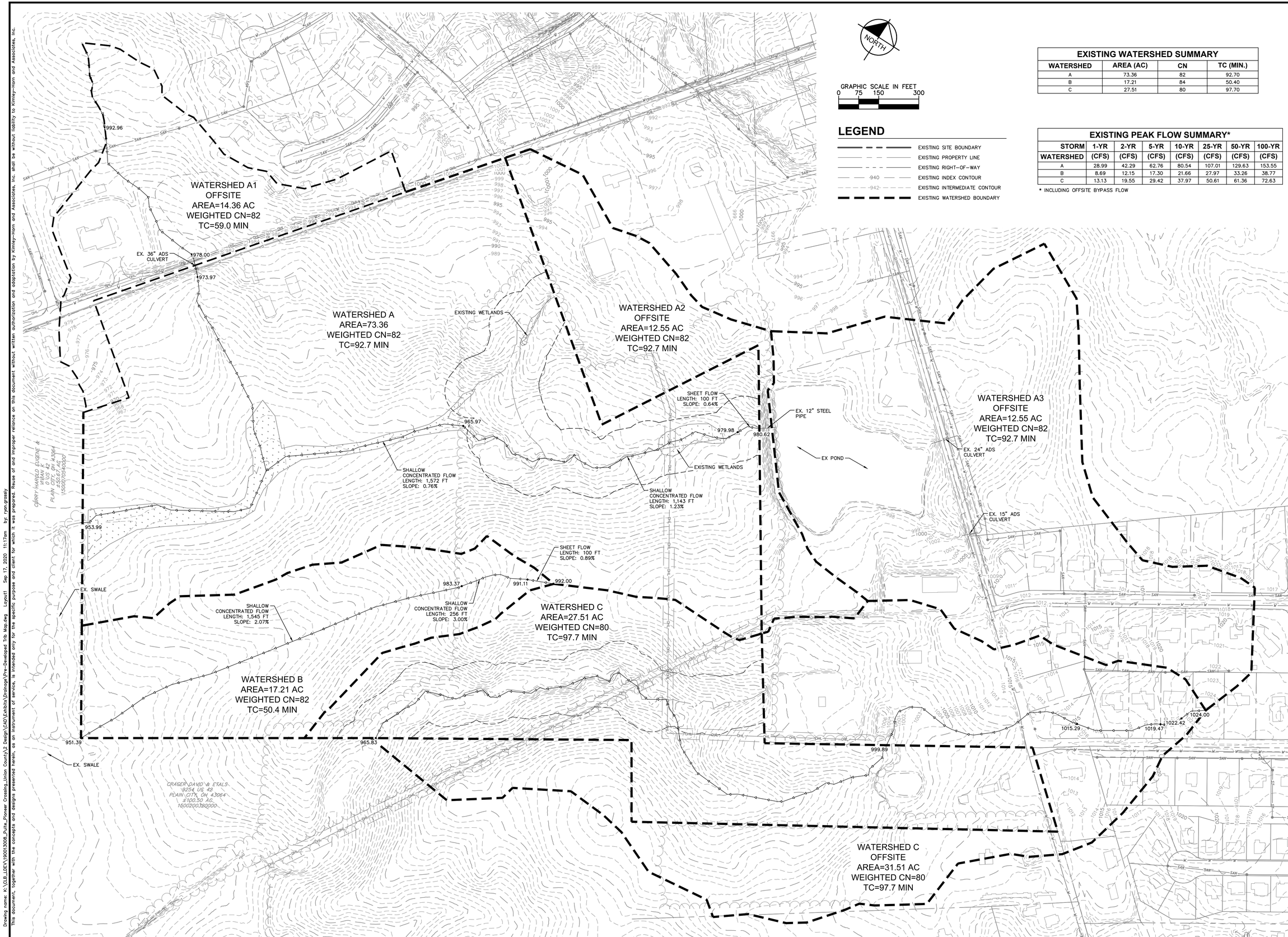
Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 27L: Total Watershed C Release



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Exhibit 2 – Pre-Development Tributary Map



EXISTING WATERSHED SUMMARY

WATERSHED	AREA (AC)	CN	TC (MIN.)
A	73.36	82	92.70
B	17.21	84	50.40
C	27.51	80	97.70

EXISTING PEAK FLOW SUMMARY*

STORM	1-YR	2-YR	5-YR	10-YR	25-YR	50-YR	100-YR
WATERSHED	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)
A	28.99	42.29	62.76	80.54	107.01	129.63	153.55
B	8.69	12.15	17.30	21.66	27.97	33.26	38.77
C	13.13	19.55	29.42	37.97	50.61	61.36	72.63

* INCLUDING OFFSITE BYPASS FLOW

Drawing name: K:\CLB_LSE\190013008_Pulte_Pioneer Crossing_Union County\2 Design\CAD\Exhibits\Drainage\Pre-Developed Trib Map.dwg Layout1 Sep 17, 2020 11:17am byr.romgrassly
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SCALE: AS NOTED
DESIGNED BY: SMV
DRAWN BY: NSM
CHECKED BY: KDK

PRE-DEVELOPED TRIBUTARY MAP

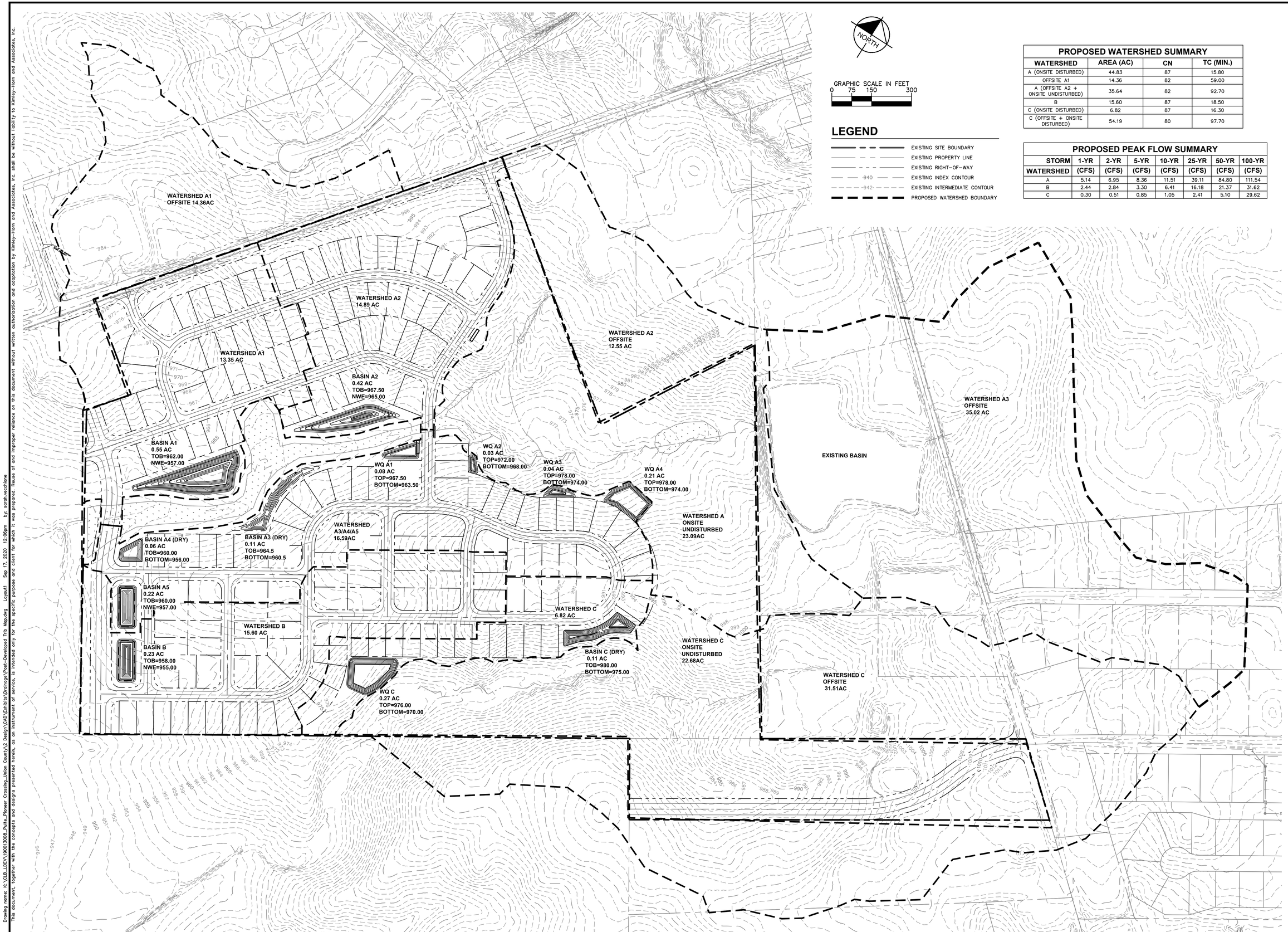
PIONEER CROSSING
JEROME TOWNSHIP
UNION COUNTY, OHIO

ORIGINAL ISSUE:
9/17/2020

KHA PROJECT NO.
190013008

SHEET NUMBER
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Exhibit 3 – Post-Developed Tributary Map



PROPOSED WATERSHED SUMMARY

WATERSHED	AREA (AC)	CN	TC (MIN.)
A (ONSITE DISTURBED)	44.83	87	15.80
OFFSITE A1	14.36	82	59.00
A (OFFSITE A2 + ONSITE UNDISTURBED)	35.64	82	92.70
B	15.60	87	18.50
C (ONSITE DISTURBED)	6.82	87	16.30
C (OFFSITE + ONSITE DISTURBED)	54.19	80	97.70

PROPOSED PEAK FLOW SUMMARY

STORM	1-YR	2-YR	5-YR	10-YR	25-YR	50-YR	100-YR
WATERSHED	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)	(CFS)
A	5.14	6.95	8.36	11.51	39.11	84.80	111.54
B	2.44	2.84	3.30	6.41	16.18	21.37	31.62
C	0.30	0.51	0.85	1.05	2.41	5.10	29.62

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DRAWN BY: NSM
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POST-DEVELOPED TRIBUTARY MAP

PIONEER CROSSING

JEROME TOWNSHIP
UNION COUNTY, OHIO

ORIGINAL ISSUE:
9/17/2020

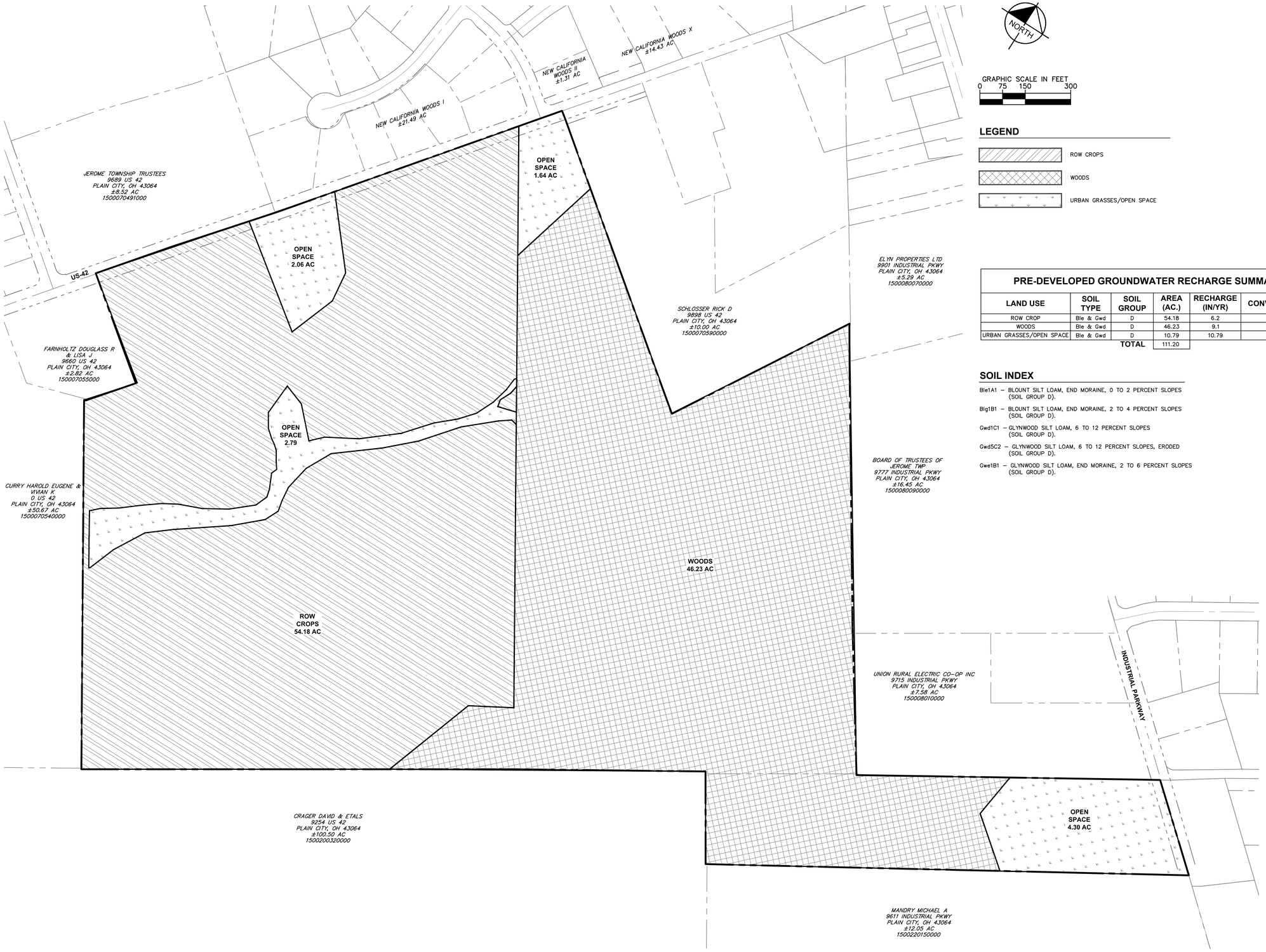
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Exhibit 4 – Groundwater Recharge Calculations

Drawing name: K:\CLB_LDEV\190013008_Pulte_Pioneer Crossing_Union County\2 Design\CAD\Exhibits\Pre-Developed Groundwater Recharge.dwg Layout1 Sep 17, 2020 12:59pm by: sarah.vecchione
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LEGEND

- ROW CROPS
- WOODS
- URBAN GRASSES/OPEN SPACE

PRE-DEVELOPED GROUNDWATER RECHARGE SUMMARY TABLE 2

LAND USE	SOIL TYPE	SOIL GROUP	AREA (AC.)	RECHARGE (IN/YR)	CONVERSION	VOLUME (AC-FT/YR)
ROW CROP	Ble & Gwd	D	54.18	6.2	0.52	27.99
WOODS	Ble & Gwd	D	46.23	9.1	0.76	35.06
URBAN GRASSES/OPEN SPACE	Ble & Gwd	D	10.79	10.79	0.78	8.36
		TOTAL	111.20			71.41

SOIL INDEX

Ble1A1 – BLOUNT SILT LOAM, END MORAINE, 0 TO 2 PERCENT SLOPES (SOIL GROUP D).

Blg1B1 – BLOUNT SILT LOAM, END MORAINE, 2 TO 4 PERCENT SLOPES (SOIL GROUP D).

Gwd1C1 – GLYNWOOD SILT LOAM, 6 TO 12 PERCENT SLOPES (SOIL GROUP D).

Gwd5C2 – GLYNWOOD SILT LOAM, 6 TO 12 PERCENT SLOPES, ERODED (SOIL GROUP D).

Gwe1B1 – GLYNWOOD SILT LOAM, END MORAINE, 2 TO 6 PERCENT SLOPES (SOIL GROUP D).

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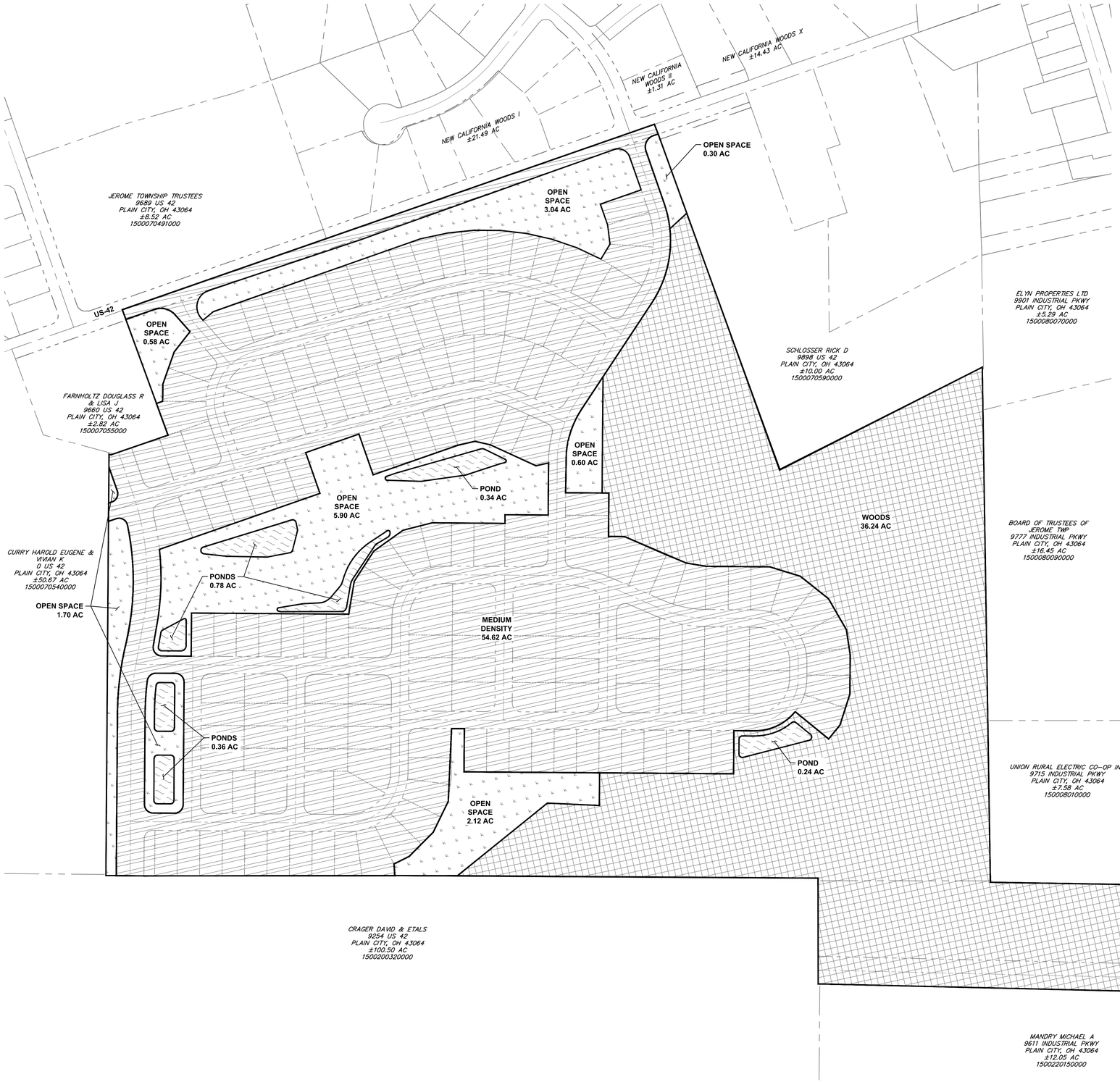
PRE-DEVELOPED GROUNDWATER RECHARGE EXHIBIT

PIONEER CROSSING

JEROME TOWNSHIP
UNION COUNTY, OHIO

ORIGINAL ISSUE: 9/17/2020
KHA PROJECT NO. 190013008
SHEET NUMBER

EX 4A



NORTH

GRAPHIC SCALE IN FEET
0 75 150 300

LEGEND

- MEDIUM DENSITY
- URBAN GRASSES/OPEN SPACE
- PONDS
- WOODS

POST-DEVELOPED GROUNDWATER RECHARGE SUMMARY TABLE 2

LAND USE	SOIL TYPE	SOIL GROUP	AREA (AC.)	RECHARGE (IN/YR)	CONVERSION	VOLUME (AC-FT/YR)
MEDIUM DENSITY	Ble & Gwd	D	54.62	8.3	0.69	37.78
URBAN GRASSES/OPEN SPACE	Ble & Gwd	D	18.62	9.3	0.78	14.43
PONDS	Ble & Gwd	D	1.72	0.0	0.00	0.00
WOODS	Ble & Gwd	D	36.24	9.1	0.76	27.48
		TOTAL	111.20			79.69

SOIL INDEX

Ble1A1 – BLOUNT SILT LOAM, END MORAINE, 0 TO 2 PERCENT SLOPES (SOIL GROUP D).

Blg1B1 – BLOUNT SILT LOAM, END MORAINE, 2 TO 4 PERCENT SLOPES (SOIL GROUP D).

Gwd1C1 – GLYNWOOD SILT LOAM, 6 TO 12 PERCENT SLOPES (SOIL GROUP D).

Gwd5C2 – GLYNWOOD SILT LOAM, 6 TO 12 PERCENT SLOPES, ERODED (SOIL GROUP D).

Gwe1B1 – GLYNWOOD SILT LOAM, END MORAINE, 2 TO 6 PERCENT SLOPES (SOIL GROUP D).

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EX 4B

Drawing name: K:\CLD_LDEV\190013008_Pulte_Pioneer Crossing_Union County\2 Design\CAD\Exhibits\Post-Developed Groundwater Recharge.dwg Layout1 Sep 17, 2020 12:48pm by: sarah.wechlone
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Exhibit 5 – Culvert Calculations

UNIVERSAL CULVERT DESIGN

PID : 190013008 **Date :** 09/10/2020 **Project :** Pioneer Crossing **Location :** Union County

Description : East Culvert Design **Designer :** Kevin Kershner

HEADWATER CONTROL CODES:

INLET - Inlet Control.
OUTLET - Outlet Control.
OUTLET* - Outlet Control with backwater curve used to compute headwater. See Figure III - 7E in HDS 5 for type flow.
OUTLET** - Outlet Control - See Figure III - 7D in HDS 5 for type flow.
N/A - Flow is supercritical with low headwater and low tailwater. Control Section is at the inlet.

Inlet Invert Elevation (ft.) : 965.50 **Outlet Invert Elevation (ft.) :** 965.00 **Tailwater Elevation (ft.) :** 966.00 **Overflow Elevation (ft.) :** 972.00

Allowable Headwater Elevation (ft.) : 971.00 **or** Diameter + 0 ft. *(whichever is less)*

Pipe Length (ft.) : 92.00 **Culvert Slope (ft./ft.) :** 0.0054 **Design Manning 'n' :** 0.0120

Design Discharge (cfs) : 36.00 @ 25 yrs. **Flood Discharge (cfs) :** 88.00 @ 100 yrs.

FLOW (cfs.)	PIPE #	CULVERT SIZE	HWI (ft.)	HWO (ft.)	FLOW TYPE	VELOCITY (fps.)	DN (ft.)	DC (ft.)	MANNING N	HEADWATER CONTROL	OVER FLOW (cfs.)	DESIGN CODE	BURIAL DEPTH (ft.)
CULVERT TYPE : CIRCULAR SMOOTH			**Entrance Type :** Full Headwall								**Entrance Loss (Ke) :** 0.20		
36.00	1	36 in.	968.36	N/A	1 - C	8.09	1.81	1.95	0.0120	INLET	0.00	D	0.00
36.00	1	33 in.	968.55	N/A	1 - C	7.99	1.95	2.00	0.0120	INLET	0.00	D - 1	0.00
36.00	1	30 in.	968.89	968.86	2 - E	7.33	2.50	2.03	0.0120	INLET	0.00	D - 2	0.00
36.00	1	42 in.	968.16	N/A	1 - C	8.12	1.64	1.86	0.0120	INLET	0.00	D + 1	0.00
85.60	1	36 in.	972.23	972.16	2 - E	12.11	3.00	2.82	0.0120	INLET	2.40	F	0.00
73.10	1	33 in.	973.85	973.96	2 - F	12.54	2.75	2.61	0.0120	OUTLET**	14.90	F - 1	0.00
60.60	1	30 in.	976.64	977.06	2 - F	12.52	2.50	2.40	0.0120	OUTLET**	27.40	F - 2	0.00
88.00	1	42 in.	970.49	970.38	2 - E	9.15	3.50	2.91	0.0120	INLET	0.00	F + 1	0.00
CULVERT TYPE : CIRCULAR CORRUGATED			**Entrance Type :** Full Headwall								**Entrance Loss (Ke) :** 0.25		
Corrugated Metal Pipe (2 2/3 x 1/2 in. corrugations)													
36.00	1	42 in.	968.22	968.40	1 - A	6.92	2.56	1.86	0.0237	OUTLET*	0.00	D	0.00

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UNIVERSAL CULVERT DESIGN

FLOW (cfs.)	PIPE #	CULVERT SIZE	HWI (ft.)	HWO (ft.)	FLOW TYPE	VELOCITY (fps.)	DN (ft.)	DC (ft.)	MANNING N	HEADWATER CONTROL	OVER FLOW (cfs.)	DESIGN CODE	BURIAL DEPTH (ft.)
36.00	1	36 in.	968.52	968.76	1 - A	7.40	2.74	1.95	0.0241	OUTLET*	0.00	D - 1	0.00
36.00	1	33 in.	968.79	969.54	2 - F	7.79	2.75	2.00	0.0241	OUTLET**	0.00	D - 2	0.00
36.00	1	48 in.	968.04	968.20	1 - A	6.63	2.27	1.79	0.0235	OUTLET*	0.00	D + 1	0.00
86.30	1	42 in.	971.10	972.16	2 - F	10.15	3.50	2.89	0.0237	OUTLET**	1.70	F	0.00
62.10	1	36 in.	973.49	976.40	2 - F	9.74	3.00	2.54	0.0241	OUTLET**	25.90	F - 1	0.00
51.50	1	33 in.	975.82	980.68	2 - F	9.51	2.75	2.36	0.0241	OUTLET**	36.50	F - 2	0.00
88.00	1	48 in.	970.12	970.50	2 - F	9.21	4.00	2.84	0.0235	OUTLET**	0.00	F + 1	0.00
Corrugated Metal Pipe (3 x 1 in. corrugations)													
36.00	1	42 in.	968.22	968.52	1 - A	6.92	3.01	1.86	0.0278	OUTLET*	0.00	D	0.00
36.00	1	36 in.	968.52	969.22	2 - F	7.40	3.00	1.95	0.0281	OUTLET**	0.00	D - 1	0.00
36.00	1	48 in.	968.04	968.28	1 - A	6.63	2.51	1.79	0.0275	OUTLET*	0.00	D + 1	0.00
78.70	1	42 in.	971.10	973.03	2 - F	9.63	3.50	2.77	0.0278	OUTLET**	9.30	F	0.00
56.30	1	36 in.	973.49	978.37	2 - F	9.17	3.00	2.43	0.0281	OUTLET**	31.70	F - 1	0.00
88.00	1	48 in.	970.12	970.91	2 - F	9.21	4.00	2.84	0.0275	OUTLET**	0.00	F + 1	0.00
Corrugated Metal Pipe (6 x 2 in. corrugations)													
36.00	1	60 in.	967.81	968.12	1 - A	6.26	2.44	1.67	0.0332	OUTLET*	0.00	D	0.00
36.00	1	66 in.	967.74	968.02	1 - A	6.14	2.31	1.62	0.0330	OUTLET*	0.00	D + 1	0.00
88.00	1	60 in.	969.39	969.86	1 - A	8.28	4.57	2.66	0.0332	OUTLET*	0.00	F	0.00
88.00	1	66 in.	969.20	969.61	1 - A	8.02	4.09	2.58	0.0330	OUTLET*	0.00	F + 1	0.00
Corrugated Metal Pipe (6 x 2 in. corrugations, Field Paved Invert)													
36.00	1	60 in.	967.81	968.00	1 - A	6.26	2.12	1.67	0.0260	OUTLET*	0.00	D	0.00
36.00	1	66 in.	967.74	967.90	1 - A	6.14	2.03	1.62	0.0260	OUTLET*	0.00	D + 1	0.00
88.00	1	60 in.	969.39	969.62	1 - A	8.28	3.77	2.66	0.0260	OUTLET*	0.00	F	0.00
88.00	1	66 in.	969.20	969.43	1 - A	8.02	3.43	2.58	0.0260	OUTLET*	0.00	F + 1	0.00

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UNIVERSAL CULVERT DESIGN

PID : 190013008 **Date :** 09/10/2020 **Project :** Pioneer Crossing **Location :** Union County

Description : West Culvert Design **Designer :** Kevin Kershner

HEADWATER CONTROL CODES:

INLET - Inlet Control.
OUTLET - Outlet Control.
OUTLET* - Outlet Control with backwater curve used to compute headwater. See Figure III - 7E in HDS 5 for type flow.
OUTLET** - Outlet Control - See Figure III - 7D in HDS 5 for type flow.
N/A - Flow is supercritical with low headwater and low tailwater. Control Section is at the inlet.

Inlet Invert Elevation (ft.) : 956.00 **Outlet Invert Elevation (ft.) :** 955.00 **Tailwater Elevation (ft.) :** 956.00 **Overflow Elevation (ft.) :** 964.00

Allowable Headwater Elevation (ft.) : 963.00 **or** Diameter + 0 ft. *(whichever is less)*

Pipe Length (ft.) : 120.00 **Culvert Slope (ft./ft.) :** 0.0083 **Design Manning 'n' :** 0.0120

Design Discharge (cfs) : 57.00 @ 25 yrs. **Flood Discharge (cfs) :** 139.00 @ 100 yrs.

FLOW (cfs.)	PIPE #	CULVERT SIZE	HWI (ft.)	HWO (ft.)	FLOW TYPE	VELOCITY (fps.)	DN (ft.)	DC (ft.)	MANNING N	HEADWATER CONTROL	OVER FLOW (cfs.)	DESIGN CODE	BURIAL DEPTH (ft.)
CULVERT TYPE : CIRCULAR SMOOTH			**Entrance Type :** Full Headwall								**Entrance Loss (Ke) :** 0.20		
57.00	1	48 in.	959.27	N/A	1 - C	10.68	1.76	2.27	0.0120	INLET	0.00	D	0.00
57.00	1	42 in.	959.50	N/A	1 - C	10.69	1.90	2.36	0.0120	INLET	0.00	D - 1	0.00
57.00	1	36 in.	960.08	959.68	2 - E	10.50	2.15	2.45	0.0120	INLET	0.00	D - 2	0.00
57.00	1	54 in.	959.11	N/A	1 - C	10.62	1.67	2.19	0.0120	INLET	0.00	D + 1	0.00
139.00	1	48 in.	962.50	961.98	2 - E	12.88	3.20	3.50	0.0120	INLET	0.00	F	0.00
131.10	1	42 in.	964.66	964.26	2 - E	13.63	3.50	3.31	0.0120	INLET	7.90	F - 1	0.00
99.80	1	36 in.	969.41	969.61	2 - E	14.28	3.00	2.90	0.0120	INLET	39.20	F - 2	0.00
139.00	1	54 in.	961.48	960.91	2 - E	13.29	2.81	3.47	0.0120	INLET	0.00	F + 1	0.00
CULVERT TYPE : CIRCULAR CORRUGATED			**Entrance Type :** Full Headwall								**Entrance Loss (Ke) :** 0.25		
Corrugated Metal Pipe (2 2/3 x 1/2 in. corrugations)													
57.00	1	48 in.	959.37	959.44	1 - A	7.73	2.67	2.27	0.0235	OUTLET*	0.00	D	0.00

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UNIVERSAL CULVERT DESIGN

FLOW (cfs.)	PIPE #	CULVERT SIZE	HWI (ft.)	HWO (ft.)	FLOW TYPE	VELOCITY (fps.)	DN (ft.)	DC (ft.)	MANNING N	HEADWATER CONTROL	OVER FLOW (cfs.)	DESIGN CODE	BURIAL DEPTH (ft.)
57.00	1	42 in.	959.73	959.85	1 - A	8.24	3.20	2.36	0.0237	OUTLET*	0.00	D - 1	0.00
57.00	1	36 in.	960.54	961.98	2 - F	9.24	3.00	2.45	0.0241	OUTLET**	0.00	D - 2	0.00
57.00	1	54 in.	959.15	959.24	1 - A	7.42	2.43	2.19	0.0233	OUTLET*	0.00	D + 1	0.00
130.20	1	48 in.	963.41	964.78	2 - F	11.40	4.00	3.41	0.0235	OUTLET**	8.80	F	0.00
97.50	1	42 in.	966.40	970.05	2 - F	10.99	3.50	3.04	0.0237	OUTLET**	41.50	F - 1	0.00
68.60	1	36 in.	972.92	983.30	2 - F	10.42	3.00	2.64	0.0241	OUTLET**	70.40	F - 2	0.00
139.00	1	54 in.	962.02	962.38	2 - F	10.57	4.50	3.47	0.0233	OUTLET**	0.00	F + 1	0.00
Corrugated Metal Pipe (3 x 1 in. corrugations)													
57.00	1	48 in.	959.37	959.57	1 - A	7.73	3.02	2.27	0.0275	OUTLET*	0.00	D	0.00
57.00	1	42 in.	959.73	960.36	2 - F	8.24	3.50	2.36	0.0278	OUTLET**	0.00	D - 1	0.00
57.00	1	36 in.	960.54	963.06	2 - F	9.24	3.00	2.45	0.0281	OUTLET**	0.00	D - 2	0.00
57.00	1	54 in.	959.15	959.30	1 - A	7.42	2.69	2.19	0.0273	OUTLET*	0.00	D + 1	0.00
118.40	1	48 in.	963.41	966.13	2 - F	10.74	4.00	3.28	0.0275	OUTLET**	20.60	F	0.00
87.90	1	42 in.	966.40	972.89	2 - F	10.27	3.50	2.91	0.0278	OUTLET**	51.10	F - 1	0.00
61.60	1	36 in.	972.92	989.70	2 - F	9.69	3.00	2.53	0.0281	OUTLET**	77.40	F - 2	0.00
139.00	1	54 in.	962.02	963.10	2 - F	10.57	4.50	3.47	0.0273	OUTLET**	0.00	F + 1	0.00
Corrugated Metal Pipe (6 x 2 in. corrugations)													
57.00	1	60 in.	959.00	959.28	1 - A	7.19	2.83	2.12	0.0332	OUTLET*	0.00	D	0.00
57.00	1	66 in.	958.87	959.12	1 - A	7.01	2.66	2.06	0.0330	OUTLET*	0.00	D + 1	0.00
139.00	1	60 in.	961.32	962.38	2 - F	9.85	5.00	3.38	0.0332	OUTLET**	0.00	F	0.00
139.00	1	66 in.	960.93	961.38	1 - A	9.39	5.02	3.28	0.0330	OUTLET*	0.00	F + 1	0.00
Corrugated Metal Pipe (6 x 2 in. corrugations, Field Paved Invert)													
57.00	1	60 in.	959.00	959.12	1 - A	7.19	2.44	2.12	0.0260	OUTLET*	0.00	D	0.00
57.00	1	66 in.	958.87	959.00	1 - A	7.01	2.32	2.06	0.0260	OUTLET*	0.00	D + 1	0.00

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UNIVERSAL CULVERT DESIGN

FLOW (cfs.)	PIPE #	CULVERT SIZE	HWI (ft.)	HWO (ft.)	FLOW TYPE	VELOCITY (fps.)	DN (ft.)	DC (ft.)	MANNING N	HEADWATER CONTROL	OVER FLOW (cfs.)	DESIGN CODE	BURIAL DEPTH (ft.)
139.00	1	60 in.	961.32	961.47	1 - A	9.85	4.57	3.38	0.0260	OUTLET*	0.00	F	0.00
139.00	1	66 in.	960.93	961.07	1 - A	9.39	4.11	3.28	0.0260	OUTLET*	0.00	F + 1	0.00

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Stantec

Memo

To:	Matt Callahan Pulte Homes	From:	Kevin Kershner Columbus OH Office
File:	1734	Date:	August 20, 2019

Reference: Pioneer Crossing Engineering Feasibility

Stantec has reviewed the utility availability for the proposed 111.5 acre +/- 222 lot single family development south of SR 42 and west of Industrial Parkway, Union County Ohio. The utility availability is based on an OUPS request, available online information, and discussions with the utility providers. The following is a summary of the utilities for the proposed Pioneer Crossing project.

Sanitary Sewer Service

- The project is located within the City of Marysville Sanitary Sewer Service area. The City has verified there is adequate capacity in the WWTP to service the project.
- The project will be serviced by a new pump station within the project area. Sizing of the pump station will be coordinated with the City during design of the project.

Water Service

- The project is located within the City of Marysville Water Service area. The City of Marysville has an existing 12-inch waterline located on the north side of SR 42 and a 16-inch waterline along Industrial Parkway. The City has verified the existing waterline has adequate capacity to serve the project.
- The project will connect to the existing 12-inch waterline at both drive access locations and to the 16-inch on Industrial Parkway to provide a looped waterline system within the development.

Storm Sewer Management

- The proposed development site has a drainage ditch flowing east to west through the middle of the property. The site naturally drains into the ditch and flows offsite to the west. The existing ditch appears to be an adequate outlet for the project drainage.
- The proposed development will include stormwater basins to meet the County and OEPA stormwater requirements. The stormwater basins are located on the west side of the project and will discharge into the existing ditch on the property.

Electric

- Electric service will be provided by Union Rural Electric. Existing electric facilities are located along SR 42 between Industrial Parkway and New California Drive. The project is within the Union Rural Electrical service area.

Gas

- Gas service will be provided by Columbia Gas of Ohio, Inc. Columbia Gas has facilities along SR 42 between Industrial Parkway and New California Drive. The project is within the Columbia Gas of Ohio, Inc. service area.

Phone

- Verizon one of the phone utility providers in the area that could provide service to the project.

Cable TV

- Time Warner Cable is one of the cable TV utility providers in the area that could provide service to the project.

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Reference: **Pioneer Crossing Engineering Feasibility Engineering Feasibility**

Road

- The Pulte project team has met with Union County and ODOT District 6 to review the preliminary site plan and develop the basis of the traffic study requirements. The Traffic Impact Study has been started and is currently in progress. The Traffic Impact Study will be sent to Jerome Township after completion of Union County and ODOT review. Below is a summary of the key points of the TIS requirements for the project.
  - The study is to include phasing of the development and identify triggers for improvements.
  - The following intersections will be evaluated for capacity analysis and required road improvements:
    - SR 42 & Road A (emergency access only)
    - SR 42 & Monteray Drive/ proposed road
    - Industrial Parkway / Brock Road / proposed road intersection
  - Turn lanes / intersection improvements will be evaluated based on the criteria outlined in Section 400 of the ODOT Location and Design Manual Volume 1.

Stantec Consulting Services Inc.

Kevin Kershner
Principal

Phone: 614 485 5037
Fax: 614 486 4387
Kevin.Kershner@stantec.com

Attachment: Attachment

c. C.C.

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Engineering, Planning and Zoning
City Hall, 209 South Main Street
Marysville, Ohio 43040-1641
(937) 645-7350
FAX (937) 645-7351
www.marysvilleohio.org

May 23, 2019

Kevin Kershner, P.E.
Stantec
1500 Lake Shore Drive, Suite 100
Columbus, Ohio 43204

Subject: **Borror and Collins Properties (US 42) – City of Marysville Utilities**
Parcels 15-00070570000 and 29-00130121000

Dear Kevin,

Based on the provided exhibit, there is a public sanitary sewer an appropriate size along Industrial Parkway and a public waterline along US 42 for the proposed 199 lot residential development proposed on the opposite side of the New California development on Parcels 15-00070570000 and 29-00130121000.

The exact connection location shall be located between US 42 and Kimberly Drive into our larger gravity sewer along Industrial Parkway. It is most likely that a private pump station will be needed to provide wastewater service to this development. However, the Developer's engineer shall work with the City to create a feasibility study for these parcels.

Also, our water and wastewater treatment facilities have adequate capacity to provide utility service to this development.

Due to the ongoing development within this sewershed area, additional upgrades / capacity fee surcharge may be needed for the City's downstream wastewater pump station (Pump Station #4, located on Industrial Parkway near Taylor Road). As well, there currently is a waterline capacity fee surcharge (or construction requirement) for water system (fire flow) upgrades.

Any required utility extensions or upgrades will be the sole responsibility of the Developer. Also, all utility design standards and fees (including monthly user and one-time capacity charges) for the City's Utility System can be found on our website (www.marysvilleohio.org).

Please contact us if you need additional clarification or wish to discuss this letter in further detail.

Sincerely,

Jeremy V. Hoyt, P.E.
City Engineer / Deputy Public Service Director

cc. Mike Andrako, P.E. (City of Marysville)
Scott Sheppeard (City of Marysville)
Rich Felton (City of Marysville)
Bill Narducci (Union County Engineer's Office)

\\data\COMADUsers\jhoyt\Documents\New California - Utility Availability.docx

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Columbia Gas of Ohio
A NiSource Company

New Business Team
290 W Nationwide Bv, 3rd Floor
Columbus, OH 43215

May 21, 2019

Stantec
Keven Kershner
1500 Lake Shore Dr, Suite 100
Columbus, Ohio 43204

Re: New California Site – State Route 42 and Industrial Py, Plain City, Ohio

Dear Kevin,

Thank you for wanting to choose Columbia Gas of Ohio, Inc. (COH), a NiSource Company, to serve your natural gas needs to your new proposed ranch style home community. This letter is to confirm COH has facilities along State Route 42, between Industrial Py and New Califorina Dr, Plain City, Ohio. Although COH facilities may be in the vicinity of your proposed property, further investigation will need to take place for capacity. Once Attachment A of the Information Request Packet has been answered and returned and all other requested information is released to the COH New Business Team, gas availability and any capacity issues will be determined; as well as any deposit and/or Aid-To-Construction costs that may be required.

Please note that availability is contingent upon a cost benefit analysis. If the project is not deemed economically feasible for Columbia Gas, a deposit may be necessary

If you have any questions regarding availability, or how it is determined, please feel free to contact me at 800-440-6111 ext 3028 Monday-Friday, 8:00am to 4:30pm. Columbia Gas and I look forward to partnering with you on this and future projects.

Sincerely,

Donyel Gibson

Columbia Gas of Ohio a Nisource Company
Donyel Gibson
New Business Development Manager

www.ColumbiaGasOhio.com

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URE
Union Rural Electric

15461 US Route 36 • PO Box 393 • Marysville, OH 43040-0393
(937) 642-1826 • (800) 642-1826 • Fax (937) 644-4239
www.ure.com
Your Touchstone Energy® Cooperative

May 23, 2019

Mr. Kershner
Stantec Inc,
1500 Lake Shore Drive, Suite 100
Columbus, Ohio 43204

Dear Kevin,

We understand that you are proposing a new residential development in Union County along State Route 42, in Jerome Township. This would consist of 200 lots of which all are in URE certified electric territory.

Union Rural Electric has the availability and capacity to serve electric to all lots in our territory. It would be our intention to serve all of the lots which fall into our territory upon a formal request from the developer and signed URE Developers Agreement.

Please let me know if you require any additional information.

Best Regards,

Beau Michael

Beau Michael
Director, Development and Energy Services
Union Rural Electric Cooperative

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Kimley»Horn

September 11, 2020

Bill Narducci P.E.
Assistant Union County Engineer
233 West 6th Street,
Marysville, Ohio 43040

Re: Pioneer Crossing Right-of-Way Variance Request

Dear Mr. Narducci:
We are requesting variance of the Union County Subdivision Regulations Section 406 Road or Street Right-of-Way requirements for the Pioneer Crossing project located south of SR 42 and west of Industrial Parkway. We are requesting a minimum Right-of-Way width of 50 feet for Collector Streets and Local Street or Roads. The applicable subdivision regulations are as follows:

Subdivision Regulations Union County, Ohio Effective November 3, 1997
Section 406 Road or Street Right-of-Way and Pavement Widths: Minimum right-of-way widths shall be not less than the following table:

Minor Collector Road	80 feet
Collector Street	60 feet
Local Street or Road	60 feet

Jerome Township encourages conservation development as designated in the Jerome Township Comprehensive Land Use Plan and the approved Planned Unit Development (PUD) plan. The approved PUD plan included a 50-foot Right-of-Way for Collector and Local streets.

- Cluster residential uses to preserve large areas of open space and/or significant natural features and smaller lots as an incentive to preserve open space and natural features that help define the character of the community.
    - The project provides 44.6 acres of open space (40% of gross development area) and conservation of the existing wooded area.
    - Protection of existing wetlands and streams
    - The project is in the Big Darby Watershed which also encourages conservation development design principles to encourage groundwater recharge benefits

The reduction in Right-of-Way follows conservation development recommendations, has been approved by Jerome Township, and is consistent with other approved developments in Jerome Township.

If you have any questions or require any additional information, please contact me at 614-348-0765.

Sincerely,

Kevin Kershner, P.E.
Kimley-Horn and Associates, Inc.
Phone: 614-472-8963
Email: Kevin.Kershner@kimley-horn.com

CC: Brad Bodenmiller – Director LUC Regional Planning
Eric Snowden, Jerome Township Zoning Inspector

September 11, 2020

Brad Bodenmiller
Director LUC Regional Planning
10820 St. Rt. 347, PO Box 219,
East Liberty, OH 43319

Re: Pioneer Crossing Block Length Variance Request

Dear Mr. Bodenmiller:

We are requesting variance of the Union County Subdivision Regulations Section 412 Block requirements for the Pioneer Crossing project located south of SR 42 and west of Industrial Parkway. We are requesting a variance to the requirements of Section 412 Block requirements to match the Township approved Planned Unit Development (PUD) plan. The applicable subdivision regulations are as follows:

Subdivision Regulations Union County, Ohio Effective November 3, 1997
Section 412 Blocks:

1. The arrangement of blocks shall be such as to conform to the street planning and other criteria set forth in this Article and shall be arranged to accommodate lots and building sites of the size and character required for the district as set forth in the zoning regulations and to provide for required community facilities.
2. Irregularly shaped blocks, those intended for cul-de-sacs or loop streets, and those containing interior parks or playgrounds, shall be approved by the Regional Planning Commission when properly designed and located and when the maintenance of the interior public spaces is covered by agreements.
3. No block shall be longer than 1,500 feet nor less than 500 feet.
4. Where blocks are over 900 feet in length a walkway easement not less than 10 feet in width at or near the halfway point may be required, if necessary, to provide proper access to schools, recreational areas, shopping centers and other facilities.

Jerome Township encourages conservation development as designated in the Jerome Township Comprehensive Land Use Plan and the approved Planned Unit Development (PUD) plan. The approved PUD plan requires a variance to Section 412 Items 3 and 4 of the block requirements. Cluster residential preserves large areas of open space and/or significant natural features and smaller lots as an incentive to preserve open space and natural features that help define the character of the community.

- The project includes sidewalks on both sides of the local roads and a Multiuse path to the Jerome Township park to provide a walkable neighborhood.
- The project provides 44.6 acres of open space and conservation of the existing wooded area. The approved PUD plan provides access to the project open space, protects the existing wetlands and streams, and meets the Township zoning requirements.

Modifications of the Block standards follows conservation development recommendations, has been approved by Jerome Township, and is consistent with other approved developments in Jerome Township.

If you have any questions or require any additional information, please contact me at 614-348-0765.

Sincerely,



Kevin Kershner, P.E.
Kimley-Horn and Associates, Inc.
Phone: 614-472-8963
Email: Kevin.Kershner@kimley-horn.com

CC: Bill Narducci P.E. Assistant Union County Engineer
Eric Snowden, Jerome Township Zoning Inspector

County Engineer
Environmental Engineer
Building Department
233 W. Sixth Street
Marysville, Ohio 43040
P 937. 645. 3018
F 937. 645. 3161
www.co.union.oh.us/engineer

Marysville Operations Facility
16400 County Home Road
Marysville, Ohio 43040
P 937. 645. 3017
F 937. 645. 3111

Richwood Outpost
190 Beatty Avenue
Richwood, Ohio 43344

***Public Service** with integrity*

October 5, 2020

Bradley Bodenmiller
LUC Regional Planning Commission
Box 219
East Liberty, Ohio 43319

Re: Pioneer Crossing – Preliminary Plat Review

Brad,

We have completed our review for the above preliminary plat, received by our office on September 24, 2020. We recommend it be approved with the below modifications and recommendations. Items listed below should be addressed in the final construction drawings or resolved as indicated.

1. A traffic impact study (TIS) has been approved by UCE as well as ODOT. We are currently working with ODOT and the developer on a joint agreement to include the developer triggered improvements into a larger project to improve the intersection at US 42 and Industrial Parkway.
2. It seems appropriate to carry the widened section of Coach Line Avenue to the first intersection (Sagewood Street). The width of this widened section can be reduced to 36' BC/BC.
3. Per the pre-application sketch plan meeting notes, it was determined that upon abandonment of the right in/right out access, it was desired by both UCE and Jerome Township that the access would be completely removed and curbing would be installed around the outside edge of Sagewood Street. Further design should account for this long term solution. In addition, the sidewalk along this entry road can be removed and a ramp crossing provided at the intersection of the entry road with Sagewood Street.
4. Consider pull off areas for temporary parking at each central mailbox unit.
5. Street names will be reviewed during final construction drawing submittal. At first glance, there appear to be some names that may need changed because they are already in use elsewhere in the County. In addition, the entry road with the right in/right out should have a name.
6. Advanced warning intersection signage along US 42 shall be incorporated in the final construction drawings for the right in/right out entry road.
7. Provide information regarding any multi-use paths or trails and fencing/landscaping to be constructed on the construction drawings.
8. All appropriate OEPA/ODNR/ACOE permitting will be required prior to the start of construction.
9. All stormwater infrastructure and drainage easements will be reviewed in more detail during the final construction drawing review process.
10. Detail all flood routing swales, including 100 year water surface elevations, ensuring at least 1' of freeboard between the 100 year water surface and the finished grade elevations of all building structures.
11. Provide detailed construction drawings to private utility providers.
12. Provide a minimum 10' flat (~10% or less) berm area from the top of the bank around the perimeter of each basin.

13. The alignment of the Street K right of way, specifically the angle of intersection with Industrial Parkway and Brock Road, will need further discussed prior to dedication via final plat.
14. A crosswalk, complete with striping and signage should be included to provide for the crossing of Horseshoe Court from the sidewalk to the multi-use path that will connect to the Jerome Township Park.

In accordance with the Subdivision Regulations of Union County, additional information is required from the developer prior to final plat approvals, including but not limited to final construction documents. It is the responsibility of the developer to become familiar with the regulations and file requisite information within the time frames outlined in the regulations. Should you have any questions or concerns, feel free to contact me at (937) 645-3165.

Bill Narducci

Bill Narducci, P.E.
Assistant County Engineer
Union County Engineer

Cc: Jeremy Burrey, USWCD (via email)

Brad Bodenmiller

From: Jeremy Hoyt <jhoyt@marysvilleohio.org>
Sent: Thursday, October 1, 2020 10:46 AM
To: Brad Bodenmiller
Cc: Chad Green
Subject: October LUC Meeting

Brad,

The City of Marysville has the following comments regarding this month's submittals:

Darby Braeside - Amended Preliminary Plat

- The City of Marysville has no comments regarding this item.

Darby Braeside, Phase 3 - Final Plat

- The City of Marysville has no comments regarding this item.

Glacier Park Neighborhood Section 12, Phase 5 - Final Plat

- Label the additional utility easement width for the portion containing the public waterline between Mangrove Loop and Wells Road.
- Provide the official record and volume for the utility easement along Wells Road located just east of this site.

Pioneer Crossing - Preliminary Plat

- On the title sheet, please add the City of Marysville as the wastewater provider for this development.
- All references to this development's pump station shall clearly state that this infrastructure is intended to be "private".
- Ensure all adjacent properties have access to the public sanitary sewer.
- Based on your preliminary analysis, there is adequate pumping capacity within our existing Pump Station #3 (within the New California development) to permit this project (188 lots) to connect to the existing sanitary sewers tributary to this pump station. Due to this additional flow, there may be additional improvements (i.e. wet well relining / refabbing, flow meter replacement, etc.) required to be shared by both the City and Developer on a percentage basis. Additional calculations and development information will be needed to determine the exact connection point within the New California subdivision. The exact locations and details of this connection can be determined during the final engineering process.
- For future looping (i.e. redundancy) purposes, a public waterline shall be installed along Street "K". This waterline will eventually connect to water infrastructure along New California Drive on the Crager parcel.

Village Neighborhood Section 3, Phase 1 - Final Plat

- Provide a fifteen (15) foot utility easement along the entire frontage of the future Hyland-Croy Road extension (within DOS-D).

Village Neighborhood Section 4, Phase 3 - Final Plat

- The City of Marysville has no comments regarding this item.

Warner Industrial Corporate Center - Final Plat

- Please remove the duplicate language at the beginning of the "water and sanitary easement" description.
- Per the approved construction plans, a twenty (20) foot water and sanitary easement along the proposed Industrial Parkway right-of-way.
- Please provide a thirty (30) foot water and sanitary easement along the frontage of Lot 1.
- Please update the easement width and title within Detail B.

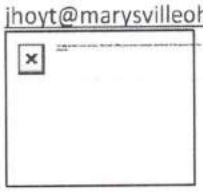
Please do not hesitate to contact me with any further questions.

Thanks,
Jeremy

--

Jeremy Hoyt, P.E.
City Engineer / Deputy Public Service Director
City of Marysville, Ohio

209 South Main Street
Marysville, Ohio 43040
(937)645-7358 (office)
(937)645-7351 (fax)
jhoyt@marysvilleohio.org



9777 Industrial Parkway
Plain City, Ohio 43064
614-873-4480

Jerome Township Zoning Department

September 30, 2020

Bradley J. Bodenmiller, Director
LUC Regional Planning Commission
10820 St. Rt. 347
East Liberty, Ohio 43319

Re.: Pioneer Crossing – Preliminary Plat

Dear Mr. Bodenmiller,

I have received your notification of application for approval of the preliminary plat known as Pioneer Crossing – Preliminary Plat. Based on the provisions of the Township Zoning Resolution, my comments are as follows:

1) This development is zoned Planned Development District, per Map Amendment #PD 19-133. The required building setbacks are as follows:
    1. Front Yard Setback – 25ft
    2. Side Yard Setback – 5ft
    3. Rear Yard Setback – 25ft
2) Some of the lot lines are not being correctly interpreted as side or rear lot lines, and vice versa. Per the Zoning Resolution, a corner lot has two front and side yard setbacks and no rear yard setback. Side and rear yard setbacks should be removed from the plat and dealt with at the zoning phase for each lot. A corner lot is specifically defined in the Zoning Resolution.
3) I note several additional minor issues as follows:
    1. US Highway 42 is designated “SR 42” on pages 1 and 5.
    2. A different spelling for the proposed street “Sagewood Street” is used on page 10.
    3. Under the “Utility Providers” heading on page 1, electric is misspelled.

As per usual practice, I plan to attend the meeting of the Commission's Zoning & Subdivision Committee, and will be available to answer any additional questions at that time.

Sincerely,

Eric Snowden

Eric Snowden
Zoning Inspector/Coordinator
Jerome Township, Union County, Ohio

Jerome Township Division of Fire

9689 US Rte 42 N.
Plain City, Ohio 43064
614-873-8990 (O)
614-873-3501 (F)

10-2-2020

Brad Bodenmiller

We have conducted a review of the Preliminary Plat for the Pioneer Crossing Development. I wanted to provide the following comments for the upcoming LUC meeting on October 8, 2020.

My comments are as follows:

1. The street widths of 28’ meet the Ohio Fire Code and are allow for the access of fire apparatus throughout the development. The developer has provided Autoturn graphics to ensure that fire apparatus can navigate throughout the development.
2. The emergency access allows for fire apparatus to enter as needed off of US Route 42. The developer has provided Autoturn graphics to ensure fire apparatus can safely navigate through the emergency access.
    a. The emergency access shall be maintained free of ice/snow at all times.
3. The fire hydrants are to be installed 350’ apart and shall be installed with a 5” Storz connection. All fire hydrants shall meet the City of Marysville Water Department Specifications.
    a. This has been addressed and will once again be reviewed prior to final plan approval.

At this time, I have no concerns that would prevent this development from moving forward. The developer has met with our office several times to address our concerns and has resolved all of them. Please feel free to contact me with any questions or comments.

Respectfully

Douglas Stewart

Fire Chief

Brad Bodenmiller

From: Jeremy Burrey <jburrey@unioncountyohio.gov>
Sent: Friday, October 2, 2020 4:42 PM
To: Brad Bodenmiller
Cc: Bill Narducci
Subject: Re: Preliminary Drainage - Pioneer Crossing Preliminary Plat

Yes, that is correct

Get Outlook for iOS

From: Brad Bodenmiller <bradbodenmiller@lucplanning.com>
Sent: Friday, October 2, 2020 3:53:23 PM
To: Jeremy Burrey <jburrey@unioncountyohio.gov>
Cc: Bill Narducci <bnarducci@co.union.oh.us>
Subject: RE: Preliminary Drainage - Pioneer Crossing Preliminary Plat

Jeremy,

I just left you a vm. I will share your comments with the applicant. (Note of caution: I'm not sure there is a Subdivision Regulation to force a drainage easement into open space.)

It sounds like the preliminary drainage plan is approved, but you'd prefer the easements you noted to be within open space (if possible). Is that correct?

Bradley Bodenmiller
Director | LUC Regional Planning Commission
P.O. Box 219 | 10820 State Route 347 | East Liberty, Ohio 43319
P: (937) 666-3431 | www.lucplanning.com

From: Jeremy Burrey <jburrey@unioncountyohio.gov>
Sent: Thursday, October 1, 2020 2:02 PM
To: Brad Bodenmiller <bradbodenmiller@lucplanning.com>
Cc: Bill Narducci <bnarducci@co.union.oh.us>
Subject: RE: Preliminary Drainage - Pioneer Crossing Preliminary Plat

Brad,

I have some comments:

- Lots 156,181,25,26,65 The drainage easements cross over into parcel lines on these lots. The easements will need to be separate from any parcel and be considered green space. Lot 65 may be an exception due to the wetland setbacks.
- I would also caution that the wetland delineation beside lot 65 seems to be under curbing for the road at the point of the wetland. I am not sure how it was permitted, but it deserves a second look.

Thank You

Jeremy Burrey
Drainage Maintenance Supervisor
18000 St. Rt. 4
Marysville OH 43040
Phone: 937-642-5871 X 2228
jburrey@co.union.oh.us

From: Brad Bodenmiller <bradbodenmiller@lucplanning.com>
Sent: Thursday, October 1, 2020 1:52 PM
To: Jeremy Burrey <jburrey@unioncountyohio.gov>
Subject: Preliminary Drainage - Pioneer Crossing Preliminary Plat

Jeremy,

Good afternoon! Is the preliminary drainage plan for the **Pioneer Crossing – Preliminary Plat** approved?

Bradley Bodenmiller
Director | LUC Regional Planning Commission
P.O. Box 219 | 10820 State Route 347 | East Liberty, Ohio 43319
P: (937) 666-3431 | www.lucplanning.com

Staff Report – Village Neighborhood Section 3 Phase 1

Applicant:	**Jerome Village Company, LLC** c/o Gary Nuss 375 North Front Street, Suite 200 Columbus, OH 43215 nussg@nationwide.com **Terrain Evolution** c/o Justin Wollenberg, PE 720 East Broad Street, Suite 203 Columbus, OH 43215 jwollenberg@terrainevolution.com
Request:	Approval of Village Neighborhood, Section 3 (VN-3), Phase 1 – Final Plat.
Location:	Located east of Hyland-Croy Road and north of Ravenhill Parkway in Jerome Township, Union County.

Staff Analysis:	This Final Plat involves 10.597 acres of land and proposes 36 single-family residential lot. Acreages: ○ 1.840 acres in Township right-of-way ○ 5.868 acres in single-family residential lots ○ 2.889 acres in open space Proposed utilities: ○ City of Marysville water ○ Jerome Village Community Authority collection and City of Marysville sanitary sewer treatment Preliminary Plat: ○ The Preliminary Plat was originally approved in January 2019. • **Union County Engineer's Office** ○ The Engineer's Office submitted comments in a letter dated 10-04-20. The Engineer's Office reported the Construction Drawings are approved, but construction has not completed. Due to this, a bond/surety was required, but has not yet been approved by the Commissioners. The Engineer's Office recommended denial due to the outstanding

comments. The Engineer's Office reserved the right to change its recommendation, should the comments be addressed prior to the LUC meetings.

1. Sheet 3: The entire footprint of the drainage and utility easement north of lots 1892-1903 should be dedicated as part of this plat.

- **Union County Soil & Water Conservation District**
  - No comments received as of 09-30-20.
- **Union County Health Department**
  - No comments received as of 09-30-20. Standard comments from the Health Department are below:
    1. "All efforts should be made to provide a point of connection (via easements and/or service lines) to both water and sewer to any adjacent home, business, or any other facility that is serviced by a private water system (PWS) and/or sewage treatment system (SWS)."
    2. Any home, business, or other structure that is currently being serviced by a private sewage treatment system (STS) and ends up being situated within 200' of a sanitary sewer easement, shall be brought to the attention of the Union County Health Department."
    3. "If at any at time during development of the subdivision a private water system (PWS) (well, cistern, etc.) or sewage treatment system (STS) is found, our office shall be immediately contacted for inspection. Proper permitting must be obtained for sealing and/or abandonment of a private water system (PWS) and sewage treatment system (STS)."
- **City of Marysville**
  - The City submitted comments in an email dated 10-01-20.
    1. Provide a 15' utility easement along the entire frontage of the future Hyland-Croy Road extension (within DOS-D).
- **Jerome Township**
  - Jerome Township submitted two comment letters, one dated 09-28-20 and the other received 10-02-20.

	The Township advised both that the Final Plat complies with the approved Development Plan and that there are no major concerns. The Township also provided comments: 1. Sheet 3: There is a 20' line labeled as "setback". Please revise the label to read "Building Setback". • **ODOT District 6** ○ No comments received as of 09-30-20. • **Ohio Edison** ○ No comments received as of 09-30-20. • **LUC Regional Planning Commission** 1. Sheet 1: Is the floodplain map number correct? It is listed in two locations—Note A and Surveyor Certification Note #5 (§323, 11.). 2. Sheet 2 & 3: Are dimensions missing along Hyland-Croy Road? For example, C8 and C9 are different lengths and the long curve heading north seems odd (§323, 5.). 3. Sheet 2 & 3: Are dimensions missing along the north line of lot 1897, DOS-B, and lot 1898 (§323, 8.)? 4. Sheet 2 & 3: Should the east line of 1917 and L3 be the same length (§323, 8.)? 5. Sheet 3: Do the individual distances listed along the curves sum to the right-of-way distances of C16, C18, C19, C20, and the distance of 105.47' in front of lots 1888-1890 (§323, 5.)? 6. Sheet 3: At lot 1890, does C23 point to the correct location (§323, 5.)? 7. At lot 1888, is an indicator missing to point to the location where the 1.96' distance applies (§323, 5.)? 8. Sheet 3: Is a dimension missing along the east line of DOS-D at the Chickasaw intersection (§323, 10.)? 9. Sheet 3: Is a dimension missing along the east line of lot 1872 (§323, 8.)? 10. A letter is required from the County Engineer verifying all required improvements have been installed and approved by the proper officials or agencies, or verifying a bond or other surety, approved by the County Commissioners and their legal counsel, has been furnished assuring installation of the required improvements (§324, 2.; §326; §330).

Staff Report – Village Neighborhood Section 3 Phase 1

Staff Recommendations:	Staff recommends ***DENIAL*** of the Village Neighborhood, Section 3 (VN-3), Phase 1 – Final Plat. Although the minor technical items in this staff report could be incorporated on the Final Plat Mylar for the 10-08-20 LUC meetings, confirmation of approval of the outstanding bond or other surety (§324, 2.; §326; §330) is required before staff is comfortable recommending otherwise.

Z&S Committee Recommendations:	

Logan-Union-Champaign
regional planning commission

Director: Bradley J. Bodenmiller

Application for Final Plat Approval

Date: 9/17/2020

Name of Subdivision: Village Neighborhood
Section/Phase: Section 3, Phase 1 Block
Location: Union County - North of Ravenhill Parkway, East of Hyland Croy Road, West of Village Neighborhood 4
Township: Jerome Military Survey: 3005
Complete Parcel(s) Identification Number (PIN): 170010015.0010

Has a Preliminary Plat been approved for this subdivision?: Yes x No Date: 1/10/2019

Name of Applicant: Jerome Village Company, LLC - Attn: Gary Nuss
Address: 375 North Front Street, Suite 200
City: Columbus State: Ohio Zip: 43215
Phone: 614.857.2334 Fax: 614.857.2346 Email: nussg@nationwide.com

Name of Owner of property to be subdivided: Same as Applicant
Address:
City: State: Zip:
Phone: Fax: Email:

Name of Applicant's Surveyor or Engineer: Engineer - Terrain Evolution, Inc. - Attn: Justin Wollenberg, PE
Address: 720 East Broad Street, Suite 203
City: Columbus State: Ohio Zip: 43215
Phone: 614.385.1092 Fax: 614.385.1085 Email: jwollenberg@terrainevolution.com

Proposed Acreage to be Subdivided: 10.597

Current Zoning Classification: PD

Proposed Zoning Changes: N/A

Proposed Land Use: Single Family Residential

Development Characteristics
Acreage w/in Approved Preliminary Plat: 31.314 Acres

Acreage w/in Section and/or Block: 10.597 Acres

Number of **APPROVED** lots from Preliminary Plat 118

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East Liberty, Ohio 43319
• Phone: 937-666-3431 •
• Email: luc-rpc@lucplanning.com • Web: www.lucplanning.com

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regional planning commission

Director: Bradley J. Bodenmiller

Number of Lots **PROPOSED** w/in this Section: 36

Number of **APPROVED** units from Preliminary Plat: 118

Number of Units **PROPOSED** w/in this Section: 36

Typical Lot Width: 50 Feet Typical Lot Area: 6,369

Single Family Units: 36 Sq. ft Multi-Family Units: 0

Acreage to be devoted to recreation, parks or open space: 2.889

Recreation facilities to be provided: No

Approved method of Supplying Water Service: City of Marysville, Ohio

Approved method of Sanitary Waste Disposal: JVCA Collection/COM Treatment

Were any Requests for Variance(s) from the Subdivision Regulations approved by the County Commissioners? Yes

Approved 50' rigth-of-way Widths Resolution #306-09 Date 6-11-09

Construction improvements have achieved satisfactory completion and has been Certified by the County Engineer in accordance with Section 326 and 330 of the Subdivision Regulation? *If no, continue to next question.* NO

If no to the above question, please submit a Performance Bond in accordance with the following:

Has estimated construction cost been submitted by the responsible design engineer? Yes
Has estimated construction cost been approved by the County Engineer? NO
Bond has been submitted to County Engineer? NO
Bond approved by County Commissioners? NO

For Official Use

Date filed: _____ Filing Fee: _____

Date of Meeting of Planning Commission: _____

Action by Planning Commission: _____

If rejected, reason(s) for: _____

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Logan-Union-Champaign
regional planning commission

Director: Bradley J. Bodenmiller

Final Plat Review Checklist

#	Required Item Description	Have	Need
0	Drawn at a scale not less than 1:100 and shall be on one or more sheets 24" X 36"; drawn in India ink or photographically reproduced on Mylar or other materials of equal permanence.	X	
1	Name of the Subdivision, location by section, range or township, or Virginia Military Survey (VMS) number; date, north point, written and graphic scale and acreage.	X	
2	Names and addresses of the subdivider and the professional surveyor who prepared the Final Plat	X	
3	Plat boundaries, based on accurate traverse, with directional and lineal dimensions.	x	
4	Bearings and distances to nearest established street lines or other recognized permanent monuments.	X	
5	Exact locations, right-of-way widths, and names of all streets within and adjoining the plat; building setback lines.	X	
6	Radii, internal angles, points of curvature, tangent bearings, lengths of arcs, and lengths and bearings of chords.	X	
7	All easements and rights-of-ways provided for public services or utilities. All plats shall contain a restriction that no permanent structures or plantings, etc. shall be permitted in the easement areas.	X	
8	All lot numbers and lines with accurate dimensions in feet and hundredths. House numbers may be required to be shown.	X	
9	Accurate location and description of all monuments. The plat shall clearly indicate which monuments are in place at the time of certification of the Final Plat by the surveyor. The plat shall also clearly indicate which monuments will be placed, if any, after construction of the improvements and before the completion date.	X	
10	Accurate outlines of areas to be dedicated or reserved for public use, or any area to be reserved for common uses of all property owners.	X	
11	The limits of all Flood Hazard Areas (show the FEMA map number and date). Base Flood Elevations and minimum first floor elevations shall be shown for all lots located within Flood Hazard Areas. N/A		
12	Certain restrictions and covenants the subdivider intends to include in the deeds to the lots in the subdivision including any restrictions required by the County.	X	
13	Certification by a professional surveyor to the effect that the plat represents an actual field survey performed by him; that all dimensional details are correct, and that the monuments shown thereon were or will be placed by the established completion date or prior to the sale of each lot, whichever occurs first (See Section 326).	X	
14	Notarized certification by the owner or owners of the authorization of the plat and the dedication of streets and other public areas.	X	

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15	A vicinity map at a scale of generally not more than six thousand feet to an inch (6,000:1) shall be shown on, or shall accompany the Final Plat.	X	
16	If a zoning change or variance is involved, a letter from the Township Zoning Inspector shall be required indicating that the change or variance has been approved and is in effect.	N/A	
17	A letter from the County Engineer shall be required showing that all required improvements have been either installed and approved by the proper officials or agencies, or that a bond or other surety has been furnished assuring installation of the required improvements.		X
18	Written certification from the Board of County Commissioners for operation and maintenance of the wastewater or water treatment plant, if applicable.	N/A	
19	Certification by a registered surveyor to the effect that the plat represents a survey completed by the surveyor and that the monuments shown thereon exist as located in all dimensional details are correct.	X	
20	A notarized acknowledgement of all owners and lien holders to the plat and its restrictions including dedication to the public uses of streets, alleys, parks and other spaces shown thereon and granting required easements.	X	
21	Approval and acceptance clause for the signatures of a representative of the Logan-Union-Champaign County Regional Planning Commission, the County Engineer, the County Health Department, the Board of County Commissioners, the County Auditor, the County Recorder, and a representative of the Township Trustees in which the subdivision is located.	x	
22	Final Plat Fees: Payment/Check made out to LUC Regional Planning Commission, based on the current fee schedule.	X	

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Logan-Union-Champaign
regional planning commission

Director: Bradley J. Bodenmiller

Application for Final Plat Approval

Date: 9/17/2020

Name of Subdivision: Village Neighborhood
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Location: Union County - North of Ravenhill Parkway, East of Hyland Croy Road, West of Village Neighborhood 4
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Has a Preliminary Plat been approved for this subdivision?: Yes x No ___ Date: 1/10/2019

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City: Columbus State: Ohio Zip: 43215
Phone: 614.857.2334 Fax: 614.857.2346 Email: nussg@nationwide.com

Name of Owner of property to be subdivided: Same as Applicant
Address:
City: State: Zip:
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Name of Applicant's Surveyor or Engineer: Engineer - Terrain Evolution, Inc. - Attn: Justin Wollenberg, PE
Address: 720 East Broad Street, Suite 203
City: Columbus State: Ohio Zip: 43215
Phone: 614.385.1092 Fax: 614.385.1085 Email: jwollenberg@terrainevolution.com

Proposed Acreage to be Subdivided: 9.712 ~~10.597~~ - see email confirmation JW 09.17.2020

Current Zoning Classification: PD

Proposed Zoning Changes: N/A

Proposed Land Use: Single Family Residential

Development Characteristics

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Acreage w/in Section and/or Block: 10.597 Acres

Number of **APPROVED** lots from Preliminary Plat 118

Logan-Union-Champaign
regional planning commission

Director: Bradley J. Bodenmiller

Number of Lots **PROPOSED** w/in this Section: 36

Number of **APPROVED** units from Preliminary Plat: 118

Number of Units **PROPOSED** w/in this Section: 36

Typical Lot Width: 50 Feet Typical Lot Area: 6,369

Single Family Units: 36 Sq. ft Multi-Family Units: 0

Acreage to be devoted to recreation, parks or open space: 4.284 (2.889 - see email confirmation 09-17-2020)

Recreation facilities to be provided: No

Approved method of Supplying Water Service: City of Marysville, Ohio

Approved method of Sanitary Waste Disposal: JVCA Collection/COM Treatment

Were any Requests for Variance(s) from the Subdivision Regulations approved by the County Commissioners? Yes
Approved 50' rigth-of-way Widths Resolution #306-09 Date 6-11-09

Construction improvements have achieved satisfactory completion and has been Certified by the County Engineer in accordance with Section 326 and 330 of the Subdivision Regulation? *If no, continue to next question.* NO

If no to the above question, please submit a Performance Bond in accordance with the following:

Has estimated construction cost been submitted by the responsible design engineer? Yes
Has estimated construction cost been approved by the County Engineer? NO
Bond has been submitted to County Engineer? NO
Bond approved by County Commissioners? NO

For Official Use

Date filed: _____ Filing Fee: _____

Date of Meeting of Planning Commission: _____

Action by Planning Commission: _____

If rejected, reason(s) for: _____

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Logan-Union-Champaign
regional planning commission

Director: Bradley J. Bodenmiller

Final Plat Review Checklist

#	Required Item Description	Have	Need
0	Drawn at a scale not less than 1:100 and shall be on one or more sheets 24" X 36"; drawn in India ink or photographically reproduced on Mylar or other materials of equal permanence.	X	
1	Name of the Subdivision, location by section, range or township, or Virginia Military Survey (VMS) number; date, north point, written and graphic scale and acreage.	X	
2	Names and addresses of the subdivider and the professional surveyor who prepared the Final Plat	X	
3	Plat boundaries, based on accurate traverse, with directional and lineal dimensions.	x	
4	Bearings and distances to nearest established street lines or other recognized permanent monuments.	X	
5	Exact locations, right-of-way widths, and names of all streets within and adjoining the plat; building setback lines.	X	
6	Radii, internal angles, points of curvature, tangent bearings, lengths of arcs, and lengths and bearings of chords.	X	
7	All easements and rights-of-ways provided for public services or utilities. All plats shall contain a restriction that no permanent structures or plantings, etc. shall be permitted in the easement areas.	X	
8	All lot numbers and lines with accurate dimensions in feet and hundredths. House numbers may be required to be shown.	X	
9	Accurate location and description of all monuments. The plat shall clearly indicate which monuments are in place at the time of certification of the Final Plat by the surveyor. The plat shall also clearly indicate which monuments will be placed, if any, after construction of the improvements and before the completion date.	X	
10	Accurate outlines of areas to be dedicated or reserved for public use, or any area to be reserved for common uses of all property owners.	X	
11	The limits of all Flood Hazard Areas (show the FEMA map number and date). Base Flood Elevations and minimum first floor elevations shall be shown for all lots located within Flood Hazard Areas. N/A		
12	Certain restrictions and covenants the subdivider intends to include in the deeds to the lots in the subdivision including any restrictions required by the County.	X	
13	Certification by a professional surveyor to the effect that the plat represents an actual field survey performed by him; that all dimensional details are correct, and that the monuments shown thereon were or will be placed by the established completion date or prior to the sale of each lot, whichever occurs first (See Section 326).	X	
14	Notarized certification by the owner or owners of the authorization of the plat and the dedication of streets and other public areas.	X	

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15	A vicinity map at a scale of generally not more than six thousand feet to an inch (6,000:1) shall be shown on, or shall accompany the Final Plat.	X	
16	If a zoning change or variance is involved, a letter from the Township Zoning Inspector shall be required indicating that the change or variance has been approved and is in effect.	N/A	
17	A letter from the County Engineer shall be required showing that all required improvements have been either installed and approved by the proper officials or agencies, or that a bond or other surety has been furnished assuring installation of the required improvements.		X
18	Written certification from the Board of County Commissioners for operation and maintenance of the wastewater or water treatment plant, if applicable.	N/A	
19	Certification by a registered surveyor to the effect that the plat represents a survey completed by the surveyor and that the monuments shown thereon exist as located in all dimensional details are correct.	X	
20	A notarized acknowledgement of all owners and lien holders to the plat and its restrictions including dedication to the public uses of streets, alleys, parks and other spaces shown thereon and granting required easements.	X	
21	Approval and acceptance clause for the signatures of a representative of the Logan-Union-Champaign County Regional Planning Commission, the County Engineer, the County Health Department, the Board of County Commissioners, the County Auditor, the County Recorder, and a representative of the Township Trustees in which the subdivision is located.	X	
22	Final Plat Fees: Payment/Check made out to LUC Regional Planning Commission, based on the current fee schedule.	X	

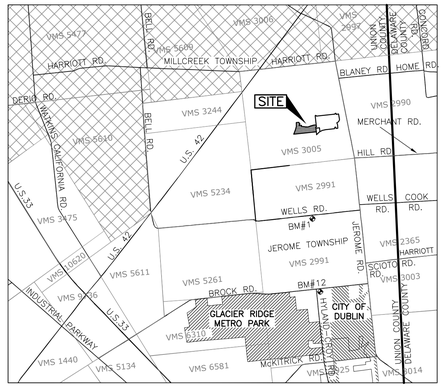
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VILLAGE NEIGHBORHOOD SECTION 3 PHASE 1

BEING PART OF VMS 3005, JEROME TOWNSHIP
UNION COUNTY, OHIO

LUC. R.P.C. FILE # _____

LOCATION MAP



GRAPHIC SCALE

4000 2000 0 4000

(IN FEET)
1 inch = 4000 ft.

Situated in State of Ohio, County of Union, Jerome Township, Virginia Military Survey No. 3005 and being 10.597 acres of land located in the remainder of that 194.363 acre tract of land as described in a deed to Jerome Village Company, LLC, of record in Official Record 672, Page 527, Recorder's Office, Union County, Ohio.

SHEET INDEX
Sheet 1 - Title/Signature Sheet
Sheet 2 - VN 4-3 Index/Overview
Sheet 3 - VN 3-1 Detail Sheet

BASIS OF BEARINGS
The bearings shown hereon are based on the Ohio State Plane System (North Zone) as established by GPS observations.

VN 3-1 Area Summary		
Right-of-Way (Township)	1.840	AC
Lots	5.868	AC
Openspace	2.889	AC
Total	10.597	AC

VN 3-1 Lot Summary	
50 Frontage	36
	36

VN 3-1 Density			
Gross	(Lots/Total Area)	3.397	du/ac
Net	(Lots/Lot Area)	6.135	du/ac

Minimum Lot Size		
50' Frontage	6,369	SF

Setbacks	50' Frontage	
Front Yard	20	FT
Rear Yard	30	FT
Side Yard	6	FT

PARCEL BREAKDOWN

Parcel Number	Map/GIS Number	Acreages of Parcel within VN 3-1
17-0010015.0010	116-00-00-059.000	10.597 AC.

Jerome Township Note:
The purpose of this plat is to show certain property, rights of way, and easement boundaries at the time of platting. At the request of the of the zoning authority at the time of platting, this plat shows some of the limitations and requirements of the zoning regulations in effect at the date of the filing of the plat. Such limitations and requirements are shown for informational purposes only, and should be verified with the zoning authority prior to the construction of any private improvements on the lot. This note shall not be construed as creating plat or subdivision restrictions, private use restrictions, covenants running with the land or title encumberances of any nature, except to the extent specifically identified as such.

Jerome Village Blanket Notes
Note A: All of Jerome Village is in the flood hazard zone X (areas outside the 500-year flood plain) on the Federal Emergency Management Agency Flood Insurance Rate Maps, Map Number 39159C0395D, effective date December 16, 2008.
Note B: Be advised; a subsurface drainage system may exist on this site. The system and/or outlet if located on this property must be maintained at all times.
Note C: All storm water drainage including flood routing, open ditches and basins which accept public storm water, will be a part of the Union County ditch maintenance program. Each subarea will file a separate ditch maintenance petition. Only areas outside of the right-of-way will be a part of the County Ditch Maintenance Program.
Note D: All dead, diseased, noxious or decayed trees or vegetation, log jams, etc. shall be removed from streams that will be a part of the Union County ditch maintenance program.
Note E: All easements and setbacks for stream maintenance shall be reviewed by Union County Soil & Water Conservation District for access to said streams prior to acceptance.
Note F: Removed (not applicable to VN 3-1)
Note G: Existing and proposed trees are allowed within right-of-way if roadway is curbed and posted speed is 35 mph or less. County Engineer to review on case by case basis for all other conditions.
Note H: Vegetated swales, including rain gardens & bio-swales, are to be graded within median of road right-of-way to provide required drainage. Ponding depths within median are not to exceed 8' and are to drain within 36 hours. No permanent pools will be allowed within road right-of-way.
Note I: Removed (not applicable to VN 3-1)
Note J: Mounding, landscaping, or guardrail may be required between stormwater retention/detention facilities and road right-of-way, if the edge of water is within 100' of the edge of pavement.

Jerome Village Variances
1. Variance from the Union County Subdivision Regulations, Section 406, minimum right-of-way widths to allow a 50' right-of-way width for all local street classifications within Jerome Village. Resolution #306-09. Dated 6-11-09.

SURVEYOR CERTIFICATION:
American Land Surveyors do hereby certify the following:
1. The accompanying plat represents a subdivision of land in VMS 3005, Jerome Township, Union County, Ohio.
2. The tract has an area of 1.840 acres in streets, 5.868 acre in lots, and 2.889 acres in Reserves making a total of 10.597 acres.
3. This plat was prepared based on a field survey performed in March, 2016 by American Land Surveyors, LLC.;
4. All dimensions are shown in feet and decimal parts thereof. dimensions shown along curved lines are chord distances;
5. This property is located in Zone X per F.E.M.A. Community Panel No. 39159C0395D dated December 16, 2008
6. Monumentation set at the locations shown hereon consist of a 5/8 öinch steel reinforcing rod, 30 inches in length affixed with an orange plastic cap bearing the inscription "Jon Adcock, S-8461.".
7. The accompanying plat is a correct representation of Village Neighborhood Section 3 Phase 1 as surveyed.

Signed and sealed this _____ day of _____, 2020.

_____
Jon (Brett) Adcock, Registered Professional Surveyor No. 8461

DEVELOPER:
Jerome Village Company, LLC.
375 N. Front Street, Suite 200
Columbus, Ohio 43215
Attention: Gary Nuss

SURVEYOR:
American Land Surveyors
1346 Hemlock Court N.E.
Landcaster, Ohio 43130
Attention: Jon (Brett) Adcock, P.S.

Know all men by these presents that Jerome Village Company, LLC. owner of the land indicated on the accompanying plat, have authorized the platting thereof and do hereby dedicate all right-of-way and easements shown hereon to the public use forever.

In witness thereof, the following have set their hand this _____ day of _____, 2020.

Jerome Village Company, LLC:
By: Nationwide Realty Investors, Ltd., its manager

By: _____
James Rost, Vice President

Signed and acknowledged in the presence of:

Signature: _____ Witness

Printed Name: _____

Signature: _____ Witness

Printed Name: _____

STATE OF OHIO
COUNTY OF UNION
Before me, a Notary Public in and for said County, personally appeared James Rost, Vice President and Operating Officer of Nationwide Realty Investors, Ltd., as manager of Jerome Village Company, LLC, who acknowledged the signing of the foregoing instrument to be his voluntary act and deed for the uses and purposes therein expressed.

In witness thereof, I have hereunto set my hand and affixed my official seal this _____ day of _____, 2020.

Signature: _____. My commission expires: _____.
Notary Public

Reviewed this _____ day of _____, 2020: _____
Chairman, Jerome Township Trustees

Approved this _____ day of _____, 2020: _____
Union County Engineer

Approved this _____ day of _____, 2020: _____
County Health Department

Approved this _____ day of _____, 2020: _____
LUC Regional Planning Commission

Rights-of-way for public streets and roads herein dedicated to public use are hereby approved this _____ day of _____, 20____ for the County of Union, State of Ohio. Street improvements within said dedicated rights-of-way shall not be accepted for public use unless and until construction is completed and accepted as such by Union County. In addition, street improvements within said dedicated rights-of-way shall not be accepted for public maintenance until the maintenance period transpires and the street improvements are accepted for public maintenance by Union County.ò

Approved this _____ day of _____, 2020: _____
Union County Commissioner

_____ _____
Union County Commissioner Union County Commissioner

Transferred this _____ day of _____, 2020: _____
Union County Auditor

Filed for record this _____ day of _____ 2020, at ____ am/pm.

Recorded this _____ day of _____, 2020 at _____ am/pm in

Plat Book _____, Page _____ _____
Union County Recorder

VILLAGE NEIGHBORHOOD SECTION 3 PHASE 1 IS SUBJECT TO JEROME VILLAGE MASTER DEED DECLARATION AND RESTRICTIONS AS RECORDED IN VOLUME 907 PAGES 572, UNION COUNTY RECORDER'S OFFICE, AS AMENDED, THE RESIDENTIAL PROPERTY OWNERS ASSOCIATION DEED DECLARATION, RESTRICTIONS AND BYLAWS AS RECORDED IN VOLUME 911, PAGE 922, UNION COUNTY RECORDER'S OFFICE AND THE DECLARATION OF COVENANTS, RESTRICTIONS AND AGREEMENTS FOR JVCA RECORDED IN VOLUME 859 PAGE 275, UNION COUNTY RECORDER'S OFFICE.

STANDARD DEED RESTRICTIONS FOR UNION COUNTY

Residential and Commercial

1. There shall be no discharge in to any streams or storm water outlets of any waste materials in violation of applicable local, state, or federal regulations.
2. N/A
3. Grading of the storm water retention areas shall not be changed.
4. N/A
5. The lot owner and his successors and assigns agree to assume any and all maintenance charges which are established by the Union County Commissioners for this subdivision.
6. N/A
6a. No construction may begin or building started without the individual lot owner obtaining zoning, building, water & sewer tap, and driveway permits. Zoning permits are to be obtained from the Township Zoning Inspector. Building permits are obtained from the Union County Building Regulation Department and driveway permits are obtained from the Union County Engineer's Office. Water & sewer tap permits are obtained from the applicable service provider.
7. The lot owner and his successors and assigns agree to assume any and all sanitary sewer and water service charges which are established by the applicable provider.
8. All construction shall meet the requirements of the Township, Union County, and other applicable code authorities.

Residential Only

11. Downspout drains shall not be connected directly to roadway underdrains.

Miscellaneous Restrictions/Notes

24. This subdivision is located adjacent to lands which may be used for agricultural farming purposes. Lot owners can expect noise from farm machinery, dust from farming operations, the application of chemicals to the soil and crops, odors and noise from livestock, and other typical farming nuisances. Owners can expect farming operations to happen day or night. You can expect hunting on agricultural land. Do not expect to use agricultural lands for your purposes without first getting permission from the land owner. Do not allow your children to play on agricultural lands. Do not discard clippings and trimmings from lawns, tree, bushes, plants, etc. or other wastes that you may generate on agricultural land. Dispose of all wastes appropriately. Additionally, there may be existing ditches, surface swales or underground tiles that drain water from adjacent land on to or through your property. You have a legal responsibility to allow the reasonable flow of water on to or through your property from upground properties. You also have a legal responsibility to maintain and repair any ditches, surface swales or underground tile on your property.
25. Parking: Union County may restrict or eliminate on-street parking along the side of the pavement within Gardenia and Apricot Way. The owners of the fee simple titles to all of the lots in Village Neighborhood Section 3 Phase 1 Subdivision, their heirs, successors and assigns, hereby waive any and all objections to said parking restriction or elimination.
28. Utility Providers: Buyers of the lots in this subdivision are hereby notified that, at the time of platting, utility service to this subdivision for electric power is provided by Ohio Edison, telephone service is provided by Frontier Communications or Time Warner, and natural gas is provided by Columbia Gas.

Jerome Village Blanket Restrictions

1. No individual driveways permitted on: Home Road, Jerome Road, Hyland-Croy Road, Ewing Road, US 42, Seely Road, James Road, Joshua Road, Ravenhill Parkway, Wells Road, Ryan Parkway, Brock Road.
2. Driveways for individual lots, whether commercial, residential, or other, shall not be permitted on major or minor collector roads. All driveways shall connect to local roads within a sub area.
3. All new local road connections are subject to stopping sight distance and intersection sight distance requirements.
4. All restrictions are minimum requirements. If conflict arises between access restrictions and an intersection improvement (i.e., turn lane tapers, roundabout tapers, etc.), the intersection improvement shall govern and access restrictions shall be adjusted accordingly. The County Engineer shall have final say on all relocated access locations.
5. If conflict arises between the access restrictions and Union County access management standards, the County Engineer shall determine which standard is to be applied.
6. No on-street parking permitted on Hyland-Croy, Jerome, Ryan, Seely, Wells, Brock, Ravenhill, Ewing, Joshua, or Home Road.
7. No on-street parking within Village Neighborhood Section 3 Phase 1 .
8. Open spaces, whether existing or created during platting of a pod, or during development of a commercial, residential, or other type of lot, shall be connected as much as possible to the open space dedicated along Ravenhill Parkway. Connections shall be directly adjacent to the open space along Ravenhill Parkway or, if the open spaces do not have adjacent property lines, connection shall be made through contiguous open space, where possible.
9. Future local road locations are subject to approval by the Union County Engineer. Final location and design shall be submitted to and approved by the County Engineer prior to platting of lots, groups of lots, or pods.

Utility Easements (U)

We the undersigned owners of the within platted land, do hereby grant unto the Jerome Village Community Authority, City of Marysville, Ohio Edison , Frontier Communications, Time Warner Cable, Columbia Gas, and their successors and assigns (Hereinafter referred to as grantees) A permanent right-of-way and easement ten (10) feet in width under, over, and through all sublots and all lands owned by the grantor shown hereon and parallel with and contiguous to Gardenia Drive and Apricot Way and also upon land as depicted hereon to construct, place, operate, maintain, repair, reconstruct or relocate such waterlines, sewer lines, underground electric, gas and communication cable, ducts, conduits, pipes, gas pipe lines, surface or below ground mounted transformers and pedestals, concrete pads and other facilities as deemed necessary or convenient by the grantees for distributing, transporting, and transmitting electricity, gas and communication signals for public and private use at such locations as the grantees may determine upon, within, and across said easement premises. No permanent structures, plantings, etc. shall be permitted in the easement areas. Said easement rights shall include the right, without liability therefore to remove trees and landscaping, including lawns within and without said easement premises which may interfere with the installation and maintenance, right to install, repair, augment, and maintain service cables, and pipe lines outside the above described easement premises or the right of access, ingress and egress to and from any of the within described premises for exercising any of the purposes of this right-of-way and easement grant.

Drainage Easements (D)

We the undersigned owners of the platted land, do here by grant unto Union County and their successors and assigns (hereinafter referred to as grantees), a permanent easement within areas designated ñDrainage Easementò ñUtility Easementò and ñDrainage and Utility Easement òto construct, operate, maintain, repair, reconstruct or relocate drainage facilities such as storm sewers, drainage swales or courses and other facilities as deemed necessary or convenient by the grantees for drainage required for public and private use at such locations as the grantees may determine upon, within, and across said easement premises. No permanent structures, plantings, etc. shall be permitted in the easement areas. Said easement rights shall include the right, without liability therefore to remove trees and landscaping, including lawns or any other structure within said easement premises which may interfere with the installation and maintenance of drainage facilities.

1346 Hemlock Court N.E.
Lancaster, OH 43130
Contact: Brett Adcock
(740) 654-0600 - Lancaster
(614) 837-0800 - Columbus
(740) 455-2200 - Zanesville
(740) 670-0800 - Newark
Fax: (740) 654-0604
www.americanlandsurveyors.com

ALS AMERICAN LAND SURVEYORS — Focused on Excellence

FIELD	DRAFT	CHECK
JBA	JBA	JBA
JOB NO.:	20-001	
DATE:	SEPTEMBER 15, 2020	
SCALE:	N/A	

VILLAGE NEIGHBORHOOD SECTION 3 PHASE 1

VIRGINIA MILITARY SURVEY No.3005

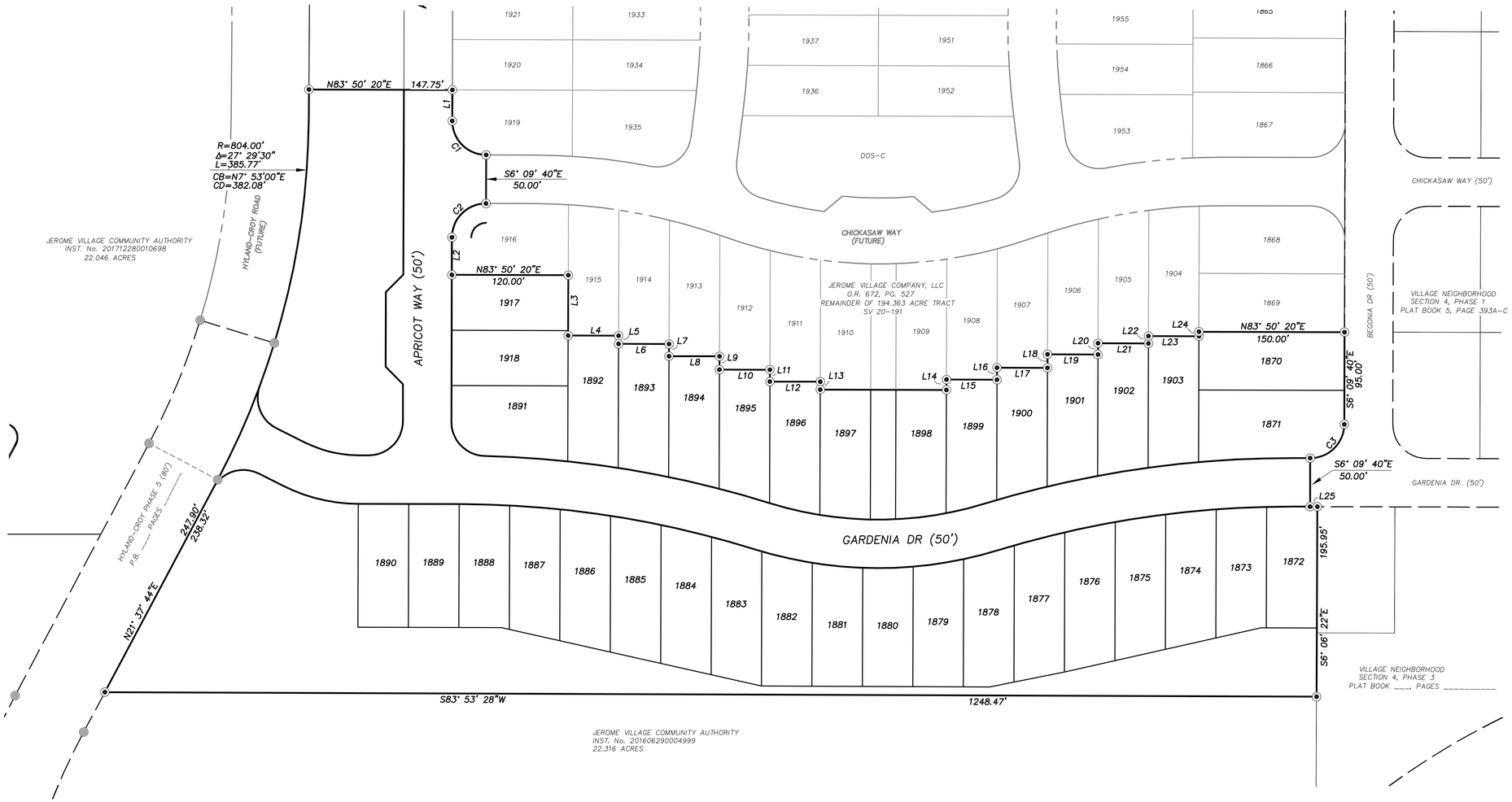
JEROME TOWNSHIP, UNION COUNTY, OHIO

GRAPHIC SCALE

60 30 0 60

(IN FEET)

1 inch = 60 ft.



LEGEND:

- IRON PIN SET – 5/8" X 30" REBAR WITH A PLASTIC CAP INSCRIBED "JON ADCOCK S-8461."
- IRON PIN SET – 5/8" X 30" REBAR WITH A PLASTIC CAP INSCRIBED "JON ADCOCK S-8461."

Boundary Line Table		
Line #	Direction	Length
L1	S6° 09' 40"E	32.00
L2	S6° 09' 40"E	38.71
L3	S6° 09' 40"E	57.09
L4	N83° 50' 20"E	52.00
L5	S6° 09' 40"E	8.45
L6	N83° 50' 20"E	52.00
L7	S6° 09' 40"E	12.51
L8	N83° 50' 20"E	52.00
L9	S6° 09' 40"E	13.70
L10	N83° 50' 20"E	52.00
L11	S6° 09' 40"E	12.19
L12	N83° 50' 20"E	52.00
L13	S6° 09' 40"E	8.07
L14	N6° 09' 40"W	10.67
L15	N83° 50' 20"E	52.00
L16	N6° 09' 40"W	12.42
L17	N83° 50' 20"E	52.00
L18	N6° 09' 40"W	13.92
L19	N83° 50' 20"E	52.00
L20	N6° 09' 40"W	11.53
L21	N83° 50' 20"E	52.00
L22	N6° 09' 40"W	7.61
L23	N83° 50' 20"E	52.00
L24	N6° 09' 40"W	4.61
L25	N83° 50' 20"E	7.44

Boundary Curve Table					
Curve #	Radius	Delta	Length	Chord Direction	Chord Length
C1	35.00'	90° 00' 00"	54.98'	S51° 09' 40"E	49.50'
C2	35.00'	90° 00' 00"	54.98'	S38° 50' 20"W	49.50'
C3	35.00'	90° 00' 00"	54.98'	S38° 50' 20"W	49.50'

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Focused on Excellence

FIELD	DRAFT	CHECK
JBA	JBA	JBA
JOB NO.:	20-001	
DATE:	SEPTEMBER 15, 2020	
SCALE:	1"=60'	

VILLAGE NEIGHBORHOOD SECTION 3 PHASE 1

VIRGINIA MILITARY SURVEY No.3005

JEROME TOWNSHIP, UNION COUNTY, OHIO

GRAPHIC SCALE

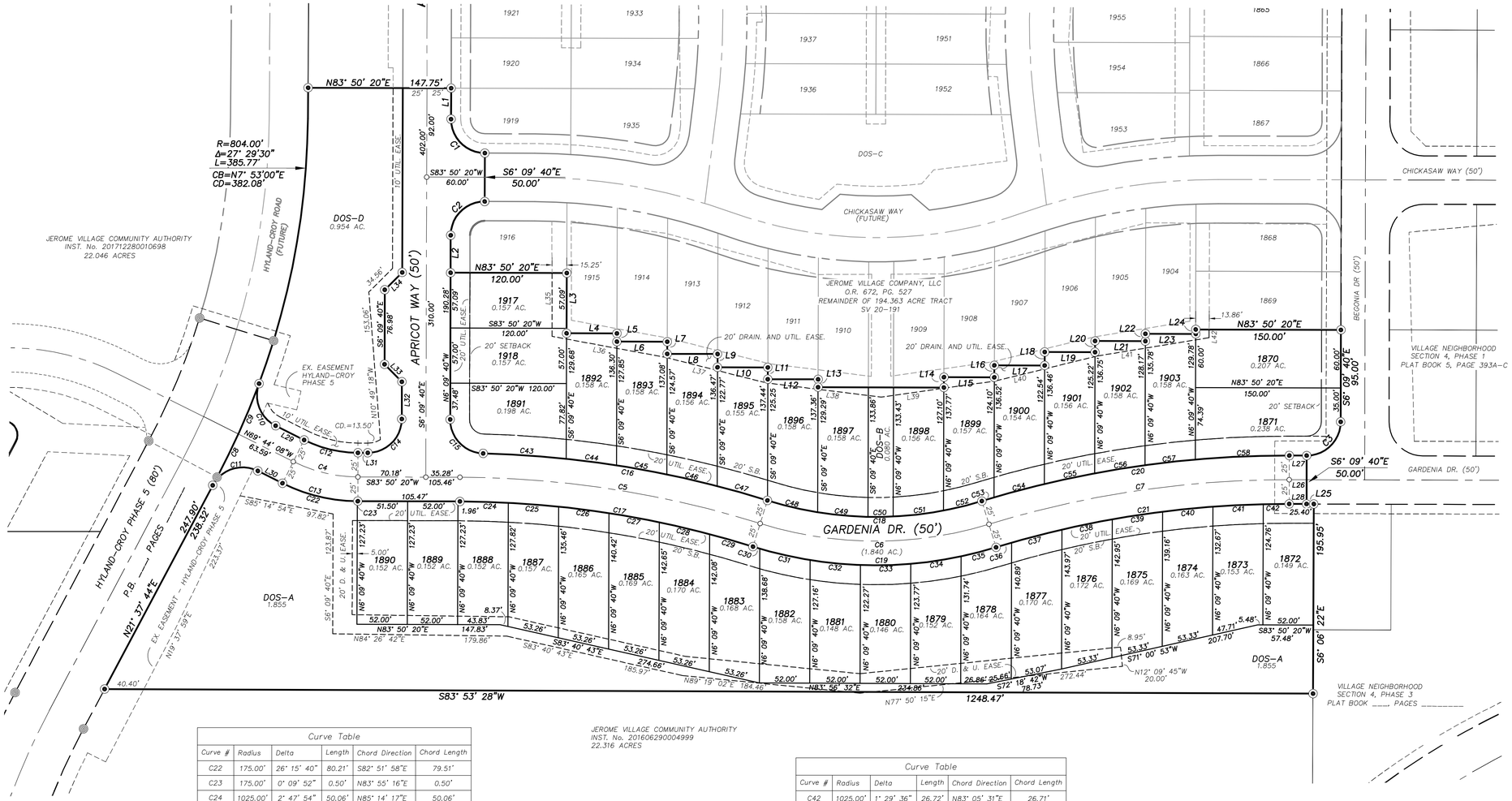
60 30 0 60

(IN FEET)

1 inch = 60 ft.

LEGEND:

- ◉ *IRON PIN SET – 5/8" X 30" REBAR WITH A PLASTIC CAP INSCRIBED "JON ADCOCK S-8461."*
- ◍ *IRON PIN SET – 5/8" X 30" REBAR WITH A PLASTIC CAP INSCRIBED "JON ADCOCK S-8461."*



Boundary Line Table		
Line #	Direction	Length
L1	S6° 09' 40"E	32.00
L2	S6° 09' 40"E	38.71
L3	S6° 09' 40"E	57.09
L4	N83° 50' 20"E	52.00
L5	S6° 09' 40"E	8.45
L6	N83° 50' 20"E	52.00
L7	S6° 09' 40"E	12.51
L8	N83° 50' 20"E	52.00
L9	S6° 09' 40"E	13.70
L10	N83° 50' 20"E	52.00
L11	S6° 09' 40"E	12.19
L12	N83° 50' 20"E	52.00
L13	S6° 09' 40"E	8.07
L14	N6° 09' 40"W	10.67
L15	N83° 50' 20"E	52.00
L16	N6° 09' 40"W	12.42
L17	N83° 50' 20"E	52.00
L18	N6° 09' 40"W	13.92
L19	N83° 50' 20"E	52.00
L20	N6° 09' 40"W	11.53
L21	N83° 50' 20"E	52.00
L22	N6° 09' 40"W	7.61
L23	N83° 50' 20"E	52.00
L24	N6° 09' 40"W	4.61
L25	N83° 50' 20"E	7.44

℄ & R/W Line Table		
Line #	Direction	Length
L26	S83° 50' 20"W	17.96
L27	S83° 50' 20"W	17.97
L28	S83° 50' 20"W	17.97
L29	N69° 44' 08"W	32.91
L30	N69° 44' 08"W	28.48
L31	S83° 50' 20"W	10.18
L32	S6° 09' 40"E	38.51
L33	S51° 09' 41"E	25.46
L34	S38° 50' 20"W	25.46

Easement Line Table		
Line #	Direction	Length
L35	S6° 25' 00"E	65.44
L36	N85° 50' 48"W	118.77
L37	N82° 06' 04"W	107.51
L38	N89° 15' 37"W	119.80
L39	N75° 37' 51"E	120.04
L40	N69° 51' 18"E	107.29
L41	N74° 22' 29"E	117.43
L42	S6° 09' 40"E	8.47

Boundary Curve Table					
Curve #	Radius	Delta	Length	Chord Direction	Chord Length
C1	35.00'	90° 00' 00"	54.98'	S51° 09' 40"E	49.50'
C2	35.00'	90° 00' 00"	54.98'	S38° 50' 20"W	49.50'
C3	35.00'	90° 00' 00"	54.98'	S38° 50' 20"W	49.50'

Centerline and R/W Curve Table					
Curve #	Radius	Delta	Length	Chord Direction	Chord Length
C4	150.00'	026° 25' 32"	69.18'	S82° 56' 54"E	68.57'
C5	1050.00'	017° 11' 21"	315.01'	N87° 33' 59"W	313.83'
C6	400.00'	034° 22' 02"	239.93'	N83° 50' 40"E	236.35'
C7	1050.00'	017° 10' 41"	314.80'	S75° 15' 00"W	313.63'
C8	804.00'	003° 32' 04"	49.60'	N19° 51' 42"E	49.59'
C9	804.00'	004° 01' 06"	56.39'	N16° 05' 07"E	56.38'
C10	35.00'	083° 48' 42"	51.20'	S27° 49' 47"E	46.75'
C11	35.00'	088° 38' 08"	54.14'	S65° 56' 48"W	48.90'
C12	125.00'	026° 25' 32"	57.65'	S82° 56' 54"E	57.14'
C13	175.00'	026° 25' 32"	80.71'	S82° 56' 54"E	80.00'
C14	35.00'	090° 00' 00"	54.98'	N38° 50' 20"E	49.50'
C15	35.00'	088° 43' 25"	54.20'	S50° 31' 22"E	48.94'
C16	1075.00'	015° 54' 46"	298.56'	N86° 55' 42"W	297.60'
C17	1025.00'	017° 11' 21"	307.51'	N87° 33' 59"W	306.36'
C18	375.00'	034° 22' 02"	224.93'	N83° 50' 40"E	221.58'
C19	425.00'	034° 22' 02"	254.92'	N83° 50' 40"E	251.12'
C20	1075.00'	017° 10' 39"	322.29'	S75° 14' 59"W	321.09'
C21	1025.00'	017° 10' 39"	307.30'	S75° 14' 59"W	306.15'

Curve Table					
Curve #	Radius	Delta	Length	Chord Direction	Chord Length
C22	175.00'	26° 15' 40"	80.21'	S82° 51' 58"E	79.51'
C23	175.00'	0° 09' 52"	0.50'	N83° 55' 16"E	0.50'
C24	1025.00'	2° 47' 54"	50.06'	N85° 14' 17"E	50.06'
C25	1025.00'	2° 54' 54"	52.15'	N88° 05' 41"E	52.14'
C26	1025.00'	2° 55' 48"	52.42'	S88° 58' 58"E	52.41'
C27	1025.00'	2° 57' 11"	52.83'	S86° 02' 28"E	52.82'
C28	1025.00'	2° 59' 04"	53.39'	S83° 04' 21"E	53.39'
C29	1025.00'	2° 36' 30"	46.66'	S80° 16' 33"E	46.66'
C30	425.00'	1° 00' 10"	7.44'	S79° 28' 23"E	7.44'
C31	425.00'	7° 11' 16"	53.32'	S83° 34' 06"E	53.28'
C32	425.00'	7° 02' 49"	52.27'	N89° 18' 51"E	52.24'
C33	425.00'	7° 01' 02"	52.05'	N82° 16' 56"E	52.02'
C34	425.00'	7° 05' 41"	52.63'	N75° 13' 34"E	52.59'
C35	425.00'	5° 01' 04"	37.22'	N69° 10' 11"E	37.21'
C36	1025.00'	0° 56' 03"	16.71'	N67° 07' 41"E	16.71'
C37	1025.00'	3° 00' 22"	53.78'	N69° 05' 53"E	53.77'
C38	1025.00'	2° 58' 09"	53.12'	N72° 05' 08"E	53.11'
C39	1025.00'	2° 56' 30"	52.62'	N75° 02' 28"E	52.62'
C40	1025.00'	2° 55' 20"	52.28'	N77° 58' 23"E	52.27'
C41	1025.00'	2° 54' 39"	52.07'	N80° 53' 23"E	52.07'

JEROME VILLAGE COMMUNITY AUTHORITY
INST. No. 201606290004999
22.316 ACRES

Curve Table					
Curve #	Radius	Delta	Length	Chord Direction	Chord Length
C42	1025.00'	1° 29' 36"	26.72'	N83° 05' 31"E	26.71'
C43	1075.00'	4° 34' 55"	85.97'	S87° 24' 23"W	85.95'
C44	1075.00'	2° 47' 39"	52.42'	N88° 54' 20"W	52.42'
C45	1075.00'	2° 48' 54"	52.82'	N86° 06' 04"W	52.81'
C46	1075.00'	2° 50' 36"	53.35'	N83° 16' 18"W	53.34'
C47	1075.00'	2° 52' 48"	54.03'	N80° 24' 36"W	54.03'
C48	375.00'	8° 09' 52"	53.44'	N83° 03' 33"W	53.39'
C49	375.00'	7° 58' 56"	52.24'	S88° 52' 04"W	52.20'
C50	375.00'	3° 58' 23"	26.00'	N82° 53' 25"E	26.00'
C51	375.00'	8° 00' 37"	52.43'	S76° 53' 55"W	52.38'
C52	375.00'	6° 13' 57"	40.79'	S69° 46' 38"W	40.77'
C53	1075.00'	0° 41' 36"	13.01'	S67° 00' 27"W	13.01'
C54	1075.00'	2° 52' 13"	53.85'	S68° 47' 22"W	53.85'
C55	1075.00'	2° 50' 09"	53.21'	S71° 38' 33"W	53.20'
C56	1075.00'	2° 48' 34"	52.71'	S74° 27' 54"W	52.70'
C57	1075.00'	2° 47' 24"	52.35'	S77° 15' 53"W	52.34'
C58	1075.00'	5° 10' 44"	97.17'	S81° 14' 57"W	97.13'

1346 Hemlock Court N.E.
Lancaster, OH 43130
Contact: Brett Adcock
(740) 654-0600 - Lancaster
(614) 837-0800 - Columbus
(740) 455-2200 - Zanesville
(740) 670-0800 - Newark
Fax: (740) 654-0604
www.americanlandsurveyors.com

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FIELD	DRAFT	CHECK
JBA	JBA	JBA
JOB NO.:	20-001	
DATE:	SEPTEMBER 15, 2020	
SCALE:	1"=60'	

County Engineer
Environmental Engineer
Building Department
233 W. Sixth Street
Marysville, Ohio 43040
P 937. 645. 3018
F 937. 645. 3161
www.co.union.oh.us/engineer

Marysville Operations Facility
16400 County Home Road
Marysville, Ohio 43040
P 937. 645. 3017
F 937. 645. 3111

Richwood Outpost
190 Beatty Avenue
Richwood, Ohio 43344

***Public Service** with integrity*

October 4th, 2020

Bradley Bodenmiller
LUC Regional Planning Commission
10820 St. Rt. 347, PO Box 219
East Liberty, Ohio 43319

Re: Village Neighborhood Section 3 (VN-3), Phase 1
Final Plat Review

Brad,

We have completed our review for the above final plat, received by our office on September 24th, 2020. The construction drawings have been approved by our office. Construction work has commenced on site but has not been completed. As such, have required a performance bond/surety for the outstanding improvements. That bond has been received, but has not yet been approved by the Board of Union County Commissioners. In addition, we have the following comments on the plat:

1. Sheet 3 – The entire footprint of the drainage and utility easement north of lots 1892-1903 should be dedicated as part of this plat. The storm sewer in which this easement is needed will be completely constructed with this phase, so the easement needs to be completely dedicated as well. Currently, only the portion of the easement within the boundaries of this phase is being described and dedicated.

Due to the above outstanding comments, we recommend denial of the plat at this time. Should the above be resolved prior to next Thursday's Zoning and Subdivision Committee meeting and Executive Committee meeting, we reserve the right to change our recommendation.

Should you have any questions or concerns, feel free to contact me at (937) 645-3165.

Bill Narducci

Bill Narducci, P.E.
Assistant County Engineer
Union County Engineer

TerrainEvolution
terrainevolution.com

720 East Broad Street
Suite 203
Columbus, OH 43215

P: 614.385.1090
info@terrainevolution.com

September 17, 2020

Bradley Bodenmiller
LUC Regional Planning Commission
Box 219
East Liberty, Ohio 43319

RE: Village Neighborhood Section 3 Phase 1 (VN-3.1) Final Plat

Mr. Bodenmiller,

Terrain Evolution, as the agent for Jerome Village Company, acknowledges the existence of Pewamo soils within the development area of VN-3. The soil types are commonly found within areas with poor drainage and/or in drainage courses. In this case, the soils are in a farm field which has been tiled to allow the field to drain adequately for farming operations. The development will install storm sewer drainage system to provide adequate drainage to the area developed.

Section 416 of the Union County Subdivision Regulations designates areas with the said soil types as requiring improvements to render the area acceptable for the intended use. The subdivider is aware and acknowledges this requirement. The intended use is for single family and multifamily residential. Providing adequate drainage system to the area shall remedy any poorly drained areas, thus rendering the area acceptable for the use. A storm sewer system is being designed to convey all surface runoff to stormwater management basins. Any and all subsurface tiles encountered during the construction of the development shall be connected to said storm sewer as to promote an adequate drainage system.

Please feel free to contact me if you have any questions a (614) 385-1092.

Sincerely,

Justin Wollenberg, PE, CPESC
Project Manager

Brad Bodenmiller

From: Jeremy Hoyt <jhoyt@marysvilleohio.org>
Sent: Thursday, October 1, 2020 10:46 AM
To: Brad Bodenmiller
Cc: Chad Green
Subject: October LUC Meeting

Brad,

The City of Marysville has the following comments regarding this month's submittals:

Darby Braeside - Amended Preliminary Plat

- The City of Marysville has no comments regarding this item.

Darby Braeside, Phase 3 - Final Plat

- The City of Marysville has no comments regarding this item.

Glacier Park Neighborhood Section 12, Phase 5 - Final Plat

- Label the additional utility easement width for the portion containing the public waterline between Mangrove Loop and Wells Road.
- Provide the official record and volume for the utility easement along Wells Road located just east of this site.

Pioneer Crossing - Preliminary Plat

- On the title sheet, please add the City of Marysville as the wastewater provider for this development.
- All references to this development's pump station shall clearly state that this infrastructure is intended to be "private".
- Ensure all adjacent properties have access to the public sanitary sewer.
- Based on your preliminary analysis, there is adequate pumping capacity within our existing Pump Station #3 (within the New California development) to permit this project (188 lots) to connect to the existing sanitary sewers tributary to this pump station. Due to this additional flow, there may be additional improvements (i.e. wet well relining / refabbing, flow meter replacement, etc.) required to be shared by both the City and Developer on a percentage basis. Additional calculations and development information will be needed to determine the exact connection point within the New California subdivision. The exact locations and details of this connection can be determined during the final engineering process.
- For future looping (i.e. redundancy) purposes, a public waterline shall be installed along Street "K". This waterline will eventually connect to water infrastructure along New California Drive on the Crager parcel.

Village Neighborhood Section 3, Phase 1 - Final Plat

- Provide a fifteen (15) foot utility easement along the entire frontage of the future Hyland-Croy Road extension (within DOS-D).

Village Neighborhood Section 4, Phase 3 - Final Plat

- The City of Marysville has no comments regarding this item.

Warner Industrial Corporate Center - Final Plat

- Please remove the duplicate language at the beginning of the "water and sanitary easement" description.
- Per the approved construction plans, a twenty (20) foot water and sanitary easement along the proposed Industrial Parkway right-of-way.
- Please provide a thirty (30) foot water and sanitary easement along the frontage of Lot 1.
- Please update the easement width and title within Detail B.

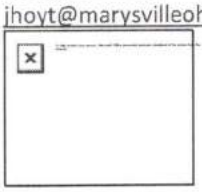
Please do not hesitate to contact me with any further questions.

Thanks,
Jeremy

--

Jeremy Hoyt, P.E.
City Engineer / Deputy Public Service Director
City of Marysville, Ohio

209 South Main Street
Marysville, Ohio 43040
(937)645-7358 (office)
(937)645-7351 (fax)
jhoyt@marysvilleohio.org



9777 Industrial Parkway
Plain City, Ohio 43064
614-873-4480

Jerome Township Zoning Department

September 28, 2020

Bradley J. Bodenmiller, Director
LUC Regional Planning Commission
10820 St. Rt. 347
East Liberty, Ohio 43319

Re.: Village Neighborhood Section 3 Phase 1 – Final Plat

Dear Mr. Bodenmiller,

I have received your notification of application for approval of the Final Plat known as Village Neighborhood 3 Phase 1 – Final Plat. Based on the provisions of the Township Zoning Resolution, my comments are as follows:

1) Development Plan PD 15-121 FDP-03 was approved by the Zoning Commission to allow for development at the site. The proposed Final Plat complies with that approved Development Plan.

2) The Plat notes front yard, side yard, and rear yard setbacks on page 1 that are consistent with the approved Development Plan and could only be changed by approval of a Development Plan Modification or a variance.

3) Zoning Staff notes that the definition of “setback” in the Subdivision Regulations refers to only to a front yard setback as defined in the Zoning Resolution. In addition, the terminology “Front Yard Setback, Side Yard Setback, and Rear Yard Setback” is used on page 1 of this plat. On page 3, there is a 20’ line labeled as ‘setback’. Please revise the note attached to this line on page 3 to read ‘Building Setback’, as that term is more consistent with the two sets of definitions provided in both the Zoning Resolution and Subdivision Regulations.

As per usual practice, I plan to attend the meeting of the Commission's Zoning & Subdivision Committee, and will be available to answer any additional questions at that time.

Sincerely,

Eric Snowden

Eric Snowden
Zoning Inspector/Coordinator
Jerome Township, Union County, Ohio

Jerome Township

Division of Fire

9689 US Rte 42 N.
Plain City, Ohio 43064
614-873-8990 (O)
614-873-3501 (F)

To: Justin Wollenburg

From: Douglas Stewart
Fire Chief

Date: 8-18-2020

Subject: Village Neighborhood Section 3, Phase 1

I want to thank you for the opportunity to review the plan:

At this time, we have no major concerns with the plans for the above stated project.

1. The extension of Gardenia Dr and connection to other streets allows for access for fire apparatus as indicated in the plans provided.

2. Placement of fire hydrants are acceptable and meet the standard that we have established with the adoption of the 2017 edition of the Ohio Fire Code. Additionally, the layout of the new hydrants are consistent with the existing hydrants from previous phases of the development.

Thank you again for your time.

Please let me know if you have any questions.

Respectfully

Douglas Stewart

LUC MODEL ZONING TEXT

Agritourism: Definitions

Article *XXXX* Definitions.
Agritourism related definitions:

- **AGRICULTURAL PRODUCTION**: Commercial animal or poultry husbandry, aquaculture, algaculture meaning the farming of algae, apiculture, animal husbandry, or poultry husbandry; the production for a commercial purpose of timber, field crops, tobacco, fruits, vegetables, nursery stock, ornamental shrubs, ornamental trees, flowers, or sod; the growth of timber for a noncommercial purpose if the land on which the timber is grown is contiguous to or part of a parcel of land under common ownership that is otherwise devoted exclusively to agricultural use; or any combination of such husbandry, production, or growth; and includes the processing, drying, storage, and marketing of agricultural products when those activities are conducted in conjunction with such husbandry, production, or growth; land devoted to biodiesel production, biomass energy production, electric or heat energy production, or biologically derived methane gas production if the land on which the production facility is located is contiguous to or part of a parcel of land under common ownership that is otherwise devoted exclusively to agricultural use, provide that at least fifty per cent of the feedstock used in the production was derived from parcels of land under common ownership or leasehold. Agricultural production includes conservation practices, provided that the tracts, lots, or parcels of land or portions thereof that are used for conservation practices comprise not more than twenty-five per cent of tracts, lots, or parcels of land that are otherwise devoted exclusively to agricultural use and for which an application is filed under Section 929.02 of the Revised Code.
- **AGRITOURISM**: An agriculturally related educational, entertainment, historical, cultural, or recreational activity, including you-pick operations or farm markets, conducted on a farm that allows or invites members of the general public to observe, participate in, or enjoy that activity.
- **AGRITOURISM PROVIDER**: A person who owns, operates, provides, or sponsors an agritourism activity or an employee of such a person who engages in or provides agritourism activities whether or not for a fee.
- **FARM**: Land that is composed of tracts, lots, or parcels totaling not less than ten (10) acres devoted to agricultural production or totaling less than ten (10) acres devoted to agricultural production if the land produces an average yearly gross income of at least twenty-five hundred dollars ($2,500) from agricultural production.

LUC Model Text (Zoning & Subdivision Committee; _____)

10820 St Rt 347, PO Box 219
East Liberty, Ohio 43319
• Phone: 937-666-3431 • Fax: 937-666-6203
• Web: www.lucplanning.com

LUC MODEL ZONING TEXT

Agritourism: Title, Interpretation, Enactment

Section *XXXX* Use of Land or Buildings for Agricultural Purposes Not Affected.
It is the intent of this Resolution to be and remain in compliance with ORC 519.21 *Powers not conferred on township zoning commission by chapter*. ORC 519.21 is a statute, created and maintained by the State, which limits the authority of townships and establishes what is commonly referred to as the "agriculture exemption". How ORC 519.21 impacts this Resolution is described herein.

This Resolution does not affect the use of any land for agricultural purposes, or the construction or use of buildings or structures incident to the use for agricultural purposes of the land on which such buildings or structures are located and no zoning certificate shall be required for any such building or structure. (Residential dwellings do require a permit however.)

There are two conditions where the agriculture exemption does not apply. 1) In any platted subdivision; and, 2) In any area consisting of fifteen or more lots approved under ORC 711.131 that are contiguous to one another, or some of which are contiguous to one another and adjacent to one side of a dedicated public road, and the balance of which are contiguous to one another and adjacent to the opposite side of the same dedicated public road. When either of these two conditions exist, the requirements of this Resolution apply to:

1. Agriculture on lots of one acre or less; and,
2. Buildings or structures incident to the use of land for agricultural purposes on lots greater than one acre but not greater than five acres by: setback building lines, height, and size; and,
3. Dairying and animal and poultry husbandry on lots greater than one acre but no greater than five acres when at least thirty-five percent of the lots in the subdivision are developed with at least one building, structure, or improvement that is subject to real property taxation or that is subject to the tax on manufactured and mobile homes. After thirty-five percent of the lots are so developed, dairying and animal and poultry husbandry shall be considered nonconforming.

LUC Model Text (Zoning & Subdivision Committee; _____)

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LUC MODEL ZONING TEXT

Agritourism: Supplementary District Regulations

Section *XXXX* Agritourism.

In addition to the procedure and requirement for approval of conditional use permits, as stated in Section 560, the Board of Zoning Appeals shall direct the Zoning Inspector to issue a conditional use permit listing the specific conditions specified by the Board for approval if the following conditions have been met:

I. Conditions

A. Evidence that the farm on which the agritourism operation is proposed is ten (10) acres or more in area shall be provided. If such farm is less than ten (10) acres, evidence shall be provided that such farm is currently enrolled in the Current Agricultural Use Value (CAUV) program or produces an average yearly gross income of at least twenty-five hundred dollars ($2,500) from agricultural production.

B. The educational, entertainment, historical, cultural and/or recreational relationship of the agritourism operation to the existing agricultural use of the property, the surrounding agricultural community, and/or the relationship of the agritourism activity to agriculture in general shall be identified.

C. A site plan of the property illustrating all structures to be used for agritourism activities, setbacks from property lines for all structures and any existing or proposed well and/or on-site wastewater disposal system area(s) on the property shall be submitted.

   1. The size and setback for any structure used primarily for agritourism activities shall be in conformance with the requirements of the applicable zoning district, listed in the Official Schedule of District Regulations.

D. Off-street parking in accordance with size requirements in Article __ Off-Street Parking and Loading Requirements shall be provided.

   1. Additionally, off-street parking adequate to meet peak time demand shall be provided in a manner that does not cause nuisance or conflict with adjoining properties. Estimates of traffic generation shall be submitted. In no instance shall parking be permitted within yard setback areas or within 20 feet of the road right-of-way.

E. Safe and adequate ingress and egress shall be maintained at all times.

F. The applicant shall provide data establishing the seasons and weeks of operation, and the hours of operation. The Conditional Use Permit shall clearly state these parameters.

G. Sales are limited to agricultural products meeting the criteria of products incident to the agricultural production and specific supporting products related to the agricultural tourism purpose such as animal feed pellets, U-Pick containers, etc…

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LUC MODEL ZONING TEXT

Agritourism: Official Schedule of District Regulations

Listed as a **conditional use** in all Zoning Districts.

LUC Model Text (Zoning & Subdivision Committee; _____)

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Zoning & Subdivision Committee
Thursday, October 8, 2020

The Zoning and Subdivision Committee met in regular session on Thursday, October 8, 2020 at 12:18 pm online through Zoom. Meeting information was published on LUC's agenda and posted on LUC's website.

Zoning & Subdivision Committee Members were in attendance as follows: Brad Bodenmiller, Tyler Bumbalough, Scott Coleman, Wes Dodds, Charles Hall, Steve McCall, Heather Martin, Bill Narducci, Tammy Noble, Aaron Smith, Jeff Stauch and Andy Yoder. Absent members were: Ashley Gaver and Tom Scheiderer.

Guests included: Megan Sloat, Jerome Township; Justin Wollenberg, Terrain Evolution; Kevin Kershner, Pioneer Crossing; Randy VanTilburg, Darby Braeside; Wayne Ballentyne, Darby Braeside; Eric Snowden, Jerome Township.

Scott Coleman chaired the Zoning & Subdivision Committee Meeting.

Tyler Bumbalough moved a motion to approve the minutes from the September 10, 2020 meeting as written and Bill Narducci seconded. All in favor.

1. Review of Darby Braeside Amended Preliminary Plat (Union County) – Staff Report by Brad Bodenmiller
   - Brad Bodenmiller – Comments were received from the Engineer's Office after the staff report was generated. Those comments were posted on LUC's website.
   - Bill Narducci – We appreciate the developer working with us on this issue. Currently, when we see developments of a certain size, we do recommend a secondary access. This particular development has been in various planning stages since 2008. The drawings show the same basic layout; there was no secondary access discussions at that time. It would be virtually impossible to provide that with this development. We thought a good compromise would be to provide a stub street to the south. We think in the future if those properties develop we would have a good connection point. We thought it was a good compromise and appreciate Wayne and Randy working with us and to work through the Fire Chief's comments. Randy has provided a conceptual drawing that shows that stub street being extended. We're on board with that and support that. The question is, can we allow them to move forward with modifying the right of way or should they come back with updated plans showing that?
   - Tammy Noble – Do we allow this type of modification to be, I'm slightly concerned, do we allow any deviation from a preliminary to a final?

- Brad Bodenmiller – We've let people shift lot lines before, within the lot space but if they're adding or removing lots or removing right of way lines, we require amendment to the preliminary plat.
- Tammy Noble – I commend the applicants on working with us and this is an excellent solution, but this warrants another review.

- Charles Hall – I've always had a problem with a plat that does not leave an exit in case something happens. If you look at lots 16, 19 and 20, if something happens there, all these other lots don't have a way to get out or for emergency services to get to them. If there's a major structure fire and all the services have that plugged up, how do they get in and out, how do they handle emergencies back there? That's always been a problem for me.
- Scott Coleman – It sounds like what we're looking for is the developer to request to table; this change in right of way is beyond what we would approve?
  - Brad Bodenmiller – I can't think of a similar situation in the past where we would approved something like this.
- Scott Coleman – Will the developer be requesting a tabling?
- Randy VanTilberg – If that's the wishes of the committee that this is going to have to come back for review, then we would like to request a table.
- Steve McCall moved a motion to accept the Developer's request to table the Darby Braeside Amended Preliminary Plat and Bill Narducci seconded. All in favor.

2. Review of Pioneer Crossing Preliminary Plat (Union County) – Staff Report by Brad Bodenmiller
   - Brad Bodenmiller updated the Committee clarifications received from Soil & Water regarding easements and the City regarding sewer access to adjacent properties.
   - Brad Bodenmiller – Comments were received from the Engineer's Office after the staff report was generated. Those comments were posted on LUC's website.
   - Charles Hall moved a motion to recommend approval of the Pioneer Crossing Preliminary Plat with staff comments and Tyler Bumbalough seconded. All in favor.

3. Review of VN-3 Phase 1 Final Plat (Union County) – Staff Report by Brad Bodenmiller
   - Brad Bodenmiller – The reviewing agency comments have been addressed on the Final Plat.
   - Charles Hall moved a motion to recommend approval of the VN-3 Phase 1 Final Plat and Steve McCall seconded. All in favor.

4. Review of LUC Model Text: Agritourism – Staff Report by Aaron Smith

- Tammy Noble moved a motion to adopt the model text language and Wes Dodds seconded. All in favor.

The Zoning and Subdivision Committee adjourned at 1:03 pm with Steve McCall moving a motion to adjourn and Charles Hall seconded. All in favor.