Planning Commission Agenda

Tuesday, August 13, 2024 at 6:00 PM

The Tom Hardin Room – 100 Public Square, Mount Pleasant, TN

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1. **Call to Order**
2. **Pledge of Allegiance**
3. **Roll Call**
   - **A.** John Hunter - *Chair*
     Jennifer Graham - *Vice Chair*
     Pam Johnston - *Secretary / City Commissioner*
     Kris Irvin - *Member*
     Cedric Hollis - *Member*
4. **Approval/Correction of Minutes from Prior Meetings**
   - **A.** Regular Session - July 9th, 2024
5. **Completion/review of Unfinished Business from prior meeting**
6. **Special reports from other City Departments or Committees if applicable**
7. **New Business**

   (Comments from citizens may or may not be included, dependent on the issues.)
   - **A.** United Farm & Home Co-op Feed - Jess Dillard with Bridgepoint LLC representing United Farm & Home Co-op on 21.25 acres Tax Map 126; Parcel 041.11 and located at 1385 Main Street has submitted for an 18,000 square foot accessory building with Site improvements
   - **B.** Xxentria Building - Owners Xxentria Asset Management, LLC property identified as Tax Map 126 Parcel 41.01 being legally recorded and on file with the Register of Deeds Office. The property is located in Cherry Glen Industrial Park on the corner of Sam Watkins Blvd. and William Shirley Rd. The applicant requests the approval for a 167,480 square foot industrial building.
8. **General comments from citizens (May be limited in time and/or number of comments.)**
9. **Board/Staff Comments/Adjournment**

Mount Pleasant Planning Commission

The Mount Pleasant Planning Commission met in its regular monthly meeting on Tuesday July 9th at 6:00pm in the Tom Hardin room at City Hall.

Those who were in attendance are: John Hunter-Chair, Jennifer Graham-Vice Chair, Pam Johnston- Secretary, Cedric Hollis, Kris Irvin, Kate Collier, Chris Brooks-Director, Phillip Grooms-City Manager, Ted Howell-Utilities Director, Will Hager Representative with KCI Technology and Ricky Oakley with CEC Engineering both attended via Zoom, Staff and Public. Chaz Molder-City Attorney was unable to attend.

Mr. Hunter called the meeting to order and asked that the minutes reflect that there was a quorum.

Mr. Hunter asked that Mrs. Johnston lead the invocation and Mrs. Graham lead the pledge of allegiance.

Mr. Hunter stated that there will be one (1) change to the agenda and that is No. 6 United Farm & Home Co-op Feed. The requestor is asking for it to be deferred.

Mrs. Johnston made a motion to approve the request and Mr. Hollis seconded the motion and the vote in favor was unanimous.

Mr. Hunter asked if there are any changes to the minutes from the last regular meeting which was held on May 14th, 2024.

There being no changes Mrs. Graham made a motion to approve the minutes with no changes and Mr. Hollis seconded the motion and the vote in favor was unanimous.

<u>Cottages of Bearwood water availability</u>

Cole Newton with TKC Architecture and Engineering LLC representing Burchell Properties owner of Cottages of Bearwood on 78.14 acres identified on Tax Map 127; Parcel 25.00; and located on Magnolia Dr. and Canaan Rd. consisting of 95

single family homes. A Preliminary Plan and Construction drawings previously approved November 14th, 2023 with a condition of approval to limit the homes built to 25 homes a year. The applicant requests that this condition of approval be removed to reflect the revised Water Letter of Availability from CEC prepared by Ricky Oakley dated April 3rd, 2024.

Mr. Hunter began the discussion with some concerns about the approval of this issue. Mr. Hunter. Asked how did they come up the 200 gallons a day average usage and Mr. Oakley said it was based on TDEC.

Mr. Hunter also asked if these new lots would be irrigated, and Mr. Newton said they would not be but they can if its wanted and would not affect the water usage in a major way being that the lots are small. Mr. Hunter commented that he did not see much change in the system and that's why the City secured the contract with CPWS in the first place. Mr. Hunter asked if the CPWS contract was uninterruptable and Mrs. Collier stated it was. Mr. Hunter stated he does not think this is a good long-term plan.

Mr. Oakley was pointing out his concern about the water line on Canaan Rd. It needs to be a 6inch line and it is thought to be a 4inch line and the developer will have to amend that as an off-site improvement.

Mr. Hunter stated he was not comfortable with approving this without all the information needed meaning the contract with CPWS. Mr. Grooms told him that it was just a letter and emails and was trying to pull up the letter on his computer.

Mr. Hunter read the 2-page letter and then asked if there was a water sale agreement that is uninterruptable. Mr. Grooms stated yes there is and their board agreed upon that. Mr. Hunter stated we need to have legal here and to see a signed agreement by all parties.

Mr. Hunter entertained a motion for approval any way the members wanted to do it. Mr. Hollis made a motion to remove the conditional use and Mrs. Graham seconded. Mr. hunter asked for a roll call and Mrs. Collier performed the roll call and all were in agreement to remove the conditional use except for Mr. Hunter and Mr. Irvin. Motion was passed.

Mr. Hunter stated that there was no old business and no other business and no Board/Staff or citizens comments.

Mrs. Johnston made a motion to adjourn the meeting and Mr. Hollis seconded the vote and vote in favor was unanimous.

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Chairperson

_____

Date

REQUESTED WAIVERS & VARIANCES 1
- SECTION 11.4 - LANDSCAPING, SCREENING AND TREE PRESERVATION

SITE PLANS

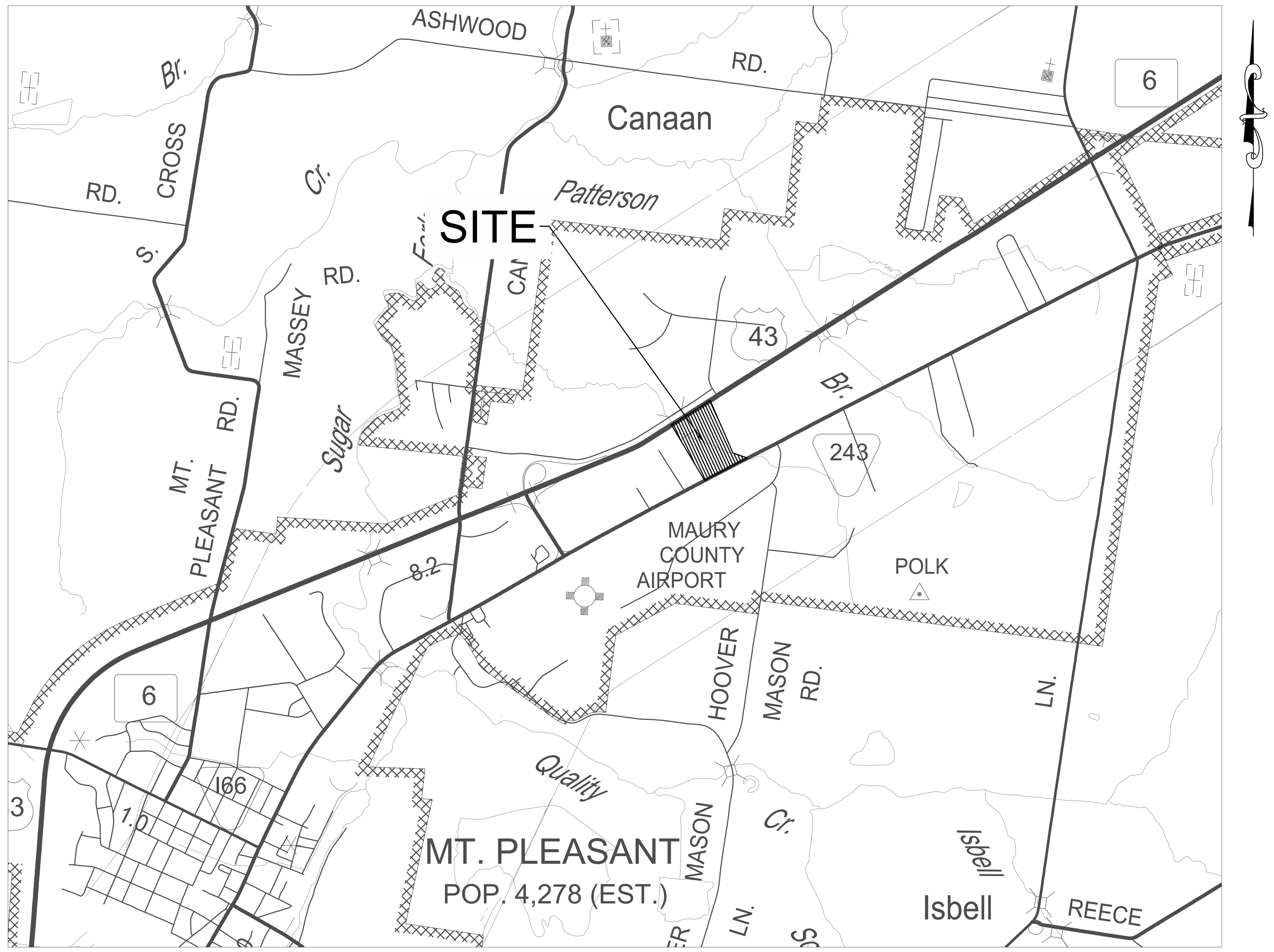
FOR

UNITED FARM AND HOME COOPERATIVE

1385 NORTH MAIN STREET
MT PLEASANT, TENNESSEE

SITE DATA TABLE

OWNER/DEVELOPER	
NAME:	UNITED FARM AND HOME COOPERATIVE
ADDRESS:	975 RIVERVIEW LANE COLUMBIA, TN 38401
PARCEL ID:	TAX MAP 126, PARCEL 041.11
ADDRESS:	1385 NORTH MAIN STREET MT PLEASANT, TN 38474
ZONING:	
TRACT 1:	IL, LIGHT INDUSTRIAL
BUILDING SETBACKS:	
FRONT:	50 FEET
SIDE:	50 FEET
REAR:	50 FEET
LOT SIZE:	±21.25 ACRES ±925,650 SF
IMPERVIOUS SURFACE RATIO (ISR): 1	
EXISTING:	13.8%
PROPOSED:	26.3%
BUILDING AREA EXISTING:	4.2%
BUILDING AREA PROPOSED:	6.2%
BUILDING HEIGHT MAX:	60 FEET
BUILDING HEIGHT PROVIDED:	48 FEET
TOTAL DISTURBED AREA:	±5.34 AC. 1
DISTURBED AREA IN FLOODPLAIN:	~~±2.33 AC.~~
TDEC NOC:	TNR######



VICINITY MAP

1" = 2000'

SHEET LIST TABLE

SHEET NUMBER	SHEET TITLE
C0.0	COVER SHEET
C0.1	GENERAL NOTES
C1.0	CONSOLIDATION PLAT
C1.1	EXISTING CONDITIONS & DEMOLITION PLAN
C2.0	SITE LAYOUT
C3.0	GRADING & DRAINAGE PLAN
C4.0	INITIAL EPSC PLAN
C4.1	INTERMEDIATE EPSC PLAN
C4.2	FINAL EPSC PLAN
C4.3	EPSC DETAILS
C4.4	EPSC DETAILS
C5.0	UTILITY LAYOUT
C5.1	PHOTOMETRIC PLAN
C6.0	SITE DETAILS
C6.1	SITE DETAILS
A-1	FLOOR PLAN
A-2	LARGE SCALE FLOOR PLAN
A-3	ELEVATIONS
A-4	ELEVATIONS

OWNER
UNITED FARM & HOME COOPERATIVE
ROB EUBANK
975 RIVERVIEW LANE
COLUMBIA, TN 38401
931-309-6825
REUBANK@UFHCOOP.COM

ENGINEER
BRIDGEPOINT, LLC
JESS DILLARD
2095A COOKS ROAD
MOUNT JULIET, TN 37122
615-453-5000
JDILLARD@BRIDGEPOINTTN.COM

CONTRACTOR
DOSS BROTHERS, INC.
TYLER DOSS
2784 HWY 43 N.
LAWRENCBURG, TN 38464
931-762-1531
TYLER@DOSSBROTHERS.COM

811 Know what's below. Call before you dig.

THIS SITE PLAN HAS BEEN DESIGNED TO MEET THE CITY OF MT PLEASANT STANDARDS AND THE APPROVAL OF THE PLANNING COMMISSION. CHANGES SHALL NOT BE MADE TO THE APPROVED SITE PLAN UNLESS APPROVED BY EITHER THE RELATIVE DEPARTMENT SUPERINTENDENT OR THE PLANNING COMMISSION.

THE SUBJECT PROPERTY IS LOCATED IN A FLOOD HAZARD ZONE "A (NO BASE FLOOD ELEVATION DETERMINED) ACCORDING TO FIRM MAP "CITY OF MT PLEASANT" PANEL 260 OF 440, MAP NUMBER 47119C0260E, EFFECTIVE DATE APRIL 16, 2007.

Section 7, Item A.

BRIDGEPOINT, LLC
2095A COOKS RD.
MOUNT JULIET, TENNESSEE
(615)-453-5000
WWW.BRIDGEPOINTTN.COM

No.	Revision/Issue	Date
1	CITY, OWNER & TDEC COMMENTS	2024-07-25

SITE PLANS FOR
UNITED FARM AND HOME CO-OP FEED BUILDING
1385 NORTH MAIN STREET
MOUNT PLEASANT, TENNESSEE
MAURY COUNTY, TENNESSEE

JESS MILES DILLARD, REGISTERED ENGINEER, AGRICULTURE COMMERCE, No. 119269, STATE OF TENNESSEE
07-25-2024

COVER SHEET

DATE:	7/25/2024	DRAWN BY:	BRS
DRAWING SCALE:	AS SHOWN	CHECKED BY:	JMD
PROJECT NO.:	24-040	APPROVED BY:	JMD

SHEET NUMBER:
C0.0

GENERAL NOTES

1. EXISTING CONDITIONS AS DEPICTED ON THESE PLANS ARE GENERAL AND ILLUSTRATIVE IN NATURE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE SITE AND BE FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BIDDING ON THIS PROJECT. IF CONDITIONS ENCOUNTERED DURING EXAMINATION ARE SIGNIFICANTLY DIFFERENT THAN THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
2. EXISTING TOPOGRAPHIC SURVEY WAS PROVIDED TO BRIDGEPOINT BY DOSS BROTHERS, INC.
3. BOUNDARY SURVEY WAS PERFORMED BY BRIDGEPOINT, LLC. PROPERTY LINES SHOWN ARE BASED ON DEEDS AND PLATS, AS SHOWN ON RECORD AT THE MAURY COUNTY REGISTER OF DEEDS, AND FIELD LOCATED PROPERTY CORNERS.
4. THE CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION OR EARTH MOVING OPERATIONS. INFORM ENGINEER OF ANY CONFLICTS DETRIMENTAL TO THE DESIGN INTENT.
5. 72 HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES: TENNESSEE 811 AND ALL OTHER AGENCIES THAT MAY HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NON-MEMBERS OF TENNESSEE 811.
6. THE CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR COMPLYING WITH APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTORS TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
7. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND OWNER'S REPRESENTATIVE FOR ANY AND ALL INJURIES AND/OR DAMAGES TO PERSONNEL, EQUIPMENT AND/OR EXISTING FACILITIES OCCURRING IN THE COURSE OF THE DEMOLITION AND CONSTRUCTION DESCRIBED IN THE PLANS AND SPECIFICATIONS.
8. CONTRACTOR SHALL OBTAIN A PERMIT FOR ALL CONSTRUCTION ACTIVITIES AND PERFORM SAID ACTIVITIES IN ACCORDANCE WITH ALL LOCAL, STATE, FEDERAL & OSHA REGULATIONS.
9. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL CODES, OBTAIN ALL APPLICABLE PERMITS, AND PAY ALL REQUIRED FEES PRIOR TO BEGINNING WORK.
10. ANY WORK PERFORMED IN THE LOCAL RIGHT OF WAYS SHALL BE IN ACCORDANCE WITH THE APPLICABLE LOCAL REQUIREMENTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE NECESSARY PERMITS FOR THE WORK, SCHEDULE NECESSARY INSPECTIONS, AND PROVIDE THE NECESSARY TRAFFIC CONTROL MEASURES AND DEVICES, ETC., FOR WORK PERFORMED IN THE RIGHT OF WAYS.
11. THE CONTRACTOR IS TO PERFORM ALL INSPECTIONS AS REQUIRED BY THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND FURNISH OWNERS REPRESENTATIVE WITH WRITTEN REPORTS. OWNER WILL OBTAIN NPDES PERMIT.
12. CONTRACTOR SHALL IMPLEMENT ALL SOIL AND EROSION CONTROL, PRACTICES REQUIRED BY CITY OF MT. PLEASANT AND TDEC.
13. ALL GROUND SURFACE AREAS THAT HAVE BEEN EXPOSED OR LEFT BARE AS A RESULT OF CONSTRUCTION AND ARE TO FINAL GRADE AND ARE TO REMAIN SO, SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL IN ACCORDANCE WITH SPECIFICATIONS.
14. ALL WORK SHALL COMPLY WITH THE TENNESSEE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, AND ALL CONSTRUCTION WORK SHALL BE DONE ACCORDING TO SAID SPECIFICATIONS AND IN ACCORDANCE WITH APPLICABLE STANDARDS OF CITY OF MT. PLEASANT. WHEN IN CONFLICT, THE COUNTY REQUIREMENTS SHALL PREVAIL.
15. ALL WORK PERFORMED BY THE CONTRACTOR SHALL CONFORM TO THE LATEST REGULATIONS OF THE AMERICANS WITH DISABILITIES ACT.
16. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.
17. BEFORE INSTALLATION OF STORM OR SANITARY SEWER, OR OTHER UTILITY THE CONTRACTOR SHALL VERIFY ALL CROSSINGS, BY EXCAVATION WHERE NECESSARY, AND INFORM THE OWNER AND THE ENGINEER OF ANY CONFLICTS. THE ENGINEER WILL BE HELD HARMLESS IN THE EVENT THEY ARE NOT NOTIFIED OF DESIGN CONFLICTS PRIOR TO CONSTRUCTION.
18. WHERE CURB IS PRESENT, DIMENSIONS ARE SHOWN TO THE FACE OF CURB, OTHERWISE DIMENSIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
19. SITE SIGNAGE AND STRIPING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).
20. CONSTRUCTION OF ALL ROADWAYS AND SIDEWALKS SHALL MEET THE REQUIREMENTS OF THE CITY OF MT. PLEASANT CONSTRUCTION CRITERIA AND STANDARD DETAILS.
21. CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH STATE DEPARTMENT OF TRANSPORTATION REGULATIONS AND AS REQUIRED BY LOCAL AGENCIES WHEN WORKING IN AND/OR ALONG STREETS, ROADS, HIGHWAYS, ETC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPROVAL AND COORDINATE WITH LOCAL AND/OR STATE AGENCIES REGARDING THE NEED, EXTENT AND LIMITATIONS ASSOCIATED WITH INSTALLING AND MAINTAINING TRAFFIC CONTROL MEASURES.
22. ALL TRENCHING, PIPE LAYING AND BACKFILLING SHALL BE IN ACCORDANCE WITH ALL FEDERAL OSHA REGULATIONS. CONTRACTOR TO PAY PARTICULAR ATTENTION TO 29 CFR PART 1926, SUBPARTS M AND P.
23. THE OWNER ACKNOWLEDGES THAT LANDSCAPING IN A DEDICATED EASEMENT DOES NOT WAIVE OR MODIFY CITY OF MT. PLEASANT RIGHTS AS THE EASEMENT HOLDER. THE OWNER UNDERSTANDS THAT CITY OF MT. PLEASANT, ITS AUTHORIZED CONTRACTOR OR APPLICABLE PRIVATE UTILITY MAY AT ANY TIME AND FOR ANY REASON PERFORM WORK WITHIN THE DEDICATED EASEMENT. THE CITY, ITS AUTHORIZED CONTRACTOR OR APPLICABLE PRIVATE UTILITY SHALL HAVE NO LIABILITY TO THE OWNER FOR ANY DAMAGE TO THE LANDSCAPING IN THE EASEMENTS WHEN SAID DAMAGE IS DUE TO WORK WITHIN THE EASEMENT. THE OWNER MAY BE HELD RESPONSIBLE FOR THE REMOVAL OF THE LANDSCAPING TO ENABLE WORK TO BE DONE. THE OWNER SHALL BE SOLELY RESPONSIBLE FOR ANY COSTS INCURRED IN REPAIRING AND/OR REPLACING THE REQUIRED LANDSCAPING.
24. PLANTS CLOSE TO SEWER OR WATER LINES MUST BE CONTAINED IN GEO-MEMBRANE TO BLOCK THE ROOTS FROM GROWING INTO THE LINES.
25. THERE WILL BE NO INCREASE IN THE Q50 RUNOFF FROM THE DEVELOPMENT ONTO TDOT ROW.
26. ALL DRIVEWAYS MEET AASHTO INTERSECTION SIGHT DISTANCE.

DEMOLITION NOTES

1. CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD BY THE CONTRACTOR.
2. NO TREES SHALL BE REMOVED, NOR VEGETATION DISTURBED BEYOND THE LIMITS OF CONSTRUCTION WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE.
3. TREE PROTECTION FENCING SHALL BE IN ACCORDANCE WITH CITY OF MT. PLEASANT STANDARDS AND DETAILED DRAWINGS. DO NOT OPERATE OR STORE EQUIPMENT, NOR HANDLE OR STORE MATERIALS WITHIN THE DRIP LINES OF THE TREES SHOWN TO REMAIN.
4. PROTECTION OF EXISTING TREES AND VEGETATION: PROTECT EXISTING TREES AND OTHER VEGETATION INDICATED TO REMAIN IN PLACE AGAINST UNNECESSARY CUTTING, BREAKING OR SKINNING OF ROOTS, SKINNING OR BRUISING OF BARK, SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION MATERIALS OR EXCAVATED MATERIALS WITHIN DRIP LINE, EXCESS FOOT OR VEHICULAR TRAFFIC, OR PARKING OF VEHICLES WITHIN DRIP LINE. PROVIDE TEMPORARY GUARDS TO PROTECT TREES AND VEGETATION TO BE LEFT STANDING.
5. ALL DEMOLITION WASTE AND CONSTRUCTION DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE DESIGNATED AND SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF OFFSITE IN A STATE APPROVED WASTE SITE AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR DAMAGE ACCORDING TO THE APPROPRIATE UTILITY COMPANY STANDARDS AND AT THE CONTRACTOR'S EXPENSE.
6. ALL UTILITY DISCONNECTION, REMOVAL, RELOCATION, CUTTING, CAPPING AND/OR ABANDONMENT SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY / AGENCY.
7. THE BURNING OF CLEARED MATERIAL AND DEBRIS SHALL NOT BE ALLOWED UNLESS CONTRACTOR OBTAINS PRIOR WRITTEN AUTHORIZATION FROM THE LOCAL AUTHORITIES.
8. EROSION & SEDIMENT CONTROL MEASURES AROUND AREAS OF DEMOLITION SHALL BE PROPERLY INSTALLED AND FUNCTION PROPERLY PRIOR TO INITIALIZATION OF DEMOLITION ACTIVITIES.
9. HAZARDOUS MATERIALS ARE NOT EXPECTED, IF FOUND ON SITE, SUCH MATERIALS SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIALS CONTRACTOR. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY IF HAZARDOUS MATERIALS ARE ENCOUNTERED.
10. CONTRACTOR SHALL ADHERE TO ALL LOCAL, STATE, FEDERAL AND OSHA REGULATIONS DURING ALL DEMOLITION ACTIVITIES.
11. CONTRACTOR SHALL PROTECT ALL CORNER PINS, MONUMENTS, PROPERTY CORNERS AND BENCHMARKS DURING DEMOLITION ACTIVITIES. IF DISTURBED, CONTRACTOR SHALL HAVE DISTURBED ITEMS RESET BY A LICENSED SURVEYOR AT NO ADDITIONAL COST TO THE OWNER OR ENGINEER.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, STRUCTURES, AND FEATURES TO REMAIN. ANY ITEMS TO REMAIN THAT HAVE BEEN DISTURBED OR DAMAGED AS A RESULT OF CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE.
13. ANY UTILITY AND STRUCTURE REMOVAL, RELOCATION, CUTTING, CAPPING AND/OR ABANDONMENT SHALL BE COORDINATED AND PROPERLY DOCUMENTED BY A CERTIFIED PROFESSIONAL, WHEN APPLICABLE, WITH THE APPROPRIATE UTILITY COMPANY, MUNICIPALITY AND/OR AGENCY. DEMOLITION OF REGULATED ITEMS MAY INCLUDE, BUT ARE NOT LIMITED TO WELLS, ASBESTOS, UNDER GROUND STORAGE TANKS, SEPTIC TANKS AND ELECTRIC TRANSFORMERS. DEMOLITION CONTRACTOR SHALL REFER TO ANY ENVIRONMENTAL STUDIES FOR DEMOLITION RECOMMENDATIONS AND GUIDANCE. AVAILABLE ENVIRONMENTAL STUDIES MAY INCLUDE, BUT ARE NOT LIMITED TO PHASE I ESA, PHASE II, WETLAND AND STREAM DELINEATION AND ASBESTOS SURVEY. ALL APPLICABLE ENVIRONMENTAL STUDIES SHALL BE MADE AVAILABLE UPON REQUEST.
14. ALL PAVEMENT, BASE COURSES, SIDEWALKS, CURBS, BUILDINGS, FOUNDATIONS, ETC., WITHIN THE AREA TO BE DEMOLISHED SHALL BE REMOVED TO FULL DEPTH. EXISTING BASE COURSE MATERIALS MAY BE WORKED INTO THE NEW PAVEMENT OR BUILDING SUBGRADE IF THE GRADATION, CONSISTENCY, COMPACTION, SUBGRADE CONDITION, ETC., ARE IN ACCORDANCE WITH THE SPECIFICATIONS AND RECOMMENDATIONS OF THE REPORT OF GEOTECHNICAL INVESTIGATION. BASE COURSE MATERIALS SHALL NOT BE WORKED INTO THE SUBGRADE AREAS TO RECEIVE LANDSCAPING.
15. THE CONTRACTOR SHALL USE SUITABLE METHODS TO CONTROL DUST AND DIRT CAUSED BY THE DEMOLITION ACTIVITIES.

LAYOUT NOTES

1. THE CONTRACTOR SHALL CHECK EXISTING GRADES, DIMENSIONS, AND INVERTS IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING WORK.
2. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. RELOCATE EXISTING UTILITIES AS INDICATED, OR AS NECESSARY FOR CONSTRUCTION.
3. PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING PAVEMENT AND NEW PAVEMENT. FIELD ADJUSTMENT OF FINAL GRADES MAY BE NECESSARY. INSTALL ALL UTILITIES, INCLUDING PRIOR TO INSTALLATION OF PAVED SURFACES.
4. THE CONTRACTOR SHALL PROTECT ALL TREES TO REMAIN IN ACCORDANCE WITH THE SPECIFICATIONS.
5. CONCRETE SIDEWALKS AND PADS SHALL HAVE A BROOM FINISH TO ALL SURFACES. SIDEWALK CONCRETE SHALL BE CLASS “A” (3,000 PSI @ 28 DAYS) UNLESS OTHERWISE NOTED.
6. ALL DAMAGE TO EXISTING PAVEMENT TO REMAIN, WHICH RESULTS FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED WITH LIKE MATERIALS AT THE CONTRACTOR'S EXPENSE.
7. SITE DIMENSIONS SHOWN ARE TO THE FACE OF CURB, OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
8. CONTRACTOR SHALL MAINTAIN ONE SET OF AS-BUILT/RECORD DRAWINGS ON-SITE DURING CONSTRUCTION FOR DISTRIBUTION TO THE OWNER AND/OR OWNER'S REPRESENTATIVE UPON COMPLETION.
9. THIS SITE LAYOUT IS SPECIFIC TO THE APPROVALS NECESSARY FOR THE CONSTRUCTION IN ACCORDANCE WITH CITY OF MT. PLEASANT. NO CHANGES TO THE SITE LAYOUT ARE ALLOWED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER. CHANGES MADE TO THE SITE LAYOUT WITHOUT APPROVAL IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. CHANGES INCLUDE BUT ARE NOT LIMITED TO, INCREASED IMPERVIOUS PAVEMENT, ADDITION / DELETION OF PARKING SPACES, MOVEMENT OF CURB LINES, CHANGES TO DRAINAGE STRUCTURES AND PATTERNS, LANDSCAPING, ETC.
10. ALL PAVEMENT MARKINGS SHALL BE INSTALLED USING WHITE, REFLECTIVE TRAFFIC MATERIALS (SEE PLANS) IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).

GRADING NOTES

1. THE CONTRACTOR SHALL CHECK ALL EXISTING AND FINISHED GRADES, DIMENSIONS, ETC. PRIOR TO BEGINNING WORK. NOTIFY THE OWNERS REPRESENTATIVE OF ANY DISCREPANCIES AND/OR ERRORS IN THE PLANS PRIOR TO COMMENCING WORK.
2. ALL PROPOSED GRADES SHOWN ARE FINAL GRADES, TOP OF GROUND LEVEL, OR TOP OF PAVEMENT, OR GRATE ELEVATION AT THE DRAWDOWN POINT, UNLESS INDICATED OTHERWISE.
3. ALL ELEVATIONS SHOWN ARE FINISHED GRADE ELEVATIONS.
4. CONTRACTOR SHALL STRICTLY ADHERE TO THE EROSION & SEDIMENT CONTROL PLAN PREPARED FOR THIS PROJECT.
5. EARTHWORK SHALL INCLUDE CLEARING AND GRUBBING, STRIPPING AND STOCKPILING TOPSOIL, MASS GRADING, EXCAVATION, FILLING, UNDER CUT AND REPLACEMENT, IF REQUIRED, AND COMPACTION.
6. CONTRACTOR TO REFILL UNDERCUT AREAS (IF REQUIRED) WITH SUITABLE MATERIAL AND COMPACT AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
7. EXCAVATED SUBGRADES AND EACH LAYER OF FILL SHALL BE OF A QUALITY ACCEPTABLE TO THE OWNERS REPRESENTATIVE AND SHALL NOT INCLUDE ORGANIC MATERIAL, BOULDERS, DEBRIS, WET MATERIAL, ETC. CUT OR STRIPPED AREAS SHALL BE PROOF ROLLED PRIOR TO ANY FILLING. ALL GRADING ACTIVITY AND PLACEMENT OF MATERIAL SHALL BE MONITORED BY A QUALIFIED GEOTECHNICAL ENGINEER (OR THEIR REPRESENTATIVE), OR AS DIRECTED BY THE OWNERS REPRESENTATIVE. MATERIAL SHALL MEET OR EXCEED COMPACTION REQUIREMENTS SPECIFIED IN THE SPECIFICATIONS PUBLISHED BY CITY OF MT. PLEASANT.
8. PLACE TOPSOIL OVER THE SUBGRADE OF UNPAVED, DISTURBED AREAS TO A DEPTH A MINIMUM DEPTH OF 6”.
9. ALL AREAS NOT PAVED SHALL BE STABILIZED IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN, UNLESS NOTED OTHERWISE.
10. ALL EXCESS SOIL MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE DESIGNATED SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF OFFSITE AT NO ADDITIONAL COST TO THE OWNER IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE SITE EARTHWORK BY IMPORTING OR EXPORTING AS NECESSARY TO ACHIEVE DESIGN GRADES AND SPECIFICATIONS.
12. THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO ADJACENT PROPERTIES DURING CONSTRUCTION. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO ADJACENT PROPERTIES OCCURRING DURING CONSTRUCTION OF THIS PROJECT. NO WORK SHALL BE PERFORMED OUTSIDE THE PROJECT BOUNDARY WITHOUT PROPER AGREEMENTS WITH THE AFFECTED PROPERTY OWNERS.
13. THE LOCATION AND/OR ELEVATION OF THE EXISTING UTILITIES SHOWN HEREON ARE BASED ON UTILITY COMPANY RECORDS, AND WHERE POSSIBLE, FIELD MEASUREMENTS. THE CONTRACTOR SHALL NOT RELY UPON THIS INFORMATION AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 3 DAYS BUT NOT MORE THAN 10 DAYS PRIOR TO ANY EXCAVATION AND REQUEST FIELD VERIFICATION OF UTILITY LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES TO REMAIN. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY DAMAGED UTILITIES ACCORDING TO LOCAL CODES AT THE CONTRACTORS EXPENSE.
14. THE CONTRACTOR SHALL CHECK ALL EXISTING AND FINISHED GRADES, DIMENSIONS, ETC. PRIOR TO BEGINNING WORK. NOTIFY THE OWNERS REPRESENTATIVE OF ANY DISCREPANCIES AND/OR ERRORS IN THE PLANS PRIOR TO COMMENCING WORK.
15. THE GENERAL CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR JOB SITE CONDITIONS, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY DURING CONSTRUCTION. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND IS NOT LIMITED TO NORMAL WORKING HOURS.
16. TOPSOIL AND OTHER MATERIALS NOT SUITABLE FOR FILL OR REUSE SHALL BE DISPOSED OF OFFSITE IN ACCORDANCE WITH THE REQUIREMENTS OF CITY OF MT. PLEASANT AND AS DIRECTED BY THE OWNER OR THEIR REPRESENTATIVE.
17. THE CONTRACTOR SHALL COMPLY WITH ALL PERTINENT O.S.H.A. PROVISIONS AND THE MANUAL OF ACCIDENT PREVENTION AND CONSTRUCTION, ISSUED BY THE AGC OF AMERICA, INCORPORATED, AND THE SAFETY AND HEALTH REGULATIONS OF CONSTRUCTION ISSUED BY THE U.S. DEPARTMENT OF LABOR.
18. THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE THROUGH THE SITE DURING ALL PHASES OF CONSTRUCTION.

STORM DRAINAGE NOTES

1. DISTANCES SHOWN ON PIPING ARE HORIZONTAL DISTANCES FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE, UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE INSTALLATION, INSPECTION, TESTING AND FINAL ACCEPTANCE OF ALL NEW STORMWATER MANAGEMENT FACILITIES CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH ALL APPLICABLE REGULATING AGENCIES CONCERNING INSTALLATION, INSPECTION AND APPROVAL OF THE STORM DRAINAGE SYSTEM CONSTRUCTION.
3. ALL STORMWATER MANAGEMENT FACILITIES, INCLUDING COLLECTION AND CONVEYANCE STRUCTURES SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS.
4. THE CONTRACTOR IS TO CONSTRUCT CURBS, CATCH BASINS, PIPING, ETC. AS REQUIRED TO CONVEY THE LANDSCAPED & PAVED SURFACE DRAINAGE THROUGH THE SITE.
5. ALL STORM STRUCTURES ARE TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT) TYPES UNLESS OTHERWISE INDICATED.
6. STORM SEWER PIPE LABELED "HDPE" SHALL BE ADS N-12 OR APPROVED EQUAL. STORM SEWER PIPE LABELED "RCP" SHALL BE REINFORCED CONCRETE PIPE. ALL STORM IS TO BE INSTALLED PER CITY OF MT. PLEASANT PUBLIC WORKS REQUIREMENTS AND SPECIFICATIONS.
7. STORM SEWER IS TO BE BEDDED WITH CLEAN GRANULAR MATERIAL-AGGREGATES CONSIST OF AASHTO #57 STONE. BEDDING TO BE MINIMUM OF 6" BELOW & 12" ABOVE THE PIPE OR AS REQUIRED BY CITY OF MT. PLEASANT INSPECTOR.
8. ALL TRENCH SPOILS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE DESIGNATED AND SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF OFFSITE AT NO ADDITIONAL COST TO THE OWNER IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.

EROSION AND SEDIMENT CONTROL NOTES

1. PRIOR TO INSTALLATION OF EROSION CONTROL MEASURES OR INITIATION OF EARTH DISTURBING ACTIVITIES, THE CONTRACTOR SHALL CLEARLY DELINEATE THE PROPOSED LIMITS OF DISTURBANCE IN THE FIELD UTILIZING FLAGGING, STAKES, AND/OR CONSTRUCTION FENCE. NO DISTURBANCE BEYOND THESE LIMITS SHALL BE PERMITTED WITHOUT FIRST OBTAINING WRITTEN PERMISSION FROM THE ENGINEER, THE AFFECTED PROPERTY OWNER AND ANY APPLICABLE REGULATORY AGENCIES.
2. INSPECTIONS SHALL BE DONE TWICE WEEKLY.
3. THE CONSTRUCTION ACTIVITIES ANTICIPATED FOR THIS PROJECT INCLUDES GRADING, PAVING, AND UTILITY INSTALLATION.
4. THE APPROXIMATE TOTAL DISTURBED AREA OF THIS SITE IS ±5.34 ACRES. ANY INCREASE IN THE APPROXIMATE TOTAL DISTURBED AREA SHALL BE APPROVED BY TDEC PRIOR TO ADDITIONAL DISTURBANCE.
5. CONSTRUCTION SHALL BE SEQUENCED BY THE CONTRACTOR AS TO MINIMIZE EXPOSURE TIME OF CLEARED SURFACE AREAS. PERIMETER EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE AND FUNCTIONAL PRIOR TO EARTH MOVING OPERATIONS.
6. THE CONTRACTOR SHALL DESIGNATE IN WRITING THE NAME AND PHONE NUMBER OF THE PERSON(S) RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS AT THE SITE. THIS INFORMATION SHALL BE POSTED AT THE JOB SITE TRAILER, OR AT THE SITE CONSTRUCTION SIGN.
7. PRE-CONSTRUCTION VEGETATIVE GROUNDCOVER SHALL NOT BE REMOVED MORE THAN 14 DAYS PRIOR TO COMMENCEMENT OF GRADING ACTIVITIES. ALL GRADED AREAS EXPECTED TO REMAIN UNFINISHED FOR MORE THAN 14 DAYS SHALL BE COVERED WITH TEMPORARY GRASS, SOD, STRAW, MULCH, OR FABRIC MATTING. STEEP SLOPES (GREATER THAN 35%) SHALL BE TEMPORARILY STABILIZED NOT LATER THAN 7 DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED. PERMANENT SOIL STABILIZATION SHALL BE INSTALLED WITHIN 14 DAYS OF THE ESTABLISHMENT OF FINAL GRADES.
8. THE CONTRACTOR SHALL MAINTAIN RECORDS OF EROSION AND SEDIMENT CONTROL FOR A PERIOD OF THREE YEARS AFTER COMPLETION OF CONSTRUCTION OR AS REQUIRED BY GOVERNING AUTHORITIES.
9. TEMPORARY SEEDING FOR THIS PROJECT SHALL UTILIZE TDOT, TDEC OR LOCAL STANDARDS UNLESS OTHERWISE INDICATED HEREON.
10. MULCHING SHALL CONSIST OF LOOSE HAY OR STRAW APPLIED AT A RATE OF 2 TONS PER ACRE. MULCH MUST BE CRIMPED INTO THE SOIL BY MECHANICAL MEANS. BROADCAST SPREADING OF MULCH IS NOT ACCEPTABLE.
11. SOIL STOCKPILES SHALL BE STABILIZED AND PROTECTED FROM EROSION. ALL STOCKPILES SHALL BE COVERED WITH TEMPORARY SEEDING AND PROTECTED WITH SILT FENCING.
12. FOR PERMANENT STABILIZATION OF ALL SLOPES 3:1 OR STEEPER, INSTALL TEMPORARY EROSION CONTROL BLANKET (TENSAR NORTH AMERICAN GREEN S150 OR APPROVED EQUAL) INSTALLED PER MANUFACTURERS' RECOMMENDATIONS SHALL BE USED IN PLACE OF STRAW MULCH.
13. THE LOCATION OF SOME OF THE EROSION CONTROL MEASURES MAY NEED TO BE ALTERED DUE TO CHANGING SITE CONDITIONS COMMENSURATE WITH PROGRESS OF THE WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION AND SEDIMENT CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES OF CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
14. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL A PERMANENT GROUND COVER IS ESTABLISHED. SEEDED AREAS MUST HAVE A MINIMUM 70% COVERAGE PRIOR TO REMOVAL OF THE TEMPORARY EROSION CONTROL DEVICES. FINAL SEEDING AND ESTABLISHMENT OF GROUNDCOVER SHALL BE APPLIED TO ANY AREA DISTURBED AS A RESULT OF THE REMOVAL OF THE EROSION CONTROL MEASURES.
15. CONTRACTOR SHALL PREPARE, IMPLEMENT, AND MAINTAIN A SPILL PREVENTION, CONTROL AND COUNTERMEASURES (SPCC) PLAN, AS A SEPARATE DOCUMENT OR AS A COMPONENT OF THE SWPPP, FOR ALL TANKS/CONTAINERS STORING ONSITE FUEL, CHEMICALS, OR OTHER POLLUTANTS CONSISTENT WITH THE REQUIREMENTS OF STATE NPDES RULES. EFFECTIVE MEASURES NECESSARY TO PREVENT SPILLS AND TO CLEAN UP SPILLS OF ANY TOXIC POLLUTANT, AS DOCUMENTED IN THE FACILITY'S SPCC PLAN, SHALL BE FULLY IMPLEMENTED. SOIL CONTAMINATED BY HAZARDOUS SUBSTANCES, PAINTS, FUEL, OR CHEMICAL SPILLS, SHALL BE IMMEDIATELY CLEANED UP, MANAGED, AND DISPOSED OF IN AN APPROVED MANNER. WHERE POTENTIAL SPILLS CAN OCCUR, MATERIALS HANDLING PROCEDURES SHALL BE SPECIFIED AND PROCEDURES FOR IMMEDIATE CLEANUP/REMEDIATION OF SPILLS SHALL BE DESCRIBED IN THE SPCC PLAN OR EMPLOYEE TRAINING PLANS. THE EQUIPMENT NECESSARY TO IMPLEMENT A CLEANUP SHALL BE MADE AVAILABLE TO FACILITY PERSONNEL. THE OPERATOR SHALL IMMEDIATELY NOTIFY THE DESIGNATED STATE AND LOCAL GOVERNMENT AGENCIES AFTER BECOMING AWARE OF A VISIBLE OIL SHEEN IN STORMWATER RUNOFF FROM ITS FACILITY OR IN A WATER OF THE STATE IN THE PROJECT VICINITY AS A RESULT OF ACTIVITIES AT THE SITE. THE CALLER SHOULD BE PREPARED TO REPORT THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE PERSON REPORTING SPILL, THE EXACT LOCATION OF THE SPILL, COMPANY NAME AND LOCATION, THE MATERIAL SPILLED, THE ESTIMATED QUANTITY, THE SOURCE OF THE SPILL, THE CAUSE OF THE SPILL, THE NEAREST DOWNSTREAM WATER WITH THE POTENTIAL TO RECEIVE THE SPILL, AND THE ACTIONS BEING TAKEN FOR CONTAINMENT AND CLEANUP.
16. ALL EROSION AND SEDIMENT CONTROL DEVICES TO BE SELECTED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH TDEC SEDIMENT AND EROSION CONTROL HANDBOOK, LATEST EDITION.
17. IDENTIFY LIMITS OF DISTURBANCE IN THE FIELD, CLEARLY MARK AREAS TO REMAIN UNDISTURBED, INSTALL CAUTION FENCE IF NECESSARY.
18. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM BEHIND EPSC MEASURES WHEN SEDIMENT HAS ACCUMULATED TO 50% OF THE MEASURE'S STORAGE CAPACITY.
19. THE CONTRACTOR SHALL INSTALL A TEMPORARY CONSTRUCTION EXIT AT ALL POINTS OF EGRESS.

BRIDGEPOINT, LLC
2095A COOKS RD.
MOUNT JULIET, TENNESSEE
(615)-453-5000
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No.	Revision/Issue	Date
1	CITY, OWNER & TDEC COMMENTS	2024-07-25

SITE PLANS
FOR
UNITED FARM AND HOME CO-OP
FEED BUILDING
1385 NORTH MAIN STREET
MOUNT PLEASANT, TENNESSEE
MAURY COUNTY, TENNESSEE

JESS MILES DILLARD
No. 119269
07-25-2024

GENERAL NOTES

DATE:	7/25/2024	DRAWN BY:	BRS
DRAWING SCALE:	AS SHOWN	CHECKED BY:	JMD
PROJECT NO.:	24-040	APPROVED BY:	JMD

SHEET NUMBER:
C0.1

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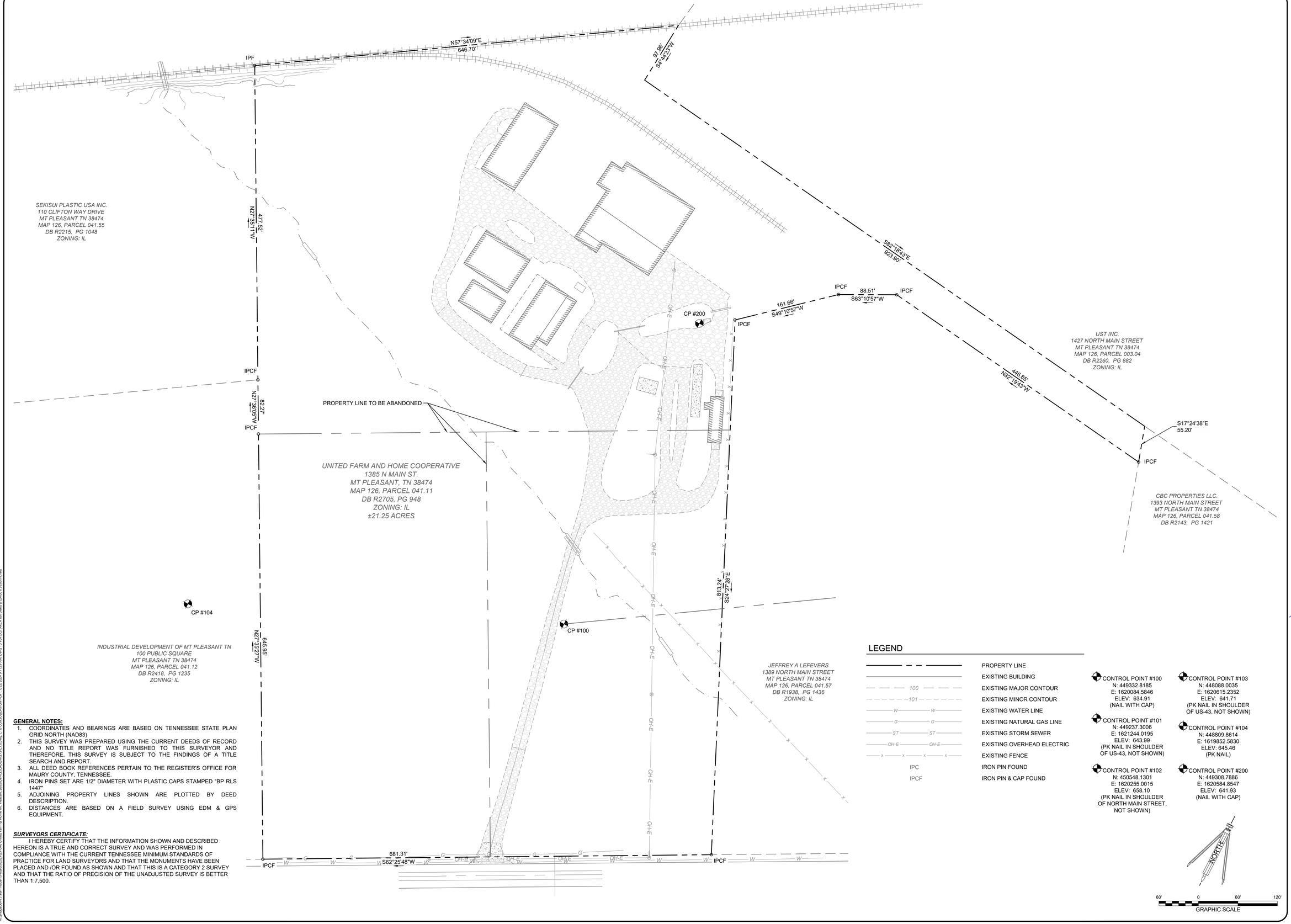

GENERAL NOTES:

1. COORDINATES AND BEARINGS ARE BASED ON TENNESSEE STATE PLAN GRID NORTH (NAD83)
2. THIS SURVEY WAS PREPARED USING THE CURRENT DEEDS OF RECORD AND NO TITLE REPORT WAS FURNISHED TO THIS SURVEYOR AND THEREFORE, THIS SURVEY IS SUBJECT TO THE FINDINGS OF A TITLE SEARCH AND REPORT.
3. ALL DEED BOOK REFERENCES PERTAIN TO THE REGISTER'S OFFICE FOR MAURY COUNTY, TENNESSEE.
4. IRON PINS SET ARE 1/2" DIAMETER WITH PLASTIC CAPS STAMPED "BP RLS 1447"
5. ADJOINING PROPERTY LINES SHOWN ARE PLOTTED BY DEED DESCRIPTION.
6. DISTANCES ARE BASED ON A FIELD SURVEY USING EDM & GPS EQUIPMENT.

SURVEYORS CERTIFICATE:

I HEREBY CERTIFY THAT THE INFORMATION SHOWN AND DESCRIBED HEREON IS A TRUE AND CORRECT SURVEY AND WAS PERFORMED IN COMPLIANCE WITH THE CURRENT TENNESSEE MINIMUM STANDARDS OF PRACTICE FOR LAND SURVEYORS AND THAT THE MONUMENTS HAVE BEEN PLACED AND /OR FOUND AS SHOWN AND THAT THIS IS A CATEGORY 2 SURVEY AND THAT THE RATIO OF PRECISION OF THE UNADJUSTED SURVEY IS BETTER THAN 1:7,500.

LEGEND

	PROPERTY LINE
	EXISTING BUILDING
100	EXISTING MAJOR CONTOUR
101	EXISTING MINOR CONTOUR
W	EXISTING WATER LINE
G	EXISTING NATURAL GAS LINE
ST	EXISTING STORM SEWER
OH-E	EXISTING OVERHEAD ELECTRIC
x	EXISTING FENCE
IPC	IRON PIN FOUND
IPCF	IRON PIN & CAP FOUND

CONTROL POINT #100
N: 449332.8185
E: 1620084.5846
ELEV: 634.91
(NAIL WITH CAP)

CONTROL POINT #101
N: 449237.3006
E: 1621244.0195
ELEV: 643.99
(PK NAIL IN SHOULDER OF US-43, NOT SHOWN)

CONTROL POINT #102
N: 450548.1301
E: 1620255.0015
ELEV: 658.10
(PK NAIL IN SHOULDER OF NORTH MAIN STREET, NOT SHOWN)

CONTROL POINT #103
N: 448088.0035
E: 1620615.2352
ELEV: 641.71
(PK NAIL IN SHOULDER OF US-43, NOT SHOWN)

CONTROL POINT #104
N: 448809.8614
E: 1619852.5830
ELEV: 645.46
(PK NAIL)

CONTROL POINT #200
N: 449308.7886
E: 1620584.8547
ELEV: 641.93
(NAIL WITH CAP)

NORTH

60' 0 60' 120'
GRAPHIC SCALE

BRIDGEPOINT, LLC
2095A COOKS RD.
MOUNT JULIET, TENNESSEE
(615)-453-5000
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No.	Revision/Issue	Date

SITE PLANS FOR
UNITED FARM AND HOME CO-OP FEED BUILDING
1385 NORTH MAIN STREET
MOUNT PLEASANT, TENNESSEE
MAURY COUNTY, TENNESSEE

GREGORY W. MAXWELL
LICENSED PROFESSIONAL LAND SURVEYOR
AGRICULTURE
COMMERCE
TENNESSEE No. 1447
07-03-2024

CONSOLIDATION PLAT

DATE:	7/25/2024	DRAWN BY:	BRS
DRAWING SCALE:	AS SHOWN	CHECKED BY:	JMD
PROJECT NO.:	24-040	APPROVED BY:	JMD

SHEET NUMBER:
C1.0

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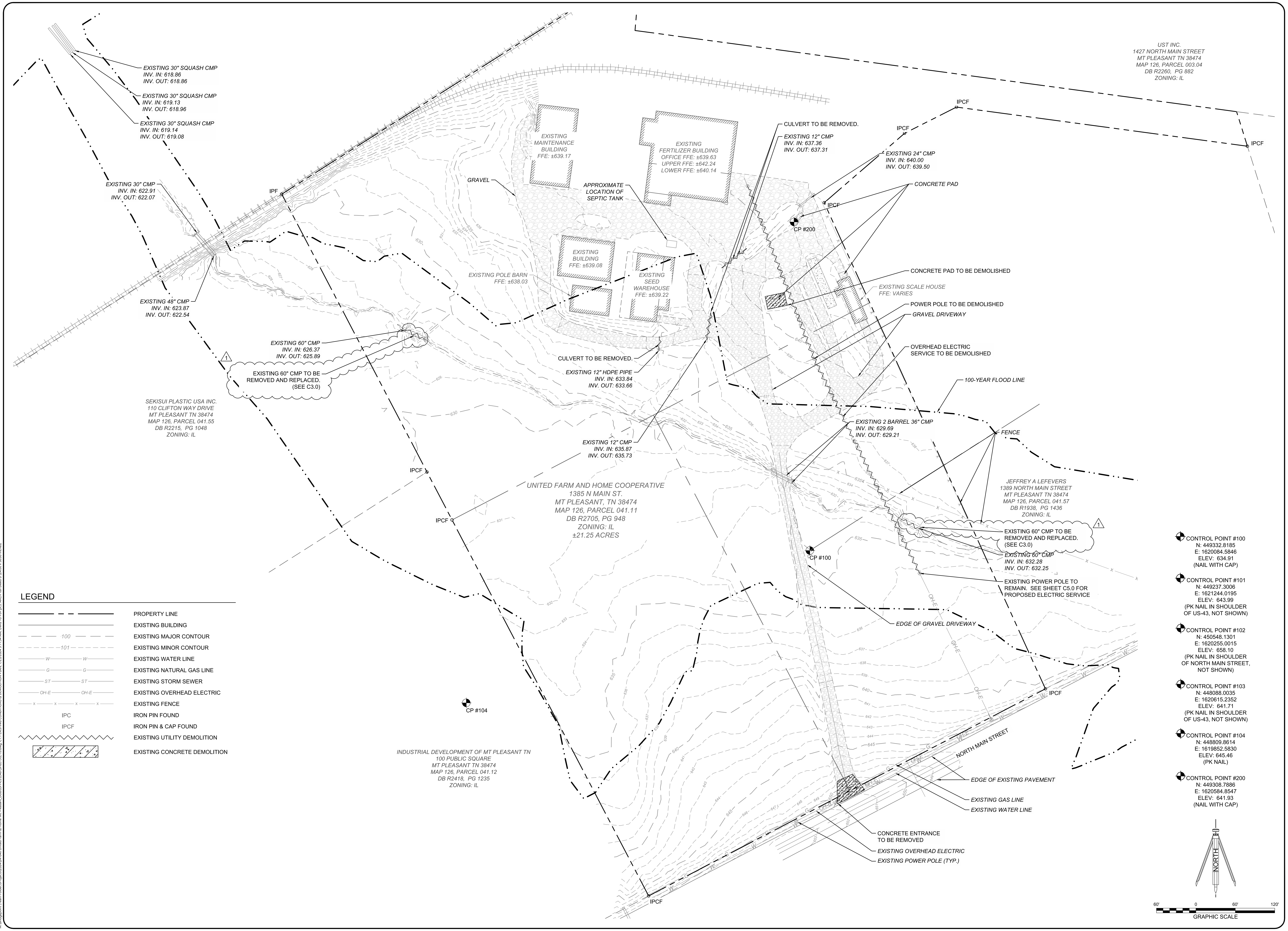

LEGEND

	PROPERTY LINE
	EXISTING BUILDING
100	EXISTING MAJOR CONTOUR
101	EXISTING MINOR CONTOUR
W	EXISTING WATER LINE
G	EXISTING NATURAL GAS LINE
ST	EXISTING STORM SEWER
OH-E	EXISTING OVERHEAD ELECTRIC
x	EXISTING FENCE
IPC	IRON PIN FOUND
IPCF	IRON PIN & CAP FOUND
	EXISTING UTILITY DEMOLITION
	EXISTING CONCRETE DEMOLITION

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(NAIL WITH CAP)

Section 7, Item A.

BRIDGEPOINT, LLC
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No.	Revision/Issue	Date
1	CITY, OWNER & TDEC COMMENTS	2024-07-25

SITE PLANS FOR

UNITED FARM AND HOME CO-OP FEED BUILDING

1385 NORTH MAIN STREET
MOUNT PLEASANT, TENNESSEE
MAURY COUNTY, TENNESSEE

JESS MILES DILLARD, REGISTERED ENGINEER, STATE OF TENNESSEE, No. 119269 — 07-25-2024

EXISTING CONDITIONS & DEMOLITION PLAN

DATE:	7/25/2024	DRAWN BY:	BRS
DRAWING SCALE:	AS SHOWN	CHECKED BY:	JMD
PROJECT NO.:	24-040	APPROVED BY:	JMD

SHEET NUMBER:
C1.1

BRIDGEPOINT, LLC
2095A COOKS RD.
MOUNT JULIET, TENNESSEE
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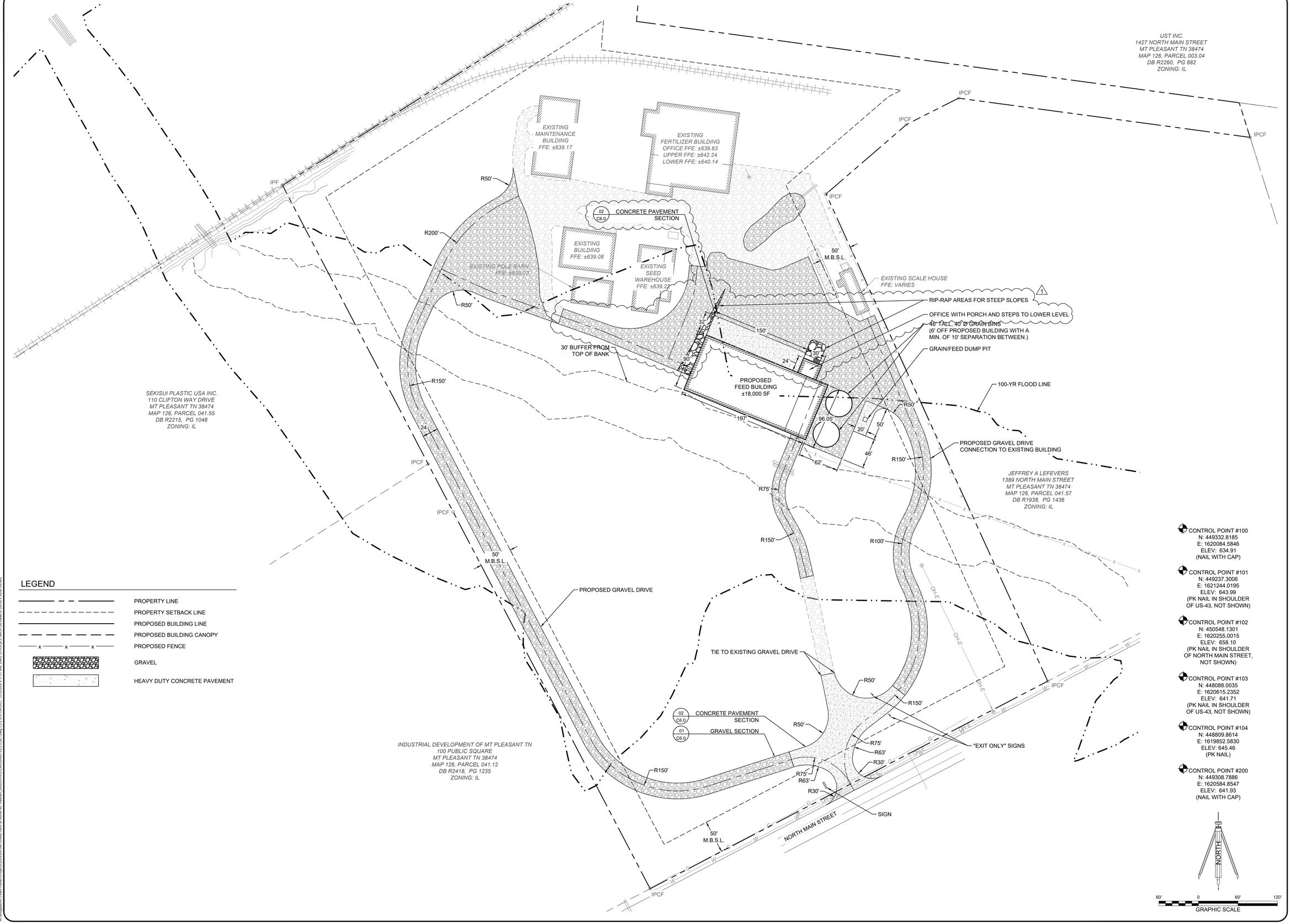
No.	Revision/Issue	Date
1	CITY, OWNER & TDEC COMMENTS	2024-07-25

UNITED FARM AND HOME CO-OP FEED BUILDING

SITE PLANS FOR

1385 NORTH MAIN STREET
MOUNT PLEASANT, TENNESSEE
MAURY COUNTY, TENNESSEE



LEGEND

- PROPERTY LINE
- PROPERTY SETBACK LINE
- PROPOSED BUILDING LINE
- PROPOSED BUILDING CANOPY
- PROPOSED FENCE
- GRAVEL
- HEAVY DUTY CONCRETE PAVEMENT

CONTROL POINT #100
N: 449332.8185
E: 1620084.5846
ELEV: 634.91
(NAIL WITH CAP)

CONTROL POINT #101
N: 449237.3006
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(PK NAIL)

CONTROL POINT #200
N: 449308.7886
E: 1620584.8547
ELEV: 641.93
(NAIL WITH CAP)

60' 0 60' 120'
GRAPHIC SCALE

SITE LAYOUT

DRAWN BY:	BRS
CHECKED BY:	JMD
APPROVED BY:	JMD
DATE:	7/25/2024
DRAWING SCALE:	AS SHOWN
PROJECT NO:	24-040

SHEET NUMBER:
C2.0

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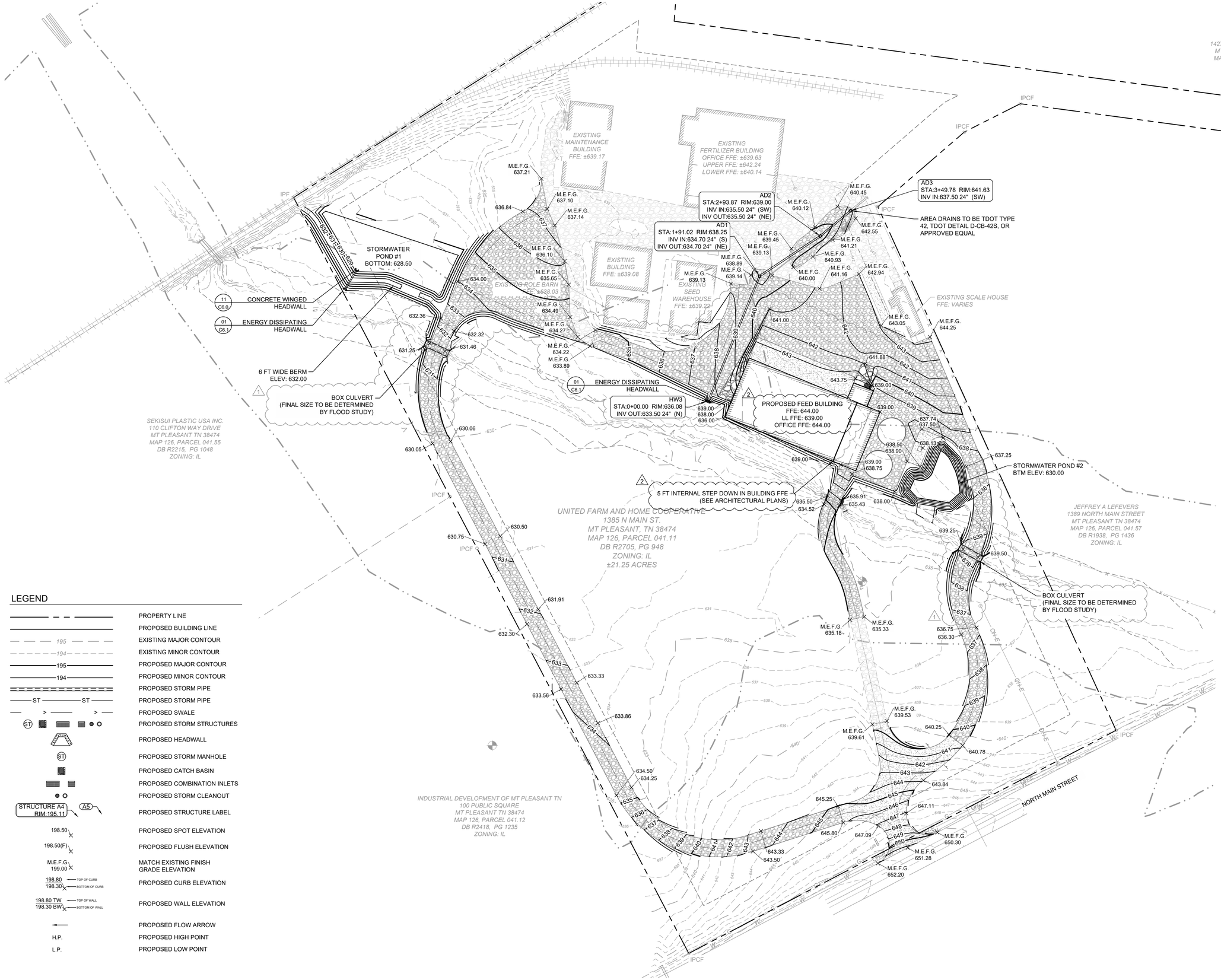
No.	Revision/Issue	Date
1	CITY, OWNER & TDEC COMMENTS	2024-07-25
2	MAIN FLOOR & OFFICE FFE	XX.XX.XX

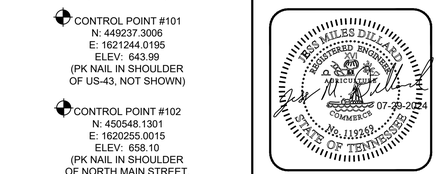
UNITED FARM AND HOME CO-OP FEED BUILDING

SITE PLANS
FOR
1385 NORTH MAIN STREET
MOUNT PLEASANT, TENNESSEE
MAURY COUNTY, TENNESSEE



LEGEND

- PROPERTY LINE
- PROPOSED BUILDING LINE
- EXISTING MAJOR CONTOUR (195)
- EXISTING MINOR CONTOUR (194)
- PROPOSED MAJOR CONTOUR (195)
- PROPOSED MINOR CONTOUR (194)
- PROPOSED STORM PIPE
- PROPOSED STORM PIPE (ST)
- PROPOSED SWALE
- PROPOSED STORM STRUCTURES
- PROPOSED HEADWALL
- PROPOSED STORM MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED COMBINATION INLETS
- PROPOSED STORM CLEANOUT
- PROPOSED STRUCTURE LABEL (STRUCTURE A4, RIM:195.11, A5)
- PROPOSED SPOT ELEVATION (198.50)
- PROPOSED FLUSH ELEVATION (198.50(F))
- MATCH EXISTING FINISH GRADE ELEVATION (M.E.F.G. 199.00)
- PROPOSED CURB ELEVATION (198.80 TOP OF CURB / 198.30 BOTTOM OF CURB)
- PROPOSED WALL ELEVATION (198.80 TW TOP OF WALL / 198.30 BW BOTTOM OF WALL)
- PROPOSED FLOW ARROW
- H.P. PROPOSED HIGH POINT
- L.P. PROPOSED LOW POINT



GRADING & DRAINAGE PLAN

DRAWN BY:	BRS
CHECKED BY:	JMD
APPROVED BY:	JMD
DATE:	7/29/2024
DRAWING SCALE:	AS SHOWN
PROJECT NO.:	24-040

SHEET NUMBER:
C3.0

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LEGEND

- PROPERTY LINE
- PROPOSED BUILDING LINE
- EXISTING MAJOR CONTOUR (195)
- EXISTING MINOR CONTOUR (194)
- EXISTING STORM SEWER (ST)
- LIMITS OF DISTURBANCE
- SILT FENCE (SF)
- SILT FENCE WITH WIRE BACKING (SFB)
- FILTER SOCK (FS)
- CULVERT PROTECTION TYPE 1

EXISTING MAINTENANCE BUILDING
FFE: ±639.17

EXISTING FERTILIZER BUILDING
OFFICE FFE: ±639.63
UPPER FFE: ±642.24
LOWER FFE: ±640.14

EXISTING BUILDING
FFE: ±639.08

EXISTING POLE BARN
FFE: ±638.03

EXISTING SEED WAREHOUSE
FFE: ±639.22

EXISTING SCALE HOUSE
FFE: VARIES

CULVERT PROTECTION TYPE 1 (01 C4.4)

LIMIT OF DISTURBANCE (1)
AREA: ±5.34 ACRES

02 C4.3 SILT FENCE WITH WIRE BACKING

04 C4.3 FILTER SOCK (18 INCH MIN.)

01 C4.3 SILT FENCE

SILT FENCE OR SILT FENCE WITH WIRE BACKING TO BE UTILIZED WITHIN 30 FEET OF EXISTING CULVERTS

EXISTING ENTRANCE TO BE UTILIZED AS CONSTRUCTION EXIT

CONTROL POINT #100
N: 449332.8185
E: 1620084.5846
ELEV: 634.91
(NAIL WITH CAP)

CONTROL POINT #101
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CONTROL POINT #200
N: 449308.7886
E: 1620584.8547
ELEV: 641.93
(NAIL WITH CAP)

NORTH

60' 0 60' 120'
GRAPHIC SCALE

EPSC AT CULVERT DETAIL
SCALE: 1"=10'

PROVIDE PUMP AROUND STREAM DIVERSION WHEN FLOW IS PRESENT IN STREAM.

STACKED FILTER SOCKS

END FILTER SOCK AND BEGIN SILT FENCE WITH BACKING A MINIMUM OF 25 FEET BEFORE CULVERT

BRIDGEPOINT, LLC
2095A COOKS RD.
MOUNT JULIET, TENNESSEE
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No.	Revision/Issue	Date
1	CITY, OWNER & TDEC COMMENTS	2024-07-25

JESS MILES DILLARD
REGISTERED ENGINEER
PROFESSIONAL
07-25-2024
No. 119243
STATE OF TENNESSEE
DEPARTMENT OF COMMERCE

UNITED FARM AND HOME CO-OP FEED BUILDING

SITE PLANS FOR
1385 NORTH MAIN STREET
MOUNT PLEASANT, TENNESSEE
MAURY COUNTY, TENNESSEE

INITIAL EPSC PLAN

	DRAWN BY:	BRS
7/25/2024	CHECKED BY:	JMD
AS SHOWN	APPROVED BY:	JMD
24-040		

DATE:
DRAWING SCALE:
PROJECT NO.:

SHEET NUMBER:
C4.0

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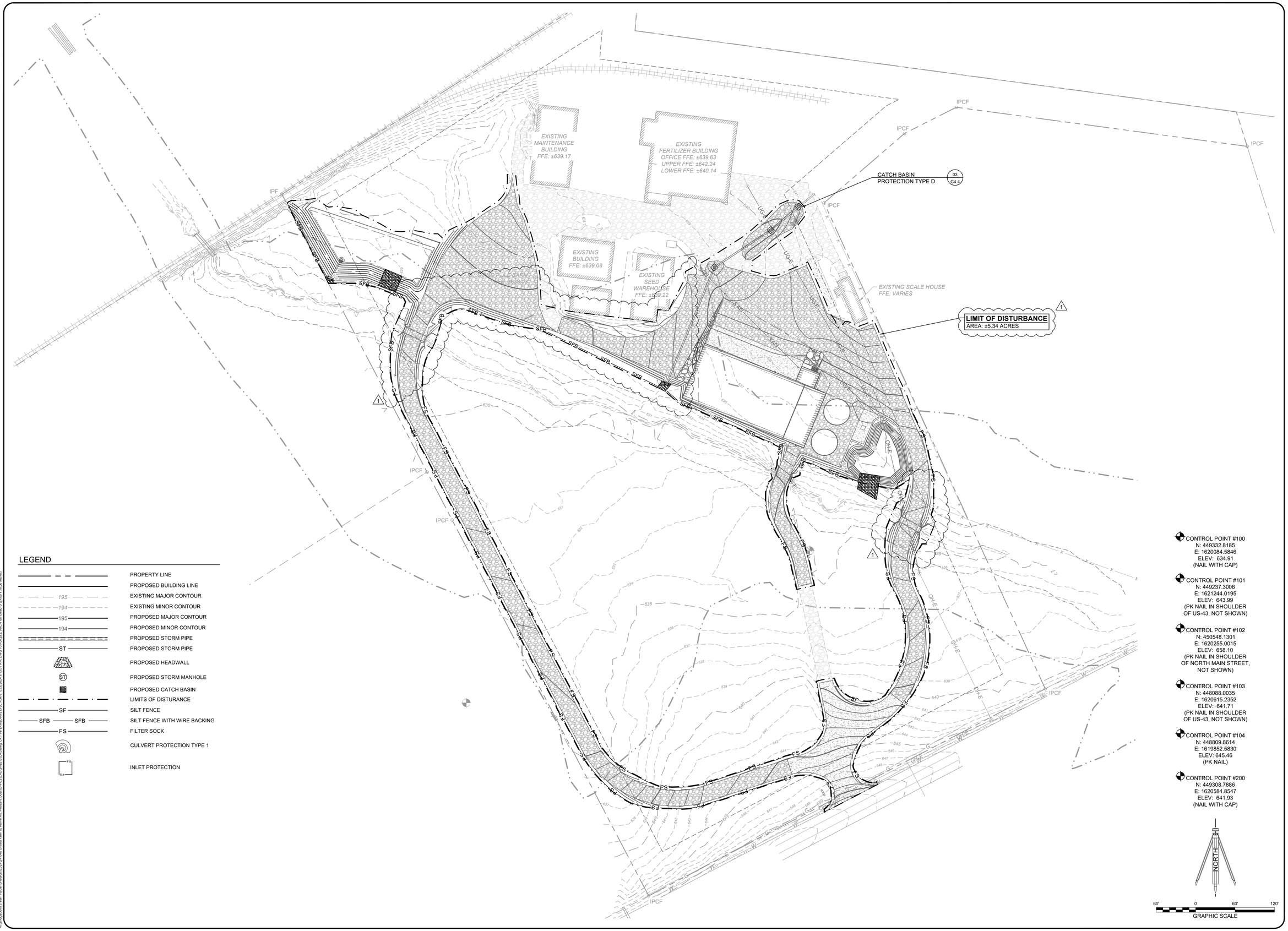

LEGEND

- PROPERTY LINE
- PROPOSED BUILDING LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED STORM PIPE
- PROPOSED STORM PIPE
- PROPOSED HEADWALL
- PROPOSED STORM MANHOLE
- PROPOSED CATCH BASIN
- LIMITS OF DISTURANCE
- SILT FENCE
- SILT FENCE WITH WIRE BACKING
- FILTER SOCK
- CULVERT PROTECTION TYPE 1
- INLET PROTECTION

BRIDGEPOINT, LLC
2095A COOKS RD.
MOUNT JULIET, TENNESSEE
(615)-453-5000
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No.	Revision/Issue	Date
1	CITY, OWNER & TDEC COMMENTS	2024-07-25

UNITED FARM AND HOME CO-OP FEED BUILDING

SITE PLANS FOR

1385 NORTH MAIN STREET
MOUNT PLEASANT, TENNESSEE
MAURY COUNTY, TENNESSEE

JESS MILES DILLARD
REGISTERED ENGINEER
PROFESSIONAL
No. 119269
07-25-2024
STATE OF TENNESSEE

INTERMEDIATE EPSC PLAN

DRAWN BY:	BRS	
CHECKED BY:	JMD	
APPROVED BY:	JMD	
DATE:	7/25/2024	
DRAWING SCALE:	AS SHOWN	
PROJECT NO.:	24-040	

SHEET NUMBER:

C4.1

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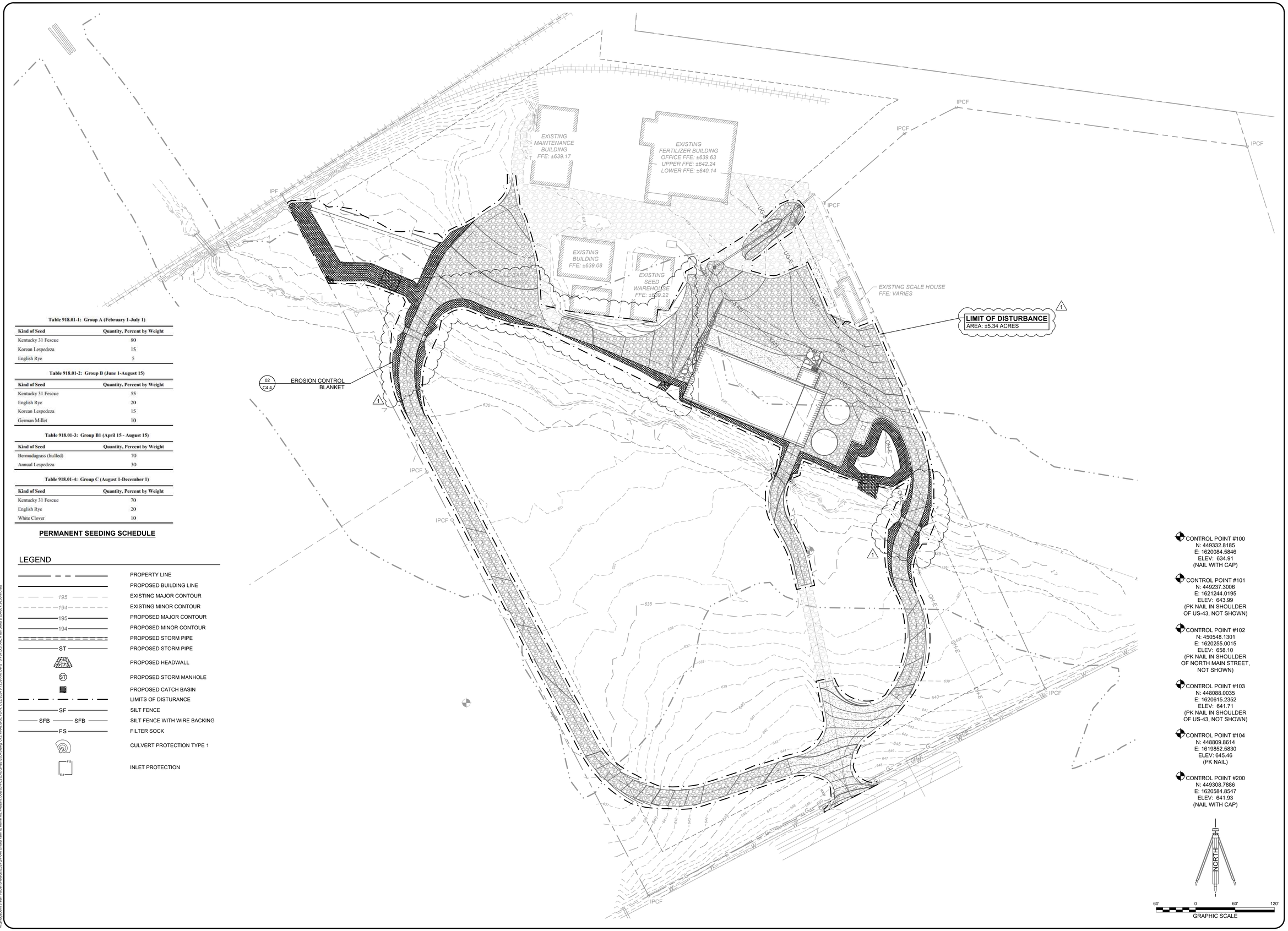

Table 918.01-1: Group A (February 1-July 1)

Kind of Seed	Quantity, Percent by Weight
Kentucky 31 Fescue	80
Korean Lespedeza	15
English Rye	5

Table 918.01-2: Group B (June 1-August 15)

Kind of Seed	Quantity, Percent by Weight
Kentucky 31 Fescue	55
English Rye	20
Korean Lespedeza	15
German Millet	10

Table 918.01-3: Group B1 (April 15 - August 15)

Kind of Seed	Quantity, Percent by Weight
Bermudagrass (hulled)	70
Annual Lespedeza	30

Table 918.01-4: Group C (August 1-December 1)

Kind of Seed	Quantity, Percent by Weight
Kentucky 31 Fescue	70
English Rye	20
White Clover	10

PERMANENT SEEDING SCHEDULE

LEGEND

- PROPERTY LINE
- PROPOSED BUILDING LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED STORM PIPE
- PROPOSED STORM PIPE
- PROPOSED HEADWALL
- PROPOSED STORM MANHOLE
- PROPOSED CATCH BASIN
- LIMITS OF DISTURBANCE
- SILT FENCE
- SILT FENCE WITH WIRE BACKING
- FILTER SOCK
- CULVERT PROTECTION TYPE 1
- INLET PROTECTION

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No.	Revision/Issue	Date
1	CITY, OWNER & TDEC COMMENTS	2024-07-25

UNITED FARM AND HOME CO-OP FEED BUILDING

SITE PLANS FOR
1385 NORTH MAIN STREET
MOUNT PLEASANT, TENNESSEE
MAURY COUNTY, TENNESSEE

JESS MILES DILLARD
REGISTERED ENGINEER
No. 119242
STATE OF TENNESSEE
07-25-2024

FINAL EPSC PLAN

DATE:	7/25/2024	DRAWN BY:	BRS
DRAWING SCALE:	AS SHOWN	CHECKED BY:	JMD
PROJECT NO.:	24-040	APPROVED BY:	JMD

SHEET NUMBER:
C4.2

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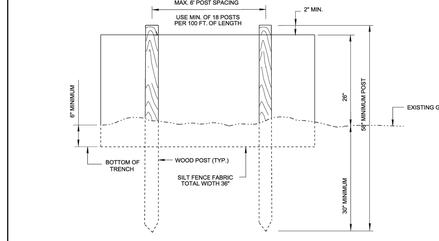

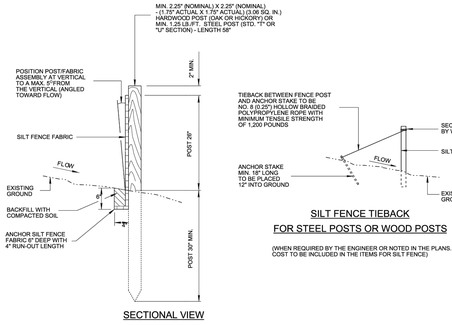

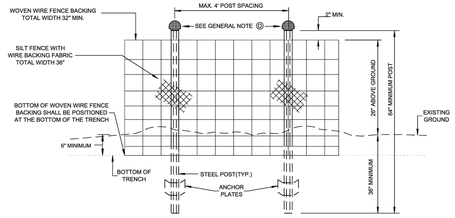

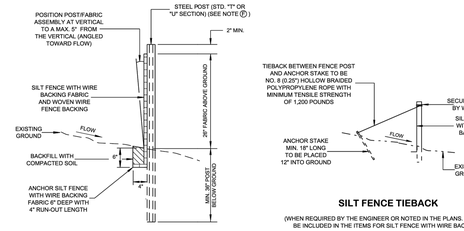

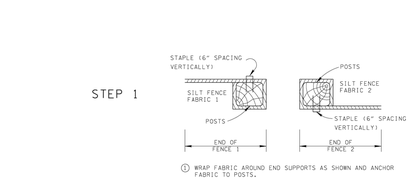

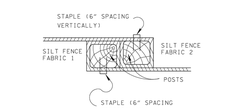

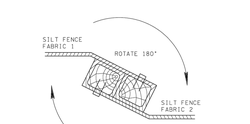

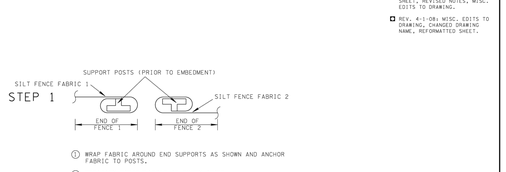

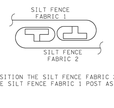

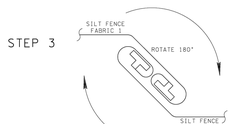

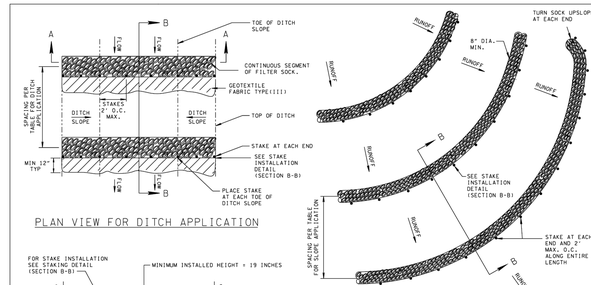

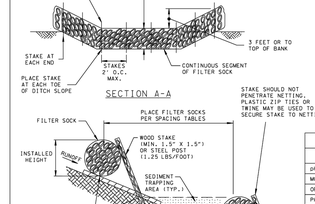

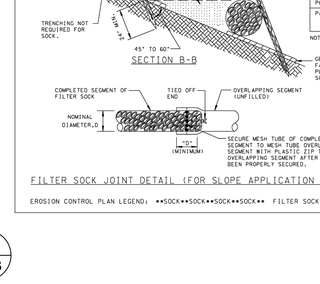

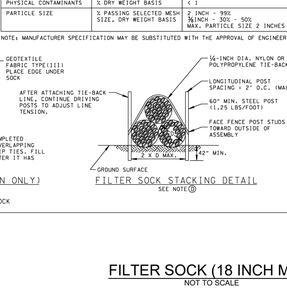

SILT FENCE TIEBACK FOR STEEL POSTS OR WOOD POSTS

(WHEN REQUIRED BY THE ENGINEER OR NOTED IN THE PLANS. COST TO BE INCLUDED IN THE ITEMS FOR SILT FENCE)

EROSION CONTROL PLAN LEGEND: * SF * SF * SF * SILT FENCE

SILT FENCE FABRIC SPECIFICATIONS

FABRIC PROPERTY AND TEST METHODS	REQUIRED PHYSICAL PROPERTIES (MARV VALUES OF TEST DATA)
GEOTEXTILE FABRIC TYPE	WOVEN SLIT FILM
APPARENT OPENING SIZE (ASTM D4751)	#30 TO #70 STANDARD SIEVE
WATER FLUX (ASTM D4491)	≥ 4 GPM/FT^2
TENSILE STRENGTH (ASTM D4632)	≥120 LB. (WARP DIRECTION) X 100 LB. (FILL DIRECTION)
ULTRAVIOLET STABILITY (AFTER 500 HRS PER ASTM D4355)	≥70%
ELONGATION (ASTM D4632)	≤ 20% (MAX)
BURST STRENGTH (ASTM D3786)	≥250 PSI
PUNCTURE STRENGTH (ASTM D4833)	≥60 LB.
TRAPEZOIDAL TEAR (ASTM D4533)	≥ 50 LB. (WARP DIRECTION) X 40 LB. (FILL DIRECTION)

SILT FENCE GENERAL NOTES

Ⓐ SILT FENCE IS USED TO INTERCEPT SMALL AMOUNTS OF SEDIMENT AND REDUCE VELOCITY FROM SHEET FLOW ONLY. DO NOT USE IT ADJACENT TO NATURAL WATER RESOURCES (WETLANDS OR STREAMS) OR ACROSS CONCENTRATED FLOW PATHS.

Ⓑ THE MAXIMUM DRAINAGE AREA SIZE FOR A CONTINUOUS BARRIER SHALL BE 1/4 ACRE PER 100 LINEAR FEET OF FENCE LENGTH UP TO A MAXIMUM DRAINAGE AREA OF 2 ACRES. MAXIMUM SLOPE LENGTH BEHIND FENCE ON UPSLOPE SIDE SHALL BE 110 FEET (AS MEASURED ALONG THE GROUND SURFACE).

Ⓒ WHEN INSTALLED AT THE TOE OF A SLOPE, SILT FENCE SHOULD BE PLACED 5 FEET TO 7 FEET AWAY FROM THE TOE TO ALLOW SPACE FOR PONDING OF WATER, COLLECTION OF SEDIMENT, AND EASE OF MAINTENANCE AND REMOVAL.

Ⓓ WHEN TWO SECTIONS OF SILT FENCE FABRIC ADJOIN EACH OTHER THEY SHALL BE JOINED ACCORDING TO THE DETAILS ON STANDARD DRAWING EC-STR-3E.

Ⓔ MAINTENANCE SHALL BE PERFORMED AS NEEDED; CAPTURED SOIL MATERIAL SHALL BE REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE AND/OR OTHER EVIDENCE OF FILTER CLOGGING IS OBSERVED.

Ⓕ STEEL POSTS SHALL BE ROLLED FROM HIGH CARBON STEEL AND SHALL HAVE A MINIMUM WEIGHT OF 1.25 LB/FT. POSTS SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH HIGH GRADE WEATHER RESISTANT STEEL PAINT. STEEL POSTS SHALL BE EQUIPPED WITH AN ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. POSTS SHALL BE STUDDED, EMBOSSED, OR PUNCHED TO AID IN THE ATTACHMENT OF THE WIRE BACKING. POSTS AND ANCHOR PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702.

Ⓖ WHEN STEEL POSTS ARE USED THEY SHALL HAVE A PROJECTION FOR FASTENING WIRE TO THEM. THE WIRE FASTENERS SHOULD BE EVENLY SPACED WITH AT LEAST FIVE PER POST.

Ⓗ IF THE FILTER MATERIAL IS STAPLED TO THE WOODEN STAKES, HEAVY DUTY WIRE STAPLES WITH ONE-HALF INCH LENGTH AND 1 INCH WIDTH SHALL BE USED AND EVENLY SPACED WITH AT LEAST FOUR PER POST. SILT FENCE FABRIC SHALL NOT BE STAPLED TO TREES.

Ⓘ SILT FENCES SHOULD BE PLACED ALONG OR NEAR THE GROUND CONTOUR. THE BOTTOM OF FENCE AT GROUNDLINE SHOULD BE ON A ZERO PERCENT (0%) GRADE, PLUS OR MINUS FIVE TENTHS OF ONE PERCENT (\0.5%). THE ENDS OF A ROW OF SILT FENCE SHOULD BE TURNED UPSLOPE FORMING A J-HOOK TO FILTER ANY CONCENTRATED FLOW BEHIND FENCE.

Ⓙ A PREASSEMBLED SILT FENCE MEETING THE REQUIREMENTS OF THIS DRAWING IS ACCEPTABLE IN LIEU OF A FIELD CONSTRUCTED SILT FENCE.

Ⓚ STATIC SLICING IS THE PREFERRED METHOD OF FENCE INSTALLATION. STATIC SLICING INVOLVES THE INSERTION OF A NARROW CUTTING BLADE, PLACED AT THE SPECIFIED ANCHOR DEPTH FOR THE GIVEN FABRIC AS SHOWN ON THE APPLICABLE DETAIL, AND SIMULTANEOUSLY PULLING THE FENCE FABRIC INTO THE TRENCH AS THE TRENCH IS BEING EXCAVATED. ALTERNATE TRENCH-BASED METHODS ARE ALSO ACCEPTABLE. FOR TRENCH-BASED INSTALLATIONS, SILT FENCING SHALL BE INSTALLED PER THE FOLLOWING STEPS AND IN THE FOLLOWING ORDER:

- EXCAVATE TRENCH A MAXIMUM OF 4 INCHES WIDE AND 6 INCHES DEEP. THE TRENCH SHALL BE HAND-CLEANED FOLLOWING EXCAVATION TO REMOVE BULKY DEBRIS SUCH AS ROCKS, STICKS, AND SOIL CLODS FROM THE TRENCH.
- INSTALL FABRIC IN TRENCH.
- BACKFILL TRENCH (OVER-FILL) WITH SOIL PLACED AROUND FABRIC.
- COMPACT SOIL BACKFILL WITH MECHANICAL EQUIPMENT. DO NOT DAMAGE THE FABRIC DURING COMPACTION (DAMAGED FABRIC SHALL BE REPLACED).
- DRIVE AND SET SUPPORT POSTS PER SPACING REQUIREMENTS GIVEN ON THE APPLICABLE FENCE DETAIL. FOR PRE-ASSEMBLED SILT FENCE, DRIVE SUPPORT IN TO GROUND FIRST, FOLLOWED BY FABRIC PLACEMENT IN TRENCH.
- ATTACH FABRIC TO THE POSTS USING WIRE TIES OR STAPLES. SPACING AND DENSITY OF TIES OR STAPLES SHALL BE INSTALLED AS DESCRIBED IN NOTES G AND H.

Ⓛ ONLY SILT FENCE FABRIC LISTED ON THE QUALIFIED PRODUCTS LIST MAY BE USED. ANY PRODUCTS LISTED ON THE QUALIFIED PRODUCTS LIST AS AN APPROVED ALTERNATE MAY ALSO BE USED.

Ⓜ SILT FENCE SHALL BE PAID FOR UNDER ITEM NUMBER 209-08.03 TEMPORARY SILT FENCE (WITHOUT BACKING) PER LINEAR FOOT. PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF THE SILT FENCE.

Ⓝ SEDIMENT SHALL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE STRUCTURE AND PAID FOR UNDER ITEM NUMBER 209-05, SEDIMENT REMOVAL PER CUBIC YARD.

- ☐ REV. 12-18-03: MODIFIED TABLE① AND GENERAL NOTEⒺ.
- ☐ REV. 7-29-04: CHANGED VALUES IN TABLE① FROM MEAN TO MARV VALUES.
- ☐ REV. 4-15-06: REMOVED POA SPECS. FROM TABLE 1. ADDED NOTEⓁ. REVISED TABLE TITLE. REORDERED GENERAL NOTES. REFORMATTED SHEET, REVISED NOTES, MISC. EDITS TO DRAWING.
- ☐ REV. 4-1-08: REMOVED TEMPORARY REFERENCE, REVISED NOTES, AND MISC. EDITS TO DRAWING.
- ☐ REV. 8-1-12: MINOR EDITS TO GENERAL NOTES.
- ☐ REV. 3-16-17: CHANGED SECOND NOTEⓂ TO NOTEⓃ.

☐ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

NOT TO SCALE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SILT FENCE

12-18-02 EC-STR-3B

01
C4.3

SILT FENCE

NOT TO SCALE

SILT FENCE TIEBACK

(WHEN REQUIRED BY THE ENGINEER OR NOTED IN THE PLANS. COST TO BE INCLUDED IN THE ITEMS FOR SILT FENCE WITH WIRE BACKING)

EROSION CONTROL PLAN LEGEND: * SFB * SFB * SFB * SILT FENCE WITH WIRE BACKING

SILT FENCE WITH WIRE BACKING FABRIC SPECIFICATIONS

FABRIC PROPERTY AND TEST METHODS	REQUIRED PHYSICAL PROPERTIES (MARV VALUES OF TEST DATA)
GEOTEXTILE FABRIC TYPE	WOVEN MONOFILAMENT
APPARENT OPENING SIZE (ASTM D4751)	# 70 TO # 100 STANDARD SIEVE
WATER FLUX (ASTM D4491)	≥ 18 GPM/FT ^{2}
TENSILE STRENGTH (ASTM D4632)	≥ 310 LB. (WARP DIRECTION) X 200 LB. (FILL DIRECTION)
ULTRAVIOLET STABILITY (AFTER 500 HRS PER ASTM D4355)	≥ 90%
BURST STRENGTH (ASTM D3786)	≥ 400 PSI
PUNCTURE STRENGTH (ASTM D4833)	≥ 105 LB.
TRAPEZOIDAL TEAR (ASTM D4533)	≥ 100 LB. (WARP DIRECTION) X 60 LB. (FILL DIRECTION)

GENERAL NOTES

Ⓐ SILT FENCE WITH WIRE BACKING IS USED TO INTERCEPT SMALL AMOUNTS OF SEDIMENT AND REDUCE VELOCITY FROM SHEET FLOW ONLY. USE SILT FENCE WITH WIRE BACKING UP-GRADIENT TO, AND ALONG THE PERIMETER OF STREAMS, WETLANDS, PONDS, SPRINGS, OR OTHER NATURAL WATER RESOURCES LOCATED WITHIN OR ADJACENT TO THE PROJECT RIGHT-OF-WAY AND AT LARGE FILL SLOPES.

Ⓑ THE MAXIMUM DRAINAGE AREA SIZE FOR CONTINUOUS SILT FENCE WITH BACKING SHALL BE 1 ACRE PER 150 LINEAR FEET OF FENCE LENGTH. MAXIMUM SLOPE LENGTH BEHIND FENCE ON UP SLOPE SIDE SHALL BE 290 FEET (AS MEASURED ALONG THE GROUND SURFACE).

Ⓒ WHEN INSTALLED AT THE TOE OF A SLOPE SILT FENCE WITH WIRE BACKING SHOULD BE PLACED 5 FEET TO 10 FEET AWAY FROM THE TOE TO ALLOW SPACE FOR PONDING OF WATER, COLLECTION OF SEDIMENT, AND EASE OF MAINTENANCE AND REMOVAL.

Ⓓ WHEN TWO SECTIONS OF SILT FENCE WITH WIRE BACKING FABRIC ADJOIN EACH OTHER, THEY SHALL BE JOINED ACCORDING TO THE DETAILS ON STANDARD DRAWING EC-STR-3E.

Ⓔ MAINTENANCE SHALL BE PREFORMED AS NEEDED; CAPTURED SOIL MATERIAL SHALL BE REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE AND/OR WHEN EVIDENCE OF FILTER CLOGGING IS OBSERVED.

Ⓕ STEEL POSTS SHALL BE ROLLED FROM HIGH CARBON STEEL AND SHALL HAVE A MINIMUM WEIGHT OF 1.25 LB/FT. POSTS SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH HIGH GRADE WEATHER RESISTANT STEEL PAINT. STEEL POSTS SHALL BE EQUIPPED WITH AN ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. POSTS SHALL BE STUDDED, EMBOSSED, OR PUNCHED TO AID IN THE ATTACHMENT OF THE WIRE BACKING. POSTS AND ANCHOR PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702.

Ⓖ STEEL POSTS SHALL HAVE A PROJECTION FOR FASTENING WIRE TO THEM. WOVEN WIRE FENCE BACKING TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. THE WIRE FASTENERS SHOULD BE EVENLY SPACED WITH AT LEAST SIX PER POST.

Ⓗ FABRIC SHALL BE FASTENED SECURELY TO WOVEN WIRE FENCE BACKING WITH THE TIES SPACED EVERY 24 INCHES ALONG TOP AND MIDSECTION.

Ⓘ WOVEN WIRE FENCE BACKING SHALL MEET THE REQUIREMENTS FOR ASTM A-116 FOR NO. 11 FARM, DESIGN NO. 832-6-11, CLASS 3 COATING.

Ⓙ SILT FENCE WITH BACKING SHOULD BE PLACED ALONG OR NEAR THE GROUND CONTOURS. THE BOTTOM OF THE FENCE AT GROUND LINE SHOULD BE ON A ZERO PERCENT (0%) GRADE, PLUS OR MINUS ONE HALF PERCENT (± 0.5%). THE END OF A ROW OF SILT FENCE WITH WIRE BACKING SHOULD BE TURNED UP SLOPE FORMING A J-HOOK TO FILTER ANY CONCENTRATED FLOW BEHIND FENCE.

Ⓚ FOR TRENCH-BASED INSTALLATIONS, SILT FENCING WITH WIRE BACKING SHALL BE INSTALLED PER THE FOLLOWING STEPS AND IN THE FOLLOWING ORDER:

1. EXCAVATE TRENCH A MAXIMUM OF 4 INCHES WIDE AND 6 INCHES DEEP. THE TRENCH SHALL BE HAND-CLEANED FOLLOWING EXCAVATION TO REMOVE BULKY DEBRIS SUCH AS ROCKS, STICKS, AND SOIL CLODS FROM THE TRENCH.
2. DRIVE AND SET SUPPORT POSTS PER SPACING REQUIREMENTS GIVEN ON THE APPLICABLE FENCE DETAIL.
3. ATTACH WOVEN WIRE FENCE BACKING TO POSTS AND FABRIC TO THE WIRE BACKING USING WIRE TIES. SPACING AND DENSITY OF TIES SHALL BE INSTALLED ACCORDING TO NOTES Ⓖ AND Ⓗ.
4. INSTALL FABRIC IN TRENCH.
5. BACKFILL TRENCH (OVER-FILL) WITH SOIL PLACED AROUND FABRIC.
6. COMPACT SOIL BACKFILL WITH MECHANICAL EQUIPMENT. DO NOT DAMAGE THE FABRIC DURING COMPACTION (DAMAGED FABRIC SHALL BE REPLACED).

Ⓛ ONLY SILT FENCE WITH WIRE BACKING FABRIC LISTED ON THE QUALIFIED PRODUCTS LIST MAY BE USED. ANY PRODUCTS LISTED ON THE QUALIFIED PRODUCTS LIST AS AN APPROVED ALTERNATE MAY ALSO BE USED.

Ⓜ SILT FENCE WITH WIRE BACKING SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBER:

209-08.02 TEMPORARY SILT FENCE (WITH BACKING), L.F.

PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF THE SILT FENCE WITH WIRE BACKING.

Ⓝ SEDIMENT SHALL BE REMOVED FROM BEHIND THE SILT FENCE WITH WIRE BACKING WHEN IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE STRUCTURE AND PAID FOR UNDER ITEM NUMBER 209-05, SEDIMENT REMOVAL PER C.Y.

Ⓞ ORANGE SAFETY CAPS FOR METAL POSTS SHALL BE REQUIRED TO MEET OSHA REGULATION 1926.701. ALL COST OF THE CAPS TO BE INCLUDED IN THE COST OF THE FENCE.

- REV. 12-18-03: MODIFIED TABLE 2 AND GENERAL NOTE Ⓔ.
- ◘ REV. 7-29-04: CHANGED VALUES IN TABLE 2 FROM MEAN TO MARV VALUES.
- ◘ REV. 4-15-06: MODIFIED FABRIC HEIGHT. ADDED NOTES Ⓙ AND Ⓚ. REVISED TABLE TITLE. REORDERED GENERAL NOTES. REFORMATTED SHEET, REVISED NOTES, MISC. EDITS TO DRAWING.
- ◘ REV. 4-1-08: REMOVED TEMPORARY REFERENCE, REVISED NOTES, AND MISC. EDITS TO DRAWING.
- ◘ REV. 8-1-12: MINOR EDITS TO GENERAL NOTES.
- ◘ REV. 06-28-2019: ADDED NOTE Ⓞ. REDREW SHEET.

◘ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

SILT FENCE WITH WIRE BACKING

12-18-2002 EC-STR-3C

NOT TO SCALE

02
C4.3

SILT FENCE WITH WIRE BACKING

NOT TO SCALE

PLAN VIEW
JOINING SILT FENCE FABRIC SECTIONS (WOOD POSTS)

PLAN VIEW
JOINING SILT FENCE FABRIC SECTIONS (STEEL POSTS)

- ☐ REV. 4-15-06: REFORMATTED SHEET, REVISED NOTES, MISC. EDITS TO DRAWING.
- ☐ REV. 4-1-08: MISC. EDITS TO DRAWING, CHANGED DRAWING NAME, REFORMATTED SHEET.

☐ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SILT FENCE FABRIC JOINING DETAILS

12-18-02 EC-STR-3E

03
C4.3

SILT FENCE FABRIC JOINING

NOT TO SCALE

SOCK HEIGHTS INSTALLED		
NOMINAL DIAMETER, D	INSTALLED HEIGHT OF SINGLE SOCK	INSTALLED HEIGHT OF STACKED SOCKS
~~8"~~	~~6.5"~~	~~N/A~~
~~12"~~	~~9.5"~~	~~19"~~
18"	14.5"	29"
24"	19"	38"

MINIMUM SPECIFICATION FOR FILTER MEDIA

PROPERTY	UNITS	RANGE
pH	pH	5.0 - 8.5
MOISTURE CONTENT	% WET WEIGHT BASIS	< 60
ORGANIC MATTER CONTENT	% DRY WEIGHT BASIS	25 - 100
PHYSICAL CONTAMINANTS	% DRY WEIGHT BASIS	< 1
PARTICLE SIZE	% PASSING SELECTED MESH SIZE, DRY WEIGHT BASIS	2 INCH - 99% ⅜INCH - 30% - 50% MAX. PARTICLE SIZE 2 INCHES

NOTE: MANUFACTURER SPECIFICATION MAY BE SUBSTITUTED WITH THE APPROVAL OF ENGINEER.

EROSION CONTROL PLAN LEGEND: ••SOCK••SOCK••SOCK••SOCK•• FILTER SOCK

FILTER SOCK CHECK DAM ESTIMATED QUANTITIES

	V-DITCH[1]			TRAPEZOIDAL DITCH[2]		
	24' FILTER SOCK (INSTALLED HEIGHT 19")	12" FILTER SOCK STACKED (INSTALLED HEIGHT 19")	18" FILTER SOCK STACKED (INSTALLED HEIGHT 29")	24' FILTER SOCK (INSTALLED HEIGHT 19")	12" FILTER SOCK STACKED (INSTALLED HEIGHT 19")	18" FILTER SOCK STACKED (INSTALLED HEIGHT 29")
LENGTH(FT)	20	60	48	24	72	60

1. ESTIMATED QUANTITIES BASED ON 4:1 SIDE SLOPES. QUANTITIES WILL VARY BASED ON ACTUAL DITCH CONFIGURATION.
2. ESTIMATED QUANTITIES BASED ON 4FT BOTTOM WIDTH, 4 FT DEPTH, AND 4:1 SIDE SLOPES. QUANTITIES WILL VARY BASED ON ACTUAL DITCH CONFIGURATION.

FILTER SOCK SPACING FOR SLOPE APPLICATION

	SLOPE	8"	12"	18"	24"
	2%	70'	80'	N/A	N/A
	5%	30'	60'	80'	N/A
	10%	20'	30'	70'	80'
Ⓟ	6:1	N/A	20'	40'	55'
	4:1	N/A	20'	30'	30'
	3:1	N/A	N/A	20'	25'
	2:1	N/A	N/A	20'	20'

N/A = NOT RECOMMENDED
SPACING NOT TO EXCEED 80'

FILTER SOCK SPACING FOR DITCH APPLICATION

DITCH SLOPE	MAXIMUM FILTER SOCK SPACING
LESS THAN 2%	80'
2%	80'
3%	50'
4%	40'
5%	30'
6%	20'
GREATER THAN 6%	20'

BASED ON AN INSTALLED HEIGHT OF 19 INCHES.
SEE TABLE ON EC-STR-6 FOR OTHER HEIGHTS.

FILTER SOCK GENERAL NOTES

Ⓐ FILTER SOCKS CAN BE PLACED IN DITCHES OR AT THE TOP, ON THE FACE, OR AT THE TOE OF SLOPES AS SEDIMENT-TRAPPING DEVICES. THEY CAN ALSO SERVE TO REMOVE SEDIMENT FROM RUNOFF AND RELEASE IT AS SHEET FLOW.

Ⓑ FILTER SOCKS INSTALLED ON A SLOPE SHALL BE PLACED ALONG OR ON THE GROUND CONTOUR. WHERE POSSIBLE FILTER SOCKS APPLIED AT THE TOE OF A SLOPE SHOULD BE PLACED 10 FEET AWAY FROM THE TOE IN ORDER TO PROVIDE SEDIMENT STORAGE. THE MAXIMUM DRAINAGE AREA SHALL BE ¼ ACRE PER 100 LF OF SOCK.

Ⓒ FOR DITCH APPLICATIONS, THE MAXIMUM DRAINAGE AREA SHALL BE 15 ACRES. AT SITES WHICH OUTFALL TO EXCEPTIONAL TENNESSEE WATERS OR SEDIMENT-IMPAIRED STREAMS, THE MAXIMUM DRAINAGE AREA SHALL BE LIMITED TO 10 ACRES. FILTER SOCKS SHALL NOT BE USED IN STREAMS, WETLANDS, OTHER NATURAL WATER RESOURCES, OR IN DITCHES WITH CONTINUOUS FLOWS.

Ⓓ FOR DITCH APPLICATIONS, THE MINIMUM INSTALLED HEIGHT OF A SINGLE SOCK, OR OF AN ASSEMBLY OF STACKED SOCKS, SHALL BE 19 INCHES. FILTER SOCKS MAY BE STACKED AS DETAILED ON THIS DRAWING TO ACHIEVE THE REQUIRED HEIGHT. SOCKS SHALL BE PLACED PERPENDICULAR TO THE FLOW OF WATER. FILTER SOCKS SHALL CONTINUE UP THE SIDE SLOPES TO THE TOP OF BANK OR A MAXIMUM OF 3 FEET ABOVE THE INSTALLED HEIGHT FILTER SOCKS SHALL REMAIN IN PLACE UNTIL ALL UPSTREAM AREAS ARE PERMANENTLY STABILIZED.

Ⓔ FILTER SOCKS SHALL CONSIST OF A TUBULAR MESH SOCK WITH OPENINGS NO GREATER THAN 3/8THS OF AN INCH IN SIZE. THE MESH SOCK IS NOT REQUIRED TO BE BIODEGRADABLE. FILL MATERIAL SHALL CONSIST OF EITHER WOOD CHIPS (MULCH) OR A 50/50 COMBINATION OF WOOD CHIPS AND MANUFACTURED COMPOST MATERIAL.

Ⓕ FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED IN DIAMETERS OF 8, 12, 18 OR 24 INCHES. DIAMETER TOLERANCE IS 2 INCHES. A FILTER SOCK WILL FLATTEN OUT TO AN OVAL WHEN IT IS PLACED; THUS, THE INSTALLED HEIGHT WILL BE LESS THAN THE NOMINAL DIAMETER.

Ⓖ STEEL POSTS SHALL BE ROLLED FROM HIGH CARBON STEEL AND SHALL HAVE A MINIMUM WEIGHT OF 1.25 LB/FT. POSTS SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH HIGH GRADE WEATHER RESISTANT STEEL PAINT. STEEL POSTS SHALL BE EQUIPPED WITH AN ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. POSTS SHALL BE STUDDED, EMBOSSED, OR PUNCHED. POSTS AND ANCHOR PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702.

Ⓗ FILTER SOCKS ARE FILLED ON THE PROJECT SITE AND MAY BE UP TO 250 FEET LONG. WHEN USED ON LONG SLOPES, FILTER SOCKS MAY BE JOINTED AS SHOWN ON THIS DRAWING.

Ⓘ ANY PRODUCT LISTED ON THE QUALIFIED PRODUCTS LIST AS AN APPROVED ALTERNATE TO FILTER SOCKS IS ALSO ACCEPTABLE. FOR DITCH APPLICATIONS, SANDBAG OR GRAVEL BAG BERMS MAY ALSO BE USED AS ALTERNATE MATERIALS.

Ⓙ FILTER SOCKS SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBERS:

209-03.20 FILTER SOCK (8 INCH) PER LINEAR FOOT
209-03.21 FILTER SOCK (12 INCH) PER LINEAR FOOT
209-03.22 FILTER SOCK (18 INCH) PER LINEAR FOOT
209-03.23 FILTER SOCK (24 INCH) PER LINEAR FOOT
209-08.09 FILTER SOCK CHECK DAM PER EACH

PAYMENT SHALL INCLUDE ALL MATERIALS (INCLUDING GEOTEXTILE FABRIC IF USED) AND LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF FILTER SOCKS.

Ⓚ SEDIMENT SHALL BE REMOVED FROM BEHIND THE FILTER SOCK WHEN IT HAS ACCUMULATED TO ONE-HALF OF THE ORIGINAL HEIGHT OF THE STRUCTURE AND PAID FOR UNDER ITEM NUMBER 209-05, SEDIMENT REMOVAL PER CUBIC YARD.

Ⓛ FILTER SOCKS SHALL BE INSPECTED AFTER EACH RUNOFF EVENT AND SHALL BE REMOVED AND REPLACED IF SIGNS OF UNDERCUTTING OR DOWNSTREAM RILLS ARE OBSERVED.

Ⓜ FILTER SOCKS SHOULD BE REMOVED FROM SLOPES AFTER STABILIZATION IS COMPLETE. THIS MAY BE ACCOMPLISHED BY CUTTING THE SOCK OPEN AND SPREADING THE FILL MATERIAL ON THE SITE. ALL NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED. FILTER SOCKS APPLIED IN DITCHES SHALL BE COMPLETELY REMOVED.

Ⓝ GEOTEXTILE FABRIC REQUIRED FOR SLOPE APPLICATION STEEPER THAN 6:1.

- ☐ REV. 8-1-12: MINOR EDITS TO GENERAL NOTES.
- ☐ REV. 6-10-14: MODIFIED SPACING TABLE. ADDED GEOTEXTILE FABRIC ADDED NOTE Ⓝ.

☐ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

NOT TO SCALE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FILTER SOCK

4-1-08 EC-STR-8

04
C4.3

FILTER SOCK (18 INCH MIN.)

NOT TO SCALE

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No.	Revision/Issue	Date

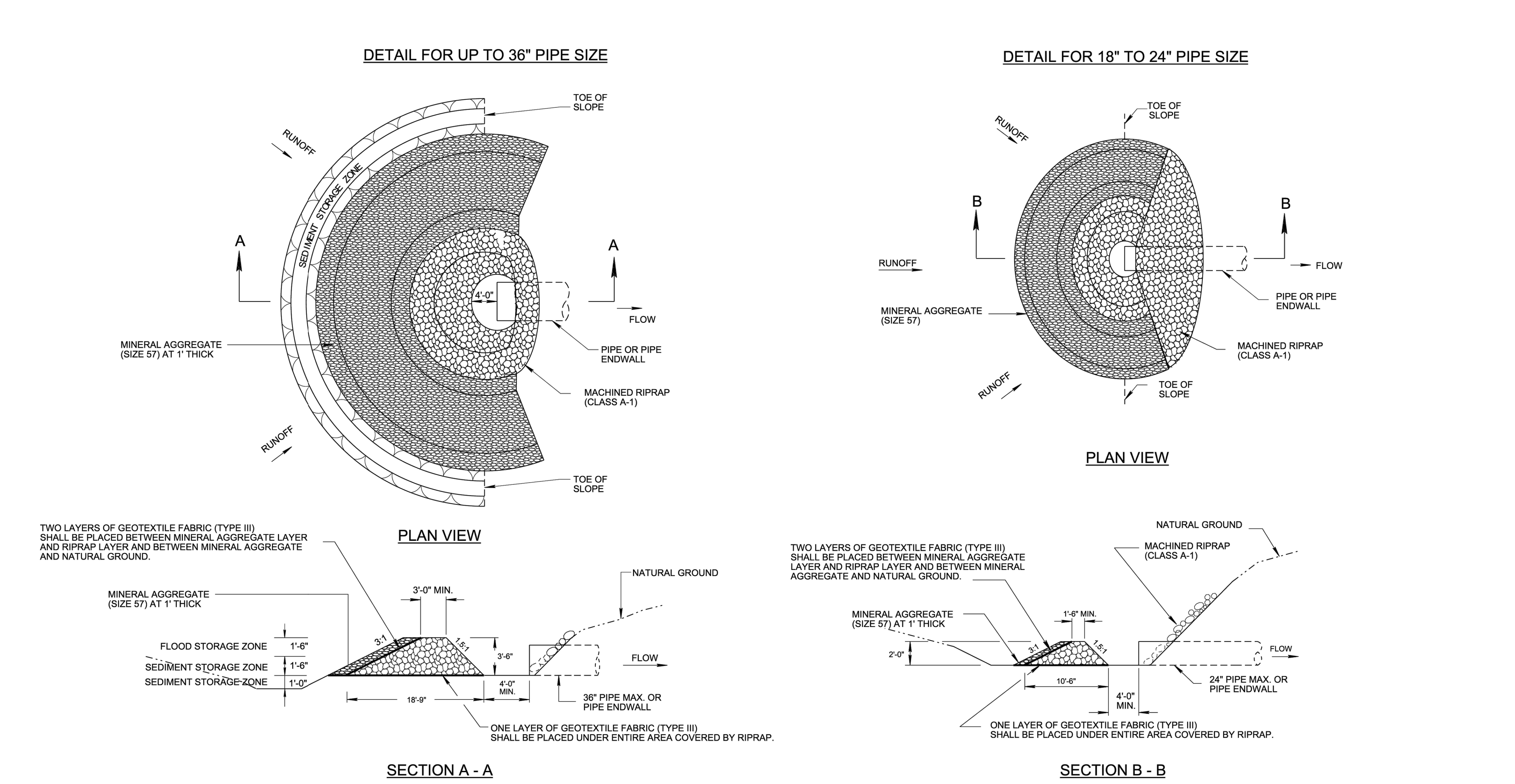
SITE PLANS FOR
UNITED FARM AND HOME CO-OP FEED BUILDING
1385 NORTH MAIN STREET
MOUNT PLEASANT, TENNESSEE
MAURY COUNTY, TENNESSEE

No. 119269
07-03-2024

EPSC DETAILS

DATE:	7/25/2024	DRAWN BY:	BRS
DRAWING SCALE:	AS SHOWN	CHECKED BY:	JMD
PROJECT NO.:	24-040	APPROVED BY:	JMD

SHEET NUMBER:
C4.3



CULVERT PROTECTION TYPE 1 GENERAL NOTES

(A) CULVERT PROTECTION (TYPE 1) MAY BE USED AROUND A CULVERT INLET TO REDUCE FLOW VELOCITIES TO ALLOW SEDIMENTS TO DROP OUT. IT IS NORMALLY USED WHERE ALL OF THE INFLOW TO THE CULVERT IS ON-SITE RUNOFF. IT MAY ALSO BE USED WHERE A FILTRATION FUNCTION FOR VERY LOW FLOWS IS DESIRED.

(B) CULVERT PROTECTION (TYPE I) SHALL NOT BE USED IN STREAMS OR OTHER NATURAL WATER RESOURCES, UNLESS PROVIDED FOR IN THE PERMITS.

(C) CULVERT PROTECTION (TYPE I) SHOULD NOT BE USED IN DITCHES, SWALES, OR OTHER DEPRESSIONS WITH A DEPTH GREATER THAN 1 FOOT.

(D) CULVERT PROTECTION (TYPE1) SHOULD NOT BE USED AT THE CULVERT OUTLET.

(E) WHERE CONDITIONS OF HIGH SEDIMENT FLOW EXIST, MACHINED RIPRAP (CLASS A-3) MAY BE USED IN LIEU OF MACHINED RIPRAP (CLASS A-1) FOR PIPES UP TO 24 INCHES IN DIAMETER WITH A DRAINAGE AREA LESS THAN 3 ACRES. IT MAY ALSO BE USED FOR PIPE FROM 24 INCHES IN DIAMETER WITH A DRAINAGE AREA LESS THAN 6 ACRES.

(F) AT MOST SITES, THE MAXIMUM ALLOWABLE DRAINAGE AREA SHALL BE 30 ACRES. AT SITES WHICH DRAIN TO EXCEPTIONAL TENNESSEE WATERS OR SEDIMENT-IMPAIRED STREAMS, THE MAXIMUM ALLOWABLE DRAINAGE AREA SHALL BE 20 ACRES.

(G) ONLY GEOTEXTILE FABRIC (TYPE III) LISTED ON THE QUALIFIED PRODUCTS LIST SHALL BE USED.

(H) CULVERT PROTECTION (TYPE 1) SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBERS:

203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED) PER CUBIC YARD
303-10.01	MINERAL AGGREGATE (SIZE 57) PER TON
709-05.05	MACHINED RIPRAP (CLASS A-3) PER TON
709-05.06	MACHINED RIPRAP (CLASS A-1) PER TON
740-10.03	GEOTEXTILE (TYPE III) (EROSION CONTROL) PER SQUARE YARD

PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF CULVERT PROTECTION (TYPE 1).

(I) SEDIMENT SHALL BE REMOVED FROM BEHIND THE CULVERT PROTECTION (TYPE 1) WHEN IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE STRUCTURE AND PAID FOR UNDER ITEM NUMBER 209-05, SEDIMENT REMOVAL PER CUBIC YARD.

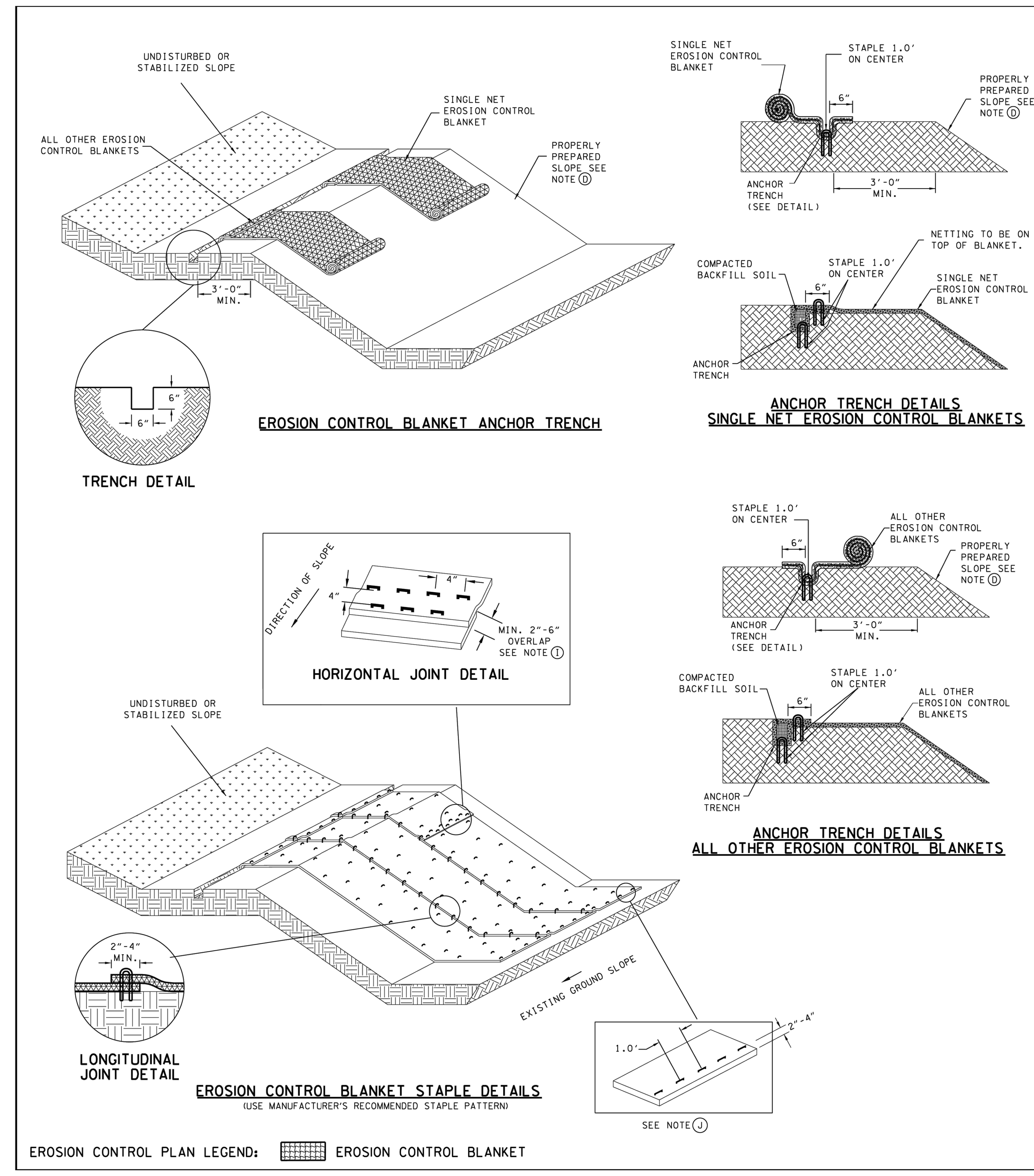
EROSION CONTROL PLAN LEGEND: CULVERT PROTECTION (TYPE 1)

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION — CULVERT PROTECTION TYPE 1 — 10-26-92 — EC-STR-11

01 / C4.4

CULVERT PROTECTION TYPE 1

NOT TO SCALE



EROSION CONTROL BLANKET SLOPE INSTALLATION GENERAL NOTES

(A) EROSION CONTROL BLANKETS ARE INTENDED TO BE USED AS AN IMMEDIATE MULCH COVER FOR DISTURBED SLOPES THAT HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED.

(B) EROSION CONTROL BLANKETS MAY ALSO BE USED AS CHANNEL LINERS WHERE THE ANTICIPATED MAXIMUM SHEAR STRESS IS LOW. REFER TO EC-STR-36 FOR INSTALLATION DETAILS.

(C) EROSION CONTROL BLANKETS SHALL BE INSTALLED ACCORDING TO MANUFACTURERS SPECIFICATIONS. WHEN NOT AVAILABLE, INSTALL ACCORDING TO NOTES D THRU J.

(D) STEP ONE: SITE PREPARATION
THE SITE SHOULD BE FINE GRADED TO A SMOOTH PROFILE AND RELATIVELY FREE FROM ALL WEEDS, CLODS, STONES, ROOTS, STICKS, RIVULETS, GULLIES, CRUSTING AND CAKING. FILL ANY VOIDS AND MAKE SURE THE SLOPE IS COMPACTED PROPERLY.

(E) STEP TWO: SEEDING
SEEDING WITHOUT MULCH SHOULD BE APPLIED TO THE AREA TO BE VEGETATED.

(F) STEP THREE: PREPARE THE ANCHOR TRENCH
AT THE TOP OF THE SLOPE EXCAVATE AN ANCHOR TRENCH 6 INCHES DEEP BY 6 INCHES WIDE. THE EROSION CONTROL BLANKET WILL BE ANCHORED INTO THE TRENCH BY STAPLES. ALLOW A MINIMUM OF 3 FEET FROM THE CREST OF THE SLOPE TO THE ANCHOR TRENCH.

(G) STEP FOUR: SECURE THE EROSION CONTROL BLANKET IN THE ANCHOR TRENCH
BEGIN EROSION CONTROL BLANKET PLACEMENT 30 INCHES ABOVE THE ANCHOR TRENCH. RUN THE EROSION CONTROL BLANKET INTO THE ANCHOR TRENCH. ANCHOR THE EROSION CONTROL BLANKET WITH STAPLES ONE FOOT ON CENTER IN THE ANCHOR TRENCH. BE SURE TO DRIVE STAPLES OR STAKES FLUSH WITH THE SOIL SURFACE. BACKFILL THE ANCHOR TRENCH AND COMPACT THE SOIL. PLACE SEED OVER THE COMPACTED SOIL. COVER THE COMPACTED SOIL WITH THE REMAINING 12 INCHES OF THE TERMINAL END OF THE EROSION CONTROL BLANKET. STAPLE OR STAKE TERMINAL END DOWN SLOPE OF THE ANCHOR TRENCH ON ONE FOOT CENTERS.

(H) STEP FIVE: EROSION CONTROL BLANKET DEPLOYMENT
STARTING AT THE CREST OF THE SLOPE, ROLL THE EROSION CONTROL BLANKET DOWN THE SLOPE IN A CONTROLLED MANNER. APPROXIMATELY EVERY 20-25 FEET PULL THE EROSION CONTROL BLANKET TO TAKE OUT ANY EXCESS SLACK. THE GOAL IS TO HAVE THE EROSION CONTROL BLANKET CONTOUR AND INITIATE CONTACT WITH THE SOIL.

(I) STEP SIX: STAPLE OR STAKE THE EROSION CONTROL BLANKET
SECURE THE OVERLAP OR THE EDGES WITH STAPLES. THE TYPICAL INSTALLATION WILL REQUIRE ONE STAPLE PLACED AT THREE TO FIVE FEET INTERVALS ALONG THE VERTICAL LENGTH OF THE EROSION CONTROL BLANKET. STAPLES SHOULD BE STAGGERED EVERY 18 TO 24 INCHES HORIZONTALLY ACROSS THE EROSION CONTROL BLANKET. IF THE EROSION CONTROL BLANKET NEEDS TO BE SPLICED IN THE MIDDLE OF A SLOPE BE SURE THE EROSION CONTROL BLANKET IS "SHINGLED" WITH UP-SLOPE EROSION CONTROL BLANKET OVERLAPPING THE DOWN-SLOPE EROSION CONTROL BLANKET. THERE SHOULD BE A MINIMUM OF 4-INCHES OF OVERLAP IN A SPLICE. USE A STAPLE CHECK SLOT TO SECURE THE OVERLAP. A STAPLE CHECK SLOT IS MADE BY PLACING A ROW OF STAPLES 4-INCHES ON CENTER AND THEN PLACING A SECOND ROW OF STAPLES 4-INCHES ON CENTER, STAGGERED FROM THE FIRST ROW.

(J) STEP SEVEN: SECURING THE EROSION CONTROL BLANKET AT THE TOE OF SLOPE
ROLL THE EROSION CONTROL BLANKET 24-INCHES PAST THE TOE OF THE SLOPE. STAPLE OR STAKE TERMINAL END OF THE EROSION CONTROL BLANKET ON ONE FOOT CENTERS.

(K) ONLY EROSION CONTROL BLANKETS LISTED ON THE QUALIFIED PRODUCTS LIST MAY BE USED.

(L) EROSION CONTROL BLANKETS FOR SLOPE INSTALLATION SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBERS:

801-02	SEEDING (WITHOUT MULCH) PER UNIT
801-02.01	CROWN VETCH MIXTURE (WITHOUT MULCH) PER UNIT
801-02.08	TEMPORARY SEEDING (WITHOUT MULCH) PER UNIT
805-12.01	EROSION CONTROL BLANKET (TYPE I) PER SQUARE YARD
805-12.02	EROSION CONTROL BLANKET (TYPE II) PER SQUARE YARD
805-12.03	EROSION CONTROL BLANKET (TYPE III) PER SQUARE YARD
805-12.04	EROSION CONTROL BLANKET (TYPE IV) PER SQUARE YARD

PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION AND MAINTENANCE OF EROSION CONTROL BLANKETS.

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

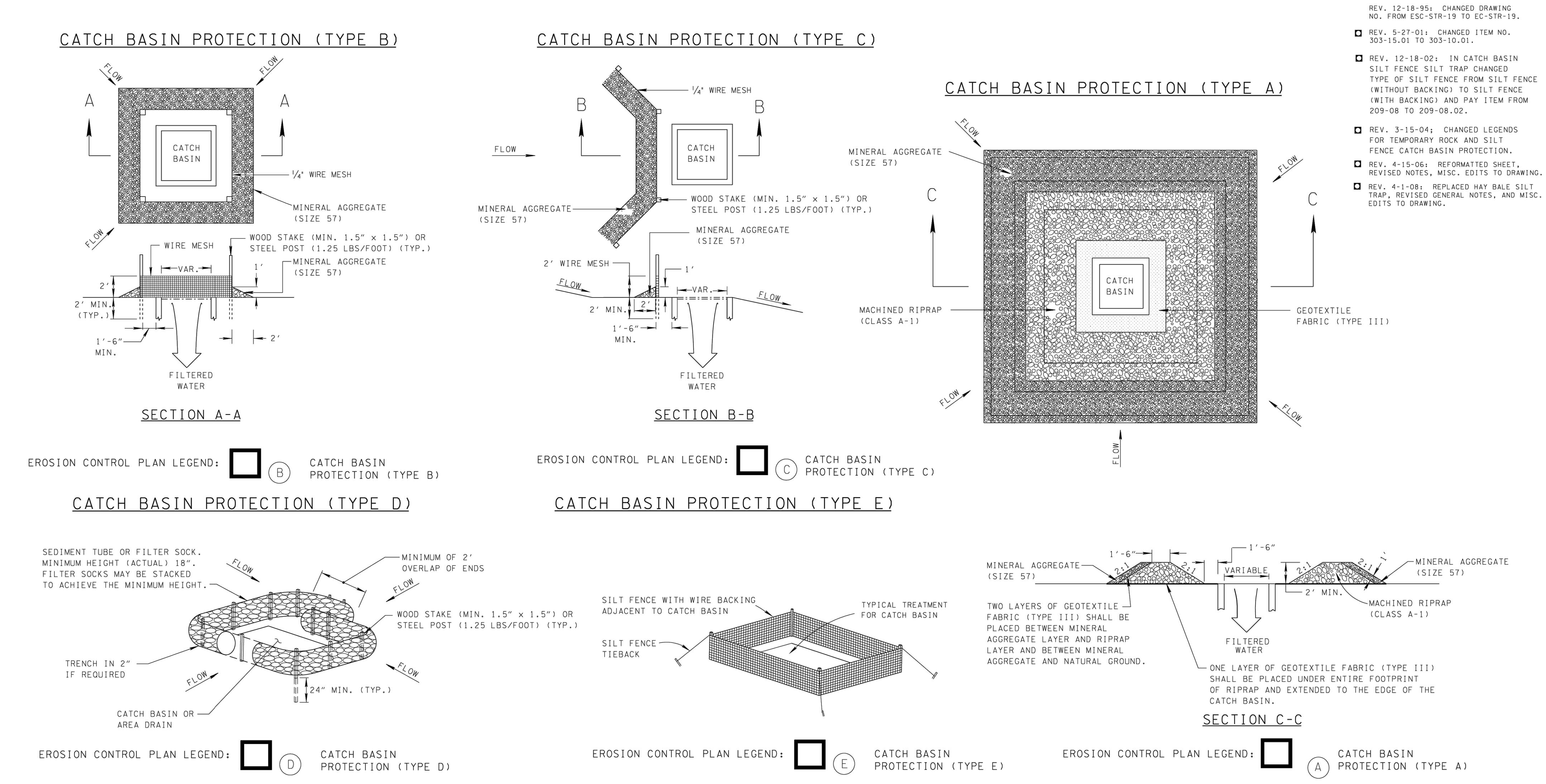
NOT TO SCALE

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION — EROSION CONTROL BLANKET FOR SLOPE INSTALLATION — 10-26-92 — EC-STR-34

02 / C4.4

EROSION CONTROL BLANKET

NOT TO SCALE



EROSION CONTROL PLAN LEGEND: (B) CATCH BASIN PROTECTION (TYPE B)

EROSION CONTROL PLAN LEGEND: (C) CATCH BASIN PROTECTION (TYPE C)

EROSION CONTROL PLAN LEGEND: (D) CATCH BASIN PROTECTION (TYPE D)

EROSION CONTROL PLAN LEGEND: (E) CATCH BASIN PROTECTION (TYPE E)

EROSION CONTROL PLAN LEGEND: (A) CATCH BASIN PROTECTION (TYPE A)

CATCH BASIN PROTECTION GENERAL NOTES

(A) CATCH BASIN PROTECTION IS USED TO PREVENT SEDIMENT IN CONSTRUCTION SITE RUNOFF FROM ENTERING A STORM SEWER SYSTEM.

(B) TYPE B, TYPE C, TYPE D (SEDIMENT TUBE), AND TYPE E SHOULD ONLY BE USED IN UNPAVED AREAS. TYPE A AND TYPE D (FILTER SOCK) MAY BE USED IN BOTH UNPAVED AND PAVED AREAS.

(C) TYPE B, TYPE C, TYPE D, AND TYPE E HAVE A MAXIMUM DRAINAGE AREA OF 1 ACRE. TYPE A HAS A MAXIMUM DRAINAGE AREA OF 2 ACRES.

(D) ONLY GEOTEXTILE FABRIC (TYPE III) LISTED ON THE QUALIFIED PRODUCTS LIST SHALL BE USED.

(E) THE WIRE MESH USED IN TYPE B AND TYPE C SHALL BE A MINIMUM 19 GAGE HARDWARE CLOTH WITH ¼ INCH MESH OPENINGS.

(F) FOR INSTALLATION DETAILS FOR SILT FENCE WITH WIRE BACKING (EC-STR-3C), FILTER SOCK (EC-STR-8), AND SEDIMENT TUBE (EC-STR-37) REFER TO THEIR RESPECTIVE STANDARD DRAWING. FILTER SOCKS MAY NOT REQUIRE STAKING WHEN APPROVED BY THE ENGINEER.

(G) ANY PRODUCT LISTED ON THE QUALIFIED PRODUCTS LIST AS AN APPROVED ALTERNATE IS ALSO ACCEPTABLE.

(H) CATCH BASIN PROTECTION SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBERS:

209-40.30	CATCH BASIN PROTECTION (TYPE A) PER EACH
209-40.31	CATCH BASIN PROTECTION (TYPE B) PER EACH
209-40.32	CATCH BASIN PROTECTION (TYPE C) PER EACH
209-40.33	CATCH BASIN PROTECTION (TYPE D) PER EACH
209-40.34	CATCH BASIN PROTECTION (TYPE E) PER EACH

PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF CATCH BASIN PROTECTION.

(I) SEDIMENT SHALL BE REMOVED FROM BEHIND THE CATCH BASIN PROTECTION WHEN IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE STRUCTURE AND PAID FOR UNDER ITEM NUMBER 209-05, SEDIMENT REMOVAL, PER CUBIC YARD.

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION — CATCH BASIN PROTECTION — 10-26-92 — EC-STR-19

03 / C4.4

CATCH BASIN PROTECTION TYPE D

NOT TO SCALE

04 / C4.4

NOT USED

NOT TO SCALE

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Section 7, Item A.

Date | Revision/Issue | No.

SITE PLANS FOR
UNITED FARM AND HOME CO-OP FEED BUILDING
1385 NORTH MAIN STREET
MOUNT PLEASANT, TENNESSEE
MAURY COUNTY, TENNESSEE

JESS MILES DILLARD — REGISTERED ENGINEER — AGRICULTURE — COMMERCE — STATE OF TENNESSEE — No. 119262 — 07-03-2024

EPSC DETAILS

DATE:	7/25/2024	DRAWN BY: BRS
DRAWING SCALE:	AS SHOWN	CHECKED BY: JMD
PROJECT NO.:	24-040	APPROVED BY: JMD

SHEET NUMBER:
C4.4

SANITARY SEWER NOTES:

1. THE CONTRACTOR'S AUTHORIZED FIELD REPRESENTATIVE SHALL NOTIFY THE CITY OF MT PLEASANT SEWER DEPARTMENT PRIOR TO COMMENCING ANY SEWER WORK.
2. ALL MATERIALS AND WORKMANSHIP FOR SANITARY SEWER LINES AND APPURTENANCES WILL BE IN STRICT COMPLIANCE WITH THE CURRENT STANDARD SPECIFICATION S AND DETAILS OF THE CITY OF MT PLEASANT SEWER DEPARTMENT.
3. NO CONNECTION TO THE EXISTING SEWER SYSTEM WILL BE PERMITTED UNTIL THE PROPOSED SANITARY SEWER WORK HAS BE INSPECTED AND APPROVED BY THE CITY OF MT PLEASANT.
4. TEN-FOOT MINIMUM HORIZONTAL SEPARATION TO BE MAINTAINED BETWEEN WATER AND SANITARY SEWER LINES WHENEVER POSSIBLE.
5. ANY AND ALL FEES, LICENSES, AND PERMITS NECESSARY FOR THIS CONSTRUCTION ARE TO BE OBTAINED PRIOR TO THE INITIATION OF CONSTRUCTION AND THE COST OF SAME BORNE BY THE CONTRACTOR.
6. THE CONTRACTOR IS TO CHECK AND VERIFY ALL MEASUREMENTS, INVERTS, LEVELS, ETC. BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK, AND IS TO BE RESPONSIBLE FOR THE SAME. ANY DISCREPANCIES FOUND SHALL BE SENT TO ENGINEER PRIOR TO ANY WORK.
7. THE OWNER AND ENGINEER DO NOT ASSUME RESPONSIBILITY FOR THE POSSIBILITY THAT, DURING CONSTRUCTION, UTILITIES OTHER THAN THOSE SHOWN MAY BE ENCOUNTERED OR THAT ACTUAL LOCATION OF THOSE SHOWN MAY BE DIFFERENT FROM LOCATIONS DESIGNATED ON THE CONTRACT DRAWINGS. IN AREAS WHERE IT IS NECESSARY THAT EXACT LOCATIONS BE KNOWN OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL,A T HIS OWN EXPENSE, FURNISH ALL LABOR AND TOOLS TO EITHER VERIFY AND SUBSTANTIATE OR DEFINITELY ESTABLISH THE POSITION OF UNDERGROUND UTILITY LINES.
8. SANITARY SEWER SERVICE TO BUILDING SHALL BE EXTENDED FROM THE EXISTING CONNECTION POINT TO A POINT 5 FEET OUTSIDE BUILDING WHERE THE SITE UTILITY CONTRACTOR SHALL BE RESPONSIBLE FOR CONNECTION TO THE BUILDING PLUMBING SYSTEM.
9. ALL PROPOSED SEWER IS TO BE PRIVATE.

WATER LINE CONSTRUCTION NOTES:

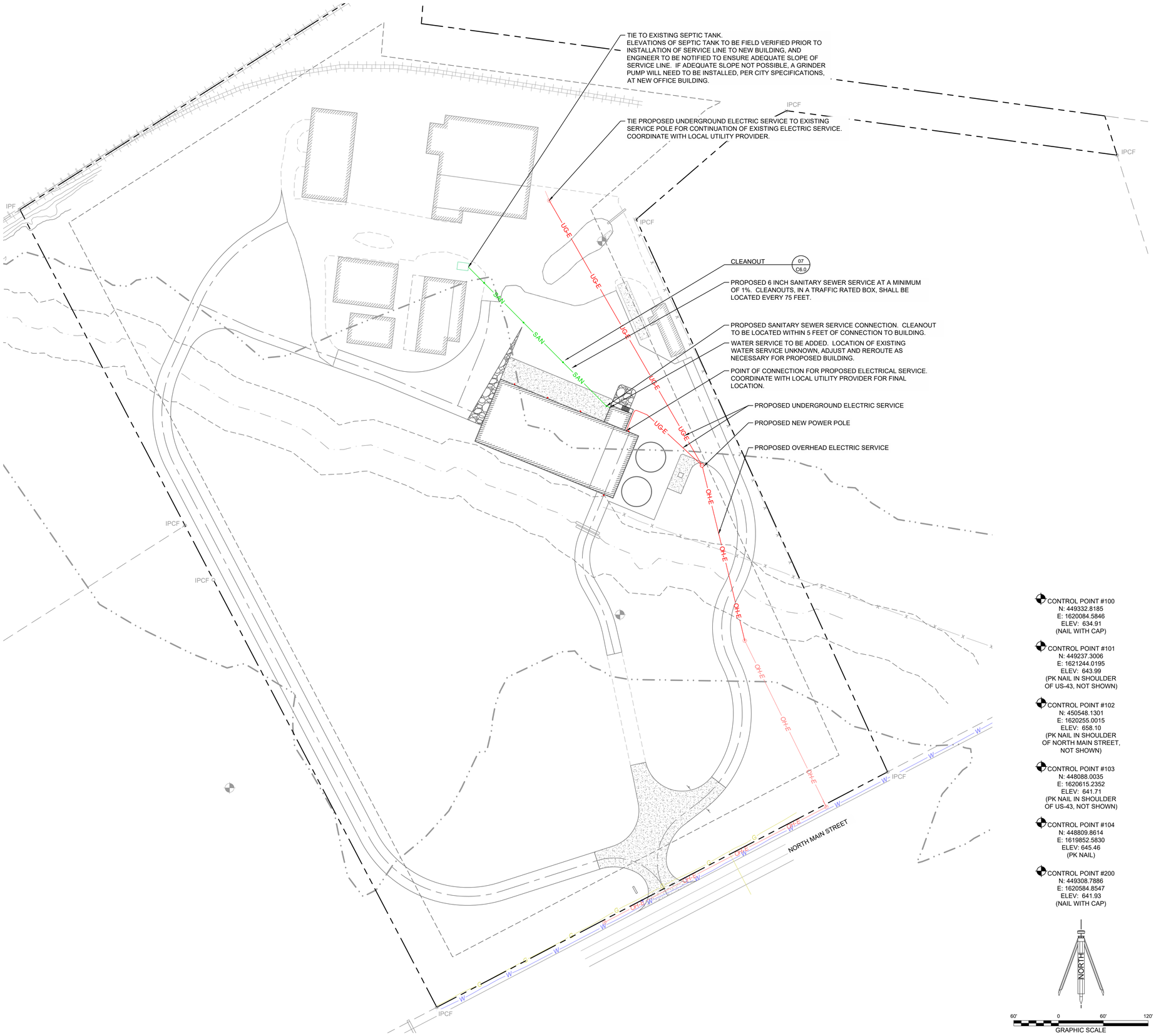
1. ALL WATER LINE CONSTRUCTION AND MATERIALS WILL BE IN STRICT COMPLIANCE WITH THE CURRENT APPROVED SPECIFICATIONS FOR SUCH WORK FOR THE CITY OF MT PLEASANT PUBLIC WORKS AS ON FILE WITH THE TENNESSEE DEPARTMENT OF HEALTH AND ENVIRONMENTAL DIVISION OF WATER QUALITY CONTROL.
2. BEFORE ANY WATER LINE WORK IS INITIATED ON THIS PROJECT, THE CITY OF MT PLEASANT PUBLIC WORKS SHALL BE CONTACTED BY THE CONTRACTOR AND ALL REQUIREMENTS OF THAT AGENCY SATISFIED. UPON COMPLETION OF WATER LINE INSTALLATION, LINE DISINFECTION AND PRESSURE TESTING WILL BE DONE BY THE CONTRACTOR UNDER THE INSPECTION OF THE PROPER ENTITY. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE COSTS OF REASONABLE INSPECTION FEES.
3. ANY AND ALL FEES, LICENSES, AND PERMITS NECESSARY FOR THIS CONSTRUCTION ARE TO BE OBTAINED PRIOR TO THE INITIATION OF CONSTRUCTION AND THE COST OF SAME BORNE BY THE CONTRACTOR.
4. WATER LINE CONSTRUCTION IS TO BE COMPLETED EXCEPT FOR ACTUAL CONNECTIONS TO EXISTING WATER LINE, AT LEAST 72 HOURS PRIOR TO CONNECTING PROPOSED WATER LINE TO THE SYSTEM. THE CONTRACTOR WILL NOTIFY THE CITY OF MT PLEASANT WATER DEPARTMENT AND COORDINATE METHOD OF CONNECTION AND TIME TO SHUT DOWN EXISTING WATER LINE IF REQUIRED.
5. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES (INCLUDING STORM DRAINAGE PIPES OR STRUCTURES) BEFORE COMMENCEMENT OF CONSTRUCTION.
6. ALL BENDS, TEES, CROSSES, PLUGS, PRESSURE CONNECTIONS, ETC., SHALL BE BACKED UP AND ANCHORED WITH CONCRETE BLOCKING.
7. WATERLINE SERVICE TO BUILDING SHALL BE EXTENDED FROM THE EXISTING MAIN TO A POINT 5 FEET OUTSIDE BUILDING WHERE THE SITE UTILITY CONTRACTOR SHALL BE RESPONSIBLE FOR CONNECTION TO THE BUILDING PLUMBING SYSTEM.
8. REDUCED PRESSURE BACKFLOW PREVENTER(s) (RPBP) SHALL BE INSTALLED SUCH THAT IT IS PROTECTED FROM FREEZING AND IN A MANNER TO ALLOW FOR PROPER DRAINAGE AND TESTING.
9. RPBP DEVICE(S) SHALL HAVE A PASSING INSPECTION AND BACKFLOW TEST PERFORMED BY THE CITY OF MT PLEASANT. DDCV ASSEMBLIES AND DC BYPASS DEVICES ARE TO BE TESTED BY A LICENSED FIRE SPRINKLER COMPANY (CERTIFIED BY TDEC TO TEST BACKFLOW DEVICES) AND THE TEST REPORT SUPPLIED TO THE CITY CROSS CONNECTION COORDINATOR. ALL DEVICES MUST PASS INSPECTION AND TESTS PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY. FAILURE TO COMPLY MAY ALSO RESULT IN TERMINATION OF WATER SERVICE(S) TO THE PREMISES.
10. DEAD END WATER LINES TO BE FITTED WITH BLOW OFF VALVE AND ASSEMBLY. VALVE AND ASSEMBLY TO BE APPROVED BY THE ENGINEER AND CITY OF MT PLEASANT PRIOR TO INSTALLATION.
11. ALL PROPOSED WATER LINE IS TO BE PRIVATE.

ELECTRICAL SERVICE NOTE:

1. CONTRACTOR TO COORDINATE ELECTRICAL SERVICE INSTALLATION WITH LOCAL UTILITY PROVIDER. CONTRACTOR RESPONSIBLE FOR ALL PRIMARY AND SECONDARY CONDUITS. CONTRACTOR TO FOLLOW LOCAL PROVIDER UNDERGROUND INSTALLATION GUIDE AND ANY OTHER LOCAL PROVIDER REQUIREMENTS. CONTRACTOR TO COORDINATE ALL INSTALLATION DETAILS WITH THE LOCAL PROVIDER.

LEGEND

- PROPOSED PROPERTY LINE
- PROPOSED BUILDING LINE
- W — EXISTING WATER LINE
- SAN — EXISTING SANITARY SEWER
- G — EXISTING NATURAL GAS LINE
- OH-E — EXISTING OVERHEAD ELECTRIC
- W — PROPOSED WATER LINE (SIZE VARIES)
- SAN — PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- ST — PROPOSED STORM SEWER
- UG-E — PROPOSED UNDERGROUND ELECTRIC
- PROPOSED SANITARY CLEANOUT
- T — PROPOSED TRANSFORMER



CONTROL POINT #100
N: 449332.8185
E: 1620084.5846
ELEV: 634.91
(NAIL WITH CAP)

CONTROL POINT #101
N: 449237.3006
E: 1621244.0195
ELEV: 643.99
(PK NAIL IN SHOULDER OF US-43, NOT SHOWN)

CONTROL POINT #102
N: 450548.1301
E: 1620255.0015
ELEV: 658.10
(PK NAIL IN SHOULDER OF NORTH MAIN STREET, NOT SHOWN)

CONTROL POINT #103
N: 448088.0035
E: 1620615.2352
ELEV: 641.71
(PK NAIL IN SHOULDER OF US-43, NOT SHOWN)

CONTROL POINT #104
N: 448809.8614
E: 1619852.5830
ELEV: 645.46
(PK NAIL)

CONTROL POINT #200
N: 449308.7886
E: 1620584.8547
ELEV: 641.93
(NAIL WITH CAP)

NORTH

60' 0 60' 120'
GRAPHIC SCALE

BRIDGEPOINT, LLC
2095A COOKS RD.
MOUNT JULIET, TENNESSEE
(615)-453-5000
WWW.BRIDGEPOINTTN.COM

No.	Revision/Issue	Date

UNITED FARM AND HOME CO-OP FEED BUILDING

SITE PLANS
FOR
1385 NORTH MAIN STREET
MOUNT PLEASANT, TENNESSEE
MAURY COUNTY, TENNESSEE

JESS MILES DILLARD
REGISTERED ENGINEER
No. 119269
07-03-2024
STATE OF TENNESSEE

UTILITY LAYOUT

DRAWN BY:	BRS
CHECKED BY:	JMD
APPROVED BY:	JMD
DATE:	7/25/2024
DRAWING SCALE:	AS SHOWN
PROJECT NO.:	24-040

SHEET NUMBER:
C5.0

M:\Bridgepoint (Team Folder)\Projects\2024\24-040 United Farm & Home Mt. Pleasant Docs\OFFICE\CAD\SHEETS\C5.0.dwg, C5.0 UTILITY LAYOUT, 7/25/2024 9:13:54 AM, DWG To PDF.pc3, ARCH full bleed D (24.00 x 36.00 Inches)

NOTES:

1. THIS PLAN PREPARED UTILIZING MANUFACTURERS IES LIGHTING DATA.
2. ELECTRICAL CONTRACTOR SHALL INSTALL FIXTURES PER MANUFACTURERS SPECIFICATIONS. INSTALL SHALL MEET ALL LOCAL, STATE, AND NATIONAL ELECTRICAL CODES.
3. THE ELECTRICAL CONTRACTOR SHALL COORDINATE SLEEVING, CONDUIT, AND SERVICE RUNS WITH THE GENERAL CONTRACTOR.
4. ALL LIGHTING ON THIS PLAN IS LED.
5. SUBSTITUTIONS SHALL NOT BE MADE.
6. OFFSITE & STREET LIGHTING NOT CALCULATED.
7. LIGHT FIXTURES IN EXCESS OF 150 WATTS SHALL USE FULL CUT-OFF LENSES OR HOODS TO PREVENT GLARE OR SPILL OVER ONTO ADJACENT LOTS AND STREETS. 1

LIGHTING SCHEDULE

KEY	TYPE	BRAND
WALL	WALL PACK	GE

SPECIFICATIONS:

GE LIGHTING SOLUTIONS
EWLS02 WALL PACK
ASYMMETRIC FORWARD, 3000K, 6,700 LUMENS, BLACK FINISH,

IES FILE: EWLS02_70AF730.IES

LEGEND

- PROPOSED PROPERTY LINE
- PROPOSED BUILDING LINE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER
- EXISTING NATURAL GAS LINE
- EXISTING OVERHEAD ELECTRIC
- PROPOSED WATER LINE (SIZE VARIES)
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED STORM SEWER
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED SANITARY CLEANOUT
- T — PROPOSED TRANSFORMER

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ELEV: 645.46
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N: 449308.7886
E: 1620584.8547
ELEV: 641.93
(NAIL WITH CAP)

NORTH

60' 0 60' 120'
GRAPHIC SCALE

BRIDGEPOINT, LLC
2095A COOKS RD.
MOUNT JULIET, TENNESSEE
(615)-453-5000
WWW.BRIDGEPOINTTN.COM

No.	Revision/Issue	Date
1	CITY, OWNER & TDEC COMMENTS	2024-07-25

SITE PLANS
FOR

UNITED FARM AND HOME CO-OP FEED BUILDING

1385 NORTH MAIN STREET
MOUNT PLEASANT, TENNESSEE
MAURY COUNTY, TENNESSEE

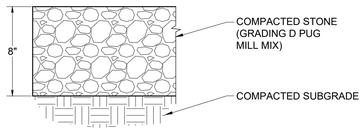
PHOTOMETRIC PLAN

DRAWN BY:	BRS	
CHECKED BY:	JMD	
APPROVED BY:	JMD	
DATE:	7/25/2024	
DRAWING SCALE:	AS SHOWN	
PROJECT NO.:	24-040	

SHEET NUMBER:

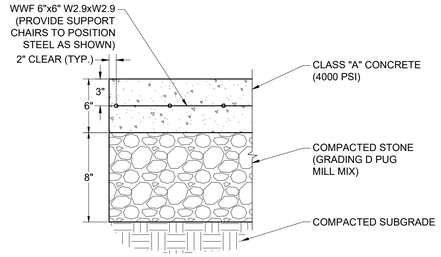
C5.1

M:\Bridgepoint (Team Folder)\Projects\2024\24-040 United Farm & Home Mt. Pleasant, Doss\DWG\CAD\SHEETS\C5.1dwg, C5.1 PHOTOMETRIC PLAN, 7/25/2024 9:14:00 AM, DWG To PDF.pc3, ARCH full bleed D (24.00 x 36.00 inches)



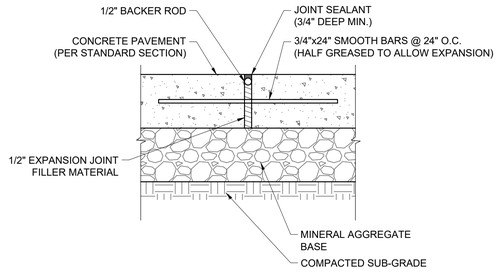
01 C6.0

GRAVEL SECTION
NOT TO SCALE



02 C6.0

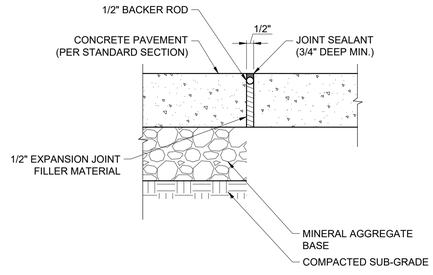
CONCRETE PAVEMENT SECTION
NOT TO SCALE



NOTES:
1. INSTALL CONSTRUCTION JOINTS WHEN CONTINUOUS POUR OPERATIONS ARE SUSPENDED FOR MORE THAN 30 MINUTES

03 C6.0

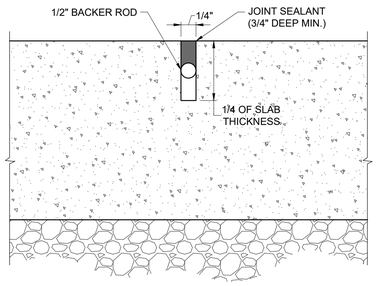
CONCRETE PAVEMENT CONSTRUCTION JOINT
NOT TO SCALE

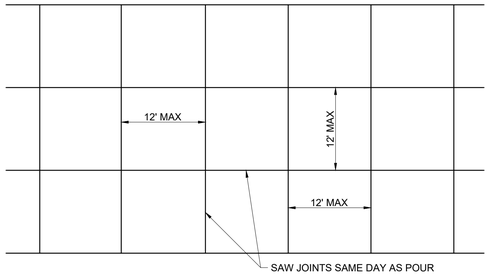


NOTES:
1. INSTALL EXPANSION JOINTS @ 25' O.C. IN EACH DIRECTION AND AGAINST ASPHALT PAVEMENT AND STRUCTURES.

04 C6.0

CONCRETE PAVEMENT EXPANSION JOINT
NOT TO SCALE



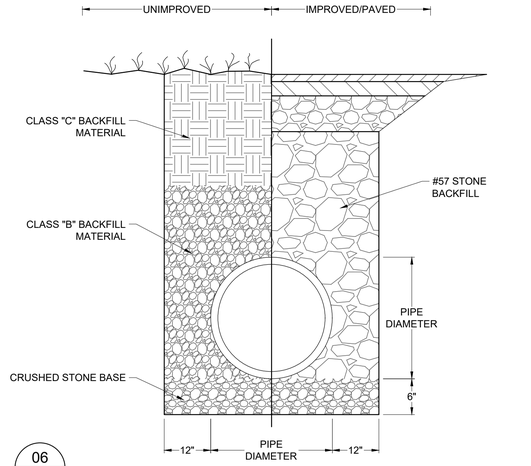


PLAN VIEW

NOTES:
1. INSTALL SAW CUT JOINTS WITHIN 24 HOURS OF FINISHING CONCRETE.

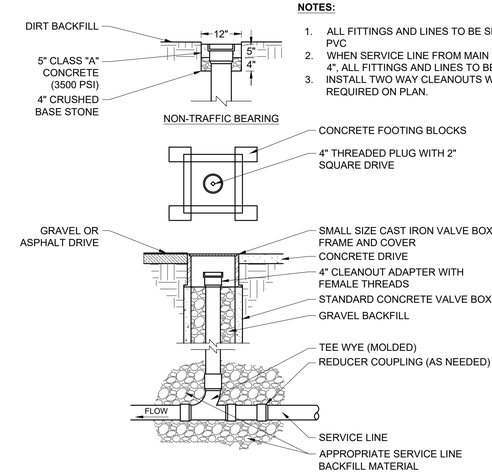
05 C6.0

CONCRETE PAVEMENT SAW CUT DETAIL
NOT TO SCALE



06 C6.0

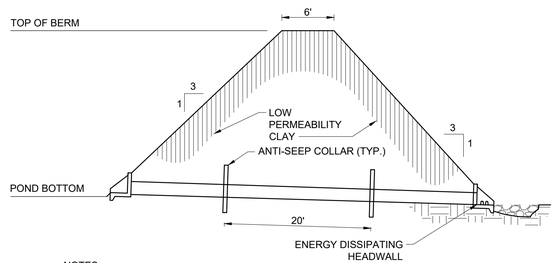
PIPE TRENCH DETAIL
NOT TO SCALE



NOTES:
1. ALL FITTINGS AND LINES TO BE SDR 35 PVC
2. WHEN SERVICE LINE FROM MAIN LINE IS 4", ALL FITTINGS AND LINES TO BE 4".
3. INSTALL TWO WAY CLEANOUTS WHERE REQUIRED ON PLAN.

07 C6.0

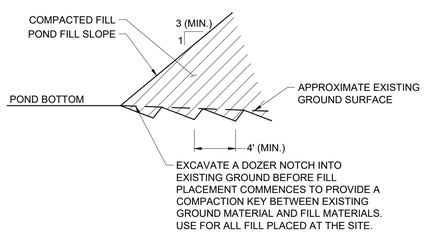
CLEANOUT
NOT TO SCALE



NOTES:
1. ALL FILL MATERIAL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER AND COMPACTED TO 95% OF MAXIMUM DENSITY PER ASTM D-698 OR AS DIRECTED BY THE ON SITE GEOTECHNICAL ENGINEER.
2. OVERBUILD ENTIRE BERM BY 5 FEET ON EITHER SIDE OF BERM DURING FILL PLACEMENT/COMPACTION AND REMOVE EXCESS MATERIAL TO MATCH TYPICAL CROSS SECTION WHEN CONSTRUCTED TO PROPER ELEVATION.
3. BARREL PIPE SHALL BE FITTED WITH ANTI-SEEP COLLARS AS SHOWN ON DETAIL THIS SHEET.
4. EXISTING GROUND (BEDROCK CONDITION) SHALL BE CLEANED OF ALL NATIVE SOILS/LOOSE MATERIAL AND FISHERS IN BEDROCK SHALL BE GROUTED FLUSH WITH SURFACE. CONSULT THE ON SITE GEOTECHNICAL ENGINEER FOR PROPER PREPARATION BEFORE APPROVED FILL IS PLACED.
5. EXISTING GROUND CONDITION SHALL MEET THE REQUIREMENTS OF THE TYPICAL COMPACTION KEY DETAIL THIS SHEET. AN APPROVED EQUIVALENT KEY MAY BE UTILIZED TO PROVIDE MAXIMUM COHESION AS DIRECTED BY THE ON SITE GEOTECHNICAL ENGINEER.

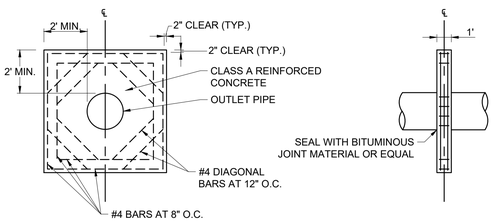
08 C6.0

DETENTION POND
NOT TO SCALE



09 C6.0

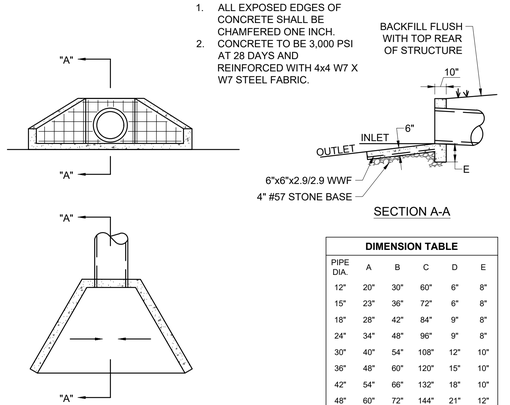
DETENTION POND COMPACTION KEY
NOT TO SCALE



10 C6.0

ANTI-SEEP COLLAR
NOT TO SCALE

NOTES:
1. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED ONE INCH.
2. CONCRETE TO BE 3,000 PSI AT 28 DAYS AND REINFORCED WITH 4x4 W7 X W7 STEEL FABRIC.



SECTION A-A

DIMENSION TABLE					
PIPE DIA.	A	B	C	D	E
12"	20"	30"	60"	6"	8"
15"	23"	36"	72"	6"	8"
18"	28"	42"	84"	9"	8"
24"	34"	48"	96"	9"	8"
30"	40"	54"	108"	12"	10"
36"	48"	60"	120"	15"	10"
42"	54"	66"	132"	18"	10"
48"	60"	72"	144"	21"	12"
54"	66"	78"	156"	24"	12"
60"	72"	84"	168"	24"	12"

11 C6.0

CONCRETE WINGED HEADWALL
NOT TO SCALE

BRIDGEPOINT, LLC
2095A COOKS RD.
MOUNT JULIET, TENNESSEE
(615)-453-5000
WWW.BRIDGEPOINTTN.COM

No.	Revision/Issue	Date

SITE PLANS FOR

UNITED FARM AND HOME CO-OP FEED BUILDING

1385 NORTH MAIN STREET
MOUNT PLEASANT, TENNESSEE
MAURY COUNTY, TENNESSEE

JESS MILES DILLARD
REGISTERED ENGINEER
AGRICULTURE
No. 119269
07-03-2024
COMMERCE
STATE OF TENNESSEE

SITE DETAILS

DRAWN BY:	BRS	DATE:	7/25/2024
CHECKED BY:	JMD	DRAWING SCALE:	AS SHOWN
APPROVED BY:	JMD	PROJECT NO.:	24-040

SHEET NUMBER:
C6.0

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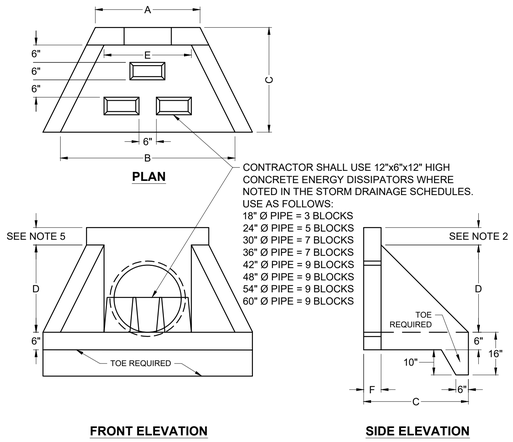

TABLE OF DIMENSIONS				
PIPE SIZE	AW 12"-15"-18"	BW 24"	CW 30"-36"-42"	DW 48"-54"-60"
A	32"	48"	80"	97"
B	48"	72"	102"	120"
C	30"	44"	54"	56"
D	26"	36"	54"	60"
E	24"	36"	64"	83"
F	6"	8"	8"	8"
MAX. OPENING	26"	32"	55"	78"
WT/LB	1.3800	3.1000	8.1000	11.4000

NOTES:

1. CONCRETE TO BE 4000 PSI AT 28 DAYS.
2. REINFORCED WITH NO. 4 BARS 10" C/C EACH WAY WITH WINGS AND TOE SLAB DOWELED TO HEADWALL WITH NO. 5 BARS.
3. 3/4" CHAMFER ON ALL EXPOSED EDGES.
4. CONTRACTOR TO PLACE ANY ADDITIONAL FILL MATERIAL NEEDED TO BRING FINISHED GRADE TO WITHIN 0"-2" OF THE TOP OF THE HEADWALL..
5. 0" FOR AW HEADWALL
   6" FOR BW & CW HEADWALL
   6"-27" FOR DW HEADWALL

08 / C6.1 — ENERGY DISSIPATING HEADWALL
NOT TO SCALE

02 / C6.1 — NOT USED
NOT TO SCALE

03 / C6.1 — NOT USED
NOT TO SCALE

04 / C6.1 — NOT USED
NOT TO SCALE

08 / C6.1 — NOT USED
NOT TO SCALE

05 / C6.1 — NOT USED
NOT TO SCALE

06 / C6.1 — NOT USED
NOT TO SCALE

07 / C6.1 — NOT USED
NOT TO SCALE

08 / C6.1 — NOT USED
NOT TO SCALE

09 / C6.1 — NOT USED
NOT TO SCALE

10 / C6.1 — NOT USED
NOT TO SCALE

11 / C6.1 — NOT USED
NOT TO SCALE

BRIDGEPOINT, LLC
2095A COOKS RD.
MOUNT JULIET, TENNESSEE
(615)-453-5000
WWW.BRIDGEPOINTTN.COM

No.	Revision/Issue	Date

SITE PLANS
FOR

UNITED FARM AND HOME CO-OP FEED BUILDING

1385 NORTH MAIN STREET
MOUNT PLEASANT, TENNESSEE
MAURY COUNTY, TENNESSEE

JESS MILES DILLARD
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 119269
STATE OF TENNESSEE
07-03-2024

SITE DETAILS

DATE:	7/25/2024	DRAWN BY:	BRS
DRAWING SCALE:	AS SHOWN	CHECKED BY:	JMD
PROJECT NO.:	24-040	APPROVED BY:	JMD

SHEET NUMBER:
C6.1

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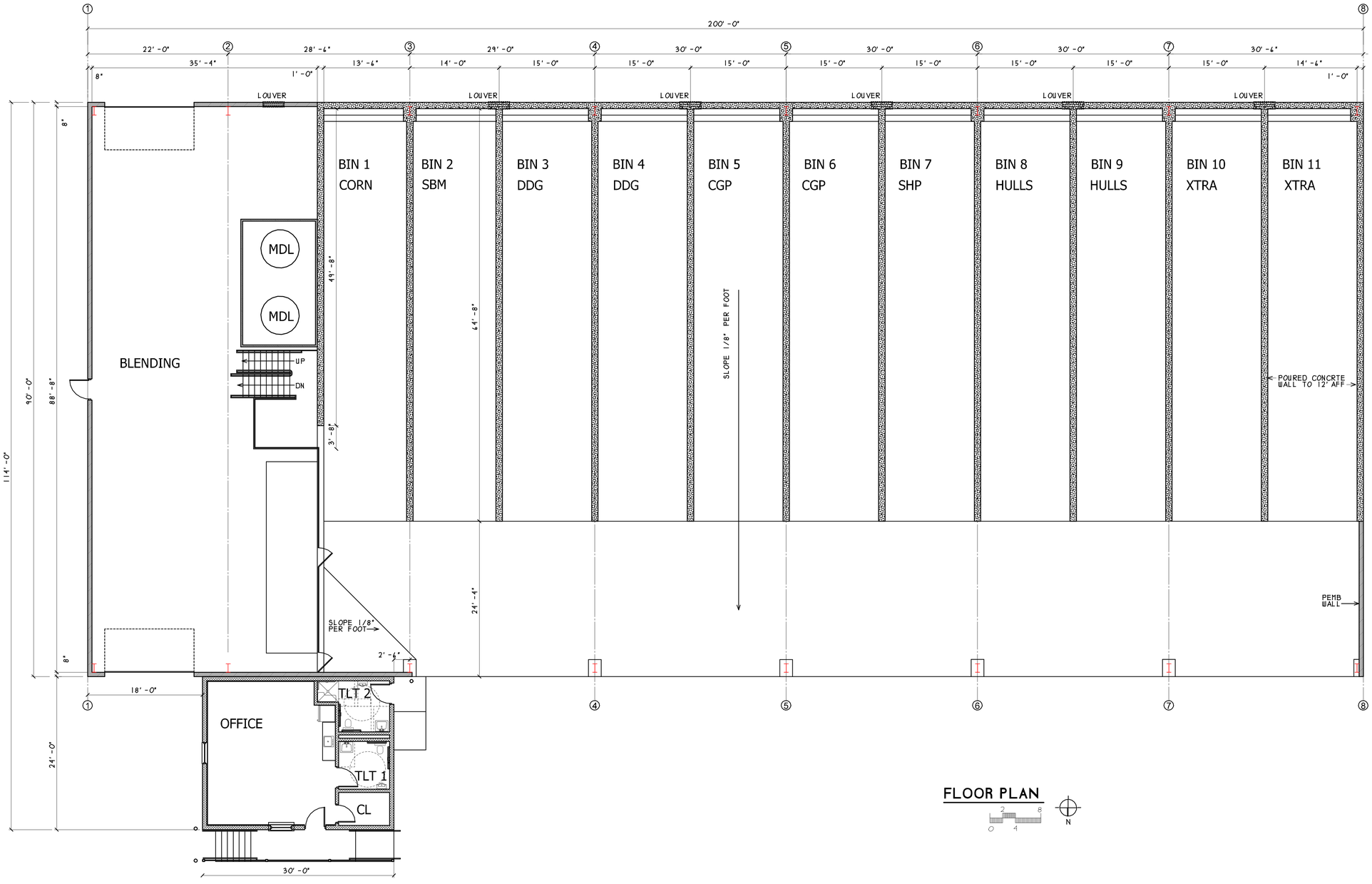
DOSS BROTHERS, INC.
CONSTRUCTION
Nic Roberson Project Manager / Estimator
Phone: 931-762-1531
2784 Hwy 43 North, Lawrenceburg, TN 38464

Section 7, Item A.
JOHN F. WERNE III
REGISTERED ARCHITECT
AGRICULTURE
COMMERCE
No. 2,9,9,9
STATE OF TENNESSEE
7/24/24

PRELIMINARY
NOT FOR
CONSTRUCTION

United Farm & Home CO-OP
Feed Building

1385 North Main Street, Mt. Pleasant, TN 38474



FLOOR PLAN

JOHN F. WERNE III
ARCHITECT
PO Box 183 Lawrenceburg, TN 38464
1020 OWEN COURT, ASHLAND CITY, TENNESSEE 37015 615-792-3966 jwerne3@gmail.com

A-1

ISSUE: 7/24/24

OSS BROTHERS, INC.
CONSTRUCTION
Nic Roberson Project Manager / Estimator
Phone: 931-762-1531
2784 Hwy 43 North, Lawrenceburg, TN 38464

JOHN F. WERNE III
REGISTERED ARCHITECT
AGRICULTURE
COMMERCE
No. 2,9,9,4
STATE OF TENNESSEE
7/24/24

PRELIMINARY
NOT FOR
CONSTRUCTION

United Farm & Home CO-OP
Feed Building

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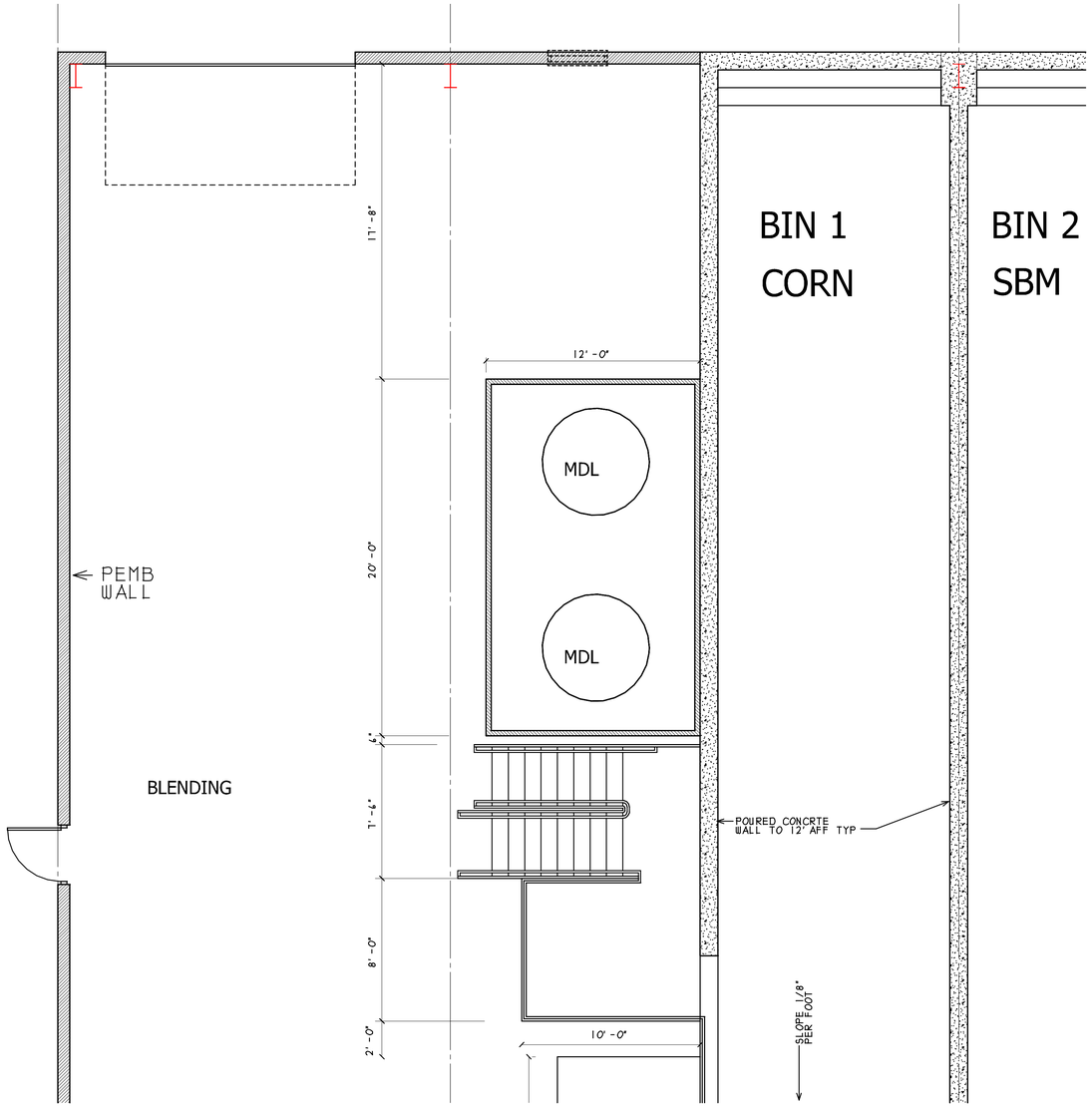

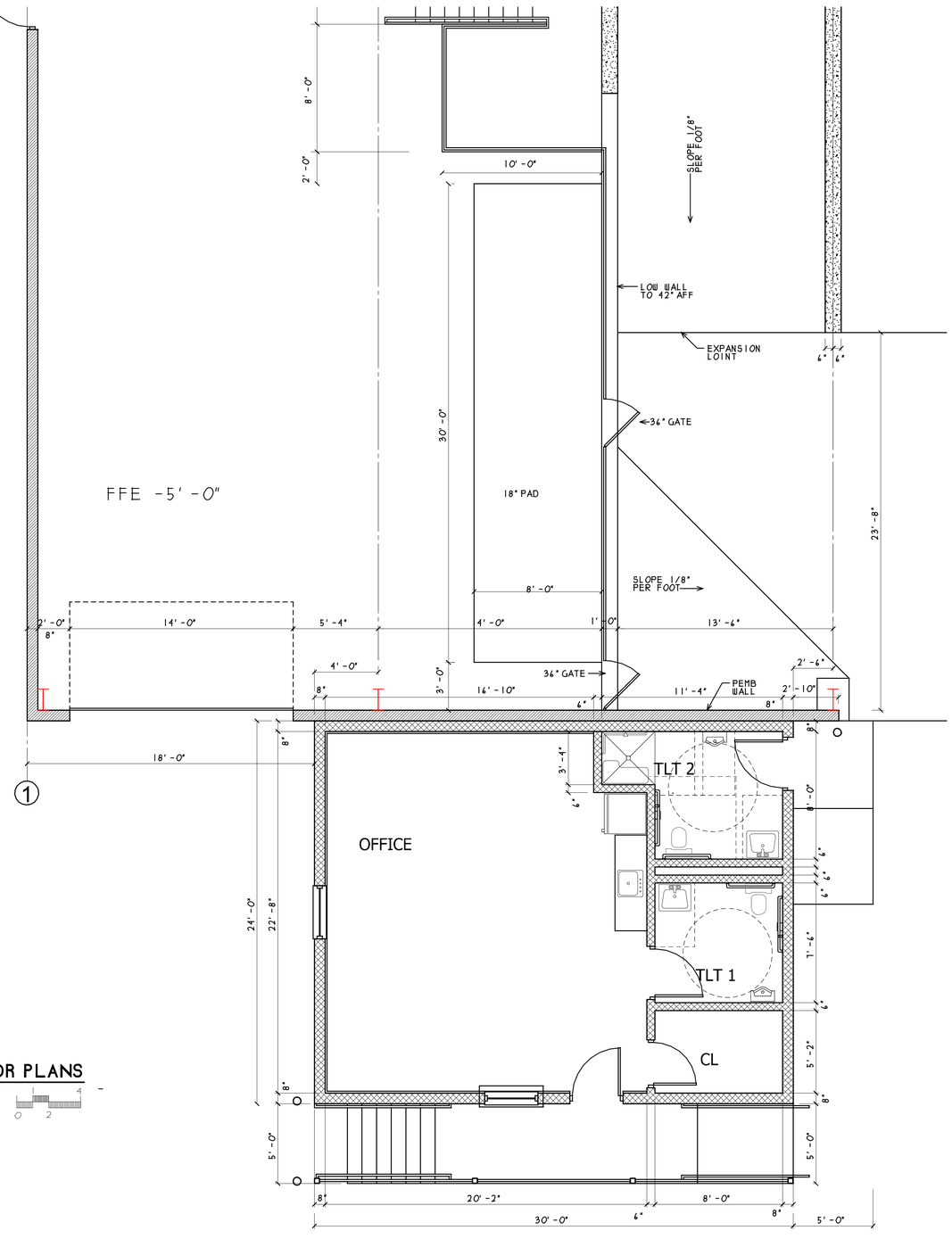

LARGE SCALE FLOOR PLANS

N

JOHN F. WERNE III
ARCHITECT
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1020 OWEN COURT, ASHLAND CITY, TENNESSEE 37015 615-792-3966 jwerne3@gmail.com

A-2

ISSUE: 7/24/24

DOSS BROTHERS, INC.
CONSTRUCTION
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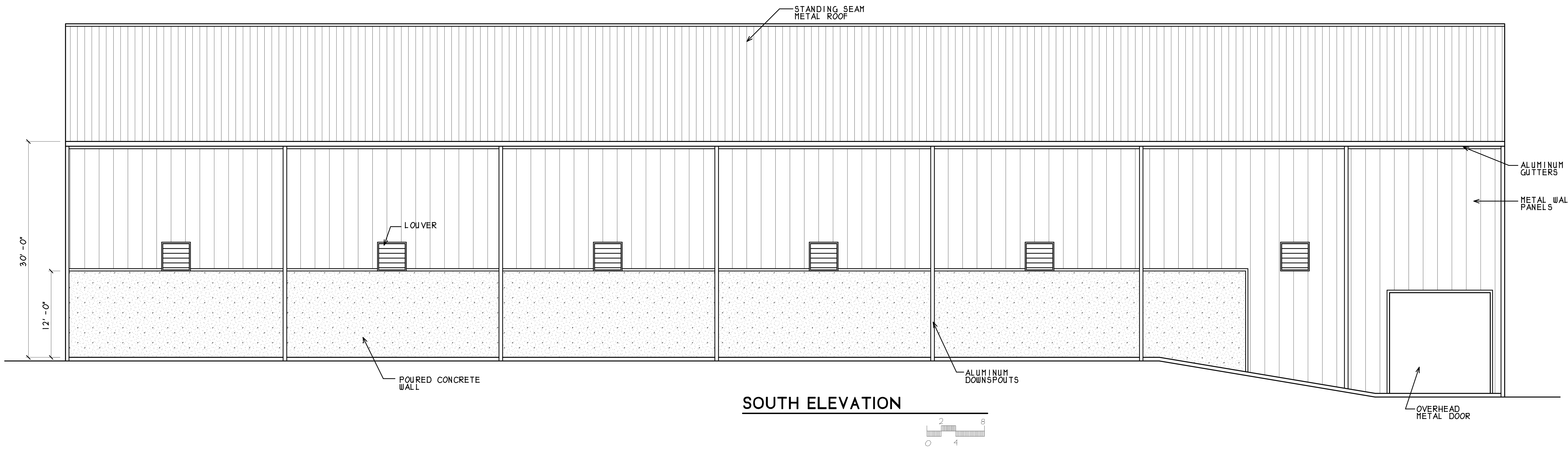
2784 Hwy 43 North, Lawrenceburg, TN 38464

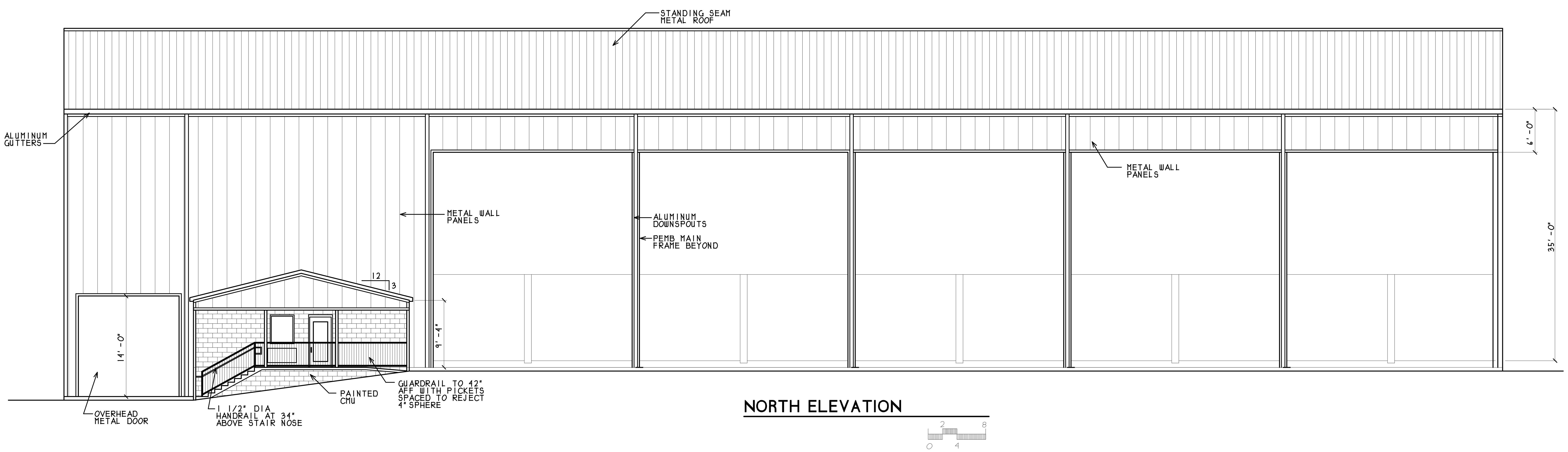
PRELIMINARY
NOT FOR
CONSTRUCTION

United Farm & Home CO-OP Feed Building

1385 North Main Street, Mt. Pleasant, TN 38474



SOUTH ELEVATION



NORTH ELEVATION

JOHN F. WERNE III
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A-3

ISSUE: 7/24/24

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CONSTRUCTION
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Phone: 931-762-1531
2784 Hwy 43 North, Lawrenceburg, TN 38464

JOHN F. WERNE III
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No. 2,9,9,4
STATE OF TENNESSEE
7/24/24

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NOT FOR
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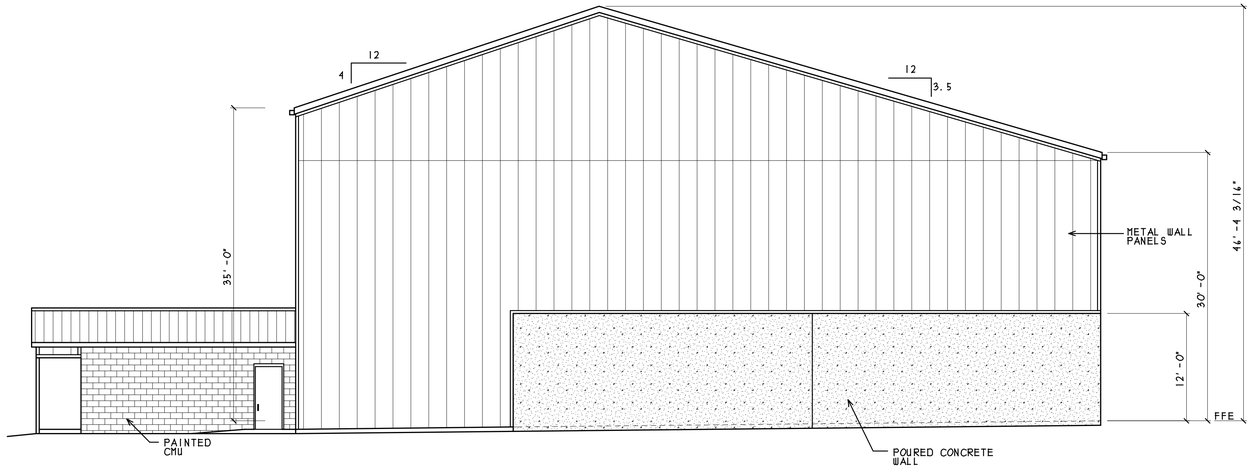
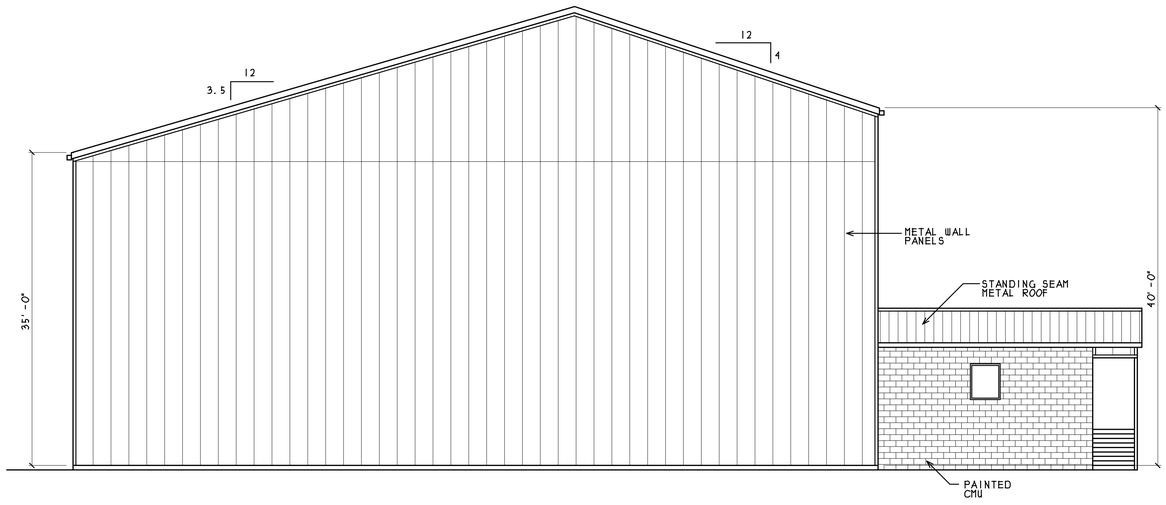
United Farm & Home CO-OP
Feed Building

1385 North Main Street, Mt. Pleasant, TN 38474



WEST ELEVATION

2 8
0 4



EAST ELEVATION

2 8
0 4

JOHN F. WERNE III
ARCHITECT
PO Box 183 Lawrenceburg, TN 38464
1020 OWEN COURT, ASHLAND CITY, TENNESSEE 37015 615-792-3966 jwerne3@gmail.com

A-4

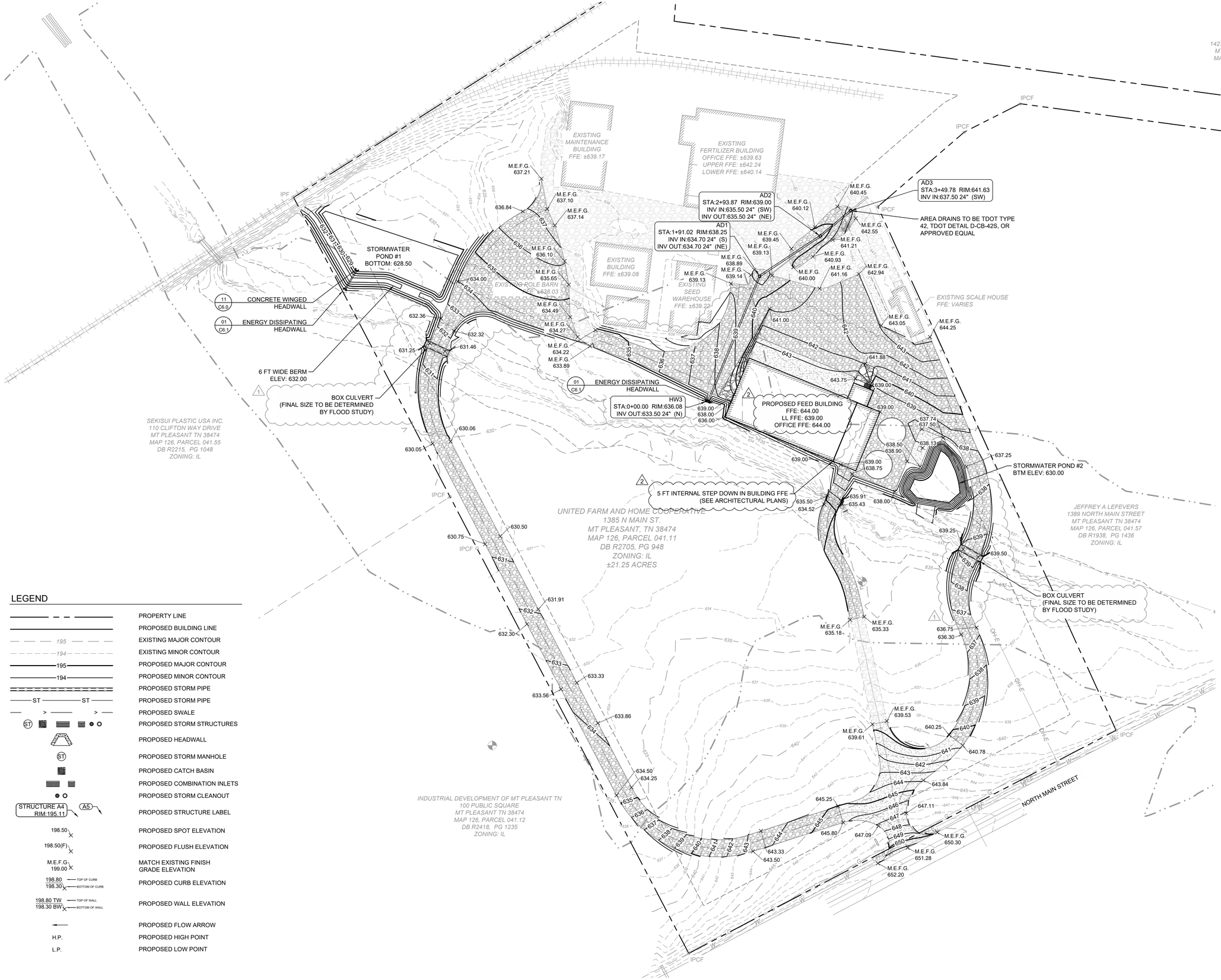
ISSUE: 7/24/24

BRIDGEPOINT, LLC
2095A COOKS RD.
MOUNT JULIET, TENNESSEE
(615)-453-5000
WWW.BRIDGEPOINTTN.COM

No.	Revision/Issue	Date
1	CITY, OWNER & TDEC COMMENTS	2024-07-25
2	MAIN FLOOR & OFFICE FFE	XX.XX.XX

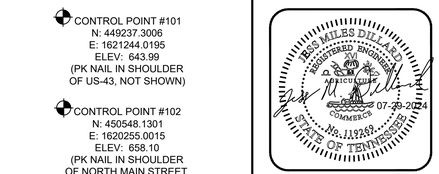
UNITED FARM AND HOME CO-OP FEED BUILDING

SITE PLANS
FOR
1385 NORTH MAIN STREET
MOUNT PLEASANT, TENNESSEE
MAURY COUNTY, TENNESSEE



LEGEND

- PROPERTY LINE
- PROPOSED BUILDING LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED STORM PIPE
- PROPOSED STORM PIPE
- PROPOSED SWALE
- PROPOSED STORM STRUCTURES
- PROPOSED HEADWALL
- PROPOSED STORM MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED COMBINATION INLETS
- PROPOSED STORM CLEANOUT
- PROPOSED STRUCTURE LABEL (STRUCTURE A4, RIM:195.11, A5)
- PROPOSED SPOT ELEVATION (198.50)
- PROPOSED FLUSH ELEVATION (198.50(F))
- MATCH EXISTING FINISH GRADE ELEVATION (M.E.F.G. 199.00)
- PROPOSED CURB ELEVATION (198.80 TOP OF CURB / 198.30 BOTTOM OF CURB)
- PROPOSED WALL ELEVATION (198.80 TW TOP OF WALL / 198.30 BW BOTTOM OF WALL)
- PROPOSED FLOW ARROW
- H.P. PROPOSED HIGH POINT
- L.P. PROPOSED LOW POINT



DRAWN BY:	BRS
CHECKED BY:	JMD
APPROVED BY:	JMD
DATE:	7/29/2024
DRAWING SCALE:	AS SHOWN
PROJECT NO.:	24-040

GRADING & DRAINAGE PLAN

SHEET NUMBER:
C3.0

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STORMWATER MANAGEMENT REPORT

United Farm & Home Co-op

1385 North Main Street
Mt. Pleasant, Tennessee 38474
Maury County

Prepared by:

BRIDGEPOINT, LLC

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(615)-453-5000

Bridgepoint, LLC Project #24-040

July 3, 2024
Revised July 25, 2024

Jess Dillard, P.E.

CONTENTS

PROJECT NARRATIVE

Project Description

The proposed project is the construction of a 18,000 sf feed building with a 720 sf office attached, with two new gravel drives through the site. The project is located off North Main Street in Mt. Pleasant, Tennessee. The approximate site area is 21.25 acres, with approximately 5.01 acres being disturbed. The site has been designed to meet the City of Mt. Pleasant stormwater management regulations.

Soil Conditions

The web soil survey shows that the site consists of Type A, B & Type C soils.

Refer to Appendix B for the soil report and further details.

Existing Stormwater Conditions

The site is currently a Co-op center providing feed and fertilizer. The stormwater currently sheet flows to a channel in the middle of the site that flows through the site, from east to west. Said channel splits the site, with about half of the stormwater coming from the north side of the channel and the remainder from the south side of the channel. The north side of the channel is where all of the buildings/facility are located, while the south side of the channel is a field used for row cropping. All the site's stormwater leaves the site through the channel to the west. There are a three storm pipe that route water from the northeast portion of the site to the channel in the middle of the site. Based on the FEMA map, approximately 40% of the site in Zone A floodplain.

See Appendix C for Existing Conditions Drainage Exhibit.

Proposed Stormwater Conditions

The proposed site will include a detention pond on the west side of the site, a few areas drains and storm pipe to be routed to the channel in the middle of the site, as it is doing in the existing condition.

See Appendix C for Proposed Development Drainage Exhibit.

STORMWATER QUANTITY (DETENTION)

Storm Sewer System

The storm sewer system on site conveys stormwater to the drainage channel. The system is shown on the Grading and Drainage plan for United Farm & Home Co-op accompanying this report.

Refer to Grading and Drainage Plans for storm sewer information.

The Storm Sewer calculations are provided in Appendix D.

Stormwater Detention

The detention pond on site are designed meet pre vs. post conditions. This will ensure there is no adverse effect on neighboring properties from this development. There is one foot and nine inches of freeboard between the top of berm elevation and the 100-year storm elevation in the pond.

The Detention Calculations are provided in Appendix E.

OFF-SITE DRAINAGE

Approximately 0.55 acres of offsite drainage, from the northeast, that was accounted for when performing the stormwater calculations for this site.

APPENDIX A: VICINITY MAP

Vicinity Map

Mt. Pleasant, Tennessee

APPENDIX B: SOILS REPORTS

USDA Web Soil Survey Report

United States Department of Agriculture

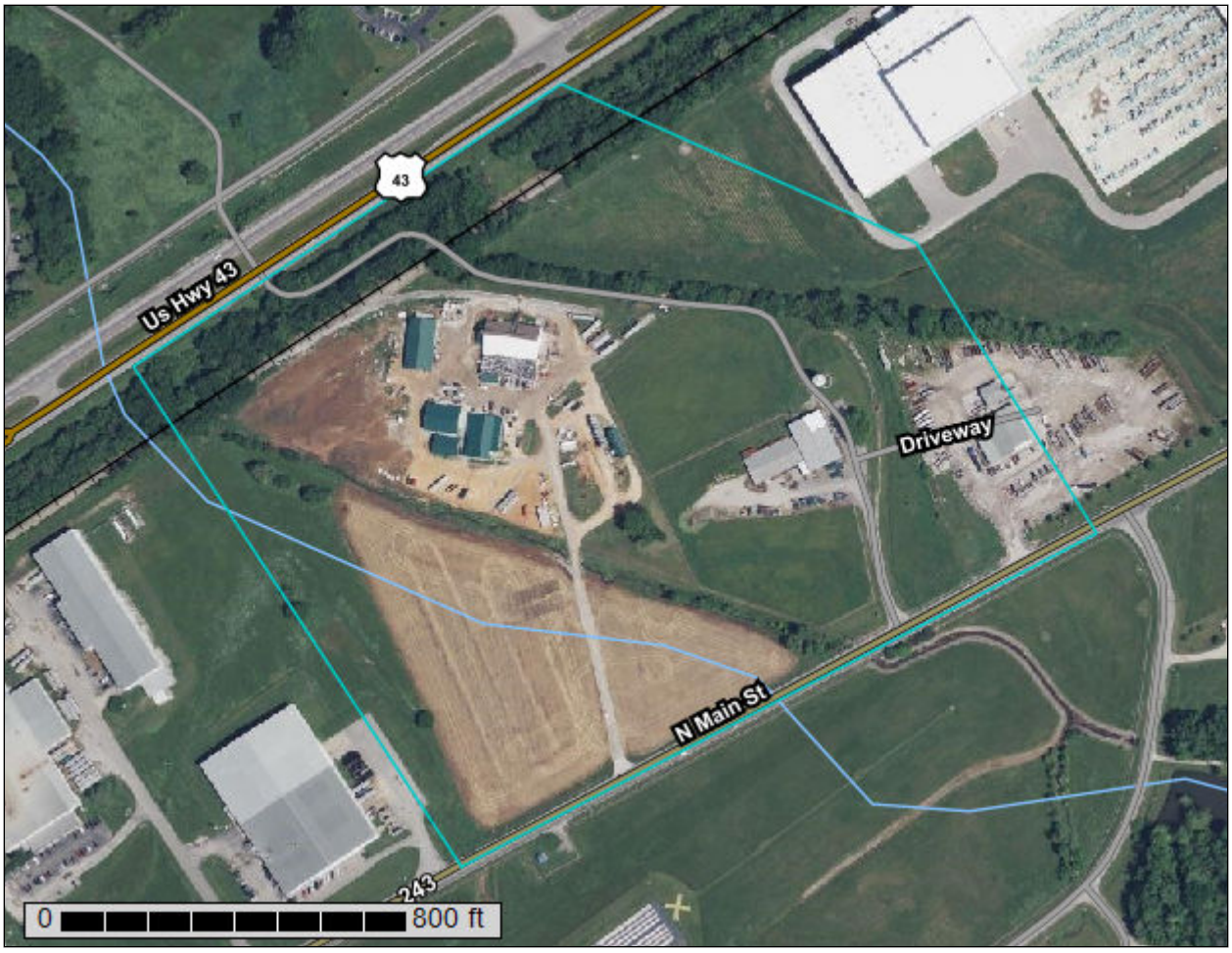
NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Maury County, Tennessee

United Farm & Home



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:4,670 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Maury County, Tennessee
Survey Area Data: Version 18, Sep 12, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 20, 2021—Jun 14, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Bg	Braxton cherty silty clay loam, severely eroded sloping phase	4.0	7.8%
Bm	Burgin silt loam, phosphatic phase (Eagleville)	0.4	0.7%
Dg	Dunning silty clay loam, phosphatic phase	0.0	0.0%
Ga	Godwin silt loam	1.0	1.9%
Hr	Huntington silt loam, local alluvium phosphatic phase	5.2	9.9%
Mb	Maury silt loam, eroded gently sloping phase	25.4	48.9%
Me	Maury silty clay loam, eroded sloping phase	3.4	6.5%
Mp	Mines, Pits, and Dumps	6.5	12.4%
Mr	Mine areas, reclaimed	6.2	12.0%
Totals for Area of Interest		**52.0**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas

are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Maury County, Tennessee

Bg—Braxton cherty silty clay loam, severely eroded sloping phase

Map Unit Setting

National map unit symbol: kq4x
Elevation: 900 to 1,200 feet
Mean annual precipitation: 48 to 55 inches
Mean annual air temperature: 57 to 61 degrees F
Frost-free period: 190 to 205 days
Farmland classification: Not prime farmland

Map Unit Composition

Braxton, severely eroded, and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Braxton, Severely Eroded

Setting

Landform: Hillslopes
Landform position (three-dimensional): Side slope
Parent material: Clayey alluvium and/or residuum weathered from limestone

Typical profile

H1 - 0 to 10 inches: gravelly silty clay loam
H2 - 10 to 30 inches: clay
H3 - 30 to 60 inches: clay

Properties and qualities

Slope: 5 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: F123XY001TN - Limestone Uplands
Hydric soil rating: No

Bm—Burgin silt loam, phosphatic phase (Eagleville)

Map Unit Setting

National map unit symbol: kq51
Elevation: 610 to 2,090 feet

Mean annual precipitation: 48 to 63 inches
Mean annual air temperature: 45 to 72 degrees F
Frost-free period: 154 to 189 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Eagleville and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Eagleville

Setting

Landform: Flood plains
Landform position (three-dimensional): Tread
Parent material: Clayey alluvium derived from limestone

Typical profile

H1 - 0 to 14 inches: silt loam
H2 - 14 to 35 inches: clay
R - 35 to 45 inches: bedrock

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Somewhat poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 12 to 18 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: D
Ecological site: F123XY005TN - Floodplains
Hydric soil rating: No

Dg—Dunning silty clay loam, phosphatic phase

Map Unit Setting

National map unit symbol: kq5m
Elevation: 520 to 1,020 feet
Mean annual precipitation: 46 to 60 inches
Mean annual air temperature: 57 to 61 degrees F
Frost-free period: 190 to 200 days
Farmland classification: Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Dunning and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dunning

Setting

Landform: Depressions
Landform position (three-dimensional): Dip
Parent material: Clayey alluvium derived from limestone

Typical profile

H1 - 0 to 14 inches: silty clay loam
H2 - 14 to 60 inches: clay

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: Frequent
Frequency of ponding: Frequent
Available water supply, 0 to 60 inches: High (about 10.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Hydric soil rating: Yes

Ga—Godwin silt loam

Map Unit Setting

National map unit symbol: kq66
Elevation: 600 to 1,000 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 57 to 61 degrees F
Frost-free period: 190 to 220 days
Farmland classification: Prime farmland if protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Godwin and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Godwin

Setting

Landform: Hillslopes
Landform position (three-dimensional): Base slope

Parent material: Clayey alluvium derived from limestone

Typical profile

H1 - 0 to 18 inches: silt loam
H2 - 18 to 30 inches: silty clay loam
H3 - 30 to 60 inches: clay

Properties and qualities

Slope: 0 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 10.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Ecological site: F123XY005TN - Floodplains
Hydric soil rating: No

Hr—Huntington silt loam, local alluvium phosphatic phase

Map Unit Setting

National map unit symbol: kq6s
Elevation: 510 to 1,000 feet
Mean annual precipitation: 48 to 55 inches
Mean annual air temperature: 57 to 61 degrees F
Frost-free period: 190 to 205 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Huntington and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Huntington

Setting

Landform: Flood plains
Landform position (three-dimensional): Tread
Parent material: Loamy alluvium derived from limestone, sandstone, and shale

Typical profile

H1 - 0 to 24 inches: silt loam
H2 - 24 to 64 inches: silt loam

Properties and qualities

Slope: 0 to 6 percent
Depth to restrictive feature: More than 80 inches

Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 11.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: F123XY005TN - Floodplains
Hydric soil rating: No

Mb—Maury silt loam, eroded gently sloping phase

Map Unit Setting

National map unit symbol: kq72
Elevation: 540 to 930 feet
Mean annual precipitation: 46 to 60 inches
Mean annual air temperature: 57 to 61 degrees F
Frost-free period: 190 to 200 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Maury and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Maury

Setting

Landform: Hillslopes
Landform position (three-dimensional): Crest
Parent material: Loess over clayey residuum and/or alluvium derived from limestone

Typical profile

H1 - 0 to 14 inches: silt loam
H2 - 14 to 26 inches: silty clay loam
H3 - 26 to 40 inches: silty clay
H4 - 40 to 60 inches: clay

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 11.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: A
Ecological site: F123XY001TN - Limestone Uplands
Hydric soil rating: No

Me—Maury silty clay loam, eroded sloping phase

Map Unit Setting

National map unit symbol: kq75
Elevation: 560 to 890 feet
Mean annual precipitation: 46 to 60 inches
Mean annual air temperature: 57 to 61 degrees F
Frost-free period: 190 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Maury and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Maury

Setting

Landform: Hillslopes
Landform position (three-dimensional): Side slope
Parent material: Loess over clayey residuum and/or alluvium derived from limestone

Typical profile

H1 - 0 to 16 inches: silty clay loam
H2 - 16 to 40 inches: silty clay
H3 - 40 to 60 inches: clay

Properties and qualities

Slope: 5 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 10.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: A
Ecological site: F123XY001TN - Limestone Uplands
Hydric soil rating: No

Mp—Mines, Pits, and Dumps

Map Unit Composition

Mines: 40 percent
Dumps: 30 percent
Pits: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Mr—Mine areas, reclaimed

Map Unit Composition

Mine areas, reclaimed: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mine Areas, Reclaimed

Typical profile

H1 - 0 to 60 inches: variable

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

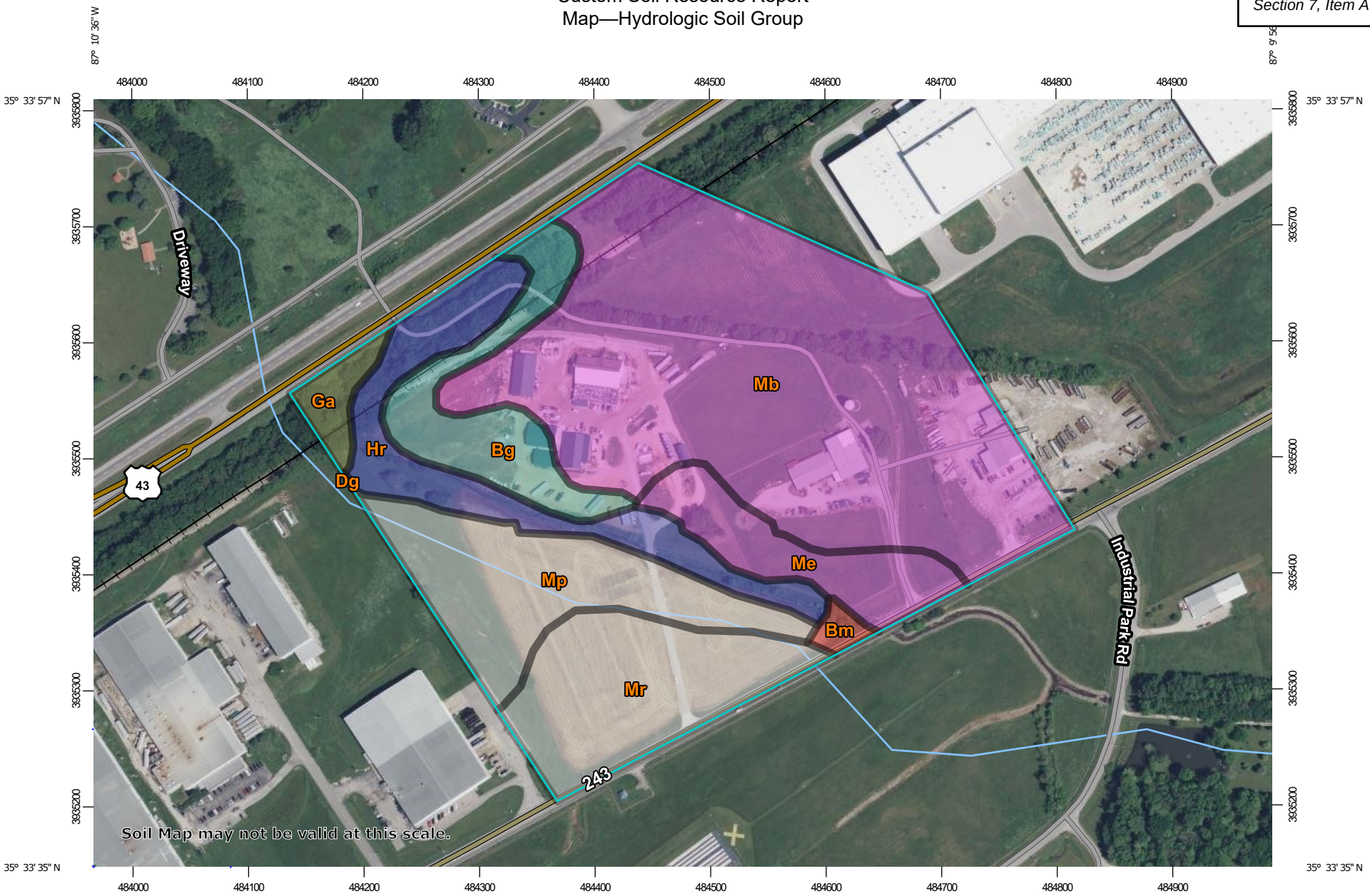
Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Custom Soil Resource Report
Map—Hydrologic Soil Group



Map Scale: 1:4,670 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Maury County, Tennessee
Survey Area Data: Version 18, Sep 12, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 20, 2021—Jun 14, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Bg	Braxton cherty silty clay loam, severely eroded sloping phase	C	4.0	7.8%
Bm	Burgin silt loam, phosphatic phase (Eagleville)	D	0.4	0.7%
Dg	Dunning silty clay loam, phosphatic phase	C/D	0.0	0.0%
Ga	Godwin silt loam	C/D	1.0	1.9%
Hr	Huntington silt loam, local alluvium phosphatic phase	B	5.2	9.9%
Mb	Maury silt loam, eroded gently sloping phase	A	25.4	48.9%
Me	Maury silty clay loam, eroded sloping phase	A	3.4	6.5%
Mp	Mines, Pits, and Dumps		6.5	12.4%
Mr	Mine areas, reclaimed		6.2	12.0%
Totals for Area of Interest			**52.0**	**100.0%**

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

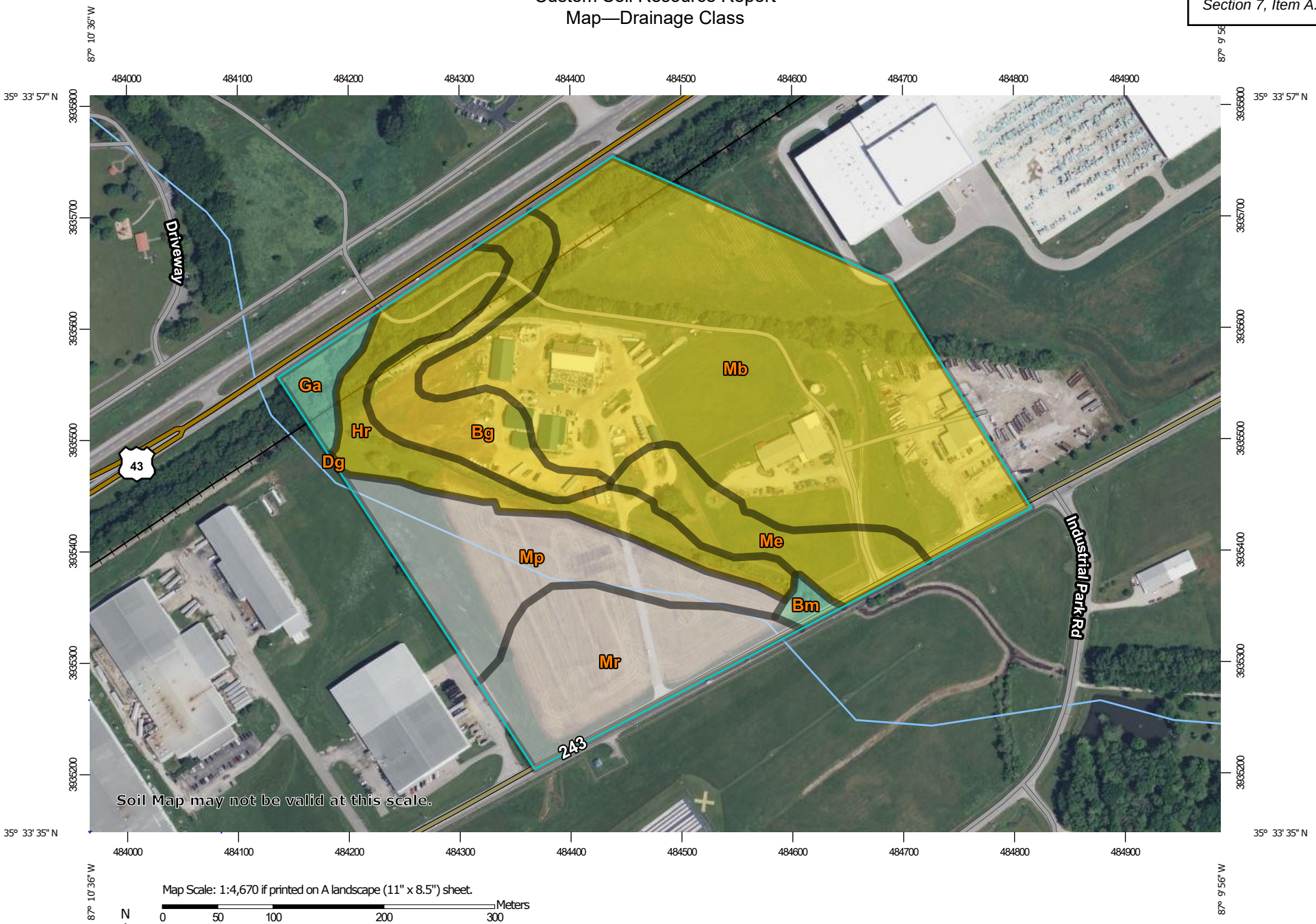
Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Drainage Class

"Drainage class (natural)" refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized-excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."

Custom Soil Resource Report
Map—Drainage Class



Map Scale: 1:4,670 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Excessively drained
- Somewhat excessively drained
- Well drained
- Moderately well drained
- Somewhat poorly drained
- Poorly drained
- Very poorly drained
- Subaqueous
- Not rated or not available

Soil Rating Lines

- Excessively drained
- Somewhat excessively drained
- Well drained
- Moderately well drained
- Somewhat poorly drained
- Poorly drained
- Very poorly drained
- Subaqueous
- Not rated or not available

Soil Rating Points

- Excessively drained
- Somewhat excessively drained
- Well drained
- Moderately well drained
- Somewhat poorly drained
- Poorly drained
- Very poorly drained
- Subaqueous
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Maury County, Tennessee
Survey Area Data: Version 18, Sep 12, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 20, 2021—Jun 14, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Drainage Class

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Bg	Braxton cherty silty clay loam, severely eroded sloping phase	Well drained	4.0	7.8%
Bm	Burgin silt loam, phosphatic phase (Eagleville)	Somewhat poorly drained	0.4	0.7%
Dg	Dunning silty clay loam, phosphatic phase	Poorly drained	0.0	0.0%
Ga	Godwin silt loam	Somewhat poorly drained	1.0	1.9%
Hr	Huntington silt loam, local alluvium phosphatic phase	Well drained	5.2	9.9%
Mb	Maury silt loam, eroded gently sloping phase	Well drained	25.4	48.9%
Me	Maury silty clay loam, eroded sloping phase	Well drained	3.4	6.5%
Mp	Mines, Pits, and Dumps		6.5	12.4%
Mr	Mine areas, reclaimed		6.2	12.0%
Totals for Area of Interest			**52.0**	**100.0%**

Rating Options—Drainage Class

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

References

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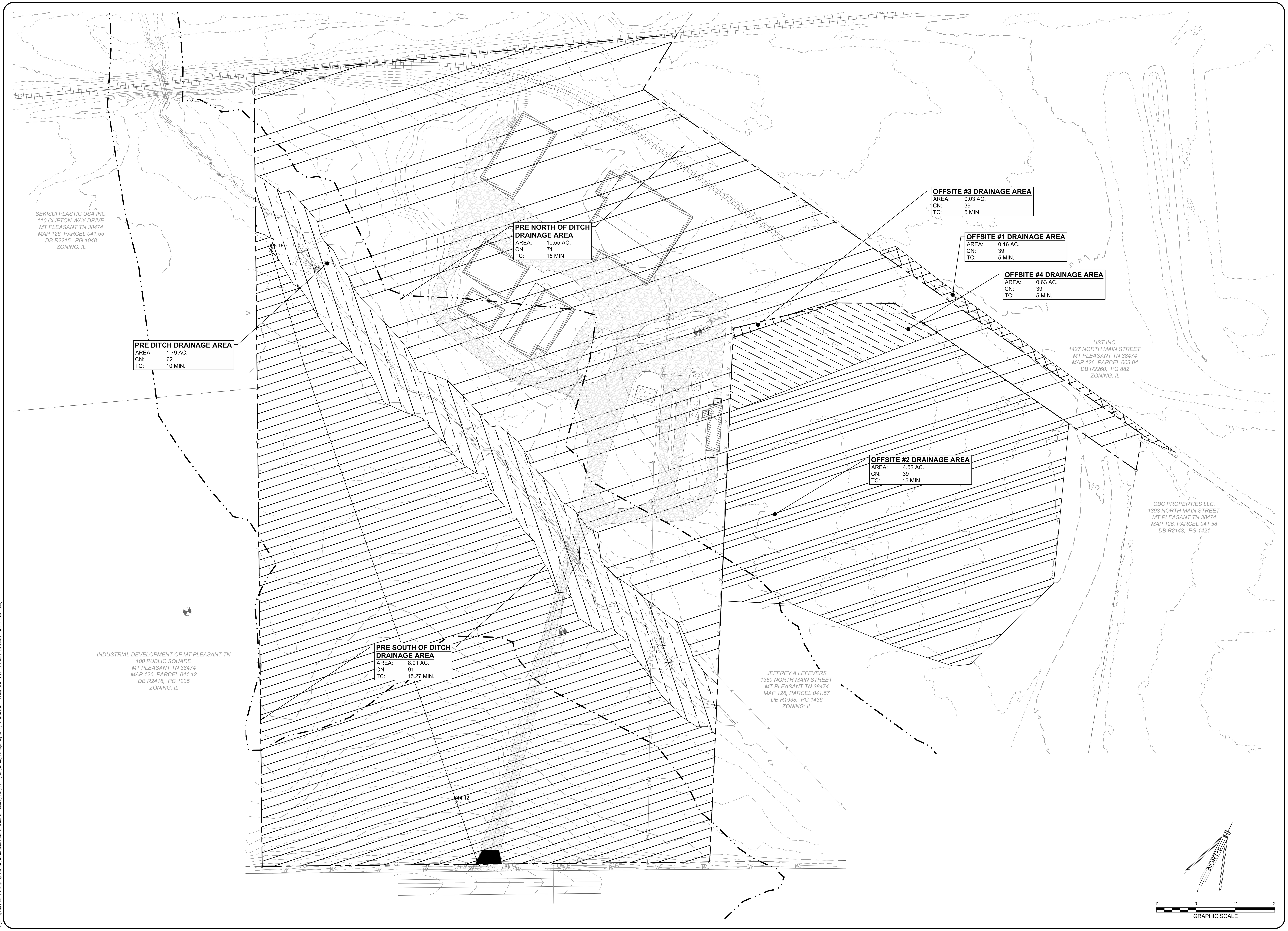
APPENDIX C: DRAINAGE MAP EXHIBITS

Existing Drainage Exhibit

Proposed Drainage Exhibit

Grading & Drainage Plan

Section 7, Item A.



SEKISUI PLASTIC USA INC.
110 CLIFTON WAY DRIVE
MT PLEASANT TN 38474
MAP 126, PARCEL 041.55
DB R2215, PG 1048
ZONING: IL
PRE NORTH OF DITCH DRAINAGE AREA
AREA: 10.55 AC.
CN: 71
TC: 15 MIN.
PRE DITCH DRAINAGE AREA
AREA: 1.79 AC.
CN: 62
TC: 10 MIN.
OFFSITE #3 DRAINAGE AREA
AREA: 0.03 AC.
CN: 39
TC: 5 MIN.
OFFSITE #1 DRAINAGE AREA
AREA: 0.16 AC.
CN: 39
TC: 5 MIN.
OFFSITE #4 DRAINAGE AREA
AREA: 0.63 AC.
CN: 39
TC: 5 MIN.
UST INC.
1427 NORTH MAIN STREET
MT PLEASANT TN 38474
MAP 126, PARCEL 003.04
DB R2260, PG 882
ZONING: IL
OFFSITE #2 DRAINAGE AREA
AREA: 4.52 AC.
CN: 39
TC: 15 MIN.
CBC PROPERTIES LLC.
1393 NORTH MAIN STREET
MT PLEASANT TN 38474
MAP 126, PARCEL 041.58
DB R2143, PG 1421
INDUSTRIAL DEVELOPMENT OF MT PLEASANT TN
100 PUBLIC SQUARE
MT PLEASANT TN 38474
MAP 126, PARCEL 041.12
DB R2418, PG 1235
ZONING: IL
PRE SOUTH OF DITCH DRAINAGE AREA
AREA: 8.91 AC.
CN: 91
TC: 15.27 MIN.
JEFFREY A LEFEVERS
1389 NORTH MAIN STREET
MT PLEASANT TN 38474
MAP 126, PARCEL 041.57
DB R1938, PG 1436
ZONING: IL
NORTH
GRAPHIC SCALE

BRIDGEPOINT, LLC
2095A COOKS RD.
MOUNT JULIET, TENNESSEE
(615)-453-5000
WWW.BRIDGEPOINTTN.COM

No.	Revision/Issue	Date

SITE PLANS FOR

UNITED FARM AND HOME CO-OP FEED BUILDING

1385 NORTH MAIN STREET
MOUNT PLEASANT, TENNESSEE
MAURY COUNTY, TENNESSEE

JESS MILES DILLARD
REGISTERED ENGINEER
AGRICULTURE COMMERCE
No. 119269
STATE OF TENNESSEE
07-25-2024

EXISTING DRAINAGE EXHIBIT

DATE:	7/25/2024	DRAWN BY:	BRS
DRAWING SCALE:	AS SHOWN	CHECKED BY:	JMD
PROJECT NO.:	24-040	APPROVED BY:	JMD

SHEET NUMBER:
EX-01

BRIDGEPOINT, LLC
2095A COOKS RD.
MOUNT JULIET, TENNESSEE
(615)-453-5000
WWW.BRIDGEPOINTTN.COM

No.	Revision/Issue	Date

SITE PLANS
FOR
UNITED FARM AND HOME CO-OP FEED BUILDING
1385 NORTH MAIN STREET
MOUNT PLEASANT, TENNESSEE
MAURY COUNTY, TENNESSEE

No. 119269
07-25-2024

PROPOSED DRAINAGE EXHIBIT

DATE:	7/25/2024	DRAWN BY:	BRS
DRAWING SCALE:	AS SHOWN	CHECKED BY:	JMD
PROJECT NO.:	24-040	APPROVED BY:	JMD

SHEET NUMBER:
EX-02

BRIDGEPOINT, LLC
2095A COOKS RD.
MOUNT JULIET, TENNESSEE
(615)-453-5000
WWW.BRIDGEPOINTTN.COM

No.	Revision/Issue	Date
1	CITY, OWNER & TDEC COMMENTS	2024-07-25

SITE PLANS FOR UNITED FARM AND HOME CO-OP FEED BUILDING

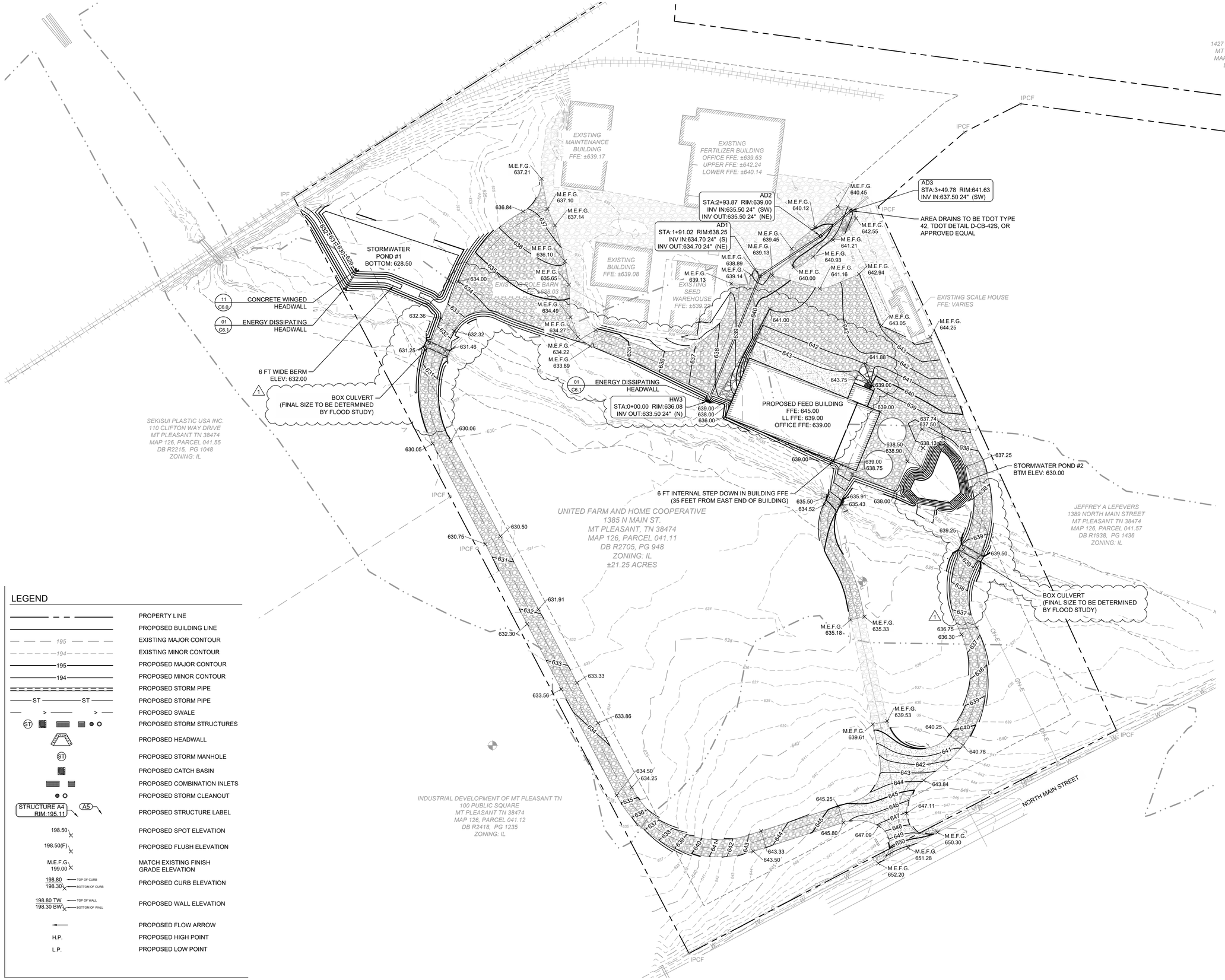
1385 NORTH MAIN STREET
MOUNT PLEASANT, TENNESSEE
MAURY COUNTY, TENNESSEE

GRADING & DRAINAGE PLAN

DRAWN BY:	BRS
CHECKED BY:	JMD
APPROVED BY:	JMD
DATE:	7/25/2024
DRAWING SCALE:	AS SHOWN
PROJECT NO.:	24-040

SHEET NUMBER:
C3.0

64



LEGEND

- PROPERTY LINE
- PROPOSED BUILDING LINE
- 195 EXISTING MAJOR CONTOUR
- 194 EXISTING MINOR CONTOUR
- 195 PROPOSED MAJOR CONTOUR
- 194 PROPOSED MINOR CONTOUR
- PROPOSED STORM PIPE
- ST PROPOSED STORM PIPE
- PROPOSED SWALE
- PROPOSED STORM STRUCTURES
- PROPOSED HEADWALL
- PROPOSED STORM MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED COMBINATION INLETS
- PROPOSED STORM CLEANOUT
- STRUCTURE A4 RIM:195.11 / A5 PROPOSED STRUCTURE LABEL
- 198.50 PROPOSED SPOT ELEVATION
- 198.50(F) PROPOSED FLUSH ELEVATION
- M.E.F.G. 199.00 MATCH EXISTING FINISH GRADE ELEVATION
- 198.80 / 198.30 TOP OF CURB / BOTTOM OF CURB PROPOSED CURB ELEVATION
- 198.80 TW / 198.30 BW TOP OF WALL / BOTTOM OF WALL PROPOSED WALL ELEVATION
- PROPOSED FLOW ARROW
- H.P. PROPOSED HIGH POINT
- L.P. PROPOSED LOW POINT

JESS MILES DILLARD
REGISTERED ENGINEER
AGRICULTURE
07-25-2024
STATE OF TENNESSEE

M:\Bridgepoint (Team Folder)\Projects\2024\24-040 United Farm & Home Mt. Pleasant, Doug\OFFICE\CAD\SHEETS\C3.0.dwg, C3.0 GRADING & DRAINAGE PLAN, 7/25/2024 9:29:03 AM, DWG To PDF.pc3, ARCH full bleed D (24.00 x 36.00 Inches)

APPENDIX D: DETENTION CALCULATIONS

Hydrology Studio Hydrograph Report

Table of Contents

Contents continued...

Contents continued...

Contents continued...

Contents continued...

Contents continued...

Hydrograph by Return Period

Hydrology Studio v 3.0.0.32

07-25-2024

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Outflow (cfs)							
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
1	NRCS Runoff	Pre South of Ditch		31.89		40.20	46.89	55.90	63.01	70.29
2	NRCS Runoff	Pre Ditch		1.788		3.053	4.182	5.824	7.199	8.663
3	NRCS Runoff	Pre North of Ditch		17.40		25.66	32.78	42.81	50.98	59.51
4	NRCS Runoff	Pre Offsite 1		0.001		0.003	0.019	0.085	0.156	0.246
5	NRCS Runoff	Pre Offsite 2		0.018		0.086	0.348	1.352	2.619	4.207
6	NRCS Runoff	Pre Offsite 3		0.000		0.000	0.003	0.013	0.024	0.038
7	NRCS Runoff	Post Offsite 4		0.002		0.012	0.074	0.327	0.599	0.946
8	Junction	Pre Offsite Combined		0.021		0.100	0.399	1.492	2.863	4.652
9	Junction	Pre Total		51.03		68.91	83.93	104.8	121.6	139.1
11	NRCS Runoff	Post South of Ditch		32.04		40.34	47.03	56.03	63.14	70.41
12	NRCS Runoff	Post Ditch		2.026		3.344	4.512	6.199	7.604	9.120
13	NRCS Runoff	Post North to Pond 1		5.806		8.628	11.06	14.56	17.42	20.42
14	Pond Route	Post Pond 1 Discharge		1.883		3.314	4.393	5.536	6.367	7.581
15	NRCS Runoff	Post Bypass		8.742		12.25	15.18	19.24	22.51	25.88
16	NRCS Runoff	Post Offsite 1		0.001		0.003	0.019	0.085	0.156	0.246
17	NRCS Runoff	Post Offsite 2		0.018		0.086	0.348	1.352	2.619	4.207
18	NRCS Runoff	Post Offsite 3		0.000		0.000	0.003	0.013	0.024	0.038
19	NRCS Runoff	Post Offsite 4		0.002		0.012	0.074	0.327	0.599	0.946
20	Junction	Post Offsite Combined		0.021		0.100	0.399	1.492	2.863	4.652
21	NRCS Runoff	Post Culvert 1		0.003		0.014	0.090	0.398	0.729	1.150
22	NRCS Runoff	Post Area Drain 3 (AD3)		0.005		0.006	0.007	0.008	0.009	0.010
23	NRCS Runoff	Post Area Drain 2 (AD2)		0.446		0.697	0.916	1.229	1.487	1.759
24	NRCS Runoff	Post Area Drain 1 (AD1)		2.052		2.688	3.205	3.905	4.460	5.028
25	NRCS Runoff	Post North to Pond 2		3.704		5.051	6.166	7.694	8.913	10.17
26	Pond Route	Post Pond 2 Discharge		0.000		0.000	0.000	0.000	0.000	0.000
27	Junction	Post North of Ditch		11.44		16.57	21.03	27.47	32.47	37.52
28	Junction	Post Combined		45.10		59.64	72.10	89.79	104.2	119.5

Hydrograph 2-yr Summary

Hydrology Studio v 3.0.0.32

07-25-2024

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Flow (cfs)	Time to Peak (hrs)	Hydrograph Volume (cuft)	Inflow Hyd(s)	Maximum Elevation (ft)	Maximum Storage (cuft)
1	NRCS Runoff	Pre South of Ditch	31.89	12.03	92,197	----		
2	NRCS Runoff	Pre Ditch	1.788	12.03	5,331	----		
3	NRCS Runoff	Pre North of Ditch	17.40	12.07	50,519	----		
4	NRCS Runoff	Pre Offsite 1	0.001	18.17	20.1	----		
5	NRCS Runoff	Pre Offsite 2	0.018	18.27	580	----		
6	NRCS Runoff	Pre Offsite 3	0.000	18.17	3.09	----		
7	NRCS Runoff	Post Offsite 4	0.002	18.17	77.3	----		
8	Junction	Pre Offsite Combined	0.021	18.27	681	4, 5, 6, 7		
9	Junction	Pre Total	51.03	12.03	148,124	1, 2, 3, 7		
11	NRCS Runoff	Post South of Ditch	32.04	12.03	92,756	----		
12	NRCS Runoff	Post Ditch	2.026	12.03	5,851	----		
13	NRCS Runoff	Post North to Pond 1	5.806	12.03	15,522	----		
14	Pond Route	Post Pond 1 Discharge	1.883	12.23	15,495	13	629.13	4,952
15	NRCS Runoff	Post Bypass	8.742	12.00	22,840	----		
16	NRCS Runoff	Post Offsite 1	0.001	18.17	20.1	----		
17	NRCS Runoff	Post Offsite 2	0.018	18.27	580	----		
18	NRCS Runoff	Post Offsite 3	0.000	18.17	3.09	----		
19	NRCS Runoff	Post Offsite 4	0.002	18.17	77.3	----		
20	Junction	Post Offsite Combined	0.021	18.27	681	16, 17, 18, 19		
21	NRCS Runoff	Post Culvert 1	0.003	18.17	94.0	----		
22	NRCS Runoff	Post Area Drain 3 (AD3)	0.005	11.93	9.94	----		
23	NRCS Runoff	Post Area Drain 2 (AD2)	0.446	11.97	915	----		
24	NRCS Runoff	Post Area Drain 1 (AD1)	2.052	11.93	4,188	----		
25	NRCS Runoff	Post North to Pond 2	3.704	11.93	7,480	----		
26	Pond Route	Post Pond 2 Discharge	0.000	11.27	0.000	25	531.80	4,799
27	Junction	Post North of Ditch	11.44	12.00	43,543	14, 15, 21, 22, 23, 24		
28	Junction	Post Combined	45.10	12.03	142,831	11, 12, 20, 26, 27		

Hydrograph Report

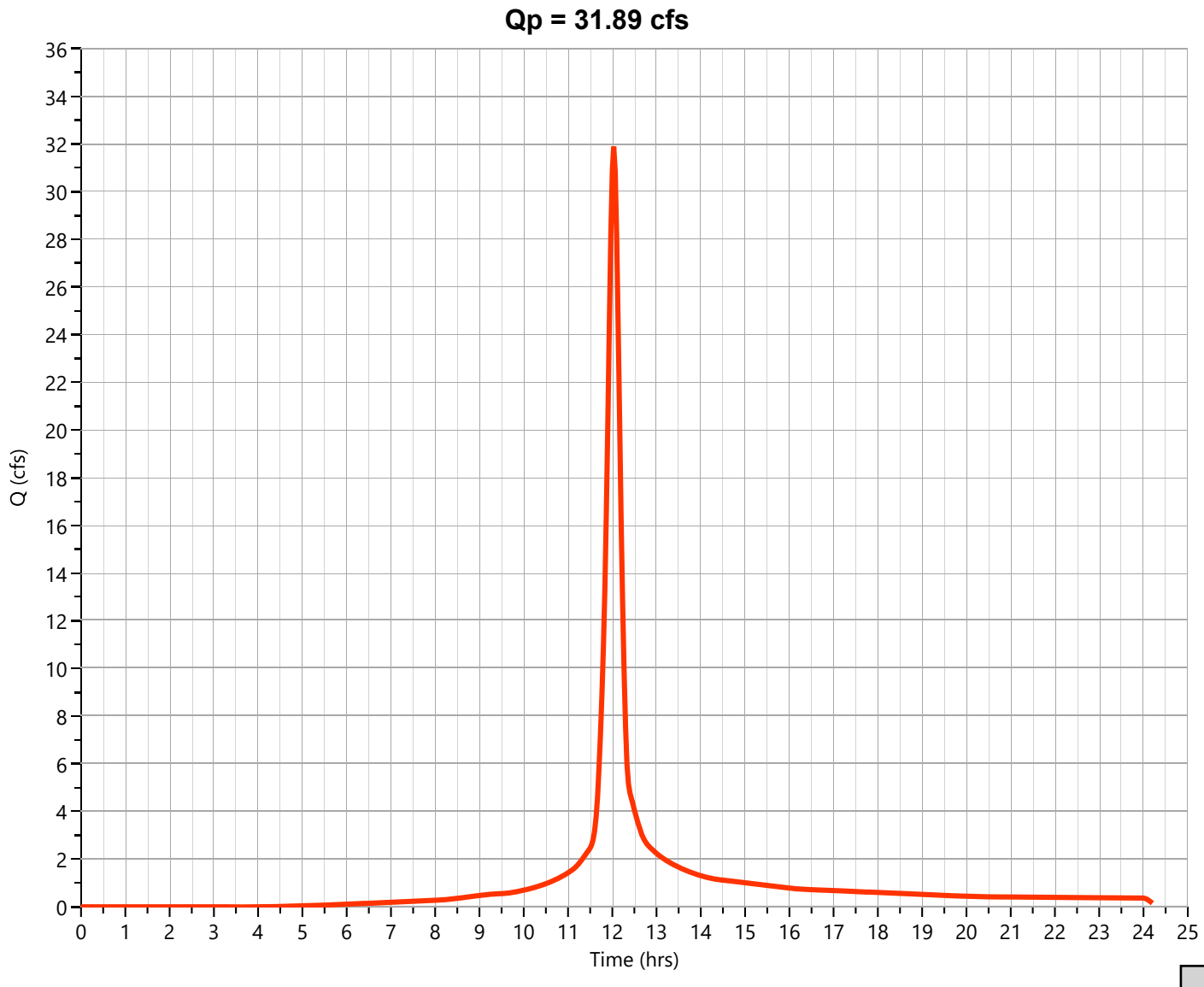
Hydrology Studio v 3.0.0.32 07-25-2024

Pre South of Ditch Hyd. No. 1

Hydrograph Type	= NRCS Runoff	Peak Flow	= 31.89 cfs
Storm Frequency	= 2-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 92,197 cuft
Drainage Area	= 8.91 ac	Curve Number	= 91.02*
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 15.27 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
8.69	91	No Rating (Row Crops)
0.2	91	Gravel
0.02	98	Concrete
8.91	**91**	Weighted CN Method Employed



Tc by TR55 Worksheet

Hydrology Studio v 3.0.0.32 07-25-2024

South of Ditch
NRCS Runoff

Hyd. No. 1

Description	Segments			
	A	B	C	Tc (min)
Sheet Flow				
Description	First 100 ft			
Manning's n	0.240	0.013	0.013	
Flow Length (ft)	100			
2-yr, 24-hr Precip. (in)	3.93	3.93	3.93	
Land Slope (%)	6.77			
Travel Time (min)	**7.91**	**0.00**	**0.00**	**7.91**
Shallow Concentrated Flow				
Flow Length (ft)	887			
Watercourse Slope (%)	15.94	0.00	0.00	
Surface Description	Min tillage	Paved	Paved	
Average Velocity (ft/s)	2.01			
Travel Time (min)	**7.36**	**0.00**	**0.00**	**7.36**
Channel Flow				
X-sectional Flow Area (sqft)				
Wetted Perimeter (ft)				
Channel Slope (%)				
Manning's n	0.013	0.013	0.013	
Velocity (ft/s)				
Flow Length (ft)				
Travel Time (min)	**0.00**	**0.00**	**0.00**	**0.00**
Total Travel Time				**15.27 min**

Hydrograph Report

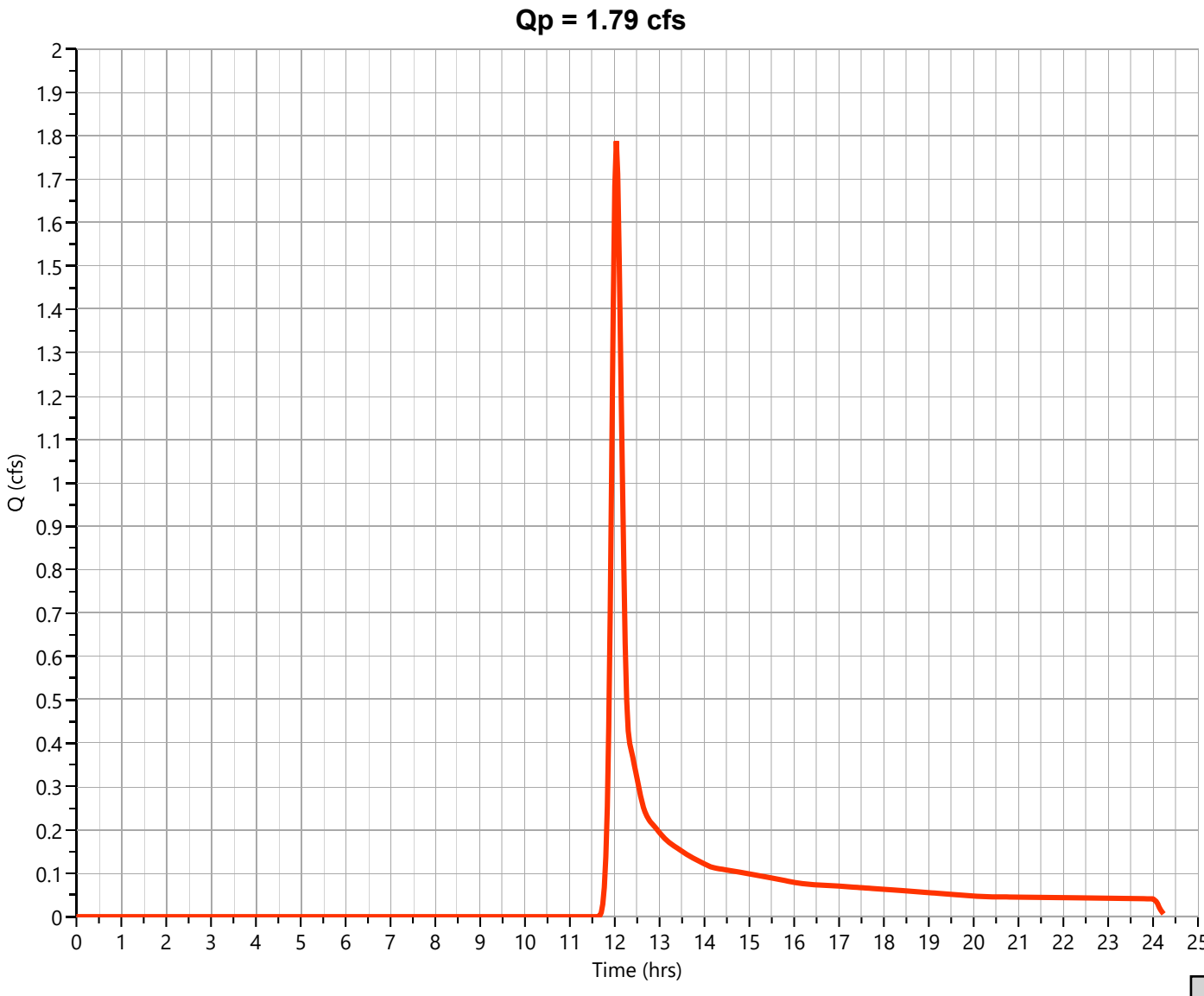
Hydrology Studio v 3.0.0.32 07-25-2024

Pre Ditch Hyd. No. 2

Hydrograph Type	= NRCS Runoff	Peak Flow	= 1.788 cfs
Storm Frequency	= 2-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 5,331 cuft
Drainage Area	= 1.79 ac	Curve Number	= 61.67*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
1.75	61	Ditch (inside buffer)
0.04	91	Gravel
1.79	**62**	Weighted CN Method Employed



Hydrograph Report

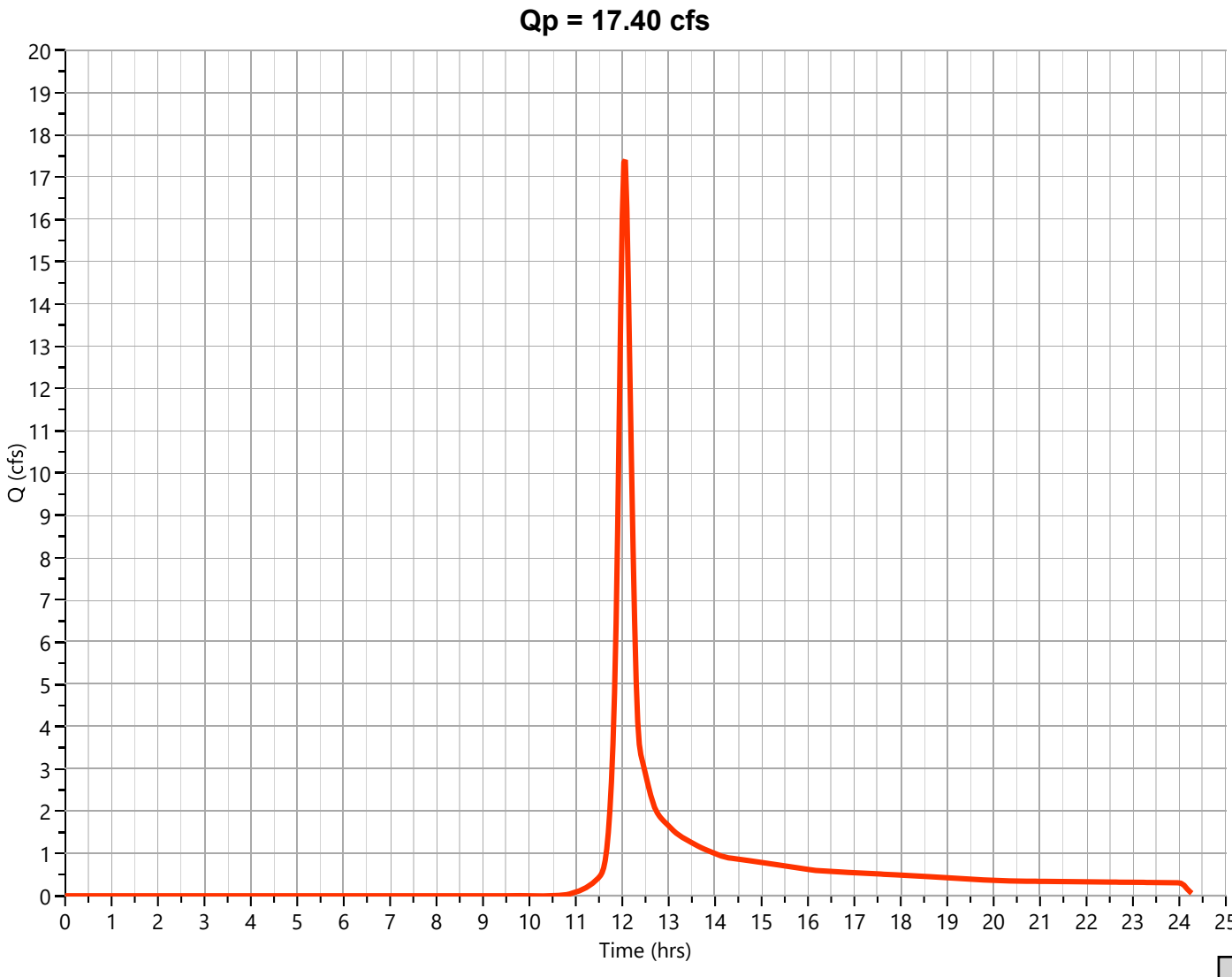
Hydrology Studio v 3.0.0.32 07-25-2024

Pre North of Ditch Hyd. No. 3

Hydrograph Type	= NRCS Runoff	Peak Flow	= 17.40 cfs
Storm Frequency	= 2-yr	Time to Peak	= 12.07 hrs
Time Interval	= 2 min	Runoff Volume	= 50,519 cuft
Drainage Area	= 10.55 ac	Curve Number	= 71.42*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
3.945	79	Pervious (C)
3.945	49	Pervious (A)
0.89	98	Buildings
1.73	91	Gravel
0.04	98	Concrete
10.55	**71**	Weighted CN Method Employed



Hydrograph Report

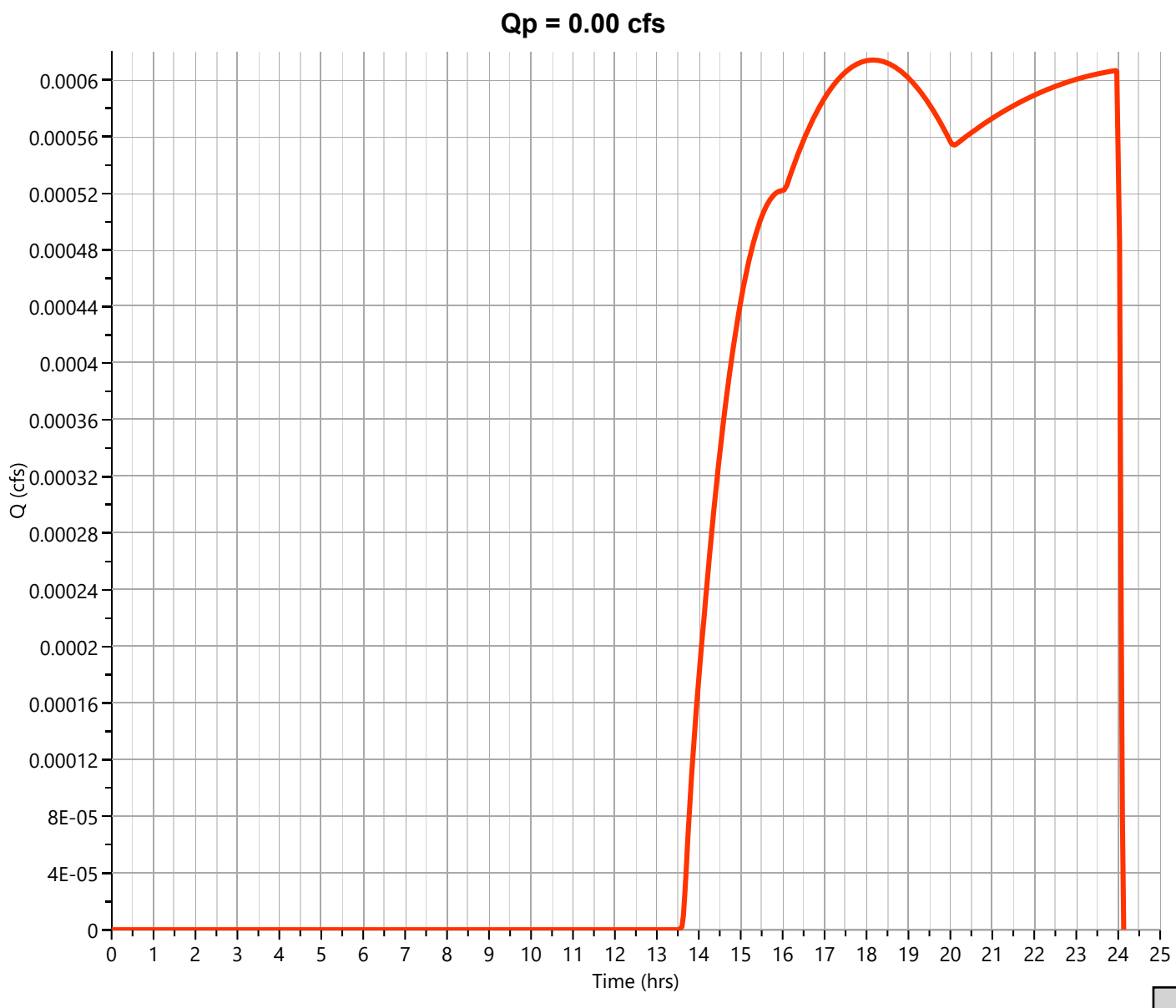
Hydrology Studio v 3.0.0.32 07-25-2024

Pre Offsite 1 Hyd. No. 4

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.001 cfs
Storm Frequency	= 2-yr	Time to Peak	= 18.17 hrs
Time Interval	= 2 min	Runoff Volume	= 20.1 cuft
Drainage Area	= 0.163 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.163	39	Offsite
0.163	**39**	Weighted CN Method Employed



Hydrograph Report

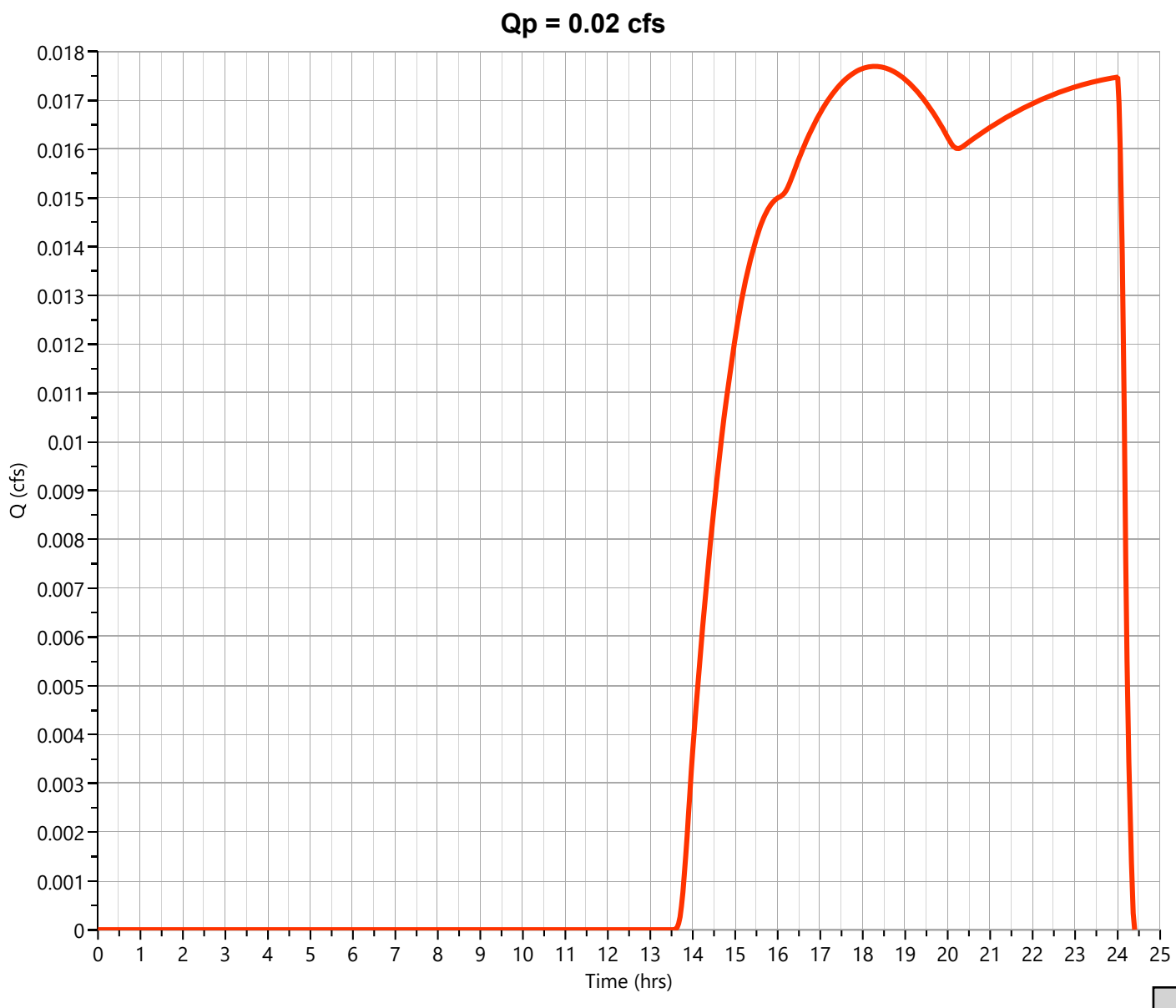
Hydrology Studio v 3.0.0.32 07-25-2024

Pre Offsite 2 Hyd. No. 5

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.018 cfs
Storm Frequency	= 2-yr	Time to Peak	= 18.27 hrs
Time Interval	= 2 min	Runoff Volume	= 580 cuft
Drainage Area	= 4.518 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
4.518	39	Offsite
4.518	**39**	Weighted CN Method Employed

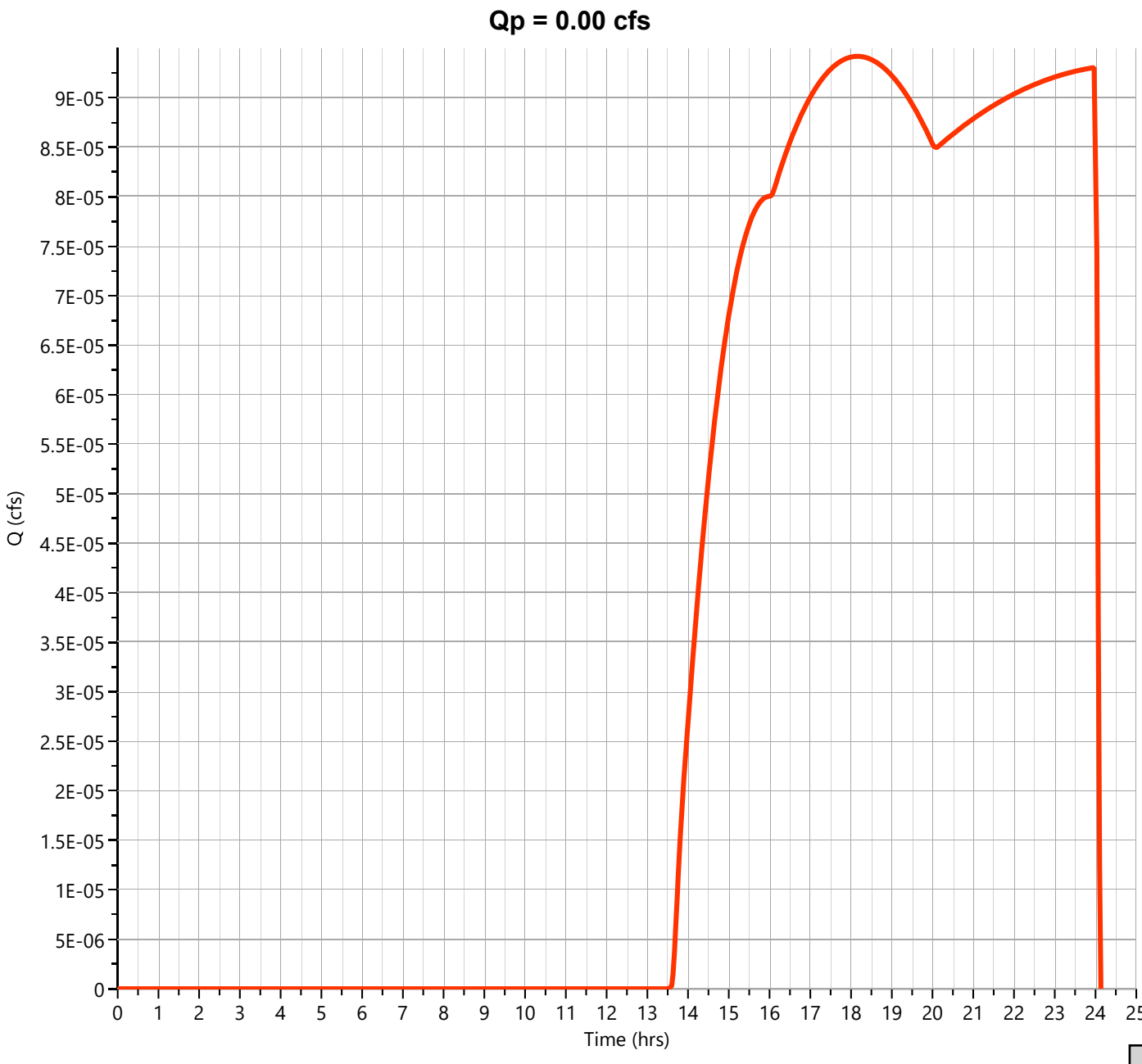


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Pre Offsite 3 Hyd. No. 6

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.000 cfs
Storm Frequency	= 2-yr	Time to Peak	= 18.17 hrs
Time Interval	= 2 min	Runoff Volume	= 3.09 cuft
Drainage Area	= 0.025 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484



Hydrograph Report

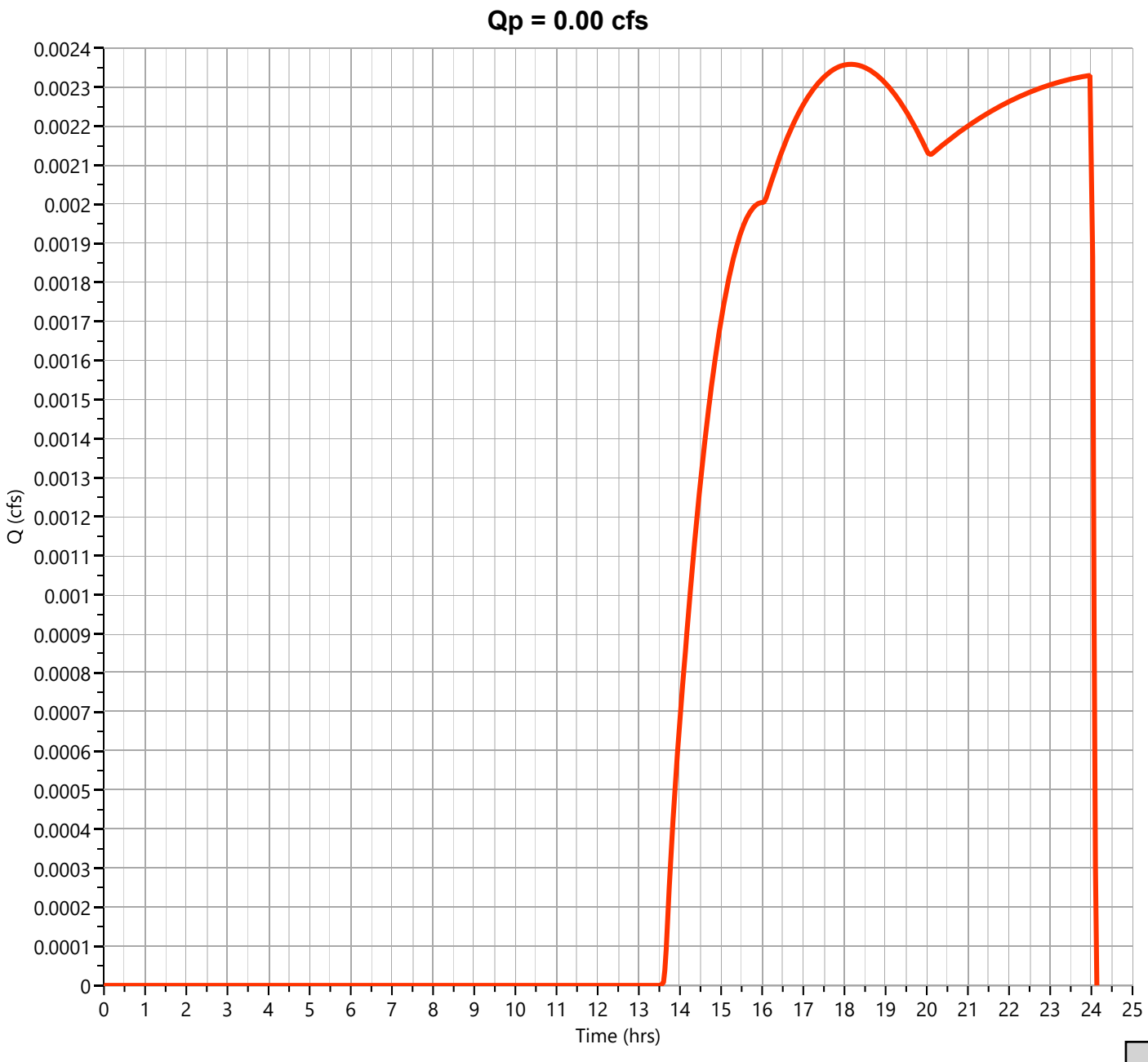
Hydrology Studio v 3.0.0.32

07-25-2024

Post Offsite 4

Hyd. No. 7

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.002 cfs
Storm Frequency	= 2-yr	Time to Peak	= 18.17 hrs
Time Interval	= 2 min	Runoff Volume	= 77.3 cuft
Drainage Area	= 0.626 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

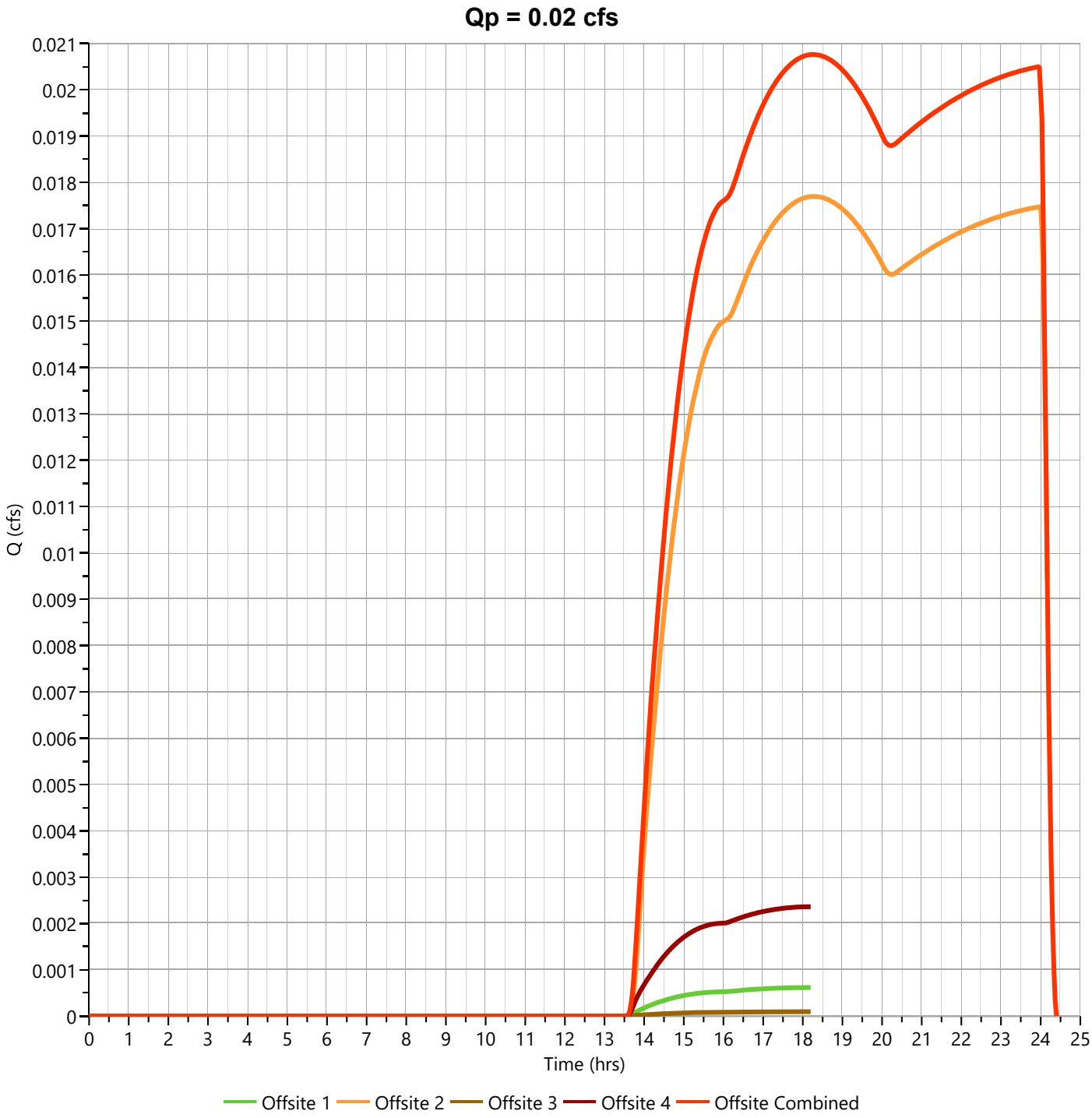


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Pre Offsite Combined Hyd. No. 8

Hydrograph Type	= Junction	Peak Flow	= 0.021 cfs
Storm Frequency	= 2-yr	Time to Peak	= 18.27 hrs
Time Interval	= 2 min	Hydrograph Volume	= 681 cuft
Inflow Hydrographs	= 4, 5, 6, 7	Total Contrib. Area	= 5.332 ac

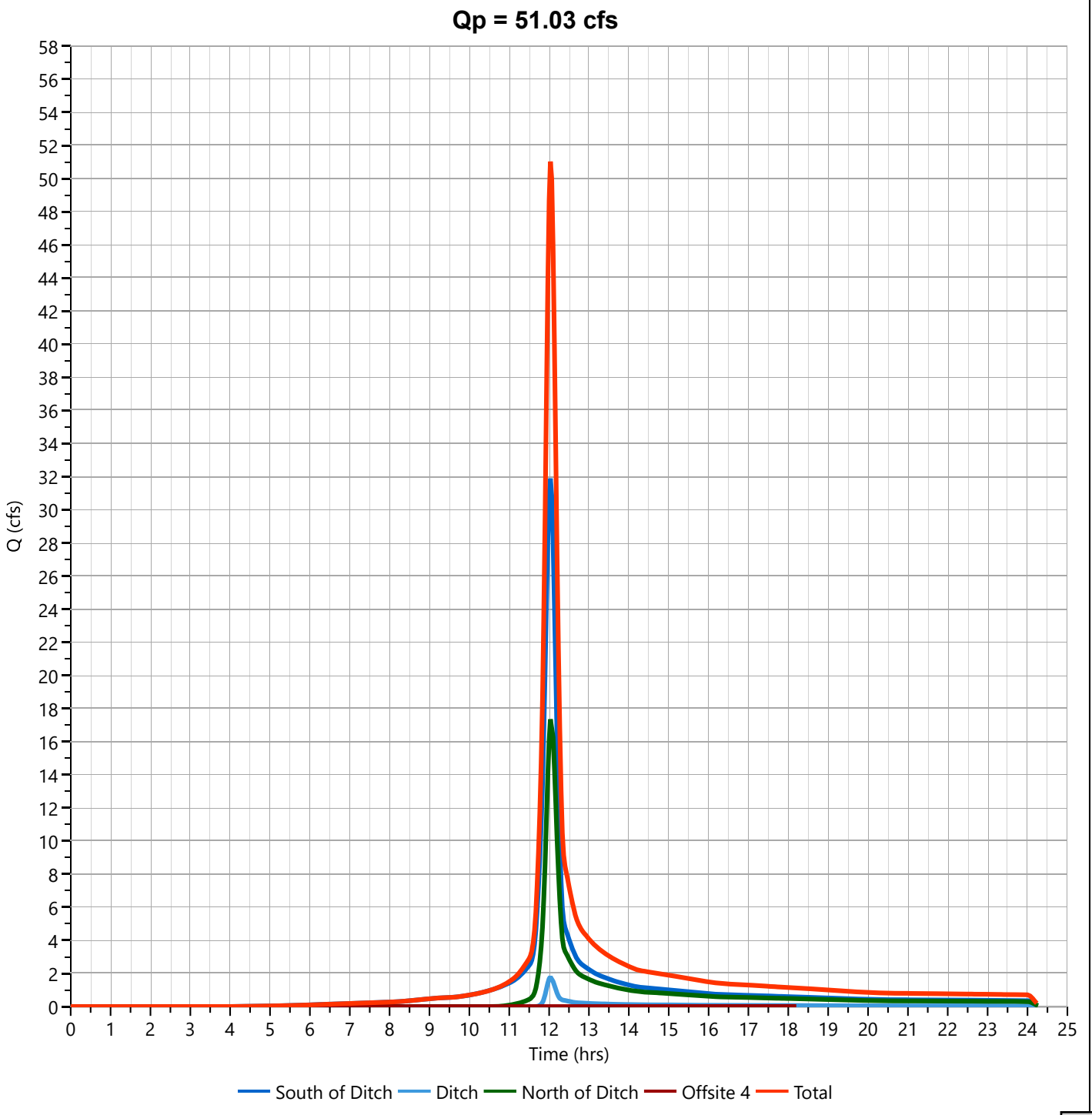


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Pre Total Hyd. No. 9

Hydrograph Type	= Junction	Peak Flow	= 51.03 cfs
Storm Frequency	= 2-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Hydrograph Volume	= 148,124 cuft
Inflow Hydrographs	= 1, 2, 3, 7	Total Contrib. Area	= 21.876 ac



Hydrograph Report

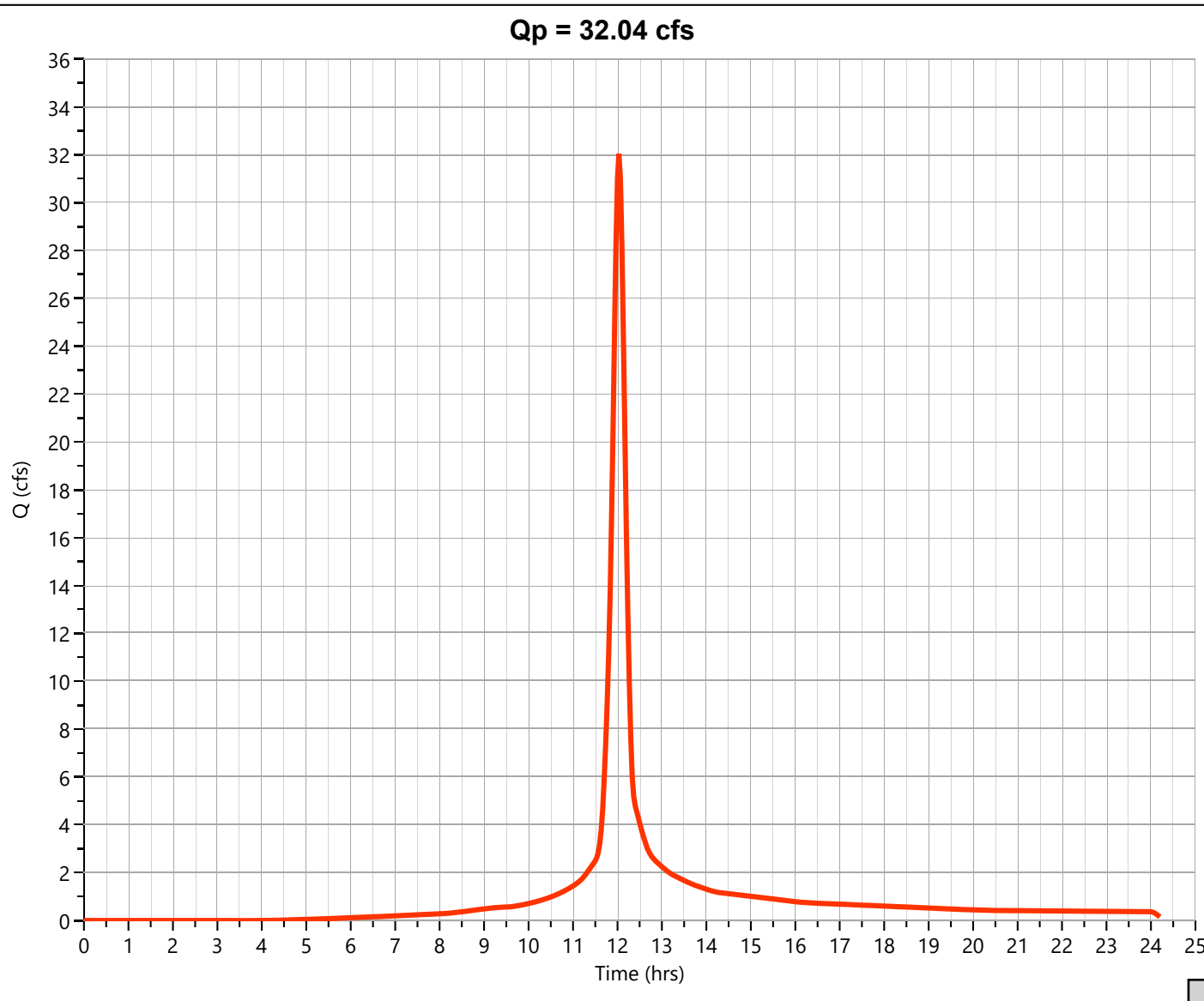
Hydrology Studio v 3.0.0.32 07-25-2024

Post South of Ditch Hyd. No. 11

Hydrograph Type	= NRCS Runoff	Peak Flow	= 32.04 cfs
Storm Frequency	= 2-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 92,756 cuft
Drainage Area	= 8.91 ac	Curve Number	= 91.2*
Tc Method	= User	Time of Conc. (Tc)	= 15.27 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
7.83	91	Row Crop
0.82	91	Gravel Drive
0.26	98	Concrete
8.91	**91**	Weighted CN Method Employed



Hydrograph Report

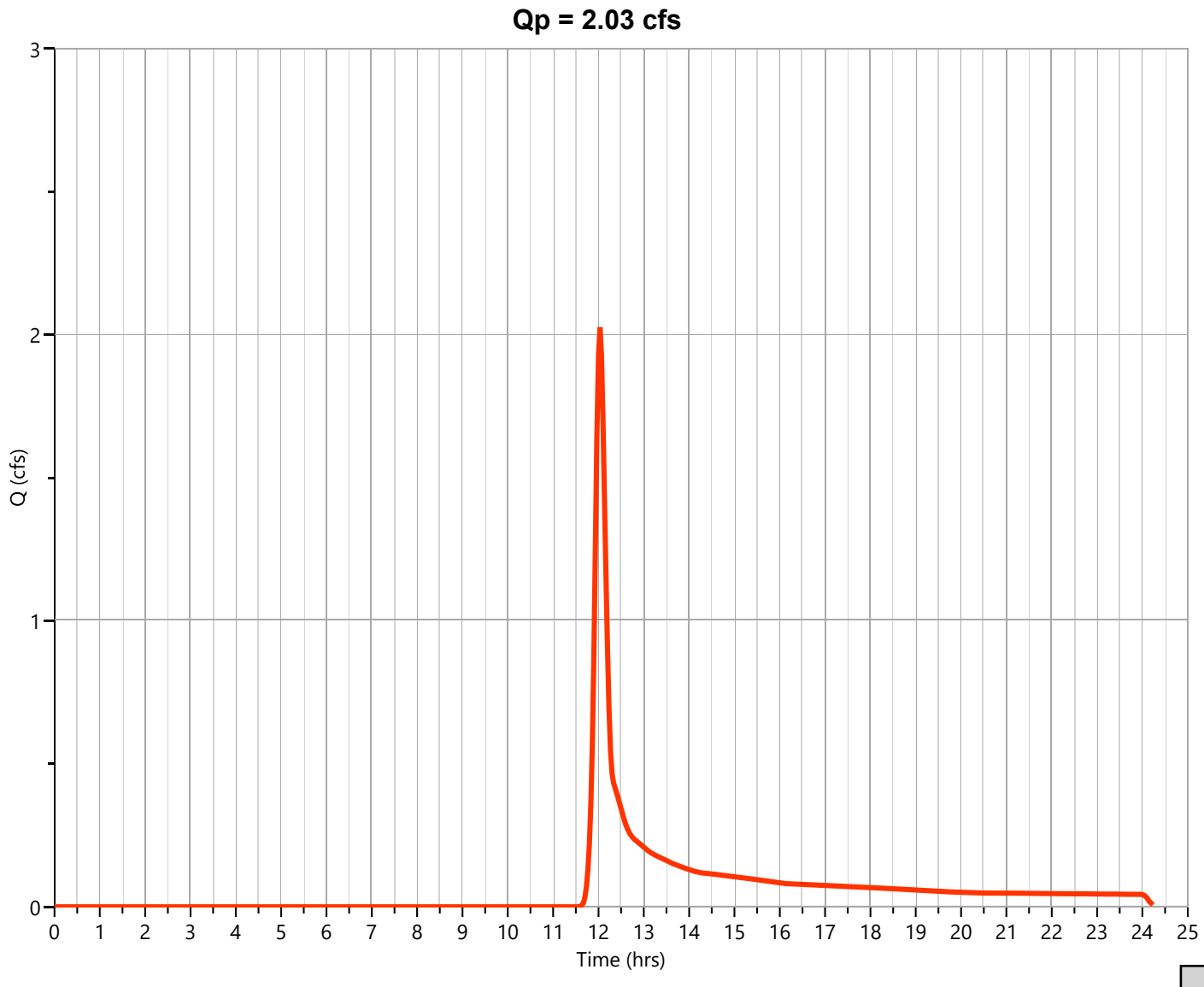
Hydrology Studio v 3.0.0.32 07-25-2024

Post Ditch Hyd. No. 12

Hydrograph Type	= NRCS Runoff	Peak Flow	= 2.026 cfs
Storm Frequency	= 2-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 5,851 cuft
Drainage Area	= 1.79 ac	Curve Number	= 63.18*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
1.66	61	Ditch (inside buffer)
0.13	91	Gravel
1.79	**63**	Weighted CN Method Employed



Hydrograph Report

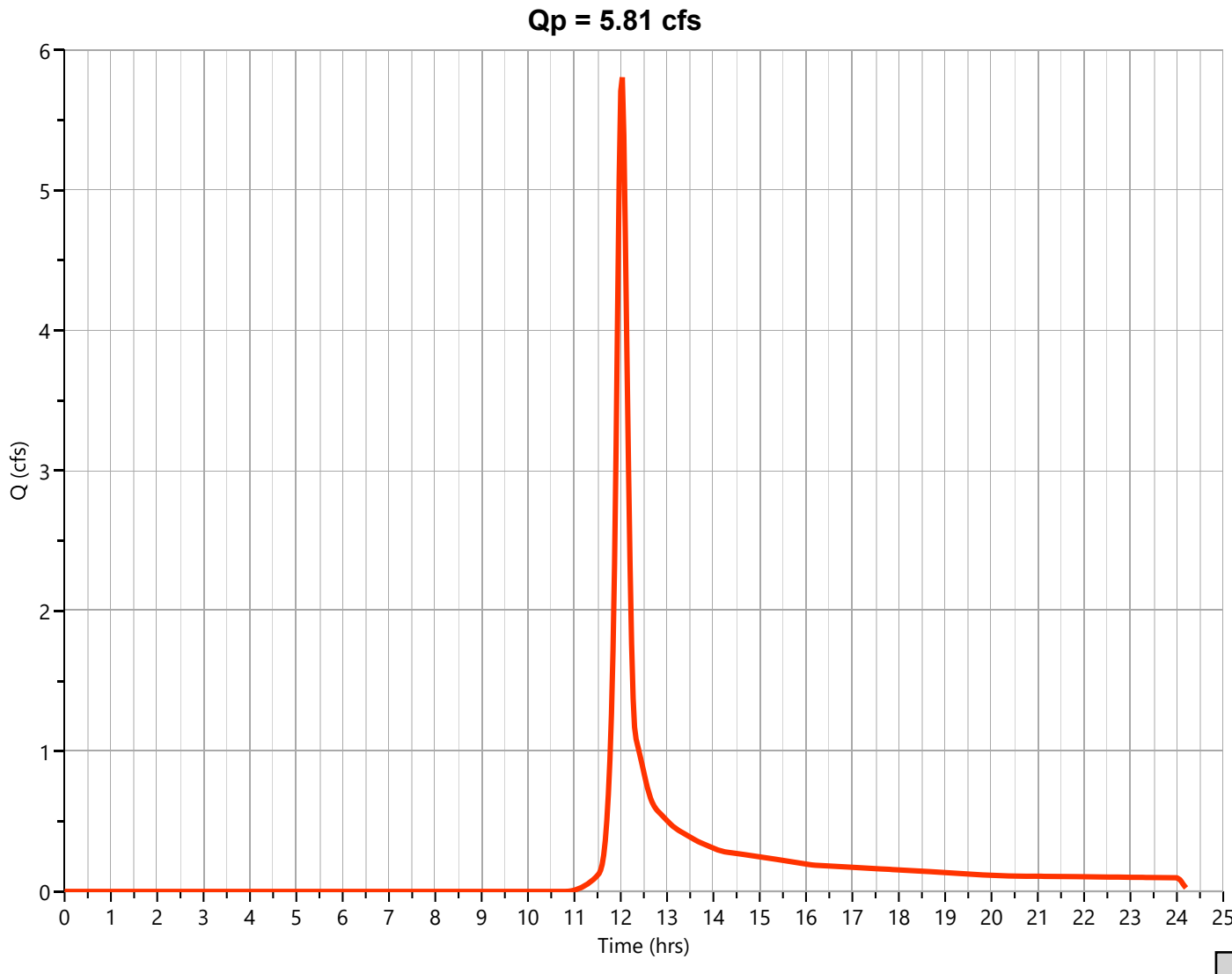
Hydrology Studio v 3.0.0.32 07-25-2024

Post North to Pond 1 Hyd. No. 13

Hydrograph Type	= NRCS Runoff	Peak Flow	= 5.806 cfs
Storm Frequency	= 2-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 15,522 cuft
Drainage Area	= 3.282 ac	Curve Number	= 70*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
1.4	49	Pervious (A)
0.936	79	Pervious (C)
0.566	91	Gravel
0.38	98	Buildings
3.282	**70**	Weighted CN Method Employed



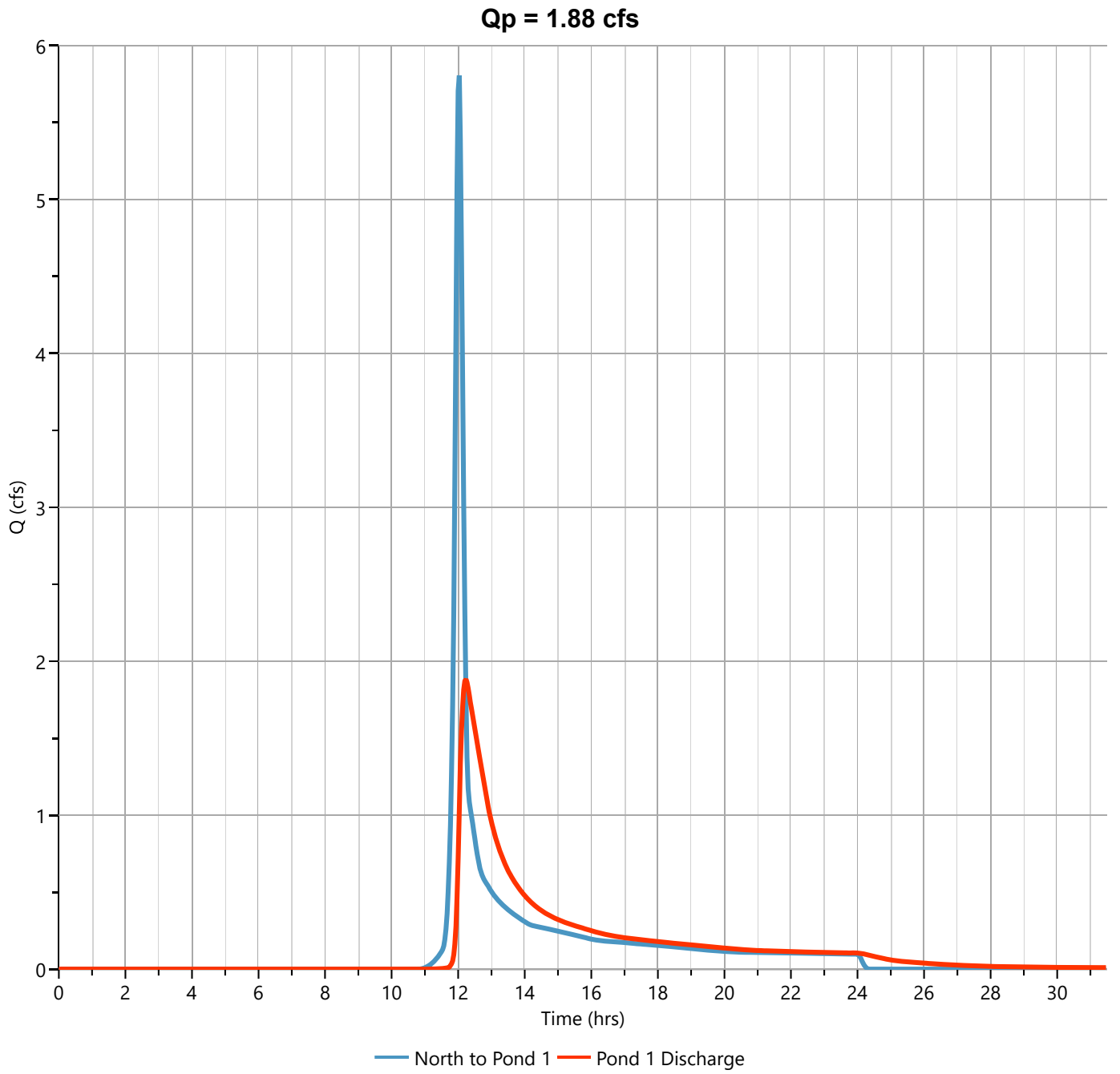
Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Pond 1 Discharge Hyd. No. 14

Hydrograph Type	= Pond Route	Peak Flow	= 1.883 cfs
Storm Frequency	= 2-yr	Time to Peak	= 12.23 hrs
Time Interval	= 2 min	Hydrograph Volume	= 15,495 cuft
Inflow Hydrograph	= 13 - North to Pond 1	Max. Elevation	= 629.13 ft
Pond Name	= Pond 1	Max. Storage	= 4,952 cuft

Pond Routing by Storage Indication Method *Center of mass detention time = 1.16 hrs*



Pond Report

Hydrology Studio v 3.0.0.32 07-25-2024

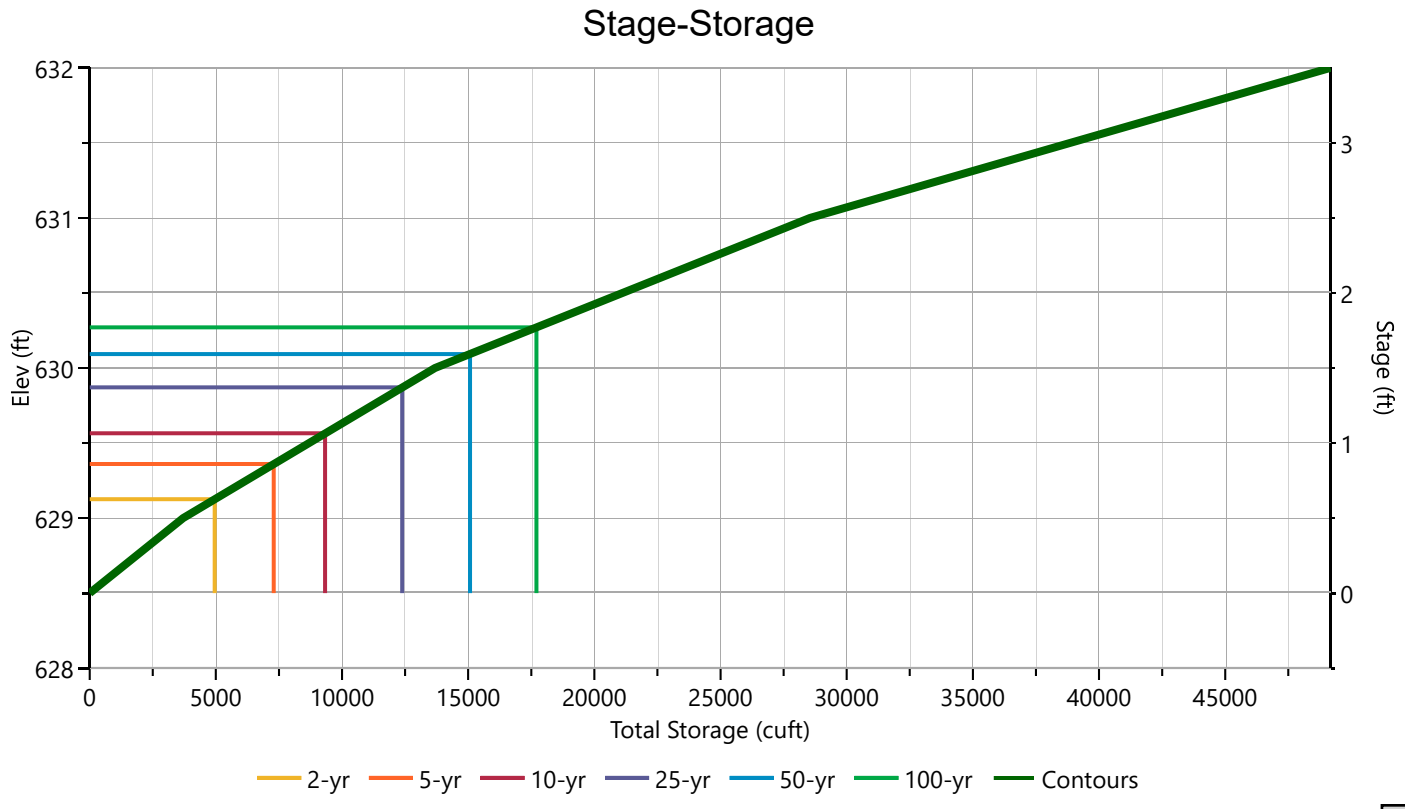
Pond 1

Stage-Storage

User Defined Contours	
Description	**Input**
Bottom Elevation, ft	628.50
Voids (%)	100.00
Volume Calc	None

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour Area (sqft)	Incr. Storage (cuft)	Total Storage (cuft)
0.00	628.50	6,840	0.000	0.000
0.50	629.00	7,970	3,703	3,703
1.50	630.00	12,000	9,985	13,688
2.50	631.00	17,723	14,862	28,549
3.50	632.00	23,520	20,622	49,171



Pond Report

Hydrology Studio v 3.0.0.32 07-25-2024

Pond 1

Stage-Discharge

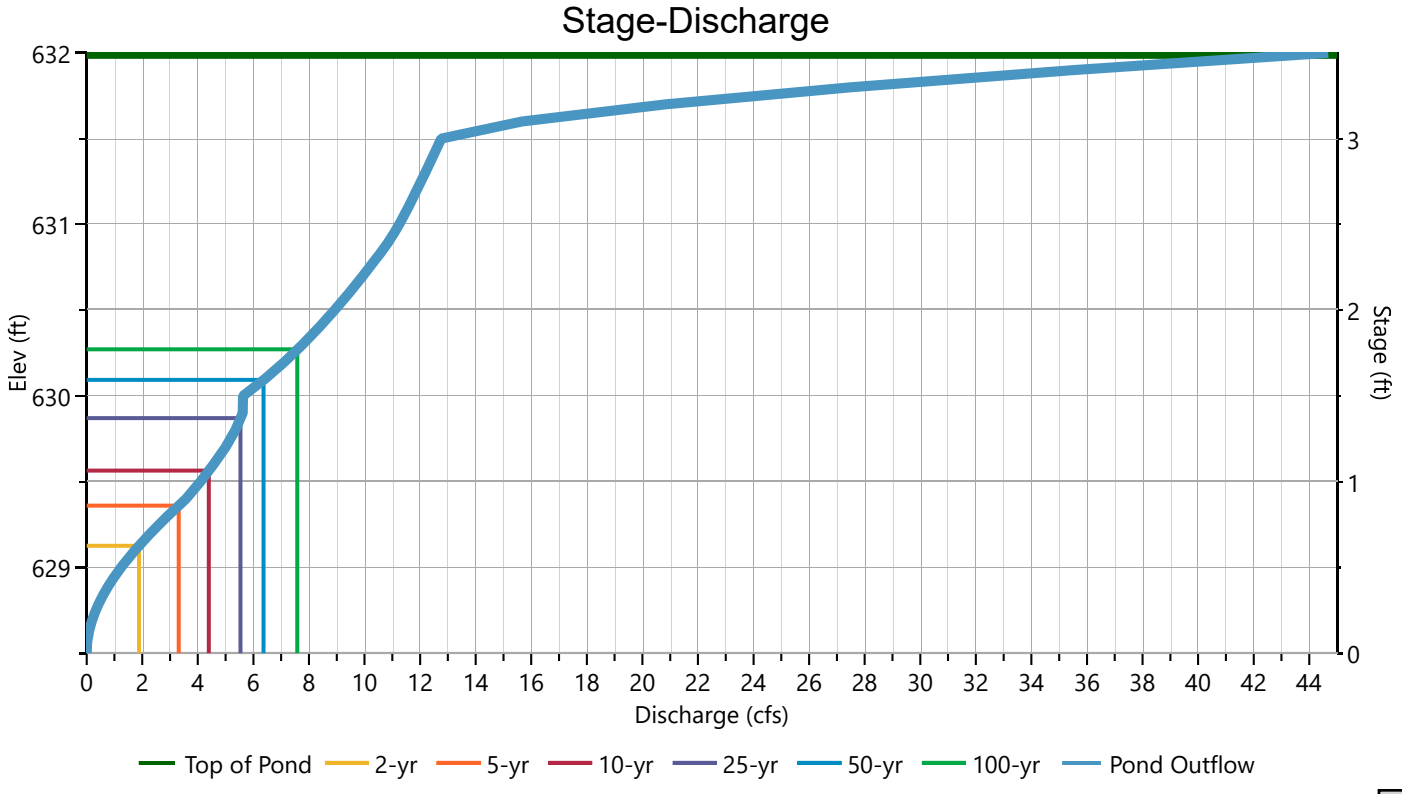
Culvert / Orifices	Culvert	Orifice		
		1	2	3
Rise, in	18			
Span, in	18			
No. Barrels	1			
Invert Elevation, ft	628.50			
Orifice Coefficient, Co	0.60			
Length, ft	33			
Barrel Slope, %	1			
N-Value, n	0.013			

Weirs	Riser	Weir		
		1 (i)	2	3
Shape / Type		Broad Crested		
Crest Elevation, ft		631.5		
Crest Length, ft		25		
Angle, deg		18.4 (3:1)		
Weir Coefficient, Cw		3.3		

Perforated Riser	
Hole Diameter, in	
No. holes	
Invert Elevation, ft	
Height, ft	
Orifice Coefficient, Co	

Ancillary	
Exfiltration, in/hr	

m = Flows through Culvert, i = Independent



Pond Report

Pond 1

Stage-Storage-Discharge Summary

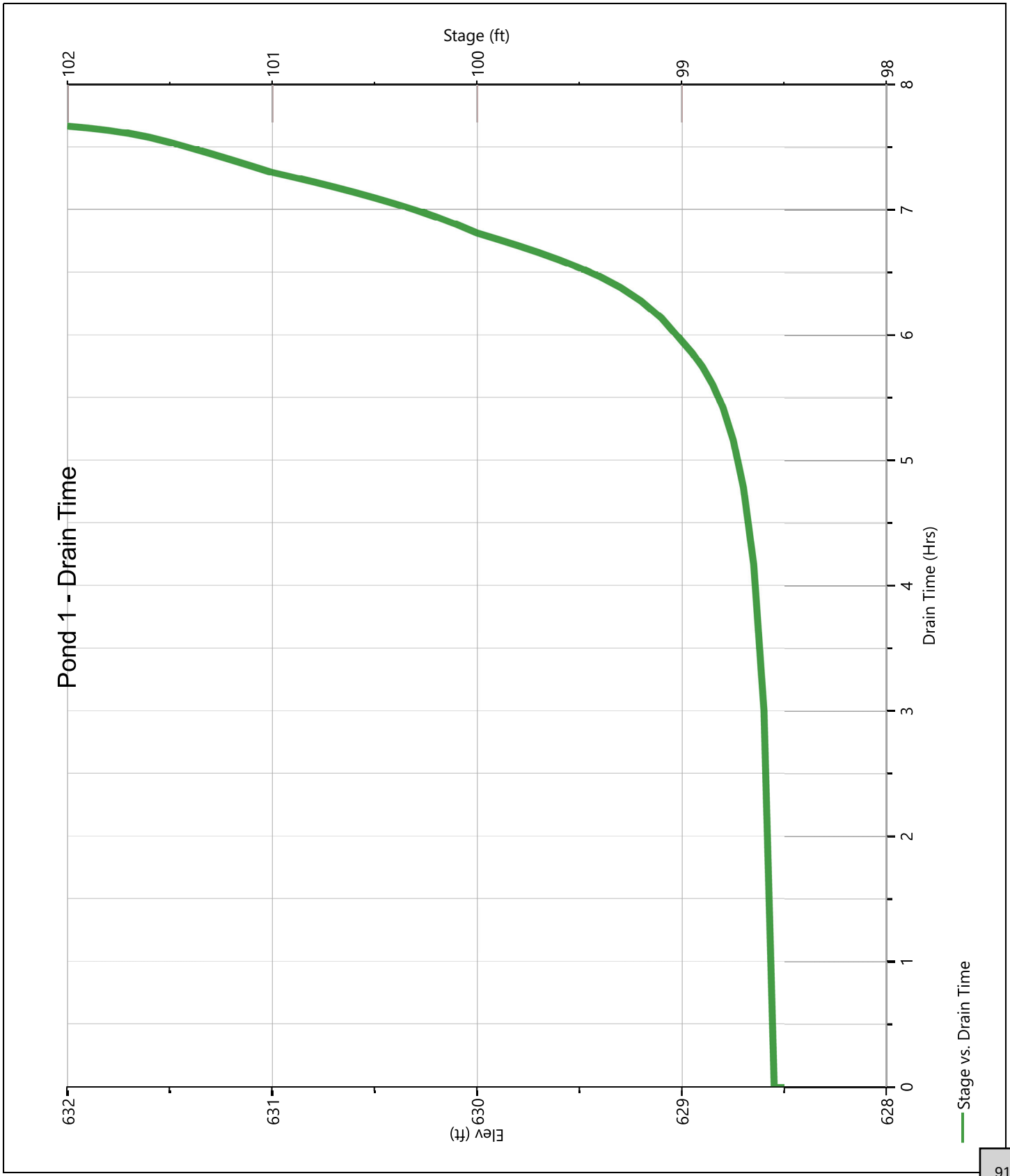
Stage (ft)	Elev. (ft)	Storage (cuft)	Culvert (cfs)	Orifices, cfs			Riser (cfs)	Weirs, cfs			Pf Riser (cfs)	Exfil (cfs)	User (cfs)	Total (cfs)
				1	2	3		1	2	3				
0.00	628.50	0.000	0.000					0.000						0.000
0.50	629.00	3,703	1.243 ic					0.000						1.243
1.50	630.00	13,688	5.626 oc					0.000						5.626
2.50	631.00	28,549	11.25 ic					0.000						11.25
3.50	632.00	49,171	14.11 ic					30.57						44.68

Suffix key: ic = inlet control, oc = outlet control, s = submerged weir

Pond Report

Pond 1

Pond Drawdown



Hydrograph Report

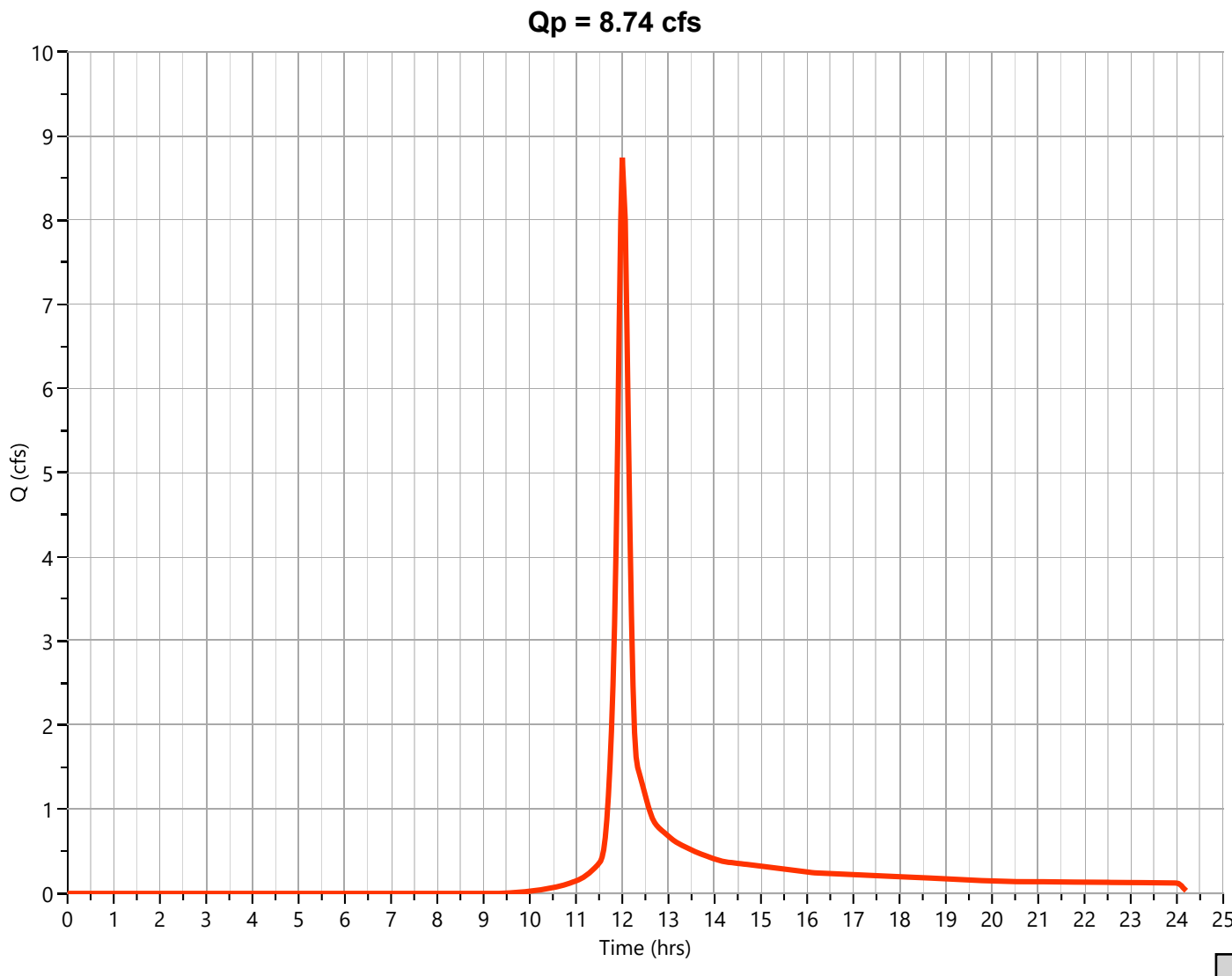
Hydrology Studio v 3.0.0.32 07-25-2024

Post Bypass Hyd. No. 15

Hydrograph Type	= NRCS Runoff	Peak Flow	= 8.742 cfs
Storm Frequency	= 2-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Runoff Volume	= 22,840 cuft
Drainage Area	= 3.569 ac	Curve Number	= 76.66*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.95	49	Pervious (A)
1.26	79	Pervious (C)
0.81	91	Gravel
0.549	98	Buildings
3.569	**77**	Weighted CN Method Employed



Hydrograph Report

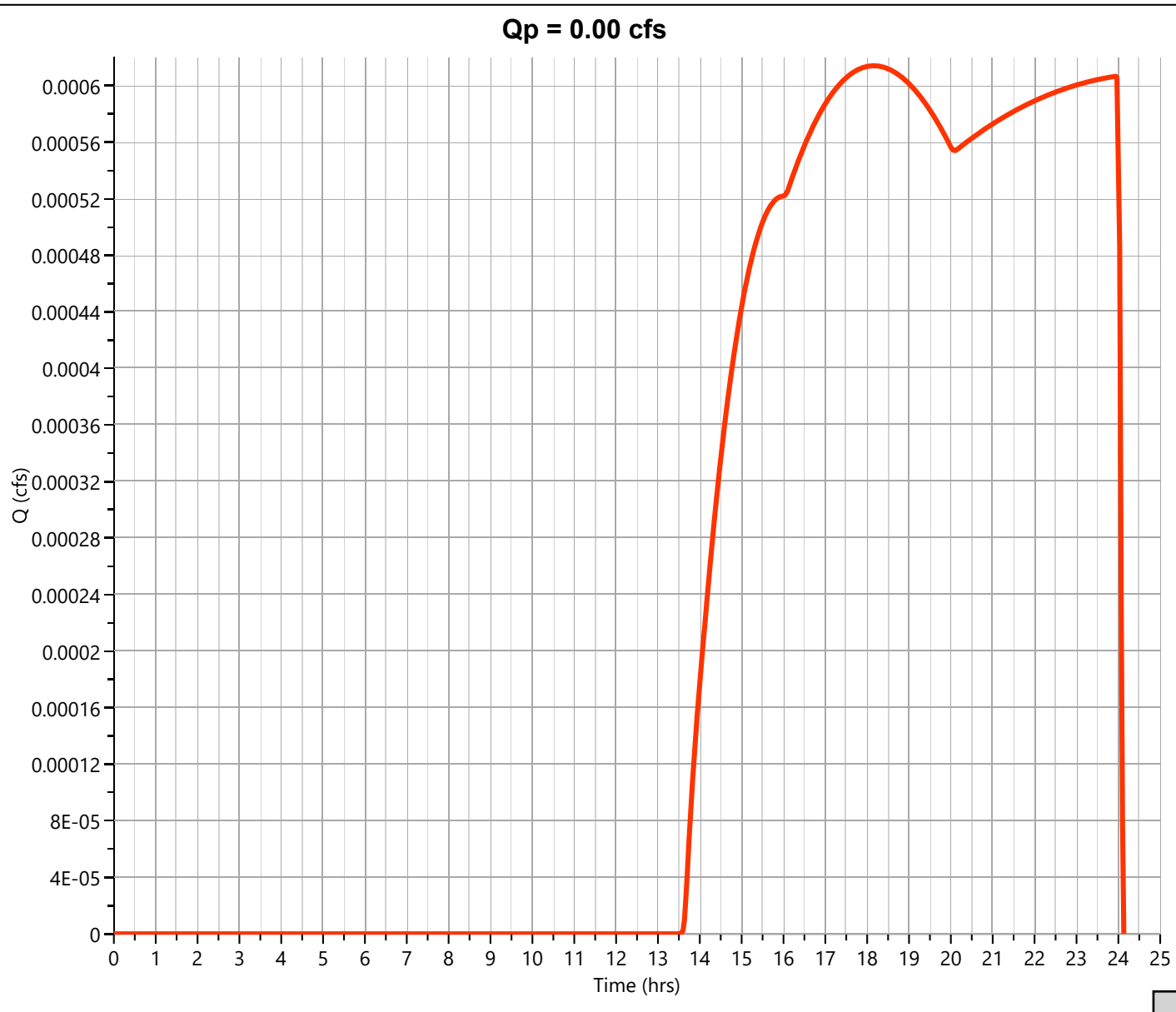
Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 1 Hyd. No. 16

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.001 cfs
Storm Frequency	= 2-yr	Time to Peak	= 18.17 hrs
Time Interval	= 2 min	Runoff Volume	= 20.1 cuft
Drainage Area	= 0.163 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.163	39	Offsite
0.163	**39**	Weighted CN Method Employed



Hydrograph Report

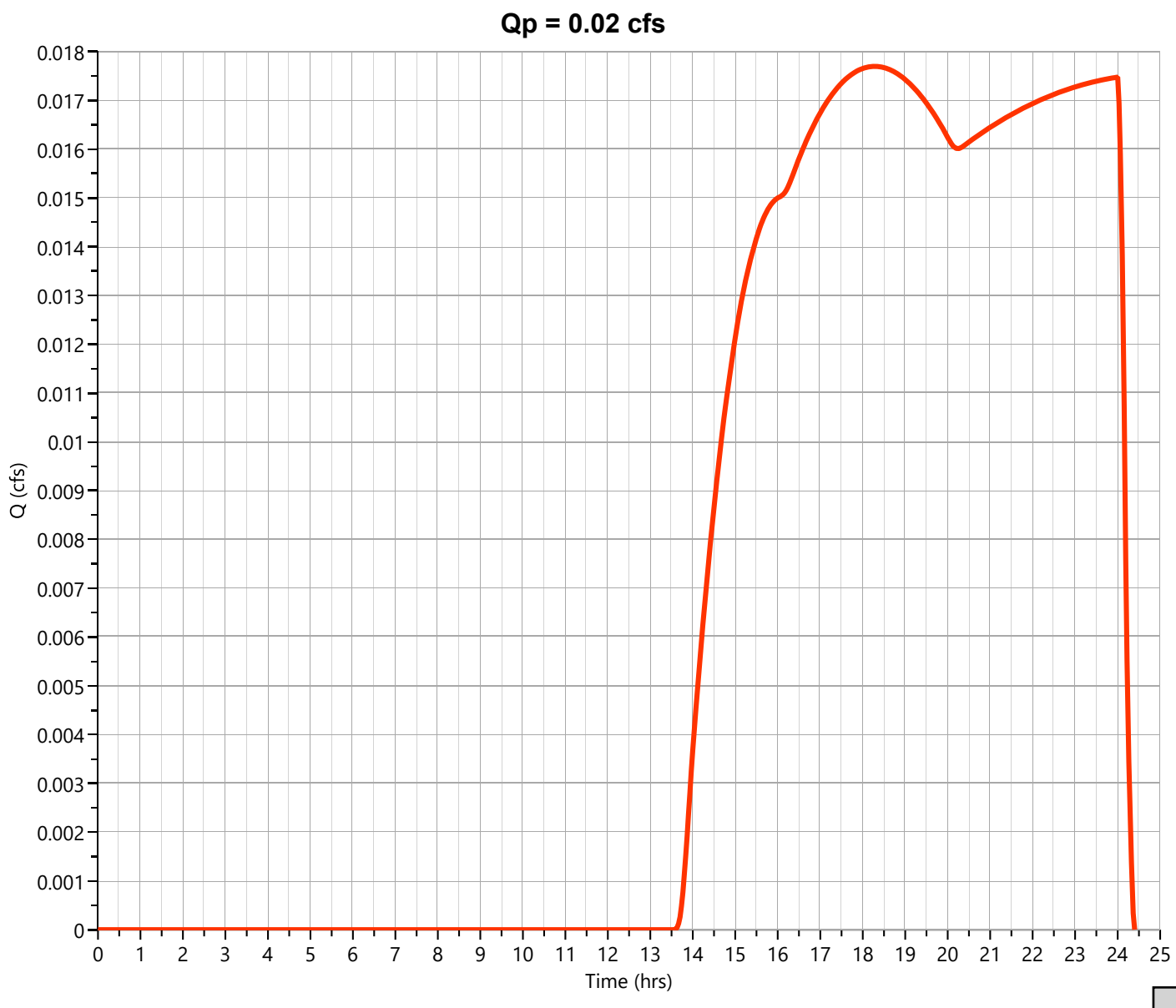
Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 2 Hyd. No. 17

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.018 cfs
Storm Frequency	= 2-yr	Time to Peak	= 18.27 hrs
Time Interval	= 2 min	Runoff Volume	= 580 cuft
Drainage Area	= 4.518 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
4.518	39	Offsite
4.518	**39**	Weighted CN Method Employed

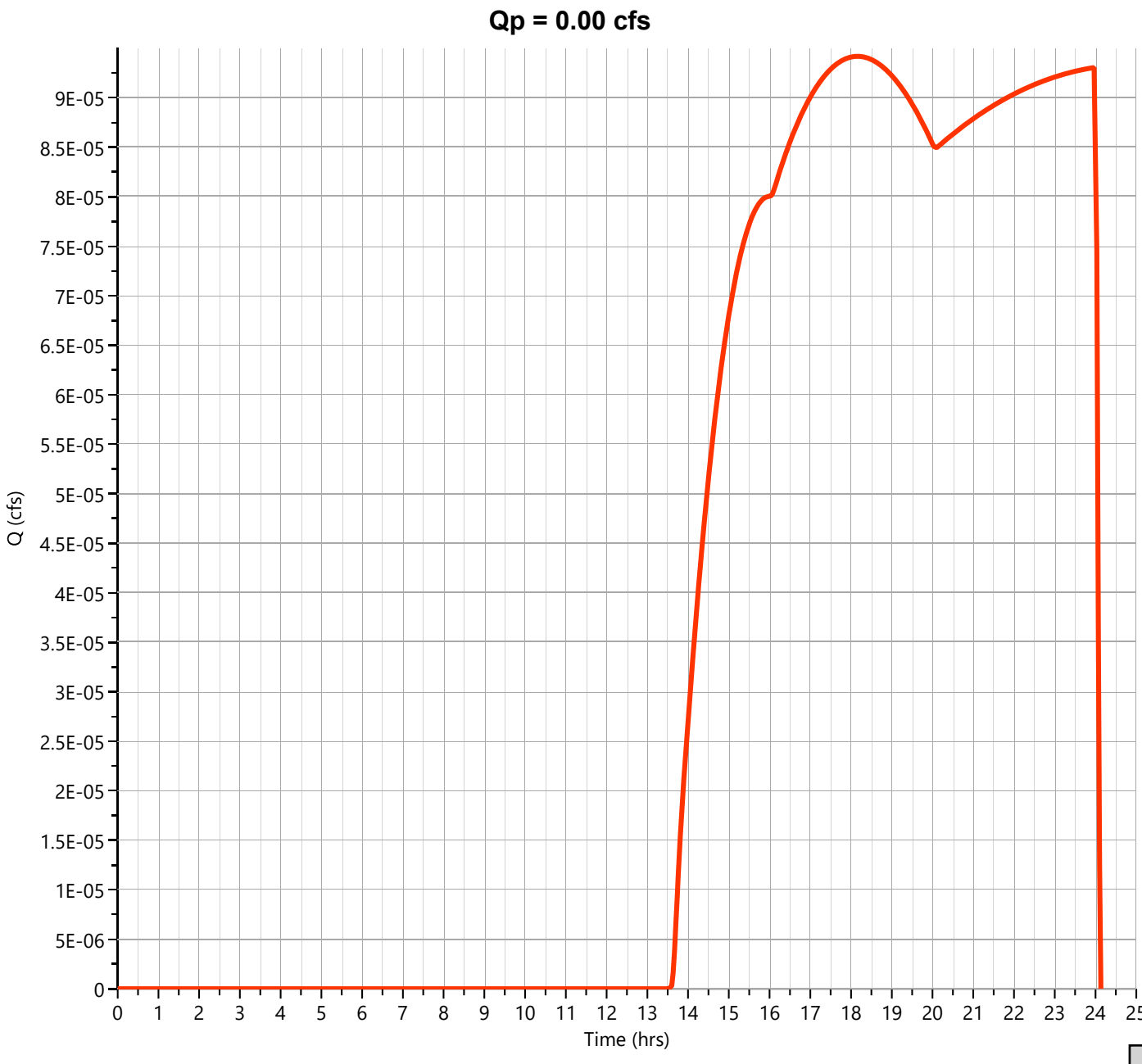


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 3 Hyd. No. 18

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.000 cfs
Storm Frequency	= 2-yr	Time to Peak	= 18.17 hrs
Time Interval	= 2 min	Runoff Volume	= 3.09 cuft
Drainage Area	= 0.025 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

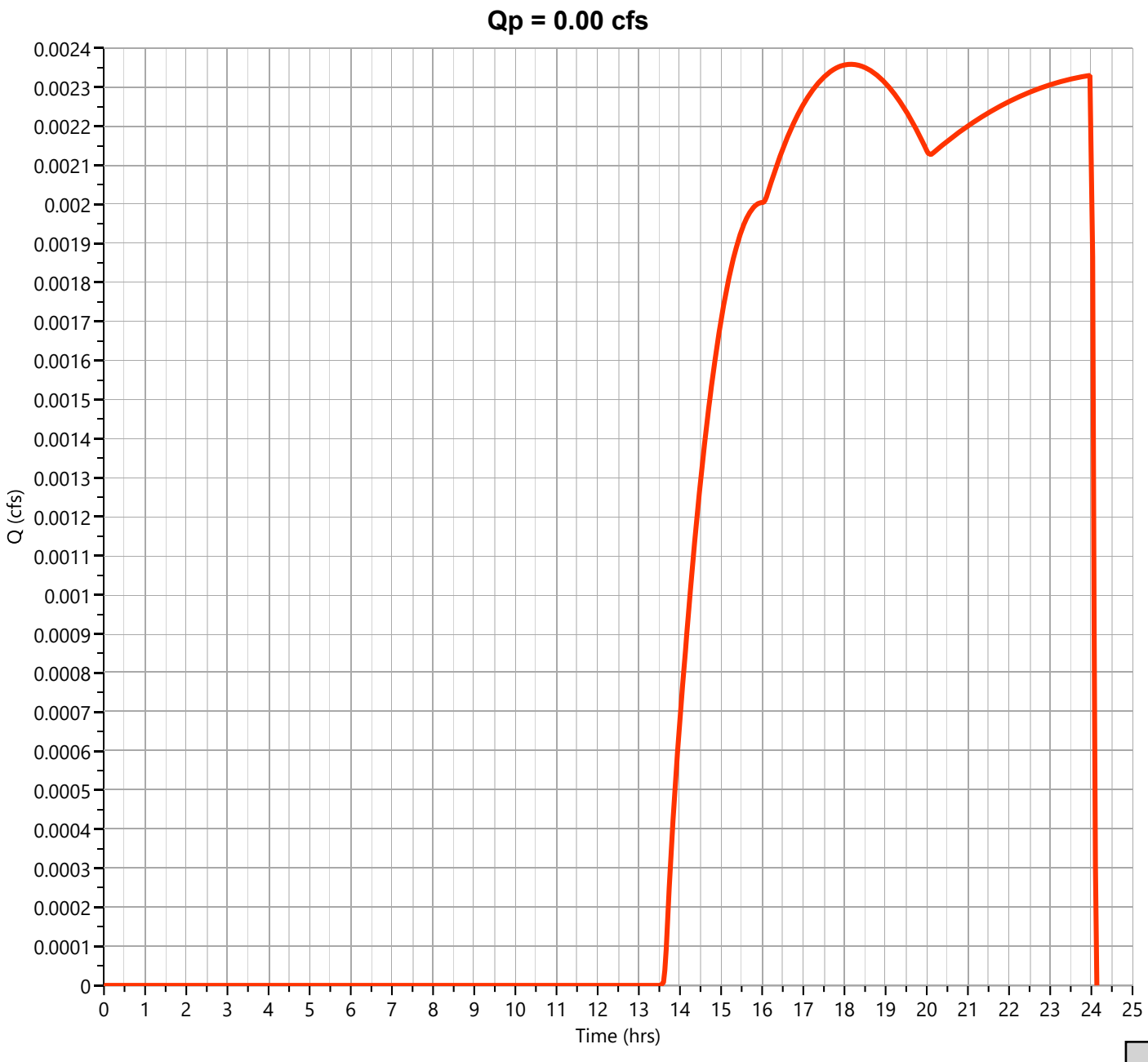


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 4 Hyd. No. 19

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.002 cfs
Storm Frequency	= 2-yr	Time to Peak	= 18.17 hrs
Time Interval	= 2 min	Runoff Volume	= 77.3 cuft
Drainage Area	= 0.626 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

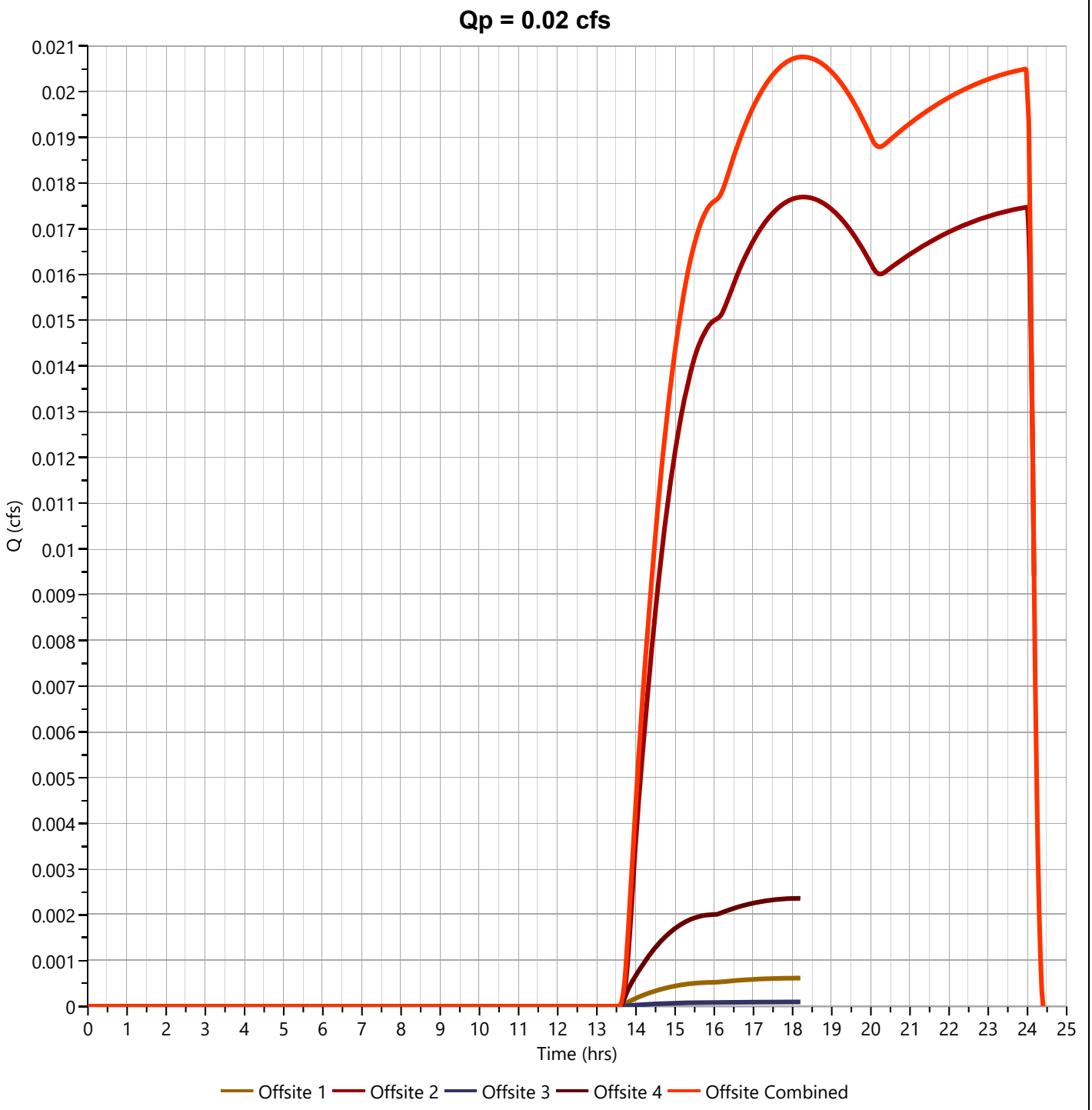


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite Combined Hyd. No. 20

Hydrograph Type	= Junction	Peak Flow	= 0.021 cfs
Storm Frequency	= 2-yr	Time to Peak	= 18.27 hrs
Time Interval	= 2 min	Hydrograph Volume	= 681 cuft
Inflow Hydrographs	= 16, 17, 18, 19	Total Contrib. Area	= 5.332 ac



Hydrograph Report

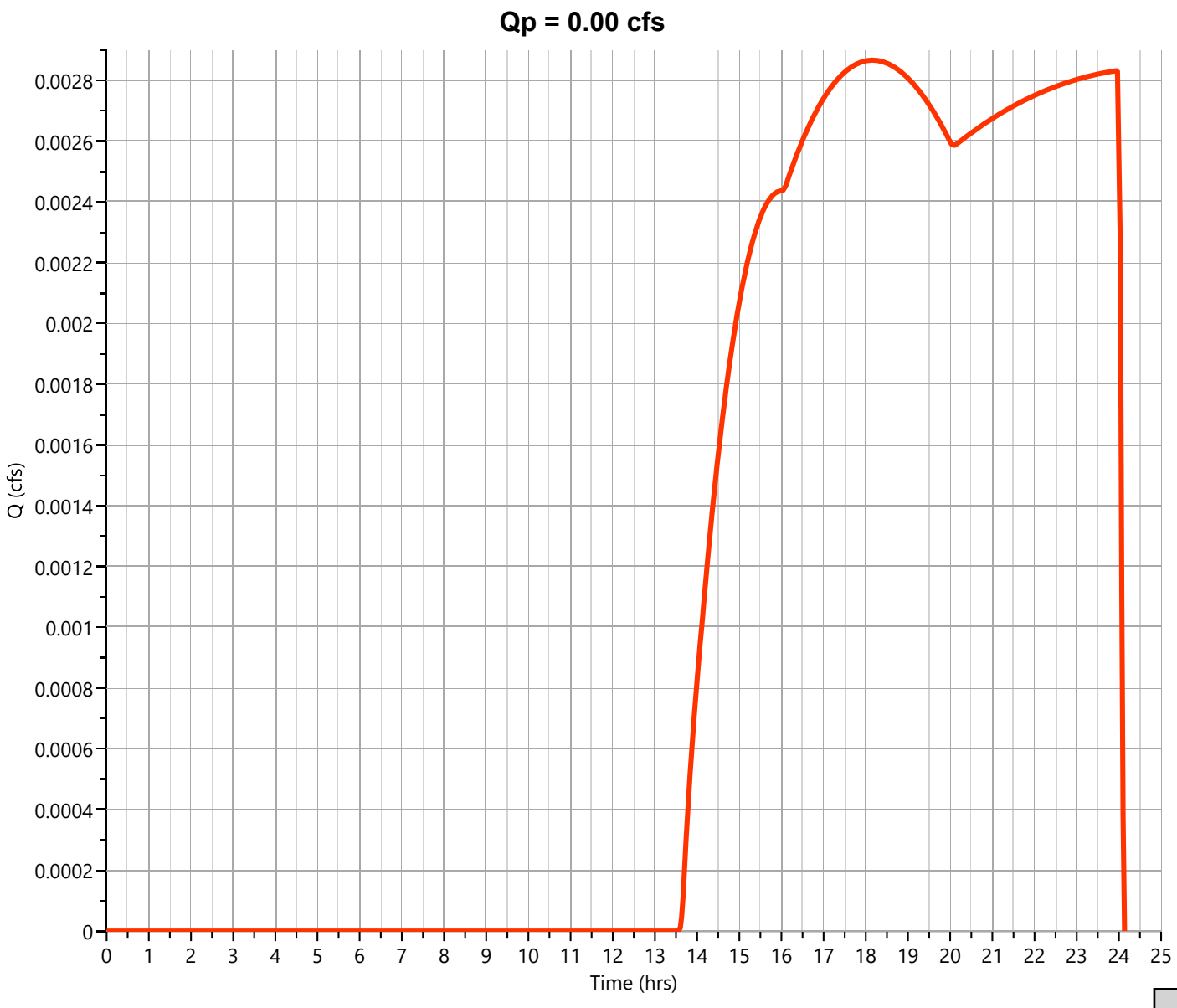
Hydrology Studio v 3.0.0.32 07-25-2024

Post Culvert 1 Hyd. No. 21

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.003 cfs
Storm Frequency	= 2-yr	Time to Peak	= 18.17 hrs
Time Interval	= 2 min	Runoff Volume	= 94.0 cuft
Drainage Area	= 0.761 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.761	39	Pervious (A)
0.761	**39**	Weighted CN Method Employed



Hydrograph Report

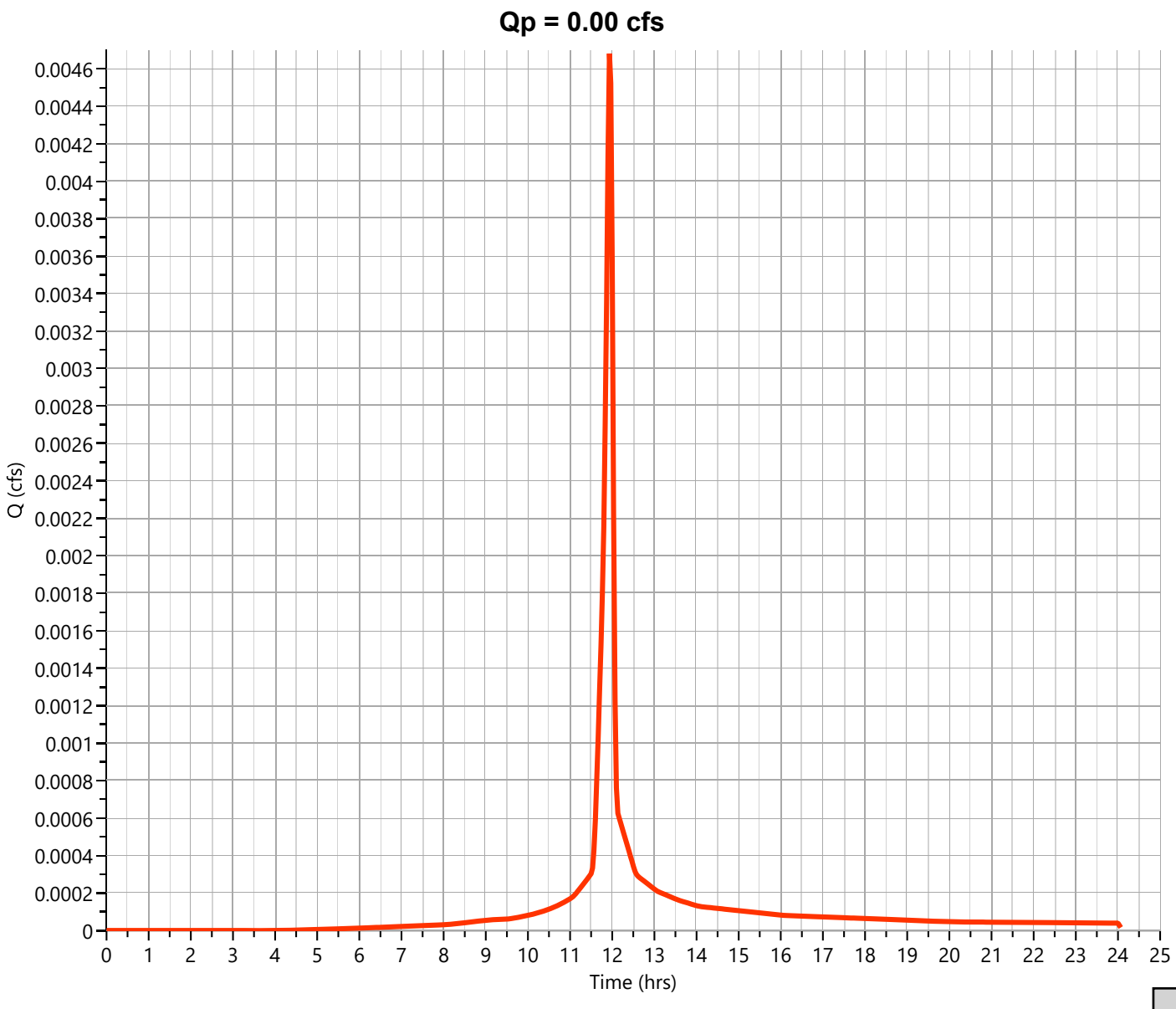
Hydrology Studio v 3.0.0.32 07-25-2024

Post Area Drain 3 (AD3) Hyd. No. 22

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.005 cfs
Storm Frequency	= 2-yr	Time to Peak	= 11.93 hrs
Time Interval	= 2 min	Runoff Volume	= 9.94 cuft
Drainage Area	= 0.001 ac	Curve Number	= 91*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.001	91	Gravel
0.001	**91**	Weighted CN Method Employed



Hydrograph Report

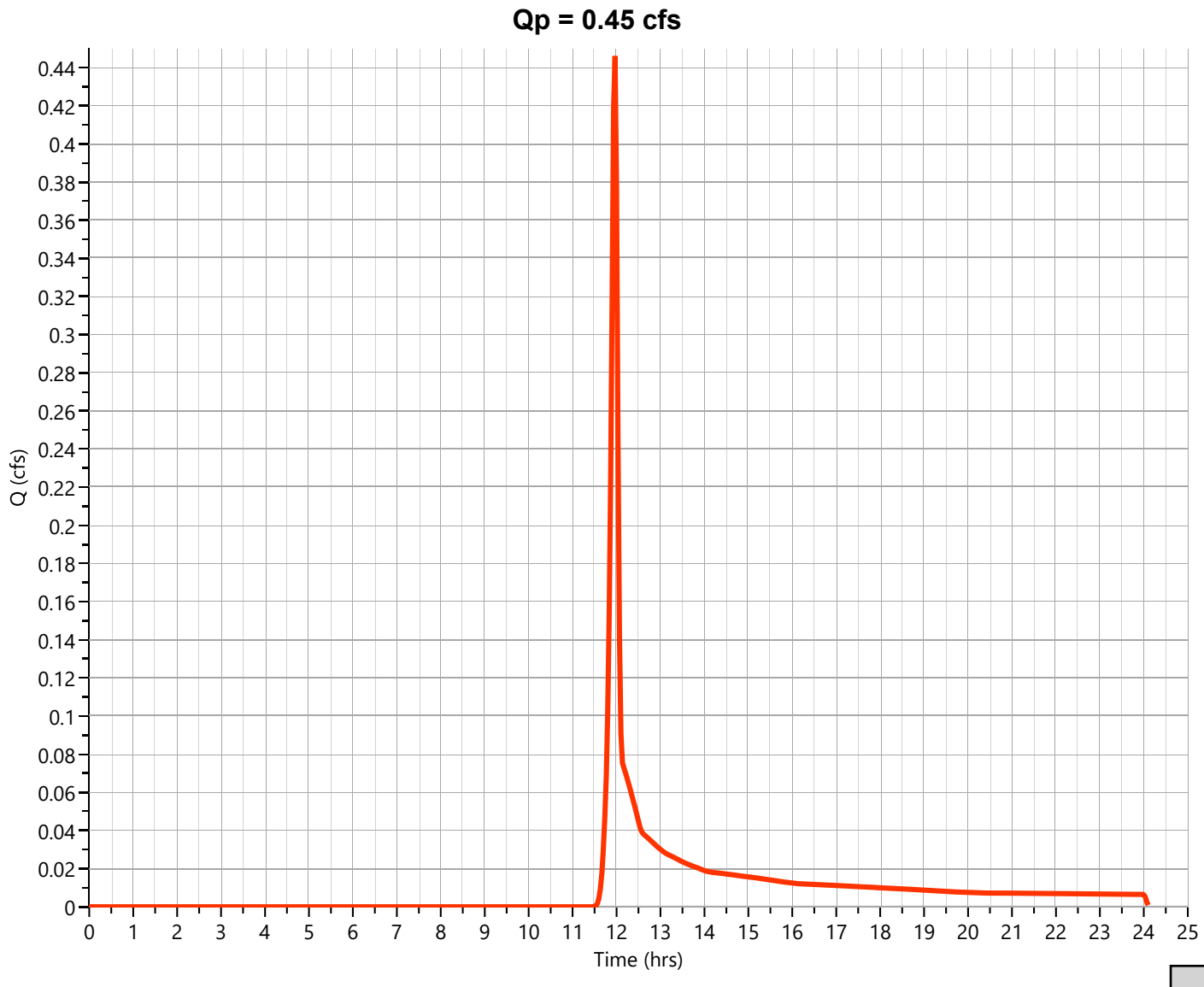
Hydrology Studio v 3.0.0.32 07-25-2024

Post Area Drain 2 (AD2) Hyd. No. 23

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.446 cfs
Storm Frequency	= 2-yr	Time to Peak	= 11.97 hrs
Time Interval	= 2 min	Runoff Volume	= 915 cuft
Drainage Area	= 0.28 ac	Curve Number	= 64.81*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.139	91	Gravel
0.141	39	Grass
0.28	**65**	Weighted CN Method Employed



Hydrograph Report

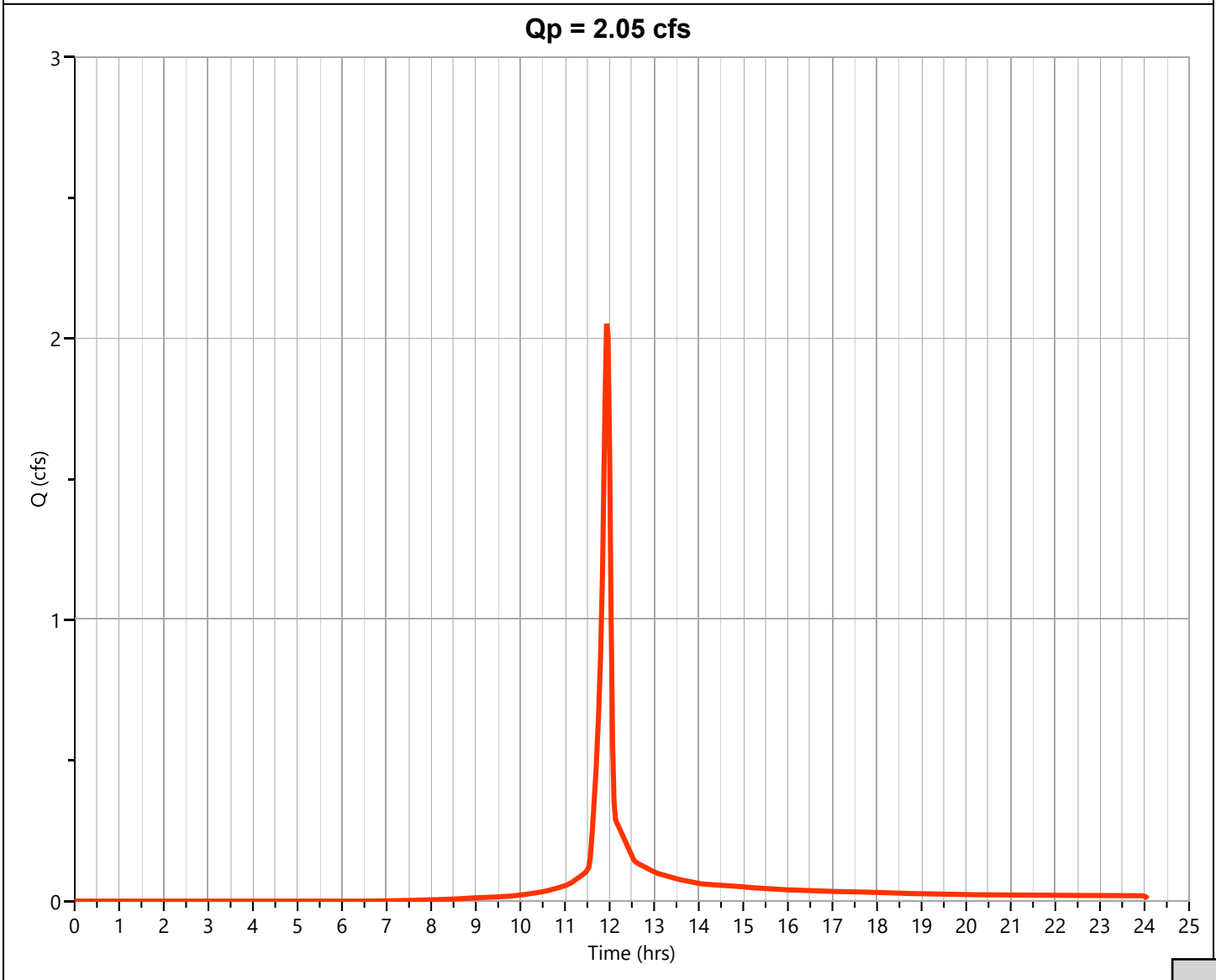
Hydrology Studio v 3.0.0.32 07-25-2024

Post Area Drain 1 (AD1) Hyd. No. 24

Hydrograph Type	= NRCS Runoff	Peak Flow	= 2.052 cfs
Storm Frequency	= 2-yr	Time to Peak	= 11.93 hrs
Time Interval	= 2 min	Runoff Volume	= 4,188 cuft
Drainage Area	= 0.527 ac	Curve Number	= 84.61*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.087	49	Pervious (A)
0.399	91	Gravel
0.041	98	Building
0.527	**85**	Weighted CN Method Employed



Hydrograph Report

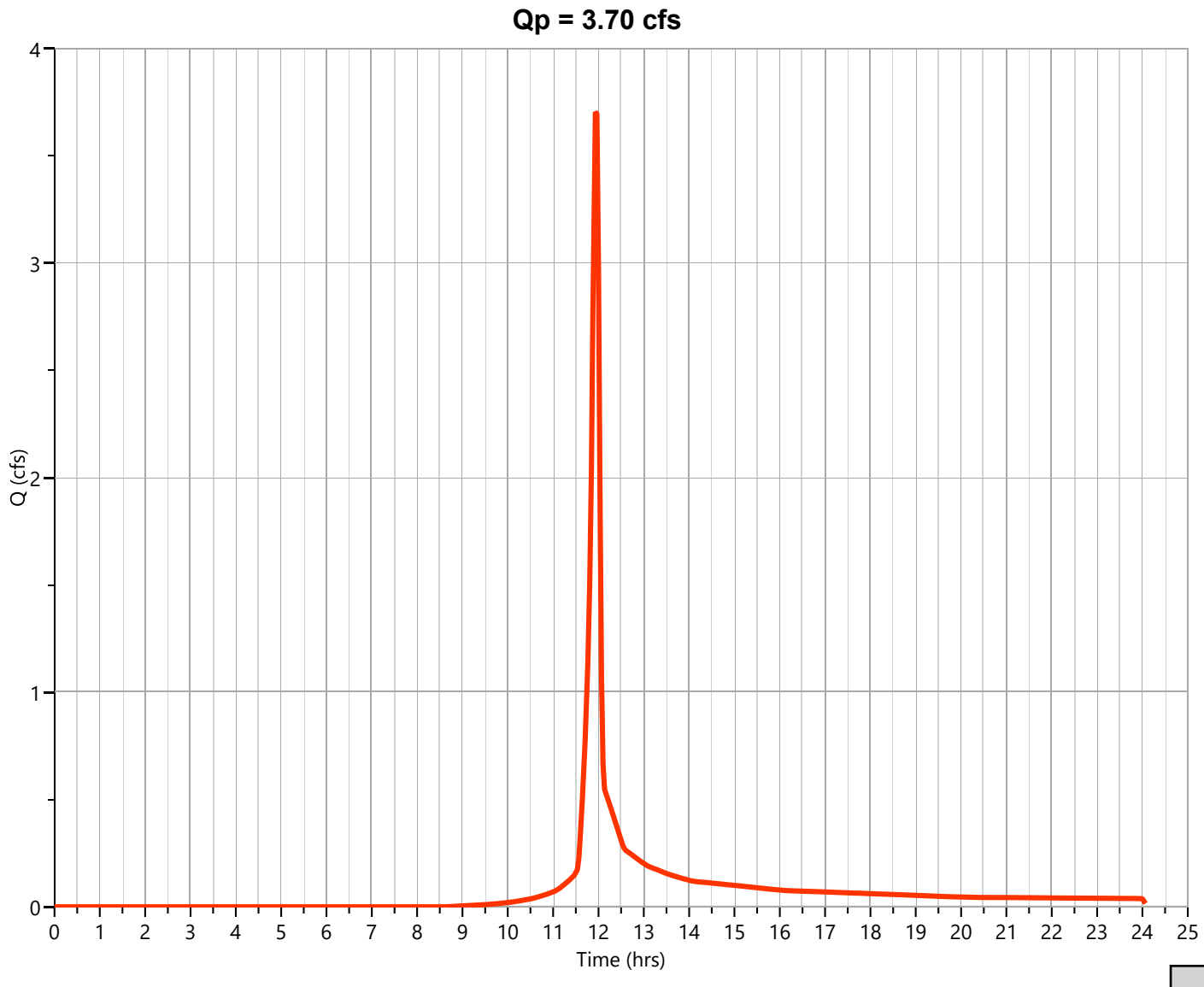
Hydrology Studio v 3.0.0.32 07-25-2024

Post North to Pond 2 Hyd. No. 25

Hydrograph Type	= NRCS Runoff	Peak Flow	= 3.704 cfs
Storm Frequency	= 2-yr	Time to Peak	= 11.93 hrs
Time Interval	= 2 min	Runoff Volume	= 7,480 cuft
Drainage Area	= 1.16 ac	Curve Number	= 79.16*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 3.90 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.618	91	Gravel
0.245	98	Bldg/Concrete
0.297	39	Grass
1.16	**79**	Weighted CN Method Employed



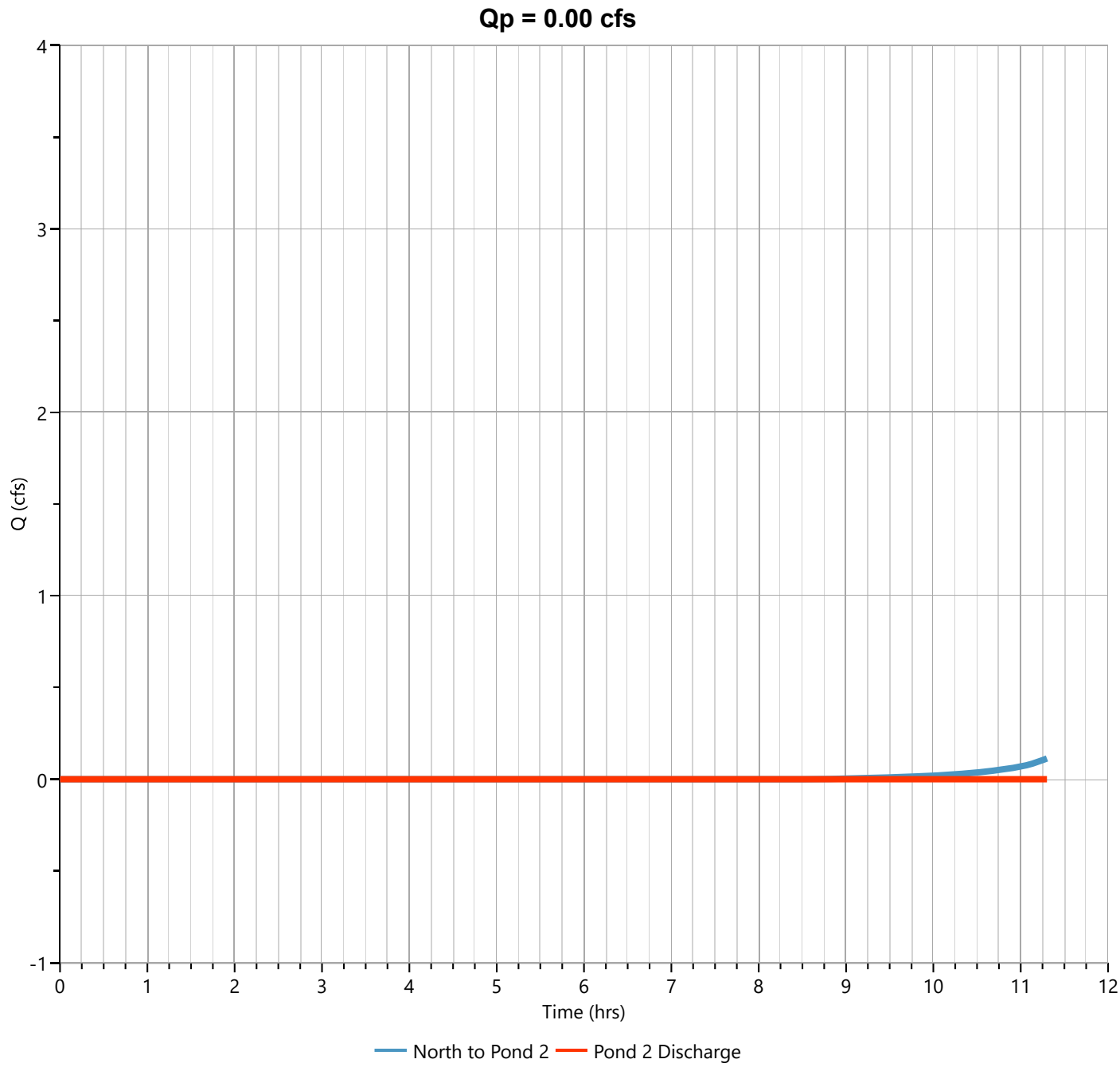
Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Pond 2 Discharge Hyd. No. 26

Hydrograph Type	= Pond Route	Peak Flow	= 0.000 cfs
Storm Frequency	= 2-yr	Time to Peak	= 11.27 hrs
Time Interval	= 2 min	Hydrograph Volume	= 0.000 cuft
Inflow Hydrograph	= 25 - North to Pond 2	Max. Elevation	= 531.80 ft
Pond Name	= Pond 2	Max. Storage	= 4,799 cuft

Pond Routing by Storage Indication Method



Pond Report

Hydrology Studio v 3.0.0.32 07-25-2024

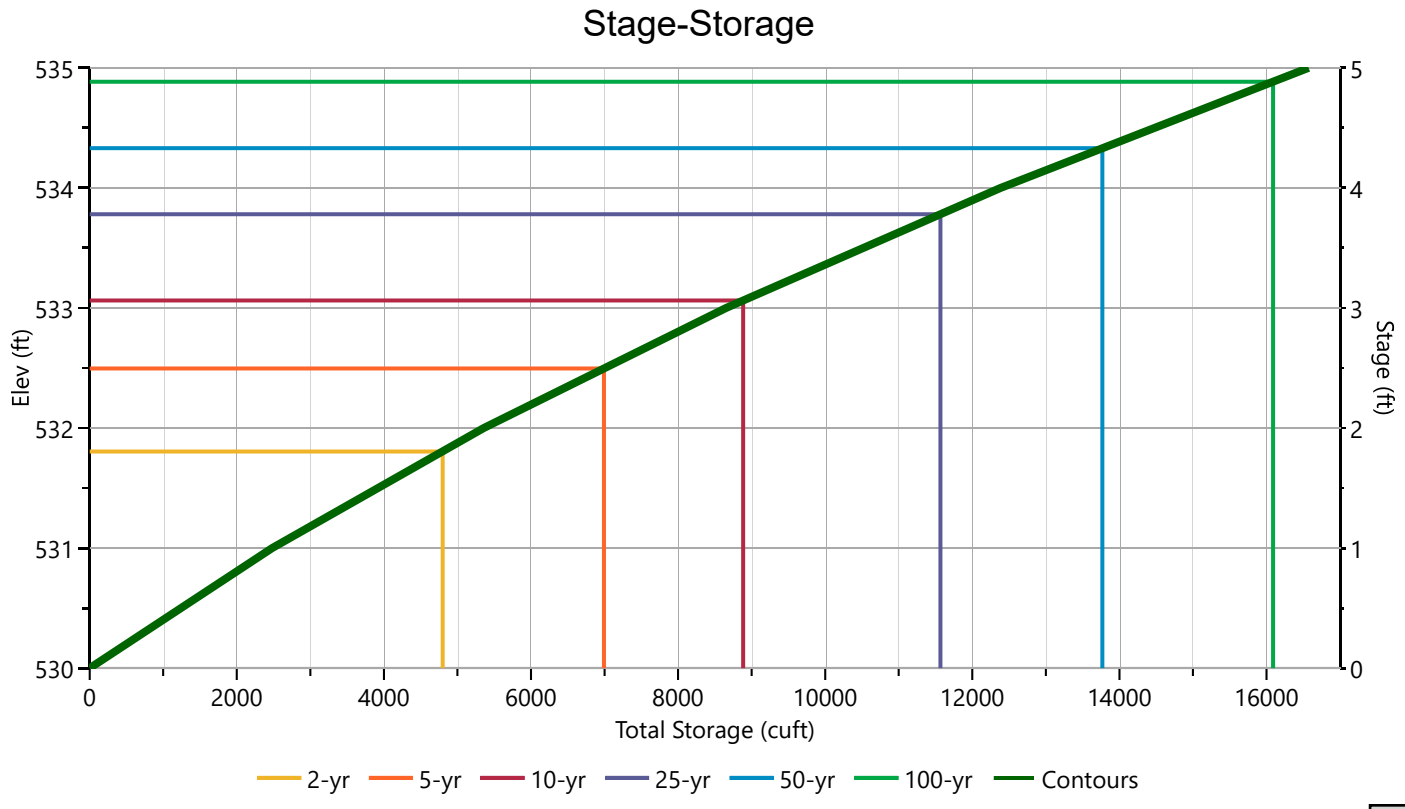
Pond 2

Stage-Storage

User Defined Contours	
Description	**Input**
Bottom Elevation, ft	530.00
Voids (%)	100.00
Volume Calc	None

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour Area (sqft)	Incr. Storage (cuft)	Total Storage (cuft)
0.00	530.00	2,292	0.000	0.000
1.00	531.00	2,674	2,483	2,483
2.00	532.00	3,079	2,877	5,360
3.00	533.00	3,506	3,293	8,652
4.00	534.00	3,955	3,731	12,383
5.00	535.00	4,426	4,191	16,573



Pond Report

Hydrology Studio v 3.0.0.32 07-25-2024

Pond 2

Stage-Discharge

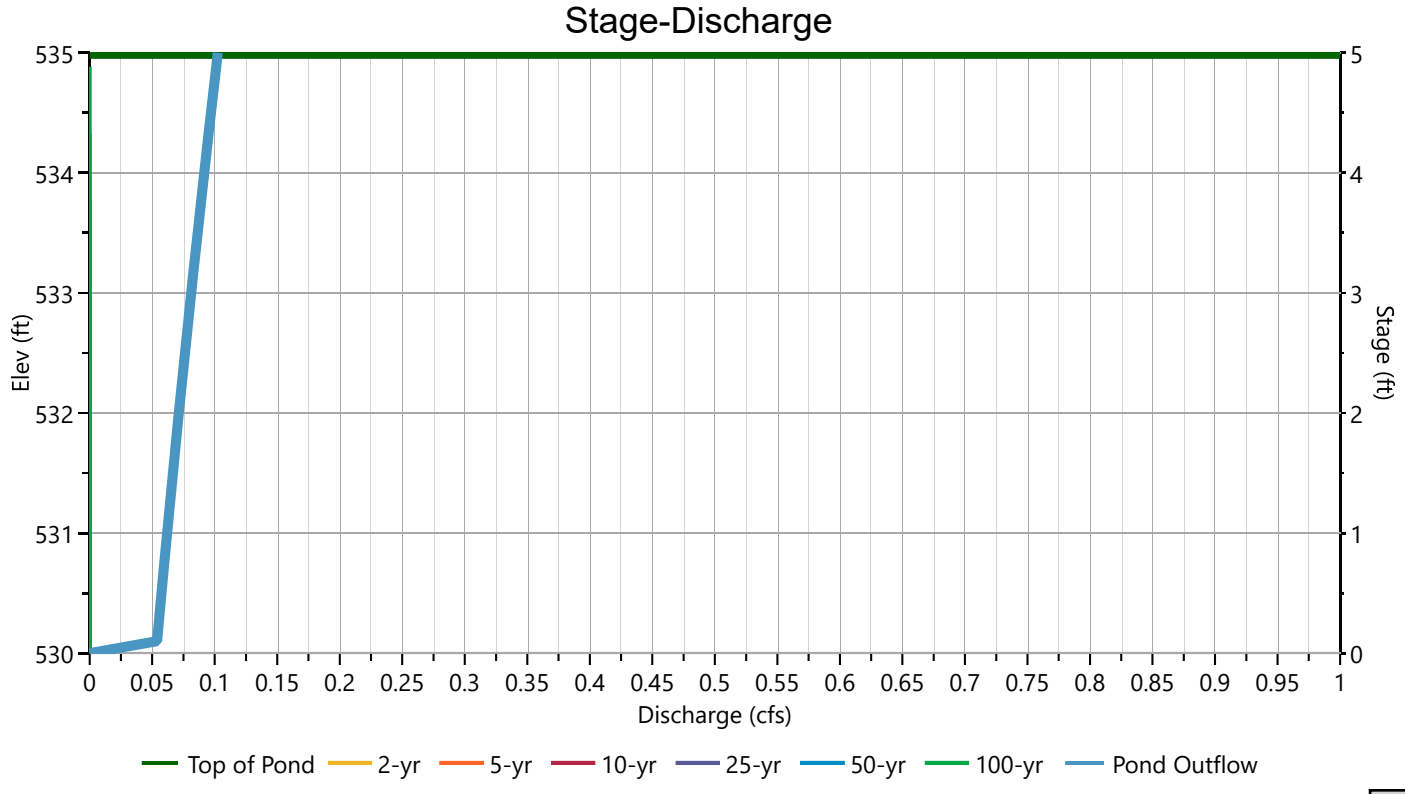
Culvert / Orifices	Culvert	Orifice		
		1	2	3
Rise, in				
Span, in				
No. Barrels				
Invert Elevation, ft				
Orifice Coefficient, Co				
Length, ft				
Barrel Slope, %				
N-Value, n				

Perforated Riser	
Hole Diameter, in	
No. holes	
Invert Elevation, ft	
Height, ft	
Orifice Coefficient, Co	

Weirs	Riser	Weir		
		1 (i)	2	3
Shape / Type		Broad Crested		
Crest Elevation, ft		634		
Crest Length, ft		25		
Angle, deg		18.4 (3:1)		
Weir Coefficient, Cw		3.3		

Ancillary	
Exfiltration, in/hr	1.00**

*m = Flows through Culvert, i = Independent **Exfiltration extracted from outflow hydrograph. Rate applied to contours.*



Pond Report

Pond 2

Stage-Storage-Discharge Summary

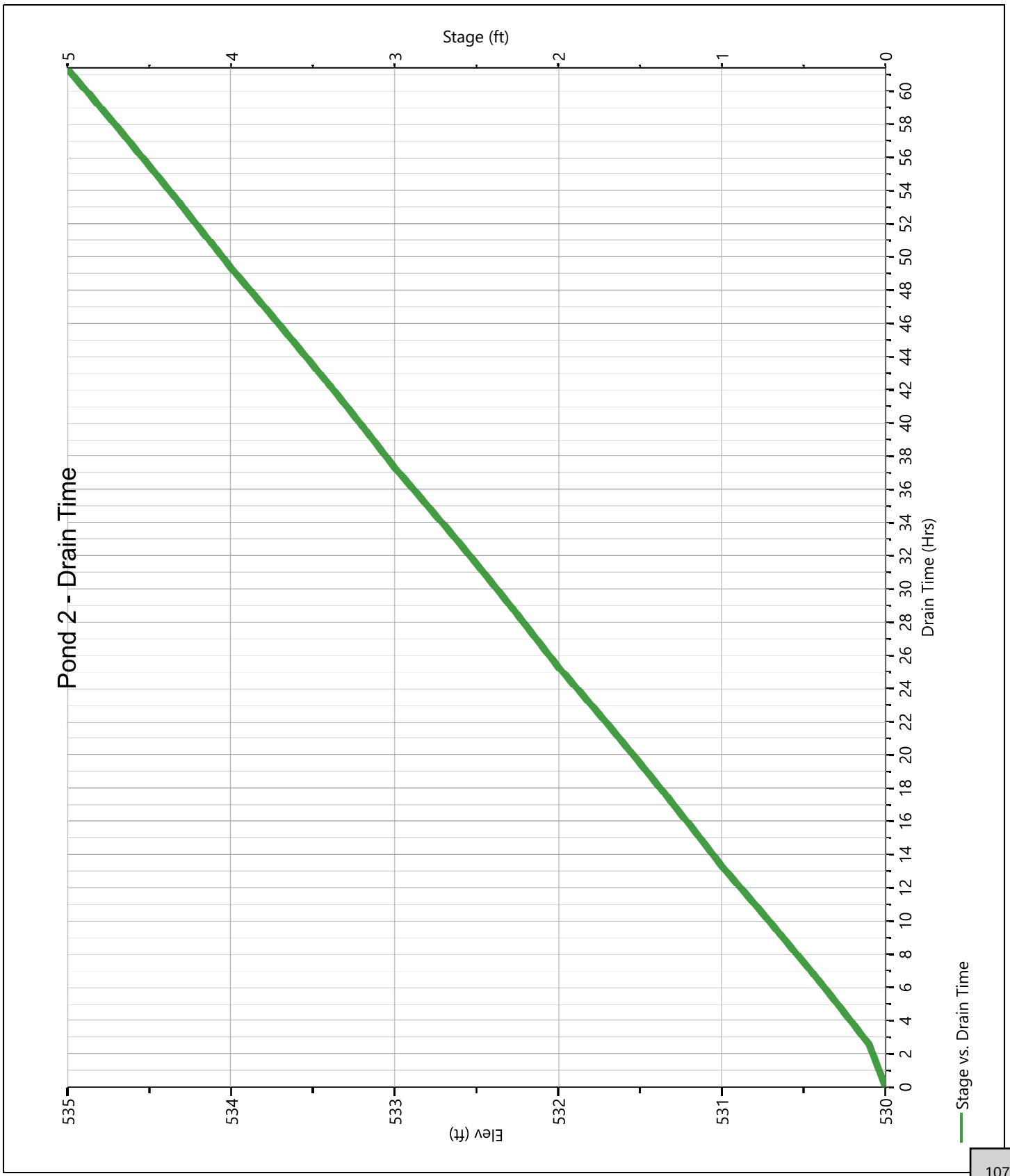
Stage (ft)	Elev. (ft)	Storage (cuft)	Culvert (cfs)	Orifices, cfs			Riser (cfs)	Weirs, cfs			Pf Riser (cfs)	Exfil (cfs)	User (cfs)	Total (cfs)
				1	2	3		1	2	3				
0.00	530.00	0.000						0.000				0.000		0.000
1.00	531.00	2,483						0.000				0.062		0.062
2.00	532.00	5,360						0.000				0.071		0.071
3.00	533.00	8,652						0.000				0.081		0.081
4.00	534.00	12,383						0.000				0.092		0.092
5.00	535.00	16,573						0.000				0.102		0.102

Suffix key: ic = inlet control, oc = outlet control, s = submerged weir

Pond Report

Pond 2

Pond Drawdown

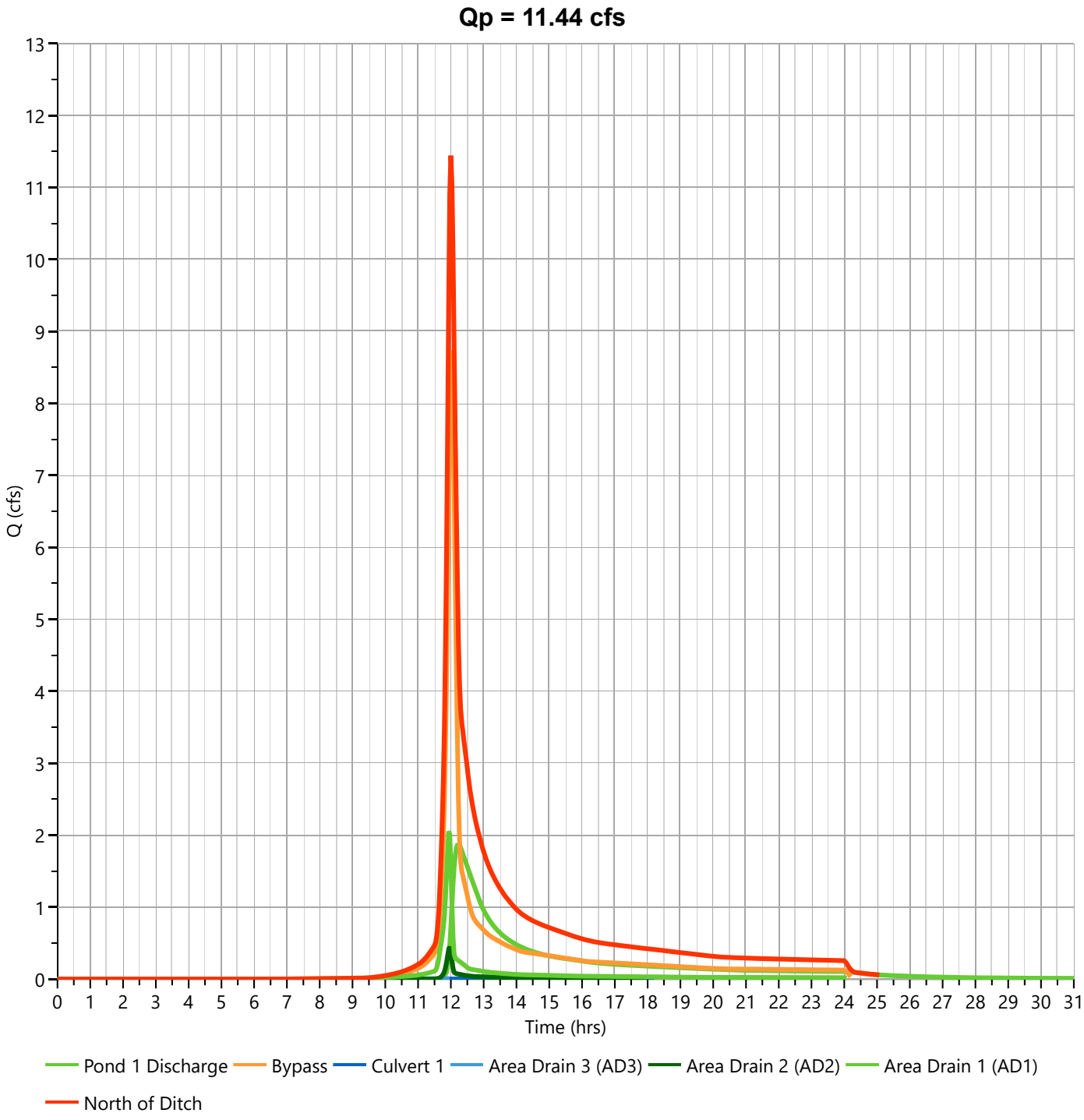


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post North of Ditch Hyd. No. 27

Hydrograph Type	= Junction	Peak Flow	= 11.44 cfs
Storm Frequency	= 2-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Hydrograph Volume	= 43,543 cuft
Inflow Hydrographs	= 14, 15, 21, 22, 23, 24	Total Contrib. Area	= 5.138 ac

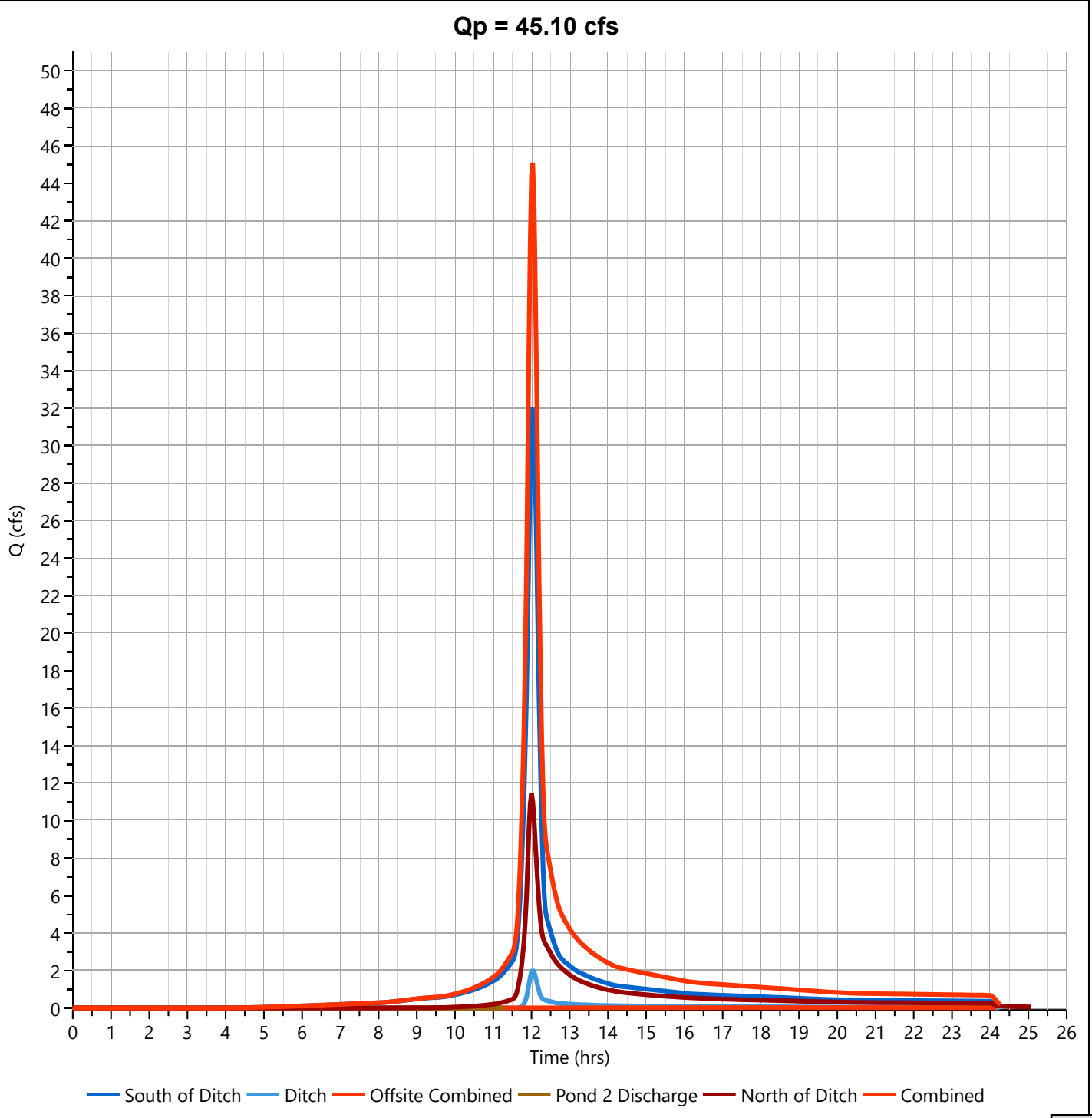


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Combined Hyd. No. 28

Hydrograph Type	= Junction	Peak Flow	= 45.10 cfs
Storm Frequency	= 2-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Hydrograph Volume	= 142,831 cuft
Inflow Hydrographs	= 11, 12, 20, 26, 27	Total Contrib. Area	= 21.17 ac



Design Storm Report

Cus

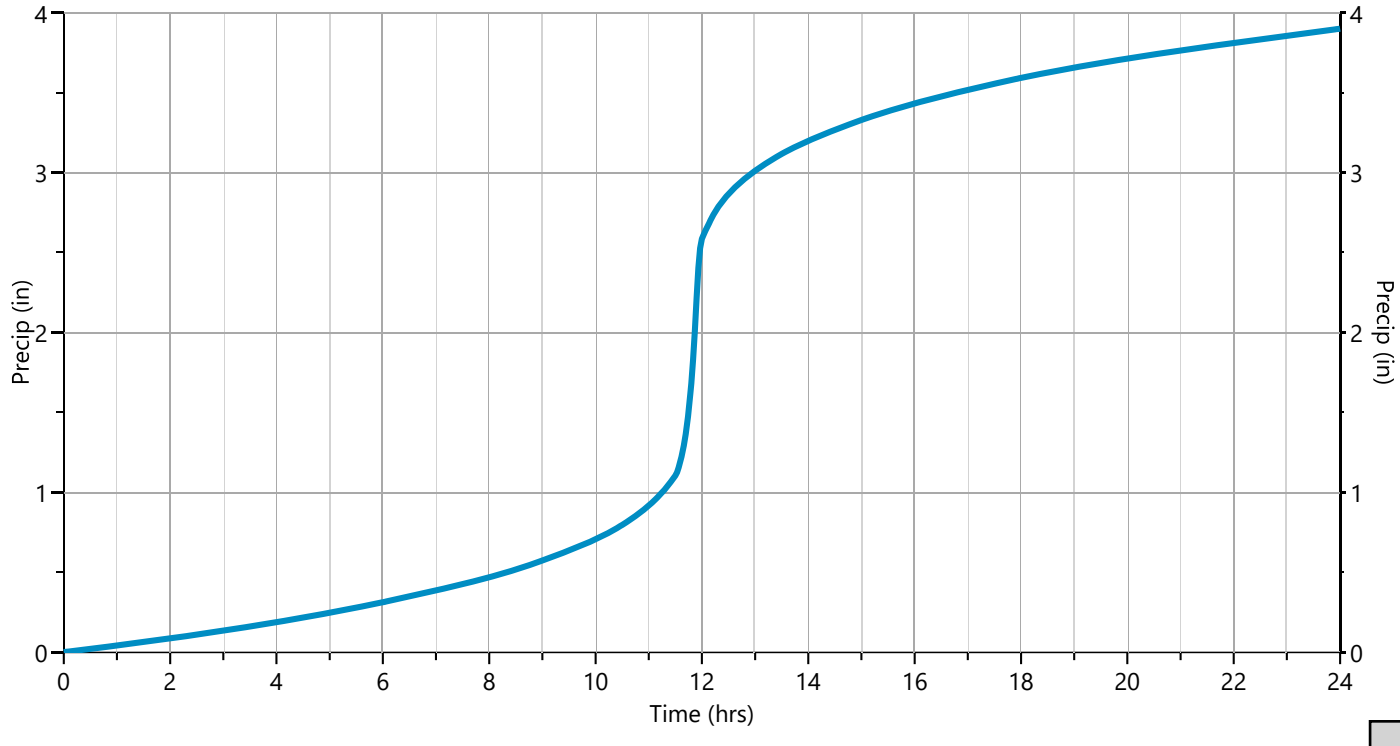
Hydrology Studio v 3.0.0.32

07-25-2024

Storm Distribution: NRCS/SCS - Type II, 24-hr

Storm Duration	Total Rainfall Volume (in)								
	1-yr	✔ 2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
24 hrs	3.26	3.90	0.00	4.74	5.42	6.34	7.07	7.82	

Incremental Rainfall Distribution, 2-yr									
Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)
10.90	0.008753	11.27	0.012480	11.63	0.051515	12.00	0.058608	12.37	0.015756
10.93	0.008927	11.30	0.012896	11.67	0.061776	12.03	0.026073	12.40	0.014768
10.97	0.009100	11.33	0.013312	11.70	0.072037	12.07	0.024648	12.43	0.013780
11.00	0.009273	11.37	0.013728	11.73	0.082299	12.10	0.023660	12.47	0.012792
11.03	0.009567	11.40	0.014144	11.77	0.094465	12.13	0.022672	12.50	0.011804
11.07	0.009984	11.43	0.014560	11.80	0.121097	12.17	0.021684	12.53	0.011199
11.10	0.010400	11.47	0.014976	11.83	0.149639	12.20	0.020696	12.57	0.010972
11.13	0.010816	11.50	0.015392	11.87	0.178181	12.23	0.019708	12.60	0.010746
11.17	0.011232	11.53	0.020760	**11.90**	**0.206723**	12.27	0.018720	12.63	0.010521
11.20	0.011648	11.57	0.030992	11.93	0.188654	12.30	0.017732	12.67	0.010296
11.23	0.012064	11.60	0.041253	11.97	0.123565	12.33	0.016744	12.70	0.010071



Hydrograph 5-yr Summary

Hydrology Studio v 3.0.0.32

07-25-2024

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Flow (cfs)	Time to Peak (hrs)	Hydrograph Volume (cuft)	Inflow Hyd(s)	Maximum Elevation (ft)	Maximum Storage (cuft)
1	NRCS Runoff	Pre South of Ditch	40.20	12.03	117,692	----		
2	NRCS Runoff	Pre Ditch	3.053	12.03	8,437	----		
3	NRCS Runoff	Pre North of Ditch	25.66	12.03	72,977	----		
4	NRCS Runoff	Pre Offsite 1	0.003	12.43	83.5	----		
5	NRCS Runoff	Pre Offsite 2	0.086	12.57	2,408	----		
6	NRCS Runoff	Pre Offsite 3	0.000	12.43	12.8	----		
7	NRCS Runoff	Post Offsite 4	0.012	12.43	321	----		
8	Junction	Pre Offsite Combined	0.100	12.93	2,825	4, 5, 6, 7		
9	Junction	Pre Total	68.91	12.03	199,426	1, 2, 3, 7		
11	NRCS Runoff	Post South of Ditch	40.34	12.03	118,287	----		
12	NRCS Runoff	Post Ditch	3.344	12.03	9,106	----		
13	NRCS Runoff	Post North to Pond 1	8.628	12.03	22,676	----		
14	Pond Route	Post Pond 1 Discharge	3.314	12.20	22,649	13	629.36	7,293
15	NRCS Runoff	Post Bypass	12.25	12.00	31,775	----		
16	NRCS Runoff	Post Offsite 1	0.003	12.43	83.5	----		
17	NRCS Runoff	Post Offsite 2	0.086	12.57	2,408	----		
18	NRCS Runoff	Post Offsite 3	0.000	12.43	12.8	----		
19	NRCS Runoff	Post Offsite 4	0.012	12.43	321	----		
20	Junction	Post Offsite Combined	0.100	12.93	2,825	16, 17, 18, 19		
21	NRCS Runoff	Post Culvert 1	0.014	12.43	390	----		
22	NRCS Runoff	Post Area Drain 3 (AD3)	0.006	11.93	12.7	----		
23	NRCS Runoff	Post Area Drain 2 (AD2)	0.697	11.97	1,401	----		
24	NRCS Runoff	Post Area Drain 1 (AD1)	2.688	11.93	5,544	----		
25	NRCS Runoff	Post North to Pond 2	5.051	11.93	10,237	----		
26	Pond Route	Post Pond 2 Discharge	0.000	10.90	0.000	25	532.50	6,992
27	Junction	Post North of Ditch	16.57	12.00	61,771	14, 15, 21, 22, 23, 24		
28	Junction	Post Combined	59.64	12.03	191,989	11, 12, 20, 26, 27		

Hydrograph Report

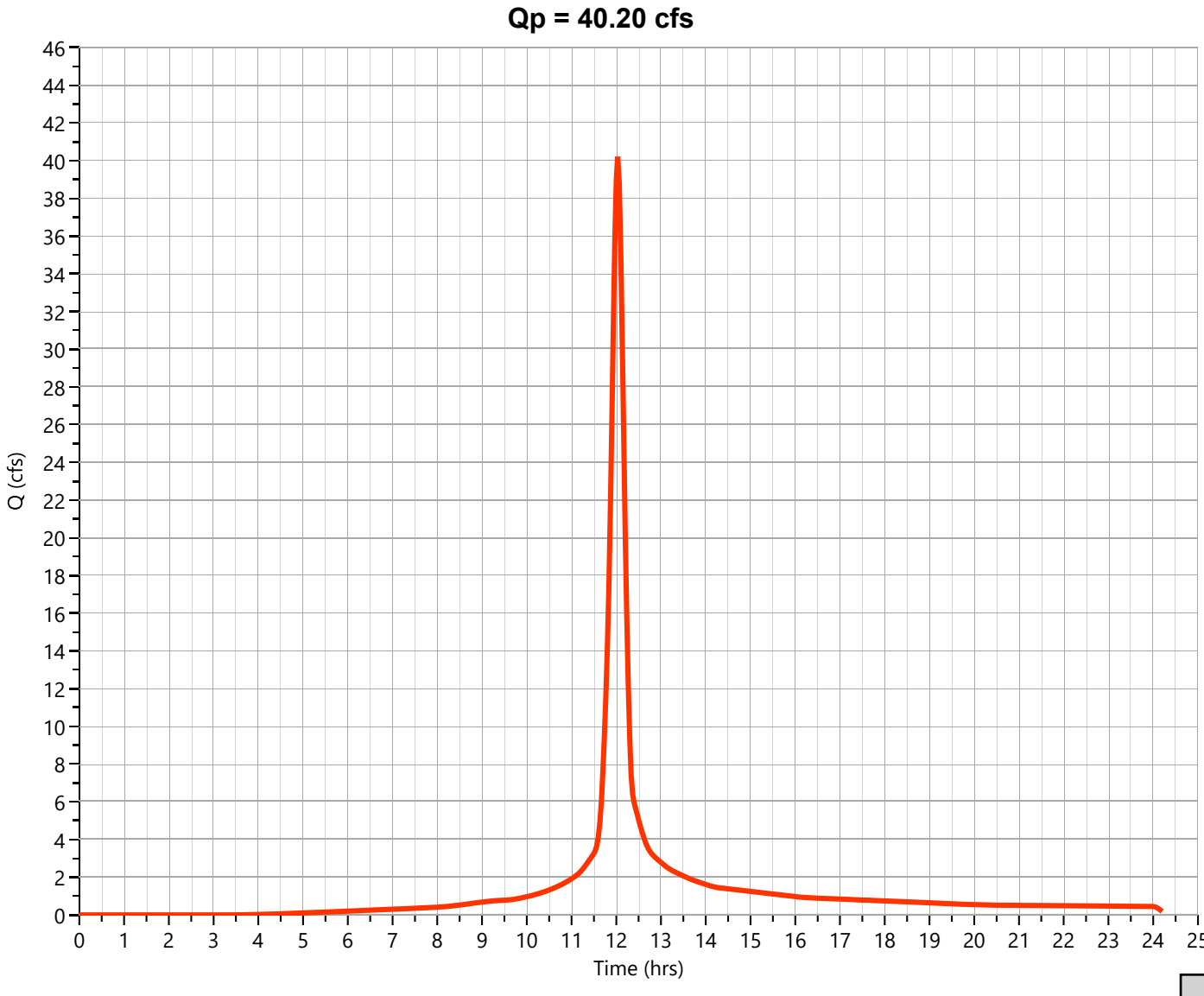
Hydrology Studio v 3.0.0.32 07-25-2024

Pre South of Ditch Hyd. No. 1

Hydrograph Type	= NRCS Runoff	Peak Flow	= 40.20 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 117,692 cuft
Drainage Area	= 8.91 ac	Curve Number	= 91.02*
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 15.27 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
8.69	91	No Rating (Row Crops)
0.2	91	Gravel
0.02	98	Concrete
8.91	**91**	Weighted CN Method Employed



Hydrograph Report

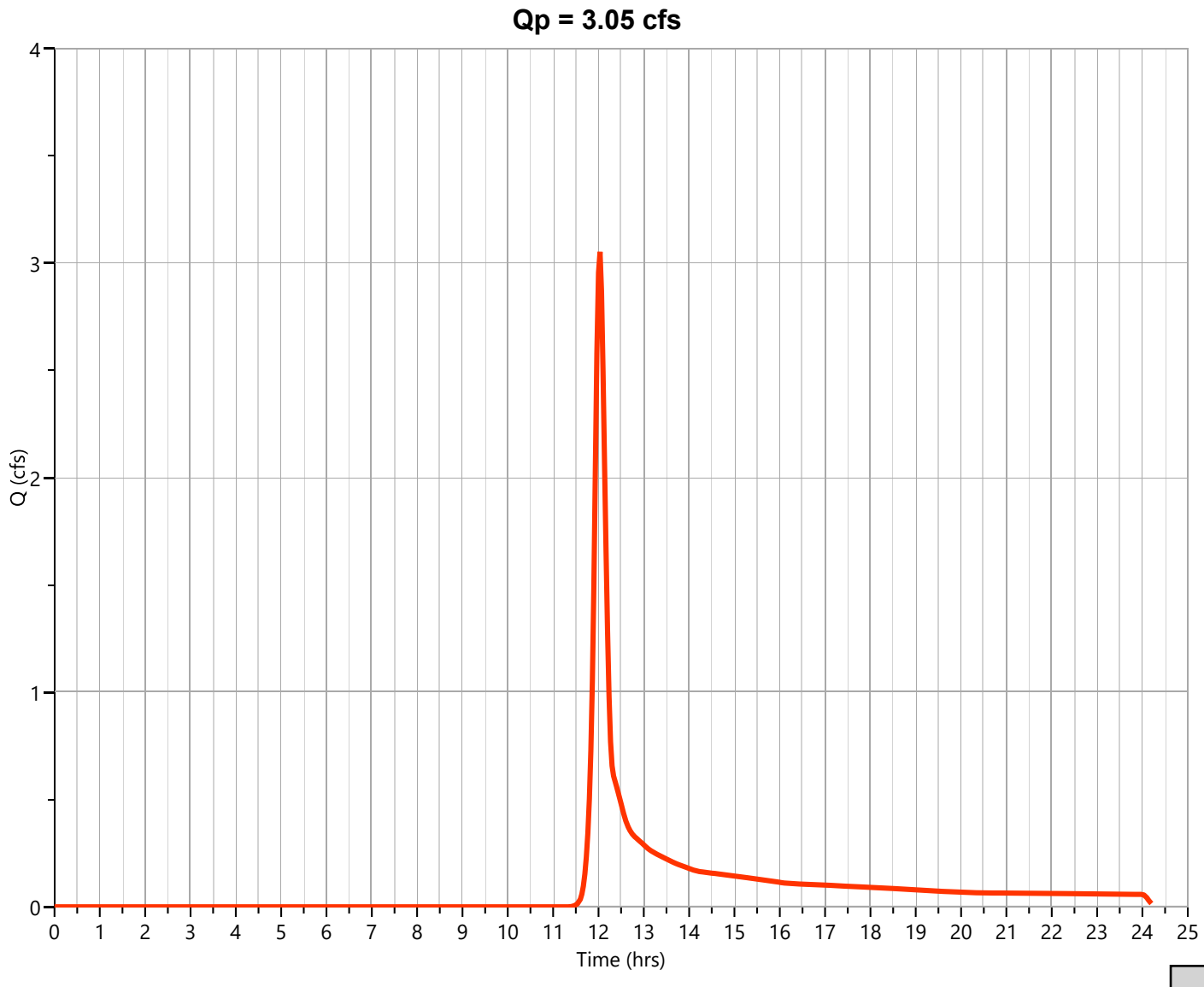
Hydrology Studio v 3.0.0.32 07-25-2024

Pre Ditch Hyd. No. 2

Hydrograph Type	= NRCS Runoff	Peak Flow	= 3.053 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 8,437 cuft
Drainage Area	= 1.79 ac	Curve Number	= 61.67*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
1.75	61	Ditch (inside buffer)
0.04	91	Gravel
1.79	**62**	Weighted CN Method Employed



Hydrograph Report

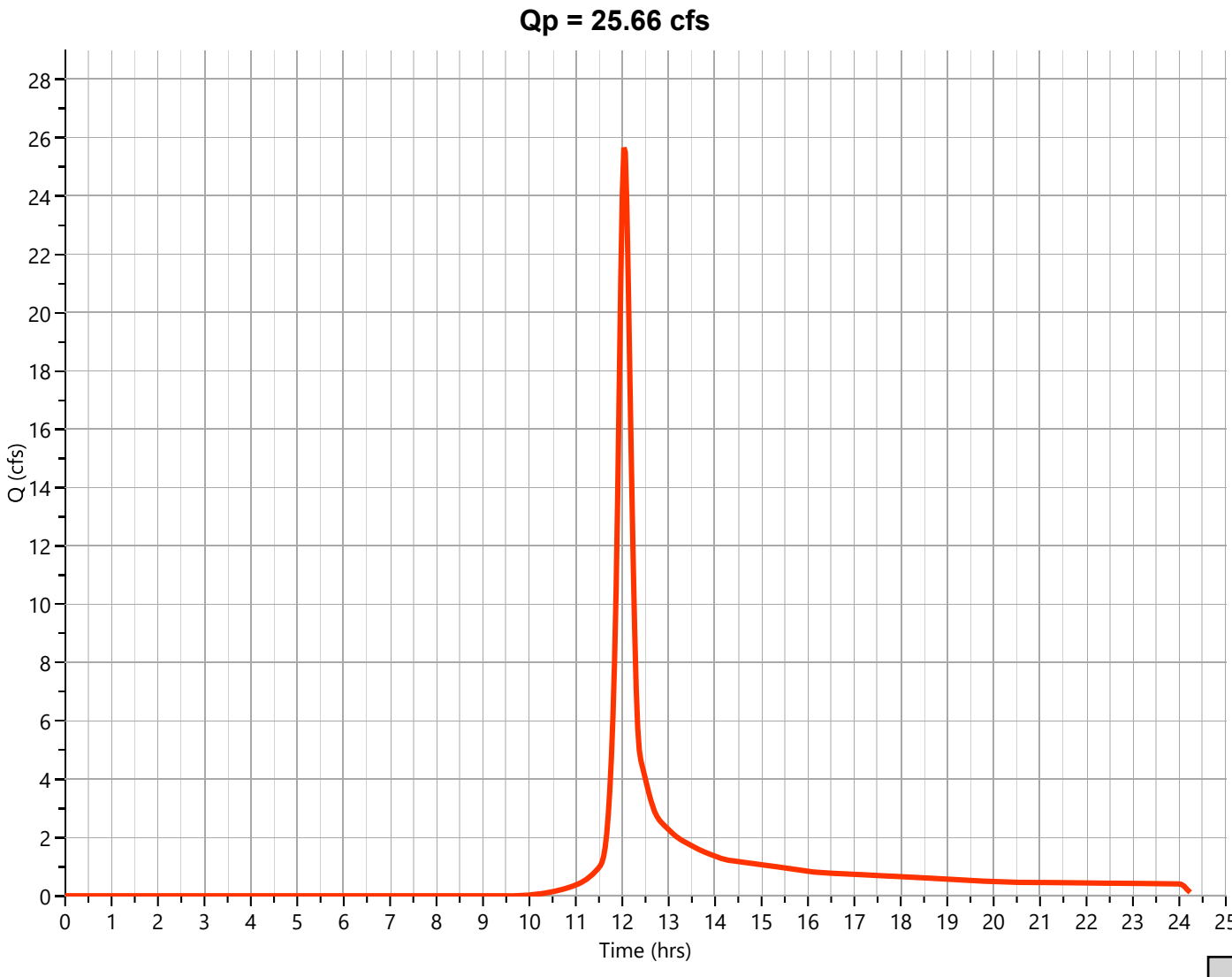
Hydrology Studio v 3.0.0.32 07-25-2024

Pre North of Ditch Hyd. No. 3

Hydrograph Type	= NRCS Runoff	Peak Flow	= 25.66 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 72,977 cuft
Drainage Area	= 10.55 ac	Curve Number	= 71.42*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
3.945	79	Pervious (C)
3.945	49	Pervious (A)
0.89	98	Buildings
1.73	91	Gravel
0.04	98	Concrete
10.55	**71**	Weighted CN Method Employed



Hydrograph Report

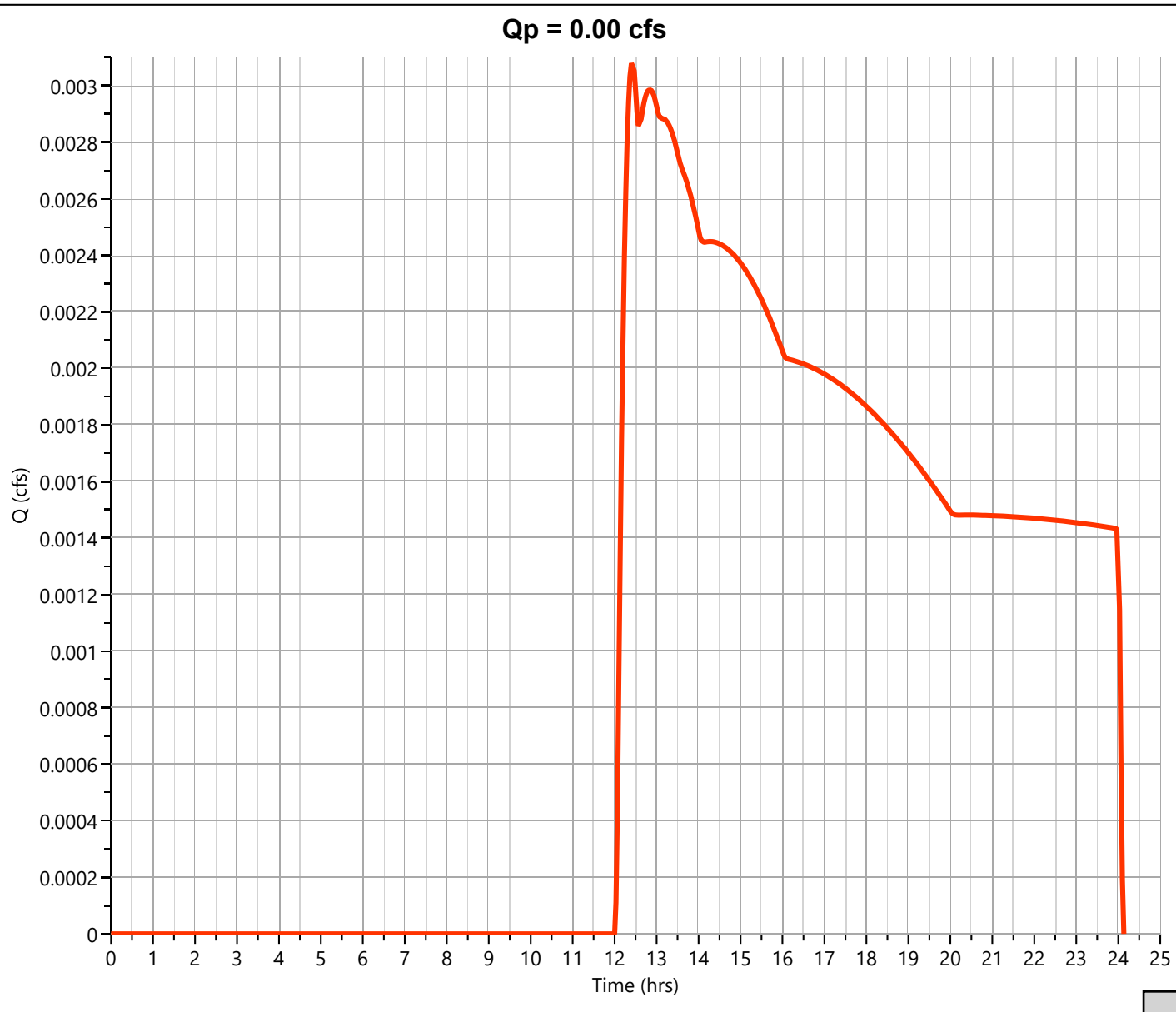
Hydrology Studio v 3.0.0.32 07-25-2024

Pre Offsite 1 Hyd. No. 4

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.003 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.43 hrs
Time Interval	= 2 min	Runoff Volume	= 83.5 cuft
Drainage Area	= 0.163 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.163	39	Offsite
0.163	**39**	Weighted CN Method Employed



Hydrograph Report

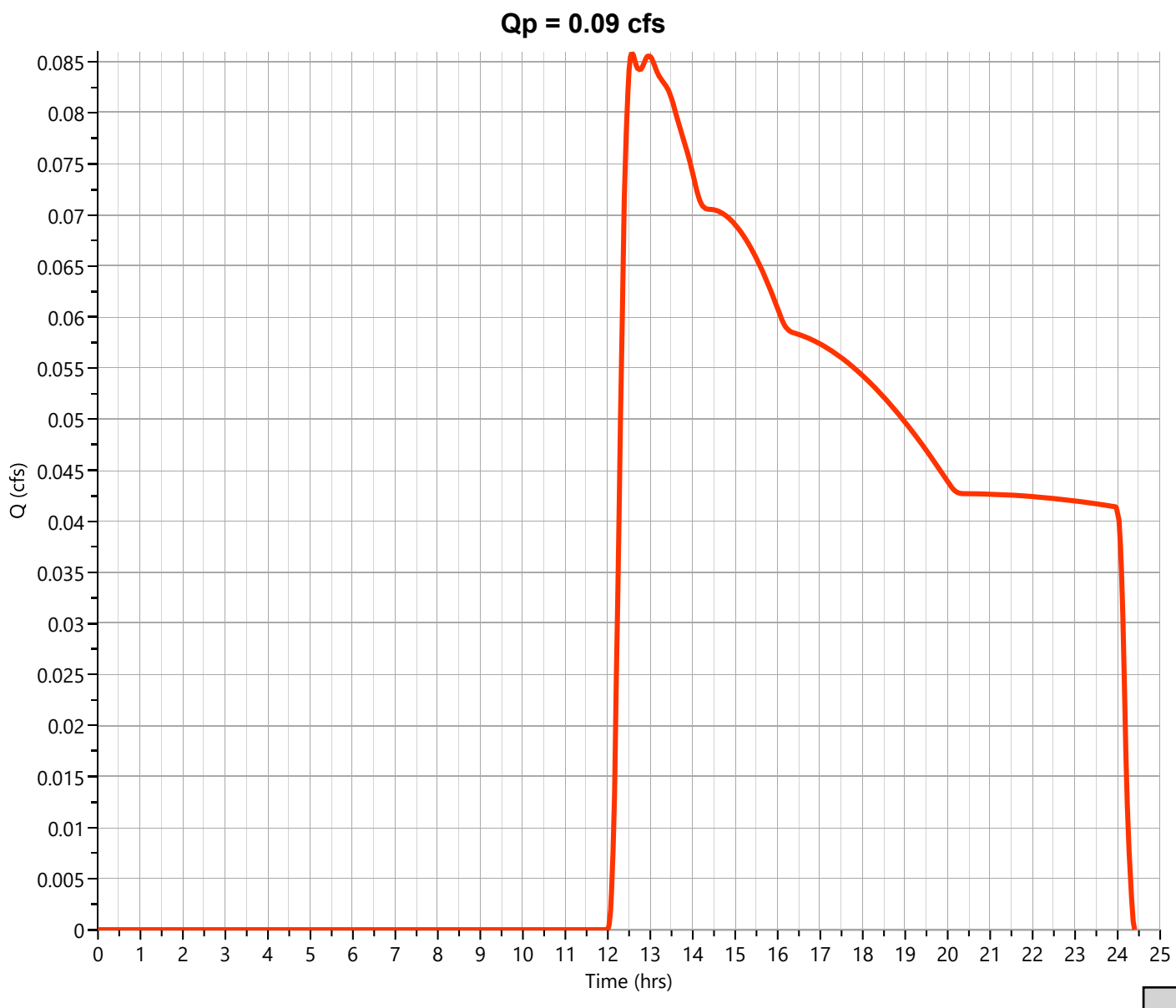
Hydrology Studio v 3.0.0.32 07-25-2024

Pre Offsite 2 Hyd. No. 5

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.086 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.57 hrs
Time Interval	= 2 min	Runoff Volume	= 2,408 cuft
Drainage Area	= 4.518 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
4.518	39	Offsite
4.518	**39**	Weighted CN Method Employed

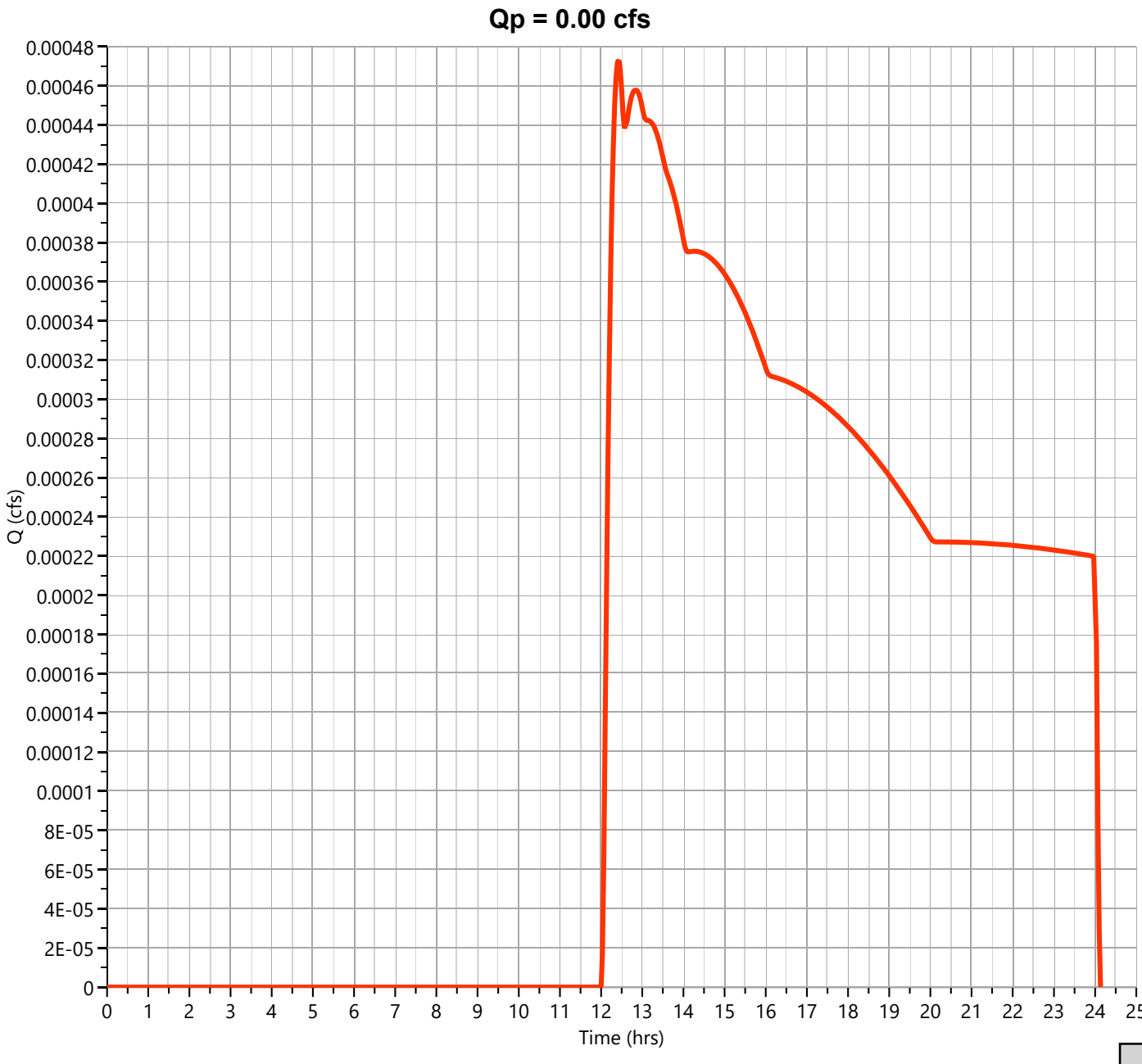


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Pre Offsite 3 Hyd. No. 6

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.000 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.43 hrs
Time Interval	= 2 min	Runoff Volume	= 12.8 cuft
Drainage Area	= 0.025 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

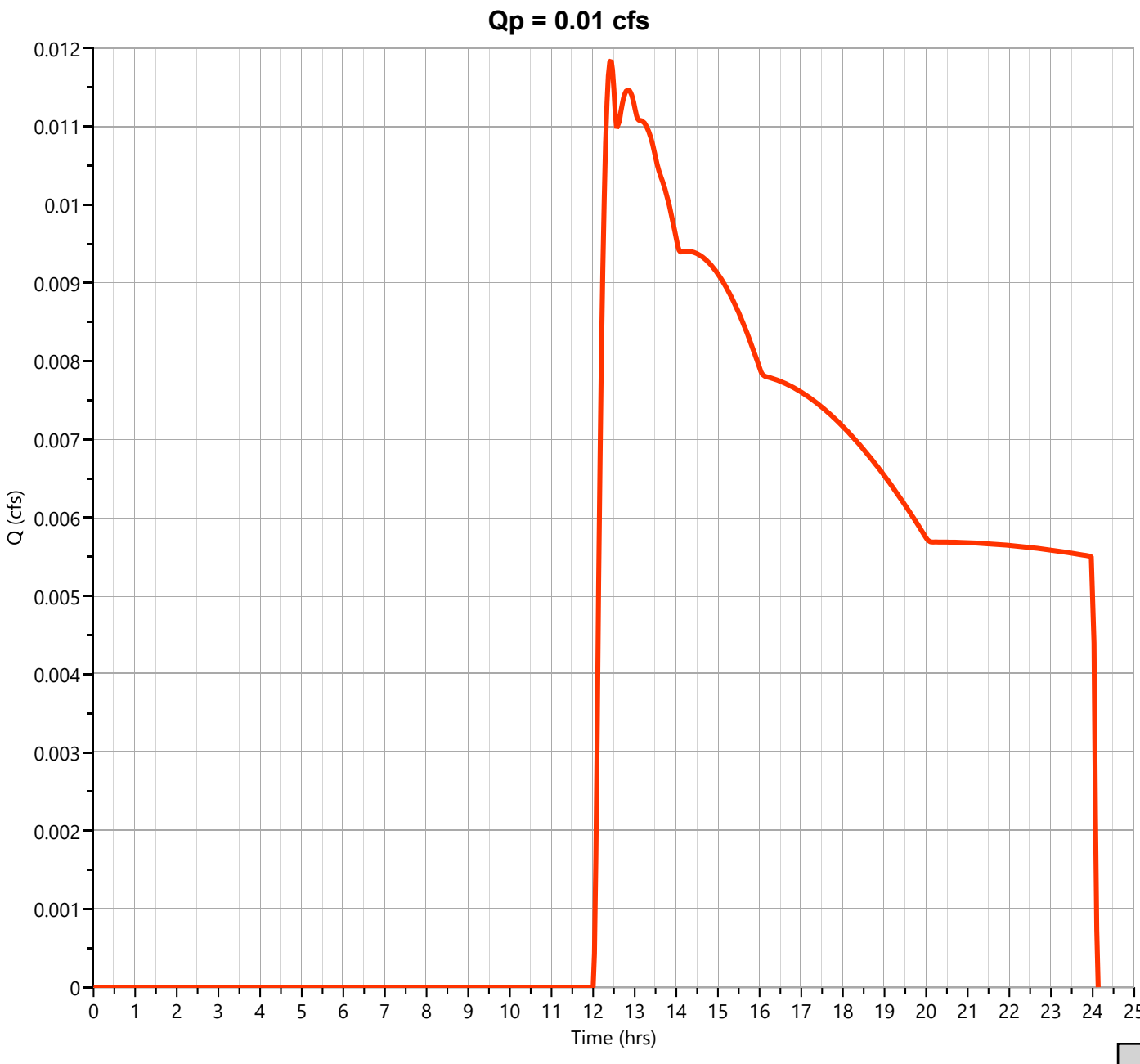


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 4 Hyd. No. 7

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.012 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.43 hrs
Time Interval	= 2 min	Runoff Volume	= 321 cuft
Drainage Area	= 0.626 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484



Hydrograph Report

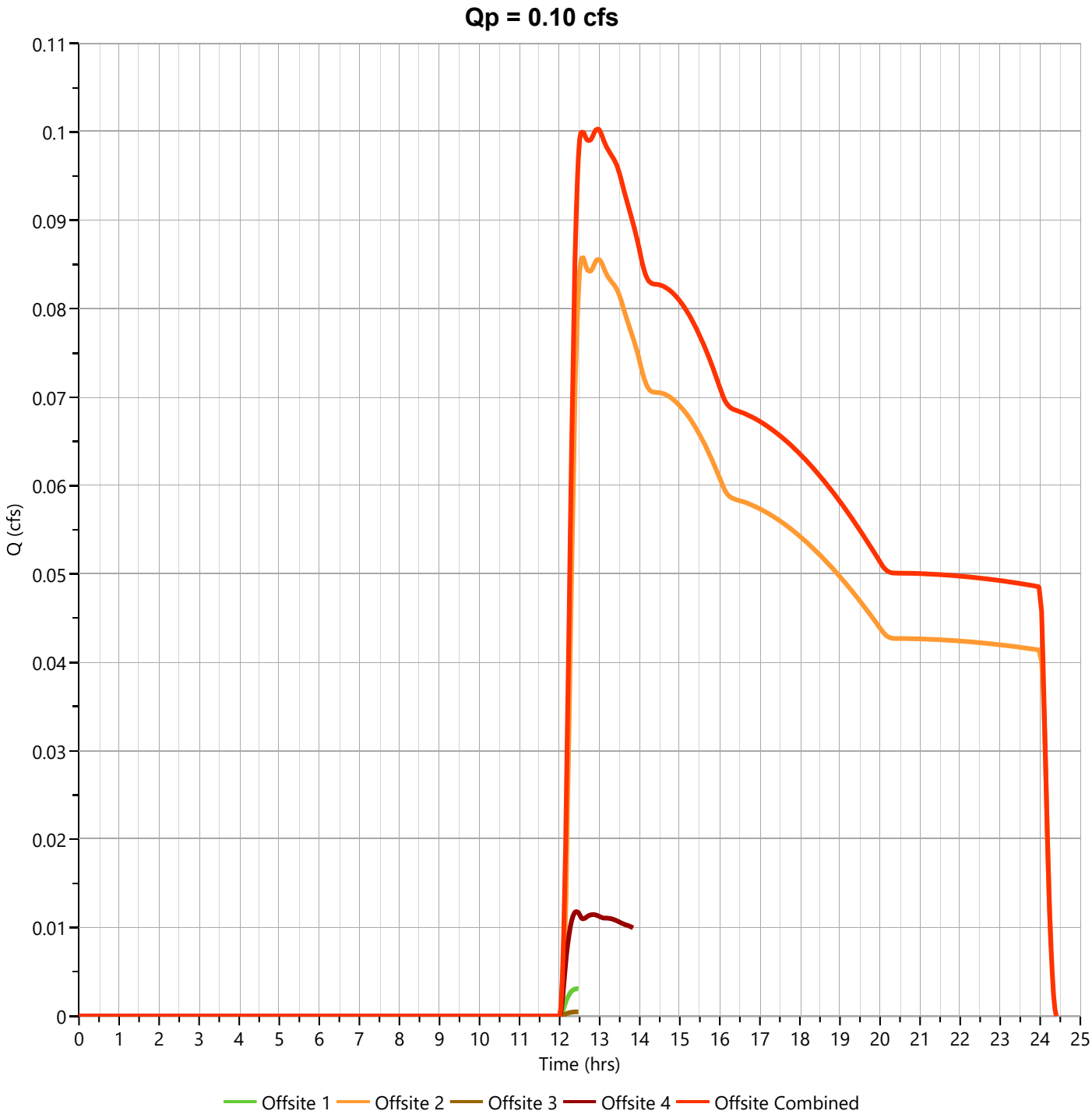
Hydrology Studio v 3.0.0.32

07-25-2024

Pre Offsite Combined

Hyd. No. 8

Hydrograph Type	= Junction	Peak Flow	= 0.100 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.93 hrs
Time Interval	= 2 min	Hydrograph Volume	= 2,825 cuft
Inflow Hydrographs	= 4, 5, 6, 7	Total Contrib. Area	= 5.332 ac



Hydrograph Report

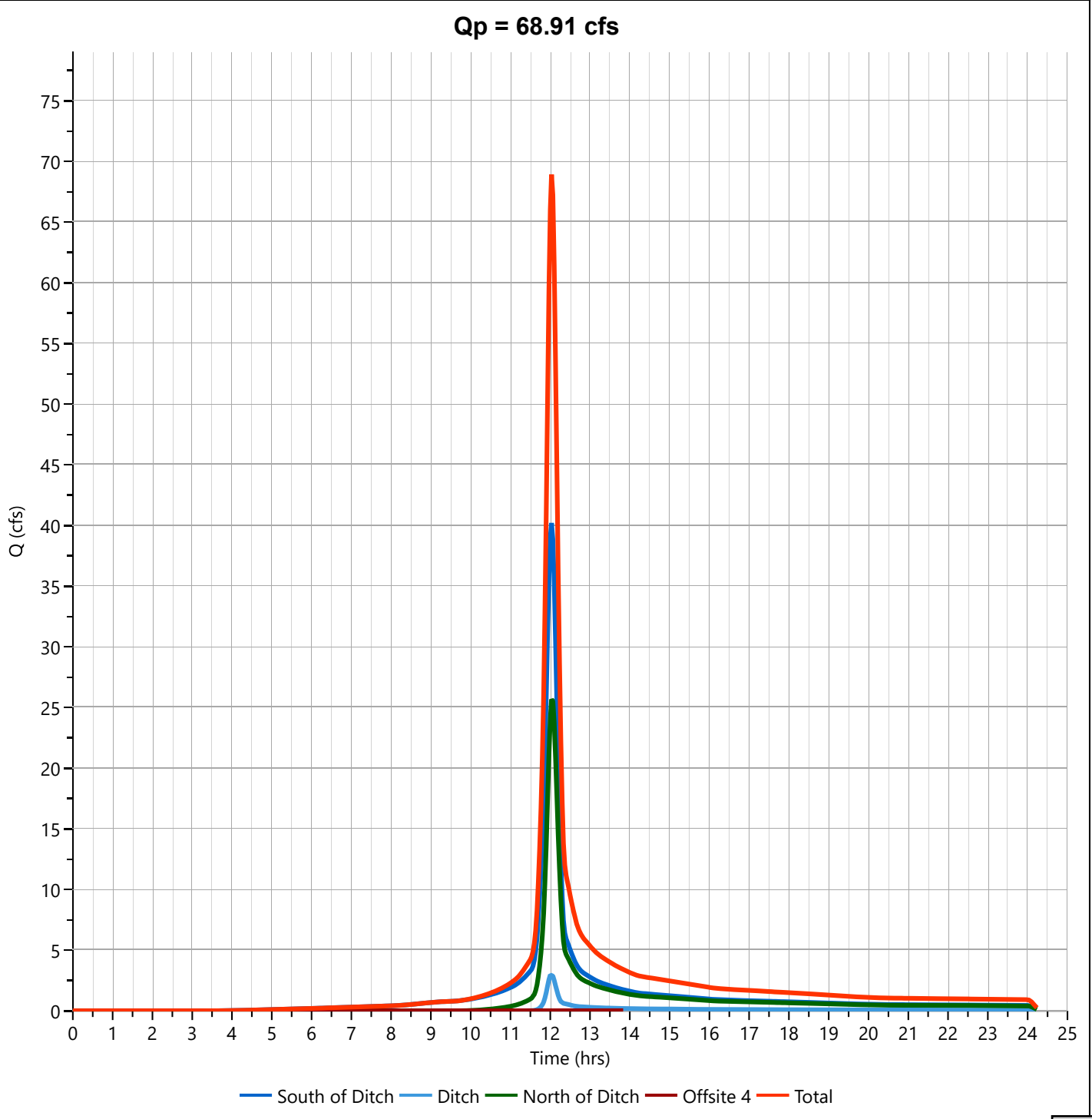
Hydrology Studio v 3.0.0.32

07-25-2024

Pre Total

Hyd. No. 9

Hydrograph Type	= Junction	Peak Flow	= 68.91 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Hydrograph Volume	= 199,426 cuft
Inflow Hydrographs	= 1, 2, 3, 7	Total Contrib. Area	= 21.876 ac



Hydrograph Report

Hydrology Studio v 3.0.0.32

07-25-2024

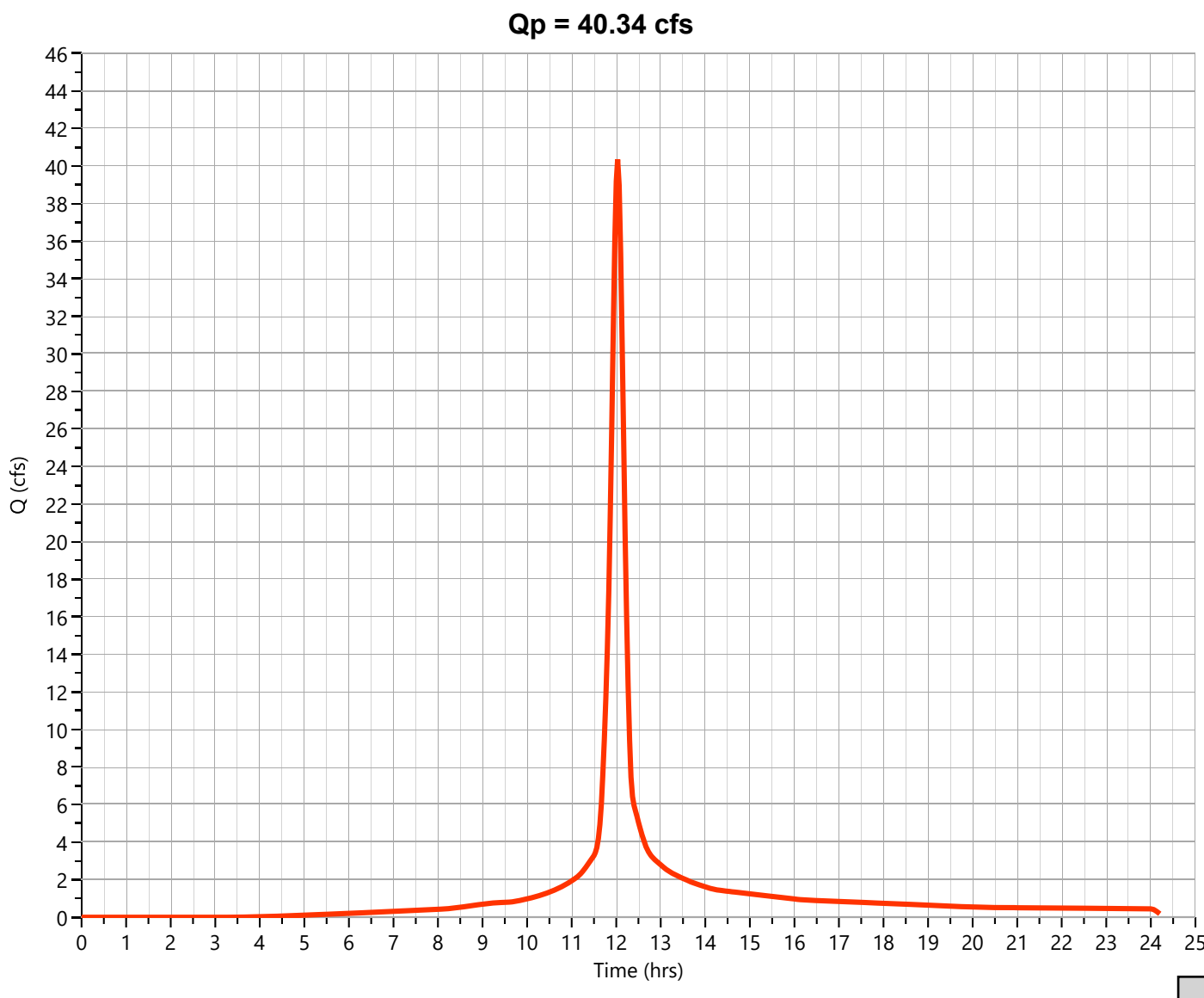
Post South of Ditch

Hyd. No. 11

Hydrograph Type	= NRCS Runoff	Peak Flow	= 40.34 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 118,287 cuft
Drainage Area	= 8.91 ac	Curve Number	= 91.2*
Tc Method	= User	Time of Conc. (Tc)	= 15.27 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
7.83	91	Row Crop
0.82	91	Gravel Drive
0.26	98	Concrete
8.91	**91**	Weighted CN Method Employed



Hydrograph Report

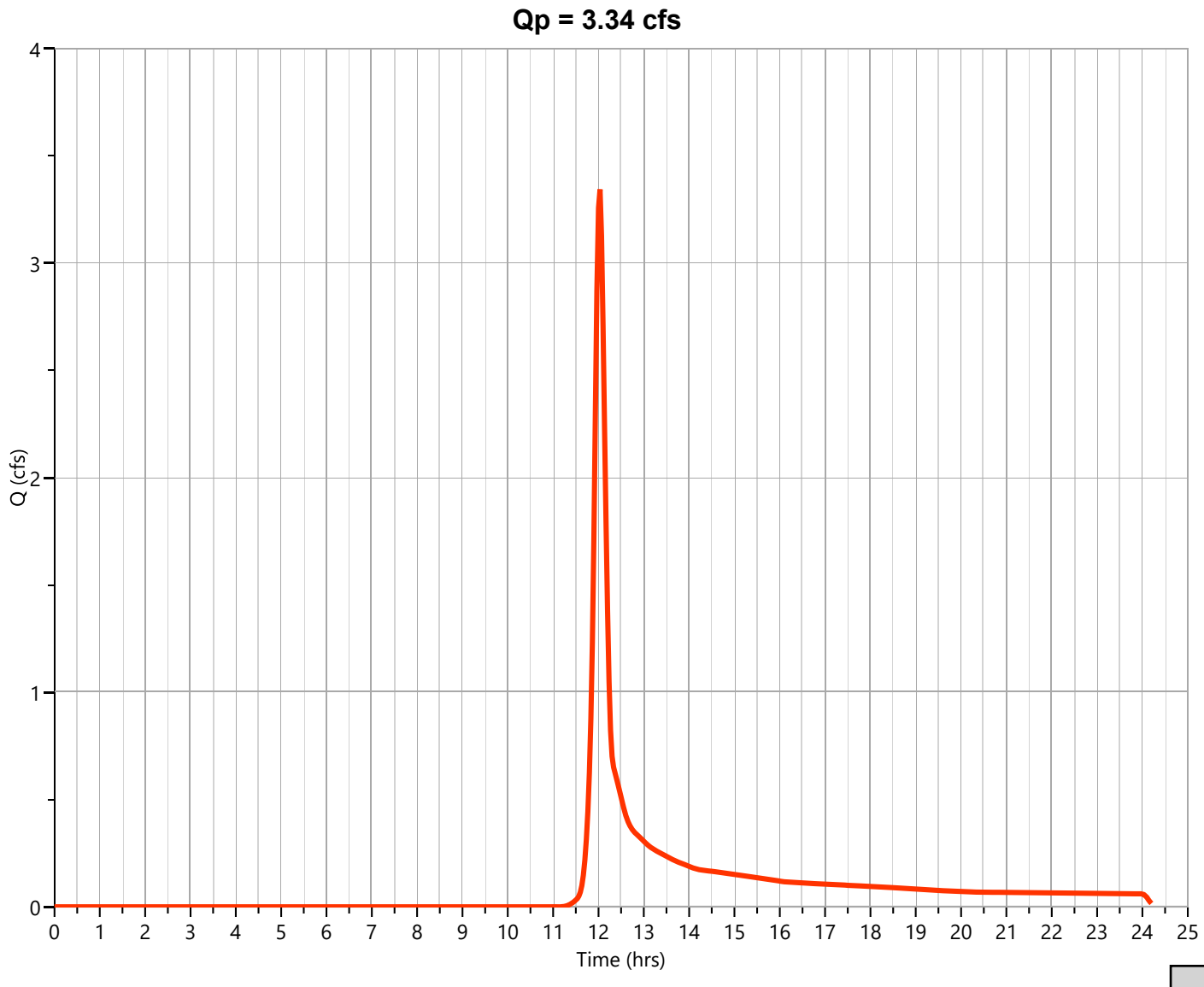
Hydrology Studio v 3.0.0.32 07-25-2024

Post Ditch Hyd. No. 12

Hydrograph Type	= NRCS Runoff	Peak Flow	= 3.344 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 9,106 cuft
Drainage Area	= 1.79 ac	Curve Number	= 63.18*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
1.66	61	Ditch (inside buffer)
0.13	91	Gravel
1.79	**63**	Weighted CN Method Employed



Hydrograph Report

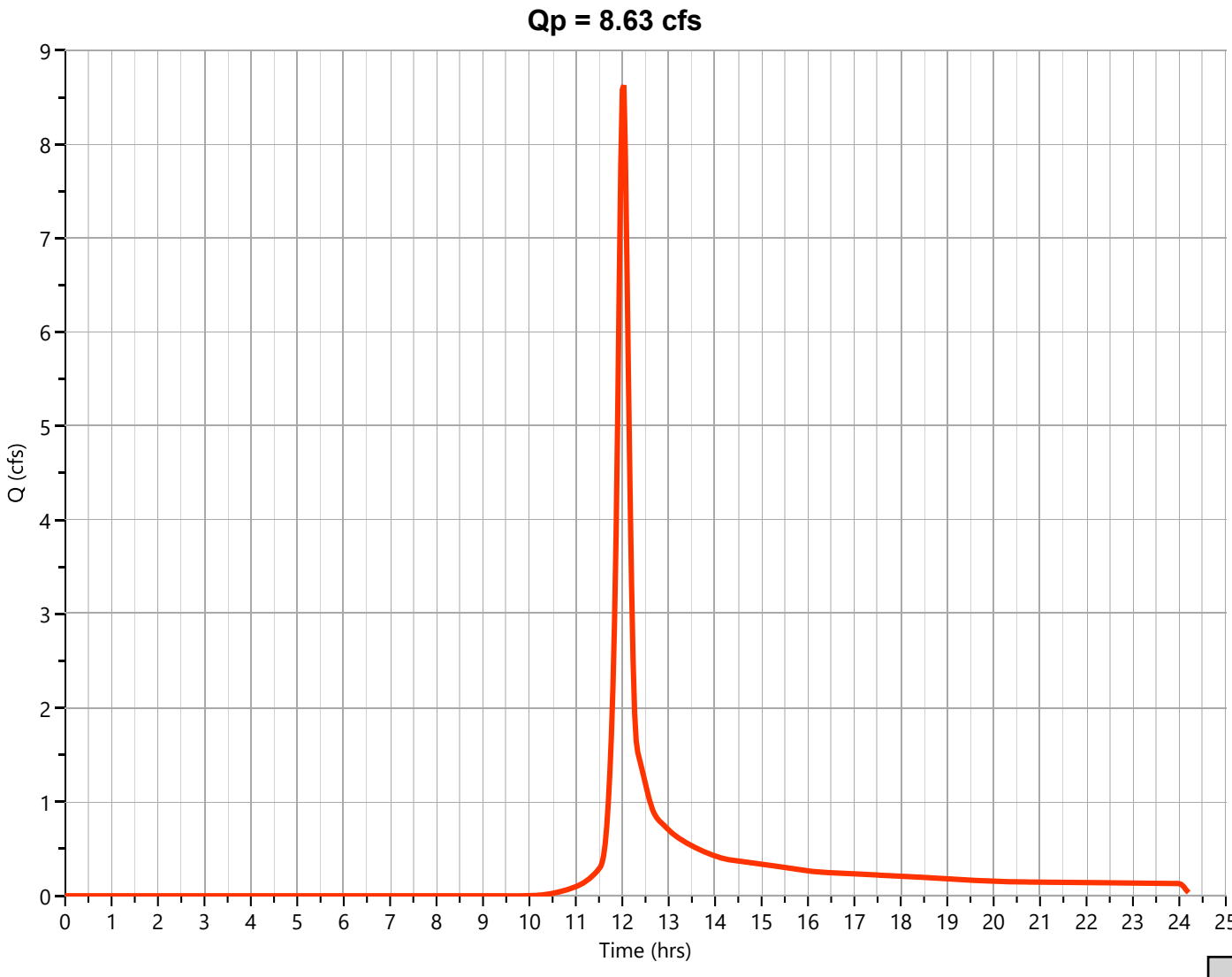
Hydrology Studio v 3.0.0.32 07-25-2024

Post North to Pond 1 Hyd. No. 13

Hydrograph Type	= NRCS Runoff	Peak Flow	= 8.628 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 22,676 cuft
Drainage Area	= 3.282 ac	Curve Number	= 70*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
1.4	49	Pervious (A)
0.936	79	Pervious (C)
0.566	91	Gravel
0.38	98	Buildings
3.282	**70**	Weighted CN Method Employed



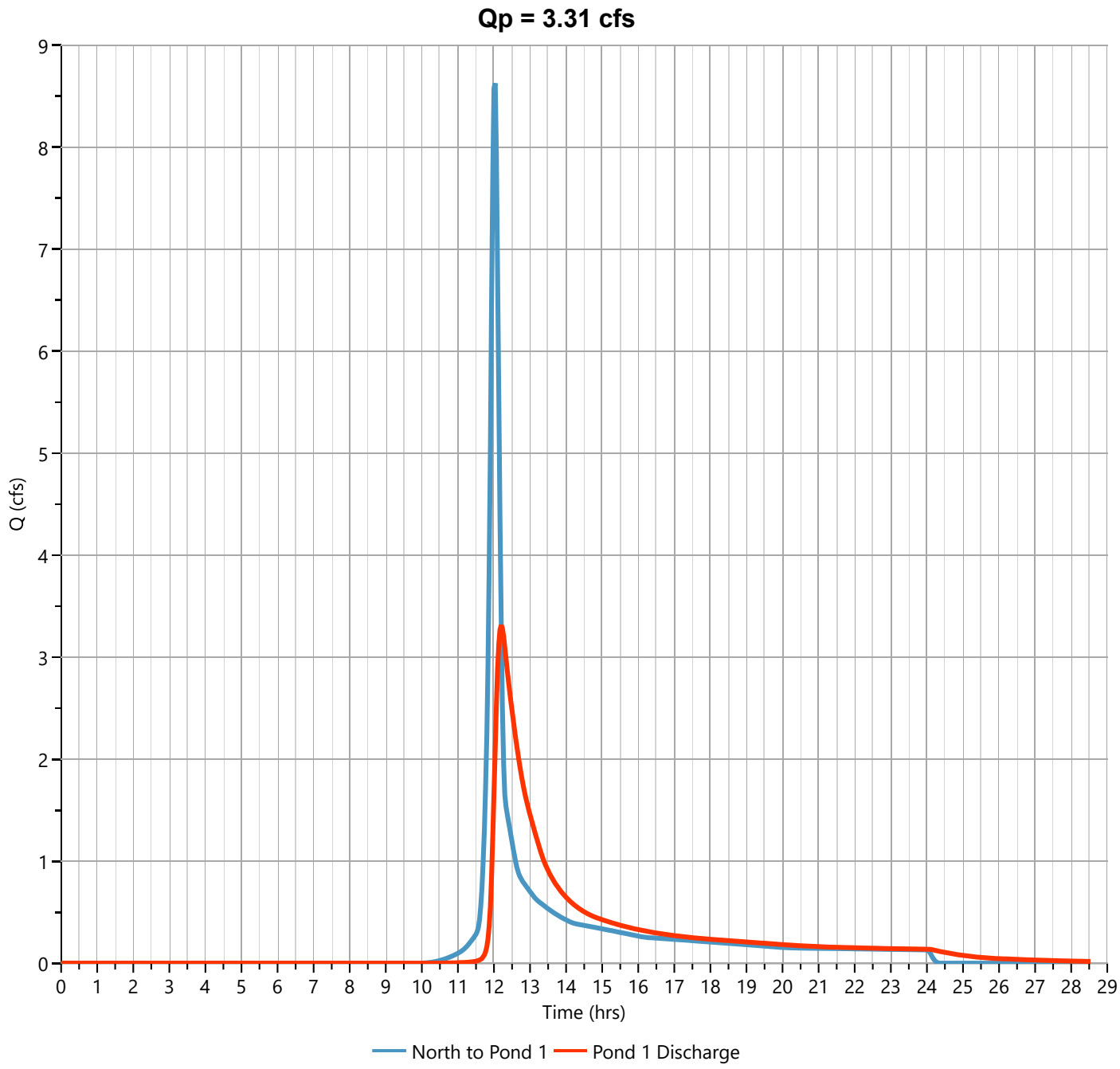
Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Pond 1 Discharge Hyd. No. 14

Hydrograph Type	= Pond Route	Peak Flow	= 3.314 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.20 hrs
Time Interval	= 2 min	Hydrograph Volume	= 22,649 cuft
Inflow Hydrograph	= 13 - North to Pond 1	Max. Elevation	= 629.36 ft
Pond Name	= Pond 1	Max. Storage	= 7,293 cuft

Pond Routing by Storage Indication Method *Center of mass detention time = 57 min*



Hydrograph Report

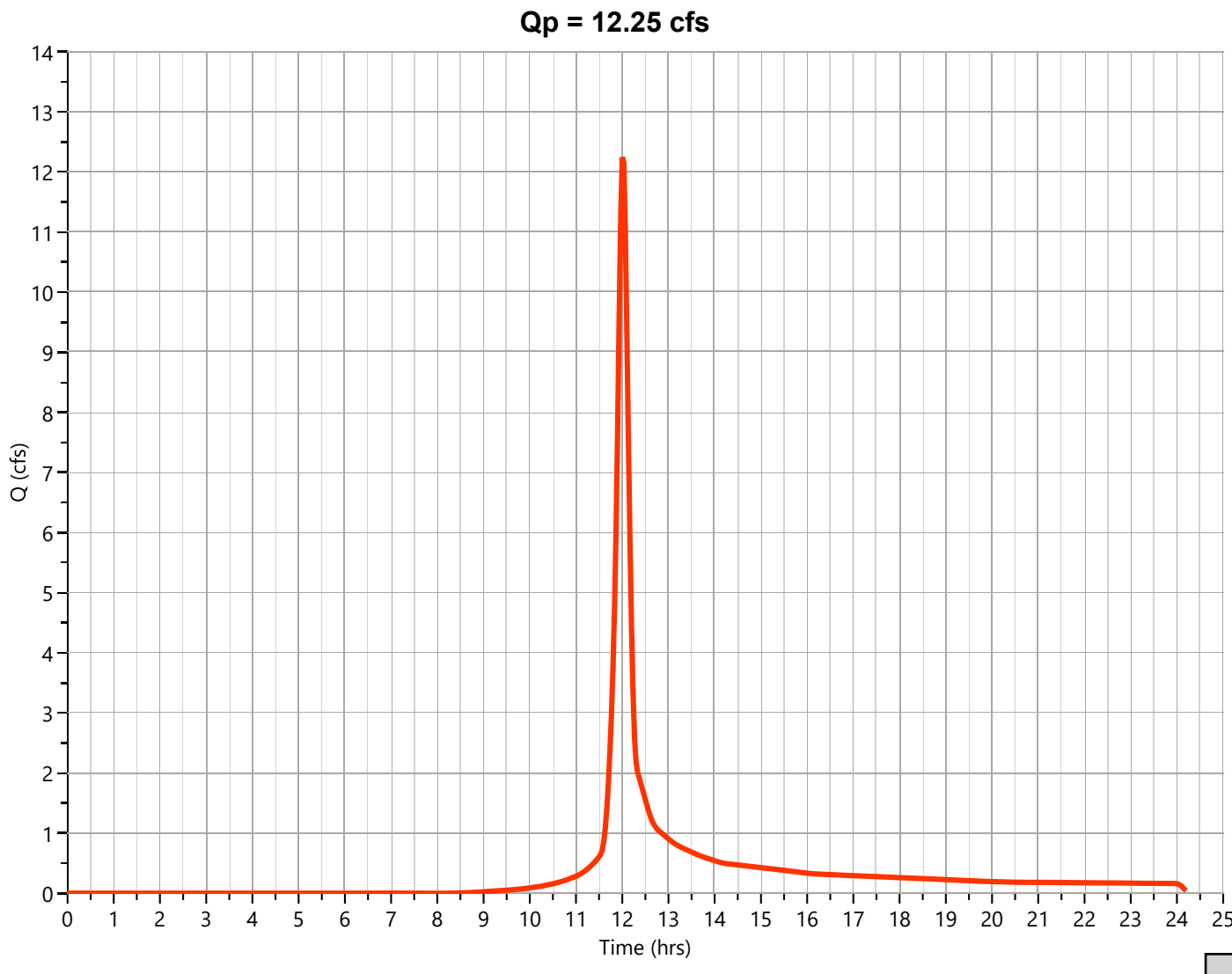
Hydrology Studio v 3.0.0.32 07-25-2024

Post Bypass Hyd. No. 15

Hydrograph Type	= NRCS Runoff	Peak Flow	= 12.25 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Runoff Volume	= 31,775 cuft
Drainage Area	= 3.569 ac	Curve Number	= 76.66*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.95	49	Pervious (A)
1.26	79	Pervious (C)
0.81	91	Gravel
0.549	98	Buildings
3.569	**77**	Weighted CN Method Employed



Hydrograph Report

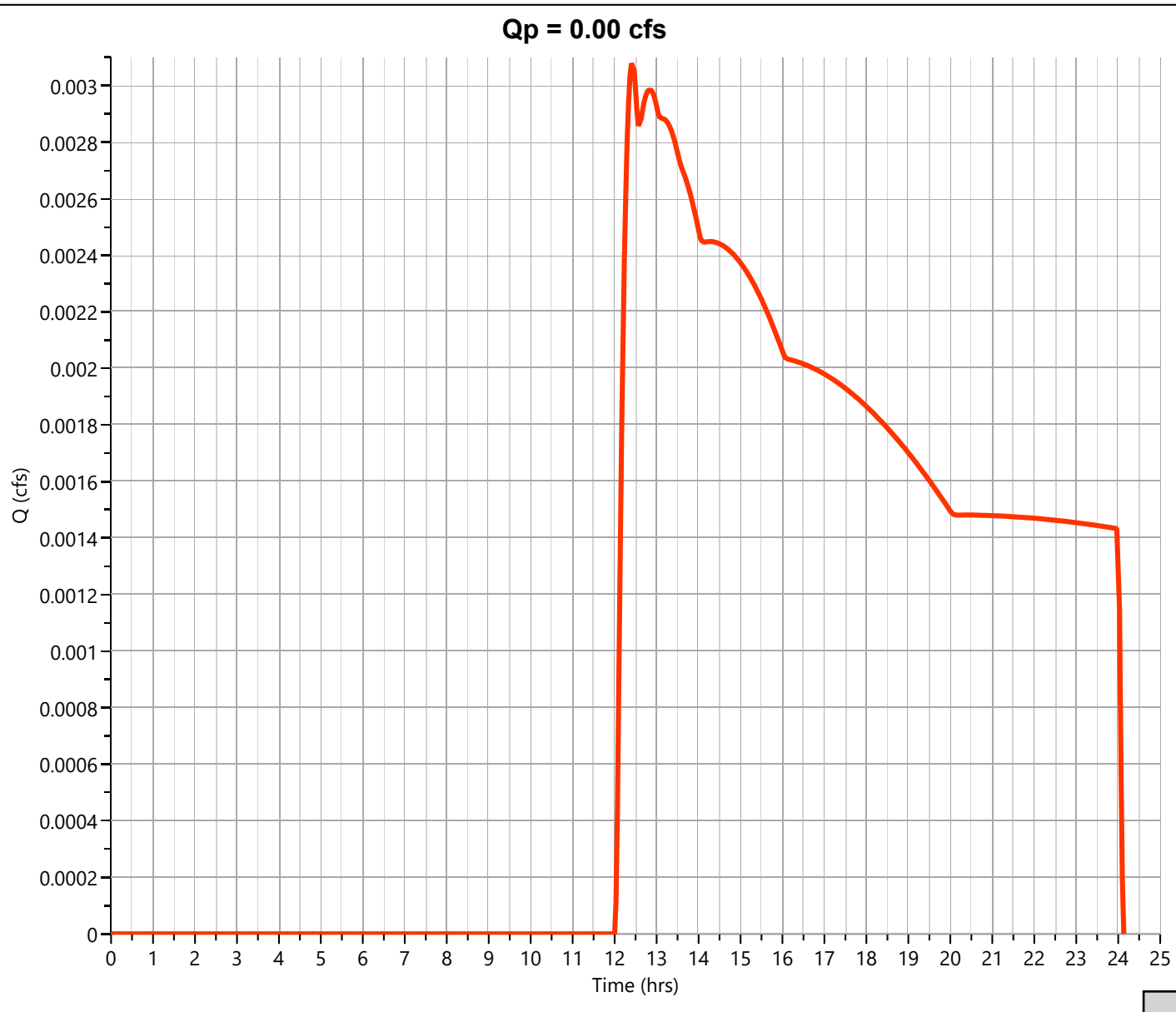
Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 1 Hyd. No. 16

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.003 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.43 hrs
Time Interval	= 2 min	Runoff Volume	= 83.5 cuft
Drainage Area	= 0.163 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.163	39	Offsite
0.163	**39**	Weighted CN Method Employed



Hydrograph Report

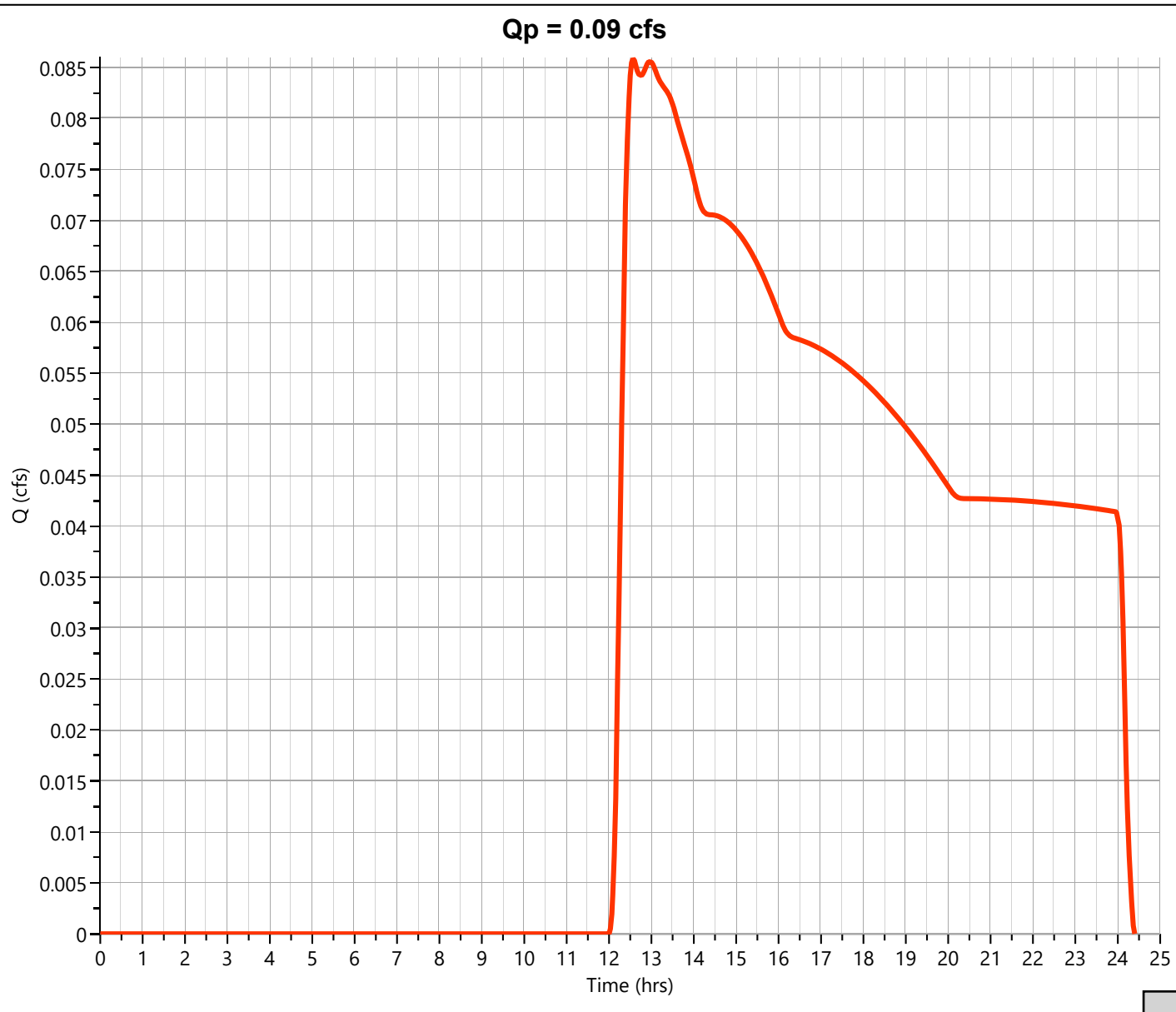
Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 2 Hyd. No. 17

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.086 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.57 hrs
Time Interval	= 2 min	Runoff Volume	= 2,408 cuft
Drainage Area	= 4.518 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
4.518	39	Offsite
4.518	**39**	Weighted CN Method Employed

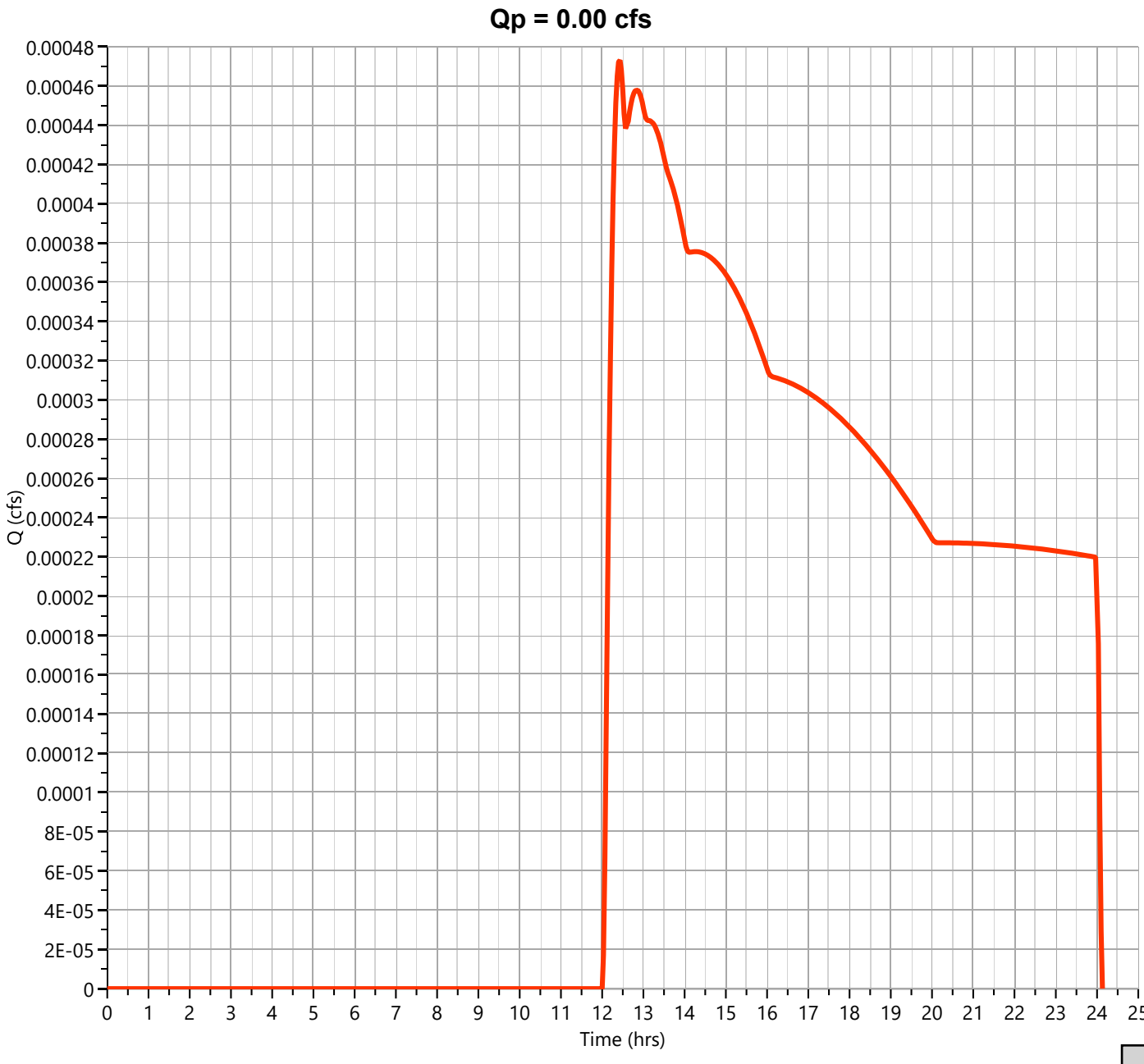


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 3 Hyd. No. 18

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.000 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.43 hrs
Time Interval	= 2 min	Runoff Volume	= 12.8 cuft
Drainage Area	= 0.025 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

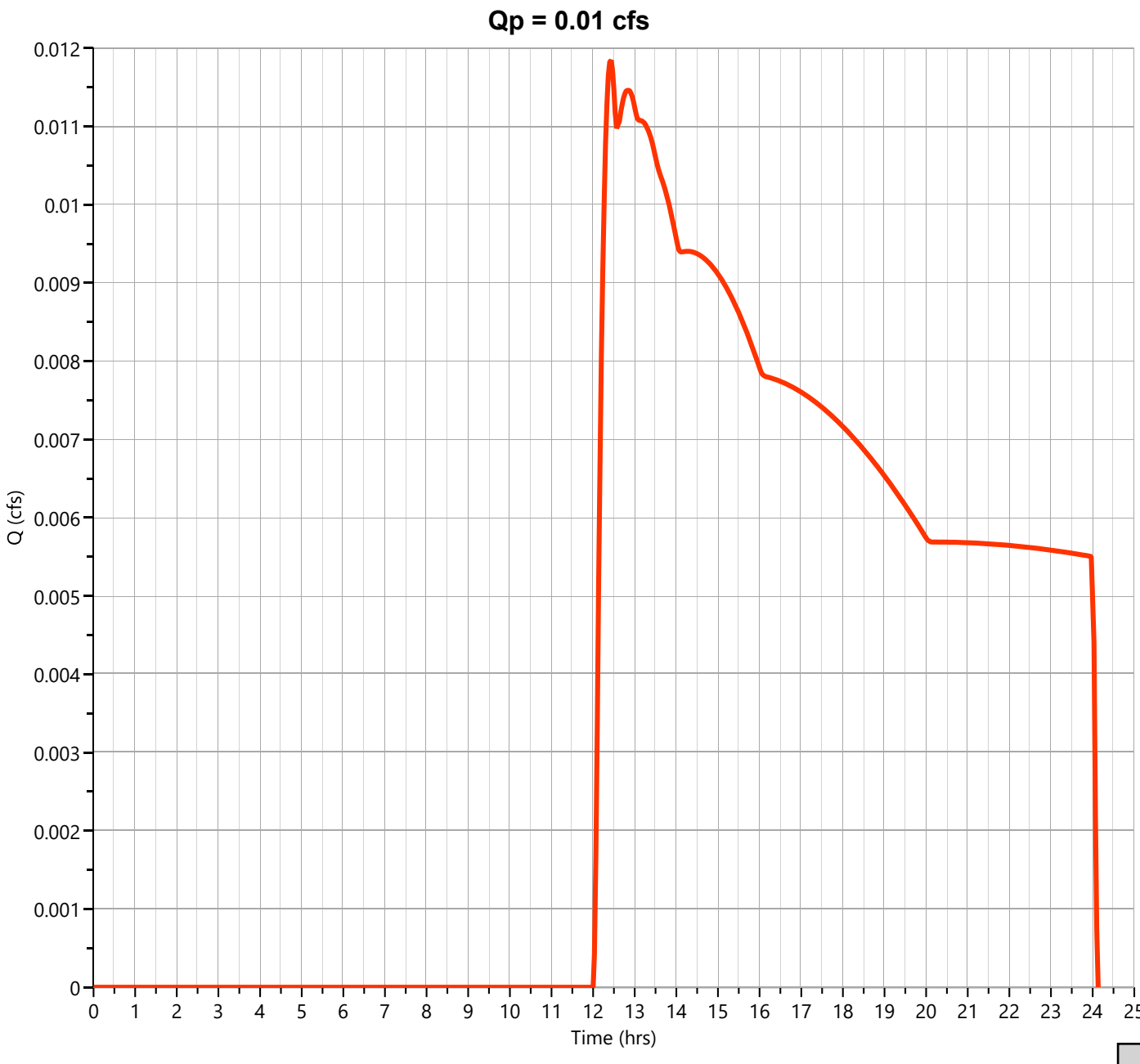


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 4 Hyd. No. 19

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.012 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.43 hrs
Time Interval	= 2 min	Runoff Volume	= 321 cuft
Drainage Area	= 0.626 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

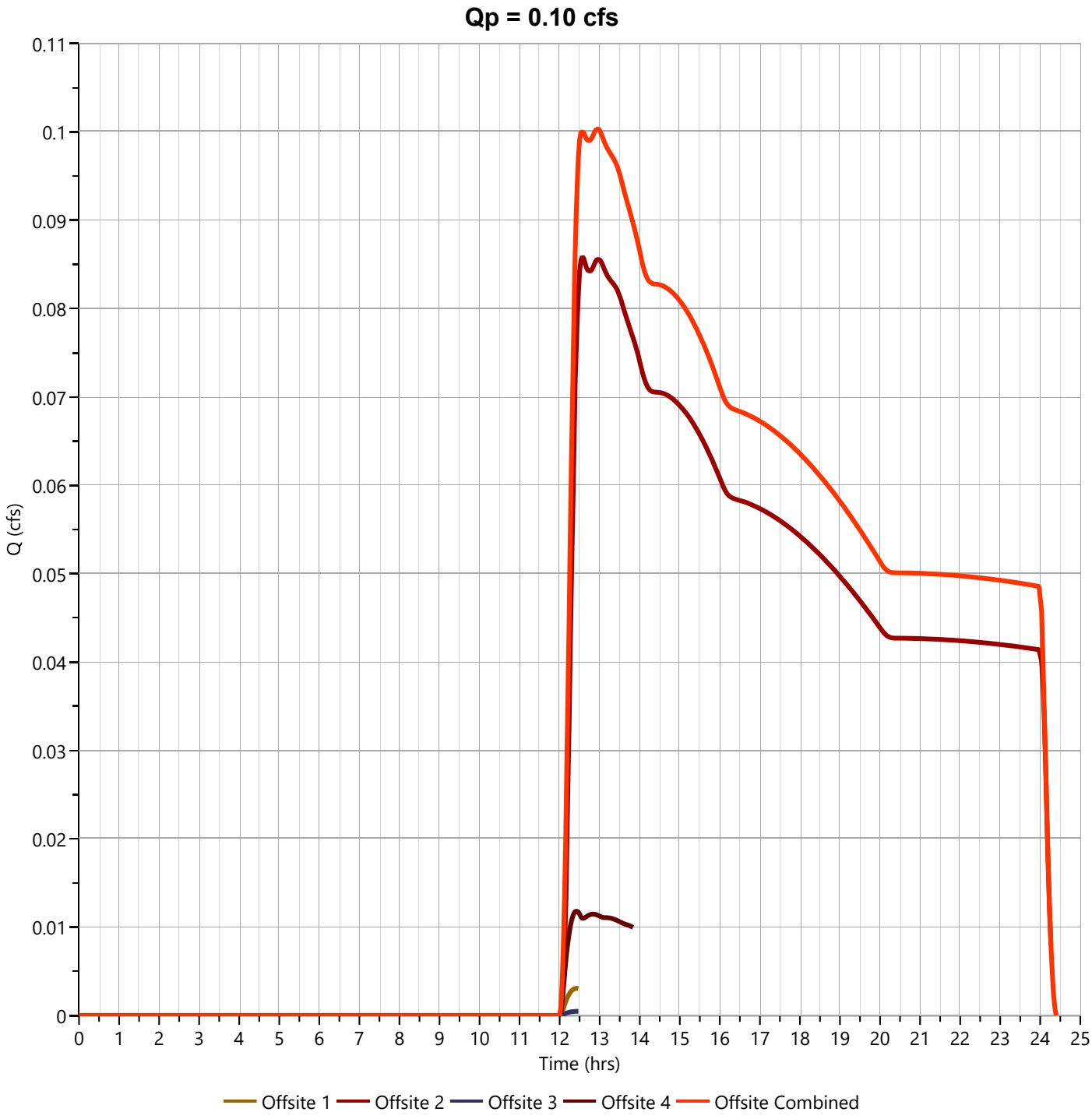


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite Combined Hyd. No. 20

Hydrograph Type	= Junction	Peak Flow	= 0.100 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.93 hrs
Time Interval	= 2 min	Hydrograph Volume	= 2,825 cuft
Inflow Hydrographs	= 16, 17, 18, 19	Total Contrib. Area	= 5.332 ac



Hydrograph Report

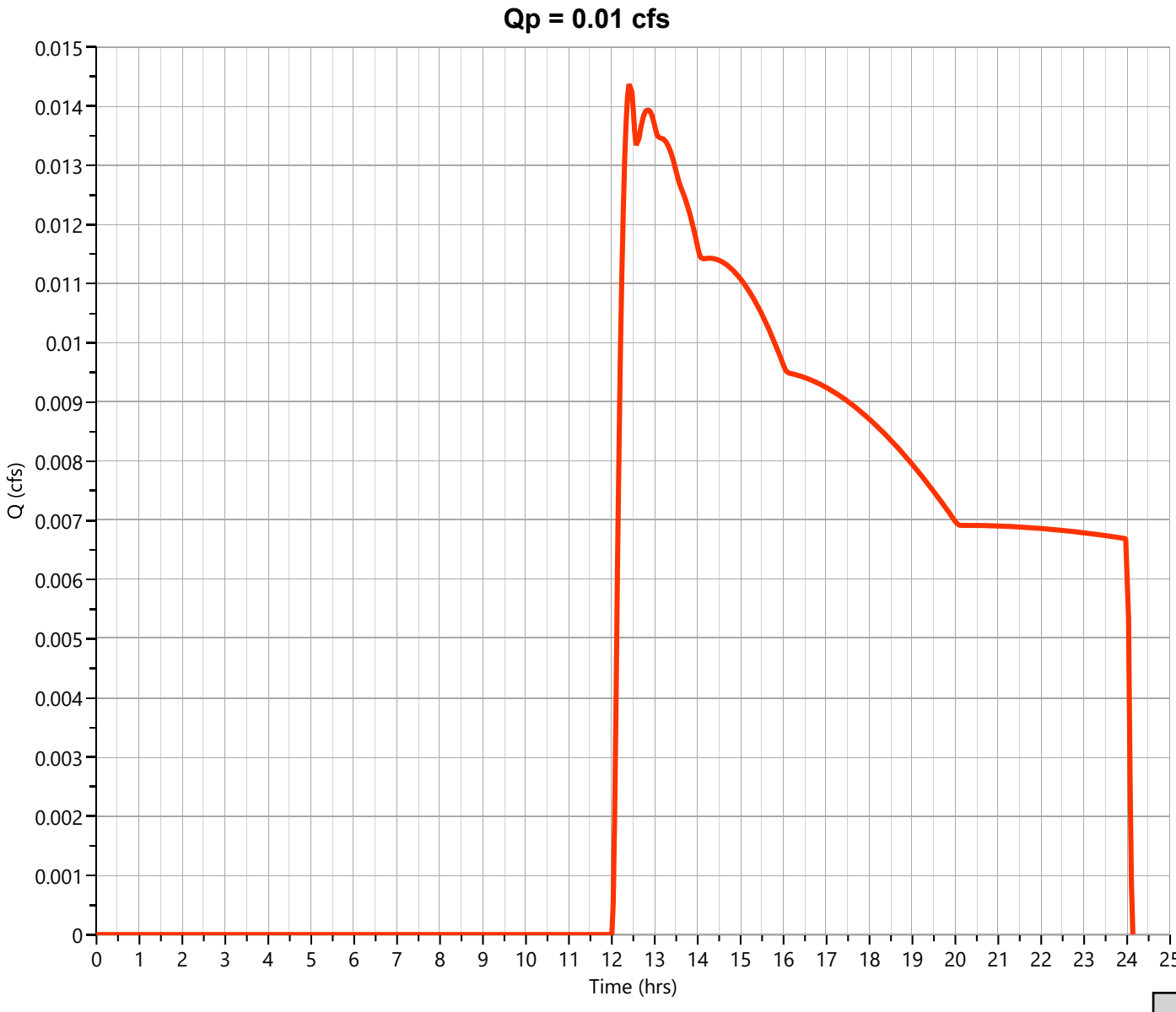
Hydrology Studio v 3.0.0.32 07-25-2024

Post Culvert 1 Hyd. No. 21

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.014 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.43 hrs
Time Interval	= 2 min	Runoff Volume	= 390 cuft
Drainage Area	= 0.761 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.761	39	Pervious (A)
0.761	**39**	Weighted CN Method Employed



Hydrograph Report

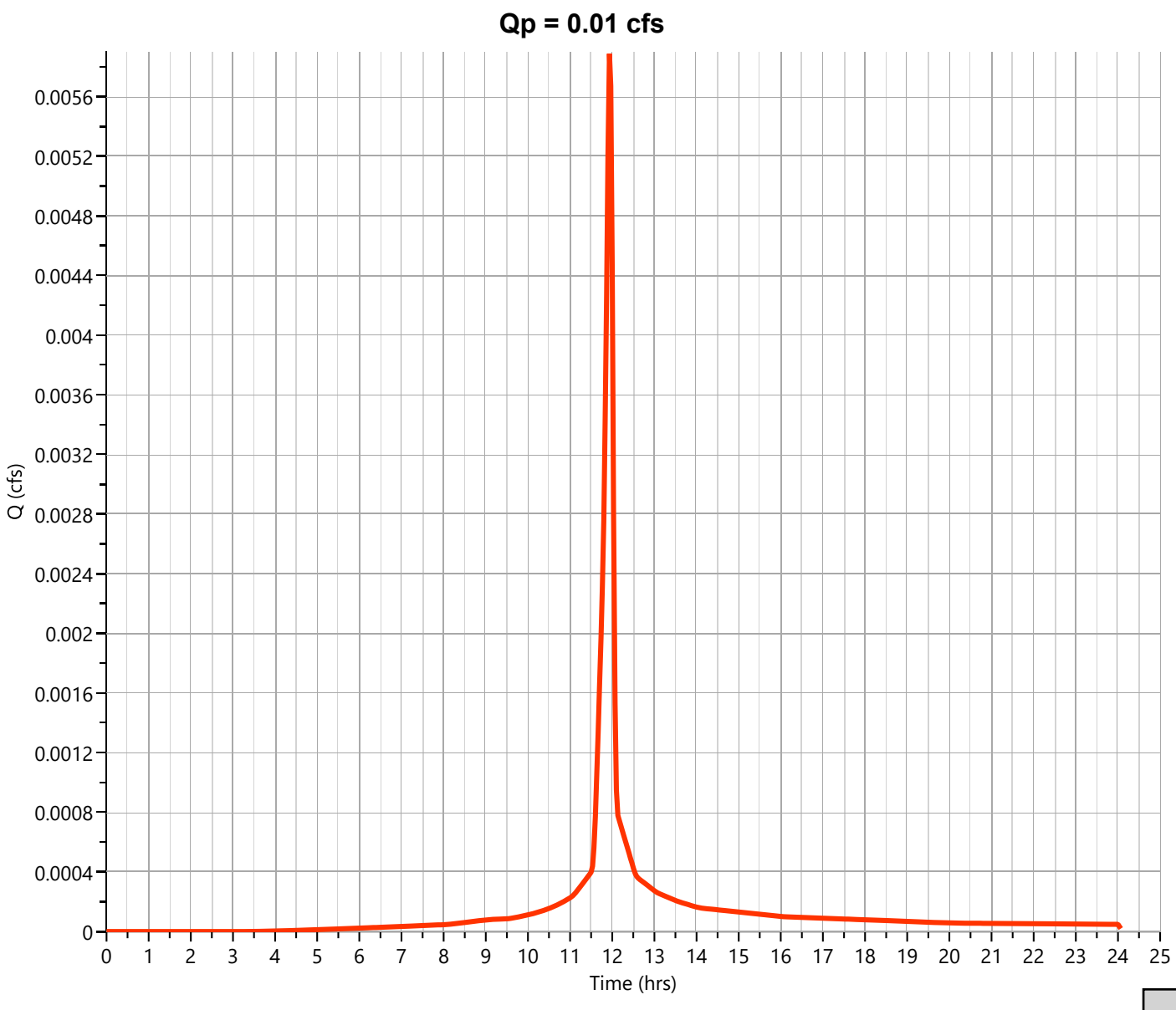
Hydrology Studio v 3.0.0.32 07-25-2024

Post Area Drain 3 (AD3) Hyd. No. 22

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.006 cfs
Storm Frequency	= 5-yr	Time to Peak	= 11.93 hrs
Time Interval	= 2 min	Runoff Volume	= 12.7 cuft
Drainage Area	= 0.001 ac	Curve Number	= 91*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.001	91	Gravel
0.001	**91**	Weighted CN Method Employed



Hydrograph Report

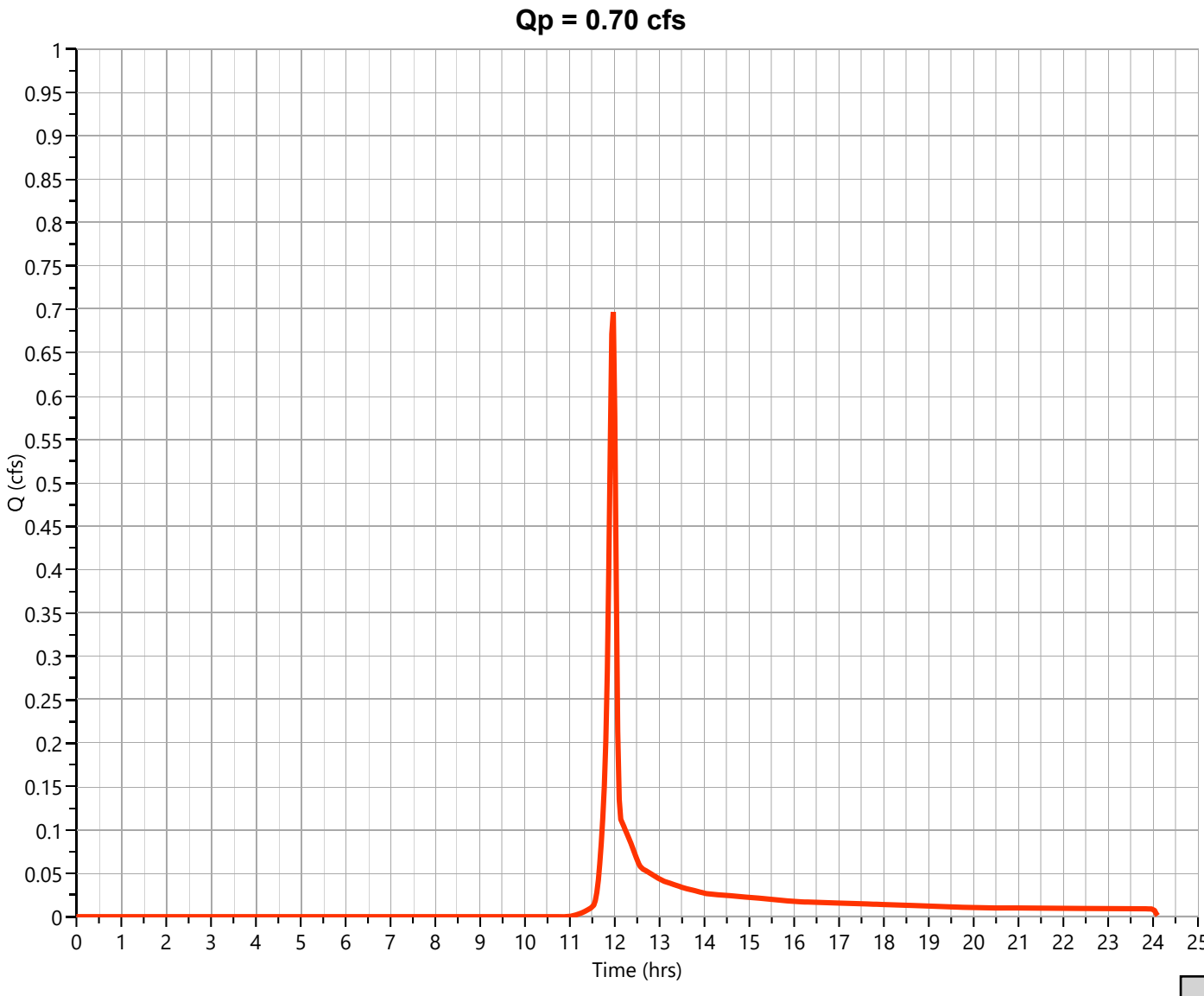
Hydrology Studio v 3.0.0.32 07-25-2024

Post Area Drain 2 (AD2) Hyd. No. 23

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.697 cfs
Storm Frequency	= 5-yr	Time to Peak	= 11.97 hrs
Time Interval	= 2 min	Runoff Volume	= 1,401 cuft
Drainage Area	= 0.28 ac	Curve Number	= 64.81*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.139	91	Gravel
0.141	39	Grass
0.28	**65**	Weighted CN Method Employed



Hydrograph Report

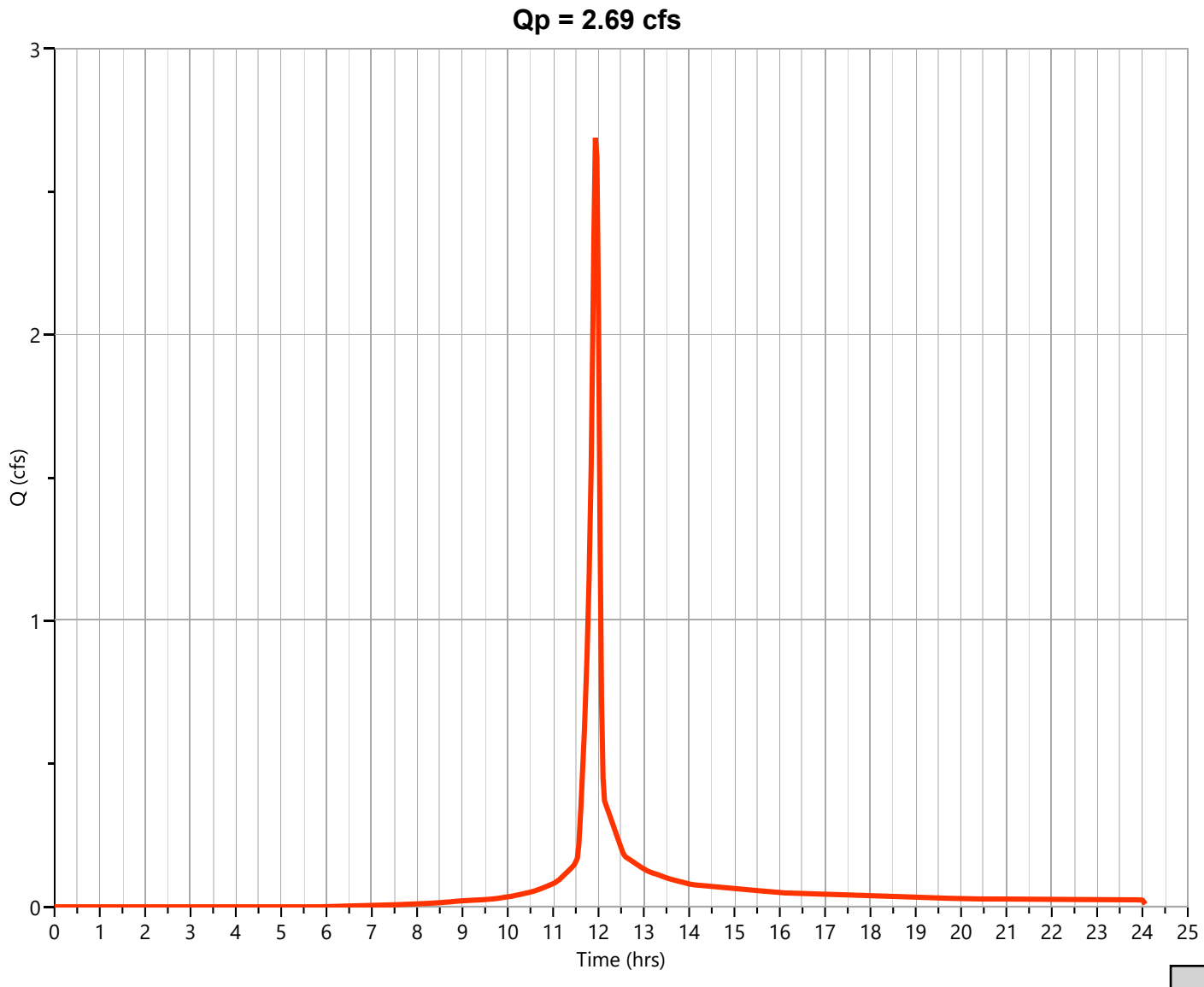
Hydrology Studio v 3.0.0.32 07-25-2024

Post Area Drain 1 (AD1) Hyd. No. 24

Hydrograph Type	= NRCS Runoff	Peak Flow	= 2.688 cfs
Storm Frequency	= 5-yr	Time to Peak	= 11.93 hrs
Time Interval	= 2 min	Runoff Volume	= 5,544 cuft
Drainage Area	= 0.527 ac	Curve Number	= 84.61*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.087	49	Pervious (A)
0.399	91	Gravel
0.041	98	Building
0.527	**85**	Weighted CN Method Employed



Hydrograph Report

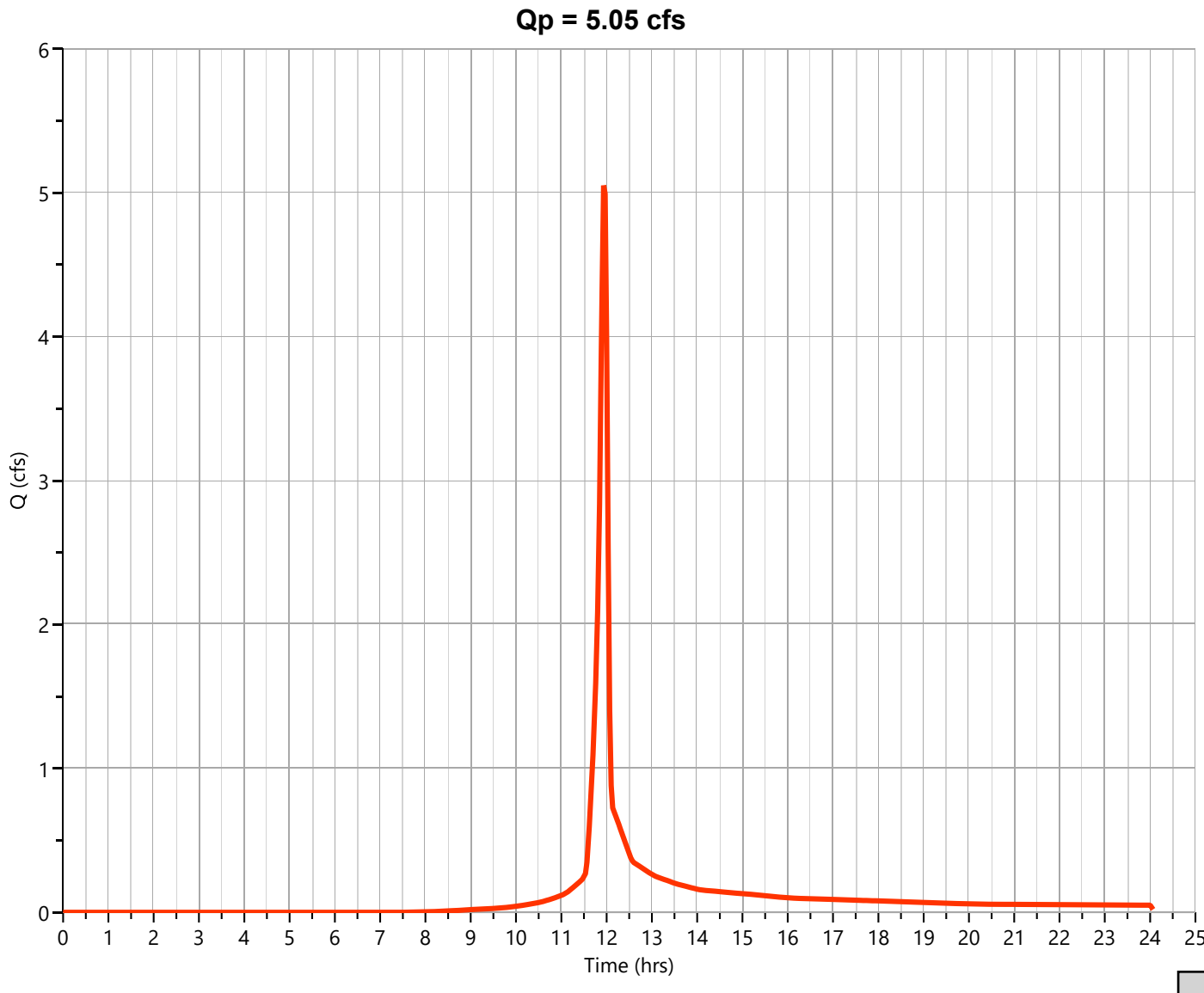
Hydrology Studio v 3.0.0.32 07-25-2024

Post North to Pond 2 Hyd. No. 25

Hydrograph Type	= NRCS Runoff	Peak Flow	= 5.051 cfs
Storm Frequency	= 5-yr	Time to Peak	= 11.93 hrs
Time Interval	= 2 min	Runoff Volume	= 10,237 cuft
Drainage Area	= 1.16 ac	Curve Number	= 79.16*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 4.74 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.618	91	Gravel
0.245	98	Bldg/Concrete
0.297	39	Grass
1.16	**79**	Weighted CN Method Employed



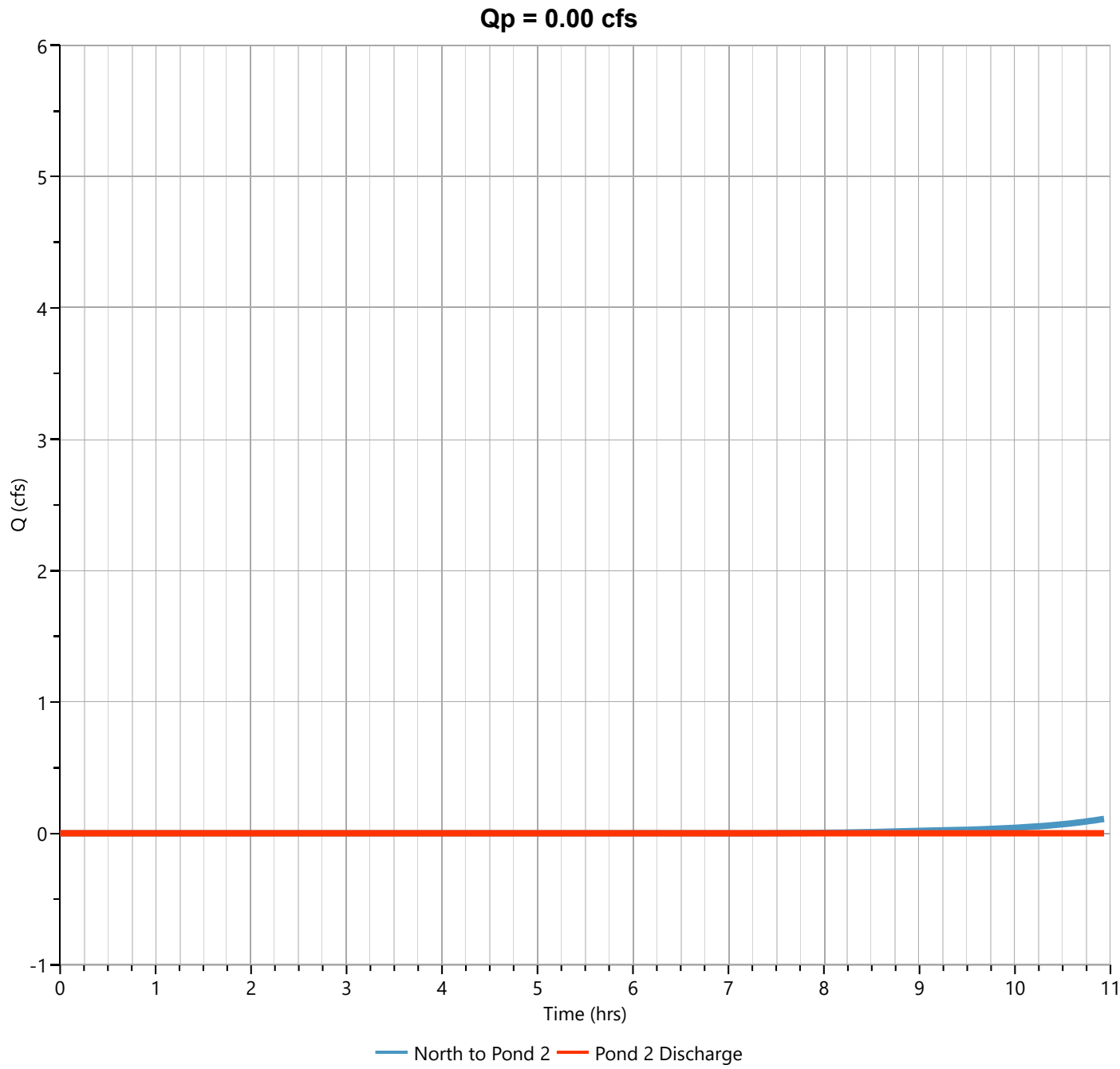
Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Pond 2 Discharge Hyd. No. 26

Hydrograph Type	= Pond Route	Peak Flow	= 0.000 cfs
Storm Frequency	= 5-yr	Time to Peak	= 10.90 hrs
Time Interval	= 2 min	Hydrograph Volume	= 0.000 cuft
Inflow Hydrograph	= 25 - North to Pond 2	Max. Elevation	= 532.50 ft
Pond Name	= Pond 2	Max. Storage	= 6,992 cuft

Pond Routing by Storage Indication Method

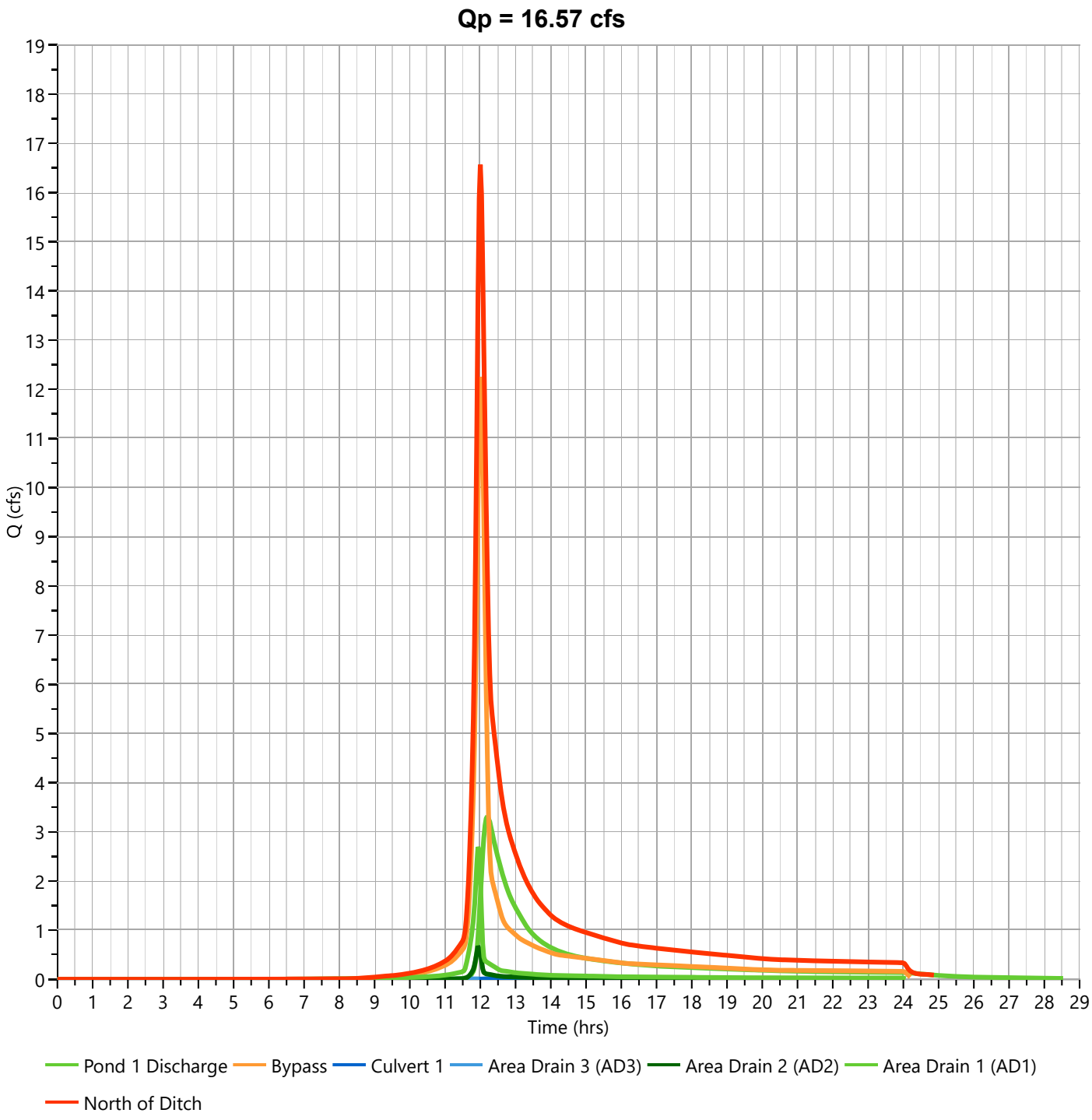


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post North of Ditch Hyd. No. 27

Hydrograph Type	= Junction	Peak Flow	= 16.57 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Hydrograph Volume	= 61,771 cuft
Inflow Hydrographs	= 14, 15, 21, 22, 23, 24	Total Contrib. Area	= 5.138 ac

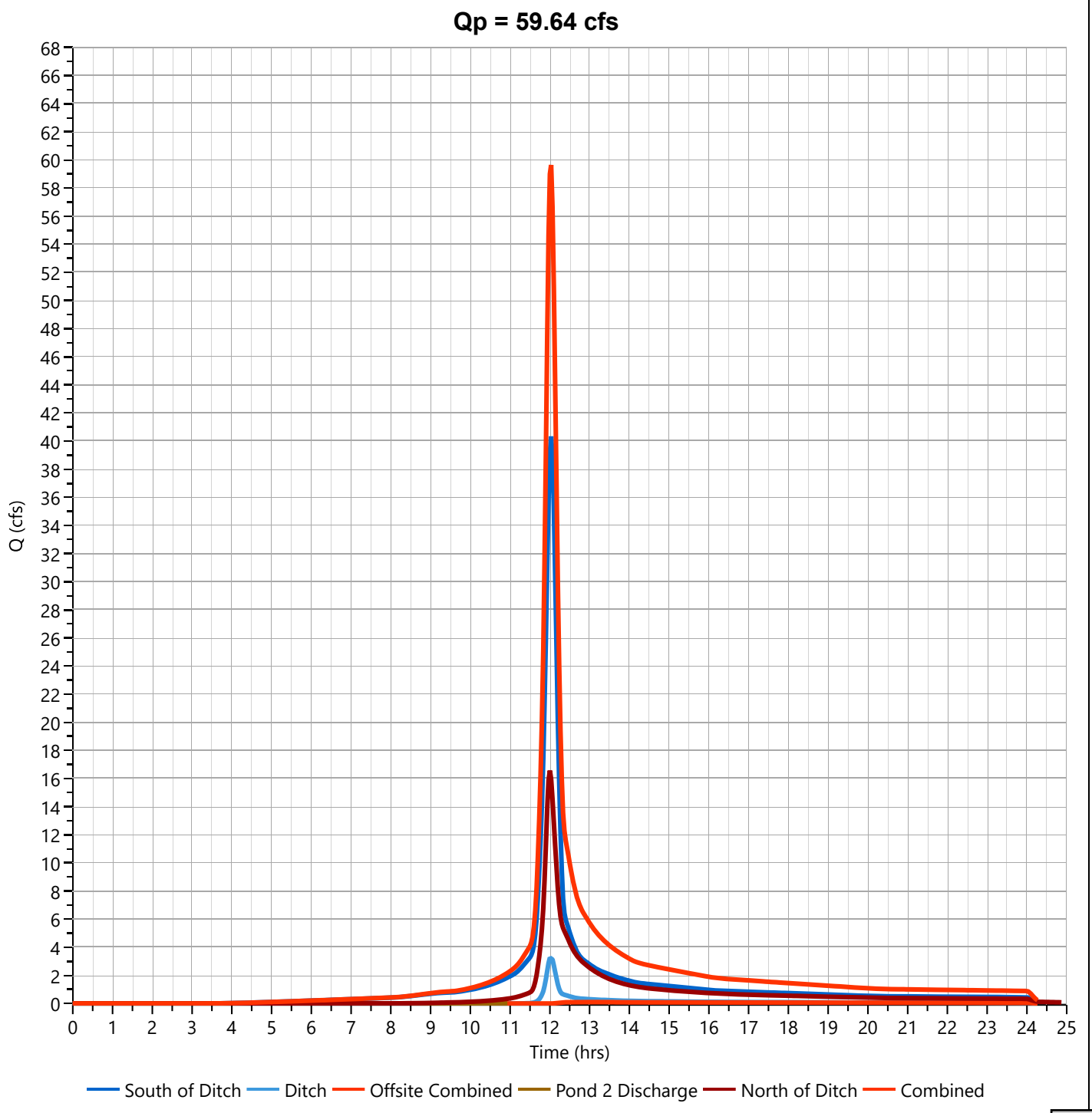


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Combined Hyd. No. 28

Hydrograph Type	= Junction	Peak Flow	= 59.64 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Hydrograph Volume	= 191,989 cuft
Inflow Hydrographs	= 11, 12, 20, 26, 27	Total Contrib. Area	= 21.17 ac



Design Storm Report

Cus

Hydrology Studio v 3.0.0.32

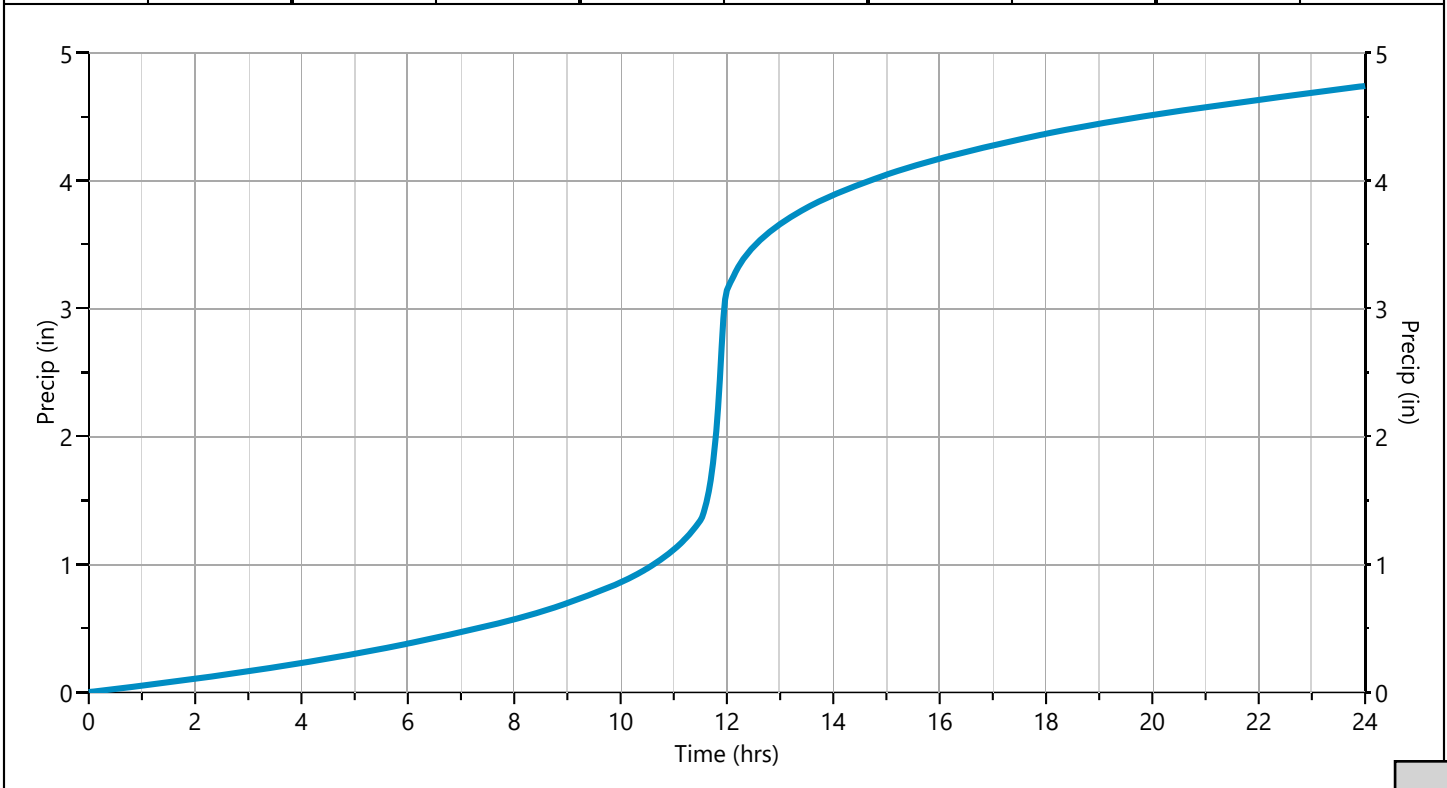
07-25-2024

Storm Distribution: NRCS/SCS - Type II, 24-hr

Storm Duration	Total Rainfall Volume (in)								
	1-yr	2-yr	3-yr	✔ 5-yr	10-yr	25-yr	50-yr	100-yr	
24 hrs	3.26	3.90	0.00	4.74	5.42	6.34	7.07	7.82	

Incremental Rainfall Distribution, 5-yr

Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)
10.90	0.010639	11.27	0.015168	11.63	0.062610	12.00	0.071231	12.37	0.019150
10.93	0.010849	11.30	0.015674	11.67	0.075082	12.03	0.031688	12.40	0.017949
10.97	0.011060	11.33	0.016179	11.70	0.087553	12.07	0.029957	12.43	0.016748
11.00	0.011271	11.37	0.016685	11.73	0.100025	12.10	0.028756	12.47	0.015547
11.03	0.011627	11.40	0.017190	11.77	0.114811	12.13	0.027555	12.50	0.014347
11.07	0.012134	11.43	0.017696	11.80	0.147179	12.17	0.026354	12.53	0.013610
11.10	0.012640	11.47	0.018202	11.83	0.181869	12.20	0.025154	12.57	0.013335
11.13	0.013146	11.50	0.018707	11.87	0.216559	12.23	0.023953	12.60	0.013061
11.17	0.013651	11.53	0.025231	**11.90**	**0.251248**	12.27	0.022752	12.63	0.012787
11.20	0.014157	11.57	0.037667	11.93	0.229286	12.30	0.021551	12.67	0.012514
11.23	0.014662	11.60	0.050139	11.97	0.150178	12.33	0.020350	12.70	0.012240



Hydrograph 10-yr Summary

Hydrology Studio v 3.0.0.32

07-25-2024

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Flow (cfs)	Time to Peak (hrs)	Hydrograph Volume (cuft)	Inflow Hyd(s)	Maximum Elevation (ft)	Maximum Storage (cuft)
1	NRCS Runoff	Pre South of Ditch	46.89	12.03	138,527	----		
2	NRCS Runoff	Pre Ditch	4.182	12.03	11,249	----		
3	NRCS Runoff	Pre North of Ditch	32.78	12.03	92,429	----		
4	NRCS Runoff	Pre Offsite 1	0.019	12.03	162	----		
5	NRCS Runoff	Pre Offsite 2	0.348	12.23	4,681	----		
6	NRCS Runoff	Pre Offsite 3	0.003	12.03	24.9	----		
7	NRCS Runoff	Post Offsite 4	0.074	12.03	624	----		
8	Junction	Pre Offsite Combined	0.399	12.23	5,492	4, 5, 6, 7		
9	Junction	Pre Total	83.93	12.03	242,829	1, 2, 3, 7		
11	NRCS Runoff	Post South of Ditch	47.03	12.03	139,146	----		
12	NRCS Runoff	Post Ditch	4.512	12.03	12,030	----		
13	NRCS Runoff	Post North to Pond 1	11.06	12.00	28,907	----		
14	Pond Route	Post Pond 1 Discharge	4.393	12.20	28,881	13	629.56	9,327
15	NRCS Runoff	Post Bypass	15.18	12.00	39,366	----		
16	NRCS Runoff	Post Offsite 1	0.019	12.03	162	----		
17	NRCS Runoff	Post Offsite 2	0.348	12.23	4,681	----		
18	NRCS Runoff	Post Offsite 3	0.003	12.03	24.9	----		
19	NRCS Runoff	Post Offsite 4	0.074	12.03	624	----		
20	Junction	Post Offsite Combined	0.399	12.23	5,492	16, 17, 18, 19		
21	NRCS Runoff	Post Culvert 1	0.090	12.03	758	----		
22	NRCS Runoff	Post Area Drain 3 (AD3)	0.007	11.93	14.9	----		
23	NRCS Runoff	Post Area Drain 2 (AD2)	0.916	11.97	1,833	----		
24	NRCS Runoff	Post Area Drain 1 (AD1)	3.205	11.93	6,669	----		
25	NRCS Runoff	Post North to Pond 2	6.166	11.93	12,560	----		
26	Pond Route	Post Pond 2 Discharge	0.000	10.37	0.000	25	533.06	8,884
27	Junction	Post North of Ditch	21.03	12.00	77,521	14, 15, 21, 22, 23, 24		
28	Junction	Post Combined	72.10	12.03	234,189	11, 12, 20, 26, 27		

Hydrograph Report

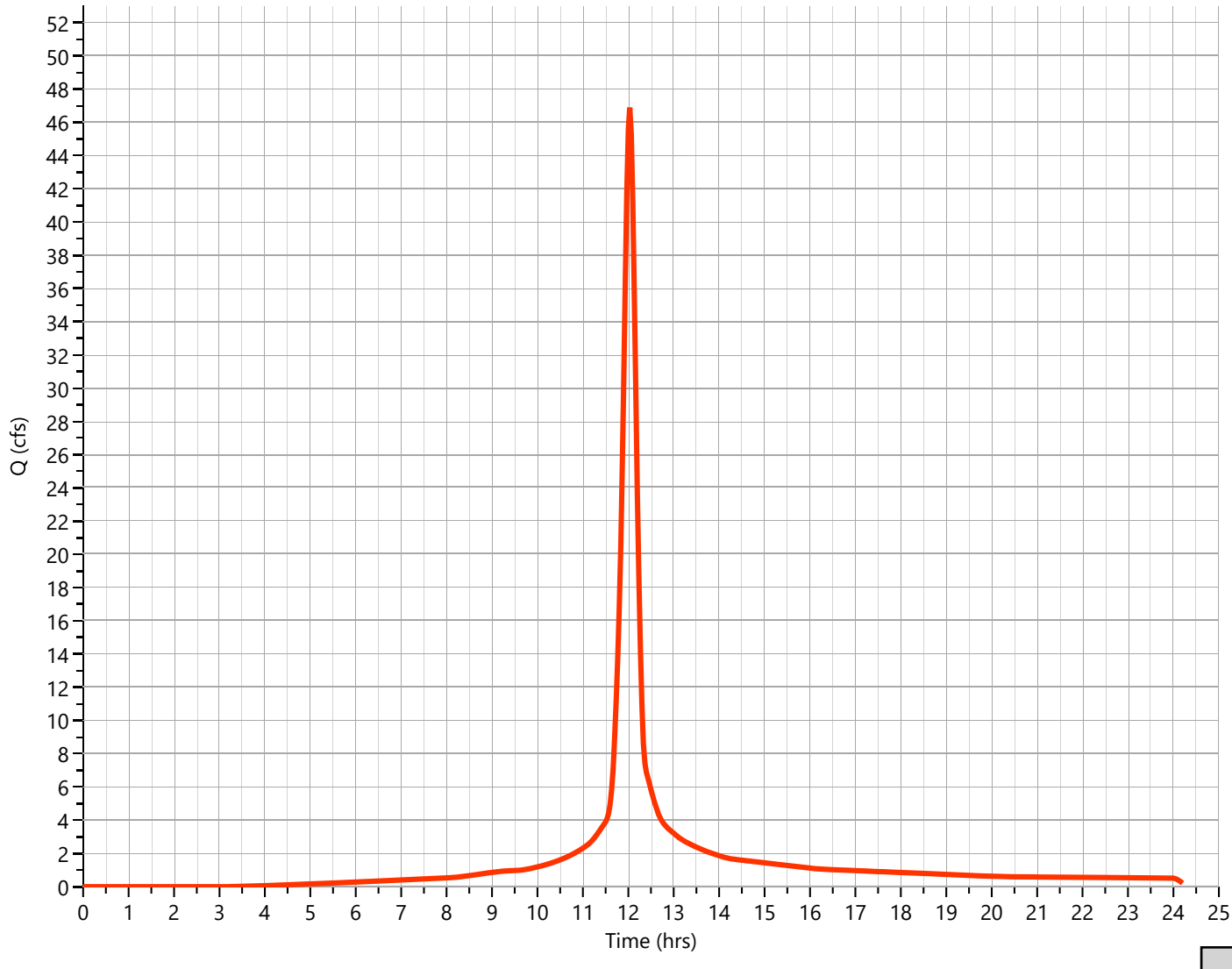
Hydrology Studio v 3.0.0.32 07-25-2024

Pre South of Ditch Hyd. No. 1

Hydrograph Type	= NRCS Runoff	Peak Flow	= 46.89 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 138,527 cuft
Drainage Area	= 8.91 ac	Curve Number	= 91.02*
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 15.27 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
8.69	91	No Rating (Row Crops)
0.2	91	Gravel
0.02	98	Concrete
8.91	**91**	Weighted CN Method Employed



Hydrograph Report

Hydrology Studio v 3.0.0.32

07-25-2024

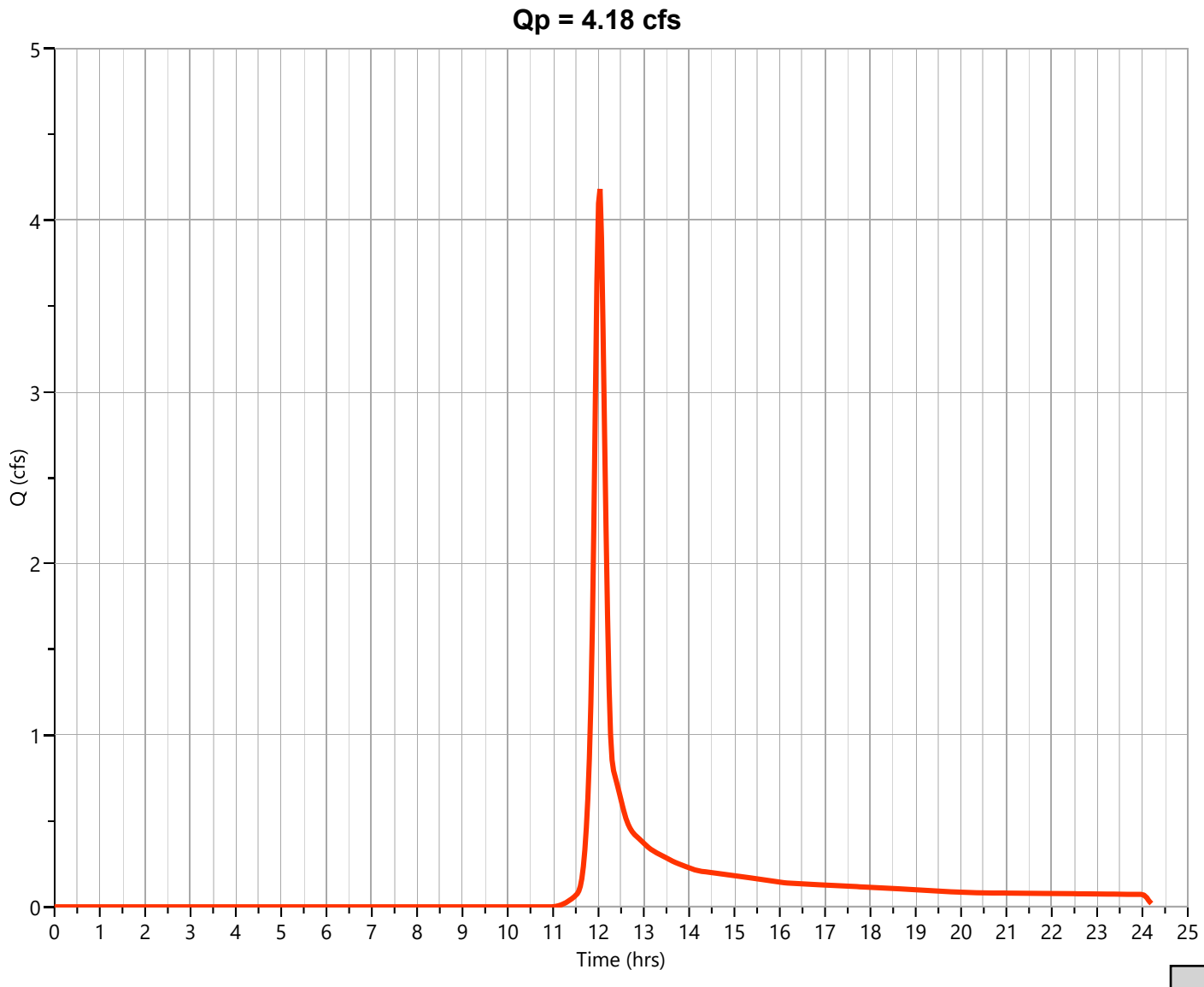
Pre Ditch

Hyd. No. 2

Hydrograph Type	= NRCS Runoff	Peak Flow	= 4.182 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 11,249 cuft
Drainage Area	= 1.79 ac	Curve Number	= 61.67*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
1.75	61	Ditch (inside buffer)
0.04	91	Gravel
1.79	**62**	Weighted CN Method Employed



Hydrograph Report

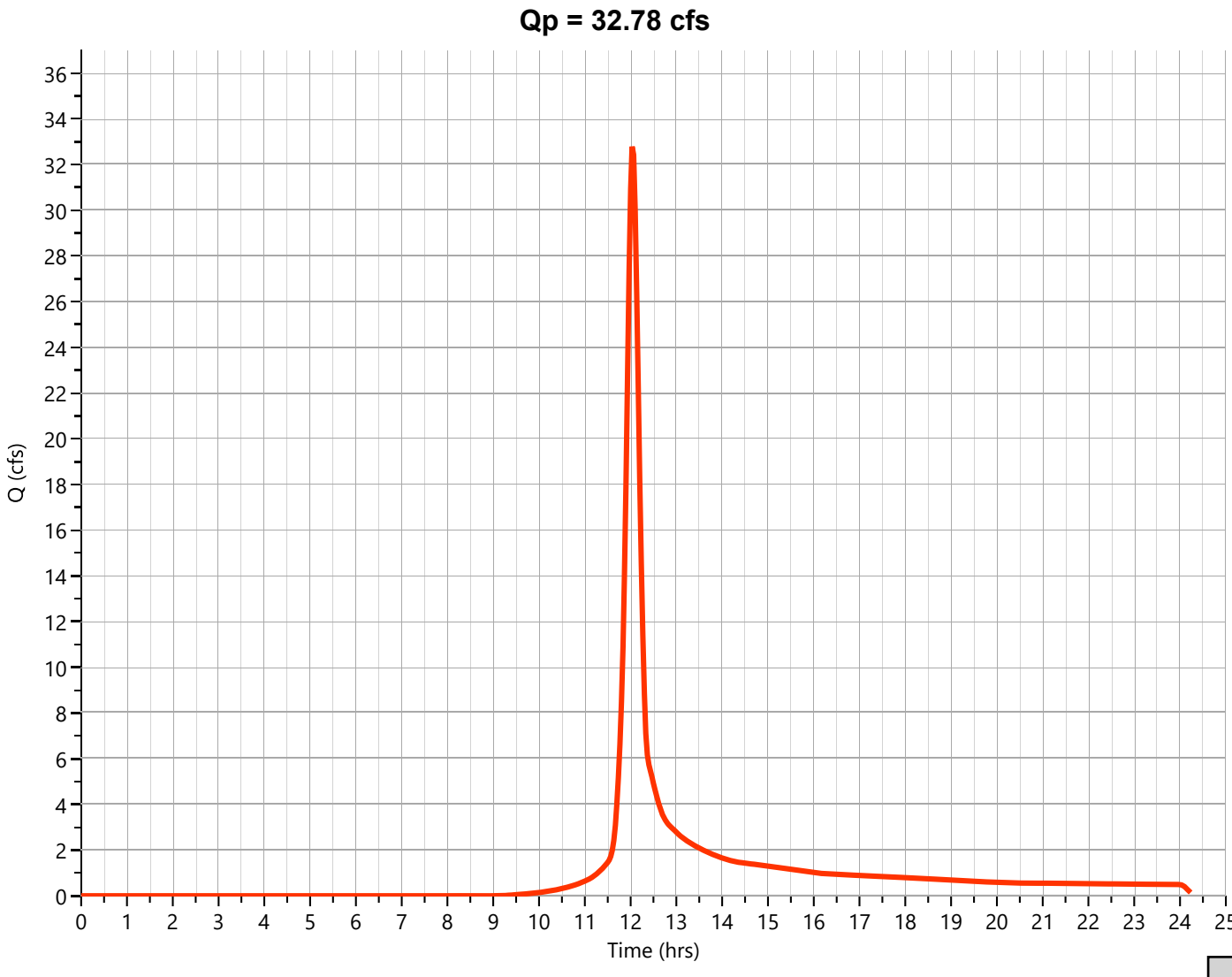
Hydrology Studio v 3.0.0.32 07-25-2024

Pre North of Ditch Hyd. No. 3

Hydrograph Type	= NRCS Runoff	Peak Flow	= 32.78 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 92,429 cuft
Drainage Area	= 10.55 ac	Curve Number	= 71.42*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
3.945	79	Pervious (C)
3.945	49	Pervious (A)
0.89	98	Buildings
1.73	91	Gravel
0.04	98	Concrete
10.55	**71**	Weighted CN Method Employed



Hydrograph Report

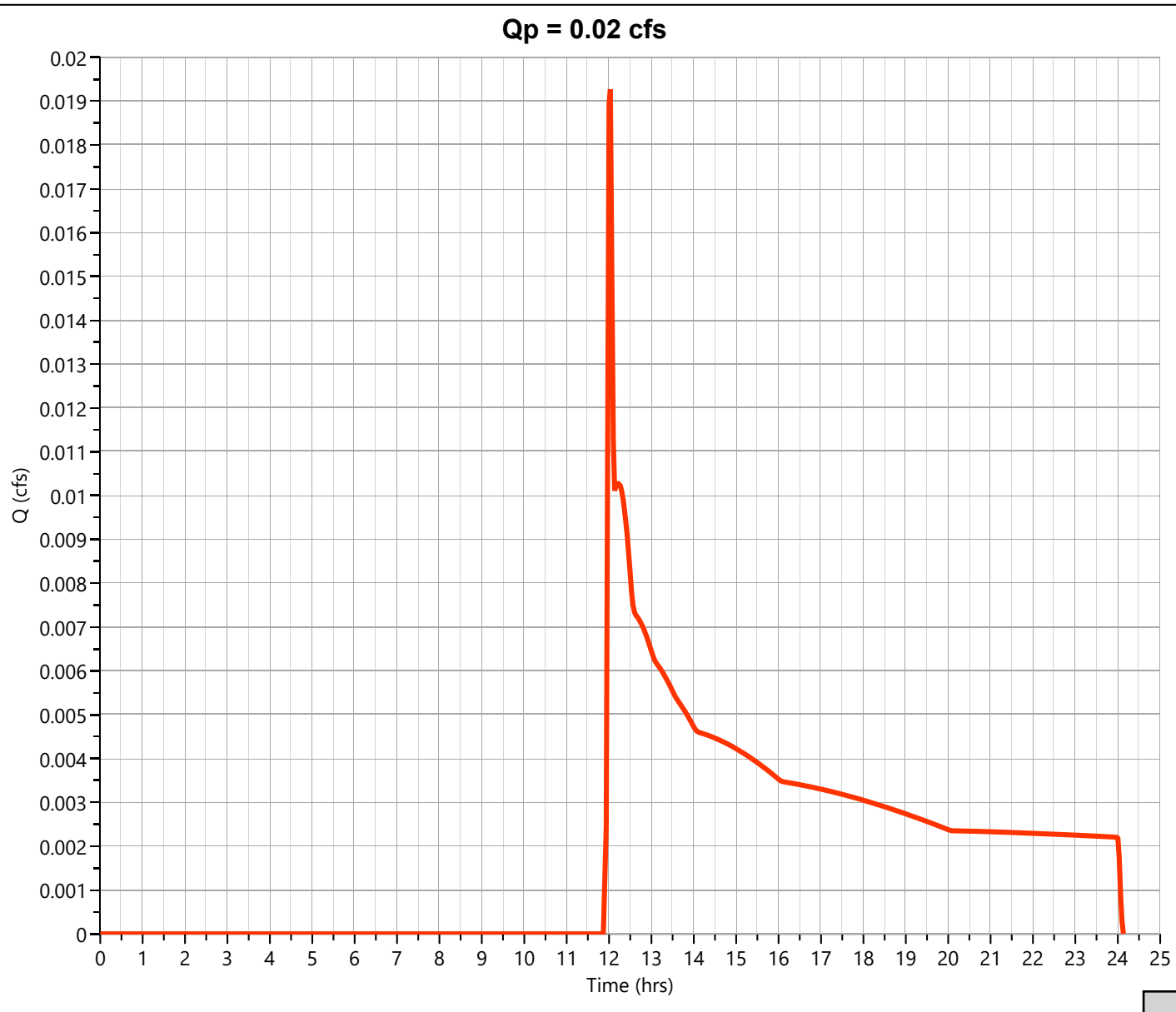
Hydrology Studio v 3.0.0.32 07-25-2024

Pre Offsite 1 Hyd. No. 4

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.019 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 162 cuft
Drainage Area	= 0.163 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.163	39	Offsite
0.163	**39**	Weighted CN Method Employed



Hydrograph Report

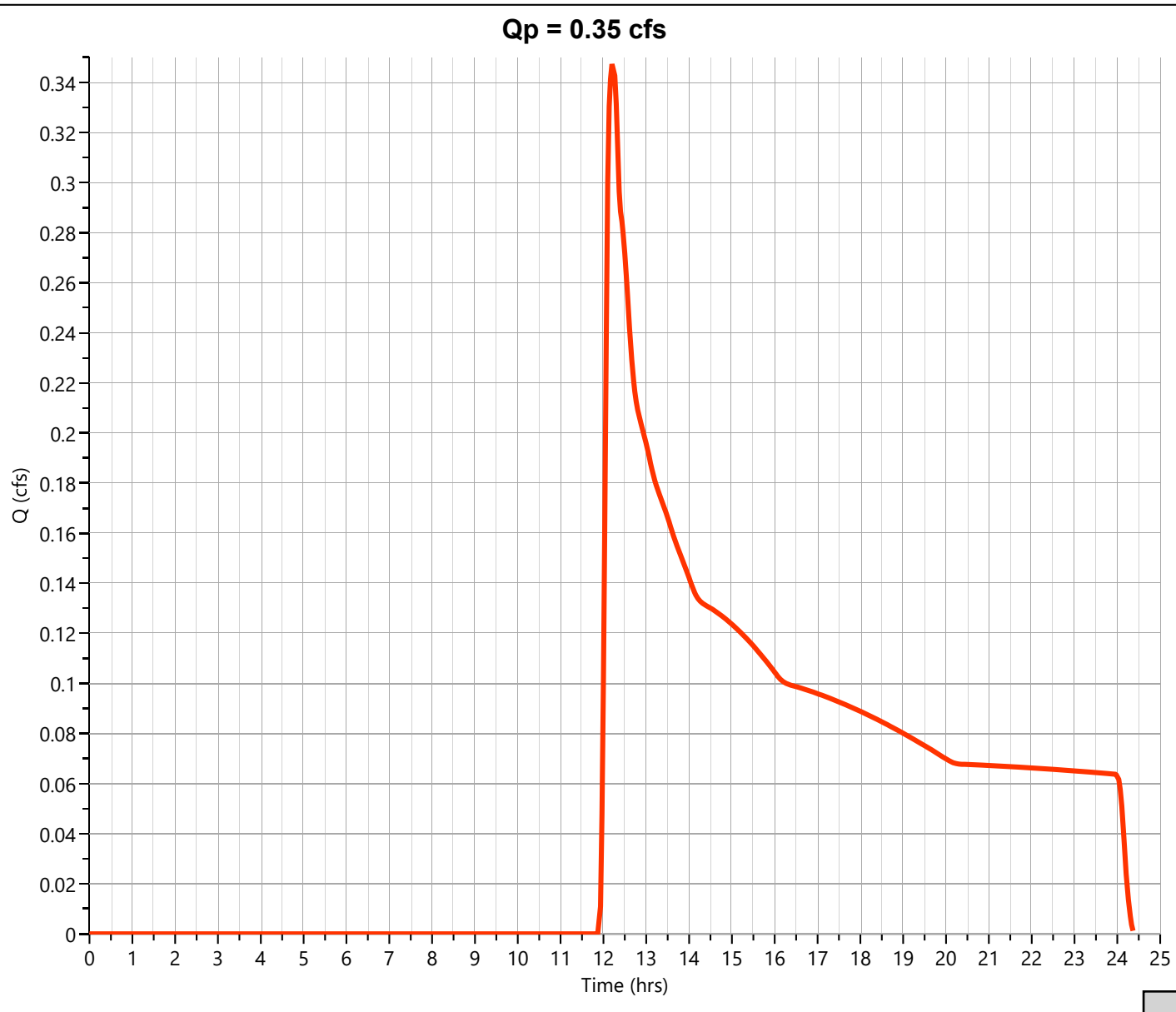
Hydrology Studio v 3.0.0.32 07-25-2024

Pre Offsite 2 Hyd. No. 5

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.348 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.23 hrs
Time Interval	= 2 min	Runoff Volume	= 4,681 cuft
Drainage Area	= 4.518 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
4.518	39	Offsite
4.518	**39**	Weighted CN Method Employed



Hydrograph Report

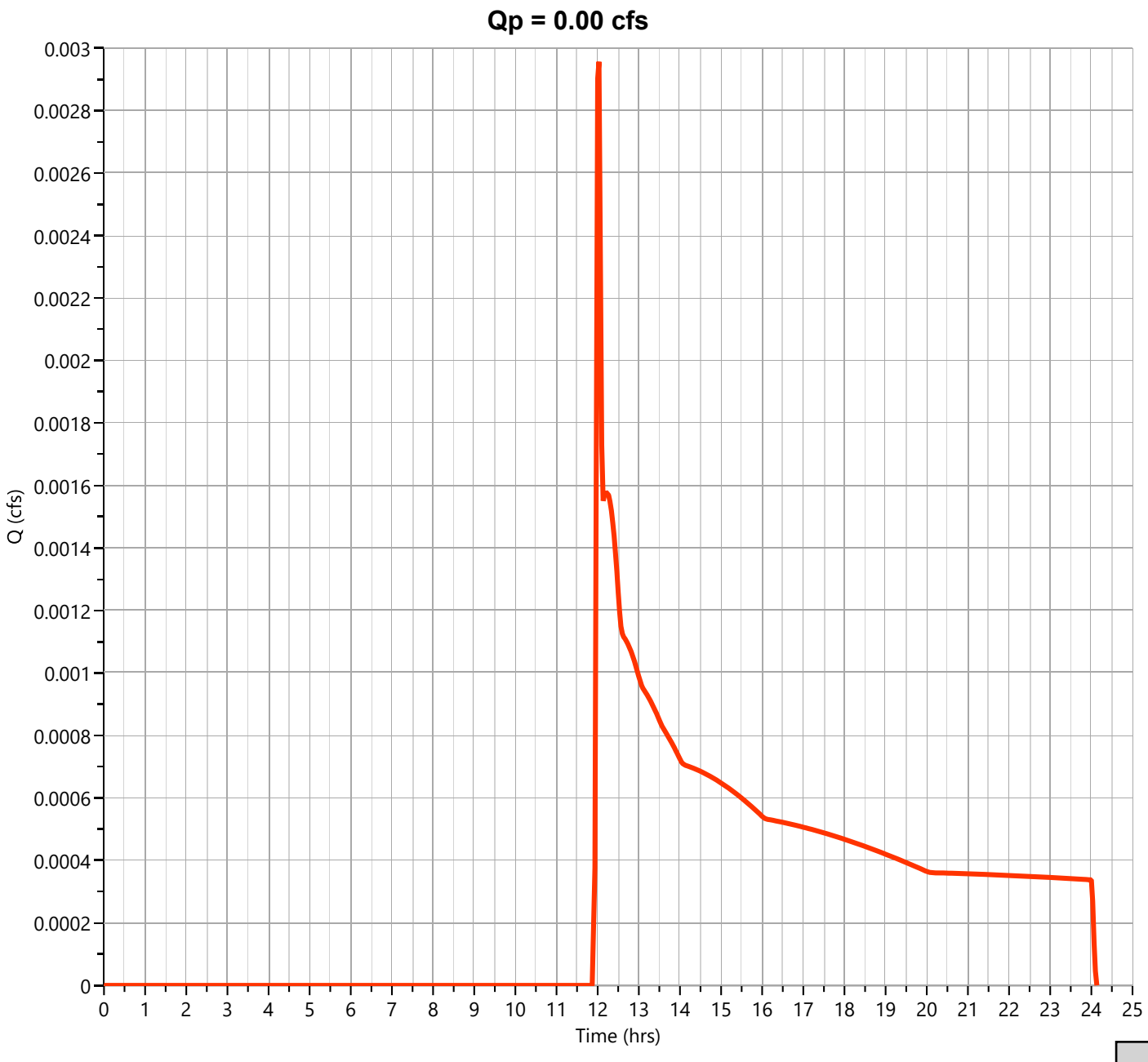
Hydrology Studio v 3.0.0.32

07-25-2024

Pre Offsite 3

Hyd. No. 6

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.003 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 24.9 cuft
Drainage Area	= 0.025 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484



Hydrograph Report

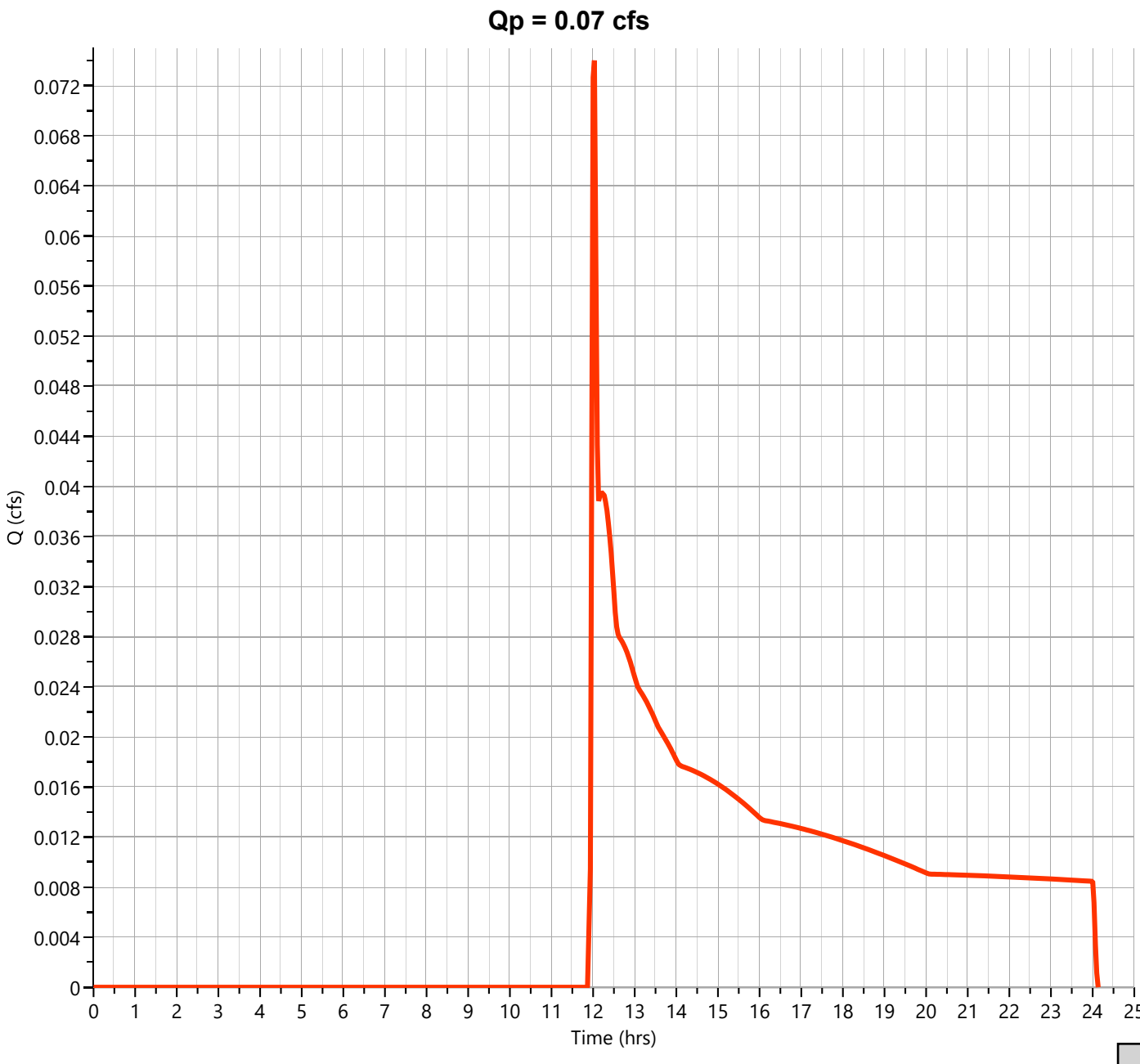
Hydrology Studio v 3.0.0.32

07-25-2024

Post Offsite 4

Hyd. No. 7

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.074 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 624 cuft
Drainage Area	= 0.626 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

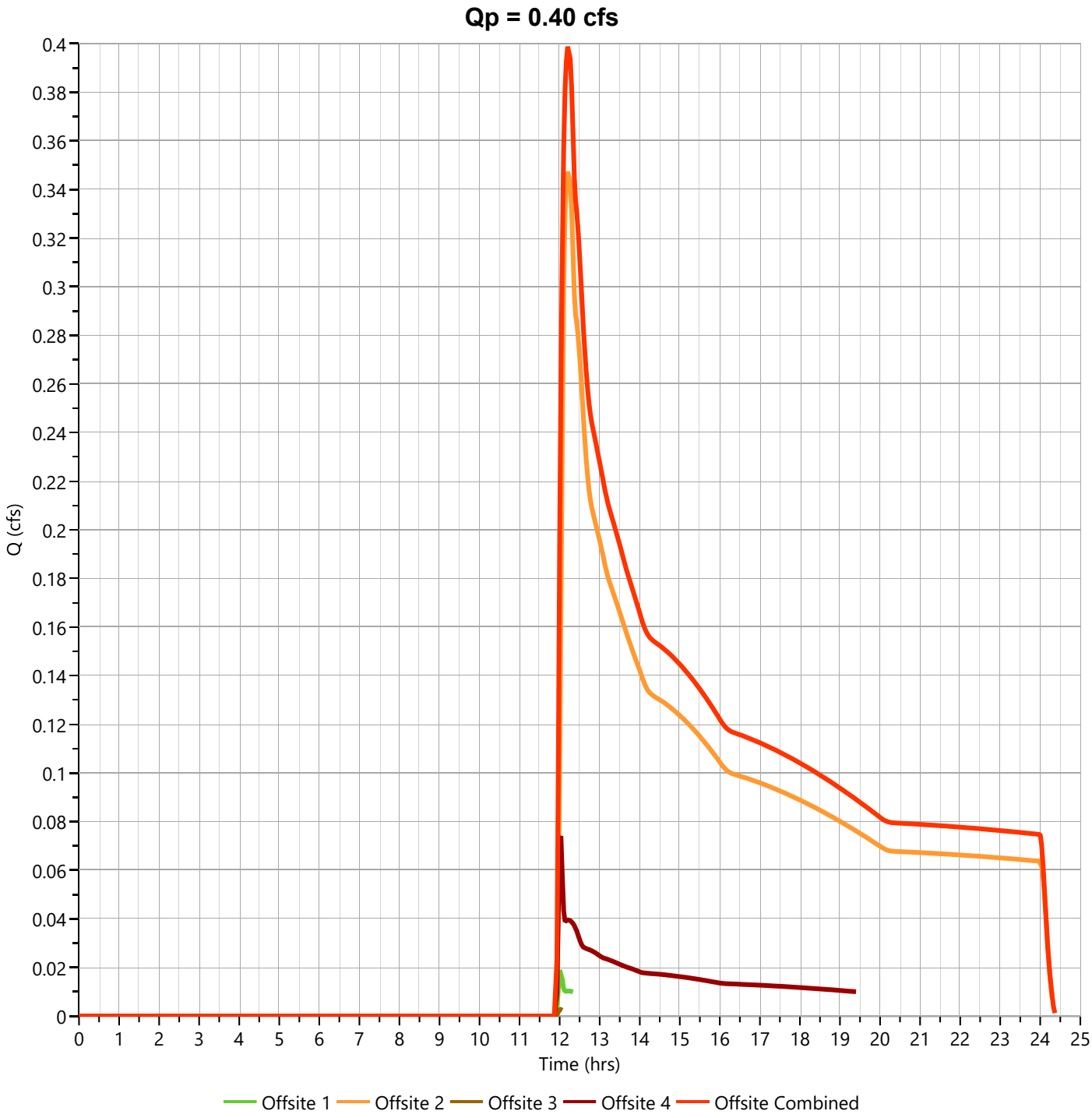


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Pre Offsite Combined Hyd. No. 8

Hydrograph Type	= Junction	Peak Flow	= 0.399 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.23 hrs
Time Interval	= 2 min	Hydrograph Volume	= 5,492 cuft
Inflow Hydrographs	= 4, 5, 6, 7	Total Contrib. Area	= 5.332 ac

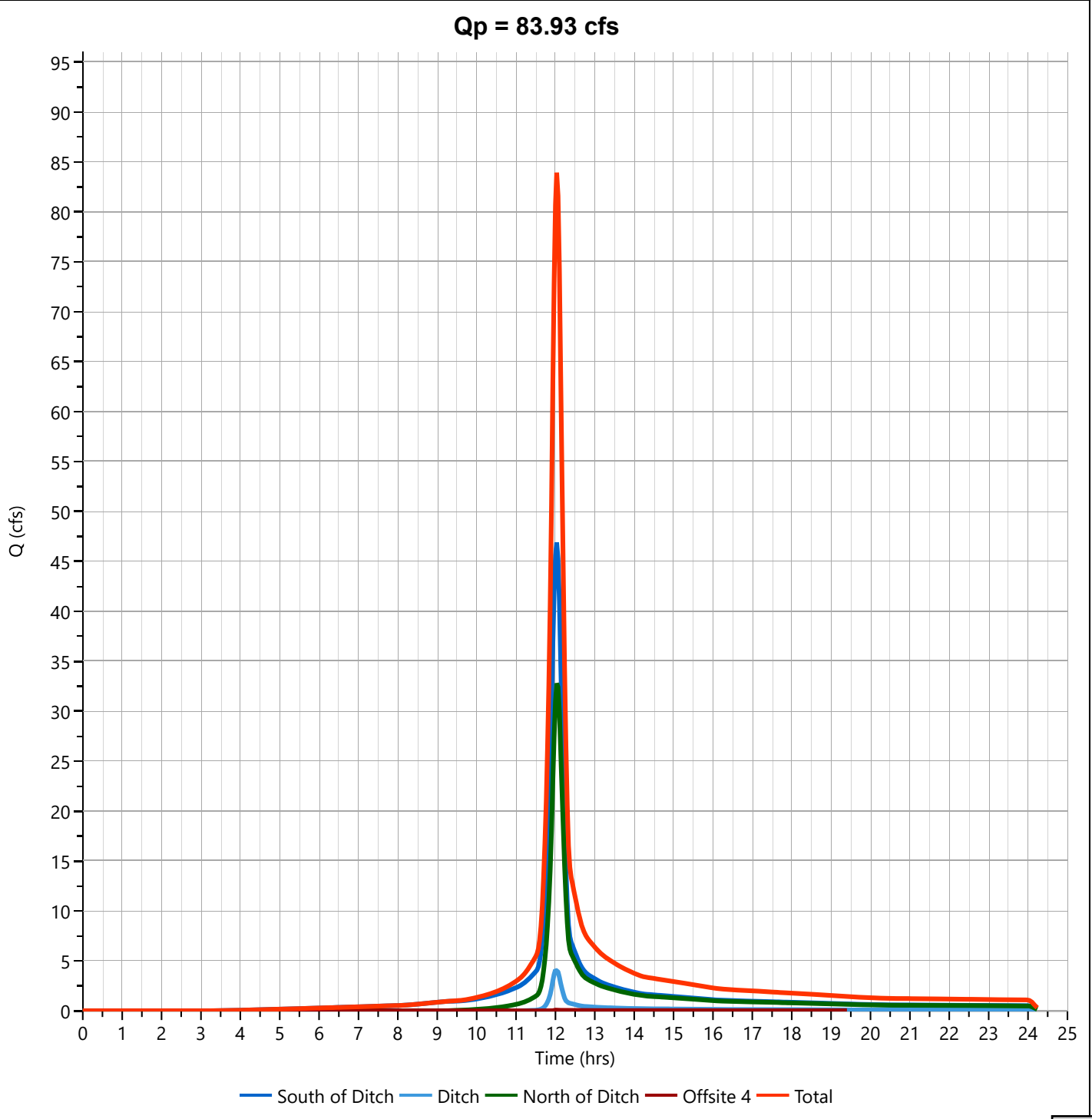


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Pre Total Hyd. No. 9

Hydrograph Type	= Junction	Peak Flow	= 83.93 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Hydrograph Volume	= 242,829 cuft
Inflow Hydrographs	= 1, 2, 3, 7	Total Contrib. Area	= 21.876 ac



Hydrograph Report

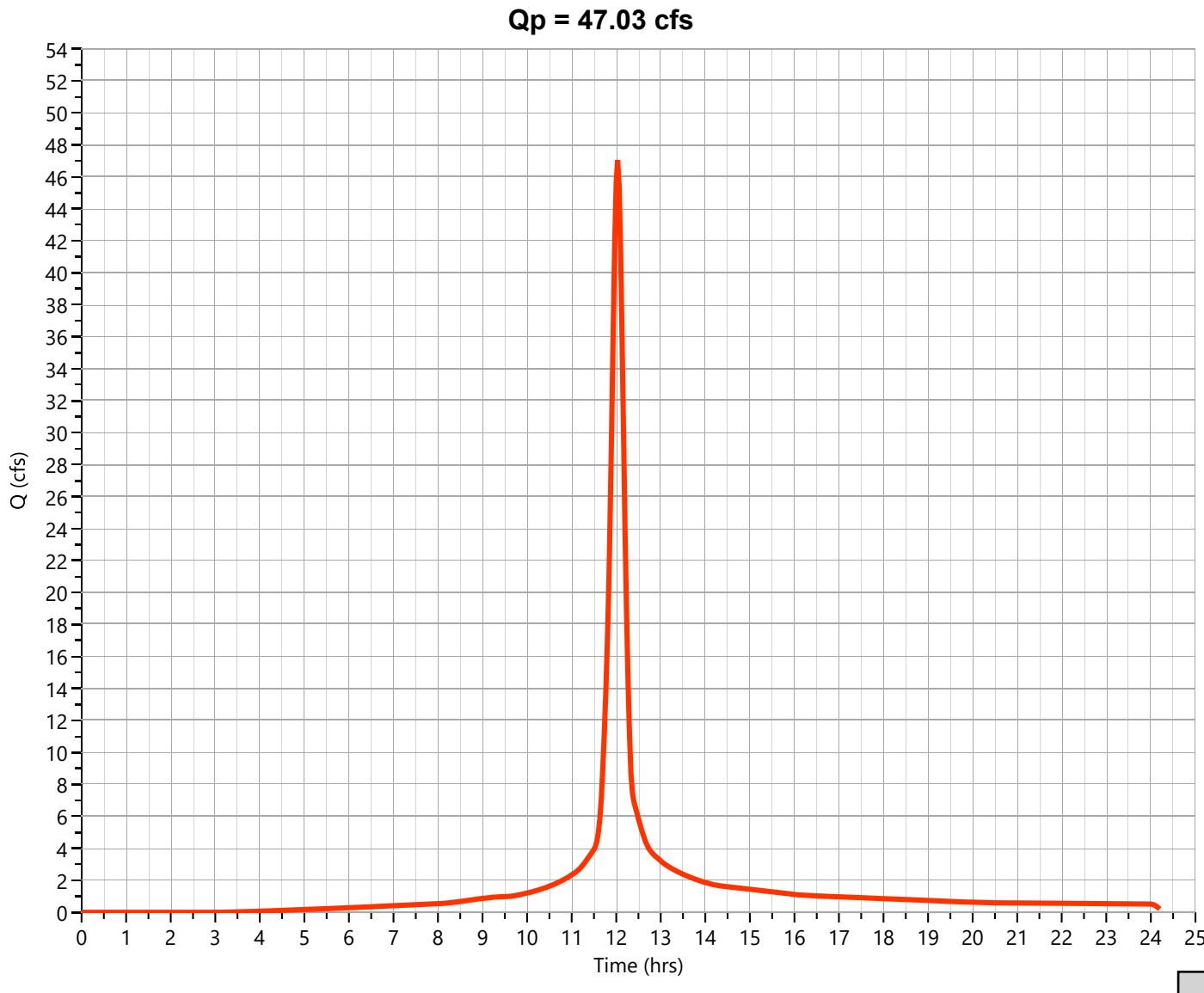
Hydrology Studio v 3.0.0.32 07-25-2024

Post South of Ditch Hyd. No. 11

Hydrograph Type	= NRCS Runoff	Peak Flow	= 47.03 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 139,146 cuft
Drainage Area	= 8.91 ac	Curve Number	= 91.2*
Tc Method	= User	Time of Conc. (Tc)	= 15.27 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
7.83	91	Row Crop
0.82	91	Gravel Drive
0.26	98	Concrete
8.91	**91**	Weighted CN Method Employed



Hydrograph Report

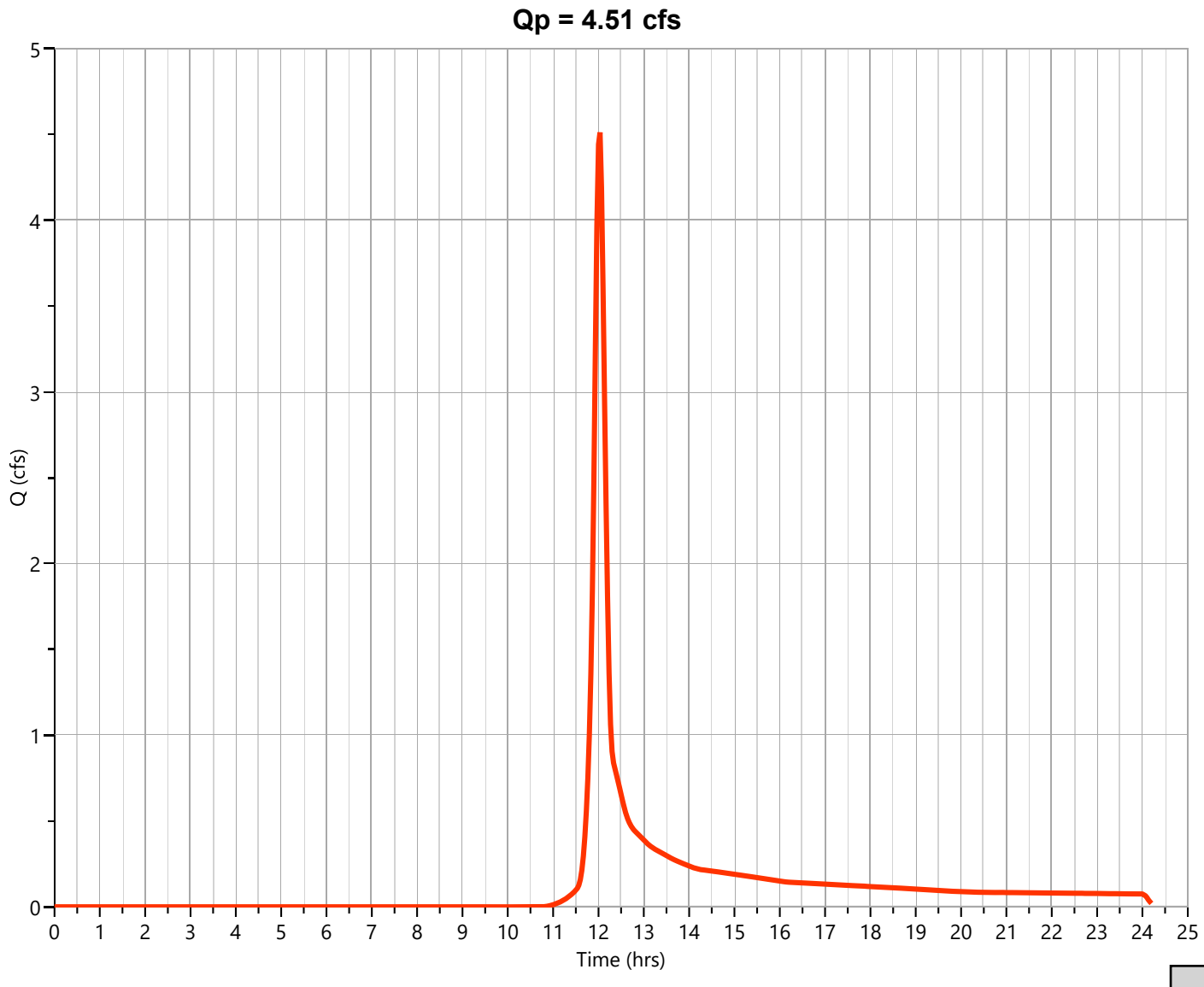
Hydrology Studio v 3.0.0.32 07-25-2024

Post Ditch Hyd. No. 12

Hydrograph Type	= NRCS Runoff	Peak Flow	= 4.512 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 12,030 cuft
Drainage Area	= 1.79 ac	Curve Number	= 63.18*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
1.66	61	Ditch (inside buffer)
0.13	91	Gravel
1.79	**63**	Weighted CN Method Employed



Hydrograph Report

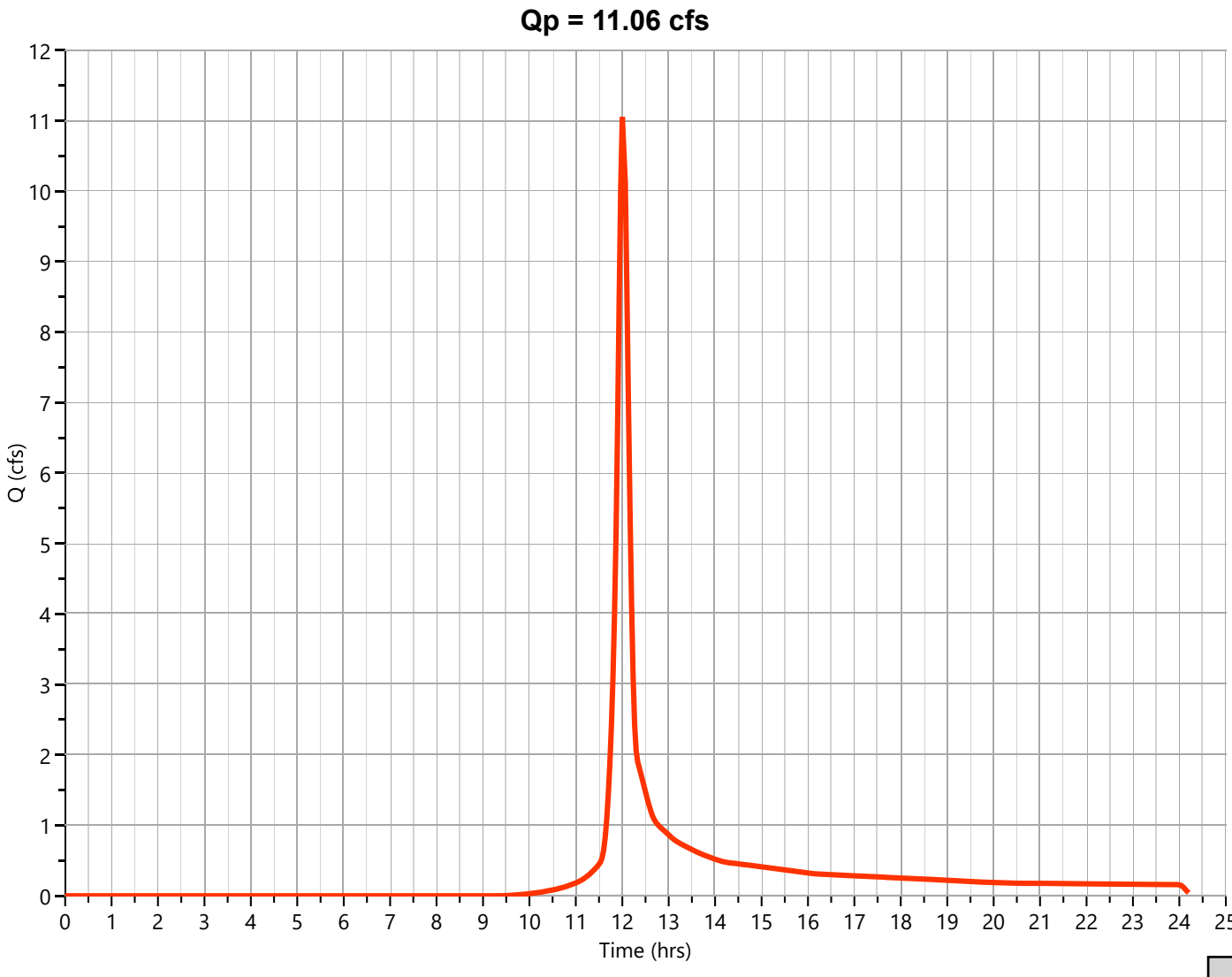
Hydrology Studio v 3.0.0.32 07-25-2024

Post North to Pond 1 Hyd. No. 13

Hydrograph Type	= NRCS Runoff	Peak Flow	= 11.06 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Runoff Volume	= 28,907 cuft
Drainage Area	= 3.282 ac	Curve Number	= 70*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
1.4	49	Pervious (A)
0.936	79	Pervious (C)
0.566	91	Gravel
0.38	98	Buildings
3.282	**70**	Weighted CN Method Employed



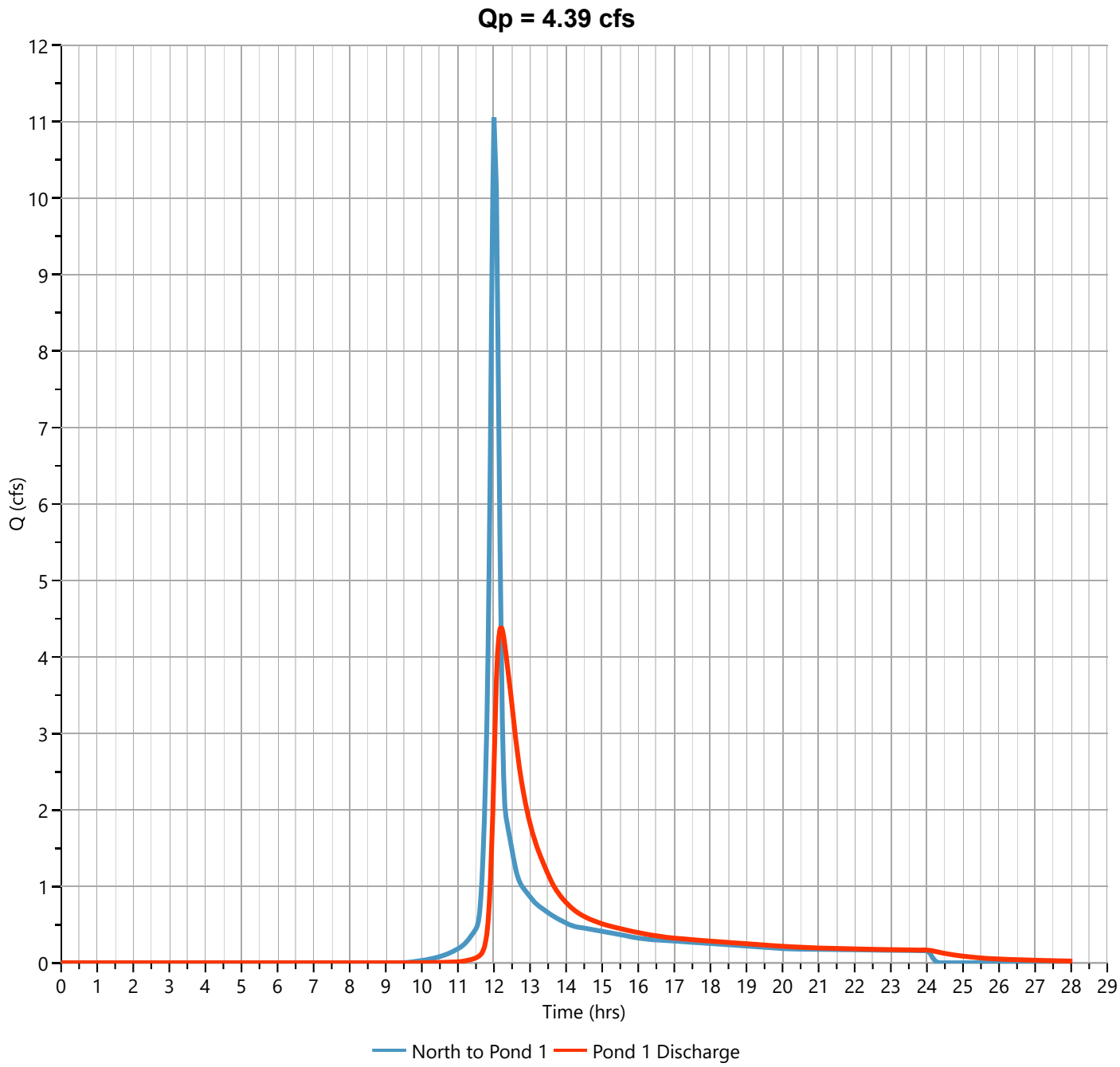
Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Pond 1 Discharge Hyd. No. 14

Hydrograph Type	= Pond Route	Peak Flow	= 4.393 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.20 hrs
Time Interval	= 2 min	Hydrograph Volume	= 28,881 cuft
Inflow Hydrograph	= 13 - North to Pond 1	Max. Elevation	= 629.56 ft
Pond Name	= Pond 1	Max. Storage	= 9,327 cuft

Pond Routing by Storage Indication Method *Center of mass detention time = 51 min*



Hydrograph Report

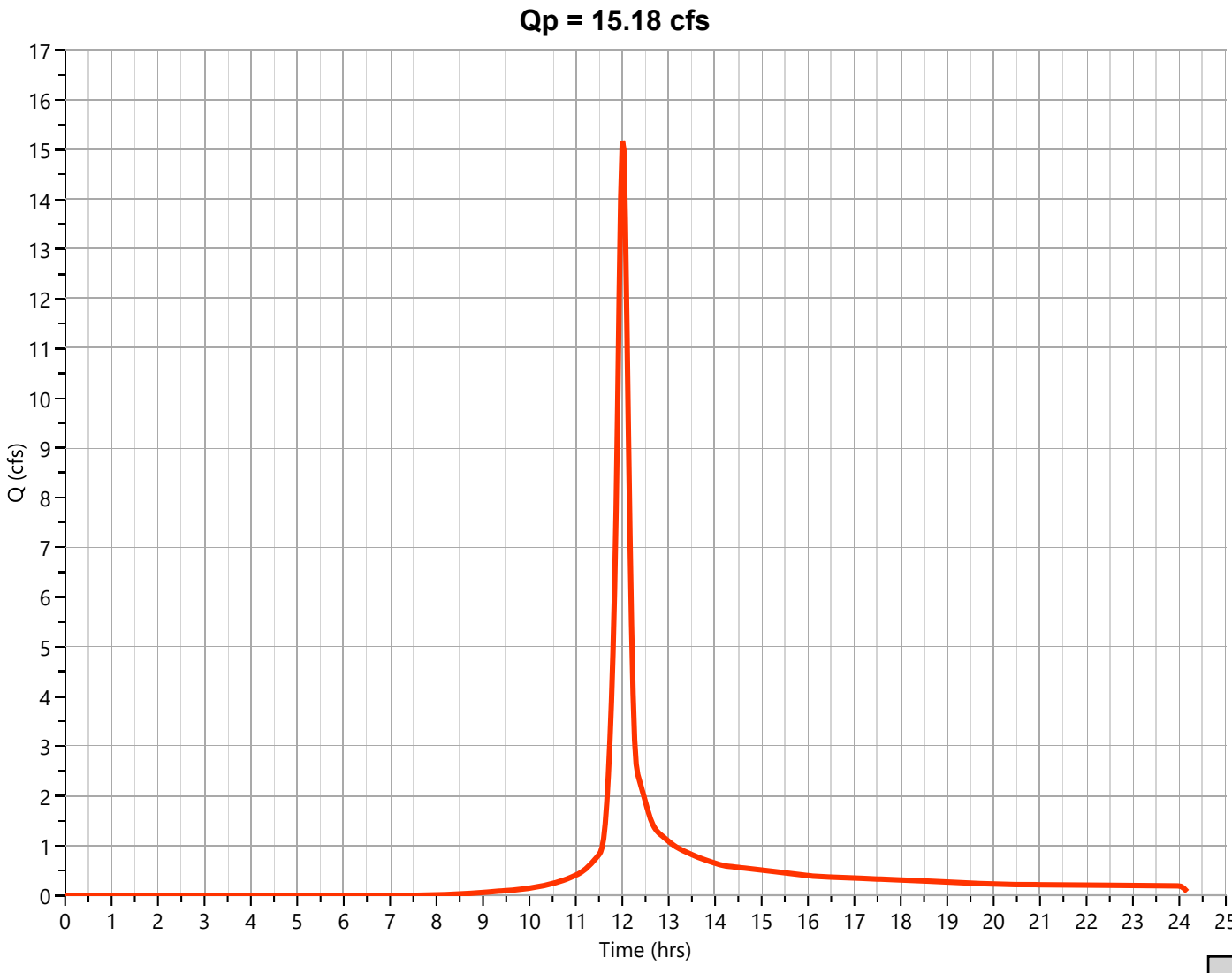
Hydrology Studio v 3.0.0.32 07-25-2024

Post Bypass Hyd. No. 15

Hydrograph Type	= NRCS Runoff	Peak Flow	= 15.18 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Runoff Volume	= 39,366 cuft
Drainage Area	= 3.569 ac	Curve Number	= 76.66*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.95	49	Pervious (A)
1.26	79	Pervious (C)
0.81	91	Gravel
0.549	98	Buildings
3.569	**77**	Weighted CN Method Employed



Hydrograph Report

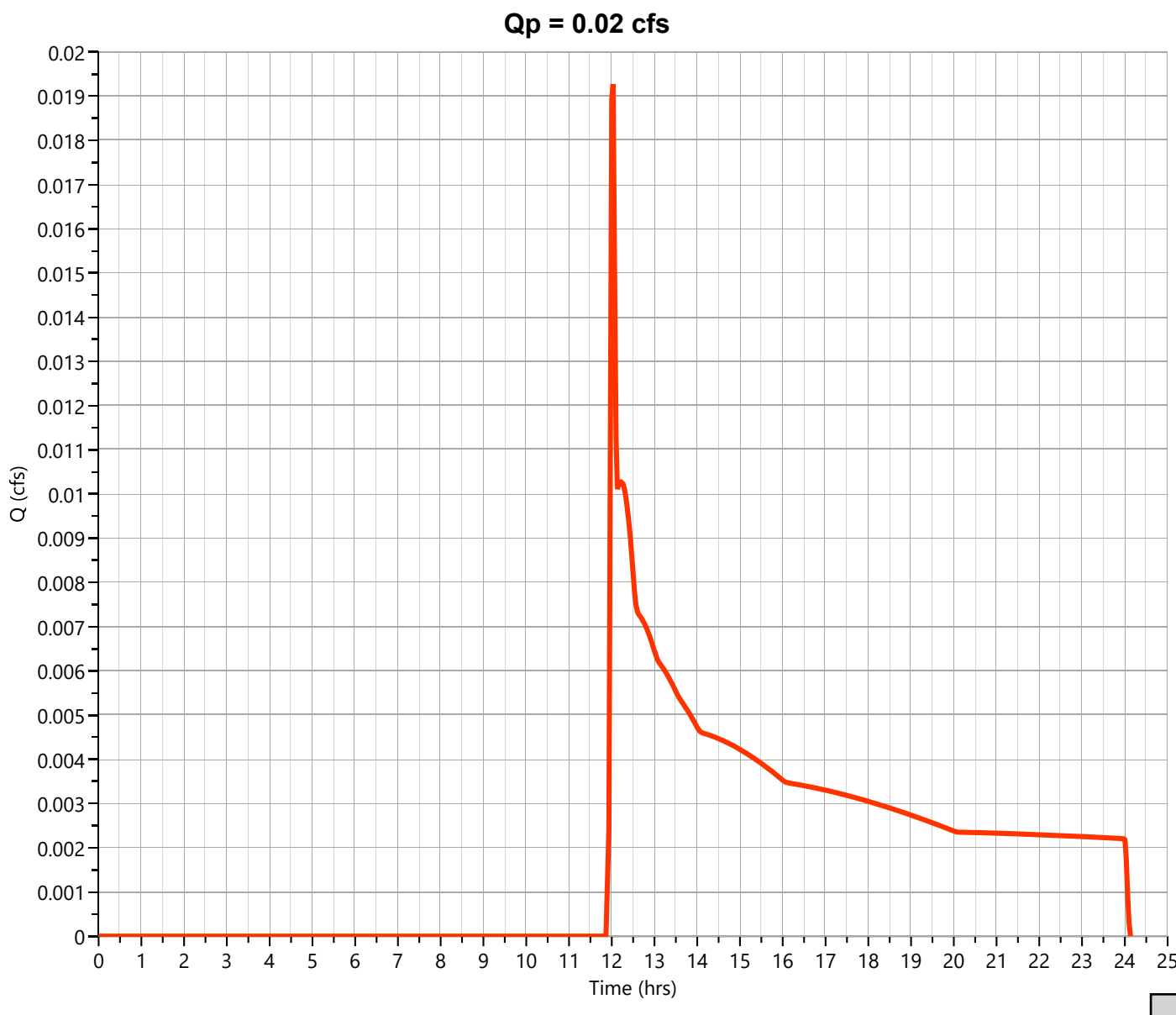
Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 1 Hyd. No. 16

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.019 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 162 cuft
Drainage Area	= 0.163 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.163	39	Offsite
0.163	**39**	Weighted CN Method Employed



Hydrograph Report

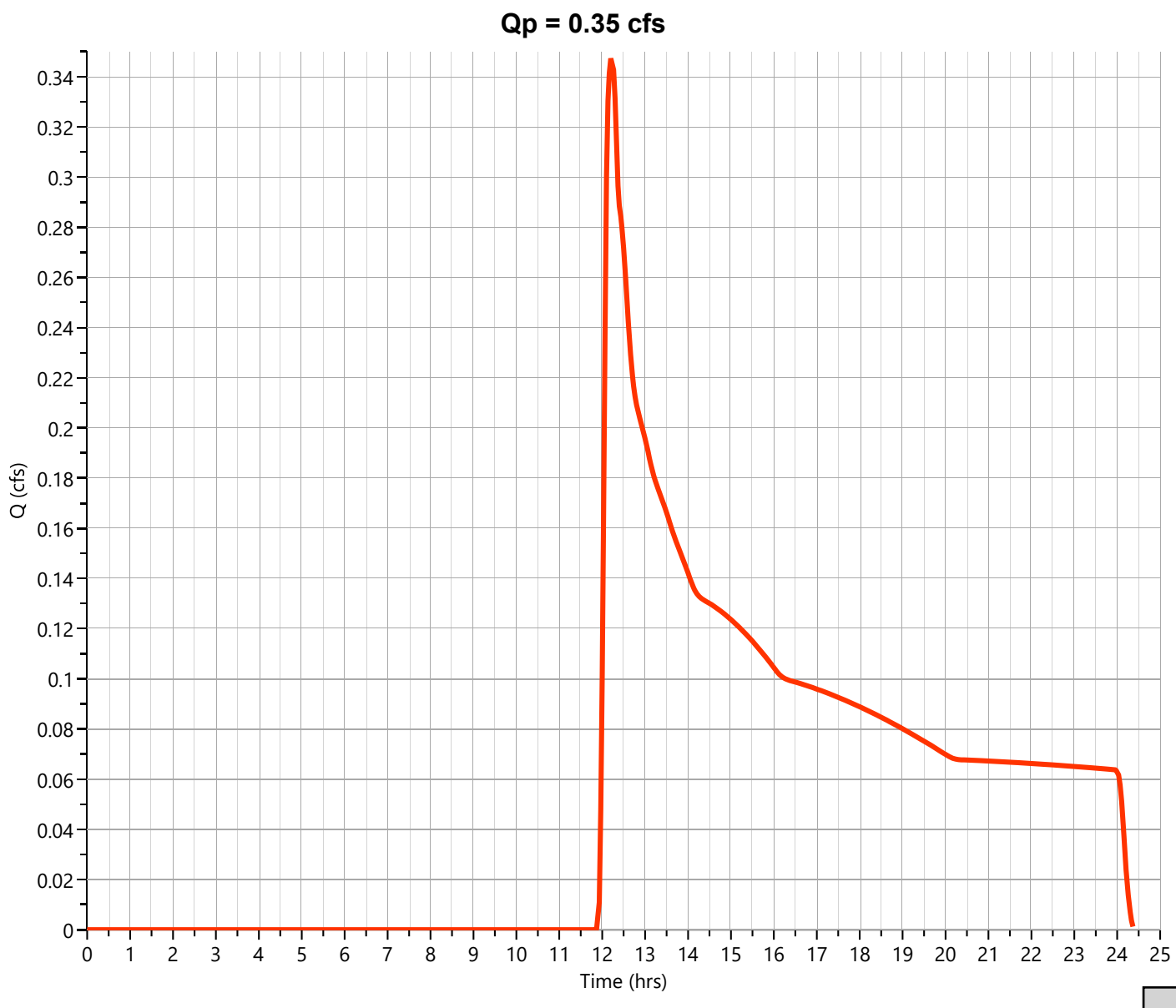
Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 2 Hyd. No. 17

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.348 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.23 hrs
Time Interval	= 2 min	Runoff Volume	= 4,681 cuft
Drainage Area	= 4.518 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
4.518	39	Offsite
4.518	**39**	Weighted CN Method Employed

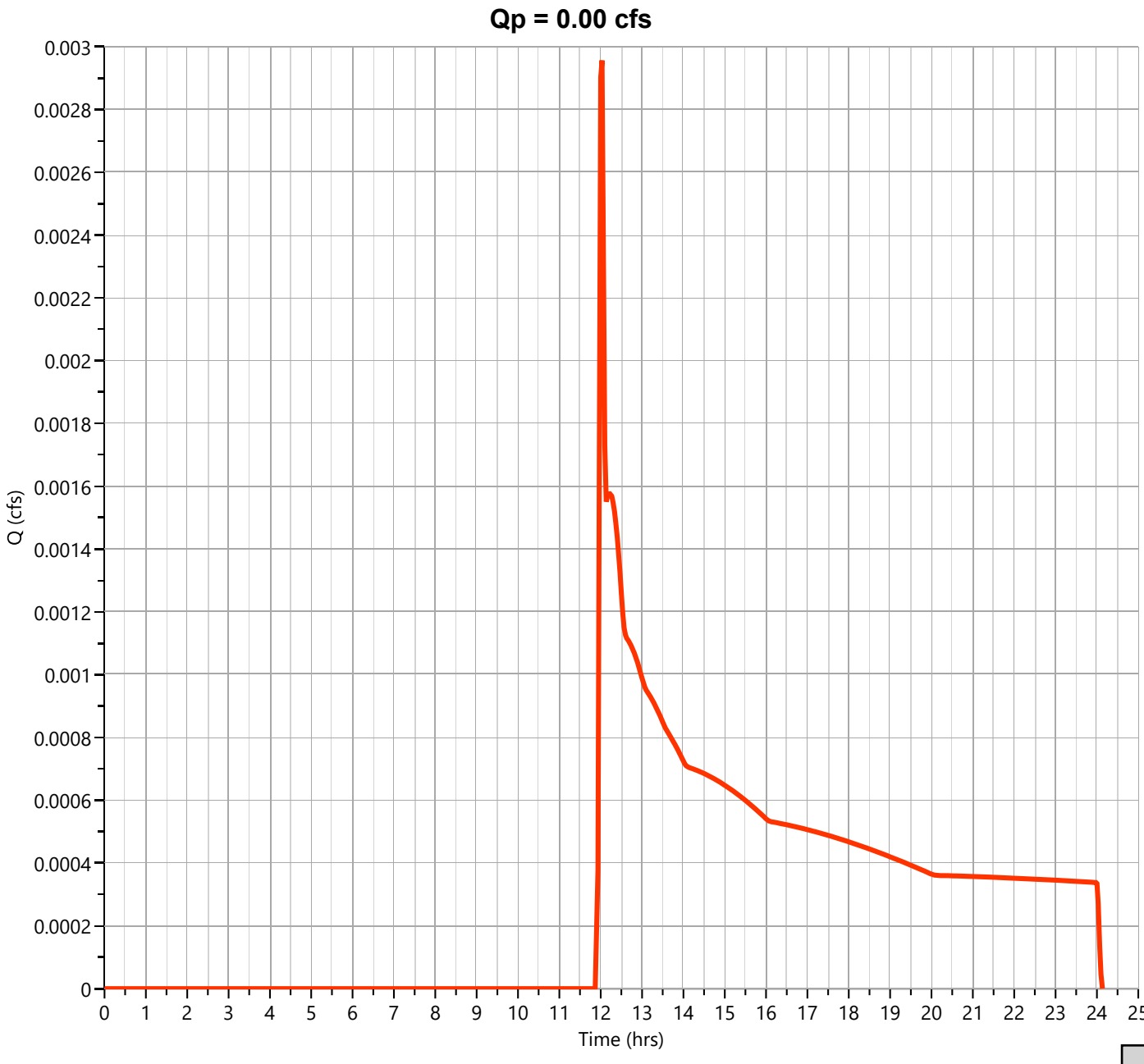


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 3 Hyd. No. 18

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.003 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 24.9 cuft
Drainage Area	= 0.025 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

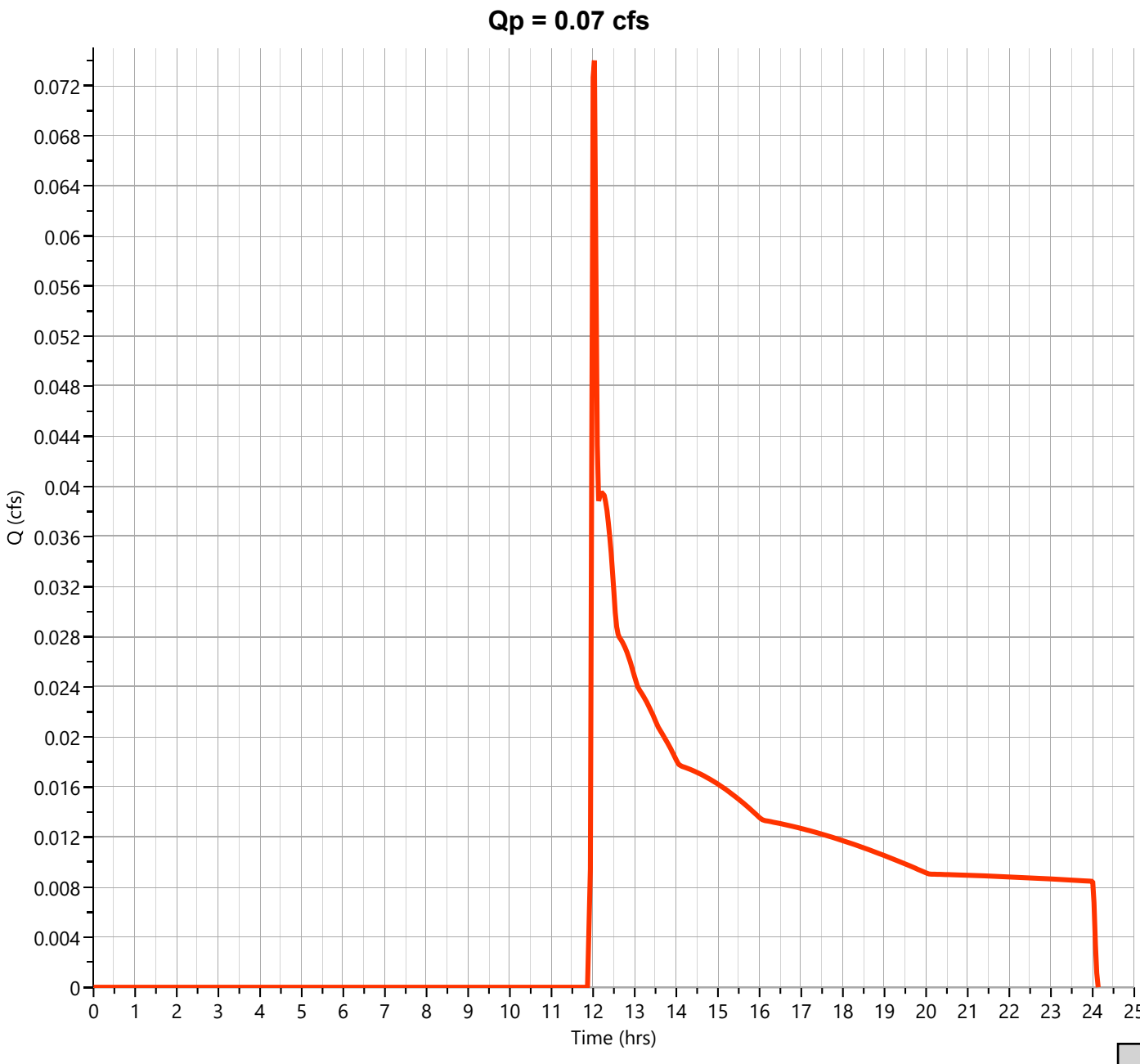


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 4 Hyd. No. 19

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.074 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 624 cuft
Drainage Area	= 0.626 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

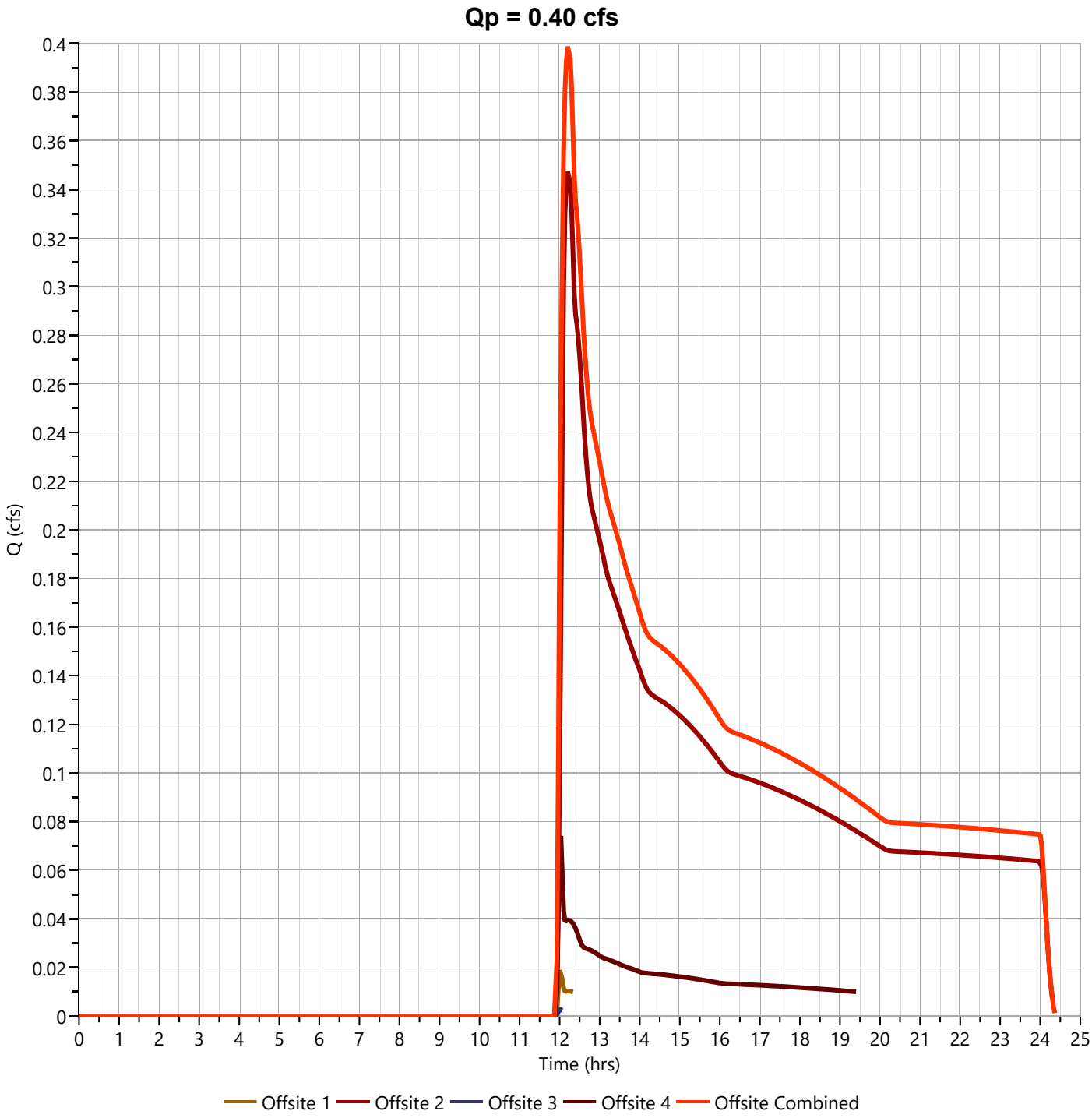


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite Combined Hyd. No. 20

Hydrograph Type	= Junction	Peak Flow	= 0.399 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.23 hrs
Time Interval	= 2 min	Hydrograph Volume	= 5,492 cuft
Inflow Hydrographs	= 16, 17, 18, 19	Total Contrib. Area	= 5.332 ac



Hydrograph Report

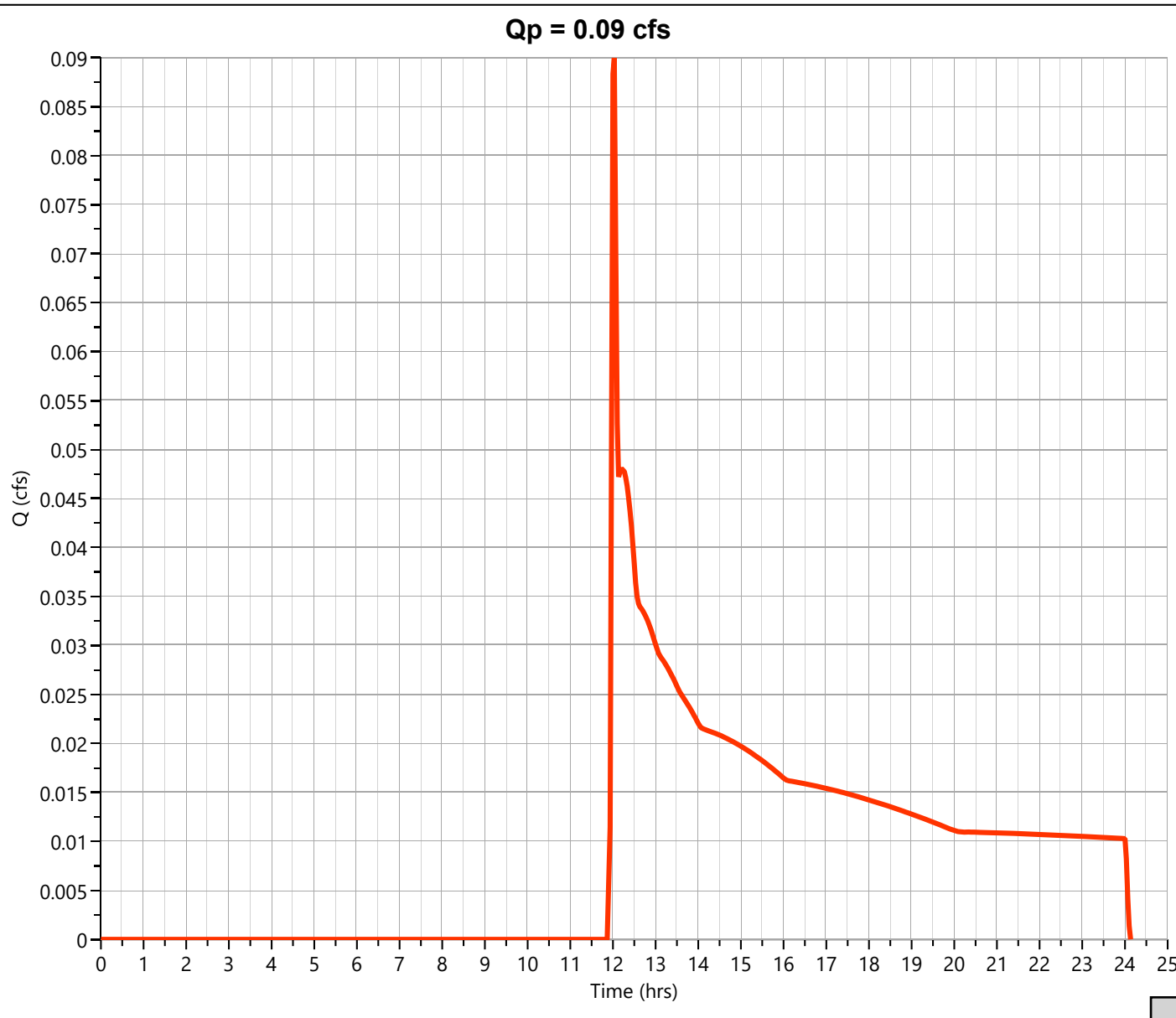
Hydrology Studio v 3.0.0.32 07-25-2024

Post Culvert 1 Hyd. No. 21

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.090 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 758 cuft
Drainage Area	= 0.761 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.761	39	Pervious (A)
0.761	**39**	Weighted CN Method Employed



Hydrograph Report

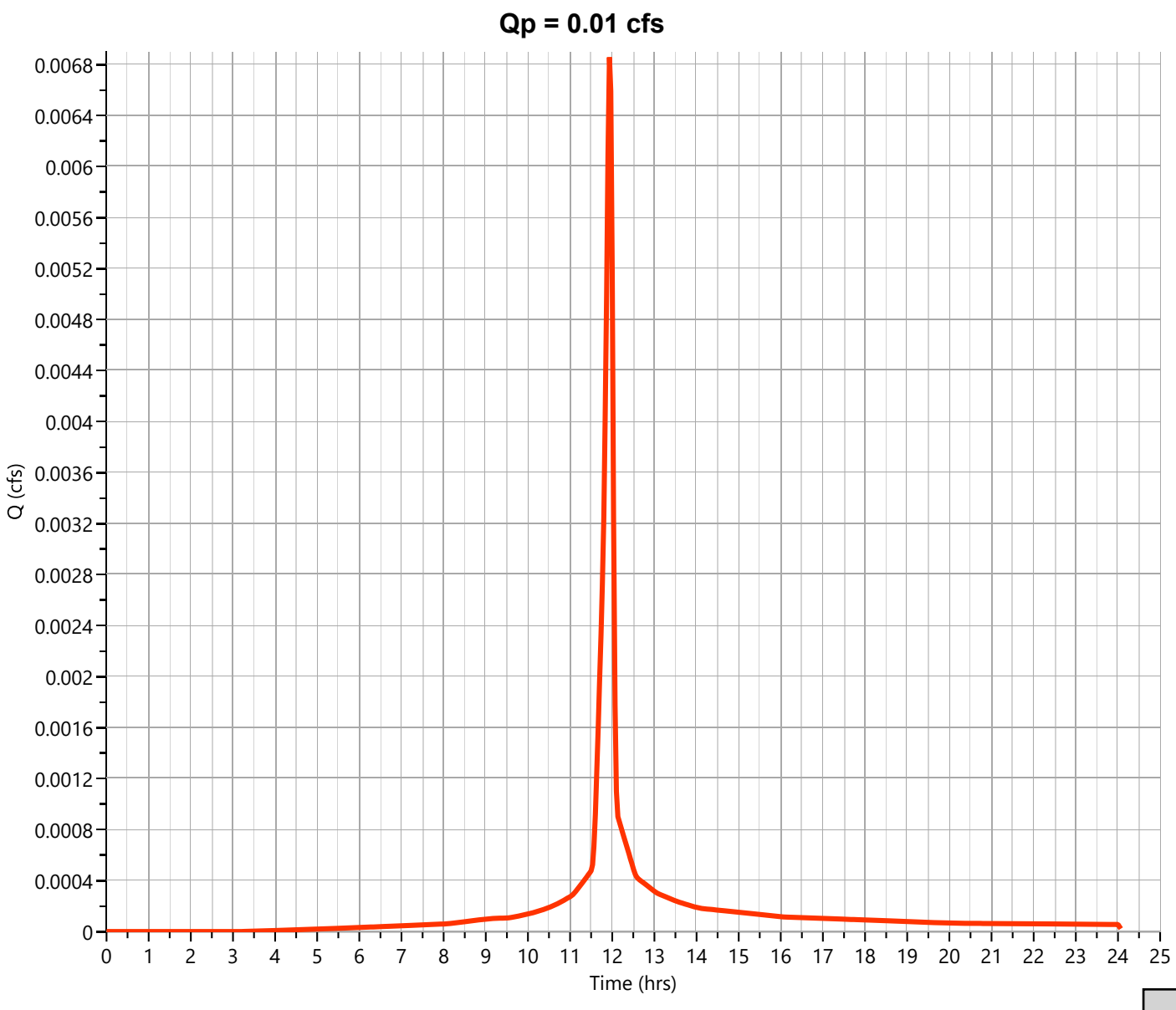
Hydrology Studio v 3.0.0.32 07-25-2024

Post Area Drain 3 (AD3) Hyd. No. 22

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.007 cfs
Storm Frequency	= 10-yr	Time to Peak	= 11.93 hrs
Time Interval	= 2 min	Runoff Volume	= 14.9 cuft
Drainage Area	= 0.001 ac	Curve Number	= 91*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.001	91	Gravel
0.001	**91**	Weighted CN Method Employed



Hydrograph Report

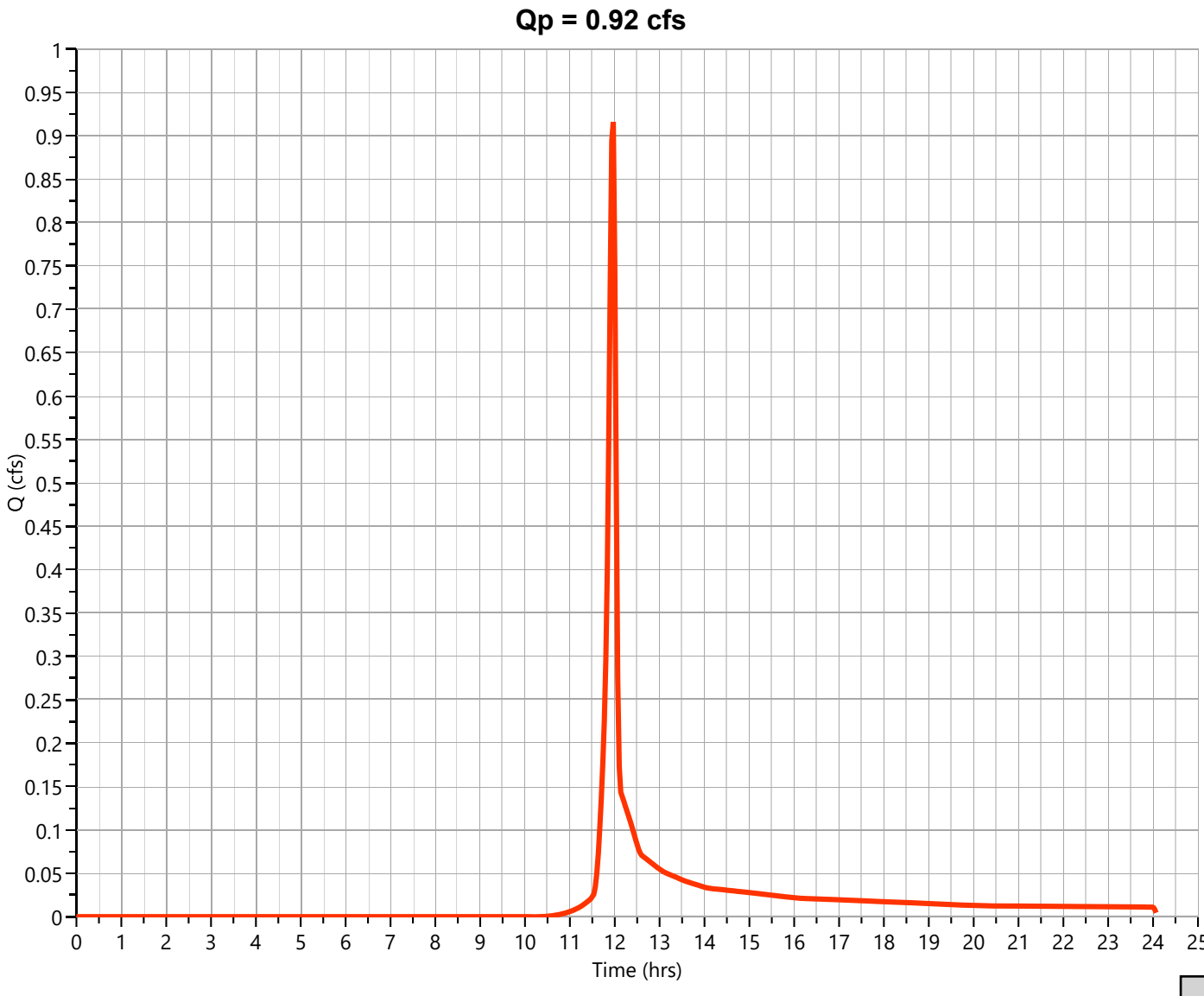
Hydrology Studio v 3.0.0.32 07-25-2024

Post Area Drain 2 (AD2) Hyd. No. 23

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.916 cfs
Storm Frequency	= 10-yr	Time to Peak	= 11.97 hrs
Time Interval	= 2 min	Runoff Volume	= 1,833 cuft
Drainage Area	= 0.28 ac	Curve Number	= 64.81*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.139	91	Gravel
0.141	39	Grass
0.28	**65**	Weighted CN Method Employed



Hydrograph Report

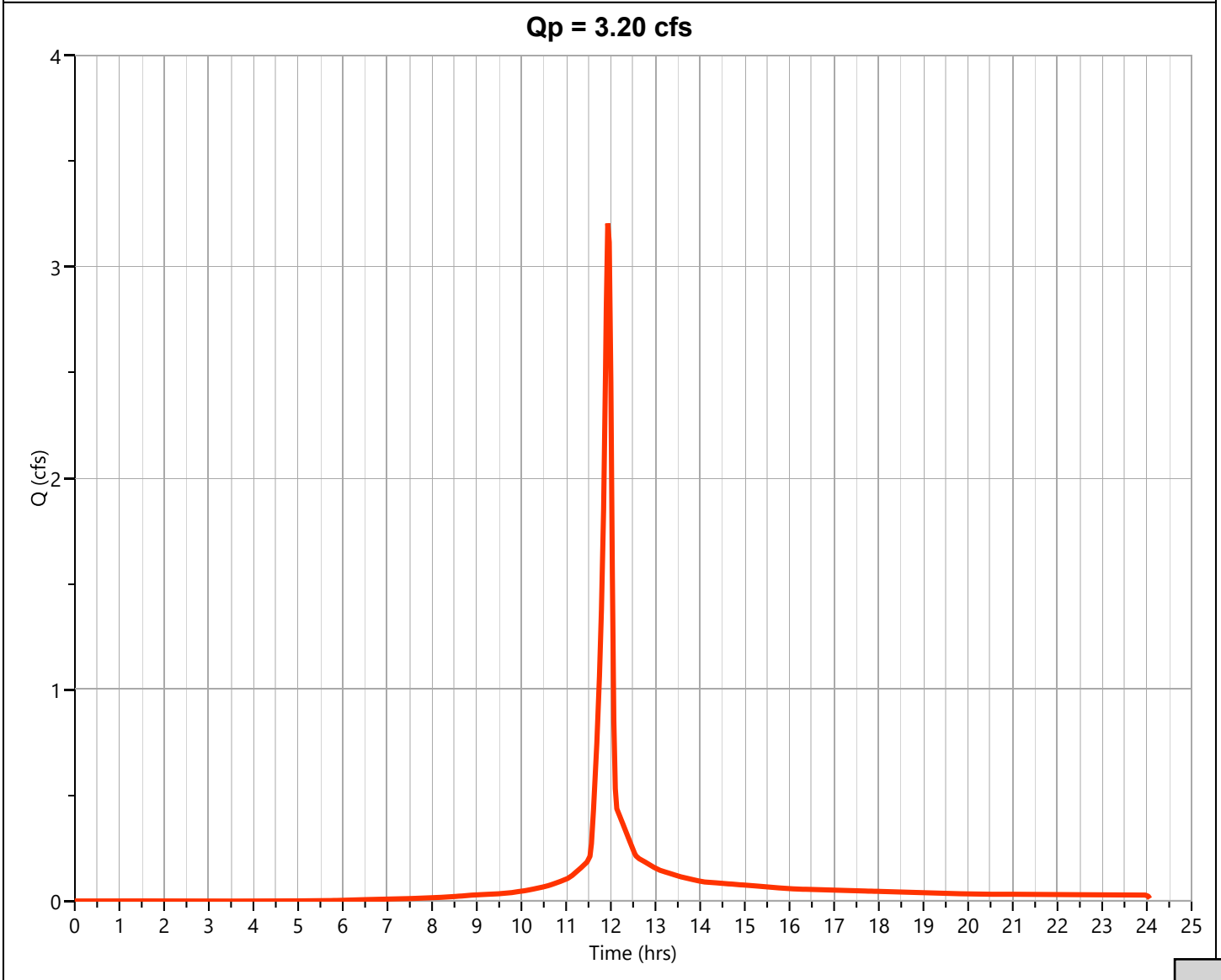
Hydrology Studio v 3.0.0.32 07-25-2024

Post Area Drain 1 (AD1) Hyd. No. 24

Hydrograph Type	= NRCS Runoff	Peak Flow	= 3.205 cfs
Storm Frequency	= 10-yr	Time to Peak	= 11.93 hrs
Time Interval	= 2 min	Runoff Volume	= 6,669 cuft
Drainage Area	= 0.527 ac	Curve Number	= 84.61*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.087	49	Pervious (A)
0.399	91	Gravel
0.041	98	Building
0.527	**85**	Weighted CN Method Employed



Hydrograph Report

Hydrology Studio v 3.0.0.32

07-25-2024

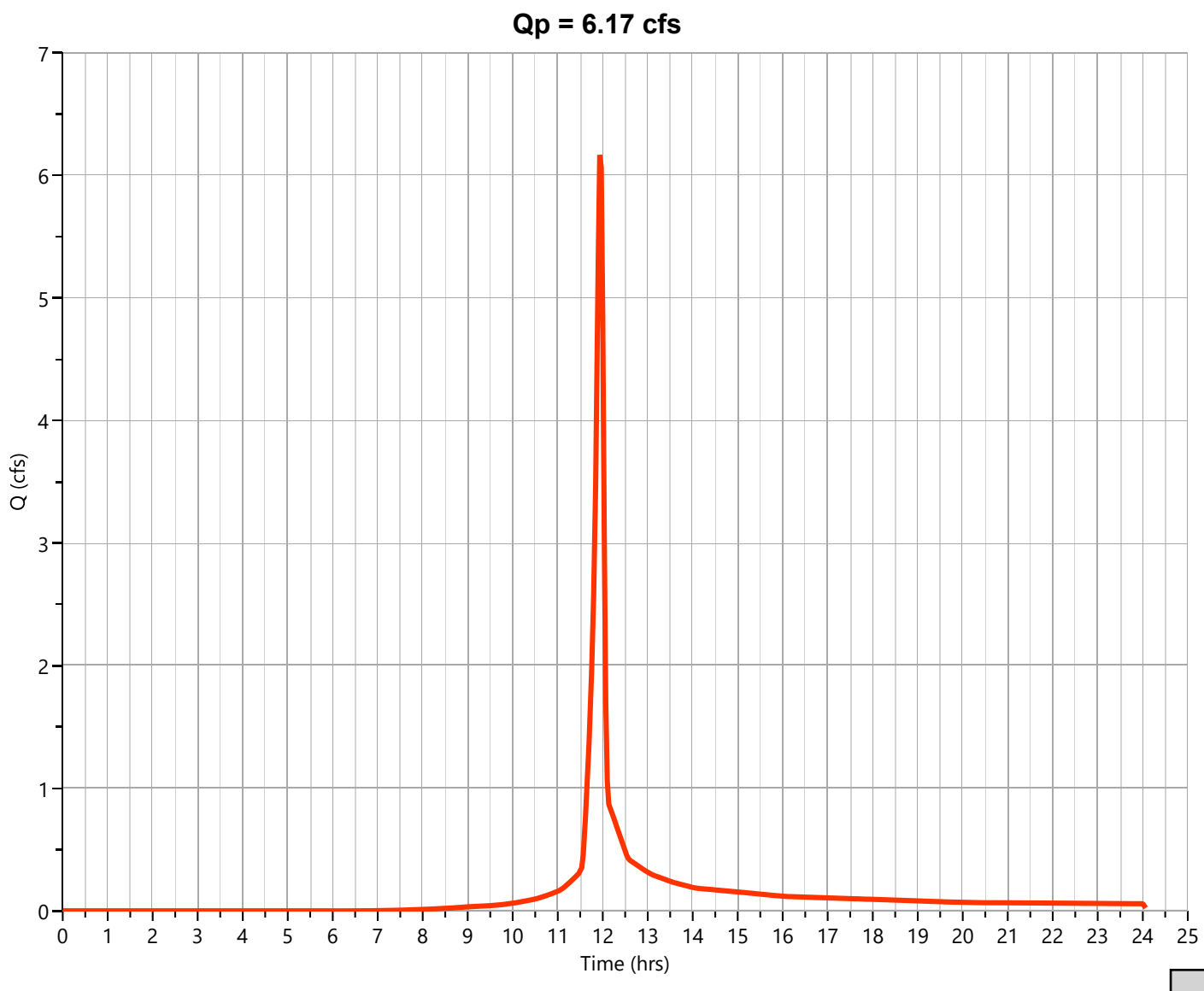
Post North to Pond 2

Hyd. No. 25

Hydrograph Type	= NRCS Runoff	Peak Flow	= 6.166 cfs
Storm Frequency	= 10-yr	Time to Peak	= 11.93 hrs
Time Interval	= 2 min	Runoff Volume	= 12,560 cuft
Drainage Area	= 1.16 ac	Curve Number	= 79.16*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 5.42 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.618	91	Gravel
0.245	98	Bldg/Concrete
0.297	39	Grass
1.16	**79**	Weighted CN Method Employed



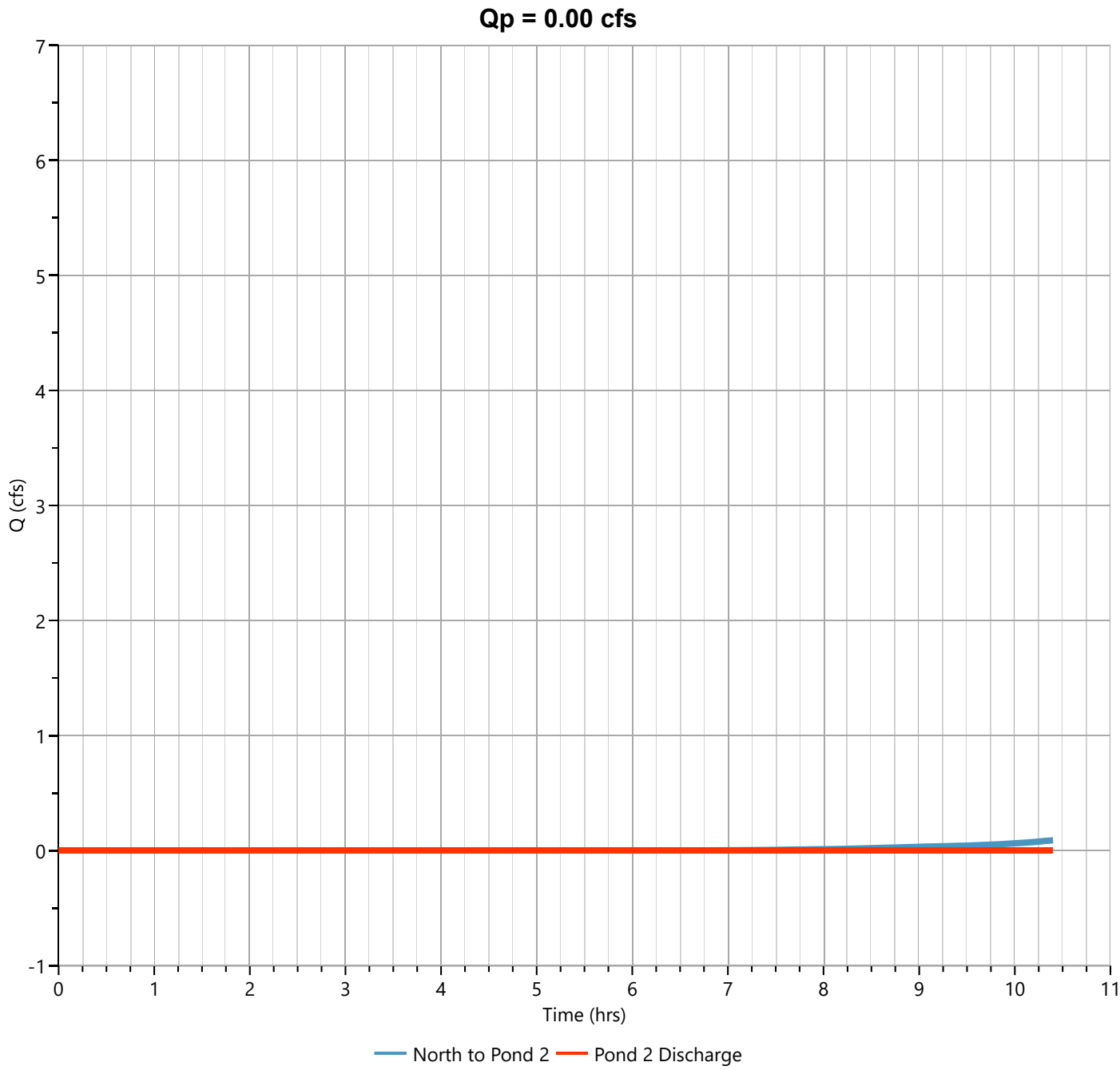
Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Pond 2 Discharge Hyd. No. 26

Hydrograph Type	= Pond Route	Peak Flow	= 0.000 cfs
Storm Frequency	= 10-yr	Time to Peak	= 10.37 hrs
Time Interval	= 2 min	Hydrograph Volume	= 0.000 cuft
Inflow Hydrograph	= 25 - North to Pond 2	Max. Elevation	= 533.06 ft
Pond Name	= Pond 2	Max. Storage	= 8,884 cuft

Pond Routing by Storage Indication Method

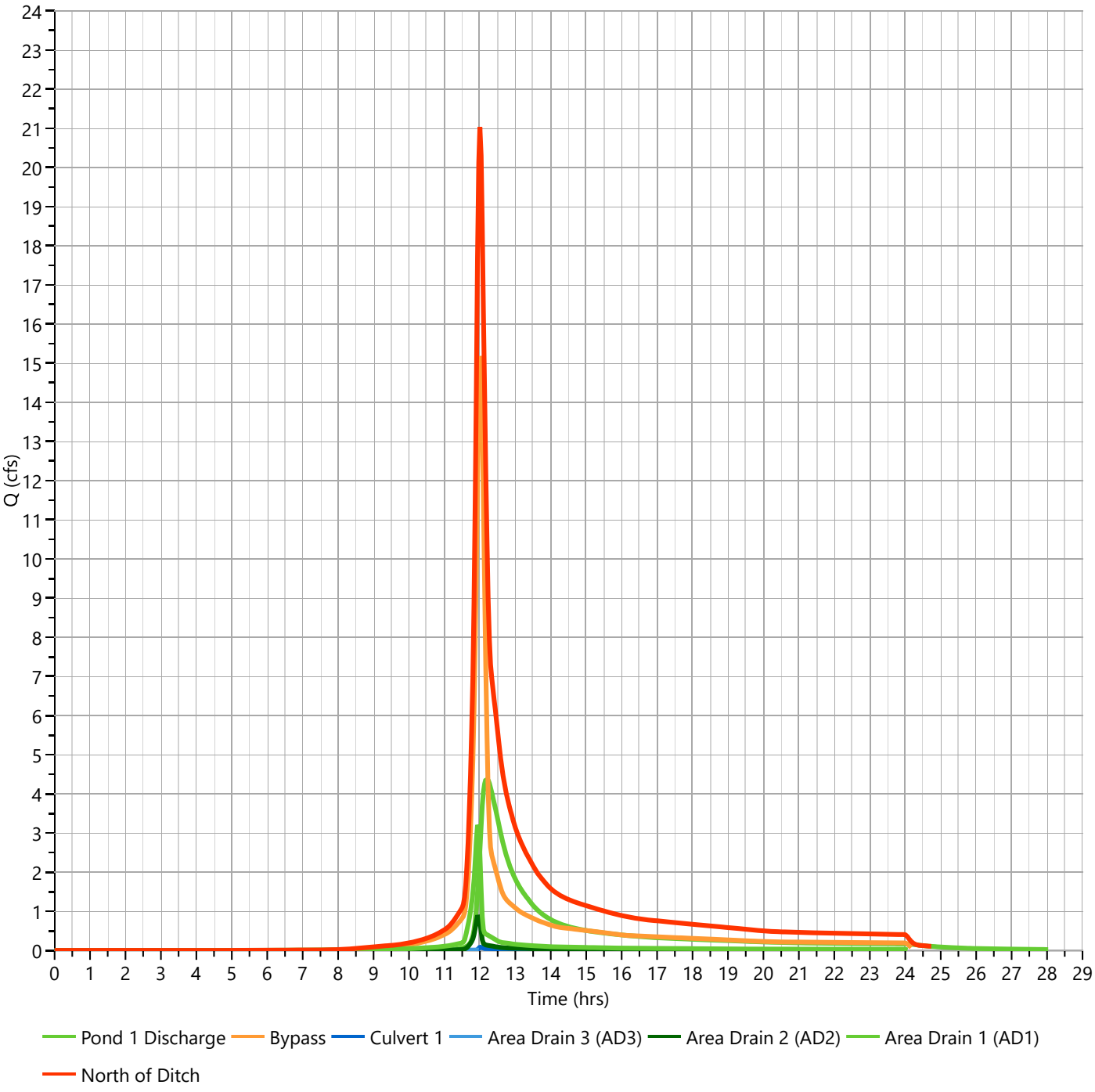


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post North of Ditch Hyd. No. 27

Hydrograph Type	= Junction	Peak Flow	= 21.03 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Hydrograph Volume	= 77,521 cuft
Inflow Hydrographs	= 14, 15, 21, 22, 23, 24	Total Contrib. Area	= 5.138 ac

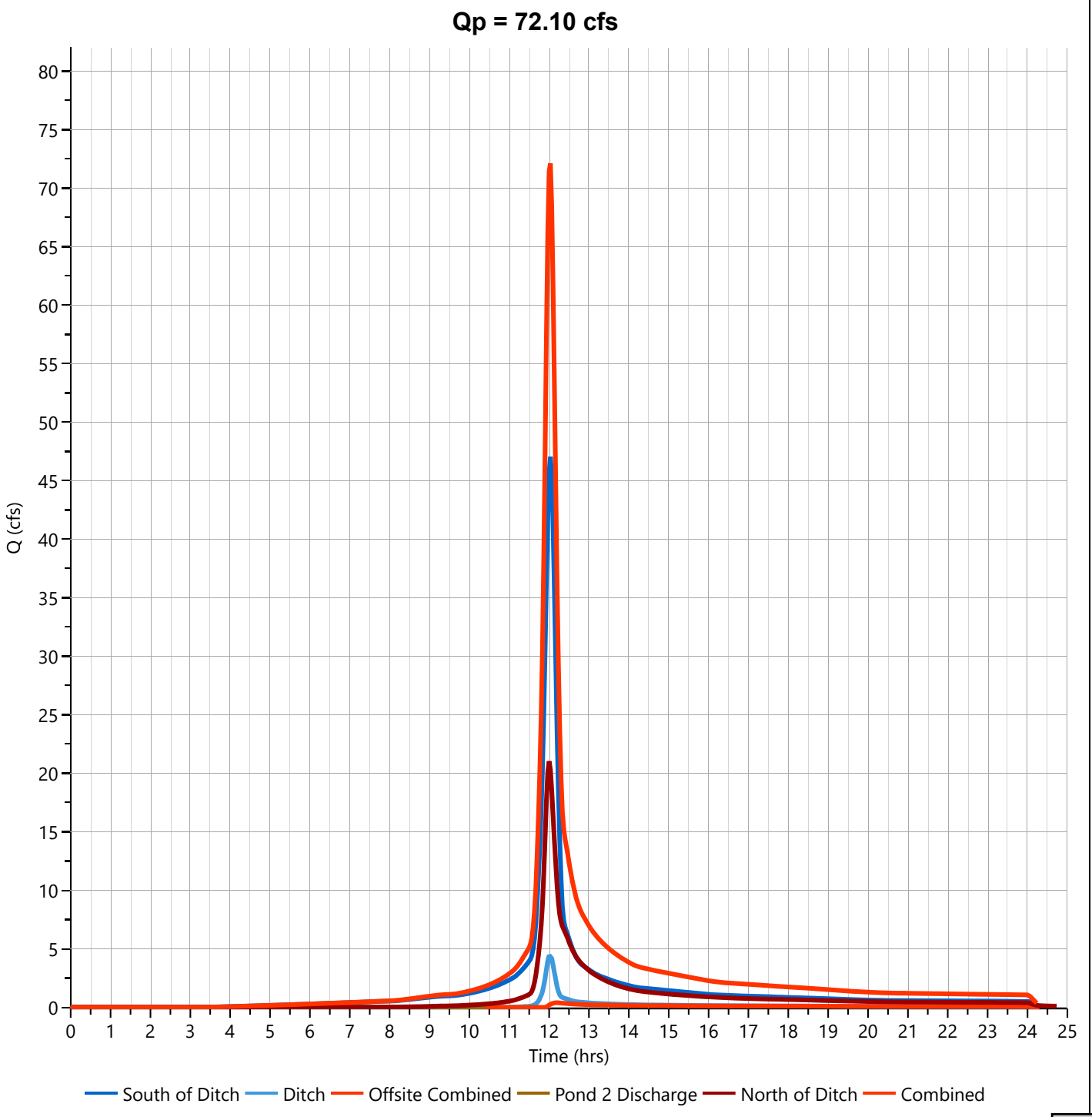


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Combined Hyd. No. 28

Hydrograph Type	= Junction	Peak Flow	= 72.10 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Hydrograph Volume	= 234,189 cuft
Inflow Hydrographs	= 11, 12, 20, 26, 27	Total Contrib. Area	= 21.17 ac



Design Storm Report

Cus

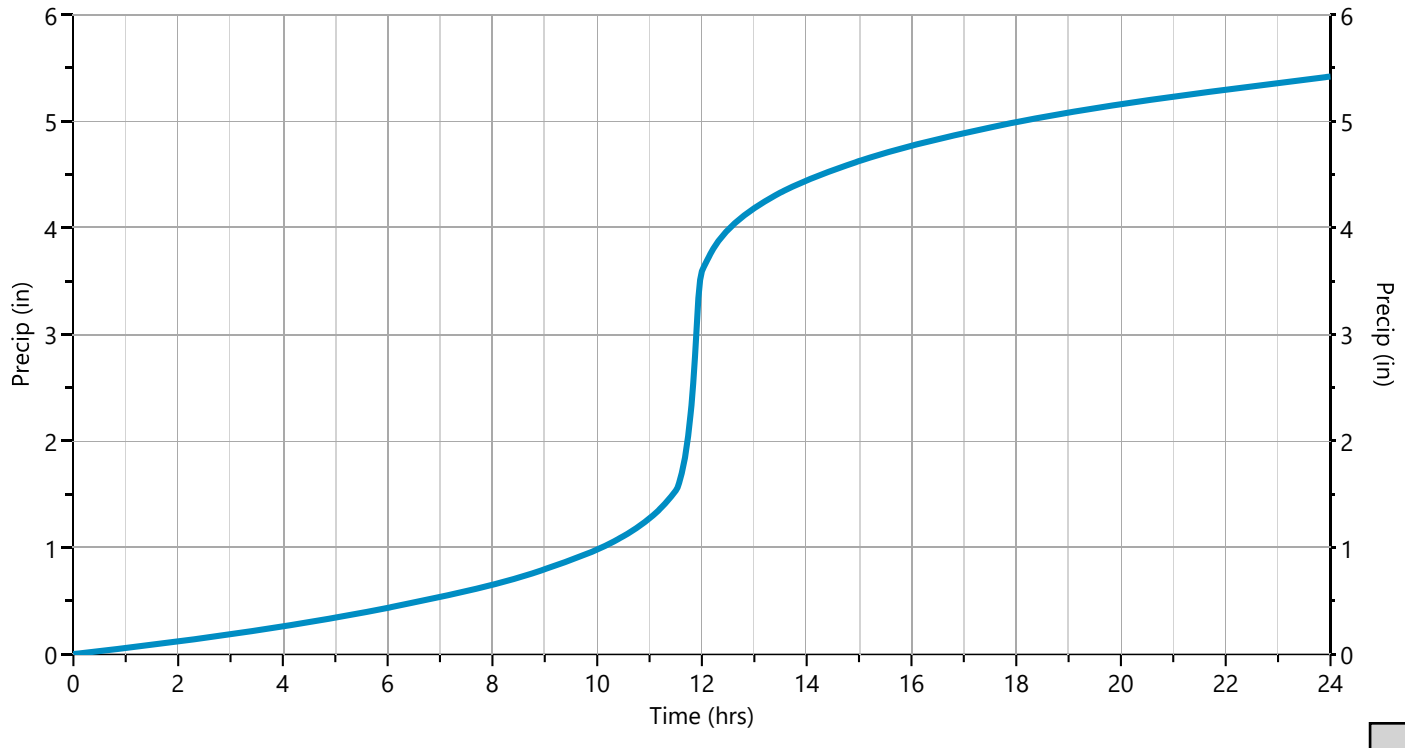
Hydrology Studio v 3.0.0.32

07-25-2024

Storm Distribution: NRCS/SCS - Type II, 24-hr

Storm Duration	Total Rainfall Volume (in)								
	1-yr	2-yr	3-yr	5-yr	✔ 10-yr	25-yr	50-yr	100-yr	
24 hrs	3.26	3.90	0.00	4.74	5.42	6.34	7.07	7.82	

Incremental Rainfall Distribution, 10-yr									
Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)
10.90	0.012165	11.27	0.017344	11.63	0.071592	12.00	0.081450	12.37	0.021897
10.93	0.012406	11.30	0.017922	11.67	0.085853	12.03	0.036234	12.40	0.020524
10.97	0.012647	11.33	0.018500	11.70	0.100114	12.07	0.034255	12.43	0.019151
11.00	0.012888	11.37	0.019078	11.73	0.114374	12.10	0.032881	12.47	0.017778
11.03	0.013295	11.40	0.019657	11.77	0.131282	12.13	0.031508	12.50	0.016404
11.07	0.013875	11.43	0.020235	11.80	0.168293	12.17	0.030135	12.53	0.015563
11.10	0.014453	11.47	0.020813	11.83	0.207959	12.20	0.028762	12.57	0.015248
11.13	0.015031	11.50	0.021391	11.87	0.247626	12.23	0.027389	12.60	0.014935
11.17	0.015610	11.53	0.028851	**11.90**	**0.287292**	12.27	0.026016	12.63	0.014622
11.20	0.016188	11.57	0.043071	11.93	0.262180	12.30	0.024643	12.67	0.014308
11.23	0.016766	11.60	0.057332	11.97	0.171723	12.33	0.023270	12.70	0.013996



Hydrograph 25-yr Summary

Hydrology Studio v 3.0.0.32

07-25-2024

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Flow (cfs)	Time to Peak (hrs)	Hydrograph Volume (cuft)	Inflow Hyd(s)	Maximum Elevation (ft)	Maximum Storage (cuft)
1	NRCS Runoff	Pre South of Ditch	55.90	12.03	166,901	----		
2	NRCS Runoff	Pre Ditch	5.824	12.03	15,388	----		
3	NRCS Runoff	Pre North of Ditch	42.81	12.03	120,094	----		
4	NRCS Runoff	Pre Offsite 1	0.085	12.00	303	----		
5	NRCS Runoff	Pre Offsite 2	1.352	12.10	8,731	----		
6	NRCS Runoff	Pre Offsite 3	0.013	12.00	46.5	----		
7	NRCS Runoff	Post Offsite 4	0.327	12.00	1,163	----		
8	Junction	Pre Offsite Combined	1.492	12.10	10,243	4, 5, 6, 7		
9	Junction	Pre Total	104.8	12.03	303,547	1, 2, 3, 7		
11	NRCS Runoff	Post South of Ditch	56.03	12.03	167,544	----		
12	NRCS Runoff	Post Ditch	6.199	12.03	16,307	----		
13	NRCS Runoff	Post North to Pond 1	14.56	12.00	37,809	----		
14	Pond Route	Post Pond 1 Discharge	5.536	12.20	37,782	13	629.87	12,387
15	NRCS Runoff	Post Bypass	19.24	12.00	50,004	----		
16	NRCS Runoff	Post Offsite 1	0.085	12.00	303	----		
17	NRCS Runoff	Post Offsite 2	1.352	12.10	8,731	----		
18	NRCS Runoff	Post Offsite 3	0.013	12.00	46.5	----		
19	NRCS Runoff	Post Offsite 4	0.327	12.00	1,163	----		
20	Junction	Post Offsite Combined	1.492	12.10	10,243	16, 17, 18, 19		
21	NRCS Runoff	Post Culvert 1	0.398	12.00	1,414	----		
22	NRCS Runoff	Post Area Drain 3 (AD3)	0.008	11.93	18.0	----		
23	NRCS Runoff	Post Area Drain 2 (AD2)	1.229	11.97	2,462	----		
24	NRCS Runoff	Post Area Drain 1 (AD1)	3.905	11.93	8,217	----		
25	NRCS Runoff	Post North to Pond 2	7.694	11.93	15,796	----		
26	Pond Route	Post Pond 2 Discharge	0.000	10.10	0.000	25	533.78	11,566
27	Junction	Post North of Ditch	27.47	12.00	99,897	14, 15, 21, 22, 23, 24		
28	Junction	Post Combined	89.79	12.03	293,992	11, 12, 20, 26, 27		

Hydrograph Report

Hydrology Studio v 3.0.0.32

07-25-2024

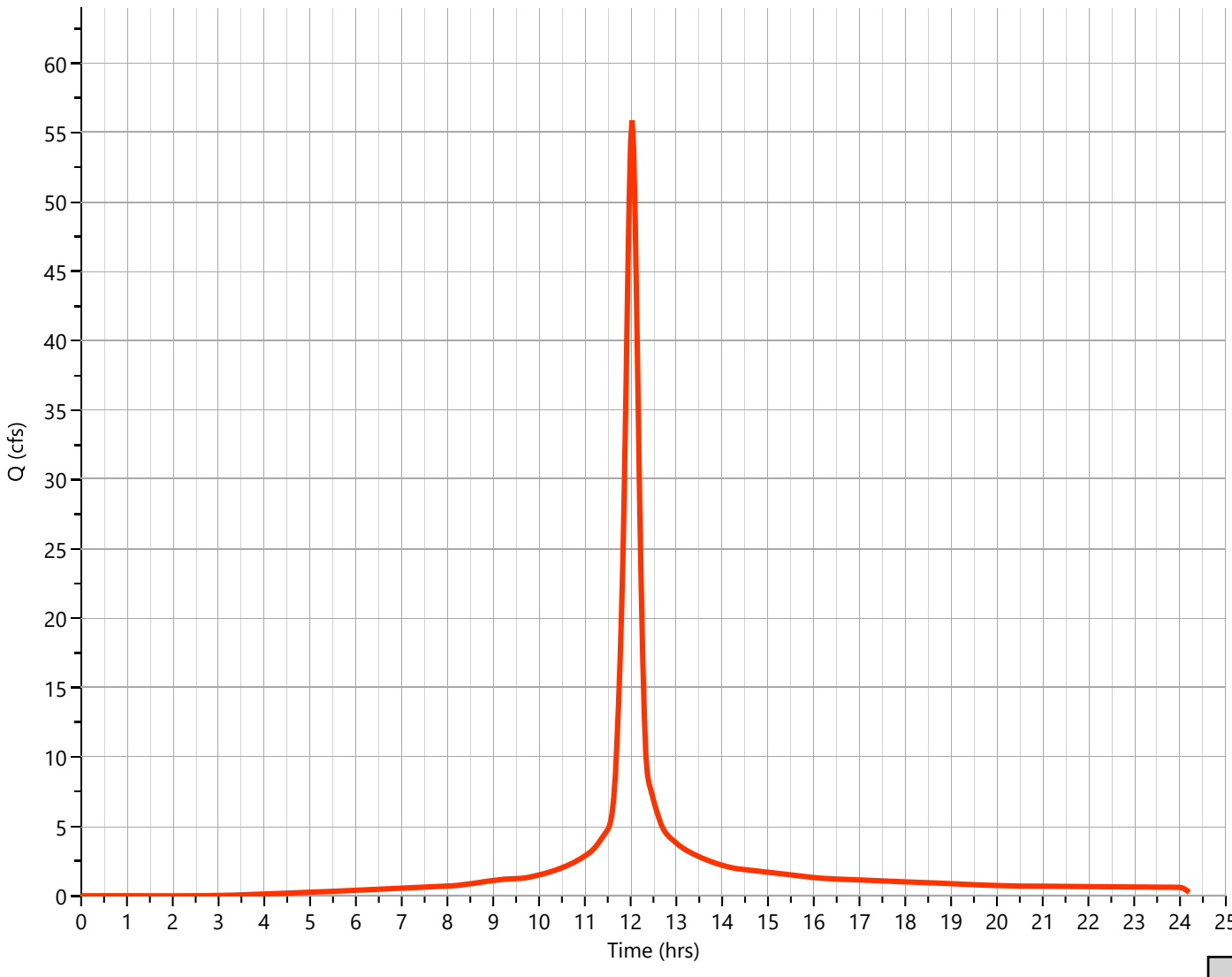
Pre South of Ditch

Hyd. No. 1

Hydrograph Type	= NRCS Runoff	Peak Flow	= 55.90 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 166,901 cuft
Drainage Area	= 8.91 ac	Curve Number	= 91.02*
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 15.27 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
8.69	91	No Rating (Row Crops)
0.2	91	Gravel
0.02	98	Concrete
8.91	**91**	Weighted CN Method Employed



Hydrograph Report

Hydrology Studio v 3.0.0.32

07-25-2024

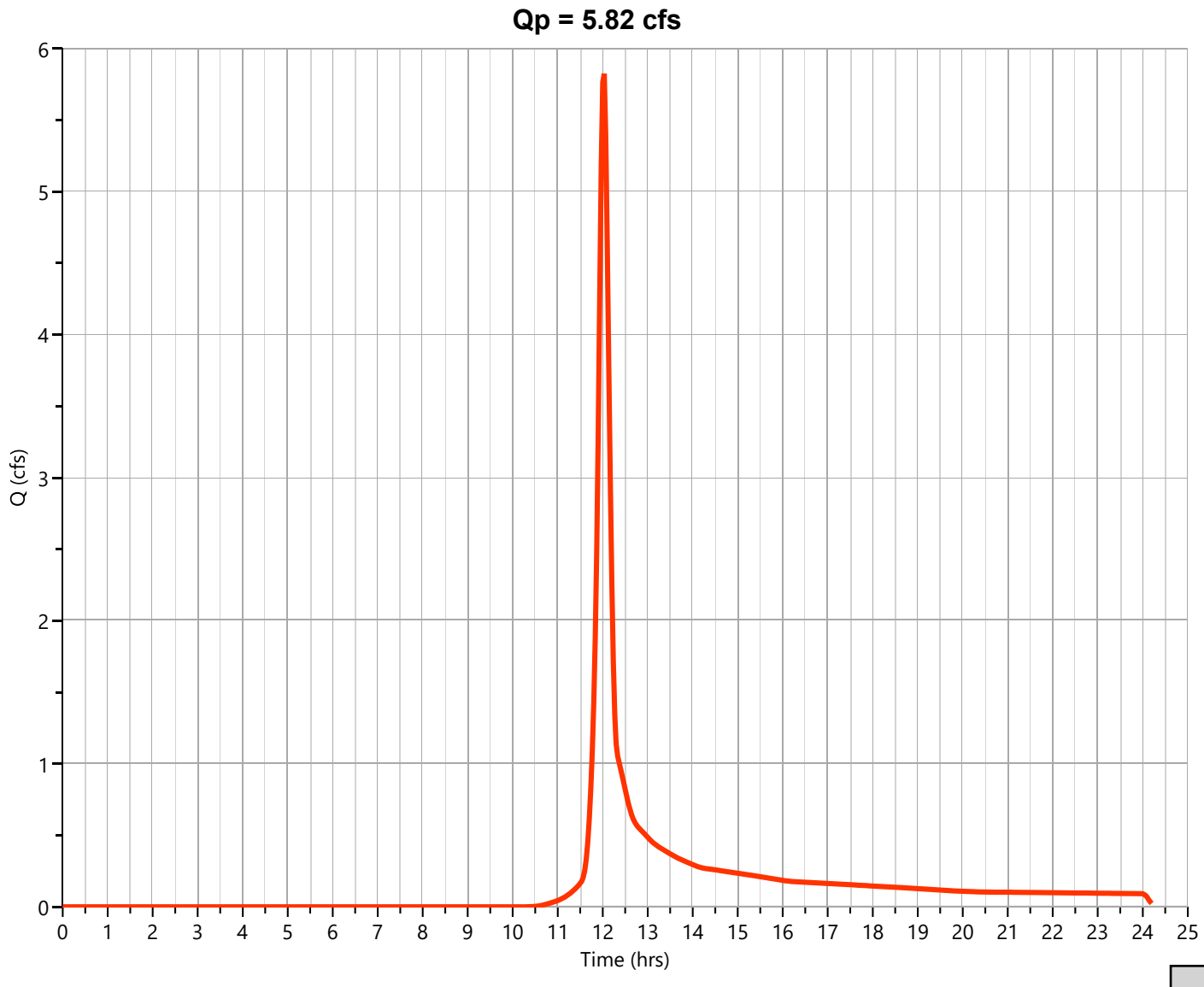
Pre Ditch

Hyd. No. 2

Hydrograph Type	= NRCS Runoff	Peak Flow	= 5.824 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 15,388 cuft
Drainage Area	= 1.79 ac	Curve Number	= 61.67*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
1.75	61	Ditch (inside buffer)
0.04	91	Gravel
1.79	**62**	Weighted CN Method Employed



Hydrograph Report

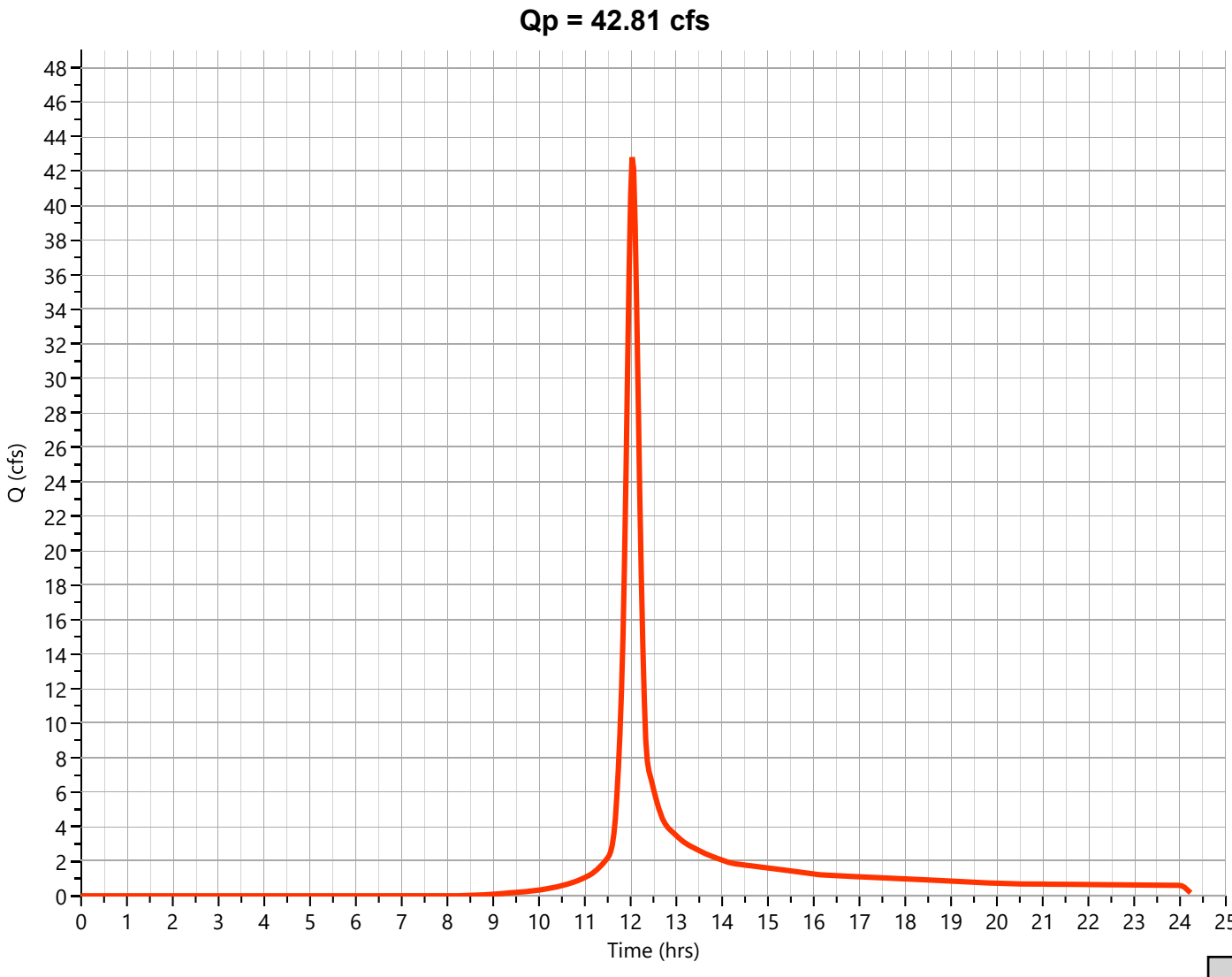
Hydrology Studio v 3.0.0.32 07-25-2024

Pre North of Ditch Hyd. No. 3

Hydrograph Type	= NRCS Runoff	Peak Flow	= 42.81 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 120,094 cuft
Drainage Area	= 10.55 ac	Curve Number	= 71.42*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
3.945	79	Pervious (C)
3.945	49	Pervious (A)
0.89	98	Buildings
1.73	91	Gravel
0.04	98	Concrete
10.55	**71**	Weighted CN Method Employed



Hydrograph Report

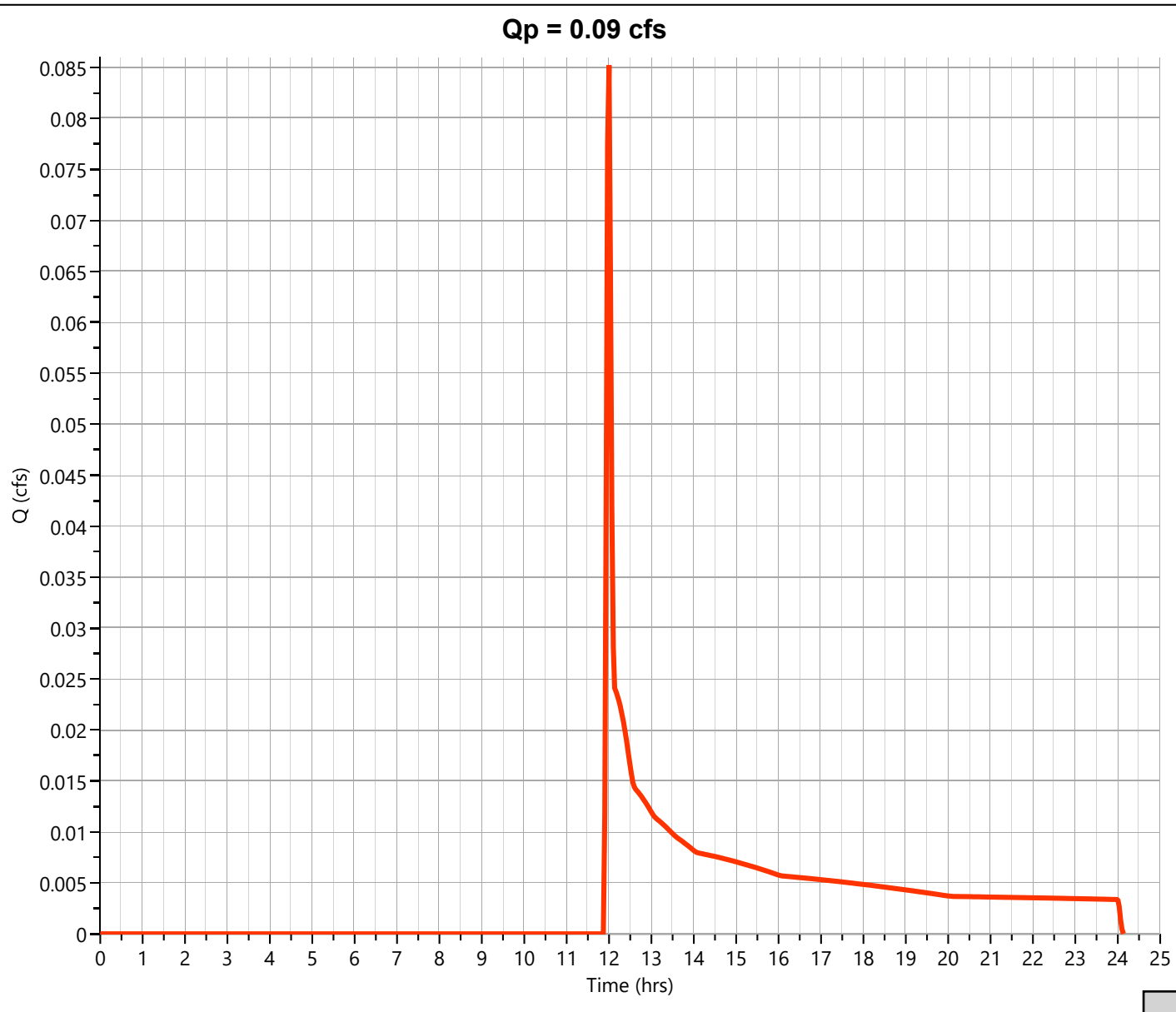
Hydrology Studio v 3.0.0.32 07-25-2024

Pre Offsite 1 Hyd. No. 4

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.085 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Runoff Volume	= 303 cuft
Drainage Area	= 0.163 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.163	39	Offsite
0.163	**39**	Weighted CN Method Employed



Hydrograph Report

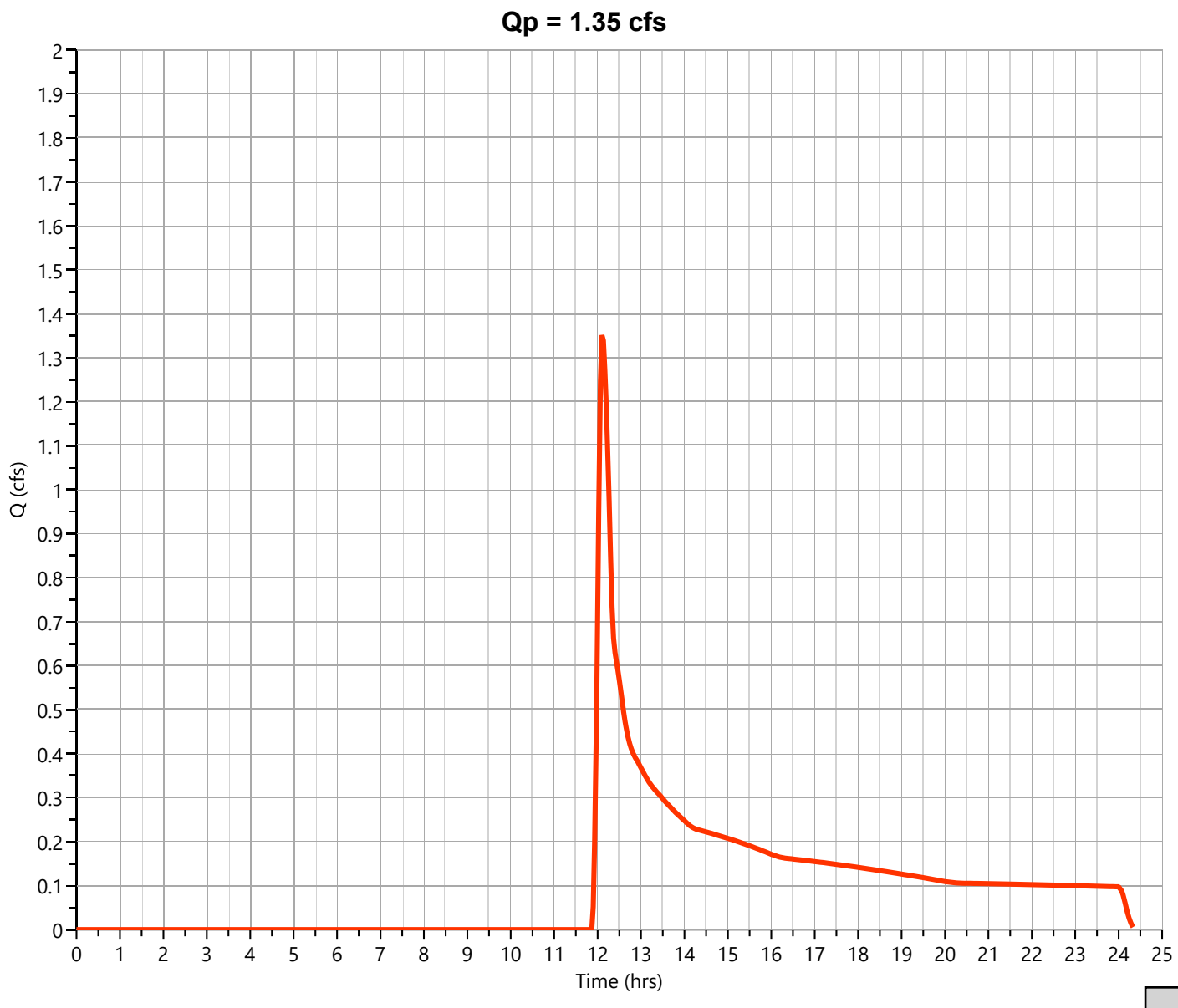
Hydrology Studio v 3.0.0.32 07-25-2024

Pre Offsite 2 Hyd. No. 5

Hydrograph Type	= NRCS Runoff	Peak Flow	= 1.352 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.10 hrs
Time Interval	= 2 min	Runoff Volume	= 8,731 cuft
Drainage Area	= 4.518 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
4.518	39	Offsite
4.518	**39**	Weighted CN Method Employed



Hydrograph Report

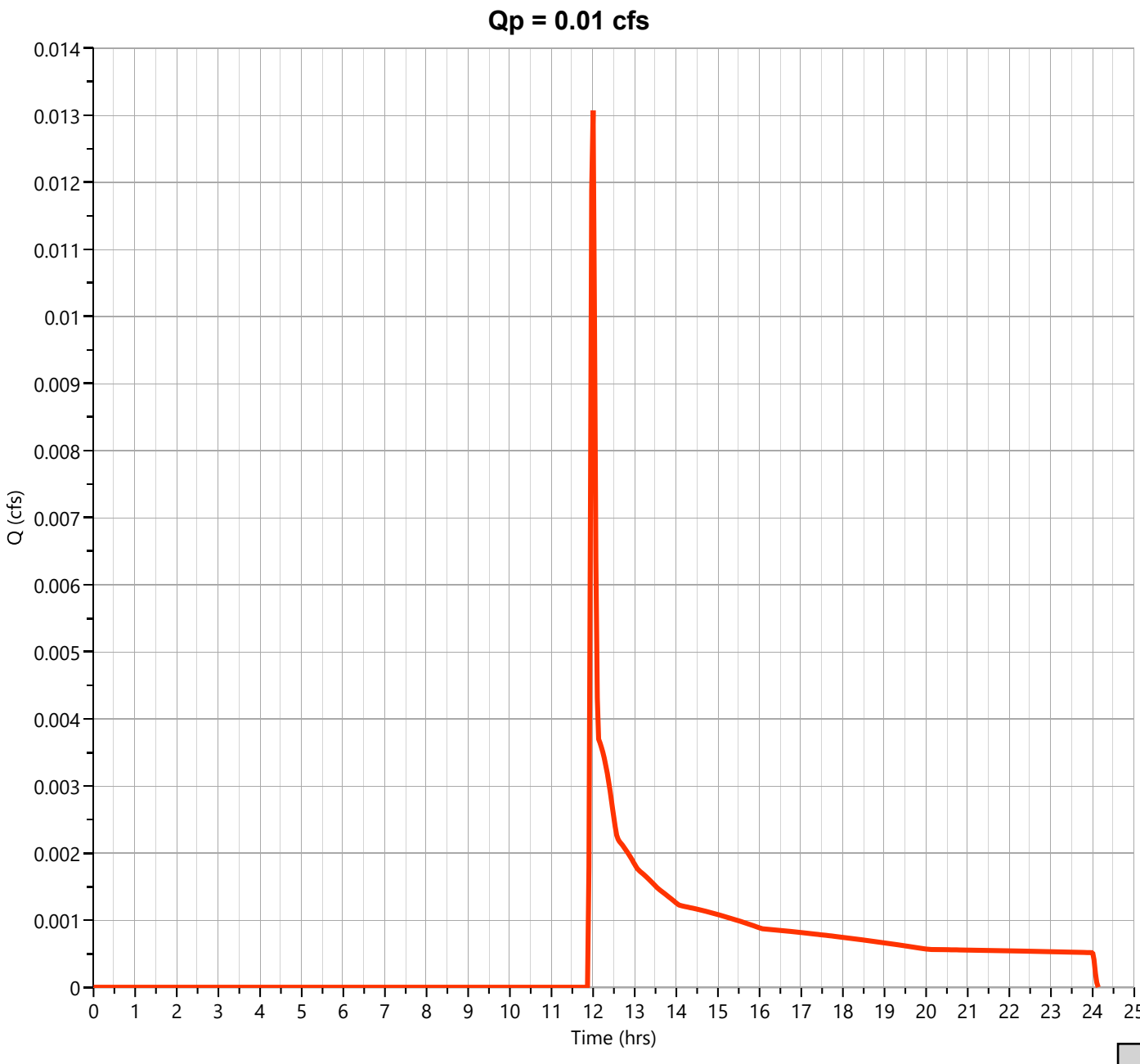
Hydrology Studio v 3.0.0.32

07-25-2024

Pre Offsite 3

Hyd. No. 6

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.013 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Runoff Volume	= 46.5 cuft
Drainage Area	= 0.025 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484



Hydrograph Report

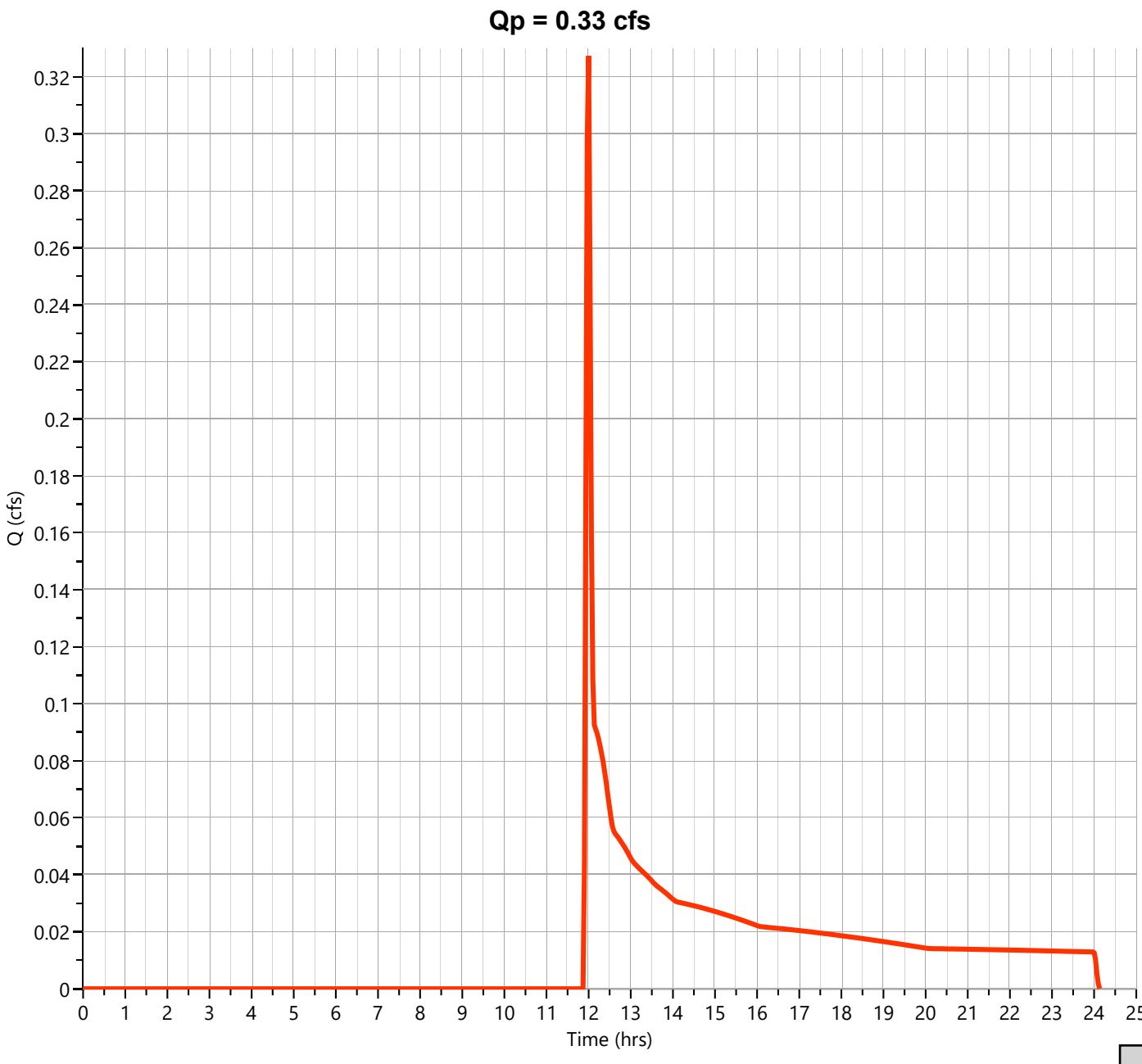
Hydrology Studio v 3.0.0.32

07-25-2024

Post Offsite 4

Hyd. No. 7

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.327 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Runoff Volume	= 1,163 cuft
Drainage Area	= 0.626 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

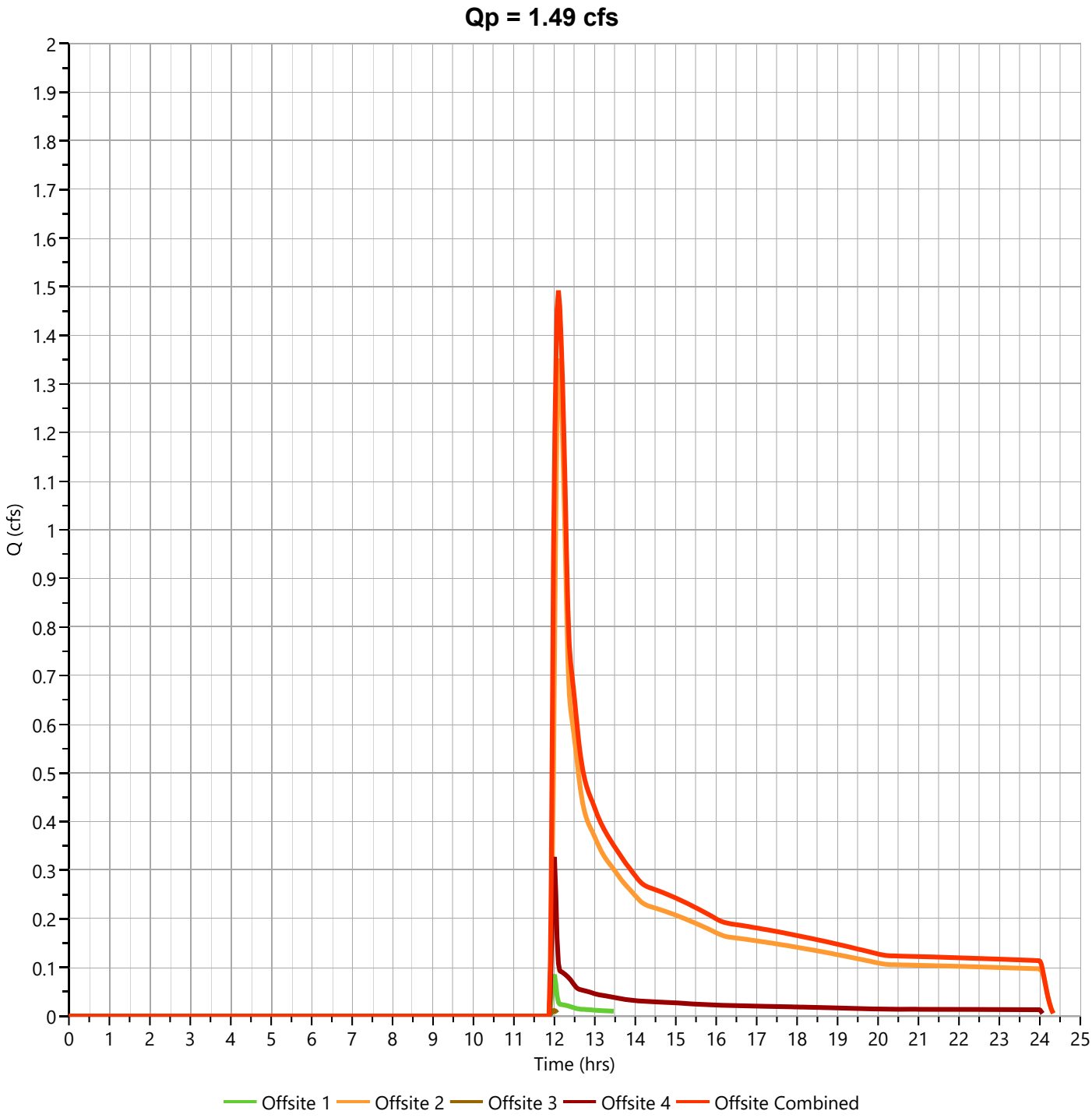


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Pre Offsite Combined Hyd. No. 8

Hydrograph Type	= Junction	Peak Flow	= 1.492 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.10 hrs
Time Interval	= 2 min	Hydrograph Volume	= 10,243 cuft
Inflow Hydrographs	= 4, 5, 6, 7	Total Contrib. Area	= 5.332 ac

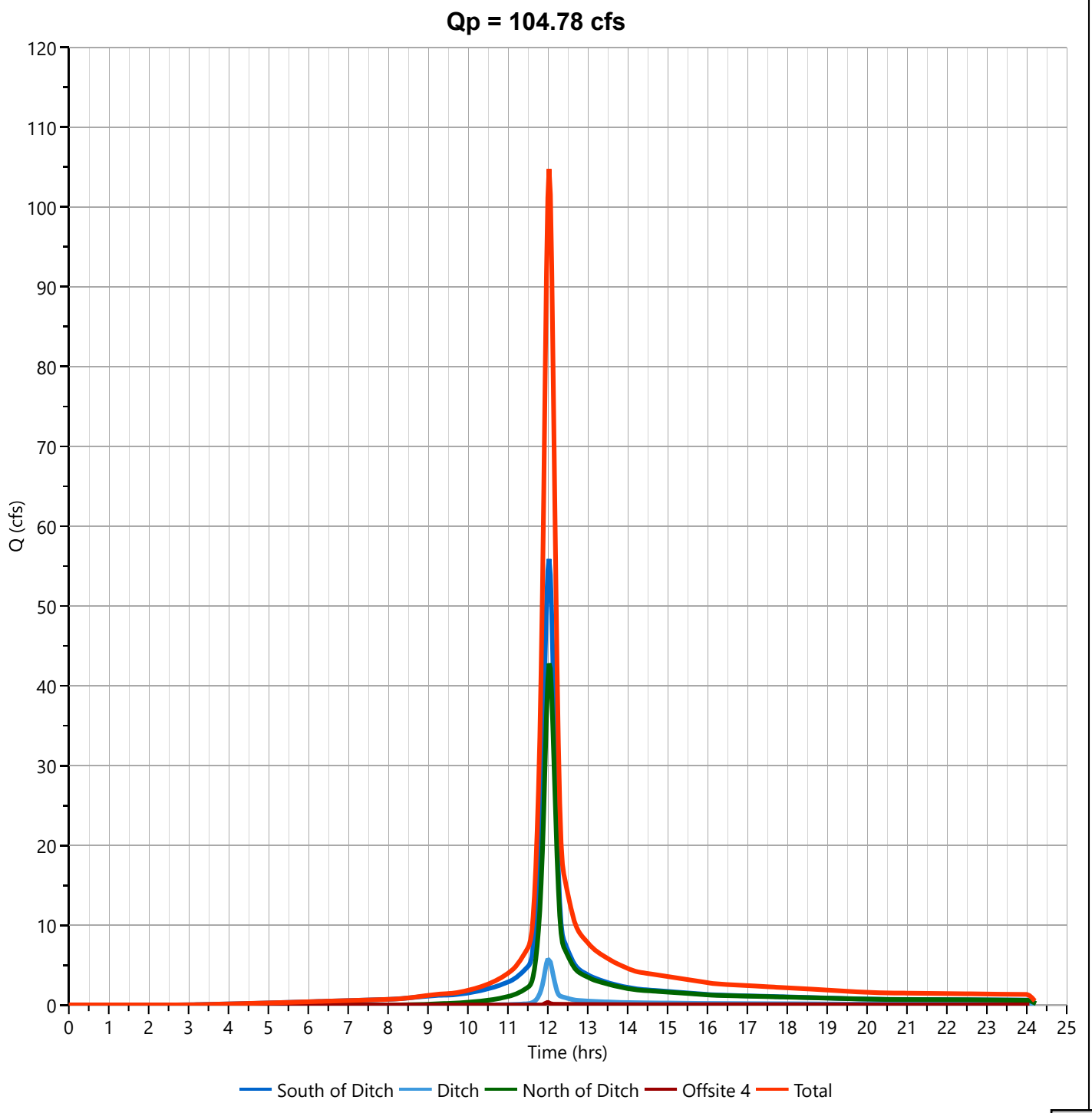


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Pre Total Hyd. No. 9

Hydrograph Type	= Junction	Peak Flow	= 104.8 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Hydrograph Volume	= 303,547 cuft
Inflow Hydrographs	= 1, 2, 3, 7	Total Contrib. Area	= 21.876 ac



Hydrograph Report

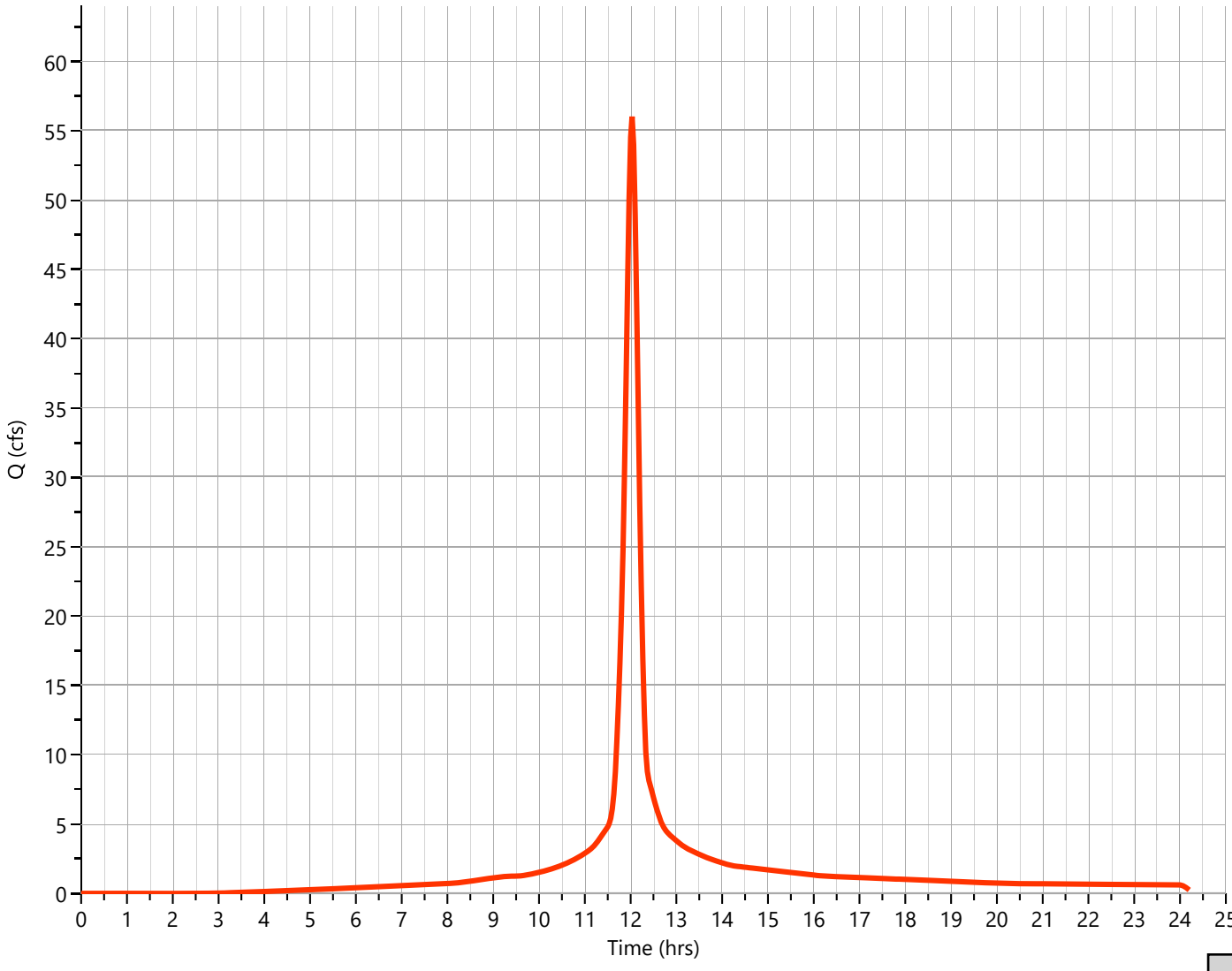
Hydrology Studio v 3.0.0.32 07-25-2024

Post South of Ditch Hyd. No. 11

Hydrograph Type	= NRCS Runoff	Peak Flow	= 56.03 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 167,544 cuft
Drainage Area	= 8.91 ac	Curve Number	= 91.2*
Tc Method	= User	Time of Conc. (Tc)	= 15.27 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
7.83	91	Row Crop
0.82	91	Gravel Drive
0.26	98	Concrete
8.91	**91**	Weighted CN Method Employed



Hydrograph Report

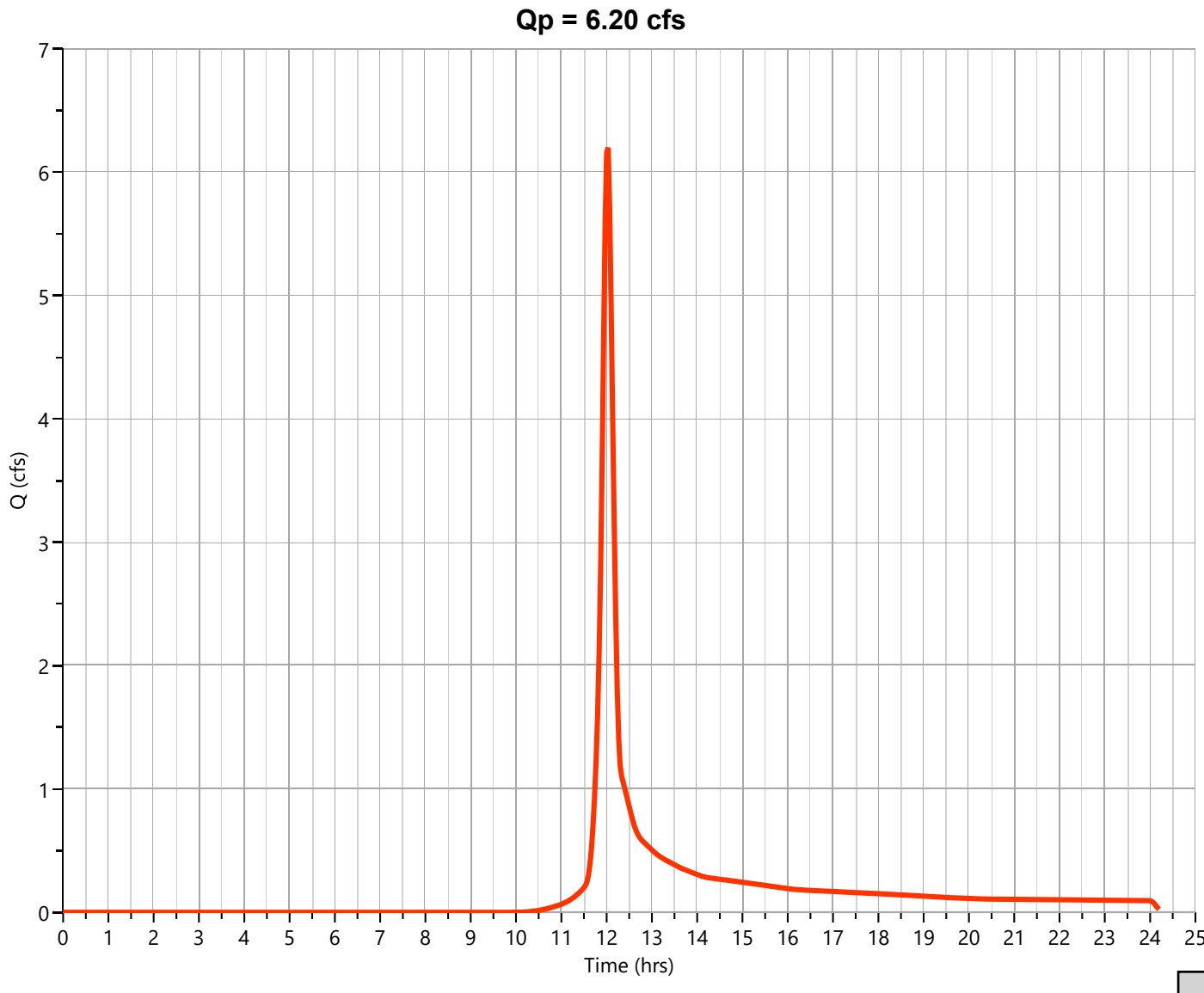
Hydrology Studio v 3.0.0.32 07-25-2024

Post Ditch Hyd. No. 12

Hydrograph Type	= NRCS Runoff	Peak Flow	= 6.199 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 16,307 cuft
Drainage Area	= 1.79 ac	Curve Number	= 63.18*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
1.66	61	Ditch (inside buffer)
0.13	91	Gravel
1.79	**63**	Weighted CN Method Employed



Hydrograph Report

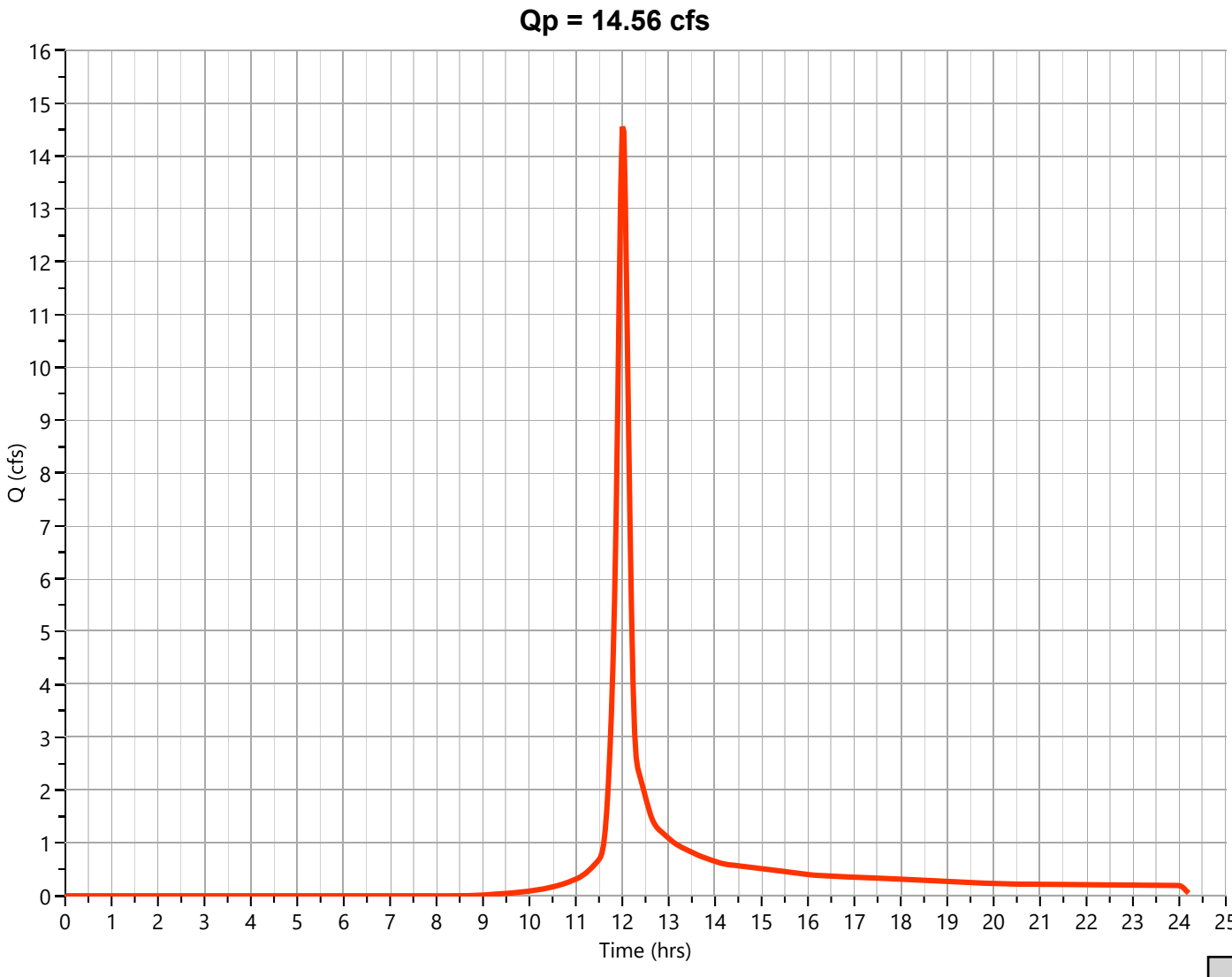
Hydrology Studio v 3.0.0.32 07-25-2024

Post North to Pond 1 Hyd. No. 13

Hydrograph Type	= NRCS Runoff	Peak Flow	= 14.56 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Runoff Volume	= 37,809 cuft
Drainage Area	= 3.282 ac	Curve Number	= 70*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
1.4	49	Pervious (A)
0.936	79	Pervious (C)
0.566	91	Gravel
0.38	98	Buildings
3.282	**70**	Weighted CN Method Employed



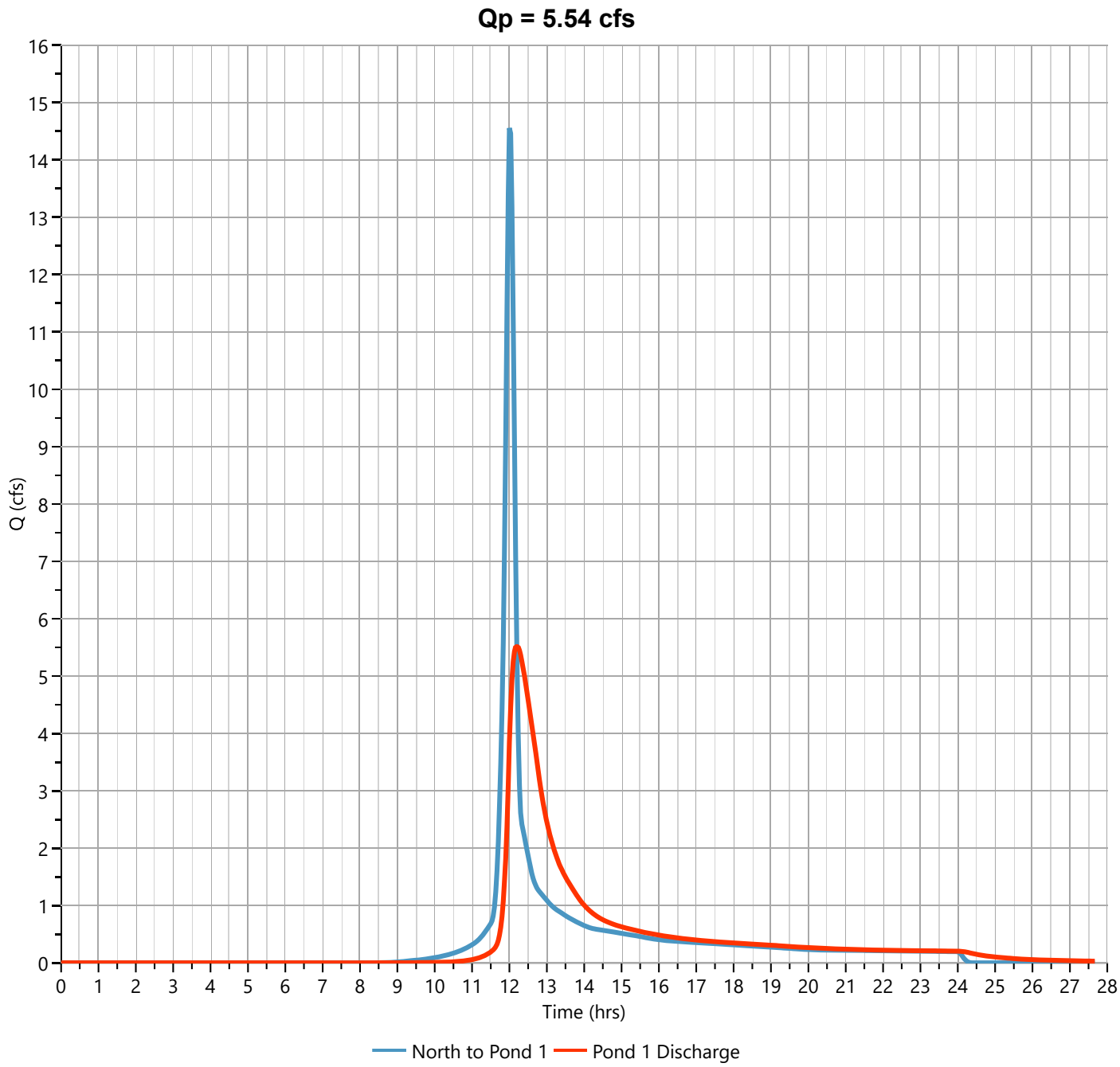
Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Pond 1 Discharge Hyd. No. 14

Hydrograph Type	= Pond Route	Peak Flow	= 5.536 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.20 hrs
Time Interval	= 2 min	Hydrograph Volume	= 37,782 cuft
Inflow Hydrograph	= 13 - North to Pond 1	Max. Elevation	= 629.87 ft
Pond Name	= Pond 1	Max. Storage	= 12,387 cuft

Pond Routing by Storage Indication Method *Center of mass detention time = 47 min*



Hydrograph Report

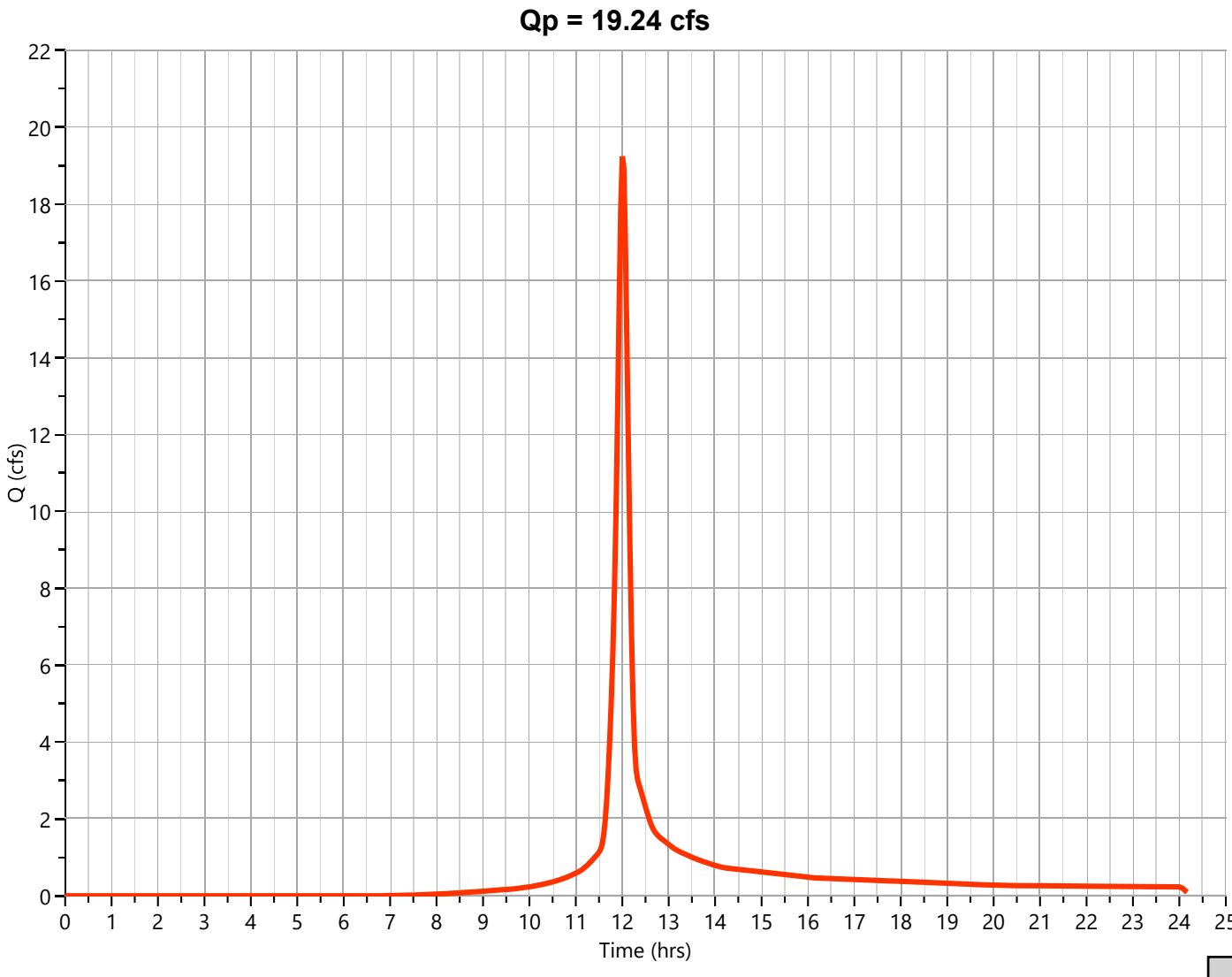
Hydrology Studio v 3.0.0.32 07-25-2024

Post Bypass Hyd. No. 15

Hydrograph Type	= NRCS Runoff	Peak Flow	= 19.24 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Runoff Volume	= 50,004 cuft
Drainage Area	= 3.569 ac	Curve Number	= 76.66*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.95	49	Pervious (A)
1.26	79	Pervious (C)
0.81	91	Gravel
0.549	98	Buildings
3.569	**77**	Weighted CN Method Employed



Hydrograph Report

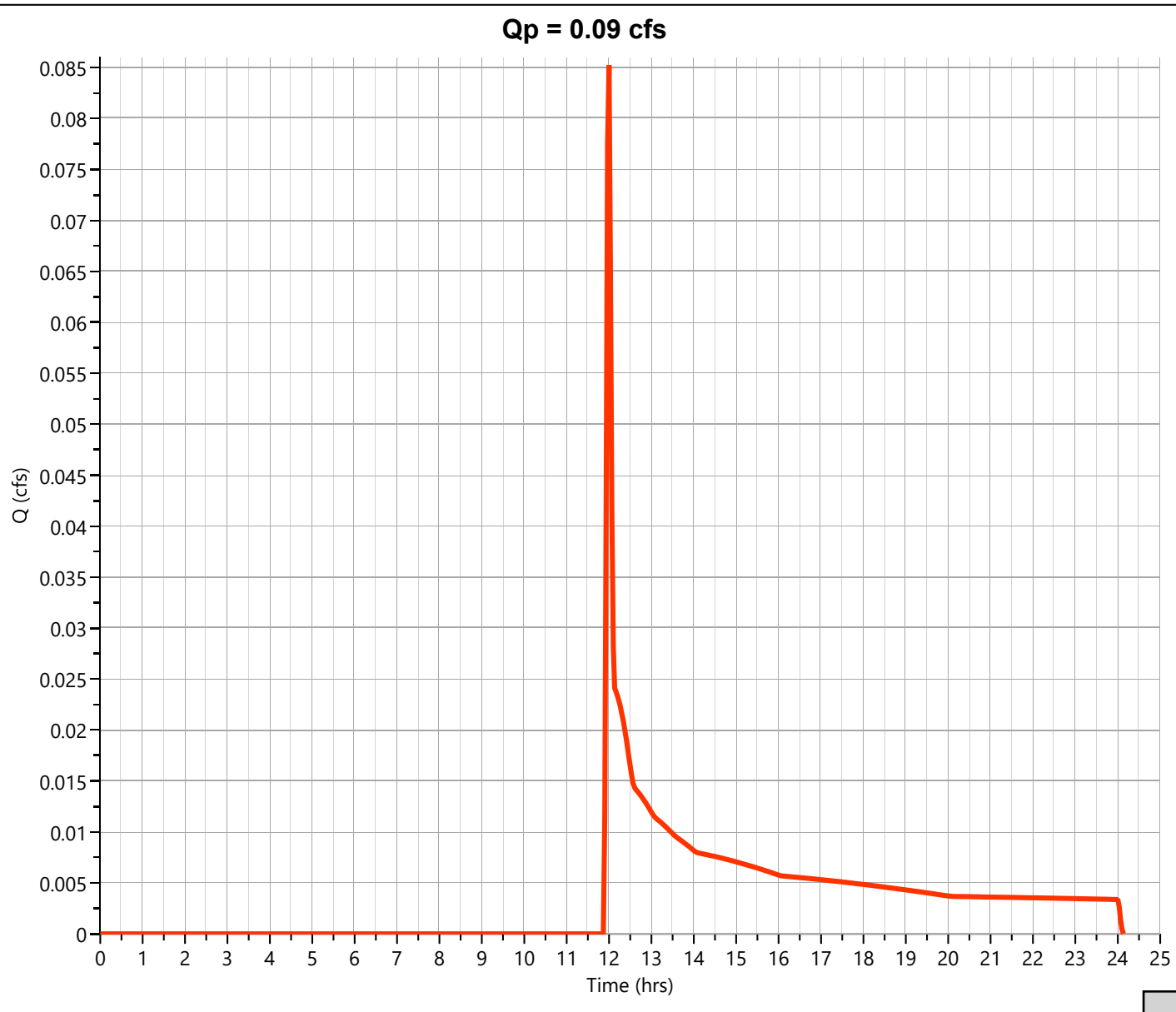
Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 1 Hyd. No. 16

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.085 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Runoff Volume	= 303 cuft
Drainage Area	= 0.163 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.163	39	Offsite
0.163	**39**	Weighted CN Method Employed



Hydrograph Report

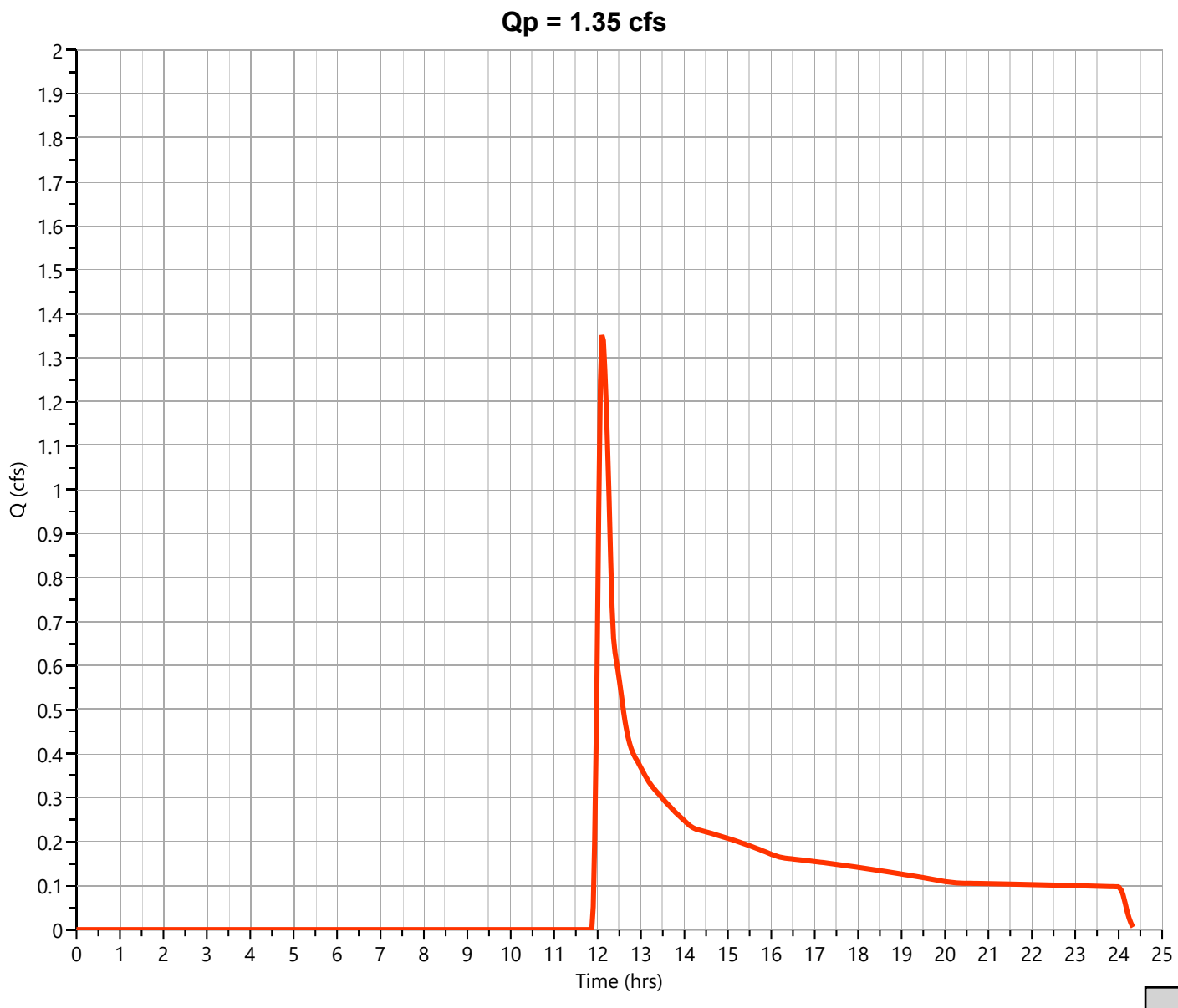
Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 2 Hyd. No. 17

Hydrograph Type	= NRCS Runoff	Peak Flow	= 1.352 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.10 hrs
Time Interval	= 2 min	Runoff Volume	= 8,731 cuft
Drainage Area	= 4.518 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
4.518	39	Offsite
4.518	**39**	Weighted CN Method Employed



Hydrograph Report

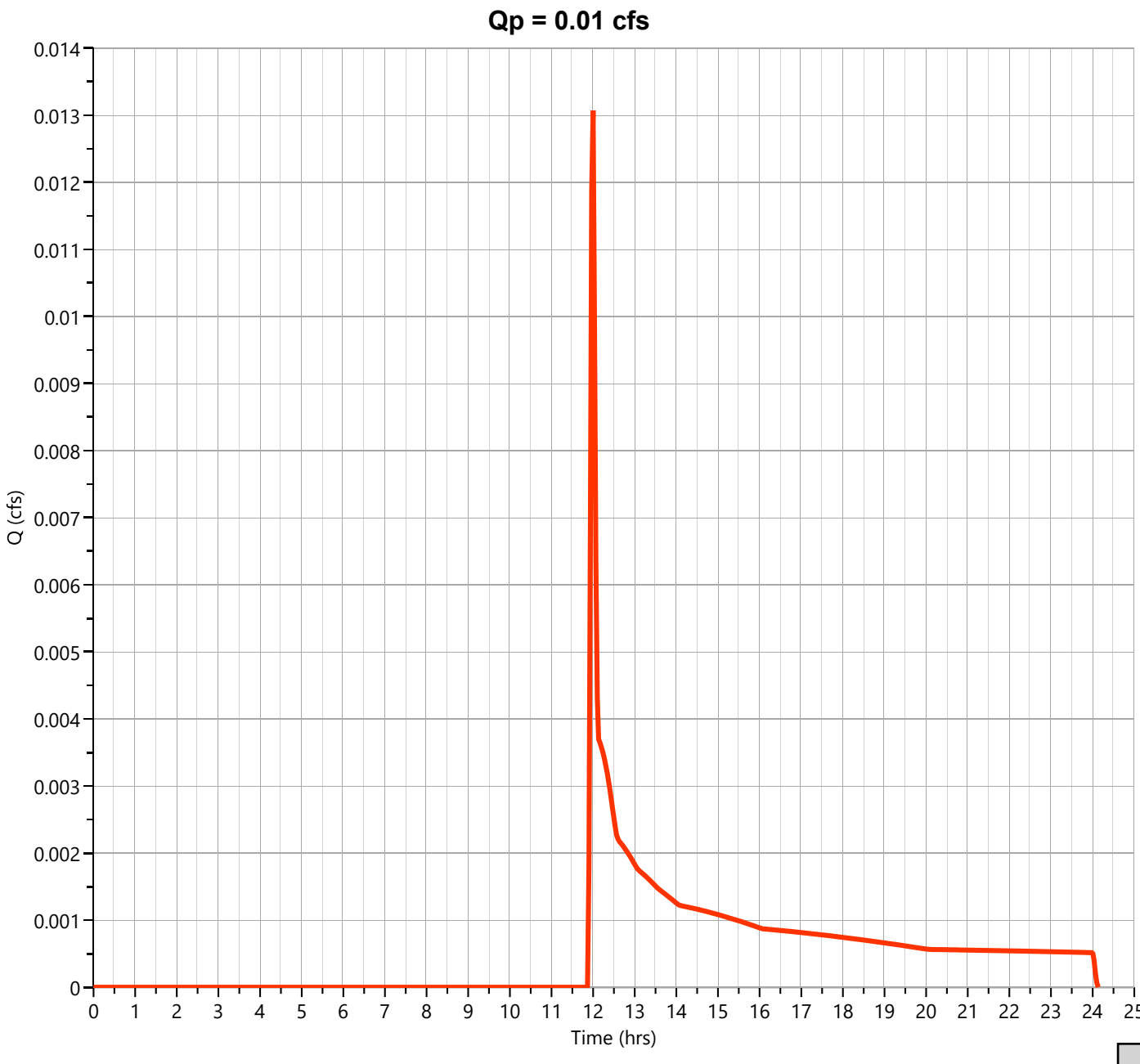
Hydrology Studio v 3.0.0.32

07-25-2024

Post Offsite 3

Hyd. No. 18

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.013 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Runoff Volume	= 46.5 cuft
Drainage Area	= 0.025 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

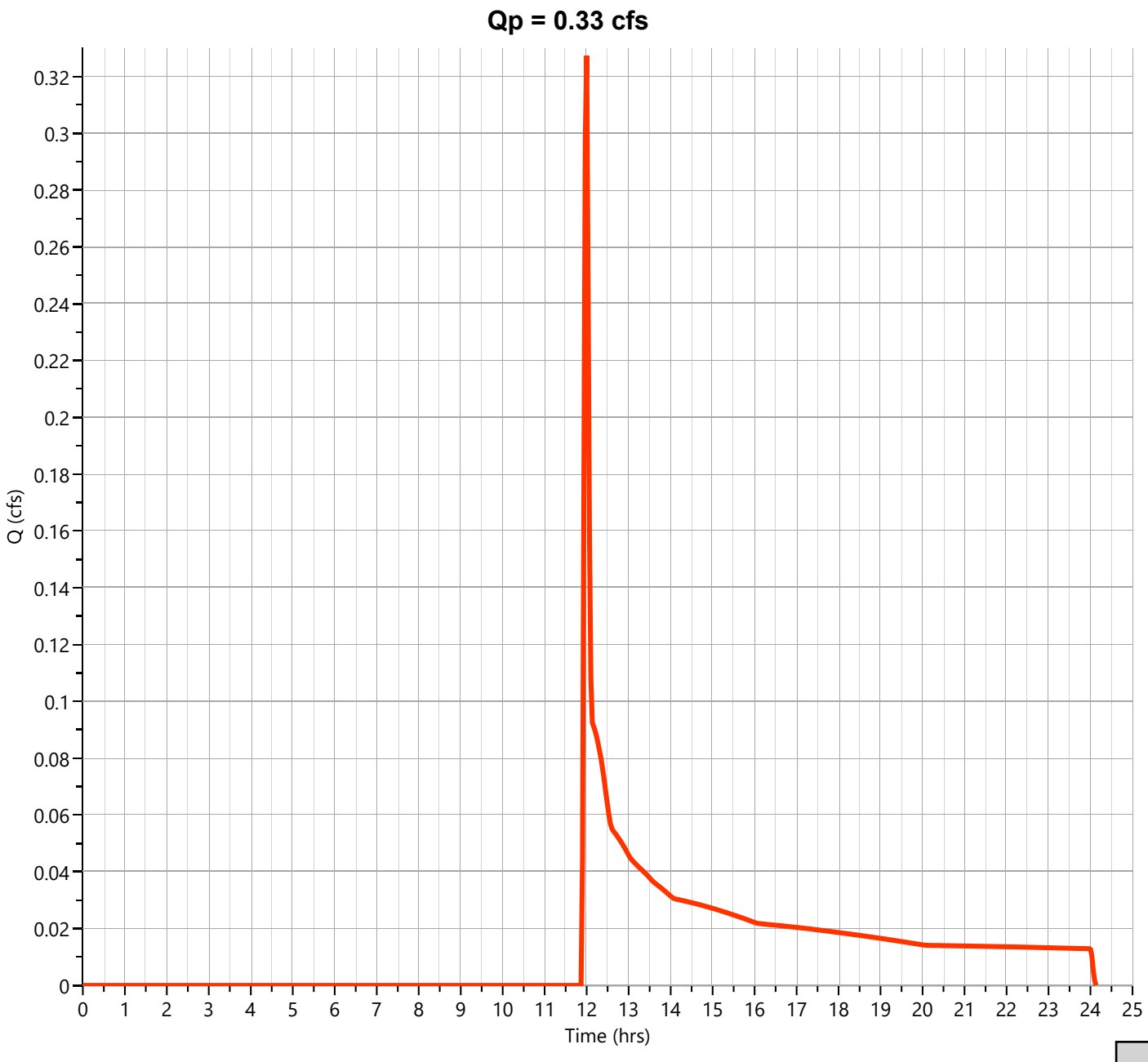


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 4 Hyd. No. 19

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.327 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Runoff Volume	= 1,163 cuft
Drainage Area	= 0.626 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

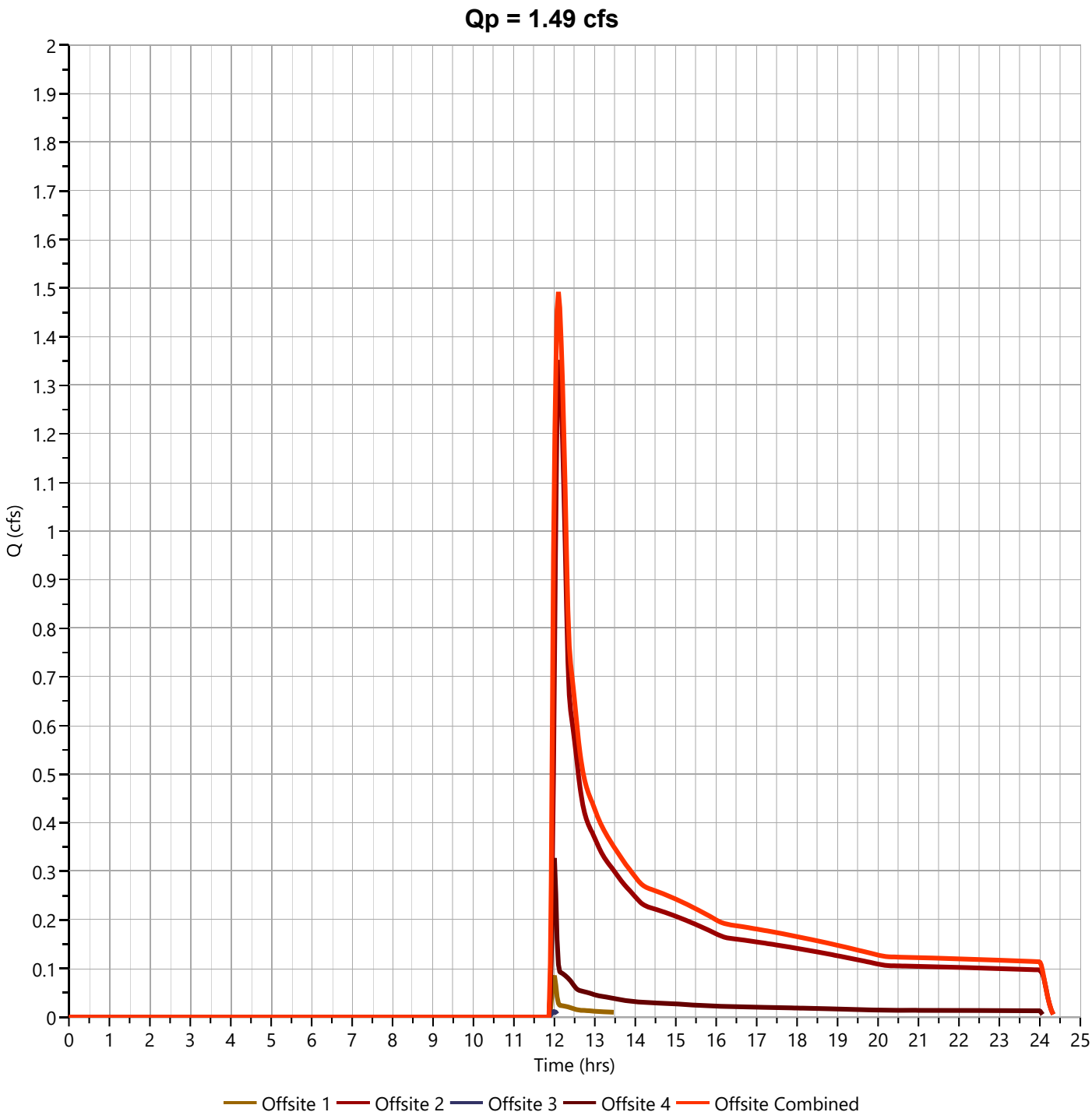


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite Combined Hyd. No. 20

Hydrograph Type	= Junction	Peak Flow	= 1.492 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.10 hrs
Time Interval	= 2 min	Hydrograph Volume	= 10,243 cuft
Inflow Hydrographs	= 16, 17, 18, 19	Total Contrib. Area	= 5.332 ac



Hydrograph Report

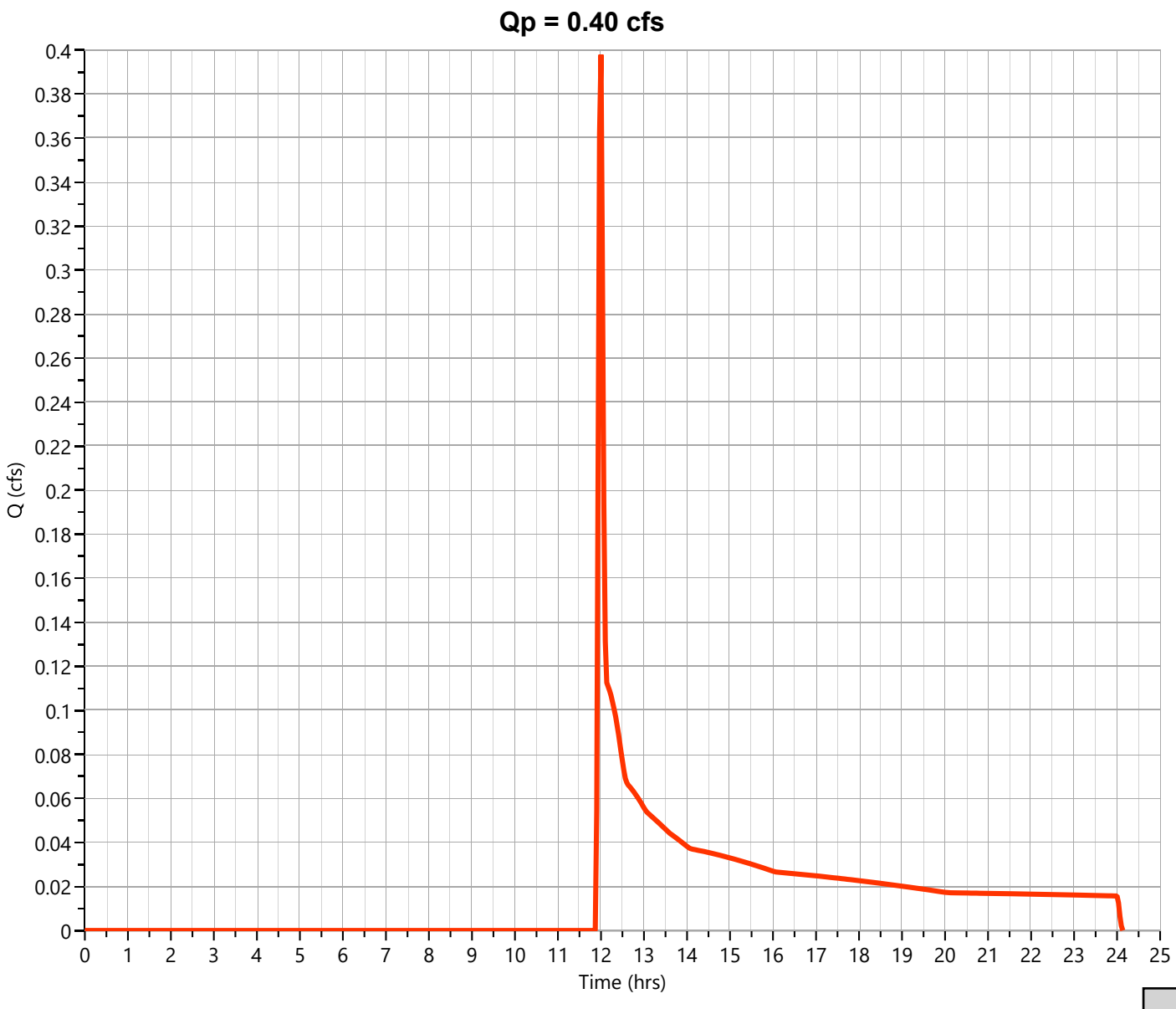
Hydrology Studio v 3.0.0.32 07-25-2024

Post Culvert 1 Hyd. No. 21

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.398 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Runoff Volume	= 1,414 cuft
Drainage Area	= 0.761 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.761	39	Pervious (A)
0.761	**39**	Weighted CN Method Employed



Hydrograph Report

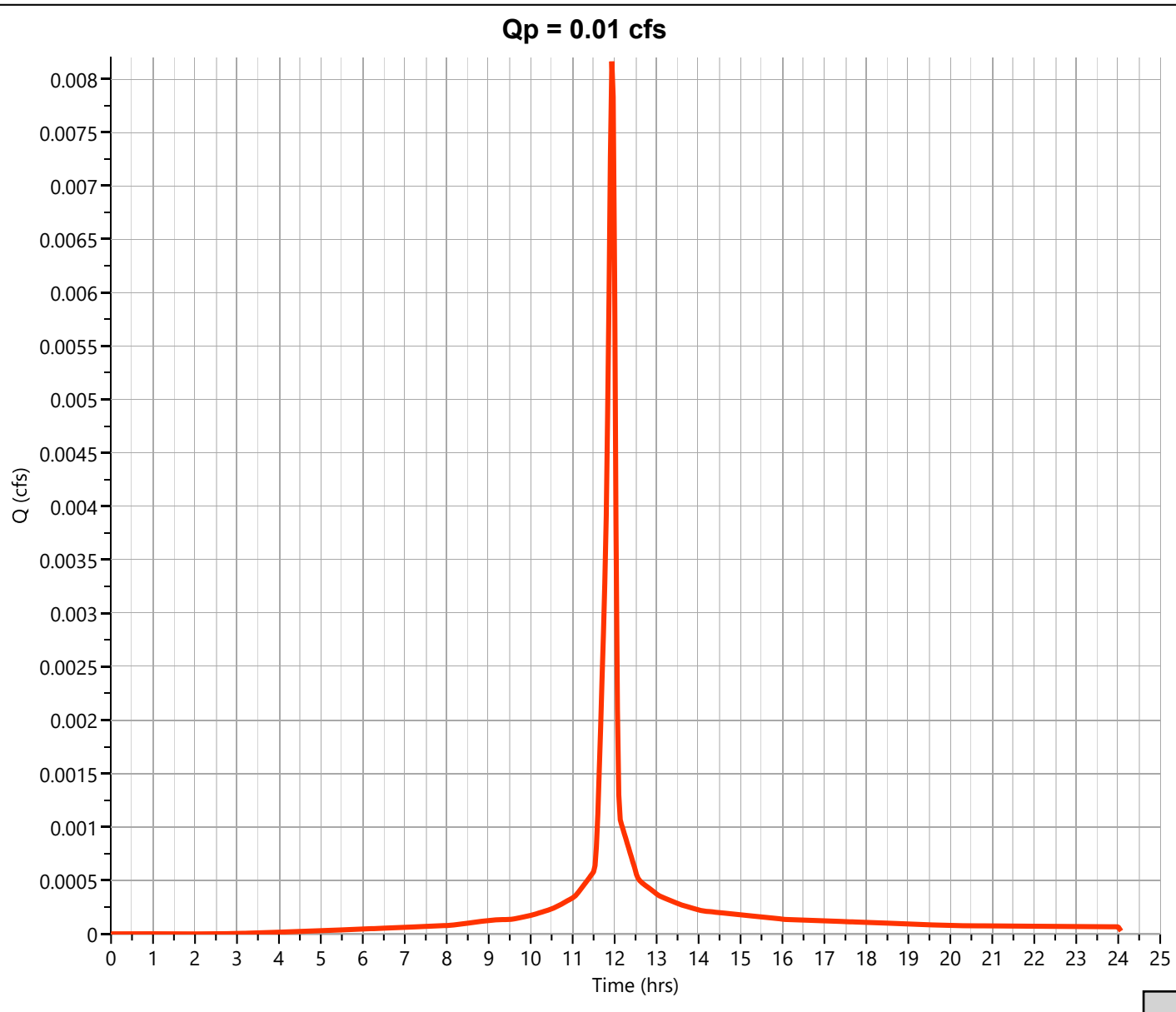
Hydrology Studio v 3.0.0.32 07-25-2024

Post Area Drain 3 (AD3) Hyd. No. 22

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.008 cfs
Storm Frequency	= 25-yr	Time to Peak	= 11.93 hrs
Time Interval	= 2 min	Runoff Volume	= 18.0 cuft
Drainage Area	= 0.001 ac	Curve Number	= 91*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.001	91	Gravel
0.001	**91**	Weighted CN Method Employed



Hydrograph Report

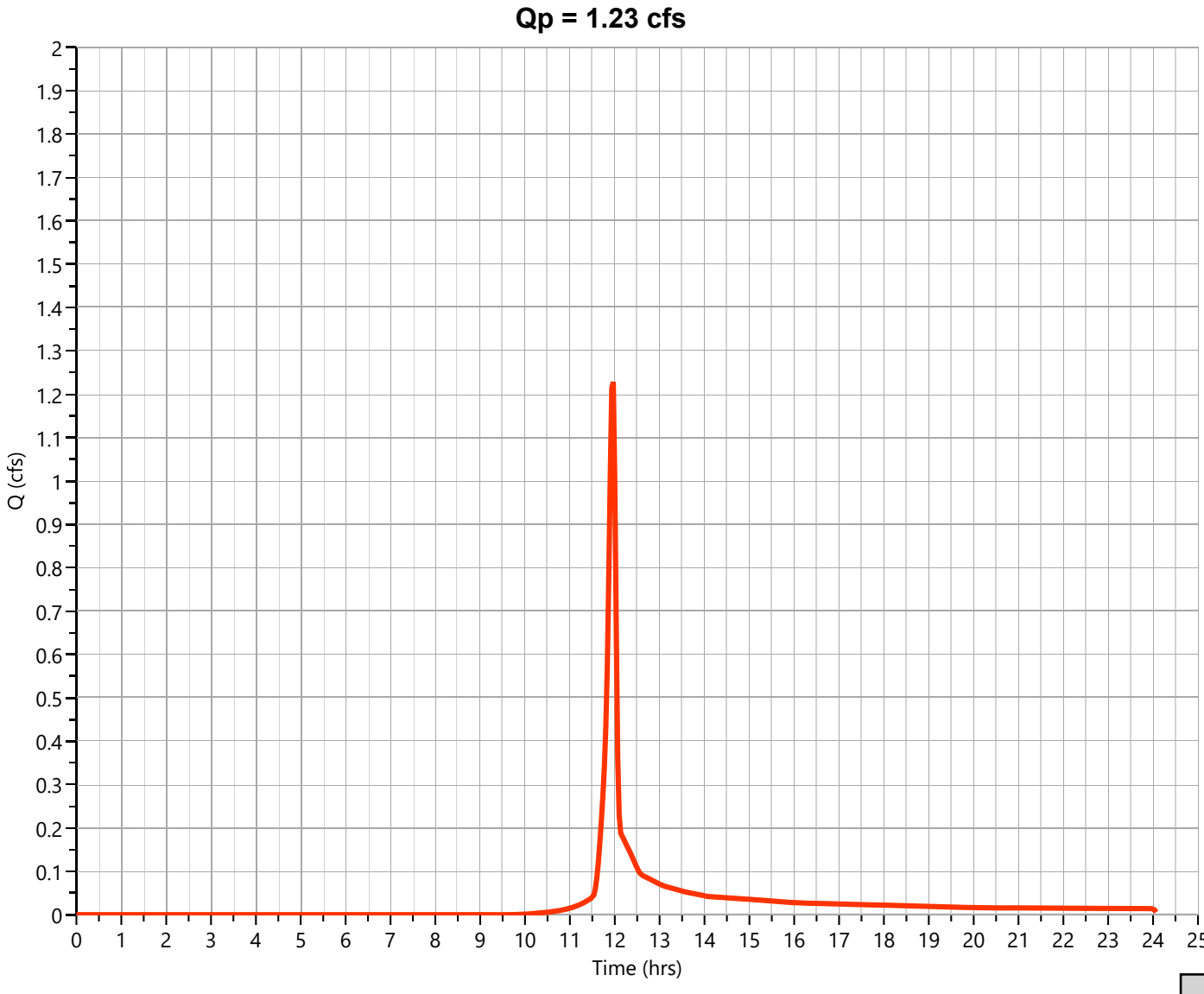
Hydrology Studio v 3.0.0.32 07-25-2024

Post Area Drain 2 (AD2) Hyd. No. 23

Hydrograph Type	= NRCS Runoff	Peak Flow	= 1.229 cfs
Storm Frequency	= 25-yr	Time to Peak	= 11.97 hrs
Time Interval	= 2 min	Runoff Volume	= 2,462 cuft
Drainage Area	= 0.28 ac	Curve Number	= 64.81*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.139	91	Gravel
0.141	39	Grass
0.28	**65**	Weighted CN Method Employed



Hydrograph Report

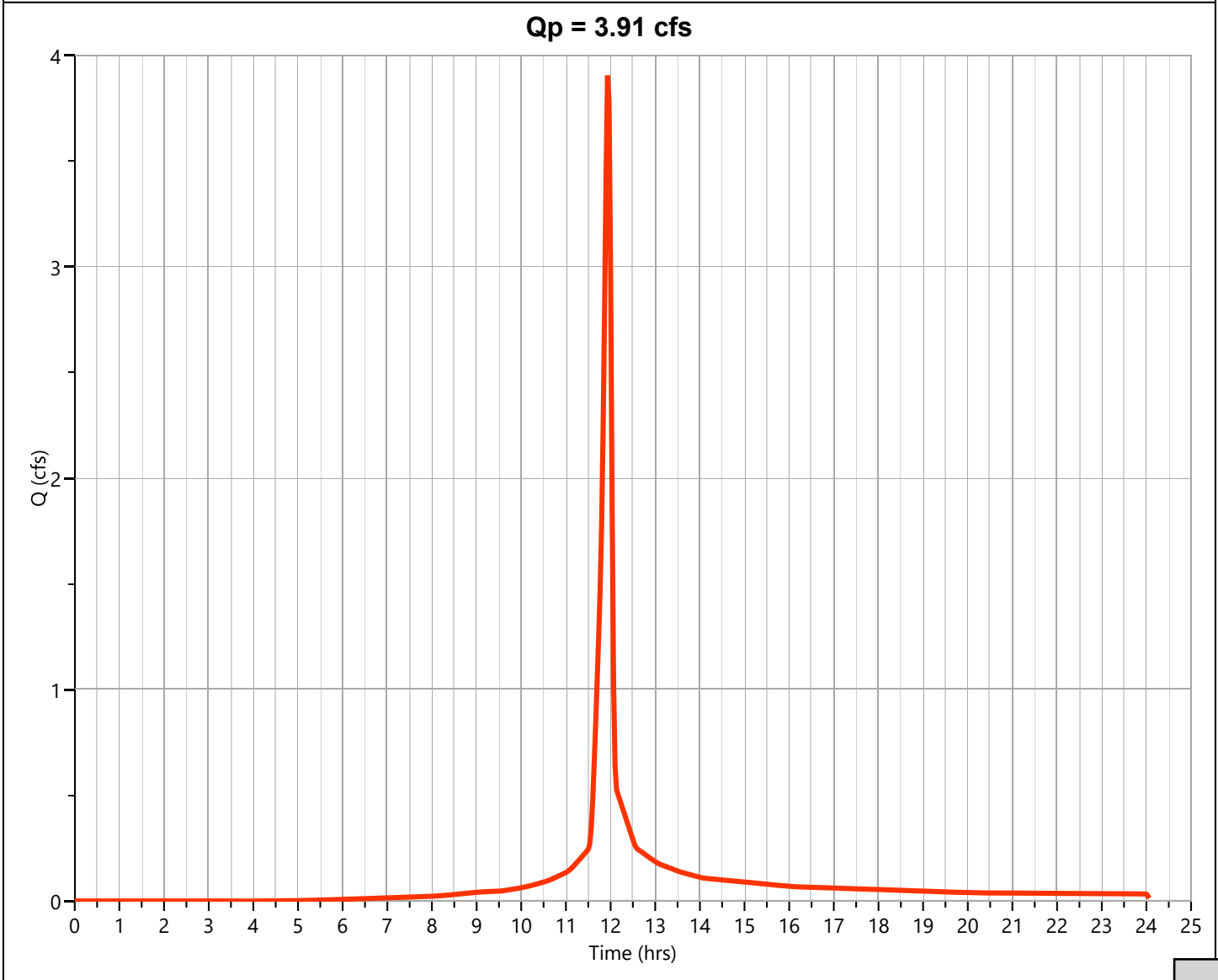
Hydrology Studio v 3.0.0.32 07-25-2024

Post Area Drain 1 (AD1) Hyd. No. 24

Hydrograph Type	= NRCS Runoff	Peak Flow	= 3.905 cfs
Storm Frequency	= 25-yr	Time to Peak	= 11.93 hrs
Time Interval	= 2 min	Runoff Volume	= 8,217 cuft
Drainage Area	= 0.527 ac	Curve Number	= 84.61*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.087	49	Pervious (A)
0.399	91	Gravel
0.041	98	Building
0.527	**85**	Weighted CN Method Employed



Hydrograph Report

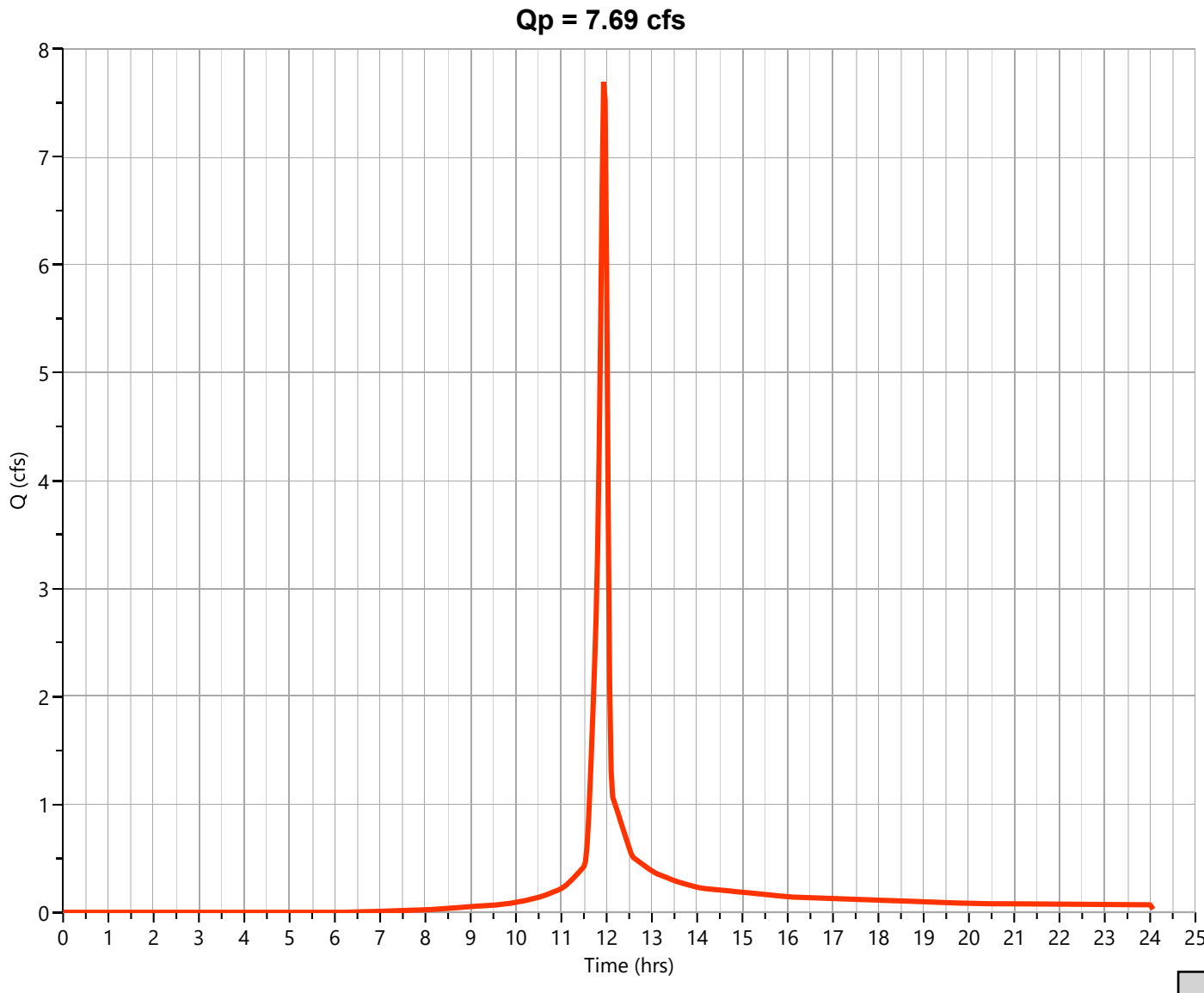
Hydrology Studio v 3.0.0.32 07-25-2024

Post North to Pond 2 Hyd. No. 25

Hydrograph Type	= NRCS Runoff	Peak Flow	= 7.694 cfs
Storm Frequency	= 25-yr	Time to Peak	= 11.93 hrs
Time Interval	= 2 min	Runoff Volume	= 15,796 cuft
Drainage Area	= 1.16 ac	Curve Number	= 79.16*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 6.34 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.618	91	Gravel
0.245	98	Bldg/Concrete
0.297	39	Grass
1.16	**79**	Weighted CN Method Employed



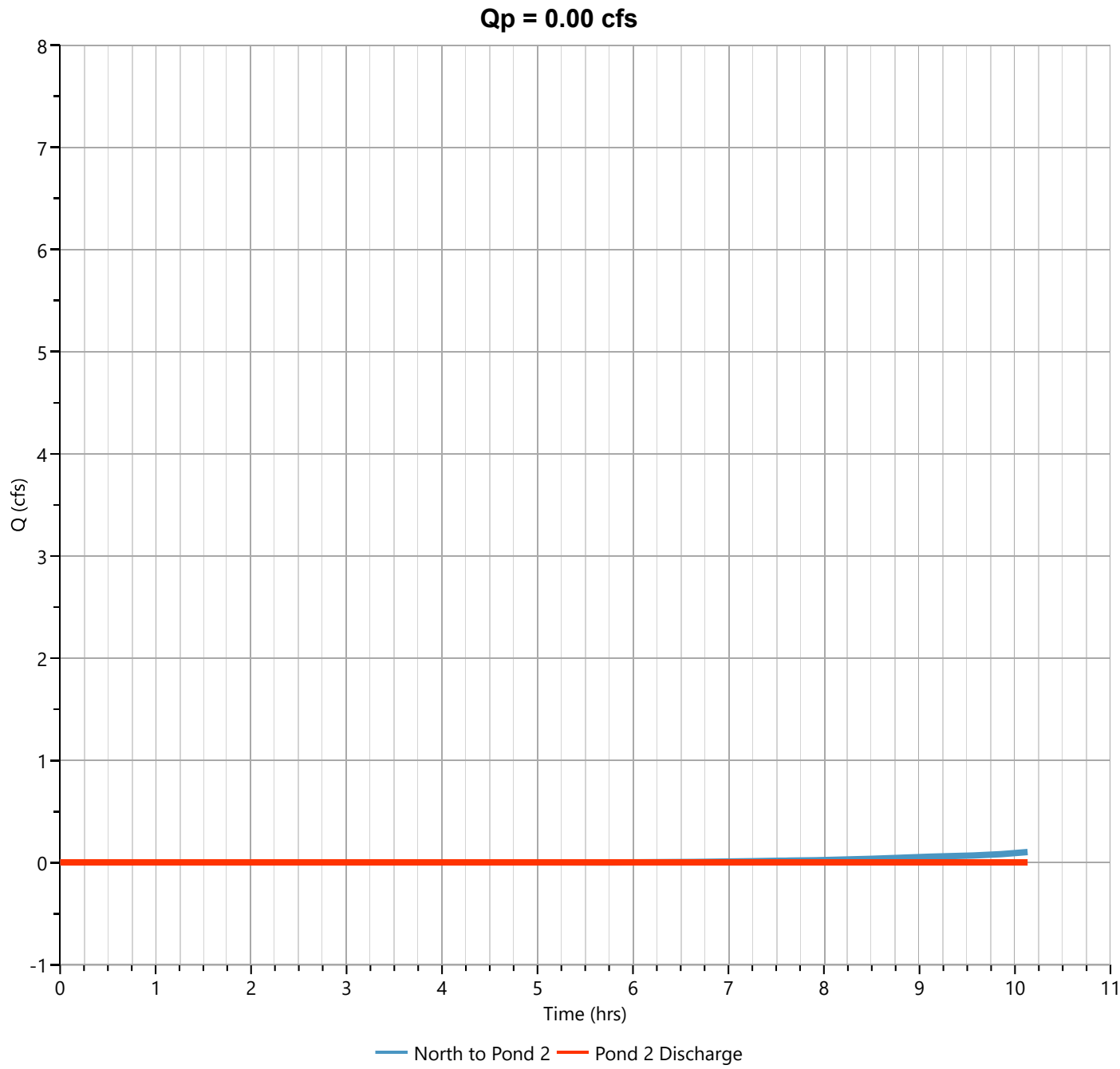
Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Pond 2 Discharge Hyd. No. 26

Hydrograph Type	= Pond Route	Peak Flow	= 0.000 cfs
Storm Frequency	= 25-yr	Time to Peak	= 10.10 hrs
Time Interval	= 2 min	Hydrograph Volume	= 0.000 cuft
Inflow Hydrograph	= 25 - North to Pond 2	Max. Elevation	= 533.78 ft
Pond Name	= Pond 2	Max. Storage	= 11,566 cuft

Pond Routing by Storage Indication Method

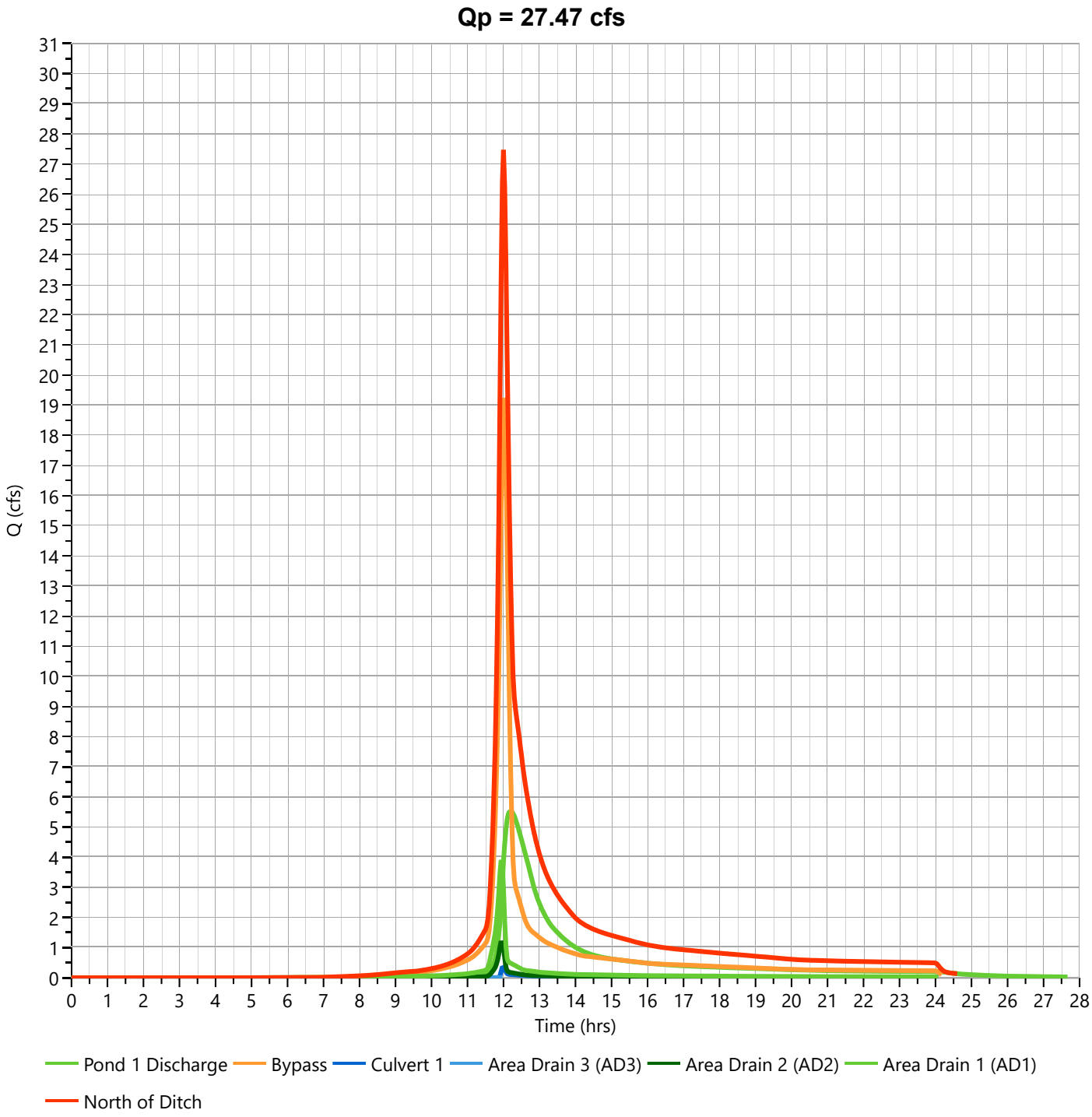


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post North of Ditch Hyd. No. 27

Hydrograph Type	= Junction	Peak Flow	= 27.47 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Hydrograph Volume	= 99,897 cuft
Inflow Hydrographs	= 14, 15, 21, 22, 23, 24	Total Contrib. Area	= 5.138 ac



Hydrograph Report

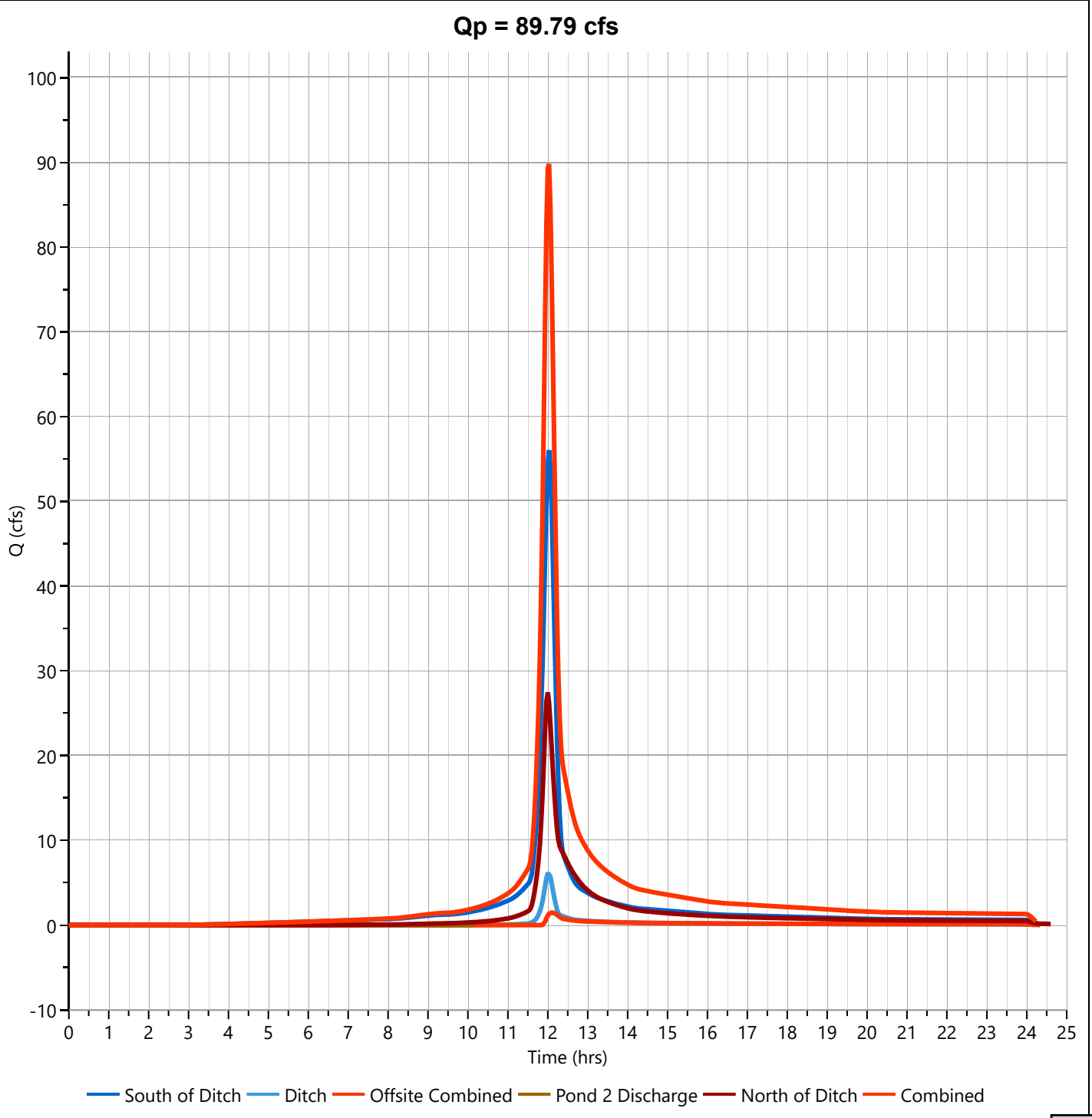
Hydrology Studio v 3.0.0.32

07-25-2024

Post Combined

Hyd. No. 28

Hydrograph Type	= Junction	Peak Flow	= 89.79 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Hydrograph Volume	= 293,992 cuft
Inflow Hydrographs	= 11, 12, 20, 26, 27	Total Contrib. Area	= 21.17 ac



Design Storm Report

Cus

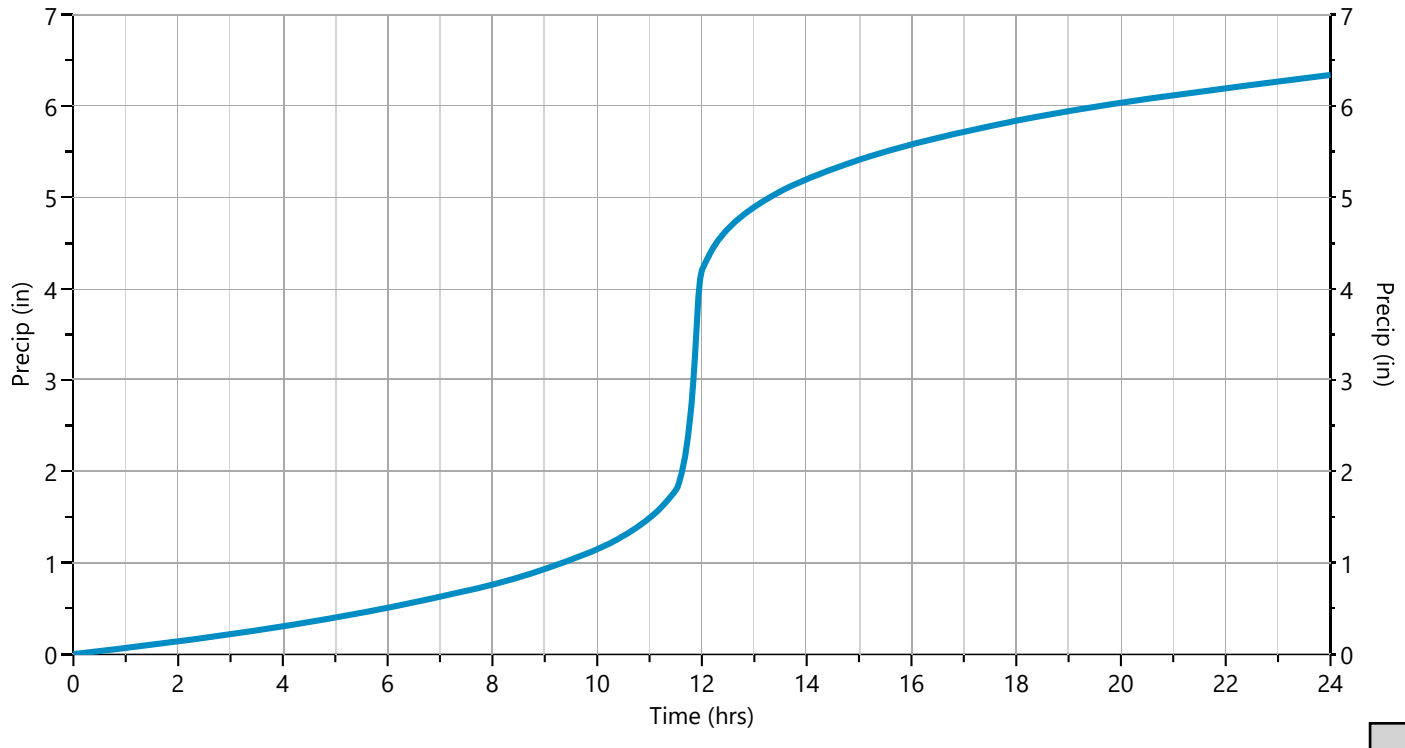
Hydrology Studio v 3.0.0.32

07-25-2024

Storm Distribution: NRCS/SCS - Type II, 24-hr

Storm Duration	Total Rainfall Volume (in)								
	1-yr	2-yr	3-yr	5-yr	10-yr	✔ 25-yr	50-yr	100-yr	
24 hrs	3.26	3.90	0.00	4.74	5.42	6.34	7.07	7.82	

Incremental Rainfall Distribution, 25-yr									
Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)
10.90	0.014230	11.27	0.020288	11.63	0.083745	12.00	0.095275	12.37	0.025614
10.93	0.014511	11.30	0.020964	11.67	0.100426	12.03	0.042385	12.40	0.024007
10.97	0.014793	11.33	0.021641	11.70	0.117107	12.07	0.040069	12.43	0.022401
11.00	0.015075	11.37	0.022317	11.73	0.133788	12.10	0.038463	12.47	0.020795
11.03	0.015552	11.40	0.022993	11.77	0.153566	12.13	0.036856	12.50	0.019189
11.07	0.016230	11.43	0.023669	11.80	0.196860	12.17	0.035251	12.53	0.018204
11.10	0.016907	11.47	0.024346	11.83	0.243259	12.20	0.033644	12.57	0.017837
11.13	0.017583	11.50	0.025022	11.87	0.289658	12.23	0.032038	12.60	0.017470
11.17	0.018259	11.53	0.033748	**11.90**	**0.336058**	12.27	0.030432	12.63	0.017104
11.20	0.018935	11.57	0.050382	11.93	0.306683	12.30	0.028826	12.67	0.016737
11.23	0.019612	11.60	0.067063	11.97	0.200872	12.33	0.027219	12.70	0.016371



Hydrograph 50-yr Summary

Hydrology Studio v 3.0.0.32

07-25-2024

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Flow (cfs)	Time to Peak (hrs)	Hydrograph Volume (cuft)	Inflow Hyd(s)	Maximum Elevation (ft)	Maximum Storage (cuft)
1	NRCS Runoff	Pre South of Ditch	63.01	12.03	189,522	----		
2	NRCS Runoff	Pre Ditch	7.199	12.03	18,893	----		
3	NRCS Runoff	Pre North of Ditch	50.98	12.03	142,898	----		
4	NRCS Runoff	Pre Offsite 1	0.156	11.97	440	----		
5	NRCS Runoff	Pre Offsite 2	2.619	12.10	12,680	----		
6	NRCS Runoff	Pre Offsite 3	0.024	11.97	67.5	----		
7	NRCS Runoff	Post Offsite 4	0.599	11.97	1,689	----		
8	Junction	Pre Offsite Combined	2.863	12.07	14,877	4, 5, 6, 7		
9	Junction	Pre Total	121.6	12.03	353,001	1, 2, 3, 7		
11	NRCS Runoff	Post South of Ditch	63.14	12.03	190,181	----		
12	NRCS Runoff	Post Ditch	7.604	12.03	19,911	----		
13	NRCS Runoff	Post North to Pond 1	17.42	12.00	45,171	----		
14	Pond Route	Post Pond 1 Discharge	6.367	12.20	45,144	13	630.09	15,070
15	NRCS Runoff	Post Bypass	22.51	12.00	58,674	----		
16	NRCS Runoff	Post Offsite 1	0.156	11.97	440	----		
17	NRCS Runoff	Post Offsite 2	2.619	12.10	12,680	----		
18	NRCS Runoff	Post Offsite 3	0.024	11.97	67.5	----		
19	NRCS Runoff	Post Offsite 4	0.599	11.97	1,689	----		
20	Junction	Post Offsite Combined	2.863	12.07	14,877	16, 17, 18, 19		
21	NRCS Runoff	Post Culvert 1	0.729	11.97	2,054	----		
22	NRCS Runoff	Post Area Drain 3 (AD3)	0.009	11.93	20.4	----		
23	NRCS Runoff	Post Area Drain 2 (AD2)	1.487	11.97	2,989	----		
24	NRCS Runoff	Post Area Drain 1 (AD1)	4.460	11.93	9,461	----		
25	NRCS Runoff	Post North to Pond 2	8.913	11.93	18,420	----		
26	Pond Route	Post Pond 2 Discharge	0.000	9.53	0.000	25	534.33	13,768
27	Junction	Post North of Ditch	32.47	12.00	118,343	14, 15, 21, 22, 23, 24		
28	Junction	Post Combined	104.2	12.03	343,311	11, 12, 20, 26, 27		

Hydrograph Report

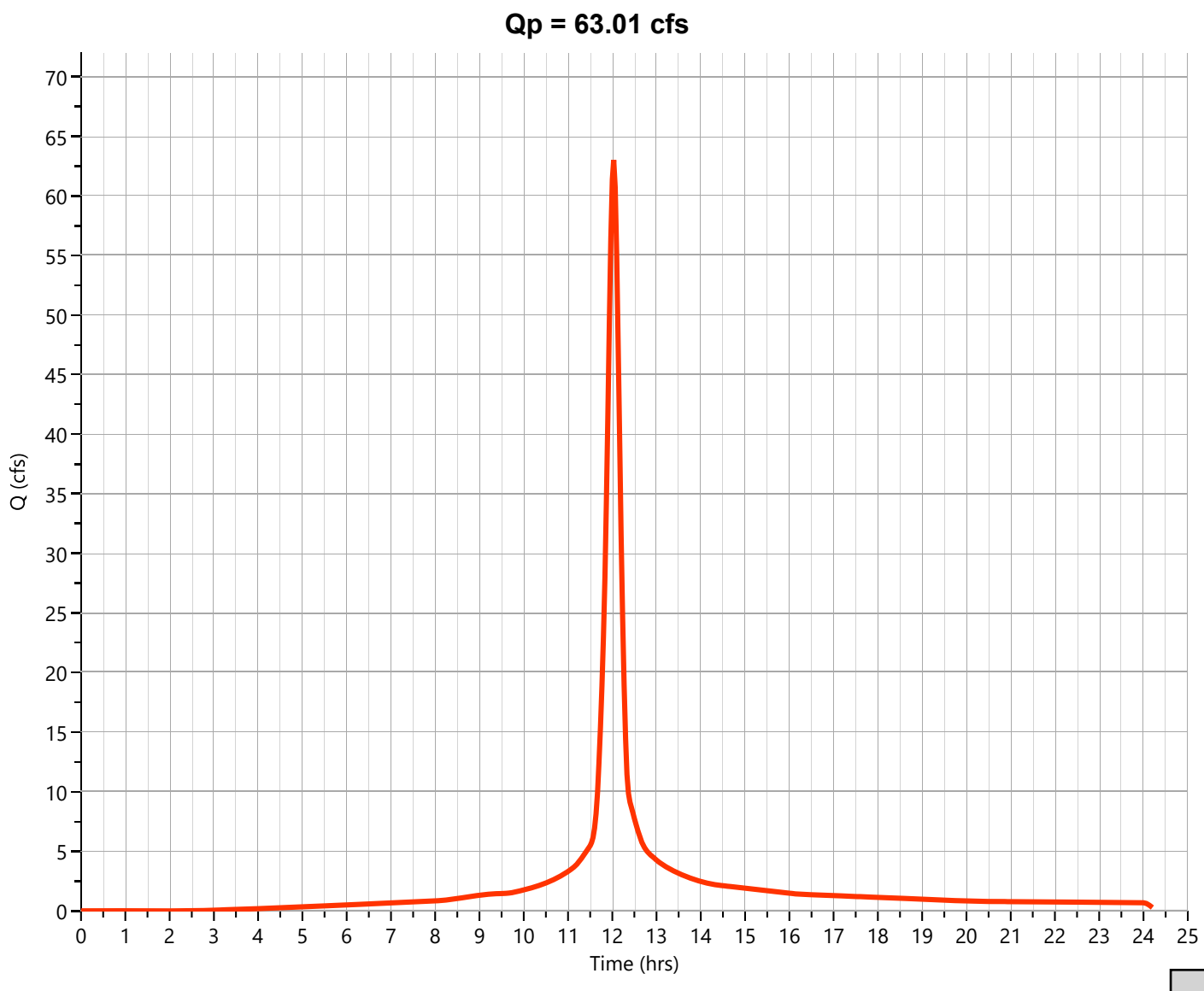
Hydrology Studio v 3.0.0.32 07-25-2024

Pre South of Ditch Hyd. No. 1

Hydrograph Type	= NRCS Runoff	Peak Flow	= 63.01 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 189,522 cuft
Drainage Area	= 8.91 ac	Curve Number	= 91.02*
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 15.27 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
8.69	91	No Rating (Row Crops)
0.2	91	Gravel
0.02	98	Concrete
8.91	**91**	Weighted CN Method Employed



Hydrograph Report

Hydrology Studio v 3.0.0.32

07-25-2024

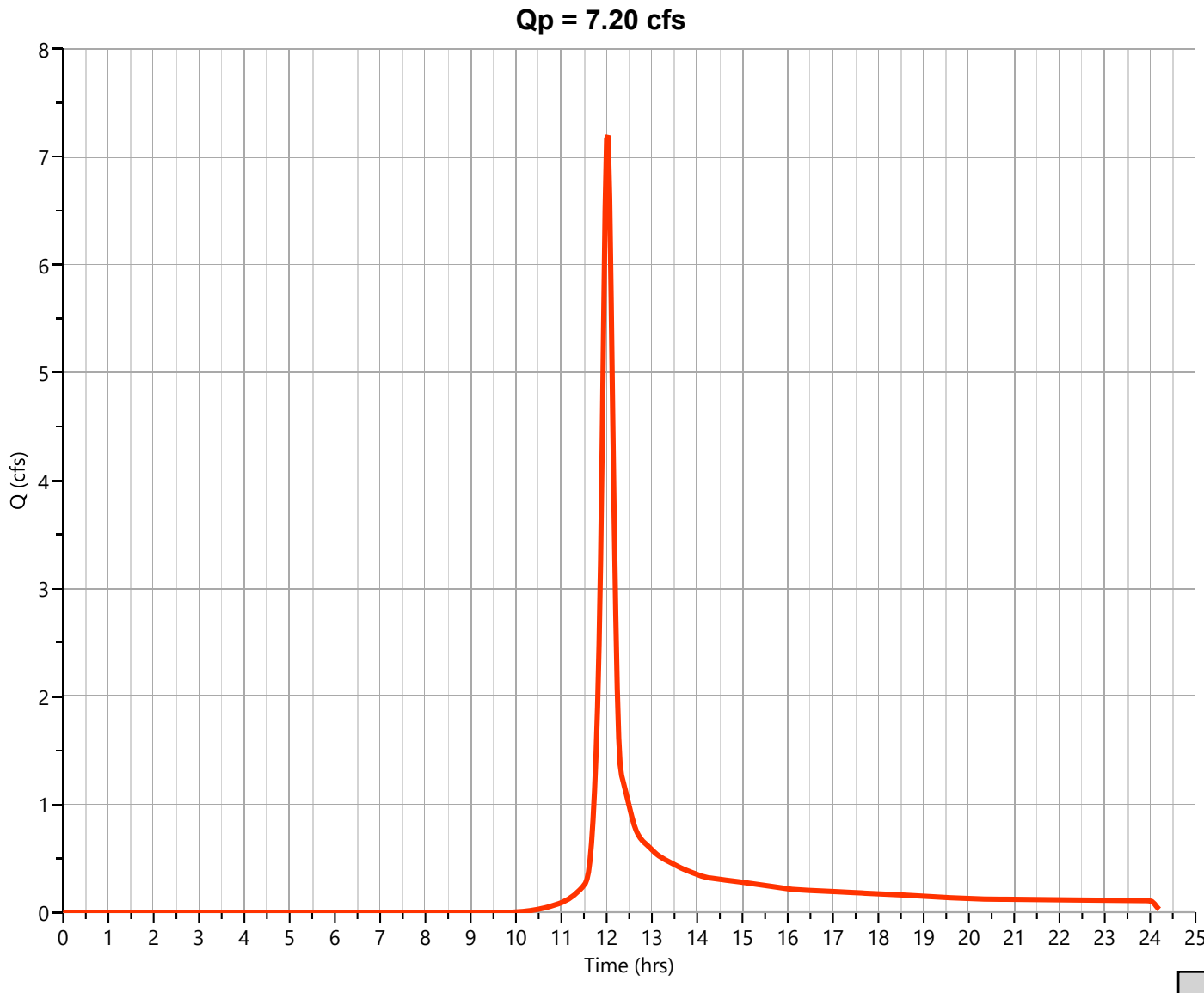
Pre Ditch

Hyd. No. 2

Hydrograph Type	= NRCS Runoff	Peak Flow	= 7.199 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 18,893 cuft
Drainage Area	= 1.79 ac	Curve Number	= 61.67*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
1.75	61	Ditch (inside buffer)
0.04	91	Gravel
1.79	**62**	Weighted CN Method Employed



Hydrograph Report

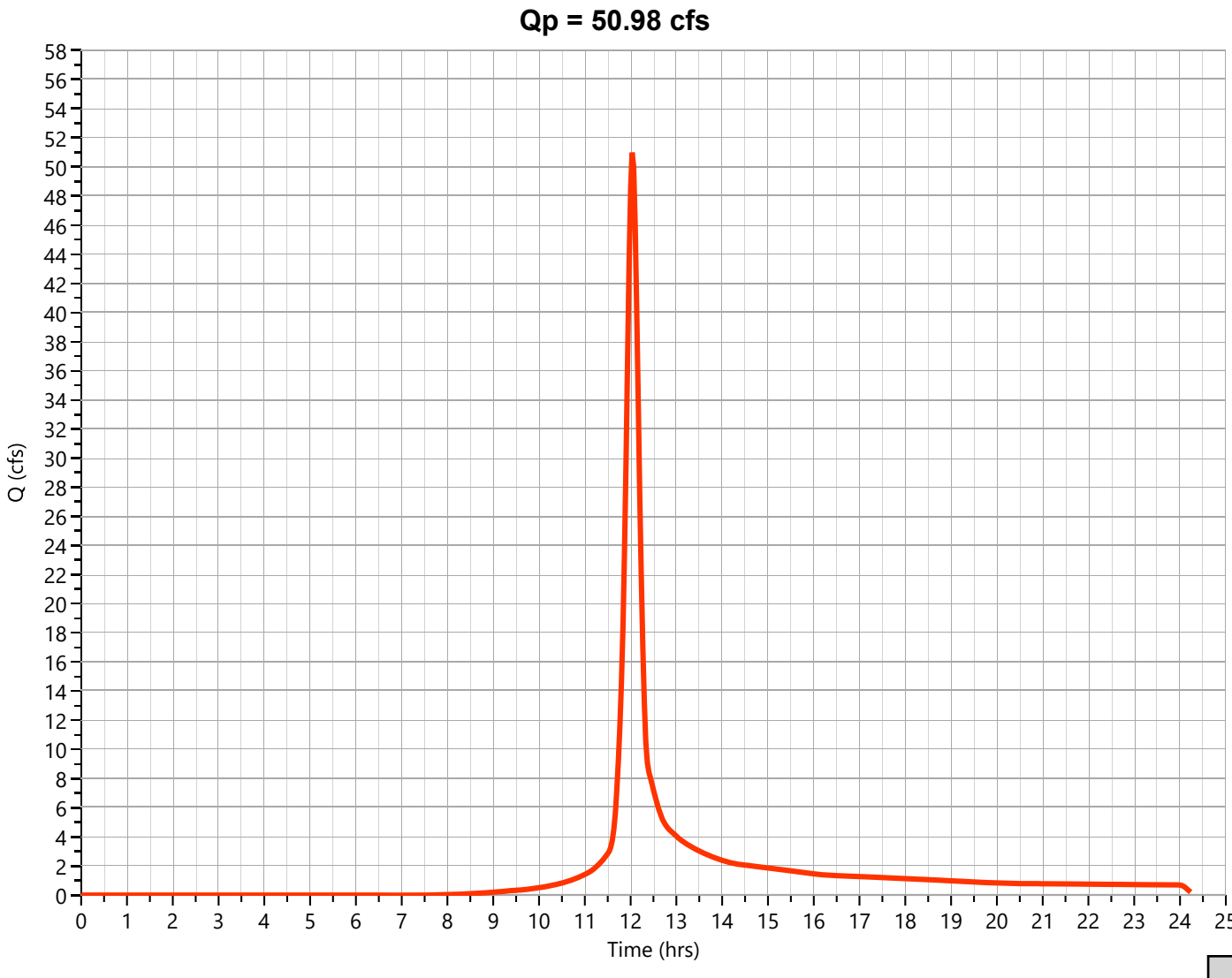
Hydrology Studio v 3.0.0.32 07-25-2024

Pre North of Ditch Hyd. No. 3

Hydrograph Type	= NRCS Runoff	Peak Flow	= 50.98 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 142,898 cuft
Drainage Area	= 10.55 ac	Curve Number	= 71.42*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
3.945	79	Pervious (C)
3.945	49	Pervious (A)
0.89	98	Buildings
1.73	91	Gravel
0.04	98	Concrete
10.55	**71**	Weighted CN Method Employed



Hydrograph Report

Hydrology Studio v 3.0.0.32

07-25-2024

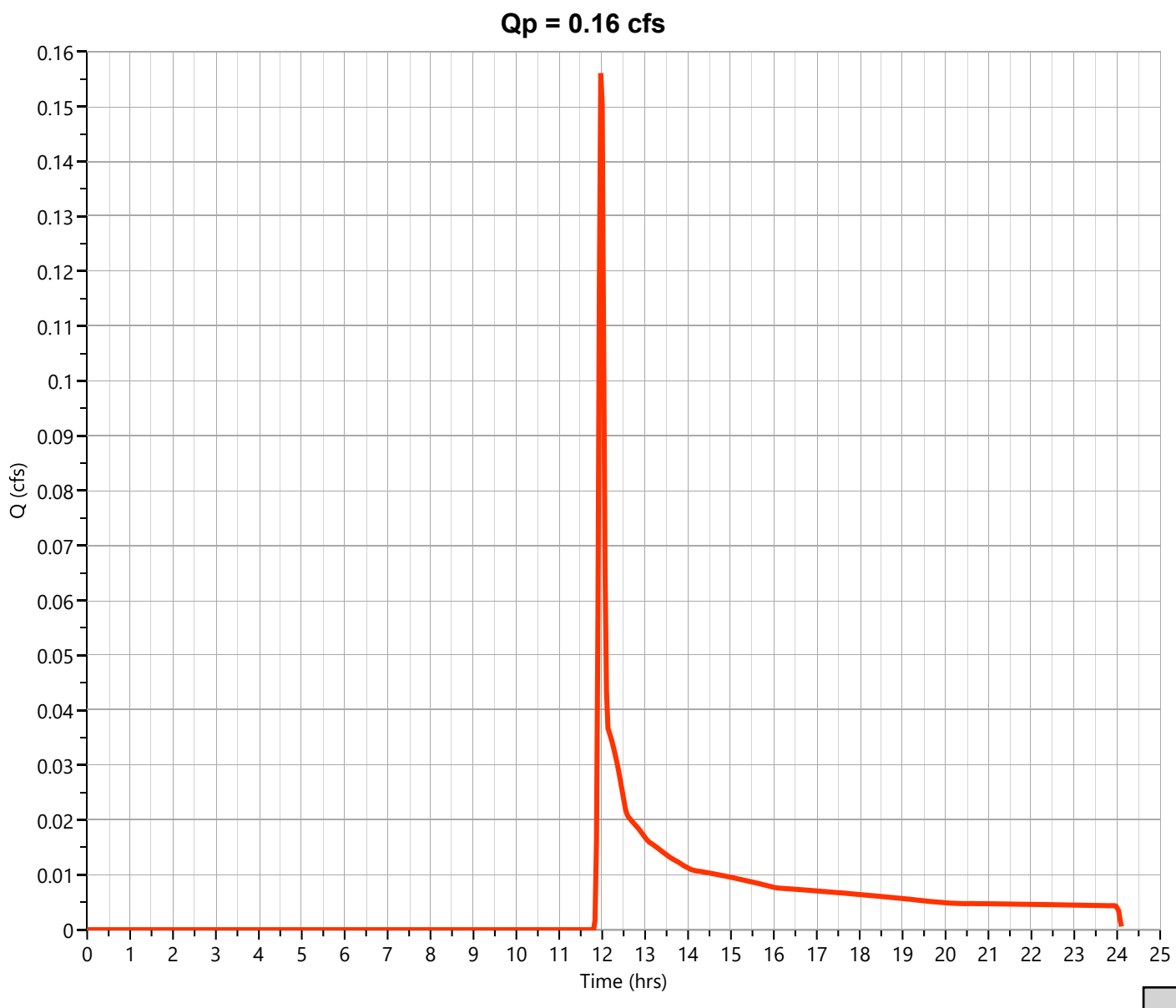
Pre Offsite 1

Hyd. No. 4

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.156 cfs
Storm Frequency	= 50-yr	Time to Peak	= 11.97 hrs
Time Interval	= 2 min	Runoff Volume	= 440 cuft
Drainage Area	= 0.163 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.163	39	Offsite
0.163	**39**	Weighted CN Method Employed



Hydrograph Report

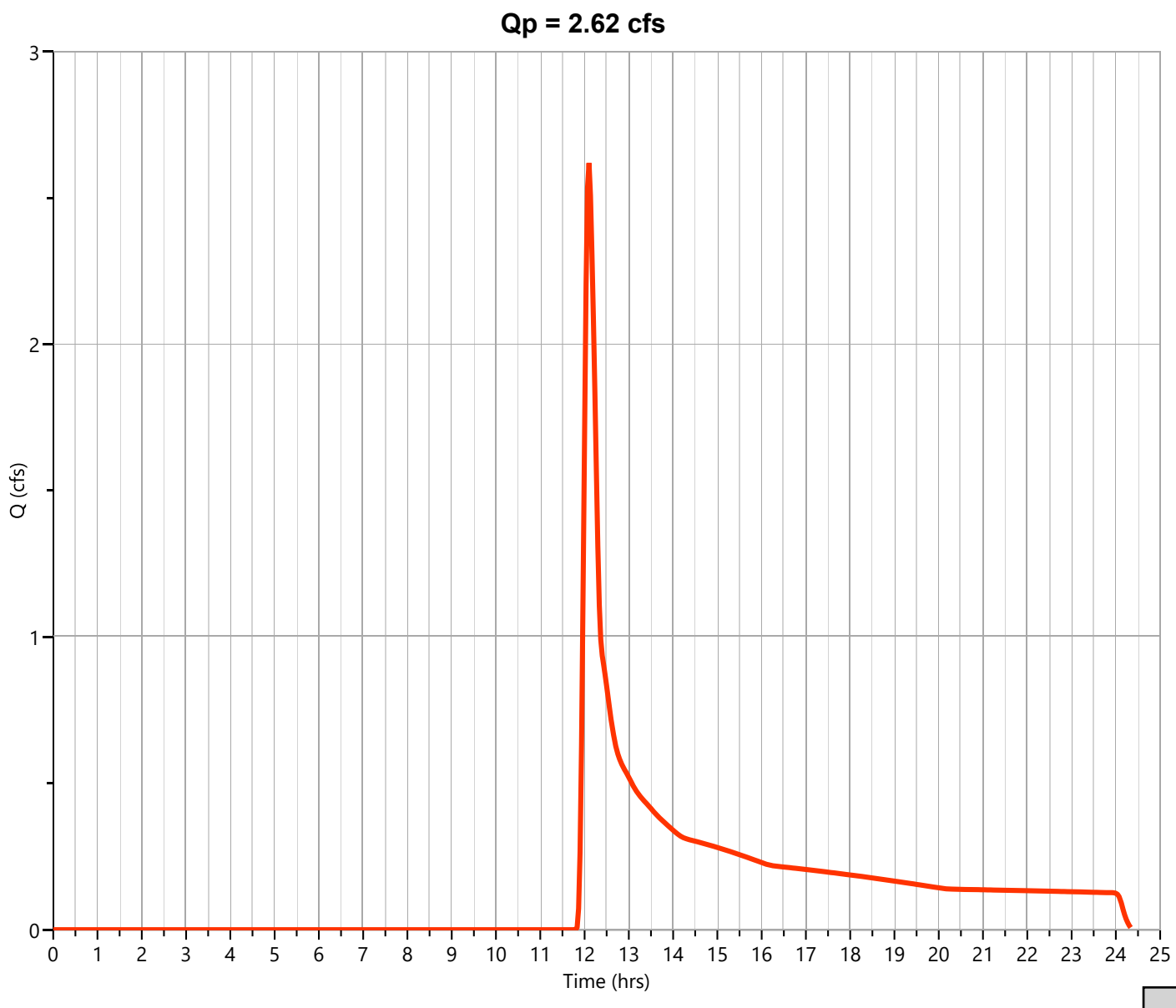
Hydrology Studio v 3.0.0.32 07-25-2024

Pre Offsite 2 Hyd. No. 5

Hydrograph Type	= NRCS Runoff	Peak Flow	= 2.619 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.10 hrs
Time Interval	= 2 min	Runoff Volume	= 12,680 cuft
Drainage Area	= 4.518 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
4.518	39	Offsite
4.518	**39**	Weighted CN Method Employed



Hydrograph Report

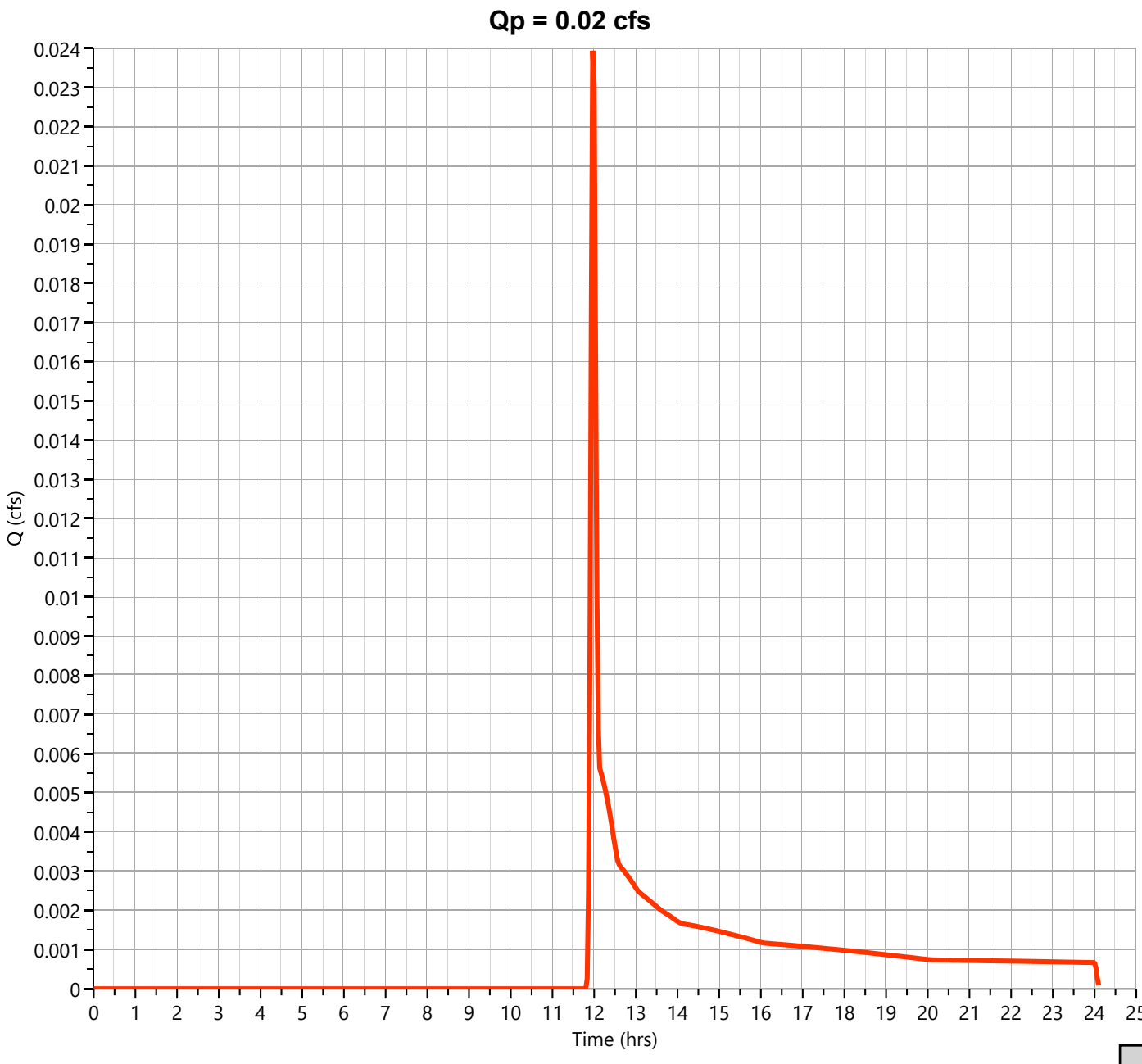
Hydrology Studio v 3.0.0.32

07-25-2024

Pre Offsite 3

Hyd. No. 6

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.024 cfs
Storm Frequency	= 50-yr	Time to Peak	= 11.97 hrs
Time Interval	= 2 min	Runoff Volume	= 67.5 cuft
Drainage Area	= 0.025 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484



Hydrograph Report

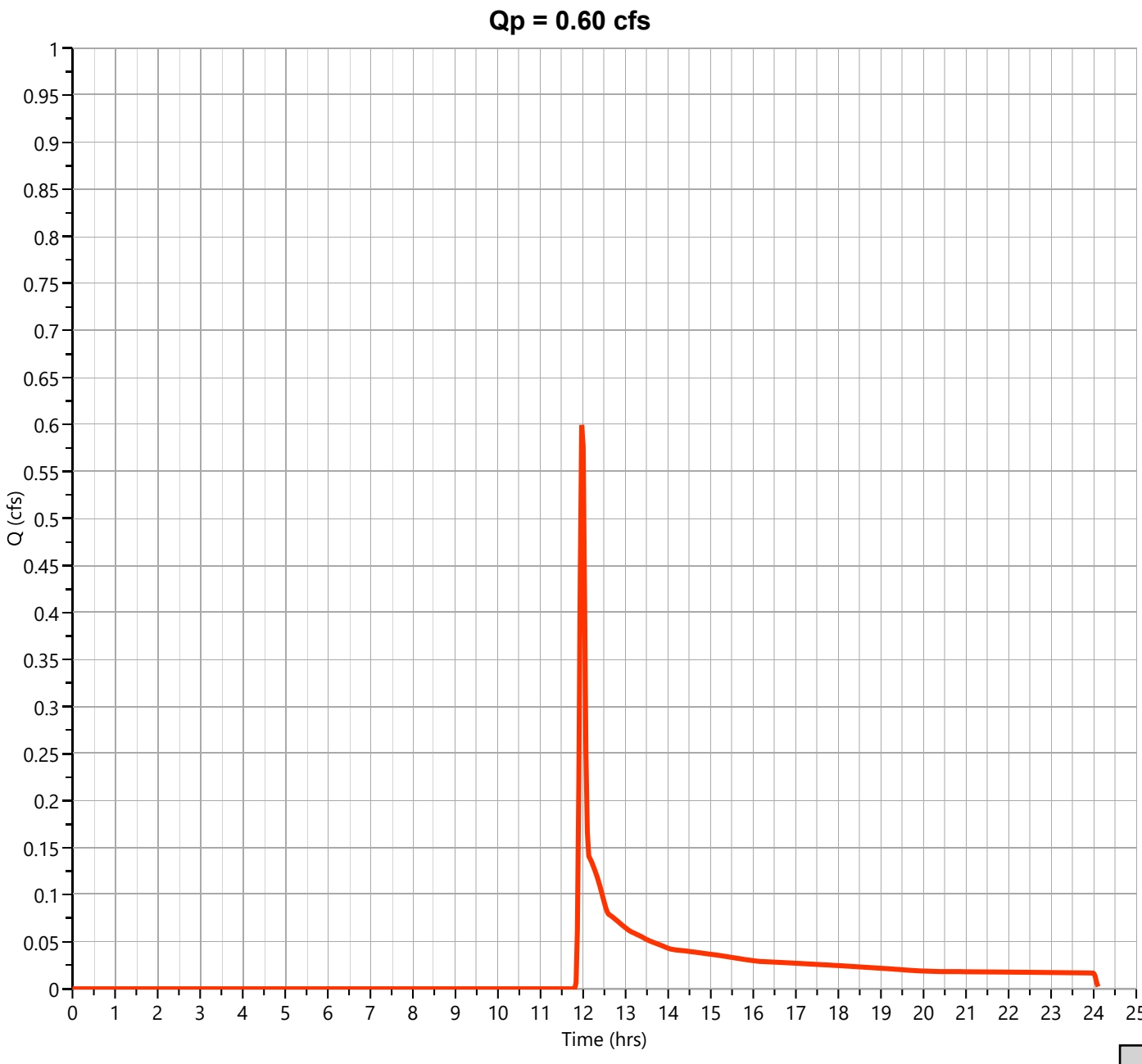
Hydrology Studio v 3.0.0.32

07-25-2024

Post Offsite 4

Hyd. No. 7

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.599 cfs
Storm Frequency	= 50-yr	Time to Peak	= 11.97 hrs
Time Interval	= 2 min	Runoff Volume	= 1,689 cuft
Drainage Area	= 0.626 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

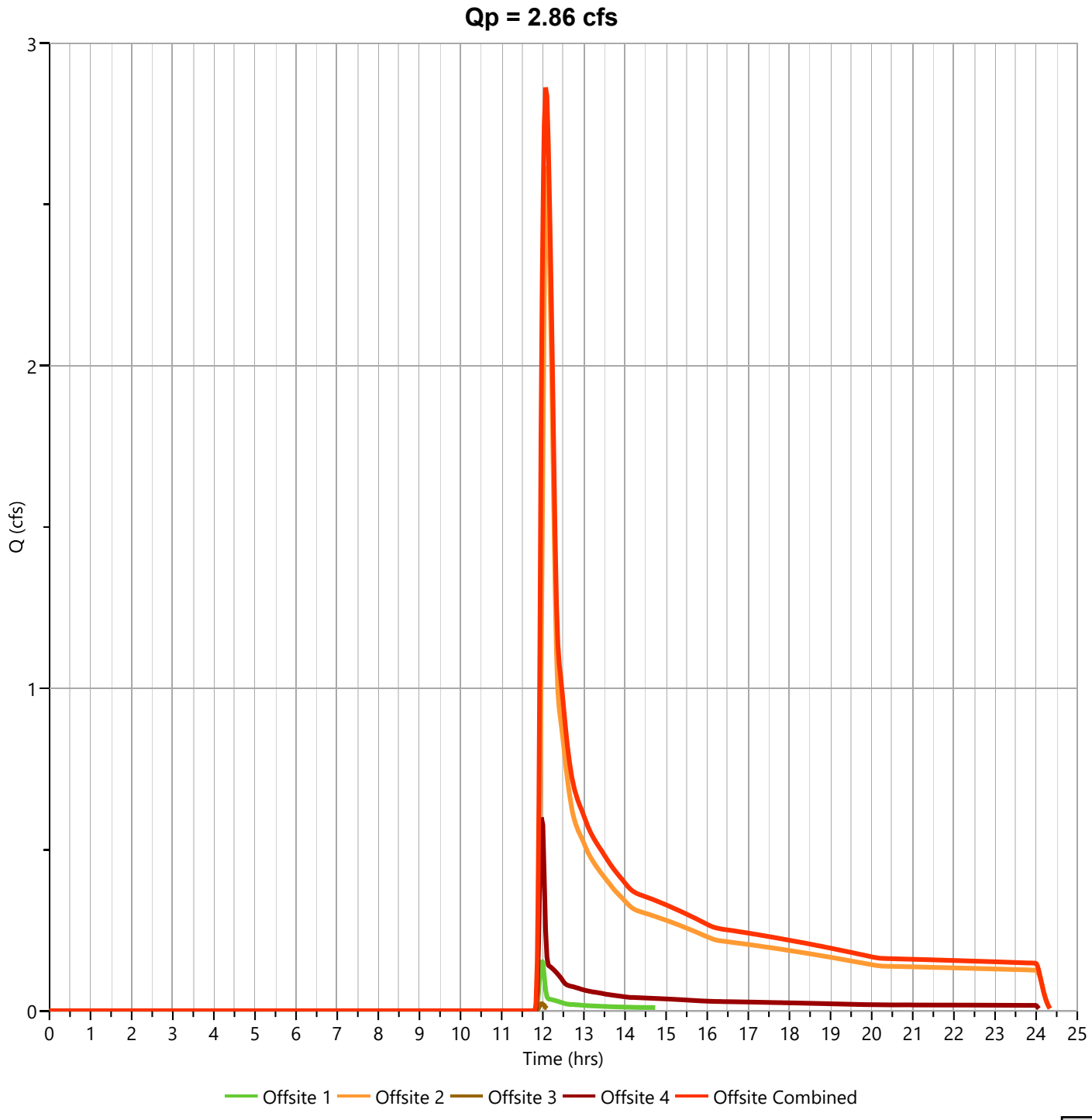


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Pre Offsite Combined Hyd. No. 8

Hydrograph Type	= Junction	Peak Flow	= 2.863 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.07 hrs
Time Interval	= 2 min	Hydrograph Volume	= 14,877 cuft
Inflow Hydrographs	= 4, 5, 6, 7	Total Contrib. Area	= 5.332 ac

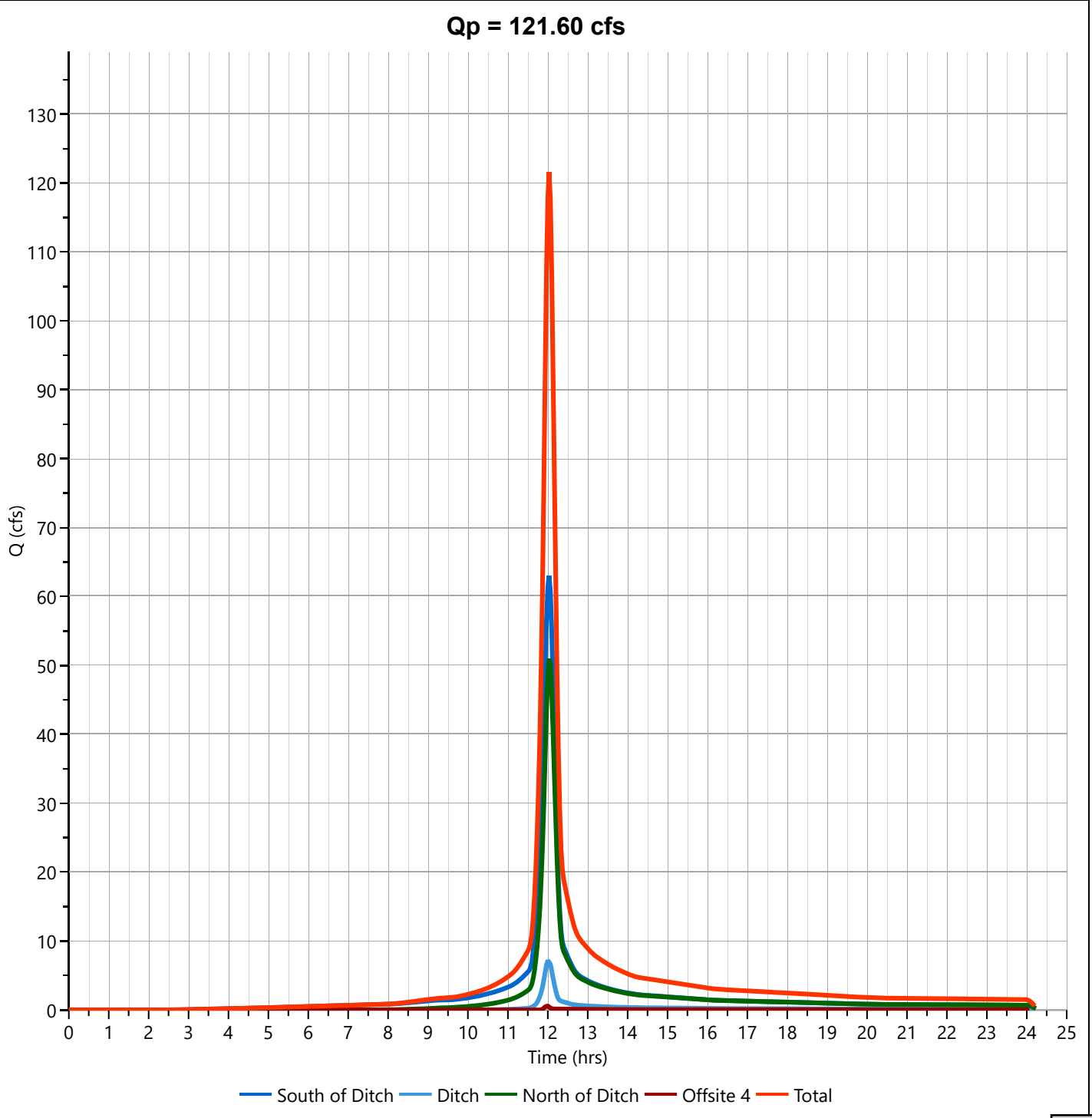


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Pre Total Hyd. No. 9

Hydrograph Type	= Junction	Peak Flow	= 121.6 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Hydrograph Volume	= 353,001 cuft
Inflow Hydrographs	= 1, 2, 3, 7	Total Contrib. Area	= 21.876 ac



Hydrograph Report

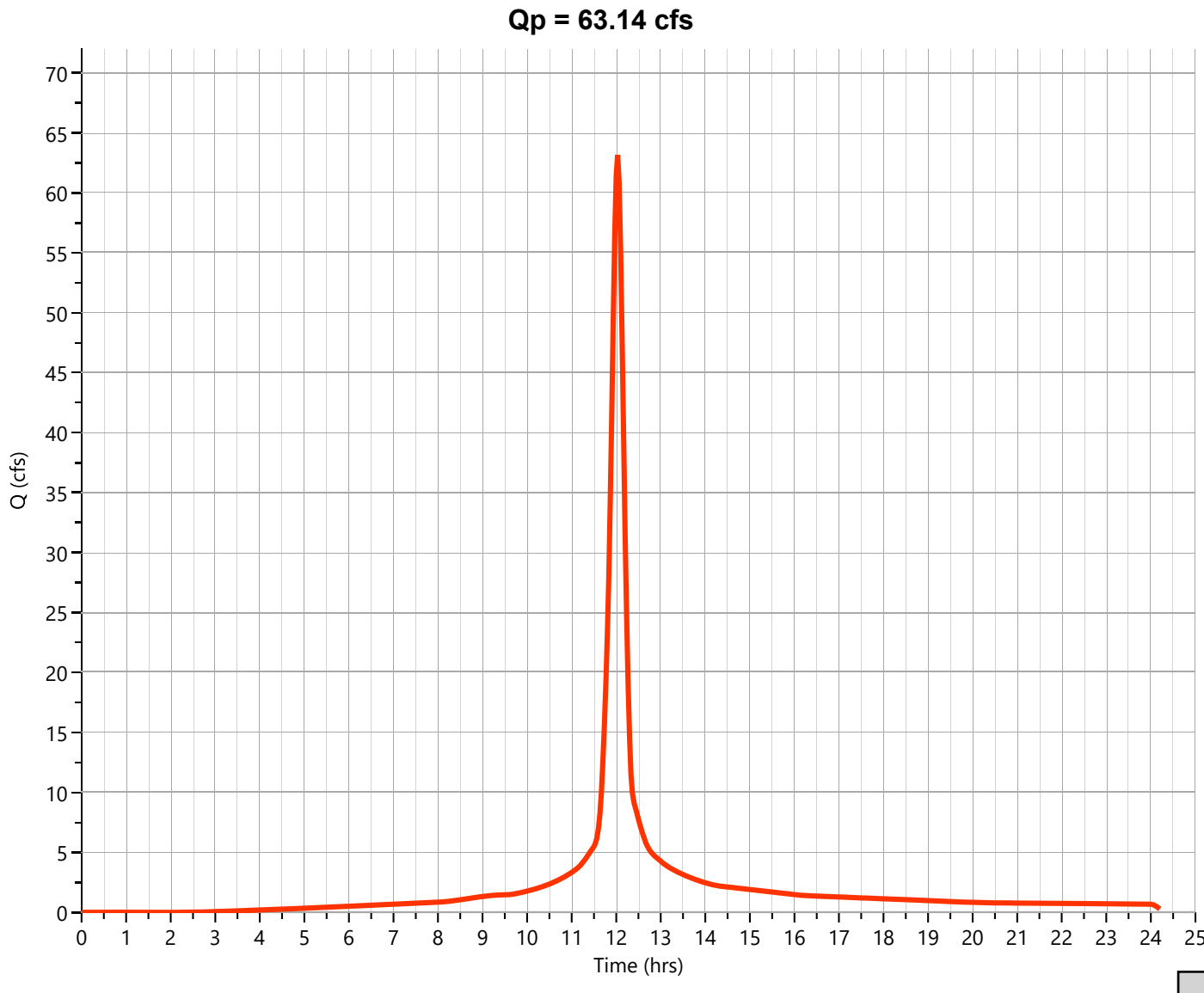
Hydrology Studio v 3.0.0.32 07-25-2024

Post South of Ditch Hyd. No. 11

Hydrograph Type	= NRCS Runoff	Peak Flow	= 63.14 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 190,181 cuft
Drainage Area	= 8.91 ac	Curve Number	= 91.2*
Tc Method	= User	Time of Conc. (Tc)	= 15.27 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
7.83	91	Row Crop
0.82	91	Gravel Drive
0.26	98	Concrete
8.91	**91**	Weighted CN Method Employed



Hydrograph Report

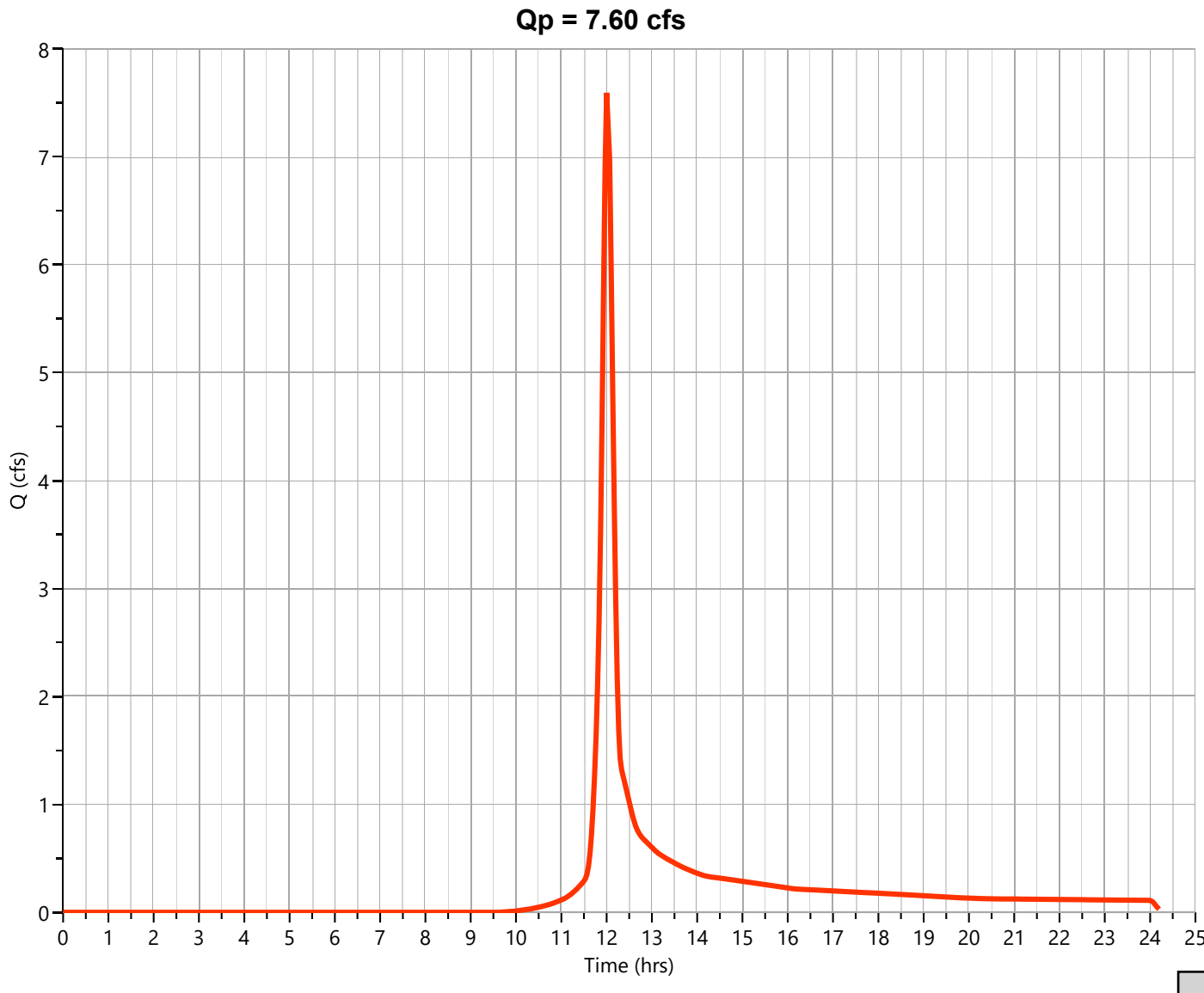
Hydrology Studio v 3.0.0.32 07-25-2024

Post Ditch Hyd. No. 12

Hydrograph Type	= NRCS Runoff	Peak Flow	= 7.604 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 19,911 cuft
Drainage Area	= 1.79 ac	Curve Number	= 63.18*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
1.66	61	Ditch (inside buffer)
0.13	91	Gravel
1.79	**63**	Weighted CN Method Employed



Hydrograph Report

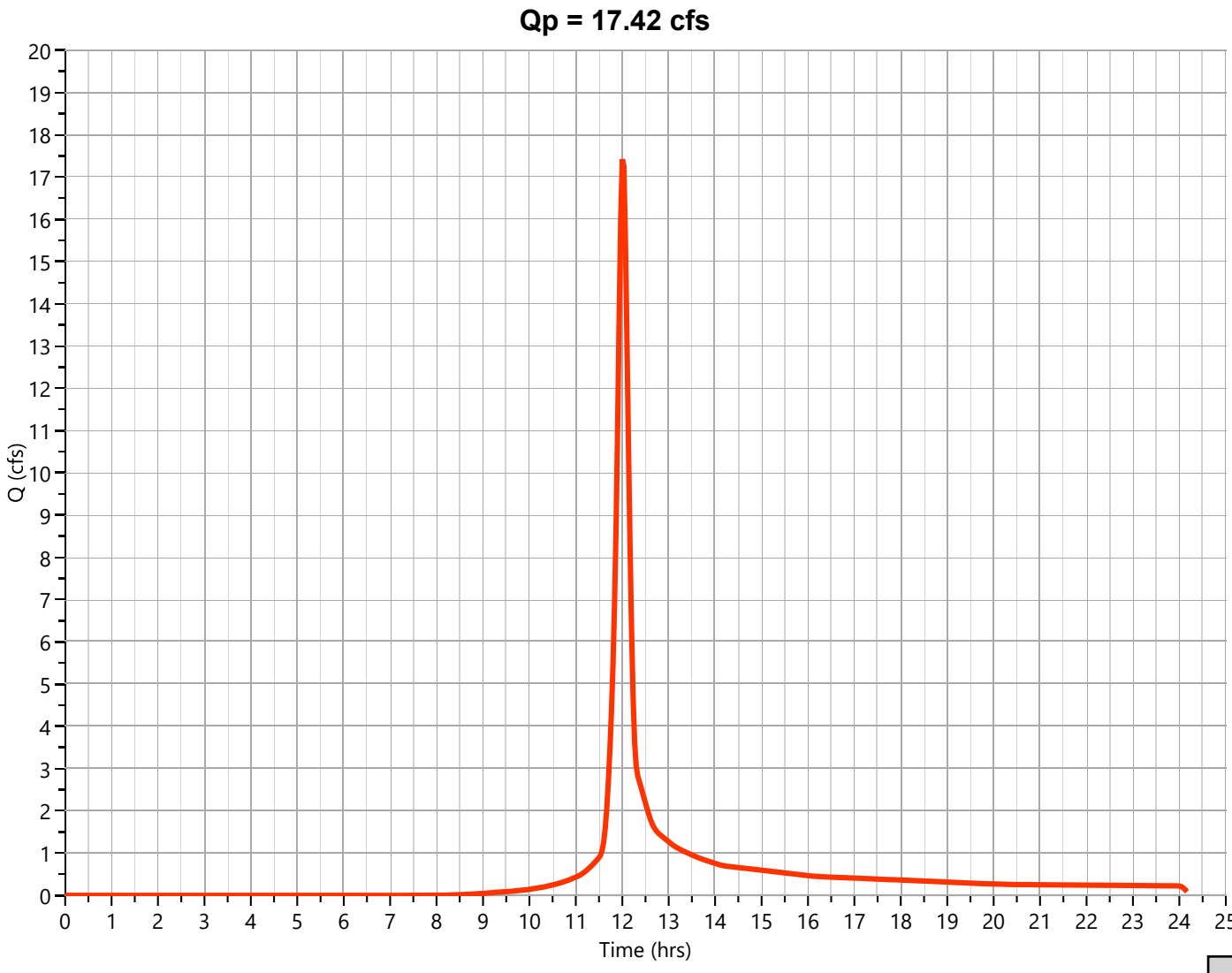
Hydrology Studio v 3.0.0.32 07-25-2024

Post North to Pond 1 Hyd. No. 13

Hydrograph Type	= NRCS Runoff	Peak Flow	= 17.42 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Runoff Volume	= 45,171 cuft
Drainage Area	= 3.282 ac	Curve Number	= 70*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
1.4	49	Pervious (A)
0.936	79	Pervious (C)
0.566	91	Gravel
0.38	98	Buildings
3.282	**70**	Weighted CN Method Employed



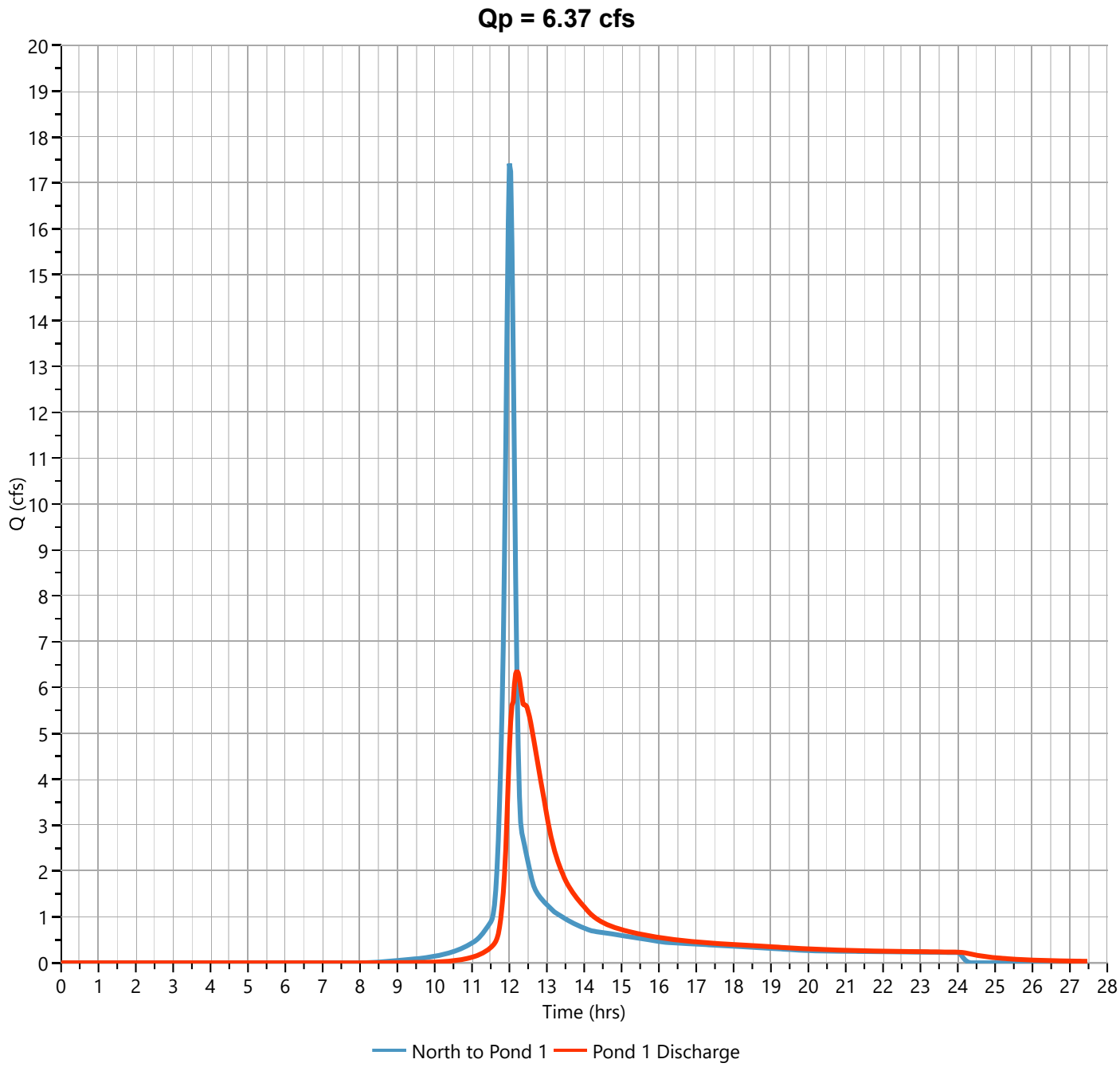
Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Pond 1 Discharge Hyd. No. 14

Hydrograph Type	= Pond Route	Peak Flow	= 6.367 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.20 hrs
Time Interval	= 2 min	Hydrograph Volume	= 45,144 cuft
Inflow Hydrograph	= 13 - North to Pond 1	Max. Elevation	= 630.09 ft
Pond Name	= Pond 1	Max. Storage	= 15,070 cuft

Pond Routing by Storage Indication Method *Center of mass detention time = 45 min*



Hydrograph Report

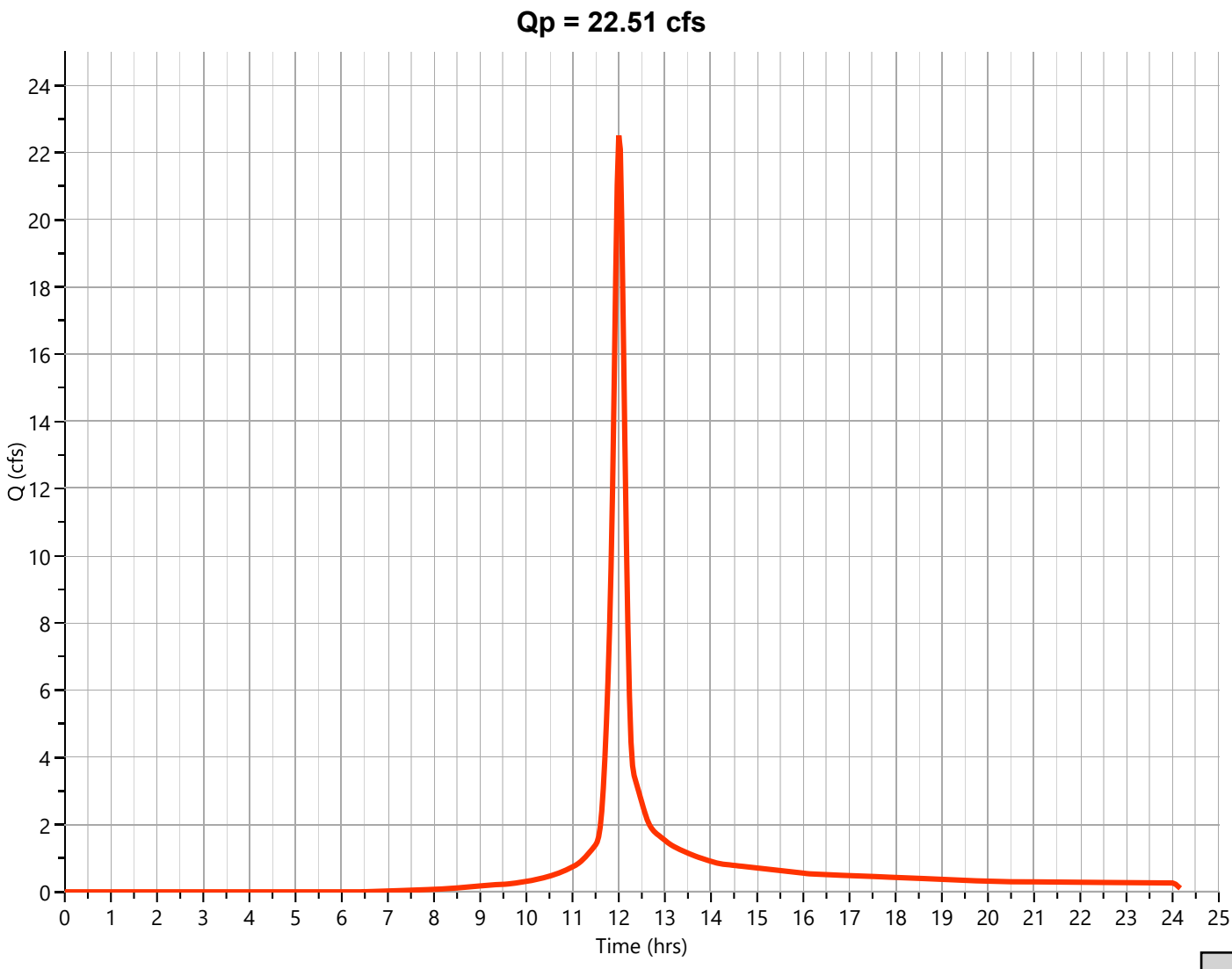
Hydrology Studio v 3.0.0.32 07-25-2024

Post Bypass Hyd. No. 15

Hydrograph Type	= NRCS Runoff	Peak Flow	= 22.51 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Runoff Volume	= 58,674 cuft
Drainage Area	= 3.569 ac	Curve Number	= 76.66*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.95	49	Pervious (A)
1.26	79	Pervious (C)
0.81	91	Gravel
0.549	98	Buildings
3.569	**77**	Weighted CN Method Employed



Hydrograph Report

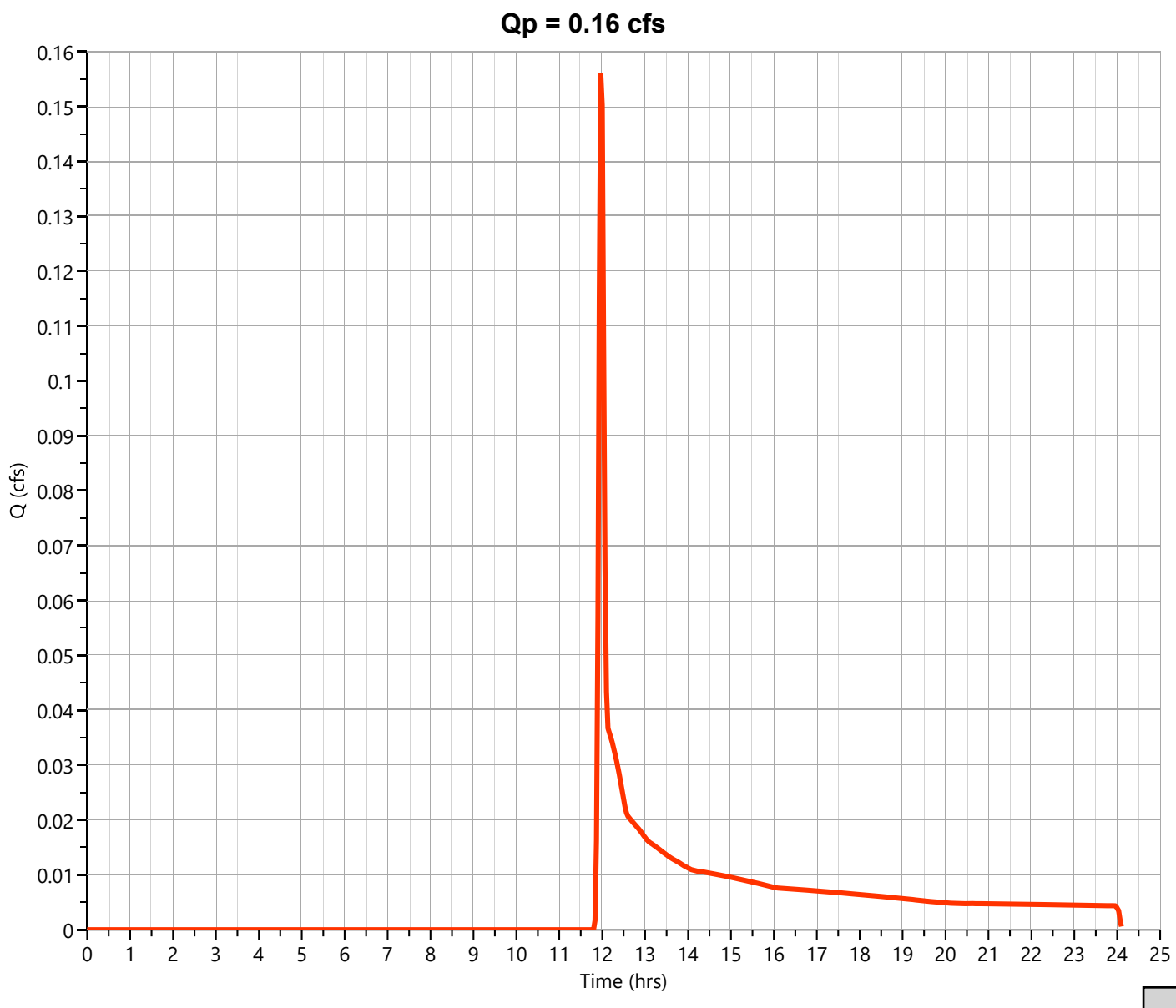
Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 1 Hyd. No. 16

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.156 cfs
Storm Frequency	= 50-yr	Time to Peak	= 11.97 hrs
Time Interval	= 2 min	Runoff Volume	= 440 cuft
Drainage Area	= 0.163 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.163	39	Offsite
0.163	**39**	Weighted CN Method Employed



Hydrograph Report

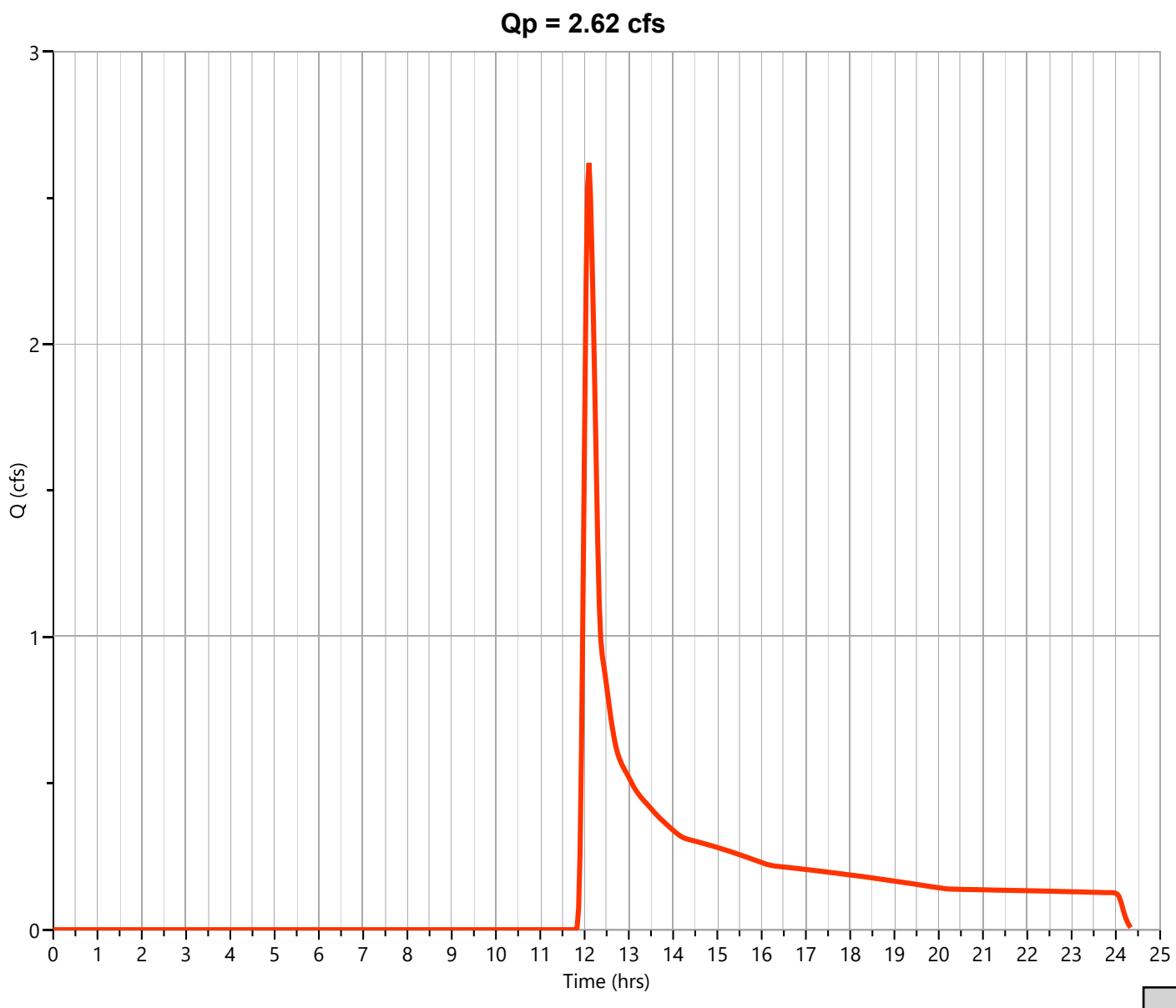
Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 2 Hyd. No. 17

Hydrograph Type	= NRCS Runoff	Peak Flow	= 2.619 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.10 hrs
Time Interval	= 2 min	Runoff Volume	= 12,680 cuft
Drainage Area	= 4.518 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
4.518	39	Offsite
4.518	**39**	Weighted CN Method Employed

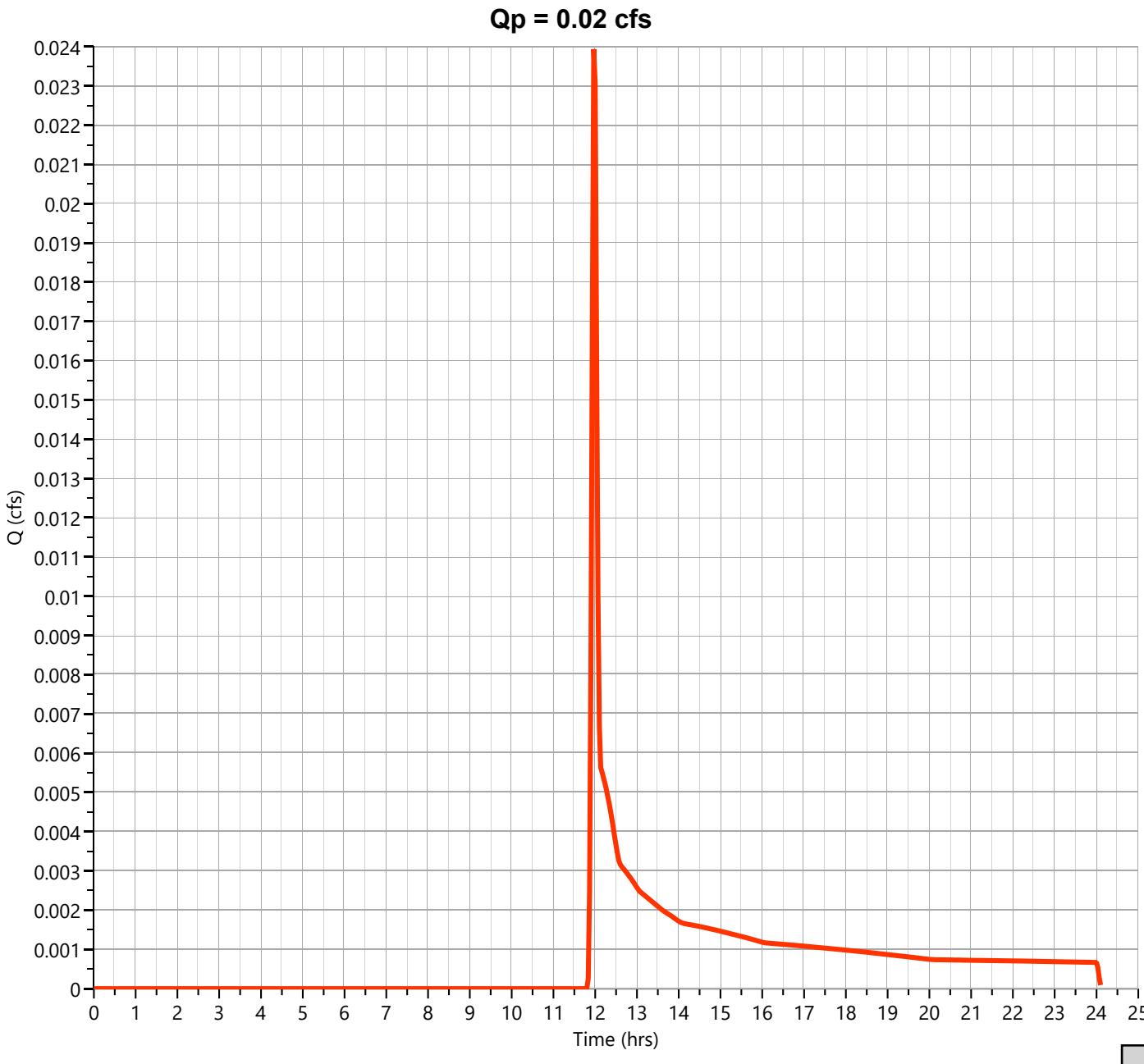


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 3 Hyd. No. 18

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.024 cfs
Storm Frequency	= 50-yr	Time to Peak	= 11.97 hrs
Time Interval	= 2 min	Runoff Volume	= 67.5 cuft
Drainage Area	= 0.025 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484



Hydrograph Report

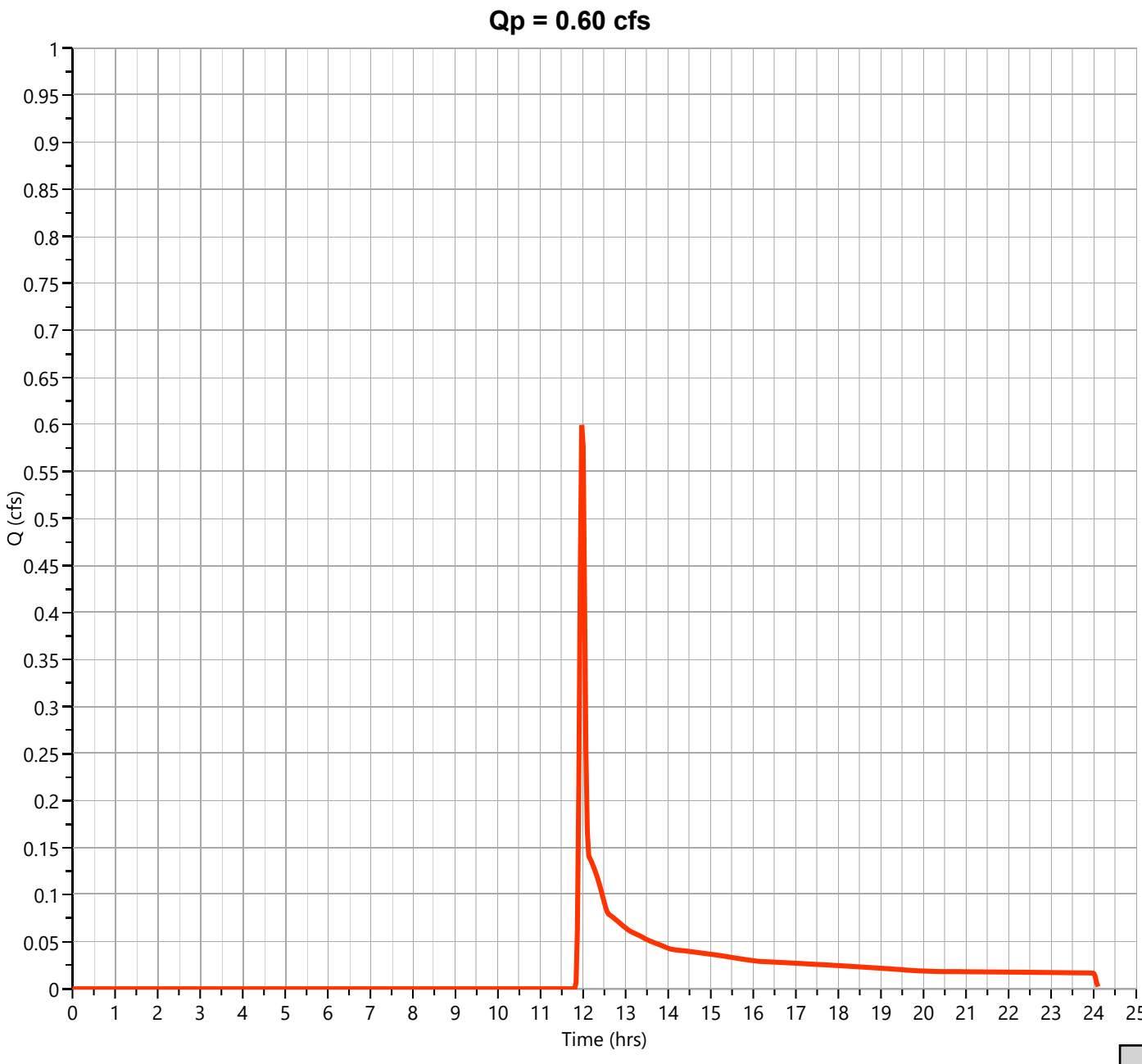
Hydrology Studio v 3.0.0.32

07-25-2024

Post Offsite 4

Hyd. No. 19

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.599 cfs
Storm Frequency	= 50-yr	Time to Peak	= 11.97 hrs
Time Interval	= 2 min	Runoff Volume	= 1,689 cuft
Drainage Area	= 0.626 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

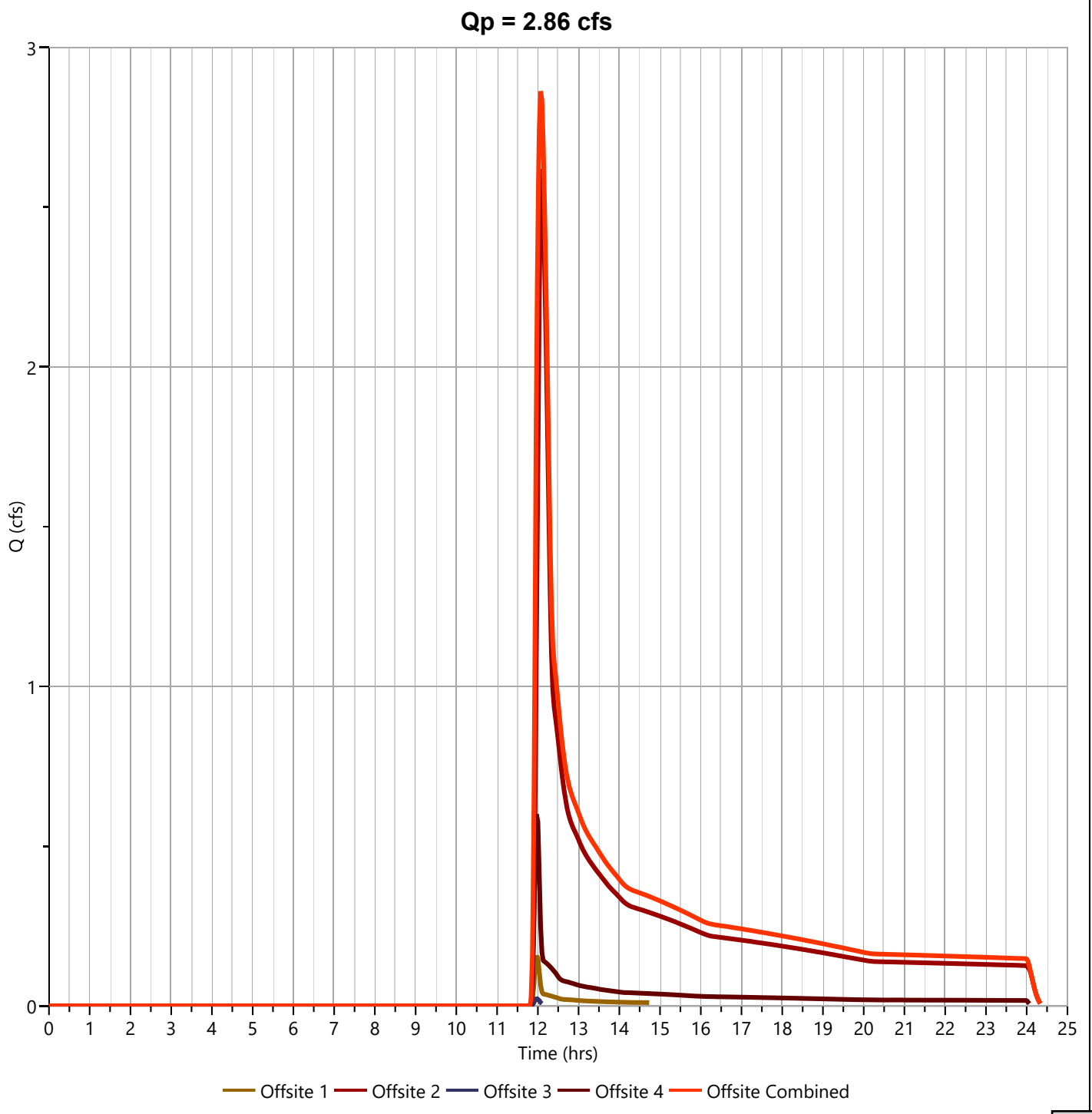


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite Combined Hyd. No. 20

Hydrograph Type	= Junction	Peak Flow	= 2.863 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.07 hrs
Time Interval	= 2 min	Hydrograph Volume	= 14,877 cuft
Inflow Hydrographs	= 16, 17, 18, 19	Total Contrib. Area	= 5.332 ac



Hydrograph Report

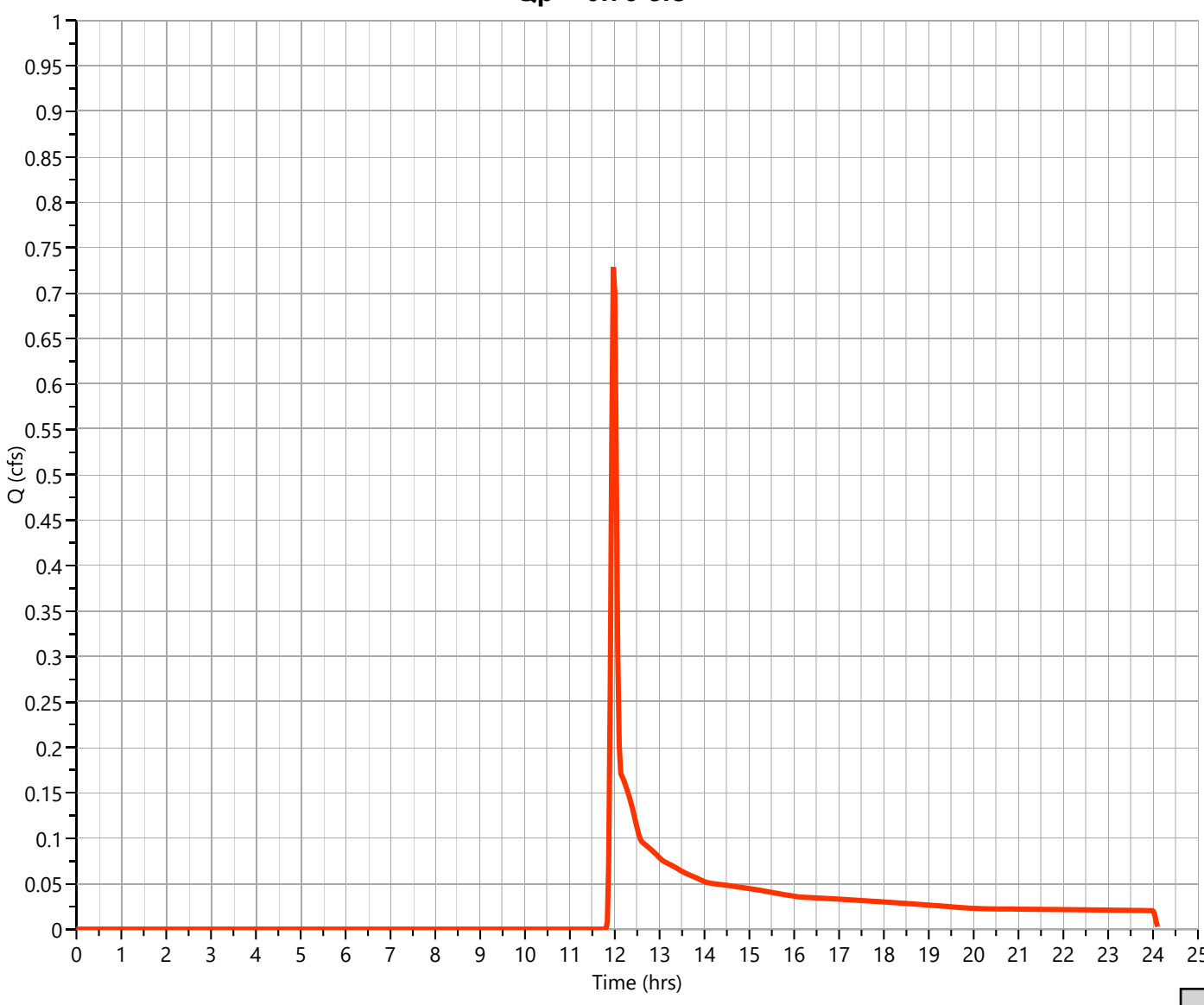
Hydrology Studio v 3.0.0.32 07-25-2024

Post Culvert 1 Hyd. No. 21

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.729 cfs
Storm Frequency	= 50-yr	Time to Peak	= 11.97 hrs
Time Interval	= 2 min	Runoff Volume	= 2,054 cuft
Drainage Area	= 0.761 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.761	39	Pervious (A)
0.761	**39**	Weighted CN Method Employed



Hydrograph Report

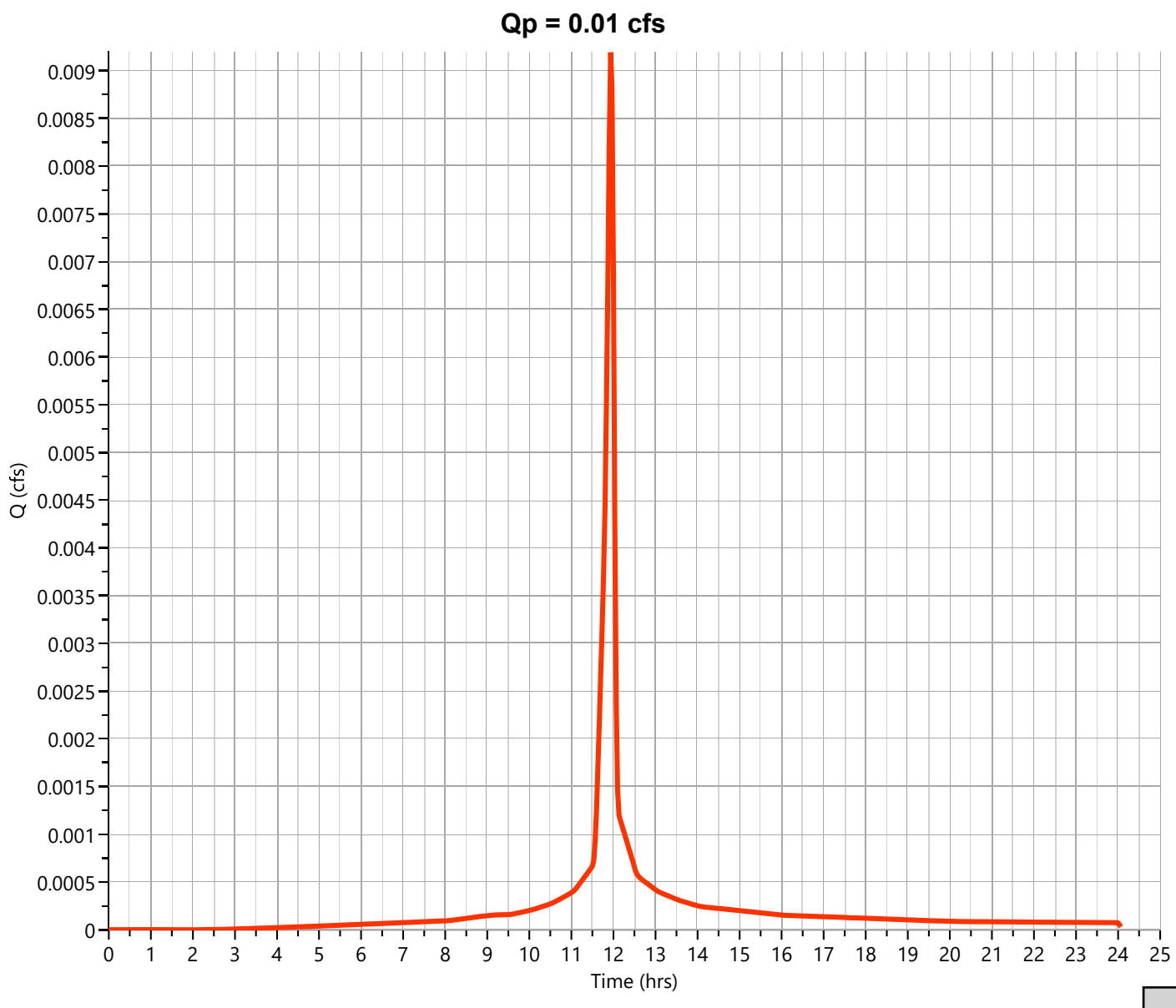
Hydrology Studio v 3.0.0.32 07-25-2024

Post Area Drain 3 (AD3) Hyd. No. 22

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.009 cfs
Storm Frequency	= 50-yr	Time to Peak	= 11.93 hrs
Time Interval	= 2 min	Runoff Volume	= 20.4 cuft
Drainage Area	= 0.001 ac	Curve Number	= 91*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.001	91	Gravel
0.001	**91**	Weighted CN Method Employed



Hydrograph Report

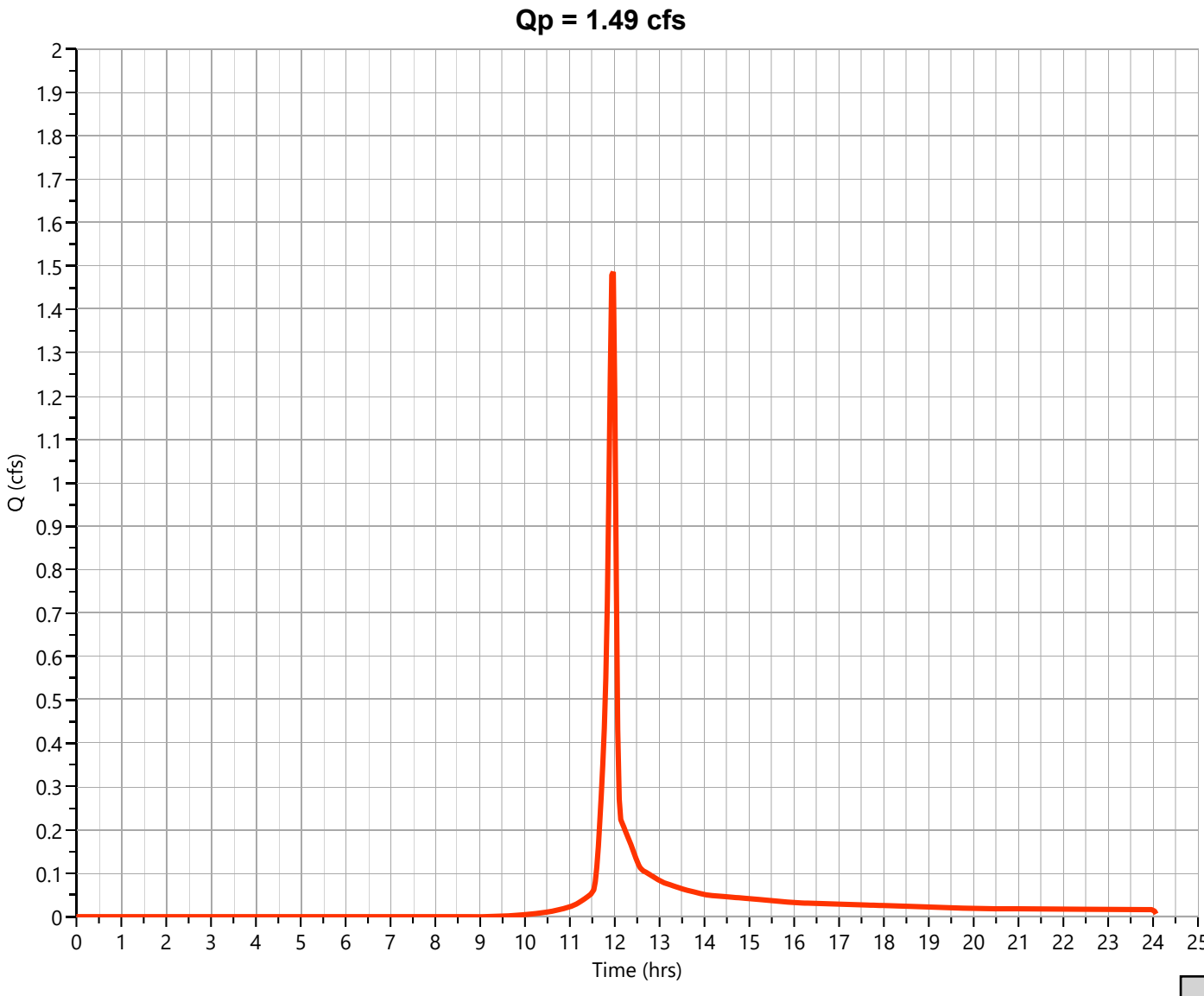
Hydrology Studio v 3.0.0.32 07-25-2024

Post Area Drain 2 (AD2) Hyd. No. 23

Hydrograph Type	= NRCS Runoff	Peak Flow	= 1.487 cfs
Storm Frequency	= 50-yr	Time to Peak	= 11.97 hrs
Time Interval	= 2 min	Runoff Volume	= 2,989 cuft
Drainage Area	= 0.28 ac	Curve Number	= 64.81*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.139	91	Gravel
0.141	39	Grass
0.28	**65**	Weighted CN Method Employed



Hydrograph Report

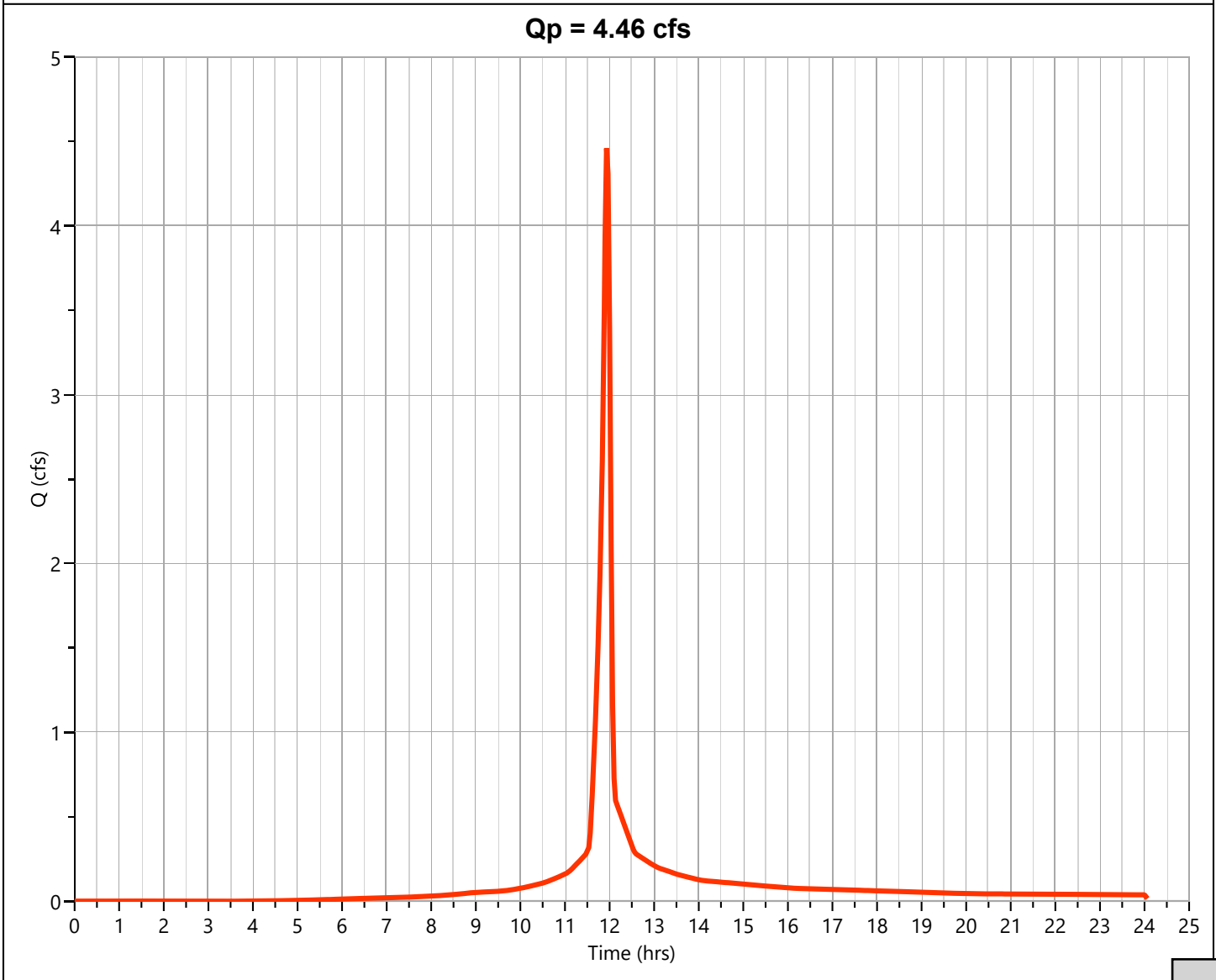
Hydrology Studio v 3.0.0.32 07-25-2024

Post Area Drain 1 (AD1) Hyd. No. 24

Hydrograph Type	= NRCS Runoff	Peak Flow	= 4.460 cfs
Storm Frequency	= 50-yr	Time to Peak	= 11.93 hrs
Time Interval	= 2 min	Runoff Volume	= 9,461 cuft
Drainage Area	= 0.527 ac	Curve Number	= 84.61*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.087	49	Pervious (A)
0.399	91	Gravel
0.041	98	Building
0.527	**85**	Weighted CN Method Employed



Hydrograph Report

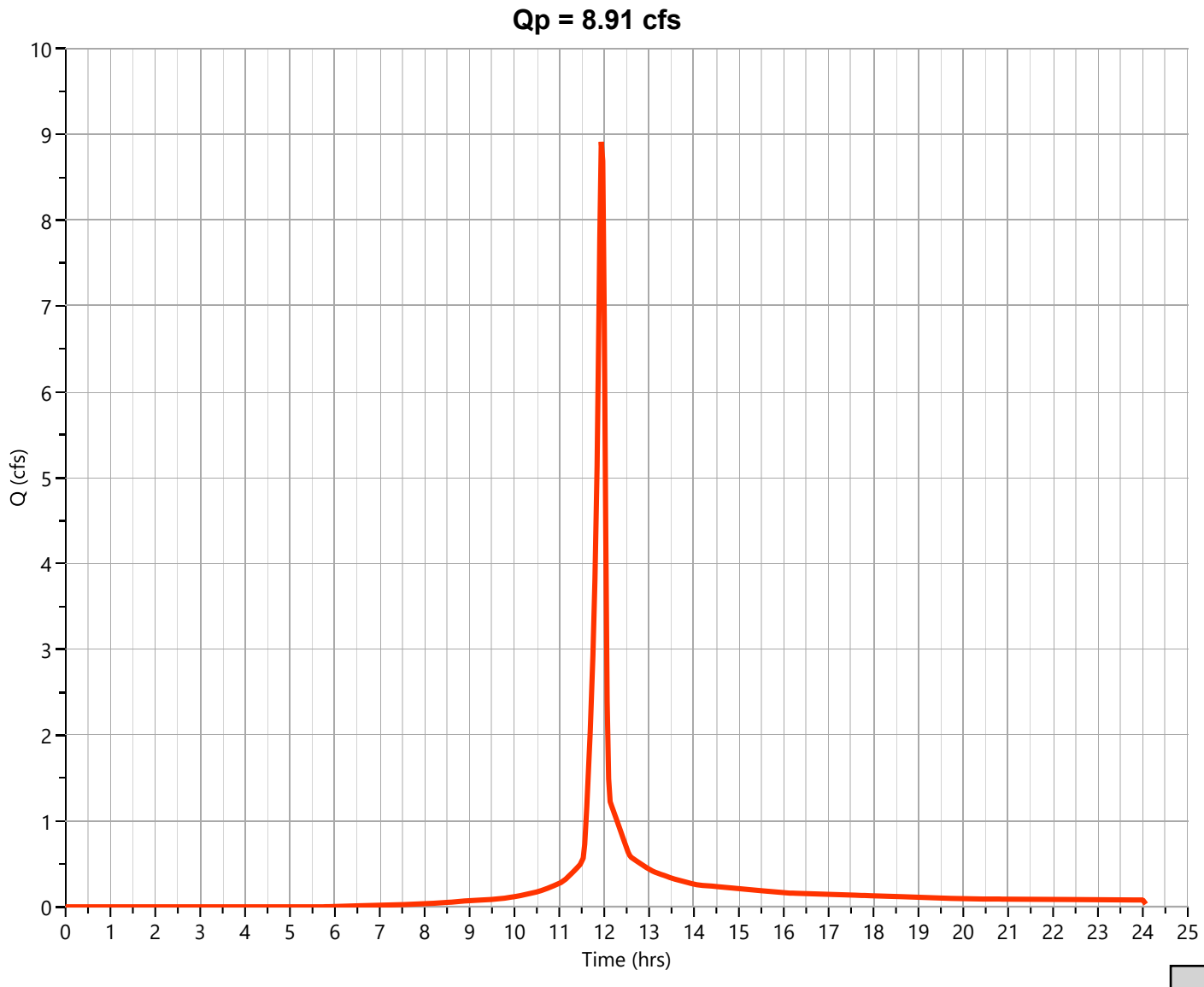
Hydrology Studio v 3.0.0.32 07-25-2024

Post North to Pond 2 Hyd. No. 25

Hydrograph Type	= NRCS Runoff	Peak Flow	= 8.913 cfs
Storm Frequency	= 50-yr	Time to Peak	= 11.93 hrs
Time Interval	= 2 min	Runoff Volume	= 18,420 cuft
Drainage Area	= 1.16 ac	Curve Number	= 79.16*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.07 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.618	91	Gravel
0.245	98	Bldg/Concrete
0.297	39	Grass
1.16	**79**	Weighted CN Method Employed



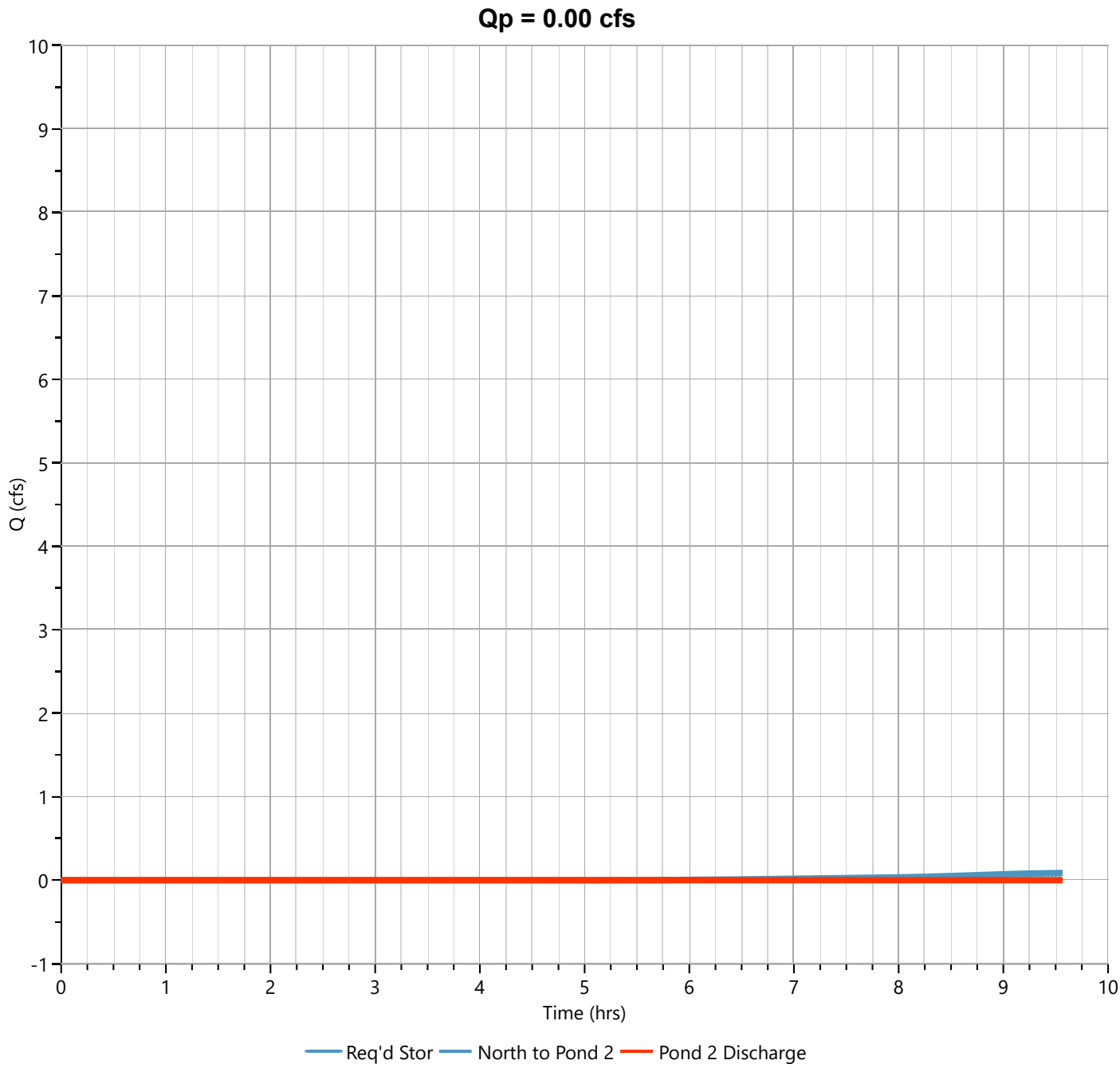
Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Pond 2 Discharge Hyd. No. 26

Hydrograph Type	= Pond Route	Peak Flow	= 0.000 cfs
Storm Frequency	= 50-yr	Time to Peak	= 9.53 hrs
Time Interval	= 2 min	Hydrograph Volume	= 0.000 cuft
Inflow Hydrograph	= 25 - North to Pond 2	Max. Elevation	= 534.33 ft
Pond Name	= Pond 2	Max. Storage	= 13,768 cuft

Pond Routing by Storage Indication Method

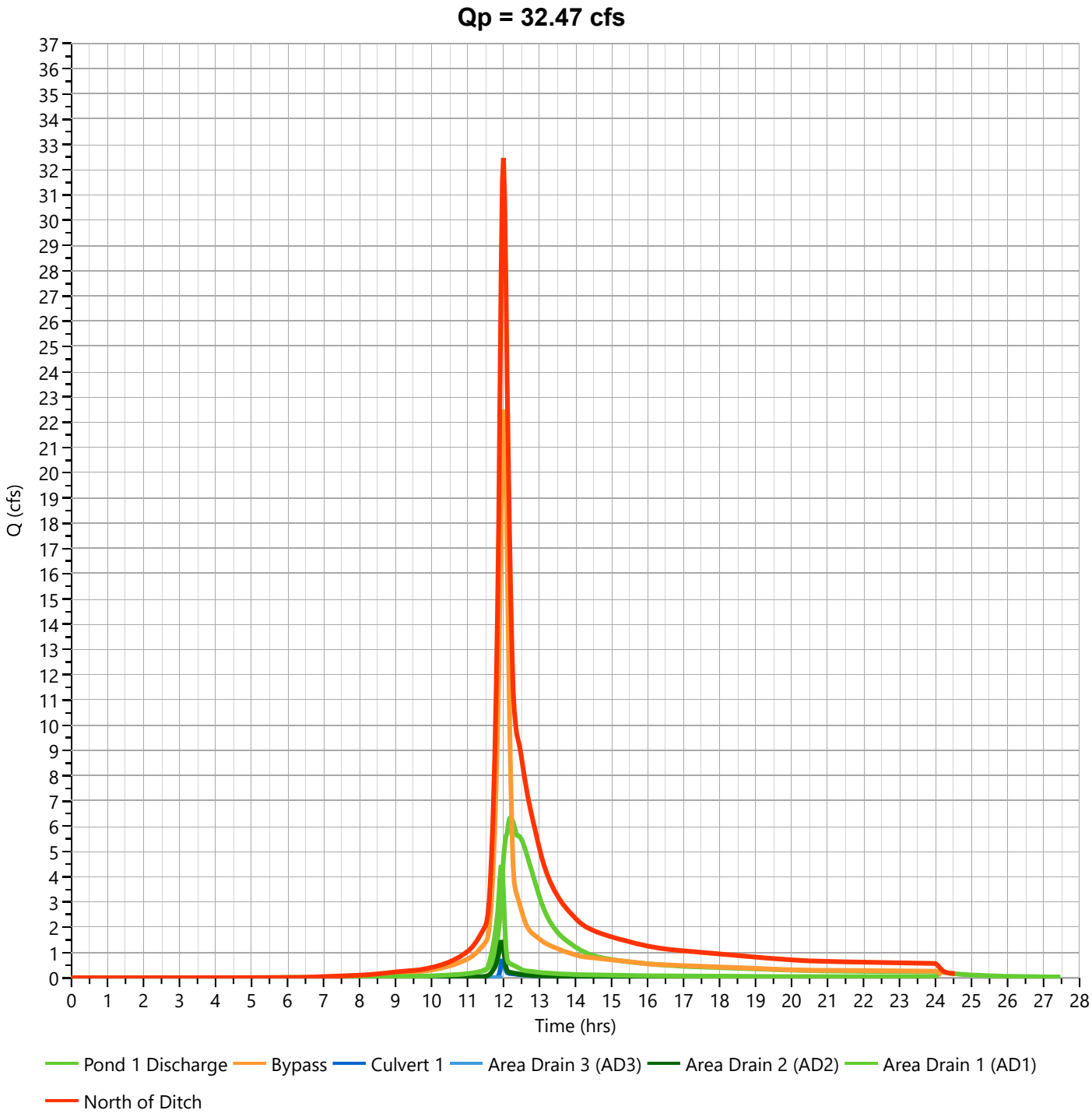


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post North of Ditch Hyd. No. 27

Hydrograph Type	= Junction	Peak Flow	= 32.47 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Hydrograph Volume	= 118,343 cuft
Inflow Hydrographs	= 14, 15, 21, 22, 23, 24	Total Contrib. Area	= 5.138 ac

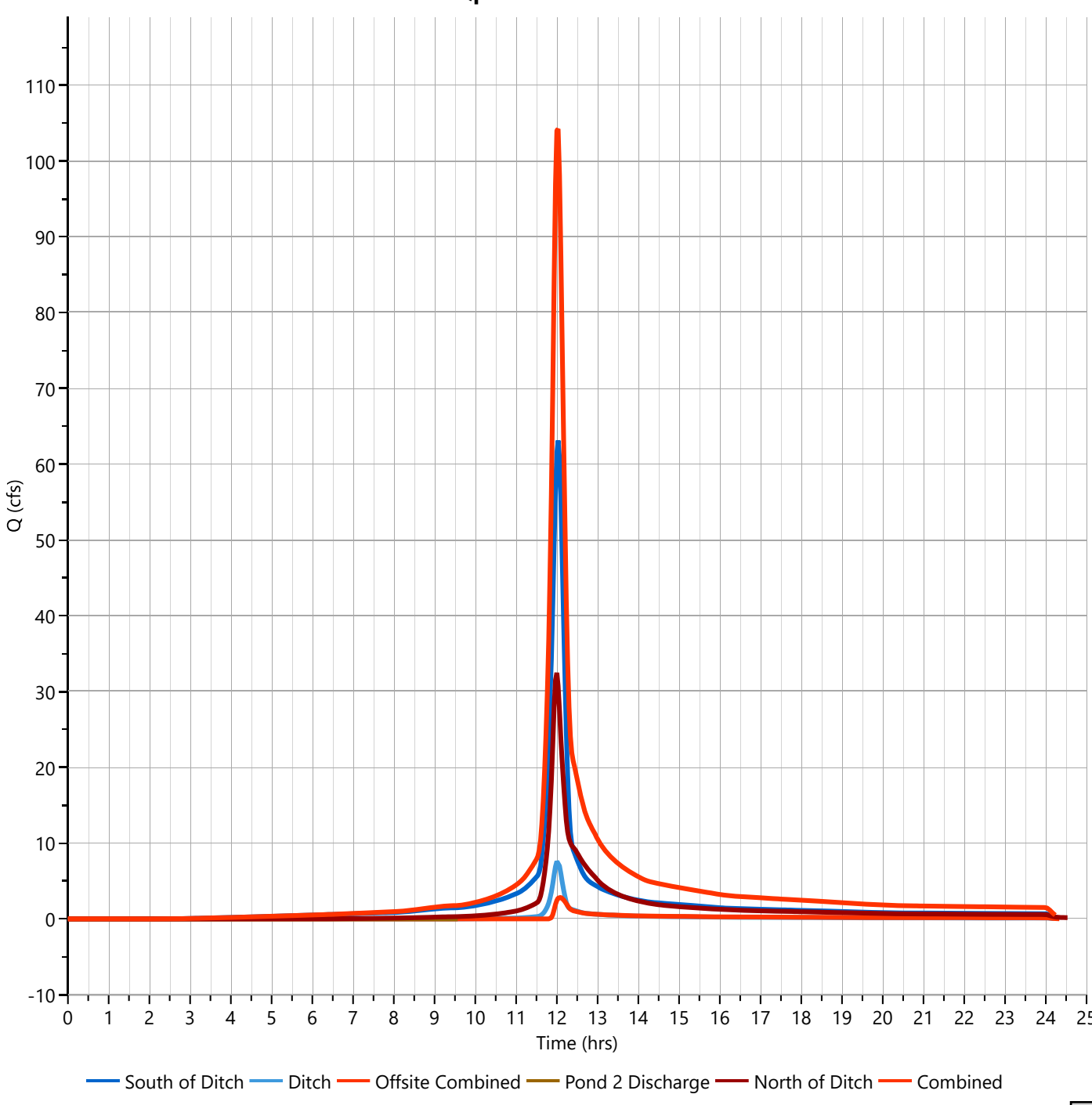


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Combined Hyd. No. 28

Hydrograph Type	= Junction	Peak Flow	= 104.2 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Hydrograph Volume	= 343,311 cuft
Inflow Hydrographs	= 11, 12, 20, 26, 27	Total Contrib. Area	= 21.17 ac



Design Storm Report

Cus

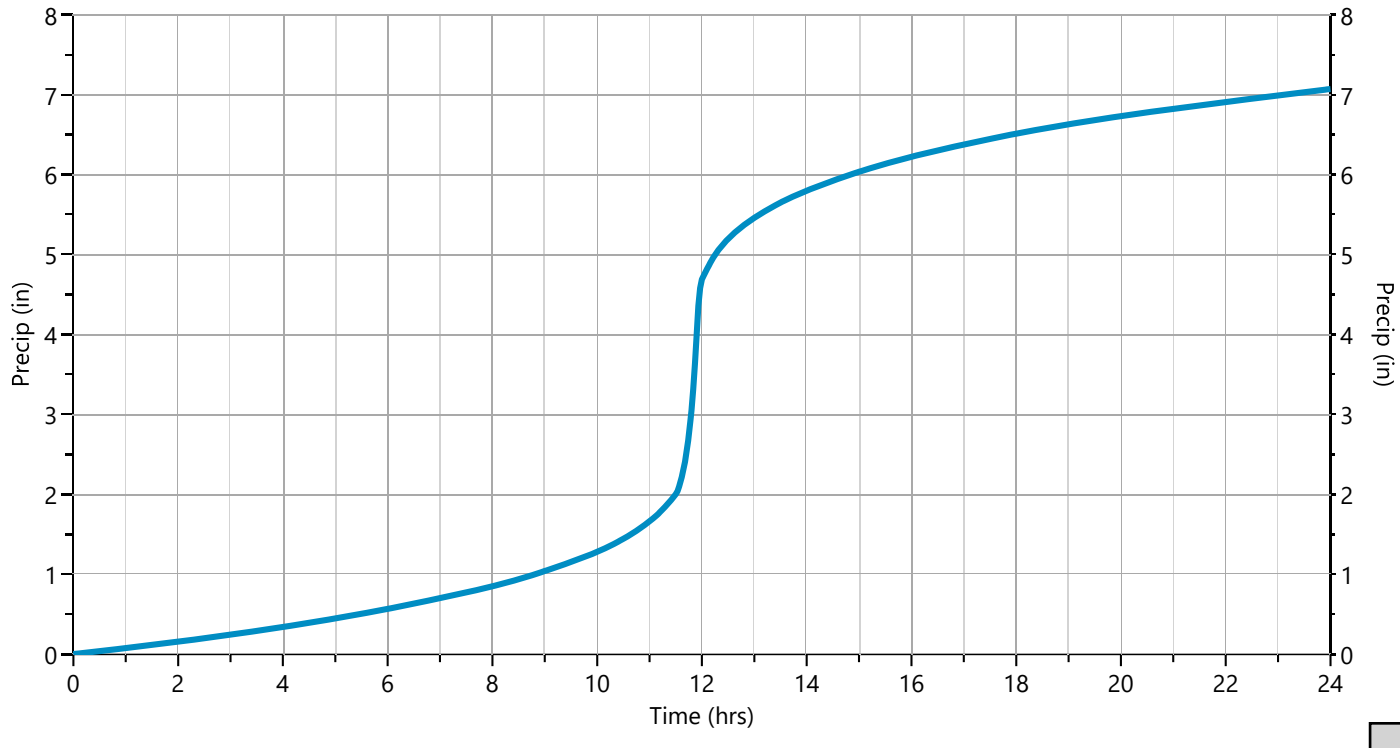
Hydrology Studio v 3.0.0.32

07-25-2024

Storm Distribution: NRCS/SCS - Type II, 24-hr

Storm Duration	Total Rainfall Volume (in)								
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	✔ 50-yr	100-yr	
24 hrs	3.26	3.90	0.00	4.74	5.42	6.34	7.07	7.82	

Incremental Rainfall Distribution, 50-yr									
Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)
10.90	0.015868	11.27	0.022624	11.63	0.093387	12.00	0.106246	12.37	0.028563
10.93	0.016183	11.30	0.023378	11.67	0.111989	12.03	0.047265	12.40	0.026772
10.97	0.016497	11.33	0.024132	11.70	0.130591	12.07	0.044683	12.43	0.024981
11.00	0.016811	11.37	0.024886	11.73	0.149193	12.10	0.042892	12.47	0.023190
11.03	0.017343	11.40	0.025641	11.77	0.171248	12.13	0.041100	12.50	0.021399
11.07	0.018099	11.43	0.026395	11.80	0.219526	12.17	0.039310	12.53	0.020301
11.10	0.018853	11.47	0.027149	11.83	0.271268	12.20	0.037518	12.57	0.019890
11.13	0.019608	11.50	0.027903	11.87	0.323010	12.23	0.035727	12.60	0.019482
11.17	0.020362	11.53	0.037634	**11.90**	**0.374752**	12.27	0.033936	12.63	0.019073
11.20	0.021116	11.57	0.056183	11.93	0.341995	12.30	0.032145	12.67	0.018665
11.23	0.021870	11.60	0.074785	11.97	0.224001	12.33	0.030354	12.70	0.018256



Hydrograph 100-yr Summary

Hydrology Studio v 3.0.0.32

07-25-2024

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Flow (cfs)	Time to Peak (hrs)	Hydrograph Volume (cuft)	Inflow Hyd(s)	Maximum Elevation (ft)	Maximum Storage (cuft)
1	NRCS Runoff	Pre South of Ditch	70.29	12.03	212,832	----		
2	NRCS Runoff	Pre Ditch	8.663	12.00	22,658	----		
3	NRCS Runoff	Pre North of Ditch	59.51	12.03	166,941	----		
4	NRCS Runoff	Pre Offsite 1	0.246	11.97	601	----		
5	NRCS Runoff	Pre Offsite 2	4.207	12.10	17,312	----		
6	NRCS Runoff	Pre Offsite 3	0.038	11.97	92.1	----		
7	NRCS Runoff	Post Offsite 4	0.946	11.97	2,306	----		
8	Junction	Pre Offsite Combined	4.652	12.07	20,311	4, 5, 6, 7		
9	Junction	Pre Total	139.1	12.03	404,737	1, 2, 3, 7		
11	NRCS Runoff	Post South of Ditch	70.41	12.03	213,505	----		
12	NRCS Runoff	Post Ditch	9.120	12.00	23,771	----		
13	NRCS Runoff	Post North to Pond 1	20.42	12.00	52,953	----		
14	Pond Route	Post Pond 1 Discharge	7.581	12.20	52,926	13	630.27	17,703
15	NRCS Runoff	Post Bypass	25.88	12.00	67,741	----		
16	NRCS Runoff	Post Offsite 1	0.246	11.97	601	----		
17	NRCS Runoff	Post Offsite 2	4.207	12.10	17,312	----		
18	NRCS Runoff	Post Offsite 3	0.038	11.97	92.1	----		
19	NRCS Runoff	Post Offsite 4	0.946	11.97	2,306	----		
20	Junction	Post Offsite Combined	4.652	12.07	20,311	16, 17, 18, 19		
21	NRCS Runoff	Post Culvert 1	1.150	11.97	2,804	----		
22	NRCS Runoff	Post Area Drain 3 (AD3)	0.010	11.93	23.0	----		
23	NRCS Runoff	Post Area Drain 2 (AD2)	1.759	11.93	3,552	----		
24	NRCS Runoff	Post Area Drain 1 (AD1)	5.028	11.93	10,750	----		
25	NRCS Runoff	Post North to Pond 2	10.17	11.93	21,156	----		
26	Pond Route	Post Pond 2 Discharge	0.000	8.90	0.000	25	534.88	16,090
27	Junction	Post North of Ditch	37.52	12.00	137,796	14, 15, 21, 22, 23, 24		
28	Junction	Post Combined	119.5	12.00	395,383	11, 12, 20, 26, 27		

Hydrograph Report

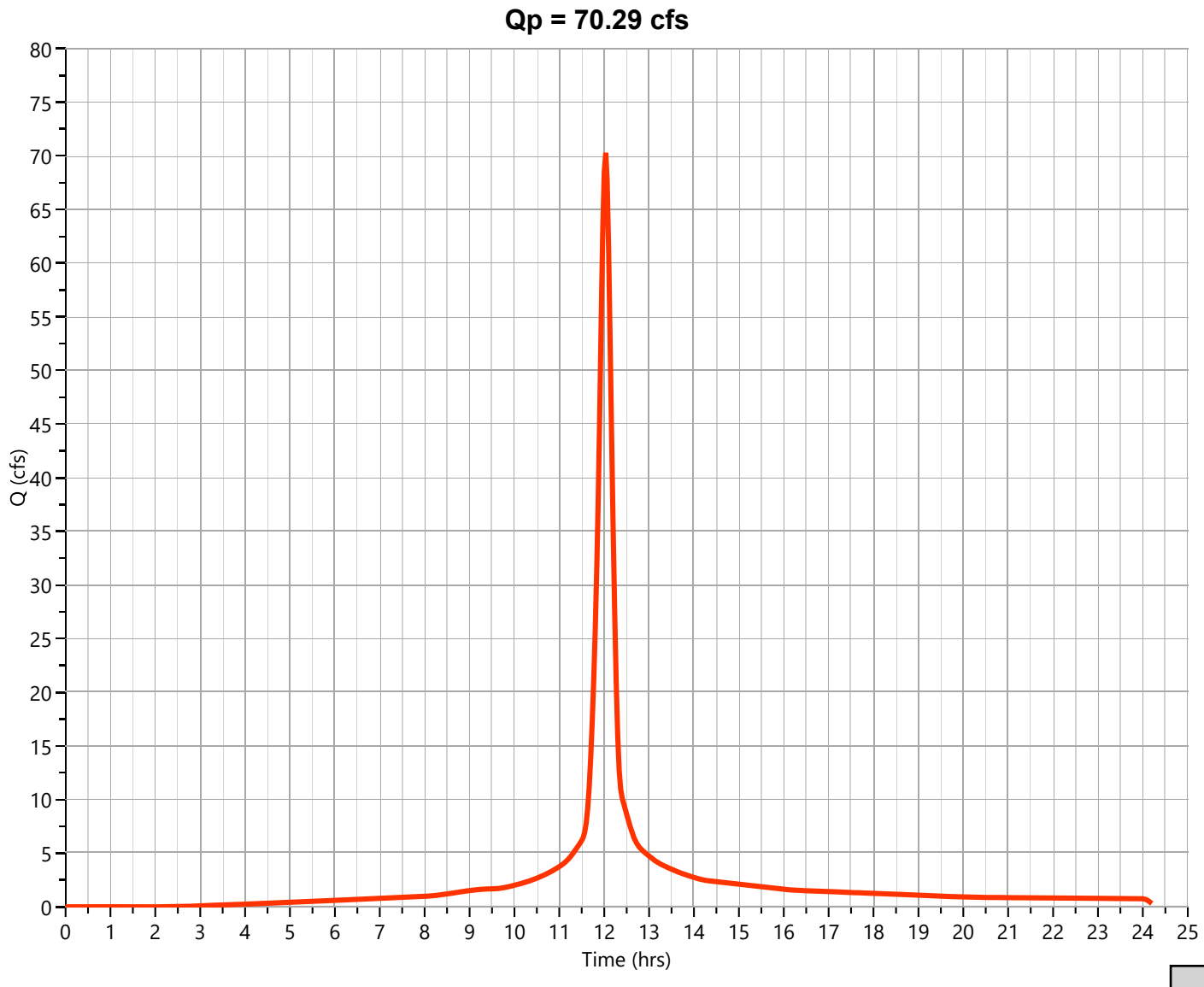
Hydrology Studio v 3.0.0.32 07-25-2024

Pre South of Ditch Hyd. No. 1

Hydrograph Type	= NRCS Runoff	Peak Flow	= 70.29 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 212,832 cuft
Drainage Area	= 8.91 ac	Curve Number	= 91.02*
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 15.27 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
8.69	91	No Rating (Row Crops)
0.2	91	Gravel
0.02	98	Concrete
8.91	**91**	Weighted CN Method Employed



Hydrograph Report

Hydrology Studio v 3.0.0.32

07-25-2024

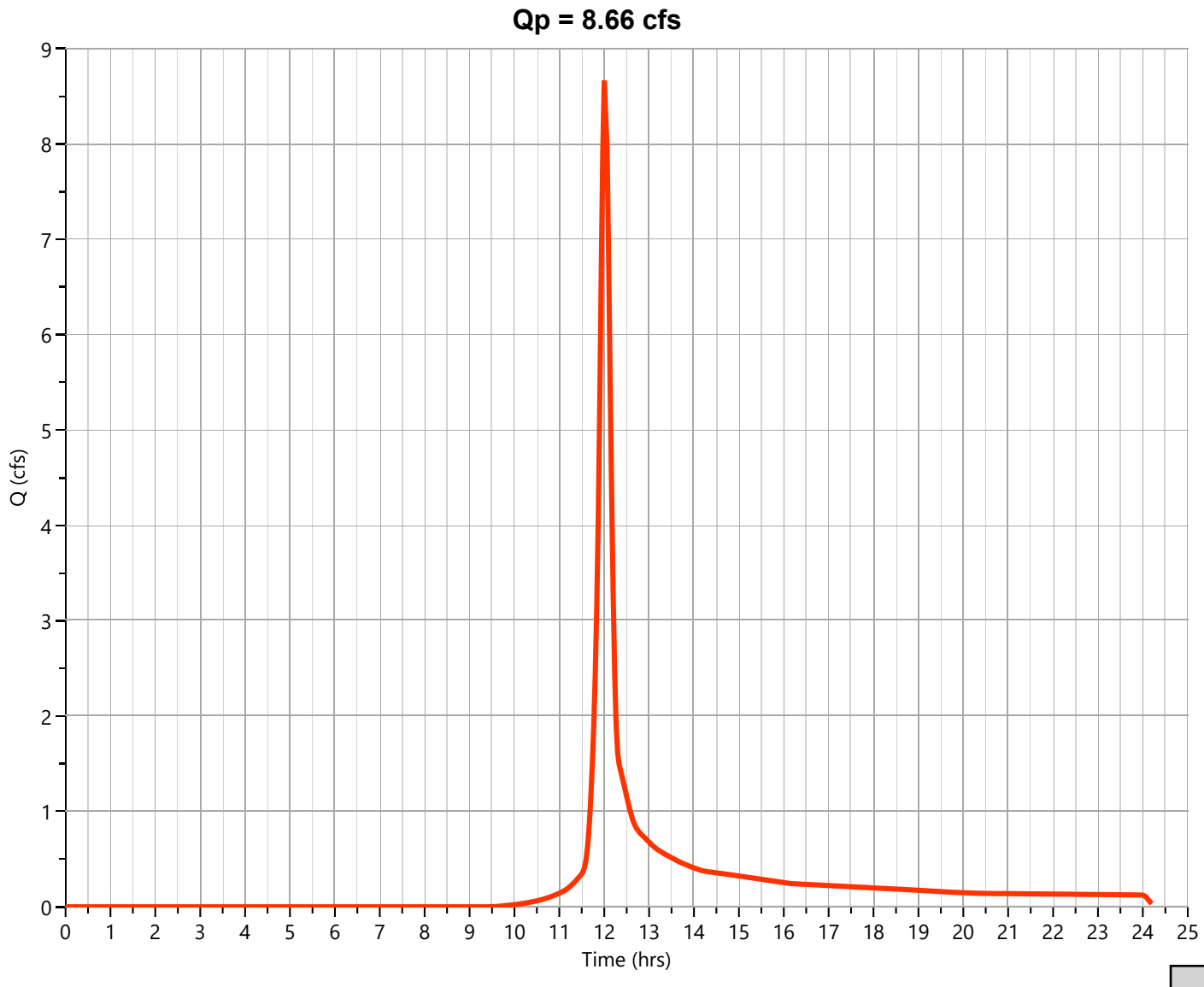
Pre Ditch

Hyd. No. 2

Hydrograph Type	= NRCS Runoff	Peak Flow	= 8.663 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Runoff Volume	= 22,658 cuft
Drainage Area	= 1.79 ac	Curve Number	= 61.67*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
1.75	61	Ditch (inside buffer)
0.04	91	Gravel
1.79	**62**	Weighted CN Method Employed



Hydrograph Report

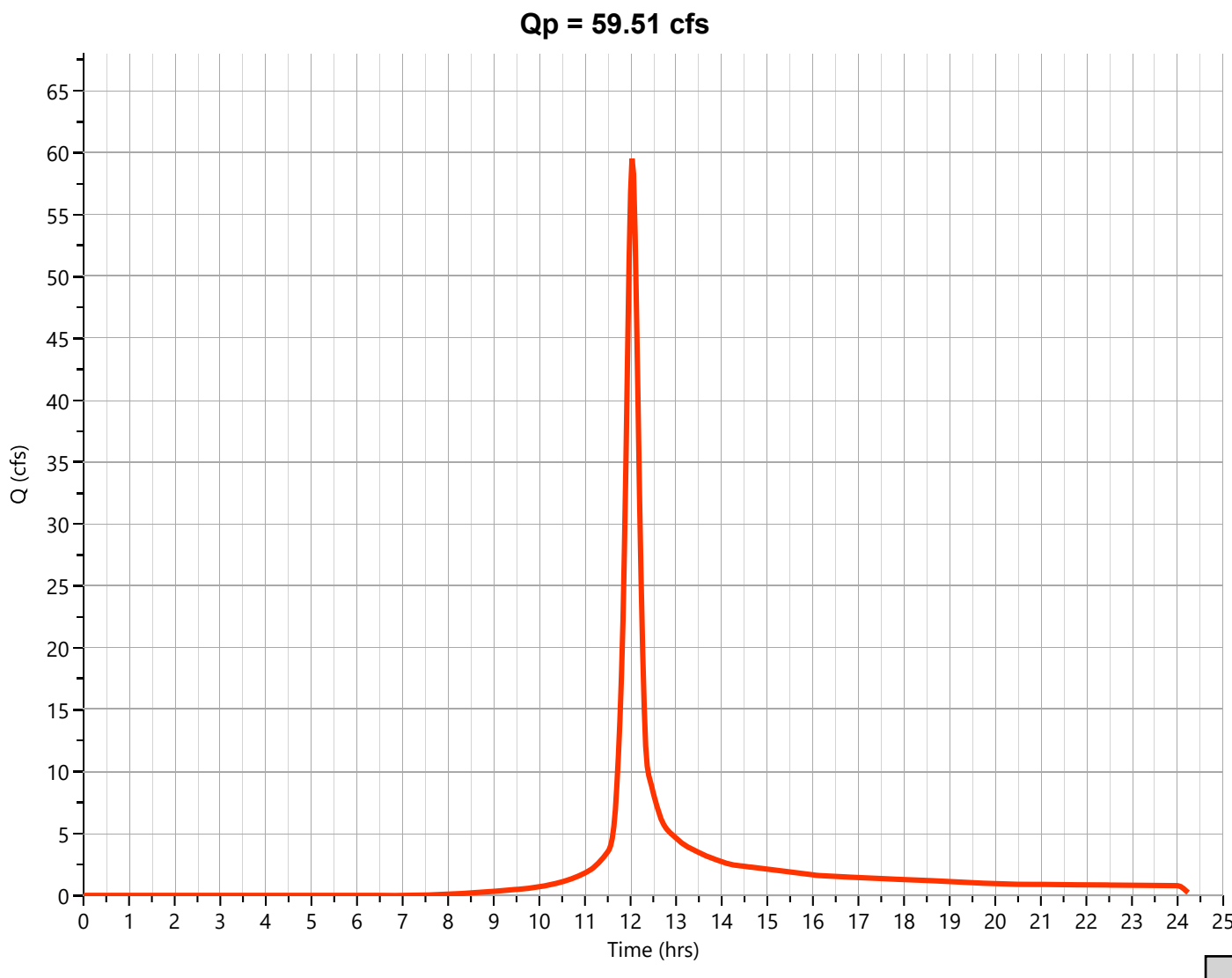
Hydrology Studio v 3.0.0.32 07-25-2024

Pre North of Ditch Hyd. No. 3

Hydrograph Type	= NRCS Runoff	Peak Flow	= 59.51 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 166,941 cuft
Drainage Area	= 10.55 ac	Curve Number	= 71.42*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
3.945	79	Pervious (C)
3.945	49	Pervious (A)
0.89	98	Buildings
1.73	91	Gravel
0.04	98	Concrete
10.55	**71**	Weighted CN Method Employed



Hydrograph Report

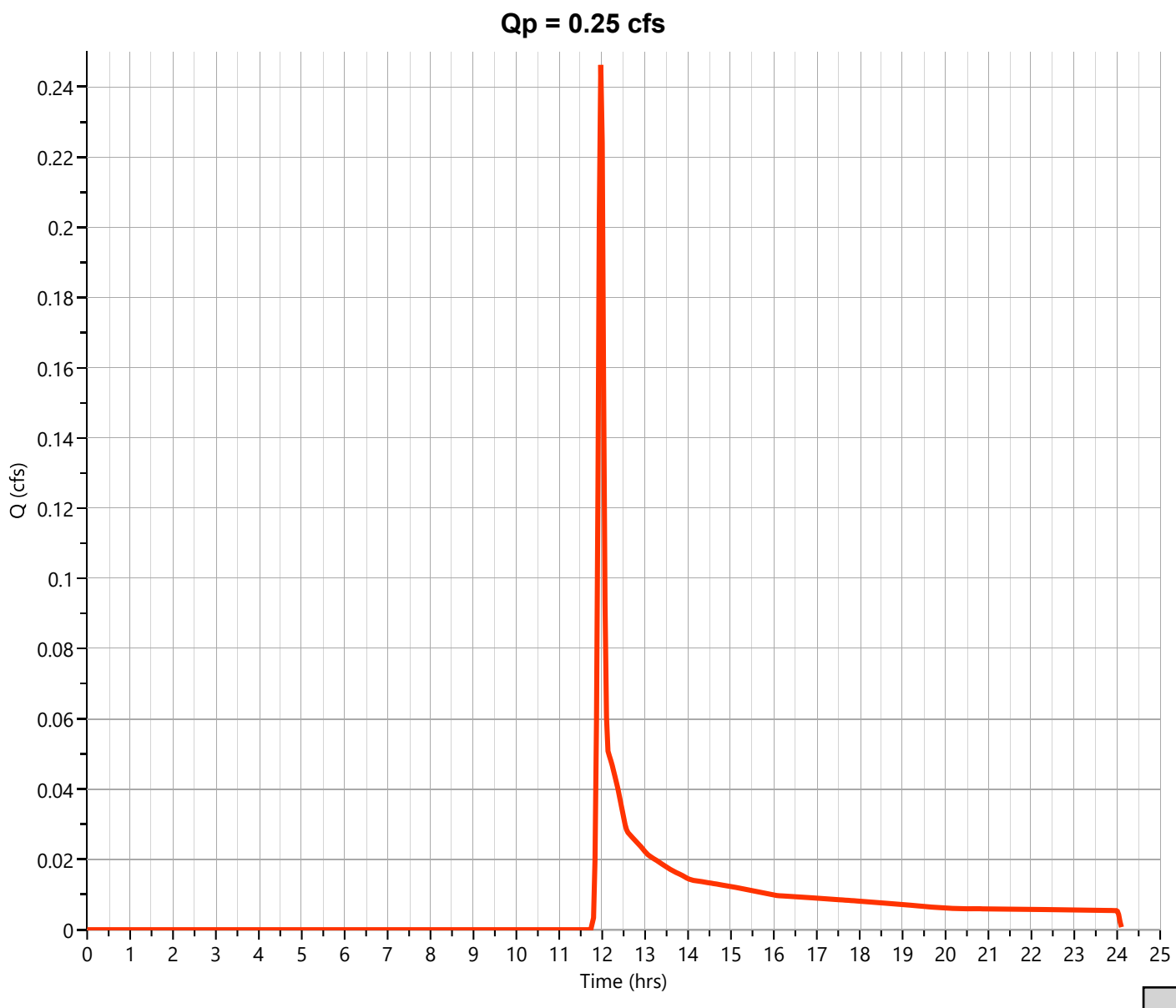
Hydrology Studio v 3.0.0.32 07-25-2024

Pre Offsite 1 Hyd. No. 4

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.246 cfs
Storm Frequency	= 100-yr	Time to Peak	= 11.97 hrs
Time Interval	= 2 min	Runoff Volume	= 601 cuft
Drainage Area	= 0.163 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.163	39	Offsite
0.163	**39**	Weighted CN Method Employed



Hydrograph Report

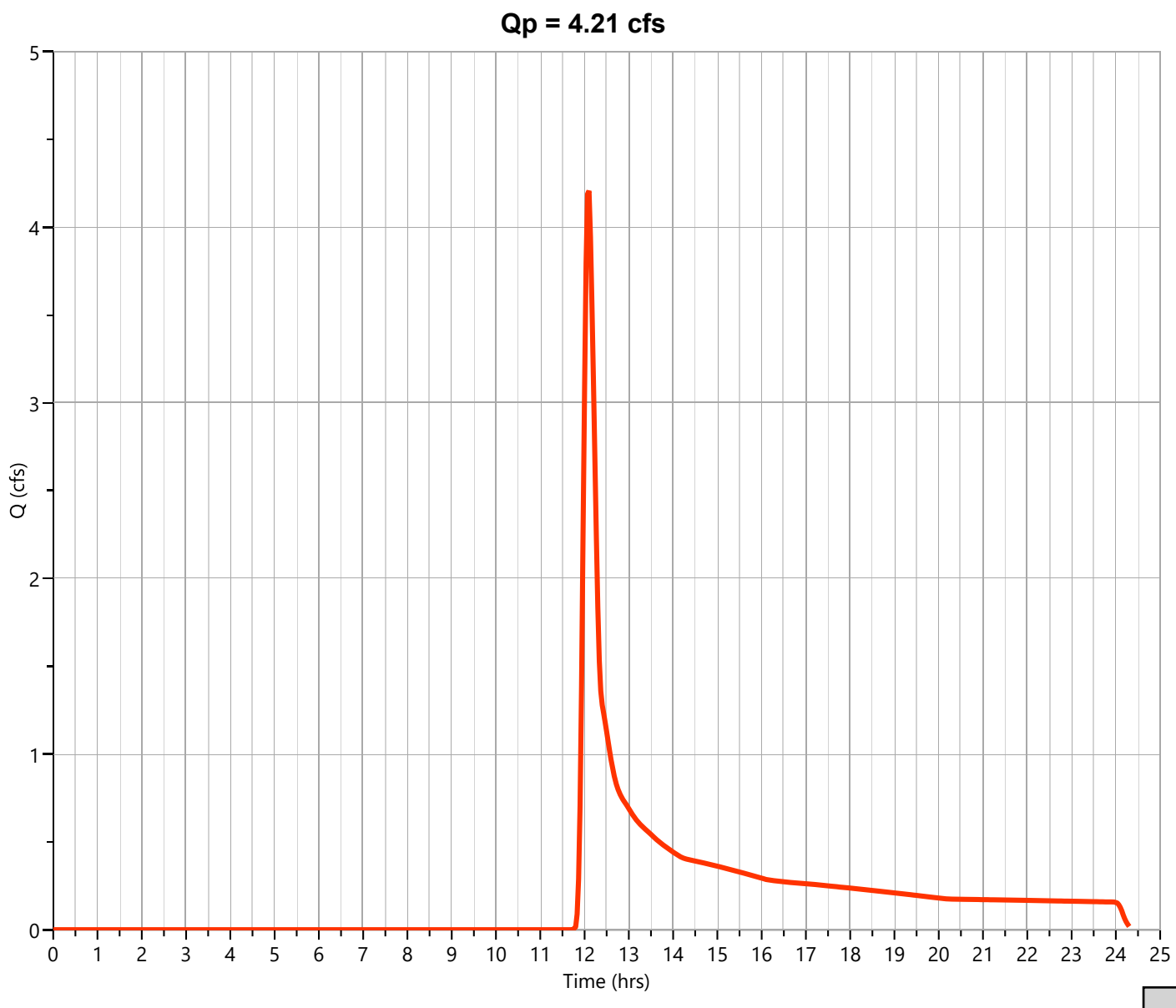
Hydrology Studio v 3.0.0.32 07-25-2024

Pre Offsite 2 Hyd. No. 5

Hydrograph Type	= NRCS Runoff	Peak Flow	= 4.207 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.10 hrs
Time Interval	= 2 min	Runoff Volume	= 17,312 cuft
Drainage Area	= 4.518 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
4.518	39	Offsite
4.518	**39**	Weighted CN Method Employed



Hydrograph Report

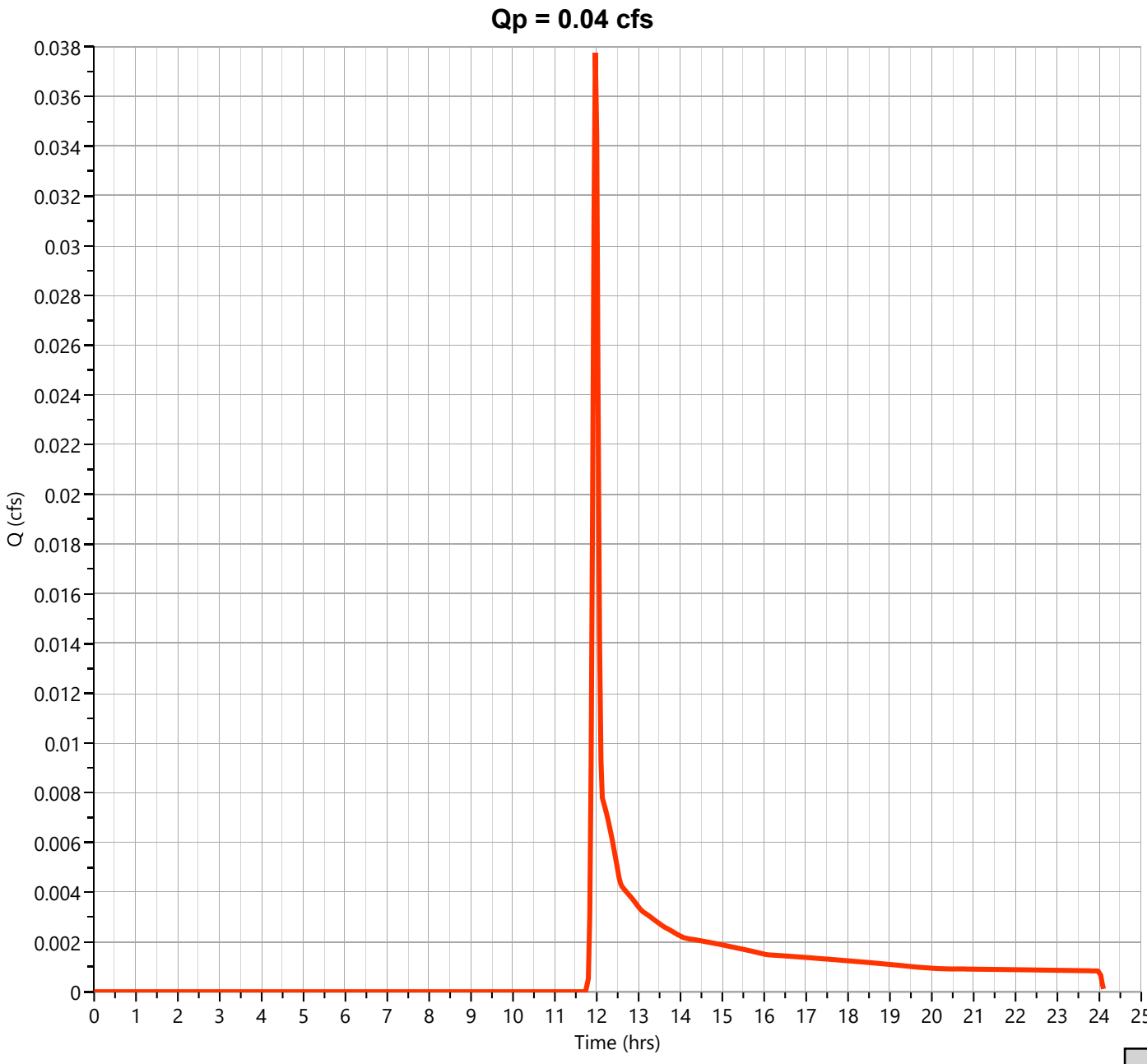
Hydrology Studio v 3.0.0.32

07-25-2024

Pre Offsite 3

Hyd. No. 6

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.038 cfs
Storm Frequency	= 100-yr	Time to Peak	= 11.97 hrs
Time Interval	= 2 min	Runoff Volume	= 92.1 cuft
Drainage Area	= 0.025 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484



Hydrograph Report

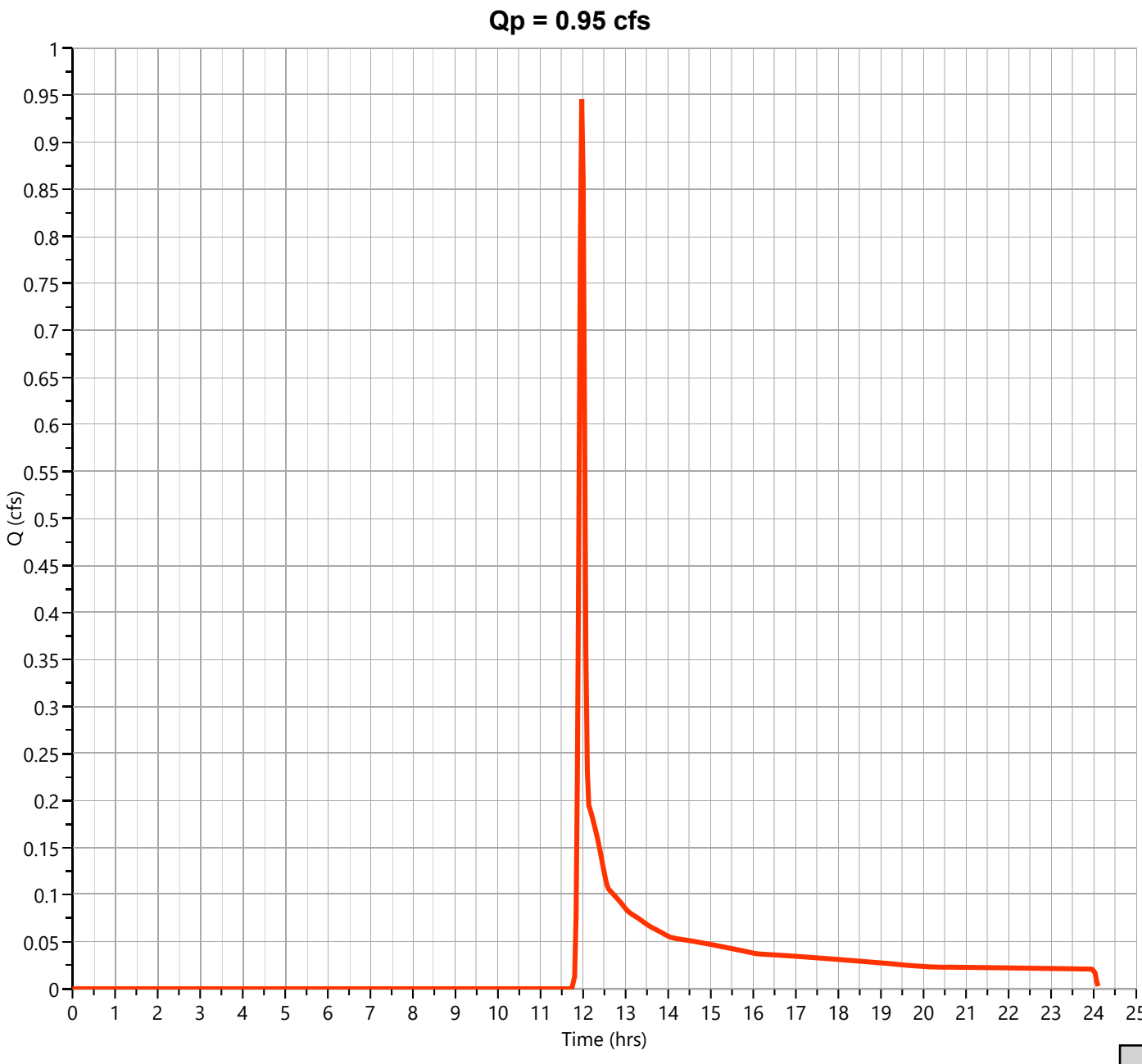
Hydrology Studio v 3.0.0.32

07-25-2024

Post Offsite 4

Hyd. No. 7

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.946 cfs
Storm Frequency	= 100-yr	Time to Peak	= 11.97 hrs
Time Interval	= 2 min	Runoff Volume	= 2,306 cuft
Drainage Area	= 0.626 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484



Hydrograph Report

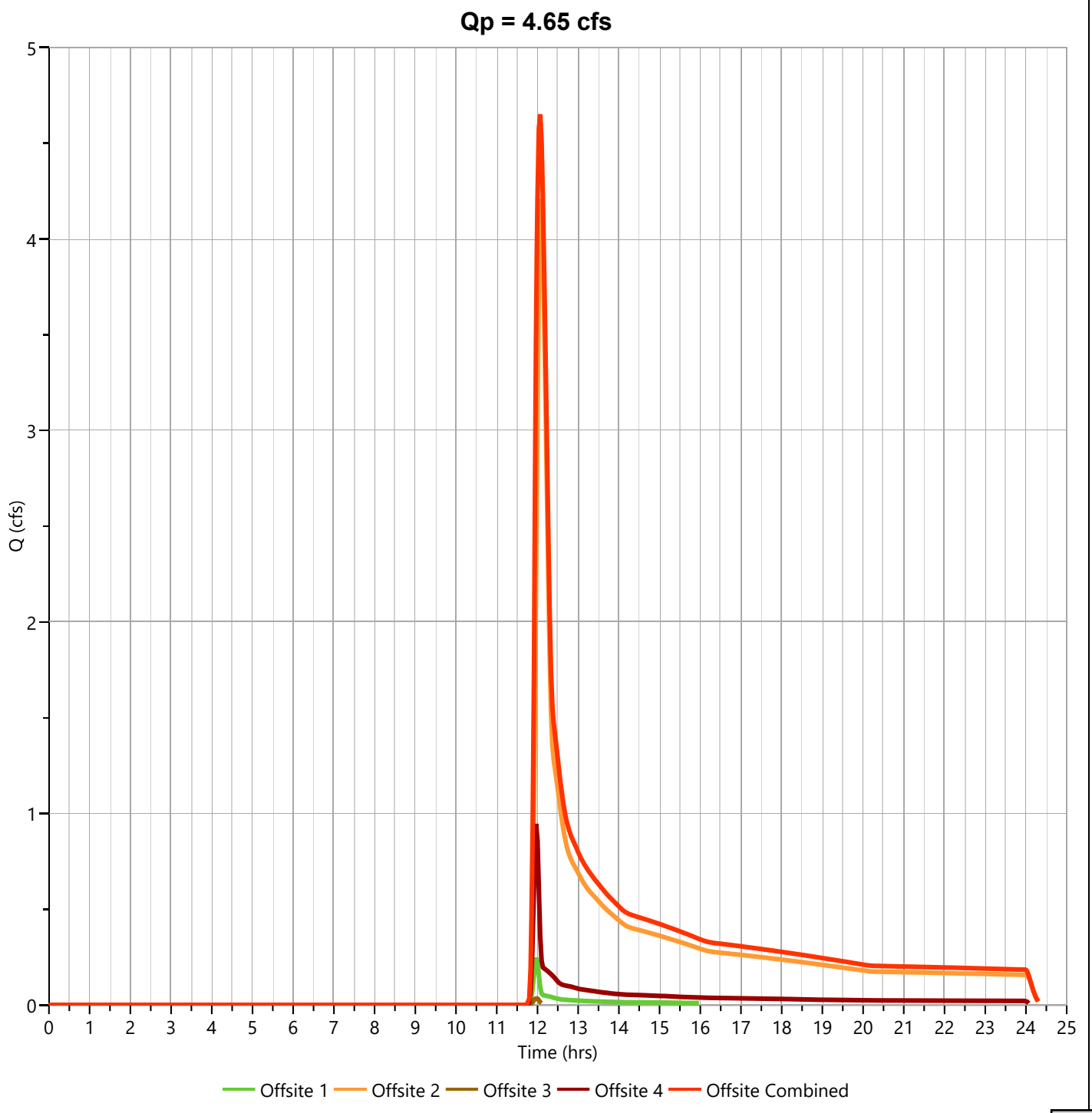
Hydrology Studio v 3.0.0.32

07-25-2024

Pre Offsite Combined

Hyd. No. 8

Hydrograph Type	= Junction	Peak Flow	= 4.652 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.07 hrs
Time Interval	= 2 min	Hydrograph Volume	= 20,311 cuft
Inflow Hydrographs	= 4, 5, 6, 7	Total Contrib. Area	= 5.332 ac

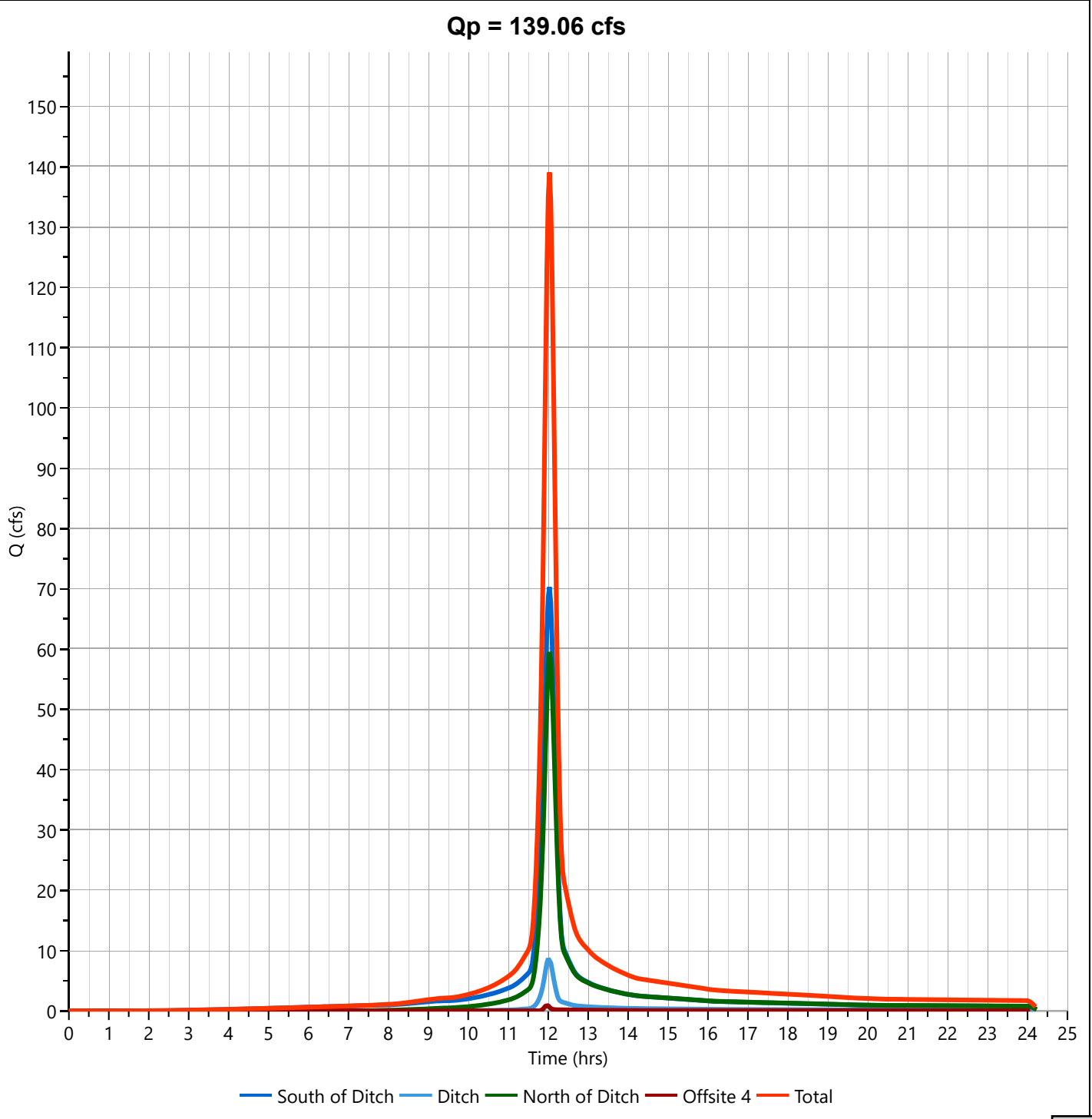


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Pre Total Hyd. No. 9

Hydrograph Type	= Junction	Peak Flow	= 139.1 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Hydrograph Volume	= 404,737 cuft
Inflow Hydrographs	= 1, 2, 3, 7	Total Contrib. Area	= 21.876 ac



Hydrograph Report

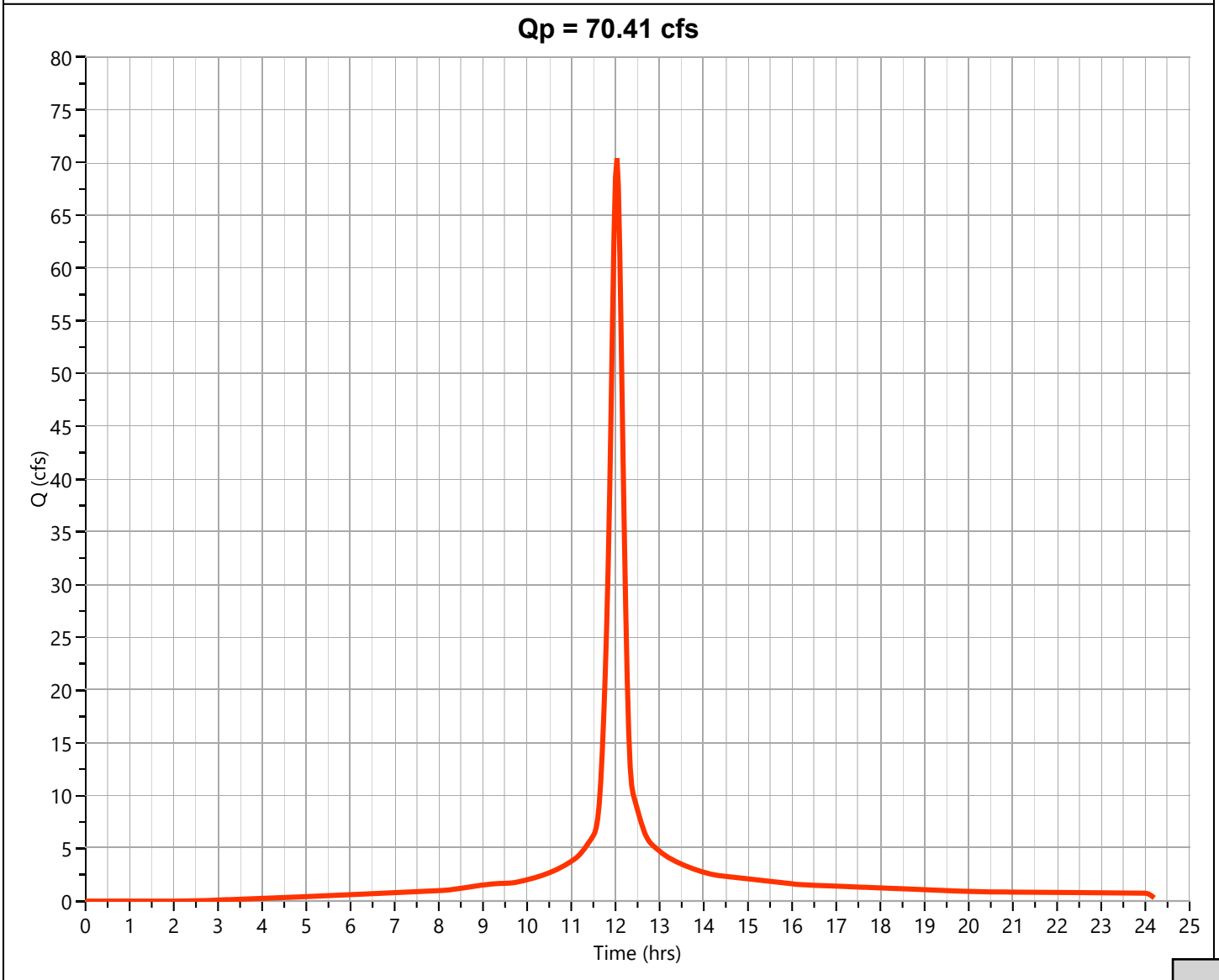
Hydrology Studio v 3.0.0.32 07-25-2024

Post South of Ditch Hyd. No. 11

Hydrograph Type	= NRCS Runoff	Peak Flow	= 70.41 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 213,505 cuft
Drainage Area	= 8.91 ac	Curve Number	= 91.2*
Tc Method	= User	Time of Conc. (Tc)	= 15.27 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
7.83	91	Row Crop
0.82	91	Gravel Drive
0.26	98	Concrete
8.91	**91**	Weighted CN Method Employed



Hydrograph Report

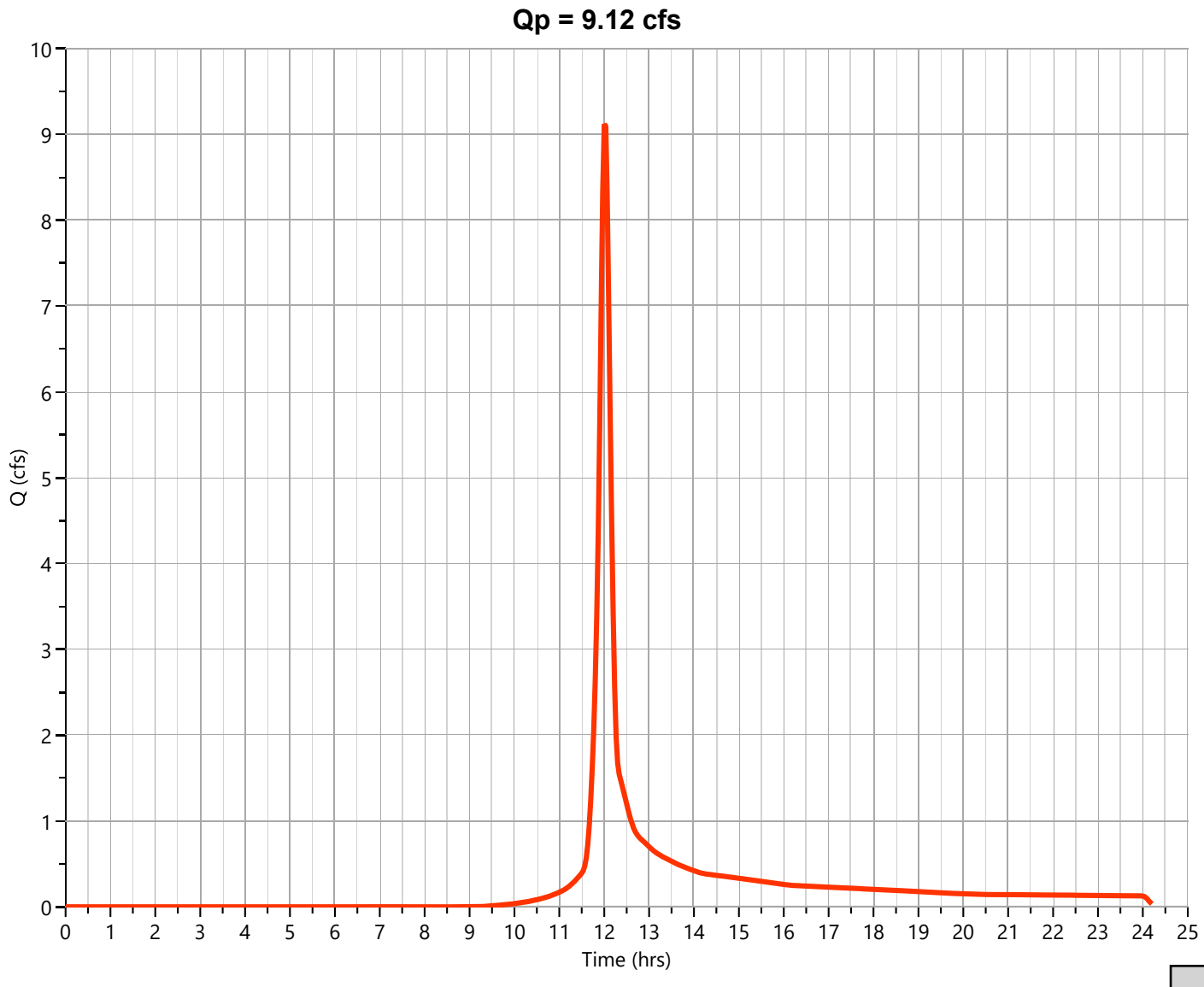
Hydrology Studio v 3.0.0.32 07-25-2024

Post Ditch Hyd. No. 12

Hydrograph Type	= NRCS Runoff	Peak Flow	= 9.120 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Runoff Volume	= 23,771 cuft
Drainage Area	= 1.79 ac	Curve Number	= 63.18*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
1.66	61	Ditch (inside buffer)
0.13	91	Gravel
1.79	**63**	Weighted CN Method Employed



Hydrograph Report

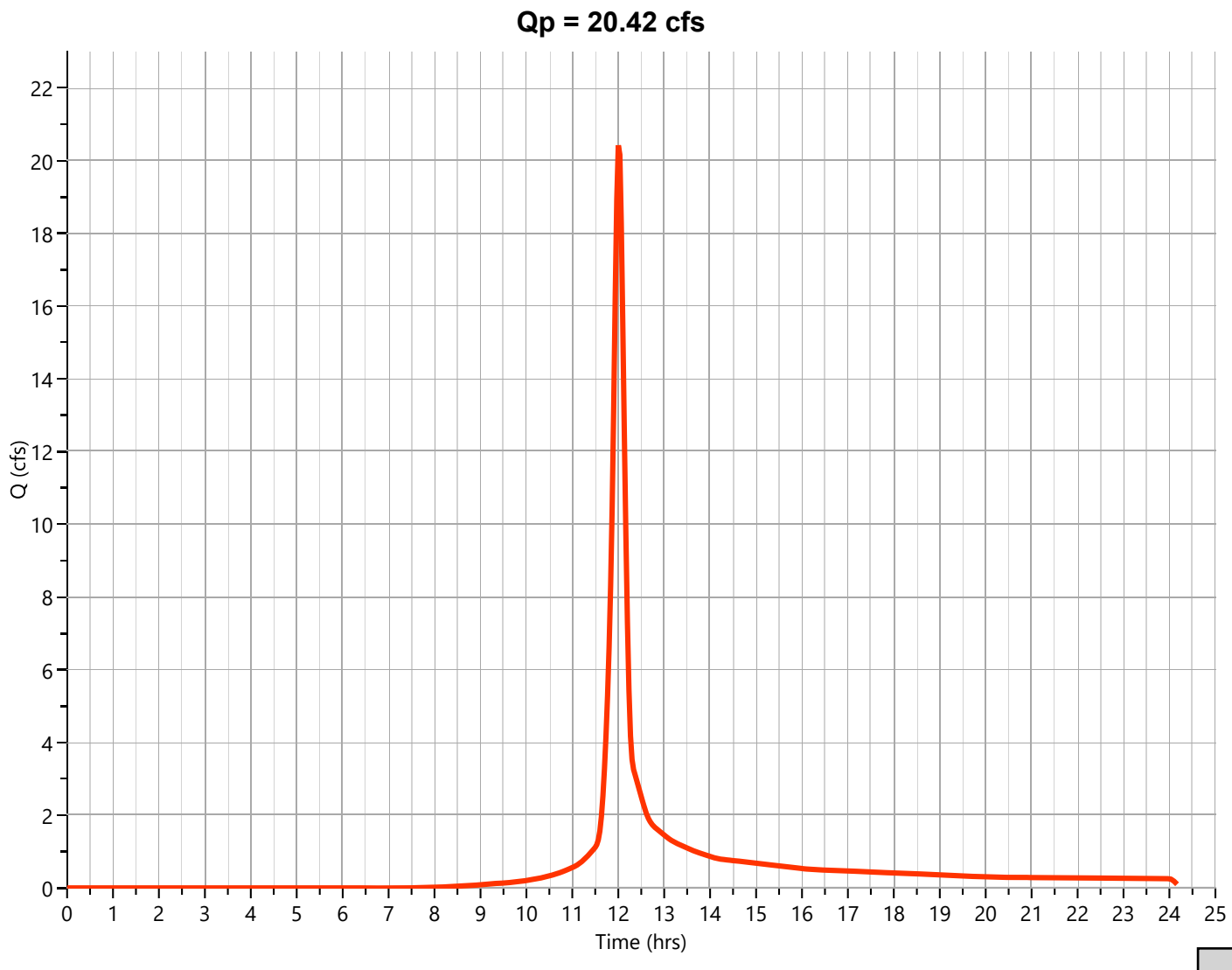
Hydrology Studio v 3.0.0.32 07-25-2024

Post North to Pond 1 Hyd. No. 13

Hydrograph Type	= NRCS Runoff	Peak Flow	= 20.42 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Runoff Volume	= 52,953 cuft
Drainage Area	= 3.282 ac	Curve Number	= 70*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
1.4	49	Pervious (A)
0.936	79	Pervious (C)
0.566	91	Gravel
0.38	98	Buildings
3.282	**70**	Weighted CN Method Employed



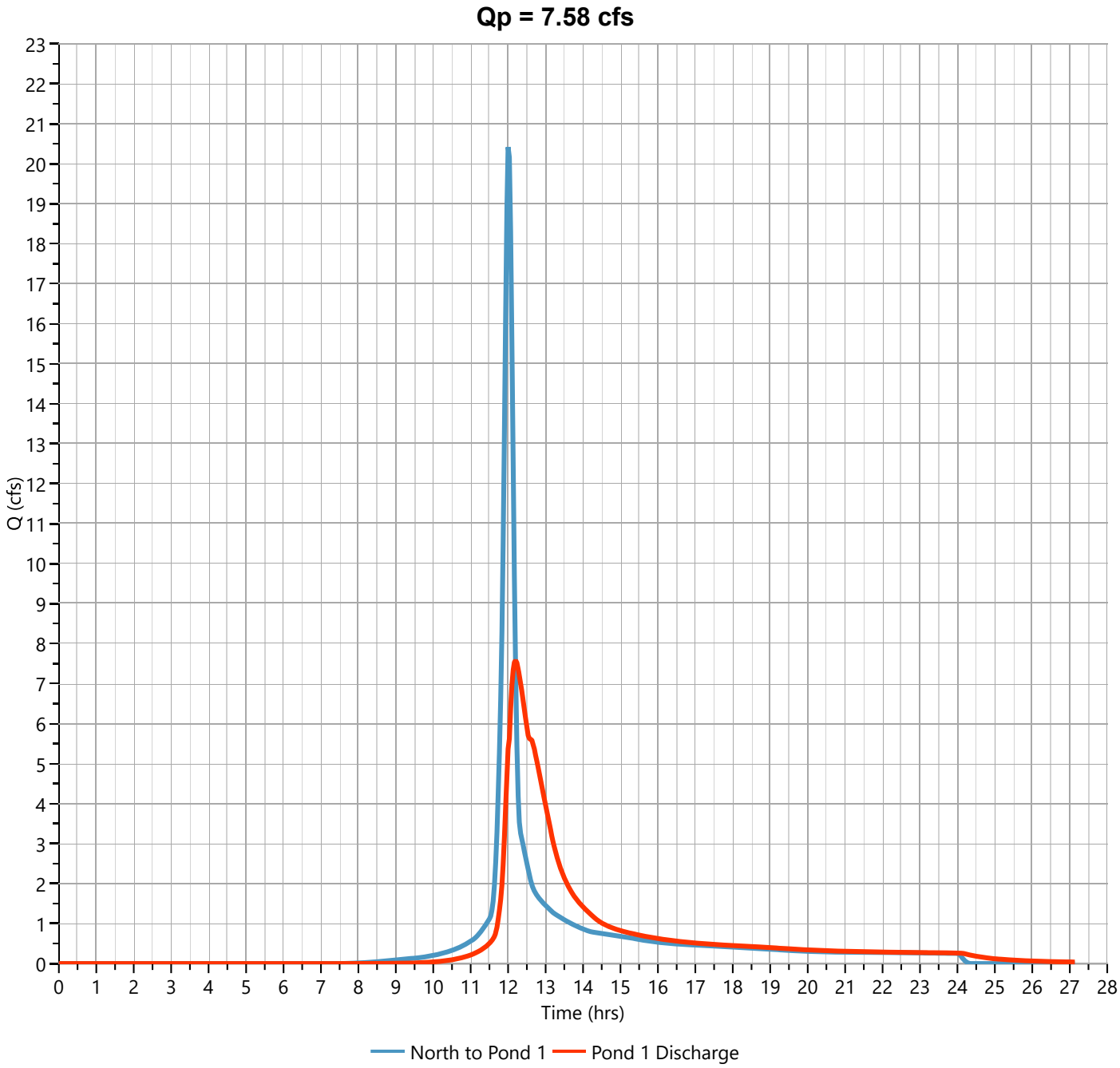
Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Pond 1 Discharge Hyd. No. 14

Hydrograph Type	= Pond Route	Peak Flow	= 7.581 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.20 hrs
Time Interval	= 2 min	Hydrograph Volume	= 52,926 cuft
Inflow Hydrograph	= 13 - North to Pond 1	Max. Elevation	= 630.27 ft
Pond Name	= Pond 1	Max. Storage	= 17,703 cuft

Pond Routing by Storage Indication Method *Center of mass detention time = 44 min*



Hydrograph Report

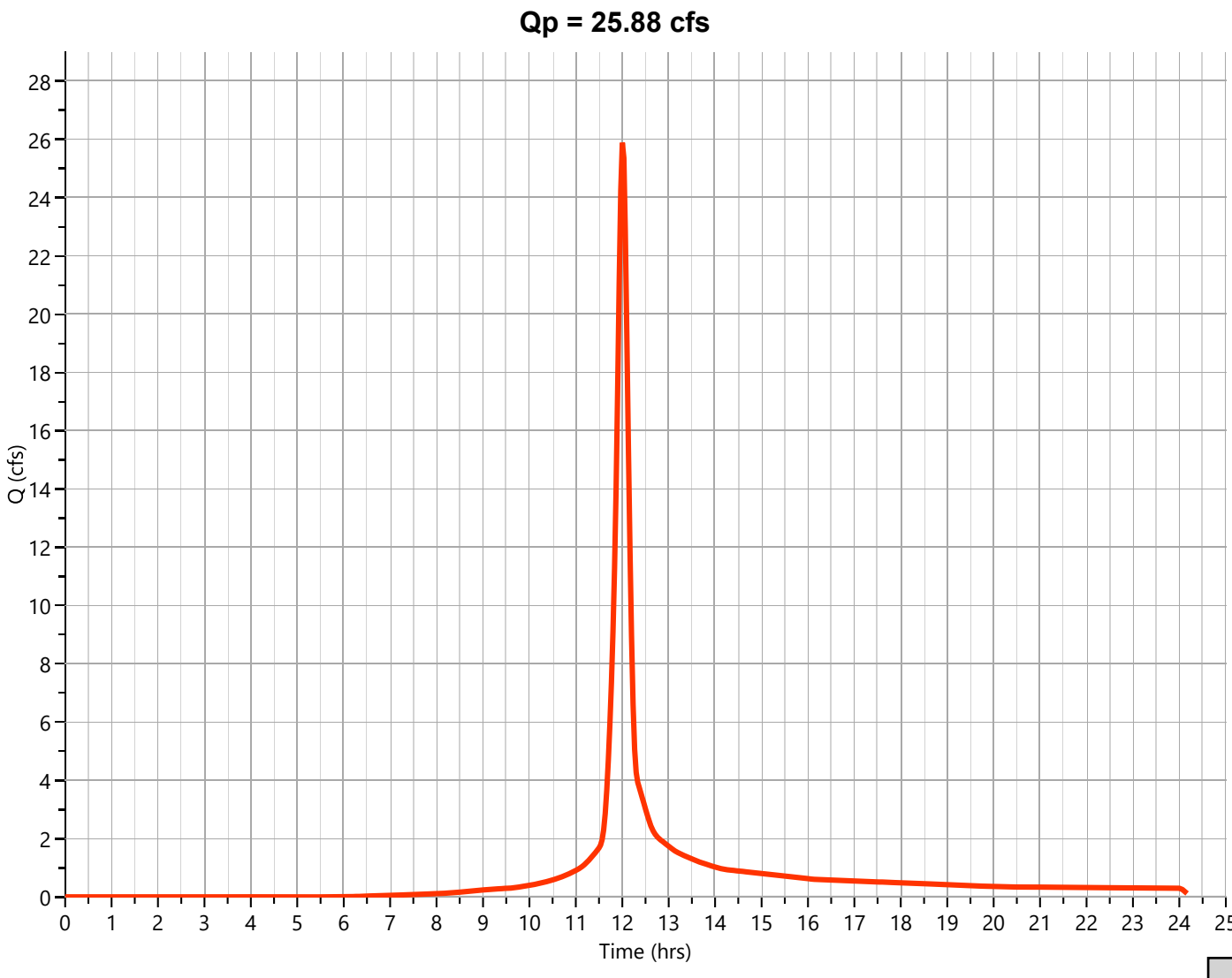
Hydrology Studio v 3.0.0.32 07-25-2024

Post Bypass Hyd. No. 15

Hydrograph Type	= NRCS Runoff	Peak Flow	= 25.88 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Runoff Volume	= 67,741 cuft
Drainage Area	= 3.569 ac	Curve Number	= 76.66*
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.95	49	Pervious (A)
1.26	79	Pervious (C)
0.81	91	Gravel
0.549	98	Buildings
3.569	**77**	Weighted CN Method Employed



Hydrograph Report

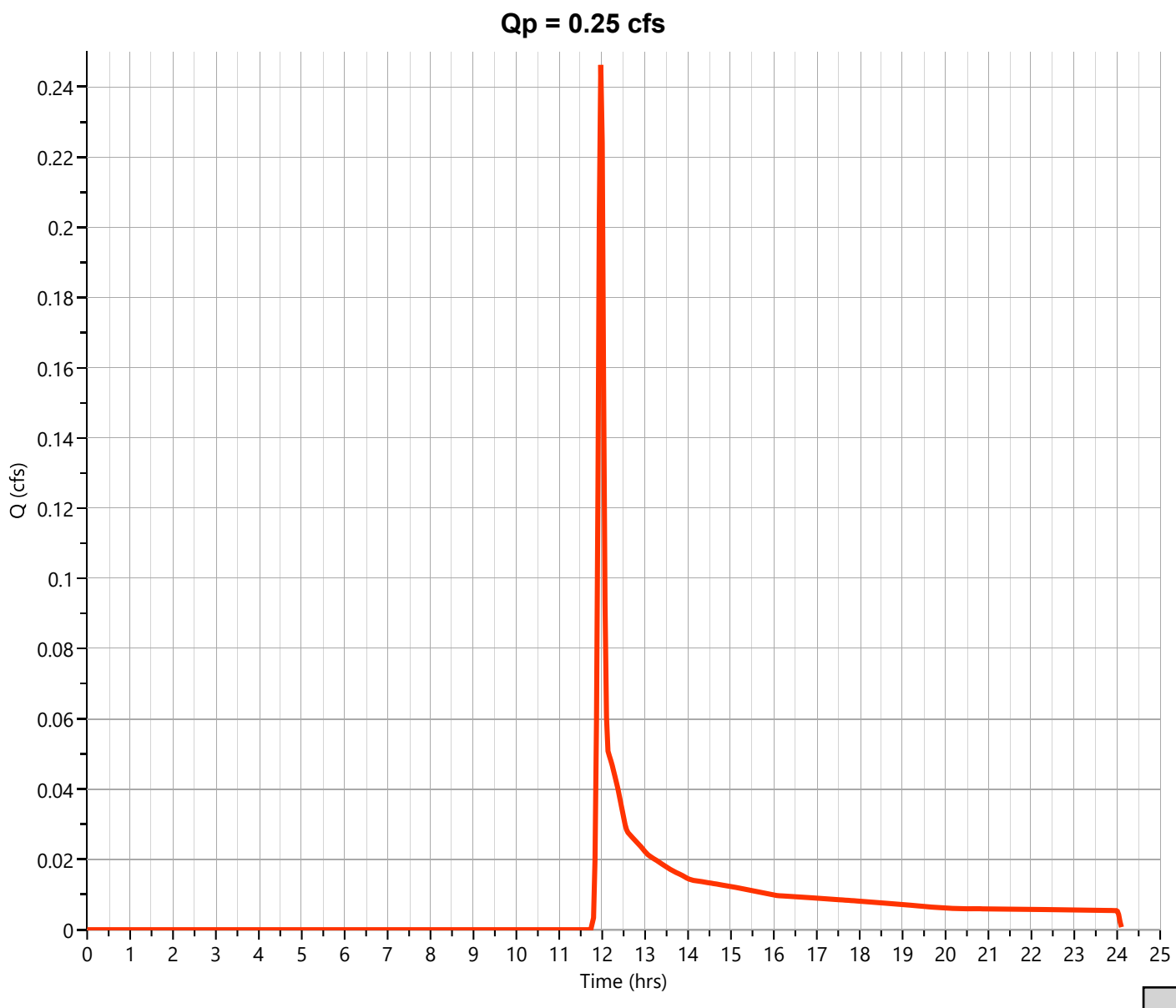
Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 1 Hyd. No. 16

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.246 cfs
Storm Frequency	= 100-yr	Time to Peak	= 11.97 hrs
Time Interval	= 2 min	Runoff Volume	= 601 cuft
Drainage Area	= 0.163 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.163	39	Offsite
0.163	**39**	Weighted CN Method Employed



Hydrograph Report

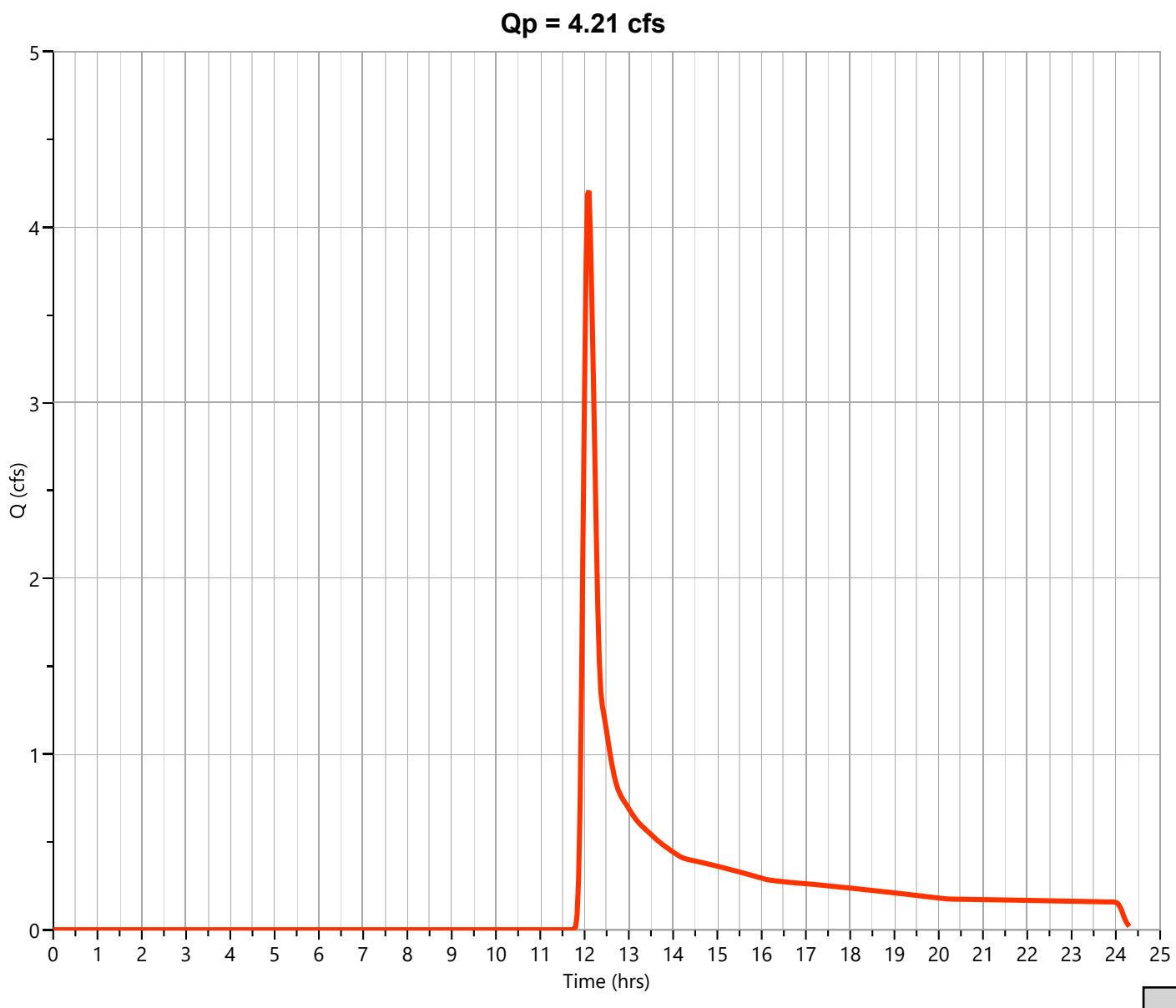
Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 2 Hyd. No. 17

Hydrograph Type	= NRCS Runoff	Peak Flow	= 4.207 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.10 hrs
Time Interval	= 2 min	Runoff Volume	= 17,312 cuft
Drainage Area	= 4.518 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
4.518	39	Offsite
4.518	**39**	Weighted CN Method Employed

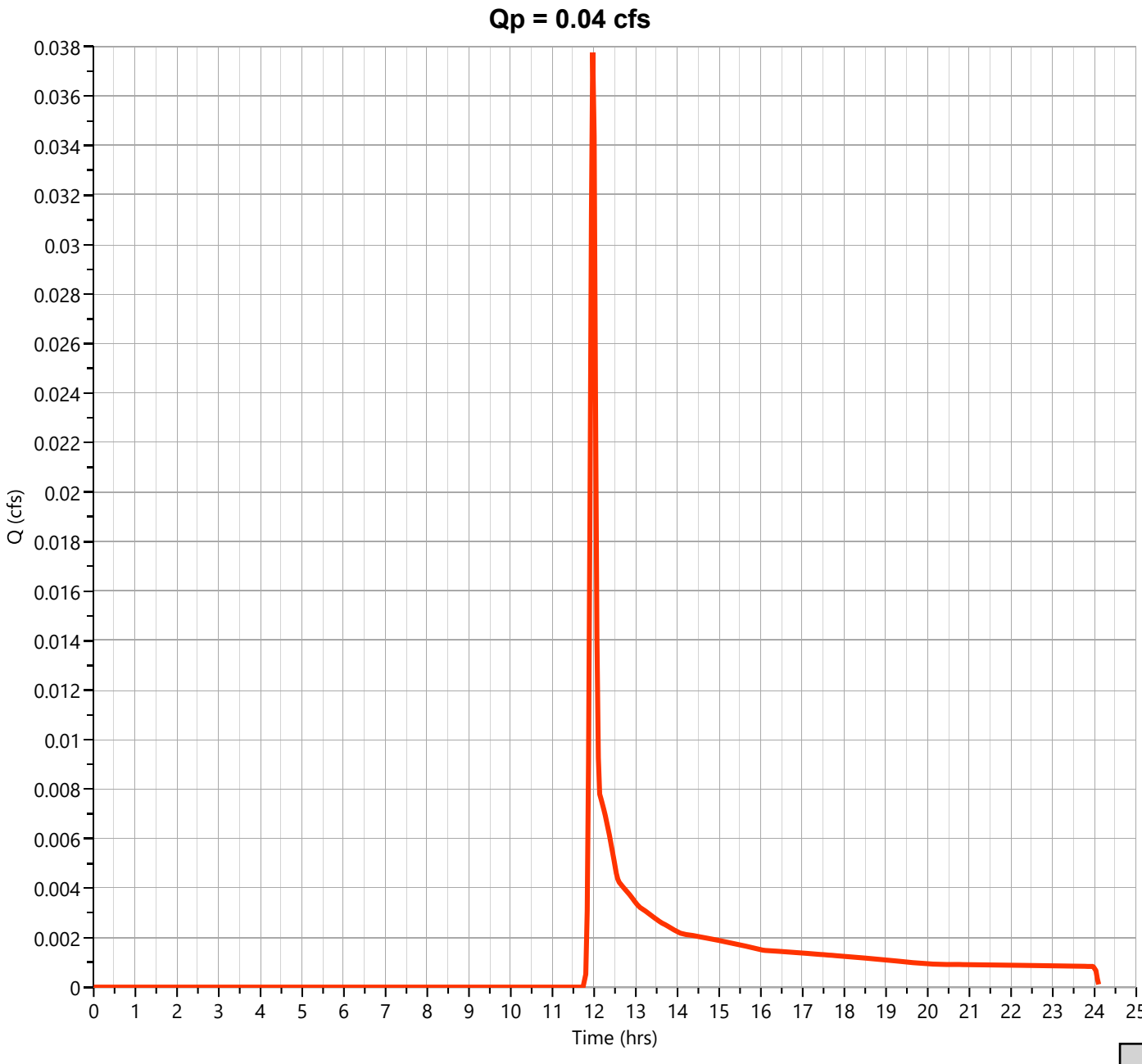


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 3 Hyd. No. 18

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.038 cfs
Storm Frequency	= 100-yr	Time to Peak	= 11.97 hrs
Time Interval	= 2 min	Runoff Volume	= 92.1 cuft
Drainage Area	= 0.025 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

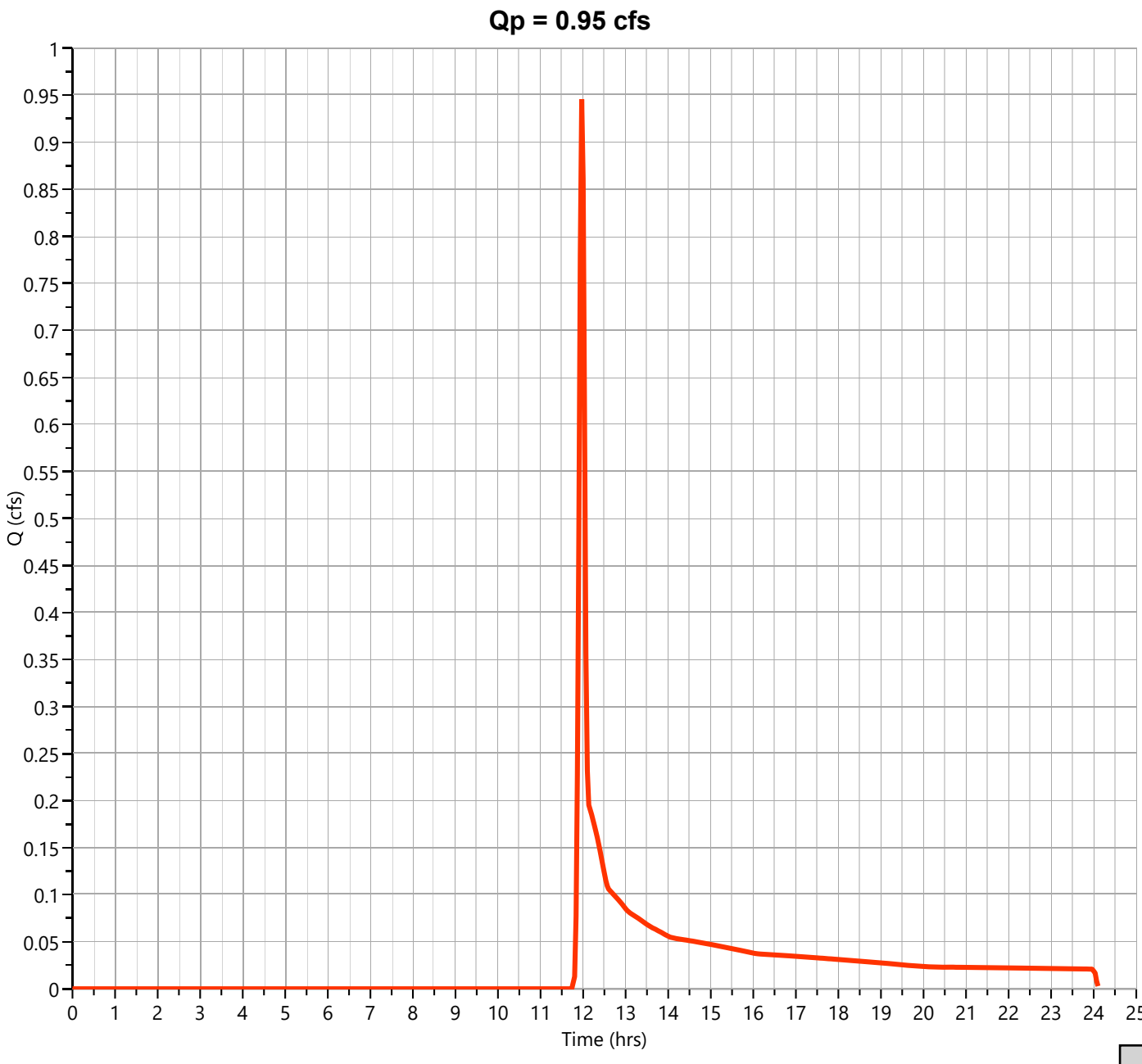


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite 4 Hyd. No. 19

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.946 cfs
Storm Frequency	= 100-yr	Time to Peak	= 11.97 hrs
Time Interval	= 2 min	Runoff Volume	= 2,306 cuft
Drainage Area	= 0.626 ac	Curve Number	= 39
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

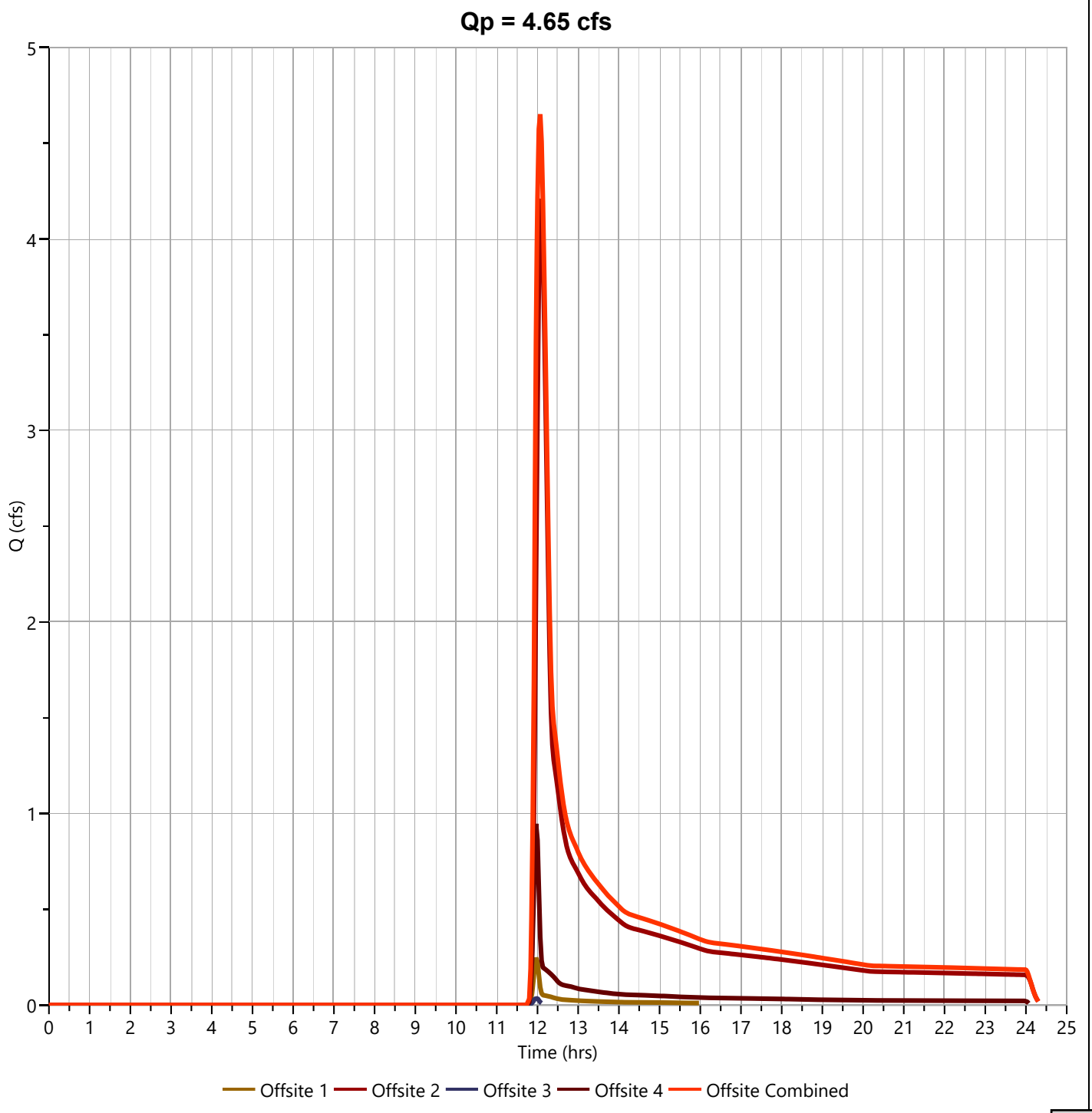


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Offsite Combined Hyd. No. 20

Hydrograph Type	= Junction	Peak Flow	= 4.652 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.07 hrs
Time Interval	= 2 min	Hydrograph Volume	= 20,311 cuft
Inflow Hydrographs	= 16, 17, 18, 19	Total Contrib. Area	= 5.332 ac



Hydrograph Report

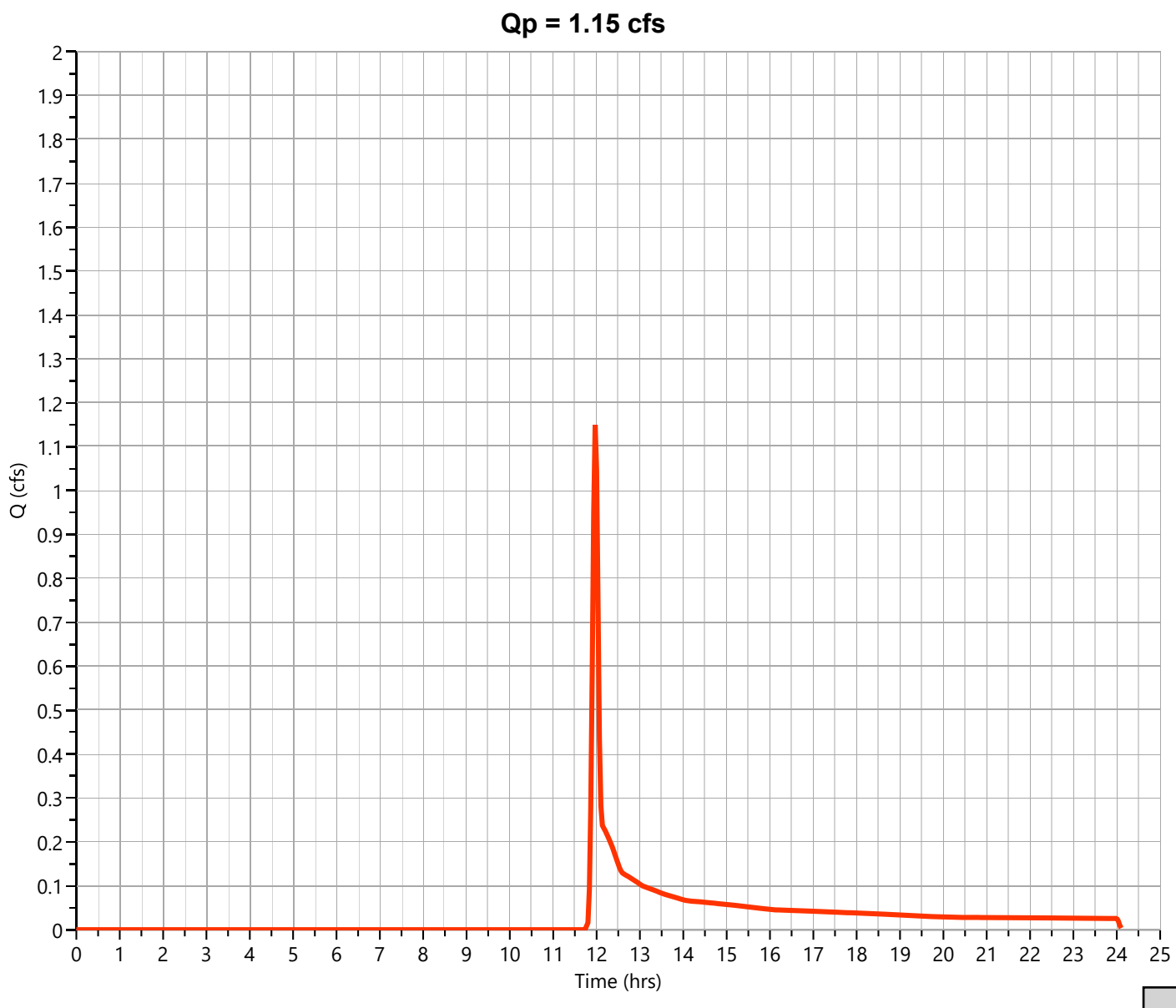
Hydrology Studio v 3.0.0.32 07-25-2024

Post Culvert 1 Hyd. No. 21

Hydrograph Type	= NRCS Runoff	Peak Flow	= 1.150 cfs
Storm Frequency	= 100-yr	Time to Peak	= 11.97 hrs
Time Interval	= 2 min	Runoff Volume	= 2,804 cuft
Drainage Area	= 0.761 ac	Curve Number	= 39*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.761	39	Pervious (A)
0.761	**39**	Weighted CN Method Employed



Hydrograph Report

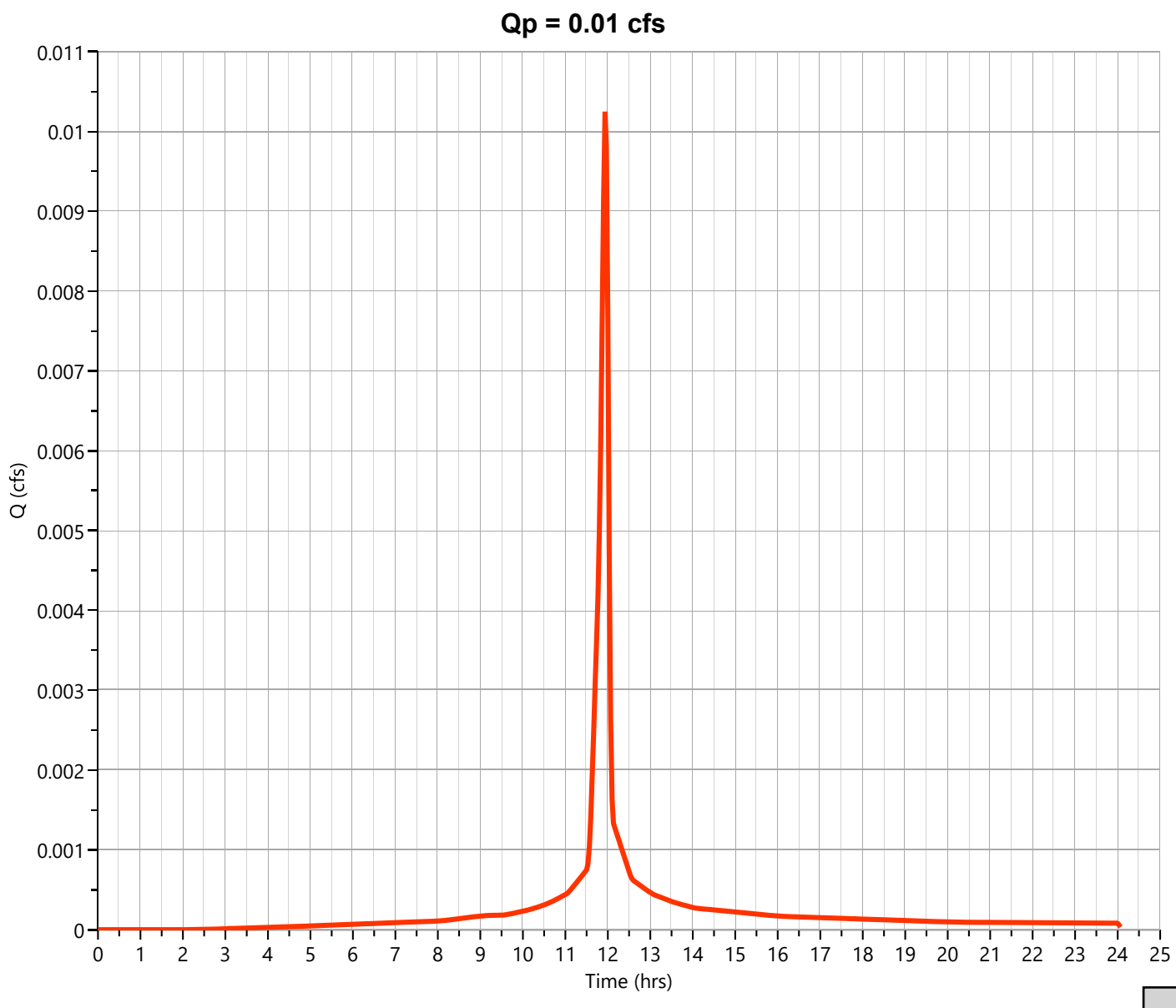
Hydrology Studio v 3.0.0.32 07-25-2024

Post Area Drain 3 (AD3) Hyd. No. 22

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.010 cfs
Storm Frequency	= 100-yr	Time to Peak	= 11.93 hrs
Time Interval	= 2 min	Runoff Volume	= 23.0 cuft
Drainage Area	= 0.001 ac	Curve Number	= 91*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.001	91	Gravel
0.001	**91**	Weighted CN Method Employed



Hydrograph Report

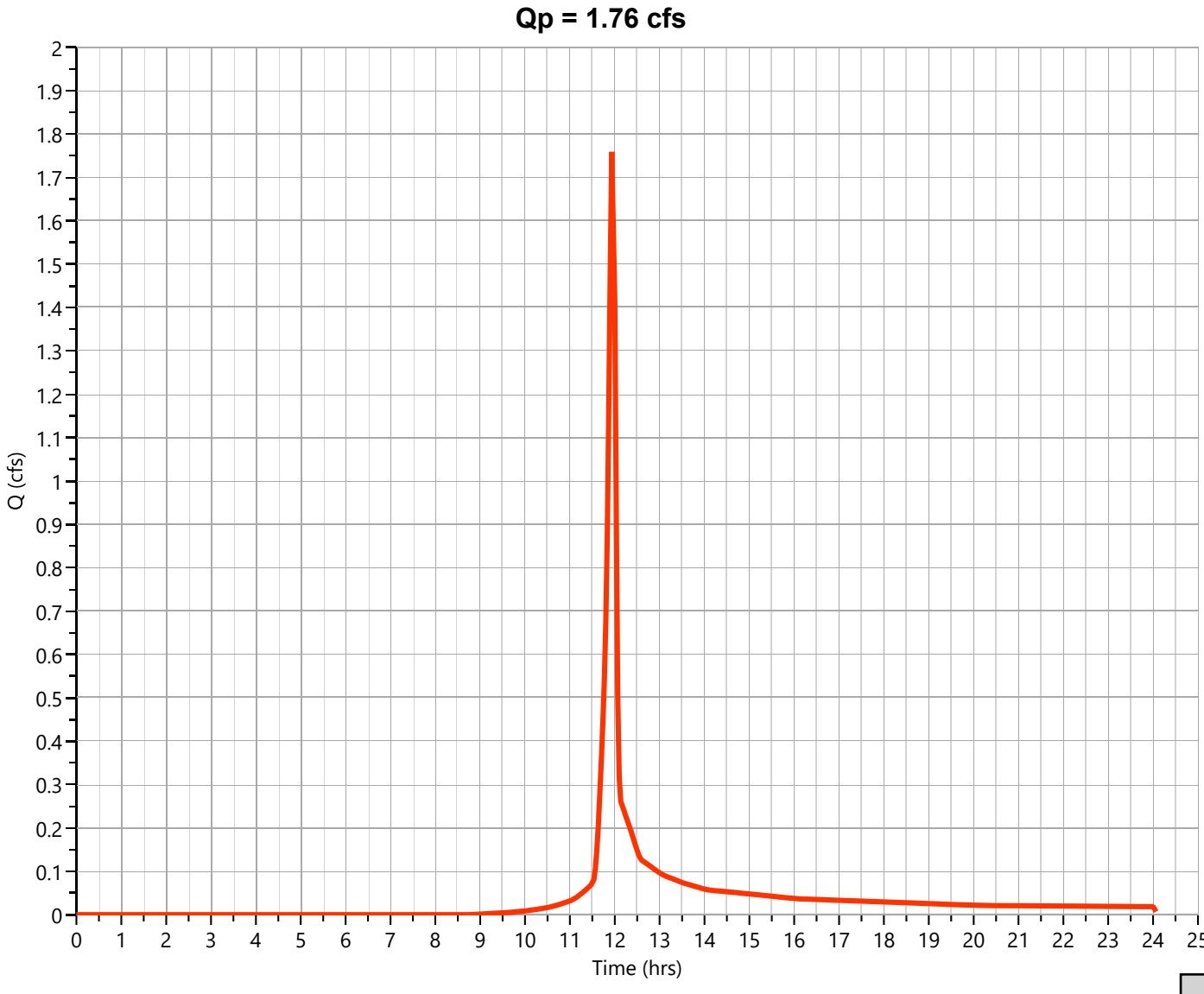
Hydrology Studio v 3.0.0.32 07-25-2024

Post Area Drain 2 (AD2) Hyd. No. 23

Hydrograph Type	= NRCS Runoff	Peak Flow	= 1.759 cfs
Storm Frequency	= 100-yr	Time to Peak	= 11.93 hrs
Time Interval	= 2 min	Runoff Volume	= 3,552 cuft
Drainage Area	= 0.28 ac	Curve Number	= 64.81*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.139	91	Gravel
0.141	39	Grass
0.28	**65**	Weighted CN Method Employed



Hydrograph Report

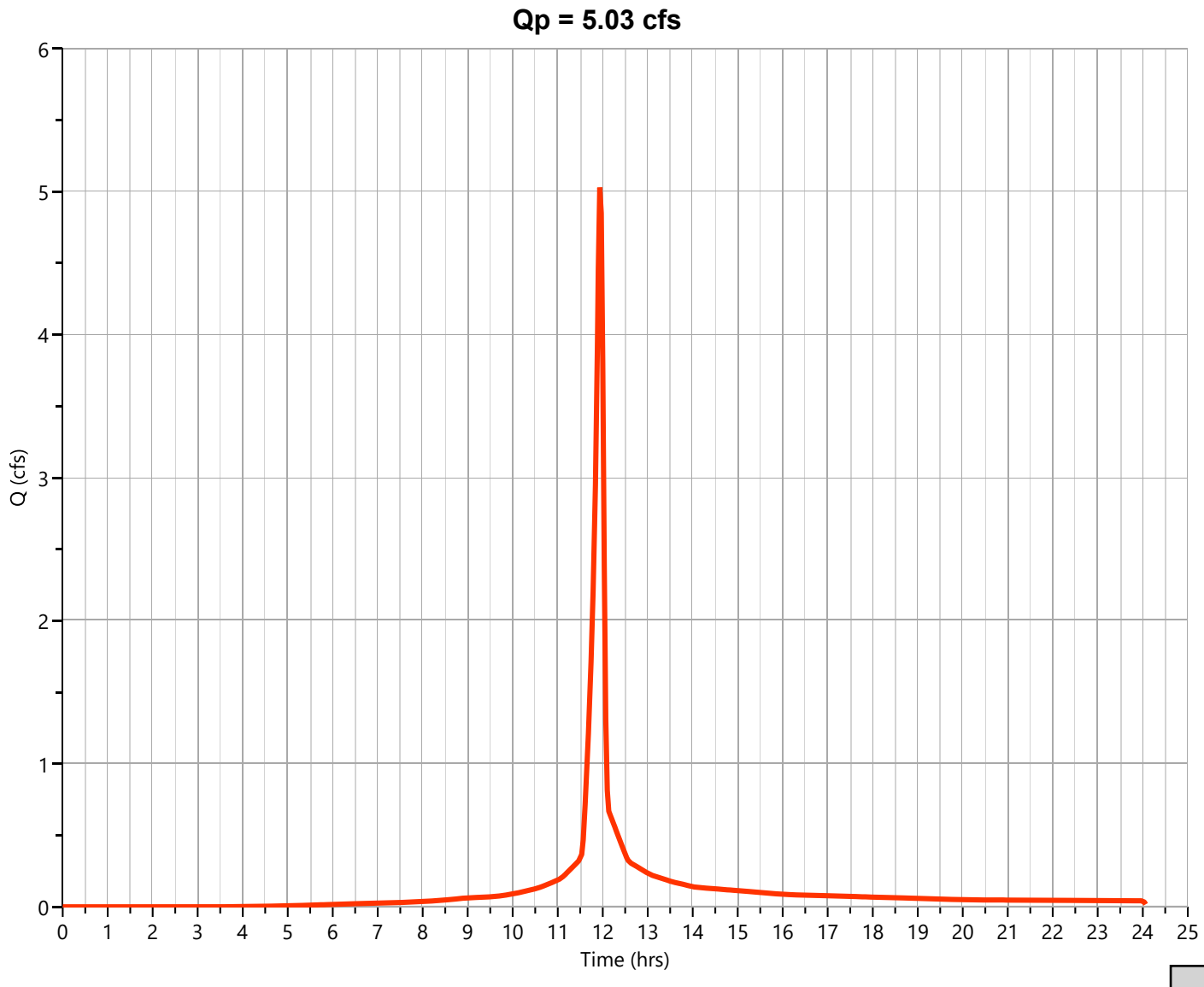
Hydrology Studio v 3.0.0.32 07-25-2024

Post Area Drain 1 (AD1) Hyd. No. 24

Hydrograph Type	= NRCS Runoff	Peak Flow	= 5.028 cfs
Storm Frequency	= 100-yr	Time to Peak	= 11.93 hrs
Time Interval	= 2 min	Runoff Volume	= 10,750 cuft
Drainage Area	= 0.527 ac	Curve Number	= 84.61*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.087	49	Pervious (A)
0.399	91	Gravel
0.041	98	Building
0.527	**85**	Weighted CN Method Employed



Hydrograph Report

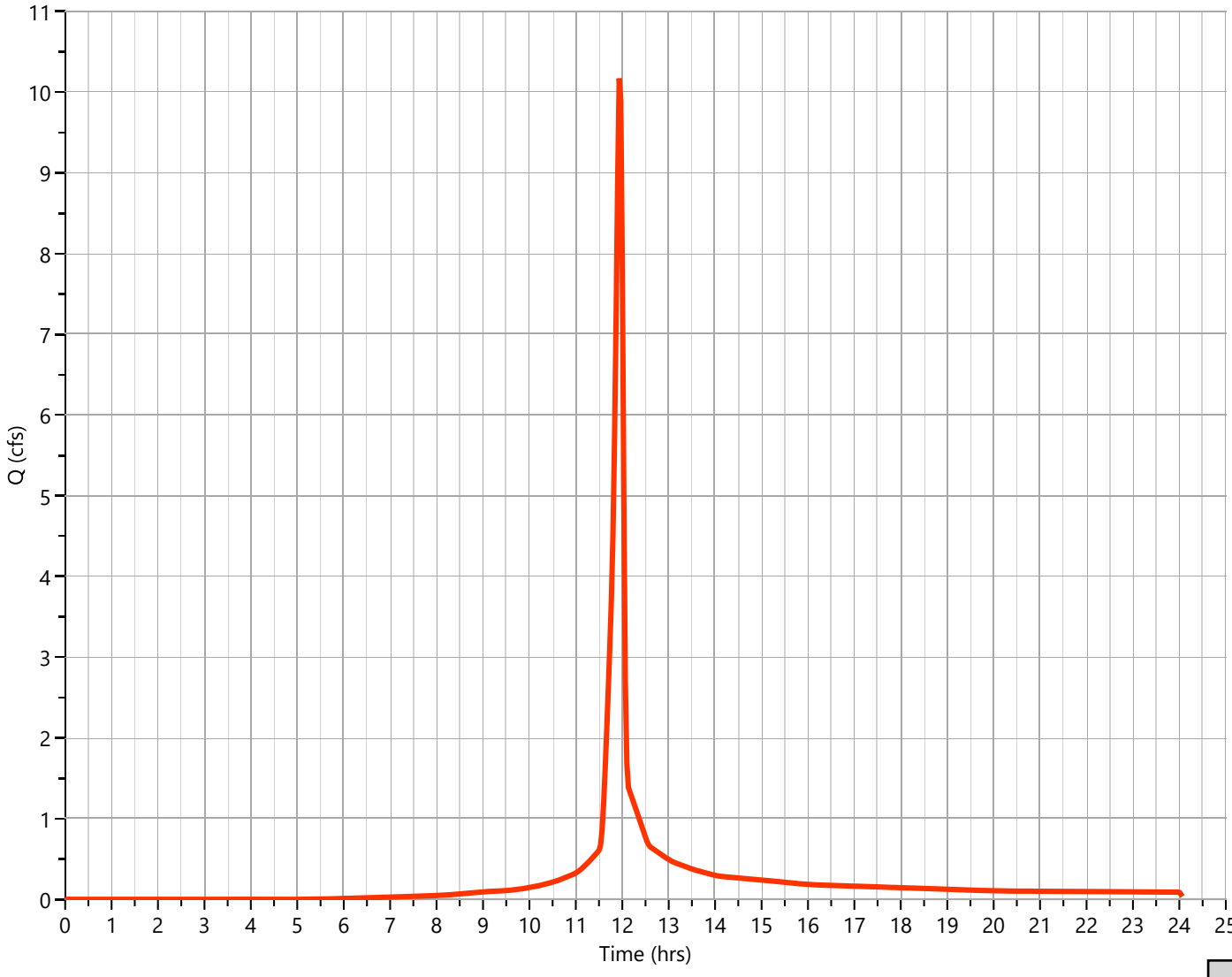
Hydrology Studio v 3.0.0.32 07-25-2024

Post North to Pond 2 Hyd. No. 25

Hydrograph Type	= NRCS Runoff	Peak Flow	= 10.17 cfs
Storm Frequency	= 100-yr	Time to Peak	= 11.93 hrs
Time Interval	= 2 min	Runoff Volume	= 21,156 cuft
Drainage Area	= 1.16 ac	Curve Number	= 79.16*
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.82 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.618	91	Gravel
0.245	98	Bldg/Concrete
0.297	39	Grass
1.16	**79**	Weighted CN Method Employed



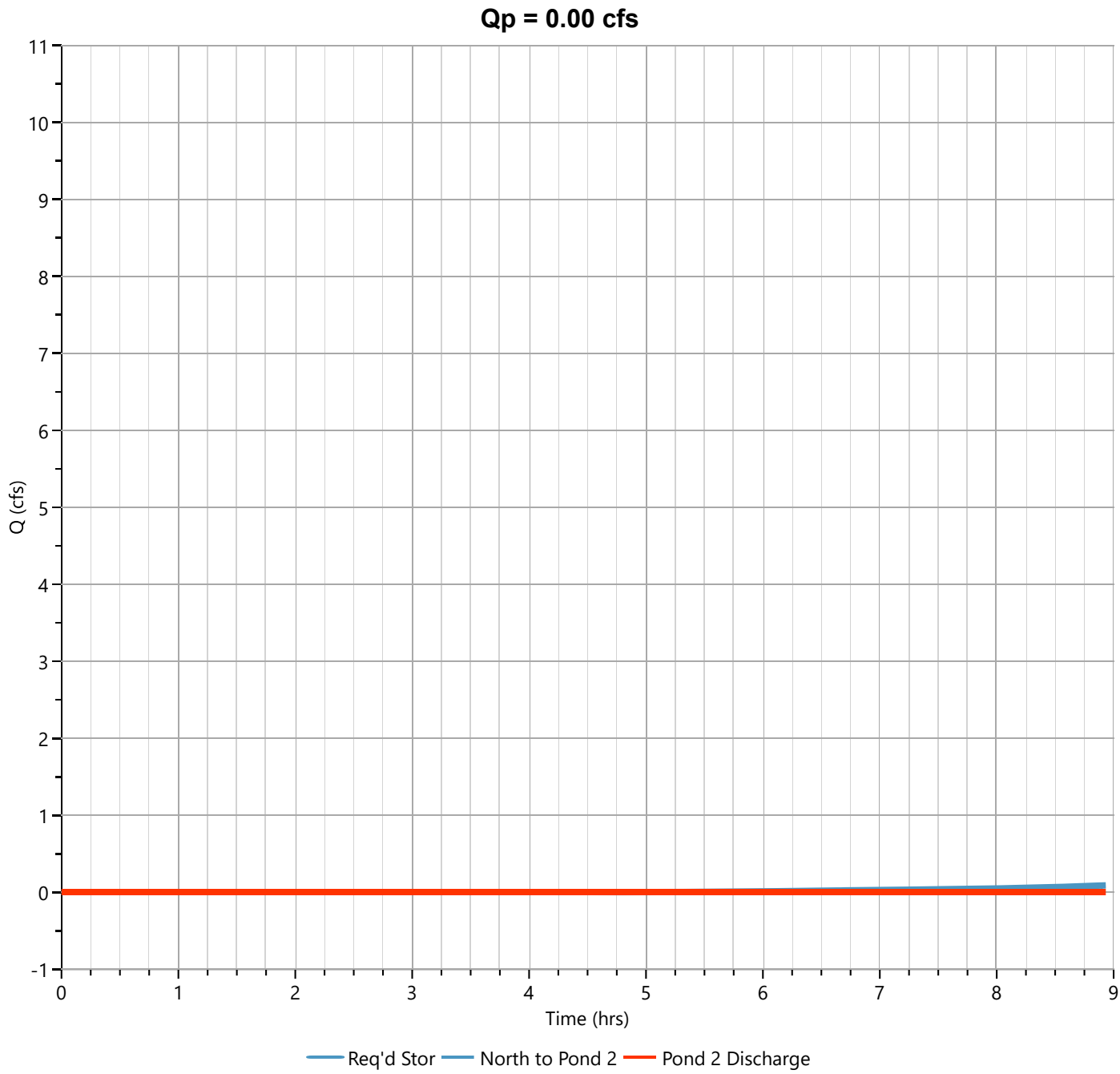
Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Pond 2 Discharge Hyd. No. 26

Hydrograph Type	= Pond Route	Peak Flow	= 0.000 cfs
Storm Frequency	= 100-yr	Time to Peak	= 8.90 hrs
Time Interval	= 2 min	Hydrograph Volume	= 0.000 cuft
Inflow Hydrograph	= 25 - North to Pond 2	Max. Elevation	= 534.88 ft
Pond Name	= Pond 2	Max. Storage	= 16,090 cuft

Pond Routing by Storage Indication Method



Hydrograph Report

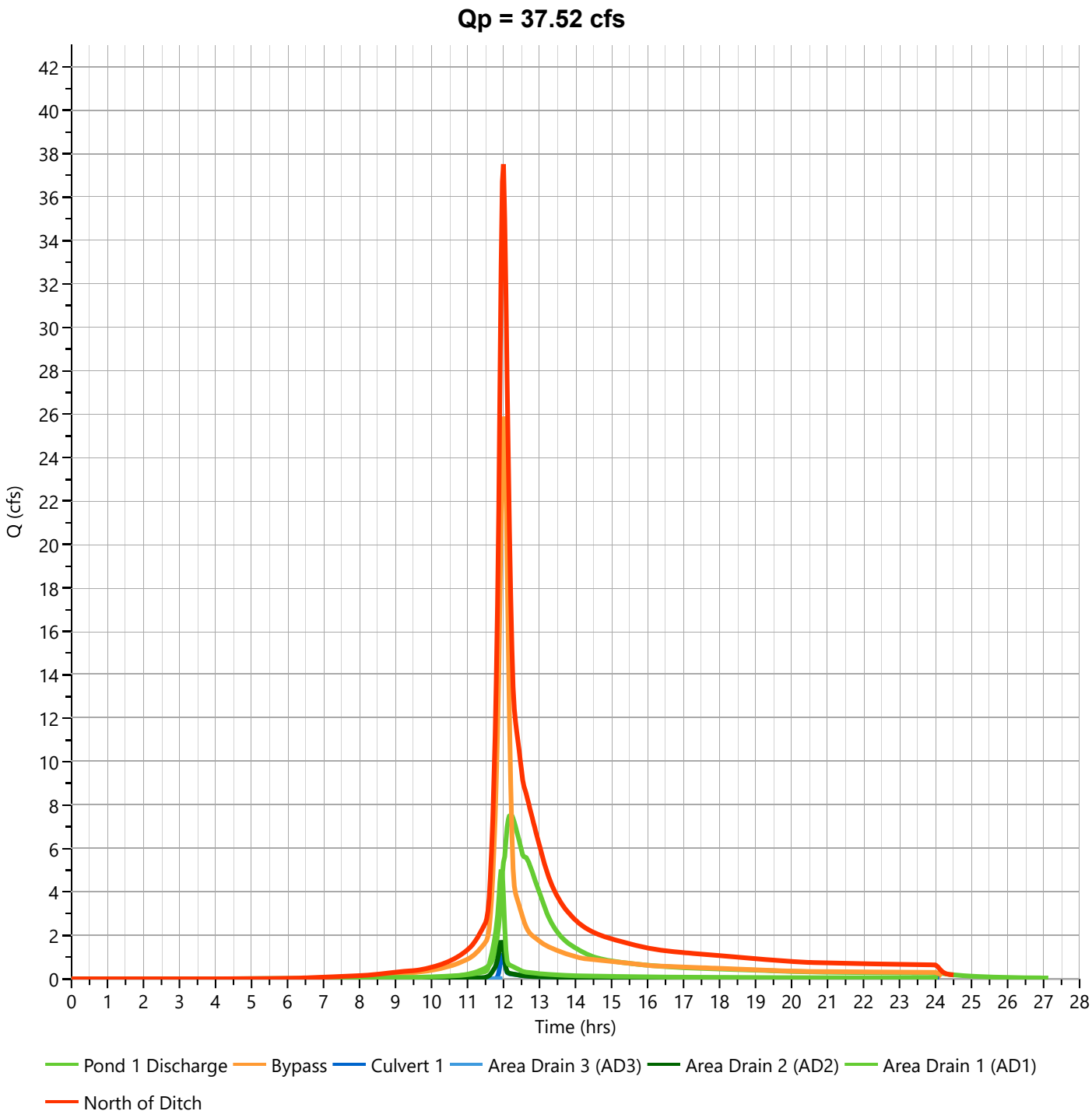
Hydrology Studio v 3.0.0.32

07-25-2024

Post North of Ditch

Hyd. No. 27

Hydrograph Type	= Junction	Peak Flow	= 37.52 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Hydrograph Volume	= 137,796 cuft
Inflow Hydrographs	= 14, 15, 21, 22, 23, 24	Total Contrib. Area	= 5.138 ac

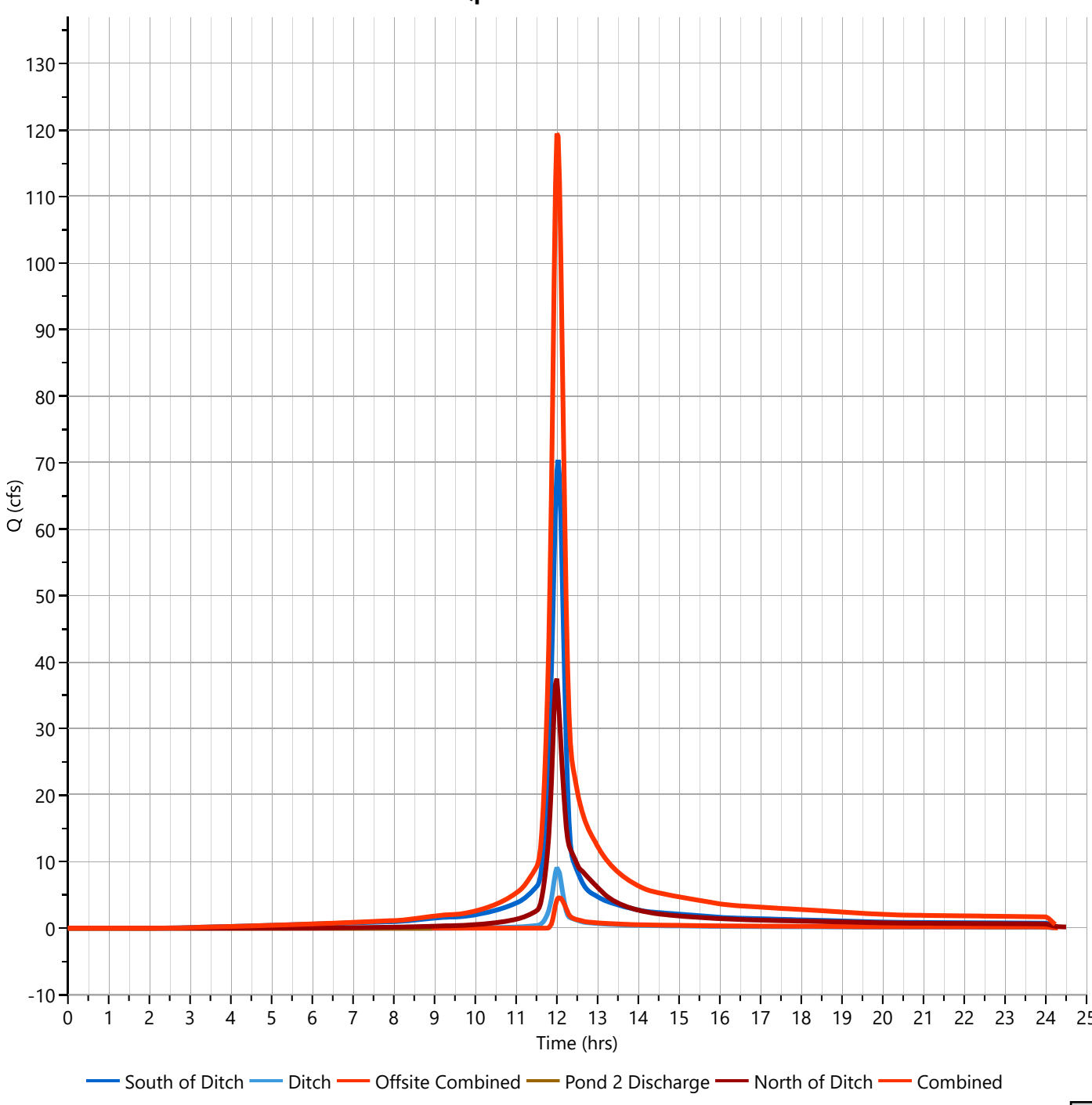


Hydrograph Report

Hydrology Studio v 3.0.0.32 07-25-2024

Post Combined Hyd. No. 28

Hydrograph Type	= Junction	Peak Flow	= 119.5 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.00 hrs
Time Interval	= 2 min	Hydrograph Volume	= 395,383 cuft
Inflow Hydrographs	= 11, 12, 20, 26, 27	Total Contrib. Area	= 21.17 ac



Design Storm Report

Cus

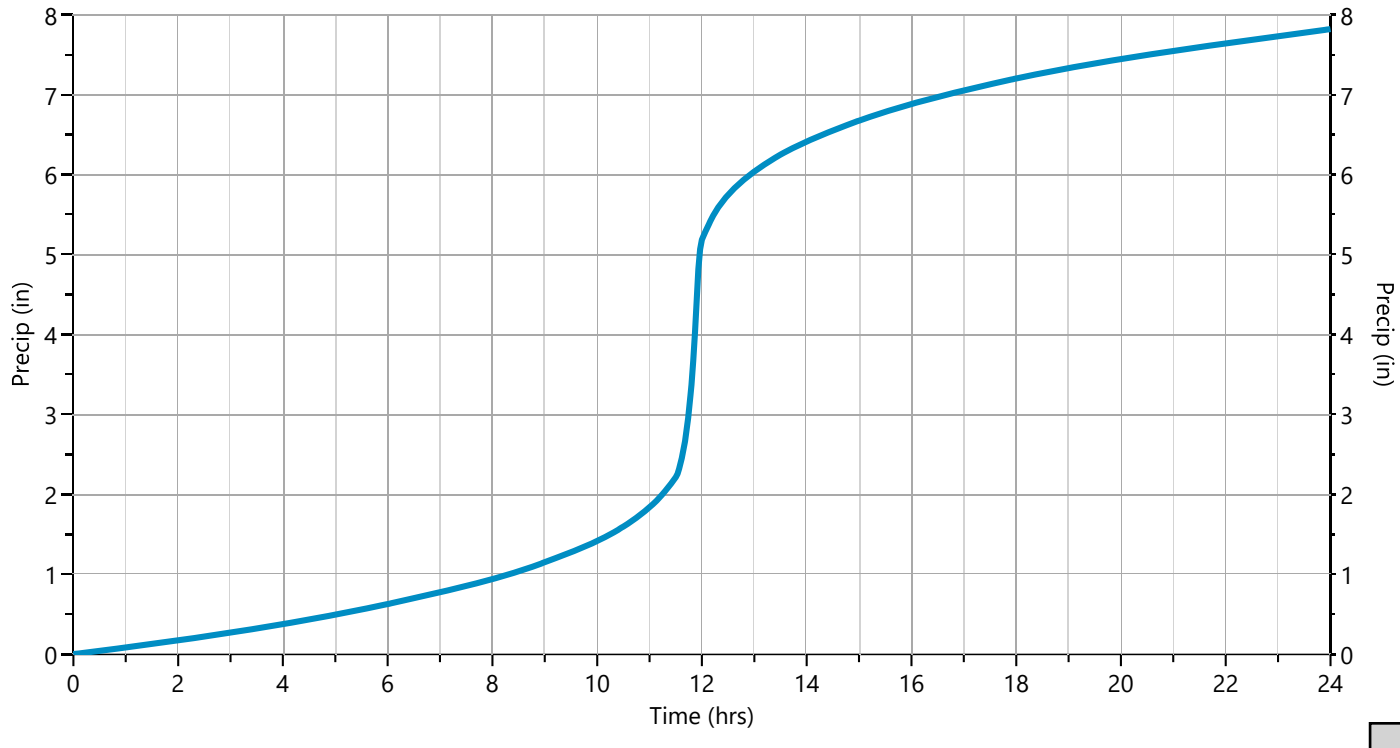
Hydrology Studio v 3.0.0.32

07-25-2024

Storm Distribution: NRCS/SCS - Type II, 24-hr

Storm Duration	Total Rainfall Volume (in)								
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	✔ 100-yr	
24 hrs	3.26	3.90	0.00	4.74	5.42	6.34	7.07	7.82	

Incremental Rainfall Distribution, 100-yr									
Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)
10.90	0.017552	11.27	0.025024	11.63	0.103294	12.00	0.117517	12.37	0.031593
10.93	0.017899	11.30	0.025858	11.67	0.123869	12.03	0.052279	12.40	0.029612
10.97	0.018247	11.33	0.026692	11.70	0.144445	12.07	0.049423	12.43	0.027630
11.00	0.018594	11.37	0.027526	11.73	0.165020	12.10	0.047441	12.47	0.025650
11.03	0.019183	11.40	0.028361	11.77	0.189415	12.13	0.045460	12.50	0.023668
11.07	0.020019	11.43	0.029195	11.80	0.242814	12.17	0.043479	12.53	0.022454
11.10	0.020853	11.47	0.030029	11.83	0.300045	12.20	0.041498	12.57	0.022000
11.13	0.021687	11.50	0.030863	11.87	0.357276	12.23	0.039517	12.60	0.021548
11.17	0.022522	11.53	0.041626	**11.90**	**0.414506**	12.27	0.037536	12.63	0.021097
11.20	0.023356	11.57	0.062143	11.93	0.378274	12.30	0.035555	12.67	0.020645
11.23	0.024190	11.60	0.082718	11.97	0.247763	12.33	0.033574	12.70	0.020193



IDF Report

IDF filename: 24

Hydrology Studio v 3.0.0.32

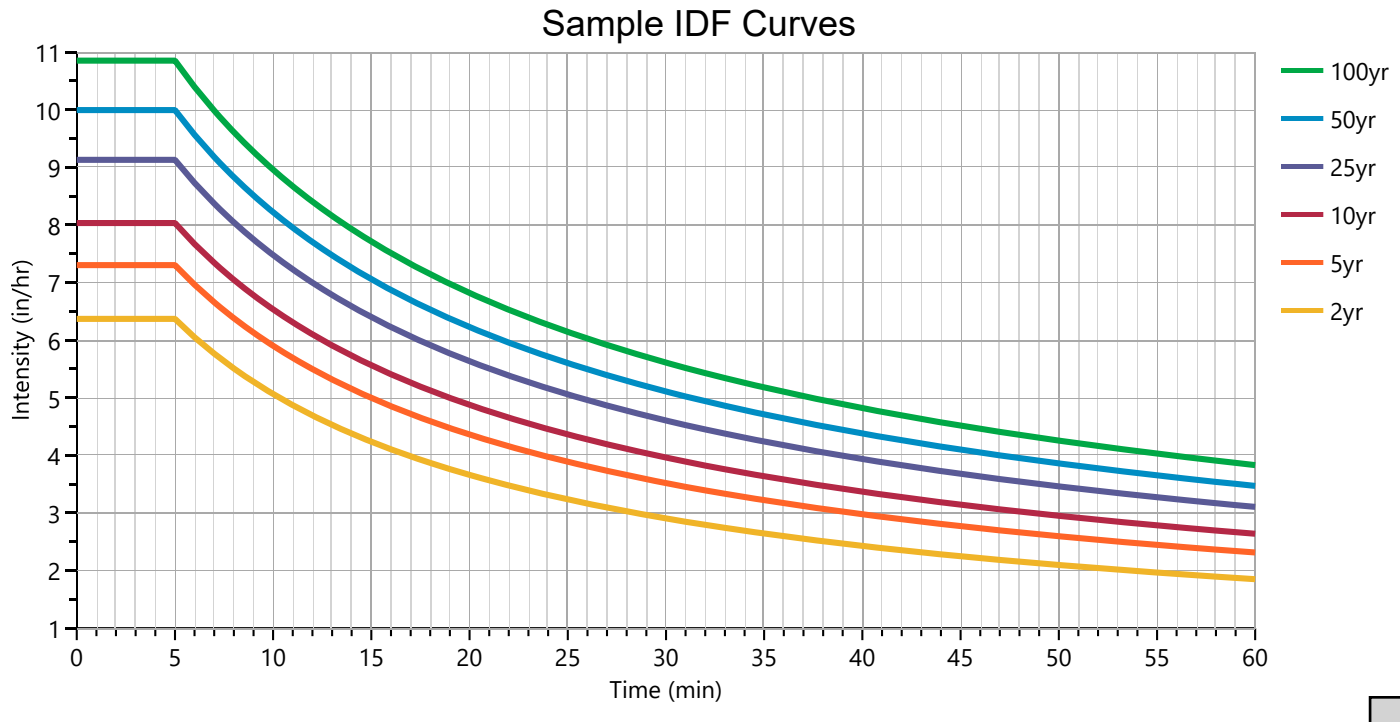
07-25-2024

Equation Coefficients	Intensity = B / (Tc + D)^E (in/hr)								
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
B	0.0000	58.1215	0.0000	57.1446	58.8780	63.5498	67.7965	72.2003	
D	0.0000	10.3000	0.0000	10.3000	10.3000	10.4000	10.5000	10.6000	
E	0.0000	0.8106	0.0000	0.7542	0.7303	0.7097	0.6986	0.6898	

Minimum Tc = 5 minutes

Tc (min)	Intensity Values (in/hr)								
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
Cf	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
5	0	6.37	0	7.30	8.03	9.13	9.99	10.85	
10	0	5.06	0	5.90	6.53	7.48	8.22	8.96	
15	0	4.24	0	5.00	5.56	6.40	7.06	7.71	
20	0	3.66	0	4.36	4.88	5.63	6.23	6.82	
25	0	3.23	0	3.89	4.36	5.06	5.60	6.14	
30	0	2.90	0	3.52	3.96	4.60	5.11	5.61	
35	0	2.64	0	3.22	3.64	4.24	4.71	5.18	
40	0	2.43	0	2.98	3.37	3.94	4.38	4.82	
45	0	2.25	0	2.77	3.14	3.68	4.10	4.52	
50	0	2.10	0	2.60	2.95	3.46	3.86	4.26	
55	0	1.96	0	2.44	2.78	3.27	3.65	4.03	
60	0	1.85	0	2.31	2.64	3.10	3.47	3.83	

Cf = Correction Factor applied to Rational Method runoff coefficient.



Precipitation Report

Precipitation filename: 24-

Hydrology Studio v 3.0.0.32 (Rainfall totals in Inches)

07-25-2024

	Active	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Active			✔		✔	✔	✔	✔	✔
SCS Storms	**> SCS Dimensionless Storms**								
SCS 6hr		0	0	0	0	0	0	0	0
Type I, 24-hr		0	0	0	0	0	0	0	0
Type IA, 24-hr		0	0	0	0	0	0	0	0
Type II, 24-hr	✔	3.26	3.90	0	4.74	5.42	6.34	7.07	7.82
Type II FL, 24-hr		0	0	0	0	0	0	0	0
Type III, 24-hr		0	0	0	0	0	0	0	0
Synthetic Storms	**> IDF-Based Synthetic Storms**								
1-hr		0	1.85	0	2.31	2.64	3.10	3.47	3.83
2-hr		0	2.24	0	2.90	3.36	4.01	4.51	5.01
3-hr		0	2.48	0	3.27	3.82	4.60	5.20	5.79
6-hr		0	2.89	0	3.96	4.70	5.73	6.53	7.32
12-hr		0	3.33	0	4.75	5.73	7.08	8.13	9.17
24-hr		0	3.82	0	5.66	6.94	8.70	10.07	11.42
Huff Distribution	**> 1st Quartile (0 to 6 hrs)**								
1-hr		0	0	0	0	0	0	0	0
2-hr		0	0	0	0	0	0	0	0
3-hr		0	0	0	0	0	0	0	0
6-hr		0	0	0	0	0	0	0	0
Huff Distribution	**> 2nd Quartile (>6 to 12 hrs)**								
8-hr		0	0	0	0	0	0	0	0
12-hr		0	0	0	0	0	0	0	0
Huff Distribution	**> 3rd Quartile (>12 to 24 hrs)**								
18-hr		0	0	0	0	0	0	0	0
24-hr		0	0	0	0	0	0	0	0
Custom Storms	**> Custom Storm Distributions**								
My Custom Storm 1		0	0	0	0	0	0	0	0
My Custom Storm 2		0	0	0	0	0	0	0	0
My Custom Storm 3		0	0	0	0	0	0	0	0
My Custom Storm 4		0	0	0	0	0	0	0	0
My Custom Storm 5		0	0	0	0	0	0	0	0
My Custom Storm 6		0	0	0	0	0	0	0	0
My Custom Storm 7		0	0	0	0	0	0	0	0
My Custom Storm 8		0	0	0	0	0	0	0	0
My Custom Storm 9		0	0	0	0	0	0	0	0
My Custom Storm 10		0	0	0	0	0	0	0	0

Precipitation Report Cont'd

Precipitation filename: 24-

Rainfall totals in Inches

07-25-2024

	Active	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Active			✔		✔	✔	✔	✔	✔
Huff Indiana	**> Indianapolis**								
30-min		0	0	0	0	0	0	0	0
1-hr		0	0	0	0	0	0	0	0
2-hr		0	0	0	0	0	0	0	0
3-hr		0	0	0	0	0	0	0	0
6-hr		0	0	0	0	0	0	0	0
12-hr		0	0	0	0	0	0	0	0
24-hr		0	0	0	0	0	0	0	0
Huff Indiana	**> Evansville**								
30-min		0	0	0	0	0	0	0	0
1-hr		0	0	0	0	0	0	0	0
2-hr		0	0	0	0	0	0	0	0
3-hr		0	0	0	0	0	0	0	0
6-hr		0	0	0	0	0	0	0	0
12-hr		0	0	0	0	0	0	0	0
24-hr		0	0	0	0	0	0	0	0
Huff Indiana	**> Fort Wayne**								
30-min		0	0	0	0	0	0	0	0
1-hr		0	0	0	0	0	0	0	0
2-hr		0	0	0	0	0	0	0	0
3-hr		0	0	0	0	0	0	0	0
6-hr		0	0	0	0	0	0	0	0
12-hr		0	0	0	0	0	0	0	0
24-hr		0	0	0	0	0	0	0	0
Huff Indiana	**> South Bend**								
30-min		0	0	0	0	0	0	0	0
1-hr		0	0	0	0	0	0	0	0
2-hr		0	0	0	0	0	0	0	0
3-hr		0	0	0	0	0	0	0	0
6-hr		0	0	0	0	0	0	0	0
12-hr		0	0	0	0	0	0	0	0
24-hr		0	0	0	0	0	0	0	0

Precipitation Report Cont'd

Precipitation filename: 24-

Rainfall totals in Inches

07-25-2024

	Active	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Active			✔		✔	✔	✔	✔	✔
NRCS Storms	**> NRCS Dimensionless Storms**								
NRCS MSE1, 24-hr		0	0	0	0	0	0	0	0
NRCS MSE2, 24-hr		0	0	0	0	0	0	0	0
NRCS MSE3, 24-hr		0	0	0	0	0	0	0	0
NRCS MSE4, 24-hr		0	0	0	0	0	0	0	0
NRCS MSE5, 24-hr		0	0	0	0	0	0	0	0
NRCS MSE6, 24-hr		0	0	0	0	0	0	0	0
NOAA-A, 24-hr		0	0	0	0	0	0	0	0
NOAA-B, 24-hr		0	0	0	0	0	0	0	0
NOAA-C, 24-hr		0	0	0	0	0	0	0	0
NOAA-D, 24-hr		0	0	0	0	0	0	0	0
NRCC-A, 24-hr		0	0	0	0	0	0	0	0
NRCC-B, 24-hr		0	0	0	0	0	0	0	0
NRCC-C, 24-hr		0	0	0	0	0	0	0	0
NRCC-D, 24-hr		0	0	0	0	0	0	0	0
CA-1, 24-hr		0	0	0	0	0	0	0	0
CA-2, 24-hr		0	0	0	0	0	0	0	0
CA-3, 24-hr		0	0	0	0	0	0	0	0
CA-4, 24-hr		0	0	0	0	0	0	0	0
CA-5, 24-hr		0	0	0	0	0	0	0	0
CA-6, 24-hr		0	0	0	0	0	0	0	0
FDOT Storms	**> Florida DOT Storms**								
FDOT, 1-hr		0	0	0	0	0	0	0	0
FDOT, 2-hr		0	0	0	0	0	0	0	0
FDOT, 4-hr		0	0	0	0	0	0	0	0
FDOT, 8-hr		0	0	0	0	0	0	0	0
FDOT, 24-hr		0	0	0	0	0	0	0	0
FDOT, 72-hr		0	0	0	0	0	0	0	0
SFWMD, 72-hr		0	0	0	0	0	0	0	0
Austin Storms	**> Austin Frequency Storms**								
Austin Zone 1, 24-hr		0	0	0	0	0	0	0	0
Austin Zone 2, 24-hr		0	0	0	0	0	0	0	0

XXENTRIA - PHASE 1

WILLIAM SHIRLEY RD AT SAM WATKINS BLVD

MT. PLEASANT, TENNESSEE

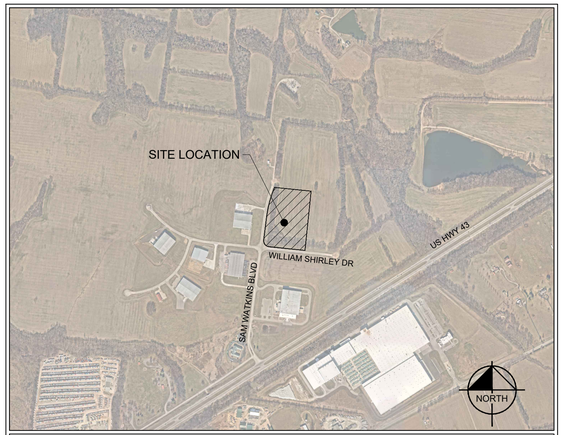
SITE DATA TABLE		
SITE ADDRESS	WILLIAM SHIRLEY ROAD MT PLEASANT, TENNESSEE	
TAX MAP	MAP 126 PARCEL 041.70	
OVERALL AREA	EXISTING	PROPOSED
SITE AREA	±34.51 AC	±34.51 AC
IMPERVIOUS AREA	±00.00 AC	±7.72 AC
PERVIOUS AREA	±34.51 AC	±26.79 AC
GENERAL BUILDING DATA & REQUIREMENTS	REQUIRED	PROVIDED
HEIGHT	60 FT (MAX.)	60 FT (MAX.)
STORIES	N/A	1
YARD / SETBACK REQUIREMENTS	REQUIRED (MIN.)	PROVIDED
FRONT YARD	50 FT	50 FT
FRONT BUILDING SETBACK	50 FT	50 FT
SIDE BUILDING SETBACK	50 FT	50 FT
REAR BUILDING SETBACK	50 FT	50 FT

PROJECT DESCRIPTION

THE PROPOSED DEVELOPMENT WILL FEATURE A SINGLE MANUFACTURING FACILITY ON 10.9 ACRES OF AN EXISTING 34.5 ACRE EXISTING PARCEL (026 041.70). THE BUILDING WILL HAVE A TOTAL AREA OF 167,480 SQUARE FEET. CONSTRUCTION WILL INCLUDE EMPLOYEE PARKING, A TRUCK COURT, UTILITIES, STORMWATER MANAGEMENT AND LANDSCAPING. THE PROPERTY IS IN AN AREA OF MINIMAL FLOOD HAZARD.

EXISTING PROPERTY SUMMARY

PROPERTY ADDRESS:	403 WILLIAM SHIRLEY ROAD MT. PLEASANT, TENNESSEE 38401
MAP AND PARCEL ID:	MAP 126, PARCELS 041.70
U.S. FEMA FIRM PANEL:	47119C0260E DATED 04/16/2007
EXISTING ZONING:	IL-LIGHT INDUSTRIAL
EXISTING LAND USE:	DISTRICT EMPLOYMENT



VICINITY MAP
1" = 1,000'

CITY OF MT. PLEASANT
MAURY COUNTY, TENNESSEE

Sheet List Table	
SHEET NUMBER	SHEET TITLE
C0-00	COVER
C1-00	SURVEY
C2-00	SITE PLAN
C3-00	GRADING AND DRAINAGE PLAN
C4-00	UTILITY PLAN
L1-00	LANDSCAPE PLAN - OVERALL
L1-10	LANDSCAPE PLAN - ENLARGEMENT
L1-11	LANDSCAPE PLAN - ENLARGEMENT
L1-50	LANDSCAPING NOTES
L1-51	LANDSCAPE DETAILS
L2-00	IRRIGATION PLAN - OVERALL
LP-01	OVERALL LIGHTING PLAN
LP-02	ENLARGED PHOTOMETRICS
LP-03	LIGHT FIXTURE DETAILS

PROJECT DESIGN TEAM

ARCHITECT
BAKER BARRIOS
700 12TH AVE S, UNIT 305
NASHVILLE, TN 37203
CONTACT: MIKE FROHNAPPEL, AIA
PHONE: (615) 425-3260 EXT. 250

CIVIL ENGINEER
KIMLEY-HORN AND ASSOCIATES, INC.
10 LEA AVENUE #400
NASHVILLE, TN 37210
CONTACT: BRENDAN BOLES, PE
CONTACT: CLAY SMITH, PE
PHONE: (615) 564-2701

SURVEY
TTL, INC
624 GRASSMERE PARK, SUITE 14
NASHVILLE, TN 37211
CONTACT: TROY WALLS, RLS
PHONE: (615) 331-7770 EXT. 4839

OWNER'S REPRESENTATIVE
DCI, LLC
2054 KILDARE FARM RD, #167 CARY, NORTH CAROLINA 27518
CONTACT: JIM TULLY
PHONE: (919) 473-3385 EXT. 4839

OWNER'S REPRESENTATIVE

DCI DEVELOPMENT & CONSTRUCTION INSIGHT, LLC
2054 KILDAIRE FARM RD, #167
CARY, NORTH CAROLINA 27518
PHONE: (919) 473-3385
CONTACT: JIM TULLY

PLANS PREPARED BY

Kimley»Horn
10 Lea Avenue #400, Nashville, TN 37210
Main: (615) 564-2701 | www.kimley-horn.com
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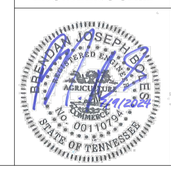
Know what's below. Call before you dig.

ENGINEER'S SEAL

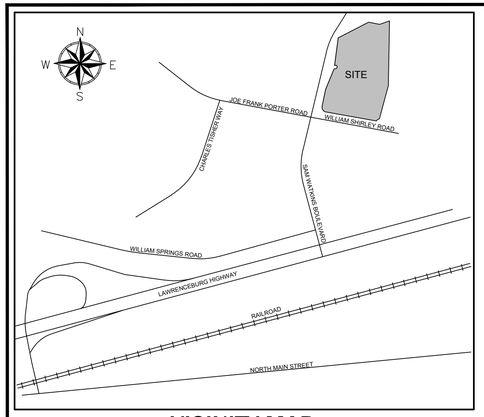


PLAN REVISIONS

REVISION NO.	DATE	REMARKS
0	07/09/2024	CONCEPT PLAN SUBMITTAL
0	07/25/2024	SITE PLAN RESUBMITTAL

FILE NUMBER	SHEET NUMBER	TOTAL SHEETS
017693000	C0-00	14

Drawing name: K:\HSV_DS\017693000_Mt Pleasant TN Industrial\CAD\Plansheets_Planning Commission Site Plan Set\C0-00 COVER.dwg C0-00 COVER Jul 25, 2024 5:30pm by: GavinS.belcher



VICINITY MAP
Not to Scale

SITE LEGEND

- BOUNDARY LINE
- ADJOINING BOUNDARY LINE
- FENCE
- OVERHEAD TELEPHONE LINE
- OVERHEAD UTILITY LINE
- SANITARY SEWER LINE
- STORM LINE
- CURB LINE
- EDGE OF PAVEMENT
- WATER LINE
- GAS LINE
- FIBER OPTICS

- WATER METER
- WATER VALVE
- ELECTRIC METER/TRANSFORMER
- UTILITY POLE
- FIRE HYDRANT
- FIRE DEPT. CONNECTION
- CLEAN-OUT
- PULL BOX
- STORM MANHOLE
- UTILITY MISC.
- AREA DRAIN
- GUY ANCHOR
- SINGLE POST SIGN
- BOLLARD
- UTILITY POLE WITH LIGHT
- AIR CONDITIONING UNIT
- GAS METER
- GAS VALVE
- CATCH BASIN
- TELEPHONE PEDESTAL
- MAILBOX
- SANITARY SEWER MANHOLE
- MISCELLANEOUS MANHOLE
- LIGHT
- HIGH-PRESSURE GAS LINE MARKER

- MONUMENT FOUND (½" REBAR, UNLESS NOTED OTHERWISE)
- MONUMENT SET (1/2" REBAR CAPPED "TTL.")
- CONCRETE MONUMENT
- PK - PARKER-KALON NAIL (FOUND)
- DS - DOWN SPOUT

ASPHALT AREA | CONCRETE AREA | GRAVEL AREA

FFE = FINISH FLOOR ELEVATION
TC = TOP OF CASTING
IE = INVERT ELEVATION
RCP=REINFORCED CONCRETE PIPE
CMP=CORRUGATED METAL PIPE
HDPE=HIGH DENSITY POLYETHYLENE PIPE
ROW = RIGHT OF WAY
N.A.D.= NORTH AMERICAN DATUM
N.A.V.D.=NORTH AMERICAN VERTICAL DATUM
AC= AIR CONDITIONING UNIT
MBSL= MINIMUM BUILDING SETBACK LINE
SA= SANITARY SEWER
ROMST= REGISTER OFFICE MAURY COUNTY, TENNESSEE
PUDE= PUBLIC UTILITY & DRAINAGE EASEMENT
GPS=GLOBAL POSITIONING SYSTEM
GIS=GLOBAL POSITIONING SYSTEM

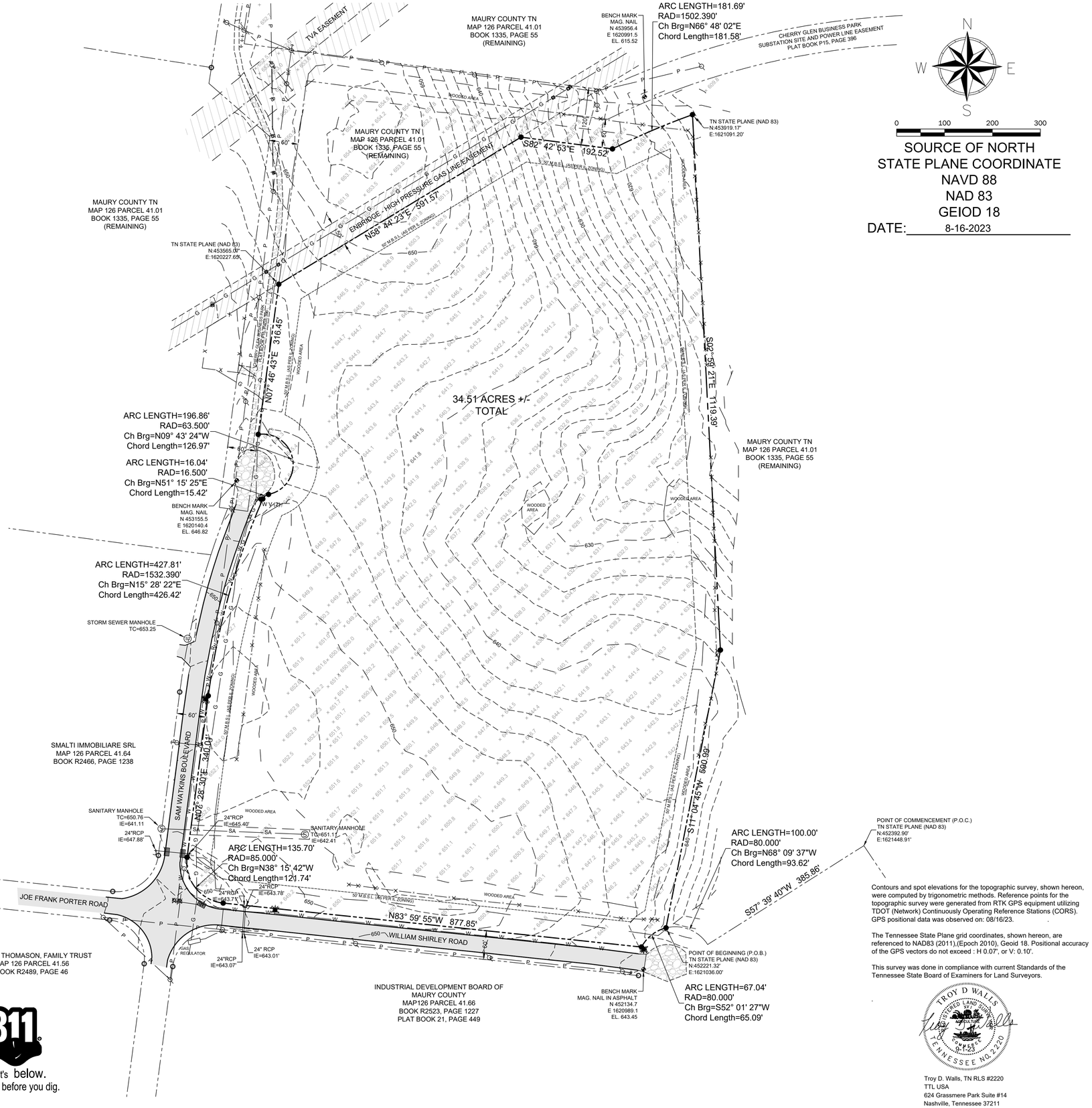
SURVEYOR NOTES:

1. The location of the property boundaries depicted hereon, based on the appropriate boundary law principles governed by the facts and evidence gathered during the course of this survey . Per accuracy and precision required by the State of Tennessee, in the opinion of this surveyor the monuments shown represents corners of the property. Corners have been found or set as indicated hereon. As a professional opinion, this survey carries no guarantees or warranties, expressed or implied.
2. Any improvements depicted may be demolished .The depiction of any improvement on this plat does not create any easement, setback, building pad, or other matter and is for informational purposes only.
3. Survey not final without Seal and Signature of Surveyor.
4. All set property corners are marked with 1/2" diameter rebar with a TTL, Inc cap.
5. This survey may not be reproduced, altered, or copied without written permission of TTL, Inc.
6. This property has direct access to a dedicated public right-of-way.
7. This parcel is within Flood Hazard Zone "X". Map Number 47119C0260E, Dated: April 16, 2007.
8. All matters shown on recorded plats are shown on survey.
9. Subject property is zoned : IL (Light Industrial)
10. The surveyor's liability for this document shall be limited to the original purchaser and does not extend to any unnamed persons or entities without an express re-certification by the surveyor whose name appears hereon.
11. Property is subject to covenants, easements, right of ways and restrictions of record and not of record.
12. This survey does not address the existence or non-existence of wetland areas.
13. Topographic features were derived from field measurements using random shots. Contour intervals are 2 foot.

UTILITY DISCLAIMER:

TTL, Inc and Land surveyor does not guarantee accuracy of marked underground utility locations on surface and location of all underground utilities not visible including underground services lines shall not be relied upon without verification from proper utility authority having jurisdiction. TTL, Inc has not physically located the underground utilities, above grade and underground utilities shown were taken from visible appurtenances at the site, public records and /or maps prepared by others. TTL, Inc. makes no guarantee that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. TTL, Inc further does not warrant that the underground utilities are in the exact location indicated. Therefore, reliance upon size and location of utilities shown shall be done so with this circumstance considered. Detailed verification of existence, location and depth must be made prior to any decisions relative thereto are made. Availability and cost of service should be confirmed with the appropriate utility accompany. In Tennessee, it is a requirement, per "The Underground Utility Damage Prevention Act", that anyone who engages in excavation must notify all known underground utility owners, no less than three (3) or more than (10) working days prior to the date of their intent to excavate and also to avoid any possible hazard or conflict. TENNESSEE ONE CALL 811

811 Know what's below. Call before you dig.



SOURCE OF NORTH
STATE PLANE COORDINATE
NAVD 88
NAD 83
GEIOD 18
DATE: 8-16-2023

Contours and spot elevations for the topographic survey, shown hereon, were computed by trigonometric methods. Reference points for the topographic survey were generated from RTK GPS equipment utilizing TDOT (Network) Continuously Operating Reference Stations (CORS). GPS positional data was observed on: 08/16/23.

The Tennessee State Plane grid coordinates, shown hereon, are referenced to NAD83 (2011),(Epoch 2010), Geoid 18. Positional accuracy of the GPS vectors do not exceed : H 0.07', or V: 0.10'.

This survey was done in compliance with current Standards of the Tennessee State Board of Examiners for Land Surveyors.

Troy D. Walls, TN RLS #2220
TTL USA
624 Grassmere Park Suite #14
Nashville, Tennessee 37211

TTL
624 Grassmere Park, Ste.14 | Nashville, TN 37211
615.331.7770 | www.ttlusa.com

XxENTRIA ASSET MANAGEMENT, LLC - C/O PARKER POE
SAM WATKINS BOULEVARD & WILLIAM SHIRLEY ROAD
MT. PLEASANT, MAURY COUNTY, TENNESSEE 38474
BOOK 1335, PAGE 55, R.O.M.C.T
TAX MAP 126, P/O - PARCEL 41.01

BOUNDARY & TOPOGRAPHICAL SURVEY

No.	Date	Revision Description
1	8-18-2023	ADDRESSED COMMENTS
2	8-31-2023	ADDED TOPO

Drawn By: NTH	Checked By: TDW
Date Drawn: 8-8-2023	Date Surveyed: 8.16.2023
Scale: 1" = 100'	Proj. No.: 23-08-01844.00

Sheet No.
1 OF 1

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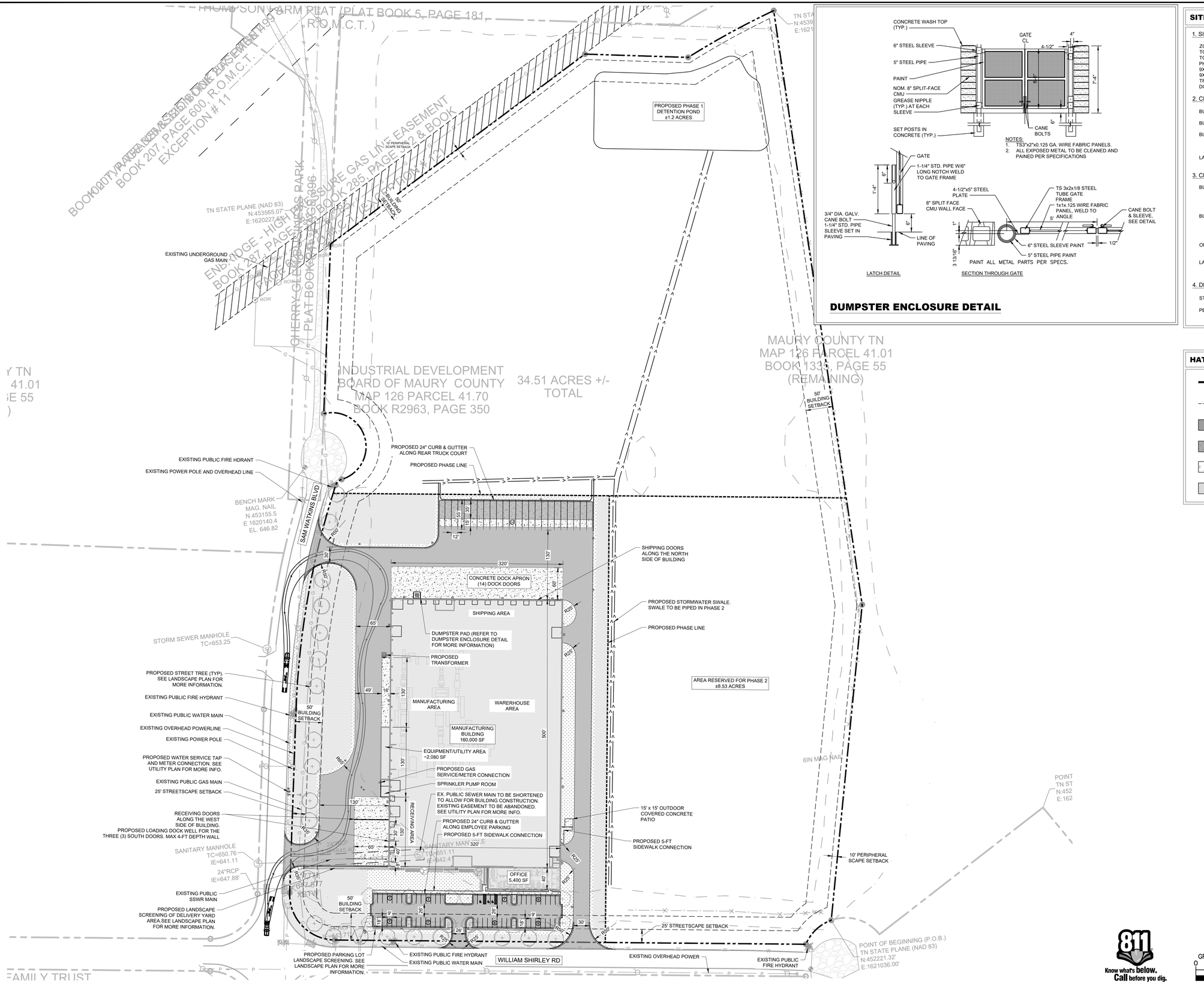

DUMPSTER ENCLOSURE DETAIL

SITE LAYOUT NOTES

1. SITE DESCRIPTION:

ZONING:	LIGHT INDUSTRIAL (IL)	
TOTAL SITE AREA:	34.51	ACRES
TOTAL BUILDING AREA:	160,480	SF
PHASE 1 AREA:	474,258	SF
9X18 PARKING PROVIDED:	61	SPACES
9X18 PARKING REQUIRED:	45	SPACES(1/EMPLOYEE)
TRAILER PARKING PROVIDED:	24	SPACES
DOCK DOORS PROVIDED:	19	ACRES

2. CITY OF MT. PLEASANT ZONING REQUIREMENTS:

BUILDING SETBACKS: 50 FT ALL SIDES

BUILDING HEIGHT: 60 FT MAX.

BUILDING SITE AREA:
MAX IMPERVIOUS SURFACE RATIO: 80%
PROVIDED IMPERVIOUS SURFACE RATIO: 71%

LANDSCAPE REQUIREMENTS:
PARKING LOT PERIMETER LANDSCAPE YARD: 7 FT

3. CHERRY GLEN BUSINESS PARK REQUIREMENTS:

BUILDING SETBACKS:
50 FT FROM U.S. HIGHWAY 43
50 FT FROM ANY PUBLIC STREET
25 FT FROM ANY PROPERTY LINE

BUILDING SITE AREA:
SITE AREA: MINIMUM 5 ACRES
BUILDING COVERAGE: MAX 50% OF SITE
PROVIDED BUILDING AREA RATIO: 36%

OFF-SITE PARKING:
MAX 50% OF FRONT YARD CAN BE USED FOR PARKING

LANDSCAPE REQUIREMENTS:
LANDSCAPING MUST BE PROVIDED FROM BUILDING TO PROPERTY LINE (LAWN, TREES, SHRUBS, ETC.)

4. DESIGN REVIEW GUIDELINES:

STREETSCAPE REQUIREMENTS: MINIMUM 25 FT

PERIPHERAL SCAPE REQUIREMENTS:
REAR AND SIDE YARDS ONLY: MINIMUM 10 FT

HATCH LEGEND

- PROPERTY LINE
- SETBACK LINE
- LIGHT DUTY ASPHALT
- HEAVY DUTY ASPHALT
- HEAVY DUTY CONCRETE
- BUILDING AREA

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XXENTRIA PHASE 1
CHERRY GLEN INDUSTRIAL PARK
MOUNT PLEASANT, TN 38474

BRENDAN JOSEPH BELCHER
REGISTERED ENGINEER
AGRICULTURE
07/29/2024
NO. 00110704
STATE OF TENNESSEE

No.	REVISIONS	DATE	BY
1	CITY SITE PLAN RESUBMITTAL	07.25.2024	CS
2			
3			
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9			
10			

DESIGNED BY:	CS
DRAWN BY:	GB
CHECKED BY:	BB
DATE:	07/25/2024
KIMLEY-HORN PROJECT NO.	017693000

SITE PLAN

SHEET NUMBER
C2-00

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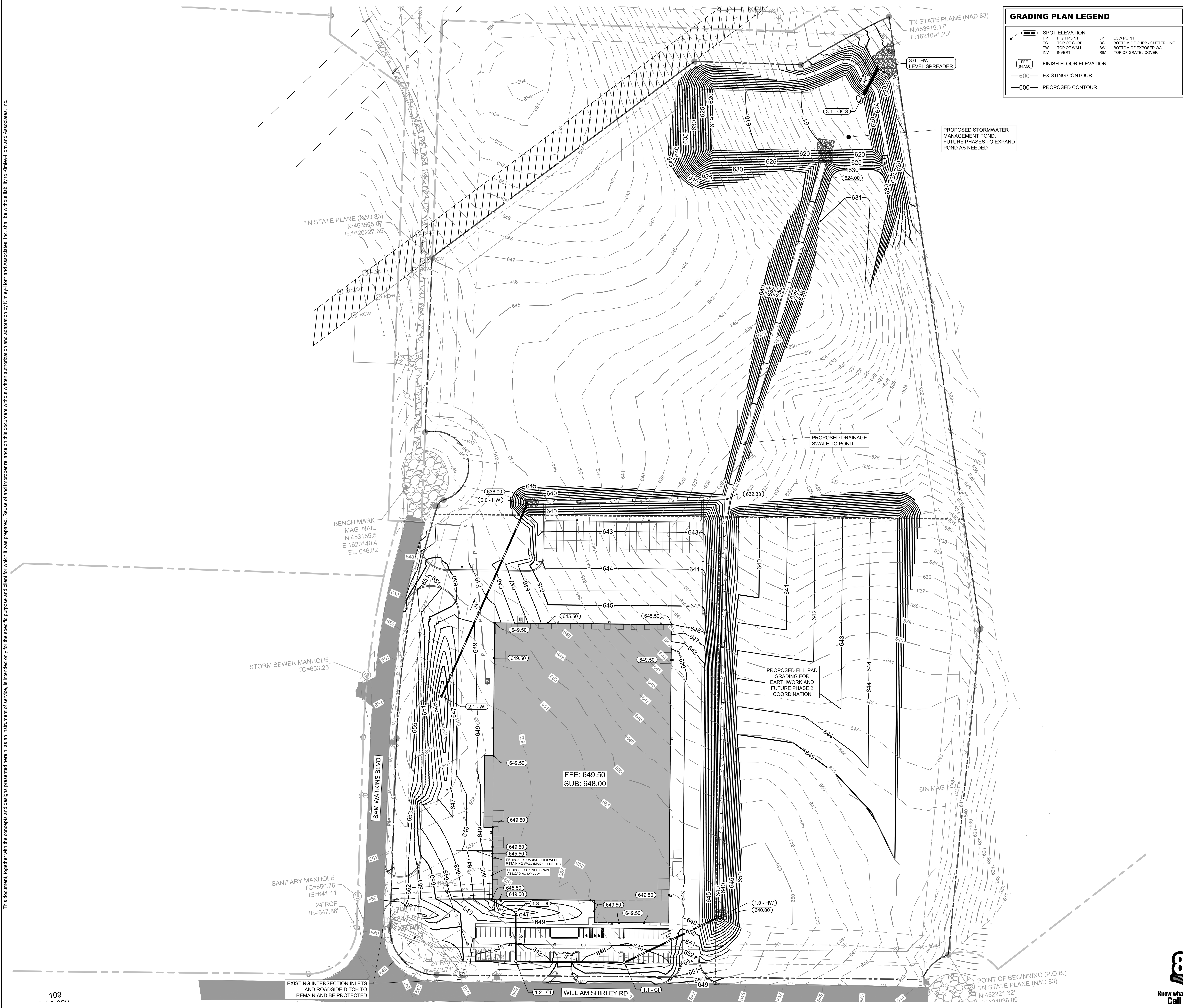
NORTH

Drawing name: K:\HSV_DS\017693000_Mt Pleasant TN Industrial\CAD\Plansheets_Planning Commission Site Plan Set\C2-00 SITE PLAN.dwg C2-00 SITE PLAN Jul 25, 2024 5:21pm by: GavinS.belcher



GRADING PLAN LEGEND

###.## SPOT ELEVATION

HP	HIGH POINT	LP	LOW POINT
TC	TOP OF CURB	BC	BOTTOM OF CURB / GUTTER LINE
TW	TOP OF WALL	BW	BOTTOM OF EXPOSED WALL
INV	INVERT	RIM	TOP OF GRATE / COVER

FFE 647.50 — FINISH FLOOR ELEVATION

600 — EXISTING CONTOUR

600 — PROPOSED CONTOUR

GRADING NOTES

1. CONTRACTOR RESPONSIBLE FOR VERIFYING LOCATION, SIZE, AND ELEVATIONS OF EXISTING UTILITIES AT CONNECTION POINTS PRIOR TO GRADING OR INSTALLATION OF ANY PROPOSED UTILITIES. CONTRACTOR TO IMMEDIATELY NOTIFY OWNER'S REPRESENTATIVE IF DISCREPANCIES ARE FOUND.
2. AREAS FOR CONSTRUCTION THAT REQUIRE DE-WATERING FOR EXCAVATION WILL BE DONE AT NO ADDITIONAL COST TO THE OWNER AND IN ACCORDANCE WITH SECTION 4.1.4 OF THE TENNESSEE GENERAL NPDES PERMIT FOR DISCHARGES OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
3. ADDITIONAL EROSION CONTROL DEVICES TO BE USED AS REQUIRED BY LOCAL INSPECTOR.
4. DISTURBED AREAS LEFT IDLE FOR FIVE DAYS, AND NOT TO FINAL GRADE, WILL BE ESTABLISHED TO TEMPORARY VEGETATION. MULCH, TEMPORARY VEGETATION OR PERMANENT VEGETATION SHALL BE COMPLETED ON ALL EXPOSED AREAS WITHIN 14 DAYS AFTER DISTURBANCE. ALL AREAS TO FINAL GRADE WILL BE ESTABLISHED TO PERMANENT VEGETATION UPON COMPLETION.
5. WHEN HAND PLANTING, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD OVER SEEDED AREA WITHIN 24 HOURS OF SEEDING. IF UNABLE TO ACCOMPLISH, MULCH SHALL BE USED AS A TEMPORARY COVER. CONCENTRATED FLOW AREAS AND ALL SLOPES STEEPER THAN 2.5:1 AND WITH A HEIGHT OF TEN FEET OR GREATER (DOES NOT APPLY TO RETAINING WALLS), AND CUTS AND FILLS WITHIN BUFFERS, SHALL BE STABILIZED WITH THE APPROPRIATE EROSION CONTROL MATTING OR BLANKETS.
6. THE GRADING PERMIT MUST BE DISPLAYED ON SITE AT ALL TIMES DURING CONSTRUCTION AND IN PLAIN VIEW FROM A PUBLIC ROAD OR STREET.
7. EROSION AND SEDIMENT CONTROL DEVICES MUST BE DISPLAYED AND INSPECTED PRIOR TO ANY GRADING ON SITE. THE CONTRACTOR MUST CALL FOR AN INSPECTION TO OBTAIN A PERMIT TO GRADE. PLEASE CALL WITH ENOUGH LEAD-TIME FOR AN INSPECTION TO MEET YOUR SCHEDULE.
8. SEDIMENT/EROSION CONTROL DEVICES MUST BE INSPECTED ACCORDING TO LOCAL AND STATE REQUIREMENTS AND AS STIPULATED IN THE STORMWATER POLLUTION PREVENTION PLAN. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MAY BE NECESSARY AS THE PROJECT PROGRESSES AND NEW CHANNELS HAVE DEVELOPED.
9. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES.
10. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION CONTROL AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
11. CONTRACTOR SHALL REVIEW SITE GEOTECHNICAL REPORT BEFORE COMMENCING GRADING OPERATIONS.
12. SEED ALL DISTURBED AREAS UNLESS OTHERWISE NOTED AS PART OF THIS CONTRACT. REFER TO LANDSCAPING PLANS FOR AREAS TO RECEIVE SOD.
13. INSTALL SOD OR RIPRAP IN SWALES AS INDICATED ON GRADING PLANS AND EROSION CONTROL PLANS
14. TOPSOIL ON SITE TO BE STRIPPED AND STOCKPILED FOR REUSE IN LAWN AREAS.
15. ADEQUATE DRAINAGE, EROSION AND SEDIMENT CONTROL MEASURES, BEST MANAGEMENT PRACTICES, AND/OR OTHER WATER QUALITY MANAGEMENT FACILITIES SHALL BE PROVIDED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION. DAMAGES TO ADJACENT PROPERTY AND/OR THE CONSTRUCTION SITE CAUSED BY THE CONTRACTOR'S OR PROPERTY OWNER'S FAILURE TO PROVIDE AND MAINTAIN ADEQUATE DRAINAGE AND EROSION/SEDIMENT CONTROL FOR THE CONSTRUCTION AREA SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER AND/OR CONTRACTOR.
16. UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED BY THE OWNER, DESIGNER, OR THEIR REPRESENTATIVES. BEFORE YOU DIG CALL ONE CALL--811 OR 1-800-752-6007
17. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY UNDERGROUND UTILITIES TO REMAIN.
18. **STRUCTURES (SUCH AS HEADWALLS AND WEIRS) WITHIN PONDS LOCATED IN FRONT AND SIDE YARDS ADJACENT TO PUBLIC STREETS SHALL BE FACED WITH BRICK OR STONE PER CITY STANDARDS.**
19. **SLOPES EXCEEDING 3:1 SHALL BE VEGETATED WITH PLANTS THAT DO NOT REQUIRE FREQUENT MOWING.**

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XXENTRIA PHASE 1
CHERRY GLEN INDUSTRIAL PARK
MOUNT PLEASANT, TN 38474

No.	REVISIONS	DATE	BY
1	CITY SITE PLAN RESUBMITTAL	07.25.2024	CS
2			
3			
4			
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6			
7			
8			
9			
10			

DESIGNED BY:	CS
DRAWN BY:	GB
CHECKED BY:	BB
DATE:	07/25/2024

KIMLEY-HORN PROJECT NO.
017693000

GRADING AND DRAINAGE PLAN

SHEET NUMBER
C3-00

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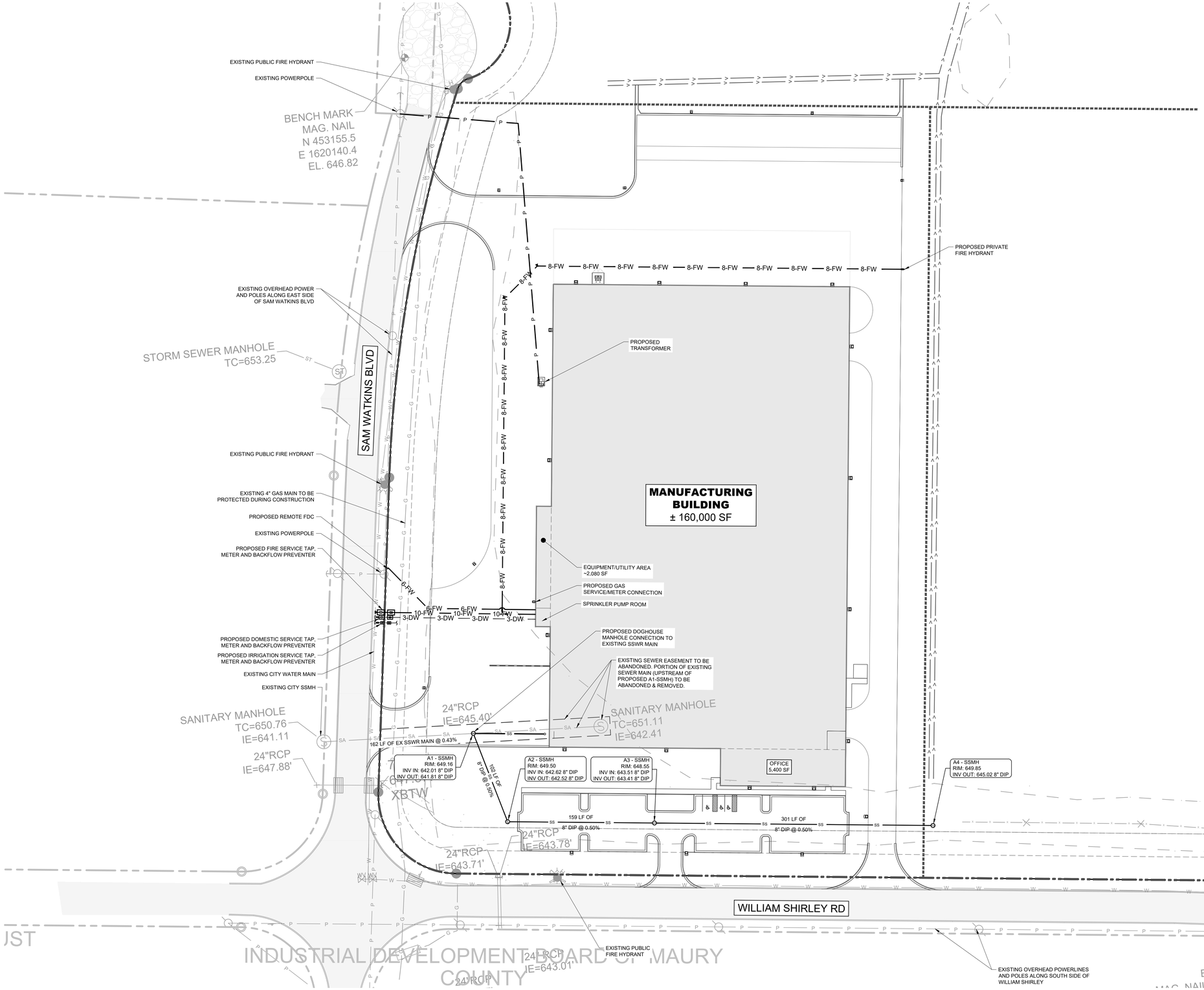
Drawing name: K:\HSV_DS\017693000_Mt Pleasant TN Industrial\CAD\Plansheets_Planning Commission Site Plan Set\C3-00 GRADING AND DRAINAGE PLAN.dwg C3-00 GRADING AND DRAINAGE PLAN - OVERALL Jul 25, 2024 5:10pm by: GavinS.belcher



SITE UTILITY NOTES

1. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW PIPE LINES.
2. WHERE WATER PIPING CROSSES THE SANITARY SEWER LINE, THE WATER SERVICE WITHIN 10 FEET OF THE POINT OF CROSSING SHALL BE AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER LINE.
3. THE CONTRACTOR SHALL NOTIFY THE INSPECTOR AT LEAST 7 DAYS PRIOR TO THE START OF SEWER CONSTRUCTION.
4. THE LOCATIONS OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR KIMLEY-HORN AND ASSOCIATES, INC. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND AND OVERHEAD UTILITIES.
5. CONTRACTOR TO COORDINATE ALL WORK WITH OTHER UTILITY INSTALLATIONS NOT PROVIDED IN THESE CONSTRUCTION DOCUMENTS (ELECTRIC, TELEPHONE, GAS, CABLE, ETC.) AND ALLOW FOR THEIR OPERATIONS AND CONSTRUCTION TO BE PERFORMED.
6. ALL WORK AND MATERIALS SHALL COMPLY WITH THE CITY OF MT. PLEASANT AND O.H.S.A. STANDARDS.
7. ALL PIPES UNDER STREETS OR PAVED AREAS IN R.O.W. SHALL BE BACKFILLED WITH CRUSHED STONE.
8. ALL AREAS BACKFILLED SHALL BE COMPACTED TO 95% STANDARD PROCTOR IN R.O.W.
9. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW PIPE LINES.
10. LINES UNDERGROUND SHALL BE INSTALLED, TESTED AND APPROVED BEFORE BACKFILLING.
11. CONTRACTOR TO CONTACT THE CITY OF MT. PLEASANT TO COORDINATE INSTALLATION AS REQUIRED.
12. ALL FIRE HYDRANTS INSTALLED FOR THIS DEVELOPMENT SHALL BE OF A TYPE ACCEPTABLE TO THE CITY OF MT. PLEASANT STANDARDS.
13. THE CITY OF MT. PLEASANT AND/OR CONTRACTOR SHALL SET INDIVIDUAL WATER METERS IN FIELD AS REQUIRED.
14. CONTRACTOR SHALL REPLACE IN LIKE KIND ALL PAVEMENT AREAS REMOVED OR DISTURBED AS A RESULT OF THE WATER MAIN INSTALLATION AND ASSOCIATED WORK.
15. PRIVATE WATER MAIN AND LINES TO HAVE MINIMUM OF 30" COVER.
16. CONTRACTOR SHALL BE A STATE OF TENNESSEE LICENSED CONTRACTOR APPROVED TO INSTALL PUBLIC WATER MAINS.
17. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL FEES, PERMITS AND LICENSES AS PART OF THE CONTRACT.
18. NON-METALLIC DETECTION TAPE SHALL BE INSTALLED 18" ABOVE THE WATERLINE, ALONG WITH NUMBER 12 OR 14 GAUGE CAP WIRE TAPED TO THE WATERLINE.
19. LUBRICANTS SHALL BE NON-TOXIC AND SHALL NOT PROMOTE BIOLOGICAL GROWTH. SOLVENT-CEMENTED JOINTS ARE NOT PERMITTED.
20. PROCEDURES FOR DISINFECTING POTABLE WATERLINES SHALL CONFORM TO THE REQUIREMENTS OF A.W.W.A. C651. ALL WATERLINES SHALL BE DISINFECTED, BACTERIOLOGICAL TESTED, AND PRESSURE TREATED ACCORDING TO THE CITY OF MT. PLESANT'S SPECIFICATIONS PRIOR TO LINE ACCEPTANCE AND THE WATERLINE BEING PLACED INTO SERVICE.
21. PRESSURE AND LEAKAGE TESTS SHALL BE PREFORMED IN STRICT ACCORDANCE WITH CURRENT A.W.W.A STANDARD C600 AND/OR MANUFACTURER'S PROCEDURES.
22. ALL VALVES AND FITTINGS ARE TO CONFORM TO THE LATEST A.W.W.A STANDARDS.
23. THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE UTILITY ENTITY FOR CONNECTION TO THE EXISTING UTILITY LINES. THE CONTRACTOR SHALL ADJUST THE LOCATION OF THE PROPOSED WATERLINE TO AVOID CONFLICTS WITH OTHER UTILITIES.
24. ALL CONCRETE USED FOR THRUST BLOCKS TO HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 psi.
25. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLETE INSTALLATION OF THE WATER SERVICE LINE AND FIRE LINE AS REQUIRED. THE CONTRACTOR SHALL PROVIDE A TAPPING VALVE AND SLEEVE AND OTHER MATERIAL AND EQUIPMENT AS REQUIRED FOR TAPPING THE EXISTING MAIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FEE TO THE CITY OF MT. PLEASANT AS REQUIRED FOR TAPPING THE EXISTING MAIN AND COORDINATE WITH THE CITY OF MT. PLEASANT AS REQUIRED.
26. ALL MATERIALS AND CONSTRUCTION SHALL BE PER MT. PLEASANT PUBLIC WORKS STANDARD SPECIFICATIONS FOR WATER AD SEWER CONSTRUCTION, LATEST EDITION.

LEGEND

- SANITARY SEWER MANHOLE
- SS — SANITARY SEWER LINE
- FIRE HYDRANT
- W — WATER LINE
- WATER METER
- BACKFLOW PREVENTER
- FIRE DEPARTMENT CONNECTION

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XXENTRIA PHASE 1
CHERRY GLEN INDUSTRIAL PARK
MOUNT PLEASANT, TN 38474

No.	REVISIONS	DATE	BY
1	CITY SITE PLAN RESUBMITTAL	07.25.2024	CS
2			
3			
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10			

DESIGNED BY:	CS
DRAWN BY:	GB
CHECKED BY:	BB
DATE:	07/25/2024

KIMLEY-HORN PROJECT NO. 017693000

UTILITY PLAN

SHEET NUMBER
C4-00

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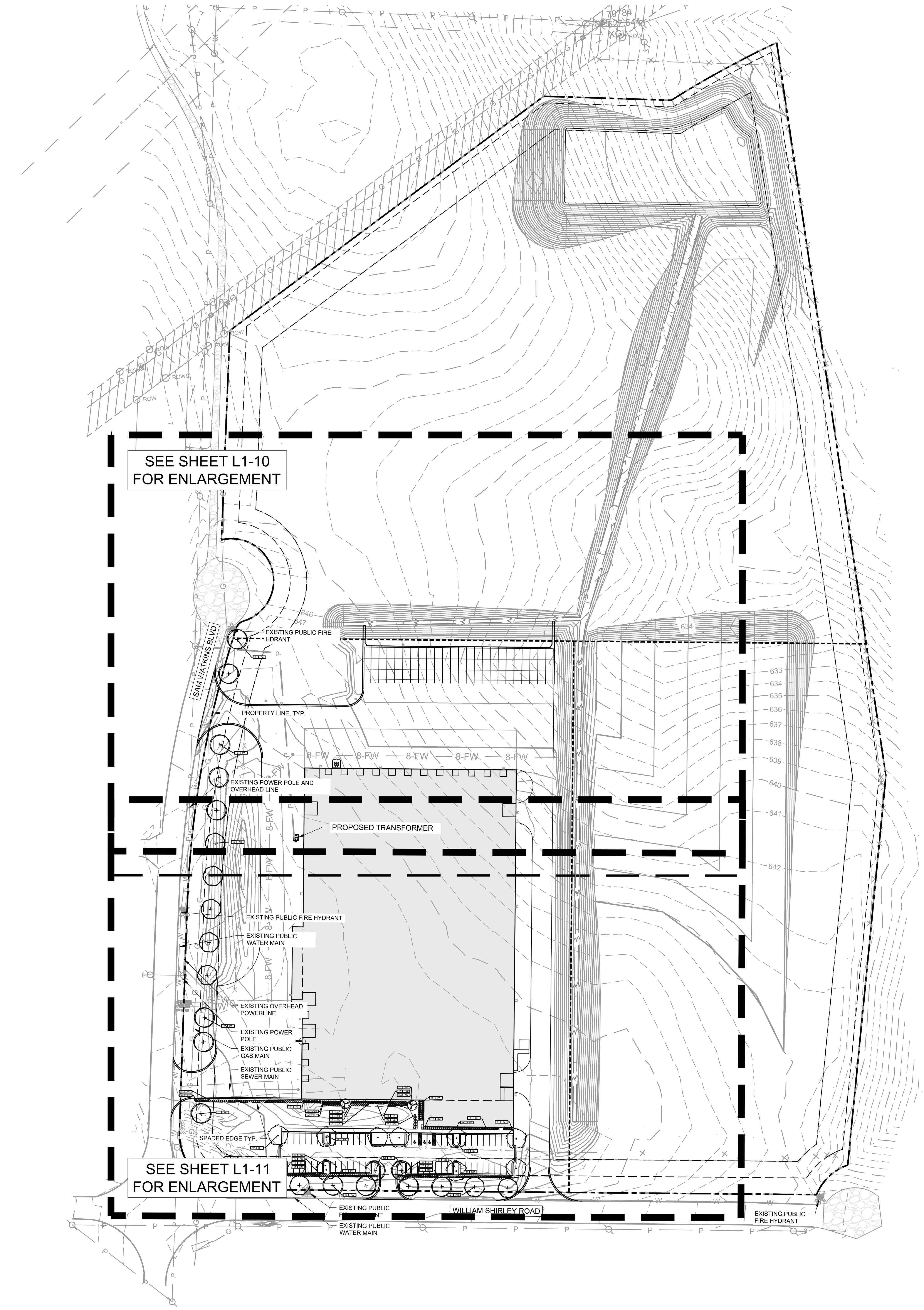

LANDSCAPE REQUIREMENTS

GROUNDCOVERS USED FOR THIS PURPOSE SHALL BE PLANTED WITH SUFFICIENTLY TIGHT SPACING TO PROVIDE 100 PERCENT COVERAGE WITHIN THE FIRST YEAR

BUILDING FOUNDATION PLANTING
- LANDSCAPE SHALL BE PLACED ON ALL SIDES THAT ARE VISIBLE FROM PUBLIC AREA.
- 10' OF PLANTING AREA WIDTH ADJACENT TO BUILDINGS HAVING TWO OR MORE STORIES.

PARKING LOT PERIMETER LANDSCAPE YARD
- LANDSCAPE YARD SHALL RUN THE FULL LENGTH OF THE PARKING LOT BOUNDARY EXCEPT ON SIDES THAT ARE NOT EXPOSED TO THE PUBLIC.
- PERIMETER LANDSCAPE YARD SHALL BE 7' IN WIDTH

INTERIOR PARKING LOT LANDSCAPING
- 10% OF TOTAL PARKING AREA SHALL BE LANDSCAPED WITH PARKING ISLANDS AND LANDSCAPED AREAS.
- ONE SHADE TREE PER 2,000 SQUARE FEET OF VUA.
- WITHIN THE INDUSTRIAL ZONING, INTERIOR LANDSCAPE ISLAND ARE NOT REQUIRED.
- MINIMUM OF 33% OF EVERY PARKING ISLAND SHALL BE PLANTED IN TURF OR OTHER LIVE GROUNDCOVER, PERENNIALS, OR ORNAMENTAL GRASSES.

STREET YARD
- STREET YARDS SHALL BE REQUIRED WHERE THE SITE ADJOINS THE PUBLIC STREET RIGHT-OF-WAY.
- STREET YARDS SHALL BE 10' IN DEPTH MEASURED FROM THE PROPERTY LINE TOWARDS THE INTERIOR OF THE PROPERTY.
- SHRUBS REQUIRED FOR SCREENING OF VEHICLE USE AREA MAY BE LOCATED WITHIN THE YARD.

BUFFER YARDS
- NO BUFFER YARDS ARE REQUIRED
  EXISTING LAND USE: INDUSTRIAL
  PROPOSED LAND USE: INDUSTRIAL

PLANT SCHEDULE

SYMBOL	CODE		BOTANICAL NAME	COMMON NAME	SPACING	SIZE	ROOT	CONDITION
CANOPY TREES								
	AR	11	ACER RUBRUM `AUTUMN FLAME`	AUTUMN FLAME RED MAPLE	AS SHOWN	2" CAL. MIN; 8`-10` HT.	B&B	FULL CANOPY, MATCHED
	PA	14	PLATANUS X ACERIFOLIA `BLOODGOOD`	LONDON PLANE TREE	AS SHOWN	2" CAL. MIN; 8`-10` HT.	B&B	FULL CANOPY, MATCHED
	QP	10	QUERCUS PALUSTRIS	PIN OAK	AS SHOWN	2" CAL. MIN; 8`-10` HT.	B&B	FULL CANOPY, MATCHED
EVERGREEN TREES								
	JV	14	JUNIPERUS VIRGINIANA 'TAYLOR'	TAYLOR EASTERN REDCEDAR	AS SHOWN	2" CAL; 6-8` HT.	B&B	STRAIGHT CENTRAL LEADER, FULL CANOPY, MATCHED
UNDERSTORY TREES								
	AC	2	AMELANCHIER CANADENSIS `AUTUMN BRILLIANCE`	AUTUMN BRILLIANCE SERVICEBERRY	AS SHOWN	2" CAL. PER STEM; 6-8` HT.	B&B	3 STEMS, MATCHED, FULL
EVERGREEN SHRUBS								
	BG	78	BUXUS X `GREEN VELVET`	GREEN VELVET BOXWOOD	AS SHOWN	18" MIN. HT.	3 GAL.	MATCHED, FULL TO GROUND
	IC	107	ILEX CORNUTA `SOFT TOUCH`	SOFT TOUCH HOLLY	AS SHOWN	18" MIN. HT.	3 GAL.	MATCHED, FULL, FREE OF WEEDS
ORNAMENTAL GRASSES								
	CKF	57	CALAMAGROSTIS X ACUTIFLORA `KARL FOERSTER`	FEATHER REED GRASS	AS SHOWN	18" MIN. HT.	3 GAL.	MATCHED, FULL, FREE OF WEEDS
	PK	52	PENNISETUM ORIENTALE 'KARLEY ROSE'	KARLEY ROSE FOUNTAIN GRASS	AS SHOWN	18" MIN. HT.	3 GAL.	MATCHED, FULL, FREE OF WEEDS
GROUND COVERS								
	BB	616	LIRIOPE MUSCARI `BIG BLUE`	BIG BLUE LILYTURF	18" O.C.	TRAY	CONT.	MATCHED, FULL, FREE OF WEEDS
SOD/SEED								
	SEED	110,772 SF	SEED	TALL FESCUE SEED MIX	-	-	SEED	-
	TB	40,682 SF	TALL FESCUE SOD	-	SOD	ROLLS OR SQUARES	SOD/TURF	TIGHT, SAND ROLLED JOINTS, FREE OF WEEDS & DEBRIS

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MOUNT PLEASANT, TN 38474

BRENDAN JOSEPH BOLES
REGISTERED ENGINEER
AGRICULTURE COMMERCE
No. 00110794
STATE OF TENNESSEE
9/1/2024

No.	REVISIONS	DATE	BY
1	CITY SITE PLAN RESUBMITTAL	07.25.2024	CS
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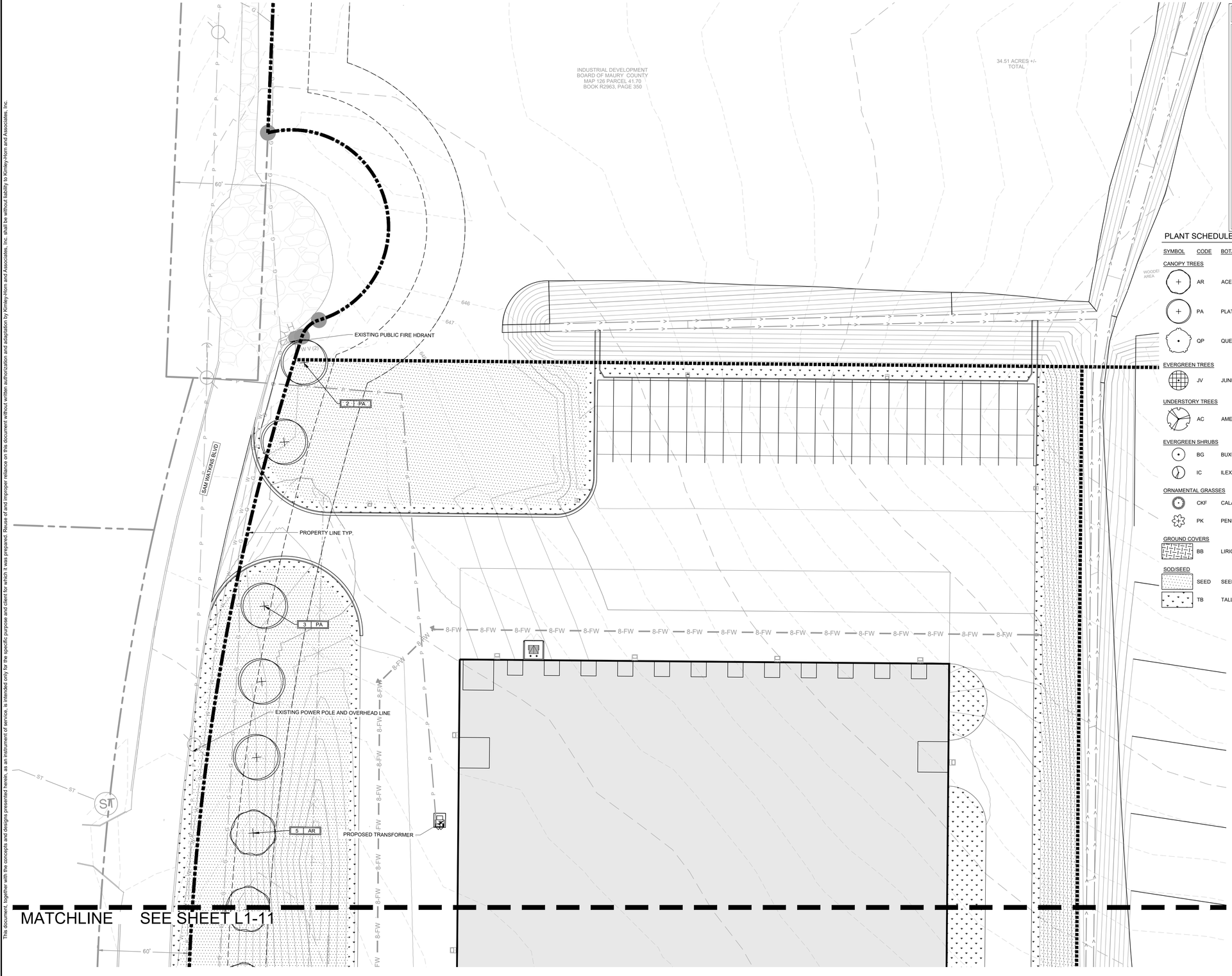
DESIGNED BY: CS
DRAWN BY: CB
CHECKED BY: JB
DATE: 07/25/2024
KIMLEY-HORN PROJECT NO. 017693000

LANDSCAPE PLAN - OVERALL

SHEET NUMBER
L1-00



LANDSCAPE REQUIREMENTS

BUILDING FOUNDATION PLANTING
- LANDSCAPE SHALL BE PLACED ON ALL SIDES THAT ARE VISIBLE FROM PUBLIC AREA.
- 10' OF PLANTING AREA WIDTH ADJACENT TO BUILDINGS HAVING TWO OR MORE STORIES.

PARKING LOT PERIMETER LANDSCAPE YARD
- LANDSCAPE YARD SHALL RUN THE FULL LENGTH OF THE PARKING LOT BOUNDARY EXCEPT ON SIDES THAT ARE NOT EXPOSED TO THE PUBLIC.
- PERIMETER LANDSCAPE YARD SHALL BE 7' IN WIDTH

INTERIOR PARKING LOT LANDSCAPING
- 10% OF TOTAL PARKING AREA SHALL BE LANDSCAPED WITH PARKING ISLANDS AND LANDSCAPED AREAS.
- ONE SHADE TREE PER 2,000 SQUARE FEET OF VUA.
- WITHIN THE INDUSTRIAL ZONING, INTERIOR LANDSCAPE ISLAND ARE NOT REQUIRED.
- MINIMUM OF 33% OF EVERY PARKING ISLAND SHALL BE PLANTED IN TURF OR OTHER LIVE GROUNDCOVER, PERENNIALS, OR ORNAMENTAL GRASSES.

STREET YARD
- STREET YARDS SHALL BE REQUIRED WHERE THE SITE ADJOINS THE PUBLIC STREET RIGHT-OF-WAY.
- STREET YARDS SHALL BE 10' IN DEPTH MEASURED FROM THE PROPERTY LINE TOWARDS THE INTERIOR OF THE PROPERTY.
- SHRUBS REQUIRED FOR SCREENING OF VEHICLE USE AREA MAY BE LOCATED WITHIN THE YARD.

BUFFER YARDS
- NO BUFFER YARDS ARE REQUIRED
  EXISTING LAND USE: INDUSTRIAL
  PROPOSED LAND USE: INDUSTRIAL

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
CANOPY TREES			
	AR	ACER RUBRUM `AUTUMN FLAME`	AUTUMN FLAME RED MAPLE
	PA	PLATANUS X ACERIFOLIA `BLOODGOOD`	LONDON PLANE TREE
	QP	QUERCUS PALUSTRIS	PIN OAK
EVERGREEN TREES			
	JV	JUNIPERUS VIRGINIANA 'TAYLOR'	TAYLOR EASTERN REDCEDAR
UNDERSTORY TREES			
	AC	AMELANCHIER CANADENSIS `AUTUMN BRILLIANCE`	AUTUMN BRILLIANCE SERVICEBERRY
EVERGREEN SHRUBS			
	BG	BUXUS X `GREEN VELVET`	GREEN VELVET BOXWOOD
	IC	ILEX CORNUTA `SOFT TOUCH`	SOFT TOUCH HOLLY
ORNAMENTAL GRASSES			
	CKF	CALAMAGROSTIS X ACUTIFLORA `KARL FOERSTER`	FEATHER REED GRASS
	PK	PENNISETUM ORIENTALE 'KARLEY ROSE'	KARLEY ROSE FOUNTAIN GRASS
GROUND COVERS			
	BB	LIRIOPE MUSCARI `BIG BLUE`	BIG BLUE LILYTURF
SOD/SEED			
	SEED	SEED	TALL FESCUE SEED MIX
	TB	TALL FESCUE SOD	-

Know what's **below.** **Call** before you dig.

GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

Kimley»Horn
10 Lea Avenue #400, Nashville, TN 37210
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XXENTRIA PHASE 1
CHERRY GLEN INDUSTRIAL PARK
MOUNT PLEASANT, TN 38474

No.	REVISIONS	DATE	BY
1	CITY SITE PLAN RESUBMITTAL	07.25.2024	CS
2			
3			
4			
5			
6			
7			
8			
9			
10			

DESIGNED BY:	CS
DRAWN BY:	GB
CHECKED BY:	BB
DATE:	07/25/2024
KIMLEY-HORN PROJECT NO.	017693000

LANDSCAPE PLAN - ENLARGEMENT

SHEET NUMBER
L1-10

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MATCHLINE SEE SHEET L1-10

EXISTING PUBLIC FIRE HYDRANT
EXISTING PUBLIC WATER MAIN
EXISTING OVERHEAD POWERLINE
EXISTING POWER POLE
EXISTING PUBLIC GAS MAIN
EXISTING PUBLIC SEWER MAIN
SPADED EDGE TYP.
EXISTING PUBLIC FIRE HYDRANT
EXISTING PUBLIC WATER MAIN
WILLIAM SHIRLEY ROAD

LANDSCAPE REQUIREMENTS

BUILDING FOUNDATION PLANTING
- LANDSCAPE SHALL BE PLACED ON ALL SIDES THAT ARE VISIBLE FROM PUBLIC AREA.
- 10' OF PLANTING AREA WIDTH ADJACENT TO BUILDINGS HAVING TWO OR MORE STORIES.

PARKING LOT PERIMETER LANDSCAPE YARD
- LANDSCAPE YARD SHALL RUN THE FULL LENGTH OF THE PARKING LOT BOUNDARY EXCEPT ON SIDES THAT ARE NOT EXPOSED TO THE PUBLIC.
- PERIMETER LANDSCAPE YARD SHALL BE 7' IN WIDTH

INTERIOR PARKING LOT LANDSCAPING
- 10% OF TOTAL PARKING AREA SHALL BE LANDSCAPED WITH PARKING ISLANDS AND LANDSCAPED AREAS.
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GROUND COVERS			
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SOD/SEED			
	SEED	SEED	TALL FESCUE SEED MIX
	TB	TALL FESCUE SOD	-

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DESIGNED BY: CS
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DATE: 07/25/2024
KIMLEY-HORN PROJECT NO. 017693000

LANDSCAPE PLAN - ENLARGEMENT

SHEET NUMBER
L1-11

811 Know what's below. Call before you dig.

GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

GENERAL LANDSCAPE SPECIFICATIONS AND NOTES

1.01 SCOPE OF WORK

A. THE WORK CONSISTS OF: FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT AS SHOWN ON THE DRAWINGS, AS INCLUDED IN THE PLANT LIST, AND AS HEREIN SPECIFIED.

B. WORK SHALL INCLUDE MAINTENANCE AND WATERING OF ALL CONTRACT PLANTING AREAS UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER.

C. THE CONTRACTOR SHALL CONTACT THE OWNER AND TENNESSEE ONE CALL AT (615) 351-1111, TWO (2) FULL BUSINESS DAYS PRIOR TO THE BEGINNING OF WORK.

D. THE CITY MUST APPROVE ALL WORK HOURS AND LANE CLOSURE REQUESTS AT LEAST TWO (2) FULL WORKING DAYS IN ADVANCE OF THE START OF ANY SUCH WORK ON A LOCATION BY LOCATION BASIS. THE INDIVIDUAL(S) INSTALLING THE MAINTENANCE OF TRAFFIC SETUP SHALL HAVE COMPLETED A TDOT APPROVED WORK ZONE TRAFFIC CONTROL TRAINING COURSE. DOCUMENTATION SHALL BE FURNISHED TO THE CITY AT THE PRE-CONSTRUCTION MEETING OR PRIOR TO START OF WORK.

E. ALL LANDSCAPE MATERIAL SHALL BE INSTALLED AND MAINTAINED IN A MANNER WHEREBY TRAFFIC CONTROL SIGNAGE AND DEVICES ARE VISIBLE TO MOTORISTS AND PEDESTRIANS.

1.02 PROTECTION OF EXISTING STRUCTURES

A. ALL EXISTING BUILDINGS, WALKS, WALLS, PAVING, PIPING, OTHER SITE CONSTRUCTION ITEMS, AND PLANTING ALREADY COMPLETED OR ESTABLISHED SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. ALL DAMAGE RESULTING FROM NEGLIGENCE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AND AT NO COST TO THE OWNER.

B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL NECESSARY BMP DEVICES ACCORDING TO TDOT, COUNTY, OR CITY STANDARDS THROUGH THE DURATION OF ALL CONSTRUCTION ACTIVITIES.

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES, WHETHER PUBLIC OR PRIVATE, PRIOR TO EXCAVATION. THE OWNER AND DESIGN PROFESSIONAL SHALL NOT BE RESPONSIBLE FOR THE ACCURACY AND COMPLETENESS OF ANY SUCH INFORMATION OR DATA, AND THE CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR REVIEWING AND CHECKING ALL SUCH INFORMATION AND DATA, FOR LOCATING ALL UNDERGROUND FACILITIES DURING CONSTRUCTION, FOR THE SAFETY AND PROTECTION THEREOF, AND REPAIRING ANY DAMAGE THERETO RESULTING FROM THE WORK. THE COST OF COMPLIANCE WITH THIS SECTION WILL BE CONSIDERED AS HAVING BEEN INCLUDED IN THE CONTRACT PRICE. THE CONTRACTOR SHALL NOTIFY ANY AFFECTED UTILITY COMPANIES OR AGENCIES IN WRITING AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.

1.03 PROTECTION OF EXISTING PLANT MATERIALS OUTSIDE LIMIT OF WORK

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNAUTHORIZED CUTTING OR DAMAGE TO TREES AND SHRUBS EXISTING OR OTHERWISE, CAUSED BY CARELESS EQUIPMENT OPERATION, MATERIAL STOCKPILING, ETC. THIS SHALL INCLUDE COMPACTION BY DRIVING OR PARKING INSIDE THE DRIP-LINE AND SPILLING OIL, GASOLINE, OR OTHER DELETERIOUS MATERIALS WITHIN THE DRIP-LINE. NO MATERIALS SHALL BE BURNED ON SITE. EXISTING TREES KILLED OR DAMAGED SO THAT THEY ARE MISSHAPEN AND/OR UNSIGHTLY SHALL BE REPLACED AT THE COST TO THE CONTRACTOR OF ONE HUNDRED DOLLARS ($100) PER CALIPER INCH ON AN ESCALATING SCALE WHICH ADDS AN ADDITIONAL TWENTY (20) PERCENT PER INCH OVER FOUR (4) INCHES CALIPER AS FIXED AND AGREED LIQUIDATED DAMAGES. CALIPER SHALL BE MEASURED SIX (6) INCHES ABOVE GROUND LEVEL FOR TREES UP TO AND INCLUDING FOUR (4) INCHES IN CALIPER AND TWELVE (12) INCHES ABOVE GROUND LEVEL FOR TREES OVER FOUR (4) INCHES IN CALIPER.

1.04 MATERIALS

A. GENERAL

MATERIAL SAMPLES LISTED BELOW SHALL BE SUBMITTED FOR APPROVAL, ON SITE OR AS DETERMINED BY THE LANDSCAPE ARCHITECT. UPON APPROVAL, DELIVERY OF MATERIALS MAY COMMENCE.

MATERIAL	SAMPLE SIZE
MULCH	ONE (1) CUBIC FOOT
TOPSOIL MIX	ONE (1) CUBIC FOOT
PLANTS	ONE (1) OF EACH VARIETY (OR TAGGED IN NURSERY)

B. PLANT MATERIALS

1. PLANT SPECIES AND SIZE SHALL CONFORM TO THOSE INDICATED ON THE DRAWINGS. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH GRADES AND STANDARDS AS SET FORTH IN ANSI Z60.1-2014-AMERICAN STANDARD FOR NURSERY STOCK. ALL PLANTS SHALL BE HEALTHY, VIGOROUS, SOUND, WELL-BRANCHED, AND FREE OF DISEASE AND INSECTS, INSECT EGGS AND LARVAE AND SHALL HAVE ADEQUATE ROOT SYSTEMS. TREES FOR PLANTING IN ROWS SHALL BE UNIFORM IN SIZE AND SHAPE. ALL MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE OWNER. WHERE ANY REQUIREMENTS ARE OMITTED FROM THE PLANT LIST, THE PLANTS FURNISHED SHALL BE NORMAL FOR THE VARIETY. PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY WITH APPROVAL FROM OWNER OR LANDSCAPE ARCHITECT. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN PERMISSION FROM THE LANDSCAPE ARCHITECT.
2. MEASUREMENTS: THE HEIGHT AND/OR WIDTH OF TREES SHALL BE MEASURED FROM THE GROUND OR ACROSS THE NORMAL SPREAD OF BRANCHES WITH THE PLANTS IN THEIR NORMAL POSITION. THIS MEASUREMENT SHALL NOT INCLUDE THE IMMEDIATE TERMINAL GROWTH. PLANTS LARGER IN SIZE THAN THOSE SPECIFIED IN THE PLANT LIST MAY BE USED IF APPROVED BY THE OWNER. IF THE USE OF LARGER PLANTS IS APPROVED, THE ROOTBALL OR SPREAD OF ROOTS SHALL BE INCREASED IN PROPORTION TO THE SIZE OF THE PLANT.
3. INSPECTION: PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, OR UPON DELIVERY TO THE SITE, AS DETERMINED BY THE OWNER, FOR QUALITY, SIZE, AND VARIETY; SUCH APPROVAL SHALL NOT IMPAIR THE RIGHT OF INSPECTION AND REJECTION AT THE SITE DURING PROGRESS OF THE WORK OR AFTER COMPLETION FOR SIZE AND CONDITION OF ROOT BALLS OR ROOTS, LATENT DEFECTS OR INJURIES. REJECTED PLANTS SHALL BE REMOVED IMMEDIATELY FROM THE SITE. NOTICE REQUESTING INSPECTION SHALL BE SUBMITTED IN WRITING BY THE CONTRACTOR AT LEAST ONE (1) WEEK PRIOR TO ANTICIPATED DATE.

1.05 SOIL MIXTURE (PLANTING MEDIUM, PLANTING MIX, TOPSOIL MIX)

A. SOIL MIXTURE (PLANTING MEDIUM FOR PLANT PITS) SHALL CONSIST OF ½ LOOSE COMPOST (NO GREATER THAN 1" SIV), ⅓ PEAT AND ⅓ SAND, AS DESCRIBED BELOW.

B. TOPSOIL FOR USE IN PREPARING SOIL MIXTURE FOR BACKFILLING PLANT PITS SHALL BE FERTILE, FRIABLE, AND OF A LOAMY CHARACTER; REASONABLY FREE OF SUBSOIL, CLAY LUMPS, BRUSH WEEDS AND OTHER LITTER; FREE OF ROOTS, STUMPS, STONES LARGER THAN 2" IN ANY DIRECTION, AND OTHER EXTRANEOUS OR TOXIC MATTER HARMFUL TO PLANT GROWTH. IT SHALL CONTAIN THREE (3) TO FIVE (5) PERCENT DECOMPOSED ORGANIC MATTER AND A PH BETWEEN 5.5 AND 7.0 - SUBMIT SAMPLE AND PH TESTING RESULTS FOR APPROVAL.

C. SAND SHALL BE COARSE, CLEAN, WELL-DRAINING, NATIVE SAND. CONTRACTOR SHALL SUBMIT RESULTS OF SOIL TESTS FOR TOPSOIL AND SAND PROPOSED FOR APPROVAL BY THE OWNER.

D. TREES SHALL BE PLANTED IN THE EXISTING NATIVE SOIL ON SITE, UNLESS DETERMINED TO BE UNSUITABLE, AT WHICH POINT THE CONTRACTOR SHALL CONTACT OWNER'S REPRESENTATIVE TO DISCUSS ALTERNATE RECOMMENDATION PRIOR TO PLANTING.

E. CONTRACTOR TO SUBMIT SAMPLES OF SOIL MIXTURE FOR OWNER'S REPRESENTATIVE APPROVAL PRIOR TO PLANT INSTALLATION OPERATIONS COMMENCE.

1.06 WATER

A. WATER NECESSARY FOR PLANTING AND MAINTENANCE SHALL BE OF SATISFACTORY QUALITY TO SUSTAIN ADEQUATE PLANT GROWTH AND SHALL NOT CONTAIN HARMFUL, NATURAL OR MAN-MADE ELEMENTS DETRIMENTAL TO PLANTS. WATER MEETING THE ABOVE STANDARD SHALL BE OBTAINED ON THE SITE FROM THE OWNER, IF AVAILABLE, AND THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ARRANGEMENTS FOR ITS USE BY HIS TANKS, HOSES, SPRINKLERS, ETC. IF SUCH WATER IS NOT AVAILABLE AT THE SITE, THE CONTRACTOR SHALL PROVIDE SATISFACTORY WATER FROM SOURCES OFF THE SITE AT NO ADDITIONAL COST TO THE OWNER.

** WATERING/IRRIGATION RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.*

1.07 FERTILIZER

A. CONTRACTOR SHALL PROVIDE FERTILIZER APPLICATION SCHEDULE TO OWNER, AS APPLICABLE TO SOIL TYPE, PLANT INSTALLATION TYPE, AND SITE'S PROPOSED USE. SUGGESTED FERTILIZER TYPES SHALL BE ORGANIC OR OTHERWISE NATURALLY-DERIVED.

** FERTILIZER RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.*

1.08 MULCH

A. MULCH MATERIAL SHALL BE MOISTENED AT THE TIME OF APPLICATION TO PREVENT WIND DISPLACEMENT, AND APPLIED AT A DEPTH OF THREE (3) INCHES FOR ALL PLANTINGS UNLESS OTHERWISE NOTED. MULCH AT ALL PLANTING BEDS SHALL BE TRIPLE SHREDDED HARDWOOD.

1.09 DIGGING AND HANDLING

A. PROTECT ROOTS OR ROOT BALLS OF PLANTS AT ALL TIMES FROM SUN, DRYING WINDS, WATER AND FREEZING AS NECESSARY UNTIL PLANTING. PLANT MATERIALS SHALL BE ADEQUATELY PACKED TO PREVENT DAMAGE DURING TRANSIT.

B. BALLED AND BURLAPPED PLANTS (B&B) SHALL BE DUG WITH FIRM, NATURAL BALLS OF SOIL OF SUFFICIENT SIZE TO ENCOMPASS THE FIBROUS AND FEEDING ROOTS OF THE PLANTS. NO PLANTS MOVED WITH A ROOT BALL SHALL BE PLANTED IF THE BALL IS CRACKED OR BROKEN. PLANTS SHALL NOT BE HANDLED BY STEMS.

C. EXCAVATION OF TREE PITS SHALL BE PERFORMED USING EXTREME CARE TO AVOID DAMAGE TO SURFACE AND SUBSURFACE ELEMENTS SUCH AS UTILITIES OR HARDSCAPE ELEMENTS, FOOTERS AND PREPARED SUB-BASES. ALL TREES SHALL BE PLANTED AS INDICATED ON DRAWINGS. COORDINATE WITH PLANTING DETAILS FOR EXACT DEPTH OF PLANTING SOIL.

1.10 CONTAINER GROWN STOCK

A. ALL TREES SPECIFIED SHALL BE BALL AND BURLAP, UNLESS OTHERWISE APPROVED BY LANDSCAPE ARCHITECT.

B. ALL SHRUB SPECIES SHALL BE CONTAINER GROWN.

C. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE OF GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION.

D. AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSPLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG ENOUGH FOR THE NEW FIBROUS ROOTS TO HAVE DEVELOPED SO THAT THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER. CONTAINER GROWN STOCK SHALL NOT BE HANDLED BY THEIR STEMS.

E. PLANT ROOTS BOUND IN CONTAINERS ARE NOT ACCEPTABLE.

1.11 MATERIALS LIST

A. QUANTITIES NECESSARY TO COMPLETE THE WORK ON THE DRAWINGS SHALL BE FURNISHED BY THE CONTRACTOR. QUANTITY ESTIMATES HAVE BEEN MADE CAREFULLY, BUT THE LANDSCAPE ARCHITECT OR OWNER ASSUMES NO LIABILITY FOR OMISSIONS OR ERRORS. SHOULD A DISCREPANCY OCCUR BETWEEN THE PLANS AND THE PLANT LIST QUANTITY, THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED FOR CLARIFICATION PRIOR TO BIDDING OR INSTALLATION. ALL DIMENSIONS AND/OR SIZES SPECIFIED SHALL BE THE MINIMUM ACCEPTABLE SIZE.

1.12 FINE GRADING

A. FINE GRADING UNDER THIS CONTRACT SHALL CONSIST OF FINAL FINISHED GRADING OF LAWN AND PLANTING AREAS THAT HAVE BEEN DISTURBED DURING CONSTRUCTION.

B. THE CONTRACTOR SHALL FINE GRADE THE LAWN AND PLANTING AREAS TO BRING THE ROUGH GRADE UP TO FINAL FINISHED GRADE ALLOWING FOR THICKNESS OF SOD AND/OR MULCH DEPTH. CONTRACTOR SHALL FINE GRADE BY HAND AND/OR WITH ALL EQUIPMENT NECESSARY INCLUDING A GRADING TRACTOR WITH FRONT-END LOADER FOR TRANSPORTING SOIL WITHIN THE SITE.

C. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED FOR POSITIVE DRAINAGE TO SURFACE/SUBSURFACE STORM DRAIN SYSTEMS. AREAS ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM THE BUILDINGS. REFER TO CIVIL ENGINEER'S PLANS FOR FINAL GRADES, IF APPLICABLE.

1.13 PLANTING PROCEDURES

A. CLEANING UP BEFORE COMMENCING WORK: THE CONTRACTOR SHALL CLEAN WORK AND SURROUNDING AREAS OF ALL RUBBISH OR OBJECTIONABLE MATTER DAILY. ALL MORTAR, CEMENT, AND TOXIC MATERIAL SHALL BE REMOVED FROM THE SURFACE OF ALL PLANT BEDS. THESE MATERIALS SHALL NOT BE MIXED WITH THE SOIL. SHOULD THE CONTRACTOR FIND SUCH SOIL CONDITIONS BENEATH THE SOIL WHICH WILL IN ANY WAY ADVERSELY AFFECT THE PLANT GROWTH, CONTRACTOR SHALL IMMEDIATELY CALL IT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. FAILURE TO DO SO BEFORE PLANTING SHALL MAKE THE CORRECTIVE MEASURES THE RESPONSIBILITY OF THE CONTRACTOR.

B. SUBGRADE EXCAVATION: THE CONTRACTOR IS RESPONSIBLE TO REMOVE ALL EXISTING AND IMPORTED LIMEROCK AND LIMEROCK SUB-BASE FROM ALL LANDSCAPE PLANTING AREAS TO A MINIMUM DEPTH OF 36" AT TREES AND 18" AT SHRUBS AND PERENNIALS. CONTRACTOR IS RESPONSIBLE TO BACKFILL THESE PLANTING AREAS TO ROUGH FINISH GRADE WITH CLEAN TOPSOIL FROM AN ON-SITE SOURCE OR AN IMPORTED SOURCE. IF LIMEROCK OR OTHER ADVERSE CONDITIONS OCCUR IN PLANTED AREAS AFTER 36", AND DEEP EXCAVATION BY THE CONTRACTOR AND POSITIVE DRAINAGE CANNOT BE ACHIEVED, THE CONTRACTOR SHALL UTILIZE PLANTING DETAIL THAT ADDRESSES POOR DRAINAGE.

C. VERIFY LOCATIONS OF ALL UTILITIES, CONDUITS, SUPPLY LINES AND CABLES, INCLUDING BUT NOT LIMITED TO: ELECTRIC, GAS (LINES AND TANKS), WATER, SANITARY SEWER, STORMWATER SYSTEMS, CABLE, AND TELEPHONE. PROPERLY MAINTAIN AND PROTECT EXISTING UTILITIES. CONTACT TENNESSEE ONE CALL AT (615) 351-1111 TO LOCATE ALL UTILITIES.

D. FURNISH NURSERY'S CERTIFICATE OF COMPLIANCE WITH ALL REQUIREMENTS AS HEREIN SPECIFIED AND REQUIRED. INSPECT AND SELECT PLANT MATERIALS BEFORE PLANTS ARE DUG AT NURSERY OR GROWING SITE.

E. GENERAL: COMPLY WITH APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK. CONFORM TO ACCEPTED HORTICULTURAL PRACTICES AS USED IN THE TRADE. UPON ARRIVAL AT THE SITE, PLANTS SHALL BE THOROUGHLY WATERED AND PROPERLY MAINTAINED UNTIL PLANTED. PLANTS STORED ON-SITE SHALL NOT REMAIN UNPLANTED OR APPROPRIATELY HEALED IN FOR A PERIOD EXCEEDING TWENTY-FOUR (24) HOURS. AT ALL TIMES WORKMANLIKE METHODS CUSTOMARY IN GOOD HORTICULTURAL PRACTICES SHALL BE EXERCISED.

F. THE WORK SHALL BE COORDINATED WITH OTHER TRADES TO PREVENT CONFLICTS. COORDINATE PLANTING WITH IRRIGATION WORK TO ASSURE AVAILABILITY OF WATER AND PROPER LOCATION OF IRRIGATION APPURTENANCES AND PLANTS.

G. ALL PLANTING PITS SHALL BE EXCAVATED TO SIZE AND DEPTH IN ACCORDANCE WITH ANSI Z60.1-2014 - AMERICAN STANDARD FOR NURSERY STOCK, UNLESS SHOWN OTHERWISE ON THE DRAWINGS, AND BACK FILLED WITH THE PREPARED PLANTING SOIL MIXTURE AS SPECIFIED IN SECTION 1.05. TEST ALL TREE PITS WITH WATER BEFORE PLANTING TO ASSURE PROPER DRAINAGE PERCOLATION IS AVAILABLE. NO ALLOWANCE WILL BE MADE FOR LOST PLANTS DUE TO IMPROPER DRAINAGE. TREES SHALL BE SET PLUMB AND HELD IN POSITION UNTIL THE PLANTING MIXTURE HAS BEEN FLUSHED INTO PLACE WITH A SLOW, FULL HOSE STREAM. ALL PLANTING SHALL BE PERFORMED BY PERSONNEL FAMILIAR WITH PLANTING PROCEDURES AND UNDER THE SUPERVISION OF A QUALIFIED LANDSCAPE FOREMAN.

H. TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO BUILDINGS AND BUILDING STRUCTURES WHILE INSTALLING TREES.

I. SOIL MIXTURE SHALL BE AS SPECIFIED IN SECTION 1.05 OF THESE SPECIFICATIONS.

J. TREES AND SHRUBS SHALL BE SET STRAIGHT AT AN ELEVATION THAT, AFTER SETTLEMENT, THE PLANT CROWN WILL STAND ONE (1) TO TWO (2) INCHES ABOVE GRADE. EACH PLANT SHALL BE SET IN THE CENTER OF THE PIT. PLANTING SOIL MIXTURE SHALL BE BACK FILLED, THOROUGHLY TAMPED AROUND THE BALL, AND SETTLED BY WATER (AFTER TAMPING).

K. SHRUBS AND GROUND COVER PLANTS SHALL BE EVENLY SPACED IN ACCORDANCE WITH THE DRAWINGS AND AS INDICATED ON THE PLANT LIST. MATERIALS INSTALLED SHALL MEET MINIMUM SPECIMEN REQUIREMENTS OR QUANTITIES SHOW ON PLANS, WHICHEVER IS GREATER. CULTIVATE ALL PLANTING AREAS TO A MINIMUM DEPTH OF 12", REMOVE AND DISPOSE ALL DEBRIS. COORDINATE WITH PLANTING DETAILS FOR EXACT DEPTH. MIX TOP 4" OF THE PLANTING SOIL MIXTURE AS SPECIFIED IN SECTION 1.05. THOROUGHLY WATER ALL PLANTS AFTER INSTALLATION.

L. TREE GUYING AND BRACING SHALL BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE PLANS TO INSURE STABILITY AND MAINTAIN TREES IN AN UPRIGHT POSITION. IF THE CONTRACTOR AND OWNER DECIDE TO WAIVE THE TREE GUYING AND BRACING, THE OWNER SHALL NOTIFY THE PROJECT LANDSCAPE ARCHITECT IN WRITING AND AGREE TO INDEMNIFY AND HOLD HARMLESS THE PROJECT LANDSCAPE ARCHITECT IN THE EVENT UNSUPPORTED TREES PLANTED UNDER THIS CONTRACT FALL AND DAMAGE PERSON OR PROPERTY.

M. HERBICIDE WEED CONTROL: ALL PLANT BEDS SHALL BE KEPT FREE OF NOXIOUS WEEDS UNTIL FINAL ACCEPTANCE OF WORK. IF DIRECTED BY THE OWNER, "ROUND-UP" SHALL BE APPLIED FOR WEED CONTROL BY QUALIFIED PERSONNEL TO ALL PLANTING AREAS IN SPOT APPLICATIONS PER MANUFACTURER'S PRECAUTIONS AND SPECIFICATIONS. PRIOR TO FINAL INSPECTION, TREAT ALL PLANTING BEDS WITH AN APPROVED PRE-EMERGENT HERBICIDE AT AN APPLICATION RATE RECOMMENDED BY THE MANUFACTURER (AS ALLOWED BY JURISDICTIONAL AUTHORITY).

1.14 LAWN SODDING

A. THE WORK CONSISTS OF LAWN BED PREPARATION, SOIL PREPARATION, AND SODDING COMPLETE, IN STRICT ACCORDANCE WITH THE SPECIFICATIONS AND THE APPLICABLE DRAWINGS TO PRODUCE A TURF GRASS LAWN ACCEPTABLE TO THE OWNER.

B. LAWN BED PREPARATION: ALL AREAS THAT ARE TO BE SODDED SHALL BE CLEARED OF ANY ROUGH GRASS, WEEDS, AND DEBRIS BY MEANS OF A SOD CUTTER TO A DEPTH OF THREE (3) INCHES, AND THE GROUND BROUGHT TO AN EVEN GRADE. THE ENTIRE SURFACE SHALL BE ROLLED WITH A ROLLER WEIGHING NOT MORE THAN ONE-HUNDRED (100) POUNDS PER FOOT OF WIDTH. DURING THE ROLLING, ALL DEPRESSIONS CAUSED BY SETTLEMENT SHALL BE FILLED WITH ADDITIONAL SOIL, AND THE SURFACE SHALL BE REGRADED AND ROLLED UNTIL PRESENTING A SMOOTH AND EVEN FINISH TO THE REQUIRED GRADE.

C. SOIL PREPARATION: PREPARE LOOSE BED FOUR (4) INCHES DEEP. HAND RAKE UNTIL ALL BUMPS AND DEPRESSIONS ARE REMOVED. WET PREPARED AREA THOROUGHLY.

D. SODDING

1. THE CONTRACTOR SHALL SOD ALL DISTURBED AREAS WITHIN THE CONTRACT LIMITS NOT COVERED BY HARDSCAPE OR VEGETATIVE MATERIAL, UNLESS SPECIFICALLY NOTED OTHERWISE.
2. SOD PANELS SHALL BE LAID TIGHTLY TOGETHER SO AS TO MAKE A SOLID SODDED LAWN AREA. SOD SHALL BE LAID UNIFORMLY AGAINST THE EDGES OF ALL CURBS AND OTHER HARDSCAPE ELEMENTS, PAVED AND PLANTED AREAS. IMMEDIATELY FOLLOWING SOD LAYING, THE LAWN AREAS SHALL BE ROLLED WITH A LAWN ROLLER CUSTOMARILY USED FOR SUCH PURPOSES, AND THEN THOROUGHLY IRRIGATED. IF, IN THE OPINION OF THE OWNER, TOP-DRESSING IS NECESSARY AFTER ROLLING TO FILL THE VOIDS BETWEEN THE SOD PANELS AND TO EVEN OUT INCONSISTENCIES IN THE SOD, CLEAN SAND, AS APPROVED BY THE OWNER'S REPRESENTATIVE, SHALL BE UNIFORMLY SPREAD OVER THE ENTIRE SURFACE OF THE SOD AND THOROUGHLY WATERED IN. FERTILIZE INSTALLED SOD AS ALLOWED BY PROPERTY'S JURISDICTIONAL AUTHORITY.
3. DURING DELIVERY, PRIOR TO, AND DURING THE PLANTING OF THE LAWN AREAS, THE SOD PANELS SHALL AT ALL TIMES BE PROTECTED FROM EXCESSIVE DRYING AND UNNECESSARY EXPOSURE OF THE ROOTS TO THE SUN. ALL SOD SHALL BE STACKED SO AS NOT TO BE DAMAGED BY SWEATING OR EXCESSIVE HEAT AND MOISTURE.

E. LAWN MAINTENANCE

1. WITHIN THE CONTRACT LIMITS, THE CONTRACTOR SHALL PRODUCE A DENSE, WELL ESTABLISHED LAWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RE-SODDING OF ALL ERODED, SUNKEN OR BARE SPOTS (LARGER THAN 12"X12") UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE. REPAIRED SODDING SHALL BE ACCOMPLISHED AS IN THE ORIGINAL WORK (INCLUDING RE-GRADING IF NECESSARY).
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SOD/LAWN UNTIL ACCEPTANCE BY THE OWNER'S REPRESENTATIVE. PRIOR TO AND UPON ACCEPTANCE, CONTRACTOR TO PROVIDE WATERING/IRRIGATION SCHEDULE TO OWNER. OBSERVE ALL APPLICABLE WATERING RESTRICTIONS AS SET FORTH BY THE PROPERTY'S JURISDICTIONAL AUTHORITY.

1.15 CLEANUP

A. UPON COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. ALL PAVED AREAS SHALL BE BROOM-CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S REPRESENTATIVE.

1.16 PLANT MATERIAL MAINTENANCE

A. ALL PLANTS AND PLANTING INCLUDED UNDER THIS CONTRACT SHALL BE MAINTAINED BY WATERING, CULTIVATING, SPRAYING, AND ALL OTHER OPERATIONS (SUCH AS RE-STAKING OR REPAIRING GUY SUPPORTS) NECESSARY TO INSURE A HEALTHY PLANT CONDITION BY THE CONTRACTOR UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE.

1.17 FINAL INSPECTION AND ACCEPTANCE OF WORK

A. FINAL INSPECTION AT THE END OF THE WARRANTY PERIOD SHALL BE ON PLANTING, CONSTRUCTION AND ALL OTHER INCIDENTAL WORK PERTAINING TO THIS CONTRACT. ANY REPLACEMENT AT THIS TIME SHALL BE SUBJECT TO THE SAME ONE (1) YEAR WARRANTY (OR AS SPECIFIED BY THE LANDSCAPE ARCHITECT OR OWNER IN WRITING) BEGINNING WITH THE TIME OF REPLACEMENT AND ENDING WITH THE SAME INSPECTION AND ACCEPTANCE HEREIN DESCRIBED.

1.18 WARRANTY

A. THE LIFE AND SATISFACTORY CONDITION OF ALL PLANT MATERIAL INSTALLED (INCLUDING SOD) BY THE LANDSCAPE CONTRACTOR SHALL BE WARRANTIED BY THE CONTRACTOR FOR A MINIMUM OF ONE (1) CALENDAR YEAR COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE.

B. REPLACEMENT: ANY PLANT NOT FOUND IN A HEALTHY GROWING CONDITION DURING THE WARRANTY PERIOD SHALL BE REMOVED FROM THE SITE AND REPLACED WITHIN TEN (10) DAYS OF NOTICE, OR BETWEEN SEPTEMBER-NOVEMBER, MARCH-MAY. ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE AS SPECIFIED IN THE PLANT LIST. THEY SHALL BE FURNISHED, PLANTED AND MULCHED AS SPECIFIED AT NO ADDITIONAL COST TO THE OWNER.

C. IN THE EVENT THE OWNER DOES NOT CONTRACT WITH THE CONTRACTOR FOR LANDSCAPE MAINTENANCE, THE CONTRACTOR IS ENCOURAGED TO VISIT THE PROJECT SITE PERIODICALLY DURING THE ONE (1) YEAR WARRANTY PERIOD TO EVALUATE MAINTENANCE PROCEDURES BEING PERFORMED BY THE OWNER, AND SHALL NOTIFY THE OWNER IN WRITING OF MAINTENANCE PROCEDURES OR CONDITIONS WHICH THREATEN VIGOROUS AND HEALTHY PLANT GROWTH. IT IS SUGGESTED SUCH SITE VISITS SHALL BE CONDUCTED A MINIMUM OF ONCE PER MONTH FOR A PERIOD OF TWELVE (12) MONTHS FROM THE DATE OF ACCEPTANCE.

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XXENTRIA PHASE 1
CHERRY GLEN INDUSTRIAL PARK
MOUNT PLEASANT, TN 38474

No.	REVISIONS	DATE	BY
1	CITY SITE PLAN RESUBMITTAL	07.25.2024	CS
2			
3			
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7			
8			
9			
10			

DESIGNED BY: CS
DRAWN BY: GB
CHECKED BY: BB
DATE: 07/25/2024
KIMLEY-HORN PROJECT NO. 017693000

LANDSCAPE NOTES

SHEET NUMBER
L1-50

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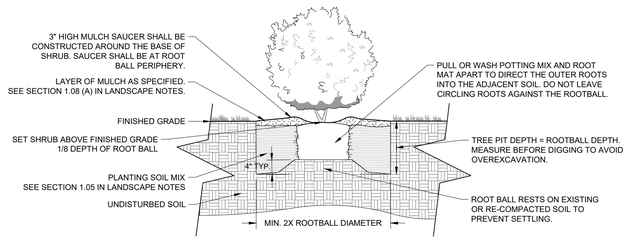
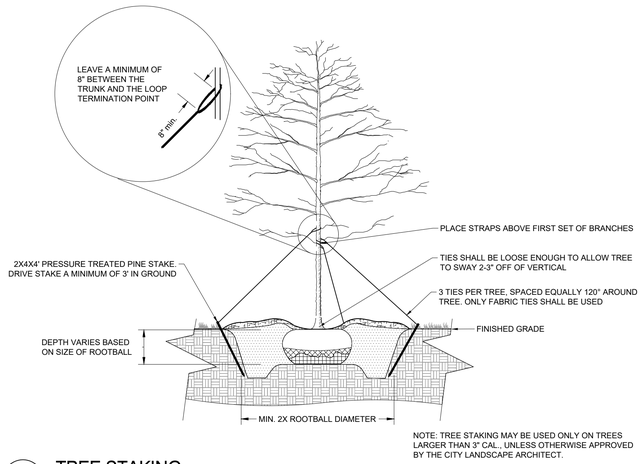


1 CONTAINER SHRUB PLANTING

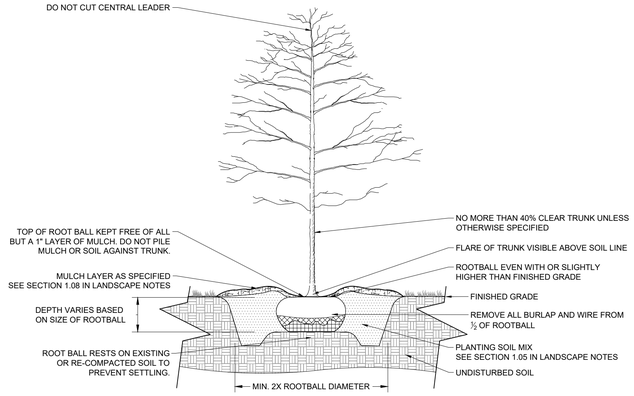
NOT TO SCALE

1. SPADED LANDSCAPE BED EDGE
2. 3" HIGH MULCH SAUCER SHALL BE CONSTRUCTED AROUND THE BASE OF SHRUB/TREE
3. PLANTING SOIL MIX SEE SECTION 1.05 IN LANDSCAPE NOTES



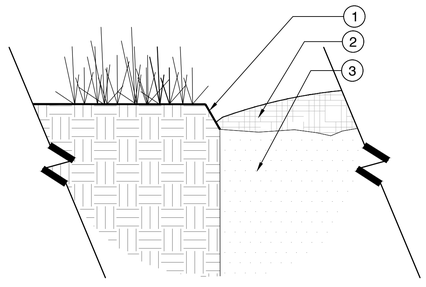
2 TREE STAKING

NOT TO SCALE



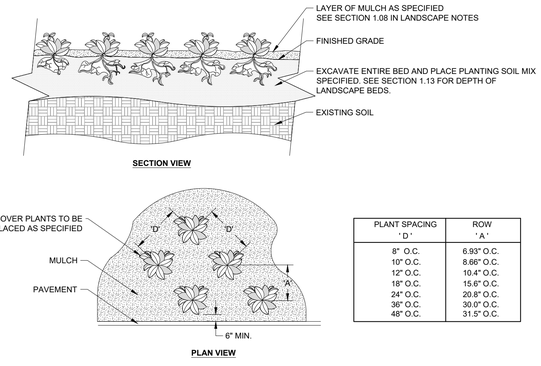
3 B&B TREE PLANTING

NOT TO SCALE



4 SPADED EDGE

1 1/2" = 1'-0" PO-MT1-06



PLANT SPACING ' D '	ROW ' A '
8" O.C.	6.93" O.C.
10" O.C.	8.66" O.C.
12" O.C.	10.4" O.C.
18" O.C.	15.6" O.C.
24" O.C.	20.8" O.C.
36" O.C.	30.0" O.C.
48" O.C.	31.5" O.C.

NOTES:
1 SEE PLANTING LEGEND FOR GROUNDCOVER SPECIES, SIZE, AND SPACING DIMENSION.
2 SETTLE SOIL AROUND ROOT BALL OF EACH GROUNDCOVER PRIOR TO MULCHING.

5 GROUNDCOVER PLANTING

NOT TO SCALE

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1	CITY SITE PLAN RESUBMITTAL	07.25.2024	CS
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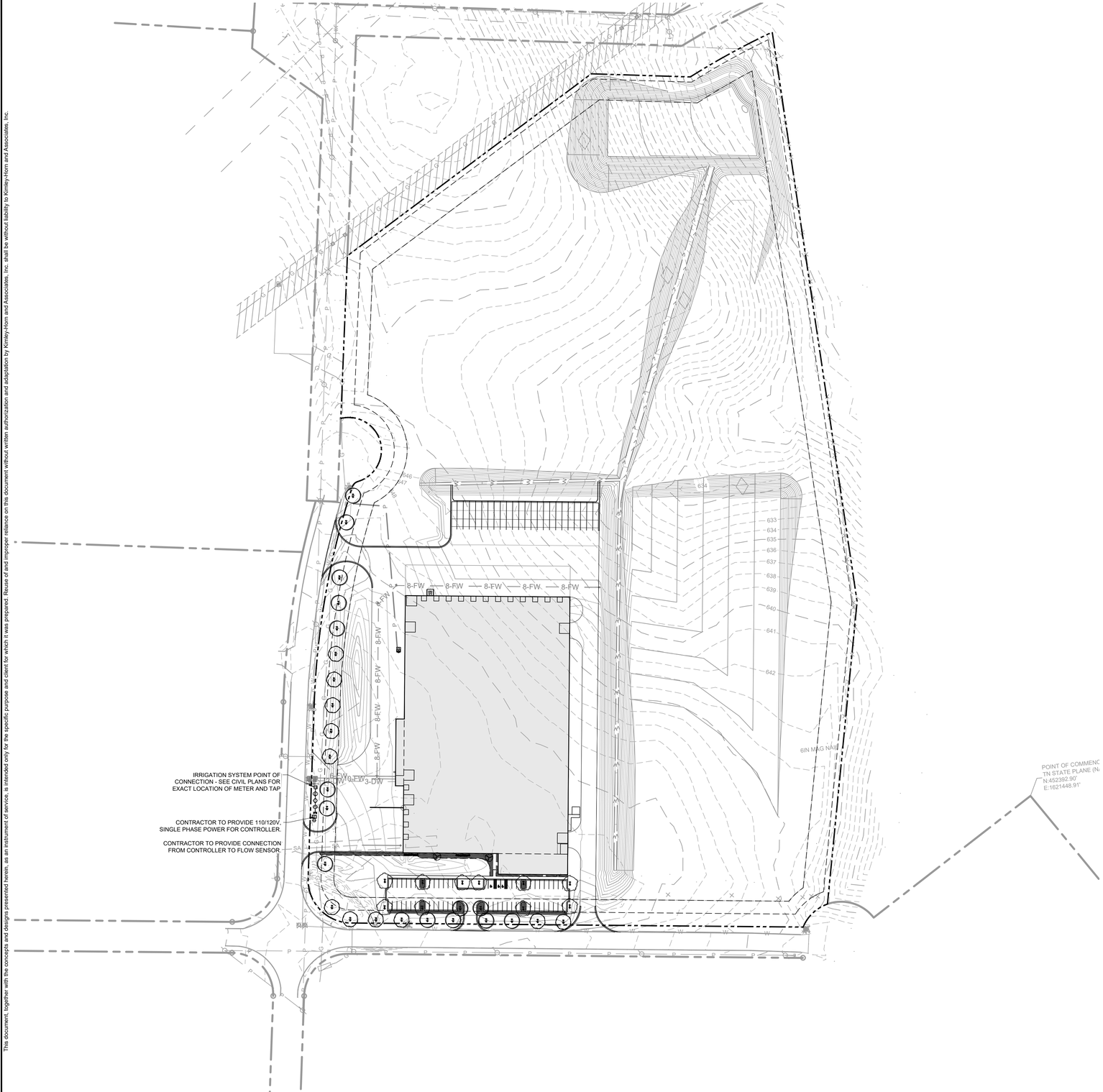
DESIGNED BY:	CS
DRAWN BY:	GB
CHECKED BY:	BB
DATE:	07/25/2024
KIMLEY-HORN PROJECT NO.	017693000

LANDSCAPE DETAILS

SHEET NUMBER
L1-51



IRRIGATION SYSTEM POINT OF CONNECTION - SEE CIVIL PLANS FOR EXACT LOCATION OF METER AND TAP

CONTRACTOR TO PROVIDE 110/120V, SINGLE PHASE POWER FOR CONTROLLER.

CONTRACTOR TO PROVIDE CONNECTION FROM CONTROLLER TO FLOW SENSOR.

POINT OF COMMENC
TN STATE PLANE (NA
N:452392.90'
E:1621448.91'

IRRIGATION NOTES

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL STORMWATER PIPES AND UTILITY LINE LOCATIONS BEFORE BEGINNING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND STORMWATER PIPES AND UTILITY LINES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING AND AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC WHICH OCCURS AS A RESULT OF THE IRRIGATION CONSTRUCTION TO OWNER'S SATISFACTION, AT NO ADDITIONAL COST.
2. THE IRRIGATION SYSTEM SHALL BE DESIGNED TO PROVIDE 100% COVERAGE OF ALL PROPOSED LANDSCAPED AREAS OF THE SITE INDICATED PER THE LANDSCAPE PLAN.
3. THE IRRIGATION SYSTEM SHALL BE DESIGNED TO BE AUTOMATICALLY CONTROLLED AND SHALL NOT BE DESIGNED TO HAVE SPRAY HEADS AND ROTARY HEADS ON THE SAME ZONE.
4. THE CONTRACTOR IS TO PROVIDE A, FIRST YEAR WATERING SCHEDULE, THAT CAN BE UTILIZED TO PROVIDE THE INITIAL SETTINGS FOR THE IRRIGATION CONTROLLER PRIOR TO CONSTRUCTION FOR OWNER APPROVAL.
5. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A LAMINATED IRRIGATION SCHEDULE ATTACHED TO THE IRRIGATION CONTROLLER.
6. THE CONTRACTOR IS RESPONSIBLE FOR SIZING ALL VALVES, HEADS, LATERAL LINES, AND THE MAINLINE TO ENSURE A FULLY FUNCTIONING IRRIGATION SYSTEM.
7. THE CONTRACTOR IS RESPONSIBLE TO SUBMIT FINAL IRRIGATION PLAN TO LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	
◆ 1401 ◆ 1402 ◆ 1404	RAIN BIRD 1804-PRS-1400 FLOOD FLOOD BUBBLER 4IN. POPUP WITH PRESSURE REGULATING DEVICE. INSTALL W/ PA-80 ADAPTER.	70
SYMBOL	**MANUFACTURER/MODEL/DESCRIPTION**	
▤	AREA TO RECEIVE DRIPLINE RAIN BIRD XFS-CV-09-18 XFS-CV SUB-SURFACE AND ON-SURFACE LANDSCAPE DRIPLINE WITH A HEAVY-DUTY 4.3 PSI CHECK VALVE. 0.9 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. SPECIFY XF INSERT FITTINGS.	4,157 L.F.
SYMBOL	**MANUFACTURER/MODEL/DESCRIPTION**	
⋈	SHUT OFF VALVE SHUT OFF VALVE TO MATCH MAINLINE SIZING	1
MV	RAIN BIRD EFB-CP-PRS-D 1-1/2" 1IN., 1-1/4”, 1-1/2IN., 2IN. BRASS MASTER VALVE, THAT IS CONTAMINATION PROOF W/SELF-FLUSHING FILTER SCREEN. GLOBE CONFIGURATION, RECLAIMED WATER COMPATIBLE, AND PURPLE HANDLE COVER DESIGNATES NON-POTABLE WATER USE. WITH PRESSURE REGULATOR.	1
BF	FEBCO 825Y 1-1/2" REDUCED PRESSURE BACKFLOW PREVENTER	1
C	RAIN BIRD ESPLXME2-LXMMSS W/ (1) ESPLXMSM12 24 STATION, TRADITIONALLY-WIRED, COMMERCIAL CONTROLLER. (1) ESPLXME2 12-STATION, INDOOR/OUTDOOR, PLASTIC WALL-MOUNT ENCLOSURE W/ (1) ESPLXMSM12 - 12-STATION EXPANSION MODULES. INSTALL IN LXMMSS STAINLESS STEEL CABINET.	1
RS	RAIN BIRD WR2-RFC WIRELESS RAIN AND FREEZE SENSOR COMBO, INCLUDES 1 RECEIVER AND 1 RAIN/FREEZE SENSOR TRANSMITTER.	1
FS	RAIN BIRD FS-150-B 1-1/2IN. FLOW SENSOR, BRASS MODEL. SUGGESTED OPERATING RANGE 4.0 GPM TO 80.0 GPM. SIZE FOR FLOW NOT ACCORDING TO PIPE SIZE. RAIN BIRD COMPATIBLE CONTROLLERS: ESP-LXIVM(P) | LXD | LXME2(P) | ME3, OR CONTROLLERS ACCEPTING CUSTOM K-FACTOR AND OFFSET. INSTALL IN RAIN BIRD VALVE BOX.	1
WM	WATER METER 1-1/2"	1
— — —	IRRIGATION MAINLINE: PVC CLASS 200 SDR 21	50.4 L.F.

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CHERRY GLEN INDUSTRIAL PARK
MOUNT PLEASANT, TN 38474

No.	REVISIONS	DATE	BY
1	CITY SITE PLAN RESUBMITTAL	07.25.2024	CS
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9			
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DESIGNED BY: CS
DRAWN BY: GB
CHECKED BY: BB
DATE: 07/25/2024

KIMLEY-HORN PROJECT NO.
017693000

IRRIGATION PLAN - OVERALL

SHEET NUMBER
L2-00

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Luminaire Schedule								
Symbol	Qty	Label	Arrangement	Lum. Lumens	LLF	Luminaire Watts	Total Watts	Description
	8	A1	Single	29231	1.000	272	2176	VMS-1_T4_80LC_10_4K_ies
	2	A2	Single	7362	1.000	52	104	VMS-1_T4_48LC_3_4K_ies
	6	A3	Single	20959	1.000	177	1062	VMS-1_T4_80LC_7_4K_ies
	5	B1	Single	22225	1.000	167.1	835.5	VSX-II_T4L_25L_4K
	4	B2	Single	14958	1.000	134	536	VSX-II_T4L_20L_4K_CLS_ies
	2	B3	Single	24421	1.000	167	334	VSX-II_T5LS_25L_4K

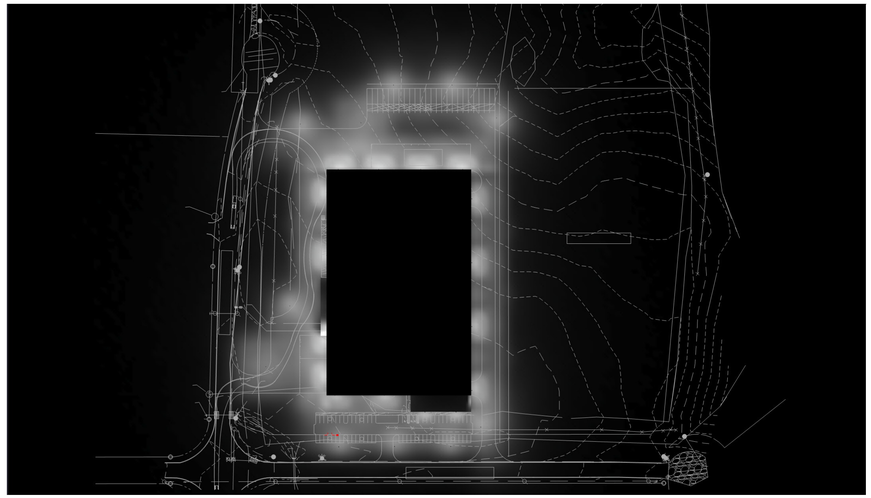
Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Grid Z
CONCRETE APRON 2	Illuminance	Fc	3.69	7.7	1.3	2.84	5.92	0
CONCRETE DOCK APRON	Illuminance	Fc	3.74	7.4	1.8	2.08	4.11	0
EAST DRIVE	Illuminance	Fc	1.71	5.3	0.5	3.42	10.60	0
NORTH PARKING	Illuminance	Fc	1.83	7.6	0.5	3.66	15.20	0
OFFICE SIDEWALK	Illuminance	Fc	2.21	5.8	1.2	1.84	4.83	0
PROPERTY LINE	Illuminance	Fc	0.05	0.5	0.0	N.A.	N.A.	N.A.
SOUTH PARKING	Illuminance	Fc	1.73	4.2	0.5	3.46	8.40	0
WEST DRIVE	Illuminance	Fc	1.77	7.1	0.2	8.85	35.50	0

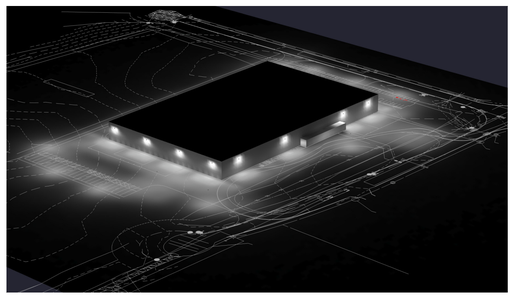
TARGETING:

PROPERTY LINE: 1 FC MAX

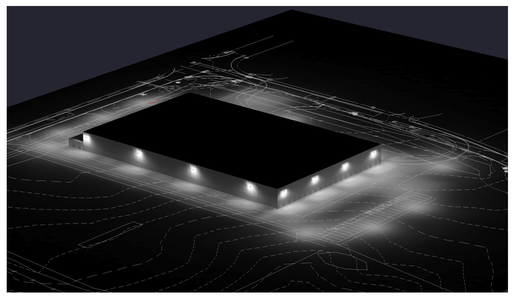
PARKING: 2.5 FC AVG MAX
0.2 FC MIN
10 FC MAX
20:1 MAX/MIN

NOTES:
- WHEN THE LLF IS NOT .9 OR 1.0 THE WATTAGE INFORMATION WILL NOT BE CORRECT
- BACKGROUND CONVERTED FROM PDF SO ALL LOCATIONS TO BE CONSIDERED APPROXIMATE
- LUMINIARES PLACED APPROXIMATELY IN SPECIFIED LOCATIONS PER PDF MARKUP AND PROPOSED LOCATIONS
- LUMINIARES USE PROPOSED OUTPUTS
- LUMINAIRE SYBOLS MAGNIFIED FOR CLARITY





NORTHWEST CORNER



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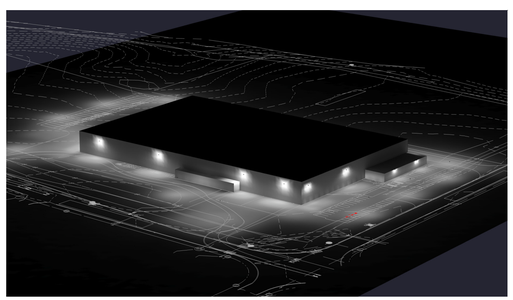
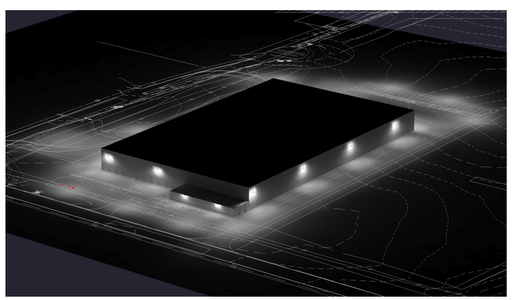
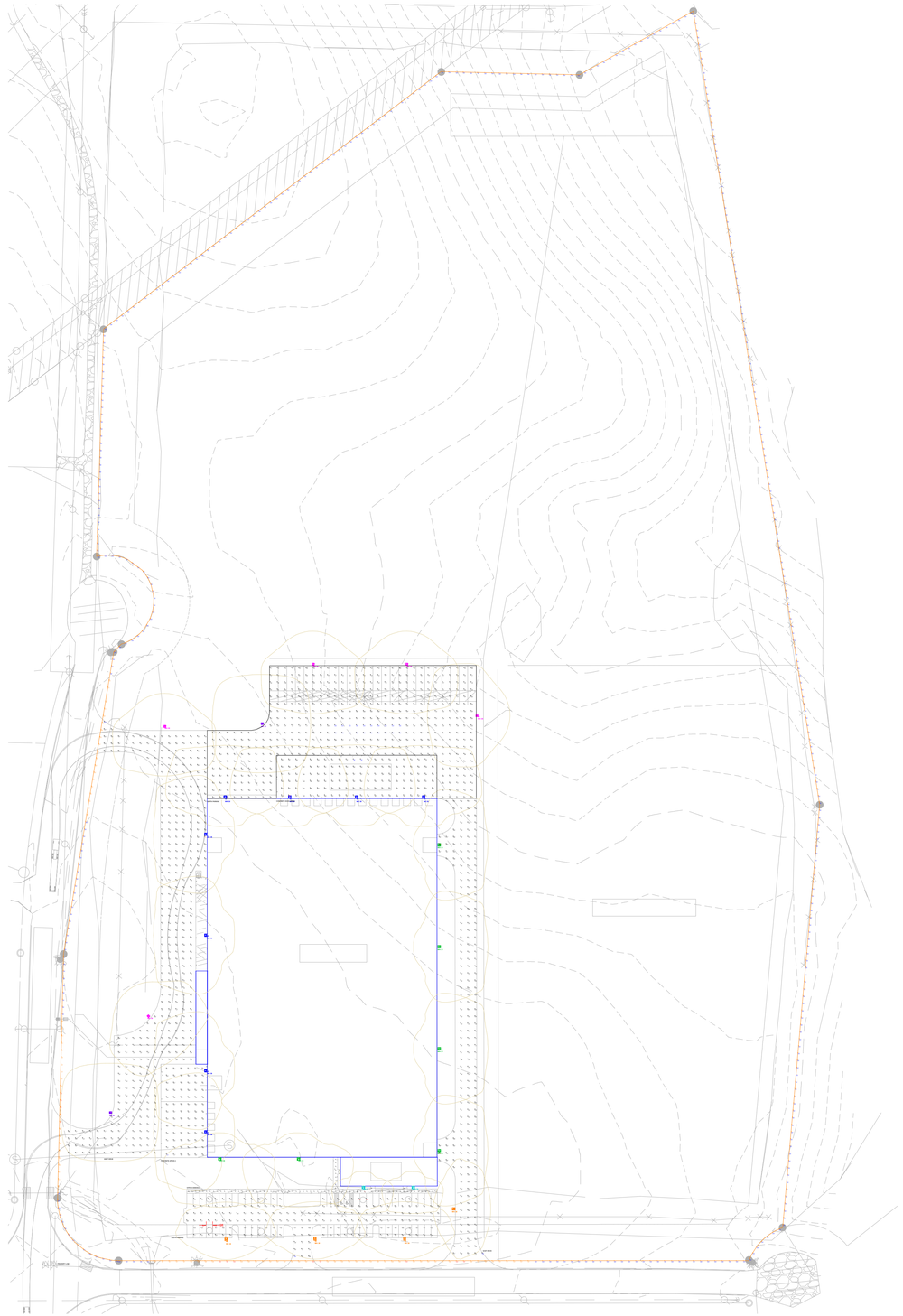


SOUTHWEST CORNER



SOUTHEAST CORNER



PHOTOMETRY - COMPREHENSIVE SITE
Scale: 1 inch= 90 Ft.

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DRAFT
PRELIMINARY PLANS
FOR REVIEW ONLY

No.	REVISIONS	DATE	BY
1			
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DESIGNED BY:	KIMLEY-HORN
DRAWN BY:	SESCO LIGHTING
CHECKED BY:	KIMLEY-HORN
DATE:	07/25/2024
KIMLEY-HORN PROJECT NO.	017693000

OVERALL LIGHTING PLAN

SHEET NUMBER
LP-01

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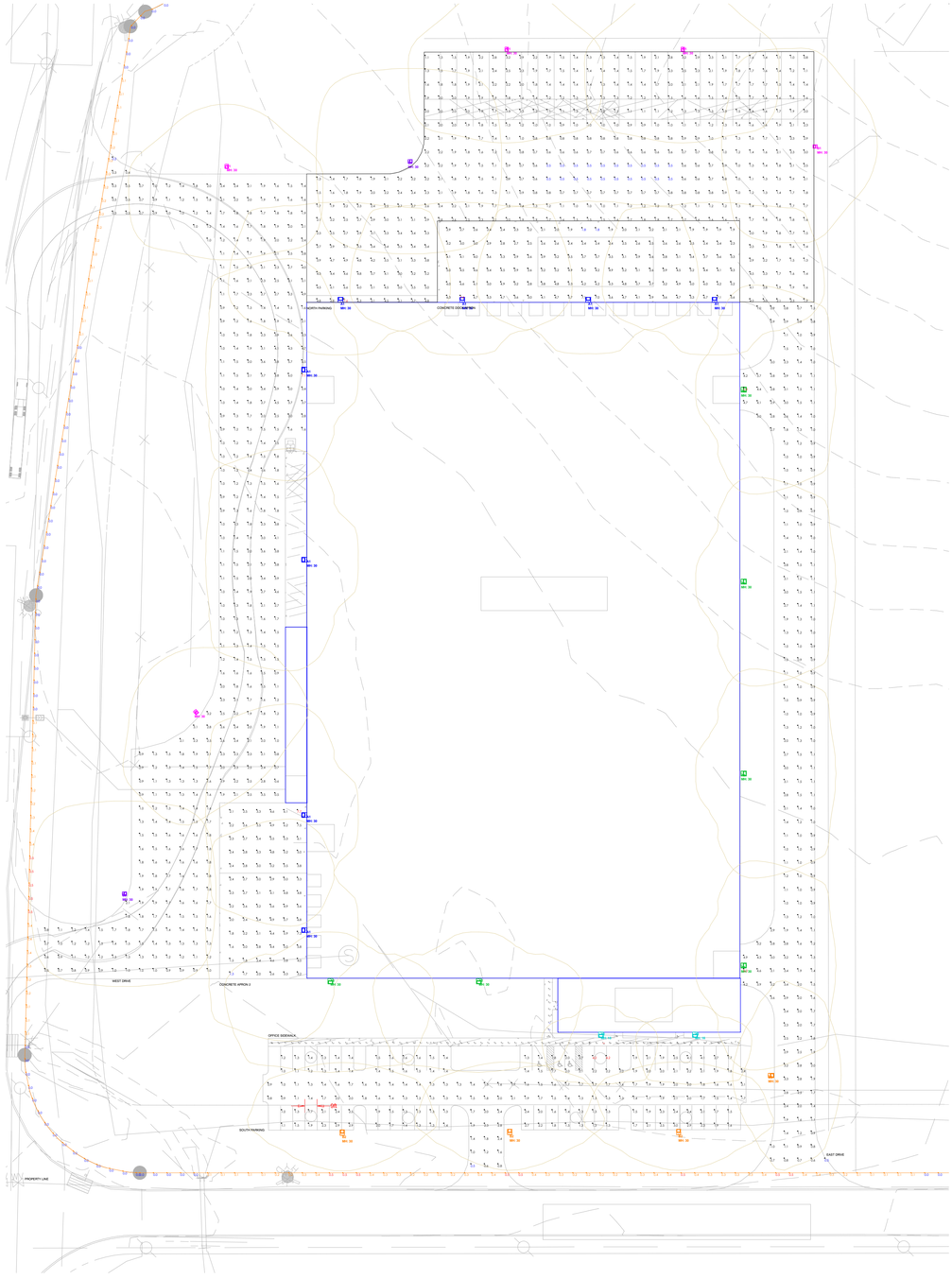

PHOTOMETRY - ENLARGED SITE
Scale: 1 inch= 50 Ft.

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DESIGNED BY:	KIMLEY-HORN
DRAWN BY:	SESCO LIGHTING
CHECKED BY:	KIMLEY-HORN
DATE:	07/25/2024
KIMLEY-HORN PROJECT NO. 017693000	

ENLARGED PHOTOMETRICS

SHEET NUMBER
LP-02

TYPE A1 A2 A3

Control Number: WALL_CEILING-VMS-08_30_2022

VMS LED Specifications

Project Name:

Catalog Number:

Type:

The **VMS LED** wall mount Series continues the unique contemporary design that is inspired by the V-Collection series. It combines LED performance and advanced LED thermal management technology and provides lighting that is energy efficient and aesthetically pleasing.

The LED performance and the driver's life are maximized by enclosing them in two separate cast aluminum housings. Easy access for mounting and maintenance.

The LED light assemblies come with 48, 64, 80 or 96 LEDs.

Six optical distribution pattern are available. Choose between 3000, 4000 or 5000 Kelvin temperature for the LEDs.

A durable polyester powder coat finish is guaranteed for five years; and is available in standard or custom colors.

The **VMS LED** Series is an exceptional choice for office complexes, schools, commercial buildings, and many architectural projects.

Ordering Information

MODEL	OPTICS	SOURCE	CURRENT	KELVIN	VOLTAGE	MOUNTING	FINISH	OPTIONS	OPTIONS
VMS-1	**T1** Type 1 **T2** Type 2 **T3** Type 3 **T4** Type 4 **FM** Flood Medium **FN** Flood Narrow	**48LC** **64LC** **80LC** **96LC**	**3** 350mA **5** 530mA **7** 700mA **10** 1050mA *Not Available in 96LC	**3K** 3000K **4K** 4000K **5K** 5000K	**UNV** 120-277V **8** 347V **5** 480V	**WM** Wall Mount	**BZ** Bronze **BK** Black **SBK** Smooth Black **WH** White **SWH** Smooth White **GP** Graphite **GY** Grey **SL** Silver Metallic **CC** Custom Color	**PC-120** **PC-208** **PC-240** **PC-277** Button Type Photocell **WSC-8** Motion Sensor 8' Mounting Height **WSC-20** Motion Sensor 9-20' Mounting Height *The WSC option will require (1) FSIR-100 remote for programming	**DIM** 0-10v Dimming Driver **EBPL** Emergency Battery Pack *Universal Voltage only Rated for 10° C to 50° C *Not available in Up Light Orientation **EBPL-CLD** Cold Weather Emergency Battery Pack *Universal Voltage only Rated for -20° C to 50° C *Not available in Up Light Orientation **BP** Back Plate **CLS** Back Side Cutoff Louver Shield

VISIONAIRE LIGHTING

VL-PA-ING-001-F37 REV. 0 CRCABR22-03

TYPE B1 B2 B3

VSX-II LED Specifications

*Universal Arm Mount (UAM) Version Shown.

Project Name:

Catalog Number:

Type:

The **VSX-II LED** Series offers clean, functional styling that is defined by its sleek low profile design and rugged construction. It combines LED performance and advanced LED thermal management technology and provides outdoor lighting that is both energy efficient and aesthetically pleasing.

The LED's performance and the driver's life are maximized by enclosing them in two separate cast aluminum housings. Easy captive screw access for mounting and maintenance.

The LED light assemblies come with 16 to 48 LEDs. Eight optical distribution patterns are available. Choose between 3000, 4000 or 5000 Kelvin temperature of the LEDs.

A durable polyester powder coat finish is guaranteed for five years; and is available in standard or custom colors.

The **VSX-II LED** series is an exceptional choice for commercial parking lots, office complexes, architectural projects, and other general lighting projects.

Ordering Information

MODEL	OPTICS	LEDs	CURRENT	KELVIN	VOLTAGE	MOUNTING	FINISH	OPTIONS	OPTIONS	OPTIONS
VSX-II	**T1** Type 1 **T2** Type 2 **T3** Type 3 **T4** Type 4 **T4A** Type 4 Automotive **T5** Type 5 **T5W** Type 5 Wide **T5WR** Type 5 Wide Round	**16LC** **32LC** **48LC**	**3** 350mA **5** 530mA **7** 700mA **10** 1050mA	**3K** 3000K **4K** 4000K **5K** 5000K	**UNV** 120-277V **8** 347V **5** 480V	**AM** Arm Mount **SAM** Straight Arm Mount W/ Terminal Block (New Construction) **UAM** Universal ArmW/ Terminal Block Mount (Retrofit) **MAF** Mast Arm Fitter **KM** Knuckle Mount **WM** Wall Mount *Requires BAWP **AWM** Adjustable Wall Mount *Round Pole Plate Adapters (RPP) are to be ordered separately. *BAWP to be ordered separately	**BZ** Bronze **BK** Black **SBK** Smooth Black **WH** White **SWH** Smooth White **GP** Graphite **GY** Grey **SL** Silver Metallic **CC** Custom Color	**PCR-120** **PCR-208** **PCR-240** **PCR-277** **PCR-347** **PCR-480** Photocell & Receptacle **PER** **5PINPER** **7PINPER** 3, 5, or 7 Pin Photo Receptacle w/shorting cap Requires Dimming Driver **DIM** 0-10v Dimming Driver **RPP** Round Pole Plate Adaptor **VWC** Visionaire Wireless Controls *Consult Factory	**WSC-8** Motion Sensor 8' Mounting Height **WSC-20** Motion Sensor 9-20' Mounting Height **WSC-40** Motion Sensor 21-40' Mounting Height *The WSC option will require (1) FSIR-100 remote for programing **UMAP** Universal Mast arm fitter **ECLS** Egg Crate Louver Shield **ADJLS** Adjustable Louver Light Shield **BD** Barn Door Shield	**UPMA-S** Universal Square Pole Mount Adaptor **UPMA-R** Universal Round Pole Mount Adaptor **BAWP** Cast Wall Plate **ROT-R** Rotated Optics Right Side **ROT-L** Rotated Optics Left Side **CLS** Backside cutoff shield **RCLS** Rightside cutoff shield **LCLS** Leftside cutoff shield **HS** House shield

VISIONAIRE LIGHTING

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.

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XXENTRIA PHASE 1
CHERRY GLEN INDUSTRIAL PARK
MOUNT PLEASANT, TN 38474

DRAFT
PRELIMINARY PLANS
FOR REVIEW ONLY

No.	REVISIONS	DATE	BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

DESIGNED BY:	KIMLEY-HORN
DRAWN BY:	SESCO LIGHTING
CHECKED BY:	KIMLEY-HORN
DATE:	07/25/2024

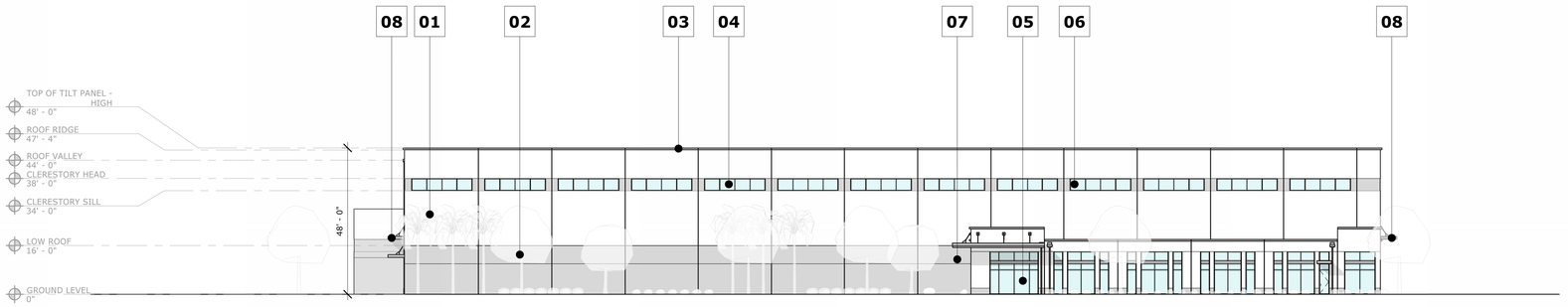
KIMLEY-HORN PROJECT NO. 017693000

LIGHT FIXTURE DETAILS

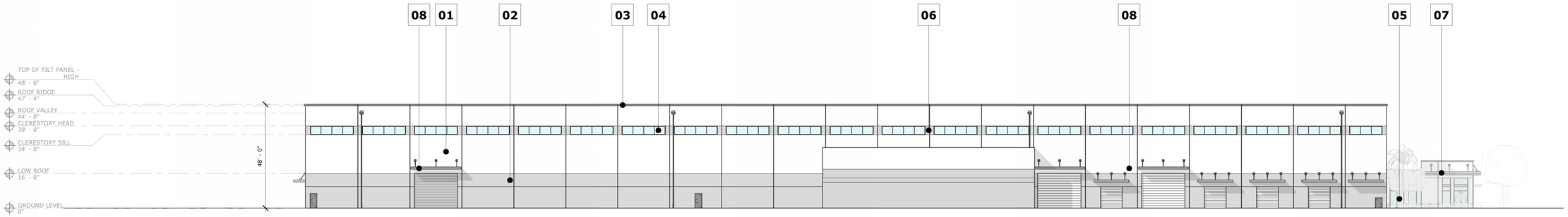
SHEET NUMBER
LP-03

ELEVATION KEYNOTES

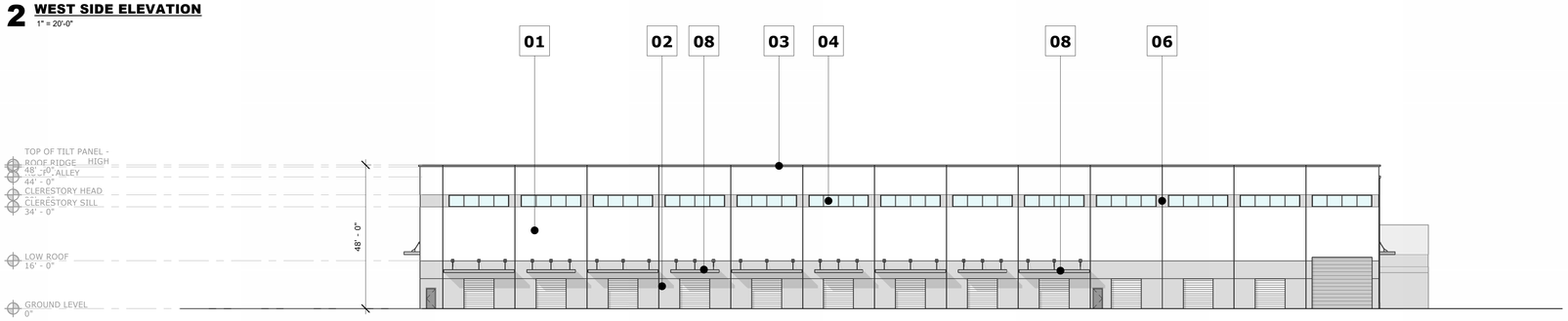
MARK	DESCRIPTION
01	CONCRETE TILT-WALL; FINISH: COURSE TEX-COAT, PAINT: A
02	CONCRETE TILT-WALL; FINISH: COURSE TEX-COAT, PAINT: B
03	PREMANUFACTURED ALUMINUM COPING; FINISH: ANODIZED ALUMINUM
04	ALUMINUM WINDOW SYSTEM; FRAME FINISH: ANODIZED ALUMINUM; GLAZING: GRAY TINT IGU
05	ALUMINUM WINDOW WALL SYSTEM; FRAME FINISH: ANODIZED ALUMINUM; GLAZING: GRAY TINT IGU
06	3/4" TILT-WALL PANEL JOINT
07	PREFINISHED, PREMANUFACTURED ALUMINUM CANOPY; INTERNAL GUTTER TO DOWNSPOUT; FINISH: ANODIZED ALUMINUM
08	PREFINISHED, PREMANUFACTURED ALUMINUM CANOPY; DAYLIGHT TO DRAIN; FINISH: ANODIZED ALUMINUM



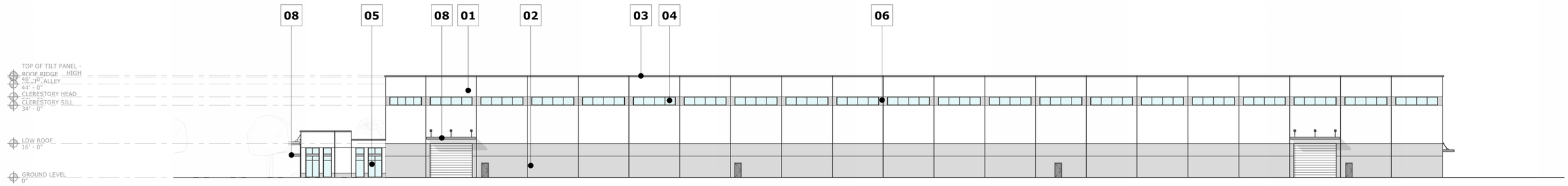
1 SOUTH ELEVATION
1" = 20'-0"



2 WEST SIDE ELEVATION
1" = 20'-0"



3 NORTH BUILDING ELEVATION
1" = 20'-0"



4 EAST BUILDING ELEVATION
1" = 20'-0"

Kimley»Horn

July 25, 2024

Mr. Chris Brooks
Planning & Building Codes Director
City of Mount Pleasant, TN
209 Bond Street
Mount Pleasant, TN. 38474

RE: ***Xxentria – Cherry Glen Industrial Park***
William Shirley Road at Sam Watkins Blvd
Mount Pleasant, TN 38474

Mr. Brooks,

Included with this letter is the resubmittal documents for the Site Plan review for the proposed Xxentria manufacturing facility within the Cherry Glen Industrial Park. The project site is located at the northeast corner of William Shirly Road and Sam Watkins Boulevard.

The proposed project includes one industrial tilt-up building totaling approximately 167,480 square feet. The building material consists of pre-cast concrete that is consistent with other Class A industrial buildings in Tennessee and the southeast.

Both the building layout and site are designed as required for Xxentria's facility operations and are unable to be rotated or mirrored. The front of the building along William Shirley Road accommodates employee parking and the building's office. The west and north sides of the building accommodate both building internal operations and shipping/receiving logistics, the east side accommodates two (2) equipment entrances and back-and-forth operations for a future onsite Phase 2 building to the east.

The building's west dock area fronts Sam Watkins Boulevard and does not encroach in to the 50' side street yard. Thus, this does not appear to vary from the Section 11.2.L.1 off-street loading location code. Additionally, the project is proposing landscape screening from the intersection and street trees to screen the off-street pavement areas along both Sam Watkins Blvd and William Shirley Rd. The established manufacturing program for Xxentria has a set process flow through the facility that has dictated placement of dock and drive-in positions. To shift the door locations would require them to change their process flow, which is very problematic to the Xxentria workflow. In addition, the current layout has been positioned within the overall site to allow for future development by Xxentria in order to expand their presence in the market.

The site also proposed to use 30-feet mounting height for the site lighting, which exceeds the city zoning ordinance 22-ft height, while being at the max Planning Commission allowable height of 30-ft (Sec 11.3.D). A 30-ft mounting height is standard for Class A industrial facilities and meets the listed 30-ft max height in the city's design review guidelines. Furthermore, 30-foot mounting heights were

used to allow for increase uniformity of lighting on the site. There will be no spill light along the majority of the property lines per the submitted photometric plan.

Included with this resubmittal letter is a comment response memo, the site plan, grading and utility plans, a landscape plan, a site lighting plan and building elevations. Full civil plans will be provided in the future for the Land Disturbance Permit submittal. We appreciate your review and assistance with this project. Please do not hesitate to contact me with any questions or concerns at our office (615) 564-2701.

Sincerely,

Brendan Boles, PE

Kimley»Horn

07/25/2024

City of Mt/ Pleasant
Chris Brooks
209 Bond Street
Mt. Pleasant, TN 38474

RE: ***Site Plan Resubmittal Comment Response***
Xxentria – Cherry Glen Industrial Park
William Shirley Road at Sam Watkins Blvd
Mount Pleasant, TN 38474

Dear Chris Brooks,

Below is an explanation of how we addressed the comments regarding the above stated project:

7/17/2024 KCI Site Plan Comments:

Comment # 1. Please call out the overhead doors. As previously discussed, please be prepared to address the location of the overhead doors that face the corner side yard (See 11.2.L. Design of off-street loading spaces). Your letter mentions the site cannot be mirrored. It may help to be prepared to explain why it cannot be mirrored during for the Planning Commission.

KCI Comment #1 response: The overhead doors have been called out. See Sheet C2-00. The building's west dock area fronts Sam Watkins Boulevard and does not encroach in to the 50' side street yard. Thus, this does not appear to vary from the Section 11.2.L.1 off-street loading location code. The project is proposing landscape screening from the intersection and street trees to screen the off-street pavement areas along both Sam Watkins Blvd and William Shirley Rd. The established manufacturing program for Xxentria has a set process flow through the facility that has dictated placement of dock and drive-in positions. To shift the door locations would require them to change their system operations, which is very problematic to the Xxentria workflow. In addition, the current layout has been positioned within the overall site to allow for future development by Xxentria in order to expand their presence in the market.

Comment # 2. Provide plant schedule with species and size information to demonstrate proposed plant materials meet minimum sized required in Section 11.4.

KCI Comment #2 response: Plant Schedule table is incorporated on Sheet L1-00.

11.4.D.11. Irrigation. Automatic irrigation systems are required for all required landscaped areas within commercial and industrial districts as well as multi-family developments and institutional uses. The planning commission may waive automatic irrigation requirements for existing areas with existing vegetation; however, plant material planted within such areas to meet transitional buffering requirements must be within 100 feet of a hose bib or be provided a temporary above-ground irrigation system. All irrigation systems shall be designed to minimize the use of water. Plans shall be prepared and stamped by a certified irrigation designer, certified irrigation contractor, or landscape architect. Irrigation systems shall be designed to meet the standards shown in appendix E (landscape standards).

KCI Comment #3 response: Conceptual irrigation between the building and public frontage is shown on sheet L1-00. Final irrigation plans will provided with future land disturbance submittal.

Comment # 4. Detention and retention ponds. Detention and retention ponds shall be landscaped with trees, shrubs and turf. Detention ponds shall be considered a service area and shall be screened from public view. This would apply to the proposed detention areas in the corner side and front yards.

KCI Comment #4 response: Due to future phase project construction and planned expansion of the proposed pond with additional phases, landscape screening from public view will be provided at a later date upon final phase expansion of pond. The pond is strategically located at the northeast rear area of the site, away from public view.

Comment # 5. Structures (such as headwalls and weirs) within ponds located in front and side yards adjacent to public streets shall be faced with brick or stone. Slopes exceeding 3:1 shall be vegetated with plants that do not require frequent mowing.

KCI Comment #5 response: We have noted on the plans. We are not proposing above grade structures in the front and side yards.

Comment # 6. Groundcovers used for this purpose shall be planted with sufficiently tight spacing to provide 100 percent coverage within the first year.

KCI Comment #6 response. We have noted on the plans. Please refer to sheet L1-00.

Comment # 7. On the lighting plan sheets, does “MH: 30” mean a mounting height of 30 feet? Lights poles and building-mounted fixtures shall be designed with fully shielded luminaires. Such poles or mounts shall not exceed 22 feet in height. The planning commission may approve, in appropriate circumstances as part of site plan review, a pole or mount of up to 30 feet. Please provide a justification if you are requesting a height greater than 22 feet.

KCI Comment #7 response. Yes, “MH:30” refers to the propose mounting height of 30-feet. 30-feet mounting height is standard for industrial facilities, which meets the listed 30-ft max height in the city’s design review guidelines. Furthermore 30-foot mounting heights were used to allow for increase uniformity of lighting on the site. The property lines are substantially far from the located poles and spill light will be minimal at the entries. There will be no spill light along the majority of the property lines per the submitted photometric plan.

Comment # 8. Show the location for any storage area outside the building for pallets, cardboard, ect.

KCI Comment #8 response: The proposed facility will use interior space for storage; therefore, no outdoor storage is proposed.

Comment # 9. Show in a detailed all Building or Ground signage for the site and sizes.

KCI Comment #9 response: The building and ground signage package is to be prepared at a later date and will be submitted separately for city review as required.

Comment # 10. Will the paved area excluding the parking area in the front have curbing?

KCI Comment #10 response: In addition to the employee parking, the driveway aprons will have curb and gutter as well as the rear truck court. See sheet C2-00.

Comment # 11. Show the Dumpster location and detail for the enclosure.

KCI Comment #11 response: Please refer to sheet C2-00 for the dumpster location and detail.

7/17/2024 CEC Engineering Comments:

Comment #2. Please note this is a preliminary review as only preliminary documents are provided. When a complete submittal is received, a complete review will be conducted. A complete submittal includes at a minimum the following additional information:

a. Erosion and Sediment Control Plans (signed and sealed by Professional Engineer)
    i. Proposed Limits of Disturbance
    ii. Perimeter EPSC Measures
    iii. EPSC Details
b. Stormwater Calculations (signed and sealed by Professional Engineer)
    i. Existing Conditions Hydrologic Calculations
        1. Drainage Area(s) Calculations & Exhibit
        2. Time of Concentration Calculations & Flow Path Exhibit
        3. Impervious Area Table/Exhibit
    ii. Existing Conditions Hydraulic Calculations (if any)
        1. Ditches
        2. Pipes/Culverts
        3. Storm sewer system
    iii. Proposed Conditions Hydrologic Calculations
        1. Drainage Area(s) Calculations & Exhibit
        2. Time of Concentration Calculations & Flow Path Exhibit
        3. Impervious Area Table/Exhibit
    iv. Proposed Conditions Hydraulic Calculations
        1. Ditches
        2. Pipes/Culverts
        3. Storm sewer system
        4. Detention Basins
        5. Evaluation of impacts to existing stormwater infrastructure downstream of the site
    v. Please note that post-construction discharges for each outfall location should be equal to or less than the pre-construction discharges.

KCI Comment #2 response: A complete civil submittal, including these items, will be provided when our client is ready to submit for Land Disturbance Permit with city. Our client is only seeking Planning Commission Site Plan approval at this time.

Comment #3. Please provide a TDEC CGP Notice of Intent/Notice of Coverage/SWPPP if more than one acre is disturbed.

KCI Comment #3 response: A TDEC CGP NOI/SWPPP will be provided when our client is ready to submit for Land Disturbance Permit. Our client is only seeking Planning Commission Site Plan approval at this time.

Comment #4. The outlet pipe from the detention pond appears to be concentrating flow at the property line. Please revise the design, such as using a level spreader or other methods, to more closely resemble how the flow leaves the site in existing conditions.
A level spreader will be implemented at the pond outfall. This has been called out on the included preliminary Grading Plan and will be detailed in the future complete civil submittal.

Sincerely,
Kimley-Horn and Associates, Inc.

Brendan Boles, P.E.
Brendan.Boles@kimley-horn.com