

**PRELIMINARY
STORMWATER
DRAINAGE
REPORT**

for

QuikTrip Store #4452

***1610 Plainfield Road
Crest Hill, Will County, Illinois 60403***

*Prepared For:
QuikTrip Corporation
5725 Foxridge Drive
Mission, Kansas 66202*

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Midwest Design Group
P.O. Box 860015
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913.248.9385*

ENGINEER'S CERTIFICATION
Stormwater Drainage Report
QuikTrip Store #4452

1610 Plainfield Road
 Crest Hill, Will County, Illinois 60403

I Hereby Certify that this Engineering Document was prepared by me, or under my direct supervision, and that I am a duly Registered Professional Engineer under the laws of the State of Illinois.



 Jonathon Smith, P.E.
 Project Manager
 IL Registration No. 062-073894



 Date



Seal

REPORT PURPOSE

This stormwater drainage report has been prepared to detail the stormwater drainage design for the QuikTrip Store #4452 facility to be located at the north corner of the intersection of Plainfield Road and Theodore Street in Crest Hill, Will County, Illinois. This study will confirm that the proposed development will comply with the design parameters set forth by the Crest Hill Stormwater Drainage and Detention Ordinance.

PROJECT SUMMARY

QuikTrip Corporation is proposing to build a new convenience store with fuel offerings in the north corner of the intersection of Plainfield Road and Theodore Street. The development will include a convenience store, auto fuel canopy, parking stalls, and associated sidewalk and curb and gutter. The store will be oriented to face Plainfield Road (southwest) with an auto fuel canopy southwest of the store. The new QuikTrip facility will be constructed on a parcel of land located in the Southeast 1/4 of Section 31, Township 36 North, Range 10 East of the Third Principal Meridian in Crest Hill, Will County, Illinois. The land will be split into Lot 1 (87,201 sf), Lot 2 (71,685 sf), and Tract A (53,529 sf). The new QuikTrip project will be constructed on Lot 1 and a detention facility will be constructed on Tract A that will serve both Lots 1 and 2. The entire property will contain 212,415 s.f. (4.876 acres). The Overall Site Plan (C010) and Site Plan (C100) have been included in the Appendix of this report for reference.

WATERSHED

This property lies within the Des Plaines River Watershed. The detention facility will outlet north using the existing control structure's outlet pipe, which outlets to a ditch along Knapp Drive which drains to an outlet point under Larkin Avenue to the Rock Run located along the west side of Larkin Avenue. Ultimately, runoff drains to the Des Plaines River. Refer to FEMA and USGS map in the Appendix.

FLOODPLAIN CERTIFICATE

According to the National Flood Insurance Program (NFIP) Flood Insurance Rate Map (FIRM) Panel No. 17197C0161G, effective February 15, 2019, as published by the Federal Emergency Management Agency, the subject property lies mostly within Flood Zone "X", areas determined to be "outside the 0.2% annual chance floodplain". It appears a minimal portion of the south corner of the property is within Zone AE, but no grading or improvements are proposed in this area.



Map taken from FIRM Panel Number 17197C0161G, dated February 15, 2019.

SITE SOIL CHARACTERISTICS

This property contains the following soil classifications:

- 149A – Brenton Silt Loam, 0-2% slopes, HSG B/D
- 223C2 – Varna Silt Loam, 4-6% slopes, HSG C
- 223D2 – Varna Silt Loam, 6-12% slopes, HSG C
- 329A – Will silty clay loam, 0-2% slopes, HSG B/D

The USDA/NRCS soil survey can be found in the Appendix.



Map taken from USDA/NRCS Soil Survey

WETLANDS

Per the U.S. Fish and Wildlife Service National Wetland Inventory (NWI) map, there are no wetlands present within the property. Refer to the Appendix for the NWI map.

METHODOLOGY

The proposed drainage characteristics of the site were evaluated and analyzed based on the Crest Hill Stormwater Drainage and Detention Ordinance criteria. Hydrologic calculations were performed and detention requirements were determined using the Autodesk Hydraulics Hydrographs program (SCS Method). Runoff curve numbers of 80 for proposed pervious areas and 98 for impervious areas were used. Illinois State Water Survey (ISWS) Bulletin 75 rainfall data was used with Huff 3rd Quartile distribution for a 24-hour storm event.

EXISTING DEVELOPMENT

The existing property is currently partially developed with a commercial development (Crest Hill Public Works) within Lot 1 and part of Tract A. Lot 2 was previously rough graded and storm sewer was installed for a pad site but was never fully developed. Tract A was also previously partially developed as a pad site and an existing detention facility was constructed. It appears Lot 2 and Tract A drain to the existing detention facility but it does not appear that the Crest Hill Public Works building development drains to the existing detention facility. The property is bordered on the east by Knapp Drive, on the northwest by an adjacent commercial property, on the southwest by Plainfield Road, and on the south by Theodore Street.

In the existing conditions, the site generally drains from southwest to northeast either into the detention facility or into Knapp Drive. It appears the southern corner of the site drains directly into Rock Run. The rest of the site drains either directly into Knapp Drive, which appears to have drainage swales adjacent to the property, or through the detention facility which then outlets north and it is assumed it ultimately drains to Rock Run.

The existing site contains approximately 75,122 sf of impervious areas (35.4%), 1,746 sf of gravel area (0.8%), and 135,547 sf of pervious areas (63.8%). A pre-development runoff coefficient and Curve Number was calculated for all drainage areas using the NRCS Soils Report and TR-55 runoff coefficient tables. The pre-development composite runoff coefficient and Curve Number (CN) is 0.52 and 86.5, accordingly. The associated calculations are included in the Appendix. Refer to the Pre-Developed Drainage Map in the Appendix ([Pending final report](#)).

PROPOSED DEVELOPMENT

The proposed development will be graded to generally maintain existing drainage patterns. Stormwater runoff from the QuikTrip development will be captured and conveyed in private storm sewers to the detention facility within Tract A. The private storm sewer has been designed to convey the 100-year design storm. The proposed detention facility will have a control structure to reduce peak runoff from the proposed improvements. The proposed control structure will utilize the existing outlet pipe from the existing control structure.

For this preliminary report, simplified drainage areas were used for analysis purposes. Drainage area “Detained” is the estimated area that will be detained in full build out condition (when Lots 1 and 2 are fully developed). A Curve Number (CN) value of 95 was assumed based on the TR-55 Manual, using a cover type of Urban Districts, Commercial and Businesses and Hydrologic Soil Group (HSG) D. It is preliminarily estimated that 12% of the total site area will not be

captured and will be uncontrolled runoff (Drainage area “Uncontrolled”). A CN Value of 85 was assumed for the uncontrolled area.

It is estimated the full build out condition will contain 172,665 sf of impervious areas (81.3%) and 39,750 sf of pervious areas (18.7%). This is an increase of 95,797 square feet in impervious area from existing conditions. A post-development runoff coefficient and Curve Number was calculated for all drainage areas using the NRCS Soils Report and TR.-55 runoff coefficient tables. The post-development composite runoff coefficient and Curve Number (CN) is 0.79 and 94.6, accordingly. The proposed storm sewer system, detention facilities, and associated calculations are included in the Appendix. Refer to the Post-Developed Drainage Map in the Appendix (Pending final report).

DETENTION REQUIREMENTS

Per the Crest Hill Stormwater Drainage and Detention Ordinance, “*The peak discharge from events less than or equal to the two-year event shall not be greater than 0.04 cfs per acre of property drained. The peak 100-year discharge shall not be greater than 0.15 cfs per acres of property drained.*”

The total property drained is 4.876 acres, which results in allowable release rates for the 2-year and 100-year storm events of 0.195 cfs and 0.731 cfs, accordingly. Peak discharges from the facility will be controlled through a control structure with an internal weir wall and multi-stage orifices. Additional detention information and design calculations can be found in the Appendix.

DOWNSTREAM DRAINAGE IMPACTS

The proposed stormwater detention facilities will control peak runoff so that there will be no adverse impacts to downstream drainage facilities.

STORMWATER TREATMENT

QuikTrip will install SNOUT water quality units upstream of the detention facility and in the detention outlet structure. Bio-skirts will be added to the SNOUT units for oil absorption. Information on these water quality units can be found in the Appendix.

FLOOD STUDY

The QuikTrip Store No. 4452 improvements will be within Zone “X” on the property, as shown in the Floodplain Certificate section. This development is not expected to incur damages as a result of flooding.

U.S. ARMY CORPS OF ENGINEERS REQUIREMENTS

The QuikTrip Store No. 4452 project will not disturb jurisdictional waters or wetlands of the U.S.

CONCLUSION

The QuikTrip Store No. 4452 development will comply with the design parameters set forth by the Crest Hill Stormwater Drainage and Detention Ordinance. The existing detention pond provides approximately 75,213 cubic-feet of detention volume (at elevation 603.00). The existing detention pond will be removed and replaced with a new detention facility that will provide 153,030 cubic-feet of volume (at elevation 603.00). The required detention volume, based on the CN assumptions described in the *Proposed Development* section, will be approximately 106,476 cubic-feet and will be provided at pond elevation 601.72. A stormwater detention facility has been designed to control the peak stormwater runoff from Lots 1 and 2 and Tract A (see table below for release rate summary). A private stormwater drainage system will convey runoff to the stormwater detention facility. Best Management Practices will be implemented to help improve water quality. No adverse effects are expected on adjacent properties or downstream drainage systems after the proposed improvements are completed.

Allowable Release Rates vs Post-Developed Release Rates Summary

Storm Event	Allowable Release Rate (cfs)	Post-Developed Peak Release Rate (cfs)
2-year	0.195	0.179
100-year	0.731	0.686

QuikTrip Store #4452

*1610 Plainfield Road
Crest Hill, Will County, Illinois 60403*

APPENDIX

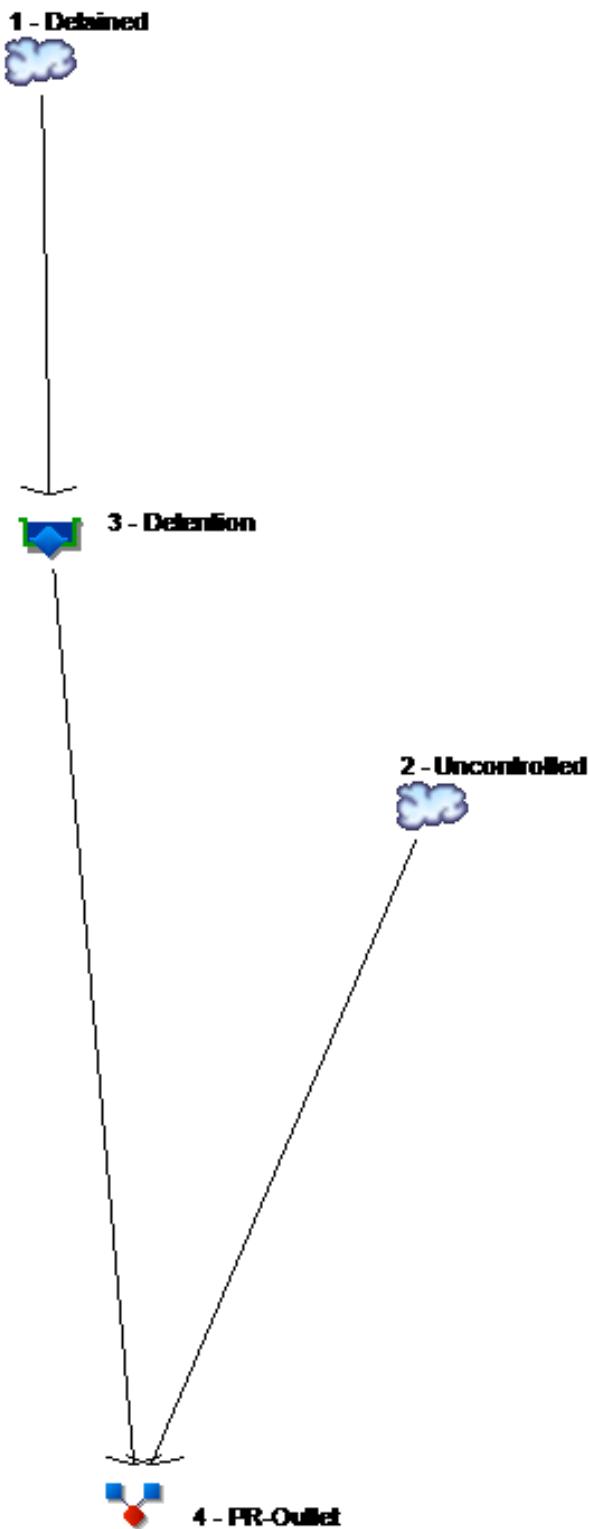


QuikTrip Store #4452

AutoDesk Hydraflow Hydrographs Results

Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023



Hydraflow Rainfall Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Wednesday, 02 / 26 / 2025

Precip. file name: \\DESKTOP-HIMC8GB\Documents\IL Northeast Precip (Bulletin 75-HUFF) Depths.pcp

Storm Distribution	Rainfall Precipitation Table (in)							
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
SCS 24-hour	0.00	0.00	0.00	3.30	0.00	5.77	5.83	0.00
SCS 6-Hr	0.00	0.00	0.00	0.00	0.00	0.00	4.33	0.00
Huff-1st	0.00	0.00	0.00	2.75	0.00	5.38	6.50	0.00
Huff-2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-3rd	0.00	3.34	0.00	0.00	5.15	0.00	0.00	8.57
Huff-4th	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-Indy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Custom	0.00	0.00	0.00	2.80	0.00	5.25	6.00	0.00

Pond Report

Pond No. 3 - Detention

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Beginning Elevation = 596.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	596.00	00	0	0
1.00	597.00	10,000	3,333	3,333
2.00	598.00	15,000	12,415	15,748
3.00	599.00	20,000	17,438	33,186
4.00	600.00	25,000	22,451	55,637
5.00	601.00	30,000	27,459	83,097
6.00	602.00	35,000	32,465	115,561
7.00	603.00	40,000	37,468	153,030

Culvert / Orifice Structures

Weir Structures

	[A]	[B]	[C]	[PrfRsr]		[A]	[B]	[C]	[D]
Rise (in)	= 0.75	2.25	0.00	0.00	Crest Len (ft)	= 0.00	0.00	0.00	0.00
Span (in)	= 0.75	2.25	0.00	0.00	Crest El. (ft)	= 0.00	0.00	0.00	0.00
No. Barrels	= 1	1	0	0	Weir Coeff.	= 3.33	3.33	3.33	3.33
Invert El. (ft)	= 596.00	599.00	0.00	0.00	Weir Type	= ---	---	---	---
Length (ft)	= 0.00	0.00	0.00	0.00	Multi-Stage	= No	No	No	No
Slope (%)	= 0.00	0.00	0.00	n/a					
N-Value	= .013	.013	.013	n/a					
Orifice Coeff.	= 0.60	0.60	0.60	0.60	Exfil.(in/hr)	= 0.000 (by Wet area)			
Multi-Stage	= n/a	No	No	No	TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Pond Report

Pond No. 3 - Detention

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Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

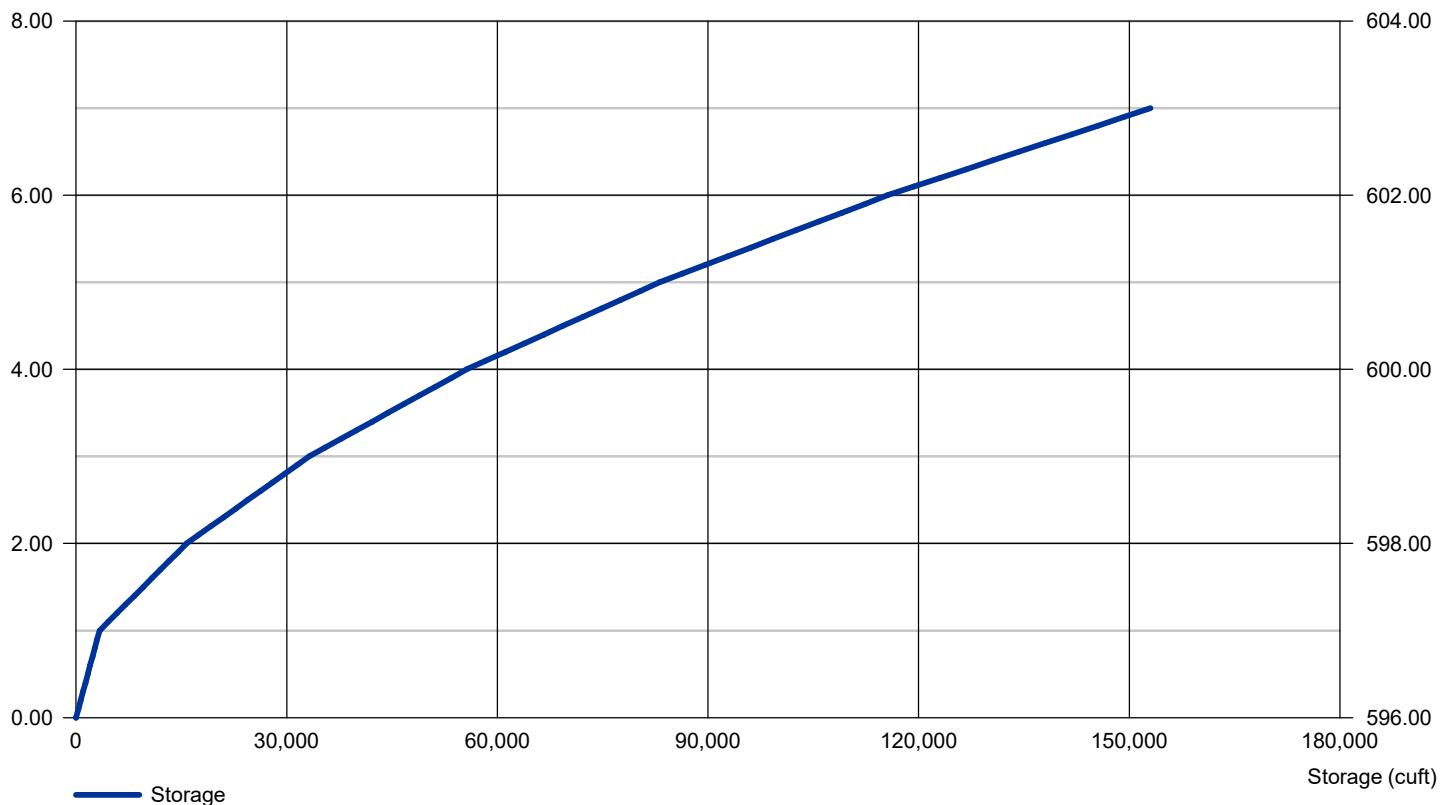
	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.00	0.00	0.00	0.00
Crest El. (ft)	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= ---	---	---	---
Multi-Stage	= No	No	No	No
Exfil.(in/hr)	= 0.000	(by Wet area)		
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage (ft)

Stage / Storage

Elev (ft)



Pond Report

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Span (in)	= 0.75	2.25	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 596.00	599.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

[A] [B] [C] [D]

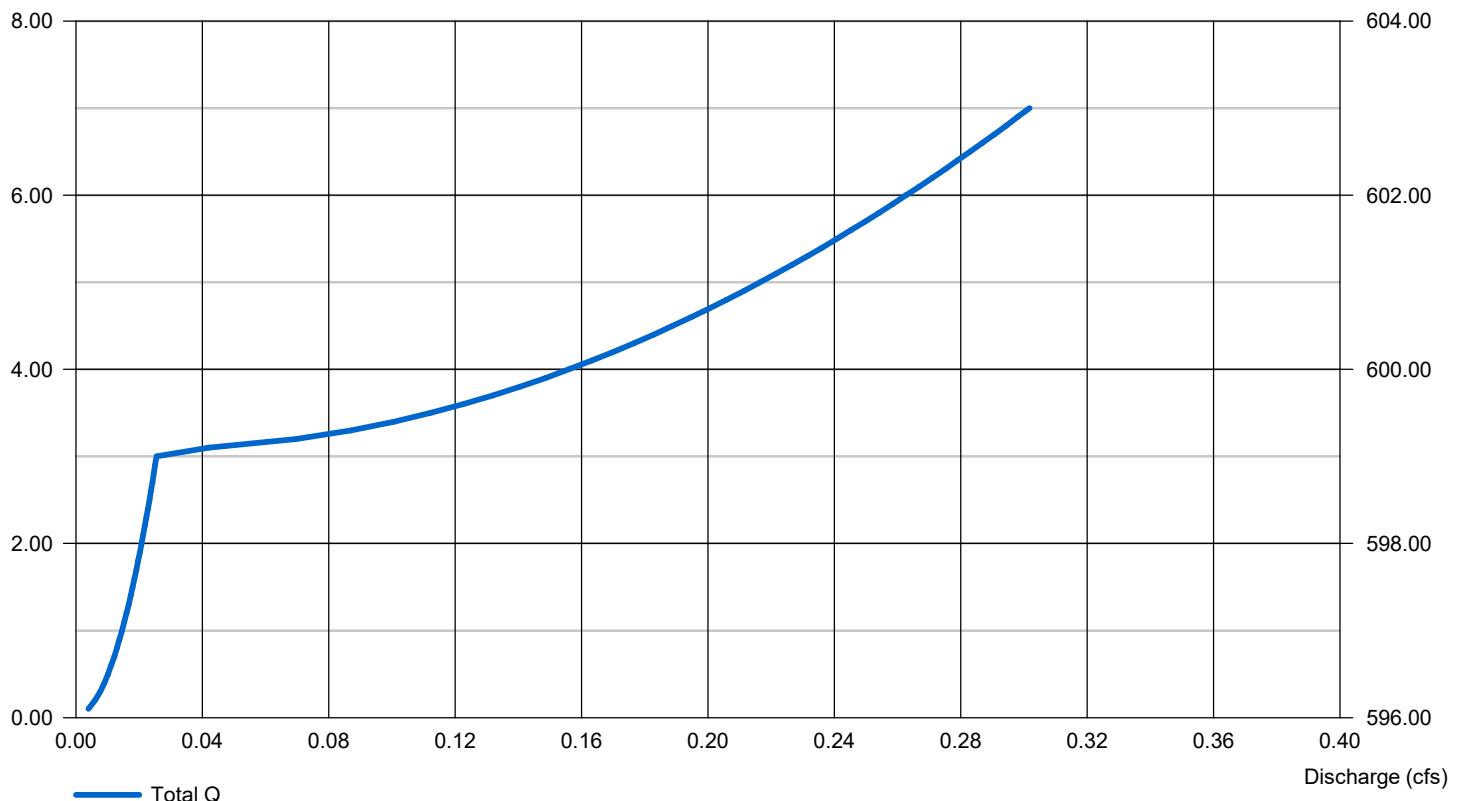
Crest Len (ft)	= 0.00	0.00	0.00	0.00
Crest El. (ft)	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= ---	---	---	---
Multi-Stage	= No	No	No	No
Exfil.(in/hr)	= 0.000 (by Wet area)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage (ft)

Stage / Discharge

Elev (ft)



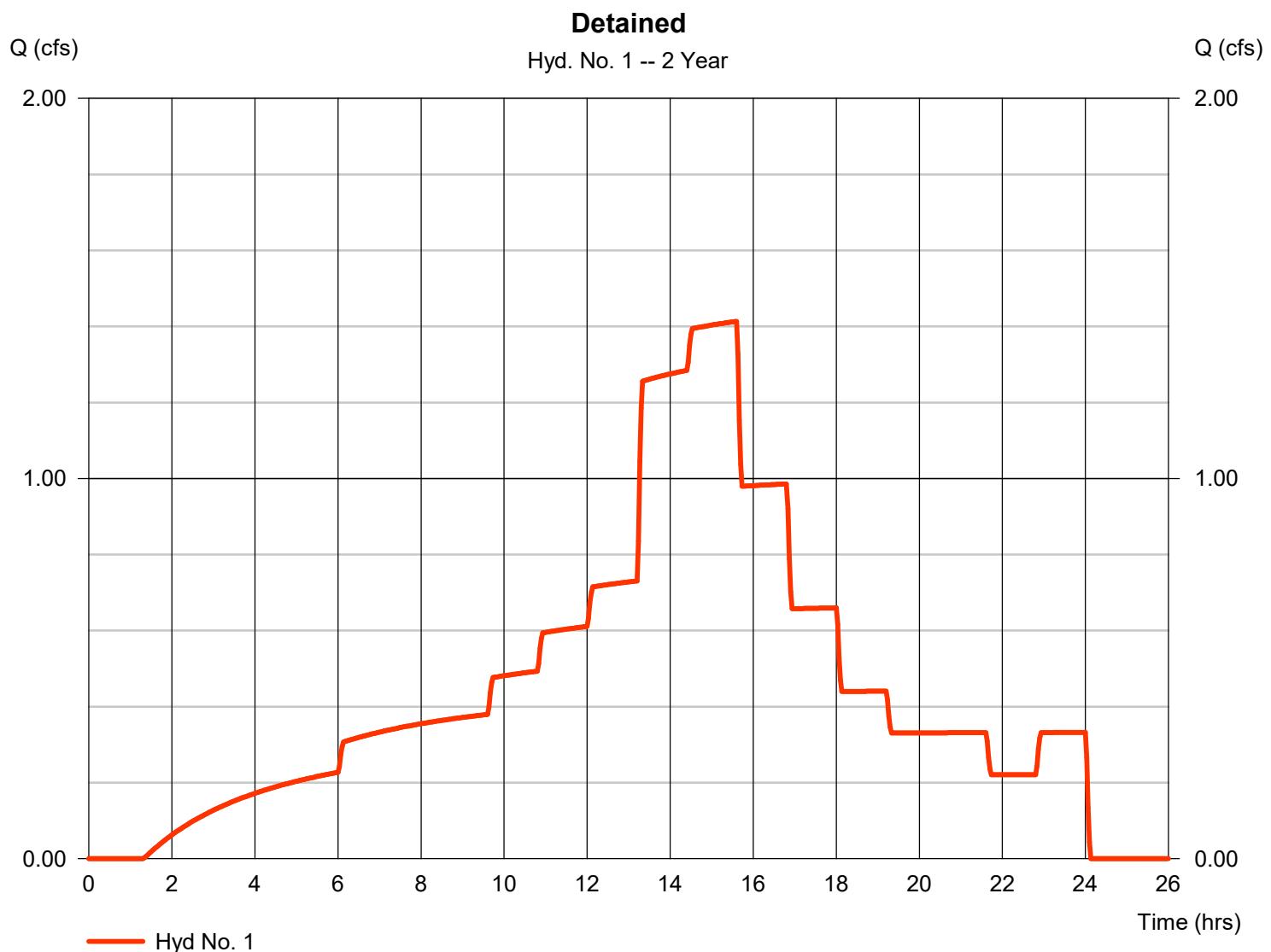
Hydrograph Report

Hyd. No. 1

Detained

Hydrograph type	= SCS Runoff	Peak discharge	= 1.413 cfs
Storm frequency	= 2 yrs	Time to peak	= 15.60 hrs
Time interval	= 2 min	Hyd. volume	= 40,626 cuft
Drainage area	= 4.291 ac	Curve number	= 95*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.34 in	Distribution	= Huff-3rd
Storm duration	= 24.00 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(1.550 \times 98) + (0.560 \times 80)] / 4.291$

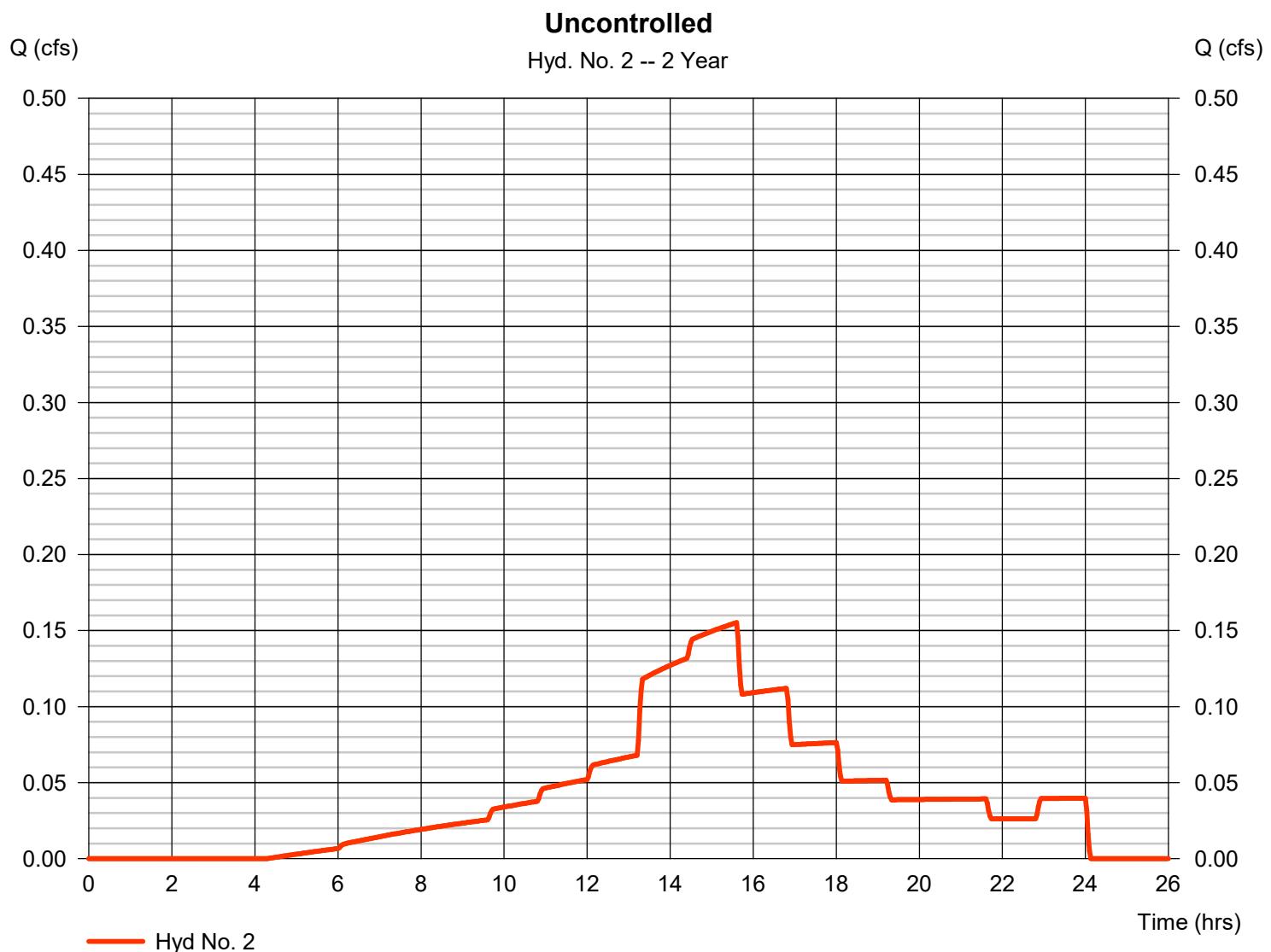


Hydrograph Report

Hyd. No. 2

Uncontrolled

Hydrograph type	= SCS Runoff	Peak discharge	= 0.155 cfs
Storm frequency	= 2 yrs	Time to peak	= 15.60 hrs
Time interval	= 2 min	Hyd. volume	= 3,738 cuft
Drainage area	= 0.585 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.34 in	Distribution	= Huff-3rd
Storm duration	= 24.00 hrs	Shape factor	= 484



Hydrograph Report

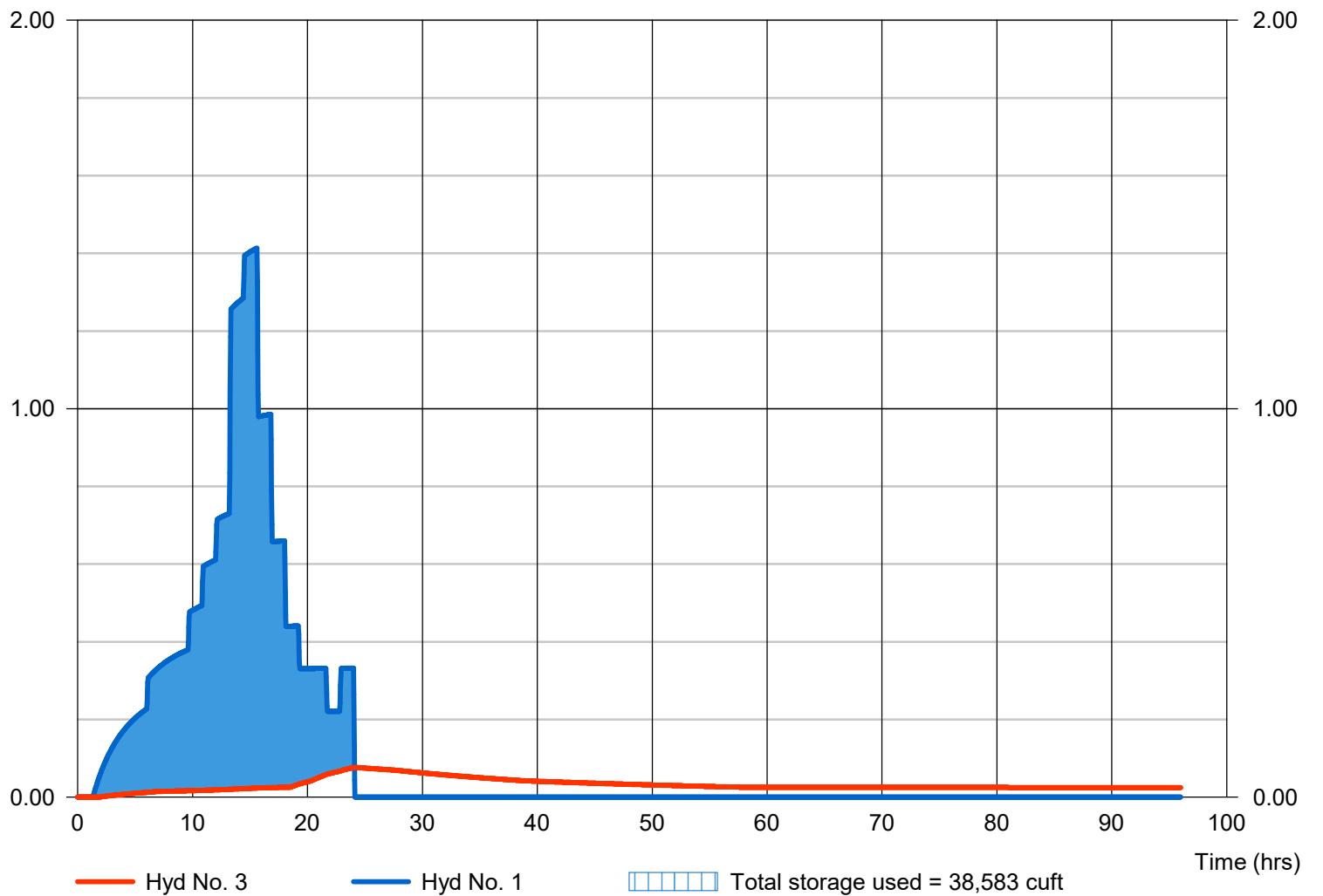
Hyd. No. 3

Detention

Hydrograph type	= Reservoir	Peak discharge	= 0.077 cfs
Storm frequency	= 2 yrs	Time to peak	= 24.10 hrs
Time interval	= 2 min	Hyd. volume	= 10,878 cuft
Inflow hyd. No.	= 1 - Detained	Max. Elevation	= 599.24 ft
Reservoir name	= Detention	Max. Storage	= 38,583 cuft

Storage Indication method used.

Detention
Hyd. No. 3 -- 2 Year



Hydrograph Report

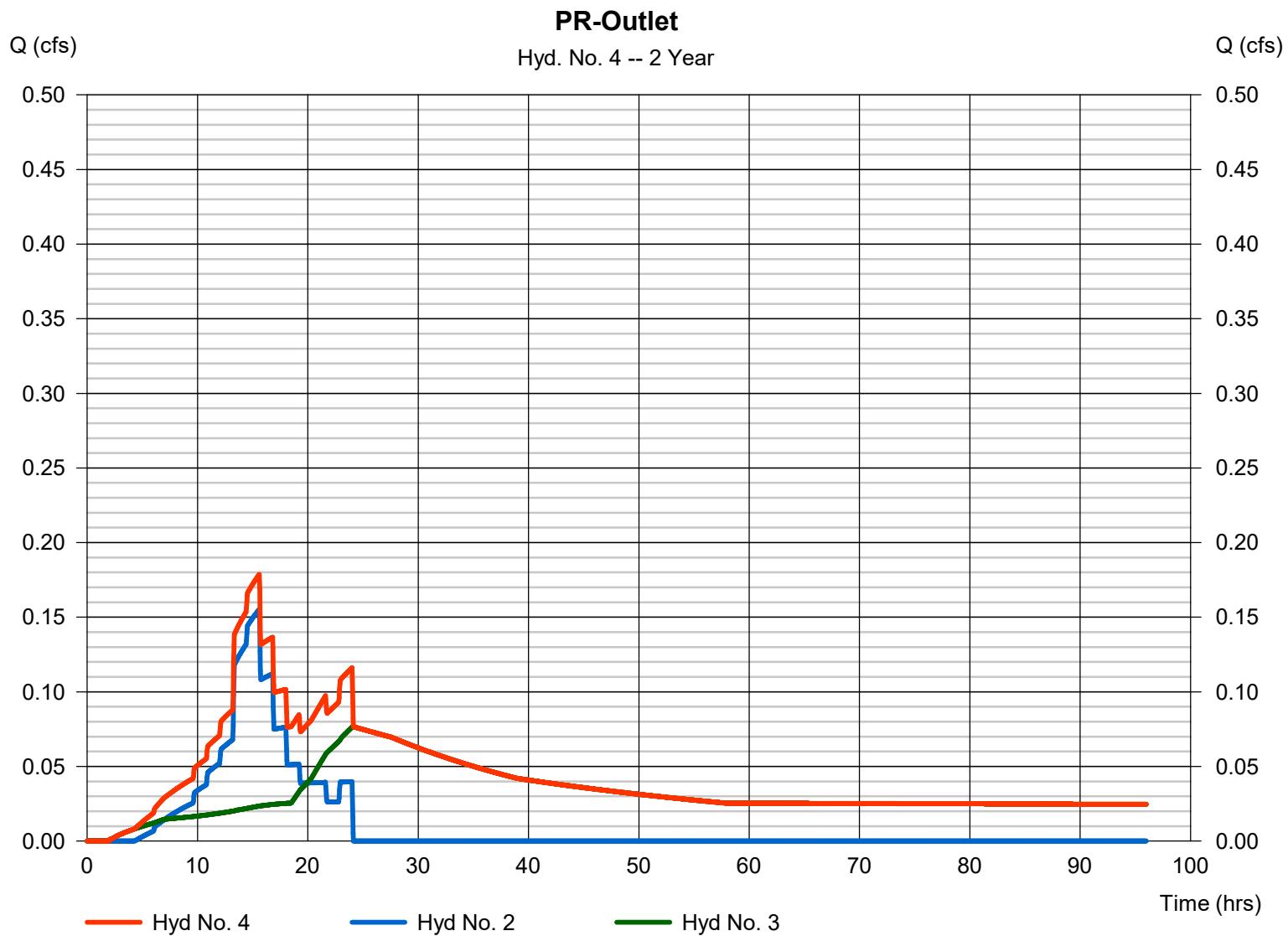
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Wednesday, 02 / 26 / 2025

Hyd. No. 4

PR-Outlet

Hydrograph type	= Combine	Peak discharge	= 0.179 cfs
Storm frequency	= 2 yrs	Time to peak	= 15.60 hrs
Time interval	= 2 min	Hyd. volume	= 14,617 cuft
Inflow hyds.	= 2, 3	Contrib. drain. area	= 0.585 ac



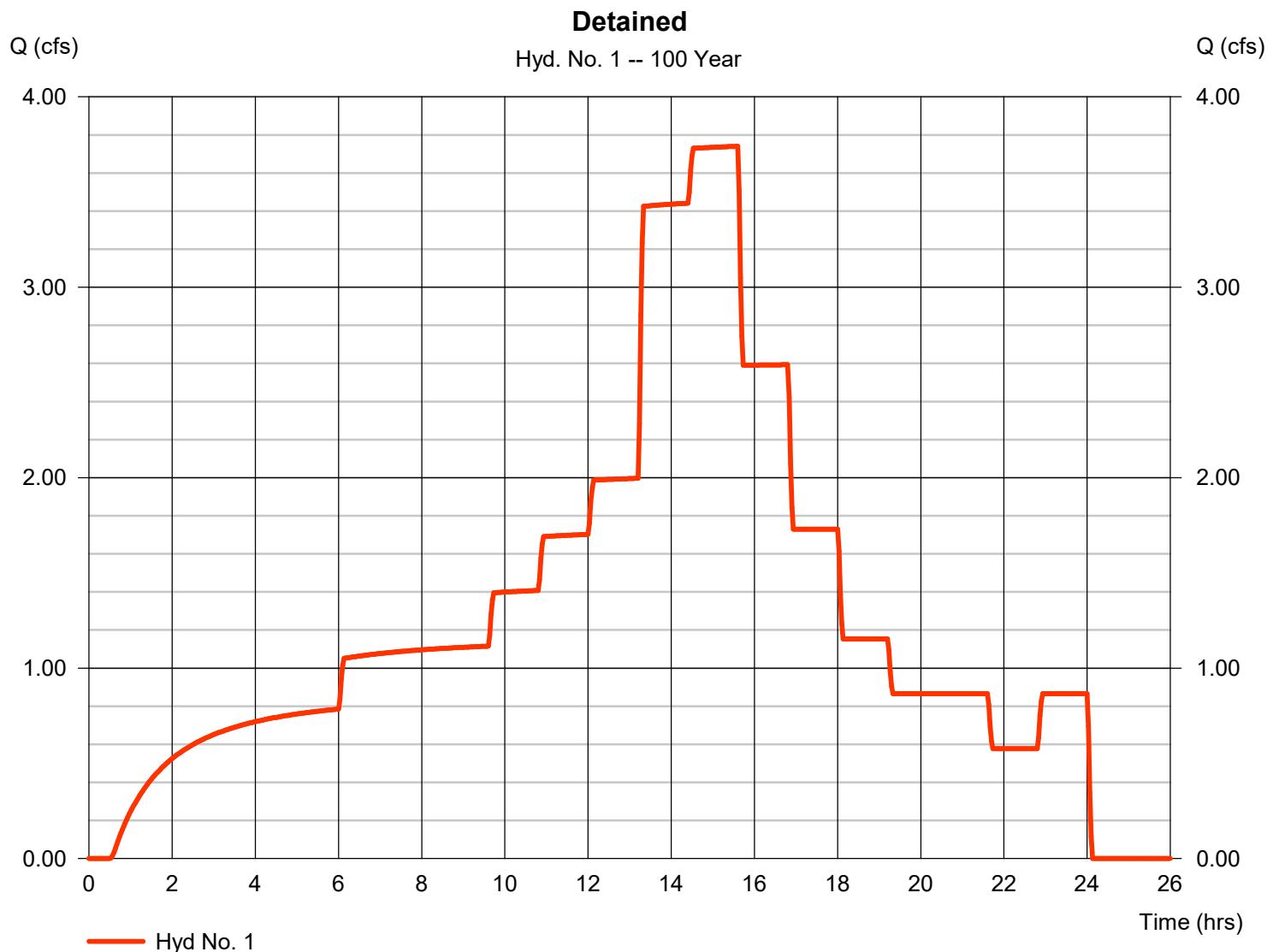
Hydrograph Report

Hyd. No. 1

Detained

Hydrograph type	= SCS Runoff	Peak discharge	= 3.740 cfs
Storm frequency	= 100 yrs	Time to peak	= 15.60 hrs
Time interval	= 2 min	Hyd. volume	= 116,373 cuft
Drainage area	= 4.291 ac	Curve number	= 95*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 8.57 in	Distribution	= Huff-3rd
Storm duration	= 24.00 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(1.550 \times 98) + (0.560 \times 80)] / 4.291$

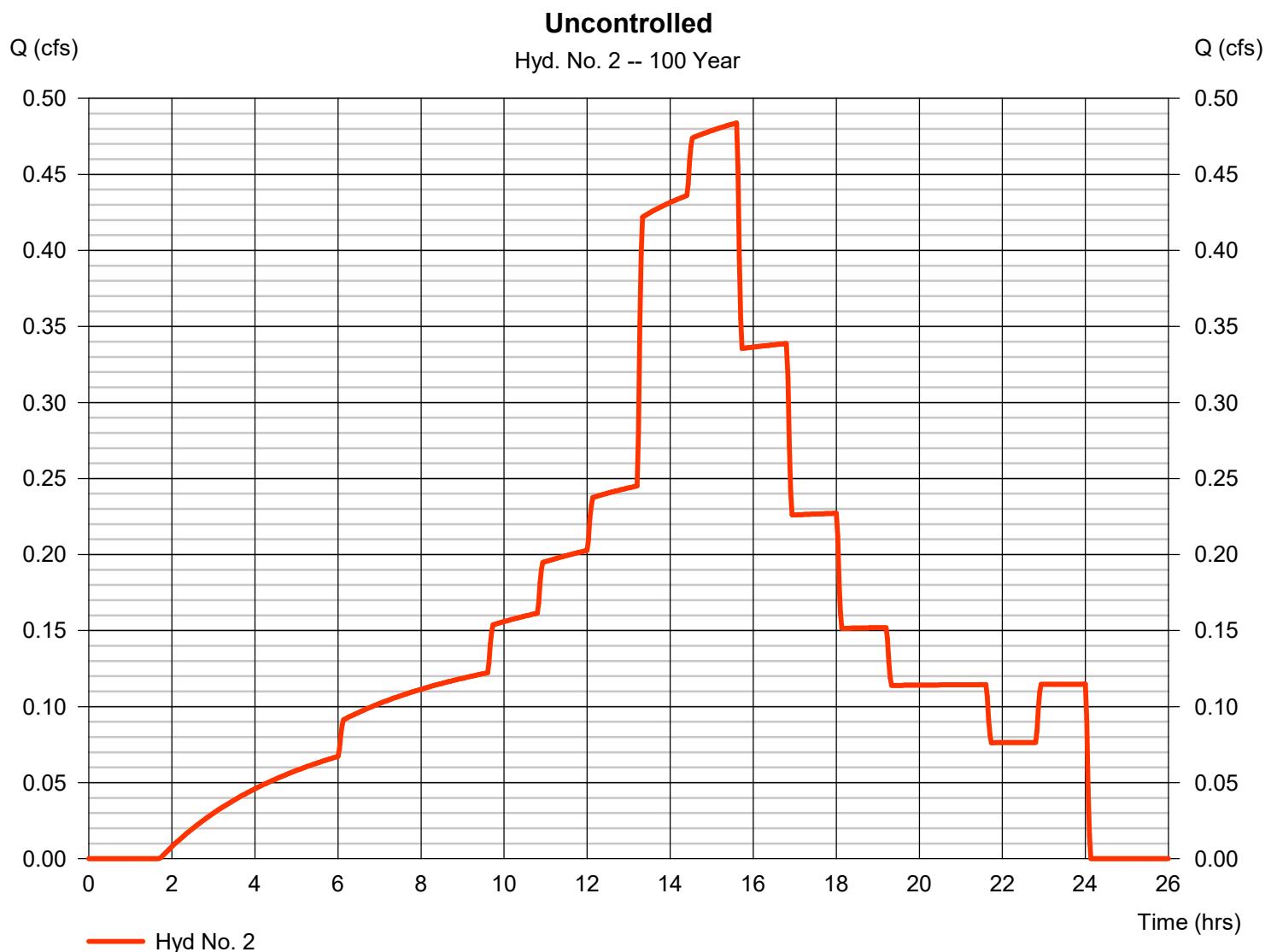


Hydrograph Report

Hyd. No. 2

Uncontrolled

Hydrograph type	= SCS Runoff	Peak discharge	= 0.484 cfs
Storm frequency	= 100 yrs	Time to peak	= 15.60 hrs
Time interval	= 2 min	Hyd. volume	= 13,467 cuft
Drainage area	= 0.585 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 8.57 in	Distribution	= Huff-3rd
Storm duration	= 24.00 hrs	Shape factor	= 484



Hydrograph Report

Hyd. No. 3

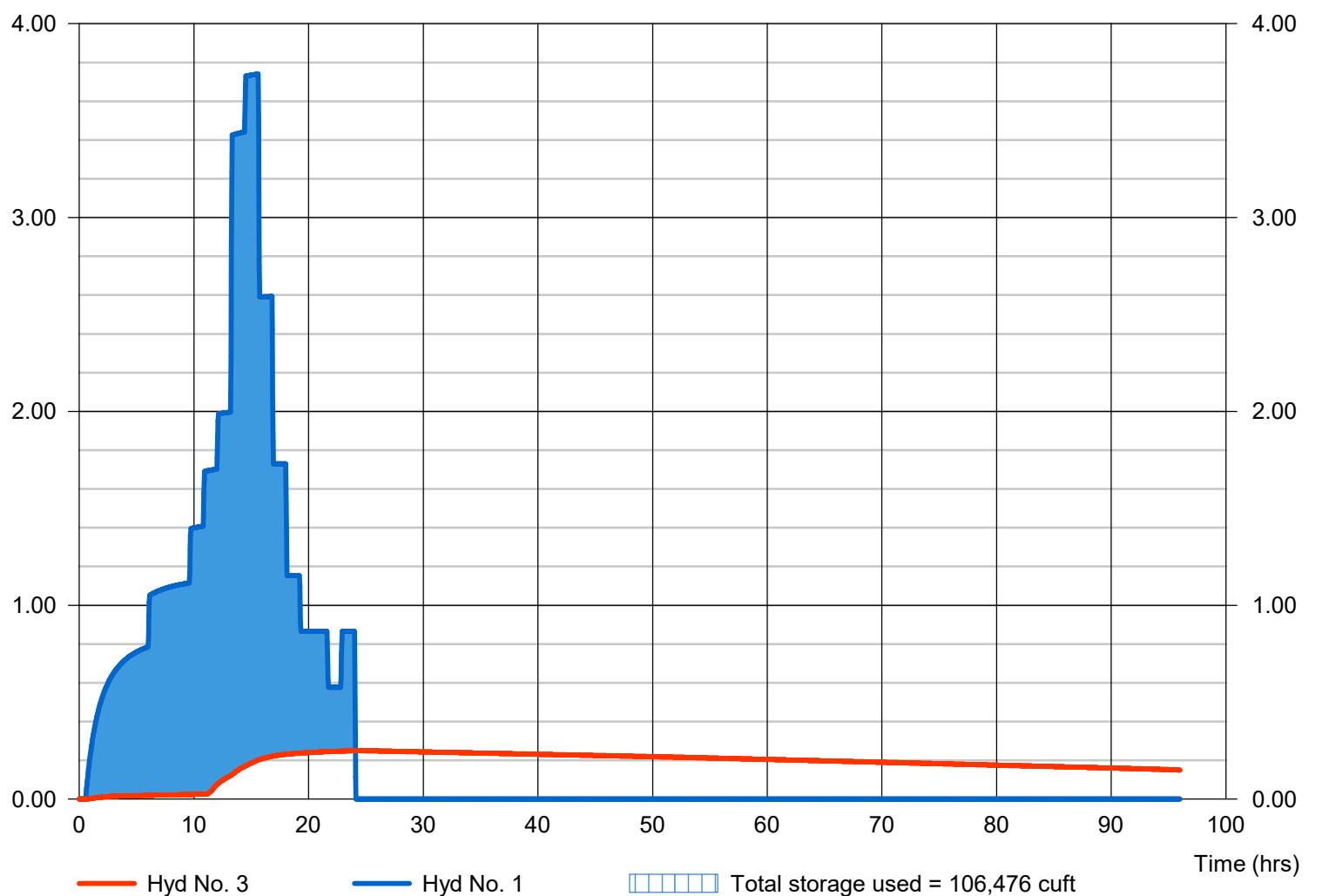
Detention

Hydrograph type	= Reservoir	Peak discharge	= 0.251 cfs
Storm frequency	= 100 yrs	Time to peak	= 24.07 hrs
Time interval	= 2 min	Hyd. volume	= 62,483 cuft
Inflow hyd. No.	= 1 - Detained	Max. Elevation	= 601.72 ft
Reservoir name	= Detention	Max. Storage	= 106,476 cuft

Storage Indication method used.

Detention

Hyd. No. 3 -- 100 Year

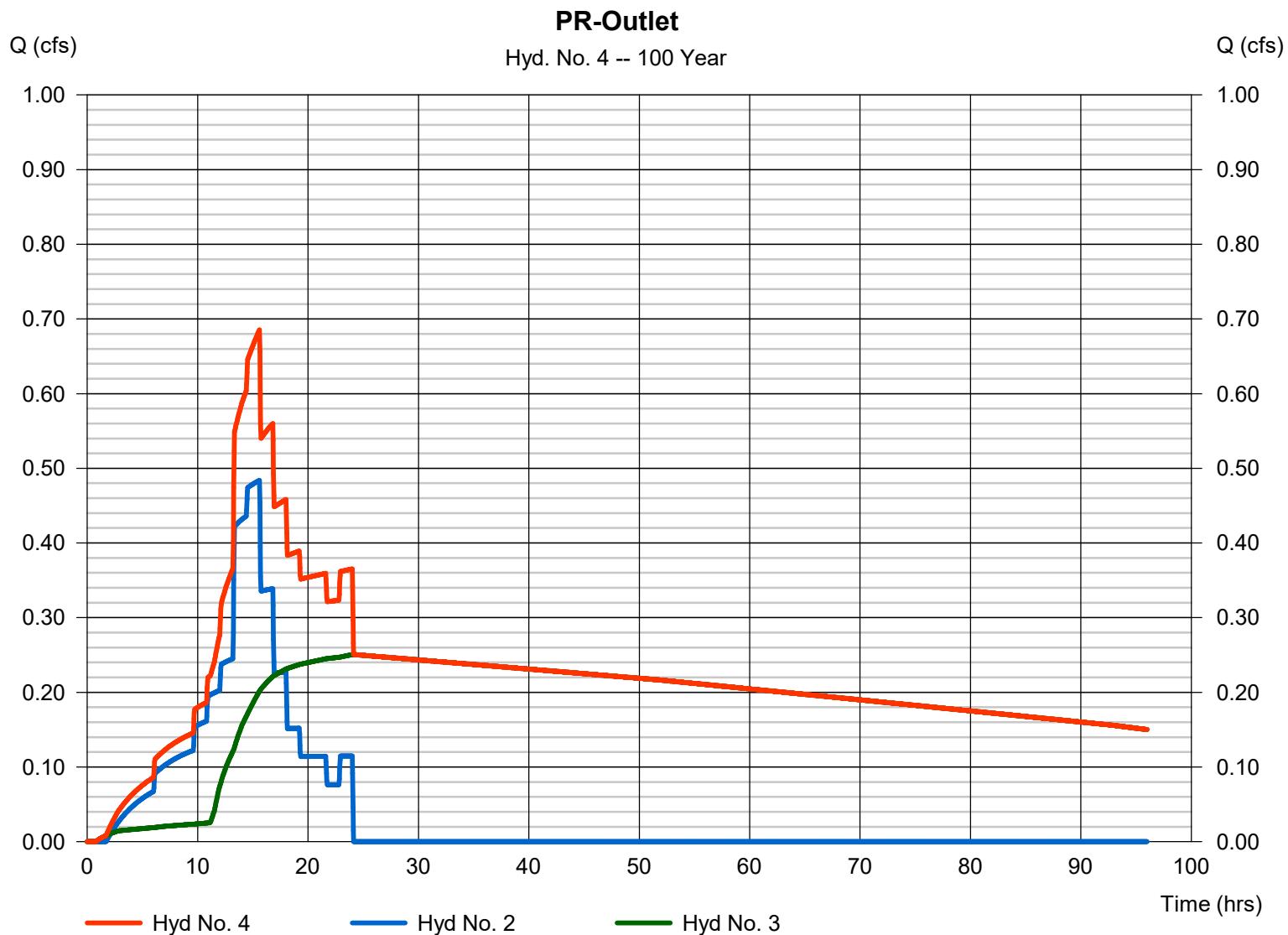


Hydrograph Report

Hyd. No. 4

PR-Outlet

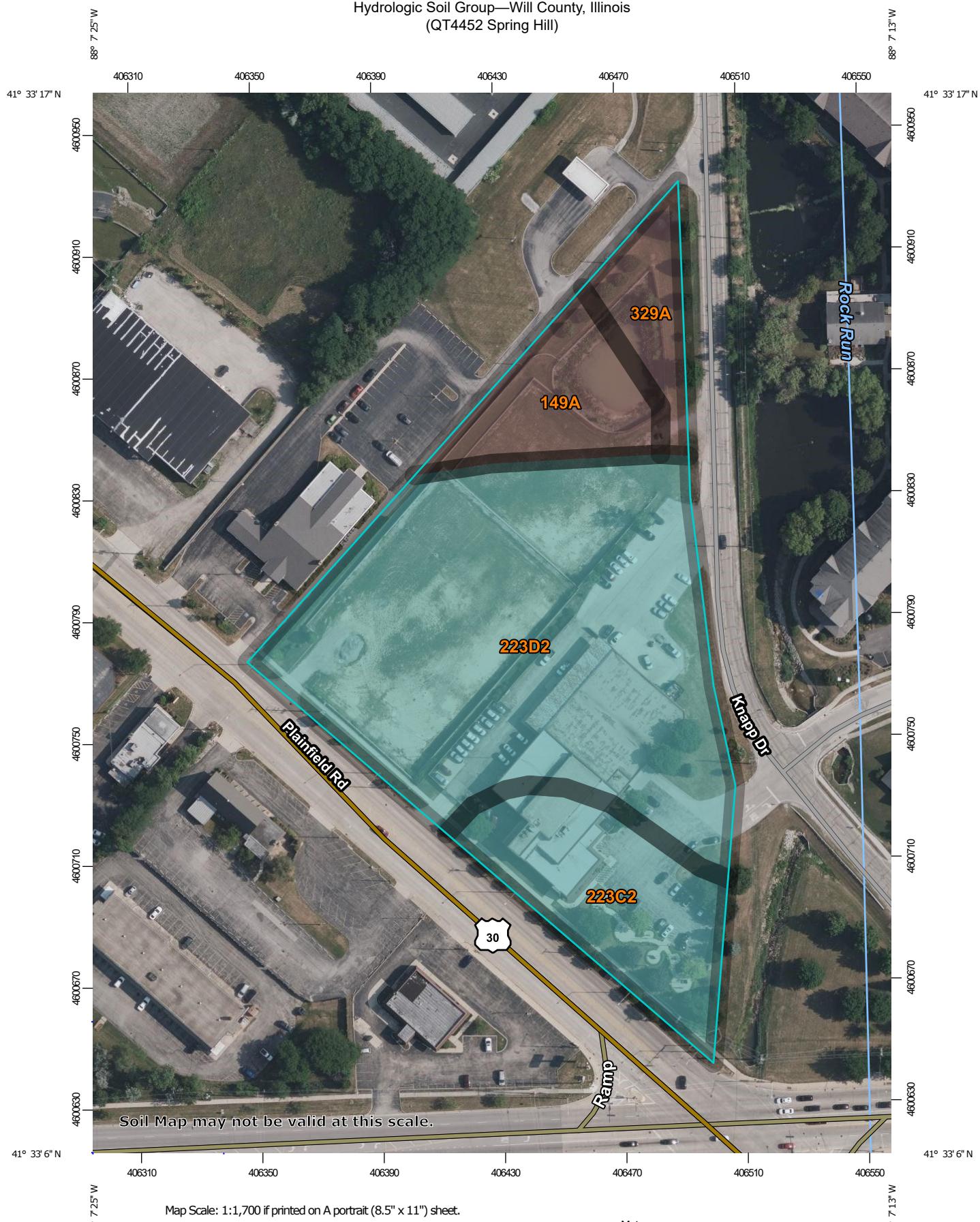
Hydrograph type	= Combine	Peak discharge	= 0.686 cfs
Storm frequency	= 100 yrs	Time to peak	= 15.60 hrs
Time interval	= 2 min	Hyd. volume	= 75,950 cuft
Inflow hyds.	= 2, 3	Contrib. drain. area	= 0.585 ac



QuikTrip Store #4452

- **NRCS Soils Report**
- **NWI Wetland Map**
- **USGS Maps**
- **FEMA Maps**

Hydrologic Soil Group—Will County, Illinois
(QT4452 Spring Hill)



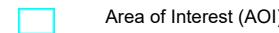
Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

2/25/2025
Page 1 of 4

MAP LEGEND

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 1:12,000.

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: Will County, Illinois

Survey Area Data: Version 19, Aug 21, 2024

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

Date(s) aerial images were photographed: Jul 7, 2020—Oct 13, 2020

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.



Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
149A	Brenton silt loam, 0 to 2 percent slopes	B/D	0.6	10.9%
223C2	Varna silt loam, 4 to 6 percent slopes, eroded	C	1.0	18.1%
223D2	Varna silt loam, 6 to 12 percent slopes, eroded	C	3.6	64.2%
329A	Will silty clay loam, 0 to 2 percent slopes	B/D	0.4	6.8%
Totals for Area of Interest			5.6	100.0%

Description

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.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

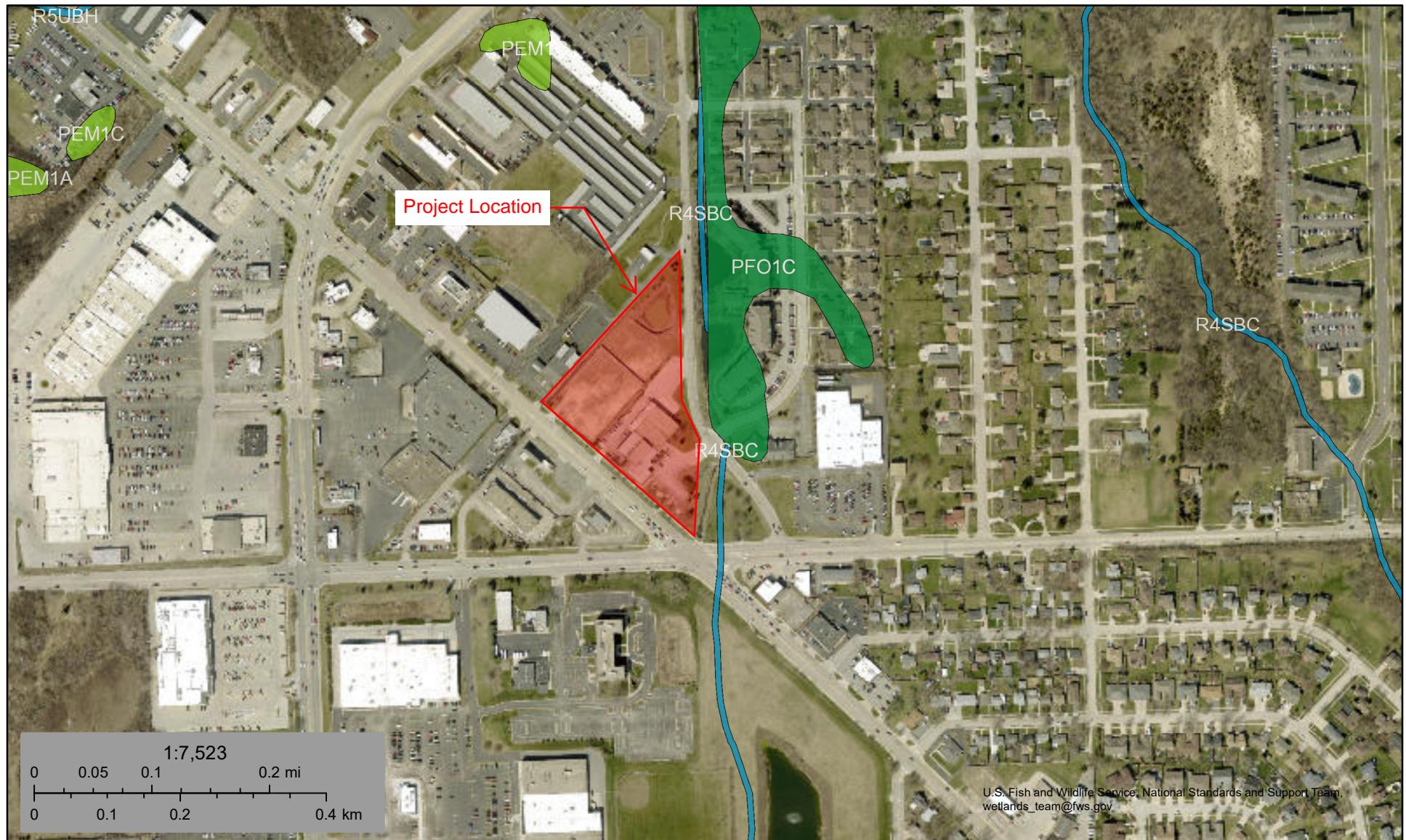
Tie-break Rule: Higher



U.S. Fish and Wildlife Service

National Wetlands Inventory

QT4452 Crest Hill



February 25, 2025

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Other
- Riverine

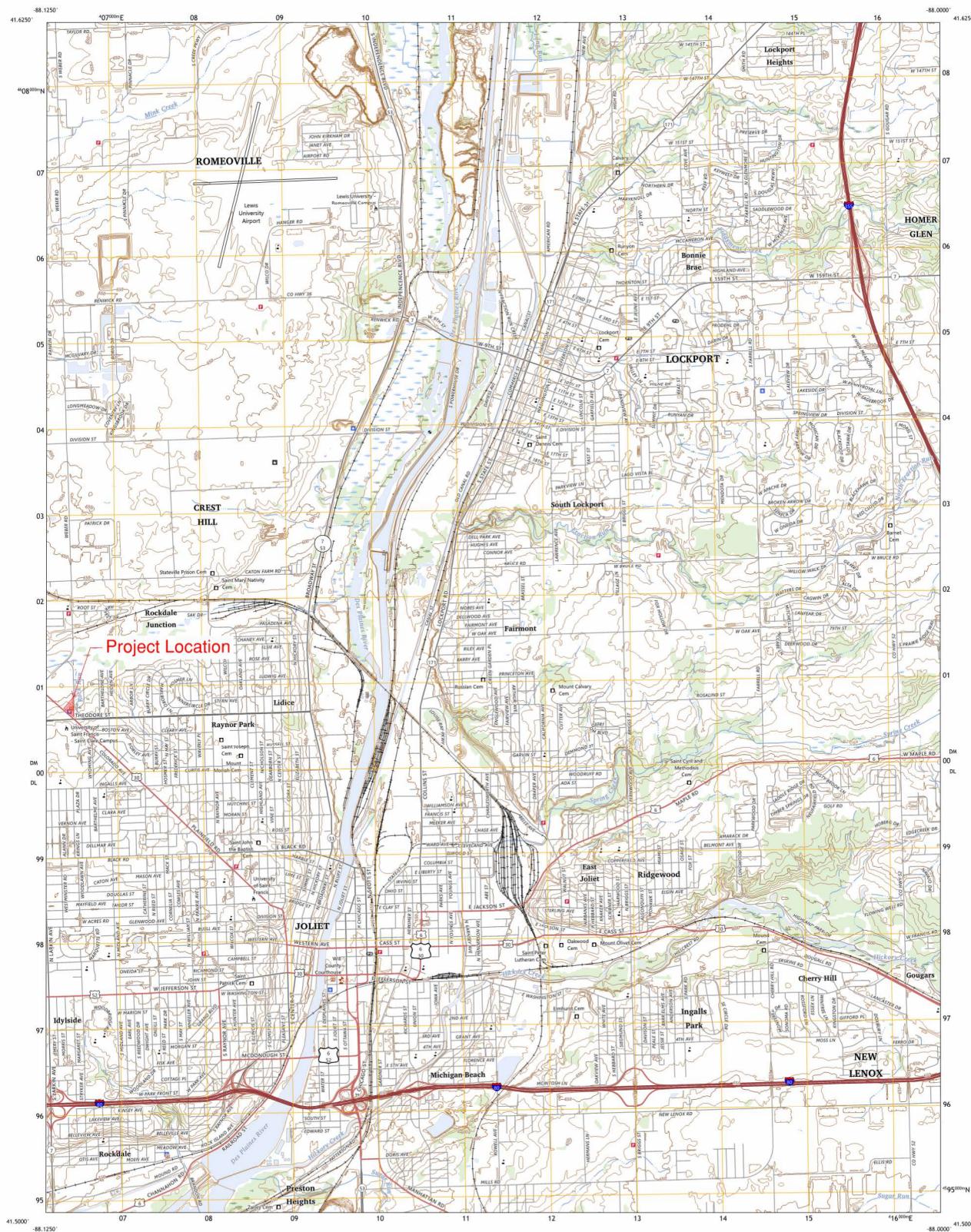
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY



JOLIET QUADRANGLE
ILLINOIS - WILL COUNTY
7.5-MINUTE SERIES



Produced by the United States Geological Survey

North American Vertical Datum of 1988 (NAVD88) Projection and
1:24,000-meter grid Universal Transverse Mercator, Zone 16T

This map is not to be used for surveying or
generalized for this map scale. Private lands within government
reserve boundaries are shown. Ocean permit boundaries
entering private lands.

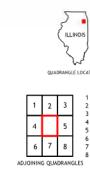
Imagery
Roads
Names
Hydrography
Contours
Boundaries
Multiple sources: See metadata file 2021 pt
Public Land Survey System
Wetlands
FWS National Wetlands Inventory
Not Available

UTM GRID AND 2021 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000 m in Square 01
DMI
DL
DMS Zone Designation

SCALE 1:24 000
1 0.5 0 1 KILOMETERS
1000 500 0 1000 METERS
1 0.5 0 1 MILES
1000 500 0 1000 FEET

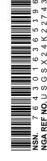
CONTOUR INTERVAL 15 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
This map was produced to conform with the
National Geospatial Program US Topo Product Standard.

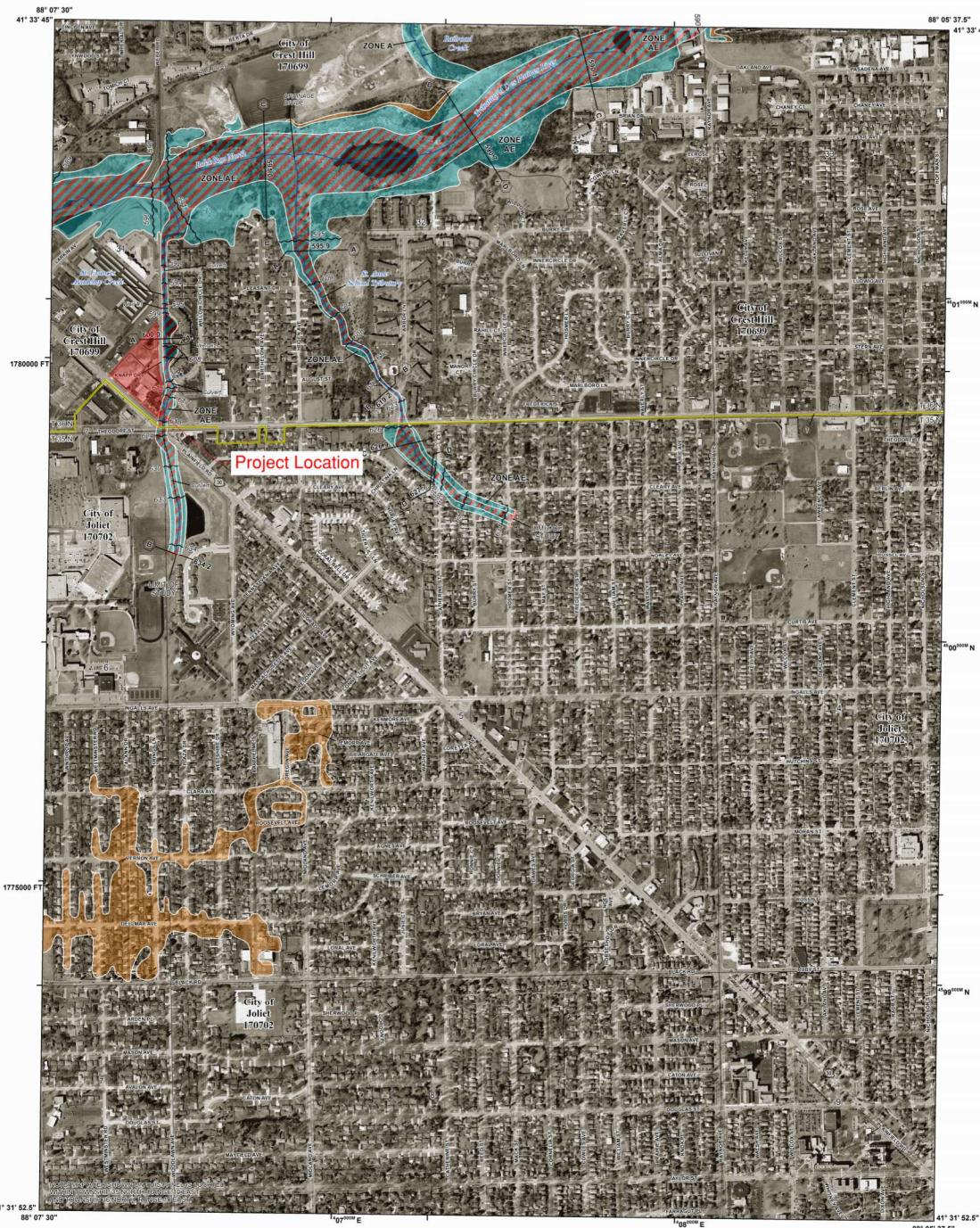


JOINTING QUADRANGLES
1 Normaltown
2 Roncoeville
3 Sag Bridge
4 Pleasant
5 Roncoeville
6 Channahon
7 New Lenox
8 Manhattan

ROAD CLASSIFICATION
Expressway
Secondary Hwy
Ramp
Local Road
4WD
Interstate Route
Us Route
State Route

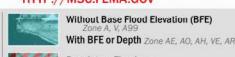
JOLIET, IL
2024





FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE AVAILABLE IN DIGITAL FORMAT AT [HTTP://MSC.FEMA.GOV](http://MSC.FEMA.GOV)



SPECIAL FLOOD HAZARD AREAS

0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X

Future Conditions 1% Annual Chance Flood Hazard Zone X

Area with Reduced Flood Risk due to Levee See Notes Zone X

Area with Flood Risk due to Levee Zone D

NO SCREEN Area of Minimal Flood Hazard Zone X

Area of Undeveloped Flood Hazard Zone D

Channel, Culvert, or Storm Sewer

Dam, Jetty, or Weir

Levee, Dike or Floodwall

718.7 Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)

717.5 Coastal Transect

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

512 Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

NOTES TO USERS

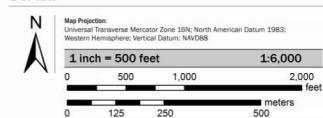
For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with the FIRM, including historic versions, the current map date for each FIRM panel, how to order products, and how to obtain a copy of the FIRM panel, contact your insurance agent or call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center at www.floodmap.fema.gov. You may also receive a copy of any issued Letters of Map Change, a Flood Insurance Study Report, and digital versions of this map. Many communities have a Flood Insurance Study Report available online.

Communities answering land or adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

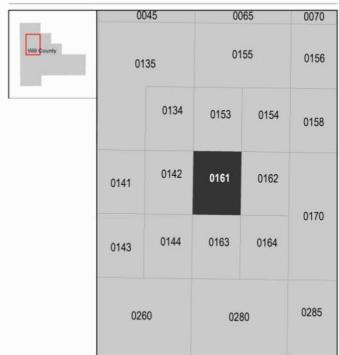
For community and countywide map dates refer to the Flood Insurance Study report for this jurisdiction.

Base map information shown on this FIRM was provided in digital format by Will County, Illinois. This information was derived from digital orthophotography at a spatial resolution of 4 inches where available and 9 inches otherwise, from aerial photography dated 2013.

SCALE



PANEL LOCATOR



*PANEL NOT PRINTED

NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP

WILL COUNTY, ILLINOIS
and Incorporated Areas

PANEL 161 OF 585



Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
CREST HILL, CITY OF	170699	0161	6
JOLET, CITY OF	170702	0161	6

VERSION NUMBER
2.3.3.3

MAP NUMBER
17197C0161G

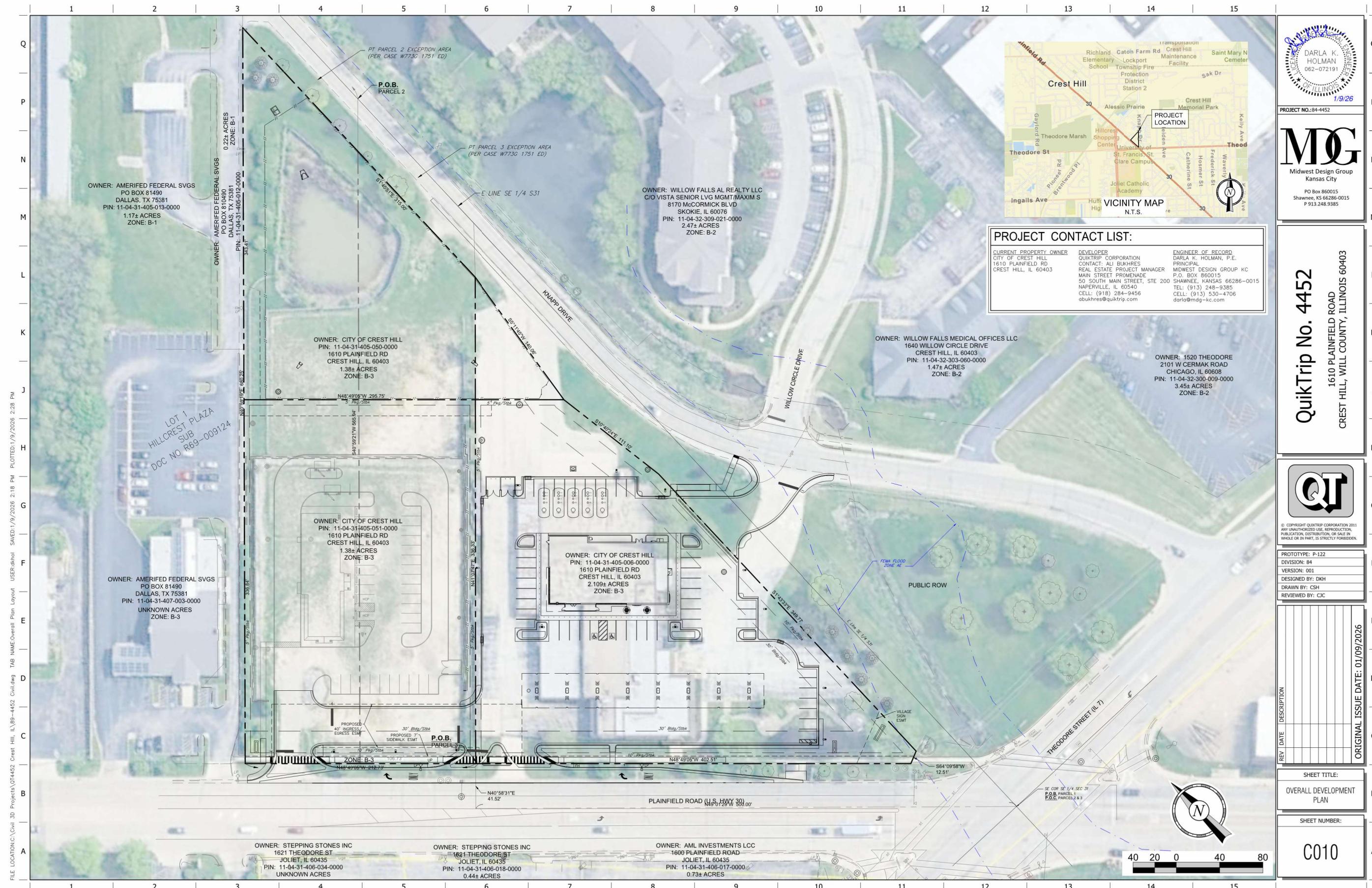
MAP REVISED

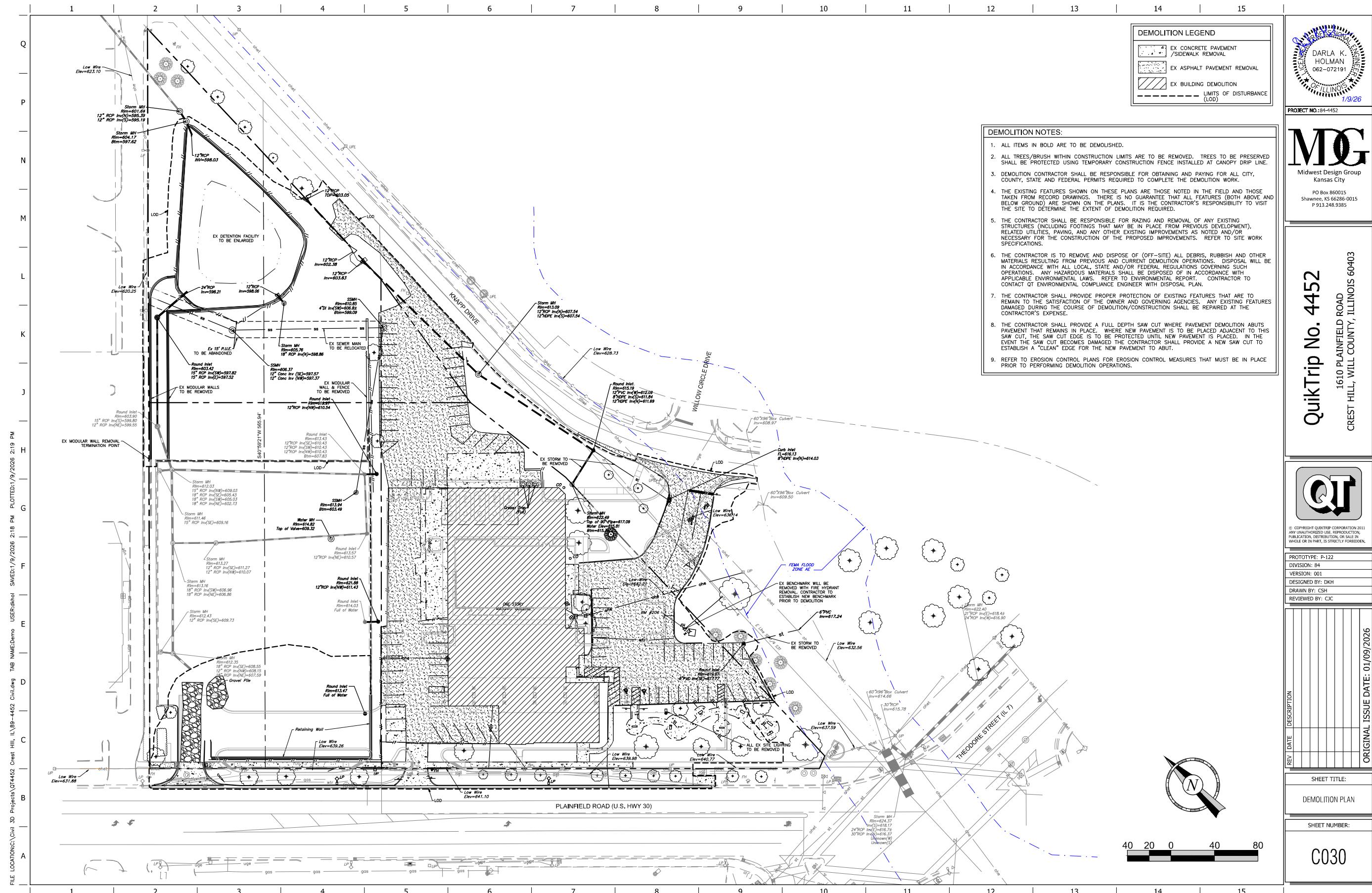
FEBRUARY 15, 2019

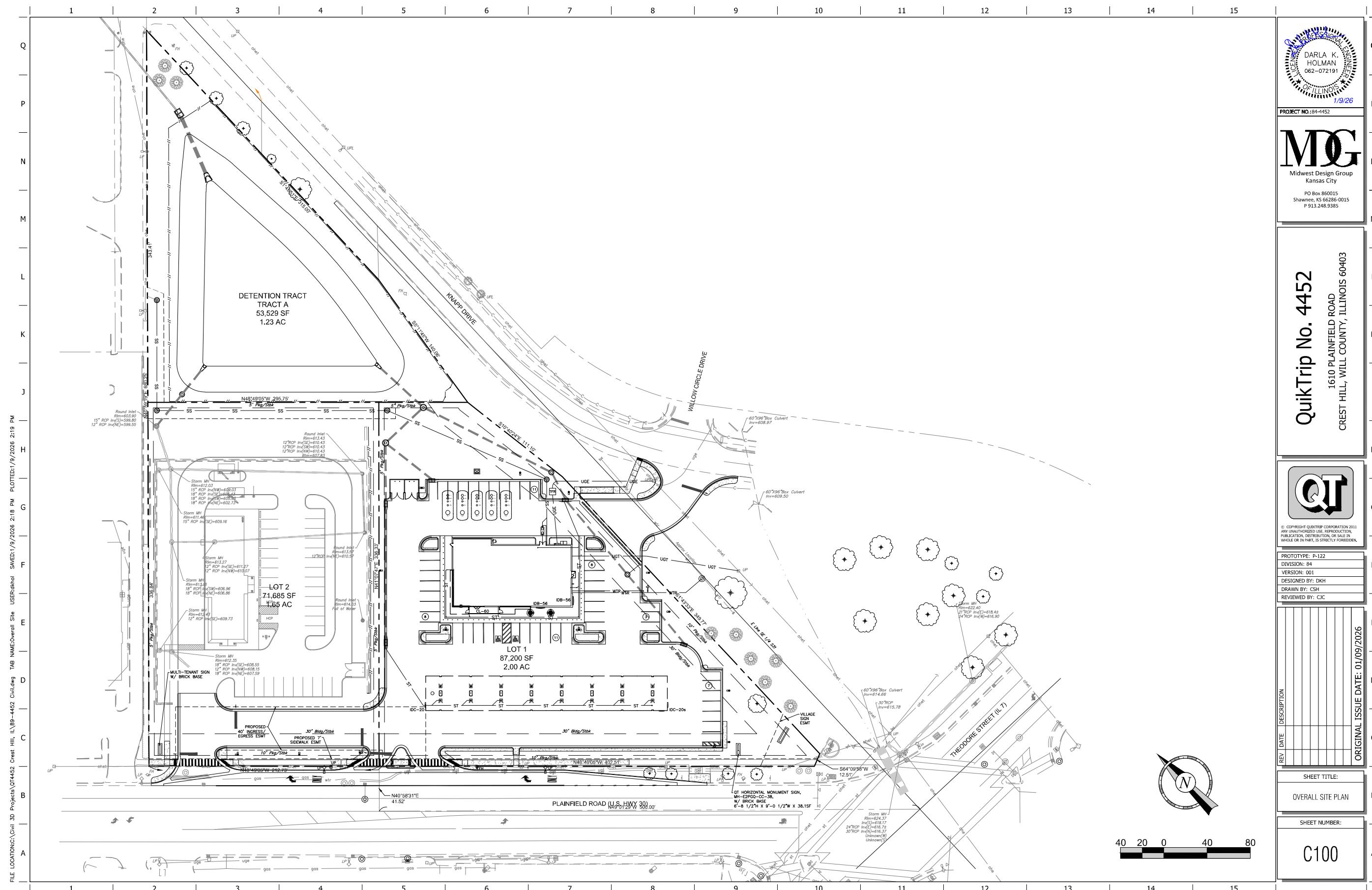


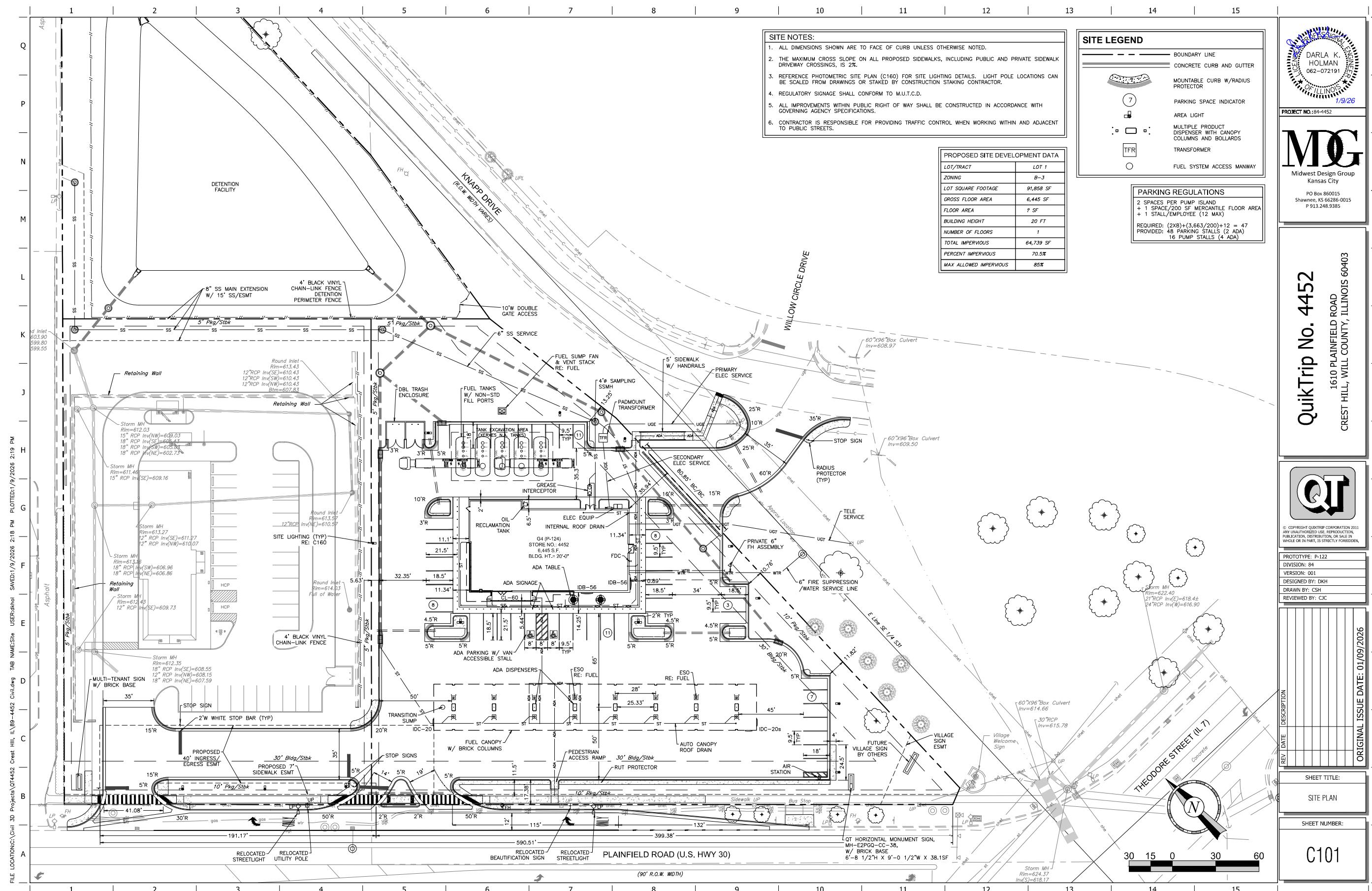
QuikTrip Store #4452

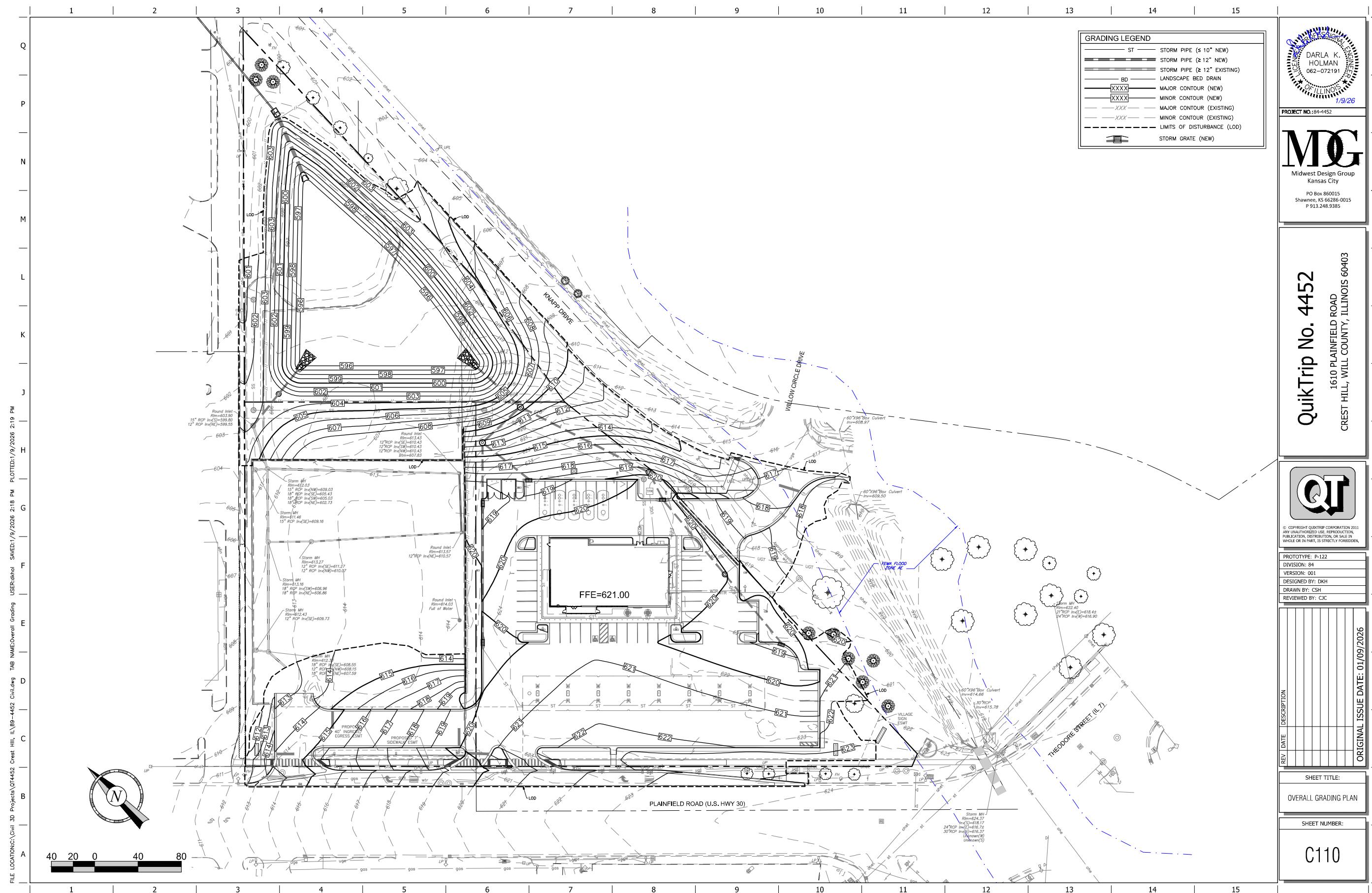
Plan Sheets

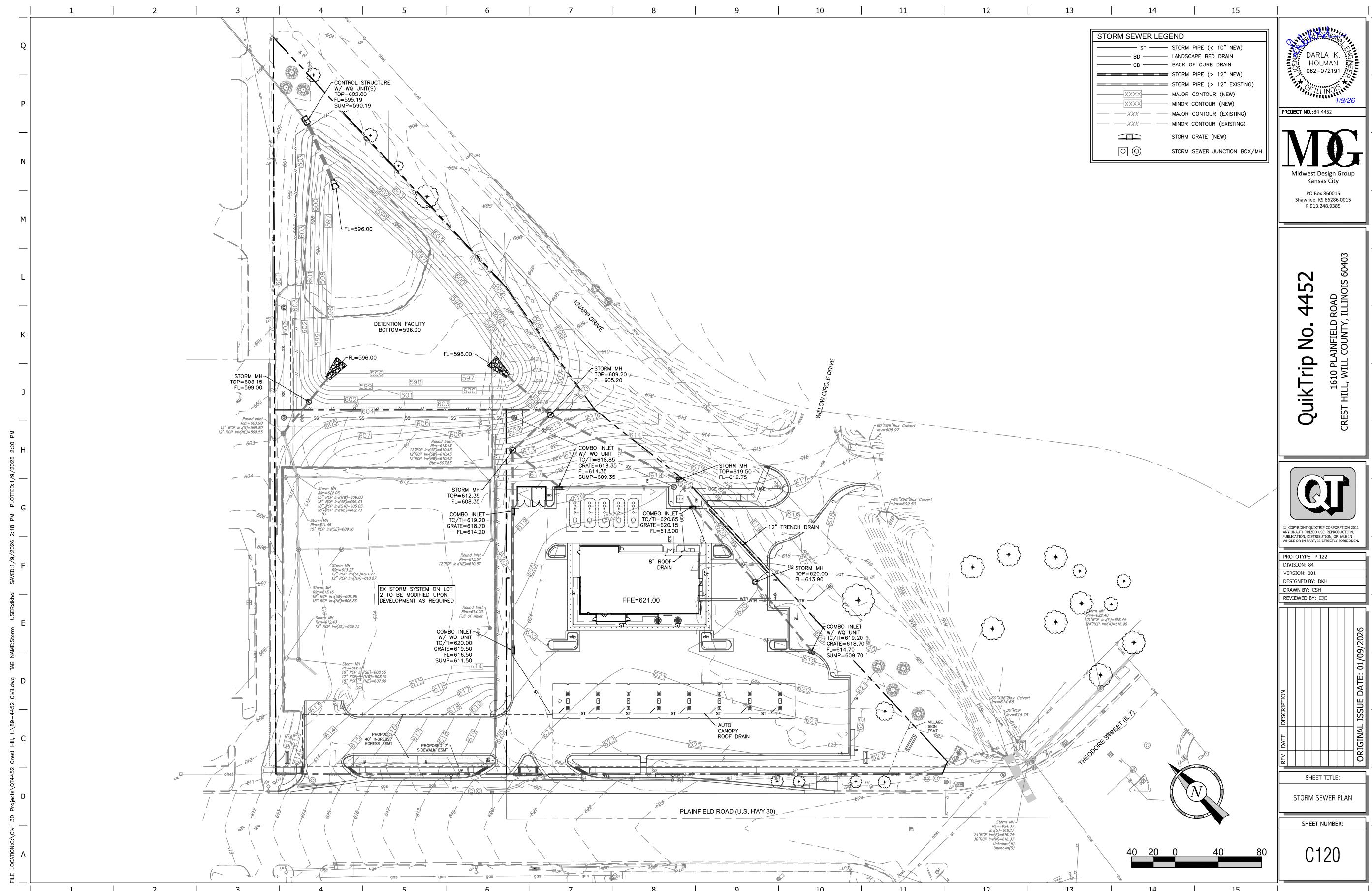


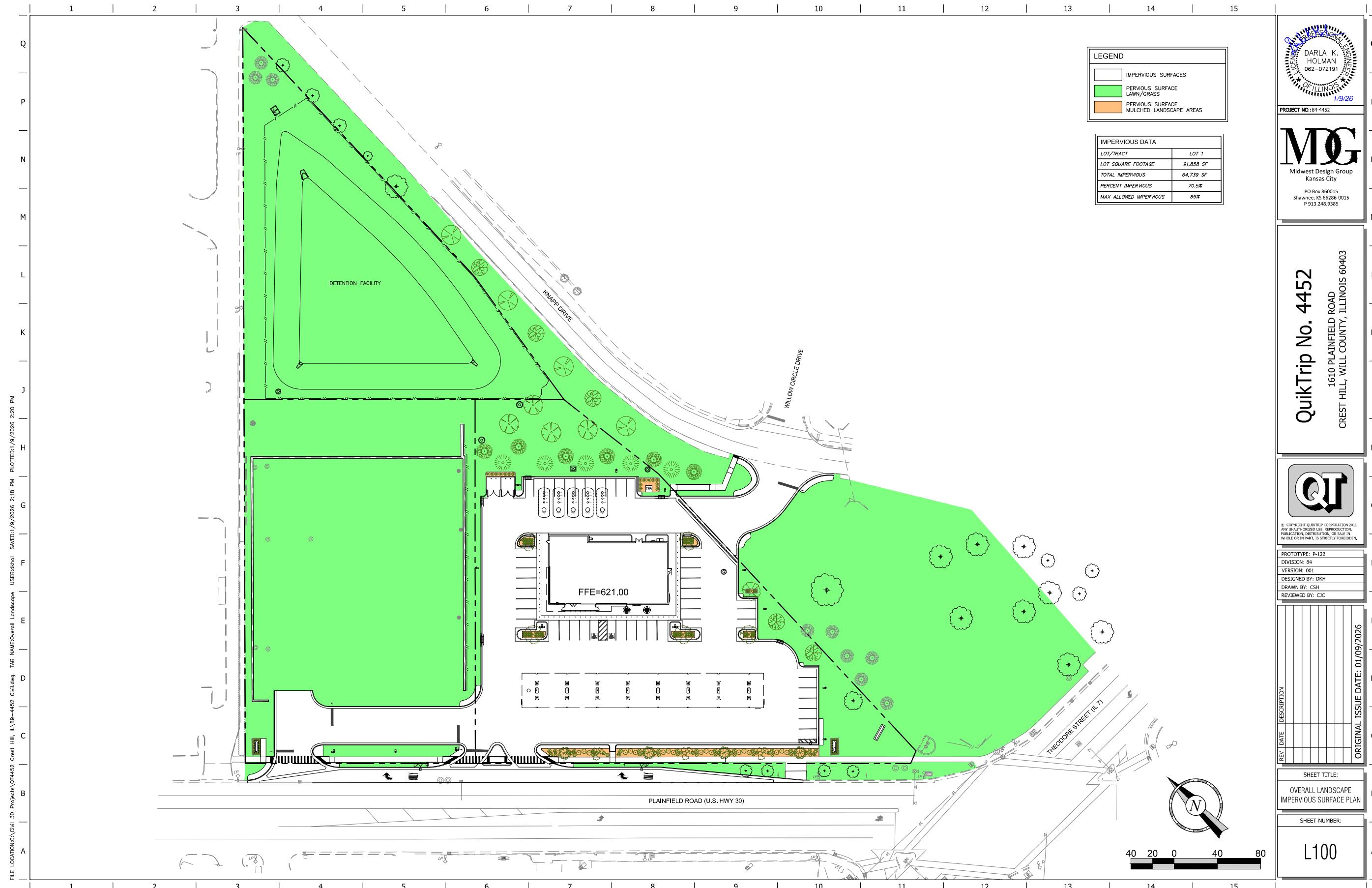


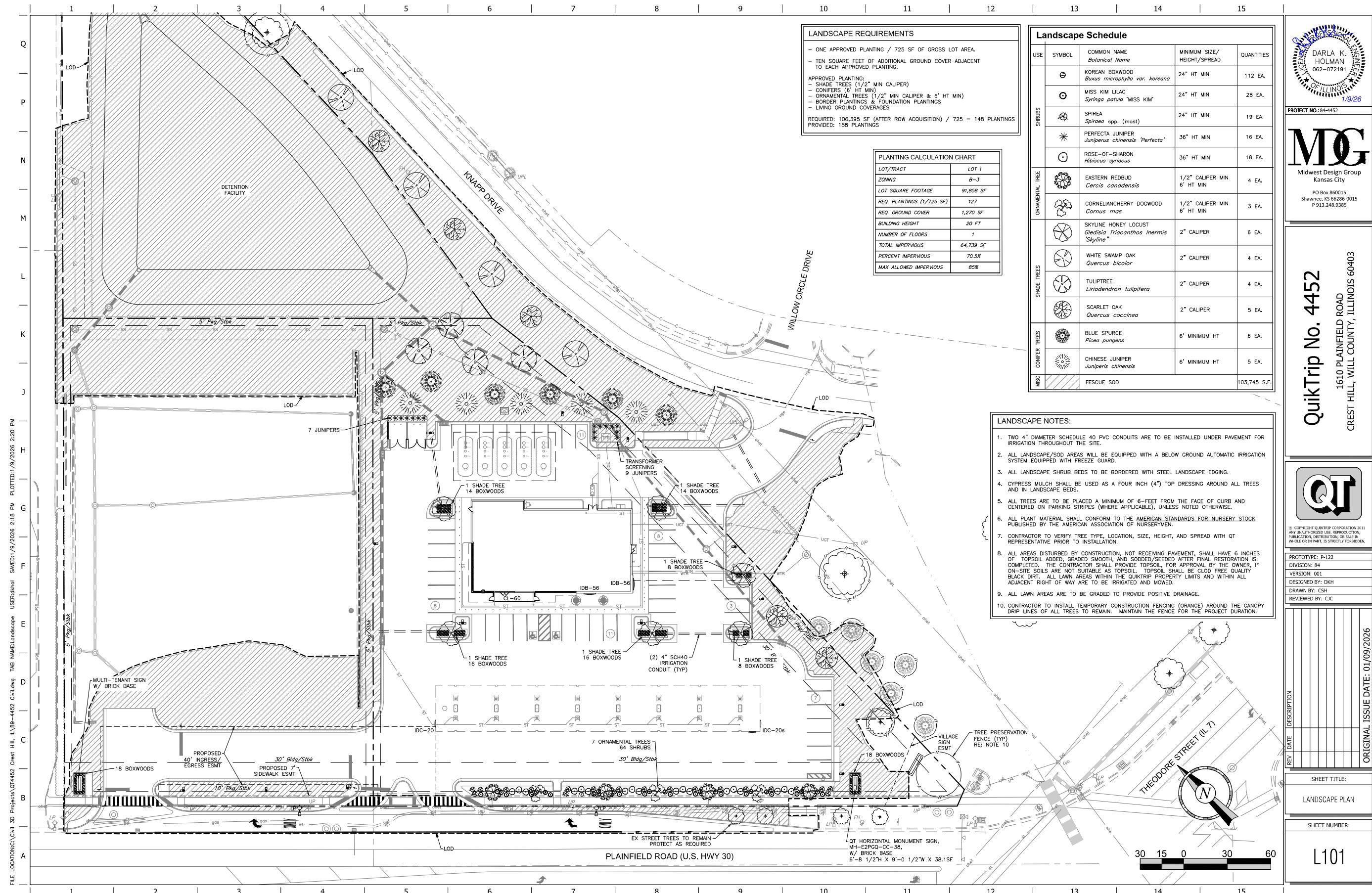












1/9/26
DARLA K.
HOLMAN
062-072191
PROJECT NO.:84-4452

MDG
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Kansas City
PO Box 860015
Shawnee, KS 66286-0015
P 913.248.9385

QuikTrip No. 4452
1610 PLAINFIELD ROAD
CREST HILL, WILL COUNTY, ILLINOIS 60403

QT
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PROTOTYPE: P-122
DIVISION: 84
VERSION: 001
DESIGNED BY: DKH
DRAWN BY: CSH
REVIEWED BY: CJC

ORIGINAL ISSUE DATE: 01/09/2026
REV DATE: DESCRIPTION
C
D
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P
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SHEET TITLE: LANDSCAPE PLAN
SHEET NUMBER: L101