

PLANNING COMMISSION AGENDA

Regular Meeting

April 10, 2024 at 7:00 PM



- 1) **CALL TO ORDER**
- 2) **ROLL CALL**
- 3) **APPROVAL OF MINUTES** - Items can be added or deleted from the Agenda by board action.
 - A. **MINUTES OF JANUARY 10, 2024 PLANNING COMMISSION MEETING**
- 4) **APPROVAL OF AGENDA** - Items can be added or deleted from the Agenda by board action.
 - A. **APPROVE APRIL 10, 2024 AGENDA**
- 5) **PUBLIC COMMENT ON AGENDA ITEMS** Persons addressing the board are required to give their name and address for the record when called upon by the Chair. Members of the public shall be limited to speaking for a maximum of five (5) minutes. Comments should address AGENDA ITEM topics. Public Hearing items should be addressed during the PUBLIC HEARING portion of the meeting agenda. Non-Agenda items should be addressed during the PUBLIC COMMENT-NON-AGENDA ITEMS portion of the meeting agenda.
- 6) **PUBLIC HEARINGS & SUBSEQUENT BOARD ACTION**
 - A. **SLU #24.01- 500 INDUSTRIAL ROAD SPECIAL LAND USE**
- 7) **OLD BUSINESS**
- 8) **REPORTS AND RECOMMENDATIONS/NEW BUSINESS**
 - A. **SP #24.01- 500 INDUSTRIAL ROAD SITE PLAN**
 - B. **SIGN ORDINANCE UPDATE PRESENTATION**
 - C. **PLANNING COMMISSION RULES OF PROCEDURE UPDATE**
 - D. **MASTER PLAN PROCESS**
 - E. **B-4 ZONING DISTRICT HEIGHT DISCUSSION**
- 9) **PUBLIC COMMENT ON NON-AGENDA ITEMS** Persons addressing the board are required to give their name and address for the record when called upon by the Chair. Members of the public shall be limited to speaking for a maximum of five (5) minutes. Comments should address NON-AGENDA ITEM topics. Public Hearing items should be addressed during the PUBLIC HEARING portion of the meeting agenda. Agenda items should be addressed during the PUBLIC COMMENT-AGENDA ITEMS portion of the meeting agenda.
- 10) **BOARD REPORTS**
- 11) **ADJOURNMENT**

PLANNING COMMISSION MINUTES

January 10, 2024
Regular Meeting - 7:00 PM

1) CALL TO ORDER

Chairman Banfield called the meeting to order at 7:00 PM.

2) ROLL CALL

Roll was called:

Present: Chair Banfield, Fitzgerald, Bright, McNiff, Stewart, Hodo

Also Present: Council Liaison Wolfersberger and Director Zuzga

Absent: Zuck, Burke Smith, Longyear

4) APPROVAL OF AGENDA - Items can be added or deleted from the Agenda by board action.

A. AGENDA OF JANUARY 10, 2024 PLANNING COMMISSION MEETING

Motion by McNiff, with support by Fitzgerald to approve the agenda as presented. On a voice vote: Motion carried.

3) APPROVAL OF MINUTES - Items can be added or deleted from the Agenda by board action.

A. MINUTES OF DECEMBER 13, 2023 PLANNING COMMISSION MEETING

Motion by Stewart, with support by McNiff to approve the December 13, 2023 minutes as presented. On a voice vote: Motion carried.

5) PUBLIC COMMENT ON AGENDA ITEMS Persons addressing the board are required to give their name and address for the record when called upon by the Chair. Members of the public shall be limited to speaking for a maximum of five (5) minutes. Comments should address AGENDA ITEM topics. Public Hearing items should be addressed during the PUBLIC HEARING portion of the meeting agenda. Non-Agenda items should be addressed during the PUBLIC COMMENT-NON-AGENDA ITEMS portion of the meeting agenda.

No comment provided.

6) PUBLIC HEARINGS & SUBSEQUENT BOARD ACTION

7) OLD BUSINESS

8) REPORTS AND RECOMMENDATIONS/NEW BUSINESS

A. ELECTION OF OFFICERS

Motion by Fitzgerald, with support by Bright to nominate McNiff for Chair. With no further nominations, nominations were closed. On a voice vote: Motion carried.

Motion by McNiff, with support by Bright to nominate Banfield for Vice-Chair. With no further nominations, nominations were closed. On a voice vote: Motion carried.

B. PLANNING COMMISSION ORIENTATION/TRAINING

Zuzga provided an orientation/training program for the Planning Commission. A list of resources for further reading was provided to the board. A draft of an updated Planning Commission Rules and Procedures was provided to the Planning Commission to review for consideration at an upcoming meeting.

- 9) PUBLIC COMMENT ON NON-AGENDA ITEMS** Persons addressing the board are required to give their name and address for the record when called upon by the Chair. Members of the public shall be limited to speaking for a maximum of five (5) minutes. Comments should address NON-AGENDA ITEM topics. Public Hearing items should be addressed during the PUBLIC HEARING portion of the meeting agenda. Agenda items should be addressed during the PUBLIC COMMENT-AGENDA ITEMS portion of the meeting agenda.

No comment was provided.

10) BOARD REPORTS

Chair Banfield welcomed new Commissioner Aaron Hodo. Hodo introduced himself and provided information on his background and desire to serve on the Planning Commission.

11) ADJOURNMENT

With no further business before the Planning Commission, Chair Banfield adjourned the meeting at 9:01 PM.



ITEM 6.A

TO: Planning Commission
FROM: Eric Zuzga, Director of Community Services
DATE: April 10, 2024
SUBJECT: **SLU #24.01- 500 INDUSTRIAL ROAD SPECIAL LAND USE**

Case #: SLU#24.01
Address: 500 Industrial Road
Parcel #: 53-002-552-01 and 53-002-560-00
Zoning District: Research and Technical District (I-1)
Surrounding Zoning: Multi Family Residential (MFRD) to the west, I-1 to the north and east, and I-2 to the south
Surrounding Uses: Single family residential to the west; industrial to the north, south, and east
Previous Action: N/A

Don Loveland has proposed the development of a self-storage facility on the above parcels which includes four buildings. Self-storage facilities are a special land use in the I-1 zoning district. As required, a public hearing notice was published in the Advisor and notices were mailed to all property owners within 300' of the site. A site plan for the project is also on this agenda and is included in the packet.

The following standards are to be used in considering whether to approve the special land use request:

A. The proposed use shall be in accordance with the City Master Plan and the intent and purpose of this subchapter

The proposed use meets the intent of the subchapter and the city master plan.

B. A documented and immediate need exists for the proposed use within the community.

While there are a few self-storage facilities in the surrounding townships, there is still a demand in the community.

C. The use is compatible with adjacent uses and the existing or intended character of the surrounding neighborhood, and will not have an adverse impact upon or interfere with the development, use or enjoyment of adjacent properties, or the orderly development of the neighborhood.

The use is compatible with the character of the neighborhood and will improve the appearance of the two parcels. No adverse impact on the enjoyment of neighboring parcels or development of the neighborhood is expected.

D. The proposed use shall be designed, constructed, operated and maintained so as to be

compatible with the use of adjacent lands.

The proposed project is an improvement on the current vacant lot and the proposed site plan is compatible with adjacent properties. Screening will be provided for the residential properties to the west.

E. The proposed use shall be compatible with the natural environment.

There is no expectation that there will be a negative impact on the environment.

F. The proposed use shall be adequately served by essential public facilities and services, such as highways, streets, police and fire protection, drainage structures, refuse disposal, water and sewage facilities and schools.

There is no expectation that the use will have an impact on the items in this section. Traffic will increase over the current use of the property, but the surrounding streets have the capacity to serve the site. The proposed use will not have any impact on water, sewer, schools, or refuse. The impact on police and fire is expected to be minimal. The storm water plan has been approved by the Spicer Group, a consultant to the Department of Public Services.

G. The proposed use shall not involve activities, processes, materials and equipment or conditions of operation that will be detrimental to public health, safety and welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or unreasonable or offensive odors.

The City Development Review Team found that there would be no detriment to public health, safety, or welfare. There is no expectation that the site will cause unreasonable traffic.

BUDGET IMPACT:

RECOMMENDATION:

Based on the findings above, staff recommends approval of Special Land Use #24.01 for the self-storage facility on the above parcels.

SPECIAL LAND USE APPLICATION

City of Marshall

Fee \$250.00

Section 6.2 of the Marshall City Zoning Ordinance gives citizens the opportunity to file for a Special Land Use Permit when it is required by zoning district.

Process

- ☐ Application, fee, and all required materials are submitted by due date. Once found to be complete, the application is placed on the Planning Commission agenda for acceptance.
- ☐ **Planning Commission meeting #1:** At this meeting, a public hearing is scheduled for the following month.
- ☐ Neighbors within 300 feet of the property seeking special land use are notified of the public hearing.
- ☐ **Planning Commission meeting #2:** Public hearing is held and discussion takes place. A recommendation on the application is given for City Council.
- ☐ **City Council meeting:** Item is placed on the agenda, a staff report and Planning Commission comments are offered for review and City Council grants final approval, disapproval, or approval with conditions.

Address of subject property 500 Industrial Rd, & 100 Page St

Applicant's name Donald Loveland Phone 254-423-2869

Applicant's address 5703 Sounding Eagle Way City Butte Creek Zip 77014

Owner's Name _____ Phone _____

Owner's Address _____ City _____ Zip _____

Explain need for a Special Land Use permit at the subject property (attach more if necessary):

Self-Storage Facility

Applicant's Signature [Signature] Date 2/13/21

Owner's Signature _____ Date _____

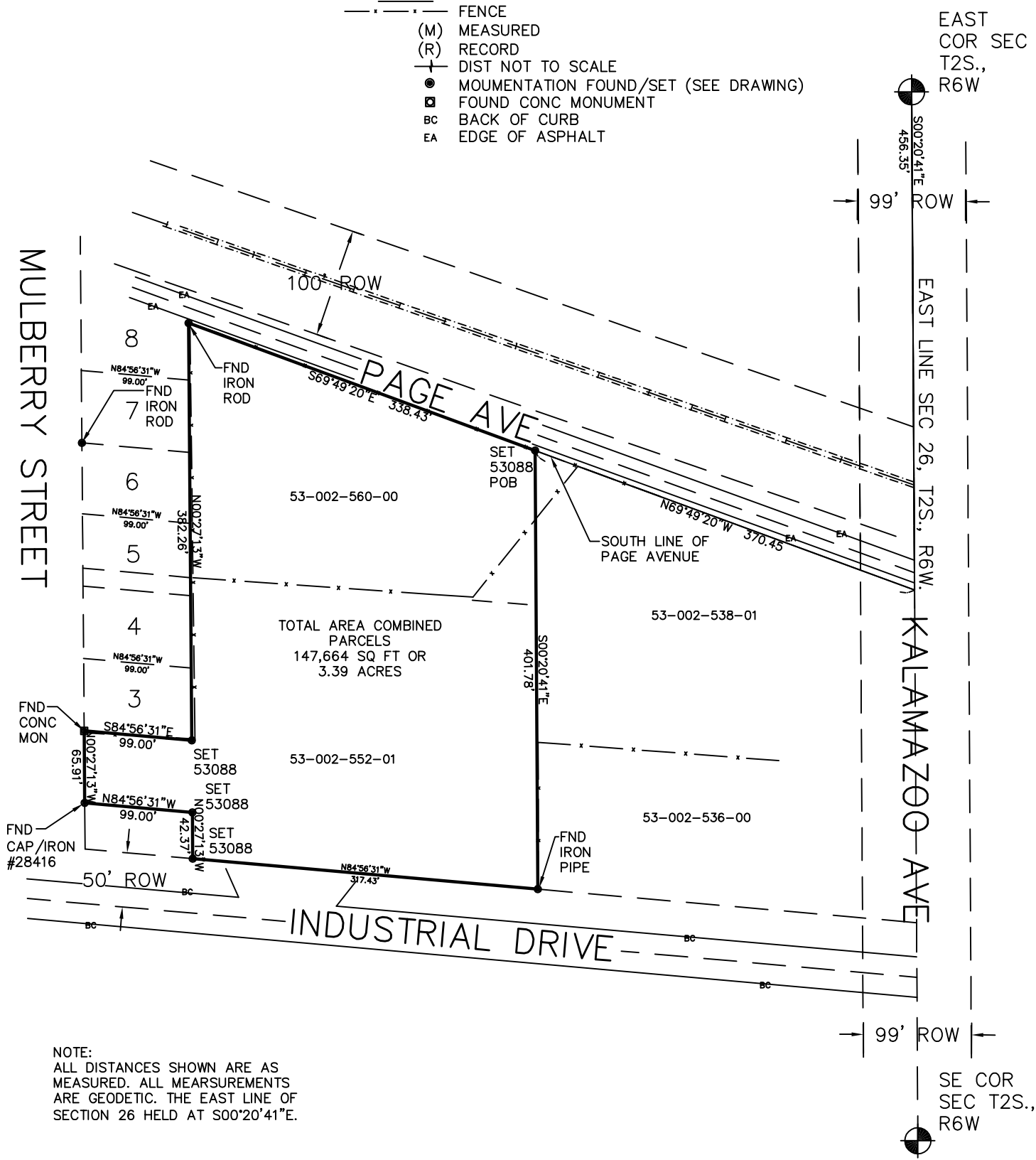
The following items MUST be submitted for the application to be complete:

- ☐ A plot plan showing property boundaries and legal description
- ☐ Existing structures, uses and zoning on subject and adjacent properties
- ☐ Location of all abutting streets, easements, and similar public areas
- ☐ Proposed compliance plan (if applicable) including hours, signs, parking, etc.

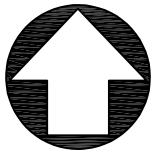
CERTIFICATE OF SURVEY

BOUNDARY SURVEY TO COMBINE PARCELS 53-002-560-00 AND
53-002-552-01 WITHIN
THE CITY OF MARSHALL, MICHIGAN.

- LEGEND
- FENCE
 - (M) MEASURED
 - (R) RECORD
 - + DIST NOT TO SCALE
 - MOUMENTATION FOUND/SET (SEE DRAWING)
 - FOUND CONC MONUMENT
 - BC BACK OF CURB
 - EA EDGE OF ASPHALT

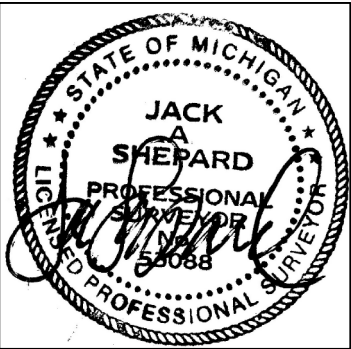


SCALE: 1"=125'
DATE: 22 AUG 2023
DRAWN BY: JAS
PROJECT NO.: 23-0062
PAGE: 1 OF 3



NORTH

CERTIFIED TO:
MR. DONALD LOVELAND



SHEPARD PROFESSIONAL SURVEYING, P.C.
3 HERITAGE OAK LANE
BATTLE CREEK, MICHIGAN 49015
shepprosurv.com
269-963-SURV

JACK A. SHEPARD, P.S. #53088

CERTIFICATE OF SURVEY

BOUNDARY SURVEY TO COMBINE PARCELS 53-002-560-00 AND
53-002-552-01 WITHIN
THE CITY OF MARSHALL, MICHIGAN.

LAND DESCRIPTION AS PART OF A WARRANTY DEED RECORDED IN LIBER 4398, PAGE 0171,
CALHOUN COUNTY RECORDS.

A.
PARCEL 1: 100 PAGE STREET 53-002-560-00
COMMENCING AT A POINT ON THE WEST LINE OF KALAMAZOO AVENUE 16.5 FEET SOUTH OF THE
SOUTH LINE OF THE MICHIGAN CENTRAL RAILROAD COMPANY MAIN LINE RIGHT OF WAY; THENCE
NORTHWESTERLY ALONG THE SOUTHERLY LINE OF THE MICHIGAN CENTRAL RAILROAD COMPANY
RIGHT OF WAY AND 16.5 FEET DISTANT THEREFROM 325.1 FEET TO A POINT WHICH IS THE PLACE
OF BEGINNING OF THIS DESCRIPTION; THENCE NORTHWESTERLY, ALONG THE SOUTHERLY LINE OF
THE MICHIGAN CENTRAL RAILROAD COMPANY RIGHT OF WAY AND 16.5 FEET DISTANT THEREFROM
325.1 FEET; THENCE SOUTH, PARALELL WITH THE WEST LINE OF KALAMAZOO AVENUE, ALONG THE
BOUNDARY LINE OF MARTIN AND HATCH ADDITION, ABOUT 230 FEET TO AN IRON STAKE LOCATED
ABOUT 6 FEET NORTH OF THE NORTH RAIL OF THE MICHIGAN CENTRAL RAILROAD COMPANY
SIDETRACK IF PROLONGED; THENCE EASTERLY, PARALLEL WITH THE ABOVE MENTIONED SIDETRACK
AND AT A DISTANCE OF 6 FEET NORTH OF THE NORTH RAIL THEREOF, 306.65 FEET TO AN IRON
STAKE; THENCE NORTH, PARALLEL WITH THE WEST LINE OF KALAMAZOO AVENUE 142 FEET, TO
THE PLACE OF BEGINNING OF THIS DESCRIPTION.

SAID PARCEL OF LAND BEING BOUNDED ON THE NORTH BY AN ALLEY WAY, 1 ROD IN WIDTH,
ADJOINING THE MICHIGAN CENTRAL RAILROAD COMPANY MAIN LINE RIGHT OF WAY; ON THE WEST
BY THE EAST LINE OF THE MARTIN AND HATCH ADDITION; AND ON THE SOUTH BY THE MICHIGAN
CENTRAL RAILROAD COMPANY SIDETRACK RIGHT OF WAY; AND ADJACENT ON THE NORTH BY THE
PROPERTY OF THE LAMBER MACHINE COMPANY; AND ON THE EAST BY THE BALANCE OF THE L.H.
VAUGHN AND BLAIR VAUGHN COMPANY.

EXCEPT A PARCEL DESCRIBED IN LIBER 722 ON PAGE 515, CALHOUN COUNTY RECORDS AS
FOLLOWS:

BEGINNING AT A POINT WHICH LIES DUE SOUTH 493.40 FEET, DUE WEST, 49.50 FEET AND NORTH
85°09' WEST, 306.65 FEET FROM THE EAST QUARTER POST OF SECTION 26, TOWN 2 SOUTH,
RANGE 6 WEST; THENCE NORTH 85°09' WEST, 50.35 FEET; THENCE NORTH 38°56' EAST, 80.22
FEET; THENCE SOUTH 00°13' WEST, 66.68 FEET TO THE POINT OF BEGINNG.

ALSO BEGINNING AT A POINT ON THE SOUTHERLY LINE OF PAGE STREET, WHICH LIES DUE SOUTH
437.00 FEET, DUE WEST 49.90 FFET AND NORTH 69°40' WEST, 275.20 FEET FROM THE EAST
QUARTER POST OF SECTION 26, TOWN 2 SOUTH, RANGE 6 WEST, THENCE SOUTH 38°56' WEST,
75.08 FEET; THENCE NORTH 00°13' EAST, 75.75 FEET; THENCE SOUTH 69°40' EAST, 50.00 FEET
TO THE POINT OF BEGINNING.

ALL OF THE ABOVE DESCRIBED PROPERTY BEING LOCATED IN THE NORTHEAST QUARTER OF THE
SOUTHEAST QUARTER OF SECTION 26, TOWN 2 SOUTH, RANGE 6 WEST.

PARCEL 2:
THAT PART OF LOT #1 OF MARTIN AND HATCH’S ADDITION TO THE CITY OF MARSHALL LYING
NORTH OF INDUSTRIAL ROAD, THE SAME BEING ALSO DESCRIBED AS:

BEGINNING AT THE NORTHEAST CORNER OF LOT #1 OF MARTIN AND HATCH’S ADDITION TO THE
CITY OF MARSHALL; THENCE SOUTH ALONG THE EAST LINE OF SAID LOT 46.00 FEET TO A POINT
ON THE NORTH RIGHT OF WAY LINE OF THE OLD D.T. & M. RAILROAD; THENCE SOUTH 84°59’30”
EAST ALONG SAID LINE 30.00 FEET; THENCE NORTHEASTERLY ALONG A CURVE TO THE RIGHT
185.00 FEET (RADIUS 369.0 FEET, CHORD NORTH 51°45’ EAST 183.06 FEET); THENCE SOUTH 69°31
26” WEST 184.88 FEET TO THE PLACE OF BEGINNING.

SCALE: 1"=125'	 NORTH	CERTIFIED TO: MR. DONALD LOVELAND	
DATE: 22 AUG 2023			
DRAWN BY: JAS			
PROJECT NO.: 23-0062			
PAGE: 2 OF 3			
SHEPARD PROFESSIONAL SURVEYING, P.C. 3 HERITAGE OAK LANE BATTLE CREEK, MICHIGAN 49015 shepprosurv.com 269-963-SURV		JACK A. SHEPARD, P.S. #53088	

CERTIFICATE OF SURVEY

BOUNDARY SURVEY TO COMBINE PARCELS 53-002-560-00 AND
53-002-552-01 WITHIN
THE CITY OF MARSHALL, MICHIGAN.

LAND DESCRIPTION AS PART OF A WARRANTY DEED RECORDED IN LIBER 3879, PAGE 0225,
CALHOUN COUNTY RECORDS.

B.
500 INDUSTRIAL, 53-002-552-01

LAND SITUATED IN THE CITY OF MARSHALL, COUNTY OF CALHOUN, STATE OF MICHIGAN AS
FOLLOWS:

A PARCEL OF LAND LOCATED IN THE SOUTHEAST QUARTER OF SECTION 26, TOWN 2 SOUTH,
RANGE 6 WEST, BEING A PROPERTY DESCRIBED AS:

COMMENCING ON THE WEST LINE OF KALAMAZOO AVENUE 132 FEET NORTH OF THE NORTH LINE
OF INDUSTRIAL ROAD, WESTERLY PARALLEL WITH INDUSTRIAL ROAD, 297 FEET TO THE PLACE OF
BEGINNING; THENCE SOUTH 132 FEET TO INDUSTRIAL ROAD; THENCE WESTERLY ALONG INDUSTRIAL
ROAD TO THE EAST LINE OF LOT 1, MARTIN & HATCH NORTH TO A POINT 17.8 FEET NORTH OF
THE SOUTHEAST CORNER OF LOT 5, MARTIN & HATCH; THENCE EASTERLY PARALLEL TO
INDUSTRIAL ROAD, 256.75 FEET TO A POINT (BEING A POINT SOUTH 38°49'08" WEST, 154.16 FEET
OF THE SOUTH LINE OF CONRAIL RAILROAD); THENCE SOUTH 84°46'50" EAST, 60.10 FEET;
THENCE SOUTH 00°12'31" WEST, 129.78 FEET TO THE PLACE OF BEGINNING.

ALSO LOT 2 OF MARTIN & HATCH ADDITION.

NEW COMBINED PARCEL

LAND DESCRIPTION

LAND SITUATED IN THE CITY OF MARSHALL, COUNTY OF CALHOUN, STATE OF MICHIGAN AS
FOLLOWS:

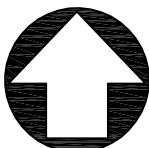
A PARCEL OF LAND LOCATED IN THE SOUTHEAST QUARTER OF SECTION 26, TOWN 2 SOUTH,
RANGE 6 WEST, BEING MORE PARTICULARILY DESCRIBED AS:

COMMENCING AT THE EAST QUARTER CORNER OF SECTION 26, TOWN 2 SOUTH, RANGE 6 WEST,
CALHOUN COUNTY, MICHIGAN; THENCE SOUTH 00°20'41" EAST ALONG THE EAST LINE OF SAID
SECTION 26, 456.35 FEET TO THE SOUTHERLY LINE OF PAGE AVENUE EXTENDED; THENCE NORTH
69°49'20" WEST ALONG SAID SOUTH LINE OF PAGE AVENUE 370.45 FEET TO THE POINT OF
BEGINNING; THENCE SOUTH 00°20'41" EAST AND PARALLEL WITH THE EAST LINE OF SAID SECTION
26, 401.78 FEET TO THE NORTH LINE OF INDUSTRIAL DRIVE; THENCE NORTH 84°56'31" WEST
317.43 FEET ALONG SAID NORTH LINE OF INDUSTRIAL DRIVE TO THE EASTERLY LINE OF MARTIN &
HATCH ADDITION; THENCE NORTH 00°27'13" WEST 42.37 FEET ALONG THE EASTERLY LINE OF SAID
MARTIN & HATCH ADDITION; THENCE NORTH 84°56'31" WEST 99 FEET TO THE EASTERLY LINE OF
MULBERRY STREET; THENCE NORTH 00°27'13" WEST ALONG THE EASTERLY LINE OF SAID
MULBERRY STREET 65.91 FEET; THENCE SOUTH 84°56'31" EAST 99 FEET TO THE EASTERLY LINE
OF SAID MARTIN & HATCH ADDITION; THENCE NORTH 00°27'13" WEST ALONG THE EASTERLY LINE
OF MARTIN & HATCH ADDITION 382.26 FEET TO THE SOUTH LINE OF SAID PAGE AVENUE; THENCE
SOUTH 69°49'20" EAST ALONG THE SOUTH LINE OF SAID SOUTHERLY LINE OF PAGE AVENUE
338.43 FEET BACK TO THE POINT OF BEGINNING OF THIS DESCRIPTION.

SUBJECT TO ALL EASEMENTS, RESTRICTIONS AND RESERVATIONS OF RECORD OR OTHERWISE.

SURVEYOR NOTE:

ASSIGNED TO COMBINE PARCELS 53-002-560-00 AND 53-002-552-01. THE MAJORITY OF THE
RECORDED LAND DESCRIPTIONS FOR THESE PARCELS ARE INDISCERNIBLE AT BEST. HENCE, ALL
DESCRIPTIONS FOR ALL LANDS WITHIN THE ASSOCIATED BLOCK HAVE BEEN STUDIED AND
ACCOUNTED FOR. THAT SAID, THE BELIEVED INTENT OF THE PREVIOUS PARTIES INVOLVED HAVE
BEEN DEALT WITH AND FAIRLY TREATED TO THE BEST OF MY ABILITY. JAS

SCALE: 1"=125'	 NORTH	CERTIFIED TO: MR. DONALD LOVELAND	
DATE: 22 AUG 2023			
DRAWN BY: JAS			
PROJECT NO.: 23-0062			
PAGE: 3 OF 3			
SHEPARD PROFESSIONAL SURVEYING, P.C. 3 HERITAGE OAK LANE BATTLE CREEK, MICHIGAN 49015 shepprosurv.com 269-963-SURV			JACK A. SHEPARD, P.S. #53088

DRAINAGE DESIGN CHECKLIST FOR ACCESSING STATE TRUNKLINE DRAINAGE SYSTEMS

This checklist provides the required information necessary for MDOT review of drainage connections within MDOT right of way (ROW). Use MDOT's [Drainage Manual](#) as the primary reference for hydrologic and hydraulic calculations. MDOT will not accept drainage connections from properties that do not naturally drain to the MDOT ROW.

Base Information *(Provide all)*

- ☒ Contour map of existing and proposed conditions
- ☒ Hydrologic analysis of existing and proposed conditions (Rational or modified rational methods are not acceptable for determining volume)
- ☒ Plans of proposed stormwater conveyance system
- ☒ Outlet control details (limit discharge rate to MDOT piped systems to 6 fps or less)
- ☐ Connection details to MDOT system
- ☒ Hydrologic and hydraulic design calculations. (Digital copy of modeling program required when computer application is used)

Information for Detention/Retention/Infiltration Basins

- ☒ Elevation vs storage table or curve
- ☒ Elevation vs discharge table or curve (excluding infiltration component)
- ☒ Soil boring information showing groundwater elevations. Borings should be taken at the deepest elevation of the basin(s) and advanced to a minimum depth of 5 ft
- ☐ Permeability test results (infiltration basins only)

Flood Routing Method *(Choose one. Required for sites with detention/retention/infiltration)*

- ☐ NRCS TR55
- ☒ TR20
- ☐ Modified Puls Method
- ☐ HEC-1
- ☐ Other _____

Note: The rational or modified rational methods are not acceptable for flood routing. Computer programs must use a hydrograph to calculate runoff volume for routing calculations.

National Pollutant Discharge Elimination System (NPDES) Information

- ☐ Applicant verifies that the discharge to MDOT's stormwater system will not cause a violation of [MDOT's NPDES Stormwater Discharge Permit](#)
- ☐ Calculations showing the discharge rate to the MDOT drainage system for the 2-yr., 24-hr storm will not increase compared to existing conditions
- ☐ Documentation that the first inch of runoff from the site to the MDOT drainage system will be treated to remove 80% of total suspended solids using a NJDEP certified manufactured treatment device or provide calculations showing at least an 80% sediment removal efficiency for other treatment methods

Additional Information *(Provide all that apply)*

- ☐ Private drainage easement(s)
(Required when multiple properties share the proposed drainage system)
- ☐ NPDES stormwater industrial permit Certificate of Coverage
(Required when stormwater discharge associated with industrial activities defined by 40 CFR 122.26(b)(14))
- ☐ Energy dissipation details to control discharge velocities
(Required when proposed velocity is 6 fps or greater entering a non-enclosed MDOT system)
- ☐ Local stormwater requirements
(Required when either flows or storage volumes are more restrictive than MDOT's requirements. Meeting local requirements may not meet MDOT requirements.)
- ☒ Flow restrictors (i.e., orifice plates/caps) must not be removable
- ☒ Input and output reports in pdf format for the range of flows (Required when computer application is used)
- ☒ Outlet pipe is outside MDOT ROW unless directly connected to manhole/catch basin

**** Failure of the applicant to submit all required materials will result in delays or rejection of the application.****

DRAINAGE DESIGN CHECKLIST FOR ACCESSING STATE TRUNKLINE DRAINAGE SYSTEMS

ALL FIELDS SHALL BE COMPLETED BY THE APPLICANT

Data Summary

Site Information			Existing			Proposed				
Drainage Area (Acres)			2.55			3.74				
Site % Impervious			6			51				
Frequency	Existing flow to MDOT ROW		Proposed flow to MDOT ROW							
			Without Detention			With required detention*				
	Discharge (cfs)	Runoff Volume (cft)	Discharge (cfs)	Velocity ** (ft/s)	Runoff Volume (cft)	Discharge (cfs)	Velocity (ft/s)	Reguired Storage Volume * * * (cft)	Design Storage Volume (cft)	Water Surface Elevation (ft)
	2-year Storm Event	1.01	5,091	10.81	N/A	19,821	0.13	0.17	14,730	16,213
10-year Storm Event	2.44	11,200	17.39	N/A	32,854	0.17	0.22	21,654	32,117	901.3
50-year Storm Event	4.56	20,549	25.79	N/A	50,096	0.21	0.27	29,547	52,227	902.0
100-year Storm Event * * * *	5.69	25,641	29.99	N/A	58,921	0.22	0.28	33,280	64,495	902.4

* Not required if proposed discharge is less than or equal to the existing discharge without detention.

** Not applicable (N/A) if "sheet flow" into MDOT ROW or detention is proposed.

*** Difference in volume between the proposed and existing conditions. N/A if proposed volume is less than or equal to existing volume.

**** Harmful Interference Evaluation.

Certification

I, Randy A. Ramsey, P.E., have prepared the attached plans and specifications for the
(Print your name)

proposed drainage system. The proposed flow from this drainage system is discharged at a flow rate equal to or less than the existing flow rate conditions into the MDOT stormwater conveyance system; the velocity discharged is properly dissipated; there is storage on the permit applicant's property for the range of flows above so that no harmful interference to MDOT ROW or adjacent properties will be caused. This discharge to MDOT's stormwater system will not cause a violation of MDOT's NPDES stormwater discharge permit and the site is designed to include best management practices (BMPs) to treat the first inch of runoff to achieve 80% total suspended sediment removal. A maintenance plan is developed to ensure the long-term operation of the BMPs.



Signature , P.E.

Michigan Professional Engineer License Number 6201036132

This document shall be sealed in the space to the left and submitted with the application.

Hydrologic and Hydraulic Design Calculations

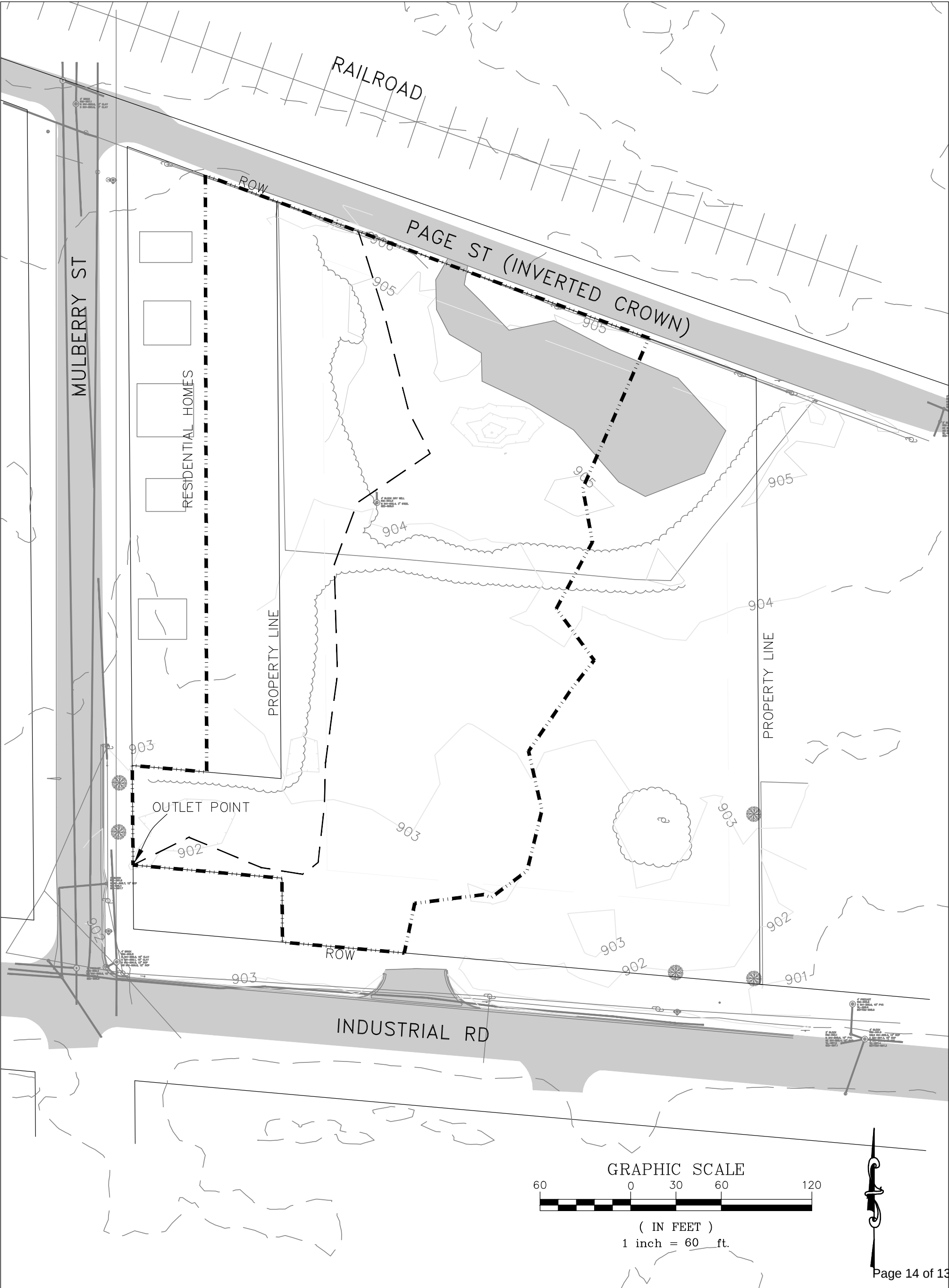
Design Summary:

A 3.4 acre site that currently is mostly meadow and brush will be developed into a site that will have a high percentage of the site being storage units and pavement. The surface water runoff from the site currently goes to two different storm sewer systems that are in the MDOT ROW and that collect runoff from the MDOT roadway and discharges to the Kalamazoo River. Due to existing contamination in the ground, infiltration of runoff is not allowed for fear of contaminants travelling into the groundwater and possibly into the Kalamazoo River. The two proposed stormwater management basins will be lined with a 30 mil PVC liner. The basins are connected by a pipe so they will act as a single basin. The basins are sized to store a 100-year storm with outflow to the west storm sewer system, being controlled by 1.5" and 2" orifices. This will ensure the postconstruction outflow rate will match or be lower than the preconstruction outflow rate for the 2-year and greater storm events. Stormwater will be treated using a Contech Cascade Separator.

Long-term maintenance plan would be to ensure that the stormwater management basins have sediment removed to keep their original dimensions and to regularly monitor the Cascade Separator for sediment buildup.

PRECONSTRUCTION CONDITIONS

- TRIBUTARY AREA
- FLOW PATH FOR T_c
- IMPERVIOUS SURFACE

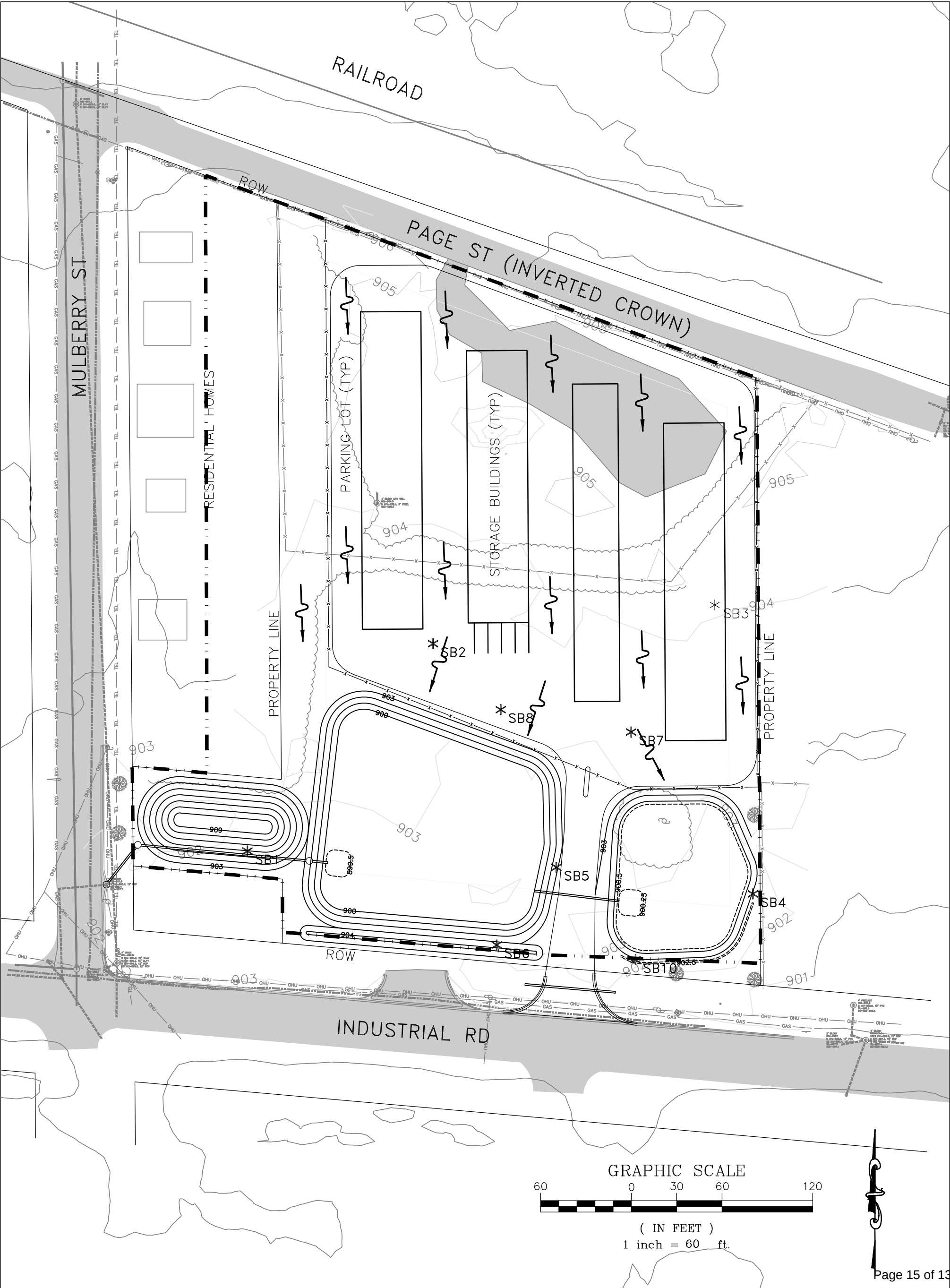


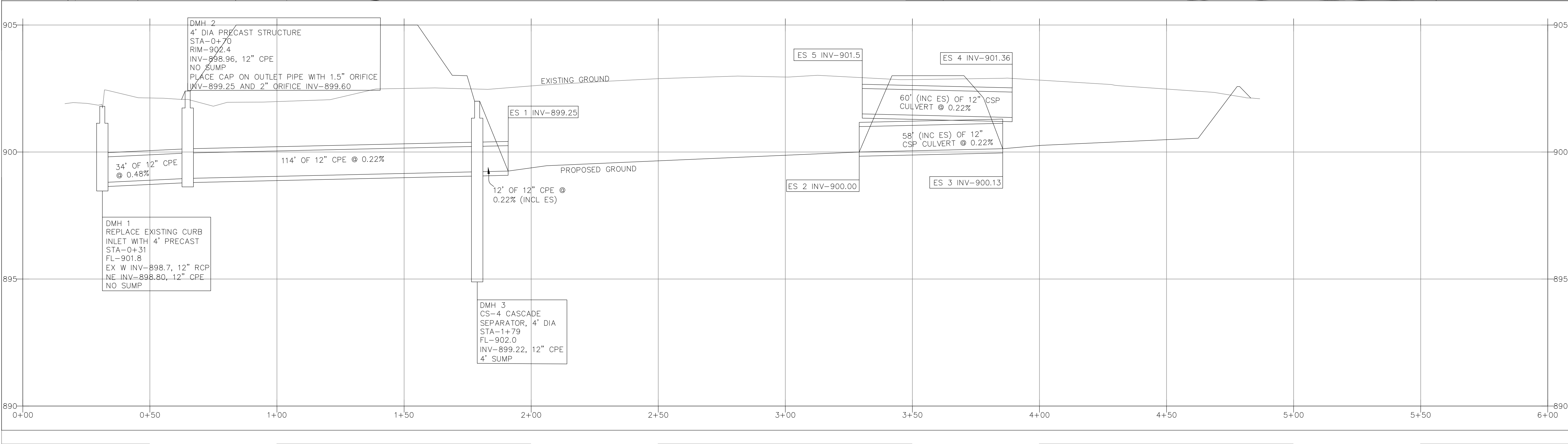
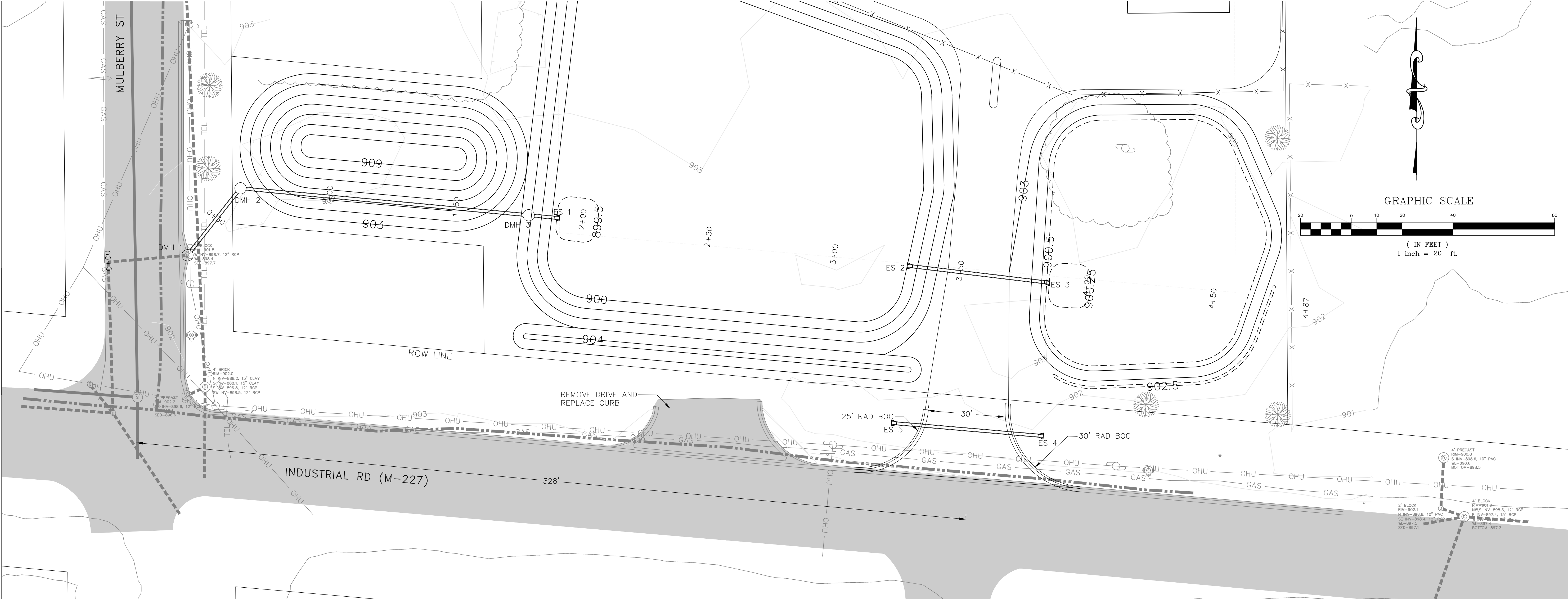
PROPOSED CONDITIONS

SOIL BORING#	DEPTH TO GW (FT)
1	6
2	6
3	7
4	5
5	4
6	5
7	5
8	5
10	4

- TRIBUTARY AREA
- FLOW DIRECTION
- * SB7

SOIL BORING





Civil Engineers Inc.
14250 Beadle Lk Rd
Suite 150
Battle Creek, MI
49014-7202
www.cei-bc.com
269-962-5127

JOB NO: 230604
DATE: 12/21/23

DRAWN BY: CDB
REVIEWED BY: RAR

OWNER

INDUSTRIAL DR STORAGE SITE PLAN
STORM SEWER PLAN & PROFILE

Know What's
Below, Call
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REVISIONS

Date	Comment

SHEET
1/1

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Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-yr	Type II 24-hr		Default	24.00	1	2.38	2
2	10-yr	Type II 24-hr		Default	24.00	1	3.48	2
3	25-yr	Type II 24-hr		Default	24.00	1	4.25	2
4	50-yr	Type II 24-hr		Default	24.00	1	4.89	2
5	100-yr	Type II 24-hr		Default	24.00	1	5.60	2

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Type II 24-hr 2-yr Rainfall=2.38"

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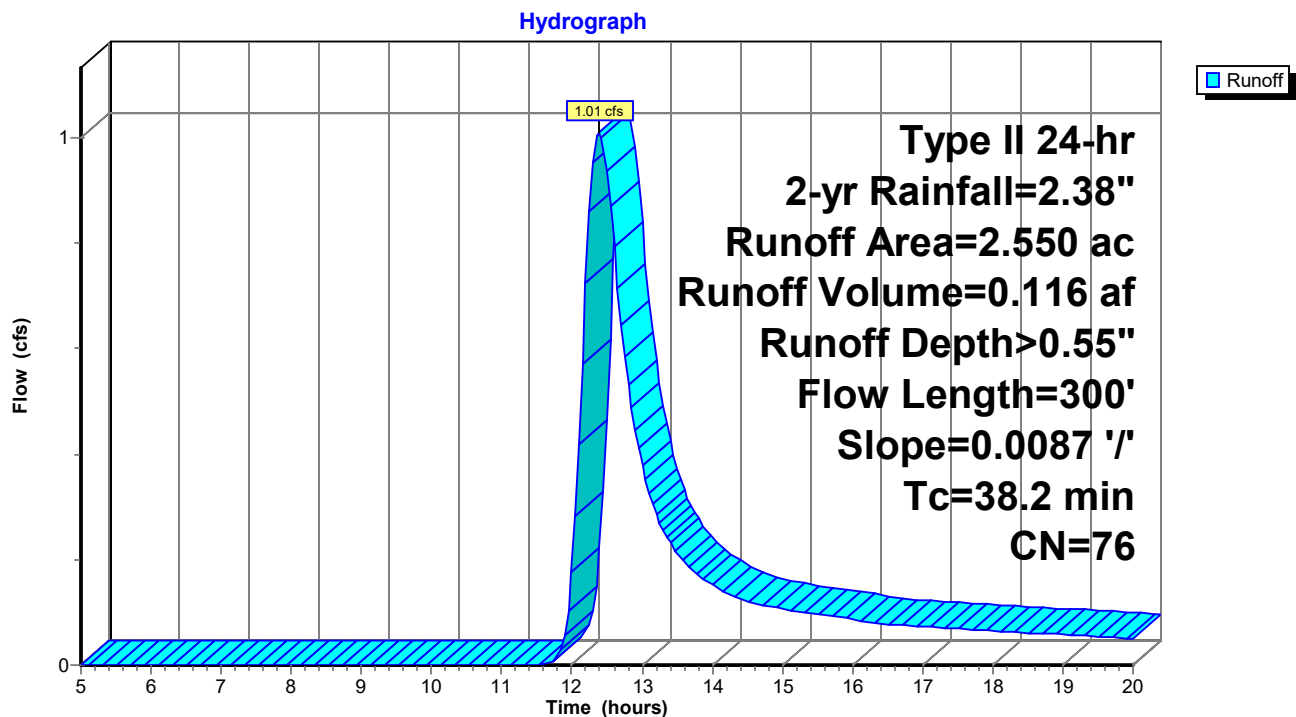
Summary for Subcatchment 1S: west half

Runoff = 1.01 cfs @ 12.39 hrs, Volume= 0.116 af, Depth> 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-yr Rainfall=2.38"

Area (ac)	CN	Description
0.430	80	1/2 acre lots, 25% imp, HSG C
0.150	98	Paved parking, HSG C
1.560	74	Pasture/grassland/range, Good, HSG C
0.410	72	Woods/grass comb., Good, HSG C
2.550	76	Weighted Average
2.293		89.90% Pervious Area
0.258		10.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.2	300	0.0087	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.38"

Subcatchment 1S: west half

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Type II 24-hr 10-yr Rainfall=3.48"

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Summary for Subcatchment 1S: west half

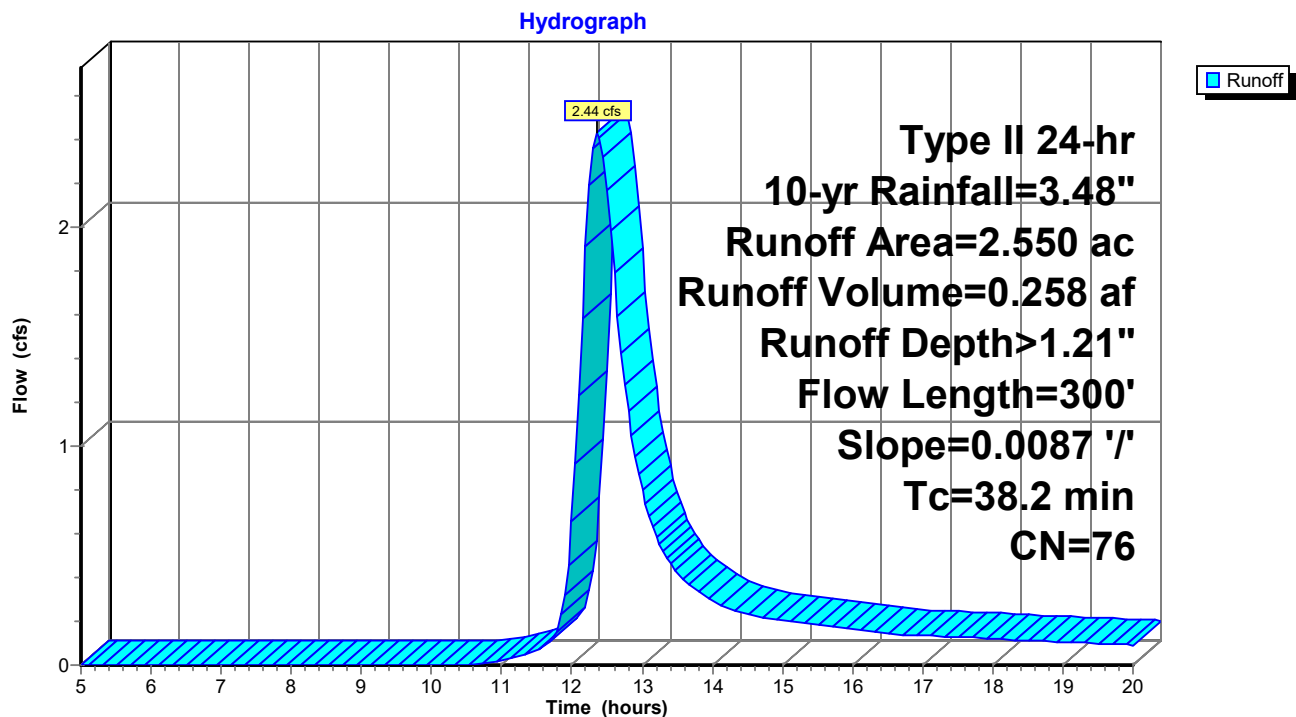
Runoff = 2.44 cfs @ 12.36 hrs, Volume= 0.258 af, Depth> 1.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=3.48"

Area (ac)	CN	Description
0.430	80	1/2 acre lots, 25% imp, HSG C
0.150	98	Paved parking, HSG C
1.560	74	Pasture/grassland/range, Good, HSG C
0.410	72	Woods/grass comb., Good, HSG C
2.550	76	Weighted Average
2.293		89.90% Pervious Area
0.258		10.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.2	300	0.0087	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.38"

Subcatchment 1S: west half



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Type II 24-hr 25-yr Rainfall=4.25"

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Summary for Subcatchment 1S: west half

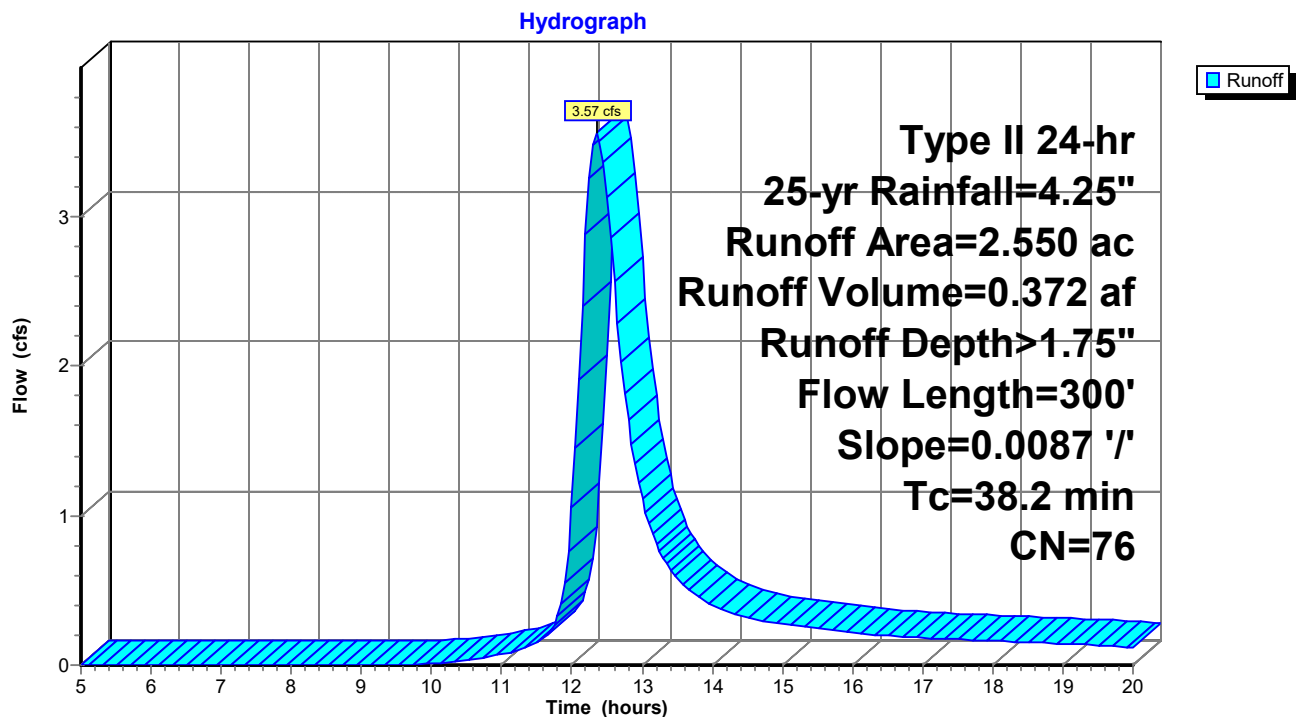
Runoff = 3.57 cfs @ 12.35 hrs, Volume= 0.372 af, Depth> 1.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-yr Rainfall=4.25"

Area (ac)	CN	Description
0.430	80	1/2 acre lots, 25% imp, HSG C
0.150	98	Paved parking, HSG C
1.560	74	Pasture/grassland/range, Good, HSG C
0.410	72	Woods/grass comb., Good, HSG C
2.550	76	Weighted Average
2.293		89.90% Pervious Area
0.258		10.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.2	300	0.0087	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.38"

Subcatchment 1S: west half



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Type II 24-hr 50-yr Rainfall=4.89"

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Summary for Subcatchment 1S: west half

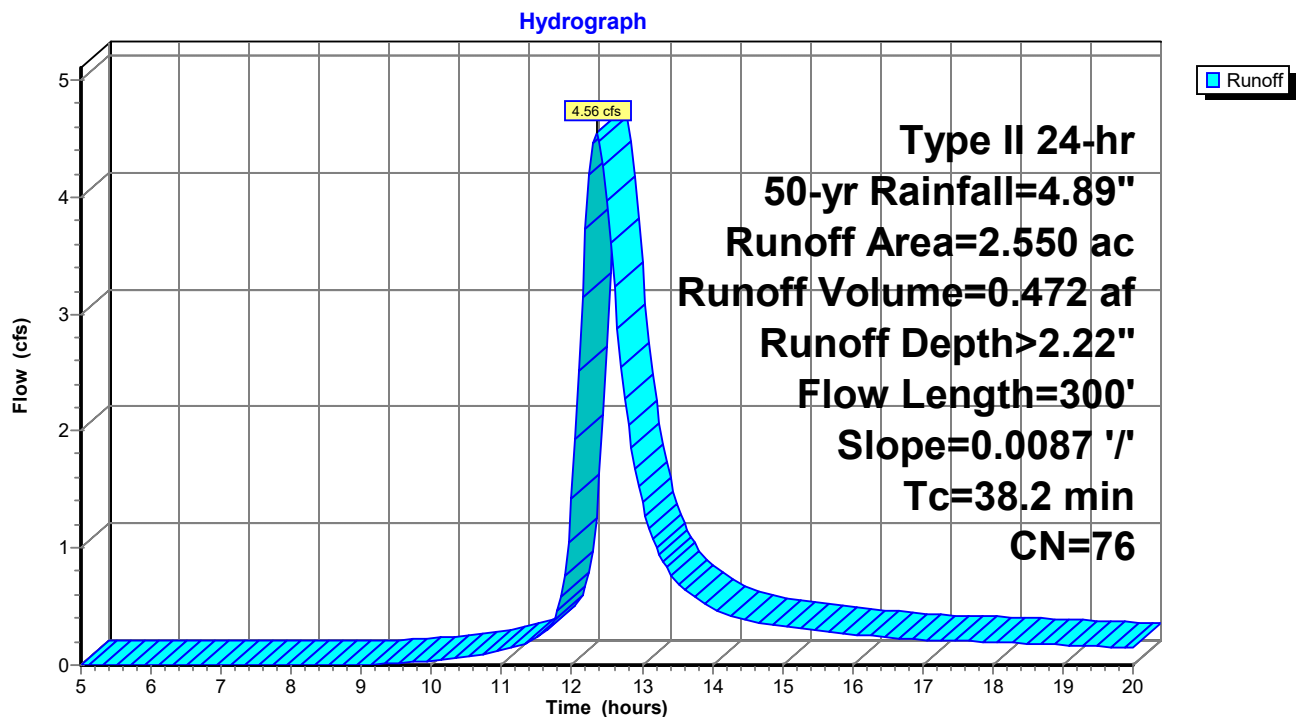
Runoff = 4.56 cfs @ 12.35 hrs, Volume= 0.472 af, Depth> 2.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 50-yr Rainfall=4.89"

Area (ac)	CN	Description
0.430	80	1/2 acre lots, 25% imp, HSG C
0.150	98	Paved parking, HSG C
1.560	74	Pasture/grassland/range, Good, HSG C
0.410	72	Woods/grass comb., Good, HSG C
2.550	76	Weighted Average
2.293		89.90% Pervious Area
0.258		10.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.2	300	0.0087	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.38"

Subcatchment 1S: west half



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Type II 24-hr 100-yr Rainfall=5.60"

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Summary for Subcatchment 1S: west half

Runoff = 5.69 cfs @ 12.35 hrs, Volume= 0.589 af, Depth> 2.77"

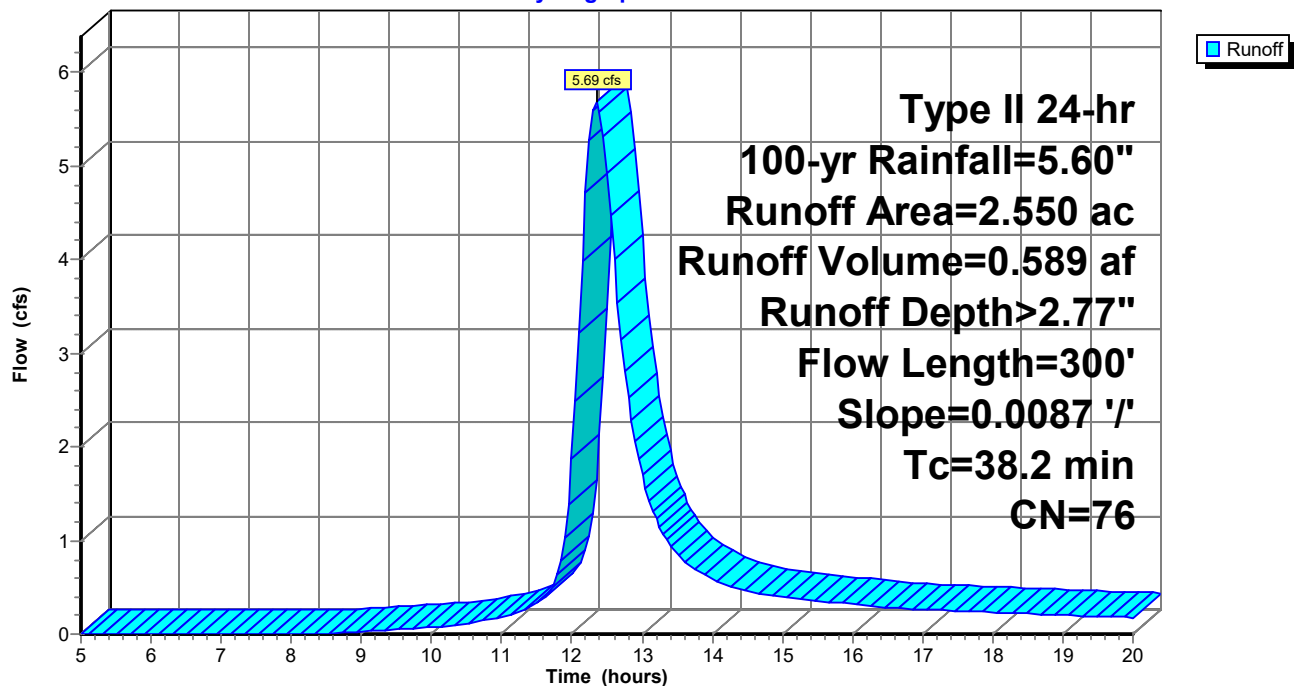
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-yr Rainfall=5.60"

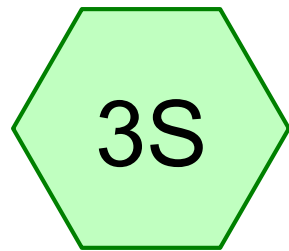
Area (ac)	CN	Description
0.430	80	1/2 acre lots, 25% imp, HSG C
0.150	98	Paved parking, HSG C
1.560	74	Pasture/grassland/range, Good, HSG C
0.410	72	Woods/grass comb., Good, HSG C
2.550	76	Weighted Average
2.293		89.90% Pervious Area
0.258		10.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.2	300	0.0087	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.38"

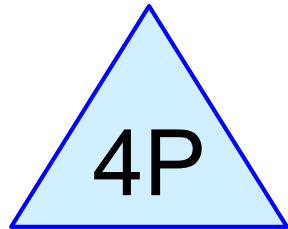
Subcatchment 1S: west half

Hydrograph

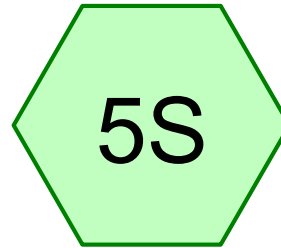




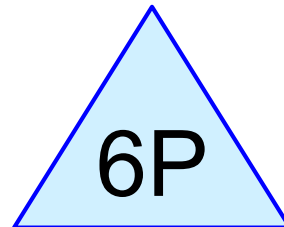
west trib



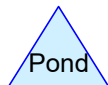
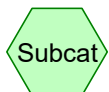
west pond



east trib



east pond



Routing Diagram for postconstruction

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-yr	Type II 24-hr		Default	24.00	1	2.38	2
2	10-yr	Type II 24-hr		Default	24.00	1	3.48	2
3	50-yr	Type II 24-hr		Default	24.00	1	4.89	2
4	100-yr	Type II 24-hr		Default	24.00	1	5.60	2

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.430	80	1/2 acre lots, 25% imp, HSG C (3S)
0.648	74	>75% Grass cover, Good, HSG C (3S, 5S)
1.908	98	Paved parking, HSG C (3S, 5S)
0.758	98	Water Surface, HSG C (3S, 5S)
3.744	92	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
3.744	HSG C	3S, 5S
0.000	HSG D	
0.000	Other	
3.744		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.430	0.000	0.000	0.430	1/2 acre lots, 25% imp	3S
0.000	0.000	0.648	0.000	0.000	0.648	>75% Grass cover, Good	3S, 5S
0.000	0.000	1.908	0.000	0.000	1.908	Paved parking	3S, 5S
0.000	0.000	0.758	0.000	0.000	0.758	Water Surface	3S, 5S
0.000	0.000	3.744	0.000	0.000	3.744	TOTAL AREA	

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Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	6P	900.13	900.00	56.5	0.0023	0.025	0.0	12.0	0.0	

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Type II 24-hr 2-yr Rainfall=2.38"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 3S: west trib

Runoff Area=2.740 ac 67.06% Impervious Runoff Depth>1.32"
Flow Length=294' Tc=2.6 min CN=90 Runoff=7.41 cfs 0.302 af

Subcatchment 5S: east trib

Runoff Area=43,730 sf 93.18% Impervious Runoff Depth>1.82"
Flow Length=309' Tc=2.7 min CN=96 Runoff=3.41 cfs 0.153 af

Pond 4P: west pond

Peak Elev=900.65' Storage=15,473 cf Inflow=7.81 cfs 0.453 af
Outflow=0.13 cfs 0.098 af

Pond 6P: east pond

Peak Elev=900.77' Storage=2,930 cf Inflow=3.41 cfs 0.153 af
12.0" Round Culvert n=0.025 L=56.5' S=0.0023 '/' Outflow=0.55 cfs 0.151 af

Total Runoff Area = 3.744 ac Runoff Volume = 0.455 af Average Runoff Depth = 1.46"
25.93% Pervious = 0.971 ac 74.07% Impervious = 2.773 ac

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Type II 24-hr 2-yr Rainfall=2.38"

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Summary for Subcatchment 3S: west trib[49] Hint: $T_c < 2dt$ may require smaller dt

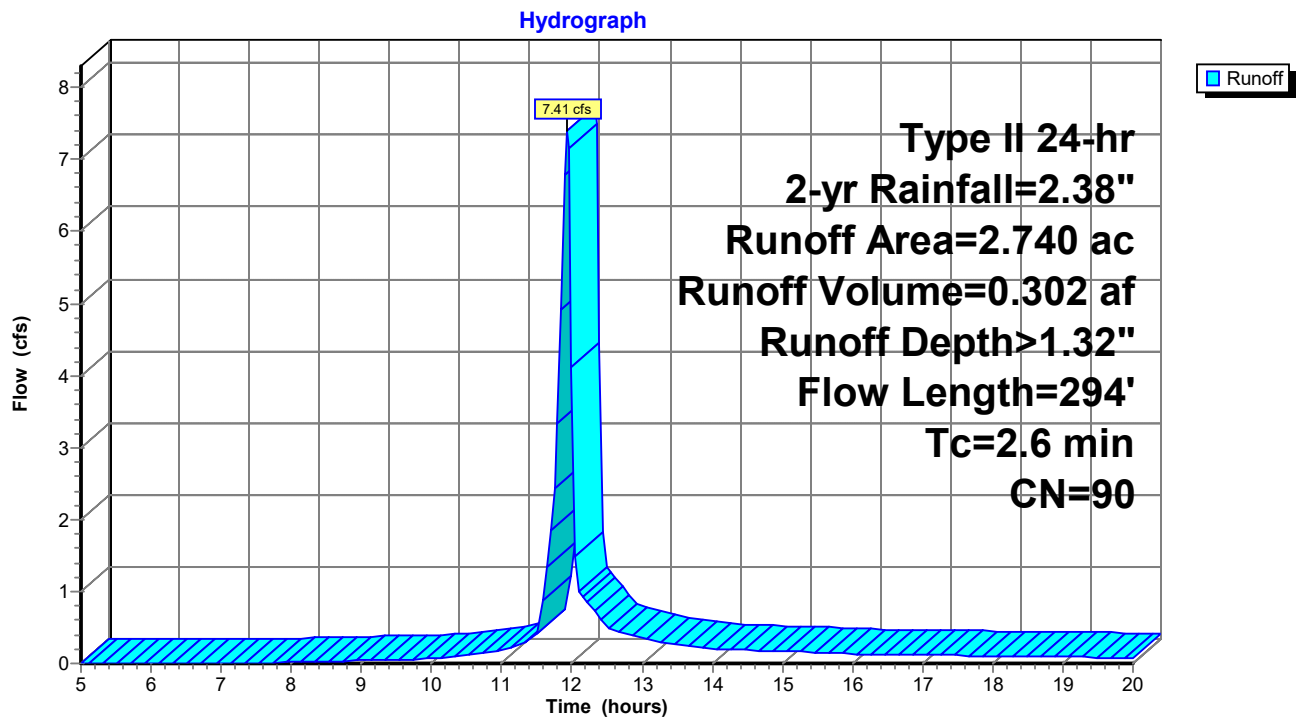
Runoff = 7.41 cfs @ 11.93 hrs, Volume= 0.302 af, Depth> 1.32"
 Routed to Pond 4P : west pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, $dt= 0.05$ hrs
 Type II 24-hr 2-yr Rainfall=2.38"

Area (ac)	CN	Description
0.430	80	1/2 acre lots, 25% imp, HSG C
0.530	98	Water Surface, HSG C
1.200	98	Paved parking, HSG C
0.580	74	>75% Grass cover, Good, HSG C
2.740	90	Weighted Average
0.902		32.94% Pervious Area
1.837		67.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	40	0.2000	2.48		Sheet Flow, Smooth surfaces $n= 0.011$ $P2= 2.38"$
2.3	240	0.0075	1.76		Shallow Concentrated Flow, Paved $K_v= 20.3$ fps
0.0	14	0.2500	7.50		Shallow Concentrated Flow, Grassed Waterway $K_v= 15.0$ fps
2.6	294	Total			

Subcatchment 3S: west trib



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Type II 24-hr 2-yr Rainfall=2.38"

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Summary for Subcatchment 5S: east trib[49] Hint: $T_c < 2dt$ may require smaller dt

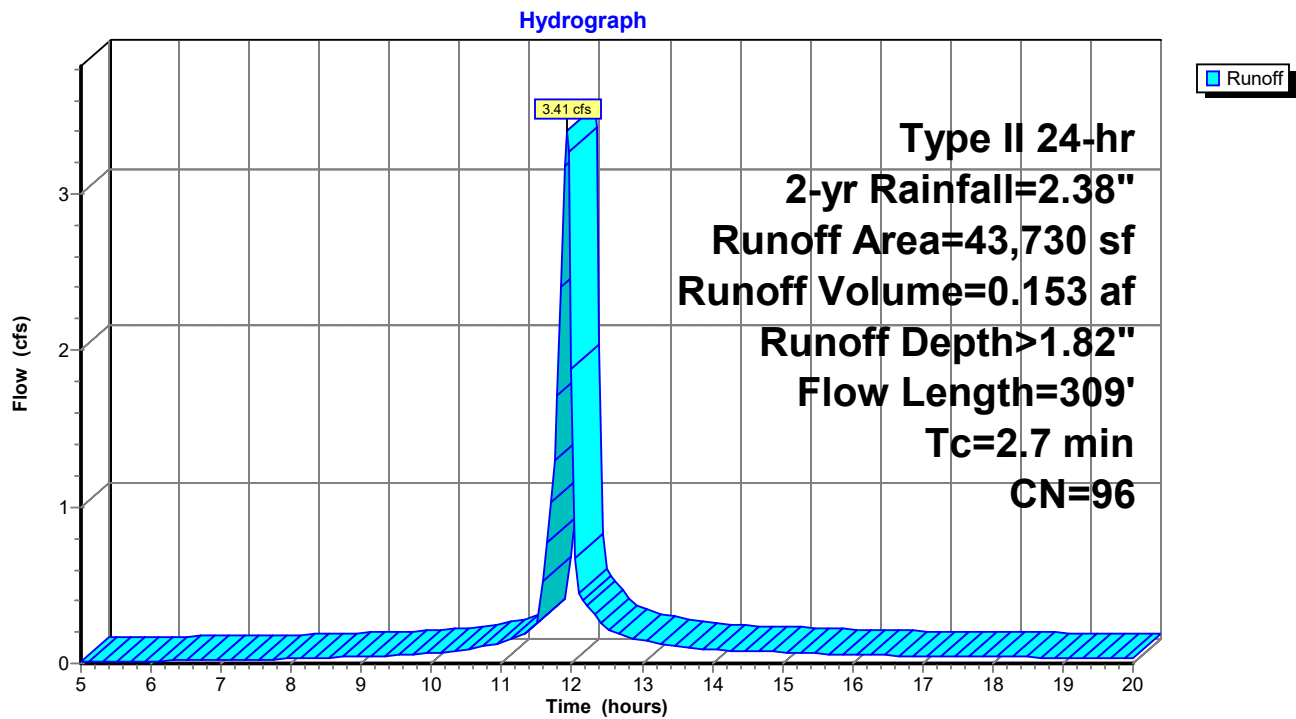
Runoff = 3.41 cfs @ 11.93 hrs, Volume= 0.153 af, Depth> 1.82"
 Routed to Pond 6P : east pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, $dt=0.05$ hrs
 Type II 24-hr 2-yr Rainfall=2.38"

Area (sf)	CN	Description
9,928	98	Water Surface, HSG C
30,820	98	Paved parking, HSG C
2,982	74	>75% Grass cover, Good, HSG C
43,730	96	Weighted Average
2,982		6.82% Pervious Area
40,748		93.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	40	0.2000	2.48		Sheet Flow, Smooth surfaces $n=0.011$ $P2=2.38"$
2.4	255	0.0075	1.76		Shallow Concentrated Flow, Paved $K_v=20.3$ fps
0.0	14	0.2500	7.50		Shallow Concentrated Flow, Grassed Waterway $K_v=15.0$ fps
2.7	309	Total			

Subcatchment 5S: east trib



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Type II 24-hr 2-yr Rainfall=2.38"

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Summary for Pond 4P: west pond

[44] Hint: Outlet device #1 is below defined storage

[81] Warning: Exceeded Pond 6P by 0.33' @ 19.95 hrs

Inflow Area = 3.744 ac, 74.07% Impervious, Inflow Depth > 1.45" for 2-yr event
 Inflow = 7.81 cfs @ 11.93 hrs, Volume= 0.453 af
 Outflow = 0.13 cfs @ 19.45 hrs, Volume= 0.098 af, Atten= 98%, Lag= 451.0 min
 Primary = 0.13 cfs @ 19.45 hrs, Volume= 0.098 af
 Routed to nonexistent node 10P

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

Peak Elev= 900.65' @ 19.45 hrs Surf.Area= 17,994 sf Storage= 15,473 cf

Plug-Flow detention time= 263.2 min calculated for 0.098 af (22% of inflow)

Center-of-Mass det. time= 129.7 min (918.0 - 788.3)

Volume	Invert	Avail.Storage	Storage Description
#1	899.50'	63,660 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
899.50	256	0	0
900.00	16,683	4,235	4,235
901.00	18,706	17,695	21,929
902.00	20,830	19,768	41,697
903.00	23,095	21,963	63,660

Device	Routing	Invert	Outlet Devices
#1	Primary	899.25'	1.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	899.60'	2.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

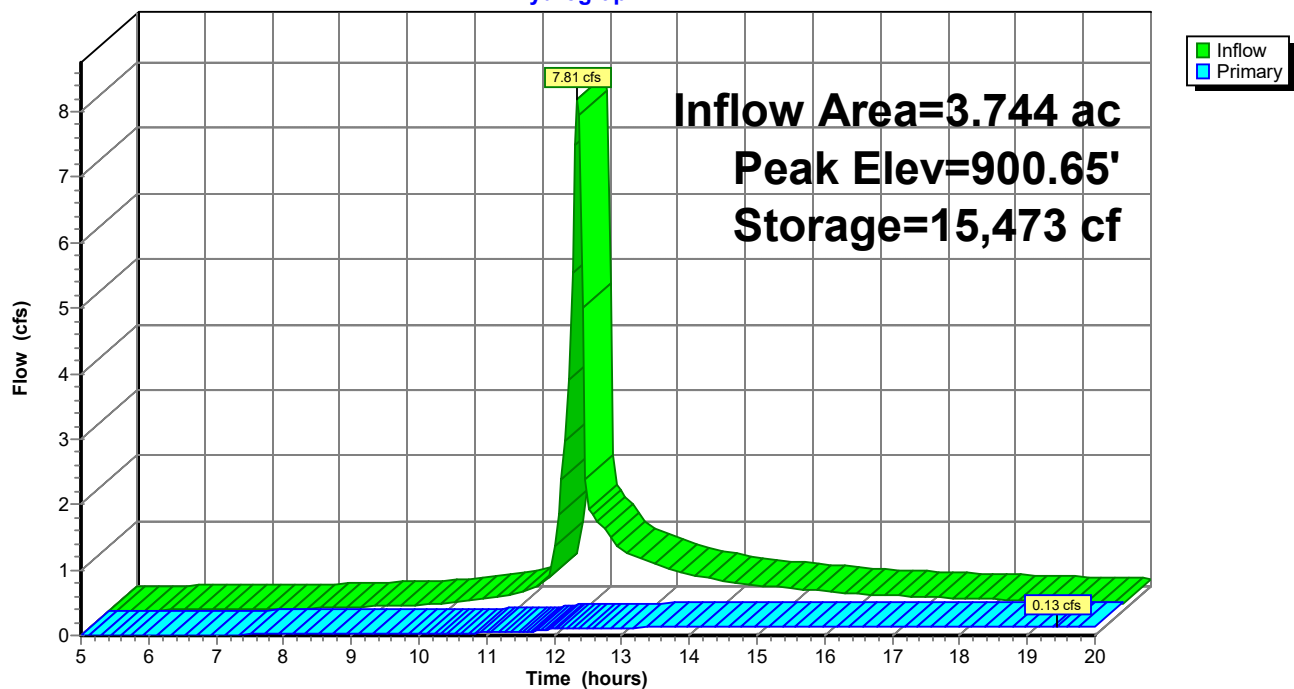
Primary OutFlow Max=0.13 cfs @ 19.45 hrs HW=900.65' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.03 cfs @ 5.61 fps)

2=Orifice/Grate (Orifice Controls 0.10 cfs @ 4.73 fps)

Pond 4P: west pond

Hydrograph



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Type II 24-hr 2-yr Rainfall=2.38"

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Summary for Pond 6P: east pond

[82] Warning: Early inflow requires earlier time span

[44] Hint: Outlet device #1 is below defined storage

Inflow Area = 1.004 ac, 93.18% Impervious, Inflow Depth > 1.82" for 2-yr event
 Inflow = 3.41 cfs @ 11.93 hrs, Volume= 0.153 af
 Outflow = 0.55 cfs @ 12.08 hrs, Volume= 0.151 af, Atten= 84%, Lag= 9.1 min
 Primary = 0.55 cfs @ 12.08 hrs, Volume= 0.151 af
 Routed to Pond 4P : west pond

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 900.77' @ 12.08 hrs Surf.Area= 7,571 sf Storage= 2,930 cf

Plug-Flow detention time= 77.3 min calculated for 0.150 af (98% of inflow)
 Center-of-Mass det. time= 71.3 min (817.0 - 745.7)

Volume	Invert	Avail.Storage	Storage Description
#1	900.25'	18,035 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
900.25	257	0	0
900.50	7,228	936	936
901.00	7,865	3,773	4,709
902.00	9,215	8,540	13,249
902.50	9,928	4,786	18,035

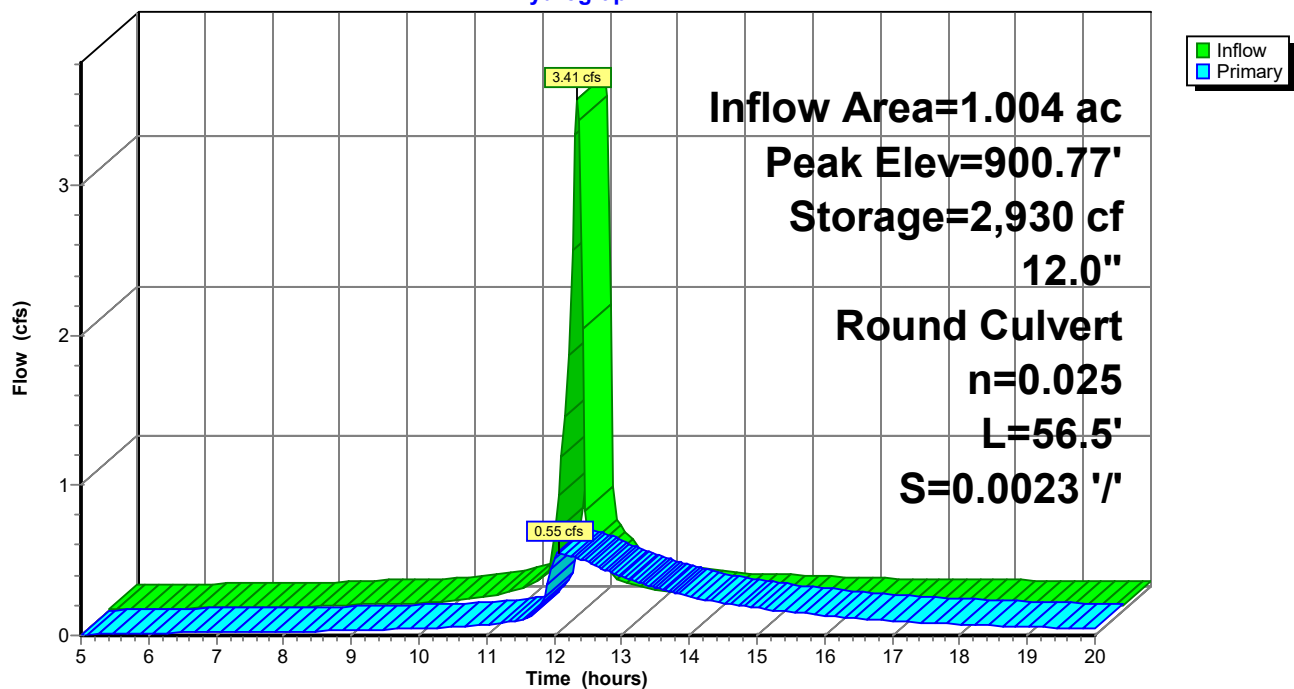
Device	Routing	Invert	Outlet Devices
#1	Primary	900.13'	12.0" Round Culvert L= 56.5' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 900.13' / 900.00' S= 0.0023 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf

Primary OutFlow Max=0.54 cfs @ 12.08 hrs HW=900.77' (Free Discharge)

1=Culvert (Barrel Controls 0.54 cfs @ 1.46 fps)

Pond 6P: east pond

Hydrograph



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Type II 24-hr 10-yr Rainfall=3.48"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 3S: west trib

Runoff Area=2.740 ac 67.06% Impervious Runoff Depth>2.27"
Flow Length=294' Tc=2.6 min CN=90 Runoff=12.25 cfs 0.519 af

Subcatchment 5S: east trib

Runoff Area=43,730 sf 93.18% Impervious Runoff Depth>2.83"
Flow Length=309' Tc=2.7 min CN=96 Runoff=5.14 cfs 0.237 af

Pond 4P: west pond

Peak Elev=901.27' Storage=27,111 cf Inflow=12.93 cfs 0.751 af
Outflow=0.17 cfs 0.128 af

Pond 6P: east pond

Peak Elev=900.98' Storage=4,579 cf Inflow=5.14 cfs 0.237 af
12.0" Round Culvert n=0.025 L=56.5' S=0.0023 ' /' Outflow=0.92 cfs 0.232 af

Total Runoff Area = 3.744 ac Runoff Volume = 0.756 af Average Runoff Depth = 2.42"
25.93% Pervious = 0.971 ac 74.07% Impervious = 2.773 ac

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Type II 24-hr 10-yr Rainfall=3.48"

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Summary for Subcatchment 3S: west trib[49] Hint: $T_c < 2dt$ may require smaller dt

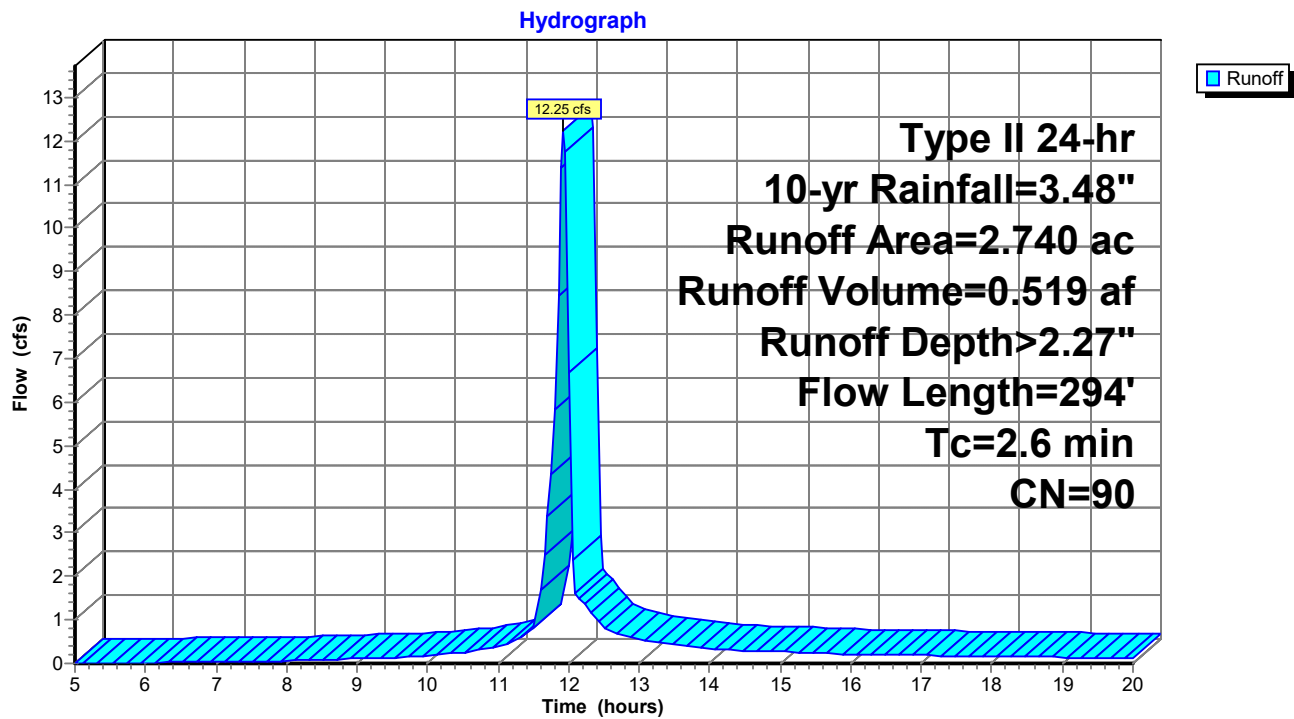
Runoff = 12.25 cfs @ 11.93 hrs, Volume= 0.519 af, Depth> 2.27"
 Routed to Pond 4P : west pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, $dt=0.05$ hrs
 Type II 24-hr 10-yr Rainfall=3.48"

Area (ac)	CN	Description
0.430	80	1/2 acre lots, 25% imp, HSG C
0.530	98	Water Surface, HSG C
1.200	98	Paved parking, HSG C
0.580	74	>75% Grass cover, Good, HSG C
2.740	90	Weighted Average
0.902		32.94% Pervious Area
1.837		67.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	40	0.2000	2.48		Sheet Flow, Smooth surfaces $n=0.011$ $P2=2.38"$
2.3	240	0.0075	1.76		Shallow Concentrated Flow, Paved $K_v=20.3$ fps
0.0	14	0.2500	7.50		Shallow Concentrated Flow, Grassed Waterway $K_v=15.0$ fps
2.6	294	Total			

Subcatchment 3S: west trib



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Type II 24-hr 10-yr Rainfall=3.48"

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Summary for Subcatchment 5S: east trib[49] Hint: $T_c < 2dt$ may require smaller dt

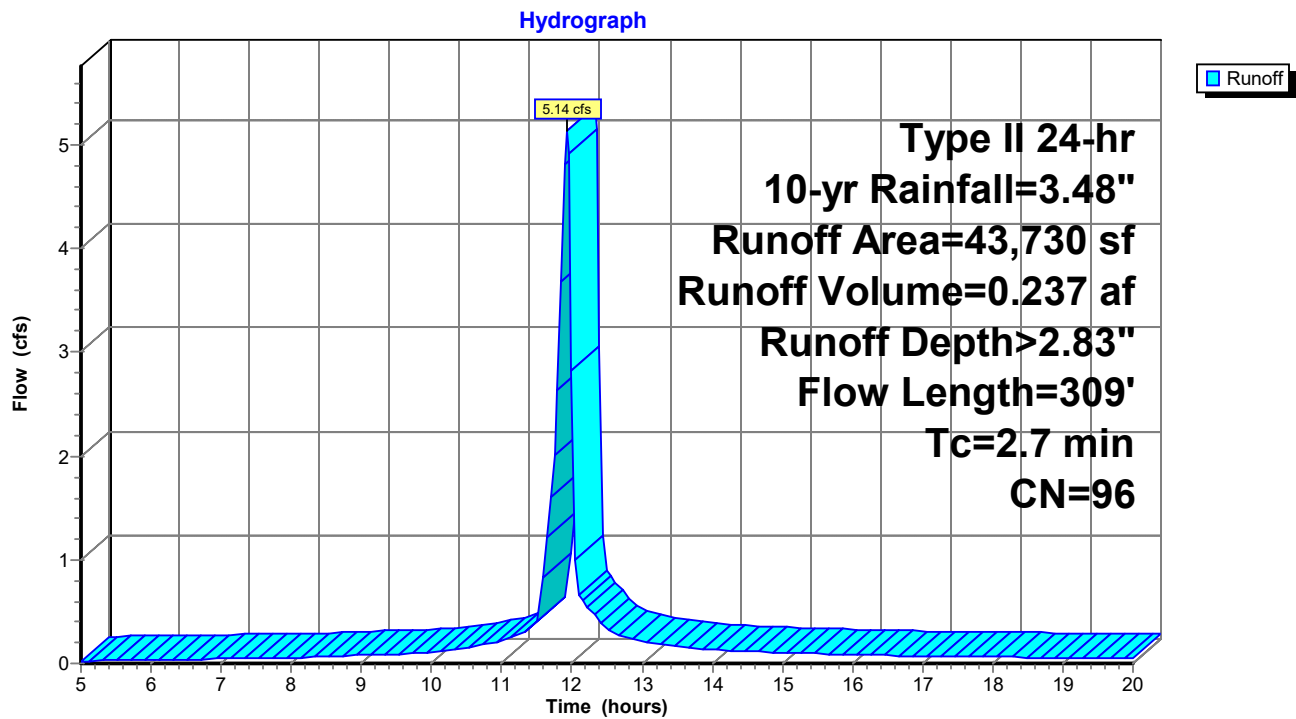
Runoff = 5.14 cfs @ 11.93 hrs, Volume= 0.237 af, Depth> 2.83"
 Routed to Pond 6P : east pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, $dt=0.05$ hrs
 Type II 24-hr 10-yr Rainfall=3.48"

Area (sf)	CN	Description
9,928	98	Water Surface, HSG C
30,820	98	Paved parking, HSG C
2,982	74	>75% Grass cover, Good, HSG C
43,730	96	Weighted Average
2,982		6.82% Pervious Area
40,748		93.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	40	0.2000	2.48		Sheet Flow, Smooth surfaces $n=0.011$ $P2=2.38"$
2.4	255	0.0075	1.76		Shallow Concentrated Flow, Paved $K_v=20.3$ fps
0.0	14	0.2500	7.50		Shallow Concentrated Flow, Grassed Waterway $K_v=15.0$ fps
2.7	309	Total			

Subcatchment 5S: east trib



Summary for Pond 4P: west pond

[44] Hint: Outlet device #1 is below defined storage

[81] Warning: Exceeded Pond 6P by 0.91' @ 19.95 hrs

Inflow Area = 3.744 ac, 74.07% Impervious, Inflow Depth > 2.41" for 10-yr event
 Inflow = 12.93 cfs @ 11.93 hrs, Volume= 0.751 af
 Outflow = 0.17 cfs @ 20.00 hrs, Volume= 0.128 af, Atten= 99%, Lag= 484.2 min
 Primary = 0.17 cfs @ 20.00 hrs, Volume= 0.128 af
 Routed to nonexistent node 10P

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 901.27' @ 20.00 hrs Surf.Area= 19,285 sf Storage= 27,111 cf

Plug-Flow detention time= 290.0 min calculated for 0.128 af (17% of inflow)
 Center-of-Mass det. time= 129.1 min (905.5 - 776.3)

Volume	Invert	Avail.Storage	Storage Description
#1	899.50'	63,660 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
899.50	256	0	0
900.00	16,683	4,235	4,235
901.00	18,706	17,695	21,929
902.00	20,830	19,768	41,697
903.00	23,095	21,963	63,660

Device	Routing	Invert	Outlet Devices
#1	Primary	899.25'	1.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	899.60'	2.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

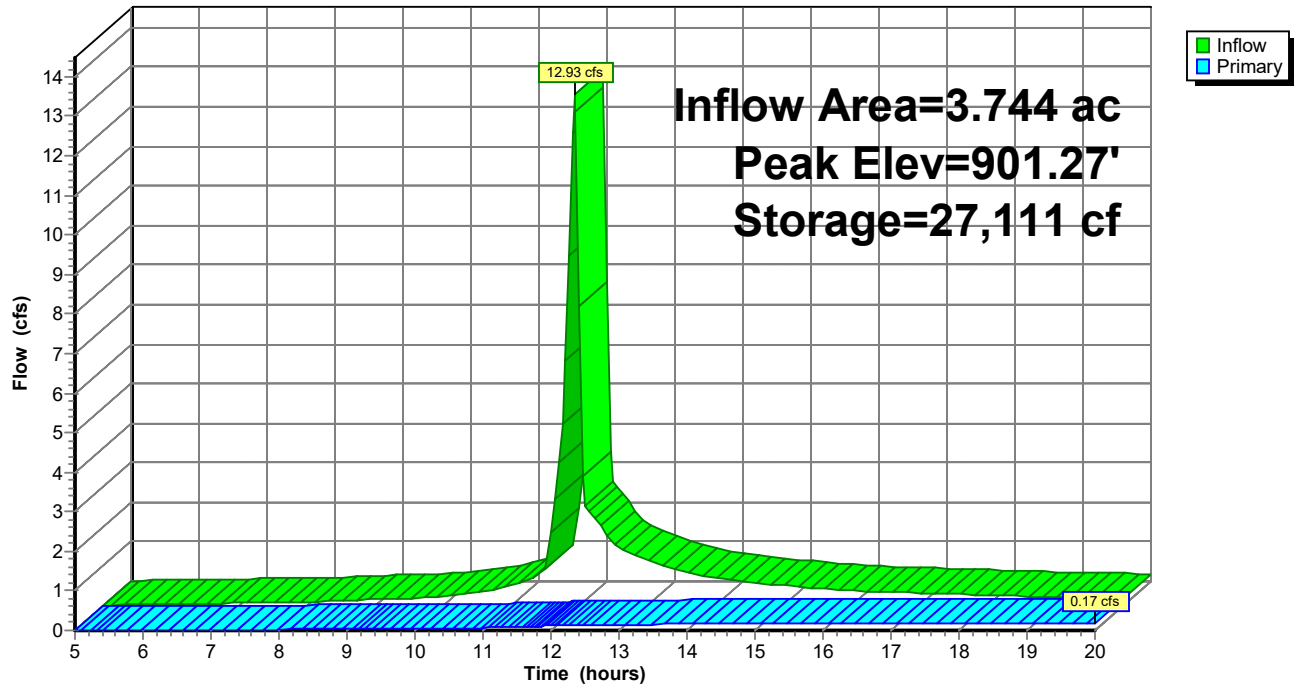
Primary OutFlow Max=0.17 cfs @ 20.00 hrs HW=901.27' (Free Discharge)

↑ **1=Orifice/Grate** (Orifice Controls 0.04 cfs @ 6.78 fps)

└ **2=Orifice/Grate** (Orifice Controls 0.13 cfs @ 6.07 fps)

Pond 4P: west pond

Hydrograph



Summary for Pond 6P: east pond

[82] Warning: Early inflow requires earlier time span

[44] Hint: Outlet device #1 is below defined storage

Inflow Area = 1.004 ac, 93.18% Impervious, Inflow Depth > 2.83" for 10-yr event
 Inflow = 5.14 cfs @ 11.93 hrs, Volume= 0.237 af
 Outflow = 0.92 cfs @ 12.07 hrs, Volume= 0.232 af, Atten= 82%, Lag= 8.6 min
 Primary = 0.92 cfs @ 12.07 hrs, Volume= 0.232 af
 Routed to Pond 4P : west pond

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 900.98' @ 12.07 hrs Surf.Area= 7,844 sf Storage= 4,579 cf

Plug-Flow detention time= 80.0 min calculated for 0.232 af (98% of inflow)
 Center-of-Mass det. time= 70.9 min (809.4 - 738.5)

Volume	Invert	Avail.Storage	Storage Description
#1	900.25'	18,035 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
900.25	257	0	0
900.50	7,228	936	936
901.00	7,865	3,773	4,709
902.00	9,215	8,540	13,249
902.50	9,928	4,786	18,035

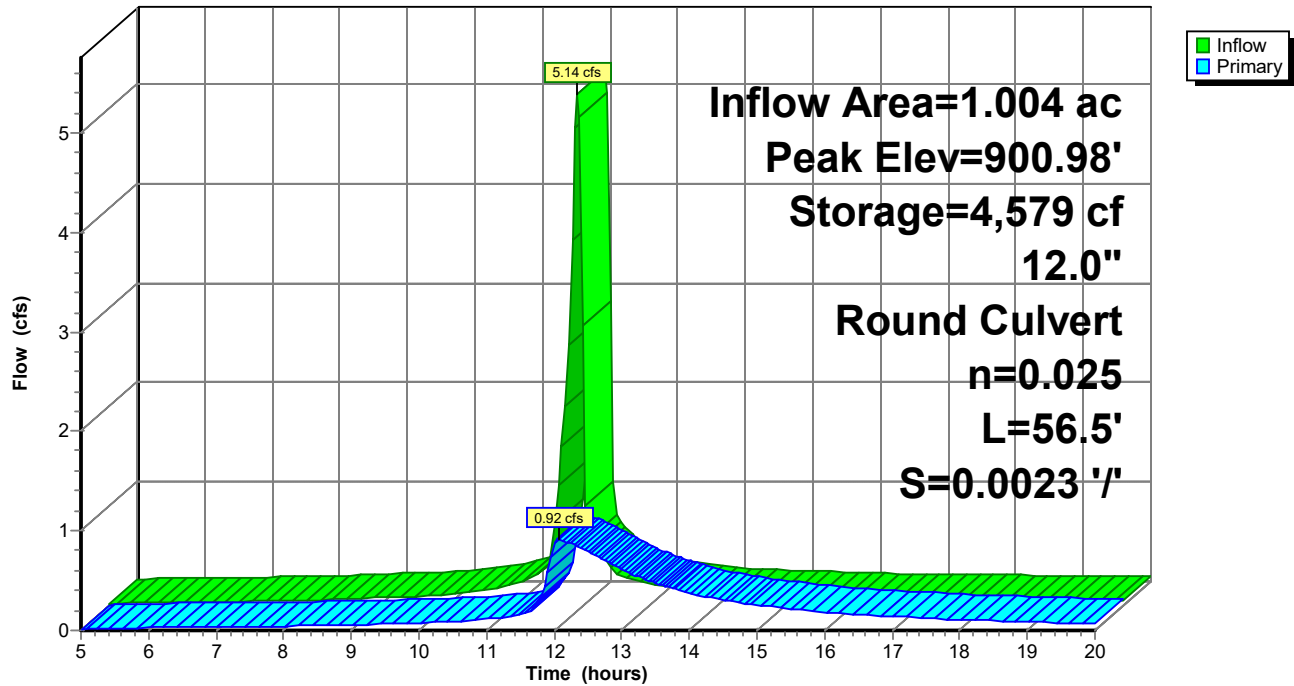
Device	Routing	Invert	Outlet Devices
#1	Primary	900.13'	12.0" Round Culvert L= 56.5' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 900.13' / 900.00' S= 0.0023 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf

Primary OutFlow Max=0.91 cfs @ 12.07 hrs HW=900.98' (Free Discharge)

↑ **1=Culvert** (Barrel Controls 0.91 cfs @ 1.73 fps)

Pond 6P: east pond

Hydrograph



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Type II 24-hr 50-yr Rainfall=4.89"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 3S: west trib

Runoff Area=2.740 ac 67.06% Impervious Runoff Depth>3.54"
Flow Length=294' Tc=2.6 min CN=90 Runoff=18.45 cfs 0.808 af

Subcatchment 5S: east trib

Runoff Area=43,730 sf 93.18% Impervious Runoff Depth>4.11"
Flow Length=309' Tc=2.7 min CN=96 Runoff=7.34 cfs 0.344 af

Pond 4P: west pond

Peak Elev=902.05' Storage=42,824 cf Inflow=19.51 cfs 1.143 af
Outflow=0.21 cfs 0.160 af

Pond 6P: east pond

Peak Elev=901.24' Storage=6,657 cf Inflow=7.34 cfs 0.344 af
12.0" Round Culvert n=0.025 L=56.5' S=0.0023 ' /' Outflow=1.36 cfs 0.335 af

Total Runoff Area = 3.744 ac Runoff Volume = 1.152 af Average Runoff Depth = 3.69"
25.93% Pervious = 0.971 ac 74.07% Impervious = 2.773 ac

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Type II 24-hr 50-yr Rainfall=4.89"

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Summary for Subcatchment 3S: west trib[49] Hint: $T_c < 2dt$ may require smaller dt

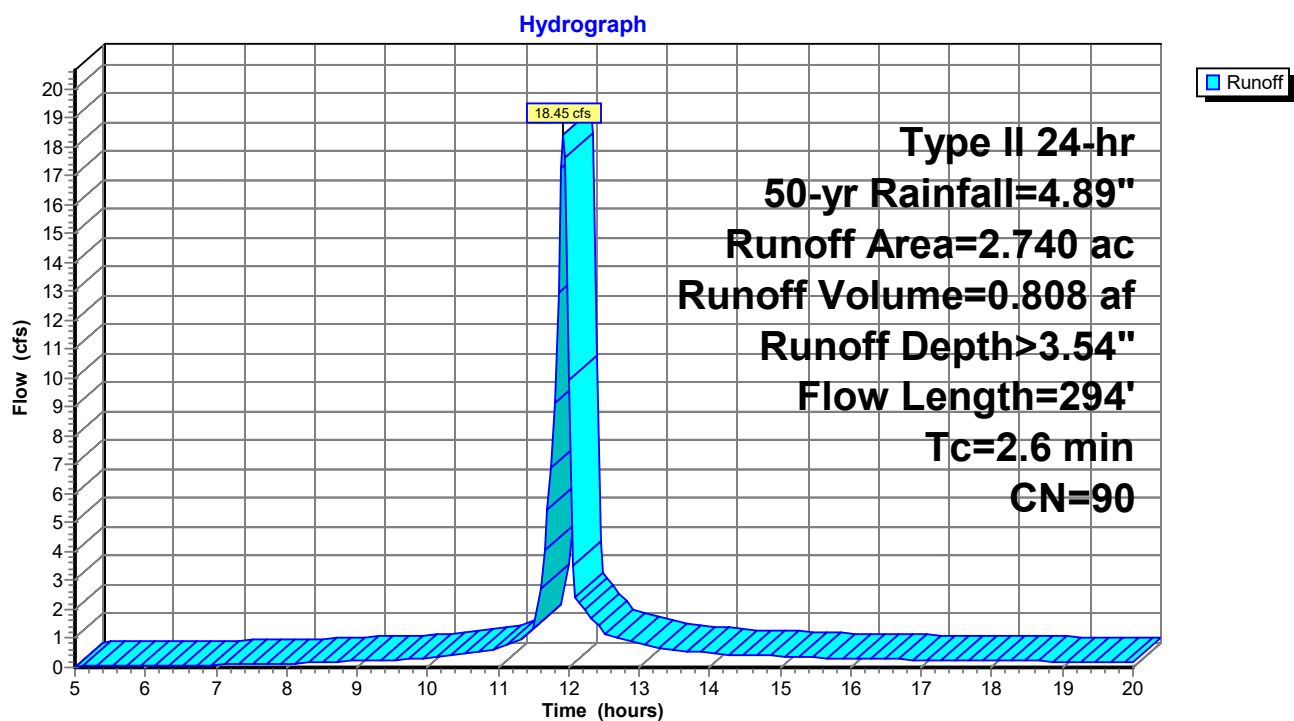
Runoff = 18.45 cfs @ 11.93 hrs, Volume= 0.808 af, Depth> 3.54"
 Routed to Pond 4P : west pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, $dt=0.05$ hrs
 Type II 24-hr 50-yr Rainfall=4.89"

Area (ac)	CN	Description
0.430	80	1/2 acre lots, 25% imp, HSG C
0.530	98	Water Surface, HSG C
1.200	98	Paved parking, HSG C
0.580	74	>75% Grass cover, Good, HSG C
2.740	90	Weighted Average
0.902		32.94% Pervious Area
1.837		67.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	40	0.2000	2.48		Sheet Flow, Smooth surfaces $n=0.011$ $P2=2.38"$
2.3	240	0.0075	1.76		Shallow Concentrated Flow, Paved $K_v=20.3$ fps
0.0	14	0.2500	7.50		Shallow Concentrated Flow, Grassed Waterway $K_v=15.0$ fps
2.6	294	Total			

Subcatchment 3S: west trib



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Type II 24-hr 50-yr Rainfall=4.89"

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Summary for Subcatchment 5S: east trib[49] Hint: $T_c < 2dt$ may require smaller dt

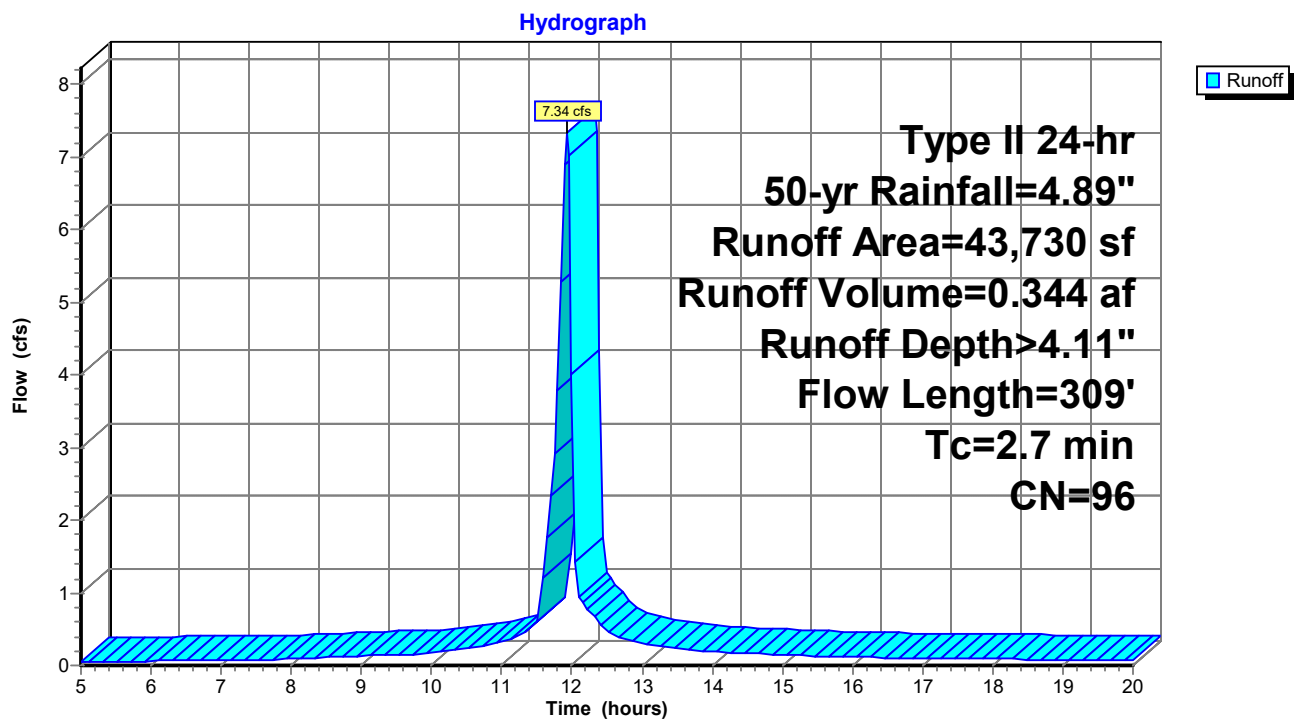
Runoff = 7.34 cfs @ 11.93 hrs, Volume= 0.344 af, Depth> 4.11"
 Routed to Pond 6P : east pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, $dt=0.05$ hrs
 Type II 24-hr 50-yr Rainfall=4.89"

Area (sf)	CN	Description
9,928	98	Water Surface, HSG C
30,820	98	Paved parking, HSG C
2,982	74	>75% Grass cover, Good, HSG C
43,730	96	Weighted Average
2,982		6.82% Pervious Area
40,748		93.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	40	0.2000	2.48		Sheet Flow, Smooth surfaces $n=0.011$ $P2=2.38"$
2.4	255	0.0075	1.76		Shallow Concentrated Flow, Paved $K_v=20.3$ fps
0.0	14	0.2500	7.50		Shallow Concentrated Flow, Grassed Waterway $K_v=15.0$ fps
2.7	309	Total			

Subcatchment 5S: east trib



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Type II 24-hr 50-yr Rainfall=4.89"

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Summary for Pond 4P: west pond

[82] Warning: Early inflow requires earlier time span

[44] Hint: Outlet device #1 is below defined storage

[81] Warning: Exceeded Pond 6P by 1.64' @ 19.95 hrs

Inflow Area = 3.744 ac, 74.07% Impervious, Inflow Depth > 3.66" for 50-yr event
 Inflow = 19.51 cfs @ 11.93 hrs, Volume= 1.143 af
 Outflow = 0.21 cfs @ 20.00 hrs, Volume= 0.160 af, Atten= 99%, Lag= 484.3 min
 Primary = 0.21 cfs @ 20.00 hrs, Volume= 0.160 af
 Routed to nonexistent node 10P

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

Peak Elev= 902.05' @ 20.00 hrs Surf.Area= 20,952 sf Storage= 42,824 cf

Plug-Flow detention time= 323.7 min calculated for 0.159 af (14% of inflow)

Center-of-Mass det. time= 127.4 min (894.4 - 766.9)

Volume	Invert	Avail.Storage	Storage Description
#1	899.50'	63,660 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
899.50	256	0	0
900.00	16,683	4,235	4,235
901.00	18,706	17,695	21,929
902.00	20,830	19,768	41,697
903.00	23,095	21,963	63,660

Device	Routing	Invert	Outlet Devices
#1	Primary	899.25'	1.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	899.60'	2.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

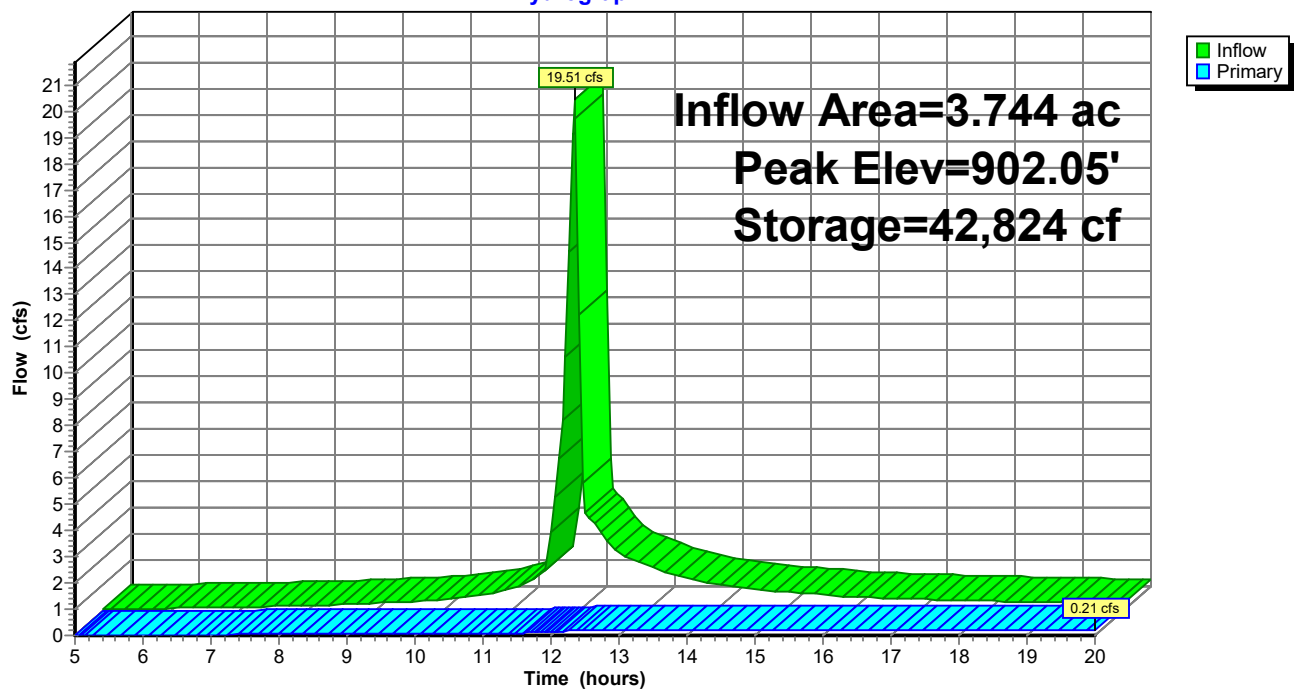
Primary OutFlow Max=0.21 cfs @ 20.00 hrs HW=902.05' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.04 cfs @ 8.00 fps)

2=Orifice/Grate (Orifice Controls 0.16 cfs @ 7.41 fps)

Pond 4P: west pond

Hydrograph



Summary for Pond 6P: east pond

[82] Warning: Early inflow requires earlier time span

[44] Hint: Outlet device #1 is below defined storage

Inflow Area = 1.004 ac, 93.18% Impervious, Inflow Depth > 4.11" for 50-yr event
 Inflow = 7.34 cfs @ 11.93 hrs, Volume= 0.344 af
 Outflow = 1.36 cfs @ 12.07 hrs, Volume= 0.335 af, Atten= 81%, Lag= 8.6 min
 Primary = 1.36 cfs @ 12.07 hrs, Volume= 0.335 af
 Routed to Pond 4P : west pond

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 901.24' @ 12.07 hrs Surf.Area= 8,192 sf Storage= 6,657 cf

Plug-Flow detention time= 81.2 min calculated for 0.334 af (97% of inflow)
 Center-of-Mass det. time= 69.9 min (803.6 - 733.8)

Volume	Invert	Avail.Storage	Storage Description
#1	900.25'	18,035 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
900.25	257	0	0
900.50	7,228	936	936
901.00	7,865	3,773	4,709
902.00	9,215	8,540	13,249
902.50	9,928	4,786	18,035

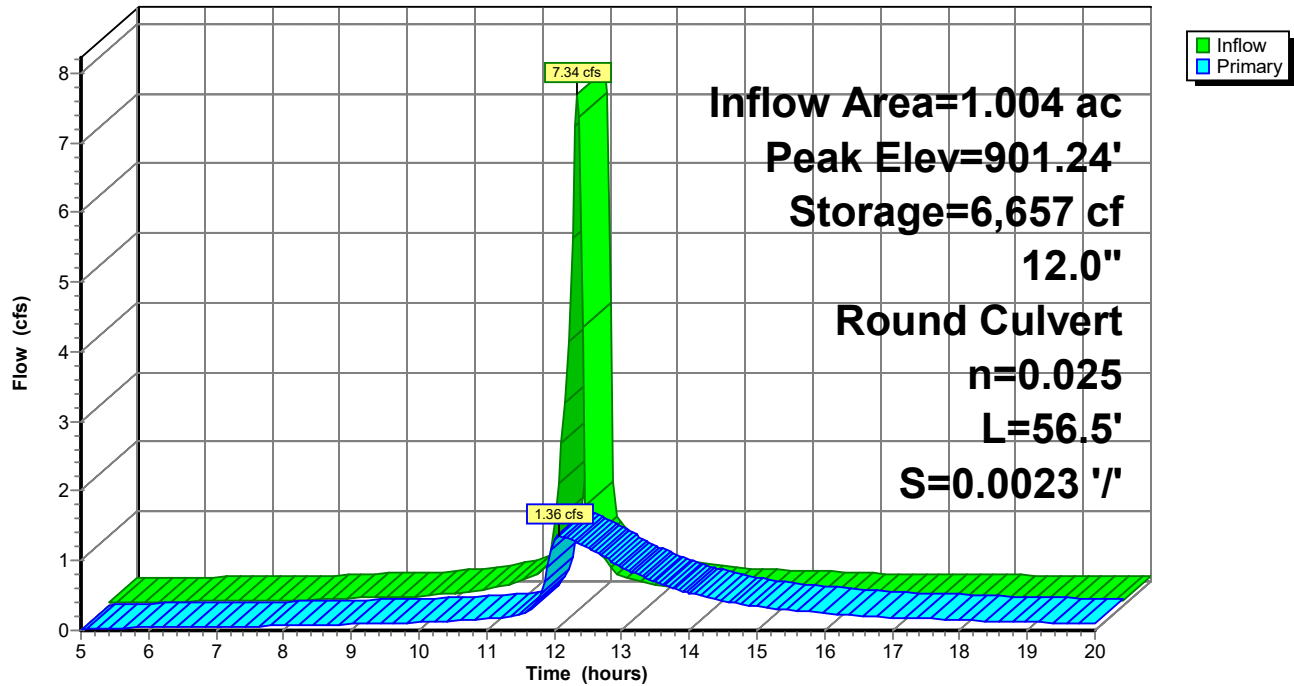
Device	Routing	Invert	Outlet Devices
#1	Primary	900.13'	12.0" Round Culvert L= 56.5' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 900.13' / 900.00' S= 0.0023 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf

Primary OutFlow Max=1.36 cfs @ 12.07 hrs HW=901.24' (Free Discharge)

↑ **1=Culvert** (Barrel Controls 1.36 cfs @ 1.94 fps)

Pond 6P: east pond

Hydrograph



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Type II 24-hr 100-yr Rainfall=5.60"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 3S: west trib

Runoff Area=2.740 ac 67.06% Impervious Runoff Depth>4.18"
Flow Length=294' Tc=2.6 min CN=90 Runoff=21.55 cfs 0.955 af

Subcatchment 5S: east trib

Runoff Area=43,730 sf 93.18% Impervious Runoff Depth>4.76"
Flow Length=309' Tc=2.7 min CN=96 Runoff=8.44 cfs 0.398 af

Pond 4P: west pond

Peak Elev=902.43' Storage=50,909 cf Inflow=22.79 cfs 1.342 af
Outflow=0.22 cfs 0.173 af

Pond 6P: east pond

Peak Elev=901.37' Storage=7,718 cf Inflow=8.44 cfs 0.398 af
12.0" Round Culvert n=0.025 L=56.5' S=0.0023 '/' Outflow=1.51 cfs 0.387 af

Total Runoff Area = 3.744 ac Runoff Volume = 1.353 af Average Runoff Depth = 4.34"
25.93% Pervious = 0.971 ac 74.07% Impervious = 2.773 ac

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Type II 24-hr 100-yr Rainfall=5.60"

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Summary for Subcatchment 3S: west trib[49] Hint: $T_c < 2dt$ may require smaller dt

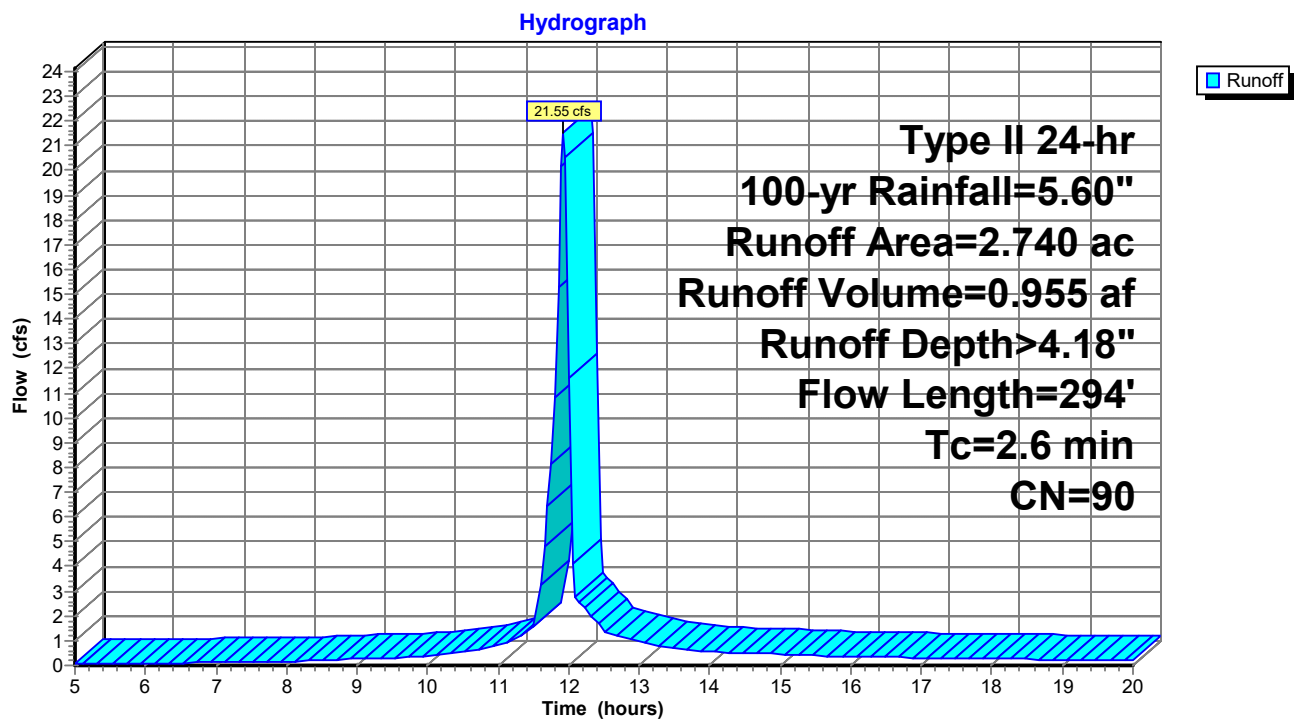
Runoff = 21.55 cfs @ 11.93 hrs, Volume= 0.955 af, Depth> 4.18"
 Routed to Pond 4P : west pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, $dt=0.05$ hrs
 Type II 24-hr 100-yr Rainfall=5.60"

Area (ac)	CN	Description
0.430	80	1/2 acre lots, 25% imp, HSG C
0.530	98	Water Surface, HSG C
1.200	98	Paved parking, HSG C
0.580	74	>75% Grass cover, Good, HSG C
2.740	90	Weighted Average
0.902		32.94% Pervious Area
1.837		67.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	40	0.2000	2.48		Sheet Flow, Smooth surfaces $n=0.011$ $P2=2.38"$
2.3	240	0.0075	1.76		Shallow Concentrated Flow, Paved $K_v=20.3$ fps
0.0	14	0.2500	7.50		Shallow Concentrated Flow, Grassed Waterway $K_v=15.0$ fps
2.6	294	Total			

Subcatchment 3S: west trib



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Type II 24-hr 100-yr Rainfall=5.60"

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Summary for Subcatchment 5S: east trib[49] Hint: $T_c < 2dt$ may require smaller dt

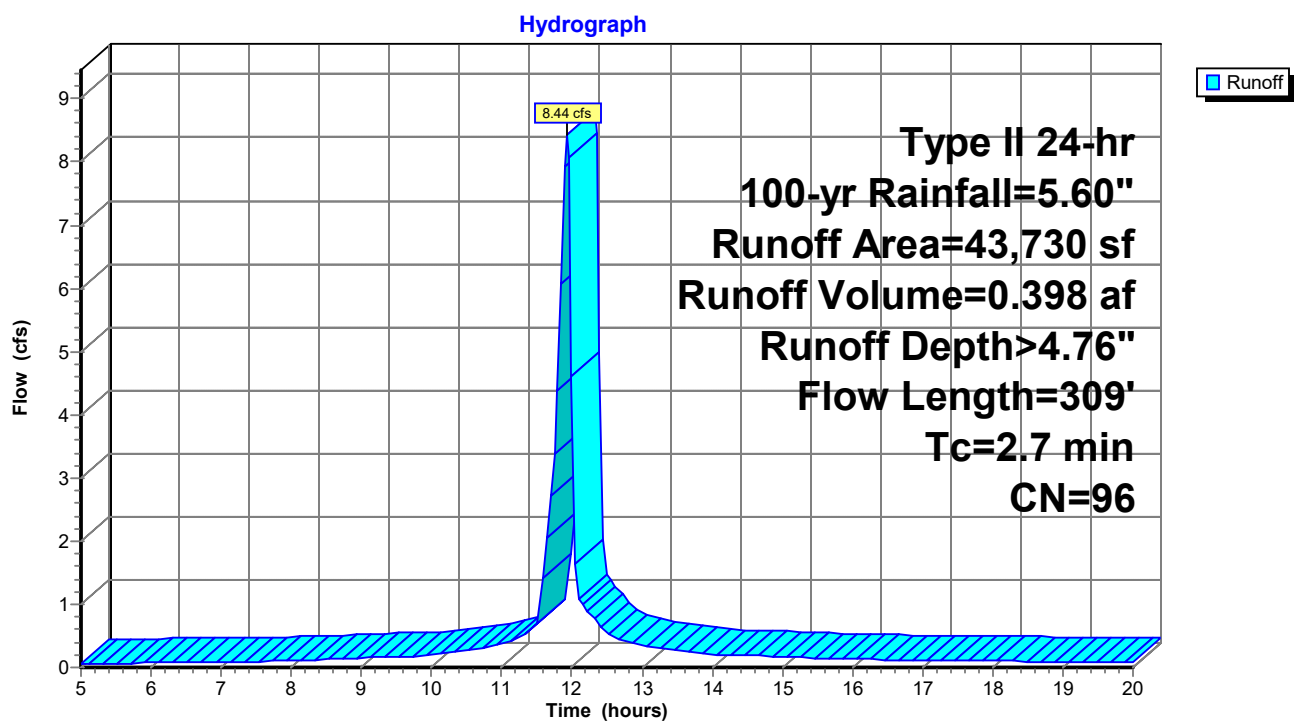
Runoff = 8.44 cfs @ 11.93 hrs, Volume= 0.398 af, Depth> 4.76"
 Routed to Pond 6P : east pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, $dt=0.05$ hrs
 Type II 24-hr 100-yr Rainfall=5.60"

Area (sf)	CN	Description
9,928	98	Water Surface, HSG C
30,820	98	Paved parking, HSG C
2,982	74	>75% Grass cover, Good, HSG C
43,730	96	Weighted Average
2,982		6.82% Pervious Area
40,748		93.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	40	0.2000	2.48		Sheet Flow, Smooth surfaces $n=0.011$ $P2=2.38"$
2.4	255	0.0075	1.76		Shallow Concentrated Flow, Paved $K_v=20.3$ fps
0.0	14	0.2500	7.50		Shallow Concentrated Flow, Grassed Waterway $K_v=15.0$ fps
2.7	309	Total			

Subcatchment 5S: east trib



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Type II 24-hr 100-yr Rainfall=5.60"

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Summary for Pond 4P: west pond

[82] Warning: Early inflow requires earlier time span

[44] Hint: Outlet device #1 is below defined storage

[81] Warning: Exceeded Pond 6P by 2.00' @ 19.95 hrs

Inflow Area = 3.744 ac, 74.07% Impervious, Inflow Depth > 4.30" for 100-yr event
 Inflow = 22.79 cfs @ 11.93 hrs, Volume= 1.342 af
 Outflow = 0.22 cfs @ 20.00 hrs, Volume= 0.173 af, Atten= 99%, Lag= 484.3 min
 Primary = 0.22 cfs @ 20.00 hrs, Volume= 0.173 af
 Routed to nonexistent node 10P

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

Peak Elev= 902.43' @ 20.00 hrs Surf.Area= 21,809 sf Storage= 50,909 cf

Plug-Flow detention time= 339.1 min calculated for 0.173 af (13% of inflow)

Center-of-Mass det. time= 127.0 min (890.9 - 763.9)

Volume	Invert	Avail.Storage	Storage Description
#1	899.50'	63,660 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
899.50	256	0	0
900.00	16,683	4,235	4,235
901.00	18,706	17,695	21,929
902.00	20,830	19,768	41,697
903.00	23,095	21,963	63,660

Device	Routing	Invert	Outlet Devices
#1	Primary	899.25'	1.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	899.60'	2.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

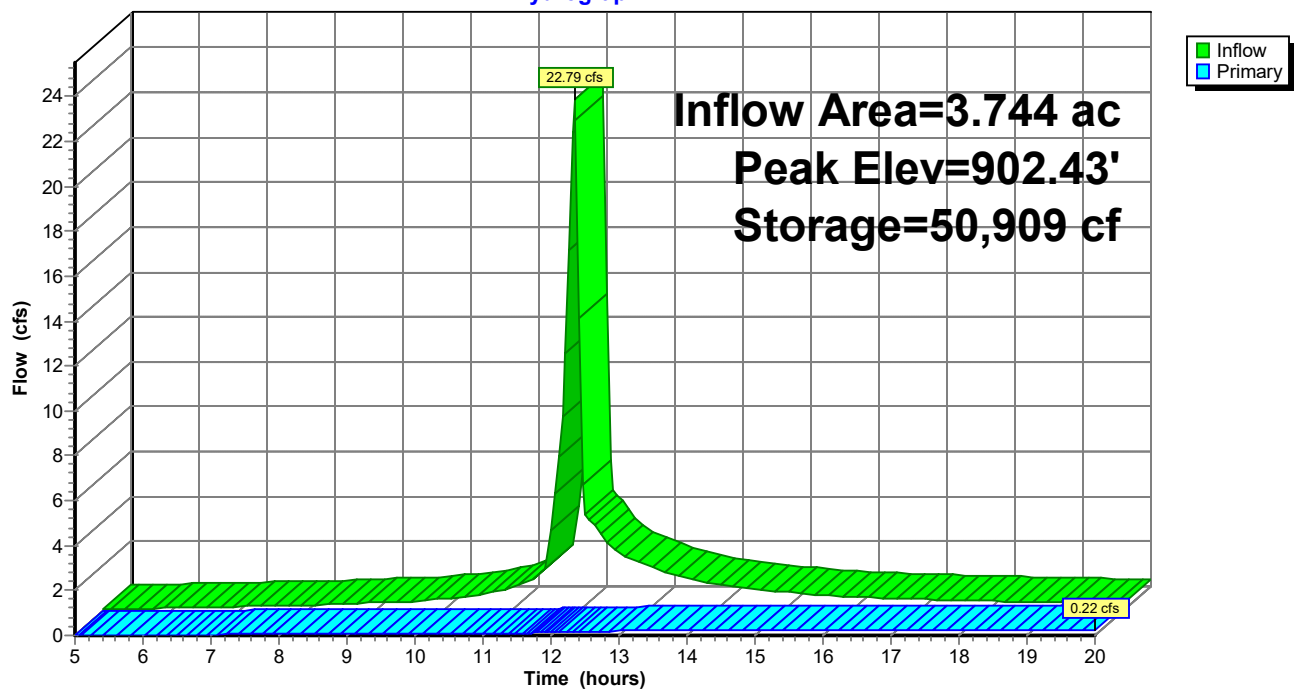
Primary OutFlow Max=0.22 cfs @ 20.00 hrs HW=902.43' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.05 cfs @ 8.53 fps)

2=Orifice/Grate (Orifice Controls 0.17 cfs @ 7.98 fps)

Pond 4P: west pond

Hydrograph



Summary for Pond 6P: east pond

[82] Warning: Early inflow requires earlier time span

[44] Hint: Outlet device #1 is below defined storage

Inflow Area = 1.004 ac, 93.18% Impervious, Inflow Depth > 4.76" for 100-yr event
 Inflow = 8.44 cfs @ 11.93 hrs, Volume= 0.398 af
 Outflow = 1.51 cfs @ 12.07 hrs, Volume= 0.387 af, Atten= 82%, Lag= 8.7 min
 Primary = 1.51 cfs @ 12.07 hrs, Volume= 0.387 af
 Routed to Pond 4P : west pond

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 901.37' @ 12.07 hrs Surf.Area= 8,366 sf Storage= 7,718 cf

Plug-Flow detention time= 81.9 min calculated for 0.386 af (97% of inflow)
 Center-of-Mass det. time= 69.9 min (802.2 - 732.3)

Volume	Invert	Avail.Storage	Storage Description
#1	900.25'	18,035 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
900.25	257	0	0
900.50	7,228	936	936
901.00	7,865	3,773	4,709
902.00	9,215	8,540	13,249
902.50	9,928	4,786	18,035

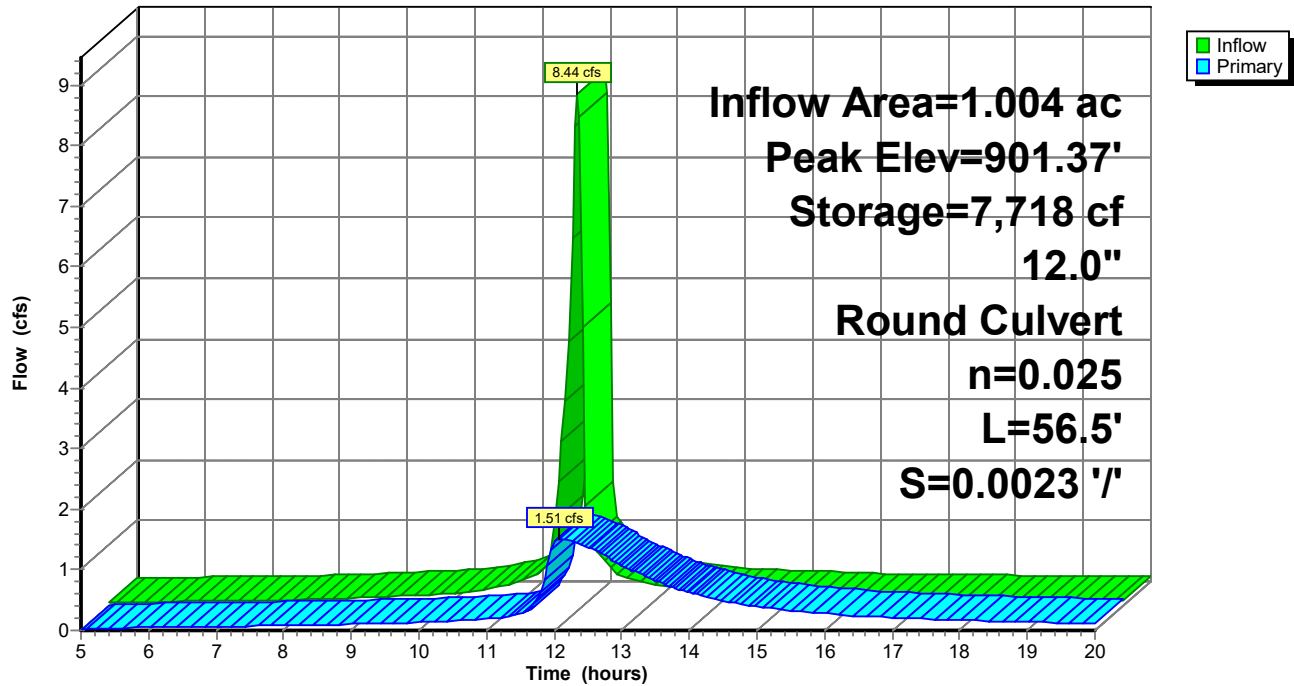
Device	Routing	Invert	Outlet Devices
#1	Primary	900.13'	12.0" Round Culvert L= 56.5' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 900.13' / 900.00' S= 0.0023 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf

Primary OutFlow Max=1.50 cfs @ 12.07 hrs HW=901.37' (Free Discharge)

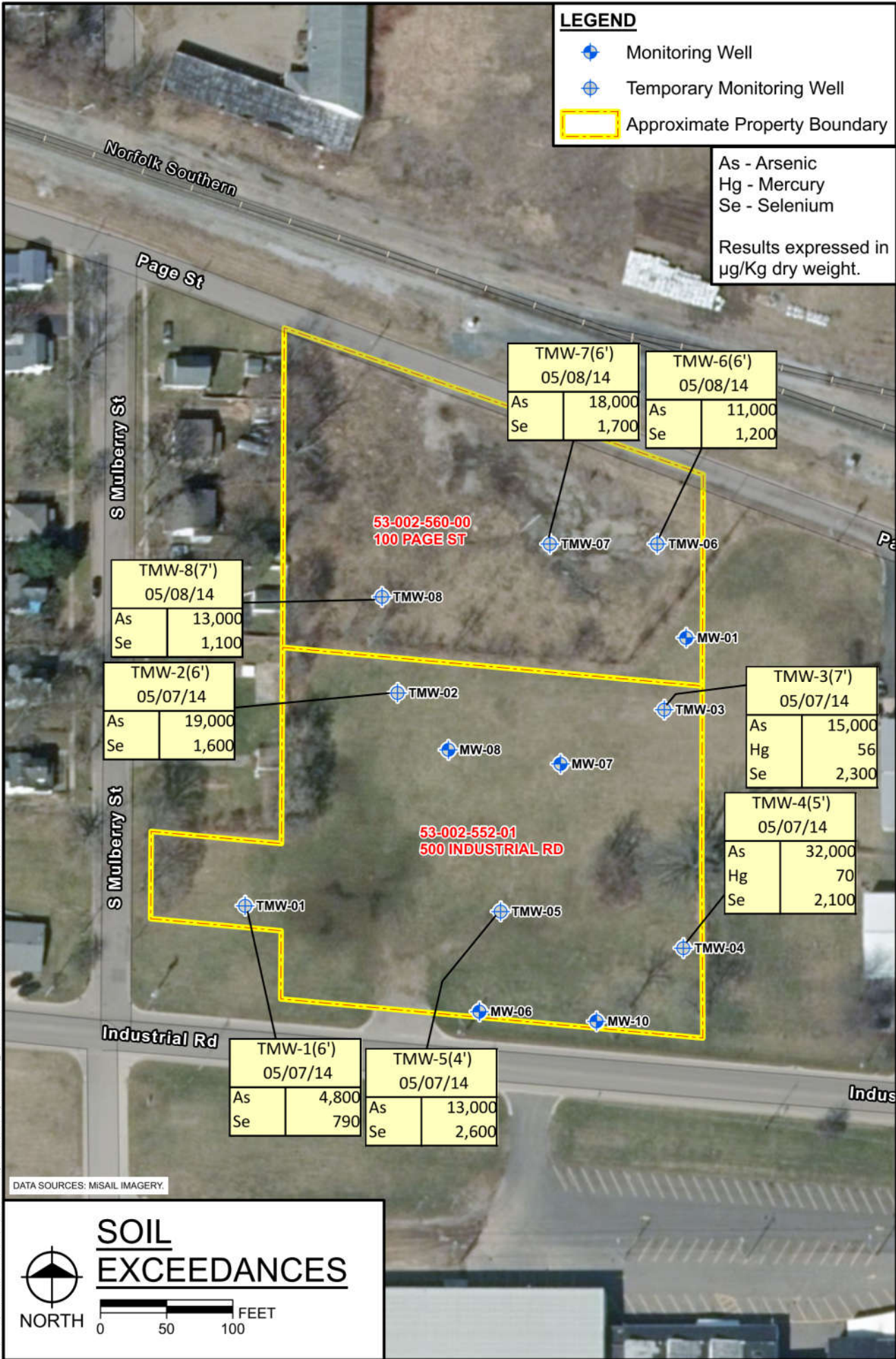
↑ **1=Culvert** (Barrel Controls 1.50 cfs @ 1.98 fps)

Pond 6P: east pond

Hydrograph



PLOT INFO: Z:\2023\231250\CAD\GIS\Proj\DCP.aprx Layout: FIG03_Soil Exceedances Date: 8/14/2023 3:04 PM User: ahavins



Hard copy is intended to be 8.5"x11" when plotted. Scale(s) indicated and graphic quality may not be accurate for any other size.

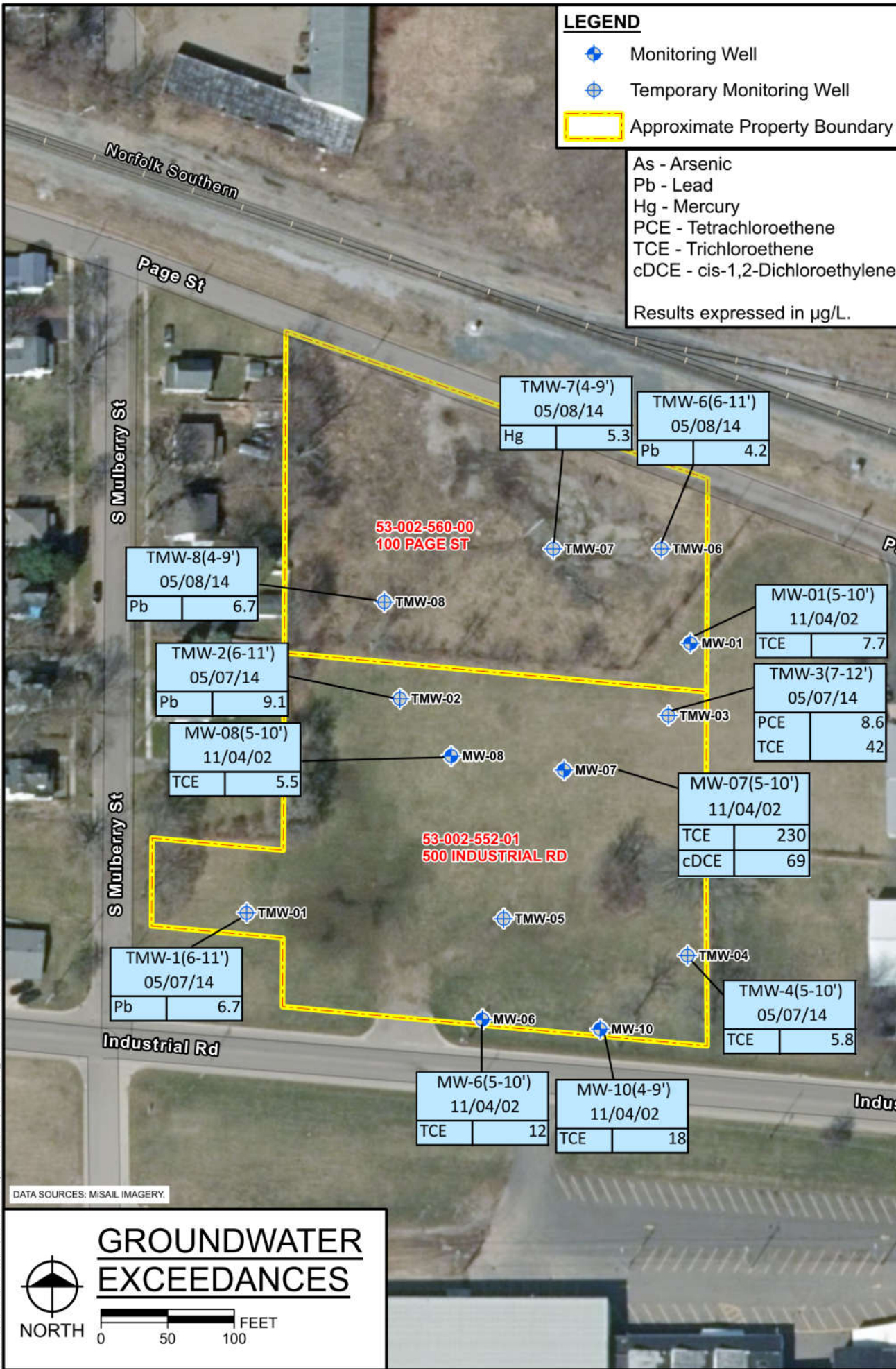
100 Page St & 500 Industrial Rd
Marshall, Michigan

Plan to Comply with Due Care During Construction

PROJECT NO.
231250

FIGURE NO.
3

PLOT INFO: Z:\2023\231250\CAD\GIS\Proj\DCP.aprx Layout: FIG04_Groundwater Exceedances Date: 8/17/2023 3:59 PM User: ahavens



Hard copy is intended to be 8.5"x11" when plotted. Scale(s) indicated and graphic quality may not be accurate for any other size.

100 Page St & 500 Industrial Rd

Marshall, Michigan

Plan to Comply with Due Care During Construction

PROJECT NO.
231250

FIGURE NO.
4

Project: 500 Industrial Road
Location: Marshall, MI



Purpose: To calculate the first flush runoff flow rate (WQF) over a given site area. In this situation the WQV to be analyzed is the runoff produced by the first 1" of rainfall.

Reference: United States Department of Agriculture Natural Resources Conservation Service TR-55 Manual.

Given:	Structure Name	A (acres)	A (miles ²)	Runoff Coefficient	Percent Imp. (%)*	t _c (min)	t _c (hr)
	WQ1	2.50	0.00391	0.90	100.00	15.0	0.250
	WQ2	1.00	0.00156	0.90	100.00	15.0	0.250

* Assumes runoff coefficient of 0.3 for pervious areas and 0.9 for impervious areas.

Procedure: The Water Quality Flow (WQF) is calculated using the Water Quality Volume (WQV). This WQV, converted to watershed inches, is substituted for the runoff depth (Q) in the Natural Resources Conservation Service (formerly Soil Conservation Service), TR-55 Graphical Peak Discharge Method.

1. Compute WQV in watershed inches using the following equation:

$$WQV = P * R$$

where: WQV = water quality volume (watershed inches)
P = design precipitation (inches)
R = volumetric runoff coefficient = 0.05 + 0.009(I)
I = percent impervious cover

Structure Name	Percent Imp. (%)	R	P (in)	WQV (in)	WQV (cf)
WQ1	100.00	0.950	1	0.950	8621
WQ2	100.00	0.950	1	0.950	3449

2. Compute the NRCS Runoff Curve Number (CN) using the following equation, or graphically using Figure 2-1 from TR-55 (USDA, 1986):

$$CN = 1000 / [10 + 5P + 10Q - 10(Q^2 + 1.25QP)^{1/2}]$$

where: CN = Runoff Curve Number
P = design precipitation (inches)
Q = runoff depth (watershed inches)

Structure Name	Q (in)	CN
WQ1	0.950	99.57
WQ2	0.950	99.57

Project: 500 Industrial Road
Location: Marshall, MI



3. Using computed CN, read initial abstraction (I_a) from Table 4-1 in Chapter 4 of TR-55; compute I_a/P , interpolating when appropriate.

Structure Name	I_a (in)	I_a/P
WQ1	0.041	0.041
WQ2	0.041	0.041

4. Compute the time of concentration (t_c) in hours and the drainage area in square miles. A minimum t_c of 0.167 hours (10 minutes) should be used.

Structure Name	t_c (hr)	A (miles ²)
WQ1	0.250	0.00391
WQ2	0.250	0.00156

5. Read the unit peak discharge (q_u) from Exhibit 4-II in Chapter 4 of TR-55 for appropriate t_c for type II rainfall distribution.

Structure Name	t_c (hr)	I_a/P	q_u (csm/in)
WQ1	0.250	0.041	731
WQ2	0.250	0.041	731

6. Substituting WQV (watershed inches) for runoff depth (Q), compute the water quality flow (WQF) from the following equation:

$$WQF = (q_u) * (A) * (Q)$$

where: WQF = water quality flow (cfs)
 q_u = unit peak discharge (cfs/mi²/inch)
A = drainage area (mi²)
Q = runoff depth (watershed inches)

Structure Name	q_u (csm/in)	A (miles ²)	Q (in)	WQF (cfs)
WQ1	731	0.00391	0.950	2.71
WQ2	731	0.00156	0.950	1.09

**Estimated Net Annual Solids Load Reduction
Based on the Rational Rainfall Method**



**500 Industrial Road
Marshall, MI
WQ1**



AREA	2.50	acres	CASCADE MODEL	CS-4	
WEIGHTED C	0.90		PARTICLE SIZE	110	microns
TC	15.00	minutes	RAINFALL STATION	78	

Rainfall Intensity ¹ (in/hr)	Percent Rainfall Volume ¹	Hydraulic Loading Rate (gpm/ft ²)	Removal Efficiency (%)	Incremental Removal (%)
0.08	34.4%	6.43	100.0	34.4
0.16	18.2%	12.86	99.8	18.1
0.24	9.4%	19.29	93.8	8.8
0.32	5.7%	25.72	87.7	5.0
0.40	3.3%	32.15	81.7	2.7
0.48	3.1%	38.57	75.6	2.4
0.56	2.2%	45.00	69.6	1.6
0.64	3.1%	51.43	63.6	2.0
0.72	2.1%	57.86	57.5	1.2
0.80	1.6%	64.29	51.5	0.8
0.88	2.0%	70.72	45.4	0.9
0.96	1.0%	76.08	39.8	0.4
1.04	1.5%	76.08	36.8	0.5
1.12	1.2%	76.08	34.1	0.4
1.20	1.3%	76.08	31.9	0.4
1.28	1.1%	76.08	29.9	0.3
1.36	1.0%	76.08	28.1	0.3
1.44	0.8%	76.08	26.6	0.2
1.52	0.8%	76.08	25.2	0.2
1.60	0.3%	76.08	23.9	0.1
2.00	2.7%	76.08	19.1	0.5
2.40	1.2%	76.08	15.9	0.2
2.80	0.4%	76.08	13.7	0.1
3.20	0.0%	76.08	11.9	0.0
				81.4
Removal Efficiency Adjustment ² =				0.0%
Predicted % Annual Rainfall Treated =				94.0%
Predicted Net Annual Load Removal Efficiency =				81.4%

1 - Based on 5.5 years of 15 minute precipitation data from NCDC station 2102 at Detroit City Airport in Detroit, MI

2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

**Estimated Net Annual Solids Load Reduction
Based on the Rational Rainfall Method**



**500 Industrial Road
Marshall, MI
WQ2**



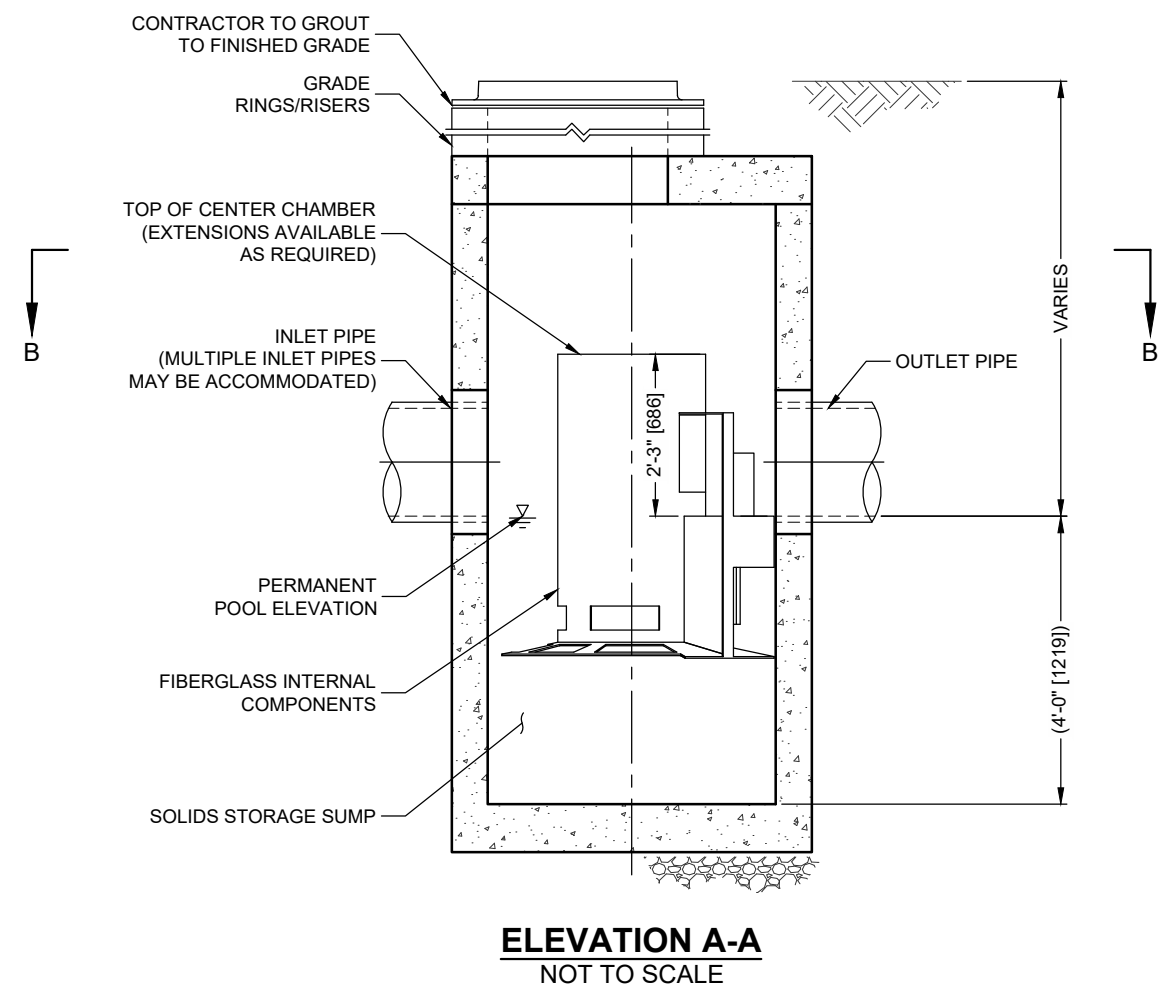
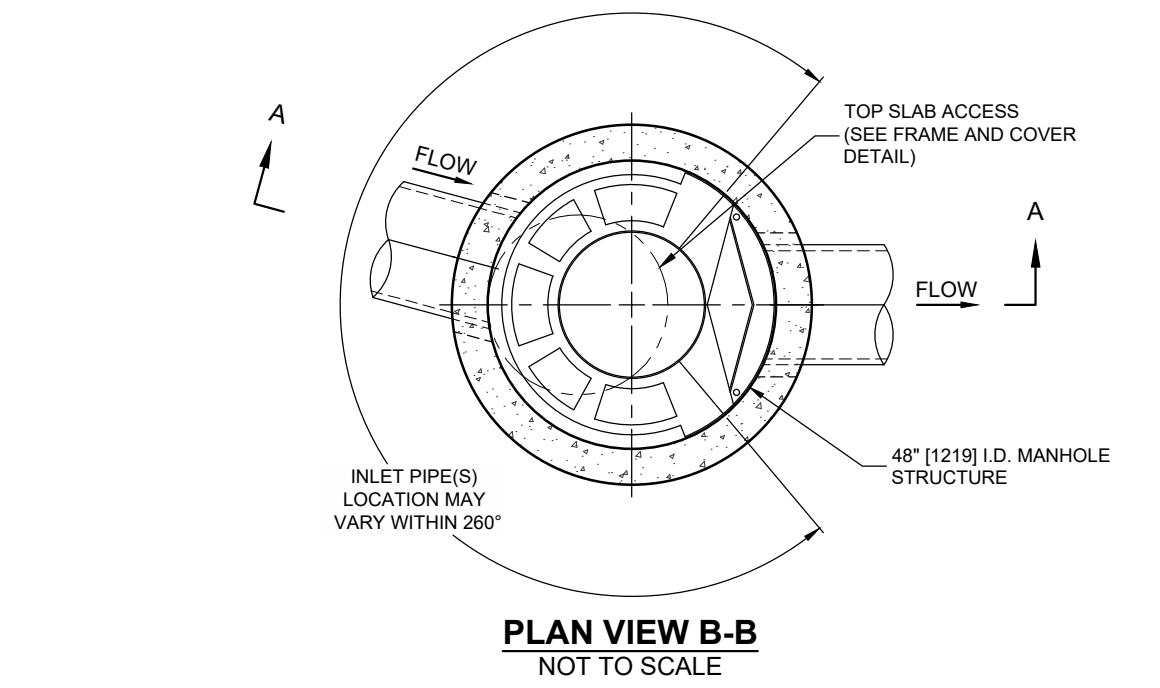
AREA	1.00	acres	CASCADE MODEL	CS-4	
WEIGHTED C	0.90		PARTICLE SIZE	110	microns
TC	15.00	minutes	RAINFALL STATION	78	

Rainfall Intensity ¹ (in/hr)	Percent Rainfall Volume ¹	Hydraulic Loading Rate (gpm/ft2)	Removal Efficiency (%)	Incremental Removal (%)
0.08	34.4%	2.57	100.0	34.4
0.16	18.2%	5.14	100.0	18.2
0.24	9.4%	7.71	100.0	9.4
0.32	5.7%	10.29	100.0	5.7
0.40	3.3%	12.86	99.8	3.2
0.48	3.1%	15.43	97.4	3.0
0.56	2.2%	18.00	95.0	2.1
0.64	3.1%	20.57	92.6	2.9
0.72	2.1%	23.14	90.1	1.9
0.80	1.6%	25.72	87.7	1.4
0.88	2.0%	28.29	85.3	1.7
0.96	1.0%	30.86	82.9	0.8
1.04	1.5%	33.43	80.5	1.2
1.12	1.2%	36.00	78.1	0.9
1.20	1.3%	38.57	75.6	1.0
1.28	1.1%	41.15	73.2	0.8
1.36	1.0%	43.72	70.8	0.7
1.44	0.8%	46.29	68.4	0.5
1.52	0.8%	48.86	66.0	0.5
1.60	0.3%	51.43	63.6	0.2
2.00	2.7%	64.29	51.5	1.4
2.40	1.2%	76.08	39.8	0.5
2.80	0.4%	76.08	34.1	0.2
3.20	0.0%	76.08	29.9	0.0
				92.6
Removal Efficiency Adjustment ² =				0.0%
Predicted % Annual Rainfall Treated =				98.2%
Predicted Net Annual Load Removal Efficiency =				92.6%

1 - Based on 5.5 years of 15 minute precipitation data from NCDC station 2102 at Detroit City Airport in Detroit, MI

2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

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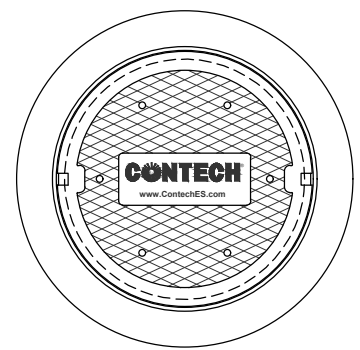
CASCADE
separator™

CASCADE SEPARATOR DESIGN NOTES

THE STANDARD CS-4 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION

GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES



FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (cfs [L/s])			
PEAK FLOW RATE (cfs [L/s])			
RETURN PERIOD OF PEAK FLOW (yrs)			
RIM ELEVATION			
PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			

NOTES / SPECIAL REQUIREMENTS:

GENERAL NOTES

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
- CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
- CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.
- ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].

INSTALLATION NOTES

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
- CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH
ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CS-4
CASCADE SEPARATOR
STANDARD DETAIL



ITEM 8.A

TO: Planning Commission
FROM: Eric Zuzga, Director of Community Services
DATE: April 10, 2024
SUBJECT: **SP #24.01- 500 INDUSTRIAL ROAD SITE PLAN**

Case #: SP#24.01
Address: 500 Industrial Road
Parcel #: 53-002-552-01 and 53-002-560-00
Zoning District: Research and Technical District (I-1)
Surrounding Zoning: Multi Family Residential (MFRD) to the west, I-1 to the north and east, and I-2 to the south
Surrounding Uses: Single family residential to the west; industrial to the north, south, and east
Previous Action: N/A

Don Loveland has proposed the addition of four storage buildings on the former Ronan Kunzl property at 500 Industrial Rd. This use is allowed in the I-1 Zoning District, but requires a special land use approval which is addressed earlier in this agenda.

Development Review Team

The City Development Review Team has reviewed the site and have provided the following comments:

- Knox Box is necessary for public safety access to the facility.
- North of the storm basins appears to be a boulevard or gate base, as you enter the storage area. I can't tell if there is another fence there. Define drive width of each side of this feature – should meet 12' minimum. There shall be no parking in this driveway.
- Define radius width of corners. Define any overhead obstructions to 12' 6". Will there be another pedestrian or vehicle entrance from Page St.

The applicant has provided answers to all of these questions and is in compliance with the requests.

Storm Water Review

The City has contracted with the Spicer Group to complete storm water review on all site plans. The following comments and recommendations were provided by Chris Mattson, PE, our Project Manager for these reviews:

1. The site design provides first-flush water quality control through a mechanical treatment device.
 - a. The proposed treatment device is a CS-4 cascade separator device by Contech which meets the required criteria with an NJDEP certification.
2. The infiltration requirement has not been met due to contaminated soils present on the site.

- a. An analysis of soil and groundwater show several exceedance readings for contamination across the site.
 - b. In a report from Fishbeck, it is noted that soil concentrations of contaminants could leach into groundwater and that preventing stormwater interface with the soil will avoid the creation of a transmission pathway for contaminants.
 - c. Detention ponds on-site will be constructed with an impermeable membrane.
 - d. We recommend that the infiltration requirement be waived for this site.
3. The site design provides for flood control with on-site detention ponds with a controlled release rate.
- a. A stormwater model and report was prepared for MDOT that shows the design will reduce outlet flowrates for all storms up to the 100-year storm.
4. The site's outlet is to the west via storm sewer on Mulberry Street, a City street.
- a. According to the developer's engineer, MDOT required application and approval for stormwater connection and capacity review due to the proximity of the stormwater connection to Industrial Road being approximately 60 feet.
 - b. We recommend that the developer provide written approval from MDOT that the outlet has available capacity and may be used by the development.**
 - c. We recommend that the developer obtain a permit from the City to construct within the road ROW to tap the drainage structure for the site's stormwater outlet. We also recommend that this permit allow for the site's perpetual use of the drainage facilities within the road ROW as its stormwater outlet.**

The applicant concurs with the requests from Spicer and will comply with the requirements listed.

PLANNING COMMISSION CONSIDERATIONS

Staff have reviewed the site plan based on the requirements of the B-4 Zoning District and related sections of the zoning ordinance. As part of our review, we evaluated the proposed facility through the following standards that the Planning Commission will use in the process of reviewing any site plan for approval:

1. Adequacy of information. The site plan information is complete, accurate, and in an understandable form that accurately depicts and describes the proposed development.

The site plan submitted was complete and accurate.

2. Site appearance and preservation. The site layout promotes the normal and orderly development of surrounding lots, and the development layout preserves, to the extent feasible, the site's natural, cultural, and historical features, such as but not limited to significant buildings, wetlands, topography, and woodlands.

The site is a contaminated former industrial site (zoned I-1) that has sat vacant for many years. There are no buildings or wetlands (per EGLE wetland inventory) and the site is relatively flat. West of the property is an older neighborhood with many homes in a state of disrepair. Industrial uses are north, east, and west of the site. The redevelopment of this site will improve the appearance of this corridor.

3. Pedestrian access. Existing and proposed sidewalks or pedestrian pathways connect to existing and planned public sidewalks and pathways in the area, and comply with applicable barrier-free access standards.

There are no sidewalks or pedestrian pathways in the area. Pedestrian access is not provided to the facility. The Planning Commission will have to discuss the provision of sidewalks along the ROW.

4. Vehicular circulation. Drives, streets, parking, site access and other vehicle-related elements are designed to minimize traffic conflicts on adjacent streets, and to promote safe and efficient traffic circulation.

Access to the site is limited to one driveway off of Industrial Rd. Access will not be provided to "Page St." The site is not expected to generate much traffic and all expected traffic should be adequately served by the proposed drives.

5. Parking and loading. Off-street parking lots and loading areas are arranged and located to accommodate the intensity of proposed uses, minimize conflicts with adjacent uses, and promote shared-use of common facilities where feasible.

The following parking standard is required for self-storage units: "Two for the caretaker's dwelling, plus one per 275 square feet of usable floor area in the principal building." There is no caretaker residence nor a "principal" building as storage facilities have shifted layouts as most (that I've seen) have offices off-site and sign up is completed remotely. Four dedicated parking spaces are provided and ample space is provided for people to load their units and others to move past them. Staff recommends deferring additional parking.

6. Building composition. Building design and architecture are harmonious with the surrounding neighborhood with regard to scale, mass, proportion, and materials.

The design and architecture of the building have been submitted and are attached. Staff believe that the proposed site will be harmonious with the neighborhood.

7. Screening. Adequate screening elements have been provided to buffer or separate unlike or conflicting land uses, and to screen off-street parking, mechanical appurtenances, loading and unloading areas and storage areas from abutting residential districts and street rights-of-way.

The plan meets the number of plants that are required per the zoning ordinance. The applicant has provided the necessary screening from the residential uses to the west and provides the street trees required by the ordinance.

8. Exterior lighting. All exterior lighting fixtures are designed and arranged to minimize glare and light trespass, prevent vision impairments, and maximize security.

The photometric plan is attached and meets all ordinance requirements. Security is provided and light trespass is minimized.

9. Impact upon public services. The impact upon public services (including utilities, streets, police and fire protection, emergency access, and public sidewalks and pathways) will not exceed the existing or planned capacity of such services.

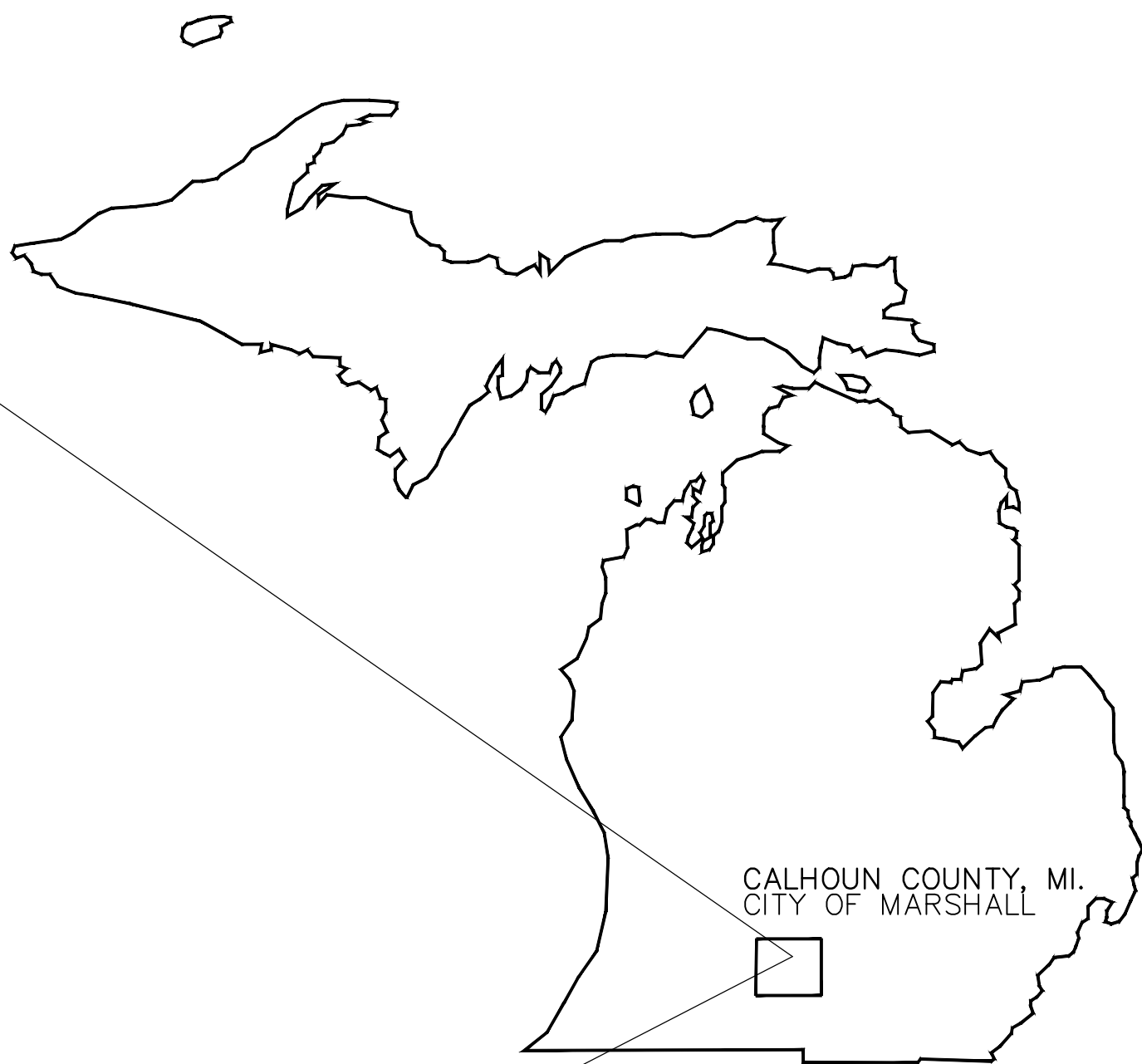
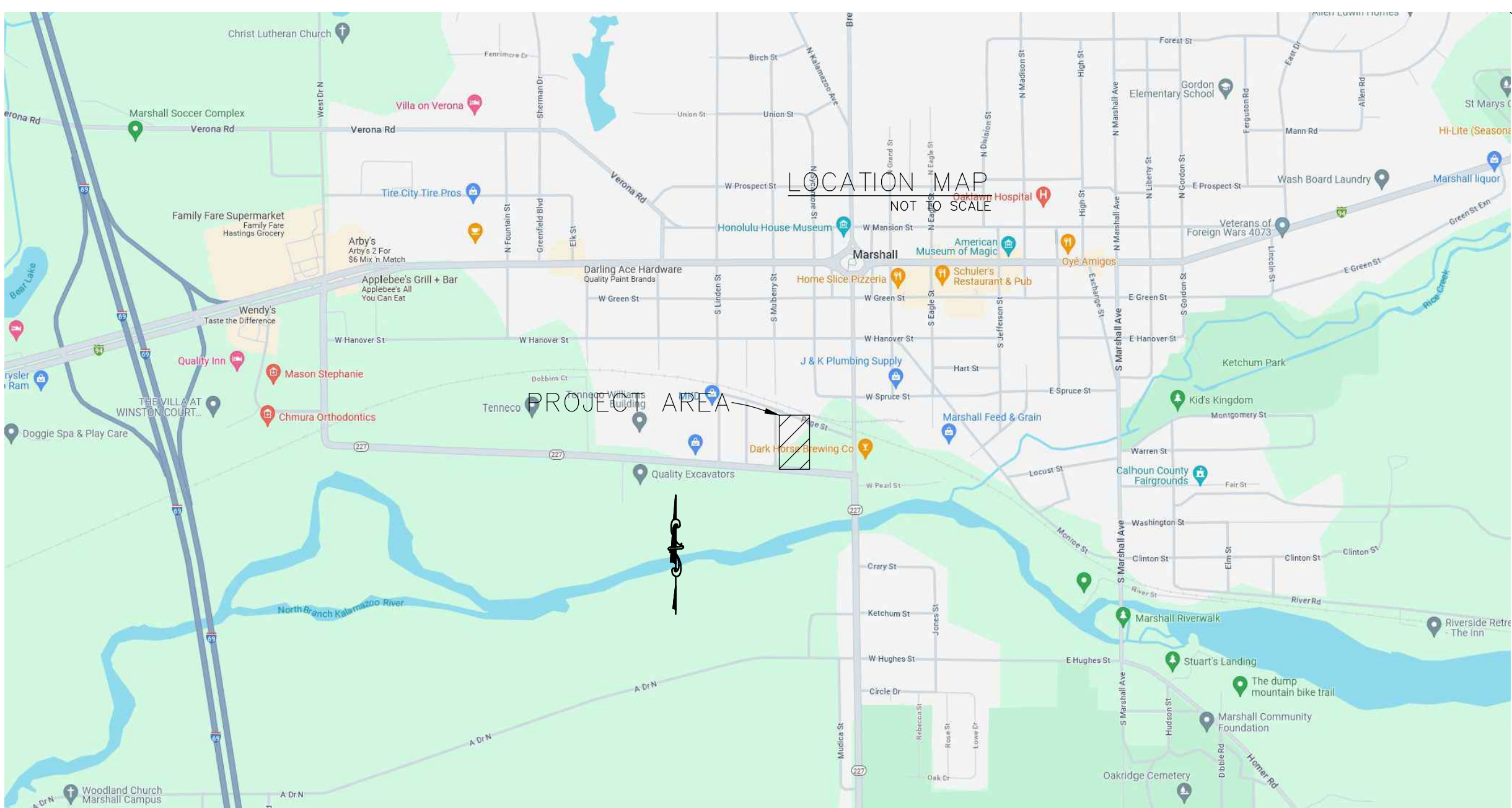
The impact of the project on public services is expected to be minimal. Emergency access is provided through a Knox Box and the drives meet the Fire Departments requirements. There is no water or sewer service to the site and the electric system has more than enough capacity in that area. The site is located off a MDOT trunkline which has more than enough capacity to serve the site. Storm water plans have been approved by Spicer.

BUDGET IMPACT:

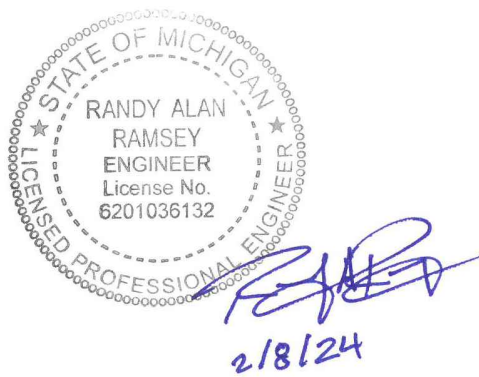
RECOMMENDATION:

Approve Site Plan #24.01 with the condition that parking as presented is sufficient and additional parking is deferred.

INDUSTRIAL RD STORAGE SITE PLAN



CLIENT:
DONALD LOVELAND
BUILDING BETTER SPACES, LLC
5903 SOARING EAGLE WAY
BATTLE CREEK, MI 49014



- INDEX:**
1. COVER SHEET
 2. ZONING AND LEGAL DESC
 3. SITE PLAN
 4. STORM SEWER PLAN AND PROFILE
 5. DETAIL SHEET
 6. OVERALL LANDSCAPE PLAN

The location of existing utilities, both underground and overhead are approximate only and have not independently been verified by the owner or its representative. The contractor shall be responsible for determining the exact location of all existing utilities whether shown on these plans or not, before commencing work, and shall be fully responsible for any and all damages which might be caused by the contractor's failure to exactly locate and preserve any and all utilities.

Call Miss Dig



14250 Beadle Lake Road
Suite 150
Battle Creek, MI 49014
269•962•5127
Fax: 962•8310
www.cei-bc.com

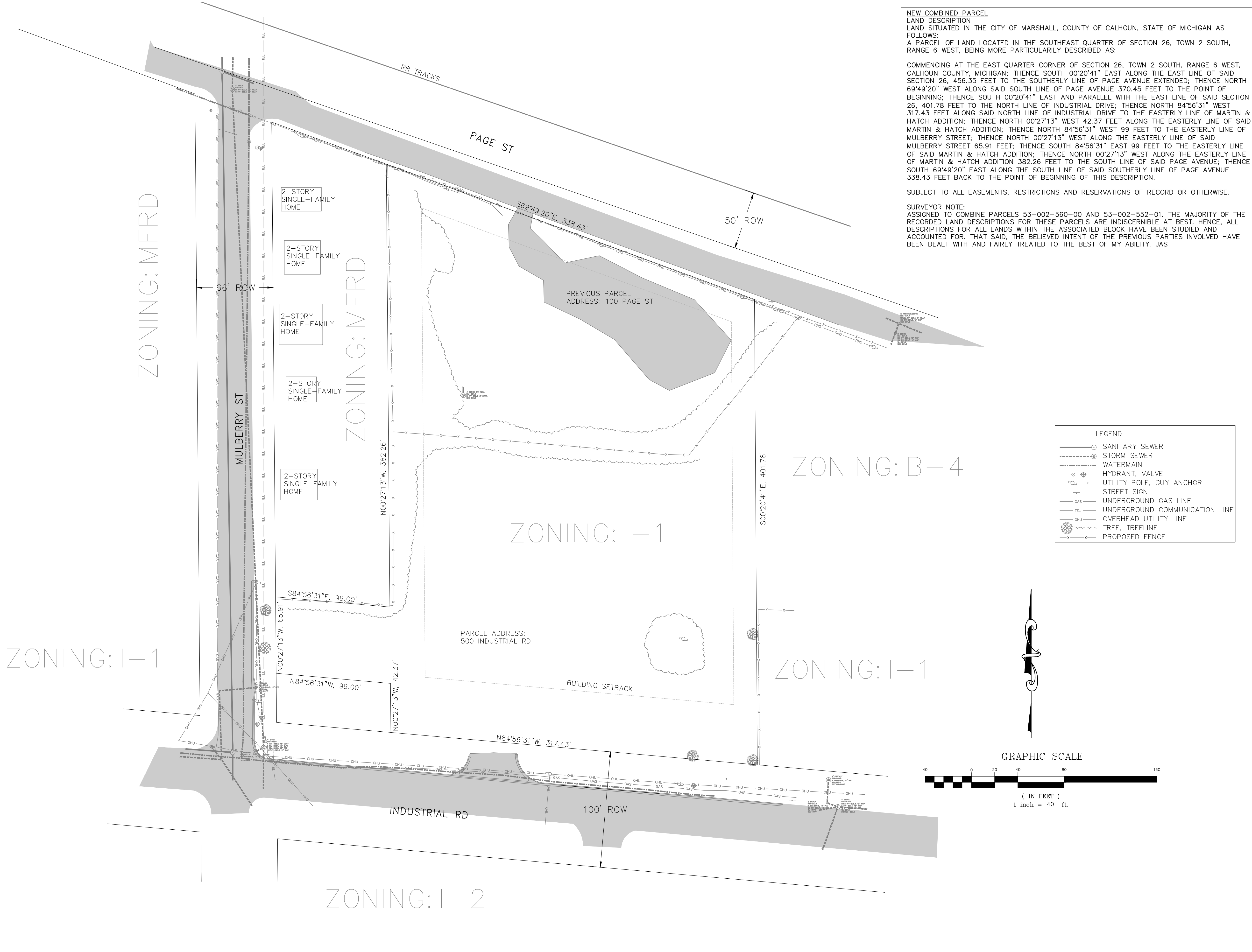
"Professional Engineering Since 1993"

JOB NO. 230604



DATE: 2/06/24
REV:
SHEET 1 OF 6

Feb 07, 2024 4:23pm P:_2023\230604_Industrial Rd Storage Units Site Plan\DESIGN\04-Drawings\marshall plan.dwg



CEI

Civil Engineers Inc.
14250 Beadle Lk Rd
Suite 150
Battle Creek, MI
49014-7202
www.cei-bc.com
269-962-5127

JOB NO: 230604
DATE: 2/06/24

DRAWN BY: CDB
REVIEWED BY: RAR

OWNER

DON LOVELAND
5903 SOARING EAGLE WAY
BATTLE CREEK, MI 49014
254.423.2869
don@strongarm-drywall.com

INDUSTRIAL DR STORAGE SITE PLAN

ZONING AND LEGAL DESC

Know What's
Below, Call
MISS DIG.

MISS
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811

REVISIONS

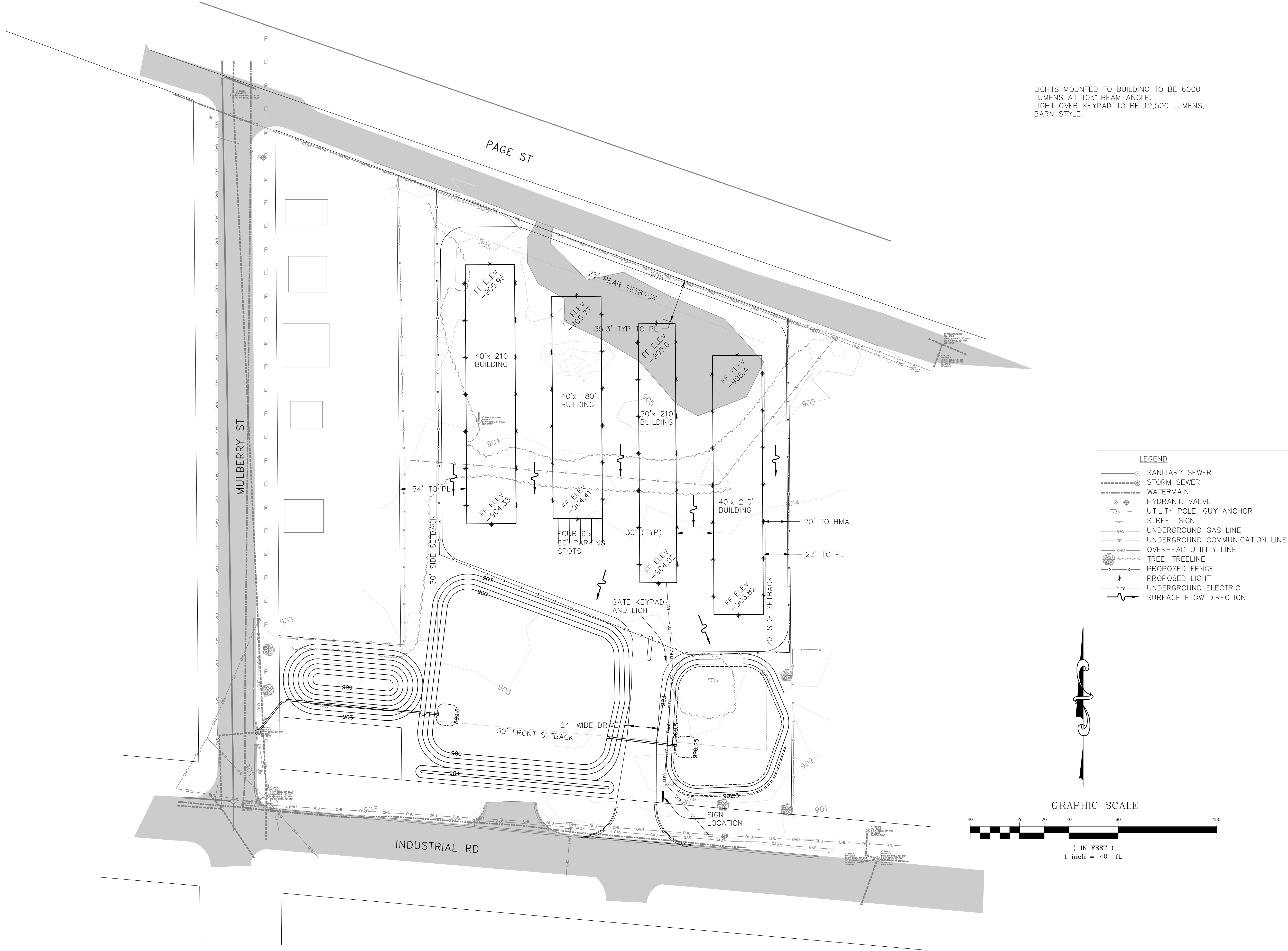
Date	Comment

SHEET

2/6

Page 76 of 134

Feb 07, 2024 4:24pm P:_2023\230604_Industrial Rd Storage Units Site Plan\DESIGN\04-Drawings\moraball plan.dwg



LIGHTS MOUNTED TO BUILDING TO BE 6000 LUMENS AT 105° BEAM ANGLE.
LIGHT OVER KEYPAD TO BE 12,500 LUMENS, BARN STYLE.



Civil Engineers Inc.
14250 Beadle Lk Rd
Suite 150
Battle Creek, MI
49014-7202
www.cei-bc.com
269-962-5127

JOB NO: 230604
DATE: 2/06/24

DRAWN BY: CDB
REVIEWED BY: RAR

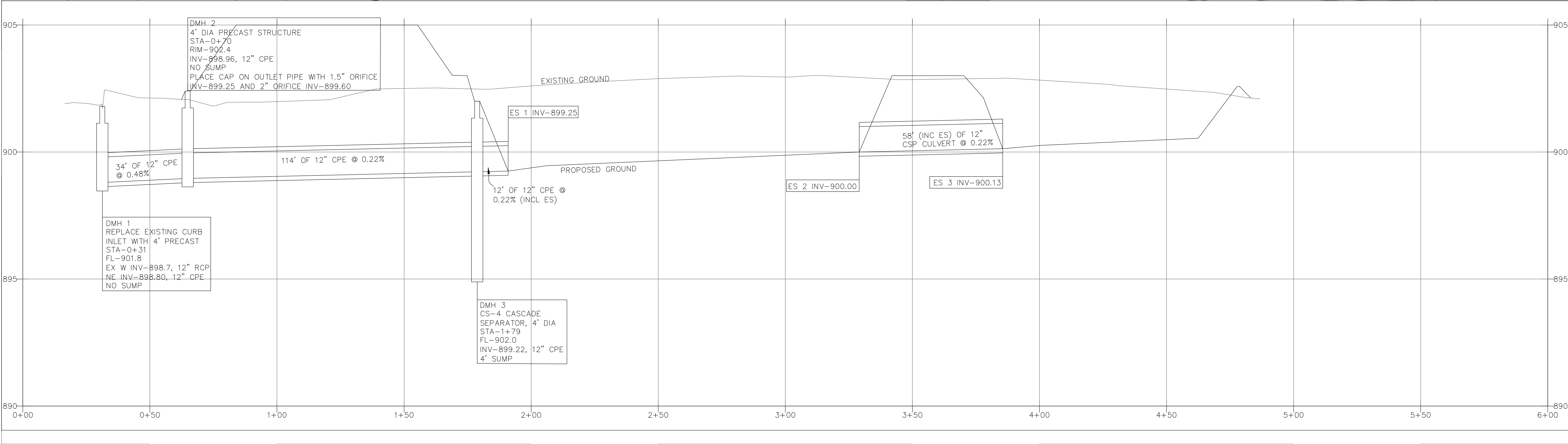
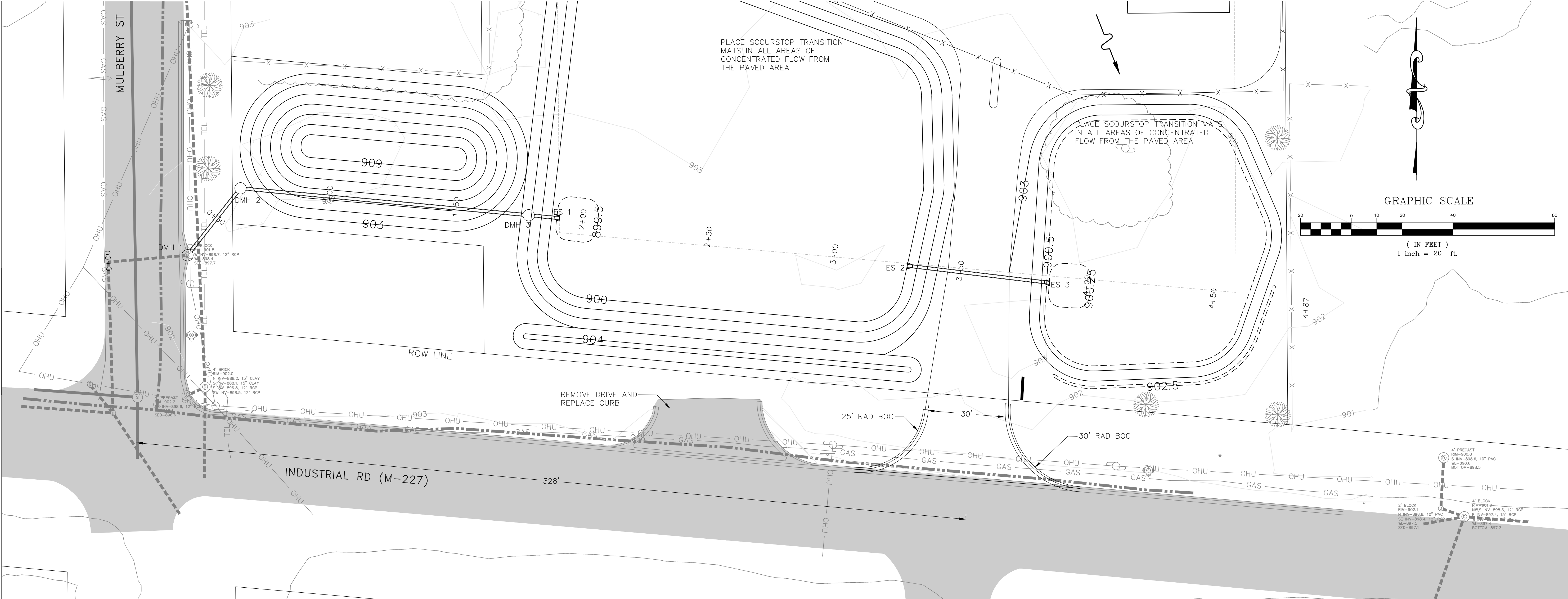
OWNER
DON LOVELAND
5903 SOARING EAGLE WAY
BATTLE CREEK, MI 49014
254.423.2869
don@strongarm-drywall.com

INDUSTRIAL DR STORAGE SITE PLAN

Know What's
Below, Call
MISS DIG.
**MISS
DIG
811**

REVISIONS	
Date	Comment

SHEET
3/6



Civil Engineers Inc.
14250 Beadle Lk Rd
Suite 150
Battle Creek, MI
49014-7202
www.cei-bc.com
269-962-5127

JOB NO: 230604
DATE: 2/06/24

DRAWN BY: CDB
REVIEWED BY: RAR

OWNER

INDUSTRIAL DR STORAGE SITE PLAN
STORM SEWER PLAN & PROFILE

Know What's
Below, Call
MISS DIG.

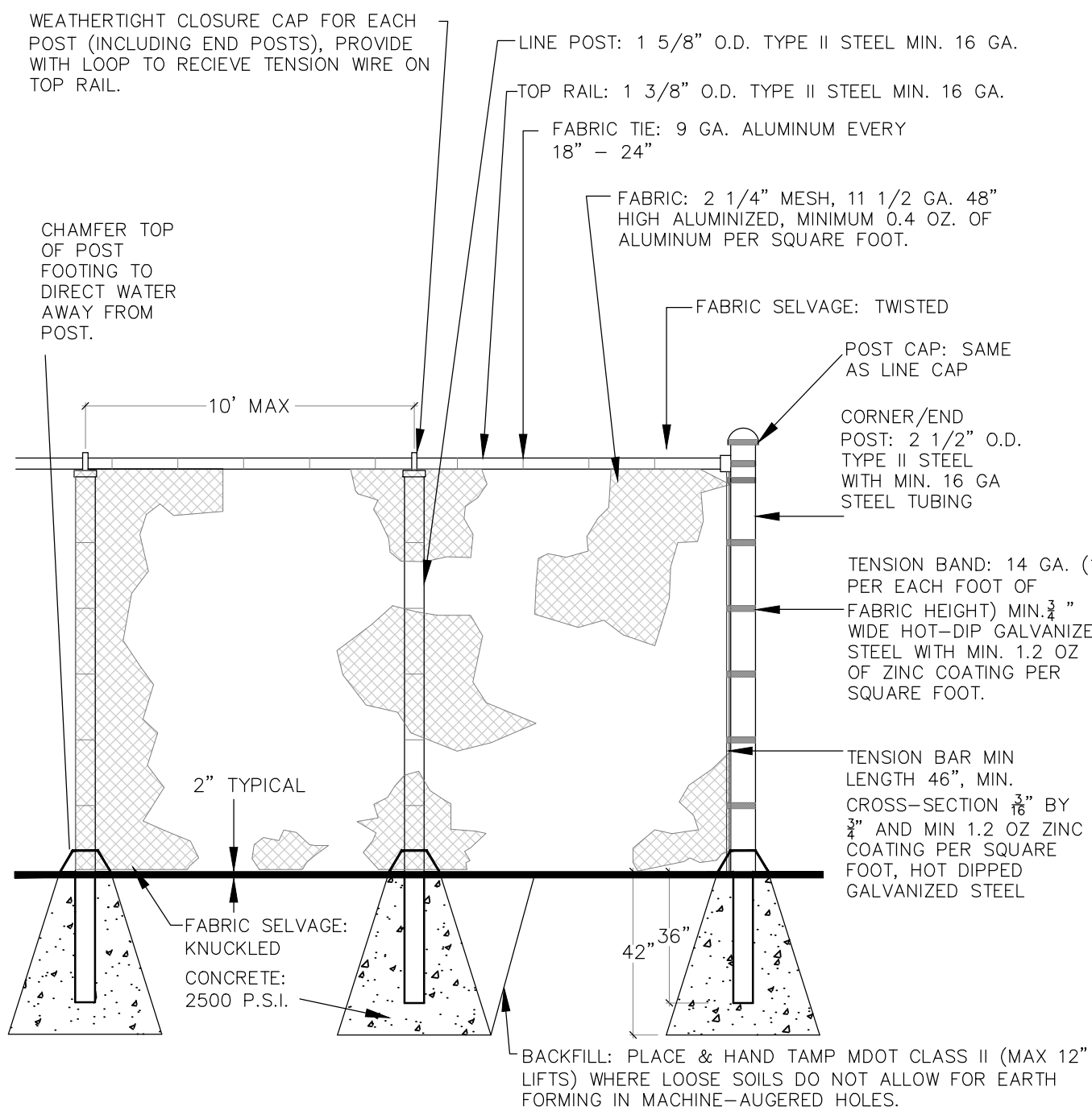


REVISIONS

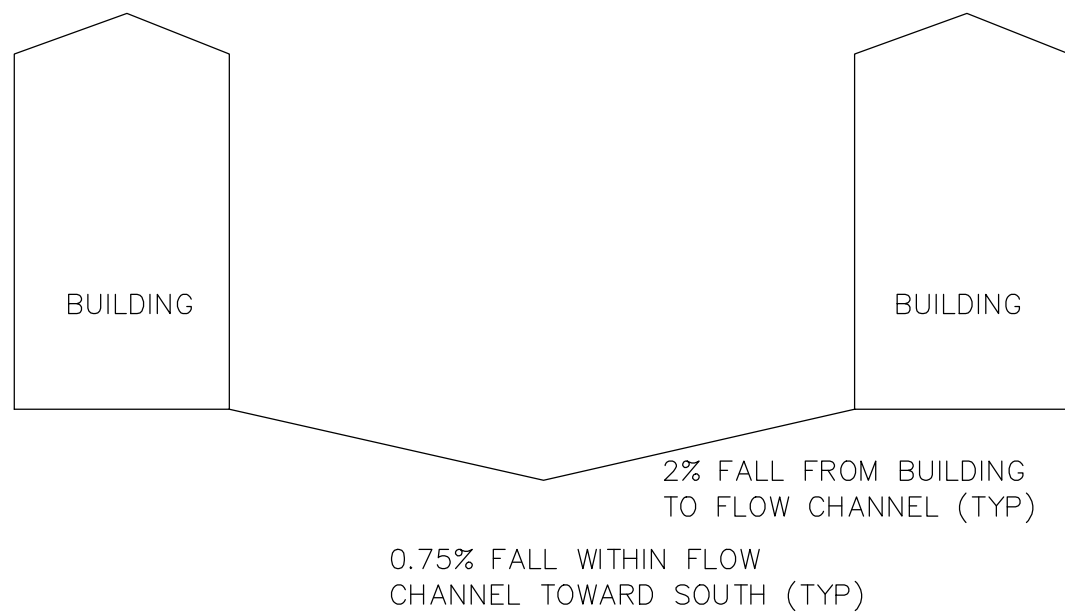
Date	Comment

SHEET
4/6

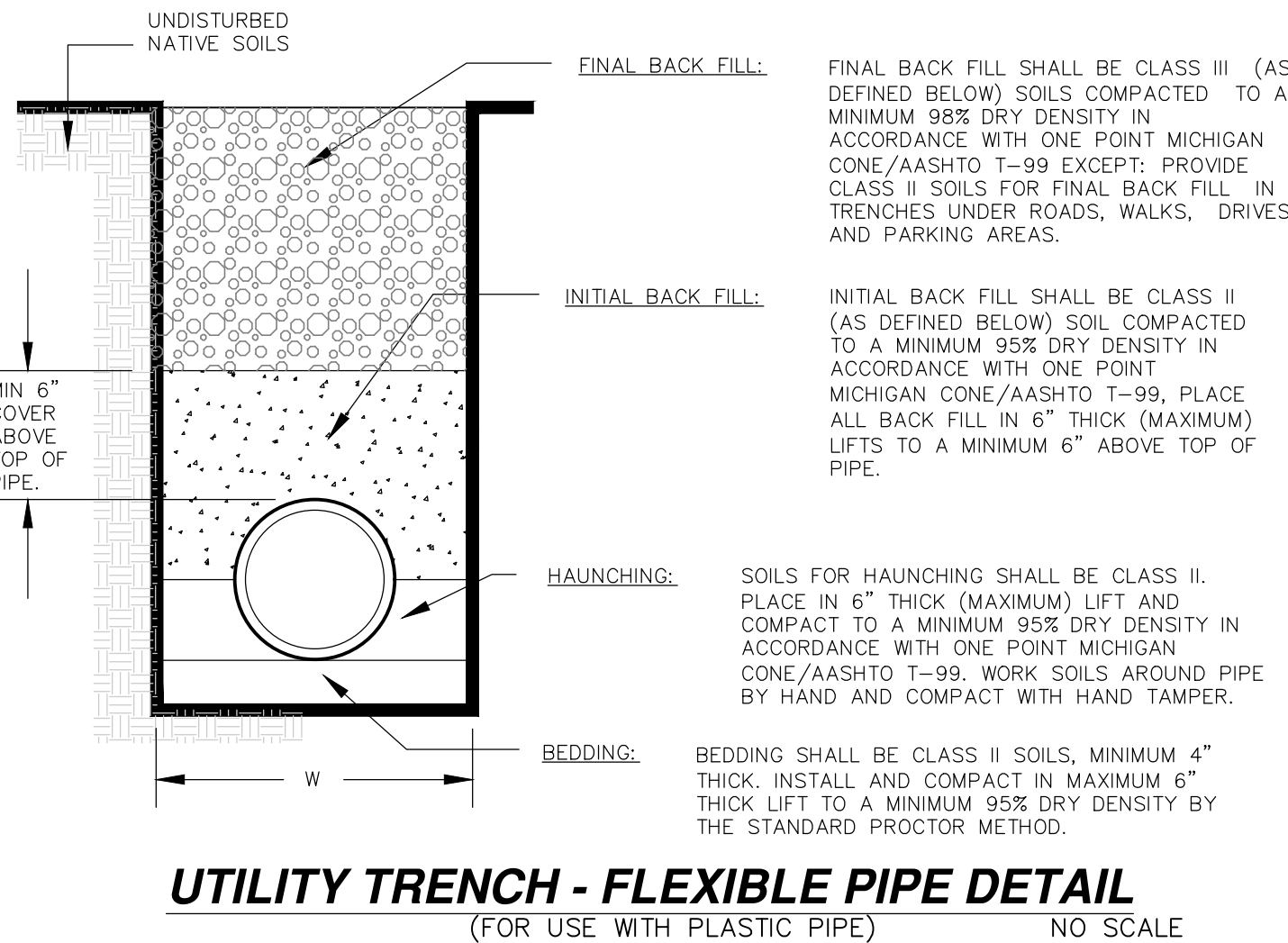
Feb 07, 2024 4:31pm P:_2023\230604_Industrial Rd Storage Units Site Plan\DESIGN\04-Drawings\marshalls plan.dwg



6' CHAIN LINK FENCING DETAIL
NO SCALE



GRADING CROSS-SECTION DETAIL
NO SCALE



REQUIREMENTS FOR SOIL CLASSES INDICATED IN THE TYPICAL TRENCH SECTION ARE DESCRIBED IN THE "SOIL CLASS" TABLE SHOWN ON THIS DETAIL. THESE REQUIREMENTS CORRESPOND WITH ASTM D 2321 "UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS". THIS INFORMATION IS FURNISHED SOLELY FOR THE CONVENIENCE OF THE CONTRACTOR WHO SHALL BE RESPONSIBLE FOR FURNISHING THEIR OWN COPY OF THE STANDARD AND IMPLEMENTING ALL APPLICABLE REQUIREMENTS STATED THEREIN.

ALL PLASTIC PIPE SHALL BE INSTALLED IN STRICT ACCORDANCE WITH APPLICABLE REQUIREMENTS OF ASTM D2321 "UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS".

DEFLECTION TESTING: A RIGID BALL OR MANDREL DEFLECTION TEST SHALL BE PERFORMED ON ALL FLEXIBLE PIPE, AFTER BACK FILL HAS BEEN PLACED. THE BALL SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.

COPIES OF ASTM D 2321 ARE AVAILABLE FOR PURCHASE FROM:
ASTM CUSTOMER SERVICE
100 BARR HARBOR DRIVE WEST
CONSHOCKEN, PA 19428-2959
(610) 832-9585

I.D. PIPE SIZE (INCHES)	<18	21	24	36
"W" TRENCH WIDTH (FEET)	3.0	3.5	4.0	6.0



CITY OF MARSHALL

SITE PLAN APPLICATION

SITE PLAN REVIEW PROCESS

THE CITY NOW REQUIRES ALL SITE SUBMISSIONS IN ELECTRONIC .PDF FORMAT, ACCOMPANIED BY TWO (2) LARGE SIZE PAPER COPIES.

Plans can be emailed to: TNelson@cityofmarshall.com

1. Site plan application and fee are submitted to the Department of Community Services at City Hall, 323 W. Michigan Ave., Marshall, MI from the hours of 8:00 a.m.-5:00 p.m. Applications and fees may be submitted by mail or in person. Site plan submissions are **required electronically with 2 large size paper copies**.
2. The initial site plan submission is dedicated to internal City staff review. The developer is welcome to attend this meeting. If the developer does not attend, revisions will be suggested in a letter.
4. A deadline is given to the developer to prepare revisions and re-submit by the corresponding Planning Commission "Submission Date" (dates attached).
5. At their next regular meeting, Planning Commission accepts the site plan. If the plan is complete, upon request, the Planning Commission may also move to approve. If the plan is not complete or there is no request, the Planning Commission will move to approve at their next regularly scheduled meeting.

Site Plan Submission Requirements (Review Zoning Ordinance for all requirements)

1. Complete the Application.
2. Review and follow the Site Plan Review checklist.
3. Go to www.cityofmarshall.com - Planning and Zoning and click on "Zoning Ordinance" under Helpful Link.
4. Submit a certified survey of the property with the site plan.
5. Submit a copy of the deed showing ownership

City Departments

Web site: www.cityofmarshall.com

City Manager

Derek Perry

269.558.0315

DPerry@cityofmarshall.com

Planning and Zoning

Trisha Nelson

269.558.0304

TNelson@cityofmarshall.com

Chief of Police

Josh Lanker

269.781.9810

JLanker@cityofmarshall.com

Director of Public Utilities

Marguerite Davenport

269.558.0323

MDavenport@cityofmarshall.com

Director of Electric Utilities

Kevin Maynard

269.558.0329

KMaynard@cityofmarshall.com

Building Official

Tim Musser

269.781.3985 x1507

TMusser@cityofmarshall.com

Water Dept. Supervisor

Aaron Ambler

269.558.0338

AAmbler@cityofmarshall.com

Wastewater Dept. Supervisor

Alec Egnatuk

269.558.0337

AEgnatuk@cityofmarshall.com

County Department

www.calhouncountymi.gov

Health Department – Food Services- Battle Creek

269-969-6373

Road Department – Soil and Erosion Permits - Marshall

269-781-9841

Michigan Department of Transportation

www.michigan.gov

269-789-0560 or toll free 1-877-324-6368

City of Marshall
Application for Site Plan Review

Attn: Planning and Zoning Administrator
323 W Michigan Ave.
Marshall, Michigan, 49068

The following application is made to the City of Marshall Planning Commission in accordance with the provisions of the Planning and Zoning Department.

1. Applicant Information

Address of property being developed:

500 Industrial Rd

Owner of property being developed:

Building Better Spaces, LLC

Owner's Address:

Battle Creek

MI

49014

City

State

Zip

Owner's Phone Number:

254.423.2869

2. Owner's Agent if working for property owner.

Name and Title:

Address:

City

State

Zip

Phone Number:

City of Marshall
Application for Site Plan Review

3. Brief description of proposed project

Site is proposed to be four storage unit buildings. Site will not be served by sanitary sewer or watermain as there will be no facilities requiring this. It will be served by underground electric. Due to possible contamination, stormwater runoff is not being infiltrated into the ground. The stormwater basins are lined with a membrane. Basins will empty into existing storm sewer in Mulberry St.

4. Property Information

Is this property located in a floodplain?	<u>No</u>
Is this property located in a wetland?	<u>No</u>
Land area in square feet?	<u>147,700</u>
Proposed building area in square feet?	<u>30,300</u>
Proposed paved area in square feet?	<u>54,300</u>
Existing paved area in square feet?	<u>12,400</u>
Lake or stream within 500 feet?	<u>No</u>
Any other agencies contacted for approvals?	<u>Yes</u>

If so, please list:

MDOT-Approved

City of Marshall
Application for Site Plan Review

5. Authorization (Must be signed by the owner of the property)

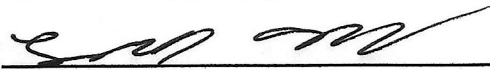
I am the owner of record for this property for which this application is being filed and as such, I am familiar with the development being proposed to be carried out on my property.

I hereby, give permission for this application to be filed with the full understanding that certain restriction may be placed on the property relative to the approval of the proposed work.

I further certify that under penalties of perjury, I am to sign this application.

Name (Please Print) Donald Loveland

Title: Owner Date: 2/9/2025

Signature: 

Note: If there are multiple owners of the property or you are representing a group, corporation, or other organization attach a copy of a certified letter authorizing you to sign this application for the proposed development.

LAND USE AND DEVELOPMENT FEES		
PLATS		
	Up to 30 Lots	\$550.00
	Over 30 Lots	\$750.00
SITE CONDOMINIUMS		
	Up to 30 Lots	\$450.00
	Over 30 Lots	\$650.00
SITE PLANS		
	Commercial and	\$350.00 < 30
	I	acres
	Special Land Use	\$400.00
	Planned Unit Development	\$500.00
	Amend a PUD	\$150.00
	Multiple Family Developments (Apartment &	\$50 plus \$5.00 per unit or
	Additions to existing Site Plans if Planning Commission Review is	lot
	required	\$100.00
	Extending Site Plan with Planning Commission	\$150.00

CITY OF MARSHALL

City of Marshall Grease Discharge Control Policy

All non-residential establishments that prepare, cook, or dispense food and discharge wastewater to the City of Marshall sanitary sewer system, are required to install and maintain an appropriately sized grease trap/grease interceptor. These establishments include but are not limited to restaurants, school kitchens, hotel kitchens, hospitals, church kitchens, bars, clubs, grocery stores, etc.

The City of Marshall Sewer Use Ordinance prohibits the discharge of grease in amounts that could cause interference or obstruction of wastewater flow. The Sewer Use Ordinance establishes the City's authority to enforce this policy and to impose fines and penalties for non-compliance, and to recover costs associated with enforcement & non-compliance.

Owners are required to contract a licensed plumber to install a properly sized grease trap/interceptor in accordance with the State of Michigan Plumbing Code. The grease trap or interceptor shall be certified by and/or designed according to the Plumbing and Drainage Institute standards. Prior to final connection to the City's sanitary sewer, the owner must notify the City Plumbing Inspector for inspection. The City of Marshall Wastewater Treatment Department must also be notified. Grease trap/interceptor location and specifications must be provided along with a written employee grease handling policy and an appropriate grease trap/interceptor maintenance schedule. Failure to meet code requirements, or provide required information will result in a denial to connect.

City personnel will inspect grease trap/interceptors and maintenance records on a regular basis. Failure to appropriately maintain a grease trap/interceptor may result in fines and/or disruption of service.

Cross Connections

In an effort to eliminate cross connections, the applicant needs to install backflow prevention devices in accordance with the Michigan Plumbing Code. For non-residential water users, backflow prevention devices for facility containment are preferred. Prior to connecting to water services, a cross connection inspection must be scheduled with the Water Superintendent.

Water Superintendent: Aaron Ambler 269.558.0328

Building Official: Tim Musser 269.781.3985

CITY OF MARSHALL

Site Plan Review Checklist for General Development

Date: _____

Zoning District _____

Proposed Use: _____

Is this a Permitted Use? ☐ Yes ☐ No

If yes list section number: _____

Is the property in the Well Head Protection Area? ☐ Yes ☐ No ☐ NA

Property Address: _____

Information of Responsible Party that prepared plans

Name: _____ Randy Ramsey, PE

Company Name: _____ Civil Engineers, Inc.

Company Address: _____ 14250 Beadle Lake Rd, Ste 150, Battle Creek, MI 49014

CITY OF MARSHALL

Zoning Ordinance, Article 6: Development Procedures: Section 6:3 - Site Plan Review is needed when:

☐

(A) - Any use or development stipulated elsewhere in the ordinance.

☐

(B) - All uses subject to land approval.

☐

(C) - Any areas for which off-street parking is required except for single- and two-family dwellings on a single lot.

☐

(D) - All permitted use, new construction, or any change of use lying contiguous to or across the street from a residential district.

☐

(E) - All residentially related uses permitted in a one-family district such as, but not limited to, institutional uses, churches, or public facilities.

☐

(F) - Any new use, addition or accessory structure that requires additional off-street parking to that already provided.

☐

(G) - Site plans for subdivisions and site condo developments.

☐

(H) - All uses not otherwise included within a specific use district.

☐

(I) - Any use for which the zoning administrator determines that PC review is necessary to determine compliance with the zoning ordinance.

☐

(J) - Amendments to approve site plans, except that the City Manager may approve minor modifications.

Note: Staff will review all plans prior to submitting them to Planning Commission.

Development Procedures: 6.3 – Site Plan Review: The following information should be included in your site plan:

☐

Plans submitted for site plan review shall be stamped by a design professional licensed by the State of Michigan such as a landscape architect, architect, or civil engineer.

☐

Site plans shall be drawn to an engineer's scale appropriate for a sheet size of at least 24 by 36 inches, not to exceed one (1) inch equals 50 feet. If a large development must be depicted in sections on multiple sheets, then an overall composite sheet shall be provided.

☐

Date, north arrow scale, existing zoning, zoning of adjacent properties, legal description of the property, easements, and the names and addresses of the

CITY OF MARSHALL

architect, planner, designer, or civil engineer responsible for the preparation of the site plan.

☐

The dimensions of all lot and property lines, showing the relationship of the subject property to abutting properties and a boundary survey of the parcel.

☐

The location, height and dimensions of all existing and proposed structures on the subject property and all existing structures within 100 feet of the subject property.

☐

A finished floor elevation and exterior building elevation drawing shall be submitted with the site plan.

☐

The location of all existing and proposed drives, walks and parking areas.

☐

The location and right-of-way widths of all abutting streets and alleys.

☐

The location and size of all existing and proposed sanitary sewer lines, water lines, and storm drainage facilities must be shown.

☐

The location and size of all existing and proposed electric, natural gas, telephone, cable TV and solid waste disposal facilities must be shown.

☐

The location, height area of illumination and fixture details of all existing and proposed lighting shall be provided. All lighting shall be located and oriented to have a minimal impact on adjacent properties.

☐

The size, height, location and illumination of all existing and proposed signs shall be provided to insure ordinance compliance.

☐

The location of existing natural features such as wooded areas, floodplains, wetlands, drainage courses, and a topographic survey of spot elevations of the site.

☐

Other information as requested by the Zoning Administrator or Planning Commission to verify that the site and use follow the Ordinance.

☐

The Planning Commission may waive any of the foregoing requirements determined unnecessary for site plan review purposes.

CITY OF MARSHALL

PLANNING COMMISSION CONSIDERATIONS

The Planning Commission shall consider the following standards in the process of reviewing any site plan for approval:

1. **Adequacy of information.** The site plan information is complete, accurate, and in an understandable form that accurately depicts and describes the proposed development.
2. **Site appearance and preservation.** The site layout promotes the normal and orderly development of surrounding lots, and the development layout preserves, to the extent feasible, the site's natural, cultural, and historical features, such as but not limited to significant buildings, wetlands, topography, and woodlands.
3. **Pedestrian access.** Existing and proposed sidewalks or pedestrian pathways connect to existing and planned public sidewalks and pathways in the area, and comply with applicable barrier-free access standards.
4. **Vehicular circulation.** Drives, streets, parking, site access and other vehicle-related elements are designed to minimize traffic conflicts on adjacent streets, and to promote safe and efficient traffic circulation.
5. **Parking and loading.** Off-street parking lots and loading areas are arranged and located to accommodate the intensity of proposed uses, minimize conflicts with adjacent uses, and promote shared-use of common facilities where feasible.
6. **Building composition.** Building design and architecture are harmonious with the surrounding neighborhood with regard to scale, mass, proportion, and materials.
7. **Screening.** Adequate screening elements have been provided to buffer or separate unlike or conflicting land uses, and to screen off-street parking, mechanical appurtenances, loading and unloading areas and storage areas from abutting residential districts and street rights-of-way.
8. **Exterior lighting.** All exterior lighting fixtures are designed and arranged to minimize glare and light trespass, prevent vision impairments, and maximize security.
9. **Impact upon public services.** The impact upon public services (including utilities, streets, police and fire protection, emergency access, and public sidewalks and pathways) will not exceed the existing or planned capacity of such services.

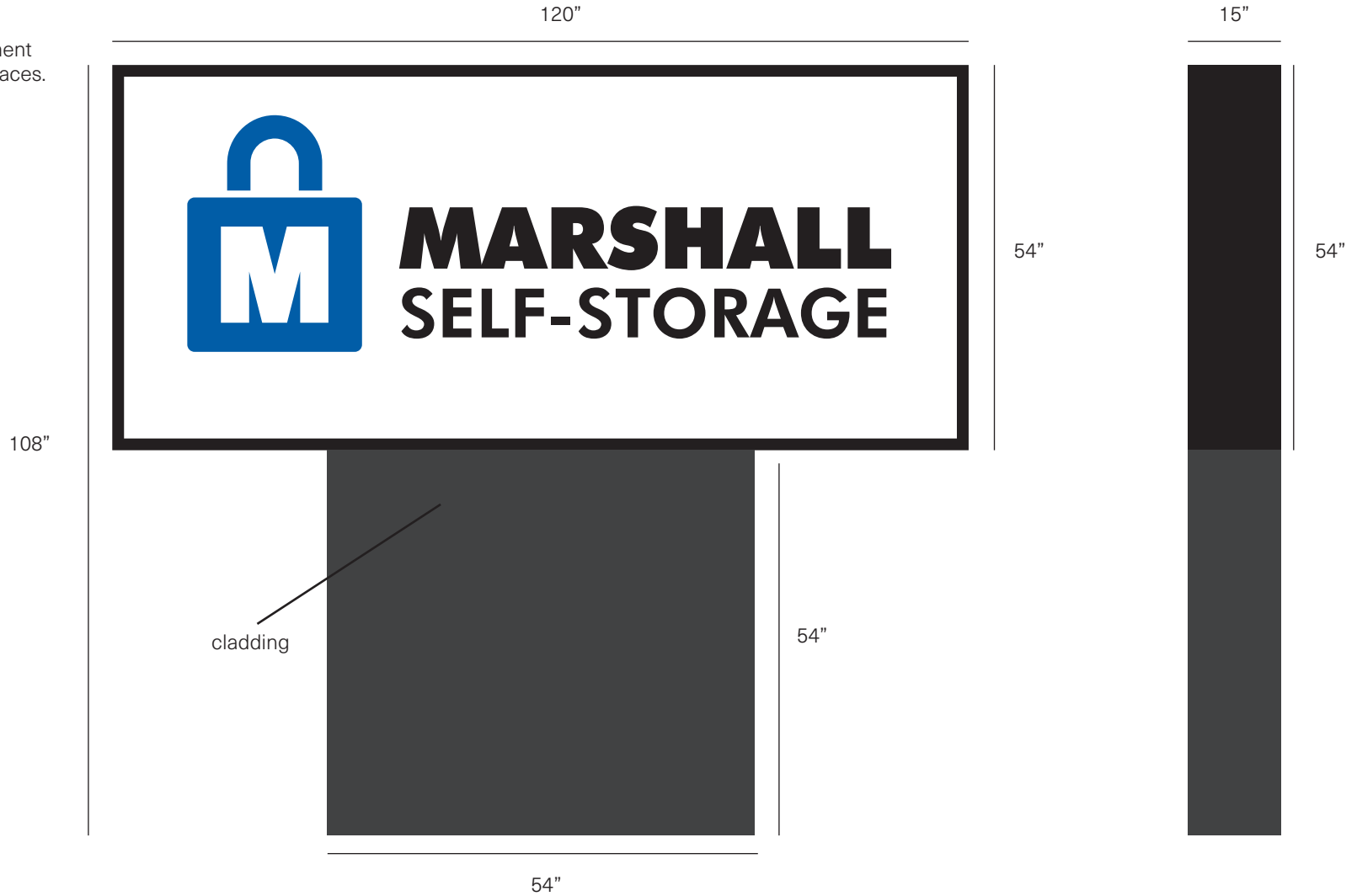
Marshall Self-Storage Monument Sign

Specifications:

Internally illuminated monument
sign with polycarbonate flat faces.

Double sided

Lighting: LED



Color(s):

 PMS Black C

 PMS 2935 C

 PMS White C

This Design & Engineering drawing is submitted as our proposal and is to remain our property exclusively until accepted and approved by purchase. This artwork is not to be shared or distributed without written permission.

Due to variations in substrates, finishing processes and printer capabilities the final product may differ in color from original artwork. Effort will be made to achieve the most accurate finish. If color matches are required, request finish samples BEFORE approving drawings and specifications. **PRODUCT FINISHES AND CONSTRUCTION ARE DEEMED ACCEPTABLE BY APPROVAL OF SHOP DRAWINGS.** Designs applied to photo images are intended as rough visual representations, which are not to scale. Refer to specifications for actual size.

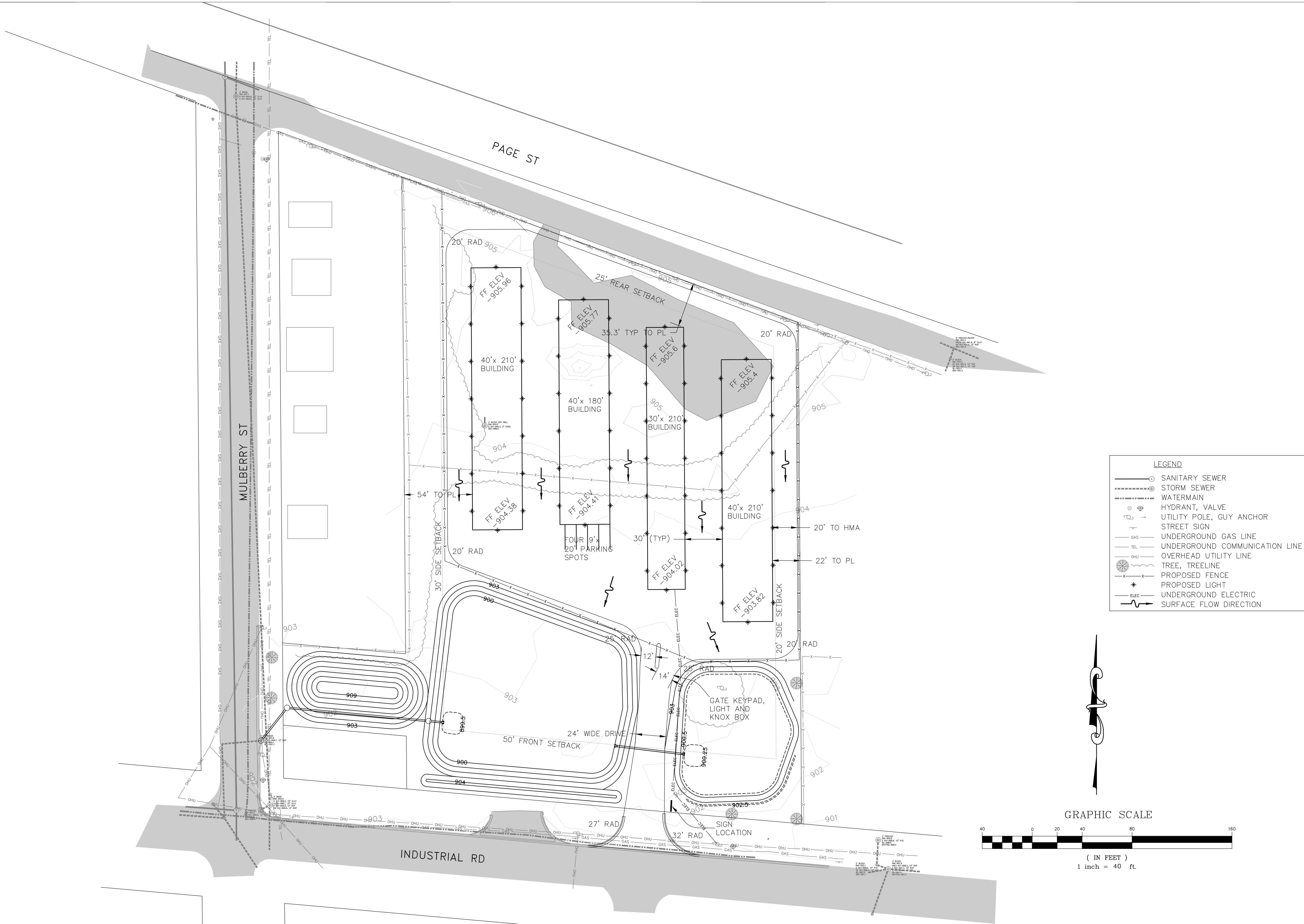


**UNDERWRITERS
LABORATORIES**
LISTED INC. ®
ELECTRIC SIGN

15886 E. Michigan Ave.
Climax, MI
Phone: 269-746-4285
burkettsgns.com



Apr 02, 2024 4:47pm P:_2023\230604_Industrial Rd Storage Units Site Plan\DESIGN\04-Drawings\marshalls plan.dwg



CEI
Civil Engineers Inc.
14250 Beadle Lk Rd
Suite 150
Battle Creek, MI
49014-7202
www.cei-bc.com
269-962-5127

JOB NO: 230604
DATE: 4/02/24

DRAWN BY: CDB
REVIEWED BY: RAR

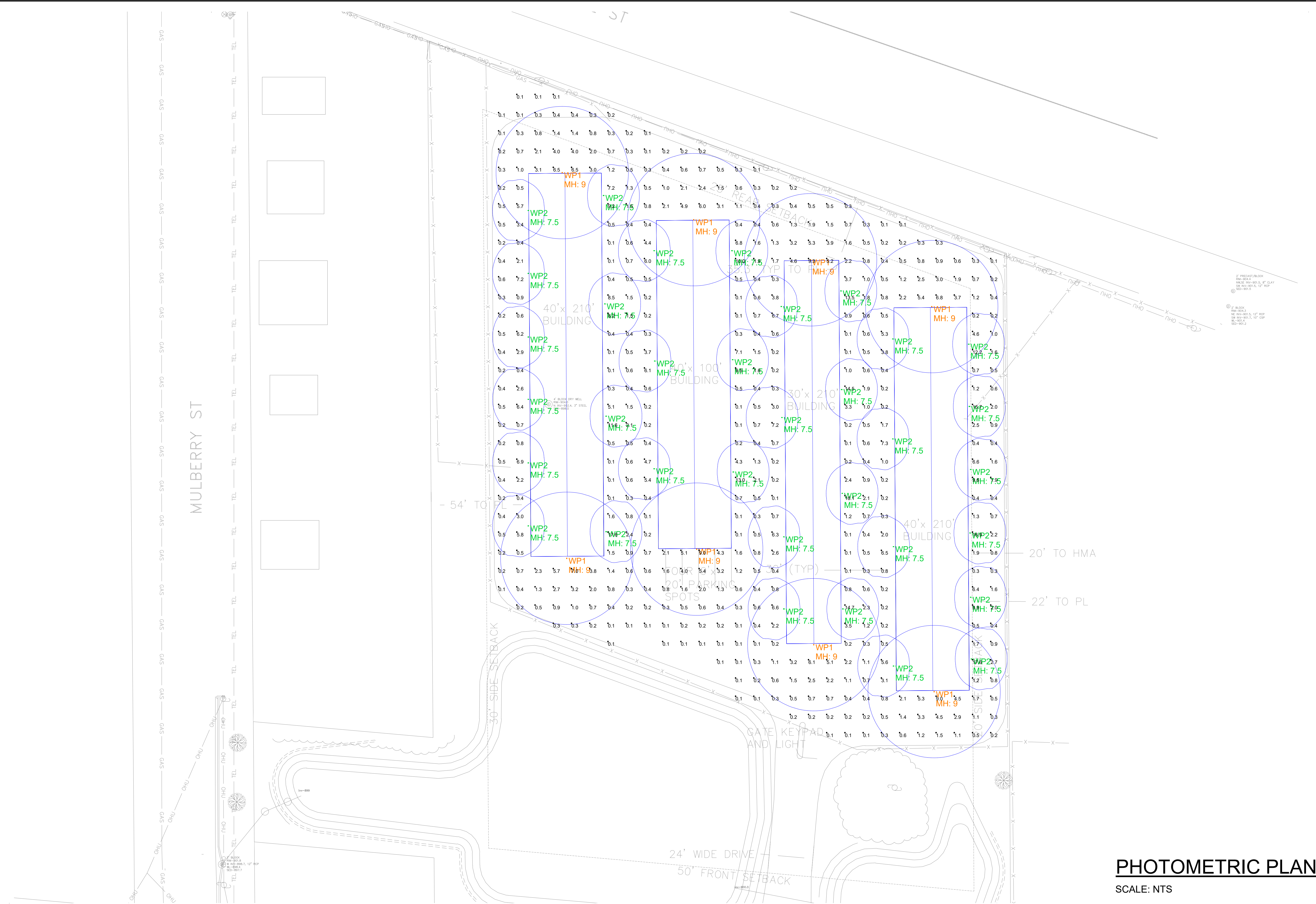
OWNER
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5903 SOARING EAGLE WAY
BATTLE CREEK, MI 49014
254.423.2869
don@strongarm-drywall.com

INDUSTRIAL DR STORAGE SITE PLAN
SITE PLAN

Know What's
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DIG
811**

REVISIONS	
Date	Comment

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3/6



Filename: S:\GRAND RAPIDS\Layouts\Jason Start\MARSHALL STORAGE UNITS\STORAGE LIGHTING.AGI

CTA LIGHTING & CONTROLS
908C West River Center Dr
Comstock Park, MI 49321
616.647.2400
www.cta-lc.com

PHOTOMETRIC EVALUATION
NOT FOR CONSTRUCTION
Based on the information provided, all dimensions and luminaire locations represent a recommended application. The engineer and/or architect must determine the applicability of the layout regarding existing or future field conditions.

This lighting layout represents illumination levels calculated using laboratory data taken under controlled conditions in accordance with The Illuminating Engineering Society (IES) approved method. Actual performance of a manufacturer's luminaires may vary due to changes in electrical voltage, tolerance in LEDs, and other field conditions. Calculations may not include obstructions such as buildings, curbs, landscaping, or other architectural elements. Future nomenclature may not include mounting hardware or poles. This layout is for photometric evaluation purposes only and should not be used as a construction document or as a final document for ordering product.

DESIGNED FOR:

A MEMBER OF THE KENDALL GROUP

MARSHALL STORAGE UNITS

ADDRESS

SALES
J START

DATE
11.28.2023

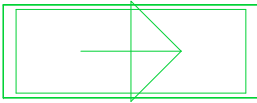
DESIGNER
J YONKERS

REVISIONS

DATE	NAME
XX	XX

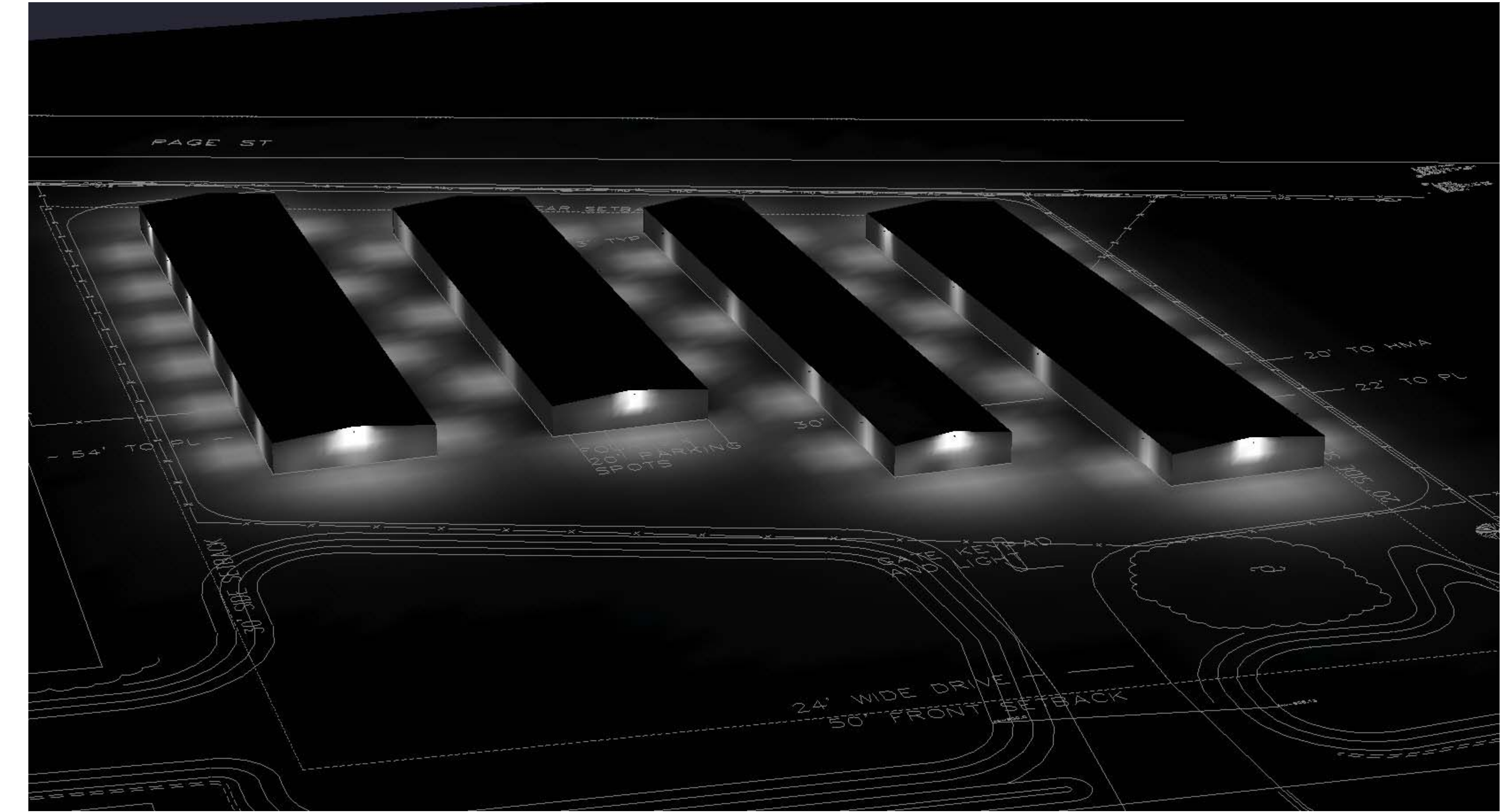
SHEET

1

Luminaire Schedule										
Scene: GEN										
SYMBOL	QTY	LABEL	ARRANGMENT	LLF	[MANUFAC]	DESCRIPTION	MNT HEIGHT	MNT TYPE	TLT WATTS	LUMENS
	8	WP1	Single	0.921	COOPER - LUMARK	CTKRV2B-SR-CARETAKER	9	WALL	397.6	7110
	34	WP2	Single	0.921	COOPER - LUMARK	XTOR2B	7.5	WALL	618.8	2135

Calculation Summary								
Scene: GEN								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	
SITE	Illuminance	Fc	1.80	17.6	0.1	18.00	176.00	

NOTES:
- CALC AT GRADE



SCHEDULES
SCALE: NTS



CTA LIGHTING & CONTROLS

908C West River Center Dr
Comstock Park, MI 49321
616.647.2400
www.cta-lc.com

PHOTOMETRIC EVALUATION
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DESIGNED FOR:



A MEMBER OF THE KENDALL GROUP

MARSHALL STORAGE UNITS

ADDRESS

SALES	
J START	
DATE	
11.28.2023	
DESIGNER	
J YONKERS	
REVISIONS	
DATE	NAME
XX	XX

SHEET

2



ITEM 8.B

TO: Planning Commission
FROM: Eric Zuzga, Director of Community Services
DATE: April 10, 2024
SUBJECT: **SIGN ORDINANCE UPDATE PRESENTATION**

City staff members have noted a number of issues with the sign ordinance over the past few years that are the result of court decisions, changes in technology, and requests from applicants. The City Council approved a contract with Progressive AE to complete a technical review of the ordinance and to work towards a new draft ordinance.

At this meeting, we will discuss potential changes in the ordinance which will be used to develop a draft ordinance that will be considered at a public hearing at the May 8th Planning Commission meeting. Any recommendation would then be sent to the City Council for their consideration.

BUDGET IMPACT:

RECOMMENDATION:

Discuss the issues outlined in the attached memo. City and Progressive staff members will use your feedback to develop a draft ordinance for consideration at the May 8th Planning Commission meeting (public hearing to be scheduled for that night).

To: Eric Zuzga, Director of Community Services

From: Jason Ball, Senior Planner

Date: March 20, 2024

Re: Update to Zoning Ordinance: Signs

Progressive is working with City of Marshall staff to update the City's zoning ordinance as it relates to regulation of signs within the city. Based on discussions with staff, the primary goals of the update are:

1. Address inconsistencies with state or federal law or best practice that may hinder enforcement of sign regulations.
2. Modernize regulations regarding electronic/LED changeable message signs.
3. Improve standards and processes for temporary signs, including banners.
4. Clarify and update the sign permit review process.
5. Review regulations regarding projecting signs, particularly as it relates to Downtown.
6. Review nonconforming sign regulations and amend with the intent to phase out nonconforming signs.
7. Make the section more user-friendly and easier to administer for staff.

This memorandum provides a series of recommendations to address each of the seven goals for the zoning ordinance update. We will review these recommendations during the April 10, 2024 Planning Commission meeting. Progressive will then draft ordinance amendments based on Planning Commission and staff response to the recommendations for the Planning Commission to consider at its May 2024 meeting.

ADDRESS LEGAL ISSUES AND BEST PRACTICES

1. Remove different standards for real estate signs versus temporary signs and other similar signs.
2. Provide clear definitions for sign types (e.g., construction signs) that are content neutral.
3. Clarify types of prohibited signs to state that any sign not specifically permitted by the zoning ordinance is prohibited.
4. Remove incidental signs from the sign table and details section, as these signs do not require a permit.
5. Clearly label and identify the substitution clause in the section/article.

MODERNIZE ELECTRONIC/LED CHANGEABLE MESSAGE SIGN STANDARDS

A first draft of proposed updates to this portion of the ordinance is attached to this memorandum. Major changes proposed include:

1. Increase the proportion of the area of a sign to be accounted for by an electronic message board to at least 50%.
2. Require installation of ambient light monitors to automatically adjust brightness.
3. Prohibit electronic or LED signs within the Downtown, or limit their size significantly so they cannot compose a large marquee or wall sign.

4. Add standards that prohibit displays from flashing or simulating movement that can be distracting/dangerous.
5. Permit LED signs in residential zoning districts, but restrict the hours of operation and maintain the prohibition for residential uses. In other words, allowing electronic signs for schools, religious institutions, and other non-residential uses that are permitted in residential zoning districts.

IMPROVE TEMPORARY SIGN REGULATIONS AND ADDRESS BANNERS

1. Provide a definition for “temporary” that defines a temporary sign as a sign that will be posted for no longer than 60/90 days.
2. Clearly differentiate between types of temporary signs that require a permit, and those that do not.
3. Create a new definition for a “yard sign” and allow for a single 4-square foot yard sign per residential property. This will address real estate signs, political signs, etc.
4. Remove real estate sign regulations.
5. Consider removing off-premises temporary directional signs (Subsection 5.1.4.D.ii). These signs are commonly placed in the right-of-way, which is prohibited and they can be very difficult to regulate.
6. Provide a clear definition for “flag sign” that differentiates it from a “flag” which is not typically regulated by a sign ordinance.
7. Remove sandwich board signs from temporary signs and place it in its own subsection.
8. Remove banner signs from temporary signs and place it in its own subsection and require a permit for banner signs.

CLARIFY THE SIGN PERMIT REVIEW PROCESS

1. The simplest approach is to require signs to receive a zoning permit or a sign permit that is separate from a building permit. This would require a sign to receive zoning approval, and then it could move forward with the building permit process, like any other construction.
2. Specify that the zoning administrator is responsible for enforcing and administering the sign provisions of the ordinance, not the building inspector.

REVIEW REGULATIONS REGARDING PROJECTING SIGNS

1. Increase the maximum area of projecting signs to 12 square feet in the B-3 zoning district but calculate total allowable sign area along with wall signs, awning signs, and other types of signs common to the B-3 zoning district.
2. Permit projecting signs in other commercial zoning districts.
3. Address issues of projecting signs relative to right of way, and whether a permit is required from other city departments if the sign encroaches on city right of way.

NONCONFORMING SIGN REGULATIONS

1. Allow nonconforming sign content to be updated or edited without the sign losing its legal status as nonconforming.
2. Provide a process for declaring a nonconforming sign abandoned and requiring its removal.
3. Provide specific standards for damage that prohibits a nonconforming sign from being repaired or re-established. For example, if a sign is damaged and the cost of repair exceeds 50 percent of the cost of replacement, then the replacement sign must conform to current ordinance standards.
4. Clarify the section regarding a change in use or change in property lines. A nonconforming sign should be permitted to remain following a change in use of a

property and the status of the sign relative to property lines should be addressed prior to any split being approved. In other words, a land split that would make a conforming sign nonconforming should not be permitted. It is possible that this section may be eliminated entirely (Subsection 5.1.7.B).

USER-FRIENDLINESS AND ADMINISTRATION

1. Make “Signs” its own Article in the Zoning Ordinance to break up subsections more effectively within the document.
2. Repeat sign definitions within the new sign article or remove them from the definitions article with a cross reference. Relevant graphics and definitions are critical to understanding how sign regulations function, and should be located within the same area of the ordinance. This will also eliminate the need to repeat portions of sign definitions within the article/section.
3. Provide for a Planned Sign Program that allows for flexibility in signage with approval by the Planning Commission and remove the section allowing for a special use sign permit.
4. Simplify the summary table to remove information that is repeated in other parts of the zoning ordinance.
5. Remove instances of duplication within the sign section of the ordinance to reduce length and complexity.
6. Provide an updated graphic to illustrate sign area.
7. Replace the reference to “ground floor wall area” with “first floor building elevation” and provide a definition and graphic that clearly defines the use of the term.
8. Do not require window signs to receive a permit, but maintain other standards regarding window signs.
9. Consider allowing for an administrative departure from sign size, area, and other dimensional standards in the ordinance of no more than 10 percent, based on the same standards currently listed in Subsection 5.1.6.D.

SECTION 5.1.4.C

C. Changeable Copy Signs. Changeable copy signs are permitted as follows:

- i. Any changeable copy area shall be part of a permanent ground or pylon sign, except in the B-3 district, where the Planning Commission may permit changeable copy areas on wall signs and marquee signs.
- ii. The changeable copy sign area of any sign shall not exceed 2560% percent of the permitted sign area.
- iii. The changeable copy sign area shall be counted as part of the total sign area allowed.
- iv. ~~Changeable copy signs include animated signs and electronic signs with changeable messages, including fuel price signs. Light level and illumination requirements:~~
 - a. ~~The illumination average of any electronic sign shall be limited to no more than 2,000 nits during daylight hours, and shall be reduced to no more than 250 nits from a half hour before sunset to a half hour after sunrise.~~
 - a. ~~Animated signs shall be subject to the following:~~
 - b. ~~Animated signs shall be turned off from midnight to 5:00 a.m.; excluding businesses open during this time period. During this timeframe, the sign message may be static.~~
 - i. ~~No animated sign will be allowed in the same yard that directly abuts or is across the street from a residential property.~~
 - i. ~~In commercial and industrial zoning districts, the rate of change for an animated sign shall not exceed once per 12 seconds where the speed limit is less than 45 miles per hour and once per 10 seconds where the speed limit is 45 miles per hour or greater. In residential zoning districts, signs shall not change more than once per 2 minutes.~~
 - ii. ~~The display shall not, or shall not appear to, flash, undulate, pulse, or portray explosions, fireworks, flashes of light, or blinking or chasing lights; the display shall not appear to move toward or away from the viewer, expand or contract, bounce, rotate, spin, twist or simulate similar movements that could be disorienting or distracting to motorists or pedestrians.~~
 - c. ~~All electronic changeable message signs shall have installed ambient light monitors that automatically adjust the brightness level of the electronic sign based on ambient light conditions.~~
- v. Proximity to residential districts and uses:
 - a. Animated signs are prohibited in a yard that directly abuts or is across the street from a residential property or zoning district.
 - b. Electronic changeable message signs located within a residential zoning district, or having a sign face that is oriented toward a residential district, whether animated or not, shall be turned off between 11pm and 6am.

Sign Type	Max. Surface Display Area	Max. Height	Number	Permit Required
A. R-1, R-2, and R-3 Districts				

viii. Ground; Changeable copy permitted	32 square feet; no more than 25% changeable copy	64 feet	1	Y
C. POSD District				
Ground; Changeable copy permitted	32 square feet; no more than 25% changeable copy	9 feet	1 per frontage on <u>a</u> thoroughfare	Y
D. B-3 District				
viii. Marquee; Changeable copy permitted with Planning Commission Approval	Total 25% of ground floor wall area first floor building elevation, up to 100 square feet. No electronic changeable copy permitted.	Shall not project above the eave or roofline of the marquee	1 per frontage ²	Y
xiii. Wall; Changeable copy permitted with Planning Commission Approval	Total 1025% of ground floor wall area building elevation, up to 1200 square feet; additional 50% for side entrance; additional 100% for rear entrance (75% where side entrance is also present) No electronic changeable copy permitted.	Shall not project above the eave or roofline (1 story buildings), or the first floor cornice or 2nd floor window sill (multi story buildings)	1 per frontage	Y
E. B-2 and B-4 Districts				
ix. Ground; Changeable copy permitted	48 square feet; 72 square feet for multi-tenant centers; 72 total square feet where more than one	9 feet	1 per frontage on a thoroughfare	Y

Commented [JB1]: Eric, should this be "major thoroughfare"? That is a defined term in the ordinance.

Commented [JB2]: Eric, we are recommending reducing the sign size in downtown, but even this reduction seems like a lot of area. What are your thoughts?

	ground sign is present; no more than 25% changeable copy			
F. FS District				
vii. Ground; Changeable copy permitted	48 square feet; 72 square feet for multi-tenant centers; 72 total square feet where more than one ground sign is present; no more than 25% changeable copy	9 feet	1 per frontage on a thoroughfare	Y
G. I-1 and I-2 Districts				
x. Ground; Changeable copy permitted	48 square feet; 72 square feet for multi-tenant buildings; 72 total square feet where more than one ground sign is present; no more than 25% changeable copy	9 feet	1 per frontage on a thoroughfare	Y
H. HCHSD District				
ix. Ground; Changeable copy permitted	250 sq ft total of all signs; no more than 25% changeable copy for any	11 feet	No limit; total sign area shall not exceed 250 <u>sq ft</u>	Y

Commented [JB3]: Eric, this is a lot of area. Is this something you all would have any interest in changing?



ITEM 8.C

TO: Planning Commission
FROM: Eric Zuzga, Director of Community Services
DATE: April 10, 2024
SUBJECT: **PLANNING COMMISSION RULES OF PROCEDURE UPDATE**

The Marshall Planning Commission has adopted Rules of Procedure in line with state statute and the requirements of the MEDC's Redevelopment Ready Communities program. As they were adopted many years ago, staff took the opportunity to review the procedures and, in conjunction with the City Attorney, have provided an update of the current rules. The first document is a track changes document update from the current rules. The second document has a few minor changes from the City Attorney.

Please review the draft documents and be prepared to discuss the proposed changes at the April 10th meeting.

BUDGET IMPACT:

RECOMMENDATION:

Review and discuss the proposed update of the Rules of Procedure. Per the current rules, we will need to vote on any changes at a future meeting (May 8th is the proposed date for the vote).



PLANNING COMMISSION RULES OF PROCEDURE

Article 1. **Powers and Duties Authority**

These Rules of Procedure are adopted by the City of Marshall, Calhoun County, Planning Commission (hereinafter called the Planning Commission) pursuant to the Michigan Planning Enabling Act, Public Act 33 of 2008, as amended, the Open Meetings Act, MCL 15.261, and Marshall Code of Ordinances.

~~The powers and duties of the Marshall City Planning Commission are those set forth in Public Act 33 of 2008, as amended, together with those powers and duties which may be delegated to it by ordinance of the City.~~

Article II. Members and Terms

Section 1. Membership Makeup

The City Planning Commission shall consist of nine persons who shall be appointed by the Mayor. The nine appointed members shall represent diversity within the ~~community,~~ **and community and** are subject to confirmation by the City Council. In addition, the Mayor shall appoint one member of the City Council to act as the non-voting Council liaison to the Planning Commission. The Mayor, subject to City Council confirmation, shall appoint one member of the Planning Commission to serve as a full member of the Zoning Board of Appeals. A City staff member shall serve as secretary to the Planning Commission.

Section 2. Compensation of Members

All members of the City Planning Commission shall serve without compensation.

Section 3. Terms of Office

The ~~term~~**term** of the appointed members shall be three years or until their successor takes office. The length of term of the City Council liaison is at the discretion of the Mayor.

Section 4. Vacancies in Office

Vacancies shall be filled by the Mayor subject to confirmation by the City Council.

Section 5. Removal from Office

Following a public hearing, a member may be removed from the Planning Commission by the Mayor for inefficiency, neglect of duty or malfeasance in office.

Article III. Members and Terms

Section 1. Officers

The officers of the City Planning Commission shall be a chairperson and vice-chairperson.

Section 2. Chairperson

The Chairperson shall be elected by and from the appointed members of the City Planning Commission and shall preside at all meetings and hearings of said ~~Commission,~~ ~~and~~ shall have and perform the duties usually incident to the office of chairperson. The chairperson shall decide, subject to these bylaws, all questions of order and procedure, unless otherwise directed by a majority of said Commission in session at the ~~time,~~ ~~and time and~~ shall have the privilege of discussing all matters before said Commission and of voting thereon.

Section 3. Vice-Chairperson

The Vice-Chairperson shall be elected from amongst the appointed members of the City Planning Commission and shall act as chair in the Chairperson's absence.

Section 4. Temporary Chairperson

In the event of the absence or inability of the Chairperson and Vice-Chairperson to discharge the duties of their office, the members may elect a temporary chairperson for the duration of the absence.

Section 4 5. Attendance

If any member of the Planning Commission misses 3 consecutive, regular meetings without those absences being excused, this may be considered nonfeasance. Nonfeasance may be grounds for removal from the Planning Commission by the City Council. ~~approval.~~

Article IV. Nomination and Election of Officers

Section 1. Date of Election

The elected officers of the ~~City~~ Planning Commission shall be nominated and elected each year at the regular November meeting or first regular meeting after the November meeting if a November meeting is not held.

Section 2. Term of Elected Office

A candidate receiving a majority vote of the ~~entire City~~ Planning Commission membership shall be declared elected and shall hold office for one year. ~~The same member may be elected to not more than two successive terms.~~

Section 3. Vacancies in Elected Office

Vacancies in office shall be filled for the unexpired term by regular election procedure at the next regular meeting following such vacancy, or at a special meeting called for that purpose.

Article V. Meetings

Section 1. Regular Meetings

The regular meetings of the City Planning Commission shall be held on the second Wednesday of each month, at 7:00 p.m. in the Council Chambers of ~~Town-City~~ Hall or as designated by the Planning Commission Chairperson. When a regular meeting falls on or near a holiday, the meeting schedule may be adjusted as determined by the Planning Commission. All meetings of the Planning Commission shall be open to the public and comply with the Open Meetings Act.

Section 2. Special Meetings

Special meetings may be held at the call of the ~~Chairperson, or~~ Chairperson or shall be called by the Chairperson upon written request of at least five voting members of said commission and shall be subject to the Open Meetings Act.

Article VI. General Rules

Section 1. Quorum

Five voting members of the City Planning Commission shall constitute a quorum. ~~A majority of those present and voting shall be sufficient to pass any motion or resolution at any meeting of the City Planning Commission.~~

Section 2. Voting

At least five concurring votes shall be necessary for all decisions made by the Planning Commission, except when a motion involves an amendment to the Master Plan, which shall require an affirmative vote of at least 2/3 (six concurring votes) of the membership of the Commission, unless otherwise provided by law or these Rules of Procedures.

Section 2. Open Meetings

~~All meetings of the City Planning Commission shall be open to the public.~~

Section 3. Parliamentary Practice

Parliamentary practice at all meetings of the City Planning Commission shall be guided by Roberts Rules of Order where applicable and except where in conflict with law or these bylaws.

Section 4. Official Action on Initial Presentation

On any matter brought before the City Planning Commission, at the same meeting the matter is presented to said commission, the commission may, after discussion, act upon the plan as presented.

Section 5. Review by City Departments

Staff shall not place before the City Planning Commission any site plan for review until the applicable City Departments have had a chance to review the request and offer their comments on the proposal.

Section 6. Motions

Motions on all matters requiring a vote shall be made in the positive.

Section 7. Conflict of Interest

a. Each member of the Commission shall avoid conflicts of interest and not deliberate on, vote on, or review a matter where a conflict of interest exists. Conflicts of interest include, but are not limited to the following: where the concern involves the member, the immediate family or household of the member; where the subject property is owned by or is within 300 feet to property owned by the member; or where there is a corporation, partnership or other entity in which the member has an ownership, employment, or other financial interest. Conflicts of interest of a member may also arise where the member may derive a personal profit or gain, directly or indirectly, from his or her official position or authority or benefit financially from confidential information which the member has obtained or may obtain by reason of that position or authority or where the member has a substantial direct or indirect financial, personal or ownership interest other than an interest similar to that of other citizens affected.

b. Potential conflicts of interest shall be raised by a member as soon as known by the member and if a conflict of interest exists, the member shall not receive materials concerning the conflict of interest, participate in discussions regarding the matter, attend a closed session in which the matter is discussed and shall exit the meeting room during deliberation of the matter.

c. Other Commissioners may vote on whether there is a reasonable conflict that disqualifies a Commissioner from voting and may also vote to disqualify a member from participating, reviewing or voting on a matter if the interested member neglects or fails to disqualify him or herself.

d. Failure of a member to disclose a potential conflict of interest as required by these Rules of Procedure constitutes malfeasance in office.

Section 8. Ex Parte Contact

If a member of the Commission has ex parte contact with an applicant who has a request before the Commission, the member shall disclose such contact to the Commission at the public hearing or deliberation of the matter.

Article VII. Public Participation

Members of the public, both residents of the City of Marshall and others, are invited to address the Commission during two portions of the regular Planning Commission agenda and in any scheduled public hearings. Prior to the Commission's discussion of regular agenda items, members of the public are invited to provide comment upon ~~those~~ agenda items not including items scheduled for a public hearing. Comments directed towards an item included as a public hearing should be commented on during the public hearing. Comments related to any other matters will be welcomed during a second "public comment" time noted later on the agenda.

The Chair will first recognize any member of the public wishing to address the Commission. Individuals will speak from the podium or a ~~hand held~~ handheld microphone, state their name and address and limit their comments to a total of ~~five (5)~~ three (3) minutes during each of these "public comment" times. Members of the public will not routinely be involved in Commission discussion or deliberation upon agenda items unless called upon by the Chair.

Article VIII. Public Hearings

Section 1. Public Hearings shall be scheduled and due notice given in accordance with the provisions of the acts and ordinances cited in Article 1 of these Rules of Procedure.

Section 2. Order of Presentation

The order of presentation shall be as follows:

Community Services Department Staff and/or City Consultants

Petitioner

Public Comment and Correspondence

Petitioner Response

Close Public Hearing

Commission Discussion/Decision

Section 3.

The petitioner shall limit his/her remarks to ten (10) minutes, unless additional time is requested and granted by the Chairperson. If the petitioner has additional presenters, the sum total of all presenters shall not exceed the time limit of this rule without permission from the Chairperson.

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In order to ensure accuracy in the minutes, any member of the public wishing to address the Planning Commission during a Public Hearing shall be asked to fill out an Audience Participation card giving his/her name, address and the item(s) he/she wishes to discuss. The general public shall limit their remarks to three (3) minutes each. Speakers shall not exceed the time limit of this rule without permission from the Chairperson.

Article ~~IX~~ VIII. Amendments

These rules may be altered, suspended, repealed or amended by the Planning Commission at any regular or special meeting. five affirmative votes of the City Planning Commission provided that written notice of the proposed alternations or amendments be distributed at a previous meeting of said Commission.



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Section 4. Public Address

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Article IX . Amendments

These rules may be altered, suspended, repealed or amended by the Planning Commission at any regular or special meeting.

End of Document

Date of Adoption: _____

March 6, 2024

Eric Zuzga, Director of Community Services
City of Marshall
323 West Michigan Avenue
Marshall, MI 49068

Re: Proposal for Professional Planning Services for City of Marshall Economic Development and Marketing Plan located in Marshall, Michigan

Dear Eric:

Progressive AE, Inc. (Progressive AE) is pleased to present this proposal to the City of Marshall (the City) for planning services for the project identified as City of Marshall Economic Development and Marketing Plan. Following is our understanding of the project, our scope of services, clarifications, proposed schedule and compensation for your consideration.

UNDERSTANDING OF PROJECT

Based on our understanding of the City's needs, the review of the RFP and our depth of experience across Michigan, we have developed the following scope of work. Our approach to economic development and marketing is deeply rooted in implementation and in adherence to Redevelopment Ready Communities Best Practices (RRC Best Practices) around economic development and marketing strategies. The following scope is designed to assist the City in creating a plan with actionable strategies that, once employed, will leverage the assets of the community and region as a whole to increase economic vitality and opportunity for the City's citizens and businesses.

SCOPE OF BASIC SERVICES

Based upon the above project understanding, we will provide the following scope of services:

Task 1: Project Start-Up

We will initiate the project with a startup meeting involving Progressive AE, key City of Marshall staff and relevant stakeholders. The primary purpose of this meeting is to delve into the proposal methodology, ensuring that it aligns with the City's needs. During this initial discussion, we will identify information requirements, establish the project timeline, schedule site visits and address other essential aspects.

Specifically, in this session, we will:

- Introduce the Progressive AE team and the City/stakeholder representatives.
- Provide additional context for the project and identify key stakeholders.
- Share contact information for the City staff and others involved in reviewing project-related work.
- Review and adjust the project approach as necessary.
- Compile a list of contacts and stakeholders with local knowledge to facilitate additional data collection and initiate scheduling for onsite interviews.
- Discuss the project's messaging and public relations approach, if needed.
- Explore strategies for public involvement, including tools, techniques, schedules and expected outcomes.
- Set dates for multi-day site visits, presentations and establish the project timeline.
- Validate the Progressive AE internal project management plan.
- Arrange bi-weekly project management conference calls.

Additionally, during this meeting, we will facilitate a discussion within the project team to identify any significant issues, opportunities, challenges (real or perceived) and key steps crucial for the successful preparation and implementation of the City's economic development plan.

Progressive AE, Inc.

Corporate Office: | 1811 4 Mile Road NE | Grand Rapids, MI 49525 | 616.361.2664 | progressiveae.com
Regional Office: | 330 South Tryon Street, Suite 500 | Charlotte, NC 28202 | 704.731.8080 | progressiveae.com

Task 2: Assembling Relevant Documents, Plans and Existing Conditions

The Progressive AE team will review existing documents pertaining to economic development in Marshall, Calhoun County and the State of Michigan. Utilizing these documents and our prior knowledge of regional economic conditions, we aim to establish an understanding and context for the vision, goals, issues, opportunities, and challenges in economic and business development. This task's objective is to ensure that the outcomes of the economic development process and the final deliverable incorporate strategies that align with and build upon ongoing efforts. Additionally, Progressive AE will assess the existing organizational capacity of the City. The aim is to evaluate the economic development system, gauging both the current and future capacity the City possesses for strategic initiatives. We will explore ongoing core economic development programs and services, existing and planned future capacity, and identify perceived gaps. This information will be gathered through a worksheet provided to designated lead staff, followed by phone interviews for further clarification and details. This effort will facilitate the development of a plan tailored to the specific needs of Marshall.

Finally, Progressive AE will examine findings from any ongoing engagement related to the current comprehensive plan update process.

Task 3: Demographic and Economic Base Analysis

When formulating economic development strategies for the City of Marshall, it is crucial to possess a comprehensive understanding of the area's demographic and economic characteristics, as well as emerging trends. Progressive AE will utilize tools such as ESRI, U.S. Census data, and other pertinent sources to craft a demographic and economic profile of the city and its region. This profile will serve as a reference during the strategy development process. The demographic profile will encompass existing and projected 5-year trends, including population distribution by age and income, number of households, median age, and race and ethnicity. Complementing this, Progressive AE will gather data on labor market size, commuter trends (inflow-outflow), education attainment, and unemployment. A comprehensive analysis of the community's current economic situation will be conducted, comparing Marshall with Calhoun County, Michigan, and the nation. Data will be used for industry-related insights, offering accurate historic and projected industry employment and occupational data.

A. Economic Base Analysis

This analysis will delve into employment by industry at the 2 to 6-digit NAICS code level, assessing size, past and projected growth over ten years, concentration relative to the state/nation, competitiveness regionally, and the number of establishments.

B. Workforce Analysis

Aligning workforce readiness with the skills required for projected job growth is paramount. Progressive AE will identify any disengagement or mismatch between the regional educational environment and the workforce skill set. Information on top occupations in all industries, top occupations in strongest performing industries, labor shed and commutation patterns, and education/training levels required for top occupations will be collected. This data will inform needed educational initiatives, programs, and partnerships. We will gather and furnish the following information:

- Primary occupations across all industries.
- Dominant occupations in the highest-performing industries.
- Analysis of labor shed and commuting patterns.
- Educational and training prerequisites for key occupations, utilized to evaluate necessary educational initiatives, programs, and partnerships.
- Average wages or earnings relative to state and national averages, aiding in the identification of high-wage industries for targeted growth and assessing the region's or municipalities' competitiveness in terms of labor costs.

To bolster existing data collected from previously mentioned sources, Progressive AE will also conduct a survey with current residents and stakeholders in Marshall, in order to gather perceptions of economic activity and opportunity, as well as strengths and weaknesses locally.

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Task 4: Stakeholder Interviews and SWOT Analysis

The most effective way to pinpoint specific economic strengths and opportunities involves integrating data analysis with insights obtained through discussions and interviews with key stakeholders. This hands-on perspective uncovers the intricate relationships among firms, service providers, and other stakeholders in the local and regional economy, revealing investment opportunities that may not be evident through data analysis alone. Moreover, involving stakeholders and the public is vital for garnering community support for the strategies outlined in the plan, facilitating successful implementation.

The Progressive AE team will conduct interviews with key City staff, area professionals, industry and business leaders, elected officials, and commercial real estate professionals and stakeholders. The majority of these interviews will be face-to-face, with phone interviews for those that cannot be easily scheduled. Collaborating with the City's representative, Progressive AE will develop and refine an interview contact list. Marshall will provide the initial key contact list and assist in refining it based on observations and suggestions regarding the types of stakeholders whose input is crucial. Marshall will have the final review and sign-off on the list of individuals to be interviewed. Additionally, Progressive AE will depend on the Marshall representative to introduce our team to the interviewees via email or phone contact and to schedule the on-site interviews.

These interviews will provide insights into both internal and external perspectives on the community's strengths, challenges, and opportunities. They will also serve to gather information for various components of the plan. The interviews will be structured to obtain firsthand insight into each task identified in this scope, addressing issues related to development, land use laws, TIF areas, zoning and site plan review, and other key questions. The knowledge gained from these interviews will play a crucial role in developing targeted strategies and an action plan. The interviews will be conducted either one-on-one or in small working groups, depending on what is deemed most effective.

Based on the research conducted in all previous tasks, Progressive AE will formulate a SWOT (strengths, weaknesses, opportunities and threats) analysis. The SWOT will focus on issues related to economic development but will be inclusive of all quality of life and other related issues. During this exercise, Progressive AE will also work with the city to begin drafting a vision and key goal areas for the future of the town.

Task 5: Action Plan Matrix

Building on the outcomes of the preceding tasks, Progressive AE will create an Action Plan Matrix for the City's review and consideration. This plan will outline steps for implementing priority projects, presented in a user-friendly matrix format, including:

- Guiding principles
- Goals
- Actions/tasks
- Roles, responsibilities, and partners
- Priority (high/low)
- Timeframe for start and completion (short term/long term)
- Estimated cost range
- Resources needed
- Barriers to implementation and success
- Measures for progress and success (benchmarks such as jobs created, dollars invested, etc.).

We will collaborate closely with project stakeholders to develop the matrix in a format and layout that best suits their needs, whether it be a collaborative tool accessible to multiple stakeholders or an in-house file for facilitating and tracking strategy implementation. Within the action plan matrix, Progressive AE will establish performance measures to gauge plan implementation, both for individual projects and the plan as a whole. Specific measures for each goal area will be outlined, along with a process for gathering, tracking, and reporting results.

Task 6: Draft Economic Development and Marketing Plan (RRC Best Practices)

Progressive AE will compile the outcomes of the aforementioned tasks into an initial draft of the economic development and marketing plan. Drawing from our experience, we advocate for concise and action-oriented economic development strategies. Hence, we propose structuring Marshall's in an executive summary format,

Progressive AE, Inc.

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adhering to the MEDC's Redevelopment Ready Communities (RRC) best practices for economic development and marketing plans, with detailed data and reports attached as appendices for reference.

Task 7: Final Document and Presentation

In response to the feedback received for the draft, Progressive AE will revise the plan into a final draft for review and consideration. After incorporating comments, final edits will be made, and the plan will be presented at an agreed-upon meeting or venue.

Task 8: Implementation Support

Progressive AE will organize a follow-up meeting one month after transmitting the final document. This meeting will center on implementation, with Progressive AE providing additional guidance and troubleshooting. The objective is to ensure that the City seamlessly integrates the economic diversification and growth strategy into its comprehensive planning efforts, allowing for a swift and effective start.

DELIVERABLES

- Final Economic Development and Marketing Plan
- 21 hard copies and digital files (Word file for future editing and PDF) of each plan will be provided
- All maps provided will be compatible with GIS

CLARIFICATIONS

Public engagement for this plan will build upon the City's proposed Master Planning process. In addition to gathering information from the Master Planning process, Progressive AE will conduct an online survey directly related to economic vibrancy in the City of Marshall. We will also conduct in-person interviews with key stakeholders to gather information on their perceived strengths, weaknesses, opportunities and threats in the City.

SCHEDULE

Task 1: Project Start-Up (March - April 2024)

- One (1) Kick-off meeting with key City of Marshall staff, relevant stakeholders and Progressive AE
- Bi-weekly project calls with City point of contact

Task 2. Assembling Relevant Documents, Plans and Existing Conditions (April – May 2024)

- Review of existing documents pertaining to economic development in the City, County and State

Task 3. Demographic and Economic Base Analysis (May – June 2024)

- One (1) Economic Base Analysis
- One (1) Workforce Analysis

Task 4: Stakeholder Interviews and SWOT Analysis (June - July 2024)

- Interviews with key City staff, area professionals, industry and business leaders, elected officials, commercial real estate professionals and stakeholders
- SWOT Analysis

Task 5: Action Plan Matrix (August 2024)

- One (1) Action Plan Analysis

Task 6: Draft Economic Development and Marketing Plan (RRC Best Practices) (September – November 2024)

- One (1) Draft Economic Development and Marketing Plan

Task 7: Final Document and Presentation (December – January 2025)

- One (1) Final Economic Development and Marketing Plan
- One (1) Presentation

Task 8: Implementation Support (February 2025)

- One (1) Follow up meeting one month after distribution of final document

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PROFESSIONAL COMPENSATION

Based upon the above identified scope of services, Progressive AE proposes the following compensation for professional services. We propose to provide the work as delineated above for a stipulated sum of \$39,465 (thirty-nine thousand four hundred sixty-five dollars). Reimbursable expenses are included in the professional compensation, estimated at \$3,000 (three thousand dollars) and will be invoiced according to the attached Schedule of Invoice Rates.

Task 1: Project Start-Up:	\$3,015
Task 2: Assembling Relevant Documents, Plans and Existing Conditions:	\$4,100
Task 3: Demographic and Economic Base Analysis:	\$5,420
Task 4: Stakeholder Interviews and SWOT Analysis:	\$5,980
Task 5: Action Plan Matrix:	\$4,250
Task 6: Draft Economic Development & Marketing Plan (RRC Best Practices):	\$6,600
Task 7: Final Document and Presentation:	\$6,600
Task 8: Implementation Support	\$500
Reimbursables:	\$3,000
Total:	\$39,465

The stipulated sum includes the 6% discount as referenced in the RFP dated February 1, 2024.: \$37,097

Progressive AE has prepared this proposal for City of Marshall, and we request that it be treated as confidential and not copied or distributed for any reason other than evaluation for hire.

The terms of this proposal defining project understanding, scope, schedule, clarifications and professional compensation are incorporated into the Standard Agreement Provisions for Professional Services which are attached. The terms and conditions as identified in the Standard Agreement Provisions will be valid unless superseded by an AIA Standard Form of Agreement. If this proposal meets with your approval, please sign below and return a copy of the signed proposal. Your signature will be our authorization to begin the work and place the project in the firm's schedule. If you do not sign and return this proposal, and after receipt of this proposal you request or accept services from Progressive AE in connection with this or any other engagement, your request or acceptance of such services will be deemed to be an acquiescence or agreement with the terms provided in this proposal.

We look forward to working on this project with you and your team.

Sincerely,

Suzanne M. Schulz, FAICP
Urban Design and Planning Practice Leader

Jeffrey M. Roman, PE, LEED AP
Director of Engineering

Accepted By: _____

Printed Name: _____ Date: _____

City of Marshall

EK/SMS/JMR/cab

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The parties to this Agreement, Progressive AE, Inc., Grand Rapids, Michigan, USA, hereinafter called the PLANNER and City of Marshall, Marshall, Michigan, USA, hereinafter called the OWNER, hereby agree to the following conditions:

1. Limit of Scope: The services provided by the PLANNER shall be limited to those described in the proposal dated March 6, 2024. The parties agree that the terms of the proposal are incorporated herein by reference, and are part of this agreement as if fully set forth herein. If any terms set forth in the proposal are expressly in conflict with the terms hereof, the terms of the proposal shall govern.
2. Changed Conditions: If, during the term of this Agreement, the PLANNER becomes aware of any circumstances or conditions that were not originally contemplated by or known to the PLANNER, then to the extent that they affect the scope of services, compensations, schedule, allocation of risks or other material terms of this Agreement, the PLANNER may call for re-negotiation of appropriate portions of the Agreement. The PLANNER shall notify the OWNER of the changed conditions necessitating re-negotiation, and the PLANNER and the OWNER shall promptly and in good faith enter into re-negotiation of this Agreement to address the changed conditions. If terms cannot be agreed to, the parties agree that either party has the absolute right to terminate this Agreement.
3. Delays: The OWNER agrees that the PLANNER is not responsible for any damages arising directly or indirectly from any delays for causes beyond the PLANNER's control. For purposes of this Agreement, such causes include, but are not limited to, strikes or other labor disputes; severe weather disruptions, epidemics, pandemics or other natural disasters or acts of God; fires, riots, war or other emergencies; failure of any government agency to act in a timely manner; failure of performance by OWNER or the OWNER's contractors or consultants; or discovery of any hazardous substance or differing site conditions.

In addition, if the delays resulting from any such causes increase the cost or time required by the PLANNER to perform its services in an orderly and efficient manner, the PLANNER shall be entitled to a reasonable adjustment in schedule and compensation.

4. Additional Services: Additional services not specifically identified in the Scope of Services shall be paid for by the OWNER in addition to the fees previously stated, provided the OWNER authorizes such additional services in writing. Special services will be billed monthly as work progresses and invoices are due upon receipt. If services covered by this agreement have not been completed within twelve months of the date of this agreement, through no fault of the PLANNER, extension of the PLANNER'S services beyond that time shall be compensated as additional services.
5. Code of Ethics and Professional Conduct: Professional Services provided by the PLANNER will be conducted in a manner consistent with ordinarily and normally exercised by licensed PLANNERS practicing in the State where the Project resides. The OWNER and PLANNER agree that a contingency in the amount of three percent (3%) of the cost of the work be established, as required, for changes that may be required because of possible omissions, ambiguities, or inconsistencies in plans and specifications.
6. Value-Added/Betterment: If, due to the PLANNER's error, any required item or component of the project is omitted from the PLANNER's Construction documents, the PLANNER shall not be responsible for paying the cost to add such item or components to the extent that such item or component would have otherwise been necessary to the project or otherwise adds value or betterment to the project. In no event will the PLANNER be responsible for any cost or expenses that provides value, upgrade, or enhancement of the project.

7. Hazardous Materials: The PLANNER shall have no responsibility for the discovery, presence, handling, removal or disposal of, or exposure of persons to, hazardous materials or toxic substances in any form on any project sites. The OWNER shall furnish tests, inspections and reports required by law or the Contract Documents, such as traffic, environmental impact reports or assessments and chemical tests, tests for air and water pollution, and tests for hazardous materials.
8. Opinions of Probable Construction Cost: In providing opinions of probable construction cost, the OWNER understands that the PLANNER has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that the PLANNER's opinions of probable construction costs are made on the basis of the PLANNER's professional judgment and experience. The PLANNER makes no warranty, express or implied that the bids or the negotiated cost of the Work will not vary from the PLANNER's opinion of probable construction cost.
9. Schedule for Rendering Services: The PLANNER shall prepare and submit for OWNER approval a schedule for the performance of the PLANNER's services. This schedule shall include reasonable allowances for review and approval times required by the OWNER, performance of services by the OWNER's consultants, and review and approval times required by public authorities having jurisdiction over the project. This schedule shall be equitably adjusted as the project progresses, allowing for changes in scope, character or size of the project requested by the OWNER, or for delays or other causes beyond the PLANNER's reasonable control.
10. Ownership of Reports, Drawings and Other Materials: The OWNER agrees that all reports, drawings, letters, worksheets, plans, preliminary material tables, supportive data, documents and other materials produced by the PLANNER in the course of and for the purpose of meeting this contract are the property of the PLANNER, shall remain in the possession of the PLANNER and the PLANNER has and retains all copyrights in such material. Upon execution of this Agreement, the PLANNER grants to the OWNER a nonexclusive license to reproduce the PLANNER's Instrument of Service solely for the purposes of constructing, using and maintaining the Project provided that the OWNER shall comply with all obligations including the prompt payment of all sums when due, under this Agreement.
11. Payment Terms: Invoices will be submitted by the PLANNER monthly, are due upon presentation and shall be considered past due if not paid within thirty (30) calendar days of the date of invoice. Invoices past due shall accrue interest at one percent (1%) per month from the original invoice date. If past due invoices cause the PLANNER to proceed with legal action or collection services, the OWNER agrees to pay all of the PLANNER's collection expenses including reasonable attorney fees.
12. Disputed Invoices: If the OWNER objects to any portion of an invoice, the OWNER shall so notify the PLANNER in writing within ten (10) calendar days of receipt of the invoice. The OWNER shall identify in writing the specific cause of the disagreement and the amount in dispute and shall pay that portion of the invoice not in dispute in accordance with other payment terms of this Agreement. Any dispute over invoiced amounts due which cannot be resolved within ten (10) calendar days after presentation of invoice by direct negotiation between the parties shall be resolved within thirty (30) calendar days in accordance with the Dispute Resolution provision of this Agreement. Interest at one percent (1%) per month shall be paid by the OWNER on all disputed invoice amounts that are subsequently resolved in the PLANNER's favor and shall be calculated on the unpaid balance from the due date of the invoice.
13. Abandonment of Work: If any work is abandoned or suspended, the PLANNER shall be paid for services performed prior to receipt of written notice from the OWNER of abandonment or suspension.

14. Professional Liability Insurance and Limitation of Liability: The PLANNER maintains professional liability insurance as part of its normal business practice. The OWNER agrees to limit the PLANNER's liability to the OWNER and to all Consultants on the project due to the PLANNER's negligent acts, errors, or omissions, such that the total aggregate liability of the PLANNER to all those named shall not exceed the amount of the PLANNER's compensation for the Project.
15. Indemnification: Subject to the limitation in paragraph 14 above, the PLANNER agrees to the fullest extent permitted by law, to indemnify and hold harmless the OWNER against damages, liabilities and costs arising from the negligent acts of the PLANNER in the performance of professional services under this Agreement, to the extent that the PLANNER is responsible for such damages, liabilities and costs. The PLANNER shall not be obligated to indemnify the OWNER for the OWNER's own negligence.
16. Consequential Damages: Notwithstanding any other provision of this Agreement, and to the fullest extent permitted by law, neither the OWNER nor the PLANNER, their respective officers, directors, partners, employees, contractors or sub-consultants shall be liable to the other or shall make any claim for any incidental, indirect or consequential damages arising out of or connected in any way to the project or to this Agreement. This mutual waiver of incidental, indirect and consequential damages shall include, but is not limited to, loss of use, loss of profit, loss of business, loss of income, loss of reputation or any other consequential damages that either party may have incurred from any cause of action including negligence, strict liability, breach of contract and breach of strict or implied warranty. Both the OWNER and the PLANNER shall require similar waivers of consequential damages protecting all the entities or persons named herein in all contracts and subcontracts with others involved in this project.
17. Dispute Resolution: In an effort to resolve any conflict, the duly authorized representatives of each party will meet together in good faith in an attempt to resolve the conflict. If this attempted resolution fails to resolve the claim or dispute, the parties agree that all claims, disputes, and other matters in question between the parties arising out of or relating to this Agreement or breach thereof first shall be submitted for non-binding mediation to any one of the following, as agreed to by the parties: American Arbitration Association, American Intermediation Service, Americord, Dispute Resolution, Inc., Endispute, or Judicate. The parties hereto agree to fully cooperate and participate in good faith to resolve the dispute(s). The cost of mediation shall be shared equally by the parties hereto. Any time expended in mediation shall not be included in calculating the time for filing arbitration.

If mediation fails to resolve the claim or dispute, the matter shall be submitted to arbitration with the American Arbitration Association under the Construction Industry rules, unless the parties agree otherwise or unless a plaintiff not a party hereto institutes litigation in a court of competent jurisdiction and said court takes personal jurisdiction over one of the parties hereto regarding the same subject matter as in dispute between the parties hereto.

No arbitration arising out of or relating to this Agreement shall include, by consolidation, joinder, or in any other manner, any additional person not a party to this Agreement except by written consent of the parties and such consent to arbitration involving an additional person(s) shall not constitute consent to arbitration of any dispute not described therein. This Agreement to arbitrate and any agreement to arbitrate with an additional person(s) shall be specifically enforceable under the prevailing arbitration law.

The demand for arbitration shall be made within one (1) year of the date the claimant knew or should have known of the existence of the claim, dispute, or other matter but in no event later than 3 years after the date of substantial completion of the project. If the demand for arbitration is not effectuated within such times, the claim, dispute, or other matter shall be forever barred.

The decision rendered by the arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof. In the event either party makes a claim or brings an arbitration action or lawsuit against the other party for any act arising out of the performance of the services hereunder, and the claimant fails to prove such claim or action, then the claimant shall pay all legal and other costs (including attorneys' fees) incurred by the other party in defense of such claim or action.

18. Hiring of Personnel: OWNER may not directly hire any employee of the PLANNER. OWNER agrees that it shall not, directly or indirectly solicit any employee of the PLANNER from accepting employment with OWNER, affiliate companies, or competitors of PLANNER.

Schedule of Invoice Rates - 2024

Hourly Staff Charges

Class 10 Personnel:	Director, Principal	\$275/hour
Class 9 Personnel:	Senior Healthcare Planner, Senior Project Leader, Project Principal, Practice Leader, Principal / Team Leader, Senior Construction Leader	\$215/hour
Class 8 Personnel:	Senior Engineer Leader, Senior Project Manager, Senior Planner	\$190/hour
Class 7 Personnel:	Senior Architect, Senior Architectural Designer, Senior Engineer, Senior Scientist, Senior Project Manager, Senior Construction Administrator, Construction Superintendent	\$175/hour
Class 6 Personnel:	Engineer II, Project Manager II, Senior Landscape Architect, Senior Interior Designer, Senior Technician, Senior Lighting Designer, Preconstruction Coordinator/Estimator	\$150/hour
Class 5 Personnel:	Architect II, Engineer I, Architectural Designer II, Engineer I, Landscape Architect II, Project Manager I, Planner	\$130/hour
Class 4 Personnel:	Architect I, Architectural Designer I, Graduate Engineer, Interior Designer II, Technician II, GIS Technician, Construction Project Manager/Superintendent, Planner I, Water Resources Specialist, Executive Assistant	\$110/hour
Class 3 Personnel:	Graduate Architect, Landscape Architect I, Interior Designer I, Technician I, Associate Planner, Field Scientist	\$ 95/hour
Class 2 Personnel:	Graduate Interior Designer, Graduate Landscape Architect, Project Assistant	\$ 80/hour
Class 1 Personnel:	Intern	\$ 60/hour

Reimbursable Expenses

1. Fees for Program, Financial or Procurement Management services when the Owner has engaged a supplier and Architect is subject to a fee.
2. Building permit fees and plan review fees as required by the authorities having jurisdiction over projects at cost plus 10%.
3. Outside services, consultants, travel and lodging at cost plus 10%.
4. Copies, telephone, cell phone voice and data charges and office supplies will be charged through a \$25 per month Misc. Office Expense charge. This charge will not be applied to invoices under \$1,000.
5. CAD black/white plotting at 15¢ per square foot; CAD color plotting at 25¢ per square foot; CAD low density color images at 30¢ each; CAD high density color images at 50¢ each; large-format color plotting at \$9 per square foot. Postage, shipping, and lab tests at cost. Files written to CD will be minimum \$100 per drawing or \$500 maximum. Passenger vehicle mileage on projects at the IRS Standard Rate (currently 67¢ per mile). Lodging, meals, and airfare at cost. Machine rental GPS at \$250 per day. Traffic Counters at \$60 per count. Surveying supplies at 50¢ per stake.
6. Overtime expenses requiring higher than normal rates if authorized by owner.

Notes:

1. Invoices are due upon receipt. Unpaid invoices shall bear interest at a rate of 1 percent per month if not paid within 30 days of the date of the invoice.
2. Special media requests may be at higher rate.
3. Hourly staff charges and expenses subject to change annually.

STD RATE

January 9, 2024

Progressive AE, Inc.

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March 6, 2024

Eric Zuzga, Director of Community Services
City of Marshall
323 West Michigan Avenue
Marshall, MI 49068

Re: Proposal for Professional Planning Services for City of Marshall Master Planning, Non-Motorized and Parks and Recreation located in Marshall, Michigan

Dear Eric,

Progressive AE, Inc. (Progressive AE) is pleased to present this proposal to the City of Marshall (the City) for planning services for the project identified as City of Marshall Master Plan, Non-Motorized and Parks and Recreation. Following is our understanding of the project, our scope of services, clarifications, proposed schedule and compensation for your consideration.

UNDERSTANDING OF PROJECT

We believe that planning recommendations developed for a comprehensive master plan, updating the current Parks and Recreation Plan, and drafting a non-motorized plan need to be based on a shared understanding of current conditions, citizens' vision for the future, local political factors, environmental constraints (and opportunities), and the desired character of the community. All of these components will be involved in the scope as we work closely with the City's Director of Community Services and the City Master Plan Leadership team through the Master Plan process.

SCOPE OF BASIC SERVICES

Based upon the above project understanding, we will provide the following scope of services:

Task 1: Project Kick-Off + Community Profile

We believe that planning recommendations developed for a comprehensive master plan, updating the current Parks and Recreation Plan and drafting a non-motorized plan need to be based on a shared understanding of current conditions, citizens' vision for the future, local political factors, environmental constraints (and opportunities) and the desired character of the community. All of these components will be involved in the scope as we work closely with the City's Director of Community Services and the City Master Plan Leadership team through the Master Plan process.

We will hold one (1) kick-off meeting with the City Master Plan Leadership team to establish a timeline and discuss desired outcomes of the planning process. This meeting will identify a timeline for completing the Master Plan, 5-Year Parks and Recreation Plan and Non-Motorized Plan. The City Master Plan Leadership team is the working body that will meet regularly to review and provide oversight over the planning process.

During this process, we will gather data on the City's existing conditions to develop an up-to-date community profile. This includes data such as housing, demographic, market conditions, employment data and environmental data such as wetlands, floodplains and tree canopy coverage, location of public infrastructure including streets, trails, water and sewer systems and other factors influencing land uses within the City. This data will reference the community's existing planning documents, where applicable, while gathering new data from state, local, and other sources as needed. This data will be conveyed using maps and other graphics that are easy to interpret and will be included in the final Master Plan document.

Due to the state adoption timeline, we will also develop much of the content for the 5-Year Parks and Recreation Plan during this project phase. This includes performing a parks inventory, drafting the community description and creating other content required by the Michigan Department of Natural Resources (MDNR) in its Guidelines for Developing Parks and Recreation Plans.

In efforts to simplify the planning process, we will also release one (1) online community survey that solicits feedback on the master planning, parks and recreation planning items and non-motorized planning.

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Meeting Summary

- One (1) City Master Plan Leadership team meeting
- Bi-weekly project calls with the City Director of Community Services

Task 2: Public Engagement and Community Input

We propose engagement strategies that satisfy those identified in the City's Public Participation Plan while also building excitement for these planning processes. In addition to the online survey, we propose two (2) Community Events that welcome all people of the Marshall community to attend and offer their vision for the community. The events will be hosted at different times of the day to attract a wide range of participants. The events will provide an opportunity to gather information valuable to future land use planning, such as identifying desired street elements and connections, discussing the growth of the City, identifying housing and redevelopment opportunities, as well as discussing desired mobility and parks improvements. We view the Community Event as an opportunity to gather feedback for both the Master Plan and Parks and Recreation Plan in a convenient, easily accessible format. During Task 1, Progressive AE will engage with city staff to determine whether additional public outreach and engagement events and activities can be accomplished within the project budget.

Meeting Summary

- One (1) City Master Plan Leadership team meeting
- Two (2) Community Events
- Bi-weekly project calls with the City Director of Community Services
- Additional Community Event(s) (Optional)
- Focus Group Meetings (Optional)

Task 3: Master Plan, Parks & Recreation Plan, Non-Motorized Plan Development

Following the public engagement period, the community's values and vision become more apparent. We propose one (1) City Master Plan Leadership team meeting to discuss feedback from public engagement and how these key findings help shape Marshall's overall future land use vision. We also propose one (1) Parks, Recreation and Cemetery Advisory Board Meeting to present this feedback as well as share progress towards completing the Parks & Recreation Plan. Due to the MDNR adoption timeline requirements, we will prioritize completion of a Parks & Recreation Draft. This draft will address park connectivity and accessibility and how best to connect Marshall's neighborhoods to parks and open space assets throughout the community. Upon completion of this Parks & Recreation Plan draft, we will present this to the Parks & Recreation Committee for feedback and approval.

Along with drafting the Parks & Recreation Plan, we will begin drafting the Master Plan and Non-Motorized Plan. Incorporating public feedback and guidance of the City Master Plan Leadership team, we will coalesce around a vision that accurately reflects where the City wants to be in the future and will discuss goals and objectives on how best to achieve this vision. This draft will include the community profile identifying existing conditions, a summary of community engagement, identifying priority redevelopment areas within Marshall as well as identifying multi-modal mobility improvements. The Master Plan will include a Future Land Use Map reflecting this vision as well as a zoning implementation plan that will inform the Zoning Ordinance amendment process. An outline of this document will be shared at one (1) City Master Plan Leadership team meeting for their feedback and review.

The Preliminary Draft Plan will be compared to the Michigan Economic Development Corporation's Redevelopment Ready Communities checklist to assure compliance with all requirements. Requirements of the Michigan Planning Enabling Act will be followed. We also propose the idea of conducting "special studies" to illustrate key concepts as an additional budget item. Special studies can be particularly useful when a deeper dive is needed to explain concepts or to position a policy item for rapid implementation.

Meeting Summary

- One (1) Parks, Recreation and Cemetery Advisory Board Meeting
- Two (2) City Master Plan Leadership Team Meetings
- Bi-weekly project calls with the City Director of Community Services

Task 4: Master Plan, Parks & Recreation Plan, Non-Motorized Plan Adoption

Incorporating feedback from the City Master Plan Leadership Team Meeting, we will format all Master Plan documents in a graphically rich and easy-to-read format. We will then present the Master Plan Draft, 5-Year Parks & Recreation Plan Draft, and Non-Motorized Plan Draft at one (1) City Master Plan Leadership Team Meeting for approval. The same plans will then be presented at one (1) Planning Commission Meeting for their approval and release for public comment.

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All three documents will then be presented for public comment release at one (1) City Commission Meeting. This will then open the required 30-day comment period for the Parks and Recreation Plan as well as the 63-day comment period for the Master Plan as required by state law.

Following the public comment period, we will incorporate additional content as desired and will present the Master Plan, 5-Year Parks & Recreation Plan and Non-Motorized Plan at one (1) Planning Commission Meeting for formal adoption as well as one (1) City Commission Meeting for formal adoption. This process satisfies the state-mandated requirements for plan adoption while maintaining the City's anticipated completion timeline of completion by the end of 2024.

Meeting Summary

- One (1) City Master Plan Leadership Team Meeting
- Two (2) Planning Commission Meetings
- Two (2) City Commission Meetings
- Bi-weekly project calls with the City Director of Community Services

DELIVERABLES

- Marshall Master Plan
- Marshall 5-Year Parks and Recreation Plan
- Marshall Non-Motorized Plan
- 21 hard copies and digital files (Word file for future editing and PDF) of each plan will be provided
- All maps provided will be compatible with GIS

CLARIFICATIONS

In an effort to include as many voices as possible in the planning process, a multifaceted approach to public engagement will be utilized. At least two (2) in-person meetings with stakeholders will be conducted. An online survey will also be utilized to gather input from those who are not able to attend an in-person meeting. Additional opportunities for public engagement may be defined during Task 1.

SCHEDULE

Task 1: Project Kick-Off + Community Profile (March 2024 – May 2024)

- One (1) City Master Plan Leadership team meeting
- Bi-weekly project calls with the City Director of Community Services

Task 2: Public Engagement and Community Input (June 2024 – August 2024)

- One (1) City Master Plan Leadership team meeting
- Two (2) Community Events
- Bi-weekly project calls with the City Director of Community Services
- Additional Community Event(s) (Optional)
- Focus Group Meetings (Optional)

Task 3: Master Plan, Parks & Recreation Plan, Non-Motorized Plan Development (August 2024 – October 2024)

- One (1) Parks, Recreation and Cemetery Advisory Board Meeting
- Two (2) City Master Plan Leadership Team Meetings
- Bi-weekly project calls with the City Director of Community Services

Task 4: Master Plan, Parks & Recreation Plan, Non-Motorized Plan Adoption (October 2024 – December 2024)

- One (1) City Master Plan Leadership Team Meeting
- Two (2) Planning Commission Meetings
- Two (2) City Commission Meetings
- Bi-weekly project calls with the City Director of Community Services

Progressive AE, Inc.

Corporate Office: | 1811 4 Mile Road NE | Grand Rapids, MI 49525 | 616.361.2664 | progressiveae.com
 Regional Office: | 330 South Tryon Street, Suite 500 | Charlotte, NC 28202 | 704.731.8080 | progressiveae.com

PROFESSIONAL COMPENSATION

Based upon the above identified scope of services, Progressive AE proposes the following compensation for professional services. We propose to provide the work as delineated above for a stipulated sum of \$119,843 (one hundred nineteen thousand eight hundred forty-three dollars). Reimbursable expenses are included in the professional compensation, estimated at \$6,000 (six thousand dollars) and will be invoiced according to the attached Schedule of Invoice Rates.

Task 1: Project Kick-Off + Community Profile:	\$24,050
Task 2: Public Engagement and Community Input:	\$36,043
Task 3: Plan Development:	\$30,300
Task 4: Plan Adoption:	\$23,450
Reimbursables:	\$6,000
Total:	\$119,843

The stipulated sum does not include the 6% discount as referenced in the RFP dated February 1, 2024: \$112,652

Progressive AE has prepared this proposal for City of Marshall, and we request that it be treated as confidential and not copied or distributed for any reason other than evaluation for hire.

The terms of this proposal defining project understanding, scope, schedule, clarifications and professional compensation are incorporated into the Standard Agreement Provisions for Professional Services which are attached. The terms and conditions as identified in the Standard Agreement Provisions will be valid unless superseded by an AIA Standard Form of Agreement. If this proposal meets with your approval, please sign below and return a copy of the signed proposal. Your signature will be our authorization to begin the work and place the project in the firm's schedule. If you do not sign and return this proposal, and after receipt of this proposal you request or accept services from Progressive AE in connection with this or any other engagement, your request or acceptance of such services will be deemed to be an acquiescence or agreement with the terms provided in this proposal.

We look forward to working on this project with you and your team.

Sincerely,

Suzanne M. Schulz, FAICP
Urban Design and Planning Practice Leader

Jeffrey M. Roman, PE, LEED AP
Director of Engineering

Accepted By: _____

Printed Name: _____ Date: _____

City of Marshall

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The parties to this Agreement, Progressive AE, Inc., Grand Rapids, Michigan, USA, hereinafter called the PLANNER and City of Marshall, Marshall, Michigan, USA, hereinafter called the OWNER, hereby agree to the following conditions:

1. Limit of Scope: The services provided by the PLANNER shall be limited to those described in the proposal dated March 6, 2024. The parties agree that the terms of the proposal are incorporated herein by reference, and are part of this agreement as if fully set forth herein. If any terms set forth in the proposal are expressly in conflict with the terms hereof, the terms of the proposal shall govern.
2. Changed Conditions: If, during the term of this Agreement, the PLANNER becomes aware of any circumstances or conditions that were not originally contemplated by or known to the PLANNER, then to the extent that they affect the scope of services, compensations, schedule, allocation of risks or other material terms of this Agreement, the PLANNER may call for re-negotiation of appropriate portions of the Agreement. The PLANNER shall notify the OWNER of the changed conditions necessitating re-negotiation, and the PLANNER and the OWNER shall promptly and in good faith enter into re-negotiation of this Agreement to address the changed conditions. If terms cannot be agreed to, the parties agree that either party has the absolute right to terminate this Agreement.
3. Delays: The OWNER agrees that the PLANNER is not responsible for any damages arising directly or indirectly from any delays for causes beyond the PLANNER's control. For purposes of this Agreement, such causes include, but are not limited to, strikes or other labor disputes; severe weather disruptions, epidemics, pandemics or other natural disasters or acts of God; fires, riots, war or other emergencies; failure of any government agency to act in a timely manner; failure of performance by OWNER or the OWNER's contractors or consultants; or discovery of any hazardous substance or differing site conditions.

In addition, if the delays resulting from any such causes increase the cost or time required by the PLANNER to perform its services in an orderly and efficient manner, the PLANNER shall be entitled to a reasonable adjustment in schedule and compensation.

4. Additional Services: Additional services not specifically identified in the Scope of Services shall be paid for by the OWNER in addition to the fees previously stated, provided the OWNER authorizes such additional services in writing. Special services will be billed monthly as work progresses and invoices are due upon receipt. If services covered by this agreement have not been completed within twelve months of the date of this agreement, through no fault of the PLANNER, extension of the PLANNER'S services beyond that time shall be compensated as additional services.
5. Code of Ethics and Professional Conduct: Professional Services provided by the PLANNER will be conducted in a manner consistent with ordinarily and normally exercised by licensed PLANNERS practicing in the State where the Project resides. The OWNER and PLANNER agree that a contingency in the amount of three percent (3%) of the cost of the work be established, as required, for changes that may be required because of possible omissions, ambiguities, or inconsistencies in plans and specifications.
6. Value-Added/Betterment: If, due to the PLANNER's error, any required item or component of the project is omitted from the PLANNER's Construction documents, the PLANNER shall not be responsible for paying the cost to add such item or components to the extent that such item or component would have otherwise been necessary to the project or otherwise adds value or betterment to the project. In no event will the PLANNER be responsible for any cost or expenses that provides value, upgrade, or enhancement of the project.

7. Hazardous Materials: The PLANNER shall have no responsibility for the discovery, presence, handling, removal or disposal of, or exposure of persons to, hazardous materials or toxic substances in any form on any project sites. The OWNER shall furnish tests, inspections and reports required by law or the Contract Documents, such as traffic, environmental impact reports or assessments and chemical tests, tests for air and water pollution, and tests for hazardous materials.
8. Opinions of Probable Construction Cost: In providing opinions of probable construction cost, the OWNER understands that the PLANNER has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that the PLANNER's opinions of probable construction costs are made on the basis of the PLANNER's professional judgment and experience. The PLANNER makes no warranty, express or implied that the bids or the negotiated cost of the Work will not vary from the PLANNER's opinion of probable construction cost.
9. Schedule for Rendering Services: The PLANNER shall prepare and submit for OWNER approval a schedule for the performance of the PLANNER's services. This schedule shall include reasonable allowances for review and approval times required by the OWNER, performance of services by the OWNER's consultants, and review and approval times required by public authorities having jurisdiction over the project. This schedule shall be equitably adjusted as the project progresses, allowing for changes in scope, character or size of the project requested by the OWNER, or for delays or other causes beyond the PLANNER's reasonable control.
10. Ownership of Reports, Drawings and Other Materials: The OWNER agrees that all reports, drawings, letters, worksheets, plans, preliminary material tables, supportive data, documents and other materials produced by the PLANNER in the course of and for the purpose of meeting this contract are the property of the PLANNER, shall remain in the possession of the PLANNER and the PLANNER has and retains all copyrights in such material. Upon execution of this Agreement, the PLANNER grants to the OWNER a nonexclusive license to reproduce the PLANNER's Instrument of Service solely for the purposes of constructing, using and maintaining the Project provided that the OWNER shall comply with all obligations including the prompt payment of all sums when due, under this Agreement.
11. Payment Terms: Invoices will be submitted by the PLANNER monthly, are due upon presentation and shall be considered past due if not paid within thirty (30) calendar days of the date of invoice. Invoices past due shall accrue interest at one percent (1%) per month from the original invoice date. If past due invoices cause the PLANNER to proceed with legal action or collection services, the OWNER agrees to pay all of the PLANNER's collection expenses including reasonable attorney fees.
12. Disputed Invoices: If the OWNER objects to any portion of an invoice, the OWNER shall so notify the PLANNER in writing within ten (10) calendar days of receipt of the invoice. The OWNER shall identify in writing the specific cause of the disagreement and the amount in dispute and shall pay that portion of the invoice not in dispute in accordance with other payment terms of this Agreement. Any dispute over invoiced amounts due which cannot be resolved within ten (10) calendar days after presentation of invoice by direct negotiation between the parties shall be resolved within thirty (30) calendar days in accordance with the Dispute Resolution provision of this Agreement. Interest at one percent (1%) per month shall be paid by the OWNER on all disputed invoice amounts that are subsequently resolved in the PLANNER's favor and shall be calculated on the unpaid balance from the due date of the invoice.
13. Abandonment of Work: If any work is abandoned or suspended, the PLANNER shall be paid for services performed prior to receipt of written notice from the OWNER of abandonment or suspension.

14. Professional Liability Insurance and Limitation of Liability: The PLANNER maintains professional liability insurance as part of its normal business practice. The OWNER agrees to limit the PLANNER's liability to the OWNER and to all Consultants on the project due to the PLANNER's negligent acts, errors, or omissions, such that the total aggregate liability of the PLANNER to all those named shall not exceed the amount of the PLANNER's compensation for the Project.
15. Indemnification: Subject to the limitation in paragraph 14 above, the PLANNER agrees to the fullest extent permitted by law, to indemnify and hold harmless the OWNER against damages, liabilities and costs arising from the negligent acts of the PLANNER in the performance of professional services under this Agreement, to the extent that the PLANNER is responsible for such damages, liabilities and costs. The PLANNER shall not be obligated to indemnify the OWNER for the OWNER's own negligence.
16. Consequential Damages: Notwithstanding any other provision of this Agreement, and to the fullest extent permitted by law, neither the OWNER nor the PLANNER, their respective officers, directors, partners, employees, contractors or sub-consultants shall be liable to the other or shall make any claim for any incidental, indirect or consequential damages arising out of or connected in any way to the project or to this Agreement. This mutual waiver of incidental, indirect and consequential damages shall include, but is not limited to, loss of use, loss of profit, loss of business, loss of income, loss of reputation or any other consequential damages that either party may have incurred from any cause of action including negligence, strict liability, breach of contract and breach of strict or implied warranty. Both the OWNER and the PLANNER shall require similar waivers of consequential damages protecting all the entities or persons named herein in all contracts and subcontracts with others involved in this project.
17. Dispute Resolution: In an effort to resolve any conflict, the duly authorized representatives of each party will meet together in good faith in an attempt to resolve the conflict. If this attempted resolution fails to resolve the claim or dispute, the parties agree that all claims, disputes, and other matters in question between the parties arising out of or relating to this Agreement or breach thereof first shall be submitted for non-binding mediation to any one of the following, as agreed to by the parties: American Arbitration Association, American Intermediation Service, Americord, Dispute Resolution, Inc., Endispute, or Judicate. The parties hereto agree to fully cooperate and participate in good faith to resolve the dispute(s). The cost of mediation shall be shared equally by the parties hereto. Any time expended in mediation shall not be included in calculating the time for filing arbitration.

If mediation fails to resolve the claim or dispute, the matter shall be submitted to arbitration with the American Arbitration Association under the Construction Industry rules, unless the parties agree otherwise or unless a plaintiff not a party hereto institutes litigation in a court of competent jurisdiction and said court takes personal jurisdiction over one of the parties hereto regarding the same subject matter as in dispute between the parties hereto.

No arbitration arising out of or relating to this Agreement shall include, by consolidation, joinder, or in any other manner, any additional person not a party to this Agreement except by written consent of the parties and such consent to arbitration involving an additional person(s) shall not constitute consent to arbitration of any dispute not described therein. This Agreement to arbitrate and any agreement to arbitrate with an additional person(s) shall be specifically enforceable under the prevailing arbitration law.

The demand for arbitration shall be made within one (1) year of the date the claimant knew or should have known of the existence of the claim, dispute, or other matter but in no event later than 3 years after the date of substantial completion of the project. If the demand for arbitration is not effectuated within such times, the claim, dispute, or other matter shall be forever barred.

The decision rendered by the arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof. In the event either party makes a claim or brings an arbitration action or lawsuit against the other party for any act arising out of the performance of the services hereunder, and the claimant fails to prove such claim or action, then the claimant shall pay all legal and other costs (including attorneys' fees) incurred by the other party in defense of such claim or action.

18. Hiring of Personnel: OWNER may not directly hire any employee of the PLANNER. OWNER agrees that it shall not, directly or indirectly solicit any employee of the PLANNER from accepting employment with OWNER, affiliate companies, or competitors of PLANNER.

Schedule of Invoice Rates - 2024

Hourly Staff Charges

Class 10 Personnel:	Director, Principal	\$275/hour
Class 9 Personnel:	Senior Healthcare Planner, Senior Project Leader, Project Principal, Practice Leader, Principal / Team Leader, Senior Construction Leader	\$215/hour
Class 8 Personnel:	Senior Engineer Leader, Senior Project Manager, Senior Planner	\$190/hour
Class 7 Personnel:	Senior Architect, Senior Architectural Designer, Senior Engineer, Senior Scientist, Senior Project Manager, Senior Construction Administrator, Construction Superintendent	\$175/hour
Class 6 Personnel:	Engineer II, Project Manager II, Senior Landscape Architect, Senior Interior Designer, Senior Technician, Senior Lighting Designer, Preconstruction Coordinator/Estimator	\$150/hour
Class 5 Personnel:	Architect II, Engineer I, Architectural Designer II, Engineer I, Landscape Architect II, Project Manager I, Planner	\$130/hour
Class 4 Personnel:	Architect I, Architectural Designer I, Graduate Engineer, Interior Designer II, Technician II, GIS Technician, Construction Project Manager/Superintendent, Planner I, Water Resources Specialist, Executive Assistant	\$110/hour
Class 3 Personnel:	Graduate Architect, Landscape Architect I, Interior Designer I, Technician I, Associate Planner, Field Scientist	\$ 95/hour
Class 2 Personnel:	Graduate Interior Designer, Graduate Landscape Architect, Project Assistant	\$ 80/hour
Class 1 Personnel:	Intern	\$ 60/hour

Reimbursable Expenses

1. Fees for Program, Financial or Procurement Management services when the Owner has engaged a supplier and Architect is subject to a fee.
2. Building permit fees and plan review fees as required by the authorities having jurisdiction over projects at cost plus 10%.
3. Outside services, consultants, travel and lodging at cost plus 10%.
4. Copies, telephone, cell phone voice and data charges and office supplies will be charged through a \$25 per month Misc. Office Expense charge. This charge will not be applied to invoices under \$1,000.
5. CAD black/white plotting at 15¢ per square foot; CAD color plotting at 25¢ per square foot; CAD low density color images at 30¢ each; CAD high density color images at 50¢ each; large-format color plotting at \$9 per square foot. Postage, shipping, and lab tests at cost. Files written to CD will be minimum \$100 per drawing or \$500 maximum. Passenger vehicle mileage on projects at the IRS Standard Rate (currently 67¢ per mile). Lodging, meals, and airfare at cost. Machine rental GPS at \$250 per day. Traffic Counters at \$60 per count. Surveying supplies at 50¢ per stake.
6. Overtime expenses requiring higher than normal rates if authorized by owner.

Notes:

1. Invoices are due upon receipt. Unpaid invoices shall bear interest at a rate of 1 percent per month if not paid within 30 days of the date of the invoice.
2. Special media requests may be at higher rate.
3. Hourly staff charges and expenses subject to change annually.

STD RATE

January 9, 2024

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ITEM 8.E

TO: Planning Commission
FROM: Eric Zuzga, Director of Community Services
DATE: April 10, 2024
SUBJECT: **B-4 ZONING DISTRICT HEIGHT DISCUSSION**

The City adopted a height limitation in the B-4 District that is limiting for certain permitted uses. Staff has had discussions with several parties that would like to build a hotel in the city, but the maximum height is a severely limiting factor for these projects. Based upon previous discussions, staff will be presenting a potential solution that addresses the Planning Commission's concerns and still allows for the desired development.

BUDGET IMPACT:

RECOMMENDATION:

If there is enough support, a public hearing will be held at a later meeting to discuss updating the zoning ordinance to provide for taller structures in sections of the B-4 District.