

**MARION TOWNSHIP PLANNING COMMISSION  
AGENDA**

**REGULAR MEETING**

**August 27, 2024**

**7:30 PM**

*Virtual access instructions to participate in the meeting are posted on [www.mariontownship.com](http://www.mariontownship.com)*

MEETING WILL BE HELD IN MAIN HALL

Call to Order:

Pledge of Allegiance:

Introduction of Members:

Approval of Agenda for: August 27, 2024 Regular Meeting

Approval of Minutes from: July 23, 2024 Regular Meeting

Call for Public Comment:

Public Hearing:

New Business:

- 1) SPR#02-24 Tamarack Place re-approve expired site plan

Unfinished Business:

- 1) TXT#01-24 Signs (new info)
- 2) Lots new information (bring back)

Special Orders:

- 1)** Fee structure and escrow discussion (bring back)

Announcements:

Call for Public Comment:

Adjournment:

**MARION TOWNSHIP  
PLANNING COMMISSION  
JULY 23, 2024 / 7:30PM**

**PC MEMBERS PRESENT:** LARRY GRUNN – CHAIRPERSON  
JIM ANDERSON – VICE-CHAIRPERSON  
CHERYL RANGE – SECRETARY  
BOB HANVEY

**PC MEMBERS ABSENT:** BRUCE POWELSON

**OTHERS PRESENT:** DAVID HAMANN – MARION TWP. ZONING ADMINISTRATOR  
ZACH MICHELS – TOWNSHIP PLANNER

**CALL TO ORDER**

Larry Grunn called the meeting to order at 7:30 pm.

**APPROVAL OF AGENDA**

Jim Anderson added "Solar CREO" to the agenda under Announcements.

Jim Anderson made a motion to approve the July 23, 2024 agenda as amended. Cheryl Range seconded. **4-0 MOTION CARRIED**

**APPROVAL OF MINUTES**

Cheryl Range made a small change to the June 25, 2024 Planning Commission meeting minutes.

Jim Anderson made a motion to approve the June 25, 2024 Planning Commission minutes as amended. Cheryl Range seconded. **4-0 MOTION CARRIED**

**CALL TO PUBLIC FOR COMMENT**

No comments were made.

**PUBLIC HEARING**

**TXT# 02-24 3.02, 9.1D2, 17.04A, 17.15, TABLE CONTENT CHANGES**

No comments were made.

**NEW BUSINESS**

**TXT# 02-24 3.02, 9.1D2, 17.04A, 17.15, TABLE CONTENT CHANGES**

Cheryl Range requested that on PAGE 3 of the ordinance, under "Motor Vehicle Repair Facility", we use the actual term; "breath alcohol ignition interlock device" instead of using the abbreviation "BAIID".  
Bob Hanvey requested that we specify what types of licenses are required and that copies be provided to the Township.

Cheryl Range made a motion to send the ordinance language for *Family and Group Child Care Homes and Motor Vehicle Repair Facilities* to the Livingston County Planning Commission for review and feedback and send to Marion Township Board of Trustees with approval recommendation. Jim Anderson seconded. **4-0 MOTION CARRIED**

**UNFINISHED BUSINESS**

**TXT# 01-24 SIGNS**

Zach Michels reviewed some of the updates made to our Sign ordinance

- Move “Feathered Signs” to the list of allowed signs
- PAGE 9: add more language to “backlighting”
- PAGE 9 section H: Remove “timer regulations”
- PAGE 9 section G: revise the wording
- PAGE 9: organize by zoning district
- PAGE section D: damaged by more the 60% of the replacement value

Cheryl Range made a motion to extend the meeting past 9:30pm. Larry Grunn seconded. **4-0 MOTION CARRIED**

**UNFINISHED BUSINESS**

**LOTS NEW INFORMATION (bring back)**

Bob Harvey asked the Commissioners to review the handout on LOTS and decide whether or not they want to work on this language.

Larry Grunn requested that Zach Michels to bring some language on Lots, to the next Planning Commission meeting.

**SPECIAL ORDERS**

**FEE STRUCTURE AND ESCROW DISCUSSION (bring back)**

Bob Harvey made a motion to postpone discussion on this topic until the next Planning Commission meeting. Jim Anderson seconded. **4-0 MOTION CARRIED**

**ANNOUNCEMENTS**

**SOLAR FARM DISCUSSION**

Jim Anderson discussed some new information from the State regarding Solar Farms. Jim talked about the Planning Commission creating a CREO to prevent solar companies from being able to override our current solar ordinance. However, both our neighboring communities and the County, must also have a CREO in place, in order for ours to be effective.

**CALL TO PUBLIC FOR COMMENT**

No comments were made.

**ADJOURNMENT:**

Jim Anderson made a motion to adjourn the Planning Commission meeting at 10:30pm. Larry Grunn seconded. **4-0 MOTION CARRIED**

**MINUTES TAKEN BY:** Jessica S. Timberlake



August 13, 2024

Mr. Dave Hamann  
Zoning Administrator  
Marion Township  
2877 West Coon Lake Road  
Howell, Michigan 48843

Re: **TAMARACK PLACE**  
Final Site Plan resubmittal

Dear Mr. Hamann:

We have revised the final site plan for Tamarack Place in Marion Township to address review comments provided by the Township and permitting agencies. The following revisions have been incorporated into the plans:

- Tax ID numbers for each unit have been depicted on sheet AE.
- Zoning district designation has been corrected on sheet DP
- Demolition has been updated to reflect current conditions on sheet EX
- Tree protection fencing has been depicted on sheet EX
- Proposed Ash and Austrian Pine tree species have been replaced with Silver Linden and Concolor Fir tree species
- Proposed street light cut sheet and detail have been revised to LED on sheet LS2
- The ultimate drainage outlet has been identified on sheet WS
- Notes identifying road and drainage system ownership, and speed limit has been added to the Cover sheet
- Minor corrections to detention basin calculations have been completed in accordance with comments provided in the approval letter prepared by LCDC dated July 10, 2024

The following additional information is provided to assist in consideration of the revised plans.

The proposed pavement cross-section provided on sheet DT1 conforms to the Marion Township private road pavement standards. No changes to the pavement cross-section are proposed.

Detention Basin N has been revised to conform with the current Livingston County Procedures and Design Criteria for Stormwater Management Systems as required by the Drain Commissioner. The groundwater elevation at SB-1, as depicted on the boring log, is at an elevation of 899.2. SB-1 is located approximately 400 feet upgradient from the detention basin, and approximately 520 feet from the county drain. The groundwater gradient through the existing sandy soils will be generally consistent between SB-1 and the existing drain, resulting in a groundwater elevation in the vicinity of the detention basin below the low water elevation of the proposed basin. The stormwater management system has been approved by the Livingston County Drain Commissioner.

Dave Hamann  
August 13, 2024  
Page 2

The site plan was previously approved with pedestrian crossings as depicted on the plans. Pathways and trails intersect with the sidewalk system and are not intended to need additional pedestrian crossings over the private roads. Additional pedestrian crossings at the remaining legs of intersections will interfere with driveway locations.

The proposed entrance sign will be detailed on the plan provided with the sign permit application.

Landscaping is proposed along the Easterly side of the development, between the existing and proposed single-family residential lots. Screening is not required between similar residential uses.

Insufficient space is available to provide street trees along Wolfburn Street, within the existing 66 foot wide right-of-way, following construction of the water main and proposed sidewalk.

Enclosed is the revised site plan for review and approval. Should you have questions pertaining to the project, or if additional information is required, please contact me at your convenience.

Respectfully,  
**DESINE INC.**

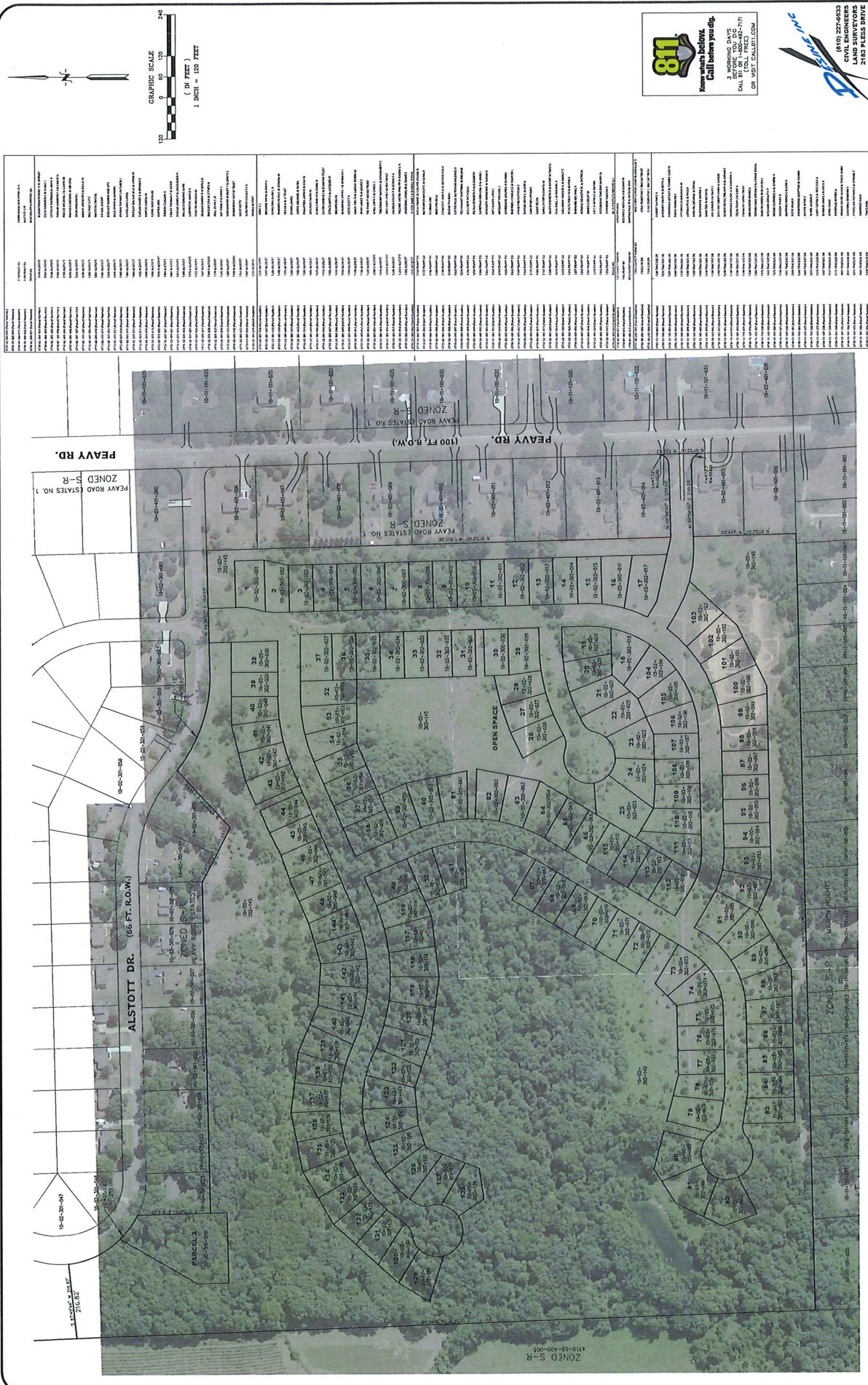
  
Wayne M. Perry, P.E.

Encl: Tamarack Place Site Plan – 08-09-2024

cc: Mike West, Allen Edwin Homes

203925\Township - Site Plan resubmittal LTR 08-13-2024





| REVISION # | DATE     | REVISION-DESCRIPTION        | REVISION # | DATE | REVISION-DESCRIPTION |
|------------|----------|-----------------------------|------------|------|----------------------|
| 1          | 08-29-21 | REVISED FOR REVIEW COMMENTS |            |      |                      |
|            |          |                             |            |      |                      |
|            |          |                             |            |      |                      |
|            |          |                             |            |      |                      |

|             |                                                                                                        |
|-------------|--------------------------------------------------------------------------------------------------------|
| DESIGN: JHG | SCALE: 1" = 100'                                                                                       |
| DRAFT: SES  | PROJECT NO.: 202025                                                                                    |
| CHECK: WMP  | DWG NAME: 2025 PH                                                                                      |
|             | ISSUED: 11.10.2021                                                                                     |
|             | CLIENT: WESTVIEW CAPITAL, LLC<br>795 CENTER COURT SW<br>BRYAN CENTER, MICHIGAN 48105<br>(248) 304-6448 |
|             | SITE AERIAL PHOTOGRAPH                                                                                 |
|             | TAMARACK PLACE                                                                                         |

















- LEGEND**
- ROAD CENTERLINE
  - ROAD RIGHT OF WAY
  - CONCRETE DRIVE
  - PAVED DRIVE
  - GRAVEL DRIVE
  - UNPAVED DRIVE
  - PAVED SIDEWALK
  - UNPAVED SIDEWALK
  - UNPAVED FRONT YARD
  - UNPAVED REAR YARD
  - UNPAVED SIDE YARD
  - PROPOSED SIDEWALK SETBACK
  - PROPOSED DRIVE SETBACK
  - PROPOSED DRIVE FRONT SETBACK
  - PROPOSED DRIVE REAR SETBACK
  - PROPOSED DRIVE SIDE SETBACK
  - PROPOSED DRIVE PERIMETER
  - PROPOSED DRIVE PERMITS
  - PROPOSED DRIVE PERMITS
  - PROPOSED DRIVE PERMITS
  - PROPOSED DRIVE PERMITS
  - PROPOSED DRIVE PERMITS

**TYPICAL BUILDING SETBACKS**

FRONT 30'

SIDE 10'

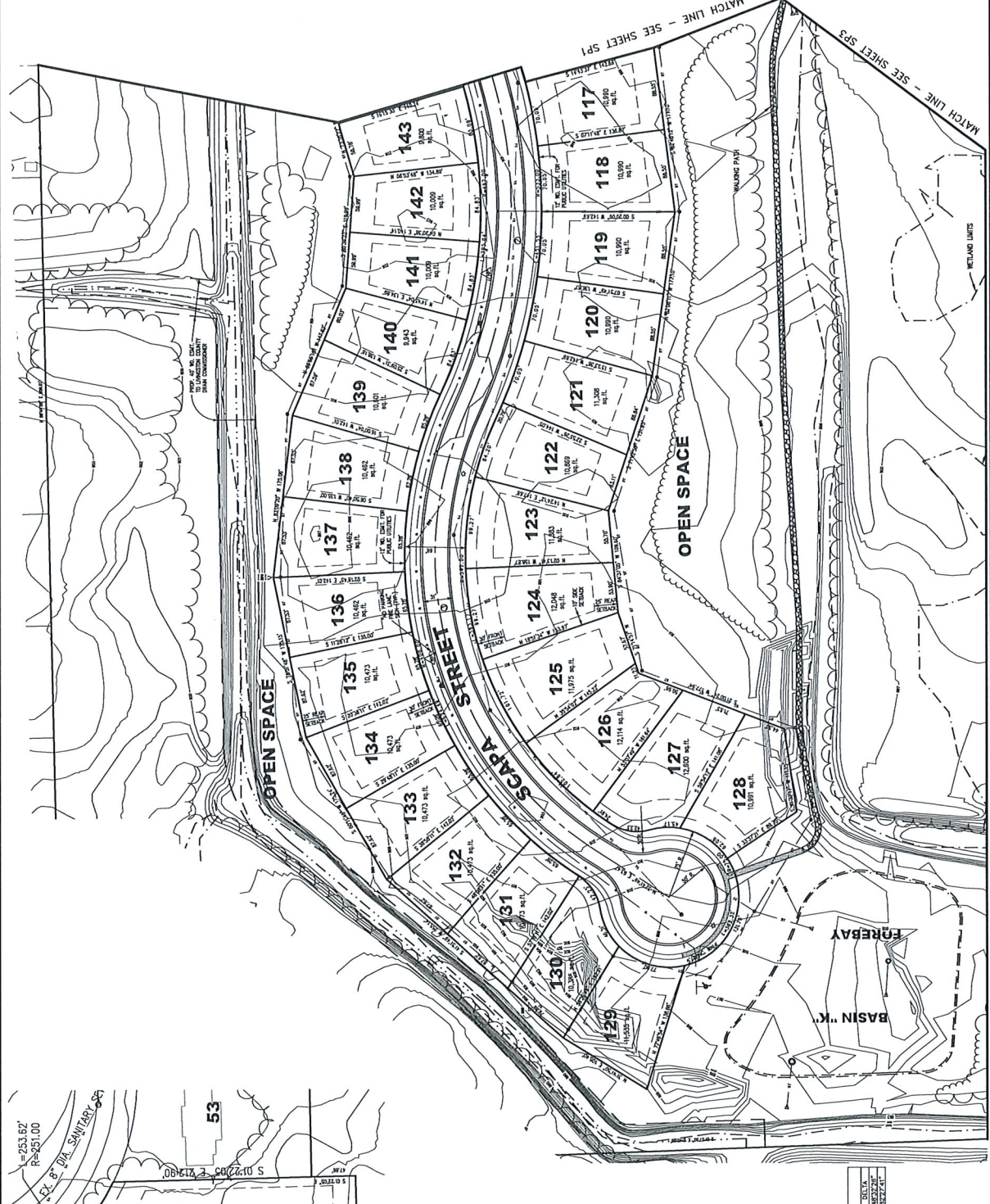
REAR 25'

PERIMETER 90'



1810 JOHNSON AVENUE  
LAND SURVEYORS  
2133 PLEAS DRIVE  
BRIGHTON, MICHIGAN 48111

SCALE 1" = 50'  
PROJECT No. 200205  
DWG NAME 2025 SP  
ISSUED: 11.03.19 3:54  
**SP4**



CLIENT:  
WESTVIEW CAPITAL LLC  
795 CLUDE COURT SW  
BRYAN CENTER, MICHIGAN 48115  
248-865-6848

**SITE PLAN NW**

**TAMARACK PLACE**

REVISION # DATE REVISION-DESCRIPTION

|  |  |  |
|--|--|--|
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**CURVE TABLE**

| ORDER | LENGTH | PC     | PVI    | PT     | ANGLE | AREA   |
|-------|--------|--------|--------|--------|-------|--------|
| 1     | 48.27  | 126.32 | 126.32 | 126.32 | 90.00 | 48.27  |
| 2     | 127.00 | 127.00 | 127.00 | 127.00 | 90.00 | 127.00 |
| 3     | 127.00 | 127.00 | 127.00 | 127.00 | 90.00 | 127.00 |

DESIGN: JHG  
DRAFT: JHG  
CHECK: WMP

BENCHMARK  
SUAH MADE ON PROPOSED BENCHMARK IS  
DEPENDING ON "MASON" OR "CONCRETE"

BENCHMARK F:  
POINT OF BEGINNING (POB) IS  
THE INTERSECTION OF SOUTHGLAD HURONTY  
CORNER, IN EAST CORNER OF PLOT 1580

BENCHMARK G:  
STATION VALUE OF BENCHMARK LOCATED WEST  
OF SCAPPA STREET, 100.00 FEET SOUTH OF  
WEST END OF SCAPPA STREET, 100.00 FEET  
ELEVATION = 100.00 (NODE 2)

BENCHMARK J:  
STATION VALUE OF BENCHMARK LOCATED WEST  
OF SCAPPA STREET, 100.00 FEET NORTH OF  
WEST END OF SCAPPA STREET, 100.00 FEET  
ELEVATION = 100.00 (NODE 2)





- LEGEND**
- RECLAM LIFT
  - ROAD CENTERLINE
  - SANITARY MAINLINE
  - SANITARY BRANCH
  - SANITARY MANHOLE
  - SANITARY INVERT
  - EXISTING VALVE
  - EXISTING HYDRANT
  - BALANCE BETWEEN LINE
  - PROPOSED SANITARY MAINLINE
  - PROPOSED SANITARY BRANCH
  - PROPOSED SANITARY MANHOLE
  - PROPOSED SANITARY INVERT
  - PROPOSED SANITARY VALVE
  - PROPOSED SANITARY HYDRANT
  - PROPOSED SANITARY LEAD
  - PROPOSED SANITARY LEAD TO SANITARY

**NOTE:** ALL INVERTS MUST BE SUBMITTED TO AND APPROVED BY THE LOCAL HEALTH DEPARTMENT.

1. ALL WATER MAIN SHALL BE DOUBLE RISEN AND PROTECTED IN ACCORDANCE WITH AREA REGULATIONS.
2. EXISTING UTILITY LOCATIONS SHOWN ON THIS DRAWING ARE BASED ON FIELD SURVEY DATA AND ARE NOT TO BE CONSIDERED AS A GUARANTEE OF ACCURACY.
3. CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS AND DEPTHS PRIOR TO CONSTRUCTION.



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7 DAYS A WEEK  
CALL 811 OR 1-800-487-7171  
OR VISIT CALL811.COM

CLIENT: WESTVIEW CAPITAL, LLC  
795 CLAYDE COURT SW  
BRYAN CENTER, MICHIGAN 48715  
248-662-6248

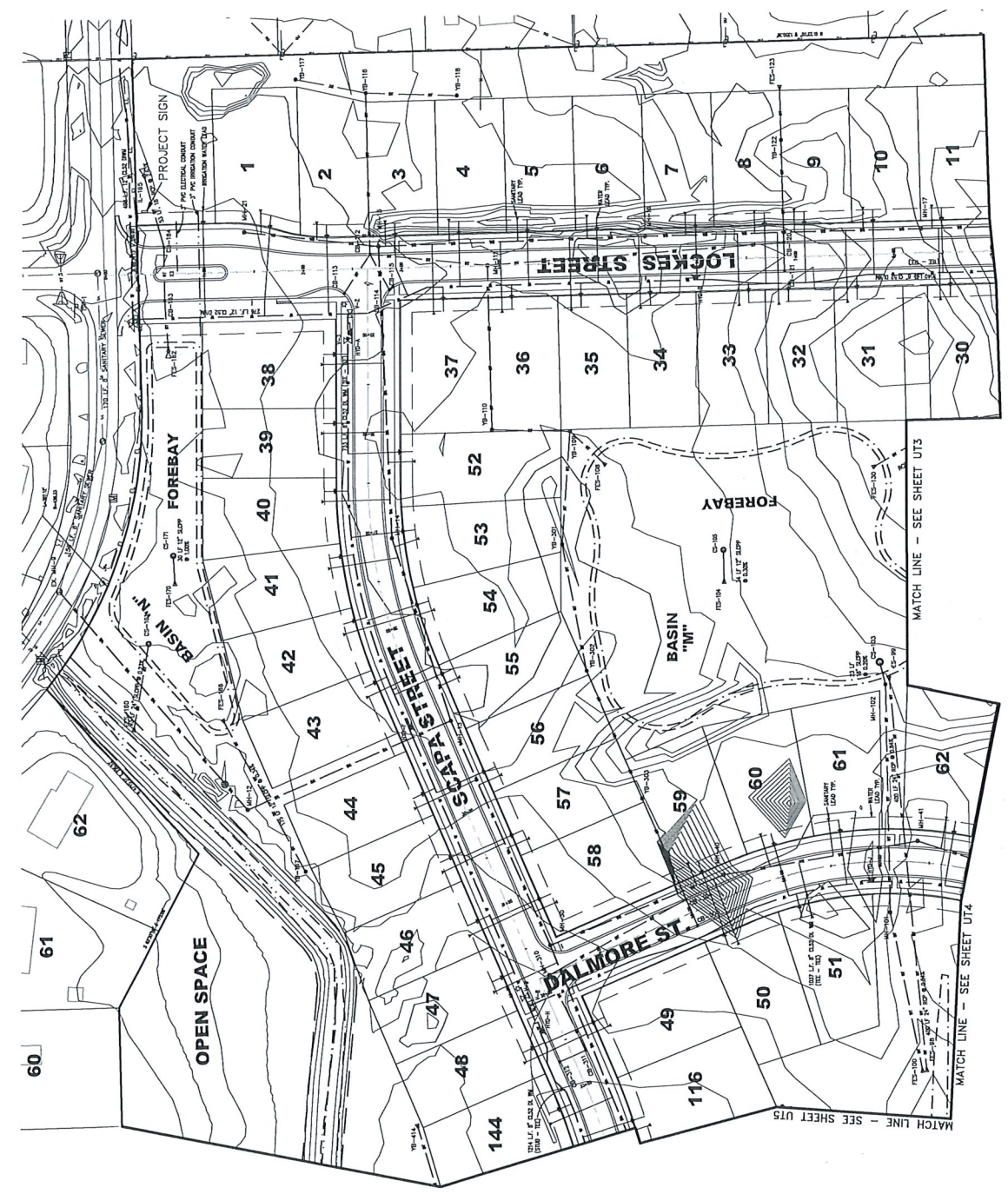
SCALE: 1/4" = 50'

PROJECT NO.: 202025  
DWG NAME: 2025 UT2-5  
ISSUED: AUG. 09, 2024

UTILITY PLAN NE

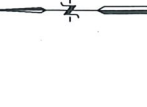
TAMARACK PLACE

| REVISION # | DATE     | REVISION DESCRIPTION | REVISION # | DATE     | REVISION DESCRIPTION |
|------------|----------|----------------------|------------|----------|----------------------|
| 1          | 08-29-24 | ISSUED FOR PERMIT    | 1          | 08-29-24 | ISSUED FOR PERMIT    |
| 2          | 08-29-24 | ISSUED FOR PERMIT    | 2          | 08-29-24 | ISSUED FOR PERMIT    |
| 3          | 08-29-24 | ISSUED FOR PERMIT    | 3          | 08-29-24 | ISSUED FOR PERMIT    |
| 4          | 08-29-24 | ISSUED FOR PERMIT    | 4          | 08-29-24 | ISSUED FOR PERMIT    |
| 5          | 08-29-24 | ISSUED FOR PERMIT    | 5          | 08-29-24 | ISSUED FOR PERMIT    |



DESIGN: JHG  
DRAFT: JHG  
CHECK: WMP





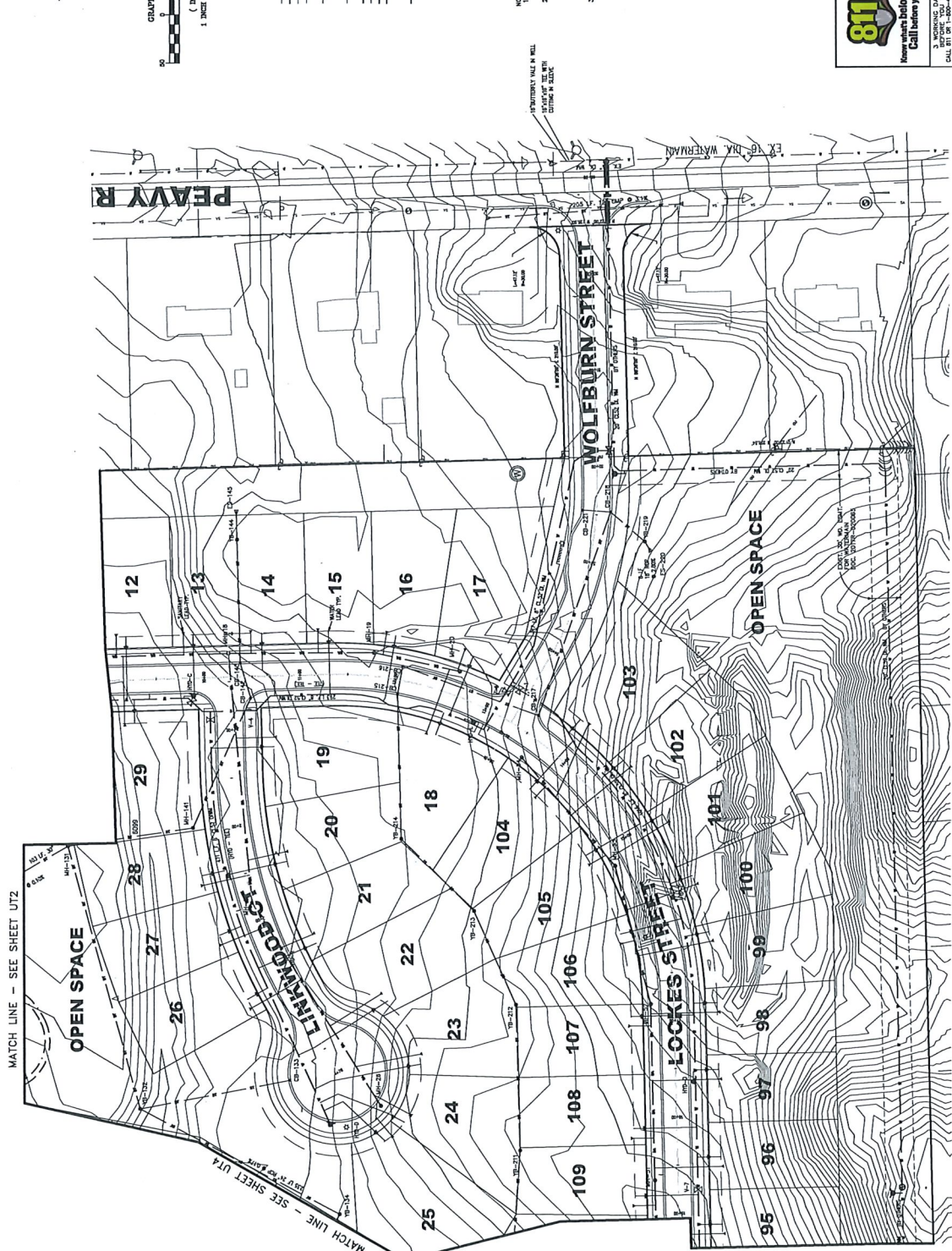
**LEGEND**

|   |            |
|---|------------|
| — | PROPOSED   |
| — | EXISTING   |
| ○ | MANHOLE    |
| ○ | WATER MAIN |
| ○ | SEWER      |
| ○ | STORM      |
| ○ | WATER MAIN |
| ○ | SEWER      |
| ○ | STORM      |
| ○ | WATER MAIN |
| ○ | SEWER      |
| ○ | STORM      |

NOTE:  
 1. MANHOLE INVERTS TO BE INDICATED BY  
 2. ALL WATER MAIN SHALL BE DOUBLE NON  
 3. COMPLETE SANITARY STRUCTURE DESIGN  
 4. INFORMATION IS SHOWN IN THIS PLAN  
 5. SEE THE PROVISIONS OF THE SPECIFICATIONS

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 3. WORKING DAYS  
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 OR VISIT CALL811.COM

WESTVIEW CAPITAL LLC  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 215 PEARSON DRIVE  
 BIRMINGHAM, ALABAMA 35244



SCALE: 1" = 50'  
 PROJECT NO.: 20025  
 DWG. NAME: 20025 UT3  
 CLIENT: WESTVIEW CAPITAL, LLC  
 795 CLYDE COURT SW  
 BRYON CENTER, MICHIGAN 48015  
 248-345-6646

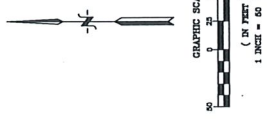
UTILITY PLAN SE

TAMARACK PLACE

| REVISION # | DATE     | REVISION-DESCRIPTION                   |
|------------|----------|----------------------------------------|
| 1          | 08-27-24 | RECORD WATERMAIN PER 3000 PLANS        |
| 2          | 08-27-24 | RECORD WATER MAIN PER 3000 PLANS       |
| 3          | 08-27-24 | RECORD STORM WATER MAIN PER 3000 PLANS |
| 4          | 08-27-24 | RECORD STORM WATER MAIN PER 3000 PLANS |
| 5          | 08-27-24 | RECORD STORM WATER MAIN PER 3000 PLANS |

| DESIGN/JG | DATE     | REVISION-DESCRIPTION                             |
|-----------|----------|--------------------------------------------------|
| DESIGN/JG | 08-27-24 | RECORD SANITARY STORM SEWER AND WATER MAIN LIGHT |
| DRAFT/JHG | 08-27-24 | RECORD SANITARY STORM SEWER AND WATER MAIN LIGHT |
| CHECK/WMP | 08-27-24 | RECORD STORM WATER MAIN PER 3000 PLANS           |

UT3



- LEGEND**
- CENTERLINE
  - EASEMENT
  - SANITARY SEWER
  - STORM SEWER
  - WATER MAIN
  - GAS LINE
  - ELECTRIC LINE
  - TELEPHONE LINE
  - CABLE TV LINE
  - FIRE LINE
  - PROPOSED ROADWAY
  - PROPOSED SIDEWALK
  - PROPOSED CURB
  - PROPOSED GUTTER
  - PROPOSED STORM WATER POND
  - PROPOSED STRUCTURE
  - PROPOSED UTILITY STRUCTURE
  - PROPOSED UTILITY VAULT
  - PROPOSED UTILITY MANHOLE
  - PROPOSED UTILITY ACCESS
  - PROPOSED UTILITY RISER
  - PROPOSED UTILITY DROP
  - PROPOSED UTILITY LEAD
  - PROPOSED UTILITY SERVICE
  - PROPOSED UTILITY CONNECTION
  - PROPOSED UTILITY TERMINATION
  - PROPOSED UTILITY TERMINATION CAP

**NOTES:**

- ALL UTILITIES MUST BE CONSTRUCTED 3 FEET MINIMUM BEYOND THE FACE OF THE CURB.
- ALL UTILITIES MUST BE INSTALLED AT A MINIMUM 18" COVER WITH POLYETHYLENE GLASS FIBER REINFORCED PLASTIC (FRP) PIPE.
- CONSIDER ALL UTILITIES TO BE INSTALLED AT A MINIMUM 18" COVER UNLESS OTHERWISE NOTED ON THE PLAN.
- CONSIDER ALL UTILITIES TO BE INSTALLED AT A MINIMUM 18" COVER UNLESS OTHERWISE NOTED ON THE PLAN.
- CONSIDER ALL UTILITIES TO BE INSTALLED AT A MINIMUM 18" COVER UNLESS OTHERWISE NOTED ON THE PLAN.

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 OR VISIT CALL811.COM

SCALE: 1" = 50'  
 PROJECT NO.: 20202  
 DWG. NAME: UT2-UTS  
 ISSUED: 11.10.2024

CLIENT:  
 WESTVIEW CAPITAL, LLC  
 795 CLAYCE COURT SW  
 BIRMINGHAM, MICHIGAN 48015  
 205.966.4444

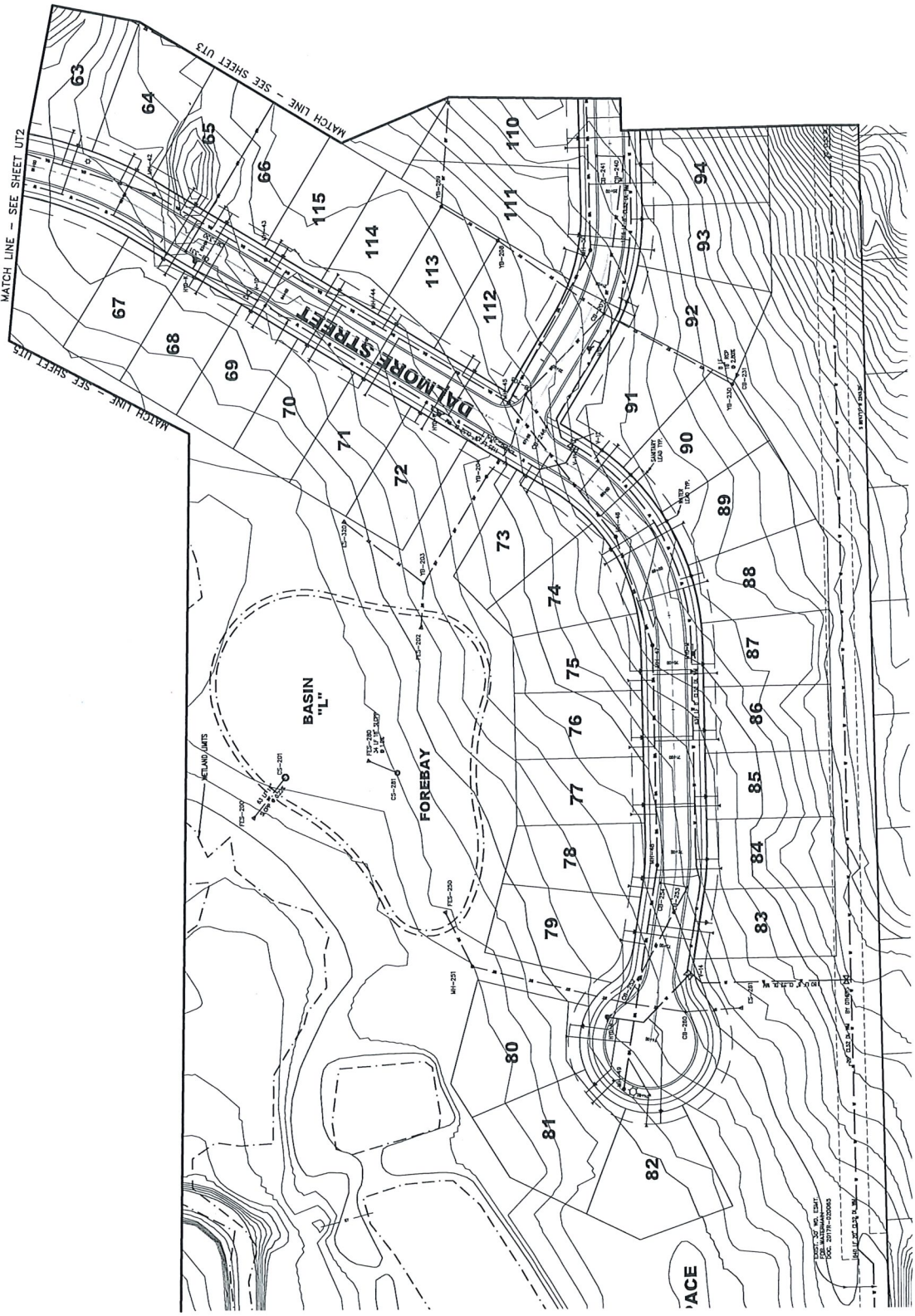
UTILITY PLAN SW

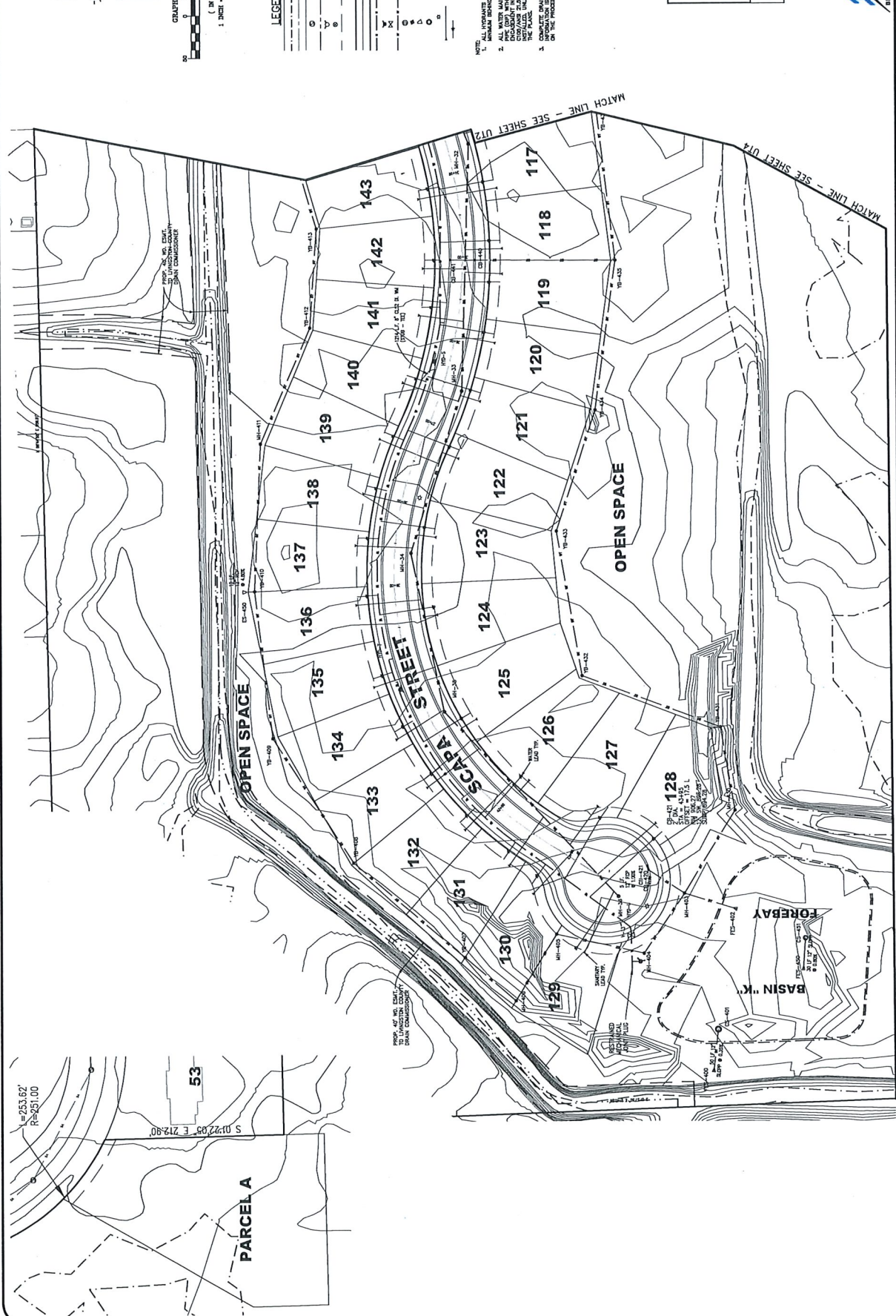
**TAMARACK PLACE**

| REVISION # | DATE     | REVISION-DESCRIPTION                                              | REVISION # | DATE     | REVISION-DESCRIPTION               |
|------------|----------|-------------------------------------------------------------------|------------|----------|------------------------------------|
| 1          | 10-18-24 | REVISED SANITARY, STORM SEWER, AND WATERMAIN LAYOUT               | 8          | 09-27-24 | REVISED WATERMAIN PER JACOBS PLANS |
| 2          | 11-26-24 | REVISED PER OWNER COMMENTS DATED 11-14-24                         |            |          |                                    |
| 3          | 12-02-24 | REVISED PER OWNER COMMENTS DATED 11-28-24                         |            |          |                                    |
| 4          | 05-02-24 | REVISED STORM WATER DRAINAGE SYSTEM FOR UNPAVED LOC. (EQUIVALENT) |            |          |                                    |
| 5          | 09-27-24 | REVISED STORM WATER DRAINAGE SYSTEM FOR LOC. COMMENTS             |            |          |                                    |

DESIGN: JHG  
 DRAFT: JHG  
 CHECK: MWP

UT4





UT5

SCALE: 1" = 60'

PROJECT NO.: 20203

DWG NAME: 2025 UT5

ISSUED: 11/10/2021

CLIENT: WESTVIEW CAPITAL, LLC  
795 CUYDE COURT SW  
BYRON CENTER, MICHIGAN 49315  
248-562-6268

TAMARACK PLACE  
UTILITY PLAN NW

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PACE ENGINEERING GROUP, INC.  
LAND SURVEYORS  
2183 PILES DRIVE  
ANDOVER, MICHIGAN 49307



- LEGEND**
- PROPOSED UTILITY LINE
  - ROAD CENTERLINE
  - SMARTWAY MARKING
  - EXISTING UTILITY LINE
  - EXISTING MANHOLE
  - EXISTING VALVE
  - BALANCE NETWORK LINK
  - EDGE OF PAVEMENT
  - PROPOSED MANHOLE CENTER
  - PROPOSED UTILITY
  - STORM MANHOLE
  - PLUMBED HOSE MEDIUM
  - STRENGTHENED DUCT
  - PROPOSED UTILITY
  - PROP. WATER LEAD & SANITARY

PROPOSED 15" DIAM. DRAIN CONNECTIONS

53

S 01°22'05" E 272.80'

R=351.62'  
R=351.00'

**NOTES:**

- ALL UTILITIES MUST BE CONSTRUCTED 3' MINIMUM BEHIND THE BACK OF CURB.
- ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM COVER OF 6" UNLESS OTHERWISE NOTED ON THE PLANS. UNLESS OTHERWISE NOTED ON THE PLANS, ALL UTILITIES SHALL BE INSTALLED AT A MINIMUM OF 18" BELOW THE FINISH GRADE OF THE PAVED SURFACE.

| REVISION # | DATE     | REVISION-DESCRIPTION                              | REVISION # | DATE | REVISION-DESCRIPTION |
|------------|----------|---------------------------------------------------|------------|------|----------------------|
| 1          | 11-24-21 | ISSUED BY INVOICING AND DATED 11-24-21            |            |      |                      |
| 2          | 12-15-21 | REVISION FOR SCAVING AND DRAINAGE                 |            |      |                      |
| 3          | 02-21-22 | REVISION FOR WATER MAINS AND SANITARY CONNECTIONS |            |      |                      |
| 4          | 08-24-22 | REVISION FOR WATER MAINS AND SANITARY CONNECTIONS |            |      |                      |

DESIGN: JHG  
DRAFT: JHG  
CHECK: WWP



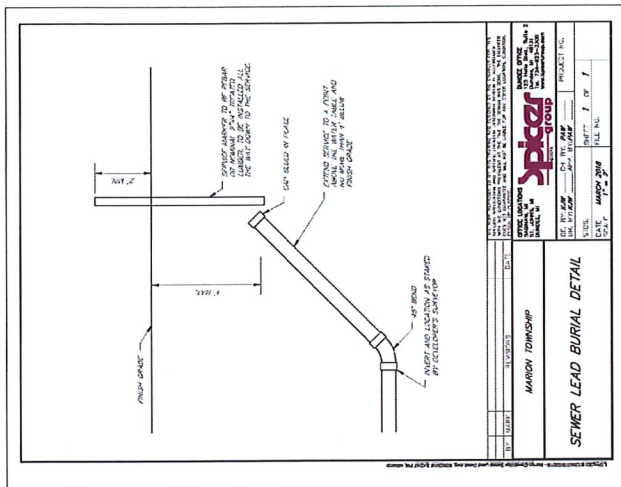


SANITARY SEWER STRUCTURE CASTING SCHEDULE

Table with columns: SANITARY SEWER (CLEANOUT) (C.O.), SEWER (S), MANHOLE (M), and DATE (12/28/2021)

Water Main Basis of Design: Water Main Basis of Design, Design Factors, Design flow velocity, Pipe diameter, Calculated Pressures Loss, Resultant Pressures, Pressure at VTR Man\*

Table with columns: Pipe Equivalent Length, Pipe L = 2400 feet, Gate Valves = 3 @ 18 feet, 45° bends = 3 @ 13 feet, Tee (branch) = 1 @ 50 feet, Reducer = 0 @ 5.9 feet, 6" valve = 0 @ 4.04 feet, TOTAL = 2531 feet



SCALE: NONE  
PROJECT NO.: 20025  
DWG NAME: 2025 UT8  
ISSUED: 10.19.2021

CLIENT: WESTVIEW CAPITAL LLC  
750 CLAYE COURT SW  
BRYAN, TEXAS 77802  
PROJECT NO.: 20025

SANITARY & WATER CALCULATIONS

TAMARACK PLACE  
UT8  
BRISTOL, VIRGINIA 22131

SANITARY LEAD LOCATIONS

Table with columns: Station, Lead No., Length, Slope, Elevation, etc. for Sanitary Lead Locations. Includes notes for manhole and pipe elevations.

SANITARY LEAD LOCATIONS

Main table with columns: Station, Lead No., Length, Slope, Elevation, etc. for Sanitary Lead Locations. Includes notes for manhole and pipe elevations.

Table with columns: REVISION #, DATE, REVISION-DESCRIPTION, REVISION #, DATE, REVISION-DESCRIPTION



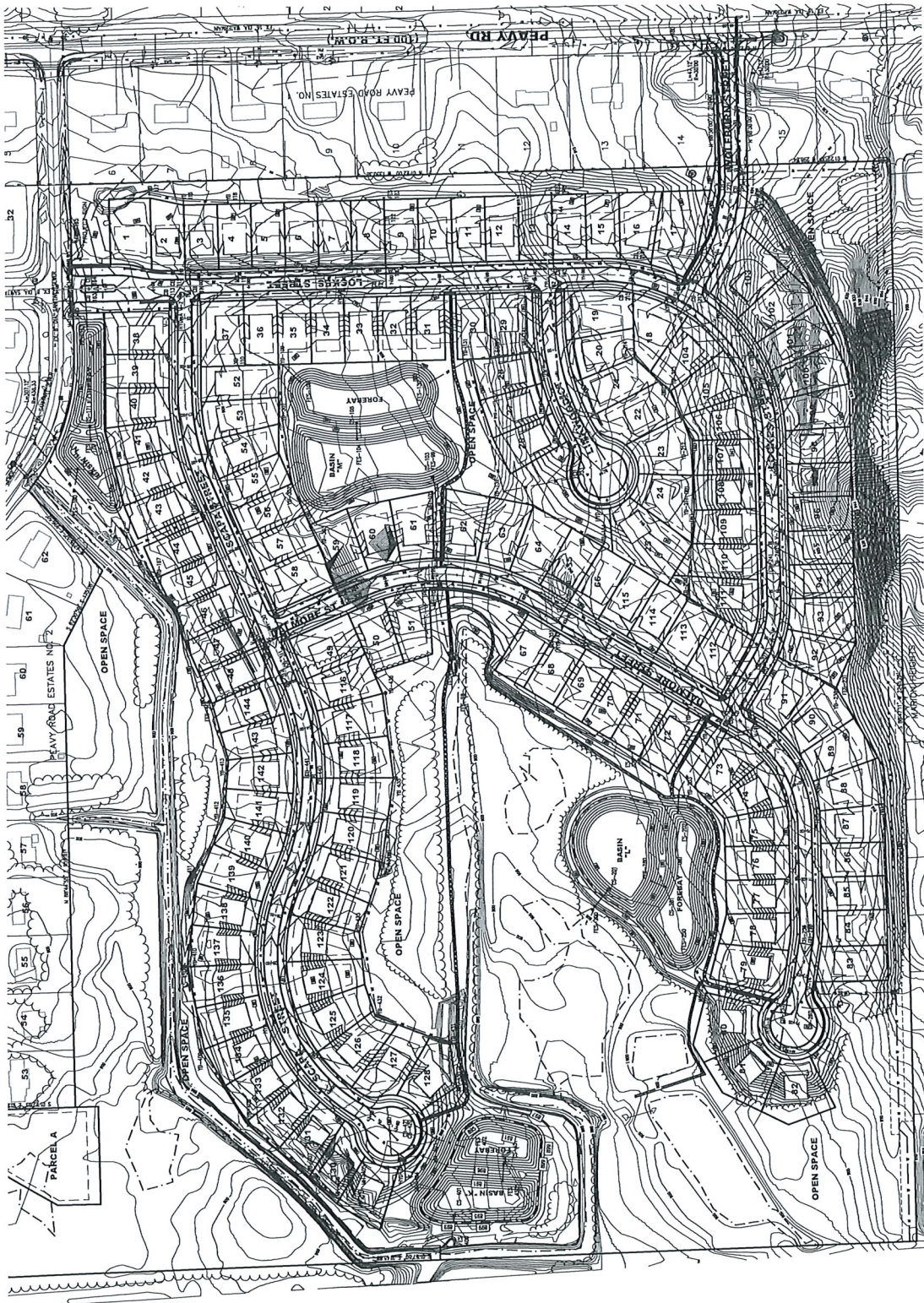
GRAPHIC SCALE  
( IN FEET )  
1 INCH = 100 FEET

- LEGEND**
- EXISTING CONTOUR
  - WETLAND LIMIT
  - ROAD CENTERLINE
  - SAWLAMP MANHOLE
  - EXISTING WATERMAN
  - EXISTING HYDRANT
  - EXISTING TREE LINE
  - EXISTING CURB LINE
  - PROPOSED CURB LINE
  - EDGE OF PAVEMENT
  - PROPOSED WATERMAN CENTER
  - PROPOSED HYDRANT
  - PROPOSED MANHOLE
  - STORM MANHOLE
  - CATCHBASIN
  - PLUMBING SECTION
  - EXISTING COLLECTOR
  - STRUCTURE
  - PROPOSED WALKWAY OF PATH
  - PROPOSED HARD SURFACE PATH
  - PROP. IMPROVED PATH

BOOKMARK #1 OF HYDRANT LOCATED ON TEST DOCUMENT OF SOUTHWEST PROPERTY CORNER, IN EAST ALLEY OF PEAVY ROAD, SHOWN AS SHOWN 2/27/14 NUT

BOOKMARK #2 STORMWATER VALVE OF HYDRANT, LOCATED WEST OF PEAVY ROAD AND 300' WEST NORTH OF ELEVATION = 796.52 (NOV 09)

BOOKMARK #3 STORMWATER VALVE OF HYDRANT, LOCATED WEST OF PEAVY ROAD AND 300' WEST NORTH OF ELEVATION = 796.52 (NOV 09)



1610 STEVENS  
CIVIL ENGINEERS  
LAND SURVEYORS  
2145 PLEAS DRIVE  
BIRMINGHAM, ALABAMA 35211

SCALE: 1" = 100'  
PROJECT NO.: 20025  
DWG NAME: 20025.CONST  
ISSUED: A10.09.2017

CLIENT:  
ALLEN EDWIN HOMES  
795 CLAYE COURT SW  
BRYON CENTER, MICHIGAN 48015  
(248) 356-6644

**SITE CONSTRUCTION GRADING**

**TAMARACK PLACE**

| REVISION # | DATE     | REVISION-DESCRIPTION                                            | REVISION # | DATE | REVISION-DESCRIPTION |
|------------|----------|-----------------------------------------------------------------|------------|------|----------------------|
| DESIGN ALL |          |                                                                 |            |      |                      |
| DRAFT: JHG |          |                                                                 |            |      |                      |
| CHECK: WMP |          |                                                                 |            |      |                      |
| 1          | 12-18-17 | REVISED UTILITY LOCATIONS, WATERMAN, SANITARY, & STORM SEWERS   |            |      |                      |
| 2          | 02-15-18 | REVISED STORM WATER DRAINAGE SYSTEM FOR UPDATED USGS TOPOGRAPHS |            |      |                      |





**BASIN M**  
**EXTENSION VOLUME CALCULATION**

Threat Area (A) = 28.22 Acres  
 Proposed Inlet Catchment (C1) = 8.52 Acres  
 Proposed Outlet Catchment (C2) = 8.52 Acres  
 Proposed Basin Volume (V) = 113,240 cu ft  
 Proposed Basin Depth (D) = 11.32 ft  
 Proposed Basin Area (A) = 10,000 sq ft  
 Proposed Basin Length (L) = 100 ft  
 Proposed Basin Width (W) = 100 ft

**100 Year Storm Drain Basin Calculations:**  
 County Drainage District (CDD) = 113,240 cu ft  
 County Drainage District (CDD) = 113,240 cu ft  
 County Drainage District (CDD) = 113,240 cu ft  
 County Drainage District (CDD) = 113,240 cu ft

**100 Year Storm Drain Basin Calculations:**  
 County Drainage District (CDD) = 113,240 cu ft  
 County Drainage District (CDD) = 113,240 cu ft  
 County Drainage District (CDD) = 113,240 cu ft  
 County Drainage District (CDD) = 113,240 cu ft

**PROPOSED CHANNEL PROTECTION VOLUME**

| NO. OF CHANNELS | CHANNEL LENGTH (FT) | CHANNEL WIDTH (FT) | CHANNEL DEPTH (FT) | CHANNEL VOLUME (CU FT) |
|-----------------|---------------------|--------------------|--------------------|------------------------|
| 1               | 100                 | 10                 | 1.5                | 1,500                  |
| 2               | 200                 | 10                 | 1.5                | 3,000                  |
| 3               | 300                 | 10                 | 1.5                | 4,500                  |
| 4               | 400                 | 10                 | 1.5                | 6,000                  |
| 5               | 500                 | 10                 | 1.5                | 7,500                  |
| 6               | 600                 | 10                 | 1.5                | 9,000                  |
| 7               | 700                 | 10                 | 1.5                | 10,500                 |
| 8               | 800                 | 10                 | 1.5                | 12,000                 |
| 9               | 900                 | 10                 | 1.5                | 13,500                 |
| 10              | 1000                | 10                 | 1.5                | 15,000                 |

**PROPOSED DETENTION MAIN VOLUME**

| NO. OF MAINS | MAIN LENGTH (FT) | MAIN DIAMETER (IN) | MAIN DEPTH (FT) | MAIN VOLUME (CU FT) |
|--------------|------------------|--------------------|-----------------|---------------------|
| 1            | 100              | 18                 | 1.5             | 1,500               |
| 2            | 200              | 18                 | 1.5             | 3,000               |
| 3            | 300              | 18                 | 1.5             | 4,500               |
| 4            | 400              | 18                 | 1.5             | 6,000               |
| 5            | 500              | 18                 | 1.5             | 7,500               |
| 6            | 600              | 18                 | 1.5             | 9,000               |
| 7            | 700              | 18                 | 1.5             | 10,500              |
| 8            | 800              | 18                 | 1.5             | 12,000              |
| 9            | 900              | 18                 | 1.5             | 13,500              |
| 10           | 1000             | 18                 | 1.5             | 15,000              |

**BASIN M**  
**CORRELATION ENGINEERING CALCULATIONS**

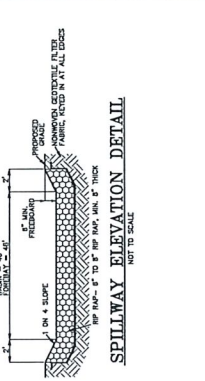
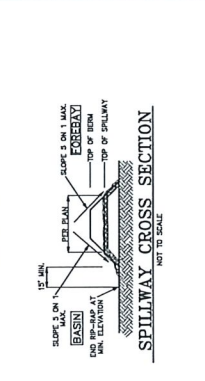
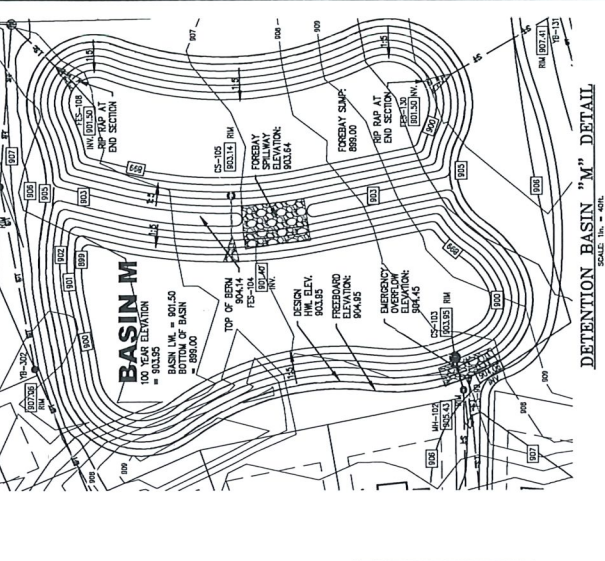
Basin Area: 10,000 sq ft  
 Basin Length: 100 ft  
 Basin Width: 100 ft  
 Basin Depth: 11.32 ft  
 Basin Volume: 113,240 cu ft

**PROPOSED CHANNEL PROTECTION VOLUME**

| NO. OF CHANNELS | CHANNEL LENGTH (FT) | CHANNEL WIDTH (FT) | CHANNEL DEPTH (FT) | CHANNEL VOLUME (CU FT) |
|-----------------|---------------------|--------------------|--------------------|------------------------|
| 1               | 100                 | 10                 | 1.5                | 1,500                  |
| 2               | 200                 | 10                 | 1.5                | 3,000                  |
| 3               | 300                 | 10                 | 1.5                | 4,500                  |
| 4               | 400                 | 10                 | 1.5                | 6,000                  |
| 5               | 500                 | 10                 | 1.5                | 7,500                  |
| 6               | 600                 | 10                 | 1.5                | 9,000                  |
| 7               | 700                 | 10                 | 1.5                | 10,500                 |
| 8               | 800                 | 10                 | 1.5                | 12,000                 |
| 9               | 900                 | 10                 | 1.5                | 13,500                 |
| 10              | 1000                | 10                 | 1.5                | 15,000                 |

**PROPOSED DETENTION MAIN VOLUME**

| NO. OF MAINS | MAIN LENGTH (FT) | MAIN DIAMETER (IN) | MAIN DEPTH (FT) | MAIN VOLUME (CU FT) |
|--------------|------------------|--------------------|-----------------|---------------------|
| 1            | 100              | 18                 | 1.5             | 1,500               |
| 2            | 200              | 18                 | 1.5             | 3,000               |
| 3            | 300              | 18                 | 1.5             | 4,500               |
| 4            | 400              | 18                 | 1.5             | 6,000               |
| 5            | 500              | 18                 | 1.5             | 7,500               |
| 6            | 600              | 18                 | 1.5             | 9,000               |
| 7            | 700              | 18                 | 1.5             | 10,500              |
| 8            | 800              | 18                 | 1.5             | 12,000              |
| 9            | 900              | 18                 | 1.5             | 13,500              |
| 10           | 1000             | 18                 | 1.5             | 15,000              |



**MAIN M**  
**DETENTION MAIN OVERFLOW SPILLWAY CALCULATION**

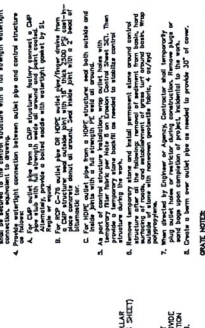
Basin Area: 10,000 sq ft  
 Basin Length: 100 ft  
 Basin Width: 100 ft  
 Basin Depth: 11.32 ft  
 Basin Volume: 113,240 cu ft

**PROPOSED CHANNEL PROTECTION VOLUME**

| NO. OF CHANNELS | CHANNEL LENGTH (FT) | CHANNEL WIDTH (FT) | CHANNEL DEPTH (FT) | CHANNEL VOLUME (CU FT) |
|-----------------|---------------------|--------------------|--------------------|------------------------|
| 1               | 100                 | 10                 | 1.5                | 1,500                  |
| 2               | 200                 | 10                 | 1.5                | 3,000                  |
| 3               | 300                 | 10                 | 1.5                | 4,500                  |
| 4               | 400                 | 10                 | 1.5                | 6,000                  |
| 5               | 500                 | 10                 | 1.5                | 7,500                  |
| 6               | 600                 | 10                 | 1.5                | 9,000                  |
| 7               | 700                 | 10                 | 1.5                | 10,500                 |
| 8               | 800                 | 10                 | 1.5                | 12,000                 |
| 9               | 900                 | 10                 | 1.5                | 13,500                 |
| 10              | 1000                | 10                 | 1.5                | 15,000                 |

**PROPOSED DETENTION MAIN VOLUME**

| NO. OF MAINS | MAIN LENGTH (FT) | MAIN DIAMETER (IN) | MAIN DEPTH (FT) | MAIN VOLUME (CU FT) |
|--------------|------------------|--------------------|-----------------|---------------------|
| 1            | 100              | 18                 | 1.5             | 1,500               |
| 2            | 200              | 18                 | 1.5             | 3,000               |
| 3            | 300              | 18                 | 1.5             | 4,500               |
| 4            | 400              | 18                 | 1.5             | 6,000               |
| 5            | 500              | 18                 | 1.5             | 7,500               |
| 6            | 600              | 18                 | 1.5             | 9,000               |
| 7            | 700              | 18                 | 1.5             | 10,500              |
| 8            | 800              | 18                 | 1.5             | 12,000              |
| 9            | 900              | 18                 | 1.5             | 13,500              |
| 10           | 1000             | 18                 | 1.5             | 15,000              |



**KEY**

| NO. | DESCRIPTION        | DATE     | BY  |
|-----|--------------------|----------|-----|
| 1   | CONCRETE STRUCTURE | 10-18-21 | JAC |
| 2   | STRUCTURE BIDDING  | 10-18-21 | JAC |
| 3   | CONCRETE STRUCTURE | 10-18-21 | JAC |
| 4   | CONCRETE STRUCTURE | 10-18-21 | JAC |
| 5   | CONCRETE STRUCTURE | 10-18-21 | JAC |
| 6   | CONCRETE STRUCTURE | 10-18-21 | JAC |
| 7   | CONCRETE STRUCTURE | 10-18-21 | JAC |
| 8   | CONCRETE STRUCTURE | 10-18-21 | JAC |
| 9   | CONCRETE STRUCTURE | 10-18-21 | JAC |
| 10  | CONCRETE STRUCTURE | 10-18-21 | JAC |

**BASIN CONTROL STRUCTURE DETAIL (CS)**

Scale: 1/8" = 1'-0"

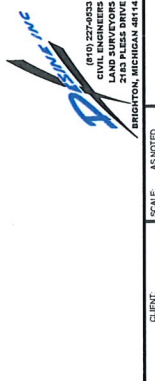
Basin Area: 10,000 sq ft  
 Basin Length: 100 ft  
 Basin Width: 100 ft  
 Basin Depth: 11.32 ft  
 Basin Volume: 113,240 cu ft

**PROPOSED CHANNEL PROTECTION VOLUME**

| NO. OF CHANNELS | CHANNEL LENGTH (FT) | CHANNEL WIDTH (FT) | CHANNEL DEPTH (FT) | CHANNEL VOLUME (CU FT) |
|-----------------|---------------------|--------------------|--------------------|------------------------|
| 1               | 100                 | 10                 | 1.5                | 1,500                  |
| 2               | 200                 | 10                 | 1.5                | 3,000                  |
| 3               | 300                 | 10                 | 1.5                | 4,500                  |
| 4               | 400                 | 10                 | 1.5                | 6,000                  |
| 5               | 500                 | 10                 | 1.5                | 7,500                  |
| 6               | 600                 | 10                 | 1.5                | 9,000                  |
| 7               | 700                 | 10                 | 1.5                | 10,500                 |
| 8               | 800                 | 10                 | 1.5                | 12,000                 |
| 9               | 900                 | 10                 | 1.5                | 13,500                 |
| 10              | 1000                | 10                 | 1.5                | 15,000                 |

**PROPOSED DETENTION MAIN VOLUME**

| NO. OF MAINS | MAIN LENGTH (FT) | MAIN DIAMETER (IN) | MAIN DEPTH (FT) | MAIN VOLUME (CU FT) |
|--------------|------------------|--------------------|-----------------|---------------------|
| 1            | 100              | 18                 | 1.5             | 1,500               |
| 2            | 200              | 18                 | 1.5             | 3,000               |
| 3            | 300              | 18                 | 1.5             | 4,500               |
| 4            | 400              | 18                 | 1.5             | 6,000               |
| 5            | 500              | 18                 | 1.5             | 7,500               |
| 6            | 600              | 18                 | 1.5             | 9,000               |
| 7            | 700              | 18                 | 1.5             | 10,500              |
| 8            | 800              | 18                 | 1.5             | 12,000              |
| 9            | 900              | 18                 | 1.5             | 13,500              |
| 10           | 1000             | 18                 | 1.5             | 15,000              |



**GR1.2**  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 1410 25th St SE  
 BRISTOL, WASHINGTON 98001

SCALE: AS NOTED  
 PROJECT No.: 20205  
 DWG NAME: 3025 BR-4  
 ISSUED: 11/10/2024

**GRADING PLAN**  
**BASIN M**  
**CALCULATIONS & DETAILS**

CLIENT: WESTVIEW CAPITAL, LLC  
 175 CLYDE COURT SW  
 BRYAN CENTER, MORGAN HILLS  
 (925) 935-0000

**TAMARACK PLACE**

Basin Area: 10,000 sq ft  
 Basin Length: 100 ft  
 Basin Width: 100 ft  
 Basin Depth: 11.32 ft  
 Basin Volume: 113,240 cu ft

**REVISIONS**

| NO. | DATE     | DESCRIPTION                               |
|-----|----------|-------------------------------------------|
| 1   | 10-18-21 | ISSUED FOR REVIEW COMMENTS DATED 10-18-21 |
| 2   | 10-18-21 | ISSUED FOR REVIEW COMMENTS DATED 10-18-21 |
| 3   | 10-18-21 | ISSUED FOR REVIEW COMMENTS DATED 10-18-21 |
| 4   | 10-18-21 | ISSUED FOR REVIEW COMMENTS DATED 10-18-21 |
| 5   | 10-18-21 | ISSUED FOR REVIEW COMMENTS DATED 10-18-21 |

**CONTRACTOR NOTES:**

1. All construction shall be in accordance with the plans and specifications unless otherwise noted. The contractor shall be responsible for obtaining all necessary permits and approvals.
2. Structure shall be constructed in accordance with the plans and specifications. The contractor shall be responsible for obtaining all necessary permits and approvals.
3. All construction shall be in accordance with the plans and specifications. The contractor shall be responsible for obtaining all necessary permits and approvals.
4. All construction shall be in accordance with the plans and specifications. The contractor shall be responsible for obtaining all necessary permits and approvals.
5. All construction shall be in accordance with the plans and specifications. The contractor shall be responsible for obtaining all necessary permits and approvals.

- KEY**
- | KEY | DESCRIPTION            | DATE     |
|-----|------------------------|----------|
| A   | CONTRACTOR TO VERIFY   | 08-11-21 |
| B   | STRUCTURE WORK DAMAGED | 08-11-21 |
| C   | CONTRACTOR TO VERIFY   | 08-11-21 |
| D   | CONTRACTOR TO VERIFY   | 08-11-21 |
| E   | CONTRACTOR TO VERIFY   | 08-11-21 |
| F   | CONTRACTOR TO VERIFY   | 08-11-21 |
| G   | CONTRACTOR TO VERIFY   | 08-11-21 |
| H   | CONTRACTOR TO VERIFY   | 08-11-21 |
| I   | CONTRACTOR TO VERIFY   | 08-11-21 |
| J   | CONTRACTOR TO VERIFY   | 08-11-21 |
| K   | CONTRACTOR TO VERIFY   | 08-11-21 |
| L   | CONTRACTOR TO VERIFY   | 08-11-21 |
| M   | CONTRACTOR TO VERIFY   | 08-11-21 |

**BASIN N CONTROL STRUCTURE CALCULATIONS**

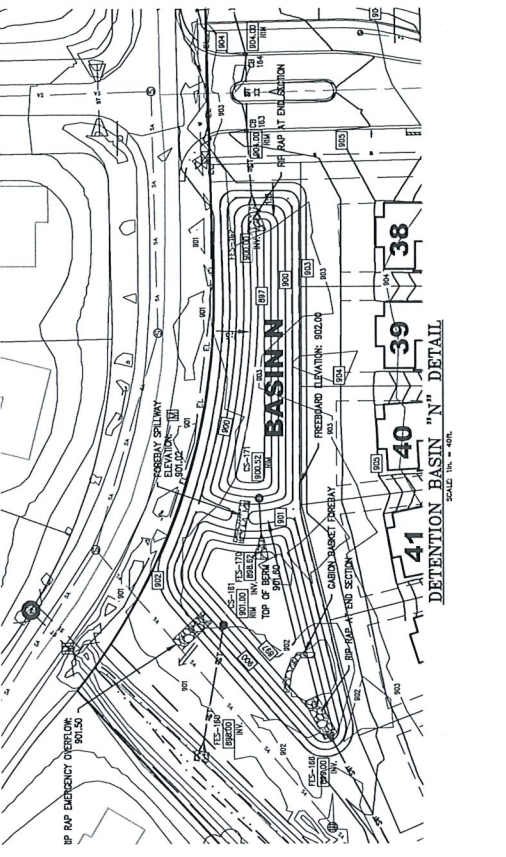
CONTRACTOR TO VERIFY

| ITEM | DESCRIPTION                 | VALUE    |
|------|-----------------------------|----------|
| 1    | Basin Area (A)              | 200.00   |
| 2    | Basin Length (L)            | 100.00   |
| 3    | Basin Width (W)             | 20.00    |
| 4    | Basin Height (H)            | 10.00    |
| 5    | Basin Volume (V)            | 20000.00 |
| 6    | Basin Capacity (C)          | 20000.00 |
| 7    | Basin Inflow (I)            | 1000.00  |
| 8    | Basin Outflow (O)           | 1000.00  |
| 9    | Basin Retention Time (RT)   | 20.00    |
| 10   | Basin Detention Volume (DV) | 20000.00 |

**BASIN N FORM CONTROL STRUCTURE CALCULATIONS**

CONTRACTOR TO VERIFY

| ITEM | DESCRIPTION                 | VALUE    |
|------|-----------------------------|----------|
| 1    | Basin Area (A)              | 200.00   |
| 2    | Basin Length (L)            | 100.00   |
| 3    | Basin Width (W)             | 20.00    |
| 4    | Basin Height (H)            | 10.00    |
| 5    | Basin Volume (V)            | 20000.00 |
| 6    | Basin Capacity (C)          | 20000.00 |
| 7    | Basin Inflow (I)            | 1000.00  |
| 8    | Basin Outflow (O)           | 1000.00  |
| 9    | Basin Retention Time (RT)   | 20.00    |
| 10   | Basin Detention Volume (DV) | 20000.00 |



**DETENTION BASIN OVERFLOW SPILLWAY CALCULATION**

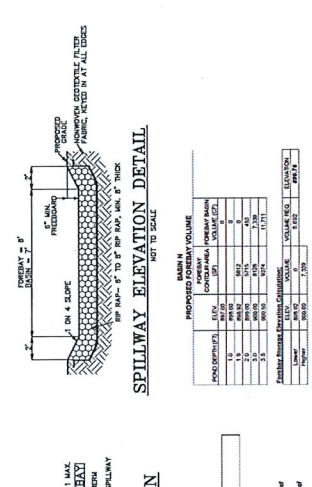
CONTRACTOR TO VERIFY

| ITEM | DESCRIPTION                    | VALUE    |
|------|--------------------------------|----------|
| 1    | Spillway Length (L)            | 100.00   |
| 2    | Spillway Width (W)             | 20.00    |
| 3    | Spillway Height (H)            | 10.00    |
| 4    | Spillway Volume (V)            | 20000.00 |
| 5    | Spillway Capacity (C)          | 20000.00 |
| 6    | Spillway Inflow (I)            | 1000.00  |
| 7    | Spillway Outflow (O)           | 1000.00  |
| 8    | Spillway Retention Time (RT)   | 20.00    |
| 9    | Spillway Detention Volume (DV) | 20000.00 |

**DETENTION BASIN UNDERFLOW SPILLWAY CALCULATION**

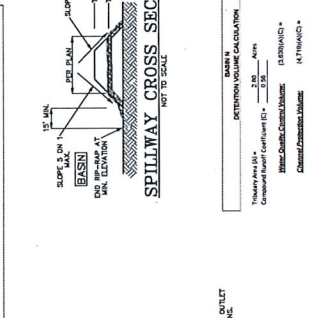
CONTRACTOR TO VERIFY

| ITEM | DESCRIPTION                    | VALUE    |
|------|--------------------------------|----------|
| 1    | Spillway Length (L)            | 100.00   |
| 2    | Spillway Width (W)             | 20.00    |
| 3    | Spillway Height (H)            | 10.00    |
| 4    | Spillway Volume (V)            | 20000.00 |
| 5    | Spillway Capacity (C)          | 20000.00 |
| 6    | Spillway Inflow (I)            | 1000.00  |
| 7    | Spillway Outflow (O)           | 1000.00  |
| 8    | Spillway Retention Time (RT)   | 20.00    |
| 9    | Spillway Detention Volume (DV) | 20000.00 |



**PROPOSED CHANNEL PROTECTION VOLUME**

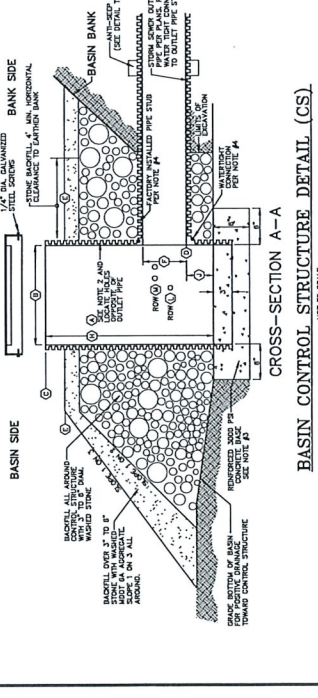
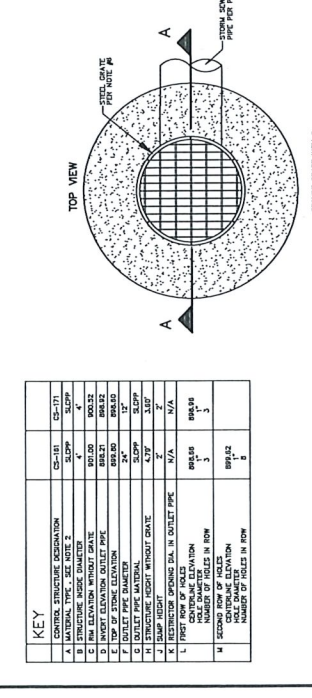
| ITEM | DESCRIPTION                                | VALUE   |
|------|--------------------------------------------|---------|
| 1    | Channel Protection Volume (CPV)            | 1000.00 |
| 2    | Channel Protection Capacity (CPC)          | 1000.00 |
| 3    | Channel Protection Inflow (CPI)            | 100.00  |
| 4    | Channel Protection Outflow (CPO)           | 100.00  |
| 5    | Channel Protection Retention Time (CRT)    | 10.00   |
| 6    | Channel Protection Detention Volume (CPDV) | 1000.00 |



**BASIN N DETENTION VOLUME CALCULATION**

CONTRACTOR TO VERIFY

| ITEM | DESCRIPTION                 | VALUE    |
|------|-----------------------------|----------|
| 1    | Basin Area (A)              | 200.00   |
| 2    | Basin Length (L)            | 100.00   |
| 3    | Basin Width (W)             | 20.00    |
| 4    | Basin Height (H)            | 10.00    |
| 5    | Basin Volume (V)            | 20000.00 |
| 6    | Basin Capacity (C)          | 20000.00 |
| 7    | Basin Inflow (I)            | 1000.00  |
| 8    | Basin Outflow (O)           | 1000.00  |
| 9    | Basin Retention Time (RT)   | 20.00    |
| 10   | Basin Detention Volume (DV) | 20000.00 |



**WESTVIEW CAPITAL LLC**  
795 CLAYE COURT SW  
BRYAN CENTER, MICHIGAN 48755  
(989) 688-6668

**SCALE AS NOTED**  
**PROJECT NO. 20025**  
**DWG NAME 2002 GR14**  
**ISSUED 10/10/2024**

**CLIENT:** WESTVIEW CAPITAL LLC  
**SCALE:** AS NOTED

**DESIGN-LOG**  
DATE: 08-11-21  
REVISION-DESCRIPTION: REVISED PIPE PLANNING DIMENSIONS RECOMMENDATIONS FOR APPROVAL

**CHECK WMP**  
DATE: 08-11-21  
REVISION-DESCRIPTION: REVISED PIPE PLANNING DIMENSIONS RECOMMENDATIONS FOR APPROVAL

**DATE:** 08-11-21  
**REVISION-DESCRIPTION:** REVISED PIPE PLANNING DIMENSIONS RECOMMENDATIONS FOR APPROVAL

**DATE:** 08-11-21  
**REVISION-DESCRIPTION:** REVISED PIPE PLANNING DIMENSIONS RECOMMENDATIONS FOR APPROVAL

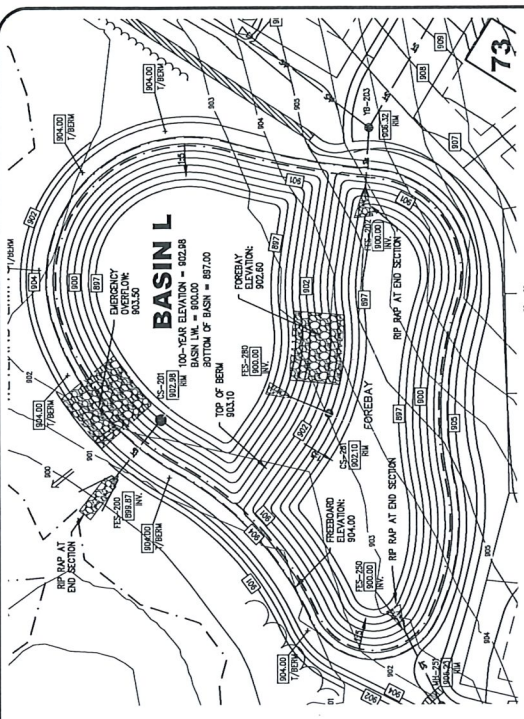
**DATE:** 08-11-21  
**REVISION-DESCRIPTION:** REVISED PIPE PLANNING DIMENSIONS RECOMMENDATIONS FOR APPROVAL



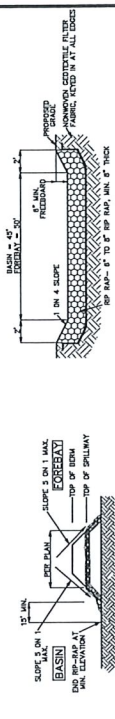
**GR1.3**  
CIVIL ENGINEERS  
LAND SURVEYORS  
2163 PLEAS DRIVE  
BRYAN, MICHIGAN 48755







DETENTION BASIN 'L' - DETAIL  
SCALE: 1/8" = 1'-0"



SPILLWAY CROSS SECTION  
NOT TO SCALE

SPILLWAY ELEVATION DETAIL  
NOT TO SCALE

**Basin L**

**DETENTION BASIN OVERFLOW SPILLWAY CALCULATION**

Volume: 315 AK (100% Storage) / 112 AK (50% Storage) / 183 AK (75% Storage) / 315 AK (100% Storage)

Thickness: 12" / 12" / 12" / 12"

**Basin L**

**DETENTION BASIN SPILLWAY CALCULATION**

Volume: 315 AK (100% Storage) / 112 AK (50% Storage) / 183 AK (75% Storage) / 315 AK (100% Storage)

Thickness: 12" / 12" / 12" / 12"

**Basin L**

**CONCRETE STRUCTURE CALCULATION**

Structure: 10' Dia. x 10' High

Concrete: 4000 PSI

Reinforcement: #4 @ 18" O.C.

Wind: 100 mph

Seismic: Zone 4

Temperature: 70°F

Soil: 1.5

Foundation: 12" Dia. x 10' High

Concrete: 4000 PSI

Reinforcement: #4 @ 18" O.C.

Wind: 100 mph

Seismic: Zone 4

Temperature: 70°F

Soil: 1.5

Foundation: 12" Dia. x 10' High

**Basin L**

**FOREBAY CONCRETE STRUCTURE CALCULATION**

Structure: 10' x 10' x 10'

Concrete: 4000 PSI

Reinforcement: #4 @ 18" O.C.

Wind: 100 mph

Seismic: Zone 4

Temperature: 70°F

Soil: 1.5

Foundation: 12" Dia. x 10' High

Concrete: 4000 PSI

Reinforcement: #4 @ 18" O.C.

Wind: 100 mph

Seismic: Zone 4

Temperature: 70°F

Soil: 1.5

Foundation: 12" Dia. x 10' High

**CONTROL STRUCTURE DETAILS**

1. Basin on site. Concrete structure shall be constructed with 4000 psi concrete and #4 reinforcement. All concrete shall be placed in 12" lifts. All concrete shall be finished with a broom finish. All concrete shall be cured for a minimum of 7 days. All concrete shall be protected from weathering. All concrete shall be protected from fire. All concrete shall be protected from theft. All concrete shall be protected from vandalism. All concrete shall be protected from graffiti. All concrete shall be protected from graffiti.

2. Spillway structure shall be constructed with 4000 psi concrete and #4 reinforcement. All concrete shall be placed in 12" lifts. All concrete shall be finished with a broom finish. All concrete shall be cured for a minimum of 7 days. All concrete shall be protected from weathering. All concrete shall be protected from fire. All concrete shall be protected from theft. All concrete shall be protected from vandalism. All concrete shall be protected from graffiti. All concrete shall be protected from graffiti.

3. Forebay structure shall be constructed with 4000 psi concrete and #4 reinforcement. All concrete shall be placed in 12" lifts. All concrete shall be finished with a broom finish. All concrete shall be cured for a minimum of 7 days. All concrete shall be protected from weathering. All concrete shall be protected from fire. All concrete shall be protected from theft. All concrete shall be protected from vandalism. All concrete shall be protected from graffiti. All concrete shall be protected from graffiti.

4. Basin structure shall be constructed with 4000 psi concrete and #4 reinforcement. All concrete shall be placed in 12" lifts. All concrete shall be finished with a broom finish. All concrete shall be cured for a minimum of 7 days. All concrete shall be protected from weathering. All concrete shall be protected from fire. All concrete shall be protected from theft. All concrete shall be protected from vandalism. All concrete shall be protected from graffiti. All concrete shall be protected from graffiti.

5. Basin structure shall be constructed with 4000 psi concrete and #4 reinforcement. All concrete shall be placed in 12" lifts. All concrete shall be finished with a broom finish. All concrete shall be cured for a minimum of 7 days. All concrete shall be protected from weathering. All concrete shall be protected from fire. All concrete shall be protected from theft. All concrete shall be protected from vandalism. All concrete shall be protected from graffiti. All concrete shall be protected from graffiti.

6. Basin structure shall be constructed with 4000 psi concrete and #4 reinforcement. All concrete shall be placed in 12" lifts. All concrete shall be finished with a broom finish. All concrete shall be cured for a minimum of 7 days. All concrete shall be protected from weathering. All concrete shall be protected from fire. All concrete shall be protected from theft. All concrete shall be protected from vandalism. All concrete shall be protected from graffiti. All concrete shall be protected from graffiti.

7. Basin structure shall be constructed with 4000 psi concrete and #4 reinforcement. All concrete shall be placed in 12" lifts. All concrete shall be finished with a broom finish. All concrete shall be cured for a minimum of 7 days. All concrete shall be protected from weathering. All concrete shall be protected from fire. All concrete shall be protected from theft. All concrete shall be protected from vandalism. All concrete shall be protected from graffiti. All concrete shall be protected from graffiti.

8. Basin structure shall be constructed with 4000 psi concrete and #4 reinforcement. All concrete shall be placed in 12" lifts. All concrete shall be finished with a broom finish. All concrete shall be cured for a minimum of 7 days. All concrete shall be protected from weathering. All concrete shall be protected from fire. All concrete shall be protected from theft. All concrete shall be protected from vandalism. All concrete shall be protected from graffiti. All concrete shall be protected from graffiti.

9. Basin structure shall be constructed with 4000 psi concrete and #4 reinforcement. All concrete shall be placed in 12" lifts. All concrete shall be finished with a broom finish. All concrete shall be cured for a minimum of 7 days. All concrete shall be protected from weathering. All concrete shall be protected from fire. All concrete shall be protected from theft. All concrete shall be protected from vandalism. All concrete shall be protected from graffiti. All concrete shall be protected from graffiti.

10. Basin structure shall be constructed with 4000 psi concrete and #4 reinforcement. All concrete shall be placed in 12" lifts. All concrete shall be finished with a broom finish. All concrete shall be cured for a minimum of 7 days. All concrete shall be protected from weathering. All concrete shall be protected from fire. All concrete shall be protected from theft. All concrete shall be protected from vandalism. All concrete shall be protected from graffiti. All concrete shall be protected from graffiti.

**Basin L**

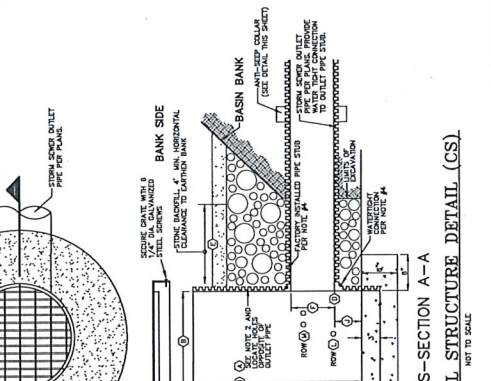
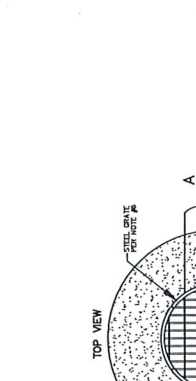
**PROPOSED STORAGE VOLUME**

| DEPTH (FT) | STORAGE VOLUME (AK) | STORAGE VOLUME (MG) |
|------------|---------------------|---------------------|
| 1.0        | 315                 | 0.000315            |
| 2.0        | 630                 | 0.000630            |
| 3.0        | 945                 | 0.000945            |
| 4.0        | 1260                | 0.001260            |
| 5.0        | 1575                | 0.001575            |
| 6.0        | 1890                | 0.001890            |
| 7.0        | 2205                | 0.002205            |
| 8.0        | 2520                | 0.002520            |
| 9.0        | 2835                | 0.002835            |
| 10.0       | 3150                | 0.003150            |

**Basin L**

**PROPOSED STORAGE VOLUME**

| DEPTH (FT) | STORAGE VOLUME (AK) | STORAGE VOLUME (MG) |
|------------|---------------------|---------------------|
| 1.0        | 315                 | 0.000315            |
| 2.0        | 630                 | 0.000630            |
| 3.0        | 945                 | 0.000945            |
| 4.0        | 1260                | 0.001260            |
| 5.0        | 1575                | 0.001575            |
| 6.0        | 1890                | 0.001890            |
| 7.0        | 2205                | 0.002205            |
| 8.0        | 2520                | 0.002520            |
| 9.0        | 2835                | 0.002835            |
| 10.0       | 3150                | 0.003150            |



CROSS-SECTION A-A  
NOT TO SCALE

**Basin L**

**DETENTION BASIN CALCULATION**

Structure: 10' Dia. x 10' High

Concrete: 4000 PSI

Reinforcement: #4 @ 18" O.C.

Wind: 100 mph

Seismic: Zone 4

Temperature: 70°F

Soil: 1.5

Foundation: 12" Dia. x 10' High

Concrete: 4000 PSI

Reinforcement: #4 @ 18" O.C.

Wind: 100 mph

Seismic: Zone 4

Temperature: 70°F

Soil: 1.5

Foundation: 12" Dia. x 10' High

**Basin L**

**FOREBAY CONCRETE STRUCTURE CALCULATION**

Structure: 10' x 10' x 10'

Concrete: 4000 PSI

Reinforcement: #4 @ 18" O.C.

Wind: 100 mph

Seismic: Zone 4

Temperature: 70°F

Soil: 1.5

Foundation: 12" Dia. x 10' High

Concrete: 4000 PSI

Reinforcement: #4 @ 18" O.C.

Wind: 100 mph

Seismic: Zone 4

Temperature: 70°F

Soil: 1.5

Foundation: 12" Dia. x 10' High

**Basin L**

**CONCRETE CONTROL STRUCTURE DETAIL (CS)**

Structure: 10' Dia. x 10' High

Concrete: 4000 PSI

Reinforcement: #4 @ 18" O.C.

Wind: 100 mph

Seismic: Zone 4

Temperature: 70°F

Soil: 1.5

Foundation: 12" Dia. x 10' High

Concrete: 4000 PSI

Reinforcement: #4 @ 18" O.C.

Wind: 100 mph

Seismic: Zone 4

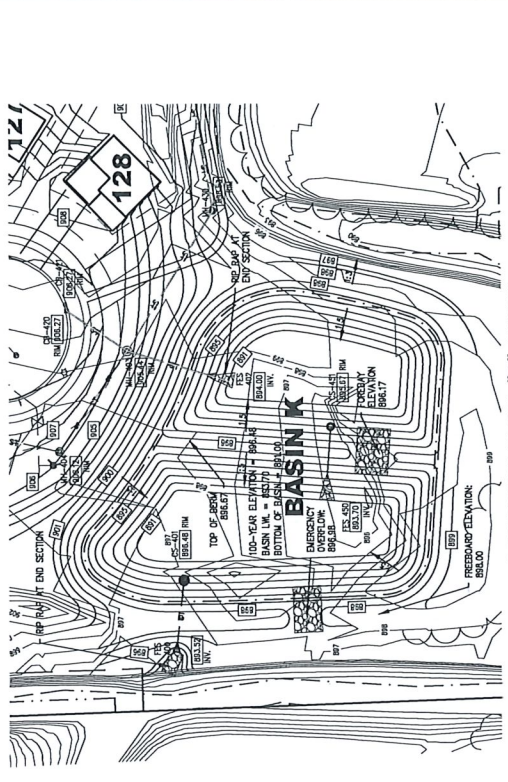
Temperature: 70°F

Soil: 1.5

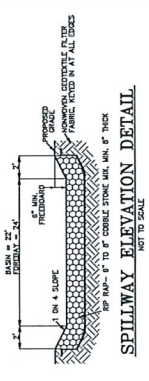
Foundation: 12" Dia. x 10' High

| REVISION # | DATE     | REVISION-DESCRIPTION                           |
|------------|----------|------------------------------------------------|
| 1          | 10-10-20 | ISSUED FOR REVIEW COMMENTS DATED 8-7-21        |
| 2          | 10-10-20 | REVISED PER LDC REVIEW COMMENTS DATED 10-27-21 |
| 3          | 10-10-20 | REVISED PER LDC REVIEW COMMENTS DATED 11-10-21 |
| 4          | 10-10-20 | REVISED PER LDC REVIEW COMMENTS DATED 11-10-21 |
| 5          | 10-10-20 | REVISED PER LDC REVIEW COMMENTS DATED 11-10-21 |

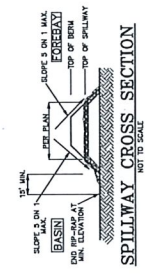




DETENTION BASIN "K" DETAIL  
SCALE: 1/4" = 40'



SPILLWAY ELEVATION DETAIL  
NOT TO SCALE



SPILLWAY CROSS SECTION  
NOT TO SCALE

Basin K  
100 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft  
Allowable 10 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft

Basin K  
100 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft  
Allowable 10 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft

Basin K  
100 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft  
Allowable 10 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft

Basin K  
100 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft  
Allowable 10 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft

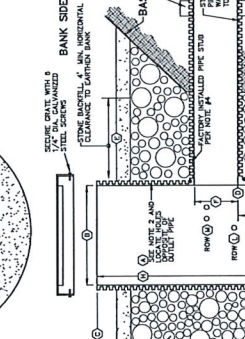
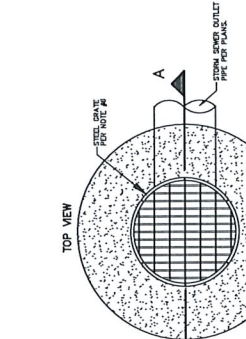
| Category                        | Item     | Value  |
|---------------------------------|----------|--------|
| PROPOSED FORECAST VOLUME        | CONCRETE | 11,354 |
|                                 | STEEL    | 1,135  |
|                                 | PIPE     | 1,135  |
|                                 | ROCK     | 1,135  |
|                                 | GRAVEL   | 1,135  |
|                                 | SOIL     | 1,135  |
|                                 | LAND     | 1,135  |
|                                 | CONCRETE | 1,135  |
|                                 | STEEL    | 1,135  |
|                                 | PIPE     | 1,135  |
| PROPOSED DETENTION BASIN VOLUME | CONCRETE | 11,354 |
|                                 | STEEL    | 1,135  |
|                                 | PIPE     | 1,135  |
|                                 | ROCK     | 1,135  |
|                                 | GRAVEL   | 1,135  |
|                                 | SOIL     | 1,135  |
|                                 | LAND     | 1,135  |
|                                 | CONCRETE | 1,135  |
|                                 | STEEL    | 1,135  |
|                                 | PIPE     | 1,135  |

Basin K  
100 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft  
Allowable 10 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft

Basin K  
100 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft  
Allowable 10 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft

Basin K  
100 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft  
Allowable 10 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft

| Category                        | Item     | Value  |
|---------------------------------|----------|--------|
| PROPOSED FORECAST VOLUME        | CONCRETE | 11,354 |
|                                 | STEEL    | 1,135  |
|                                 | PIPE     | 1,135  |
|                                 | ROCK     | 1,135  |
|                                 | GRAVEL   | 1,135  |
|                                 | SOIL     | 1,135  |
|                                 | LAND     | 1,135  |
|                                 | CONCRETE | 1,135  |
|                                 | STEEL    | 1,135  |
|                                 | PIPE     | 1,135  |
| PROPOSED DETENTION BASIN VOLUME | CONCRETE | 11,354 |
|                                 | STEEL    | 1,135  |
|                                 | PIPE     | 1,135  |
|                                 | ROCK     | 1,135  |
|                                 | GRAVEL   | 1,135  |
|                                 | SOIL     | 1,135  |
|                                 | LAND     | 1,135  |
|                                 | CONCRETE | 1,135  |
|                                 | STEEL    | 1,135  |
|                                 | PIPE     | 1,135  |



CROSS-SECTION A-A  
NOT TO SCALE

| Category                        | Item     | Value  |
|---------------------------------|----------|--------|
| PROPOSED FORECAST VOLUME        | CONCRETE | 11,354 |
|                                 | STEEL    | 1,135  |
|                                 | PIPE     | 1,135  |
|                                 | ROCK     | 1,135  |
|                                 | GRAVEL   | 1,135  |
|                                 | SOIL     | 1,135  |
|                                 | LAND     | 1,135  |
|                                 | CONCRETE | 1,135  |
|                                 | STEEL    | 1,135  |
|                                 | PIPE     | 1,135  |
| PROPOSED DETENTION BASIN VOLUME | CONCRETE | 11,354 |
|                                 | STEEL    | 1,135  |
|                                 | PIPE     | 1,135  |
|                                 | ROCK     | 1,135  |
|                                 | GRAVEL   | 1,135  |
|                                 | SOIL     | 1,135  |
|                                 | LAND     | 1,135  |
|                                 | CONCRETE | 1,135  |
|                                 | STEEL    | 1,135  |
|                                 | PIPE     | 1,135  |

Basin K  
100 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft  
Allowable 10 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft

Basin K  
100 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft  
Allowable 10 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft

Basin K  
100 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft  
Allowable 10 Year Storage Volume = 113,544 cu ft  
Required Volume = 76,178 cu ft

DESIGN: JHG  
DATE: 10-18-21  
REVISION: 1  
REVISION: 2  
REVISION: 3  
REVISION: 4  
REVISION: 5

DESIGN: JHG  
DATE: 10-18-21  
REVISION: 1  
REVISION: 2  
REVISION: 3  
REVISION: 4  
REVISION: 5

DESIGN: JHG  
DATE: 10-18-21  
REVISION: 1  
REVISION: 2  
REVISION: 3  
REVISION: 4  
REVISION: 5

SCALE: AS NOTED  
PROJECT NO.: 20025  
DWG NAME: 20025 GR-4  
ISSUED: 11.09.2021

CLIENT:  
WESTVIEW CAPITAL, LLC  
795 CLYDE COURT SW  
BRYAN CENTER, MICHIGAN 48705  
(517) 854-8448

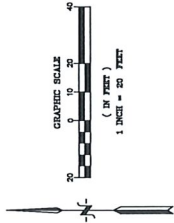
GRADING PLAN  
BASIN K  
CALCULATIONS & DETAILS

TAMARACK PLACE

GR4.2



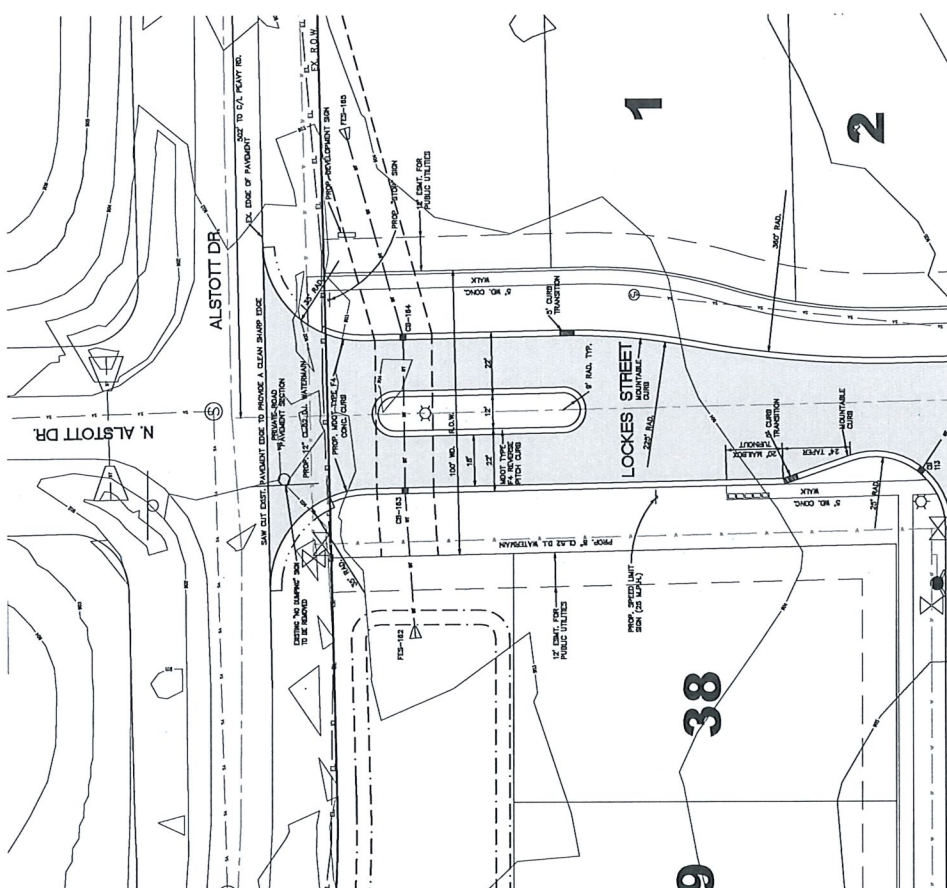
WESTVIEW CAPITAL, LLC  
CIVIL ENGINEERS  
LAND SURVEYORS  
215 FLEISS DRIVE  
BRYAN, MICHIGAN 48705



**LEGEND**

- EXISTING CONTOUR
- EXISTING LIGHT
- ROAD CENTERLINE
- EXISTING SANITARY SEWER
- SANITARY MANHOLE
- EXISTING WATERMAIN
- EXISTING VALVE
- EXISTING WATERMETER
- EXISTING UTILITY
- EXISTING SIDEWALK
- EXISTING CURB
- EXISTING PAVEMENT
- PROPOSED SANITARY SEWER
- PROPOSED WATERMAIN
- PROPOSED VALVE
- PROPOSED WATERMETER
- PROPOSED UTILITY
- PROPOSED SIDEWALK
- PROPOSED CURB
- PROPOSED PAVEMENT
- PROPOSED LIGHT
- PROPOSED SIGN

SEE SHEET 011 FOR PAVEMENT CROSS SECTION DETAILS

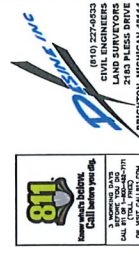


| KEY       | SIGN                 | POST MOUNT | POST MOUNT HEIGHT |
|-----------|----------------------|------------|-------------------|
| R-1       | STOP                 | 30" x 30"  | 7'-0"             |
| FIRE LANE | NO PARKING FIRE LANE | 32" x 18"  | 7'-0"             |
| PC-1      | SPEED LIMIT 25       | 36" x 30"  | 7'-0"             |

**BENCHMARK**  
DATA MARK ON PROPERTY BENCHMARK AS SHOWN IN "WALK DIST" COLUMN

**BENCHMARK #**  
1. 1983 SURVEY  
2. 1983 SURVEY  
3. 1983 SURVEY  
4. 1983 SURVEY  
5. 1983 SURVEY

**BENCHMARK #**  
1. 1983 SURVEY  
2. 1983 SURVEY  
3. 1983 SURVEY  
4. 1983 SURVEY  
5. 1983 SURVEY



**CLIENT:**  
WESTVIEW CAPITAL LLC  
785 CLYDE COURT SW  
BRIGHTON, MICHIGAN 48115  
586-265-6548

**PROJECT NO.:** 200205  
**DWG NAME:** 3025 AP  
**ISSUED:** 11/11/11

**SCALE:** 1/8" = 20'  
**AP1.1**

**LOCKES STREET AND ALSTOTT DR. APPROACH DIMENSION PLAN**

**TAMARACK PLACE**

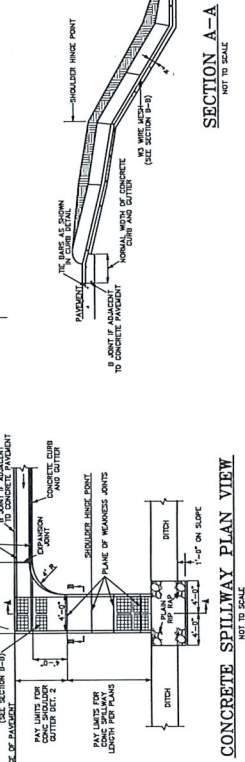
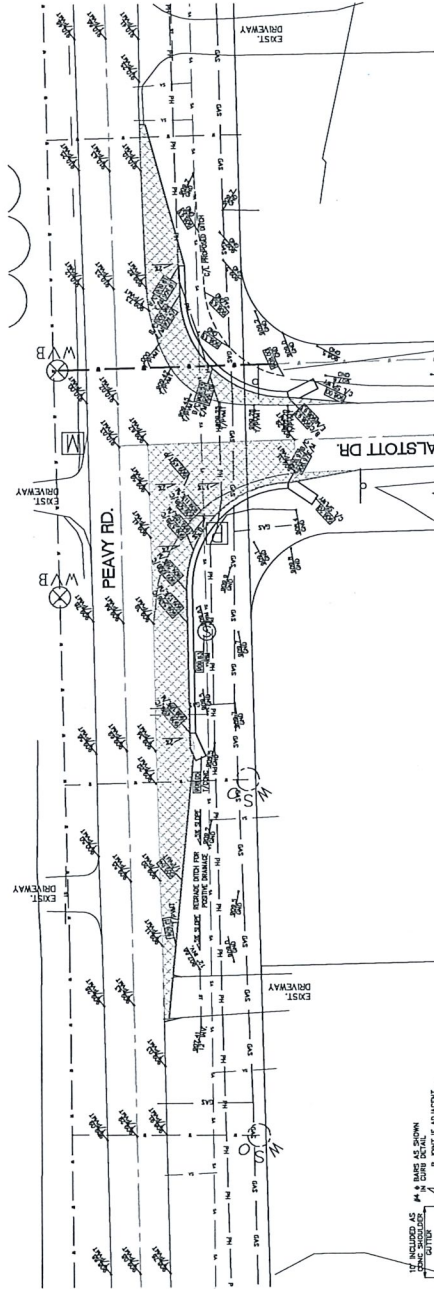
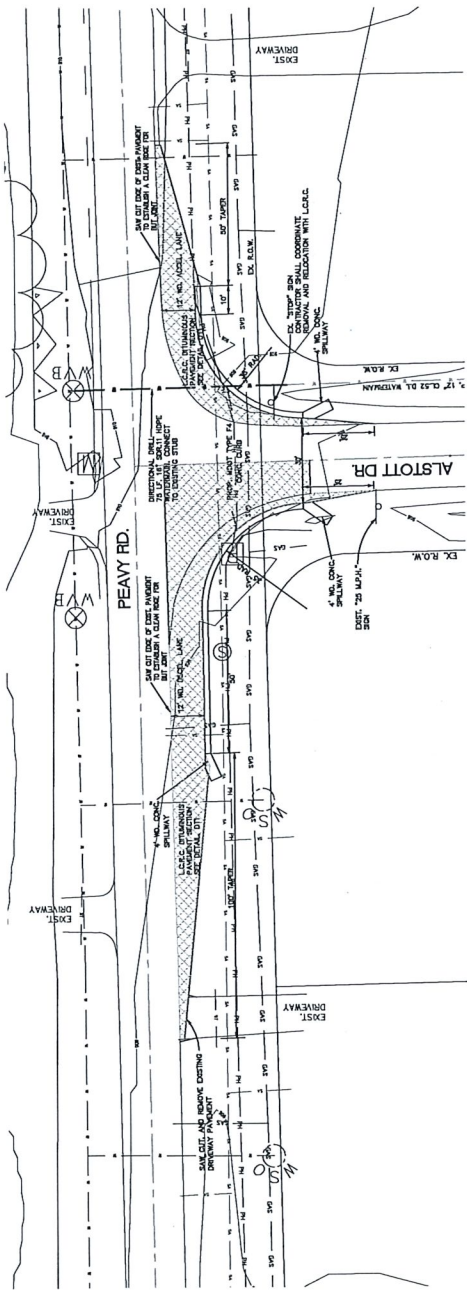
| REVISION # | DATE | REVISION-DESCRIPTION |
|------------|------|----------------------|
|            |      |                      |
|            |      |                      |
|            |      |                      |
|            |      |                      |
|            |      |                      |
|            |      |                      |
|            |      |                      |
|            |      |                      |
|            |      |                      |
|            |      |                      |

DESIGN: JHG  
DRAWN: JHG  
CHECK: WMP

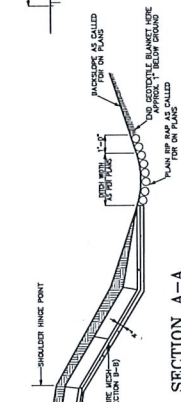




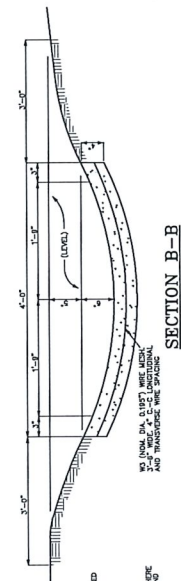




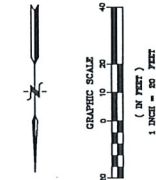
CONCRETE SPILLWAY PLAN VIEW  
NOT TO SCALE



SECTION A-A  
NOT TO SCALE



SECTION B-B  
NOT TO SCALE



- GRAPHIC SCALE  
1 INCH = 20 FEET
- LEGEND
- EXISTING CENTERLINE
- ROAD CENTERLINE
- WETLAND LIMIT
- EXISTING SIDEWALK
- EXISTING GUTTER
- EXISTING CURB
- EXISTING WALKWAY
- EXISTING STREETLIGHT
- EXISTING UTILITY
- PROPOSED SIDEWALK
- PROPOSED GUTTER
- PROPOSED CURB
- PROPOSED WALKWAY
- PROPOSED STREETLIGHT
- PROPOSED UTILITY
- PROPOSED STORM SEWER
- STORM MANHOLE
- CATCHBASIN
- PLANNED DRG SECTION
- CONTROLLED OUTLET
- STRUCTURE
- PROPOSED STREET LIGHT POLE
- TRIP POLE
- PROP. CONC. WALK / PATH
- EXISTING SPOT GRADE
- PROPOSED SPOT GRADE
- TOP OF PAVEMENT
- BACK OF CURB
- E/C
- E/M
- EDGE OF METAL
- SEE SHEET D11 FOR PAVEMENT CROSS SECTION DETAILS

BENCHMARK DATA BASED ON PREVIOUS BENCHMARK AS LOCATED IN 'WALKER STREET' CORRIDOR

BENCHMARK # 1 - PERMANENT LOCATED ON THE NORTH SIDE OF PEAVY ROAD AT THE INTERSECTION OF PEAVY ROAD AND ALSTOTT DRIVE. STATION MARKED 25079+4.17

BENCHMARK # 2 - PERMANENT LOCATED WEST SIDE OF PEAVY ROAD AT THE INTERSECTION OF PEAVY ROAD AND ALSTOTT DRIVE. STATION MARKED 25079+28.17

BENCHMARK # 3 - TEMPORARY LOCATED WEST SIDE OF PEAVY ROAD AT THE INTERSECTION OF PEAVY ROAD AND ALSTOTT DRIVE. STATION MARKED 25079+28.17

BENCHMARK # 4 - STANDARD VALUE OF IRONMENT LOCATED WEST SIDE OF PEAVY ROAD AT THE NORTH OF PEAVY ROAD. STATION MARKED 25079+28.17

BENCHMARK # 5 - STANDARD VALUE OF IRONMENT LOCATED WEST SIDE OF PEAVY ROAD AT THE NORTH OF PEAVY ROAD. STATION MARKED 25079+28.17

811  
Call before you dig  
www.callbeforeyoudig.com  
1-800-487-3848

CLIENT: WESTVIEW CAPITAL, LLC  
735 CLYDE COURT SW  
BRYAN CENTER, MICHIGAN 48755  
248-565-6868

SCALE: 1/4" = 20'

PROJECT No.: 20025  
DWG NAME: 3025-AP

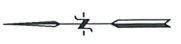
ISSUED: APRIL 08, 2014

DESIGN: AP3.1

LAND SURVEYORS  
REGISTERED PROFESSIONALS  
MICHIGAN LICENSE NO. 00000000000000

| REVISION # | DATE | REVISION-DESCRIPTION | REVISION # | DATE | REVISION-DESCRIPTION |
|------------|------|----------------------|------------|------|----------------------|
|            |      |                      |            |      |                      |
|            |      |                      |            |      |                      |
|            |      |                      |            |      |                      |
|            |      |                      |            |      |                      |

DESIGN: AP3.1  
DRAFT: JHG  
CHECK: WMP



WS  
PROJECT NO. 200205  
DATE NAME 2025 WS  
ISSUE 1 (11/10/24) 2024

Table with columns for SUB-CATCHMENT AREA, TOTAL AREA, and RAIN-OFF COEFFICIENT. Includes three sections: SECTION 1 (2.08 AC), SECTION 2 (2.08 AC), and SECTION 3 (2.08 AC).

Table with columns for SUB-CATCHMENT AREA, TOTAL AREA, and RAIN-OFF COEFFICIENT. Includes three sections: SECTION 1 (2.08 AC), SECTION 2 (2.08 AC), and SECTION 3 (2.08 AC).

ULTIMATE STORM WATER OUTLET  
NEW DRAIN TO THE SHAWANSEE  
RIVER BRANCH NO. 1

SCALE: 1" = 100'  
PROJECT NO.: 200205  
DATE NAME: 2025 WS  
ISSUE 1 (11/10/24) 2024

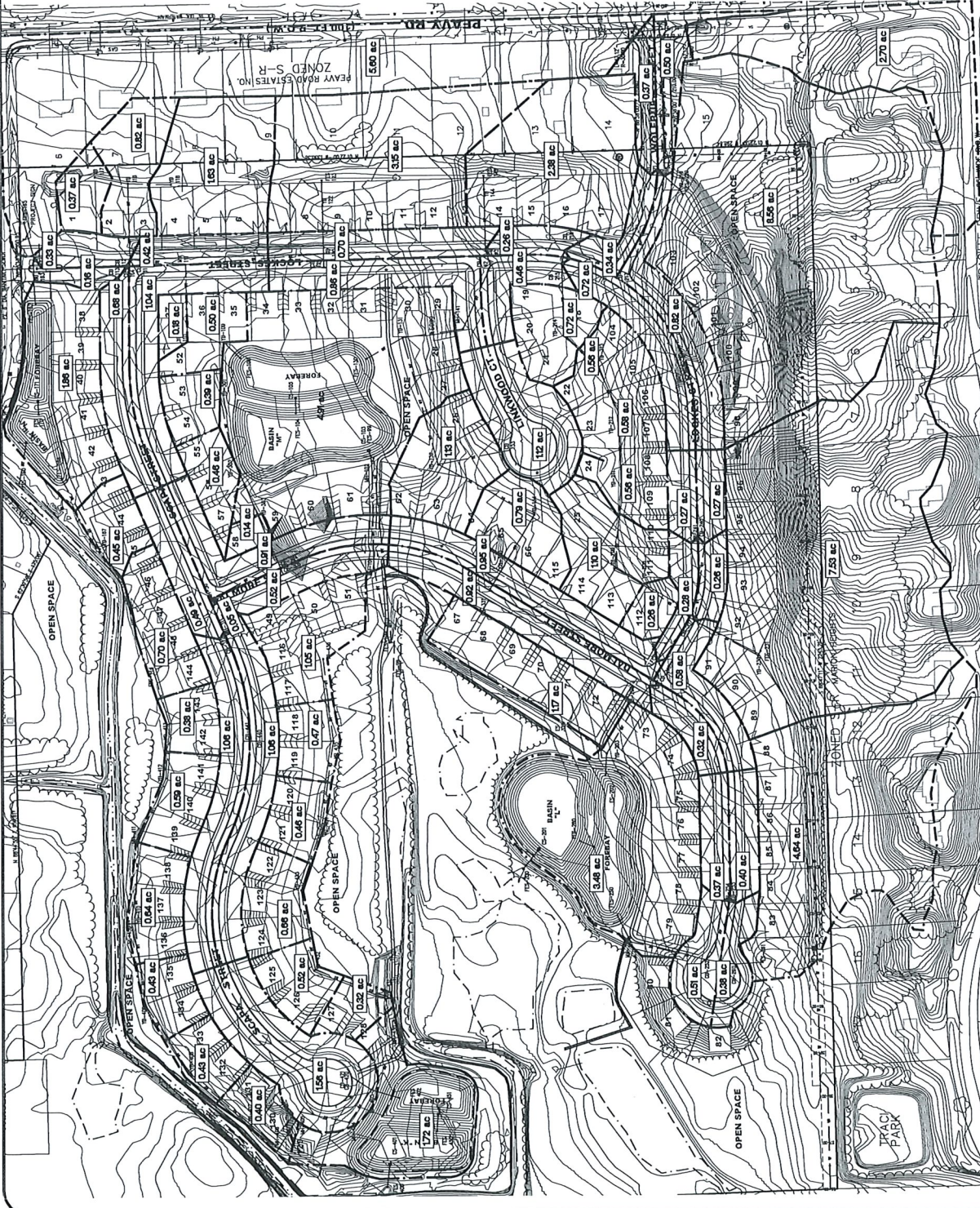


Table with columns: REVISION #, DATE, REVISION/DESCRIPTION.

Client information: WESTERN CAPITAL, LLC, 710 CLAUDE COURT SW, BIRMINGHAM, MICHIGAN 48416. Project name: TAMARACK PLACE. Drawing title: WATERSHED PLAN. Date: 11/10/24. Issue: 2024.





6000 WOODS  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 2183 PLEAS DRIVE  
 BIRMINGHAM, MICHIGAN 48414

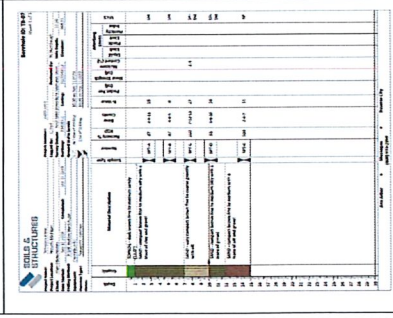
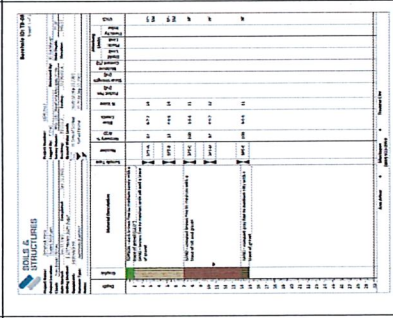
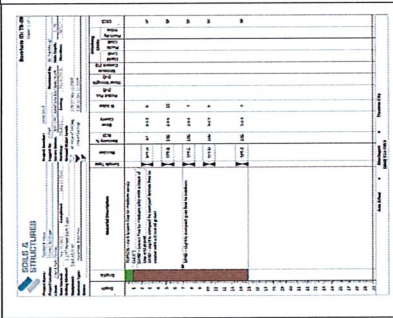
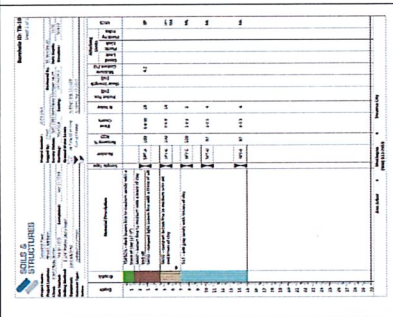
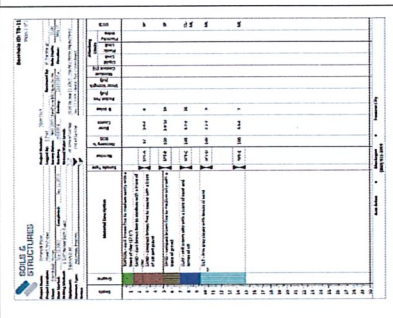
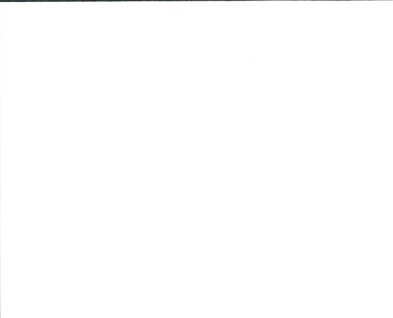
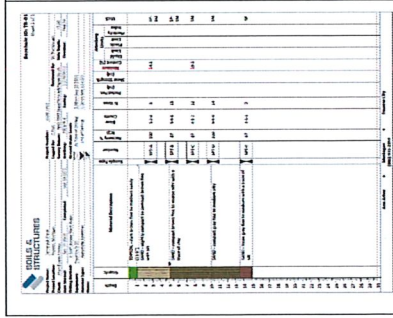
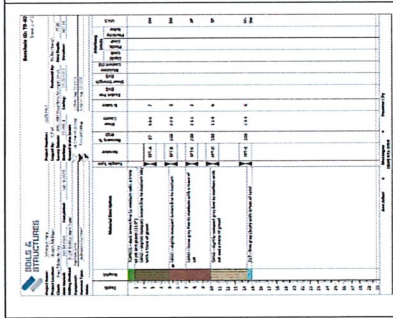
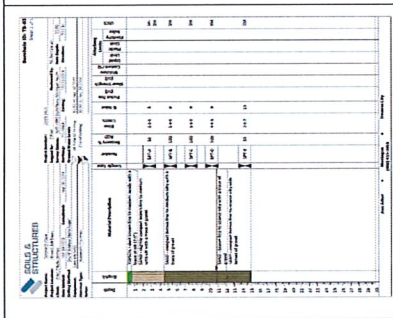
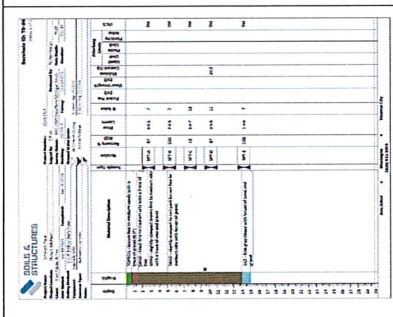
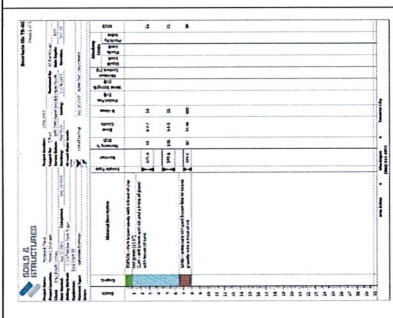
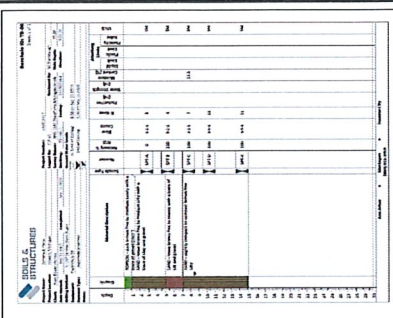
**SB2**

SCALE: NONE  
 PROJECT No.: 200025  
 DWG NAME: 2025 SB  
 ISSUED: 11/13/2024

CLIENT:  
 WESTVIEW CAPITAL, LLC  
 795 CLYDE COURT SW  
 BRYON CENTER, MICHIGAN 48015  
 616-876-7706

**SOIL BORING LOGS**

**TAMARACK PLACE**



| DESIGN: JHG | REVISION # | DATE | REVISION-DESCRIPTION |
|-------------|------------|------|----------------------|
| DRMT: JHG   |            |      |                      |
| CHECK: WMP  |            |      |                      |





SPLIT RAIL VINYL FENCE EXAMPLE  
NOT TO SCALE



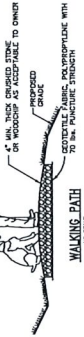
FENCE DETAIL

NOT TO SCALE  
MATERIAL SHALL BE VINYL COLOR WHITE



WALKING PATH

NOT TO SCALE



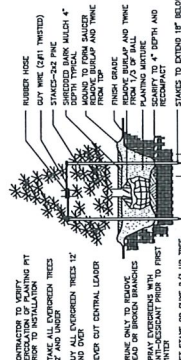
WALKING PATH

NOT TO SCALE

- 1) ALL PERENNIALS SHALL BE PLANTED IN 10% SHADY AREAS TO PROVIDE SHELTER FROM HOT SUN AND DRY WINDS
- 2) ALL PERENNIALS SHALL BE PLANTED IN 10% SHADY AREAS TO PROVIDE SHELTER FROM HOT SUN AND DRY WINDS
- 3) ALL PERENNIALS SHALL BE PLANTED IN 10% SHADY AREAS TO PROVIDE SHELTER FROM HOT SUN AND DRY WINDS
- 4) ALL PERENNIALS SHALL BE PLANTED IN 10% SHADY AREAS TO PROVIDE SHELTER FROM HOT SUN AND DRY WINDS
- 5) ALL PERENNIALS SHALL BE PLANTED IN 10% SHADY AREAS TO PROVIDE SHELTER FROM HOT SUN AND DRY WINDS

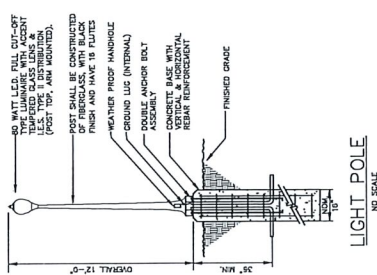
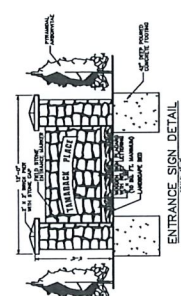
TYPICAL TREE/SHRUB/PERENNIAL PLANTING

NOT TO SCALE



TYPICAL EVERGREEN TREE PLANTING

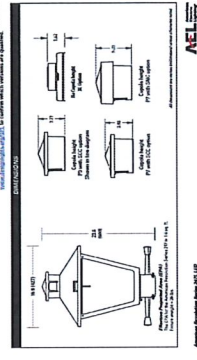
NOT TO SCALE



American Revolution LED Series 247L

OPERATING CHARACTERISTICS

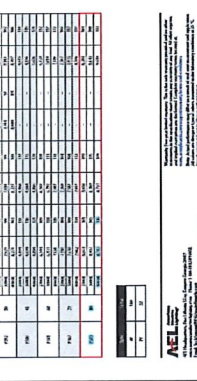
| Model     | Power | Height | Width | Depth | Weight | Material | Finish | Notes                                                  |
|-----------|-------|--------|-------|-------|--------|----------|--------|--------------------------------------------------------|
| AR247L-01 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | Black  | Standard                                               |
| AR247L-02 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | White  | Standard                                               |
| AR247L-03 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | Black  | With Glass                                             |
| AR247L-04 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | White  | With Glass                                             |
| AR247L-05 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | Black  | With Glass, 18 Flutes                                  |
| AR247L-06 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | White  | With Glass, 18 Flutes                                  |
| AR247L-07 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | Black  | With Glass, 18 Flutes, Water Proof                     |
| AR247L-08 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | White  | With Glass, 18 Flutes, Water Proof                     |
| AR247L-09 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | Black  | With Glass, 18 Flutes, Water Proof, Double Anchor Bolt |
| AR247L-10 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | White  | With Glass, 18 Flutes, Water Proof, Double Anchor Bolt |



American Revolution LED Series 247L

OPERATING CHARACTERISTICS

| Model     | Power | Height | Width | Depth | Weight | Material | Finish | Notes                                                  |
|-----------|-------|--------|-------|-------|--------|----------|--------|--------------------------------------------------------|
| AR247L-11 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | Black  | Standard                                               |
| AR247L-12 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | White  | Standard                                               |
| AR247L-13 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | Black  | With Glass                                             |
| AR247L-14 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | White  | With Glass                                             |
| AR247L-15 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | Black  | With Glass, 18 Flutes                                  |
| AR247L-16 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | White  | With Glass, 18 Flutes                                  |
| AR247L-17 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | Black  | With Glass, 18 Flutes, Water Proof                     |
| AR247L-18 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | White  | With Glass, 18 Flutes, Water Proof                     |
| AR247L-19 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | Black  | With Glass, 18 Flutes, Water Proof, Double Anchor Bolt |
| AR247L-20 | 30W   | 10'    | 12"   | 12"   | 15 lbs | Aluminum | White  | With Glass, 18 Flutes, Water Proof, Double Anchor Bolt |



CLIENT: WESTVIEW CAPITAL, LLC  
175 CLYDE COURT SW  
BRYAN CENTER, MICHIGAN 48715  
248-365-6586

SCALE: AS NOTED  
PROJECT NO.: 202025  
DWG NAME: 30251.LS  
ISSUED: AUG. 10, 2024

DESIGNAL: [blank]  
DRAWN: JHD  
CHECK: WMP

| REVISION # | DATE     | REVISION-DESCRIPTION         | REVISION-DESCRIPTION |
|------------|----------|------------------------------|----------------------|
| 1          | 08-29-24 | REVISED FOR REVISED COMMENTS |                      |

TAMARACK PLACE  
LANDSCAPING NOTES & DETAILS

LS2







**MARION TOWNSHIP**  
**APPLICATION FOR SITE PLAN REVIEW**

Date: July 18, 2024  
Parcel I.D. Number: 10-02-300-007

**Property Owner(s) Name (Print or Type):**

Blue South Sunridge LLC

**Mailing Address (Print or Type):**

32400 Telegraph Road, Suite 200A

**City, State, ZIP (Print or Type):**

Bingham Farms, MI 48025

**Phone (Print or Type):**

(248) 642-4700

**Applicant(s) Name (Print or Type):**

Westview Capital LLC

**Mailing Address (Print or Type):**

2186 East Centre Avenue

**City, State, ZIP (Print or Type):**

Portage, Michigan 49002

**Phone (Print or Type):**

(269) 365-8548 Mike West

mwest@allenedwin.com

Name of Proposed Development: Tamarack Place Site Condominium Subdivision  
Location of Proposed Development (address): Phase 3 of Sunridge PUD  
N E S W Side of West side of Peavy Road (93 acres) Road between  
Alstott Drive and Tracilee Drive Roads

- The property owner(s) must sign this application. In lieu of the owner(s) signature on this application, the owner may provide a letter authorizing the applicant to act on his / her behalf. This application will not be processed until authorized by the property owner and/or the authorized applicant.

Brief Description of the Proposed Development and/ or Project (Land Use):  
144 Unit Site Condominium Subdivision plus one land  
division parcel (Parcel A). Final Site Plan re-approval

I hereby grant permission for members of the Planning Commission, Zoning Administrator or their appointed designee to enter the above-described property for the purpose of gathering information related to this application.

Owner(s) of Record Signature: 

Applicant(s) Signature (if other than owner): 

Date: 7-18-24

**DO NOT WRITE BELOW THIS LINE – TOWNSHIP USE ONLY**

---

Date Received: \_\_\_\_\_ Received By: \_\_\_\_\_ Application Fee: \_\_\_\_\_

**PRELIMINARY SITE PLAN REVIEW**

**AGENCY REVIEWS AND COMMENTS FROM:**

County Road Commission: Yes \_\_\_ No \_\_\_ County Health Department: Yes \_\_\_ No \_\_\_

County Drain Commissioner: Yes \_\_\_ No \_\_\_ Fire Department: Yes \_\_\_ No \_\_\_ Other Agencies: Yes \_\_\_ No \_\_\_

Township Attorney: Yes \_\_\_ No \_\_\_ Township Engineer: Yes \_\_\_ No \_\_\_ Township Planner: Yes \_\_\_ No \_\_\_

APPROVED

APPROVED WITH CONDITIONS

DENIED

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Date Received: \_\_\_\_\_ Received By: \_\_\_\_\_ Application Fee: \_\_\_\_\_

**FINAL SITE PLAN REVIEW**

**AGENCY REVIEWS AND COMMENTS FROM:**

County Road Commission: Yes \_\_\_ No \_\_\_ County Health Department: Yes \_\_\_ No \_\_\_

County Drain Commissioner: Yes \_\_\_ No \_\_\_ Fire Department: Yes \_\_\_ No \_\_\_ Other Agencies: Yes \_\_\_ No \_\_\_

Township Attorney: Yes \_\_\_ No \_\_\_ Township Engineer: Yes \_\_\_ No \_\_\_ Township Planner: Yes \_\_\_ No \_\_\_

APPROVED

APPROVED WITH CONDITIONS

DENIED

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Date Received: \_\_\_\_\_ Received By: \_\_\_\_\_ Application Fee: \_\_\_\_\_

**CONSTRUCTION PLAN REVIEW**

Township Engineer: Yes \_\_\_ No \_\_\_

Other reviewers: \_\_\_\_\_

Pre-Construction Meeting: \_\_\_\_\_

APPROVED

Date: \_\_\_\_\_

**AS BUILTS** Submitted for Township File Date: \_\_\_\_\_ Reviewed by: \_\_\_\_\_

Westview Capital, LLC  
2186 East Centre Avenue  
Portage, MI 49002

---

Mr. Dave Hamann, Zoning Administration  
Marion Township  
2877 W. Coon Lake Road  
Howell, Michigan 48843

July 18, 2024

Re: Tamarack Place (Phase 3 of Sunridge PUD), 93 Acres – Final Site Plan reapproval

Dear Dave,

As you are aware, the Final Site Plan for Tamarack Place (Phases 1-4) received approval from the Marion Township Planning Commission and Township Board back in 2021. While site clearance occurred shortly thereafter, construction of Phase 1 did not commence within the required one (1) year period and this approval expired.

Pursuant to Article XVIII of the Zoning Ordinance, the Final Site Plan is being submitted for re-approval. It is important to note that the only minor changes to the storm water management system to meet current Livingston County Drain Commissioner requirements, along with adjustments to proposed phasing boundaries for Phases 2, 3 and 4, are proposed with the Final Site Plan re-submittal. No changes to the previously approved roadway layout, number of condominium units, locations/amounts of open space areas, etc. are proposed with this re-approval request.

Attached please find the Final Site Plan reapproval package for the Tamarack Place Site Condominium project (Phase 3 of Sunridge PUD) which includes the following documents:

- Signed Site Plan Review Application dated July 18, 2024
- Final Site Plan Review Fee Check (\$500) and Escrow Review Fee Check (\$1,000)
- Summary Letter from Desine, Inc. (Wayne Perry) dated July 18, 2024
- Livingston County Drain Commissioner Approval Letter dated July 10, 2024
- Final Site Plan Set for Tamarack Place dated June 27, 2024  
(electronic copy provided via email; hard copies pending administrative review)

We look forward to constructing this residential community within the next year and request the Final Site Plan reapproval be scheduled for the August 27, 2024 Marion Township Planning Commission meeting.

Thank you for your ongoing assistance with this project. If you have any questions or require additional information, please contact me at your earliest convenience.

Sincerely,



Michael West, AICP  
Land Planning Manager  
Westview Capital, LLC  
2186 East Centre Avenue  
Portage, Michigan 49002  
(269) 365-8548  
[mwest@allenedwin.com](mailto:mwest@allenedwin.com)



**CIVIL ENGINEERS LAND SURVEYORS**  
2183 PLESS DRIVE, BRIGHTON, MICHIGAN 48114-9463  
(810) 227-9533 FAX (810) 227-9460  
EMAIL: [desine@desineinc.com](mailto:desine@desineinc.com)

July 18, 2024

Mr. Dave Hamann  
Zoning Administrator  
Marion Township  
2877 West Coon Lake Road  
Howell, Michigan 48843

Re: **TAMARACK PLACE**  
Final Site Plan review submittal

Dear Mr. Hamann:

We have updated the final site plan for Tamarack Place in Marion Township. Construction plans for the development were previously approved and permitted for construction in 2022. Plans have been modified to incorporate changes required by permitting agencies.

The four stormwater detention basins within the development have been revised to conform with the current Livingston County design criteria for stormwater management systems. Detention basin volume calculations, basin configuration and forebay outlet control structures have been modified on sheets GR1.2, GR1.3, GR3.2 and GR4.2.

MHOG will be constructing the 20" diameter water transmission pipe within their existing easement along the Southerly development boundary, from Pinckney Road to the Westerly boundary of Tamarack Place. This allows water main along Wolfburn Street, the Southerly portion of Lockes Street and the Southerly portion of Dalmore Street, to be revised to 8" diameter pipe. The modified water main is depicted on utility plan sheets UT3 and UT4.

Enclosed is the updated site plan for review and approval. Should you have questions pertaining to the project, or if additional information is required, please contact me at your convenience.

Respectfully,  
**DESINE INC.**

  
Wayne M. Perry, P.E.

Encl: Tamarack Place Site Plan – 06-27-2024

cc: Mike West, Allen Edwin Homes

203925Township - Site Plan submittal LTR 07-18-2024



# Brian Jonckheere

**Livingston County Drain Commissioner**

**2300 E. Grand River Ave., Ste. 105**

**Howell, MI 48843-7581**

**Phone: 517-546-0040 FAX: 517-545-9658**

Website: [www.livgov.com/drain](http://www.livgov.com/drain) Email: [drain@livgov.com](mailto:drain@livgov.com)

July 10, 2024

Mr. Wayne Perry  
Desine Inc  
2183 Pless Dr.  
Brighton, MI 48114

Re: Tamarack Place  
Updated Construction Plans Resubmittal  
Southwest 1/4 of Section 2, Marion Township

Dear Mr. Perry:

I received revised Construction Plans for the above referenced development on July 2, 2024. The submitted information has been reviewed for conformance with our office's review letter dated June 10, 2024. The following items require additional attention on the plans:

- 1.) The Basin M forebay outlet elevation should be lowered to 901.50 to eliminate the currently proposed partial submergence of its storm sewer inlet pipes.
- 2.) The Basin N Forebay Volume Provided (and the Combined Volume Provided) should be calculated above its outlet elevation of 898.92.
- 3.) The Basin L Combined Volume Provided should be calculated using the forebay storage volume above its outlet elevation of 900.34.
- 4.) The Basin K Extended Detention 1.5" diameter orifice centerline elevation should be 893.76, based on the outlet pipe invert elevation of 893.70.

I am granting approval of the updated Construction Plans for Tamarack Place, contingent on completion of the above-mentioned items in revised plans submitted with erosion control permit application materials.

Very truly yours,

Kenneth E. Recker, II, P.E.  
Chief Deputy Drain Commissioner

C: Paul Lewsley, Spaulding DeDecker  
Ryan Leary, Allen Edwin  
Bob Hanvey, Marion Township Supervisor  
Kim Hiller, LCRC  
Phil Westmoreland, Spicer Group



## Brian Jonckheere

Livingston County Drain Commissioner

2300 E. Grand River Ave., Ste. 105

Howell, MI 48843-7581

Phone: 517-546-0040 FAX: 517-545-9658

Website: [www.livgov.com/drain](http://www.livgov.com/drain) Email: [drain@livgov.com](mailto:drain@livgov.com)

July 10, 2024

Mr. Wayne Perry  
Desine Inc  
2183 Pless Dr.  
Brighton, MI 48114

Re: Tamarack Place  
Updated Construction Plans Resubmittal  
Southwest 1/4 of Section 2, Marion Township

Dear Mr. Perry:

I received revised Construction Plans for the above referenced development on July 2, 2024. The submitted information has been reviewed for conformance with our office's review letter dated June 10, 2024. The following items require additional attention on the plans:

- 1.) The Basin M forebay outlet elevation should be lowered to 901.50 to eliminate the currently proposed partial submergence of its storm sewer inlet pipes.
- 2.) The Basin N Forebay Volume Provided (and the Combined Volume Provided) should be calculated above its outlet elevation of 898.92.
- 3.) The Basin L Combined Volume Provided should be calculated using the forebay storage volume above its outlet elevation of 900.34.
- 4.) The Basin K Extended Detention 1.5" diameter orifice centerline elevation should be 893.76, based on the outlet pipe invert elevation of 893.70.

I am granting approval of the updated Construction Plans for Tamarack Place, contingent on completion of the above-mentioned items in revised plans submitted with erosion control permit application materials.

Very truly yours,

A handwritten signature in black ink, appearing to read "Ken Recker".

Kenneth E. Recker, II, P.E.  
Chief Deputy Drain Commissioner

C: Paul Lewsley, Spaulding DeDecker  
Ryan Leary, Allen Edwin  
Bob Hanvey, Marion Township Supervisor  
Kim Hiller, LCRC  
Phil Westmoreland, Spicer Group





## Brian Jonckheere

**Livingston County Drain Commissioner**

**2300 E. Grand River Ave., Ste. 105**

**Howell, MI 48843-7581**

**Phone: 517-546-0040 FAX: 517-545-9658**

Website: [www.livgov.com/drain](http://www.livgov.com/drain) Email: [drain@livgov.com](mailto:drain@livgov.com)

June 10, 2024

Mr. Wayne Perry  
Desine Inc  
2183 Pless Dr.  
Brighton, MI 48114

Re: Tamarack Place  
Updated Construction Plans  
Southwest 1/4 of Section 2  
Marion Township

Dear Mr. Perry:

I received updated Construction Plans for the above referenced development on May 13, 2024. Construction Plans for this project were reviewed and approved by our office in January of 2022 based on the previous L.C.D.C. Design Criteria. However, construction was never started. The transmittal letter accompanying the plans indicates that the design of the proposed stormwater management systems has been revised to conform with the current L.C.D.C. Design Criteria where possible, without regard to its infiltration components.

Our calculations confirm that the required Water Quality, Channel Protection, Extended Detention and 100 Year Storm storage volumes have been correctly computed for Detention Basins K, L, M and N based on their respective tributary areas, average runoff coefficients and a maximum discharge rate of 0.10 cfs/acre. However, the following stormwater detention related items should be addressed on the plans:

- 1.) The proposed forebay outlet pipes of Basins L, M and N should be raised to their detention basin's outlet elevation to eliminate their currently proposed permanent partial submergence.
- 2.) The required Water Quality Control volumes should be stored in the forebays above their proposed outlet elevation.

- 3.) The proposed forebay outlet structure rim elevations should be set at or above the required Water Quality Control storage elevations, the forebay overflow spillway crest elevations should be set at least 6" above the outlet structure rim elevations and the top of the forebay/detention basin separation berms should be set at least 6" above the forebay overflow spillway crest elevations.
- 4.) The proposed combined forebay and detention basin volumes should be calculated above the proposed detention basin outlet elevations.
- 5.) The Detention Basin K forebay volume provided at El. 894.00 calculation should be based on the 0.27 foot depth interval.
- 6.) The Detention Basin N volume provided at El. 899.00 calculation should be based on the outlet elevation of 898.70 and the corresponding 0.30 foot depth interval.
- 7.) The currently proposed orifice designs of all four basins will result in excessive 100 Year Storm discharges. It appears that the head value of the 100 Year Storm orifices has been used in calculating what will be passed through the Extended Detention orifices during the 100 Year Storm causing excessively large proposed 100 Year Storm orifice areas.

I am withholding approval of the updated Construction Plans for Tamarack Place until the above mentioned items have been addressed.

Very truly yours,



Kenneth E. Recker, II, P.E.  
Chief Deputy Drain Commissioner

C: Paul Lewsley, Spaulding DeDecker  
Ryan Leary, Allen Edwin  
Bob Hanvey, Marion Township Supervisor  
Kim Hiller, LCRC  
Phil Westmoreland, Spicer Group



July 31, 2024

Dave Hamann, Zoning Administrator  
Marion Township  
2877 W. Coon Lake Road  
Howell, MI 48843

RE: Tamarack Place – Phase 3  
Updated Final Site Plan Review

Dear Mr. Hamann,

We have received and reviewed the final site plan for the development of Tamarack Place Phase 3, located on Peavy Rd, just north of Tracilee Dr. The plans were prepared by Desine Inc on behalf of Blue South Sunridge, LLC and are dated June 27, 2024. Based on our review, we offer the following comments:

**General**

The existing site is currently zoned as Suburban (SR) and is an undeveloped parcel with a Livingston County owned open drain, private open drain, and wetlands. The existing topography of the site generally slopes from south to north, or towards the open drains in the middle of the site.

A location map is shown on the cover page at a scale of 1-inch equals 2,000 feet, with the necessary information. A development plan is also included in the plans, showing the proposed development phases.

The site is 93.31 acres, the legal description is provided, and the legal description closes within acceptable tolerances.

Parcel A was removed from the site condominium and is now a proposed land division. The parcel split has a front yard setback of 35 feet, side yard setback of 15 feet, and rear yard setback of 25 feet.

**Roads & Paving**

Sidewalks are 5 feet wide and are generally 4 inches in thickness but are 6 inches in thickness in driveway areas. The sidewalk will use a 4-inch thick sand base. Sidewalks are located on both sides of the roads within the site, but the shaded areas of the sidewalk shall be constructed by the contractor. The unshaded areas of the sidewalk shall be constructed as part of the house construction on each unit. The site also uses a mowed path and hard surface path within the open space area. The hard surface path starts on the north side of the cul-de-sac on Dalmore St and loops around Basin L on the south side. Then the hard surface transitions into a mowed path, east of Basin L. The mowed path then connects to the concrete sidewalk, south of Lot 51. The hard surface path, located south of Scapa St along the wet land within Phase 4, connects the cul-de-sac on Scapa St to the area south of Lot 51. There is another hard surface path southwest of Basin M. This connects the cul-de-sac on Linkwood Ct to the area south of Lot 51.

The private road consists of a 1.5-inch thick MDOT 1100T-20AA top course, 1.5-inch thick MDOT 1100L-20AA leveling course, 7-inch thick compacted 22A aggregate base, and 6-inch minimum thick compacted Class II sand base. The materials are acceptable and conforms to Livingston County Road Commissions' standards and regulations, but Marion Township's requirement is 4 inches of HMA on 8 inches of gravel. An alternative pavement section can be considered if a geotechnical analysis and

pavement design is submitted during the construction plan review. An edge drain is provided and is shown in the Typical Private Road Cross Section detail.

The proposed cul-de-sac radius at the outside edge of the pavement is 50 feet and the ROW radius is 75 feet. The cul-de-sac also has a fillet radius of 50 feet. There are three proposed cul-de-sacs, one on Scapa Street, one on Dalmore Street, and one on Linkwood Court.

There are two entrances to the site, one on Alstott Dr and one on Peavy Rd. A sight distance review was performed by Livingston County Road Commission and approved the approaches. The clear vision area on Alstott Dr will need to be addressed during the permitting process. During Phase 1 of construction, a 12-foot wide right-turn deceleration taper will be constructed at the intersection of Peavy Rd. The right-turn deceleration taper is 100 feet long and the 12-foot wide deceleration lane is 50 feet long. The intersection of Alstott Dr and Lockes St does not show any tapering. We defer to Livingston County Road Commissioner for further comment and approval.

A speed limit is not shown within the plans, but it should be 25 miles per hour, with a design speed of 35 miles per hour.

#### **Grading & Drainage**

The site uses a stormwater conveyance system to route the water into four different detention basins. The pipes used will be RCP and range in diameter between 12 inches and 30 inches. The collected water will discharge into a forebay(s) within the proposed detention basins and then released into the existing drain. The slope of the detention basin and forebay is 1:5 and the slope of the forebay spillway is 1:3.

Calculations for the stormwater conveyance system was provided in the plans. The system was designed for a 10-year storm event and assumed a time of concentration of 20 minutes. Full flow velocities ranged within 2.5 ft/sec to 10 ft/sec and volumetric flow did not exceed the pipe capacity.

Basin K, Basin L, Basin M, and Basin N had a proposed storage volume of 76,115 ft<sup>3</sup>, 148,285 ft<sup>3</sup>, 141,352 ft<sup>3</sup>, and 21,345 ft<sup>3</sup>, respectively. At minimum, the volume of the forebay at the spillway elevation should equal the required forebay volume.

Finished floor elevations were added into the plans, which shows that there is at least a 1-foot minimum freeboard from the storage elevation of the basin to the finished floor elevation. This 1-foot minimum freeboard rule also extends to the top of the catch basins and to the top of roads. The catch basins and roads were spot checked for the 1-foot minimum freeboard.

The bottom elevation of Basin M was increased from 900 to 902, which is now higher than the groundwater elevation. Basin N on the other hand, was lowered from 900 to 899. According to TB-01, which is located near Basin N, the groundwater elevation is around 901. Basin N should be designed to ensure the groundwater does not affect the storage of the basins.

A note should be added somewhere in the plans indicating the ultimate outlet for stormwater runoff.

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### **Sanitary Sewer**

The utility plan shows the location, slope, and type of pipe for water, stormwater, and sanitary utilities. The sanitary sewer will use a 8-inch PVC SDR-26 at a minimum slope of 0.4%, which meets the township's requirements. A sanitary sewer design table was added into the plans, showing the sanitary main information and lead information. All leads are 6 inches in diameter running at a 1% slope.

The proposed 8-inch diameter sanitary system connects to an existing 8-inch diameter sanitary system located on Alstott Dr, just north of the site. The sewage will then travel to the pump station located west of Peavy Estates. The pump station has a capacity of 550 GPM, while the daily flow provides 50,750 GPD and a peak flow of 187 GPM. The new peak flow for the pump station should be lower than the capacity of the pump station. Then the sewage will travel north of the pump station and connects to the sanitary line that runs along Marion and Genoa drain. The sewage then travels towards Peavy Rd and connects to a 15-inch diameter sanitary line. Finally, the sewage travels to another pump station on Peavy Rd and finally reaches Howell WWTP.

The Trench Detail shows pipes under or within the influence of the roadway, pipe bedding, and pipes not under the influence of the road. These details are acceptable and conforms with LCRC standards. There are some areas where the sanitary system runs underneath the roadway, but these runs a fairly short and have upstream manholes located in the greenbelt.

### **Watermain**

The proposed watermain is an 8" CL54 DIWM. Although the plans do not specifically call out a depth for the watermain, the notes point out that the watermain will meet all specifications of MHOG Sewer and Water Authority. This indicates that the water main will have a cover ranging between 5.5 to 8.5 feet. A water main basis of design table was added into the plans showing design factors, head loss, flow velocity, and resultant pressure.

Multiple hydrants are proposed on the site, with a maximum separation of 405 feet. The location of the hydrants must be reviewed by MHOG.

According to MHOG Sewer and Water Authority, Section 1.02c Water Main Layout, dead-end mains may not exceed 600 feet in a single-family, residential neighborhood. The dead-end mains on Scapa St and Dalmore St do not meet this requirement. There is another dead-end water main on Linkwood Ct, but it does not exceed 600 feet. We defer to MHOG for further comment and approval.

### **Landscaping and Lighting**

The Landscaping Plan shows architectural renderings of structures and landscaping improvements. There are proposed light poles throughout the site but does not go into detail. Typical detail and illumination pattern for the proposed exterior lighting is required. We defer to the Township Planner for further comment on the landscaping and lighting plan.

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**Recommendation**

We recommend the Township withhold approval, pending the following items and our subsequent review:

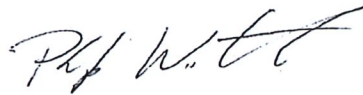
1. Plans should be reviewed and approved by:
  - a. Fire Marshal
  - b. Township Planner
  - c. Livingston County Drain Commissioner
  - d. Livingston County Road Commission
2. Basin N should be designed so that the groundwater does not affect the storage of the basins.
3. A note should be added somewhere in the plans indicating the ultimate outlet for stormwater runoff.
4. Typical detail and illumination pattern for the proposed exterior lighting is required.

If you have any questions or need anything further, please feel free to contact our office.

Sincerely,



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**SPICER GROUP, INC.**  
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East Lansing, MI 48823

# Final Site Plan Review for Marion Township Planning Commission

## INTRODUCTION

|                 |                                                                       |
|-----------------|-----------------------------------------------------------------------|
| Petition Number | Tamarack Place                                                        |
| Applicant       | Michael West, on behalf of Westview Capital/Blue South Sunridge       |
| Request         | Final site plan review for single-family residential site condominium |
| Location        | 1493 Alstott<br>Western side of Peavy, south of Alstott               |

## PETITION SUMMARY

The applicant is requesting final site plan reapproval for a residential site condominium with 144 dwelling units. The site plan was previously approved and is part of the Sunridge planned unit development.

The proposed site plan is generally consistent with what was previously approved, except for some minor changes during engineering reviews.

The proposed project will preserve roughly 46 acres as open space, including wetlands, woodlands, and walking paths. The planned unit development approval included modifications for reduced lot area, reduced lot width, and reduced setbacks.

## PROPERTY/SITE INFORMATION

|                     |                                                            |
|---------------------|------------------------------------------------------------|
| Address             | 1493 Alstott                                               |
| Location            | Western side of Peavy, south of Alstott                    |
| Parcel Numbers      | 10-02-302-145, 10-02-302-001//144                          |
| Lot Area            | 93.3 acres ( <i>gross, includes right-of-way</i> )         |
| Frontage            | ~650 feet ( <i>Alstott</i> )<br>~125 feet ( <i>Peavy</i> ) |
| Current Zoning      | Suburban Residential (SR) and planned unit development     |
| Existing Uses       | Vacant/undeveloped, woodland, wetlands                     |
| Future Land Use Map | Suburban Residential Sewered                               |

Surrounding Properties

|       | Zoning                                | Use                                              | Future Land Use                  |
|-------|---------------------------------------|--------------------------------------------------|----------------------------------|
| North | ERS1 Existing Residential Subdivision | Single-family residential                        | Suburban Residential Sewered     |
| East  | ERS1 Existing Residential Subdivision | Single-family residential                        | Suburban Residential Sewered     |
| South | ERS1 Existing Residential Subdivision | Single-family residential                        | Suburban Residential Sewered     |
| West  | SR Suburban Residential               | Single-family residential, Undeveloped woodlands | Sewered High Density Residential |

*Items to be Addressed: It appears that the site has already be divided into separate units/parcels. The parcel id numbers should be updated as necessary.*

*Current zoning should be updated from "Suburb" to "Suburban Residential (SR)."*

*The demolition shows "Buildings to be removed." It appears that those buildings have already been removed. Notations should be corrected as necessary.*

**NATURAL RESOURCES**

- Topography The site is undulating with significant slopes near the southeastern corner of the site.
- Wetlands Wetland areas are located throughout the site. A wetland area of roughly 0.48 acres, within Parcel A will not be preserved. The wetland delineation was conducted in September 2020.
- Woodlands There are significant woodlands throughout the site. A number of tree and woodland areas will be removed. Details showing protective fencing around trees to remain are not shown.
- Soils There are many soils present on the site. A majority of the area to developed has some variety of loamy sands, which are appropriate for development. Portions of the site include varieties of mucks, which are not appropriate for development.
- Water There are two small ponds in the southwestern corner of the site, which will be preserved. There are two water courses running east/west across the site, including a Livingston County drain with a 40-foot-wide easement.



*Items to be Addressed: Confirmation by the Township Engineer that the previous wetland delineation from 2020 remains adequate.*

*Applicant to secure necessary approvals from the County and EGLE.*

*Site plan revised to show location and details of protective fencing for trees to remain.*

**DEVELOPMENTAL STANDARDS**

General developmental standards for SR Suburban Residential districts are defined in §8.02(F) Site Development Requirements. Some developmental standards have been modified as part of the original planned unit development approval.

|                    | Required           | Proposed                       | Complies  |
|--------------------|--------------------|--------------------------------|-----------|
| Lot Area           | 20,000 square feet | 9,000 square feet              | Yes (PUD) |
| Frontage           | 85 feet            | 70 feet                        | Yes (PUD) |
| Front-yard Setback | 35 feet            | 30 feet (internal front yards) | Yes (PUD) |
| Side-yard Setback  | 15 feet            | 10 feet                        | Yes (PUD) |
| Rear-yard Setback  | 25 feet            | 25 feet                        | Yes       |
| Lot Coverage       | 35 percent         | Unknown                        | Likely    |
| Height             | 35 feet            | Unknown                        | Likely    |

*Items to be Addressed: Lot coverage and height are reviewed at time of zoning permit review.*

**ACCESS AND CIRCULATION**

The development will be accessed from Alstott to the north and Peavy to the east, which are both public roads under the jurisdiction of the Livingston County Road Commission.

All dwelling units will have access from the proposed private roads. The cul-de-sacs are shown as being completely paved. If possible, it is preferable to provide a landscaping island to reduce stormwater runoff and reduce heating impacts.

It is our understanding that the applicant has previously committed to making some off-site improvements to mitigate potential traffic impacts of the development.

Sidewalks are provided along the streets and walking trails are provided throughout the preserved open spaces. Pedestrian crossings should be provided across all legs of intersections and where trails intersect the roads.

*Items to be Addressed: Access approval by the Livingston County Road Commission.*

*Construction traffic prohibited from Alstott.*

*Additional pedestrian crossings provided at all legs of intersections and where trails intersect internal.*

## SIGNAGE

Details for an entrance sign are shown on the Landscape Plan. The proposed sign appears to meet the developmental standards for a residential development entrance sign.

The exact location of the proposed entrance sign is not shown. Additional information should be added to the site plan or as part of sign permit review to ensure the proposed sign meets required setbacks and is outside of clear-vision zones.

Details and locations for traffic regulatory signs are included.

*Items to be Addressed: Proposed entrance sign location be added to the site plan or detailed location information provided for sign permit review.*

## LANDSCAPING

The landscaping plan proposed planting a variety of coniferous and deciduous trees in common areas, such as around basins and in as screening to the east of the site. The landscaping plan also proposed planting 1 street tree on each lot.

Although significant plantings are proposed along the eastern boundary of the site, it may take a long time before the proposed plantings provide full screening. Additional plantings may be necessary in this area to improve immediate screening.

Street trees are not proposed along Wolfburn. Planting street trees would reduce the impact of traffic on the adjacent single-family dwellings and provide a transition into the residential environment.

It appears possible and desirable on corner lots to plant one street tree on each street frontage.

Some of the proposed tree species are not recommended or desirable in Michigan in 2024. Ash trees are still susceptible to emerald ash borer. Austrian pines are highly susceptible to needle blight. These species should be replaced with more appropriate species.

*Items to be Addressed: Additional screening added along eastern side of the site.*

*Street trees added along Wolfburn and on second frontage of corner lots.*

*Tree species to be updated.*

## LIGHTING

Details for proposed pole lights are included on the landscaping plans.

The proposed pole lights will have a height of 12 feet. It does not appear that they will be full cutoff; it appears they will broadcast light horizontally.

The proposed fixtures would use light emitting diodes. The Zoning Ordinance, §14.014(E)(2) requires high-pressure sodium, which has a color temperature of 1900K to 2000K. The Planning Commission may approve alternate luminaires that use "warm white or natural lamp colors," but the color temperature should be 3000K or less.

*Items to be Addressed: Commission guidance on whether it would consider an alternate light source in place of high-pressure sodium.*

*Color temperature 3000K or less.*

## DECISION CONSIDERATIONS

The site plan process is outlined in Article XVIII Site Plan Requirements.

Site plan approval is required for the proposed use and improvements.

Except for minor revisions required during engineering reviews, the site plan is consistent with what was previously approved by the Township. It appears to remain in compliance with the site plan decision criteria, with a couple of modifications or conditions noted in this report.

The Planning Commission makes a recommendation for approval, approval with conditions, or denial to the Township Board, who makes the final decision. Construction must begin within 1 year of the approval date or the approval expires.

## PETITION TIMELINE

Final site plan originally approved in 2021.

The application was submitted on July 18, 2024.

The application will go before the Planning Commission at its August 27, 2024, meeting.

Tamarack Place  
Residential Site Condominium  
July 30, 2024

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## SUMMARY

The application for the final site plan of Tamarack Place is generally complete. This report notes some recommendations for minor modifications or conditions.

We look forward to helping facilitate this process at the meeting.

---

Zach Michels  
*Quality Zoning*  
*Dexter, MI*

# Zoning Text Amendment for Marion Township Planning Commission

## INTRODUCTION

The Planning Commission has identified a desire to make revisions to the Zoning Ordinance related to signs/signage, currently regulated in Article XV Signage. Sign regulation requires close attention, as it can run into constitutional challenges.

This report builds on previous discussions and guidance from the Planning Commission.

## DRAFT ORDINANCE TEXT

Please review the rest of the current sign article and be prepared to discuss general organization and the text outlined below.

Direction received at this meeting will focus on standards for specific types of signs. Be prepared to provide guidance on standards (*height, area, setback*) for various sign types. These standards will be incorporated into the next revision.

It is anticipated that the draft language will be relatively stable following this meeting. The Planning Commission may wish to review the completed text before setting a public hearing or may be ready to set the public hearing.

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## MARION TOWNSHIP ZONING ORDINANCE AMENDMENT SIGNS

An amendment to the Marion Township Zoning Ordinance to add definitions related to signs, establish use and developmental standards for signs, establish procedures for review of sign permits, and establish procedures for enforcement of sign standards.

### **1. AMENDMENT OF ARTICLE III: DEFINITIONS**

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Section 3.02 Definitions of the Zoning Ordinance is hereby amended to add the following sign definitions, which shall be placed in alphabetical order with existing definitions and shall read as:

**Sign:** See Article XV Signage Any visual device, identification, description, illustration, or structure that is intended to visually attract attention from offsite or a public or private right-of-way to identify or direct attention to a person, place, product, service, activity, institution, organization, business or opinion. The term shall not include official flags, official signs, the minimum signs required for compliance with MCL 324.73102 (PA451 of 1994), commemorative signs as outlined in MCL 125.3205d (PA 110 of 2006), or public notice signs. The following definitions shall apply in the application of this Ordinance:

1. **Abandoned Sign:** A sign that no longer directs a person to or advertises a business, owner, product available, or activities conducted on the site where the sign is located or any sign not repaired or maintained properly.
2. **Accessory Sign:** A sign that is accessory to the principal use of a lot.
3. **A-frame Sign:** A temporary sign that is hinged at the top, not attached to a building, a structure, or the ground, that is designed to be easily placed and removed.
4. **Awning Sign:** A sign located on or attached to an awning.
5. **Back-to-back Sign:** A sign with two (2) sign faces oriented in opposite directions.
6. **Banner:** A temporary sign on paper, cloth, fabric, or other flexible or combustible material that is attached to a wall or sign face or strung between poles or structures.
7. **Blade Sign:**
8. **Canopy Sign:** A sign located on or attached to a canopy.
9. **Commercial Center:** A group of three (3) or more commercial units, such as retail, office, or similar, that share a common vehicular access and off-street parking are on private property.
10. **Commercial Message:** Any message that advertises or promotes a commercial product, service, or activity.
11. **Commercial Message Sign:** A sign that conveys or displays a commercial message.
12. **Electronic Message Sign:** A sign that displays changing messages or graphics using light emitting diodes.
13. **Entranceway Ground Sign:** A freestanding sign located at a major entrance to a residential development with multiple dwelling units.
14. **Flag Sign:** A flag that conveys or is intended to convey a commercial message.
15. **Freestanding Sign:** A sign that is not attached to a principal or accessory structure, including center pole signs, posts and panels, or monument signs. Also known as a ground sign or monument sign.
16. **Ground Sign:** A base-mounted, freestanding sign placed on the ground and not attached to any building or other structure.

17. Moving Sign: A sign that moves, contains visible moving parts, or simulates movements, including spinners, streamers, balloons, spotlights, scrolling text, or moving images, but excluding official flags.
18. Multiple-tenant Sign: A sign that identifies XX or more tenants on a site.
19. Non-accessory Sign: A sign that is not accessory to the principal use of a lot.
20. Official Flag: The flag, pennant, or insignia of any nation, state, county, city, or other similar political entity.
21. Official Sign: A sign covered by the Manual on Uniform Traffic Control Devices and similar signs erected or maintained by a governmental body and noncommercial signs required by law.
22. Off-site Sign: A sign that identifies goods, services, facilities, events, or attractions that are not available or provided at the location where the sign is located.
23. Permanent Sign: Any sign that is displayed or intended to be displayed for an extended period of time of more than forty-five (45) days, unless otherwise noted in this Ordinance.
24. Pole Sign: A freestanding sign that is mounted to or on a pole.
25. Portable Sign: A temporary, freestanding sign that is not permanently anchored or secured to a building, structure, or ground that is designed to be easily moved, such as sidewalk signs, sandwich signs, A-frame signs, T-shaped signs, and inverted T-shaped signs.
26. Projecting or Perpendicular Sign: A sign that is attached to and projects from a structure or building façade by more than eighteen (18) inches and does not project above the roof line or parapet wall.
27. Prohibited Sign: Any sign that is not permitted according to this Ordinance.
28. Public Notice Sign: A sign erected by a governmental body to provide notice of a public hearing, road or utility construction, or similar event of public interest.
29. Roof Sign: A sign attached to a building that is attached to the roof or projects above the wall or parapet.
30. Sign Area: The area within a rectangle, square, triangle, parallelogram, or circle enclosing the most protruding points of edges of the sign structure including the frame, regardless of the shape of the structure, unless otherwise noted in this Ordinance.
31. Sign Height: The vertical distance from the average grade adjacent to the sign to the highest point of the sign, including framing, unless otherwise noted in this Ordinance.
32. Sign Permit: A permit issued by the Township for installation of a sign signifying compliance with the provisions of this Ordinance, which may include and set forth any conditions that must be followed.

- 33. Sign Setback: The horizontal distance between any portion of a sign and lot lines, structures, and other features.
- 34. Temporary Sign: Any sign that is displayed or designed to be displayed for a limited period of time of forty-five (45) days or less, unless otherwise noted in this Ordinance. Also known as a portable sign.
- 35. Towed Sign: A temporary sign that is towed and usually has an area for a changeable message.
- 36. Vehicle Sign: A sign that is painted on or attached to a motor vehicle, recreational vehicles, trailer, or watercraft that is placed, parked, or maintained at a particular location for the purpose or intent of conveying a message.
- 37. Wall Sign: A sign that is attached to or painted directly on a building façade with the sign surface generally parallel to the building face, excluding window signs.
- 38. Window Sign: A sign that is applied or attached to a window or located in a manner within a building that it is visible from the exterior of a building through a window, excluding a window display.
- ~~1-39.~~ Yard Sign: A small, temporary sign generally characterized by a post or wire frame, non-durable message surface, such as cardboard, plastic, or paper, and a lack of foundation.

## **2. AMENDMENT OF ARTICLE XV: SIGNAGE**

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Article XV Signage of the Zoning Ordinance is hereby amended by deletion of the current text and replacement with new text, which shall read as:

### **Section 15.01 Intent and Purpose**

The intent and purpose of this Article is to promote the following Township and public interests:

- A. **Health, Safety, and Welfare:** Ensure that signs are located, designed, constructed, and maintained in a manner that protects and preserves life, health, safety, property, and public welfare;
- B. **Free Speech:** Ensure that the constitutionally-guaranteed right of free speech is protected by allowing signs as a means of communication, subject to appropriate and legally-permissible time, place, and manner limitations;
- C. **Vehicular and Pedestrian Safety:** Reduce visual distractions and obstructions to motorists travelling along, entering, or leaving roads or driveways and to pedestrians;
- D. **Character:** Preserve the existing and desired residential and rural character of the Township, as identified in the Master Plan;



- E. **Light:** Limit the amount and type of light emitted by signs to preserve and enhance the Township's Desired residential and rural character, reduce distractions and hazards to motorists, and preserve and enhance quality of life;
- F. **Blight and Nuisance:** Prevent and limit visual blight and nuisance conditions by preventing visual clutter, protecting views, managing sign placement and size, and limiting intrusion of signs in certain areas;
- G. **Negative Impacts:** Minimize negative impacts of signs on surrounding properties and public spaces through reasonable time, place, and manner standards;
- H. **Emergency Response:** Preserve and enhance the effectiveness of address displays, directional signs, and warning signs to facilitate swift emergency response;
- I. **Wayfinding:** Preserve and enhance wayfinding by ensuring visibility, reducing clutter, and ensuring legibility;
- J. **Message Comprehension:** Provide for signs that are adequate and appropriate, but not excessive, to convey a message for quick and easy comprehension;
- K. **Reasonable Scale:** Keep signs within a reasonable scale relative to the building, use, or site they are accessory to and the surrounding area;
- L. **Good Design:** Encourage good design relative to size, spacing, illumination, type, and placement to enhance the Township's appearance;
- M. **Public Investment:** Protect the public investment in public structures, such as roads;
- N. **Regulatory Signs:** Maintain and enhance the effectiveness of necessary direction, warning, and regulatory signs;
- O. **Compelling Governmental Purpose:** Facilitate the advancement of the compelling governmental interests enumerated in this Ordinance and adopted Township plans;
- P. **Establish Standards:** Establish clear standards that are the least-restrictive necessary to achieve the compelling governmental purpose; and
- Q. **Administration and Enforcement:** Establish administrative standards and processes to facilitate the administration and enforcement of this Article; provide guidance for residents, businesses, and property owners; and ensure equal treatment.

#### Section 15.02      Scope of Application

Signs, as defined in this Ordinance, within the Township shall only be installed, constructed, reconstructed, altered, or maintained in compliance with this Article.

**Section 15.03 Authority**

Authority to administer, enforce, and interpret this Article is outlined below.

- A. **Zoning Administrator:** Authority to administer, interpret, and enforce this Article and to approve sign permits shall be with the Zoning Administrator and designees, except where otherwise specified.
- B. **Ordinance Enforcement Officials:** Authority to enforce this Article shall be with Ordinance Enforcement Officials, except where otherwise specified.
- C. **Zoning Board of Appeals:** Authority to hear appeals of the administration, interpretation, and enforcement of this Article and to hear and decide developmental standard variances from the provisions and standards of this Article shall be with the Zoning Board of Appeals.
- D. **Township Board:** Authority to adopt fees and fines related to this Article shall be with the Township Board.

**Section 15.04 Prohibited Signs**

The signs below are prohibited, unless otherwise specifically permitted in this Ordinance.

- A. **Abandoned Signs;** *[Include description here or in definition section.]*
- B. **Add-on Signs:** Signs that are attached as an appendage to another sign or sign support structure;
- C. **Air-activated Signs:** Signs that are inflated by air or use airflow to induce movement;
- D. **Animated or Moving Signs:** Signs that move, contain visible moving parts, or simulate movement, including, but not limited to, spinners, streamers, balloons, scrolling text, or spotlights, but excluding flags and official signs.
- E. **Banner Signs;** *[Include description here or in definition section.]*
- F. **Certain Types of Illumination:** Signs with the following types of illumination:
  - 1. **Temporary Signs:** Illumination of any type of temporary sign;
  - 2. **Traffic Hazards:** Illumination that could distract motorists or otherwise create a traffic hazard; or
  - 3. **Glare and Unshielded Illumination:** Use of glaring, undiffused luminaires, or visible bare bulbs, including neon or light emitting diodes;
- G. **Clear-vision Zone:** Signs taller than thirty (30) inches within the clear-vision zone;
- H. **Confusing Signs:** Signs that have the appearance of an official sign or use text or graphics used on an official sign that may confuse motorists;
- I. **Feather Signs:** Signs made of flexible material attached to a pole on one side with the intent of allowing the sign to move with the wind;

- J. **Flashing Signs:** Signs that contain flashing, blinking, or strobe lights or has the appearance of lighting associated with emergency vehicle lighting, traffic signals, or official signs;
- K. **Festoons;** *[Include description here or in definition section.]*
- L. **Furniture Signs:** Signs attached to or painted on a bench, table, or other outdoor furniture;
- M. **Obstruction of Safe Access:** Signs that obstruct free ingress or egress to or from a required door, window, fire escape, driveway, or other required access route;
- N. **Obstruction of Safe Vision:** Signs that obstruct or interfere with an official sign, signal, or device, or obstruct or interfere with a motorist's vision of approaching, merging, or intersecting vehicles even when consistent with setback or other location standards of this Ordinance;
- O. **Pole Signs;** *[Include description here or in definition section.]*
- P. **Portable Signs;** *[Include description here or in definition section.]*
- Q. **Projector-image Signs:** Signs that are displayed by light from a projector or similar source;
- R. **Right-of-way Signs:** Signs, other than official signs, that are located in, encroach on, project into, or overhang a right-of-way, unless specifically permitted by the road agency;
- S. **Roof Signs:** Signs that are mounted on or project above or beyond the roof or parapet wall;
- T. **Searchlights:** Searchlights or spotlights used to draw attention to a location or event;
- U. **Snipe Signs:** Sign that are attached to utility poles, light poles, or trees within rights-of-way or other public spaces;
- V. **State Highway:** Signs subject to the Highway Advertising Act (MCL 252.301 et seq) with faces that are visible from an interstate highway, freeway, or primary highway that are in violation of that Act or do not have a valid annual permit;
- W. **Towed Signs;** *[Include description here or in definition section.]*
- X. **Unsafe Signs:** Signs that are structurally unsafe or constructed in violation of the Building Code;
- Y. **Vehicle Signs;** *[Include description here or in definition section.]*
- Z. **Other Signs:** Any other signs not expressly permitted by this Ordinance.

#### Section 15.05      General Sign Provisions

All signs shall meet the general provisions below.

- A. **Dimensional Standards:** All signs shall comply with the dimensional standards outlined in §15.06 Specific Sign Standards.

- B. **Accessory:** Signs shall be accessory to a permitted use, special land use, accessory use, or temporary use of a site.
- C. **Determination of Sign Area:** Sign area shall be determined as outlined below.
1. **Single-face Signs:** The sign area of a single-faced sign shall be the square footage of the sign face as measured by enclosing the most protruding points or edges of the sign face within a single parallelogram, rectangle, circle, or triangle, excluding the frame.
  2. **Double-face Signs:** The sign area for signs with multiple faces shall be the area of the largest sign face, as described above, if all of the faces are on part of the same structure, the sign faces are within eighteen (18) inches of each other, and only one side is visible from any direction, otherwise, the sign area shall be the sum of all the areas of the faces.
  3. **Cylindrical Signs:** The sign area of a cylindrical sign shall be computed by multiplying the circumference of the cylinder by its height.
  4. **Individual Letters:** The sign area for signs consisting of individual letters or logo attached directly to a wall or building shall be computed as the sum of the area required to enclose each of the individual letters or logo.
- D. **Location:** Signs shall only be placed or maintained as outlined below.
1. **Freestanding Signs:** Freestanding signs shall be placed within a front yard.
  2. **Wall-mounted Signs:** Wall-mounted signs shall be attached to a building façade and face a front-yard or onsite parking.
  3. **Window Signs:** Window signs shall be located on the interior of the window.
  4. **Awning Signs.** Awning signs shall be located on an awning attached to a building façade that faces a front yard or onsite parking.
  5. **Canopy Signs.** Canopy signs shall face a front yard or onsite parking.
- E. **Maintenance:** All signs, including frames and supports, shall be well-maintained in a condition similar to their condition at the time of installation.
1. **Plumb:** Signs shall be maintained plumb upright.
  2. **Clean:** Signs shall be kept clean, free of missing parts, rust, or peeling or missing paint.
  3. **Panels:** Signs shall not have a missing sign face or panel or an obsolete sign panel.
  4. **Correction of Defects:** Signs that are not in compliance with this section shall be brought back into compliance or removed from the property in a timely manner.

- F. **Illumination:** Signs shall meet the illumination standards outlined below.
1. **Temporary Signs:** Temporary signs shall not be illuminated.
  2. **Permanent Signs:** Permanent signs shall only be illuminated using approved electrical devices directed solely at the sign face or internal to the sign, according to the standards outlined below.
    - a. **Steady and Shielded:** Lighting shall be steady, stationary, and shielded downward with light directed away from adjacent properties and streets.
    - b. **Non-glare:** The use of glaring, undiffused lights or bulbs is prohibited.
    - c. **Bare Bulbs:** Illumination by bare bulbs or flame is prohibited.
    - d. **Illumination Level:** The illumination level shall be a maximum of fifteen (15) footcandles measured perpendicular to the sign face at a distance of four (4) feet.
    - e. **Backlighting:** Signs with internal illumination shall have the lettering and graphics in a lighter color than the background to the maximum extent practical.
    - f. **Traffic Hazards:** Illumination that could distract motorists or otherwise create a traffic hazard is prohibited.
    - g. **Wiring:** Electrical service to freestanding illuminated signs shall be located underground.
    - h. **Illumination Type:** EMS, Internally Lit, Externally Lit, Face Lit
- G. **Substitution:** Any sign with a commercial message may also be used for a noncommercial message.

#### Section 15.06 Specific Sign Standards

BE PREPARED TO DISCUSS SPECIFIC STANDARDS FOR THE FOLLOWING SIGN TYPES.

- A. **A-Frame Signs:** A-frame signs shall meet the specific standards outlined below.
- B. **Awning Signs:** Awning signs shall meet the specific standards outlined below.
- C. **Banners:** Banners shall meet the specific standards outlined below.
- D. **Canopy Signs:** Canopy signs shall meet the specific standards outlined below.
- E. **Electronic Message Signs:** Electronic message center signs shall meet the specific standards outlined below.
- F. **Entranceway Ground Signs:** Entranceway ground signs shall meet the specific standards outlined below.
- G. **Feather Signs:** Feather signs shall meet the specific standards outlined below.
- H. **Flag Signs:** Flag signs shall meet the specific standards outlined below.
- I. **Ground Signs:** Ground signs shall meet the specific standards outlined below.

- J. **Multiple Tenant Signs:** Multiple tenant signs shall meet the specific standards outlined below.
- K. **Projecting Signs:** Projecting signs shall meet the specific standards outlined below.
- L. **Wall Signs:** Wall signs shall meet the specific standards outlined below.
- M. **Window Signs:** Window signs shall meet the specific standards outlined below.
- N. **Yard Signs:** Yard signs shall meet the specific standards outlined below.

#### Section 15.07 Nonconforming or Abandoned Signs

The continued use of legally nonconforming or abandoned signs shall be permitted, subject to the standards below.

- A. **Repairs and Maintenance:** Normal maintenance, including, but not limited to, painting, repair of panels, or replacement of electrical wiring or devices shall be permitted.
- B. **Expansion:** Legally nonconforming signs shall not be expanded or enlarged in any manner.
- C. **Structural Changes:** The faces, supports, frame, or other parts of legally nonconforming signs shall not be structurally changed or enlarged unless the resulting change conforms with the standards of this Ordinance.
- D. **Destruction:** Legally nonconforming signs that have been destroyed or damaged by more than fifty (50) percent of the replacement value, excluding foundation, shall not be reconstructed except in compliance with the standards of this Ordinance.
- E. **Site Plan Review:** Legally nonconforming signs shall be removed when the site is modified in any manner that requires site plan approval.
- F. **Abandonment of Use or Structure:** Legally nonconforming signs associated with a use or structure that has been abandoned for a period of six (6) months shall be removed, whether or not there is an intent to reestablish the use or reuse the structure.
- G. **Substitution:** A legally nonconforming sign shall not be replaced with another nonconforming sign.
- H. **Vacancy:** Sign structures may remain once the associated unit or site is vacant unless there is an intent to abandon the use of the site. The sign face shall be replaced with a black sign face within thirty (30) days of the vacancy.
- I. **Building Removed:** Signs that are accessory to a use located within a building shall be removed if the building has been removed. Existing conforming signs may remain if a site plan has been approved for reuse of the site.

### Section 15.08 Signs Not Requiring a Sign Permit

Certain signs and sign maintenance do not require a sign permit, as outlined below.

- A. **Signs Not Requiring a Sign Permit:** The following signs do not require a sign permit:
1. Window Signs:
  2. Temporary Signs: Temporary signs that are displayed for forty-five (45) days or less.
- B. **Maintenance:** Maintenance of an existing sign, including replacement of a sign face or regular maintenance, excluding enlargement, relocation, or replacement of the sign, shall not require a sign permit.
- C. **Standards Still Apply:** The standards of this Ordinance still apply to signs not requiring a sign permit.

### Section 15.09 Sign Permit Process

A sign permit is required for all signs or modifications of existing signs, except as outlined §15.08 Signs Not Requiring a Sign Permit.

- A. **Application:** Sign permit applications shall include the information described below.
1. Sign Permit Application: The application shall include a completed sign permit application form, signed by the applicant and the property owner, if different.
  2. Site or Sketch Plan: The application shall include a site plan or plot plan showing the location of the proposed sign, including proposed and required setbacks.
  3. Sign Details: The application shall include sign details, such as the sign height, sign area, and illumination information.
  4. Construction Details: The application shall include plans, specifications, and method of construction and attachment to the structure or ground, including copies of stress sheets and calculations, if determined necessary by the Zoning Administrator or Building Official
  5. Illumination Details: The application shall include information concerning the illumination, such as the location, type of fixture, color of light, and method of shielding if the sign will be illuminated
  6. Electrical Connections: The application shall include information concerning the required electrical connections if the sign will have electrical connections.
  7. Building Elevations: The application shall include scaled building elevations.
  8. Other Information: The application shall include other information determined necessary by the Zoning Administrator to determine compliance with this Ordinance and other applicable laws and regulations.

- B. **Review:** The Zoning Administrator shall review the sign permit application, upon receipt of a completed application, and take one of the actions below.
1. **Approval:** The sign permit shall be approved or may be approved with conditions upon finding that the proposed sign complies with all applicable standards of this Ordinance.
  2. **Postpone:** The sign permit review shall be postponed upon finding that not enough information is available to determine if the sign complies with all applicable standards of this Ordinance. If review is postponed, the applicant shall be provided a written description of the deficiencies or additional required information.
  3. **Denial:** The sign permit shall be denied upon finding that the proposed sign does not comply with all of the applicable standards of this Ordinance. If an application is denied, the applicant shall be provided a written description of the reasons for denial.
- C. **Inspection:** Signs shall be inspected by the Zoning Administrator, as outlined below.
1. **Submission of Application:** Submission of a sign permit application constitutes permission for the Township or its agents to access the property to conduct onsite investigations for the purpose of administering this Ordinance.
  2. **New Signs:** New signs requiring a sign permit shall be inspected in a timely manner. Final approval shall only be granted if the sign has been constructed in compliance with the approved plans and this Ordinance. Failure to receive approval constitutes a determination that the sign is in violation of this Ordinance.
  3. **Existing Signs:** The Zoning Administrator shall have the authority to conduct periodic inspections of existing signs to ensure continued compliance with a sign permit approved under this Ordinance.
- D. **Revocation:** A sign permit may be revoked by the Zoning Administrator if the sign is installed in a manner inconsistent with this Ordinance or the approved sign permit or upon determination that inaccurate or false information was provided in the sign application.
- E. **Expiration:** A sign permit shall expire and be null and void if it has not received final approval after installation within one hundred eighty (180) days of the date of sign permit approval. A single, thirty (30) days extension may be granted by the Zoning Administrator upon request of the applicant with a demonstration that the sign will be installed during the extension period.

#### Section 15.10 Sign Removal

Signs may be removed as outlined below.

- A. **Permanent or Temporary Signs:** Permanent or temporary signs erected or maintained in violation of this Ordinance shall be removed.



1. Notice: The Zoning Administrator shall order the removal by a written notice to the property owner. The notice shall order the removal of the sign or outline what action would bring the sign into compliance with this Ordinance and shall outline a reasonable period of time, at least fourteen (14) days, for removal.
  2. Removal: Upon failure to remove the sign or bring the sign into compliance, the Township may remove the sign immediately and without notice, at its discretion. Any cost incurred for removal may be assessed to the property owner.
- B. **Dangerous Signs:** Sign that pose an immediate threat to safety shall be removed immediately.
1. Notice: The Zoning Administrator shall order the removal by delivery of a written notice to the property owner, except as provided in this Section. The notice shall order the removal of the sign or outline what action would bring the sign into compliance with this Ordinance and shall outline a reasonable period of time for removal or compliance
  2. Removal: Upon failure to remove or bring a dangerous sign into compliance, the Township may remove the sign immediately and without additional notice, at its discretion. Any cost incurred for removal may be assessed to the property owner
  3. Emergency Removal: The Township may remove a sign that poses an immediate threat to safety without delivery of a written notice to the property owner if the Zoning Administrator certifies the nature of the immediate threat and that a delay resulting from noticing is likely to cause harm to individuals or property. Any cost incurred for removal may be assessed to the property owner
- C. **Signs in Right-of-way:** Signs erected within a right-of-way in violation of this Ordinance may be removed by the Township without notice. Any costs may be assessed to the owner of the sign.
- D. **Signs in Public Places:** Signs located on public property in violation of this Ordinance may be removed by the Township without notice.

#### Section 15.11 Violations and Enforcement

The installation, construction, reconstruction, alteration, or maintenance of a sign requiring a sign permit without an approved sign permit or the installation, construction, reconstruction, or alteration of any sign in any manner inconsistent with this Ordinance is a violation of this Ordinance.

- A. **Party to Violation:** Any person, agent, entity, or property owner who causes or allows a sign to be in violation of this Ordinance shall be a party to the violation.

- B. **Separate Violation:** Each sign in violation of this Ordinance shall be a separate violation. Each day a sign is in violation of this ordinance shall be a separate violation.
- C. **Nuisance Per Se:** Any sign in violation of this Ordinance shall be a nuisance per se.
- D. **Municipal Civil Infraction: ??**
- E. **Scope of Remedies:** The Township may pursue any and all remedies available. Enforcement by one remedy does not preclude or waive enforcement by another remedy. The imposition of any fine or penalty shall not exempt a violator from compliance with this Ordinance.
- F. **Other Remedies:** The Zoning Administrator or ?? may institute injunction, mandamus, abatement, or other appropriate proceedings to prevent, enjoy, abate, or remove any unlawful erection, alteration, maintenance, or use. The rights and remedies provided above are civil in nature.

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-Zach Michels  
*Quality Zoning*  
*Dexter, MI*

# Potential Zoning Text Amendment for Marion Township Planning Commission

## INTRODUCTION

At recent meetings, the Planning Commission has discussed inconsistencies between terms used to describe property in various ordinances and acts.

This report compiles those used in Marion Township ordinances and state acts related to planning and zoning.

Guidance on whether or not the Planning Commission wishes to pursue amendment to normalize the term or terms used.

## TERMS AND DEFINITIONS

**Abutting (lot or parcel):** A lot or parcel which shares a common property line with the subject lot or parcel. *[MT Zoning Ordinance]*

**"Business condominium unit"** means a condominium unit within any condominium project, which unit has a sales price of more than \$250,000.00 and is offered, used, or intended to be used for other than residential or recreational purposes. *[Condominium Act]*

**Condominium Unit:** That portion of a condominium project which is designed and intended for separate ownership and use, as described in the master deed, regardless of whether it is intended for residential, office, industrial, business, recreational, use as a time-share unit, or any other type of use. In condominium projects where a condominium unit(s) will consist of a building envelope, the term "condominium unit" shall be equivalent to the term "lot", for purposes of determining compliance with the provisions of this Ordinance pertaining to minimum lot size, minimum lot width, maximum lot coverage, and the like. *[MT Zoning Ordinance]*

**"Condominium unit"** means that portion of the condominium project designed and intended for separate ownership and use, as described in the master deed, regardless of whether it is intended for residential, office, industrial, business, recreational, use as a time-share unit, or any other type of use. *[Condominium Act]*

**"Development site"** means any parcel or lot on which exists or which is intended for building development... *[Land Division Act]*

**Lot:** Land described in a recorded plat or by metes and bounds description, occupied, or to be occupied by, a building, group of buildings, or use, having sufficient size to comply with the frontage, area, width-to-depth ratio, setbacks, yards, coverage and buildable area requirements of this Ordinance, and having its principal frontage on a public street or a private road approved by the Township. (See also Condominium Unit.) *[MT Zoning Ordinance]*

**"Lot"** means a measured portion of a parcel or tract of land, which is described and fixed in a recorded plat. *[Land Division Act]*

**Lot of Record:** A lot which is part of a subdivision, the plat of which has been recorded in the Office of the County Register of Deeds, or a tract, parcel or lot described by metes and bounds, the deed to which has been recorded by the County Register of Deeds, or a Tax Code Number has been issued, prior to the adoption or amendment of this Ordinance. *[MT Zoning Ordinance]*

**Lot, Zoning:** A single tract of land, located within a single parcel, which, at the time of filing for a building permit, is designated by its owner or developer as a tract to be used, developed, or built upon as a unit, under single ownership or control. A zoning lot shall satisfy this Ordinance with respect to area, size, dimensions, and frontage as required in the district in which the zoning lot is located. A zoning lot therefore, may not coincide with a lot of record as filed with the County Register of Deeds, but may include one or more lots of record. *[MT Zoning Ordinance]*

**Nonconforming Lot of Record (Substandard Lot):** A lot lawfully existing at the effective date of this Ordinance, or affecting amendment, and which fails to meet the area and/or dimensional requirements of the zoning district in which it is located. *[MT Zoning Ordinance]*

**Parcel:** A lot described by metes and bounds or described in a recorded plat. *[MT Zoning Ordinance]*

"Parcel" means a continuous area or acreage of land which can be described as provided for in this act. *[Land Division Act]*

**Parent Parcel:** An existing parcel or contiguous parcels of land under the same ownership at the time this Ordinance became effective (March 14, 1996.) *[MT Zoning Ordinance]*

"Parent parcel" or "parent tract" means a parcel or tract, respectively, lawfully in existence on the effective date of the amendatory act that added this subdivision. *[Land Division Act]*

"Tract" means 2 or more parcels that share a common property line and are under the same ownership. *[Land Division Act]*

### QUICK COMMENTARY

Going back to territorial days, the terms "parcel" and "lot" were used. The distinction is that lots were created and defined in a plat whereas parcels were defined using metes and bounds.

Starting in the 1990s, site condominiums brought the term "unit" into the mix. These are properties that are created and defined in a site condominium.

The term "lot" is regularly used in zoning ordinances almost interchangeably with similar terms. It allows for use of the terms "lot lines," "lot width," and "lot area."

The term "zoning lot" is generally considered to be the most precise. It better allows for situations in which a "lot" may consist of several parcels, several lots, several units, or some combination of the above.

Lots or Parcels or Units  
Zoning Ordinance Guidance  
August 19, 2024

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We are happy to discuss this and provide support for whatever direction the Planning Commission gives.

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-Zach Michels  
*Quality Zoning*  
*Dexter, MI*

MARION TOWNSHIP FEE SCHEDULE

\*\*\*\*\*Certain permits require separate checks, please call ahead for breakdown amounts before writing checks\*\*\*\*\*

|                                                                                                        |                                                                                                                                                                                                                                                                       |                                                               |
|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| PLATTED SUBDIVISION APPLICATION AND<br>SITE CONDO APPLICATION                                          | \$1500 fee and \$5000* initial escrow deposit plus additional cost. These costs include, but are not limited to, engineering, legal fees and any additional fees incurred by the township in relation to this request. The remainder of the deposit will be refunded. |                                                               |
| SPECIAL USE REQUEST                                                                                    | \$500 fee and \$2000 escrow* for residential and \$3000 escrow* for commercial. These costs include, but are not limited to, engineering, legal fees, and any additional costs incurred by the township in relation to this request.                                  |                                                               |
| SITE PLAN REVIEW<br>(COMMERCIAL AND INDUSTRIAL)                                                        | \$1000 fee plus \$5000 escrow*. These costs include, but are not limited to, engineering, legal fees, and any additional costs incurred by the township in relation to this request.                                                                                  |                                                               |
| ZONING BOARD OF APPEALS                                                                                | \$400 fee for Single Family Residential (Additional Professional Consultant Fees may apply)<br>\$1000 fee for all others (Professional Consultant Fees may apply)                                                                                                     |                                                               |
| PRIVATE ROAD HEARING<br>Pre-existing, non-conforming, private roads-<br>\$1000 escrow deposit; \$0-fee | \$500 fee and \$3000 initial escrow* deposit plus all township costs. These include, but are not limited to, engineering, legal fees, and any additional costs incurred by the township in relation to this request.                                                  |                                                               |
| PLANNED UNIT DEVELOPMENT (PUD)<br>OPEN SPACE DEVELOPMENT                                               | \$2000 fee and \$10000 initial escrow* deposit to cover all township costs. These include but are not limited to, engineering, legal fees, and any additional costs incurred by the township in relation to this request.                                             |                                                               |
| REZONING/ZONING AMENDMENT<br>APPLICATION                                                               | \$500 fee and \$3,000 initial escrow* deposit to cover all township costs. These costs includes, but are not limited to, engineering, legal fees, and any additional costs incurred by the township in direct relation to this request.                               |                                                               |
| LAND SPLITS                                                                                            | \$75 each application<br>\$25 each resulting parcel (example: 1 split into 2 parcels = \$125)                                                                                                                                                                         |                                                               |
| LAND USE PERMITS                                                                                       | Principal dwelling                                                                                                                                                                                                                                                    | \$75                                                          |
|                                                                                                        | Accessory structures                                                                                                                                                                                                                                                  | \$50                                                          |
|                                                                                                        | Sign (on-site)                                                                                                                                                                                                                                                        | \$50                                                          |
|                                                                                                        | Commercial/Industrial                                                                                                                                                                                                                                                 | \$150 per unit (accessory structures included)                |
|                                                                                                        | Multi-family dev.                                                                                                                                                                                                                                                     | \$75 per unit                                                 |
|                                                                                                        | Approved site plans                                                                                                                                                                                                                                                   | \$200 Land Balancing Infrastructure                           |
|                                                                                                        | Additional inspections                                                                                                                                                                                                                                                | \$75 each (Additional Professional Consultant Fees may apply) |
|                                                                                                        | Razing of a Building                                                                                                                                                                                                                                                  | \$50 Residential All others \$100                             |
| TEMP. DWELLING PERFORMANCE GUARANTEE                                                                   | \$75 Review Fee & \$3000 cash in escrow until temporary dwelling is removed                                                                                                                                                                                           |                                                               |
| Resident Request to Change Zoning Ordinance                                                            | \$50                                                                                                                                                                                                                                                                  |                                                               |
| ZONING ORDINANCES                                                                                      | e-mailed or flash drive \$10                                                                                                                                                                                                                                          |                                                               |
| COMPREHENSIVE PLAN                                                                                     | e-mailed or flash drive \$10                                                                                                                                                                                                                                          |                                                               |
| PLAT BOOKS (payable to Livingston County 4H)                                                           | \$25                                                                                                                                                                                                                                                                  |                                                               |
| COPY FEES                                                                                              | Five pages or less free; six pages & above .15 cents per page                                                                                                                                                                                                         |                                                               |
| HALL & GAZEBO RENTAL                                                                                   | \$300(\$150 refundable)                                                                                                                                                                                                                                               |                                                               |
| GRAVE PURCHASE                                                                                         | \$500 Resident - 1000 Non-resident - Transfer fee of \$100 per transferee if not Immediately family.                                                                                                                                                                  |                                                               |
| GRAVE OPENING                                                                                          | \$600 Adult - \$300 Infant - \$300 Cremains                                                                                                                                                                                                                           |                                                               |
| HEADSTONE FOUNDATIONS                                                                                  | .50 Cents per square inch                                                                                                                                                                                                                                             |                                                               |

All fees are non-refundable. Applicant is responsible for all additional costs incurred by the township in relation to applicant's request.  
 \*Projects with escrow accounts that reach  $\frac{3}{4}$  of the initial deposit will be placed on hold until the escrow is brought back to the original amount.  
 Final approvals subject to complete payment of all fees. **Amendments to approved site plans and special uses will be charged half of the original fee & half of the listed escrow amount shall be required.**

VEHICLE SALE / STORAGE FACILITY  
**APPLICANT EXAMPLE #1**

PERIOD RANGE: 01/01/2018 - ONGOING

| CHECK DATE | CHECK NUMBER | PAYEE / VENDOR                        | MEMO                                                                | PAYMENTS FROM APPLICANT                          | CHARGES    | BALANCE     |
|------------|--------------|---------------------------------------|---------------------------------------------------------------------|--------------------------------------------------|------------|-------------|
| 1/10/2018  | 50634        |                                       | PAYMENT FROM APPLICANT / DEPOSIT - Site Plan Review                 | \$5,000.00                                       |            | \$5,000.00  |
| 2/5/2018   | 50851        |                                       | PAYMENT FROM APPLICANT / DEPOSIT - Escrow fee                       | \$3,000.00                                       |            | \$8,000.00  |
| 2/28/2018  | 1320         | Carlisle/Wortman Associates, Inc      | Preliminary Site Plan Review                                        |                                                  | \$237.50   | \$7,762.50  |
| 3/5/2018   | 1321         | Spicer Group Inc                      | Preliminary Site Plan Review                                        |                                                  | \$2,075.75 | \$5,686.75  |
| 4/3/2018   | 1322         | Carlisle/Wortman Associates, Inc      | Preliminary Site Plan Review                                        |                                                  | \$170.00   | \$5,516.75  |
| 4/3/2018   | 1323         | Spicer Group Inc                      | Preliminary Site Plan Review                                        |                                                  | \$1,000.00 | \$4,516.75  |
| 5/10/2018  | 1326         | Spicer Group Inc                      | Preliminary Site Plan Review                                        |                                                  | \$625.00   | \$3,891.75  |
| 5/17/2018  | 1329         | Carlisle/Wortman Associates, Inc      | Preliminary Site Plan Review                                        |                                                  | \$425.00   | \$3,466.75  |
| 6/5/2018   | 1330         | Spicer Group Inc                      | Preliminary Site Plan Review                                        |                                                  | \$1,497.50 | \$2,029.25  |
| 7/2/2018   | 1333         | Spicer Group Inc                      | Preliminary Site Plan Review                                        |                                                  | \$1,034.00 | \$995.25    |
| 9/18/2018  | 1344         | Livingston County Register of Deeds   | RECORDING DEED                                                      |                                                  | \$30.00    | \$965.25    |
| 10/2/2018  | 1346         | MICHAEL J. KEHOE, P.C.                | Review and Revised Special Use Conditions                           |                                                  | \$102.00   | \$863.25    |
| 11/2/2018  | 1348         | Spicer Group Inc                      | Site Plan Review                                                    |                                                  | \$782.00   | \$81.25     |
| 11/27/2018 | 1350         | Spicer Group Inc                      | Site Plan Review                                                    |                                                  | \$1,054.00 | -\$972.75   |
| 12/18/2018 | 1351         | Spicer Group Inc                      | Site Plan Review                                                    |                                                  | \$480.25   | -\$1,453.00 |
| 12/20/2018 | 1006         |                                       | PAYMENT FROM APPLICANT / DEPOSIT                                    | \$972.75                                         |            | -\$480.25   |
| 4/29/2019  | 1018         |                                       | PAYMENT FROM APPLICANT / DEPOSIT                                    | \$480.25                                         |            | \$0.00      |
|            |              |                                       |                                                                     | <b>TOTAL COST FOR ESCROW PROJECT: \$9,453.00</b> |            |             |
| 6/26/2019  | 1024         |                                       | PAYMENT FROM APPLICANT / DEPOSIT - Amendments to Existing Site Plan | \$5,000.00                                       |            | \$5,000.00  |
| 7/17/2019  | 1365         | Spicer Group Inc                      | Site Plan AMMENDMENT Review                                         |                                                  | \$970.50   | \$4,029.50  |
| 8/21/2019  | 1366         | Spicer Group Inc                      | Site Plan AMMENDMENT Review                                         |                                                  | \$271.25   | \$3,758.25  |
| 2/4/2021   | 1409         | *REIMBURSE Marion Twp. - General Fund | *SITE PLAN REVIEW FEE TAKEN FROM LEFTOVER ESCROW MONEY              |                                                  | *\$500.00  | \$3,258.25  |
| 3/25/2021  | 1414         | Carlisle/Wortman Associates, Inc      | Site Plan AMMENDMENT Review                                         |                                                  | \$217.50   | \$3,040.75  |
| 4/30/2024  | 1459         | QUALITY ZONING - ZACHARY MICHELS      | Site Plan AMMENDMENT Review - APRIL 2024                            |                                                  | \$675.00   | \$2,365.75  |
| 5/9/2024   | 1461         | Spicer Group Inc                      | Site Plan AMMENDMENT Review - APRIL 2024                            |                                                  | \$2,302.50 | -\$124.00   |
| 6/3/2024   | 1462         | QUALITY ZONING - ZACHARY MICHELS      | Site Plan AMMENDMENT Review - MAY 2024                              |                                                  | \$175.00   | -\$299.00   |

MORE CHARGES STILL TO COME.....

**TOTAL COST FOR ESCROW PROJECT - AMMENDMENT: \$4,611.75**  
 (\*\$500 SITE PLAN REVIEW FEE IS NOT INCLUDED IN TOTAL COST FOR PROJECT.)

**APPLICANT EXAMPLE #2**

DATE RANGE: 01/01/2018 - 06/01/2023

| CHECK DATE                                         | CHECK NUMBER | PAYEE / VENDOR                   | MEMO                                                                | PAYMENTS FROM APPLICANT | CHARGES           | BALANCE     |
|----------------------------------------------------|--------------|----------------------------------|---------------------------------------------------------------------|-------------------------|-------------------|-------------|
| 1/10/2018                                          | 9017         |                                  | PAYMENT FROM APPLICANT / DEPOSIT                                    | \$3,000.00              |                   | \$3,000.00  |
| 3/5/2018                                           | 1321         | Spicer Group Inc                 | Site Plan Review                                                    |                         | \$2,742.75        | \$257.25    |
| 7/10/2018                                          | 9225         |                                  | PAYMENT FROM APPLICANT / DEPOSIT - Site Plan Review                 | \$4,743.00              |                   | \$5,000.25  |
| 8/14/2018                                          | 1341         | Carlisle/Wortman Associates, Inc | Site Plan Review                                                    |                         | \$25.00           | \$4,975.25  |
| 8/14/2018                                          | 1341         | Carlisle/Wortman Associates, Inc | Site Plan Review                                                    |                         | \$212.50          | \$4,762.75  |
| 8/27/2018                                          | 1342         | Spicer Group Inc                 | Site Plan Review                                                    |                         | \$1,948.75        | \$2,814.00  |
| 2/28/2019                                          | 1352         | Spicer Group Inc                 | Site Plan Review                                                    |                         | \$1,339.50        | \$1,474.50  |
| 2/28/2019                                          | 1353         | Carlisle/Wortman Associates, Inc | Site Plan Review                                                    |                         | \$170.00          | \$1,304.50  |
| 3/5/2019                                           | 1354         | MICHAEL J. KEHOE, P.C.           | Site Plan Review                                                    |                         | \$467.00          | \$837.50    |
| 3/20/2019                                          | 1355         | Carlisle/Wortman Associates, Inc | Site Plan Review                                                    |                         | \$170.00          | \$667.50    |
| 3/25/2019                                          | 1357         | Spicer Group Inc                 | Site Plan Review                                                    |                         | \$1,551.00        | -\$883.50   |
| 4/10/2019                                          | 1358         | MICHAEL J. KEHOE, P.C.           | Site Plan Review                                                    |                         | \$268.00          | -\$1,151.50 |
| 4/22/2019                                          | 9233         |                                  | PAYMENT FROM APPLICANT / DEPOSIT                                    | \$1,151.50              |                   | \$0.00      |
| 8/21/2019                                          | 1366         | Spicer Group Inc                 | Site Plan Review                                                    |                         | \$97.50           | -\$97.50    |
| 10/8/2019                                          | 9196         |                                  | PAYMENT FROM APPLICANT / DEPOSIT                                    | \$397.50                |                   | \$300.00    |
| 10/28/2019                                         | 1369         | Spicer Group Inc                 | Site Plan Review                                                    |                         | \$195.00          | \$105.00    |
| <b>TOTAL COST FOR ESCROW PROJECT:</b>              |              |                                  |                                                                     |                         | <b>\$9,187.00</b> |             |
| 10/11/2021                                         | 9214         |                                  | PAYMENT FROM APPLICANT / DEPOSIT - Amendments to Existing Site Plan | \$500.00                |                   | \$605.00    |
| 2/7/2022                                           | 1429         | Spicer Group Inc                 | Site Plan Review - AMMENDMENT                                       |                         | \$1,427.50        | -\$822.50   |
| 3/2/2022                                           | 1431         | Spicer Group Inc                 | Site Plan Review - AMMENDMENT                                       |                         | \$662.00          | -\$1,484.50 |
| 5/22/2023                                          | 9101         |                                  | PAYMENT FROM APPLICANT / DEPOSIT - Amendments to Existing Site Plan | \$1,484.50              |                   | \$0.00      |
| <b>TOTAL COST FOR ESCROW PROJECT - AMMENDMENT:</b> |              |                                  |                                                                     |                         | <b>\$2,089.50</b> |             |



DRAGE UNIT FACILITY

APPLICANT EXAMPLE #3

DATE RANGE: 09/01/2021 - 02/01/2024

| CHECK DATE                                         | CHECK NUMBER | PAYEE / VENDOR                   | MEMO                                                                | PAYMENTS FROM APPLICANT | CHARGES           | BALANCE    |
|----------------------------------------------------|--------------|----------------------------------|---------------------------------------------------------------------|-------------------------|-------------------|------------|
| 9/20/2021                                          | 1122         |                                  | PAYMENT FROM APPLICANT / DEPOSIT                                    | \$2,500.00              |                   | \$2,500.00 |
| 11/1/2021                                          | 1425         | Spicer Group Inc                 | Site Plan Review                                                    |                         | \$967.25          | \$1,532.75 |
| 12/6/2021                                          | 1426         | Spicer Group Inc                 | Site Plan Review                                                    |                         | \$740.00          | \$792.75   |
| 1/25/2022                                          | 1428         | Carlisle/Wortman Associates, Inc | Site Plan Review                                                    |                         | \$315.00          | \$477.75   |
| 6/15/2022                                          | 1440         | Carlisle/Wortman Associates, Inc | Site Plan Review                                                    |                         | \$115.00          | \$362.75   |
| 6/22/2022                                          | 1441         | Spicer Group Inc                 | Site Plan Review                                                    |                         | \$512.00          | -\$149.25  |
| 8/31/2022                                          | 1444         | Spicer Group Inc                 | Site Plan Review - Inspection                                       |                         | \$155.50          | -\$304.75  |
| 4/25/2023                                          |              |                                  | PAYMENT FROM APPLICANT / DEPOSIT                                    | \$304.75                |                   | \$0.00     |
| <b>TOTAL COST FOR ESCROW PROJECT:</b>              |              |                                  |                                                                     |                         | <b>\$2,804.75</b> |            |
| 4/25/2023                                          |              |                                  | PAYMENT FROM APPLICANT / DEPOSIT - Amendments to Existing Site Plan | \$1,000.00              |                   | \$1,000.00 |
| 6/26/2023                                          | 1452         | Spicer Group Inc                 | Site Plan Amendment Review                                          |                         | \$470.00          | \$530.00   |
| 1/29/2024                                          | 1456         | Spicer Group Inc                 | Site Plan Amendment Review                                          |                         | \$705.00          | -\$175.00  |
| <b>TOTAL COST FOR ESCROW PROJECT - AMMENDMENT:</b> |              |                                  |                                                                     |                         | <b>\$1,175.00</b> |            |

LANDSCAPING BUSINESS

APPLICANT EXAMPLE #4

DATE RANGE: 07/01/2015 - 06/01/2020

| CHECK DATE                                        | CHECK NUMBER | PAYEE / VENDOR                   | MEMO                                                                | PAYMENTS FROM/TO APPLICANT | CHARGES           | BALANCE    |
|---------------------------------------------------|--------------|----------------------------------|---------------------------------------------------------------------|----------------------------|-------------------|------------|
| 7/8/2015                                          |              |                                  | PAYMENT FROM APPLICANT / DEPOSIT                                    | \$5,000.00                 |                   | \$5,000.00 |
| 8/17/2015                                         | 1263         | Carlisle/Wortman Associates, Inc | Site Plan Review                                                    |                            | \$340.00          | \$4,660.00 |
| 8/20/2015                                         | 1264         | Evergreen Outdoor Inc.           | Refund Applicant Remaining Escrow Funds                             | \$4,660.00                 |                   | \$0.00     |
| 2/3/2016                                          | 1272         | Spicer Group Inc                 | Site Plan Review                                                    |                            | \$700.00          | -\$700.00  |
| 2/23/2016                                         | 5593         |                                  | PAYMENT FROM APPLICANT / DEPOSIT                                    | \$700.00                   |                   | \$0.00     |
| <b>TOTAL COST FOR ESCROW PROJECT:</b>             |              |                                  |                                                                     |                            | <b>\$1,040.00</b> |            |
| 10/8/2019                                         | 114          |                                  | PAYMENT FROM APPLICANT / DEPOSIT - Amendments to Existing Site Plan | \$2,500.00                 |                   | \$2,500.00 |
| 11/20/2019                                        | 1370         | Carlisle/Wortman Associates, Inc | Site Plan Review - Amendment                                        |                            | \$212.50          | \$2,287.50 |
| 5/26/2020                                         | 1381         | SS Realestate Holdings-Evergreen | Refund Applicant Remaining Escrow Funds                             | \$2,287.50                 |                   | \$0.00     |
| <b>TOTAL COST FOR ESCROW PROJECT AMMENDMENTS:</b> |              |                                  |                                                                     |                            | <b>\$212.50</b>   |            |

LANDSCAPING BUSINESS

APPLICANT EXAMPLE #5

DATE RANGE: 11/01/2019 - 07/01/2022

| CHECK DATE                                       | CHECK NUMBER | CHECK | PAYEE / VENDOR                   | MEMO                                    | PAYMENTS FROM APPLICANT | CHARGES    | BALANCE           |
|--------------------------------------------------|--------------|-------|----------------------------------|-----------------------------------------|-------------------------|------------|-------------------|
| 11/7/2019                                        | 4120         |       |                                  | PAYMENT FROM APPLICANT / DEPOSIT        | \$5,000.00              |            | \$5,000.00        |
| 12/18/2019                                       | 1373         |       | Carlisle/Wortman Associates, Inc | SITE PLAN REVIEW                        |                         | \$280.00   | \$4,720.00        |
| 1/8/2020                                         | 1375         |       | Spicer Group Inc                 | SITE PLAN REVIEW                        |                         | \$1,872.25 | \$2,847.75        |
| 11/4/2020                                        | 1395         |       | LoRea Topsoil & Aggregate        | Refund Applicant Remaining Escrow Funds | \$2,847.75              |            | \$0.00            |
| <b>TOTAL COST FOR ESCROW PROJECT:</b>            |              |       |                                  |                                         |                         |            | <b>\$2,152.25</b> |
| 3/24/2022                                        | 11840        |       |                                  | PAYMENT FROM APPLICANT / DEPOSIT        | \$2,500.00              |            | \$2,500.00        |
| 5/12/2022                                        | 1435         |       | Marion Township - General Fund   | Site Plan Review - AMMENDMENT           |                         | \$105.00   | \$2,395.00        |
| 5/26/2022                                        | 1438         |       | Spicer Group Inc                 | Site Plan Review - AMMENDMENT           |                         | \$1,363.50 | \$1,031.50        |
| 6/15/2022                                        | 1440         |       | Carlisle/Wortman Associates, Inc | Site Plan Review - AMMENDMENT           |                         | \$115.00   | \$916.50          |
| <b>TOTAL COST FOR ESCROW PROJECT AMMENDMENT:</b> |              |       |                                  |                                         |                         |            | <b>\$1,583.50</b> |