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Act 381 Brownfield Plan

980 Herman Road Housing Development
926 and 980 South Herman Road
Suttons Bay, Michigan

Prepared For:
Leelanau County Brownfield Redevelopment Authority

Project No. 231191
July 17, 2026

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Cooperative Agreement No.: BF-4B-00E03213-1

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Recommended for Approval by Brownfield Redevelopment Authority on: ________________
Supported by Local Unit of Government on: ________________
Adopted by County Government on: ________________

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List of Abbreviations/Acronyms

Act 381	Brownfield Redevelopment Financing Act, 1996 PA 381, as amended
FTE	Full-time equivalent
LBRF	Local Brownfield Revolving Fund
MSHDA	Michigan State Housing Development Authority
PA	Public Act
QLGU	Qualified local governmental unit
TIF	Tax increment financing

Project Fast Facts

980 Herman Road Housing Development

Property Information	926 and 980 South Herman Road, Suttons Bay Township, Michigan Property is over 11 acres
Redevelopment	Peninsula Housing will develop the following for-sale: • 6 single family three-bedroom with basement homes, each unit totaling approximately 1,020 square feet • 12 two-bed duplexes (within 6 buildings), each unit totaling approximately 900 square feet • 12 one-bed duplexes (within 6 buildings), each unit totaling approximately 600 square feet Homestretch will develop the following for rent: • Two multi-family apartment buildings, each building containing 4 two-bed/one-bath units. A total of 8 units, each approximately 487 square feet A total of 38 units (100% of the Development) are for residents earning up to 120% of the Area Median Income for Leelanau County
Anticipated Rent Plus Utilities	Two-bedroom apartment units will be targeted to households making up to 80% AMI. Rent estimates for 2026 are $2,198.
Anticipated Sale Amounts	$270,000 -three-bedroom with basement (80% AMI) $225,000 -two-bedroom duplexes (80% AMI) $180,000 -6 units of the one-bedroom duplexes (80% AMI) $110,000 -6 units of the one-bedroom duplexes (60% AMI)
Taxable Value	Base Taxable Value: $153,263 *(2026 Combined)* Anticipated Taxable Value, Phase 1: $1,080,000 *(first full year)* Anticipated Taxable Value, Phase 2 & 3: $3,161,772 *(third year)*
Anticipated Development Cost	Approximately $10,400,000
TIF Requested	$2,808,250 *(TIF requested is 27% of development cost)*
Duration of Brownfield Plan	30 years

TIF Reimbursement by Source	$964,263 from State of Michigan/School (34.2%) $720,280 from Leelanau County (25.5%) $72,660 from Township of Suttons Bay (2.6%) $1,064,233 from other taxing jurisdictions (37.7%) Non-capturable debt totals approximately $213,418 over the life of the Brownfield Plan.

1.0 Introduction

1.1 Proposed Redevelopment and Future Use for Each Eligible Property

The redevelopment involves two parcels of property located at 926 and 980 South Herman Road, Suttons Bay, Michigan, totaling approximately 11.39 acres. The Property is currently developed with a residential dwelling, a barn, and two storage sheds on the 980 South Herman Road parcel. The 926 South Herman Road parcel is currently vacant, as a trailer was demolished in 2025.

The proposed project will be created through a $10.4 million investment to facilitate the construction of 38 residential units, creating much needed attainable housing within Suttons Bay Township, Michigan. The 38 residential units will include a mix of owner-occupied apartments, duplexes, and single-family homes.

Peninsula Housing is a Michigan non-profit Corporation providing affordable housing as a community land trust, and has an agreement in place with Homestretch to construct two apartment buildings. Peninsula Housing is considered the "Developer" in accordance with this Act 381 Brownfield Plan and subsequent Act 381 Work Plan. It is not anticipated that Homestretch will be seeking reimbursement at this time.

Peninsula Housing will be constructing 30 residential for-sale units, including:

- 6 single family three-bedroom with basements homes, each unit totaling approximately 1,020 square feet
- 12 two-bed duplexes (within 6 buildings), each unit totaling approximately 900 square feet
- 12 one-bed duplexes (within 6 buildings), each unit totaling approximately 600 square feet

Homestretch will be constructing two apartment buildings. Each building will contain 4 units, each totaling approximately 487 square feet, for a total of 8 residential rental units upon completion.

The development is anticipated to include significant infrastructure and safety improvements to support housing, including appropriately sized drinking water wells and septic systems as municipal water and sewer is not available.

The project will be developed in a phased approach, including 10 for-sale residential units completed by Peninsula Housing and 8 rental units completed by Homestretch, anticipated to be complete at the end of 2027, and the balance of 20 for-sale residential units completed by Peninsula Housing by the end of 2029.

Construction costs to build new housing have increased exponentially in the last several years. In order to provide the much-needed attainable housing within Leelanau County, creative project financing is needed. The Developer will be seeking support from the Michigan State Housing Development Authority (MSHDA) through their MI Neighborhood Program, which, upon award, will require all 38 units to be rented and income restricted to households earning up to 120% of Leelanau County's Area Median Income (AMI). The rental units will be targeted at households at or below 80% of AMI. The for-sale housing units will also be targeted at households at or below 80% of AMI, with a subset of 6 of the one-bedroom duplex units targeted to 60% AMI households. This project focuses on the creation of much-needed attainable housing in Leelanau County and is not anticipated to create new full-time equivalent jobs.

Suttons Bay Township is not a qualified local governmental unit (QLGU).

1.2 Eligible Property Information

Parcel ID: 011-032-006-20
Address: 926 South Herman Road
Size: Approximately 3.19 acres

Parcel ID: 011-032-006-00
Address: 980 South Herman Road
Size: Approximately 8.20 acres

1.2.1 Basis of Eligibility

The property qualifies as "eligible property" under the Brownfield Redevelopment Financing Act, 1996 PA 381, as amended ("Act 381"), on the basis of meeting the definition of a "Housing Property" in Section 2(p)(ii). Act 381 defines Housing Property, in part, as property on which one or more units of residential housing are proposed to be constructed. The project will have a total of 38 residential units upon completion. Maps depicting the location and layout of the property are attached as Figures 1 and 2.

According to Section 2(o)(ii), the Housing Property must be "located in a community that has identified a specific housing need and has absorption data or job growth data included in the brownfield plan."

1.2.1.1 **Specific Housing Need**

The 2023 Northern Michigan Housing Needs Assessment indicates that Leelanau County has an estimated rental gap of 363 units and an estimated for-sale housing gap of 1,462 units for households earning up to 120% AMI (2022–27). New attainable housing units are crucial to meet the housing needs of the county. Relevant Sections from 2023 Northern Michigan Housing Needs Assessment are included in Appendix 5.

This project helps address the rental housing product needs by creating 8 new apartment units targeted toward individuals and families earning up to 120% of the AMI, and the for-sale housing product needs by creating 30 new housing units targeted toward individuals and families earning up to 120% of the AMI.

1.2.1.2 **Job Growth Data**

Jobs in Leelanau County from 2023 to 2024 declined by 2.8% from 9.9K employees to 9.63K employees, while jobs in Suttons Bay from 2023 to 2024 declined at a much higher rate, by 11.4%, from 219 employees to 194 employees (DataUSA).

As provided in the 2023 Northern Michigan Housing Needs Assessment (the "Assessment"), only four of the ten counties in the Assessment experienced negative intra-regional migration, including Leelanau (-102), in 2015 – 2019. The Assessment states that "*a limited amount of migration into an area may indicate a lack of housing options or job opportunities within a market*".

Job availability is a primary factor, among many factors, that affect the need for housing within a geographic area. Leelanau County's top three occupations, by percentage, include Accommodation and Food Services (21.4%), Retail Trade (10.1%); and Arts, Entertainment, & Recreation (9.8%) (2023 Northern Michigan Housing Needs Assessment). Of the top 35 occupations by labor force share in Northwest Lower Peninsula of Michigan Nonmetropolitan Area of 2022, the Assessment found 23 jobs sectors with median wages that are insufficient to afford average rental rates within Leelanau County. Furthermore, the Assessment found that all top 35 job sector median wages are insufficient to afford purchasing a home in Leelanau County.

While the housing project is not expected to create a significant number of new jobs, the creation of new attainable housing for Suttons Bay Township and Leelanau County will allow local employers to fill jobs that have remained vacant due to a housing shortage and help workers live closer to their jobs.

2.0 Information Required by Section 13(2) of the Statute

2.1 Description of Costs to be Paid for with Tax Increment Revenues

This Brownfield Plan has been developed to reimburse eligible costs incurred by Peninsula Housing to support the housing redevelopment. New local and state tax increment revenues will be captured for reimbursement of eligible expenses, following approval of this Brownfield Plan and a MSHDA Act 381 Work Plan. Any local-only eligible expenses are detailed within the Brownfield Plan. Base local and state taxes associated with the property will continue to be levied and distributed to local and state taxing jurisdictions. No local debt or special assessment taxes will be captured to reimburse eligible activity costs. Some of the proposed eligible activities must benefit "income qualified households," defined in Act 381 Section 2(z) as "a person, a family, or unrelated persons living together, whose annual household income is not more than 120% of the area median income."

The total cost of eligible activities anticipated to be incurred by the Developer, including contingencies and a 5% simple interest expense, is $2,808,250, as summarized in Table 1. Leelanau County Brownfield Redevelopment Authority (Authority) administrative costs are estimated at 5% of local tax increment capture and are anticipated to total $92,859.

The estimated cost of all Developer eligible activities is anticipated to be greater than tax increment revenues available. With limited tax increment revenues available, the Authority desires to maximize reimbursement to the developer in support of creating much needed housing within Leelanau County and has decided to forego capture for the Local Brownfield Redevelopment Fund (LBRF). While it is not anticipated that tax increment revenues (TIR) will be available beyond the amount of developer eligible costs, if higher than anticipated TIR is realized, capture into the LBRF may be included as an eligible activity.

Costs incurred prior to adoption of the Brownfield Plan include the Baseline Environmental Assessment, demolition of the trailer, and preparation of the Brownfield Plan.

2.1.1 Site Assessment and Baseline Environmental Assessment Activities

The Authority previously supported the completion of a Phase I Environmental Site Assessment (ESA), Phase II ESA, Asbestos Survey, and Documentation of Due Care Compliance (DDCC). These assessments were completed through the use of Leelanau County's USEPA Brownfield Assessment Grant and are not being sought for reimbursement.

The Developer has incurred $2,100 to complete a Baseline Environmental Assessment (BEA), which is included as a preapproved department-specific eligible activity for reimbursement with both state and local sources.

2.1.2 Infrastructure and Safety Improvements Necessary to Support Housing

Infrastructure improvements are necessary to support the housing development for an anticipated total cost of $1,411,000. Specifically, $375,000 is included for the creation of new roads, sidewalks, curbs, gutters, and aprons, including the associated site preparation, such as grading, to create new roads. This activity may also include soil management, which will be retained on site to the extent feasible. Municipal water and sewer are not available to the property, therefore, $380,000 is included for the installation of 30 private water wells to support the for-sale units and installation of 1 water well to support the rental units. $350,000 is included for the installation of private septic systems and drain fields. 3 community septic systems will be installed to serve the duplexes and 2 shared septic systems will be installed to serve the single-family homes. Additionally, 1 shared septic system will be installed to serve the 8 rental units. New electrical service will need to be installed to support the housing development and is included as an eligible cost with an estimated total of $141,000. Design and construction of stormwater retention is necessary to capture excess runoff of storm water and is included as an eligible cost, estimated at $100,000. Soft costs, such as design and engineering, specifically attributed to the eligible activities are included as an eligible cost, estimated at $65,000. A MSHDA Act 381 Work Plan will be pursued, and, upon approval, these costs will be reimbursed with both state and local tax increment revenues.

2.1.3 Lead and Asbestos Abatement

An Asbestos Survey was completed on the existing house which identified Asbestos-Containing Materials (ACMs) requiring abatement prior to demolition. The presence of lead-based paint was presumed based on the age of the structure. $30,000 is included as a preapproved eligible cost to be reimbursed with both state and local tax increment revenues to cover asbestos abatement, air monitoring for asbestos and lead, and disposal costs.

2.1.4 Building Demolition

Total eligible preapproved demolition costs are estimated at $99,750 and will be reimbursed with both state and local tax increment revenues. A trailer previously located on the property was demolished in 2025 for a cost of $9,750. The house is proposed for demolition at an estimated cost of $90,000.

2.1.5 Site Preparation

Under Act 381, “site preparation, to the extent necessary to accommodate an income qualified purchaser household or income qualified renting household” is an eligible activity. Site preparation activities anticipated are associated with Infrastructure and Safety Improvements to Support Housing; however, if additional site preparation activities are needed, then they will be considered an eligible expense as allowable by Act 381, with costs limited by the total amount approved within this Brownfield Plan.

2.1.6 Brownfield Plan/Work Plan Preparation

The Authority is not seeking reimbursement for any costs incurred through the use of its USEPA Brownfield Assessment Grant, including preparation of the Brownfield Plan.

The Developer will incur the cost of preparation of an Act 381 Work Plan, estimated at $15,000, which is included as an eligible cost. No contingencies are allowed or included on preparation costs. A MSHDA Act 381 Work Plan will be pursued, and, upon approval, these costs will be reimbursed with both state and local tax increment revenues.

2.1.7 Brownfield Plan/Work Plan Implementation

The Developer will be income verifying households and report rent, income, and for-sale prices to the Authority. The included Brownfield Plan/Work Plan Implementation eligible activity is anticipated to total $5,000. A MSHDA Act 381 Work Plan will be pursued, and, upon approval, these costs will be reimbursed with both state and local tax increment revenues.

2.1.8 Interest

The cost of financing the development is anticipated to be greater than tax increment revenues available. Up to 5% of simple interest, calculated annually on the remaining principal balance of MSHDA Eligible Activities, is included as an eligible expense, estimated at $1,015,750. Actual reimbursement will be limited to the amount of tax increment revenues available within the 30-year capture period of the Plan.

2.1.9 Contingency

A contingency of 15% on eligible activities has been included in the plan, totaling $229,650. The plan does not include a contingency on EGLE eligible activities, Brownfield Plan/Work Plan preparation and implementation costs, interest expense, or costs already incurred, including the trailer demolition conducted in 2025.

2.1.10 Authority Administration Cost

Eligible administrative costs incurred by the Authority, such as reporting requirements and TIF management, are included in the plan as an eligible expense, calculated as 5% of local tax increment revenue capture. Over the term of the Brownfield Plan, the Authority is anticipated to capture $92,859 for administration. It is understood that administrative costs are calculated by the Authority rather than based on a flat fee, so this amount represents an estimate to be determined by the Authority.

2.1.11 Local Brownfield Revolving Fund

With limited tax increment revenues available, the Authority desires to maximize reimbursement to the developer in support of the project and has decided to forego capture for the Local Brownfield Redevelopment Fund (LBRF). While it is not anticipated that tax increment revenues (TIR) will be available beyond the amount of developer eligible costs, if higher than anticipated TIR is realized, capture into the LBRF may be included as an eligible activity.

2.2 Summary of Eligible Activities

Environmental Activities

Preapproved EGLE eligible activities, including a BEA, are anticipated to be reimbursed through the Brownfield Plan using both state and local tax increment revenues and will be incurred by the Developer.

Housing Development Activities

Because the development is “Housing Property” as defined by Act 381, housing development costs defined in Section 2(o)(ii) of Act 381 can be reimbursed through a Brownfield Plan. This plan provides for the reimbursement of eligible infrastructure and safety improvements, building demolition, asbestos and lead abatement, interest expense, and development and implementation of an Act 381 Work Plan. A 15% contingency on infrastructure and safety improvements necessary to support housing and building demolition and abatement, is included to cover unexpected cost overruns. There is no contingency included on the EGLE eligible activities, Brownfield Plan/Work Plan preparation and implementation costs, interest expense, or costs already incurred, including the trailer demolition conducted in 2025. A MSHDA Act 381 Work Plan will be pursued, and, upon approval, these costs will be reimbursed with both state and local tax increment revenues.

Authority Expenses

Eligible administrative costs incurred by the Authority, such as reporting requirements and TIF management, are included in the plan as an eligible expense, calculated as 5% of local tax increment revenue capture. It is understood that administrative costs are calculated by the Authority rather than based on a flat fee, so this amount represents an estimate to be determined by the Authority.

2.3 Estimate of Captured Taxable Value and Tax Increment Revenues

The base taxable value will be the combined 2026 taxable value of $153,263. Upon completion of the full build-out, the combined future taxable value is estimated to be $3,161,772 in 2030. The township assessor was consulted in establishing the estimated future taxable values and it is anticipated that the special valuation method for non-profit housing using Act 156 of 2022 will be applied in determining the taxable value of the one-bedroom duplexes targeted at households making up to 60% area median income (AMI).

It is also anticipated that a Payment in Lieu of Taxes (PILOT) will be pursed for the 8 rental units. The PILOT is calculated at 6% of the development's anticipated annual gross rental revenue. This Brownfield Plan includes the capture of the anticipated PILOT, as depicted in Table 2C, and assumes 1.5% annual increase in the annual gross rental revenue of the eligible property.

The project will be developed in a phased approach, including 10 for-sale residential units completed by Peninsula Housing and 8 rental units completed by Homestretch anticipated to be completed by the end of 2027, and the balance of 20 for-sale residential units completed by Peninsula Housing by the end of 2029.

As a community land trust, Peninsula Housing will retain ownership of the land, and tax increment revenues are estimated at non-homestead rates on the land values throughout the duration of the plan, as depicted in Table 2A. The for-sale units will be taxed separately from the land and are estimated at homestead rates as it is anticipated that homeowners will qualify for the Principal Residence Exemption (PRE) as depicted in Table 2B. Reimbursements will be made on actual tax increment revenues captured during the term of the Brownfield Plan. An estimate of the captured taxable value for the development by year is summarized in Table 2D. This plan captures real property tax increment revenues and assumes 3% annual increase in the taxable value of the eligible property. Pursuant to Act 381, local debt millages and special assessments will not be captured.

All three phases of construction are anticipated to be complete by year-end 2029. Tax increment revenue collection will start within five years of the adoption of this plan and are anticipated to being in 2028. The plan includes a 5% flat fee of the local tax increment for administrative and operating expenses of the Authority. A summary of the estimated reimbursement schedule is presented in Table 3.

It is anticipated that the developer will incur more eligible costs than tax increment is created. All costs included in this Brownfield Plan are presented as eligible expenses in the event that if greater than anticipated tax increment is realized beyond what is estimated, those costs may be reimbursed with tax increment revenues available. As excess tax increment revenues beyond developer eligible expenses are not anticipated, deposits of excess tax increment revenues into the Authority's Local Brownfield Revolving Fund is not contemplated within this Plan and therefore not depicted within Table 3. If higher than anticipated TIR is realized, capture into the LBRF is allowed.

2.4 Method of Financing and Description of Advances Made by the Municipality

The eligible activities contemplated under this plan will be financed by the Developer, as outlined in this plan and the accompanying Development and Reimbursement Agreement (Appendix 2). The developer is seeking $2.8 million in combined grant funding through the Federal Home Loan Bank of Indianapolis (FHLBI) Affordable Housing Program (AHP) and MSHDA's MI Neighborhood program. Local and state tax increment revenues will be captured for reimbursement, following approval of this Brownfield Plan and a MSHDA Act 381 Work Plan. No advances from the County or Township are anticipated at this time.

2.5 Maximum Amount of Note or Bonded Indebtedness

At this time, there are no plans by the Authority to incur indebtedness to support the development of this site, but such plans could be made in the future to assist in the development if the Authority chooses.

2.6 Duration of Brownfield Plan

The Authority intends to begin the capture of tax increment as early as 2028. This plan will then remain in place for 30 years, or until the eligible activities have been fully reimbursed, whichever occurs sooner. Excess tax capture is not anticipated; therefore, capture into the LBRF is not anticipated but is allowed if higher than anticipated TIR is realized. An analysis showing the reimbursement schedule is attached in Table 3.

2.7 Estimated Impact of Tax Increment Financing on Revenues of Taxing Jurisdictions

An estimate of the impact of tax increment financing on the revenues of all taxing jurisdictions is illustrated in detail in Table 2A, 2B, 2C, and 2D.

2.8 Legal Description, Property Map, Statement of Qualifying Characteristics, and Personal Property

The property is qualified as a “Housing Property” and consists of two legal parcels, totaling approximately 11.39 acres, and addressed as 926 and 980 S. Herman Road, Suttons Bay, MI 49682. The property subject to the brownfield plan is the geographic area, regardless of any address changes and/or parcel splits/combinations or changes in tax identification numbers. A map showing eligible property dimensions is attached as Figure 2. Collection of personal property tax is not anticipated within this brownfield plan.

The legal descriptions for the parcels are as follows:

Parcel ID No.: 011-032-006-20 (926 S. Herman Road)

Parcel Number 45-011-032-006-20 WHICH IS PART OF THE NORTHEAST QUARTER OF SECTION 32, TON, R11W, SUTTONS BAY TOWNSHIP, LEELANAU COUNTY, MICHIGAN DESCRIBED AS: COMMENCING AT THE NORTH QUARTER CORNER OF SECTION 32; THENCE S89° 44' 10”E, 606.99 ALONG THE NORTH LINE OF SECTION 32 TO THE POINT OF BEGINNING: THENCE S89° 44' 10”E, 330.82 FEET ALONG THE NORTH LINE OF SECTION 32; THENCE S00° 55' 59”E, 49.55 FEET; THENCE 11.13 FEET ALONG THE ARC OF A 45.00 FOOT RADIUS CURVE TO THE LEFT, HAVING AN INCLUDED ANGLE OF 14° 10' 24", AND THE LONG CHORD OF WHICH BEARS SO8° 01 11"E, 11.10 FEET; THENCE S15° 06' 23”E, 31.72 FEET; THENCE 51.28 FEET ALONG THE ARC OF A 115.00 FOOT RADIUS CURVE TO THE RIGHT, HAVING AN INCLUDED ANGLE OF 25° 32' 52", AND THE LONG CHORD OF WHICH BEARS S02° 19' 57"E, 50.85 FEET; THENCE S10° 26' 29"W, 68.35 FEET; THENCE 195.09 FEET ALONG THE ARC OF A 140.00 FOOT RADIUS CURVE TO THE RIGHT, HAVING AN INCLUDED ANGLE OF 79° 50' 24", AND THE LONG CHORD OF WHICH BEARS S50° 21' 41"W, 179.68 FEET; THENCE N89° 43' 07”W, 287.18 FEET: THENCE 79.42 FEET ALONG THE ARC OF A 133.00 FOOT RADIUS CURVE TO THE RIGHT, HAVING AN INCLUDED ANGLE OF 34° 12' 52", AND THE LONG CHORD OF WHICH BEARS N72° 36' 41"W, 78.25 FEET; THENCE N55° 30' 15", 31.38 FEET TO THE CENTERLINE OF SOUTH PINE VIEW ROAD; THENCE N34° 35' 00”E, 343.47 FEET ALONG THE CENTERLINE OF SOUTH PINE VIEW ROAD TO THE POINT OF BEGINNING

SUBJECT TO AND TOGETHER WITH A 40-FOOT-WIDE INGRESS, EGRESS, AND UTILITY EASEMENT IN PART OF THE NORTHEAST QUARTER OF SECTION 32, TON, R11W, SUTTONS BAY TOWNSHIP, LEELANAU COUNTY, MICHIGAN WITH THE EASEMENT CENTERLINE BE DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTH QUARTER CORNER OF SECTION 32; THENCE S89° 44' 10'E, 937.81 ALONG THE NORTH LINE OF SECTION 32 TO THE POINT OF BEGINNING OF EASEMENT CENTERLINE; THENCE SOO° 55' 59”E, 49.55 FEET; THENCE 11.13 FEET ALONG THE ARC OF A 45.00 FOOT RADIUS CURVE TO THE LEFT, HAVING AN INCLUDED ANGLE OF 14° 10' 24", AND THE LONG CHORD OF WHICH BEARS S08° 01’ 11"E, 11.10 FEET; THENCE S15° 06' 23"E, 31.72 FEET; THENCE 51.28 FEET ALONG THE ARC OF A 115.00 FOOT RADIUS CURVE TO THE RIGHT. HAVING AN INCLUDED ANGLE OF 25° 32' 52", AND THE LONG CHORD OF WHICH BEARS S02° 19' 57"E, 50.85 FEET; THENCE S10° 26’ 29"W, 68.35 FEET; THENCE 195.09 FEET ALONG THE ARC OFA 140.00 FOOT RADIUS CURVE TO THE RIGHT, HAVING AN INCLUDED ANGLE OF 79° 50' 24", AND THE LONG CHORD OF WHICH BEARS S50° 21" 41"W, 179.68 FEET; THENCE N89° 43' 07"W, 287.18 FEET; THENCE 79.42 FEET ALONG THE ARC OF A 133.00 FOOT RADIUS CURVE TO THE RIGHT, HAVING AN INCLUDED ANGLE OF 34° 12’ 52”, AND THE LONG CHORD OF WHICH BEARS N72° 36' 41"W, 78.25 FEET; THENCE N55° 30’ 15"W, 31.38 FEET TO THE CENTERLINE OF SOUTH PINE VIEW ROAD AND THE POINT OF ENDING OF EASEMENT CENTERLINE. EXCLUDING THE PUBLIC RIGHT-OF-WAYS FOR SOUTH PINE VIEW ROAD AND SOUTH HERMAN ROAD.

SUBJECT TO AND TOGETHER WITH A 10-FOOT-WIDE UTILITY EASEMENT ADJACENT TO AND OUTSIDE OF THE ABOVE DESCRIBED EASEMENT.

Parcel ID No.: 011-032-006-00 (980 S. Herman Road)

Parcel Number 45-011-032-006-00 WHICH IS PART OF THE NORTHEAST QUARTER OF SECTION 32, T30N, R11W, SUTTONS BAY TOWNSHIP, LEELANAU COUNTY, MICHIGAN DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTH QUARTER CORNER OF SECTION 32; THENCE S89° 44' 10"E, 937.81 ALONG THE NORTH LINE OF SECTION 32 TO THE POINT OF BEGINNING; THENCE S89° 44' 10"E, 230.05 FEET ALONG THE NORTH LINE OF SECTION 32; THENCE S00° 15' 45"W, 264.00 FEET; THENCE S89° 44' 10'E, 165.00 FEET TO THE EAST ONE-EIGHTH LINE OF SECTION 32; THENCE S00° 15' 45"W, 433.55 FEET ALONG THE EAST ONE-EIGHTH LINE OF SECTION 32; THENCE N89° 39' 44"W, 439.23 FEET; THENCE NO0° 20' 09"E, 189.00 FEET; THENCE N89° 43' 07"W, 629.89 FEET TO THE CENTERLINE OF SOUTH PINE VIEW ROAD: THENCE N32° 24' 53"E, 79.66 FEET ALONG THE CENTERLINE OF SOUTH PINE VIEW ROAD; THENCE N34° 35' 00"E, 189.70 FEET ALONG THE CENTERLINE OF SOUTH PINE VIEW ROAD; THENCE S55° 30' 15"E, 31.38 FEET; THENCE 79.42 FEET ALONG THE ARC OF A 133.00 FOOT RADIUS CURVE TO THE LEFT, HAVING AN INCLUDED ANGLE OF 34° 12' 52", AND THE LONG CHORD OF WHICH BEARS S72° 36' 41"E, 78.25 FEET; THENCE S89° 43' 07"E, 287.18 FEET; THENCE 195.09 FEET ALONG THE ARC OF A 140.00 FOOT RADIUS CURVE TO THE LEFT, HAVING AN INCLUDED ANGLE OF 79° 50' 24", AND THE LONG CHORD OF WHICH BEARS N50° 21' 41"E, 179.68 FEET; THENCE N10° 26' 29"E, 68.35 FEET; THENCE 51.28 FEET ALONG THE ARC OF A 115.00 FOOT RADIUS CURVE TO THE LEFT, HAVING AN INCLUDED ANGLE OF 25° 32' 52", AND THE LONG CHORD OF WHICH BEARS N02° 19' 57"W, 50.85 FEET: THENCE N15° 06' 23"W, 31.72 FEET; THENCE 11.13 FEET ALONG THE ARC OF A 45.00 FOOT RADIUS CURVE TO THE RIGHT, HAVING AN INCLUDED ANGLE OF 14° 10' 24", AND THE LONG CHORD OF WHICH BEARS N08 O' 11"W, 11.10 FEET; THENCE N00° 55' 59"W, 49.55 FEET TO THE POINT OF BEGINNING.

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EXCLUDING THE PUBLIC RIGHT-OF-WAYS FOR SOUTH PINE VIEW ROAD AND SOUTH HERMAN ROAD.

SUBJECT TO AND TOGETHER WITH A 10-FOOT-WIDE UTILITY EASEMENT ADJACENT TO AND OUTSIDE OF THE ABOVE DESCRIBED EASEMENT.

2.9 Estimates of Residents and Displacement of Individuals/Families

There is one family currently residing on the property in a house scheduled for demolition and located on the 980 South Herman Road parcel. The family consists of 4 residents; however, zero residents/individuals/families will be displaced as a result of this brownfield development. The development is utilizing a phased approach. The household will become an owner of one of the first newly constructed for-sale units, prior to demolition of the existing home. The 2023 Northern Michigan Housing Needs Assessment is attached which includes demographics and housing needs of the community indicating that Leelanau County has an estimated for-sale housing gap of 1,462 units for households earning up to 120% AMI (2022–27).

2.10 Plan for Relocation of Displaced Persons

The project is designed to allow the current occupants to remain on the property. Following completion of the new residence, the occupants will move directly into the new home before demolition of the existing residence occurs. Therefore, no involuntary displacement is anticipated, and a formal relocation Plan is not expected to be necessary.

2.11 Provisions for Relocation Costs

No relocation costs are anticipated to be incurred because the current occupants will transition from the existing residence to the newly constructed residence on the property and are not expected to require temporary or permanent off-site housing.

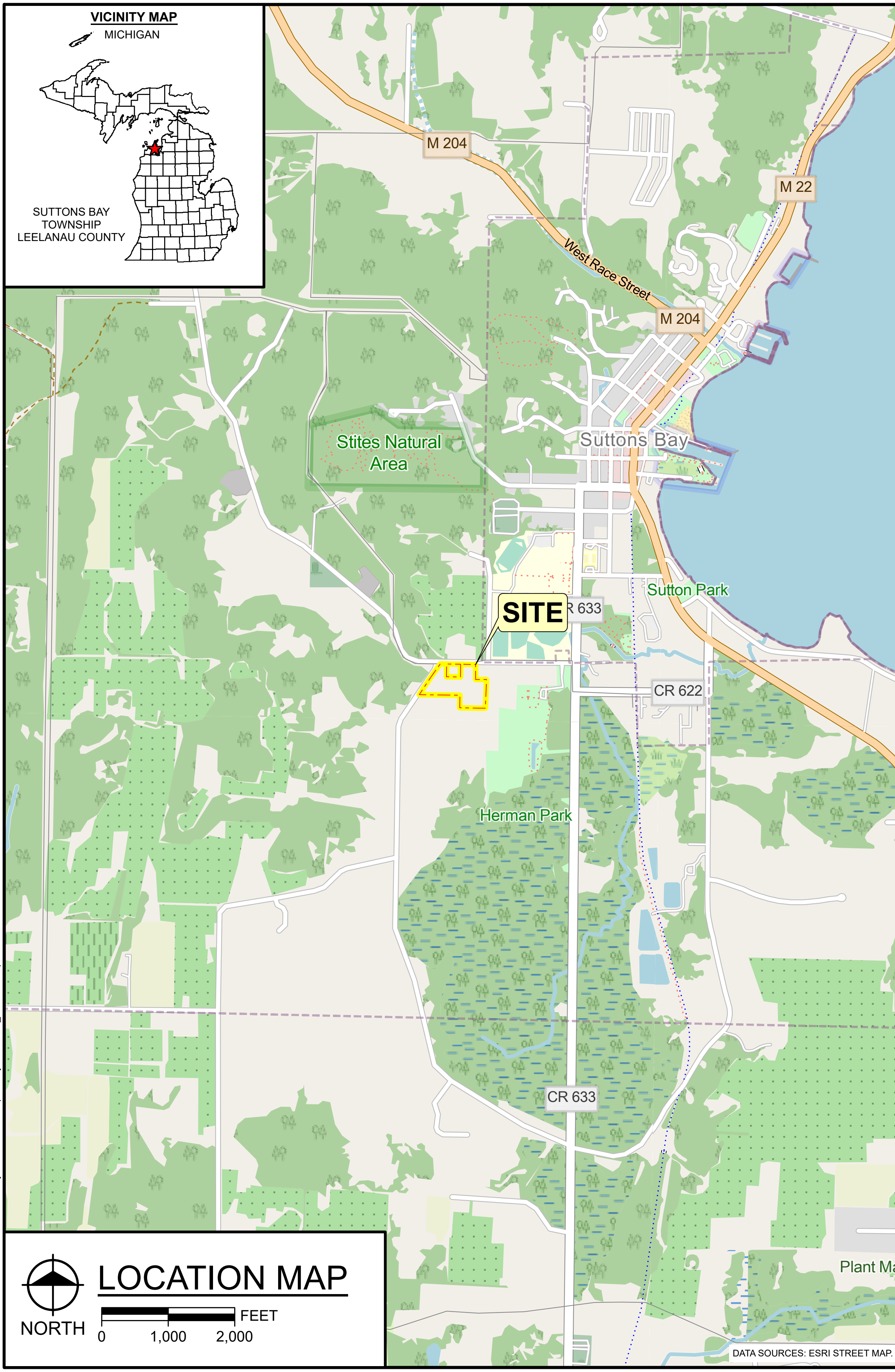
2.12 Strategy for Compliance with Michigan’s Relocation Assistance Law

Although no displacement is anticipated, the developer will comply with all applicable state and local relocation requirements should circumstances arise that require temporary or permanent relocation of occupants during project implementation.

2.13 Other Material that the Authority or Governing Body Considers Pertinent

A financing gap associated with the development of housing units priced for income qualified households is an eligible expense under Act 381. This activity is not being pursued for reimbursement within this brownfield plan due to the limited TIR available and the unknown factors, such as homeowner down payment and insurance amounts that would factor into the Total Housing Subsidy formula developed by MSHDA for for-sale residential units. The cost to develop the 38 residential units is significantly more than sale price and rental revenues will provide. Peninsula Housing is seeking to pursue this project to further their non-profit mission of providing attainable housing using the Community Land Trust model. TIF revenues combined with grant resources and philanthropic donations are all needed to make this project move forward.

Figures



LOCATION MAP

fishbeck
Engineers | Architects | Scientists | Constructors

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

926 & 980 S Herman Road

Suttons Bay Township, Michigan

Brownfield Plan

PROJECT NO.
231191

FIGURE NO.
1

PLOT INFO: Z:\2023\231191\CAD\GIS\ProProj\Brownfield Plan.aprx Layout: FIG01_Location Map Date: 7/13/2026 2:47 PM User: mbell

fishbeck

Engineers | Architects | Scientists | Constructors

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

926 & 980 S Herman Road

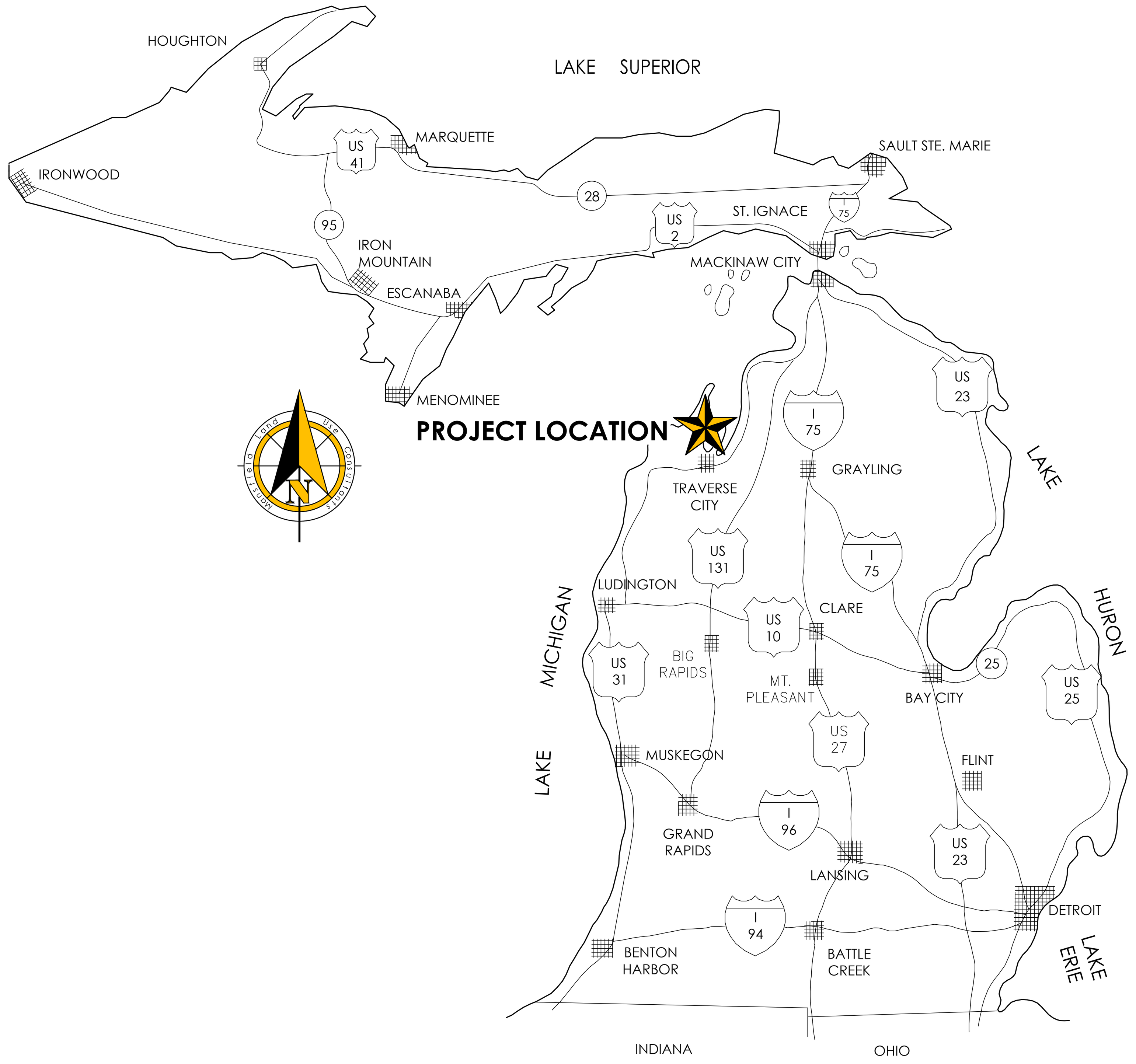
Suttons Bay Township, Michigan

Brownfield Plan

PROJECT NO.
231191

FIGURE NO.
2

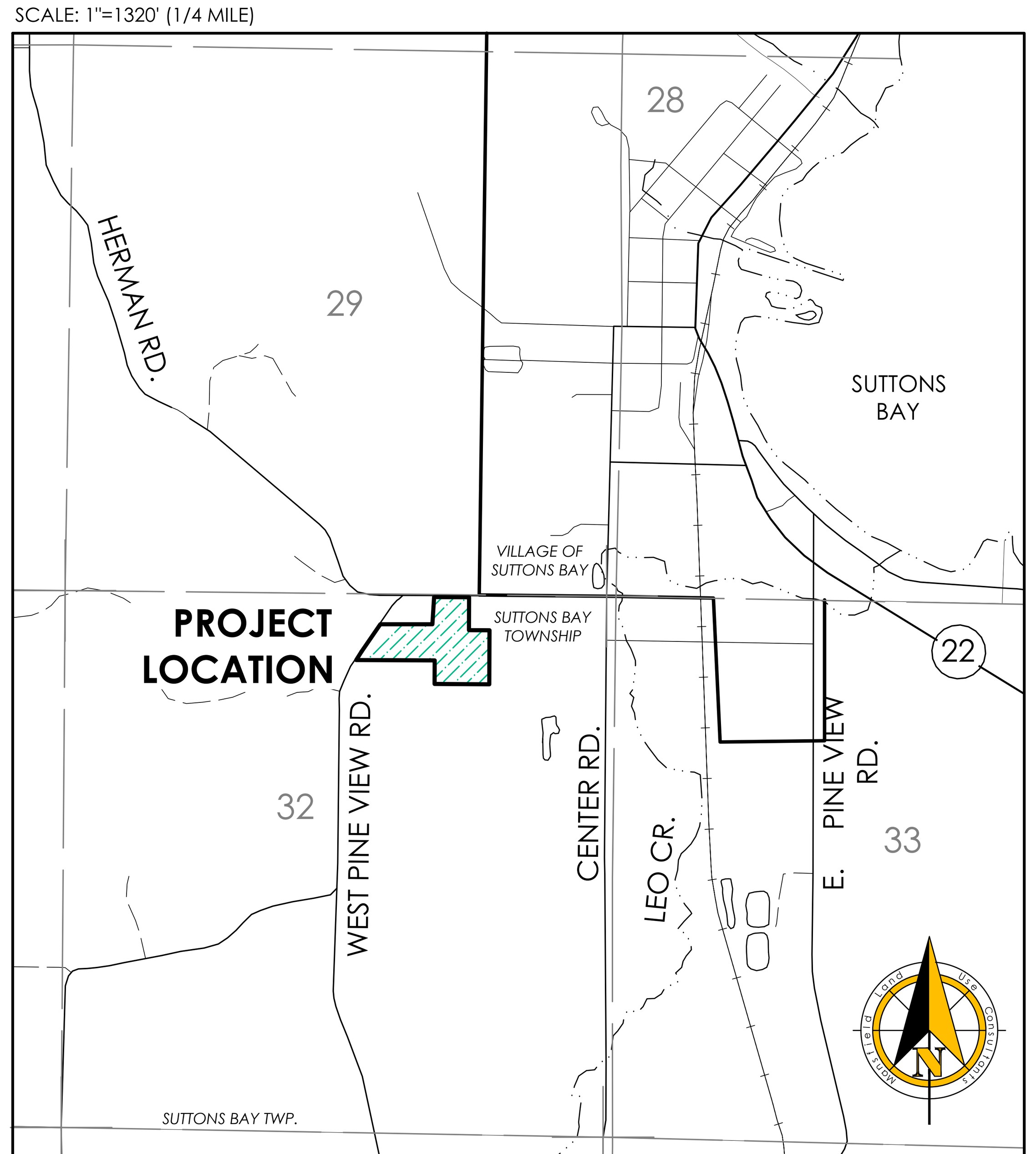
PLOT INFO: Z:\2023\231191\CAD\GIS\ProProj\Brownfield Plan.aprx Layout: FIG02_Site Map Date: 7/13/2026 2:47 PM User: mbell



MICHIGAN LOCATION MAP

VICINITY MAP

SCALE: 1"=1320' (1/4 MILE)



STANDARD PLAN LEGEND

DESCRIPTION	EXISTING	PROPOSED
GROUND CONTOUR	605	613
SPOT ELEVATION		704.33
CONTOUR FROM USGS TOPOGRAPHIC MAP		
TOP OF CURB ELEVATION PAVEMENT (OR GUTTER FLOW LINE) ELEVATION	613.5 613.0	704.33 704.00
DIRECTION OF SURFACE FLOW		1.93%
DRAINAGE HIGH POINT		H.P.
DRAINAGE LOW POINT		L.P.
WATER MAIN		W W
SANITARY FORCE MAIN	FM FM	FM
SANITARY SEWER		
STORM SEWER	ST	
GAS MAIN	GAS	GAS
OVERHEAD ELECTRIC	OHE	OHE
PROPERTY LINE		
TREE LINE		
PINE LINE		
EDGE OF WETLAND		
EDGE OF WATER		
C/L OR DRAINAGE DITCH OR WATER LINE		
SILT FENCE		
GRADING LIMITS		
MANHOLE (MH)	S	
CATCH BASIN (CB)		ST
CLEAN OUT (CO)		
RISER		
GATE VALVE		
FIRE HYDRANT ASSEMBLY		
CURB STOP & BOX		
POLE, POWER OR ELECTRIC		
LIGHT POLE		
SIGN		
BENCH MARK (BM)	BM	
U/G UTILITY SIGN		
GUY ANCHOR		
SOIL EROSION CONTROL MEASURE (MICHIGAN UNIFIED KEYING SYSTEM) P=PERMANENT T=TEMPORARY		6
IRON FOUND / IRON SET		
CONCRETE MONUMENT		
GOVERNMENT CORNER		
NAIL FOUND / NAIL SET		
RECORD / MEASURED	(R)	(M)
FENCE		
WOOD STAKE		

PENINSULA HOUSING

Suttons Bay Township, Leelanau County, Michigan

PROJECT DATA:

DEVELOPER: PENINSULA HOUSING
PO BOX 555
SUTTONS BAY, MI 49682

CONTACT: LARRY MAWBY
PHONE: 231-866-1090
EMAIL: home@peninsulahousing.org

SITE DATA:

ZONING: NEIGHBORHOOD RESIDENTIAL DISTRICT (PENDING)
SETBACK FRONT: 30' (COUNTY ROAD R.O.W.)
20' (PRIVATE ROAD)
SETBACK SIDE: 20'
SETBACK REAR: 30'
LOT COVERAGE: 40%
IMPERVIOUS: 50%

PARCEL: 011-032-006-00
OWNER: PENINSULA HOUSING
PO BOX 555
SUTTONS BAY, MI 49682
ADDRESS: 980 S. HERMAN ROAD

LEGAL DESC: PART OF THE NORTHEAST QUARTER OF SECTION 32, T30N, R11W, SUTTONS BAY TOWNSHIP, LEELANAU COUNTY, MICHIGAN DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTH QUARTER CORNER OF SECTION 32; THENCE S89° 44' 10"E, 937.81 ALONG THE NORTH LINE OF SECTION 32 TO THE POINT OF BEGINNING; THENCE S89° 44' 10"E, 230.05 FEET ALONG THE NORTH LINE OF SECTION 32; THENCE S00° 15' 45"W, 264.00 FEET; THENCE S89° 44' 10"E, 165.00 FEET TO THE EAST ONE-EIGHTH LINE OF SECTION 32; THENCE S00° 15' 45"W, 433.55 FEET ALONG THE EAST ONE-EIGHTH LINE OF SECTION 32; THENCE N89° 39' 44"W, 439.23 FEET; THENCE N00° 20' 09"E, 189.00 FEET; THENCE N89° 43' 07"W, 629.89 FEET TO THE CENTERLINE OF SOUTH PINE VIEW ROAD; THENCE N32° 24' 53"E, 79.66 FEET ALONG THE CENTERLINE OF SOUTH PINE VIEW ROAD; THENCE N34° 35' 00"E, 189.70 FEET ALONG THE CENTERLINE OF SOUTH PINE VIEW ROAD; THENCE S55° 30' 15"E, 31.38 FEET; THENCE 79.42 FEET ALONG THE ARC OF A 133.00 FOOT RADIUS CURVE TO THE LEFT, HAVING AN INCLUDED ANGLE OF 34° 12' 52", AND THE LONG CHORD OF WHICH BEARS S72° 36' 41"E, 78.25 FEET; THENCE S89° 43' 07"E, 287.18 FEET; THENCE 195.09 FEET ALONG THE ARC OF A 140.00 FOOT RADIUS CURVE TO THE LEFT, HAVING AN INCLUDED ANGLE OF 79° 50' 24", AND THE LONG CHORD OF WHICH BEARS N50° 21' 41"E, 179.68 FEET; THENCE N10° 26' 29"E, 68.35 FEET; THENCE 51.28 FEET ALONG THE ARC OF A 115.00 FOOT RADIUS CURVE TO THE LEFT, HAVING AN INCLUDED ANGLE OF 25° 32' 52", AND THE LONG CHORD OF WHICH BEARS N02° 19' 57"W, 50.85 FEET; THENCE N15° 06' 23"W, 31.72 FEET; THENCE 11.13 FEET ALONG THE ARC OF A 45.00 FOOT RADIUS CURVE TO THE RIGHT, HAVING AN INCLUDED ANGLE OF 14° 10' 24", AND THE LONG CHORD OF WHICH BEARS N08° 01' 11"W, 11.10 FEET; THENCE N00° 55' 59"W, 49.55 FEET TO THE POINT OF BEGINNING.

SUBJECT TO AND TOGETHER WITH A 40-F00T-WIDE INGRESS, EGRESS, AND UTILITY EASEMENT IN PART OF THE NORTHEAST QUARTER OF SECTION 32, T30N, R11W, SUTTONS BAY TOWNSHIP, LEELANAU COUNTY, MICHIGAN WITH THE EASEMENT CENTERLINE BE DESCRIBED AS FOLLOWS:
COMMENCING AT THE NORTH QUARTER CORNER OF SECTION 32; THENCE S89° 44' 10"E, 937.81 ALONG THE NORTH LINE OF SECTION 32 TO THE POINT OF BEGINNING OF EASEMENT CENTERLINE; THENCE S00° 55' 59"E, 49.55 FEET; THENCE 11.13 FEET ALONG THE ARC OF A 45.00 FOOT RADIUS CURVE TO THE LEFT, HAVING AN INCLUDED ANGLE OF 14° 10' 24", AND THE LONG CHORD OF WHICH BEARS S08° 01' 11"E, 11.10 FEET; THENCE S15° 06' 23"E, 31.72 FEET; THENCE 51.28 FEET ALONG THE ARC OF A 115.00 FOOT RADIUS CURVE TO THE RIGHT, HAVING AN INCLUDED ANGLE OF 25° 32' 52", AND THE LONG CHORD OF WHICH BEARS S02° 19' 57"E, 50.85 FEET; THENCE S10° 26' 29"W, 68.35 FEET; THENCE 195.09 FEET ALONG THE ARC OF A 140.00 FOOT RADIUS CURVE TO THE RIGHT, HAVING AN INCLUDED ANGLE OF 79° 50' 24", AND THE LONG CHORD OF WHICH BEARS S50° 21' 41"W, 179.68 FEET; THENCE N89° 43' 07"W, 287.18 FEET; THENCE 79.42 FEET ALONG THE ARC OF A 133.00 FOOT RADIUS CURVE TO THE RIGHT, HAVING AN INCLUDED ANGLE OF 34° 12' 52", AND THE LONG CHORD OF WHICH BEARS N72° 36' 41"W, 78.25 FEET; THENCE N55° 30' 15"W, 31.38 FEET TO THE CENTERLINE OF SOUTH PINE VIEW ROAD AND THE POINT OF ENDING OF EASEMENT CENTERLINE.
EXCLUDING THE PUBLIC RIGHT-OF-WAYS FOR SOUTH PINE VIEW ROAD AND SOUTH HERMAN ROAD.

SUBJECT TO AND TOGETHER WITH A 10-FOOT-WIDE UTILITY EASEMENT ADJACENT TO AND OUTSIDE OF THE ABOVE DESCRIBED EASEMENT.

(3 WORKING DAYS) BEFORE YOU DIG CALL MISS DIG 800-482-7171 (TOLL FREE)

PLAN INDEX

Mansfield & Land Use Consultants
830 Cottageview Dr., Ste. 201
P.O. Box 4015
Traverse City, MI 49685
Phone: 231-946-9310
www.maaeps.com
info@maaeps.com

REV#	DATE	DRAWN	CHECKED	DESCRIPTION
02	06-20-25	mmm	dmc	Revised Design
03	06-20-25	mmm	dmc	Revised Design
05	07-30-25	mmm	dmc	Revised Design
06	08-05-25	mmm	dmc	Revised Design
07	10-17-25	mmm	dmc	Revised Design
08	03-19-26	mmm	dmc	Revised Design
09	04-03-26	mmm	dmc	SPR Sumission
10	05-05-26	mmm	dmc	Per Twp. Comment

Peninsula Housing
Herman Road Proposed Housing
COVER SHEET
Section 3, Town 30 North, Range 11 West
Suttons Bay Township, Leelanau County, Michigan

PRELIMINARY

P.M.: dmc
DR.: mmm CKD.: dmc CREATED: 02-24-2025
JOB NO.: 25019

C1.0

GENERAL CONSTRUCTION NOTES:

1. MISS DIG
FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 53, 1974, THE CONTRACTOR SHALL DIAL 811 or 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE PART OF THE "MISS DIG" ALERT SYSTEM.

2. EXISTING UTILITIES
EXISTING PUBLIC UTILITIES AND UNDERGROUND STRUCTURES SUCH AS PIPE LINES, ELECTRIC CONDUITS, SEWERS AND WATER LINES, ARE SHOWN ON THE PLANS. THE INFORMATION SHOWN IS BELIEVED TO BE REASONABLY CORRECT AND COMPLETE. HOWEVER, NEITHER THE CORRECTNESS NOR THE COMPLETENESS OF SUCH INFORMATION IS GUARANTEED. PRIOR TO THE START OF ANY OPERATIONS IN THE VICINITY OF ANY UTILITIES, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES AND "MISS DIG" AND REQUEST THAT THEY STAKE OUT THE LOCATIONS OF THE UTILITIES IN QUESTION. COST OF REPAIR FOR ANY DAMAGED UTILITY LINES THAT IS PROPERLY STAKED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

3. PROTECTING UTILITIES
SPECIAL CARE SHALL BE TAKEN IN EXCAVATING IN THE PROXIMITY OF ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL SECURE ASSISTANCE FROM THE APPROPRIATE UTILITY COMPANY IN LOCATING ITS LINES. THE CONTRACTOR SHALL ALSO PROVIDE SUPPORT FOR ANY UTILITY WITHIN THE EXCAVATION, PROVIDE PROPER COMPACTION UNDER ANY UNDERMINED UTILITY STRUCTURE AND, IF NECESSARY, INSTALL TEMPORARY SHEETING OR USE A TRENCH BOX TO MINIMIZE THE EXCAVATION. THE CONTRACTOR SHALL PROTECT AND SAVE HARMLESS FROM DAMAGE ALL UTILITIES, WHETHER PRIVATELY OR PUBLICLY OWNED, ABOVE OR BELOW GROUND SURFACE, WHICH MAY BE ENCOUNTERED DURING CONSTRUCTION, AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL PROVIDE ADEQUATE SUPPORT FOR UTILITY POLES AS NECESSARY.

4. SAFETY
THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS GOVERNING THE FURNISHING AND USE OF SAFEGUARDS, SAFETY DEVICES AND PROTECTION EQUIPMENT. THE CONTRACTOR SHALL TAKE ANY NECESSARY PRECAUTIONS TO PROTECT THE LIFE AND HEALTH OF EMPLOYEES AND THE PUBLIC IN THE PERFORMANCE OF THE WORK.

5. SOIL EROSION & SEDIMENTATION CONTROL
THE CONTRACTOR SHALL PROVIDE TEMPORARY SOIL EROSION CONTROL MEASURES PER P.A. 451 AS AMENDED. THE SOIL EROSION MEASURES SHOWN ARE THE MINIMUM CONTROLS TO BE USED ON THIS PROJECT. THE CONTRACTOR SHALL INSTALL ADDITIONAL TEMPORARY AND PERMANENT SOIL EROSION CONTROL MEASURES TO PROTECT THE DISTURBED AREAS AND ADJACENT PROPERTIES FROM ACCELERATED EROSION AND SEDIMENTATION RESULTING FROM PROJECT CONSTRUCTION, IF DIRECTED BY THE ENGINEER OR SOIL EROSION CONTROL OFFICER, AT NO ADDITIONAL COST TO THE PROJECT. NO EXCAVATION WORK MAY PROCEED UNTIL THE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ARE IN PLACE. ALL WORK MUST BE IN ACCORDANCE WITH THE APPROVED PERMIT FROM THE LEELANAU COUNTY SOIL EROSION AND SEDIMENTATION CONTROL OFFICE.

6. PROPERTY CORNERS
EXISTING KNOWN PROPERTY CORNERS ARE IDENTIFIED ON THE PLANS. IF A PROPERTY CORNER IS DISTURBED DURING CONSTRUCTION IT SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE BY A PROFESSIONAL LAND SURVEYOR.

7. SURVEY DATUM
ALL ELEVATIONS ARE BASED ON N.A.V.D., 1988, UNLESS OTHERWISE SPECIFIED.

8. RESTORATION WORK
ALL DISTURBED AREAS SHALL BE TOPSOILED, SEEDED, FERTILIZED AND MULCHED. MULCH BLANKET SHALL BE INSTALLED IN AREAS AS DESIGNATED AND SHALL BE INCIDENTAL TO OTHER ITEMS. ALL EXCESS TOPSOIL WILL REMAIN WITHIN THE PROPERTY OWNER'S AREA. THE CONTRACTOR SHALL REPAIR ALL WASHOUTS AND EROSION DURING THE GUARANTEE PERIOD OF ONE (1) YEAR AT NO ADDITIONAL COST TO THE OWNER.

9. REMOVAL ITEMS
THE CONTRACTOR SHALL RESTORE ALL LAWNS, LANDSCAPE PLANTINGS, SIDEWALKS, COMMERCIAL SIGNS, ETC., AS REQUIRED. UNLESS SPECIFICALLY NOTED FOR REMOVAL ON THE PLANS, ALL SIDEWALKS, DRIVES, CULVERTS, DRAINAGE STRUCTURES, ABOVE GRADE UTILITIES, IRRIGATION SYSTEM, ETC. SHALL BE PROTECTED. ALL SUCH ITEMS DAMAGED OR DESTROYED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED WITH NEW BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

10. CONSTRUCTION SIGNAGE & TRAFFIC CONTROL
LOCAL TRAFFIC AND CONSTRUCTION SIGNAGE SHALL BE MAINTAINED AT ALL TIMES TO THE SATISFACTION OF THE OWNER.

11. DUST CONTROL
THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST ON THIS PROJECT THOUGH THE USE OF WATER TRUCKS OR DUST PALLIATIVE. PAYMENT FOR DUST CONTROL SHALL BE INCLUDED IN THE LUMP SUM CONTRACT AND SHALL NOT BE PAID SEPARATELY. DUST SHALL BE CONTINUOUSLY CONTROLLED TO THE SATISFACTION OF THE OWNER.

12. PROTECTIVE FENCE
THE CONTRACTOR IS RESPONSIBLE FOR ALL SITE SECURITY. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN A TEMPORARY PROTECTIVE SNOW FENCE AROUND ALL OPEN TRENCH EXCAVATIONS THAT ARE LEFT OPEN OVERNIGHT OR ANY OTHER UNSAFE AREAS ON SITE THAT REQUIRE PUBLIC PROTECTION.

13. EXCESS MATERIALS
ALL EXCESS MATERIALS SHALL BE DISPOSED OF BY THE CONTRACTOR OFF OF THE SITE UNLESS OTHERWISE NOTED OR APPROVED BY THE OWNER. ALL REMOVALS AND TRANSPORTATION OF THE REMOVED MATERIALS SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS AND ALL LOCAL, STATE AND FEDERAL LAWS.

14. SAWCUTTING PAVEMENT
SAWCUT EXISTING PAVEMENT FULL DEPTH TO THE LIMITS OF CONSTRUCTION OR AS DIRECTED BY THE ENGINEER. IF THE EDGE IS DAMAGED SUBSEQUENT TO SAWCUTTING, THE EDGE SHALL BE RECUT AT NO ADDITIONAL COST TO THE OWNER.

15. DEWATERING
ANY REQUIRED DEWATERING FOR SITE WORK, INCLUDING THE USE OF STONE OR GRAVEL FOR DEWATERING PURPOSES, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE LUMP SUM CONTRACT.

16. UTILITY SEPARATION
MAINTAIN A MINIMUM OF 10' HORIZONTAL SEPARATION AND 1.5' VERTICAL SEPARATION BETWEEN ALL WATER MAINS AND SANITARY/STORM SEWERS. MEASUREMENTS ARE BETWEEN THE CLOSEST POINTS OF EACH PIPE.

17. RECYCLING
THE CONTRACTOR IS ENCOURAGED TO RECYCLE ANY MATERIALS OR PRODUCTS THAT ARE REUSABLE OR CAPABLE OF BEING RECYCLED.

18. EXCAVATION FOR UTILITIES
ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY, WHERE REQUIRED, SHALL INCLUDE THE USE OF TRENCH BOXES AND SHEETING DURING THE INSTALLATION TO PREVENT DAMAGE TO THE EXISTING ROADWAY AND UTILITIES. DEWATERING, IF REQUIRED, SHALL BE COMPLETED PER THE STANDARD DPW SPECIFICATIONS.

GENERAL GRADING CONSTRUCTION NOTES:

1. QUALITY OF WORK
ALL CONSTRUCTION WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE CURRENT M.D.O.T. CONSTRUCTION STANDARDS AND SPECIFICATIONS.

2. SUBGRADE PREPARATION
THE PRESENCE OF OTHER THAN GRANULAR MATERIALS IN THE SUBGRADE SOIL SHALL REQUIRE A FULL WIDTH, TWELVE INCH, GRANULAR SUB-BASE, M.D.O.T. CLASS II OR EQUIVALENT. PREPARED SUBGRADE WIDTH, DEPTH AND COMPACTION MUST BE REVIEWED AND/OR TESTED PRIOR TO PLACEMENT OF GRAVEL.

3. AGGREGATE BASE MATERIAL
AGGREGATE BASE TO BE USED ON THE PROJECT MUST MEET SPECIFICATION FOR M.D.O.T. 22A AND MUST BE TESTED AND APPROVED PRIOR TO PLACEMENT. AGGREGATE BASE PLACEMENT MUST COMPLY WITH SECTION 3.01 OF THE CURRENT MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION. PREPARED AGGREGATE BASE WIDTH, DEPTH AND COMPACTION MUST BE REVIEWED AND TESTED PRIOR TO THE PLACEMENT OF BITUMINOUS SURFACE.

4. BITUMINOUS PAVEMENT (HMA)
THE CONTRACTOR SHALL GIVE THE OWNER'S REPRESENTATIVE 48 HOURS NOTICE PRIOR TO PLACEMENT OF BITUMINOUS SURFACE. BITUMINOUS PAVING MUST BE PERFORMED IN ACCORDANCE WITH THE CURRENT M.D.O.T. STANDARD SPECIFICATIONS FOR CONSTRUCTION.

5. REMOVAL OF ORGANICS
ALL TREES, STUMPS, BRUSH AND ROOTS THEREOF, SHALL BE ENTIRELY REMOVED FROM WITHIN THE SITE GRADING.

6. SITE GRADING
ALL DISTURBED AREAS SHALL BE TOPSOILED, SEEDED, FERTILIZED AND MULCHED AS SOON AS FEASIBLE. THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING GROUND COVER ON ALL AREAS DISTURBED BY CONSTRUCTION.

7. FIELD CHANGES
ANY CHANGES IN SPECIFICATIONS OR CONSTRUCTION METHODS MUST BE REVIEWED AND APPROVED BY THE ENGINEER AND OWNER, AND MUST NOT CONFLICT WITH APPROVED PERMITS.

8. DRAINAGE
EXISTING STORM DRAINAGE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO REPAIR OR REPLACE, AS REQUIRED, ALL DRAINAGE CULVERTS OR STRUCTURES DAMAGED DURING CONSTRUCTION AND SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT. SEE THE PROPOSED GRADING PLAN FOR DETAILS ON CONSTRUCTION ITEMS.

9. ADJUSTMENTS
THE CONTRACTOR SHALL ADJUST ALL UTILITY SURFACE ITEMS TO THE FINISH GRADES PRIOR TO PAVING.

GENERAL STORM SEWER CONSTRUCTION NOTES:

1. CONSTRUCTION STANDARDS
ALL MATERIALS, CONSTRUCTION, METHODS, TESTING AND INSPECTION SHALL BE IN ACCORDANCE WITH THE CURRENT MDOT CONSTRUCTION STANDARDS UNLESS OTHERWISE SPECIFIED.

2. CONNECTIONS
NO CONNECTIONS SHALL BE MADE TO SANITARY SEWERS.

3. STRUCTURE ADJUSTMENTS
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING CATCH BASIN AND/OR MANHOLE RIMS TO THE FINISH GRADE ELEVATIONS. THE LOCATIONS AND ELEVATIONS SHOWN ARE BASED UPON PLAN GRADES AND ARE SUBJECT TO CHANGE.

4. UTILITY SEPARATION
ALL STORM SEWERS SHALL MAINTAIN A MINIMUM OF 10' HORIZONTAL SEPARATION AND 1.5' VERTICAL SEPARATION FROM WATER MAINS AND LEADS. MEASUREMENTS ARE BETWEEN THE CLOSEST POINTS OF EACH PIPE.

Mansfield & Land Use Consultants
830 Cottageview Dr., Ste. 201
P.O. Box 4015
Traverse City, MI 49685
Phone: 231-946-9310
www.maaeps.com
info@maaeps.com

REV#	DATE	DRAWN	CHECKED	DESCRIPTION
02	06-20-25	mmm	dmc	Revised Design
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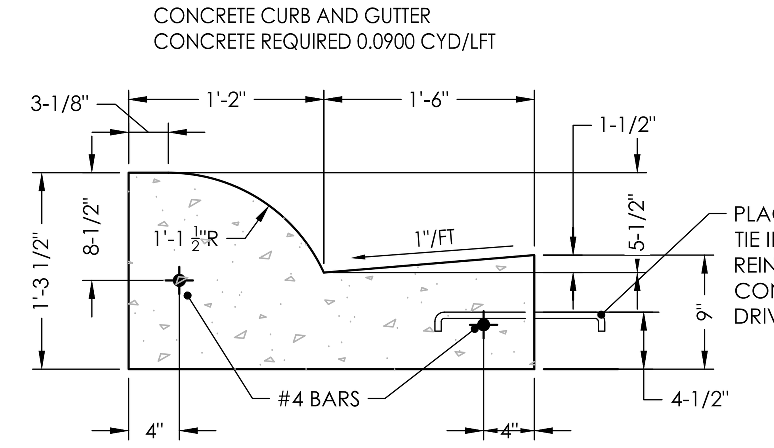
05	07-30-25	mmm	dmc	Revised Design
06	08-05-25	mmm	dmc	Revised Design
07	10-17-25	mmm	dmc	Revised Design
08	03-19-26	mmm	dmc	Revised Design
09	04-03-26	mmm	dmc	SPR Sumission
10	05-05-26	mmm	dmc	Per Twp. Comment

Peninsula Housing
Herman Road Proposed Housing
NOTES SHEET
Section 3, Town 30 North, Range 11 West
Suttons Bay Township, Leelanau County, Michigan

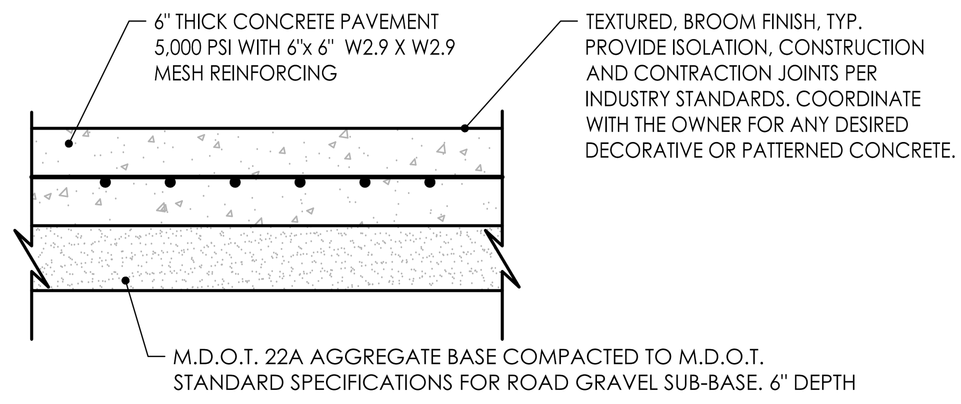
PRELIMINARY

P.M.: dmc
DR.: mmm CKD.: dmc CREATED: 02-24-2025
JOB NO.: 25019

C1.1



M.D.O.T. B2 CURB DETAIL



PAVING DETAIL - CONCRETE

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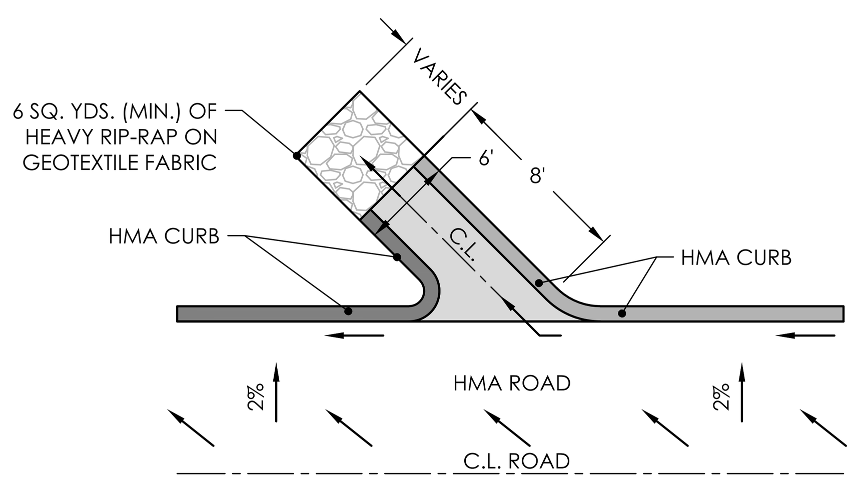

HMA SPILLWAY DETAIL

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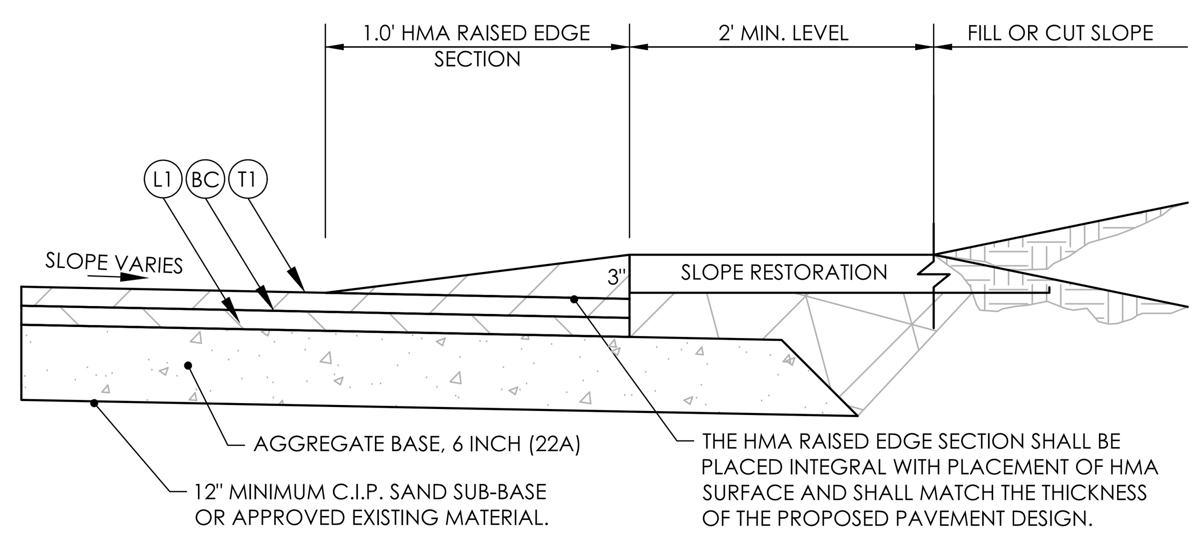

HMA RAISED EDGE SECTION

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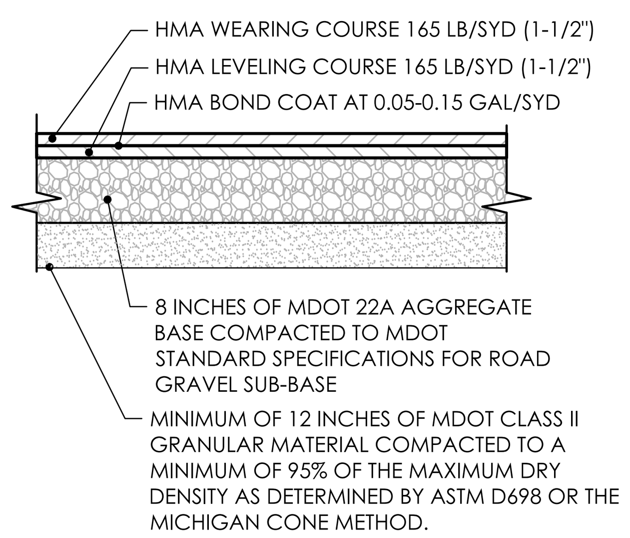

PAVING DETAIL - HMA

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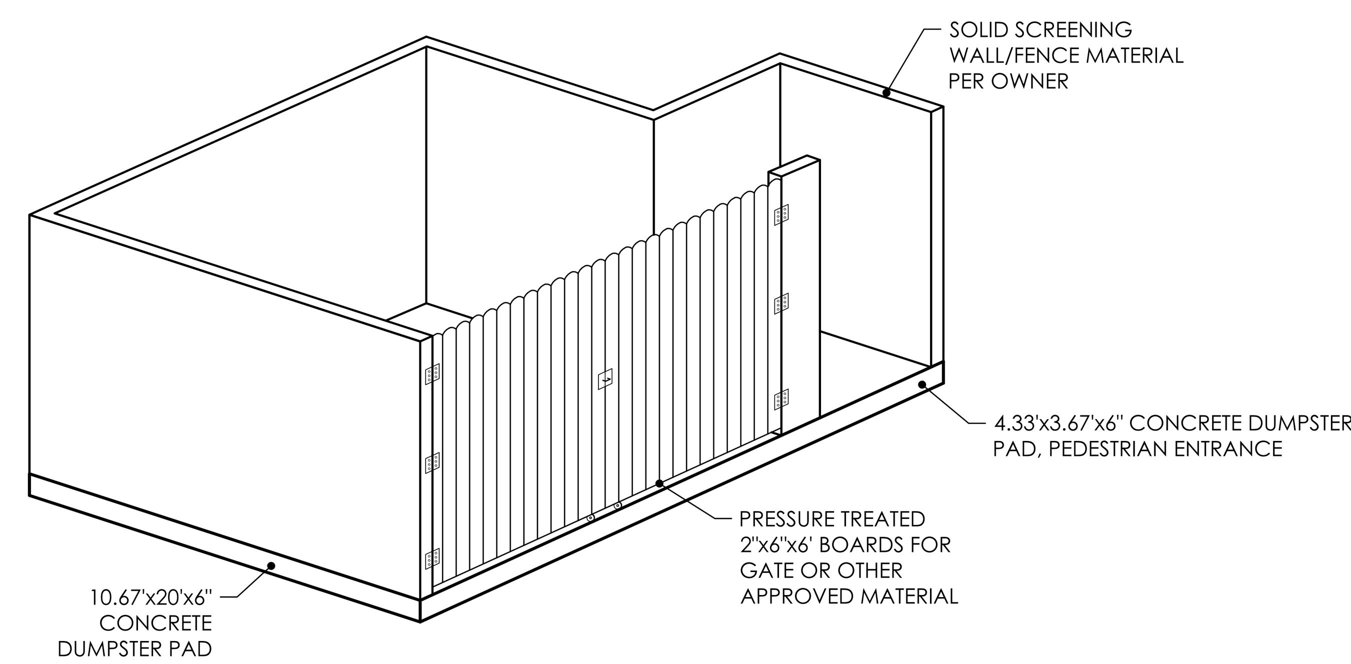
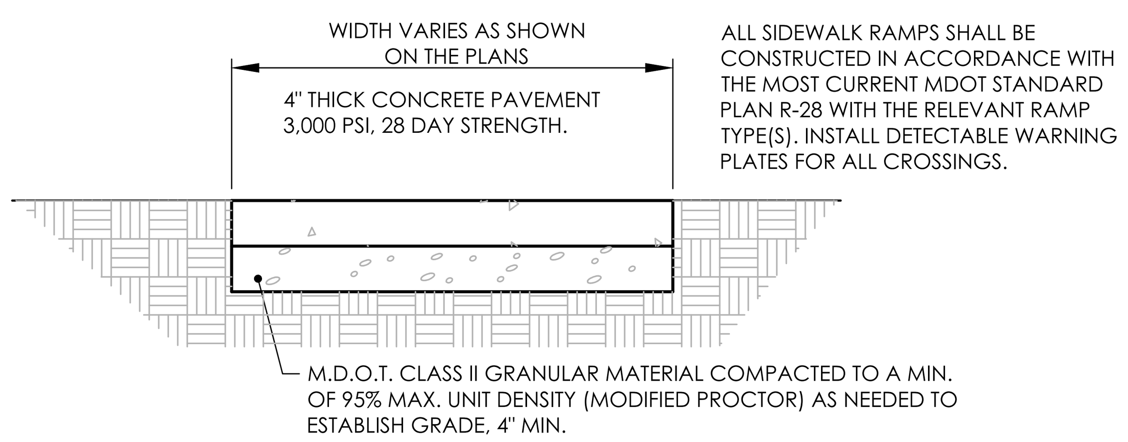


DUMPSTER SCREENING & PAD

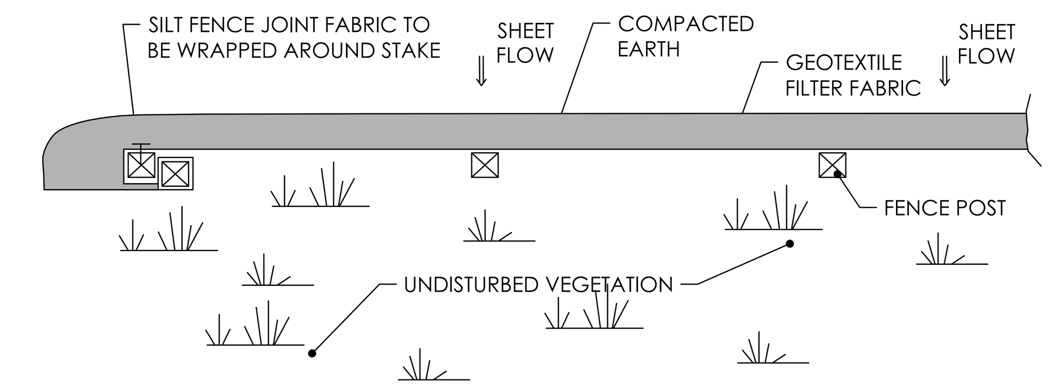
NO SCALE



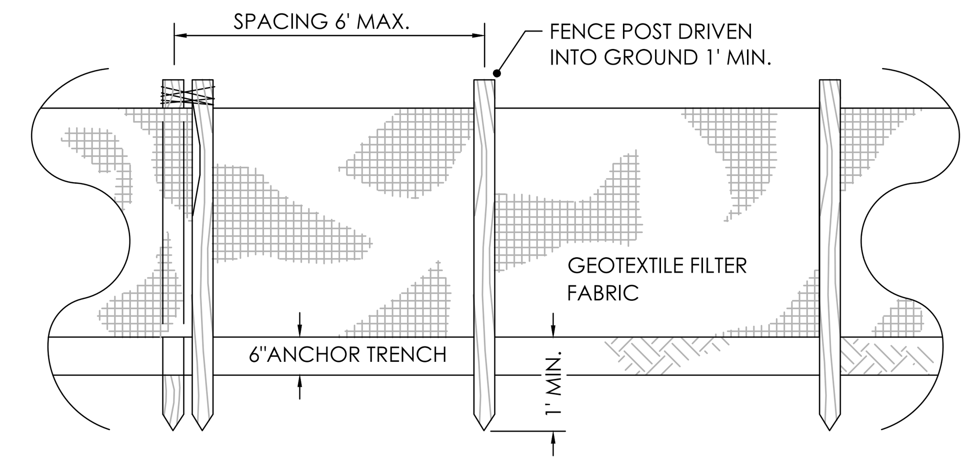
NOTE:
EXPANSION JOINTS SHALL BE PLACED AT ALL SPRING POINTS, PERMANENT STRUCTURES, AND AT A SPACING OF NOT MORE THAN 20 FEET. THE SIDEWALK SHALL BE DIVIDED INTO UNIT AREAS OF NOT MORE THAN 36 SQUARE FEET BY MEANS OF CUT JOINTS (WPJ). INSOFAR AS POSSIBLE, UNIT AREAS SHALL BE PERPENDICULAR AND NOT LESS THAN 16 SQUARE FEET.

CONCRETE SIDEWALK DETAIL

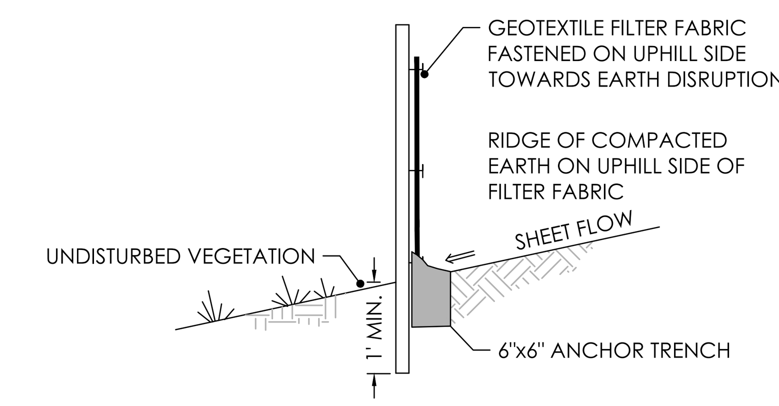
NO SCALE



PLAN VIEW



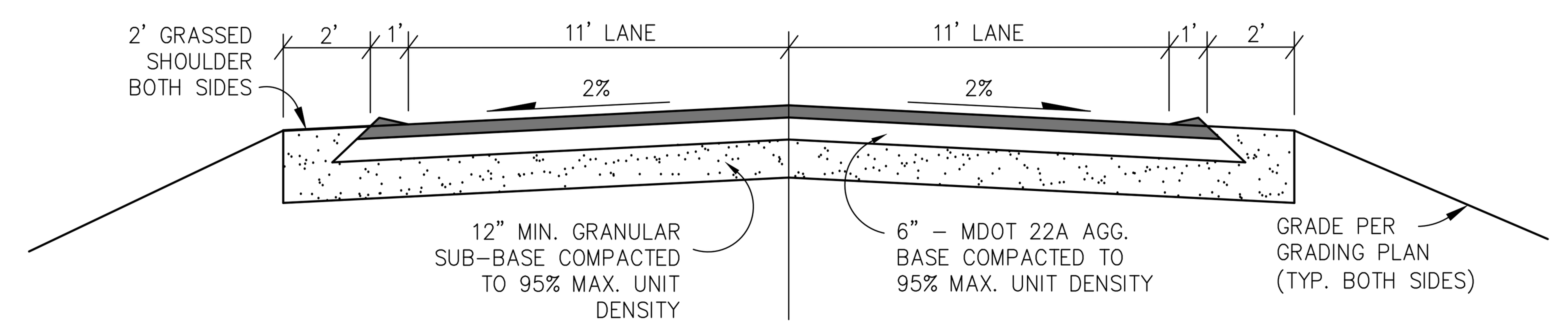
FRONT ELEVATION



SECTION VIEW

SILT FENCE DETAILS

NO SCALE



PROP. ROAD CROSS SECTION

NO SCALE

Mansfield
&
Land Use Consultants
830 Cottageview Dr., Ste. 201
P.O. Box 4015
Traverse City, MI 49685
Phone: 231-946-9310
www.maaeps.com
info@maaeps.com

REV#	DATE	DRAWN	CHECKED	DESCRIPTION
02	06-20-25	mmm	dmc	Revised Design
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07	10-17-25	mmm	dmc	Revised Design
08	03-19-26	mmm	dmc	Revised Design
09	04-03-26	mmm	dmc	SPR Sumission
10	05-05-26	mmm	dmc	Per Twp. Comment

Peninsula Housing
Herman Road Proposed Housing
DETAIL SHEET
Section 3, Town 30 North, Range 11 West
Suttons Bay Township, Leelanau County, Michigan

PRELIMINARY

P.M.: dmc

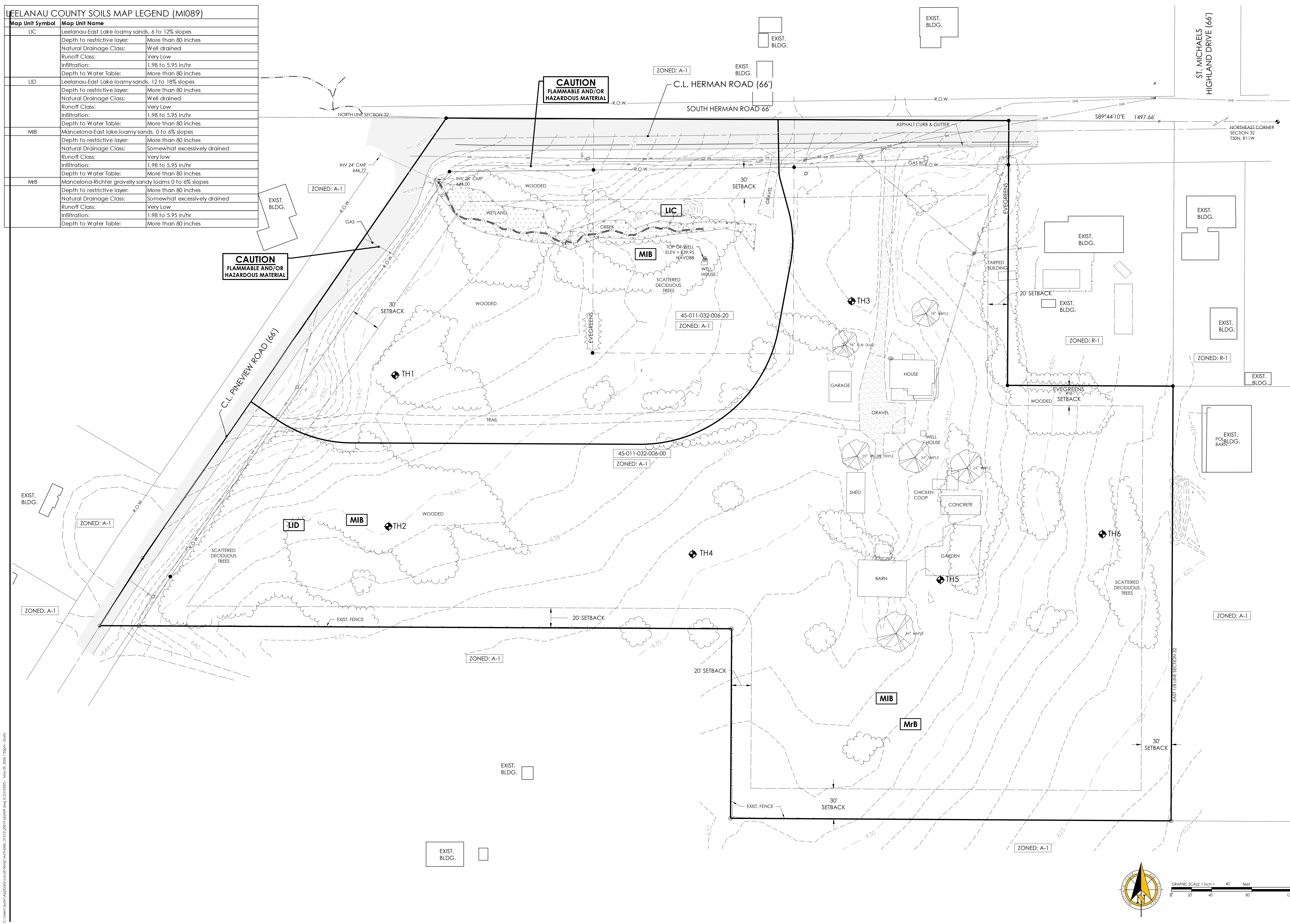
DR.: mmm CKD.: dmc CREATED: 02-24-2025

JOB NO.: 25019

C1.2

LEELANAU COUNTY SOILS MAP LEGEND (MI089)

Map Unit Symbol	Map Unit Name	
LIC	Leelanau-East Lake loamy sands, 6 to 12% slopes	
	Depth to restrictive layer:	More than 80 inches
	Natural Drainage Class:	Well drained
	Runoff Class:	Very Low
	Infiltration:	1.98 to 5.95 in/hr
	Depth to Water Table:	More than 80 inches
LID	Leelanau-East Lake loamy sands, 12 to 18% slopes	
	Depth to restrictive layer:	More than 80 inches
	Natural Drainage Class:	Well drained
	Runoff Class:	Very Low
	Infiltration:	1.98 to 5.95 in/hr
	Depth to Water Table:	More than 80 inches
MIB	Mancelona-East lake loamy sands, 0 to 6% slopes	
	Depth to restrictive layer:	More than 80 inches
	Natural Drainage Class:	Somewhat excessively drained
	Runoff Class:	Very low
	Infiltration:	1.98 to 5.95 in/hr
	Depth to Water Table:	More than 80 inches
MrB	Mancelona-Richter gravelly sandy loams 0 to 6% slopes	
	Depth to restrictive layer:	More than 80 inches
	Natural Drainage Class:	Somewhat excessively drained
	Runoff Class:	Very Low
	Infiltration:	1.98 to 5.95 in/hr
	Depth to Water Table:	More than 80 inches



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08	03-19-26	mmm	dmc	Revised Design
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Peninsula Housing
Herman Road Proposed Housing
OVERALL EXISTING CONDITIONS PLAN
Section 3, Town 30 North, Range 11 West
Suttons Bay Township, Leelanau County, Michigan

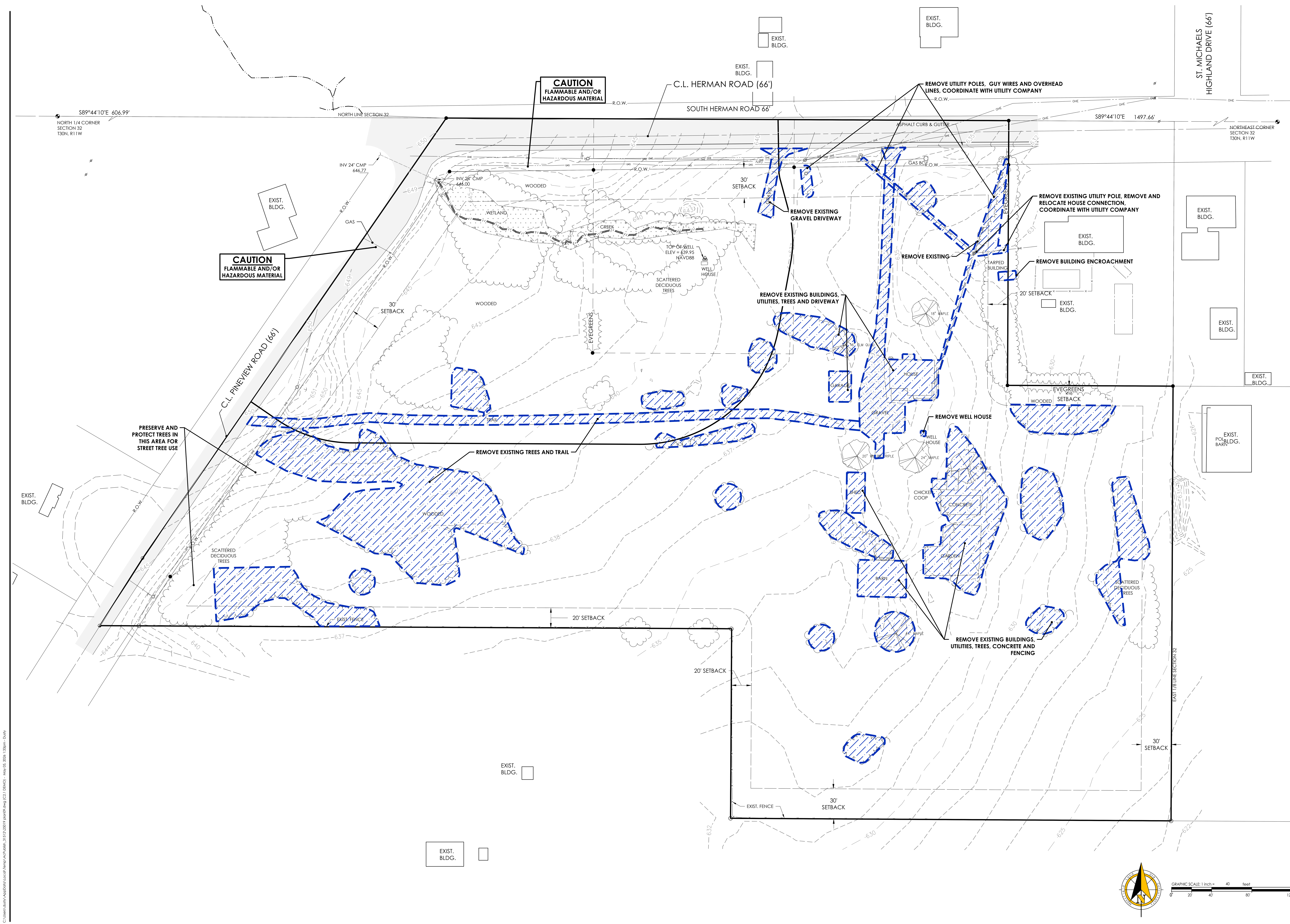
PRELIMINARY

P.M.: dmc

DR.: mmm | CKD.: dmc | CREATED: 02-24-2025

JOB NO.: 25019

C2.0



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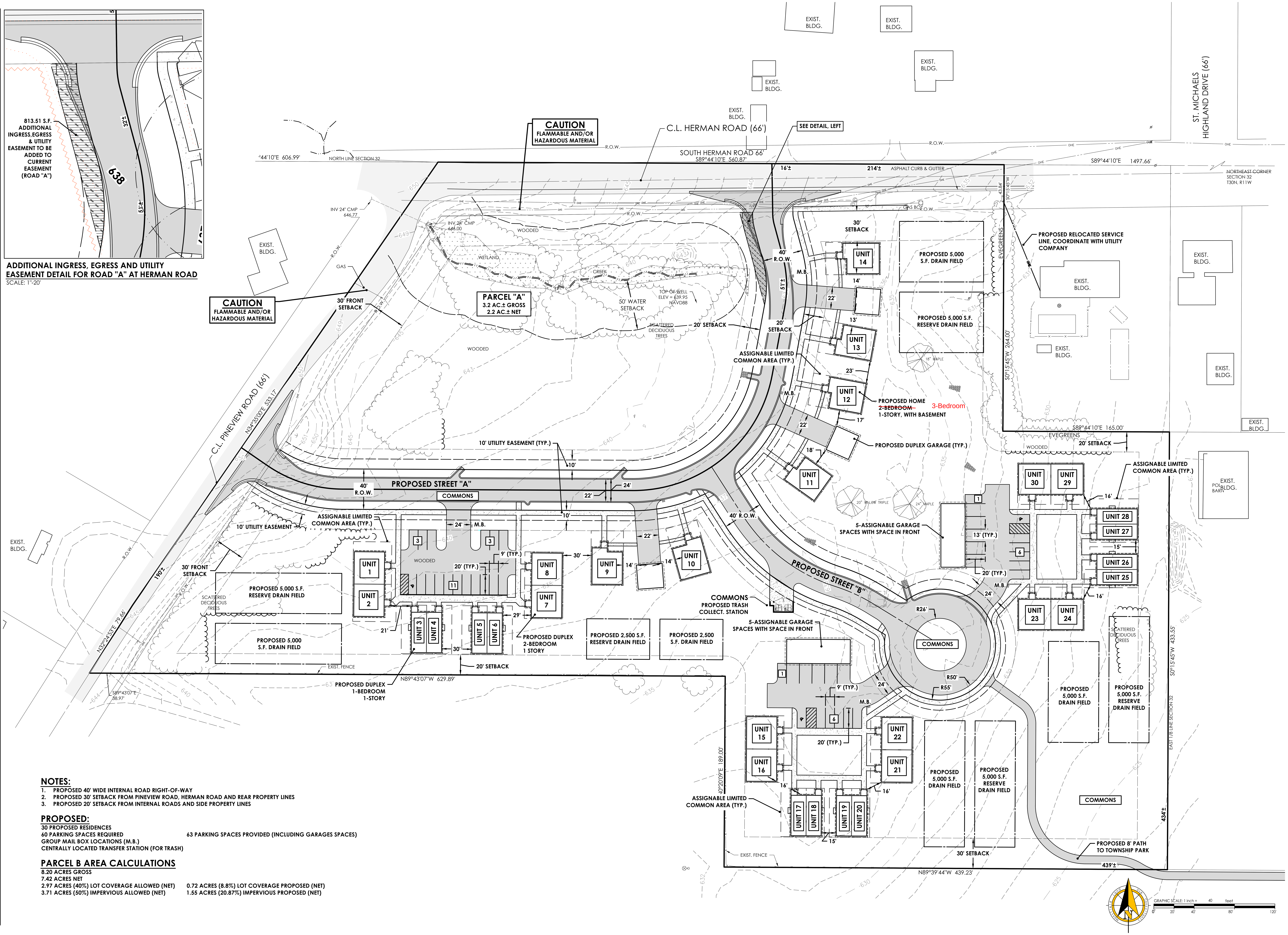
Peninsula Housing
Herman Road Proposed Housing
DEMOLITION PLAN
Section 3, Town 30 North, Range 11 West
Suttons Bay Township, Leelanau County, Michigan

PRELIMINARY

P.M.: dmc
DR.: mmm | CKD.: dmc | CREATED: 02-24-2025
JOB NO.: 25019

C2.1



NOTES:

1. PROPOSED 40' WIDE INTERNAL ROAD RIGHT-OF-WAY
2. PROPOSED 30' SETBACK FROM PINEVIEW ROAD, HERMAN ROAD AND REAR PROPERTY LINES
3. PROPOSED 20' SETBACK FROM INTERNAL ROADS AND SIDE PROPERTY LINES

PROPOSED:

30 PROPOSED RESIDENCES
60 PARKING SPACES REQUIRED — 63 PARKING SPACES PROVIDED (INCLUDING GARAGES SPACES)
GROUP MAIL BOX LOCATIONS (M.B.)
CENTRALLY LOCATED TRANSFER STATION (FOR TRASH)

PARCEL B AREA CALCULATIONS

8.20 ACRES GROSS
7.42 ACRES NET
2.97 ACRES (40%) LOT COVERAGE ALLOWED (NET) — 0.72 ACRES (8.8%) LOT COVERAGE PROPOSED (NET)
3.71 ACRES (50%) IMPERVIOUS ALLOWED (NET) — 1.55 ACRES (20.87%) IMPERVIOUS PROPOSED (NET)

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Peninsula Housing
Herman Road Proposed Housing
SITE AND DIMENSION PLAN
Section 3, Town 30 North, Range 11 West
Suttons Bay Township, Leelanau County, Michigan

PRELIMINARY

P.M.: dmc
DR.: mmm | CKD.: dmc | CREATED: 02-24-2025
JOB NO.: 25019
C4.0

Storm Basin #1 Calculations

Rainfall Intensity for back-to-back 100-yr/24-hour events = 10.16 in/48hrs = 0.21 in/hr
Volume = CiA = 0.98 x 0.21 in/hr x __ acres x 172,800 unit conversion factor
Soil Type: MIB Mancelona-East Lake Loamy Sands
Infiltration Volume Reduction: 2" per hour over the wetted area of containment.
Infiltration= 2/12 ft (1 in) x 48 hours x area sft = cft

Retained On-Site
13260 sf pavement
1617 sf storm basin bottom

	C	i	A	86400	Q (cft)	
hard surface	0.98	0.21	0.3044	172800	10825	+
infiltration (sf)			1617		12936	-
volume required					-2111	cf
volume provided Basin 1					4266	cf
volume required					**-2111**	**cf**
volume retained on-site					**4266**	**cf**

Storm Basin #2 Calculations

Rainfall Intensity for back-to-back 100-yr/24-hour events = 10.16 in/48hrs = 0.21 in/hr
Volume = CiA = 0.98 x 0.21 in/hr x __ acres x 172,800 unit conversion factor
Soil Type: MIB Mancelona-East Lake Loamy Sands
Infiltration Volume Reduction: 2" per hour over the wetted area of containment.
Infiltration= 2/12 ft (1 in) x 48 hours x area sft = cft

Retained On-Site
34822 sf pavement
2888 sf storm basin bottom

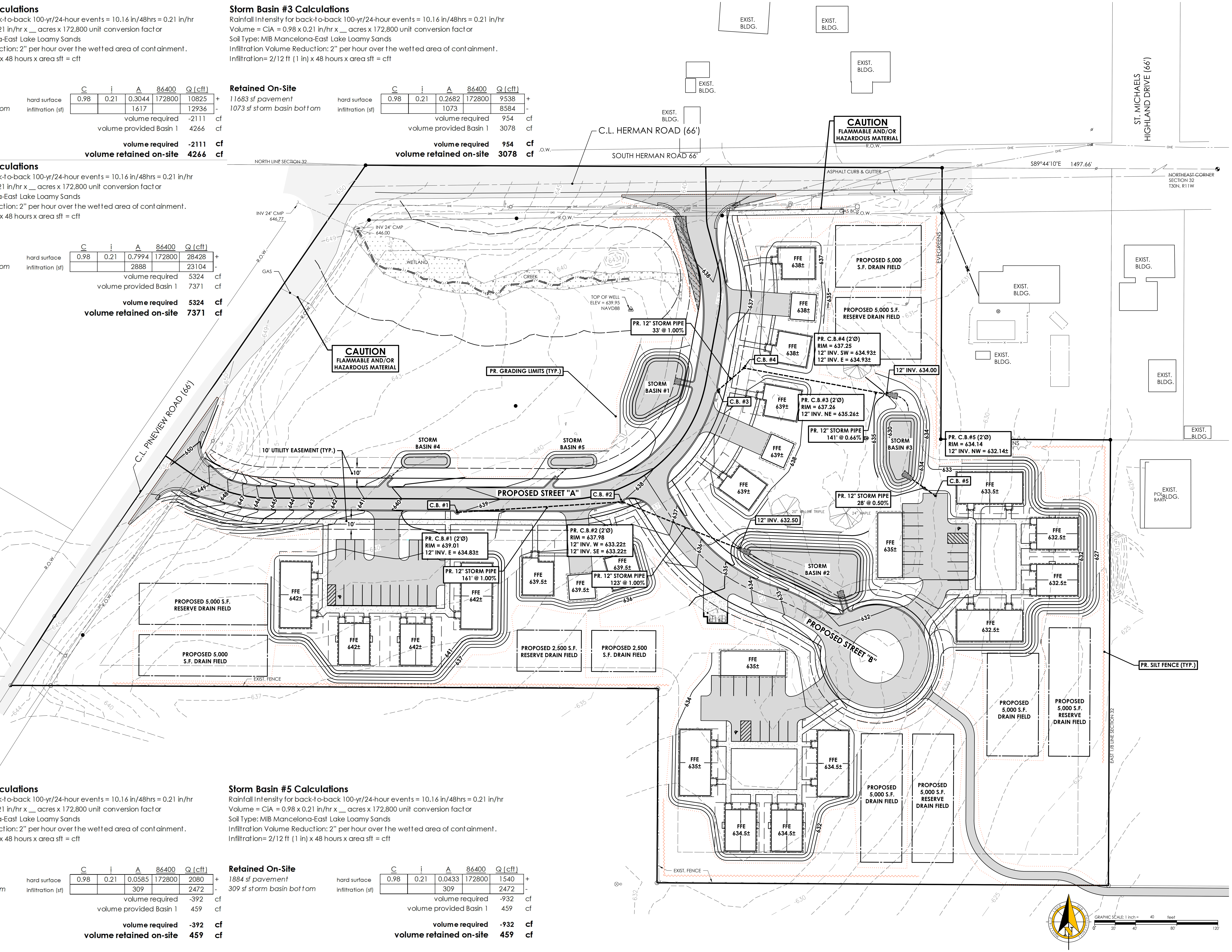
	C	i	A	86400	Q (cft)	
hard surface	0.98	0.21	0.7994	172800	28428	+
infiltration (sf)			2888		23104	-
volume required					5324	cf
volume provided Basin 1					7371	cf
volume required					**5324**	**cf**
volume retained on-site					**7371**	**cf**

Storm Basin #3 Calculations

Rainfall Intensity for back-to-back 100-yr/24-hour events = 10.16 in/48hrs = 0.21 in/hr
Volume = CiA = 0.98 x 0.21 in/hr x __ acres x 172,800 unit conversion factor
Soil Type: MIB Mancelona-East Lake Loamy Sands
Infiltration Volume Reduction: 2" per hour over the wetted area of containment.
Infiltration= 2/12 ft (1 in) x 48 hours x area sft = cft

Retained On-Site
11683 sf pavement
1073 sf storm basin bottom

	C	i	A	86400	Q (cft)	
hard surface	0.98	0.21	0.2682	172800	9538	+
infiltration (sf)			1073		8584	-
volume required					954	cf
volume provided Basin 1					3078	cf
volume required					**954**	**cf**
volume retained on-site					**3078**	**cf**



Storm Basin #4 Calculations

Rainfall Intensity for back-to-back 100-yr/24-hour events = 10.16 in/48hrs = 0.21 in/hr
Volume = CiA = 0.98 x 0.21 in/hr x __ acres x 172,800 unit conversion factor
Soil Type: MIB Mancelona-East Lake Loamy Sands
Infiltration Volume Reduction: 2" per hour over the wetted area of containment.
Infiltration= 2/12 ft (1 in) x 48 hours x area sft = cft

Retained On-Site
2549 sf pavement
309 sf storm basin bottom

	C	i	A	86400	Q (cft)	
hard surface	0.98	0.21	0.0585	172800	2080	+
infiltration (sf)			309		2472	-
volume required					-392	cf
volume provided Basin 1					459	cf
volume required					**-392**	**cf**
volume retained on-site					**459**	**cf**

Storm Basin #5 Calculations

Rainfall Intensity for back-to-back 100-yr/24-hour events = 10.16 in/48hrs = 0.21 in/hr
Volume = CiA = 0.98 x 0.21 in/hr x __ acres x 172,800 unit conversion factor
Soil Type: MIB Mancelona-East Lake Loamy Sands
Infiltration Volume Reduction: 2" per hour over the wetted area of containment.
Infiltration= 2/12 ft (1 in) x 48 hours x area sft = cft

Retained On-Site
1884 sf pavement
309 sf storm basin bottom

	C	i	A	86400	Q (cft)	
hard surface	0.98	0.21	0.0433	172800	1540	+
infiltration (sf)			309		2472	-
volume required					-932	cf
volume provided Basin 1					459	cf
volume required					**-932**	**cf**
volume retained on-site					**459**	**cf**

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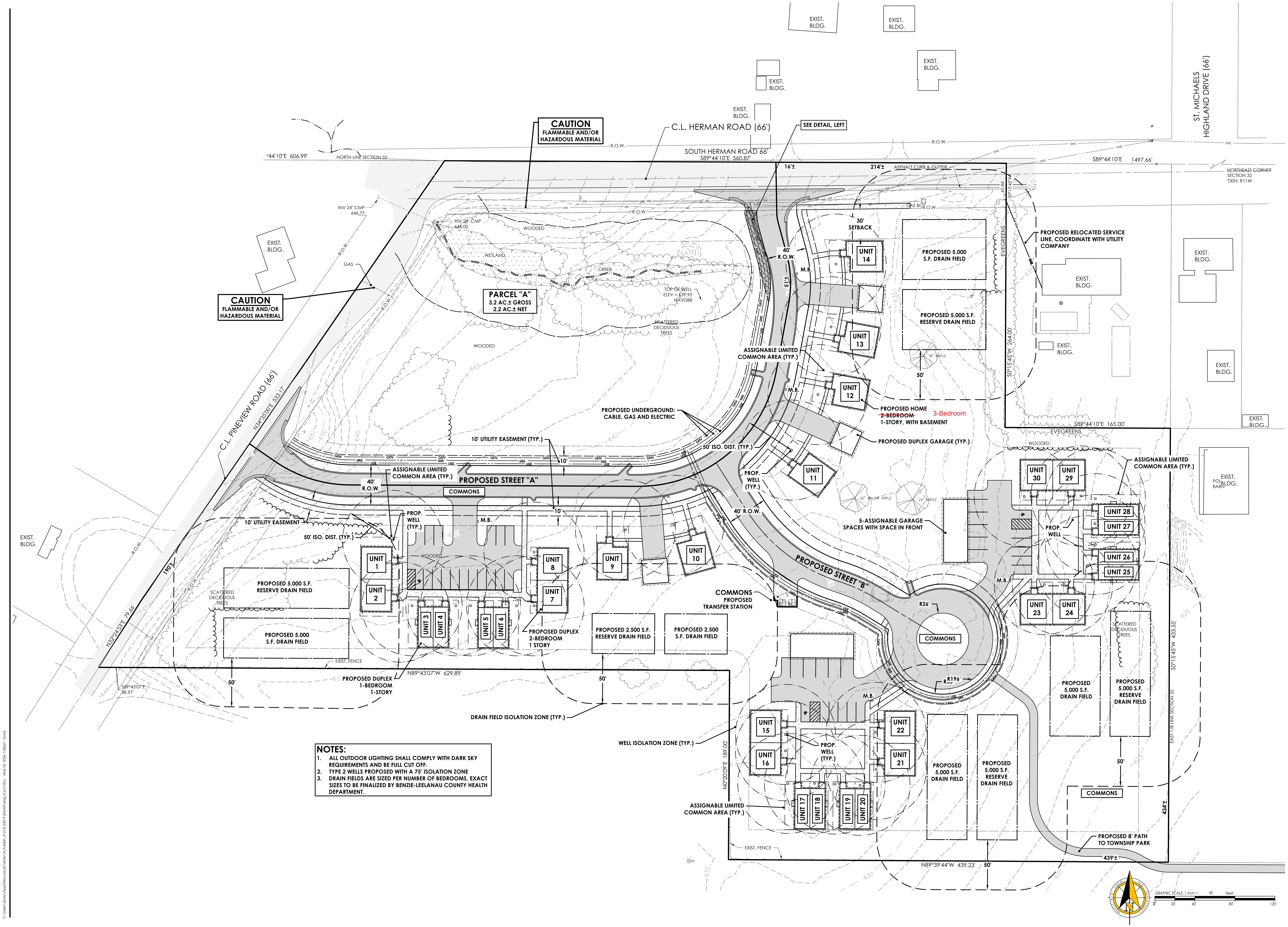
10	05-05-26	mmm	dmc	Per Twp. Comment

Peninsula Housing
Herman Road Proposed Housing
GRADING AND STORM WATER PLAN
Section 3, Town 30 North, Range 11 West
Suttons Bay Township, Leelanau County, Michigan

PRELIMINARY

P.M.: dmc
DR.: mmm | CKD.: dmc | CREATED: 02-24-2025
JOB NO.: 25019
C5.0



NOTES:

1. ALL OUTDOOR LIGHTING SHALL COMPLY WITH DARK SKY REQUIREMENTS AND BE FULL CUT OFF.
2. TYPE 2 WELLS PROPOSED WITH A 75' ISOLATION ZONE
3. DRAIN FIELDS ARE SIZED PER NUMBER OF BEDROOMS, EXACT SIZES TO BE FINALIZED BY BENZIE-LEELANAU COUNTY HEALTH DEPARTMENT.

Mansfield & Land Use Consultants

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08	03-19-26	mmm	dmc	Revised Design
09	04-03-26	mmm	dmc	SPR Submission
10	05-05-26	mmm	dmc	Per Twp. Comment

Peninsula Housing
Herman Road Proposed Housing
UTILITY PLAN

Section 3, Town 30 North, Range 11 West
Suttons Bay Township, Leelanau County, Michigan

PRELIMINARY

P.M.: dmc

DR.: mmm | CKD.: dmc | CREATED: 02-24-2025

JOB NO.: 25019

C6.0

PLANTING NOTES:

1. CLEAN UP AND REMOVE FROM THE PLANTING AREAS WEEDS AND GRASSES, INCLUDING ROOTS, AND ANY MINOR ACCUMULATED DEBRIS AND RUBBISH BEFORE COMMENCING WORK.
2. REMOVE AND DISPOSE OF ALL SOIL IN PLANTING AREAS THAT CONTAINS ANY DELETERIOUS SUBSTANCE SUCH AS OIL, PLASTER, CONCRETE, GASOLINE, PAINT, SOLVENTS, ETC., REMOVING THE SOIL TO A MINIMUM DEPTH OF SIX (6) INCHES OR TO THE LEVEL OF DRYNESS IN THE AFFECTED AREAS. THE AFFECTED SOIL SHALL BE REPLACED WITH NATIVE OR IMPORTED SOIL AS REQUIRED.
3. FINISH GRADING ALL PLANTING AREAS TO A SMOOTH AND EVEN CONDITION, MAKING CERTAIN THAT NO WATER POCKETS OR IRREGULARITIES REMAIN. REMOVE AND DISPOSE OF ALL FOREIGN MATERIALS, CLODS AND ROCKS OVER 1 INCH IN DIAMETER WITHIN 3 INCHES OF SURFACE.
4. ALL PLANT MATERIALS SHALL BE HEALTHY, WELL DEVELOPED REPRESENTATIVES OF THEIR SPECIES OF VARIETIES, FREE FROM DISFIGUREMENT WITH WELL-DEVELOPED BRANCH AND ROOT SYSTEMS, AND SHALL BE FREE FROM ALL PLANT DISEASES AND INSECT INFESTATION.
5. ALL PLANT SUBSTITUTIONS WILL BE SUBJECT TO THE OWNER'S APPROVAL.
6. EACH PLANT SHALL BE PLANTED WITH ITS PROPORTIONATE AMOUNT OF SOIL AMENDMENT AND FERTILIZER. HAND SMOOTH PLANTING AREA AFTER PLANTING TO PROVIDE AN EVEN, SMOOTH, FINAL FINISH GRADE. TO AVOID DRYING OUT, PLANTINGS SHALL BE IMMEDIATELY WATERED AFTER PLANTING UNTIL THE ENTIRE AREA IS SOAKED TO THE FULL DEPTH OF EACH HOLE UNLESS OTHERWISE NOTED ON THE DRAWING.
7. MULCH ALL PLANTING BEDS WITH 3 INCHES OF SHREDDED BARK MULCH.
8. REMOVE ALL TAGS, LABELS, NURSERY STAKES AND TIES FROM ALL PLANT MATERIAL ONLY AFTER THE APPROVAL OF THE OWNER.
9. ALL PLANTS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR. THE GUARANTEE PERIOD COMMENCES FROM THE TIME OF FINAL ACCEPTANCE BY THE OWNER. REPLACE AS SOON AS WEATHER PERMITS, ALL DEAD PLANTS NOT IN VIGOROUS CONDITION AS NOTED DURING THE MAINTENANCE PERIOD. SAID PLANTS SHALL BE MAINTAINED FOR A PERIOD OF 90 CALENDAR DAYS FROM THE REPLACEMENT DATE. PLANTS USED FOR REPLACEMENTS SHALL BE SAME KIND AND SIZE AS ORIGINALLY PLANTED. THEY SHALL BE FURNISHED, PLANTED AND FERTILIZED AS SPECIFIED AND GUARANTEED.
10. ALL DISTURBED AREAS SHALL BE TOP SOILED TO A DEPTH OF 4", SEEDED, FERTILIZED AND MOLDED MULCH BLANKETS SHALL BE USED AS NEEDED IN AREAS OF POTENTIAL EROSION PRIOR TO ESTABLISHMENT OF LAWN AREAS.

IRRIGATION NOTES:

1. LANDSCAPING TO BE IRRIGATED, INSTALLATION TO BE PERFORMED BY A REPUTABLE IRRIGATION CONTRACTOR.

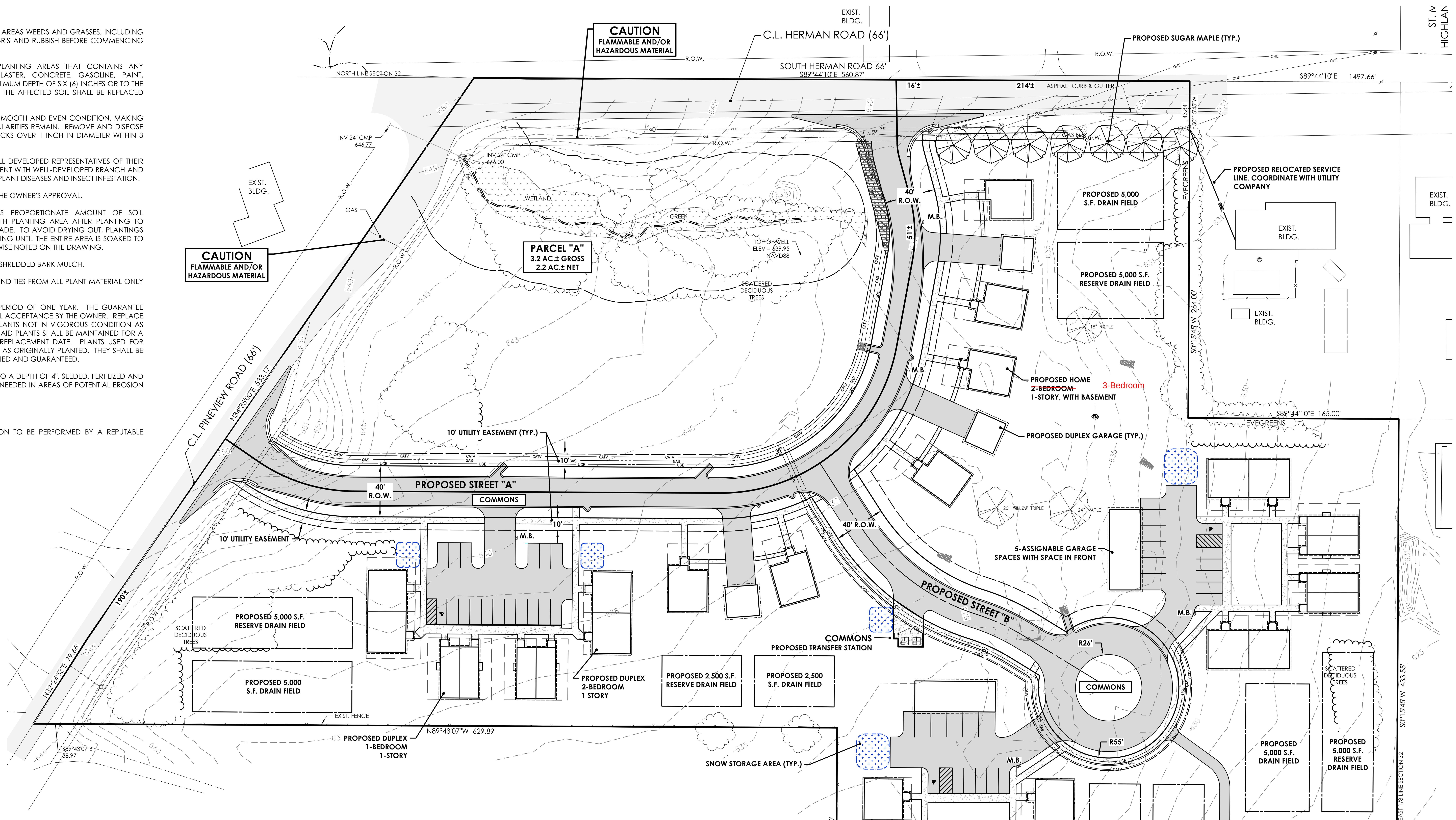
LANDSCAPING PREPARED BY:

DUSTIN M. CHIRSTENSEN, LLA
LANDSCAPE ARCHITECT
NUMBER 3901001527

LANDSCAPE LEGEND

Maple, Sugar (Acer saccharum)

SNOW STORAGE AREAS (TYP.)

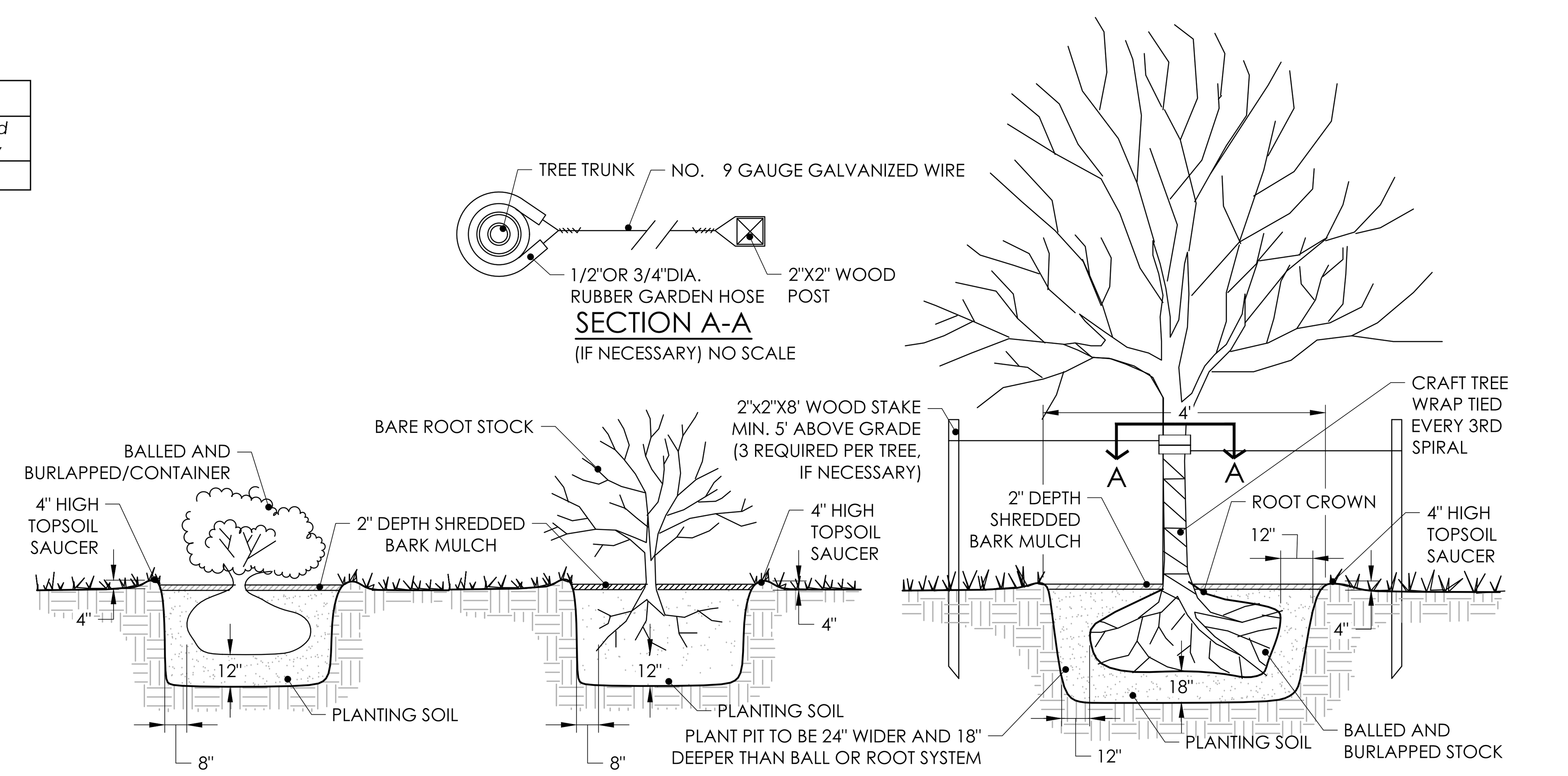


PLANT LIST

Trees: common name	botanical name	size	estimated quantity
Maple, Sugar	Acer saccharum	3" B&B	7

STREET TREES: 1 TREE PER 30 L.F. REQUIRED

HERMAN ROAD	7	TREES REQUIRED	7	PROVIDED
PINEVIEW ROAD	8	TREES REQUIRED	8+	EXISTING



SECTION A-A
(IF NECESSARY) NO SCALE

SHRUB PLANTING DETAIL
NO SCALE

TREE PLANTING DETAIL
NO SCALE

GRAPHIC SCALE: 1 inch = 40 feet

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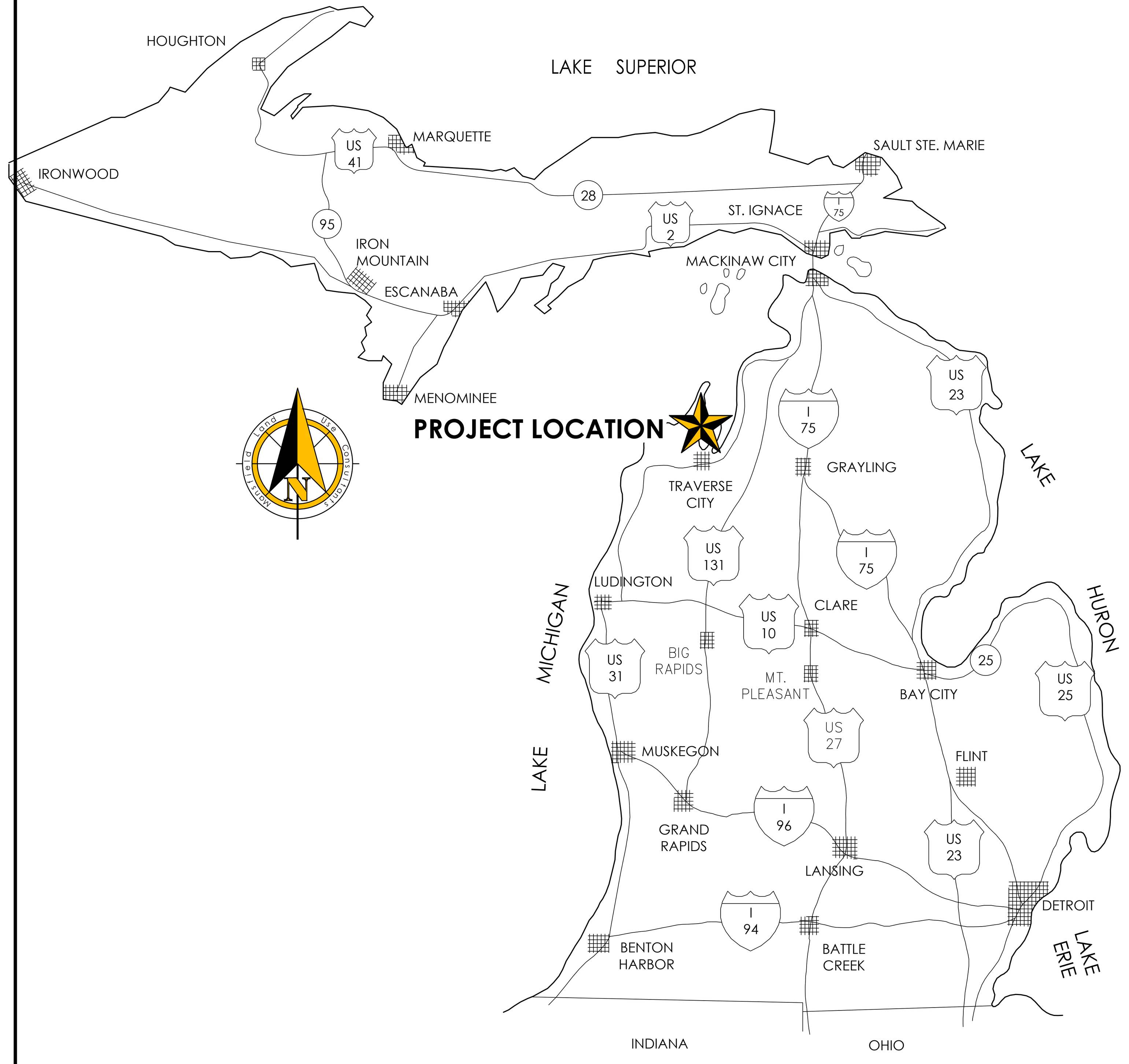
Peninsula Housing
Herman Road Proposed Housing
LANDSCAPE PLAN

Section 3, Town 30 North, Range 11 West
Suttons Bay Township, Leelanau County, Michigan

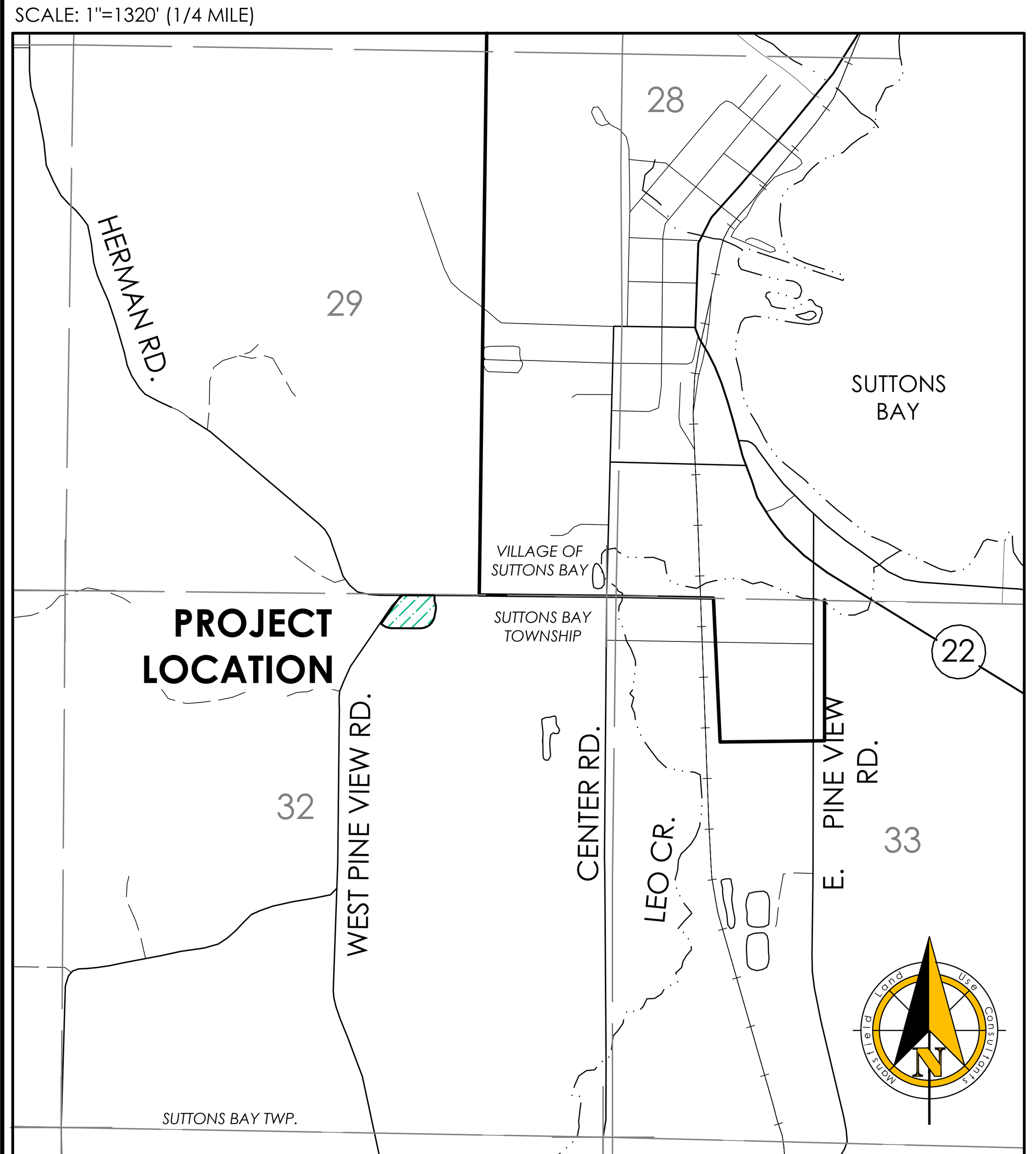
PRELIMINARY

P.M.: dmc
DR.: mmm | CKD.: dmc | CREATED: 02-24-2025
JOB NO.: 25019
L1.0



MICHIGAN LOCATION MAP

VICINITY MAP
SCALE: 1"=1320' (1/4 MILE)



STANDARD PLAN LEGEND

DESCRIPTION	EXISTING	PROPOSED
GROUND CONTOUR	605	613
SPOT ELEVATION		704.33
CONTOUR FROM USGS TOPOGRAPHIC MAP		
TOP OF CURB ELEVATION PAVEMENT (OR GUTTER FLOW LINE) ELEVATION	613.5 613.0	704.33 704.00
DIRECTION OF SURFACE FLOW		1.93%
DRAINAGE HIGH POINT		H.P.
DRAINAGE LOW POINT		L.P.
WATER MAIN		W W
SANITARY FORCE MAIN	FM FM	FM
SANITARY SEWER		
STORM SEWER	ST	
GAS MAIN	GAS	GAS
OVERHEAD ELECTRIC	OHE	OHE
PROPERTY LINE		
TREE LINE		
PINE LINE		
EDGE OF WETLAND		
EDGE OF WATER		
C/L OR DRAINAGE DITCH OR WATER LINE		
SILT FENCE		
GRADING LIMITS		
MANHOLE (MH)	S	
CATCH BASIN (CB)		ST
CLEAN OUT (CO)	CO	
RISER		
GATE VALVE		
FIRE HYDRANT ASSEMBLY		
CURB STOP & BOX		
POLE, POWER OR ELECTRIC		
LIGHT POLE		
SIGN		
BENCH MARK (BM)	BM	
U/G UTILITY SIGN		
GUY ANCHOR		
SOIL EROSION CONTROL MEASURE (MICHIGAN UNIFIED KEYING SYSTEM) P=PERMANENT T=TEMPORARY		6
IRON FOUND / IRON SET		
CONCRETE MONUMENT		
GOVERNMENT CORNER		
NAIL FOUND / NAIL SET		
RECORD / MEASURED	(R)	(M)
FENCE		
WOOD STAKE		

PROJECT DATA:

DEVELOPER: HOMESTRETCH NONPROFIT HOUSING CORPORATION
400 BOARDMAN AVE., SUITE 10
TRAVERSE CITY, MI 49684
CONTACT: JON STIMSON
PHONE: 231-947-6001
EMAIL: jon@homestretchhousing.org

SITE DATA:

ZONING: A-1, AGRICULTURAL
SETBACK FRONT: 40'
SETBACK SIDE: 15'
SETBACK REAR: 30'
LOT COVERAGE: 25%

PARCEL: 011-032-006-20
OWNER: PENINSULA HOUSING
PO BOX 555
SUTTONS BAY, MI 49682
ADDRESS: 926 S. HERMAN ROAD

LEGAL DESCRIPTION PARCEL A:
PART OF THE NORTHEAST QUARTER OF SECTION 32, T30N, R11W, SUTTONS BAY TOWNSHIP, LEELANAU COUNTY, MICHIGAN DESCRIBED AS FOLLOWS:
COMMENCING AT THE NORTH QUARTER CORNER OF SECTION 32; THENCE S89° 44' 10"E, 606.99 ALONG THE NORTH LINE OF SECTION 32 TO THE POINT OF BEGINNING; THENCE S89° 44' 10"E, 330.82 FEET ALONG THE NORTH LINE OF SECTION 32; THENCE S00° 55' 59"E, 49.55 FEET; THENCE 11.13 FEET ALONG THE ARC OF A 45.00 FOOT RADIUS CURVE TO THE LEFT, HAVING AN INCLUDED ANGLE OF 14° 10' 24", AND THE LONG CHORD OF WHICH BEARS S08° 01' 11"E, 11.10 FEET; THENCE S15° 06' 23"E, 31.72 FEET; THENCE 51.28 FEET ALONG THE ARC OF A 115.00 FOOT RADIUS CURVE TO THE RIGHT, HAVING AN INCLUDED ANGLE OF 25° 32' 52", AND THE LONG CHORD OF WHICH BEARS S02° 19' 57"E, 50.85 FEET; THENCE S10° 26' 29"W, 68.35 FEET; THENCE 195.09 FEET ALONG THE ARC OF A 140.00 FOOT RADIUS CURVE TO THE RIGHT, HAVING AN INCLUDED ANGLE OF 79° 50' 24", AND THE LONG CHORD OF WHICH BEARS S50° 21' 41"W, 179.68 FEET; THENCE N89° 43' 07"W, 287.18 FEET; THENCE 79.42 FEET ALONG THE ARC OF A 133.00 FOOT RADIUS CURVE TO THE RIGHT, HAVING AN INCLUDED ANGLE OF 34° 12' 52", AND THE LONG CHORD OF WHICH BEARS N72° 36' 41"W, 78.25 FEET; THENCE N55° 30' 15"W, 31.38 FEET TO THE CENTERLINE OF SOUTH PINE VIEW ROAD; THENCE N34° 35' 00"E, 343.47 FEET ALONG THE CENTERLINE OF SOUTH PINE VIEW ROAD TO THE POINT OF BEGINNING.

SUBJECT TO AND TOGETHER WITH A 40-F00T-WIDE INGRESS, EGRESS, AND UTILITY EASEMENT IN PART OF THE NORTHEAST QUARTER OF SECTION 32, T30N, R11W, SUTTONS BAY TOWNSHIP, LEELANAU COUNTY, MICHIGAN WITH THE EASEMENT CENTERLINE BE DESCRIBED AS FOLLOWS:
COMMENCING AT THE NORTH QUARTER CORNER OF SECTION 32; THENCE S89° 44' 10"E, 937.81 ALONG THE NORTH LINE OF SECTION 32 TO THE POINT OF BEGINNING OF EASEMENT CENTERLINE; THENCE S00° 55' 59"E, 49.55 FEET; THENCE 11.13 FEET ALONG THE ARC OF A 45.00 FOOT RADIUS CURVE TO THE LEFT, HAVING AN INCLUDED ANGLE OF 14° 10' 24", AND THE LONG CHORD OF WHICH BEARS S08° 01' 11"E, 11.10 FEET; THENCE S15° 06' 23"E, 31.72 FEET; THENCE 51.28 FEET ALONG THE ARC OF A 115.00 FOOT RADIUS CURVE TO THE RIGHT, HAVING AN INCLUDED ANGLE OF 25° 32' 52", AND THE LONG CHORD OF WHICH BEARS S02° 19' 57"E, 50.85 FEET; THENCE S10° 26' 29"W, 68.35 FEET; THENCE 195.09 FEET ALONG THE ARC OF A 140.00 FOOT RADIUS CURVE TO THE RIGHT, HAVING AN INCLUDED ANGLE OF 79° 50' 24", AND THE LONG CHORD OF WHICH BEARS S50° 21' 41"W, 179.68 FEET; THENCE N89° 43' 07"W, 287.18 FEET; THENCE 79.42 FEET ALONG THE ARC OF A 133.00 FOOT RADIUS CURVE TO THE RIGHT, HAVING AN INCLUDED ANGLE OF 34° 12' 52", AND THE LONG CHORD OF WHICH BEARS N72° 36' 41"W, 78.25 FEET; THENCE N55° 30' 15"W, 31.38 FEET TO THE CENTERLINE OF SOUTH PINE VIEW ROAD AND THE POINT OF ENDING OF EASEMENT CENTERLINE. EXCLUDING THE PUBLIC RIGHT-OF-WAYS FOR SOUTH PINE VIEW ROAD AND SOUTH HERMAN ROAD.

SUBJECT TO AND TOGETHER WITH A 10-FOOT-WIDE UTILITY EASEMENT ADJACENT TO AND OUTSIDE OF THE ABOVE DESCRIBED EASEMENT.

PLAN INDEX

C1.0 COVER SHEET
C1.1 NOTES SHEET
C1.2 CIVIL DETAILS - SITE
C2.0 EXISTING CONDITIONS PLAN
C2.1 DEMOLITION PLAN
C4.0 SITE & DIMENSION PLAN
C5.0 GRADING & STORM PLAN
C6.0 UTILITY PLAN
L1.0 LANDSCAPE PLAN

PROPOSED TOWNHOMES

Suttons Bay Township, Leelanau County, Michigan

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Mansfield & Land Use Consultants

REV#	DATE	DRAWN	CHECKED	DESCRIPTION
01	04-30-26	MMM	DMC	SPR Submittal

PENINSULA HOUSING
HERMAN ROAD PROPERTY HOUSING
COVER SHEET
SECTION 32, TOWN 30 NORTH, RANGE 11 WEST
SUTTONS BAY TOWNSHIP, LEELANAU COUNTY, MICHIGAN

PRELIMINARY

P.M.: DMC
DR.: MMM CKD.: DMC CREATED: 4-22-2026
JOB NO.: 26058

C1.0

GENERAL CONSTRUCTION NOTES:

1. MISS DIG
FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 53, 1974, THE CONTRACTOR SHALL DIAL 811 or 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE PART OF THE "MISS DIG" ALERT SYSTEM.

2. EXISTING UTILITIES
EXISTING PUBLIC UTILITIES AND UNDERGROUND STRUCTURES SUCH AS PIPE LINES, ELECTRIC CONDUITS, SEWERS AND WATER LINES, ARE SHOWN ON THE PLANS. THE INFORMATION SHOWN IS BELIEVED TO BE REASONABLY CORRECT AND COMPLETE. HOWEVER, NEITHER THE CORRECTNESS NOR THE COMPLETENESS OF SUCH INFORMATION IS GUARANTEED. PRIOR TO THE START OF ANY OPERATIONS IN THE VICINITY OF ANY UTILITIES, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES AND "MISS DIG" AND REQUEST THAT THEY STAKE OUT THE LOCATIONS OF THE UTILITIES IN QUESTION. COST OF REPAIR FOR ANY DAMAGED UTILITY LINES THAT IS PROPERLY STAKED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

3. PROTECTING UTILITIES
SPECIAL CARE SHALL BE TAKEN IN EXCAVATING IN THE PROXIMITY OF ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL SECURE ASSISTANCE FROM THE APPROPRIATE UTILITY COMPANY IN LOCATING ITS LINES. THE CONTRACTOR SHALL ALSO PROVIDE SUPPORT FOR ANY UTILITY WITHIN THE EXCAVATION, PROVIDE PROPER COMPACTION UNDER ANY UNDERMINED UTILITY STRUCTURE AND, IF NECESSARY, INSTALL TEMPORARY SHEETING OR USE A TRENCH BOX TO MINIMIZE THE EXCAVATION. THE CONTRACTOR SHALL PROTECT AND SAVE HARMLESS FROM DAMAGE ALL UTILITIES, WHETHER PRIVATELY OR PUBLICLY OWNED, ABOVE OR BELOW GROUND SURFACE, WHICH MAY BE ENCOUNTERED DURING CONSTRUCTION, AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL PROVIDE ADEQUATE SUPPORT FOR UTILITY POLES AS NECESSARY.

4. SAFETY
THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS GOVERNING THE FURNISHING AND USE OF SAFEGUARDS, SAFETY DEVICES AND PROTECTION EQUIPMENT. THE CONTRACTOR SHALL TAKE ANY NECESSARY PRECAUTIONS TO PROTECT THE LIFE AND HEALTH OF EMPLOYEES AND THE PUBLIC IN THE PERFORMANCE OF THE WORK.

5. SOIL EROSION & SEDIMENTATION CONTROL
THE CONTRACTOR SHALL PROVIDE TEMPORARY SOIL EROSION CONTROL MEASURES PER P.A. 451 AS AMENDED. THE SOIL EROSION MEASURES SHOWN ARE THE MINIMUM CONTROLS TO BE USED ON THIS PROJECT. THE CONTRACTOR SHALL INSTALL ADDITIONAL TEMPORARY AND PERMANENT SOIL EROSION CONTROL MEASURES TO PROTECT THE DISTURBED AREAS AND ADJACENT PROPERTIES FROM ACCELERATED EROSION AND SEDIMENTATION RESULTING FROM PROJECT CONSTRUCTION, IF DIRECTED BY THE ENGINEER OR SOIL EROSION CONTROL OFFICER, AT NO ADDITIONAL COST TO THE PROJECT. NO EXCAVATION WORK MAY PROCEED UNTIL THE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ARE IN PLACE. ALL WORK MUST BE IN ACCORDANCE WITH THE APPROVED PERMIT FROM THE LEELANAU COUNTY SOIL EROSION AND SEDIMENTATION CONTROL OFFICE.

6. PROPERTY CORNERS
EXISTING KNOWN PROPERTY CORNERS ARE IDENTIFIED ON THE PLANS. IF A PROPERTY CORNER IS DISTURBED DURING CONSTRUCTION IT SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE BY A PROFESSIONAL LAND SURVEYOR.

7. SURVEY DATUM
ALL ELEVATIONS ARE BASED ON N.A.V.D., 1988, UNLESS OTHERWISE SPECIFIED.

8. RESTORATION WORK
ALL DISTURBED AREAS SHALL BE TOPSOILED, SEEDED, FERTILIZED AND MULCHED. MULCH BLANKET SHALL BE INSTALLED IN AREAS AS DESIGNATED AND SHALL BE INCIDENTAL TO OTHER ITEMS. ALL EXCESS TOPSOIL WILL REMAIN WITHIN THE PROPERTY OWNER'S AREA. THE CONTRACTOR SHALL REPAIR ALL WASHOUTS AND EROSION DURING THE GUARANTEE PERIOD OF ONE (1) YEAR AT NO ADDITIONAL COST TO THE OWNER.

9. REMOVAL ITEMS
THE CONTRACTOR SHALL RESTORE ALL LAWNS, LANDSCAPE PLANTINGS, SIDEWALKS, COMMERCIAL SIGNS, ETC., AS REQUIRED. UNLESS SPECIFICALLY NOTED FOR REMOVAL ON THE PLANS, ALL SIDEWALKS, DRIVES, CULVERTS, DRAINAGE STRUCTURES, ABOVE GRADE UTILITIES, IRRIGATION SYSTEM, ETC. SHALL BE PROTECTED. ALL SUCH ITEMS DAMAGED OR DESTROYED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED WITH NEW BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

10. CONSTRUCTION SIGNAGE & TRAFFIC CONTROL
LOCAL TRAFFIC AND CONSTRUCTION SIGNAGE SHALL BE MAINTAINED AT ALL TIMES TO THE SATISFACTION OF THE OWNER.

11. DUST CONTROL
THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST ON THIS PROJECT THOUGH THE USE OF WATER TRUCKS OR DUST PALLIATIVE. PAYMENT FOR DUST CONTROL SHALL BE INCLUDED IN THE LUMP SUM CONTRACT AND SHALL NOT BE PAID SEPARATELY. DUST SHALL BE CONTINUOUSLY CONTROLLED TO THE SATISFACTION OF THE OWNER.

12. PROTECTIVE FENCE
THE CONTRACTOR IS RESPONSIBLE FOR ALL SITE SECURITY. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN A TEMPORARY PROTECTIVE SNOW FENCE AROUND ALL OPEN TRENCH EXCAVATIONS THAT ARE LEFT OPEN OVERNIGHT OR ANY OTHER UNSAFE AREAS ON SITE THAT REQUIRE PUBLIC PROTECTION.

13. EXCESS MATERIALS
ALL EXCESS MATERIALS SHALL BE DISPOSED OF BY THE CONTRACTOR OFF OF THE SITE UNLESS OTHERWISE NOTED OR APPROVED BY THE OWNER. ALL REMOVALS AND TRANSPORTATION OF THE REMOVED MATERIALS SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS AND ALL LOCAL, STATE AND FEDERAL LAWS.

14. SAWCUTTING PAVEMENT
SAWCUT EXISTING PAVEMENT FULL DEPTH TO THE LIMITS OF CONSTRUCTION OR AS DIRECTED BY THE ENGINEER. IF THE EDGE IS DAMAGED SUBSEQUENT TO SAWCUTTING, THE EDGE SHALL BE RECUT AT NO ADDITIONAL COST TO THE OWNER.

15. DEWATERING
ANY REQUIRED DEWATERING FOR SITE WORK, INCLUDING THE USE OF STONE OR GRAVEL FOR DEWATERING PURPOSES, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE LUMP SUM CONTRACT.

16. UTILITY SEPARATION
MAINTAIN A MINIMUM OF 10' HORIZONTAL SEPARATION AND 1.5' VERTICAL SEPARATION BETWEEN ALL WATER MAINS AND SANITARY/STORM SEWERS. MEASUREMENTS ARE BETWEEN THE CLOSEST POINTS OF EACH PIPE.

17. RECYCLING
THE CONTRACTOR IS ENCOURAGED TO RECYCLE ANY MATERIALS OR PRODUCTS THAT ARE REUSABLE OR CAPABLE OF BEING RECYCLED.

18. EXCAVATION FOR UTILITIES
ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY, WHERE REQUIRED, SHALL INCLUDE THE USE OF TRENCH BOXES AND SHEETING DURING THE INSTALLATION TO PREVENT DAMAGE TO THE EXISTING ROADWAY AND UTILITIES. DEWATERING, IF REQUIRED, SHALL BE COMPLETED PER THE STANDARD DPW SPECIFICATIONS.

GENERAL GRADING CONSTRUCTION NOTES:

1. QUALITY OF WORK
ALL CONSTRUCTION WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE CURRENT M.D.O.T. CONSTRUCTION STANDARDS AND SPECIFICATIONS.

2. SUBGRADE PREPARATION
THE PRESENCE OF OTHER THAN GRANULAR MATERIALS IN THE SUBGRADE SOIL SHALL REQUIRE A FULL WIDTH, TWELVE INCH, GRANULAR SUB-BASE, M.D.O.T. CLASS II OR EQUIVALENT. PREPARED SUBGRADE WIDTH, DEPTH AND COMPACTION MUST BE REVIEWED AND/OR TESTED PRIOR TO PLACEMENT OF GRAVEL.

3. AGGREGATE BASE MATERIAL
AGGREGATE BASE TO BE USED ON THE PROJECT MUST MEET SPECIFICATION FOR M.D.O.T. 22A AND MUST BE TESTED AND APPROVED PRIOR TO PLACEMENT. AGGREGATE BASE PLACEMENT MUST COMPLY WITH SECTION 3.01 OF THE CURRENT MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION. PREPARED AGGREGATE BASE WIDTH, DEPTH AND COMPACTION MUST BE REVIEWED AND TESTED PRIOR TO THE PLACEMENT OF BITUMINOUS SURFACE.

4. BITUMINOUS PAVEMENT (HMA)
THE CONTRACTOR SHALL GIVE THE OWNER'S REPRESENTATIVE 48 HOURS NOTICE PRIOR TO PLACEMENT OF BITUMINOUS SURFACE. BITUMINOUS PAVING MUST BE PERFORMED IN ACCORDANCE WITH THE CURRENT M.D.O.T. STANDARD SPECIFICATIONS FOR CONSTRUCTION.

5. REMOVAL OF ORGANICS
ALL TREES, STUMPS, BRUSH AND ROOTS THEREOF, SHALL BE ENTIRELY REMOVED FROM WITHIN THE SITE GRADING.

6. SITE GRADING
ALL DISTURBED AREAS SHALL BE TOPSOILED, SEEDED, FERTILIZED AND MULCHED AS SOON AS FEASIBLE. THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING GROUND COVER ON ALL AREAS DISTURBED BY CONSTRUCTION.

7. FIELD CHANGES
ANY CHANGES IN SPECIFICATIONS OR CONSTRUCTION METHODS MUST BE REVIEWED AND APPROVED BY THE ENGINEER AND OWNER, AND MUST NOT CONFLICT WITH APPROVED PERMITS.

8. DRAINAGE
EXISTING STORM DRAINAGE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO REPAIR OR REPLACE, AS REQUIRED, ALL DRAINAGE CULVERTS OR STRUCTURES DAMAGED DURING CONSTRUCTION AND SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT. SEE THE PROPOSED GRADING PLAN FOR DETAILS ON CONSTRUCTION ITEMS.

9. ADJUSTMENTS
THE CONTRACTOR SHALL ADJUST ALL UTILITY SURFACE ITEMS TO THE FINISH GRADES PRIOR TO PAVING.

GENERAL STORM SEWER CONSTRUCTION NOTES:

1. CONSTRUCTION STANDARDS
ALL MATERIALS, CONSTRUCTION, METHODS, TESTING AND INSPECTION SHALL BE IN ACCORDANCE WITH THE CURRENT MDOT CONSTRUCTION STANDARDS UNLESS OTHERWISE SPECIFIED.

2. CONNECTIONS
NO CONNECTIONS SHALL BE MADE TO SANITARY SEWERS.

3. STRUCTURE ADJUSTMENTS
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING CATCH BASIN AND/OR MANHOLE RIMS TO THE FINISH GRADE ELEVATIONS. THE LOCATIONS AND ELEVATIONS SHOWN ARE BASED UPON PLAN GRADES AND ARE SUBJECT TO CHANGE.

4. UTILITY SEPARATION
ALL STORM SEWERS SHALL MAINTAIN A MINIMUM OF 10' HORIZONTAL SEPARATION AND 1.5' VERTICAL SEPARATION FROM WATER MAINS AND LEADS. MEASUREMENTS ARE BETWEEN THE CLOSEST POINTS OF EACH PIPE.

Mansfield & Land Use Consultants

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REV#	DATE	DRAWN	CHECKED	DESCRIPTION
01	04-30-26	MMM	DMC	SPR Submittal

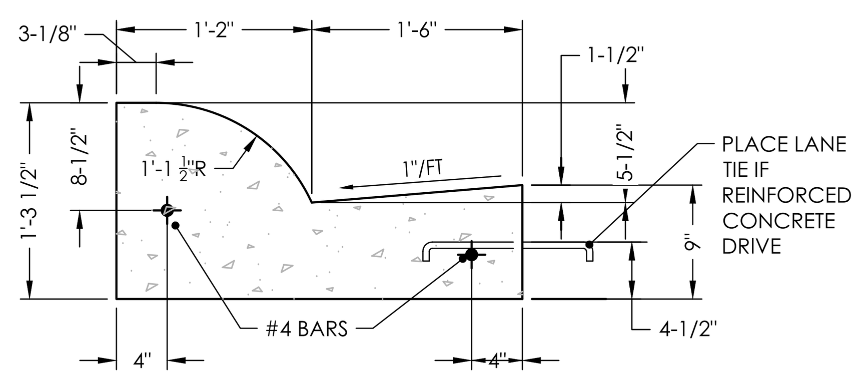
PENINSULA HOUSING
HERMAN ROAD PROPERTY HOUSING
NOTES SHEET
SECTION 32, TOWN 30 NORTH, RANGE 11 WEST
SUTTONS BAY TOWNSHIP, LEELANAU COUNTY, MICHIGAN

PRELIMINARY

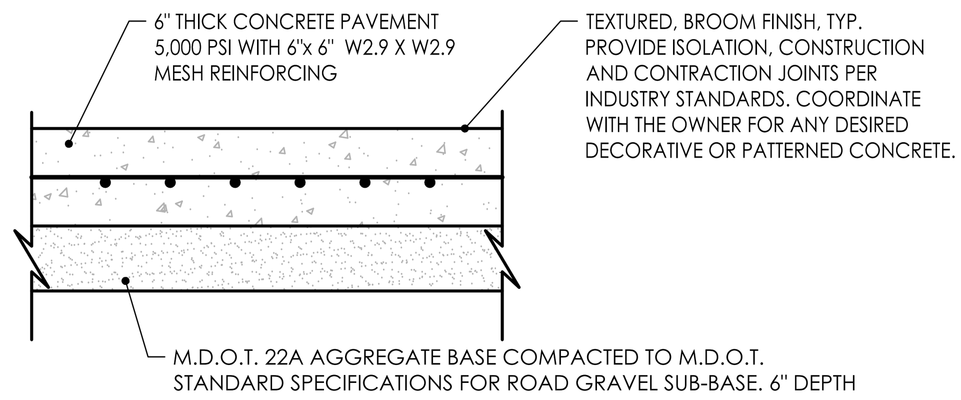
P.M.: DMC
DR.: MMM
CKD.: DMC
CREATED: 4-22-2026
JOB NO.: 26058

C1.1

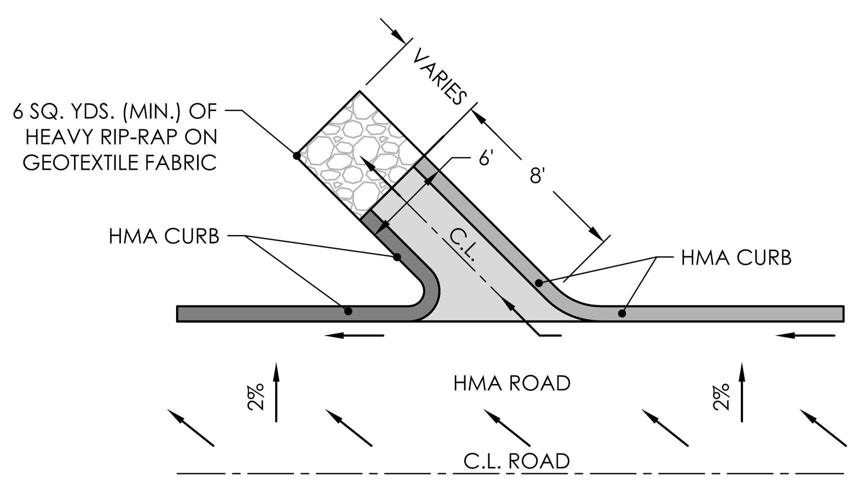
(C1.1 NOTES) - Apr 30, 2026 1:09pm - Dusty



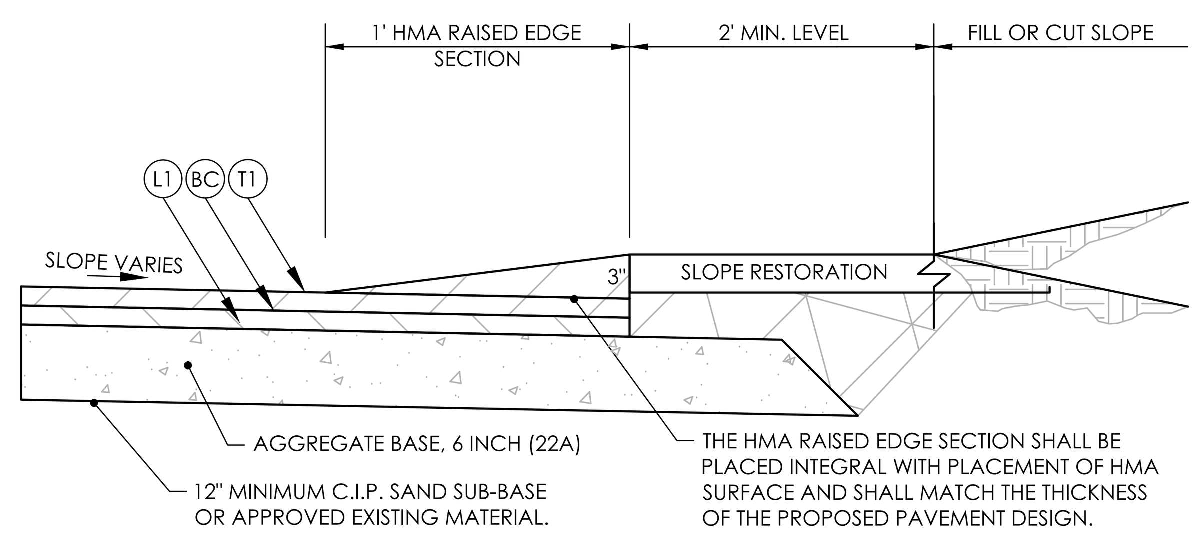
M.D.O.T. B2 CURB DETAIL



PAVING DETAIL - CONCRETE
NO SCALE



HMA SPILLWAY DETAIL
NO SCALE



HMA RAISED EDGE SECTION
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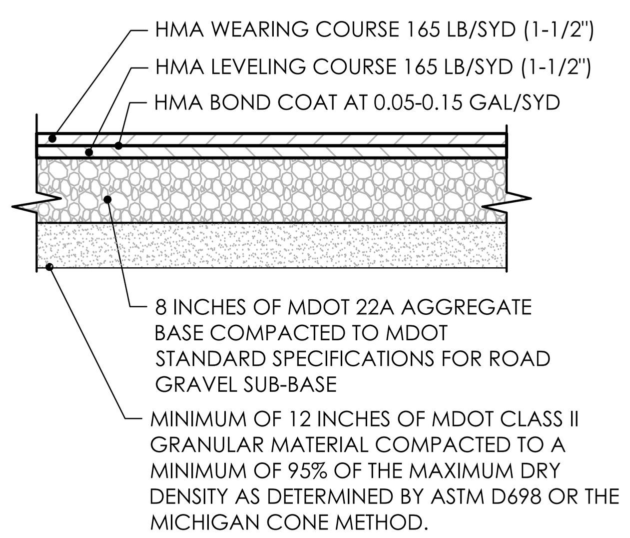

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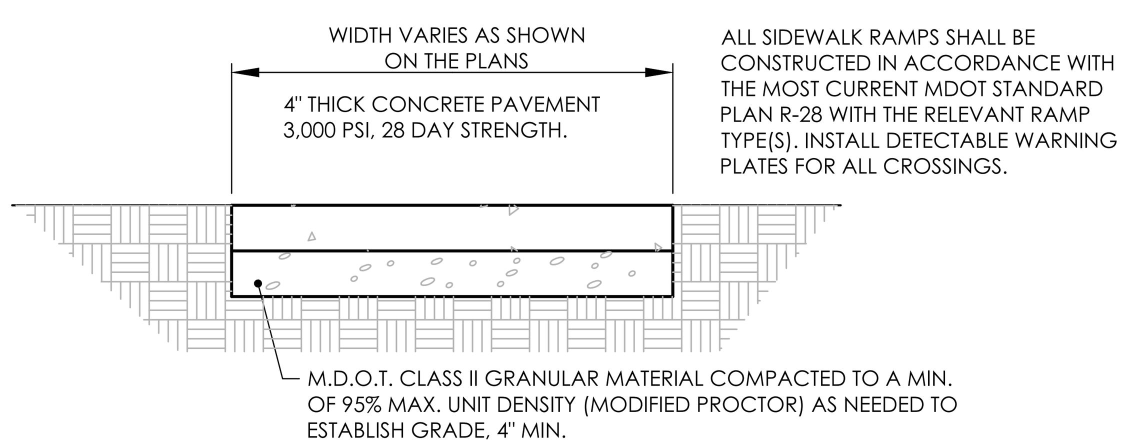
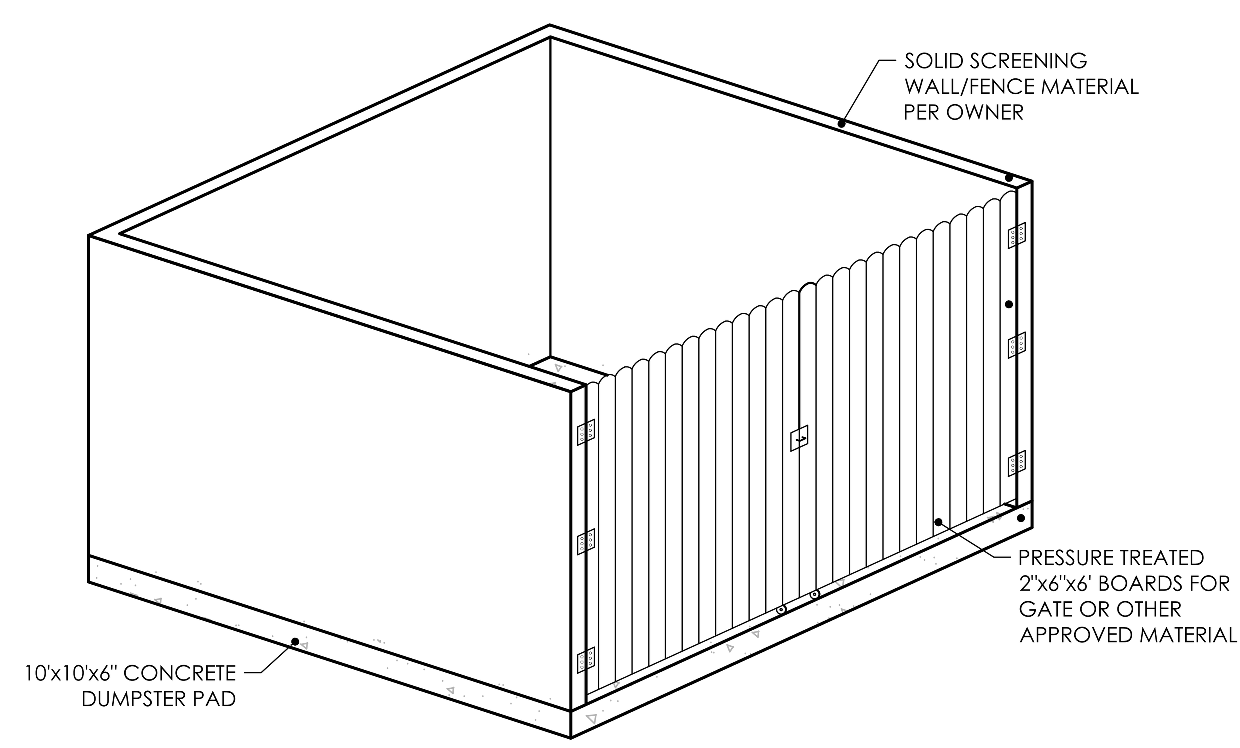
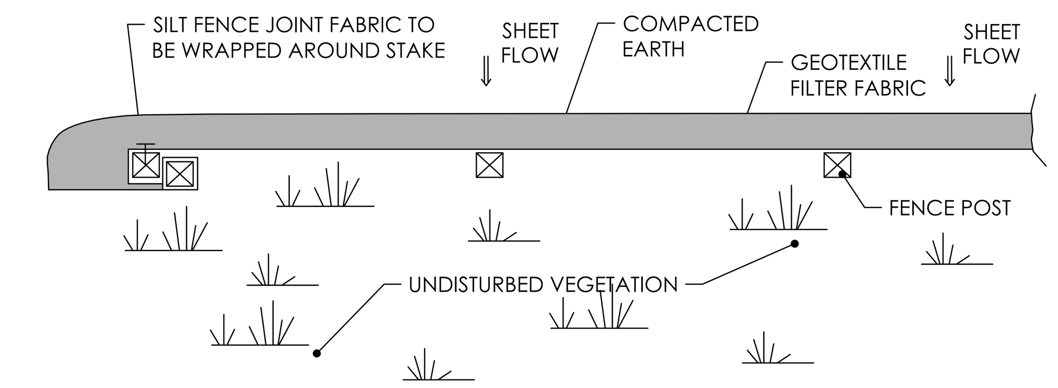


NOTE:
EXPANSION JOINTS SHALL BE PLACED AT ALL SPRING POINTS, PERMANENT STRUCTURES, AND AT A SPACING OF NOT MORE THAN 20 FEET. THE SIDEWALK SHALL BE DIVIDED INTO UNIT AREAS OF NOT MORE THAN 36 SQUARE FEET BY MEANS OF CUT JOINTS (WPJ). INSOFAR AS POSSIBLE, UNIT AREAS SHALL BE PERPENDICULAR AND NOT LESS THAN 16 SQUARE FEET.

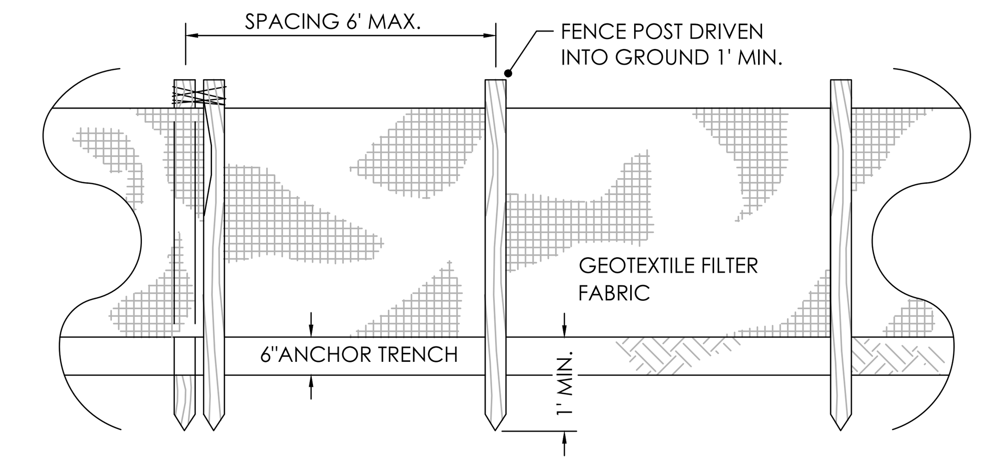
CONCRETE SIDEWALK DETAIL
NO SCALE



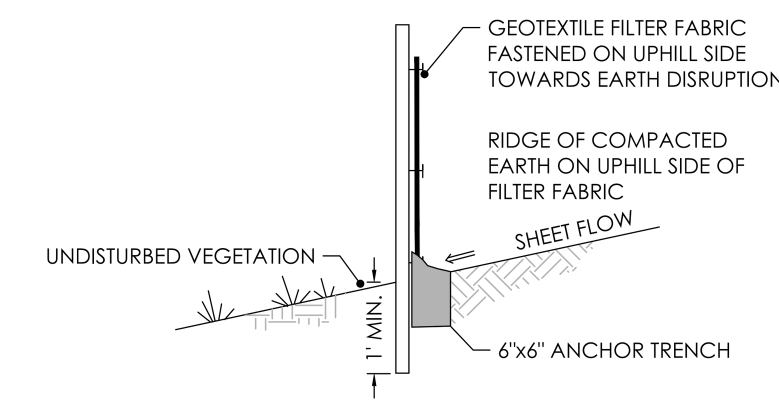
DUMPSTER SCREENING PAD
NO SCALE



PLAN VIEW



FRONT ELEVATION



SECTION VIEW

SILT FENCE DETAILS
NO SCALE

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PENINSULA HOUSING
HERMAN ROAD PROPERTY HOUSING
DETAIL SHEET
SECTION 32, TOWN 30 NORTH, RANGE 11 WEST
SUTTONS BAY TOWNSHIP, LEELANAU COUNTY, MICHIGAN

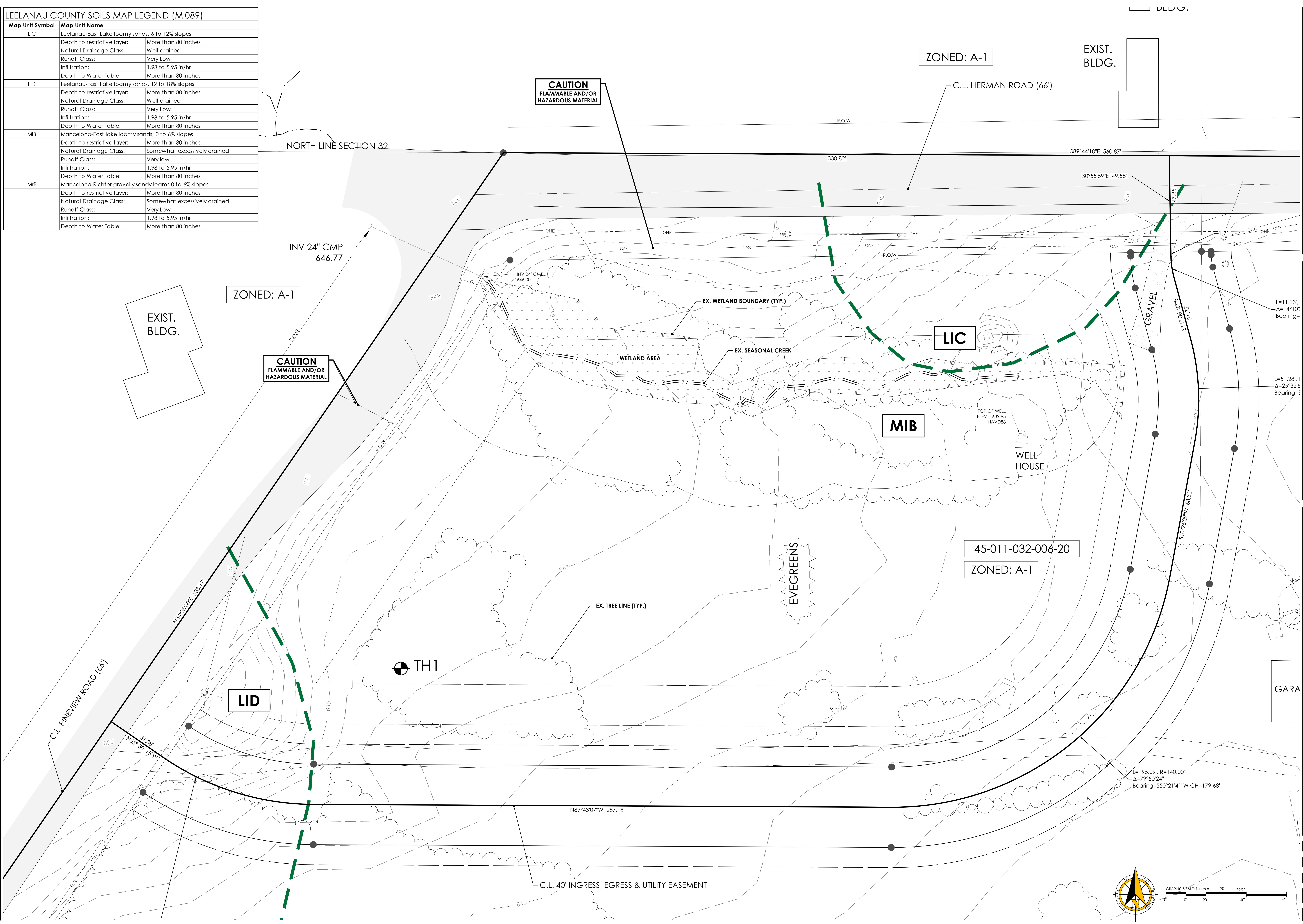
PRELIMINARY

P.M.: DMC
DR.: MMM CKD.: DMC CREATED: 4-22-2026
JOB NO.: 26058

C1.2

LEELANAU COUNTY SOILS MAP LEGEND (MI089)

Map Unit Symbol	Map Unit Name	
LIC	Leelanau-East Lake loamy sands, 6 to 12% slopes	
	Depth to restrictive layer:	More than 80 inches
	Natural Drainage Class:	Well drained
	Runoff Class:	Very Low
	Infiltration:	1.98 to 5.95 in/hr
	Depth to Water Table:	More than 80 inches
LID	Leelanau-East Lake loamy sands, 12 to 18% slopes	
	Depth to restrictive layer:	More than 80 inches
	Natural Drainage Class:	Well drained
	Runoff Class:	Very Low
	Infiltration:	1.98 to 5.95 in/hr
	Depth to Water Table:	More than 80 inches
MIB	Mancelona-East lake loamy sands, 0 to 6% slopes	
	Depth to restrictive layer:	More than 80 inches
	Natural Drainage Class:	Somewhat excessively drained
	Runoff Class:	Very low
	Infiltration:	1.98 to 5.95 in/hr
	Depth to Water Table:	More than 80 inches
MrB	Mancelona-Richter gravelly sandy loams 0 to 6% slopes	
	Depth to restrictive layer:	More than 80 inches
	Natural Drainage Class:	Somewhat excessively drained
	Runoff Class:	Very Low
	Infiltration:	1.98 to 5.95 in/hr
	Depth to Water Table:	More than 80 inches



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PENINSULA HOUSING
HERMAN ROAD PROPERTY HOUSING
OVERALL EXISTING CONDITIONS PLAN
SECTION 32, TOWN 30 NORTH, RANGE 11 WEST
SUTTONS BAY TOWNSHIP, LEELANAU COUNTY, MICHIGAN

PRELIMINARY

P.M.: DMC
DR.: MMM CKD.: DMC CREATED: 4-22-2026
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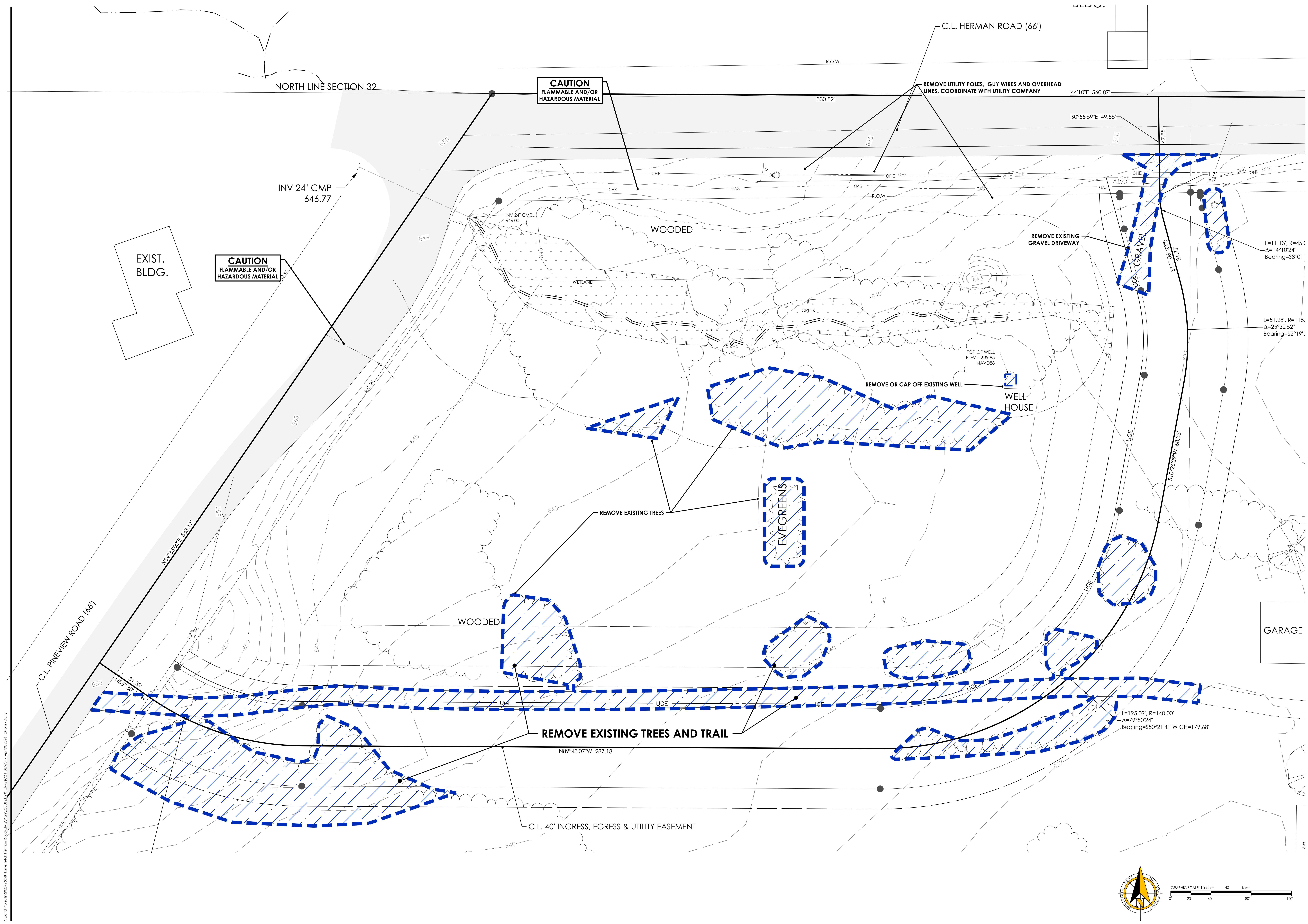
C2.0



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REV#	DATE	DRAWN	CHECKED	DESCRIPTION
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PENINSULA HOUSING
HERMAN ROAD PROPERTY HOUSING

DEMOLITION PLAN

SECTION 32, TOWN 30 NORTH, RANGE 11 WEST
SUTTONS BAY TOWNSHIP, LEELANAU COUNTY, MICHIGAN

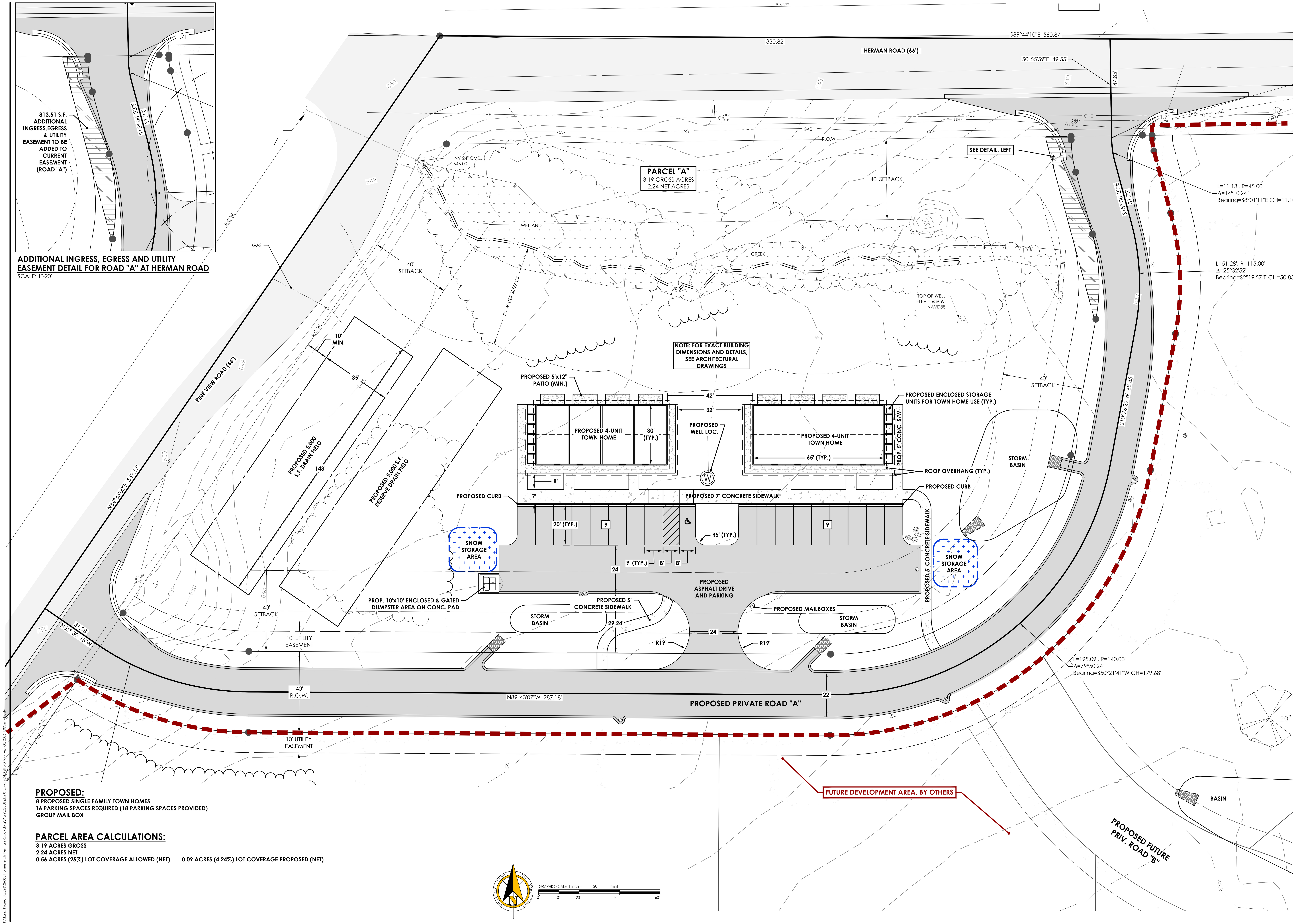
PRELIMINARY

P.M.: DMC

DR.: MMM | CKD.: DMC | CREATED: 4-22-2026

JOB NO.: 26058

C2.0



PROPOSED:

8 PROPOSED SINGLE FAMILY TOWN HOMES
16 PARKING SPACES REQUIRED (18 PARKING SPACES PROVIDED)
GROUP MAIL BOX

PARCEL AREA CALCULATIONS:

3.19 ACRES GROSS
2.24 ACRES NET
0.56 ACRES (25%) LOT COVERAGE ALLOWED (NET) 0.09 ACRES (4.24%) LOT COVERAGE PROPOSED (NET)

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PENINSULA HOUSING
HERMAN ROAD PROPERTY HOUSING
SITE AND DIMENSION PLAN
SECTION 32, TOWN 30 NORTH, RANGE 11 WEST
SUTTONS BAY TOWNSHIP, LEELANAU COUNTY, MICHIGAN

PRELIMINARY

P.M.: DMC
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JOB NO.: 26058
C4.0

Storm Basin #1 Calculations

Rainfall Intensity for back-to-back 100-yr/24-hour events = 10.16 in/48hrs = 0.21 in/hr
Volume = CiA = 0.98 x 0.21 in/hr x __ acres x 172,800 unit conversion factor
Soil Type: MIB Mancelona-East Lake Loamy Sands
Infiltration Volume Reduction: 2" per hour over the wetted area of containment.
Infiltration= 2/12 ft (1 in) x 48 hours x area sft = cft

Retained On-Site

		C	i	A	86400	Q (cft)	
13260 sf pavement	hard surface	0.98	0.21	0.3044	172800	10825	+
1617 sf storm basin bottom	infiltration (sf)			1617		12936	-
				volume required		-2111	cf
				volume provided Basin 1		4266	cf
				volume required		**-2111**	**cf**
				volume retained on-site		**4266**	**cf**

Storm Basin #4 Calculations

Rainfall Intensity for back-to-back 100-yr/24-hour events = 10.16 in/48hrs = 0.21 in/hr
Volume = CiA = 0.98 x 0.21 in/hr x __ acres x 172,800 unit conversion factor
Soil Type: MIB Mancelona-East Lake Loamy Sands
Infiltration Volume Reduction: 2" per hour over the wetted area of containment.
Infiltration= 2/12 ft (1 in) x 48 hours x area sft = cft

Retained On-Site

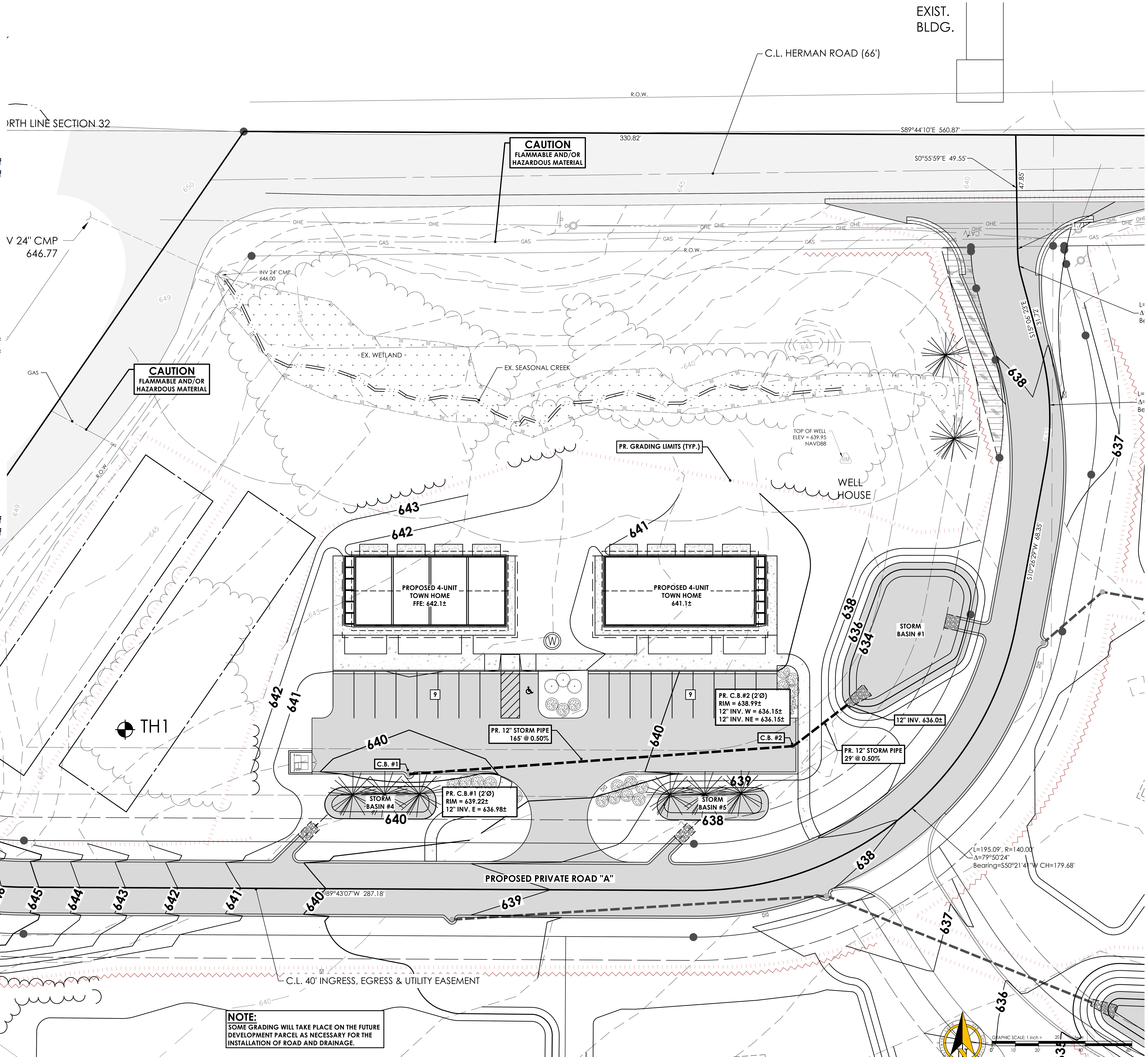
		C	i	A	86400	Q (cft)	
2549 sf pavement	hard surface	0.98	0.21	0.0585	172800	2080	+
309 sf storm basin bottom	infiltration (sf)			309		2472	-
				volume required		-392	cf
				volume provided Basin 1		459	cf
				volume required		**-392**	**cf**
				volume retained on-site		**459**	**cf**

Storm Basin #5 Calculations

Rainfall Intensity for back-to-back 100-yr/24-hour events = 10.16 in/48hrs = 0.21 in/hr
Volume = CiA = 0.98 x 0.21 in/hr x __ acres x 172,800 unit conversion factor
Soil Type: MIB Mancelona-East Lake Loamy Sands
Infiltration Volume Reduction: 2" per hour over the wetted area of containment.
Infiltration= 2/12 ft (1 in) x 48 hours x area sft = cft

Retained On-Site

		C	i	A	86400	Q (cft)	
1884 sf pavement	hard surface	0.98	0.21	0.0433	172800	1540	+
309 sf storm basin bottom	infiltration (sf)			309		2472	-
				volume required		-932	cf
				volume provided Basin 1		459	cf
				volume required		**-932**	**cf**
				volume retained on-site		**459**	**cf**



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www.maacps.com
info@maacps.com

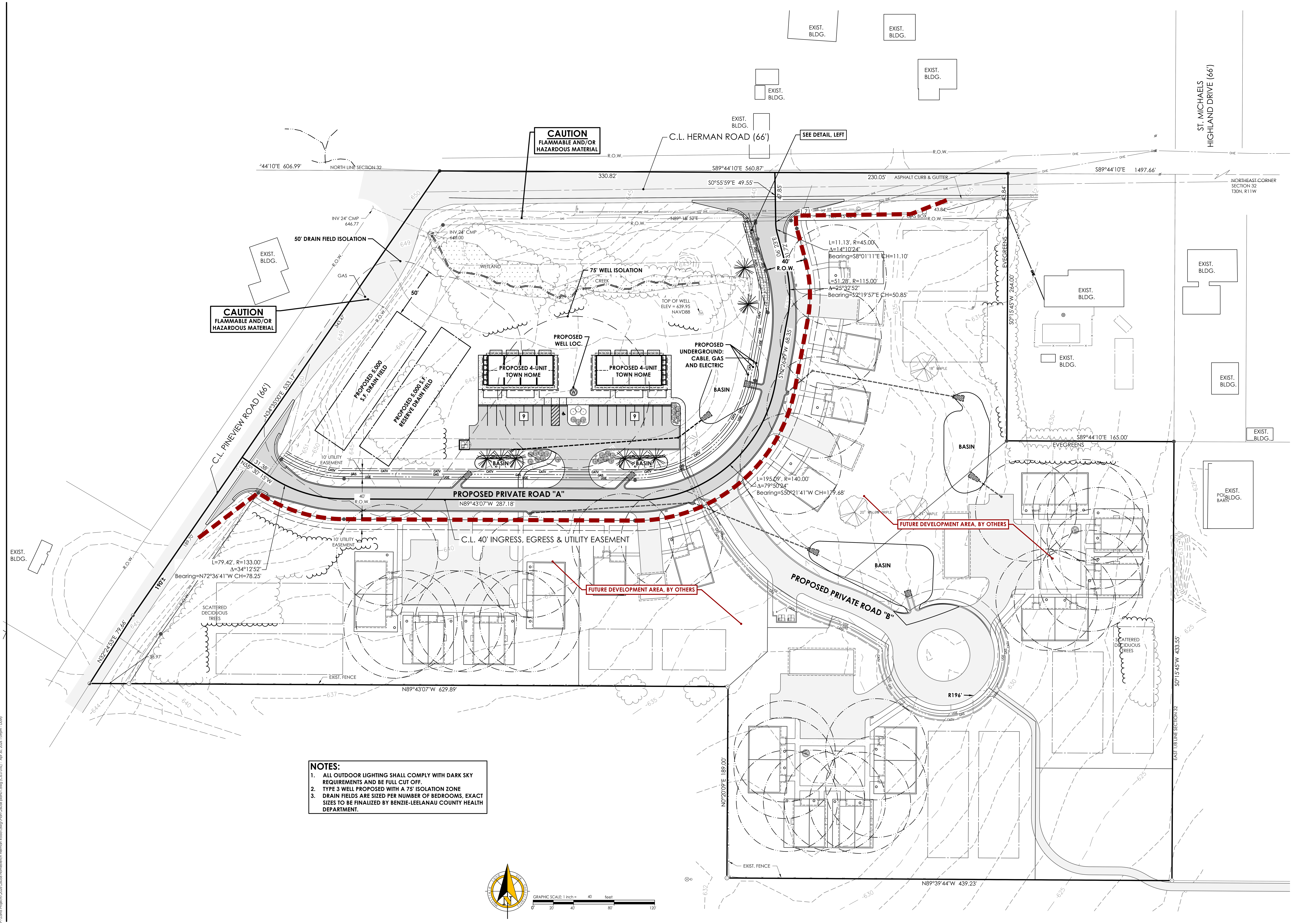
Mansfield & Land Use Consultants

REV#	DATE	DRAWN	CHECKED	DESCRIPTION
01	04-30-26	MMM	DMC	SPR Submittal

PENINSULA HOUSING
HERMAN ROAD PROPERTY HOUSING
GRADING AND STORM WATER PLAN
SECTION 32, TOWN 30 NORTH, RANGE 11 WEST
SUTTONS BAY TOWNSHIP, LEELANAU COUNTY, MICHIGAN

PRELIMINARY

P.M.: DMC
DR.: MMM CKD.: DMC CREATED: 4-22-2026
JOB NO.: 26058
C4.0



NOTES:
1. ALL OUTDOOR LIGHTING SHALL COMPLY WITH DARK SKY REQUIREMENTS AND BE FULL CUT OFF.
2. TYPE 3 WELL PROPOSED WITH A 75' ISOLATION ZONE
3. DRAIN FIELDS ARE SIZED PER NUMBER OF BEDROOMS, EXACT SIZES TO BE FINALIZED BY BENZIE-LEELANAU COUNTY HEALTH DEPARTMENT.

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REV #	DATE	DRAWN	CHECKED	DESCRIPTION
01	04-30-26	MMM	DMC	SPR Submittal

PENINSULA HOUSING
HERMAN ROAD PROPERTY HOUSING
UTILITY PLAN
SECTION 32, TOWN 30 NORTH, RANGE 11 WEST
SUTTONS BAY TOWNSHIP, LEELANAU COUNTY, MICHIGAN

PRELIMINARY

P.M.: DMC
DR.: MMM CKD.: DMC CREATED: 4-22-2026
JOB NO.: 26058
C6.0

PLANTING NOTES:

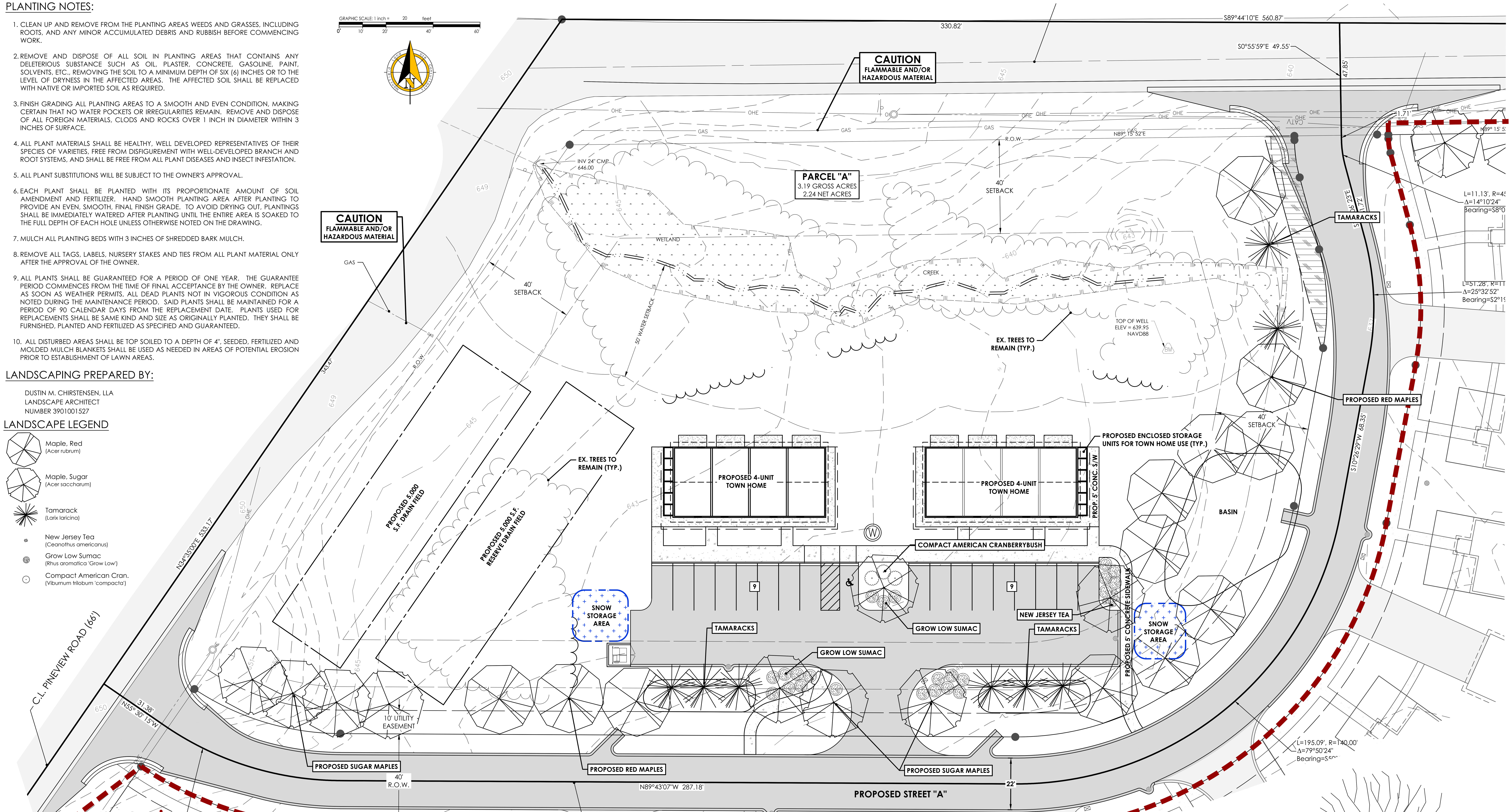
1. CLEAN UP AND REMOVE FROM THE PLANTING AREAS WEEDS AND GRASSES, INCLUDING ROOTS, AND ANY MINOR ACCUMULATED DEBRIS AND RUBBISH BEFORE COMMENCING WORK.
2. REMOVE AND DISPOSE OF ALL SOIL IN PLANTING AREAS THAT CONTAINS ANY DELETERIOUS SUBSTANCE SUCH AS OIL, PLASTER, CONCRETE, GASOLINE, PAINT, SOLVENTS, ETC., REMOVING THE SOIL TO A MINIMUM DEPTH OF SIX (6) INCHES OR TO THE LEVEL OF DRYNESS IN THE AFFECTED AREAS. THE AFFECTED SOIL SHALL BE REPLACED WITH NATIVE OR IMPORTED SOIL AS REQUIRED.
3. FINISH GRADING ALL PLANTING AREAS TO A SMOOTH AND EVEN CONDITION, MAKING CERTAIN THAT NO WATER POCKETS OR IRREGULARITIES REMAIN. REMOVE AND DISPOSE OF ALL FOREIGN MATERIALS, CLODS AND ROCKS OVER 1 INCH IN DIAMETER WITHIN 3 INCHES OF SURFACE.
4. ALL PLANT MATERIALS SHALL BE HEALTHY, WELL DEVELOPED REPRESENTATIVES OF THEIR SPECIES OF VARIETIES, FREE FROM DISFIGUREMENT WITH WELL-DEVELOPED BRANCH AND ROOT SYSTEMS, AND SHALL BE FREE FROM ALL PLANT DISEASES AND INSECT INFESTATION.
5. ALL PLANT SUBSTITUTIONS WILL BE SUBJECT TO THE OWNER'S APPROVAL.
6. EACH PLANT SHALL BE PLANTED WITH ITS PROPORTIONATE AMOUNT OF SOIL AMENDMENT AND FERTILIZER. HAND SMOOTH PLANTING AREA AFTER PLANTING TO PROVIDE AN EVEN, SMOOTH, FINAL FINISH GRADE. TO AVOID DRYING OUT, PLANTINGS SHALL BE IMMEDIATELY WATERED AFTER PLANTING UNTIL THE ENTIRE AREA IS SOAKED TO THE FULL DEPTH OF EACH HOLE UNLESS OTHERWISE NOTED ON THE DRAWING.
7. MULCH ALL PLANTING BEDS WITH 3 INCHES OF SHREDDED BARK MULCH.
8. REMOVE ALL TAGS, LABELS, NURSERY STAKES AND TIES FROM ALL PLANT MATERIAL ONLY AFTER THE APPROVAL OF THE OWNER.
9. ALL PLANTS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR. THE GUARANTEE PERIOD COMMENCES FROM THE TIME OF FINAL ACCEPTANCE BY THE OWNER. REPLACE AS SOON AS WEATHER PERMITS, ALL DEAD PLANTS NOT IN VIGOROUS CONDITION AS NOTED DURING THE MAINTENANCE PERIOD. SAID PLANTS SHALL BE MAINTAINED FOR A PERIOD OF 90 CALENDAR DAYS FROM THE REPLACEMENT DATE. PLANTS USED FOR REPLACEMENTS SHALL BE SAME KIND AND SIZE AS ORIGINALLY PLANTED. THEY SHALL BE FURNISHED, PLANTED AND FERTILIZED AS SPECIFIED AND GUARANTEED.
10. ALL DISTURBED AREAS SHALL BE TOP SOILED TO A DEPTH OF 4", SEEDED, FERTILIZED AND MOLDED MULCH BLANKETS SHALL BE USED AS NEEDED IN AREAS OF POTENTIAL EROSION PRIOR TO ESTABLISHMENT OF LAWN AREAS.

LANDSCAPING PREPARED BY:

DUSTIN M. CHIRSTENSEN, LLA
LANDSCAPE ARCHITECT
NUMBER 3901001527

LANDSCAPE LEGEND

- Maple, Red (Acer rubrum)
- Maple, Sugar (Acer saccharum)
- Tamarack (Larix laricina)
- New Jersey Tea (Ceanothus americanus)
- Grow Low Sumac (Rhus aromatica 'Grow Low')
- Compact American Cran. (Viburnum trilobum 'compacta')

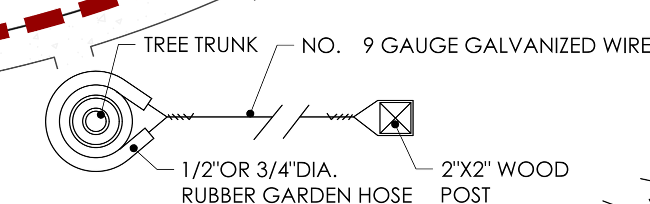


PLANT LIST			
TREES: COMMON NAME	BOTANICAL NAME	SIZE	ESTIMATED QUANTITY
MAPLE, RED	ACER RUBRUM	3" B&B	12
MAPLE, SUGAR	ACER SACCHARUM	3" B&B	9
TAMARACK	LARIX LARICINA	6' B&B	8
SHRUBS: COMMON NAME	BOTANICAL NAME	SIZE	ESTIMATED QUANTITY
NEW JERSEY TEA	CEANOTHUS AMER.	18" SPR.	4
GROW LOW SUMAC	RHUS ARO. GROW LOW	18" SPR.	23
COM. CRANBERRYBUSH	VIBURNUM TRI. COM.	30" HT.	3

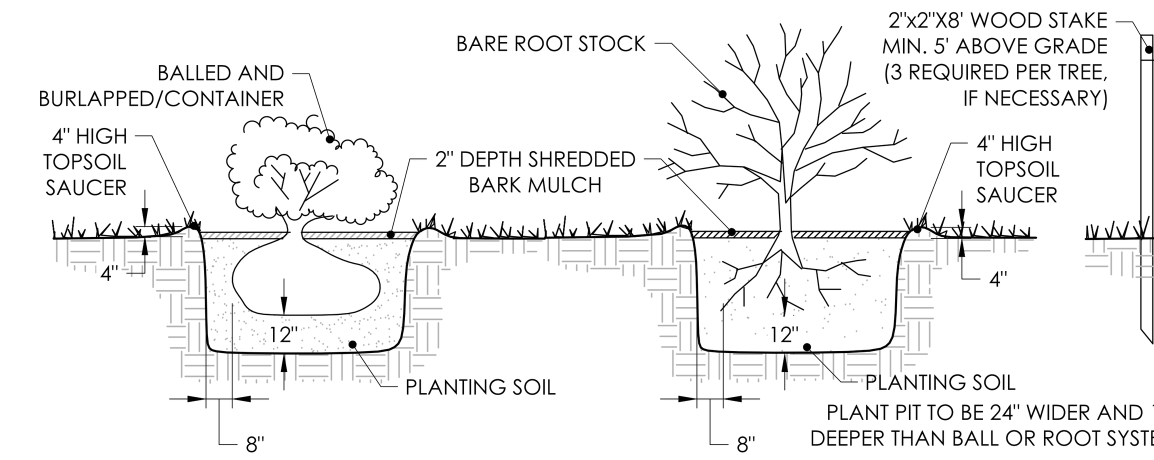
STREET TREES: 1 TREE PER 30 L.F. REQUIRED				
HERMAN ROAD	10	TREES REQUIRED	10+	EXISTING TREES
PINEVIEW ROAD	9	TREES REQUIRED	9+	EXISTING TREES
PRIV. ROAD "A"	23	TREES REQUIRED	24	PROVIDED

INTERIOR PARKING LOT LANDSCAPING				
TREES REQUIRED	2	1 PER 16 SPACES (18)	2	PROVIDED
SHRUBS REQUIRED	6	1 PER 16 SPACES (18)	6	PROVIDED

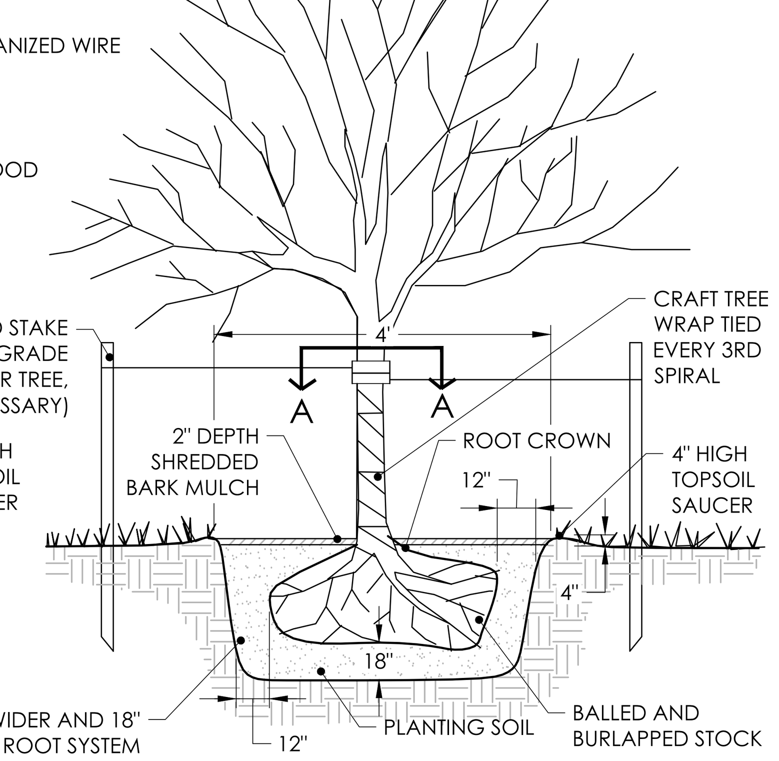
PERMITER PARKING LOT LANDSCAPING				
TREES REQUIRED	10	1 PER 25' (240')	11	PROVIDED
SHRUBS REQUIRED	24	1 PER 10' (240')	24	PROVIDED



SECTION A-A
(IF NECESSARY) NO SCALE



SHRUB PLANTING DETAIL
NO SCALE



TREE PLANTING DETAIL
NO SCALE

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REV#	DATE	DRAWN	CHECKED	DESCRIPTION
01	04-30-26	MMM	DMC	SPR Submittal

PENINSULA HOUSING
HERMAN ROAD PROPERTY HOUSING
LANDSCAPE PLAN
SECTION 32, TOWN 30 NORTH, RANGE 11 WEST
SUTTONS BAY TOWNSHIP, LEELANAU COUNTY, MICHIGAN

PRELIMINARY

P.M.: DMC
DR.: MMM | CKD.: DMC | CREATED: 4-22-2026
JOB NO.: 26058

L1.0

Tables

Table 1 – Summary of Eligible Costs
Act 381 Brownfield Plan
980 Herman Road Housing Development

EGLE Eligible Activities Costs and Schedule

EGLE Eligible Activities	Cost	Completion Season/Year
Department Specific Activities (Developer)	$ 2,100	Prior to Brownfield Plan
Baseline Environmental Assessment	$ 2,100	
EGLE Eligible Activities Subtotal	$ 2,100	
Contingency (0%)	$ -	
EGLE Eligible Activities Total Costs	$ 2,100	

MSHDA Eligible Activities Costs and Schedule

MSHDA Eligible Activities	Cost	Completion Season/Year
Infrastructure and Safety Improvements to support housing (Developer)	$ 1,411,000	2026-2028
Roads (including soil management)	$ 375,000	
Water	$ 380,000	
Septic	$ 350,000	
Electric	$ 141,000	
Stormwater	$ 100,000	
soft cost	$ 65,000	
Abatement (Developer)	$ 30,000	2026-2027
Asbestos and Lead (removal, air monitoring, and disposal)	$ 30,000	
Demolition (Developer)	$ 99,750	
Future Demolition - House	$ 90,000	2026-2027
Demolition Incurred - Trailer	$ 9,750	2025
MSHDA Eligible Activities Subtotal	$ 1,540,750	
Contingency (15%) (Developer)	$ 229,650	
Interest Expense (5%)	$ 1,015,750	
Brownfield Plan Preparation (LCBRA)	$ -	
Work Plan Preparation (Developer)	$ 15,000	
Brownfield Plan/Work Plan Implementation	$ 5,000	
MSHDA Eligible Activities Total Costs	$ 2,806,150	

Local Only Eligible Activities Costs and Schedule

Table 1 – Summary of Eligible Costs

Act 381 Brownfield Plan

980 Herman Road Housing Development

Local Only Eligible Activities	Cost	Completion Season/Year
Authority Administration Fee (5%)	$ 92,859	
Local Only Eligible Activities Subtotal	$ 92,859	
Contingency (0%)	$ -	
Interest Expense	$ -	
Brownfield Plan/Work Plan Preparation	$ -	
Local Only Eligible Activities Total Costs	$ 92,859	

Table 2 – Total Captured Incremental Taxes Schedule - Table 2A LAND ONLY
Act 381 Brownfield Plan
980 Herman Road Housing Development,
Suttons Bay, MI

Estimated Taxable Value (TV) Increase Rate: 3% increase per year

		1	2	3	4	5	6	7	8	9	10
Plan Year		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Calendar Year		2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
*Base Taxable Value		$ 67,181	$ 67,181	$ 67,181	$ 67,181	$ 67,181	$ 67,181	$ 67,181	$ 67,181	$ 67,181	$ 67,181
Future Taxable Value		$ 72,000	$ 74,160	$ 76,385	$ 78,676	$ 81,037	$ 83,468	$ 85,972	$ 88,551	$ 91,207	$ 93,944
Incremental Difference (New TV - Base TV)		**$ 4,819**	**$ 6,979**	**$ 9,204**	**$ 11,495**	**$ 13,856**	**$ 16,287**	**$ 18,791**	**$ 21,370**	**$ 24,026**	**$ 26,763**
School Capture	Millage Rate										
State Education Tax (SET)	6.0000	$ 29	$ 42	$ 55	$ 69	$ 83	$ 98	$ 113	$ 128	$ 144	$ 161
School Operating Tax*	16.8267	$ 81	$ 117	$ 155	$ 193	$ 233	$ 274	$ 316	$ 360	$ 404	$ 450
School Total	**22.8267**	**$ 110**	**$ 159**	**$ 210**	**$ 262**	**$ 316**	**$ 372**	**$ 429**	**$ 488**	**$ 548**	**$ 611**
Local Capture (Millages)	Millage Rate										
County Road	0.4915	$ 2	$ 3	$ 5	$ 6	$ 7	$ 8	$ 9	$ 11	$ 12	$ 13
County Seniors	0.3145	$ 2	$ 2	$ 3	$ 4	$ 4	$ 5	$ 6	$ 7	$ 8	$ 8
Early Childhood	0.2000	$ 1	$ 1	$ 2	$ 2	$ 3	$ 3	$ 4	$ 4	$ 5	$ 5
BATA	0.4655	$ 2	$ 3	$ 4	$ 5	$ 6	$ 8	$ 9	$ 10	$ 11	$ 12
Twp Allocation	0.5209	$ 3	$ 4	$ 5	$ 6	$ 7	$ 8	$ 10	$ 11	$ 13	$ 14
Library	0.4920	$ 2	$ 3	$ 5	$ 6	$ 7	$ 8	$ 9	$ 11	$ 12	$ 13
Sinking Fund	0.4607	$ 2	$ 3	$ 4	$ 5	$ 6	$ 8	$ 9	$ 10	$ 11	$ 12
North Ed	2.8494	$ 14	$ 20	$ 26	$ 33	$ 39	$ 46	$ 54	$ 61	$ 68	$ 76
County Allocation	3.2002	$ 15	$ 22	$ 29	$ 37	$ 44	$ 52	$ 60	$ 68	$ 77	$ 86
Oper NH 26	1.1733	$ 6	$ 8	$ 11	$ 13	$ 16	$ 19	$ 22	$ 25	$ 28	$ 31
Fire/Rescue Authority	3.1461	$ 15	$ 22	$ 29	$ 36	$ 44	$ 51	$ 59	$ 67	$ 76	$ 84
Local Total	**13.3141**	**$ 65**	**$ 93**	**$ 123**	**$ 153**	**$ 184**	**$ 217**	**$ 250**	**$ 285**	**$ 320**	**$ 356**
Non-Capturable Millages	Millage Rate										
School Debt	0.4700	$ 2	$ 3	$ 4	$ 5	$ 7	$ 8	$ 9	$ 10	$ 11	$ 13
Debt 2024	1.0600	$ 5	$ 7	$ 10	$ 12	$ 15	$ 17	$ 20	$ 23	$ 25	$ 28
Non-Capturable Total	**1.5300**	**$ 7**	**$ 11**	**$ 14**	**$ 18**	**$ 21**	**$ 25**	**$ 29**	**$ 33**	**$ 37**	**$ 41**
	37.6708										
Total Tax Increment Revenue (TIR) Available for Capture		$ 175	$ 252	$ 333	$ 415	$ 501	$ 589	$ 679	$ 772	$ 868	$ 967

NOTES:
*Land values are not subject to Principal Residence Exemption (PRE)
Winter 2025 & Summer 2026 Millage Rates

Table 2 – Total Captured Incremental Taxes Schedule - Table 2A LAND ONLY
Act 381 Brownfield Plan
980 Herman Road Housing Development,
Suttons Bay, MI

Estimated Taxable Value (TV) Increase Rate:

		11	12	13	14	15	16	17	18	19	20	21
Plan Year		**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**
Calendar Year		2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
*Base Taxable Value		$ 67,181	$ 67,181	$ 67,181	$ 67,181	$ 67,181	$ 67,181	$ 67,181	$ 67,181	$ 67,181	$ 67,181	$ 67,181
Future Taxable Value		$ 96,762	$ 99,665	$ 102,655	$ 105,734	$ 108,906	$ 112,174	$ 115,539	$ 119,005	$ 122,575	$ 126,252	$ 130,040
Incremental Difference (New TV - Base TV)		**$ 29,581**	**$ 32,484**	**$ 35,474**	**$ 38,553**	**$ 41,725**	**$ 44,993**	**$ 48,358**	**$ 51,824**	**$ 55,394**	**$ 59,071**	**$ 62,859**
School Capture	Millage Rate											
State Education Tax (SET)	6.0000	$ 177	$ 195	$ 213	$ 231	$ 250	$ 270	$ 290	$ 311	$ 332	$ 354	$ 377
School Operating Tax*	16.8267	$ 498	$ 547	$ 597	$ 649	$ 702	$ 757	$ 814	$ 872	$ 932	$ 994	$ 1,058
School Total	**22.8267**	**$ 675**	**$ 741**	**$ 810**	**$ 880**	**$ 952**	**$ 1,027**	**$ 1,104**	**$ 1,183**	**$ 1,264**	**$ 1,348**	**$ 1,435**
Local Capture (Millages)	Millage Rate											
County Road	0.4915	$ 15	$ 16	$ 17	$ 19	$ 21	$ 22	$ 24	$ 25	$ 27	$ 29	$ 31
County Seniors	0.3145	$ 9	$ 10	$ 11	$ 12	$ 13	$ 14	$ 15	$ 16	$ 17	$ 19	$ 20
Early Childhood	0.2000	$ 6	$ 6	$ 7	$ 8	$ 8	$ 9	$ 10	$ 10	$ 11	$ 12	$ 13
BATA	0.4655	$ 14	$ 15	$ 17	$ 18	$ 19	$ 21	$ 23	$ 24	$ 26	$ 27	$ 29
Twp Allocation	0.5209	$ 15	$ 17	$ 18	$ 20	$ 22	$ 23	$ 25	$ 27	$ 29	$ 31	$ 33
Library	0.4920	$ 15	$ 16	$ 17	$ 19	$ 21	$ 22	$ 24	$ 25	$ 27	$ 29	$ 31
Sinking Fund	0.4607	$ 14	$ 15	$ 16	$ 18	$ 19	$ 21	$ 22	$ 24	$ 26	$ 27	$ 29
North Ed	2.8494	$ 84	$ 93	$ 101	$ 110	$ 119	$ 128	$ 138	$ 148	$ 158	$ 168	$ 179
County Allocation	3.2002	$ 95	$ 104	$ 114	$ 123	$ 134	$ 144	$ 155	$ 166	$ 177	$ 189	$ 201
Oper NH 26	1.1733	$ 35	$ 38	$ 42	$ 45	$ 49	$ 53	$ 57	$ 61	$ 65	$ 69	$ 74
Fire/Rescue Authority	3.1461	$ 93	$ 102	$ 112	$ 121	$ 131	$ 142	$ 152	$ 163	$ 174	$ 186	$ 198
Local Total	**13.3141**	**$ 394**	**$ 432**	**$ 472**	**$ 513**	**$ 556**	**$ 599**	**$ 644**	**$ 690**	**$ 738**	**$ 786**	**$ 837**
Non-Capturable Millages	Millage Rate											
School Debt	0.4700	$ 14	$ 15	$ 17	$ 18	$ 20	$ 21	$ 23	$ 24	$ 26	$ 28	$ 30
Debt 2024	1.0600	$ 31	$ 34	$ 38	$ 41	$ 44	$ 48	$ 51	$ 55	$ 59	$ 63	$ 67
Non-Capturable Total	**1.5300**	**$ 45**	**$ 50**	**$ 54**	**$ 59**	**$ 64**	**$ 69**	**$ 74**	**$ 79**	**$ 85**	**$ 90**	**$ 96**
	37.6708											
Total Tax Increment Revenue (TIR) Available for Capture		$ 1,069	$ 1,174	$ 1,282	$ 1,393	$ 1,508	$ 1,626	$ 1,748	$ 1,873	$ 2,002	$ 2,135	$ 2,272

NOTES:
*Land values are not subject to Principal Residence Exemption (PRE)
Winter 2025 & Summer 2026 Millage Rates

Table 2 – Total Captured Incremental Taxes Schedule - Table 2A LAND ONLY

Act 381 Brownfield Plan

980 Herman Road Housing Development,

Suttons Bay, MI

Estimated Taxable Value (TV) Increase Rate:

		22	23	24	25	26	27	28	29	30	Totals
Plan Year		22	23	24	25	26	27	28	29	30	Totals
Calendar Year		2049	2050	2051	2052	2053	2054	2055	2056	2057	
*Base Taxable Value		$ 67,181	$ 67,181	$ 67,181	$ 67,181	$ 67,181	$ 67,181	$ 67,181	$ 67,181	$ 67,181	
Future Taxable Value		$ 133,941	$ 137,959	$ 142,098	$ 146,361	$ 150,752	$ 155,275	$ 159,933	$ 164,731	$ 169,673	
Incremental Difference (New TV - Base TV)		**$ 66,760**	**$ 70,778**	**$ 74,917**	**$ 79,180**	**$ 83,571**	**$ 88,094**	**$ 92,752**	**$ 97,550**	**$ 102,492**	**$ -**
School Capture	Millage Rate										
State Education Tax (SET)	6.0000	$ 401	$ 425	$ 450	$ 475	$ 501	$ 529	$ 557	$ 585	$ 615	$ 8,460
School Operating Tax*	16.8267	$ 1,123	$ 1,191	$ 1,261	$ 1,332	$ 1,406	$ 1,482	$ 1,561	$ 1,641	$ 1,725	$ 23,726
School Total	**22.8267**	**$ 1,524**	**$ 1,616**	**$ 1,710**	**$ 1,807**	**$ 1,908**	**$ 2,011**	**$ 2,117**	**$ 2,227**	**$ 2,340**	**$ 32,186**
Local Capture (Millages)	Millage Rate										
County Road	0.4915	$ 33	$ 35	$ 37	$ 39	$ 41	$ 43	$ 46	$ 48	$ 50	$ 693
County Seniors	0.3145	$ 21	$ 22	$ 24	$ 25	$ 26	$ 28	$ 29	$ 31	$ 32	$ 443
Early Childhood	0.2000	$ 13	$ 14	$ 15	$ 16	$ 17	$ 18	$ 19	$ 20	$ 20	$ 282
BATA	0.4655	$ 31	$ 33	$ 35	$ 37	$ 39	$ 41	$ 43	$ 45	$ 48	$ 656
Twp Allocation	0.5209	$ 35	$ 37	$ 39	$ 41	$ 44	$ 46	$ 48	$ 51	$ 53	$ 734
Library	0.4920	$ 33	$ 35	$ 37	$ 39	$ 41	$ 43	$ 46	$ 48	$ 50	$ 694
Sinking Fund	0.4607	$ 31	$ 33	$ 35	$ 36	$ 39	$ 41	$ 43	$ 45	$ 47	$ 650
North Ed	2.8494	$ 190	$ 202	$ 213	$ 226	$ 238	$ 251	$ 264	$ 278	$ 292	$ 4,018
County Allocation	3.2002	$ 214	$ 227	$ 240	$ 253	$ 267	$ 282	$ 297	$ 312	$ 328	$ 4,512
Oper NH 26	1.1733	$ 78	$ 83	$ 88	$ 93	$ 98	$ 103	$ 109	$ 114	$ 120	$ 1,654
Fire/Rescue Authority	3.1461	$ 210	$ 223	$ 236	$ 249	$ 263	$ 277	$ 292	$ 307	$ 322	$ 4,436
Local Total	**13.3141**	**$ 889**	**$ 942**	**$ 997**	**$ 1,054**	**$ 1,113**	**$ 1,173**	**$ 1,235**	**$ 1,299**	**$ 1,365**	**$ 18,774**
Non-Capturable Millages	Millage Rate										
School Debt	0.4700	$ 31	$ 33	$ 35	$ 37	$ 39	$ 41	$ 44	$ 46	$ 48	$ 663
Debt 2024	1.0600	$ 71	$ 75	$ 79	$ 84	$ 89	$ 93	$ 98	$ 103	$ 109	$ 1,495
Non-Capturable Total	**1.5300**	**$ 102**	**$ 108**	**$ 115**	**$ 121**	**$ 128**	**$ 135**	**$ 142**	**$ 149**	**$ 157**	**$ 2,157**
	37.6708										
Total Tax Increment Revenue (TIR) Available for Capture		$ 2,413	$ 2,558	$ 2,708	$ 2,862	$ 3,020	$ 3,184	$ 3,352	$ 3,526	$ 3,704	**$ 50,959**

NOTES:

*Land values are not subject to Principal Residence Exemption (PRE)

Winter 2025 & Summer 2026 Millage Rates

Table 2 – Total Captured Incremental Taxes Schedule - Table 2B FOR SALE ONLY
Act 381 Brownfield Plan
980 Herman Road Housing Development,
Suttons Bay, MI

Estimated Taxable Value (TV) Increase Rate: 3% increase per year

	Millage Rate	1	2	3	4	5	6	7	8	9	10
Plan Year		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Calendar Year		2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
*Base Taxable Value		$ 86,082	$ 86,082	$ 86,082	$ 86,082	$ 86,082	$ 86,082	$ 86,082	$ 86,082	$ 86,082	$ 86,082
Future Taxable Value		$ 1,008,000	$ 1,038,240	$ 3,085,387	$ 3,177,949	$ 3,273,287	$ 3,371,486	$ 3,472,630	$ 3,576,809	$ 3,684,114	$ 3,794,637
Incremental Difference (New TV - Base TV)		**$ 921,918**	**$ 952,158**	**$ 2,999,305**	**$ 3,091,867**	**$ 3,187,205**	**$ 3,285,404**	**$ 3,386,548**	**$ 3,490,727**	**$ 3,598,032**	**$ 3,708,555**
School Capture	Millage Rate										
State Education Tax (SET)	6.0000	$ 5,532	$ 5,713	$ 17,996	$ 18,551	$ 19,123	$ 19,712	$ 20,319	$ 20,944	$ 21,588	$ 22,251
School Operating Tax - PRE*	0.0000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
School Total	**6.0000**	**$ 5,532**	**$ 5,713**	**$ 17,996**	**$ 18,551**	**$ 19,123**	**$ 19,712**	**$ 20,319**	**$ 20,944**	**$ 21,588**	**$ 22,251**
Local Capture (millages)	Millage Rate										
County Road	0.4915	$ 453	$ 468	$ 1,474	$ 1,520	$ 1,567	$ 1,615	$ 1,664	$ 1,716	$ 1,768	$ 1,823
County Seniors	0.3145	$ 290	$ 299	$ 943	$ 972	$ 1,002	$ 1,033	$ 1,065	$ 1,098	$ 1,132	$ 1,166
Early Childhood	0.2000	$ 184	$ 190	$ 600	$ 618	$ 637	$ 657	$ 677	$ 698	$ 720	$ 742
BATA	0.4655	$ 429	$ 443	$ 1,396	$ 1,439	$ 1,484	$ 1,529	$ 1,576	$ 1,625	$ 1,675	$ 1,726
Twp Allocation	0.5209	$ 480	$ 496	$ 1,562	$ 1,611	$ 1,660	$ 1,711	$ 1,764	$ 1,818	$ 1,874	$ 1,932
Library	0.4920	$ 454	$ 468	$ 1,476	$ 1,521	$ 1,568	$ 1,616	$ 1,666	$ 1,717	$ 1,770	$ 1,825
Sinking Fund	0.4607	$ 425	$ 439	$ 1,382	$ 1,424	$ 1,468	$ 1,514	$ 1,560	$ 1,608	$ 1,658	$ 1,709
North Ed	2.8494	$ 2,627	$ 2,713	$ 8,546	$ 8,810	$ 9,082	$ 9,361	$ 9,650	$ 9,946	$ 10,252	$ 10,567
County Allocation	3.2002	$ 2,950	$ 3,047	$ 9,598	$ 9,895	$ 10,200	$ 10,514	$ 10,838	$ 11,171	$ 11,514	$ 11,868
Oper NH 26	1.1733	$ 1,082	$ 1,117	$ 3,519	$ 3,628	$ 3,740	$ 3,855	$ 3,973	$ 4,096	$ 4,222	$ 4,351
Fire/Rescue Authority	3.1461	$ 2,900	$ 2,996	$ 9,436	$ 9,727	$ 10,027	$ 10,336	$ 10,654	$ 10,982	$ 11,320	$ 11,667
Local MillageTotal	**13.3141**	**$ 12,275**	**$ 12,677**	**$ 39,933**	**$ 41,165**	**$ 42,435**	**$ 43,742**	**$ 45,089**	**$ 46,476**	**$ 47,905**	**$ 49,376**
Non-Capturable Millages	Millage Rate										
School Debt	0.4700	$ 433	$ 448	$ 1,410	$ 1,453	$ 1,498	$ 1,544	$ 1,592	$ 1,641	$ 1,691	$ 1,743
Debt 2024	1.0600	$ 977	$ 1,009	$ 3,179	$ 3,277	$ 3,378	$ 3,483	$ 3,590	$ 3,700	$ 3,814	$ 3,931
Non-Capturable Total	**1.5300**	**$ 1,411**	**$ 1,457**	**$ 4,589**	**$ 4,731**	**$ 4,876**	**$ 5,027**	**$ 5,181**	**$ 5,341**	**$ 5,505**	**$ 5,674**
	37.6708										
Total Tax Increment Revenue (TIR) Available for Capture		$ 17,806	$ 18,390	$ 57,929	$ 59,717	$ 61,558	$ 63,455	$ 65,408	$ 67,420	$ 69,493	$ 71,627

NOTES:
*Homes are anticipated to be Principal Residence Exempt (PRE)
Winter 2025 & Summer 2026 Millage Rates

Table 2 – Total Captured Incremental Taxes Schedule - Table 2B FOR SALE ONLY

Act 381 Brownfield Plan

980 Herman Road Housing Development,

Suttons Bay, MI

Estimated Taxable Value (TV) Increase Rate:

Plan Year		**11**	**12**	**13**	**14**	**15**	**18**	**19**	**20**	**21**
Calendar Year		2038	2039	2040	2041	2042	2045	2046	2047	2048
*Base Taxable Value		$ 86,082	$ 86,082	$ 86,082	$ 86,082	$ 86,082	$ 86,082	$ 86,082	$ 86,082	$ 86,082
Future Taxable Value		$ 3,908,476	$ 4,025,730	$ 4,146,502	$ 4,270,897	$ 4,399,024	$ 4,806,933	$ 4,951,141	$ 5,099,675	$ 5,252,665
Incremental Difference (New TV - Base TV)		**$ 3,822,394**	**$ 3,939,648**	**$ 4,060,420**	**$ 4,184,815**	**$ 4,312,942**	**$ 4,720,851**	**$ 4,865,059**	**$ 5,013,593**	**$ 5,166,583**
School Capture	Millage Rate									
State Education Tax (SET)	6.0000	$ 22,934	$ 23,638	$ 24,363	$ 25,109	$ 25,878	$ 28,325	$ 29,190	$ 30,082	$ 30,999
School Operating Tax - PRE*	0.0000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
School Total	**6.0000**	**$ 22,934**	**$ 23,638**	**$ 24,363**	**$ 25,109**	**$ 25,878**	**$ 28,325**	**$ 29,190**	**$ 30,082**	**$ 30,999**
Local Capture (millages)	Millage Rate									
County Road	0.4915	$ 1,879	$ 1,936	$ 1,996	$ 2,057	$ 2,120	$ 2,320	$ 2,391	$ 2,464	$ 2,539
County Seniors	0.3145	$ 1,202	$ 1,239	$ 1,277	$ 1,316	$ 1,356	$ 1,485	$ 1,530	$ 1,577	$ 1,625
Early Childhood	0.2000	$ 764	$ 788	$ 812	$ 837	$ 863	$ 944	$ 973	$ 1,003	$ 1,033
BATA	0.4655	$ 1,779	$ 1,834	$ 1,890	$ 1,948	$ 2,008	$ 2,198	$ 2,265	$ 2,334	$ 2,405
Twp Allocation	0.5209	$ 1,991	$ 2,052	$ 2,115	$ 2,180	$ 2,247	$ 2,459	$ 2,534	$ 2,612	$ 2,691
Library	0.4920	$ 1,881	$ 1,938	$ 1,998	$ 2,059	$ 2,122	$ 2,323	$ 2,394	$ 2,467	$ 2,542
Sinking Fund	0.4607	$ 1,761	$ 1,815	$ 1,871	$ 1,928	$ 1,987	$ 2,175	$ 2,241	$ 2,310	$ 2,380
North Ed	2.8494	$ 10,892	$ 11,226	$ 11,570	$ 11,924	$ 12,289	$ 13,452	$ 13,862	$ 14,286	$ 14,722
County Allocation	3.2002	$ 12,232	$ 12,608	$ 12,994	$ 13,392	$ 13,802	$ 15,108	$ 15,569	$ 16,045	$ 16,534
Oper NH 26	1.1733	$ 4,485	$ 4,622	$ 4,764	$ 4,910	$ 5,060	$ 5,539	$ 5,708	$ 5,882	$ 6,062
Fire/Rescue Authority	3.1461	$ 12,026	$ 12,395	$ 12,774	$ 13,166	$ 13,569	$ 14,852	$ 15,306	$ 15,773	$ 16,255
Local MillageTotal	**13.3141**	**$ 50,892**	**$ 52,453**	**$ 54,061**	**$ 55,717**	**$ 57,423**	**$ 62,854**	**$ 64,774**	**$ 66,751**	**$ 68,788**
Non-Capturable Millages	Millage Rate									
School Debt	0.4700	$ 1,797	$ 1,852	$ 1,908	$ 1,967	$ 2,027	$ 2,219	$ 2,287	$ 2,356	$ 2,428
Debt 2024	1.0600	$ 4,052	$ 4,176	$ 4,304	$ 4,436	$ 4,572	$ 5,004	$ 5,157	$ 5,314	$ 5,477
Non-Capturable Total	**1.5300**	**$ 5,848**	**$ 6,028**	**$ 6,212**	**$ 6,403**	**$ 6,599**	**$ 7,223**	**$ 7,444**	**$ 7,671**	**$ 7,905**
	37.6708									
Total Tax Increment Revenue (TIR) Available for Capture		$ 73,826	$ 76,091	$ 78,423	$ 80,826	$ 83,301	$ 91,179	$ 93,964	$ 96,833	$ 99,788

NOTES:

*Homes are anticipated to be Principal Residence Exempt (PRE)

Winter 2025 & Summer 2026 Millage Rates

Table 2 – Total Captured Incremental Taxes Schedule - Table 2B FOR SALE ONLY
Act 381 Brownfield Plan
980 Herman Road Housing Development,
Suttons Bay, MI

Estimated Taxable Value (TV) Increase Rate:

		22	23	24	25	26	27	28	29	30	Totals
Plan Year		**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**Totals**
Calendar Year		2049	2050	2051	2052	2053	2054	2055	2056	2057	
*Base Taxable Value		$ 86,082	$ 86,082	$ 86,082	$ 86,082	$ 86,082	$ 86,082	$ 86,082	$ 86,082	$ 86,082	
Future Taxable Value		$ 5,410,245	$ 5,572,552	$ 5,739,729	$ 5,911,921	$ 6,089,279	$ 6,271,957	$ 6,460,116	$ 6,653,919	$ 6,853,537	
Incremental Difference (New TV - Base TV)		**$ 5,324,163**	**$ 5,486,470**	**$ 5,653,647**	**$ 5,825,839**	**$ 6,003,197**	**$ 6,185,875**	**$ 6,374,034**	**$ 6,567,837**	**$ 6,767,455**	**$ -**
School Capture	Millage Rate										
State Education Tax (SET)	6.0000	$ 31,945	$ 32,919	$ 33,922	$ 34,955	$ 36,019	$ 37,115	$ 38,244	$ 39,407	$ 40,605	$ 791,534
School Operating Tax - PRE*	0.0000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
School Total	**6.0000**	**$ 31,945**	**$ 32,919**	**$ 33,922**	**$ 34,955**	**$ 36,019**	**$ 37,115**	**$ 38,244**	**$ 39,407**	**$ 40,605**	**$ 791,534**
Local Capture (millages)	Millage Rate										
County Road	0.4915	$ 2,617	$ 2,697	$ 2,779	$ 2,863	$ 2,951	$ 3,040	$ 3,133	$ 3,228	$ 3,326	$ 64,840
County Seniors	0.3145	$ 1,674	$ 1,725	$ 1,778	$ 1,832	$ 1,888	$ 1,945	$ 2,005	$ 2,066	$ 2,128	$ 41,490
Early Childhood	0.2000	$ 1,065	$ 1,097	$ 1,131	$ 1,165	$ 1,201	$ 1,237	$ 1,275	$ 1,314	$ 1,353	$ 26,384
BATA	0.4655	$ 2,478	$ 2,554	$ 2,632	$ 2,712	$ 2,794	$ 2,880	$ 2,967	$ 3,057	$ 3,150	$ 61,410
Twp Allocation	0.5209	$ 2,773	$ 2,858	$ 2,945	$ 3,035	$ 3,127	$ 3,222	$ 3,320	$ 3,421	$ 3,525	$ 68,718
Library	0.4920	$ 2,619	$ 2,699	$ 2,782	$ 2,866	$ 2,954	$ 3,043	$ 3,136	$ 3,231	$ 3,330	$ 64,906
Sinking Fund	0.4607	$ 2,453	$ 2,528	$ 2,605	$ 2,684	$ 2,766	$ 2,850	$ 2,937	$ 3,026	$ 3,118	$ 60,777
North Ed	2.8494	$ 15,171	$ 15,633	$ 16,110	$ 16,600	$ 17,106	$ 17,626	$ 18,162	$ 18,714	$ 19,283	$ 375,899
County Allocation	3.2002	$ 17,038	$ 17,558	$ 18,093	$ 18,644	$ 19,211	$ 19,796	$ 20,398	$ 21,018	$ 21,657	$ 422,178
Oper NH 26	1.1733	$ 6,247	$ 6,437	$ 6,633	$ 6,835	$ 7,044	$ 7,258	$ 7,479	$ 7,706	$ 7,940	$ 154,784
Fire/Rescue Authority	3.1461	$ 16,750	$ 17,261	$ 17,787	$ 18,329	$ 18,887	$ 19,461	$ 20,053	$ 20,663	$ 21,291	$ 415,041
Local MillageTotal	**13.3141**	**$ 70,886**	**$ 73,047**	**$ 75,273**	**$ 77,566**	**$ 79,927**	**$ 82,359**	**$ 84,865**	**$ 87,445**	**$ 90,103**	**$ 1,756,427**
Non-Capturable Millages	Millage Rate										
School Debt	0.4700	$ 2,502	$ 2,579	$ 2,657	$ 2,738	$ 2,822	$ 2,907	$ 2,996	$ 3,087	$ 3,181	$ 62,003
Debt 2024	1.0600	$ 5,644	$ 5,816	$ 5,993	$ 6,175	$ 6,363	$ 6,557	$ 6,756	$ 6,962	$ 7,174	$ 139,838
Non-Capturable Total	**1.5300**	**$ 8,146**	**$ 8,394**	**$ 8,650**	**$ 8,914**	**$ 9,185**	**$ 9,464**	**$ 9,752**	**$ 10,049**	**$ 10,354**	**$ 201,841**
	37.6708										
Total Tax Increment Revenue (TIR) Available for Capture		$ 102,831	$ 105,966	$ 109,195	$ 112,521	$ 115,946	$ 119,475	$ 123,109	$ 126,852	$ 130,707	**$ 2,547,960**

NOTES:
*Homes are anticipated to be Principal Residence Exempt (PRE)
Winter 2025 & Summer 2026 Millage Rates

Table 2 – Total Captured Incremental Taxes Schedule - Table 2C MULTIFAMILY ONLY
Act 381 Brownfield Plan
980 Herman Road Housing Development,
Suttons Bay, MI

Estimated Rental Revenue Increase Rate: 1.5% increase per year

		1	2	3	4	5	6	7	8	9	10
Plan Year		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Calendar Year		2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
*Base Taxable Value		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Future Taxable Value		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Incremental Difference (New TV - Base TV)		**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Payment in Lieu of Taxes (PILOT)	**PILOT %**										
Rental Revenue Projected:		$ 102,978	$ 104,523	$ 106,091	$ 107,682	$ 109,297	$ 110,937	$ 112,601	$ 114,290	$ 116,004	$ 117,744
PILOT TIR Anticipated	0.0600	$ 6,179	$ 6,271	$ 6,365	$ 6,461	$ 6,558	$ 6,656	$ 6,756	$ 6,857	$ 6,960	$ 7,065
Local PILOT Total		**$ 6,179**	**$ 6,271**	**$ 6,365**	**$ 6,461**	**$ 6,558**	**$ 6,656**	**$ 6,756**	**$ 6,857**	**$ 6,960**	**$ 7,065**
School Capture	Millage Rate										
State Education Tax (SET)	6.0000	$ 984	$ 999	$ 1,014	$ 1,029	$ 1,044	$ 1,060	$ 1,076	$ 1,092	$ 1,109	$ 1,125
School Operating Tax*	16.8267	$ 2,760	$ 2,801	$ 2,843	$ 2,886	$ 2,929	$ 2,973	$ 3,018	$ 3,063	$ 3,109	$ 3,156
School Total	**22.8267**	**$ 3,744**	**$ 3,800**	**$ 3,857**	**$ 3,915**	**$ 3,974**	**$ 4,033**	**$ 4,094**	**$ 4,155**	**$ 4,218**	**$ 4,281**
Local Capture (millages)	Millage Rate										
County Road	0.4915	$ 81	$ 82	$ 83	$ 84	$ 86	$ 87	$ 88	$ 89	$ 91	$ 92
County Seniors	0.3145	$ 52	$ 52	$ 53	$ 54	$ 55	$ 56	$ 56	$ 57	$ 58	$ 59
Early Childhood	0.2000	$ 33	$ 33	$ 34	$ 34	$ 35	$ 35	$ 36	$ 36	$ 37	$ 38
BATA	0.4655	$ 76	$ 77	$ 79	$ 80	$ 81	$ 82	$ 83	$ 85	$ 86	$ 87
Twp Allocation	0.5209	$ 85	$ 87	$ 88	$ 89	$ 91	$ 92	$ 93	$ 95	$ 96	$ 98
Library	0.4920	$ 81	$ 82	$ 83	$ 84	$ 86	$ 87	$ 88	$ 90	$ 91	$ 92
Sinking Fund	0.4607	$ 76	$ 77	$ 78	$ 79	$ 80	$ 81	$ 83	$ 84	$ 85	$ 86
North Ed	2.8494	$ 467	$ 474	$ 481	$ 489	$ 496	$ 503	$ 511	$ 519	$ 526	$ 534
County Allocation	3.2002	$ 525	$ 533	$ 541	$ 549	$ 557	$ 565	$ 574	$ 583	$ 591	$ 600
Oper NH 26	1.1733	$ 192	$ 195	$ 198	$ 201	$ 204	$ 207	$ 210	$ 214	$ 217	$ 220
Fire/Rescue Authority	3.1461	$ 516	$ 524	$ 532	$ 540	$ 548	$ 556	$ 564	$ 573	$ 581	$ 590
Local MillageTotal	**13.3141**	**$ 2,184**	**$ 2,216**	**$ 2,250**	**$ 2,283**	**$ 2,318**	**$ 2,352**	**$ 2,388**	**$ 2,424**	**$ 2,460**	**$ 2,497**
Non-Capturable Millages	Millage Rate										
School Debt	0.4700	$ 77	$ 78	$ 79	$ 81	$ 82	$ 83	$ 84	$ 86	$ 87	$ 88
Debt 2024	1.0600	$ 174	$ 176	$ 179	$ 182	$ 185	$ 187	$ 190	$ 193	$ 196	$ 199
Non-Capturable Total	**1.5300**	**$ 251**	**$ 255**	**$ 259**	**$ 262**	**$ 266**	**$ 270**	**$ 274**	**$ 279**	**$ 283**	**$ 287**
	37.6708										
Total Tax Increment Revenue (TIR) Available for Capture		$ 5,928	$ 6,017	$ 6,107	$ 6,198	$ 6,291	$ 6,386	$ 6,482	$ 6,579	$ 6,677	$ 6,778

NOTES:
*Rental Units are not subject to Principal Residence Exemption (PRE)
Winter 2025 & Summer 2026 Millage Rates

Millage rates are estimated based off of anticipated PILOT

Table 2 – Total Captured Incremental Taxes Schedule - Table 2C MULTIFAMILY ONLY
Act 381 Brownfield Plan
980 Herman Road Housing Development,
Suttons Bay, MI

Estimated Rental Revenue Increase Rate:

		11	12	13	14	15	16	17	18	19	20	21
Plan Year		11	12	13	14	15	16	17	18	19	20	21
Calendar Year		2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
*Base Taxable Value		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Future Taxable Value		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Incremental Difference (New TV - Base TV)		**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Payment in Lieu of Taxes (PILOT)	**PILOT %**											
Rental Revenue Projected:		$ 119,510	$ 121,303	$ 123,122	$ 124,969	$ 126,844	$ 128,746	$ 130,678	$ 132,638	$ 134,627	$ 136,647	$ 138,696
PILOT TIR Anticipated	0.0600	$ 7,171	$ 7,278	$ 7,387	$ 7,498	$ 7,611	$ 7,725	$ 7,841	$ 7,958	$ 8,078	$ 8,199	$ 8,322
Local PILOT Total		**$ 7,171**	**$ 7,278**	**$ 7,387**	**$ 7,498**	**$ 7,611**	**$ 7,725**	**$ 7,841**	**$ 7,958**	**$ 8,078**	**$ 8,199**	**$ 8,322**
School Capture	Millage Rate											
State Education Tax (SET)	6.0000	$ 1,142	$ 1,159	$ 1,177	$ 1,194	$ 1,212	$ 1,230	$ 1,249	$ 1,268	$ 1,287	$ 1,306	$ 1,325
School Operating Tax*	16.8267	$ 3,203	$ 3,251	$ 3,300	$ 3,349	$ 3,399	$ 3,450	$ 3,502	$ 3,555	$ 3,608	$ 3,662	$ 3,717
School Total	**22.8267**	**$ 4,345**	**$ 4,410**	**$ 4,476**	**$ 4,544**	**$ 4,612**	**$ 4,681**	**$ 4,751**	**$ 4,822**	**$ 4,895**	**$ 4,968**	**$ 5,043**
Local Capture (millages)	Millage Rate											
County Road	0.4915	$ 94	$ 95	$ 96	$ 98	$ 99	$ 101	$ 102	$ 104	$ 105	$ 107	$ 109
County Seniors	0.3145	$ 60	$ 61	$ 62	$ 63	$ 64	$ 64	$ 65	$ 66	$ 67	$ 68	$ 69
Early Childhood	0.2000	$ 38	$ 39	$ 39	$ 40	$ 40	$ 41	$ 42	$ 42	$ 43	$ 44	$ 44
BATA	0.4655	$ 89	$ 90	$ 91	$ 93	$ 94	$ 95	$ 97	$ 98	$ 100	$ 101	$ 103
Twp Allocation	0.5209	$ 99	$ 101	$ 102	$ 104	$ 105	$ 107	$ 108	$ 110	$ 112	$ 113	$ 115
Library	0.4920	$ 94	$ 95	$ 96	$ 98	$ 99	$ 101	$ 102	$ 104	$ 105	$ 107	$ 109
Sinking Fund	0.4607	$ 88	$ 89	$ 90	$ 92	$ 93	$ 94	$ 96	$ 97	$ 99	$ 100	$ 102
North Ed	2.8494	$ 542	$ 551	$ 559	$ 567	$ 576	$ 584	$ 593	$ 602	$ 611	$ 620	$ 629
County Allocation	3.2002	$ 609	$ 618	$ 628	$ 637	$ 647	$ 656	$ 666	$ 676	$ 686	$ 697	$ 707
Oper NH 26	1.1733	$ 223	$ 227	$ 230	$ 234	$ 237	$ 241	$ 244	$ 248	$ 252	$ 255	$ 259
Fire/Rescue Authority	3.1461	$ 599	$ 608	$ 617	$ 626	$ 636	$ 645	$ 655	$ 665	$ 675	$ 685	$ 695
Local MillageTotal	**13.3141**	**$ 2,534**	**$ 2,572**	**$ 2,611**	**$ 2,650**	**$ 2,690**	**$ 2,730**	**$ 2,771**	**$ 2,813**	**$ 2,855**	**$ 2,898**	**$ 2,941**
Non-Capturable Millages	Millage Rate											
School Debt	0.4700	$ 89	$ 91	$ 92	$ 94	$ 95	$ 96	$ 98	$ 99	$ 101	$ 102	$ 104
Debt 2024	1.0600	$ 202	$ 205	$ 208	$ 211	$ 214	$ 217	$ 221	$ 224	$ 227	$ 231	$ 234
Non-Capturable Total	**1.5300**	**$ 291**	**$ 296**	**$ 300**	**$ 305**	**$ 309**	**$ 314**	**$ 318**	**$ 323**	**$ 328**	**$ 333**	**$ 338**
	37.6708											
Total Tax Increment Revenue (TIR) Available for Capture		$ 6,879	$ 6,983	$ 7,087	$ 7,194	$ 7,301	$ 7,411	$ 7,522	$ 7,635	$ 7,749	$ 7,866	$ 7,984

NOTES:
*Rental Units are not subject to Principal Residence Exemption (PRE)
Winter 2025 & Summer 2026 Millage Rates

Millage rates are estimated based off of anticipated PILOT

Table 2 – Total Captured Incremental Taxes Schedule - Table 2C MULTIFAMILY ONLY
Act 381 Brownfield Plan
980 Herman Road Housing Development,
Suttons Bay, MI

Estimated Rental Revenue Increase Rate:

	Plan Year	22	23	24	25	26	27	28	29	30	Totals
	Calendar Year	2049	2050	2051	2052	2053	2054	2055	2056	2057	
	*Base Taxable Value	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
	Future Taxable Value	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Incremental Difference (New TV - Base TV)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Payment in Lieu of Taxes (PILOT)	**PILOT %**										
Rental Revenue Projected:		$ 140,777	$ 142,889	$ 145,032	$ 147,207	$ 149,415	$ 151,657	$ 153,932	$ 156,241	$ 158,584	
PILOT TIR Anticipated	0.0600	$ 8,447	$ 8,573	$ 8,702	$ 8,832	$ 8,965	$ 9,099	$ 9,236	$ 9,374	$ 9,515	$ 231,939
Local PILOT Total		**$ 8,447**	**$ 8,573**	**$ 8,702**	**$ 8,832**	**$ 8,965**	**$ 9,099**	**$ 9,236**	**$ 9,374**	**$ 9,515**	**$ 231,939**
School Capture	Millage Rate										
State Education Tax (SET)	6.0000	$ 1,345	$ 1,366	$ 1,386	$ 1,407	$ 1,428	$ 1,449	$ 1,471	$ 1,493	$ 1,516	$ 36,942
School Operating Tax*	16.8267	$ 3,773	$ 3,830	$ 3,887	$ 3,945	$ 4,004	$ 4,064	$ 4,125	$ 4,187	$ 4,250	$ 103,602
School Total	**22.8267**	**$ 5,118**	**$ 5,195**	**$ 5,273**	**$ 5,352**	**$ 5,432**	**$ 5,514**	**$ 5,597**	**$ 5,680**	**$ 5,766**	**$ 140,544**
Local Capture (millages)	Millage Rate										
County Road	0.4915	$ 110	$ 112	$ 114	$ 115	$ 117	$ 119	$ 121	$ 122	$ 124	$ 3,026
County Seniors	0.3145	$ 71	$ 72	$ 73	$ 74	$ 75	$ 76	$ 77	$ 78	$ 79	$ 1,936
Early Childhood	0.2000	$ 45	$ 46	$ 46	$ 47	$ 48	$ 48	$ 49	$ 50	$ 51	$ 1,231
BATA	0.4655	$ 104	$ 106	$ 108	$ 109	$ 111	$ 112	$ 114	$ 116	$ 118	$ 2,866
Twp Allocation	0.5209	$ 117	$ 119	$ 120	$ 122	$ 124	$ 126	$ 128	$ 130	$ 132	$ 3,207
Library	0.4920	$ 110	$ 112	$ 114	$ 115	$ 117	$ 119	$ 121	$ 122	$ 124	$ 3,029
Sinking Fund	0.4607	$ 103	$ 105	$ 106	$ 108	$ 110	$ 111	$ 113	$ 115	$ 116	$ 2,836
North Ed	2.8494	$ 639	$ 648	$ 658	$ 668	$ 678	$ 688	$ 699	$ 709	$ 720	$ 17,544
County Allocation	3.2002	$ 718	$ 728	$ 739	$ 750	$ 762	$ 773	$ 785	$ 796	$ 808	$ 19,703
Oper NH 26	1.1733	$ 263	$ 267	$ 271	$ 275	$ 279	$ 283	$ 288	$ 292	$ 296	$ 7,224
Fire/Rescue Authority	3.1461	$ 705	$ 716	$ 727	$ 738	$ 749	$ 760	$ 771	$ 783	$ 795	$ 19,370
Local MillageTotal	**13.3141**	**$ 2,985**	**$ 3,030**	**$ 3,075**	**$ 3,122**	**$ 3,168**	**$ 3,216**	**$ 3,264**	**$ 3,313**	**$ 3,363**	**$ 81,973**
Non-Capturable Millages	Millage Rate										
School Debt	0.4700	$ 105	$ 107	$ 109	$ 110	$ 112	$ 114	$ 115	$ 117	$ 119	$ 2,894
Debt 2024	1.0600	$ 238	$ 241	$ 245	$ 249	$ 252	$ 256	$ 260	$ 264	$ 268	$ 6,526
Non-Capturable Total	**1.5300**	**$ 343**	**$ 348**	**$ 353**	**$ 359**	**$ 364**	**$ 370**	**$ 375**	**$ 381**	**$ 386**	**$ 9,420**
	37.6708										
Total Tax Increment Revenue (TIR) Available for Capture		$ 8,103	$ 8,225	$ 8,348	$ 8,474	$ 8,601	$ 8,730	$ 8,861	$ 8,994	$ 9,129	**$ 222,517**

NOTES:
*Rental Units are not subject to Principal Residence Exemption (PRE)
Winter 2025 & Summer 2026 Millage Rates

Millage rates are estimated based off of anticipated PILOT

Table 2 – Total Captured Incremental Taxes Schedule - Table 2D SUMMARY (LAND+FOR SALE+MULTIFAMILY)
Act 381 Brownfield Plan
980 Herman Road Housing Development,
Suttons Bay, MI

Estimated Taxable Value (TV) Increase Rate: 3% increase per year

		1	2	3	4	5	6	7	8	9	10
Plan Year		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Calendar Year		2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
*Base Taxable Value		$ 153,263	$ 153,263	$ 153,263	$ 153,263	$ 153,263	$ 153,263	$ 153,263	$ 153,263	$ 153,263	$ 153,263
Future Taxable Value		$ 1,080,000	$ 1,112,400	$ 3,161,772	$ 3,256,625	$ 3,354,324	$ 3,454,954	$ 3,558,602	$ 3,665,360	$ 3,775,321	$ 3,888,581
Incremental Difference (New TV - Base TV)		**$ 926,737**	**$ 959,137**	**$ 3,008,509**	**$ 3,103,362**	**$ 3,201,061**	**$ 3,301,691**	**$ 3,405,339**	**$ 3,512,097**	**$ 3,622,058**	**$ 3,735,318**
School Capture	Millage Rate										
State Education Tax (SET)	6.0000	$ 6,545	$ 6,754	$ 19,065	$ 19,649	$ 20,251	$ 20,870	$ 21,508	$ 22,165	$ 22,841	$ 23,537
School Operating Tax*	16.8267	$ 2,841	$ 2,919	$ 2,998	$ 3,079	$ 3,162	$ 3,247	$ 3,334	$ 3,423	$ 3,513	$ 3,606
School Total	**22.8267**	**$ 9,385**	**$ 9,672**	**$ 22,063**	**$ 22,729**	**$ 23,413**	**$ 24,118**	**$ 24,842**	**$ 25,587**	**$ 26,354**	**$ 27,143**
Local Capture	Millage Rate										
County Road	0.4915	$ 536	$ 553	$ 1,562	$ 1,610	$ 1,659	$ 1,710	$ 1,762	$ 1,816	$ 1,871	$ 1,928
County Seniors	0.3145	$ 343	$ 354	$ 999	$ 1,030	$ 1,061	$ 1,094	$ 1,127	$ 1,162	$ 1,197	$ 1,234
Early Childhood	0.2000	$ 218	$ 225	$ 635	$ 655	$ 675	$ 696	$ 717	$ 739	$ 761	$ 785
BATA	0.4655	$ 508	$ 524	$ 1,479	$ 1,524	$ 1,571	$ 1,619	$ 1,669	$ 1,720	$ 1,772	$ 1,826
Twp Allocation	0.5209	$ 568	$ 586	$ 1,655	$ 1,706	$ 1,758	$ 1,812	$ 1,867	$ 1,924	$ 1,983	$ 2,043
Library	0.4920	$ 537	$ 554	$ 1,563	$ 1,611	$ 1,661	$ 1,711	$ 1,764	$ 1,818	$ 1,873	$ 1,930
Sinking Fund	0.4607	$ 503	$ 519	$ 1,464	$ 1,509	$ 1,555	$ 1,602	$ 1,651	$ 1,702	$ 1,754	$ 1,807
North Ed	2.8494	$ 3,108	$ 3,207	$ 9,054	$ 9,331	$ 9,617	$ 9,911	$ 10,214	$ 10,526	$ 10,847	$ 11,178
County Allocation	3.2002	$ 3,491	$ 3,602	$ 10,169	$ 10,480	$ 10,801	$ 11,132	$ 11,472	$ 11,822	$ 12,183	$ 12,554
Oper NH 26	1.1733	$ 1,280	$ 1,321	$ 3,728	$ 3,842	$ 3,960	$ 4,081	$ 4,206	$ 4,334	$ 4,467	$ 4,603
Fire/Rescue Authority	3.1461	$ 3,432	$ 3,541	$ 9,997	$ 10,303	$ 10,619	$ 10,943	$ 11,278	$ 11,622	$ 11,977	$ 12,342
Local Total	**13.3141**	**$ 14,523**	**$ 14,986**	**$ 42,305**	**$ 43,602**	**$ 44,937**	**$ 46,312**	**$ 47,727**	**$ 49,184**	**$ 50,684**	**$ 52,229**
Non-Capturable Millages	Millage Rate										
School Debt	0.4700	$ 513	$ 529	$ 1,493	$ 1,539	$ 1,586	$ 1,635	$ 1,685	$ 1,736	$ 1,789	$ 1,844
Debt 2024	1.0600	$ 1,156	$ 1,193	$ 3,368	$ 3,471	$ 3,578	$ 3,687	$ 3,800	$ 3,916	$ 4,035	$ 4,158
Non-Capturable Total	**1.5300**	**$ 1,669**	**$ 1,722**	**$ 4,862**	**$ 5,011**	**$ 5,164**	**$ 5,322**	**$ 5,485**	**$ 5,652**	**$ 5,824**	**$ 6,002**
	37.6708										
Total Tax Increment Revenue (TIR) Available for Capture		$ 23,909	$ 24,659	$ 64,368	$ 66,330	$ 68,350	$ 70,429	$ 72,569	$ 74,771	$ 77,039	$ 79,372

NOTES:

*Land values are not subject to Principal Residence Exemption (PRE), Home Values are anticipated to be PRE
Winter 2025 & Summer 2026 Millage Rates

Multifamily is anticipated to pursue a PILOT which is included for capture based on estimated values

Table 2 – Total Captured Incremental Taxes Schedule - Table 2D SUMMARY (LAND+FOR SALE+MULTIFAMILY)
Act 381 Brownfield Plan
980 Herman Road Housing Development,
Suttons Bay, MI

Estimated Taxable Value (TV) Increase Rate:

		11	12	13	14	15	16	17	18	19	20	21
Plan Year		11	12	13	14	15	16	17	18	19	20	21
Calendar Year		2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
*Base Taxable Value		$ 153,263	$ 153,263	$ 153,263	$ 153,263	$ 153,263	$ 153,263	$ 153,263	$ 153,263	$ 153,263	$ 153,263	$ 153,263
Future Taxable Value		$ 4,005,238	$ 4,125,395	$ 4,249,157	$ 4,376,632	$ 4,507,931	$ 4,643,169	$ 4,782,464	$ 4,925,938	$ 5,073,716	$ 5,225,927	$ 5,382,705
Incremental Difference (New TV - Base TV)		**$ 3,851,975**	**$ 3,972,132**	**$ 4,095,894**	**$ 4,223,369**	**$ 4,354,668**	**$ 4,489,906**	**$ 4,629,201**	**$ 4,772,675**	**$ 4,920,453**	**$ 5,072,664**	**$ 5,229,442**
School Capture	Millage Rate											
State Education Tax (SET)	6.0000	$ 24,254	$ 24,992	$ 25,752	$ 26,534	$ 27,340	$ 28,170	$ 29,024	$ 29,904	$ 30,809	$ 31,742	$ 32,702
School Operating Tax*	16.8267	$ 3,701	$ 3,798	$ 3,897	$ 3,998	$ 4,102	$ 4,208	$ 4,316	$ 4,427	$ 4,540	$ 4,656	$ 4,775
School Total	**22.8267**	**$ 27,955**	**$ 28,790**	**$ 29,649**	**$ 30,532**	**$ 31,442**	**$ 32,377**	**$ 33,340**	**$ 34,330**	**$ 35,349**	**$ 36,398**	**$ 37,477**
Local Capture	Millage Rate											
County Road	0.4915	$ 1,987	$ 2,047	$ 2,110	$ 2,174	$ 2,240	$ 2,308	$ 2,378	$ 2,450	$ 2,524	$ 2,600	$ 2,679
County Seniors	0.3145	$ 1,271	$ 1,310	$ 1,350	$ 1,391	$ 1,433	$ 1,477	$ 1,521	$ 1,567	$ 1,615	$ 1,664	$ 1,714
Early Childhood	0.2000	$ 808	$ 833	$ 858	$ 884	$ 911	$ 939	$ 967	$ 997	$ 1,027	$ 1,058	$ 1,090
BATA	0.4655	$ 1,882	$ 1,939	$ 1,998	$ 2,059	$ 2,121	$ 2,186	$ 2,252	$ 2,320	$ 2,390	$ 2,463	$ 2,537
Twp Allocation	0.5209	$ 2,106	$ 2,170	$ 2,236	$ 2,304	$ 2,374	$ 2,446	$ 2,520	$ 2,596	$ 2,675	$ 2,756	$ 2,839
Library	0.4920	$ 1,989	$ 2,049	$ 2,112	$ 2,176	$ 2,242	$ 2,310	$ 2,380	$ 2,452	$ 2,526	$ 2,603	$ 2,682
Sinking Fund	0.4607	$ 1,862	$ 1,919	$ 1,977	$ 2,037	$ 2,099	$ 2,163	$ 2,229	$ 2,296	$ 2,366	$ 2,437	$ 2,511
North Ed	2.8494	$ 11,518	$ 11,869	$ 12,230	$ 12,601	$ 12,984	$ 13,378	$ 13,784	$ 14,201	$ 14,631	$ 15,074	$ 15,530
County Allocation	3.2002	$ 12,936	$ 13,330	$ 13,735	$ 14,153	$ 14,582	$ 15,025	$ 15,480	$ 15,950	$ 16,433	$ 16,930	$ 17,442
Oper NH 26	1.1733	$ 4,743	$ 4,887	$ 5,036	$ 5,189	$ 5,346	$ 5,509	$ 5,676	$ 5,848	$ 6,025	$ 6,207	$ 6,395
Fire/Rescue Authority	3.1461	$ 12,718	$ 13,105	$ 13,503	$ 13,913	$ 14,336	$ 14,771	$ 15,219	$ 15,680	$ 16,155	$ 16,644	$ 17,147
Local Total	**13.3141**	**$ 53,820**	**$ 55,458**	**$ 57,144**	**$ 58,880**	**$ 60,668**	**$ 62,509**	**$ 64,405**	**$ 66,357**	**$ 68,366**	**$ 70,436**	**$ 72,566**
Non-Capturable Millages	Millage Rate											
School Debt	0.4700	$ 1,900	$ 1,958	$ 2,017	$ 2,079	$ 2,142	$ 2,207	$ 2,274	$ 2,342	$ 2,413	$ 2,486	$ 2,562
Debt 2024	1.0600	$ 4,285	$ 4,415	$ 4,550	$ 4,688	$ 4,830	$ 4,977	$ 5,128	$ 5,283	$ 5,443	$ 5,608	$ 5,777
Non-Capturable Total	**1.5300**	**$ 6,185**	**$ 6,373**	**$ 6,567**	**$ 6,766**	**$ 6,972**	**$ 7,183**	**$ 7,401**	**$ 7,625**	**$ 7,856**	**$ 8,094**	**$ 8,339**
	37.6708											
Total Tax Increment Revenue (TIR) Available for Capture		$ 81,774	$ 84,247	$ 86,793	$ 89,413	$ 92,110	$ 94,887	$ 97,745	$ 100,687	$ 103,716	$ 106,834	$ 110,043

NOTES:

*Land values are not subject to Principal Residence Exemption (PRE), Home Values are anticipated to be PRE
Winter 2025 & Summer 2026 Millage Rates

Multifamily is anticipated to pursue a PILOT which is included for capture based on estimated values

7/16/2026

Table 2 – Total Captured Incremental Taxes Schedule - Table 2D SUMMARY (LAND+FOR SALE+MULTIFAMILY)
Act 381 Brownfield Plan
980 Herman Road Housing Development,
Suttons Bay, MI

Estimated Taxable Value (TV) Increase Rate:

	Plan Year	22	23	24	25	26	27	28	29	30	Totals
	Calendar Year	2049	2050	2051	2052	2053	2054	2055	2056	2057	
	*Base Taxable Value	$ 153,263	$ 153,263	$ 153,263	$ 153,263	$ 153,263	$ 153,263	$ 153,263	$ 153,263	$ 153,263	$ -
	Future Taxable Value	$ 5,544,186	$ 5,710,512	$ 5,881,827	$ 6,058,282	$ 6,240,031	$ 6,427,231	$ 6,620,048	$ 6,818,650	$ 7,023,209	$ -
	Incremental Difference (New TV - Base TV)	**$ 5,390,923**	**$ 5,557,249**	**$ 5,728,564**	**$ 5,905,019**	**$ 6,086,768**	**$ 6,273,968**	**$ 6,466,785**	**$ 6,665,387**	**$ 6,869,946**	**$ -**
School Capture	Millage Rate										
State Education Tax (SET)	6.0000	$ 33,691	$ 34,709	$ 35,757	$ 36,837	$ 37,948	$ 39,093	$ 40,272	$ 41,485	$ 42,735	$ 836,936
School Operating Tax*	16.8267	$ 4,896	$ 5,020	$ 5,148	$ 5,278	$ 5,411	$ 5,547	$ 5,686	$ 5,829	$ 5,975	$ 127,328
School Total	**22.8267**	**$ 38,587**	**$ 39,729**	**$ 40,905**	**$ 42,114**	**$ 43,359**	**$ 44,640**	**$ 45,958**	**$ 47,314**	**$ 48,710**	**$ 964,263**
Local Capture	Millage Rate										
County Road	0.4915	$ 2,760	$ 2,843	$ 2,929	$ 3,018	$ 3,109	$ 3,202	$ 3,299	$ 3,398	$ 3,501	$ 68,559
County Seniors	0.3145	$ 1,766	$ 1,819	$ 1,874	$ 1,931	$ 1,989	$ 2,049	$ 2,111	$ 2,175	$ 2,240	$ 43,869
Early Childhood	0.2000	$ 1,123	$ 1,157	$ 1,192	$ 1,228	$ 1,265	$ 1,303	$ 1,342	$ 1,383	$ 1,424	$ 27,898
BATA	0.4655	$ 2,614	$ 2,693	$ 2,774	$ 2,858	$ 2,944	$ 3,033	$ 3,124	$ 3,219	$ 3,316	$ 64,932
Twp Allocation	0.5209	$ 2,925	$ 3,013	$ 3,104	$ 3,198	$ 3,295	$ 3,394	$ 3,496	$ 3,602	$ 3,710	$ 72,660
Library	0.4920	$ 2,763	$ 2,846	$ 2,932	$ 3,021	$ 3,112	$ 3,206	$ 3,302	$ 3,402	$ 3,504	$ 68,629
Sinking Fund	0.4607	$ 2,587	$ 2,665	$ 2,746	$ 2,828	$ 2,914	$ 3,002	$ 3,092	$ 3,185	$ 3,281	$ 64,263
North Ed	2.8494	$ 16,000	$ 16,483	$ 16,981	$ 17,494	$ 18,022	$ 18,565	$ 19,125	$ 19,701	$ 20,295	$ 397,461
County Allocation	3.2002	$ 17,970	$ 18,513	$ 19,072	$ 19,648	$ 20,240	$ 20,851	$ 21,480	$ 22,127	$ 22,794	$ 446,394
Oper NH 26	1.1733	$ 6,588	$ 6,787	$ 6,992	$ 7,203	$ 7,421	$ 7,645	$ 7,875	$ 8,112	$ 8,357	$ 163,663
Fire/Rescue Authority	3.1461	$ 17,666	$ 18,200	$ 18,749	$ 19,315	$ 19,898	$ 20,498	$ 21,116	$ 21,753	$ 22,408	$ 438,847
Local Total	**13.3141**	**$ 74,761**	**$ 77,020**	**$ 79,346**	**$ 81,742**	**$ 84,208**	**$ 86,748**	**$ 89,364**	**$ 92,057**	**$ 94,830**	**$ 1,857,174**
Non-Capturable Millages	Millage Rate										
School Debt	0.4700	$ 2,639	$ 2,719	$ 2,801	$ 2,886	$ 2,973	$ 3,062	$ 3,155	$ 3,250	$ 3,348	$ 65,560
Debt 2024	1.0600	$ 5,952	$ 6,132	$ 6,317	$ 6,508	$ 6,704	$ 6,906	$ 7,115	$ 7,329	$ 7,550	$ 147,859
Non-Capturable Total	**1.5300**	**$ 8,591**	**$ 8,851**	**$ 9,118**	**$ 9,393**	**$ 9,677**	**$ 9,969**	**$ 10,269**	**$ 10,579**	**$ 10,897**	**$ 213,418**
	37.6708										
Total Tax Increment Revenue (TIR) Available for Capture		$ 113,348	$ 116,749	$ 120,251	$ 123,856	$ 127,567	$ 131,388	$ 135,322	$ 139,371	$ 143,540	**$ 2,821,437**

NOTES:

*Land values are not subject to Principal Residence Exemption (PRE), Home Values are anticipated to be PRE
Winter 2025 & Summer 2026 Millage Rates

Multifamily is anticipated to pursue a PILOT which is included for capture based on estimated values

Table 3 – Estimated Reimbursement Schedule
Act 381 Brownfield Plan
980 Herman Road Housing Development,
Suttons Bay, MI

Developer & BRA Maximum Reimbursement	Proportionality	School & Local Taxes	Local-Only Taxes	Total
State	**34.2%**	$ 959,731	$ -	$ 959,731
Local	**65.8%**	$ 1,848,519	$ -	$ 1,848,519
TOTAL				
EGLE	0.1%	$ 2,100	$ -	$ 2,100
MEDC	0.0%	$ -	$ -	$ -
MSHDA	99.9%	$ 2,806,150	$ -	$ 2,806,150

Estimated Total Years of Plan:	30

Estimated Capture	
Administrative Fees	$ 92,859
State Brownfield Redevelopment Fund	$ 317,701
Local Brownfield Revolving Fund	$ -

	Beginning Balance	1 2028	2 2029	3 2030	4 2031	5 2032	6 2033	7 2034	8 2035
Total State Incremental Revenue		$ 9,385	$ 9,672	$ 22,063	$ 22,729	$ 23,413	$ 24,118	$ 24,842	$ 25,587
State Brownfield Redevelopment Fund (50% of SET)		$ 3,272	$ 3,377	$ 9,532	$ 9,825	$ 10,125	$ 10,435	$ 10,754	$ 11,082
State TIR Available for Reimbursement		**$ 6,113**	**$ 6,296**	**$ 12,531**	**$ 12,904**	**$ 13,288**	**$ 13,682**	**$ 14,088**	**$ 14,505**
Total Local Incremental Revenue		$ 14,523	$ 14,986	$ 42,305	$ 43,602	$ 44,937	$ 46,312	$ 47,727	$ 49,184
BRA Administrative Fee (5%)		$ 726	$ 749	$ 2,115	$ 2,180	$ 2,247	$ 2,316	$ 2,386	$ 2,459
Local TIR Available for Reimbursement		**$ 13,797**	**$ 14,237**	**$ 40,190**	**$ 41,422**	**$ 42,690**	**$ 43,996**	**$ 45,340**	**$ 46,725**
Total State & Local TIR Available		**$ 19,910**	**$ 20,533**	**$ 52,721**	**$ 54,326**	**$ 55,978**	**$ 57,678**	**$ 59,428**	**$ 61,230**
DEVELOPER									
Reimbursement Balance	***$ 2,808,250***	***$ 2,788,340***	***$ 2,767,807***	***$ 2,715,087***	***$ 2,660,761***	***$ 2,604,783***	***$ 2,547,105***	***$ 2,487,676***	***$ 2,426,446***
EGLE Environmental Costs	*$ 2,100*	*$ 2,100*	$ -	$ -	$ -	$ -	$ -	$ -	$ -
State Tax Reimbursement		$ 718	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Local Tax Reimbursement		$ 1,382	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total EGLE Reimbursement Balance		*$ 2,100*	$ -	$ -	$ -	$ -	$ -	$ -	$ -
MSHDA Costs	*$ 2,806,150*	*$ 2,806,150*	*$ 2,788,340*	*$ 2,767,807*	*$ 2,715,087*	*$ 2,660,761*	*$ 2,604,783*	*$ 2,547,105*	*$ 2,487,676*
State Tax Reimbursement		$ 5,396	$ 6,296	$ 12,531	$ 12,904	$ 13,288	$ 13,682	$ 14,088	$ 14,505
Local Tax Reimbursement		$ 12,415	$ 14,237	$ 40,190	$ 41,422	$ 42,690	$ 43,996	$ 45,340	$ 46,725
Total MSHDA Reimbursement Balance		*$ 2,788,340*	*$ 2,767,807*	*$ 2,715,087*	*$ 2,660,761*	*$ 2,604,783*	*$ 2,547,105*	*$ 2,487,676*	*$ 2,426,446*
Total Annual Developer Reimbursement		*$ 19,910*	*$ 20,533*	*$ 52,721*	*$ 54,326*	*$ 55,978*	*$ 57,678*	*$ 59,428*	*$ 61,230*

	9 2036	10 2037	11 2038	12 2039	13 2040	14 2041	15 2042
Total State Incremental Revenue	$ 26,354	$ 27,143	$ 27,955	$ 28,790	$ 29,649	$ 30,532	$ 31,442
State Brownfield Redevelopment Fund (50% of SET)	$ 11,420	$ 11,769	$ 12,127	$ 12,496	$ 12,876	$ 13,267	$ 13,670
State TIR Available for Reimbursement	**$ 14,934**	**$ 15,374**	**$ 15,828**	**$ 16,294**	**$ 16,773**	**$ 17,265**	**$ 17,772**
Total Local Incremental Revenue	$ 50,684	$ 52,229	$ 53,820	$ 55,458	$ 57,144	$ 58,880	$ 60,668
BRA Administrative Fee (5%)	$ 2,534	$ 2,611	$ 2,691	$ 2,773	$ 2,857	$ 2,944	$ 3,033
Local TIR Available for Reimbursement	**$ 48,150**	**$ 49,618**	**$ 51,129**	**$ 52,685**	**$ 54,287**	**$ 55,936**	**$ 57,635**
Total State & Local TIR Available	**$ 63,084**	**$ 64,992**	**$ 66,957**	**$ 68,978**	**$ 71,059**	**$ 73,202**	**$ 75,407**
DEVELOPER							
Reimbursement Balance	***$ 2,363,362***	***$ 2,298,370***	***$ 2,231,414***	***$ 2,162,435***	***$ 2,091,376***	***$ 2,018,174***	***$ 1,942,768***
EGLE Environmental Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -
State Tax Reimbursement	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Local Tax Reimbursement	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total EGLE Reimbursement Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -
MSHDA Costs	*$ 2,426,446*	*$ 2,363,362*	*$ 2,298,370*	*$ 2,231,414*	*$ 2,162,435*	*$ 2,091,376*	*$ 2,018,174*
State Tax Reimbursement	$ 14,934	$ 15,374	$ 15,828	$ 16,294	$ 16,773	$ 17,265	$ 17,772
Local Tax Reimbursement	$ 48,150	$ 49,618	$ 51,129	$ 52,685	$ 54,287	$ 55,936	$ 57,635
Total MSHDA Reimbursement Balance	*$ 2,363,362*	*$ 2,298,370*	*$ 2,231,414*	*$ 2,162,435*	*$ 2,091,376*	*$ 2,018,174*	*$ 1,942,768*
Total Annual Developer Reimbursement	*$ 63,084*	*$ 64,992*	*$ 66,957*	*$ 68,978*	*$ 71,059*	*$ 73,202*	*$ 75,407*

LOCAL BROWNFIELD REVOLVING FUND

	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
LBRF Deposits *	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
State Tax Capture	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Local Tax Capture	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total LBRF Capture	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

* Up to five years of capture for LBRF Deposits after eligible activities are reimbursed is not estimated to be pursued.

Table 3 – Estimated Reimbursement Schedule
Act 381 Brownfield Plan
980 Herman Road Housing Development,
Suttons Bay, MI

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	TOTAL
Total State Incremental Revenue	$ 32,377	$ 33,340	$ 34,330	$ 35,349	$ 36,398	$ 37,477	$ 38,587	$ 39,729	$ 40,905	$ 42,114	$ 43,359	$ 44,640	$ 45,958	$ 47,314	$ 48,710	$ 964,263
State Brownfield Redevelopment Fund (50% of SE	$ 14,085	$ 14,512	$ 14,952	$ 15,405	$ 15,871	$ 16,351	$ 16,845	$ 17,355	$ 17,879	$ 18,418	$ -	$ -	$ -	$ -	$ -	$ 317,701
State TIR Available for Reimbursement	**$ 18,292**	**$ 18,828**	**$ 19,379**	**$ 19,945**	**$ 20,527**	**$ 21,126**	**$ 21,742**	**$ 22,375**	**$ 23,026**	**$ 23,696**	**$ 43,359**	**$ 44,640**	**$ 45,958**	**$ 47,314**	**$ 48,710**	**$ 646,562**
Total Local Incremental Revenue	$ 62,509	$ 64,405	$ 66,357	$ 68,366	$ 70,436	$ 72,566	$ 74,761	$ 77,020	$ 79,346	$ 81,742	$ 84,208	$ 86,748	$ 89,364	$ 92,057	$ 94,830	$ 1,857,174
BRA Administrative Fee (5%)	$ 3,125	$ 3,220	$ 3,318	$ 3,418	$ 3,522	$ 3,628	$ 3,738	$ 3,851	$ 3,967	$ 4,087	$ 4,210	$ 4,337	$ 4,468	$ 4,603	$ 4,742	$ 92,859
Local TIR Available for Reimbursement	**$ 59,384**	**$ 61,184**	**$ 63,039**	**$ 64,948**	**$ 66,914**	**$ 68,938**	**$ 71,023**	**$ 73,169**	**$ 75,379**	**$ 77,655**	**$ 79,998**	**$ 82,411**	**$ 84,895**	**$ 87,454**	**$ 90,089**	**$ 1,764,315**
Total State & Local TIR Available	**$ 77,676**	**$ 80,012**	**$ 82,417**	**$ 84,893**	**$ 87,441**	**$ 90,064**	**$ 92,764**	**$ 95,544**	**$ 98,405**	**$ 101,351**	**$ 123,357**	**$ 127,051**	**$ 130,853**	**$ 134,768**	**$ 138,798**	**$ 2,410,877**
DEVELOPER																
Reimbursement Balance	***$ 1,865,092***	***$ 1,785,079***	***$ 1,702,662***	***$ 1,617,769***	***$ 1,530,328***	***$ 1,440,264***	***$ 1,347,500***	***$ 1,251,956***	***$ 1,153,551***	***$ 1,052,200***	***$ 928,843***	***$ 801,793***	***$ 670,939***	***$ 536,171***	***$ 397,373***	***$ -***
EGLE Environmental Costs	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
State Tax Reimbursement	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 692
Local Tax Reimbursement	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,408
Total EGLE Reimbursement Balance	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ 2,100*
MSHDA Costs	*$ 1,942,768*	*$ 1,865,092*	*$ 1,785,079*	*$ 1,702,662*	*$ 1,617,769*	*$ 1,530,328*	*$ 1,440,264*	*$ 1,347,500*	*$ 1,251,956*	*$ 1,153,551*	*$ 1,052,200*	*$ 928,843*	*$ 801,793*	*$ 670,939*	*$ 536,171*	
State Tax Reimbursement	$ 18,292	$ 18,828	$ 19,379	$ 19,945	$ 20,527	$ 21,126	$ 21,742	$ 22,375	$ 23,026	$ 23,696	$ 43,359	$ 44,640	$ 45,958	$ 47,314	$ 48,710	$ 645,845
Local Tax Reimbursement	$ 59,384	$ 61,184	$ 63,039	$ 64,948	$ 66,914	$ 68,938	$ 71,023	$ 73,169	$ 75,379	$ 77,655	$ 79,998	$ 82,411	$ 84,895	$ 87,454	$ 90,089	$ 1,762,933
Total MSHDA Reimbursement Balance	*$ 1,865,092*	*$ 1,785,079*	*$ 1,702,662*	*$ 1,617,769*	*$ 1,530,328*	*$ 1,440,264*	*$ 1,347,500*	*$ 1,251,956*	*$ 1,153,551*	*$ 1,052,200*	*$ 928,843*	*$ 801,793*	*$ 670,939*	*$ 536,171*	*$ 397,373*	*$ 2,408,777*
Total Annual Developer Reimbursement	*$ 77,676*	*$ 80,012*	*$ 82,417*	*$ 84,893*	*$ 87,441*	*$ 90,064*	*$ 92,764*	*$ 95,544*	*$ 98,405*	*$ 101,351*	*$ 123,357*	*$ 127,051*	*$ 130,853*	*$ 134,768*	*$ 138,798*	***$ 2,410,877***
LOCAL BROWNFIELD REVOLVING FUND																
LBRF Deposits *	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
State Tax Capture	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
Local Tax Capture	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
Total LBRF Capture	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*

* Up to five years of capture for LBRF Deposits after eligible activities are reimbursed is not estimated to be pursued.

Appendix 1

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Resolutions and Notices Pending

Appendix 2

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Development and Reimbursement Agreement Pending

Appendix 3

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Resolutions and Notices Pending

Appendix 4

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Resolutions and Notices Pending

Appendix 5

HOUSING NEEDS ASSESSMENT

Northern Michigan

BOWEN NATIONAL RESEARCH

2023

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Note: For-Sale housing data may be provided upon request.

Population by migration (previous residence one year prior to survey) for years 2016-2020 is shown in the following table:

		Population by Migration					
		Same House	Different House in Same County	Different County In Same State	Different State	Moved from Abroad	Total
Antrim	Number	20,571	949	1,297	269	25	23,111
	Percent	89.0%	4.1%	5.6%	1.2%	0.1%	100.0%
Benzie	Number	16,072	526	606	296	39	17,539
	Percent	91.6%	3.0%	3.5%	1.7%	0.2%	100.0%
Charlevoix	Number	23,267	1,290	1,180	197	23	25,957
	Percent	89.6%	5.0%	4.5%	0.8%	0.1%	100.0%
Emmet	Number	28,887	2,086	1,457	374	10	32,814
	Percent	88.0%	6.4%	4.4%	1.1%	0.0%	100.0%
Grand Traverse	Number	79,147	6,530	4,529	1,717	49	91,972
	Percent	86.1%	7.1%	4.9%	1.9%	0.1%	100.0%
Kalkaska	Number	15,654	726	913	236	40	17,569
	Percent	89.1%	4.1%	5.2%	1.3%	0.2%	100.0%
Leelanau	Number	19,052	756	1,152	479	30	21,469
	Percent	88.7%	3.5%	5.4%	2.2%	0.1%	100.0%
Manistee	Number	21,846	1,169	1,031	357	29	24,432
	Percent	89.4%	4.8%	4.2%	1.5%	0.1%	100.0%
Missaukee	Number	12,797	1,060	749	222	45	14,873
	Percent	86.0%	7.1%	5.0%	1.5%	0.3%	100.0%
Wexford	Number	28,640	1,739	1,985	562	32	32,958
	Percent	86.9%	5.3%	6.0%	1.7%	0.1%	100.0%
Region	Number	265,933	16,831	14,899	4,709	322	302,694
	Percent	87.9%	5.6%	4.9%	1.6%	0.1%	100.0%
Michigan	Number	8,547,712	767,152	366,898	140,137	43,728	9,865,627
	Percent	86.6%	7.8%	3.7%	1.4%	0.4%	100.0%

Source: U.S. Census Bureau, 2016-2020 American Community Survey; ESRI; Urban Decision Group; Bowen National Research

As the preceding illustrates, nearly nine-tenths (87.9%) of PSA (Northern Michigan Region) residents remained in the same house year over year. This represents a marginally less transient population than the state, where 86.6% of the population remained in the same house year over year. Among all Northern Michigan Region residents, 5.6% moved within the same county, 4.9% moved from a different county within the state, and 1.6% moved from a different state. Although migration data for each county in the PSA is generally similar, it appears Missaukee and Grand Traverse counties are the most transient within the PSA, as 14.0% and 13.9% of their respective populations changed residences from the previous year. By contrast, Benzie County is the least transient county, with only 8.4% of the population changing residences year over year.

While a very high share of individuals remaining in the same house year over year and a limited amount of migration into an area may indicate a lack of housing options or job opportunities within a market, an unusually high share of transiency in an area can also indicate potential housing and economic issues within a market. The housing supply of the PSA is examined in detail in Section VI of this report.

Migration patterns address where people *move* to and from. For the purposes of this analysis, the Census Bureau's Population Estimates Program (PEP) is considered the most reliable source for the total *volume* of domestic migration. To evaluate migration *flows* between counties and mobility patterns by age and income at the county level, we use the U.S. Census Bureau's migration estimates published by the American Community Survey (ACS) for 2021 (latest year available). It is important to note that while county administrative boundaries are likely imperfect reflections of commuter sheds, moving across a county boundary is often an acceptable distance to make a meaningful difference in a person's local housing and labor market environment. The data provided by the PEP is intended to provide general insight regarding the contributing factors of population change (natural increase, domestic migration, and international migration), and as such, gross population changes within this data should not be compared among other tables which may be derived from alternate data sources such as the Decennial Census or American Community Survey.

The following table illustrates the cumulative change in total population for the counties of the PSA (Northern Michigan Region) between April 2010 and July 2020.

Estimated Components of Population Change by County for the PSA (Northern Michigan Region)
April 1, 2010 to July 1, 2020

	Population		Change*		Components of Change			
Area	2010	2020	Number	Percent	Natural Increase	Domestic Migration	International Migration	Net Migration
Antrim County	23,577	23,449	-128	-0.5%	-865	705	52	757
Benzie County	17,519	17,852	333	1.9%	-599	947	-7	940
Charlevoix County	25,955	26,105	150	0.6%	-516	368	322	690
Emmet County	32,696	33,342	646	2.0%	-580	1,112	143	1,255
Grand Traverse County	86,988	93,592	6,604	7.6%	576	5,733	304	6,037
Kalkaska County	17,147	18,003	856	5.0%	-158	947	71	1,018
Leelanau County	21,711	21,743	32	0.1%	-765	689	118	807
Manistee County	24,747	24,738	-9	-0.1%	-1,240	1,089	152	1,241
Missaukee County	14,851	15,152	301	2.0%	120	107	80	187
Wexford County	32,730	33,743	1,013	3.1%	426	520	85	605
Region	297,921	307,719	9,798	3.3%	-3,601	12,217	1,320	13,537

Source: U.S. Census Bureau, Population Division, October 2021

*Includes residuals of -20 (Antrim), -8 (Benzie), -24 (Charlevoix), -29 (Emmet), -9 (Grand Traverse), -4 (Kalkaska), -10 (Leelanau), -10 (Manistee), -6 (Missaukee), -18 (Wexford), and -138 (Region Total), representing the change that cannot be attributed to any specific demographic component

Based on the preceding data, the population increase within the PSA (Northern Michigan Region) from 2010 to 2020 was primarily the result of domestic migration. While natural decrease (more deaths than births) had a negative influence (3,601 decrease) on the PSA population between 2010 and 2020, significant domestic migration (12,217) and international migration (1,320) resulted in population growth of 3.3% within the region, or an increase of 9,798 people.

Among the 10 counties within the PSA, only three counties had a natural increase (more births than deaths) from 2010 to 2020. These include the counties of Grand Traverse (576), Wexford (426), and Missaukee (120). Conversely, the largest natural decrease occurred within Manistee County (1,240 decrease) during this time period. While natural increase is a function of multiple demographic factors such as population age, domestic migration is typically affected by housing and economic factors such as the availability and quality of housing and employment opportunities. Although each county in the PSA benefited from domestic migration to varying degrees from 2010 to 2020, the largest influx of domestic in-migrants occurred within Grand Traverse County (5,733). While international migration typically comprises a much smaller share of the total population change in a given area, it is interesting to note the degree to which this component influenced the population change within Charlevoix County. With international migration comprising nearly half (46.7%) of the total net migration within Charlevoix County, this was a critical component in the moderate population increase (0.6%) in the county from 2010 to 2020.

The following table details the _shares_ of domestic in-migration by three select age cohorts for each county of the PSA (Northern Michigan Region) from 2017 to 2021.

PSA (Northern Michigan Region) by County
Domestic County Population In-Migrants by Age, 2017 to 2021

Area	Share by Age			Median Age in Years		
	1 to 24 Years	25 to 64 Years	65+ Years	In-State Migrants	Out-of-state Migrants	Existing Population
Antrim County	**39.0%**	48.3%	12.7%	29.8	41.1	52.0
Benzie County	20.2%	55.5%	**24.3%**	37.6	64.7	50.6
Charlevoix County	31.9%	55.9%	12.3%	34.0	41.2	49.4
Emmet County	31.8%	54.8%	**13.4%**	30.7	57.7	46.1
Grand Traverse County	**36.2%**	50.8%	**13.0%**	30.0	39.8	43.3
Kalkaska County	26.0%	**66.3%**	7.7%	28.7	36.2	43.9
Leelanau County	34.8%	53.1%	12.1%	37.0	51.2	54.9
Manistee County	27.5%	**63.1%**	9.5%	41.3	31.9	49.7
Missaukee County	**39.6%**	53.0%	7.5%	28.0	31.1	43.0
Wexford County	31.9%	**56.3%**	11.8%	34.0	43.9	42.5
Region Average*	31.9%	55.7%	12.4%	33.1	43.9	47.5

Source: U.S. Census Bureau, 2021 5-Year ACS Estimates (S0701); Bowen National Research
*Average (mean) of shares and medians for individual counties, does not represent actual regional data

The ACS five-year estimates from 2017 to 2021 in the preceding table illustrates that, *on average*, 55.7% of in-migrants to the PSA (Northern Michigan Region) counties were between the ages of 25 and 64, while 31.9% were less than 25 years of age, and 12.4% were ages 65 and older. The counties with the largest shares of in-migrants under the age of 25 include Missaukee County (39.6%), Antrim County (39.0%), and Grand Traverse County (36.2%). Conversely, the counties with the largest shares of in-migrants ages 65 and older include Benzie County (24.3%), Emmet County (13.4%), and Grand Traverse County (13.0%). Within the region, and *on average*, the median age of in-state migrants (33.1 years) and out-of-state migrants (43.9 years) is typically less than the existing population (47.5 years). Among the individual counties, in-state migrants to Missaukee County are the youngest (28.0 years), while in-state migrants to Manistee County are the oldest (41.3 years). Although out-of-state migrants are typically older than in-state migrants in most of the PSA counties, such migrants to Benzie County have the highest median age (64.7 years) within the PSA.

To further illustrate migration patterns for the counties within the PSA (Northern Michigan Region), the following table summarizes the *intra-regional* migration data among the 10 PSA counties.

PSA (Northern Michigan Region) by County Intra-Regional Net Migration, 2015 to 2019											
County	Antrim County	Benzie County	Charlevoix County	Emmet County	Grand Traverse County	Kalkaska County	Leelanau County	Manistee County	Missaukee County	Wexford County	Region Net
Antrim County	-	0	-85	28	173	-47	12	-13	-6	-14	48
Benzie County	0	-	0	5	-167	0	-18	-83	0	-43	-306
Charlevoix County	85	0	-	196	-101	32	0	0	0	11	223
Emmet County	-28	-5	-196	-	40	-12	-12	4	0	57	-152
Grand Traverse County	-173	167	101	-40	-	25	126	-16	-43	-76	71
Kalkaska County	47	0	-32	12	-25	-	-9	0	-12	90	71
Leelanau County	-12	18	0	12	-126	9	-	0	-2	-1	-102
Manistee County	13	83	0	-4	16	0	0	-	7	-7	108
Missaukee County	6	0	0	0	43	12	2	-7	-	-312	-256
Wexford County	14	43	-11	-57	76	-90	1	7	312	-	295

Source: U.S. Census Bureau, 2019 5-Year American Community Survey; Bowen National Research

As the preceding illustrates, six counties within the PSA (Northern Michigan Region) benefited from intra-regional migration from 2015 to 2019. These include the counties of Wexford (295), Charlevoix (223), Manistee (108), Grand Traverse (71), Kalkaska (71), and Antrim (48). On the contrary, the intra-regional migration was negative for the counties of Benzie (-306), Missaukee (-256), Emmet (-152), and Leelanau (-102) during this time period. Among individual county exchanges, the net gains of Wexford from Missaukee (312), Charlevoix from Emmet (196), and Antrim from Grand Traverse (173) are among the top individual net increases within the region. It is also noteworthy that there are a number of specific instances where county to county migration is statistically non-existent within the PSA.

While the data contained in the previous pages illustrates the overall net migration trends of the counties of the PSA (Northern Michigan Region) and gives perspective about the general location where these individuals migrate to and from, it is also important to understand the income levels of in-migrants as it directly relates to affordability of housing. The table on page IV-33 illustrates the income distribution by mobility status of in-migrants for each county in the region.

The map on the following page illustrates the *intra-regional* net migration based on data from the American Community Survey (2015-2019).

V. ECONOMIC ANALYSIS

A. INTRODUCTION

The need for housing within a given geographic area is influenced by the number of households choosing to live there. Although the number of households in the subject area at any given time is a function of many factors, one of the primary reasons for residency is job availability. In this section, the workforce and employment trends that affect the PSA (Northern Michigan Region) and the 10 PSA counties are examined and compared to the state of Michigan and the United States.

An overview of the Northern Michigan Region workforce is provided through several overall metrics: employment by industry, wages by occupation, total employment, unemployment rates, and in-place employment trends. We also evaluated notable economic and infrastructure developments and the potential for significant closures or layoffs in the area (WARN Notices).

B. WORKFORCE ANALYSIS

The PSA has an employment base of nearly 180,000 individuals within a broad range of employment sectors. The primary industries of significance within the PSA include health care & social assistance, retail trade, and accommodation & food services. Each industry within the PSA requires employees of varying skills and education levels. There is a broad range of typical wages within the PSA based on occupation. The following evaluates key economic metrics within the Northern Michigan Region. It should be noted that based on the availability of various economic data metrics, some information is presented only for select geographic areas, which may include the PSA (Northern Michigan Region), the 10 PSA counties, the Northwest Lower Peninsula of Michigan Nonmetropolitan Area, and/or the state of Michigan, depending upon the availability of such data.

Employment by Industry

The following tables illustrate the distribution of employment by industry sector for the various study areas (note that the top three industry groups by share for each geographic area are in red).

NAICS Group	Employment by Industry: Antrim	Benzie	Charlevoix	Emmet	Grand Traverse	Kalkaska
Agriculture, Forestry, Fishing & Hunting	115 (1.6%)	26 (0.5%)	27 (0.2%)	73 (0.3%)	191 (0.3%)	40 (0.7%)
Mining	27 (0.4%)	9 (0.2%)	2 (0.0%)	2 (0.0%)	122 (0.2%)	142 (2.4%)
Utilities	8 (0.1%)	25 (0.5%)	106 (0.8%)	22 (0.1%)	141 (0.2%)	15 (0.3%)
Construction	315 (4.4%)	329 (6.1%)	749 (5.4%)	1,796 (6.2%)	3,294 (4.3%)	464 (7.9%)
Manufacturing	**757 (10.5%)**	322 (6.0%)	**1,881 (13.5%)**	1,542 (5.3%)	5,229 (6.9%)	419 (7.1%)
Wholesale Trade	187 (2.6%)	157 (2.9%)	280 (2.0%)	337 (1.2%)	2,563 (3.4%)	249 (4.2%)
Retail Trade	**939 (13.0%)**	**690 (12.8%)**	1,633 (11.7%)	**3,955 (13.6%)**	**11,293 (14.8%)**	**752 (12.7%)**
Transportation & Warehousing	100 (1.4%)	117 (2.2%)	304 (2.2%)	194 (0.7%)	1,298 (1.7%)	92 (1.6%)
Information	106 (1.5%)	42 (0.8%)	148 (1.1%)	348 (1.2%)	1,372 (1.8%)	74 (1.3%)
Finance & Insurance	222 (3.1%)	187 (3.5%)	246 (1.8%)	522 (1.8%)	2,098 (2.7%)	**587 (9.9%)**
Real Estate & Rental & Leasing	355 (4.9%)	166 (3.1%)	322 (2.3%)	524 (1.8%)	1,297 (1.7%)	57 (1.0%)
Professional, Scientific & Technical Services	218 (3.0%)	138 (2.6%)	417 (3.0%)	883 (3.0%)	3,991 (5.2%)	482 (8.2%)
Management of Companies & Enterprises	11 (0.2%)	126 (2.3%)	3 (0.0%)	8 (0.0%)	76 (0.1%)	0 (0.0%)
Administrative, Support, Waste Management & Remediation Services	210 (2.9%)	43 (0.8%)	953 (6.9%)	495 (1.7%)	1,331 (1.7%)	42 (0.7%)
Educational Services	689 (9.5%)	385 (7.1%)	953 (6.9%)	1,407 (4.8%)	3,016 (4.0%)	349 (5.9%)
Health Care & Social Assistance	730 (10.1%)	**791 (14.6%)**	**1,667 (12.0%)**	**7,479 (25.7%)**	**22,664 (29.7%)**	**824 (14.0%)**
Arts, Entertainment & Recreation	343 (4.7%)	178 (3.3%)	540 (3.9%)	2,949 (10.1%)	2,244 (2.9%)	110 (1.9%)
Accommodation & Food Services	**768 (10.6%)**	**736 (13.6%)**	**1,709 (12.3%)**	**3,485 (12.0%)**	**7,970 (10.4%)**	428 (7.2%)
Other Services (Except Public Administration)	397 (5.5%)	302 (5.6%)	841 (6.0%)	1,858 (6.4%)	3,223 (4.2%)	252 (4.3%)
Public Administration	686 (9.5%)	620 (11.5%)	1,064 (7.7%)	1,167 (4.0%)	2,316 (3.0%)	499 (8.4%)
Non-classifiable	57 (0.8%)	22 (0.4%)	56 (0.4%)	58 (0.2%)	585 (0.8%)	29 (0.5%)
Total	7,240 (100.0%)	5,411 (100.0%)	13,901 (100.0%)	29,104 (100.0%)	76,314 (100.0%)	5,906 (100.0%)

Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research
Note: Since this survey is conducted of establishments and not of residents, some employees may not live within each market. These employees, however, are included in our labor force calculations because their places of employment are located within each market.

(Continued)

NAICS Group	Employment by Industry Leelanau	Manistee	Missaukee	Wexford	Region	Michigan
Agriculture, Forestry, Fishing & Hunting	261 (2.7%)	80 (0.7%)	126 (3.5%)	98 (0.6%)	1,037 (0.6%)	18,094 (0.4%)
Mining	61 (0.6%)	34 (0.3%)	11 (0.3%)	6 (0.0%)	416 (0.2%)	6,059 (0.1%)
Utilities	25 (0.3%)	25 (0.2%)	121 (3.4%)	78 (0.5%)	566 (0.3%)	14,450 (0.3%)
Construction	561 (5.7%)	439 (4.1%)	225 (6.3%)	537 (3.2%)	8,709 (4.9%)	163,027 (3.6%)
Manufacturing	404 (4.1%)	1,488 (13.9%)	351 (9.9%)	**3,978 (23.4%)**	16,371 (9.1%)	**513,197 (11.2%)**
Wholesale Trade	179 (1.8%)	200 (1.9%)	231 (6.5%)	320 (1.9%)	4,703 (2.6%)	193,695 (4.2%)
Retail Trade	**991 (10.1%)**	**1,529 (14.2%)**	**546 (15.3%)**	**2,787 (16.4%)**	**25,115 (14.0%)**	**576,665 (12.6%)**
Transportation & Warehousing	132 (1.3%)	125 (1.2%)	124 (3.5%)	377 (2.2%)	2,863 (1.6%)	95,658 (2.1%)
Information	122 (1.2%)	91 (0.8%)	35 (1.0%)	435 (2.6%)	2,773 (1.5%)	91,050 (2.0%)
Finance & Insurance	279 (2.8%)	255 (2.4%)	52 (1.5%)	386 (2.3%)	4,834 (2.7%)	168,540 (3.7%)
Real Estate & Rental & Leasing	258 (2.6%)	148 (1.4%)	53 (1.5%)	232 (1.4%)	3,412 (1.9%)	95,407 (2.1%)
Professional, Scientific & Technical Services	425 (4.3%)	293 (2.7%)	105 (2.9%)	665 (3.9%)	7,617 (4.3%)	295,491 (6.5%)
Management of Companies & Enterprises	0 (0.0%)	3 (0.0%)	0 (0.0%)	0 (0.0%)	227 (0.1%)	8,827 (0.2%)
Administrative, Support, Waste Management & Remediation Services	619 (6.3%)	148 (1.4%)	18 (0.5%)	183 (1.1%)	4,042 (2.3%)	111,717 (2.4%)
Educational Services	604 (6.1%)	493 (4.6%)	**456 (12.8%)**	1,482 (8.7%)	9,834 (5.5%)	378,891 (8.3%)
Health Care & Social Assistance	607 (6.2%)	**1,547 (14.4%)**	**367 (10.3%)**	**1,969 (11.6%)**	**38,645 (21.6%)**	**765,165 (16.7%)**
Arts, Entertainment & Recreation	**967 (9.8%)**	227 (2.1%)	25 (0.7%)	262 (1.5%)	7,845 (4.4%)	139,513 (3.1%)
Accommodation & Food Services	**2,106 (21.4%)**	**2,028 (18.9%)**	198 (5.6%)	1,558 (9.2%)	**20,986 (11.7%)**	398,782 (8.7%)
Other Services (Except Public Administration)	465 (4.7%)	477 (4.4%)	185 (5.2%)	794 (4.7%)	8,794 (4.9%)	270,042 (5.9%)
Public Administration	724 (7.4%)	1,078 (10.0%)	326 (9.1%)	833 (4.9%)	9,313 (5.2%)	238,652 (5.2%)
Non-classifiable	47 (0.5%)	28 (0.3%)	8 (0.2%)	24 (0.1%)	914 (0.5%)	30,131 (0.7%)
Total	9,837 (100.0%)	10,736 (100.0%)	3,563 (100.0%)	17,004 (100.0%)	179,016 (100.0%)	4,573,053 (100.0%)

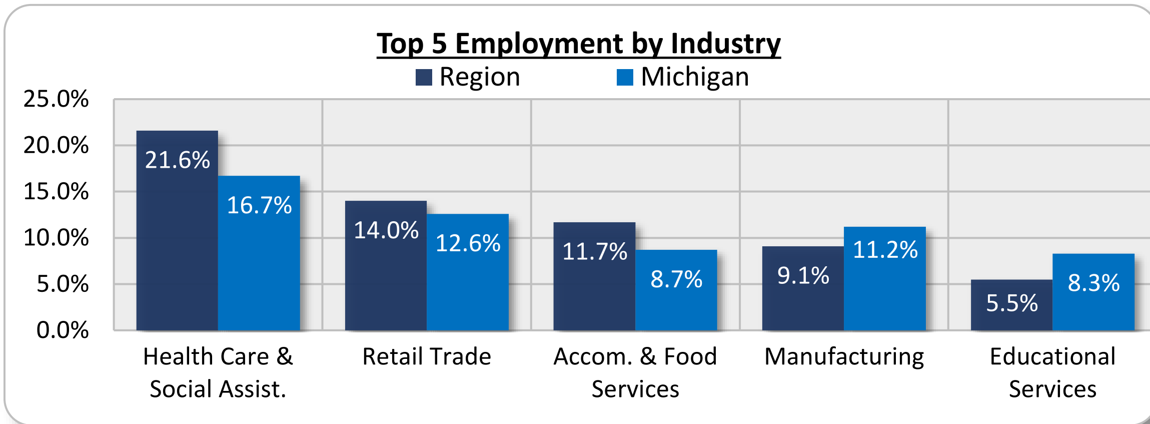
Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research

Note: Since this survey is conducted of establishments and not of residents, some employees may not live within each market. These employees, however, are included in our labor force calculations because their places of employment are located within each market.

The labor force within the PSA (Northern Michigan Region) is based primarily in three sectors: Health Care & Social Assistance (21.6%), Retail Trade (14.0%), and Accommodation & Food Services (11.7%). Combined, these three job sectors represent nearly one-half (47.3%) of the PSA employment base, which is a greater concentration of employment within the top three sectors compared to the top three sectors in the state (40.5%). Areas with a heavy concentration of employment within a limited number of industries can be more vulnerable to economic downturns with greater fluctuations in unemployment rates and total employment. While Health Care & Social Assistance represents over one-fifth (21.6%) of the employment base and is the largest sector by employment in the PSA, this sector is generally less susceptible to economic fluctuations. Retail Trade and Accommodation & Food Services are the next largest sectors in the PSA and are comparably more susceptible to economic downturns. In addition, these two sectors typically have occupations with lower wages, which contributes to the demand for more affordable housing alternatives.

Among the individual counties within the PSA, Grand Traverse (42.6%), Emmet (16.3%), and Wexford (9.5%) counties comprise the three largest shares of the total PSA labor force. While the respective shares of the labor force comprised by the three largest industries in Antrim (34.1%), Kalkaska (36.6%), and Charlevoix (37.8%) counties likely indicate a more diversified labor force in terms of sector concentration, over one-half of the labor force in Grand Traverse (54.9%), Wexford (51.4%), and Emmet (51.3%) counties are within the top three sectors. With Health Care & Social Assistance comprising one of the top three sectors in eight counties, Retail Trade in nine counties, and Accommodation & Food Services in seven counties, it is not surprising that these are the top three sectors of employment in the region. However, there are some notable distinctions in the top three sectors for a number of the PSA counties. These include Manufacturing in Antrim (10.5%), Charlevoix (13.5%), and Wexford (23.4%) counties, Finance & Insurance in Kalkaska County (9.9%), Educational Services in Missaukee County (12.8%), and Arts, Entertainment & Recreation in Leelanau County (9.8%). These variations in the labor force within individual counties illustrate that, while many similarities exist among the counties within the region, each county has a unique combination of employment by sector which affects wages. As such, each county within the region requires a labor force of varying skills and education levels, and these factors will affect housing affordability in each area of the PSA.

The following graph illustrates the distribution of employment by job sector for the five largest employment sectors in the PSA (Northern Michigan Region) and the state of Michigan:



Employment Characteristics and Trends

The Northern Michigan Region is located in the Northwest Lower Peninsula of Michigan Nonmetropolitan Area. Typical wages by job category for the Northwest Lower Peninsula of Michigan Nonmetropolitan Area are compared with those of Michigan in the following table:

Typical Wage by Occupation Type		
Occupation Type	Northwest Lower Peninsula of Michigan Nonmetropolitan Area	Michigan
Management Occupations	$91,990	$113,510
Business and Financial Occupations	$65,380	$77,000
Computer and Mathematical Occupations	$66,230	$84,750
Architecture and Engineering Occupations	$76,160	$85,590
Community and Social Service Occupations	$49,050	$50,160
Art, Design, Entertainment and Sports Medicine Occupations	$44,600	$54,780
Healthcare Practitioners and Technical Occupations	$82,610	$87,310
Healthcare Support Occupations	$32,620	$32,380
Protective Service Occupations	$47,770	$50,470
Food Preparation and Serving Related Occupations	$29,580	$29,580
Building and Grounds Cleaning and Maintenance Occupations	$32,420	$32,420
Personal Care and Service Occupations	$30,800	$33,790
Sales and Related Occupations	$38,970	$44,270
Office and Administrative Support Occupations	$39,060	$41,970
Construction and Extraction Occupations	$48,230	$54,910
Installation, Maintenance and Repair Occupations	$47,800	$52,220
Production Occupations	$38,960	$43,300
Transportation and Moving Occupations	$37,560	$40,370

Source: U.S. Department of Labor, Bureau of Statistics

Most annual blue-collar salaries range from $29,580 to $49,050 within the Northwest Lower Peninsula of Michigan Nonmetropolitan Area. White-collar jobs, such as those related to professional positions, management and medicine, have an average salary of $76,474. Average wages within the area are typically lower (10.5%) than the overall average state wages. While white-collar professions in the study area typically earn 17.4% less than those within Michigan, blue-collar wages are 7.9% less than the average state wages. Within the Northwest Lower Peninsula of Michigan Nonmetropolitan Area, wages by occupation vary widely and are reflective of a diverse job base that covers a wide range of industry sectors and job skills, as well as diverse levels of education and experience. Because employment is distributed among a variety of professions with diverse income levels, there are likely a variety of housing needs by affordability level. As a significant share of the labor force within the PSA is contained within health care, retail trade, and accommodation and food services, many workers in the area have typical wages generally ranging between $30,000 and $35,000 annually, likely contributing to the need for lower to mid-priced housing product in the region.

In an effort to better understand how area wages by occupation affect housing affordability, the median and lower quartile (often comparable to entry level position wages) annual wages for the top 35 occupations by share of total employment within the Northwest Lower Peninsula of Michigan Nonmetropolitan Area were compiled from the Michigan Department of Technology, Management and Budget. It should be noted that this nonmetropolitan area includes all 10 counties contained within the PSA (Northern Michigan Region) and does not contain any counties outside the PSA. While the wages for any given occupation likely vary between counties in the region, and other factors such as employee experience and individual employer compensation can influence wages, the wages by occupation illustrated in the following table are considered typical of this region and are useful in determining housing affordability by occupation. While this data does not include every possible occupation and wage within each sector, the occupations included in the following table represent slightly over one-half (51.7%) of the total employment in the statistical area in 2022. Based on the lower quartile and median annual wages, the maximum affordable monthly rent and home price for each occupation was calculated.

The following table summarizes the wages and housing affordability for the top 35 occupations by labor force share in the Northwest Lower Peninsula of Michigan Nonmetropolitan Area for 2022.

Wages and Housing Affordability for Top 35 Occupations by Share of Labor Force (Northwest Lower Peninsula of Michigan Nonmetropolitan Area)								
Occupation Sector, Title & Wages*					Housing Affordability**			
			Annual Wages		Max. Monthly Rent		Max. Purchase Price	
Sector Group (Code)	Labor Force Share	Occupation Title	Lower Quartile	Median	Lower Quartile	Median	Lower Quartile	Median
Sales and Related Occupations (41)	3.8%	Retail Salespersons	$26,540	$30,170	$664	$754	$88,467	$100,567
	3.1%	Cashiers	$23,300	$26,840	$583	$671	$77,667	$89,467
	1.0%	Sales Representatives, Wholesale	$41,240	$59,360	$1,031	$1,484	$137,467	$197,867
	0.9%	First-Line Supervisors, Retail	$34,740	$43,100	$869	$1,078	$115,800	$143,667
Food Preparation/ Serving (35)	3.2%	Fast Food/Counter Workers	$23,980	$26,870	$600	$672	$79,933	$89,567
	2.7%	Waiters and Waitresses	$23,380	$29,860	$585	$747	$77,933	$99,533
	1.5%	Cooks, Restaurant	$28,470	$31,720	$712	$793	$94,900	$105,733
	1.0%	First-Line Supervisors, Food Prep	$30,520	$35,740	$763	$894	$101,733	$119,133
	0.9%	Bartenders	$22,870	$29,470	$572	$737	$76,233	$98,233
Office and Administrative Support (43)	2.4%	Office Clerks, General	$30,900	$38,210	$773	$955	$103,000	$127,367
	1.5%	Customer Service Reps	$29,620	$36,130	$741	$903	$98,733	$120,433
	1.2%	Bookkeeping/Auditing Clerks	$33,520	$40,080	$838	$1,002	$111,733	$133,600
	1.2%	Secretaries/Administrative Assts.	$32,160	$37,910	$804	$948	$107,200	$126,367
	0.9%	Receptionists/Information Clerks	$28,770	$31,280	$719	$782	$95,900	$104,267
	0.8%	Medical Secretaries	$31,770	$37,150	$794	$929	$105,900	$123,833
	0.8%	First-Line Supervisors, Office	$43,420	$52,760	$1,086	$1,319	$144,733	$175,867
Transportation Material Moving (53)	2.3%	Stockers/Order Fillers	$28,490	$30,660	$712	$767	$94,967	$102,200
	1.5%	Heavy/Tractor-Trailer Drivers	$43,620	$47,600	$1,091	$1,190	$145,400	$158,667
	1.3%	Laborers and Material Movers	$29,700	$33,360	$743	$834	$99,000	$111,200
	0.8%	Light Truck Drivers	$31,370	$42,810	$784	$1,070	$104,567	$142,700
Production/ Manufacturing (51)	0.7%	First-Line Supervisors, Product.	$47,130	$58,550	$1,178	$1,464	$157,100	$195,167
Education, Training, and Library (25)	0.9%	Elementary School Teachers	$48,310	$61,390	$1,208	$1,535	$161,033	$204,633
	0.9%	Teaching Assistants	$27,310	$29,520	$683	$738	$91,033	$98,400
Healthcare (29, 31)	3.0%	Registered Nurses	$63,140	$76,430	$1,579	$1,911	$210,467	$254,767
	1.3%	Nursing Assistants	$33,050	$36,890	$826	$922	$110,167	$122,967
	0.7%	Medical Assistants	$35,000	$37,280	$875	$932	$116,667	$124,267
Management (11)	2.7%	General/Operations Managers	$48,830	$74,940	$1,221	$1,874	$162,767	$249,800
Business/ Finance (13)	0.8%	Accountants/Auditors	$50,310	$60,650	$1,258	$1,516	$167,700	$202,167
Installation/ Maintenance/ Repair (49)	1.3%	Maintenance/Repair Workers	$32,010	$38,870	$800	$972	$106,700	$129,567
Bldg./Grounds Maintenance (37)	1.5%	Landscaping/Groundskeeping	$30,350	$35,360	$759	$884	$101,167	$117,867
	1.4%	Janitors/Cleaners	$28,140	$31,580	$704	$790	$93,800	$105,267
	1.0%	Maids/Housekeeping	$25,870	$29,330	$647	$733	$86,233	$97,767
Construction/ Extraction (47)	1.1%	Construction Laborers	$36,430	$39,480	$911	$987	$121,433	$131,600
	0.9%	Carpenters	$37,300	$46,710	$933	$1,168	$124,333	$155,700
	0.7%	Electricians	$36,710	$45,720	$918	$1,143	$122,367	$152,400

Source: Michigan Department of Technology, Management & Budget, 2022 Wage Rates by Industry and Occupation (OEWS)
*Annual wages listed are at the lower 25th percentile (quartile) and median level for each occupation
**Housing Affordability is the maximum monthly rent or total for-sale home price a household can reasonably afford based on stated wages.

As the preceding table illustrates, the lower quartile of wage earners (often comparable to entry level positions) in over two-thirds (68.6%, or 24) of the occupations listed earn $35,000 or less annually. With an annual income of $35,000, a single-income household can reasonably afford rent of $875 per month or a home at the purchase price of approximately $117,000. It should be noted that many of the occupations within retail sales, food services, and support positions within a number of sectors earn significantly less than this amount. When the wages for each occupation are increased to their respective median wage, over three-fifths (62.9%, or 22) of the occupations listed earn $40,000 or less annually. At $40,000 annually, a single-income household can reasonably afford rent of $1,000 per month or a home at the purchase price of approximately $133,000.

In order to understand the overall affordability of housing in each county as it relates to the wages of the listed occupations, the maximum monthly rent and maximum purchase price based on the median wages for each occupation was compared to the Fair Market Rent (FMR) of a two-bedroom unit and the median list price of the available for-sale homes in each county. A table illustrating the FMR for various bedroom types in each county is included in Section VI (page VI-25) of this report. Similarly, data for the available inventory of for-sale housing in each county, which includes median list price, is included in Section VI (page VI-38).

The following table summarizes the housing affordability in each county of the PSA for the top 35 occupations listed at their respective *median* wages. Note that typical housing for each tenure (rent and own) that is considered to be *unaffordable* for the specified occupation and county is denoted by an "X", while *affordable* housing is denoted by a "✓". In addition, occupations for which typical rental and for-sale housing is unaffordable in each of the 10 counties of the PSA are illustrated in **red** text.

Housing Affordability at Median Wage by Occupation by County at Fair Market Rent/Median Sale Price (Northwest Lower Peninsula of Michigan Nonmetropolitan Area)																				
	Antrim		Benzie		Charlevoix		Emmet		Grand Traverse		Kalkaska		Leelanau		Manistee		Missaukee		Wexford	
Occupation Title	Rent	Own	Rent	Own	Rent	Own	Rent	Own	Rent	Own	Rent	Own	Rent	Own	Rent	Own	Rent	Own	Rent	Own
Retail Salespersons	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Cashiers	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sales Representatives, Wholesale	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	✓
First-Line Supervisors, Retail	✓	X	✓	X	✓	X	✓	X	X	X	✓	X	✓	X	✓	X	✓	X	✓	✓
Fast Food/Counter Workers	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Waiters and Waitresses	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Cooks, Restaurant	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
First-Line Supervisors, Food Prep	✓	X	X	X	✓	X	X	X	X	X	✓	X	X	X	X	X	✓	X	✓	✓
Bartenders	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Office Clerks, General	✓	X	X	X	✓	X	X	X	X	X	✓	X	X	X	✓	X	✓	X	✓	✓
Customer Service Reps	✓	X	X	X	✓	X	X	X	X	X	✓	X	X	X	X	X	✓	X	✓	✓
Bookkeeping/Auditing Clerks	✓	X	X	X	✓	X	✓	X	X	X	✓	X	X	X	✓	X	✓	X	✓	✓
Secretaries/Administrative Assts.	✓	X	X	X	✓	X	X	X	X	X	✓	X	X	X	✓	X	✓	X	✓	✓
Receptionists/Information Clerks	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Medical Secretaries	✓	X	X	X	✓	X	X	X	X	X	✓	X	X	X	✓	X	✓	X	✓	✓
First-Line Supervisors, Office	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	✓
Stockers/Order Fillers	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Heavy/Tractor-Trailer Drivers	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	✓
Laborers and Material Movers	X	X	X	X	X	X	X	X	X	X	✓	X	X	X	X	X	X	X	X	X
Light Truck Drivers	✓	X	✓	X	✓	X	✓	X	X	X	✓	X	✓	X	✓	X	✓	X	✓	✓
First-Line Supervisors, Product.	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	✓
Elementary School Teachers	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	✓
Teaching Assistants	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Registered Nurses	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	✓
Nursing Assistants	✓	X	X	X	✓	X	X	X	X	X	✓	X	X	X	✓	X	✓	X	✓	✓
Medical Assistants	✓	X	X	X	✓	X	X	X	X	X	✓	X	X	X	✓	X	✓	X	✓	✓
General/Operations Managers	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	✓
Accountants/Auditors	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	✓
Maintenance/Repair Workers	✓	X	X	X	✓	X	X	X	X	X	✓	X	X	X	✓	X	✓	X	✓	✓
Landscaping/Groundskeeping	✓	X	X	X	✓	X	X	X	X	X	✓	X	X	X	X	X	✓	X	✓	✓
Janitors/Cleaners	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Maids/Housekeeping	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Construction Laborers	✓	X	X	X	✓	X	✓	X	X	X	✓	X	X	X	✓	X	✓	X	✓	✓
Carpenters	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	✓
Electricians	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	X	✓	✓

Source: Michigan Department of Technology, Management & Budget, 2022 Wage Rates by Industry and Occupation (OEWS); Bowen National Research

Note: In terms of the development pipeline, we only included residential rental units that are confirmed as planned or under construction. Conversely, we have excluded projects that have not secured financing, are under preliminary review, or have not established a specific project concept (e.g., number of units, rents, target market, etc.). Any vacant housing units are accounted for in the Balanced Market portion of our demand estimates.

The following table summarizes the Northern Michigan Region's **rental housing gap estimates (number of units needed)** by the various income segments. The largest overall housing gaps are shown in **red**. It should be noted that details on the calculations and specific rent and income levels for each affordability level are provided in the individual county chapters that are included as addendums to this report.

		Northern Michigan Region Rental Housing Gap Estimates (2022-2027) Number of Units Needed by AMHI Level					
County		≤ 50% AMHI	51%-80% AMHI	81%-120% AMHI	121%+ AMHI	Total Number Of Units	Total Region's Share
Antrim		114	114	66	27	**321**	**3.6%**
Benzie		129	50	26	9	**214**	**2.4%**
Charlevoix		334	215	120	61	**730**	**8.3%**
Emmet		380	226	115	144	**865**	**9.8%**
Grand Traverse		2,358	733	288	190	**3,569**	**40.5%**
Kalkaska		284	149	62	16	**511**	**5.8%**
Leelanau		212	90	61	19	**382**	**4.3%**
Manistee		262	142	87	34	**525**	**6.0%**
Missaukee		179	99	45	13	**336**	**3.8%**
Wexford		762	370	172	56	**1,360**	**15.4%**
Region Total	**Units**	**5,014**	**2,188**	**1,042**	**569**	**8,813**	**100.0%**
	Share	**56.9%**	**24.8%**	**11.8%**	**6.5%**	**100.0%**	

Source: Bowen National Research
AMHI – Area Median Household Income

Based on the preceding demand estimates, it is clear that there is some level of rental housing demand among all household income levels within the Northern Michigan Region. **Overall, there is a housing gap of 8,813 rental units in the region over the five-year projection period.** The region's largest rental gap by affordability level is for product affordable to households earning up to 50% of Area Median Household Income (AMHI), with an overall gap of 5,014 units representing well over half of the region's overall rental housing gap. There is a notable overall rental housing gap of 2,188 units affordable at 51% to 80% of AMHI, representing nearly one-quarter of the region's overall rental housing gap. Despite the large need for more affordable rentals, the entire region has noteworthy gaps for moderate and higher-end rentals, particularly within Emmet, Grand Traverse and Wexford counties. Grand Traverse County has an overall rental housing gap of 3,569 units, representing 40.5% of the region's overall rental housing gap. Notable rental housing gaps also exist in the counties of Wexford (1,360 units, 15.4% of region's total), Emmet (865 units, 9.8% of region's total), Charlevoix (730 units, 8.3% of region's total), Manistee (525 units, 6.0% of region's total), and Kalkaska (511 units, 5.8% of region's total). Without a notable addition of new rental product, the area will not meet the housing needs of its current residents or the growing and changing housing needs of the market.

Based on the demographics of the market, including projected household growth estimates and projected changes in household compositions (e.g., household size, ages, etc.), it appears that approximately one-quarter to one-third of the demand for new rental housing could be specifically targeted to meet the needs of area seniors (age 65 and older), though projects could be built to meet the housing needs of both seniors and families concurrently. For general-occupancy projects, a unit mix of around 25% to 35% one-bedroom units, 40% to 60% two-bedroom units, and 10% to 20% three-bedroom units should be the *general* goal for future rental housing. Given the lack of three-bedroom rental units in this market, there may be an opportunity to develop a larger share of these units. Senior-oriented projects should consider unit mixes closer to 50% for both one- and two-bedroom units each. Additional details of the area's rental housing supply are included in Section VI and may serve as a guide for future rental housing development design decisions.

It is critical to understand that these estimates represent <u>potential</u> units of demand by targeted income level. The actual number of rental units that can be supported will ultimately be contingent upon a variety of factors including the location of a project, proposed features (i.e., rents, amenities, bedroom type, unit mix, square footage, etc.), product quality, design (i.e., townhouse, single-family homes, or garden-style units), management and marketing efforts. As such, each household income segment outlined in this section may be able to support more or less than the number of units shown in the rental housing gap estimates table. The potential number of units of support should be considered a general guideline to residential development planning.

3. <u>For-Sale Housing Gap Estimates</u>

This section of the report addresses the gap for for-sale housing alternatives in the Northern Michigan Region. Like the rental housing demand analysis, the for-sale housing analysis considers individual household income segments and corresponding housing price ranges.

Naturally, there are cases where a household can afford a higher down payment to purchase a more expensive home. There are also cases in which a household purchases a less expensive home although they could afford a higher purchase price. The actual support for new housing will ultimately be based on a variety of product factors such as price points, square footage, amenities, design, quality of finishes, and location. Considering these variations, this broad analysis provides the basis in which to estimate the *potential* demand of new for-sale housing within the PSA.

There are a variety of market factors that impact the demand for new homes within an area. In particular, area and neighborhood perceptions, quality of school districts, socioeconomic characteristics, mobility patterns, demolition and revitalization efforts, and availability of existing homes all play a role in generating new home sales. Support can be both internal (households moving within the market) and external (households new to the market).

Overall, we have considered the following specific sources of demand for new for-sale housing in each of the 10 subject counties in the PSA (Northern Michigan Region).

- Household Growth
- Units Required for a Balanced Market
- Replacement of Substandard Housing
- External (Outside County) Commuter Support
- Replacement of Severe Cost Burdened Housing
- Step-Down Support

New Household Growth

In this report, owner household growth projections from 2022 to 2027 are based on ESRI estimates. This projected growth was evaluated for each of the targeted income segments. It should be noted that changes in the number of households within a specific income segment do not necessarily mean that households are coming to or leaving the market, but instead, many of these households are likely to experience income growth or loss that would move them into a higher or lower income segment. Furthermore, should additional for-sale housing become available, either through new construction or conversion of rental units, demand for new for-sale housing could increase.

Units Required for a Balanced Market

Typically, a healthy for-sale housing market should have approximately 2% to 3% of its inventory vacant or available for purchase. Such vacancies allow for inner-market mobility, such as households upsizing or downsizing due to changes in family composition or income, and for people to move into the market. When markets have too few vacancies, housing prices often escalate at an abnormal rate, homes can get neglected, and potential homebuyers can leave a market. Conversely, an excess of homes can lead to stagnant or declining home prices, property neglect, or lead to such homes being converted to rentals. For the purposes of this analysis, we have assumed up to a 3.0% vacancy rate for a balanced market and accounted for for-sale housing units currently available for purchase in the market.

Replacement of Substandard Housing

Demand for new units as replacement housing takes into consideration that while some properties are adequately maintained and periodically updated, a portion of the existing stock reaches a point of functional obsolescence over time and needs to be replaced. This comes in the form of either units that are substandard (lacking complete plumbing or are overcrowded) or units expected to be removed from the housing stock through demolitions. American Community Survey 2016-2020 estimates of owner households living in substandard housing were used in our analysis. This share has been adjusted among lower and higher income households.

External Market Support

Market support can originate from households *not* currently living in the market but that commute into it for work on a regular basis. As a result, we have considered potential support for housing in the subject market from people commuting into the subject counties from outside the counties. These people represent potential future residents that may move to the market if adequate, desirable, and marketable housing was developed in the area. For the purposes of this analysis, we have used demand ratios generally between 20% to 40% (slightly lower than rental demand ratios) to estimate the demand that could originate from outside of the selected counties.

Severe Cost Burdened Households

Households paying in excess of 50% of their income toward housing costs are considered severe housing cost burdened. This is an excessive cost to households, requiring replacement housing that is more affordable to the most affected households. We have used American Community Survey 2016-2020 five-year estimates of severe cost burdened households in our analysis.

Step-Down Support

It is not uncommon for households of a certain income level (typically higher income households) to purchase a home at a lower price point despite the fact they can afford a higher priced home. Using housing cost and income data reported by American Community Survey, we have applied a portion of this step-down support to lower income demand estimates.

Note: In terms of the development pipeline, we only included for-sale residential units currently in the development pipeline that are planned or under construction and do not have a confirmed buyer, such as a condominium unit or a spec home, in our demand estimates. Conversely, we have excluded single-family home lots that may have been platted or are being developed, as such lots do not represent actual housing *units* that are available for purchase. Any vacant housing units are accounted for in the Balanced Market portion of our demand estimates.

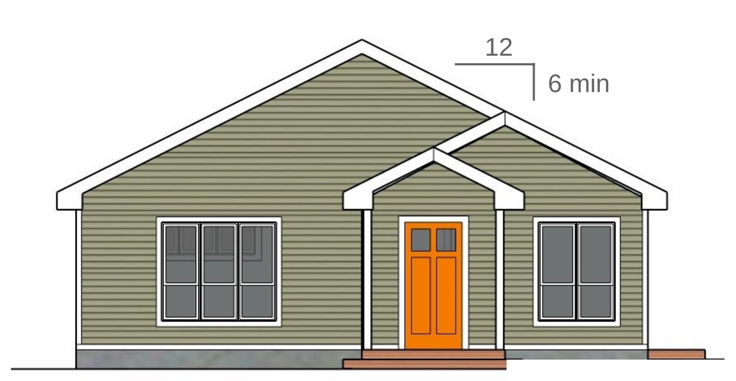
The following table summarizes the Northern Michigan Region's **for-sale housing gap estimates (number of units needed or could be supported)** by the various income segments following HUD guidelines. The largest overall housing gaps are shown in **red**. It should be noted that details on the calculations and specific price points and income levels for each affordability level are provided in the individual county chapters that are included as addendums to this report.

		Northern Michigan Region For-Sale Housing Gap Estimates (2022-2027) Number of Units Needed by AMHI Level					
County		≤ 50% AMHI	51%-80% AMHI	81%-120% AMHI	121%+ AMHI	Total Number Of Units	Total Region's Share
Antrim		265	239	504	442	**1,450**	6.5%
Benzie		349	251	378	316	**1,294**	5.8%
Charlevoix		173	282	648	525	**1,628**	7.3%
Emmet		552	462	856	635	**2,505**	11.2%
Grand Traverse		1,798	1,384	2,569	2,041	**7,792**	34.7%
Kalkaska		353	220	313	271	**1,157**	5.2%
Leelanau		498	383	581	491	**1,953**	8.7%
Manistee		158	247	525	447	**1,377**	6.1%
Missaukee		279	167	246	211	**903**	4.0%
Wexford		639	454	705	598	**2,396**	10.7%
Region Totals	**Units**	**5,064**	**4,089**	**7,325**	**5,977**	**22,455**	**100.0%**
	Share	**22.6%**	**18.2%**	**32.6%**	**26.6%**	**100.0%**	

Source: Bowen National Research
AMHI – Area Median Household Income

As illustrated in the preceding table, there is an overall regional for-sale housing gap of approximately 22,455 units over the five-year projection period. The largest for-sale housing gap by affordability level is for product affordable to households earning between 81% and 120% of Area Median Household Income (AMHI). This particular affordability level has a for-sale housing gap of 7,325 units, which represents nearly one-third (32.6%) of the overall region's for-sale housing gap. The remaining affordability gaps also have relatively large levels of need, with housing gaps ranging from 4,089 units affordable at 51% to 80% of AMHI to 5,977 units affordable at 121% or more of AMHI. Grand Traverse County has an overall for-sale housing gap of 7,792 units, representing over one-third (34.7%) of the region's overall for-sale housing gap. The counties of Emmet, Leelanau, and Wexford also have for-sale housing gaps over 1,900, each representing close to 10% of the overall region's for-sale housing gap. The limited inventory of for-sale product limits opportunities for renters seeking to enter the homebuyer market, homebuyers coming from outside the region, or seniors seeking to downsize. The region will not benefit from the various growth opportunities and be unable to meet the needs of its current residents without additional housing.

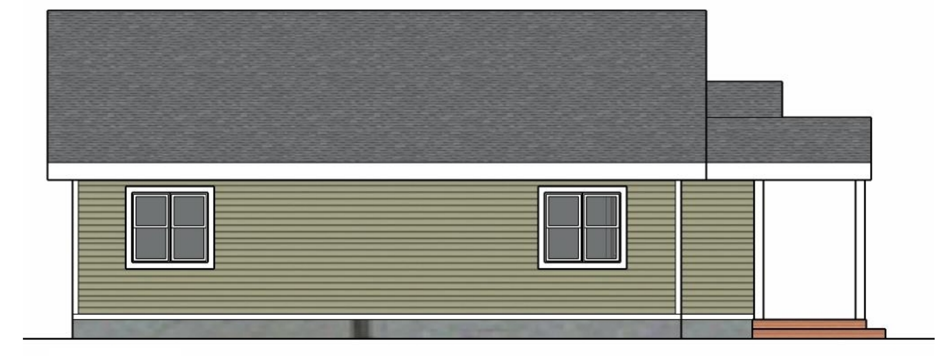
Appendix 6



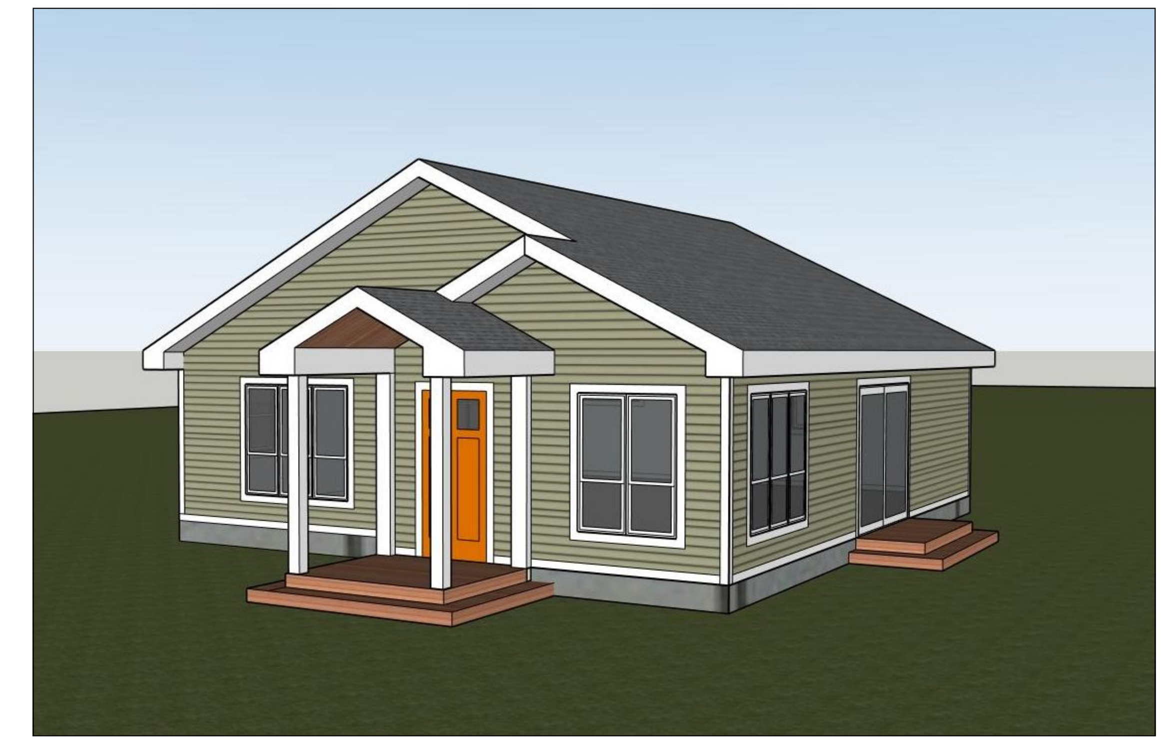
FRONT VIEW

REAR VIEW

SIDE VIEW

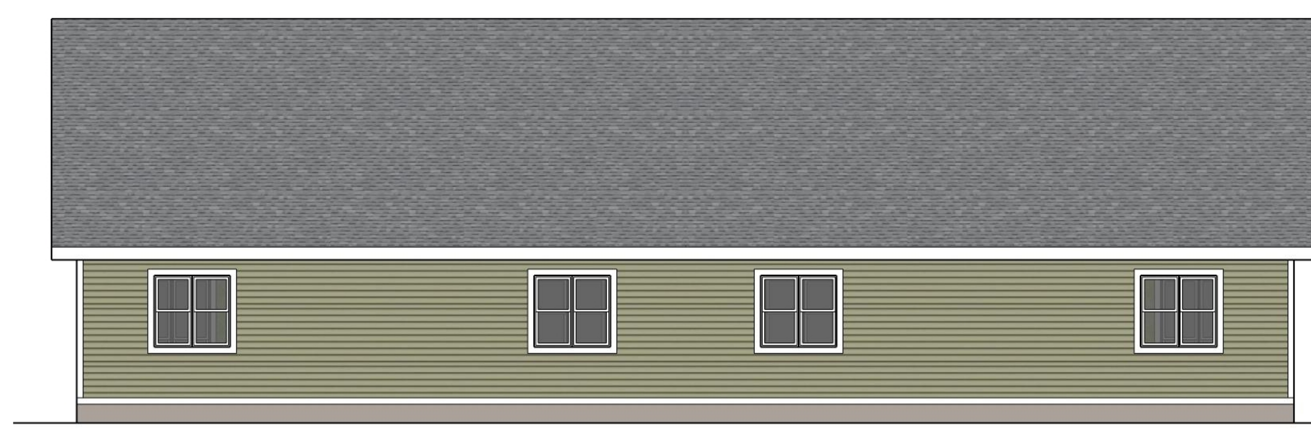


SIDE VIEW

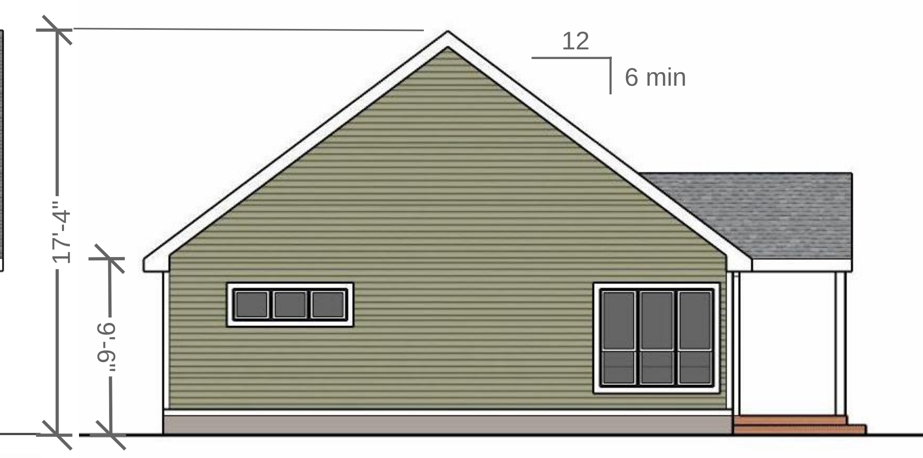


THREE BEDROOM SINGLE FAMILY HOME

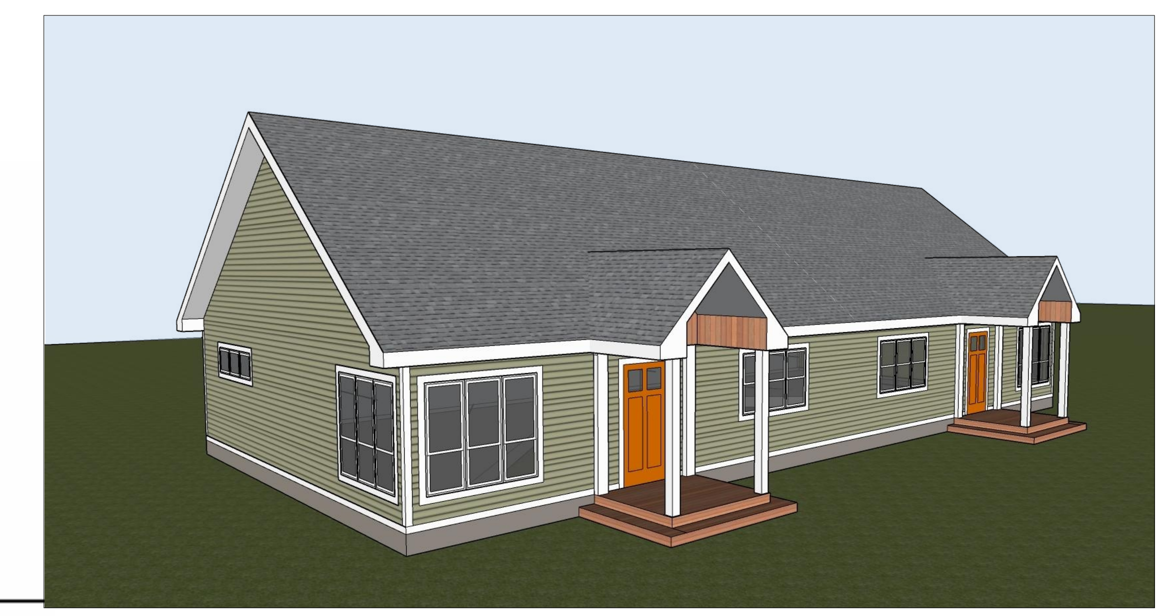
FRONT VIEW



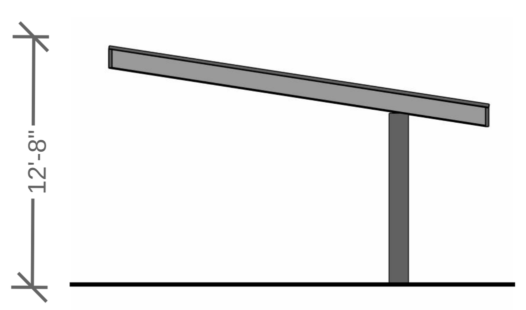
REAR VIEW



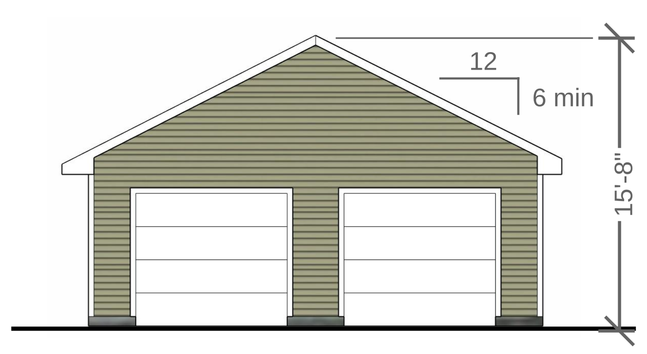
SIDE VIEW



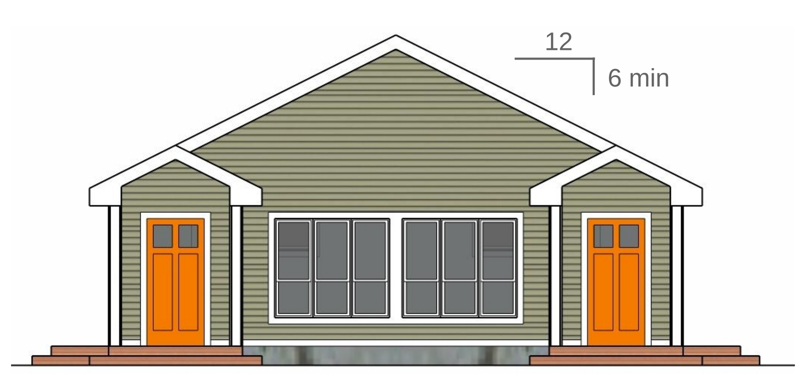
TWO BEDROOM DUPLEX HOME



OPTIONAL CARPORT



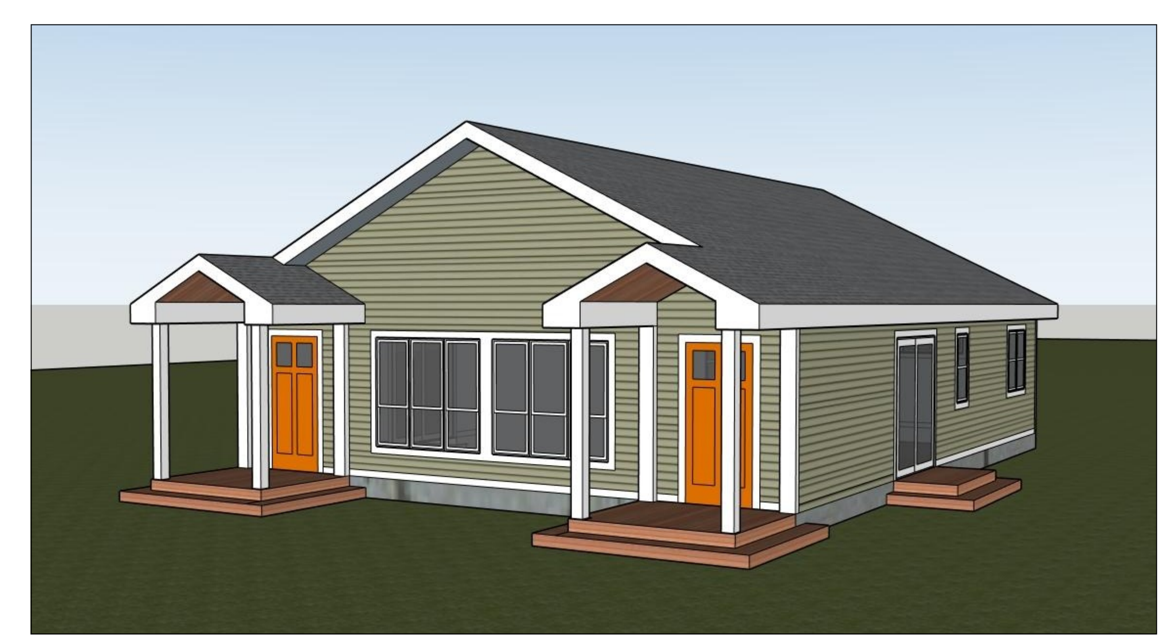
OPTIONAL GARAGE



FRONT VIEW

REAR VIEW

SIDE VIEW



ONE BEDROOM DUPLEX HOME

IN•FORM
architecture

kalamazoo + suttons bay, michigan
269.270.3331 www.informarchitect.com

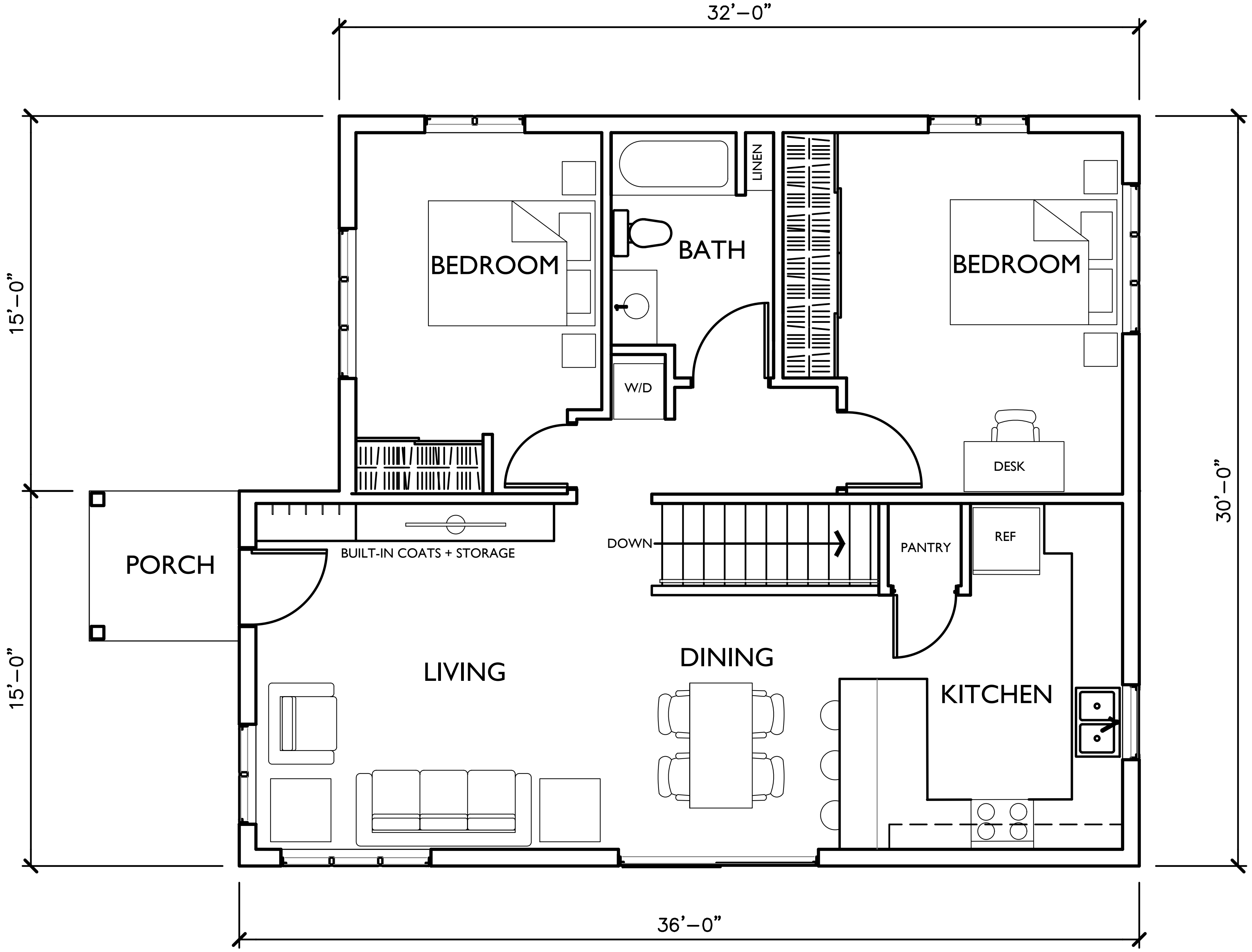
Peninsula Housing
Herman Road Proposed Housing
Section 3, Town 30 North, Range 11 West
Suttons Bay Township, Leelanau County, Michigan

sheet name
PRELIMINARY
EXTERIOR ELEVATIONS

project number
25013

drawing date
05.11.2026

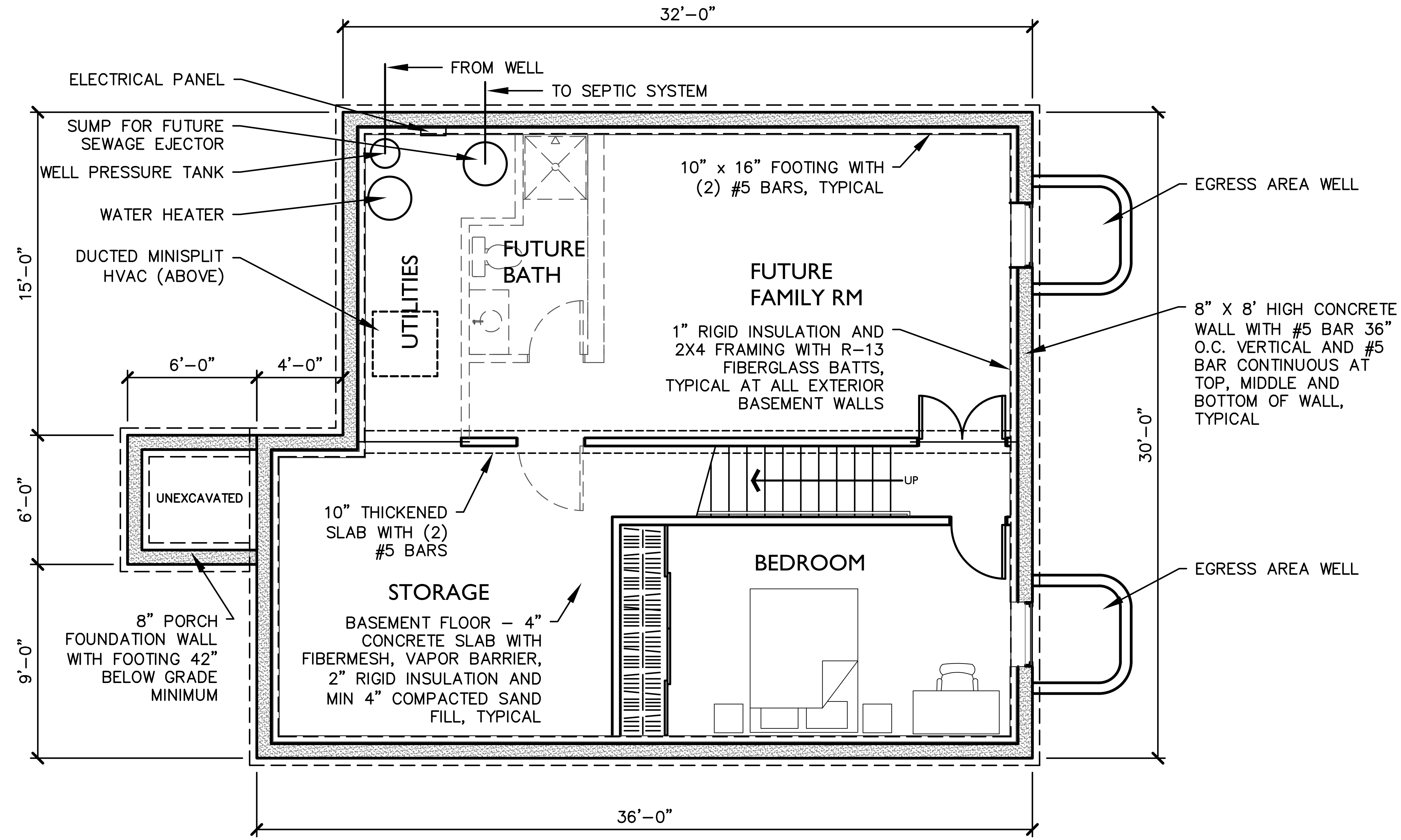
sheet number
A3.1



PENINSULA HOUSING
COMMUNITY LAND TRUST
Leelanau County, Michigan
4 May 2026

MAIN FLOOR PLAN
2 BEDROOM
3/16" = 1'-0"

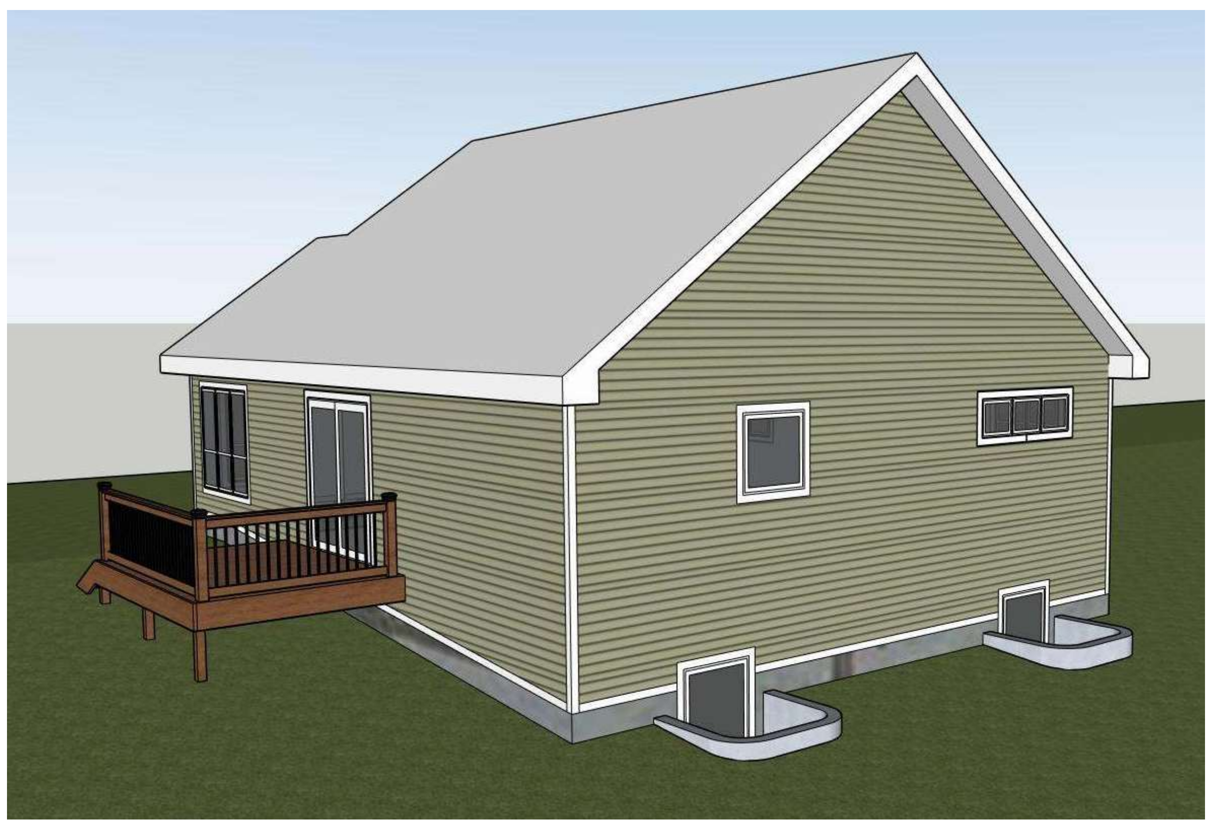
IN•FORM architecture
123 Devisser Place Kalamazoo, MI 49007 ©2026



PENINSULA HOUSING
COMMUNITY LAND TRUST
Leelanau County, Michigan
4 May 2026

FLOOR PLAN
2 BEDROOM
3/16" = 1'-0"

IN FORM architecture
123 Devisser Place Kalamazoo, MI 49007 ©2026

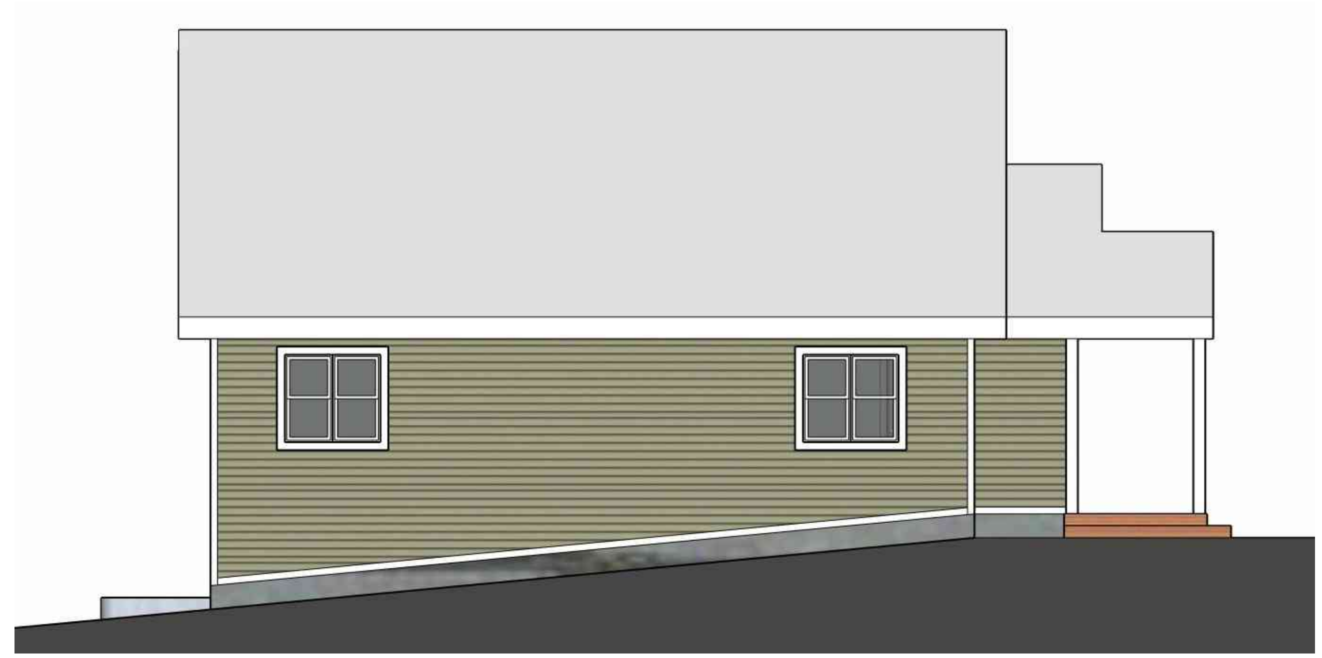


PENINSULA HOUSING
COMMUNITY LAND TRUST
Leelanau County, Michigan
15 April 2026

EXTERIOR IMAGES
3 BEDROOM

IN FORM architecture
123 Devisser Place Kalamazoo, MI 49007 ©2026

FRONT



SIDE

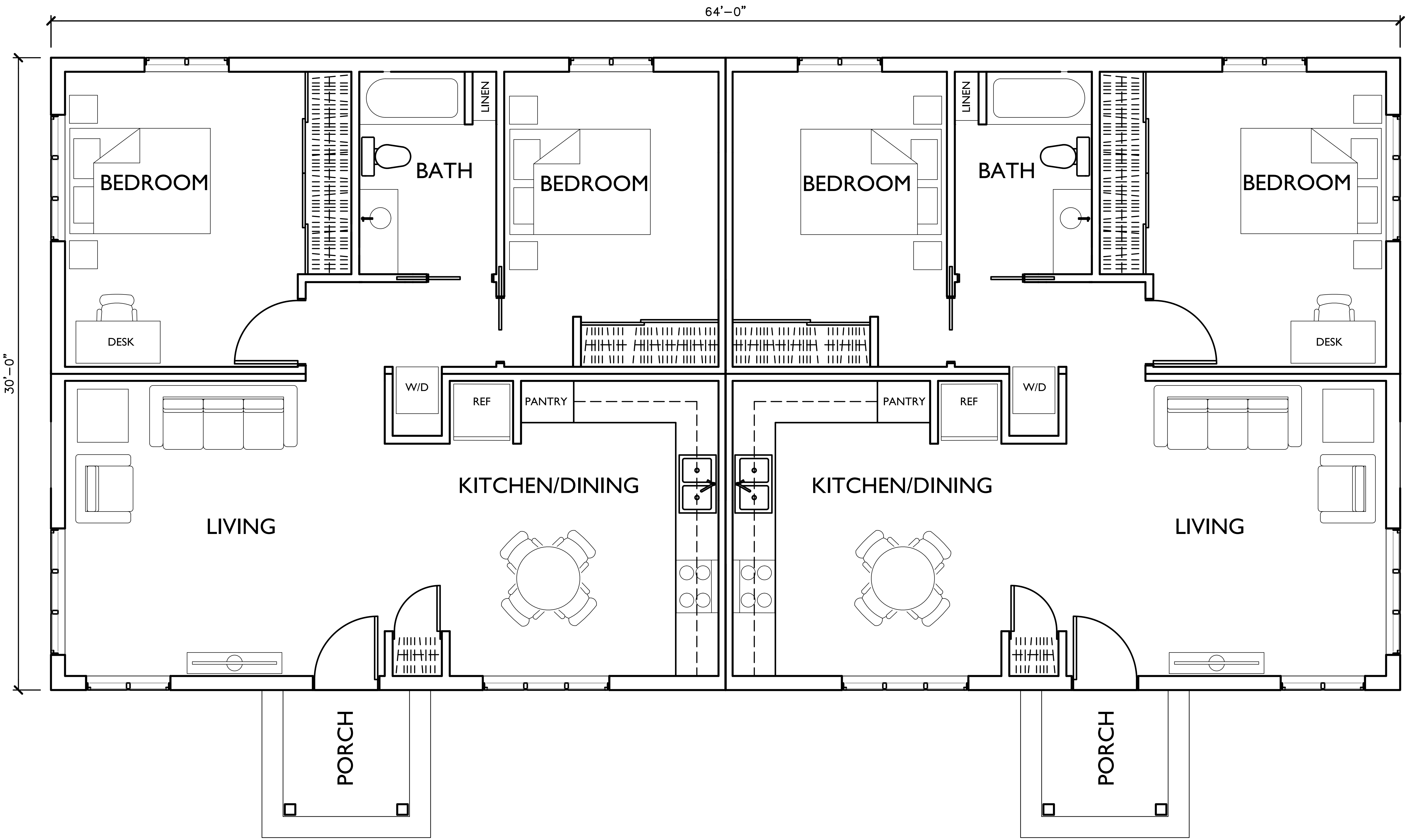
REAR

SIDE

PENINSULA HOUSING
COMMUNITY LAND TRUST
Leelanau County, Michigan
15 April 2026

EXTERIOR IMAGES
3 BEDROOM

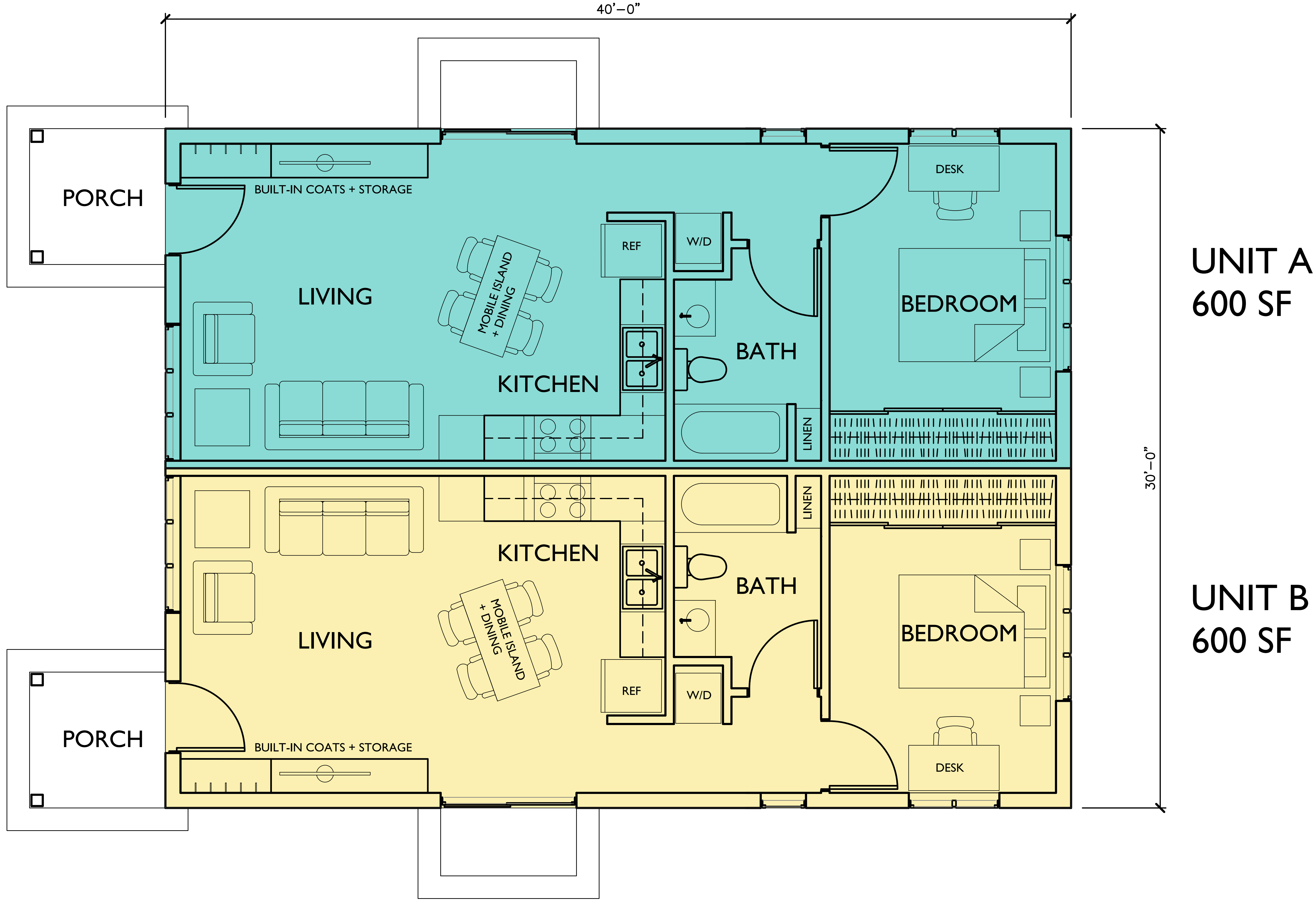
IN FORM architecture
123 Devisser Place Kalamazoo, MI 49007 ©2026



PENINSULA HOUSING
COMMUNITY LAND TRUST
Leelanau County, Michigan
31 July 2025

FLOOR PLAN
2 BEDROOM DUPLEX
1/4" = 1'-0"

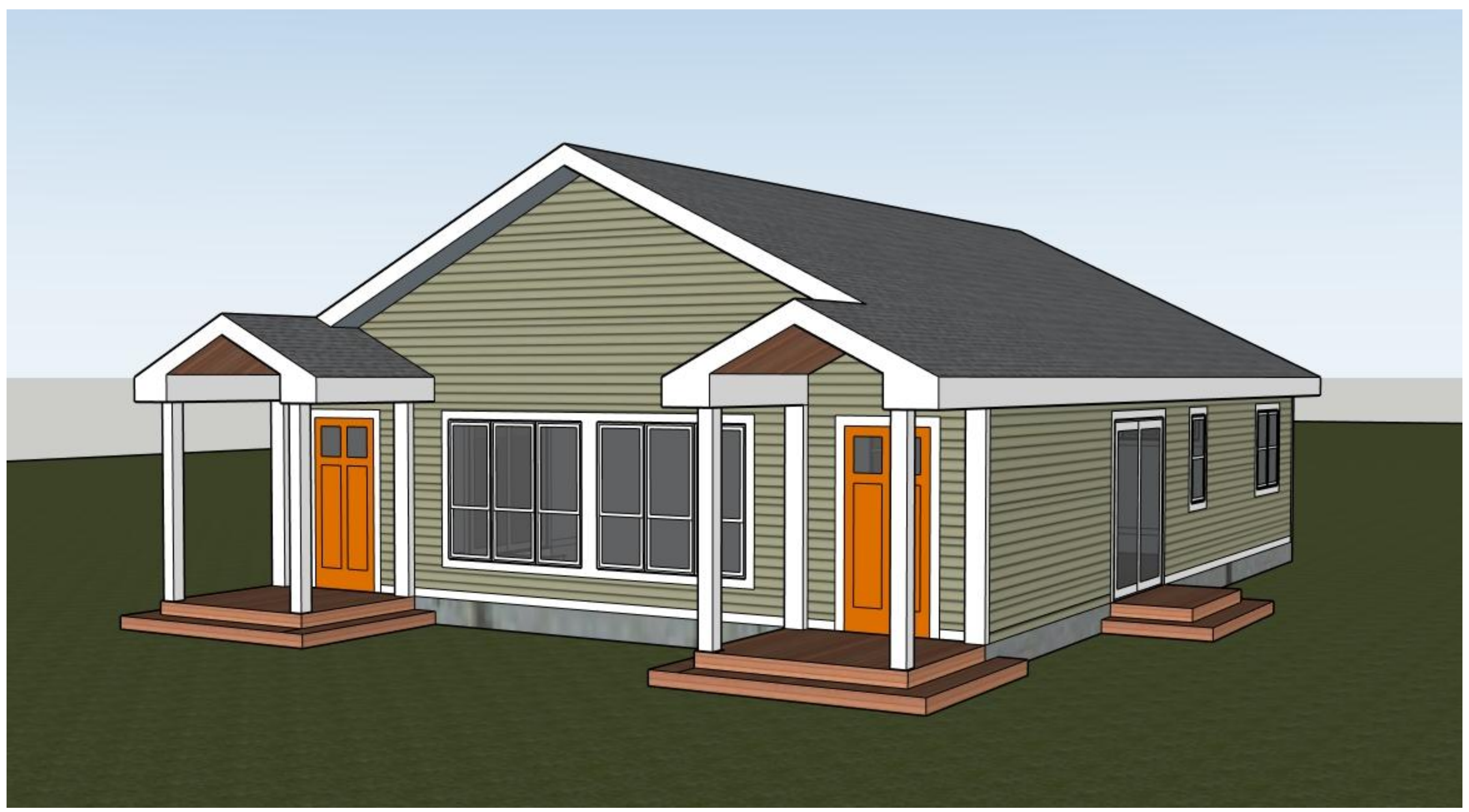
IN•FORM architecture
123 Devisser Place Kalamazoo, MI 49007

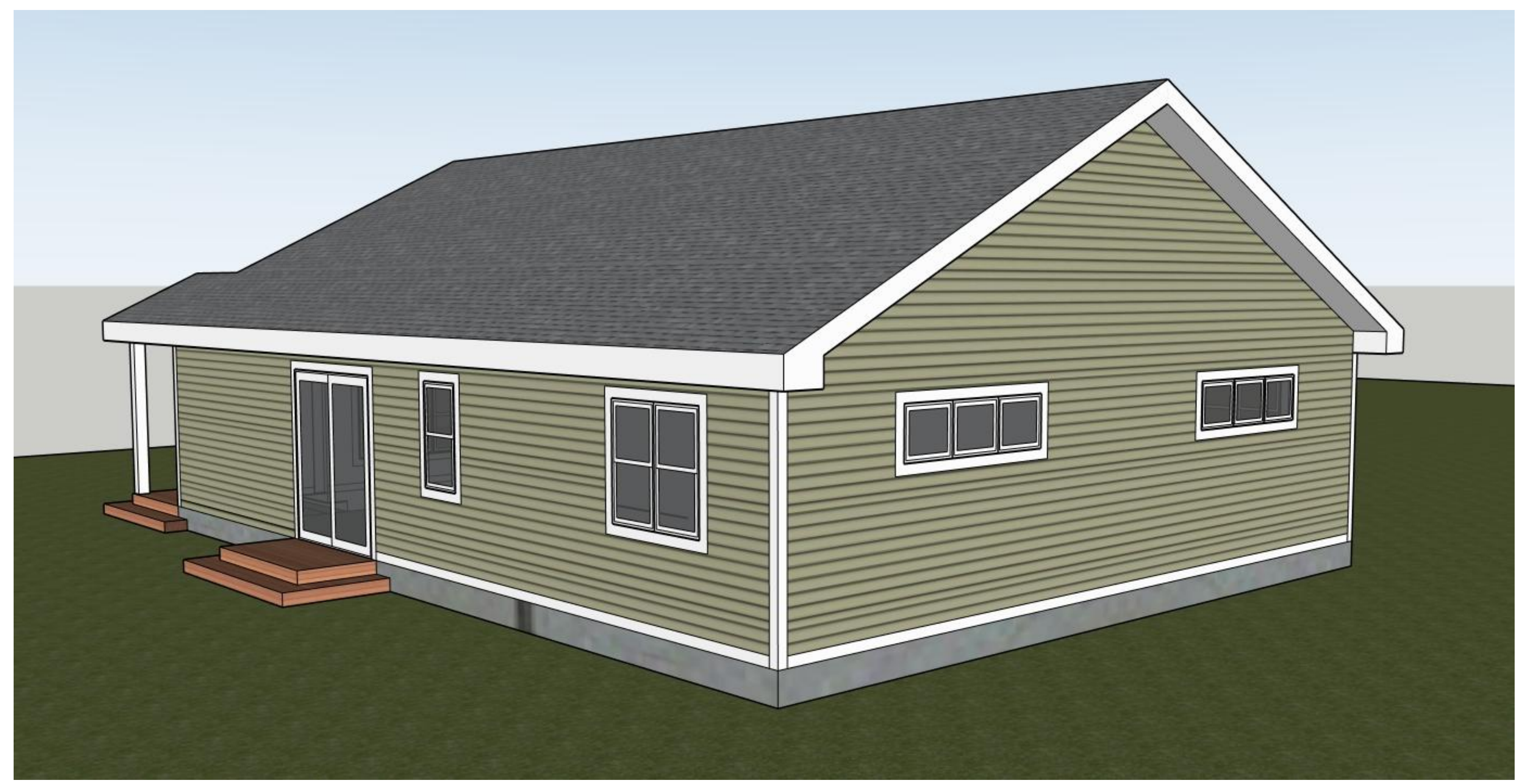


PENINSULA HOUSING
COMMUNITY LAND TRUST
Leelanau County, Michigan
25 April 2025

FLOOR PLAN
1 BEDROOM DUPLEX
1/4" = 1'-0"

IN•FORM architecture
123 Devisser Place Kalamazoo, MI 49007





1/4" = 1'-0"

PENINSULA HOUSING
COMMUNITY LAND TRUST
Leelanau County, Michigan
25 April 2025

FLOOR PLAN
1 BEDROOM DUPLEX

IN•FORM architecture
123 Devisser Place Kalamazoo, MI 49007