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2) You can watch the meeting via the zoom app. Go to the following link to download and watch via the zoom app:
<https://us02web.zoom.us/j/85097759467?pwd=M0wwbVpqWk85Q3lhZHhuMjNvOUR2UT09>

You will be asked to download and install the zoom app on your computer or phone and provide your name and email address.

-OR-

3) You can listen to the meeting over the phone by calling one of the following numbers:

1-929-205-6099, 1-301-715-8592, 1-253-215-8782, 1-346-248-7799, 1-699-900-6833

You will be asked to enter in a meeting ID of: **850 9775 9467**, then push #

You may be asked for a participate ID, do not put in a number, just hit #

You will be asked to enter in a password of **468499**, then #

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MEETING NOTICE

Planning Commission Agenda

Meeting Documents

Wednesday, January 25, 2023– 5:15 PM
Council Chambers – New London Municipal Building

1. Call to Order
2. Pledge of Allegiance
3. Adopt Agenda
4. *Approval of the December 15, 2022 meeting minutes*
5. *Review Preliminary Draft of City of New London Comprehensive Plan 2040 document and establish Plan approval schedule.*
6. S.C. Swiderski 98 Unit Site Plan Review proposal (Downtown project)
7. Discuss upcoming agenda items
8. Review next meeting date: Tentative, February 23, 2023
9. Adjourn

Bob Besaw, Chairman: Planning Commission Chairman

*Agenda items are listed so as to accurately describe the actions or issue being considered instead of simply the document listing title or the parties to a contract. This is done as such titles or a list of parties to a contract conveys insufficient information to the public on whether a topic or project they are interested in is being considered. It is the policy of the City of New London to comply in good faith with all applicable regulations, guidelines, etc. put forth in the Americans with Disabilities Act (ADA). To that end, it is the City's intent to provide equal opportunity for everyone to participate in all programs and/or services offered, to attend every public meeting scheduled, and to utilize all public facilities available. Any person(s) in need of an alternative format (i.e. larger print, audio tapes, Braille, readers, interpreters, amplifiers, transcription) regarding information disseminated by the City of New London should notify the City 48 hours prior to a meeting, etc., or allow 48 hours after a request for a copy of brochures, notices, etc. for delivery of that alternative format. Contact ADA Coordinator Chad Hoerth by telephone through: (Relay Wisconsin) – 920/ 982-8500 or (Voice) – 920/982-8500 and in person/letter at 215 N. Shawano Street, New London, WI 54961.



Memorandum

TO: Planning Commission
FROM: Dave Vincent-Zoning Administrator
RE: January 25, 2023 Planning Commission Meeting
DATE: January 19, 2023

The first action item is reviewing the full draft of the Comprehensive Plan. This is the compilation of the last few months chapter by chapter review of the document. This draft will be reviewed internally by staff, members of the Planning Commission and Council. The Planning Commission will also help develop a plan approval schedule (Eric Fowle from Cedar Corp. will provide information for the timeline). The Public Hearing requirement is scheduled for the February Planning Commission meeting.

The other action item on the agenda is the S.C. Swiderski, 98-unit Downtown Development site plan review. This site plan is pretty comprehensive due the nature and size of the development. The city administration and our engineer are currently reviewing this as well to make sure the city's interests are protected.

Respectfully submitted by Dave Vincent: Zoning Administrator.

City of New London
Planning Commission Minutes
Thursday, December 15, 2022

Roll Call

Meeting was called to order at 05:15 p.m. Those in attendance were Chairman Bob Besaw, Jay Bessette, Dona Gabert, Susie Steingraber, newly appointed Jeff Handschke, Mayor Mark Herter and Jamie Walbruck

Others in attendance: Building Inspector/Zoning Administrator: David Vincent, City Administrator: Chad Hoerth, Balynda Croy (District 2), John Haas (District 2), and Eric Fowle (representing Cedar Corporation) Comp. Plan facilitator.

The meeting was called to order by Chairman Besaw at 5:15 pm.

Group participated in the Pledge of Allegiance.

A motion was made by Steingraber to “Adopt the Agenda” and seconded by Gabert, carried by all.

The October 26, 2022 meeting minutes were reviewed. A motion to accept the minutes was made by Bessette and seconded by Steingraber, carried by all.

The first item on the agenda item was a discussion and update of the Comprehensive Plan. Eric Fowle from Cedar Corp. led the discussion. We reviewed and discussed **draft** of Chapter 9 Implementation **draft** of Future Land Use Map.

The last item on the agenda was a draft of a newly proposed fee schedule for the Building Department. There was discussion from several of the members present to gain some clarification on why the fees are necessary for the department. After a good amount a discussion, a motion was made by Mayor Herter for support and recommendation for a resolution to forward to council for consideration. The motion was seconded by Gabert. Motion carried with a majority with one opposed.

The next meeting date has been scheduled for Wednesday, January 25, 2023.

A motion was made to adjourn by Mayor Herter, seconded by Gabert, carried by all.

Meeting adjourned by Chairman Besaw at approximately 06:25 p.m.

Respectively submitted by David Vincent-Zoning Administrator

City of New London, WI Comprehensive Plan 2040

DRAFT – January 2023



Cedar
CORPORATION

City of New London Comprehensive Plan 2040

Prepared by:

City of New London Planning Commission

Adopted by:

New London City Council
March , 2023

Planning Assistance Provided by:

Cedar Corporation
1695 Bellevue Street
Green Bay, Wisconsin 54311
Phone: 920-491-9081
www.cedarcorp.com



Acknowledgements

Planning Commission

Bob Besaw, Chairman
Dona Gabert
Susie Steingraber
Mark Herter, Mayor
Jason Bessette,
Jamie Walbruck

City Council

Mark Herter, Mayor
Robert Besaw, Council President
Mike Barrington
BaLynda Croy
David Dorsey
John Faucher
Steve Groat
John Hass
Dennis Herter
Bernie Ritchie Jr
Tim Roberts

City Staff

Chad Hoerth, Village Administrator
David Vincent, Building/Zoning Inspector

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1. Issues and Opportunities

1.1 Introduction

History

The City of New London, WI is located on both sides of the Wolf River, at the mouth of the Embarrass River (Map 1-1). Abundance of fish, game, wild rice, and fertile land for farming made this location very popular with the Native Americans long before any Europeans set foot in this region.

In 1670, Father Claude Allouez came to the area and established the mission of St. Mark somewhere along the bank of the Wolf River. In 1848, brothers William and George Johnston established a trading post at the intersection of the Embarrass and Wolf rivers. The area became known as Johnston's Landing.

In 1851, Lucius Taft came from Vermont to settle in this area. Ira Millard from Ohio joined him in 1852. That same year, Millard and Taft became partners and bought the trading post from the Johnston brothers along with all of the land north of the Wolf River and west of the Embarrass River. In 1853, Taft secured a patent for the tracts of land that now surround the north side of the city. This was the first plat of the city. The Reverend Reeder Smith of Appleton, who bought up the south side of the river, made the second plat.

In 1854 after much debate, Reeder Smith named the area New London to honor his father's hometown of New London, Connecticut. The steamship "Eureka" established regular service between New London and Oshkosh. Also, this year, Reverend Alfred Lathrop became the first resident minister. He and his family were also the first family to settle on the south side of the Wolf River.

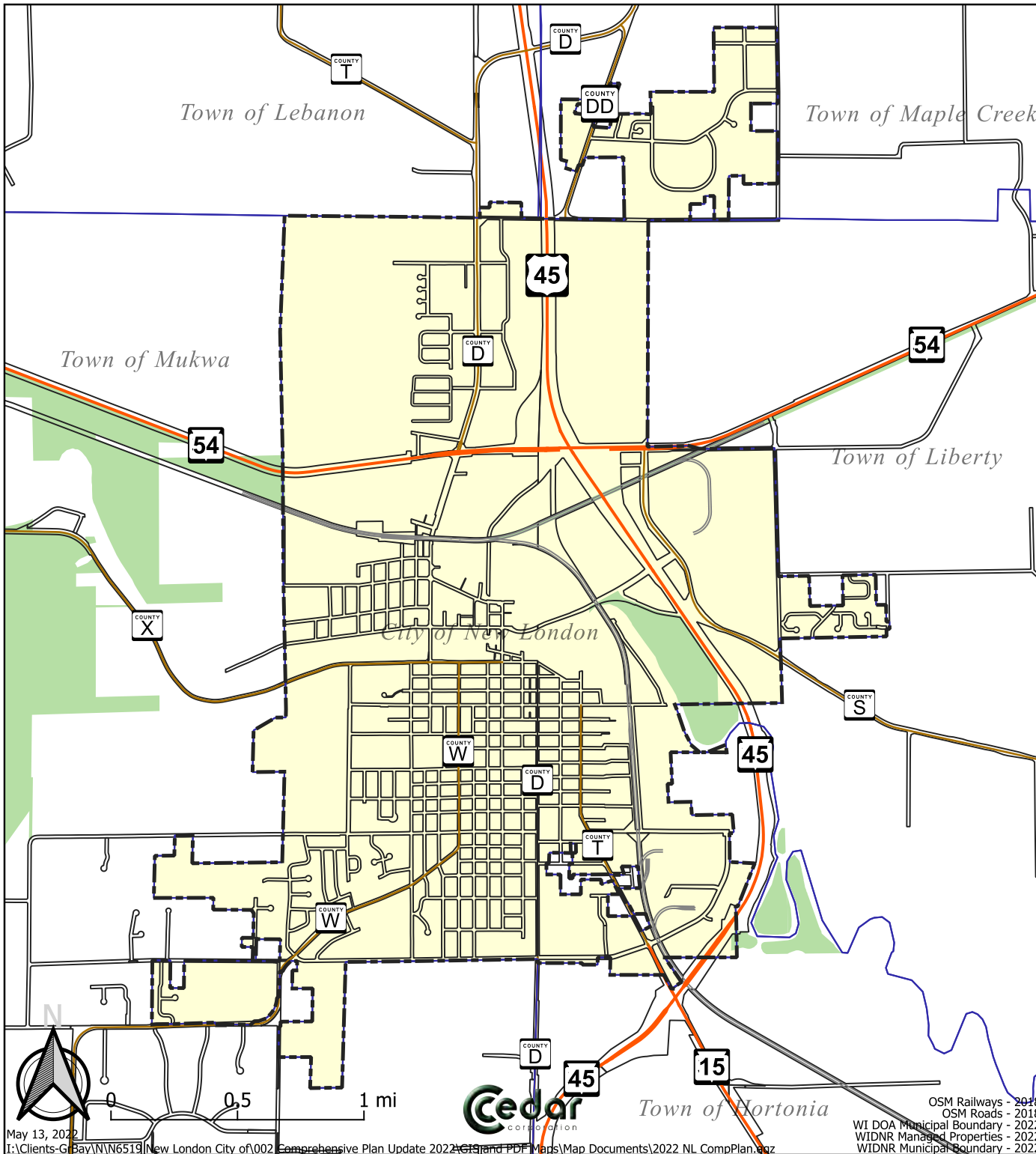
In 1856 the first newspaper, *The New London Times*, is established along with the first bridge and first steam sawmill. By 1857, New London consisted of a dozen mercantile establishments, factories, three hotels, a print office, churches, schools, professional men, mechanics, and more than 200 buildings. In a period of five years, the population had grown from 2 families and a couple of traders/trappers to not less than 800 people.

The 1870s saw the advent of telegraph communication and the establishment of the Green Bay & Western railroad route to New London. The New London volunteer fire department was also established. In 1877, the city was granted a municipal charter and J.C. Hoxie was elected the first mayor. The population at that time was 1600.

The first library was established in 1895; the Carnegie building was built in 1914. The museum artifacts were located in the Library until a building of their own was built in 1932.

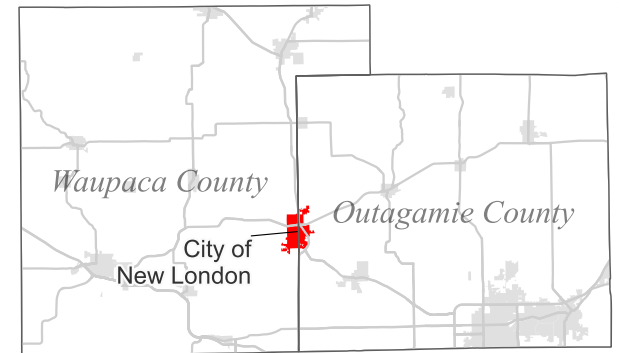
The parks in the city of New London bear the names of many influential men of this city. Taft Park is named after one of the founding fathers, Lucius Taft. Hatten Park was named after William Hatten, a prominent lumberman from 1903-1937. Pfeiffer Park is named after Dr. Fred Pfeiffer who, among many accomplishments, was influential in naming the Springer Spaniel as the state dog.





Location

City of New London
Outagamie & Waupaca Counties, WI



1-1 Location Map

Planning Process

The City of New London is defined by the people who live and work there, the houses and businesses, the parks, and natural features, its past, its present, and its future. No matter the location, change is the one certainty that visits all places. No community is immune to its effects. How a community changes, how that change is perceived, and how change is managed are the subjects of community comprehensive planning. An understanding of both the city's history and its vision for the future is essential to making sound decisions. The foundation of comprehensive planning relies on a balance between the past, present, and future by addressing four fundamental questions:

1. Where is the community now?
2. How did the community get here?
3. Where does the community want to be in the future?
4. How does the community get to where it wants to be?

The *City of New London Year 2040 Comprehensive Plan* will guide community decision making in the City of New London for the next 20 or more years. The updated plan document follows the same basic structure as the previous plan by addressing nine comprehensive planning elements as chapters one through nine:

1. Issues and Opportunities
2. Population and Housing
3. Transportation
4. Utilities and Community Facilities
5. Agricultural, Natural, and Cultural Resources
6. Economic Development
7. Intergovernmental Cooperation
8. Land Use
9. Implementation

The *City of New London Year 2040 Comprehensive Plan* meets the requirements of Wisconsin's Comprehensive Planning law, Wisconsin Statutes 66.1001. This law requires all municipalities (counties, cities, towns, and villages) to adopt a comprehensive plan by the year 2010 if they wish to make certain land use decisions. After the year 2010, any municipality that regulates land use must make their zoning, land division, shoreland and floodplain zoning, and official mapping decisions in a manner that is consistent with the community's comprehensive plan.

The City of New London developed this comprehensive plan in response to the issues it must address and the opportunities it wishes to pursue. The Issues and Opportunities element of the comprehensive plan provides perspective on the planning process, public participation, and the overall goals of the community.



1.2 Comprehensive Plan Development Process and Public Participation

The Wisconsin Comprehensive Planning legislation specifies that the governing body for a unit of government must prepare and adopt written procedures to foster public participation in the comprehensive planning process. This includes open discussion, communication programs, information services, and public meetings for which advance notice has been provided, in every stage of the preparation of a comprehensive plan. Public participation includes wide distribution of proposed drafts, plan alternatives, and proposed amendments of the comprehensive plan. Public participation includes opportunities for members of the public to send written comments on the plan to the applicable governing body, and a process for the governing body to respond. The City of New London has adopted a *Public Participation Plan* in order to comply with the requirements of Section 66.1001(4)(a) of the Wisconsin Statutes. The city's adopted *Public Participation Plan* is found in Appendix A.

Public Informational Meeting

On _____, a public informational meeting was held at the city hall to discuss the draft *City of New London Year 2040 Comprehensive Plan*. There were _____ people in attendance at the meeting. The attendees were asked to provide feedback on the information presented, as well as the draft plan itself. The responses were _____.

Plan Commission and City Council Action

On _____, the City of New London Plan Commission discussed the draft comprehensive plan and passed resolution number _____ recommending approval of the plan to the City Council. After completion of the public hearing, the City of New London City Council discussed and adopted the comprehensive plan by passing ordinance number _____.

Public Hearing

On _____, a public hearing was held on the recommended City of New London Year 2040 Comprehensive Plan at the city hall. The hearing was preceded by Class 1 notice and public comments were accepted for 30 days prior to the hearing. There were/were not public comments received at the meeting,. The Planning Commission advised that they would take all submitted comments into consideration during their final review of the recommended plan before passing it along to the City Council for action.

Distribution of Plan Documents

Both the recommended draft and final plan documents were provided to adjacent and overlapping units of government, the local library, and the Wisconsin Department of Administration in accordance with the *Public Participation Plan*.



1.3 City of New London Issues and Opportunities

The initial direction for the comprehensive planning process was set by identifying community issues, opportunities, and desires through the use of two distinct methods: 1) a SWOT (strengths, weaknesses, opportunities, and threats) analysis with the Planning Commission, and; 2) an on-line citizen survey distributed using Survey Monkey.

Plan Commission SWOT Analysis

To kick off the Comprehensive Plan Update process, Cedar Corporation held a short SWOT analysis exercise with the Planning Commission at their March 24, 2022 regular meeting. Planning Commissioners and City staff took time to write down various statements for each category which were then summarized on large post-it sheets. The statements were reviewed, discussed, and clarified as needed. Once the statements were generated for each of the four categories, each participant was provided a set of 12 colored dots with which they were to 'vote' for their top three responses in each category. The results from this exercise are shown in Table 1-1.

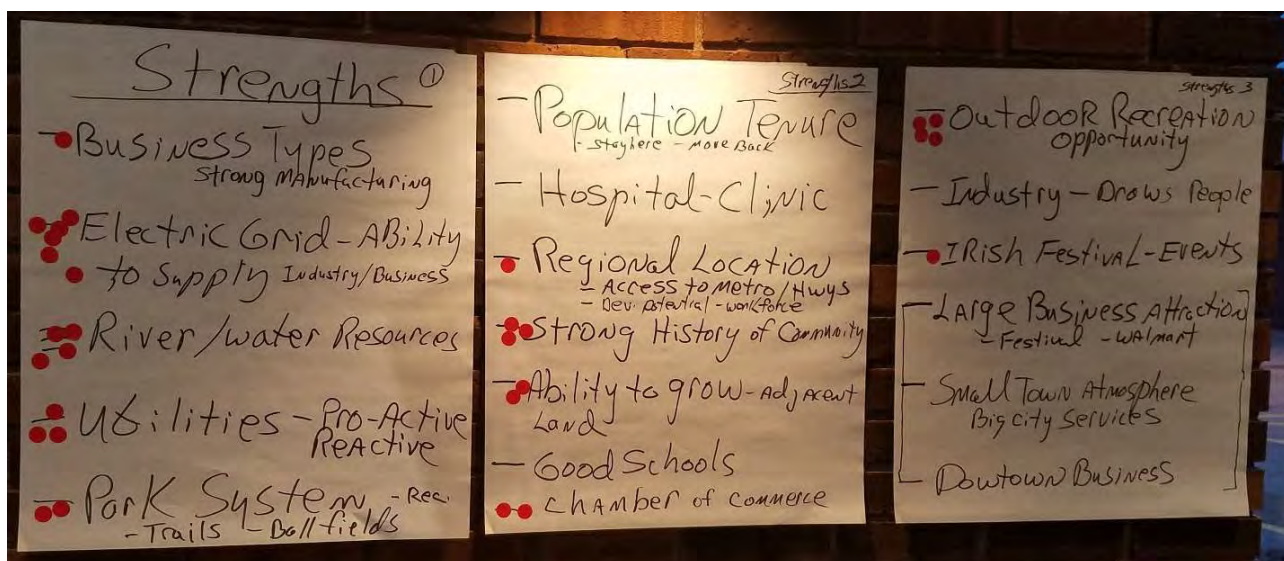
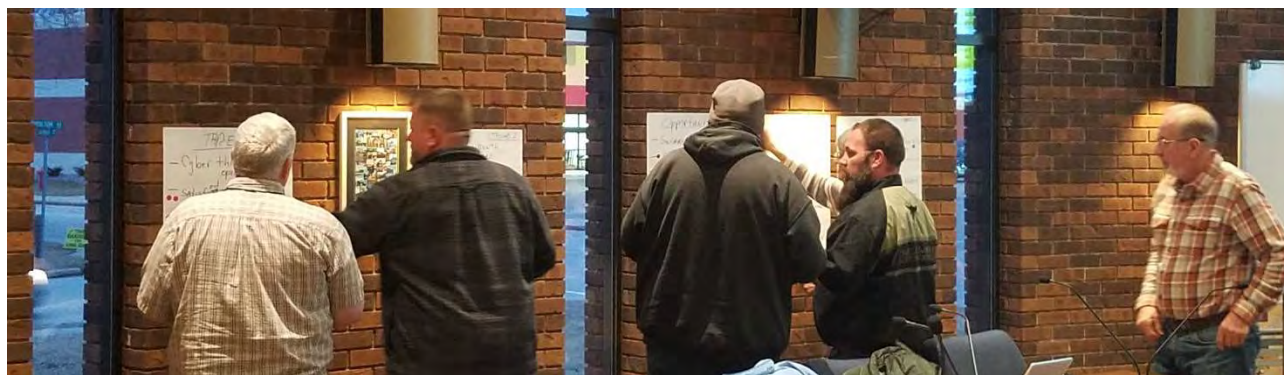


Table 1-1: Planning Commission SWOT Analysis Results

# Votes	Strengths
5	Electric grid / capacity available for business and industry
4	River / water resources
3	Strong history of community
3	Outdoor recreation opportunities
2	Utilities are proactive and responsive
2	Park system (recreation, trails, ballfields)
2	Ability to grow on lands adjacent to City
2	Chamber of Commerce
1	Variety of business types / strong manufacturing
1	Regional location (access to Fox Valley / Highways / Development potential / workforce)
1	Irish Festival / other events
	Population tenure (desire to stay and/or come back)
	Hospital/clinic
	Good schools
	Industry (draws people)
	Large business attraction (ability to have big box stores)
	Small town atmosphere / big city services
	Downtown businesses
# Votes	Weaknesses
6	Blight in some areas
4	Housing costs and availability
4	Highway 15 usage / underachieving in business attraction
3	Downtown structures (awkward size/orientation/old)
3	Too close to Fox Valley (easy to leave for shopping and entertainment)
2	Roads need work/repair
2	Not using river to full advantage (seasonality, commercial opps)
1	Need for 2nd grocery store
1	Need more space (land and buildings) for business and industry (ready and available)
	Wetland and floodplain amounts / barrier to growth
	Need more walking paths/trails/better connectivity
	Quality employee shortage
	Population size (smaller limits opportunities)
	Counties split city (seems forgotten at times)
	Struggling to keep up with big-city services (funding and staff levels)
	Technology barriers between population groups (impacts City outreach / need for wayfinding)
	Limited commercial and recreation opportunities



# Votes	Opportunities
6	Develop business / retail
3	Reverse our weaknesses
3	Wildlife and recreation draw
3	Highway commercial opportunity to north / land availability
2	Need for winery/distillery/brewery
1	School system is strong
1	River - do it right/appearance
1	Highway 15 exposure
1	NE Industrial Park (land and utilities available)
1	Get river signage to promote downtown / wayfinding needs
1	Videos - good advertising by Tourism Board and Chamber
1	More events and gathering opportunities (markets, craft shows, etc.)
1	Two TID Districts (3rd in works)
1	Residential growth areas in progress
	Swimming pool
	Have jobs available
	People - hard working, strong-willed, volunteerism

# Votes	Threats
6	Highway 15 bypass / rerouting / impact on business
5	Workforce shortage
5	Lack of public input/citizen engagement
2	Satisfied with status quo
2	Inflation (prices, delays, availability)
2	Fed/State regulations/loss of local control
1	Perception of lack of new growth
1	Flooding/natural disasters
1	Energy cost increases
1	Levy limits
	Cyber threats to operations
	Drug use
	Unfunded mandates from State



Citizen Opinion Survey

As part of the comprehensive plan update's public process, a Citizen Opinion Survey was developed to gather up-front information and perspective from residents on these and other topics. Citizen engagement has been a priority of the City during this process and the opinions of its residents and businesses are important to evaluating the past and future trends that have, or will, shape the community.

The survey was developed with significant input from the Plan Commission and contained a total of 28 questions. The survey was made available between July 22 and September 2, 2022 and was put into an on-line format using Survey Monkey, linked to directly from the homepage of the City's website. Paper copies were made available at City Hall if residents were not comfortable with the on-line format. The survey was promoted through using the City's website, direct emails, meeting announcements, local newspaper articles, and a direct mailing to all residential and business customers of the New London Utilities, ensuring wide coverage across the community.

Summary of Results

Overall, the survey garnered a total of 221 responses with a 75% completion rate and an average time of 11 minutes to complete the survey. A broad summary of the survey results are discussed below with the detailed response information being found in Appendix B.

Demographics

- Nearly 80% of respondents were 36 years of age and older, with an equal split (40% apiece) between the ages of 36-55 and 56 and older. Just over 20% of respondents were between 18 and 35. No responses were received from anyone under 18 years of age.
- 58% of respondents have lived in the City for more than 20 years, with an additional 8% living in the City for 11 to 20 years. Nearly 25% of respondents have lived in the City for 10 years or less, with 15% responding that they are "new" residents of 5 years or less. Only 8% of respondents said they did not live within the City.
- Nearly 58% of respondents did not have children.

Housing

- Nearly 85% of respondents lived in a traditional single-family detached dwelling unit, with about 11% living in a duplex or apartment.
- Just over 61% of respondents felt that they live in affordable housing (defined by not exceeding 30% of their gross income on housing costs), while 28% were spending more than this standard. Just over 10% were not sure of their housing expenditures.
- Nearly 52% of the responses felt that traditional detached single-family homes are needed in the City over the next 10 years.
- 33% of the responses felt that new "small" single family homes are needed.
- Senior living options garnered nearly 36% of the responses.
- Significant interest in new duplex, apartments and even tiny homes existed with around 15% of the responses for each.
- Just over 8% of the responses desired Accessory Dwelling Units (ADUs) for consideration in the future.
- Just over 27% of respondents thought they will desire/need to "downsize" their housing in the next 10 years with 15% not being sure.



General Growth

- A majority of responses (54%) indicated that they felt the City has had very little new growth and development, with 24% stating they felt an adequate amount has occurred.
- Nearly 60% of respondents would like to see ‘moderate’ levels of growth in the future, with nearly 20% desiring ‘slow growth’. Only 2.9% desired ‘no growth’ and 15.8% desiring ‘fast growth.’
- Over 77% of respondents agreed or strongly agreed that natural resource areas should be protected and over 84% felt the same about protecting the City’s historic and cultural resources.

Infrastructure

- Over 73% of respondents desired future investments by the City in additional off-street biking/hiking trails and paths.
- Nearly 40% of respondents would like additional on-street bike lanes and 63% desire sidewalks in key areas.
- Interest in ‘micro mobility’ options, such as bike and scooter rental ranged from 10-16% of the responses.
- The following rankings were given for various types of infrastructure and the quality/availability:
 - Streets – 70% of respondents indicated poor to adequate, with 18.8% stating they were very poor.
 - Parking – 53.7% stated as adequate, with over 32% stating poor or very poor.
 - Storefronts – 48.4% felt they were adequate, with over 41% stating poor or very poor.
 - Sidewalks – 62.5% stated adequate, with 15.6% stating they are good.
 - Lighting – 67.3% stated adequate
 - Seating – 53.6% stated adequate, with 28% stating poor
 - Public Gathering Spaces – nearly 39% stated adequate, but 31.5% stating poor
 - Events/Programming – 39.9% stated adequate, with 27.22 stating poor.
- The following rankings were given to 13 different services provided by the City. The summary below indicates the percentage of votes for including the service in the top three ranked spots:
 - Police Protection – 91%
 - Fire Protection – 62%
 - Street Maintenance – 50%
 - Utilities – 27%
 - Parks & Recreation – 22%
 - Snow Plowing – 17%
 - Library – 13%
 - Planning/Zoning – 12%
 - Code Enforcement – 9%
 - Building Inspection – 6%
 - Stormwater Management – 5%
 - Public Museum – 4%
 - Cemetery – 3%
- Over 74% of respondents agreed or strongly agreed with the City conducting crisis planning in partnership with other communities for natural disasters, homeland security, emergency management, etc.



Economic Development

- Over 90% of respondents felt that more work/job opportunities in the City were somewhat to very important.
- Over 57% of respondents desired more industry (manufacturing, distribution, warehousing) in the City. 21% were not sure this type of growth is needed.
- Nearly 56% of respondents did $\frac{3}{4}$ or more of their shopping outside of the City of New London, with another 26% indicating that about $\frac{1}{2}$ of their shopping occurred outside the City.
- Over 84% of respondents stated that if more commercial businesses existed in the City it would reduce their amount of shopping outside the community.
- Business types that were felt to be inadequate in terms of the number/choice included: Groceries/Food (87.7%), Clothing/Shoes (92.6%), Restaurants (66.3%), Entertainment/Social Establishments (65.6%), Sporting Goods (81.1%), Downtown Shops (77.4%). Banks, Auto Service, Medical, Pharmacy, and Hardware Stores were all felt to be adequate by a majority of respondents.
- An overwhelming majority of respondents felt that the City should concentrate on redevelopment efforts in the following areas: Downtown (90.6%), City Entrances/Highway Corridors (74.3%), and Lands on the Edge of the City (72%).

Recreation

- Over 77% of respondents felt that there were sufficient recreation space and facilities within the City.
- Nearly 78% felt the City should invest more in improvements along the Wolf River to increase recreational and leisure opportunities.

Communications

- Most respondents felt that the City communicates best when using their social media (78% of responses), website (60%), printed quarterly newsletters (40.2%), direct email announcements (37.1%), emailed quarterly newsletters (33.3%), public meetings (30.2%), and newspaper notices (25.2%).

Strengths & Weaknesses

Two open ended questions were used to ask respondents about the City's greatest strengths and suggested areas for improvement. Over 275 comments (raw comments included with question results) were received for these two questions with some of the top mentioned items being as follows:

Strengths (not in any type of priority order):

- Small town/community feel
- Friendly / Caring / Neighborly
- Accessibility to Fox Valley area / Location
- Healthcare access
- Recreation/water/natural resource access
- Good schools

Improvements (not in any type of priority order):

- Road maintenance and repair
- Affordable housing needs
- Another grocery store / more retail and restaurants
- Downtown revitalization
- Code enforcement
- More sidewalks/trails



Other Comments

Over 40 additional comments were made in the last open ended question which asked for any additional thoughts. Some of the most mentioned items include (not in priority order):

- Need for another grocery store and more retail
- Need for vision and leadership
- Invest in the downtown
- Invest in the riverfront
- Maintain quality parks and trails
- Traffic and safety concerns

1.4 Issues and Opportunities Policies

Policies and recommendations build on goals and objectives by providing more focused responses to the issues that the city is concerned about. Policies and recommendations become primary tools the city can use in making land use decisions. Many of the policies and recommendations cross element boundaries and work together toward overall implementation strategies.

Policies identify the way in which activities are conducted in order to fulfill the goals and objectives. Policies that direct action using the word “shall” are advised to be mandatory and regulatory aspects of the implementation of the comprehensive plan. In contrast, those policies that direct action using the words “will” or “should” are advisory and intended to serve as a guide. “Will” statements are considered to be strong guidelines, while “should” statements are considered loose guidelines. The city’s policies are stated in the form of position statements (City Position), directives to the city (City Directive), or as criteria for the review of proposed development (Development Review Criteria).

Policies: City Directive

- IO1 The city will conduct all business related to land use decision making by utilizing an open public process and by giving due consideration to its comprehensive plan.
- IO2 Public participation will continue to be encouraged for all aspects of city governance.



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2. Population and Housing

2.1 Population and Housing Plan

Population and housing are two key indicators that will help the City of New London plan ahead for future growth and change. Because they are key indicators of potential future conditions, this element of the comprehensive plan provides a brief summary of population and housing data along with projections for the future.

Housing in the City of New London is fairly diverse, and a variety of housing choices are provided in the community. The surrounding rural areas generally provide options for single-family homes on lots much larger than those in the city. The City of New London is expecting continued moderate levels of population and housing growth, but projections for the city vary widely. Population forecasts show an additional 427 people in the city by 2040. Housing growth is also difficult to project, and there are some discrepancies between population and housing projections for the city. The projection forecasts an additional 257 homes in the city by 2040, but this figure could be substantially higher based on regional and statewide demands.

Key components of the City of New London's plan for population and housing are to accommodate growth through annexation, to modify its zoning to increase areas for future growth of duplexes, multi-family housing, and mixed-use or planned developments, and to establish development standards for housing other than single-family housing. One of the significant problems facing New London is that the land to the west is WDNR controlled wetland, and as such, is unavailable and unsuitable for future residential development. In addition, the land in the Town of Mukwa, located to the southwest of the city, has already been developed into large lot residential areas, thus making it cost prohibitive to service with utilities. The map of Preferred Land Use identifies the areas that are designated as the best places for future housing both inside and outside the city limits. These areas were selected due to the close proximity of existing utilities, thus offering a reasonable cost for extending utilities to future development. In order to improve housing affordability, this plan recommends the review of all city ordinances, permit fees, and other policies for their impacts on the cost of housing. It also recommends an annual review on the availability of developable, residential land.

Introduction

Many factors influence the growth, development, and character of a community. Population growth, age distribution, and incomes can all influence the types of housing, transportation options, and businesses that are found in a community. By examining these factors, the City of New London can recognize important *Issues* facing the community and identify *Opportunities* to address future needs.



Data Sources

A majority of the 2020 Census data was not yet available at the time of this plan writing. 2020 Census data is used where available, however most demographic information used in this chapter was obtained from the US Census Bureau’s American Community Survey (ACS) 2016-2020 5-year data sets.

2.2 Population Characteristics Summary

Historical Population

The City of New London has experienced continuous population growth since 1970. Table 2-1 shows that between 1970 and 2022, the City grew by 1,690 residents (29.1%). Between 2010 and 2022, New London’s population grew by 2.7%. In comparison, Waupaca County had its total population shrink by -1.4%. Much of the City’s growth can be attributed to the overall growth of the region, a good transportation system, proximity to the Fox Cities, adequate land to accommodate growth, and desirable community attributes. As New London’s population increased, there were increased needs for roads, housing, businesses, emergency services, parks, and utilities.

Table 2-1: Historical Population, City of New London

Year	1970	1980	1990	2000	2010	2020	Prelim. 2022 WDOA Estimate
Population	5,801	6,210	6,658	7,085	7,295	7,348	7,491
% Change	n/a	7.1%	7.2%	6.4%	3.0%	0.7%	1.9%

Source: U.S. Census, 2020 & WDOA, 2022.

Population Projections

The Wisconsin Department of Administration issues revised population projections for all municipalities in Wisconsin every four years. The most recent projections were released in 2013. Table 2-2 shows that the City’s population is projected to grow by 427 persons, or about 5.8%, between 2020 and 2040 to a population of 7,995.



Although population growth is expected over the life of this plan, it is interesting to note that after 2035, the City's population is expected to decline by about 2.75%. This decline is likely attributed to the City's aging population and could be altered if more new residents move into the City than the State expects.

Table 2-2: Population Forecasts, City of New London

Year	2010 Census	2020 Census	2025 Projection	2030 Projection	2035 Projection	2040 Projection
Population	7,295	7,348	7,825	7,990	7,995	7,775
# Change	n/a	53	477	165	5	-220
% Change	n/a	0.73%	6.49%	2.11%	0.06%	-2.75%

Source: U.S. Census 2010 & 2020, and WDOA, 2013.

Household Forecasts

A growing population equates to additional households. If the declining persons per household is also factored in, additional housing units would be needed even if the City's population did not grow. Between 2020 and 2040, it is projected that the City will have 279 additional households. This is an increase of 8.4% during that period (see Table 2-3). Additional households will require a variety of housing options to meet their needs, and this will define the amount of land needed for these new dwellings. New households can also put a strain on existing municipal services and utilities that may need to be expanded.

Table 2-3: Household Projections, City of New London 2020-2040

Year	2010 Census	2015 Projection	2020 Projection	2025 Projection	2030 Projection	2035 Projection	2040 Projection
Households	3,038	3,194	3,324	3,470	3,595	3,633	3,603
# Change	n/a	156	130	146	125	38	- 30
% Change	n/a	5.1%	4.1%	4.4%	3.6%	1.1%	-0.8%
Household Pop	7,154	7,260	7,423	7,632	7,768	7,700	7,484
Person/HH	2.35	2.27	2.23	2.20	2.16	2.12	2.08

Source: US Census Bureau, 2010 & WDOA, 2013.



Age Distribution

Different age groups have different needs. A young family may desire a single family home on a large lot while a recent high school or college graduate may want an apartment without the responsibility of maintenance and lawn care. Teenagers and young adults may want additional softball diamonds while an elderly couple may desire more passive recreation options such as walking and biking trails. By evaluating age distribution trends, the City may anticipate the various needs of its residents.

U.S. Census ACS 2016-2020 figures show that the median age of City of New London residents has generally been increasing. In 2000, the median age of the population was 35.0 years of age. In 2010, it increased to 37.4 years of age and for 2020 is estimated to be 36.2 years of age. Table 2-4 shows the ACS 2016-2020 age distribution for the City of New London.

Table 2-4: Age Distribution, City of New London 2016-2020.

Age Category	Estimate	Percent
Under 5 years	350	4.9%
5 to 9 years	662	9.3%
10 to 14 years	572	8.0%
15 to 19 years	437	6.1%
20 to 24 years	598	8.4%
25 to 34 years	800	11.2%
35 to 44 years	1,124	15.8%
45 to 54 years	680	9.5%
55 to 59 years	423	5.9%
60 to 64 years	233	3.3%
65 to 74 years	555	7.8%
75 to 84 years	415	5.8%
85 years and over	272	3.8%
Median age (years)	36.2	(X)
Male	3,592	50.4%
Female	3,529	49.6%

Source: U.S. Census ACS 2016-2020.



Income Levels

Table 2-5 shows the average Adjusted Gross Income (AGI) of New London residents filing tax returns since 2010. AGI represents only income subject to tax. In 2010, New London had an AGI per tax return of \$35,883. This figure increased by 8.84% for 2020 and was established at \$45,718. New London's AGI is significantly lower than that of the State and Waupaca County as a whole. The City's AGI has also not been growing as fast as those of the State and Waupaca County.

Table 2-5: Adjusted Gross Income Per Tax Return, City of New London, 2010-2020

	2010	2015	2020	% Change From 2010-2020
C. New London	\$35,883	\$42,004	\$45,718	8.84%
Waupaca County	\$41,208	\$47,009	\$52,818	12.36%
State of Wisconsin	\$46,958	\$54,277	\$61,518	13.34%

Source: Wisconsin Dept. of Revenue, 2011, 2016, 2021.

2.3 Housing Characteristics Summary

Introduction

The City of New London's housing stock is relatively old and, therefore, contains some variability in type or cost. However, as presented earlier, the population, while growing, also continues to age as the "baby-boomers" have reached retirement age and the makeup of families continues to change. Identifying ways to continue to provide quality diversified housing choices for a growing population will become increasingly important in order to keep the City vibrant.

This chapter will build on these forecasts by identifying existing trends and characteristics of the housing market and providing recommendations on how to improve the existing housing stock and provide for the development of new and innovative housing practices.

Age Characteristics

Table 2-6 shows that only 31.1 percent of the housing structures in the City of New London were constructed after 1980 with only about 9 percent being built after 2000. The largest percentage of homes in New London was built between 1970 and 1990, accounting for 30.5 percent of the total housing stock. This indicates that much of the housing stock within the City is fairly old, but generally in good condition. As the housing stock ages, it will be necessary for the City to ensure that the housing units remain in good condition through code enforcement, the use of State housing rehabilitation programs (if eligible), and selective redevelopment.



Table 2-6: Year Structure Constructed, City of New London

Year Built	Homes	Percent
Total housing units	3,266	100.0%
Built 2014 or later	19	0.6%
Built 2010 to 2013	0	0.0%
Built 2000 to 2009	265	8.1%
Built 1990 to 1999	327	10.0%
Built 1980 to 1989	404	12.4%
Built 1970 to 1979	544	16.7%
Built 1960 to 1969	451	13.8%
Built 1950 to 1959	254	7.8%
Built 1940 to 1949	142	4.3%
Built 1939 or earlier	860	26.3%

Source: 2016-2020 American Community Survey 5-Year Estimates

Structural Characteristics

The City of New London has a diversified housing stock. Table 2-7 shows that nearly 60 percent of New London's housing units are 1-unit detached structures. These are individual structures that are open on all sides. In comparison, a 1-unit attached structure is separated from other structures by a shared wall. If you combine 1-unit detached structures, 1-unit attached structures, and mobile homes, the City's housing units consist of 66.5% single family units. Multiple-family structures account for 33.5% of the total units in New London. Interestingly, for building permits issued between 2014 and 2020, this same ratio of two-thirds/one-third continued.

Table 2-7: Housing Units in a Structure, City of New London

Units	Number	Percent
Total housing units	3,266	3,266
1-unit, detached	1,939	59.4%
1-unit, attached	42	1.3%
2 units	359	11.0%
3 or 4 units	131	4.0%
5 to 9 units	210	6.4%
10 to 19 units	151	4.6%
20 or more units	245	7.5%
Mobile home	189	5.8%
Boat, RV, van, etc.	0	0.0%

Source: 2016-2020 American Community Survey 5-Year Estimates



Residential Growth

Between 2014 and 2020, the City had 109 housing units constructed, with two-thirds (66%) of permits being for multi-family units versus 22% for single-family units. Downturns in the housing market and a global recession in 2008 both played a part in the declining numbers for new single-family housing starts in the City. An average of 15.6 permits were taken out per year over the 7 year period between 2014 to 2020. Duplex permits have remained rather low over this same time period with only 4 units created over the same period. The creation of apartment rental units spiked in 2015 and 2017 with 72 units constructed. Table 2-8 shows that the number of building permits has remained relatively consistent over the last seven years. Given the need for housing of all types, it is expected that these permit numbers will remain steady, if not increase subject to ongoing housing variables such as construction costs and supply chain issues.

Table 2-8: Building Permits & Units Created, City of New London 2014-2020

Year	SF Units	Mobile Home Units	Duplex Units	MF Units	Total Units
2014	3	2	2	0	7
2015	0	0	0	36	36
2016	2	0	0	0	2
2017	3	2	0	36	41
2018	13	0	0	0	13
2019	0	0	0	0	0
2020	3	5	2	0	10
Totals	24	9	4	72	109
7 yr. avg.	3.4	1.3	0.6	10.3	15.6
% of Total Units	22%	8%	4%	66%	100%

Source: City of New London Building Permits 2014-2020

Occupancy Characteristics

Table 2-9 shows the breakdown of occupied housing units into owner occupied and renter occupied. Owner-occupancy has generally been declining since 1990 going from nearly 60.5% owner-occupancy in 1990 down to 53.4% in the 2016-2020 ACS 5-year period. Heavy demands for additional rental units will be likely over the planning period, following a nation-wide trend.



Table 2-9: Owner and Renter-Occupied Housing Units, City of New London

	1990	% of Total	2000	% of Total	2010	% of Total	2016-2020 5 Yr. Est.	% of Total
Owner-Occupied Housing Units	1,596	60.5%	1,811	59.5%	2,126	64.2%	1,610	53.4%
Renter-Occupied Housing Units	971	36.8%	1,083	35.6%	1,184	35.8%	1,403	46.6%
Total Occupied Housing Units	2,640	100.0%	3,045	100.0%	3,310	100.0%	3,013	100.0%

Sources: 1990, 2000, & 2010 Decennial U.S. Census; 2016-2020 American Community Survey 5-Year Estimates

Value Characteristics

Table 2-10 shows that housing values in the 2016-2020 time period are mainly within the \$50,000-\$299,999 range with the median value being \$142,000. This data does not reflect the current housing market which has been impacted by the pandemic and numerous workforce and supply chain issues. Housing values within the City have certainly increased as a result of the recent economic conditions, however; a quick review of home values on Zillow indicate that many for sale single-family properties in the older portions of the City still lie within the \$120,000 to \$200,000 range, with newer homes going for \$250,000-\$350,000.

Table 2-10: Owner-Occupied Housing Value, City of New London

Value	2016-2020 ACS Units	2016-2020 ACS %
Less than \$50,000	118	7.3%
\$50,000 to \$99,999	247	15.3%
\$100,000 to \$149,999	550	34.2%
\$150,000 to \$199,999	397	24.7%
\$200,000 to \$299,999	241	15.0%
\$300,000 to \$499,999	42	2.6%
\$500,000 to \$999,999	0	0.0%
\$1,000,000 or more	15	0.9%
Median (dollars)	\$142,400	

Sources: 2000 Decennial U.S. Census; 2006-2010 & 2016-2020 American Community Survey 5-Year Estimates.



Housing Affordability Analysis

The U.S. Department of Housing and Urban Development (HUD) defines affordable housing (for rent or purchase) for which the occupant is paying no more than 30% of their household income for gross housing expenses.

Table 2-11 reveals that 7.7% of residents owning homes paid more than 30% of their household income for housing costs in the 2016-2020 5-year ACS period. This figure does not account for the recent COVID-19 pandemic and other housing market changes. Due to the housing shortage, it is likely that this figure is substantially higher than indicated. Gross housing expenses includes the mortgage payment, real estate taxes, homeowners insurance, utilities, fuels, mobile home costs, and condominium fees.

Table 2-11: Monthly Housing Costs as a Percentage of Household Income, New London

Percent of Household Income	2016-2020 Estimates
Less than 20.0 percent	66.2%
20.0 to 24.9 percent	6.9%
25.0 to 29.9 percent	19.4%
30.0 to 34.9 percent	4.5%
35.0 percent or more	3.1%

Sources: 2006-2010 & 2016-2020 American Community Survey 5-Year Estimates

Costs associated with renting can vary significantly compared to homeownership. Renters do not directly have to pay property taxes, insurance costs are less, and utility costs may be included with the rent. Gross rent is the amount of the contract rent plus the estimated average monthly cost of utilities (electricity, gas, water, and sewer) and fuels if these are paid for by the renter or for the renter by someone else. Table 2-12 shows that 31.5% of renters paid more than 30% of their household income for housing costs in the 2016-2020 5-year ACS period. This affects a substantial number of residents, and this figure is likely to be higher due to the COVID-19 pandemic and the national housing shortage.

Table 2-12: Gross Rent-Percentage of Household Income, City of New London

	2016-2020 Estimates
Less than 15.0 percent	13.0%
15.0 to 19.9 percent	27.3%
20.0 to 24.9 percent	7.7%
25.0 to 29.9 percent	20.5%
30.0 to 34.9 percent	2.4%
35.0 percent or more	29.1%

Sources: 2016-2020 American Community Survey 5-Year Estimates



Housing Projections

Based on WDOA’s 2013 household projections, the City is expected to continue to have residential growth and development pressures. Table 2-13 indicates that as many as 257 additional housing units – perhaps even more based on current housing demand conditions – will be constructed within the community.

Table 2-13: Housing Unit Estimates & Projections, 2010-2040, City of New London-

	2010	2020 (2019 ACS)	2025	2030	2035	2040	Diff. 2020- 2040
Housing Units	3,310	3,376	3,478	3,599	3,649	3,633	257
Households	3,038	3,126	3,470	3,595	3,633	3,603	477
Avg. HH Size	2.40	2.17	2.25	2.22	2.18	2.14	(0.03)

Source: U.S. Census, 2010; ACS 2019 and WDOA 2010-2040 Household Projections (circa 2013).

2.4 Population and Housing Trends and Outlook

Of the population and housing trends identified for Waupaca County and the State of Wisconsin, the following are likely to be experienced in the City of New London over the next 20 to 25 years.

- ♦ The aging population is growing and will increase the demand for senior housing options in the community.
- ♦ Population growth is anticipated to be heavily influenced by the WIS 15 highway improvements in Outagamie County.
- ♦ Condominiums and small, single family homes will increase as an option for seniors and first time home buyers.
- ♦ Interest in modular and mobile home development will continue as driven by need for affordable housing.
- ♦ Finding quality, affordable housing will become increasingly difficult.
- ♦ High demand for housing and energy cost assistance will continue.



2.5 Housing for All Income Levels

The housing stock in rural Wisconsin communities typically has a high proportion of single-family homes, with few other housing types available. While a range of housing costs can be found in single-family homes, larger communities are generally relied upon to provide a greater variety of housing types and a larger range of costs. It is a benefit to a community to have a housing stock that matches the ability of residents to afford the associated costs. This is the fundamental issue when determining housing affordability and the ability to provide a variety of housing types for various income levels. The City of New London has addressed the issue of housing for all income levels.

Missing Middle Housing Styles

The “missing middle” is a term used to describe housing types with densities that fall between detached single-family homes and larger mid-rise multi-family buildings. Housing types include duplex, triplex & fourplex, courtyard apartments, townhouses, live/work units, among others. While these unit types typically provide for medium density, they often have a lower perceived density due to their design and small building footprint. A wide variety of affordable “missing middle” housing styles, ranging from 700 to 1300 square feet can be built on lots as small as 5,000 square feet and with as little frontage as 30 feet.

Missing middle building types can help developers maximize affordability and returns without compromising quality by providing housing types that are simple and affordable to build. The term “gentle density” applies here as well. Gentle density is a slow transition from single-family dwellings to a denser residential use that is designed to fit within the context and scale of the neighborhood. Gentle density would be the opposite of placing a 16 unit apartment building next to an existing single-family neighborhood and instead, would look at scattering the 16 units, in perhaps four 4-unit buildings across a broader development area which is interspersed with single-family and duplex housing. It is important to remember that the term “missing middle” also refers and directly ties to those in the workforce who are making 60-120% of the area’s median household income.

Figure 2-1: Missing Middle Housing Styles



2.6 Housing for All Age Groups and Persons with Special Needs

As the general population ages, affordability, security, accessibility, proximity to services, transportation, and medical facilities will all become increasingly important. Regardless of age, many of these issues are also important to those with disabilities or other special needs. As new residents move into the area and the population ages, other types of housing must be considered to meet all resident needs. This is particularly true in communities where a large proportion of the population includes long-time residents with a desire to remain in the area during their retirement years.

The Wisconsin Department of Administration has projected that a significant shift in the City's age structure will take place by 2040. As this shift in the age structure takes place, communities may find it necessary to further assess the availability of housing for all age groups and persons with special needs.

2.7 Promoting Availability of Land for Development/Redevelopment of Low-Income and Moderate-Income Housing

Promoting the availability of underdeveloped or underused land is one way to meet the needs of low- and moderate-income individuals. One way to accomplish this is to plan for an adequate supply of land that will be zoned for housing at higher densities or for multi-family housing. Another option is to adopt housing policies requiring that a proportion of units in new housing developments or lots in new subdivisions meet a standard for affordability. Two elements of comprehensive planning are important in this equation. In the Housing element, a community can set its goals, objectives, and policies for affordable housing. In the Land Use element, a community can identify potential development and redevelopment areas.

2.8 Maintaining and Rehabilitating the Existing Housing Stock

The maintenance and rehabilitation of the existing housing stock within the community is one of the most effective ways to ensure safe and generally affordable housing without sacrificing land to new development. To manage housing stock maintenance and rehabilitation, a community can monitor characteristics including price, aesthetics, safety, cleanliness, and overall suitability with community character. The goal of ongoing monitoring is to preserve the quality of the current housing supply with the hope of reducing the need for new development, which has far greater impacts on community resources.



2.9 Population and Housing Goals and Objectives

Community goals are broad, value-based statements expressing public preferences for the long term (20 years or more). They specifically address key issues, opportunities, and problems that affect the community. Objectives are more specific than goals and are more measurable statements usually attainable through direct action and implementation of plan recommendations. The accomplishment of objectives contributes to fulfillment of the goal.

Goal 1 Maintain an adequate housing supply that will meet the needs of current and future residents and promote a range of housing choices for anticipated income levels, age groups, and special housing needs.

Objectives

- 1.a. Encourage residential development that provides a balance of low-income, moderate-income, and high-income housing, and an appropriate mix of single-family, two-family, multi-family, and senior housing. These housing types should also focus on the provision of “missing middle” housing.
- 1.b. Promote the availability of assisted living and elder care facilities while continually monitoring the housing needs of the aging population.
- 1.c. Support opportunities for multi-family, group housing, and other high-density residential development within existing neighborhoods with established sewer, water, parks, sidewalks, and other public infrastructure and facilities.
- 1.d. Monitor the availability of state or federal programs for the development or redevelopment of low to moderate-income housing.
- 1.e. Improve local and regional efforts to create quality housing with rents affordable to working families, the elderly, and special-need individuals.
- 1.f. Increase efforts to work with the local Housing Authority in monitoring and creating solutions to housing affordability.

Goal 2 Provide for housing development that maintains the attractiveness and small town character of the community.

Objectives

- 2.a. Promote the development of low to moderate-income housing that is consistent in quality, character, and location with the community’s comprehensive plan.
- 2.b. Direct residential subdivision development to planned growth areas.
- 2.c. Encourage the use of creative development designs that preserve community character and natural resources.
- 2.d. Encourage well-designed, residential, in-fill development.



Goal 3 Support the maintenance and rehabilitation of the community’s existing housing stock.

Objectives

- 3.a. Increase citizen education about unsafe or unsanitary housing conditions including lead paint, radon, improperly installed heating systems, faulty wiring, and broken or missing smoke detectors.
- 3.b. Encourage the preservation, maintenance, and rehabilitation of historically significant homes.
- 3.c. Enforce zoning, nuisance abatement, and building code requirements in blighted residential areas.
- 3.d. Monitor the availability of state or federal programs for housing rehabilitation.
- 3.e. Improve the quality of residential rental properties.

2.10 Population and Housing Policies and Recommendations

Policies and recommendations build on goals and objectives by providing more focused responses to the issues that the city is concerned about. Policies and recommendations become primary tools the city can use in making land use decisions. Many of the policies and recommendations cross element boundaries and work together toward overall implementation strategies.

Policies identify the way in which activities are conducted in order to fulfill the goals and objectives. Policies that direct action using the word “shall” are advised to be mandatory and regulatory aspects of the implementation of the comprehensive plan. In contrast, those policies that direct action using the words “will” or “should” are advisory and intended to serve as a guide. “Will” statements are considered to be strong guidelines, while “should” statements are considered loose guidelines. The city’s policies are stated in the form of position statements (City Position), directives to the city (City Directive), or as criteria for the review of proposed development (Development Review Criteria).

Recommendations are specific actions or projects that the city should be prepared to complete. The completion of these actions and projects is consistent with the city’s policies, and therefore will help the city fulfill the comprehensive plan goals and objectives.

Policies: City Position

- H1 The local development of elderly or assisted living housing should be pursued within the planning period.
- H2 In order to encourage reinvestment in the existing housing stock, residential development should only be allowed within in-fill areas and in planned growth areas.



- H3 New duplexes, “missing middle”, and multi-family housing development will only be allowed in areas served by public sewer and where consistent with the comprehensive plan.

Policies: City Directive

- H4 The community will plan for a sufficient supply of developable land that allows for a variety of housing types and densities.
- H5 The community will make infrastructure investments in existing residential areas to maintain property values, encourage in-fill development, and encourage rehabilitation of existing homes.
- H6 Zoning and land division ordinances should be reviewed for their impacts on opportunities to create a variety of housing types in the community.
- H7 Zoning and land division ordinances should be reviewed for their impacts on opportunities to allow for both “missing middle” housing styles and mixed use residential development that incorporates compatible commercial, institutional, public, or recreational land uses.
- H8 The community should consider adaptive reuse or conversion of surplus or outmoded buildings (such as old schools, hospitals, warehouses, etc.) to economically viable new housing.
- H9 As the aging segment of the population grows, the community will evaluate its preparedness for meeting the related changes in housing needs.
- H10 The applicable zoning ordinance and map shall identify an appropriate district for mobile and manufactured homes and set performance standards for mobile and manufactured homes and mobile home parks.
- H11 Manufactured homes shall feature designs similar to “stick-built” homes.

Policies: Development Review Criteria

- H12 Mobile homes permitted in the community shall meet the following criteria:
- ♦ Located only in mobile/manufactured home parks.
 - ♦ Used only as a primary residential structure.
 - ♦ Placed on a foundation.
 - ♦ Anchored to the foundation.
 - ♦ Skirted to provide a finished appearance between the building and foundation.
 - ♦ Pitched, shingled roof.
 - ♦ Sided with conventional house siding or simulated wood.
 - ♦ Compliant with HUD regulations and built after June 14, 1976.



- H13 Multi-family residential projects should be required to meet the following minimum standards:
- ◆ The project will not have an undue adverse impact on the character of the surrounding neighborhood nor result in large pockets of high-density housing.
 - ◆ The school district must have sufficient capacity to accommodate new students who will live in the School District.
 - ◆ The street and sidewalk system in the neighborhood can handle the increased amount of traffic that the project will generate.
 - ◆ The area is adequately served by parks, open spaces, and public facilities.
 - ◆ The existing utility system has sufficient capacity to serve the project.

Recommendations

- ◆ Establish development standards for housing other than single family housing, particularly those housing styles that comprise the “missing middle.”
- ◆ Modify the zoning map to increase areas that allow for duplexes, multi-family housing, mixed-use development, or planned unit developments.
- ◆ Modify applicable zoning, land division, and building code ordinances to implement community policies for mobile homes, manufactured homes, and mobile home parks.
- ◆ Annually review applicable ordinances and fees for their impacts on opportunities to create affordable housing.
- ◆ Annually assess the availability of developable land for residential development.
- ◆ Continue to enforce a city building code that includes the requirements of the Uniform Dwelling Code and state commercial building codes.
- ◆ Establish a rental housing inspection program.



3. Transportation

The land use pattern of City of New London is tied together by the transportation system, including roadways, railroads, and trails. The residents, businesses, agricultural producers, and manufacturers all rely upon a dependable transportation system to function and provide linkages to areas beyond their borders. The City's transportation network plays a major role in the efficiency, safety, and overall desirability of the area as a place to live and work.

3.1 Existing Road System

The existing road and trail system for City of New London is represented on Maps 3-1 through 3-2. The City's road configuration is characterized by both an urban grid pattern and a pattern influenced by the many natural features and man-made features of the land. These include forests, rivers, wetlands, and other natural features. The City maintains over 49.71 miles of local roadways. This compares to 10.76 miles of federal, state, and county connecting highways (Table 3-1). The general traffic circulation pattern in the City is as follows:

- The highest levels of traffic are associated with CTH D, north of the Wolf River, between downtown and the commercial strip along CTH D to the north of USH 54. Over 10,400 cars per day (AADT) utilize this segment of roadway which serves as the main northerly access to the City's commercial districts. CDH D, as well as CTH's S, W, and X also carry significant amounts of traffic in and out of the City.
- USH 15 provides the primary east/southeast transportation corridor in the southern portion of the City and connect the City to the Village of Hortonville and, just beyond, the Village of Greenville and the greater Fox Cities metropolitan area. USH 15 experiences the third highest traffic volumes in the City, having a peak AADT count of 8,100. Much of this traffic is tied to employment and services located in the Fox Cities and this facility is now under expansion to create a four-lane separated highway between New London and the Village of Greenville, with a new highway bypass of the Village of Hortonville.
- USH 45 serves as the primary north/south corridor for the eastern portion of the City. USH 45 has the second largest traffic volume in the City, with a peak AADT count of 9,400 between New London and Clintonville. USH 45 is an important truck and tourist route connecting with Interstate 41 in Oshkosh and USH 29 north of Clintonville.
- STH 54 serves as an east-west connecting route between the City of Waupaca and the City of New London, the only two municipal areas in Waupaca County with a large enough population to be designated urban for federal transportation purposes. STH 54 also connects with the City of Green Bay to the east. Peak AADT counts of 7,900 exist between CTH D and USH 45.



Table 3-1: City of New London Road Miles by Jurisdiction

Jurisdiction	Approximate Miles
Federal	0.00
State	5.01
County	5.75
Local	49.71
Total	60.47

3.2 Highways

Highways Defined

Highways, or more generally roads, are public rights-of-way set aside for the movement of people and goods from one place to another, principally by the use of motor vehicles. Roads have evolved over time from walking paths to horse trails, to improved gravel roads, to the present day paved surface streets in the urban areas and highways in the rural areas. While the early paths were commonly accepted routes to follow, as development took place, there was always a need to bring order and sanction to the travel routes by the common exercise of governance. And it evolved that government became the universally successful mechanism for making the improvements to roadways as usage increased and as the nature of vehicles changed over time.

Highway Users

Streets and highways are used in a variety of ways: by cars carrying people, by trucks carrying goods, by bicycles, and by the oldest form of transportation, walking. There are also snowmobiles, ATV's, horses carrying people for recreation, and horses pulling buggies and wagons as an essential part of life. Farm tractors pulling equipment from field to field as well as equipment for the construction and maintenance of roads populate the streets and highways. This wide variety of users brings with it a need to minimize conflicts between users and requires, again through governance, the establishment of rules and regulations to protect the overall health, safety and well-being of the community. So government establishes "rules of the road."

Highway Design

The user is the primary determinant of highway design. Cars and trucks are the overwhelming majority of highway users, and it is primarily for their needs that the design standards are set determining precisely how they are built. However, other vehicles, such as farm equipment, are also considered, due to their abnormal size and weight. Within densely populated urban areas where trip origins and destination are more proximate, walking and bicycling are more prevalent. Therefore sidewalks, bike lanes or trails may be warranted, but in rural areas this is seldom the case. In urban areas parking is usually accommodated on the street while in rural areas parking is almost never accommodated on the road. Based on how the road is to be used, design standards are set specifying how the street or highway is to be built.

Highway Functions

There are two primary functions of streets and roads. One is to provide *access* to land: that is to homes, workplaces, shopping areas, schools, churches, recreational areas, etc. The other is to provide *ease of movement* from one location (point of origin) to another location (point of destination).

While these functions are not diametrically opposed to one another, they do compete. Numerous points of access along a road, closely spaced, provide occasion for conflict with vehicles making turning movements that reduces the ease with which other vehicles can freely travel along the route. More access points along a route result in slower travel speeds which results in lower traffic carrying capacity and longer travel times. Higher speed makes turning movements more difficult resulting in reduced safety. More of one result in less of the other.

Roads cannot be all things to all people. Roads are now built to differing design standards based on how they are intended to be used. Simply put, there are different roads for different purposes. A spectrum of road and street types have been established from principally providing access on one end to exclusively providing ease of movement (maximizing traffic carrying capacity and safety) on the other end. This spectrum of design and purpose types is referred to as functional classification.

3.3 Functional Classification of Highways

The Wisconsin Department of Transportation has set statewide standards in its Facilities Development Manual for the functional classification of streets and highways. The state uses different classification systems for urban and rural areas. The classifications and descriptions follow.

Urban Area Functional Classifications

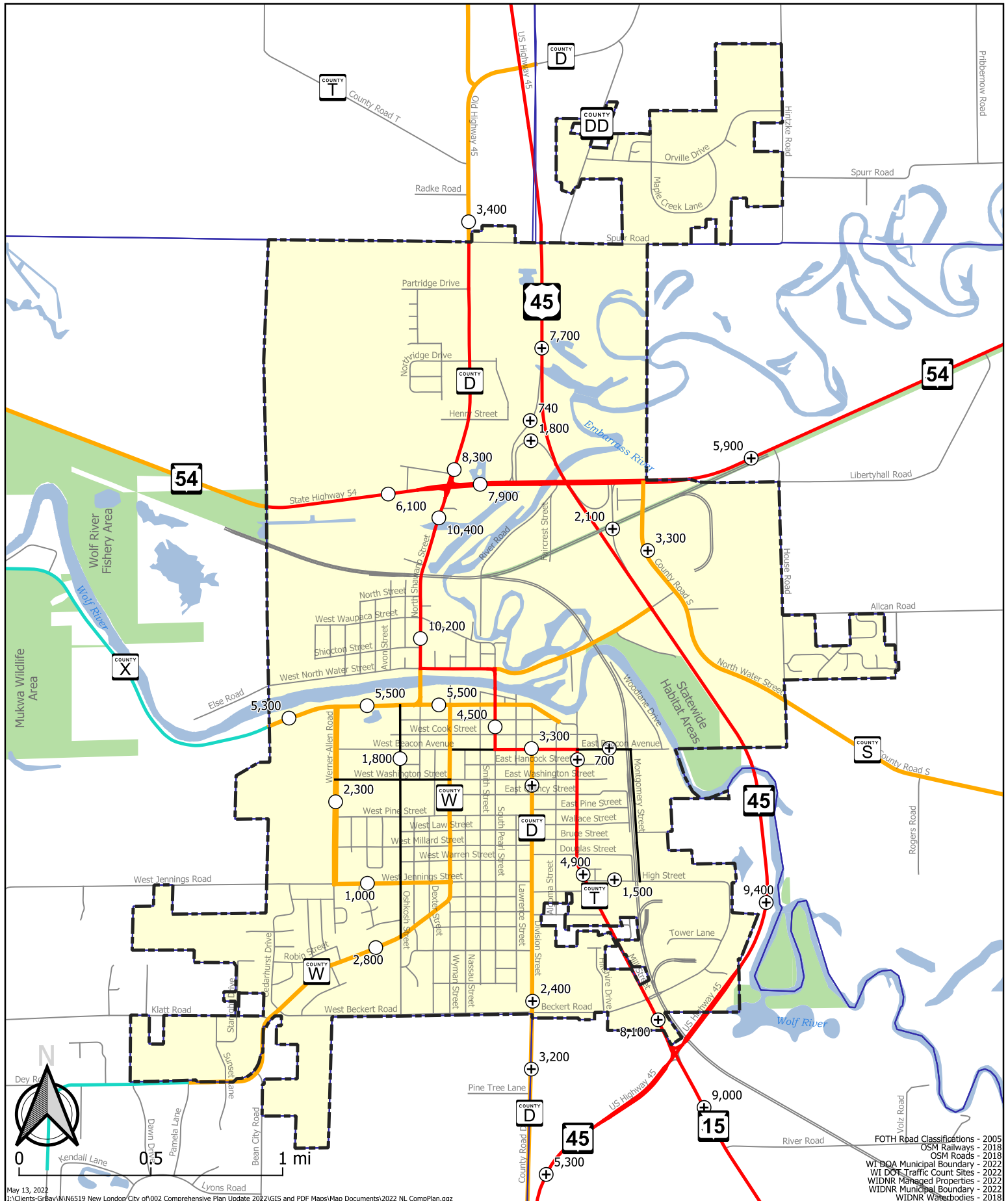
For the purpose of transportation planning, urban areas such as the City of New London are classified as places with populations of 5,000 or more (Refer to Map 3-1).

Principal Arterials serve longer intra-urban trips and traffic traveling through urban areas. They carry high traffic volumes and provide links to major activity centers. The urban principal arterials are connected to the system of rural principle arterials and minor arterials. Urban principal arterials are subdivided into:

1. Interstate highways (*these are free-flow, grade-separated, fully access-controlled freeways with access to the balance of the highway system at interchanges only*).
2. Other freeways (*these are freeways not designated part of the federal Interstate System or free-flow expressways that may not be grade-separated or fully access-controlled*).
3. Other principal arterials

Principal Arterials that exist within the City of New London include: USH 45, STH 54, and portions of CTH T and CTH D, constituting 8.79 miles of roadway (Table 3-2).





Minor Arterials provide intra-community continuity and service to trips of moderate length, with more emphasis on land access than principal arterials. The minor arterial system interconnects with the urban arterial system and provides system connections to the rural collectors. Minor Arterials that exist within the City of New London include: CTH S, CTH W, CTH D as well as local streets such as East North Water Street, Werner-Allen Road, Wyman Street and W. Wolf River Road constituting 7.58 miles of roadway (Table 3-2).

Collectors provide both land access service and traffic circulation within residential neighborhoods, commercial areas, and industrial areas. These facilities collect traffic from the local streets in residential neighborhoods and channel it onto the arterial system. In the central business district, and in other areas of like development and traffic density, the collector system may include the street grid, which forms the basic unit for traffic circulation. No Major Collector street segments exist within the City, however; 2.19 miles of City Collector streets do exist along East Beacon Avenue and Montgomery Street.

Local Streets comprise all facilities not on one of the higher systems. They primarily provide direct access to adjacent land and access to higher order systems. Local streets offer the lowest level of mobility, and through traffic movement on this system is usually discouraged.

Table 3-2: City of New London Local Road Miles by Functional Classification

Functional Classification	Approximate Miles
Principal Arterial	8.79
Minor Arterial	7.58
Major Collector	0.00
City Collector	2.19
Total Roads Functionally Classified	18.56 (out of 49.71 total)

3.1 Traffic Volume Trends

Annual average daily traffic (AADT) counts for 2019 are presented in Map 3-1 for selected roadways in City of New London. Average Annual Daily Traffic counts are calculated by multiplying raw hourly traffic counts by seasonal, day-of-week, and axle adjustment factors. The daily hourly values are then averaged by hour of the day and the values are summed to create the AADT count. The segment of CTH D, between the Wolf River and STH 54 contains the highest volumes of traffic (10,400 AADT), with USH 45 being next at 9,400 AADT.



3.2 Traffic Accidents

To further analyze City of New London's road system, the frequency of motor vehicle accidents is studied to identify problem areas. The frequency of motor vehicle accidents tends to correlate directly with traffic volumes. A review of reported crashes between January, 2017 and April, 2022 reveals a total of 495 accidents within the City of New London boundaries over that time-period. Of these, only two crashes involved pedestrians and there were no reported car/bicycle crashes during this time-period. Just over 80% of these crashes had no apparent injuries and no accidents with fatalities were reported during this period.

3.3 Bridges

State and local bridges are inspected at least once every two years. WisDOT is responsible for all inspections of bridges along the state highway system. Municipalities complete the inspections for bridges along the local roadway. Bridges are rated and categorized in terms of their functional and structural condition. A functionally obsolete bridge is typically older and no longer meets geometric standards, such as having narrow lanes or shoulders. However, this classification does not mean the bridge is unsafe. A structurally deficient bridge generally has an element that needs attention, such as potholes or rust. According to WisDOT, there are four bridges within the City that are the responsibility of the local units of government. Of these, only one of these, West North Water Street, is the responsibility of the City and is listed in Fair condition.

3.4 Additional Modes of Transportation

Trucking

Trucking is an integral part of the City of New London economy and depends on a safe and efficient highway system as well as adequate local roads and streets. Heavy truck operators do business in the City hauling agricultural products, forest products, manufactured goods, and other industrial and commercial applications.

Local roads are generally not designed to accommodate heavy truck operation and are limited to direct delivery. Roadways of higher functional classification are designed with increasing load bearing characteristics. Some City highways and nearly all local roads may have weight restrictions during periods of spring thaw.

Infrastructure to support trucking is abundant within City of New London and the surrounding region. WIS 15, WIS 54 and USH 45 are designated as official truck routes by the Wisconsin Department of Transportation. According to WDOT truck operator data, there are substantial private truck parking areas with access to a major highway, 24-hour diesel fuel, and at least 12 truck parking stalls located in the Waupaca, Fremont and New London areas. There is also a designated state rest area with seventeen stalls for trucks on USH 45 north of Clintonville.



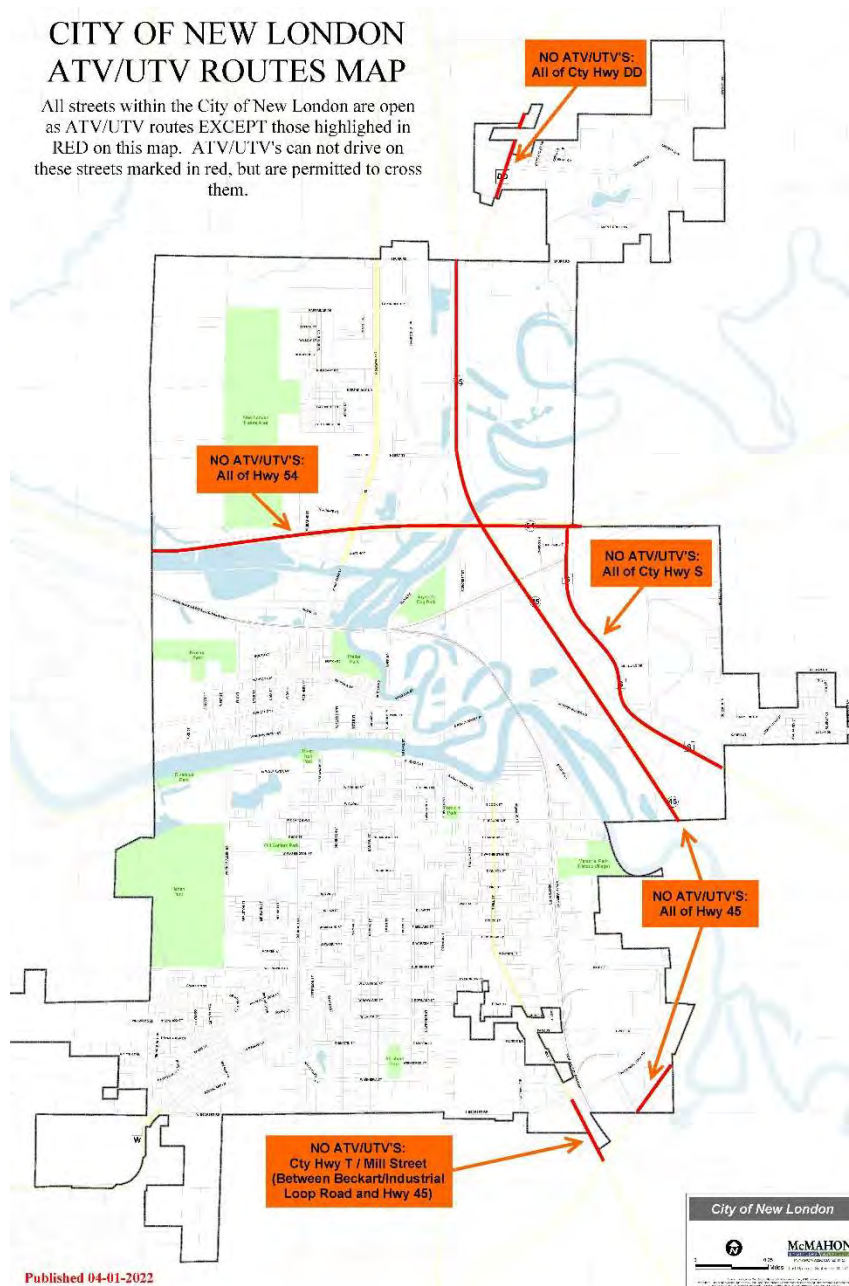
Motorized Recreational Vehicles

All-terrain vehicles (ATVs) and utility terrain vehicles (UTVs) being primarily used for recreational purposes, may now be utilized on all City streets with. In May, 2022, the City amended Municipal Code #9.49 which allows for such usage between April 1st and December 15th except on the following road segments:

- County Highway S.
- County Highway T / Mill Street (Beacon Ave to State Hwy 15/45) and Beacon Ave (Mill St to Division St).
- County Highway DD.
- State Highway 45.
- State Highway 54 / Fairview Dr.

The City maintains an official route map shown here in Figure 3-1.

Figure 3-1: City of New London ATV/UTV Routes



Air Service

There are four airports within a reasonable proximity to the City of New London as follows:

Clintonville Municipal Airport (CLI)

The Clintonville Municipal airport is part of the state airport system and is classified as a Transport/Corporate airport intended to serve corporate jets, small passenger and cargo jet aircraft used in regional service and small airplanes (piston or turboprop) used in consumer air service. The airport has three runways with the longest being 4,599 feet.

Waupaca Municipal Airport (PCZ)

The Waupaca Municipal airport is part of the state airport system and is classified as a Transport/Corporate airport intended to serve corporate jets, small passenger and cargo jet aircraft used in regional service and small airplanes (piston or turboprop) used in consumer air service. The airport has two runways with the longest being 5,200 feet.

Appleton International Airport (ATW)

Appleton International Airport is the third largest airport in the State of Wisconsin based on 2019 deplanements and serves residents and businesses in the Outagamie/Winnebago County vicinity, northeastern Wisconsin, and portions of Michigan's Upper Peninsula. The Airport supports both commercial and general aviation activities and is designated as an international airport with a US Customs office in the main terminal. The Airport is currently served by four major airlines (Allegiant, American Airlines, Delta, and United) with 14 direct service cities with connections available to any destination in the world. It is also served by two air cargo operations including Airborne Express and Federal Express and it has two fixed base operators, Gulfstream Aerospace and Max Air, Inc. The airport has two runways with the longest being 6,501 feet.

Austin Straubel International Airport (GRB)

Austin Straubel International Airport is the fourth largest airport in the State of Wisconsin based on 2019 deplanements and serves residents and businesses in Brown County, northeastern Wisconsin, and portions of Michigan's Upper Peninsula. The Airport supports both commercial and general aviation activities and is designated as an international airport with a US Customs office in the main terminal. The Airport is currently served by four major airlines with 11 direct service cities with connections available to any destination in the world. The airport has two runways with the longest being 8,700 feet.

Water Transportation

Commercial water transport does not currently take place in the City of New London to any significant level. The Wolf River, along with many other smaller streams, have historically been used for logging transport but no longer serve that function today. Recreational uses represent the vast majority of water-based transportation in City of New London. These activities occur mainly on the Wolf River from Fremont to New London.



Freight Rail Service

Freight rail service is available within the City of New London via the existing Fox Valley & Lake Superior Railroad which owns and operates a single line track between New London and the City of Appleton. This rail then connects with the Canadian National (CN) mainline which provides access to Green Bay, the Upper Peninsula of Michigan, and points southward such as Oshkosh, Fond du Lac, Milwaukee, and Chicago.

Bicycle & Pedestrian Transportation Corridors

Bicycling plays an important role in moving people, many of whom rely on or choose the bicycle for their main or only mode of transportation. Bicycles can move considerable numbers of people, especially in urban areas. The benefits of bicycling can be generalized into the following categories: health, transportation, safety, environmental, transportation choice, efficiency, economic, and quality of life. Therefore, bicycling is an important element of the overall transportation system in City of New London and is an accepted and promoted alternative form of transportation.

Pedestrian travel is an integral part of the total transportation picture. Many people rely on walking for exercise as well as for travel from their homes to work, school, or shopping. For the elderly, children, and those who are disabled, having safe and convenient pedestrian facilities is essential to daily activities. Many of the communities within the City have sidewalks located on the main streets.

Sidewalks are present in many areas of the community, including the entire downtown. Older residential neighborhoods have some sidewalks on both sides of the street, while others have them on one side. Many areas of the City do not have any sidewalks at all. Current development policies are a bit vague in terms of requirements, but the City typically will require sidewalks on one side of the street for new residential developments. There are also many walking paths and trails throughout the City of New London. In 2022 approximately 2.03 miles of publicly accessible trails and paths (not including sidewalks) were present within the City's boundaries (Map 3-2). Refer to the Utilities and Community Facilities element for more information on trails.

Transit Services in City of New London

Transit is a motor-vehicle service provided to individuals, usually for hire, to make a trip from one location to another. For our purposes here, it does not include arrangements made by individuals with relatives or neighbors to make a specific trip. Trips must be arranged with entities that have identified themselves as trip service providers to be considered transit. Excluded from this inventory of transit are charter bus operations, school transportation services provided through school districts, and vehicles that may be available to community based residential facilities (CBRFs) and emerging Adult Family Homes for resident transit. General categories of transit providers include: services available to the general public; services available to the general public, but only if they are elderly or disabled; services available only to the clients of an entity; services available to residents of group homes; and specialized medical vehicles licensed by the state medical assistance program.



General Public Service

- Greyhound Bus Lines: Greyhound Bus Lines used to provide inter-city bus service with four daily four daily intercity trips through Waupaca County, however; this service was eliminated in 2003. Currently, Greyhound Bus Service can be accessed through existing stops in the City of Waupaca (Mobil gas station) or the City of Appleton at their transit center.
- Lamers Bus Lines, Inc.: Lamers offers one round trip daily between Wausau and Milwaukee where it connects with Greyhound bus service to Chicago and with Amtrak rail service. The southbound schedule does not have a stop in the City of New London, but rather, can be accessed in the City of Waupaca or the City of Appleton.

Elderly-Disabled Service

- Senior/Accessible Transit Service: Local transportation within the city limits of New London is available for individuals 60 and older as well as individuals of all ages with disabilities and their caretakers. This service is open Monday through Friday from 9:00 a.m. to 4:00 p.m. A suggested \$3 roundtrip donation is appreciated, and caretakers ride free. Rides must be scheduled 24 hours or more in advance and busses are equipped with a wheelchair lift that is also suitable for walkers and scooters.
- Waupaca County Volunteer Drivers Program: The Waupaca County Department of Health and Human Services operates a volunteer driver program providing transportation services for elderly, disabled, medical assistance and nutrition program participants. This program does not provide services to nursing home residents but provides safe, affordable, non-emergency medical transportation for seniors and individuals with disabilities. Per trip costs range from \$2.25 for in-town to \$55.00 for out of county more than 200 miles.

3.5 Existing Transportation Plans

State Plans

The Wisconsin Department of Transportation maintains several plans with statewide policies and recommendations regarding various aspects of transportation. These plans should be taken into consideration when making transportation decisions.

- ♦ Connections 2030 provides long-range transportation planning for all forms of transportation.
- ♦ Connections 2050 Wisconsin's Statewide Long-Range Transportation Plan (currently in draft form)
- ♦ Wisconsin State Highway Plan 2020
- ♦ Wisconsin Bicycle Transportation Plan 2020
- ♦ Wisconsin State Airport System Plan 2030
- ♦ Wisconsin Pedestrian Plan 2020
- ♦ Wisconsin Department of Transportation Access Management System Plan
- ♦ Statewide Transportation Improvement Plan
- ♦ Six-Year Highway Improvement Program



Regional Plans

There are currently no set plans for the region. The East Central Wisconsin Regional Comprehensive Plan for 2030 states some general issues and goals, however no precise plans are named.

3.6 Planned Transportation Improvements

State Projects

Only one major state highway project is planned for/underway that will affect the City of New London - WIS 15 expansion from USH 45 to Lily of the Valley Dr., in New London, Hortonville and Greenville within Outagamie County. This segment of WIS 15 is an important regional route that connects the Appleton metropolitan area with Greenville, Hortonville, New London, and other local communities. Traffic forecasts along the corridor exceed the threshold for a 4-lane facility and analysis shows that without an expansion, WIS 15 has a failing level of service by 2040. In addition, heavy regional traffic currently conflicts with local traffic through the village of Hortonville. Studies show 75% of eastbound traffic and 52% of westbound traffic have destinations beyond Hortonville and therefore a WIS 15 bypass of Hortonville is needed. The WIS 15 expansion project was initiated in 2021 and the final (western) segment between CTH T/Givens Road and USH 45 is planned to occur in 2024. The new WIS 15 connection to USH 45 in the City of New London will continue to use a signalized intersection.

County Projects

Waupaca County's 2020-2024 Capital Improvement Plan (CIP) does not contain any listed highway improvement project which will affect the City of New London. Outagamie County has completed its 2022-2026 Capital Improvement Program as part of its annual budget process. The only Outagamie County planned highway project affecting the City is the mill and overlay of asphalt for CTH T, from USH 45 to CTH D scheduled for 2025. This project will coincide with the completion of the State's WIS 15 corridor project and roundabout construction at WIS 15 and USH 45. The county will rehabilitate this segment as well as make minor drainage, intersection, and safety improvements.

City Projects

City of New London has developed a five year (2022-2026) Capital Improvements Program which schedules major road and street repair/replacement projects. A total of five projects totaling nearly \$10M are on this list in a priority order, including:

1. Lyons St./Lima St./Avon St. (2022)
2. Lucas Dr./Zachary Ct./Aubrey Ct. (2023)
3. North Water St. (2024)
4. Pearl Street (2025)
5. Oshkosh Street (2026 – although the City learned in 2022 that an LRIP grant from WisDOT was awarded for this project, so the above order of projects is likely to change).



City road projects are typically funded through the City's existing wheel tax, bond issuance, and several state and federal highway funding programs such as LRIP and STP-Urban grants.

Of particular note are the impending STP-Urban project for the re-construction of North Water Street and Pearl Street which collectively comprise the entire downtown area. The City has been working closely with WisDOT, planners, and the community as a whole to determine changes to the overall design of these street segments. At this time, the North Water Street segment will retain its two travel lanes and parallel parking (both sides) but will be narrowed slightly to increase pedestrian space. Additional improvements will be made for pedestrian crossing signals and achieving ADA compliance at intersections. In addition, the City recently acquired a small lot at the intersection of North Water Street and Lincoln Street for additional public parking.

3.7 Transportation Trends and Outlook

Future transportation issues and opportunities can be anticipated by extending current and historic patterns forward and by assessing the interaction between land use and transportation. Transportation trends are important to consider when drafting local plans and policies. Transportation and future land use are directly related, and transportation trends have a tremendous impact on how local governments budget their resources. This also holds true for City and state governments. The information presented in this Report, as well as information gathered from local City of New London residents, supports the following trends with regard to transportation:

An increasing volumes of highway traffic will continue into the future. Related traffic control and safety issues are likely to follow.

- ♦ The use of USH 45 for local traffic and as a major statewide north-south connection will continue to lead to higher traffic volumes, which may increase the need for its expansion.
- ♦ Hwy 15 expansion will accommodate projected increases in traffic to/through New London.
- ♦ The growth of commercial development near the WIS 15 and USH 45 intersection may lead to increased traffic congestion.
- ♦ Increased commercial and industrial development within the City may lead to increased traffic congestion on CTH D, STH 54, and CTH S.
- ♦ Access limitations will increase along WIS 15.
- ♦ Accident-prone intersections will need improvement.
- ♦ Concerns raised by local residents are likely to center around controlling traffic speeds and intersection safety.



Increasing demands on local roads will continue into the future. Road improvement issues and use conflicts are likely to be the focus.

- ♦ Traffic is likely to increase on many City streets including North Shawano Street, Beckert Road and Spur road due to planned commercial and industrial development.
- ♦ The need for seasonal road closures and weight limits will continue unless significant structural improvements are made to local roads.
- ♦ Placement of new driveways onto City roads will continue.

3.8 Transportation Programs Currently In Use

The following transportation related programs are utilized or may have been utilized in the past by the City of New London.

State Programs

Adopt-A-Highway Program

The Wisconsin Department of Transportation initiated the Adopt-A-Highway program to allow groups to volunteer and support the state's anti-litter program in a more direct way. Each qualified group takes responsibility for litter control on a segment of state highway. The group picks up litter on this segment at least three times per year between April 1 and November 1. Groups do not work in dangerous areas like medians, bridges, or steep slopes. The main goals of the program are to reduce litter along Wisconsin's highways, build statewide support for the anti-litter and highway beautification programs, educate the traveling public to properly dispose of litter, and to enhance the environment and beautify Wisconsin's roadsides.

Transportation Economic Assistance Program

The Transportation Economic Assistance (TEA) Program is a rapid response grant program designed to create new employment, to retain existing employment, and to encourage private investment in Wisconsin. Communities can apply for TEA funds to encourage new businesses or business expansions in their regions by building such transportation improvements as access roads, highway improvements, or rail spurs. The program covers up to 50% of the total cost of eligible projects.

Local Roads Improvement Program

Established in 1991, the Local Roads Improvement Program (LRIP) assists local governments in improving seriously deteriorating City highways, town roads, and city and village streets. A reimbursement program, LRIP pays up to 50% of total eligible costs with local governments providing the balance.



Statewide Multi-modal Improvement Program (SMIP)

As part of the federal Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 as reauthorized in 2021 under the Further Surface Transportation Extension Act (H.R. 5763) the Wisconsin Department of Transportation (WisDOT) receives federal funds to provide a variety of improvement programs, including the Local Transportation Enhancements (TE) program. The program is designed to fund projects that increase multi-modal transportation alternatives and enhance communities and the environment.

Local Bridge Improvement Assistance Program

The Local Bridge Improvement Assistance program helps rehabilitate and replace, on a cost- shared basis, the most seriously deficient existing local bridges on Wisconsin's local highway systems. Counties, cities, villages, and towns are eligible for rehabilitation funding on bridges with sufficiency ratings of less than 80, and replacement funding on bridges with sufficiency ratings less than 50.

Regional Programs

Safe Routes to School Program

The 2005 revised federal transportation act (SAFETEA-LU) provided funding to state departments of transportation to create and administer Safe Routes to School (SRTS) programs. SRTS programs encourage children ages K-8 to walk and bike to school by creating safer walking and biking routes. SRTS programs improve walking and biking travel options, promote healthier lifestyles in children at an early age, and decrease auto-related emissions near schools. Funds will be awarded through a competitive state-wide grant process. Projects eligible for SRTS funding must be within two miles of an elementary or middle school (kindergarten through eighth grade) and may include sidewalks, trails, bike paths, and land use planning. Currently, a regional SRTS program is available and administered by the East Central Wisconsin Regional Planning Commission through which a Safe Routes to School Plan was prepared in 2021. This plan lists out a number of recommended bicycle and pedestrian safety improvements within close proximity to existing school sites.

Local Programs

Pavement Surface Evaluation and Rating (PASER)

PASER is a simple method of rating asphalt and concrete roads on a scale of 1 to 10 and gravel roads on a scale of 1 to 5, based on visual inspection. PASER manuals and a video explain how and why roads deteriorate and describe proper repair and replacement techniques. PASER rating can be put into PASERWARE, an easy to use pavement management software package. PASERWARE helps to inventory roads and keep track of their PASER ratings and maintenance histories. It also helps to prioritize road maintenance and improvement needs, calculate project costs, evaluate the consequences of alternative budgets and project selection strategies, and communicate those consequences to the public and local officials. Both PASER and PASERWARE are available from the University of Wisconsin's Transportation Information Center at no charge and also offers free training courses.



Safety Evaluation for Roadways (SAFER)

SAFER is a practical, systematic approach to reviewing safety issues on and along roads. Potential hazards are grouped into categories such as roadsides, intersections, railroad crossings, warning signs, pavement markings, road maintenance, and special conditions. The SAFER manual recommends a rating system and using this system the City can choose which conditions need to be addressed immediately and which to include in future plans or improvements.

3.9 Transportation Plan

The land use patterns of the City of New London are tied together by the transportation system, including roadways, railroads, and trails. Households, businesses, farms, industries, schools, government, and many others all rely on a dependable transportation system to function and to provide linkages within the community to areas beyond their immediate locations. The City of New London's transportation network plays a major role in the efficiency, safety, and overall desirability of the area as a place to live and work.

The City of New London does not anticipate a great deal of change to its existing transportation system over the next 20 years, however; several nearby planned highway improvements will help to bolster the City's regional connections as well as its economic success. However, the city certainly plans to maintain the existing system, as well as preparing for future development plans that will happen over the course of this 20 year planning period. The city has a five-year road improvement plan that is periodically updated as needed. When the need for new roads arises due to new development, the city works with each developer to ensure that these roads are built to city standards. There is an active railroad line that serves the city from the south and is heavily utilized by several businesses in the Beckert and Tews Industrial Parks. The continuation of rail service into the future is very important to the economic health of the city.

Key components of the city's transportation plan include reviewing land divisions in their extraterritorial area in order to evaluate impacts on road connectivity, developing an official map to designate planned future rights-of-way for roads and utilities in expected growth areas, and actively pursuing all available funding for needed transportation facilities. The city also wants to ensure that both the maintenance and future extensions of the transportation system are done efficiently, so that they do not create a financial burden for the residents.

3.10 Transportation Goals and Objectives

Community goals are broad, value-based statements expressing public preferences for the long term (20 years or more). They specifically address key issues, opportunities, and problems that affect the community. Objectives are more specific than goals and are more measurable statements usually attainable through direct action and implementation of plan recommendations. The accomplishment of objectives contributes to fulfillment of the goal.

Goal 1 Provide a safe, efficient, and cost effective transportation system for the movement of people and goods.



Objectives

- 1.a. Balance competing community desires (e.g., scenic beauty, abundant wildlife, direct highway access, etc.) with the need to provide for safe roads, intersections, interchanges, rail crossings, and other transportation features.
- 1.b. Reduce accident exposure by improving deficient roadways.
- 1.c. Maintain safe locations and designs for access onto local arterials and U.S., State, and County highways.
- 1.d. Require developers to bear an equitable share of the costs for the improvement or construction of roads needed to serve new development.
- 1.e. Guide new growth to existing road systems so that new development does not financially burden the community or make inefficient use of tax dollars.
- 1.f. Monitor the effectiveness of existing, and opportunities for new, shared service agreements for providing local road maintenance.

Goal 2 Support the development and use of multiple modes of transportation.

Objectives

- 2.a. Expand opportunities for bicycling and walking to be viable, convenient, and safe transportation choice in the community (particularly around the school facilities).
- 2.b. Improve accommodations on pedestrian facilities for people with disabilities (e.g., curb cuts, minimizing inclines and slopes of sidewalks, ensuring sidewalk connectivity, and increasing signal times at crossings, etc.).
- 2.c. Explore the need for transit options, particularly for senior residents.

Goal 3 Develop a transportation system that effectively serves existing land uses and meets anticipated demand.

Objectives

- 3.a. Work to achieve a traffic circulation network that conforms to the planned functional classification of roadways.
- 3.b. Direct future residential, commercial, and industrial development to roadways capable of accommodating resulting traffic.
- 3.c. Direct truck traffic to appropriate routes and plan cooperatively with affected communities.
- 3.d. Maintain adequate public parking facilities within the downtown and conduct parking studies as needed in the future.

3.11 Transportation Policies and Recommendations

Policies and recommendations build on goals and objectives by providing more focused responses to the issues that the city is concerned about. Policies and recommendations become primary tools the city can use in making land use decisions. Many of the policies and recommendations cross element boundaries and work together toward overall implementation strategies.



Policies identify the way in which activities are conducted in order to fulfill the goals and objectives. Policies that direct action using the word “shall” are advised to be mandatory and regulatory aspects of the implementation of the comprehensive plan. In contrast, those policies that direct action using the words “will” or “should” are advisory and intended to serve as a guide. “Will” statements are considered to be strong guidelines, while “should” statements are considered loose guidelines. The city’s policies are stated in the form of position statements (City Position), directives to the city (City Directive), or as criteria for the review of proposed development (Development Review Criteria).

Recommendations are specific actions or projects that the city should be prepared to complete. The completion of these actions and projects is consistent with the city’s policies, and therefore will help the city fulfill the comprehensive plan goals and objectives.

Policies: City Position

- T1 Streets that provide access to multiple improved properties should be built to city standards as a condition of approval for new development.
- T2 Developers shall bear an equitable share of the cost of constructing new streets to city standards before they are accepted as public streets.
- T3 Dead-end roads and cul-de-sacs should be avoided to the extent practicable and allowed only where physical site features prevent connection with existing or planned future roadways.
- T4 Street design standards that coincide with pedestrian routes (especially those used by school children, senior citizens, or physically challenged persons) shall include intersection design features, signal phasing, and roadway width that enhance the safety of pedestrians and minimize conflict with motorists.
- T5 Whenever feasible, the community shall promote the separation of truck and through traffic from local traffic and reroute truck traffic around the community.

Policies: City Directive

- T6 The community shall consider opportunities to create or improve safe bicycle and pedestrian transportation options in concert with the review of proposed developments and planning for road improvements or public facilities.
- T7 A five-year road improvement plan should be maintained and updated annually to identify and prioritize road improvement projects as well as identify potential funding sources.
- T8 The community shall consider the transportation needs of the physically challenged.



Policies: Development Review Criteria

- T9 Development proposals shall provide the community with an analysis of the potential transportation impacts including, but not necessarily limited to, potential street damage and potential traffic impacts. The depth of analysis required by the community will be appropriate for the intensity of the proposed development.
- T10 New development inside the city limits and in planned extraterritorial growth areas should be placed on the landscape in a fashion that does not block potential road extensions.
- T11 As part of the review of major subdivisions, developers shall submit Area Development Plans that assess the potential for connecting planned subdivision roads with future development on surrounding properties.
- T12 Residential subdivisions and non-residential development proposals shall be designed to include:
- ◆ Trails or sidewalks where applicable;
 - ◆ Bicycle routes where appropriate;
 - ◆ A safe and efficient system of internal circulation for vehicles and pedestrians;
 - ◆ Safe and efficient external collector streets where appropriate;
 - ◆ Safe and efficient connections to arterial roads and highways where applicable;
 - ◆ Connectivity of the street network with adjacent developments;
 - ◆ Cul-de-sacs or dead-ends, only where connections to other streets are not possible or temporarily where the right-of-way has been developed to the edge of the property for a future connection to adjacent development.

Recommendations

- Recommendation T-1: Actively pursue all available funding, especially federal and state sources, for needed transportation facilities. Funding for multimodal facilities should be emphasized.
- Recommendation T-2: Modify the applicable land division ordinance to require the execution of a development agreement whenever public roads or other infrastructure is included in a development. Utilize a standard development agreement that includes provisions for financial assurance, construction warranties, construction inspections, and completion of construction by the community under failure to do so by the developer.
- Recommendation T-3: On an as-needed basis, require major land divisions, conditional uses, and other substantial development projects to submit an assessment of potential transportation impacts including potential road damage and traffic impacts.



- Recommendation T-4: Review land divisions in the extraterritorial area and evaluate their impact on road connectivity.
- Recommendation T-5: Develop an updated official map to designate planned future rights-of-way for roads and utilities in areas of expected growth.
- Recommendation T-6: Monitor the need for public transportation both transit and para transit.
- Recommendation T-7: Modify the land division ordinance to require the submittal of area development plans which also include the identification of bicycle and pedestrian routes.
- Recommendation T-8: Create area development plans for planned growth areas such as business parks, TIF districts, highway commercial corridors, etc. Consider the transportation infrastructure needed to support planned growth.
- Recommendation T-9: The City should conduct a comprehensive parking study of the downtown area after the North Water Street and Pearl Street reconstruction projects are completed.
- Recommendation T-10: Establish a detailed site plan review process for major land divisions, conditional uses, and other substantial development projects.



4. Utilities and Community Facilities

Efficient provision of high-quality community facilities and services impacts property values, taxes, and economic opportunities, and contributes to the quality of life in the City of New London. Local features such as parks, schools, utilities, and protective services help define a community. These facilities and services require substantial investment as supported by the local tax base, user fees, and impact fees. As a result, their availability is determined both by public demand for those facilities and services, and by a community's ability to pay for them. Therefore, potential impacts on the cost and quality of utilities and community facilities need to be considered when making decisions concerning the future conservation and development of the City of New London.

Understanding potential impacts on the supply and demand of utilities and community facilities on a community-wide scale begins with a thorough assessment of the existing conditions. This element of the comprehensive plan provides an inventory and assessment of the existing utilities and community facilities of the City of New London.

4.1 City Administrative Facilities and Services

Public Buildings

The following public buildings are owned and operated by the City of New London and are the primary sites where City government services are conducted. Refer to Map 4-1 for the locations of municipal buildings and administrative facilities.

City Hall/Municipal Building

The City's main administrative functions are conducted at the City Hall/Municipal building located at 215 N. Shawano Street.

Police Station

The City of New London Police Department is located at 700 Shiocton Street, to the immediate west of the City Hall/Municipal building.

Fire Station(s)

The New London Fire Department has its facility in the same building as City Hall at 215 N. Shawano Street.

Public Works/Highway Garage

The New London Highway Department Garage is located at 1006 W. Wolf River Drive. There are three departments within the Public Works Department, Engineering, Street and Wastewater. These departments take care of street maintenance, wastewater facility, sewer system, snow plowing and other such items. Water and Electric is maintained by the New London Utilities.



4.2 Protective Services

Police Services

The New London Police Department has 17 sworn officers. The officers fill positions that include Supervisory Staff, Detective, SWAT, Police School Liaison, Drug Unit Investigator, Field Training Officers, Firearms Instructor, DAAT Instructor and ICAC Investigator. New hires are required to complete a 3-month Field Training Program before they are allowed to patrol on their own.

Fire Protection Services

The New London Fire Department provides fire protection to the City of New London, portions of the Towns of Liberty and Maple Creek in Outagamie County, and portions of the Towns of Caledonia, Lebanon, and Mukwa in Waupaca County. The New London Fire Department consists of 30 members including one chief, one assistant chief, two captains, four lieutenants, eight engineers, and 14 firefighters. All members of the department are trained to a minimum of Firefighter II and receive CPR and Automatic External Defibrillator (AED) training. In addition, three members are trained as EMTs, and four members are trained as first responders. In addition to fire protection, the New London Fire Department also has a jaws of life unit, air bags and other rescue tools for extrication of victims of motor vehicle accidents, farm accidents, and industrial accidents. Water and ice rescue is also provided by use of a fire department boat and ice rescue sled. Other department equipment includes four pumpers, a 75-foot aerial ladder, two brush trucks, two tankers, and various other rescue and firefighting equipment. A new 104-foot platform aerial ladder was delivered in 2005 to replace an older aerial ladder.

Emergency Medical Service

Gold Cross Ambulance

Gold Cross Ambulance serves the City of New London, the Town of Mukwa, and portions of the Towns of Lebanon, Caledonia, and Fremont. The New London Family Medical Center provides the service at a subsidized cost to the communities. Two ambulances are located in the city, and a third ambulance is stored and staffed by Bear Creek.

First Responders

Portions of the City are served by first responders. First responders are volunteers who live and work in the area and are trained to respond to emergency situations. First responders are paged along with ambulance personnel and are often the first on the scene of an automobile accident to stabilize patients.



Emergency Medical Flight Services

Emergency medical flight services are available from the following providers.

- ♦ Eagle III, St. Vincent's/Bellin/Brown County, Green Bay
- ♦ Flight For Life, Milwaukee Medical Center, Milwaukee
- ♦ Med Flight, University of Wisconsin, Madison
- ♦ Spirit of Marshfield, St. Joseph's Hospital, Marshfield
- ♦ Theda Star, Theda Clark Regional, Neenah

4.3 School Facilities

School District of New London

The School District of New London is located in East Central Wisconsin on the border of Waupaca and Outagamie counties. It covers 144 square miles in three counties with an approximate population of 18,000 and a tax base of just over one billion dollars (Map 4-2).

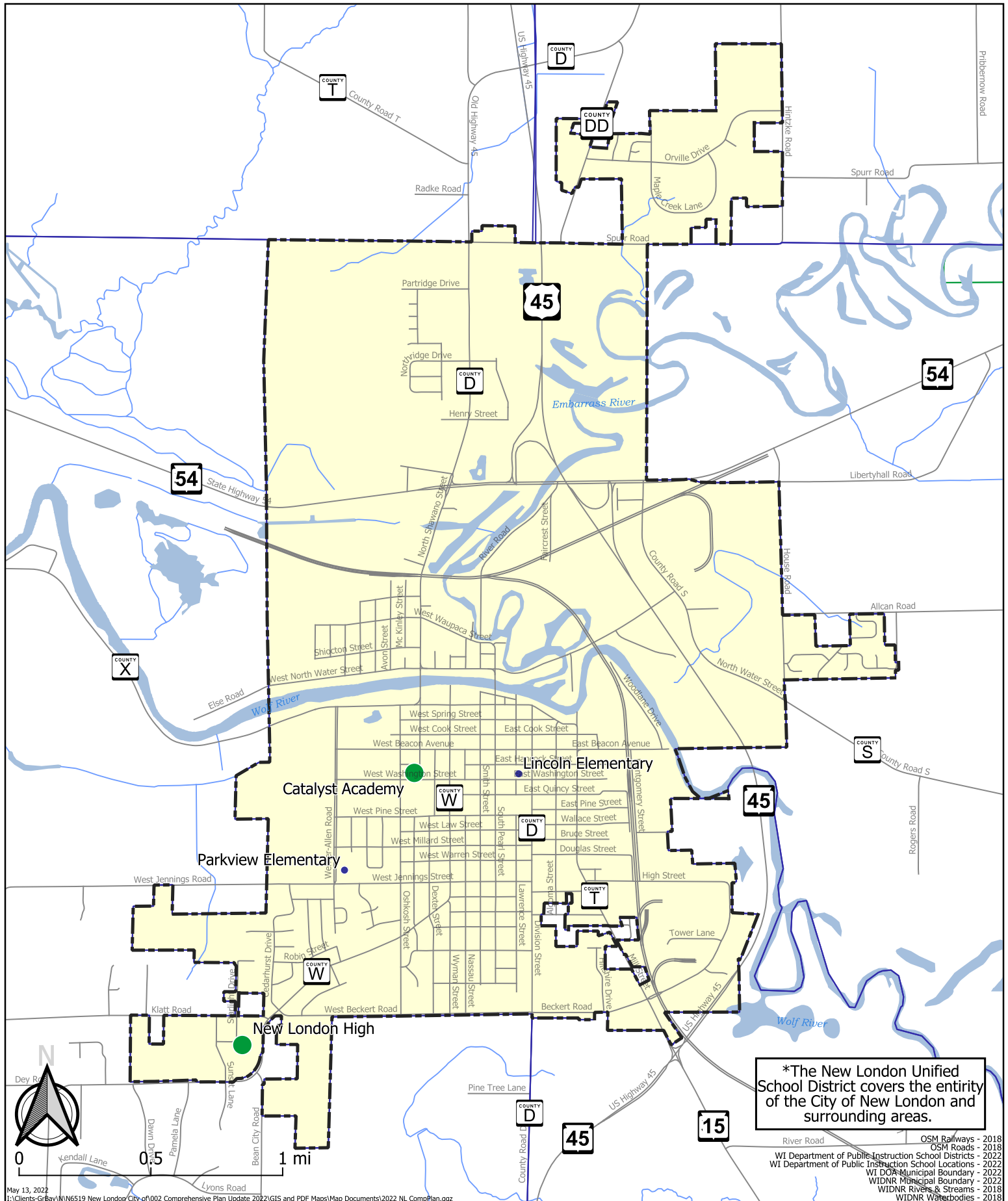
The School District serves the City of New London and portions of the Towns of Lebanon, Bear Creek, Mukwa, Fremont, Caledonia, Maple Creek, Liberty, and Horton. The district's facilities include Lincoln Elementary, New London High School, New London Intermediate/Middle School, Parkview Elementary, Readfield Elementary, and Sugar Bush Elementary.

The district is a Unified District which serves approximately 2500 students and is comprised of a white (90%), Hispanic (7%) and other (3%) student population. Bilingual programs are offered at Lincoln Elementary School, Parkview Elementary School, Intermediate/Middle School, and the High School.

In 2018 the School District of New London proposed a \$13 million facilities referendum which passed. The 10-year referendum will collect \$1.3 million per year from district residents to fund projects at the six main school buildings falling into the categories of maintenance, safety and security, and energy efficiency. Some of the top-priority investments that referendum dollars would fund over the next decade include:

- Updating the roofs at New London High School, Lincoln Elementary School, and Sugar Bush Elementary School.
- Replacing aging boilers at NLHS.
- Converting the four elementary schools to LED lighting.
- Improving HVAC systems at three elementary schools and New London Intermediate/Middle School.
- Upgrading fire alarms to the latest technology at all six schools.
- Configuring rooms as needed to meet today's learning needs.
- Constructing an addition to Parkview Elementary School that contains restrooms, staff collaboration space and storage space.





4-2 School District and Locations

City of New London
Outagamie & Waupaca Counties, WI

- Combined Elementary / Secondary School
- Elementary School
- Middle / Junior High School
- High School



*The New London Unified School District covers the entirety of the City of New London and surrounding areas.

OSM Railways - 2018
OSM Roads - 2018
WI Department of Public Instruction School Districts - 2022
WI Department of Public Instruction School Locations - 2022
WI DCA Municipal Boundary - 2022
WIDNR Municipal Boundary - 2022
WIDNR Rivers & Streams - 2018
WIDNR Watersheds - 2018

Other Educational Facilities

Emanuel Lutheran School

Emanuel Lutheran School is a parochial school located at 200 E. Quincy Street in New London.

Next Generation Academy

Hosted by the School District of New London, and located within the city, The Next Generation Academy is a blended learning academy that offers the best elements of online and face-to-face learning.

Catalyst Academy

An alternative charter school located in New London provides a caring non-traditional learning community which offers opportunities for students to become productive and responsible lifelong learners.

Fox Valley Technical College

The technical college currently maintains course offerings at centers in Waupaca and Clintonville.

Rawhide Boys Ranch

Rawhide Boys Ranch is located near New London. This 700-acre ranch provides a traditional home atmosphere for boys referred by juvenile courts. Donated vehicles are repaired by the boys and sold at an annual auction to fund the program.

4.4 Quasi-Public Facilities

New London Library

The current New London Library is located at 406 S. Pearl Street and provides library services for the entire community. The library participates in the OWLSnet shared automation network and works cooperatively with other OWLSnet libraries to maintain borrower's records and lend materials.

In early 2022 it was announced that the First State Bank will donate its current N. Water Street building in the downtown to the city for use as a new library facility as they are building a new corporate headquarters at a different location. The bank will transfer ownership of the building to the library when the bank opens its new corporate headquarters in spring of 2023. With the bank's donation, the library will shift from its plan to build a separate library to redeveloping the two floors of the bank building into the library's future home.



New London Public Museum

The current New London Museum shares space with the library and is located at 406 S. Pearl Street. The museum is one of only five public, multi-disciplinary museums within Wisconsin and has exhibits related to the local, natural, and Native American history. With the recent announcement of the library relocation, the city will be assessing plans for the expansion of the museum into space formerly occupied by the library.

Churches and Cemeteries

Over a dozen different churches exist within the City of New London which accommodate a variety of religious backgrounds and beliefs. In addition, two cemeteries exist within the southwest portion of the city: The Floral Hill Cemetery located south of Beckert Road, and the Most Precious Blood Cemetery located nearby off of Bean City Road. Both cemeteries are privately owned, and the city has no ownership or maintenance involvement in these facilities.

Post Offices

The US Post Office has a New London facility located at 208 S Pearl St, near the Wolf River. This facility provides all of the typical postal services for the City's residents.

Private Recreation Facilities

The only privately owned recreation facility is a golf course located outside the City limits. Shamrock Heights Golf Course lies approximately 1 mile north of the city, along Highway 45 in the Town of Lebanon. Facilities include a driving range and clubhouse.

2.4 Parks, Recreation, and Open Space

Comprehensive recreational planning has guided the growth and development of New London's park system for some 45 years with the first New London Recreation Plan and Program being developed in 1975. Periodic updates to this plan occurred over the years and in 1999 an official "Open Space & Recreation Plan" was developed and adopted by the city. This plan was updated several times over recent decades with the last Comprehensive Outdoor Recreation Plan being prepared and adopted in 2021. These plans have been a useful tool to monitor changing recreational needs and undertake projects needed to maintain and upgrade the city's park system.

In recent years, plans have reflected the increasing awareness of local citizens in the value of protecting and utilizing the City's extensive riverfront. They have also provided the City with an opportunity to compete for matching funds through DNR-administered (Stewardship) grant programs, enabling the City to undertake park and open space acquisition and development projects.



City-Owned Parks

The 2021 Comprehensive Outdoor Recreation Plan contains detailed information about the City's current park system and its needs. Overall, the plan's Vision recognizes the multi-faceted values associated with park and recreation areas:

New London's system of well-designed and maintained parks, waterway, and recreation facilities are central elements to the community's wellbeing, active lifestyles, and identity. These places and the experiences they offer provide wide ranging benefits for residents and visitors, while preserving green space and strengthening the local economy.

Based on the 2021 Comprehensive Outdoor Recreation Plan, a total of 16 park facilities exist within the city encompassing just over 280 acres. Table 4-1 and Map 4-1 list out and illustrate the locations of these facilities. The Plan does not call for any new major facilities as the city technically has over double the number of park acres necessary to meet population standards. However, a variety of needed improvements are outlined for each park site.

Table 4-1: City of New London Parks

Name	Acres	Class
Hatten Park	120.00	CP
Krostue Park	23.00	CP
Memorial Park	13.00	CP
Pfeifer Park	9.40	CP
Anchor Park	0.20	MP
Mini Park	0.20	MP
St. John's Park	0.40	MP
Taft Park	0.40	MP
New London Nature Area	94.00	NA
Abraham Park	3.30	NP
Franklin Park	1.30	NP
Bernegger River Walk	1.10	SF
Jaycee's Dog Park	3.00	SF
Old Settlers Park	5.50	SF
River Trail Park	1.80	SF
Riverside Park	5.00	SF
TOTAL ACRES:	281.60	

MP = Mini Park / NP = Neighborhood Park / CP = Community Park / SF = Special Facility

Source: East Central Wisconsin Regional Planning Commission, 2021.



Other Parks

Several other regional park and recreation facilities exist near the City of New London and are likely utilized by City residents, including:

- Mosquito Hill Nature Center: This is an Outagamie County park but serves as an important recreational resource for the New London area. Mosquito Hill is the highest point in the New London area. This 430-acre environmental education site is located two miles east of New London off County Highway S at the end of Rogers Road in Outagamie County. The facility offers hiking and snowshoe trails, indoor exhibits, a variety of weekend programs and workshops, as well as field trip opportunities for groups. The center is open year-round.
- Waupaca County Dog Park opened in March of 2003 and is located approximately 20 miles from the City of New London. The dog park offers a safe, secure area for owners to take their normally leashed or house bound pets to get exercise running and playing with other dogs. Dogs are allowed to run and play off leash and socialize with other dogs in a large, fenced-in area.
- Waupaca County Fairgrounds are located in the City of Weyauwega. The 40-acre site includes a racetrack, a covered grandstand, several livestock and exposition buildings, picnic tables, and playground equipment. The fairgrounds are used for the Waupaca County Fair, winter storage, and numerous special events.

Boat Landings/Public Access

The following local boat landings and public access points are found in or near the City of New London.

- ♦ Riverside Park located in New London has five boat-launching ramps
- ♦ Shaw's Boat Landing located in the Town of Mukwa has two boat-launching ramps

State Managed Parks and Recreation Areas

Four separate WDNR State Natural Areas (SNA's) exist close to New London: Shaky Lake, Mukwa Bottomland Forest, Poppy's Rock, and Hortonville Bog. Refer to the Agricultural, Natural, and Cultural Resources element for more information on these SNAs.

Campgrounds

There are numerous private and public campgrounds in Waupaca/Outagamie County area; however, none exist within the City of New London. The two nearest private campgrounds are Huckleberry Acres, located about 2.5 miles to the southwest of the city, and Wolf River Trips & Camping is located approximately 4.0 miles west of the city.



Trails

Local Trails

The City of New London maintains an extensive pedestrian and bicycle trail system. New trail connections have been completed recently to extend a trail to the New London High School and to connect the city's highway commercial district (constructed in the early 1990s) with its existing sidewalk system. The city would like to develop a plan to connect the Mosquito Hill Nature Center (located two miles outside of the city limits) with the city via a pedestrian and bicycle trail.

County Trails

The Sturgeon Trail is a one-half mile blacktop surface trail along the shoreline of the Wolf River between New London and Northport, adjacent to County Highway X. This site has been a favorite place for sturgeon to spawn and for people to get an up-close view of Wisconsin's oldest and largest fish. Future plans for the Sturgeon Trail might include continuation of the trail, improved parking, and tying the trail into a plan for a county-wide trail system.

Waupaca County is a partner in a four-county trail system known as the WIOUWASH Trail (Winnebago, Outagamie, Waupaca & Shawano Counties). This 27.7-mile-long trail is part of a statewide trail system, and it connects the trail systems of Southeastern Wisconsin with the Mountain-Bay State Trail that runs from Green Bay to Wausau through Shawano. The County has a committee in place and is creating its portion of the trail that will run along the eastern side of Waupaca County.

The trail runs south from Hortonville and connects to the Winnebago County portion at the Winnebago/Outagamie County line. An unconnected north segment of the trail also runs between Split Rock and Aniwa in Shawano County. Long-term plans call for this trail to be extended between Hortonville and New London, and to Clintonville prior to connecting with the Shawano County segment. No official routes or timeframes for these connections are in place.

Newton Blackmour State Trail

The Newton Blackmour State Trail is a multipurpose trail which runs between New London, Shiocton, Black Creek, and Seymour in Outagamie County. This former railroad grade now has 24 miles of trail between New London and Seymour, running almost parallel to Hwy 54. This trail is open year-round and can be used by hikers, bikers, horseback riders, and snowmobiles during the winter months. No ATV's or motorized vehicles are allowed on the trail. Newton Blackmour parking is located in Black Creek on North Maple St.



In 2020, the City was awarded federal Community Development Block Grant (CDBG) funds for extending the Newton-Blackmour State Trail from House Road on the far east side of the City to the City's Pfeifer Park along the west side of the Wolf River. This includes a segment of multi-use trail going through the USH 45/STH 54 interchange area. Coordination between the City and WisDOT staff has occurred throughout the design process for the trail project, and in March 2022, the city applied to WisDOT for a state highway connection permit for the establishment of the trail through the Interchange ROW. Construction on the trail is scheduled to start in summer 2022 and be completed in fall 2022

Snowmobile Trails

Waupaca and Outagamie Counties offer hundreds of miles of signed and well-groomed snowmobile trails. These trails wind through the rural areas of the counties, connecting all of the communities into a regional network of trails. Convenient trail access points, corridors, and connector trails are located throughout Waupaca and Outagamie Counties.

4.7 Solid Waste Management and Recycling

There are no licensed landfills within the City of New London, nor does the city provide solid waste collection. In an effort to keep property taxes down, the City government long ago decided to let the private sector handle refuse removal services for all classes of property – residential, commercial, and industrial. Therefore, all residents (including landlords for rental properties) are required to contract directly with a private garbage hauler to have their garbage removed on a regular basis. There are a number of private sector providers of solid waste and recycling services. Primary private sector providers include Graichen Sanitation, GFL and Waste Management.

The City of New London participates in the Outagamie County recycling program with collection handled by Orion Waste Solutions. Recycling is picked up at no cost to residents on a bi-weekly basis, Wednesdays and Fridays depending on location.

The Department of Public Works picks up brush in April and October of each year. Notices are posted in the local newspaper, City Website and Facebook page. Leaves are picked up in fall with brush being bundled to set standards. During non-pickup times, residents can take lawn debris to the Wastewater Treatment Plant on West Wolf River Avenue, which in turn is disposed of by the city at the MCC quarry.



4.8 Communication and Power Facilities

Electric Service

Electric service is provided by New London Utilities. New London Utilities was founded in 1904 and provides customers with some of the lowest electric rates in the area - rates significantly lower than those in territories that are served by most investor-owned utilities. New London Utilities is a member of WPPI Energy, a Sun Prairie-based power company serving 51 customer-owned electric utilities. Together, WPPI Energy's member utilities purchase all of their electric requirements from WPPI Energy and supply power to more than 192,000 customers in Wisconsin, Iowa, and Michigan. New London Utilities is part of WPPI and hence, power purchase agreements include the use renewable energy where possible from various sites across the state.

Telephone Service

Telephone service is provided by AT&T or Charter Communications, while cellular providers are numerous.

Internet & Broadband

Internet and broadband services are available throughout the city and are provided by ATT, Charter Spectrum or Star Communications. According to the PSC's Wisconsin Broadband Map, a majority of the city has available fixed internet speeds of 100+ Mbps download and 20+ Mbps upload which should meet most residential and business needs.

Gas Service

WE Energies provides natural gas fuel throughout the City of New London with its service territory relying on supplies from a nearby ANR pipeline.

4.9 Sanitary Sewer Service

New London Wastewater Treatment Facility

The New London Wastewater Facility was built in 1954 and renovated during 1987 and 1988. The city operates 2.131 million gallons per day (max design flow) advanced wastewater treatment facility using anaerobic digestion that treats both domestic and industrial wastewater generated within the city. The city also accepts septage from the surrounding area and no pre-treated industrial waste exists within the system. Following treatment, the effluent is discharged to the Wolf River. The average annual loading for the facility in 2021 was 0.915 million gallons per day, or roughly 50% of its capacity. WPDES permit parameters have been met consistently over recent years with no exceedances of designed BOD loading or effluent limits on Total Suspended Solids (TSS) and Phosphorus. Biosolids are land applied to area agricultural fields.



Main concerns with the existing treatment and collection system include:

- Clearwater inflow and infiltration (I&I). I&I into the sanitary sewer system can result in unnecessary treatment costs. Rainwater from leaky manholes, broken pipe joints, or the connection of downspouts and sump pumps can be contributors to I&I. The city has an ongoing program for sewer line inspection, as well as the planned replacement and repair of various sewer mains.
- Upgrade of Secondary Treatment: The City is looking to make approximately \$9M in improvements and upgrades to the secondary treatment system in about 5 years (2028). There is also the potential to add a tertiary filter system to meet WPDES permit limits.

4.10 Public Water Supply

New London Utilities

New London Utilities is a municipally owned and operated electric and water utility, serving more than 3,500 customers in New London. New London Utilities provides its customers with clean, high-quality water that meets or exceeds all state and federal standards. Water quality and capacity are monitored every day by well-trained system operators. The utility was organized in 1904 and is governed by a five-member board. Over 2,800 customers consume 500+ million gallons of water annually. Groundwater is the sole source of the water supply used by the utility with chlorine and fluoride being added to the water supply.

New London's water system now consists of three separate pressure zones, seven wells, three water towers, two booster stations, and two control valve stations. The water system is operated by a computer driven system called a SCADA. Auxiliary power is not provided at any of the wells or at the booster station, however, the city is provided with power from two independent power sources. Water loss in the system is well under the recommended allowable loss of 10%.

The high-level pressure zone is located south of Cook Street from the west end of the city to Division Street, and south of Douglas Street. The primary pressure zone is everything north of Cook and Douglas Streets, and east of Mill Street including all parts of the city north of the Wolf River up to Jeanne St. The third zone is everything north of Jeanne St. A third zone has been established for the new Northeast New London Business Center. There are three water storage facilities in service with storage capacities of 300,000 gallons, 400,000 gallons, and 500,000 gallons.

An investigation of the public water supply system is performed annually by the Department of Natural Resources. Every fifth year an entire system review is performed as well. New London Utilities has consistently had good reviews by the DNR, and overall maintenance and operation were found to be in excellent shape. Annual recommendations and requirements requested by the DNR are reviewed and updated/repared, as necessary.



Wellhead Protection

Wellhead protection is a preventive program designed to protect public water supply wells. The goal of wellhead protection is to prevent contaminants from entering public water supply wells by managing the land that contributes water to the wells. The City of New London has voluntarily prepared and adopted Wellhead Protection Plans and their associated ordinances which define and regulate the use of land and/or materials within the designated wellhead protection areas. In 2022 the city reviewed and updated these plans, and they are in the process of being approved by the Council.

4.11 Stormwater Management

The goal of stormwater management is to prevent runoff from delivering pollutants or sediment to lakes, rivers, streams, or wetlands. Commonly applied stormwater management tools include ditches, culverts, grassed waterways, rock chutes, retention basins or settling ponds, curb and gutter, storm sewer, and construction site erosion control.

State law currently requires certain construction sites, municipalities, and industries to obtain a Stormwater Discharge Permit from the WDNR. Construction sites with more than five acres of bare soil and non-metallic mine sites of any size must obtain a permit.

The City of New London has an extensive storm sewer system and some on-site stormwater management facilities such as detention ponds. Approximately 90% of the city is served by storm sewer, and the remaining 10% is served by ditches, culverts, and topography. The northwest part of the city is located in the floodplain of the Wolf River, but no major floods have occurred since the 1970's. Minor flooding has been a problem in some older portions of the city.

The city's stormwater management facilities need on-going maintenance and improvement, for which funds are budgeted annually. The city requires new developments to submit stormwater management plans and provide for all stormwater retention needs (ponds, etc.).

4.12 Health Care Facilities

Local Hospitals

There is one hospital facility within the City of New London, the ThedaCare Medical Center located on Mill Street in the southeastern portion of the City

This 35-bed facility offers a broad range of in-patient and out-patient services, medical and surgery specialties including behavioral, occupational, and orthopedic care, a 24-hour physician staffed emergency department, over 50 sub-specialty physician consultants, and access to regional health care systems.



Regional Hospitals

Other hospitals located within the region are also utilized by City residents and include:

Appleton Medical Center	Appleton
Bellin Hospital	Green Bay
Shawano Medical Center	Shawano
St. Elizabeth Hospital	Appleton
St. Mary's Hospital	Green Bay
St. Vincent Hospital	Green Bay
Theda Clark Hospital	Neenah

Local General Practice Medical Clinics

There are several additional general and specialty practice medical clinics in the City of New London including:

Orthopedic & Sports Institute of the Fox Valley	1370 N. Shawano St.
Valley Family Medicine	1505 Mill St.
Ascension Medic Group Wisconsin	1420 Algoma St.
Maiman Chiropractic Center, LLC	501 S. Pearl St.
Witkowski Chiropractic	315 Burton Rd

Residential and Elder Care Facilities

Nursing homes, assisted living, and other residential care facilities found in the City of New London include the following.

- ♦ Kindred Hearts of New London
- ♦ Clarity Care
- ♦ Beacon House Group Home
- ♦ St. Joseph Residence
- ♦ Trinity Terrace at St. Joseph Residence
- ♦ Washington Center (assisted living for 32 units provided by St. Joseph Residence),

State Facilities

Wisconsin Veterans Home at King

The Wisconsin Veterans Home at King, located on Rainbow Lake in the Town of Farmington, is the state's largest nursing care facility. Facilities include four licensed nursing care buildings, cottages for married couples able to care for themselves, chapels, bowling alley, post office, theater, museum, and library. Veterans who meet criteria for military service and state residency may be admitted if they apply income and resources to the cost of their care as required by Medicaid. Members receive complete medical and nursing care as



well as social services and recreational activities. Many members participate in work therapy programs, which allow them to earn extra money while providing valuable services to their fellow members.

4.13 Day Care Facilities

Under Wisconsin law, no person may for compensation provide care and supervision for four or more children under the age of seven for less than 24 hours a day unless that person obtains a license to operate a childcare center from the Wisconsin Department of Health and Family Services. There are two categories of state licensed childcare depending upon the number of children in care. Licensed family childcare centers provide care for up to eight children while licensed group childcare centers provide care for nine or more children. Day care facilities located in the City of New London include:

Day Care Center of New London (non-profit)	1825 Division St.
New London Head Start Center	709 W. Pine St.
Robins Nest Learning Center	112 W. Wolf River Ave.
Babes of New London	102 Northridge Dr.
Cat in the Hat	315 N. Shawano St.

4.14 Utilities and Community Facilities Trends and Outlook

The following utilities and community facilities trends are likely to be experienced in the City of New London over the next 20 to 25 years. The following statements are based on recent trends that are expected to continue well into the future or the opinions of municipal staff who deal with these facilities and services.

Administrative Facilities and Services

- ♦ Government budget constraints at all levels will drive the need for intergovernmental cooperation in the delivery of services and programs.

Public Buildings

- ♦ Local government budget constraints will result in increased interest in the use of shared facilities, multi-purpose facilities, and creative use of existing public buildings.

Protective Services

- ♦ The desire for the availability of state-of-the art emergency medical service will likely increase as the City's and Counties' population ages.



Schools

- ♦ Schools and school districts will continue to seek new ways to share services and reduce expenses in order to deal with continued declining enrollment.
- ♦ School districts will continue to face the challenges related to the potential closing of smaller schools and the potential consolidation of school districts.

Parks, Recreation, and Open Space

- ♦ Lands near existing public outdoor recreation areas will continue to be most attractive for potential future public acquisition.
- ♦ City park lands will continue to be more than adequate in land area to serve the population. The continued focus is likely to be on improving existing park facilities rather than on acquiring new parklands.
- ♦ Passive recreation and trail usage will increase partly due to the experiences seen during the Covid-19 pandemic.

Solid Waste and Recycling

- ♦ The desire to control costs will make increased coordination and regionalization of solid waste and recycling services more attractive.

Communication and Power

- ♦ Growing demand for wireless communication services will lead to the construction of additional 5G communication towers, especially near densely populated areas and along major transportation corridors.
- ♦ Electricity demand continues to grow in Wisconsin, as does the number of renewable energy projects.
- ♦ Electric vehicle charging stations will be in higher demand as automakers transition to electric vehicle man
- ♦ An aging power infrastructure will result in a continued need for new and upgraded power transmission lines and power plants.

Sanitary Sewer & Wastewater Treatment

- ♦ Aging sewer system and wastewater treatment infrastructure components will need to be replaced at substantial community costs.



Public Water

- ♦ Aging water system infrastructure components will need to be replaced at substantial community costs.

Stormwater Management

- ♦ Design options for on-site stormwater management facilities will advance to incorporate better use of natural systems like native vegetation and become more aesthetically pleasing and functional for multiple purposes.

Health Care

- ♦ The demand for local health care and elder care facilities is likely to rise as the City's and surrounding communities' population ages.

4.15 Utilities and Community Facilities Plan

Efficient provision of high-quality community facilities and services impacts property values, taxes, and economic opportunities, and contributes to the quality of life in the City of New London. Local features such as parks, schools, utilities, and protective services help define a community. These facilities and services require substantial investment as supported by the local tax base, user fees, and impact fees. As a result, their availability is determined both by public demand for those facilities and services, and by a community's ability to pay for them. Therefore, potential impacts on the cost and quality of utilities and community facilities need to be considered when making decisions concerning the future conservation and development of the City of New London.

The City of New London's plan for utilities and community facilities is to continue to maintain and improve existing facilities. Planned maintenance and improvements to public buildings are a key concern.

The city's sanitary sewer system is another important community investment and is another focus of the city's plan for utilities and community facilities. One of the city's top concerns in the area of community facilities, groundwater quality, crosses the element boundary into the *Natural Resources* element. Groundwater is both a natural resource and a community facility in that it supplies drinking water through municipal wells. Protection of groundwater quality and quantity will continue to be a challenge as the city and surrounding area's pattern of land use changes over time.

The development and maintenance of parks and recreational spaces is another top priority and a 5-year action plan for improvements is contained within the City's Comprehensive Outdoor Recreation Plan. A summary of these priorities is shown in Table 4-2.



Planned Utility and Community Facility Improvements

Comprehensive planning includes identifying the need for expansion, construction, or rehabilitation of utilities and community facilities. In addition to infrastructure needs, there are also service level needs that may arise in the community. For example, additional police service, need for firefighting equipment, or additional park and recreation services may become necessary.

The City of New London has determined that the following utilities, facilities, and services will need expansion, construction, rehabilitation, or other improvement over the planning period. Projects are identified as short-term (1-5 years) and long-term (6-20 years).

Administrative Facilities and Services

Long Term

- ◆ Remove old buildings (old park shop) from Hatten Park.
- ◆ Examine options for the provision of a 30-40 person training room.

Police Services

Short Term

- ◆ Provide an evidence storage yard that is fenced along with a cold storage facility for police purposes.

Fire Protection and EMT/Rescue Services

Long Term

- ◆ Maintain and replace equipment as needed.

Schools

Short Term

- ◆ Share facilities and equipment with the school district and county.

Libraries, Cemeteries, and Other Quasi-Public Facilities

Long Term

- ◆ Improvements to the former library to accommodate an expanded museum.

Parks and Recreation

Short and Long term priorities are illustrated in the CORP's 5-Year Action Plan in Table 4-2.



Table 4-2: City of New London CORP – 5-Year Action Plan

Needed Now 2021-22	Short-Term 2023	Long Term 2024-25	Rationale	2021	2022	2023	2024	2025
GENERAL IMPROVEMENTS FOR ALL PARKS								
ADA Accessible Compliance for all facilities			Goal 1	x		x	x	x
Play apparatus assessment for all parks - update/phase out unsafe pieces			Goal 1	x	x	x	x	x
Continue with the video and social media marketing plan			Goals 1 & 2	x	x	x	x	x
Create a map of kayaking launches and routes and rentals			Goal 5 Recommendation		x			
Develop a lighting plan (includes ball diamonds)			Recommendation				x	x
Develop an Economic Impact Study to measure the value of parks			Recommendation			x		
Create more pet friendly and increase walkability in the City			Recommendation Survey			x	x	
Consider a schedule to update all restrooms within the parks system			Survey		x	x		
Add a new programs and activities for all age groups			Survey	x				
Subtotal of General Priorities: (number of projects)				4	4	6	5	4
TRAILS								
Create a City Bicycle and Pedestrian Plan			Goal 3 Recommendation	x	x			
Consider low maintenance trail linkages to all parks throughout the City – connecting the parks system (fill in gaps)			Survey			x	x	x
Add mile markers/directional arrows to next destination where pertinent (Newton-Blackmour Trail, inner city routes, Hatten Park)			Recommendation Goal 3		x	x		
Work with surrounding communities to create regional connections			Goal 5 Recommendation Survey	x	x	x	x	x
Consider adding a pump single track trails to the area behind the Floral Hill Cemetery			Recommendation	x	x			
Subtotal of Trail Priorities: (number of projects)				3	4	3	2	2

Source: City of New London, 2021.

Solid Waste and Recycling

No short or long term needs

Communication and Power Facilities

Existing facilities are anticipated to be adequate to meet the needs of the city over the planning period.

Sanitary Sewer Service

Short Term

- ♦ Continue to implement Inflow & Infiltration (I&I) program to reduce the amount of unnecessarily treated clearwater.

Long Term

- ♦ Continue to reduce total phosphorus discharges to comply with new permit limits.

Public Water

Short Term

- ♦ Water and electric expansion.



Stormwater Management

Short Term

- ♦ Prepare for future federal regulations regarding storm water retention/treatment which may call for the establishment of a stormwater utility and associated fees.

Health Care and Child Care Facilities

No short term or long-term recommendations have been identified. Existing health care and childcare facilities and services are anticipated to be adequate to meet the needs of the city over the planning period.

Local Roads and Bridges

Short Term

- ♦ Continue to coordinate with the counties and neighboring communities on joint road projects as needed.

4.16 Utilities and Community Facilities Goals and Objectives

Community goals are broad, value-based statements expressing public preferences for the long term (20 years or more). They specifically address key issues, opportunities, and problems that affect the community. Objectives are more specific than goals and are more measurable statements usually attainable through direct action and implementation of plan recommendations. The accomplishment of objectives contributes to fulfillment of the goal.

Goal 1 Provide high quality and cost-effective community facilities and services that meet the existing and projected future needs of residents, landowners, businesses, and visitors.

Objectives

- 1.a. Actively pursue and maintain the highest levels of service from solid waste, natural gas, electrical, telephone, cable, telecommunications, and other technology providers.
- 1.b. Consider the impacts of development proposals on community facilities and services and balance the need for community growth with the cost of providing services.
- 1.c. Pursue additional cooperation between communities to avoid duplication of facilities and increase the cost effectiveness of services provided to residents.
- 1.d. Monitor the need for new, expanded, or rehabilitated services and local government facilities.
- 1.e. Increase coordination of utility and community facility planning with the location of future service areas as guided by the comprehensive plan, environmental considerations, economic development, and growth management policies.
- 1.f. Maintain an adequate level of properly trained staff and volunteers.



Goal 2 **Ensure proper disposal of wastewater to protect public health, groundwater quality, and surface water quality while meeting the needs of current and future residents and businesses.**

Objectives

- 2.a. Plan sewer extensions and treatment facility improvements so that they can be made incrementally as needed in a cost-effective manner.
- 2.b. Encourage the use of existing collection infrastructure and treatment capacity prior to the extension of new infrastructure or construction of new facilities.
- 2.c. Consider the use of sewer assessment policies that will encourage compact development and discourage scattered development.

Goal 3 **Promote stormwater management practices in order to reduce property and road damage and to protect water quality.**

Objectives

- 3.a. Maintain a community stormwater management system that addresses stormwater quality.
- 3.b. Support the preservation of natural open spaces that minimize flooding, such as wetlands and floodplains.
- 3.c. Require the use of stormwater management practices to abate non-point source pollution and address water quality.
- 3.d. Reduce the number of stormwater outfalls (drains) that discharge unmanaged stormwater into wetlands, aquifers, or other environmentally sensitive areas.

Goal 4 **Ensure that the water supply for the community has sufficient capacity, remains drinkable, and is available to meet the needs of current and future residents and businesses.**

Objectives

- 4.a. Continue to monitor groundwater quality and potential contamination issues.
- 4.b. Ensure that water treatment facilities are properly maintained, and plan ahead for major improvements in order to reduce the financial impact on the community.
- 4.c. Consider impacts to groundwater when reviewing proposed development in the community and in areas of extraterritorial jurisdiction.

Goal 5 **Promote effective solid waste disposal and recycling services and systems that protect the public health, natural environment, and general appearance of land uses within the community.**

Objectives

- 5.a. Increase community and citizen involvement in decisions involving the type, location, and extent of disposal facilities and services.
- 5.b. Require major developments to adequately address solid waste disposal and recycling needs.



- 5.c. Increase collection opportunities for the proper recycling and disposal of unique and/or hazardous wastes (e.g., tires, white goods, etc.).

Goal 6 Maintain and enhance recreational opportunities in the community.

Objectives

- 6.a. Recognize the need to accommodate all age groups and abilities in recreational pursuits.
- 6.b. Pursue state, federal, and private funding programs that can aid in the acquisition and development of parks, trails, and scenic and environmentally sensitive areas.
- 6.c. Seek stable funding sources to provide maintenance and operation of community parks and recreational areas.
- 6.d. Identify areas where recreational opportunities should be improved.
- 6.e. Maintain existing, and seek additional, public access to waterways in the community.

Goal 7 Ensure the provision of reliable, efficient, and well-planned utilities to adequately serve existing and future development.

Objectives

- 7.a. Cooperate with other agencies and jurisdictions in the planning and coordination of utilities in order to efficiently serve local and regional growth.
- 7.b. Direct new utility transmission and distribution lines to planned and existing public rights-of-way whenever feasible.
- 7.c. Seek to balance desired service levels with potential negative community impacts when reviewing the proposed design and location of telecommunication, wind energy, or other utility towers.

Goal 8 Encourage improved access to health and childcare facilities.

Objectives

- 8.a. Support requests for the development of properly located and operated childcare facilities.
- 8.b. Support school districts or local community organizations in their sponsorship of childcare programs and early development programs.
- 8.c. Support the development of local health care facilities.
- 8.d. Support improved transportation options to and from regional health care facilities.

Goal 9 Provide a level of police, fire, and emergency services that meets existing and projected future needs of residents and development patterns.

Objectives

- 9.a. Maintain and improve the ISO rating of the fire department.
- 9.b. Increase resident education on ways to reduce the risks of fire (i.e., forest and grass fire prevention) and improve access and response time of emergency



- vehicles to local residences (i.e., driveway design that eases emergency vehicle access).
- 9.c. Maintain the quality of emergency service equipment and facilities and address needs where appropriate.
- 9.d. Maintain beneficial and effective police, fire, and EMS cooperative service agreements.
- 9.e. Maintain a good relationship with Waupaca County and neighboring communities for utilization of additional emergency services when needed.

Goal 10 Promote quality schools and access to educational opportunities.

Objectives

- 10.a. Coordinate planning efforts with the local School District to allow it to anticipate future growth and demographic changes and respond with appropriate facilities.
- 10.b. Maintain support for local libraries in their efforts to increase community education.

4.17 Utilities and Community Facilities Policies and Recommendations

Policies and recommendations build on goals and objectives by providing more focused responses to the issues that the city is concerned about. Policies and recommendations become primary tools the city can use in making land use decisions. Many of the policies and recommendations cross element boundaries and work together toward overall implementation strategies.

Policies identify the way in which activities are conducted in order to fulfill the goals and objectives. Policies that direct action using the word “shall” are advised to be mandatory and regulatory aspects of the implementation of the comprehensive plan. In contrast, those policies that direct action using the words “will” or “should” are advisory and intended to serve as a guide. “Will” statements are considered to be strong guidelines, while “should” statements are considered loose guidelines. The city’s policies are stated in the form of position statements (City Position), directives to the city (City Directive), or as criteria for the review of proposed development (Development Review Criteria).

Recommendations are specific actions or projects that the city should be prepared to complete. The completion of these actions and projects is consistent with the city’s policies, and therefore will help the city fulfill the comprehensive plan goals and objectives.

Policies: City Position

- UCF1 Maintaining the reliability of the community's existing utility infrastructure should be the first priority for capital expenditures.
- UCF2 Substantial capital expenditures (such as the establishment of new facilities or services, or the major expansion or rehabilitation of existing facilities or services) will be supported by an approved Capital Improvement Plan.



- UCF3 New utility systems should be required to locate in existing rights-of-way whenever possible.
- UCF4 On-site stormwater management facilities (e.g., detention basins, swales, ponds, etc.) required for installation by the community should be owned and maintained by private property owners.
- UCF5 If private property owners fail to conduct necessary maintenance to approved stormwater management facilities, the community will conduct the required maintenance at the cost of the property owner.
- UCF6 In locations consistent with the comprehensive plan, the city should support efforts to expand public recreational resources such as parks, trails, waterway access, public hunting and fishing areas, wildlife viewing areas, and the like.
- UCF7 Development of future park sites in the city should consider the following: lighting, walkways, playgrounds, landscaping, playing fields, and restrooms.
- UCF8 Trail development projects supported by the community will have a long-term development plan that addresses ongoing maintenance and funding, presents solutions for possible trail use conflicts, and enhances opportunities for interconnected trail networks.
- UCF9 Municipal utilities and services shall not be extended into farmland or other green spaces unless a plan for their immediate use (e.g., a plot of land division, an area development plan, etc.) is in place.
- UCF10 Utility assessment policies should encourage compact growth and discourage scattered development.
- UCF11 A proposed land division in or near the sewer, water and electric service area will not be approved by the community unless the sewer, water, and electric connection feasibility analysis has been completed and confirmation has been received from the Public Works Committee and Utility Manager.
- UCF12 The cost of a feasibility analysis by the city's engineer and Utility Manager will be the responsibility of the applicant.
- UCF13 Existing on-site sewage treatment systems within the urban area shall be regularly inspected and connected to municipal sewer when available.
- UCF14 New private wells will not be permitted within the urban area.



- UCF15 As public water service becomes available, existing private wells shall be properly abandoned in accordance with local and state regulations and the property connected to the municipal water system.
- UCF16 In order to accommodate increasing childcare needs, licensed in-home day care facilities should be approved by the city in locations consistent with the comprehensive plan and applicable ordinances.

Policies: City Directive

- UCF17 The community will maintain a current, comprehensive outdoor recreation plan in order to plan for park, open space, and trail needs and to maintain eligibility for grant funding programs.
- UCF19 The city will work with water and electric utilities to coordinate expansion of the utilities to accommodate development in the designated areas.
- UCF20 Funding for parkland acquisition and improvement should be budgeted annually.
- UCF21 The community shall make infrastructure investments in the Downtown Commercial areas to maintain property values, encourage in-fill development, and encourage rehabilitation of existing structures.
- UCF22 The city should support managed growth and development in order to avoid significant increases in the demand for community services or facilities.
- UCF23 The city should increase staffing and professional service levels relative to planning, ordinance development and enforcement, and other governmental services as growth takes place and need warrants.
- UCF24 The city should increase administrative facility and public building space as growth takes place and need warrants.
- UCF25 The city should improve emergency service staffing, training, space, and equipment in order to achieve desired response times and increase the quality of service as growth takes place and need warrants.
- UCF26 Suitable lands for neighborhood parks should be incorporated into the design of new, residential subdivisions.
- UCF27 The city should support efforts of local school districts to improve educational services and facilities as growth takes place and need warrants.
- UCF28 The city shall support efforts to improve local library facilities and services as growth takes place and need warrants.



Policies: Development Review Criteria

- UCF29 Planned utilities, public facilities, and roads shall be designed to limit the potential negative impacts to natural resources such as shoreline areas, wetlands, floodplains, wildlife habitat, woodlands, existing vegetation, and existing topography.
- UCF30 Planned utilities, public facilities, and streets shall be designed to limit the potential negative impacts on attractive community entrance points, historic sites, and archeological sites.
- UCF31 New development shall include community approved stormwater management facilities.
- UCF32 New developments should install on-site stormwater management facilities (e.g., detention basins, swales, ponds, etc.) in order to reduce the need for costly expansions of the storm sewer system.
- UCF33 Public parking areas should be designed to limit the potential negative impacts on small town character as defined by attractive community entrance points, safe, well-kept neighborhoods, abundant natural resources and green space, and vital downtown.
- UCF34 Where possible, parking lots should be placed to the rear or side of buildings and screened with landscape features to reduce their visual impact on the community.
- UCF35 The landowner or applicant requesting a land division shall meet with the city's engineer and Utilities Manager if a proposed land division occurs within or in close proximity (guideline 500 feet) to the sewer or water service area.
- UCF36 A proposed land division in or near the sewer, water, and electrical service area shall be reviewed by the city's engineer and Utility Manager to estimate the feasibility and cost of extending utility service to the land division.
- UCF37 New development will not be approved unless it is first determined that adequate public facilities and services are currently available, are planned for the future, or are proposed for expansion or improvement as part of the development.
- UCF38 Unsewered subdivisions approved in extraterritorial areas shall be designed to protect the immediate groundwater supply through the proper placement and operation of private wells and on-site wastewater treatment systems.
- UCF39 Solid and hazardous waste handling and disposal sites shall be located and designed to protect surface water and groundwater quality. They should be located outside of municipal wellhead protection areas and in areas of low to moderate groundwater contamination risk.



- UCF40 Solid or hazardous waste disposal, transfer, or handling facilities shall be located in areas where conflicts with existing or planned land uses can be minimized or mitigated.
- UCF41 Telecommunication, wind energy, and other utility towers should be designed to be as visually unobtrusive as possible, support multi-use and reuse, and be safe to adjacent properties.
- UCF42 Proposed telecommunication, wind energy, and other utility towers shall address potential impacts on surrounding residential properties, alternative tower locations, setbacks from highways and other structures, provisions for abandonment, property access, lighting, and site security.
- UCF43 New development near school facilities shall be limited to land uses that do not pose threats to public health or safety, produce little noise, generate minimal traffic, and are consistent with the applicable area development plan.

Recommendations

1. Annually review intergovernmental agreements for their effectiveness and efficiency.
2. Evaluate and provide constructive feedback to Waupaca and Outagamie Counties on services provided to the community.
3. Utilize intergovernmental efficiencies to provide needed service and facility improvements.
4. Assess capacity and needs regarding administrative facilities and services and public buildings every five years.
5. Assess staffing needs and employee retention strategies, equipment, and training levels annually.
6. Assess staffing and professional service needs relative to planning, ordinance development and enforcement, and other governmental services on an annual basis.
7. Evaluate police, fire, and rescue service staffing, training, and equipment needs annually.
8. Determine which lands within the community would enhance the park and open space system based on overall recommendations of the comprehensive plan, particularly along the riverfront. Attempt to acquire these lands.
9. Review land divisions in the extraterritorial area and evaluate their impact on planned parks and rights-of-way.



10. Coordinate the development of comprehensive outdoor recreation plans based on the comprehensive planning effort.
11. Develop or update the Sewer, Water and Electrical Service Area plan based on the results of the comprehensive plan.
12. Require major land divisions, conditional uses, and other substantial development projects to submit an assessment of potential natural resources impacts, including impacts on groundwater quality and quantity, as part of the development review process.
13. Utilize site planning and limits of disturbance regulations to protect groundwater recharge areas.
14. Modify local building codes and applicable land division and zoning ordinances to include improved stormwater management and construction site erosion control requirements.
15. Implement procedures to ensure that public and private stormwater collection, retention/detention, and treatment systems are properly maintained. Require financial assurance for necessary maintenance activities.

4.15 Utilities and Community Facilities Plans and Programs Currently in Use

The following plans and implementation programs are currently available for use in the City of New London with regard to utilities and community facilities.

Local Plans and Programs

2020-2024 Capital Projects Schedule

These five-year plans are completed to identify major projects, provide estimated costs, and allow for appropriate budgeting of funds. A capital projects schedule was completed most recently in 2020 and includes street projects and park and recreation facility improvements.

City of New London Open Space and Recreation Plan, 2021-2025 (adopted in Dec. 2020)

This plan inventoried the city's existing park and recreation facilities, assessed recreational needs, and provided goals, objectives, and recommendations for the future. To maintain eligibility for state parkland acquisition funds, an outdoor recreation plan must be completed or updated within the last five years.

Wellhead Protection Plans

These plans (and ordinances) are produced to meet the WDNR requirements for wellhead protection planning. The plans delineate the approximate location of a well's recharge area and zone of groundwater contribution. Potential sources of contamination are also inventoried and regulated.



County Plans

Waupaca County Outdoor Recreation Plan, 2021

The *Waupaca County Outdoor Recreation Plan* dates back at least to 1971 with the most up to date plan being adopted in 2021. The purpose of the plan is to identify changing recreational needs, assess potential opportunities, evaluate the status of the county's natural and cultural resources, and to present appropriate recommendations that will provide a planned system of parks and recreation areas that contain a diversity of recreational activities while preserving scenic and valuable resources important to the ecological, sociological, and economic life of Waupaca County.

Outagamie County Outdoor Recreation Plan, 2021

The *2022-2026 Outagamie County Outdoor Recreation Plan* was recently updated and adopted 2021. The purpose of the plan is to identify changing recreational needs, assess potential opportunities, evaluate the status of the county's natural and cultural resources, and to present appropriate recommendations that will provide a planned system of parks and recreation areas that contain a diversity of recreational activities while preserving scenic and valuable resources important to the ecological, sociological, and economic life of Outagamie County.

Regional Plans

Outdoor Recreation and Open Space Plan Component of the East Central Wisconsin Regional Planning Commission's Regional Comprehensive Plan - 2008

This document describes the natural and recreational resources of East Central Wisconsin, identifies the problems and issues of open space planning, and offers a set of goals, objectives, policies, standards, and recommendations to meet the region's recreational needs and protect its resources. The report also summarizes techniques for regulating and acquiring open space areas for recreational purposes, and lists funding programs available for implementation of the plan. This plan component is in the process of being updated out to a time horizon of 2045.

Federal Programs

Assistance to Firefighting Grant Program

The program is administered by the U.S. Fire Administration (USFA), part of the Federal Emergency Management Agency (FEMA). The program assists rural, urban, and suburban fire departments to increase the effectiveness of firefighting operations, expand firefighting health and safety programs, purchase new equipment, and invest in EMS programs. For information regarding the grant contact FEMA Grant Program staff at 1-866-274-0960. For the most current information regarding grant awards and any other USFA projects, visit www.usfa.fema.gov.



State Programs

Community Development Block Grant for Public Facilities (CDBG-PF)

The Wisconsin CDBG Public Facilities Program is designed to assist economically distressed smaller communities with public facility improvements. Eligible projects include, but are not limited to, publicly owned utility system improvements, streets, sidewalks, community centers. Federal grant funds are available annually. The maximum grant for any single applicant is \$1M. Grants are only available up to the amount that is adequately justified and documented with engineering or vendor estimates.

Community Development Block Grant Public Facilities for Economic Development (CDBG-PFED)

The CDBG Public Facilities for Economic Development Program helps underwrite the cost of municipal infrastructure necessary for business development that retains or creates employment opportunities. Eligible activities are improvements to public facilities such as water systems, sewerage systems, and roads that are owned by a general or special purpose unit of government, and which will principally benefit businesses, and which as a result will induce businesses to create jobs and invest in the community.

Tax Incremental Financing (TIF)

TIF can help a municipality undertake a public project to stimulate beneficial development or redevelopment that would not otherwise occur. It is a mechanism for financing local economic development projects in underdeveloped and blighted areas. Taxes generated by the increased property values pay for land acquisition or needed public works. The original Tax Incremental Financing (TIF) program was created in 1975. Changes over the decades have generally expanded the program and added additional flexibility and opportunity. TIF is authorized under 66.1105 Wis. Stats. for cities and villages and under 60.85 Wis. Stats. for towns. A TIF is based on two working principles:

- ♦ New private development expands the municipality's tax base, thereby increasing property tax revenues.
- ♦ If the municipality must provide public improvements to attract the development, the overlying tax districts that benefit from the resulting increase in the community's tax base should share in the cost of the public improvements.

A city or village can designate a specific area within its boundaries as a TIF district and create a plan to develop it. TIF district creation should begin by determining financial feasibility and completing a cash flow analysis. If the project proves to be financially feasible then a project plan must be completed.

Meetings with local governing bodies and the Joint Review Board, including a public hearing, are then required. Assuming all approvals have been met, a proposed TIF can be submitted to the Wisconsin Department of Revenue (WDOR) for approval. For more detailed information on developing a district and meeting statutory requirements, contact the WDOR.



Wisconsin Department of Public Instruction (DPI)

The Wisconsin Department of Public Instruction offers several grants, programs, and aid to communities with respect to school facilities, services, and education improvement. Through the DPI web-site, www.dpi.state.wi.us, a link titled Grant Information offers a comprehensive listing of available grants (ordered alphabetically with ID number, description, and type of grant). Links are provided to pages with grant details, special requirements, and contact information.

State Infrastructure Bank Program

The State Infrastructure Bank Program is a revolving loan program that helps communities provide transportation infrastructure improvements to preserve, promote, and encourage economic development and/or to promote transportation efficiency, safety, and mobility. Loans obtained through SIB funding can be used in conjunction with other programs. Contact Dennis Leong, Department of Transportation, 608/266-9910.

Aids for the Acquisition and Development of Local Parks

Funds are available to assist local communities in acquiring and developing public outdoor recreation areas as per s. 23.09 (20), Wis. Stats. Counties, towns, cities, villages, and Indian Tribes with an approved Comprehensive Outdoor Recreation Plan are eligible to apply. The program is offered from the WDNR, Bureau of Community Financial Assistance. There is a 50% local match required. Awards are granted on a competitive basis. Acquisition and development of public outdoor recreation areas are eligible projects. Priority is given to the acquisition of land where a scarcity of outdoor recreation land exists.

All-Terrain Vehicle Program (ATV)

Funds are available to accommodate all-terrain vehicles through the acquiring, insuring, developing, and maintaining of all-terrain vehicle trails and areas, including routes as per s. 23.33, Wis. Stats. Counties, towns, cities, and villages are eligible to apply. The program is offered from the WDNR, Bureau of Community Financial Assistance. Assistance is provided for the following, in priority order: 1) maintenance of existing approved trails and areas, including routes; 2) purchase of liability insurance; 3) acquisition of easements; 4) major rehabilitation of bridge structures or trails; and 5) acquisition of land in fee and development of new trails and areas.

Clean Water Fund Program

Funds are available to protect water quality by correcting existing wastewater treatment and urban storm water problems and preventing future problems as per s. 281.58 and 281.59, Wis. Stats. Cities, towns, villages, counties, town sanitary districts, public inland lake protection and rehabilitation districts, metropolitan sewerage districts, and federally recognized tribal governments are eligible to apply. Eligible projects include construction of treatment works, sewer systems, interceptors, and urban stormwater runoff treatment systems. Projects that are necessary to prevent violation of discharge permits, meet new or changed discharge limits, or correct water quality or human health problems in unsewered areas may receive priority for funding. Low interest loans are available for planning, design, and construction of wastewater treatment projects and urban storm water runoff projects approved by the Department. The program is offered by the WDNR.



Safe Drinking Water Loan Program

Funds are available to plan, design, construct, or modify public water systems. Counties, towns, cities, and villages are eligible to apply. Low interest loans are provided at 55% of the Clean Water Fund Program market interest rate. Under certain circumstances, a municipality may be eligible for a loan at 33% of the Clean Water Fund Program's market interest rate. A municipality must send the department a notice of its intent to apply for assistance by December 31 of the fiscal year preceding its application. Applications must be submitted on or before April 30. Applications are approved following a project priority ranking, eligibility determination, and a determination by the Department of Administration that the applicant meets financial conditions. For more information contact the WDNR.

Recreational Boating Facilities

Funds are available for the construction of capital improvements to provide safe recreational boating facilities and for feasibility studies related to the development of safe recreational facilities. Counties, towns, cities, villages, sanitary districts, public inland lake protection and rehabilitation districts, and qualified lake associations are eligible to apply. Cost sharing is provided up to 50% for feasibility studies, construction costs, and certain types of acquisition costs. An additional 10% may be available if a municipality conducts a boating safety enforcement and education program approved by the WDNR.

Household Hazardous Waste Collection Grant (Clean Sweep)

Funds are available to municipalities to create and operate local "clean sweep" programs for the collection and disposal of household hazardous waste. Any type of program for the collection and disposal of household hazardous wastes, including permanent collection programs, are eligible. The program is offered from the WDNR, Bureau of Community Financial Assistance.

Municipal Flood Control Grant Program

This program provides 70% cost-sharing grants to cities, villages, towns, and metropolitan sewerage districts to acquire or floodproof structures, purchase easements, restore riparian areas, or construct flood control structures. Applications would be ranked based on avoided flood damages, restoration, or protection of natural and beneficial functions of water bodies, use of natural flood storage techniques or environmentally sensitive detention ponds and enhanced recreational opportunities.

Recycling Grants to Responsible Units

Funds are available to provide financial assistance to local units of government to establish and operate effective recycling programs. "Responsible units" (the local unit of government responsible for implementing the recycling program) are eligible to apply. A responsible unit with an effective recycling program is eligible for grant assistance to cover the cost of the program, minus the revenues derived from the sale of recovered materials, which are reasonable and necessary for planning or operating a recycling and yard waste management program. The program is offered from the WDNR, Bureau of Community Financial Assistance.



Urban Non-point Source and Stormwater Grants (UNPS and SW)

Governmental units are eligible for grants to improve urban water quality by limiting or ending sources of urban non-point source (run-off) pollution. Funded projects are site-specific and targeted to address high-priority problems in urban project areas. Two types of programs are available for UNPS and SW projects, planning grants and construction grants.

Stormwater planning projects must currently be in an urban area, or an area projected to be urban within 20 years to be eligible for funding. An "urban project area" must meet one of four criteria. Governmental units can be reimbursed up to 70% for eligible planning activities (awards not to exceed \$85,000). Eligible activities include, but are not limited to, stormwater planning, preparation of local ordinances, and evaluating financing options for stormwater programs including utilities.

Construction projects designed to control storm water runoff rates, volumes, and discharge quality from non-point sources within existing development are eligible for UNPS and SW construction grant funding. Governmental units can be reimbursed up to 50% to construct Best Management Practices (BMP). The maximum possible grant is \$200,000. A project must be located in an urban area to be eligible for BMP cost sharing. Eligible activities include, but are not limited to, construction of BMPs, engineering design, land acquisition, and shoreland stabilization.

All projects are selected for funding based on a competitive process. For further information on these grants contact the WDNR Bureau of Watershed Management or Bureau of Community Financial Assistance.



5. Agricultural, Natural, and Cultural Resources

This element of the comprehensive plan provides an inventory and assessment of the agricultural, natural, and cultural resources of New London. Land development patterns are directly linked to the agricultural, natural, and cultural resource base of a community. This resource base has limitations with respect to the potential impacts of development activities. Development should be carefully adjusted to coincide with the ability of the agricultural, natural, and cultural resource base to support the various forms of urban and rural development. If a balance is not maintained, the underlying resource base may deteriorate in quality. Therefore, these features need to be considered when making decisions concerning the future conservation and development of the City of New London.

5.1 Soils

The use and management of soil has many impacts on the City of New London. Soil forms the foundation that all other ecosystems depend upon – plant life, wildlife, streams, wetlands, and lakes. Soils may also pose limitations to our use of the land in activities such as agricultural production, forestry, building development, and road construction.

A soil survey for both Waupaca and Outagamie Counties have been completed by the United States Department of Agriculture, Natural Resource Conservation Service (formerly, the Soil Conservation Service) in the 1980's. These surveys identify broad soil types are grouped into thirteen (13) soil associations (across both counties) that can be used to compare the suitability of large areas for general land uses. Soil associations are groupings of soils that share a distinctive pattern of soils, relief, and drainage. Within the City of New London, seven of these 13 soil associations exist as follows:

- **Hortonville-Symco Association:** These loamy soils, generally found in upland areas, contain a high proportion of clay relative to other soils in Waupaca County. Clay content is found in subsurface layers of these soils, which leads to poor drainage in lower areas of the landscape. The primary land cover for this soil association is agriculture. This association includes soils that are highly productive for both agriculture and woodland management. Erosion and wetness can be challenges for agricultural uses. Hortonville soils pose few limitations for development, but Symco soils pose severe limitations related to wetness.
- **Borth-Poy Association:** These silty and loamy soils formed in glacial lake basins. These areas generally have gentle slopes but are interspersed with knolls and ridges. The primary land cover is agriculture, but the extent of the association also includes the urbanized areas of New London, Weyauwega and Fremont. This association includes soils that are highly productive for agriculture but need artificial drainage in many cases. Both wetness and instability of excavated areas can be limitations for development.



- **Waupaca-Wega-Zurich Association:** These silty soils formed in glacial lake basins. These areas generally have level terrain with some knolls and ridges. The primary land cover is agriculture. This association includes soils that are highly productive for both agriculture and woodland management, which need artificial drainage in many cases. Both wetness and instability of excavated areas can be limitations for development.
- **Plainfield-Richford-Kranski Association:** These sandy, well-drained soils are found in association with glacial landscape features known as outwash plains. These soils support a mixture of agricultural, forested, and urban land uses. Many soils found in this association have limitations for agriculture and forestry due to high potential for erosion and shallow depth of soil. These soils can pose challenges for development, as excavations can be unstable during construction.
- **Cathro-Markey-Seelyeville Association:** These organic “muck” soils are found in low lying areas and floodplains. These soils pose severe limitations for most uses but help provide many of the functional benefits of wetlands and floodplains.
- **Menominee-Grays-Rousseau association:** Well drained and moderately well drained, nearly level to sloping, coarse textured and medium textured, moderately to rapidly permeable soils underlain by lacustrine silt loam and very fine sand, windblown fine sand, or sandy loam glacial till.
- **Carbondale-Keowns-Cathro Association:** Very poorly drained and poorly drained, nearly level, organic and medium textured, moderately slowly permeable to moderately rapidly permeable soils that are underlain by lacustrine silt and fine sand, organic material, or loamy sediments.

5.2 Agriculture and Farmland

Agriculture Connections

While agriculture is not a significant land use within the City of New London, accounting for approximately 10% of its land area, there is undoubtedly a connection to the City’s economy from the production of food and fiber within the area. Agriculture supports equipment and implement manufacturers, dealers, and repair technicians, the vegetable and meat processing industries, the construction trade, trucking, veterinary services, genetic research, and many others.

Agriculture is also connected to Wisconsin’s culture and heritage. Barns, cows, fields, and silos paint the scene that so many define as Wisconsin’s rural character. Farm families include some of the earliest settlers of many areas and provide a sense of continuity to a community. Public opinion surveys conducted by the American Farmland Trust, the U.S. Department of Agriculture, the American Farm Bureau, Wisconsin counties, and other local units of government show that Wisconsin citizens place a high value on the presence of agriculture and agricultural lands.



Agriculture has many considerations relative to the natural environment, both positive and negative. Farms provide green space, wildlife habitat, enhanced groundwater recharge, and nutrient recycling. Farms can also be sources of soil erosion, polluted runoff, odors, and damage to riparian areas.

Agriculture is connected to other land uses. The distance from farm related services, markets for farm commodities, processing industries, and other critical land uses can determine the long term success of an agricultural area. Certain recreational land uses, like hunting and snowmobiling, benefit from the presence of agricultural lands.

Agriculture is linked to transportation issues. Agriculture brings large vehicles to rural roads including farm equipment and heavy trucks. These rural roads are rarely constructed to manage the size and weight of such large vehicles. This often contributes to traffic issues, the posting of weight limits, and increased local expenditures for road maintenance.

Local Agricultural Resources

Map 8-1 (existing land use) shows the general pattern of land used for agriculture in and around the City of New London. Major areas of farmland exist on three sides of the City, with lands to the west of its boundary dominated by wetlands. Areas not being farmed typically have characteristics not conducive to farming (steep slopes, wetlands, etc.) or have been developed over time. In 2021, approximately 356 acres of agricultural land exist within the City of New London. Of this, approximately 242 acres are planned to be utilized to accommodate new development over the 20 year planning period.

5.3 Forests

Forests are important to the county's resource base, culture, and economy. Forests provide wildlife habitat, recreational opportunities, timber and pulpwood, educational opportunities, and contribute to the county's rural atmosphere.

Historic Conditions

Prior to European settlement in the mid-1800s, Waupaca and Outagamie Counties were almost completely forested and were centers for the lumber industry before agriculture and industry became predominant. Early settlement patterns were tied closely to forest resources, as villages formed around the sawmills. Native forest types varied widely in the county according to the WDNR map, *Original Vegetative Cover of Wisconsin* (1976). The City of New London is located within the tension zone, where southern deciduous forests are intermingled with northern coniferous forest types. Within the City of New London, the historic vegetation was comprised of Northern Mesic Forest species such as Maple, Hemlock and Yellow Birch.



Urban Forests

Urban forests consist of all the trees and other vegetation in and around a community. This includes not only tree-lined streets, but also trees in home landscapes, school yards, parks, riverbanks, cemeteries, vacant lots, utility rights-of-way, and anywhere else trees can grow. Shrubs, flowers, vines, ground cover including grasses, and a variety of other wild plants and animals are also components of the urban forest system. Urban trees provide functions and benefits with respect to stormwater management and temperature regulation. Urban trees provide energy savings through shading and by reducing the effects of “heat islands” that come from paved surfaces. The City of New London has been recognized by the National Arbor Day Foundation with the “Tree City USA” designation in 1992. The City’s Parks, Recreation and Leisure Committee is responsible for overseeing activities related to urban forestry and they coordinate closely with the Department of Public Works. Over the years, the City has done a significant amount of work related to street tree inventories, tree maintenance, and new tree planting.

5.4 Topography

The topography of the City and surrounding area is primarily the result of glacial activity. Elevations in just Waupaca County range from about 750 to 1,200 feet above sea level. The City of New London lies in an area characterized by lowlands and swamps with an average elevation of approximately 767 feet above sea level. The highest elevations are found in the southwestern portion of the City along/near Beckert Road (880 feet above sea level). Based on soils data, there are no steep slopes (12% or greater) within the community (Map 5-2)

5.5 Geology

The bedrock and glacial geology of play a crucial role in planning for future development. Geological features directly influence other natural resources like topography, soils, surface water, and groundwater. Geology is an important consideration for development activities, and areas of concern include structural stability, groundwater interaction, and the provision of non-metallic minerals.

An understanding of the City’s geology can be gained by examining glacial features and the underlying bedrock formations. According to the map *Bedrock Geology of Wisconsin* (WGNHS 1995), the eastern portion of Waupaca County and western portion of Outagamie County are underlain by Cambrian sandstone with some dolomite and shale. These sandstone formations can be from 300 to 500 feet thick and generally contain a readily available groundwater aquifer. Many municipal wells draw water from these aquifers. The depth to bedrock in the City varies from 50 feet to greater than 100 feet and no areas of shallow bedrock (less than 5 feet) are known to exist.

Glacial activity is responsible for much of the visible geology of the City and surrounding area including the topographic highs and lows of the landscape. The City of New London sits within a glacial lake basin. The bottomlands of the Wolf River now occupy this glacial lake basin.



5.6 Metallic and Non-Metallic Mineral Resources

Metallic and non-metallic mineral resources are concentrations of naturally occurring solid materials in or on the earth's crust which occur in such a form or amount that economic extraction of a commodity from the concentration is currently or potentially feasible. Metallic mineral resources include such substances as nickel, copper, lead, iron, gold, and zinc. Non-metallic mineral resources include sand, gravel, topsoil, clay, and stone.

Wisconsin Administrative Code NR 135 requires that all counties adopt and enforce a Non-metallic Mining Reclamation Ordinance that establishes performance standards for the reclamation of active and future non-metallic mining sites, but not abandoned sites. It is intended that NR 135 will contribute to environmental protection, stable, non-eroding sites, productive end land use, the potential to enhance habitat, and increased land values and tax revenues. In response to NR 135, The Waupaca County Board enacted the *Waupaca County Non-Metallic Mining Reclamation Ordinance* in June of 2001. The East Central Regional Planning Commission (ECRPC) administers the NR 135 reclamation program for Waupaca County.

There are currently no metallic or non-metallic mines within the City of New London's borders, however; one operating non-metallic mine does exist along its boundaries (Figure 5.1 and Map 5-2). The Nysee Pit, operated by Wieckert Sand & Gravel, is located along the south side of Beckert Road and contains approximately 8 acres of operational area (labeled as area C). An additional 13 acres (labeled as area D) are identified as being reserve materials and the operations will likely expand into these areas over the next 5 to 10 years.

Figure 5.1: Nysee Pit Boundaries, 2021



Source: ECWRPC, 2021

5.7 Wetlands

Wetlands may be seasonal or permanent and are commonly referred to as swamps, marshes, fens, or bogs. Wetland plants and soils have the capacity to store and filter pollutants ranging from pesticides to animal wastes. Wetlands provide storage of flood waters, preventing damage to developed areas. Wetlands can make lakes, rivers, and streams cleaner, and drinking water safer. Wetlands also provide valuable habitat for fish, plants, and animals. Nation-wide, more than one third of endangered species require wetlands during a stage of their life cycle. In addition, some wetlands can also provide the replenishment of groundwater supplies. Groundwater discharge is common from wetlands and can be important in maintaining stream flows, especially during dry months.

The loss of wetlands leads to a loss of the functional values that they provide. For example, as the natural capacity for flood storage is reduced in urban areas, it must often be replaced with storm sewers, detention basins, and other stormwater management structures at a cost to the community. According to a UW-Extension study (*An Introduction to Wetland Resources*, Robinson), Wisconsin has experienced an estimated loss of 50% of its wetlands since European settlement. State-wide, there were approximately 10 million acres of wetlands in 1600, compared to approximately 5 million acres in 2000.

The Wisconsin Department of Natural Resources (WDNR) currently has inventory maps for Waupaca County wetlands five acres and larger. The official Wetland Inventory Map should be consulted in conjunction with this document whenever communities review development proposals in order to preserve wetland functions and to ensure regulatory compliance.

According to the WDNR, there are approximately 486 acres of wetlands in the City of New London, covering about 12.5% of the landscape. Refer to Map 5-1 for the locations of WDNR mapped wetlands (excluding point symbols, or mapped wetlands smaller than five acres).

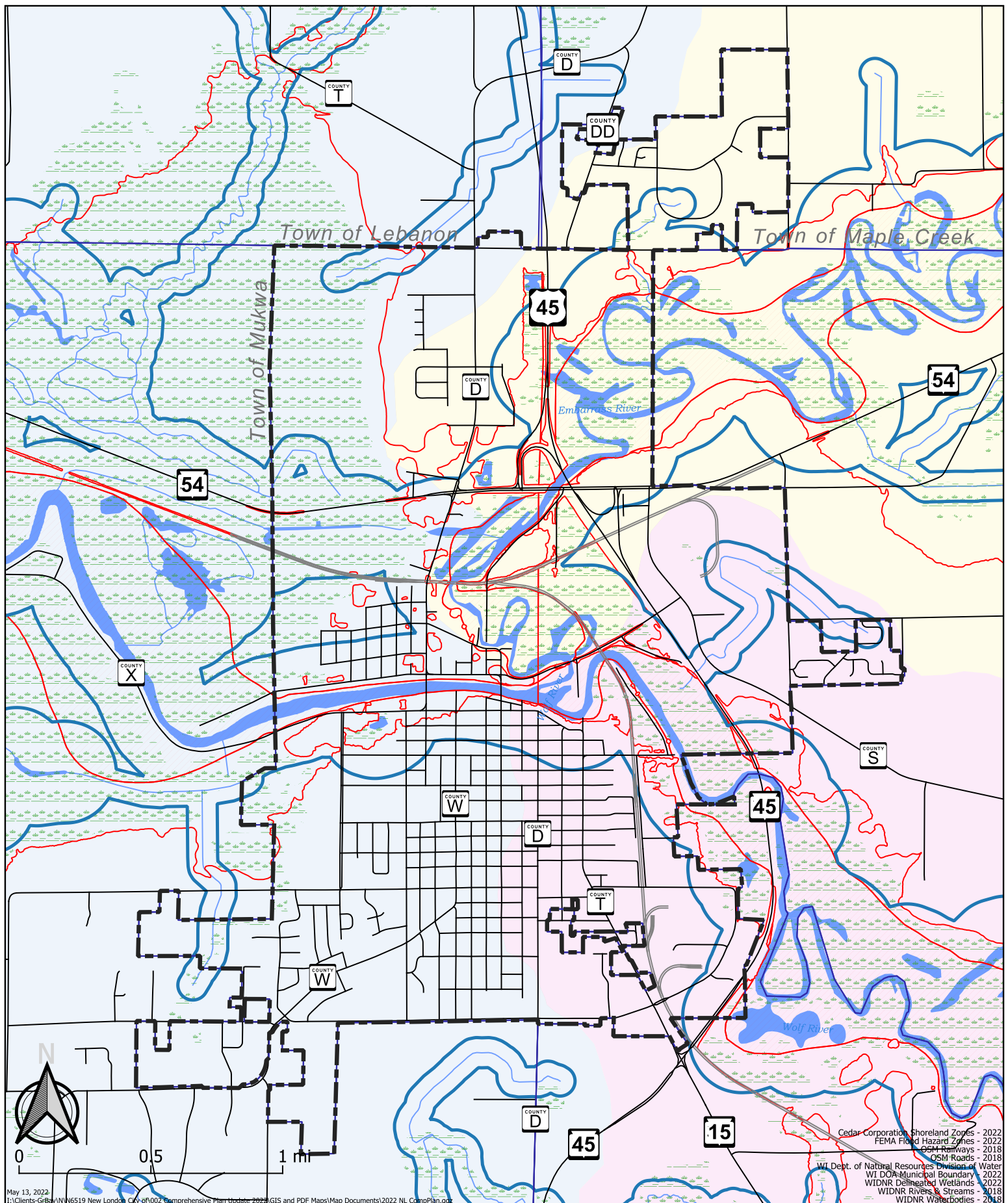
Due to the significant environmental functions served by wetlands, there is a complex set of local, state, and federal regulations which place limitations on the development and use of wetlands (and shorelands). The WDNR has regulatory authority over filling, dredging, draining, and similar activities in most Wisconsin wetlands. Counties are mandated to establish shoreland- wetland zoning districts for wetlands near lakes, rivers, and streams. In addition, the U.S. Army Corps of Engineers has authority over the placement of fill in wetlands connected to federally navigable waterways, while the USDA incorporates wetland preservation criteria into its crop price support programs. Therefore, prior to placing fill or altering a wetland resource, the appropriate agencies must be contacted to receive authorization.

5.8 Watersheds

A watershed is an area of land from which water drains to a common surface water feature, such as a stream, lake, or wetland. In Wisconsin, watersheds vary in scale from major river systems to small creek drainage areas, and typically range in size from 100 to 300 square miles. River basins can contain several watersheds.

The City of New London is located entirely within the Wolf River basin. Three separate watersheds within the basin converge at the City of New London, where the Embarrass River meets the Wolf River. These include the Bear Creek-Wolf River Watershed, Bear Creek – Embarrass River Watershed, and the Partridge Lake – Wolf River watershed.





5-1 Water Resources

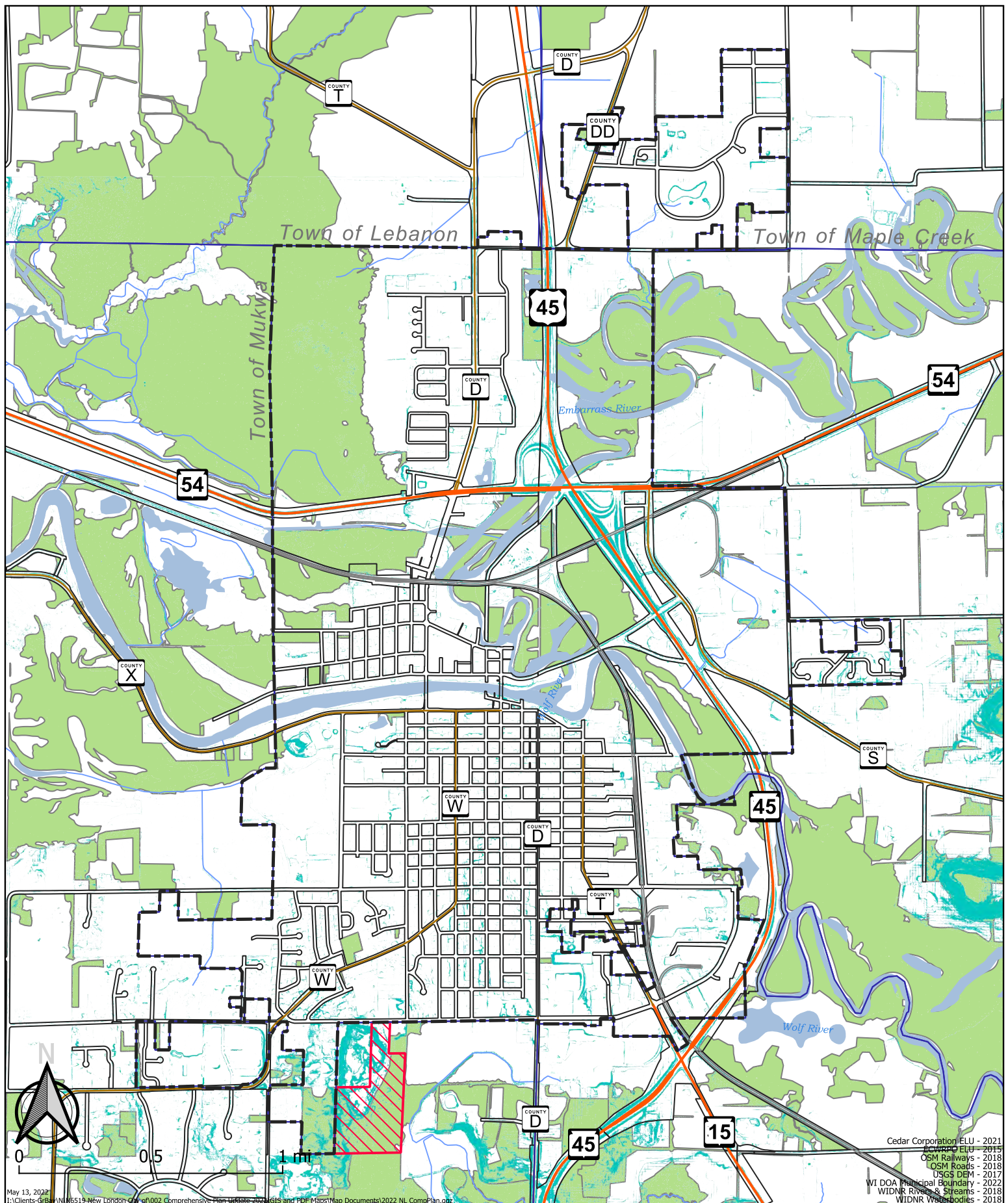
City of New London
Outagamie & Waupaca Counties, WI

- WIDNR Delineated Wetlands
- FEMA Floodway
- FEMA Floodplain
- Shoreland Zoning

Watersheds

- North Branch and Embarras
- Wolf River and Bear Creek
- Lower Wolf River

Cedar Corporation Shoreland Zones - 2022
 FEMA Flood Hazard Zones - 2022
 GSN Railways - 2018
 GSN Roads - 2018
 WI Dept. of Natural Resources Division of Water
 WI DNR Municipal Boundary - 2022
 WIDNR Delineated Wetlands - 2022
 WIDNR Rivers & Streams - 2018
 WIDNR Waterbodies - 2018



5-2 Environmental Features

City of New London
Outagamie & Waupaca Counties, WI

- Areas with Greater than 20% Slope
- Forested Areas
- Active Non-Metallic Mines



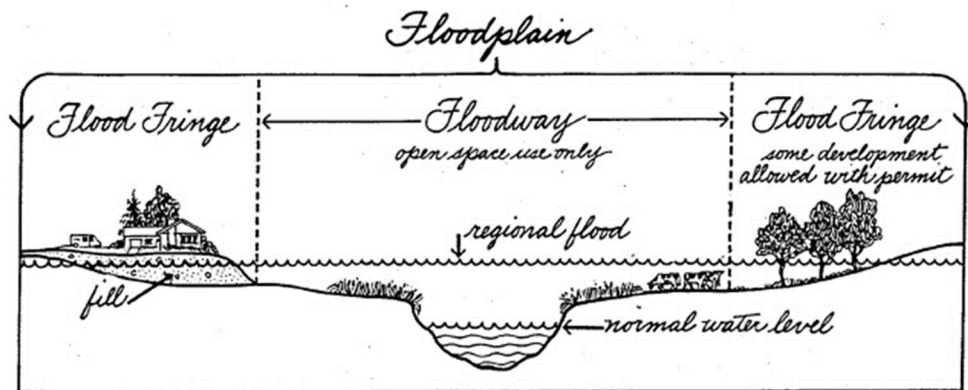
5.9 Floodplains

Floodplains are areas which have been or may become inundated with water during a regional flood. Floodplains are comprised of two components, the floodway and floodfringe.

Floodways are areas which directly adjoin the channel of a stream and are characterized by deep, fast moving water. The floodway is typically the most dangerous part of a floodplain and uses in this area should be limited to conservation areas or open space.

The floodfringe is generally associated with standing, or slow flowing water adjacent to the floodway. Development within the floodfringe is generally accepted, provided adequate flood proofing measures are in place. Wisconsin statutes direct all Wisconsin counties, cities, and villages to adopt floodplain zoning ordinances. The Federal Emergency Management Agency (FEMA) has mapped flood plains in the planning area. These maps delineate the entire flood plain boundary, and do not distinguish between floodway and floodfringe.

Figure 5-2: Floodplain Illustration



Source: Wisconsin DNR

As mapped by FEMA (Map 5-1) floodplains in the City of New London generally follow the Wolf and Embarrass River corridors closely. This indicates minimal risk of flooding beyond the immediate vicinity those rivers with the exception of some lands located south of the river between Wyman Street and Werner-Allen Road where the floodplain extends up to West Spring Street in places.

5.10 Surface Water Features

The City and surrounding area's surface waters provide fish and wildlife habitat, tourism and recreation opportunities, scenic beauty, and for many, a sense of peace and quiet and connection to the natural world. According to the land use inventory (Chapter 8), about 152 acres of water (4% of the City's area) exist within the City's boundaries. Refer to Map 5-1 for the locations of New London's surface water features.

Rivers and Streams

Wolf River

The Wolf River flows through western Outagamie County and eastern Waupaca County and is one of the state's largest river systems. The Wolf River originates in Forest County north of Crandon and flows through Oneida, Langlade, Menominee, Shawano and Outagamie Counties before it reaches Waupaca County and the City of New London. The Wolf River then flows through Winnebago County where it empties into Lake Poygan. Although the Wolf River has some water quality issues, it contains a vast fishery, supports many recreational activities, and is found in conjunction with many of the rare unique natural features of the county and region. Most of the Wolf River is classified by the WDNR as a warm water sport fishery with about 52 miles of the upper reaches classified as a cold water Class II trout stream. North of Menominee County, the Wolf River is considered an Outstanding Resource Water.

Embarrass River

The Embarrass River originates in Shawano County and briefly flows through northeast Waupaca County in the Town of Matteson. It then flows through Outagamie County until it converges with the Wolf River in New London. The Embarrass River is classified by the WDNR as a warm water sport fishery and recognized as an Exceptional Resource Water. Several of the Embarrass River's tributaries are classified as trout streams and designated as Outstanding Resource Waters.

Lakes

There are only two lake/pond features within the City of New London. A small unnamed natural lake adjacent to the City's Highway Garage on W. Wolf River Avenue, and one larger private pond surrounded by residential development located south of W. Martin Street and west of Dexter Street.

5.11 Groundwater

Groundwater is the source of nearly all drinking water in the City of New London and supplies many agricultural and industrial processes as well. Groundwater is a limited resource, and both its quality and quantity are important factors. These factors are primarily influenced by local geology and local land use.

The quality and quantity of groundwater vary widely throughout Waupaca County. According to the *2022-2031 Waupaca County Land and Water Resource Management Plan* (2021), groundwater conditions in the eastern portions of Waupaca County are distinctly different than those in the western portions. Groundwater in the eastern part of the county, where soils contain more clay, is generally less available and recharges more slowly. A larger percentage of precipitation runs off the land into surface waters rather than soaking through the soil and into the groundwater aquifer. As a result, groundwater is generally less susceptible to contamination in these areas.



5.12 Water Quality

Surface water and groundwater quality in the City of New London are influenced both by natural and developed conditions. Development factors that influence water quality include point and non- point sources of water pollution, the amount of impervious surface in a watershed, the potential pollution sources related to a particular land use, and the degree to which mitigation measures have been used. Natural factors that influence water quality include soils, geology, topography, climate, vegetation types, and the water cycle. Included in this inventory are state and federal listings for poor (Impaired Waters) and very high (Outstanding and Exceptional Resource Waters) surface water quality, along with a discussion of both point and non-point sources of water pollution that impact both surface and groundwater.

Impaired Waters

Section 303(d) of the federal Clean Water Act requires each state to periodically submit to the US Environmental Protection Agency (EPA) for approval, a list of impaired waters (Waters Condition List). Impaired waters are those that are not meeting the state's water quality standards found in Wisconsin Administrative Code Chapter NR 102. The WDNR last submitted an updated list to EPA in April of 2022. Based on this listing, The Wolf River is shown as an Impaired Waterway within Winnebago County, but not in Waupaca County. This has changed since the last comprehensive plan as the section of Wolf River between New London and the Shawano Dam was also listed as impaired but is now shown as a Healthy Waterway. Segments of Bear Creek (to the north of the City in Outagamie and Waupaca Co.'s) are listed as Restoration Waters (impaired waters with a restoration plan in place) citing impairments from high phosphorus levels and degraded habitat.

Exceptional and Outstanding Resource Waters

Wisconsin has classified many of the state's highest quality waters as Outstanding Resource Waters (ORWs) or Exceptional Resource Waters (ERWs). These surface waters are recognized for being relatively unchanged by human activities and for providing valuable fisheries, unique environmental features or settings, and outstanding recreational opportunities. Chapter NR 102 of the Wisconsin Administrative Code lists the ORWs and ERWs. Within the City of New London, only the Embarrass River, from its confluence with the Wolf River north to Pella in Shawano County, is listed as an Exceptional Resource Water.

Point Source Discharges

Many industrial processes depend upon the ability to dispose of water they have used by discharging it to a surface water body – typically a river or stream. The WDNR establishes regulations and monitors compliance of all such discharges. Permits are obtained through the Wisconsin Pollutant Discharge Elimination System program (WPDES). The capacity of these waterways to receive processed water without becoming ecologically impaired is also



monitored. WPDES permits for point source discharges are commonly required of municipalities, sanitary districts, industries, and large livestock operations. According to the WDNR, the only municipal WPDES permit holder in the City is the New London Wastewater Treatment Facility. In addition, the only current industrial WPDES permit holder within the City is Hillshire Brands Corporation.

Non-Point Sources of Pollution

According to the WDNR, urban and rural non-point pollution is the leading cause of water quality problems in Wisconsin, degrading or threatening an estimated 40% of the streams, 90% of the inland lakes, many of the Great Lakes harbors and coastal waters, many wetland areas, and substantial groundwater resources in Wisconsin. When water from rainfall or melting snow flows across the landscape, it washes soil particles, bacteria, pesticides, fertilizer, pet waste, oil and other toxic materials into our lakes, streams, and groundwater. This is called “non-point source pollution” or “polluted runoff.” Non-point source pollution comes from a diverse number of activities in our daily lives including urban runoff that is saturated with lawn fertilizer, road salt and other chemicals left on roadways, soil erosion from construction activities, as well as from rural sources such as agricultural fields, and barnyards with animal waste. Polluted runoff contributes to habitat destruction, fish kills, reduction in drinking water quality, stream siltation, and a decline in recreational use of lakes. The City of New London does contribute to non-point source pollution loading within the Wolf River system, however; the City has taken on measures to reduce this pollution including the adoption of construction site erosion control provisions, fall leaf collection, and routine street sweeping.

Wellhead Protection

The goal of wellhead protection is to prevent potential contaminants from reaching the wells that supply municipal water systems. This is accomplished by monitoring and controlling potential pollution sources within the land area that recharges those wells. Wellhead protection planning is administered by the WDNR as required by the U.S. Environmental Protection Agency (EPA) and the 1986 amendments to the Federal Safe Drinking Water Act. Wellhead planning is encouraged for all communities but is required when any new municipal well is proposed. The City of New London has prepared wellhead protection plans for its existing municipal wells and has codified wellhead protection provisions within their existing ordinances (Chapter 13, Subchapter 1).

5.13 Air Quality

In order to evaluate the quality of the air and to protect the public health, a series of National Ambient Air Quality Standards (NAAQS) have been developed by the U.S. Environmental Protection Agency (EPA) as established in section 109 of the Clean Air Act. According to the Wisconsin Air Quality Report, as prepared by the Wisconsin Department of Natural Resources (WDNR), the air pollutants affecting Wisconsin include sulfur dioxide, suspended particulate matter, carbon monoxide, ozone, oxides of nitrogen, lead, sulfates, and nitrates. Waupaca County is considered an attainment area, which is an area that meets the NAAQS defined in the Federal Clean Air Act.



While compliance with NAAQS is not likely to become a concern in the City of New London, there are localized air quality issues that commonly face rural areas. Outdoor burning can lead to air quality problems in a particular neighborhood if garbage or other materials that release toxic substances are burned, or if burning occurs in a densely populated area. Issues might arise from open burning, the improper use of burning barrels, or the improper use of outdoor wood burners (furnaces). Concerns with airborne particulates, or dust, may also be a concern where residential land use is in close proximity to extraction operations or agricultural operations.

5.14 Environmental Corridors and Sensitive Areas

Environmental corridors have not been officially designated in the City of New London for regulatory or planning purposes. However, there are many places in or near the City of special environmental value containing unique and sensitive habitats or other natural features. Such places have been designated by the WDNR as State Natural Areas, Land Legacy Places, and State Natural Resources Areas.

State Natural Areas

State Natural Areas (SNAs) are designated by the WDNR to protect outstanding examples of Wisconsin's native landscape - often the last refuge for rare plants and animals. Natural Areas are valuable for research and educational use, the preservation of genetic and biological diversity, and for providing benchmarks for determining the impact of use on managed lands. As such, they are not intended for intensive recreation. There are currently no SNAs within or near the City of New London.

Land Legacy Places

At the request of the Natural Resources Board, the Department of Natural Resources undertook a study to identify places that would be critical in meeting Wisconsin's conservation and recreation needs over the next 50 years. Prepared in 2006, the study did not address how or when these "Legacy Places" should be protected or who should be responsible for implementing protection measures. The outcome of the three-year effort was a *Land Legacy Report* that catalogs the results of the study. According to the report, only one Land Legacy Area is identified as being located or partially located within the City of New London:

- **Lower Wolf River Bottomlands:** Downstream of Shawano, the Wolf River winds through a corridor of extensive and very high quality floodplain forests and open wetlands. The heavy springtime flows flood many of the backwater sloughs, providing critical spawning habitat for many species, notably walleye, northern pike, bass, and perch. The Lower Wolf, and its major tributaries, the Embarrass and the Little Wolf, support one of the world's largest remaining lake sturgeon populations. Waterfowl and migratory songbirds also heavily use the river corridor. The Lower Wolf River Bottomlands offers a unique opportunity to protect riverine communities that are of multi-state significance in close proximity to large population centers. This area contains one of the last large, continuous, and intact floodplain communities in the Midwest and is



within a one-hour drive of 500,000 people in the Fox Valley communities and Green Bay. Over 40% of all the state's native plant species are found in the Lower Wolf River Bottomlands. Approximately 60% of the state's breeding bird species annually nest here. The rivers, backwaters, oxbows, and lakes harbor numerous fish species, both game and non-game, as well as a diverse concentration of reptiles, amphibians, and insects. Primary recreation opportunities include fishing, hunting, wildlife watching, boating, and flat-water paddling. The WDNR owns approximately 30,000 acres in the Lower Wolf watershed in a series of state wildlife areas, fishery areas, and natural areas. These properties are heavily used by the public throughout the year and the WDNR is currently collaborating with local citizens to evaluate additional protection needs and opportunities in the Lower Wolf watershed. The Land Legacy Report rates the Lower Wolf River Bottomlands as being of very high conservation significance and recreation potential. However, only moderate levels of additional protection are anticipated, as substantial protection measures already exist.

State Natural Resources Areas

State Natural Resources Areas are established where the WDNR has identified a need to coordinate management efforts for the protection and restoration of ecologically unique and important regions of the state. State Natural Resources Areas differ from other WDNR properties because they allow for a broad range of vegetation and recreation management. Specific vegetation and recreation management practices can be determined through WDNR property master planning. The management objectives of State Natural Resources Areas may be implemented through partnerships with local governments, conservation organizations, and others along with traditional WDNR management options including land acquisition and easements.

The only State Natural Resource Area near New London is the Lower Wolf River Bottomlands Natural Resources Area located to the west of the City at the north end of Jennings Road. The Lower Wolf River Bottomlands is an ecologically important landscape tucked away between the urban areas and agricultural communities of east central Wisconsin and the extensive forests of northern Wisconsin. The concept of the Lower Wolf River Bottomlands Natural Resources Area is the protection of the natural resources through a variety of methods including: 1) development of land management partnerships with citizens, local, state, county, and federal governments, various non-profit organizations, and the WDNR; and 2) acquisition of land or easements by the WDNR.

5.15 Rare, Threatened, and Endangered Species and Communities

Wisconsin's Natural Heritage Inventory (NHI), established in 1985 by the Wisconsin Legislature, is maintained by the WDNR's Bureau of Endangered Resources. The NHI documents occurrences of rare species and natural communities, including state and federal endangered and threatened species. Natural Heritage Inventory data are used for a variety of purposes including land management, state land master planning, community planning, conservation planning, and environmental review of public and private activities across the state.



Limited data from the NHI is available for comprehensive planning purposes. NHI data are exempt from Wisconsin's Open Records Law due to the vulnerability of rare species to collection and destruction.

The WDNR lists species as “endangered” when the continued existence of that species as a viable component of the state’s wild animals or wild plants is determined to be in jeopardy on the basis of scientific evidence. “Threatened” species are listed when it appears likely, based on scientific evidence, that the species may become endangered within the near future. The WDNR also lists species of “special concern” of which some problem of abundance or distribution is suspected but not yet proved; the intent of this classification is to focus attention on certain species before becoming endangered or threatened.

Table 5-1 displays the threatened and special concern species of plants found within Waupaca County and these species may or may not be present within the City of New London.

Table 5-1: Endangered Species, Waupaca County

<u>Scientific Name</u>	<u>Common Name</u>	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
<u>Acipenser fulvescens</u>	Lake Sturgeon	SC/H		Rare Fishes
<u>Acris blanchardi</u>	Blanchard's Cricket Frog	END		Rare Amphibians
<u>Agabates acuductus</u>	A Predaceous Diving Beetle	SC/N		Rare Beetles
<u>Alasmidonta marginata</u>	Elktoe	SC/P		Rare Mussels and Clams
<u>Alasmidonta viridis</u>	Slippershell Mussel	THR		Rare Mussels and Clams
<u>Alder thicket</u>	Alder Thicket	NA		Shrub Communities
<u>Ammodramus savannarum</u>	Grasshopper Sparrow	SC/M		Rare Birds
<u>Bedrock glade</u>	Bedrock Glade	NA		Primary Habitats - Bedrock Dependent
<u>Bird Rookery</u>	Bird Rookery	SC		Miscellaneous Elements
<u>Boechera missouriensis</u>	Missouri Rock-cress	SC		Rare Plants
<u>Bombus fervidus</u>	Yellow Bumble Bee	SC/N		Rare Ants, Wasps, and Bees
<u>Bombus insularis</u>	Indiscriminate Cuckoo Bumble Bee	SC/N		Rare Ants, Wasps, and Bees
<u>Bombus pensylvanicus</u>	American Bumble Bee	SC/N		Rare Ants, Wasps, and Bees
<u>Bombus perplexus</u>	Confusing Bumble Bee	SC/N		Rare Ants, Wasps, and Bees
<u>Bombus terricola</u>	Yellowbanded Bumble Bee	SC/N	SOC	Rare Ants, Wasps, and Bees
<u>Botaurus lentiginosus</u>	American Bittern	SC/M		Rare Birds
<u>Buteo lineatus</u>	Red-shouldered Hawk	THR		Rare Birds
<u>Calcareous fen</u>	Calcareous Fen	NA		Herbaceous Communities - Sedge Meadows, Fens, and Bogs
<u>Carex formosa</u>	Handsome Sedge	THR		Rare Plants



<u>Scientific Name</u>	<u>Common Name</u>	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
<u>Carex merritt-fernaldii</u>	Fernald's Sedge	SC		Rare Plants
<u>Chlidonias niger</u>	Black Tern	END	SOC	Rare Birds
<u>Cicindela patruela</u>	Northern Barrens Tiger Beetle	SC/N		Rare Beetles
<u>Cypripedium arietinum</u>	Ram's-head Lady's-slipper	THR		Rare Plants
<u>Cystopteris laurentiana</u>	Laurentian Bladder Fern	SC		Rare Plants
<u>Dry prairie</u>	Dry Prairie	NA		Herbaceous Communities - Prairies
<u>Eleocharis flavescens var. olivacea</u>	Capitate Spike-rush	SC		Rare Plants
<u>Eleocharis quadrangulata</u>	Square-stem Spike-rush	END		Rare Plants
<u>Eleocharis quinqueflora</u>	Few-flowered Spike-rush	SC		Rare Plants
<u>Emergent marsh</u>	Emergent Marsh	NA		Herbaceous Communities - Marshes
<u>Emydoidea blandingii</u>	Blanding's Turtle	SC/P	SOC	Rare Reptiles
<u>Epilobium strictum</u>	Downy Willow-herb	SC		Rare Plants
<u>Epioblasma triquetra</u>	Snuffbox	END	LE	Rare Mussels and Clams
<u>Erimyzon sucetta</u>	Lake Chubsucker	SC/N		Rare Fishes
<u>Etheostoma microperca</u>	Least Darter	SC/N		Rare Fishes
<u>Floating-leaved marsh</u>	Floating-leaved Marsh	NA		Herbaceous Communities - Marshes
<u>Floodplain forest</u>	Floodplain Forest	NA		Southern Forests
<u>Glyptemys insculpta</u>	Wood Turtle	THR	SOC	Rare Reptiles
<u>Lake--deep, hard, drainage</u>	Lake--Deep, Hard, Drainage	NA		Lakes and Ponds
<u>Lake--deep, hard, seepage</u>	Lake--Deep, Hard, Seepage	NA		Lakes and Ponds
<u>Lake--hard bog</u>	Lake--Hard Bog	NA		Lakes and Ponds
<u>Lake--shallow, hard, drainage</u>	Lake--Shallow, Hard, Drainage	NA		Lakes and Ponds
<u>Lake--shallow, hard, seepage</u>	Lake--Shallow, Hard, Seepage	NA		Lakes and Ponds
<u>Lioporeus triangularis</u>	A Predaceous Diving Beetle	SC/N		Rare Beetles
<u>Lycaeides melissa samuelis</u>	Karner Blue	SC/FL	LE	Rare Butterflies and Moths
<u>Lythrurus umbratilis</u>	Redfin Shiner	THR		Rare Fishes
<u>Maccaffertium pulchellum</u>	A Flat-headed Mayfly	SC/N		Rare Mayflies
<u>Malaxis monophyllos var. brachypoda</u>	White Adder's-mouth	SC		Rare Plants
<u>Migratory Bird Concentration Site</u>	Migratory Bird Concentration Site	SC		Miscellaneous Elements



<u>Scientific Name</u>	<u>Common Name</u>	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
<u>Minuartia dawsonensis</u>	Rock Stitchwort	SC		Rare Plants
<u>Moist cliff</u>	Moist Cliff	NA		Primary Habitats - Bedrock Dependent
<u>Moxostoma carinatum</u>	River Redhorse	THR		Rare Fishes
<u>Myotis lucifugus</u>	Little Brown Bat	THR		Rare Mammals
<u>Northern dry forest</u>	Northern Dry Forest	NA		Northern Forests
<u>Northern dry-mesic forest</u>	Northern Dry-mesic Forest	NA		Northern Forests
<u>Northern mesic forest</u>	Northern Mesic Forest	NA		Northern Forests
<u>Northern sedge meadow</u>	Northern Sedge Meadow	NA		Herbaceous Communities - Sedge Meadows, Fens, and Bogs
<u>Northern wet forest</u>	Northern Wet Forest	NA		Northern Forests
<u>Northern wet-mesic forest</u>	Northern Wet-mesic Forest	NA		Northern Forests
<u>Notropis anogenus</u>	Pugnose Shiner	THR		Rare Fishes
<u>Nyctanassa violacea</u>	Yellow-crowned Night-Heron	THR		Rare Birds
<u>Oak barrens</u>	Oak Barrens	NA		Barrens and Savannas
<u>Opuntia fragilis</u>	Brittle Prickly-pear	THR		Rare Plants
<u>Pentagenia vittigera</u>	A Common Burrower Mayfly	SC/N		Rare Mayflies
<u>Phemeranthus rugospermus</u>	Prairie Fame-flower	SC		Rare Plants
<u>Pine barrens</u>	Pine Barrens	NA		Barrens and Savannas
<u>Plauditus cestus</u>	A Small Minnow Mayfly	SC/N		Rare Mayflies
<u>Poor fen</u>	Poor Fen	NA		Herbaceous Communities - Sedge Meadows, Fens, and Bogs
<u>Protonotaria citrea</u>	Prothonotary Warbler	SC/M		Rare Birds
<u>Quadrula quadrula</u>	Mapleleaf	SC/P		Rare Mussels and Clams
<u>Rhynchospora scirpoides</u>	Long-beaked Bald-rush	THR		Rare Plants
<u>Riverine lake/pond</u>	Riverine Lake/Pond	NA		Lakes and Ponds
<u>Sceptridium oneidense</u>	Blunt-lobe Grape-fern	SC		Rare Plants
<u>Setophaga cerulea</u>	Cerulean Warbler	THR	SOC	Rare Birds
<u>Shrub-carr</u>	Shrub-carr	NA		Shrub Communities
<u>Simpsonaias ambigua</u>	Salamander Mussel	THR	SOC	Rare Mussels and Clams
<u>Southern dry-mesic forest</u>	Southern Dry-mesic Forest	NA		Southern Forests
<u>Southern hardwood swamp</u>	Southern Hardwood Swamp	NA		Southern Forests
<u>Southern mesic forest</u>	Southern Mesic Forest	NA		Southern Forests
<u>Southern sedge meadow</u>	Southern Sedge Meadow	NA		Herbaceous Communities - Sedge Meadows,



<u>Scientific Name</u>	<u>Common Name</u>	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
				Fens, and Bogs
<u>Southern tamarack swamp</u>	Southern Tamarack Swamp	NA		Southern Forests
<u>Stenelmis antennalis</u>	A Riffle Beetle	SC/N		Rare Beetles
<u>Stenelmis fuscata</u>	A Riffle Beetle	SC/N		Rare Beetles
<u>Stream--fast, hard, cold</u>	Stream--Fast, Hard, Cold	NA		Springs and Streams
<u>Trachyrhachys kiowa</u>	Ash-brown Grasshopper	SC/N		Rare Grasshoppers and Allies
<u>Trimerotropis maritima</u>	Seaside Grasshopper	SC/N		Rare Grasshoppers and Allies
<u>Tritogonia verrucosa</u>	Buckhorn	THR		Rare Mussels and Clams
<u>Valeriana uliginosa</u>	Marsh Valerian	THR		Rare Plants
<u>Viburnum cassinoides</u>	Northern Wild-raisin	SC		Rare Plants
<u>Viola rostrata</u>	Long-spurred Violet	SC		Rare Plants

Source: WDNR, 2022.

5.16 Wildlife Habitat

Wildlife habitat is any natural community with adequate food, water, and cover to sustain a species of wildlife. The City's landscape provides habitat for a variety of birds, mammals, amphibians, reptiles, aquatic and terrestrial invertebrates, and fish. Wildlife habitat is connected to many other natural resources including forests, wetlands, open space, and surface water, so healthy wildlife populations are good indicators of the overall health of the environment.

The City of New London lies within the "tension zone" between the primary northern and southern floristic provinces of Wisconsin. For this reason, a larger variety of vegetation types has the possibility of thriving compared to other portions of the state. The city lies within the Southeast Glacial Plain ecological landscape. Covering the majority of southeast Waupaca County, this landscape is characterized by gently rolling to flat topography with clay or silt loam-textured soils on till plain. Land cover in this ecological landscape is now primarily agricultural with small remnant oak openings, oak forest, tallgrass prairie, and sugar maple-basswood forest.

Wildlife species present in the City of New London are directly related to the community types and ecological landscapes that provide habitat. The City's forests and undeveloped lands support some of the highest concentrations of deer and turkey in the state. Extensive marshlands and wetlands provide habitat for populations of ducks, geese, and other waterfowl, as well as furbearers such as bear, otter, muskrats, and mink. Scattered woodlots and wooded fence lines support rabbits, squirrels, and pheasants, while larger forest blocks provide habitat for deer, bear, grouse, turkey, and other forest game. According to the WDNR, the Wolf River corridor from New London to Shawano provides exceptional habitat for furbearers, waterfowl, and forest game.



Land use can have substantial impacts on wildlife populations and habitats. The development pattern of the land directly impacts the fragmentation, total area, and types of natural communities and habitats available to wildlife in a given location. For example, when a large forest is fragmented into smaller woodlots by rural development over time, this fragmentation may cause certain wildlife species to thrive, and others to move on. Those species that require “edge” habitats, like raccoons and white-tailed deer, benefit from forest fragmentation, while species that require “interior” habitats, like wolves and migratory songbirds, suffer from forest fragmentation. Loss of habitat is the primary reason for species to become listed as “threatened,” “endangered,” or “of special concern.”

5.17 Historical and Cultural Resources

Historical, architectural, and archeological resources establish important links to a community’s heritage. They provide well-known educational and aesthetic benefits and harder to quantify benefits such as an improved quality of life, a sense of community pride, and an important feeling of social and cultural continuity between the past, present, and future. As interest in cultural resources continues to grow in Wisconsin, communities may also experience economic benefits by preserving historical, architectural, and archeological resources. “Heritage tourism” is centered on cultural resources and is a growing component of the tourism industry.

Historic Places

The National Register of Historic Places recognizes properties of local, state, and national significance. Properties are listed in the National Register because of their association with significant persons or events because they contain important information about our history or prehistory, or because of their architectural or engineering significance. The National Register also lists important groupings of properties as historic districts. The Wisconsin State Register of Historic Places parallels the National Register. However, it is designed to enable state-level historic preservation, protection, and benefits. Most of the properties in Wisconsin listed in the National Register are also listed in the State Register. There are no National or State Register of Historic Places listings for structures or sites within the City of New London.

The Wisconsin Architecture & History Inventory (AHI), provided by the WHS, lists historical and architectural information on properties in Wisconsin. The AHI contains data on buildings, structures, and objects that illustrate Wisconsin’s unique history. The majority of properties listed are privately owned. Listed properties convey no special status, rights, or benefits. There are currently 111 entries in the AHI for the City of New London, but limited data exist for the vast majority of these sites. Many of these sites may no longer exist or have possibly been altered to the extent that their historic or architectural significance has been lost. Several sites are listed as being potentially eligible for the State or National Historic Register as shown on Table 5-2. A number of these sites are also shown on Map 5-3.



Table 5-2: Selected AHI Sites, City of New London

Historic Name	Community	Status
Historic Downtown (Potential District)	City of New London	Potentially Eligible
New London Public Library	City of New London	Potentially Eligible
Grand Opera House	City of New London	Potentially Eligible
Washington High School	City of New London	Potentially Eligible
Reeder Smith Block	City of New London	Potentially Eligible
Henry and Isabelle Knapstein	City of New London	Potentially Eligible
Memorial Stadium; Hatten Park	City of New London	Potentially Eligible

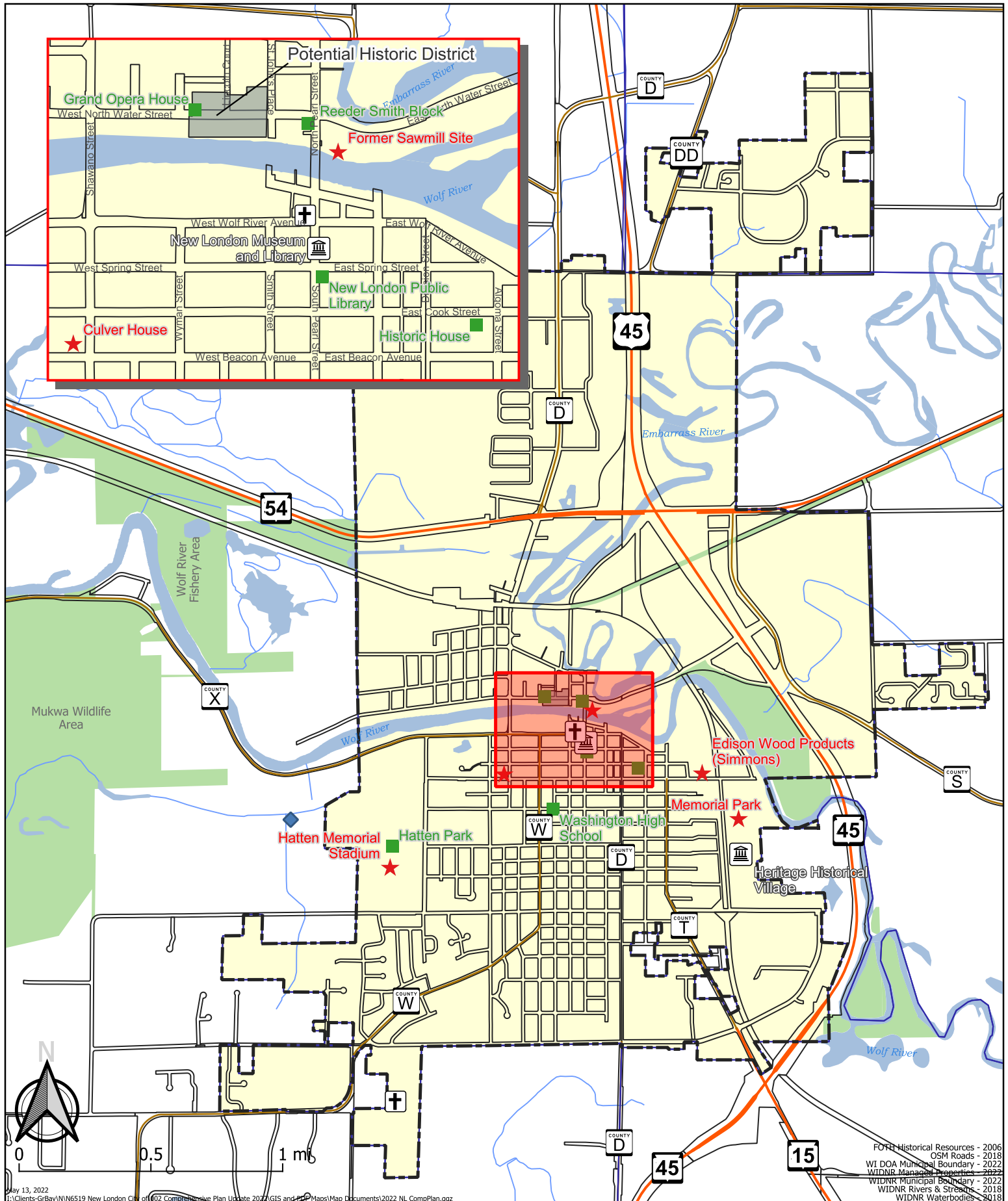
Source: Wisconsin Archeological and Historic Resources Database, Wisconsin Historical Society

Archeological Sites

The Wisconsin Archeological Site Index (ASI) is maintained by the Office of the State Archeologist and is only viewable in person at their Madison office by paying a subscription. That being said, this information was not consulted for the purposes of this plan. Similar to the AHI, these sites identified in the ASI have no special status, rights, or benefits. However, should a state or federally sponsored project potentially impact these sites, a complete archeological survey would need to be conducted before the project could proceed. It should also be noted that all burial sites are granted protection from disturbance by both public and private actions by Chapter 157, Wisconsin Statutes. The SHS estimates that less than one percent of archeological sites state-wide have been inventoried.

The database includes the approximate locations of known prehistoric sites including: cabins, homesteads, farmsteads, campsites, villages, trading posts, fur posts, workshops, and sawmills. Additionally, it includes approximate locations of known burial sites cataloged in the ASI including cemeteries, burial plots, and burial mounds. From a land use and development standpoint, the City should be aware of the potential for additional sites to be discovered through either municipal or private development and earth-moving activities. Should any items be discovered during such projects, the City should contact the WSHS immediately to determine the steps that need to be taken, if any.





5-3 Historical and Cultural Resources

City of New London
Outagamie & Waupaca Counties, WI

- ▲ Registered State/National Historic Site (None Present)
- Other Historic Places
- ⛪ Museum
- ★ Other Locally Identified Sites
- ⛪ Church
- ◆ Burial Mound



Museums and Monuments

Heritage Historical Village

Located in the City of New London (Map 5-3), this historical village contains five relocated buildings. All have been restored and contain many of the original furnishings. The Octagon House, dating back to 1867, is a unique, eight-sided structure. Triangle School, built in 1857, contains many original furnishings. The Railroad Depot, originally built in 1923, was the passenger depot for the C&NW railroad and is furnished with many original pieces. The Village Chapel was originally known as the “Three Pines School” and was then turned into a church. The Log Cabin was built around 1850 and was dismantled from a farm and rebuilt at the edge of the village. There are also two cabooses and a diesel locomotive on the site.

New London Museum and Library

This historic building in the City of New London (Map 5-3) was built in 1914 and remodeled in 1986. There are several examples of natural history of the area as well as information on the city’s founders. There is a Native American collection and hundreds of photographs and exhibits which change monthly. The museum was founded in 1932 by Charles F. Carr, one of the city’s first librarians.

Cultural Resources Protection Laws

There are laws, both federal and state, which protect cultural resources from the effects of projects that have federal, state, or local government involvement. Which law applies will depend upon which level of government is primarily involved in funding, permitting, or licensing the project.

Under Wisconsin Statute § 66.1111, all municipalities in Wisconsin must consider whether their actions may affect historic properties listed in the State or National Register of Historic Places. Projects subject to review under this law include construction of a new facility that results in the abandonment of a National Register-listed building, or development of a publicly owned park that may affect a listed archeological site. If such a project is being considered, the local unit of government is required to submit a proposal to the Wisconsin Historical Society at the earliest stages of planning to seek the Society’s determination of whether the project may adversely affect the listed property. If there may be an adverse effect, then the Society may require negotiation with the local unit of government to explore alternatives and other project options that may avoid, minimize, or mitigate the possible adverse effect.

Wisconsin’s burial law, Wisconsin Statute 157.70, prohibits unauthorized intentional disturbances of burial sites, from platted cemeteries to Native American mounds, to abandoned family burials. Once a Native American mound group or any marked or unmarked burial area is formally cataloged as a burial site under Section 157.70, that area is exempt from property taxes. This makes the property tax treatment of all human burial sites equal to the property tax treatment given to operating cemeteries.



5.18 Community Design

Community design as a cultural resource helps explain the origins and history of how a given community looks, feels, and functions in the present day. Components of the origin of community design include historic settlement patterns, resource use (like mining, farming, and forestry) in rural areas, the industries and businesses that influenced urban areas, transportation features and traffic flow patterns, natural features like rivers, lakes, and wetlands, and the heritage and values of the people who lived in a community in the past and who live there today. These factors might be expressed through street layout, building architecture, landscaping, preservation of natural features, development density, and other components of development design. The design of a community as seen today might also be influenced by community decisions including the use of zoning and subdivision controls, the establishment of parks and other community facilities, the use of historic preservation, and in some cases, the use of land use planning.

Citizens of the area generally tend to describe the present design of their communities as being tied to “small town atmosphere.” With a focus on the positive aspects of community design. Small town atmosphere can be defined to include attractive community entrances, vital downtowns, community culture and events, and the aspects of rural character which surround its small cities and villages.

The Historical and Cultural Resources map (Map 5-3) include places identified locally that contribute to the culture and identity of the City of New London. These are places that were identified by the communities during the comprehensive planning process as local cultural resources in addition to the other sites that were mapped as cultural and historical resources.

5.19 Agricultural, Natural, and Cultural Resources Trends and Outlook

The following agricultural, natural, and cultural resource trends are likely to be experienced in or near the City of New London over the next 20 to 25 years. The following statements are based on recent trends that are expected to continue well into the future.

Agriculture Trends

- Increased pressure to convert farmland to other uses / continued farmland loss.
- The number of dairy farms will continue to decline, but dairy herd sizes will continue to increase.
- Expect an increase in the number of large “commercial” type farms, especially dairy.

Natural Resources Trends

Groundwater

- Growing demand to supply adequate water for human consumption, agriculture, and industry.
- Increasing pressure on water quality by various land uses.



- Continuing need for improved groundwater quality and quantity data.

Surface Water

- Continuing pressure to develop shoreland areas.
- Increasing use of publicly accessible waters by growing numbers of recreationists.
- Increasing threat of invasion of exotic species.
- Increasing enforcement of non-point pollution control regulations for municipal runoff management, construction site erosion control, and agricultural runoff.

Wetlands

- Continued pressure to alter or eliminate wetlands for mining, commercial development, highway construction, etc.
- Increasing emphasis on the use of mitigation to allow the alteration or elimination of low quality wetlands.
- Growing understanding of the functional values of wetlands.
- Continued loss of wetland acres, but at a slower pace.

Wildlife Habitat

- Continued state-level priority to protect and acquire unique natural habitats.
- Growing interest in land trusts and conservation easements for the preservation of unique natural areas.
- Declining participation in hunting.

Forests and Woodlands

- The price of forest land sold for recreational purposes will continue to increase.
- Growing interest in forest management programs that provide tax relief.
- Demand for timber production and recreational forest uses will increase while the amount of forest land able to support these activities will decline.

Non-metallic Mining

- Continuing demand for non-metallic minerals for state, county, and local road improvement projects.
- The price of non-metallic minerals will increase with the increasing difficulty of obtaining permit approvals.
- Increasing difficulty in siting new non-metallic mines due to development in rural areas.

Cultural Resources Trends

- The recognized value of historic and cultural resources will grow, demanding more attention to their preservation.
- Limited data on historic and cultural resources will emphasize the need for more thorough local inventories.
- Growing interest in “heritage tourism” including organized and self-guided tours to visit sites of historical and cultural significance.



5.20 Plans and Programs Currently in Use

This section describes plans and implementation programs that are currently in use in or near the City of New London pertaining to agricultural, natural or cultural resources

County Plans

Land and Water Resource Management Plans

Waupaca County has a DATCP approved *Land and Water Resource Management Plan* that was prepared in 2015. Outagamie County has a DATCP approved *Land and Water Resource Management Plan* that was prepared in 2018. The plans represent the next generation of resource management strategies and provides the Counties with the opportunity to address local resource concerns with a financial base in a sustained manner. The Land and Water Conservation Departments for each County have the opportunity to provide seamless integration of a number of resource management programs. State runoff rules (ATCP 50 & NR 120) are utilized as a base for the plan. Monetary assistance will be provided by DATCP to achieve the objectives of the plan.

Outdoor Recreation Plans

The *Waupaca County Outdoor Recreation Plan* was last updated in 2015. The *Outagamie County Outdoor Recreation Plan* was just updated and adopted in 2022. The purpose of these plans is to identify changing recreational needs, assess potential opportunities, evaluate the status of the counties' natural and cultural resources, and to present appropriate recommendations that will provide a planned system of parks and recreation areas that contain a diversity of recreational activities while preserving scenic and valuable resources important to the ecological, sociological, and economic life of residents.

State Programs

Stewardship Grant Program

Funds are available for the acquisition of land or easements for conservation purposes and restoration of wildlife habitat. Both municipal and non-profit conservation organizations are eligible to apply. Priorities include acquisition of wildlife habitat, lands with special scientific or ecological value, land with rare and endangered habitats and species, stream corridors, land for state trails (including the Ice Age Trail and North Country Trail), and lands for restoration of wetlands and grasslands. Eligible types of projects include fee simple and easement acquisitions and habitat restoration projects.

Wisconsin's Main Street Program

The Main Street Program is a comprehensive revitalization program run by the WEDC designed to promote the historical and economic redevelopment of traditional business districts in Wisconsin. The program was established in 1987 to encourage and support the revitalization of downtowns. Each year, the WEDC selects communities to join the program. These communities receive technical support and training needed to restore their Main Streets to centers of community activity and commerce. The City of New London IS NOT a designated Main Street community.



Certified Local Government Program

Local units of government that have enacted historic preservation ordinances may consider being certified to participate in the state and federal Certified Local Government (CLG) program. The CLG program provides special grants to fund planning and educational activities. The Division of Historic Preservation at the Wisconsin Historical Society administers the CLG program. As of 2022, Wisconsin had 74 Certified Local Governments. The City of New London IS NOT a designated CLG.

Local Programs

Tree City USA

The Tree City USA award program was initiated by the National Arbor Day Foundation to recognize the effort put forth by communities that properly manage their urban forests. To receive the Tree City USA award, a community must meet four standards. It must have: 1) a tree board, commission, or municipal department that has legal responsibility for the care of public trees; 2) a public tree management ordinance; 3) an annual budget of at least \$2.00 per capita for administering, managing, and implementing the community forestry program; and 4) an Arbor Day observance and proclamation.

The City of New London has been recognized by the National Arbor Day Foundation with the “Tree City USA” designation in 1992. The City’s Parks, Recreation and Leisure Committee is responsible for overseeing activities related to urban forestry and they coordinate closely with the Department of Public Works. Over the years, the City has done a significant amount of work related to street tree inventories, tree maintenance, and new tree planting.

5.21 Agricultural, Natural, and Cultural Resources Goals and Objectives

Community goals are broad, value-based statements expressing public preferences for the long term (20 years or more). They specifically address key issues, opportunities, and problems that affect the community. Objectives are more specific than goals and are more measurable statements usually attainable through direct action and implementation of plan recommendations. The accomplishment of objectives contributes to fulfillment of the goal.

Goal 1 Support the agricultural resources of the region.

Objectives

- 1a. Provide an attractive and unique small town environment for higher density urban development that has far less impact on agricultural lands than lower density rural development.
- 1b. Target and encourage the growth of agriculture related businesses and services in the community’s commercial and industrial areas.



Goal 2 Maintain, preserve, and enhance the community’s natural resources.

Objectives

- 2a. Consider the potential impacts of development proposals on groundwater quality and quantity, surface water quality, green space, and woodlands.
- 2b. Direct future growth away from wetlands, floodplains, and steep slopes.

Goal 3 Ensure the quality, safety, and quantity of groundwater to meet the community’s present and future water supply needs.

Objectives

- 3a. Decrease sources of non-point source water pollution.
- 3b. Regularly review and update existing Wellhead Protection Plans and associated regulations.

Goal 4 Maintain and restore the environmental integrity of surface waters including lakes, ponds, flowages, rivers, and streams.

Objectives

- 4a. Decrease sources of point source and non-point source water pollution.
- 4b. Encourage the preservation of natural buffers and building setbacks between intensive land uses and surface water features.
- 4c. Encourage the use of green infrastructure and natural stormwater management techniques in new development and redevelopment opportunities.
- 4d. Develop partnerships with other communities, Waupaca County, lake and river organizations, and state agencies to address surface water quality degradation.
- 4e. Preserve and enhance the quality of the Wolf and Embarrass Rivers.

Goal 5 Preserve natural features like woodlands, wetlands, floodplains, shorelands, and open spaces in order to maintain and enhance community green space.

Objectives

- 5a. Maintain and improve parklands using the Comprehensive Outdoor Recreation Plan as a guide.
- 5b. Manage growth to preserve and create interconnected green space corridors and trails.

Goal 6 Preserve a small town atmosphere including attractive community entrances, small businesses, a vital downtown, and community culture and events.



Objectives

- 6a. Consider the potential impacts of development proposals on those features that the community values as a part of its character and identity.
- 6b. Explore options for achieving improved design of commercial and industrial buildings and sites in areas that define the character of the community.
- 6c. Maintain and enhance community and area cultural facilities including museums and libraries.
- 6d. Improve the City's identity by creating inviting and aesthetically pleasing gateways (entrances) along major road corridors.

Goal 7 Preserve significant historical and cultural sites, structures, and neighborhoods that contribute to community identity and character.

Objectives

- 7a. Work cooperatively with historical societies to identify, record, and protect community features with historical or archaeological significance.
- 7b. Consider the potential impacts of development proposals on historical and archeological resources.
- 7c. Encourage efforts that promote the history, culture, and heritage of the community.
- 7d. Preserve Old City Hall and the Works Progress Administration projects in Hatten Park.

5.22 Agricultural, Natural, and Cultural Resources Policies and Recommendations

Policies and recommendations build on goals and objectives by providing more focused responses to the issues that the city is concerned about. Policies and recommendations become primary tools the city can use in making land use decisions. Many of the policies and recommendations cross element boundaries and work together toward overall implementation strategies. Refer to Section 9.5 for an explanation of the strategies cited as sources for many of the policies and recommendations.



Policies identify the way in which activities are conducted in order to fulfill the goals and objectives. Policies that direct action using the word “shall” are advised to be mandatory and regulatory aspects of the implementation of the comprehensive plan. In contrast, those policies that direct action using the words “will” or “should” are advisory and intended to serve as a guide. “Will” statements are considered to be strong guidelines, while “should” statements are considered loose guidelines. The city’s policies are stated in the form of position statements (City Position), directives to the city (City Directive), or as criteria for the review of proposed development (Development Review Criteria).

Recommendations are specific actions or projects that the city should be prepared to complete. The completion of these actions and projects is consistent with the city’s policies, and therefore will help the city fulfill the comprehensive plan goals and objectives.

Policies: City Position

ANC1 Municipal wellhead protection shall be a priority when reviewing development proposals.

ANC2 The clean-up and reuse of brown field sites should be pursued prior to utilizing undeveloped land to accommodate new development.

ANC3 New development shall attain pre-development levels of stormwater run-off, as determined by the community engineer, during and after development through best management practices.

ANC4 Stormwater runoff as the result of development should not be discharged into wetlands and closed depressions, except for those associated with approved stormwater management facilities.

ANC5 Erosion control, construction phasing, and best management practices shall be utilized to the maximum extent possible when earth disturbing activities (e.g., vegetation removal, grading, excavating, filling, etc.) are conducted.

Policies: City Directive

ANC6 The community shall utilize its subdivision review and official mapping authority to protect shoreline areas, groundwater recharge areas, wetlands, floodplains, wildlife habitat, woodlands, existing vegetation, and existing topography within the municipal boundary and in extraterritorial areas.

ANC7 Where hard surfaced parking areas, sidewalks, trails, etc. are required by the community, encourage pervious paving materials as alternative.

ANC8 The community shall protect the visual quality of major community thoroughfares by requiring all development and redevelopment along these entry corridors to include site plan and design review.



ANC9 The community shall maintain an inventory of historically significant buildings, historic sites, archeological sites, and other cultural resources to ensure that these places are accurately identified and to help promote and target preservation and rehabilitation efforts.

Policies: Development Review Criteria

ANC10 Development proposals shall provide the community with an analysis of the potential natural resources impacts including, but not necessarily limited to, potential impacts on groundwater quality and quantity, surface water, wetlands, floodplains, steep slopes, woodlands, and other existing vegetation.

ANC11 Development proposals shall provide the community with an analysis of the potential cultural and historic resources impacts including, but not necessarily limited to, potential impacts to historic sites, archeological sites, and other cultural resources.

ANC12 Development proposals shall address stormwater management, construction site erosion control, and potential increased risk of flooding.

ANC13 New development shall be placed on the landscape in a fashion that minimizes potential negative impacts on natural resources such as shoreline areas, wetlands, floodplains, wildlife habitat, woodlands, existing vegetation, and existing topography.

ANC14 New development shall be placed on the landscape and designed in a fashion that minimizes potential negative impacts on small town character as defined by attractive community entrance points, safe, well-kept neighborhoods, abundant natural resources and green space, quality construction and building design, small businesses, and vital downtowns.

ANC15 New development shall be placed on the landscape in a fashion that minimizes potential negative impacts on historic and archeological sites.

ANC16 Development occurring within or near natural resources, historic sites, or archeological sites shall incorporate those resources into the development rather than harm or destroy them.

Recommendations

- ♦ Review existing zoning ordinance and land division codes for improvements that better achieve the protection of natural resources and green space.
- ♦ Utilize site plan review procedures and limits of disturbance regulations to protect natural resources and green space.



- ♦ Support the creation of an historic preservation district in the downtown or other historically significant neighborhoods to preserve the history and heritage of these areas for future generations.
- ♦ Work cooperatively with the New London Chamber of Commerce to evaluate and seek designation as a Main Street or Connect Communities program through the Wisconsin Economic Development Corporation (WEDC).
- ♦ Seek the assistance of a graduate student to develop a project which inventories the City's scenic views, viewsheds, and places which contribute to community character.
- ♦ Create a zoning overlay district in community entrance areas that identify design goals and trigger site planning and design review requirements for all development including buildings, parking areas, signs, etc.
- ♦ Conduct a community survey of historical and archeological resources.
- ♦ Create a local, historic preservation ordinance that recognizes and protects the historic sites in the community.
- ♦ Utilize site plan review procedures and limits of disturbance regulations to protect cultural resources.



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6. Economic Development

6.1 Economic Development Plan

Economic development planning is the process by which a community organizes, analyzes, plans, and then applies its energies to the tasks of improving the economic well-being and quality of life for those in the community. Issues and opportunities in the City of New London related to economic development include enhancing the community's competitiveness for attracting and retaining businesses, ensuring a vibrant downtown environment, establishing commercial and industrial development policies, encouraging sustainable development, creating jobs, increasing wages, enhancing worker training, and improving overall quality of life. All of these issues affect residents of the City of New London and are addressed directly or indirectly in the comprehensive plan.

The reason to plan for economic development is straight-forward - economic development provides income (wealth building) for individuals, households, farms, businesses, and units of government. It requires working together to maintain a strong economy by creating and retaining desirable jobs which provide a good standard of living for individuals. Increased personal income and wealth increases the tax base, so a community can provide the level of services residents expect. A balanced, healthy economy is essential for community well-being. Well planned economic development expenditures are a community investment. They leverage new growth and redevelopment to improve the area. Influencing and investing in the process of economic development allows community members to determine future direction and guide appropriate types of development according to their values.

Successful plans for economic development acknowledge the importance of:

- ◆ Knowing the region's economic function in the global economy.
- ◆ Creating a skilled and educated workforce.
- ◆ Investing in an infrastructure for innovation.
- ◆ Creating a great quality of life.
- ◆ Fostering an innovative business climate.
- ◆ Increased use of technology and cooperation to increase government efficiency.
- ◆ Taking regional governance and collaboration seriously.

The City of New London's plan for economic development is to continue to balance the retention and expansion of existing business with entrepreneurial development and new business attraction efforts. The City has a strong economic base for a community of its size. Existing private sector employers in the city include Amcor (food packaging), Wolf River Lumber, Granite Valley Forest Products, Wohlt Cheese Corporation, and Steel King Industries (metal fabrication) among others. Additionally, the New London School District and ThedaCare have significant employment bases which add to the local economy.



One of the largest employers in the area is Tyson (Hillshire and Jimmy Dean meat brands) which employs nearly 1,000 people. While it is not located inside the city limits, it is adjacent to the city and has a significant impact on the local economy. The Hillshire brand was started in the New London area, and it has continued to grow under several different ownerships throughout its history here.

The city is concerned with the design and appearance of future commercial and industrial development, particularly in/near the corridors which serve as an entrance to the community. The use of design review can help improve the aesthetic quality of the buildings and development sites and help maintain the small town atmosphere that New London residents value. This is achieved by developing design review procedures and standards. The city can then work with proposed development to gain improved building architecture, landscaping, lighting, signage, and other site design features that will maintain and enhance the character of the city.

The preservation and enhancement of the downtown and riverfront is another key economic development concern. It is the city's desire to maintain a viable city center and an attractive riverfront that offers amenities, helps define a sense of history, culture, and identity, and that contributes to the economic health of the area. This plan recommends seeking assistance and funding to support downtown and riverfront preservation and revitalization efforts.

In addition, new challenges have crept up over the past 5 years in the community which follow national trends. Workforce shortages resulting from demographic changes, immigration policies, and effects of the COVID 19 pandemic have affected nearly every business and even the City itself. Housing availability and the need for more workforce housing is also a prominent issue that the City and many other communities are wrestling with.

6.2 Economic Characteristics Summary

The examination of various types of data can help identify strengths, weaknesses, threats, and opportunities as they relate to economic development. Having knowledge about the workforce and its trends is key to creating strategies that will work for the City to maintain or increase its current economic activity.

Educational Attainment

Table 6-1 displays the educational attainment level of City of New London residents who were age 25 and older during the 2016-2020 ACS 5-Year Estimate period. The educational attainment level of persons within a community can provide insight into household income, job availability, and the economic well-being of the community. Lower educational attainment levels in a community can be a hindrance to attracting certain types of businesses, typically those that require highly specialized technical skills and upper management positions.



**Table 6-1:
Educational Attainment of Persons Age 25 and Over, City of New London, 2016-2020 ACS
5-Year Estimates**

Label	Estimate	Margin of Error	Percent	Percent Margin of Error
Population 25 years and over	4,502	±483	4,502	(X)
Less than 9th grade	86	±82	1.9%	±1.8
9th to 12th grade, no diploma	280	±144	6.2%	±3.1
High school graduate (includes equiv.)	2,080	±332	46.2%	±5.7
Some college, no degree	882	±186	19.6%	±3.7
Associate's degree	480	±178	10.7%	±3.8
Bachelor's degree	593	±202	13.2%	±4.1
Graduate or professional degree	101	±75	2.2%	±1.7
High school graduate or higher	4,136	±466	91.9%	±3.4
Bachelor's degree or higher	694	±205	15.4%	±4.1

Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

Educational attainment for the City of New London as measured by the 2016-2020 ACS 5-Year Estimate shows that of the population 25 and older, nearly 92% have a high school or secondary school degree which shows that most residents are able to participate in all levels of the local and regional workforce.

Employment Status

The employment status of all working age residents in the City is a measure of the local and regional economy. Table 6-2 shows that for the 2016-2020 ACS 5-year period a total unemployment rate of 2.5% existed which illustrates great participation in the workforce. This rate has likely decreased based on national trends and the challenges that businesses are having finding an appropriate workforce. Without attracting new workers to the City, existing businesses may have a tough time maintaining or expanding their operations.



**Table 6-2:
Employment Status, City of New London 2016-2020 ACS 5-Year Estimates**

Label	Estimate	Margin of Error	Percent	Percent Margin of Error
Population 16 years and over	5,496	±423	5,496	(X)
In labor force	3,610	±405	65.7%	±4.6
Civilian labor force	3,610	±405	65.7%	±4.6
Employed	3,520	±431	64.0%	±4.9
Unemployed	90	±70	1.6%	±1.3
Armed Forces	0	±13	0.0%	±0.4
Not in labor force	1,886	±274	34.3%	±4.6
Civilian labor force	3,610	±405	3,610	(X)
Unemployment Rate	(X)	(X)	2.5%	±2.0
Females 16 years and over	2,817	±287	2,817	(X)
In labor force	1,678	±253	59.6%	±6.3
Civilian labor force	1,678	±253	59.6%	±6.3
Employed	1,621	±260	57.5%	±6.2
Own children of the householder under 6 years	467	±183	467	(X)
All parents in family in labor force	328	±137	70.2%	±21.4
Own children of the householder 6 to 17 years	1,403	±382	1,403	(X)
All parents in family in labor force	1,132	±279	80.7%	±15.8

Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

Employment by Industry

The employment by industry within an area illustrates the structure of the economy. Historically, the State of Wisconsin has had a high concentration of employment in manufacturing and agricultural sectors of the economy. More recent state and national trends indicate a decreasing concentration of employment in the manufacturing sector while employment within the services sector is increasing. This trend can be partly attributed to the aging of the population and increases in technology.



Table 6-3 displays the number and percent of employed persons by industry group in the City of New London, Waupaca County, and the State of Wisconsin for the 2016-2020 ACS 5-Year Estimate period.

**Table 6-3:
Employment by Industry, City of New London 2016-2020 ACS 5-Year Estimates**

Label	Estimate	Margin of Error	Percent	Percent Margin of Error
Civilian employed population 16 years and over	3,520	±431	3,520	(X)
Agriculture, forestry, fishing and hunting, and mining	61	±72	1.7%	±2.0
Construction	174	±97	4.9%	±2.8
Manufacturing	1,209	±227	34.3%	±5.9
Wholesale trade	158	±97	4.5%	±2.5
Retail trade	441	±170	12.5%	±4.4
Transportation, warehousing, utilities	239	±153	6.8%	±4.1
Information	17	±28	0.5%	±0.8
Finance and insurance, and real estate and rental and leasing	218	±92	6.2%	±2.6
Professional, scientific, and management, and administrative and waste management services	37	±35	1.1%	±1.0
Educational services, and health care and social assistance	440	±146	12.5%	±4.5
Arts, entertainment, and recreation, and accommodation and food services	282	±143	8.0%	±3.9
Other services, except public administration	177	±118	5.0%	±3.1
Public administration	67	±50	1.9%	±1.4

Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

Of the 3,520 residents employed in during the 2016-2020 ACS 5-year period, most worked in the manufacturing, the educational, entertainment and food service, and the retail trade sectors. The breakdown of employment by industry sector in the city is similar to that of Waupaca County as a whole. One notable difference is the larger proportion of the city's employment in the manufacturing sector. As one of the largest employment centers in the county, it is anticipated that the City of New London will continue to have similar employment trends as the county.



Employment by Occupation

The previous section, employment by industry, described employment by the type of business or industry, or sector of commerce. What people do, or what their occupation is within those sectors provides additional insight into the local and county economy. This information is displayed in Table 6-4.

Table 6-4:
Employment by Occupation, City of New London, 2016-2020 ACS 5-Year Estimates

Label	Estimate	Margin of Error	Percent	Percent Margin of Error
Civilian employed population 16 years and over	3,520	±431	3,520	(X)
Management, business, science, and arts occupations	820	±228	23.3%	±5.6
Service occupations	513	±185	14.6%	±5.9
Sales and office occupations	726	±234	20.6%	±5.5
Natural resources, construction, and maintenance occupations	334	±136	9.5%	±3.6
Production, transportation, and material moving occupations	1,127	±261	32.0%	±5.7

Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

Place of Employment & Commuting Patterns

While the City of New London is an economic center that provides many jobs for its residents, the reality is that many residents work outside of New London, and many workers in New London reside outside of the City. Job commuting patterns can vary over time due to factors such as gas prices, housing availability and costs, as well as personal preference. In addition, the recent COVID-19 pandemic changed the landscape with respect to the number of people working from home. Recent data shows that during the initial stages of the pandemic in 2020, about 70% of people across the nation worked from home. This has since declined but has held steady at about 30% and is expected to continue at or near this rate for the foreseeable future.



Commute Mode

For those workers within the City of New London, the mode of travel to work can also be important. Table 6-5 shows the 2016-2020 ACS 5-Year estimates for the mode of travel for all workers 16 years and over. As suspected, a majority of workers (77%) commute using a vehicle, while 10.3% either walked, biked, or used some other means (perhaps motorcycle). The mean travel time to work for all employees was 23.2 minutes. Work from home was shown at 4.3% during this time-period but recognize that this data does not reflect the impacts of the COVID-19 pandemic.

Table 6-5:
Commute Mode, City of New London 2016-2020 ACS 5-Year Estimates

Label	Estimate	Margin of Error	Percent	Percent Margin of Error
Workers 16 years and over	3,444	±404	(X)	(X)
Car, truck, or van -- drove alone	2,657	±400	77.1%	±5.0
Car, truck, or van -- carpooled	284	±150	8.2%	±4.1
Public transportation (excl. taxicab)	0	±13	0.0%	±0.6
Walked	264	±97	7.7%	±2.7
Other means	90	±73	2.6%	±2.1
Worked from home	149	±124	4.3%	±3.9
Mean travel time to work (minutes)	23.2	±2.6	(X)	(X)

Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

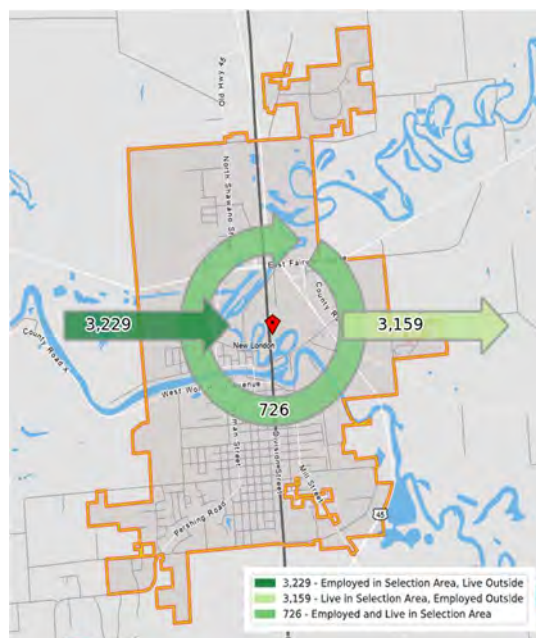
Worker Inflow/Outflow

When evaluating commuter patterns, it helpful to understand the general locations that workers commute to and from. According to the U.S. Census's "On The Map" data and as shown in Fig. 6-1:

- 3,159 residents traveled outside the City to work in other locations.
- 3,229 workers traveled to their jobs from outside of the City.
- 726 residents both lived and worked within the City.

This data shows that while the existing businesses in New London are a draw for regional employment, the City is also losing a nearly equal number of workers to jobs in other communities.

Fig. 6-1: Worker Inflow/Outflow, City of New London, 2019



In this case, it has a near net-zero effect on the local economy but may illustrate that there is a lack of housing to accommodate more people who desire to both live and work in the community.

Figure 6-2 shows a breakdown of workers who either live or work in the City of New London by place. The first table illustrates where people who work in the City live, while the second shows locations of work by people who commute to a job outside of the City.

Fig. 6-2: Worker Inflow/Outflow, City of New London, 2019

Jobs Counts by Places (Cities, CDPs, etc.) Where Workers Live - All Jobs			Jobs Counts by Places (Cities, CDPs, etc.) Where Workers are Employed - All Jobs		
2019			2019		
	Count	Share		Count	Share
All Places (Cities, CDPs, etc.)	3,955	100.0%	All Places (Cities, CDPs, etc.)	3,885	100.0%
New London city, WI	726	18.4%	New London city, WI	726	18.7%
Appleton city, WI	171	4.3%	Appleton city, WI	315	8.1%
Hortonville village, WI	135	3.4%	Oshkosh city, WI	174	4.5%
Oshkosh city, WI	82	2.1%	Hortonville village, WI	136	3.5%
Clintonville city, WI	78	2.0%	Fox Crossing village, WI	131	3.4%
Waupaca city, WI	59	1.5%	Neenah city, WI	129	3.3%
Neenah city, WI	48	1.2%	Green Bay city, WI	78	2.0%
Kaukauna city, WI	37	0.9%	Waupaca city, WI	77	2.0%
Menasha city, WI	36	0.9%	Manawa city, WI	71	1.8%
Fox Crossing village, WI	35	0.9%	Milwaukee city, WI	69	1.8%
All Other Locations	2,548	64.4%	All Other Locations	1,979	50.9%

Source: U.S. Census Bureau, 2019.

6.3 Sites for Business and Industrial Development

The City of New London has a number of existing commercial and industrial use areas throughout the City that can be described as follows:

General

Downtown

The City of New London's downtown is unique in that it is bisected by the Wolf River and consists of two areas (N. Water Street – about 6 blocks long, and S. Pearl Street – about 4 blocks long) each having their own flavor and feel. In addition, an area behind (to the north) of the N. Water Street portion of downtown houses additional retail and service uses in the form of a large grocery store, a strip mall, and expansive areas of surface parking.



The N. Water Street portion of downtown was built many years ago when the Wolf River was a “working river,” and therefore the backs of buildings abut the river, creating challenges for increasing the use of what is now a desirable amenity. Overall, the downtown environment is generally active and well-used with few building vacancies. Many building are historic in nature or somewhat dated, so there is a continued need for building maintenance and rehabilitation exists.

The City does have a Façade/Building Improvement Grant Program for eligible businesses which can assist with any rehabilitation needs. Additionally, in 2021 the City was selected to be part of the WEDC’s Connect Communities Program. The Connect Communities Program participants receive operational assistance including access to educational workshops, webinars, and conferences; networking opportunities; and an online resource guide and discussion group—all designed to facilitate revitalization of downtowns and urban commercial districts. These programs benefit a diverse array of communities by size and geography, supporting the efforts of both emerging and established revitalization programs.

Both N. Water Street and S. Pearl Street within the downtown areas are planned for major road reconstruction over the next several years and the City has been working with WisDOT and other design consultants in conjunction with businesses and residents on details of the road cross-section, pedestrian and bicycle usage, safety, and character details.

One additional item to note is the community’s embracement of ‘the arts’ as a driver for community pride, but also for tourism and economic development. Of particular note is the concentration of building murals within the downtown area. The Wolf River Art League with their “Start Art Project” have painted/installed over 50 murals throughout the city with many of them being in the downtown area.

North Shawano Street Corridor (CTH D)

This corridor is about 1.6 miles long, extending from N. Water Street in downtown to Spurr Road which connects to USH 45. The corridor is centered on the heavily traveled east-west oriented WIS 54 which leads to Waupaca and Green Bay. The area serves as a major retail hub accommodating most of the fast-food and ‘big box’ or other national chain stores to the north of WIS 54. Several national hotel chains are also located in this area. Future expansion of the corridor could occur to the north as well as to the east, between N. Shawano Street and USH 45. More detailed plans for this corridor could be beneficial to ensure that its overall ‘mixed use’ vision is appropriately designed for functionality, attractiveness, safety, and marketability prior to approving new developments.

Fig. 6-3: Façade/Building Improvement Grant Area



Mill Street Corridor (Bus. 45 / CTH T)

This corridor is just under 1 mile in length lying between Douglas Street on the north and USH 45 on the south. The corridor contains a number of service and retail businesses, as well as the ThedaCare medical facility and other medical clinics. It is also in close proximity to three of the City's existing industrial parks, all of which generate significant amounts of traffic. Mill Street also serves as a major entrance to the community for traffic coming off of USH 45 or WIS 15. While a few vacant pieces of land exist along the corridor, new economic activity would likely result from redevelopment of the corridor over time. The overall appearance of the corridor could be enhanced using design standards which address the visual quality of both public and private lands as development and redevelopment occurs. A more specific redevelopment plan could be considered and prepared for this corridor, particularly knowing that it will only increase in use after the new USH 15 expansion project is completed.

Environmentally Contaminated Sites

Brownfields, or environmentally contaminated sites, may also be good candidates for clean-up and reuse for business or industrial development. The WDNR's Bureau of Remediation and Redevelopment Tracking System (BRRTS) has been reviewed for contaminated sites that may be candidates for redevelopment in the community. For the City of New London, as of August, 2022, there was a total of only 3 sites identified by BRRTS as being located within the city and as being open or conditionally closed (indicating that further remediation may be necessary). The status of both open and closed (and potentially underutilized) sites should be further evaluated by the city for potential reuse or redevelopment.

Business & Industrial Parks

The City of New London has created four separate business and industrial parks over the years to accommodate manufacturing, warehousing, distribution, and other business uses. These areas can be described as follows and are shown on Map 6-1.

Tews Industrial Park

Located in the western portion of the City, along either side of USH 45, this industrial park consists of approximately 104 acres of land that house a variety of businesses including Granite Valley Forest Products, Hilker Trucking and Country Visions Cooperative.

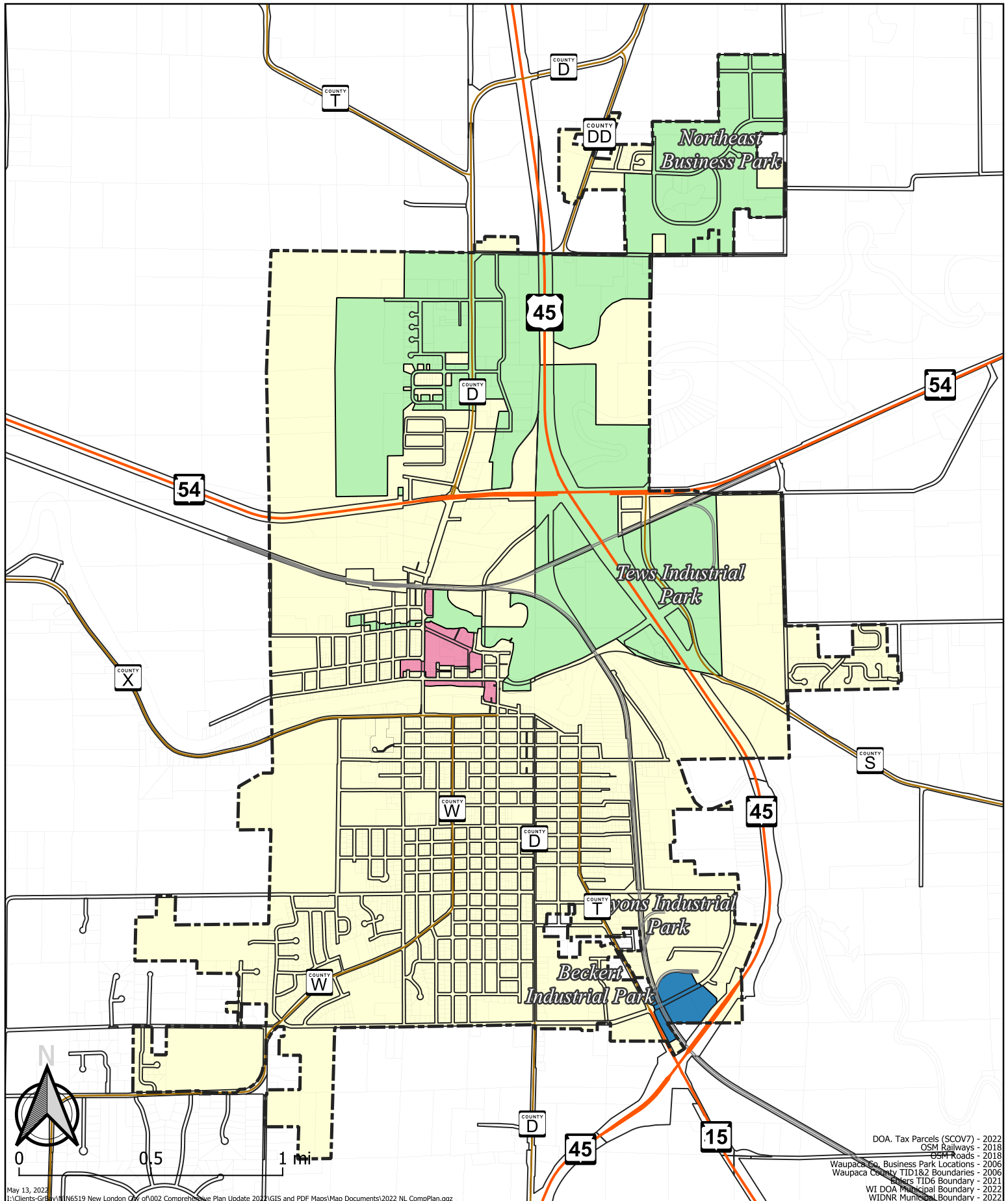
Lyons Industrial Park

Located along Industrial Loop Road, between USH 45 and CTH T, this park consists of approximately 87 acres and houses major industries such as Amcor, Ort Trucking, Titan Industries as well and several smaller manufacturers. This park is nearly full, but some limited opportunities for business expansion do exist.

Beckert Industrial Park

The park lies north of E. Beckert Road and west of CTH T and consists of approximately 52 acres. The park houses manufacturers such as Steel King and Mill-Tech, as well as several smaller service and sales businesses. Several vacant lots exist to accommodate new industrial and business development.





DOA, Tax Parcels (SCOV7) - 2022
 OSM Railways - 2018
 OSM Roads - 2018
 Waupaca Co. Business Park Locations - 2006
 Waupaca County TID1&2 Boundaries - 2006
 Waupaca County TID6 Boundary - 2021
 WI DOA Municipal Boundary - 2022
 WIDNR Municipal Boundary - 2022

6-1 Tax Increment Finance Districts

City of New London
 Outagamie & Waupaca Counties, WI

- TIF District 1
- TIF District 2
- TIF District 6



May 13, 2023
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North East New London Business Park

The City's newest industrial park encompasses approximately 165 acres and is located in the northeastern portion of the City, east of USH 45 and north of the Embarrass River. Wohlt Creamery, Northland Electrical Services, and EJ Metals are a few of the recent tenants for this park. Additional lots are available for new business and is considered one of the primary industrial expansion areas for the City.

Tax Increment Finance Districts (TIF/TID)

TIDs are used as a financing option (referred to as Tax Increment Financing) that allows a municipality (town, village, or city) to fund infrastructure and other improvements, through property tax revenue on newly developed property. A municipality identifies an area, the Tax Incremental District (TID), as appropriate for a certain type of development. The municipality identifies projects to encourage and facilitate the desired development. Then as property values rise, the municipality uses the property tax paid on that development to pay for the projects. After the project costs are paid, the municipality closes the TID. This creates a larger tax base for the municipality and the overlying taxing jurisdictions (ex: schools, county, technical colleges). Generally, when the tax base grows and spending is stable, tax rates go down, decreasing property taxes for everyone. The City of New London has three active Tax Increment Districts (TIDs) in place throughout the City (Map 6-1) which can be described as follows:

- TID #4 was created in August, 2021 as a “Mixed-Use District” comprising approximately 27.4 acres located in the southern portion of the City along W. Beckert Road. The District was created to support a new housing development. The multi-family portion of the proposed development will be within the TID boundaries with the single-family development occurring outside the TID.
- TID #5 was created in October, 2021 as a “Mixed-Use District” comprising approximately 10.6 acres located in the City's downtown and surrounding area. The District was created to support both downtown businesses and a proposed multi-family complex on the riverfront by SC Swiderski. The TID was recently expanded to incorporate the First State Bank project and additional parcels to the north in order to facilitate redevelopment.
- TID #6 was recently approved in 2022 as an “Industrial District” and encompasses approximately 25 acres in/along Industrial Loop Road with the Lyons Industrial Park. TID #6 was created based on Titan's \$2 million expansion to their facility as well as to encourage some growth on some vacant parcels within the TID boundary.

The State Legislature recently modified the TIF rules to allow for an “Affordable Housing Extension” which allows use of a final year's increment for affordable housing. At least 75% of the final increment must benefit affordable housing in the municipality, whether within or outside of the TID. A resolution must specify how the municipality will improve housing stock. The City should utilize these extensions when the time comes for a District's closure.



6.4 Programs and Support Entities

Many entities have a role in community economic development. A listing of the major entities, their roles and support programs are listed below:

New London Area Chamber of Commerce

The New London Area Chamber of Commerce has a Mission to promote the community's economic growth and the success of its member businesses and organizations. The Chamber plays a large role in the promotion of its businesses and economic opportunities within the City. The Chamber is also instrumental in a variety of event planning as well as facilitating business involvement in local and state grant and support programs.

City of New London

The City of New London plays a lead role in addressing economic development opportunities or concerns through its existing seven-person (plus two high school students) Economic Development Committee which meets regularly to discuss and act on various economic development matters and activities. The City also has an established Façade/Building Improvement Grant Program that is overseen by the Administrator for eligible properties in and near the downtown area.

Waupaca County Economic Development Corporation

The Waupaca County EDC has been in existence for many years and supports the economic development needs of all Waupaca County communities, including New London. The County EDC oversees a successful County Business Revolving Loan Fund and more recently, a new workforce-focused Mobility Management project to improve transportation for workers.

East Central Wisconsin Regional Planning Commission

The ECWRPC serves as the designated Economic Development District and Planning Agency for the U.S. Dept. of Commerce's Economic Development Administration. The Commission prepares regular updates to the region's Comprehensive Economic Development Strategy (CEDS) using local input and can help in matching community needs to EDA's funding programs.

New North, Inc.

New North is a nonprofit, regional marketing and economic development Corporation fostering collaboration among private and public sector leaders throughout the 18 counties of Northeast Wisconsin, known as the New North region. New North is a regional partner to the Wisconsin Economic Development Corporation (WEDC) and the State of Wisconsin, as well as local economic development partners and represents more than 100 private Investors. The New North brand unites the region both internally and externally around talent development, regional brand development, and business development, signifying the collective economic power behind the 18 counties of Northeast Wisconsin. Of particular note is the New North's Gold Shovel Ready Program which certifies eligible industrial site and offers numerous promotional opportunities.



Wisconsin Economic Development Corporation

The WEDC supports all community economic development efforts by offering numerous programs target at communities and businesses in order to foster growth and expansion of the State's key industry clusters. Infrastructure grants, planning grants, rehabilitation programs, and downtown revitalization programs are just some of the areas by which WEDC can potentially assist a community in its local efforts.

6.5 Desired Business and Industry

Similar to most communities in Waupaca County, the City of New London would welcome most economic opportunities that do not sacrifice community character or require a disproportionate level of community services per taxes gained. The categories or particular types of new businesses and industries that are desired by the community are generally described in the goals, objectives, and policies, and more specifically with the following. Desired types of business and industry in the City of New London include, but are not necessarily limited to:

- ♦ Business and industry which retains the small town character of the community.
- ♦ Business and industry which utilizes high quality and attractive building and landscape design.
- ♦ Business and industry which utilizes well planned site design and traffic circulation.
- ♦ Business and industry which revitalizes and redevelops blighted areas of the community.
- ♦ Businesses which provide essential services which are otherwise not available within the community, such as retail stores, personal services, and professional services.
- ♦ Home based businesses which blend in with residential land use and do not harm the surrounding neighborhood.
- ♦ Business and industry which provide quality employment for local citizens.
- ♦ Business and industry which support existing employers with value adding services or processes.
- ♦ Business and industry which brings new cash flow into the community.
- ♦ Businesses which enhance existing and planned retail shopping areas.
- ♦ Businesses which do not cause or contribute to the deterioration of the downtown.
- ♦ Businesses which do not compete with the downtown.
- ♦ Business and industry which capitalizes on community strengths.
- ♦ Business and industry which do not exacerbate community weaknesses.



6.6 Strengths and Weaknesses Analysis

A determination of the strengths and weaknesses of the City of New London as it relates to its economy were derived from the initial SWOT analysis done with the Plan Commission and can provide some initial direction for future economic development planning. Strengths should be promoted, and new development that fits well with these features should be encouraged.

Weaknesses should be improved upon or further analyzed, and new development that would exacerbate weaknesses should be discouraged. The economic strengths and weaknesses of the city are as follows:

Strengths

- Electric grid / capacity available for business and industry
- River / water resources
- Outdoor recreation opportunities
- Utilities are proactive and responsive
- Park system (recreation, trails, ballfields)
- Ability to grow on lands adjacent to City
- Active Chamber of Commerce
- Variety of business types / strong manufacturing
- Regional location (access to Fox Valley / Highways / Development potential / workforce)
- Irish Festival / other events
- Population tenure (desire to stay and/or come back)
- Hospital/clinic
- Good schools
- Existing industry (draws people)
- Large business attraction (ability to have big box stores)
- Downtown businesses

Weaknesses

- Blight in some areas
- Housing costs and availability
- Highway 15 usage / underachieving in business attraction
- Downtown structures (awkward size/orientation/old)
- Too close to Fox Valley (easy to leave for shopping and entertainment)
- Not using river to full advantage (seasonality, commercial opps.)
- Need more space (land and buildings) for business and industry (ready and available)
- Wetland and floodplain amounts / barrier to growth
- Quality employee shortage
- Population size (smaller limits opportunities)
- Limited commercial and recreation opportunities



6.7 Economic Development Goals and Objectives

Community goals are broad, value-based statements expressing public preferences for the long term (20 years or more). They specifically address key issues, opportunities, and problems that affect the community. Objectives are more specific than goals and are more measurable statements usually attainable through direct action and implementation of plan recommendations. The accomplishment of objectives contributes to fulfillment of the goal.

Goal 1 Support the organizational growth of economic development programs in the community and region.

Objectives

- 1.a. Increase cooperation between communities regarding comprehensive planning and economic development issues, such as the recent need for affordable housing.
- 1.b. Promote dialogue and continue to strengthen relationships between the community and local businesses.
- 1.c. Support the efforts of the New North, Waupaca County Economic Development Corporation, the local chamber of commerce, and other supporting

Goal 2 Maintain the utility, communication, and transportation infrastructure systems that promote economic development.

Objectives

- 2.a. Maintain a vital downtown and provide adequate pedestrian areas and aesthetic features which encourage consumer activity and enhance community character.
- 2.b. Improve economic development opportunities along highway and utility corridors.
- 2.c. Support the development of regional facilities, cultural amenities, and services that will strengthen the long-term attractiveness of the community, Waupaca County, and the region.
- 2.d. Monitor the infrastructure needs of established businesses in order to meet their expansion and facility needs when they are consistent with the community's comprehensive plan.
- 2.e. Maintain a fair and equitable user fee system that supports existing infrastructure without hindering economic development.

Goal 3 Balance the retention and expansion of existing business with entrepreneurial development and new business attraction efforts.

Objectives

- 3.a. Maintain and support agriculture, manufacturing, tourism, and related support services as strong components of the local economy.
- 3.b. Promote business retention, expansion, and recruitment efforts that are consistent with the community's comprehensive plan.



- 3.c. Monitor opportunities to support existing businesses by establishing public-private partnerships.
- 3.d. Support the pursuit of local, state, and federal funding and assistance that will help entrepreneurs start new businesses.
- 3.e. Distinguish and promote features unique to the community in order to compliment neighboring communities and create a unique identity within the County.

Goal 4 Maintain a quality workforce to strengthen existing businesses and maintain a high standard of living.

Objectives

- 4.a. Support local employment of area citizens, especially efforts that create opportunities for local youth.
- 4.b. Accommodate home-based businesses that do not significantly increase noise, traffic, odors, lighting, or would otherwise negatively impact the surrounding area.
- 4.c. Support area high schools, technical colleges, and universities, in their workforce development efforts.
- 4.d. Formally incorporate the expansion of affordable workforce housing creation into the City's existing economic development structure and activities.

Goal 5 Support opportunities to increase and diversify the community's tax base.

Objectives

- 5.a. Balance the need for community growth with the cost of providing public services.
- 5.b. Ensure that there are sufficient prime commercial and industrial lands to accommodate desired economic growth in the community.
- 5.c. Support business development that will add to the long-term economic stability of the community.
- 5.d. Work to maintain an effective and efficient government to reduce the tax burden on local businesses.

6.8 Economic Development Policies and Recommendations

Policies and recommendations build on goals and objectives by providing more focused responses to the issues that the city is concerned about. Policies and recommendations become primary tools the city can use in making land use decisions. Many of the policies and recommendations cross element boundaries and work together toward overall implementation strategies.

Policies identify the way in which activities are conducted in order to fulfill the goals and objectives. Policies that direct action using the word "shall" are advised to be mandatory and regulatory aspects of the implementation of the comprehensive plan. In contrast, those policies that direct action using the words "will" or "should" are advisory and intended to serve as a



guide. “Will” statements are considered to be strong guidelines, while “should” statements are considered loose guidelines. The city’s policies are stated in the form of position statements (City Position), directives to the city (City Directive), or as criteria for the review of proposed development (Development Review Criteria).

Recommendations are specific actions or projects that the city should be prepared to complete. The completion of these actions and projects is consistent with the city’s policies, and therefore will help the city fulfill the comprehensive plan goals and objectives.

Policies: City Position

- ED1 The community shall pursue economic development efforts which strengthen and diversify the existing economic base before pursuing time consuming, and often expensive, business recruitment efforts
- ED2 The community shall support new business development efforts, and existing business expansion and retention efforts, which are consistent with the comprehensive plan
- ED3 In order to save on development costs and allow maximum flexibility in meeting developer needs, subdividing of industrial parks should not take place until developments are approved that are compliant with the community’s conceptual industrial park plan or master layout.

Policies: City Directive

- ED4 The community shall maintain prime commercial and industrial lands adequate to encourage the desired types and amounts of such development .
- ED5 The community should pursue the development of a more detailed plan for land use, infrastructure, and economic development near the USH 45 and USH 15 corridors.
- ED6 The community shall work with the Waupaca County Economic Development Corporation and other entities such as New North, ECWRPC, and WEDC as resources to achieve its economic development goals and objectives
- ED7 The community shall encourage economic development efforts through public-private partnerships (such as revolving loan funds, city TIF districts, etc.)
- ED8 The community shall support and participate in the organization of apprenticeship, on-the-job training, student touring and visitation, and student work-study programs with local industry, schools, and government
- ED9 The retention and expansion of existing businesses and attraction of new businesses shall be encouraged through utility improvements and the implementation of improved communication technology.



ED10 The City should promote the development of new affordable workforce housing which aligns with the needs of current employers.

Policies: Development Review Criteria

ED11 New development and redevelopment projects shall be required to utilize high quality building and site design.

ED12 New commercial and industrial development shall employ site and building designs that include:

- ♦ Attractive signage and building architecture;
- ♦ Shared highway access points;
- ♦ Screened parking and loading areas;
- ♦ Screened mechanicals;
- ♦ Landscaping;
- ♦ Lighting that does not spill over to adjacent properties;
- ♦ Efficient traffic and pedestrian flow.

ED13 Large, bulky, box-like commercial structures should be designed in a manner that blends in and provides a more pedestrian-oriented feel.

ED14 Commercial and industrial development proposals will provide an assessment of potential impacts to the cost of providing community facilities and services

ED15 Commercial and industrial development proposals should provide an assessment of potential impacts to economic health and markets including interactions with the existing local and regional economy, community service impacts, job creation, job retention, and worker income.

ED16 Future economic development should include export businesses that produce goods and services within the community but are sold primarily to outside markets

ED17 The community shall encourage industries that provide educational and training programs, require skilled workers, and provide higher paying jobs.

ED18 The City should encourage and work with existing major employers to become more actively involved in the creation of new affordable workforce housing.

Recommendations

- ♦ Require major land divisions, conditional uses, and other substantial development projects to submit an assessment of potential impacts to economic health and markets as part of the development review process. The assessment includes, as applicable, interactions with the existing local and regional economy, community service impacts, job creation, job retention, and worker income.



- ◆ Explore ways to use the riverfront to attract and seek out programs to help market the city, particularly riverfront development, public trails, and public access
- ◆ Establish a relationship with local businesses and industry to determine the types of training programs needed in the high school and technical school to provide a skilled work force.
- ◆ The development of economic area plans (e.g., business park plans, TIF district plans, highway commercial corridor plans, riverfront plans, affordable housing plans, etc.) will be pursued within the planning period.
- ◆ Identify lands on the zoning map and the preferred land use map of the comprehensive plan adequate to attract new business and job growth, as well as to accommodate workforce housing.
- ◆ Explore incentives and sources of funding to improve buildings and support small business owners.
- ◆ Work with the Tourism Commission to explore, support, and promote additional opportunities for tourism as a method to attract new businesses.

Figure 6-4: Conceptual Plan for Riverfront Behind Downtown



Source: Ayres Associates, 2022

7. Intergovernmental Cooperation

7.1 Intergovernmental Cooperation Plan

From cooperative road maintenance to fire protection service districts, to shared government buildings, the City of New London and its surrounding communities have a long history of intergovernmental cooperation. As social, economic, and geographic pressures affect change in the City of New London, cooperative strategies may be required for creative and cost-effective solutions to the problems of providing public services and facilities.

Intergovernmental cooperation is any arrangement by which officials of two or more jurisdictions coordinate plans, policies, and programs to address and resolve issues of mutual interest. It can be as simple as communicating and sharing information, or it can involve entering into formal intergovernmental agreements to share resources such as equipment, buildings, staff, and revenue. Intergovernmental cooperation can even involve consolidating services, consolidating jurisdictions, modifying community boundaries, or transferring territory.

The City of New London's plan for intergovernmental cooperation is to continue to encourage and maintain positive and mutually beneficial relationships with its neighboring Towns of Mukwa, Lebanon, Hortonia, Liberty, and Maple Creek and with Waupaca and Outagamie Counties. Intergovernmental cooperation efforts will center on the efficient delivery of community services. Currently, the city shares fire protection services and recreational facilities and programs with surrounding towns. The city will also concentrate on cooperative planning and intergovernmental agreements in the extraterritorial growth areas, as expansion of the existing municipal boundary is expected over the long term.

7.2 Inventory of Existing Intergovernmental Agreements

The following recorded intergovernmental agreements apply to the city currently:

- ♦ **Agreement between Waupaca County Department of Health and Human Services and City of New London – Senior Center**

This agreement between the city and Waupaca County was originally developed in 2004 and allows the county Department of Health and Human Services to utilize the city's community center to house senior programs and services. The city is responsible for maintaining the building, and the county is responsible for all equipment and supplies needed to administer its programs. This agreement will be reviewed in 2022 by the city for any potential changes or updates.



- ♦ **Agreements for Fire Protection, City of New London, and the Towns of Mukwa, Lebanon, Caledonia, Hortonia, Liberty, and Maple Creek**
These agreements document the reliance on the New London Fire Department by several neighboring towns and were originally developed in 2003. Portions of the Towns of Mukwa, Caledonia, Lebanon, Hortonia, Maple Creek, and Liberty are covered by the agreement are included. The agreements establish town costs, based on property values for the participating areas and will be reviewed and updated in 2022.

7.3 Analysis of the Relationship with School Districts and Adjacent Local Governmental Units

School Districts

The City of New London is located within the New London School District. The city maintains cooperative relationships with the school districts, particularly in terms of the use of school athletic facilities that are open for use by community members.

Adjacent Local Governments

The City of New London actively participates in intergovernmental coordination with adjacent local governments. Shared agreements for fire protection are in place with the Towns of Mukwa, Caledonia, Liberty, Hortonia, Maple Creek, and Lebanon. Opportunities for additional cooperative efforts could stem from the comprehensive planning process. The city has had a strained relationship with its neighboring communities and will seek to improve that with additional shared service agreements where applicable. When the need to expand municipal boundaries arise over the long term, it is the city's desire to do this in a cooperative manner with the Towns of Mukwa, Lebanon, Hortonia, Maple Creek, and Liberty.

7.4 Intergovernmental Opportunities, Conflicts, and Resolutions

The intent of identifying the intergovernmental opportunities and conflicts shown below is to stimulate creative thinking and problem solving over the long term. Not all of the opportunities shown are ready for immediate action, and not all of the conflicts shown are of immediate concern. Rather, these opportunities and conflicts may further develop over the course of the next 20 to 25 years, and this section is intended to provide community guidance at such time. The recommendation statements found in each element of this plan specify the projects and tasks that have been identified by the community as high priorities for action.

Opportunities

1. Develop plan implementation ordinances and other tools simultaneously
2. Utilize a coordinated process to update and amend the comprehensive plan
3. Work with the school district to anticipate future growth, facility, and busing needs
4. Share the use of school district recreational and athletic facilities



5. Share excess space at the city hall
6. Share excess space at the city garage
7. Share excess space at the library
8. Share community staff
9. Share office equipment
10. Share construction and maintenance equipment
11. Coordinate shared services or contracting for services such as police protection, solid waste and recycling, recreation programs, etc.
12. Analyze revenue collected for services utilized by other communities and attempt to achieve equity between services utilized and fees paid
13. Improve the management of lands in planned extraterritorial growth areas through annexation, extraterritorial authority, or boundary agreements
14. Improve the attractiveness of community entrance points

Potential Conflicts and Resolutions

Potential Conflict	Process to Resolve
Siting of large livestock farms near incorporated areas.	<ul style="list-style-type: none"> Towns to consider establishing an Agriculture/Urban Interface area that prevents new farms over 500 animal units from locating within ½ mile of incorporated areas Waupaca County to administer ACTP51 performance standards for livestock operations over 500 animal units
Annexation conflicts between the city and the adjacent towns.	<ul style="list-style-type: none"> Joint community Plan Commission meetings
Residential development at rural densities in areas planned for the expansion of city utilities.	<ul style="list-style-type: none"> Joint community Plan Commission meetings Use of extraterritorial land division review Distribution of plans and plan amendments to adjacent and overlapping governments
Low quality commercial or industrial building and site design along highway corridors or community entrance areas.	<ul style="list-style-type: none"> Joint community Plan Commission meetings Cooperative design review ordinance development and administration
Development or land use that threatens groundwater quality in municipal well recharge areas.	<ul style="list-style-type: none"> Joint community Plan Commission meetings
Cooperative planning and implementation of wellhead protection areas.	<ul style="list-style-type: none"> Joint community Plan Commission meetings
Construction of buildings or other improvements in areas planned for future parks, street extensions, or other public infrastructure.	<ul style="list-style-type: none"> Distribution of plans and plan amendments to adjacent and overlapping governments Joint community Plan Commission meetings Cooperative planning and implementation of official mapping
Concern over poor communication between the city and the school district.	<ul style="list-style-type: none"> Distribution of plans and plan amendments to adjacent and overlapping governments
Concern over too much intervention by Waupaca and Outagamie Counties and state relative to local control of land use issues.	<ul style="list-style-type: none"> Adopt a local comprehensive plan Take responsibility to develop, update, and administer local land use ordinances and programs Maintain communication with Counties on land use issues



	<ul style="list-style-type: none"> • Provide ample opportunities for public involvement during land use planning and ordinance development efforts
Increasing cost of providing services and amenities such as parks, recreation programs, libraries, museums, etc., that benefit the surrounding region.	<ul style="list-style-type: none"> • Cooperative planning for revenue sharing, shared service agreements, impact fees, level of service standards, etc.

7.5 Intergovernmental Cooperation Goals and Objectives

Community goals are broad, value-based statements expressing public preferences for the long term (20 years or more). They specifically address key issues, opportunities, and problems that affect the community. Objectives are more specific than goals and are more measurable statements usually attainable through direct action and implementation of plan recommendations. The accomplishment of objectives contributes to fulfillment of the goal.

Goal 1 Foster the growth of mutually beneficial intergovernmental relations with other units of government.

Objectives

- 1.a. Continue communicating and meeting with other local governmental units to encourage discussion and action on shared issues and opportunities.
- 1.b. Work cooperatively with surrounding communities in the comprehensive plan development, adoption, and amendment processes to encourage an orderly, efficient development pattern that preserves valued community features and minimizes conflicts between land uses along community boundaries.
- 1.c. Pursue opportunities for cooperative agreements with neighboring towns regarding annexation, expansion of public facilities, sharing of services, and density management.

Goal 2 Seek opportunities to reduce the cost and enhance the provision of coordinated public services and facilities with other units of government.

Objectives

- 2.a. Continue the use of joint purchasing and shared service arrangements with county and local governments to lower the unit cost of materials and supplies for such things as office supplies, road salt, fuel, roadwork supplies, and machinery.
- 2.b. Seek mutually beneficial opportunities for joint equipment and facility ownership with neighboring communities.
- 2.c. Monitor opportunities to improve the delivery of community services by cooperating with other units of government.



7.6 Intergovernmental Cooperation Policies and Recommendations

Policies and recommendations build on goals and objectives by providing more focused responses to the issues that the city is concerned about. Policies and recommendations become primary tools the city can use in making land use decisions. Many of the policies and recommendations cross element boundaries and work together toward overall implementation strategies.

Policies identify the way in which activities are conducted in order to fulfill the goals and objectives. Policies that direct action using the word “shall” are advised to be mandatory and regulatory aspects of the implementation of the comprehensive plan. In contrast, those policies that direct action using the words “will” or “should” are advisory and intended to serve as a guide. “Will” statements are considered to be strong guidelines, while “should” statements are considered loose guidelines. The city’s policies are stated in the form of position statements (City Position), directives to the city (City Directive), or as criteria for the review of proposed development (Development Review Criteria).

Recommendations are specific actions or projects that the city should be prepared to complete. The completion of these actions and projects is consistent with the city’s policies, and therefore will help the city fulfill the comprehensive plan goals and objectives.

Policies: City Position

- IC1 The city should support the consolidation or shared provision of community services where the desired level of service can be maintained, where the public supports such action, and where sustainable cost savings can be realized.
- IC2 Transportation issues that affect the city and neighboring communities should be jointly discussed and evaluated with those communities and with the Waupaca and Outagamie County Highway Departments and the Wisconsin Department of Transportation, if necessary.
- IC3 Educational efforts regarding planning, land use regulation, implementation, or resource management should be discussed as a joint effort with neighboring communities.
- IC4 Opportunities for sharing community staff or contracting out existing staff will be pursued should the opportunity arise.
- IC5 Community facilities that have available capacity should be considered for joint use with neighboring communities or community organizations.
- IC6 A joint planning area should be developed with neighboring communities in areas where there is common interest, potential for conflicts, or where regulatory authority overlaps.



- IC7 Unless the terms of an intergovernmental agreement dictate otherwise, annexation requests within planned extraterritorial growth areas shall generally be accepted by the city.
- IC8 Unless the terms of an intergovernmental agreement dictate otherwise, the city shall utilize its extraterritorial jurisdiction in planned growth areas in order to preserve the character of community entrance points, highway corridors, and boundary areas, and to preserve a pattern of development that is conducive to the extension of city utilities and services.

Policies: City Directive

- IC9 The city shall work toward recording all intergovernmental agreements in writing including joint road maintenance agreements.
- IC10 The community should pursue a cooperative boundary plan with the neighboring towns within the planning period.
- IC11 The city shall work cooperatively with neighboring towns to address land use, building and site design, and development density in areas along the city boundary, along highway corridors, and at community entrance points.
- IC12 The city will participate in county-initiated efforts to inventory and assess existing and future needs for public facilities and services as part of an overall program to increase cost-effectiveness and efficiency through consolidation and other cooperative opportunities.
- IC13 The city should consider intergovernmental and other cooperative options (e.g., trading, renting, sharing, contracting, etc.) before establishing, reinstating, expanding or rehabilitating community facilities, utilities, or services, or before purchasing new community facilities or equipment.

Policies: Development Review Criteria

- IC14 Development proposals in planned expansion or extraterritorial growth areas shall be reviewed cooperatively with the neighboring town(s).
- IC15 New residential lots proposed in planned expansion or extraterritorial growth areas that are more than twice the city's minimum residential lot size shall be designed and dimensioned in a fashion that allows the lot to be further divided into smaller parcels that meet the intent of the city zoning ordinance.



Recommendations

- ♦ Continue to exercise extraterritorial land division review authority. Annually notify the surrounding towns and Waupaca and Outagamie Counties of this exercise of jurisdiction.
- ♦ Pursue the establishment of a cooperative site plan and architectural design review ordinance and committee with the surrounding townships to jointly review and regulate development in community entrance and other key extraterritorial areas.
- ♦ Work closely with the Town of Hortonia regarding land use and local transportation issues associated with the expansion of the USH 15 corridor.



8. Land Use

8.1 Introduction

Land use is central to the process of comprehensive planning and includes both an assessment of existing conditions and a plan for the future. Land use is integrated with all elements of the comprehensive planning process. Changes in land use are not isolated, but rather are often the end result of a change in another element. For example, development patterns evolve over time as a result of population growth, the development of new housing, the development of new commercial or industrial sites, the extension of utilities or services, or the construction of a new road. This chapter of the comprehensive plan includes local information for both existing and planned land use in the City of New London

8.2 Existing Land Use

Evaluating land use entails broadly classifying how land is presently used. Each type of land use has its own characteristics that can determine compatibility, location, and preference relative to other land uses. Land use analysis then proceeds by assessing the community development impacts of land ownership patterns, land management programs, and the market forces that drive development. Mapping data are essential to the process of analyzing existing development patterns and will serve as the framework for formulating how land will be used in the future.

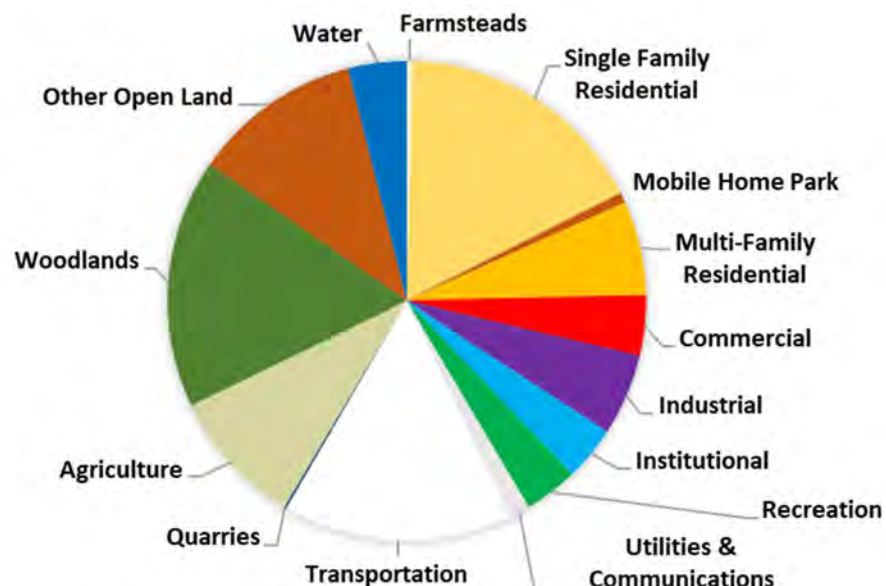
Table 8-1, Figure 8-1, and Map 8-1 together provide the picture of existing land use (2021) for the City of New London.

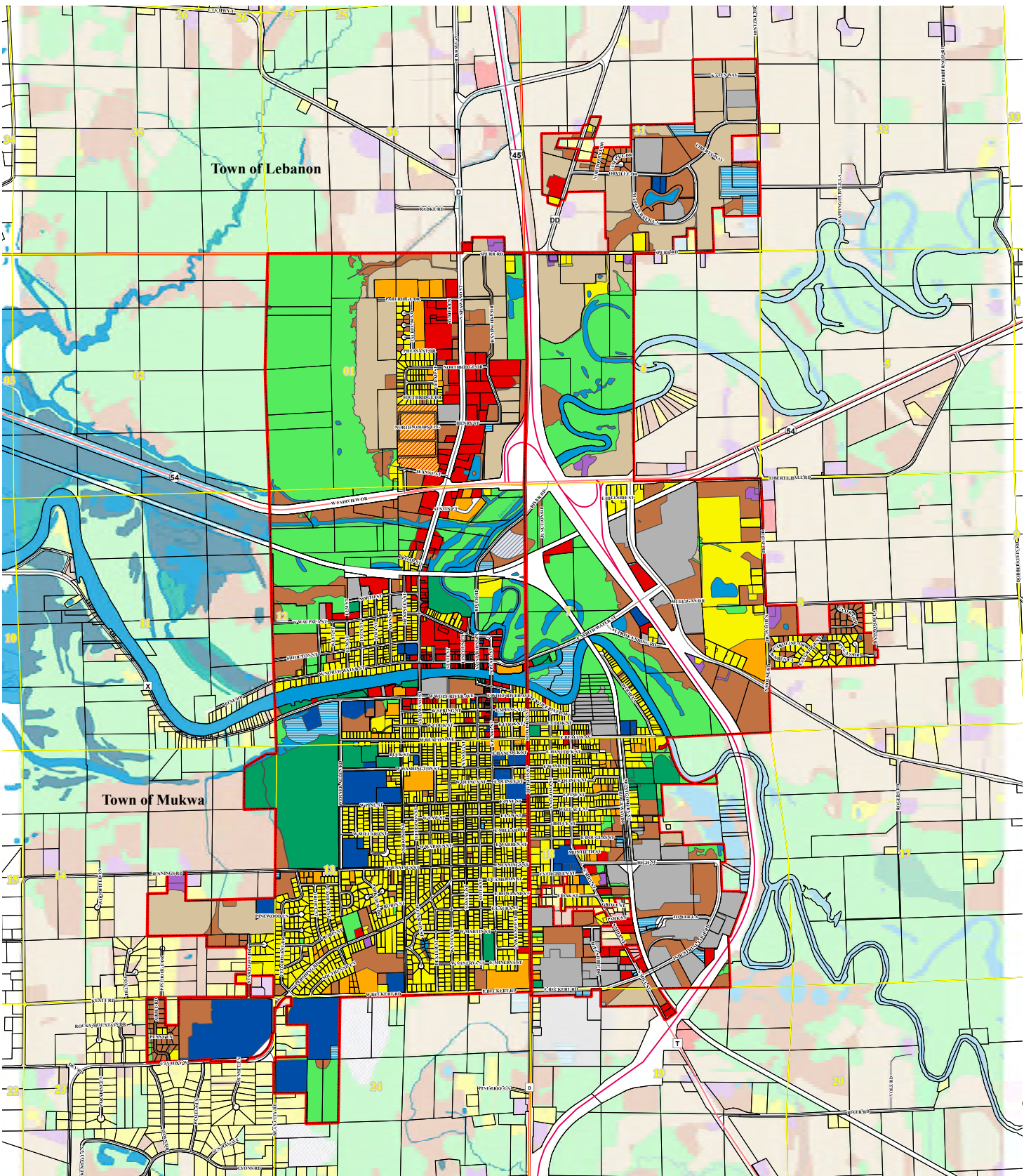


**Table 8-1:
Existing Land Use, City of New London, 2021 and 2004**

	Land Use Type	2021 Acres	Percent of Total	Acres (2004)	Difference 2021-2004
Developed Land Uses	Farmsteads	17.3	0.5%	5.0	12.28
	Single Family Residential	660.1	17.2%	589.0	71.15
	Mobile Home Park	26.6	0.7%	27.0	(0.36)
	Multi-Family Residential	244.5	6.4%	63.0	181.45
	Commercial	155.2	4.1%	138.0	17.22
	Industrial	212.7	5.6%	186.0	26.73
	Institutional	140.9	3.7%	130.0	10.94
	Recreation	139.9	3.7%	121.0	18.89
	Utilities & Communications	52.1	1.4%	40.0	12.05
	Transportation	598.0	15.6%	598.0	(0.03)
Undeveloped Land Uses	Quarries	6.9	0.2%	12.0	(5.05)
	Agriculture	356.3	9.3%	435.0	(78.67)
	Woodlands	647.1	16.9%	630.0	17.10
	Other Open Land	439.5	11.5%	495.0	(55.53)
	Water	152.3	4.0%	191.0	(38.68)
TOTAL		3,832.2	100.0%	3,660.0	172.21
Summaries					
	Developed Land Uses	2,247.3	58.6%	1,897.0	51.8%
	Undeveloped Land Uses	1,602.2	41.8%	1,763.0	48.2%
	Developable Land Uses (minus water & quarries)	1,442.9	37.7%	1,560.0	42.6%
Source: City of New London 2004/June, 2021 & Cedar Corporation, June 2021.					

**Figure 8-1:
Existing Land Use, City of New London, 2021**





EXISTING LAND USE

City of New London, Waupaca County

Classifications

 Single Family Residential	 Recreational
 Multi-Family	 Utilities & Communications
 Mobile Home Park	 Institutional
 Farmsteads	 Industrial
 Commercial	 Quarries
 Agriculture	 Transportation
 Other Open Land	 Water
 Woodlands	

Roads

 Federal Road
 State Road
 County Road
 Local Road

Features

 City of New London
 Sections
 Parcels



Source: East Central Wisconsin Regional Planning Commission, Waupaca County, Outagamie County & The City of New London.

This drawing is neither a legally recorded map nor survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only.



The City of New London currently has 3,832 acres of land within the city boundary. The picture of existing land use makes it easy to see how city residents' value and enjoy natural resources. There is an abundance of resource lands including water (152 acres), open lands (440 acres), woodlands (647 acres) and parks (140 acres), which together account for over 1/3 (36%) of the landscape. The single largest land use in the city is woodlands. Following closely are transportation features at 598 acres, which include street, highway, and railroad rights-of-way along with other WisDOT owned lands. The largest developed use is residential, taking up 660 acres. Other developed land uses include industrial at 213 acres, institutional at 141 acres, and commercial at 155 acres. Wetlands also occupy approximately 486 acres (circa 2007), mainly in the northwest quadrant of the city, as shown on Map 5-15 of the Waupaca County Comprehensive Plan's Inventory and Trends Report.

The Wolf River and local transportation features have largely influenced the development pattern of the city. Wetlands associated with the river prevent development in the northwest portions of the city, and the river is a focal point near the downtown. The Wolf River bisects the city from east to west. Most of the commercial development has been north of the river, but it also has developed along Business Highway 45, which essentially bisects the city from north to south.

Industrial development has largely occurred along or near WIS 45, which runs north and south, along the eastern boundary of the city. The downtown area is quite large for a city the size of New London. It encompasses lands from Pearl Street from Beacon Avenue to North Water Street. North Water Street is the part of the downtown that borders the north bank of the Wolf River. The downtown area then continues on Shawano Street from North Water to Waupaca Street.

Growth in residential, commercial, and industrial land uses helped the city recover from the recession of 2008 and slow, but steady construction followed for the next 10 years. Decreases were again seen during the 2020/2021 COVID-19 pandemic however; housing demands – particularly for multi-family uses - are now starting to show based on regional and nationwide shortages for attainable (workforce) housing. An impact of the pandemic was a reduced supply of building materials which have inflated housing costs corresponding to the attainable housing shortage.

A majority of new single-family residential development has been taking place along the western boundary of the city in areas to the west of the New London High School (London Acres) and west of Shawano St. (CTH D) behind the existing commercial uses. New multi-family developments have also located in behind this commercial corridor. In addition, S.C. Swiderski LLC has proposed a new 98-unit mixed use apartment complex for construction in 2022 along the south side of the Wolf River, adjacent to the Hilker Warehouse facility. The challenge the City faces is to ensure that sufficient lands are planned for and available to accommodate residential growth.

The commercial development has mostly taken place in the northern portion of the city along Business Highway 45, in an area of high visibility from WIS 45. Industrial growth has also occurred in the northeastern portion of New London with the newest developments being in the industrial park located north of Spurr Road and east of WIS 45. Again, these lands were chosen for development because of their close proximity to WIS 45.



8.3 Projected Supply and Demand of Land Uses

The following table displays estimates for the total acreage that will be utilized by residential, commercial, industrial, institutional, and resource land uses for five-year increments through 2040. These future land use demand estimates are largely dependent on population and housing projections (Tables 8-2 and 8-3) and should only be utilized for planning purposes in combination with other indicators of land use demand.

The linear housing unit projection is utilized as the basis for the residential land use demand projections. The residential land use demand projection (Table 8-4) then assumes that the existing housing unit density will remain constant. The existing residential density is 0.281 acres of land per housing unit based on 948.5 acres of residential land use and 3,376 housing units. Said another way, there are 3.56 housing units per acre of residential land.

Projected demand for commercial, industrial, and institutional land use (Table 8-4) assumes that the ratio of the city's 2020 population to current land area in each use will remain the same in the future. In other words, each person will require the same amount of land for each particular land use as he or she does today. These land use demand projections rely on the linear population projection. It should be noted that the industrial land use demand projection includes the mining and quarry existing land use.

Projected resource land use acreages are calculated based on the assumption that the amount will decrease over time.

Agriculture, woodlots, and other open land are the existing land uses that can be converted to other uses to accommodate new development. The amount of resource lands consumed in each five year increment is based on

the average amount of land use demand for each of the developed uses over the 20 year period. In other words, a total of 8.75 acres per year is projected to be consumed by residential, commercial, industrial, and institutional development in the City of New London, so resource lands are reduced by 8.75 acres per year (vs. slightly over 11 acres per year when this was last calculated in 2007).



**Table 8-2:
City of New London - Population Estimates and Projections, 2010-2040**

	2010	2020 (Est.)	2025	2030	2035	2040	Diff. 2020- 2040
Total Population	7,295	7,436	7,825	7,990	7,955	7,775	339
Difference from Prev. Period	n/a	141	389	165	-35	-180	(321)
% Change From Prev. Period	n/a	1.93%	5.23%	2.11%	-0.44%	-2.26%	4.6%

Source: U.S. Census, 2010; WDOA 2020 Est.; WDOA 2010-2040 Population Projections (circa 2013).

**Table 8-3:
City of New London – Housing Unit Estimates and Projections, 2010-2040**

	2010	2020 (2019 ACS)	2025	2030	2035	2040	Diff. 2020- 2040
Housing Units	3,310	3,376	3,478	3,599	3,649	3,633	257
Households	3,038	3,126	3,470	3,595	3,633	3,603	477
Avg. HH Size	2.40	2.17	2.25	2.22	2.18	2.14	(0.03)

Source: U.S. Census, 2010; ACS 2019 and WDOA 2010-2040 Household Projections (circa 2013).

**Table 8-4:
Projected Land Use Demand (acres) City of New London 2020-2040**

	Land Use Type	2021 Acres	Ratio of Total Population / Land Use (2021)	Projected 2040 Acreage*	Change in Acres (2040- 2021)	Acres per Year	Acres per 5 Years
Developed Land Uses	Farmsteads	17.3	0.00	17.3	0.0	0.0	0.0
	Single Family Residential	660.1	0.09	709.3	51.2	2.7	13.5
	Mobile Home Park	26.6	0.00	26.6	-	-	-
	Multi-Family Residential	244.5	0.03	262.7	18.2	1.0	4.8
	Commercial	155.2	0.02	166.8	11.6	0.6	3.0
	Industrial	212.7	0.03	228.6	15.8	0.8	4.2
	Institutional	140.9	0.02	151.4	10.5	0.6	2.8
	Recreation	139.9	0.02	150.3	10.4	0.5	2.7
	Utilities & Communications	52.1	0.01	55.9	3.9	0.2	1.0
	Transportation	598.0	0.08	642.5	44.5	2.3	11.7
Undeveloped Land Uses	Quarries	6.9	0.00	6.9	(0.0)	(0.0)	(0.0)
	Agriculture	356.3	0.05	242.3	(114.0)	(6.0)	(30.0)
	Woodlands	647.1	0.09	627.1	(20.0)	(1.1)	(5.3)
	Other Open Land	439.5	0.06	392.1	(47.4)	(2.5)	(12.5)
	Water	152.3	0.02	152.3	(0.0)	(0.0)	(0.0)
TOTAL		3,832.2	0.52	3,832.2	-	-	-

Source: City of New London 2004/June, 2021 & Cedar Corporation, June 2021.

* Based on peak 2030 population of 7,990.



Table 8-5 provides a comparison of land supply and demand for the City of New London. Land use demand is based on the previous calculations, and land supply is based on the Future Land Use Plan described in Section 8.4.

**Table 8-5:
Land Supply and Demand Comparison City of New London**

	Land Use Type	Projected 2040 Acreage	Future Land Use Map Acreage
Developed Land Uses	Farmsteads	17.3	732.98
	Single Family Residential / Single Family & Duplex	709.3	
	Mobile Home Park	26.6	
	Multi-Family Residential / Medium-High Density	262.7	282.06
	Commercial (including mixed use)	166.8	311.33
	Industrial	228.6	520.78
	Institutional	151.4	206.01
	Recreation	150.3	244.05
	Utilities & Communications	55.9	n/a
	Transportation	642.5	652.65
Undeveloped Land Uses	Quarries	6.9	n/a
	Agriculture	242.3	637.45
	Woodlands	627.1	
	Other Open Land	392.1	
	Water	152.3	124.57
TOTAL		3,832.2	3,711.9

Source: City of New London, June, 2021 & Cedar Corporation, September, 2021

Total acreages may differ slightly due to inconsistencies in data sets.

The City of New London has planned for a sufficient supply of land based on the projected demand. The new plan has slightly less Residential land than is projected for, but it will certainly be sufficient for the next ten years. Plus, there is a trend toward smaller lot sizes as a means to improve the affordability of workforce housing. Monitoring the plan and rates of development could prove useful should future plan amendments be required. Lands for commercial use are provided for in quantities nearly twice the projected need in areas designated Commercial and Commercial/Mixed Use. Industrial areas have been provided for, with nearly three times the projected demand, in areas designated as Industrial. Planning a supply of about twice the expected demand is desirable in many cases in order to be poised for positive growth opportunities, and to allow adequate options for alternative development proposals.



8.4 Future Land Use Plan

The Future Land Use Plan and Map is one of the central components of the comprehensive plan that can be used as a guide for local officials when considering community development and redevelopment proposals. When considering the role of the Future Land Use Plan in community decision-making, it is important to keep the following characteristics in mind.

- A land use plan is an expression of a preferred or ideal future - a vision for the future of the community.
- A land use plan is not the same as zoning. Zoning is authorized and governed by a set of statutes that are separate from those that govern planning. And while it may make sense to match portions of the land use plan map with the zoning map immediately after plan adoption, other portions of the zoning map may achieve consistency with the land use plan incrementally over time.
- A land use plan is not implemented exclusively through zoning. It can be implemented through a number of fiscal tools, regulatory tools, and non-regulatory tools including voluntary land management and community development programs.
- A land use plan is long range and will need to be reevaluated periodically to ensure that it remains applicable to changing trends and conditions. The plan is not static. It can be amended when a situation arises that was not anticipated during the initial plan development process.
- A land use plan is neither a prediction nor a guaranty. Some components of the future vision may take the full 20 (or more) years to materialize, while some components may never come to fruition within the planning period.

The primary components of the Future Land Use Plan include the Future Land Use Map (Map 8-2 and Table 8-6) and the Future Land Use Classifications. These components work together with the Implementation element to provide policy guidance for decision makers in the city.

The City of New London's plan for future land use is intended to be flexible enough to meet the needs of future generations and to be responsive to change. It is not the city's intent to direct future land use to particular areas, but rather to generally lay out the future land use pattern in a way that prevents land use conflicts and allows for the needed expansion of various land uses within and near the city. It is anticipated that most developed parts of the city will remain basically the same, with some opportunities for redevelopment. In addition, the expansion of WIS 15 from Greenville to New London and its new tie-in with WIS 45 will increase accessibility to the community and may also increase development pressures.

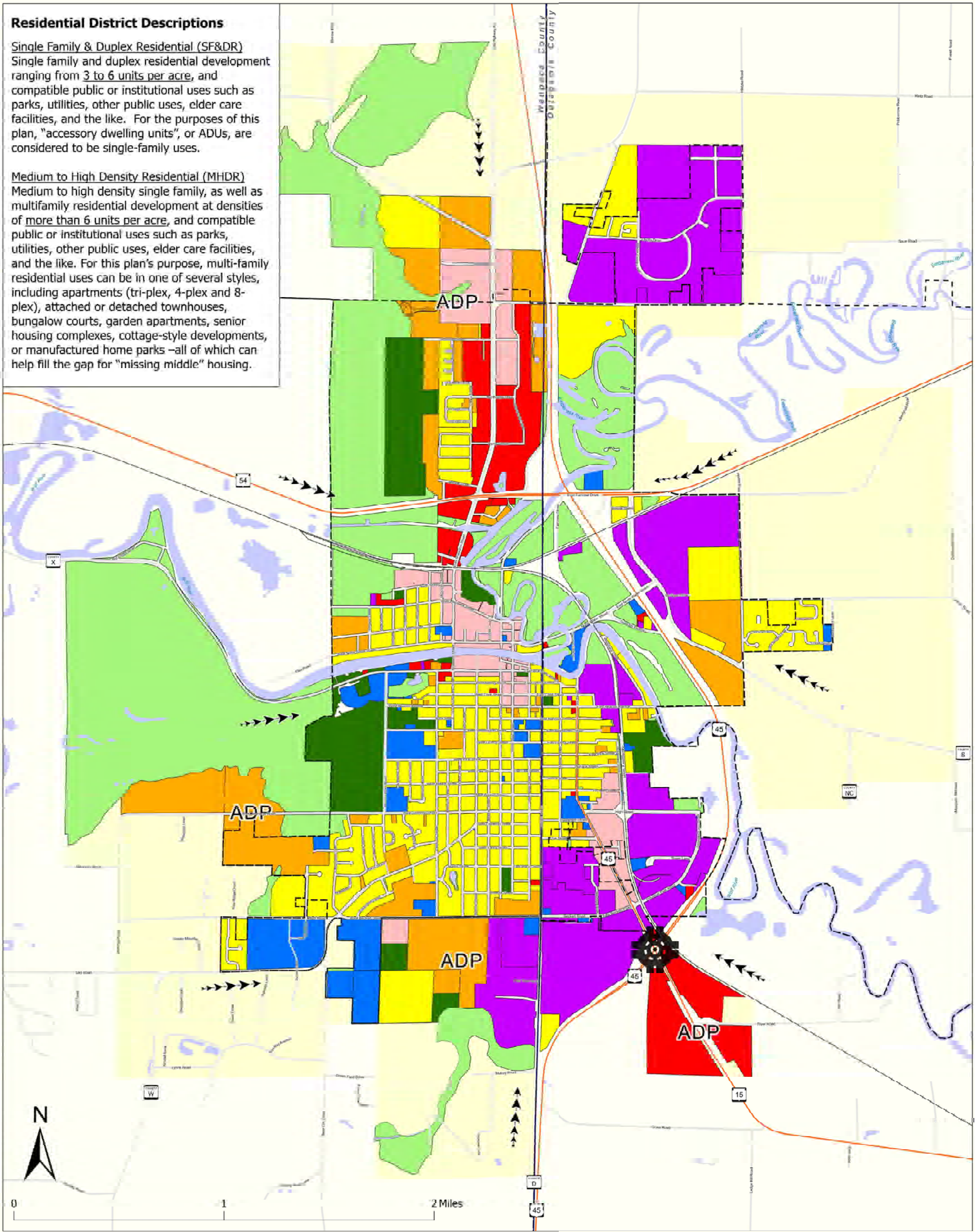
The areas where significant change is anticipated (the expansion areas) are further detailed below. The Future Land Use Plan was developed using objective data gained from US Census records, existing land use data, building permit trends, and city/county level GIS mapping. The maps and data provided in the Inventory and Trends Report document some of the objective data sources that were used in this analysis. These were combined with updated population and land use projections, the local knowledge of the Planning Commission and City staff. The local knowledge of the city's history and what is likely to happen in the future has the most impact on the creation of the Future Land Use Map.



Residential District Descriptions

Single Family & Duplex Residential (SF&DR)
Single family and duplex residential development ranging from 3 to 6 units per acre, and compatible public or institutional uses such as parks, utilities, other public uses, elder care facilities, and the like. For the purposes of this plan, "accessory dwelling units", or ADUs, are considered to be single-family uses.

Medium to High Density Residential (MHDR)
Medium to high density single family, as well as multifamily residential development at densities of more than 6 units per acre, and compatible public or institutional uses such as parks, utilities, other public uses, elder care facilities, and the like. For this plan's purpose, multi-family residential uses can be in one of several styles, including apartments (tri-plex, 4-plex and 8-plex), attached or detached townhouses, bungalow courts, garden apartments, senior housing complexes, cottage-style developments, or manufactured home parks –all of which can help fill the gap for "missing middle" housing.



2040 Future Land Use Classifications

- Single Family & Duplex Residential
- Med-High Density Residential
- Commercial
- Mixed Use/Downtown Commercial
- Industrial
- Public Institutional
- Conservation & Resource Protection
- Parks & Recreation
- Rural Transition Areas (Beyond 2040)

Year 2040 FUTURE LAND USE
City of New London
Wisconsin

- ADP Area Development Plan
- Proposed Roundabout
- Gateway Corridors



A Rural Transition Area classification identifies in locations where long-term scenarios for extraterritorial growth are possible. Most of these extraterritorial areas (as far as the amount of land involved) are designated for residential expansion on the Future Land Use Map. The plan has identified more than four times the amount of projected demand in this area, but all of the land identified is adjacent to existing residential land use. Thus, the flexibility of the plan allows for growth to occur in the most efficient and effective manner. The same can be said for commercial and industrial identified growth areas which are planned for as continuations of current commercial and industrial land uses. This approach reflects the plan's primary goals of ensuring flexibility and fiscal responsibility in the placement of these land uses on the Future Land Use Map.

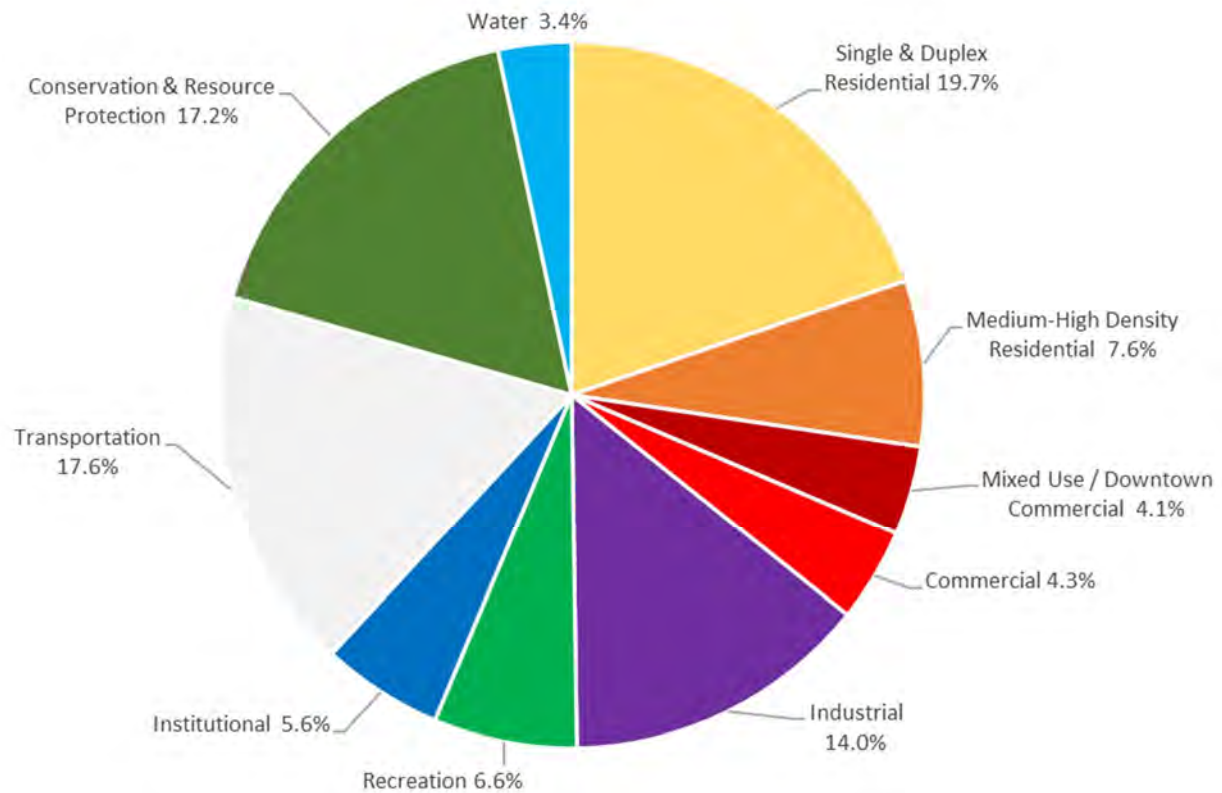
**Table 8-6:
Future Land Use Acreage Summary, City of New London**

Future Land Use Classification	2021 Acres
Single Family & Duplex Residential	732.98
Medium-High Density Residential	282.06
Mixed Use/Downtown Commercial	151.92
Commercial	159.41
Industrial	520.78
Recreation	244.05
Institutional	206.01
Transportation / ROW	652.65
Conservation & Resource Protection	637.45
Water	124.57
TOTAL	3,711.9

Source: City of New London, June, 2021 & Cedar Corporation, September 2021.



**Figure 8-2:
Future Land Use Acreage Summary, City of New London**



8.5 Future Land Use Classifications

The following Future Land Use Classifications have been utilized on the city's Future Land Use Map (Map 8-2). These descriptions give meaning to the map by describing (as applicable) the purpose, primary goal, preferred development density, preferred uses, and discouraged uses for each classification. They may also include policy statements that are specific to areas of the community mapped under a particular classification. Any such policies carry the same weight and serve the same function as policies found elsewhere in this plan.

Rural Transition Areas (RTA)

- **Purpose:** To identify areas within, or just beyond, the city limits that may be used to accommodate future residential, commercial, or industrial growth. These areas are currently used as agricultural lands, woodlands, or other open lands and are not necessarily expected to be developed within the planning period.
- **Primary Goal:** To maintain undeveloped or underutilized areas within the city limits at pre-development densities. A land use plan revision, neighborhood plan, or area development plan will be required before such areas are converted to developed uses.

- **Preferred Housing Density:** Suggested maximum density of one unit per 10 acres until such time that the land use plan is amended. .
- **Preferred Use:** Private recreational uses, low intensity agricultural uses, greenspace.
- **Discouraged Uses:** Premature or unplanned development, medium and low-density, rural housing utilizing private on-site wastewater treatment or private wells, particularly where public systems are available, unscreened, or unsightly outdoor storage, indoor storage facilities, and high intensity agricultural uses.

Conservation & Resource Protection (CRP)

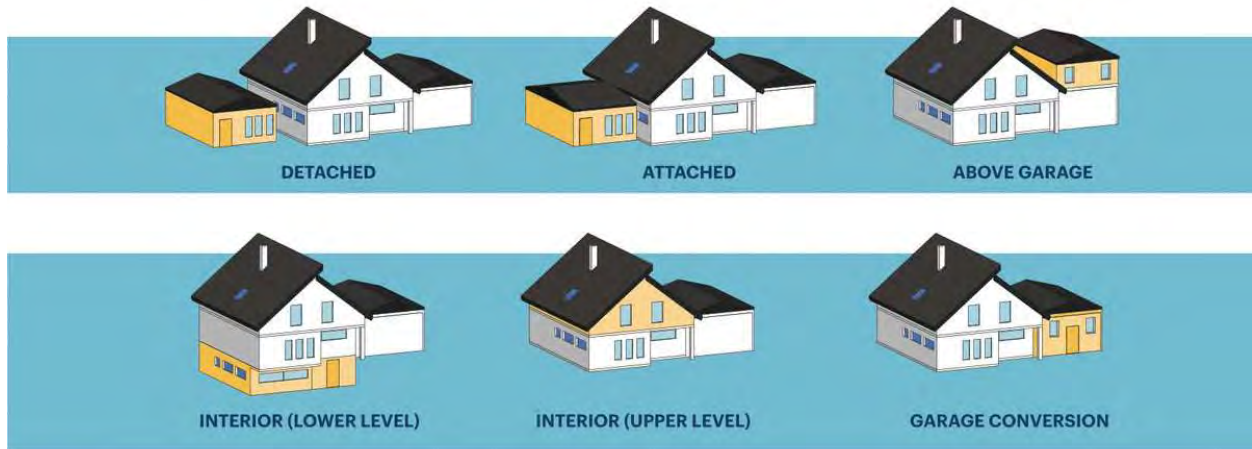
- **Purpose:** To identify lands that have limited development potential due to the presence of natural hazards, natural resources, or cultural resources. In the City of New London, this classification includes the general locations of regulatory wetlands, five acres and larger.
- **Primary Goal:** To preserve valued natural and cultural resources by preventing development that would negatively impact the quality and flood control ability of those resources
- **Preferred Housing Density:** No housing development.
- **Preferred Use:** Public or private greenspace, outdoor recreational uses, trails, natural resource management activities.
- **Discouraged Uses:** Uses prohibited by wetland or floodplain zoning, or by other applicable regulations; uses that would negatively impact the quality of the valued natural or cultural resource.



Single Family & Duplex Residential (SF&DR)

- **Purpose:** To include existing and planned areas that are primarily composed of single family and duplex residential development at urban densities as facilitated by the current or planned availability of municipal sewer and water service. Single family and duplex residential expansion will primarily occur through recorded subdivisions. For the purposes of this plan, “accessory dwelling units”, or ADUs, are considered to be single-family uses (See Figure 8-3).
- **Primary Goal:** To create and preserve attractive and well planned, attainable single and duplex family residential areas that can be efficiently provided with utilities and urban services.
- **Preferred Housing Density:** Will likely range from three to six units per acre. The city shall clarify the preferred density based on local zoning provisions or desired zoning revisions.
- **Preferred Use:** Single family and duplex residential and compatible public or institutional uses such as parks, utilities, other public uses, elder care facilities, and the like.
- **Discouraged Uses:** Uses that would detract from the purpose and primary goal of these areas. Single family and duplex residential neighborhoods should contain some form of buffering between the residences and incompatible land uses such as commercial or industrial.

Figure 8-3: Accessory Dwelling Units (ADUs).



Accessory Dwelling Units (ADUs) come in many shapes and styles. Illustrations by RPA, based on AARP's ABCs of ADU's Guide.

Medium to High Density Residential (MHDR)

- **Purpose:** To include existing and planned areas that are primarily composed of medium to high density single family, as well as multi-family residential development at urban densities as facilitated by the current or planned availability of municipal sewer and water service. For this plan's purpose, multi-family residential uses can be in one of several styles, including apartments (tri-plex, 4-plex and 8-plex), attached or detached townhouses, bungalow courts, garden apartments, senior housing complexes, cottage-style developments, or manufactured home parks – all of which can help fill the gap for “missing middle” housing (See Figure 8-4) that is geared toward the City's existing and future workforce. Multi-family residential expansion will primarily occur through site planning that considers greenspace provision, parking, service access, and refuse collection facilities.
- **Primary Goal:** To provide a full range of community and regional housing choices by creating and preserving attractive and well planned multi-family residential areas that can be efficiently provided with utilities and urban services. MHDR areas should be located within walking or biking distance of commercial areas, transportation corridors, or other community support features whenever possible.
- **Preferred Housing Density:** More than six (6) units per acre - could be much higher depending on the type of structure. The city shall clarify the preferred density based on local zoning provisions or desired zoning revisions.
- **Preferred Use:** Medium to high density single family residential (including duplexes) and multi-family residential along with compatible public or institutional uses such as parks, utilities, other public uses, elder care facilities, and the like.
- **Discouraged Uses:** Uses that would detract from the purpose and primary goal of these areas. Multi-family residential neighborhoods should contain some form of buffering between the residences and potentially incompatible land uses such as commercial or industrial.

Figure 8-4: Missing Middle Housing



Commercial (C)

- **Purpose:** To include existing and planned areas that are primarily composed of commercial development. Commercial expansion will occur primarily through site planning that considers attractive and functional parking and access, traffic circulation, landscaping, stormwater management, building architecture, lighting, and signage, especially when located in community entrance areas.
- **Primary Goal:** To provide a full range of local and regional shopping as well as personal/professional service choices through the creation/preservation of attractive and well planned commercial areas which can be efficiently provided with urban services.
- **Preferred Density:** Density requirements should be flexible to encourage creative site design.
- **Preferred Use:** All commercial uses including retail trade, lodging, offices, restaurants, and service stations. Commercial areas may include limited compatible multi-family residential use in a “mixed use” setting (e.g., apartments above first floor retail). Outdoor storage should be limited and done in an orderly fashion when allowed. Indoor storage units should be discouraged and directed to areas planned for industrial development. Reuse or redevelopment of vacant buildings is encouraged.
- **Discouraged Uses:** Industrial or manufacturing uses; indoor or outdoor storage that is unsightly or that detracts from community character.

Mixed Use & Downtown Commercial (MUDC)

- **Purpose:** To identify existing and planned compact, pedestrian-oriented commercial and mixed-use areas characterized by the historic downtowns found in many of the county's cities and villages. Development in existing downtowns and planned MUDC areas should include design features that tie it to the historic downtown. Planned MUDC areas need not be physically connected to an existing downtown.

- **Primary Goal:** To preserve and enhance community character, cultural resources, and connections to community history through attractive and well-planned compact commercial and mixed use development and existing downtowns.
- **Preferred Density:** Density requirements should be flexible to encourage creative site design. Zero lot line and street setbacks should be allowed to encourage pedestrian oriented and human-scaled design.
- **Preferred Use:** Primarily commercial, but may also be mixed with compatible public, institutional, and high density residential uses (mixed use). Compatible uses might include government offices, public green space, museums, libraries, upper story apartments, or historic buildings converted to residential or mixed-use. Reuse or redevelopment of vacant buildings is encouraged and, in some cases, may be suitable for light assembly and packaging activities.
- **Discouraged Uses:** Use that would detract from the preservation or enhancement of community character, the potential for human-scaled design, or that would eliminate without mitigation, connections to community history or culture.

Industrial (I)

- **Purpose:** To include existing and planned areas, that are primarily composed of industrial development. Industrial expansion will primarily occur through site planning that considers functional parking and access, traffic circulation, landscaping, stormwater management, building architecture, lighting, and signage. The visual qualities of site and building design should receive greater emphasis for sites located in community entrance areas.
- **Primary Goal:** To provide a full range of local and regional economic development opportunities by creating and preserving well planned industrial areas that can be provided with utilities and urban services, including stormwater retention and detention.
- **Preferred Density:** Density requirements should be flexible to encourage creative site design. Lot sizes should be in accordance with local zoning provisions or desired zoning revisions and should provide adequate space for separation or screening between incompatible uses.
- **Preferred Use:** Manufacturing, wholesale trade, outdoor storage, distribution centers, indoor storage, limited compatible commercial uses.
- **Discouraged Uses:** All other uses, including religious worship establishments.

Public & Institutional (PI)

- **Purpose:** To identify lands for existing and planned public and institutional uses. Certain public and institutional uses may be included as a compatible mixed use in another preferred land use designation (such as SF&DR, MHDR, or MUDC), but this classification should be used to identify all other such uses or at any location where a community wishes to specifically identify such uses.
- **Primary Goal:** To accommodate public service, emergency response, civic, institutional, and related uses as valuable community assets. A high standard of building and site design characterizes most existing public and institutional uses and should continue to be upheld as examples of attractive and well planned development.
- **Preferred Density:** Density requirements should be flexible to encourage creative site design.
- **Preferred Use:** Public and quasi-public sites and buildings other than parks and outdoor recreational lands such as government offices, municipal utilities, emergency response, churches, schools, cemeteries, libraries, and museums.
- **Discouraged Uses:** All other uses.



Park & Recreation (PR)

- **Purpose:** To identify lands exclusively for existing and planned parks and public and private outdoor recreational facilities. Communities can require by local policy or ordinance that planned park lands identified on a future land use map must be dedicated as such by a development that encompasses, abuts, or is near the area.
- **Primary Goal:** To provide adequate outdoor recreation opportunities in general locations that will effectively serve the existing population and planned growth. It is not intended that communities are "locked into" planned park locations as identified on a future land use map, but rather, that they may be used in a conceptual sense to be solidified upon site planning, land subdivision, neighborhood planning, or area development planning.
- **Preferred Density:** No standard required; campgrounds and resorts at densities in accordance with local zoning.
- **Preferred Use:** Public parks and outdoor recreational facilities for passive and active use; private outdoor recreational facilities such as golf courses, campgrounds, and resorts.
- **Discouraged Uses:** All other uses.

Table 8-4 and Figure 8-2 display the distribution of each Future Land Use Classification as shown on the Future Land Use Map.

8.6 Existing and Potential Land Use Conflicts

The following existing and potential unresolved land use conflicts have been identified by the City of New London. While the multi-jurisdictional planning process was designed to provide maximum opportunities for the resolution of both internal and external land use conflicts, some issues may remain. Due to their complexity, the long-range nature of comprehensive planning, evolving trends (e.g. renewable energy generation), and the uncertainty of related assumptions, these conflicts may remain unresolved and should be monitored during plan implementation.

Existing Land Use Conflicts

- Lack of property and building maintenance.
- Dilapidated buildings in some locations.
- Residential development next to industrial or high intensity commercial land use.
- Poorly designed or unattractive multi-family residential, commercial, or industrial development.
- Lack of screening or buffering between incompatible uses.
- Intensive agricultural practices adjacent to City boundaries.

Potential Land Use Conflicts

- Annexation conflicts may arise with neighboring communities.
- Use of fiscal tools by the community to capture funds from developers or landowners to meet the service needs of newly developed areas.
- Managing development along major highway corridors and interchanges, particularly the expansion of Highway 15 in the southeast portion of the City.
- Siting of power transmission lines.
- Siting of telecommunication towers.



- Siting of renewable (wind, solar, or other) energy generation facilities.
- Residential development next to industrial or high intensity commercial land use (such as Single Family & Duplex Residential areas directly adjacent to Commercial or Industrial areas).
- Poorly regulated and managed “home-base business uses that detract from the neighborhood.
- Poorly designed or unattractive multi-family residential, commercial, or industrial development.
- Poorly designed or unattractive rural development in community gateways or entrance points.
- Lack of screening or buffering between incompatible uses.
- Unregulated signage, lighting, access, or accessory storage uses.

8.7 Opportunities for Redevelopment

In every instance where development is considered in the City of New London Year 2040 Comprehensive Plan, redevelopment is also considered as an equally valid option. Opportunities for redevelopment are addressed in several of the goals, objectives, policies, and recommendations of this plan.

More specifically, Map 8-2 highlights several areas within the city that may be targeted for redevelopment based on existing land uses, recent development activity and the presence of existing infrastructure that can service the area.

8.8 Land Use Goals and Objectives

Community goals are broad, value-based statements expressing public preferences for the long term (20 years or more). They specifically address key issues, opportunities, and problems that affect the community. Objectives are more specific than goals and are more measurable statements usually attainable through direct action and implementation of plan recommendations. The accomplishment of objectives contributes to fulfillment of the goal.

Goal 1: Plan for land use in order to achieve the city's desired future.

Objectives

- 1.a. Establish a small range of future land use classifications and assign them to areas of the city in order to: increase compatibility between existing land uses; avoid future land use conflicts, promote more mixed-use development, and; provide some level of flexibility.
- 1.b. Establish preferred lot sizes and development densities for each future land use classification, including areas that can accommodate smaller residential lots.
- 1.c. Establish land use decision making policies and procedures that ensure a balance between appropriate land use planning and the rights of existing and future property owners.

Goal 2: Seek a desirable pattern of land use that contributes to the realization of the city's goals and objectives for the future.

Objectives

- 2.a. As a priority preference, explore opportunities to rehabilitate and redevelop existing developed areas within the city (i.e., downtown) as well as within planned growth areas.
- 2.b. Seek a pattern of land use that will sustain and improve the downtown.



- 2.c. Explore opportunities to identify logical expansion areas along the city's boundaries (City Growth Areas) in cooperation with neighboring towns.
- 2.d. Focus new growth, whether it is infill development or new development on the edge of the City, to locations where adequate public facilities and services can be cost-effectively provided or expanded.
- 2.e. Encourage a pattern of land use and street design that will allow for the use of multiple modes of transportation, both motorized and non-motorized.
- 2.f. When new roads are necessary to facilitate growth, encourage designs that provide functional connectivity with the existing road network.
- 2.g. Utilize a variety of planning tools such as area development plans and land division regulations to minimize land use conflicts.
- 2.h. Encourage land division layouts that incorporate the preservation of valued community features (e.g., parks, natural features, historic buildings, etc.) that fit within the character of the neighborhood, and that are suited to the specific location in which the development is proposed.
- 2.i. In order to protect property values and encourage quality design, consider establishing design review guidelines for the layout and appearance of buildings, signage, parking lots, landscaping, etc., for proposed intensive land uses such as commercial, industrial, institutional, multi-family, or mixed-use development.

8.9 Land Use Policies and Recommendations

Policies and recommendations build on goals and objectives by providing more focused responses to the issues that the city is concerned about. Policies and recommendations become primary tools the city can use in making land use decisions. Many of the policies and recommendations cross element boundaries and work together toward overall implementation strategies. Refer to Section 9.5 for an explanation of the strategies cited as sources for many of the policies and recommendations. Policies identify the way in which activities are conducted in order to fulfill the goals and objectives. Policies that direct action using the word "shall" are advised to be mandatory and regulatory aspects of the implementation of the comprehensive plan. In contrast, those policies that direct action using the words "will" or "should" are advisory and intended to serve as a guide. "Will" statements be considered to be strong guidelines, while "should" statements are considered loose guidelines. The city's policies are stated in the form of position statements (City Position), directives to the city (City Directive), or as criteria for the review of proposed development (Development Review Criteria).

Recommendations are specific actions or projects that the city should be prepared to complete. The completion of these actions and projects is consistent with the city's policies, and therefore will help the city fulfill the comprehensive plan goals and objectives.

Policies: City Position

LU1 The existing street network and existing public facilities and services should be utilized to accommodate new development to the maximum extent possible.

LU2 Development proposals in the corporate limits and extraterritorial jurisdiction of the city shall be reviewed for consistency with the applicable components of the comprehensive plan including the future land use classifications and map.



LU3 The City shall require that Area Development Plans be prepared and adopted by the Planning Commission and governing body prior to the zoning or rezoning, platting, or development of expansion areas as defined by the comprehensive plan.

LU4 Area Development Plans will include the proposed land use pattern of the area, recommended zoning for the area, recommended lot pattern, size and density, location of necessary public utilities, park and open space areas, and the proposed street system that will serve the area.

LU5 The establishment of new or expansion of existing commercial or industrial uses in or adjacent to existing or planned residential areas (including home-based businesses) shall utilize setbacks, barriers, buffers, or other site design features to minimize potential conflicts.

LU6 At such time that a home based business takes on the characteristics of a primary commercial or industrial use, it should be notified to desist its activities until a solution, including the possibility of rezoning to reflect a commercial or industrial use consistent with the zoning standards, is found.

Policies: City Directive

LU7 Amendments to official mapping, subdivision ordinance and zoning ordinance, including rezones, must be consistent with the City's Comprehensive Plan per Wis. Stats. 66.1001(3). The City's comprehensive plan, zoning, subdivision, and other land use ordinances shall be maintained and updated on a regular basis to address new and/or trending issues to foster implementation of the Future Land Use Plan and comprehensive plan goals. The Comprehensive Plan specifically must be updated at least once every ten years per Wis. Stats. 66.1001.

Policies: Development Review Criteria

LU8 The design of new commercial or industrial development should employ shared driveway access, shared parking areas, shared internal traffic circulation, and coordinated site planning with adjacent businesses in order to avoid the proliferation of new commercial strips.

LU9 New development will be placed on the landscape in a fashion that does not block potential road or utility extensions and provides adequate access for utility maintenance and emergency services.

LU10 Proposed conditional uses shall meet the following criteria in order to gain community approval:

- Complies with the requirements of the applicable zoning district;
- Use and density are consistent with the intent, purpose, and policies of the applicable future land use classification;
- Use and site design are compatible with adjacent uses in terms of aesthetics, scale, hours of operation, traffic generation, lighting, noise, odor, dust, vibration, and other external impacts;
- Does not diminish property values in the surrounding neighborhood;
- Provides assurance of continuing maintenance.
- Be measurable and based on substantial evidence per Wisconsin Act 67.



LU 11 Home based business shall maintain the following characteristics:

- They are conducted as a conditional use in a zoning district where such use is allowed;
- They are a secondary use of a primarily residential property;
- They have little to no outward appearance or negative impact (e.g., traffic generation, parking, deliveries, etc.) on the surrounding neighborhood,
- They are conducted entirely within the primary residential structure or in a detached accessory structure that is consistent in character with the residential use of the property and the surrounding neighborhood.

LU12 Site plans subject to design review shall be required to include common elements of landscaping, building design, or overall site design (including stormwater, lighting, and parking) that provide some consistency in the appearance of new development in the community.

Recommendations

1. In existing downtown neighborhoods and along the riverfront make strategic public investments in sidewalks, street repair, tree and flower planting, neighborhood park development, and trail development, etc.
2. Riverfront areas should have development regulations that address both the street-facing building façade, as well as the rear (river-facing) of the building in order to improve community aesthetics.
3. Seek out various traditional governmental grant and funding programs (CDBG, Stewardship, etc.), as well as new federal opportunities such as the CARES Act, Build Back Better, and related State initiatives to support the needs identified in this plan.

8.10 Land Use Programs

For descriptions of land use programs potentially available to the community, refer to the Land Use element of the Waupaca County Inventory and Trends Report. The City of New London actively utilizes land use programs, and the following related plans were the most recent comprehensive plan, plan update, or related report.

Related Plans

- Year 2030 Comprehensive Plan (adopted in 2007) and subsequent amendments.



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9. Implementation

9.1 Summary

In order for plans to be meaningful, they must be implemented, so the City of New London's comprehensive plan was developed with implementation in mind. Not only can useful policy guidance for local decision making be found in each planning element, but an action plan is also provided containing specific programs and recommended actions.

9.2 Priority Plan Implementation Directives

After review and consideration of all recommendations contained in this plan, the Plan Commission strongly recommends that the City Council increase and improve its commitment to the monitoring and implementation of the updated Comprehensive Plan. While the updated plan contains dozens and dozens of recommendations, the Plan Commission feels that the five most important directives, in terms of overall positive impact on the community, are listed below in priority order as follows:

- **Priority Task #1: Develop/Update official map** (*Transportation* element).
Responsible Party: Planning Commission Upon Recommendation From City Engineer
Timing: End of 2023
- **Priority Task #2: Review and update the Zoning Ordinance and map, including all design standards** (*Land Use and Economic Development* elements).
Responsible Party: Chamber Downtown Revitalization Cmte., Planning Commission
Timing: End of 2024
- **Priority Task #3: Support and participate in downtown revitalization activities as needed.**
Responsible Party: City Administrator, Planning Commission, City Council
Timing: As Required
- **Priority Task #4: Explore ways to use the riverfront to attract and seek out programs to help market the city, particularly riverfront development, public trails, and public access** (*Economic Development* element).
Responsible Party: Planning Commission, Economic Development Committee, Chamber of Commerce, City Council
Timing: 2023 / ongoing.
- **Priority Task #5: Update the subdivision ordinance** (*Housing; Transportation; Utilities and Community Facilities; Economic Development; Intergovernmental Cooperation* elements).
Responsible Party: Planning Commission
Timing: 2027



9.3 Action Plan

An action plan is intended to jump start the implementation process and to provide continued focus over the long term. During the comprehensive planning process, a detailed framework for implementation was created which will serve to guide the many steps that must be taken to put the plan in motion. This action plan outlines those steps and recommends a timeline for their completion. Further detail on each task can be found in the policies and recommendations of the related planning element as noted in the *Task* statement. Recommended actions have been identified in the following areas:

- ♦ Plan Adoption and Update Actions
- ♦ Intergovernmental Cooperation Actions
- ♦ Ordinance Development and Update Actions
- ♦ Strategic Planning Actions

The recommended actions are listed in priority order within each of the four implementation areas as noted in the *Timing* component. Highest priority actions are listed first, followed by medium and long term actions, and ongoing or periodic actions are listed last.

Plan Adoption and Update Actions

Priority (Short-Term) Actions

1. Task: Pass a resolution recommending adoption of the comprehensive plan by the City Council (*Implementation* element).
Responsible Party: Planning Commission
Timing: Early 2023
2. Task: Adopt the comprehensive plan by ordinance (*Implementation* element).
Responsible Party: City Council
Timing: Early 2023

Periodic Actions

3. Task: Review the comprehensive plan for performance in conjunction with the budgeting process (*Implementation* element).
Responsible Party: Planning Commission
Timing: Annually (June/July)
4. Task: Conduct a comprehensive plan update (*Implementation* element).
Responsible Party: Planning Commission, City Council
Timing: Every five years (2028)



Intergovernmental Cooperation Actions

Periodic Actions

1. Task: Review intergovernmental agreements for their effectiveness and efficiency (*Utilities and Community Facilities* element).
Responsible Party: Appropriate Committee and City Council
Timing: Upon Renewal
2. Task: Utilize intergovernmental efficiencies to provide needed service and facility improvements (*Utilities and Community Facilities* element).
Responsible Party: Department Heads and Appropriate Committees
Timing: Ongoing
3. Task: Continue to exercise extraterritorial land division review authority (*Utilities and Community Facilities; Intergovernmental Cooperation; Transportation* elements).
Responsible Party: Planning Commission
Timing: As Needed
4. Task: Evaluate and provide constructive feedback to Waupaca and Outagamie Counties on services provided to the community (*Utilities and Community Facilities* element).
Responsible Party: Finance Committee
Timing: Every Two Years beginning in 2024.

Ordinance Development and Update Actions

Priority (Short-Term) Actions

1. Task: Develop/Update official map (*Transportation* element).
Responsible Party: Planning Commission Upon Recommendation From City Engineer
Timing: End of 2023
2. Task: Review and update the Zoning Ordinance and map, including all design standards (*Land Use and Economic Development* elements).
Responsible Party: Chamber Downtown Revitalization Cmte., Planning Commission
Timing: End of 2024



Medium-Term Actions

3. Task: Create a local historic preservation ordinance (*Agricultural, Natural, and Cultural Resources* element).
Responsible Party: Community Focus Group
Timing: 2025
4. Task: Update the subdivision ordinance (*Housing; Transportation; Utilities and Community Facilities; Economic Development; Intergovernmental Cooperation* elements).
Responsible Party: Planning Commission
Timing: 2027

Periodic Actions

5. Task: Update the building code ordinance (*Housing; Utilities and Community Facilities* elements).
Responsible Party: Planning Commission
Timing: As State Statutes Change

Strategic Planning Actions

Priority (Short-Term) Actions

1. Task: Review applicable ordinances and fees for their impacts on opportunities to create affordable housing (*Housing* element).
Responsible Party: Finance Committee and Housing Authority
Timing: 2023
3. Task: Annually assess the availability of developable land for residential development (*Housing* element).
Responsible Party: Planning Commission, Zoning Administrator
Timing: 2023 / annually thereafter
2. Task: Explore ways to use the riverfront to attract and seek out programs to help market the city, particularly riverfront development, public trails, and public access (*Economic Development* element).
Responsible Party: Planning Commission, Economic Development Committee, Chamber of Commerce, City Council
Timing: 2023 / ongoing.



3. Task: Work cooperatively with the New London Chamber of Commerce to evaluate and seek designation as a Main Street or Connect Communities program through the Wisconsin Economic Development Corporation (WEDC). (*Agricultural, Natural, and Cultural Resources* element).
Responsible Party: Chamber Downtown Revitalization Committee, Economic Development Committee, Planning Commission, City Council
Timing: 2024
4. Task: Prepare redevelopment plans for the Mill Street and Shawano Street corridors and create a zoning overlay district in community entrance areas that identify design goals and trigger site planning and design review requirements for all development including buildings, parking areas, signs, etc. (*Agricultural, Natural, and Cultural Resources* element).
Responsible Party: Planning Commission, Economic Development Committee, Chamber of Commerce
Timing: 2024
4. Task: Develop an updated comprehensive outdoor recreation plan based on the comprehensive planning effort (*Utilities and Community Facilities* element).
Responsible Party: Parks and Recreation Committee, Parks and Recreation Director
Timing: 2025
5. Task: Create area development plans for planned growth areas (*Transportation; Agricultural, Natural, and Cultural Resources* elements).
Responsible Party: Planning Commission upon Recommendation from City Engineer
Timing: 2025

Medium-Term Actions

6. Task: Assess capacity and needs with regard to administrative facilities and services and public buildings (*Utilities and Community Facilities* element).
Responsible Party: Finance and Personnel Committee, Administrative Staff
Timing: 2026
7. Task: Conduct / Update community survey of historical and archeological resources (*Agricultural, Natural, and Cultural Resources* element).
Responsible Party: Community Focus Group for Historic Preservation, Planning Commission
Timing: 2026
8. Task: Determine the feasibility of creating an historic preservation district (*Agricultural, Natural, and Cultural Resources* element).
Responsible Party: Planning Commission
Timing: 2026



9. Task: The City should conduct a comprehensive parking study of the downtown area after the North Water Street and Pearl Street re-construction projects are completed (*Transportation* element).

Responsible Party: Planning Commission, Chamber Downtown Revitalization Committee

Timing: 2026

10. Task: Examine and consider the establishment of a rental housing inspection program (*Housing* element).

Responsible Party: Planning Commission, Building Zoning Official

Timing: 2027

Periodic Actions

11. Task: Support and participate in downtown revitalization activities as needed.

Responsible Party: City Administrator, Planning Commission, City Council

Timing: As Required

12. Task: Develop or update the Sewer, Water, Stormwater, and Electrical Service Area plans (*Utilities and Community Facilities* element).

Responsible Party: Public Works, Utilities Commission, Engineer

Timing: Continual

13. Task: Establish a relationship with local businesses and industry to determine the types of needed training programs (*Economic Development* element).

Responsible Party: City Administrator, Waupaca County EDC

Timing: Ongoing

14. Task: Explore incentives and sources of funding to improve buildings and support small business owners (*Economic Development* element).

Responsible Party: City Administrator, Waupaca County EDC, Chamber of Commerce

Timing: Ongoing

15. Task: Explore and promote opportunities for tourism (*Economic Development* element).

Responsible Party: Tourism Commission

Timing: Ongoing

16. Task: Pursue transportation facilities funding (*Transportation* element).

Responsible Party: Public Works Committee, Dept. of Public Works Director

Timing: Annually



17. Task: Monitor the need for public transportation (*Transportation* element).
Responsible Party: Finance and Personnel Committee
Timing: Annually
18. Task: Assess staffing, training, professional service, emergency service, and equipment levels (*Utilities and Community Facilities* element).
Responsible Party: Police and Fire Commission, City Council, Administrative Staff
Timing: Annually

9.4 Status and Changes to Land Use Programs and Regulations

The following provides an inventory of the land use regulations that are in affect in the City of New London and summarizes recommended changes to each of these ordinance types. For basic information on regulatory plan implementation tools, please refer to Section 9.1 of the *Inventory and Trends Report*. For further detail on the status of each type of implementation ordinance in Waupaca County, please refer to Section 9.3 of the *Inventory and Trends Report*.

Code of Ordinances

Current Status

The City of New London has adopted a code of ordinances. The Municipal Code of New London contains the following titles and ordinances:

Chapter 01 - General Government	Chapter 12 - Licenses and Permits
Chapter 02 - The Governing Body	Chapter 13 - Municipal Utilities
Chapter 03 - Finance and Taxation	Chapter 14 - Building Code
Chapter 04 - Police Department	Chapter 15 - Housing & Fair Housing Code
Chapter 05 - Fire Department	Chapter 16 - Flood Plain Zoning Code
Chapter 06 - Civil Defense	Chapter 17 - Zoning Code
Chapter 07 - Traffic Code	Chapter 18 - Subdivision and Platting
Chapter 08 - Streets and Sidewalks	Chapter 19 – Admin. Review Procedure
Chapter 09 - Public Peace & Good Order	Chapter 20 - Cable Television Franchise
Chapter 10 - Public Nuisances	Chapter 21 – Shoreland/Wetland Zoning
Chapter 11 - Health and Sanitation	Chapter 25 - General Provisions

Recommended Changes

No specific recommended changes for the overall code of ordinances have been brought forward. Refer to the following sections for recommended changes to specific ordinances within the code.



Zoning

Current Status

The City of New London Zoning Code establishes the city's basic land use, lot size, and building location, bulk, size, and height requirements. It includes performance standards for fire hazard, glare and heat, noise, odors, vibration, and electromagnetic emissions that apply to all land uses. Building requirements vary by zoning district which include the following.

Recommended Changes

The zoning ordinance will be a key tool for implementation of the city's plan for preferred land use. After adoption of the comprehensive plan, the city will need to review its zoning ordinance and map, and determine which portions need to be made consistent with the plan immediately, and which portions can be allowed to achieve consistency incrementally over time. On a fundamental level, the zoning ordinance and map should be reviewed and revised to:

- ♦ increase areas that allow for 'missing middle' styles of housing, multi-family housing, mixed-use development, or planned unit developments; and
- ♦ identify adequate, appropriately zoned lands to attract new business and job growth.

Land Division Regulations

Current Status

The Subdivision and Platting Code requires city approval of land divisions that result in the creation of one or more parcels of five acres or less in size. Streets and other public ways included in a comprehensive plan or official map must be constructed by a subdivider. Planned park areas identified in a comprehensive plan or official map must be made available by a subdivider for public purchase at undeveloped land prices. Parkland acquisition fees are established. The ordinance includes minimum standards for surveying and monumenting, land suitability, lot layout and design, street design, pedestrian ways, and utilities. Procedures for minor subdivision and plat review are set forth. Lots must include a minimum of 30 feet of frontage on a public street. Section 17.03 of the Zoning Code requires all platted lots that are larger than the applicable minimum lot size to be laid out in a manner that would allow the lot to be further subdivided for additional development in the future. New streets must be constructed by a subdivider to city specifications including blacktopping. Improvements including sewer and water lines, utilities, and street lamps must be installed by a subdivider.

Recommended Changes

The land division ordinance will be a key tool for implementation of the city's plan for preferred land use both inside the city limits and in extraterritorial areas. The land division ordinance can be updated to better protect natural and cultural resources, to help ensure street connectivity, and to preserve areas for trails and parks. Extraterritorial land division review should continue to be utilized to help preserve areas outside the current city limits for potential annexation, for efficient extension of city utilities and services, and for planned



park locations. Land divisions that will hinder the ability to efficiently extend services should be modified or denied.

In order to protect the city financially as land divisions take place, the city should continue to require the execution of a development agreement whenever public roads or other infrastructure is included in a development.

Site Plan and Design Review

Current Status

Section 17.05 of the Zoning Code establishes site plan review requirements for multi-family residential, commercial, and industrial uses. The site plan requirements include standards for building design, site design, access, parking, traffic circulation, protection of natural features, utility provision, drainage, and landscaping.

The Site Plan Review section contains many subjective standards and establishes the Zoning Officer as the review authority. This section should require that the Planning Commission review site plans, as it is the appropriate body to apply the subjective standards through a conditional use review or design review process.

Recommended Changes

The city should review its current requirements for site plan approval of all proposed commercial, industrial, institutional, and multi-family residential developments. This should include provisions for site and architectural design review. Standards should be established and modified as needed and appropriate criteria should be included for the review of building layout and architecture, parking areas, green space and landscaping, lighting, signage, grading, driveway access, and internal traffic circulation. The primary goal of these regulations will be to preserve the small town character of the community. Site plans subject to design review will include common elements of landscaping, building design, or overall site design that provide some consistency in the appearance of new development in the community. The city will need to review these required common elements such as colors, building materials, forms of construction, themes, and the like.

To protect the attractiveness of community entrance points and other key extraterritorial areas, the city should also pursue the establishment of a cooperative site plan and architectural design review process with the surrounding towns. An overlay district could be added to the zoning map that triggers this review in community entrance areas both inside and outside the current city limits. Development in these areas should be jointly reviewed with the towns.

Official Map Regulations

Current Status

The city does not currently utilize an official map.



Recommended Changes

The city should develop an official map as outlined in Wis. Stats. 62.23(6) to designate planned future rights-of-way for roads and utilities in areas of expected growth.

Sign Regulations

Current Status

Section 17.09 of the Zoning Ordinance establishes the city's sign regulations. With certain exceptions, such as small directional signs, off-premise signs are prohibited in all zoning districts. With the exception of billboards on US Highway 45, non-conforming signs must be removed. The ordinance establishes dimensional and design standards for permitted signs.

Recommended Changes

No specific recommended changes have been brought forward in the area of sign regulations. However, the design and placement of signs will be incorporated into the process of design review described above.

Erosion Control and Stormwater Management

Current Status

Section 17.03 of the Zoning Ordinance contains provisions for stormwater management and erosion control. The ordinance establishes the city's jurisdiction for erosion control on sites where less than five acres is affected by land disturbing activities and acknowledges WDNR jurisdiction on sites that disturb five acres or more.

Recommended Changes

The city should modify its local building codes and applicable land division and zoning ordinances to include improved stormwater management and construction site erosion control requirements. Guidance on requirements for on-site stormwater management and stormwater quality are provided in the utilities and community facilities and natural resources policies.

Historic Preservation

Current Status

The city does not utilize a historic preservation ordinance.

Recommended Changes

The city should develop a historic preservation ordinance to recognize and protect the historic sites in the community. This effort should be supported and preceded by strategic planning steps such as determining the feasibility of creating a historic preservation district, creating community focal points, inventorying scenic views, and surveying historic and archeological resources.



Building, Housing, and Mechanical Codes

Current Status

The Municipal Code of New London includes a Building Code, Plumbing Code, and Electrical Code. The Building Code establishes the duties of the building inspector and requires a permit and inspection for the construction or alteration of all non-agricultural buildings. This includes new construction, structural alterations, demolition, and the installation or modification of electrical, gas, heating, plumbing, or ventilation equipment. The building inspector may authorize minor repairs without a permit. State building codes are adopted including the Uniform Dwelling Code. Buildings within the city's fire district must meet requirements for fire retardant materials and smoke detectors. The Plumbing Code adopts state plumbing codes and establishes a plumbing inspector. The Electrical Code establishes a local program for the licensing of electrical contractors. Electrical work may only be performed by a licensed electrical contractor or the owner of a one- or two-family dwelling. Permits and inspections are required for electrical work.

Recommended Changes

No specific recommended changes have been brought forward in the area of building, housing, and mechanical codes.

Sanitary Codes

Current Status

The Health and Sanitation ordinance requires all lots for which public water supply and sewer infrastructure are available to connect with those municipal systems. Non-plumbing systems (privies, outhouses, etc.) are prohibited by the Plumbing Code. The Nuisance ordinance authorizes the city to abate public health nuisances.

Recommended Changes

No specific recommended changes have been brought forward in the area of sanitary codes.

Driveway and Access Controls

Current Status

Section 17.03 of the Zoning Code requires all lots to have access to a public street or a Planning Commission approved private street. Sections 17.05 and 17.08 of the Zoning Code establish requirements for the location, spacing, design, and construction of driveways and access points.

Recommended Changes

No specific recommended changes have been brought forward in the area of driveway and access controls.



9.5 Non-Regulatory Land Use Management Tools

While ordinances and other regulatory tools are often central in plan implementation, they are not the only means available to a community. Non-regulatory implementation tools include more detailed planning efforts (such as park planning, neighborhood planning, or road improvement planning), public participation tools, intergovernmental agreements, land acquisition, and various fiscal tools (such as capital improvement planning, impact fees, grant funding, and annual budgeting).

The *City of New London Comprehensive Plan* includes recommendations for the use of non-regulatory implementation tools including the following:

- ♦ Complete a parking study once the N. Water Street and Pearl Street reconstruction projects are completed (*Transportation* element).
- ♦ Utilize intergovernmental efficiencies (*Utilities and Community Facilities* element).
- ♦ Develop a comprehensive outdoor recreation plan (*Utilities and Community Facilities* element).
- ♦ Invest in sidewalks, street repair, tree and flower planting, neighborhood park development, and trail development, etc. (*Land Use* element).

9.6 Comprehensive Plan Amendments and Updates

Adoption and Amendments

The City of New London should regularly evaluate its progress toward achieving the goals, objectives, policies, and recommendations of its comprehensive plan. It may be determined that amendments are needed to maintain the effectiveness and consistency of the plan. Amendments are minor changes to the overall plan and should be addressed after careful evaluation to maintain the plan as an effective tool upon which community decisions are based.

According to Wisconsin's Comprehensive Planning law (Wis. Stats. 66.1001), the same process that was used to initially adopt the plan shall also be used when amendments are made. The city should be aware that laws regarding the amendment procedure may be clarified or changed as more comprehensive plans are adopted and should therefore be monitored over time. Under current law, adopting and amending the city's comprehensive plan must comply with the following steps:

- ♦ **Public Participation Procedures.** The established public participation procedures must be followed and must provide an opportunity for written comments to be submitted by members of the public to the City Council and for the City Council to respond to such comments.



- ♦ **Planning Commission Recommendation.** The Planning Commission recommends its proposed comprehensive plan or amendment to the City Council by adopting a resolution by a majority vote of the entire Planning Commission. The vote shall be recorded in the minutes of the Planning Commission. The resolution shall refer to maps and other descriptive materials that relate to one or more elements of the comprehensive plan.
- ♦ **Recommended Draft Distribution.** One copy of the comprehensive plan or amendment adopted by the Planning Commission for recommendation to the City Council is required to be sent to: (a) every governmental body that is located in whole or in part within the boundaries of the city, including any school district, sanitary district, public inland lake protection and rehabilitation district, or other special district; (b) the clerk of every city, village, town, county, that is adjacent to the city; (c) the Department of Administration; (d) the Regional Planning Commission in which the city is located; (e) the public library that serves the area in which the city is located. After adoption by the City Council, one copy of the adopted comprehensive plan or amendment must also be sent to (a) through (e) above.
- ♦ **Public Notification.** At least 30 days before the public hearing on a plan adopting or amending ordinance, persons that have requested to receive notice must be provided with notice of the public hearing and a copy of the adopting ordinance. This only applies if the proposed plan or amendment affects the allowable use of their property. The city is responsible for maintaining the list of persons who have requested to receive notice and may charge a fee to recover the cost of providing the notice.
- ♦ **Ordinance Adoption and Final Distribution.** Following publication of a Class I notice, a public hearing must be held to consider an ordinance to adopt or amend the comprehensive plan. Ordinance approval requires a majority vote of the City Council. The final plan report or amendment and adopting ordinance must then be filed with (a) through (f) of the distribution list above that received the recommended comprehensive plan or amendment.

Comprehensive Plan Updates

Comprehensive planning statutes require that a comprehensive plan be updated at least once every 10 years. However, it is advisable to conduct a plan update at a five year interval. An update requires revisiting the entire planning document. Unlike an amendment, an update is often a substantial re-write of the text, updating of the inventory and tables, and substantial changes to maps, if necessary. The plan update process should be planned for in a similar manner as was allowed for the initial creation of this plan including similar time and funding allotments. State statutes should also be monitored for any modified language.



9.7 Integration and Consistency of Planning Elements

Implementation Strategies for Planning Element Integration

While this comprehensive plan is divided into nine elements, in reality, community planning issues are not confined to these divisions. Planning issues will cross these element boundaries. Because this is the case, the policies and recommendations of this plan were considered by the City of New London in the light of overall implementation strategies. The following implementation strategies were available for consideration.

Housing <ol style="list-style-type: none">1. Create a range of housing options2. Create opportunities for quality affordable housing3. Change the treatment of mobile and manufactured homes4. Create opportunities to rehabilitate the existing housing stock	Agricultural, Natural, and Cultural Resources <ol style="list-style-type: none">1. Preserve natural resources and/or green space2. Change the management of stormwater runoff3. Preserve community character and small town atmosphere4. Create attractive community entrances5. Preserve historic places
Transportation <ol style="list-style-type: none">1. Create efficiencies in the cost of building and maintaining streets and sidewalks (control taxes)2. Preserve the mobility of collector and/or arterial streets and highways3. Create improved intersection safety4. Create safe emergency vehicle access to developed properties5. Create more detailed plans for transportation improvements6. Create road connectivity7. Create a range of viable transportation choices8. Change the availability and arrangement of public parking areas	Economic Development <ol style="list-style-type: none">1. Change community conditions for attracting business and job growth2. Change community conditions for retaining existing businesses and jobs3. Create additional tax base by requiring quality development and construction4. Create a revitalized downtown5. Create more specific plans for economic development
Utilities and Community Facilities <ol style="list-style-type: none">1. Create efficiencies in the cost of providing services and facilities (control taxes)2. Create more detailed plans for facility and service improvements3. Create intergovernmental efficiencies for providing services and facilities4. Preserve drinking water quality5. Create improved community facilities and services6. Preserve the existing level and quality of community facilities and services7. Preserve planned future park locations and road and utility rights-of-way8. Preserve the village as a viable unit of government9. Create opportunities to maximize the use of existing infrastructure	Intergovernmental Cooperation <ol style="list-style-type: none">1. Create a cooperative approach for planning and regulating development along community boundaries2. Create intergovernmental efficiencies for providing services and facilities3. Preserve intergovernmental communication
	Land Use <ol style="list-style-type: none">1. Preserve valued features of the landscape through site planning2. Create development guidelines using selected criteria from <i>What If</i> suitability mapping3. Change the management of growth in extraterritorial areas4. Preserve the influence of market forces to drive the type and location of development5. Create a system of development review that prevents land use conflicts6. Preserve the downtown neighborhood7. Create a pattern of land use that is compact8. Create mixed-use neighborhoods9. Create pedestrian/bicycle-friendly and human scaled-neighborhoods10. Create attractive and efficient regional commercial and industrial areas



Wisconsin's Comprehensive Planning law requires that the *Implementation* element describe how each of the nine elements of the comprehensive plan will be integrated with the other elements of the plan. In short, the implementation strategies provide planning element integration by grouping associated policies and recommendations in multiple elements with coherent, overarching themes.

Planning Element Consistency

Wisconsin's Comprehensive Planning law requires that the *Implementation* element describe how each of the nine elements of the comprehensive plan will be made consistent with the other elements of the plan. The planning process that was used to create the *City of New London Year 2040 Comprehensive Plan* required all elements of the plan to be produced in a simultaneous manner. No elements were created independently from the other elements of the plan, therefore reducing the threat of inconsistency.

There may be inconsistencies between the goals and objectives between elements or even within an individual element. This is the nature of goals and objectives. Because these are statements of community values, they may very well compete with one another in certain situations. The mechanism for resolving any such inconsistency is the policy statement. Where goals or objectives express competing values, the city should look to the related policies to provide decision making guidance. The policies established by this plan have been designed with this function in mind, and no known policy inconsistencies are present between elements or within an individual element.

Over time, the threat of inconsistency between the plan and existing conditions will increase, requiring amendments or updates to be made. Over time, additional plans regarding specific features within the community may also be developed (e.g., outdoor recreation plan, downtown development plan, etc.). The process used to develop any further detailed plans should be consistent with this *City of New London Year 2040 Comprehensive Plan*.

9.8 Measurement of Plan Progress

Wisconsin's Comprehensive Planning law requires that the *Implementation* element provide a mechanism to measure community progress toward achieving all aspects of the comprehensive plan. An acceptable method is to evaluate two primary components of the plan, policies, and recommendations, which are found in each plan element.

To measure the effectiveness of an adopted policy, the community must determine if the policy has met the intended purpose. For example, the City of New London has established a Transportation element policy that states, "Dead-end roads and cul-de-sacs should be avoided to the extent practicable and allowed only where physical site features prevent connection with existing or planned future roadways." To determine whether the policy is achieving the community's intention a "measure" must be established. In the case of this policy, the measure is simply how many dead-end roads or cul-de-sacs have been constructed since the plan's



adoption, and how many of those were necessitated by the site conditions. Each policy statement should be reviewed periodically to determine the plan's effectiveness. Likewise, recommendations listed within each element can be measured. For recommendations, the ability to "measure" progress toward achievement is very straight forward in that the recommendations have either been implemented or not.

To ensure the plan is achieving intended results, periodic reviews should be conducted by the Planning Commission and results reported to the governing body and the public.

9.9 Implementation Goals and Objectives

Community goals are broad, value-based statements expressing public preferences for the long term (20 years or more). They specifically address key issues, opportunities, and problems that affect the community. Objectives are more specific than goals and are more measurable statements usually attainable through direct action and implementation of plan recommendations. The accomplishment of objectives contributes to fulfillment of the goal.

***Goal 1* Promote consistent integration of the comprehensive plan policies and recommendations with the ordinances and implementation tools that affect the city.**

Objectives

- 1.a. Update the comprehensive plan on a regular schedule to ensure that the plan remains a useful guide for land use decision making.
- 1.b. Require that administration, enforcement, and implementation of land use regulations are consistent with the city's comprehensive plan.
- 1.c. Develop and update as needed an "Action Plan" as a mechanism to assist the Planning Commission and City Council with the administration of the comprehensive plan.

***Goal 2* Balance appropriate land use regulations and individual property rights with community interests and goals.**

Objectives

- 2.a. Create opportunities for citizen participation throughout all stages of planning, ordinance development, and policy implementation.
- 2.b. Maintain a development review process whereby all interested parties are afforded an opportunity to influence the outcome.



9.10 Implementation Policies and Recommendations

Policies and recommendations build on goals and objectives by providing more focused responses to the issues that the city is concerned about. Policies and recommendations become primary tools the city can use in making land use decisions. Many of the policies and recommendations cross element boundaries and work together toward overall implementation strategies.

Policies identify the way in which activities are conducted in order to fulfill the goals and objectives. Policies that direct action using the word “shall” are advised to be mandatory and regulatory aspects of the implementation of the comprehensive plan. In contrast, those policies that direct action using the words “will” or “should” are advisory and intended to serve as a guide. “Will” statements are considered to be strong guidelines, while “should” statements are considered loose guidelines. The city’s policies are stated in the form of position statements (City Position), directives to the city (City Directive), or as criteria for the review of proposed development (Development Review Criteria).

Recommendations are specific actions or projects that the city should be prepared to complete. The completion of these actions and projects is consistent with the city’s policies, and therefore will help the city fulfill the comprehensive plan goals and objectives.

Policies: City Directive

- I1 The city shall maintain the comprehensive plan as an effective tool for the guidance of city governance and will update the plan as needed to maintain consistency with state comprehensive planning requirements.
- I2 City policies, ordinances, and decisions shall be made in conformance with the comprehensive plan to the fullest extent possible.
- I3 Areas of the plan that are likely to be disputed or litigated in the future shall be reviewed by the city attorney to ensure his or her knowledge of the plan and to offer suggestions to reduce conflict.

Recommendations

- ♦ Develop and maintain an action plan that identifies specific projects that are to be completed toward the implementation of the comprehensive plan. An action plan identifies an estimated time frame and responsible parties for each project or action.
- ♦ Review the comprehensive plan annually (in conjunction with the city budgeting process) for performance on goals, objectives, policies, and recommendations, for availability of updated data, and to provide an opportunity for public feedback. This review does not need to be as formal as the comprehensive review required at least every 10 years by Ch. 66.1001, Wisconsin Statutes.



- ♦ Conduct a comprehensive plan review at least every five years and conduct a complete update every 10 years. Ch. 66.1001, Wisconsin Statutes require such a review at least every 10 years. All components of the plan should be reviewed for applicability and validity.



New London Wolf River – Modification Procedure Request

Project Specs:

Total Multifamily Units: 98 Units

Unit Breakdown:

16 – Studio Units

31 – Studio Suite Units

42 – 1 Bedrooms

9 – 2 Bedrooms

Total Parking on Site:

151 – Spaces (87 Exterior & 64 Interior)

Parking Per Unit – 1.54 Spaces

Parking Per Unit Requirements – 2.24 Spaces

City of New London,

S.C. Swiderski is requesting a modification procedure for the SCS Wolf River multi-family project. Our project proposes 98 multi-family units. Currently with our combined exterior and interior parking planned on this site we can meet an average of 1.54 parking spaces per unit. We understand the city's requirements advise us to reach a 2.24 parking space per unit standard. Since we are unable to reach this due to limited buildable site acreage, parking island requirements, and the current site design, we are requesting the modification procedure from Municipal Code Chapter 17.08-2(3) (see below).

"(3) Modification Procedure: The preceding schedule of minimum number of off-street parking spaces required is based upon contemporary experience observed within or near the jurisdiction of this Ordinance or upon professional studies such as those published by property management, community planning, or traffic engineering societies. In applications for a Zoning Permit where it is alleged by the applicant or an affected party that the preceding standards, or a classification by the Planning Commission under 17.08-1(3) above, are substantially in error, requiring either too little or too much space, a request may be filed with the Commission seeking application of a differing standard. The Commission in granting or denying the differing standard shall give great weight to any professionally prepared data which is submitted for consideration."

Having an average of 1.54 spaces per unit will be sufficient for our site. The 98 multi-family units consist of studio, 1-bedroom and 2-bedroom variations. 90.8% of the units provided on this site are either studio or one-bedroom units. We are anticipating majority of these units will need only 1 parking space. Given that we have a total of 47 studio units on this site, if we accounted for one car per studio unit, we could reach an average of 2.03 parking spaces per unit for our 1 and 2 bedrooms on this site. Based on

our property management experience, we are confident given the unit count and unit types that 1.54 spaces per unit will be sufficient for this project.

Thank for your consideration,

Kortni Wolf

Business Development Manager – S.C. Swiderski, LLC

Stormwater Management Plan Report

SCS Wolf River

New London, WI

Report Date: January 6, 2023



SCS
S.C. SWIDERSKI LLC

Prepared for:

S.C. Swiderski, LLC

Attn: Kortni Wolf
401 Ranger Street
Mosinee, Wisconsin

Prepared by:

JSD Professional Services, Inc.

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Weston, WI 54476

JSD Project No. 22-11383-MF



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Future questions and comments can be directed to:

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Project Engineer

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1.0 INTRODUCTION

This technical report shall serve as the stormwater management design report to support the S.C. Swiderski (SCS) Wolf River Development in the City of New London, Waupaca County, Wisconsin. The proposed Multi-Family Development is a redevelopment on an existing 5.01-acre project located near the intersections of County Highway “X” (Wolf River Avenue) & Wyman Street and County Highway “X” (Wolf River Avenue) & W. South Water Street. It is surrounded by County Highway “X”, Wyman Street, W. South Water Street, and the Wolf River.

The project includes the full development of the lot including one (1) residential multi-family building including interior parking and two access points to the site. The proposed stormwater management facilities have been designed to meet all applicable stormwater management regulations for the proposed re-development.

The SCS development will have approximately 1.76 acres of impervious area or a 43% impervious ratio consisting of asphalt parking, driveways, sidewalks, and a building footprint. Additional improvements include utilities subgrade improvements, landscaping, lighting, stormwater treatment facilities and finished grading. The anticipated construction start date for the SCS Multi Family Development is August 2023 with project completion in August 2024.

The Wisconsin Department of Natural Resources (WDNR) wetland mapping indicated there were wetland indicators on the development site. The surface water data viewer mapping can be found in **Appendix 1**.

2.0 EXISTING CONDITIONS

The site development area is comprised of an asphalt pavement and lawn, with the site once being used as a park. The site had a 17% impervious ratio. The Existing Conditions Survey can be found in **Appendix 1**.

A subsurface exploration report dated August 24, 2021 was completed by American Engineering Testing. The general soil profile was summarized in the geotechnical report. The geotechnical report and the NCRS Web Soil Survey can be found in **Appendix 2**.

3.0 DESIGN CRITERIA

3.1 Wisconsin Administrative Code

WDNR – Technical Standards (NR 151 and NR 216)

This site will need to meet the criteria for land disturbing activities subject to stormwater management and erosion control for redevelopment as defined in the WDNR Technical Standards 151 as:

- Area where development is replacing older development disturbing one or more acre.

As re-development, the proposed SCS Wolf River site is required to provide stormwater discharge quality control performance standard. However, the development is exempt from the peak discharge and infiltration performance standard as the site is redevelopment.

4.0 ANALYSIS

The stormwater management and erosion control plan have been written and analyzed for a single phase of construction to full build-out conditions. Construction will include both on-site stormwater management and erosion control.

Sediment control calculations used WinSLAMM Version 10.4.1 to account for total suspended solids (TSS) removal for the site. The TSS WinSLAMM model contained the full buildout of the project. The

development will be required to meet 40% TSS removal from parking areas and road prior to discharging off-site. Refer to **Appendix 4** for further information on sediment control calculations.

The storm sewer peak flow rates were calculated using DSPS guidance. The storm sewer was analyzed per the Wisconsin Department of Natural Resources Facility Design Manual (FDM) for a closed conduit system. Refer to **Appendix 7** for further information on the storm sewer sizing.

5.0 DESIGN

The proposed development will have approximately 2.74 acres of disturbed area. Stormwater management calculations are based on one phase, with full build-out conditions. The proposed build-out includes a total of 74,770 SF of impervious area which includes the 31,762 SF building and 43,008 SF of parking lot, delivery & trash area, curb and gutter, and sidewalks.

The designed stormwater management facilities consist of three (3) bio-retention facilities. The parking lot will flow overland to these basins and the roof will be connected directly to the city storm sewer system. The bioretention basins will provide the development's total suspended solids reduction requirements. A proposed watershed map is located in **Appendix 5** and construction plans are located in **Appendix 3**.

5.1 Stormwater Discharge Quantity

Wisconsin Administrative Code NR151.123 (2)(b)

(2) *Exemptions. This section does not apply to the following:*

(b) *Except as provided under s. NR 151.121 (5), a redevelopment post-construction site.*

The peak discharge performance standard is exempt from this site.

5.2 Stormwater Discharge Quality

Wisconsin Administrative Code NR151.122 (1-2)

(1) *Requirement. BMPs shall be designed, installed and maintained to control total suspended solids carried in runoff from the post-construction site. BMPs shall be designed in accordance with Table 1, or to the maximum extent practicable as provided in sub. (3). The design shall be based on an average annual rainfall, as compared to no runoff management controls.*

Table 1. TSS Reduction Standards	
Development Type	TSS Reduction
New Development	80 percent
In-fill \geq 5 acres	80 percent
In-fill < 5 acres on or after October 1, 2012	80 percent
Redevelopment	40 percent of load from parking areas and roads
In-fill < 5 acres and before October 1, 2012	40 percent

(2) *Redevelopment. Except as provided in s. NR 151.121 (5), the redevelopment total suspended solids reduction standard of Table 1, applies to redevelopment.*

The SCS Wolf River project drainage areas generate approximately 743.30 lbs. of particulate solids. The bio-retention basins remove approximately 348.60 lbs. of particulate solids from upstream runoff for an overall 46.90% TSS reduction for the site, which meets discharge quality requirements.

5.3 Infiltration Performance Standard

Wisconsin Administrative Code NR151.124(3)(b)3.

(b) Exemptions. Runoff from the following areas may be credited towards meeting the requirement when infiltrated, but the decision to infiltrate runoff from these source areas is optional:

- 3. Except as provided under s. NR 151.121 (5), redevelopment post-construction sites.*

The infiltration performance standard is exempt from this site.

6.0 EROSION CONTROL

Erosion control measures onsite will conform to the Wisconsin Department of Natural Resources Technical Standards. These measures include, but are not limited to; construction entrances, silt fencing, grading, seeding, and mulching.

Preliminary construction sequencing is proposed as follows:

1. Install erosion control measures prior to any construction activities.
2. Install stone construction entrances and inlet protection on existing inlets.
3. Pulverize existing asphalt surface.
4. Strip and stockpile topsoil.
5. Excavate building foundations.
6. Rough Grade Bio-retention Basins and install basin outlet structure
7. Construct sanitary sewers, watermain, and storm sewers.
8. Install inlet protection on new inlets and any additional permanent erosion control measures.
9. Install aggregate base course and paving in parking areas.
10. Complete exterior building work.
11. Place topsoil.
12. Final Grade Bio-retention Basins per Plans.
13. Seed and mulch.
14. Remove temporary erosion control practices.

Final construction sequencing and detailed erosion control will be submitted for review during the final plan submittal.

7.0 CONCLUSION

Stormwater management features for the SCS Wolf River site have been designed in accordance with WDNR NR151. The development features three (3) bio-retention basins to address water quality requirements applicable to this project. Erosion control practices will be in compliance with WDNR Technical Standards as well as the City of New London Standards.

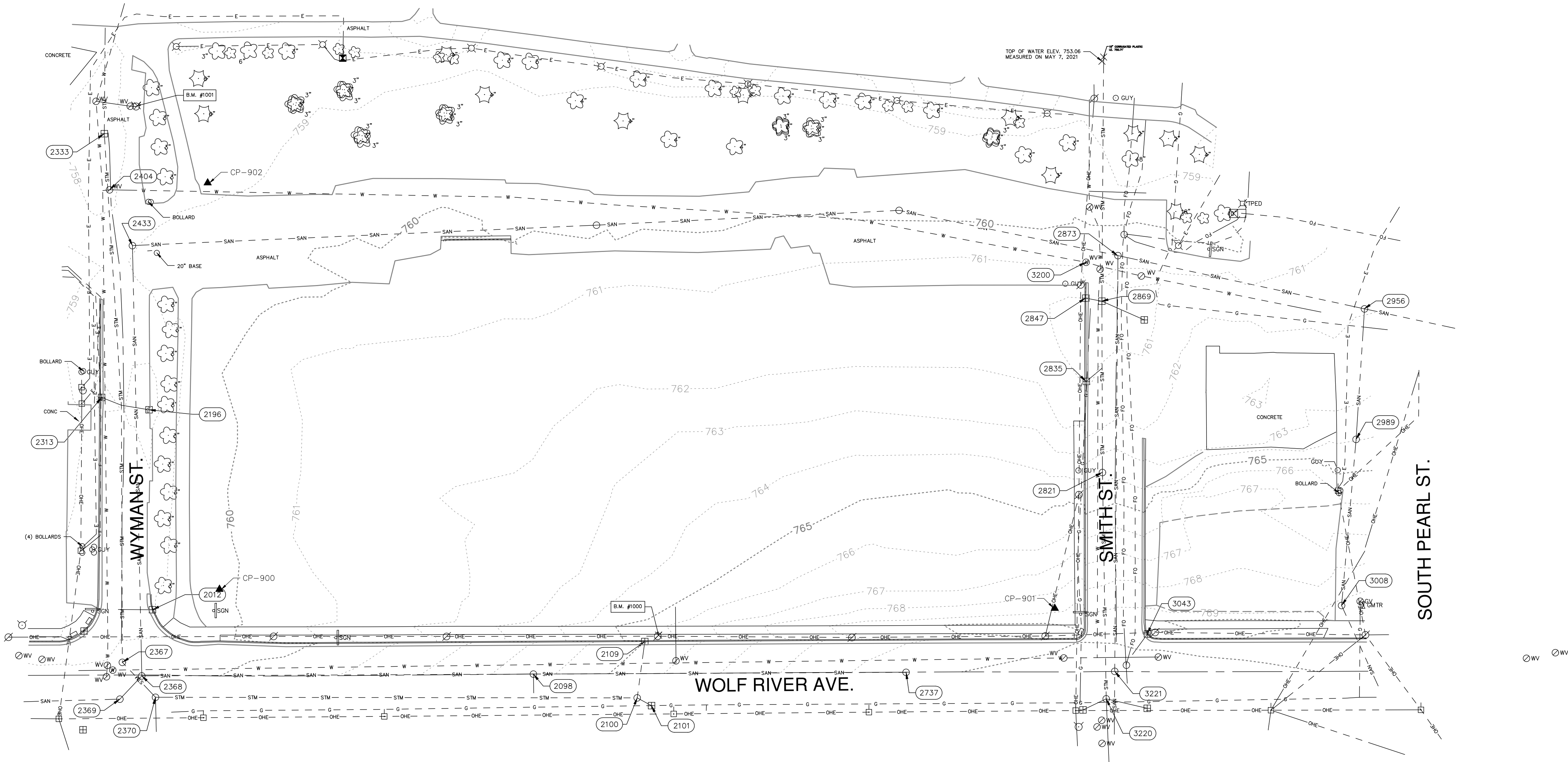
APPENDIX 1

EXISTING CONDITIONS SURVEY
WDNR SURFACE WATER DATA VIEWER

X:\GB\2021\20212051\Survey\Ex-Conditions-Wolf River Ave_20212051
8/24/2022 3:30 PM

NOTICE:
In accordance with Wisconsin statute 182.0175, damage to transmission facilities, excavator shall be solely responsible to provide advance notice to the designated "ONE CALL SYSTEM" not less than three working days prior to commencement of any excavation required to perform work contained on this drawing, and further, excavator shall comply with all other requirements of this statute relative to excavator's work.

DISCLAIMER:
The underground utilities shown have been located from field survey information and existing drawings. GRAEF makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. GRAEF further does not warrant that the underground utilities shown are in the exact location indicated. GRAEF has not physically located the underground utilities.



ASBUILT TABLE

2098	SANITARY MANHOLE RIM EL. 763.59' 8" E. I.E. 756.23' PVC 8" W. I.E. 756.23' PVC 6" SE. I.E. 758.54' PVC	2012	STORM INLET RIM EL. @ FL. 758.39' 8" W. 756.14' PVC	2847	STORM INLET RIM EL. @ FL. 760.61 8" E. I.E. 758.16' CONC.
2368	SANITARY MANHOLE RIM EL. 759.40' 18" N. I.E. 750.94' RCCP 8" E. I.E. 752.75' PVC 18" SW. I.E. 751.24' RCCP	2100	STORM MANHOLE RIM EL. 765.98' 12" W. I.E. 760.08' RCCP 10" N. I.E. 760.58' RCCP 8" SE. I.E. 762.23' PVC	2869	STORM INLET (ROUND MANHOLE) RIM EL. 760.64' 28" N. I.E. 755.17' CLAY 18" S. I.E. 755.21' PVC IN 28" CLAY 10" W. I.E. 757.49' PVC
2433	SANITARY MANHOLE RIM EL. 758.96' ±8" NW. I.E. 751.95' CONC. 18" E. I.E. 751.34' CONC. 18" S. I.E. 751.18' CONC.	2109	STORM INLET RIM EL. @ FL. 764.93' 10" S. I.E. 762.08' PVC	3043	STORM INLET RIM EL. @ FL. 769.64' SW. I.E. 764.94'± CONC. DIFFICULT TO SEE
2737	SANITARY MANHOLE RIM EL. 769.64' 8" W. I.E. 760.33' PVC	2196	STORM INLET RIM EL. 757.30' 8" W. I.E. 755.17' CONC. 8" W. T/PIPE 755.68' CONC.	3220	STORM MANHOLE RIM EL. 770.83' 28" N. I.E. 765.55' CLAY 28" S. I.E. 765.47' CLAY 8" W. I.E. 766.63' CLAY 8" E. I.E. 766.83' CLAY
2873	SANITARY MANHOLE RIM EL. 760.89' 18" W. I.E. 752.57' CONC. 18" S. I.E. 753.45'± CONC. 18" E. I.E. 752.70' CONC.	2313	STORM INLET RIM EL. 757.56' 6" E/W I.E. 754.46' PVC 6" E/W T/PIPE 756.10' PVC	2404	WATER VALVE RIM EL. 757.52' T/NUT: 751.35'
2956	SANITARY MANHOLE RIM EL. 761.89' 18" W. I.E. 752.88' CONC. 18" E. I.E. 752.80' CONC. 8" S. I.E. 753.63' PVC	2367	STORM MANHOLE RIM EL. 759.22' 15" N. I.E. 753.30' PVC 18" SE. I.E. 753.44' CPCP	3200	WATER VALVE RIM EL. 760.77' T/NUT: 756.43'
2989	SANITARY MANHOLE RIM EL. 763.86' 8" N. I.E. 754.32' BLACK PLASTIC 8" S. I.E. 754.34' BLACK PLASTIC	2370	STORM MANHOLE RIM EL. 759.43' 18" NW. I.E. 754.21' CPCP 18" S. I.E. 754.21' CPCP 12" E. I.E. 754.78'± CPCP		
3008	SANITARY MANHOLE RIM EL. 769.27' 8" N. I.E. 759.04' BLACK PLASTIC 8" SE. I.E. 759.24' BLACK PLASTIC	2821	STORM MANHOLE RIM EL. 763.69' 28" N. I.E. 757.76' CLAY 28" S. I.E. 757.91' CLAY		
3221	SANITARY MANHOLE RIM EL. 770.60' 12"± N. I.E. 759.46' CONC. 12"± S. I.E. 759.46' CONC.	2835	STORM INLET RIM EL. @ FL. 760.84' 6" NW. I.E. 758.20' CONC.		

CONTROL POINTS

CP-900
SET 1/2" REBAR WITH GRAEF CAP
N. 353860.01
E. 626292.21
EL. 759.91'

CP-901
SET 1/2" REBAR WITH GRAEF CAP
N. 353848.55
E. 626796.27
EL. 768.88'

CP-902
SET 1/2" REBAR WITH GRAEF CAP
N. 354105.33
E. 626285.07
EL. 758.87'

BENCHMARKS

BM 1000 RR SPIKE SET IN NORTH FACE OF PPOL.
ELEVATION = 766.65' (SHOWN)

BM 1001 NE BURY BOLT ON FIRE HYDRANT
ELEVATION = 760.61' (SHOWN)

SURVEY NOTES

- HORIZONTAL COORDINATES ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), WAUPACA COUNTY, IN U.S. SURVEY FEET.
- ELEVATIONS ARE BASED ON NAVD88(2012).
- FIELDWORK WAS COMPLETED ON 4/23/2021.

LEGEND

▲	CONTROL POINT
⊗	LIGHT POLE
○	MANHOLE
⊕	STORM INLET
⊗	FIRE HYDRANT
⊗	DECIDUOUS TREE
⊗	BUSH
⊗	SIGN
⊗ WV	WATER VALVE
⊗ GV	GAS VALVE
⊗	CONTROL BOX
---STM---	BURIED STORM SEWER
---E---	BURIED ELECTRIC LINE
---OHE---	OVERHEAD ELECTRIC LINE
---FO---	BURIED FIBER OPTIC
---SAN---	BURIED SANITARY SEWER
---T---	BURIED TELEPHONE LINE
---OHT---	OVERHEAD TELEPHONE LINE
---W---	BURIED WATER MAIN

GRAEF

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Suite 201
Green Bay, WI 54304-5947
920 / 592 9440

www.graef-usa.com

DRAFT CONSTRUCTION DOCUMENTS

PROJECT TITLE:

SCS NEW LONDON

NE CORNER OF WYMAN STREET AND
W. WOLF RIVER AVENUE

ISSUE:

NO.	DATE	REVISIONS	BY
5/25/21		SCHEMATIC DESIGN	
6/04/21		DRAFT CONSTRUCTION DOCUMENTS	
8/24/22		DRAFT CONSTRUCTION DOCUMENTS	



PROJECT INFORMATION:

PROJECT NUMBER: 2021-2051

DATE: 05/10/2021

DRAWN BY: JCK

CHECKED BY: Checked By

APPROVED BY: Approved By

SCALE: AS SHOWN

SHEET TITLE:

EXISTING CONDITIONS

SHEET NUMBER:

C100



Surface Water Data Viewer Map



Legend

- Wetland Indicators
- Wetland Class Areas
- Wetland Class Points
 - Dammed pond
 - Excavated pond
 - Filled/draind wetland
 - Wetland too small to delineate
 - Filled excavated pond
- Filled Points
- Wetland Class Areas
- Filled Areas
- Wetland Identifications and Confirmations
- NRCS Wetspots
- Railroads
- Index to EN_Image_Basemap_Leaf_Off

0.1 0 0.03 0.1 Miles 1:1,980

NAD_1983_HARN_Wisconsin_TM

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/legal/>

Notes

APPENDIX 2

WEB SOIL SURVEY GEOTECHNICAL REPORT



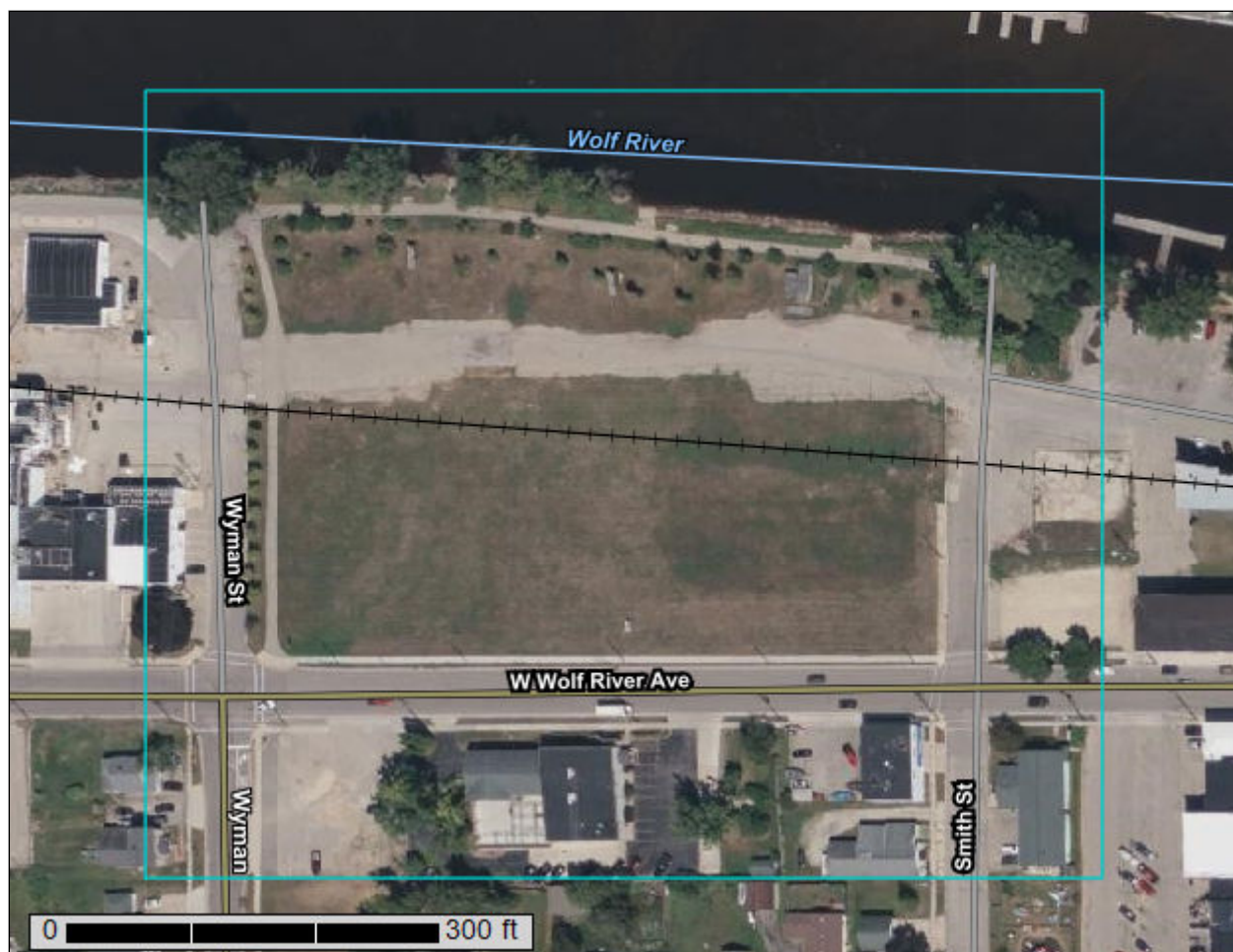
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

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

Custom Soil Resource Report for **Waupaca County, Wisconsin**



November 3, 2022

Preface

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

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

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

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

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

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

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OsB—Oshkosh silty clay loam, 2 to 6 percent slopes.....	11
W—Water.....	12
References	13

Soil Map

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

Custom Soil Resource Report Soil Map



Custom Soil Resource Report


MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils


 Soil Map Unit Polygons


 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit


 Clay Spot


 Closed Depression

 Gravel Pit

 Gravelly Spot


 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water


 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole


 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

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

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

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

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

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

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

Soil Survey Area: Waupaca County, Wisconsin
Survey Area Data: Version 16, Sep 6, 2022

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

Date(s) aerial images were photographed: May 20, 2020—Sep 15, 2020

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Mp	Menasha silty clay	9.7	85.8%
OsB	Oshkosh silty clay loam, 2 to 6 percent slopes	0.2	1.4%
W	Water	1.4	12.7%
Totals for Area of Interest		11.2	100.0%

Map Unit Descriptions

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

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

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the

Custom Soil Resource Report

development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

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

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

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

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

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

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

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

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

Waupaca County, Wisconsin

Mp—Menasha silty clay

Map Unit Setting

National map unit symbol: g5w7
Elevation: 600 to 1,220 feet
Mean annual precipitation: 27 to 33 inches
Mean annual air temperature: 43 to 46 degrees F
Frost-free period: 120 to 150 days
Farmland classification: Prime farmland if drained

Map Unit Composition

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

Description of Menasha

Setting

Landform: Depressions on stream terraces, drainageways on lake plains,
drainageways on stream terraces, depressions on lake plains
Down-slope shape: Concave, linear
Across-slope shape: Concave
Parent material: Clayey lacustrine deposits

Typical profile

Ap - 0 to 12 inches: silty clay
Bg,BC - 12 to 29 inches: clay
C - 29 to 60 inches: clay

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 6.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: D
Ecological site: F095XA004WI - Wet Loamy or Clayey Lowland
Forage suitability group: Mod AWC, high water table (G095AY004WI)
Other vegetative classification: Mod AWC, high water table (G095AY004WI)
Hydric soil rating: Yes

OsB—Oshkosh silty clay loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 2szf8
Elevation: 600 to 940 feet
Mean annual precipitation: 31 to 33 inches
Mean annual air temperature: 43 to 46 degrees F
Frost-free period: 130 to 161 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Oshkosh and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Oshkosh

Setting

Landform: Glacial lakes
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Silty loess over clayey lacustrine deposits

Typical profile

Ap - 0 to 10 inches: silty clay loam
Bt - 10 to 28 inches: clay
C - 28 to 79 inches: clay

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.06 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: C
Ecological site: F095XA011WI - Clayey Upland
Forage suitability group: Mod AWC, adequately drained (G095AY005WI)
Other vegetative classification: Mod AWC, adequately drained (G095AY005WI)
Hydric soil rating: No

Minor Components

Borth

Percent of map unit: 7 percent
Landform: Glacial lakes
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: F095XA011WI - Clayey Upland
Hydric soil rating: No

Manawa

Percent of map unit: 3 percent
Landform: Glacial lakes
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Linear
Ecological site: F095XA007WI - Moist Clayey Lowland
Other vegetative classification: Mod AWC, high water table (G095AY004WI)
Hydric soil rating: No

W—Water

Map Unit Setting

National map unit symbol: g5xb
Elevation: 600 to 1,220 feet
Mean annual precipitation: 27 to 33 inches
Mean annual air temperature: 43 to 46 degrees F
Frost-free period: 120 to 150 days
Farmland classification: Not prime farmland

Map Unit Composition

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

Description of Water

Properties and qualities

Frequency of flooding: Very frequent
Frequency of ponding: Frequent

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• MATERIALS
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REPORT OF GEOTECHNICAL EXPLORATION

Proposed Multi-Family Housing Development

W. Wolf River Avenue at Wyman Street

New London, Wisconsin

AET Project No. P-0004677

Date:

August 24, 2021

Prepared for:

GRAEF
1150 Springhurst Drive, Suite 201
Green Bay, Wisconsin 54304





August 24, 2021

Mr. Ryan Van Camp, PE, CFM, CPESC
GRAEF
1150 Springhurst Drive, Suite 201
Green Bay, Wisconsin 54304

RE: Report of Geotechnical Exploration
Proposed Multi-Family Housing Development
W. Wolf River Avenue at Wyman Street
New London, Wisconsin
AET Project No. P-0004677

Dear Mr. Van Camp:

We are pleased to present the results of our subsurface exploration program for your project in New London, Wisconsin. These services were performed according to our proposal to you dated April 28, 2021.

We are submitting an electronic (PDF) version of this geotechnical report to you. Unless you request otherwise, we will not submit any hard copies of the report.

We appreciate the opportunity to work with you on this phase of the project. Please contact us if you have questions about this report or require further assistance.

Sincerely,

American Engineering Testing, Inc.

A handwritten signature in blue ink, appearing to read 'Benjamin B. Mattson', with a long horizontal flourish extending to the right.

Benjamin B. Mattson, P.E.
Senior Geotechnical Engineer

Report of Geotechnical Exploration

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August 24, 2021
AET Project No. P-0004677

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Signature Page

Prepared for:

Mr. Ryan Van Camp, PE, CFM, CPESC
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Prepared by:

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Report Authored By:



Benjamin Mattson, P.E. (WI, MN)
Senior Geotechnical Engineer

Review Conducted By:



Blake Snyder, P.E. (WI)
Geotechnical Engineer



Report of Geotechnical Exploration

Proposed Multi-Family Housing Development

W. Wolf River Avenue at Wyman Street; New London, Wisconsin

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1.0 INTRODUCTION

GRAEF is providing planning and civil engineering services for a proposed S.C. Swiderski multi-family housing development in New London, Wisconsin. To assist planning and design, Mr. Ryan Van Camp of GRAEF authorized American Engineering Testing, Inc. (AET) to conduct a subsurface exploration program at the site and perform a geotechnical engineering review for the project. This report presents the results of the above services and provides our engineering recommendations based on this data.

2.0 SCOPE OF SERVICE

AET's services were performed according to our proposal to GRAEF dated April 28, 2021. The authorized scope consists of:

- Twenty standard penetration test borings (later adjusted to eighteen borings) to depths of 20 feet each.
- Visual/manual classification and limited laboratory testing of the recovered soil samples.
- Geotechnical engineering review based on the gained data and preparation of this report.

These services are intended for geotechnical purposes. The scope is not intended to explore for the presence or extent of environmental contamination.

3.0 PROJECT INFORMATION

The proposed development includes eight housing buildings, each containing multiple rental units. The buildings will have one or two stories, frost-depth footings, and slabs-on-grade; they will cover footprints ranging from about 2,700 to 9,700 square feet. The proposed finished floor elevations of the buildings range from 761.25 to 765.0 feet, which will require grade raises and cuts of up to about 5 feet and 2 feet, respectively. The project will include new bituminous-paved parking and drive areas. The site was formerly occupied by the Wolf River Lumber Company; those buildings were demolished in 2006.

The above-stated information represents our understanding of the project and is an integral part of our engineering review. It is important we be contacted if there are changes from that described so we can evaluate if modifications to our recommendations are appropriate.

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4.0 SUBSURFACE EXPLORATION AND LABORATORY TESTING

Our subsurface exploration program for this project consisted of drilling a total of eighteen borings with standard penetration testing (SPT) and sampling on July 19, 20, 22, and 23, 2021. AET and GRAEF mutually agreed on the number, depths, and locations of the borings, which are shown on Figure 1 in Appendix A.

Prior to drilling, we contacted Wisconsin Diggers Hotline to locate public underground utilities at the site. We drilled the borings using 3¼-inch-inside-diameter hollow-stem augers. Refer to Appendix A for details on the drilling and sampling methods, the classification methods, and the water level measurement details.

The boring logs are found in Appendix A and contain information concerning soil layering, geologic description, moisture condition, and USCS classifications. Relative density or consistency is also noted for the natural soils, which are based on the standard penetration resistance (N-value).

We performed 49 moisture content tests and 22 unconfined compressive strength tests (q_p , pocket penetrometer) on the recovered soil samples; these test results are shown on the boring logs, adjacent to the sample on which each test was performed. We also performed three sieve analysis tests; these test results are shown on a separate page after the boring logs in Appendix A.

5.0 SITE CONDITIONS

5.1 Surface Observations

As described in Section 3.0, the site was previously occupied by the Wolf River Lumber Company, the buildings of which were demolished in 2006. The site is currently vacant and mostly grass covered. The surface elevation is highest at the southeast corner and slopes downward to the north and to the west, with a maximum relief of about 10 feet. The Wolf River is just north of the site.

5.2 Subsurface Soils

The original Wolf River Lumber Company demolition specifications indicate that the concrete floors and foundations were to be left in place and “not substantially damaged”. However, it appears that most of the concrete we encountered in our borings was rubblized to some degree and not intact. We do not know the extent of intact or rubblized concrete; the project team should

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anticipate encountering concrete throughout the site. Based on historical aerial imagery, the Wolf River Lumber Company buildings appear to have covered more than three-fourths of the site.

Below the surficial topsoil, we encountered fill in each boring to depths ranging from 4.5 to 10 feet. The fill was highly variable mixtures of sand, gravel, silt, and clay. The fill also contained notable amounts of concrete and decomposing wood debris, along with lesser amounts of brick, wood (intact pieces), slag, ash, cinders, plastic, and organics. The fill was highly variable in relative density (or consistency).

Below the fill, we encountered mixed alluvium, also consisting of highly variable mixtures of sand, gravel, silt, and clay, along with varying organic content.

5.3 Groundwater

The groundwater depths and elevations we observed in our borings are shown in Table 1. However, it could take several hours or more for water levels to stabilize in open boreholes at this site and we backfilled the boreholes upon completion. Piezometers would be needed to obtain long-term groundwater level measurements, which was beyond our scope of service. Groundwater levels will fluctuate due to varying seasonal and annual rainfall and snow melt amounts and other factors.

Table 1: Groundwater Depths and Elevations

Boring No.	Surface Elevation (feet)	Groundwater Depth (feet)	Groundwater Elevation (feet)
B-01	758.7	8.2	750.5
B-02	760.1	8.6	751.5
B-03	760.3	8.5	751.8
B-04	759.2	8.6	750.6
B-05	760.4	10.0	750.4
B-06	761.6	8.9	752.7
B-07	759.5	9.9	749.6
B-08	760.6	9.5	751.1
B-09	762.5	10.4	752.1
B-10	759.3	9.2	750.1
B-11	761.2	11.0	750.2
B-12	763.0	10.5	752.5
B-13	760.3	8.0	752.3

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Boring No.	Surface Elevation (feet)	Groundwater Depth (feet)	Groundwater Elevation (feet)
B-14	761.6	9.0	752.6
B-15	762.7	10.5	752.2
B-16	764.5	10.5	754.0
B-17	766.1	14.8	751.3
B-18	766.0	10.9	755.1

6.0 BUILDING RECOMMENDATIONS

6.1 Approach Discussion

Based on the subsurface conditions found in our borings and our understanding of the project, it is our opinion the proposed buildings can be supported on conventional footing foundations after proper site preparation has taken place.

Our site preparation recommendations include removal of the existing fill, debris, and organic soils and replacement with new imported fill (i.e. subcut and replace method). We also considered the use of rammed-aggregate piers to improve the existing soils in place to allow the use of conventional footings and floor slabs without performing full subcutting and replacement. However, the concrete at the site has the potential to make rammed-aggregate pier installation very difficult (or impossible without first removing the concrete). If the project team would like to consider rammed-aggregate piers, we recommend performing test pits to better define the concrete size and properties. The project team would probably find it beneficial to perform test pits even with the subcut and replace option.

Some of the naturally-occurring soils below the fill will be moderately compressible under the loads of the planned grade raise fill and the building loads. To reduce the effects of this compression (and the resulting settlement), we recommend performing the required subcutting and then placing compacted fill to approximately final grade across the entire site and then observing a waiting period of about 2 weeks to allow compression (settlement) to occur, prior to continuing with conventional footing foundation and floor slab construction.

Details of our recommendations (subcut and replace option) are presented in the following sections of this report.

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6.2 Site Preparation**6.2.1 Excavation**

To prepare the building areas for foundation and floor slab support, site preparation should include removing all vegetation, organic soils, concrete (and other debris), existing fill, and other unsuitable soils that are encountered. Our estimated subcut depths and elevations are shown in Table 2. Note that some of the naturally-occurring soils have a sufficiently-low organic content such that those soils would not have to be removed. However, an experienced soils technician or geotechnical engineer should perform observations during construction to determine actual required subcut depths, which could be more or less than anticipated.

Table 2: Estimated Subcut Depths and Elevations

Boring No.	Surface Elevation (feet)	Estimated Subcut Depth (feet)	Estimated Subcut Elevation (feet)
B-01	758.7	~4.5	~754.2
B-02	760.1	~7	~753.1
B-03	760.3	~5.5	~754.8
B-04	759.2	~9.5	~749.7
B-05	760.4	~7	~753.4
B-06	761.6	~7	~754.6
B-07	759.5	~7	~752.5
B-08	760.6	~7	~753.6
B-09	762.5	~8.5	~754.0
B-10	759.3	~7	~752.3
B-11	761.2	~9.5	~751.7
B-12	763.0	~10	~753.0
B-13	760.3	~7	~753.3
B-14	761.6	~7.4	~754.2
B-15	762.7	~9.5	~753.2
B-16	764.5	~10.7	~753.8
B-17	766.1	~9.5	~756.6
B-18	766.0	~9.5	~756.5

Where subcutting extends below the proposed foundation grade, the excavation bottom and resultant engineered fill system must be oversized laterally beyond the planned outside edges of the foundation to properly support the loads exerted by that foundation. This engineered fill lateral extension should at least be equal to the vertical depth of fill needed to attain foundation grade at that location (i.e., 1:1 lateral oversize).

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After removing all unsuitable materials, and prior to the placement of new fill or concrete, we recommend that the base soils be surface densified to compact loose zones and to correct zones loosened by the excavating process. The contractor must be careful to not cause softening or pumping of the subgrade by this compaction process.

The soils at this site are highly moisture sensitive and have the potential to become easily disturbed by construction activity. Even if the contractor uses appropriate methods, it is possible that wet weather during (or in the months leading up to) construction could make earthwork activities difficult and require importing additional new fill. The project team and contractor must understand this risk and take appropriate precautions.

6.2.2 Dewatering

It appears most of the anticipated subcutting at this site will be above the groundwater table (based on water levels during drilling). However, depending on excavation depths and groundwater levels at the time of construction, some temporary construction dewatering might be necessary.

The excavation must be properly dewatered so the base soils can be observed and tested before compacted fill or concrete are placed. The selection and design of the dewatering system is the contractor's responsibility. If the contractor attempts to excavate below the water table, the subgrade soils will probably become loosened and would have to be removed and replaced with new compacted fill (following additional dewatering).

6.2.3 Fill Placement and Compaction

The existing non-organic debris-free sandy/gravelly fill at the site would generally be suitable for re-use as compacted fill in the building areas. However, the contractors might find it difficult (or overly time-consuming) to separate the re-usable fill from the non-suitable fill. Further, it is possible or likely that moisture conditioning will be required to meet compaction requirements. The rubblized concrete might also be suitable for re-use, although this will depend on the size of the concrete pieces; we recommend the concrete be rubblized (or crushed) to have a maximum particle size of about 3 inches to be used as compacted fill below structures.

We recommend that imported fill consist of non-organic granular soil having a maximum of 12% by weight passing the No. 200 sieve, and having a maximum particle size of about 2 inches.

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The contractor might find it helpful to place a layer of crushed stone at the base of the excavation, particularly if the subgrade soils are wet. The crushed stone would help to provide a firm platform on which to place the new compacted fill.

Fill placed to attain grade for foundation and/or slab support should be compacted in thin lifts, such that the entire lift achieves a minimum compaction level of 95% of its maximum modified Proctor dry density (ASTM D1557). We anticipate a lift thickness on the order of 6 to 8 inches may be appropriate, although this should be reviewed in the field at the time of construction. If clean crushed stone is used as the drainage layer, it should be firmly compacted.

6.3 Foundation Design

The buildings can be supported on conventional shallow foundation systems bearing on competent naturally-occurring soils, or on fill placed and compacted over a suitable subgrade, provided the site has been prepared in accordance with the above recommendations. We recommend that perimeter foundations for heated building spaces bear a minimum of 4 feet below exterior grade for protection from frost penetration. Interior footings in heated areas should bear at least 18 inches below the finished floor elevation to provide confinement to the bearing stratum. Footings in unheated areas should be extended to a minimum of 5 feet below surrounding grade. We recommend that column footings and continuous wall footings for this project have minimum widths of 3 feet and 18 inches, respectively.

Based on the subsurface conditions we encountered and provided our recommendations are followed, it is our opinion the foundations for the buildings can be designed based on a net maximum allowable soil bearing pressure of 2,500 psf. It is our judgment this design pressure will have a factor of safety of at least 3 against the ultimate bearing capacity.

With this design we estimate maximum total settlement of each building of up to 1 inch, and differential settlements of half this amount over a 30-foot distance, if the bearing soils are not soft, wet, disturbed, or frozen at the time of construction.

6.4 Floor Slab Design

We recommend the top 6 inches of soil below the floor slab consist of dense-graded base course or crushed stone. Interior backfill in underslab utility trenches and in footing trenches should be held to the same requirements of Section 6.2.3. Provided our site preparation recommendations

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are followed, the structural engineer can use a modulus of subgrade reaction of 200 pounds per cubic inch to design the floor slab thickness and reinforcement.

We recommend placing a vapor retarder under the floor slab. The purpose of a vapor retarder is to reduce the potential for the upward migration of water vapor from the soil into and through the concrete slab. Water vapor migrating upward through the slab can damage floor coverings such as the carpeting, wood, or paint/sealers and contribute to excess humidity and microbial growth in the building. Various methods of vapor retarder construction are described in Part 2, Section 302.2R of the American Concrete Institute *Manual of Concrete Practice*.

The slab-on-grade should be designed and constructed following the recommendations of the Portland Cement Association and the American Concrete Institute. The slab should have construction joints/control joints at spacings recommended by the Portland Cement Association and the American Concrete Institute to mitigate, but not eliminate, slab curling and cracking. The floor slab should be cast independent of the foundation walls of the building to allow relative movement of the slabs and footings to occur without causing excessive distress to the structure.

6.5 Exterior Slabs and Sidewalks

Where exterior slabs and sidewalks abut the buildings, they should be designed as structural slabs supported on footings bearing at least 5 feet deep. Site preparation (soil correction) should be as described in Section 6.2. An air gap of at least 2 inches should be left below the slab, and insulation panels should cover the vertical frost walls to act as a bondbreaker and to prevent adfreezing between the backfilled soils and the frost walls.

As an alternative, silty/clayey soils could be subcut to a depth of 5 feet (or to a depth as described in Table 2 in Section 6.2.1, whichever is deeper) and replaced with non-frost-susceptible fill having less than 5% by weight passing the No. 200 sieve. This NFS fill should be compacted to at least 95% of its maximum modified Proctor dry density. The purpose of constructing the NFS subgrade is to reduce the potential for the characteristic heave (including differential heave) that can occur when silty and clayey soils freeze each winter. This heaving can raise the slabs to jam doors or damage the structure.

For either option, the design should include transition zones from the frost-protected slabs/sidewalks to unprotected (or less protected) areas. The purpose of this is to reduce the risk of abrupt transitions in frost heave of slabs and pavements.

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6.6 Seismic Design Considerations

According to the International Building Code, the Site Class is determined by the properties of the top 100 feet of the subsurface profile. Based on our borings and geologic conditions at the site, it is our opinion the project site should be classified as Site Class E per Table 1613.5.2 of the IBC.

7.0 PAVEMENT RECOMMENDATIONS**7.1 Approach Discussion**

If the existing fill and organic soils are left in place below the new pavements, there will be some risk of increased pavement maintenance and a reduced pavement lifespan, along with risk of excessive total and differential vertical movements (settlement and/or frost heave). If this is not acceptable to the project owner, the project should include soil correction in pavement areas. For the purpose of this report, we anticipate the project owner will not elect to perform soil correction in pavement areas.

7.2 Pavement Subgrade Preparation

In areas of new bituminous pavement, we recommend complete removal of all surficial topsoil and other obviously unsuitable near-surface soils. An experienced soils technician or geotechnical engineer should perform observations during construction to determine actual subcutting requirements.

After excavation to the required depth and removal of all unsuitable soils, the top 12 inches of the exposed subgrade should be surface compacted to a minimum of 95% of its maximum modified Proctor dry density. In addition, each area should be proof rolled (with an appropriate construction vehicle) and observed for signs of poor performance by a geotechnical engineer or experienced soils technician, just prior to placing new fill. All soft areas should be dug out and corrected.

Where new fill is needed below the base course, we recommend it consist of non-organic granular soil having a maximum of 12% by weight passing the No. 200 sieve, and having a maximum particle size of about 2 inches. Fill placed to attain subgrade elevation in pavement areas should be compacted in thin lifts, such that the entire lift achieves a minimum compaction level of 95% of its maximum modified Proctor dry density. We anticipate a lift thickness on the order of 4 to 6 inches may be appropriate, although this should be reviewed in the field at the time of construction.

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The base course should meet the 1-1/4-inch gradation provided in WisDOT 305, and should be compacted to at least 95% of its maximum modified Proctor dry density. After the base course has been placed, compacted, and tested, it is the contractor's responsibility to maintain the base course in a suitable condition for paving. We recommend each pavement area be proof rolled with a fully-loaded tandem-axle dump truck and observed for signs of poor performance by a geotechnical engineer or experienced soils technician, just prior to placing the pavement. All soft areas should be dug out and corrected.

7.3 Bituminous Pavement Design Recommendations

The pavement surface should be sloped to drain water into stormwater collection systems to limit infiltration through the pavement. The design of the pavement slope and the stormwater collection systems is beyond our scope of service. The pavement section we present in Table 3 is based on a design lifetime of 20 years, the soils we encountered in our borings, and our recommendations in Sections 7.1 and 7.2. The design traffic consists of passenger vehicles, weekly garbage trucks, and occasional service vehicles such as fire trucks.

Table 3: Recommended Bituminous Pavement Section

Bituminous Pavement Section Component	Detail
WisDOT upper layer	1.75" (4 LT 58-28 S)
WisDOT 455.2.5 Tack Coat	Yes
WisDOT lower layer	1.75" (4 LT 58-28 S)
WisDOT 455.2.5 Prime Coat	Yes
WisDOT 305, 1¼-inch gradation, base course	10"
Subgrade Preparation	Per this report

7.4 Pavement Fatigue and Maintenance

Regardless of the subgrade preparation and design, the owner should expect that cracks will appear in the bituminous pavement within 1 to 3 years due to thermal expansion and contraction, and due to the loss of volatiles from the bituminous cement. These cracks cannot be avoided; they should be cleaned annually and filled with a hot bituminous sealant. Within three to five years after construction, cracks and depressions may appear in heavily traveled areas, such as drive aisles. Such areas should be cut out and repaired expeditiously to extend the pavement life. Periodically during the pavement life, the engineer responsible for maintenance of the facility should determine the need to apply a seal coat of hot bituminous and rock chips.

Report of Geotechnical Exploration

Proposed Multi-Family Housing Development
W. Wolf River Avenue at Wyman Street; New London, Wisconsin
August 24, 2021
AET Project No. P-0004677

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8.0 CONSTRUCTION CONSIDERATIONS**8.1 Groundwater**

Based on the conditions found in our borings, it is our opinion the contractor might encounter groundwater in some of the excavations at this site. However, this will depend on excavation depths and groundwater levels at the time of construction. If water is encountered in the excavations, it should be promptly pumped out before compacted fill or concrete are placed. The contractor should not be allowed to place fill or concrete into standing water, or over softened soils in an attempt to displace these materials. This technique can result in trapping softened soils under footings, floor slabs, and/or pavements, resulting in excessive post-construction settlement, even if the softened zone is only a few inches thick.

8.2 Disturbance of Soils

The soils at this site are highly moisture sensitive and have the potential to become easily disturbed by construction activity. Even if the contractor uses appropriate methods, it is possible that wet weather during (or in the months leading up to) construction could make earthwork activities difficult. The project team and contractor must understand this risk and take appropriate precautions. If soils become disturbed, they should be subcut to the underlying undisturbed soils, followed by placement of new compacted fill.

8.3 Excavation Backsloping

If excavation faces are not retained, the excavations should maintain maximum allowable slopes in accordance with *OSHA Regulations (Standards 29 CFR), Part 1926, Subpart P, "Excavations"* (can be found on www.osha.gov). Even with the required OSHA sloping, water seepage or surface runoff can potentially induce sideslope erosion or running which could require slope maintenance.

8.4 Observation and Testing

The recommendations in this report are based on the subsurface conditions found at our test boring locations. Since the soil conditions can be expected to vary away from the soil boring locations, we recommend on-site observation by a geotechnical engineer/technician during construction to evaluate these potential changes. Soil density testing should also be performed on new fill placed in order to document that project specifications for compaction have been met.

Report of Geotechnical Exploration

Proposed Multi-Family Housing Development
W. Wolf River Avenue at Wyman Street; New London, Wisconsin
August 24, 2021
AET Project No. P-0004677

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9.0 ASTM STANDARDS

When we refer to an ASTM Standard in this report, we mean that our services were performed in general accordance with that standard. Compliance with any other standards referenced within the specified standard is neither inferred nor implied.

10.0 LIMITATIONS

Within the limitations of scope, budget, and schedule, we have endeavored to provide our services according to generally accepted geotechnical engineering practices at this time and location. Other than this, no warranty, express or implied, is intended. Important information regarding risk management and proper use of this report is given in Appendix B entitled “Geotechnical Report Limitations and Guidelines for Use.”

Report of Geotechnical Exploration

Proposed Multi-Family Housing Development

W. Wolf River Avenue at Wyman Street; New London, Wisconsin

August 24, 2021

AET Project No. P-0004677

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Appendix A

AET Project No. P-0004677

Geotechnical Field Exploration and Testing

Boring Log Notes

Unified Soil Classification System

Figure 1 – Boring Locations

Subsurface Boring Logs

Gradation Curves

Appendix A
Geotechnical Field Exploration and Testing
AET Project No. P-0004677

A.1 FIELD EXPLORATION

The subsurface conditions at the site were explored by drilling eighteen standard penetration test borings. The boring locations are shown on Figure 1.

A.2 SAMPLING METHODS

A.2.1 Split-Spoon Samples (SS)

Standard penetration (split-spoon) samples were collected in general accordance with ASTM: D1586. The ASTM test method consists of driving a 2-inch O.D. split-barrel sampler into the in-situ soil with a 140-pound hammer dropped from a height of 30 inches. After an initial set of 6 inches, the number of hammer blows to drive the sampler the next 12 inches is known as the standard penetration resistance or N-value.

In the past, standard penetration N-value tests were performed using a rope and cathead for the lift and drop system. The energy transferred to the split-spoon sampler was typically limited to about 60% of its potential energy due to the friction inherent in that system. That converted energy provided what is known as an N_{60} blow count.

Most drill rigs today incorporate an automatic hammer lift and drop system, which has higher energy efficiency and subsequently results in lower N-values than the traditional N_{60} values. We use a Pile Driving Analyzer (PDA) and an instrumented rod to measure the actual energy generated by the automatic hammer system. The drill rig (AET rig number 57) we used for this project has a measured energy transfer ratio of 89%. The N-values reported on the boring logs and the corresponding relative densities and consistencies are from the field blow counts and have not been adjusted to N_{60} values.

A.2.2 Disturbed Samples (DS)/Spin-up Samples (SU)

Sample types described as “DS” or “SU” on the boring logs are disturbed samples, which are taken from the flights of the auger. Because the auger disturbs the samples, possible soil layering and contact depths should be considered approximate.

A.2.3 Sampling Limitations

Unless actually observed in a sample, contacts between soil layers are estimated based on the spacing of samples and the action of drilling tools. Cobbles, boulders, and other large objects generally cannot be recovered from test borings, and they may be present in the ground even if they are not noted on the boring logs.

Determining the thickness of “topsoil” layers is usually limited, due to variations in topsoil definition, sample recovery, and other factors. Visual-manual description often relies on color for determination, and transitioning changes can account for significant variation in thickness judgment. Accordingly, the topsoil thickness presented on the logs should not be the sole basis for calculating topsoil stripping depths and volumes. If more accurate information is needed relating to thickness and topsoil quality definition, alternate methods of sample retrieval and testing should be employed.

A.3 CLASSIFICATION METHODS

Soil descriptions shown on the boring logs are based on the Unified Soil Classification System (USCS). The USCS is described in ASTM: D2487 and D2488. Where laboratory classification tests (sieve analysis or Atterberg Limits) have been performed, accurate classifications per ASTM: D2487 are possible. Otherwise, soil descriptions shown on the boring logs are visual-manual judgments. Charts are attached which provide information on the USCS, the descriptive terminology, and the symbols used on the boring logs.

The boring logs include descriptions of apparent geology. The geologic depositional origin of each soil layer is interpreted primarily by observation of the soil samples, which can be limited. Observations of the surrounding topography, vegetation, and development can sometimes aid this judgment.

Appendix A
Geotechnical Field Exploration and Testing
AET Project No. P-0004677

A.4 WATER LEVEL MEASUREMENTS

The ground water level measurements are shown at the bottom of the boring logs. The following information appears under “Water Level Measurements” on the logs:

- Date and Time of measurement
- Sampled Depth: lowest depth of soil sampling at the time of measurement
- Casing Depth: depth to bottom of casing or hollow-stem auger at time of measurement
- Cave-in Depth: depth at which measuring tape stops in the borehole
- Water Level: depth in the borehole where free water is encountered
- Drilling Fluid Level: same as Water Level, except that the liquid in the borehole is drilling fluid

The true location of the water table at the boring locations may be different than the water levels measured in the boreholes. This is possible because there are several factors that can affect the water level measurements in the borehole. Some of these factors include: permeability of each soil layer in profile, presence of perched water, amount of time between water level readings, presence of drilling fluid, weather conditions, and use of borehole casing.

A.5 TEST STANDARD LIMITATIONS

Field and laboratory testing is done in general conformance with the described procedures. Compliance with any other standards referenced within the specified standard is neither inferred nor implied.

A.6 SAMPLE STORAGE

Unless notified to do otherwise, we routinely retain representative samples of the soils recovered from the borings for a period of 30 days.

BORING LOG NOTES

DRILLING AND SAMPLING SYMBOLS	
Symbol	Definition
B, H, N:	Size of flush-joint casing
CA:	Crew Assistant (initials)
CAS:	Pipe casing, number indicates nominal diameter in inches
CC:	Crew Chief (initials)
COT:	Clean-out tube
DC:	Drive casing; number indicates diameter in inches
DM:	Drilling mud or bentonite slurry
DR:	Driller (initials)
DS:	Disturbed sample from auger flights
FA:	Flight auger; number indicates outside diameter in inches
HA:	Hand auger; number indicates outside diameter
HSA:	Hollow stem auger; number indicates inside diameter in inches
LG:	Field logger (initials)
MC:	Column used to describe moisture condition of samples and for the ground water level symbols
N (BPF):	Standard penetration resistance (N-value) in blows per foot (see notes)
NQ:	NQ wireline core barrel
PQ:	PQ wireline core barrel
RD:	Rotary drilling with fluid and roller or drag bit
REC:	In split-spoon (see notes) and thin-walled tube sampling, the recovered length (in inches) of sample. In rock coring, the length of core recovered (expressed as percent of the total core run). Zero indicates no sample recovered.
REV:	Revert drilling fluid
SS:	Standard split-spoon sampler (steel; 1d" is inside diameter; 2" outside diameter); unless indicated otherwise
SU:	Spin-up sample from hollow stem auger
TW:	Thin-walled tube; number indicates inside diameter in inches
WASH:	Sample of material obtained by screening returning rotary drilling fluid or by which has collected inside the borehole after "falling" through drilling fluid
WH:	Sampler advanced by static weight of drill rod and 140-pound hammer
WR:	Sampler advanced by static weight of drill rod
94mm:	94 millimeter wireline core barrel
▼:	Water level directly measured in boring
▽:	Estimated water level based solely on sample appearance

TEST SYMBOLS	
Symbol	Definition
CONS:	One-dimensional consolidation test
DEN:	Dry density, pcf
DST:	Direct shear test
E:	Pressuremeter Modulus, tsf
HYD:	Hydrometer analysis
LL:	Liquid Limit, %
LP:	Pressuremeter Limit Pressure, tsf
OC:	Organic Content, %
PERM:	Coefficient of permeability (K) test; F - Field; L - Laboratory
PL:	Plastic Limit, %
q _p :	Pocket Penetrometer strength, tsf (<u>approximate</u>)
q _c :	Static cone bearing pressure, tsf
q _u :	Unconfined compressive strength, psf
R:	Electrical Resistivity, ohm-cms
RQD:	Rock Quality Designation of Rock Core, in percent (aggregate length of core pieces 4" or more in length as a percent of total core run)
SA:	Sieve analysis
TRX:	Triaxial compression test
VSR:	Vane shear strength, remolded (field), psf
VSU:	Vane shear strength, undisturbed (field), psf
WC:	Water content, as percent of dry weight
%-200:	Percent of material finer than #200 sieve

STANDARD PENETRATION TEST NOTES

The standard penetration test consists of driving the sampler with a 140 pound hammer and counting the number of blows applied in each of three 6" increments of penetration. If the sampler is driven less than 18" (usually in highly resistant material), permitted in ASTM: D1586, the blows for each complete 6" increment and for each partial increment is on the boring log. For partial increments, the number of blows is shown to the nearest 0.1' below the slash.

The length of sample recovered, as shown on the "REC" column, may be greater than the distance indicated in the N column. The disparity is because the N-value is recorded below the initial 6" set (unless partial penetration defined in ASTM: D1586 is encountered) whereas the length of sample recovered is for the entire sampler drive (which may even extend more than 18").

UNIFIED SOIL CLASSIFICATION SYSTEM

ASTM Designations: D 2487, D2488

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Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests ^A				Soil Classification	
				Group Symbol	Group Name ^B
Coarse-Grained Soils More than 50% retained on No. 200 sieve	Gravels More than 50% coarse fraction retained on No. 4 sieve	Clean Gravels Less than 5% fines ^C	$Cu \geq 4$ and $1 \leq Cc \leq 3$ ^E	GW	Well graded gravel ^F
			$Cu < 4$ and/or $1 > Cc > 3$ ^E	GP	Poorly graded gravel ^F
		Gravels with Fines more than 12% fines ^C	Fines classify as ML or MH	GM	Silty gravel ^{F,G,H}
			Fines classify as CL or CH	GC	Clayey gravel ^{F,G,H}
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean Sands Less than 5% fines ^D	$Cu \geq 6$ and $1 \leq Cc \leq 3$ ^E	SW	Well-graded sand ^I
			$Cu < 6$ and $1 > Cc > 3$ ^E	SP	Poorly-graded sand ^I
		Sands with Fines more than 12% fines ^D	Fines classify as ML or MH	SM	Silty sand ^{G,H,I}
			Fines classify as CL or CH	SC	Clayey sand ^{G,H,I}
Fine-Grained Soils 50% or more passes the No. 200 sieve (see Plasticity Chart below)	Silts and Clays Liquid limit less than 50	inorganic	$PI > 7$ and plots on or above "A" line ^J	CL	Lean clay ^{K,L,M}
			$PI < 4$ or plots below "A" line ^J	ML	Silt ^{K,L,M}
		organic	<u>Liquid limit—oven dried</u> < 0.75	OL	Organic clay ^{K,L,M,N}
			<u>Liquid limit – not dried</u>		Organic silt ^{K,L,M,O}
	Silts and Clays Liquid limit 50 or more	inorganic	PI plots on or above "A" line	CH	Fat clay ^{K,L,M}
			PI plots below "A" line	MH	Elastic silt ^{K,L,M}
		organic	<u>Liquid limit—oven dried</u> < 0.75	OH	Organic clay ^{K,L,M,P}
			<u>Liquid limit – not dried</u>		Organic silt ^{K,L,M,Q}
Highly organic soil			Primarily organic matter, dark in color, and organic in odor	PT	Peat ^R

SIEVE ANALYSIS

Equation of "A"-line
Horizontal at $PI = 4$ to $LL = 25.5$, then $PI = 0.73 (LL - 20)$

Equation of "U"-line
Vertical at $LL = 16$ to $PI = 7$, then $PI = 0.9 (LL - 8)$

Classification regions: CL-ML, CH or OH, CL or OL, CH or OH, 3X LINE.

LIQUID LIMIT (LL) Plasticity Chart

For classification of fine-grained soils and fine-grained fraction of coarse-grained soils:

Equation of "A"-line
Horizontal at $PI = 4$ to $LL = 25.5$, then $PI = 0.73 (LL - 20)$

Equation of "U"-line
Vertical at $LL = 16$ to $PI = 7$, then $PI = 0.9 (LL - 8)$

$$C_u = \frac{D_{60}}{D_{10}} = \frac{15}{0.075} = 200$$
$$C_c = \frac{(D_{50})^2}{D_{10} \times D_{60}} = \frac{2.5^2}{0.075 \times 15} = 5.6$$

Notes

^ABased on the material passing the 3-in (75-mm) sieve.

^BIf field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

^CGravels with 5 to 12% fines require dual symbols:

GW-GM well-graded gravel with silt
GW-GC well-graded gravel with clay
GP-GM poorly graded gravel with silt
GP-GC poorly graded gravel with clay

^DSands with 5 to 12% fines require dual symbols:

SW-SM well-graded sand with silt
SW-SC well-graded sand with clay
SP-SM poorly graded sand with silt
SP-SC poorly graded sand with clay

$$F_c = D_{60} / D_{10}, \quad C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$$

^FIf soil contains $\geq 15\%$ sand, add "with sand" to group name.

^GIf fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

^HIf fines are organic, add "with organic fines" to group name.

^IIf soil contains $\geq 15\%$ gravel, add "with gravel" to group name.

^JIf Atterberg limits plot is hatched area, soils are a CL-ML silty clay.

^KIf soil contains 15 to 29% plus No. 200 add "with sand" or "with gravel", whichever is predominant.

^LIf soil contains $\geq 30\%$ plus No. 200, predominantly sand, add "sandy" to group name.

^MIf soil contains $\geq 30\%$ plus No. 200, predominantly gravel, add "gravelly" to group name.

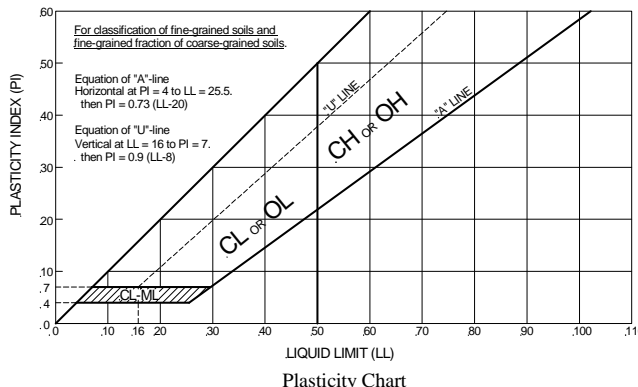
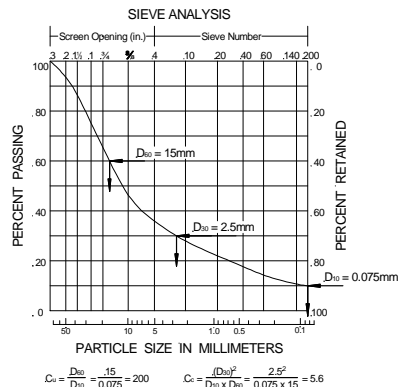
^N $PI \geq 4$ and plots on or above "A" line.

^O $PI < 4$ or plots below "A" line.

^PPI plots on or above "A" line.

^QPI plots below "A" line.

^RFiber Content description shown below.



ADDITIONAL TERMINOLOGY NOTES USED BY AET FOR SOIL IDENTIFICATION AND DESCRIPTION

Grain Size		Gravel Percentages		Consistency of Plastic Soils		Relative Density of Non-Plastic Soils	
Term	Particle Size	Term	Percent	Term	N-Value, BPF	Term	N-Value, BPF
Boulders	Over 12"	A Little Gravel	3% - 14%	Very Soft	less than 2	Very Loose	0 - 4
Cobbles	3" to 12"	With Gravel	15% - 29%	Soft	2 - 4	Loose	5 - 10
Gravel	#4 sieve to 3"	Gravelly	30% - 50%	Firm	5 - 8	Medium Dense	11 - 30
Sand	#200 to #4 sieve			Stiff	9 - 15	Dense	31 - 50
Fines (silt & clay)	Pass #200 sieve			Very Stiff	16 - 30	Very Dense	Greater than 50
				Hard	Greater than 30		
Moisture/Frost Condition		Layering Notes		Peat Description		Organic Description (if no lab tests)	
D (Dry):	Absence of moisture, dusty, dry to touch.	Laminations:	Layers less than 1/2" thick of differing material or color.	Term	Fiber Content (Visual Estimate)	Soils are described as <i>organic</i> , if soil is not peat and is judged to have sufficient organic fines content to influence the Liquid Limit properties. <i>Slightly organic</i> used for borderline cases.	
M (Moist):	Damp, although free water not visible. Soil may still have a high water content (over "optimum").			Fibric Peat:	Greater than 67%	Root Inclusions	
W (Wet/ Waterbearing):	Free water visible intended to describe non-plastic soils. Waterbearing usually relates to sands and sand with silt.	Lenses:	Pockets or layers greater than 1/2" thick of differing material or color.	Hemic Peat:	33 - 67%	With roots:	Judged to have sufficient quantity of roots to influence the soil properties.
F (Frozen):	Soil frozen			Sapric Peat:	Less than 33%	Trace roots:	Small roots present, but not judged to be in sufficient quantity to significantly affect soil properties.

Figure 1 - Boring Locations
AET Project No. P-0004677
August 24, 2021

LEGEND

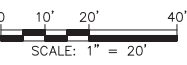
- 100- -EXISTING CONTOUR
- 100- -PROPOSED CONTOUR
- -MANHOLE
- -CATCH BASIN

GENERAL NOTES

1. SEE SHEET C900 FOR GENERAL NOTES.

GRADING NOTES

1. SEE SHEET C900 FOR GRADING NOTES.



GRAEF

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PROJECT TITLE:
SCS NEW LONDON

NE CORNER OF WYMAN STREET AND
W. WOLF RIVER AVENUE

ISSUE:		
NO.	DATE	REVISIONS BY
5/25/21	SCHEMATIC DESIGN	
6/04/21	DRAFT CONSTRUCTION DOCUMENTS	

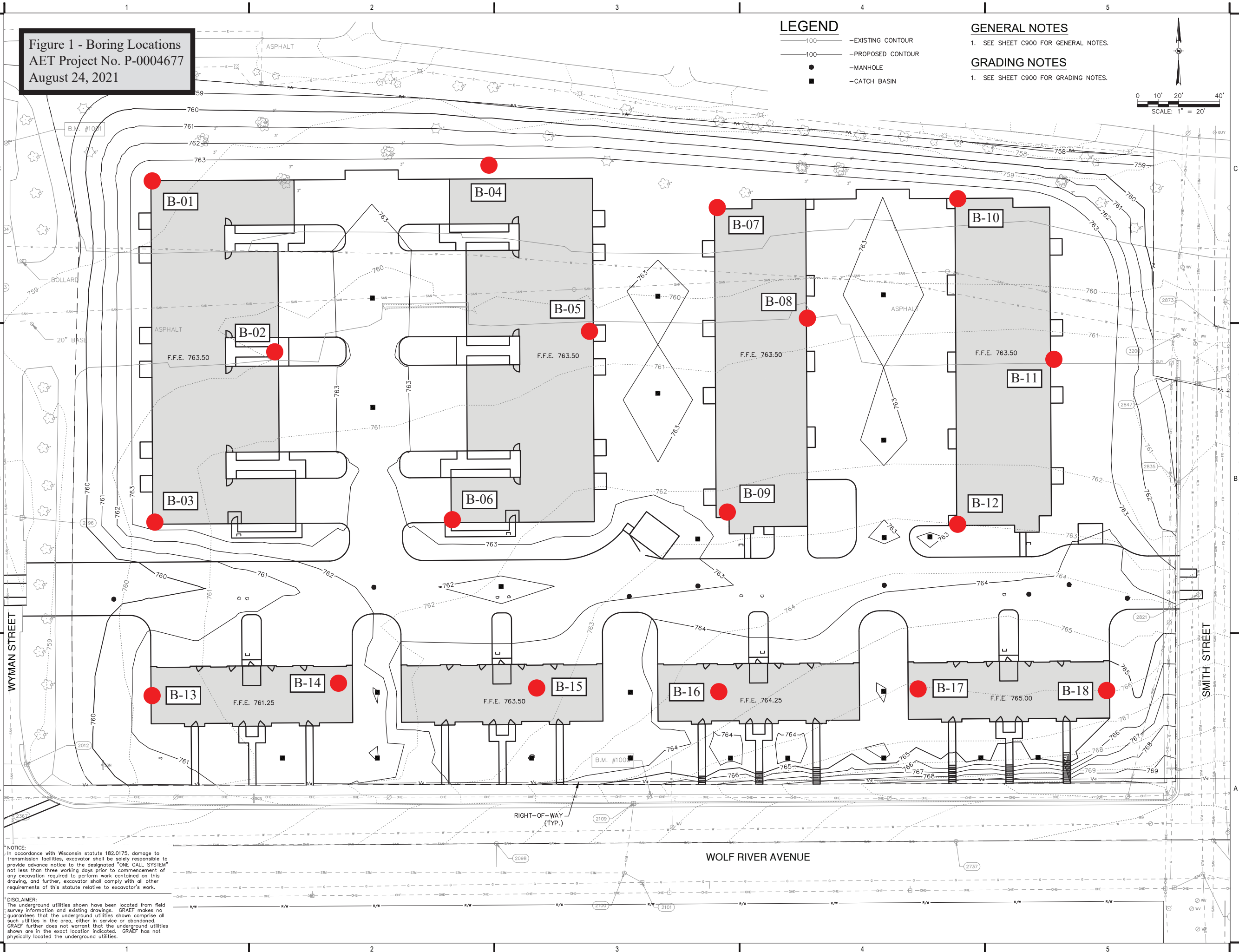
DRAFT CONSTRUCTION DOCUMENTS

PROJECT INFORMATION:	
PROJECT NUMBER:	2021-2051
DATE:	05/26/21
DRAWN BY:	MDS
CHECKED BY:	DAS
APPROVED BY:	RPV
SCALE:	AS SHOWN

SHEET TITLE:
OVERALL GRADING PLAN

SHEET NUMBER:

C400



NOTICE:
In accordance with Wisconsin statute 152.0175, damage to transmission facilities, excavator shall be solely responsible to provide advance notice to the designated "ONE CALL SYSTEM" not less than three working days prior to commencement of any excavation required to perform work contained on this drawing, and further, excavator shall comply with all other requirements of this statute relative to excavator's work.

DISCLAIMER:
The underground utilities shown have been located from field survey information and existing drawings. GRAEF makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. GRAEF further does not warrant that the underground utilities shown are in the exact location indicated. GRAEF has not physically located the underground utilities.



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SUBSURFACE BORING LOG

AET No: P-0004677		Log of Boring No. B-01 (p. 1 of 1)										
Project: Proposed Multi-Family Housing Development; W. Wolf River Ave at Wyman St; New London, WI												
DEPTH IN FEET	ELEV. FEET	Surface Elevation 758.7 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS				
								WC	qp	LL	PL	%-#200
1	758.2	FILL, silty sand with organics, fine to medium grained, dark brown, moist (SM)	FILL/ TOPSOIL FILL	14	M	SS	14					
2	756.7	FILL, gravel with silt and sand, brown, moist, with trace organics (GP-GM)										
3		FILL, decomposing wood debris, a little gravel, black		6	M	SS	10					
4	754.2											
5		Sandy SILT, gray, moist to waterbearing, very loose, with trace roots (ML)	MIXED ALLUVIUM	2	M	SS	19	26				58
6												
7												
8					3	M	SS	18	25			54
9												
10					1	W	SS	23				
11												
12	746.7											
13		SILT with sand, gray, waterbearing, very loose (ML)			1	W	SS	24	39			79
14	744.2											
15		SILTY SAND, fine grained, gray, waterbearing, very loose, with trace shells and wood pieces (SM)		WH	W	SS	24					
16												
17												
18					2	W	SS	20				
19												
20												
21	737.2				2	W	SS	24				
		End of boring at 21.5 feet										

DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG
0-19.5'	3.25" HSA	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL	
		7/21/21	1200	21.5	19.5	18.7	None	10.8	
		7/21/21	1210	21.5	19.5	14.7	None	8.2	
BORING COMPLETED: 7/19/21									
DR: MD LG: KS Rig: 57									

AET_CORP W-ELEV P-0004677.GPJ AET+CPT+WELL.GDT 8/24/21



SUBSURFACE BORING LOG

AET No: P-0004677		Log of Boring No. B-02 (p. 1 of 1)										
Project: Proposed Multi-Family Housing Development; W. Wolf River Ave at Wyman St; New London, WI												
DEPTH IN FEET	ELEV. FEET	Surface Elevation 760.1 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS				
								WC	qp	LL	PL	%-#200
1	759.8 759.6	FILL, silty sand with organics, fine to medium grained, brown, moist (SM) 2 inches of bituminous pavement	FILL/ TOPSOIL PAVEMENT FILL	24	M	SS	19					
2	758.1	FILL, gravel with silt and sand, gray, moist (GP-GM)										
3		FILL, sand with silt, fine to medium grained, reddish brown, moist, with concrete pieces (SP-SM)		8	M	SS	10					
4	755.6											
5		--no recovery from 4.5 to 6.5 feet		1		SS	0					
6												
7	753.1	Sandy SILT, gray, moist to waterbearing, very loose to loose, with trace roots (ML)	MIXED ALLUVIUM	8	M/W	SS	14					
8												
9												
10					7	W	SS	17				
11												
12												
13					4	W	SS	18				
14	745.6											
15		SILTY SAND, fine grained, gray, waterbearing, very loose to loose, with trace roots (SM)		1	W	SS	24					
16												
17												
18					2	W	SS	20				
19												
20												
21	738.6				5	W	SS	24				
		End of boring at 21.5 feet										

DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG
0-19.5'	3.25" HSA	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL	
		7/19/21	1310	21.5	19.5	15.6	None	10.9	
		7/19/21	1320	21.5	19.5	15.1	None	8.6	
BORING COMPLETED: 7/19/21									
DR: MD LG: KS Rig: 57									

AET_CORP W-ELEV P-0004677.GPJ AET+CPT+WELL.GDT 8/24/21



SUBSURFACE BORING LOG

AET No:		P-0004677		Log of Boring No.										B-03 (p. 1 of 1)	
Project:		Proposed Multi-Family Housing Development; W. Wolf River Ave at Wyman St; New London, WI													
DEPTH IN FEET	ELEV. FEET	Surface Elevation 760.3		MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS					
		WC	qp							LL	PL	%-#200			
1	759.8	FILL, silty sand with organics, fine to medium grained, a little gravel, brown, moist (SM)		FILL/ TOPSOIL FILL	8	M	SS	17							
	2	758.3	FILL, silty sand with gravel, fine to medium grained, brown, moist, with concrete and asphalt pieces (SM)												
3		FILL, gravel with silt and sand, gray, moist, with pieces of concrete (GP-GM)			52	M	SS	10							
4	756.4	FILL, rubblized concrete													
5	755.8	FILL, silty sand, fine grained, grayish brown, moist (SM)			4	M	SS	14							
6	754.8	SAND WITH SILT, fine grained, grayish brown, moist, very loose (SP-SM)													
7	753.3	Sandy SILT, gray, moist to waterbearing, very loose to loose (ML)		MIXED ALLUVIUM	6	M	SS	18							
8															
9					7	W	SS	18							
10															
11					2	W	SS	18							
12															
13					2	W	SS	18							
14															
15					2	W	SS	18							
16		Wood pieces at 16 feet													
17	743.3	SILTY SAND, fine to medium grained, a little gravel, grayish brown, waterbearing, loose, with shell pieces (SM)			10	W	SS	24		15	2.75				
18	741.8	Sandy LEAN CLAY, a little gravel, reddish brown, wet, stiff (CL)													
19					33	W	SS	24			>4.5				
20	739.3	SAND WITH SILT, fine grained, brown, waterbearing, dense (SP-SM)													
21	738.8	End of boring at 21.5 feet													

DEPTH:		DRILLING METHOD		WATER LEVEL MEASUREMENTS					NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG			
0-19.5'		3.25" HSA		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH			DRILLING FLUID LEVEL	WATER LEVEL
				7/19/21	1410	21.5	19.5	15.1			None	13.7
				7/19/21	1420	21.5	19.5	15.8			None	8.5
BORING COMPLETED: 7/19/21												
DR: MD LG: KS Rlg: 57												

AET_CORP W-ELEV P-0004677.GPJ AET+CPT+WELL.GDT 8/24/21



SUBSURFACE BORING LOG


AET No: P-0004677		Log of Boring No. B-04 (p. 1 of 1)												
Project: Proposed Multi-Family Housing Development; W. Wolf River Ave at Wyman St; New London, WI														
DEPTH IN FEET	ELEV. FEET	Surface Elevation 759.2 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS					PL	%#200
								WC	qp	LL				
1	758.9	FILL, silty sand with organics, fine to medium grained, brown, moist (SM)	FILL/ TOPSOIL FILL	6	M	SS	19							
2		FILL, silty sand, fine to medium grained, a little gravel, brown and dark brown and black, moist, with wood and plastic pieces (SM)												
3	756.7	FILL, decomposing wood debris, dark brown and black		6	M	SS	20	176						
4														
5	754.2													
6		Sandy SILT, gray, moist, very loose (ML)	MIXED ALLUVIUM	3	M	SS	22							
7	752.2													
8		SILT with organics, black, moist to waterbearing, very loose (OL)		1	M/W	SS	1	35						
9	749.7													
10		Sandy SILT, gray, waterbearing, very loose, with trace roots (ML)		2	W	SS	24							
11														
12														
13		Wood pieces at 13 feet		1	W	SS	24							
14	744.7													
15		SILTY SAND, fine grained, gray, waterbearing, very loose, with trace roots (SM)		2	W	SS	24							
16														
17														
18				2	W	SS	24							
19	739.7													
20		SAND, fine to medium grained, gray, waterbearing, very loose, with wood pieces (SP)		WH	W	SS	19							
21	738.2													
	737.7	SILTY SAND, fine grained, gray, waterbearing, very loose, with a few small pieces of wood (SM)												
		End of boring at 21.5 feet												
DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG					
0-19.5' 3.25" HSA		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL						
		7/20/21	1000	21.5	19.5	18.6	None	10.6						
		7/20/21	1010	21.5	19.5	16.6	None	8.6						
BORING COMPLETED: 7/20/21														
DR: MD LG: KS Rig: 57														

AET_CORP W-ELEV P-0004677.GPJ AET+CPT+WELL.GDT 8/24/21



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SUBSURFACE BORING LOG

AET No: P-0004677		Log of Boring No. B-05 (p. 1 of 1)												
Project: Proposed Multi-Family Housing Development; W. Wolf River Ave at Wyman St; New London, WI														
DEPTH IN FEET	ELEV. FEET	Surface Elevation 760.4 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS						
								WC	qp	LL	PL	%-#200		
1	760.2	FILL, silty sand with organics, fine to medium grained, brown, moist (SM)	FILL/ TOPSOIL FILL	12	M	SS	17	80						
2	758.4	FILL, sand, fine grained, light brown, moist (SP)												
3	754.9	FILL, sand with silt and organics, fine to medium grained, a little gravel, brown and black, moist, with wood and slag pieces (SP-SM)	9	M	SS	24								
4														
5														
6	753.4	SILT with organics, black, moist, very loose (OL)	MIXED ALLUVIUM	5	M	SS	20							
7														
8	SILTY SAND, fine grained, grayish brown, moist to waterbearing, very loose to loose, with trace organics (SM)			9	M	SS	14							
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19	740.9	Shell pieces at 19 feet												
20	738.9	Sandy LEAN CLAY, a little gravel, reddish brown, stiff (CL)		14	W	SS	19	15	>4.5					
21														
		End of boring at 21.5 feet												
DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG					
0-19.5' 3.25" HSA		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL						
		7/20/21	1150	21.5	19.5	19.0	None	18.7						
		7/20/21	1200	21.5	19.5	18.6	None	10.0						
BORING COMPLETED: 7/20/21														
DR: MD LG: KS Rig: 57														

AET_CORP W-ELEV P-0004677.GPJ AET+CPT+WELL.GDT 8/24/21



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SUBSURFACE BORING LOG

AET No: P-0004677		Log of Boring No. B-06 (p. 1 of 1)											
Project: Proposed Multi-Family Housing Development; W. Wolf River Ave at Wyman St; New London, WI													
DEPTH IN FEET	ELEV. FEET	Surface Elevation 761.6 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS					
								WC	qp	LL	PL	%-#200	
1	760.9	FILL, silty sand with organics, fine to medium grained, a little gravel, brown, moist (SM)	FILL/ TOPSOIL FILL	12	M	SS	21						
2	759.6	FILL, sand with silt, fine to medium grained, brown, moist (SP-SM)											
3		FILL, rubblized concrete		50/3		SS	0						
4													
5				50/3	M	SS	2						
6													
7	754.6	SILTY SAND, fine grained, gray, moist to waterbearing, very loose to loose (SM)	MIXED ALLUVIUM	8	M/W	SS	15						
8													
9													
10													
11						5	W	SS	15				
12													
13						3	W	SS	12				
14													
15						4	W	SS	15				
16													
17	744.6	CLAYEY SAND, fine to medium grained, brown, waterbearing, loose (SC)											
18	743.1				6	W	SS	21					
19	742.1			LEAN CLAY, reddish brown, wet, firm (CL)									
20		SILTY SAND, fine grained, light brown, waterbearing, loose (SM)											
21	740.1			10	W	SS	24						
		End of boring at 21.5 feet											

DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL	
0-19.5'	3.25" HSA								
		7/20/21	1310	21.5	19.5	16.0	None	13.0	
		7/20/21	1320	21.5	19.5	14.6	None	8.9	
BORING COMPLETED: 7/20/21									
DR: MD LG: KS Rig: 57									

AET_CORP W-ELEV P-0004677.GPJ AET+CPT+WELL.GDT 8/24/21



SUBSURFACE BORING LOG

AET No: P-0004677		Log of Boring No. B-07 (p. 1 of 1)												
Project: Proposed Multi-Family Housing Development; W. Wolf River Ave at Wyman St; New London, WI														
DEPTH IN FEET	ELEV. FEET	Surface Elevation 759.5 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS						
								WC	qp	LL	PL	%-#200		
1	759.0	FILL, silty sand with organics, fine to medium grained, brown, moist (SM)	FILL/ TOPSOIL FILL	18	M	SS	22							
2	757.5	FILL, sand with silt and gravel, fine to medium grained, reddish brown, moist (SP-SM)												
3		FILL, sand with silt and gravel, fine to medium grained, black, moist, with slag and wood pieces (SP-SM)		14	M	SS	19							
4	755.0													
5		SILT with organics, dark brown and black, moist, very loose (OL)	MIXED ALLUVIUM	4	M	SS	23	28						
6														
7	752.5													
8		Sandy SILT, grayish brown, moist to waterbearing, very loose, with trace organics (ML)		4	M	SS	19							
9														
10														
11				2	M/W	SS	24	36						
12	747.5													
13		SILTY SAND, fine grained, gray, waterbearing, very loose, with trace organics (SM)		1	W	SS	24	37						
14														
15				WH	W	SS	24							
16														
17														
18				WH	W	SS	24							
19	740.0													
20		CLAYEY SAND, fine grained, brown, waterbearing, loose, with shells and wood pieces (SC)		6	W	SS	18							
21	738.0													
		End of boring at 21.5 feet												
DEPTH: 0-19.5'		DRILLING METHOD: 3.25" HSA		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG			
				DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL				
				7/20/21	1045	21.5	19.5	19.5	None	15.2				
				7/20/21	1055	21.5	19.5	19.3	None	9.9				
BORING COMPLETED: 7/20/21														
DR: MD LG: KS Rig: 57														

AET_CORP W-ELEV P-0004677.GPJ AET+CPT+WELL.GDT 8/24/21



SUBSURFACE BORING LOG

AET No:		P-0004677		Log of Boring No.										B-08 (p. 1 of 1)				
Project:		Proposed Multi-Family Housing Development; W. Wolf River Ave at Wyman St; New London, WI																
DEPTH IN FEET	ELEV. FEET	Surface Elevation 760.6		MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS								
		WC	qp							LL	PL	%-#200						
1	760.4	FILL, silty sand with organics, fine to medium grained, brown, moist (SM)			FILL/ TOPSOIL FILL	10	M	SS	19									
2		FILL, sand with silt, fine to medium grained, a little gravel, light brown, moist (SP-SM)																
3	758.1	FILL, rubblized concrete				31	M	SS	16									
4	757.8	FILL, silty sand, fine to medium grained, brown, moist, with slag pieces and lenses of organics (SM)																
5						4	M	SS	2									
6																		
7	753.6																	
8		SILTY SAND, fine grained, gray, moist to waterbearing, very loose, with trace organics (SM)			MIXED ALLUVIUM	4	M	SS	19									
9																		
10	750.6																	
11		SAND WITH SILT, fine grained, gray, waterbearing, loose, with trace organics (SP-SM)				10	W	SS	18									
12	748.6																	
13		SILTY SAND, fine grained, gray, waterbearing, very loose to loose, with silt lenses (SM)				2	W	SS	19									
14																		
15						1	W	SS	24									
16																		
17																		
18	742.6				7	W	SS	24										
19		SAND WITH SILT, fine grained, gray, waterbearing, loose (SP-SM)																
20	741.1																	
21	740.1	SAND, fine to medium grained, gray, waterbearing, medium dense, with a few small wood pieces (SP)			28	W	SS	24										
	739.1	CLAYEY SAND, fine grained, brown, waterbearing, medium dense (SC)																
		End of boring at 21.5 feet																
DEPTH:		DRILLING METHOD		WATER LEVEL MEASUREMENTS									NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG					
0-19.5'		3.25" HSA		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL								
				7/22/21	1220	21.5	19.5	18.9	None	10.7								
				7/22/21	1230	21.5	19.5	10.5	None	9.5								
BORING COMPLETED:		7/22/21																
DR: CV		LG: KS		Rig: 57														

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SUBSURFACE BORING LOG

AET No: P-0004677		Log of Boring No. B-09 (p. 1 of 1)													
Project: Proposed Multi-Family Housing Development; W. Wolf River Ave at Wyman St; New London, WI															
DEPTH IN FEET	ELEV. FEET	Surface Elevation 762.5 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS							
								WC	qp	LL	PL	%-#200			
1	762.3	FILL, silty sand with organics, fine to medium grained, a little gravel, brown, moist (SM)	FILL/ TOPSOIL FILL	14	M	SS	15	22							
2		FILL, sand with silt and gravel, fine to medium grained, brown and gray and reddish brown and black, moist, with slag and concrete pieces and cobbles (SP-SM)		3	M	SS	4								
3															
4															
5	757.0		MIXED ALLUVIUM	4	M	SS	12	43							
6		FILL, sandy lean clay, a little gravel, brown and dark brown, with trace organics and brick pieces (CL)													
7	755.5	SILT with organics, black, moist, very loose (OL)		3	M	SS	11								
8	754.0														
9		SILTY SAND, gray, moist to waterbearing, very loose to loose, with trace organics (SM)		6	M	SS	18								
10															
11															
12															
13															
14	748.0														
15		SAND WITH SILT, fine grained, gray, waterbearing, very loose to medium dense (SP-SM)	1	W	SS	24									
16															
17															
18		Shell pieces at 18 feet	3	W	SS	23									
19							14	>4.5							
20	742.0														
21	741.0	Sandy LEAN CLAY, brown, wet, very stiff (CL)	24	W	SS	12									
		End of boring at 21.5 feet													
DEPTH: 0-19.5'		DRILLING METHOD: 3.25" HSA		WATER LEVEL MEASUREMENTS					NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG						
				DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH						DRILLING FLUID LEVEL	WATER LEVEL
				7/22/21	1115	21.5	19.5	17.3						None	14.5
				7/22/21	1140	21.5	19.5	17.9						None	10.4
BORING COMPLETED: 7/22/21															
DR: CV LG: KS Rig: 57															

AET_CORP W-ELEV P-0004677.GPJ AET+CPT+WELL.GDT 8/24/21



SUBSURFACE BORING LOG

AET No: P-0004677		Log of Boring No. B-10 (p. 1 of 1)												
Project: Proposed Multi-Family Housing Development; W. Wolf River Ave at Wyman St; New London, WI														
DEPTH IN FEET	ELEV. FEET	Surface Elevation 759.3 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS					PL	% - #200
								WC	qp	LL				
1	758.5	FILL, silty sand with organics, fine to medium grained, a little gravel, dark brown, moist (SM)	FILL/ TOPSOIL FILL	28	M	SS	12							
2		FILL, gravelly silty sand, fine to medium grained, brown and black and white, moist, with wood, brick pieces, slag, ash, and cinders (SM)		13	M	SS	15							
4	754.8													
5	753.8	FILL, clayey sand, fine to medium grained, reddish brown, moist, with lean clay lenses (SC)		5	M	SS	9							
6		FILL, silt with organics, a little gravel, black, moist (OL)	MIXED ALLUVIUM					35						
7	752.3													
8		SILTY SAND, fine grained, grayish brown, moist to waterbearing, very loose, with trace roots (SM)		4	M	SS	24							
9														
10	749.8													
11		Sandy SILT, dark gray, waterbearing, very loose, with trace organics (ML)		2	W	SS	24	49						
12														
13				1	W	SS	24	35						
14														
15														
16		Wood pieces at 15.5 feet		2	W	SS	10	28						
17	742.3													
18	741.3	SILTY SAND, fine grained, a little gravel, gray, waterbearing, loose, with shells (SM)		5	W	SS	24	17	2.0					
19		Sandy LEAN CLAY, reddish brown, wet, firm to very stiff, with sand lenses (CL)												
20														
21	737.8			19	W	SS	24		>4.5					
		End of boring at 21.5 feet												
DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG					
0-19.5' 3.25" HSA		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL						
		7/19/21	1100	21.5	19.5	17.2	None	15.4						
		7/19/21	1110	21.5	19.5	17.2	None	9.2						
BORING COMPLETED: 7/19/21														
DR: MD LG: KS Rig: 57														

AET_CORP W-ELEV P-0004677.GPJ AET+CPT+WELL.GDT 8/24/21



SUBSURFACE BORING LOG

AET No: P-0004677		Log of Boring No. B-11 (p. 1 of 1)												
Project: Proposed Multi-Family Housing Development; W. Wolf River Ave at Wyman St; New London, WI														
DEPTH IN FEET	ELEV. FEET	Surface Elevation 761.2 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS					% - #200	
								WC	qp	LL	PL			
1	761.0	FILL, silty sand with organics and gravel, fine to medium grained, a little gravel, brown, moist, with asphalt pieces (SM)	FILL/ TOPSOIL FILL	10	M	SS	18							
2	759.2	FILL, silty sand with gravel, fine to coarse grained, gray, moist (SM)		50/2	M	SS	3							
3		FILL, mix of concrete pieces and silty sand with gravel, brown and gray and black, moist, with slag and pieces of asphalt (SM)												
4														
5				56/7	M	SS	6							
6														
7	754.2													
8		FILL, silt with gravel, gray and green, moist, with concrete pieces (ML)		4	M	SS	3	25						
9	751.7													
10	751.2	Sandy SILT, gray, moist to waterbearing, medium dense, with trace roots (ML)	MIXED ALLUVIUM					23						
11		SILTY SAND, fine grained, brown, waterbearing, medium dense (SM)		12	MW	SS	24							
12	749.2	SAND WITH SILT, fine grained, brown, waterbearing, loose (SP-SM)												
13				6	W	SS	20							
14	746.7													
15		Sandy SILT, fine grained, brown, waterbearing, very loose, with trace organics (ML)		2	W	SS	24	27						
16														
17	744.2													
18		Sandy LEAN CLAY, a little gravel, brown, wet, stiff to hard, with sand lenses (CL)		15	W	SS	24	18	3.0					
19														
20														
21	739.7			48	W	SS	9	21						
		End of boring at 21.5 feet												
DEPTH: 0-19.5'		DRILLING METHOD: 3.25" HSA		WATER LEVEL MEASUREMENTS					NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG					
				DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL				
				7/22/21	0836	21.5	19.5	17.9	None	13.4				
				7/22/21	0848	21.5	19.5	17.6	None	11.0				
BORING COMPLETED: 7/23/21														
DR: MD LG: KS Rig: 57														

AET_CORP W-ELEV P-0004677.GPJ AET+CPT+WELL.GDT 8/24/21



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SUBSURFACE BORING LOG

AET No: P-0004677		Log of Boring No. B-12 (p. 1 of 1)										
Project: Proposed Multi-Family Housing Development; W. Wolf River Ave at Wyman St; New London, WI												
DEPTH IN FEET	ELEV. FEET	Surface Elevation 763.0 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS				
								WC	qp	LL	PL	%-#200
1	762.8	FILL, silty sand with organics, fine to medium grained, brown, moist (SM) FILL, sand with silt, fine to medium grained, a little gravel, brown, moist, with asphalt and slag pieces and lean clay lenses (SP-SM)	FILL/ TOPSOIL FILL	12	M	SS	16					
2												
3												
4												
5	758.0	FILL, rubblized concrete		50/2	M	SS	6					
6												
7	755.5											
8		FILL, decomposing wood debris, a little gravel, dark brown and black		7	M	SS	16	188				
9	754.3	FILL, rubblized concrete										
10	753.0			50/1	M	SS	1					
11		SILTY SAND, fine grained, gray, waterbearing, very loose, with silt lenses (SM)	MIXED ALLUVIUM									
12												
13					4	W	SS	19				
14	748.5											
15		SILTY SAND, fine grained, light brown, waterbearing, loose to dense (SM)		5	W	SS	16					
16												
17												
18												
19												
20												
21	741.6			42	W	SS	24					
		End of boring at 21.4 feet										
DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG			
0-19.5' 3.25" HSA		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL				
		7/22/21	1340	21.5	19.5	16.3	None	11.5				
		7/22/21	1350	21.5	19.5	15.5	None	10.5				
BORING COMPLETED: 7/22/21												
DR: CV LG: KS Rig: 57												

AET_CORP W-ELEV P-0004677.GPJ AET+CPT+WELL.GDT 8/24/21



SUBSURFACE BORING LOG

AET No: P-0004677		Log of Boring No. B-13 (p. 1 of 1)												
Project: Proposed Multi-Family Housing Development; W. Wolf River Ave at Wyman St; New London, WI														
DEPTH IN FEET	ELEV. FEET	Surface Elevation 760.3 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS						
								WC	qp	LL	PL	%-#200		
1	759.7	FILL, silty sand with organics, fine to medium grained, brown, moist, loose (SM)	FILL/ TOPSOIL FILL	6	M	SS	16							
2	757.8	FILL, fine to medium grained, a little gravel, reddish brown, moist, with brick and concrete pieces (SM)		50/4	M	SS	10							
3		FILL, rubblized concrete												
4														
5	755.8	FILL, mix of silt and decomposing wood debris, black, with a few brick pieces and some small pieces of wood		7	M	SS	17	170						
6														
7														
8	753.3	SILTY SAND, fine grained, gray, moist to waterbearing, loose, with trace wood pieces and roots (SM)		9	M	SS	16							
9			MIXED ALLUVIUM											
10				6	W	SS	17							
11														
12														
13	748.3	Sandy LEAN CLAY, a little gravel, grayish brown, wet, stiff (CL)		12	W	SS	14	26	2.0					
14														
15				12	W	SS	14	19	0.5					
16														
17														
18	744.2	SILTY SAND, fine grained, brown, waterbearing, medium dense (SM)		34	W	SS	20		>4.5					
19		LEAN CLAY, a little gravel, brown, wet, hard (CL)												
20				85/9	W	SS	17	11	>4.5					
	739.4	End of boring at 20.9 feet												
DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG					
0-19.5' 3.25" HSA		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL						
		7/19/21	1200	21.5	19.5	18.0	None	15.0						
		7/19/21	1210	21.5	19.5	15.5	None	8.0						
BORING COMPLETED: 7/19/21														
DR: MD LG: KS Rig: 57														

AET_CORP W-ELEV P-0004677.GPJ AET+CPT+WELL.GDT 8/24/21



SUBSURFACE BORING LOG

AET No: P-0004677		Log of Boring No. B-14 (p. 1 of 1)												
Project: Proposed Multi-Family Housing Development; W. Wolf River Ave at Wyman St; New London, WI														
DEPTH IN FEET	ELEV. FEET	Surface Elevation 761.6 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS					PL	% #200
								WC	qp	LL				
1	761.4	FILL, silty sand with organics, fine to medium grained, brown, moist (SM)	FILL/ TOPSOIL FILL	7	M	SS	19							
2		FILL, silty sand, fine to medium grained, a little gravel, reddish brown and dark brown, moist (SM)												
3				22	M	SS	17							
4	758.1	FILL, rubblized concrete												
5	757.1													
6		FILL, sand with silt, fine to medium grained, brown, moist, with a few pieces of slag (SP-SM)	MIXED ALLUVIUM	10	M	SS	18							
7	755.4													
8	754.2	SILT with organics, black, moist, very loose (OL)						145						
9								105						
10		SILTY SAND, fine grained, gray, moist to waterbearing, very loose to loose, with trace roots (SM)		5	M/W	SS	16							
11														
12	749.6			4	W	SS	22							
13														
14	748.1	SILTY SAND, fine to medium grained, a little gravel, reddish brown, waterbearing, loose, with lean clay lenses and trace wood pieces (SM)		8	W	SS	20							
15		Sandy LEAN CLAY, a little gravel, reddish brown, wet, firm to very stiff (CL)						21						
16	745.9			22	W	SS	21	19	4.25					
17	744.6	SAND WITH SILT, fine grained, reddish brown, waterbearing, medium dense (SP-SM)												
18		SILTY SAND, fine grained, brown, waterbearing, dense (SM)		45	W	SS	17							
19														
20				39	W	SS	24							
21	740.1													
		End of boring at 21.5 feet												
DEPTH: 0-19.5'		DRILLING METHOD: 3.25" HSA	WATER LEVEL MEASUREMENTS						NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG					
			DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL						
			7/20/21	0850	21.5	19.5	17.9	None						
			7/20/21	0900	21.5	19.5	18.8	None						
BORING COMPLETED: 7/20/21														
DR: MD LG: KS Rig: 57														

AET CORP W-ELEV P-0004677.GPJ AET+CPT+WELL.GDT 8/24/21



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SUBSURFACE BORING LOG

AET No: P-0004677		Log of Boring No. B-15 (p. 1 of 1)												
Project: Proposed Multi-Family Housing Development; W. Wolf River Ave at Wyman St; New London, WI														
DEPTH IN FEET	ELEV. FEET	Surface Elevation 762.7 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS						
								WC	qp	LL	PL	%-#200		
1	762.2	FILL, silty sand with organics, fine to medium grained, a little gravel, brown and dark brown, moist (SM)	FILL/ TOPSOIL FILL	7	M	SS	17							
2		FILL, silty sand, fine to medium grained, a little gravel, dark brown and black, moist, with lenses of organics (SM)												
3				9	M	SS	14							
4														
5	757.7	FILL, rubblized concrete	MIXED ALLUVIUM	25	M	SS	4							
6														
7	755.7	FILL, decomposing wood debris, black, possible peat		2	M	SS	16	425						
8														
9	754.0	SILT with organics, dark gray, moist, very loose (OL)						90						
10	753.2	SILTY SAND, fine grained, gray, moist to waterbearing, very loose, with silt lenses (SM)		2	MLW	SS	16							
11														
12	750.7	LEAN CLAY, reddish brown, wet, soft (CL)		2	W	SS	14	18	0.5					
13														
14	748.2	SAND, fine grained, brown, waterbearing, very loose to medium dense (SP)		WH	W	SS	8							
15														
16														
17	744.7	SILTY SAND, fine grained, brown, waterbearing, medium dense (SM)		17	W	SS	24							
18														
19	743.2	SAND, fine grained, brown, waterbearing, dense (SP)		43	W	SS	24							
20	741.9													
21	741.2	SILT, brown, waterbearing, dense, with sand lenses (ML)						15						
		End of boring at 21.5 feet												
DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG					
0-19.5' 3.25" HSA		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL						
		7/22/21	0905	21.5	19.5	17.8	None	12.6						
		7/22/21	0915	21.5	19.5	18.1	None	10.5						
BORING COMPLETED: 7/22/21														
DR: CV LG: KS Rig: 57														

AET_CORP W-ELEV P-0004677.GPJ AET+CPT+WELL.GDT 8/24/21



SUBSURFACE BORING LOG

AET No:		P-0004677		Log of Boring No.												B-16 (p. 1 of 1)	
Project:		Proposed Multi-Family Housing Development; W. Wolf River Ave at Wyman St; New London, WI															
DEPTH IN FEET	ELEV. FEET	Surface Elevation 764.5 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS									
								WC	qp	LL	PL	%-#200					
1	764.4	FILL, sand with silt with organics, fine to medium grained, a little gravel, brown, moist (SP-SM)	FILL/ TOPSOIL FILL	7	M	SS	14										
2	762.8	FILL, sand with silt, fine to medium grained, a little gravel, reddish brown, moist (SP-SM)															
3		FILL, silty sand with gravel, reddish brown and black, moist, with some decomposing wood debris and clay lenses (SM)		3	M	SS	12										
4																	
5	759.0				6	M	SS	14									
6		FILL, clayey sand, fine to medium grained, a little gravel, brown and black, moist, with wood pieces (SC)	MIXED ALLUVIUM														
7	757.5	FILL, decomposing wood debris, black, possible peat															
8				2	M	SS	19	361									
9	755.0																
10		SILT with organics, dark gray and black, moist to waterbearing, very loose (OL)		3	M	SS	18	151									
11		Sandy SILT, dark gray, waterbearing, very loose, with trace organics (ML)						24									
12	752.5																
13		SILTY SAND, fine grained, light brown, waterbearing, medium dense (SM)		12	W	SS	15										
14	750.0																
15		Sandy LEAN CLAY, fine to medium grained, a little gravel, reddish brown, wet, stiff (CL)		10	W	SS	20	20	1.5								
16	748.5																
17	747.5	SILTY SAND, fine grained, light brown, waterbearing, loose (SM)															
18		SAND, fine grained, brown, waterbearing, very loose to dense (SP)		2	W	SS	24										
19																	
20					34	W	SS	24									
21	743.0																
		End of boring at 21.5 feet															
DEPTH:		DRILLING METHOD		WATER LEVEL MEASUREMENTS									NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG				
0-19.5'		3.25" HSA		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL							
				7/22/21	1010	21.5	19.5	17.3	None	14.8							
				7/22/21	1020	21.5	19.5	17.1	None	10.8							
BORING COMPLETED: 7/22/21				7/22/21	1025	21.5	19.5	17.1	None	10.5							
DR: CV LG: KS Rig: 57																	



SUBSURFACE BORING LOG

AET No:		P-0004677		Log of Boring No.												B-17 (p. 1 of 1)				
Project:		Proposed Multi-Family Housing Development; W. Wolf River Ave at Wyman St; New London, WI																		
DEPTH IN FEET	ELEV. FEET	Surface Elevation 766.1 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS												
								WC	qp	LL	PL	%-#200								
1	765.9	FILL, sand with silt and organics, fine to medium grained, brown, moist, with wood pieces (SP-SM)	FILL/ TOPSOIL FILL	11	M	SS	16													
2	764.5	FILL, sand with silt, fine to medium grained, a little gravel, brown and black, moist, with lenses of lean clay and lenses of organics (SP-SM)																		
3	764.1	FILL, clayey sand, fine to medium grained, reddish brown and dark brown, moist (SC)																		
4		FILL, silty sand, fine to medium grained, a little gravel, brown and dark brown, moist, with lean clay lenses and trace organics (SM)	MIXED ALLUVIUM	4	M	SS	16													
5	759.1	LEAN CLAY, dark gray and black, moist, soft, with trace organics (CL)																		
6	757.6	SANDY LEAN CLAY, reddish brown, soft (CL)																		
7	756.6	SAND, fine grained, brown, waterbearing, loose, with lean clay lenses (SP)																		
8	755.6	SANDY LEAN CLAY, brown, stiff, with sand lenses (CL)																		
9	754.1	SAND, fine grained, brown, moist to waterbearing, very loose to loose, with lean clay lenses (SP)																		
10		LEAN CLAY, reddish brown and gray, wet, soft, with silt lenses (CL)																		
11	750.1	SAND, fine grained, brown, waterbearing, loose (SP)																		
12	749.1	LEAN CLAY, reddish brown and gray, wet, stiff (CL)																		
13	748.1	SAND, fine grained, brown, waterbearing, loose (SP)																		
14	746.6	LEAN CLAY, reddish brown and gray, wet, stiff (CL)																		
15	745.6	SAND, fine grained, brown, waterbearing, medium dense (SP)																		
16	744.6	SILTY SAND, fine grained, gray, waterbearing, medium dense (SM)																		
17		End of boring at 21.5 feet																		
DEPTH:		DRILLING METHOD		WATER LEVEL MEASUREMENTS									NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG							
0-19.5'		3.25" HSA		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL										
				7/22/21	1420	21.5	19.5	18.6	None	16.0										
				7/22/21	1430	21.5	19.5	17.4	None	14.8										
BORING COMPLETED:		7/22/21																		
DR: CV LG: KS Rig: 57																				

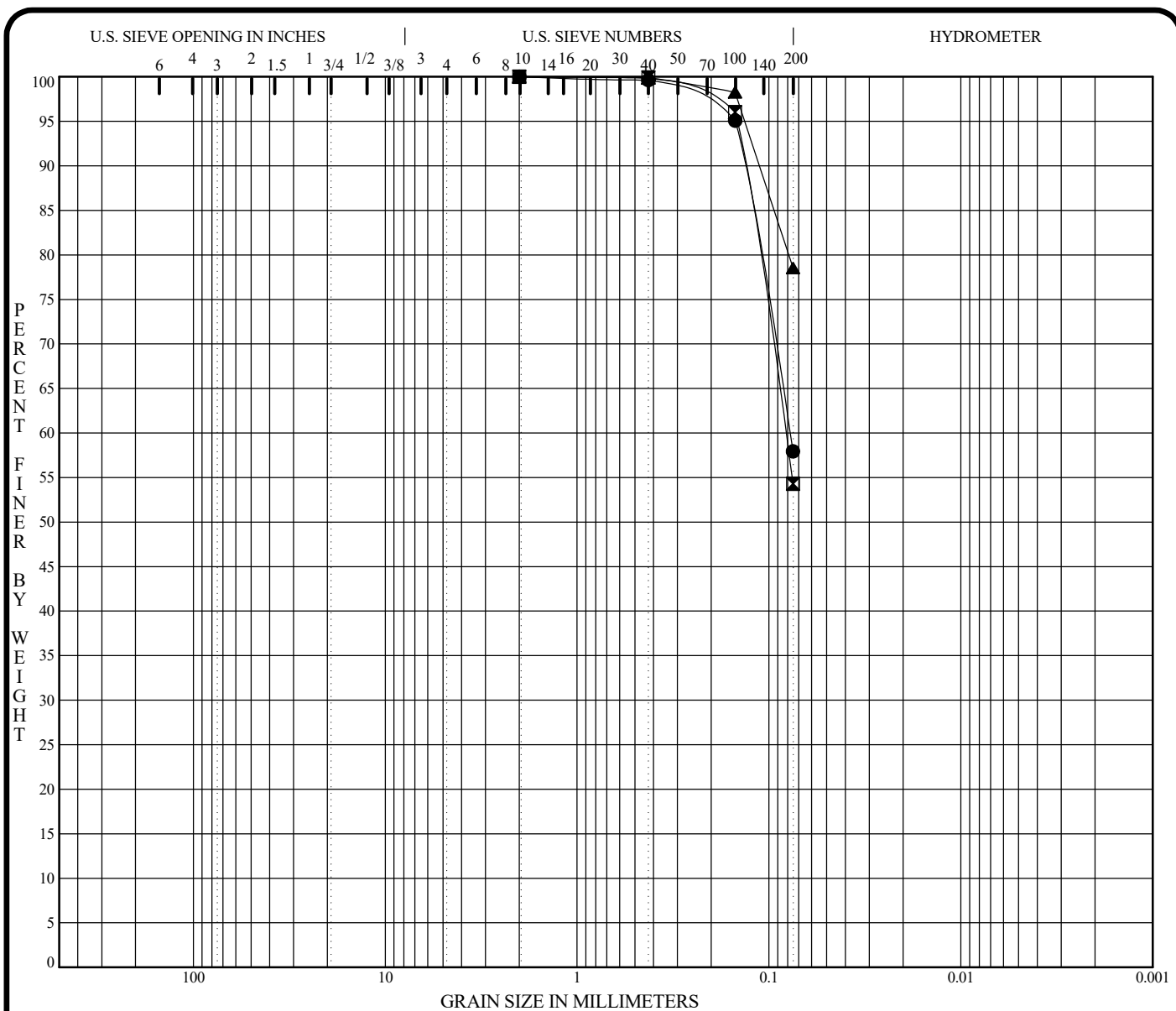
AET_CORP W-ELEV P-0004677.GPJ AET+CPT+WELL.GDT 8/24/21



SUBSURFACE BORING LOG

AET No: P-0004677		Log of Boring No. B-18 (p. 1 of 1)												
Project: Proposed Multi-Family Housing Development; W. Wolf River Ave at Wyman St; New London, WI														
DEPTH IN FEET	ELEV. FEET	Surface Elevation 766.0 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS					%#200	
								WC	qp	LL	PL			
1	765.7	FILL, silty sand with organics, fine to medium grained, brown, moist (SM)	FILL/ TOPSOIL FILL	14	M	SS	20							
2		FILL, silty sand, fine to medium grained, a little gravel, brown and dark brown and black, moist, with lean clay lenses and trace roots and slag pieces (SM)												
3				5	M	SS	19							
4														
5														
6				2	M	SS	8							
7	759.0													
8		LEAN CLAY, reddish brown and gray, moist, soft (CL)	MIXED ALLUVIUM	4	M	SS	20	41	1.0					
9														
10	756.5													
11	755.0	SAND WITH SILT, fine to medium grained, brown, moist to waterbearing, loose, with lean clay lenses (SP-SM)		10	W	SS	18							
12		Sandy LEAN CLAY, a little gravel, reddish brown and gray, wet, soft (CL)												
13				3	W	SS	18	15	0.5					
14	751.5													
15		SILTY SAND, fine grained, light brown, waterbearing, medium dense (SM)		19	W	SS	16							
16														
17	749.0													
18		LEAN CLAY with sand, a little gravel, brown, wet, hard (CL)		45	W	SS	24	11	>4.5					
19														
20	746.5													
21		SAND, fine to medium grained, light brown and gray, waterbearing, medium dense, with lean clay lenses (SP)		26	W	SS	20							
	744.5													
		End of boring at 21.5 feet												
DEPTH: 0-19.5'		DRILLING METHOD: 3.25" HSA		WATER LEVEL MEASUREMENTS					NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG					
				DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL				
				7/23/21	0932	21.5	19.5	19.0	None	13.4				
				7/23/21	0944	21.5	19.5	16.6	None	10.9				
BORING COMPLETED: 7/23/21														
DR: MD LG: KS Rig: 57														

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COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification					MC%	LL	PL	PI	Cc	Cu
● B-01 5.5'	Sandy Silt (ML)					26					
☒ B-01 8.0'	Sandy Silt (ML)					25					
▲ B-01 13.0'	Silt with sand (ML)					39					

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-01 5.5'	2.00	0.08			0.0	42.1	57.9	
☒ B-01 8.0'	2.00	0.08			0.0	45.7	54.3	
▲ B-01 13.0'	2.00				0.0	21.5	78.5	

PROJECT **Proposed Multi-Family Housing Development;**
W. Wolf River Ave at Wyman St; New London, WI

AET JOB NO. **P-0004677**
 DATE **7/19/21**



AMERICAN
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GRADATION CURVES

Report of Geotechnical Exploration

Proposed Multi-Family Housing Development

W. Wolf River Avenue at Wyman Street; New London, Wisconsin

August 24, 2021

AET Project No. P-0004677

AMERICAN
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Appendix B

AET Project No. P-0004677

Geotechnical Report Limitations and Guidelines for Use

Appendix B

Geotechnical Report Limitations and Guidelines for Use

AET Project No. P-0004677

B.1 REFERENCE

This appendix provides information to help you manage your risks relating to subsurface problems which are caused by construction delays, cost overruns, claims, and disputes. This information was developed and provided by GBA¹, of which we are a member firm.

B.2 RISK MANAGEMENT INFORMATION

B.2.1 Geotechnical Services are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared solely for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. And no one, not even you, should apply the report for any purpose or project except the one originally contemplated.

B.2.2 Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

B.2.3 A Geotechnical Engineering Report is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typically, factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, always inform your geotechnical engineer of project changes, even minor ones, and request an assessment of their impact. Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.

B.2.4 Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. Do not rely on a geotechnical engineering report whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. Always contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

¹ Geoprofessional Business Association, 15800 Crabbs Branch Way, Suite 300, Rockville, MD 20855
Telephone: 301/565-2733: www.geoprofessional.org

Appendix B

Geotechnical Report Limitations and Guidelines for Use

AET Project No. P-0004677

B.2.5 Most Geotechnical Findings Are Professional Opinions

Site exploration identified subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ, sometimes significantly, from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

B.2.6 A Report's Recommendations Are Not Final

Do not over-rely on the construction recommendations included in your report. Those recommendations are not final, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual subsurface conditions revealed during construction. The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.

B.2.7 A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

B.2.8 Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should never be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, but recognizes that separating logs from the report can elevate risk.

B.2.9 Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, but preface it with a clearly written letter of transmittal. In the letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. Be sure contractors have sufficient time to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

B.2.10 Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their report. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. Read these provisions closely. Ask questions. Your geotechnical engineer should respond fully and frankly.

B.2.11 Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a geoenvironmental study differ significantly from those used to perform a geotechnical study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Unanticipated environmental problems have led to numerous project failures. If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. Do not rely on an environmental report prepared for someone else.

APPENDIX 3

CONSTRUCTION DOCUMENTS

SCS WOLF RIVER

CITY OF NEW LONDON, WISCONSIN

SE 1/4, SECTION 12, TOWNSHIP 22 NORTH, RANGE 14 EAST

DRAWING INDEX

C0.0	TITLE SHEET
C100	EXISTING CONDITIONS
C1.0	DEMOLITION PLAN
C2.0	SITE PLAN
C3.0	GRADING PLAN & EROSION CONTROL PLAN
C4.0	UTILITY PLAN
C5.0	CONSTRUCTION DETAILS
C5.1	CONSTRUCTION DETAILS
C5.2	CONSTRUCTION DETAILS



PROJECT AREA
NOT TO SCALE



PROJECT INFORMATION

OWNER S.C. SWIDERSKI KORTNI WOLF 401 RANGER STREET MOSINEE, WI 54455 P: 715-693-7807 kwolf@scswiderski.com	CITY CIVIL CONSULTANT MCMAHON BRAD WERNER 1445 MCMAHON DRIVE NEENAH WI 54956 P: 920-751-4200 BWerner@mcmgrp.com
CIVIL CONSULTANT JSD PROFESSIONAL SERVICES, INC. JUSTIN FRAHM 7402 STONE RIDGE DRIVE, SUITE 4 WESTON, WI 54476 P: 715-298-6330 justin.frahm@jsdinc.com	



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jsdinc.com

WAUSAU REGIONAL OFFICE
7402 STONE RIDGE DRIVE, SUITE 4
WESTON, WI 54476
P. 715.298.6330

CLIENT:
S.C. SWIDERSKI, LLC

CLIENT ADDRESS:
**401 RANGER STREET
MOSINEE, WI 54455**

PROJECT:
SCS WOLF RIVER

PROJECT LOCATION:
**CITY OF NEW LONDON
WAUPACA COUNTY
WI, 54961**

#	Date:	Description:
1	12.23.2022	SCHEMATIC DESIGN
2	01.06.2023	CITY SUBMISSION
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Designed By: CEJ
Reviewed By: SJB
Approved By: JLF

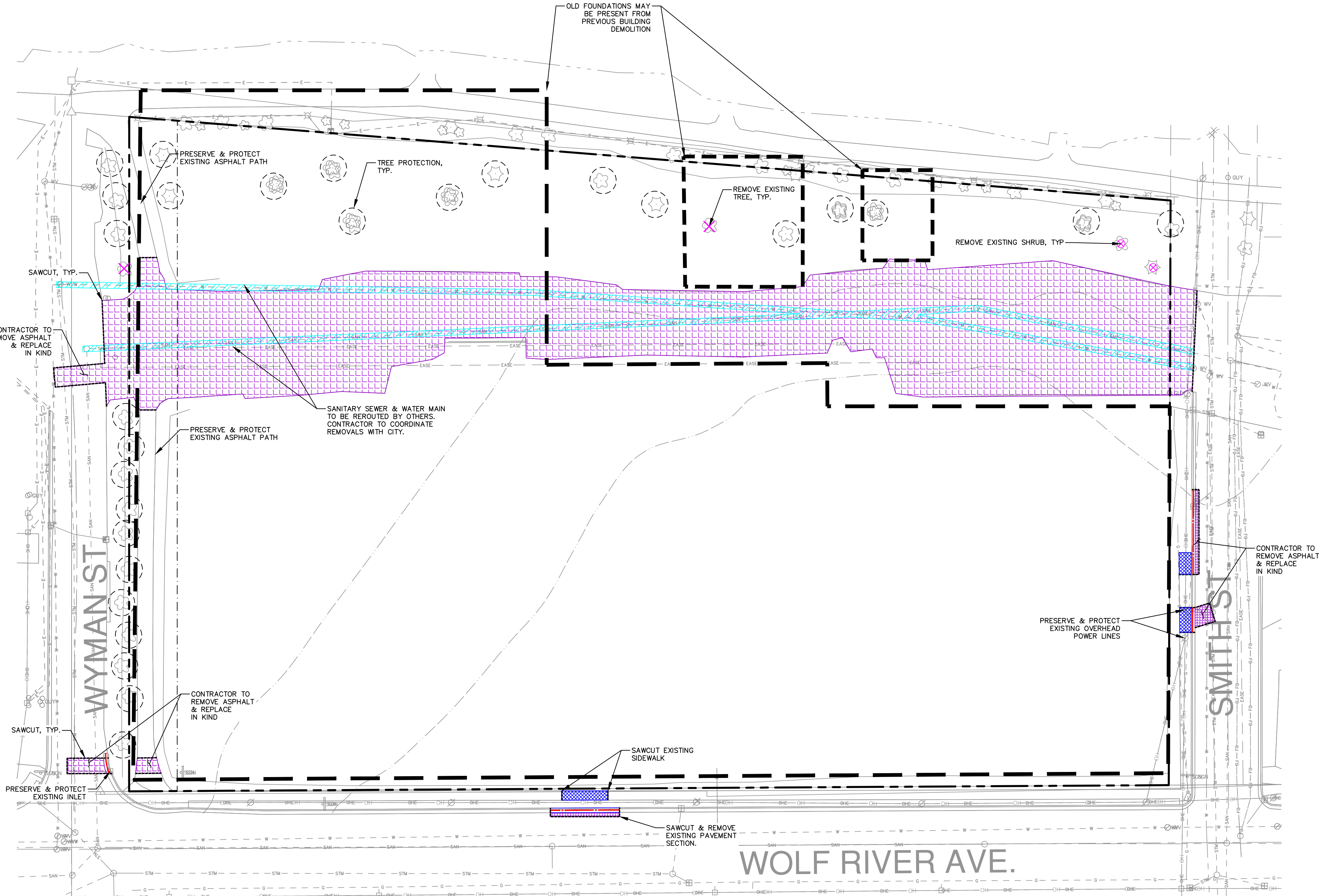
SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
C0.0

JSD PROJECT NO: 22-11383-MF



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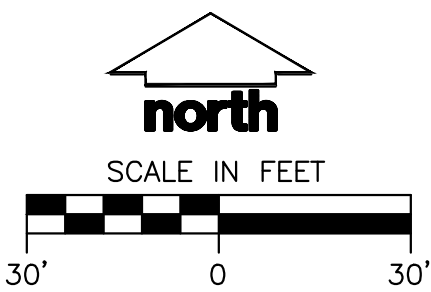


DEMOLITION NOTES

1. THIS PLAN INDICATES ITEMS ON THE PROPERTY INTENDED FOR DEMOLITION BASED ON THE CURRENT SITE DESIGN THAT HAVE BEEN IDENTIFIED BY A REASONABLE OBSERVATION OF THE EXISTING CONDITIONS THROUGH FIELD SURVEY, RECONNAISSANCE, "DIGGER'S HOTLINE" LOCATION, AND GENERAL "STANDARD OF CARE". THERE MAY BE ADDITIONAL ITEMS THAT CAN NOT BE IDENTIFIED BY A REASONABLE ABOVE GROUND OBSERVATION, OF WHICH THE ENGINEER WOULD HAVE NO KNOWLEDGE OR MAY BE A PART OF ANOTHER DESIGN DISCIPLINE. IT IS THE CONTRACTOR'S/BIDDER'S RESPONSIBILITY TO REVIEW THE PLANS, INSPECT THE SITE AND PROVIDE THEIR OWN DUE DILIGENCE TO INCLUDE IN THEIR BID WHAT ADDITIONAL ITEMS, IN THEIR OPINION, MAY BE NECESSARY FOR DEMOLITION. ANY ADDITIONAL ITEMS IDENTIFIED BY THE CONTRACTOR/BIDDER SHALL BE IDENTIFIED IN THE BID AND REPORTED TO THE ENGINEER OF RECORD. JSD TAKES NO RESPONSIBILITY FOR ITEMS ON THE PROPERTY THAT COULD NOT BE LOCATED BY A REASONABLE OBSERVATION OF THE PROPERTY OR OF WHICH THEY WOULD HAVE NO KNOWLEDGE.
2. CONTRACTOR SHALL KEEP ALL STREETS AND PRIVATE DRIVES FREE AND CLEAR OF ALL CONSTRUCTION RELATED DIRT, DUST AND DEBRIS.
3. ALL TREES WITHIN THE CONSTRUCTION LIMITS SHALL BE PROTECTED UNLESS SPECIFICALLY CALLED OUT FOR REMOVAL. ALL TREES TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY AND STUMPS SHALL BE GROUND TO PROPOSED SUBGRADE.
4. ABANDONED/REMOVED ITEMS SHALL BE DISPOSED OF OFF SITE UNLESS OTHERWISE NOTED.
5. CONTRACTOR TO REPLACE ALL SIDEWALK AND CURB AND GUTTER ABUTTING THE PROPERTIES, WHICH IS DAMAGED BY THE CONSTRUCTION, OR ANY SIDEWALK AND CURB AND GUTTER THAT THE CITY ENGINEER DETERMINES NEEDS TO BE REPLACED BECAUSE IT IS NOT AT A DESIRABLE GRADE REGARDLESS OF WHETHER THE CONDITION EXISTED PRIOR TO BEGINNING CONSTRUCTION.
6. PRIOR TO CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR:
 - 6.1. EXAMINE ALL SITE CONDITIONS RELATIVE TO THE CONDITIONS INDICATED ON THE ENGINEERING DRAWINGS. ANY DISCREPANCIES ARE TO BE REPORTED IMMEDIATELY TO THE ENGINEER AND RESOLVED PRIOR TO THE START OF CONSTRUCTION.
 - 6.2. VERIFYING UTILITY ELEVATIONS AND NOTIFYING ENGINEER OF ANY DISCREPANCIES. NO WORK SHALL BE PERFORMED UNTIL THE DISCREPANCIES ARE RESOLVED.
 - 6.3. NOTIFYING ALL UTILITIES PRIOR TO THE REMOVAL OF ANY UNDERGROUND UTILITIES.
 - 6.4. NOTIFYING THE DESIGN ENGINEER AND LOCAL CONTROLLING MUNICIPALITY 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION INSPECTION.
7. ANY UTILITIES, WHICH ARE DAMAGED BY THE CONTRACTORS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.
8. CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING THE CONSTRUCTION OF THESE IMPROVEMENTS.
9. ALL DEMOLITION SHALL BE IN ACCORDANCE WITH THE APPROVED MUNICIPALITY RECYCLING PLAN.
10. ANY CONTAMINATED SOILS SHALL BE REMOVED IN ACCORDANCE WITH FEDERAL AND STATE REGULATIONS TO AN APPROVED LANDFILL.
11. ALL EXISTING UTILITIES TO BE FIELD LOCATED AND FLAGGED BY CONTRACTOR.
12. EXISTING FIBER OPTIC LINE TO BE CLEARLY MARKED PRIOR TO ANY EXCAVATION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY IF ANY DISCREPANCIES OCCUR IN THE LOCATION SHOWN OR PROPOSED IMPROVEMENTS IMPACTING EXISTING FIBER OPTIC LINE LOCATION.
13. ALL PERIMETER EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THE START OF DEMOLITION ACTIVITIES. CONTRACTOR SHALL KEEP ALL STREETS AND PAVEMENT FREE AND CLEAR OF ALL CONSTRUCTION RELATED DIRT, DUST AND DEBRIS.
14. CONTRACTOR TO REMOVE EXISTING UTILITY PIPE OR PROVIDE PIPE BACK-FILLING AFTER REMOVAL OF EXISTING UTILITIES WITHIN BUILDING FOOTPRINT USING "LOW DENSITY CONCRETE/FLOWABLE FILL".
15. RESTORATION OF THE EXISTING ROADWAY RIGHT-OF-WAYS ARE CONSIDERED INCIDENTAL AND SHOULD BE PART OF THE COST OF THE UNDERGROUND IMPROVEMENTS, DEMOLITION AND REMOVAL. THIS INCLUDES CURB & GUTTER, SIDEWALK, TOPSOIL, SEEDING AND MULCHING.

LEGEND

---	PROPERTY LINE
- - - - -	RIGHT-OF-WAY
- . - . -	EASEMENT LINE
---	DEMOLITION - REMOVAL OF ONSITE CURB SURFACES AND BASE COURSE
---	DEMOLITION - PAVEMENT MILL AND OVERLAY
---	DEMOLITION - REMOVAL OF RETAINING WALL
---	DEMOLITION - REMOVAL OF ASPHALT SURFACES
---	DEMOLITION - REMOVAL OF CONCRETE SURFACES
---	DEMOLITION - REMOVAL OF BUILDINGS/STRUCTURES
---	DEMOLITION - REMOVAL OF UTILITIES
---	DEMOLITION - REMOVAL OF LANDSCAPE BEDDING
---	SAWCUT EXISTING PAVEMENT
---	OLD FOUNDATION
---	TREE REMOVAL
---	SHRUB REMOVAL
---	PROTECT EXISTING TREE



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CLIENT:

S.C. SWIDERSKI, LLC

CLIENT ADDRESS:

**401 RANGER STREET
MOSINEE, WI 54455**

PROJECT:

SCS WOLF RIVER

PROJECT LOCATION:

**CITY OF NEW LONDON
WAUPACA COUNTY
WI, 54961**

PLAN MODIFICATIONS:

#	Date:	Description:
1	12.23.2022	SCHEMATIC DESIGN
2	01.06.2023	CITY SUBMISSION
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Designed By: CEJ
Reviewed By: SJB
Approved By: JLF

SHEET TITLE:

DEMOLITION PLAN

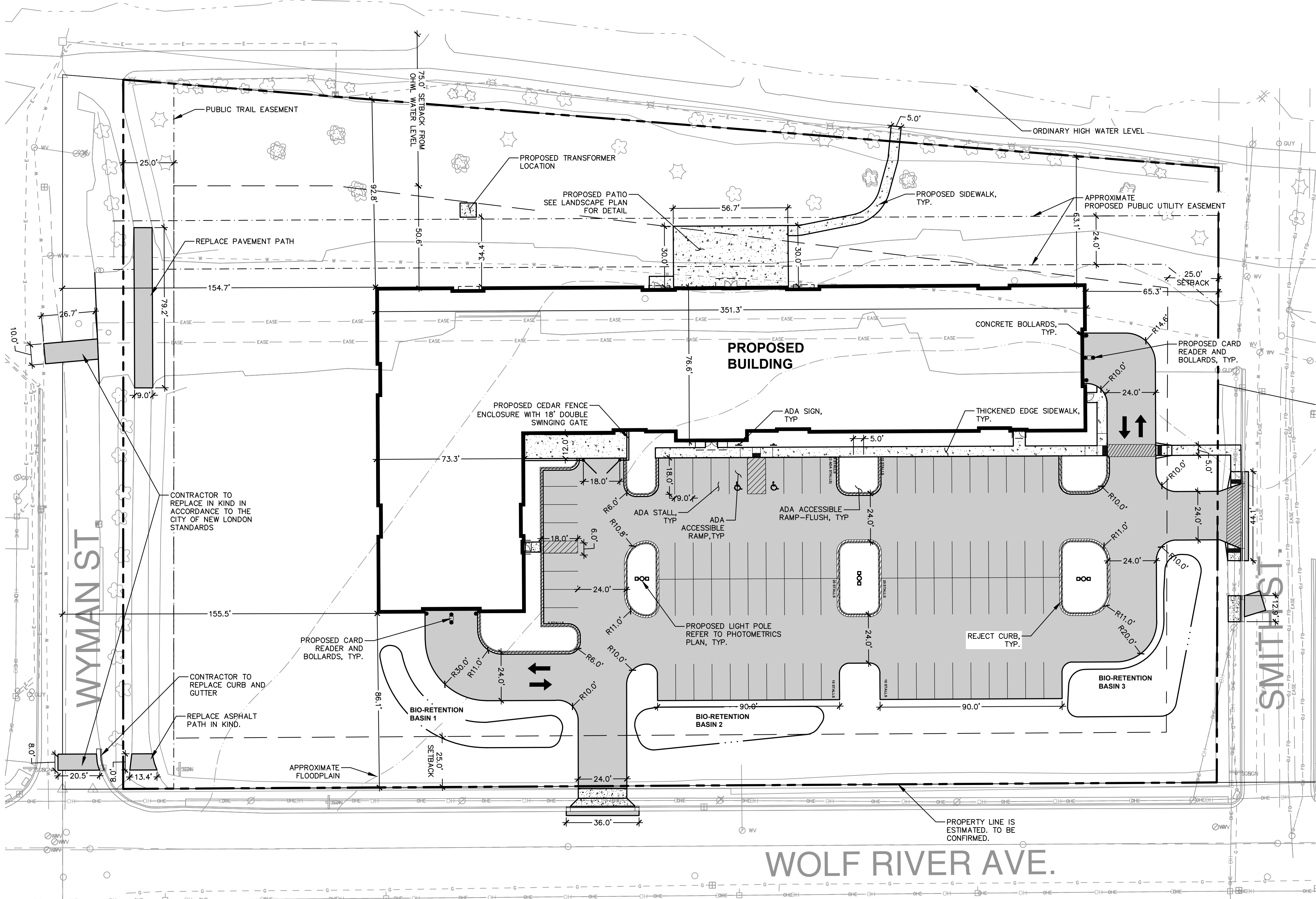
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GENERAL NOTES

1. REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGENDS.
2. ALL WORK IN THE ROW AND/OR PUBLIC EASEMENTS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN AND MUNICIPAL REQUIREMENTS.
3. EXISTING GRADE SPOT ELEVATIONS SHOWN FOR INFORMATIONAL PURPOSES. DURING CONSTRUCTION MATCH EXISTING GRADES AT CONSTRUCTION LIMITS.
4. NO SITE GRADING OUTSIDE OR DOWNSLOPE OF PROPOSED SILT FENCE LOCATION. NO LAND DISTURBANCE BEYOND PROPERTY LINES.
5. JSD SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES.

PAVING NOTES

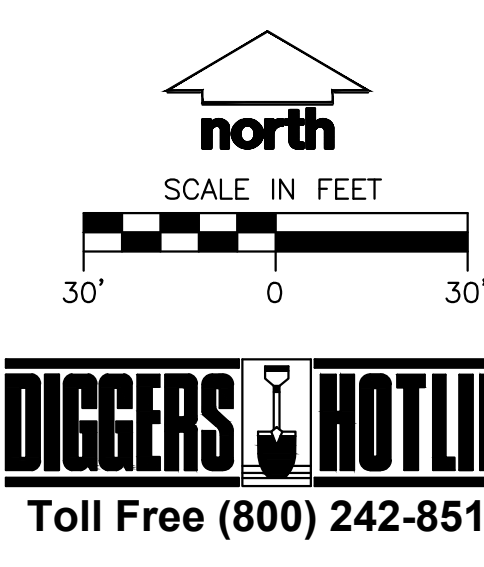
1. GENERAL
 - 1.1. ALL PAVING SHALL CONFORM TO "STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY & STRUCTURE CONSTRUCTION, LATEST EDITION, APPLICABLE CITY OF NEW LONDON ORDINANCES AND THE GEOTECHNICAL REPORT PREPARED BY AET DATED 04/28/21.
 - 1.2. ALL PAVING DIMENSIONS ARE TO FACE OF CURB UNLESS SPECIFIED OTHERWISE.
 - 1.3. SURFACE PREPARATION - NOTIFY ENGINEER/OWNER OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT SUBBASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.
 - 1.4. ANY REQUIRED REPLACEMENT OF PUBLIC CURB AND GUTTER SHALL MATCH EXISTING AND MEET MUNICIPALITY REQUIREMENTS.
2. ASPHALTIC CONCRETE PAVING SPECIFICATIONS
 - 2.1. CODES AND STANDARDS - THE PLACING, CONSTRUCTION AND COMPOSITION OF THE ASPHALTIC BASE COURSE AND ASPHALTIC CONCRETE SURFACE COURSE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 450, 455, 460 AND 465 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, CURRENT EDITION. HEREFTER, THIS PUBLICATION WILL BE REFERRED TO AS STATE HIGHWAY SPECIFICATIONS.
 - 2.2. WEATHER LIMITATIONS - APPLY TACK COATS WHEN AMBIENT TEMPERATURE IS ABOVE 50° F (10° C) AND WHEN TEMPERATURE HAS NOT BEEN BELOW 35° F (1° C) FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION. DO NOT APPLY WHEN BASE IS WET OR CONTAINS EXCESS OF MOISTURE. CONSTRUCT ASPHALTIC CONCRETE SURFACE COURSE WHEN ATMOSPHERIC TEMPERATURE IS ABOVE 40° F (4° C) AND WHEN BASE IS DRY AND WHEN WEATHER IS NOT RAINY. BASE COURSE MAY BE PLACED WHEN AIR TEMPERATURE IS ABOVE 30° F (-1° C).
 - 2.3. GRADE CONTROL - ESTABLISH AND MAINTAIN REQUIRED LINES AND ELEVATIONS FOR EACH COURSE DURING CONSTRUCTION.
 - 2.4. CRUSHED AGGREGATE BASE COURSE - SHALL CONFORM TO SECTIONS 301 AND 305, STATE HIGHWAY SPECIFICATIONS.
 - 2.5. BINDER COURSE AGGREGATE - SHALL CONFORM TO SECTIONS 460 AND 315, STATE HIGHWAY SPECIFICATIONS.
 - 2.6. SURFACE COURSE AGGREGATE - SHALL CONFORM TO SECTIONS 460 AND 465, STATE HIGHWAY SPECIFICATIONS.
 - 2.7. ASPHALTIC MATERIALS - SHALL CONFORM TO SECTION 455 AND 460, STATE HIGHWAY SPECIFICATIONS.
3. PAVEMENT MARKING SPECIFICATIONS
 - 3.1. USE 4" WIDE, HIGH VISIBILITY YELLOW LATEX PAINT FOR STALL LINES.
 - 3.2. MARK AND STRIPE ADA PARKING SPACES APPROPRIATELY.
 - 3.3. ALL PAVEMENT MARKINGS INCLUDING: SHALL BE PAINTED WITH LATEX PAINT PER SPECIFICATIONS.
 - 3.4. 2' x 4' YELLOW TRUNCATED DOME WARNING DETECTION FIELD SHALL BE PLACED AT ALL ADA RAMPS.

SITE INFORMATION BLOCK

SITE ADDRESS	305 W WOLF RIVER AVE, NEW LONDON, WI 54961
PROPERTY ACREAGE	4.07 ACRES
NUMBER OF BUILDING STORIES	4
TOTAL BUILDING SQUARE FOOTAGE	32,033 SF
NUMBER OF UNITS	98
NUMBER OF PARKING STALLS	
SURFACE	
LARGE	85
ACCESSIBLE	2
TOTAL SURFACE	87
INTERIOR	
LARGE	62
ACCESSIBLE	2
TOTAL INTERIOR	64
EXISTING VS. PROPOSED SITE COVERAGE	
EXISTING IMPERVIOUS SURFACE AREA	29,714 SF
EXISTING PERVIOUS SURFACE AREA	147,478 SF
EXISTING IMPERVIOUS SURFACE AREA RATIO	0.17
PROPOSED IMPERVIOUS SURFACE AREA	76,855 SF
PROPOSED PERVIOUS SURFACE AREA	100,337 SF
PROPOSED IMPERVIOUS SURFACE AREA RATIO	0.43

LEGEND

---	PROPERTY LINE
- - - - -	RIGHT-OF-WAY
- . - . -	EASEMENT LINE
=====	BUILDING OUTLINE
-----	BUILDING OVERHANG
-----	BUILDING SETBACK LINE
-----	PAVEMENT SETBACK LINE
=====	EDGE OF PAVEMENT
=====	STANDARD CURB AND GUTTER
=====	REJECT CURB AND GUTTER
=====	MOUNTABLE CURB AND GUTTER
=====	8" CONCRETE RIBBON CURB
=====	ASPHALT PAVEMENT
=====	CONCRETE PAVEMENT
-----	RAILING
-----	ADA PARKING SIGN
-----	BOLLARD
-----	BOLLARD WITH ADA PARKING SIGN
-----	BIKE RACK
-----	FENCE



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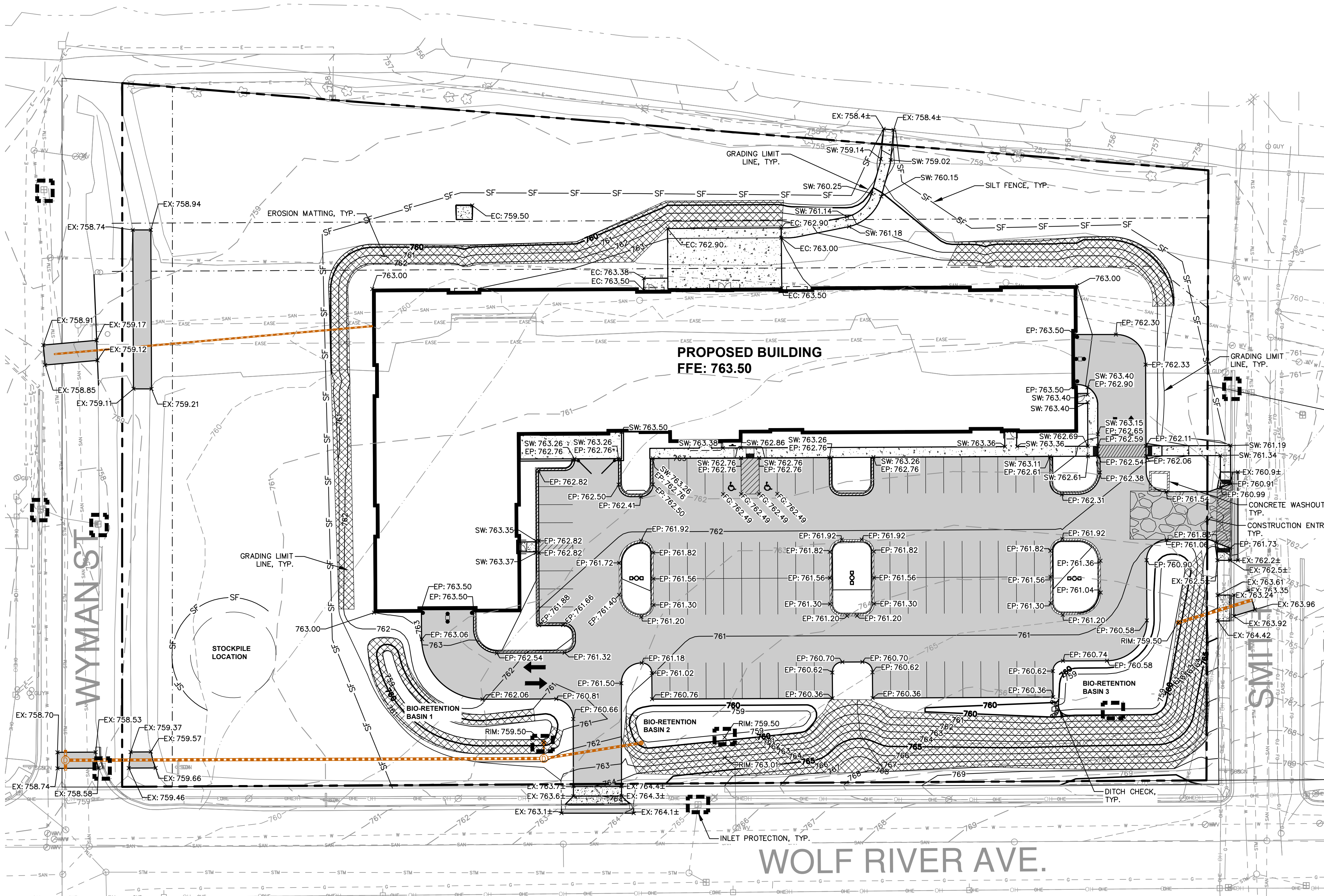
SITE PLAN

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LEGEND

	PROPERTY LINE
	RIGHT-OF-WAY
	EASEMENT LINE
	BUILDING OUTLINE
	BUILDING OVERHANG
	EDGE OF PAVEMENT
	STANDARD CURB AND GUTTER
	REJECT CURB AND GUTTER
	MOUNTABLE CURB AND GUTTER
	8" CONCRETE RIBBON CURB
	ASPHALT PAVEMENT
	CONCRETE PAVEMENT
	PROPOSED 1 FOOT CONTOUR
	PROPOSED 5 FOOT CONTOUR
	EXISTING 1 FOOT CONTOUR
	EXISTING 5 FOOT CONTOUR
	STORMWATER MANAGEMENT AREA
	RAILING
	SILT FENCE
	RIP-RAP
	CONSTRUCTION ENTRANCE
	EROSION MATTING
	TURF REINFORCEMENT MATTING
	SPOT ELEVATION
	EP - EDGE OF PAVEMENT
	FG - FINISH GRADE
	EC - EDGE OF CONCRETE
	BOC - BACK OF CURB
	MATCH - MATCH EXISTING GRADE
	HP - HIGH POINT
	SW - SIDEWALK
	DITCH CHECK
	INLET PROTECTION



CONSTRUCTION SEQUENCING

1. INSTALL PERIMETER SILT FENCE, INLET PROTECTION AND TEMPORARY CONSTRUCTION ENTRANCE.
2. STRIP AND STOCKPILE TOPSOIL, INSTALL SILT FENCE AROUND PERIMETER OF STOCKPILE.
3. ROUGH GRADE BIO-RETENTION BASINS AND INSTALL BASIN.
4. INSTALL UTILITY PIPING AND STRUCTURES, IMMEDIATELY INSTALL INLET PROTECTION.
5. COMPLETE FINAL GRADING, INSTALLATION OF GRAVEL BASE COURSES, PLACEMENT OF CURBS, PAVEMENTS, WALKS, ETC.
6. PLACE TOPSOIL AND IMMEDIATELY STABILIZE DISTURBED AREAS WITH EROSION CONTROL MEASURES AS INDICATED ON PLANS.
7. RESTORE BIO-RETENTION BASINS (FINAL GRADE BIO-RETENTION BASINS PER PLAN REQUIREMENTS)
8. EROSION CONTROLS SHALL NOT BE REMOVED UNTIL SITE IS FULLY STABILIZED OR 70% VEGETATIVE COVER IS ESTABLISHED.

CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM NO. 1 AS NEEDED TO COMPLETE CONSTRUCTION IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS.

EROSION CONTROL NOTES

1. CONTRACTOR IS RESPONSIBLE TO NOTIFY ENGINEER OF RECORD AND OFFICIALS OF ANY CHANGES TO THE EROSION CONTROL AND STORMWATER MANAGEMENT PLANS. ENGINEER OF RECORD AND APPROPRIATE CITY OF NEW LONDON OFFICIALS MUST APPROVE ANY CHANGES PRIOR TO DEVIATION FROM THE APPROVED PLANS.
2. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED BY THE CONTRACTOR IN ACCORDANCE WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) TECHNICAL STANDARDS (REFERRED TO AS BMP'S) AND CITY OF NEW LONDON ORDINANCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COPY OF THESE STANDARDS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL EROSION CONTROL MEASURES WHICH MAY BE NECESSARY TO MEET UNFORESEEN FIELD CONDITIONS.
3. INSTALL PERIMETER EROSION CONTROL MEASURES (SUCH AS CONSTRUCTION ENTRANCES, SILT FENCE AND EXISTING INLET PROTECTION) PRIOR TO ANY SITE WORK, INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE COVER, AS SHOWN ON PLAN. MODIFICATIONS TO THE APPROVED EROSION CONTROL DESIGN IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS IS ALLOWED IF MODIFICATIONS CONFORM TO BMP'S. ALL DESIGN MODIFICATIONS MUST BE APPROVED BY THE CITY OF NEW LONDON PRIOR TO DEVIATION OF THE APPROVED PLAN.
4. ADDITIONAL EROSION CONTROL MEASURES, AS REQUESTED BY STATE INSPECTORS, LOCAL INSPECTORS, COUNTY INSPECTORS AND/OR ENGINEER OF RECORD SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST.
5. INSPECTIONS AND MAINTENANCE OF ALL EROSION CONTROL MEASURES SHALL BE ROUTINE (ONCE PER WEEK MINIMUM) TO ENSURE PROPER FUNCTION OF EROSION CONTROLS AT ALL TIMES. EROSION CONTROL MEASURES ARE TO BE IN WORKING ORDER AT THE END OF EACH WORK DAY.
6. ALL EROSION AND SEDIMENT CONTROL ITEMS SHALL BE INSPECTED WITHIN 24 HOURS OF ALL RAIN EVENTS EXCEEDING 0.5 INCHES. ANY DAMAGED EROSION CONTROL MEASURES SHALL BE REPAIRED OR REPLACED IMMEDIATELY UPON INSPECTION.
7. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL LOCATIONS OF VEHICLE INGRESS/EGRESS POINTS. ADDITIONAL LOCATIONS OTHER THAN AS SHOWN ON THE PLANS MUST BE PRIOR APPROVED BY THE MUNICIPALITY. CONSTRUCTION ENTRANCES SHALL BE 50' LONG AND NO LESS THAN 12" THICK BY USE OF 3" CLEAR STONE. CONSTRUCTION ENTRANCES SHALL BE MAINTAINED BY THE CONTRACTOR IN A CONDITION WHICH WILL PREVENT THE TRACKING OF MUD OR DRY SEDIMENT ONTO ADJACENT PUBLIC STREETS AFTER EACH WORKING DAY OR MORE FREQUENTLY AS REQUIRED.
8. PAVED SURFACES ADJACENT TO CONSTRUCTION SITE VEHICLE ACCESS SHALL BE SWEEP AND/OR SCRAPED TO REMOVE ACCUMULATED SOIL, DIRT AND/OR DUST AFTER THE END OF EACH WORK DAY AND AS REQUESTED BY THE CITY OF NEW LONDON.
9. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER AND SILT FENCE SHALL BE IMMEDIATELY FITTED AT ALL INSTALLED CULVERT INLETS TO PREVENT SEDIMENT DEPOSITION WITHIN STORM SEWER SYSTEMS.
10. INSTALL EROSION CONTROLS ON THE DOWNSTREAM SIDE OF STOCKPILES. IF STOCKPILE REMAINS UNDISTURBED FOR MORE THAN SEVEN (7) DAYS, TEMPORARY SEEDING AND STABILIZATION IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES IS REQUIRED. IF DISTURBANCE OCCURS BETWEEN NOVEMBER 15TH AND MAY 15TH, THE MULCHING SHALL BE PERFORMED BY HYDRO-MULCHING WITH A TACKIFIER.
11. DITCH CHECKS AND APPLICABLE EROSION NETTING/MATting SHALL BE INSTALLED IMMEDIATELY AFTER COMPLETION OF GRADING EFFORTS WITHIN DITCHES/SWALES TO PREVENT SOIL TRANSPORTATION.
12. EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, SANITARY SEWER, WATER MAIN, ETC.):
 - A. PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
 - B. BACKFILL, COMPACT, AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
 - C. DISCHARGE TRENCH WATER INTO A SEDIMENTATION BASIN OR FILTERING TANK IN ACCORDANCE WITH THE DEWATERING TECHNICAL STANDARD NO. 1061 PRIOR TO RELEASE INTO THE STORM SEWER, RECEIVING STREAM, OR DRAINAGE DITCH.
13. ALL SLOPES 4:1 OR GREATER SHALL BE STABILIZED WITH CLASS I, TYPE B EROSION MATTING OR APPLICATION OF A WISCONSIN DEPARTMENT OF TRANSPORTATION (WisDOT) APPROVED POLYMER SOIL STABILIZATION TREATMENT OR A COMBINATION THEREOF, AS REQUIRED WITHIN 7 DAYS OF REACHING FINAL GRADE AND/OR AS SOON AS CONDITIONS ALLOW. DRAINAGE SWALES SHALL BE STABILIZED WITH CLASS II, TYPE B EROSION MATTING. EROSION MATTING AND/OR NETTING USED ON SITE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND WDNR TECHNICAL STANDARDS 1052 AND 1053.
14. CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO CONTROL DUST ARISING FROM CONSTRUCTION OPERATIONS. REFER TO WDNR TECHNICAL STANDARD 1068.
15. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL LAND DISTURBING CONSTRUCTION ACTIVITY AT THE SITE HAS BEEN COMPLETED AND THAT A UNIFORM PERENNIAL VEGETATIVE COVER HAS BEEN ESTABLISHED WITH A DENSITY OF AT LEAST 70% FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES OR THAT EMPLOY EQUIVALENT PERMANENT STABILIZATION MEASURES.
16. CONTRACTOR/OWNER SHALL FILE A NOTICE OF TERMINATION UPON COMPLETION OF THE PROJECT IN ACCORDANCE WITH WDNR REQUIREMENTS AND/OR PROPERTY SALE IN ACCORDANCE WITH WDNR REQUIREMENTS.
17. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. NO MORE THAN SEVEN (7) DAYS SHALL PASS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS CEASED UNLESS:
 - 17.1. CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN FOURTEEN (14) DAYS FROM WHEN ACTIVITY CEASED, (I.E. THE TOTAL TIME PERIOD THAT THE CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN FOURTEEN (14) DAYS. IN THAT EVENT, STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED.
 - 17.2. STABILIZATION MEASURES SHALL BE DETERMINED BASED ON SITE CONDITIONS AT THE TIME OF CONSTRUCTION ACTIVITY HAS CEASED, INCLUDING BUT NOT LIMITED TO WEATHER CONDITIONS AND LENGTH OF TIME MEASURE MUST BE EFFECTIVE. THE FOLLOWING ARE ACCEPTABLE STABILIZATION MEASURES:
 - PERMANENT SEEDING; IN ACCORDANCE WITH APPROVED CONSTRUCTION SPECIFICATION
 - TEMPORARY SEEDING; MAY CONSIST OF SPRING OATS(100LBS/ACRE) AND/OR WHEAT OR CEREAL RYE (150LBS/ACRE)
 - HYDRO-MULCHING WITH A TACKIFIER
 - GEOTEXTILE EROSION MATTING
 - SODDING

GRADING AND SEEDING NOTES

1. ALL PROPOSED GRADES SHOWN ARE FINISHED GRADES. CONTRACTOR SHALL VERIFY ALL GRADES. MAKE SURE ALL AREAS DRAIN PROPERLY AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR COMPUTATIONS OF ALL GRADING QUANTITIES. WHILE JSD PROFESSIONAL SERVICES, INC. ATTEMPTS TO PROVIDE A COST EFFECTIVE APPROACH TO BALANCE EARTHWORK, GRADING DESIGN IS BASED ON MANY FACTORS, INCLUDING SAFETY, AESTHETICS, AND COMMON ENGINEERING STANDARDS OF CARE. THEREFORE, NO GUARANTEE CAN BE MADE FOR A BALANCED SITE.
3. PARKING LOT AND DRIVEWAY ELEVATIONS ARE PAVEMENT GRADES, NOT TOP OF CURB GRADES, UNLESS OTHERWISE NOTED.
4. ANY WORK WITHIN RIGHT-OF-WAY SHALL BE PROPERLY PERMITTED AND COORDINATED WITH THE APPROPRIATE OFFICIALS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. ALL GRADING WITHIN RIGHT-OF-WAY IS SUBJECT TO APPROVAL BY SAID OFFICIALS.
5. CONTRACTOR SHALL PROVIDE NOTICE TO THE MUNICIPALITY IN ADVANCE OF ANY SOIL DISTURBING ACTIVITIES, IN ACCORDANCE WITH MUNICIPAL REQUIREMENTS.
6. ALL DISTURBED AREAS SHALL BE SODDED AND/OR SEEDDED AND MULCHED IMMEDIATELY FOLLOWING GRADING ACTIVITIES. SOD/SEED MIX TO BE IN ACCORDANCE WITH LANDSCAPE PLAN.
7. CONTRACTOR SHALL CHISEL-PLOW OR DEEP TILL WITH DOUBLE TINES ALL STORMWATER MANAGEMENT FACILITIES JUST PRIOR TO SODDING AND/OR SEEDING AND MULCHING TO PROMOTE INFILTRATION.
8. CONTRACTOR SHALL WATER ALL NEWLY SODDED/SEEDDED AREAS DURING THE SUMMER MONTHS WHENEVER THERE IS A 7 DAY LAPSE WITH NO SIGNIFICANT RAINFALL.
9. CONTRACTOR TO DEEP TILL ALL COMPACTED PEROVIOUS SURFACES PRIOR TO SODDING AND/OR SEEDING AND MULCHING.
10. ALL SLOPES 20% OR GREATER SHALL BE TEMPORARY SEEDDED, MULCHED, OR OTHER MEANS OF COVER PLACED ON THEM WITHIN 2 WEEKS OF DISTURBANCE.
11. ALL EXPOSED SOIL AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH LAND DISTURBING ACTIVITIES WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 30 DAYS AND REQUIRE VEGETATIVE COVER FOR LESS THAN 1 YEAR, REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1059 AND CITY OF NEW LONDON ORDINANCE.



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Designed By: CEJ
Reviewed By: SJB
Approved By: JLF

SHEET TITLE:

GRADING PLAN &
EROSION CONTROL PLAN

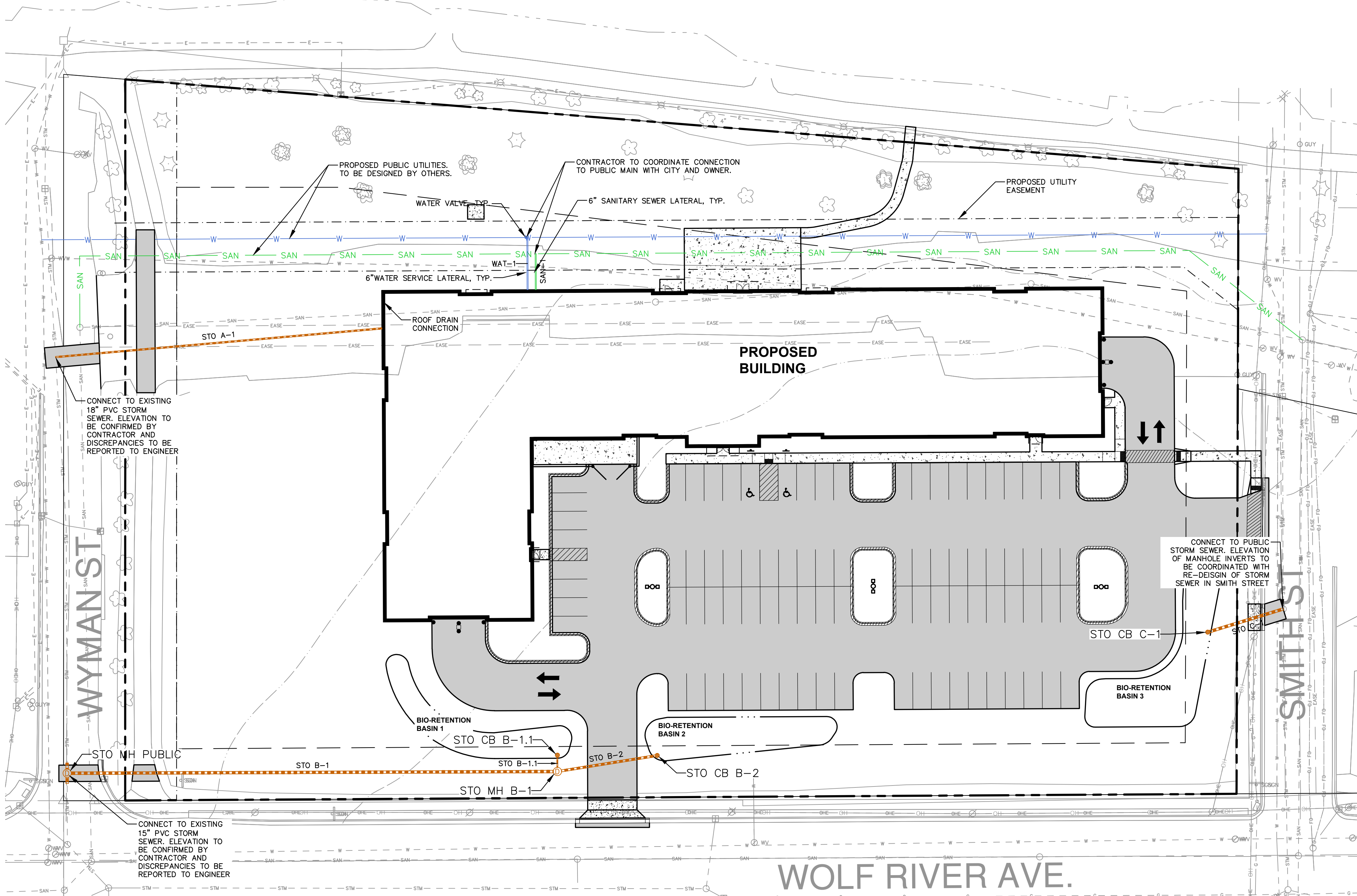
SHEET NUMBER:

C3.0

JSD PROJECT NO:

22-11383-MF

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PROPOSED STORM SEWER PIPE TABLE						
LABEL	FROM	TO	LENGTH	INVERT EL. (FT)	DISCHARGE EL. (FT)	SLOPE
STO A-1	BUILDING	MAIN	159'	756.50	752.50	2.51%
STO B-1	STO MH B-1	STO MH PUBLIC	239'	755.83	753.50	0.98%
STO B-1.1	STO CB B-1.1	STO MH B-1	8'	756.40	756.24	2.00%
STO B-2	STO CB B-2	STO MH B-1	49'	756.40	755.93	0.96%
STO C-1	STO CB C-1	EXISTING MH	38'	756.40	756.21	0.50%
SIZE & MATERIAL						
8 IN HDPE						
15 IN HDPE						
6 IN HDPE						
12 IN HDPE						
15 IN HDPE						

PROPOSED SANITARY SEWER PIPE TABLE						
LABEL	FROM	TO	LENGTH	INVERT EL. (FT)	DISCHARGE EL. (FT)	SLOPE
SAN-1	BUILDING	PUBLIC MAIN	17'	757.00	756.65	2.00%
SIZE & MATERIAL						
6 IN PVC						

PROPOSED STORM SEWER STRUCTURE TABLE					
LABEL	RIM EL. (FT)	INVERT EL. (FT)	DEPTH (FT)	STRUCTURE DESC.	FRAME & GRATE
STO CB B-1.1	759.50	S INV: 756.40 (6")	3.6	36 IN MH (FLAT)	R-2560-E6 BEEHIVE
STO CB B-2	759.50	W INV: 756.40 (12")	3.6	36 IN MH (FLAT)	R-2560-E6 BEEHIVE
STO CB C-1	759.50	E INV: 756.40 (15")	3.6	36 IN MH (FLAT)	R-2560-E6 BEEHIVE
STO MH B-1	761.61	W INV: 755.83 (15") E INV: 755.93 (12") N INV: 756.24 (6")	5.8	48 IN MH (FLAT)	R-1556 SOLID LID
STO MH PUBLIC	758.82	N INV: 753.16 (15") E INV: 753.50 (15") S INV: 753.16 (15")	5.7	48 IN MH (FLAT)	R-1556 SOLID LID

LEGEND

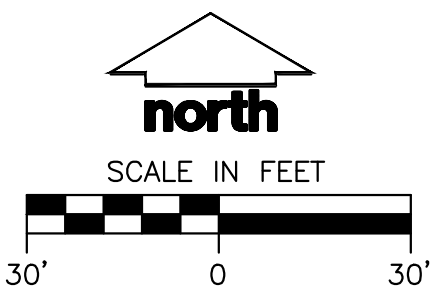
- PROPERTY LINE
- RIGHT-OF-WAY
- EASEMENT LINE
- BUILDING OUTLINE
- BUILDING OVERHANG
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- MOUNTABLE CURB AND GUTTER
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- STORMWATER MANAGEMENT AREA
- RAILING
- SANITARY SEWER
- WATERMAIN
- STORM SEWER

UTILITY NOTES

- ALL EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATIONS OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR/OWNER SHALL CALL "DIGGER'S HOTLINE" PRIOR TO ANY CONSTRUCTION.
- PRIOR TO CONSTRUCTION, THE PRIME CONTRACTOR IS RESPONSIBLE FOR:
 - EXAMINING ALL SITE CONDITIONS RELATIVE TO THE CONDITIONS INDICATED ON THE ENGINEERING DRAWINGS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER AND RESOLVED PRIOR TO THE START OF CONSTRUCTION.
 - OBTAINING ALL PERMITS INCLUDING PERMIT COSTS, TAP FEES, METER DEPOSITS, BONDS, AND ALL OTHER FEES REQUIRED FOR PROPOSED WORK TO OBTAIN OCCUPANCY.
 - VERIFYING ALL ELEVATIONS, LOCATIONS AND SIZES OF SANITARY, WATER AND STORM LATERALS AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS. NOTIFY ENGINEER OF ANY DISCREPANCY. NO WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS RESOLVED.
 - NOTIFYING ALL UTILITIES PRIOR TO INSTALLATION OF ANY UNDERGROUND IMPROVEMENTS.
 - NOTIFYING THE DESIGN ENGINEER AND MUNICIPALITY 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION OBSERVATION.
 - COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.
- ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN - AND ALL STATE AND LOCAL CODES AND SPECIFICATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE WHICH SPECIFICATIONS AND CODES APPLY, AND TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE LOCAL AND STATE AUTHORITIES.
- LENGTHS OF ALL UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLAN. LENGTHS SHALL BE VERIFIED IN THE FIELD DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING THE CONSTRUCTION OF IMPROVEMENTS.
- CONTRACTOR SHALL INSTALL A PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVER NIGHT AS REQUIRED IN CONSTRUCTION SITES WHERE THE POTENTIAL FOR PEDESTRIAN INJURY EXISTS.
- CONTRACTOR SHALL ADJUST AND/OR RECONSTRUCT ALL UTILITY COVERS (SUCH AS MANHOLE COVERS, VALVE BOX COVERS, ETC.) TO MATCH THE FINISHED GRADES OF THE AREAS EFFECTED BY THE CONSTRUCTION.
- THE PRIME CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.
- ANY SANITARY SEWER, SANITARY SEWER SERVICES, WATER MAIN, WATER SERVICES, STORM SEWER, OR OTHER UTILITIES, WHICH ARE DAMAGED BY THE CONTRACTORS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE ENGINEER WITH AS-BUILT CONDITIONS OF THE DESIGNATED IMPROVEMENTS IN ORDER THAT THE APPROPRIATE DRAWINGS CAN BE PREPARED, IF REQUIRED. ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS MUST BE REPORTED TO THE ENGINEER AS WORK PROGRESSES.
- STORM SEWER SPECIFICATIONS -
 - PIPE - HIGH DENSITY DUAL-WALL POLYETHYLENE CORRUGATED PIPE SHALL BE AS MANUFACTURED BY ADS OR EQUAL WITH WATER TIGHT JOINTS, AND SHALL MEET THE REQUIREMENTS OF ASHTO DESIGNATION M-294 TYPE "S".
 - BACKFILL AND BEDDING - STORM SEWER SHALL BE CONSTRUCTED WITH GRAVEL BACKFILL AND CLASS "B" BEDDING IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".
 - MANHOLE FRAMES AND COVERS - MANHOLE FRAMES AND COVERS SHALL BE NEENAH R-1556.
 - FIELD TILE CONNECTION - ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE INCLUDED IN THE UNIT PRICE(S) FOR STORM SEWER. TILE LINES CROSSED BY THE TRENCH SHALL BE REPLACED WITH THE SAME MATERIAL AS THE STORM SEWER.
- WATER MAIN SPECIFICATIONS -
 - PIPE - DUCTILE IRON PIPE SHALL BE CLASS 52 CONFORMING TO AWWA C151 AND CHAPTER 8.18.0 OF THE "STANDARD SPECIFICATIONS". POLYVINYL CHLORIDE (PVC) PIPE SHALL MEET THE REQUIREMENTS OF AWWA STANDARD C-900, CLASS 150, DR-18, WITH CAST IRON O.D. AND INTEGRAL ELASTOMERIC BELL AND SPIGOT JOINTS. NON-METALLIC WATER MAINS SHALL BE INSTALLED WITH BLUE INSULATION TRACER WIRE AND CONFORM WITH SPS 382.30(11)(h).
 - VALVES AND VALVE BOXES - GATE VALVES SHALL BE AWWA GATE VALVES MEETING THE REQUIREMENTS OF AWWA C-500 AND CHAPTER 8.27.0 OF THE "STANDARD SPECIFICATIONS". GATE VALVES AND VALVE BOXES SHALL CONFORM TO LOCAL PLUMBING ORDINANCES.
 - HYDRANTS - HYDRANTS SHALL CONFORM TO THE SPECIFICATIONS OF THE CITY OF NEW LONDON. THE DISTANCE FROM THE GROUND LINE TO THE CENTERLINE OF THE LOWEST NOZZLE AND THE LOWEST CONNECTION OF THE FIRE DEPARTMENT SHALL BE NO LESS THAN 18-INCHES AND NO GREATER THAN 23-INCHES (SEE DETAIL).
 - BEDDING AND COVER MATERIAL - PIPE BEDDING AND COVER MATERIAL SHALL BE SAND, CRUSHED STONE CHIPS OR CRUSHED STONE SCREENINGS CONFORMING TO CHAPTER 8.43.2 OF THE "STANDARD SPECIFICATIONS".
 - BACKFILL - BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS". GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".
- SANITARY SEWER SPECIFICATIONS -
 - PIPE - SANITARY SEWER PIPE MATERIAL SHALL BE POLYVINYL CHLORIDE (PVC) MEETING REQUIREMENTS OF ASTM D 3034, SDR-35, WITH INTEGRAL BELL TYPE FLEXIBLE ELASTOMERIC JOINTS, MEETING THE REQUIREMENTS OF ASTM D-3212.
 - BEDDING AND COVER MATERIAL - BEDDING AND COVER MATERIAL SHALL CONFORM TO THE APPROPRIATE SECTIONS OF THE "STANDARD SPECIFICATION" WITH THE FOLLOWING MODIFICATION: "COVER MATERIAL SHALL BE THE SAME AS USED FOR BEDDING AND SHALL CONFORM TO SECTION 8.43.2 (A). BEDDING AND COVER MATERIAL SHALL BE PLACED IN A MINIMUM OF THREE SEPARATE LIFTS, OR AS REQUIRED TO INSURE ADEQUATE COMPACTING OF THESE MATERIALS, WITH ONE LIFT OF BEDDING MATERIAL ENDING AT OR NEAR THE SPRINGLINE OF THE PIPE. THE CONTRACTOR SHALL TAKE CARE TO COMPLETELY WORK BEDDING MATERIAL UNDER THE HAUNCH OF THE PIPE TO PROVIDE ADEQUATE SIDE SUPPORT."
 - BACKFILL - BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS". GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".
 - MANHOLES - MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH FILE NOS. 12, 13 AND 15 OF THE "STANDARD SPECIFICATIONS" AND ALL SPECIAL PROVISIONS OF THE CITY OF NEW LONDON.
 - MANHOLE FRAMES AND COVERS - MANHOLE FRAMES AND COVERS SHALL BE NEENAH R-1556 WITH SOLID LID.
- WATERMAIN AND SANITARY SEWER SHALL BE INSULATED WHEREVER THE DEPTH OF COVER IS LESS THAN 6 FEET. INSULATION AND INSTALLATION OF INSULATION SHALL BE CONFORMING WITH CHAPTER 4.17.0 "INSULATION" OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN 6TH EDITION UPDATED WITH ITS LATEST ADDENDUM (TYP.).

STORMWATER FACILITIES CONSTRUCTION NOTES

- ENGINEER SHALL BE NOTIFIED PRIOR TO INSTALLATION OF STORMWATER MANAGEMENT FACILITIES. CONSTRUCTION OF STORMWATER MANAGEMENT FACILITIES SHALL BE OBSERVED AND DOCUMENTED BY THE ENGINEER, OR AN OWNER'S REPRESENTATIVE.
- STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AFTER SUBSTANTIAL COMPLETION OF FINAL SITE GRADING AND SOILS HAVE BEEN STABILIZED.
- CONSTRUCTION TRAFFIC, HEAVY EQUIPMENT AND SOIL STOCKPILES SHALL NOT BE PLACED IN AREAS WHERE PROPOSED STORMWATER MANAGEMENT FACILITIES ARE LOCATED.



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P. 715.298.6330

CLIENT:

S.C. SWIDERSKI, LLC

CLIENT ADDRESS:

401 RANGER STREET
MOSINEE, WI 54455

PROJECT:

SCS WOLF RIVER

PROJECT LOCATION:

CITY OF NEW LONDON
WAUPACA COUNTY
WI, 54961

PLAN MODIFICATIONS:

#	Date:	Description:
1	12.23.2022	SCHEMATIC DESIGN
2	01.06.2023	CITY SUBMISSION
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Designed By:	CEJ
Reviewed By:	SJB
Approved By:	JLF
SHEET TITLE:	

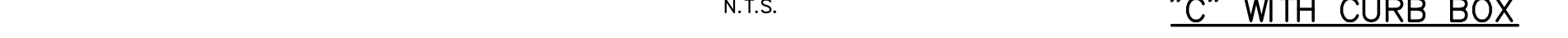
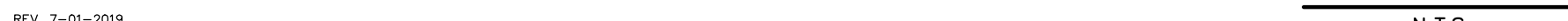
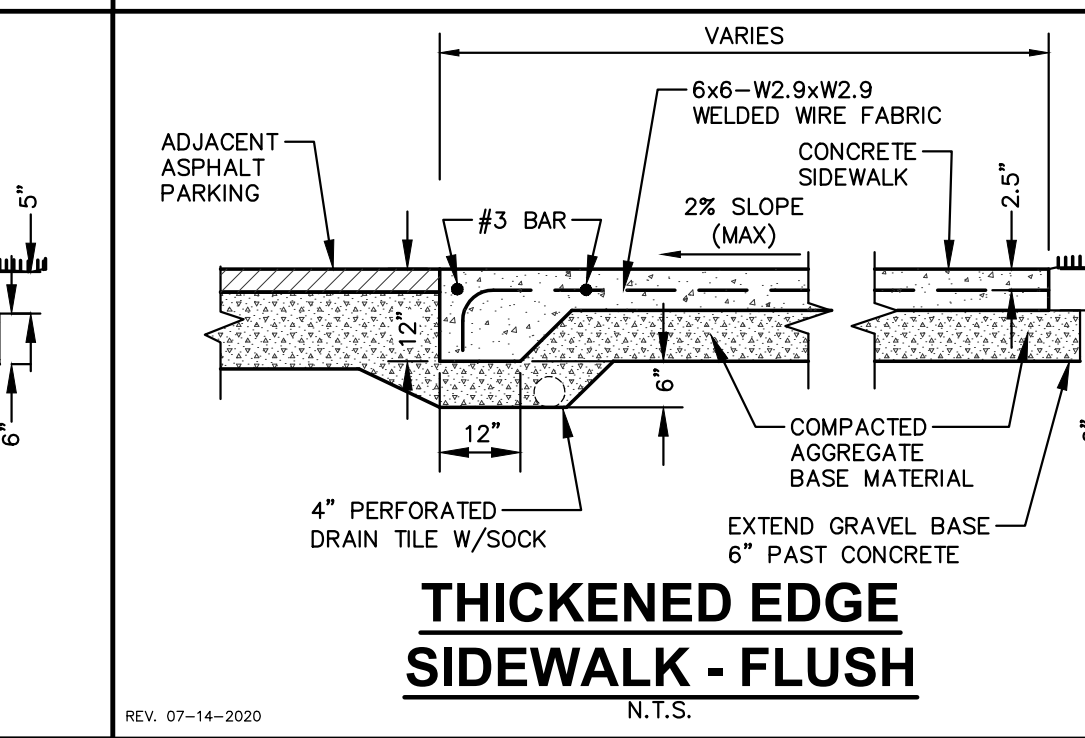
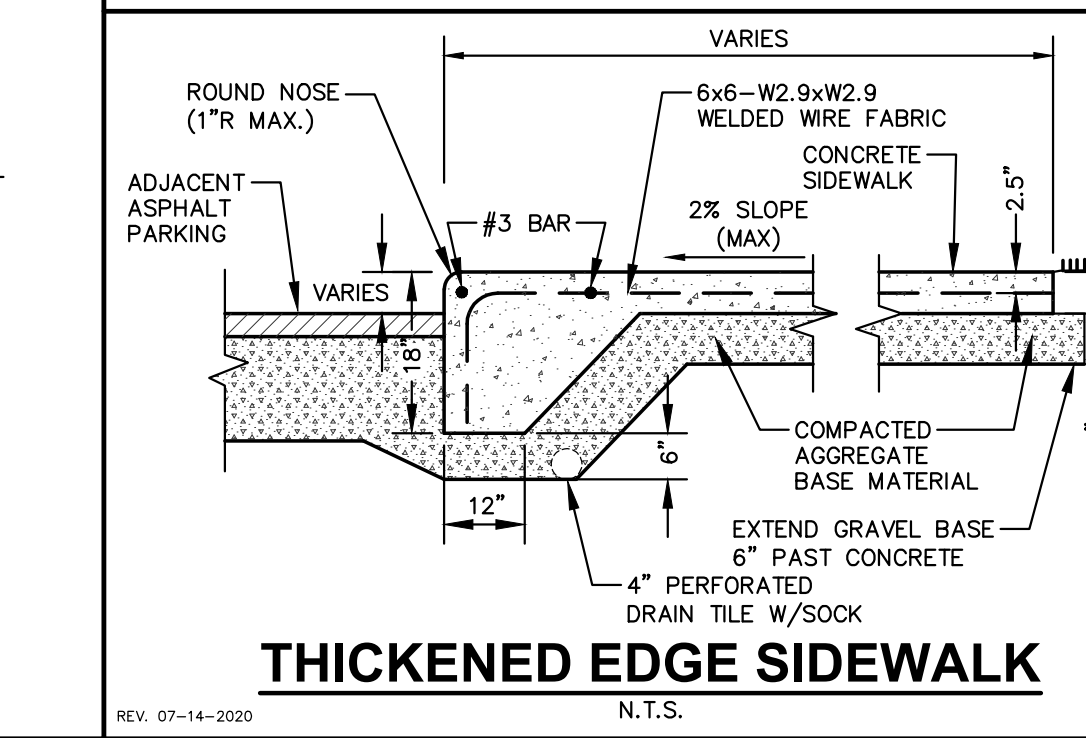
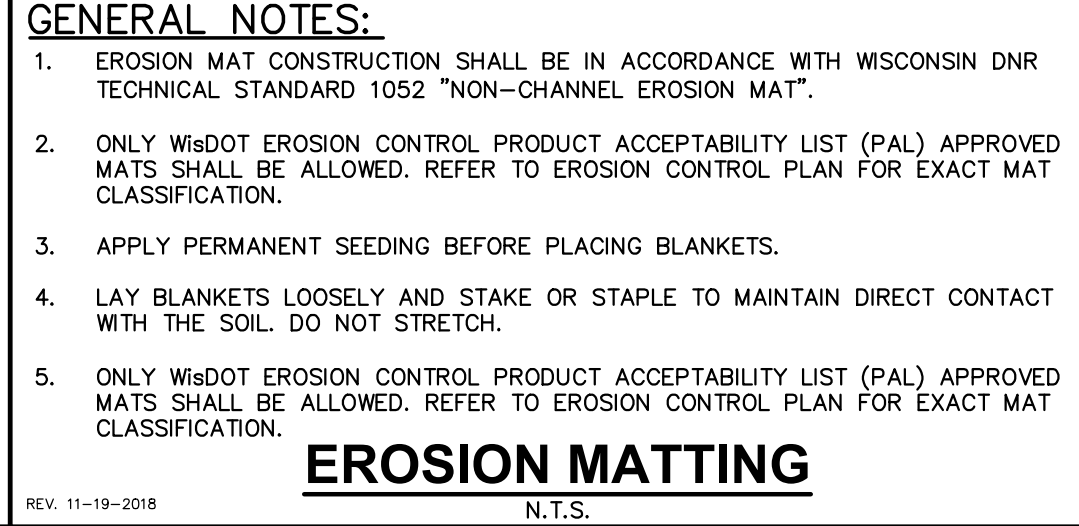
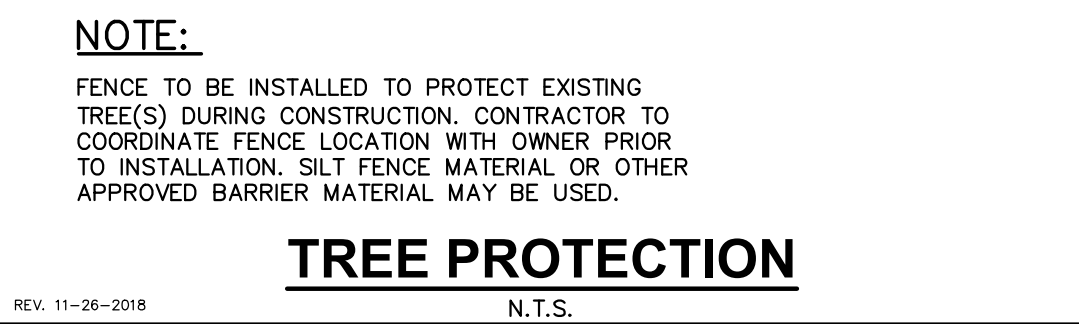
UTILITY PLAN

SHEET NUMBER:

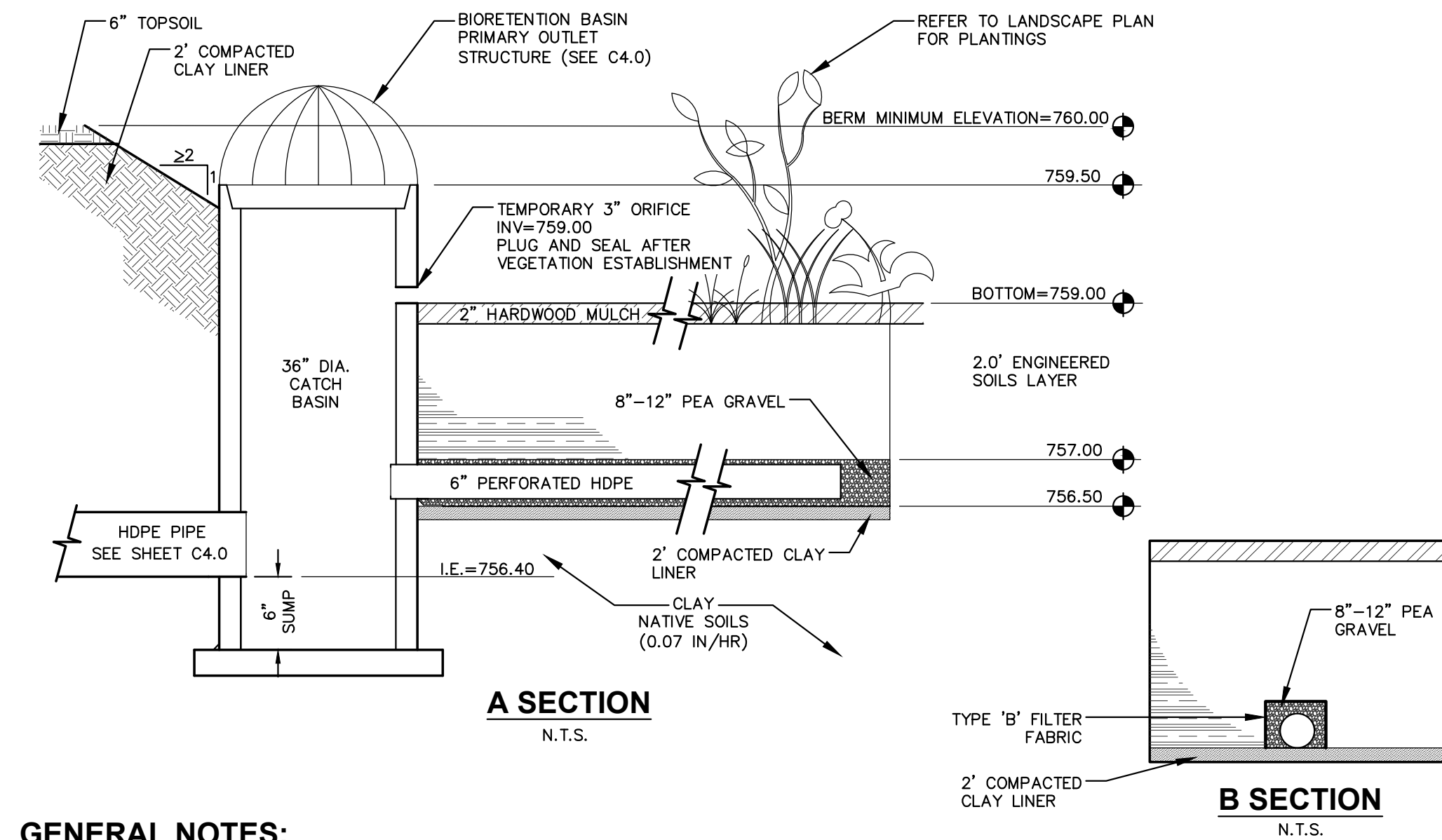
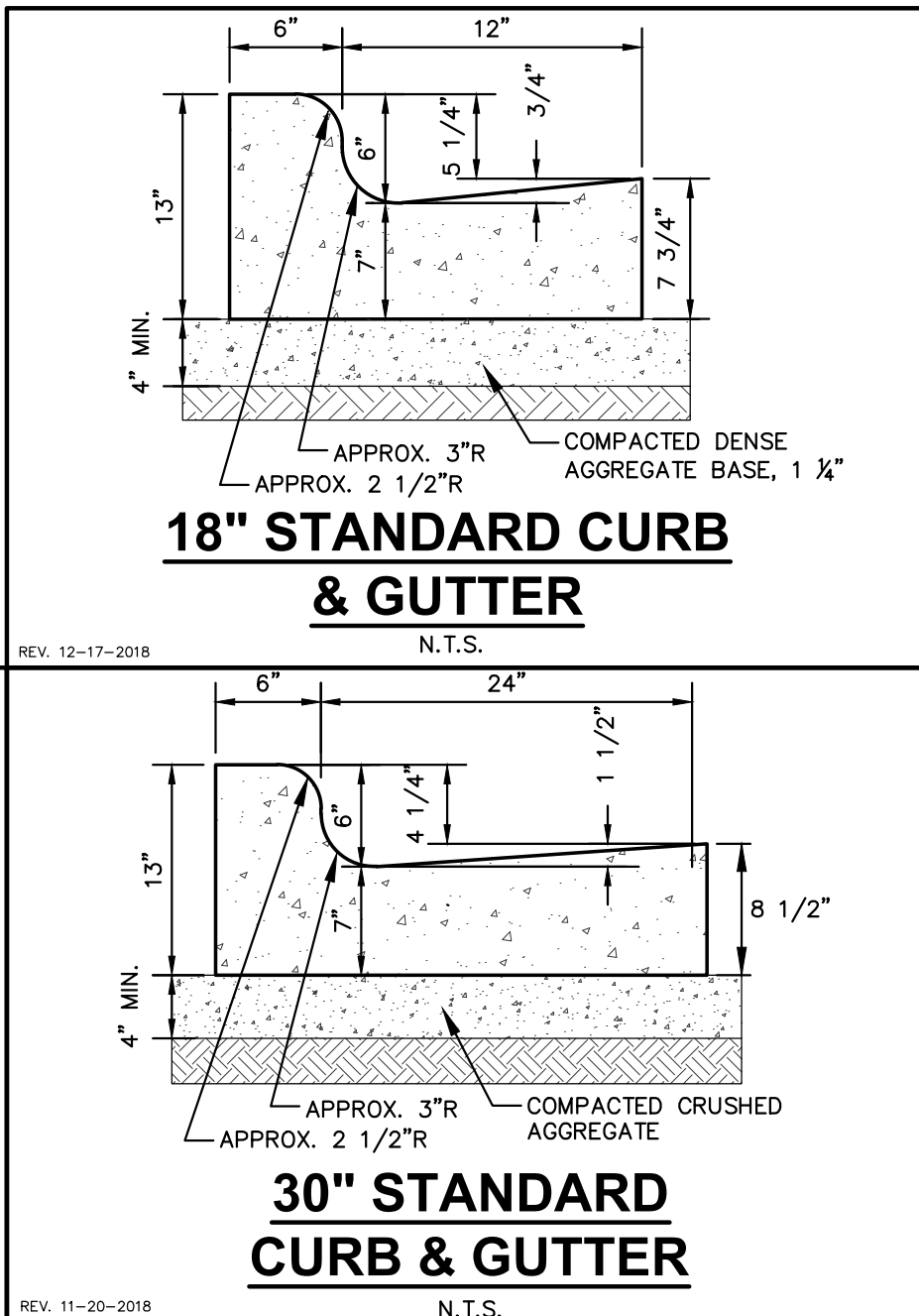
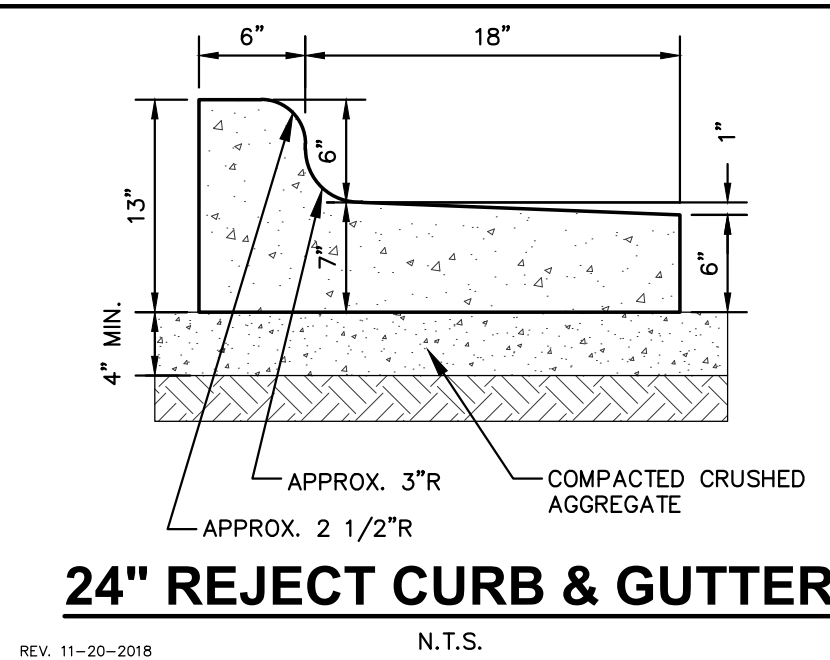
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JSD PROJECT NO:

22-11383-MF

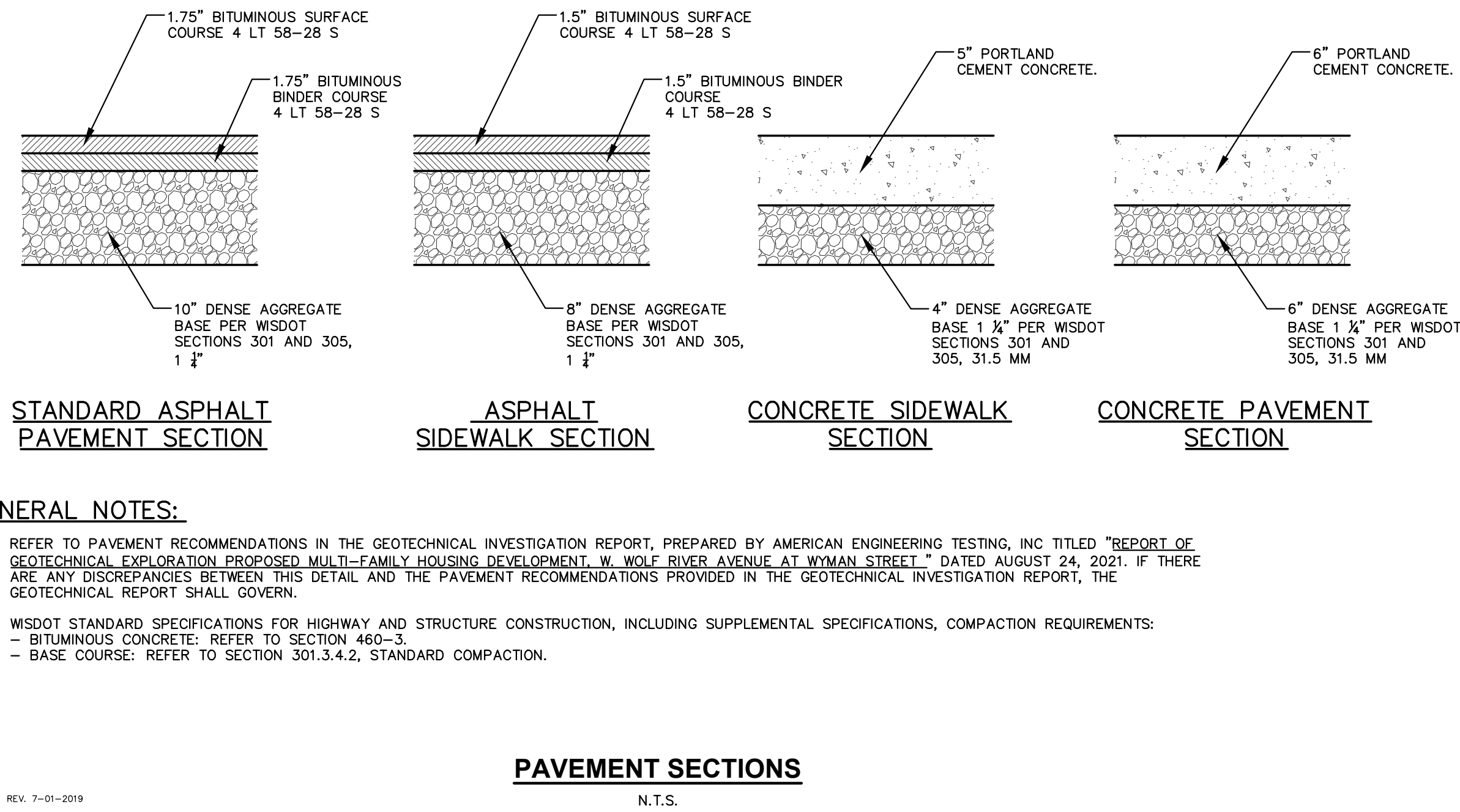
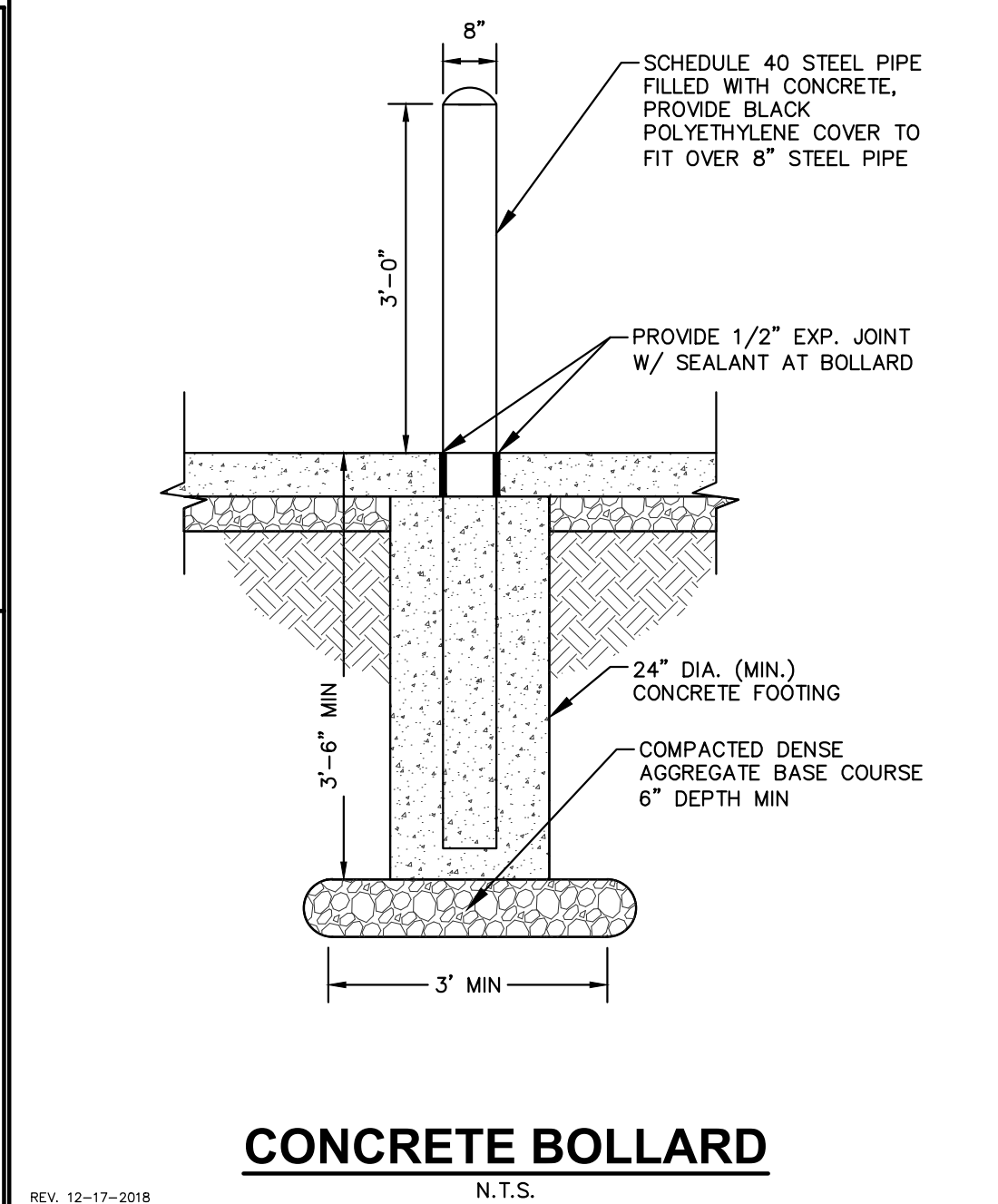
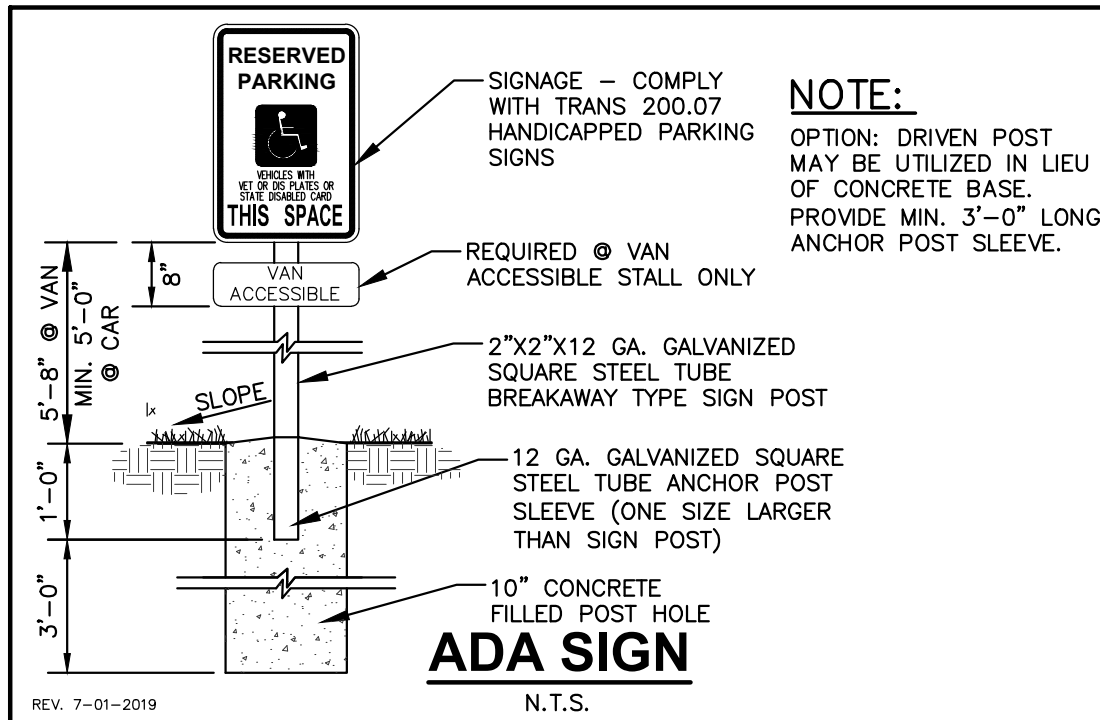


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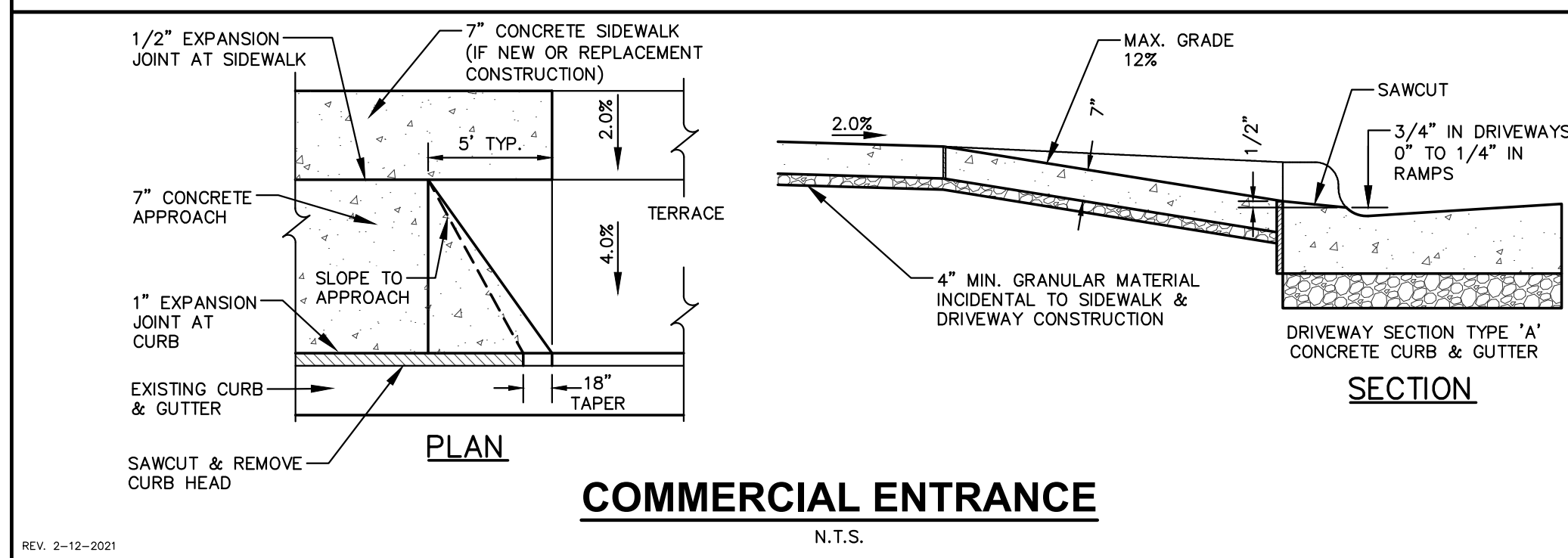
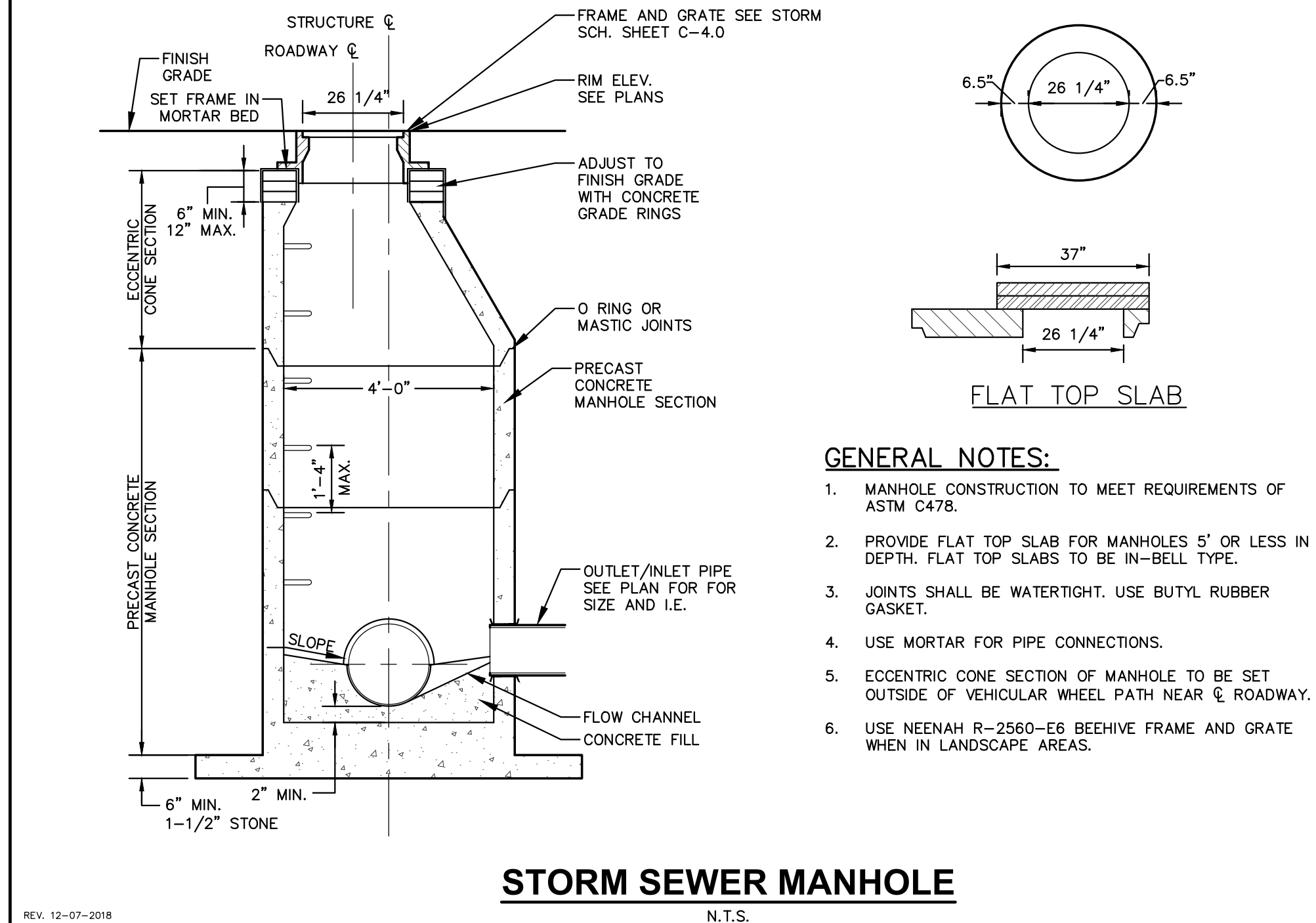
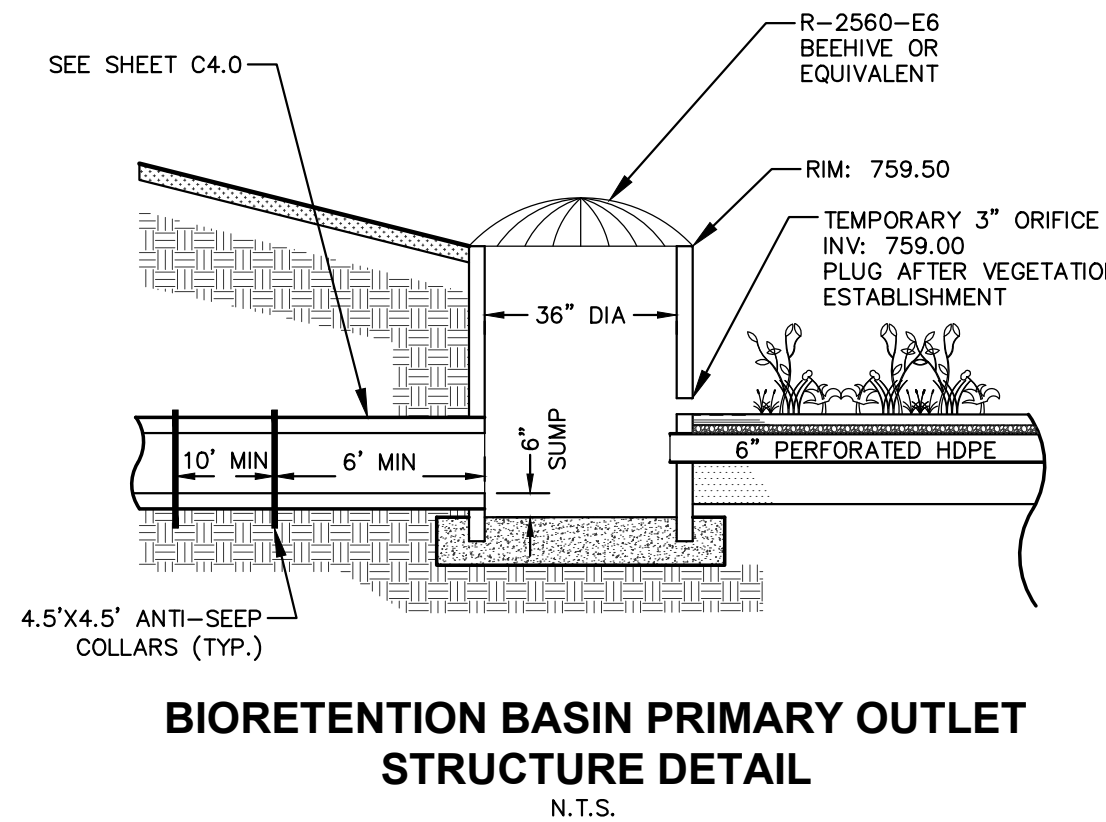


- GENERAL NOTES:**
- ALL CONSTRUCTION PRACTICES SHALL MEET THE SPECIFICATIONS OF THE WDNR TECHNICAL STANDARD 1004 - BIORETENTION FOR INFILTRATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COPY OF THIS STANDARD AND CONSTRUCT THE BIORETENTION DEVICE IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED THEREIN.
 - CONTRACTOR SHALL INSTALL 24\"/>
 - CERTIFIED COMPOST SHALL CONSIST OF: >40% ORGANIC MATTER, <60% ASH CONTENT, pH OF 6-8, AND MOISTURE CONTENT OF 35-50% BY WEIGHT.
 - CLAY LINER SHALL BE A MINIMUM OF 2- FEET THICK. CLAY SHALL BE COMPACTED AT ±2.0% OPTIMAL MOISTURE CONTENT TO 90% MODIFIED PROCTOR. MEDIUM STIFF TO STIFF CLAYS PRESENT IN-PLACE AT THE POND SIDE SLOPES OR BOTTOM OR OTHER ONSITE MEDIUM STIFF TO STIFF CLAYS MAY BE USED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER OF RECORD.
 - IF ADDITIONAL EXCAVATION IS REQUIRED BELOW THE SAND SOIL PROFILE TO REACH THE LISTED NATIVE SOIL LAYER, THE BACKFILL USED TO RETURN THE BOTTOM OF THE BIORETENTION SYSTEM TO THE BOTTOM OF THE SAND LAYER ELEVATION MUST HAVE AN EQUAL OR HIGHER INFILTRATION RATE THAN THE LISTED NATIVE SOIL LAYER AS CONFIRMED BY A GEOTECHNICAL ENGINEER.
 - FILTER FABRIC SHALL BE PLACED ABOVE AND ON THE SIDES OF THE PERFORATED PIPE, BETWEEN THE PEA GRAVEL AND THE ENGINEERED SOIL. A WIDTH OF 4 FEET CENTERED OVER THE FLOW LINE OF THE PIPE.
 - ANNUAL RYE GRASS SHALL BE SEED AT 40 LB/ACRE WITH THE SEED MIX IN THE AREAS SURROUNDING THE BASIN, ON SIDE SLOPES, AND OVER ANY LAND THAT DISCHARGES INTO THE BASIN FOR EROSION CONTROL. WHEN BASIN IS BROUGHT ON-LINE, ROOTSTOP AND PLUGS ARE REQUIRED TO ESTABLISH VEGETATION AT THE INVERT OF THE BASIN.
 - RUNOFF MUST INFILTRATE WITHIN 24-HOURS. BASINS UNABLE TO MAINTAIN THESE RATES MUST BE DEEP TILLED, REGRADED, AND IF NECESSARY REPLANTED TO RESTORE ORIGINAL INFILTRATION RATES.
 - ALL WORK TO BE CONDUCTED IN CONFORMANCE WITH APPLICABLE LOCAL, REGIONAL, AND STATE STORMWATER STANDARDS FOR THE PROJECT SITE AS APPROVED BY THE REGULATORY ENGINEER.
 - SEE LANDSCAPING PLAN AND CONSULT WITH LANDSCAPE ARCHITECT OR ECOLOGICAL PLANTING AGENCY FOR APPROPRIATE SEED MIX, PLANTS AND PLANTING CONFIGURATIONS.
 - THE CONTRACTOR IS REQUIRED TO PROVIDE QUALIFIED STAFF FOR INSPECTION AND OBSERVATION OF THE CONSTRUCTION ACTIVITIES RELATING TO ALL JOB SITE REGULATORY COMPLIANCE INCLUDING THE PROTECTION AND CONSTRUCTION OF ALL STORMWATER MANAGEMENT FEATURES. ANY OBSERVATION OF PLAN OR SITE DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

BIORETENTION BASIN 1, 2, & 3 - CLAY LINED



- GENERAL NOTES:**
- REFER TO PAVEMENT RECOMMENDATIONS IN THE GEOTECHNICAL INVESTIGATION REPORT, PREPARED BY AMERICAN ENGINEERING TESTING, INC TITLED "REPORT OF GEOTECHNICAL EXPLORATION PROPOSED MULTI-FAMILY HOUSING DEVELOPMENT, W. WOLF RIVER AVENUE AT WYMAN STREET," DATED AUGUST 24, 2021. IF THERE ARE ANY DISCREPANCIES BETWEEN THIS DETAIL AND THE PAVEMENT RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL INVESTIGATION REPORT, THE GEOTECHNICAL REPORT SHALL GOVERN.
 - WSDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, INCLUDING SUPPLEMENTAL SPECIFICATIONS, COMPACTION REQUIREMENTS:
 - BITUMINOUS CONCRETE: REFER TO SECTION 460-3.
 - BASE COURSE: REFER TO SECTION 301.3.4.2, STANDARD COMPACTION.



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MOSINEE, WI 54455**

PROJECT:
SCS WOLF RIVER

PROJECT LOCATION:
**CITY OF NEW LONDON
WAUPACA COUNTY
WI, 54961**

PLAN MODIFICATIONS:		
#	Date:	Description:
1	12.23.2022	SCHEMATIC DESIGN
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Designed By: CEJ
Reviewed By: SJB
Approved By: JLF
SHEET TITLE:

CONSTRUCTION DETAILS

SHEET NUMBER:

C5.1

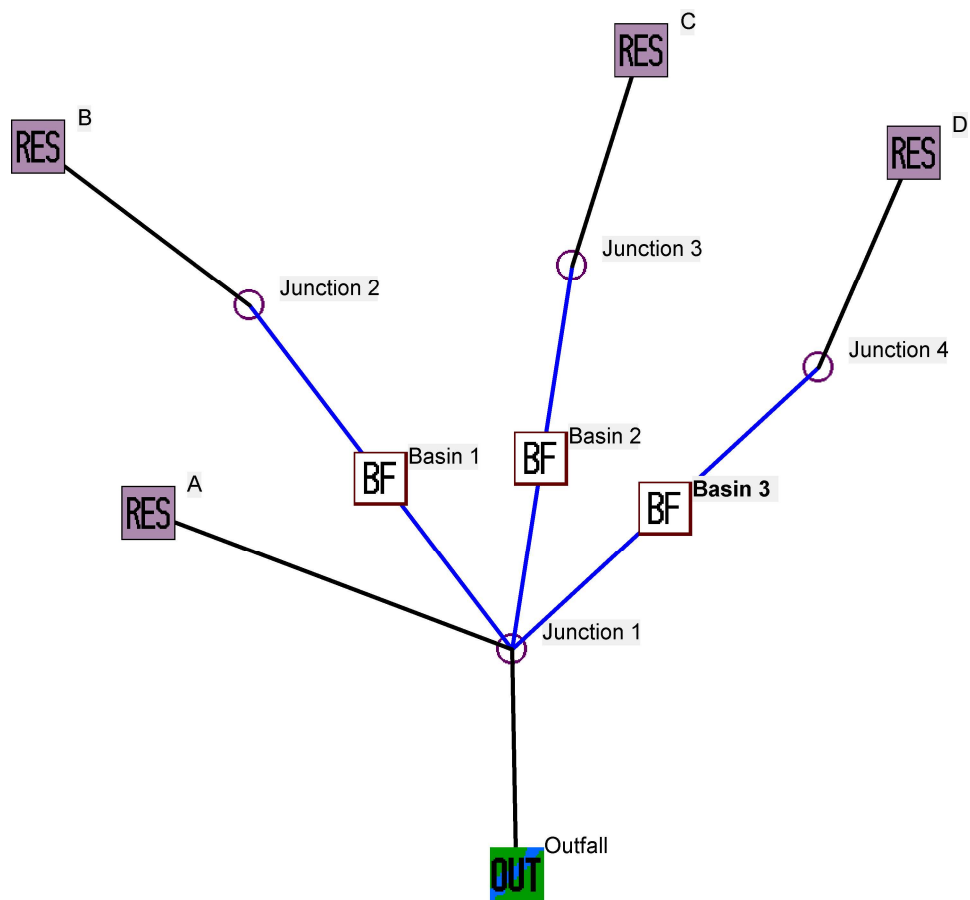
JSD PROJECT NO: 22-11383-MF

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SCALE: 1/2"=1'-0"

APPENDIX 4

WINSLAMM INPUT AND OUTPUTS



Data file name: N:\PROJECTS\2022\2211383\2211383-MF\04 Civil\SWMP\Modeling\WinSLAMM\21-11383-MF WinSLAMM.mdb

WinSLAMM Version 10.4.1

Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Green Bay WI 1969.RAN

Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx

Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx

Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std

Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std

Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std

Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std

Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std

Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std

Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False

Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdx

Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv

Cost Data file name:

Seed for random number generator: -42

Study period starting date: 01/02/69

Study period ending date: 12/28/69

Start of Winter Season: 12/02

End of Winter Season: 03/12

Date: 01-06-2023

Time: 15:27:33

Site information:

LU# 1 - Residential: A Total area (ac): 2.630

1 - Roofs 1: 0.740 ac. Flat Connected PSD File: C:\WinSLAMM Files\NURP.cpz

13 - Paved Parking 1: 0.110 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

31 - Sidewalks 1: 0.060 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 1.720 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 2 - Residential: B Total area (ac): 0.210

13 - Paved Parking 1: 0.090 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 0.100 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz

70 - Water Body Areas: 0.020 ac. PSD File:

LU# 3 - Residential: C Total area (ac): 0.570

13 - Paved Parking 1: 0.370 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

31 - Sidewalks 1: 0.030 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 0.150 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz

70 - Water Body Areas: 0.020 ac. PSD File:

LU# 4 - Residential: D Total area (ac): 0.660

13 - Paved Parking 1: 0.350 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

31 - Sidewalks 1: 0.020 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 0.260 ac. Normal Clayey PSD File: C:\WinSLAMM Files\NURP.cpz

70 - Water Body Areas: 0.030 ac. PSD File:

Control Practice 1: Biofilter CP# 1 (DS) - Basin 3

1. Top area (square feet) = 2485

2. Bottom area (square feet) = 1447

3. Depth (ft): 3.5

4. Biofilter width (ft) - for Cost Purposes Only: 10

5. Infiltration rate (in/hr) = 0

6. Random infiltration rate generation? No

7. Infiltration rate fraction (side): 1

8. Infiltration rate fraction (bottom): 1

9. Depth of biofilter that is rock filled (ft) 0

10. Porosity of rock filled volume = 0

11. Engineered soil infiltration rate: 3.6

12. Engineered soil depth (ft) = 2.5

13. Engineered soil porosity = 0.27

14. Percent solids reduction due to flow through engineered soil = 80

15. Biofilter peak to average flow ratio = 3.8

16. Number of biofiltration control devices = 1

17. Particle size distribution file: Not needed - calculated by program

18. Initial water surface elevation (ft): 0

Soil Data Soil Type Fraction in Eng. Soil

User-Defined Soil Type 1.000

Biofilter Outlet/Discharge Characteristics:

Outlet type: Broad Crested Weir

1. Weir crest length (ft): 5

2. Weir crest width (ft): 5

3. Height of datum to bottom of weir opening: 3.49

Outlet type: Vertical Stand Pipe

1. Stand pipe diameter (ft): 2

2. Stand pipe height above datum (ft): 3

Outlet type: Drain Tile/Underdrain

1. Underdrain outlet diameter (ft): 0.5

2. Invert elevation above datum (ft): 0

3. Number of underdrain outlets: 1

Control Practice 2: Biofilter CP# 2 (DS) - Basin 2

1. Top area (square feet) = 1568
2. Bottom area (square feet) = 975
3. Depth (ft): 3.5
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 0
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 0.001
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 0
10. Porosity of rock filled volume = 0
11. Engineered soil infiltration rate: 3.6
12. Engineered soil depth (ft) = 2.5
13. Engineered soil porosity = 0.27
14. Percent solids reduction due to flow through engineered soil = 80
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0

Soil Data Soil Type Fraction in Eng. Soil

User-Defined Soil Type 1.000

Biofilter Outlet/Discharge Characteristics:

Outlet type: Broad Crested Weir

1. Weir crest length (ft): 5
2. Weir crest width (ft): 5
3. Height of datum to bottom of weir opening: 3.49

Outlet type: Vertical Stand Pipe

1. Stand pipe diameter (ft): 2
2. Stand pipe height above datum (ft): 3

Outlet type: Drain Tile/Underdrain

1. Underdrain outlet diameter (ft): 0.5
2. Invert elevation above datum (ft): 0
3. Number of underdrain outlets: 1

Control Practice 3: Biofilter CP# 3 (DS) - Basin 1

1. Top area (square feet) = 1352
2. Bottom area (square feet) = 677
3. Depth (ft): 3.5
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 0
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 0.001
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 0
10. Porosity of rock filled volume = 0
11. Engineered soil infiltration rate: 3.6
12. Engineered soil depth (ft) = 2.5
13. Engineered soil porosity = 0.27
14. Percent solids reduction due to flow through engineered soil = 80
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0

Soil Data Soil Type Fraction in Eng. Soil

User-Defined Soil Type 1.000

Biofilter Outlet/Discharge Characteristics:

Outlet type: Broad Crested Weir

1. Weir crest length (ft): 5
2. Weir crest width (ft): 5
3. Height of datum to bottom of weir opening: 3.49

Outlet type: Vertical Stand Pipe

1. Stand pipe diameter (ft): 2
2. Stand pipe height above datum (ft): 3

Outlet type: Drain Tile/Underdrain

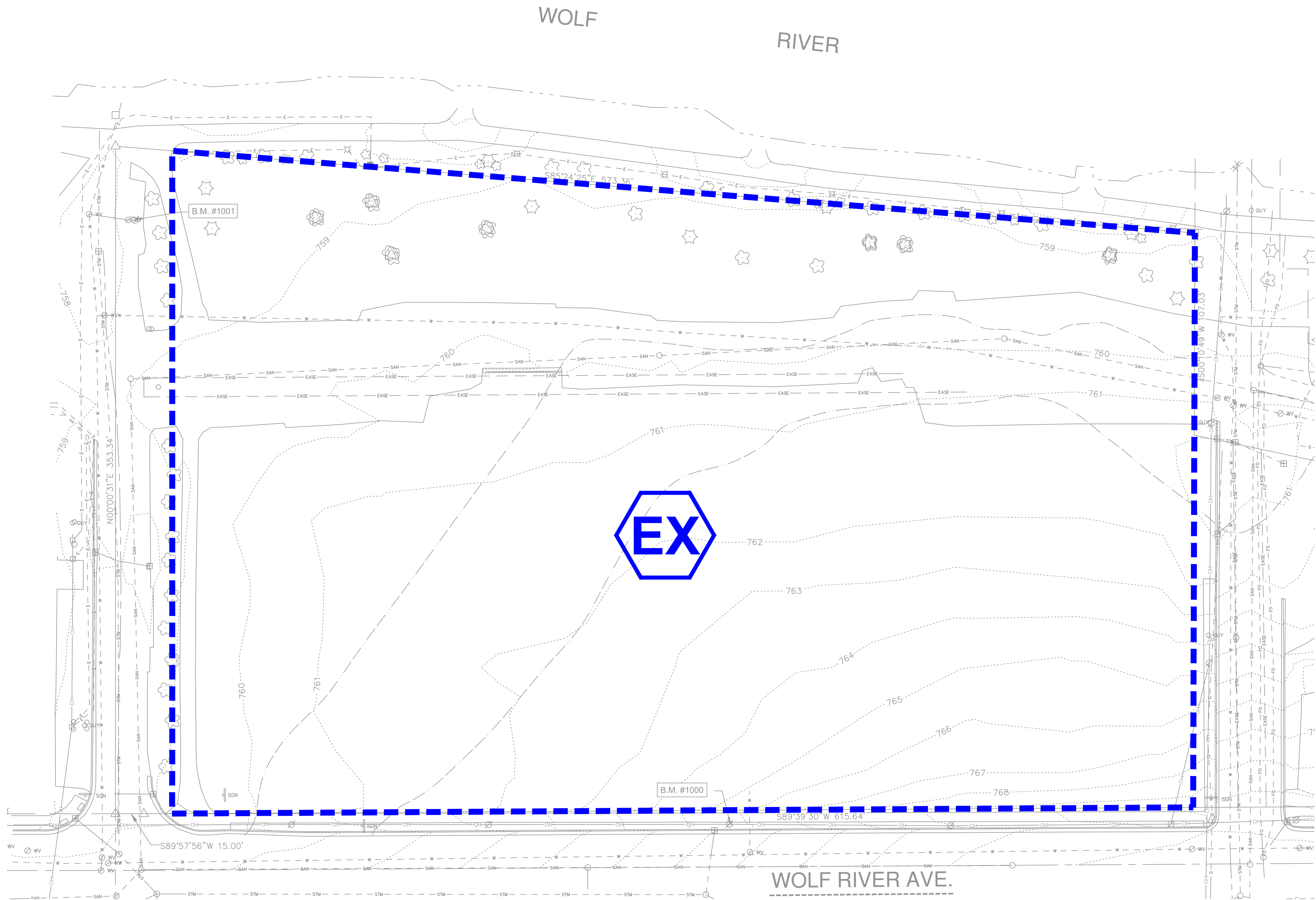
1. Underdrain outlet diameter (ft): 0.5
2. Invert elevation above datum (ft): 0
3. Number of underdrain outlets: 1

Data file name: N:\PROJECTS\2022\2211383_2211383-MF\04 Civil\SWMP\Modeling\WinSLAMM\21-11383-MF WinSLAMM.mdb
WinSLAMM Version 10.4.1
Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Green Bay WI 1969.RAN
Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdx
Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
Seed for random number generator: -42
Study period starting date: 01/02/69 Study period ending date: 12/28/69
Start of Winter Season: 12/02 End of Winter Season: 03/12
Model Run Start Date: 01/02/69 Model Run End Date: 12/28/69
Date of run: 01-06-2023 Time of run: 15:27:13
Total Area Modeled (acres): 4.070
Years in Model Run: 0.99

	Runoff Volume (cu ft)	Percent Runoff Volume Reduction	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Total of all Land Uses without Controls:	126400	-	94.19	743.3	-
Outfall Total with Controls:	126398	0.00%	50.03	394.7	46.90%
Annualized Total After Outfall Controls:	128153			400.2	

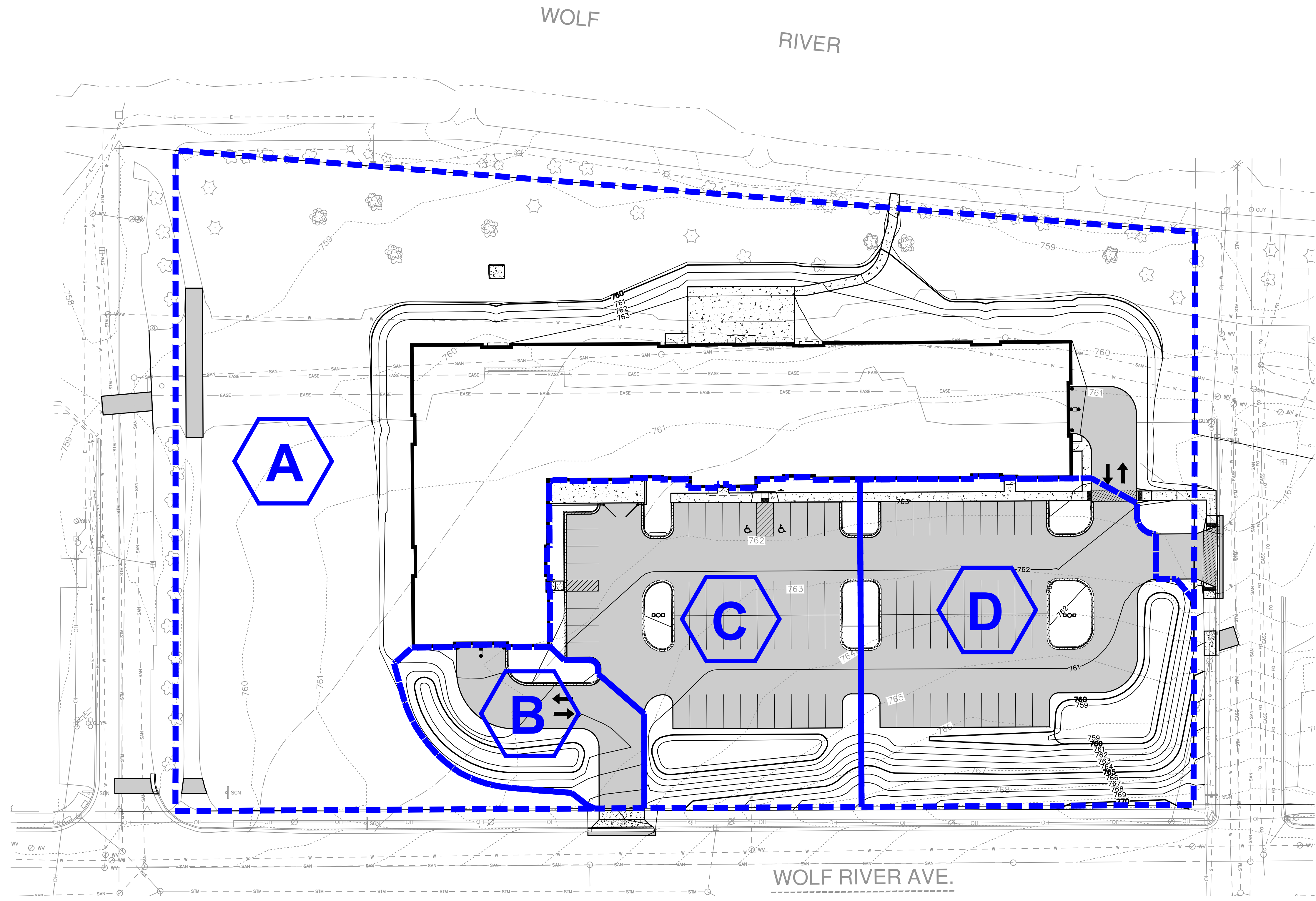
APPENDIX 5

EXISTING WATERSHED MAP
PROPOSED WATERSHED MAP



WATERSHEDS

EX
PAVEMENT: 29,714 SF
PERVIOUS: 147,478 SF



WATERSHEDS

A — LU#1
ROOF: 32,033 SF
SIDEWALK: 2,514 SF
PAVEMENT: 4,905 SF
PERVIOUS: 74,890 SF

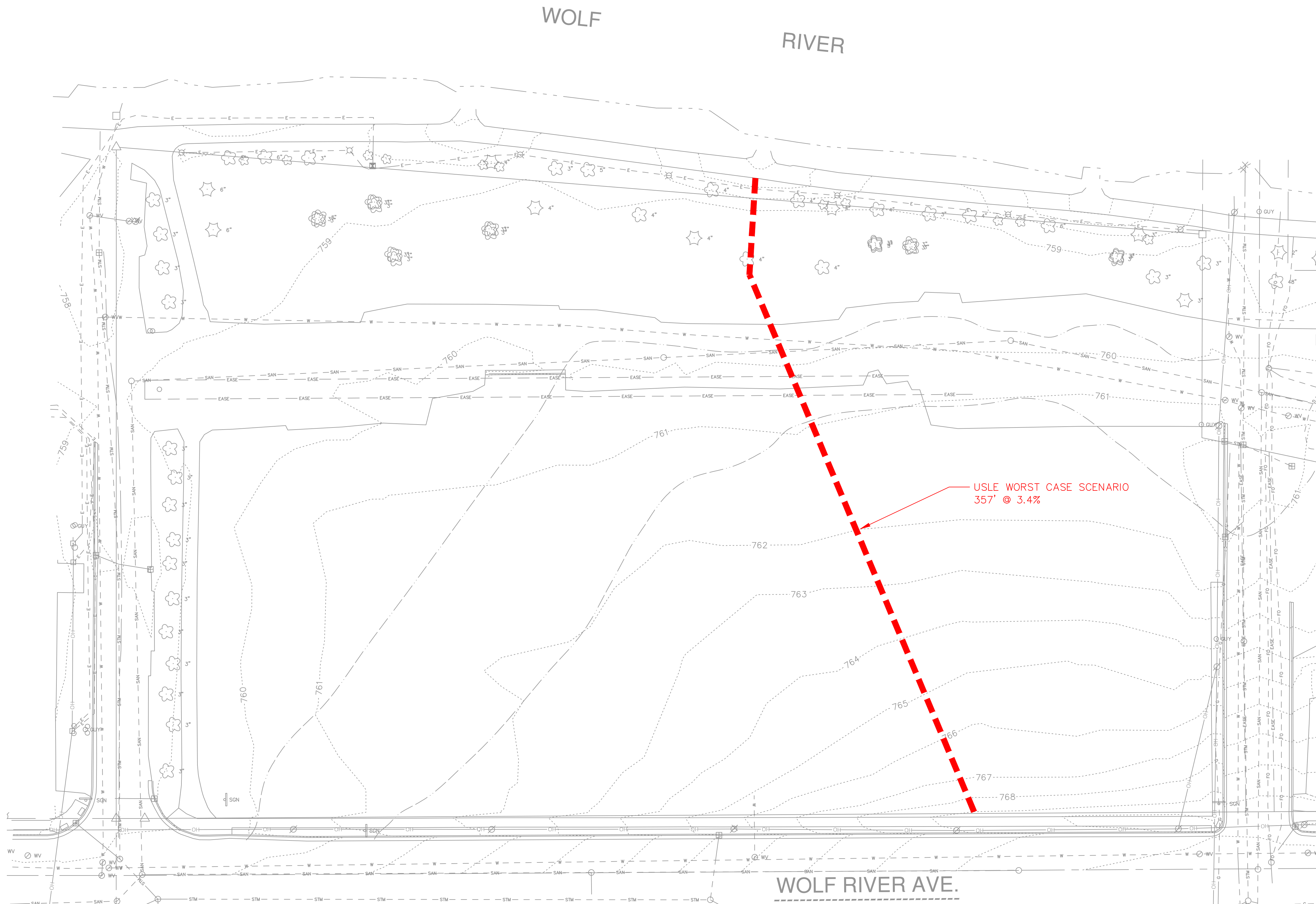
B — LU#2
PAVEMENT: 3,714 SF
WATER SURFACE: 674 SF
PERVIOUS: 4,139 SF

C — LU#3
SIDEWALK: 1,327 SF
PAVEMENT: 16,137 SF
WATER SURFACE: 975 SF
PERVIOUS: 6,704 SF

D — LU#4
SIDEWALK: 834 SF
PAVEMENT: 15,391 SF
WATER SURFACE: 1,447 SF
PERVIOUS: 11,508 SF

APPENDIX 6

USLE MAP
USLE CALCULATION





Soil Loss & Sediment Discharge Calculation Tool

for use on Construction Sites in the State of Wisconsin

WDNR Version 2.0 (06-29-2017)



YEAR 1

Developer: S.C. Swiderski, LLC

Project: SCS Wolf River

Date: 01/06/23

County: Waupaca

Version 1.0

Activity (1)	Begin Date (2)	End Date (3)	Period % R (4)	Annual R Factor (5)	Sub Soil Texture (6)	Soil Erodibility K Factor (7)	Slope (%) (8)	Slope Length (ft) (9)	LS Factor (10)	Land Cover C Factor (11)	Soil loss A (tons/acre) (12)	SDF (13)	Sediment Control Practice (14)	Sediment Discharge (t/ac) (15)
Bare Ground	08/01/23	05/23/24	54.2%	110	Silty Clay	0.28	3.4%	357	0.56	1.00	9.3	0.824	Silt Fence	4.6
Seed with Mulch or Er	05/23/24	07/30/24	45.2%	110	Silty Clay	0.28	3.4%	357	0.56	0.10	0.8	0.824	Silt Fence	0.4
End	07/30/24	-----	-----	-----	-----	-----	3.4%	357	0.56	-----	-----	0.000	Silt Fence	0.0
		-----	-----	-----	-----	-----	3.4%	357	0.56	-----	-----	0.000		0.0
		-----	-----	-----	-----	-----	3.4%	0	-----	-----	-----	0.000		0.0
		-----	-----	-----	-----	-----	0.0%	0	-----	-----	-----	0.000		0.0
TOTAL											10.1		TOTAL	5.0
													% Reduction Required	NONE

Notes:

See Help Page for further descriptions of variables and items in drop-down boxes.

The last land disturbing activity on each sheet must be 'End'. This is either 12 months from the start of construction or final stabilization.

For periods of construction that exceed 12 months, please demonstrate that 5 tons/acre/year is not exceeded in any given 12 month period.

NOTE: THIS TOOL ONLY ADDRESSED SOIL EROSION DUE TO SHEET FLOW. MEASURES TO CONTROL CHANNEL EROSION MAY ALSO BE REQUIRED TO MEET SEDIMENT DISCHARGE REQUIREMENTS.

Recommended Permanent Seeding Dates:

4/15-6/1 and 8/1-8/21 Turf, introduced grasses and legumes
Thaw-6/30 Native Grasses, forbs, and legumes

Designed By:	CEJ
Date	1/6/2023

APPENDIX 7

PIPE SIZING CALCULATIONS

Client: S.C. Swiderski, LLC
 Project: SCS Wolf River
 Project No: 22-11383-MF

Prepared By: CEJ
 Date: 1/6/23
 Sheet: 1 of 1



FR	-	TO	LAWN AREA (SF)	PAVED AREA (SF)	ROOF AREA (SF)	FLOW Q (GPM)	FLOW Q (CFS)	SUM Q (GPM)	SUM Q (CFS)	DIA.	REQ'D SLOPE	ACT. SLOPE	INLET ELEV	OUTLET ELEV.	LENGTH	VEL.	COMMENTS	INLET RIM ELEV.	COVER	OUTLET RIM ELEV.	COVER
STO CB C-1		Existing Manhole	-	-	-	-	2.6	-	2.6	15	0.0022	0.0049	756.40	756.21	39	3.19		759.50	1.85	763.69	6.23
			-	-	-	-		-													
STO CB B-2		STO MH B-1	-	-	-	-	2.6	-	2.6	12	0.0070	0.0096	756.40	755.93	49	3.85		759.50	2.10	761.61	4.68
STO CB B-1.1		STO MH B-1	-	-	-	-	0.6	-	0.6	6	0.0133	0.0200	756.40	756.24	8	3.50		759.50	2.60	761.61	4.87
STO MH B-1		STO MH PUBLIC	-	-	-	-	-	-	3.2	15	0.0032	0.0097	755.83	753.50	239	4.51		761.61	4.53	758.82	4.07
BUILDING		MAIN	0	0	1486.5	57.2	0.1	57.2	0.1	8	0.0001	0.0248	756.50	752.50	161	4.73					

APPENDIX 8

MAINTENANCE AGREEMENT

**DECLARATION OF CONDITIONS, COVENANTS AND RESTRICTIONS
FOR MAINTENANCE OF STORMWATER MANAGEMENT MEASURES**

RECITALS:

- A. S.C. Swiderski, LLC, is the owner of lease-hold interest Lot 1, more particularly described on Exhibit A attached hereto ("Property").
- B. Owner desires to construct buildings and/or parking facilities on the Property in accordance with certain plans and specifications approved by the City.
- C. The City requires Owner to record this Declaration regarding maintenance of storm water management measures that are to be located on the Property. Owner agrees to maintain the storm water management measures and to grant to the City the rights set forth below.

NOW, THEREFORE, in consideration of the declarations herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the owner agrees as follows:

1. Maintenance. Owner and its successors and assigns shall be responsible to repair and maintain the storm water management measures located on the Property in good condition and in working order and such that the measures comply with approved plans on file with the City Engineer. Said maintenance shall be at the Owner's sole cost and expense. Owner will conduct such maintenance or repair work in accordance with all applicable laws, codes, regulations, and similar requirements, and pursuant to the Maintenance Provisions attached hereto as Exhibit B.

The stormwater system consists of the following components:

- Storm Sewer (All storm sewer pipes and structures on site. See Exhibit C)
- 3 Bio- Retention Basins

2. Easement to City. If Owner fails to maintain the storm water management measures as required in section 1, then City shall have the right, after providing Owner with written notice of the maintenance issue ("Maintenance Notice") and thirty (30) days to comply with the City's maintenance request, to enter the Property in order to conduct the maintenance specified in the Maintenance Notice. City will conduct such maintenance work in accordance with all applicable laws, codes, regulations, and similar requirements and will not unreasonably interfere with Owner's use of the Property. All costs and expenses incurred by the City in conducting such maintenance may be charged to the owner of the Property by placing the amount on the tax roll for the Property as a special assessment in accordance with Section 66.0703, Wis. Stats.

3. Term/Termination. The term of this Agreement shall commence on the date that this Agreement is filed of record with the Register of Deeds Office for Marathon County, Wisconsin, and except as otherwise herein specifically provided, shall continue in perpetuity. This Agreement shall rescind all previous documents recorded for maintenance of stormwater management measures on this site. Notwithstanding the foregoing, this Agreement may be terminated by recording with the Register of Deeds Office for Marathon County, Wisconsin, a written instrument of termination signed by the City and all of the then-owners of the Property.

4. Miscellaneous.

- (a) Notices. Any notice, request or demand required or permitted under this Agreement shall be in writing and shall be deemed given when personally served or three (3) days after the same has been deposited with the United States Post Office, registered or certified mail, return receipt requested, postage prepaid and addressed as follows:

If to Owner: S.C. Swiderski, LLC
401 Ranger Street
Mosinee, WI 54455

If to City: City Public Works/Engineering
215 N. Shawano Street
New London, Wisconsin 54961

This space is reserved for recording data

Return to:

City Public Works
215 N. Shawano Street
New London, WI 54961

Tax PN #

33-12-77111

Any party may change its address for the receipt of notice by written notice to the other.

- (b) Governing Law. This Agreement shall be governed and construed in accordance with the laws of the State of Wisconsin.
- (c) Amendments or Further Agreements to be in Writing. This Agreement may not be modified in whole or in part unless such agreement is in writing and signed by all parties bound hereby.
- (d) Covenants Running with the Land. All of the easements, restrictions, covenants and agreements set forth in this Agreement are intended to be and shall be construed as covenants running with the land, binding upon, inuring to the benefit of, and enforceable by the parties hereto and their respective successors and assigns.
- (e) Partial Invalidity. If any provisions, or portions thereof, of this Agreement or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Agreement, or the application of such provision, or portion thereof, to any other persons or circumstances shall not be affected thereby and each provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20____.

STATE OF WISCONSIN
COUNTY OF MARATHON

Personally came before me this _____ day of _____, 20____, the above named _____, to me known to be the person(s) who executed the foregoing instrument and acknowledged the same.

NOTARY PUBLIC

My Commission Expires: _____

Drafted by: Carley Jones

EXHIBIT A

LEGAL DESCRIPTION

All of Lot 1, Certified Survey Map No. 8133, recorded as Document No. 909250, located Section 12, Township 22 North, Range 14 East, City of New London, Waupaca County, Wisconsin.

Said parcel contains 177,192 square feet or 4.07 acres.

EXHIBIT B

INSPECTION, MAINTENANCE, & PROHIBITIONS

STORM SEWER

- The owner shall maintain all components of the storm sewer system and stormwater facility outlet structures located onsite outside of the public right of way.
- Installation and maintenance shall be in accordance with the manufacturer's guidelines.
- At a minimum, the storm sewer system shall be inspected annually and cleaned as needed to maintain design capacity.
- Owner shall maintain records of inspections, cleaning and replacement of the device or components of the device all in accordance with City of Wisconsin Rapids Ordinances.
- Repair inlet/outlet areas that are damaged or show signs of erosion.
- Rip-rap shall be replaced as necessary.
- Repairs must restore the component to the specifications of the original plan.

BIO-RETENTION BASIN

- The Owner is responsible for carrying out typical maintenance activities for bio-retention areas and shall include details on these activities that are consistent with the following standards:
 - Inspect soil and repair eroded areas on a monthly basis;
 - Remove litter and debris on a monthly basis;
 - Add additional mulch on an annual basis;
 - Water plants accordingly during first growing season and as necessary during dry periods after first growing season;
 - Re-mulch void areas as needed;
 - Treat diseased trees and shrubs as needed.
- Snow shall not be dumped directly onto the conditioned planting bed.
- If the bio-retention device receives runoff only from residential land uses other than streets, the mulch layer can be discontinued at maturity provided that a dense vegetation layer is formed.
- If not listed above, all components of the bio-filtration basin shall be inspected on an annual basis at a minimum.
- Repairs must restore the component to the specifications of the original plan.

EXHIBIT C

SCS WOLF RIVER

CITY OF NEW LONDON, WISCONSIN

SE 1/4, SECTION 12, TOWNSHIP 22 NORTH, RANGE 14 EAST

DRAWING INDEX

C0.0	TITLE SHEET
C100	EXISTING CONDITIONS
C1.0	DEMOLITION PLAN
C2.0	SITE PLAN
C3.0	GRADING PLAN & EROSION CONTROL PLAN
C4.0	UTILITY PLAN
C5.0	CONSTRUCTION DETAILS
C5.1	CONSTRUCTION DETAILS
C5.2	CONSTRUCTION DETAILS



PROJECT AREA
NOT TO SCALE



PROJECT INFORMATION

OWNER S.C. SWIDERSKI KORTNI WOLF 401 RANGER STREET MOSINEE, WI 54455 P: 715-693-7807 kwolf@scswiderski.com	CITY CIVIL CONSULTANT MCMAHON BRAD WERNER 1445 MCMAHON DRIVE NEENAH WI 54956 P: 920-751-4200 BWerner@mcmgrp.com
CIVIL CONSULTANT JSD PROFESSIONAL SERVICES, INC. JUSTIN FRAHM 7402 STONE RIDGE DRIVE, SUITE 4 WESTON, WI 54476 P: 715-298-6330 justin.frahm@jsdinc.com	



CREATE THE VISION TELL THE STORY

jsdinc.com

WAUSAU REGIONAL OFFICE
7402 STONE RIDGE DRIVE, SUITE 4
WESTON, WI 54476
P. 715.298.6330

CLIENT:
S.C. SWIDERSKI, LLC

CLIENT ADDRESS:
**401 RANGER STREET
MOSINEE, WI 54455**

PROJECT:
SCS WOLF RIVER

PROJECT LOCATION:
**CITY OF NEW LONDON
WAUPACA COUNTY
WI, 54961**

#	Date:	Description:
1	12.23.2022	SCHEMATIC DESIGN
2	01.06.2023	CITY SUBMISSION
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

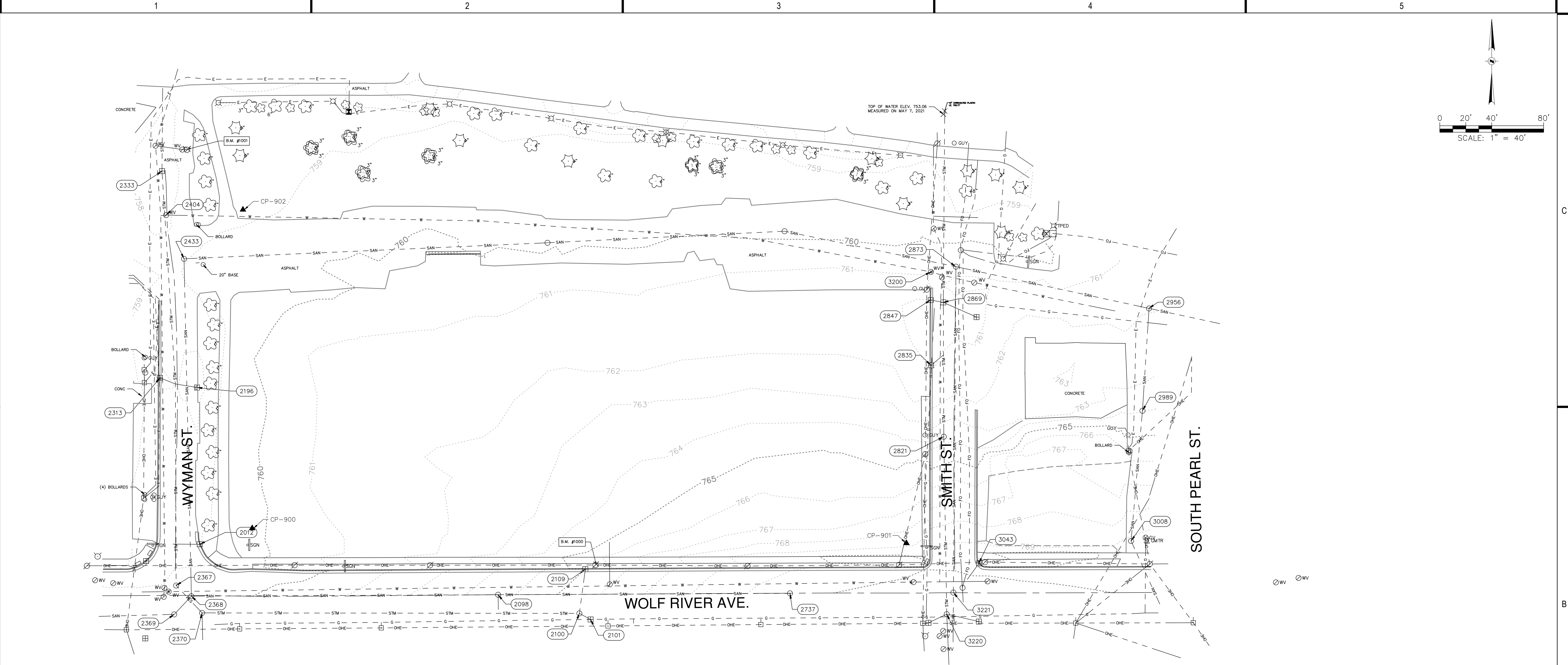
Designed By: CEJ
Reviewed By: SJB
Approved By: JLF

SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
C0.0

JSD PROJECT NO: 22-11383-MF





ASBUILT TABLE

2098	SANITARY MANHOLE RIM EL. 763.59' 8" E. I.E. 756.23' PVC 8" W. I.E. 756.23' PVC 6" SE. I.E. 758.54' PVC	2012	STORM INLET RIM EL. @ FL. 758.39' 8" W. 756.14' PVC	2847	STORM INLET RIM EL. @ FL. 760.61 8" E. I.E. 758.16' CONC.
2368	SANITARY MANHOLE RIM EL. 759.40' 18" N. I.E. 750.94' RCCP 8" E. I.E. 752.75' PVC 18" SW. I.E. 751.24' RCCP	2100	STORM MANHOLE RIM EL. 765.98' 12" W. I.E. 760.08' RCCP 10" N. I.E. 760.58' RCCP 8" SE. I.E. 762.23' PVC	2869	STORM INLET (ROUND MANHOLE) RIM EL. 760.64' 28" N. I.E. 755.17' CLAY 18" S. I.E. 755.21' PVC IN 28" CLAY 10" W. I.E. 757.49' PVC
2433	SANITARY MANHOLE RIM EL. 758.96' ±8" NW. I.E. 751.95' CONC. 18" E. I.E. 751.34' CONC. 18" S. I.E. 751.18' CONC.	2109	STORM INLET RIM EL. @ FL. 764.93' 10" S. I.E. 762.08' PVC	3043	STORM INLET RIM EL. @ FL. 769.64' SW. I.E. 764.94'± CONC. DIFFICULT TO SEE
2737	SANITARY MANHOLE RIM EL. 769.64' 8" W. I.E. 760.33' PVC	2196	STORM INLET RIM EL. 757.30' 8" W. I.E. 755.17' CONC. 8" W. T/PIPE 755.68' CONC.	3220	STORM MANHOLE RIM EL. 770.83' 28" N. I.E. 765.55' CLAY 28" S. I.E. 765.47' CLAY 8" W. I.E. 766.63' CLAY 8" E. I.E. 766.83' CLAY
2873	SANITARY MANHOLE RIM EL. 760.89' 18" W. I.E. 752.57' CONC. 18" S. I.E. 753.45'± CONC. 18" E. I.E. 752.70' CONC.	2313	STORM INLET RIM EL. 757.56' 6" E/W I.E. 754.46' PVC 6" E/W T/PIPE 756.10' PVC	2404	WATER VALVE RIM EL. 757.52' T/NUT: 751.35'
2956	SANITARY MANHOLE RIM EL. 761.89' 18" W. I.E. 752.88' CONC. 18" E. I.E. 752.80' CONC. 8" S. I.E. 753.63' PVC	2367	STORM MANHOLE RIM EL. 759.22' 15" N. I.E. 753.30' PVC 18" SE. I.E. 753.44' CPCP	3200	WATER VALVE RIM EL. 760.77' T/NUT: 756.43'
2989	SANITARY MANHOLE RIM EL. 763.86' 8" N. I.E. 754.32' BLACK PLASTIC 8" S. I.E. 754.34' BLACK PLASTIC	2370	STORM MANHOLE RIM EL. 759.43' 18" NW. I.E. 754.21' CPCP 18" S. I.E. 754.21' CPCP 12" E. I.E. 754.78'± CPCP		
3008	SANITARY MANHOLE RIM EL. 769.27' 8" N. I.E. 759.04' BLACK PLASTIC 8" SE. I.E. 759.24' BLACK PLASTIC	2821	STORM MANHOLE RIM EL. 763.69' 28" N. I.E. 757.76' CLAY 28" S. I.E. 757.91' CLAY		
3221	SANITARY MANHOLE RIM EL. 770.60' 12"± N. I.E. 759.46' CONC. 12"± S. I.E. 759.46' CONC.	2835	STORM INLET RIM EL. @ FL. 760.84' 6" NW. I.E. 758.20' CONC.		

CONTROL POINTS

CP-900
SET 1/2" REBAR WITH GRAEF CAP
N. 353860.01
E. 626292.21
EL. 759.91'

CP-901
SET 1/2" REBAR WITH GRAEF CAP
N. 353848.55
E. 626796.27
EL. 768.88'

CP-902
SET 1/2" REBAR WITH GRAEF CAP
N. 354105.33
E. 626285.07
EL. 758.87'

BENCHMARKS

BM 1000 RR SPIKE SET IN NORTH FACE OF PPOL.
ELEVATION = 766.65' (SHOWN)

BM 1001 NE BURRY BOLT ON FIRE HYDRANT
ELEVATION = 760.61' (SHOWN)

SURVEY NOTES

- HORIZONTAL COORDINATES ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), WAUPACA COUNTY, IN U.S. SURVEY FEET.
- ELEVATIONS ARE BASED ON NAVD88(2012).
- FIELDWORK WAS COMPLETED ON 4/23/2021.

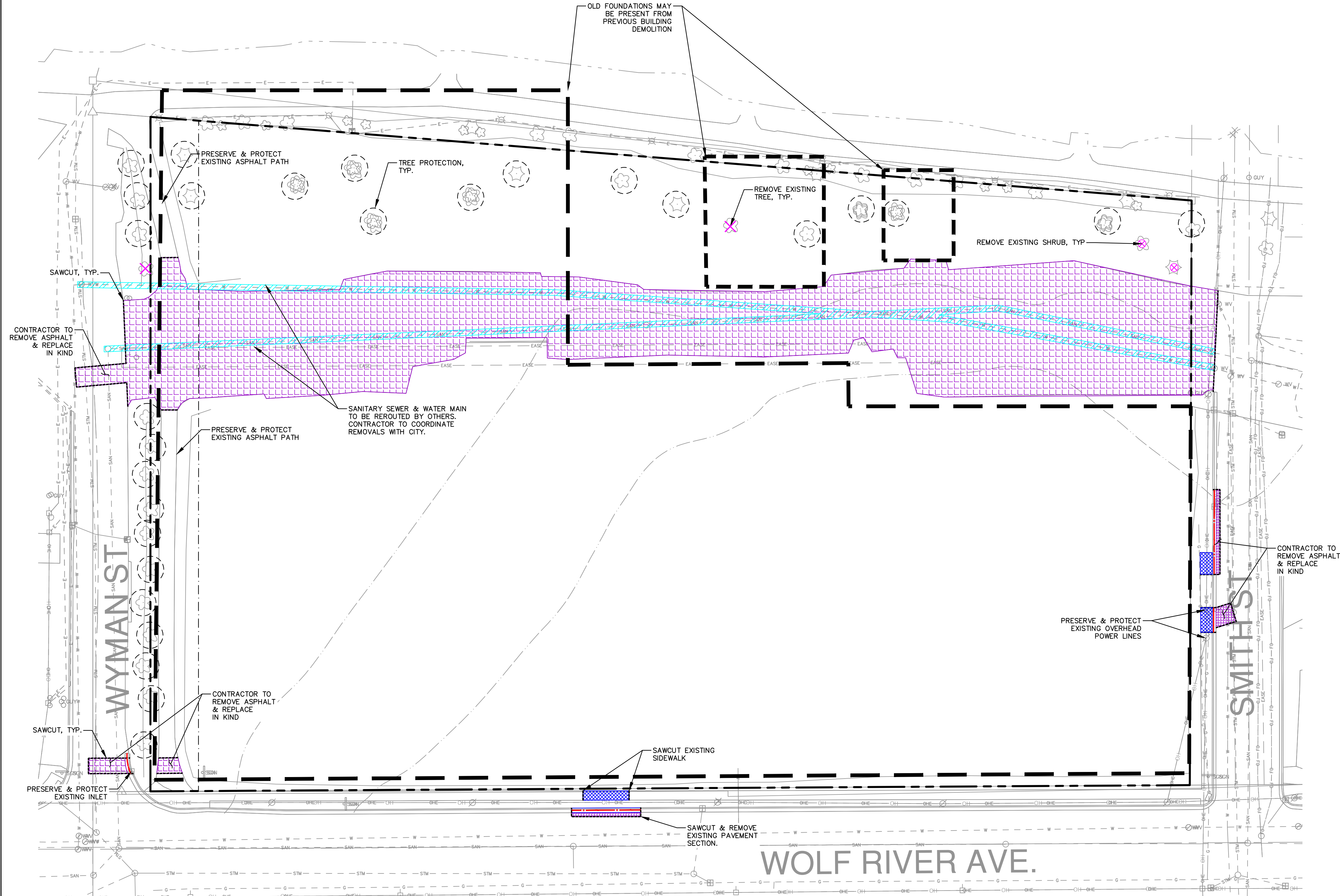
LEGEND

- ▲ CONTROL POINT
- ⌵ LIGHT POLE
- MANHOLE
- ⊞ STORM INLET
- ⊞ FIRE HYDRANT
- ⊞ DECIDUOUS TREE
- ⊞ BUSH
- ⊞ SIGN
- ⊞ WV WATER VALVE
- ⊞ GV GAS VALVE
- ⊞ CONTROL BOX
- STM--- BURIED STORM SEWER
- E--- BURIED ELECTRIC LINE
- OHE--- OVERHEAD ELECTRIC LINE
- FO--- BURIED FIBER OPTIC
- SAN--- BURIED SANITARY SEWER
- T--- BURIED TELEPHONE LINE
- OHT--- OVERHEAD TELEPHONE LINE
- W--- BURIED WATER MAIN

NOTICE:
In accordance with Wisconsin statute 182.0175, damage to transmission facilities, excavator shall be solely responsible to provide advance notice to the designated "ONE CALL SYSTEM" not less than three working days prior to commencement of any excavation required to perform work contained on this drawing, and further, excavator shall comply with all other requirements of this statute relative to excavator's work.

DISCLAIMER:
The underground utilities shown have been located from field survey information and existing drawings. GRAEF makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. GRAEF further does not warrant that the underground utilities shown are in the exact location indicated. GRAEF has not physically located the underground utilities.

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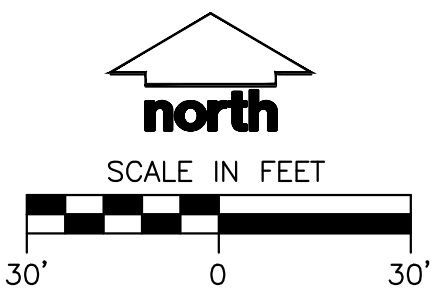


DEMOLITION NOTES

1. THIS PLAN INDICATES ITEMS ON THE PROPERTY INTENDED FOR DEMOLITION BASED ON THE CURRENT SITE DESIGN THAT HAVE BEEN IDENTIFIED BY A REASONABLE OBSERVATION OF THE EXISTING CONDITIONS THROUGH FIELD SURVEY, RECONNAISSANCE, "DIGGER'S HOTLINE" LOCATION, AND GENERAL "STANDARD OF CARE". THERE MAY BE ADDITIONAL ITEMS THAT CAN NOT BE IDENTIFIED BY A REASONABLE ABOVE GROUND OBSERVATION, OF WHICH THE ENGINEER WOULD HAVE NO KNOWLEDGE OR MAY BE A PART OF ANOTHER DESIGN DISCIPLINE. IT IS THE CONTRACTOR'S/BIDDER'S RESPONSIBILITY TO REVIEW THE PLANS, INSPECT THE SITE AND PROVIDE THEIR OWN DUE DILIGENCE TO INCLUDE IN THEIR BID WHAT ADDITIONAL ITEMS, IN THEIR OPINION, MAY BE NECESSARY FOR DEMOLITION. ANY ADDITIONAL ITEMS IDENTIFIED BY THE CONTRACTOR/BIDDER SHALL BE IDENTIFIED IN THE BID AND REPORTED TO THE ENGINEER OF RECORD. JSD TAKES NO RESPONSIBILITY FOR ITEMS ON THE PROPERTY THAT COULD NOT BE LOCATED BY A REASONABLE OBSERVATION OF THE PROPERTY OR OF WHICH THEY WOULD HAVE NO KNOWLEDGE.
2. CONTRACTOR SHALL KEEP ALL STREETS AND PRIVATE DRIVES FREE AND CLEAR OF ALL CONSTRUCTION RELATED DIRT, DUST AND DEBRIS.
3. ALL TREES WITHIN THE CONSTRUCTION LIMITS SHALL BE PROTECTED UNLESS SPECIFICALLY CALLED OUT FOR REMOVAL. ALL TREES TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY AND STUMPS SHALL BE GROUND TO PROPOSED SUBGRADE.
4. ABANDONED/REMOVED ITEMS SHALL BE DISPOSED OF OFF SITE UNLESS OTHERWISE NOTED.
5. CONTRACTOR TO REPLACE ALL SIDEWALK AND CURB AND GUTTER ABUTTING THE PROPERTIES, WHICH IS DAMAGED BY THE CONSTRUCTION, OR ANY SIDEWALK AND CURB AND GUTTER THAT THE CITY ENGINEER DETERMINES NEEDS TO BE REPLACED BECAUSE IT IS NOT AT A DESIRABLE GRADE REGARDLESS OF WHETHER THE CONDITION EXISTED PRIOR TO BEGINNING CONSTRUCTION.
6. PRIOR TO CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR:
 - 6.1. EXAMINE ALL SITE CONDITIONS RELATIVE TO THE CONDITIONS INDICATED ON THE ENGINEERING DRAWINGS. ANY DISCREPANCIES ARE TO BE REPORTED IMMEDIATELY TO THE ENGINEER AND RESOLVED PRIOR TO THE START OF CONSTRUCTION.
 - 6.2. VERIFYING UTILITY ELEVATIONS AND NOTIFYING ENGINEER OF ANY DISCREPANCIES. NO WORK SHALL BE PERFORMED UNTIL THE DISCREPANCIES ARE RESOLVED.
 - 6.3. NOTIFYING ALL UTILITIES PRIOR TO THE REMOVAL OF ANY UNDERGROUND UTILITIES.
 - 6.4. NOTIFYING THE DESIGN ENGINEER AND LOCAL CONTROLLING MUNICIPALITY 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION INSPECTION.
7. ANY UTILITIES, WHICH ARE DAMAGED BY THE CONTRACTORS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.
8. CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING THE CONSTRUCTION OF THESE IMPROVEMENTS.
9. ALL DEMOLITION SHALL BE IN ACCORDANCE WITH THE APPROVED MUNICIPALITY RECYCLING PLAN.
10. ANY CONTAMINATED SOILS SHALL BE REMOVED IN ACCORDANCE WITH FEDERAL AND STATE REGULATIONS TO AN APPROVED LANDFILL.
11. ALL EXISTING UTILITIES TO BE FIELD LOCATED AND FLAGGED BY CONTRACTOR.
12. EXISTING FIBER OPTIC LINE TO BE CLEARLY MARKED PRIOR TO ANY EXCAVATION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY IF ANY DISCREPANCIES OCCUR IN THE LOCATION SHOWN OR PROPOSED IMPROVEMENTS IMPACTING EXISTING FIBER OPTIC LINE LOCATION.
13. ALL PERIMETER EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THE START OF DEMOLITION ACTIVITIES. CONTRACTOR SHALL KEEP ALL STREETS AND PAVEMENT FREE AND CLEAR OF ALL CONSTRUCTION RELATED DIRT, DUST AND DEBRIS.
14. CONTRACTOR TO REMOVE EXISTING UTILITY PIPE OR PROVIDE PIPE BACK-FILLING AFTER REMOVAL OF EXISTING UTILITIES WITHIN BUILDING FOOTPRINT USING "LOW DENSITY CONCRETE/FLOWABLE FILL".
15. RESTORATION OF THE EXISTING ROADWAY RIGHT-OF-WAYS ARE CONSIDERED INCIDENTAL AND SHOULD BE PART OF THE COST OF THE UNDERGROUND IMPROVEMENTS, DEMOLITION AND REMOVAL. THIS INCLUDES CURB & GUTTER, SIDEWALK, TOPSOIL, SEEDING AND MULCHING.

LEGEND

- | | |
|--|--|
| | PROPERTY LINE |
| | RIGHT-OF-WAY |
| | EASEMENT LINE |
| | DEMOLITION - REMOVAL OF ONSITE CURB SURFACES AND BASE COURSE |
| | DEMOLITION - PAVEMENT MILL AND OVERLAY |
| | DEMOLITION - REMOVAL OF RETAINING WALL |
| | DEMOLITION - REMOVAL OF ASPHALT SURFACES |
| | DEMOLITION - REMOVAL OF CONCRETE SURFACES |
| | DEMOLITION - REMOVAL OF BUILDINGS/STRUCTURES |
| | DEMOLITION - REMOVAL OF UTILITIES |
| | DEMOLITION - REMOVAL OF LANDSCAPE BEDDING |
| | SAWCUT EXISTING PAVEMENT |
| | OLD FOUNDATION |
| | TREE REMOVAL |
| | SHRUB REMOVAL |
| | PROTECT EXISTING TREE |



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WESTON, WI 54476
P. 715.298.6330

CLIENT:

S.C. SWIDERSKI, LLC

CLIENT ADDRESS:

401 RANGER STREET
MOSINEE, WI 54455

PROJECT:

SCS WOLF RIVER

PROJECT LOCATION:

CITY OF NEW LONDON
WAUPACA COUNTY
WI, 54961

PLAN MODIFICATIONS:

#	Date:	Description:
1	12.23.2022	SCHEMATIC DESIGN
2	01.06.2023	CITY SUBMISSION
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Designed By: CEJ
Reviewed By: SJB
Approved By: JLF

SHEET TITLE:

DEMOLITION PLAN

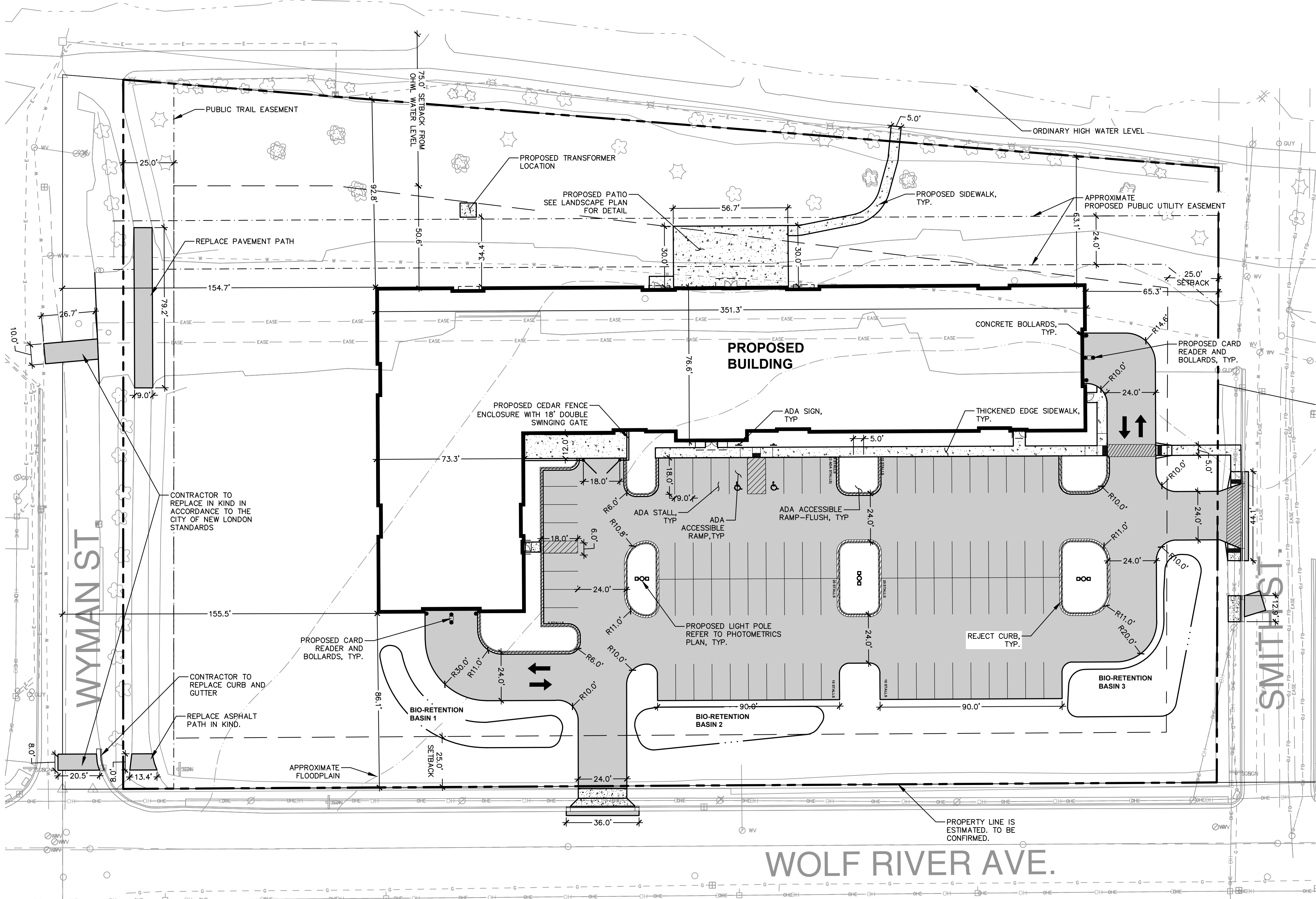
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JSD PROJECT NO:

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GENERAL NOTES

1. REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGENDS.
2. ALL WORK IN THE ROW AND/OR PUBLIC EASEMENTS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN AND MUNICIPAL REQUIREMENTS.
3. EXISTING GRADE SPOT ELEVATIONS SHOWN FOR INFORMATIONAL PURPOSES. DURING CONSTRUCTION MATCH EXISTING GRADES AT CONSTRUCTION LIMITS.
4. NO SITE GRADING OUTSIDE OR DOWNSLOPE OF PROPOSED SILT FENCE LOCATION. NO LAND DISTURBANCE BEYOND PROPERTY LINES.
5. JSD SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES.

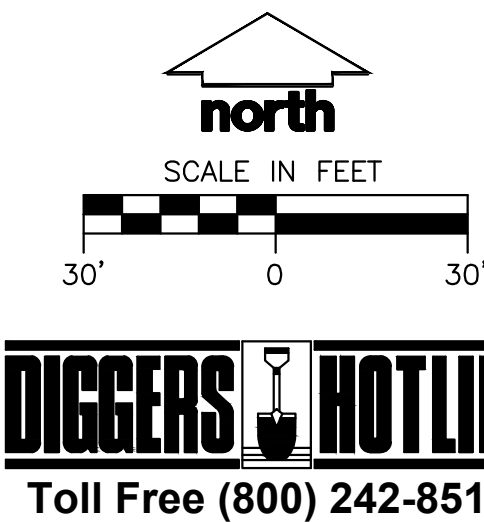
PAVING NOTES

1. GENERAL
 - 1.1. ALL PAVING SHALL CONFORM TO "STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY & STRUCTURE CONSTRUCTION, LATEST EDITION, APPLICABLE CITY OF NEW LONDON ORDINANCES AND THE GEOTECHNICAL REPORT PREPARED BY AET DATED 04/28/21.
 - 1.2. ALL PAVING DIMENSIONS ARE TO FACE OF CURB UNLESS SPECIFIED OTHERWISE.
 - 1.3. SURFACE PREPARATION - NOTIFY ENGINEER/OWNER OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT SUBBASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.
 - 1.4. ANY REQUIRED REPLACEMENT OF PUBLIC CURB AND GUTTER SHALL MATCH EXISTING AND MEET MUNICIPALITY REQUIREMENTS.
2. ASPHALTIC CONCRETE PAVING SPECIFICATIONS
 - 2.1. CODES AND STANDARDS - THE PLACING, CONSTRUCTION AND COMPOSITION OF THE ASPHALTIC BASE COURSE AND ASPHALTIC CONCRETE SURFACE COURSE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 450, 455, 460 AND 465 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, CURRENT EDITION. HEREFTER, THIS PUBLICATION WILL BE REFERRED TO AS STATE HIGHWAY SPECIFICATIONS.
 - 2.2. WEATHER LIMITATIONS - APPLY TACK COATS WHEN AMBIENT TEMPERATURE IS ABOVE 50° F (10° C) AND WHEN TEMPERATURE HAS NOT BEEN BELOW 35° F (1° C) FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION. DO NOT APPLY WHEN BASE IS WET OR CONTAINS EXCESS OF MOISTURE. CONSTRUCT ASPHALTIC CONCRETE SURFACE COURSE WHEN ATMOSPHERIC TEMPERATURE IS ABOVE 40° F (4° C) AND WHEN BASE IS DRY AND WHEN WEATHER IS NOT RAINY. BASE COURSE MAY BE PLACED WHEN AIR TEMPERATURE IS ABOVE 30° F (-1° C).
 - 2.3. GRADE CONTROL - ESTABLISH AND MAINTAIN REQUIRED LINES AND ELEVATIONS FOR EACH COURSE DURING CONSTRUCTION.
 - 2.4. CRUSHED AGGREGATE BASE COURSE - SHALL CONFORM TO SECTIONS 301 AND 305, STATE HIGHWAY SPECIFICATIONS.
 - 2.5. BINDER COURSE AGGREGATE - SHALL CONFORM TO SECTIONS 460 AND 315, STATE HIGHWAY SPECIFICATIONS.
 - 2.6. SURFACE COURSE AGGREGATE - SHALL CONFORM TO SECTIONS 460 AND 465, STATE HIGHWAY SPECIFICATIONS.
 - 2.7. ASPHALTIC MATERIALS - SHALL CONFORM TO SECTION 455 AND 460, STATE HIGHWAY SPECIFICATIONS.
3. PAVEMENT MARKING SPECIFICATIONS
 - 3.1. USE 4" WIDE, HIGH VISIBILITY YELLOW LATEX PAINT FOR STALL LINES.
 - 3.2. MARK AND STRIPE ADA PARKING SPACES APPROPRIATELY.
 - 3.3. ALL PAVEMENT MARKINGS INCLUDING: SHALL BE PAINTED WITH LATEX PAINT PER SPECIFICATIONS.
 - 3.4. 2' x 4' YELLOW TRUNCATED DOME WARNING DETECTION FIELD SHALL BE PLACED AT ALL ADA RAMPS.

SITE INFORMATION BLOCK	
SITE ADDRESS	305 W WOLF RIVER AVE, NEW LONDON, WI 54961
PROPERTY ACREAGE	4.07 ACRES
NUMBER OF BUILDING STORIES	4
TOTAL BUILDING SQUARE FOOTAGE	32,033 SF
NUMBER OF UNITS	98
NUMBER OF PARKING STALLS	
SURFACE	
LARGE	85
ACCESSIBLE	2
TOTAL SURFACE	87
INTERIOR	
LARGE	62
ACCESSIBLE	2
TOTAL INTERIOR	64
EXISTING VS. PROPOSED SITE COVERAGE	
EXISTING IMPERVIOUS SURFACE AREA	29,714 SF
EXISTING PERVIOUS SURFACE AREA	147,478 SF
EXISTING IMPERVIOUS SURFACE AREA RATIO	0.17
PROPOSED IMPERVIOUS SURFACE AREA	76,855 SF
PROPOSED PERVIOUS SURFACE AREA	100,337 SF
PROPOSED IMPERVIOUS SURFACE AREA RATIO	0.43

LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY
- EASEMENT LINE
- BUILDING OUTLINE
- BUILDING OVERHANG
- BUILDING SETBACK LINE
- PAVEMENT SETBACK LINE
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- MOUNTABLE CURB AND GUTTER
- 8" CONCRETE RIBBON CURB
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- RAILING
- ADA PARKING SIGN
- BOLLARD
- BOLLARD WITH ADA PARKING SIGN
- BIKE RACK
- FENCE



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Approved By: JLF

SHEET TITLE:

SITE PLAN

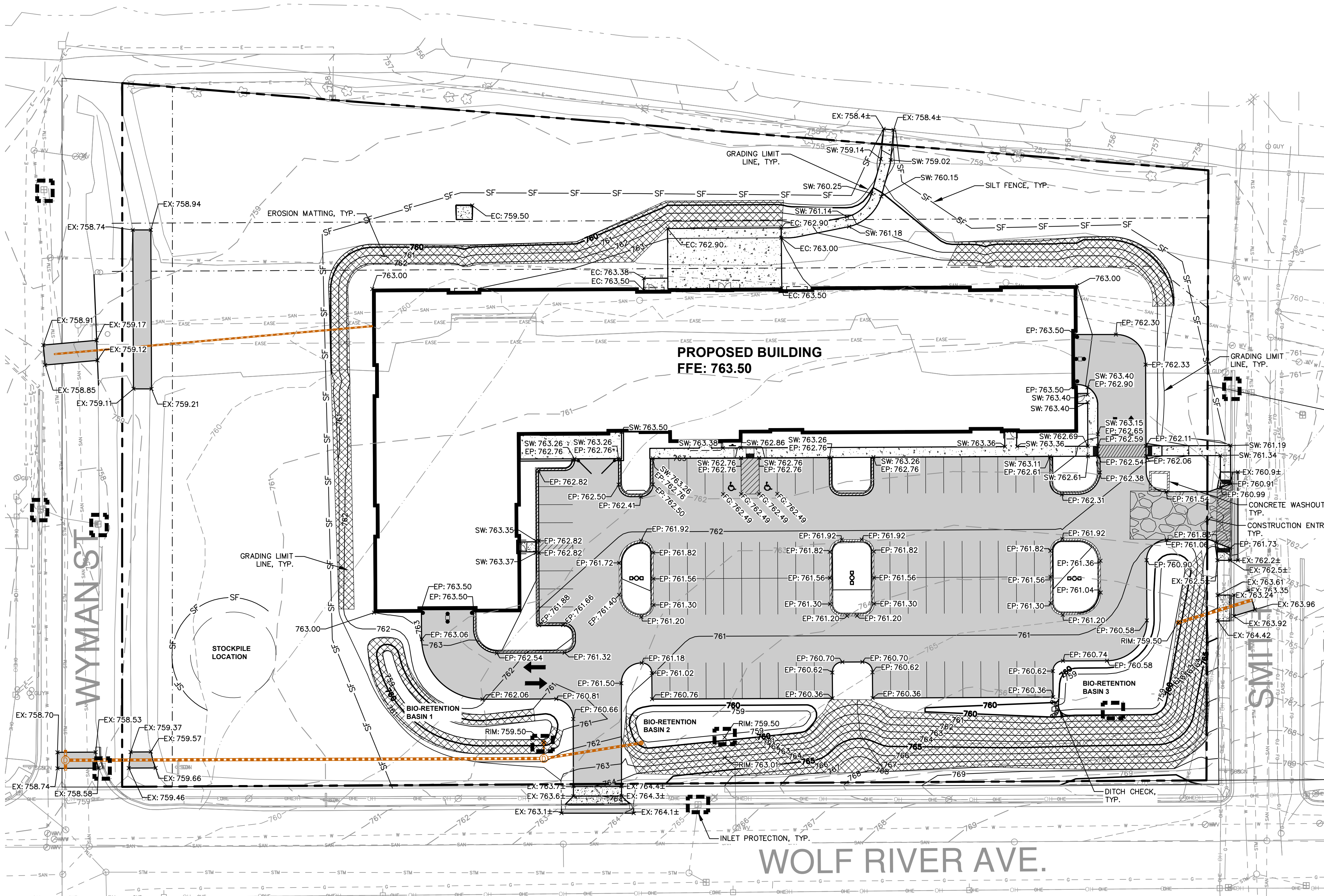
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JSD PROJECT NO:

22-11383-MF

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LEGEND

	PROPERTY LINE
	RIGHT-OF-WAY
	EASEMENT LINE
	BUILDING OUTLINE
	BUILDING OVERHANG
	EDGE OF PAVEMENT
	STANDARD CURB AND GUTTER
	REJECT CURB AND GUTTER
	MOUNTABLE CURB AND GUTTER
	8" CONCRETE RIBBON CURB
	ASPHALT PAVEMENT
	CONCRETE PAVEMENT
	PROPOSED 1 FOOT CONTOUR
	PROPOSED 5 FOOT CONTOUR
	EXISTING 1 FOOT CONTOUR
	EXISTING 5 FOOT CONTOUR
	STORMWATER MANAGEMENT AREA
	RAILING
	SILT FENCE
	RIP-RAP
	CONSTRUCTION ENTRANCE
	EROSION MATTING
	TURF REINFORCEMENT MATTING
	SPOT ELEVATION
	EP - EDGE OF PAVEMENT
	FG - FINISH GRADE
	EC - EDGE OF CONCRETE
	BOC - BACK OF CURB
	MATCH - MATCH EXISTING GRADE
	HP - HIGH POINT
	SW - SIDEWALK
	DITCH CHECK
	INLET PROTECTION



CONSTRUCTION SEQUENCING

1. INSTALL PERIMETER SILT FENCE, INLET PROTECTION AND TEMPORARY CONSTRUCTION ENTRANCE.
2. STRIP AND STOCKPILE TOPSOIL, INSTALL SILT FENCE AROUND PERIMETER OF STOCKPILE.
3. ROUGH GRADE BIO-RETENTION BASINS AND INSTALL BASIN.
4. INSTALL UTILITY PIPING AND STRUCTURES, IMMEDIATELY INSTALL INLET PROTECTION.
5. COMPLETE FINAL GRADING, INSTALLATION OF GRAVEL BASE COURSES, PLACEMENT OF CURBS, PAVEMENTS, WALKS, ETC.
6. PLACE TOPSOIL AND IMMEDIATELY STABILIZE DISTURBED AREAS WITH EROSION CONTROL MEASURES AS INDICATED ON PLANS.
7. RESTORE BIO-RETENTION BASINS (FINAL GRADE BIO-RETENTION BASINS PER PLAN REQUIREMENTS)
8. EROSION CONTROLS SHALL NOT BE REMOVED UNTIL SITE IS FULLY STABILIZED OR 70% VEGETATIVE COVER IS ESTABLISHED.

CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM NO. 1 AS NEEDED TO COMPLETE CONSTRUCTION IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS.

EROSION CONTROL NOTES

1. CONTRACTOR IS RESPONSIBLE TO NOTIFY ENGINEER OF RECORD AND OFFICIALS OF ANY CHANGES TO THE EROSION CONTROL AND STORMWATER MANAGEMENT PLANS. ENGINEER OF RECORD AND APPROPRIATE CITY OF NEW LONDON OFFICIALS MUST APPROVE ANY CHANGES PRIOR TO DEVIATION FROM THE APPROVED PLANS.
2. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED BY THE CONTRACTOR IN ACCORDANCE WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) TECHNICAL STANDARDS (REFERRED TO AS BMP'S) AND CITY OF NEW LONDON ORDINANCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COPY OF THESE STANDARDS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL EROSION CONTROL MEASURES WHICH MAY BE NECESSARY TO MEET UNFORESEEN FIELD CONDITIONS.
3. INSTALL PERIMETER EROSION CONTROL MEASURES (SUCH AS CONSTRUCTION ENTRANCES, SILT FENCE AND EXISTING INLET PROTECTION) PRIOR TO ANY SITE WORK, INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE COVER, AS SHOWN ON PLAN. MODIFICATIONS TO THE APPROVED EROSION CONTROL DESIGN IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS IS ALLOWED IF MODIFICATIONS CONFORM TO BMP'S. ALL DESIGN MODIFICATIONS MUST BE APPROVED BY THE CITY OF NEW LONDON PRIOR TO DEVIATION OF THE APPROVED PLAN.
4. ADDITIONAL EROSION CONTROL MEASURES, AS REQUESTED BY STATE INSPECTORS, LOCAL INSPECTORS, COUNTY INSPECTORS AND/OR ENGINEER OF RECORD SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST.
5. INSPECTIONS AND MAINTENANCE OF ALL EROSION CONTROL MEASURES SHALL BE ROUTINE (ONCE PER WEEK MINIMUM) TO ENSURE PROPER FUNCTION OF EROSION CONTROLS AT ALL TIMES. EROSION CONTROL MEASURES ARE TO BE IN WORKING ORDER AT THE END OF EACH WORK DAY.
6. ALL EROSION AND SEDIMENT CONTROL ITEMS SHALL BE INSPECTED WITHIN 24 HOURS OF ALL RAIN EVENTS EXCEEDING 0.5 INCHES. ANY DAMAGED EROSION CONTROL MEASURES SHALL BE REPAIRED OR REPLACED IMMEDIATELY UPON INSPECTION.
7. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL LOCATIONS OF VEHICLE INGRESS/EGRESS POINTS. ADDITIONAL LOCATIONS OTHER THAN AS SHOWN ON THE PLANS MUST BE PRIOR APPROVED BY THE MUNICIPALITY. CONSTRUCTION ENTRANCES SHALL BE 50' LONG AND NO LESS THAN 12" THICK BY USE OF 3" CLEAR STONE. CONSTRUCTION ENTRANCES SHALL BE MAINTAINED BY THE CONTRACTOR IN A CONDITION WHICH WILL PREVENT THE TRACKING OF MUD OR DRY SEDIMENT ONTO ADJACENT PUBLIC STREETS AFTER EACH WORKING DAY OR MORE FREQUENTLY AS REQUIRED.
8. PAVED SURFACES ADJACENT TO CONSTRUCTION SITE VEHICLE ACCESS SHALL BE SWEEP AND/OR SCRAPED TO REMOVE ACCUMULATED SOIL, DIRT AND/OR DUST AFTER THE END OF EACH WORK DAY AND AS REQUESTED BY THE CITY OF NEW LONDON.
9. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER AND SILT FENCE SHALL BE IMMEDIATELY FITTED AT ALL INSTALLED CULVERT INLETS TO PREVENT SEDIMENT DEPOSITION WITHIN STORM SEWER SYSTEMS.
10. INSTALL EROSION CONTROLS ON THE DOWNSTREAM SIDE OF STOCKPILES. IF STOCKPILE REMAINS UNDISTURBED FOR MORE THAN SEVEN (7) DAYS, TEMPORARY SEEDING AND STABILIZATION IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES IS REQUIRED. IF DISTURBANCE OCCURS BETWEEN NOVEMBER 15TH AND MAY 15TH, THE MULCHING SHALL BE PERFORMED BY HYDRO-MULCHING WITH A TACKIFIER.
11. DITCH CHECKS AND APPLICABLE EROSION NETTING/MATting SHALL BE INSTALLED IMMEDIATELY AFTER COMPLETION OF GRADING EFFORTS WITHIN DITCHES/SWALES TO PREVENT SOIL TRANSPORTATION.
12. EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, SANITARY SEWER, WATER MAIN, ETC.):
 - A. PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
 - B. BACKFILL, COMPACT, AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
 - C. DISCHARGE TRENCH WATER INTO A SEDIMENTATION BASIN OR FILTERING TANK IN ACCORDANCE WITH THE DEWATERING TECHNICAL STANDARD NO. 1061 PRIOR TO RELEASE INTO THE STORM SEWER, RECEIVING STREAM, OR DRAINAGE DITCH.
13. ALL SLOPES 4:1 OR GREATER SHALL BE STABILIZED WITH CLASS I, TYPE B EROSION MATTING OR APPLICATION OF A WISCONSIN DEPARTMENT OF TRANSPORTATION (WisDOT) APPROVED POLYMER SOIL STABILIZATION TREATMENT OR A COMBINATION THEREOF, AS REQUIRED WITHIN 7 DAYS OF REACHING FINAL GRADE AND/OR AS SOON AS CONDITIONS ALLOW. DRAINAGE SWALES SHALL BE STABILIZED WITH CLASS II, TYPE B EROSION MATTING. EROSION MATTING AND/OR NETTING USED ON SITE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND WDNR TECHNICAL STANDARDS 1052 AND 1053.
14. CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO CONTROL DUST ARISING FROM CONSTRUCTION OPERATIONS. REFER TO WDNR TECHNICAL STANDARD 1068.
15. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL LAND DISTURBING CONSTRUCTION ACTIVITY AT THE SITE HAS BEEN COMPLETED AND THAT A UNIFORM PERENNIAL VEGETATIVE COVER HAS BEEN ESTABLISHED WITH A DENSITY OF AT LEAST 70% FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES OR THAT EMPLOY EQUIVALENT PERMANENT STABILIZATION MEASURES.
16. CONTRACTOR/OWNER SHALL FILE A NOTICE OF TERMINATION UPON COMPLETION OF THE PROJECT IN ACCORDANCE WITH WDNR REQUIREMENTS AND/OR PROPERTY SALE IN ACCORDANCE WITH WDNR REQUIREMENTS.
17. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. NO MORE THAN SEVEN (7) DAYS SHALL PASS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS CEASED UNLESS:
 - 17.1. CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN FOURTEEN (14) DAYS FROM WHEN ACTIVITY CEASED, (I.E. THE TOTAL TIME PERIOD THAT THE CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN FOURTEEN (14) DAYS. IN THAT EVENT, STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED.
 - 17.2. STABILIZATION MEASURES SHALL BE DETERMINED BASED ON SITE CONDITIONS AT THE TIME OF CONSTRUCTION ACTIVITY HAS CEASED, INCLUDING BUT NOT LIMITED TO WEATHER CONDITIONS AND LENGTH OF TIME MEASURE MUST BE EFFECTIVE. THE FOLLOWING ARE ACCEPTABLE STABILIZATION MEASURES:
 - PERMANENT SEEDING; IN ACCORDANCE WITH APPROVED CONSTRUCTION SPECIFICATION
 - TEMPORARY SEEDING; MAY CONSIST OF SPRING OATS(100LBS/ACRE) AND/OR WHEAT OR CEREAL RYE (150LBS/ACRE)
 - HYDRO-MULCHING WITH A TACKIFIER
 - GEOTEXTILE EROSION MATTING
 - SODDING

GRADING AND SEEDING NOTES

1. ALL PROPOSED GRADES SHOWN ARE FINISHED GRADES, CONTRACTOR SHALL VERIFY ALL GRADES, MAKE SURE ALL AREAS RAIN PROPERLY AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR COMPUTATIONS OF ALL GRADING QUANTITIES. WHILE JSD PROFESSIONAL SERVICES, INC. ATTEMPTS TO PROVIDE A COST EFFECTIVE APPROACH TO BALANCE EARTHWORK, GRADING DESIGN IS BASED ON MANY FACTORS, INCLUDING SAFETY, AESTHETICS, AND COMMON ENGINEERING STANDARDS OF CARE. THEREFORE, NO GUARANTEE CAN BE MADE FOR A BALANCED SITE.
3. PARKING LOT AND DRIVEWAY ELEVATIONS ARE PAVEMENT GRADES, NOT TOP OF CURB GRADES, UNLESS OTHERWISE NOTED.
4. ANY WORK WITHIN RIGHT-OF-WAY SHALL BE PROPERLY PERMITTED AND COORDINATED WITH THE APPROPRIATE OFFICIALS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. ALL GRADING WITHIN RIGHT-OF-WAY IS SUBJECT TO APPROVAL BY SAID OFFICIALS.
5. CONTRACTOR SHALL PROVIDE NOTICE TO THE MUNICIPALITY IN ADVANCE OF ANY SOIL DISTURBING ACTIVITIES, IN ACCORDANCE WITH MUNICIPAL REQUIREMENTS.
6. ALL DISTURBED AREAS SHALL BE SODDED AND/OR SEEDED AND MULCHED IMMEDIATELY FOLLOWING GRADING ACTIVITIES. SOD/SEED MIX TO BE IN ACCORDANCE WITH LANDSCAPE PLAN.
7. CONTRACTOR SHALL CHISEL-PLOW OR DEEP TILL WITH DOUBLE TINES ALL STORMWATER MANAGEMENT FACILITIES JUST PRIOR TO SODDING AND/OR SEEDING AND MULCHING TO PROMOTE INFILTRATION.
8. CONTRACTOR SHALL WATER ALL NEWLY SODDED/SEEDER AREAS DURING THE SUMMER MONTHS WHENEVER THERE IS A 7 DAY LAPSE WITH NO SIGNIFICANT RAINFALL.
9. CONTRACTOR TO DEEP TILL ALL COMPACTED PEROUS SURFACES PRIOR TO SODDING AND/OR SEEDING AND MULCHING.
10. ALL SLOPES 20% OR GREATER SHALL BE TEMPORARY SEEDER, MULCHED, OR OTHER MEANS OF COVER PLACED ON THEM WITHIN 2 WEEKS OF DISTURBANCE.
11. ALL EXPOSED SOIL AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH LAND DISTURBING ACTIVITIES WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 30 DAYS AND REQUIRE VEGETATIVE COVER FOR LESS THAN 1 YEAR, REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1059 AND CITY OF NEW LONDON ORDINANCE.



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P. 715.298.6330

CLIENT:

S.C. SWIDERSKI, LLC

CLIENT ADDRESS:

401 RANGER STREET
MOSINEE, WI 54455

PROJECT:

SCS WOLF RIVER

PROJECT LOCATION:

CITY OF NEW LONDON
WAUPACA COUNTY
WI, 54961

PLAN MODIFICATIONS:

#	Date:	Description:
1	12.23.2022	SCHEMATIC DESIGN
2	01.06.2023	CITY SUBMISSION
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Designed By: CEJ
Reviewed By: SJB
Approved By: JLF

SHEET TITLE:

GRADING PLAN &
EROSION CONTROL PLAN

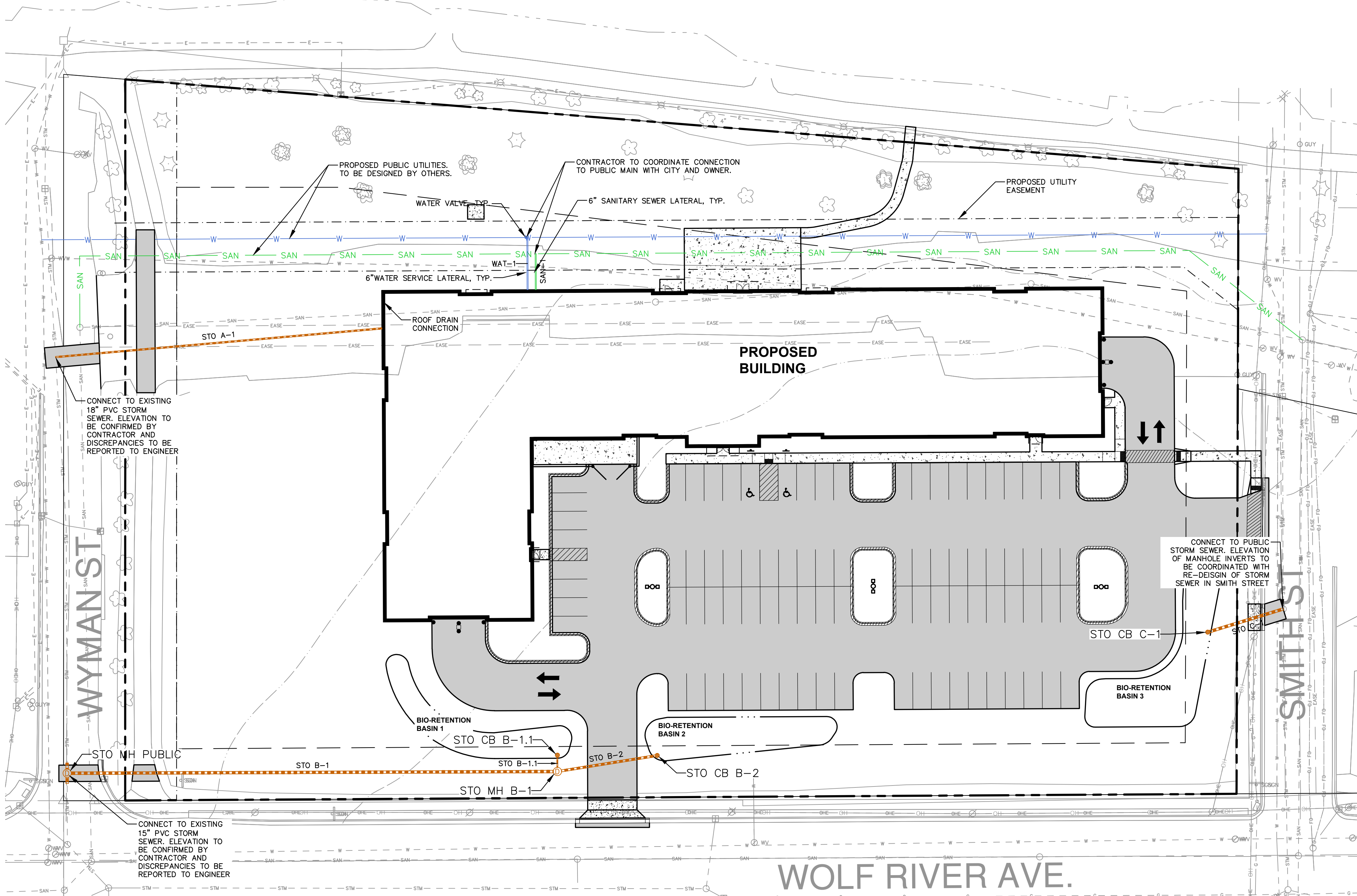
SHEET NUMBER:

C3.0

JSD PROJECT NO:

22-11383-MF

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PROPOSED STORM SEWER PIPE TABLE						
LABEL	FROM	TO	LENGTH	INVERT EL. (FT)	DISCHARGE EL. (FT)	SIZE & MATERIAL
STO A-1	BUILDING	MAIN	159'	756.50	752.50	2.51% 8 IN HDPE
STO B-1	STO MH B-1	STO MH PUBLIC	239'	755.83	753.50	0.98% 15 IN HDPE
STO B-1.1	STO CB B-1.1	STO MH B-1	8'	756.40	756.24	2.00% 6 IN HDPE
STO B-2	STO CB B-2	STO MH B-1	49'	756.40	755.93	0.96% 12 IN HDPE
STO C-1	STO CB C-1	EXISTING MH	38'	756.40	756.21	0.50% 15 IN HDPE

PROPOSED SANITARY SEWER PIPE TABLE						
LABEL	FROM	TO	LENGTH	INVERT EL. (FT)	DISCHARGE EL. (FT)	SIZE & MATERIAL
SAN-1	BUILDING	PUBLIC MAIN	17'	757.00	756.65	2.00% 6 IN PVC

PROPOSED STORM SEWER STRUCTURE TABLE					
LABEL	RIM EL. (FT)	INVERT EL. (FT)	DEPTH (FT)	STRUCTURE DESC.	FRAME & GRATE
STO CB B-1.1	759.50	S INV: 756.40 (6")	3.6	36 IN MH (FLAT)	R-2560-E6 BEEHIVE
STO CB B-2	759.50	W INV: 756.40 (12")	3.6	36 IN MH (FLAT)	R-2560-E6 BEEHIVE
STO CB C-1	759.50	E INV: 756.40 (15")	3.6	36 IN MH (FLAT)	R-2560-E6 BEEHIVE
STO MH B-1	761.61	W INV: 755.83 (15") E INV: 755.93 (12") N INV: 756.24 (6")	5.8	48 IN MH (FLAT)	R-1556 SOLID LID
STO MH PUBLIC	758.82	N INV: 753.16 (15") E INV: 753.50 (15") S INV: 753.16 (15")	5.7	48 IN MH (FLAT)	R-1556 SOLID LID

LEGEND

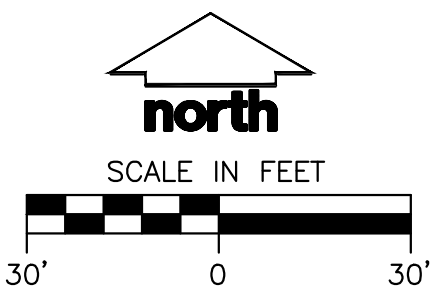
- PROPERTY LINE
- RIGHT-OF-WAY
- EASEMENT LINE
- BUILDING OUTLINE
- BUILDING OVERHANG
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- MOUNTABLE CURB AND GUTTER
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- STORMWATER MANAGEMENT AREA
- RAILING
- SANITARY SEWER
- WATERMAIN
- STORM SEWER

UTILITY NOTES

- ALL EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATIONS OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR/OWNER SHALL CALL "DIGGER'S HOTLINE" PRIOR TO ANY CONSTRUCTION.
- PRIOR TO CONSTRUCTION, THE PRIME CONTRACTOR IS RESPONSIBLE FOR:
EXAMINING ALL SITE CONDITIONS RELATIVE TO THE CONDITIONS INDICATED ON THE ENGINEERING DRAWINGS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER AND RESOLVED PRIOR TO THE START OF CONSTRUCTION.
 - OBTAINING ALL PERMITS INCLUDING PERMIT COSTS, TAP FEES, METER DEPOSITS, BONDS, AND ALL OTHER FEES REQUIRED FOR PROPOSED WORK TO OBTAIN OCCUPANCY.
 - VERIFYING ALL ELEVATIONS, LOCATIONS AND SIZES OF SANITARY, WATER AND STORM LATERALS AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS. NOTIFY ENGINEER OF ANY DISCREPANCY. NO WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS RESOLVED.
 - NOTIFYING ALL UTILITIES PRIOR TO INSTALLATION OF ANY UNDERGROUND IMPROVEMENTS.
 - NOTIFYING THE DESIGN ENGINEER AND MUNICIPALITY 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION OBSERVATION.
 - COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.
- ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN - AND ALL STATE AND LOCAL CODES AND SPECIFICATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE WHICH SPECIFICATIONS AND CODES APPLY, AND TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE LOCAL AND STATE AUTHORITIES.
- LENGTHS OF ALL UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLAN. LENGTHS SHALL BE VERIFIED IN THE FIELD DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING THE CONSTRUCTION OF IMPROVEMENTS.
- CONTRACTOR SHALL INSTALL A PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVER NIGHT AS REQUIRED IN CONSTRUCTION SITES WHERE THE POTENTIAL FOR PEDESTRIAN INJURY EXISTS.
- CONTRACTOR SHALL ADJUST AND/OR RECONSTRUCT ALL UTILITY COVERS (SUCH AS MANHOLE COVERS, VALVE BOX COVERS, ETC.) TO MATCH THE FINISHED GRADES OF THE AREAS EFFECTED BY THE CONSTRUCTION.
- THE PRIME CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.
- ANY SANITARY SEWER, SANITARY SEWER SERVICES, WATER MAIN, WATER SERVICES, STORM SEWER, OR OTHER UTILITIES, WHICH ARE DAMAGED BY THE CONTRACTORS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE ENGINEER WITH AS-BUILT CONDITIONS OF THE DESIGNATED IMPROVEMENTS IN ORDER THAT THE APPROPRIATE DRAWINGS CAN BE PREPARED, IF REQUIRED. ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS MUST BE REPORTED TO THE ENGINEER AS WORK PROGRESSES.
- STORM SEWER SPECIFICATIONS -
PIPE - HIGH DENSITY DUAL-WALL POLYETHYLENE CORRUGATED PIPE SHALL BE AS MANUFACTURED BY ADS OR EQUAL WITH WATER TIGHT JOINTS, AND SHALL MEET THE REQUIREMENTS OF ASHTO DESIGNATION M-294 TYPE "S".
BACKFILL AND BEDDING - STORM SEWER SHALL BE CONSTRUCTED WITH GRAVEL BACKFILL AND CLASS "B" BEDDING IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".
MANHOLE FRAMES AND COVERS - MANHOLE FRAMES AND COVERS SHALL BE NEENAH R-1556.
FIELD TILE CONNECTION - ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE INCLUDED IN THE UNIT PRICE(S) FOR STORM SEWER. TILE LINES CROSSED BY THE TRENCH SHALL BE REPLACED WITH THE SAME MATERIAL AS THE STORM SEWER.
- WATER MAIN SPECIFICATIONS -
PIPE - DUCTILE IRON PIPE SHALL BE CLASS 52 CONFORMING TO AWWA C151 AND CHAPTER 8.18.0 OF THE "STANDARD SPECIFICATIONS". POLYVINYL CHLORIDE (PVC) PIPE SHALL MEET THE REQUIREMENTS OF AWWA STANDARD C-900, CLASS 150, DR-18, WITH CAST IRON O.D. AND INTEGRAL ELASTOMERIC BELL AND SPIGOT JOINTS. NON-METALLIC WATER MAINS SHALL BE INSTALLED WITH BLUE INSULATION TRACER WIRE AND CONFORM WITH SPS 382.30(11)(h).
VALVES AND VALVE BOXES - GATE VALVES SHALL BE AWWA GATE VALVES MEETING THE REQUIREMENTS OF AWWA C500 AND CHAPTER 8.27.0 OF THE "STANDARD SPECIFICATIONS". GATE VALVES AND VALVE BOXES SHALL CONFORM TO LOCAL PLUMBING ORDINANCES.
HYDRANTS - HYDRANTS SHALL CONFORM TO THE SPECIFICATIONS OF THE CITY OF NEW LONDON. THE DISTANCE FROM THE GROUND LINE TO THE CENTERLINE OF THE LOWEST NOZZLE AND THE LOWEST CONNECTION OF THE FIRE DEPARTMENT SHALL BE NO LESS THAN 18-INCHES AND NO GREATER THAN 23-INCHES (SEE DETAIL).
BEDDING AND COVER MATERIAL - PIPE BEDDING AND COVER MATERIAL SHALL BE SAND, CRUSHED STONE CHIPS OR CRUSHED STONE SCREENINGS CONFORMING TO CHAPTER 8.43.2 OF THE "STANDARD SPECIFICATIONS".
BACKFILL - BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS". GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".
- SANITARY SEWER SPECIFICATIONS -
PIPE - SANITARY SEWER PIPE MATERIAL SHALL BE POLYVINYL CHLORIDE (PVC) MEETING REQUIREMENTS OF ASTM D 3034, SDR-35, WITH INTEGRAL BELL TYPE FLEXIBLE ELASTOMERIC JOINTS, MEETING THE REQUIREMENTS OF ASTM D-3212.
BEDDING AND COVER MATERIAL - BEDDING AND COVER MATERIAL SHALL CONFORM TO THE APPROPRIATE SECTIONS OF THE "STANDARD SPECIFICATION" WITH THE FOLLOWING MODIFICATION: "COVER MATERIAL SHALL BE THE SAME AS USED FOR BEDDING AND SHALL CONFORM TO SECTION 8.43.2 (A). BEDDING AND COVER MATERIAL SHALL BE PLACED IN A MINIMUM OF THREE SEPARATE LIFTS, OR AS REQUIRED TO INSURE ADEQUATE COMPACTING OF THESE MATERIALS, WITH ONE LIFT OF BEDDING MATERIAL ENDING AT OR NEAR THE SPRINGLINE OF THE PIPE. THE CONTRACTOR SHALL TAKE CARE TO COMPLETELY WORK BEDDING MATERIAL UNDER THE HAUNCH OF THE PIPE TO PROVIDE ADEQUATE SIDE SUPPORT."
BACKFILL - BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS". GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".
MANHOLES - MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH FILE NOS. 12, 13 AND 15 OF THE "STANDARD SPECIFICATIONS" AND ALL SPECIAL PROVISIONS OF THE CITY OF NEW LONDON.
MANHOLE FRAMES AND COVERS - MANHOLE FRAMES AND COVERS SHALL BE NEENAH R-1556 WITH SOLID LID.
- WATERMAIN AND SANITARY SEWER SHALL BE INSULATED WHEREVER THE DEPTH OF COVER IS LESS THAN 6 FEET. INSULATION AND INSTALLATION OF INSULATION SHALL BE CONFORMING WITH CHAPTER 4.17.0 "INSULATION" OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN 6TH EDITION UPDATED WITH ITS LATEST ADDENDUM (TYP.).

STORMWATER FACILITIES CONSTRUCTION NOTES

- ENGINEER SHALL BE NOTIFIED PRIOR TO INSTALLATION OF STORMWATER MANAGEMENT FACILITIES. CONSTRUCTION OF STORMWATER MANAGEMENT FACILITIES SHALL BE OBSERVED AND DOCUMENTED BY THE ENGINEER, OR AN OWNER'S REPRESENTATIVE.
- STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AFTER SUBSTANTIAL COMPLETION OF FINAL SITE GRADING AND SOILS HAVE BEEN STABILIZED.
- CONSTRUCTION TRAFFIC, HEAVY EQUIPMENT AND SOIL STOCKPILES SHALL NOT BE PLACED IN AREAS WHERE PROPOSED STORMWATER MANAGEMENT FACILITIES ARE LOCATED.



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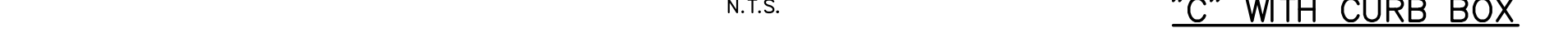
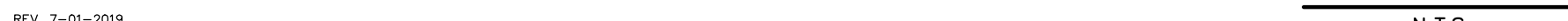
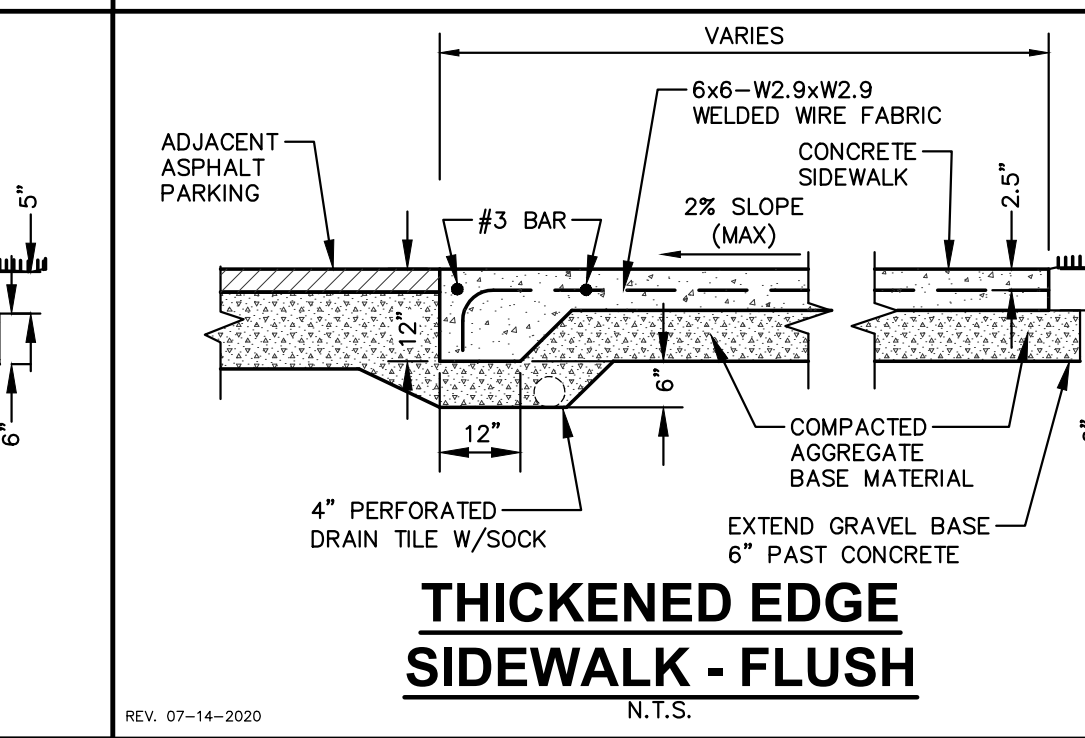
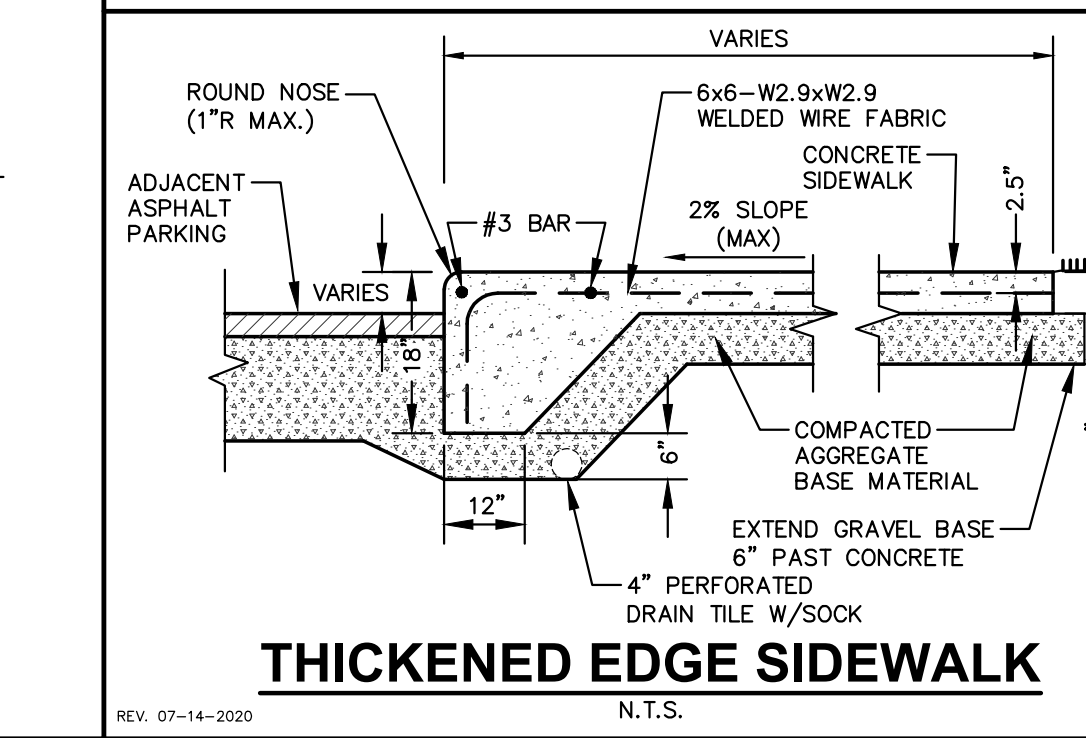
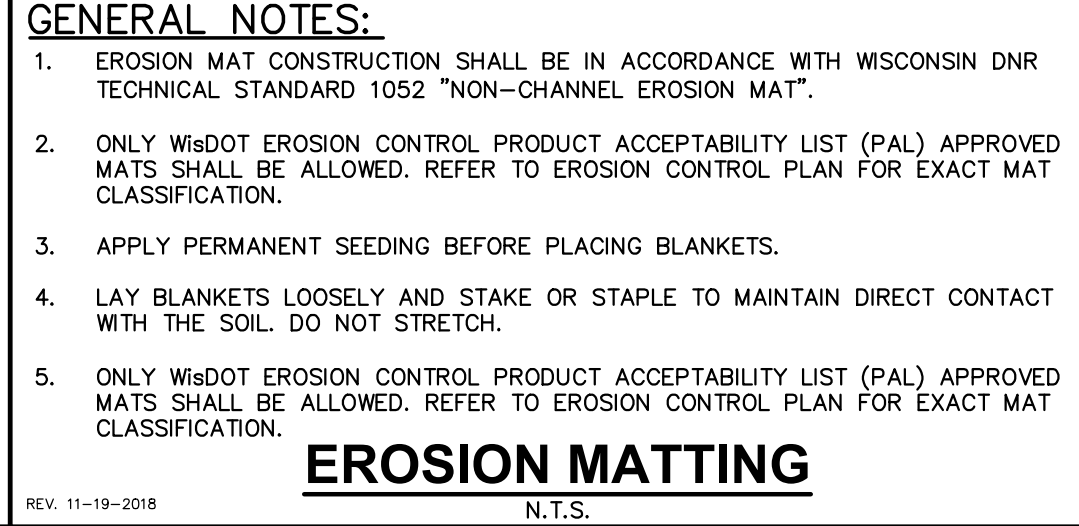
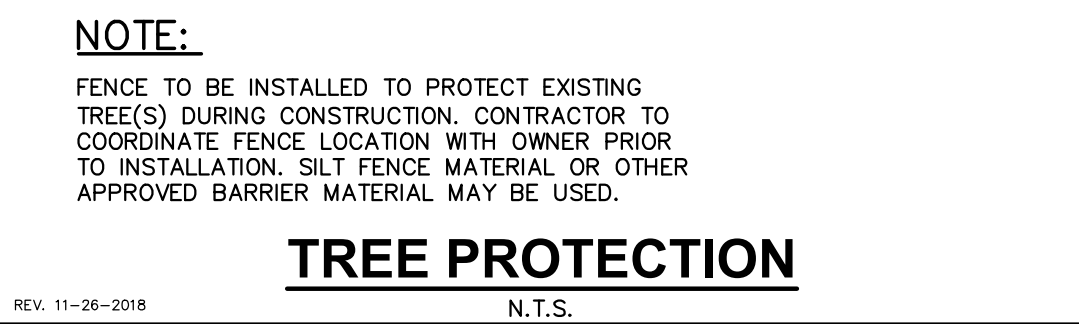
UTILITY PLAN

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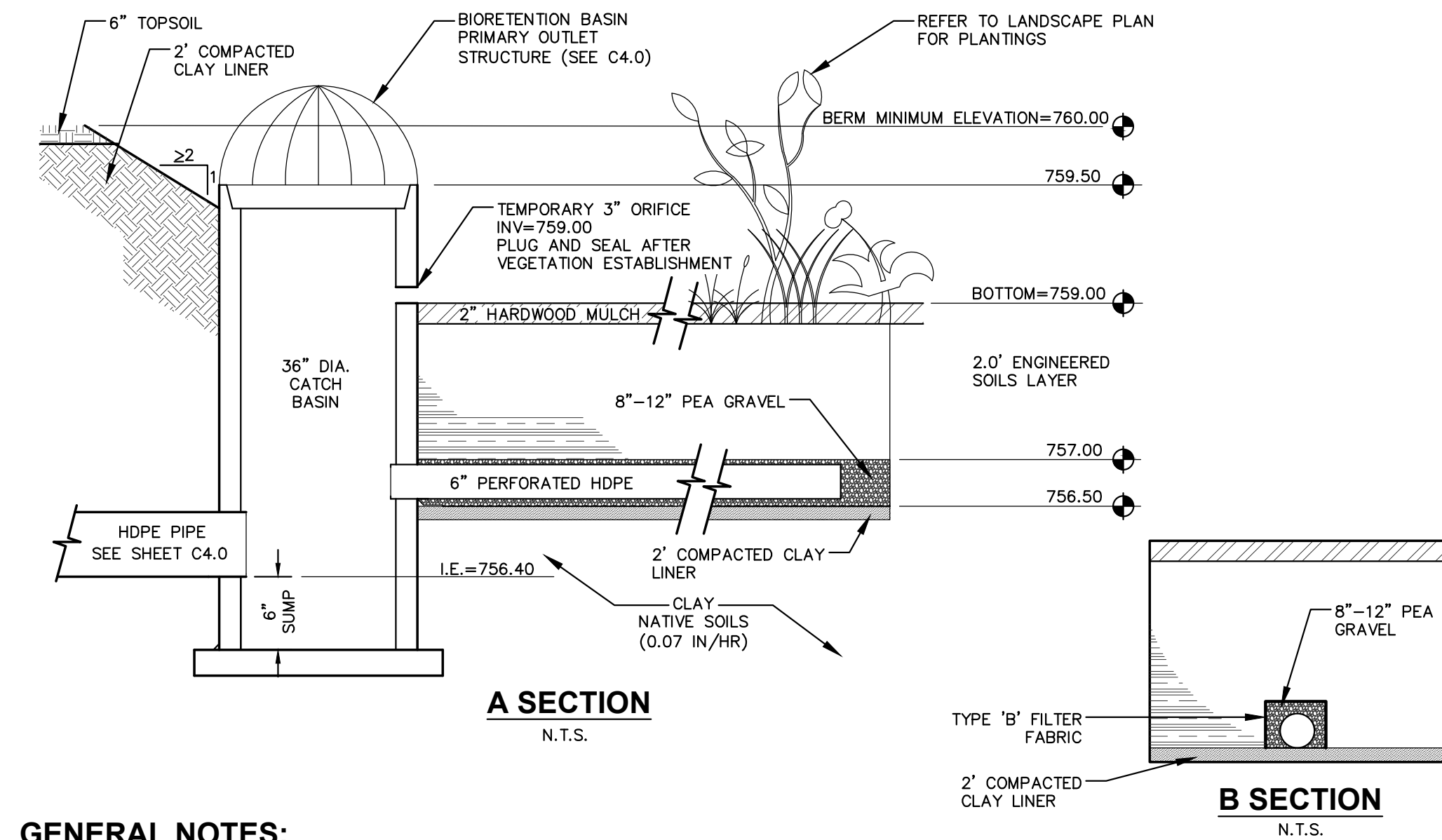
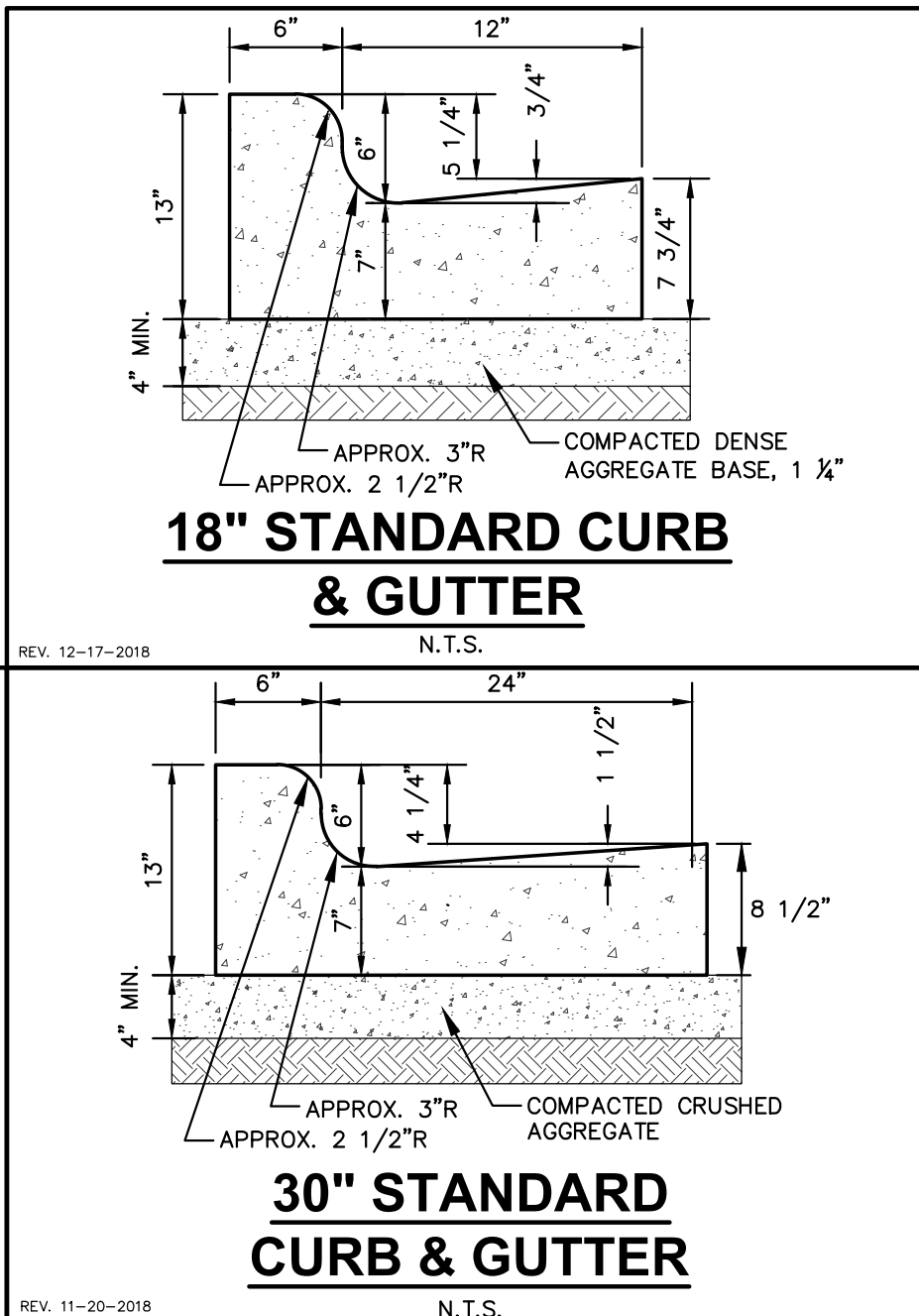
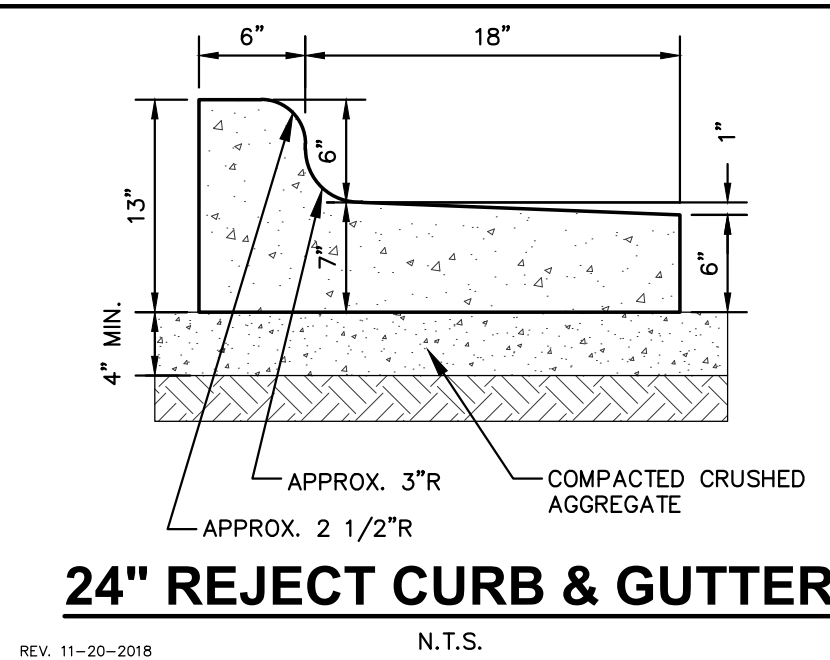
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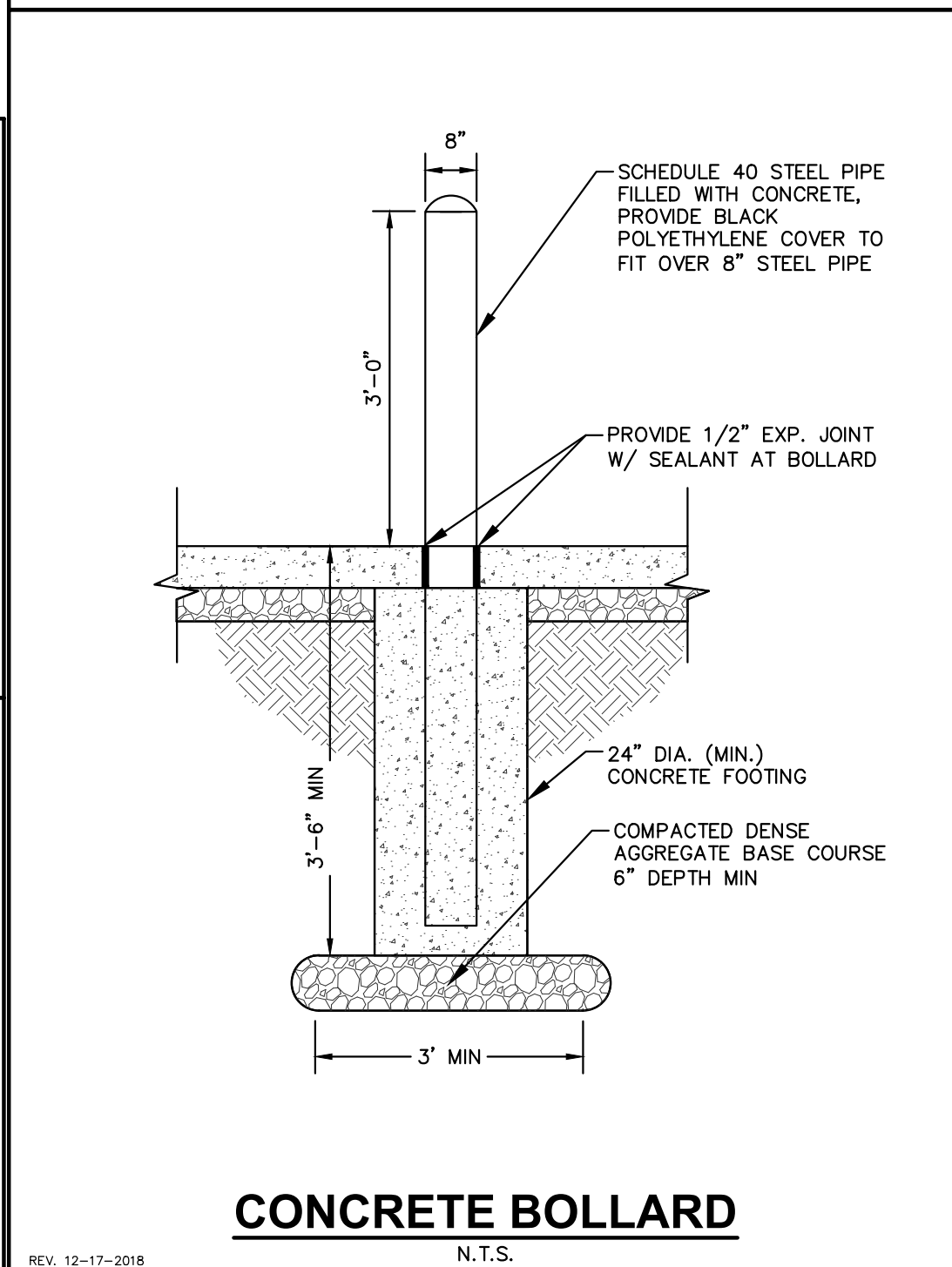
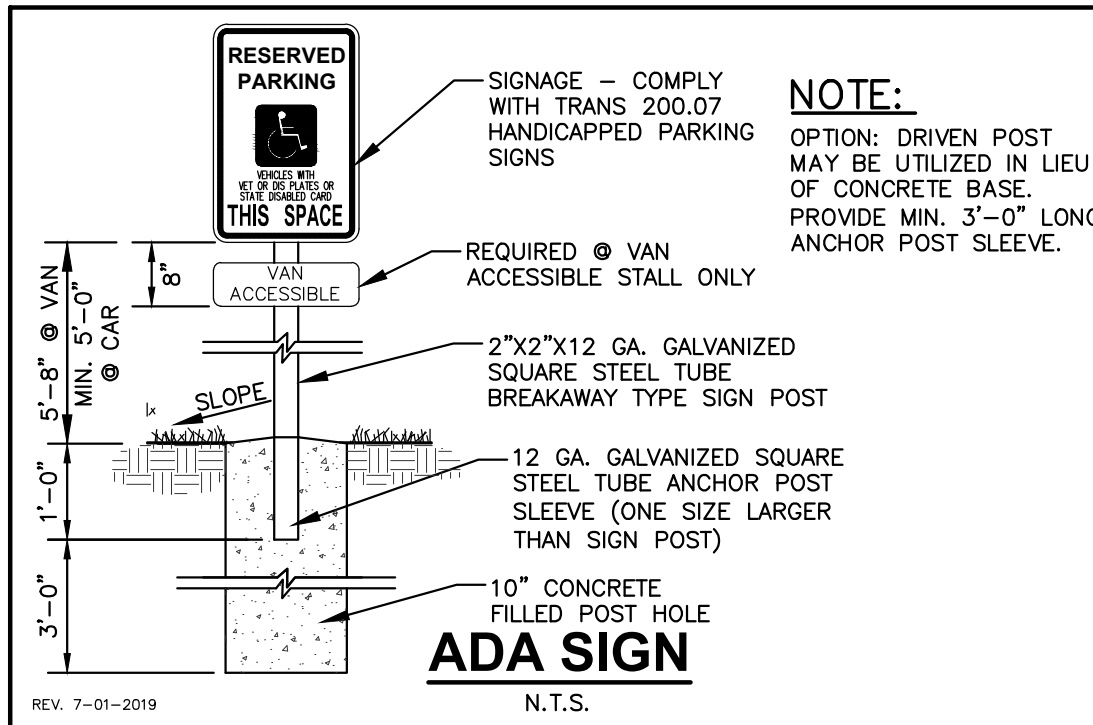
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- GENERAL NOTES:**
- ALL CONSTRUCTION PRACTICES SHALL MEET THE SPECIFICATIONS OF THE WDNR TECHNICAL STANDARD 1004 - BIORETENTION FOR INFILTRATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COPY OF THIS STANDARD AND CONSTRUCT THE BIORETENTION DEVICE IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED THEREIN.
 - CONTRACTOR SHALL INSTALL 24\"/>
 - CERTIFIED COMPOST SHALL CONSIST OF: >40% ORGANIC MATTER, <60% ASH CONTENT, pH OF 6-8, AND MOISTURE CONTENT OF 35-50% BY WEIGHT.
 - CLAY LINER SHALL BE A MINIMUM OF 2- FEET THICK. CLAY SHALL BE COMPACTED AT ±2.0% OPTIMAL MOISTURE CONTENT TO 90% MODIFIED PROCTOR. MEDIUM STIFF TO STIFF CLAYS PRESENT IN-PLACE AT THE POND SIDE SLOPES OR BOTTOM OR OTHER ONSITE MEDIUM STIFF TO STIFF CLAYS MAY BE USED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER OF RECORD.
 - IF ADDITIONAL EXCAVATION IS REQUIRED BELOW THE SAND SOIL PROFILE TO REACH THE LISTED NATIVE SOIL LAYER, THE BACKFILL USED TO RETURN THE BOTTOM OF THE BIORETENTION SYSTEM TO THE BOTTOM OF THE SAND LAYER ELEVATION MUST HAVE AN EQUAL OR HIGHER INFILTRATION RATE THAN THE LISTED NATIVE SOIL LAYER AS CONFIRMED BY A GEOTECHNICAL ENGINEER.
 - FILTER FABRIC SHALL BE PLACED ABOVE AND ON THE SIDES OF THE PERFORATED PIPE, BETWEEN THE PEA GRAVEL AND THE ENGINEERED SOIL. A WIDTH OF 4 FEET CENTERED OVER THE FLOW LINE OF THE PIPE.
 - ANNUAL RYE GRASS SHALL BE SEED AT 40 LB/ACRE WITH THE SEED MIX IN THE AREAS SURROUNDING THE BASIN, ON SIDE SLOPES, AND OVER ANY LAND THAT DISCHARGES INTO THE BASIN FOR EROSION CONTROL. WHEN BASIN IS BROUGHT ON-LINE, ROOTSTOP AND PLUGS ARE REQUIRED TO ESTABLISH VEGETATION AT THE INVERT OF THE BASIN.
 - RUNOFF MUST INFILTRATE WITHIN 24-HOURS. BASINS UNABLE TO MAINTAIN THESE RATES MUST BE DEEP TILLED, REGRADED, AND IF NECESSARY REPLANTED TO RESTORE ORIGINAL INFILTRATION RATES.
 - ALL WORK TO BE CONDUCTED IN CONFORMANCE WITH APPLICABLE LOCAL, REGIONAL, AND STATE STORMWATER STANDARDS FOR THE PROJECT SITE AS APPROVED BY THE REGULATORY ENGINEER.
 - SEE LANDSCAPING PLAN AND CONSULT WITH LANDSCAPE ARCHITECT OR ECOLOGICAL PLANTING AGENCY FOR APPROPRIATE SEED MIX, PLANTS AND PLANTING CONFIGURATIONS.
 - THE CONTRACTOR IS REQUIRED TO PROVIDE QUALIFIED STAFF FOR INSPECTION AND OBSERVATION OF THE CONSTRUCTION ACTIVITIES RELATING TO ALL JOB SITE REGULATORY COMPLIANCE INCLUDING THE PROTECTION AND CONSTRUCTION OF ALL STORMWATER MANAGEMENT FEATURES. ANY OBSERVATION OF PLAN OR SITE DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

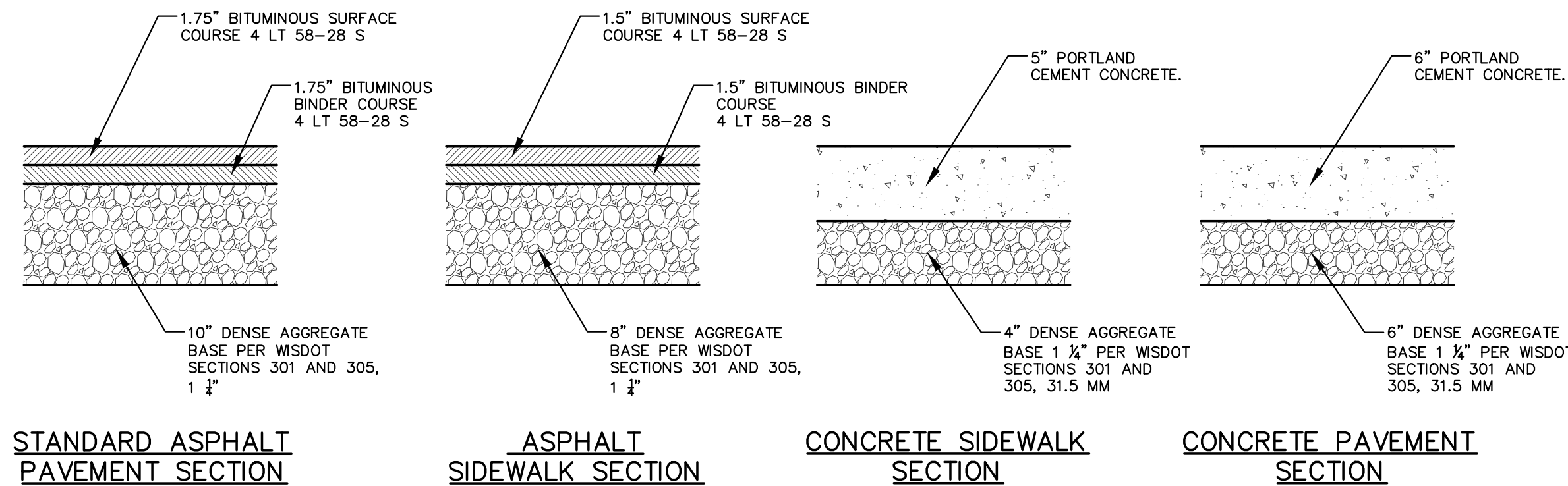
BIORETENTION BASIN 1, 2, & 3 - CLAY LINED

N.T.S.



CONCRETE BOLLARD

N.T.S.

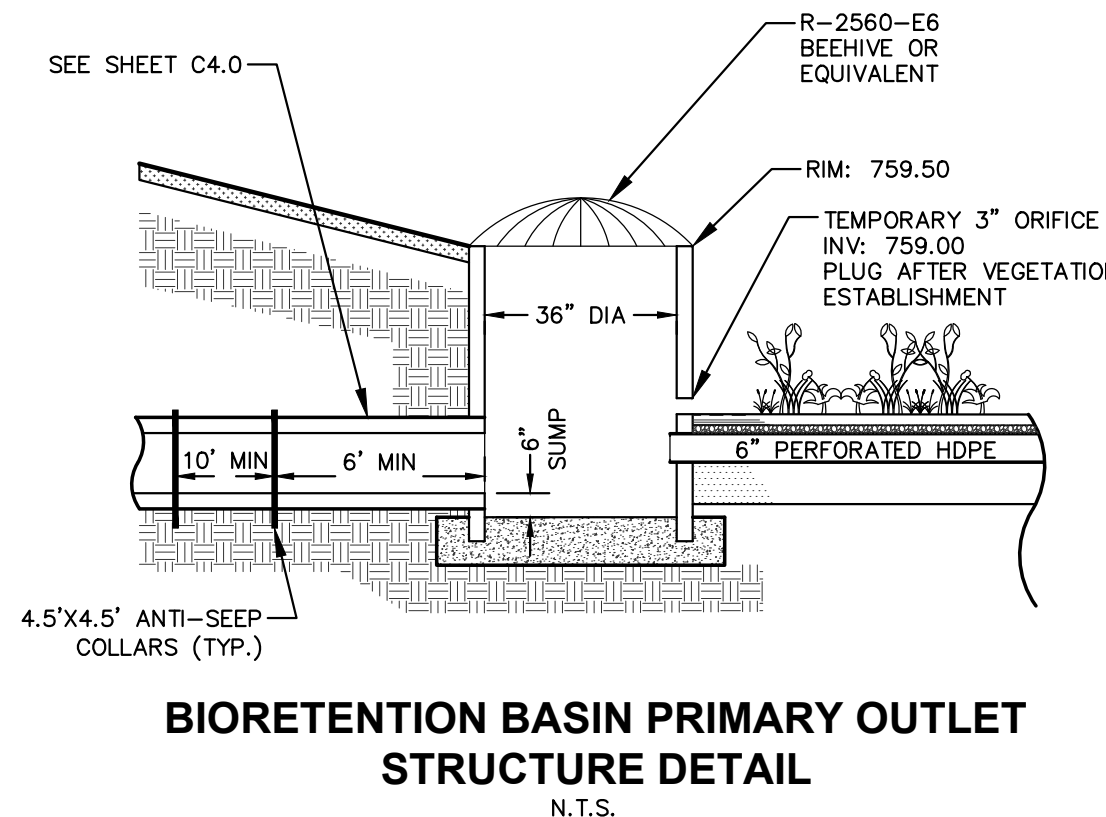


GENERAL NOTES:

- REFER TO PAVEMENT RECOMMENDATIONS IN THE GEOTECHNICAL INVESTIGATION REPORT, PREPARED BY AMERICAN ENGINEERING TESTING, INC TITLED "REPORT OF GEOTECHNICAL EXPLORATION PROPOSED MULTI-FAMILY HOUSING DEVELOPMENT, W. WOLF RIVER AVENUE AT WYMAN STREET," DATED AUGUST 24, 2021. IF THERE ARE ANY DISCREPANCIES BETWEEN THIS DETAIL AND THE PAVEMENT RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL INVESTIGATION REPORT, THE GEOTECHNICAL REPORT SHALL GOVERN.
- WSDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, INCLUDING SUPPLEMENTAL SPECIFICATIONS, COMPACTION REQUIREMENTS:
 - BITUMINOUS CONCRETE: REFER TO SECTION 460-3.
 - BASE COURSE: REFER TO SECTION 301.3.4.2, STANDARD COMPACTION.

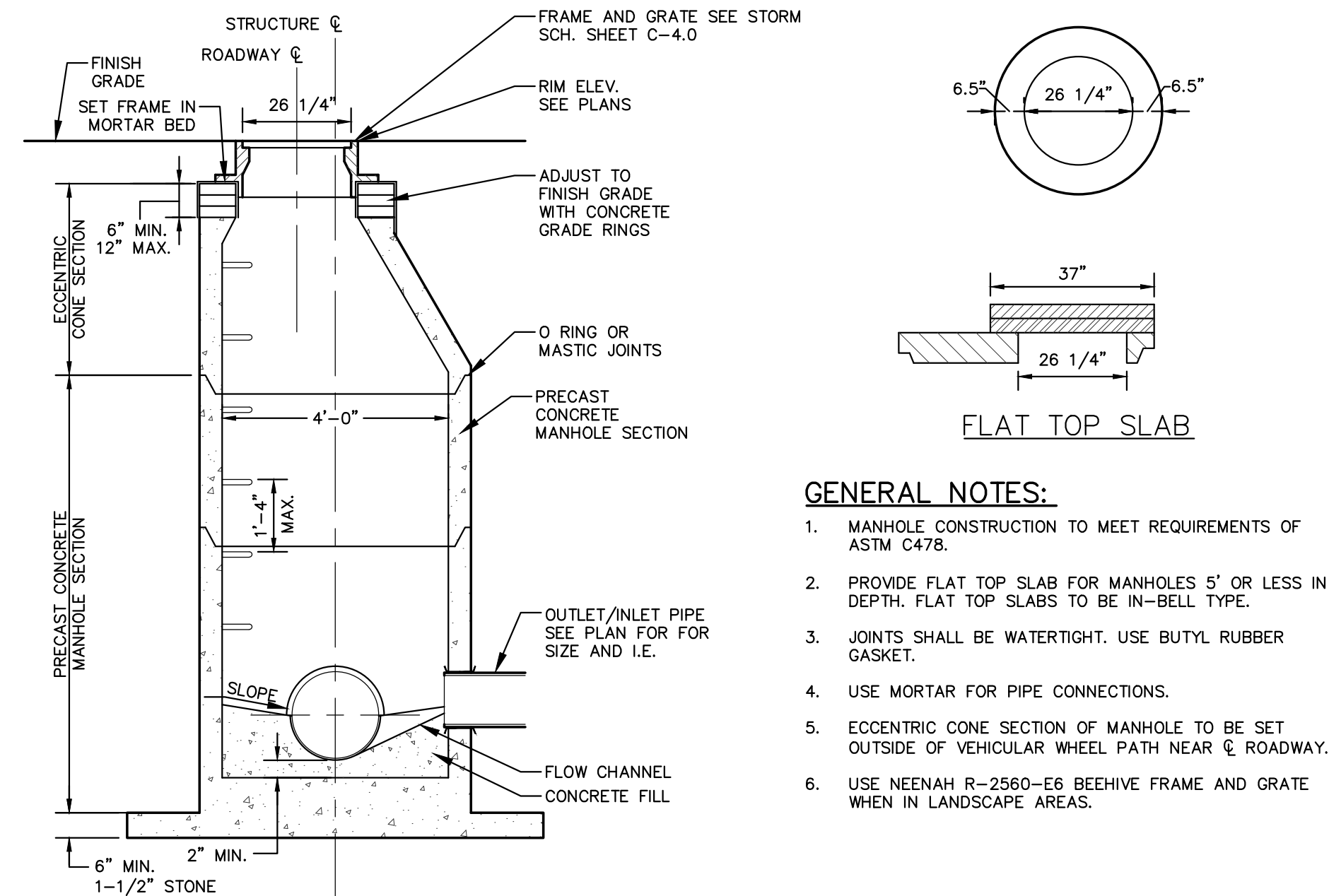
PAVEMENT SECTIONS

N.T.S.



BIORETENTION BASIN PRIMARY OUTLET STRUCTURE DETAIL

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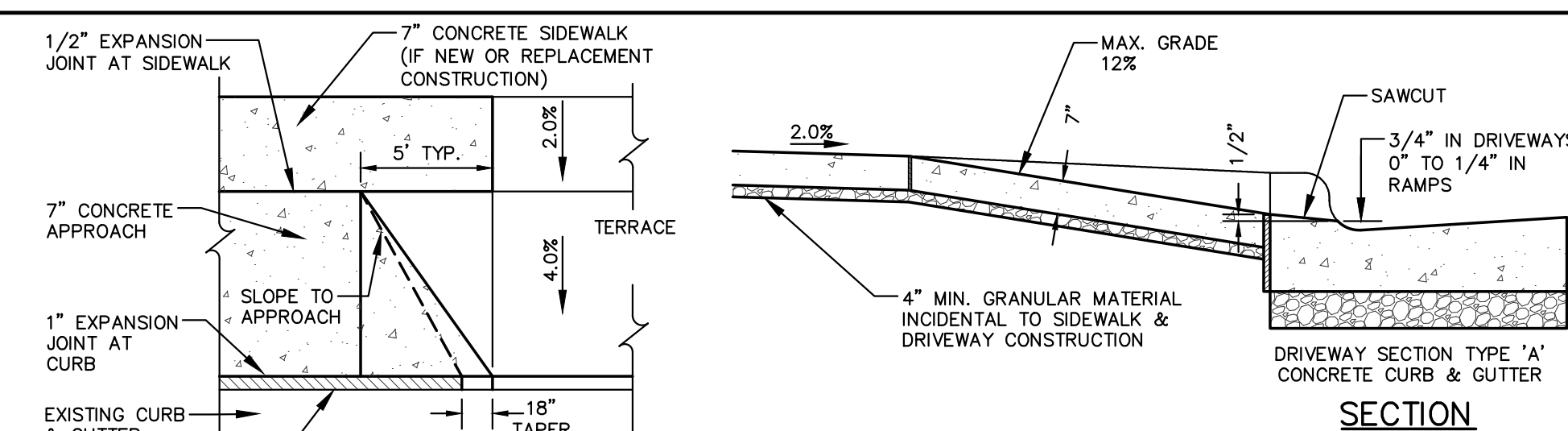


GENERAL NOTES:

- MANHOLE CONSTRUCTION TO MEET REQUIREMENTS OF ASTM C478.
- PROVIDE FLAT TOP SLAB FOR MANHOLES 5' OR LESS IN DEPTH. FLAT TOP SLABS TO BE IN-BELL TYPE.
- JOINTS SHALL BE WATERTIGHT. USE BUTYL RUBBER GASKET.
- USE MORTAR FOR PIPE CONNECTIONS.
- ECCENTRIC CONE SECTION OF MANHOLE TO BE SET OUTSIDE OF VEHICULAR WHEEL PATH NEAR ROADWAY.
- USE NEENAH R-2560-E6 BEEHIVE FRAME AND GRATE WHEN IN LANDSCAPE AREAS.

STORM SEWER MANHOLE

N.T.S.



COMMERCIAL ENTRANCE

N.T.S.



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CONSTRUCTION DETAILS

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SCALE: 1/2"=1'-0"



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EDEN (EA)

4-STORY, 98-UNIT, STUDIO-2 BEDROOM APARTMENT

SHEET INDEX

ARCHITECTURAL	
SHEET	TITLE
A0.00	COVER
A1.10	FIRST FLOOR PLAN
A1.11	FIRST FLOOR PLAN - A
A1.12	FIRST FLOOR PLAN - B
A1.20	SECOND FLOOR PLAN
A1.21	SECOND FLOOR PLAN - A
A1.22	SECOND FLOOR PLAN - B
A1.30	THIRD FLOOR PLAN
A1.40	FOURTH FLOOR PLAN
A2.00	EXTERIOR ELEVATIONS - FRONT (SOUTH)
A2.01	EXTERIOR ELEVATIONS - REAR (NORTH)
A2.02	EXTERIOR ELEVATIONS
A5.00	ENLARGED UNIT PLANS - STUDIO
A5.01	ENLARGED UNIT PLANS - 1 BEDROOM
A5.02	ENLARGED UNIT PLANS - 2 BEDROOM
A5.20	ENLARGED FLOOR PLANS

PROJECT INFORMATION

BUILDING DATA

BUILDING CODE:	IBC 2015	R-2 OCCUPANCY
BUILDING AREA:		
1ST FLOOR:	31,398 S.F.	(S-2 OCCUPANCY - 28,377 S.F.) (A-3 OCCUPANCY - 3,021 S.F.)
2ND - 4TH FLOORS:	31,398 S.F.	(28,403 S.F. CONDITIONED)
TOTAL:	125,592 S.F.	(116,607 S.F. CONDITIONED)
BUILDING VOLUME:	> 50,000 C.F.	
BUILDING HEIGHT:	50'-0"	
# LEVELS:	4	
# UNITS:	98	

REV	DATE	DESIGNER	REMARKS

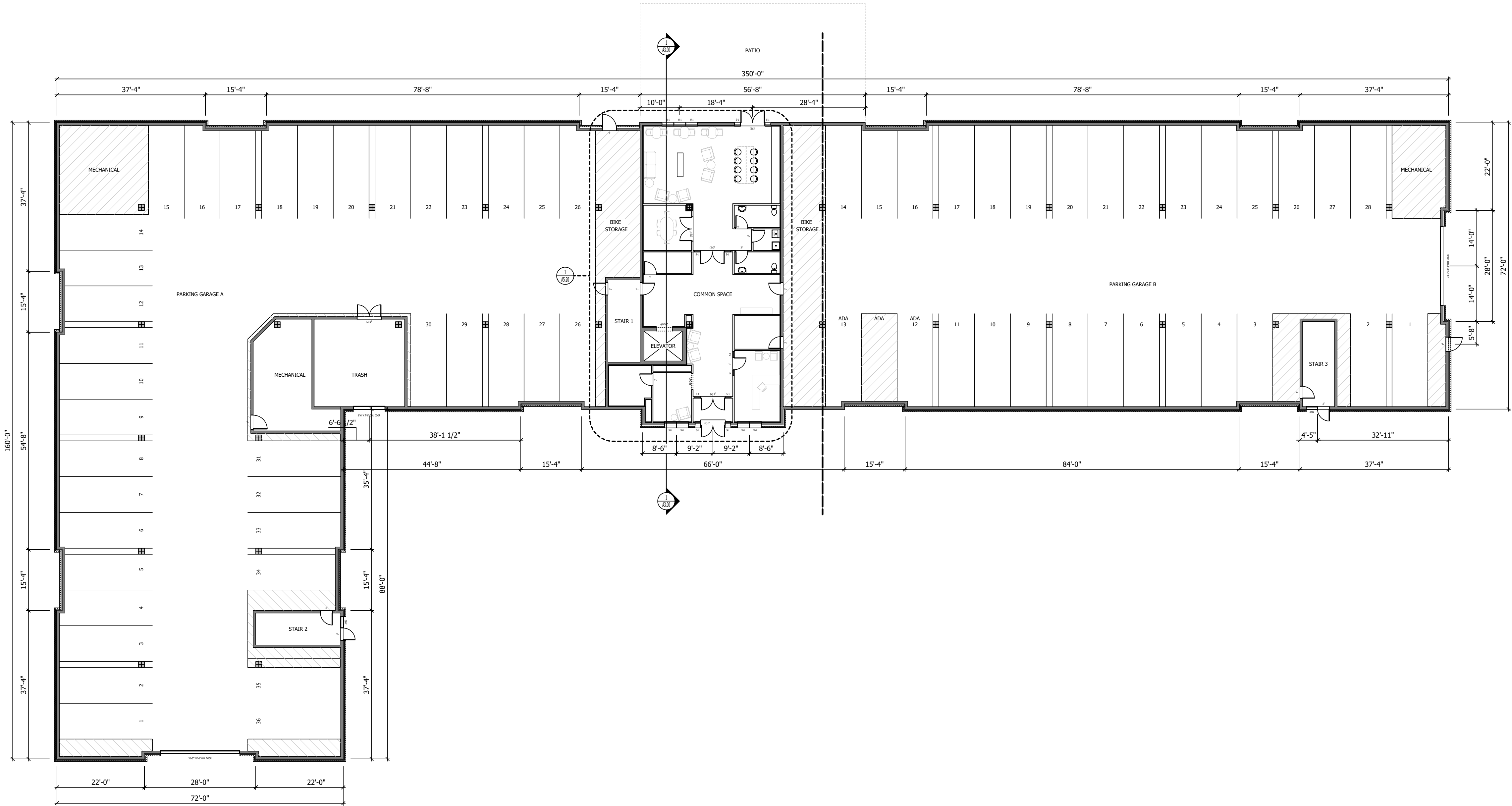
401 RANGER STREET
MOSINEE, WI 54455
PH: 715.693.9522
FAX: 715.693.9523
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SCS
S.C. SWIDERSKI LLC

PROJECT	20-032_SCS WOLF RIVER
MODEL	EDEN (EA)
TITLE	COVER - MODEL

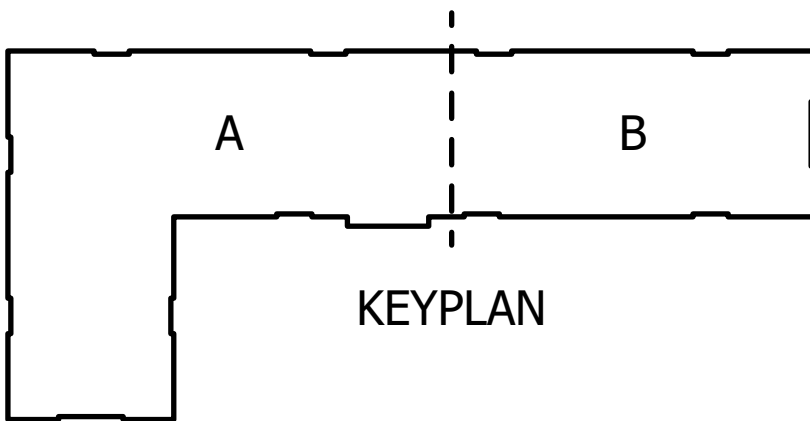
DATE	01/06/2023
DRAWN BY	SB
SCALE	NONE

SHEET NO.
A0.00



FIRST FLOOR PLAN

SCALE: 1/16" = 1'-0"



KEYPLAN

REV	DATE	DESIGNER	REMARKS

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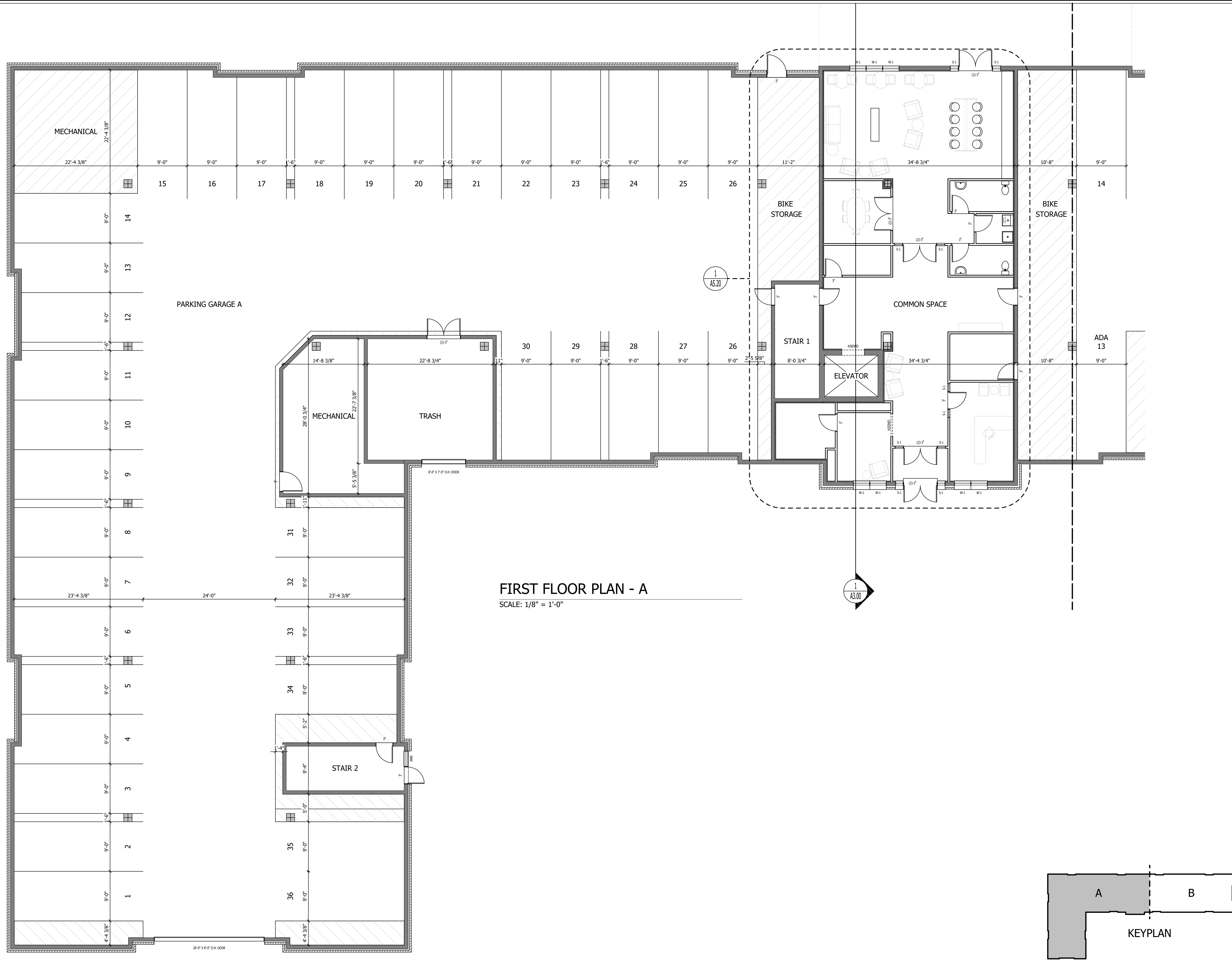
SCS

S.C. SWIDERSKI LLC

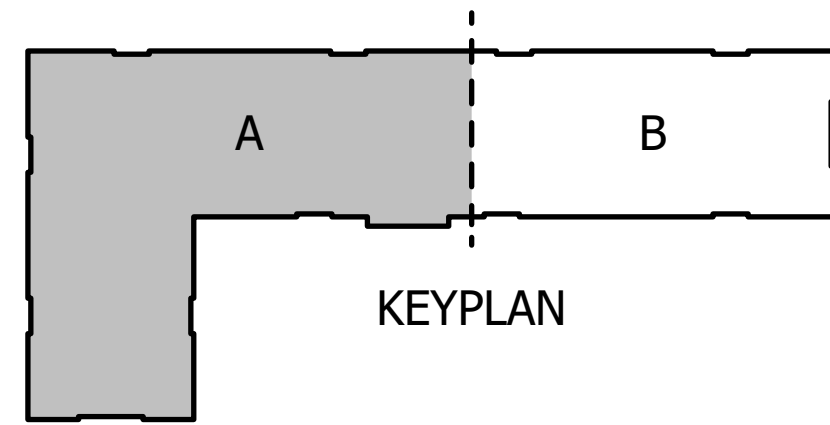
PROJECT	20-032_SCS WOLF RIVER
MODEL	EDEN (EA)
TITLE	FIRST FLOOR PLAN

DATE	01/06/2023
DRAWN BY	SB
SCALE	1/16"=1'-0"

SHEET NO.	A1.10
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FIRST FLOOR PLAN - A
SCALE: 1/8" = 1'-0"



REV	DATE	DESIGNER	REMARKS

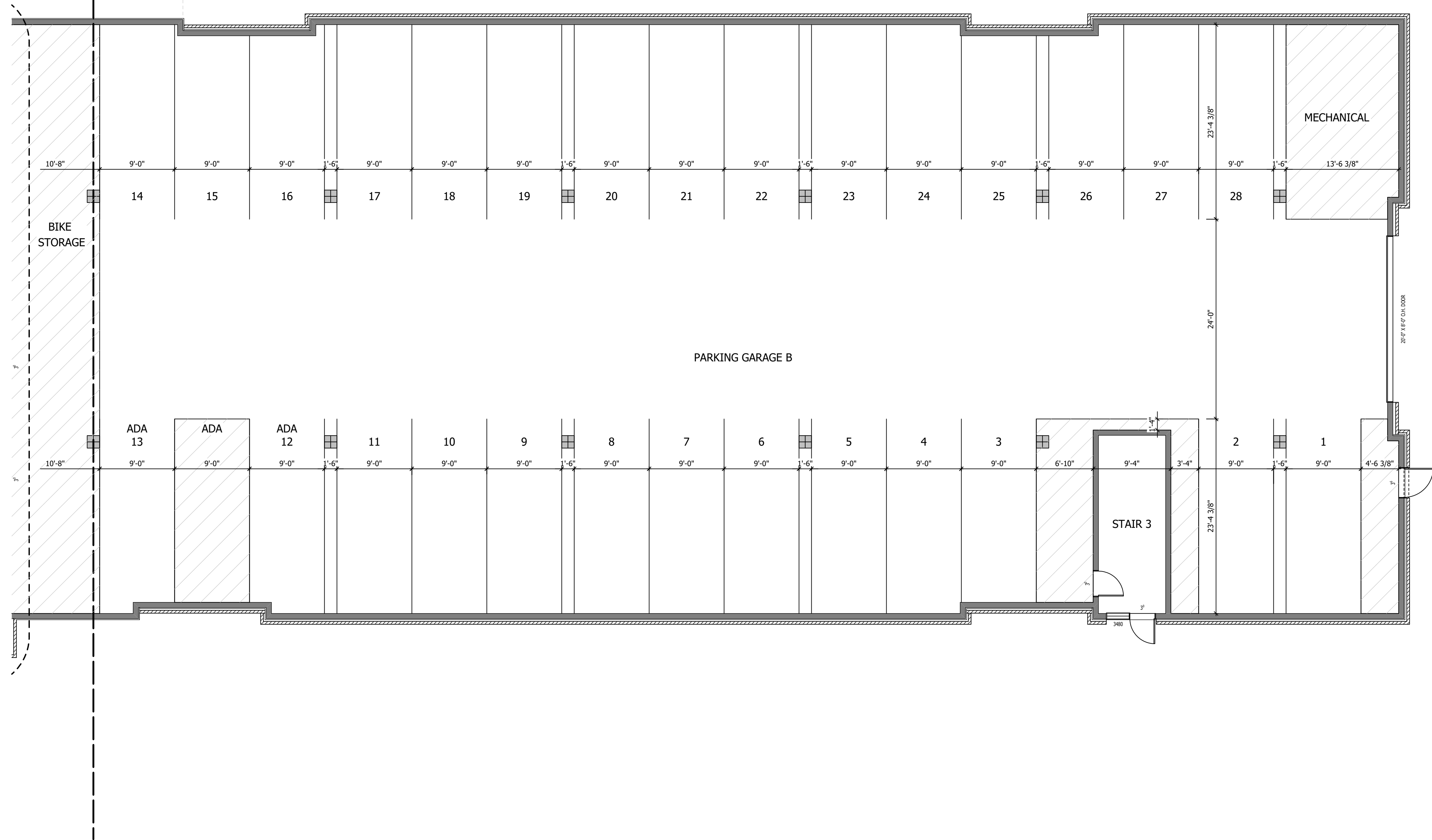
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S.C. SWIDERSKI LLC

PROJECT	20-032_SCS WOLF RIVER
MODEL	EDEN (EA)
TITLE	FIRST FLOOR PLAN - A

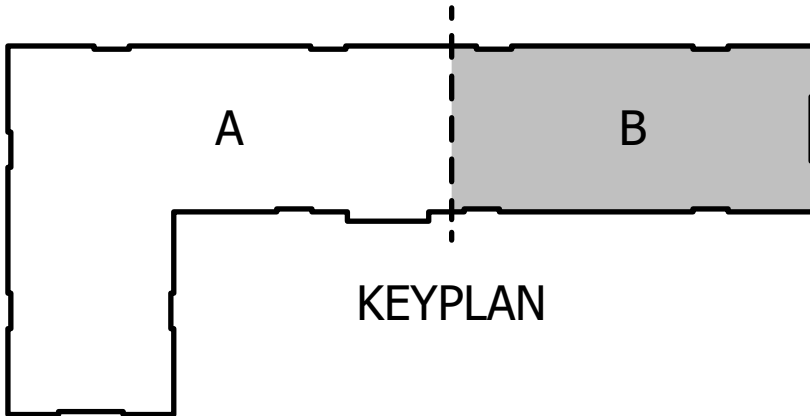
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DRAWN BY	SB
SCALE	1/8"=1'-0"

SHEET NO.	A1.11
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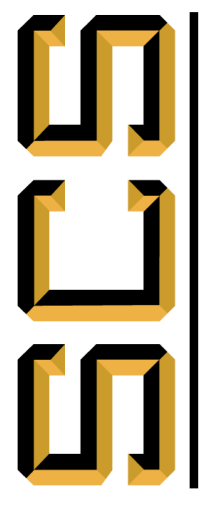
FIRST FLOOR PLAN - B

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



REV	DATE	DESIGNER	REMARKS

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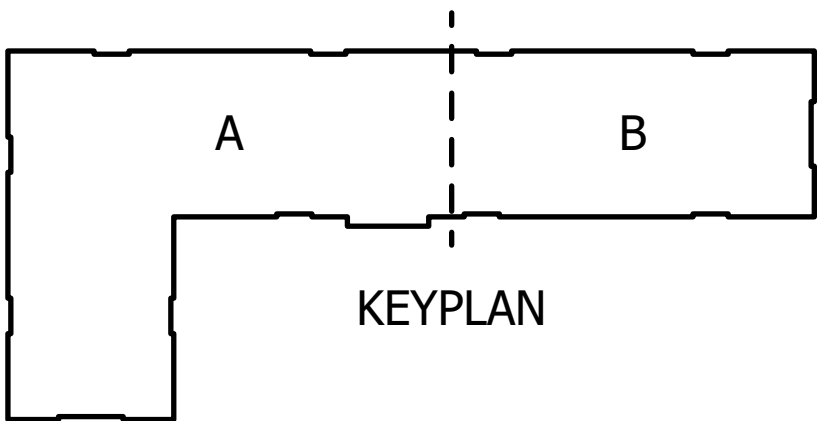
PROJECT	20-032_SCS WOLF RIVER
MODEL	EDEN (EA)
TITLE	FIRST FLOOR PLAN - B

DATE	01/06/2023
DRAWN BY	SB
SCALE	1/8"=1'-0"

SHEET NO.	A1.12
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SECOND FLOOR PLAN
SCALE: 1/16" = 1'-0"



REV	DATE	DESIGNER	REMARKS

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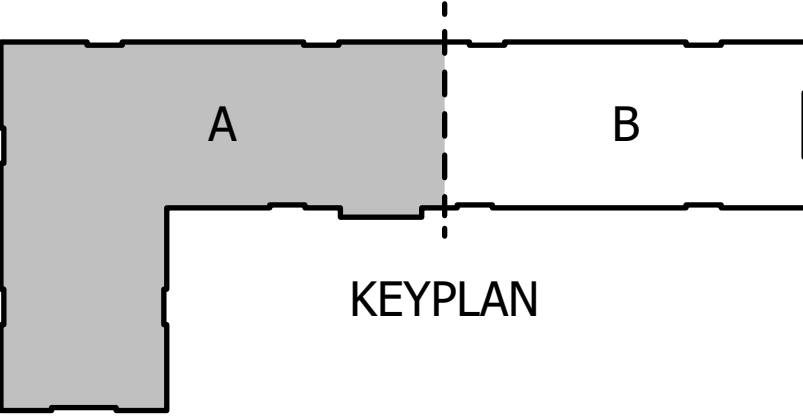
SCS

S.C. SWIDERSKI LLC

PROJECT	20-032_SCS WOLF RIVER
MODEL	EDEN (EA)
TITLE	SECOND FLOOR PLAN

DATE	01/06/2023
DRAWN BY	SB
SCALE	1/16"=1'-0"

SHEET NO.	A1.20
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SCALE: 1/8" = 1'-0"

SHEET NO.

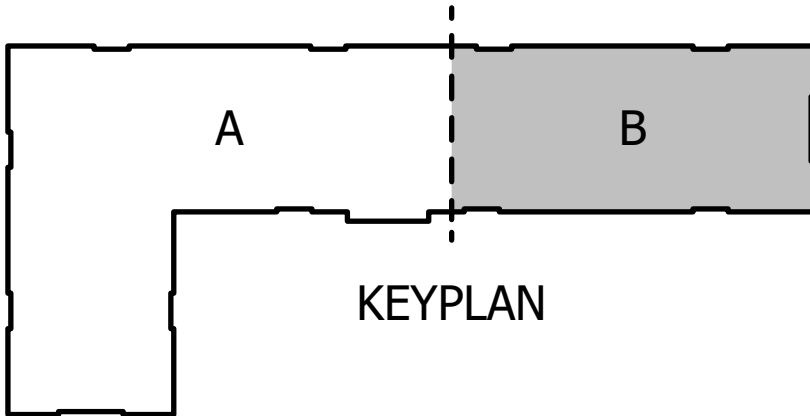
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SECOND FLOOR PLAN - B

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



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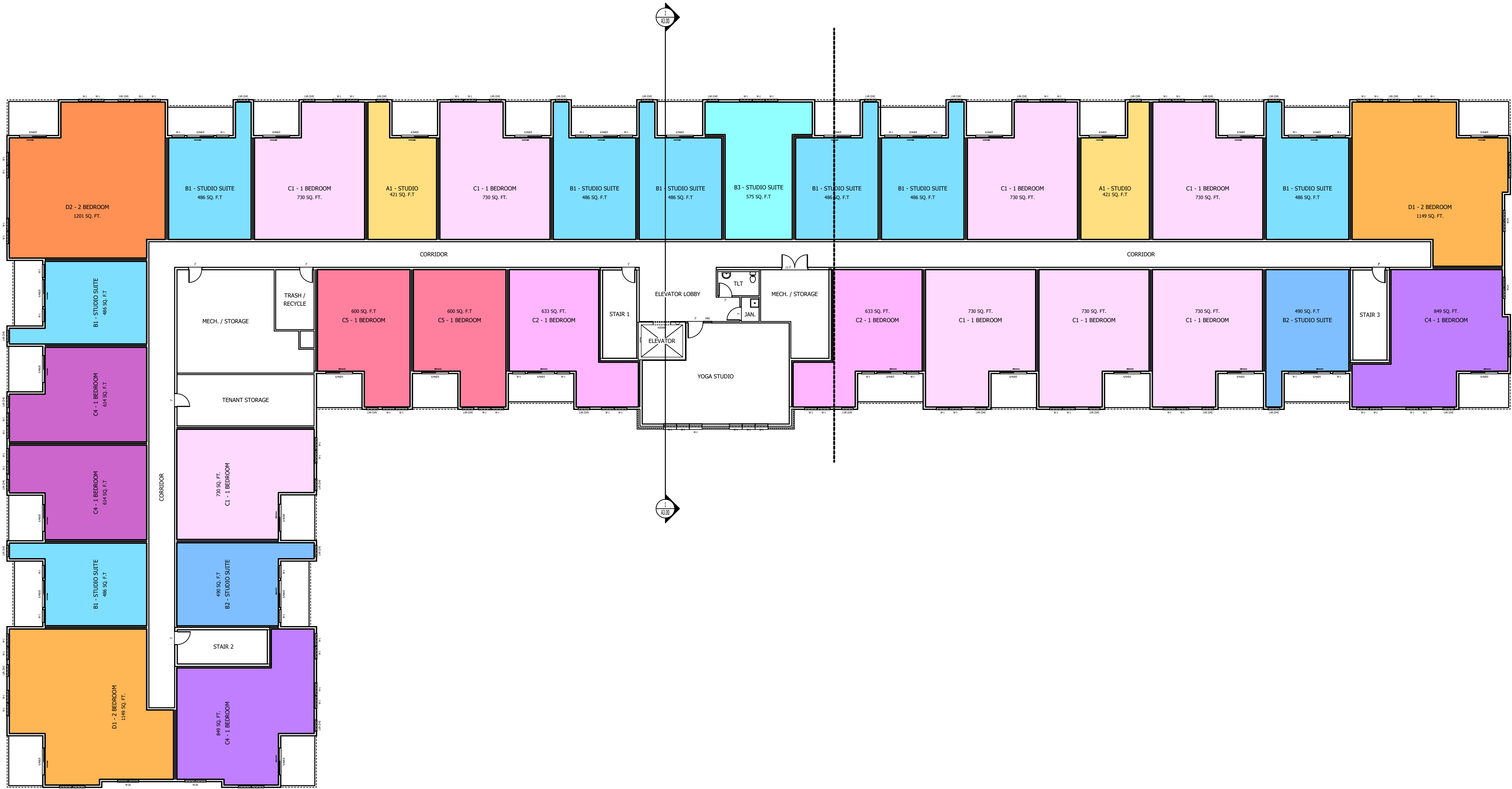
SCS

S.C. SWIDERSKI LLC

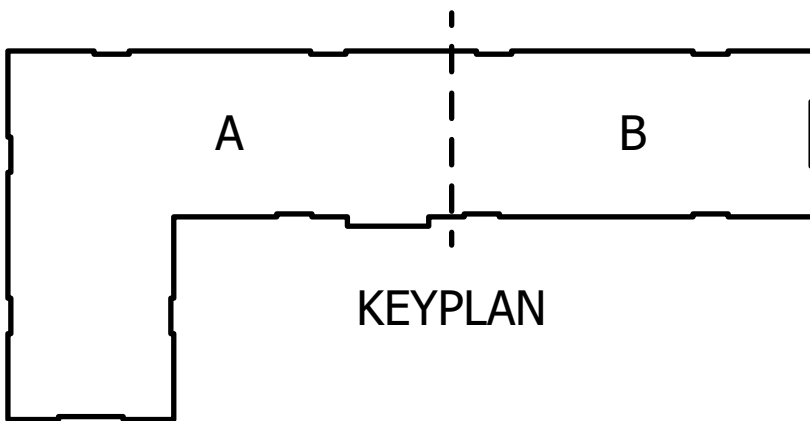
PROJECT	20-032_SCS WOLF RIVER
MODEL	EDEN (EA)
TITLE	SECOND FLOOR PLAN - B

DATE	01/06/2023
DRAWN BY	SB
SCALE	1/8"=1'-0"

SHEET NO.	A1.22
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THIRD FLOOR PLAN
SCALE: 1/16" = 1'-0"



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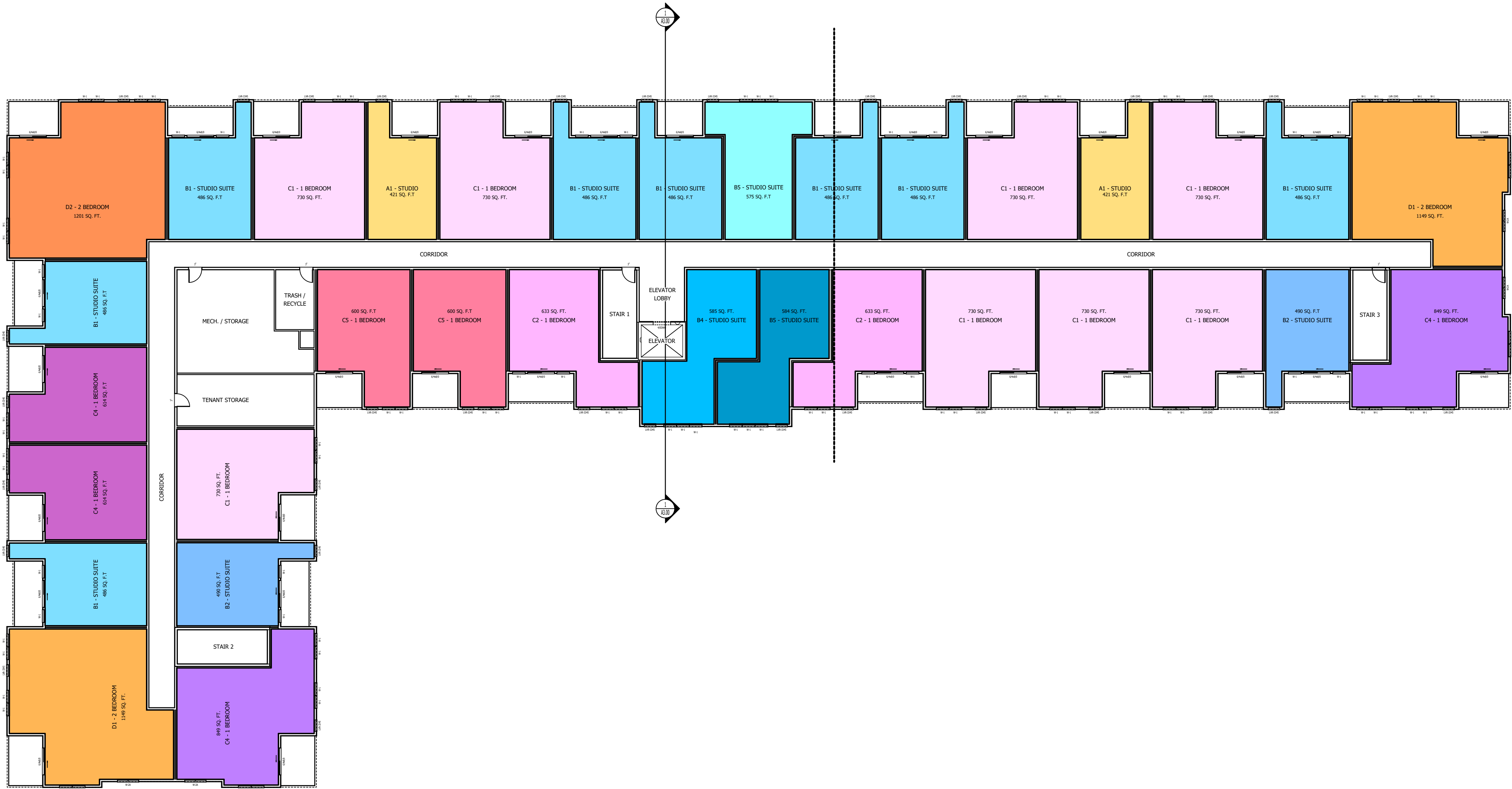
SCS

S.C. SWIDERSKI LLC

PROJECT	20-032_SCS WOLF RIVER
MODEL	EDEN (EA)
TITLE	THIRD FLOOR PLAN

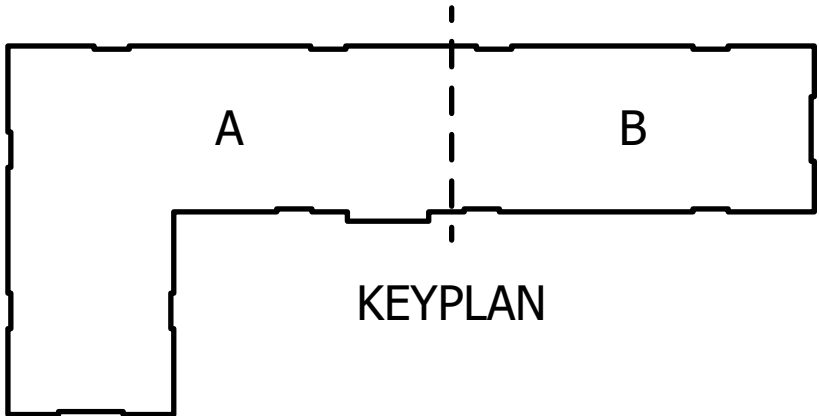
DATE	01/06/2023
DRAWN BY	SB
SCALE	1/16"=1'-0"

SHEET NO.	A1.30
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FOURTH FLOOR PLAN

SCALE: 1/16" = 1'-0"



REV	DATE	DESIGNER	REMARKS

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PROJECT	20-032_SCS WOLF RIVER
MODEL	EDEN (EA)
TITLE	FOURTH FLOOR PLAN

DATE	01/06/2023
DRAWN BY	SB
SCALE	1/16"=1'-0"

SHEET NO.	A1.40
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FRONT (SOUTH) ELEVATION

SCALE: 1/16" = 1'-0"



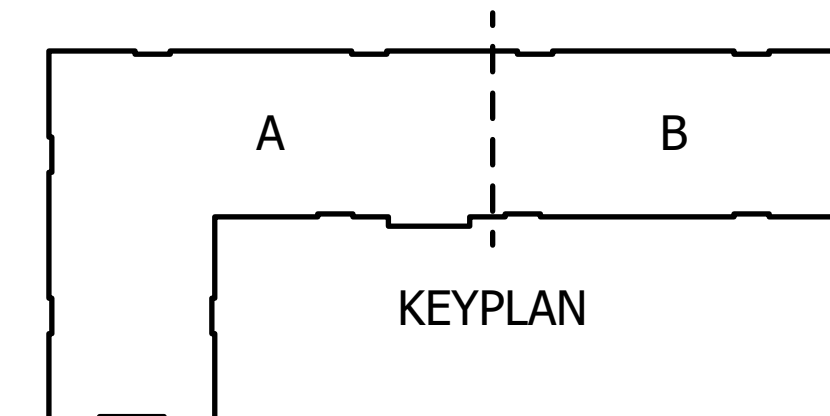
FRONT ELEVATION - A

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



FRONT ELEVATION - B

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



View_Sheets/d-A2.00.vxp

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EXTERIOR ELEVATIONS - FRONT (SOUTH)

PROJECT 20-032_SCS WOLF RIVER
MODEL EDEN (EA)
TITLE

DATE 01/06/2023
DRAWN BY SB
SCALE AS SHOWN

SHEET NO.
A2.00

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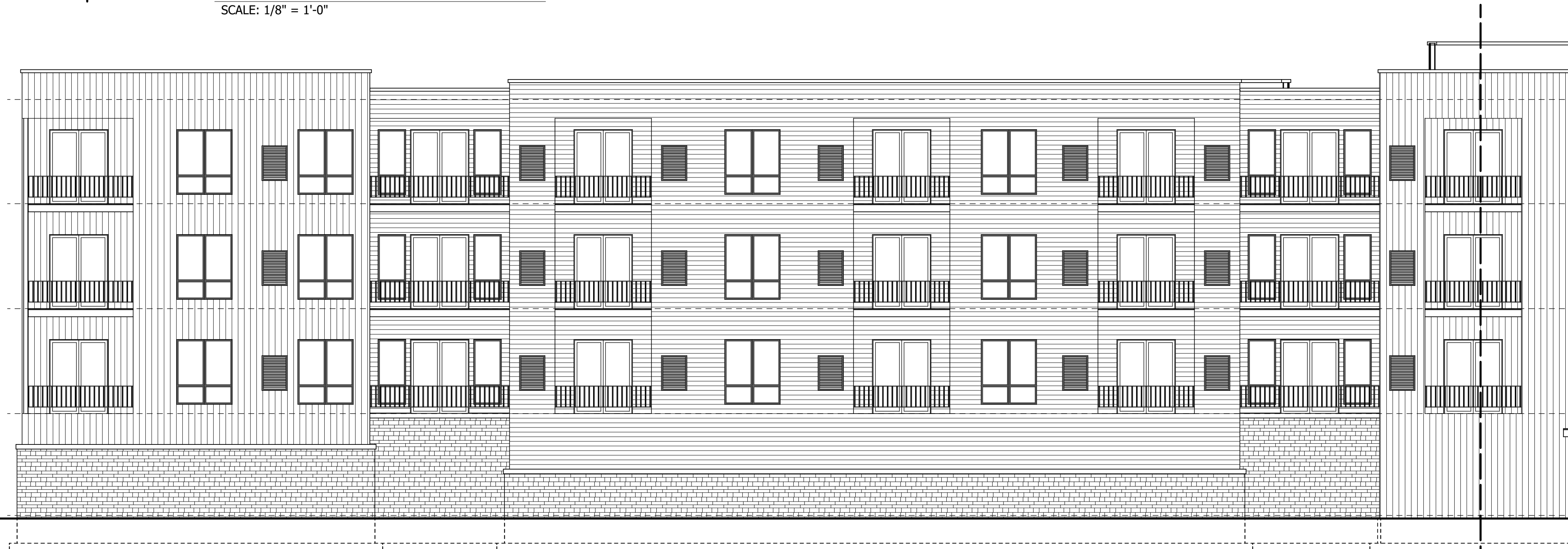
REAR (NORTH) ELEVATION

SCALE: 1/16" = 1'-0"



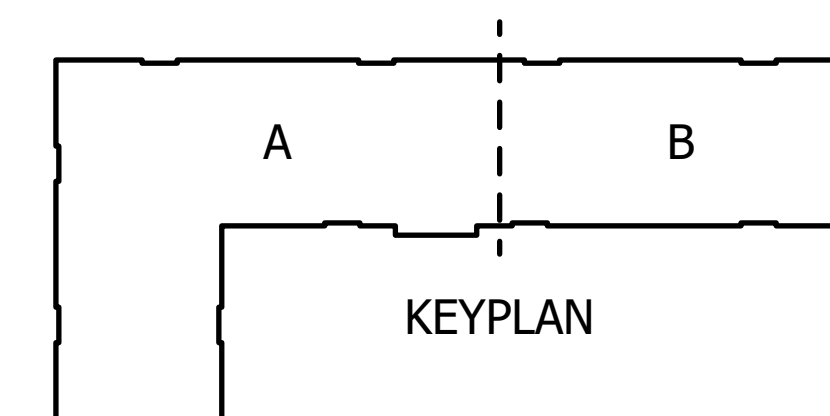
REAR ELEVATION - A

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



REAR ELEVATION - B

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



View_Sheets/d-A2.01.vxp

REV	DATE	DESIGNER	REMARKS

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PROJECT	20-032_SCS WOLF RIVER
MODEL	EDEN (EA)
TITLE	EXTERIOR ELEVATIONS - REAR (NORTH)

DATE	01/06/2023
DRAWN BY	SB
SCALE	AS SHOWN

SHEET NO.	A2.01
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LEFT (EAST) ELEVATION

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



RIGHT (WEST) ELEVATION

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

REV	DATE	DESIGNER	REMARKS

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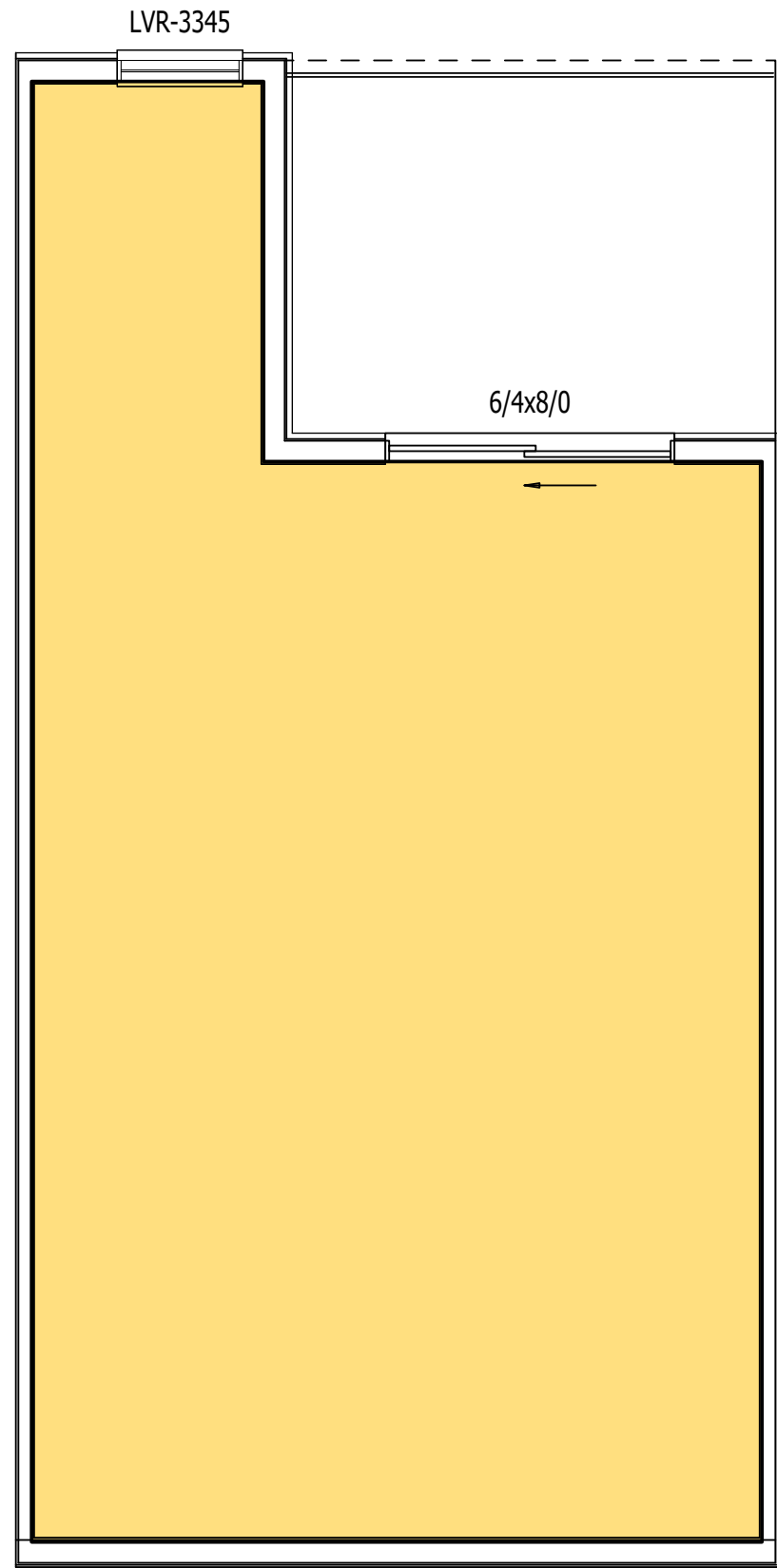
S.C. SWIDERSKI LLC

PROJECT	20-032_SCS WOLF RIVER
MODEL	EDEN (EA)
TITLE	EXTERIOR ELEVATIONS

DATE	01/06/2023
DRAWN BY	SB
SCALE	1/8"=1'-0"

SHEET NO.	A2.02
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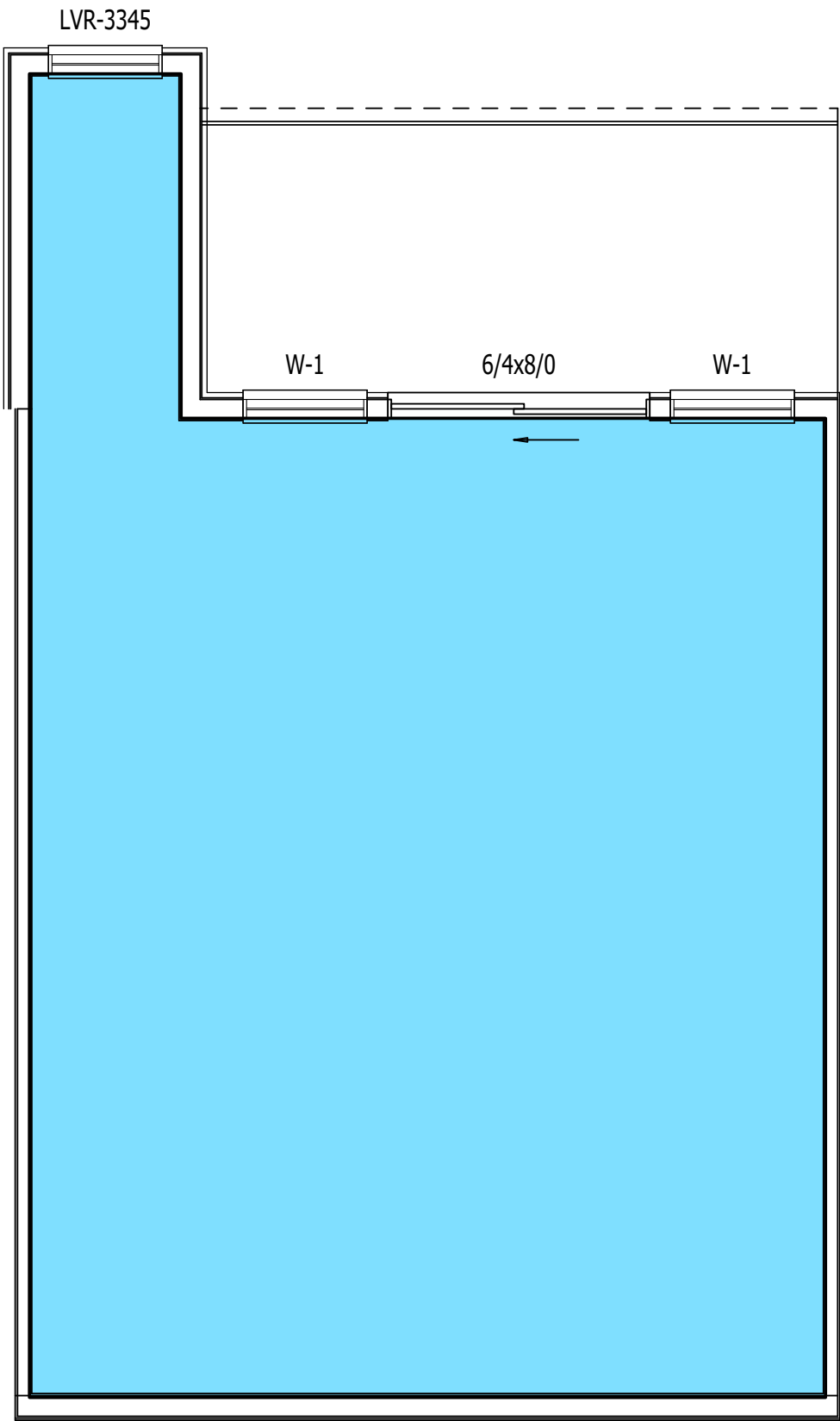
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A1 - STUDIO

SCALE: 1/4" = 1'-0"

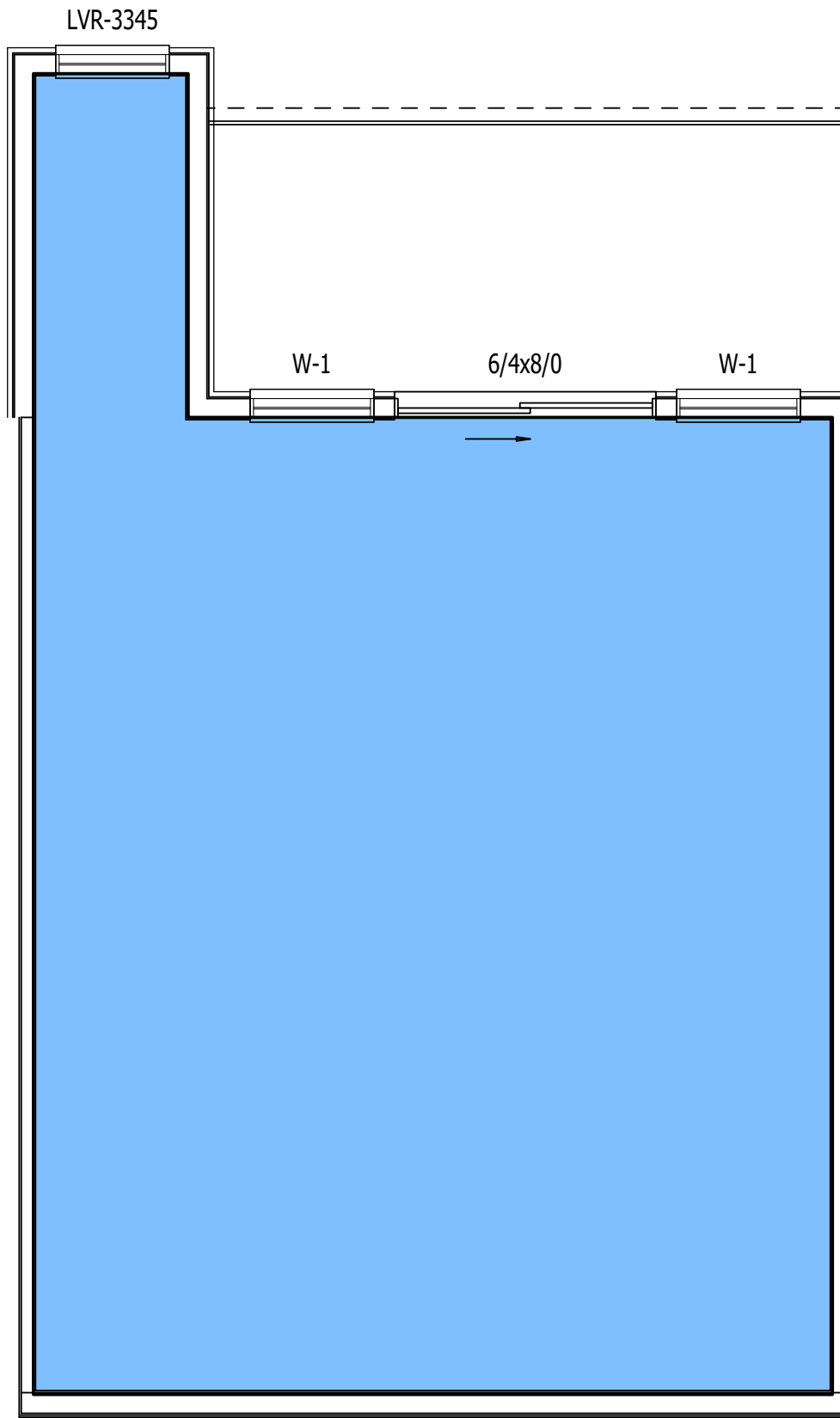
6 EACH
421 SQ. FT.



B1 - STUDIO SUITE

SCALE: 1/4" = 1'-0"

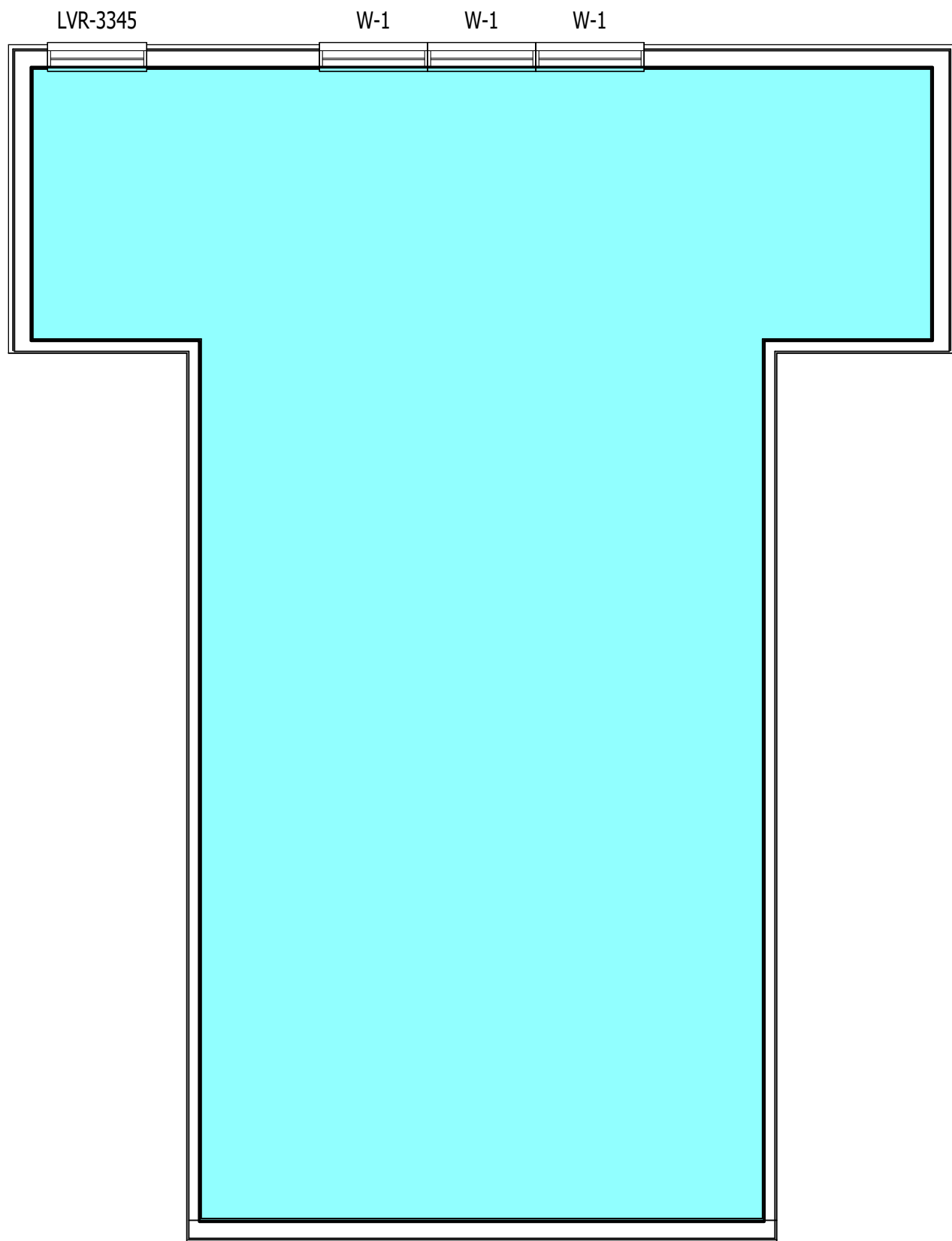
24 EACH
486 SQ. FT.



B2 - STUDIO SUITE

SCALE: 1/4" = 1'-0"

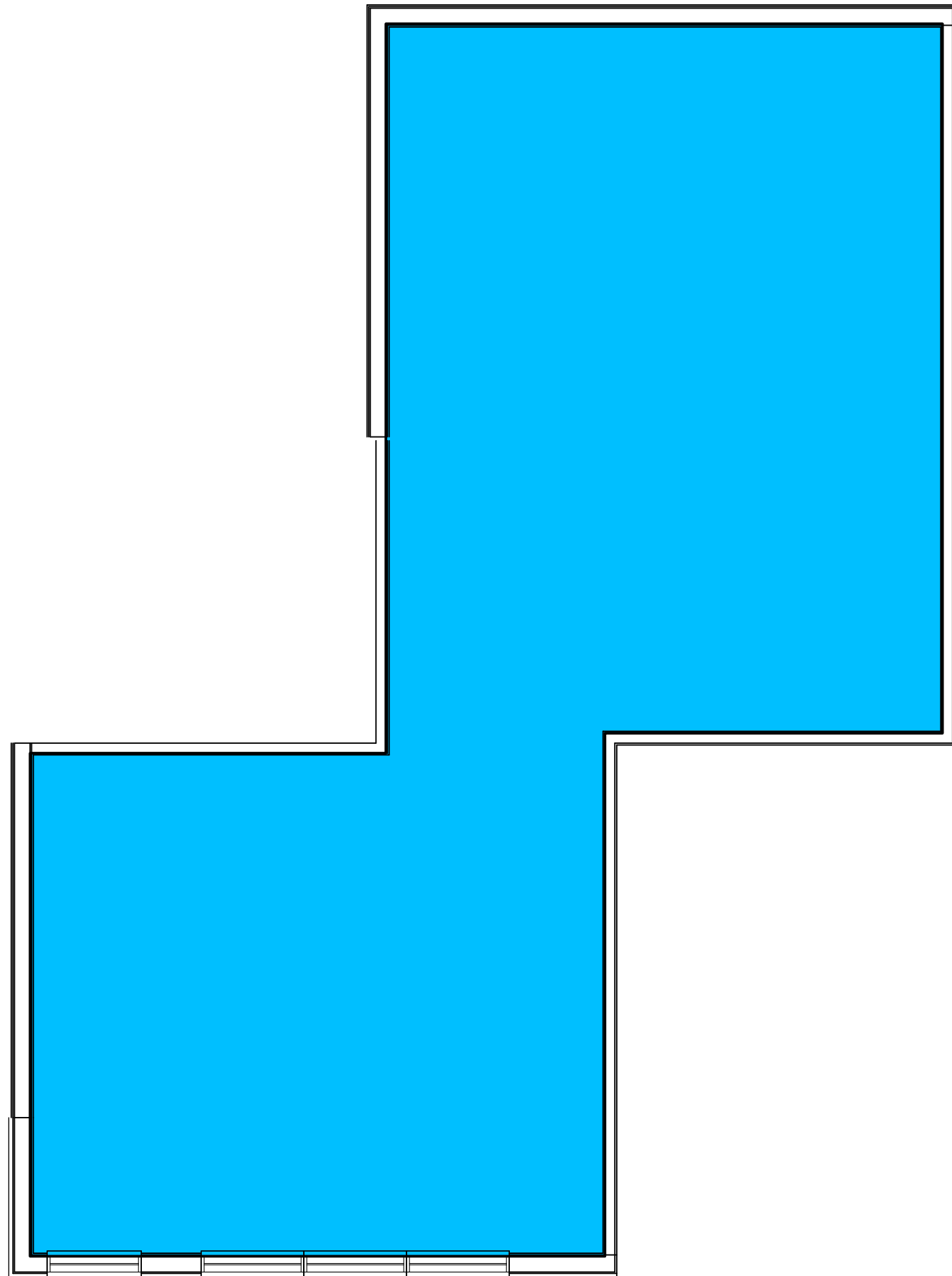
6 EACH
490 SQ. FT.



B3 - STUDIO SUITE

SCALE: 1/4" = 1'-0"

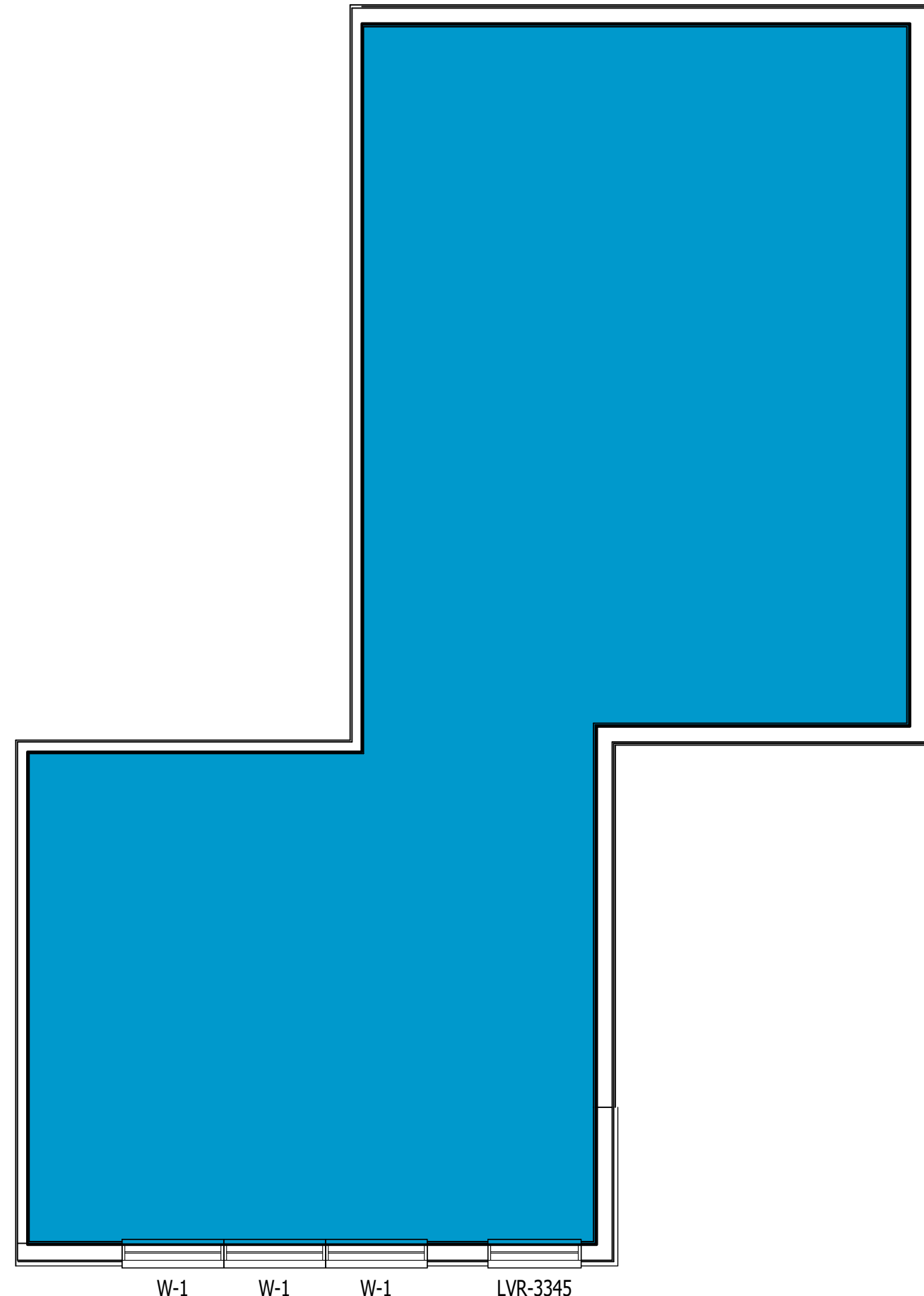
3 EACH
575 SQ. FT.



B4 - STUDIO SUITE

SCALE: 1/4" = 1'-0"

1 EACH
587 SQ. FT.



B5 - STUDIO SUITE

SCALE: 1/4" = 1'-0"

1 EACH
584 SQ. FT.



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PROJECT 20-032_SCS WOLF RIVER

MODEL EDEN (EA)

TITLE ENLARGED UNIT PLANS - STUDIO

DATE 01/06/2023

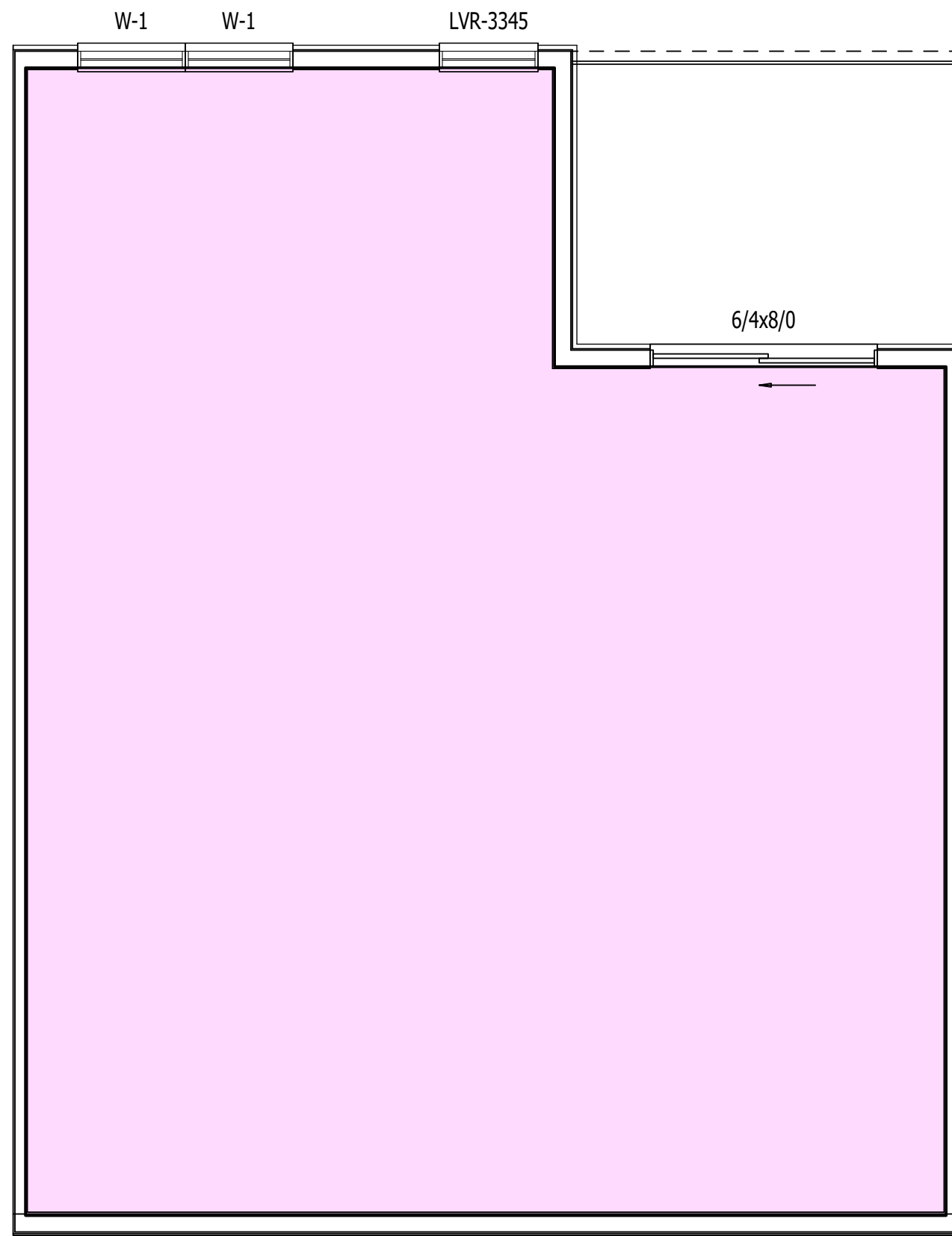
DRAWN BY SB

SCALE 1/4"=1'-0"

SHEET NO.

A5.00

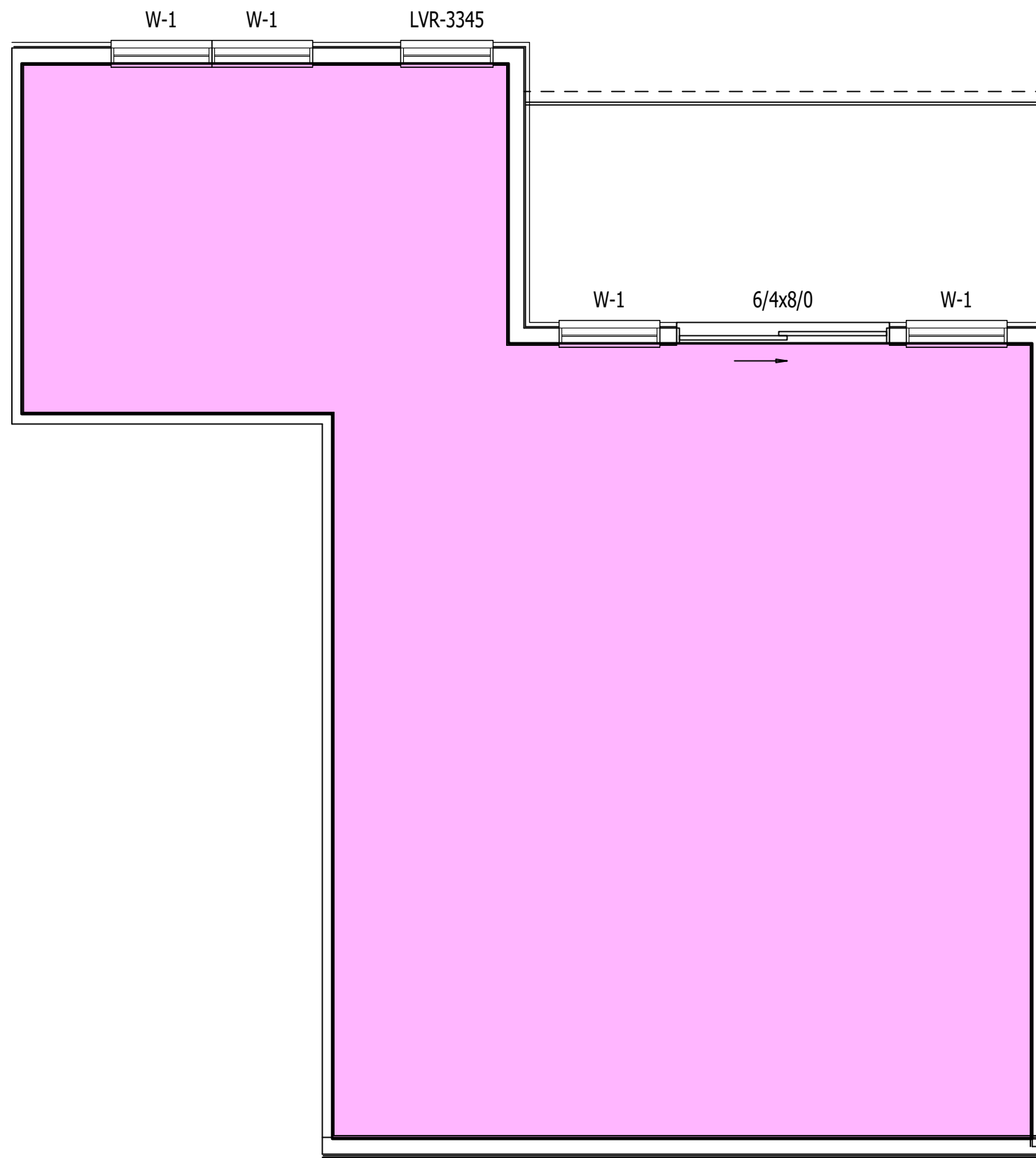
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C1 - 1 BEDROOM

SCALE: 1/4" = 1'-0"

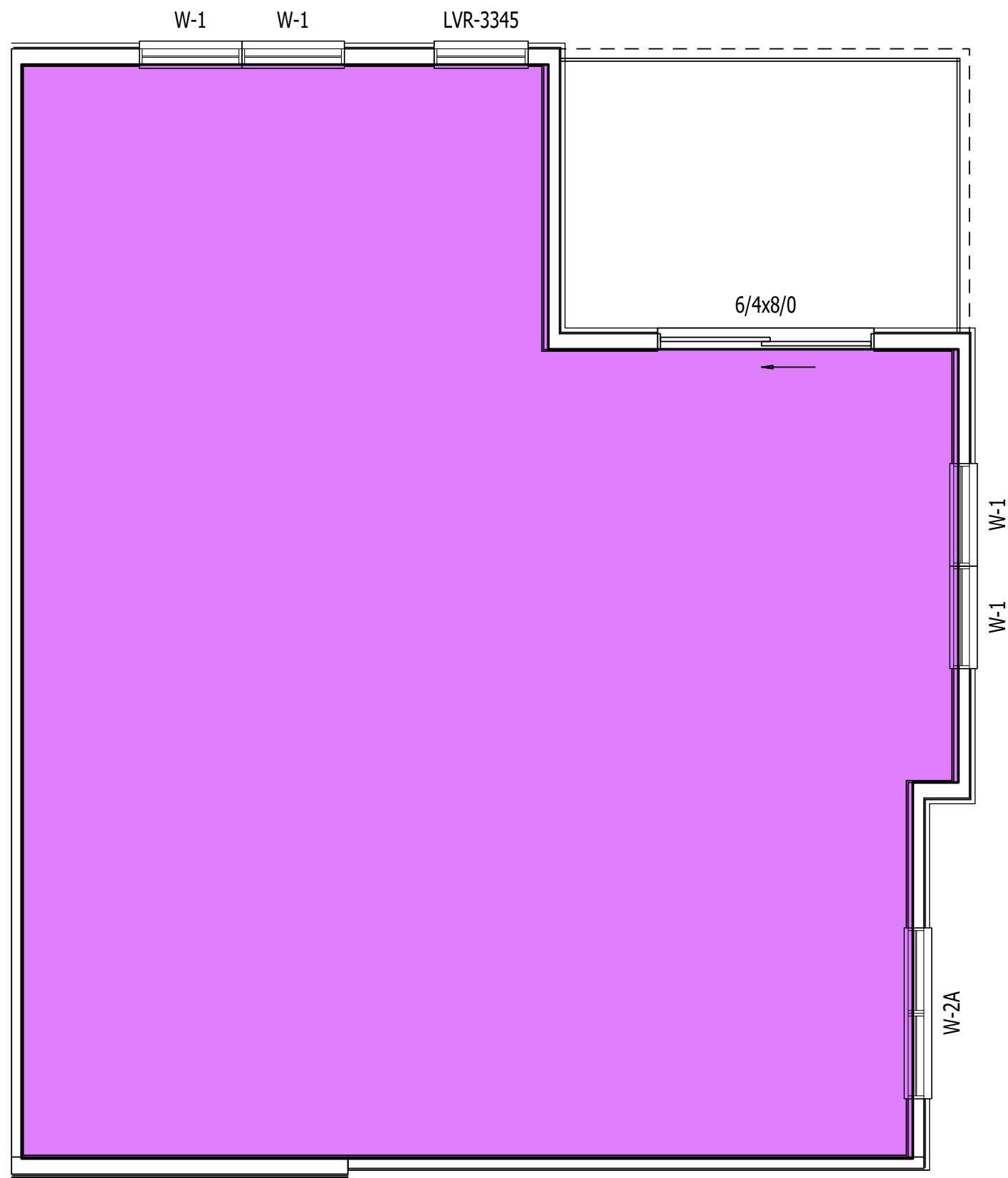
24 EACH
730 SQ. FT.



C2 - 1 BEDROOM

SCALE: 1/4" = 1'-0"

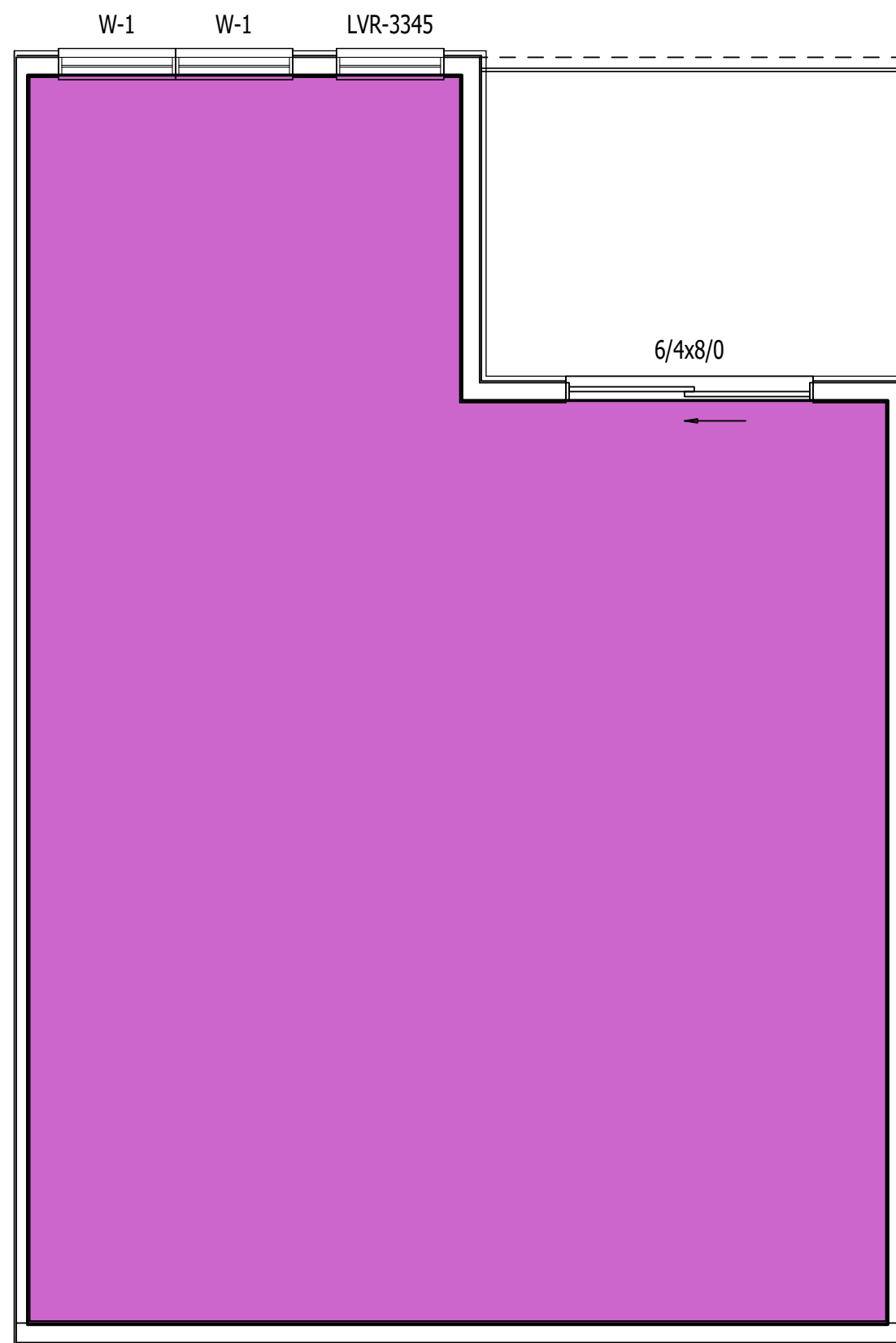
6 EACH
633 SQ. FT.



C3 - 1 BEDROOM

SCALE: 1/4" = 1'-0"

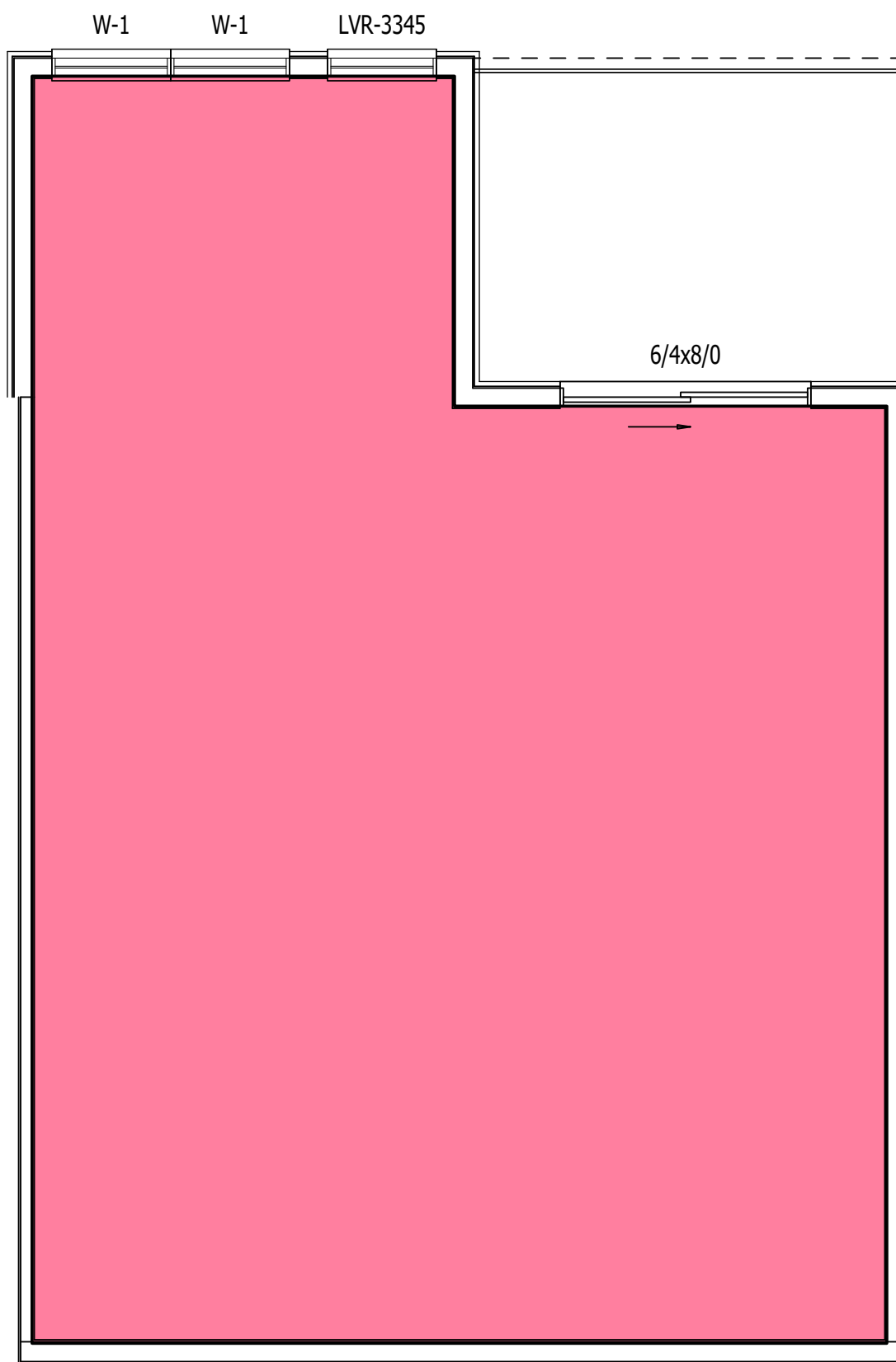
2 EACH
758 SQ. FT.



C4 - 1 BEDROOM

SCALE: 1/4" = 1'-0"

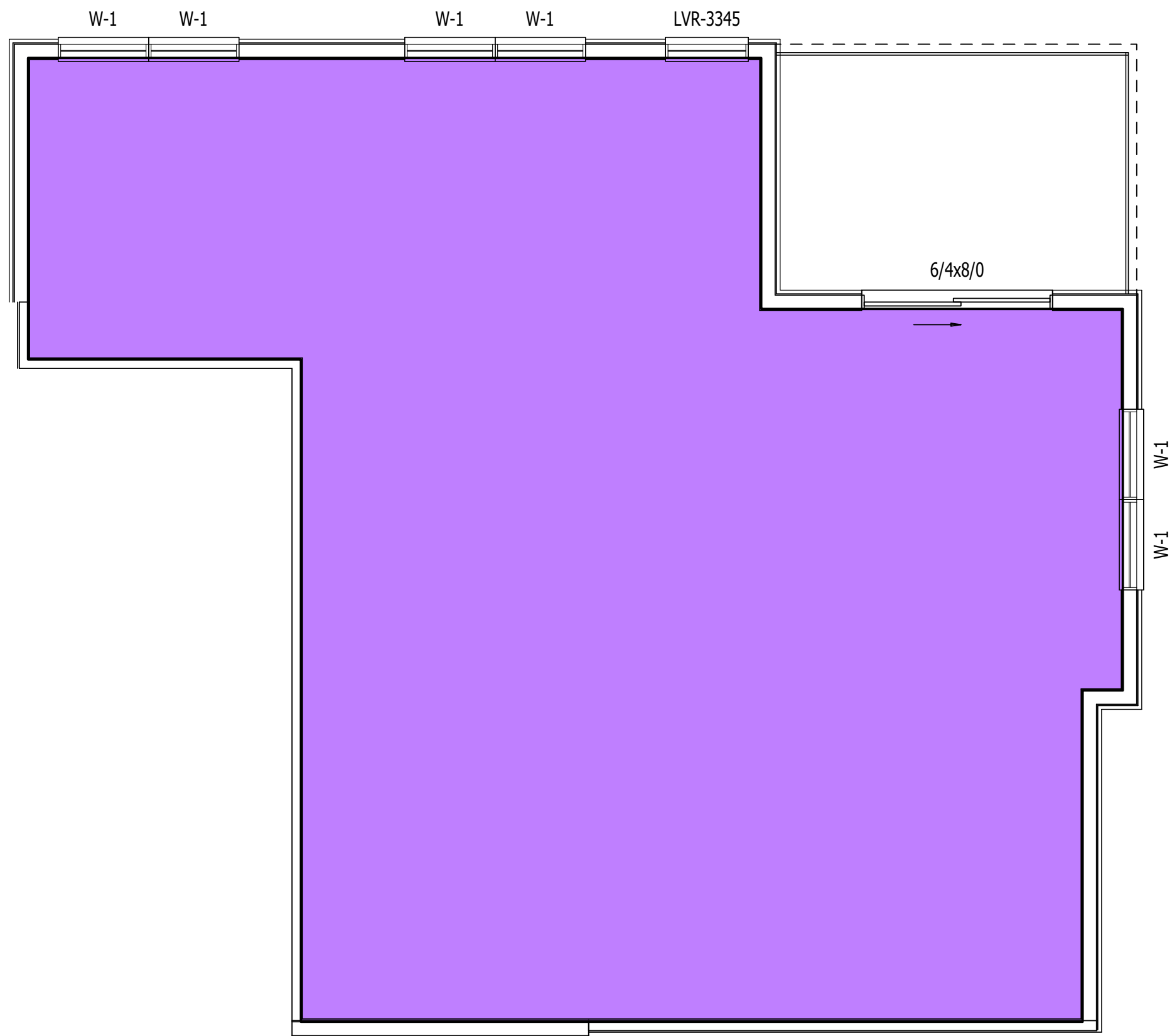
6 EACH
614 SQ. FT.



C5 - 1 BEDROOM

SCALE: 1/4" = 1'-0"

6 EACH
600 SQ. FT.



C6 - 1 BEDROOM

SCALE: 1/4" = 1'-0"

4 EACH
849 SQ. FT.

REV	DATE	DESIGNER	REMARKS

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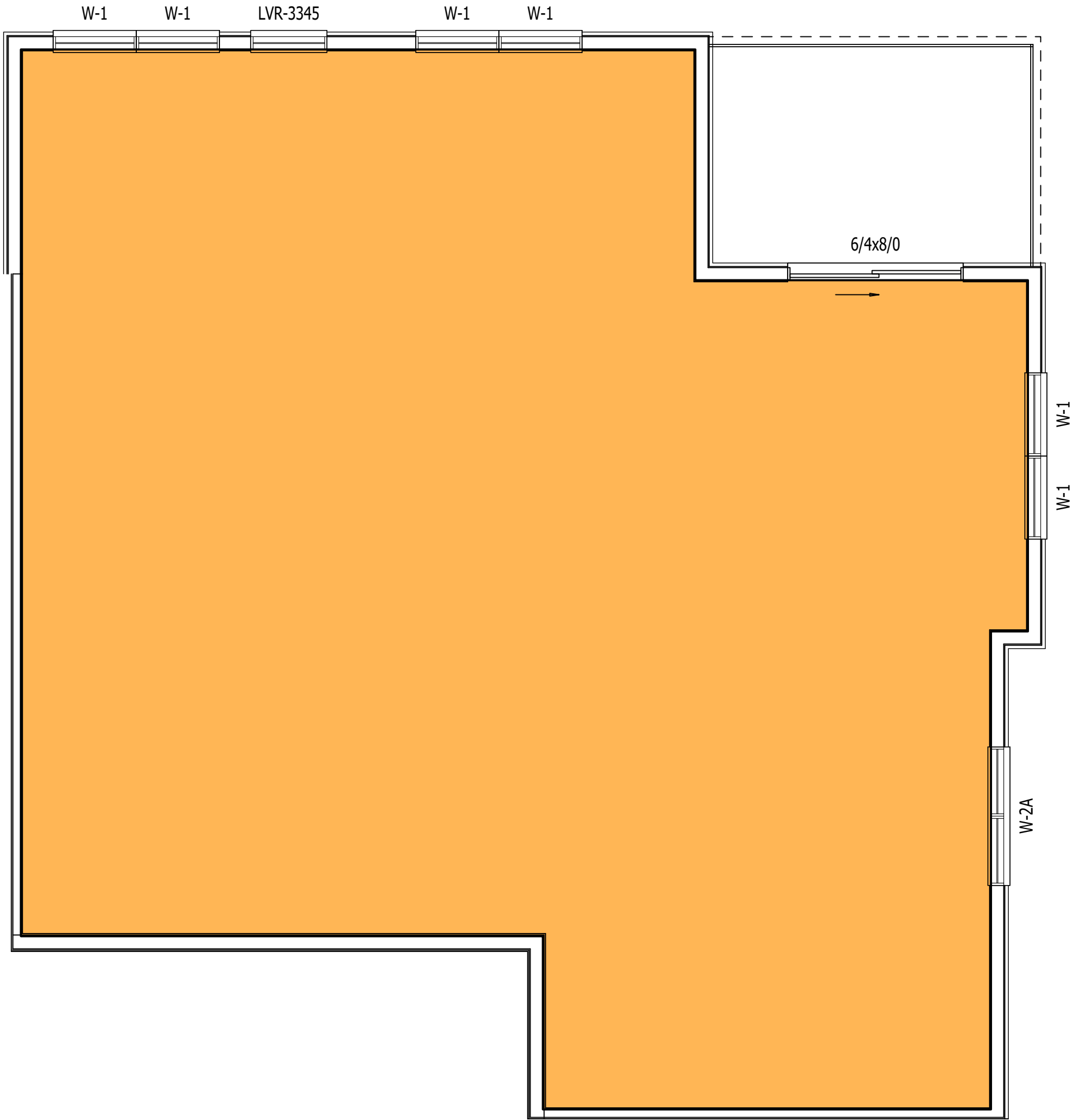
SCS

S.C. SWIDERSKI LLC

PROJECT	20-032_SCS WOLF RIVER
MODEL	EDEN (EA)
TITLE	ENLARGED UNIT PLANS - 1 BEDROOM

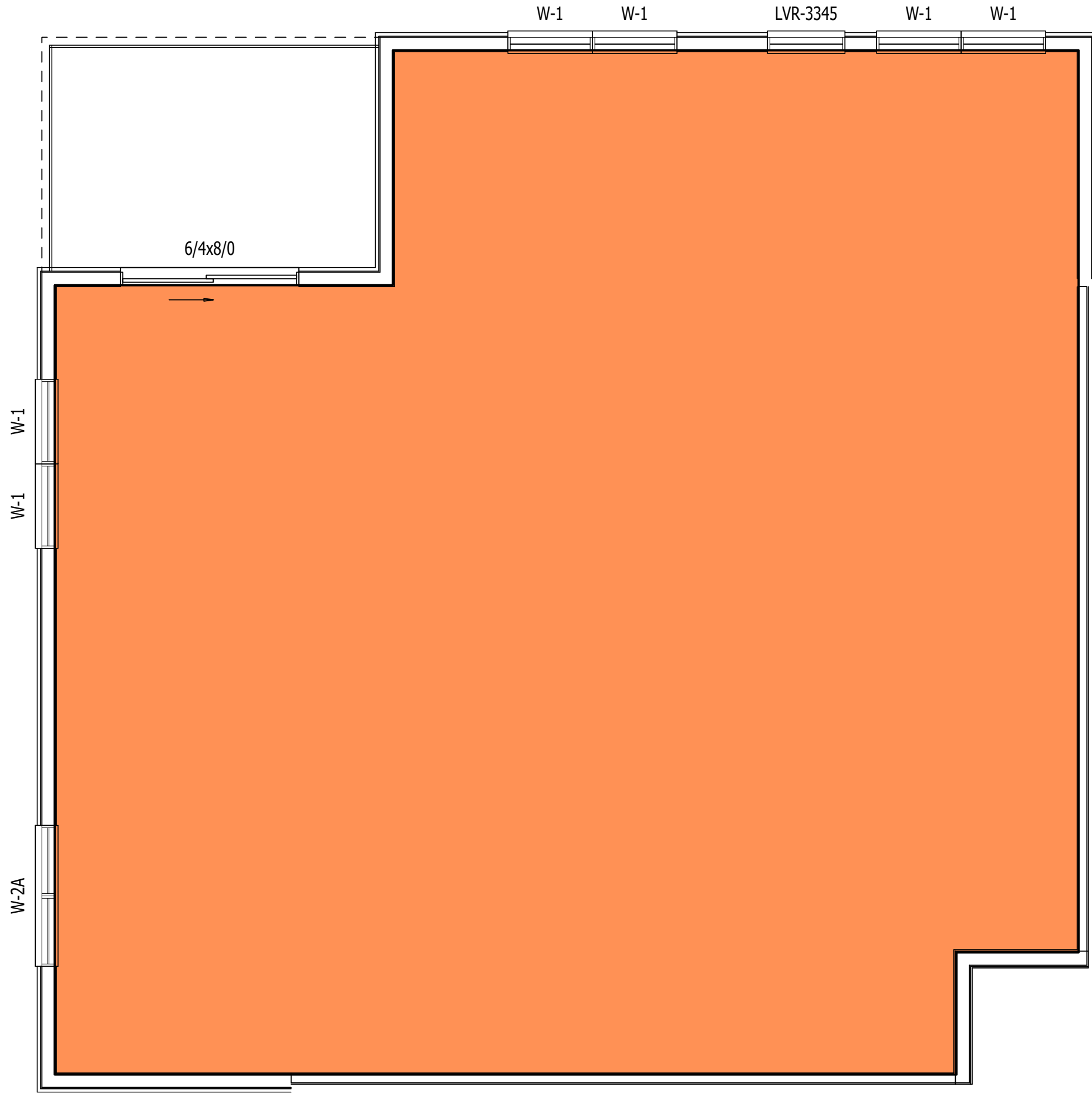
DATE	01/06/2023
DRAWN BY	SB
SCALE	1/4"=1'-0"

SHEET NO.	A5.01
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D1 - 2 BEDROOM

SCALE: 1/4" = 1'-0" 6 EACH 1149 SQ. FT.



D2 - 2 BEDROOM

SCALE: 1/4" = 1'-0" 3 EACH 1201 SQ. FT.

UNIT BREAKDOWN

STUDIO	2ND	3RD	4TH	TOTAL
A1	2	2	2	6
				6
STUDIO SUITE				
B1	8	8	8	24
B2	2	2	2	6
B3	1	1	1	3
B4	0	0	1	1
B5	0	0	1	1
				35
1 BEDROOM				
C1	8	8	8	24
C2	2	2	2	6
C3	2	0	0	2
C4	2	2	2	6
C5	2	2	2	6
C6	0	2	2	4
				48
2 BEDROOM				
D1	2	2	2	6
D2	1	1	1	3
				9
TOTAL				
	32	32	34	98



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PROJECT 20-032_SCS WOLF RIVER

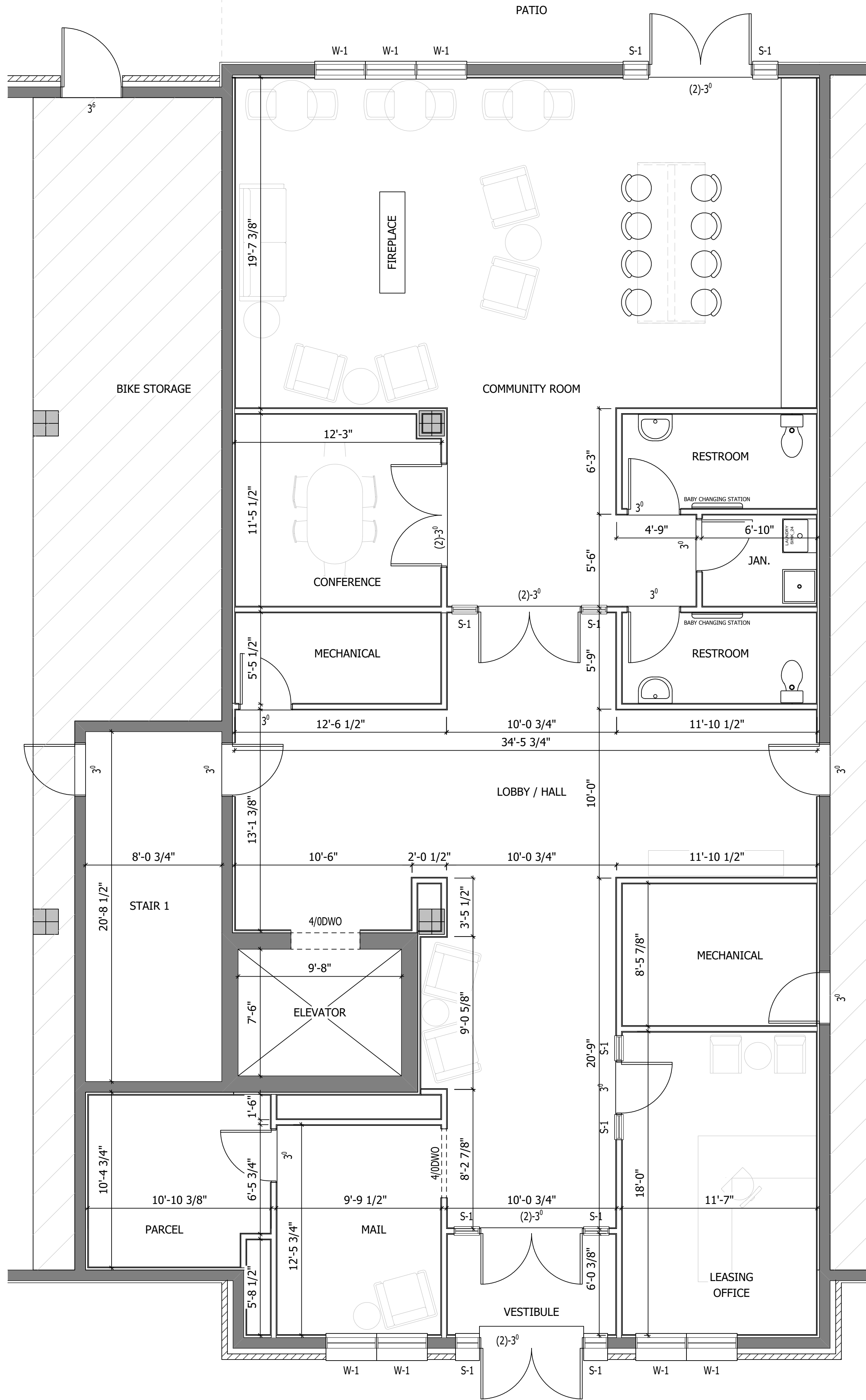
MODEL EDEN (EA)
TITLE

DATE 01/06/2023
DRAWN BY SB
SCALE 1/4"=1'-0"

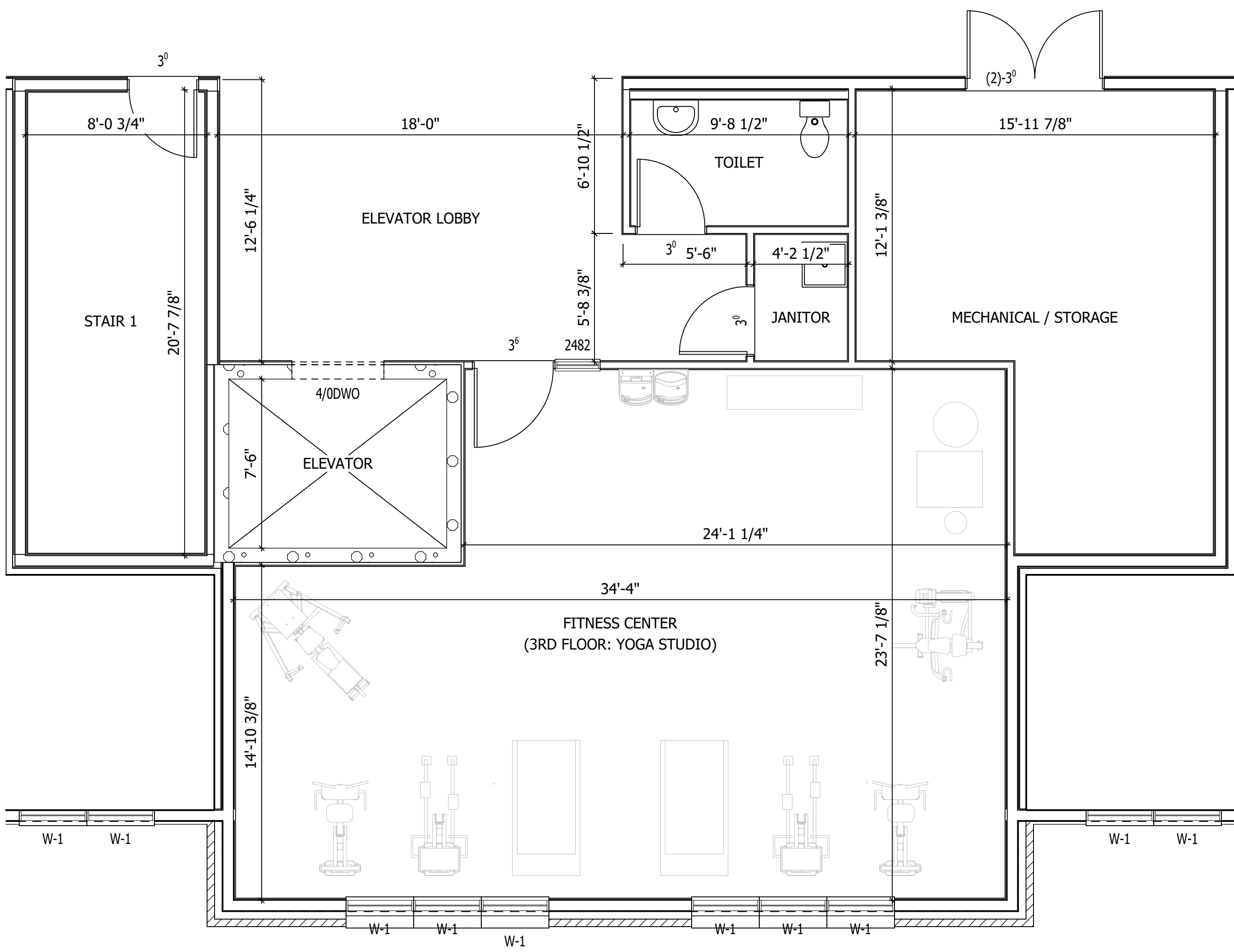
SHEET NO.
A5.02

ENLARGED UNIT PLANS - 2 BEDROOM

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1 FIRST FLOOR COMMON SPACE
SCALE: 1/4" = 1'-0"



2 SECOND FLOOR COMMON SPACE
SCALE: 1/4" = 1'-0"
THIRD FLOOR COMMON SPACE SIMILAR



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REV	DATE	DESIGNER	REMARKS

PROJECT	20-032_SCS WOLF RIVER
MODEL	EDEN (EA)
TITLE	ENLARGED FLOOR PLANS

DATE	01/06/2023
DRAWN BY	SB
SCALE	1/4" = 1'-0"

SHEET NO.	A5.20
-----------	-------

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Trees and Shrubs



Common Name: Red Maple / Swamp Maple / Scarlet Maple
Botanical Name: Acer Rubrum
Family: Maples
Size Range: Large
Mature Height: 40-60 feet
Mature Width: 35-45 feet
Shape and Form: Irregular, oval, round
Growth Rate: Moderate
Light Exposure: Partial to full sun
Zone: Zones 3-8
Ornamental Interest: Fall color
Flower Color & Fragrance: Red
Typical Planting Locations: Residential, parks



Common Name: Japanese Ivory Silk Lilac Tree
Botanical Name: Syringa Reticulata Subsp. Reticulata
Family: Syringa lilac
Size Range: Medium
Mature Height: 20-25 feet
Mature Width: 15-20 feet
Shape and Form: Oval, pyramidal, round
Growth Rate: Moderate
Light Exposure: Full sun
Zone: Zones 3-7
Ornamental Interest: Creamy white, showy flower clusters
Flower Color & Fragrance: Creamy white, fragrant
Typical Planting Locations: Residential, parks, city parkway, commercial



Common Name: Saskatoon Serviceberry
Botanical Name: Amelanchier Alnifolia
Family: Serviceberry
Size Range: Medium
Mature Height: 10-15 feet
Mature Width: 8-12 feet
Shape and Form: Round
Growth Rate: Moderate
Light Exposure: Shade to full sun
Zone: Zones 2-8
Ornamental Interest: Attracts birds, bees and butterflies
Flower Color & Fragrance: Fall yellow - reddish color, white flowers, berries (safe to consume)
Typical Planting Locations: Residential, commercial, urban (utilized for hedges/screening)



Common Name: Crimson Pygmy Barberry Shrub
Botanical Name: Berberis Thunbergii "Crimson Pygmy"
Family: Berberidaceae
Size Range: Medium
Mature Height: 2-3 feet
Mature Width: 2-3 feet
Shape and Form: Round
Growth Rate: Moderate
Light Exposure: Full- Partial Sun
Zone: Zones 4-8
Ornamental Interest: Attracts butterflies
Flower Color & Fragrance: Dramatic dark red color, small yellow flowers
Typical Planting Locations: Residential, commercial





Common Name: Sweet Cherry Tea Ninebark
Botanical Name: Physocarpus Opulifolius
Family: Ninebark
Size Range: Medium
Mature Height: 3-4 feet
Mature Width: 3-4 feet
Shape and Form: Round
Growth Rate: Moderate
Light Exposure: Full sun
Zone: Zones 3-7
Ornamental Interest: Attracts butterflies
Flower Color & Fragrance: Vibrant wine color, white flowers twice a year
Typical Planting Locations: Residential, commercial



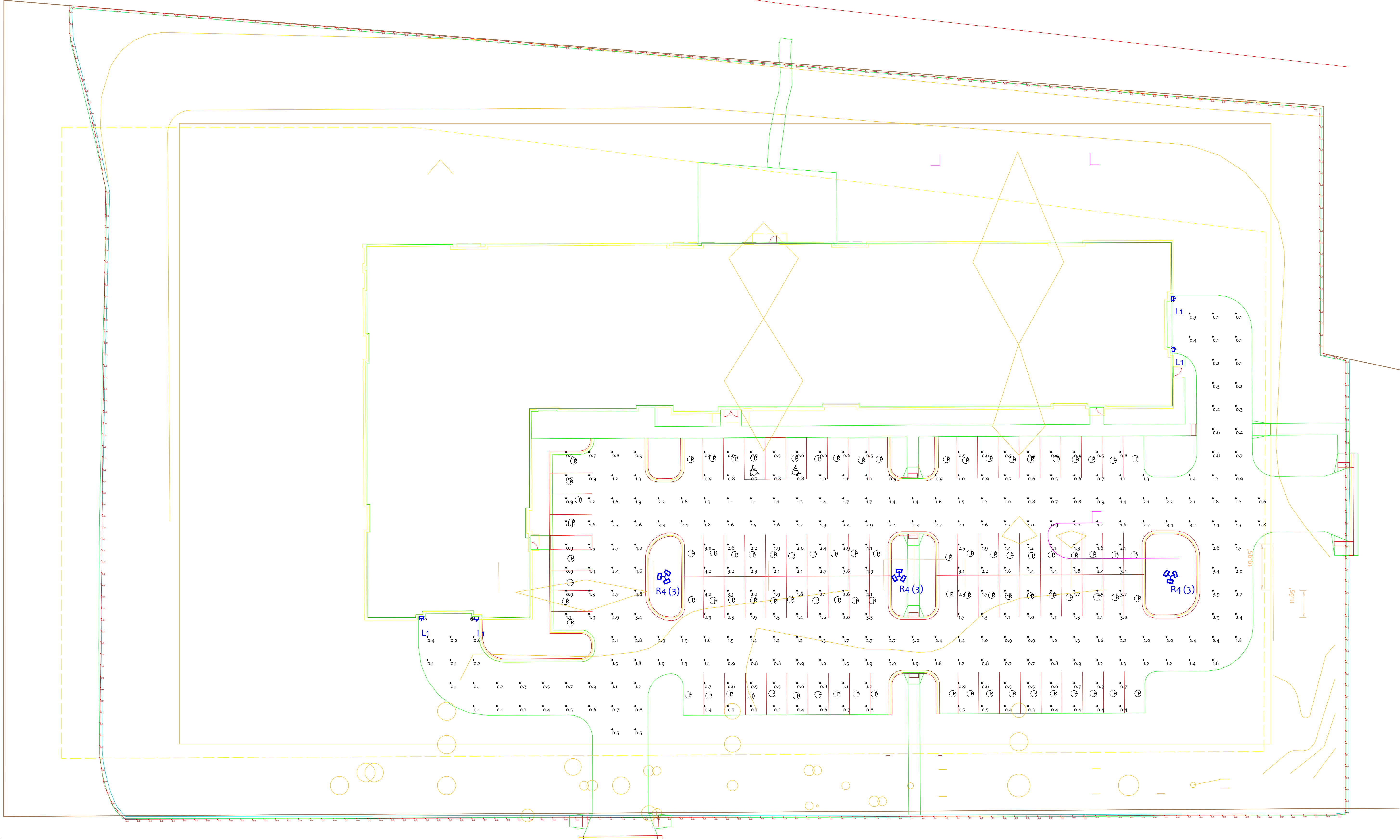
Common Name: Little Darling Lilac
Botanical Name: Syringa "SMSDTL"
Family: Lilac
Size Range: Medium
Mature Height: 4 feet
Mature Width: 4 feet
Shape and Form: Round, compact
Growth Rate: Moderate
Light Exposure: Full sun
Zone: Zones 4-9
Ornamental Interest: Attracts hummingbirds and butterflies, compact size
Flower Color & Fragrance: Purple, fragrant
Typical Planting Locations: Residential, commercial, urban gardens

Scale: 1 inch= 20 Ft.

Luminaire Schedule					
Scene: POST TOP OPTION					
Symbol	Qty	Label	Description	Luminaire Watts	Total Watts
	4	L1	60w INCANDESCENT WALL LANTERN	60	240
	3	R4 (3)	20' POLE WITH (3) LED FIXTURES PER POLE	72	648

Calculation Summary			
Scene: POST TOP OPTION			
Label	Units	Avg	Max/Min
PARKING LOT	Fc	1.43	49.00
PROPERTY LINE	Fc	0.02	N.A.

To request the Project Quotation for these materials or to place the order, please contact:
Sales@LightingDesignSolutions.com or call us at 1-888-357-7070

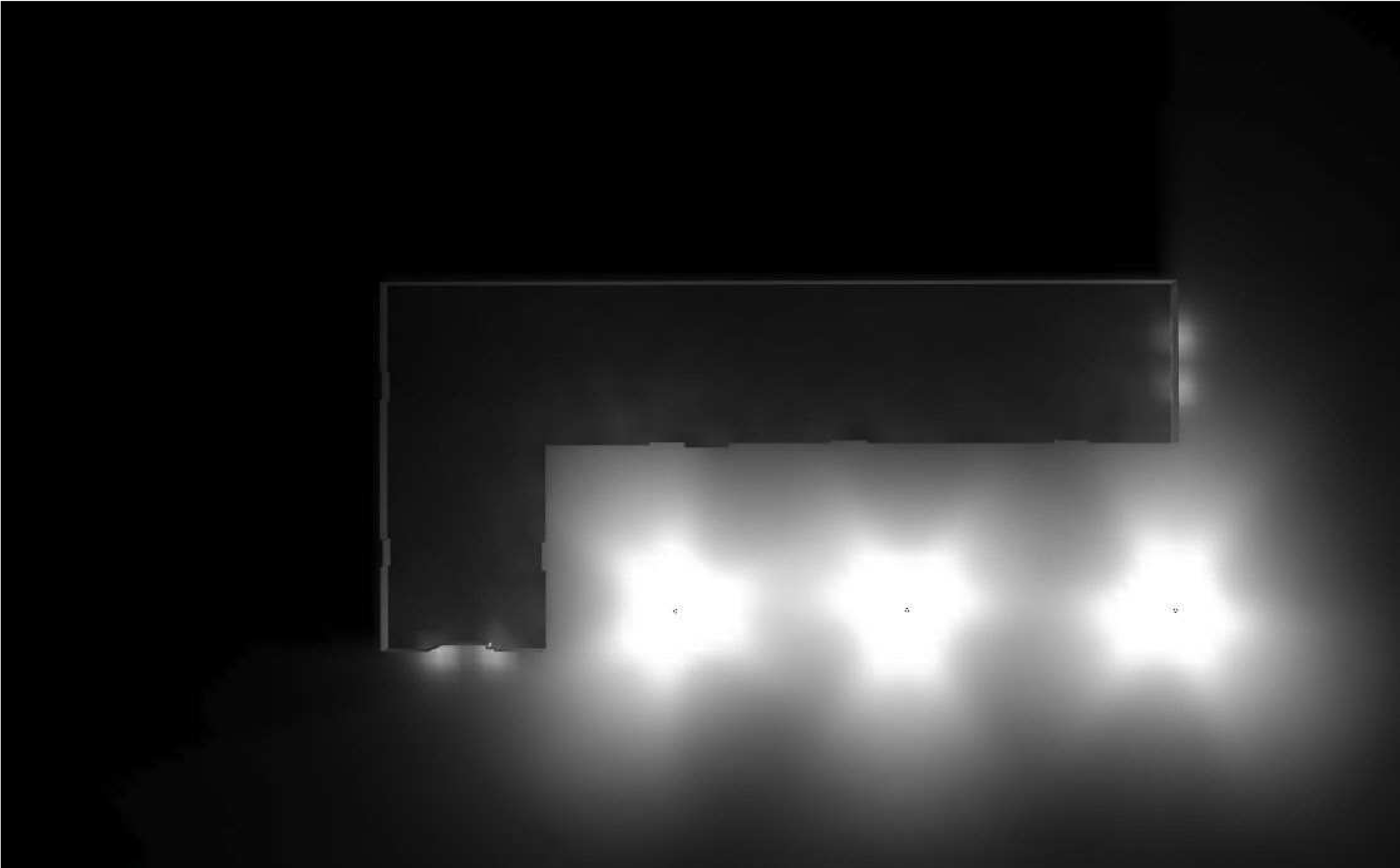


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These plans are not approved for construction unless specifically noted. They have not been reviewed or approved by any local or state agency, nor has the building owner confirmed final acceptance of the design or materials. Once approved, the final product details, voltages, accessories and quantities are the responsibility of the installing contractor and are to be fully verified by the contractor prior to release or order. Lead time for luminaires will vary but should be assumed to be 4-6 weeks after release unless specifically noted as "in-stock" or "quick ship" on the LDS Project Quotation.

Lighting performance and energy calculations are based on photometric data provided by the specified manufacturers, expected site finishes, anticipated energy costs, current rebate programs, and the projected operational use of the facility. Lighting Design Solutions, Inc. accepts no responsibility for variances resulting from inaccurate or changed data files, drawings, reflectance values, or rebate programs, and guarantees no alternate funding or rebate payment.

PROJECT INFORMATION:	DRAWN BY: A. THOMER	REVIEWED BY: A. THOMER	REV	DESCRIPTION	DATE	Lighting Design Solutions, Inc. (Schofield & Milwaukee)
NEW CONSTRUCTION SCS NEW LONDON RIVERFRONT NEW LONDON, WI	CONTRACTOR:	APPROVED BY: D. DRUMEL				P.O. Box 375 Schofield, WI 54476 1.888.357.7070 Office 715.693.2594 Fax N78W14573 Appleton Ave #101 Menomonee Falls, WI 53051 Design@LightingDesignSolutions.com www.LightingDesignSolutions.com



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PROJECT INFORMATION: NEW CONSTRUCTION SCS NEW LONDON RIVERFRONT NEW LONDON, WI	DRAWN BY: A. THOMER	REV	DESCRIPTION	DATE	Lighting Design Solutions, Inc. (Schofield & Milwaukee) P.O. Box 375 Schofield, WI 54476 1.888.357.7070 Office 715.693.2594 Fax N78W14573 Appleton Ave #101 Menomonee Falls, WI 53051 Design@LightingDesignSolutions.com www.LightingDesignSolutions.com
	CONTRACTOR:				
APPROVED BY: D. DRUMEL					
DATE: 12/21/2022					

SCS Wolf River



COO & Advisory Board of Directors



Nathanael Popp

Chief Operating Officer

Experience: 17 years of construction and management
University of Wisconsin- Stout, Bachelor of Science in Industrial Management
WI Real Estate License
Role: Handles company strategic direction and project financing



Jacqui McElroy

Director of Business Development

Experience: 23 years of real estate and development
St. Cloud State University, Bachelor of Science in Marketing
WI Real Estate License
Role: Handles project selection, planning and feasibility



Tom Woller

Director of Construction

Experience: 32 years of construction and project management
Role: Handles project budgets, schedules, materials and contracting

Development Team

SCS has a dedicated and experienced development team to work through the planning and entitlement process, ensuring clear communication and efficiencies for the municipality.

**Kortni
Wolf**



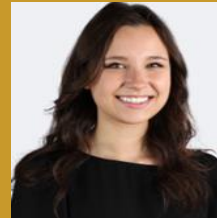
**Business Development
Manager**

**Nate
Heuss**



Architect

**Madeline
Check**



Development Designer

**Connor
Langbehn**



Acquisition Coordinator

**Nick
Ockwig**



Design Coordinator

**Tristan
Chapman-Frank**



Development Drafter

**Stacy
Stephanus**



Development Coordinator

Design Team

S.C. Swiderski has an architectural and structural design team that designs our buildings.



**Dawn
Keel**

Production Design
Manager



**Alison
Baxter**

Architectural Designer II



**Jeremy
Kurkowski**

Vertex Application Engineer



**Hadleigh
Baumann**

Interior Designer



**Bryce
Miller**

Architectural Designer I



**Sierra
Braun**

Architectural Drafter I

Location: Wolf River Ave & Smith St. Waupaca County

New London, WI | 4.068 Acres



CSM: Lot 1 of CSM 6755

CERTIFIED SURVEY MAP 8133

ALL OF LOT 1 OF CERTIFIED SURVEY MAP NO. 6755 RECORDED IN VOLUME 25 OF CSM'S, PAGE 39, AS DOCUMENTED BEING PART OF BLOCK 1 OF BUCK AND DICKINSON'S ADDITION TO THE CITY OF NEW LONDON, PART OF LOTS 1 THROUGH 13 OF BLOCK 13, ALL OF BLOCK 14, ALL OF LOTS 1 AND 8 OF BLOCK 15, AND PART OF LOTS 2 AND 7 OF BLOCK 16, ALL OF VACATED SMITH STREET, PART OF VACATED WYMAN STREET AND PART OF VACATED SOUTH WATER STREET, LOCATED IN GOVERNMENT LOTS 1 AND 2, ALL IN SECTION 12, TOWNSHIP 22 NORTH, RANGE 14 EAST, CITY OF NEW LONDON, WISCONSIN.

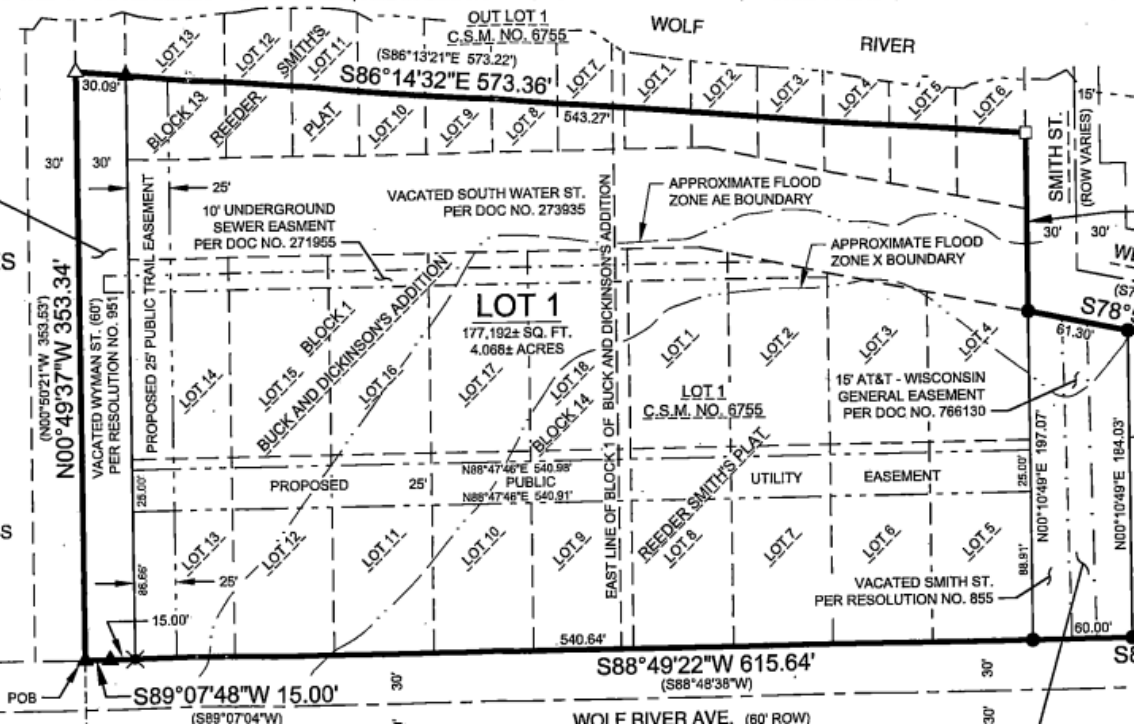
BEARINGS ARE REFERENCED TO GRID NORTH OF THE WISCONSIN STATE PLANE COORDINATE SYSTEM (NAD83), CENTRAL ZONE. THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SECTION 12, T.22N. R.14E. BEARS N87°58'46"E

**DEDICATED TO
THE PUBLIC
FOR ROADWAY PURPOSES**

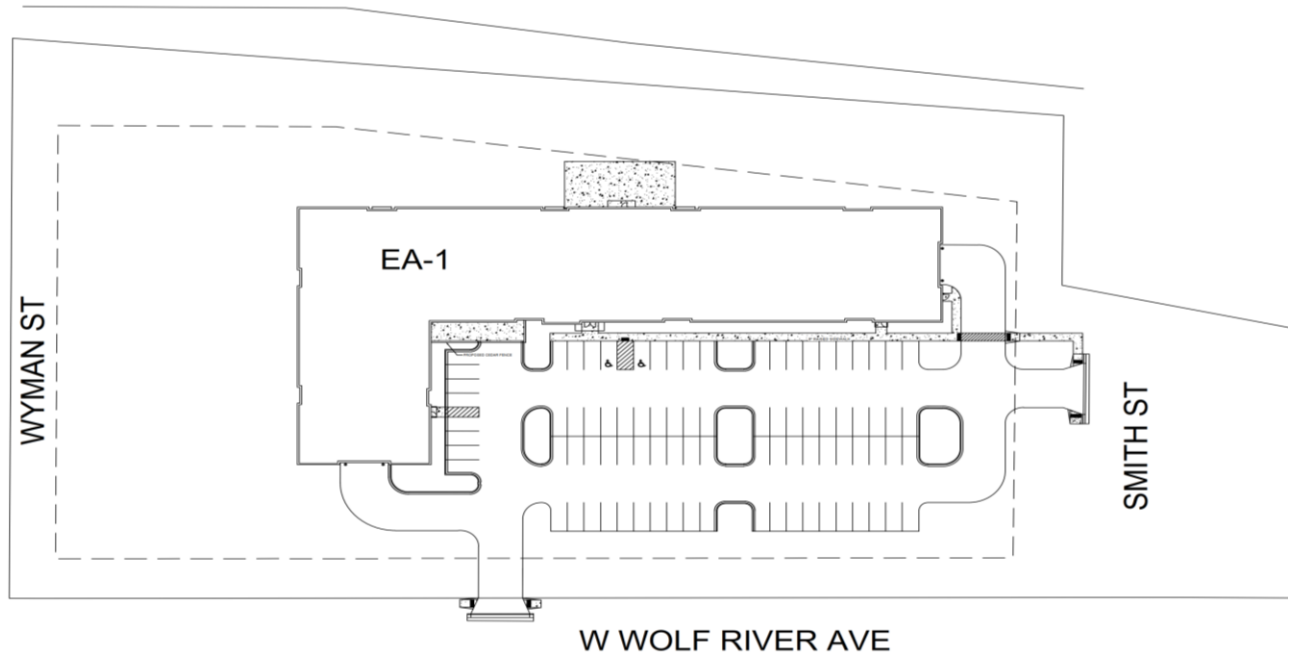
10,563± SQ. FT.
0.242± ACRES

LEGEND

- ▲ SET MAG NAIL
- △ FOUND MAG NAIL
- FOUND 3/4" REBAR
- ✕ FOUND CUT CROSS
- SET 3/4" REBAR
- ✕ SET CUT CROSS
- EXISTING EASEMENT
- PROPOSED EASEMENT



Site Plan



Site Plan Rendering



Project Summary

LAND AND PARKING

- **Zoning:** Planned Unit Development
- **Acres:** 4.068 acres
- **Surface Parking Spaces:** 85
- **Surface Accessible Parking Spaces:** 2
- **Total Surface Stalls:** 87
- **Interior Parking Stalls:** 62
- **Interior Accessible Parking Stalls:** 2
- **Total Interior Stalls:** 64
- **Total Parking Spaces:** 151
- **Parking Per Unit:** 1.54 spaces

UNIT INFO

- **Eden Building:** 4 Levels
- **Floor Plans:** 16
- **Studio:** 16 Units
- **Studio Suite:** 31 Units
- **1 Bedroom:** 42 Units
- **2 Bedroom:** 9 Units
- **Total Multifamily Units:** 98

RENTAL UNIT INFO

- **Outdoor Patio** overlooking Wolf River
- **Fitness Center**
- **Yoga Studio**
- **Community Room**
- **Conference Room**
- **Indoor Parking**
- **Electric Car Charging stations**
- **On Site Management**
- **In-Unit Laundry**
- **Rent includes Heat, Water, Sewer, Cable & WIFI**

Ivy Rendering



Ivy Rendering



Ivy Rendering



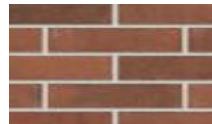
Ivy Rendering



EXTERIORS

Masonry

Brick: County Materials-Heritage
Series-Amber Rose



Stone: County Materials-
Refection-Enchantment

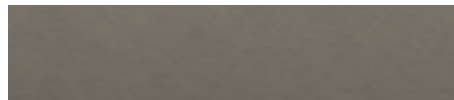


Metal Panels

Vertical Panels: AEP Span HR-36
- Midnight Bronze

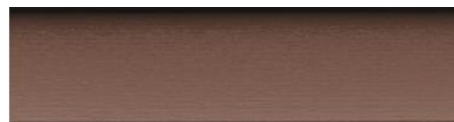


Horizontal Panels: AEP Span-
Vintage



Siding Colors

Main field: Mahogany



Accent/ Sherwin Williams-
Pavestone or equivalent



Accent/ Sherwin Williams-
Gauntlet Gray or equivalent



- Professionally trained on-site staff.
- Highly experienced area manager and administrative support staff.
- Comprehensive applicant screening process:
 1. income guideline
 2. background check
 3. credit check
- Extensive rules and regulations enforced for all tenants.
- In compliance with all Equal Housing Opportunity criteria.
- Tenant portal for on-line payments and maintenance requests.
- Virtual tours and contactless transactions available.



SCS Maintenance



To keep our sites secure and ensure peace of mind, SCS Maintenance and Grounds Crews operate SCS marked vehicles and wear SCS attire. This also assures tenants that any staff present is from SCS.

REGULARLY SCHEDULED Maintenance

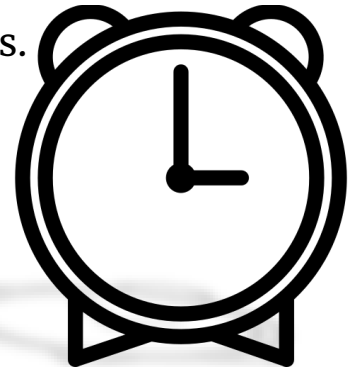
- Pressure washing of building.
- Annual dryer vent cleaning.
- Monthly building lighting and general building inspections.
- Regular landscape inspections.
- Annual inspection of asphalt parking and driveway areas.
- Filter changes per type of equipment specifications.
- Annual testing of fire alarms & fire suppression systems.

AVERAGE RESPONSE TIME

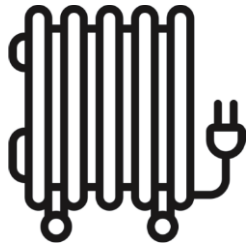
1 days 20 hours and 2 minutes

AVERAGE WORK ORDER COMPLETION

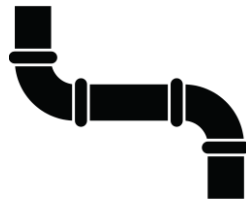
55 minutes



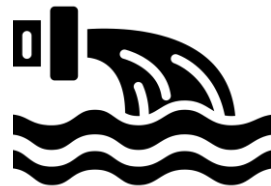
INCLUDED IN RENT RATES



Hydronic
Heat



Water



Sewer



Cable



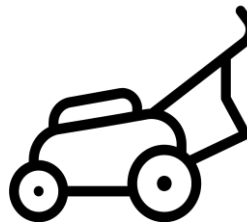
Wireless
Internet



Trash
Removal



Snow
Removal



Lawn Care



Individual
Thermostats

SCS LOCATIONS & OCCUPANCY

As a fully integrated company, S.C. Swiderski, LLC owns and manages all of its apartment locations. S.C. Swiderski is steadily expanding throughout Wisconsin, with multi-family locations in 20 cities across the state. S.C. Swiderski manages a total of 2,273 individual apartment units throughout our multi-family locations.

S.C. Swiderski aims to provide a unique rental experience to our tenants by exceeding expectations with our professional on-site staff and dedicated maintenance team. In correlation with our exceptional customer services, the company holds an above-average occupancy rate of 98% in all of our stabilized properties.



Eagle River



Medford



Stanley



Edgar



Merrill



Stevens Point



Eau Claire



Mosinee



Sturgeon Bay



Kronenwetter



Oshkosh



Waupaca



Hortonville



Plover



Wausau



Marathon City



Rice Lake



Weston



Marshfield



Shawano



Wisconsin Rapids

LANDSCAPE PLAN
NEW LONDON, WI 54961

A detailed map of the Wolf River area. The map shows a grid of streets including Elm St, Shiocton St, Lyon St, Lima St, Avon St, Meck St, Wisconsin St, Lincoln St, Saint Johns Pl, Park St, E North Water St, E Wolf St, W Spring St, W Wolf River Ave, W North Water St, and S Shawano St. A blue line representing the Wolf River runs horizontally across the middle. A bus route 45 is marked with a white circle and the number 45. Various businesses are marked with icons and labels: Waters Superclub (orange circle with a glass icon), Little Caesars (orange circle with a fork and knife icon), Festival Foods (orange circle with a shopping cart icon), Grand Cinema Theatres (green circle with a film strip icon), Wolf River Propane (purple circle with a gas cylinder icon), Jolly Roger's Pizzeria (orange circle with a fork and knife icon), Familiar Grounds (orange circle with a fork and knife icon), Hilby's Sports Bar and Restaurant (orange circle with a glass icon), Bree's Inn (orange circle with a glass icon), Hong Kong Buffet (orange circle with a fork and knife icon), and Wolf River Veterinary Clinic (hatched rectangle). The Embarras River is shown in the top right corner.

SHEET INDEX

[illegible]

DESIGN TEAM

PROJECT ARCHITECT:
NATE HEUSS, AIA
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PHONE NUMBER: (715)693-7835

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S.C. SWIDERSKI, LLC.
PHONE NUMBER: (715)693-7867

SITE SUPERINTENDENT:
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S.C. SWIDERSKI, LLC.
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PROJECT COORDINATOR:
BECKY HENSEL
S.C. SWIDERSKI, LLC.
PHONE NUMBER: (715)693-7806

[illegible]

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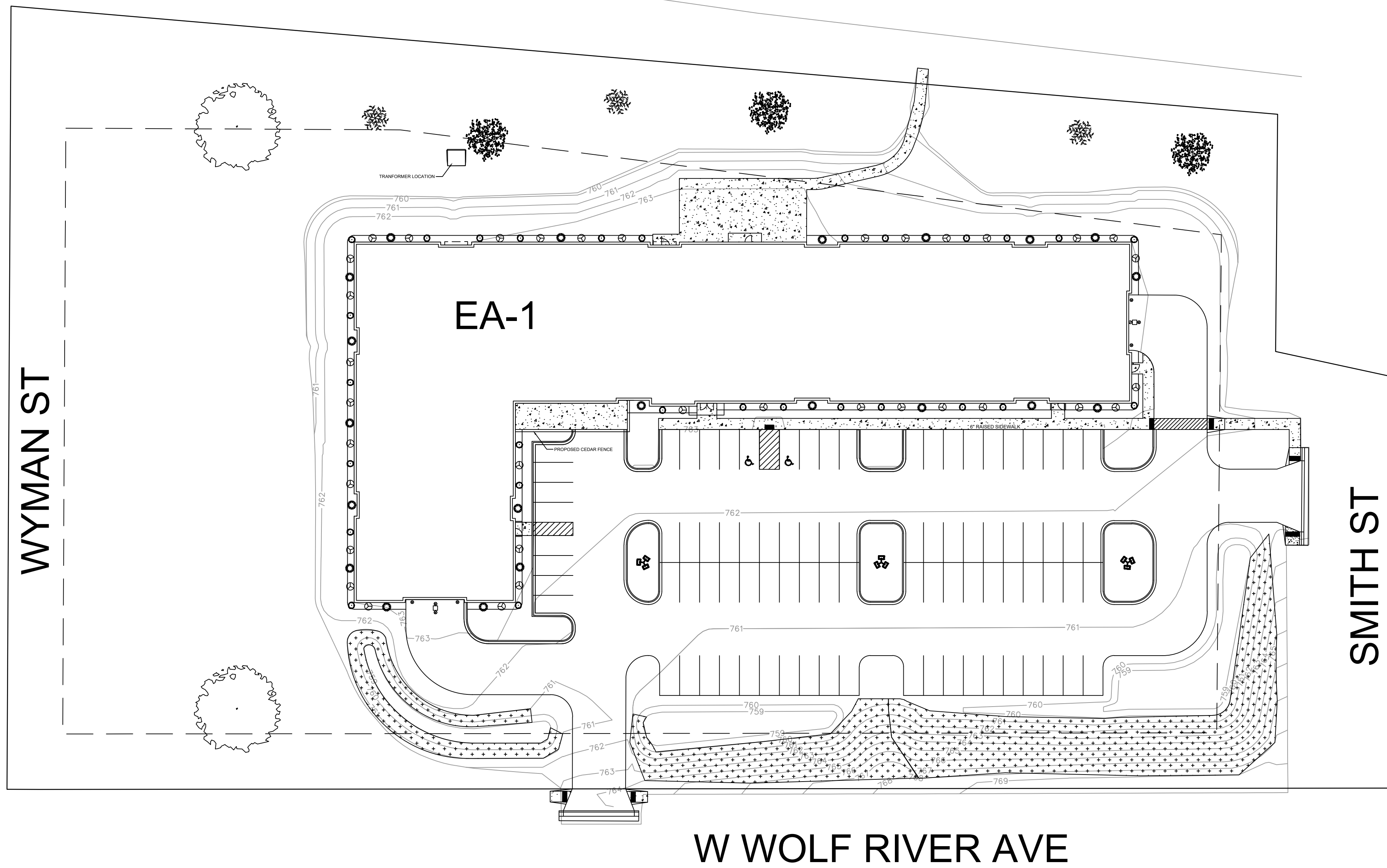


PROJECT	SCS WOLF RIVER
MODEL	LANDSCAPE PLAN
TITLE	COVER

DATE	1/9/2023
DRAWN BY	TSCF
SCALE	AS SHOWN

SHEET NO.

L1.0



OVERALL LANDSCAPE PLAN

L1.1

SCALE: AS SHOWN

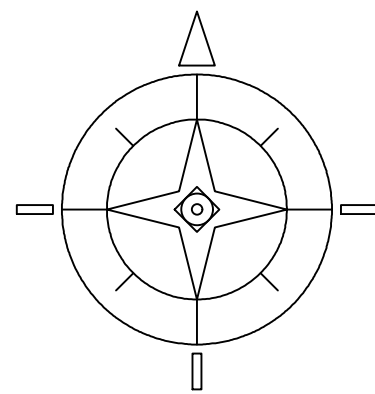
PLANTING SCHEDULE

BOTANICAL NAME	COMMON NAME	SIZE AT PLANTING	QUANTITY
BERBERIS THUNBERGII "CRIMSON PYGMY"	CRIMSON PIGMY BARBERRY	12" TALL	28
SYRINGA 'SMSDTL'	LITTLE DARLING LILAC	12" TALL	21
PHYSOCORPUS OPULIFOLIUS	SWEET CHERRY TEA NINEBARK	12" TALL	35
ACER RUBRUM	RED MAPLE	1 1/4" DIAMETER	2
SYRINGA RETICULATA SUBSP. RETICULATA	JAPANESE IVORY SILK LILAC TREE	1 1/4" DIAMETER	3
AMELANHIER ALNIFOLIA	SASKATOON SERVICEBERRY	3 GALLON	3

LANDSCAPE ROCK: 1 1/2" WASHED RIVER ROCK.
LANDSCAPE CURB COLOR TO BE AN EARTH TONE. FINAL COLOR DETERMINED
BY SCS MATERIAL SPECIALIST AFTER LANDSCAPE SUB-CONTRACTOR IS AWARDED THE BID.

LANDSCAPE KEY

	LANDSCAPE ROCKS
	GRASSES
	SUNDROP SPIREA
	CRIMSON PIGMY BARBERRY
	LITTLE DARLING LILAC
	SWEET CHERRY TEA NINEBARK
	SHASTA DAISY
	BLUE FESCUE
	JAPANESE LILAC
	BLACK HILLS SPRUCE
	SASKATOON SERVICEBERRY
	RED MAPLE



GENERAL NOTES:

- WORK WITHIN THE R.O.W. TO BE IN ACCORDANCE WITH MUNICIPAL STANDARD SPECIFICATIONS.
- CONTACT DIGGER'S HOTLINE AND RECEIVE CONFIRMATION OF UTILITIES PRIOR TO THE START OF DEMOLITION/CONSTRUCTION. ANY PLANTS NEAR EXISTING UTILITIES TO BE HAND DUG AND INSTALLED, SO AS TO PROTECT WORK DONE BY OTHER TRADES.
- PRIOR TO PLANT INSTALLATION, CONTRACTOR TO REVIEW SITE CONDITIONS FOR UTILITY CONFLICTS, DRAINAGE ISSUES, SUBSURFACE ROCK, AND PLANT PLACEMENT CONFLICTS. ANY SUBSTITUTIONS OF PLANT TYPE, LOCATION OR SIZE TO BE APPROVED BY SCS PRIOR TO INSTALLATION. BE AWARE OF MUNICIPALITY POINT REQUIREMENTS AND PLACEMENT OF PLANTINGS, REPOSITIONING OF PLANTINGS TO BE APPROVED BY SCS PRIOR TO INSTALLATION.
- 6" OF TOPSOIL SHALL BE PROVIDED IN ALL GENERAL LANDSCAPE AREAS. LANDSCAPE CONTRACTOR SHALL VERIFY THAT SPECIFIED PLANTING SOILD DEPTH IS PRESENT PRIOR TO PLANTING.
- SEED/FERTILIZE/CRIMP HAY MULCH ALL GENERAL LANDSCAPE AREAS DISTURBED DURING CONSTRUCTION. LAWN SEED TO BE EARTH CARPET BRAND MADISON PARKS SEED MIX OR EQUAL. FERTILIZE AND MUCH PER MANUFACTURER'S RECOMMENDATIONS.
- ALL PLANT MATERIALS LISTED SHALL MEET THE STANDARDS OF THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION FOR THE SIZES GIVEN.
- CONTRACTOR SHALL PRUNE ALL TREES AND REPAIR ANY INJURIES THAT OCCURRED DURING THE PLANTING PROCESS.
- ALL TREES SHALL BE STAKED WITH A MINIMUM OF THREE STAKES AND SECURED WITH STRAPPING.
- ALL TREES IN THE LAWN TURF AREA SHALL HAVE A 3'-0" DIAMETER CIRCLE OF 3" DEPTH SHREDDED HARDWOOD BARK MULCH. A PRE-EMERGENT GRANULAR HERBICIDE WEED-PREVENTER SHOULD BE MIXED WITH MULCH USED.
- DECORATIVE POURED CONCRETE LAWN EDGING SHALL BE PLACED AROUND ALL LANDSCAPE BEDS. EDGING SHALL BE 6" DEEP AND WIDE, CAST/POURED IN PLACE DECORATIVE POURED CONCRETE LAWN EDGING. CONTRACTOR TO ENSURE DRAINAGE AROUND/THROUGH CONCRETE EDGING TO PREVENT A DAM EFFECT. SCS TO PROVIDE PRODUCT SPECIFICATION ON COLOR AND TEXTURE/PATTERN.
- 3" DEPTH OF DECORATIVE LANDSCAPE ROCK SHALL BE PLACED IN ALL SHRUB PLANTINGS BEDS. -1 1/2" WASHED RIVER ROCK TO BE USED.
- TYPAR WEED BARRIER OR APPROVED EQUAL SHALL BE PLACED BENEATH ALL LANDSCAPE ROCK.
- ALL ISLANDS TO HAVE TURF AS NOTED ON PLANS.
- IN-GROUND AUTOMATED IRRIGATION SHALL BE INSTALLED WITHIN THE PROJECT LIMITS. AN IRRIGATION DRIP LINE IS REQUIRED TO BE INSTALLED TO EACH TREE AND PLANTING. COORDINATE ALL PLANT INSTALLATION WITH THE IRRIGATION CONTRACTOR. IF IRRIGATION IS NOT ESTABLISHED AT TIME OF PLANTING, INSTALLER IS RESPONSIBLE FOR WATERING OF TREES, SHRUBS AND TURF UNTIL IT IS.
- CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A MINIMUM OF ONE (1) YEAR AFTER ACCEPTANCE BY THE SCS REPRESENTATIVE. ANY TREES OR PLANTS THAT ARE DEAD OR NOT IN A THRIVING CONDITION SHALL BE REPLACED (AT NO COST TO OWNER) WITH SAME KIND AND SIZE AS ORIGINALLY SPECIFIED UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE. AREAS DISTURBED DURING PLANT REPLACEMENT TO BE REPAIRED AT NO COST TO OWNER.

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MOSINEE, WI 54455
PH: 715.693.9522
FAX: 715.693.9523
WWW.SCSWIDERSKI.COM



PROJECT
SCS WOLF RIVER

MODEL
LANDSCAPE PLAN

TITLE
OVERALL LANDSCAPE PLAN

DATE
1/9/2023

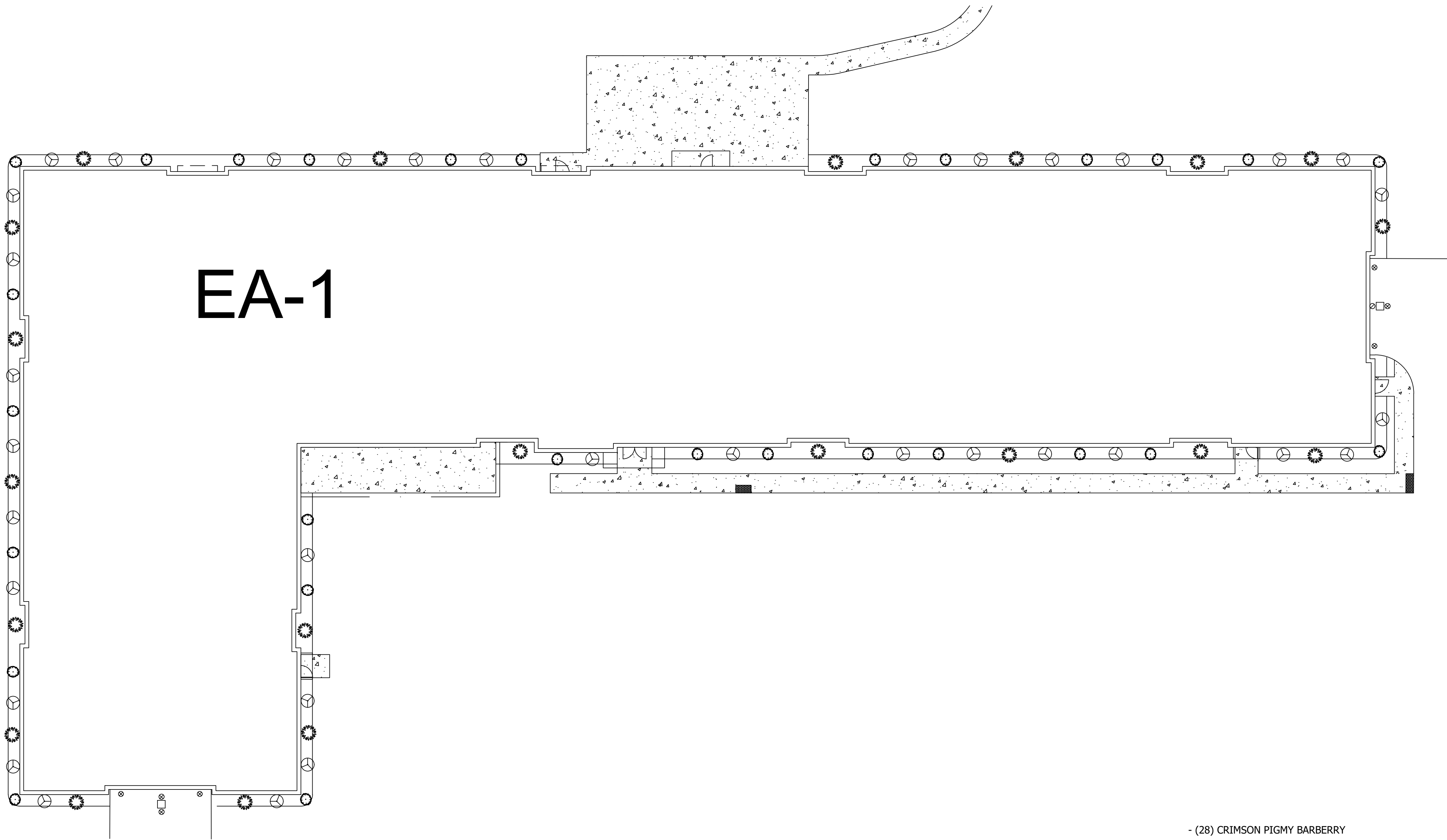
DRAWN BY
TSCF

SCALE
AS SHOWN

SHEET NO.

L1.1

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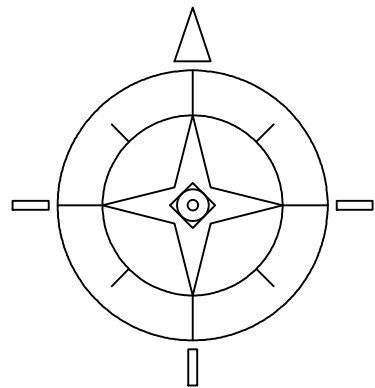


EDEN LANDSCAPE PLAN
SCALE: 1/16" = 1'-0"

L1.2

BUILDING LANDSCAPE PLAN
SCALE: AS SHOWN

LANDSCAPE KEY	
	SUNDROP SPIREA
	CRIMSON PIGMY BARBERRY
	LITTLE DARLING LILAC
	SWEET CHERRY TEA NINEBARK
	SHASTA DAISY
	BLUE FESCUE
	JAPANESE LILAC
	BLACK HILLS SPRUCE
	SASKATOON SERVICEBERRY
	RED MAPLE



REV	DATE	DESIGNER	REMARKS

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S.C. SWIDERSKI LLC

PROJECT	SCS WOLF RIVER
MODEL	LANDSCAPE PLAN
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L1.2