



GMB Consulting Services, LLC

October 15, 2020

GMB Consulting Services, LLC
PO Box 126
Camillus, NY 13031

5&9 Freese Rd, Dryden NY 13053
Maifly Development

The Maifly Development of 5&9 Freese Rd in Dryden NY is pursuing a LEED Neighborhood Development Certification. This document breaks down all the credits of the LEED ND program one at a time and provides a detailed description of the credit intent along with what Maifly's design team has the intention of providing. We are in the early stage of development and until the design documents have been fully developed small changes will continue to develop but with the intent to follow LEED ND credit requirements.

LEED v4 For Neighborhood Development

Smart Location and Linkage

Possible Points: 28

Prerequisite 1 Smart Location

Yes

For All Projects: "Locate the project on a site served by existing water and wastewater infrastructure"

Option 1: Infill Sites "Locate the project on an infill site"

This site has public water and sewer on site and meets the requirements as an infill site.

Prerequisite 2 Imperiled Species & Ecological Communities Conservation

Yes

For All Projects: "Consult with the state Natural Heritage Program and state fish and wildlife agencies to see if any species are listed as threatened or endangered."

Case 1: Sites without affected Species or Ecological Community the prerequisite is satisfied.

The NYS DEC Natural Heritage Program has been reviewed and our site is not affected.

Prerequisite 3 Wetland & Water Body Conservation

Yes

Case 1: "locate project on a site that includes no pre-project wetlands, water bodies, land within 50 ft of wetlands, and land within 100ft of water bodies."

Option 1: No Development on Wetlands and water bodies.

The project site does not include an wetlands or within 100ft of Fall Creek.

Prerequisite 4 Agricultural Land Conservation

Yes

Option 1: Infill Sites "locate the project on an infill site."

The site is an infill site and fulfills the requirements.

- Prerequisite 5 Floodplain Avoidance Yes
Case 1: Sites without Flood Hazard Areas: "locate on a site that is entirely outside any flood hazard area shown on a legally adopted flood hazard map."
 The site is not located in a designated floodplain.
- SLL Credit 1 Preferred Locations 5 of 10 points
Option 1 Location Type: "an infill site that is also previously developed site (5 Points)."
 The site is an infill site and is considered previously developed.
- SLL Credit 2 Brownfield Remediation 0 of 2 points
Option 1 Brownfield Site: "a project site identified as a brownfield or where soil or groundwater contamination has been identified and requires its remediation, perform remediation to the satisfaction of the authority."
 This site is not a brownfield. The project does not qualify for this credit.
- LT Credit 3 Access to Quality Transit 1 of 7 points
For All Projects: "Locate the project on a site with existing or planned transit service such that at least 50% of dwelling units are within ¼-mile walking distance of at least one bus or streetcar stop or ½-mile of bus, streetcar, rideshare or rail station."
 Site has access to TCAT public bus service. Project only qualifies for 1 point because of the minimum daily stops within ¼-mile walking distance.
- LT Credit 4 Bicycle Facilities 1 of 2 points
Multi-unit Residential Buildings: "provide short-term bicycle storage for at least 2.5% of all peak visitors, but no fewer than four storage spaces per building. Provide long-term bicycle storage for at least 30% of all regular occupants, but no less than one storage space per residential unit."
Option 1 Bikeable Location: "locate project such that the project boundary is within ¼-mile bicycling distance of an existing bicycle network."
Option 2 Bicycle Network: "design the project such that at least 50% of the dwelling unit entrances are located on an existing or planned bicycle network extending at least 3 continuous miles."
 There will be bicycle storage for visitors throughout the site. There will be a designated area in each unit for bike storage. This will most likely be a vertical wall mount system. The site is located in a bikeable location – 1 point and possibly a bikeable network – 1 point. More research needs to be completed to confirm the project is within a bikeable network.
- SLL Credit 5 Housing and jobs Proximity 0 of 3 points
- SLL Credit 6 Steep Slope Protection 1 of 1 point
For projects that have slopes great than 15%: "on slopes steeper than 15%, restore the slope area with native plants or non-invasive adapted plants."
 For areas where the slope is more than 15% native plants will be planted.
- SLL Credit 7 Site Design for Habitat or Wetland & Water Body Conservation 1 of 1 point
Case 1 Sites without Significant Habitat or Wetlands & Water Bodies: "Locate the project on a site that does not have significant habitat and is not within 100ft of such habitat."
 This project has been verified on the NYS DEC Natural Heritage Program and the site doesn't have significant habitat.

SLL Credit 8	Restoration of Habitat or Wetlands & Water Bodies	0 of 1 point
SLL Credit 9	Long-Term Conserv. of Habitat of Wetlands & Water Bodies	0 of 1 point

Neighborhood Pattern and Design

Possible Points: 41

Prerequisite 1 Walkable Streets

No

For All Projects: "a. 90% of new buildings have a functional entry onto the circulation network or other public space, such as park or plaza, but not a parking lot.

b. At least 15% of block length of the existing and new circulation network within and bordering project as a minimum building-height-to-street- centerline ratio of 1:1.5 of width from street centerline to building façade.

c. continuous sidewalks or equivalent all-weather routes for walking are provided along both sides of 90%of the circulation network block length. Sidewalks must be at least 4 ft wide.

d. no more than 20% of the block length of circulation network within the project is faces directly by garage and service bay openings."

a. The single-family homes on this site meet the requirement to have the functional entry onto a circulation network or other public space. The multifamily buildings do have the functional entries at a circulation network, but on the other side of the circulation network or sidewalk is the parking lot. During site design the buildings were configured in several different ways to see how they would best fit the site to provide good curb appeal and function for the building occupants. The entries for these units lead out to a sidewalk network that connects to the sidewalk network that is being provided on Freese Rd and Dryden Rd. This will provide the walkable streets this credit is looking for.

b. The single-family units are approx. 60ft off the centerline of Dryden Rd. With the 1:1.5 ratio the houses would be required to be 40ft tall. This does not seem achievable given they are small single-family homes. The multifamily townhomes on Freese Rd are 40ft off the centerline of the road. With the 1:1.5 ratio the townhomes would be required to be 26 ft tall. This seems possible and will be incorporated during design. The project does not meet this requirement.

c. The site is bordered with sidewalks that are designed to be 5ft wide.

d. The site does not have any garages or service bays.

Prerequisite 2 Compact Development

Yes

Case 1 Projects with access to Quality Transit: "For projects with existing or planned transit services that meets or exceeds the 2 point threshold in SLL Credit Access to Quality Transit, build at the following densities- for residential components located within the walking distances 12 or dwelling units per acre."

This credit we are meeting the residential component density with 14 units per acre. There is a bus stop for public transit on the site. There are ample sidewalks to get from each unit to the bus stop.

Prerequisite 3 Connected and Open Community

No

Case 1 Surrounding Connectivity: "Locate the project such that the connectivity within ¼-mile of the project boundary is at least 90 intersections per square mile. Any part of the circulation network that is counted toward the connectivity requirement must be available for general public use and not gated."

This site only has 5 maybe 6 intersections. This is a rural community, and it would be incredibly challenging to find a location that meets this requirement in the Town of Dryden. We

understand that it could be one of the first developments to start to make this requirement achievable for future developments.

NPD Credit 1 Walkable Streets

3 of 9 points

For All Projects: "A project may earn a maximum of 9 points awarded according to Table 1" Table 1 states for 2-3 items achieved 1 point awarded, 4-5 2 points, 6-7 3 points, 8-9 4 points etc."

Here are the strategies the design team is working on.

- No more than 40% of the sidewalk length along a façade is blank (without doors or windows)
- Continuous sidewalks will be provided at 5ft wide
- The ground floor dwelling units of at least 50% have an elevated ground floor at least 24 inches.
- Target speed of the circulation network within the development is less than 20mph
- At grade sidewalk crossings with driveway and road.
- Possibly: functional entries to the building occur at an average of 75 ft or less.
- Possibly: minimum building-height-to-centerline ratio of 1:1.5
- Possibly: 80% of the total linear distance of the building facades facing the circulation network in the project is no more than 25ft from the property line.

NPD Credit 2 Compact Development

2 of 6 points

For All projects: "Design and build the project such that residential and non-residential components achieve the densities per acre of buildable land listed in Table 1 at build-out. Table 1 states for residential density of 14 units per acre 2 points are awarded."

The current site plan shows a density of 14 dwelling units per acre.

NPD Credit 3 Mixed-Use Neighborhoods

1 of 4 points

For All projects: "locate or design the project such that 50% of its dwelling units are within a ¼-mile walking distance of the number of uses (appendix 1: Food retail, general retail, services, civic & community services, community anchor) listed in Table 1. Table 1 states 1 point for 4-7 diverse uses, 8-11 diverse uses for 2 points, etc."

The site has the following services within ¼-mile of the site: Laundromat, Methodist Church, 2 automotive care, Varna Community Association. That is a total of 5 qualifying the project for 1 point.

NPD Credit 4 Housing Types and Affordability

3 of 7 points

For All Projects: Option 1 Diversity of Housing Types: Include sufficient variety of housing sizes and types in the project such that the total variety of planned and existing housing within the project achieves a Simpson Diversity Index score greater than 0.5, using the housing categories. Simpson Diversity Index score of greater than 0.5 to 0.6 1point, greater than or equal to 0.6 to 0.7 2 points, greater than or equal to 0.7 3 points.

This project is planned to have a good variety of housing types. The types align with the following housing categories: Detached Large, Detached Small, Townhouse Small, Multifamily Large and Multifamily Small. The calculated Simpson Diversity Index is 0.7696 earning 3 points.

NPD Credit 5 Reduced Parking Footprint

0 of 1 point

The project does include new off-street parking.

NPD Credit 6 Connected an Open Community

0 of 2 points

- NPD Credit 7 Transit Facilities 1 of 1 point
For All Projects: "work with the transit agencies serving the project to inventory existing transit stops and new transit stops within the project boundary that will be warranted within 2 years of project completion."
 The project team will contact TCAT once the development has been approved and the dwelling unit types have been finalized to assess the current stop.
- NPD Credit 8 Transportation Demand Management 0 of 2 points
For All Projects: "Achieve at least two of the following options- 1. Transit Passes, 2. Developer-Sponsored Transit, 3. Vehicle Sharing, 4. Unbundling of Parking and Parking Fees, 5. Guaranteed Ride Home Program, 6. Flexible Work Arrangements."
 This credit is still being looked at as a possibility, but the points have not been counted in the total points to date.
- NPD Credit 9 Access to Civic and Public Spaces 1 of 1 point
For All Projects: "Locate 90% of planned and existing dwelling units and non-residential use entrances within a ¼-mile walk of at least one civic and passive use space. The space must be on at least 1/6-acre on area."
 The development has a community center for all residents to use. There is the Varna community center located within walking distance on Dryden Rd.
- NPD Credit 10 Access to Recreation Facilities 0 of 1 point
- NPD Credit 11 Visitability and Universal Design 0 of 1 point
- NPD Credit 12 Community Outreach and Involvement 2 of 2 points
Option 1 Community Outreach, Option 2 Charrette, Option 3 Endorsement Program: "Obtain an endorsement from an ongoing local or regional nongovernmental program that systematically reviews and endorses smart growth development projects under a rating or jury system."
 The team is currently having conversations with the Tompkins County Business Energy Advisors that are willing to review the development plans to date and provide an endorsement.
- NPD Credit 13 Local Food Production 0 of 1 point
For All Projects: Options 1 neighborhood Gardens, Options 2. Community-Supported Agriculture, or 3. Proximity to Farmers Market. "Meet the requirements of one of the options"
 This credit is still being looked at as a possibility, but the points have not been counted in the total points to date.
- NPD Credit 14 Tree Lines and Shaded Streets 0 of 2 points
For All Projects: Option 1. Tree-Lined Blocks (1 point): "provide tree at intervals of no more than 50 ft along at least 60% of the planned block length within the project." Option 2 Shaded Sidewalks (1 point): Provide shade from trees or permanent structures over at least 40% of the total length of existing and planned sidewalks within or bordering the project."
 The site plan is being developed with the incorporation of trees along the Freese Rd and Dryden Rd to meet option 1.
- NPD Credit 15 Neighborhood Schools 0 of 1 point

Green Infrastructure and Buildings

Possible Points: 31

Prerequisite 1 Certified Green Building

Yes

For All projects: "Design, construct, or retrofit one whole building within the project to be certified through a LEED rating system."

The single-family homes and multifamily homes will meet the LEED for Homes v4 certification requirements.

Prerequisite 2 Minimum Building Energy Performance

Yes

Single-family residential and new low-rise multifamily buildings: "90% of the buildings must meet the requirements of LEED for Homes v4 EA Prerequisite: Minimum Energy performance."

We are targeting the buildings to have a HERs rating of approx. 57 which is what was achieved at Ivy Ridge development. This meets the minimum HERs rating for EnergyStar and also provides 15 points as part of the LEED for Homes Program. The LEED for Homes program requires a HERs rating of 80 for certification (the lower the HERS rating the more efficient the home is). This is planned to be accomplished using an air tight building envelope with very good insulation R-values, along with energy efficient heat pumps for HVAC, high efficiency water heater, LED lighting and all Energy Star appliances.

Prerequisite 3 Indoor Water Use Reduction

Yes

For New Buildings: "Reduce indoor water usage on an average of 20% from a baseline. All newly installed toilet, urinals, lavatory faucets and showerheads that are eligible for labeling must be WaterSense labeled."

The intent is for this development to install low flow fixtures. As the project has not been fully designed the flow rates for each fixture have not been selected. We plan to provide WaterSense certified fixtures where available. Once the fixtures have been selected a water use calculation will be performed and can be submitted to the town for approval.

Prerequisite 4 Construction Activity Pollution Prevention

Yes

For All Projects: "Create and implement an erosion and sedimentation control plan for all new construction activities associate with the project."

This will be provided with the SPDES requirements.

GIB Credit 1 Certified Green Buildings

5 of 5 points

For All Projects: Option 2: "Design, construct or retrofit a percentage of the total project building floor area, beyond the prerequisite requirement to be certified under LEED green building rating systems."

The project will design and construct 100% of the floor area to meet the LEED for Homes v4 requirements.

GIB Credit 2 Optimize Building Energy Performance

2 of 2 points

Single-family residential and new low-rise multifamily buildings: "90% of the buildings must reduce absolute estimated annual energy usage by 20% compared with the LEED Energy Budget for each building."

We are targeting our buildings to have a HERs rating of approx. 57 which is what was achieved at Ivy Ridge development. This meets the minimum HERs rating for EnergyStar and provides 15 points as part of the LEED for Homes Program. This is equal to 20% reduction compared to the LEED energy budget.

GIB Credit 3	Indoor Water Use Reduction	1 of 1 point
<i>For New Buildings: "Reduce indoor water usage on an average of 40% from a baseline. All newly installed toilet, urinals, lavatory faucets and showerheads that are eligible for labeling must be WaterSense labeled."</i>		
The intent is for this development to install low flow fixtures. As the project has not been fully designed the flow rates for each fixture have not been selected. We plan to provide WaterSense certified fixtures where available. Once the fixtures have been selected a water use calculation will be performed and can be submitted to the town for approval.		
GIB Credit 4	Outdoor Water Use Reduction	2 of 2 points
<i>Option 1 No Irrigation Required: "Show that the landscape does not require a permanent irrigation system beyond a maximum two-year establishment period."</i>		
The project plans to provide native landscaping that will not need an irrigation system.		
GIB Credit 5	Building Reuse	0 of 1 point
GIB Credit 6	Historic Resource Preservation and Adaptive Reuse	0 of 2 points
GIB Credit 7	Minimized Site Disturbance	1 of 1 point
<i>Option 1. Development Footprint on Previously Developed Land: "Locate 100% of the development footprint and the construction impact zone on previously developed land."</i>		
The project site is located on a previously developed land.		
GIB Credit 8	Rainwater Management	3 of 4 points
<i>For All Projects: "In a manner best replicating natural site hydrology processes, manage on site runoff from the developed site for the percentile of regional or local rainfall events listed in Table 1, using low-impact development and green infrastructure. Table 1 states 80th percentile 1 point, 85th percentile 2 points, 90th percentile 3 points and 95th percentile 4 points."</i>		
The project has been designed to achieve the 90 th percentile for a rainfall event.		
GIB Credit 9	Heat Island Reduction	0 of 1 point
GIB Credit 10	Solar Orientation	0 of 1 point
GIB Credit 11	On-Site Renewable Energy Sources	0 of 3 points
GIB Credit 12	District Heating and Cooling	0 of 2 points
GIB Credit 13	Infrastructure Energy Efficiency	0 of 1 point
GIB Credit 14	Wastewater Management	0 of 2 points
GIB Credit 15	Recycled and Reuse Infrastructure	0 of 1 point

GIB Credit 16 Solid Waste Management Infrastructure

1 of 1 point

For All Projects: "Meet at least four of the following five requirements and publicize their availability and benefits.

- a. At least one recycling or reuse station available to all project occupants, dedicated to the separation, collection, and storage of materials for recycling. The recycling must cover at least paper, corrugated cardboard, glass, plastics, and metals.
- b. At least one drop off point available to all project occupants for potentially hazardous office or household supplies.
- c. At least one compost station or location available to all project occupants dedicated to the collection and composting of food and yard wastes.
- d. For non-residential buildings. (does not apply to our project)
- e. Recycle, reuse or salvage at least 50% of non-hazardous construction, demolition, and renovation debris. Calculations can be done by weight or volume but must be consistent throughout. Develop and implement a construction waste management plan that identifies the materials to be diverted from disposal and specifies whether the materials will be stored on site or comingled.

The project plans to implement strategies a, b, c, and e. Once the management plan has been completed it can be submitted to the town for approval.

GIB Credit 17 Light Pollution Reduction

1 of 1 point

Exterior Lighting for Residential Areas: "Meet either option 1 or 2 for all exterior lighting in new residential construction and residential buildings undergoing major renovations. Option 1: Each fixture must have a backlighting-uplight-glare (BUG) rating of no more than B2-U2-G2. Option 2: Meet the requirements of option 2 in Exterior Lighting for All Other Areas, Below."

The site lighting is planned to meet the BUG rating, option 1.

Innovation and Design Process

Possible Points: 6

IN Credit 1 Innovation: Education

1 of 1 point

We will be making a tri-fold brochure to have at the Maifly's Rental office and each tenant will get one when they move in. The brochure will have pictures of our project highlighting the sustainable aspects of each unit. There ill also be tours offered that are scheduled in advance.

IN Credit 2: Innovation: Green Cleaning

1 of 1 point

This will be a document that is also given at the rental office and will explain green cleaning practices for the tenant to utilize. The document will provide recommended cleaning products for the types of surfaces that are in each unit along with the step by step cleaning process used for each of the products.

IN Credit 3 -5 Innovation

0 of 3 Points

IN Credit 6 LEED Accredited Professional

1 of 1 Point

I, Gretchen BeVard am a LEED AP.

Regional Priority**Possible Points: 4**

RP Credit 1-4

2 of 4 Points

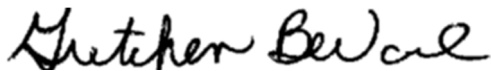
These are given by zip code when looking up the 15053 zip code these were the qualifying regional priority credits. The credits are achieved only if you already meet the requirements for that specific credit already. It is like a bonus point. We are claiming 2 points for regional credits.

- GIB credit 2: 1 point earned
- GIB credit 5: Do not meet this credit.
- GIB credit 3: 1 point earned.
- SLL credit 8: Do not meet this credit.
- NPD credit 13: Do not meet this credit.
- SLL credit 5: Do not meet this credit

This provides 44 points which is considered Certified under the LEED ND v4 program. I have also included an updated LEED ND Plan checklist to show any changes that have been made.

Please let me know if you have any questions or concerns. Thanks.

Sincerely,
GMB Consulting Services, LLC



Gretchen BeVard, PE, LEED AP BD+C
Mechanical Engineer, Owner