



MEMORANDUM

TO: Tom Poirier, Director of Community Development, Gorham, ME
FROM: Darrin Stairs, PE & Suzanna Taytslin
DATE: October 1, 2019
RE: Gorham Industrial Park - Conceptual Subdivision Plans

We understand that the Town of Gorham is assessing opportunities to develop an industrial park in the southeastern industrial zone of the Town. The Town Council voted September 3, 2019 to authorize a voter referendum for the purchase two vacant parcels. These parcels are enclosed by Main Street, Libby Avenue and New Portland Road (the Site) and are tax lots 29-1 and 30-1 on the Town assessor maps. The combined area of the two parcels is approximately 145 acres.

The Town requested that Woodard & Curran (W&C) develop conceptual level subdivision plans for the new industrial park. Preliminary criteria to be considered are a mix of lot sizes, similar in size to the existing Gorham Industrial Park, with 10-acre lots provided along Main Street, and 3- to 10-acre lots throughout the rest of the Site. Connectivity between the existing Gorham Industrial Park to the east and the industrial area located off New Portland Road to the south (at Cyr Road) should also be provided. Consideration should be made to the planned "Crosstown Trail" that would run from west to east through the Site.

The following memorandum serves to summarize some of the site considerations, permitting requirements and design standards that should be considered as this project advances. It also presents two conceptual designs and some guidance on concept level costs.

Site Considerations

There are several features unique to these parcels that will require careful planning and design as the project moves forward. These features include a railroad alignment and sewer interceptor that bisects the two parcels; a transecting water transmission line; steep grades along Libby Avenue; and a neighboring residential zone. It is important to note that neither a topographic survey nor a wetland delineation has been completed at this time; both will be critical to inform the design of the site. The conceptual designs provided with this memo serve to aid in visualizing two ways in which this parcel may be developed to meet the Town's goals and incorporate site considerations. A more robust design will be required prepare preliminary and final development plans.

Design Standards & Requirements

The concept plans were developed in general accordance with applicable ordinances, laws, and standards that dictate design requirements for the proposed industrial park, including the Town of Gorham Land Use and Development Code and applicable Site Location of Development standards. The following parcel information has been identified for the Site:

- Tax Map Lot Number: 29-1 and 30-1
- Parcel Size: 53.68 Acres and 92.01 Acres, respectively
- Zoning: Industrial



According to Section 1-12 of the Town's Land Use and Development Code, Zoning Regulations, the proposed work will be subject to the following performance and space standards:

- Minimum front yards: 30 feet except where the front yard abuts a residential use or district, in which case a minimum of 50 feet shall be provided.
- Minimum side and rear yards: 20 feet except as otherwise required by buffer conditions and except where the side or rear yards abut a residential use or district, in which case a minimum of 30 feet or 50% of the building or outdoor stored material height, whichever is greater, shall be required.

The adjacent land to the northwest of the parcels is zoned Office Residential and Urban Residential, and all other adjacent zones are Industrial. The conceptual designs have been prepared suggesting a 50-foot buffer to the adjacent Residential zones, and these may be landscaped or planted, to help moderate the transition between industrial and residential uses. At a minimum, the Land Use Code requires that "fencing, screening, landscaped berms, natural features or combination thereof shall be utilized to shield the view of abutting residential properties and public ways". In addition, a 20-foot landscaped buffer has been suggested along Main Street to "maintain an attractive gateway to Gorham," per the goals of the Town of Gorham Comprehensive Plan and to meet the screening performance standard.

The project is also subject to the following performance standard for Industrial zones:

There shall be no new access or curb cuts to Main Street, Libby Avenue or New Portland Road from any lots in the Industrial District, when an alternative access exists as of November 30, 1998, provided however, if no such alternative exists than there can be only one access or curb cut per lot in existence at the date of adoption of this ordinance. The Planning Board may allow additional access points onto Main Street or New Portland Road if the developer demonstrates that additional access would provide for better traffic circulation and improved traffic safety, without reducing the level of service on the main travel way.

If more than one entrance is proposed onto Main Street, a request for a waiver from the Planning Board will be required.

The project will be required to comply with MaineDEP stormwater requirements for treatment and flood control for new development. Stormwater requirements should be verified with MaineDEP and more detailed design calculations should be conducted. The centralized storm drainage treatment areas shown on the concept plans have not been sized at this time and will be adjusted once a final development pattern is established.

Permitting Requirements

The Town of Gorham requires a Subdivision Application for developments proposing the subdivision of three or more lots for a parcel or assembly or parcels of land. In addition, a Site Location of Development Act Permit will be required for the proposed project, as it occupies greater than 20 acres.

General Site Characterization

The Site generally slopes from a high point at the southwest edge along Libby Avenue, to a low point in the southeast corner. Slopes along Libby Avenue are steep, greater than 25% in some locations, and may be prohibitive of development in that area. This Site is roughly two-thirds woods and the remainder is open and brush. The National Wetland Inventory indicates a .31-acre wetland along the railroad alignment, and a .23-



acre wetland along Main Street. Actual wetland extents may vary greatly, and a formal delineation of the site will be required.

The existing railroad bed transects the property west to east, from Libby Road to the industrial park located off Bartlett Road. A grassed and dirt trail is currently in use along this alignment, and a future formalized "Crosstown Trail" is proposed along it. It is our understanding that the proposed section would include a 10-foot-wide, paved trail with 1-foot gravel shoulders. Design considerations regarding this trail include the need for an evaluation of the current condition of the embankment, as well as the need for the trail to support service vehicles to plow or access the sewer interceptor below. The embankment is heavily overgrown with trees, and any widening of the travel way would require tree clearing, reconstruction of the embankments, and re-installation of vegetation. However, the railroad bed was designed with a 12-foot minimum width, so it is anticipated that it will not need to be widened to support the trail and individual service vehicles traveling one-way. An unnamed stream runs just southeast of the Site parcels, and plans dated 1982 for the sewer interceptor within the railroad bed indicate that a 3-foot by 4-foot granite box culvert exists at the location of the stream crossing. The condition of this culvert will need to be assessed in designing an extension of Hutcherson Drive along the railroad bed and over the stream.

Utilities

A 24" sanitary sewer interceptor is located within the railroad bed and it is anticipated that the new industrial park can connect to the sanitary sewer interceptor through gravity mains. This will be dependent on the final layout of the property and the elevations of the sewer main.

A Portland Water District 42" transmission line runs through the eastern half of Site from north to south. Connection to this line will not be permitted, and it is anticipated that new water distribution for the industrial park will be fed from existing water mains located in Libby Avenue, Main Street, Cyr Drive and Hutcherson Drive. Working on and around this transmission line will require careful consideration. Per the Portland Water District, any project resulting in changes to grades over existing District infrastructure may only proceed after the review and approval of the District. The Site should be designed to minimize development and grade changes over the transmission line. It is assumed that no buildings may be constructed over this line, but that parking lots built above it may be acceptable to the PWD.

It is anticipated that connections can be made to existing gas lines in Libby Avenue, Cyr Drive, Main Street and Hutcherson Drive to supply the proposed subdivision.

Stormwater

The Town has indicated an interest in providing stormwater management for the Site, in an effort to make it more attractive to developers. A grading and stormwater management design has not been prepared at this time, but the potential locations of stormwater treatment facilities have been shown on the provided schematics. It is anticipated that the most feasible location for stormwater treatment would be at the lowest point of the Site, taking advantage of the existing patterns of surface drainage. Treated stormwater could then be discharged to the unnamed stream southeast of the Site. More information on depth to groundwater, depth to bedrock, and extant site soils will be necessary to finalize the stormwater treatment design.

CONCEPTUAL DESIGNS

Attached are two conceptual subdivision plans for the Site based on a compilation of GIS data, utility drawings and aerial imagery. Concept 1 provides one landscaped entrance onto Main Street, in addition to connectivity



to Cyr Drive and Hutcherson Drive, representing approximately 8,600 feet of new roadway and 800 feet of driveway. Concept 1 would yield approximately 24 lots, ranging from 3.0 to 9.6 acres, with an average lot size of 5.4 acres. A central loop road would provide access to the majority of the lots, with two shared driveways to more peripheral lots on the eastern and western sides of the Site. A small, 1.6-acre open space parcel would remain adjacent to the railroad right of way, as well as two areas reserved for stormwater treatment in the low point at the southeastern corner of the Site. The proposed traffic pattern would require an approximately 1,500-foot extension of Hutcherson Drive, before separating from the railroad alignment. The 10-foot wide, paved Crosstown Trail would follow the remaining approximately 2,500 feet of railroad bed.

Concept 2 would offer two landscaped entrances to Main Street, while connecting to Cyr Drive, the Crosstown Trail and Hutcherson Drive in the same way as described for Concept 1. This concept would require approximately 10,400 feet of new roadway and 400 feet of driveway, and the additional cut to Main Street would require a waiver. This concept would provide 23 lots, from 3.3 to 9.6 acres in size, with an average lot size of 5.5 acres. An acre of open space would be reserved at the second entrance to Main Street, in addition to the 1.6 acres adjacent to the railroad right of way, and areas reserved for stormwater treatment. Only one shared driveway would be required with this layout, but an approximately 500-foot access road would be required for service vehicle access to one of the stormwater treatment areas.

COSTS

As only concept level subdivision plans have been developed at this time, it is not possible to prepare a detailed cost estimate for the roadway and infrastructure required for the new industrial park. For discussion purposes and based on high level budgetary estimates per lineal foot of roadway, we can consider \$800 to \$1,100 per lineal foot for a 24-foot wide roadway with water, sewer, and stormwater and other utilities. We understand, if the referendum is approved, that the Town may dedicate approximately \$1.9M to pay related costs, including survey, design, permitting, and construction for a portion of the industrial park infrastructure. Estimating design and permitting to be around 10% and construction administration to be 5% of total cost, and including a 20% contingency, the \$1.9M may be able to construct about 1,200-1,600 lineal feet of roadway and utilities. A more vigorous cost estimate should be completed once a schematic design becomes more firmly developed (including utilities, grading and stormwater treatment), and with the benefit of topographic and natural resource surveys.