



To: Joshua Skluzacek – Development Director
City of Dickinson
38 1st Street West
Dickinson, ND 58601

From: Andrew Schrank, PE
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Date: March 1, 2024

Re: Preliminary Plat Application – Energy Center 6th Addition

Message: Enclosed you will find the following Preliminary Plat application documents for the above referenced project being submitted for consideration at the April Planning and Zoning Meeting:

- Written Statement (included, below)
- Deed for the Property
- Preliminary Plat drawing with Aerial Imagery Overlay
- Draft of Final Plat drawing
- Mathematical solution for closure of lots
- Preliminary Site Improvement Plan
- Draft Development Agreement
- Parcel map from the City's GIS page
- Zoning map from the City's GIS page
- Utility map from the City's GIS page
- FEMA map from the City's GIS page

WRITTEN STATEMENT

General Project Description

These proposed preliminary plat application for Energy Center 6th Addition is intended to provide the public right-of-way necessary to provide access to the ND National Guard Readiness Center, which is currently being constructed, as well as the City's proposed training facility northwest of this subdivision. This subdivision will also provide for the creation of five (5) new industrial lots around this proposed right-of-way for future development. This plat will allow the City to meet the requirements for land ownership for a federal grant application that could help fund some or all of the roadway improvements if received. This development will help to provide the necessary infrastructure for the City's Public Training Facility, as well as provide new industrial development opportunities within the City.

This property is already zoned General Industrial (GI), so no change in zoning will be required. This subdivision is also located within the City's Corporate Limits. The owner does not own or intend to purchase surrounding property. We have not informed neighboring properties of this request with the exception of the City. This application is being submitted in accordance with local, state, and federal requirements to the best of our knowledge.

Roadway Improvements, Access, and Projected Traffic

The proposed public right-of-way depicted by this plat is to include a 40-foot wide (measure face of curb to face of curb) urban roadway meeting City of Dickinson standards. Sidewalk is not anticipated to be required due to the industrial nature of this development. Storm sewer and inlets will be provided to meet stormwater spread rates as required by City of Dickinson policy and to convey runoff through this right-of-way.

This proposed roadway is intended to provide access to each of these proposed lots with the exception of Lot 4, Block 1 which does not have frontage along this proposed roadway. This lot will be accessed from E Villard Street. The proposed roadway will also be utilized to gain access to the ND National Guard Readiness Center, which is currently being constructed, as well as the City's proposed training facility northwest of this subdivision. A non-access line has been provided to restrict access from Energy Drive to this subdivision as requested by Staff due to concerns with the curve, elevation, and snow accumulation on Energy Drive.

Since exact uses of this property are unknown at this time, ITE Trip Generation Manual, 10th Edition, was utilized to project anticipated traffic volumes that can be expected once this site is developed. Since development plans are not available at this time, traffic

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projections based on the acres of industrial area proposed were utilized. The most applicable use category from the ITE Manual with data available based on acreage was found to be Manufacturing (140). For a typical weekend, the anticipated trip ends (50% entering and 50% leaving) for this category based on the developable area of 38.13 acres provided by the current plat is $\pm 1,256$ (± 628 entering and ± 628 leaving) per day. Approximately 7.3% of this traffic is anticipated to be truck traffic.

We anticipate the majority of this traffic will enter and leave the site along the Energy Drive intersection on the way to or from I-94 where this industrial traffic is anticipated to be heading. Traffic may utilize E Villard Street when heading southbound, or when coming from certain areas of the City. We would anticipate that $\pm 70\%$ of the traffic will utilize the Energy Drive intersection, and $\pm 30\%$ percent utilize the E Villard Street intersection. These percentages are based strictly on our understanding of the area and assumptions, so these rates could vary greatly. However, they do seem to somewhat coordinate with the existing ADT percentages for these two roadways. The nearest and most recent traffic count data from 2023 indicates an average daily traffic (ADT) of 710 vehicles for Energy Drive and 445 vehicles for E Villard St. Therefore, the current approximate traffic distribution between these two roadways is $\pm 61\%$ Energy Drive and $\pm 39\%$ E Villard St.

Topography and Drainage

This site has a fair amount of topography with elevations ranging from $\pm 2464'$ at the northeast corner to $\pm 2382'$ at the southwest corner. The site generally drains from north to south. The proposed east-west portion of the public right-of-way follows a ridge line that separates the north-south drainage. Therefore, the area north of this roadway where the proposed ND National Guard Readiness Center is being built all drains to the north, and the area south of this roadway drains to the south. The subdivision is separated by a north-south ridge just east of the north-south portion of the proposed public right-of-way. The area east of this ridge drains to a low point at the southern edge of the subdivision near the middle of Block 1. The area west of this ridge drains to a low point at the southwest corner of this subdivision, which is on the edge of a 100-year floodplain.

The proposed development will drain in a similar manner, but stormwater management facilities will be added at these low points to detain runoff to pre-development rates as required by the City's Code. Block 1 will drain to the proposed Tract 1, Block 1 either overland or through the proposed ditch in the drainage easement that is to be provided in the center of this block. This Tract will include a detention pond with an appropriately designed outlet structure to release runoff at pre-development rates into the E Villard St right-of-way. Block 2 and the proposed public right-of-way will drain to the proposed Tract 1, Block 2, which will also include a detention pond with an appropriately designed

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outlet structure to release runoff at pre-development rates. This pond will outlet into the E Villard St right-of-way at the southwest corner of the subdivision. The roadway will include a storm sewer system to convey runoff to this Tract, and Lot 1 of Block 2 is anticipated to drain overland into this Tract.

A portion of the City's property northwest of this subdivision where the proposed training facility is to be built also drains through the northwest portion of Block 2. This runoff will be routed this runoff around Lot 1, Block 2 without routing this flow through the proposed detention ponds.

Water and Sewer Improvements, Services, and Demand

A new water main is proposed to run within the proposed public right-of-way shown by this plat. This water main will connect to an existing 12-inch water main within the E Villard Street right-of-way, and either the 12-inch main along Energy Drive, or the 8-inch main that was installed in the ND Readiness Center as allowed by the City. Since pressure and flow data in this area is not available outside of the City's water model, we would request that the City analyze this proposed water main to determine the appropriate connection point and pipe diameter. It is anticipated that the water demand will be driven by the requirement noted by *Table 6-6: City of Dickinson Desired Fire Flows* of the City's Comprehensive plan which indicates 4,000 gpm for 4 hours should be provided for industrial areas. Fire hydrants will be provided at ± 400 -foot increments along this route to provide appropriate fire suppression for this development. Fire hydrants already exist within the E Villard St right-of-way to the south and the Energy Drive right-of-way to the east of this subdivision.

Due to the site topography and locations of existing sanitary sewer infrastructure, the sanitary sewer mains will not be located within the public right-of-way. The site topography has a significant drop in elevation from North to South. Therefore, the existing sanitary sewer in Energy Drive at the northeast corner of this subdivision cannot be used to serve this site by gravity. Therefore, the site will connect to the sewer infrastructure at the southwest corner of this site near the City's existing lift station. This sewer will be extended east along the southern edge of the development to the middle of the southern edge of Block 1 where it will be routed north to the center of this block. This new main will serve all proposed lots within Block 1. Block 2 can either connect to this proposed main or the existing sanitary sewer main that runs along its western edge. We anticipate that the proposed City of Dickinson Training Facility located northwest of this subdivision will also connect to this existing sanitary sewer which lies at the southwest corner of the City's property. All of this proposed sanitary sewer will be able to flow by gravity to the existing sewer infrastructure at the southwest corner of the site without the need for lift stations.

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Industrial uses have a typical water and sewer demand of around 13 gallons per employee per day. However, this demand can vary greatly, especially for manufacturing processes that require large amounts of water. Based on the previously projected ± 628 vehicles entering and leaving this site each day, we could assume that ± 628 employees will work within this development. Therefore, the anticipated average daily water and sewer demand for this site is $\pm 8,164$ gallons (628 employees \times 13 gal/employee). Please note that this flow does not include water or sewer required for industrial processes, which vary greatly and are difficult to predict.

Development Agreement

This subdivision and the infrastructure proposed will provide a benefit to not only this developer, but also the City of Dickinson Training Facility and the ND National Guard Readiness Center. In fact, it is the City's need for the access that will be provided by this development and the current federal grant opportunity that is available to the City that spurred this proposal. With the multiple party interest in the proposed public infrastructure, a draft development agreement has been drafted and is being submitted for the City's consideration outlining the proposed share in the cost of this infrastructure that is to be provided by each party.

Your consideration of this request is greatly appreciated. Feel free to contact me for any additional information or questions regarding this submittal. Thank You!



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