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February 11, 2025

Alec Pietz, P.E.
Interim City Engineer – City of Mankato
10 Civic Center Plaza
Mankato, MN 56001
(507) 720-2559
apietz@mankatomn.gov

Reference: Quarry View
Mankato, Minnesota

Subject: Trip Generation Memorandum

Dear Mr. Pietz:

The following is a Trip Generation Memorandum for the proposed Quarry View residential development to be located along 8th Avenue in Mankato, Minnesota. This memorandum has been prepared to compare and assess the trip generation potential for the proposed residential development based on the following potential land uses options:

- 36 single-family attached homes [townhomes]

OR

- 20 single-family detached homes [60-ft lot assumed]

Access to the proposed development along 8th Street will be provided via the following existing streets:

- Cleveland Street
- Lind Street
- Harper Street

Refer to the attachments for a site location map and a copy of the preliminary site plan. In addition to providing the trip generation comparison for the site, this letter also assesses the potential traffic impacts of the proposed development.

Trip Generation

The proposed development is assumed to consist of 36 single-family attached homes *or* 20 single-family detached homes. Average daily, AM peak hour, and PM peak hour trips for the proposed development land use options were estimated using the ITE *Trip Generation Manual*, 11th Edition. **Table 1** provides a summary of the trip generation potential for both land use options for the proposed development utilizing equations for the land uses.

Table 1: Trip Generation Summary Comparison

Land Use (ITE Code)	Intensity	Daily Traffic (vpd)	Weekday AM Peak Hour Trips (vph)		Weekday PM Peak Hour Trips (vph)	
			Enter	Exit	Enter	Exit
Single-Family Attached Housing (215)	36 units	224	3	10	10	8
OR						
Single-Family Detached Housing (210)	20 units	230	4	13	14	8

If the proposed development consists of 36 single-family attached homes, it is estimated to generate approximately 224 total site trips on the roadway network during a typical 24-hour period. Of the daily traffic volume, it is anticipated that 13 trips (3 entering and 10 exiting) will occur during the weekday AM peak hour and 18 trips (10 entering and 8 exiting) will occur during the weekday PM peak hour.

If the proposed development consists of 20 single-family detached homes (assuming 60-ft lots), it is estimated to generate approximately 230 total site trips on the roadway network during a typical 24-hour period. Of the daily traffic volume, it is anticipated that 17 trips (4 entering and 13 exiting) will occur during the weekday AM peak hour and 22 trips (14 entering and 8 exiting) will occur during the weekday PM peak hour.

It should be noted that the daily traffic volume generated by the proposed development for either type of land use option is expected to be below the thresholds to require a Traffic Impact Study (TIS) based on the Minnesota Department of Transportation (MnDOT) Access Manual.

Trip Distribution

The trip distribution used in assigning the site traffic for the proposed development was estimated based on a combination of existing traffic patterns, population centers in the vicinity of the study area, and engineering judgement.

It was assumed that the site trips will be regionally distributed along 3rd Avenue as follows:

- 40% to/from the north via 3rd Avenue
- 60% to/from the south via 3rd Avenue

The site traffic along 3rd Avenue is expected to utilize Cleveland Street, Lind Street, and Harper Street to access the proposed development. Refer to the attachments for an illustration of the site distribution assumptions.

Based on the low site traffic generated for either land use option, and alternative routes provided to access the site, it is expected that the development will have minimal impacts to the surrounding roadway network.

Conclusion

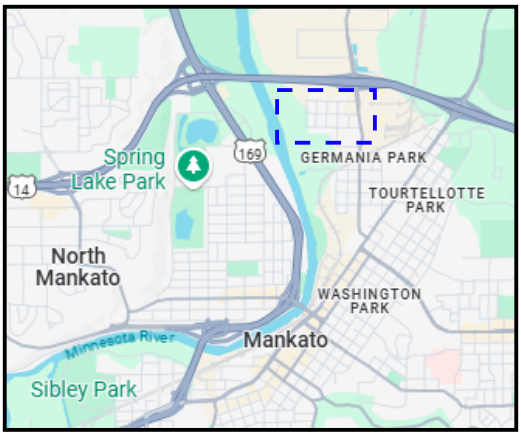
The proposed Quarry View residential development was reviewed to determine the trip generation potential for the site based on two (2) potential land use options and assess any potential traffic impacts from the proposed development. Based on the low trip generation potential for either land use option, and alternative routes provided to access the site, it is expected that the development will have minimal impacts to the surrounding roadway network. Although minimal impacts from the proposed development are anticipated, a more in-depth traffic study would be necessary to determine if the proposed development would introduce any need for intersection geometry or traffic control improvements.

If you have any questions or concerns, please do not hesitate to contact me. I hereby certify that this plan, specification or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Sincerely,
Bolton & Menk, Inc.

Danielle Troutman, PE
Transportation Project Engineer
License No. 63168

Attachments: Site Location Map
Preliminary Site Plan
Site Trip Distribution Figure



N

LEGEND

- Proposed Site Location
- Study Area

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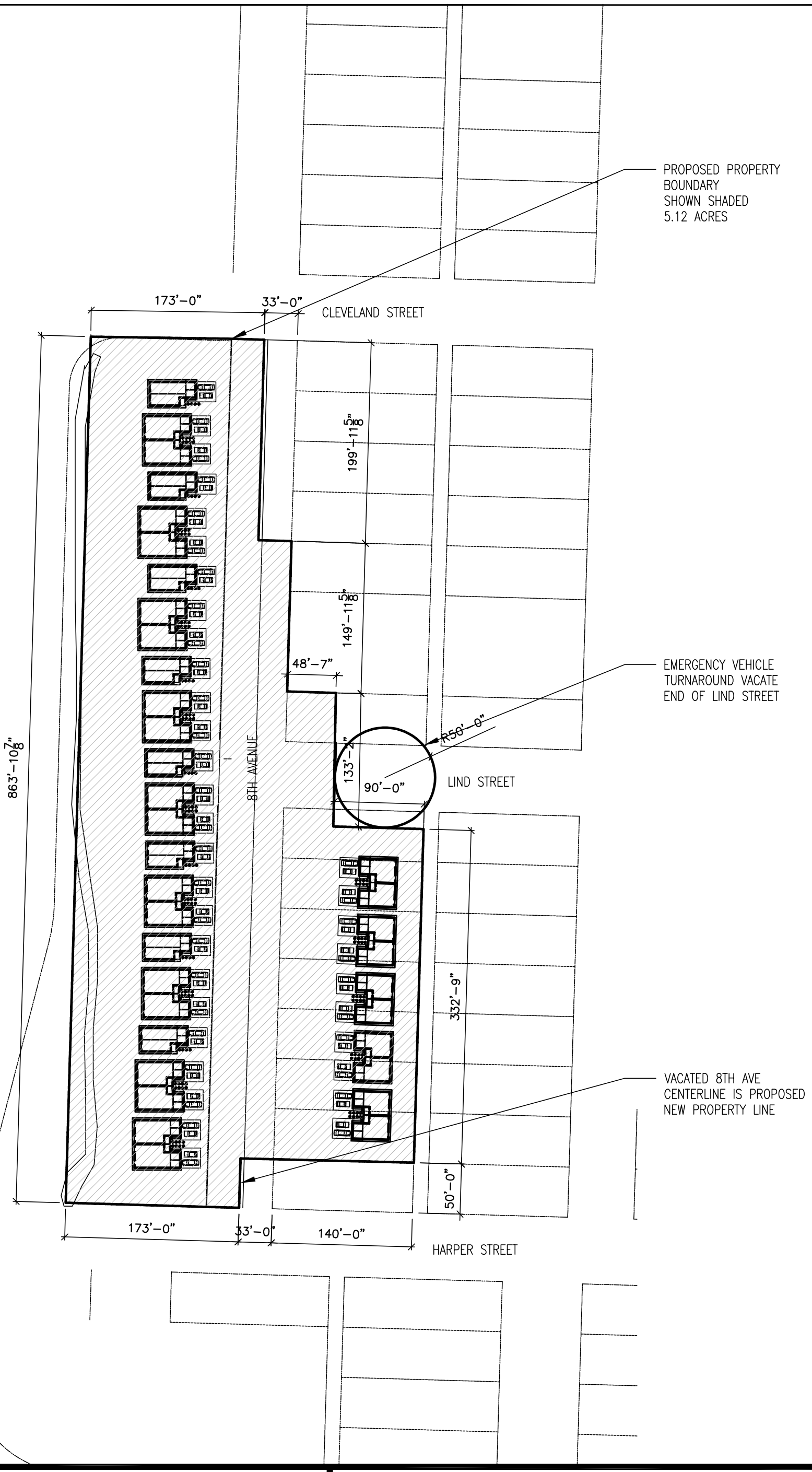
Quarry View

Mankato, MN

Site Location Map

Scale: Not to Scale

Figure



PROJECT INFO.

SCALE 1"=100'

JEFFERSON QUARRY

RESIDENTIAL DEVELOPMENT
8TH AVENUE - MANKATO, MN

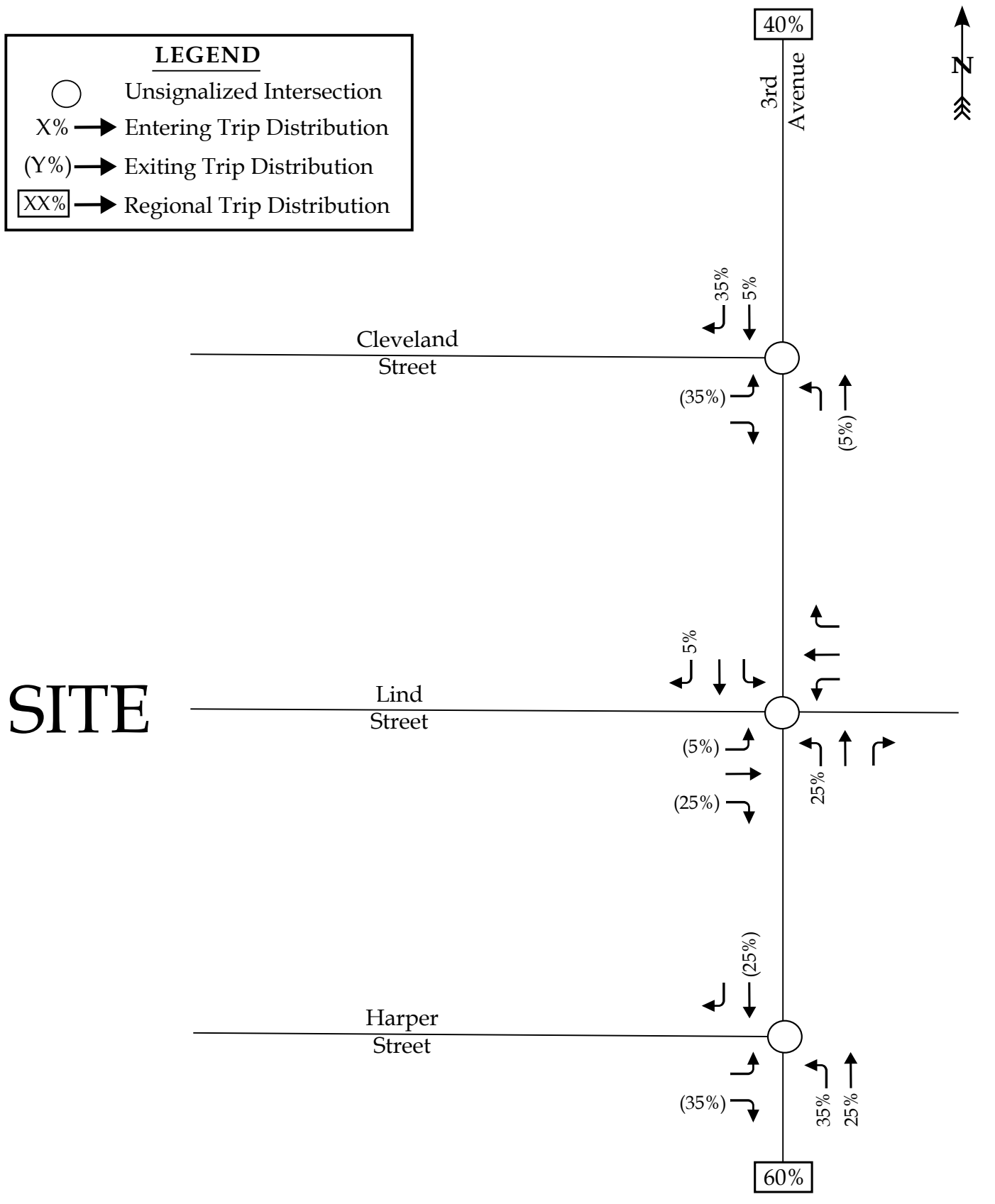
COLDWELL BANKER COMMERCIAL | FISHER GROUP

DATE

11/25/2024

SHEET NO.

A0



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Quarry View
Mankato, MN

Site Trip Distribution

Scale: Not to Scale

Figure