Kimley»Horn

MEMORANDUM

To:	Tammy Szudy, Planning & Zoning Manager City of Wauwatosa
From:	Emma Albers, P.E., PTOE Kimley-Horn and Associates, Inc.
Date:	August 4, 2023
Subject:	Trip Generation Estimates for the Proposed Chase Bank Wauwatosa, WI

Kimley-Horn was retained by The Architects Partnership to prepare trip generation estimates for a proposed Chase Bank located at 11199 W. Burleigh Street in Wauwatosa, Wisconsin. The site is located on the southeast quadrant of the intersection of Burleigh Street and 112th Street. A copy of the proposed site plan is provided as **Attachment A**.

DEVELOPMENT CHARACTERISTICS

The proposed development would include an approximately 3,293 square-foot Chase Bank with a drive-through ATM. The bank would be located on an approximately 0.58-acre lot at the northwest corner of an existing Meijer parking lot. The project is expected to be constructed and occupied in 2024. Parking for the site would be provided by the existing spaces within the commercial development. The single drive-through ATM would be provided in the northeast portion of the site with five (5) stacking spaces.

Access to the site would be provided via the existing access driveways serving the commercial development which include a right-in/right-out driveway on Burleigh Street located approximately 350 feet east of 112th Street and a full-access driveway on 112th Street located approximately 300 feet south of Burleigh Street.

TRIP GENERATION

The Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition is a compilation of traffic count data collected at sites throughout the United States for a range of land uses based on building floor area, unit count, and other relevant variables. Trip generation data for ITE Land Use Code (LUC) 912, Drive-in Bank was used for this evaluation. A summary of the ITE data for a Drive-in Bank is provided in **Table 1**.

Table 1. ITE Trip Generation Data

ITE Land Use	Unit	Weekday			Saturday
		Daily	AM Peak Hour	PM Peak Hour	Midday Peak Hour
Drive-in Bank (LUC 912)	Per 1,000 sq. ft	100.35X 50% in/50% out	9.95X 58% in/42% out	21.01x 50% in/50% out	26.35X 51% in/49% out

X = 1,000 square feet gross floor area

For purposes of this evaluation, it was assumed that the traffic generated by a drive-in bank would exhibit a diverse range of travel patterns when traveling to and from the development, as described below.

- **Pass-by** – Pass-by traffic reflects the travel patterns of motorists who are already traveling on the adjacent study roadways and stop at the site en-route to another primary destination. Pass-by data was taken from the ITE Trip Generation Manual 11th Edition. Data provided for LUC 912, Drive-in Bank was used to estimate pass-by trips. ITE data indicates that 29 percent of vehicles are pass-by trips in the weekday AM peak hour, 35 percent during the weekday PM peak hour, and 38 percent during the Saturday midday peak hour.
- **Primary Trips** – Vehicles that travel to the subject development and then return directly to their place of origin are called "primary trips." Primary trips reflect new traffic volumes generated by the proposed development that would approach and depart on the same route. Trips to/from the site that are not pass-by trips are expected to be primary trips.

Per the rates provided in **Table 1**, trip generation estimates for new primary trips and pass-by trips for the proposed development plan are provided in **Table 2**. The AM and PM Peak hours utilized the Peak Hour of Adjacent Street Traffic to determine the site generated peak hour trips. The site-generated trips projected during the peak hours were rounded to the nearest multiple of five for the purposes of this analysis, and daily trips were rounded to the nearest multiple of ten.

Table 2. Site-Generated Traffic Projections[1]

Land Use	Size	Daily	Weekday						Saturday		
			AM Peak Hour			PM Peak Hour			Midday Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Drive-In Bank	3,293 sq. ft.	330	20	15	35	35	35	70	45	45	90
	Pass-by Trips[2]	*-100*	*-5*	*-5*	*-10*	*-10*	*-10*	*-20*	*-15*	*-15*	*-30*
Net New Trips – Chase Bank		230	15	10	25	25	25	50	30	30	60

[1] Peak hour trip generation projections rounded to the nearest five.

[2]Based upon the ITE Trip Generation Manual, 11th Edition, roughly 29 percent of vehicles at a Drive-in Bank (LUC 912) are pass-by trips in the weekday AM peak hour, 35 percent during the weekday PM peak hour, and 38 percent during the Saturday midday peak hour.

TRIP DISTRIBUTION AND ASSIGNMENT

In order to estimate the potential impact of daily site-generated traffic on the adjacent roadway network, an estimated trip distribution was developed. The estimated distribution of site-generated traffic on the surrounding roadway network as it approaches and departs the development is a function of several variables, such as the nature of the surrounding land uses, prevailing traffic volumes/patterns, characteristics of the street system, and the ease with which motorists can travel over various sections of that system. The anticipated direction distribution of site-generated trips (primary and pass-by) is outlined in **Table 3**.

Table 3. Estimated Trip Distribution

Traveling to/from:	Primary	Pass-by
West on Burleigh Street	50%	60%
East on Burleigh Street	50%	40%
Total	100%	100%

Based on the distribution assumptions and site-generated traffic projections, the site trip assignment for primary, pass-by, and total trips are illustrated in **Exhibit 1**, **2**, and **3**, provided as attachments to this memo.

AVERAGE DAILY TRAFFIC (ADT) REVIEW

Annual average daily traffic (AADT) data was obtained from the Wisconsin Department of Transportation (WisDOT) for the surrounding roadway network to determine how much daily traffic would increase with site-generated trips. The site trips included in this evaluation only include the primary trips, as pass-by trips are assumed to already be on the existing roadway network. The estimated daily increase of traffic from site-generated trips on the surrounding roadway network can be seen in **Table 4**.

Table 4. Existing and Future AADTs

Roadway Segment	Existing AADT (vpd)	Site Trips (vpd)	Build AADT (vpd)	Percent Increase
Burleigh Street[1]	22,900	230	23,130	1.1

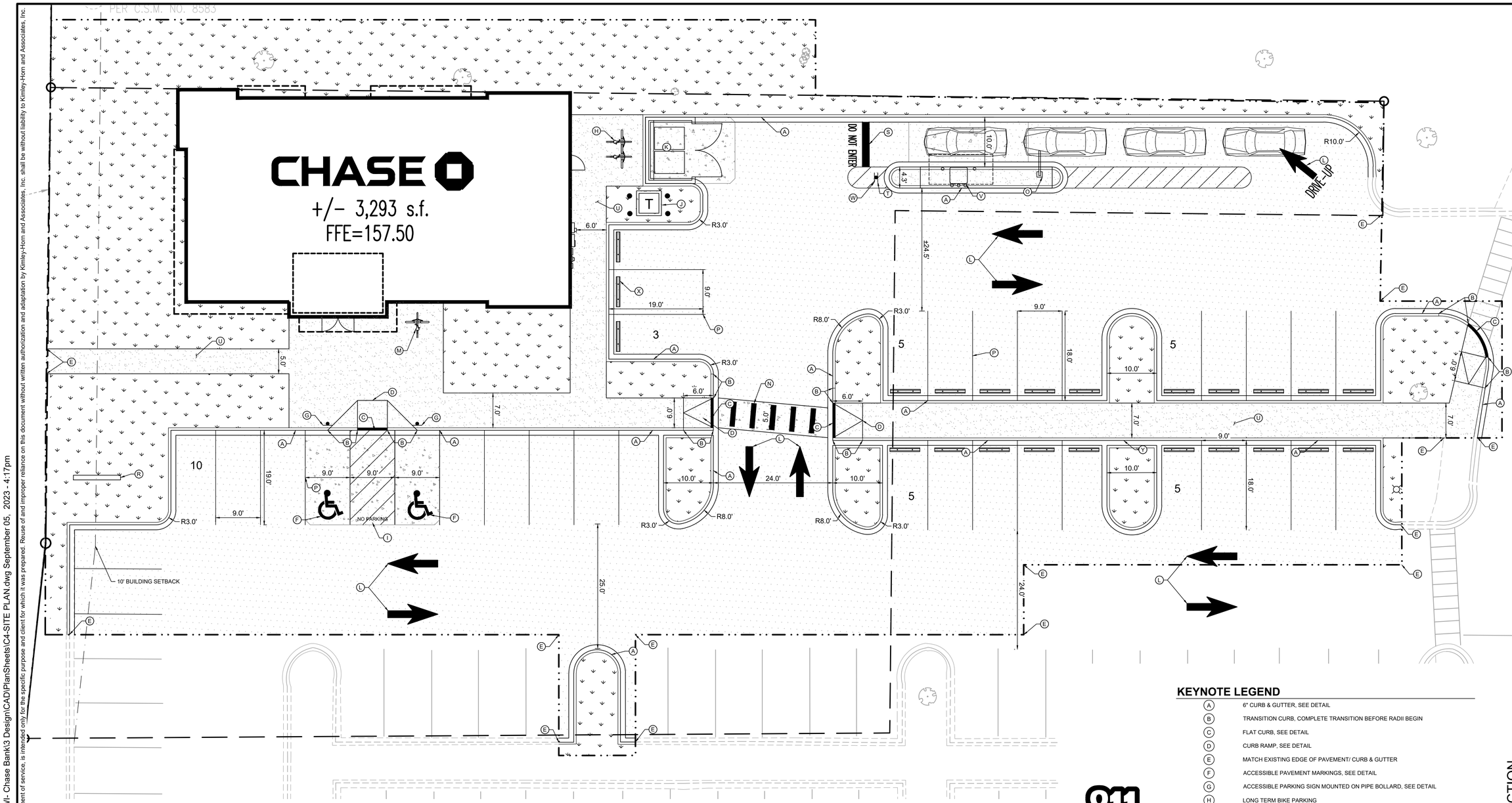
[1] AADT data from WisDOT is not available for 112th Street

As shown in **Table 4**, the estimated increase to daily traffic on Burleigh Street is approximately 1.1 percent and is not anticipated to materially impact the roadway network.

SUMMARY

Based on Kimley-Horn's review of the site plan, existing roadway network, operational characteristics of the Chase Bank, and the estimated trip generation, the proposed development is not expected to materially impact the roadway network. Please do not hesitate to contact us with any questions related to the information in this memorandum.

Attachments: Conceptual Site Plan
Exhibit 1: Site Trip Assignment – Primary
Exhibit 2: Site Trip Assignment – Pass-by
Exhibit 3: Site Trip Assignment – Total



BUILDING DATA	
TOTAL BUILDING AREA	3,293 SF
PERCENT OF TOTAL PROPERTY AREA	13.53%
MAXIMUM BUILDING HEIGHT	NO MAX

PARKING SUMMARY	
REQUIRED PARKING	13 SPACES @ 4/1,000 SF
TOTAL PROPOSED PARKING	13 BANK SPACES LOSS OF 41 SPACES TOTAL
REQUIRED ACCESSIBLE PARKING	1 STANDARD SPACES 1 VAN ACCESSIBLE
PROPOSED ACCESSIBLE PARKING	2 VAN ACCESSIBLE SPACES

PROPERTY SUMMARY	
TOTAL PROPERTY AREA	0.56 AC / 24,330 SF
DISTURBED AREA	0.72 AC / 31,461 SF
EXISTING IMPERVIOUS AREA	0.494 AC / 21,852 SF / 89.94%
EXISTING PERVIOUS AREA	0.056 AC / 2,448 SF / 10.06%
PROPOSED IMPERVIOUS AREA	0.471 AC / 20,453 SF / 84.07%
PROPOSED PERVIOUS AREA	0.089 AC / 3,877 SF / 15.93%
NET DECREASE IN IMPERVIOUS AREA	0.032 AC / 1,399 SF

SITE DATA	
EXISTING ZONING	M1 (LIGHT INDUSTRIAL)
PROPOSED LAND USE	FINANCIAL SERVICES
PARKING SETBACKS	SIDE/REAR = 0' RIGHT OF WAY = 0'
BUILDING SETBACKS	FRONT = 10' SIDE = 10' REAR = 25'

SITE PLAN NOTES

1. REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF STOOPS, TRUCK DOCKS, TRASH ENCLOSURES & PRECISE BUILDING DIMENSIONS. REFER TO THE SITE ELECTRICAL PLAN FOR LOCATIONS OF PROPOSED LIGHT POLES, CONDUITS, AND ELECTRICAL EQUIPMENT.
2. REFER TO CERTIFIED SITE SURVEY OR PLAT FOR EXACT LOCATION OF EXISTING EASEMENTS, PROPERTY BOUNDARY DIMENSIONS, AND ADJACENT RIGHT-OF-WAY & PARCEL INFORMATION.
3. DIMENSIONS AND RADII ARE DRAWN TO THE FACE OF CURB, UNLESS OTHERWISE NOTED. DIMENSIONS ARE ROUNDED TO THE NEAREST TENTH FOOT, AND AREAS ARE ROUNDED TO THE NEAREST SQUARE FOOT.
4. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING EXISTING SITE IMPROVEMENTS THAT CONFLICT WITH THE PROPOSED WORK, INCLUDING BUT NOT LIMITED TO TRAFFIC SIGNS, LIGHT POLES, ABOVEGROUND UTILITIES, ETC. PERFORM WORK IN ACCORDANCE WITH GOVERNING AUTHORITIES REQUIREMENTS AND PROJECT SITE WORK SPECIFICATIONS. COST SHALL BE INCLUDED IN BASE BID.
5. TYPICAL PARKING STALL DIMENSIONS SHALL BE 9.0-FEET IN WIDTH AND 19-FEET IN LENGTH UNLESS OTHERWISE INDICATED.
6. MONUMENT SIGN(S) ARE DETAILED ON THE ARCHITECTURAL PLANS AND ARE SHOWN FOR GRAPHICAL & INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO VERIFY SIGN DIMENSIONS, LOCATION AND REQUIRED PERMITS WITH THE OWNER.
7. LONG TERM BIKE PARKING DIMENSIONS SHALL BE 2.0-FEET IN WIDTH AND 7.0-FEET IN LENGTH.

LEGEND

- PROPERTY LINE
- SETBACK LINE
- DRAINAGE AND UTILITY EASEMENT
- PROPOSED LEASED PARCEL LINE
- PROPOSED FLUSH CURB
- PROPOSED CURB AND GUTTER
- PROPOSED STANDARD DUTY ASPHALT
- PROPOSED CONCRETE PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- LIMITS OF DISTURBANCE

Know what's **below.** **Call** before you dig.

NORTH

GRAPHIC SCALE IN FEET
0 5 10 20

KEYNOTE LEGEND

A	6" CURB & GUTTER, SEE DETAIL
B	TRANSITION CURB, COMPLETE TRANSITION BEFORE RADII BEGIN
C	FLAT CURB, SEE DETAIL
D	CURB RAMP, SEE DETAIL
E	MATCH EXISTING EDGE OF PAVEMENT/ CURB & GUTTER
F	ACCESSIBLE PAVEMENT MARKINGS, SEE DETAIL
G	ACCESSIBLE PARKING SIGN MOUNTED ON PIPE BOLLARD, SEE DETAIL
H	LONG TERM BIKE PARKING
I	AREA STRIPED WITH 4" SYSL @ 45° 2' O.C.
J	TRANSFORMER PAD WITH BOLLARDS (FOR REFERENCE ONLY)
K	TRASH ENCLOSURE CONTAINER (SEE ARCH PLANS FOR DETAILS)
L	TRAFFIC FLOW PAVEMENT MARKINGS
M	PROPOSED BIKE RACKS (SEE ARCH PLANS FOR DETAILS)
N	ACCESSIBLE CROSSWALK (SEE DETAIL)
O	HEADACHE BAR (SEE ARCH PLANS FOR DETAILS)
P	4" WIDE PAINTED SOLID LINE (TYP)
Q	SITE DIRECTIONAL SIGN (SEE ARCH PLANS FOR DETAIL)
R	PROPOSED ILLUMINATED MONUMENT SIGN (SEE ARCH PLANS FOR DETAILS)
S	PAINTED "DO NOT ENTER" MARKING
T	STOP SIGN
U	CONCRETE SIDEWALK (TYP.) (SEE DETAIL)
V	PROPOSED DRIVE-UP ATM (SEE ARCH PLANS FOR DETAIL)
W	"DO NOT ENTER" SIGN
X	WHEEL STOP, SEE DETAIL
Y	1' STANDING CURB

PRELIMINARY - NOT FOR CONSTRUCTION

No.	REVISIONS	DATE	BY

Kimley»Horn

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KHA PROJECT 160094045.1
DATE XX/XX/XXXX
SCALE AS SHOWN
DESIGNED BY MTL
DRAWN BY BSK
CHECKED BY TJS

SITE DIMENSION PLAN

CHASE BANK-WAUWATOSA
PREPARED FOR
THE ARCHITECTS PARTNERSHIP
WAUWATOSA WI

SHEET NUMBER
C400

Kimley»Horn

EXHIBIT 1

SITE TRIP ASSIGNMENT - PRIMARY

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EXHIBIT 2

SITE TRIP ASSIGNMENT - PASS-BY

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EXHIBIT 3

SITE TRIP ASSIGNMENT - TOTAL