



December 18, 2025

City of Ann Arbor
Guy C. Larcom City Hall
301 E. Huron, 3rd Floor
Ann Arbor, MI 48104

Attn: Mr. Timothy S. Wilhelm, Deputy City Attorney

Re: Traffic Hazard Analysis
Ann Street in the City of Ann Arbor

HRC Job No. 20250778

Dear Mr. Wilhelm:

Hubbell, Roth & Clark, Inc. (HRC) has performed a traffic hazard analysis of the existing parking configuration at 201 N Main Street in the City of Ann Arbor. The development currently has a large curb cut with perpendicular vehicle parking spaces on W Ann Street, just west of Main Street. As part of the traffic hazard analysis, HRC reviewed existing conditions, analyzed non-motorized and parking maneuvers and reviewed crash and near miss data for the study area. The study area is defined as the area of W Ann Street from the alley east of the Ashley Parking Garage to Main Street.

EXISTING CONDITIONS

According to the City of Ann Arbor's Unified Development code and consistent with industry standards, parking spaces should be 9 feet wide and 18 feet in depth. The existing perpendicular parking spaces at 201 N Main Street along W Ann Street measure 12 feet in depth from the parking blocks to the property line. This includes 9.5 feet of asphalt pavement and 2.5 feet of concrete pavement. Beyond the property line, the public sidewalk in the City owned right of way is 7 feet. There is an additional 14 feet of asphalt between the public sidewalk and pavement markings on W Ann Street which delineates the westbound through vehicular travel lane. These dimensions are provided on an existing aerial in Figure 1. Figure 2 provides a photograph of the existing perpendicular parking area.

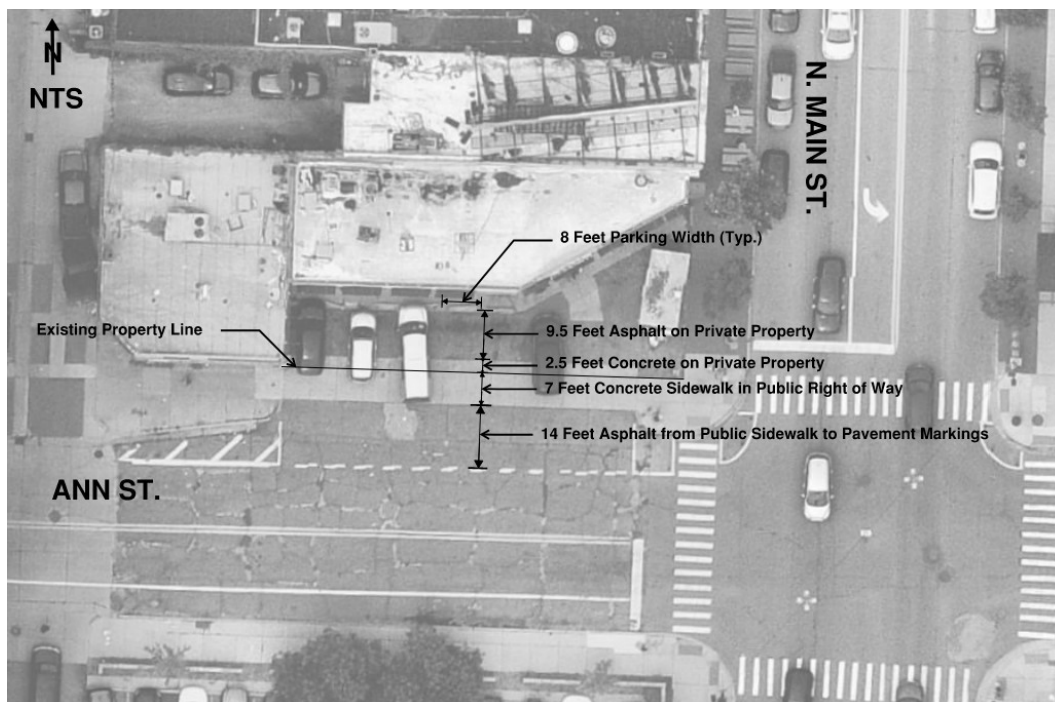


Figure 1: Dimensions of Existing Perpendicular Parking Area



Figure 2: Photograph of Existing Perpendicular Parking Area

PARKING AND NON-MOTORIZED DATA ANALYSIS

The 12-foot depth of the existing perpendicular parking spaces cannot physically accommodate most vehicles without blocking the public sidewalk. This is confirmed by the data collected by Quality Counts. Quality Counts collected data using cameras at the study area from Thursday, October 23, 2025 until Saturday, October 25, 2025. Data was collected from 7:00 AM to 2:00 AM each day. A screenshot of the video from the camera with boundaries defined is shown in Figure 3. The sidewalk highlighted by the green lines corresponds with the concrete public sidewalk in the City's right of way.



Figure 3: Quality Counts Video Image with Defined Data Collection Boundaries

Quality Counts processed the data on the parked vehicles demonstrating the frequency of parked vehicles obstructing the public sidewalk (green area defined in Figure 3). The data is summarized in Table 1. The first column provides the number of vehicles partially obstructing the public sidewalk and the second column provides the number of vehicles fully obstructing the public sidewalk. This data shows that over the three day study period, 504 parked vehicles were obstructing the public sidewalk. Of the 504 vehicles, 86% (432 vehicles) were partially obstructing the sidewalk and 14% (72 vehicles) were fully obstructing the public sidewalk. This presents a safety hazard for non-motorized users traveling along the public sidewalk as the parked vehicles are an obstacle they must maneuver around.

Table 1: Summary of Parking Movements

Day (7AM-2AM)	Partially Obstructing Public Sidewalk	Fully Obstructing Public Sidewalk
Thursday 10/23/2025	128	24
Friday 10/24/2025	162	28
Saturday 10/25/2025	142	20
Total	432	72
Percentage	86%	14%

Quality counts further processed data on non-motorized users demonstrating the frequency that non-motorized users are forced to maneuver around parked vehicles on the public sidewalk. The non-motorized users were classified into the following three categories:

- Pedestrians
- ADA Pedestrians (wheelchairs, canes, etc.)
- Bicycles

The maneuvers of the non-motorized users were defined as follows:

- On Sidewalk, No Obstruction: user was able to use public sidewalk (area in green in Figure 3) without having to avoid parked vehicles obstructing the public sidewalk
- On Sidewalk/Thru Lot, Due to Obstruction: user had to complete one of the red maneuvers shown in Figure 3 due to parked vehicles obstructing the public sidewalk which involved
 - Walking around the back of the parked vehicle but remaining on the public sidewalk
 - Walking around the parking vehicle by moving to the front of the parked vehicle and walking through the parking lot close to the building
- On Street, Due to Obstruction: user moved outside of the bounds of the public sidewalk toward the street (area in yellow in Figure 3) to avoid parked vehicles obstructing the public sidewalk
- On Street, Unrelated to Obstruction: user chose to move into the street (area in yellow in Figure 3) for reasons unrelated to parked vehicles obstructing the public sidewalk

A summary of the non-motorized maneuvers is provided in Table 2. The data collected shows that 71% (2,402) of the non-motorized users had to alter their path due to a parked vehicle obstructing the public sidewalk. This altered path presents a safety concern as the non-motorized users are no longer continuing straight along the designated public sidewalk facility. Instead, the non-motorized users are forced into a safety hazard of walking in the parking lot or on the street.

Table 2: Summary of Non-Motorized Maneuvers

Day	Non-Motorized User	On Sidewalk, No Obstruction	On Sidewalk/Lot, Due to Obstruction	On Street, Due to Obstruction	On Street, Unrelated to Obstruction
Thursday 10/23/2025	Pedestrians	306	488	259	35
	ADA Pedestrians	3	2	0	0
	Bicycles	3	2	2	7
Friday 10/24/2025	Pedestrians	277	594	337	18
	ADA Pedestrians	1	3	1	0
	Bicycles	2	6	12	10
Saturday 10/25/2025	Pedestrians	303	434	253	17
	ADA Pedestrians	0	2	0	0
	Bicycles	4	4	3	9
Total	Number	899	1,535	867	96
	Percentage	26%	45%	26%	3%

CRASH AND NEAR MISS DATA

The past 10 years of crash data were obtained from the Michigan Traffic Crash Facts. There were six total crashes identified in the study area. Five out of the six crashes were related to the perpendicular parking area involving a vehicle backing out of the parking area and striking a vehicle on W Ann Street. All crashes were PDO (property damage only). The UD-10 reports were further reviewed and a summary of those five crashes is provided in Table 3. The crash data shows a pattern of vehicle to vehicle crashes related to the existing perpendicular parking area.

Table 3: Summary of Crashes Related to Existing Perpendicular Parking Area

Date	Condition	Narrative
4/9/2024	Daylight and Dry	Vehicle backing out of private drive hit EB vehicle stopped at red light on Ann St.
2/24/2023	Dark-Lighted and Dry	Vehicle backing out of private drive hit EB vehicle stopped at red light on Ann St.
8/31/2019	Dusk and Dry	Vehicle backing out of private drive hit vehicle traveling EB on Ann St.
4/6/2019	Dark-Lighted and Dry	Vehicle backing out of private drive hit vehicle traveling EB on Ann St.
11/21/2017	Dark-Lighted and Wet	Vehicle backing out of private drive hit EB vehicle stopped at red light on Ann St.

While there were no reported crashes between vehicle and non-motorized traffic, the potential for those types of crashes is high. Quality County completed a conflict analysis reviewing times vehicles and non-motorized users occupied the same space resulting in near misses. During the same three-day study period, there were 14 events where vehicles and pedestrians shared the same space less than 3.0 seconds of each other. While those events did not result in crashes, the difference between a near miss and a crash was less than 3.0 seconds.

Many of the recorded events involved groups of pedestrians. The 14 recoded events during the three-day study period involved 25 total pedestrians. In that short period, the potential for 25 pedestrians to have been part of a crash with a vehicle was a matter of seconds.

In addition, the large curb cut presents multiple conflict points between vehicles and non-motorized users instead of one centralized driveway entrance/exit adding to the potential for more crashes. The parked vehicles have to back out over the public sidewalk to exit the parking spaces, resulting in further potential for crashes with non-motorized users.

SUMMARY

The City's Ann Street Improvements Project, scheduled for construction in Spring 2026, aims to remove the existing curb cut, eliminating the existing perpendicular parking spaces and adding on street parallel parking. Based on the safety analysis completed, HRC supports the City's recommendation. The existing perpendicular parking spaces present a traffic hazard for all users and specifically non-motorized users. There is a significant amount of time when vehicles are obstructing the public sidewalk posing a safety risk, a history of crashes in this area, and documentation of events having high potential for serious crashes. The elimination of the perpendicular parking spaces and closure of the large curb cut will eliminate the existing traffic hazard, provide a safer area for the public and improve safety for all users.

If you have any questions or require any additional information, please contact Lia Michaels at (586) 634-6211 or lmichaels@hrcengr.com

Very truly yours,

HUBBELL, ROTH & CLARK, INC.



Lia Micheals, P.E., PTOE, RSP,
Associate

LFM/lfm

pc: HRC; File