2200 Block of Harrison Avenue – Crash Data and Recommendations

Education, Innovation, and Growth Committee

October 4, 2021

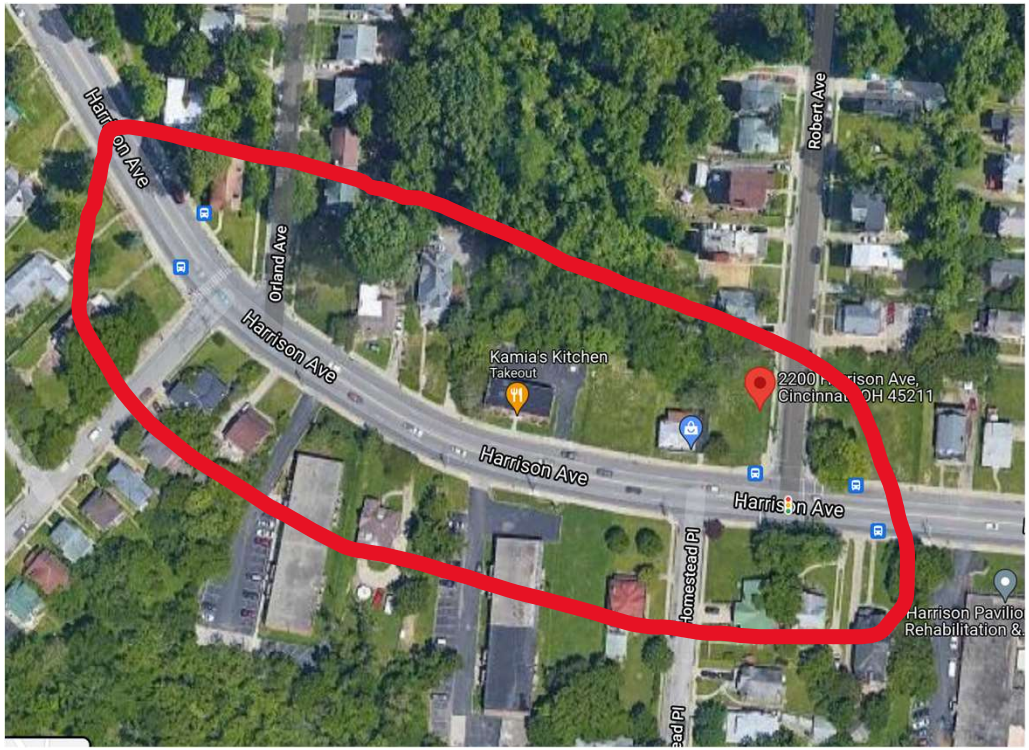
city of CINCINNATI

Agenda

- Background
- Crash Statistics by Year
- Summary of Crash Data
- Potential Countermeasures
- Recommended Countermeasures

Background

- Recent crashes in the 2200 block of Harrison Ave between Robert Ave and Orland Ave in the Westwood neighborhood.



Crash Statistics by Year

Year	Total Crashes	Fatalities	Serious Injuries
2017	14	2	2
2018	12	0	0
2019	8	0	0
2020	22	0	0
2021	17	0	0
Grand Total	73	2	2

Crash Statistics by Type: 2017

Total Crashes	Injury Level					
Crash Type	PDO/No Injury	Fatal	Injury Possible	Minor Injury	Serious Injury	Grand Total
Sideswipe - Passing	4	0	0	0	0	4
Fixed Object	1	0	0	2	0	3
Rear End	0	0	3	0	0	3
Parked Vehicle	0	0	0	1	0	1
Angle	0	0	0	0	1	1
Head On	0	1	0	0	0	1
Left Turn	0	0	1	0	0	1
Grand Total	5	1	4	3	1	14

Road Condition	Total Crashes	Fatalities	Serious Injuries
Dry	10	0	0
Wet	4	2	2
Grand Total	14	2	2

- 21% fixed object
- 28% wet weather

Crash Statistics by Type: 2018

Total Crashes	Injury Level			
Crash Type	PDO/No Injury	Injury Possible	Minor Injury	Su Grand Total
Sideswipe - Passing	3	0	0	3
Fixed Object	1	0	2	3
Rear End	1	1	0	2
Angle	0	0	2	2
Right Turn	1	0	0	1
Parked Vehicle	1	0	0	1
Grand Total	7	1	4	12

Road Condition	Total Crashes	Fatalities	Serious Injuries
Dry	6	0	0
Wet	6	0	0
Grand Total	12	0	0

- 25% fixed object
- 50% wet weather

Crash Statistics by Type: 2019

Total Crashes	Injury Level			
Crash Type	PDO/No Injury	Injury Possible	Minor Injury	Su Grand Total
Sideswipe - Passing	1	1	0	2
Parked Vehicle	1	0	0	1
Angle	1	0	0	1
Backing	1	0	0	1
Rear End	1	0	0	1
Fixed Object	1	0	0	1
Head On	0	0	1	1
Grand Total	6	1	1	8

Road Condition	Total Crashes	Fatalities	Serious Injuries
Dry	5	0	0
Wet	3	0	0
Grand Total	8	0	0

- 12% fixed object
- 38% wet weather

Crash Statistics by Type: 2020

Total Crashes	Injury Level			
Crash Type	PDO/No Injury	Injury Possible	Minor Injury	Su Grand Total
Fixed Object	5	0	2	7
Sideswipe - Passing	1	1	2	4
Angle	1	1	2	4
Rear End	1	0	1	2
Head On	0	0	2	2
Right Turn	1	0	0	1
Other Non-Collision	1	0	0	1
Left Turn	1	0	0	1
Grand Total	11	2	9	22

Road Condition	Total Crashes	Fatalities	Serious Injuries
Dry	7	0	0
Snow	1	0	0
Wet	14	0	0
Grand Total	22	0	0

- 36% fixed object
- 68% wet weather

Crash Statistics by Type: January - August 2021

Total Crashes	Injury Level			
Crash Type	PDO/No Injury	Injury Possible	Minor Injury	Su Grand Total
Fixed Object	4	1	3	8
Sideswipe - Passing	3	0	0	3
Rear End	2	0	0	2
Left Turn	0	1	1	2
Other Non-Collision	1	0	0	1
Angle	1	0	0	1
Grand Total	11	2	4	17

Road Condition	Total Crashes	Fatalities	Serious Injuries
Dry	9	0	0
Slush	1	0	0
Snow	2	0	0
Wet	5	0	0
Grand Total	17	0	0

- 53% fixed object
- 47% wet weather

Summary of Crash Data

2017 - 2019

- Total crashes: 34
- Fixed object: 20%
- Wet pavement: 38%

2020 - August 2021

- Total crashes: 39
- Fixed object: 38%
- **Wet pavement: 59%**
- **Roadway departure: 56%**

Recent roadway departure crash

Roadway Departure Crashes: 2020 – August 2021

Of the 39 crashes, 22 involved vehicles leaving the roadway:

- 18 were caused by vehicle traveling eastbound (inbound)
  - Six loss of control exiting the left side of the roadway
  - 12 loss of control exiting the right side of the roadway (outside of the curve)

- Four crashes caused by vehicle traveling westbound (outbound)
  - One attempted U-turn
  - One loss of control exiting the right (north) side of the roadway
  - One loss of control exiting the left (south) side of the roadway
  - One sideswipe passing forcing the other vehicle off the roadway

- Eight occurred in daylight hours

- 14 occurred at night

Potential Countermeasures for Roadway Departures

- Signage
- Lighting
- Pavement Markings – Paint
- Raised Pavement Markers
- Guardrail
- Centerline Paddles
- Pavement Grinding
- High Friction Surface Treatment

Recommended Countermeasures

Based on the crash data, the most effective countermeasures would be to focus on improvements for the eastbound (inbound) traffic to prevent or mitigate roadway departure crashes.

- Improved streetlighting
- Upgraded/updated signage
- Pavement markings, including raised markers
- High Friction Surface Treatment

Recommended Countermeasures

1. Improved streetlighting

- Duke Energy recently replaced two utility poles and added one new pole:
  - Streetlights missing on two replacements
  - DOTE has asked Duke to replace both lights
  - DOTE to ask Duke to add new light to new pole
  - Est. cost: $2000
  - DOTE to use existing funds

Recommended Countermeasures

2. Upgraded/updated signage

- Some missing signage installed summer 2020
- Additional signage to be installed to help drivers navigate roadway
  - Est. cost: $1,000
- Replace existing signage with new higher reflective signage:
  - Est. cost: $1,000
  - DOTE to use existing funds

Recommended Countermeasures

3. Pavement Markings

- Existing markings in average to good condition
- Restriping would improve visibility
  - Est. cost: $15,000
- Raised Pavement Markings (RPMs)
  - Increase visibility at night/in wet weather
  - Replace reflectors in the existing RPMs
    - Est. cost: $50,000
- Additional funding needed

Recommended Countermeasures

4. High Friction Surface Treatment

- Topcoat with rougher texture/better traction
- Most effective countermeasure for locations with lots of wet pavement crashes
  - Est. cost: $300,000
  - Earliest installation: June 2022
- Additional funding needed

Questions?