



**Loudoun County**

**VIRGINIA**

WHERE TRADITION MEETS INNOVATION

# **Intersection Improvement Program Update**

Board of Supervisors Business Meeting  
October 18, 2022

# Agenda

- Background
- Purpose
- Intersection Inventory
- Summary of Results
- Next Steps

# IIP Background

**FALL 2016**

DTCI evaluated  
unsignalized CTP  
Roadway intersections

**APRIL 2018**

Board of Supervisors approved adoption  
of Countywide Intersection  
Improvement Program

**JULY 2020**

DTCI presented recommended  
safety improvements of  
2017 Ranking 5 intersections  
to Board of Supervisors



**MARCH 2017**

DTCI presented  
Loudoun County Roadway Intersection  
Improvement Program report  
to Board of Supervisors

**JUNE 2020**

DTCI presented  
Expansion to the Countywide Intersection  
Improvement Program report  
to Board of Supervisors

**OCT 2022**

DTCI presents  
2022 IIP Updates  
to Board of Supervisors

# IIP Purpose

- Provide a programmatic approach to studying and ranking intersections along CTP and non-CTP roadways of significance.
- Prioritize and address the most critical intersections based on quantitative and qualitative analysis of candidate intersections.
- Provide funding source for the study, design, and construction of recommended safety improvements.

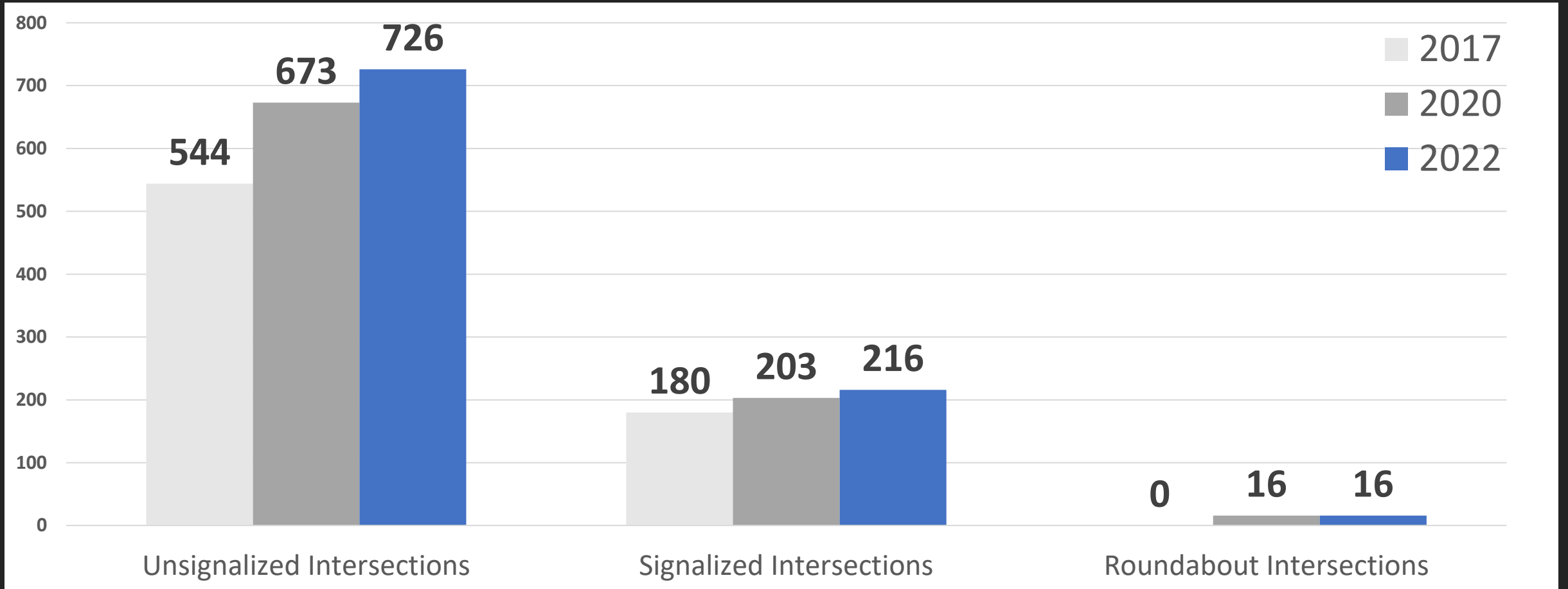
# Intersection Inventory

- 2017 – Ranked unsignalized intersections along CTP Roads
- 2020 – Expanded 2017 Study to include signalized and roundabout intersections and non-CTP roads of significance
- 2022 – Intersections added to roadway network since 2020 Study

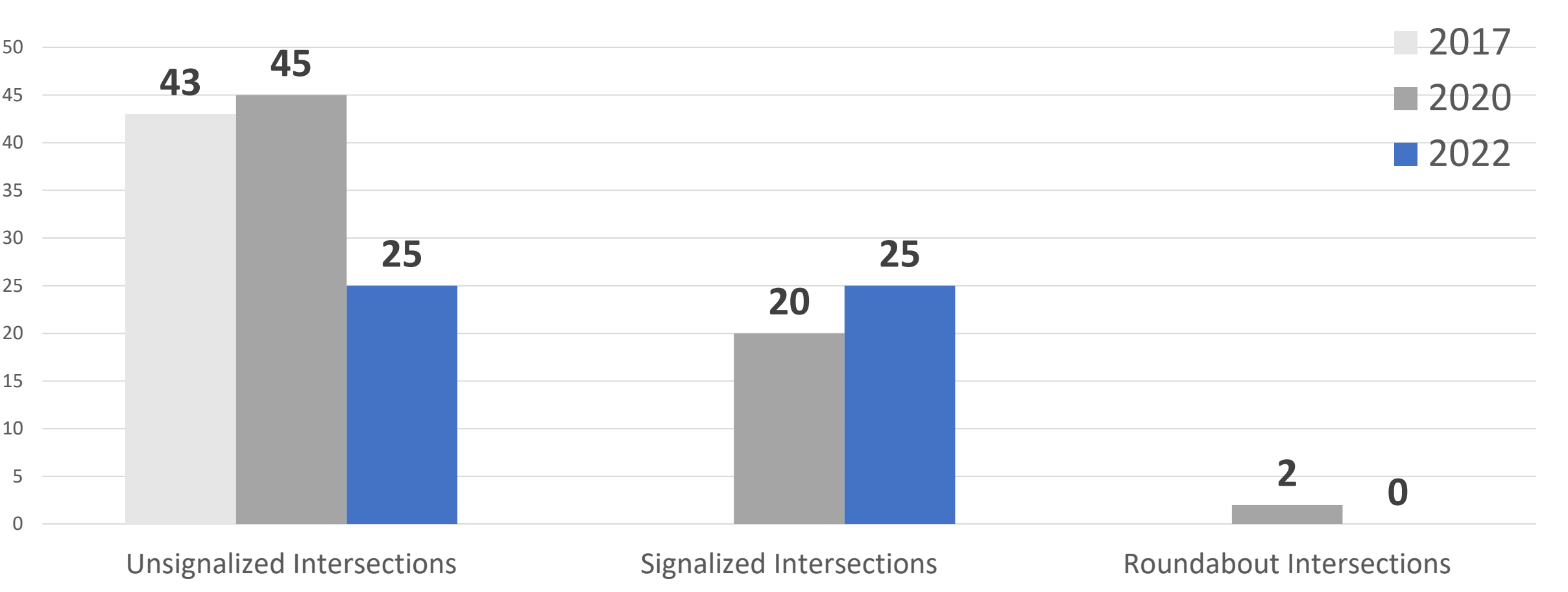
# Data Collection and Ranking

- Traffic volumes and crashes reviewed for each intersection
- Each intersection ranked on scale of 1 to 5, using criteria based on the collected data (5 being most critical and 1 being least critical)

# Analyzed Intersections



# Identified Rank 5 Intersections



\* Signalized and Roundabout intersections were not evaluated in the 2017 report.



# Summary of the 2022 Analysis

Intersection Type	Analyzed Intersections	Rank 5 Identified Intersection	Committed Rank 5 Intersections	Rank 5 Intersections to be Addressed
Unsignalized Intersections	726	25	11	14
Signalized Intersections	216	25	20	5
Roundabouts Intersections	16	0	0	0
<b>Total</b>	958	50	31	19

# Rank 5 Unsignalized Intersections

Intersection	2011 Election District	2022 Election District
Cascades Parkway (1794) and Middlefield Drive (1799)	Algonkian	Algonkian
Ashburn Farm Parkway (625) and Golden Meadow Circle/Summerwood Circle (1851)	Ashburn	Ashburn
Berlin Turnpike (287) and Morrisonville Rd/Ash George Road (693)	Blue Ridge/Catoctin	Catoctin
City Center Boulevard (1345) and Haleybird Drive (ND)	Broad Run	Sterling
Pacific Boulevard (1036) and Relocation Drive (775)	Broad Run	Sterling
Pacific Boulevard (634) and Moran Road (1036)	Broad Run	Sterling
Shellhorn Road (643) and Ashburn Metro Drive (ND)	Broad Run	Broad Run
Loudoun County Parkway (607) and Dulles Greenway Eastbound Ramp (267)	Broad Run/Dulles	Broad Run/Sterling
Route 15 and Lime Kiln Road (733)	Catoctin	Catoctin/Little River
South Riding Boulevard (2201) and Defender Drive (1279)	Dulles	Dulles
Old Ox Road (606) and Pebble Run Place (2963)	Dulles	Dulles/Sterling
Sterling Boulevard (846) and Poplar Road (1419)	Sterling	Sterling
Magnolia Road (1525) and Blossom Drive (3254)	Sterling	Sterling
Circle Drive (1401) and Providence Village Drive/South Fillmore Avenue (1535)	Sterling	Sterling

# Rank 5 Signalized Intersections

Intersection	2011 Election District	2022 Election District
Route 7 and City Center Boulevard (1949)/Countryside Boulevard (1570)	Algonkian/Broad Run	Algonkian/Sterling
Route 7 and Palisade Parkway/Loudoun Tech Drive (1795)	Algonkian/Broad Run	Algonkian/Broad Run
Route 7 and Loudoun County Parkway (607)	Algonkian/Broad Run	Algonkian/Broad Run
Belmont Ridge Road (659) and Creighton Road (774)	Blue Ridge	Little River
Route 50 and South Riding Boulevard (2201)	Dulles	Dulles

# IIP Round 3 Next Steps

**OCT 18, 2022**

DTCI presents  
ROUND 3 IIP to  
Board of Supervisors

**SPRING 2023**

DTCI reviews recommended  
intersection safety improvements

**FALL 2023**

DTCI presents to Board of  
Supervisors recommended  
safety improvements  
for FY 2025 CIP

**FALL 2022**

DTCI initiates detailed traffic studies for  
Rank 5 intersections

**SUMMER 2023**

DTCI obtains VDOT approvals for  
recommended intersection  
safety improvements

Questions?