



**I-270 CORRIDOR
INVESTING IN**

THE POWER OF GO!

I-270
INNOVATIVE CONGESTION
MANAGEMENT





I-270 EXISTING CONDITIONS

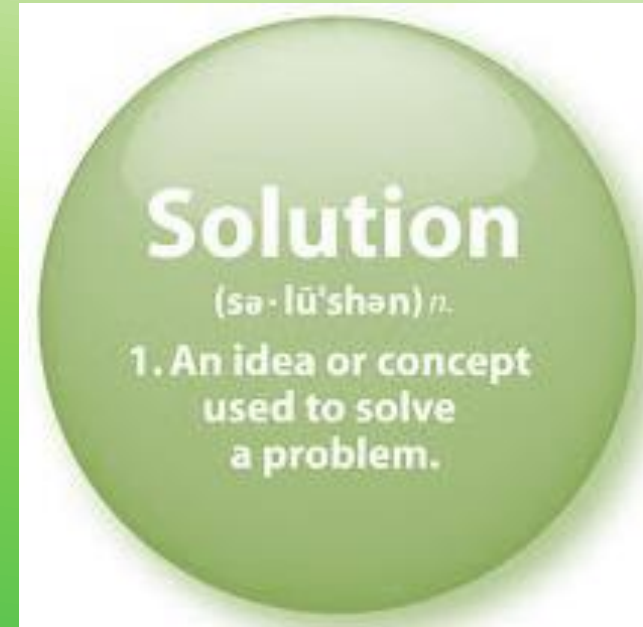
I-270 INNOVATIVE CONGESTION MANAGEMENT VISION

- ▶ Solutions to move the most traffic the furthest and the fastest
- ▶ Safely while minimizing operations and maintenance costs while being adaptable for the future
- ▶ No predetermined solutions or requirements
- ▶ \$100 M Fixed Budget



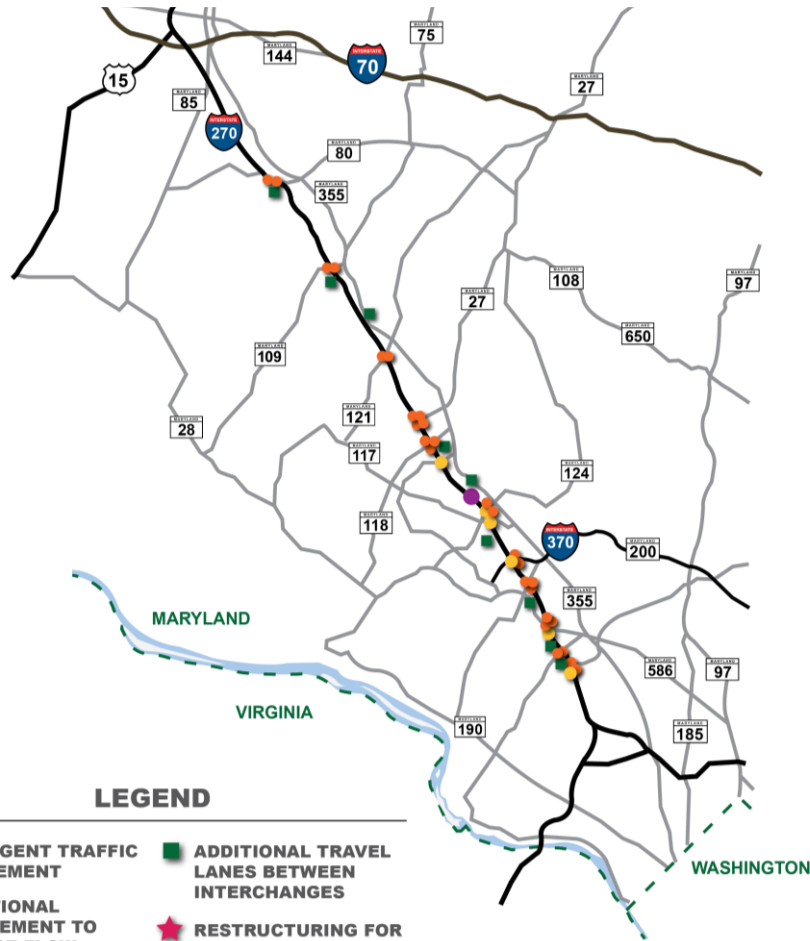
I-270 INNOVATIVE CONGESTION MANAGEMENT SOLICITATION

- ▶ Competitive Procurement to find highly qualified team who can deliver solutions to best solve problems within budget
- ▶ Progressive Design-Build Contract
 - ▶ Phase One – Design Services
 - ▶ Phase Two – Construction Services



CONCEPT PROGRAM OF SOLUTIONS

- ▶ Two-pronged approach
 - ▶ Roadway Improvements
 - ▶ Innovative Technologies and Techniques

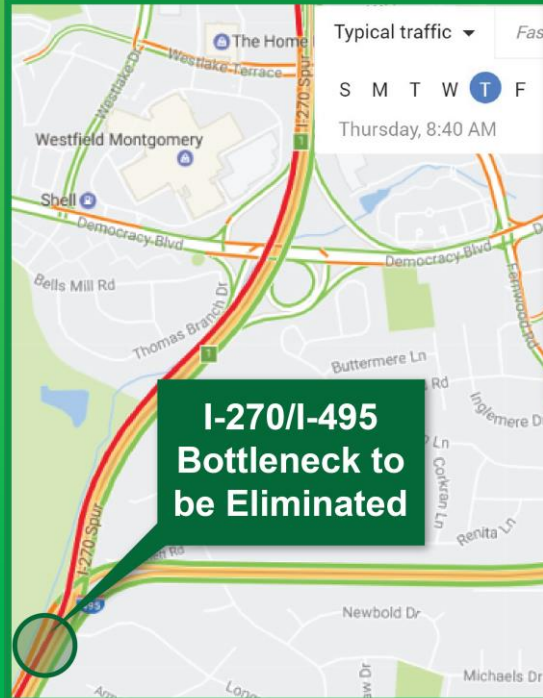


I-270 WEST SPUR AT I-495 OUTER LOOP

CONVERTED TO MERGE LANE



NEW TRAVEL LANE

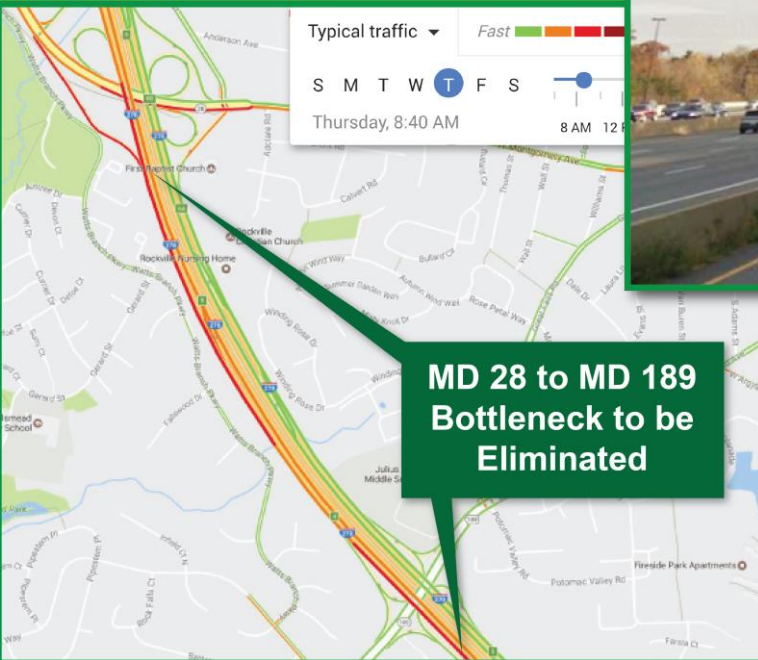
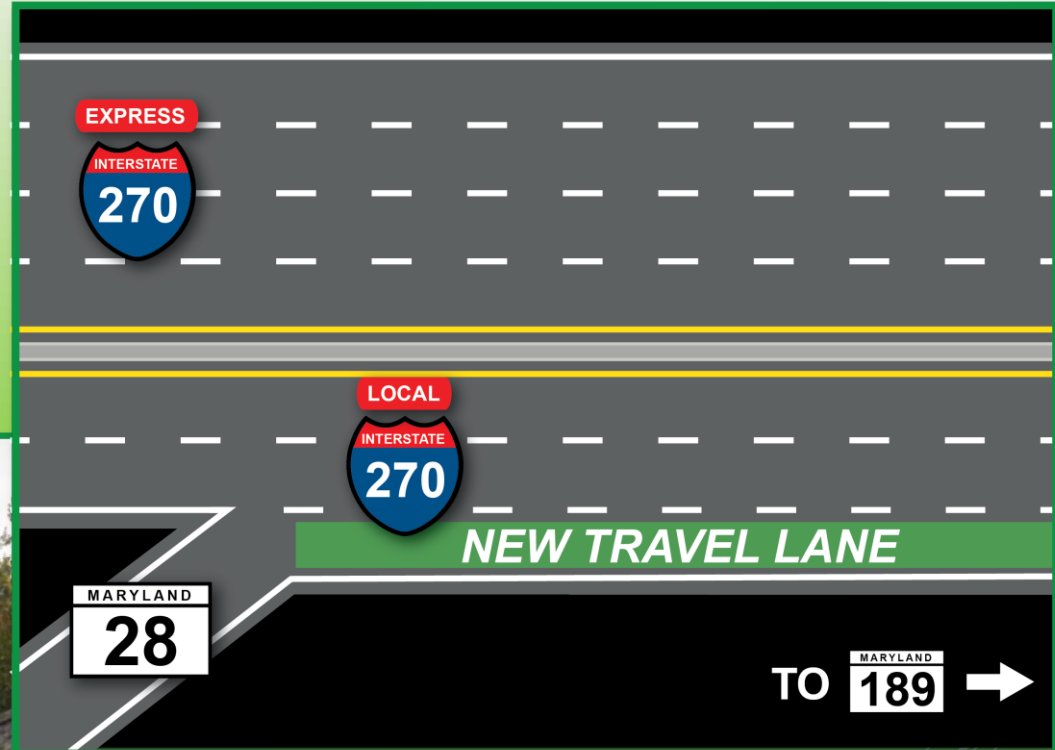


AFTER

BEFORE

14 BOTTLENECKS BROKEN

I-270 SOUTHBOUND MD 28 TO MD 189

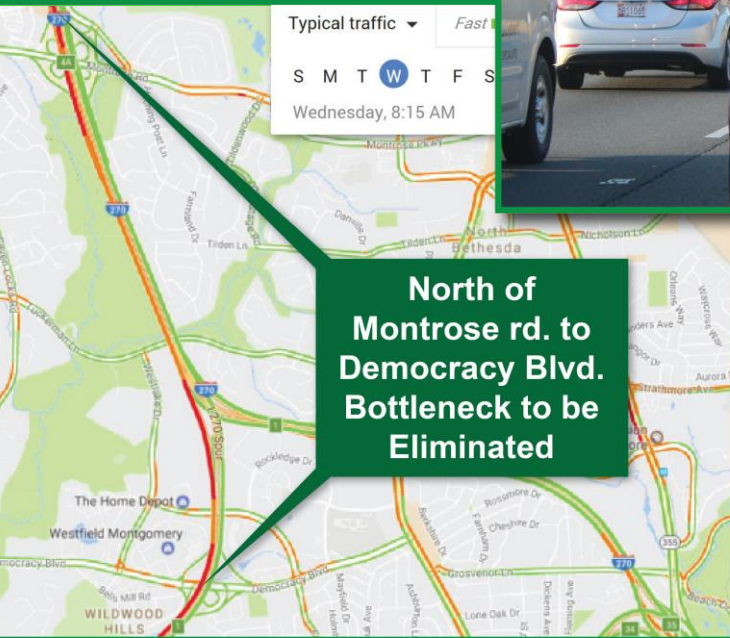


AFTER

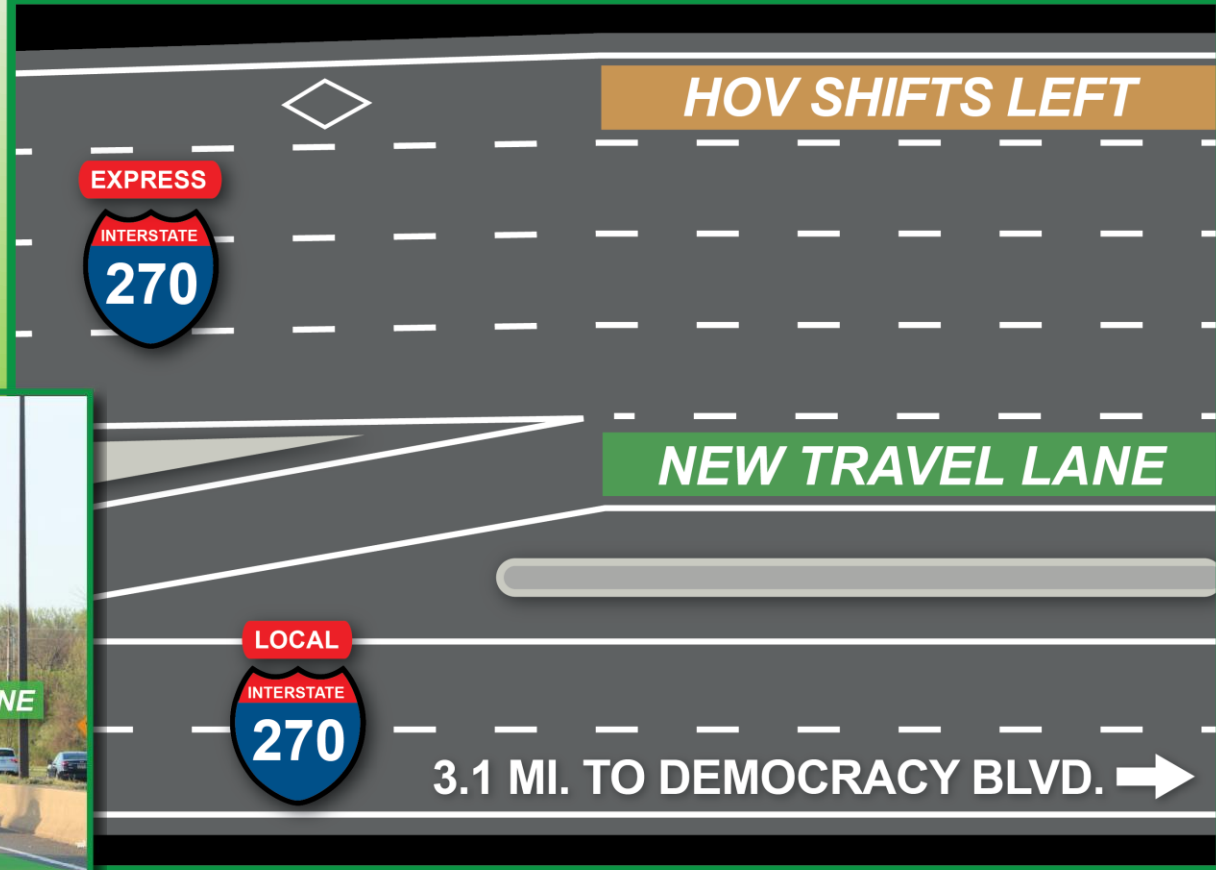
BEFORE

14 BOTTLENECKS BROKEN

I-270 SOUTHBOUND MONTROSE ROAD TO DEMOCRACY BOULEVARD



BEFORE



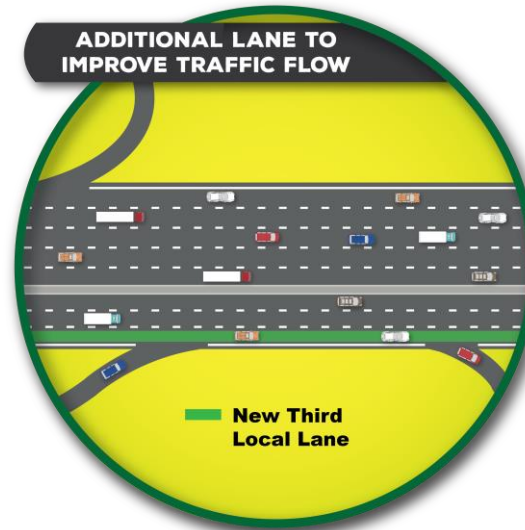
AFTER

14

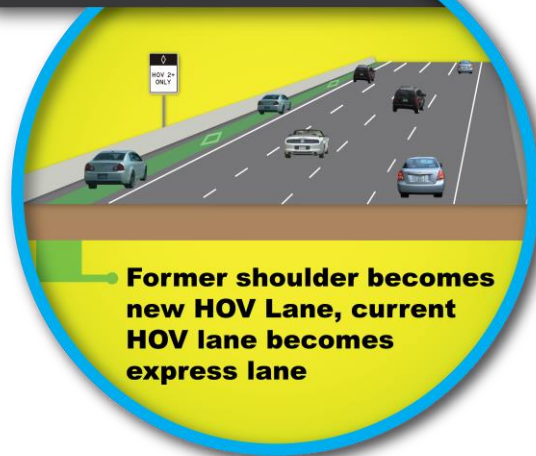
BOTTLENECKS BROKEN

ROADWAY IMPROVEMENTS

I-270 NORTHBOUND
FROM SHADY
GROVE ROAD
TO I-370



SHOULDER TO HOV



I-270
NORTHBOUND
FROM WATKINS
MILL ROAD TO
MIDDLEBROOK
ROAD

- ▶ 11 New Lane Miles Southbound
- ▶ 12 New Lane Miles Northbound

23

NEW LANE MILES

25+

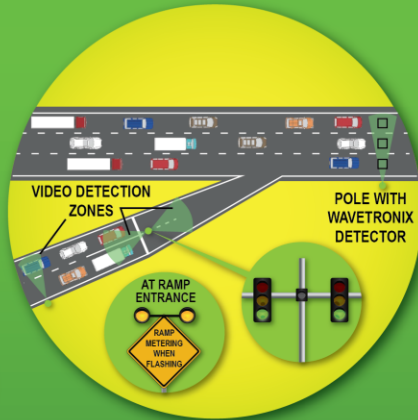
REAL-TIME TRAFFIC
COMMUNICATION SIGNS

AUTOMATED SMART TRAFFIC FLOW MANAGEMENT



REAL-TIME COMMUNICATION
TO DRIVERS
with dynamic message signs &
optimized traffic management

CAMERAS & SENSORS
monitor traffic volumes &
communicate with dynamic
traffic management to
optimize flow



INTELLIGENT SIGNAL SYSTEMS
optimize traffic flow onto I-270

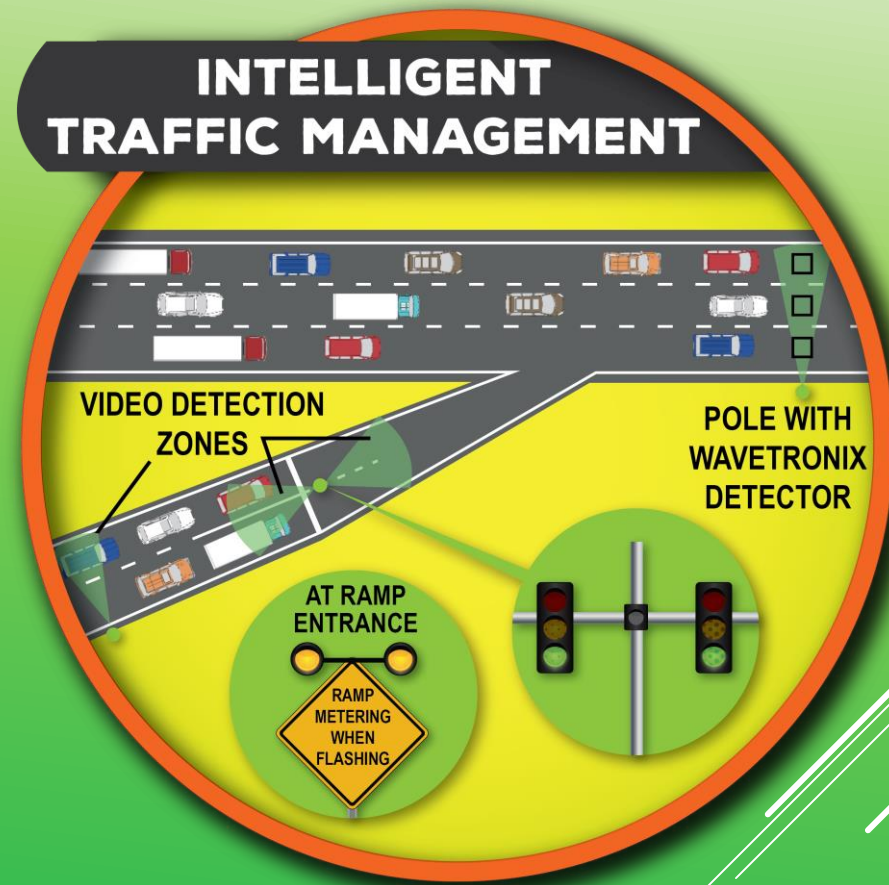
INNOVATIVE
TECHNOLOGIES
AND TECHNIQUES

30+

INTELLIGENT SIGNALS

INTELLIGENT TRAFFIC SIGNALS – HOW DO THEY WORK?

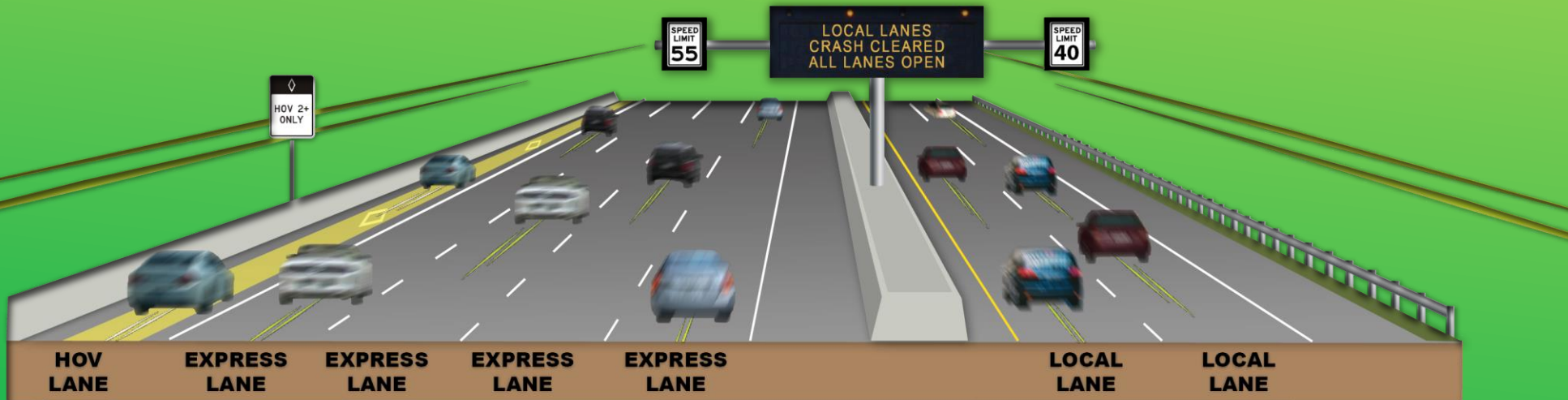
- ▶ Intelligent Traffic Signals will break up platoons of vehicles on I-270 by controlling rate at which vehicles enter I-270.
- ▶ Vehicle Discharge Rates are **ADAPTIVE** based on real time I-270 traffic flow and ramp demands
- ▶ Vehicles would be discharged at rate to **OPTIMIZE** I-270 traffic flow
- ▶ Results in **travel time reductions** even with queue on the ramp and results in **reduced collisions**



1

AUTOMATED SMART TRAFFIC SYSTEM

I-270 – INNOVATION DRIVING MD FROM SLOW TO GO!



● FORMER SHOULDER BECOMES NEW HOV LANE, CURRENT HOV LANE BECOMES EXPRESS LANE



**I-270 CORRIDOR
INVESTING IN**

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INFRASTRUCTURE



TECHNOLOGY



INFORMATION

RESTRUCTURING EXISTING PAVEMENT FOR ADD'L LANES

Extended Merge Lanes

MD 80 (SB)

MD 109 (SB)

MD 121 to Comus Road Bridge (NB)

Additional Exit Lane

I-270 SB at I-370 Exit

Continuous Flow Lane

I-270 SB HOV to I-495 WB

New Third Local Lane

MD 124 to

New Watkins Mill Rd. Interchange (NB)

*New Watkins Mill Rd. Interchange
to Middlebrook Rd. (NB)*

*Shady Grove Rd. to
South of Gude Dr. (SB)*

MD 28 to MD 189 (NB & SB)

MD 189 to Montrose Rd. (SB)

Shoulder becomes HOV lane

New Express Lane

*Montrose Rd. to Democracy Blvd.
(NB & SB)*

AUTOMATED SMART TRAFFIC FLOW MANAGEMENT

*Cameras and sensors
communicate traffic
density / vehicle type to
entrance ramp signals.*

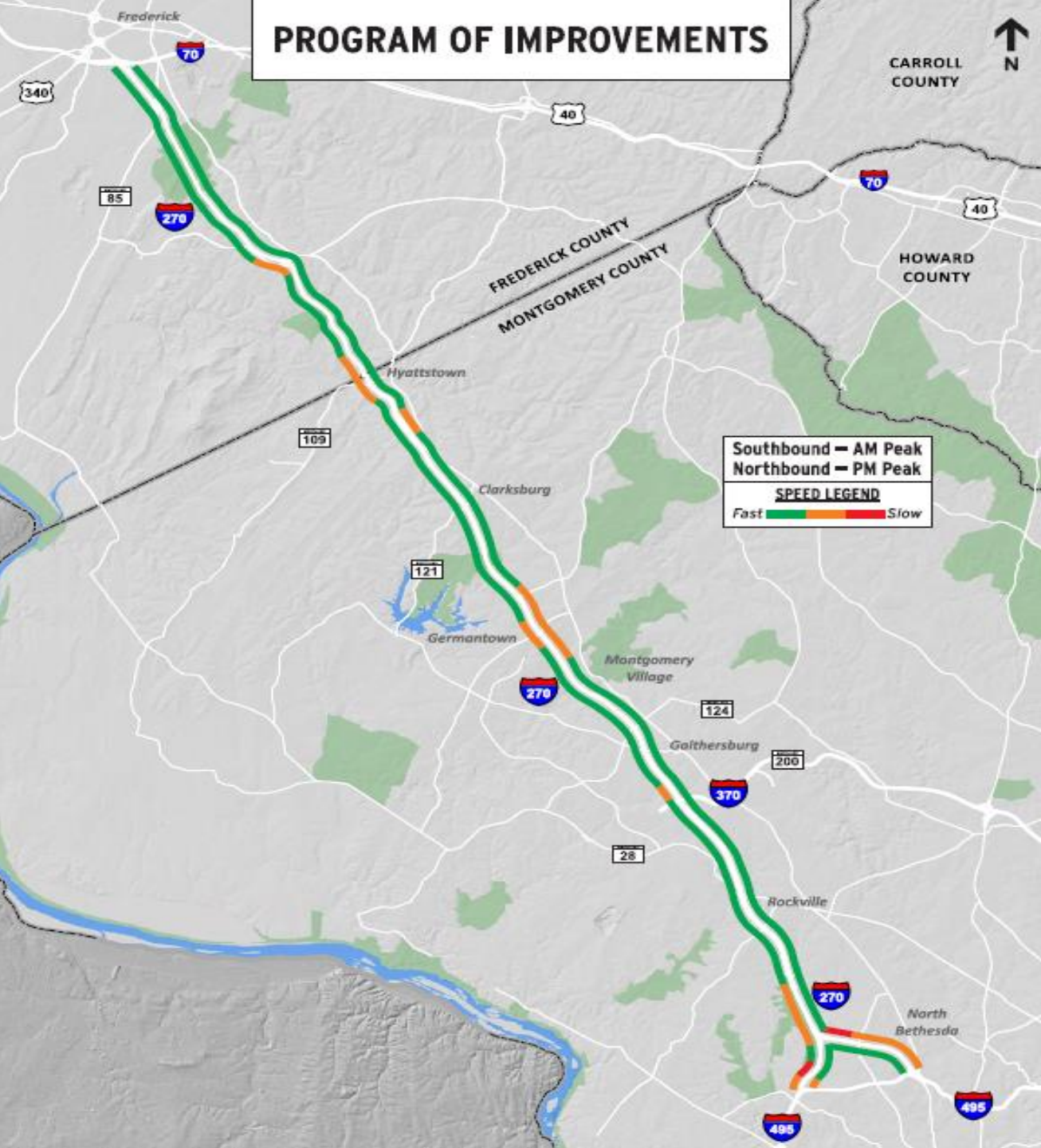
*Traffic is optimized when
sensors detect gaps
creating smoother and
safer commutes.*

REAL-TIME COMMUNICATION TRAFFIC MANAGEMENT

*Technology-based traffic
optimization and
dynamic messaging
signs provide real-time
communication
to drivers.*

A **SMARTER**
COMMUTE IS A
**SAFER &
FASTER**
COMMUTE!

PROGRAM OF IMPROVEMENTS



I-270 WITH PROGRAM OF IMPROVEMENTS



BEFORE
AND
AFTER



SYSTEM COMPONENTS

SMART ADAPTABLE I-270

1 **AUTOMATED SMART TRAFFIC SYSTEM**

14 **BOTTLENECKS BROKEN**

23 **NEW LANE MILES**

25+ **REAL-TIME TRAFFIC COMMUNICATION SIGNS**

30+ **INTELLIGENT SIGNALS**

EQUAL

MORE TIME WITH YOUR FAMILY?

PRICELESS

**Where Do You
Get On?**

**Total Commute
Time Savings**

***Between I-70 and
Father Hurley Blvd.***



***Up To
30 Minutes***

***Between MD 118
(Germantown Rd.) and
MD 117 (Diamond Ave.)***



***Up To
18 Minutes***

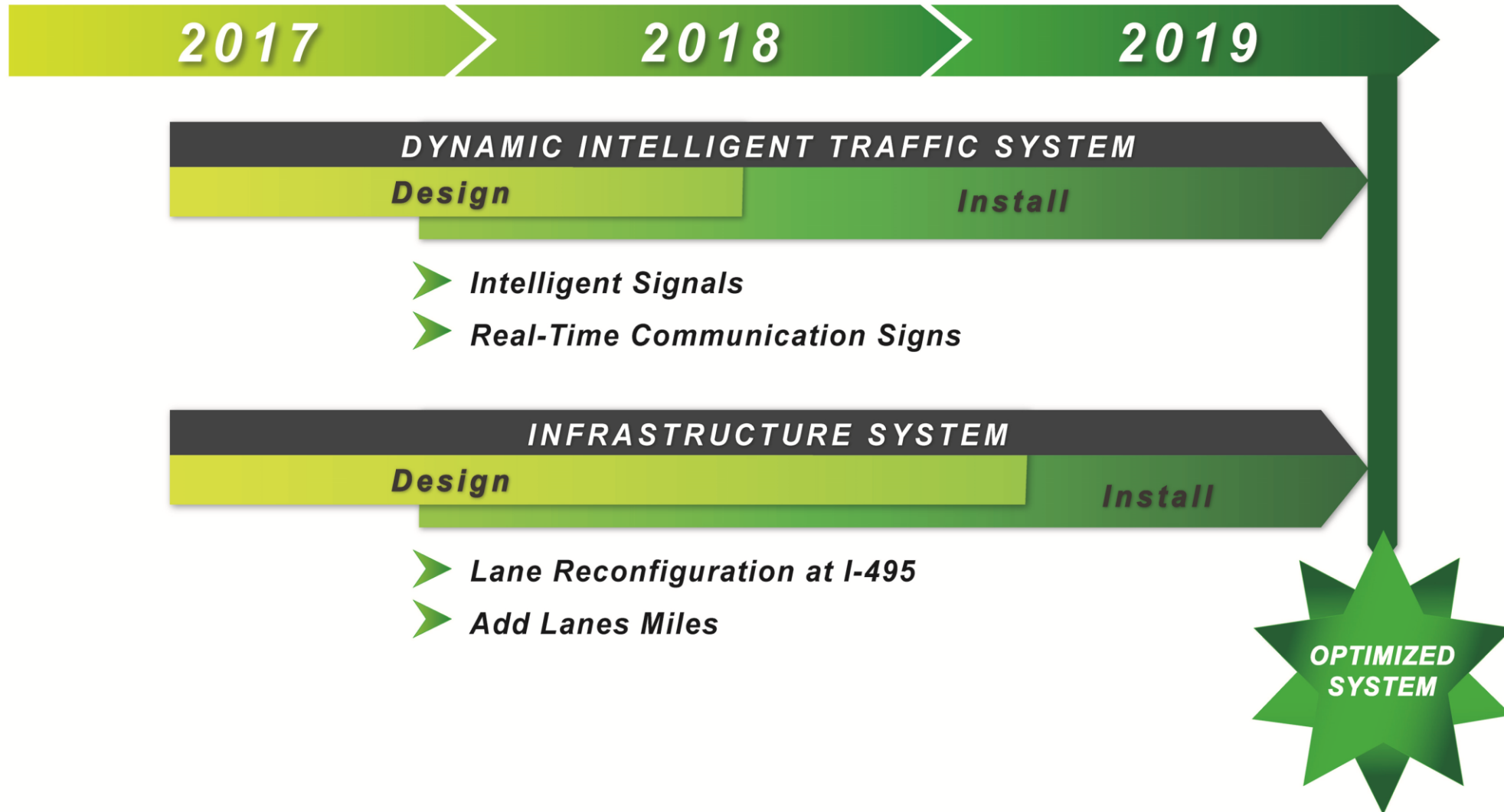
***Between I-370 and
Montrose Rd.***



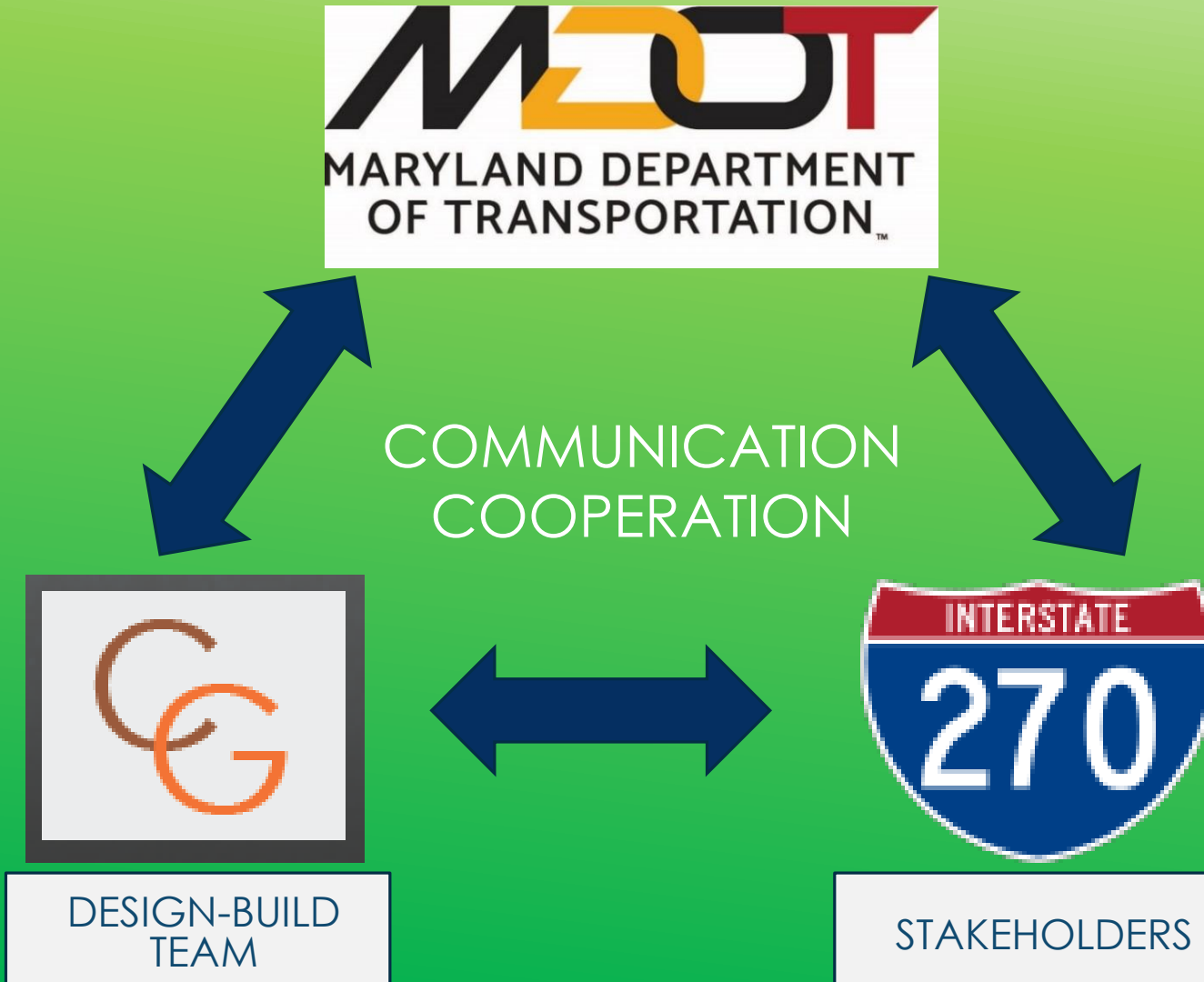
***Up To
9 Minutes***

WHERE DO WE GO FROM HERE?

MOVING FORWARD



HOW DO WE GET THERE?





**I-270 CORRIDOR
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QUESTIONS?

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PROJECT WEBSITE:

[HTTP://APPS.ROADS.MARYLAND.GOV/WEBPROJECTLIFECYCLE/PROJECTINFORMATION.ASPX?PROJECTNO=MO0692115](http://apps.roads.maryland.gov/webprojectlifecycle/projectinformation.aspx?projectno=MO0692115)