

# AUBURN RD CORRIDOR PLAN



- ▶ Enhanced streetscape
- ▶ Clear crosswalks
- ▶ Improved landscaping
- ▶ Defined street edge and pedestrian zone
- ▶ On-street parallel parking
- ▶ Median with left-turn pockets



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# WELCOME

## CITY OF ROCHESTER HILLS

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## OHM

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RHETT GRONEVELT, PE  
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# BACKGROUND

## IMPORTANCE

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- STRENGTHEN OVERALL DISTRICT BRAND AS A UNIQUE DESTINATION
- CALM TRAFFIC AND IMPROVE SAFETY
- CREATE A MORE WALKABLE ENVIRONMENT
- ENCOURAGE DEVELOPMENT OPPORTUNITIES
- IMPROVE ACCESSIBILITY ALONG THE CORRIDOR



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# BACKGROUND

# LSL PLANNING STUDY



- PLAN WAS ADOPTED IN JANUARY, 2017
- PHYSICAL ASSESSMENT OF EXISTING CONDITIONS
- INVESTIGATE DESIGN OPPORTUNITIES
- DEFINE A DISTRICT CHARACTER VISION
- ASSESS MARKET GROWTH OPPORTUNITIES



# BACKGROUND

## OHM EPE STUDY

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- FURTHER DEVELOP THE PROPOSED DESIGN CONCEPT
- ASSESS IMPACTS OF SEVERAL TECHNICAL ASPECTS
  - ACCESS MANAGEMENT
  - TRAFFIC CALMING
  - PARKING
  - SAFETY
  - AESTHETICS
  - UTILITIES
  - GEOMETRICS
- EVALUATE CONSTRUCTABILITY
- REFINE A PROJECT SCHEDULE AND COST



# EARLY PRELIMINARY ENGINEERING

- IMPORTANCE
  - IDENTIFY KEY ISSUES
  - PREDICT COST & SCHEDULE
  - RECOMMEND BEST DESIGN OPTION
- BENEFITS
  - VET OUT MULTIPLE DESIGN OPTIONS
  - RECOGNIZE AND ADDRESS CRITICAL ITEMS EARLY IN THE PROJECT



# STAKEHOLDER ENGAGEMENT

## PROPERTY OWNER MEETINGS

- ✓ GENERALLY WELL RECEIVED
- ✓ ADDRESSED CONCERNS AND IMPLEMENTED INTO DESIGN
- ✓ EXCITEMENT ABOUT ECONOMIC GROWTH POTENTIAL
- ✓ AWARE OF REAR ALLEY ACCESS TO PROPERTY



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# DESIGN IMPACTS



- ❑ DESIGN GEOMETRY TO PROMOTE SLOWER SPEEDS
- ❑ PROVIDE ALTERNATIVE ACCESS/PARKING FOR COMMERCIAL PROPERTIES
- ❑ INVESTIGATE THE BENEFITS OF MULTIPLE ROUNDABOUTS THROUGHOUT THE CORRIDOR
- ❑ ROAD OWNERSHIP & HOW THIS AFFECTS DESIGN

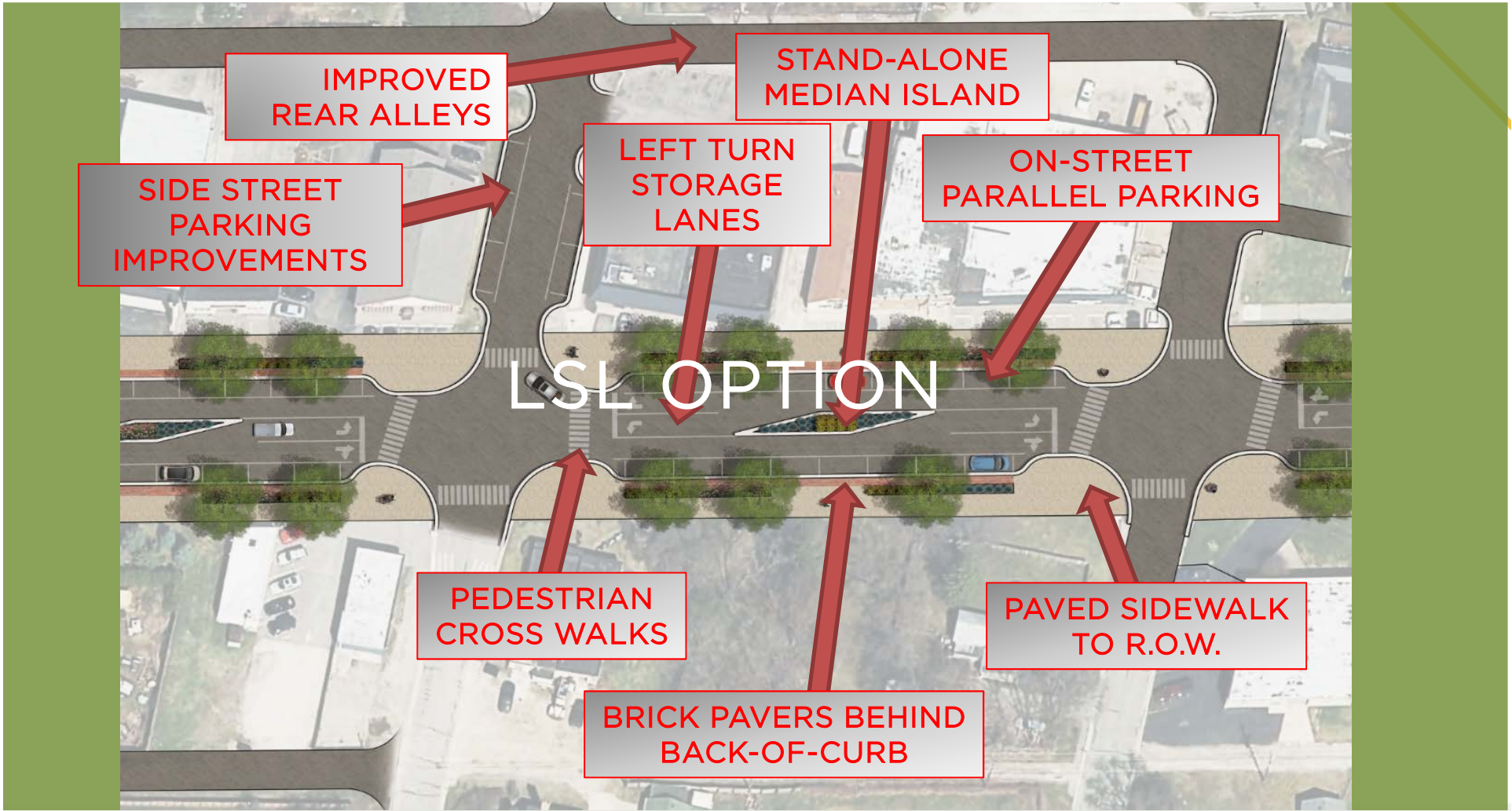


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# EXISTING CONDITIONS





IMPROVED REAR ALLEYS

STAND-ALONE MEDIAN ISLAND

LEFT TURN STORAGE LANES

ON-STREET PARALLEL PARKING

SIDE STREET PARKING IMPROVEMENTS

# LSL OPTION

PEDESTRIAN CROSS WALKS

PAVED SIDEWALK TO R.O.W.

BRICK PAVERS BEHIND BACK-OF-CURB



IMPROVED  
REAR ALLEYS

URBAN  
COMPACT  
ROUNDAABOUT

ON-STREET  
PARALLEL  
PARKING

CONTINUOUS  
CENTER  
MEDIAN

# ROUNDAABOUT OPTION

PEDESTRIAN  
CROSS  
WALKS

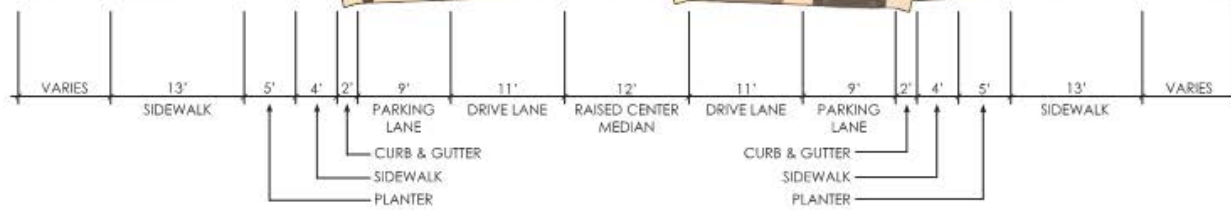
BRICK PAVERS  
BEHIND  
BACK-OF-CURB

PAVED  
SIDEWALK  
TO R.O.W.



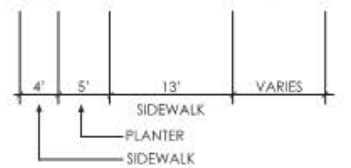
PROPOSED AUBURN ROAD TYPICAL #2

SECTION



BEHIND-THE-CURB DRAINAGE

SECTION



AUBURN ROAD EPE STUDY

SECTION RENDERINGS | ROCHESTER HILLS, MICHIGAN



09/18/2017

PG. 1

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## RECOMMENDED DESIGN OPTION

DESIGN FACTORS	LSL (Base)	ROUNDBABOUT
AESTHETICS		✓
ACCESS MANAGEMENT		✓
CONSTRUCTABILITY	✓	
FIRE & EMS RESPONSE	✓	
PROJECT COST	✓	
RIGHT-OF-WAY IMPACTS	✓	
SAFETY - PEDESTRIAN		✓
SAFETY - VEHICLES		✓
TRAFFIC CALMING		✓
RECOMMENDED OPTION		✓



# COSTS

## BASE “LSL” OPTION

SUBTOTAL FOR CATEGORY 1 - ROADWAY IMPROVEMENTS	\$ 2,860,000.00
SUBTOTAL FOR CATEGORY 2 - SIDE STREET EXTENSIONS	\$ 180,000.00
SUBTOTAL FOR CATEGORY 3 - ALLEY IMPROVEMENTS	\$ 250,000.00
SUBTOTAL FOR CATEGORY 4 - LANDSCAPE SUMMARY	\$ 1,200,000.00
SUBTOTAL ALL CATEGORIES	\$ 4,490,000.00
CONTINGENCY (10%)	\$ 449,000.00
<b>TOTAL OPINION OF PROBABLE CONSTRUCTION COST</b>	<b>\$ 4,939,000.00</b>
FRANCHISE UTILITY RELOCATIONS	\$ 200,000.00
ROW ACQUISITION	\$ -
DESIGN/CONSTRUCTION SERVICES (22%)	\$ 1,087,000.00
<b>TOTAL OPINION OF PROBABLE PROJECT COST</b>	<b>\$ 6,226,000.00</b>
<i>VALUE ENGINEERING IDEAS:</i>	
REDUCE CONCRETE SIDEWALK IN ROW	\$ (250,000.00)
REDUCE SCOPE OF STREETScape	\$ (100,000.00)
SUBSTITUTE CONCRETE SIDEWALK FOR BRICK PAVERS	\$ (150,000.00)
<b>TOTAL OPINION OF VALUE ENGINEERING ITEMS</b>	<b>\$ (500,000.00)</b>
<i>POTENTIAL OUTSIDE FUNDING:</i>	
MDOT TURNBACK MONIES	\$ (300,000.00)
TRANSPORTATION ALTERNATIVE PROGRAM (TAP GRANT)	\$ (500,000.00)
SAFETY GRANT	\$ (200,000.00)
<b>TOTAL OPINION OF OUTSIDE FUNDING</b>	<b>\$ (1,000,000.00)</b>
<b>POSSIBLE CITY COST</b>	<b>\$ 4,726,000.00</b>



# COSTS

## ROUNDBABOUT OPTION

SUBTOTAL FOR CATEGORY 1 - ROADWAY IMPROVEMENTS	\$ 3,010,000.00
SUBTOTAL FOR CATEGORY 2 - SIDE STREET EXTENSIONS	\$ 390,000.00
SUBTOTAL FOR CATEGORY 3 - ALLEY IMPROVEMENTS	\$ 250,000.00
SUBTOTAL FOR CATEGORY 4 - LANDSCAPE SUMMARY	\$ 1,420,000.00
SUBTOTAL ALL CATEGORIES	\$ 5,070,000.00
CONTINGENCY (10%)	\$ 507,000.00
<b>TOTAL OPINION OF PROBABLE CONSTRUCTION COST</b>	<b>\$ 5,577,000.00</b>
FRANCHISE UTILITY RELOCATIONS	\$ 200,000.00
ROW ACQUISITION	\$ 20,000.00
DESIGN/CONSTRUCTION SERVICES (22%)	\$ 1,227,000.00
<b>TOTAL OPINION OF PROBABLE PROJECT COST</b>	<b>\$ 7,024,000.00</b>
<i>VALUE ENGINEERING IDEAS:</i>	
REDUCE CONCRETE SIDEWALK IN ROW	\$ (250,000.00)
REDUCE SCOPE OF STREETSCAPE	\$ (100,000.00)
SUBSTITUTE CONCRETE SIDEWALK FOR BRICK PAVERS	\$ (150,000.00)
<b>TOTAL OPINION OF VALUE ENGINEERING ITEMS</b>	<b>\$ (500,000.00)</b>
<i>POTENTIAL OUTSIDE FUNDING:</i>	
MDOT TURNBACK MONIES	\$ (300,000.00)
TRANSPORTATION ALTERNATIVE PROGRAM (TAP GRANT)	\$ (500,000.00)
SAFETY GRANT	\$ (200,000.00)
<b>TOTAL OPINION OF OUTSIDE FUNDING</b>	<b>\$ (1,000,000.00)</b>
<b>POSSIBLE CITY COST</b>	<b>\$ 5,524,000.00</b>



# OWNERSHIP (MDOT vs CITY)

- CORRIDOR VISION vs TYPICAL MDOT ROAD
- MDOT COST PARTICIPATION
- TRANSFERRING - PROS & CONS (NEXT SLIDE)



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# OWNERSHIP (MDOT vs CITY)

PRO	CON
INCREASED LEVEL OF SERVICE TO THE COMMUNITY	GREATER DEMAND ON CITY STAFF
MDOT PERMITTING - NOT REQUIRED	INCREASED RESPONSIBILITY FOR MAINTENANCE
MDOT APPROVAL OF DESIGN - NOT REQUIRED	INCREASED LIABILITY
INCREASED ACT 51 REVENUE	INCREASED TRAFFIC SIGNAL MAINTENANCE CONTRACT WITH RCOC
INCREASED METRO ACT FUNDS	INCREASED PERMITTING REQUIRED FROM DPS
ABILITY TO CONTROL A COMPLETE STREET CONFIGURATION (BIKE LANES, PATHWAY, ETC.)	COST & TIME TO FORMALLY TRANSFER MDOT OWNED ROW AND EASEMENTS
AUTHORITY TO REDUCE THE SPEED LIMIT IN ORDER TO SUPPORT DESIGN	COST & TIME TO FORMALLY TRANSFER MDOT STORM SEWERS & STRUCTURES TO CITY



# FUNDING

## POTENTIAL SOURCES OF FUNDING

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### OUTSIDE SOURCES:

- MDOT TURNBACK MONIES
- TRANSPORTATION ALTERNATIVE PROGRAM (TAP GRANT)
- SAFETY GRANT

### INTERNAL SOURCES:

- MAJOR ROADS (ACT 51 / METRO ACT)
- LOCAL ROADS
- TREE FUND
- SAFETY PATH FUND



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# SCHEDULE

ID	Task Name	Duration	Start	Finish	Predecessors	Aug	Sep	Oct	Nov	Dec	2018	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	TENTATIVE AUBURN ROAD PROJECT SCHEDULE	607 days	Tue 5/9/17	Fri 9/20/19																
2	Auburn Road EPE	148 days	Tue 5/9/17	Mon 12/4/17																
3	OHM Commence Work on Auburn Road EPE	1 day	Tue 5/9/17	Tue 5/9/17																
4	Utility Reconnect from Private to Public	10 days	Wed 5/10/17	Wed 5/10/17	3															
5	Investigate Soil Types	10 days	Wed 5/10/17	Wed 5/24/17	4															
6	Developed Base Plan on Aerial	15 days	Thu 5/25/17	Wed 6/14/17	5															
7	Perform Limited Topographic Survey of Road Sills and Road	5 days	Thu 6/15/17	Wed 6/22/17	6															
8	Developed Geometric Options to Improve Road	10 days	Thu 6/22/17	Wed 7/5/17	7															
9	Investigated Viable Mitigation Options	2 days	Thu 7/6/17	Fri 7/7/17	8															
10	Wetland Investigation	2 days	Mon 7/10/17	Tue 7/11/17	9															
11	Performed Site Visit and took Corridor Pictures for EPE Study Report	1 day	Fri 7/14/17	Mon 7/17/17	10															
12	Investigate Soil Types	7 days	Fri 7/14/17	Mon 7/17/17	11															
13	Developed Proposed Typical Sections	5 days	Thu 7/20/17	Thu 7/20/17	12															
14	Obtained Traffic Crash History	2 days	Fri 7/21/17	Mon 7/24/17	13															
15	Progress Meeting #1 with City/OHM	1 day	Fri 7/21/17	Fri 7/21/17	14															
16	Followup Work from Progress Meeting #1	10 days	Fri 7/21/17	Fri 8/4/17	15															
17	Progress Meeting #2 with City/OHM	1 day	Fri 8/4/17	Fri 8/4/17	16															
18	Followup Work from Progress Meeting #2	1 day	Mon 8/7/17	Mon 8/7/17	17															
19	Progress Meeting #3 with City/OHM	1 day	Fri 8/25/17	Fri 8/25/17	18															
20	Followup Work from Progress Meeting #3	9 days	Mon 9/25/17	Thu 9/28/17	19															
21	City's Consultant to Conduct Soil Investigation	2 days	Fri 9/22/17	Fri 9/22/17	20															
22	Progress Meeting #4 with City/OHM	1 day	Fri 9/22/17	Fri 9/22/17	21															
23	City Meeting with Auburn Road Project Design	1 day	Mon 9/25/17	Thu 9/28/17	22															
24	Progress Meeting #5 with City/OHM	1 day	Fri 9/29/17	Fri 9/29/17	23															
25	Meeting with City/MDDT to Discuss Project and City Road Turnback	1 day	Fri 10/6/17	Fri 10/6/17	24															
26	Progress Meeting #6 with City/OHM	1 day	Mon 10/9/17	Mon 10/9/17	25															
27	OHM Revise Final Preferred Concept and Submit Draft Final EPE Study to City	26 days	Mon 10/2/17	Mon 11/6/17	26															
28	Progress Meeting #7	1 day	Thu 11/9/17	Thu 11/9/17	27															
29	RH City Council Meeting	1 day	Mon 12/4/17	Mon 12/4/17	28															
30	Final Design (PE)	212 days	Mon 1/1/18	Mon 10/2/18	29															
31	Assess for Road Turnback	15 days	Mon 1/1/18	Fri 1/19/18	30															
32	Assess for Road Turnback	1 day	Mon 1/22/18	Mon 1/22/18	31															
33	Final Submittal	1 day	Mon 2/5/18	Mon 2/5/18	32															
34	Final Submittal	1 day	Wed 3/7/18	Wed 3/7/18	33															
35	Final Submittal	0 days	Fri 6/29/18	Fri 6/29/18	34FS+80 days															
36	Design after Survey	10 days	Mon 3/19/18	Fri 3/30/18	34															

- 2018
- TOPOGRAPHIC SURVEY
- DESIGN
- UTILITY COORDINATION/RELOCATION
- R.O.W. MITIGATION
- 2019
- CONSTRUCTION SEASON
- COORDINATION WITH DEQUINDRE PROJECT
- CRITICAL DATES
- 1st Qtr 2018 - TAP GRANT APPLICATION
- 1st Qtr 2018 - SAFETY GRANT APPLICATION
- 1st Qtr 2018 - OAKLAND COUNTY FAC APPLICATION



# NEXT STEPS

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- PROCEED WITH PROJECT - APPROVE DESIGN CONTRACT?
- LSL OR ROUNDABOUT OPTION PREFERRED?
- JANUARY - DECISION ON MDOT TURNBACK



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# QUESTIONS

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