

Complete Streets Plan for Peacock Place, Montgomery: Oak Street Corridor

Benjamin Bacon
Dale Speetjens
Alexander Dukes
Brendan Byrne



Complete Streets Plan for Peacock Section 1

Site Observations:

Intersections:

The intersection of Oak Street and West Fairview Avenue has the only traffic lights in the area. West Fairview Avenue is a four lane arterial road with a center turning lane. Oak Street is a two lane collector road with multiple intersections to local roads and a few intersections to other collector roadways. There are seven four-way stop intersections on Oak Street to other large local roads: Oak Street and Early Street, Oak Street and Mill Street, Oak Street and West Jeff Davis Avenue, Mobile Road and Hill Street, Hill and Mill Street, Hill and Early Street, Mobile Road and Mill Street. These intersection's markings are disappearing to wear and the stop signs are set back between three and five feet from the intersection. On the local roads the east to west streets generally have the stop signs.

Signs and Street Furniture:

Peacock Place has many signs from crosswalk signs to street markings alerting drivers of school zones. Signs are placed to mark the historic trail on the North end of Oak Street, help direct citizens towards the library or a local business, and to alert drivers of upcoming stop signs. The streets are lined with power lines and the posts usually have a light attached to them either above the sidewalk or facing back towards a parking lot.

Visibility:

The collector road of Oak St has very good visibility the buildings in Peacock Place are set back enough to make intersections very navigable, the only points where visibility is impaired is at the intersection of Mobile Road and Oak Street, and at spots of overgrowing vegetation.

Speed Limits:

The neighborhood of Peacock Place has low driving speeds. Oak St. has a speed limit of thirty and the local roads have a speed limit of twenty-five. When entering a school zone (Hill Street and Jeff Davis Street, Jeff Davis and Oak Street, Early and Oak St, Hill and Dillard, etc.)

the speed drops down to fifteen. West Fairview Avenue has the highest speeds of forty.

Pedestrian Infrastructure:

The collector roads in the study area typically have at least one sidewalk. The intersection of Oak and Fairview contains a pedestrian subway to allow for easy access to Carver High School. West Fairview has two sidewalks each buffered from the street where Utilities are placed, but these sidewalks stop in front of Carver High and the shopping center on the Northeast corner. Oak Street has one grass buffered sidewalk that flips from the east side of the street to the west side of the street one it reaches the Early Street intersection. Meanwhile, Early Street has two grass buffered sidewalks on the eastern border of the site and as it moves west across the neighborhood the north sidewalk becomes intermittent, and finally disappears once reaching Hill Street. Similarly, Mill Street has two buffered sidewalks on the East side but then loses its Southern sidewalk to the West of Mobile road. When the sidewalk swaps to the opposite side of the street there are no crosswalks to help alert pedestrians of this change. Hill street has a crosswalk in front of the Freewill Missionary Baptist Church that directs its congregation to a parking lot across the street but also helps to indicate a change from the sidewalk being on the West side of the street to the East once the street borders St Jude's campus. The sidewalk on Hill Street and Mobile Road is placed directly against the road. Mobile Road both has one sidewalk that is continuous down the North side. The crosswalks for pedestrians are the minimal two lined cross walk located at intersections of collector roads, but when intersecting local streets there is no crosswalk. Most local roads are devoid of sidewalks except for a few exceptions on Maple, Juliette, Henley, and Chappell Street. These streets have one sidewalk placed directly against the road and it does not always continue the whole stretch of the road. The general condition of these roads is fair, grass has grown in between most slabs and there are a few pieces that need to be replaced.

Level of Service (LOS)

In support of developing a complete street plan for Oak Street, evaluation of existing site conditions included bicycle and pedestrian LOS analysis. Area investigated was bound on the North by the Day Street/I-65 exit ramp, on the South by Carver High School on West Fairview Avenue, on the East by I-65, and on the West by Hill Street. The street network in this area is defined by a single collector, Oak Street, and numerous local roads. All LOS analysis utilized the methodology presented by Dixon (1). Through this approach bicycle and pedestrian LOS are calculated separately using factors capturing facilities, conflicts, speed, motor vehicle presence, and transit connectivity. Measurements for these values were determined using Montgomery GIS Viewer (2) and on-site inspections.

Bicycle LOS:

Using the definitions provided by Dixon (1) LOS was calculated for bicycles by dividing the corridor into segments displaying different characteristics. Scores were then developed for each segment and added to determine overall LOS for the corridor according to the thresholds presented in Table 1. Segment scores were determined using Equations 1 and 2.

Table 1 Bicycle LOS:

Full results are presented in Appendix A. Calculations indicated the collector street (Oak St.) had a bicycle LOS of D. As seen in Table 1 this demonstrates the corridor, in its current condition, is adequate for all advanced riders and some casual riders. Local streets had a LOS of E indicating a system only appropriate for advanced riders with caution. LOS on both the collector and local streets were most impacted by on the street parking, intersection implementations, and no medians.

LOS	SCORE	DEFINITION
A	21 - 17	Safe and attractive to bicyclists.
B	17 > 14	Adequate roadways for all bicyclists
C	14 > 11	Adequate for most bicyclists
D	11 > 7	Adequate for advanced bicyclists and some casual bicyclists
E	7 > 3	Advanced bicyclists use with caution
F	3 > 0	Not appropriate for any cyclist

Pedestrian LOS:

Using the definitions provided by Dixon (1) LOS was calculated for pedestrians by dividing the corridor into segments displaying different characteristics. Scores were then developed for each segment and added to determine overall LOS for the corridor according to the thresholds presented in Table 2. Segment scores were determined using Equations 1 and 2.

Table 2: Pedestrian LOS

Full results are presented in Appendix A. Calculations indicated the collector street (Oak St.) had a pedestrian LOS of C. As seen in Table 2 this demonstrates the corridor, in its current condition, is safe and comfortable all pedestrians but will not actively attract pedestrian traffic. Local streets had a LOS of E indicating a system indicating inadequacy and not meeting ADA compliance. LOS on both the collector and local streets were most impacted by a lack of continuous sidewalks on both sides, reduced turn conflict implementation, wide crossings, a lack of medians, and minimal amenities. The generally poor LOS for the area was supported by on-site inspections that revealed low pedestrian and bicycle use. This is suspected to be due to not only the factors presented above but also a result of a poor perception of safety in the area and land-use that is not conducive to non-automobile trips.

LOS	SCORE	DEFINITION
A	21 - 17	Ample amenities and safety
B	17 > 14	Safe and comfortable and attracts pedestrian trips
C	14 > 11	Safe and comfortable but does not attract pedestrian trips
D	11 > 7	Adequate for pedestrians but will not attract pedestrian trips
E	7 > 3	Inadequate for pedestrians and not meeting ADA requirements
F	3 > 0	Inadequate for pedestrians and characterized by high-levels of vehicles

CATEGORY	COLLECTOR ROAD (OAK STREET) (1.9 MILES)	
	CONDITIONS	SCORE
SEGMENT ID: W. Jeff Davis Ave (I-65 to Hill St.)	0.5 MILES	
BICYCLE FACILITY PROVIDED	OUTSIDE LANES = 12 FT.	0
CONFLICTS	LESS THAN 22 CONFLICTS PER MILE	1
	NO BARRIERS	0.5
	NO ON-STREET PARKING	1
	MEDIANS PRESENT	0.5
	UNRESTRICTED SIGHT DISTANCE	0.5
	INTERSECTION IMPLEMENTATIONS	0
SPEED DIFFERENTIAL	25 MPH	1
MOTOR VEHICLE LOS	LOS C AND < 6 TRAVEL LANES	2
MAINTENANCE	MINOR OR INFREQUENT PROBLEMS	0
MULTI-MODAL SUPPORT	BUS STOPS PRESENT	1
RESULT	SEGMENT SCORE = 7.5 * (0.5/1.9) = 1.97	
SEGMENT ID: Oak St. (Stephens St. to W. Jeff Davis)	0.25 MILES	
BICYCLE FACILITY PROVIDED	OUTSIDE LANES < 12 FT.	0
CONFLICTS	LESS THAN 22 CONFLICTS PER MILE	0
	NO BARRIERS	0.5
	ON-STREET PARKING	0
	MEDIANS PRESENT	0
	UNRESTRICTED SIGHT DISTANCE	0.5
	INTERSECTION IMPLEMENTATIONS	0
SPEED DIFFERENTIAL	15 MPH	2
MOTOR VEHICLE LOS	LOS C AND < 6 TRAVEL LANES	2
MAINTENANCE	MINOR OR INFREQUENT PROBLEMS	0
MULTI-MODAL SUPPORT	BUS STOPS PRESENT	1
RESULT	SEGMENT SCORE = 6 * (0.25/1.9) = 0.79	
SEGMENT ID: Oak St. (W. Fairview Ave. to Stephens St.)	0.75 MILES	
BICYCLE FACILITY PROVIDED	OUTSIDE LANES > 14 FT.	6
CONFLICTS	LESS THAN 22 CONFLICTS PER MILE	0
	NO BARRIERS	0
	NO ON-STREET PARKING	0
	MEDIANS PRESENT	0
	UNRESTRICTED SIGHT DISTANCE	0.5
	INTERSECTION IMPLEMENTATIONS	0
SPEED DIFFERENTIAL	15 MPH	2
MOTOR VEHICLE LOS	LOS B AND < 6 TRAVEL LANES	2
MAINTENANCE	MINOR OR INFREQUENT PROBLEMS	0
MULTI-MODAL SUPPORT	BUS STOPS PRESENT	1
RESULT	SEGMENT SCORE = 11.5 * (0.75/1.9) = 4.54	
SEGMENT ID: W. Fairview Ave.	0.40 MILES	
BICYCLE FACILITY PROVIDED	OUTSIDE LANES = 12 FT.	0
CONFLICTS	LESS THAN 22 CONFLICTS PER MILE	1
	NO BARRIERS	0.5
	NO ON-STREET PARKING	0
	MEDIANS PRESENT	0
	UNRESTRICTED SIGHT DISTANCE	0.5
	INTERSECTION IMPLEMENTATIONS	0
SPEED DIFFERENTIAL	15 MPH	2
MOTOR VEHICLE LOS	LOS B AND < 6 TRAVEL LANES	2
MAINTENANCE	MINOR OR INFREQUENT PROBLEMS	0
MULTI-MODAL SUPPORT	BUS STOPS PRESENT	0
RESULT	SEGMENT SCORE = 6 * (0.4/1.9) = 1.26	
CORRIDOR LOS	D (CORRIDOR SCORE = 8.56)	

Where Outside Lane Width = Distance between inside stripe of rightmost lane and edge of pavement
Conflicts = Number of side streets and driveways per 1 mile, presence of barriers, on-street parking, medians, and safe sight distances
Speed Differentials = Posted speed minus the average bicycle speed (15 mph)
Motor Vehicle LOS = Determine using only number of lanes as this measure has the greatest impact of bicyclist comfort
Maintenance = Average condition of facilities within 1 mile segments
Multi-Modal Support = Availability of other transit links

Appendix A: LOS Tables

Table 3: Bicycle LOS (Collector)

Where: Outside Lane Width = Distance between inside stripe of right-most lane and edge of pavement

Conflicts = Number of side streets and driveways per 1 mile, presence of barriers, on-street parking, medians, and safe sight distances

Speed Differentials = Posted speed minus the average bicycle speed (15 mph)

Motor Vehicle LOS = Determine using only number of lanes as this measure has the greatest impact of bicyclist comfort

Maintenance = Average condition of facilities within 1 mile segments

Multi-Modal Support = Availability of other transit links

Table 4: Bicycle LOS (Local)

Where: Outside Lane Width = Distance between inside stripe of right-most lane and edge of pavement

Conflicts = Number of side streets and driveways per 1 mile, presence of barriers, on-street parking, medians, and safe sight distances

Speed Differentials = Posted speed minus the average bicycle speed (15 mph)

Motor Vehicle LOS = Determine using only number of lanes as this measure has the greatest impact of bicyclist comfort

Maintenance = Average condition of facilities within 1 mile segments

Multi-Modal Support = Availability of other transit links

CATEGORY	LOCAL ROADS (TOTAL 1)	
	CONDITIONS	POINTS
SEGMENT ID: EAST OF OAK ST.	HALF OF AREA	
BICYCLE FACILITY PROVIDED	OUTSIDE LANES < 12 FT.	0
CONFLICTS	LESS THAN 22 CONFLICTS PER MILE	0
	NO BARRIERS	0
	NO ON-STREET PARKING	0
	MEDIANS PRESENT	0
	UNRESTRICTED SIGHT DISTANCE	0.5
	INTERSECTION IMPLEMENTATIONS	0
SPEED DIFFERENTIAL	15 MPH	2
MOTOR VEHICLE LOS	LOS B AND < 6 TRAVEL LANES	2
MAINTENANCE	MINOR OR INFREQUENT PROBLEMS	0
MULTI-MODAL SUPPORT	BUS STOPS PRESENT	0
RESULT	SEGMENT SCORE = 4.5 * (0.5/1) = 2.25	
SEGMENT ID: WEST OF OAK ST.	HALF OF AREA	
BICYCLE FACILITY PROVIDED	OUTSIDE LANES = 12 FT.	0
CONFLICTS	LESS THAN 22 CONFLICTS PER MILE	0
	NO BARRIERS	0
	NO ON-STREET PARKING	0
	MEDIANS PRESENT	0
	UNRESTRICTED SIGHT DISTANCE	0.5
	INTERSECTION IMPLEMENTATIONS	0
SPEED DIFFERENTIAL	15 MPH	2
MOTOR VEHICLE LOS	LOS B AND < 6 TRAVEL LANES	2
MAINTENANCE	MINOR OR INFREQUENT PROBLEMS	0
MULTI-MODAL SUPPORT	BUS STOPS PRESENT	0
RESULT	SEGMENT SCORE = 4.5 * (0.5/1) = 2.25	
CORRIDOR LOS	E (CORRIDOR SCORE = 4.5)	

- Where:
- Outside Lane Width = Distance between inside stripe of rightmost lane and edge of pavement
 - Conflicts = Number of side streets and driveways per 1 mile, presence of barriers, on-street parking, medians, and safe sight distances
 - Speed Differentials = Posted speed minus the average bicycle speed (15 mph)
 - Motor Vehicle LOS = Determine using only number of lanes as this measure has the greatest impact of bicyclist comfort
 - Maintenance = Average condition of facilities within 1 mile segments
 - Multi-Modal Support = Availability of other transit links

CATEGORY	COLLECTOR ROAD (OAK STREET) (1.9 MILES)	
	CONDITIONS	SCORE
SEGMENT ID: W. Jeff Davis Ave (I-65 to Hill St.)	0.5 MILES	
PEDESTRIAN FACILITY PROVIDED	CONTINUOUS ON BOTH SIDES	6
	5 FT. WIDE AND BARRIER FREE	2
CONFLICTS	CROSSING WIDTHS < 60 FT.	0.5
	POSTED SPEEDS	0.5
AMENITIES		
MOTOR VEHICLE LOS	LOS C AND < 6 TRAVEL LANES	2
MAINTENANCE	MINOR PROBLEMS	0
MULTI-MODAL SUPPORT	BUS STOPS PRESENT	1
RESULT	SEGMENT SCORE = 12 * (0.5/1.9) = 3.16	
SEGMENT ID: Oak St. (Stephens St. to W. Jeff Davis)	0.25 MILES	
PEDESTRIAN FACILITY PROVIDED	CONTINUOUS ON ONE SIDE	4
	5 FT. WIDE AND BARRIER FREE	2
CONFLICTS	CROSSING WIDTHS < 60 FT.	0.5
	POSTED SPEEDS	0.5
AMENITIES	SHADE TREES	0.5
MOTOR VEHICLE LOS	LOS C AND < 6 TRAVEL LANES	2
MAINTENANCE	MINOR PROBLEMS	0
MULTI-MODAL SUPPORT	BUS STOPS PRESENT	1
RESULT	SEGMENT SCORE = 10.5 * (0.25/1.9) = 1.38	
SEGMENT ID: Oak St. (W. Fairview Ave. to Stephens St.)	0.75 MILES	
PEDESTRIAN FACILITY PROVIDED	CONTINUOUS ON ONE SIDE	4
	5 FT. WIDE AND BARRIER FREE	2
CONFLICTS	CROSSING WIDTHS < 60 FT.	0.5
	POSTED SPEEDS	0.5
AMENITIES	SHADE TREES	0.5
MOTOR VEHICLE LOS	LOS B AND < 6 TRAVEL LANES	2
MAINTENANCE	MINOR PROBLEMS	0
MULTI-MODAL SUPPORT	BUS STOPS PRESENT	1
RESULT	SEGMENT SCORE = 10.5 * (0.75/1.9) = 4.14	
SEGMENT ID: W. Fairview Ave.	0.40 MILES	
PEDESTRIAN FACILITY PROVIDED	CONTINUOUS ON BOTH SIDES	6
	5 FT. WIDE AND BARRIER FREE	2
CONFLICTS	POSTED SPEED	0.5
	MEDIANS PRESENT	1
AMENITIES		
MOTOR VEHICLE LOS	LOS B AND < 6 TRAVEL LANES	2
MAINTENANCE	MINOR PROBLEMS	0
MULTI-MODAL SUPPORT	BUS STOPS PRESENT	0
RESULT	SEGMENT SCORE = 11.5 * (0.4/1.9) = 2.42	
CORRIDOR LOS	C (CORRIDOR SCORE = 11.1)	

- Where: Facilities = Sidewalk characteristics
Conflicts = Number of side streets and driveways per 1 mile, presence of barriers, on-street parking, medians, and safe sight distances
Speed Differentials = Posted speed minus the average bicycle speed (15 mph)
Motor Vehicle LOS = Determine using only number of lanes as this measure has the greatest impact of bicyclist comfort
Maintenance = Average condition of facilities within 1 mile segments
Multi-Modal Support = Availability of other transit links

Table 5: Pedestrian LOS (Collector)

Where: Facilities = Sidewalk characteristics
 Conflicts = Number of side streets and driveways per 1 mile, presence of barriers, on-street parking, medians, and safe sight distances
 Speed Differentials = Posted speed minus the average bicycle speed (15 mph)
 Motor Vehicle LOS = Determine using only number of lanes as this measure has the greatest impact of bicyclist comfort
 Maintenance = Average condition of facilities within 1 mile segments
 Multi-Modal Support = Availability of other transit links

Table 6: Pedestrian LOS (Local)

Where: Facilities = Sidewalk characteristics
 Conflicts = Number of side streets and driveways per 1 mile, presence of barriers, on-street parking, medians, and safe sight distances
 Speed Differentials = Posted speed minus the average bicycle speed (15 mph)
 Motor Vehicle LOS = Determine using only number of lanes as this measure has the greatest impact of bicyclist comfort
 Maintenance = Average condition of facilities within 1 mile segments
 Multi-Modal Support = Availability of other transit links

CATEGORY	LOCAL ROADS (TOTAL 1)	
	CONDITIONS	POINTS
SEGMENT ID: EAST OF OAK ST.	HALF OF AREA	
PEDESTRIAN FACILITY PROVIDED		
CONFLICTS	CROSSING WIDTHS < 60 FT.	0.5
	POSTED SPEEDS	0.5
AMENITIES	SHADE TREES	0.5
MOTOR VEHICLE LOS	LOS B AND < 6 TRAVEL LANES	2
MAINTENANCE	MINOR PROBLEMS	0
MULTI-MODAL SUPPORT	BUS STOPS PRESENT	0
RESULT	SEGMENT SCORE = 3.5* (0.5/1) = 1.75	
SEGMENT ID: WEST OF OAK ST.	HALF OF AREA	
PEDESTRIAN FACILITY PROVIDED		
CONFLICTS	CROSSING WIDTHS < 60 FT.	0.5
	POSTED SPEEDS	0.5
AMENITIES	SHADE TREES	0.5
MOTOR VEHICLE LOS	LOS B AND < 6 TRAVEL LANES	2
MAINTENANCE	MINOR PROBLEMS	0
MULTI-MODAL SUPPORT	BUS STOPS PRESENT	0
RESULT	SEGMENT SCORE = 3.5* (0.5/1) = 1.75	
CORRIDOR LOS	E (CORRIDOR SCORE = 3.5)	

Where: Facilities = Sidewalk characteristics
 Conflicts = Number of side streets and driveways per 1 mile, presence of barriers, on-street parking, medians, and safe sight distances
 Speed Differentials = Posted speed minus the average bicycle speed (15 mph)
 Motor Vehicle LOS = Determine using only number of lanes as this measure has the greatest impact of bicyclist comfort
 Maintenance = Average condition of facilities within 1 mile segments
 Multi-Modal Support = Availability of other transit links

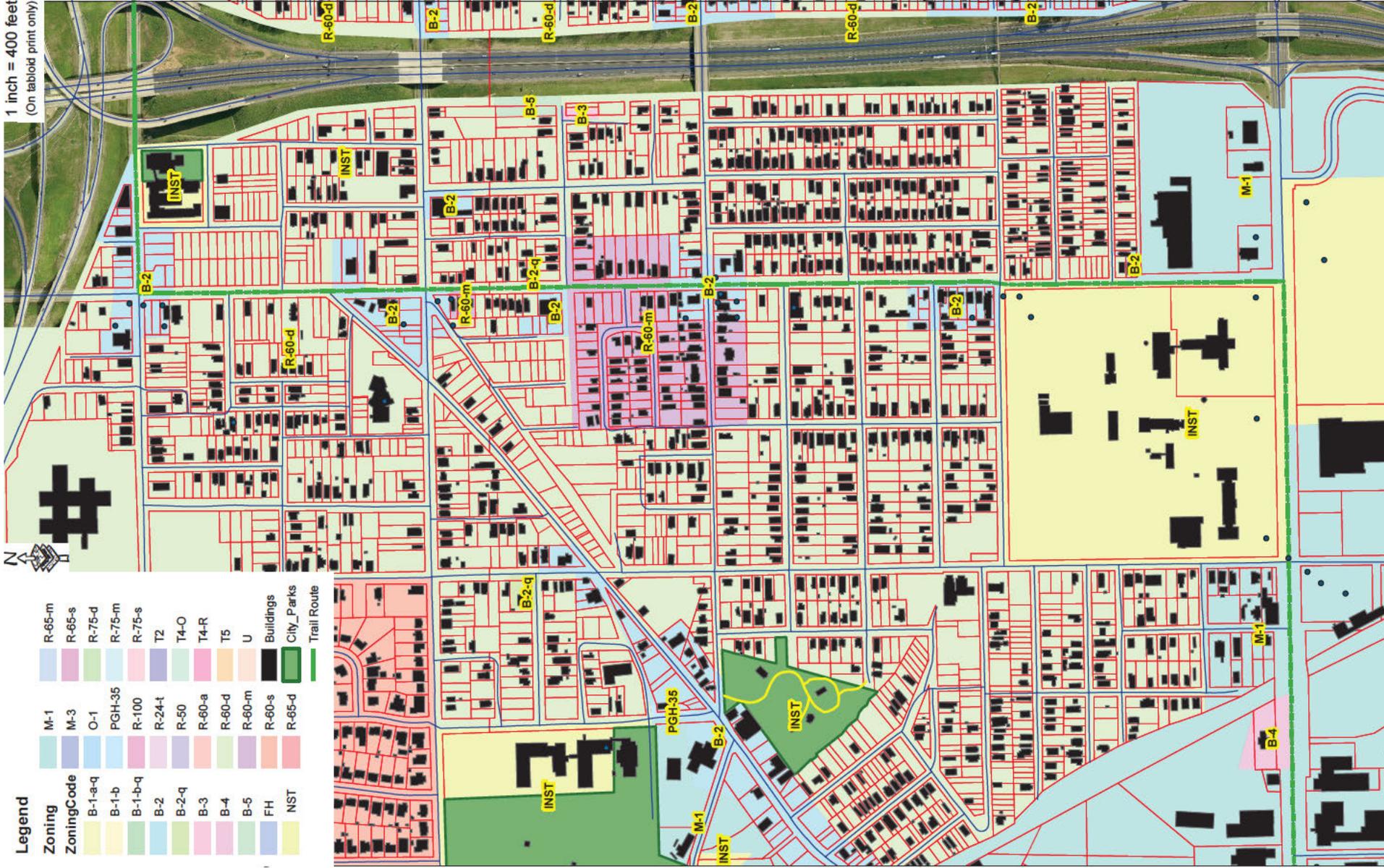
GIS Analysis

1 inch = 400 feet
(On tabloid print only)



Legend

M-1	R-65-m
M-3	R-65-s
O-1	R-75-d
PGH-35	R-75-m
R-100	R-75-s
R-24-t	T2
R-50	T4-O
R-60-a	T4-R
R-60-d	T5
R-60-m	U
FH	Buildings
NST	City_Parks
	Trail Route





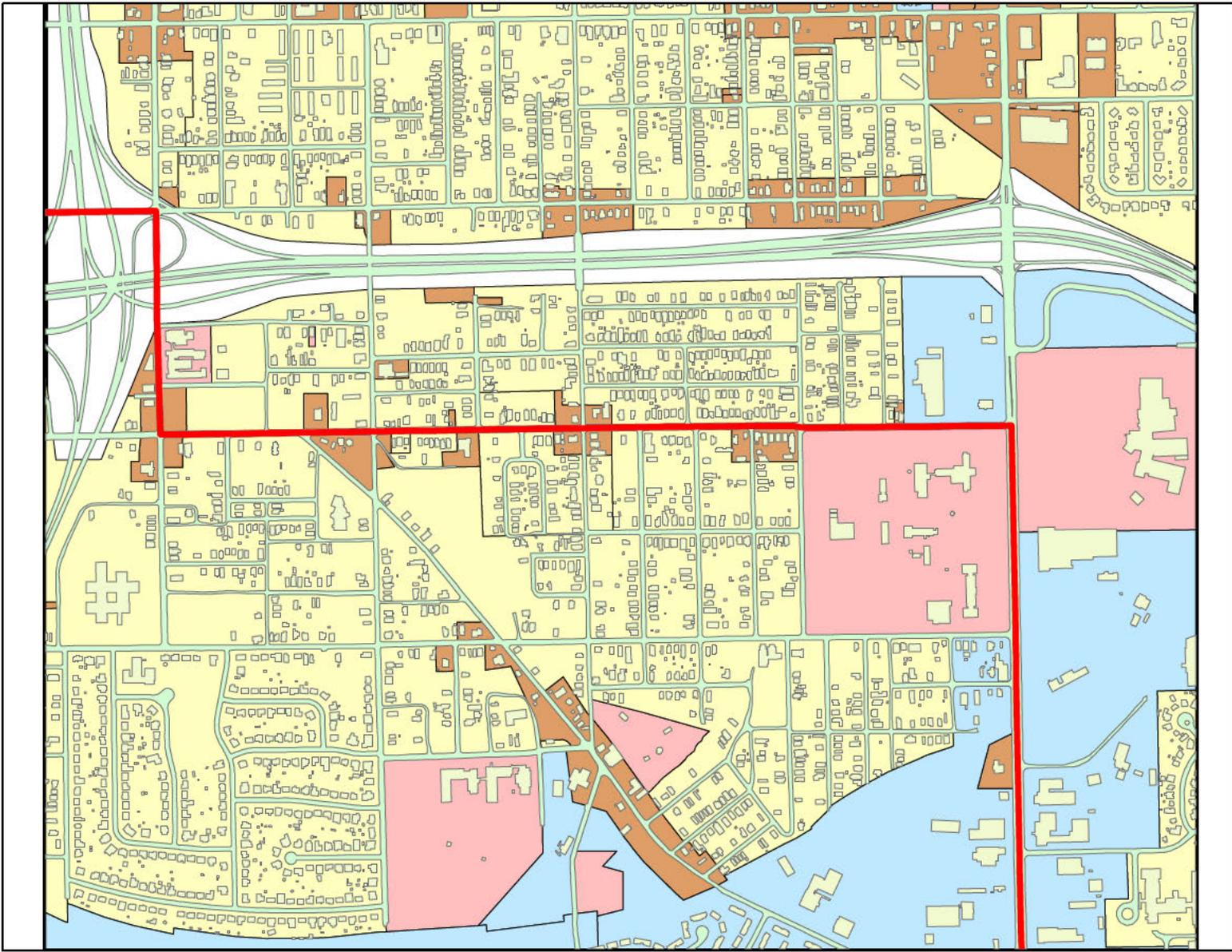
Legend

- Buildings
- City_Parks
- Trail Route
- Trails



1 inch = 400 feet
(On tabloid print only)

Zoning and Density

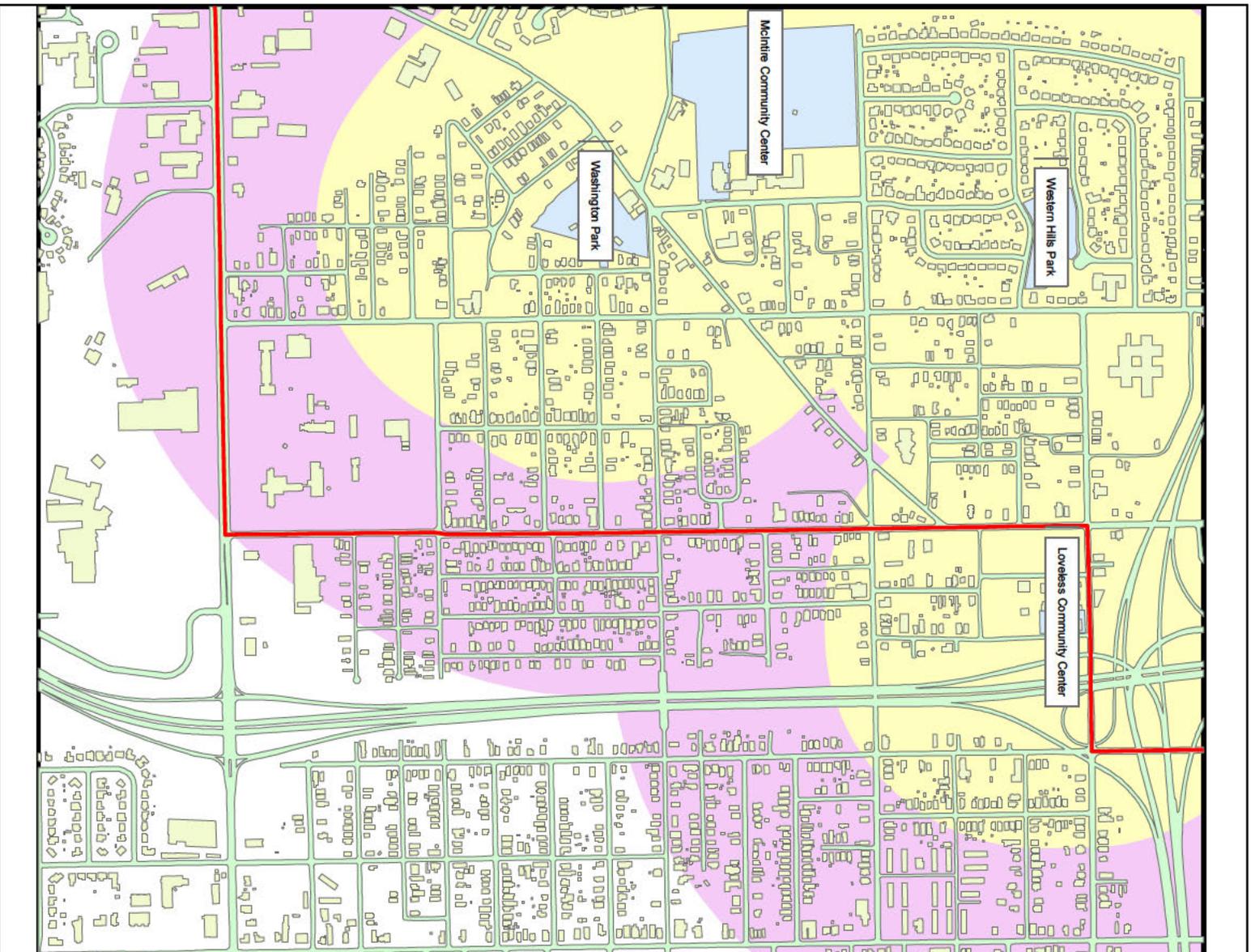


Legend

- Route
- Business/ Office
- Institution
- Industry
- Residential



Walkability to Parks

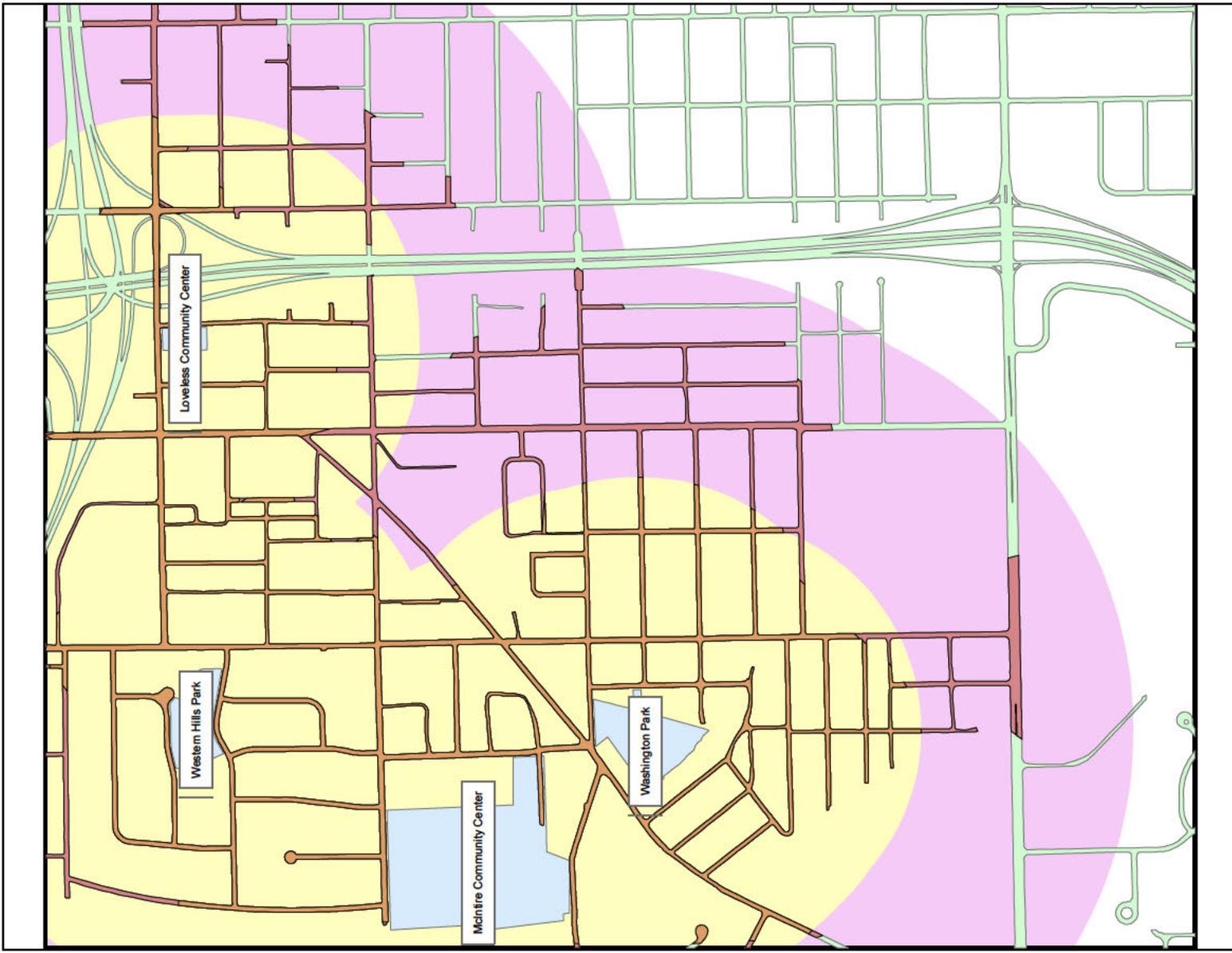


Legend

- Route
- Parks 5 min. walk (1320 ft.)
- Parks 10 min. walk (2640 ft.)



Zoning and Density

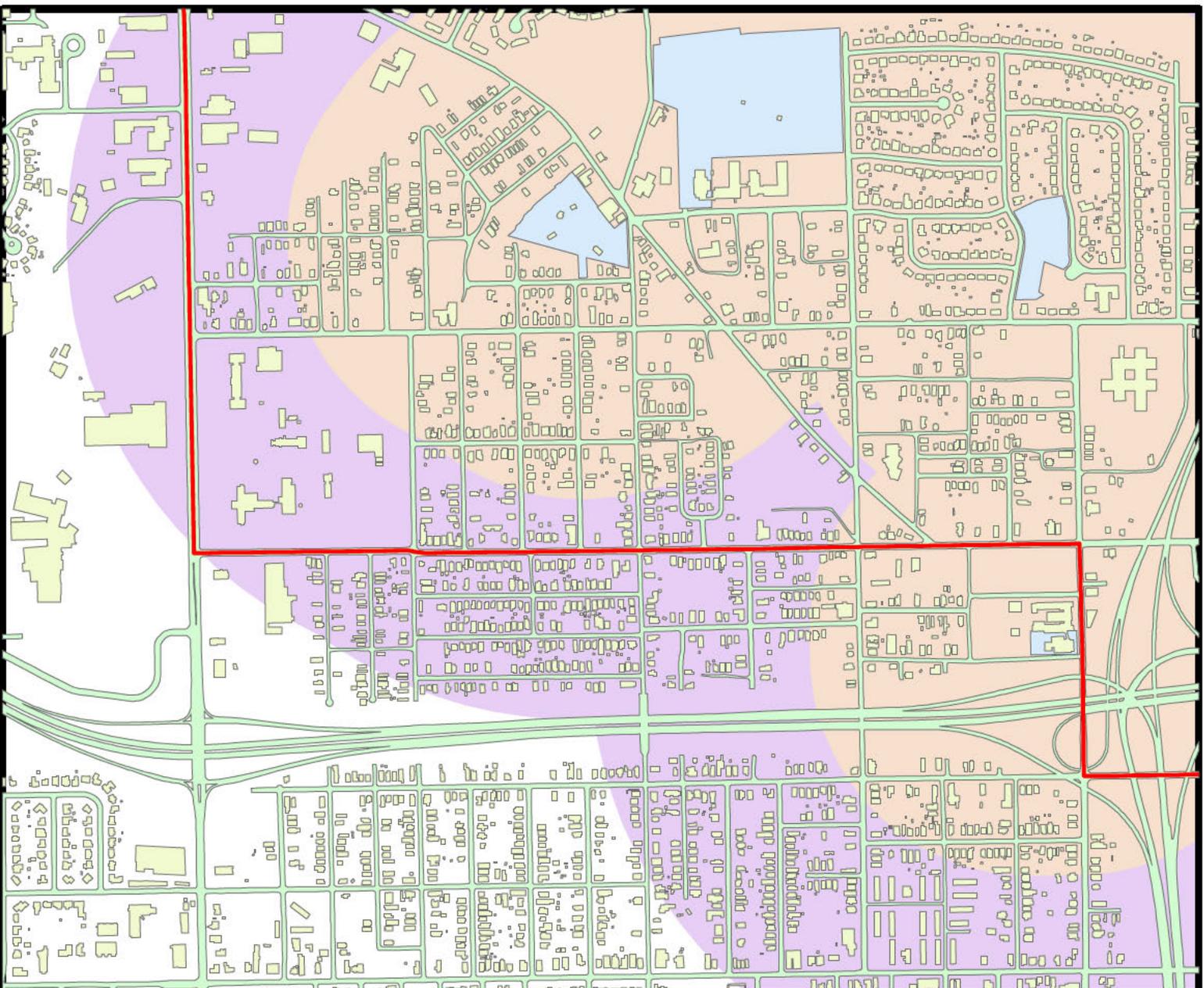


Legend

-  Park Road Access (1320 ft.)
-  Park Road Access (2640 ft.)

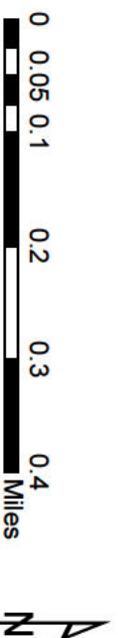


Access to Public Parks

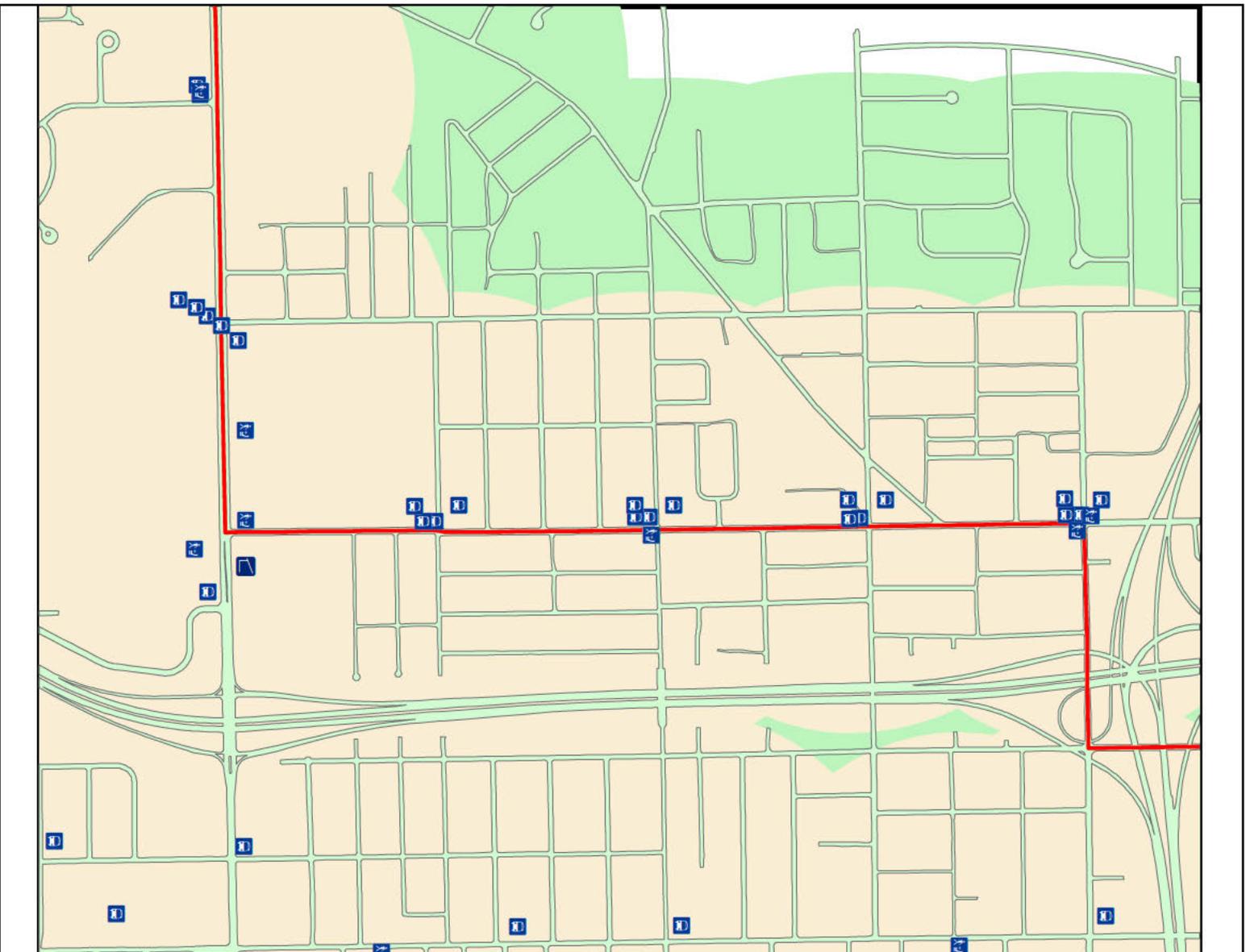


Distance to Parks

- 1320 ft. (5 min. walk)
- 2640 ft. (10 min. walk)



Access to Transit



Legend

- Route
- Transit 5 min. walk (1320 ft.)
- Transit 10 min. walk (2640 ft.)



Transit



Legend

- Route
- Bench
- Bus Stop Sign
- Shelter





Conflicting Land use



Curb Cut



Curb cut



curb cut



Intersection



intersection



Duplex



Store Front



Land use



Curb cut



Mixed use



No bike lanes



No Bike lanes



No Bike Lanes



No Crosswalks



No Crosswalks



No Sidewalks



Housing



No Sidewalks



No Sidewalks



School



Sidewalks



Store fronts

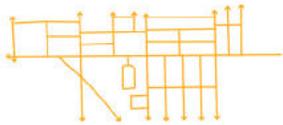


Housing

Analysis of Current Parking on Oak Street



On Street Parking



Parking Lot



Structures



Private Parking through area



Residential Districts:

Peacock Place's general land use is designated as residential districts: R-60-d, R-60-m, and a border of R-60-s. The R-60-d district allows for single family and two family units with a variance available for residences with up to four families and livestock or agricultural use (animals may not be within two hundred feet of any lot line). R-60-m district allows for residential units with up to four families. Appeals can be filed for apartments for any number of families and for clubs and non-for-profits, offices, and hotels. The R-60-m district is located from the south side of Early Street, in between Oak Street and Private Drive and continues North until Travis Street. The small border of R-60-s lots allows for single-family homes with an appeal for lots with two family buildings and light agricultural use. The lots are located on the West side of Hill Street and begin at the Mill Street intersection and continue North to Carlisle Street. The lots located in these districts must be seven thousand and two hundred square feet for one family and have one thousand five hundred more square feet for each additional family on the lot. The homes must be set back twenty feet maintaining a fifteen-foot distance between buildings. These buildings may only occupy half the lot and be no more than thirty feet high with two floors.

- Housing projects with two or more main structures, must be designed by the planning commission to fit with the character of the neighborhood by maintaining the density and FAR.
- Townhouses may only occur with consent from the Planning Commission and must heed recommendations from the Planning Controls Division. The townhouses must also fit the general character of the neighborhood and are not allowed to form one strip of multiple homes. Up to twelve homes may be built in a block and up to six homes may maintain the same frontages. Minimum lot area is two thousand feet and each home is to be on its own lot with a minimum width of twenty feet and lot area of two thousand feet. The minimum between housing blocks is ten feet with a twenty-foot setback. All units must have a four hundred square foot backyard.

Town home developments over five acres must have twenty percent dedicated to open space.

- Planned Unit Development Districts are established by submitting a form to the Planning Commission with the help of the Planning Controls Division. The form must contain plans for new roadways, infrastructure, lot sizes and buildings to be added with their intended use, operation to be maintained without an exceeding expense, as well as a traffic impact analysis.
- Modular Dwellings are allowed in the R-60-d Residential District. Once it meets all State, County, and City codes, laws, and regulations of a single family dwelling. The unit must be at least twenty feet wide and eight feet tall. The structure must be placed on a permanent foundation. The foundation and roof must consist of typical building materials.
- Patio-Garden Homes are a lot with only one side yard and courtyard per home. These homes require an appeal to be filed with the Planning Commission in cooperation with the Planning Controls Division. The appeal must contain designs that fit with neighborhood character. The Patio-Garden Home maintains two subgroups: PGH-35 and PGH-40. A maximum of two homes may be connected and constructed on their own lot with a minimum width of thirty feet (PGH-35) and forty feet (PGH-40). The setback has a minimum of twenty feet, one side yard of a minimal eight feet (PGH-35) and ten feet (PGH-40), and a rear yard minimum of fifteen feet. The open space must maintain a minimal five hundred and twenty five foot open space (PGH-35) and a six hundred foot open space (PGH-40). The side yard must remain clear with two parking spaces per dwelling. The building is not allowed to have windows or doors on the side of the lot with no yard. And adjoining buildings must be on property owned by the same builder. The secondary structures are permitted on only twenty five percent of the rear yard with a setback of five feet from any building. Carports must not be higher than one and a half floors.

Business Districts:

The study area contains three types of business districts. The Individual Store (B-2) district is the most common in Peacock Place. A Commercial Highway (B-3) zone and one Shopping Community (B-5) zone are also located in the area. All new development in these zones require a plan of the lot to be approved by the City. The Individual Store, Commercial Highway, and Shopping Community districts allow for food, clothing, household needs, outdoor needs, general goods and small service stores. In the Individual and Commercial zones, building uses, such as for large laundries, manufacturing for on site retail sales, veterinary services or kennels, and trailer parks, are allowed only after receiving an appeal. The Shopping Community zone only allows for appeals to be filed for large retail and veterinary services. Individual Stores require a ten-foot setback with a maximum of seven feet for the sidewalk. The building in these zones must occupy fifty percent of the lot with a maximum of forty-five feet or three floors. One hundred square feet of parking is required for every two hundred square feet of floor area. The Commercial Highway district requires a set back of thirty feet and buildings on only thirty percent of the lot, with no sidewalk requirement. The height of the building is still forty-five feet and two hundred and fifty square feet of parking for every two hundred square feet of buildings. The Shopping Community zone requires a setback of sixty feet with a maximum twelve-foot sidewalk. The building may only occupy twenty percent of the lot with a maximum of two stories or a height of thirty-five feet. A parking lot must be three hundred square feet for every two hundred square feet of building.

Industry Districts:

The shopping center on the corner of Oak Street and West Fairview Avenue is classified as a Light Industry zone, M-1. This zone is only allowed to house nonabrasive industry such as: storage plants, bottling and distribution, baking, and truck terminals. As well as uses specified in a Individual Stores zone (see Business District section above). Appeals can be filed to permit veterinary hospitals, coal, lumber, and gasoline storage yards. A required storefront setback calls for the minimum of twenty feet with no required sidewalk.

The build must only cover up to fifty percent of the lot and a maximum height of thirty-five feet.

Parking requirements call for half the amount of parking spaces for each work and garaged space for each company vehicle.

- Railroad cars may be allowed in this zone with submittal of a development plan to the planning commission. They are only allowed on lots smaller than five acres with a board of adjustment variance approval. The cars would operate as permanent or temporary storage with an approved foundation beneath.

Institutional District:

There are three Institutional Districts in the area and require a minimum lot size of forty thousand square feet and a fifty foot setback on all sides. The building may not exceed twenty five percent of the lot and has no parking requirement.

Built Form:

The corner visibility is for residential, Commercial Highway and Shopping Community districts are required to remove obstructions within twenty feet of intersections between the height of three and a half feet and fifteen feet. Each lot will be allowed one primary structure and accessory structures as long as they contain no living quarters or water lines. The secondary structure cannot exceed thirty percent of the backyard and two floors. The structure may not be within ten feet of any building and must be five feet from the property line. Residential lots must setback the structure sixty feet and must be set back twenty-five feet from any corner lot line.

- Greenhouses are not allowed to be within twenty feet of all property lines and must be ten feet from any other building. They must be less than three hundred square feet.”

Loading space provision:

A space of twelve feet wide, forty-five feet long, and fourteen and a half feet high shall be provided for any commercial or industrial space between ten thousand and twenty five thousand feet, any apartment with over fifty units, and any recreation, arts, or public welfare building within then thousand to forty thousand square feet. Further more any commercial or industrial building is required to have two spaces for a size between twenty five thousand and sixty thousand square feet, two additional spaces up until one hundred and twenty thousand square feet, three additional spaces until two hundred thousand square feet, and four additional spaces up until two hundred and ninety thousand square feet.

Appeals

Variances are granted when a file is sent into the Administrative review board. The appeal must contain the a strong reason for exemption that only exists on said lot.

References

GIS Division. City of Montgomery Internet GIS. Montgomery Planning Department, 3 May 2013. Web. 5 October 2014.

The City Planning Commission. "Zoning Ordinance." City of Montgomery, 12 August 1985. Web. 6 October 2014.

Complete Streets Plan for Peacock

Section 2

Neighborhood Character

Montgomery has a rich history of involvement with the civil rights. Oak street's Southern edge contains St. Jude's the starting point for the last segment of the Selma to Montgomery March. Twenty five thousand people gathered here on March 24, 1965. To commemorate the bravery and unwavering dedication of the marchers, bronze statues will be placed in the bioswale and as one moves North along Oak Street the density of the statues will increase. Upon reaching Jeff Davis Street and Oak Street a traffic circle will hold a three-dimensional representation of a famous picture taken on the march of Martin Luther King Jr. and fellow marchers. A line of statues with their arms linked will face towards their goal, the State Capitol building in downtown. This local landmark will allow for a visual representation of the rich heritage of the city and give the community a unique image.

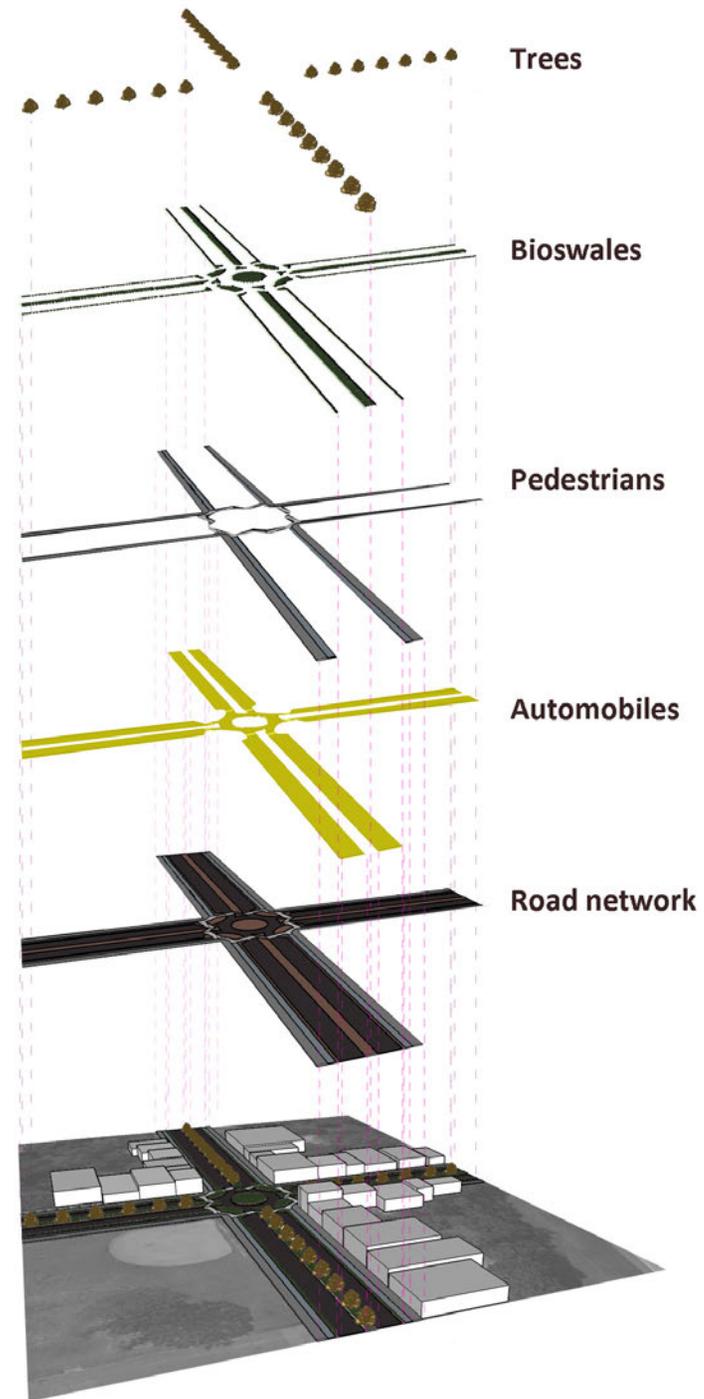
Bioswales

The Oak Street corridor of Peacock place is designed to mitigate negative environmental impacts of transportation. Streets now feature bioswales, allowing for storm water infiltration and filtering of some pollutants left behind on the roadway by vehicles. Soil lines bioswales to slow down the speed of water reaching the sewer system. While the soil slows down the water it allows for the plants to use more of it.

Streets with parking have larger bioswales to account for a higher probability of street pollution. A main bioswale is a ten-foot wide median allowing for more vegetation to increase infiltration place along the busiest roads. Bioswales vary in size corresponding to the size of the street and activity located there. Streets along the main roadways contain three bioswales for their generally high activity. Residential streets contain one large bioswale to account for parked cars. Furthermore, the bioswales in the roadways also act as a street calming measure by generating well-defined mode borders. These borders decrease the amount of conflicts between modes. The bioswales will give way to pedestrian crosswalks and street intersections to allow connectivity for the former and visibility to the latter. Bioswales add to a pleasing street aesthetic by increasing shade and increasing the amount of sensory experiences, which Jan Gehl describes as an element of successful streetscapes in *Life Between Buildings: Using Public Space*. These bioswales increase pleasurable experiences, safety, and decrease pollution along the Oak street corridor.

Intersections

Intersections are designed to offer the maximum amount of pedestrian and cyclist comfort while still allowing automobiles to share the same spaces. The pedestrian realms and street crossings created by these intersection changes helps to improve residents' access to the Montgomery bus transit system. Cyclists are protected from turning automobile traffic by sidewalk buffers that allow them to briefly enter the protected pedestrian space, and continue in the roadway after they have safely crossed the intersection. These intersection designs



Left: Axon of design elements.
Right: Perspective of Oak Street



improve safety, comfort, and the aesthetic quality of streets within the corridor.

Bike Lanes

The current state of bicycle facilities is very poor. The LOS shows us that it is by no means easy for bicyclists to travel on. Since biking space is not clearly marked the plan was to create a bicycle network that modeled some of the most successful bicycle networks, Holland and Denmark. To reflect their systems, the streets in the area include bike lanes on all major streets: West Jeff Davis, Early Street, Mobile Street, Hill Street, Mill Street, Stephens Street, and West Fairview Avenue. The residential roads feature shared roadway facilities. The bioswales on high use streets act as a buffer similar to Dutch raised curbs but with an environmental twist. These buffers are efficient ways to prevent dooring and allows for even novice bikers to give the lanes a try. When the roadways become too small the bike lanes are then raised by three inches to separate modes, similar to the Danish's tiered street approach. While this system isn't effective at preventing dooring the raised bike lane is only put in use on sides of the street without parking. Both of these systems allow for a great bicycle LOS for years to come.

The Dutch and Danish have a large population of bicyclists. However, most use it not for a means of exercise but as a fast mode of travel. Bicyclists in the Oak street region would be able to reach a large area of Montgomery within a ten minute bike ride and even downtown. By borrowing from successful biking facilities, the area could become a rival to other American cities renown for bicycling.

Pedestrian Network

The general layout for our area's pedestrian facilities was sporadic. Sidewalks start that stop abruptly and do not always continue on both sides of the street. The new street design for Oak Street recommends filling these gaps and expanding the sidewalk size to six feet and eight feet in along highly traveled streets. This will allow for proper ADA accommodation as well as a greater capacity with fu-

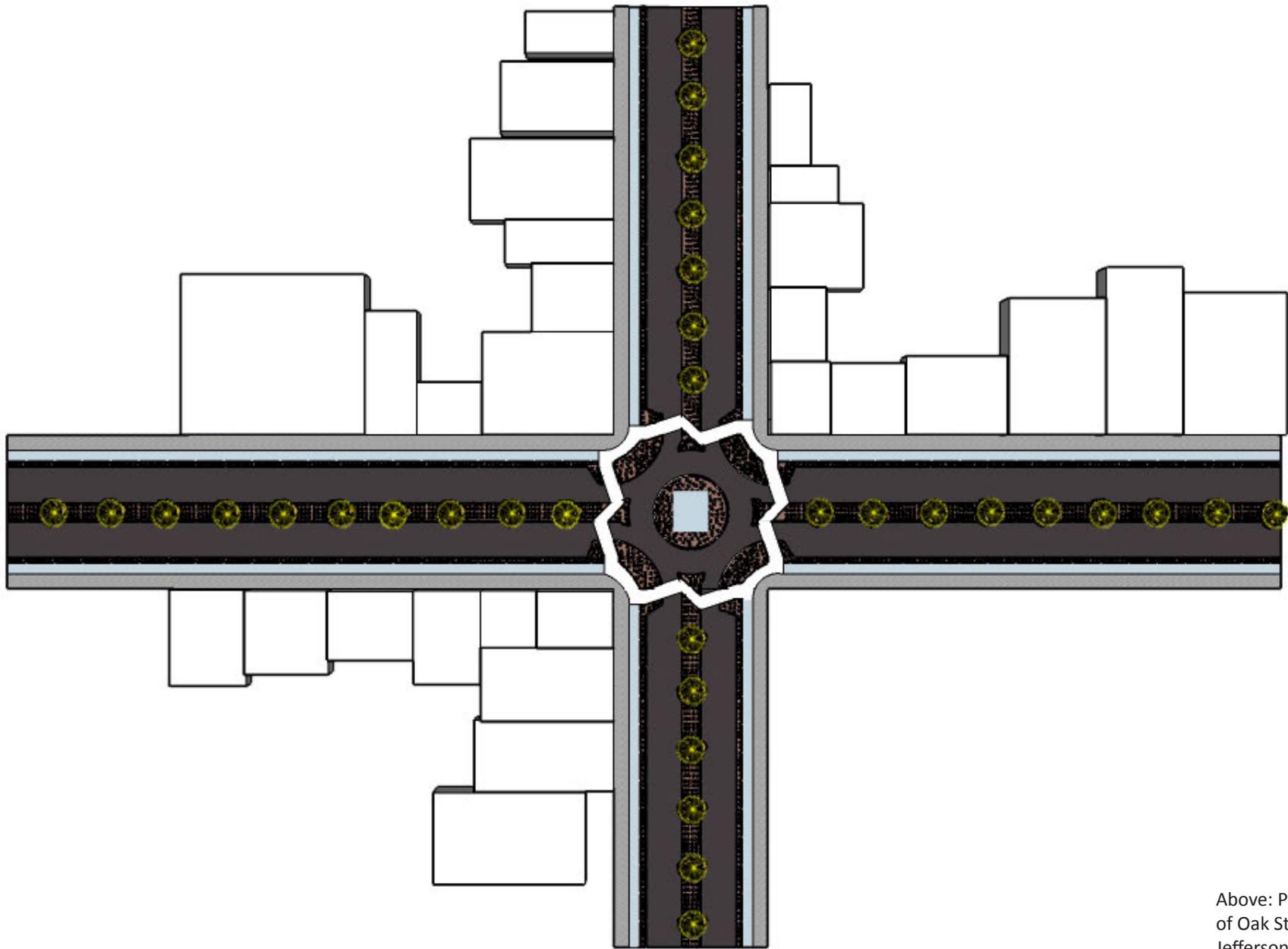
ture development. Crosswalks also needed improvement in the area. Crosswalks are to be added within one twenty feet of every bus stop, at all collector road intersections and on stretches of sidewalks that exceed two hundred feet. These crosswalks will include perpendicular and parallel paint to make for visible crosswalks. When a crosswalk passes through a bioswale a hard permeable surface will be placed to allow for the bioswale to maintain its purpose as well as making sure all users can cross the road safely. The crosswalks should be placed at an angle to face the pedestrian in the direction of traffic when crossing a center median. Angled crosswalks allow for pedestrians to be safer when crossing the road because they are more aware of traffic. These new pedestrian facilities increase the connectivity of the neighborhood and safety which both contribute to the level of service of the area.

Parking

Public parking availability within the Oak Street Corridor will be primarily composed of on-street parking. The purpose of this design is to discourage ad-hoc parking on private residential space, and informal parking on the street- both of which lead to the cluttered appearance that currently plagues Oak Street. On wider sections of right-of-way, on-street parking will serve as a buffer to protect cyclists and pedestrians from automobile traffic. The effect of providing space for on-street-parking within the Oak Street Corridor will be improved safety for residents that choose not to drive and improved aesthetics for all. In the long term, these changes will have the effect of raising property values, and making the Oak Street Corridor a more desirable place to live.

Street Sections

The sections are designed for the varied width of roadway in the Oak Street vicinity. Overall the street should maintain a bioswale and two-way directions of travel. As we move from collector roads to neighborhood roads the need for large biking and pedestrian facilities decreases. The largest portion of road is located on West Fairview Avenue. The section designates the strip as a one-hundred foot roadway. Since this road is linked to the highway the number of lanes is to



Above: Plan view of Oak Street and Jefferson Davis

be maintained as well as making the automobile lanes the widest at eleven feet. A large bioswale is placed along the edges of the vehicle traffic to keep pedestrians and bicyclists feeling safe. As the street moves down to ninety feet the pedestrian and biking space remains the same size while the road space for automobile begins to shrink. This then moves the four lanes of travel into two to allow for on street parking facilities. Roadways of this size are meant to continue to slim down due to the approach of residential zoning. The slimming continues in eighty-foot roads and the two side bioswales lose their trees. Parking begins to shrink and by a foot on each side. Once reaching the stretch of road with seventy feet the road loses a side of parking to keep the neighborhood biking and pedestrian spaces comfortable. Streets with a width of sixty feet lose parking on both sides of the street and the bike lane loses size but is still protected by a bioswale buffer. The image of the main street is therefore maintained. Traffic is further slowed with the loss of both parking lanes. To signal that one has left the main roadway, the fifty-foot roadways the center bioswale is removed and the bicycle and pedestrian facilities both lose a foot of space. The side with parking maintains a secondary swale to protect bicyclists and allow for storm water infiltration. The opposite side of the street utilizes the raised Danish bike lane. Only the neighborhood roads are allocated as forty-foot roadways and are placed in well-defined areas due to the existing grid pattern of our neighborhood. The design allows for one side of the street to be dedicated as parking and the other to be designated as a bioswale to mitigate the negative environmental impact of that parking. This section would be located in the central section of a group of neighborhood streets. Then where the neighborhood streets get for a ten-foot stretch before reaching within twenty feet of collector roads a street will maintain two bioswales to act as a traffic calming measure.

Transit

Bus stops for the Montgomery bus system will be supported by improved pedestrian corridors. Improved access to bus stops will be provided by the more comfortable spaces provided by the curb extensions and safe crosswalks adjacent to bus stops. In addition, we pro-

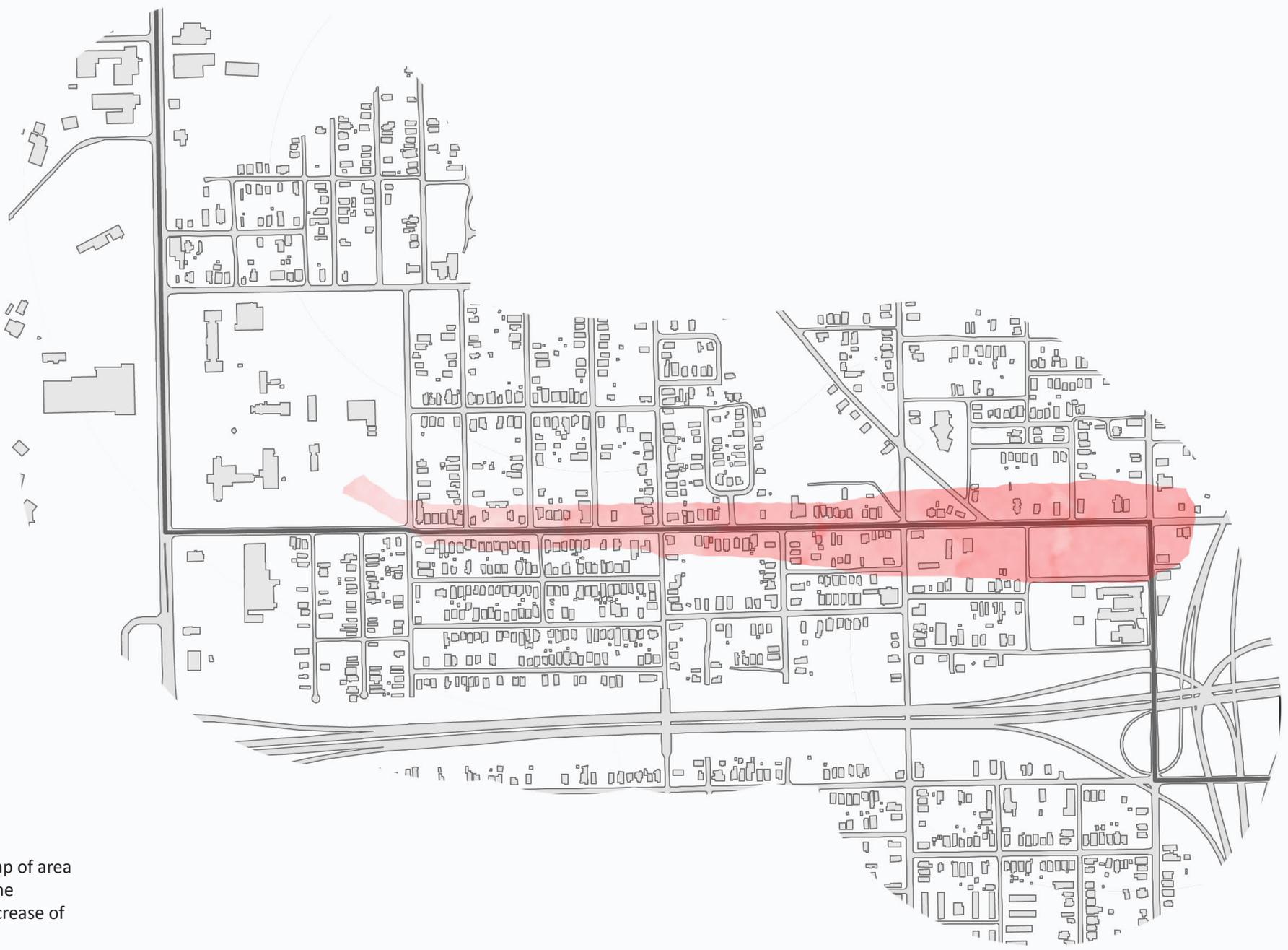
pose shifting some bus stop locations to reduce the distance between bus stops and residential homes.

Land use and Zoning

Land uses and zoning within the Oak Street Corridor will largely remain as they currently exist except for two minor areas at the North and South ends of the Selma to Montgomery Trail Path on Oak Street. The change to the southern end will involve the rezoning of a section of land next to the [ENTER MARKET NAME HERE] shopping center across from St. [NAME OF CATHOLIC SCHOOL]. As it currently exists, the shopping center's parking allotment remains severely underutilized. An efficient use of this parking space can be developed in the vacant lot adjacent to the shopping center.

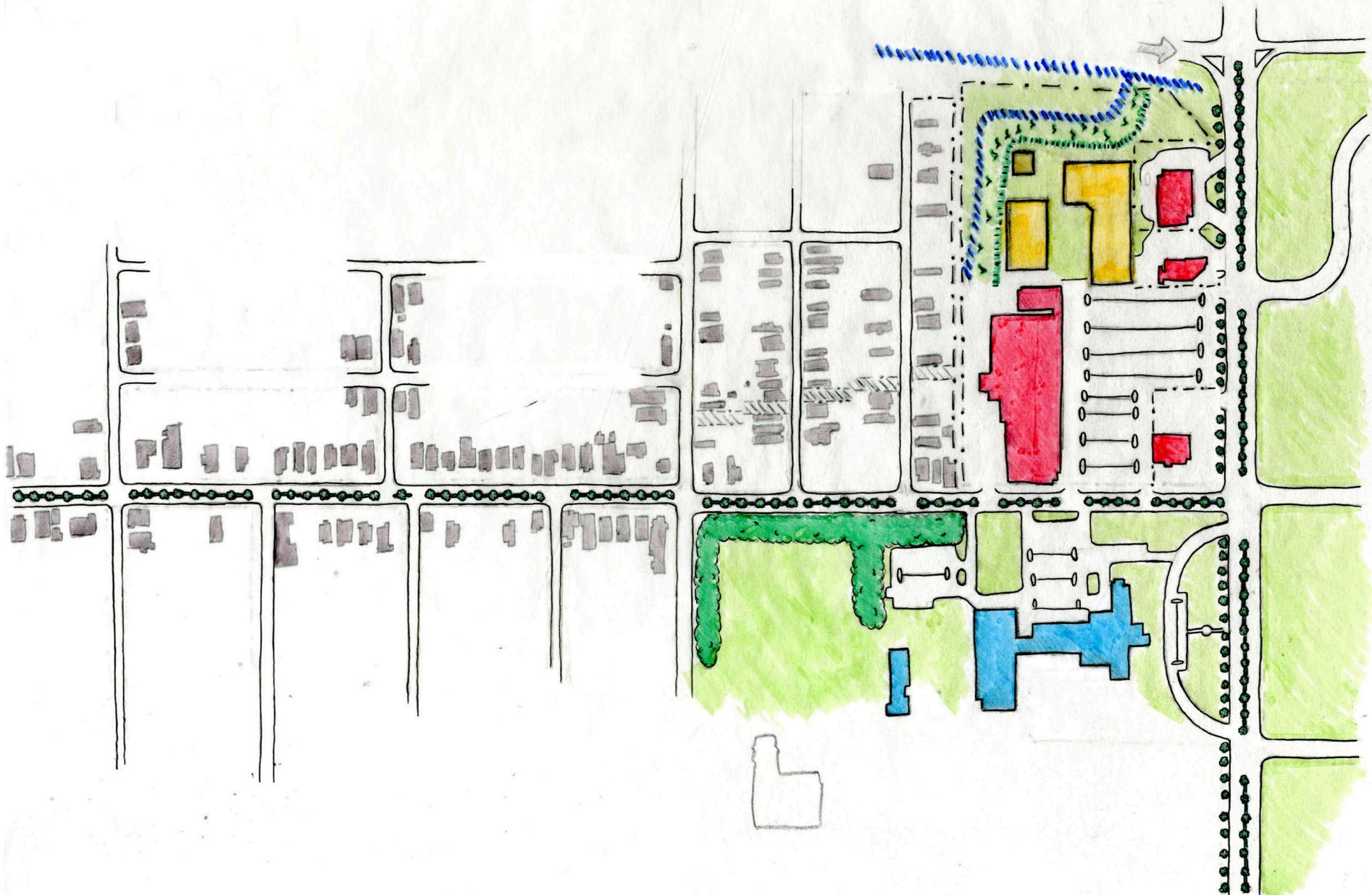
We propose constructing affordable residential apartment in this area. These apartments will bring a reliable consumer base to the shopping center. Moreover, potential residents are likely to appreciate the fact their home is located within walking distance of a commercial center. Reducing their requirement for automobile or transit utilization.

On the northern end of the Oak Street corridor, zoning changes will allow for more commercial and mixed use development around the proposed statue. This will transform the northern end of Oak Street into a destination of sorts, and provide the surrounding community with quality commercial goods nearby their homes.



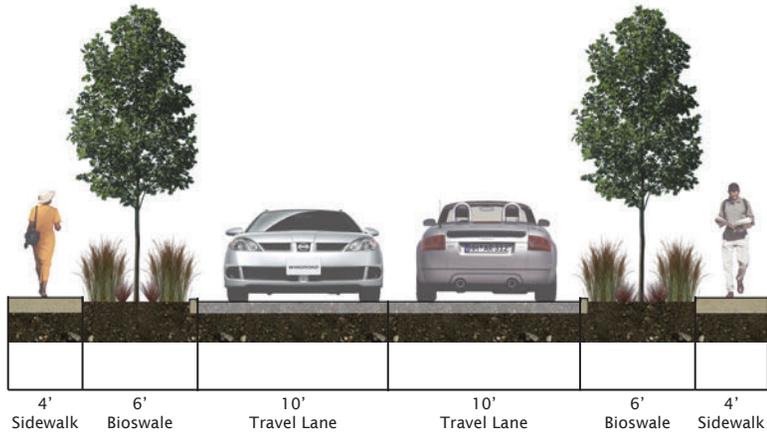
Above: Map of area showing the density increase of status



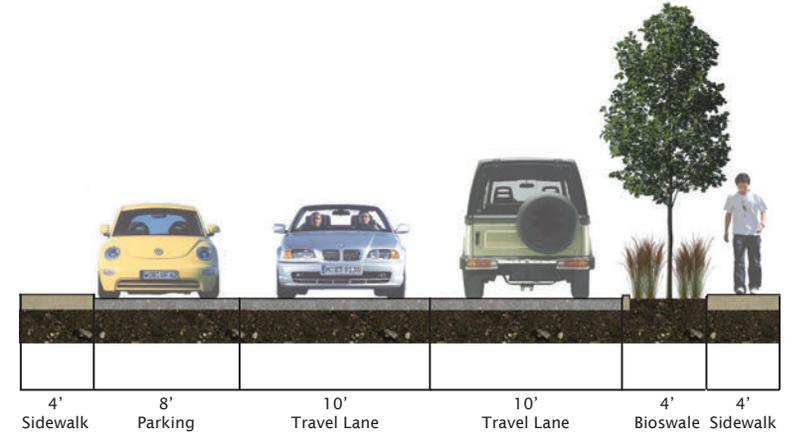


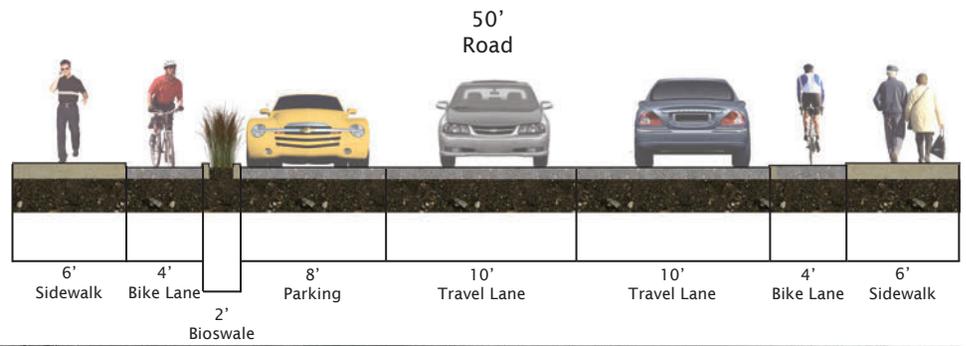


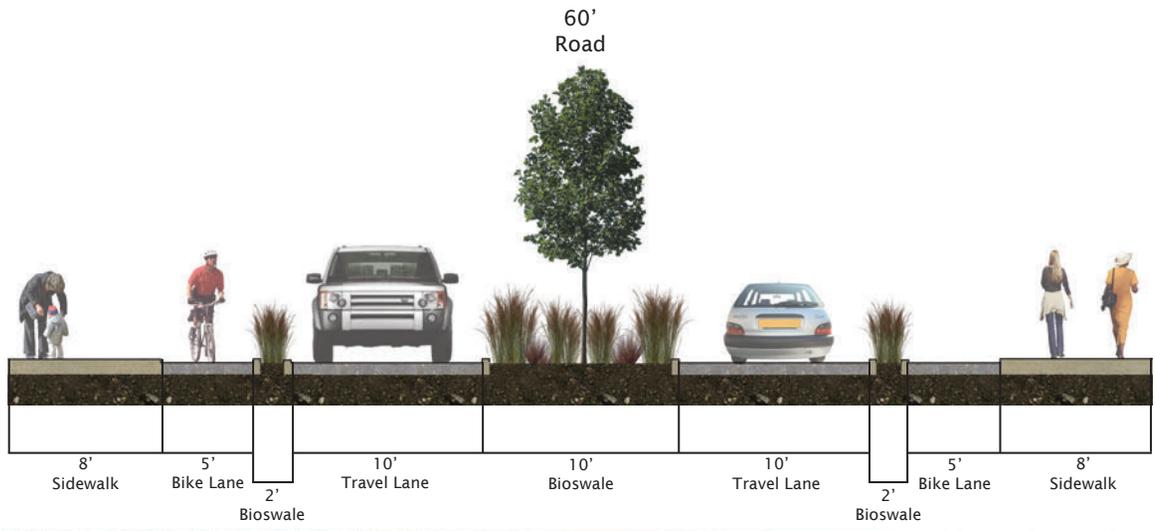
40'
Road



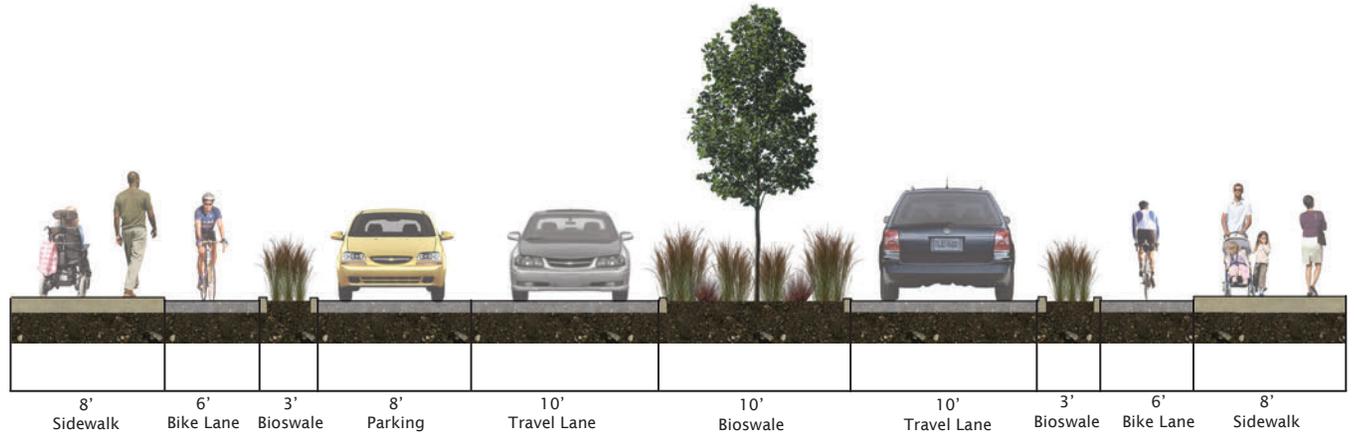
40'
Road

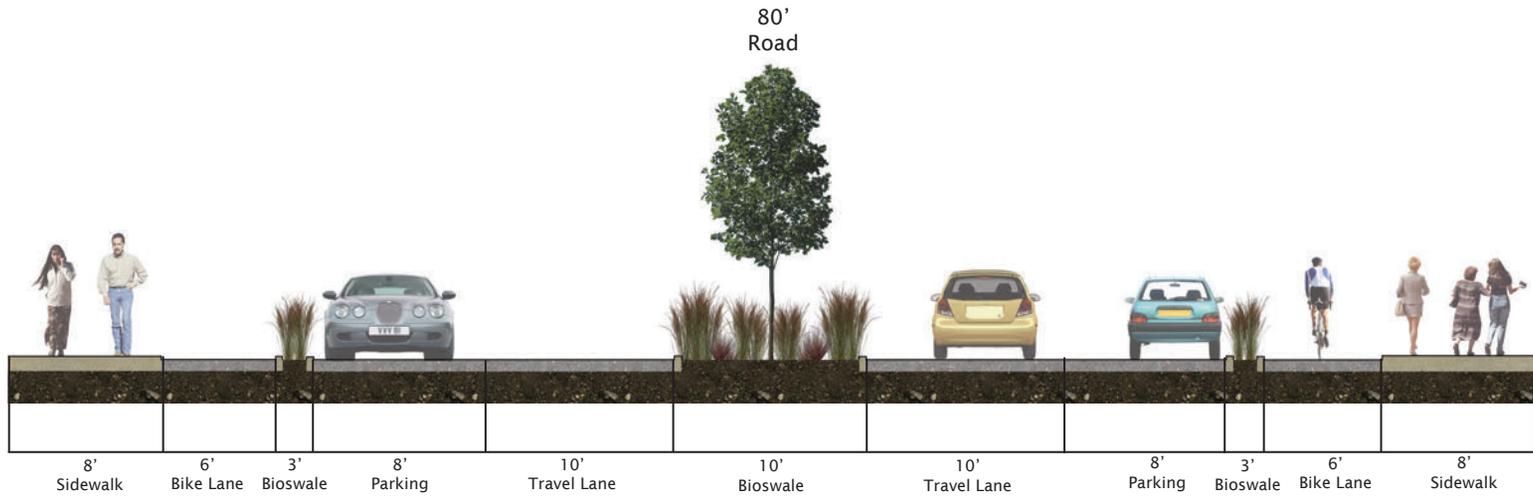






70'
Road





90'
Road

