



Future Needs:

Roadways

Anticipated Development Trends

When trying to gauge where future roadway extensions and/or lane widening projects will be needed, it is necessary to first anticipate and analyze future development. By comparing classifications on the Beaver Creek Land Use Plan with vacant land areas, places that have a higher likelihood for development become evident, as seen in the map to the right.

Based on the map, approximately 1,080.3 acres of predominately vacant land are more likely poised for future development of single family residential, while 306.1 acres are likely for office, 552.2 acres for research and development and 115.3 acres for future retail. Of these 2,053.9 combined acres, 1,101.4 acres or 53.6% are either directly on Indian Ripple Road or Grange Hall Road, or will closely affect an intersection on said roads.

In reality, areas designated on the map to the right for research and development or office will not develop completely for that use. developments of that size and strategic location (i.e. fronting on I-675) will more than likely have ancillary retail and hotels/hospitality type uses as well that will support the major office or R/D center to help keep the area vibrant.

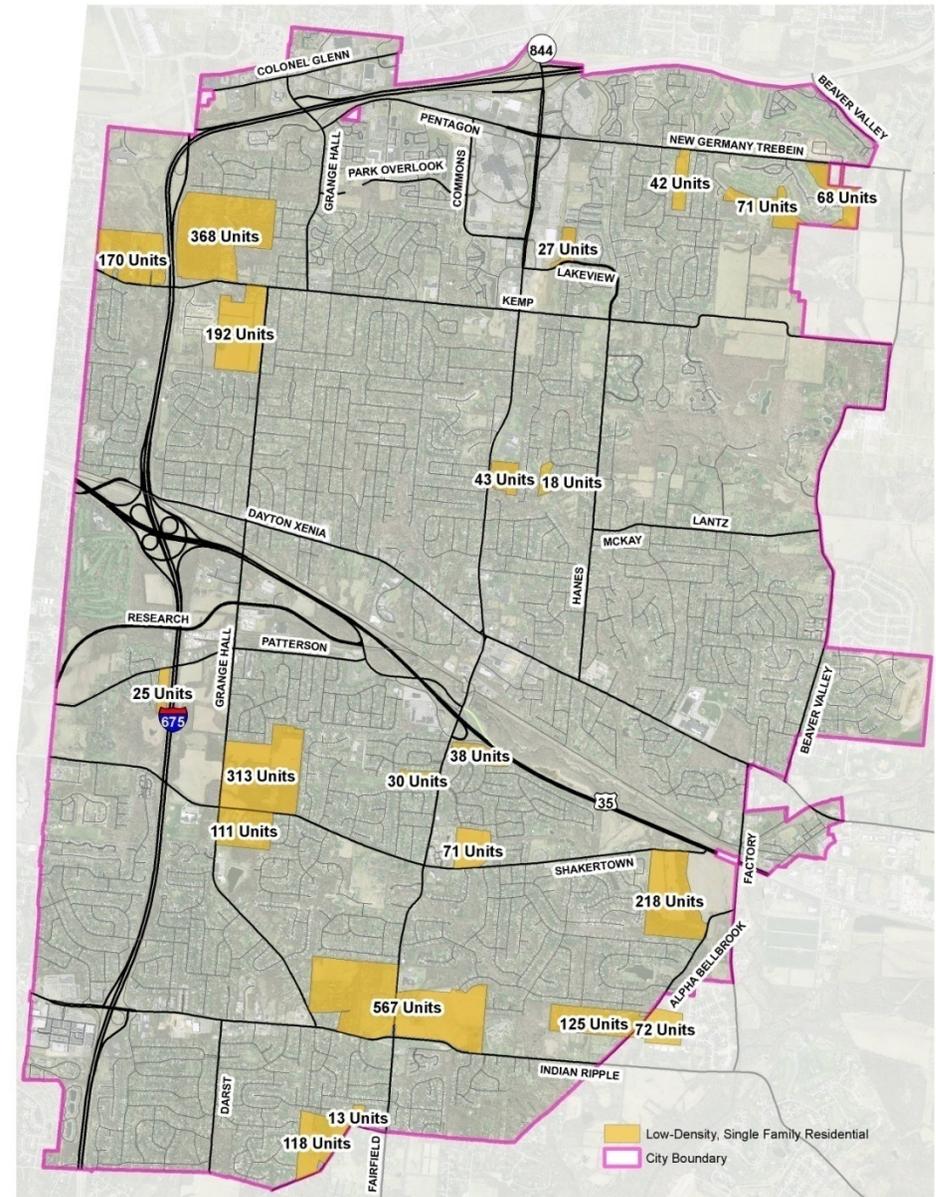


Areas of Higher Potential for Residential

The areas highlighted in yellow on the map to the right are those areas that have the highest potential for development of residential neighborhoods. This is based on current vacancy status and the current classification on the 2009 Amended Land Use Plan. The estimated number of units is based on taking maximum density possible for low-density, single family residential (2.5 dwelling units per acre), and multiplying by the number of acres of the potential development.

As seen on the map, a majority of the anticipated residential development will occur on either Grange Hall Road or Shakertown Road, or close to an intersection with either of those roads.

While there are 2,701 potential units shown on the map to the right, that doesn't necessarily mean that all of these will be constructed by 2030. Over the last 20 years, there have been 3,210 single family units constructed within the City, an average of 161 units per year. If that trend continues, between 2012 and 2020 there is a potential for an additional 1,449 units, and between 2012 and 2030, 3,059 additional units. Since late 2007, the country as a whole has been in the midst of a prolonged economic recession, in which the housing market is one of the worst hit sectors. Over the past three years, an average of 62 units per year has been constructed. If that average continues, then the number of additional units between 2012 and 2020 would be 558, and 1,178 additional units between 2012 and 2030.

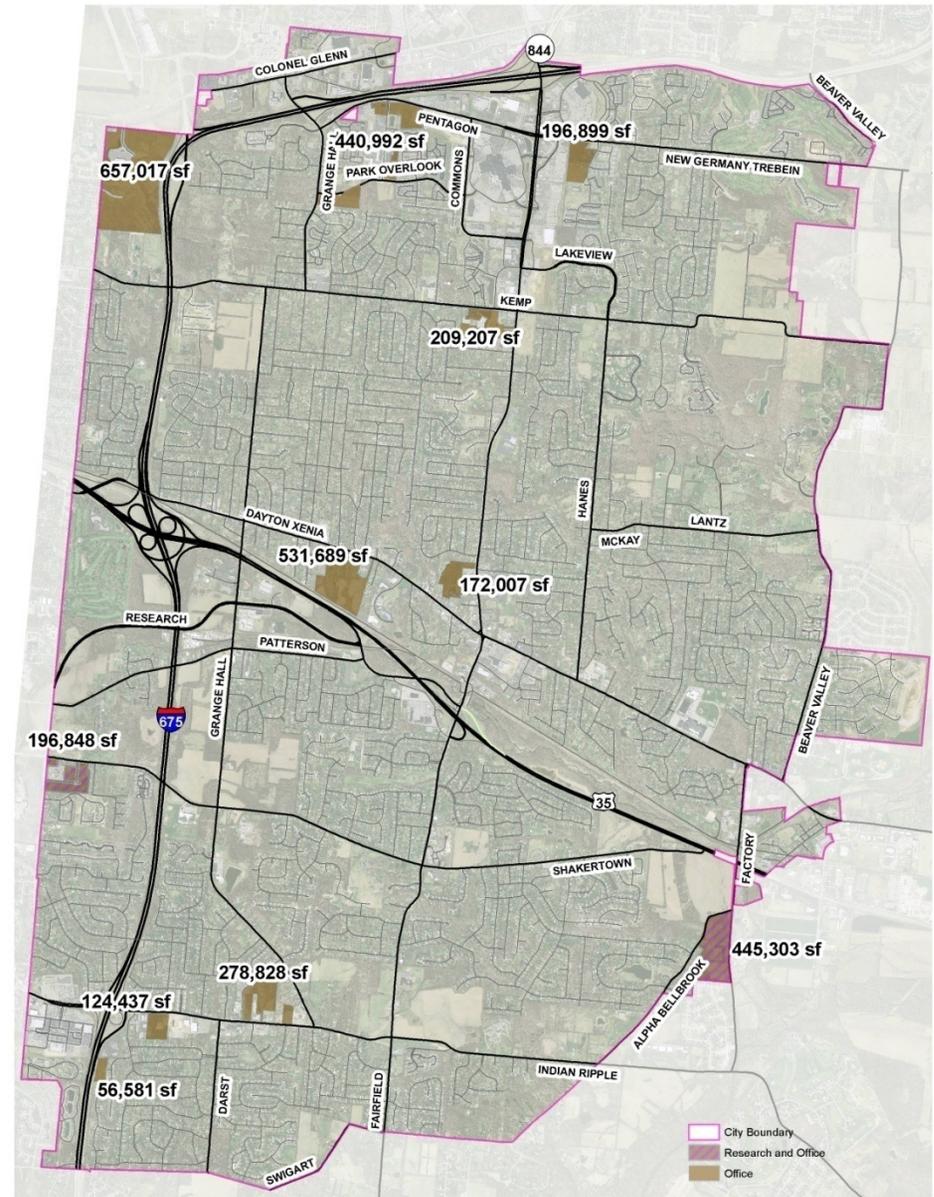


General Areas of Higher Potential for Office

The areas highlighted in brown on the map to the right are those areas that have the highest potential for development of professional office facilities. As with the residential areas, these areas have higher potential based on current vacancy status and the current classification on the 2009 Amended Land Use Plan. The estimated square footage is based on the average square feet per acre in recent office developments, (approximately 10,708 square feet of building per acre) multiplied by the total acreage.

Dayton-Xenia Road and Pentagon Boulevard/New Germany-Trebein Road are the two corridors with the highest potential for office square footage. Both North Fairfield Road and Pentagon Boulevard have high potential for square footage, and have seen upgrades in the form of curb, gutter and sidewalks/sidepaths over the last several years.

While there is potential for up to 3.3 million square feet of office shown in the map above, that doesn't necessarily mean that all, or even most of this will be constructed by 2030, nor should it be implied that this is the maximum square footage that could be, or is allowed to be built on each of the highlighted areas. Over the last 10 years, there has been an average of 85,837 square feet of office space constructed per year. If the trend continues, between 2012 and 2020 there is a potential for an additional 772,537 square feet, and between 2012 and 2030, 1,630,911 additional square feet. Over the last five years, the trend has shown an increase of the annual office construction. with an average of 112,413 square feet of office space constructed per year. If the recent trend continues, a potential 1,011,719 additional square feet could be constructed between 2012 and 2020, and 2,135,851 square feet between 2012 and 2030.



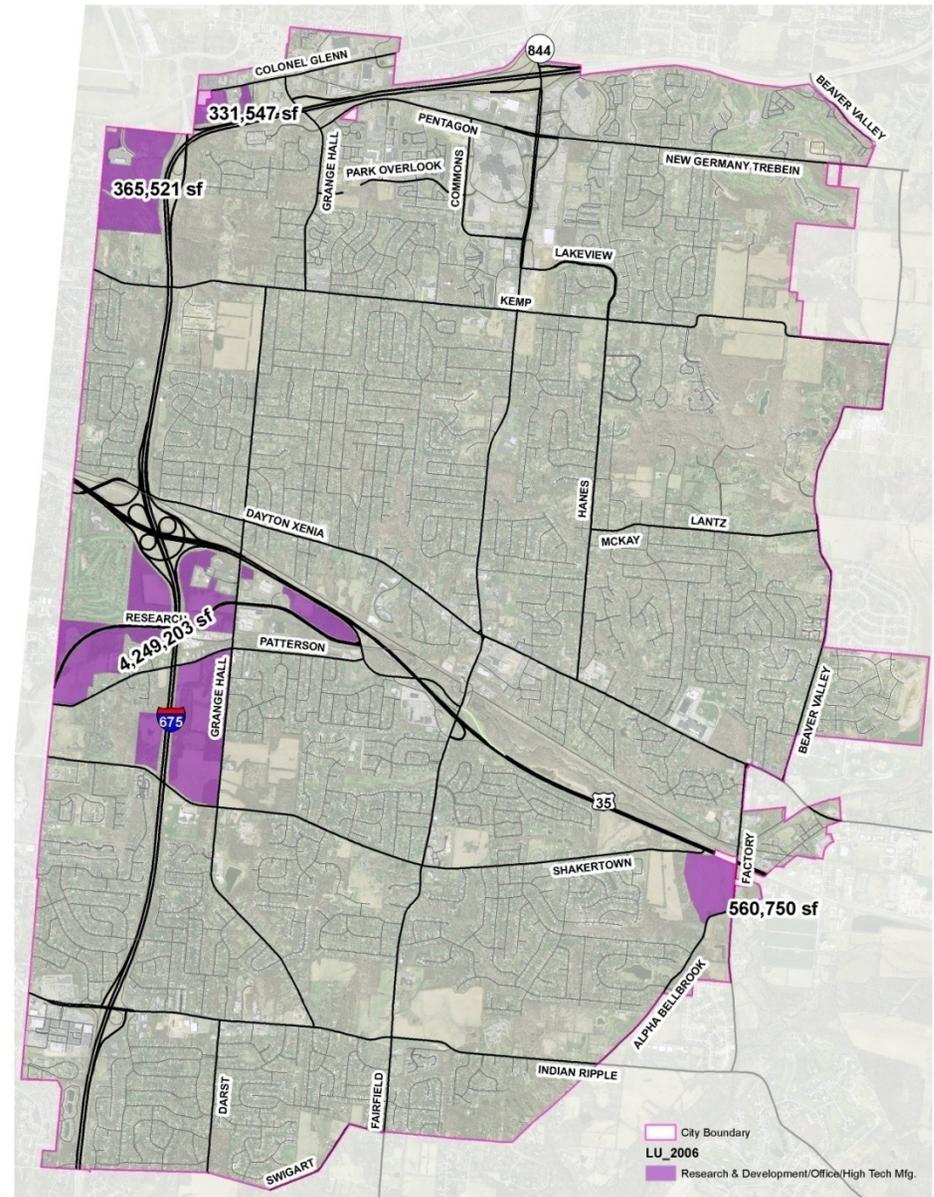
General Areas of Higher Potential for Research

The areas highlighted in purple on the map to the right are those areas that have the highest potential for Research and Development/Office/High Tech Manufacturing facilities. As with the residential and office areas, these areas have higher potential based on current vacant status and the current classification on the 2009 Amended Land Use Plan. The estimated square footage is based on the average square feet per acre of recently construction of research and development projects, (approximately 9,929 square feet per acre) multiplied by the total acreage.

The majority of vacant land available for development of Research and Development/Office/ High Tech Manufacturing facilities is located within Miami Valley Research Park off Grange Hall Road. Mission Point and the Ashford Center, both on Col. Glenn Highway are the second largest areas for potential development, and the Casto Property on Factory Road may have up to 560,750 square feet of Research and Development/Office/High Tech Manufacturing facilities in the future.

While there is 5.5 million potential square feet shown in the map to the right, that doesn't necessarily mean that all of this will be constructed by 2030. Over the last 10 years there has been an annual average of 43,979 square feet of research and development facilities constructed per year. If that trend continues, between 2012 and 2020, there is a potential for an additional 395,815 square feet, and between 2012 and 2030, 835,609 additional square feet. Over the last five years, the trend has shown more office space being constructed, with an average of 87,230 square feet of research and development constructed per year. If the recent trend continues, a potential 785,070 additional square feet could be constructed between 2012 and 2020, and 1,657,370 square feet between 2012 and 2030.

In reality, without a major change in the market for research and development facilities by the private sector, a majority of the vacant land will remain as vacant in 2030.

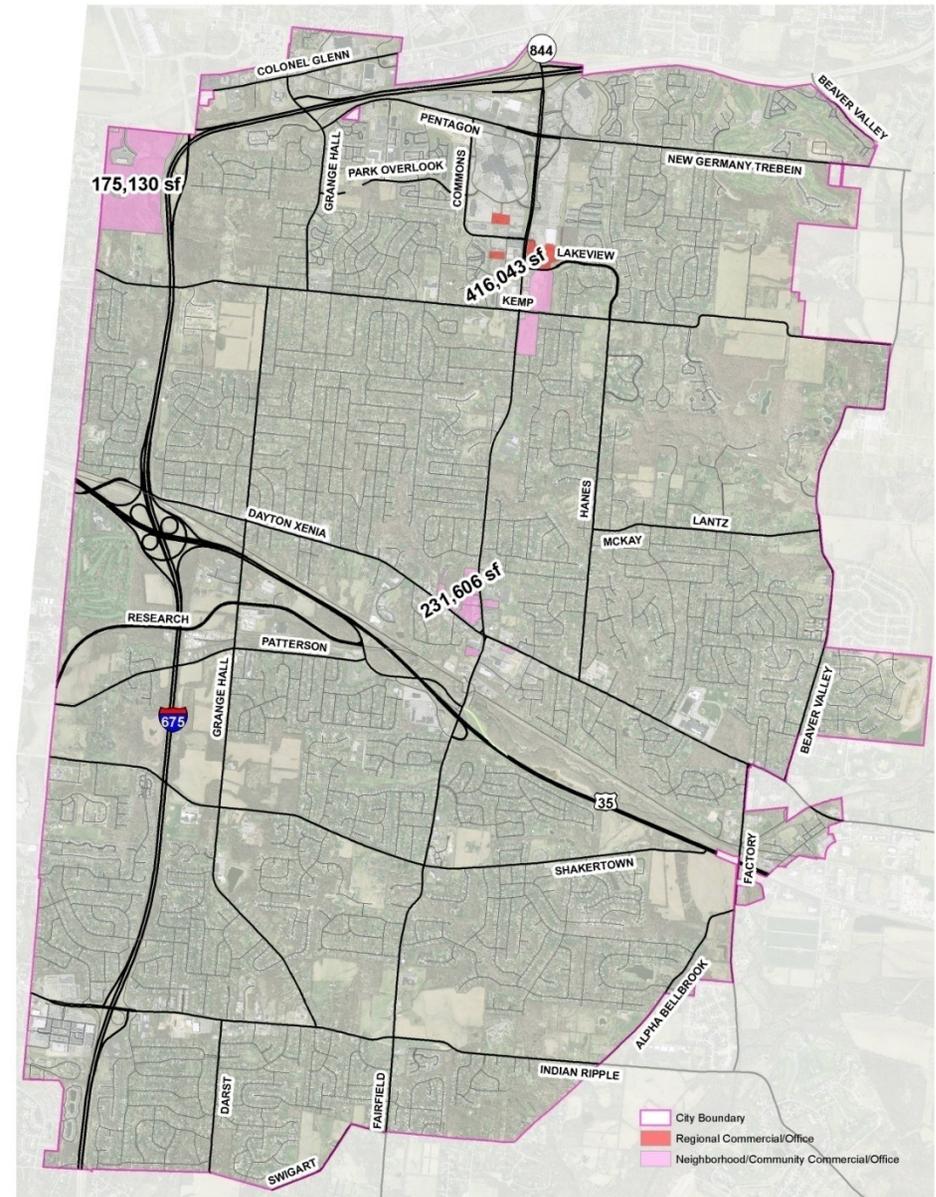


General Areas of Higher Potential for Retail

The areas highlighted in red and pink on the map to the right are those areas that have the highest potential for future retail development. As with the research and development and office areas, these areas have higher potential based on current vacant status and the current classification on the 2009 Amended Land Use Plan. The estimated square footage is based on the average square feet per acre in recent retail developments (approximately 7,136 square feet per acre) multiplied by the total acreage.

The majority of vacant land available for retail development is located south and east of the Mall at Fairfield Commons and northwest of the intersection of Dayton-Xenia Road and North Fairfield Road.

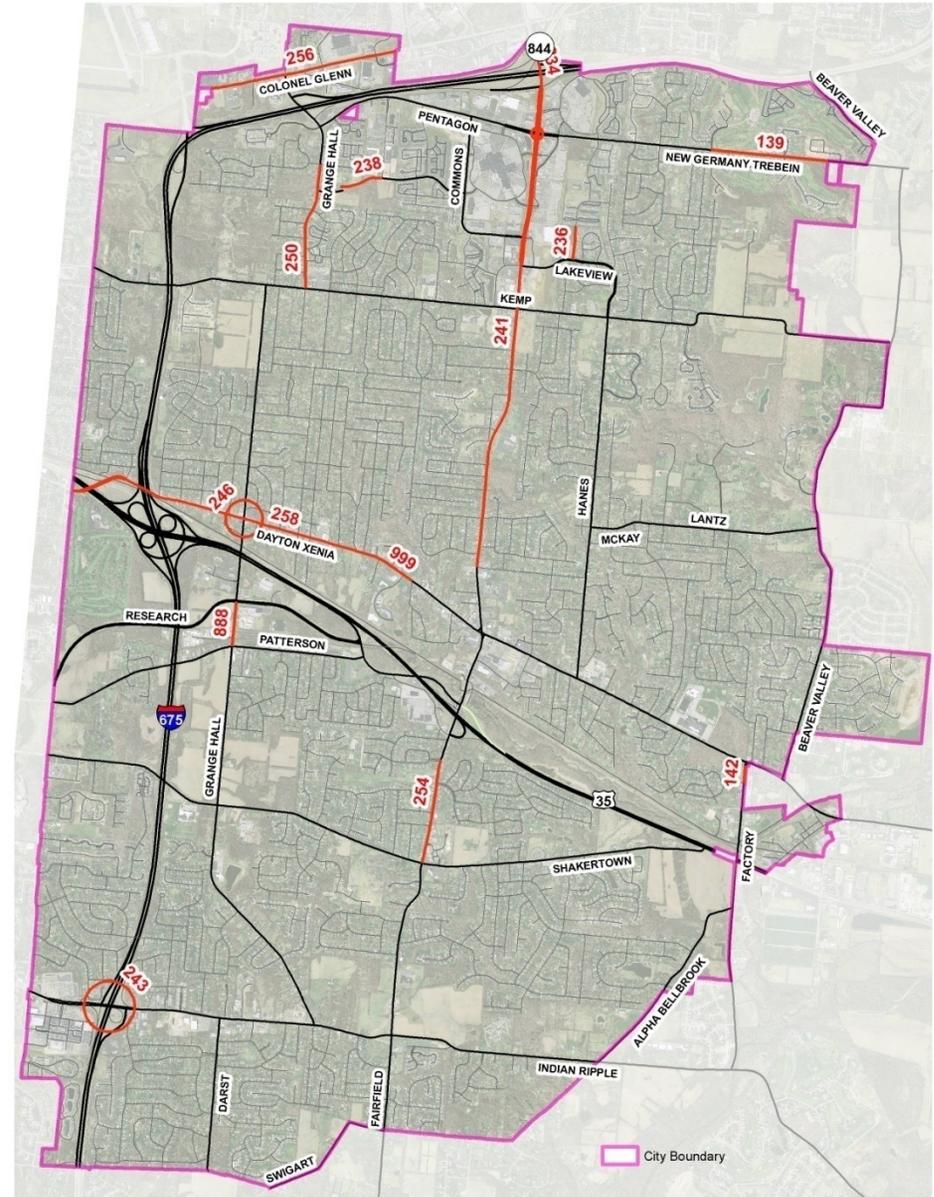
While there are 822,779 square feet of potential retail shown in the map to the right, that doesn't necessarily mean that all of this will be constructed by 2030, nor does it imply these are the only areas where retail can or will go. Over the last 10 years there has been an annual average of 221,570 square feet of retail constructed per year. If that trend continues, between 2012 and 2020 there is a potential for an additional 1,994,130 square feet, and between 2012 and 2030, 4,209,830 additional square feet. Over the last five years, the trend has shown slightly less retail being constructed, with an average of 175,019 square feet of retail constructed per year. If the recent trend continues, a potential 1,575,169 additional square feet could be constructed between 2012 and 2020, and 3,325,357 square feet between 2012 and 2030.



5-Year Capital Improvements Plan

The City of Beavercreek 5-Year Capital Improvement Plan accounts for all infrastructure improvements within the City's corporate limits. This includes the street and road network, storm water drainage facilities, building facilities, and traffic signal installations and systems. The map to the right highlights the major roadway construction projects planned within the City over the next five years. For a project to be in the Capital Improvement Plan, money must be either planned for in the current City budget or be able to be reasonably accommodated in a budget within the next five years. For specific information on project costs and funding sources, see the 5-Year Capital Improvements Plan 2011-2015.

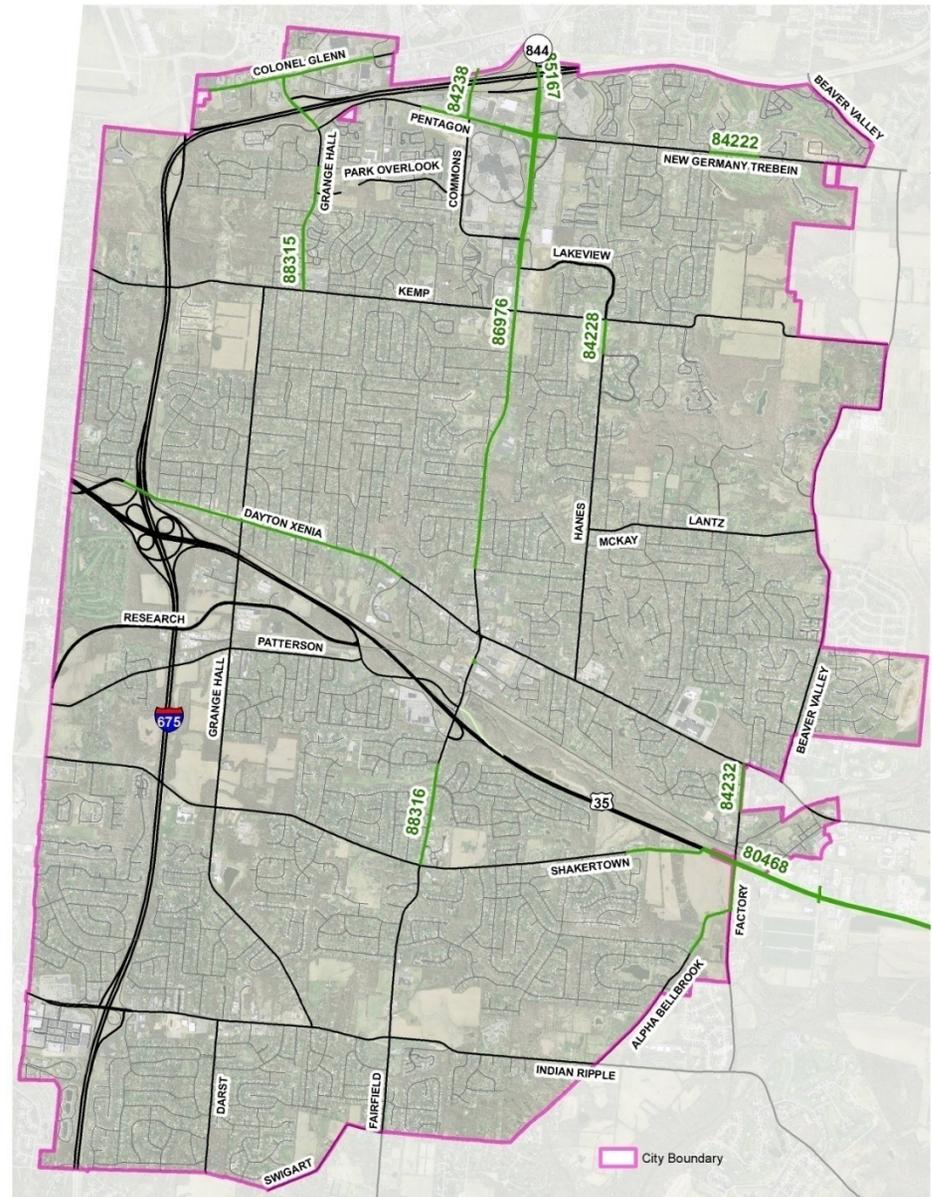
PID	Description	Year
185	Col. Glenn Highway at Grange Hall Rd. safety improvement construction	2012
233	Construction of northbound and southbound double left turn lanes and minor widening on New Germany - Trebein Rd.	2012
241	Expansion of the existing fiber-optic signal system along N. Fairfield Road from Lantz to the I-675 Interchange	2012
256	The construction of fiber optic cable and other traffic signal upgrades along the Col. Glenn Highway Corridor	2012
258	The construction of fiber optic cable and traffic signal upgrades along Dayton-Xenia Rd. to western corporation limit. Project includes the reconstruction of the existing signal at Longview and a new signal at Stedman Dr.	2012
142	Construction work for the widening and sight distance correction project at the intersection of Factory Road and Richmar Dr.	2013
139	Widening of New Germany-Trebein Rd. from Golf Course Blvd. to the east corporation line.	2013
236	Extension of Lillian Ln. to Lakeview Dr.	2013
234	Widening of bridge over I-675 to provide an additional southbound lane	2014
238	Construction of extension of Park Overlook Dr.	2014
243	Installation of landscaping enhancements to the Indian Ripple Rd./I-675 interchange.	2014
239	Construction of extension of Park Overlook Dr.	2015
246	Construction of enhancements to the intersection of Grange Hall Rd. and Dayton-Xenia Rd.	2015
250	Widen Grange Hall Rd. to three lanes between Gardenview Dr. and Kemp Rd.	2015
254	Widen N. Fairfield Rd. to three lanes between Jonathan Dr. and Shakertown Rd.	2015
TBD 888	Provide an 8 ft sidepath along the east side of Grange Hall Road between Patterson Road and SR 835. This will also provide new curb and gutter and storm sewer along the east side of the roadway. A bridge over Little Beaver Creek will be constructed for pedestrian and bicycle traffic.	2016
TBD 999	Widening Dayton-Xenia Road to 3 lanes between Woods Drive and Wallaby Drive to provide a center left turn/two-way left turn lane, an 8' sidepath along the north and south side of Dayton-Xenia Road, improved shoulders, curb and gutter, and storm sewer improvements.	2016



MVRPC - TIP

Miami Valley Regional Planning Commission's (the regional MPO- Metropolitan Planning Organization) TIP or Transportation Improvement Program highlights all projects that have been deemed regionally significant by the MPO, and have been approved for the use of federal and/or state transportation money within the next five years. The projects highlighted on the map to the right are those which are approved in the current TIP and are located either partially or completely in the City of Beavercreek. In order for a project to be in the TIP, it first must be in MVRPC's Long Range Plan.

MVRPC TIP PROJECTS IN BEAVERCREEK 2011-2016		
PID	Description	Year
80468	US35-Shakertown Rd. to Valley/Trebein Rds.-Eliminate at-grade intersections with full movement interchanges at Factory and Valley/Trebein Rds. Preliminary Engineering in 2012, Right of Way Acquisition in 2013, final Engineering in 2014, Construction no earlier than 2016.	2016
84222	New Germany-Trebein Road from Golf Course Drive to 690 feet east of Wyndham Drive-Reconstruction to correct the existing substandard pavement width and to improve sight distance by widening to three lanes.	2013
84228	Hanes Road from 1,000 feet south of Kemp Road to Kemp Road-Widen Hanes Road to create a northbound left-turn lane at Kemp Road, install new mast arm style traffic signal and construct sidewalk along the east side of Hanes Road from existing sidewalk at Hedge Gate Boulevard to Kemp Road.	2012
84232	Factory Road from Nutter Park entrance to Dayton-Xenia Road-Improve sight distance of intersection of Factory Road and Richmar Drive; widen to three lanes from Nutter Park entrance to Dayton-Xenia Road.	2013
84238	I-675 just west of North Fairfield Road-Construct a pedestrian/cyclist bridge over I-675 to provide safe and convenient pedestrian access to Wright State University, Nutter Center, shopping and offices.	2014
84434	Colonel Glenn Highway from 500 feet west of Grange Hall Road to Grange Hall Road-Add an eastbound right turn lane and re-stripe northbound to create a northbound right turn lane.	2012
85167	North Fairfield Road from NB I-675 ramps to SB I-675 ramps-Intersection improvements at ramps and right turn lane to NB I-675 ramp.	2012
86974	Intersection of North Fairfield Road and Beaver Vu Drive-Installation of a new painted mast arm type traffic signal. The signal will be incorporated into the fiber optic closed-loop system that is scheduled to be constructed in 2009 under PID# 78495.	2012
86976	N. Fairfield Road from Lantz Road to I-675; Pentagon Blvd/New Germany-Trebein Road from Royal Gateway to Lillian Lane; Colonel Glenn Highway from Signal Hill Drive to Presidential Drive and Grange Hall Road from Pentagon Blvd. to Colonel Glenn Highway; Dayton-Xenia Road from Research Park Drive to Wildonna Drive-Installation of fiber optic cable. Project also includes connection of 17 intersections to the closed-loop system, installation of cameras, signal head and pedestrian head upgrades to LED, curb ramp upgrades, and the installation of battery backup systems at selected intersections.	2013
88315	Grange Hall Road from Gardenvue Drive to Kemp Road-Widen road to three lanes, including construction of a widened shoulder, bikeway, curb and storm sewer.	2015
88316	North Fairfield Road from Jonathan Drive to Shakertown Road-Widen road to three lanes, including bikeway, curb and gutter and storm sewer.	2015



Projects to add to Long Range Plan

By overlaying MVRPC's TIP and Long Range Plan on the City's 5-Year Capital Improvement Plan, it becomes apparent that many of the improvements that are necessary to facilitate the projected growth areas are already under consideration. However, the southern end of Grange Hall Road is not on any of the three plans. In the future, when Research Park has built hundreds of thousands of square feet of office and Research and Development/Office/High Tech Manufacturing facilities, and the projected 500+ homes are built near the intersection of Indian Ripple and North Fairfield, these two corridors are going to be traveled much more heavily than presently. Not only by the residents of new homes potentially going to work at Research Park, but also trying to get to the Greene Towne Center, onto I-675 or trying to get onto US 35.

The southern end of Grange Hall Road, a small segment of Indian Ripple Road in between the Trinity Nursing Home and North Fairfield Road, as well as the northwest bypass of North Fairfield Road should be added to MVRPC's Long Range Plan, to have the opportunity in the future to be added to the TIP and the City's 5-year Capital Improvement Plan.



Future Roadway Extensions

With the projected residential, office, research and development, and retail growth in the City, as shown on the map on page 27, there will not only be a need to expand existing corridors shown on the previous page, there will be a need to construct new roadway extensions and connectors. These new connectors will not only facilitate new growth, but will help alleviate existing traffic congestion in sensitive areas. Future development projects located adjacent to projects shown on the map to the left will be required to include the construction of the portion of roadway that fronts their projects, unless otherwise exempted by City Council from doing so.

The locations and paths of future roadways extensions shown should be considered approximate. The final design and exact locations will be based on recommendations by City Staff during the planning and engineering phase of the project. The final design will consider such variables as topography, natural impediments (i.e. rivers, floodways, springs), as well as existing private property acquisitions/right-of-way needed.

