

# North Atherton Redevelopment

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For use by Ferguson Township

# Table of Contents

<b>Table of Contents</b>	<b>2</b>	<b>Urban Access</b>	<b>32</b>
<b>Introduction</b>	<b>4</b>	Bikes	32
Scope and Project Area	4	Current	32
Future Studies	4	Near Term	33
<b>Urban Fabric</b>	<b>6</b>	Long Term	33
Street Network and Abutting Buildings	6	Transit	37
Four Street Types	6	Current	37
Street Space Allocation	9	Near Term	38
Street Space Reallocation	16	Long Term	40
Street Network Phasing	19	Transit Stop Locations	42
<b>Place Making</b>	<b>20</b>	Traffic Management	44
Districts	20	Current & Near Term	44
<b>Living Spaces</b>	<b>24</b>	Long Term	44
Redevelopment	24	Parking	46
Zoning	24	<b>Conclusion</b>	<b>48</b>
Affordability	25		
Development Phasing	25		
Building Heights	27		
Civic Spaces	29		
Green Space	29		



# Introduction

The North Atherton Corridor is one of the fastest growing, most successful commercial corridors in the Centre Region. Ferguson Township controls only a small segment of that corridor. This plan aims to design a more inviting, more diverse, and more sustainable North Atherton for living, working, and recreating.

The North Atherton Corridor has always been dominated by cars: Atherton Street was a part of the Lakes-to-Sea Highway; connecting Cleveland, OH and Erie, PA to Atlantic City, NJ<sup>1</sup>. One of the first businesses on the Atherton corridor was a drive-in movie theater<sup>2</sup>. Park Forest Village, connected to State College by Atherton Street, was one of the first conventionally suburban developments in the nation<sup>3</sup>. Blue Course Drive was built to allow cars to travel unimpeded around the built-up area of State College. After a century of car-dependent development, cities across the country are beginning to see and

fix the problems with their suburbs. Ferguson Township should be at the forefront of this movement back to lively, well connected urban types of development.

**This plan envisions a dense, urban environment in which diverse people live and play, with access to the rest of the region.**

## Scope and Project Area

This study proposes land use, marketing, and transportation recommendations to create a lively, urban project area. The project area is generally formed as the North Atherton agglomeration of non-residential zoning lots in the current Ferguson Township Code of Ordinances. The project area is where all redevelopment and the bulk of transportation improvements would take place, though transportation improvements stretch past the project area boundary to connect to the rest of the region. This study discusses two time ranges: short range to be completed in multiple years and long range to be completed in multiple decades.

## Future Studies

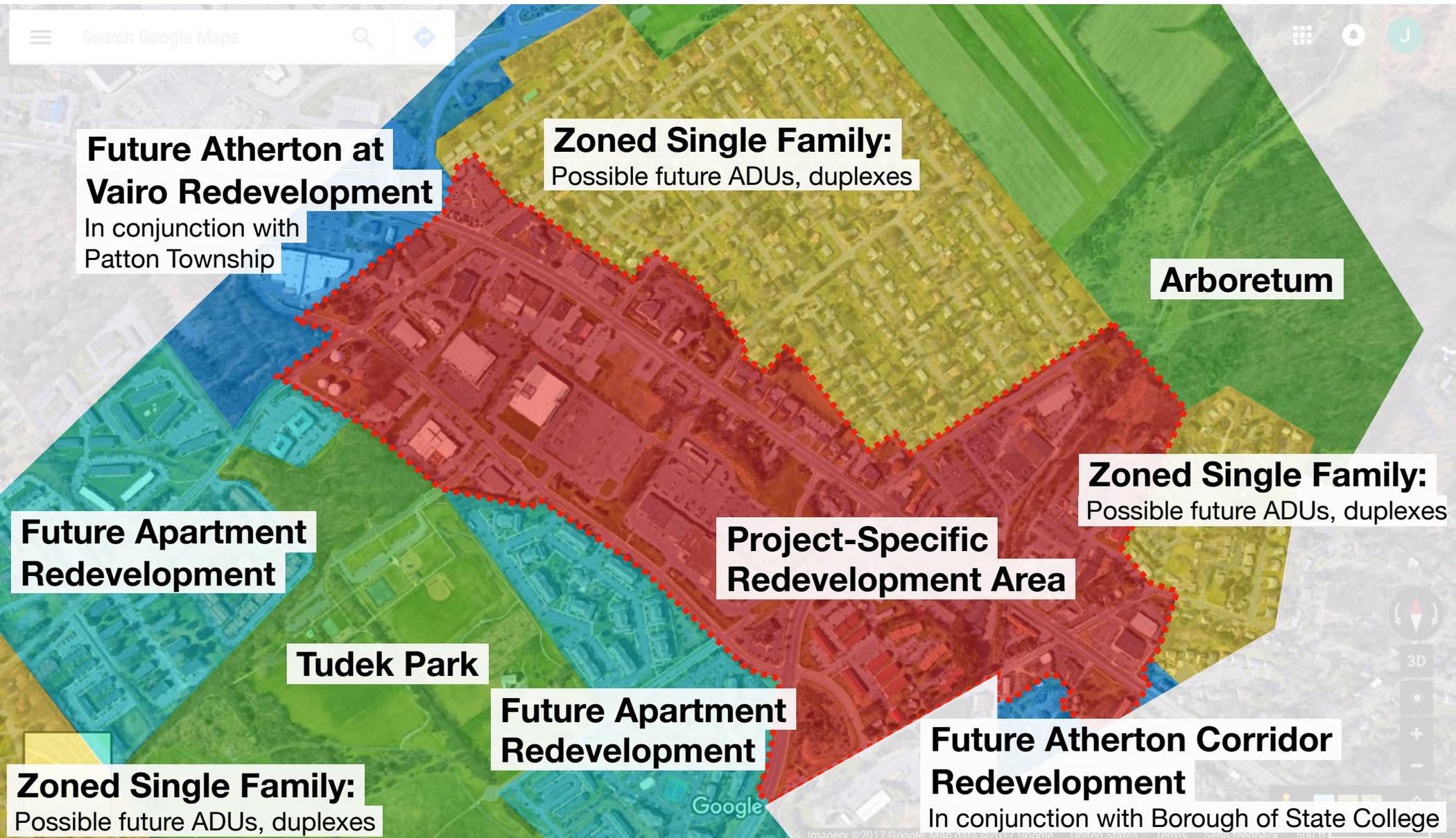
The project area is only a small part of the larger Atherton corridor, all of which was built with outdated development practices. Adjacent future development studies should include:

- Atherton at Vairo: including North Atherton Place, other associated strip malls, and the Vairo Blvd transit corridor.
  - Atherton at College Heights: upzoning immediately along Atherton Street to increase use of high-frequency transit through College Heights.
  - Redevelopment of the corridor farther North.
  - Redevelopment of various apartment complexes along the corridor.
  - Transition of adjacent single family neighborhood zoning codes to allow accessory dwelling units, duplexes, triplexes, and eventually row homes.
- Redevelopment of this project area and future areas will increase access to opportunities in the project areas and the region through investments in transit and alternative transportation infrastructure.

<sup>1</sup> Kerstetter, Rich. "Atherton Street: The Automobile Changes the Street Forever." [StateCollege.com](http://StateCollege.com), [StateCollege.com](http://StateCollege.com), 24 July 2011.

<sup>2</sup> [Keystone Aerial Surveys, Inc. County Aqg, Roll 611, Photo 8, Index 3. Penn Pilot, USDA Agricultural Stabilization and Conservation Service](http://Keystone Aerial Surveys, Inc. County Aqg, Roll 611, Photo 8, Index 3. Penn Pilot, USDA Agricultural Stabilization and Conservation Service), 3 July 1971.

<sup>3</sup> [Patton Township. Township History](http://Patton Township. Township History). Patton Township, Patton Township.



MAP 1: FUTURE STUDIES. ADU: ACCESSORY DWELLING UNIT.

# Urban Fabric

## Street Network and Abutting Buildings

### Four Street Types

The current and future streets within the project area have been divided into four street types based on their location and the type of urban space each location begets. They are listed below from most significant to least:

**Main Streets:** The primary retail corridors in each neighborhood. Filled with shops and activity.

**Secondary Streets:** Retail corridors not in the network of primary streets. Still lively and filled with shops.

**Auxiliary Streets:** Additional streets with fewer storefronts and entrances for offices and residences.

**Support Streets:** Streets meant to facilitate loading and parking but also meant to have an intimate feel for outdoor seating or public art.

### Keys to good street design:

These general rules will create better urban streetscapes.

- Generally, a two lane road can conservatively throughput 10,000 cars per day<sup>4</sup>. However, taking away lanes on a congested street will not increase congestion anywhere because people will decide to drive at different times and to live in different places<sup>5</sup>.
- Narrower lanes are safer. Drivers will drive slower when there are potential obstructions they will have to avoid. Ten foot lanes should be standard, with 11 foot lanes possible on roads with high bus or truck traffic<sup>6</sup>.
- Parallel parking, bike lanes, and other buffer spaces should shield as much sidewalk as possible from car travel lanes so pedestrians can feel safe. Where outdoor seating areas abut travel lanes, semi-permeable walls, like planting walls or wooden slat fences, should separate the two.
- Street trees should be installed wherever possible to provide shade, reduce the heat island effect, handle storm water runoff, slow cars by acting as obstacles<sup>7</sup>, and more.
- Generally, NACTO design guides ([nacto.org/publications/design-guides/](http://nacto.org/publications/design-guides/)) for urban street design provide optimal street layouts, which can be adapted for the project area. For example, sidewalk widths and placement of protected bike lanes are included. In addition to NACTO guidelines, precedent in Downtown State College was used in this study to inform layouts.

<sup>4</sup> Romana, Manuel and Hernando, David. "Obtaining a Maximum AADT Sustained by Two-Lane Roads: an Application to the Madrid Region in Spain." *Transportation Research Procedia*, Elsevier B.V., 18 April 2016.

<sup>5</sup> Litman, Todd. "Generated Traffic and Induced Travel." *Victoria Transport Policy Institute*, 18 July 2017.

<sup>6</sup> Petritsch, Theodore. "The Influence of Lane Widths on Safety and Capacity: A Summary of the Latest Findings." *Sprinkle Consulting, Inc., NACTO*.

<sup>7</sup> Naderi, Jody Rosenblatt, Byoung Suk Kweon, and Praveen Maghelal. "The Street Tree Effect and Driver Safety." *ITE Journal*, 2008.



**MAP 2: IMPLEMENTATION OF FOUR STREET TYPES**

	<b>Example Downtown</b>	<b>Target Use</b>	<b>Abutting building frontage use</b>	<b>Sidewalk Width</b>
<b>Main Streets</b>	Allen St, College Ave	Known regionally for an individual specialty (clothes shopping, professional services, etc)	Almost completely retail/entrances to uses above	17'
<b>Secondary Streets</b>	Pugh St, Beaver Ave	Known as a neighborhood center	Mostly commercial/entrances to uses above	17'
<b>Auxiliary Streets</b>	Locust Ln, S Burrowes St	Local streets residents identify as 'their street'	Commerical/entrances to uses above where possible; public art	12'
<b>Support Streets</b>	Calder Way, McAllister Alley	Collector of uninviting necessities (trash, loading, etc.), street for music venues and other hidden gems	Supporting functions: loading, parking, etc.; public art	12'

**CHART 1: EXPLANATION OF FOUR STREET TYPES**

Compared to the super blocks of the suburban development currently in the project area, the block sizes and distances between intersections look quite small. However, the proposed

block sizes are similar to if not bigger than other urban environments, including rigidly-planned Downtown Washington DC, not-at-all-planned Downtown Boston, and small-town-

feeling Downtown State College, all three of which are inviting spaces for pedestrians.

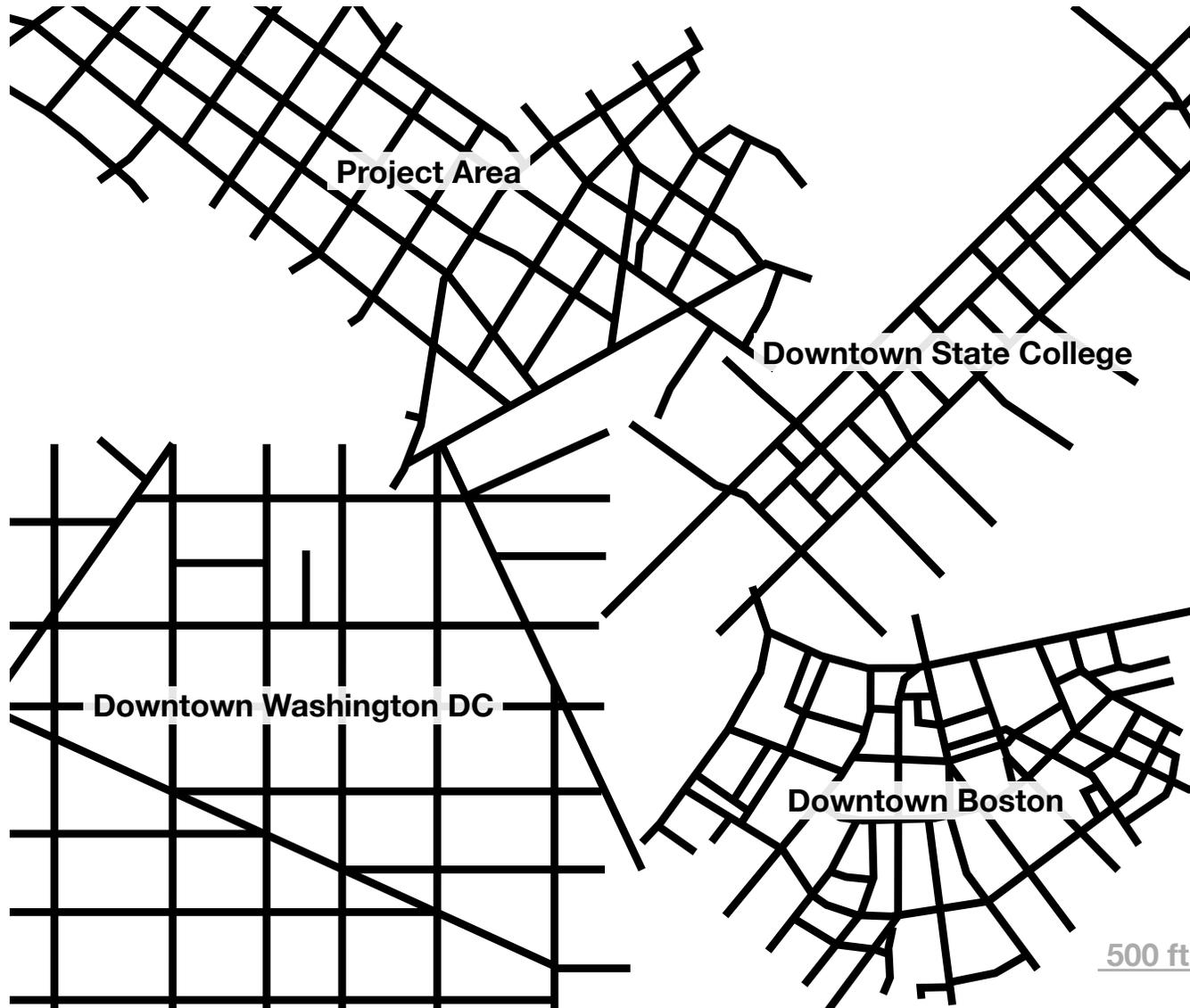


DIAGRAM 1: BLOCK SIZE COMPARISON

## Street Space Allocation

In suburban areas, much of the space on a road right-of-way is used for car throughput. To create a more urban environment, street space must be more evenly distributed to cars, transit, bikes, pedestrians, and other users. New streets can be planned to account for alternative transportation, and existing streets can usually be restriped without the need for costly construction projects to alter the curb dimensions. Curb bulb-outs are often the exception, but these can be striped, then constructed later. Some typical road layouts are diagrammed:

**Main and Secondary Streets:** Most streets would have only two vehicle lanes, including at intersections, which makes crossing the street easier for pedestrians and slows drivers. Narrow roads should be easy to sell politically since the streets aren't carrying traffic now, so fears of increased traffic would be minimal. Parallel parking would be provided on both sides of the street to protect the sidewalks. This

space should also be used for bike parking and as outdoor seating for nearby restaurants or other gathering spaces, as seen in Park(ing) Day installations around the country ([parkingday.org](http://parkingday.org)). Sidewalks would be

17 feet wide between intersections, and at intersections bulb-outs would increase the sidewalk width to 24.5 feet.

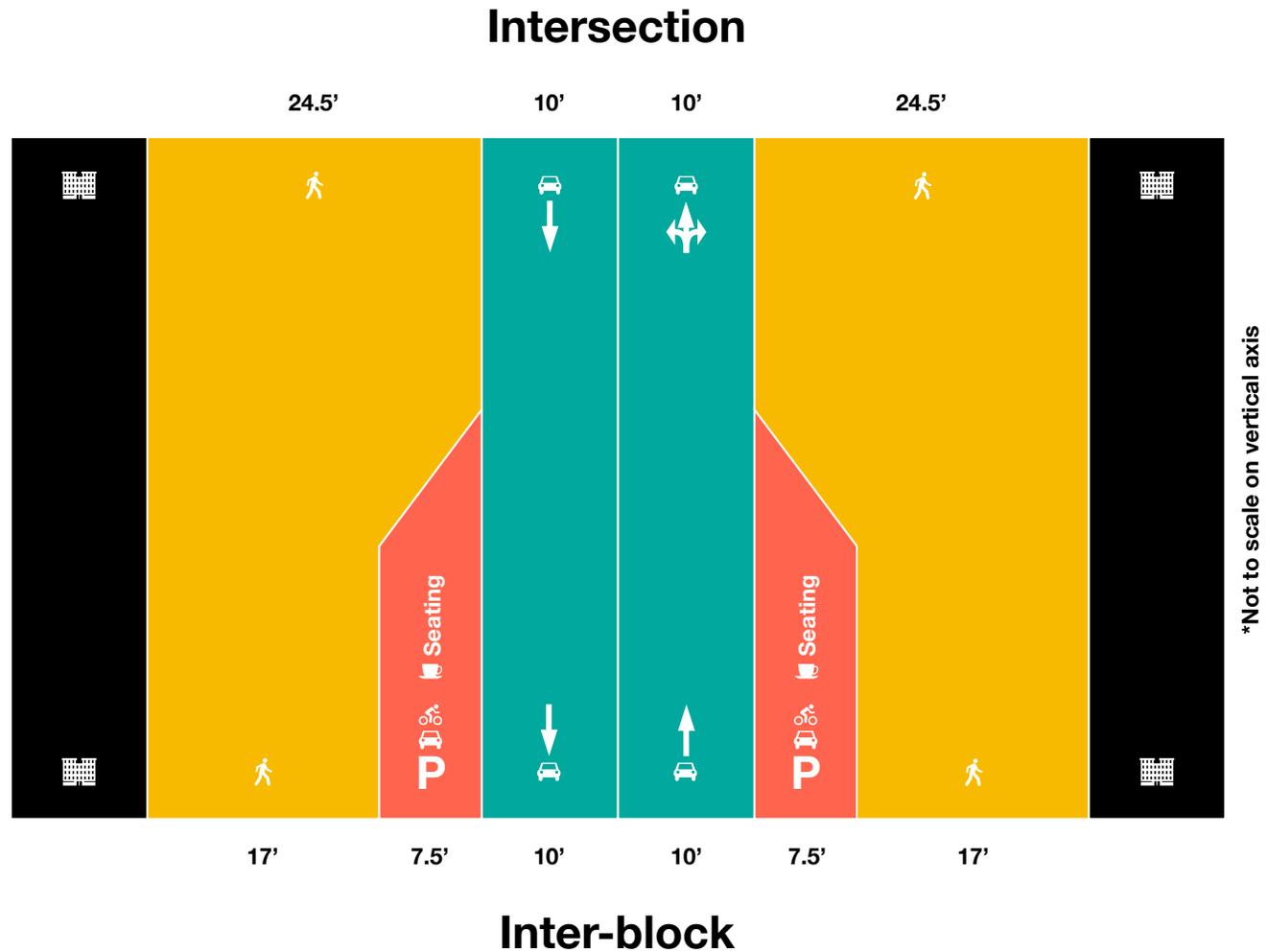
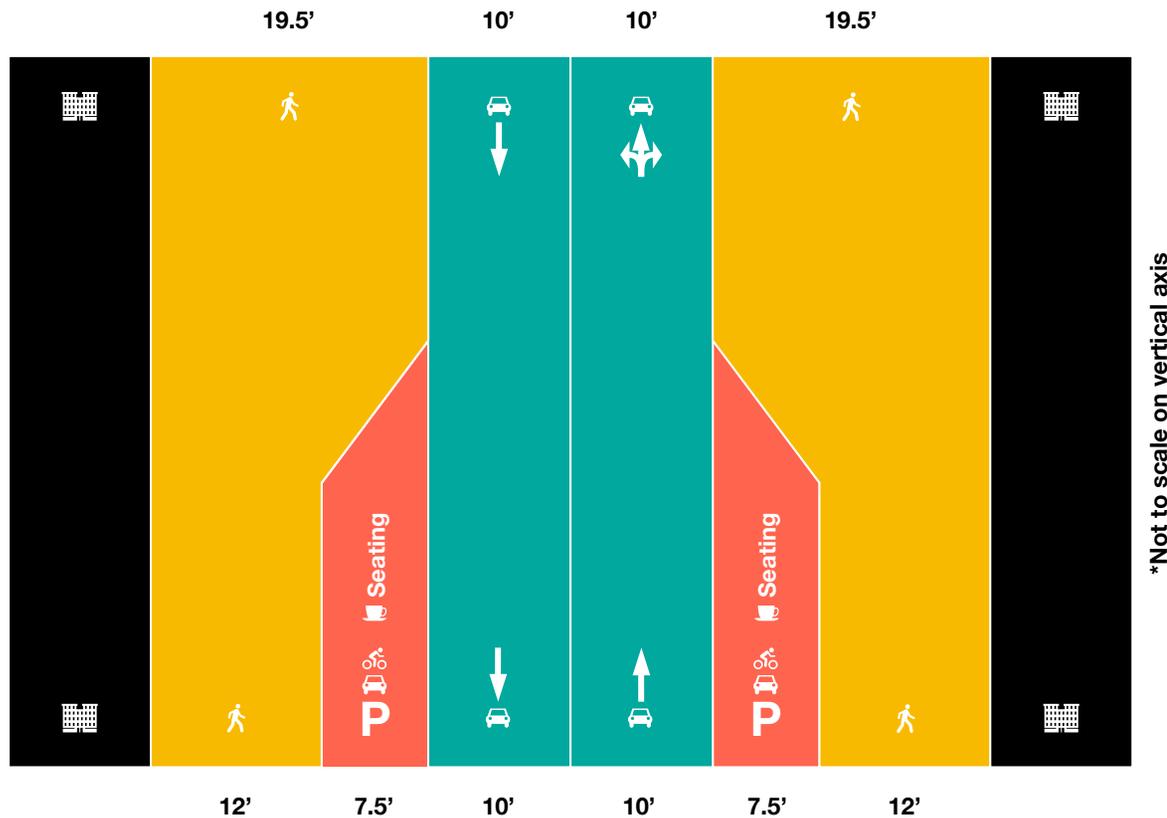


DIAGRAM 2: MAIN AND SECONDARY STREETS

**Auxiliary Streets:** These streets would be laid out similarly to main and secondary streets. However, sidewalks would generally be 12 feet wide between intersections and 19.5 feet at intersection bulb-outs. Sidewalks

which are too wide can make streets feel devoid of life, therefore making them feel less safe. Outdoor seating should be allowed on auxiliary streets but would be less common than on main or secondary streets.

## Intersection

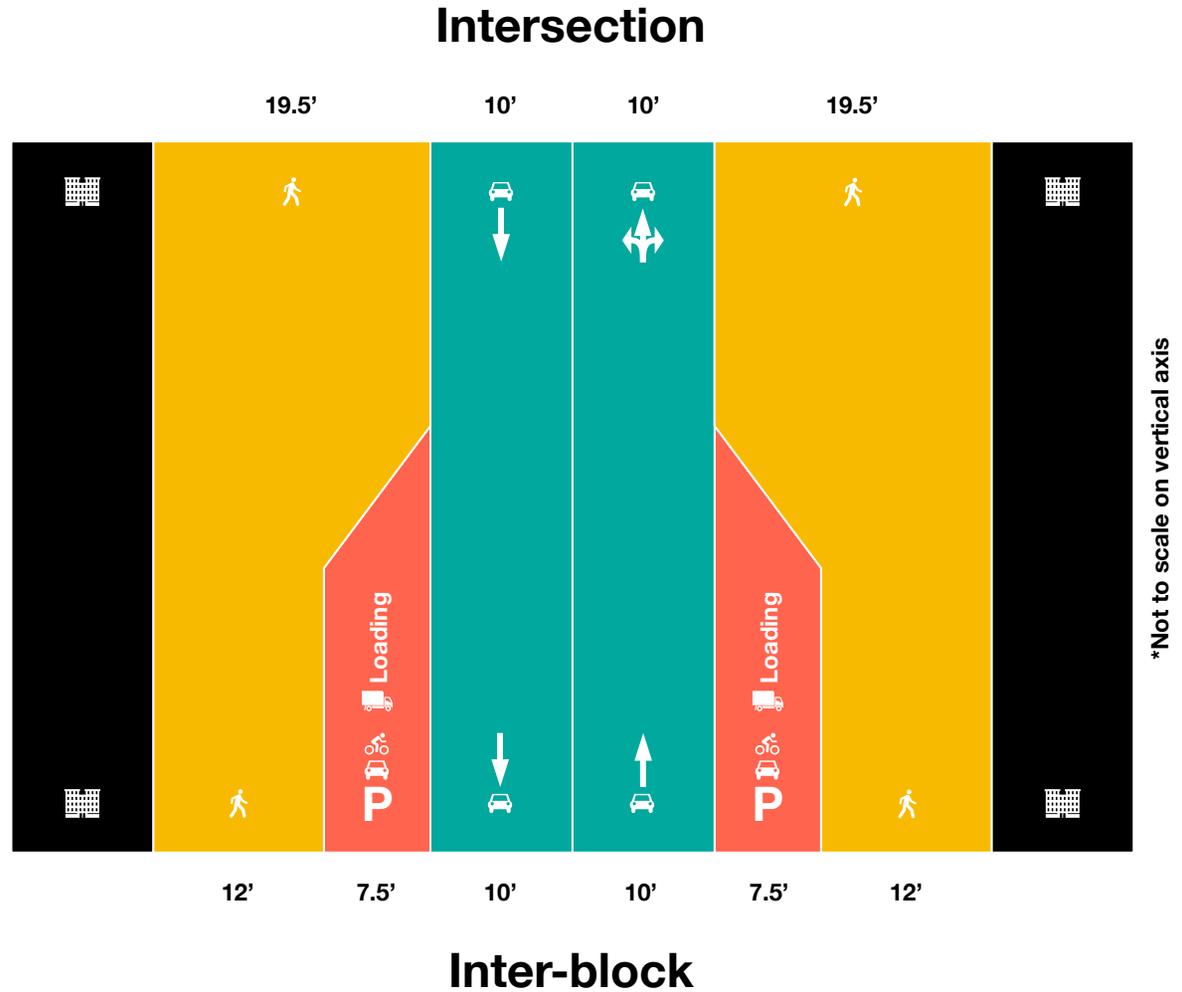


## Inter-block

DIAGRAM 3: AUXILIARY STREETS

**Support Streets:** These street layouts would be almost identical to auxiliary streets, but loading zones would be included in parallel parking lanes. Trucks should be encouraged if not

obliged to use support streets for loading and unloading. Additionally, long semi-trailer trucks should be discouraged in favor of smaller, far safer and less obtrusive box trucks.



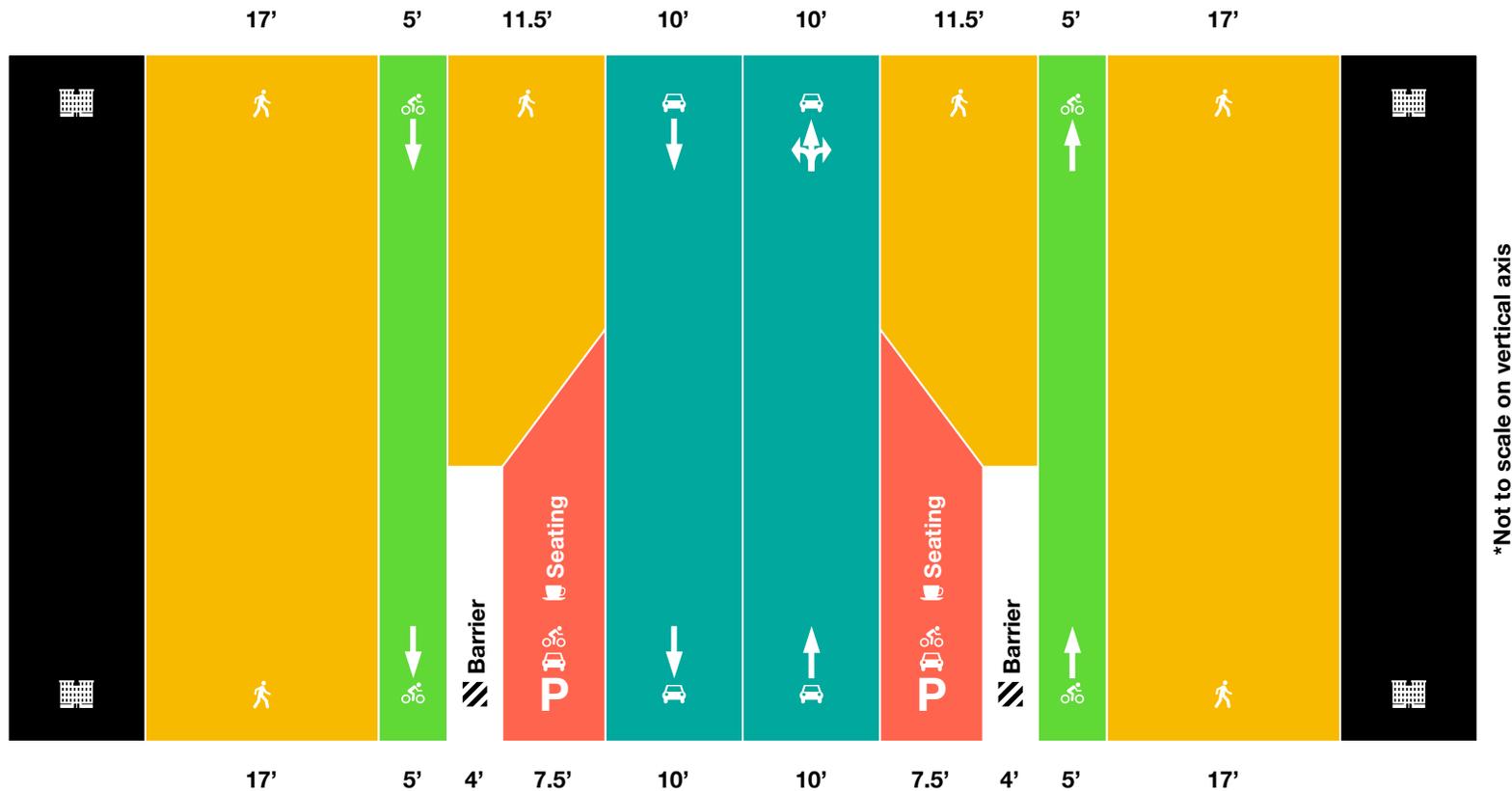
**DIAGRAM 4: SUPPORT STREETS**

**Main and Secondary Streets with Protected Bike Lanes:** In addition to other standard elements, five foot bike lanes would be added between each sidewalk and its adjacent parallel parking lane, with a four foot buffer

between the bike and parking lanes. The buffer would include some type of barrier to exclude vehicle traffic from the bike lane: for example a raised curb or flexible bollards. The bike lanes would cut through the sidewalk bulb-

outs at intersections, making islands for pedestrians waiting to cross.

## Intersection



\*Not to scale on vertical axis

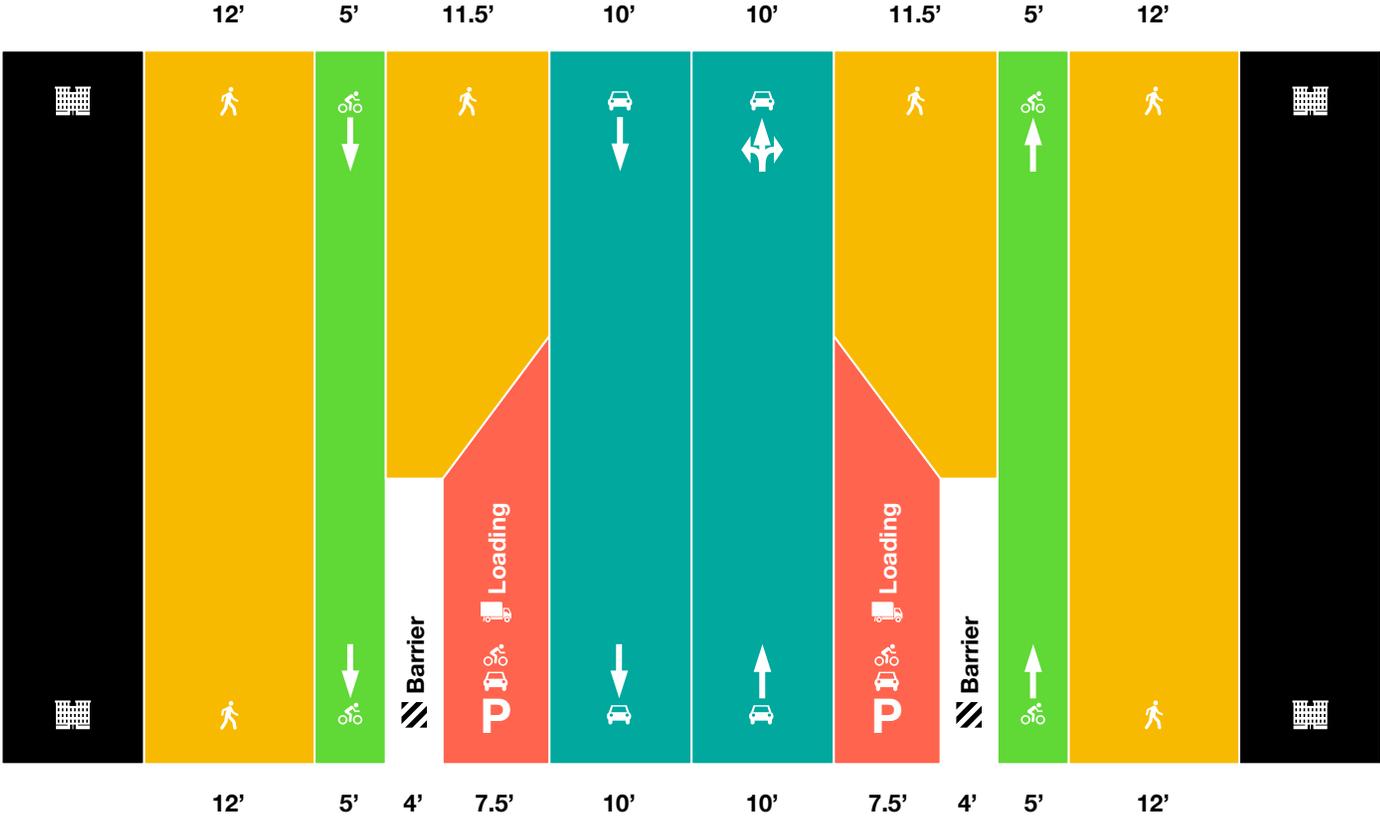
## Inter-block

**DIAGRAM 5: MAIN AND SECONDARY STREETS WITH PROTECTED BIKE LANES.** BARRIER COULD BE A RAISED CURB OR FLEXIBLE BOLLARDS.

**Support Streets with Protected Bike Lanes:** These streets would be the same as main and secondary streets with protected bike lanes with the narrower sidewalks and loading zones of support streets. Barriers would need

to be spaced far enough from one another that truck loading carts could pass through them, but no wider so loading trucks couldn't park in the bike lane.

### Intersection



\*Not to scale on vertical axis

### Inter-block

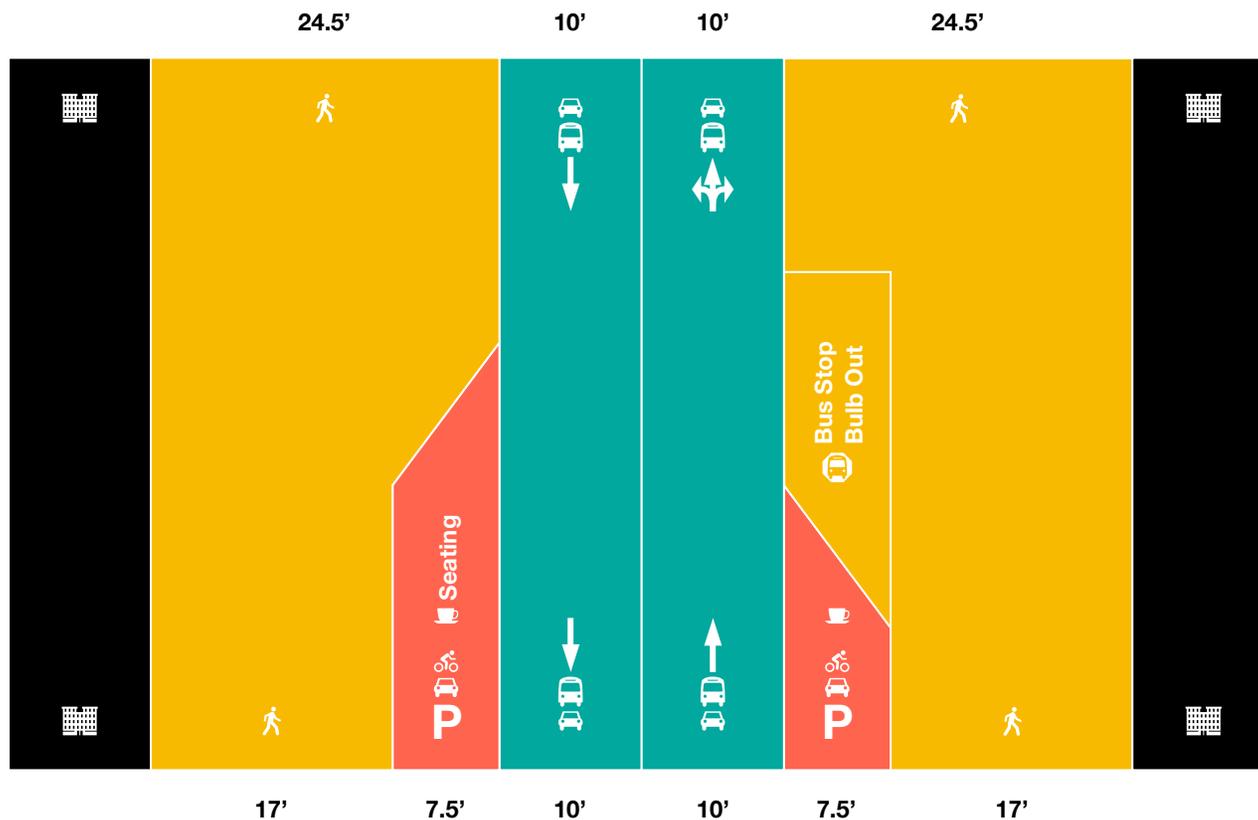
**DIAGRAM 6: SUPPORT STREETS WITH PROTECTED BIKE LANES.** BARRIER COULD BE A RAISED CURB OR FLEXIBLE BOLLARDS.

**Transit Corridor, Initial:** The transit corridor would be almost identical in layout to other main streets, aside from extended bulb-outs at intersections with bus stops. These bulb-outs should be at least 60 feet long to allow for a

full articulated bus to load or two 40 foot buses to load in a pinch. Bus stops should not be in pull-offs, as merging back into travel lanes slows travel times. The street should be constructed without a height difference

between the street and the sidewalk, allowing for future change:

## Intersection



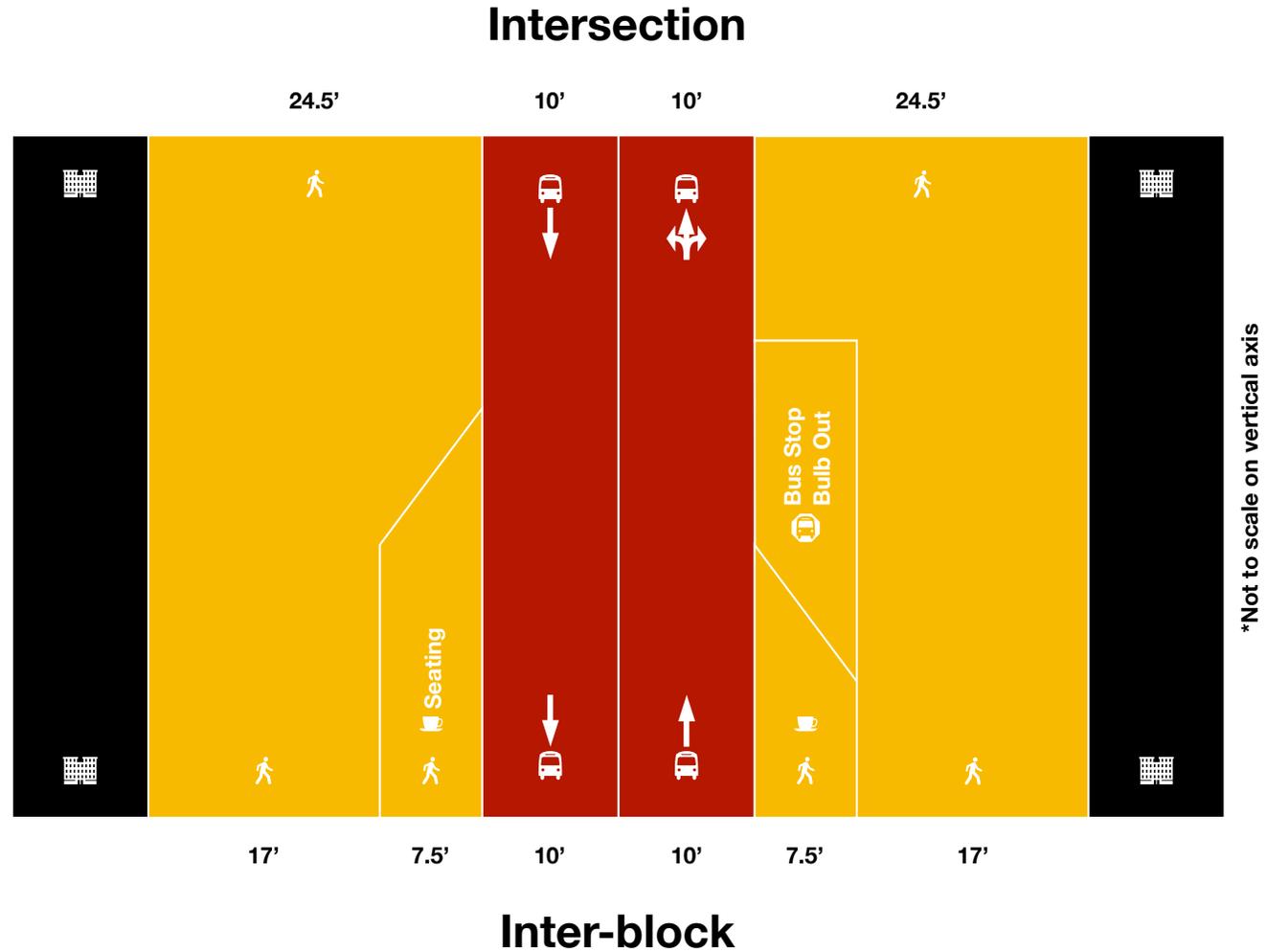
## Inter-block

DIAGRAM 7: TRANSIT CORRIDOR, INITIAL

**Transit Corridor, Aspirational:**  
 Eventually, enough transit ridership through the corridor could necessitate bus lanes. No-longer-necessary parking lanes could be used as widened sidewalks and for outdoor

seating. A street without level changes between street and sidewalk would allow for an easy transition of the parking lane from a place for cars to a place for people. An intermediate step before bus-only lanes might be right-

turn-only restrictions at all intersections for cars, which would dis-allow through traffic. This is similar to the restrictions on King Street in Toronto, which are meant to allow streetcars to travel faster along the street<sup>8</sup>.



<sup>8</sup> Kuperman, David. "King Street Transit Pilot." Toronto, City of Toronto, 2017.

**DIAGRAM 8: TRANSIT CORRIDOR, ASPIRATIONAL**

## Street Space Reallocation

Existing Streets within the project area would be designed differently than new roads because of existing curb-to-curb widths and traffic volumes:

**Atherton Street:** With 35,000 to 40,000 cars per day, maintaining four lanes of through traffic is prudent if the township would like the current amount of car throughput to continue. However, because driveways would be

eliminated, the center turn lane could be removed between intersections. This, in addition to narrower, 10 foot travel lanes, would allow for parallel parking on both sides of the street. Otherwise, the street would be

## Intersection

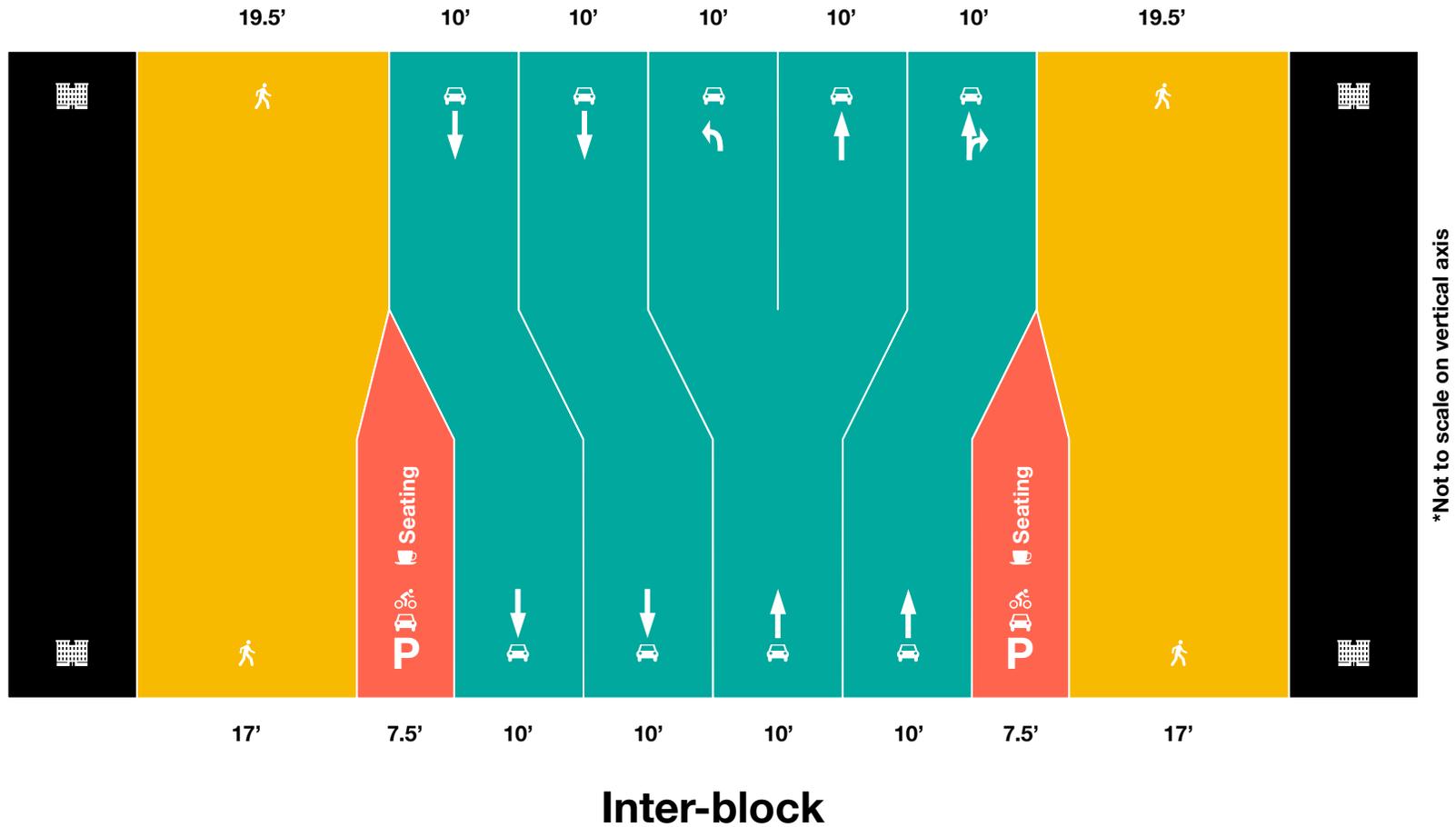
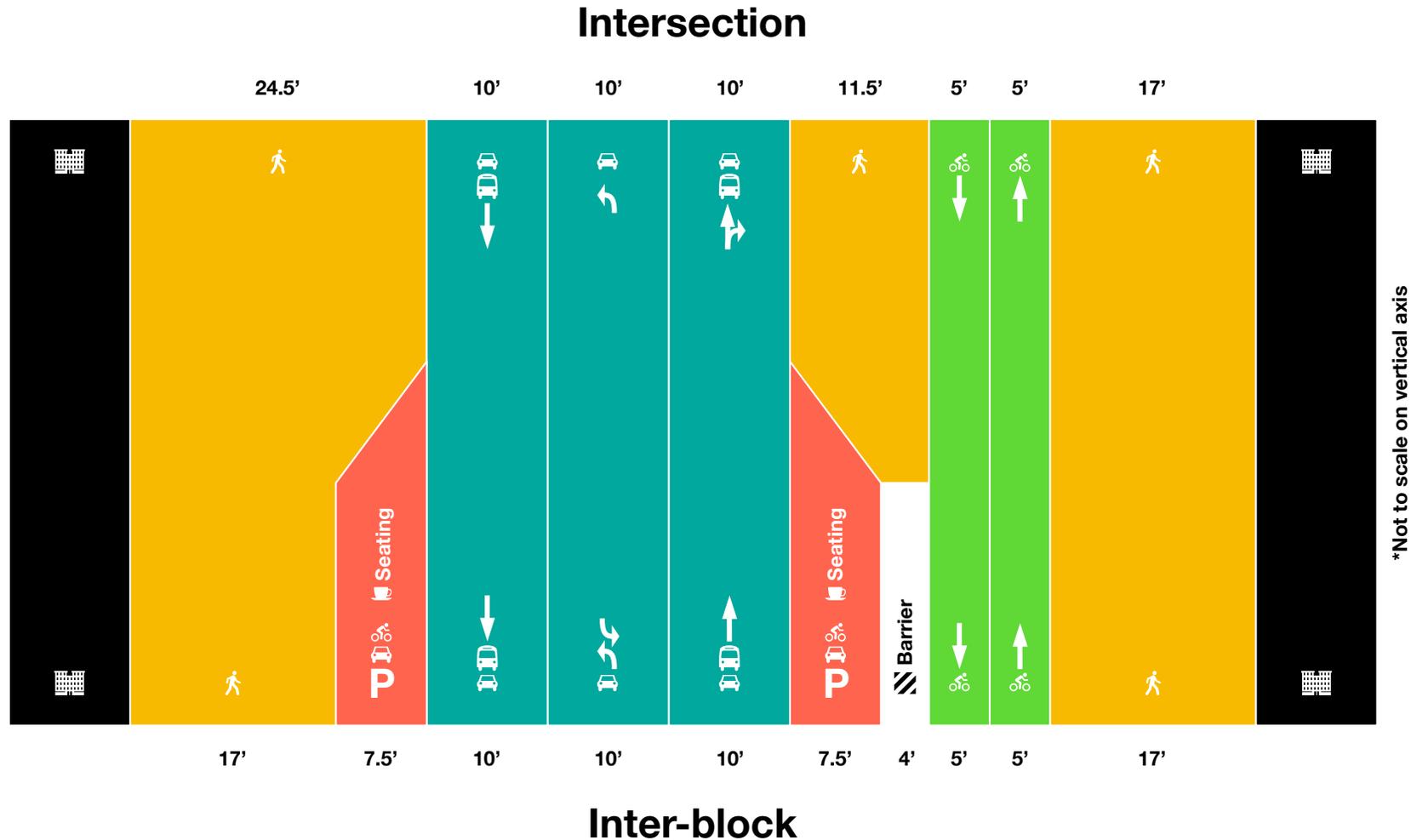


DIAGRAM 9: ATHERTON STREET

designed similarly to other main and secondary streets. Where the parallel parking ends to allow for a turning lane at intersections, bulb outs could be installed. As development occurs, sidewalks should also be expanded to

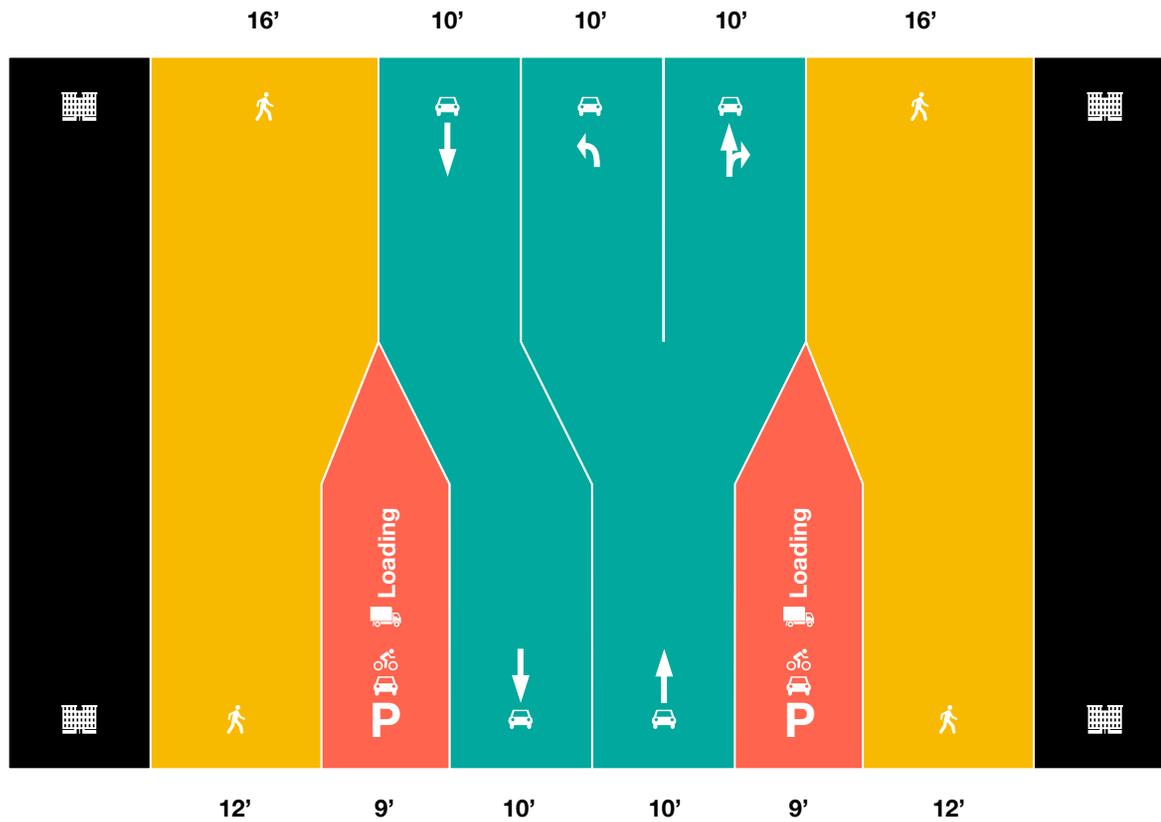
the curb. This layout is aspirational, as PennDOT may not allow for some of these modifications on what is technically classified as a highway, even though the improvements would create a better urban environment.

**Blue Course Drive:** With less than 15,000 cars per day, Blue Course can easily be converted to three lanes including a center turning lane and carry the same amount of traffic. This



**DIAGRAM 10: BLUE COURSE DRIVE.** BARRIER COULD BE A RAISED CURB OR FLEXIBLE BOLLARDS.

# Intersection



# Inter-block

DIAGRAM 11: MARTIN STREET

\*Not to scale on vertical axis

way, protected bike lanes and parallel parking can be added. Both directions of protected bike lanes would be added to one side of the street because the current street width cannot accommodate the extra width of buffers on both sides. The street should also be straightened as development occurs to create an environment more inviting to people and less inviting to cars.

**Martin Street:** Martin Street retains its center turning lanes at intersections but loses them between intersections, making room for parallel parking on both sides of the street. Parking lanes are wider than in other parts of the project area to account for the current wide width of the street, and can be used for wider delivery vehicles. Martin Street should also be straightened as development occurs.

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## Street Network Phasing

The road layouts described should be constructed as development occurs. Partial streets can be constructed and connected to existing suburban road infrastructure including parking lots and access roads. When a street is almost complete, extra attention should be paid to developing the buildings adjacent to the remainder of the street so the full street can create a full connection.

Once a critical mass of development has occurred, development should be encouraged specifically on the parcels which are obstructions to the transit corridor. Once there are not more obstructions, the transit corridor can be constructed in full so transit service can entice more development adjacent to the new corridor and in the rest of the project area. Streets with protected bike lanes should also be prioritized, especially where no existing bike route exists.

**Every street in the new street grid should be added to the Official Township Map as soon as possible so future development, even if it is before this plan is implemented, can leave the right-of-ways open. In fact, a tight-knit, urban street network for the entire Township should be planned and added to the Official Map so all future development can**

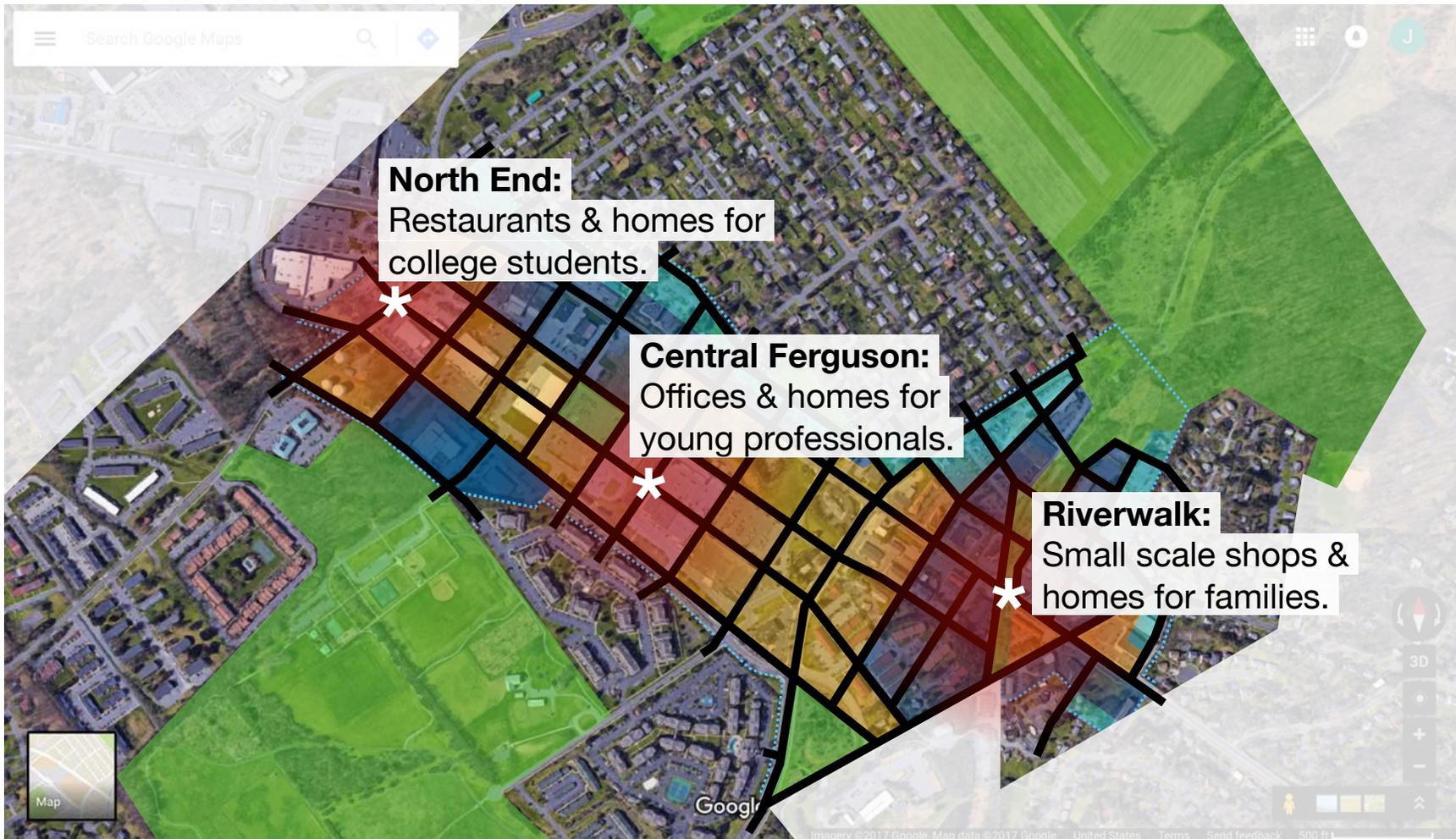
**be made to be flexible, even if some developments are created in the suburban, single-developer style. It is especially important to plan where transit corridors will be on the Official Map and zone accordingly, as transit must travel on efficient routes and serve population centers.**

# Place Making

## Districts

The project area has no discernible neighborhoods or centers in its current form. This means newly fabricated

districts will be necessary to create cohesive experiences. The linearity of the area presupposes it have three districts:



MAP 3: DISTRICTS

**Central Ferguson:** The first, centered at the intersection of the North Hills Place Extension and the new transit corridor would be the commercial center of the project area and its surrounding neighborhoods. The district should contain office space for professional services and other businesses, as well as housing marketed at young professionals. Civic buildings could be the monumental centers of this district. Since the area would be the biggest business district in Ferguson Township, it could be named after the township just like Downtown is intuitively called Downtown State College. It could be named Central Ferguson, 'Central' so as not to be confused with Downtown State College.

**Riverwalk:** The second, along the banks of the old Bellefonte Central Railroad alignment and Big Hollow Run ravine, would be the arts district. The history of the railroad and the connection to the Penn State Arboretum through the ravine should influence the design of the district and become a focal point for the neighborhood. This district could contain small shops and housing for families. Radio Park Elementary School and the confluence of bike trails and parks adjacent to and throughout the district could be a major attractor of families.

**North End:** The third, centered at Aaron Drive and the new bus corridor would be the restaurant area with housing for college students above. The four liquor licenses currently in the project area could be transferred to restaurants and bars in this district. NV and VN bus service would provide late night transit service to the area. Housing for college students would account for a plurality of the increase in transit ridership from the project area redevelopment, which could incentivize even better service by CATA in the future. The district could be named the North End, just like the West End on College Ave west of Downtown.

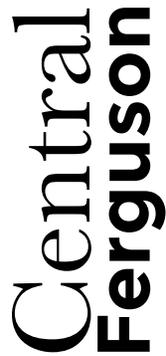


DIAGRAM 12: POTENTIAL DISTRICT LOGOS

These titles would be rough generalizations to market each district as a different experience, but renters not marketed to in a specific district should not be discouraged from renting where they want. All the districts would need shops and restaurants to differing degrees, and housing should be mixed throughout, even if certain types are marketed to in certain areas. Rather than single-family-home neighborhoods being separated from student housing complexes like in the suburbs, which only encourages conflict and resentment, expensive condos like the ones in the Fraser Centre should be less than a block from student housing apartments like the ones scattered everywhere Downtown, even if there are pockets of concentration of a certain type.

These district designations are inherently provisional. As the area is built up and people begin to live and work in the districts, they will create the real experience of each. These districts should only be used as a tool to market each district until those real designations can emerge. For this reason, marketing the names should be unobtrusive and subtle. Street light banners like those Downtown would be a good way to establish districts without overpowering other naturally occurring neighborhoods. **Tools like banners also establish the center of the district: a very urban idea; rather**

**than demarcating a neighborhood's edge and separating it from the neighborhoods around it like a landscaped sign at the entrance. Note that a disconnected suburban development is far from an urban neighborhood which is integrated into the larger city's context.** As natural districts establish themselves, architectural styles can distinguish one area from another, creating a sense of place. Having individual developers will allow for different architectural styles, rather than the monotonous, repudiative building types created by developers of suburbs.

The entire project area should be marketed as the affordable alternative to Downtown. Families, young professionals, and college students should expect to live in a less expensive but still vibrant urban place, with something like a ten minute commute by bus to Downtown and Campus.



# Living Space

## Redevelopment

### Zoning

The entire project site should be zoned as mixed use, under which buildings can house multiple types of development: residences, offices, retail, and more. Even non-polluting, assembly-type, light industrial can be accommodated with access to support-type streets, giving a competitive advantage to the project area over Downtown State College for attracting businesses. Unlike the suburban zoning currently in place in the project area, mixed use zoning will allow for people to satisfy their daily needs by walking: to their work, to the grocery store, to a restaurant. The density mixed use creates also allows transit to serve the area more efficiently so residents can get to gatherings and to social events without a car. Mixed use development allows for increased density because, for example, retail must be on street level, so without another use occupying the space above it, retail zones can only be one story tall. Mixed use zoning also decreases the need for parking and lowers congestion because people need to drive to fewer places.

## Why shouldn't a single developer build the entire project?

While it might be tempting to ask a single developer to develop a large piece of the project area, including the public space and private buildings, this method of development will result in a compromised urban area. Although a multiple developer approach will require larger capital investment from the township, the benefits of more control will pay in the long term:

- With a single developer, the township has less discretion over design of street space and street networks. Township goals of greater pedestrian and bicycle use and a transit corridor which creates the most efficient route for CATA will be harder to achieve.
  - The single developer has greater leverage in all negotiations with the township because they can threaten to develop nothing if certain conditions are not met; for instance parking requirements or phasing; whereas requests by developers of individual buildings can be denied without fear of losing a developer of a large portion of the project area.
  - A single developer is much more likely to create a development with similar or identical buildings because standardizing building types can save them money. Different developers of individual buildings have no incentive to create identical buildings.
- Suburban developments are created with identical, nondescript buildings designed for maximum return-on-investment. Vibrant urban spaces are created with diversity of housing prices, retail types, and architectures.
- The project area is slightly smaller than the Pine Hall Development, but its higher density would make it a much larger project, so it is likely it would not be able to be built by a single developer. If only a few developers built the whole site, the transitions between different developments might be disorienting and uninviting.
  - A multitude of owners should increase competition among suppliers of rental housing, decreasing prices<sup>8</sup>.
  - Individual building projects rather than profit-maximized developments are what created every city in this country.

<sup>9</sup> Cortright, Joe. "Signs of the Times." City Commentary, City Observatory, 26 October 2017.

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## Affordability

Adding housing stock in the Centre Region can only help with affordability, even if much of the new housing stock is market-rate:

- **Lively, mixed use urban areas are almost always more expensive than single use zones because demand for the limited number of these areas is quite high. However, until this demand is satisfied mixed use developments can help with affordability of the region because people who can afford to live in the project area will no longer bid up the price of other housing elsewhere** <sup>10 11 12 13</sup>.
- Housing in the project area will always be less expensive than Downtown State College because it is not the center of the region.
- More affordable housing can be accommodated in denser areas because there is more physical space in each building.
- Walkable, transit rich areas will always be cheaper than they seem because residents will need to drive

fewer places and can potentially eliminate the need for one or all of their cars. A car can cost almost \$10,000 per year when insurance, gas, and depreciation are accounted for<sup>14</sup>.

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## Development Phasing

The project area is vast, so it is important the project expands at a reasonable pace to maintain the design standards necessary for a vibrant, walkable place. Downtown State College was built with individual developers responding to demand. Large developments were considered the norm only after suburban sprawl proliferated.

The first properties to be developed should be able to be great urban places, even though their surroundings might still be suburban for some time. To do this, parking from suburban lots should be leased to new developments until transit ridership and bike usage is high enough to justify buildings without any parking. Streetscape

reorganizations should occur in concert with adjacent development so, for example, parallel parking can protect the sidewalk from travel lanes and the new urban development can treat the street as a public space rather than a place meant to move cars.

**If development doesn't occur slowly and use existing suburban infrastructure as the project area transitions to an urban space, the result will be a compromise between suburban and urban. In this type of compromise, like the Pine Hall Development is becoming, sidewalks need to be pulled away from the street because of high vehicle speeds, stores orient to the street but otherwise are the same as suburban big-box stores, and transit is an afterthought. In addition to the project area, the model of individual developers and true urban development should be applied throughout the township and region, especially in the Terraced Streetscape District, which has the**

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<sup>10</sup> [Smith, Noah. "The Cure for Costly Housing is More Costly Housing." Bloomberg View, Bloomberg L.P., 7 December 2016.](#)

<sup>11</sup> [Smith, Noah. "The NIMBY Challenge." Noahpinion, Noahpinion, 20 May 2017.](#)

<sup>12</sup> [Cortright, Joe. "How Luxury Housing Becomes Affordable." City Commentary, City Observatory, 31 July 2017.](#)

<sup>13</sup> [Levy, Alon. "Zoning and Market Pricing of Housing." Pedestrian Observations, Pedestrian Observations, 17 August 2014.](#)

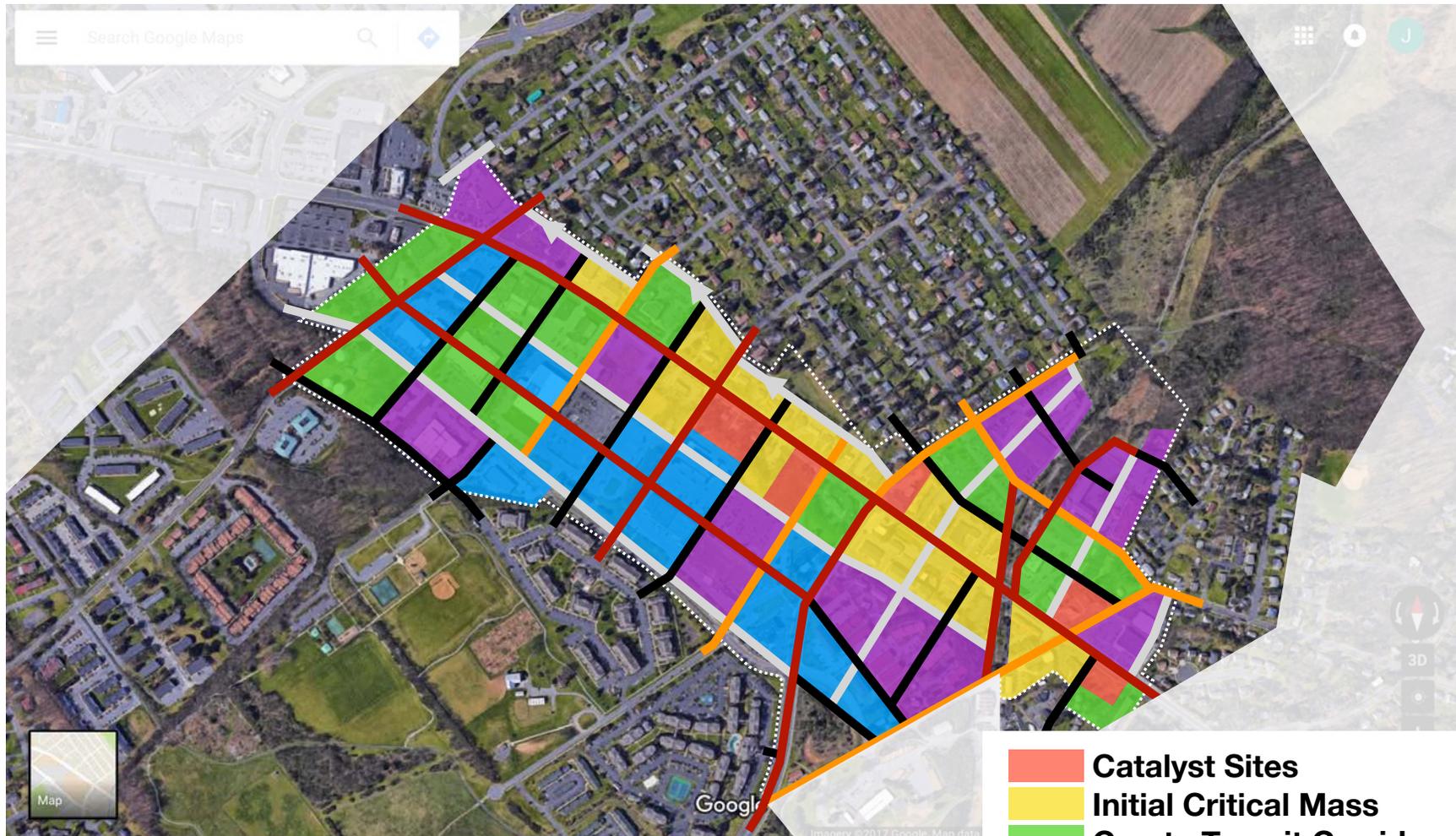
<sup>14</sup> [Stepp, Erin. "Your Driving Costs." AAA Newsroom, AAA, 23 August 2017.](#)

**potential of being as great an urban space as this project area.**

There would be five phases of development, each with its own goal:

- **Catalyst Sites:** These underutilized or empty lots can serve as the model for the rest of the project area and house the first residents and urban businesses.

- **Initial Critical Mass:** These buildings will create the first true urban place in the project area along Atherton.
- **Create Transit Corridor:** Once the critical mass of activity is created along Atherton, the new transit



MAP 4: DEVELOPMENT PHASING

- Catalyst Sites
- Initial Critical Mass
- Create Transit Corridor
- Transit Corridor Fill
- Fill Gaps

corridor can be created and its abutting buildings can be built at densities suitable for a true transit corridor.

- **Transit Corridor Fill:** These buildings will make the transit corridor feel like a lively urban place.
- **Fill Gaps:** These buildings will plug gaps occupied by parking lots and suburban buildings to complete the project area.

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## Building Heights

The building height guidelines were designed to compromise between two things. First, the demand for retail, office space, and residential construction in the project area now and into the future. Second, the benefits of dense development for the environment, for economic savings, and for people, especially on the strongest transit corridor in State College outside of Downtown and Campus. In addition to having dense development for the transit corridor, the density will give the project area a critical mass of people who can patronize the new stores and offices on foot, bike, or transit until it becomes more common for people in the surrounding region to travel to the area using those same modes of transportation.

**If the project is successful, demand for housing and office space in the Centre Region could be satisfied by development solely in urban centers like this one and non-historic areas of Downtown, so the historic sections of Downtown State College can be preserved and the farmland around State College can stay farmland rather than becoming sprawl development.**

Heights were based on the proximity of a lot to a primary street, to a transit corridor, and to a district center, as well as the envisioned character of a district. Generally, ten story buildings are encouraged at the centers of the two most urban districts: Central Ferguson and the North End. Along transit corridors and around those two centers, seven story buildings are encouraged. Farther away and in the more intimate riverwalk district, five story buildings are the norm, with three story buildings lining the project area where it abuts single family neighborhoods, so the two can blend together. Rarely does a building height exceed three stories when it is adjacent to or across the street from a single family house.

The seven story maximum across most of the project area was determined so

it would be in line with the tallest buildings able to be constructed with wood framing. Wood framed buildings provide substantial cost savings and environmental benefits as compared to other types of construction. A maximum five story wood framed residential building can be constructed on top of a two story concrete podium for retail and office space, thus generally seven stories along primary streets. A stand-alone five story wood framed residential building or a smaller residential building on a one story concrete podium could be used on auxiliary streets, thus generally a five story maximum<sup>15</sup>.

The building heights were adjusted to account for the probable stages of redevelopment. Many of the first redeveloped buildings would be along Atherton Street and in the Riverwalk district, where building heights are generally lower. These smaller buildings would justify the retail space and larger buildings in other parts of the project area which would be built later. The same phenomenon would occur with transit. Development would begin along Atherton Street with slightly less density, then as larger and larger buildings are justified for the amount of transit service provided, the more dense buildings around the new transit corridor would be built and

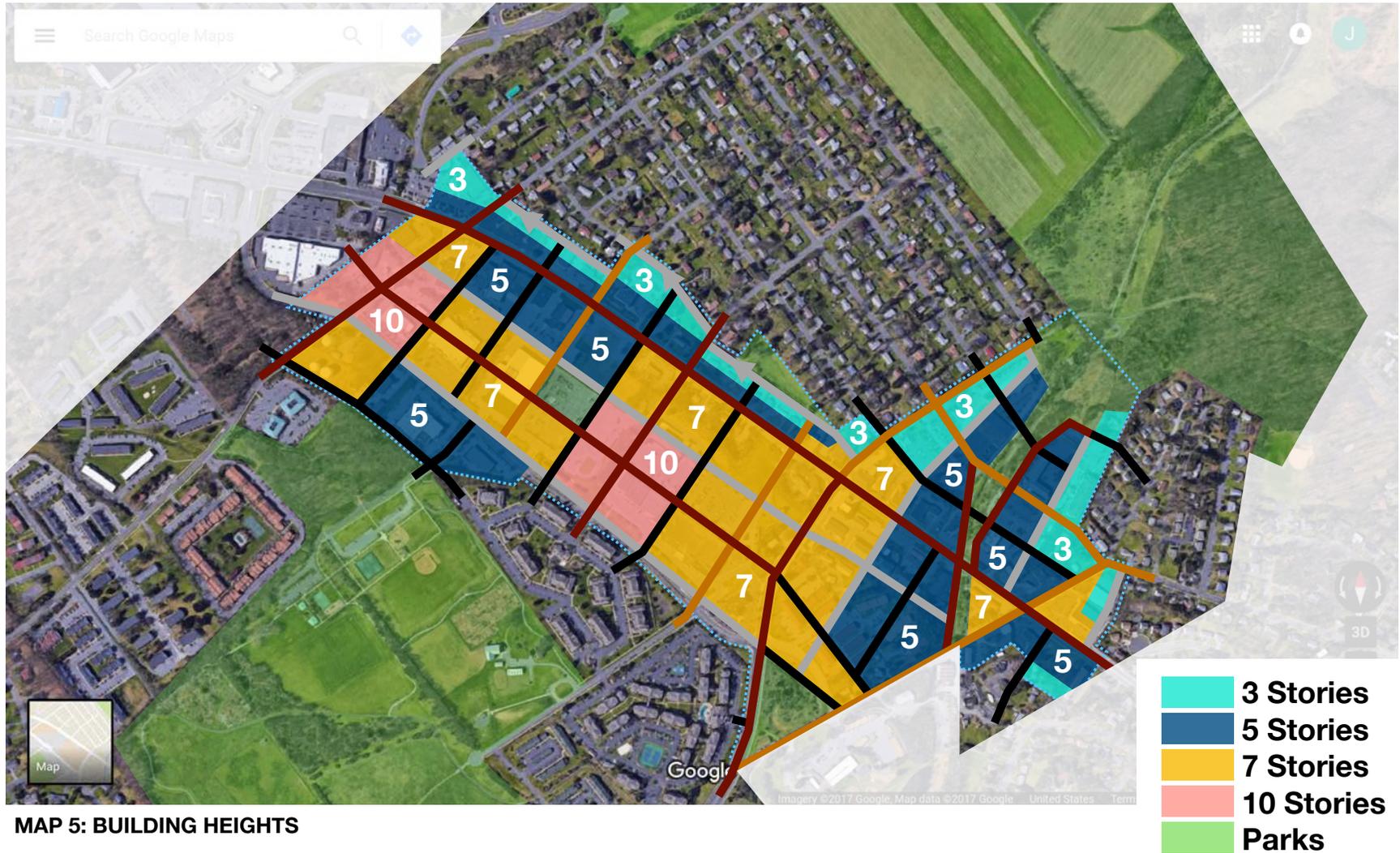
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<sup>15</sup> [American Wood Council. "Multi-Story Wood Construction." Engineering News-Record, February 2014.](#)

transit on Martin Street and Atherton Street would be moved to that new corridor. The lower density buildings on

Atherton would be close to but not on the transit corridor, as it should be for their density, and the highest density,

newer buildings would be able to make most efficient use of the increased transit service.



MAP 5: BUILDING HEIGHTS

## Civic Spaces

The project area has great potential to become a place for civic activities in Ferguson Township and the State College region, due in part to the area's relatively cheap land prices now. In the future, the land will be much more expensive because it will be quite urban and have robust pedestrian, biking, and transit infrastructure. This will allow for economical, compelling public buildings and will allow for access to the buildings by people who don't have access to a car:

- The park adjacent to the center of Central Ferguson should be designed to allow for daily use but allow for use during special events.
- The project area could be home to a permanent indoor farmer's market space, which would respond well to an urban environment but would be easier to build with cheaper land in the project area rather than Downtown.
- Government buildings for Ferguson Township or other government agencies could be built in the project area using cheap land prices while encouraging dense, urban development for its environmental, economic, and human benefits. These buildings would also be able to serve a wider segment of citizens,

especially socio-economically disadvantage citizens, who don't have access to cars and rely on transit for travel.

- State College Area School District could build more environmentally and fiscally responsible schools in the project area for cheaper than new schools Downtown. These would probably be middle or high schools as Radio Park Elementary School is adjacent to the project area. Schools, especially in the Riverwalk District which would be marketed to families, could increase property values, encouraging development.
- Streets could be closed for events larger than would fit in the central park. Aaron Drive, North Hills Place Extension, and the streets adjacent to the Big Hollow Run ravine in the Riverwalk district could become event centers. **It is important that streets which host transit, especially the main transit corridor through the project area, not be closed because transit needs to establish itself as reliable: in the same place, whenever it's needed; and transit detours upset transit's reliability.**

## Green Space

The project area is bordered on two sides by green space: Tom Tudek Memorial Park to the South and the Penn State Arboretum to the North. These both can be enhanced as area destinations. In addition, smaller parks should be interspersed within the project area. The following criteria should increase the priority of maintaining green space in a specified area:

- Land owned by Ferguson Township or other government agencies.
- Current parkland and important ecological and stormwater locations.
- Distance from transit corridors: land near transit corridors should be reserved for the densest development.
- Proximity to current and future community amenities.

To compliment the Arboretum and Tudek Park, four locations for parks have been identified according to the above criteria. They should be built as redevelopment occurs and as resources are available, so their order is random:

- A. This park in the central district should be the main informal gathering space of the project area. It would be most similar to a plaza and could host small events like

local concerts or farmer's markets. It is located off the North Hills Place Extension to allow for as much dense development as possible to occur as close to that intersection's transit station as possible. The land for the space has little ecological and stormwater value currently and would need to be purchased, but the importance of a central civic plaza outweighs the costs.

- B. This park between the project area and the Overlook Heights single-family neighborhood would act as a place of solitude for area residents. The land is located almost directly half way between Tudek Park and the Arboretum, in an area with few other parks. The land would need to be purchased but this would be made easier because the lot was only recently sold to adjacent residents.
- C. This land is currently used as a retention basin for stormwater management. It could retain its topography and plant life to maintain its purpose but paths and small openings could create a space for visitors.
- D. The old Bellefonte Central Railroad alignment and Big Hollow Run

ravine would still be used as a stormwater management tool and could be beautified and made better at slowing stormwater with new landscaping. The ravine would be the center of the Riverwalk district and could be designed to transform from a riverwalk to a boardwalk to a wilderness stream as visitors move from the center of the district to where the ravine meets the Arboretum. Streets traversing the ravine would be an imperative for good pedestrian connections between blocks, and even though these might negatively impact the ecology of the ravine, the density of the development because of the pedestrian connections would prevent many more ravines from being destroyed with worse, more sprawling development.

The drainage ravine along Martin Street, letter E on the map, is covered over in this plan. This is a good thing:

- Every good urban environment has streams running underneath it. Manhattan has hundreds of streams running in sewers below the streets. Even in State College, there is a sewer beneath Calder Ave. Burying these sewers allows the grid of the

city to function efficiently, leading to dense development:

- **Covering the ravine will allow for denser development, leading to less sprawling development farther away from Downtown which would impact far more streams.**
- The ravine is not a good ecosystem now: it has grass as ground cover, which is bad for stormwater retention and is not a good habitat for animals<sup>16</sup>. It also has many parking lots draining into it.
- Green roofs and curbside bioswales in the project area can make up for some of the lost pervious land.
- The ravine is already partially covered by roads and the parking lot of the Re/Max building.
- The sections of the ravine in Tudek Park and in front of and behind Radio Park Elementary School will remain exposed.
- The Big Hollow Run ravine between Overlook Heights and College Heights is maintained and improved as an ecosystem and a community asset in this plan.

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<sup>16</sup> Bormann, F. Herbert, Diana Balmori, and Gordon T. Geballe. Redesigning the American Lawn: A Search for Environmental Harmony. Yale UP, February 2001.



**MAP 6: GREEN SPACE**

# Urban Access

## Bikes

### Current

The bike infrastructure on both sides of Atherton Street is relatively strong,

anchored by the green spaces of Tudek Park and the Arboretum. Shared-use paths connect nearby neighborhoods to the parks and to each other. Those low-density neighborhoods with interconnected, usually gridded, low-traffic streets add a network of 'bike



MAP 7: CURRENT BICYCLE INFRASTRUCTURE

boulevards:’ streets where cyclists mix with low amounts of slow-moving traffic in a low-stress environment.

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## Near Term

Connections should be focused on crossing Atherton Street and integrating the area with the rest of the region. The projects below are ranked by importance:

1. Connect Allen Street in College Heights to Allen Street in Overlook Heights: currently the connection requires a detour to the sidewalk of Atherton Street, in close proximity to fast moving traffic. Instead, parking lots and access roads provide a direct route most of the way, and a connection across the Big Hollow Run ravine is the missing link. This could be a short bridge or a ramp on the Overlook Heights side, as there is already a ramp into the ravine from the College Heights side.
2. Connection from Overlook Heights to Vairo Blvd: formalizing this path from the bus stop on Vairo to the neighborhood would increase connectivity but would include property acquisition.
3. Shared-use path along Blue Course Drive: Bike connection between the rest of the Blue Course bike path and the Arboretum bike paths via

Clinton Ave. Not ranked higher because sidewalk acts as a shared-use path, which low pedestrian volumes can accommodate.

4. Connection between Suburban Ave and commercial areas: This connection already exists but could be straightened and be separated from parking lot traffic behind Champs Sports Grill.
5. Cherry Lane bike route: medium to low traffic volumes justify at least uphill-only bike lanes and street width allows for them.
6. Allen Street bike route: both sections of Allen Street have low traffic volumes and can serve as bike boulevards with the addition of bike route signage.
7. Clinton Ave to Aaron Drive bike path: this path would improve cyclists’ experience but is paralleled by Curtin Street, which has low traffic volumes.
8. Aaron Drive apartment connections: these bike routes will increase connections to the future development site Northwest in Patton Township, and are not necessary until that development is completed.

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## Long Term

As the project area develops, bike facilities will have to transition from being primarily suburban to primarily urban. **The most obvious transition will be from shared-use paths to protected bike lanes. In suburbs, there is plenty of room on the side of a road for a path, and people might be scared to bike closer to such fast moving vehicles. In urban environments, there is no room on sidewalks for bike infrastructure and slower vehicles with protected bike lanes make streets more welcoming to bikes<sup>17</sup>.** In addition, higher traffic levels on some smaller streets might warrant bike lanes or protected bike lanes, where less was warranted before development occurred.

Most of the bike network comprises bike lanes or protected bike lanes forming a grid, and connections to the existing bike network outside the project area. The following projects are not ranked and should be completed as street creation or redevelopment of existing streets warrant:

- A. N-S main corridor: This corridor will act similarly to how Calder Way is envisioned to act Downtown. The street will be a street dominated by bikes with wide bike lanes and very

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<sup>17</sup> Foster, Nicholas Mark-Andrew. “Predicting Bicyclist Comfort in Protected Bike Lanes.” Portland State University, 2014



**MAP 8: NEAR TERM BICYCLE INFRASTRUCTURE IMPROVEMENTS**

..... Bike lane/route  
 - - - Protected bike lane  
 — Shared use path  
 Added/Existing



MAP 9: LONG TERM BICYCLE INFRASTRUCTURE IMPROVEMENTS

little other traffic, mainly traffic for deliveries, parking, or other support activities. If necessary, right-turn-only restrictions could be put on cars along the corridor to dis-allow through traffic. This could be in conjunction with a similar treatment on the transit corridor running parallel discussed previously, also modeled on the Toronto King Street Streetcar Improvements<sup>18</sup>. The bike corridor was separated from the main street because not all alternative transportation modes could fit in on the main street, and bikers will feel more comfortable on a lower volume street.

- B. Allen Street Connection: This street would be a replacement for the path through the parking lots and across the Big Hollow Run ravine created in the near term. This lane could also be one block closer to the Arboretum, to the extension of Linn Street, which would move it to the center of the new neighborhood but which would be slightly less direct than Allen Street for people continuing North and would be more confusing than staying on Allen Street.
- C. Aaron Drive to Tudek Park: This protected bike lane would connect North Atherton Place to locations South of Martin Street. It would include a jog along the N-S

Corridor for one block and would include a shared use path at either end to connect to existing bike infrastructure.

- D. North Hills Place Extension: This corridor would connect Overlook Heights to the Park Crest Terrace Apartments and would include a shared use path to access Tudek Park. This protected bike lane would also serve the North Hills Place main street within the project area.
- E. Blue Course Drive: This protected bike lane would replace the near term shared use path, as developments along the street require a larger sidewalk, rather than a suburban bike path. This corridor would also include a spur to The Park student apartments. This is the potential bike corridor with the most need for protected bike lanes because of high traffic volumes.
- F. Cherry Lane: This street would probably warrant an upgrade from the near future plan's bike lane to a protected bike lane because of increased traffic. It should connect Blue Course Drive to Allen Street.

**Along some of these streets, stop signs could potentially make bikes stop many times as they traverse the project area. Ferguson Township**

**should allow bikes to come to a rolling stop and should make cars yield to bikes (as well as pedestrians). This could occur through ordinance and 'yield to bikes' signs deployed throughout the project area. Acknowledging the physical differences between a bike and car is not unfair to cars, it is what a truly fair system looks like. Just like we don't make cars slow down as they ascend hills like bikes have to (due to the physics of human propulsion), we shouldn't make bikes come to a complete stop, only to have to start again, when they are going at a speed of ten miles per hour anyway.**

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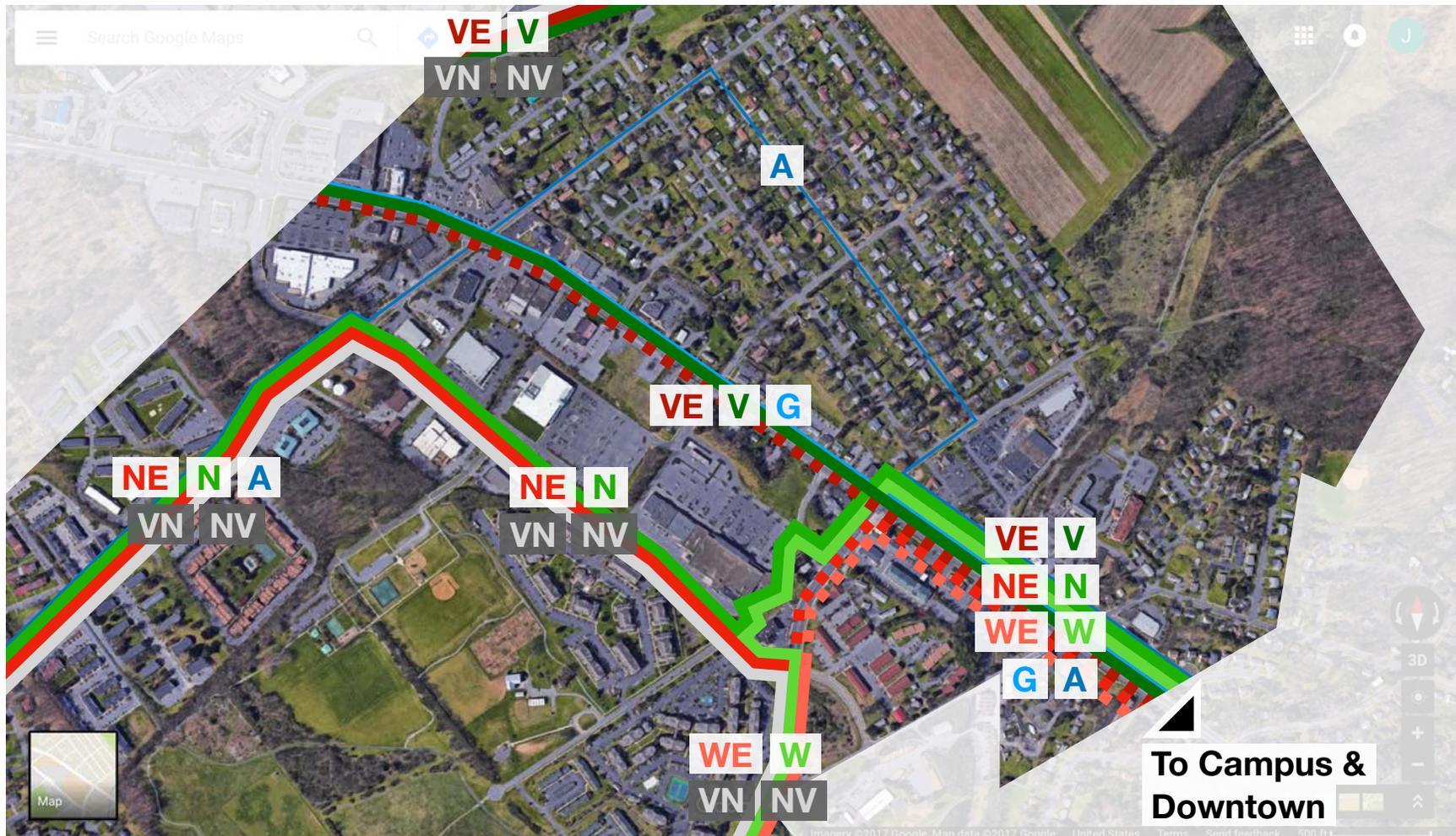
<sup>18</sup> Kuperman, David. "King Street Transit Pilot." Toronto, City of Toronto, 2017.

# Transit

## Current

Currently the project area has the most transit in the State College region save Downtown and Campus. Three trunk lines serve the area: The V on Atherton Street to Vairo Blvd, the N on Martin Street to Aaron Drive, and the W on Blue Course Drive to Valley Vista Drive.

Three express lines, the VE, NE, and WE, serving the same respective areas, pass the project area, but only the NE stops in the project area. Nighttime, late night, and weekend service is supplemented by the NV and VN routes on Martin Street. Lastly, two



MAP 10: CURRENT TRANSIT SERVICES

commuter services serve the project area: the A via Overlook Heights to Park Forest and the G via Atherton Street to Stormstown.

The project area effectively has service to Downtown and Campus every 20 minutes provided by the N and V routes both operating every 40 minutes opposite each other. These routes operate from early morning to past midnight, seven days a week. Additional service every 20 minutes to and from Downtown until 3am, Friday and Saturday nights when PSU is in session is provided by the NV and VN routes. Commuter services provide even more peak service year-round, and the express routes provide all-day service every 20 minutes when PSU is in session, but the VE and WE routes bypass Atherton Street and Blue Course Drive, respectively.

### Near Term

**Many factors will cause CATA routes to be changed, but service levels in the project area will remain relatively unchanged or will increase:**

- The W will most likely be rerouted to College Ave and Blue Course Drive when the Terraced Streetscape Development and the Pine Hall Development have increased demand in that area. The W adds supplemental service in the project area, so this change would not affect

**CHART 2: CURRENT TRANSIT SERVICES IN THE PROJECT AREA**

Route	Service Calendar	Weekday midday frequency	Buses/Peak Hr on new corridor
<b>Trunk Routes to Campus and Downtown</b>			
<b>V:</b> Vairo via Atherton	Year-Round	every 40 mins	3
<b>N:</b> Aaron via Martin	Year-Round	every 40 mins	3
<b>W:</b> Valley Vista via Blue Course	Year-Round	every 40 mins	
<b>Express Routes to Pattee Transit Center</b>			
<b>VE:</b> Vairo bypassing Atherton	Full Service: PSU in session	every 20 mins	6
<b>NE:</b> Aaron via Martin	Full Service: PSU in session	every 20 mins	3
<b>WE:</b> The Heights bypassing Blue Course	Full Service: PSU in session	every 20 mins	
<b>Evening, Late Night, Weekends to Downtown</b>			
<b>NV:</b> Loop Downtown to Martin to Vairo Clockwise	Full Service: PSU in session	every 30 mins	2 (evening peak)
<b>VN:</b> Loop Downtown to Vairo to Martin Counter-clockwise	Full Service: PSU in session	every 30 mins	1 (evening peak)
<b>Commuter Routes to Campus and Downtown</b>			
<b>A:</b> Overlook Heights to Park Forest	Year-Round	peak only	2
<b>G:</b> Stormstown via Atherton	Year-Round	peak only	2

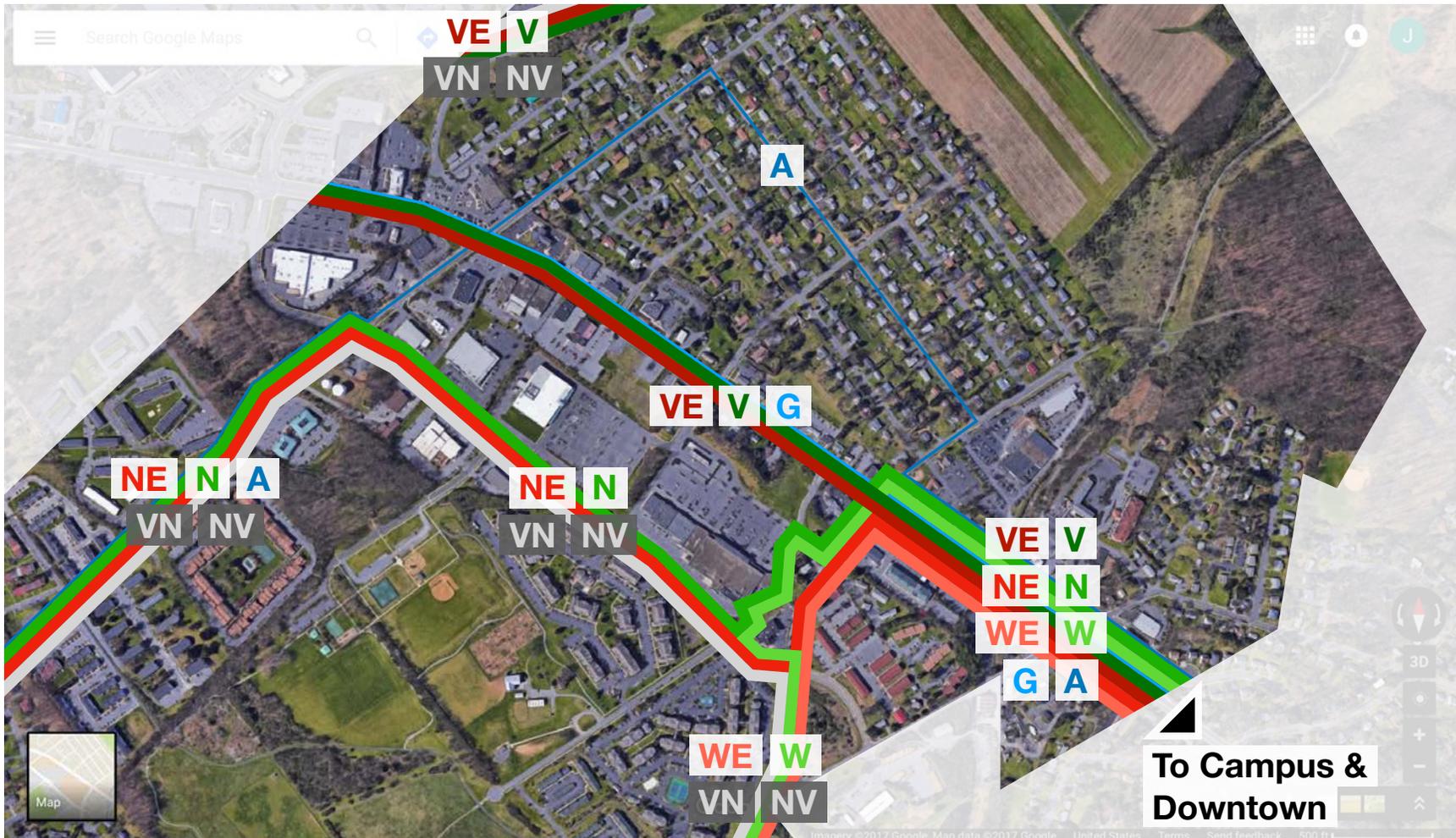
the area's overall frequency. The WE will most likely retain its same route through the project area.

- The N and V have very high ridership on weekends, so frequency of the N and V or supplemental services might be increased if funding levels allow.

- The NV and VN are relatively new services and will be tweaked for optimization, but their role as nighttime and weekend circulators between student housing, Downtown, and commercial areas

along North Atherton will remain unchanged.

- The A and G routes have low ridership but are meant to give supplemental and life-line service to otherwise unserved areas and are unlikely to change.



MAP 11: NEAR TERM TRANSIT SERVICE IMPROVEMENTS

- The Atherton corridor from Campus to Aaron Drive will always be a high-transit corridor because of the need for transit between student housing to the north and Penn State to the south; and the single-family neighborhoods and large parks on each side of Atherton preclude other North-South corridors.

A study of articulated buses (buses with an accordion fold: 60 ft rather than 40 ft long; carrying almost twice the passengers with one driver<sup>19</sup>) is in progress, and CATA's new facility will allow for maintenance and storage of the longer buses. Any new buses would run on the busiest routes; most likely the Loop routes on Campus, the V, N, and R Trunk routes, and/or the VE, NE, WE, and RC routes to Pattee. This will have multiple consequences:

- The VE already runs two buses one after the other all day, because of high ridership. Articulated buses could allow the second bus' driver to operate elsewhere on the CATA network, potentially on the aforementioned weekend N and V routes.
- Buses will be less crowded in general meaning they will be more attractive to potential riders, increasing

ridership which might lead to increased service.

- Articulated buses have at least three doors, which means CATA is more likely to allow all-door boarding. This will reduce dwell times at stops, leading to faster service and happier passengers, which could both lead to higher ridership and increased service in response.

In the near term, Ferguson Township should encourage CATA to allow the three express routes to stop along the entirety of their routes, rather than bypassing the project area. There are multiple ways to increase the likelihood CATA would agree to the change:

- Increase mixed-use development in the project area to increase the density of potential CATA users, especially undergraduate and graduate students, PSU faculty and staff with access to a discounted transit pass, and populations with lower socioeconomic status.
  - Focus new growth and density on transit corridors to take advantage of existing service.
  - Improve streetscapes and walkability in the project area to enhance pre- and post-rider last-mile experience.
- If express routes begin stopping in the project area, CATA could analyze the

possibility of offsetting the express services to increase frequency from 20 minutes to at least 10 minutes in the project area.

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## Long Term

The Atherton Street and Martin Street Corridors are never more than 1000 feet away from each other. Most transit professionals agree transit corridors are most efficient when they are between half and one mile away from each other, giving each a catchment area of a quarter to a half mile<sup>20</sup>. In addition, the Atherton Street corridor is bordered 300 feet to the North by single family homes in Overlook Heights, and Martin Street is bordered to the South by Tudek Park. The two will be hard and almost impossible, respectively, to redevelop meaning it's unlikely they will ever be drivers of transit demand. Because a unified corridor on Atherton Street would have little demand from the North and make many people from the South walk far distances to stops, the unified corridor should detour from Atherton within the project area. Since any route parallel to Atherton would take roughly the same amount of time, the preferred corridor would be directly in the middle of the

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<sup>19</sup> APTA Streetcar Subcommittee Work Group. "Modern Streetcar Vehicle Guideline," p 17. Reconnecting America, Reconnecting America, 26 March 2013.

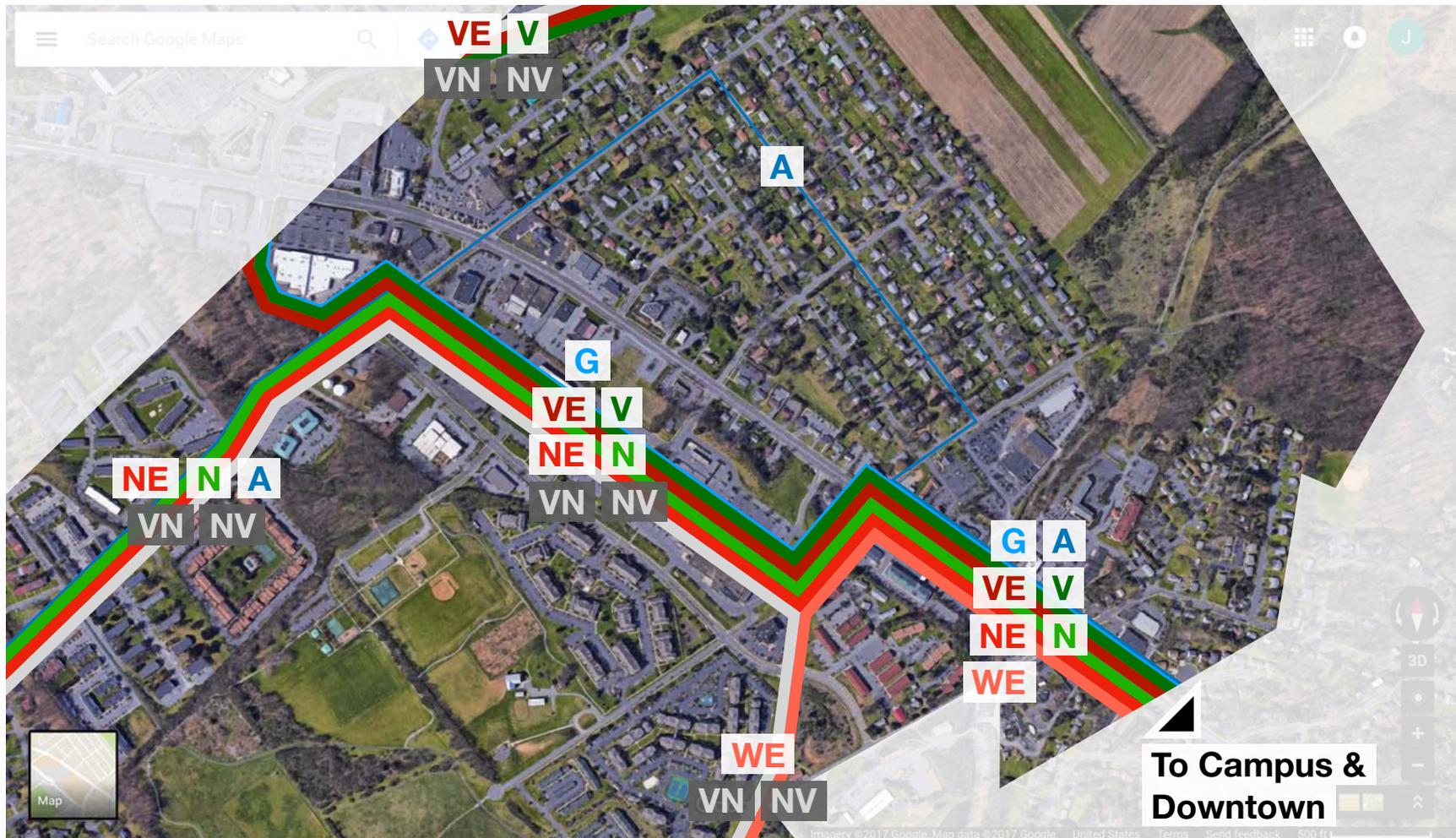
<sup>20</sup> Walker, Jarrett. "The Power and Pleasure of Grids." Human Transit, Jarrett Walker and Associates, 23 February 2010.

high density development in the project area, on a new street one short block North of Martin Street and two short blocks South of Atherton Street. This option can only be implemented when most of the area has been redeveloped

so existing buildings can be removed from the new right-of-way.

CATA will face challenges with a new transit corridor, which can be mitigated if integrated planning occurs beforehand:

- All buses will need to turn onto Blue Course Drive, then immediately after turn onto the new corridor (all intersections described as if coming from Campus, but applicable in the other direction). This could be mitigated with transit signal priority



MAP 12: LONG TERM TRANSIT SERVICE IMPROVEMENTS

and potential queue jumping or bus-only lanes.

- All buses will need to turn from the new corridor onto Aaron Drive, then buses going to Vairo Blvd will turn immediately onto Martin Street to cross Atherton to Vairo. This sequence can be improved using the same strategies described before. In the future, in cooperation with Patton Township, a new route directly from the transit corridor across Atherton Street to Vairo Blvd could speed travel times.

One unified corridor will allow riders to arrive at a bus stop and know there will be a bus soon, without needing to look at schedules for each route. Simplifying the route structure can multiply these benefits. Currently, there are 15 buses between the V, VE, N, and NE during peaks and 12 all day. This means the corridor could have a bus every 4 minutes during the peak and every 5 minutes all day without raising service levels if schedules could be coordinated. Schedule coordination might require service reorganization and/or articulated buses, but the problem of high demand at PSU class change times might be diminished because the frequency would be so high. The corridor should be branded as two routes: one serving Campus and one serving both Campus and

Downtown; each with a branch to Vairo Blvd and a branch to Aaron Drive. This could be simplified to one route with two branches if CATA could create a more direct corridor through Campus to Downtown and through-run all routes.

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## Transit Stop Locations

Optimal spacing of bus stops is every quarter mile. Often in North America, much shorter stop spacing is used because of legacy planning principals. However, a quarter mile is very often the optimal spacing between making patrons walk too far and making the bus stop too often<sup>21</sup>.

Stop locations were placed with regard to this quarter mile distance, as well as with regard to the stops close to the project area, so they could be at quarter mile spacing as well.

**Building heights were determined, to a large extent, by the transit stop locations. This way, the most people are as close to a transit stop as possible. Parks were also moved far from transit stops because of the low-intensity uses which usually occupy them.**

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<sup>21</sup> Walker, Jarrett. "Basics: The Spacing of Stops and Stations." Human Transit, Jarrett Walker and Associates, 5 November 2010.



**MAP 13: LONG TERM TRANSIT STOP LOCATIONS**

-  **New Bus Stop**
-  **New Transit Corridor, frequent**
-  **NV, VN Service, not frequent**  
A, G routes not shown

## Traffic Management

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### Current & Near Term

The project area is dominated by unconnected parking lots and access roads, with a series of collector and arterial roads organizing it into blocks. To create a vibrant urban place, the parking lots must be removed and replaced with a grid network of streets; one in which pedestrians are able to get to any place by way of a convenient route. A grid network allows the larger streets to become nice places to stay as well, although some streets, like Atherton Street, will still have significantly more traffic. Roads in the area should not be widened, and if anything should be narrowed in anticipation of higher pedestrian levels. According to the principle of induced demand, widening roads to accommodate more cars only encourages people to drive more and drive farther, filling the bigger road to the same congestion level as before<sup>22</sup>. Widening roads to allow for wider lanes

is also counterproductive, as drivers drive slower and more carefully on 10 foot lanes than 12 foot<sup>23</sup>.

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### Long Term

Pedestrian activity is benefited when cars are as slow and cautious as possible. Stop signs, rather than lights, encourage cars to yield to pedestrians and have been associated with lower accident rates<sup>24</sup>. All-way stops should be used as a default intersection type, and others should be supplemented where necessary. Atherton Street, Martin Street, and Blue Course Drive were classified as high-traffic streets and all traffic lights currently operating on those roads would be maintained. Traffic lights were added at four intersections of high-traffic streets with new main and secondary streets. Each of these traffic lights are as far or farther away from each other and from existing lights as lights in Downtown State College. One- or two-way stops should be placed at all other intersections with high-traffic streets. Intersections of support streets with any other type of street should also be

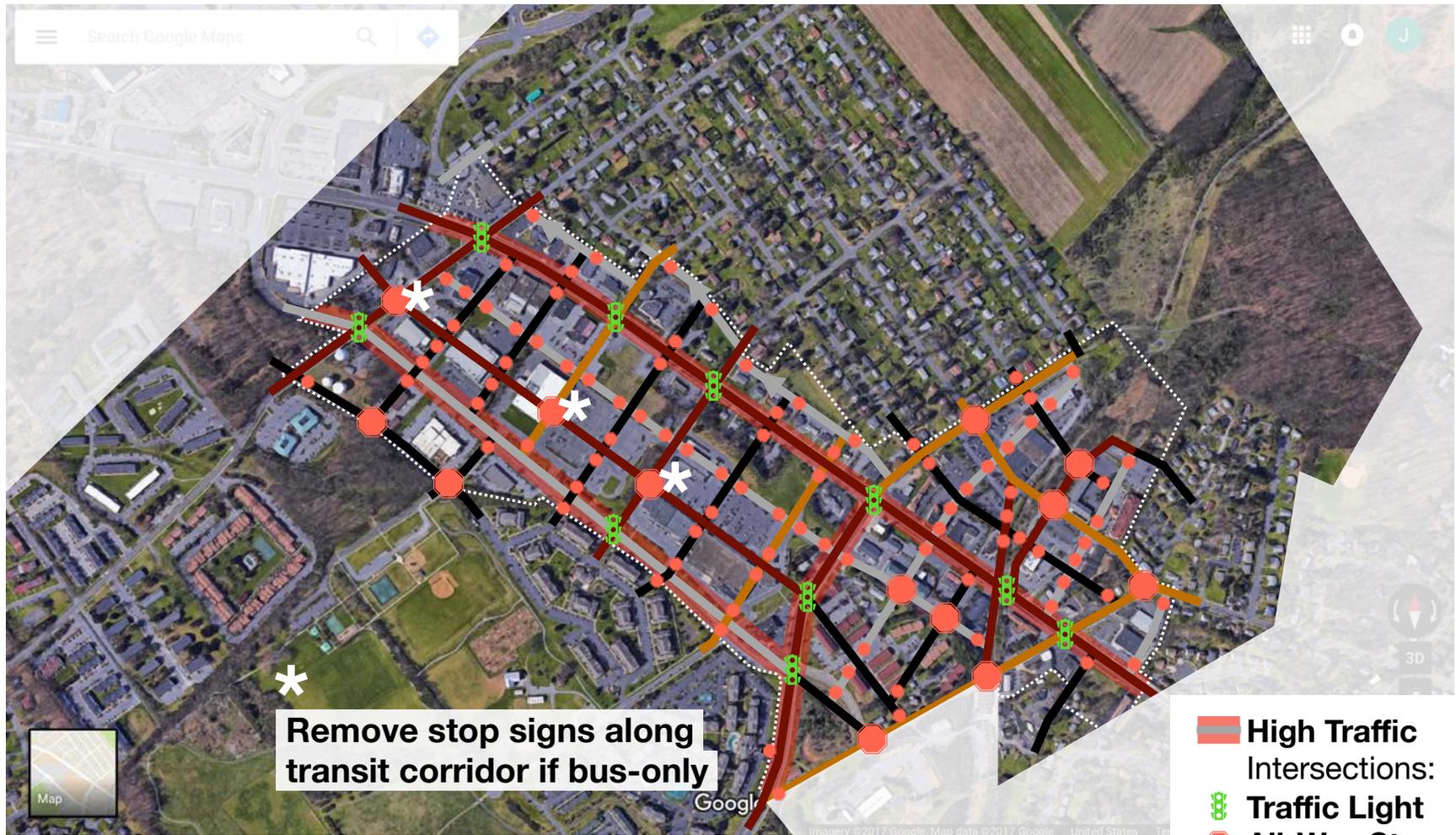
one- or two- way stops so through-drivers are discouraged from driving on support streets. Lastly, stop signs at intersections with some auxiliary and secondary streets were removed on the new transit corridor main street to allow transit to traverse the corridor more quickly. If the corridor became bus-only, all stop signs could be removed and the bus stops could act to slow down buses.

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<sup>22</sup> Litman, Todd. "Generated Traffic and Induced Travel." Victoria Transport Policy Institute, Victoria Transport Policy Institute, 18 July 2017.

<sup>23</sup> Petrtsch, Theodore. "The Influence of Lane Widths on Safety and Capacity: A Summary of the Latest Findings." Sprinkle Consulting, Inc., NACTO.

<sup>24</sup> Office of Safety. "Signalized Intersections: An Informational Guide," p 9-35. Federal Highway Administration, US Department of Transportation, July 2013.



\* Remove stop signs along transit corridor if bus-only

- ▬ High Traffic Intersections:
- 🚦 Traffic Light
- ⬡ All-Way Stop
- Single Stop

MAP 14: INTERSECTION CONTROL TYPES

## Parking

Parking minimums should be eliminated in the project area and parking maximums should be established; as close to zero spaces as possible for the following reasons:

- Surface parking lots ruin urban environments by occupying land without any space for living or street facades to make walking interesting. Without density of people and interesting walks, the project area can't become a lively urban place.
- Underground parking lots are very expensive and can account for 17% of renters' monthly rent<sup>25</sup>. To fight the affordable housing problem in the Centre region, housing should be created in close proximity to transit without parking so working class families can live without the need for a car: associated savings could be up to \$10,000 per year, per car<sup>26</sup>.
- Parking decks can be acceptable in urban environments as long as their street facade is occupied by commercial uses, but building them

would be extremely costly for the township. **Autonomous vehicles will not make high-capacity transit obsolete, since Downtown State College and Penn State Campus will never have the road capacity to carry every student, university faculty, and other Downtown employees to and from their work or class, especially with a transit option as appealing as the service which would be provided on the new transit corridor<sup>27</sup>. However, autonomous vehicles will probably make most parking decks obsolete because ride sharing should make private cars unnecessary<sup>28</sup>.**

- **Building more parking spaces encourages more people to drive to the project area to shop; or to keep a car when the move to the project area. This increases traffic and decreases potential transit and bike ridership.**

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<sup>25</sup> Gabbe, C.J. "Hidden Costs and Deadweight Losses: Bundled Parking and Residential Rents in the Metropolitan United States." Housing Policy Debate, Taylor & Francis Online, 21 June 2016.

<sup>26</sup> Stepp, Erin. "Your Driving Costs." AAA Newsroom, AAA, 23 August 2017.

<sup>27</sup> Walker, Jarrett. "No, Autonomous Cars will not 'Abolish Transit' in Dense Cities." Human Transit, Jarrett Walker and Associates, 4 November 2014.

<sup>28</sup> Lancotot, Roger. "Accelerating the Future: The Economic Impact of the Emerging Passenger Economy." Strategy Analytics, Intel, June 2017.



# Conclusion

This plan would challenge the half-century old development patterns of the Centre Region. It would be the first time a truly urban environment was built without an existing framework.

A paradigm-shifting plan like this is sure to have backlash. Most notably, Not In My BackYard (NIMBY) residents would show resistance against this kind of density because of congestion, housing prices, and the environment. In reality, this plan is the remedy for almost every problem accompanying growth. Walkable development on transit lines only encourages more existing residents to find alternatives to driving. Until Penn State decides to stop growing, the region can price out

more and more existing and new low- and middle-income residents or it can build more housing, like in this plan. And dense development allows for less suburban development which would otherwise destroy habitats and encourage the release of more greenhouse gases.

The region needs to decide now what path it will continue down into the future: the suburban-style strip malls and single family homes reminiscent of Atlanta and Orlando; or the transit-oriented, lively urban places of London, Paris, and New York. It is not the fault of any one person or organization that the region has developed largely as strip malls and single family homes, but

it is the responsibility of all elected leaders and government officials to take a cue from Downtown State College and cities around the world and create a new paradigm for development based on thousands of years of city planning examples.

We end with the enduring words of Daniel H. Burnham, urban planner in Chicago at the turn of the 20<sup>th</sup> century. Little plans will fade away, but compelling, imaginative plans will endure and mature as they are adapted and constructed. A plan like this could be the spark which creates a new, more lively, more attractive Centre Region.

“ Make no little plans; they have no magic to stir men's blood and probably themselves will not be realized. Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will never die, but long after we are gone be a living thing, asserting itself with ever-growing insistency. Remember that our sons and our grandsons are going to do things that would stagger us. Let your watchword be order and your beacon beauty.

— Daniel H. Burnham, 1907

from Daniel H. Burnham, Architect, Planner of Cities. p. 147

