

Downtown Atlanta 2041

Arch D+R/Urban Design Studio
Georgia Institute of Technology
College of Architecture, Spring '16
Professor Ellen Dunham-Jones
Student: Lu Pang

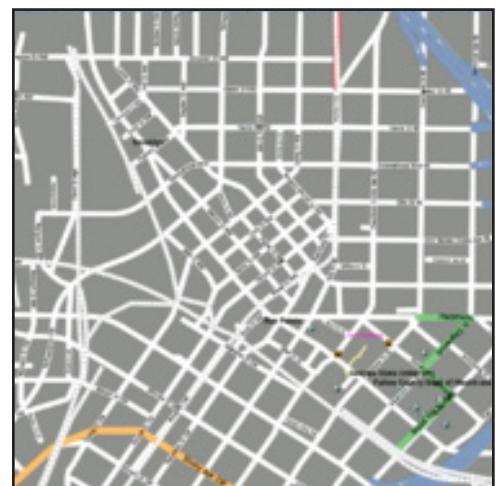
- What will future demographics, social media & big data, climate change, and driverless cars mean for the role of Downtown and the design of public space in 25 years?
- How do we plan for a disruptive technology? Can we program the future with a credible vision that assists its realization?



Research

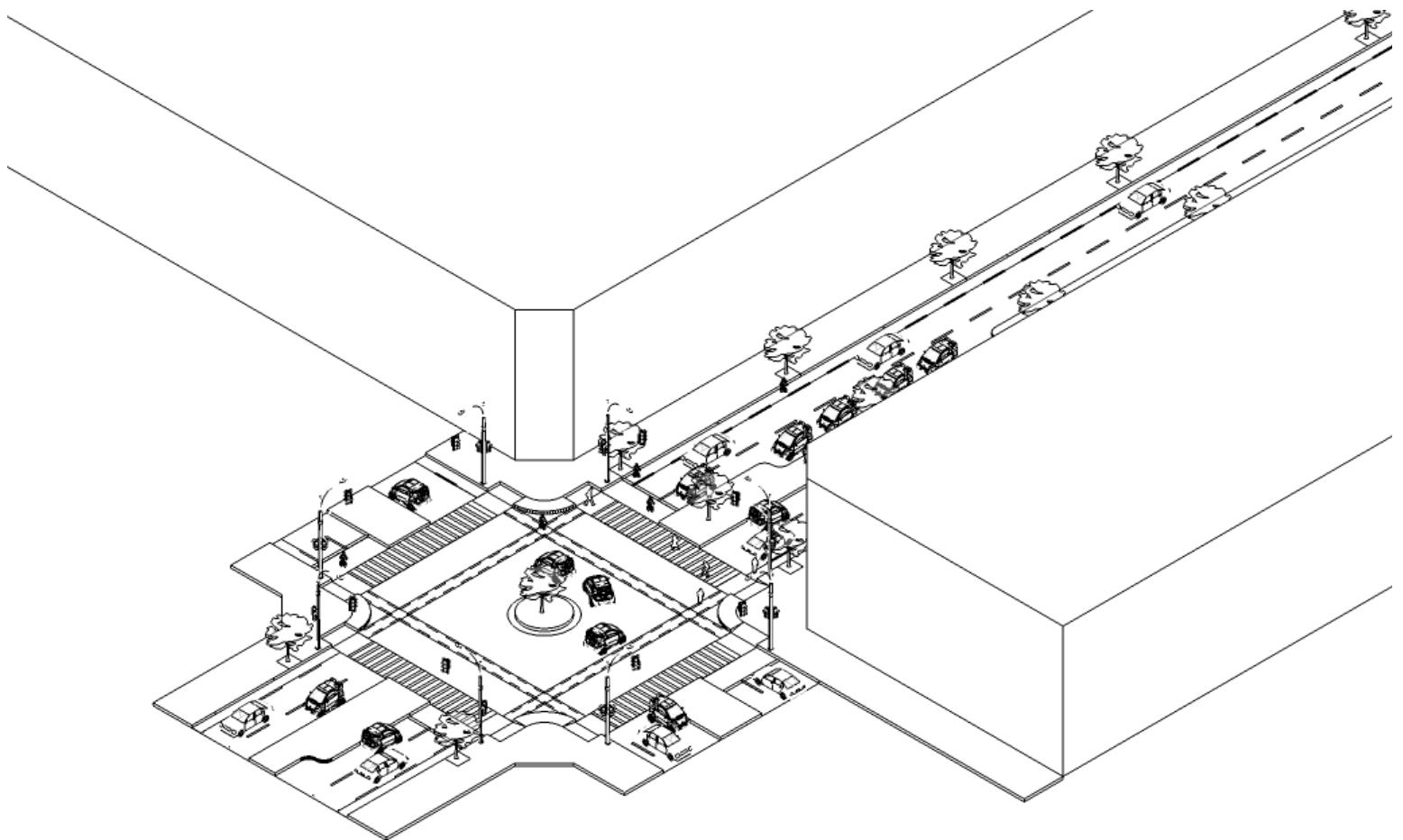
engaged in several types of research, speculation and documentation

- reading up on Atlanta's history and gathering current plans for various parts of Downtown
- producing a collective base map showing proposed new masterplans
- seeking stakeholder input on fears and aspirations for Downtown, especially relative to the new plans and projected new demographics and technologies
- combining stakeholder input and space syntax analysis to determine the primary streets key to improving Downtown
- producing maps identifying Downtown's current and projected "A" vs "B" streets and the different roles of the "A" streets
- understanding of current demographics and production of future projections for Downtown
- researching the literature and current thinking of some of GA Tech's engineering faculty on the future of driverless cars, "smart cities", and infrastructure ecology – and establishing assumptions for various scenarios about the impacts on transit, parking
- producing a toolkit of future building types and street types generally applicable to Downtown
- empirical measuring of Downtown streets using Synoptic Surveys
- scenario planning to illustrate how and where the toolkit kit could be applied to strengthen various "A" streets



STREET NETWORK
project team

HYBRID SCENARIO

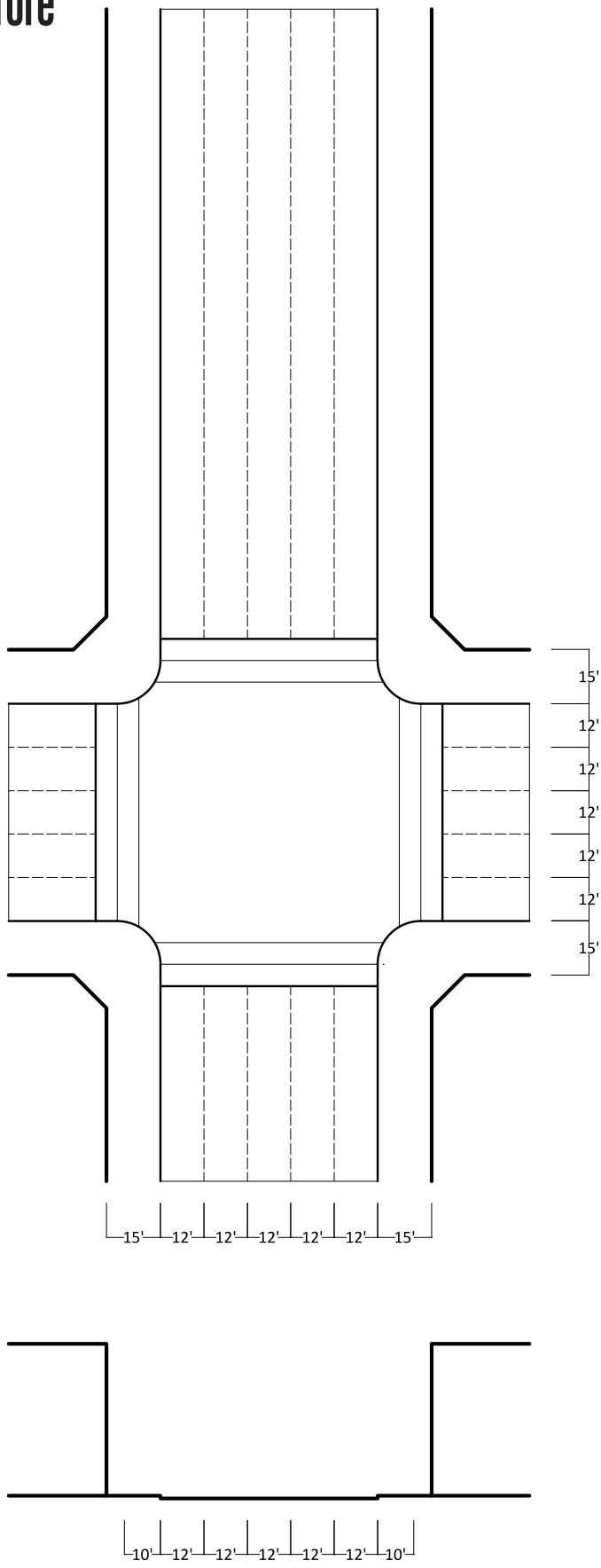


INFORMATION:

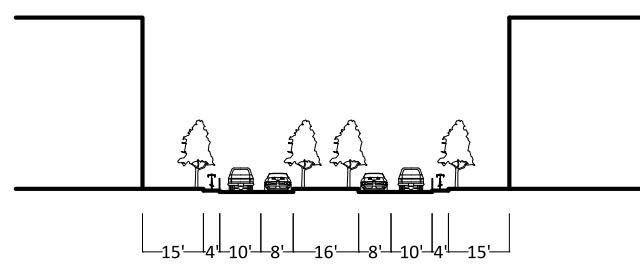
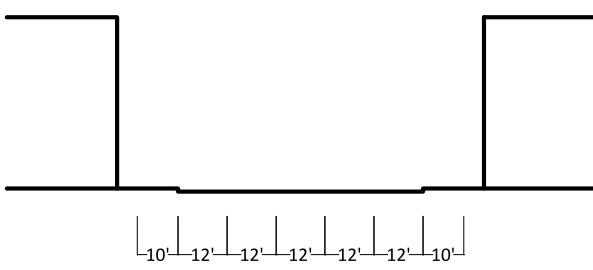
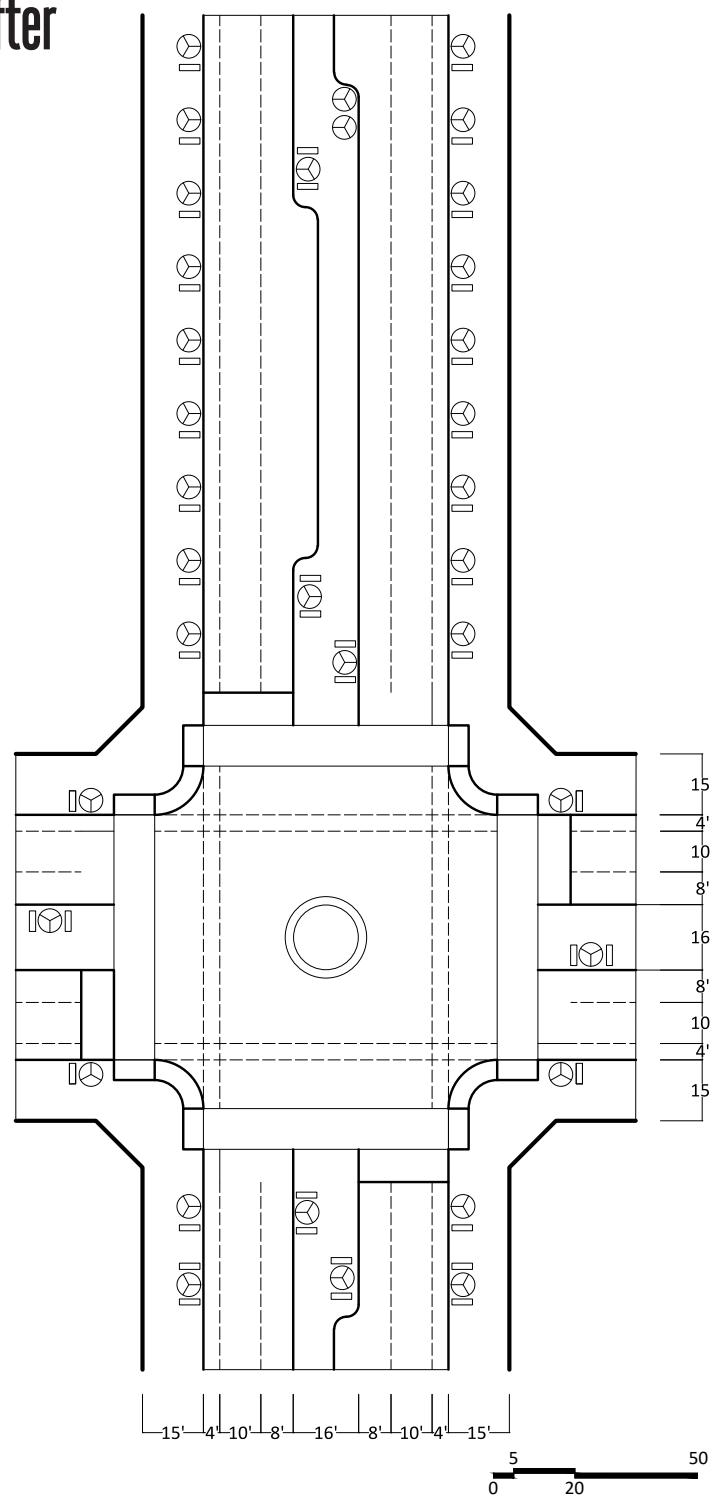
Here is a street under hybrid scenario, which is not just a road to commute. It was designed as a multi-purpose public space....You can drive your own car by 20 miles per hour as a maximum speed, take a public-owned driverless car to save your money, rent an electric bike, or take a walk along green median. While you get on a driverless car, you can have a coffee, recharge a phone, buy a warm sandwich, or even take a shower and do your makeup. It was also designed as a shared and safe street, where pedestrians and cyclists are put on first place. Thus, while taking a cycle, you would not be afraid of cars any more. Variable light adjusts for day and night conditions. Especially at night, driverless car would turn on lights, charge themselves, and monitor everything happening on street, which would make sure safe and peaceful walkable environment.

A-STREETS

Before

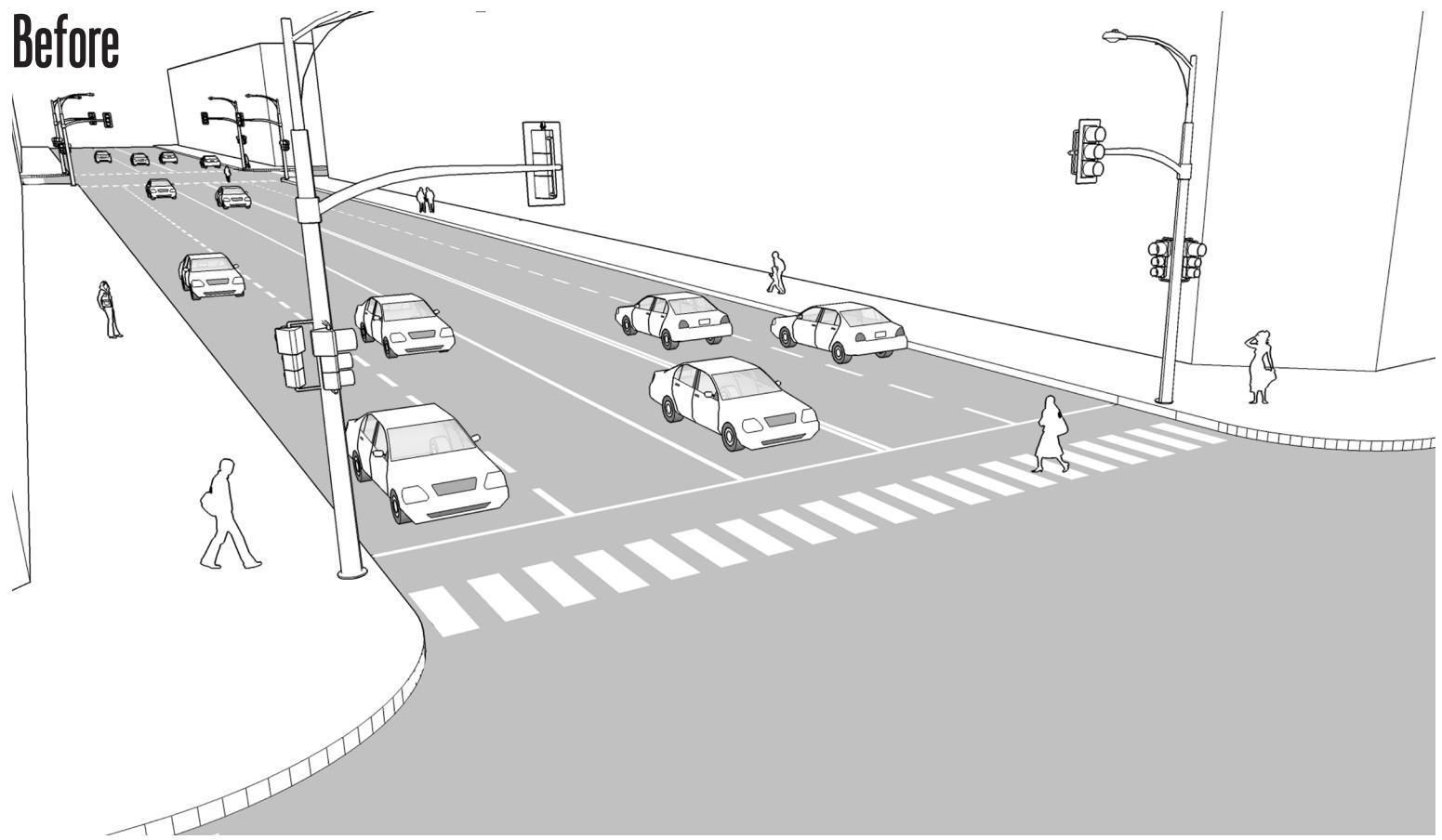


After

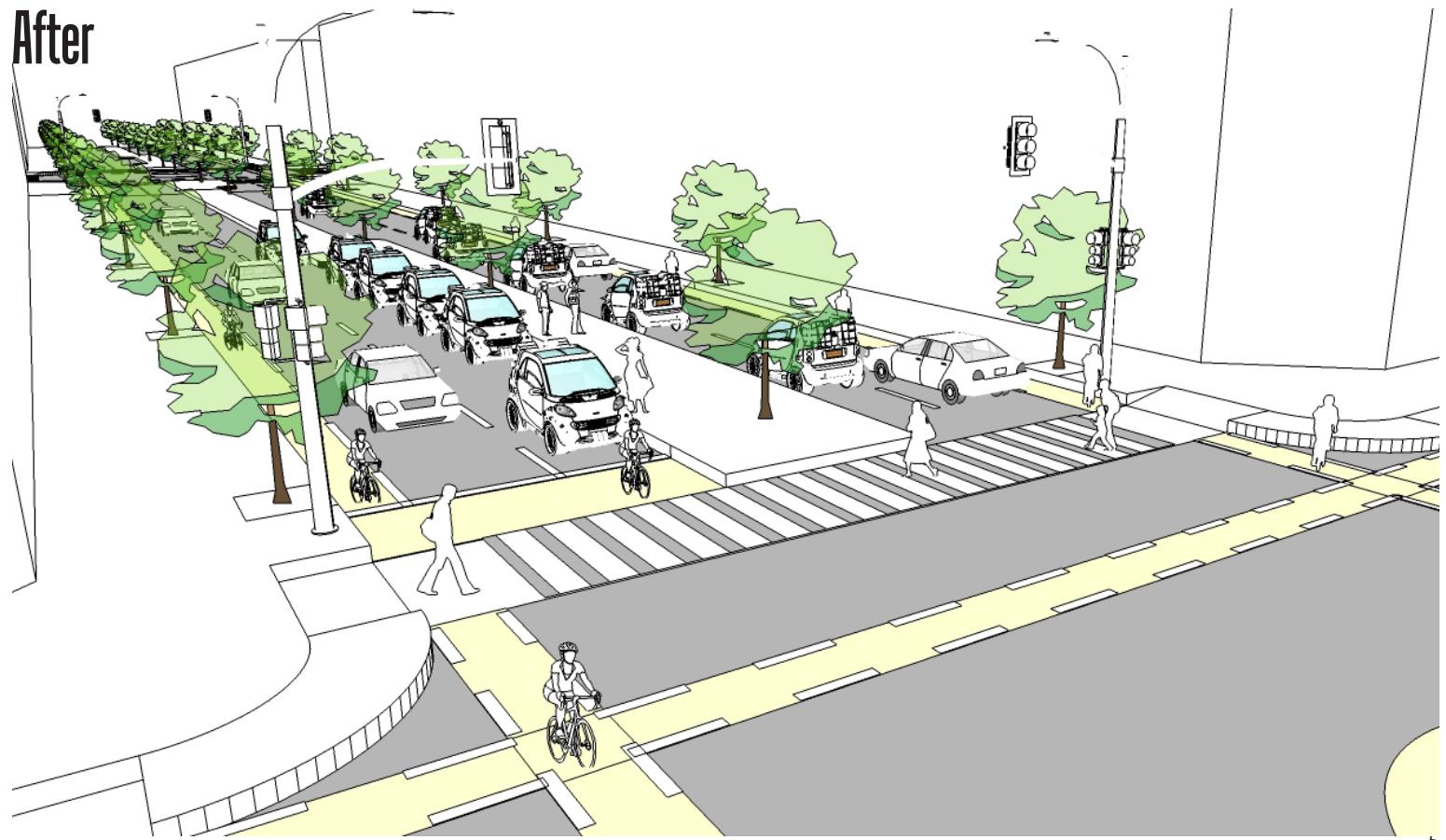


A-STREETS

Before

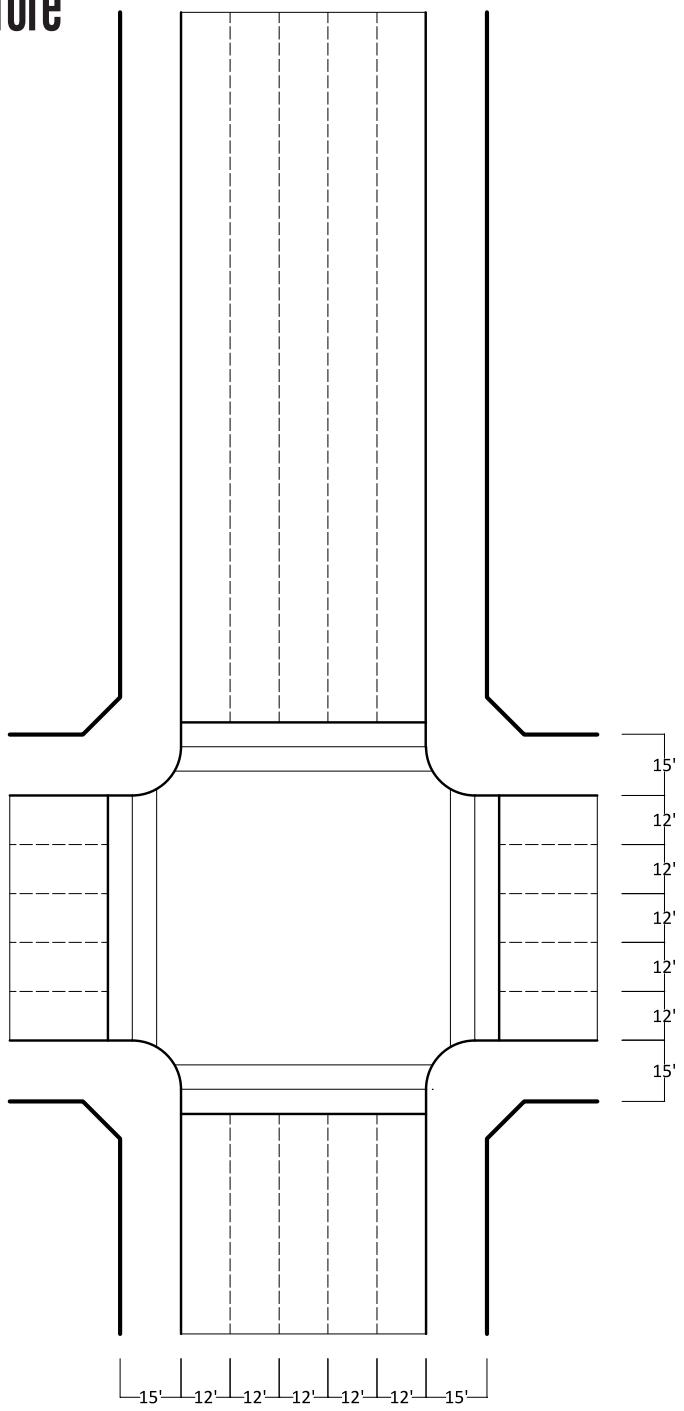


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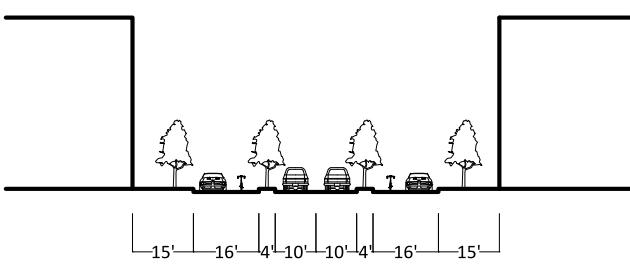
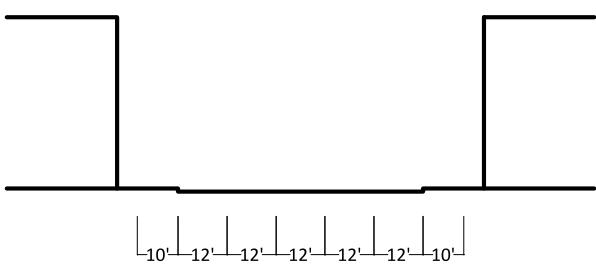
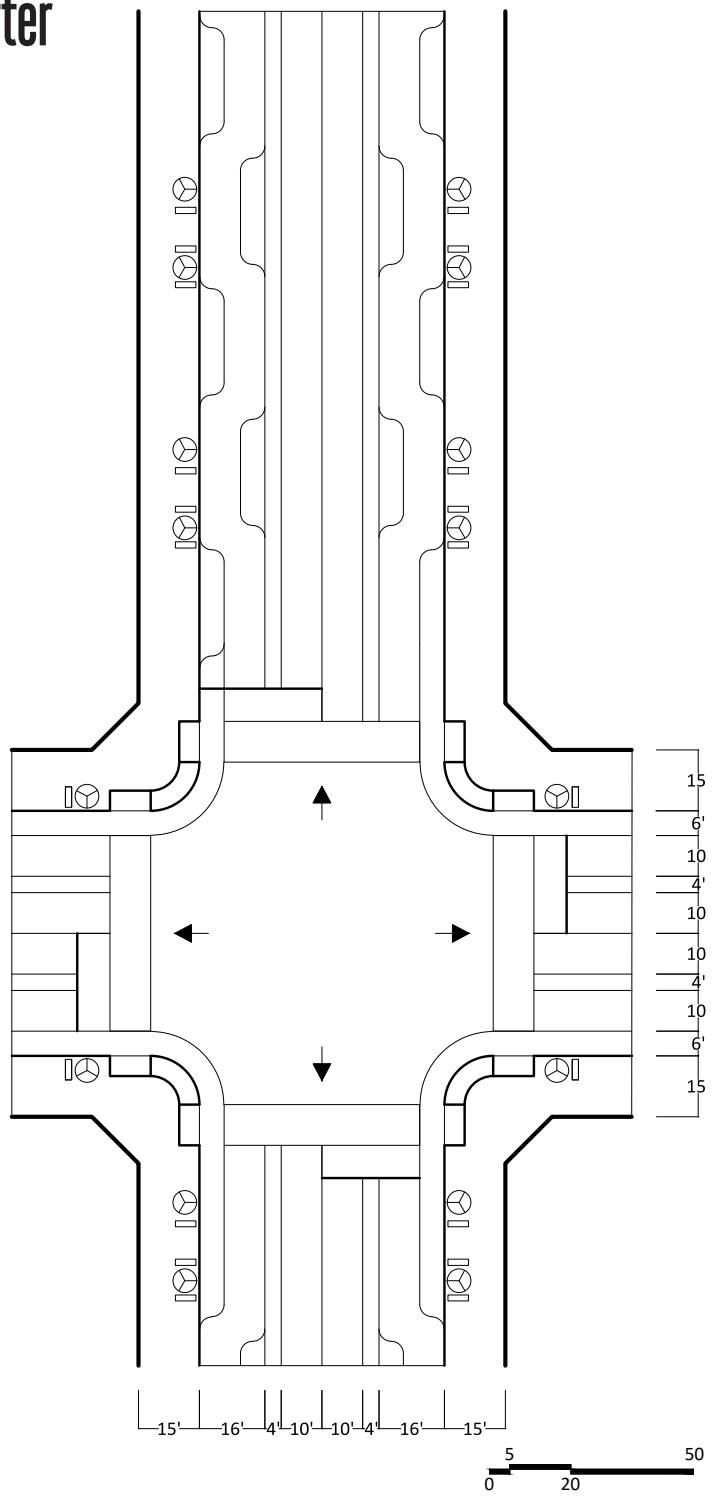


A-STREETS

Before



After



A-STREETS

After

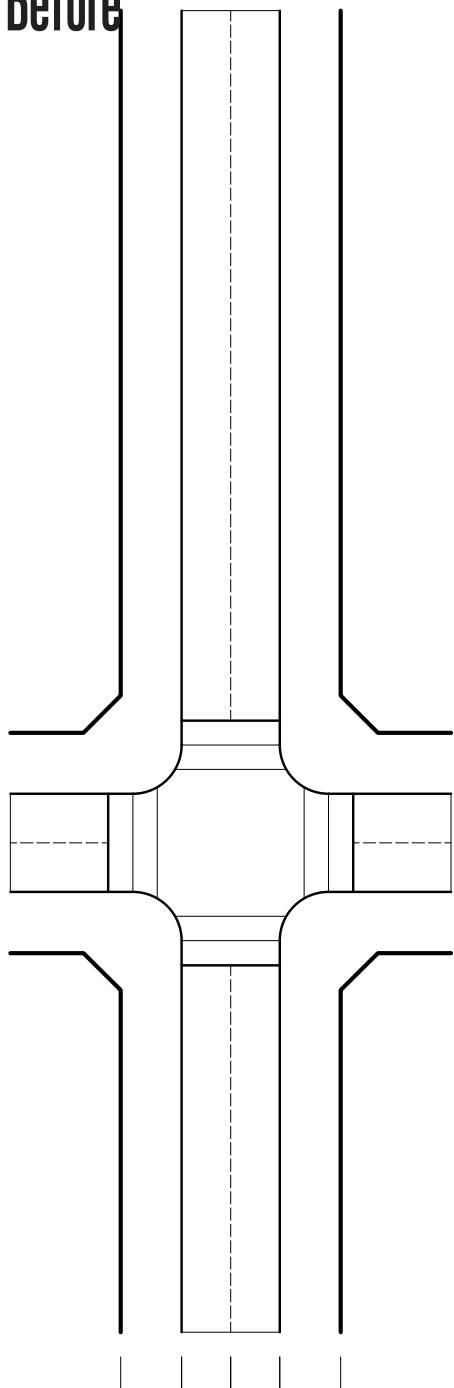


Future

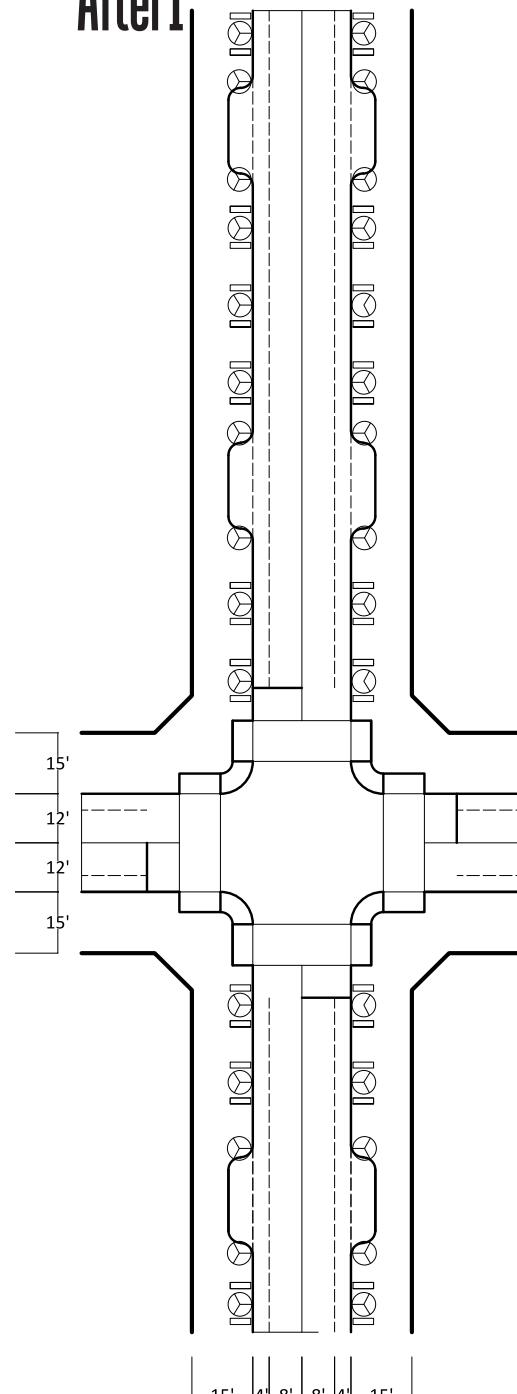


B-STREETS

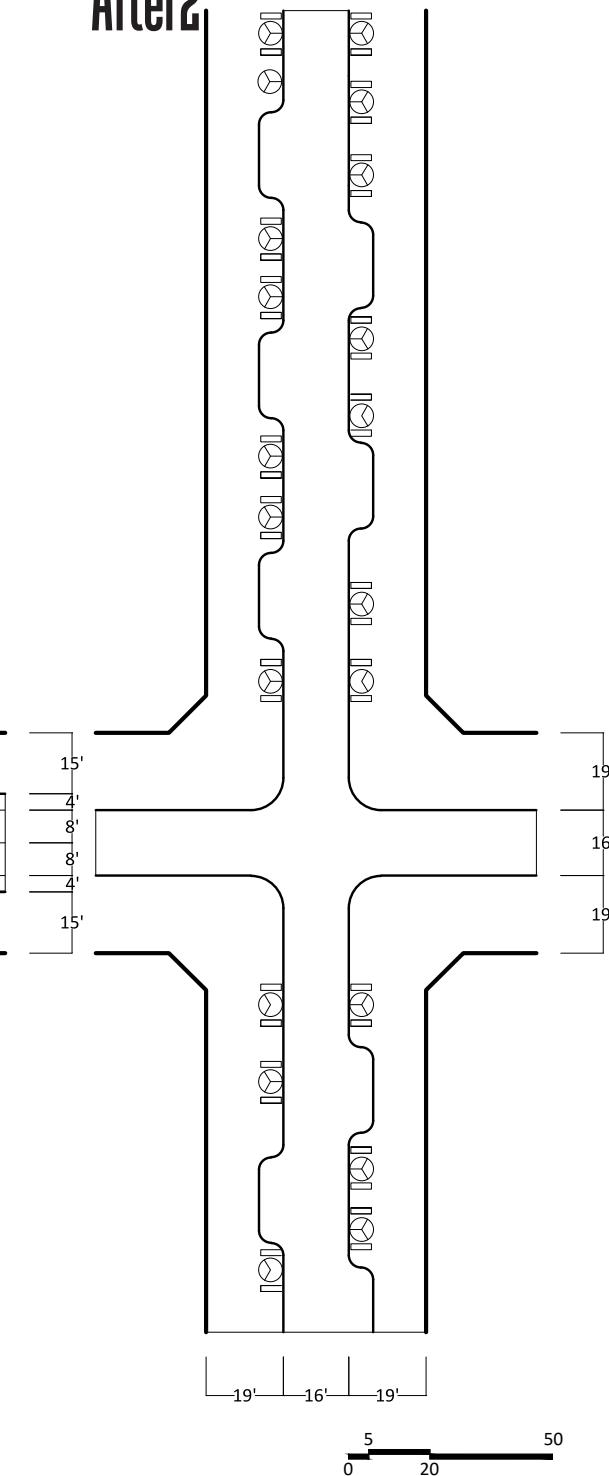
Before



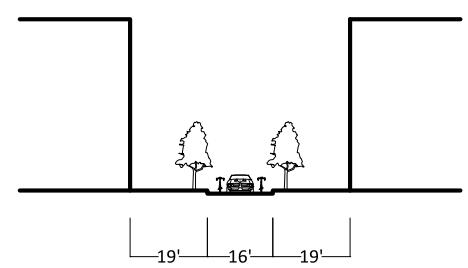
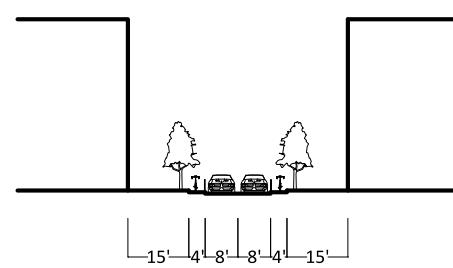
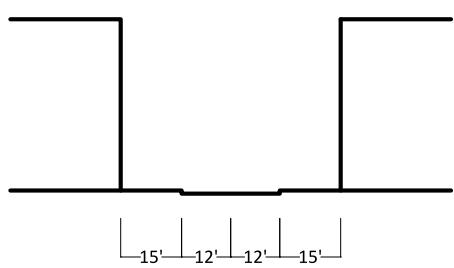
After1



After2

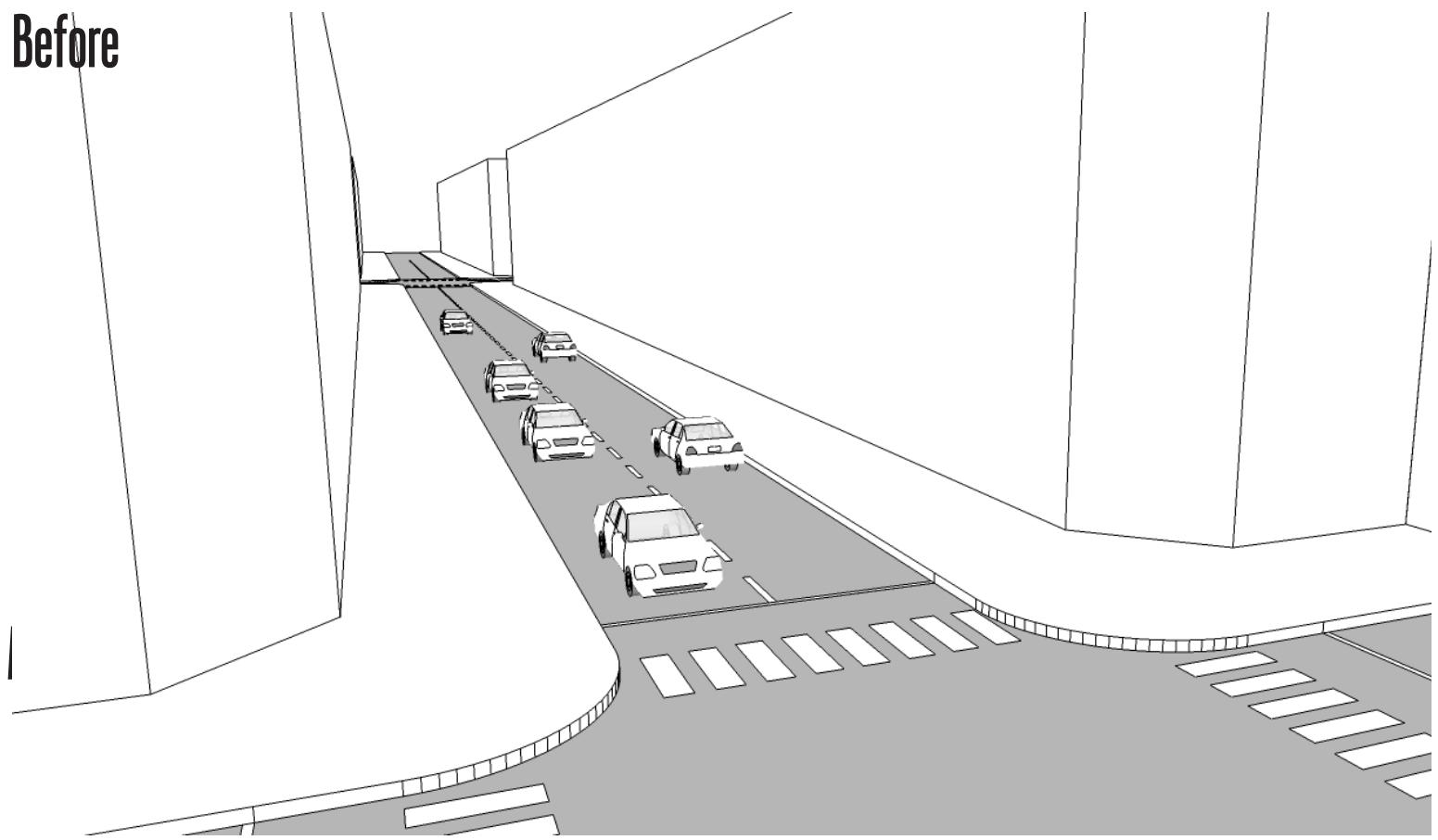


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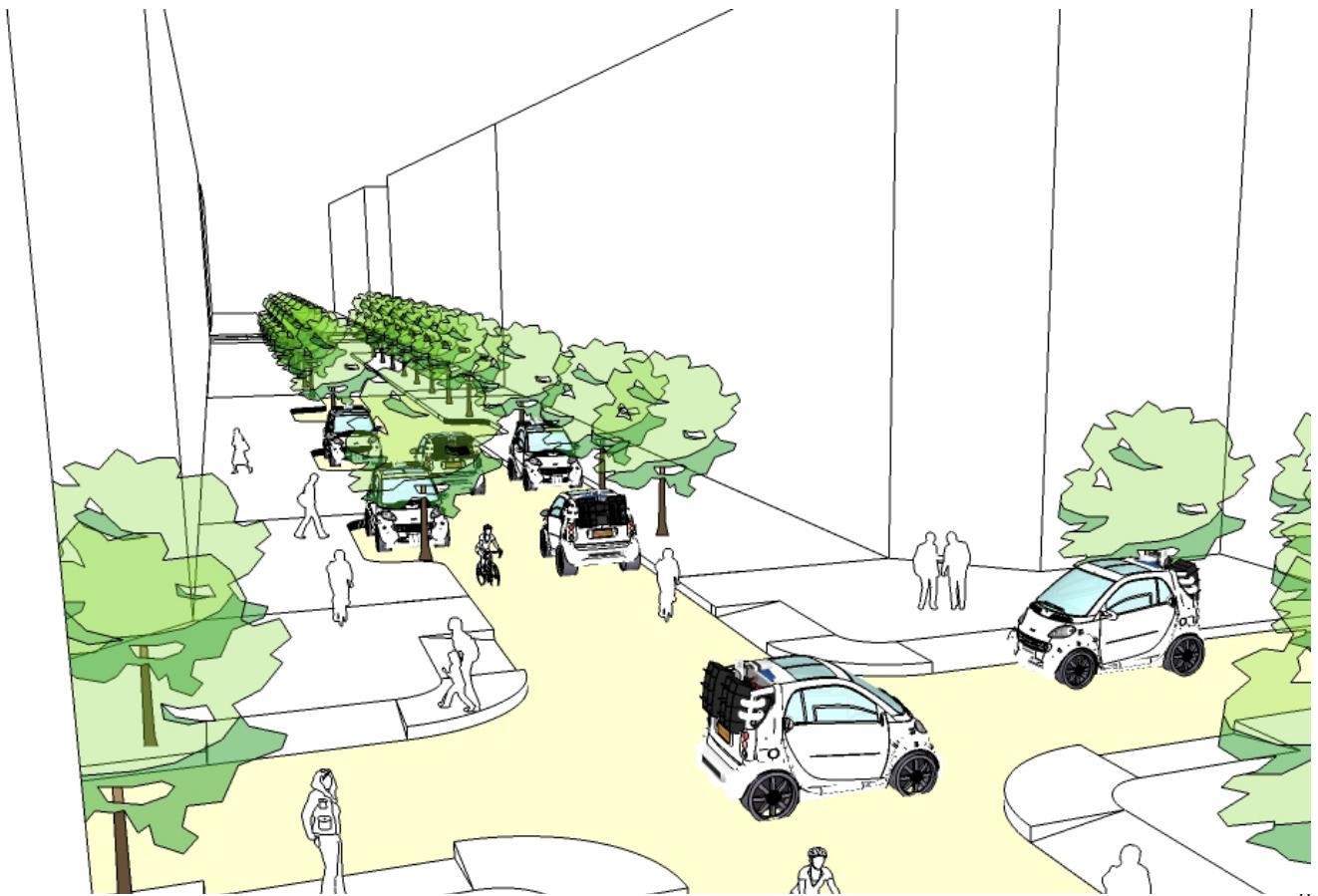


B-STREETS

Before



After



Design

(Group members: Animesh Shrestha, Lu Pang, Meredith G. Blakeley)

speculated about future opportunities for Downtown's public and private realms – and the implications of integrating these through Form-Based Codes and other administrative and regulatory means. Just a few of the questions include:

- What would it look like if driverless cars lead to a drastic enough reduction in the amount of needed roadway to allow significant road diets and improvements to pedestrian/biking facilities and/or liner buildings at the base of windowless buildings?
- What would it look like if driverless cars lead to a drastic reduction in the need for the 93,000 dedicated parking spaces Downtown (let alone the non-dedicated spaces)? Could parking garages be retrofitted to new uses? What new building types might fit into the typical parking garage/lot sites?
- By 2040, metro Atlanta is expected to add 3 million residents for a total population of approximately 8 million. How many will be/should be living, working, and playing in downtown?
- By 2040, the number of people age 65+ living in the region is expected to triple. How many of them will be/should be living downtown?
- What will the role of Downtown be in 2041? Will it be the dominant or just one of many hubs of a polycentric metro?
- How can the experience of walking on Downtown's streets be improved? Who will be walking them in 2041 and are there existing or new design attributes to Downtown that can lend a distinctively Atlanta character to its streetscape and raise the bar for design of Atlanta architecture?
- Could Downtown's colliding grids take more advantage of terminated vistas?
- What are the capacity and performance challenges of Downtown's infrastructure to deal with water and climate change?

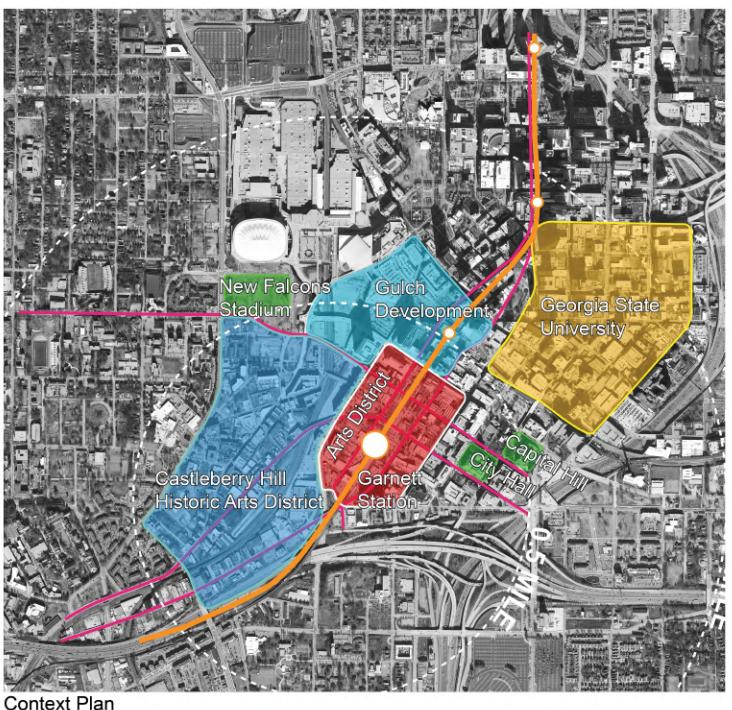
South Downtown - Garnett

Meredith Blakeley | Lu Pang | Animesh Shrestha

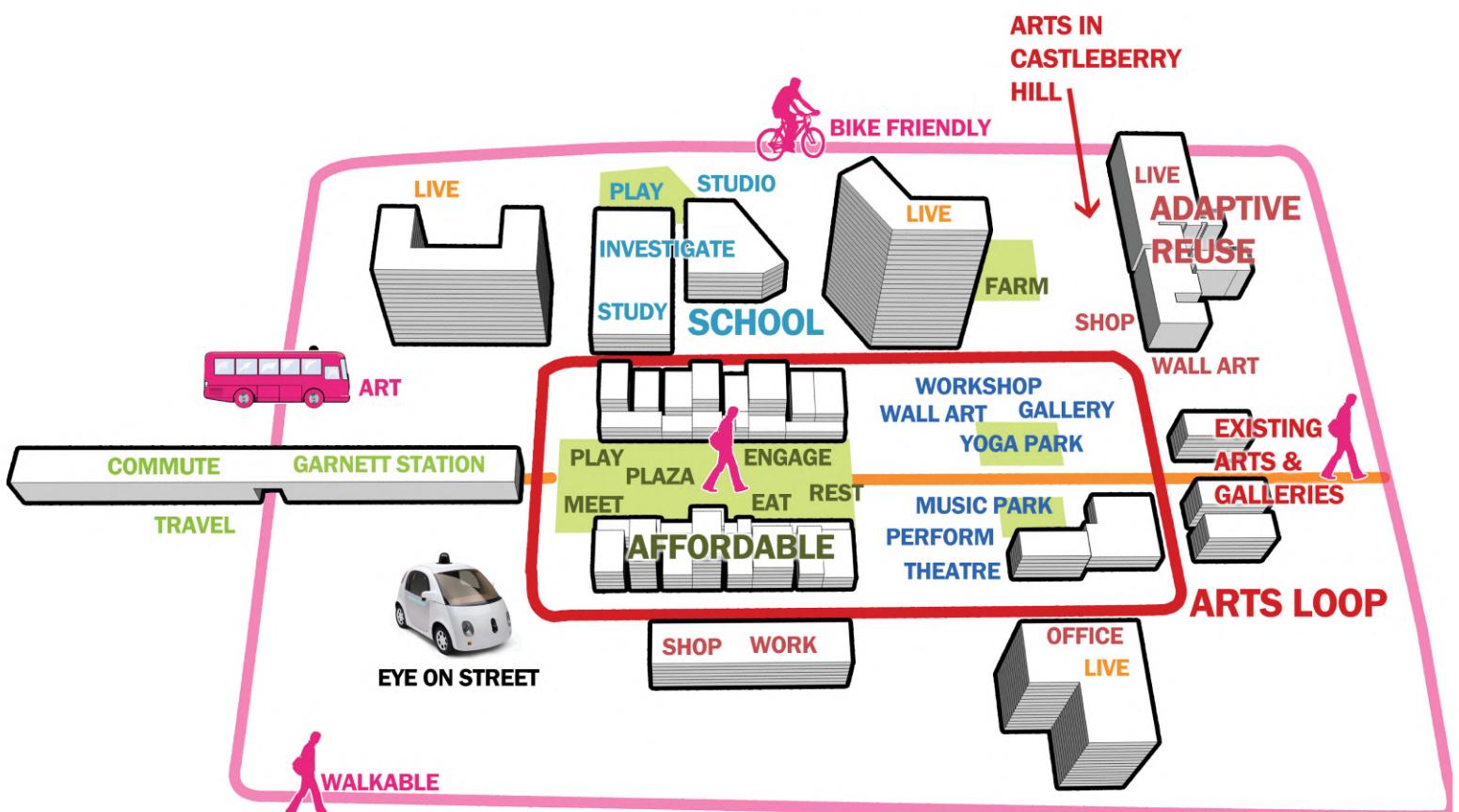
The area around Garnett Station in South Downtown is currently mostly surface parking lots. There are many jobs in the area but the employees are commuting from other areas of the city. The primary goal of the revival of this area is to bring in residents. With the arrival of autonomous vehicles, the parking lots can be redeveloped into residential units and commercial space. To address the needs of family residents green space and a school are included in our proposal. The green space provides water purification and activity space. To connect the area to its surroundings the secondary focus of the revival is to include the arts. The proposed



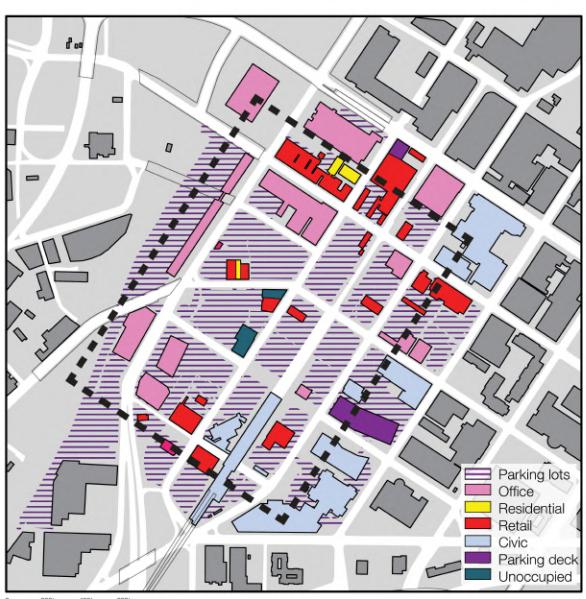
school is an arts school with facilities that are open to the community. Providing affordable housing and work space for artists is part of the reason for keeping the building scale low. One hindrance to development currently is the small lot size and the requirement for parking. With AVs and the public transportation system in the area this requirement can be eliminated and each parcel can be developed individually. The MARTA station plaza, sided by commercial space and residential units, is for gathering and activities throughout the day.



Context Plan



Concept Diagram



Existing Land Use Plan

Existing Parking Area:
1,800,000 sq ft

No of Parking:
3,000

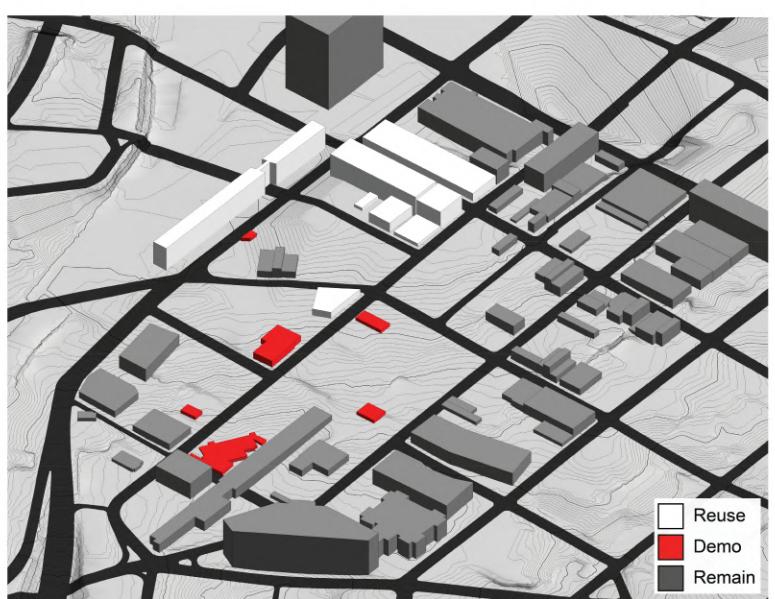
Existing Parking Deck Area:
170,800 sq ft

No of Parking in
Parking Deck:
256

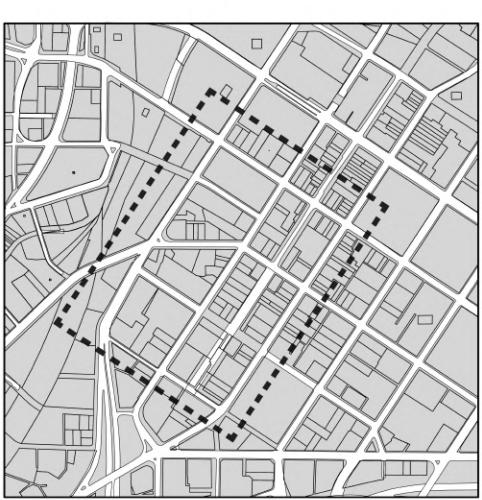
Proposed open
Parking Area:
15,000 sq ft

Proposed No. of
AV parking: 100

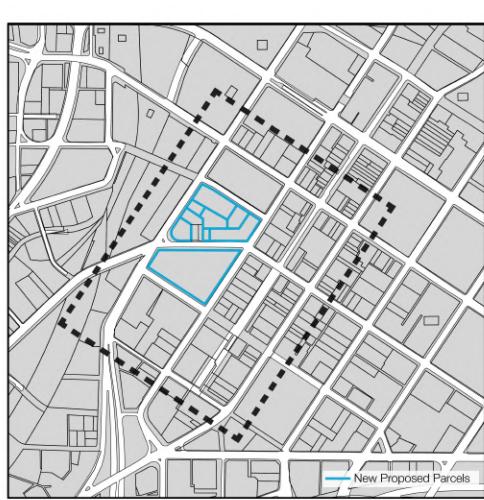
Proposed No. of
Parking in deck:
256



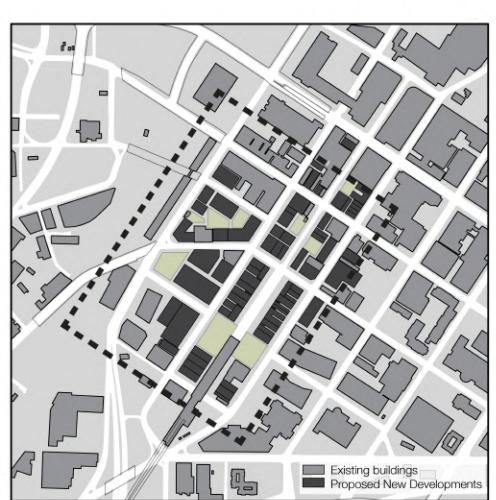
Existing Massing



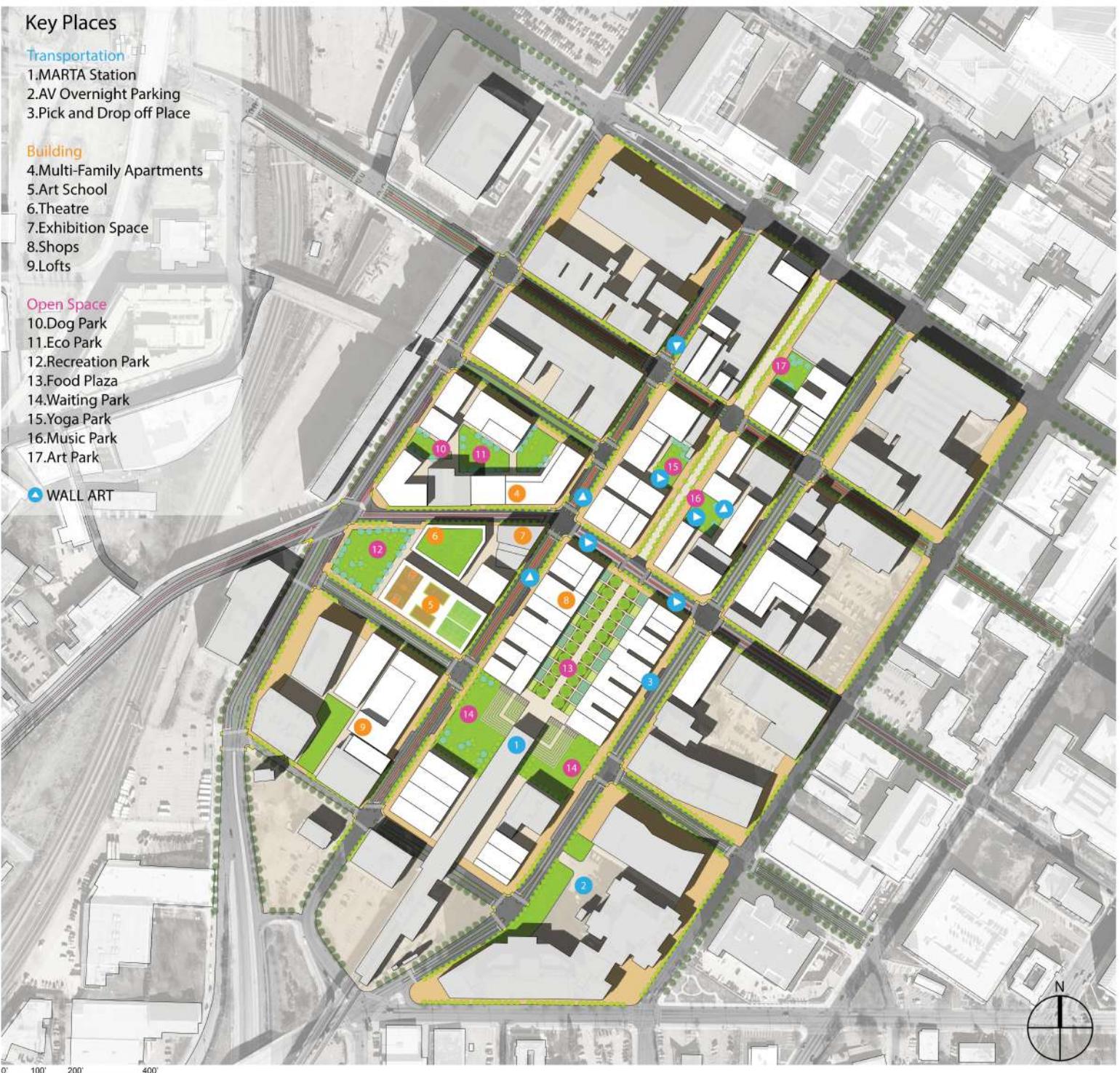
Existing Parcels
Scale: 1" = 400'-0"



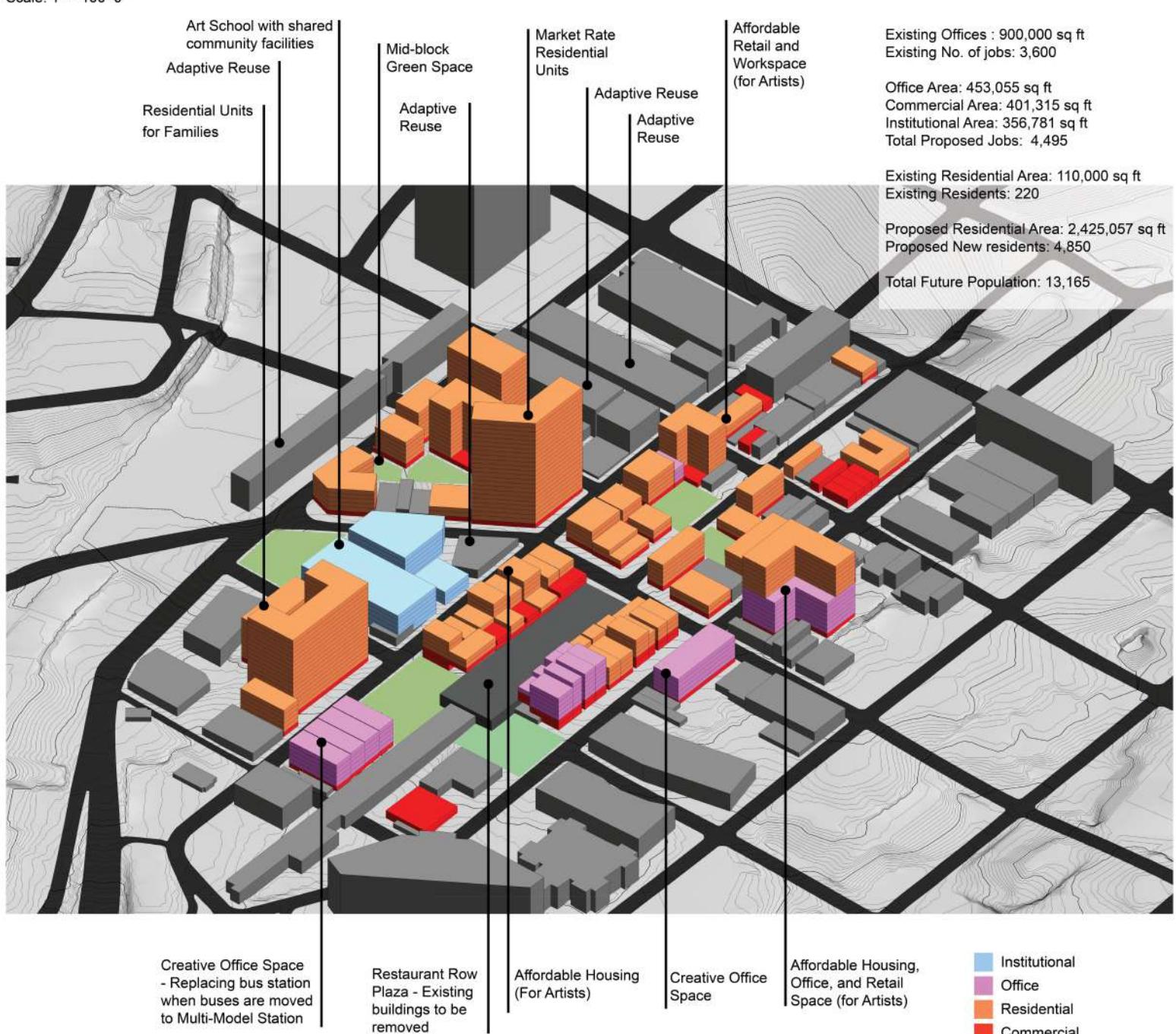
Proposed Parcels
Scale: 1" = 400'-0"



Proposed New Development
Scale: 1" = 400'-0"



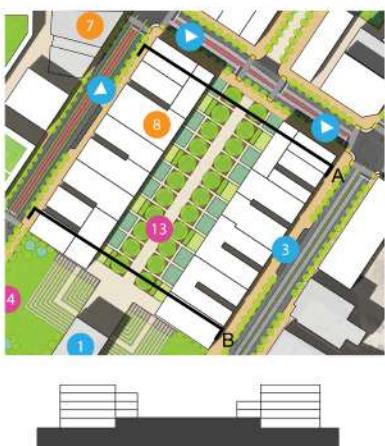
Master Plan
Scale: 1" = 100'-0"



Proposed Massing



Green Space at MARTA Station



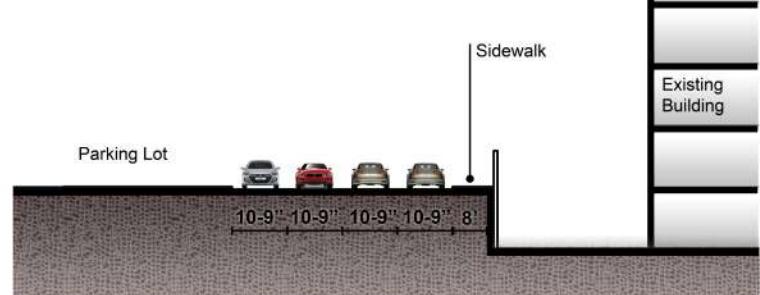
Plaza Section A Diagram (Bottom of Ramp)



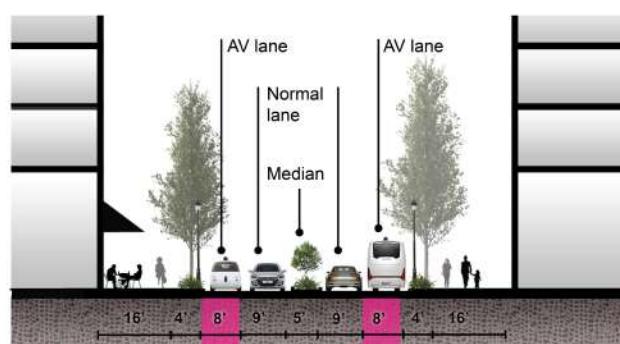
Restaurant Plaza



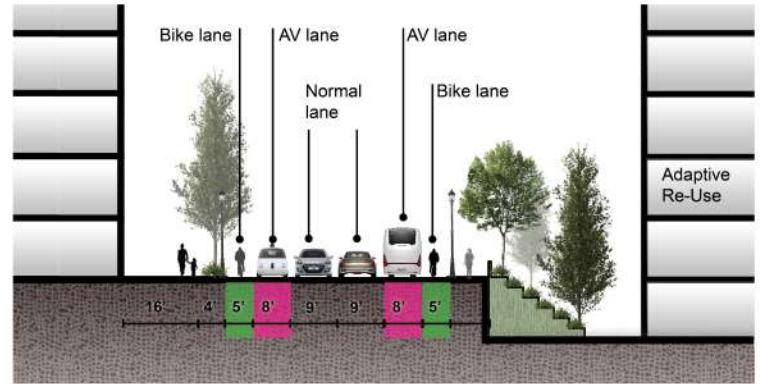
Peachtree Street: Existing



Ted Turner Drive: Existing



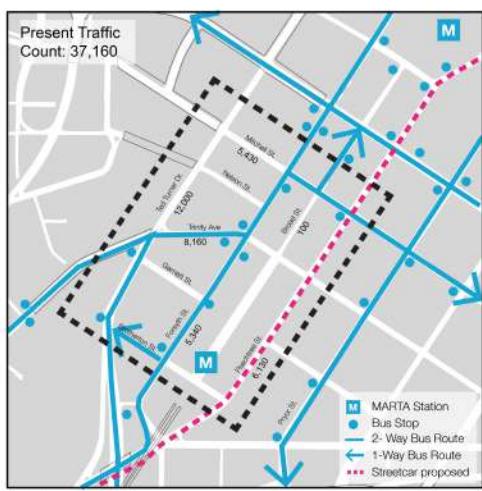
Peachtree Street: Proposed



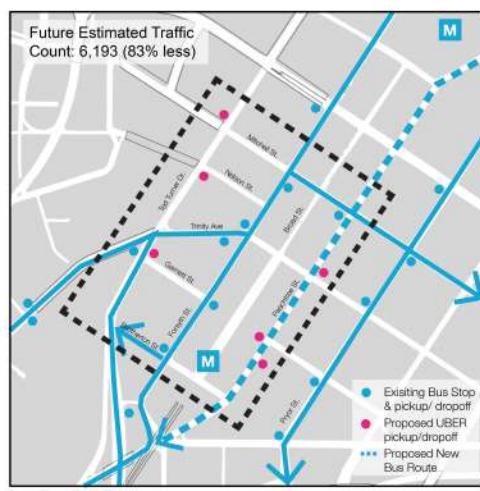
Ted Turner Drive: Proposed

Before & After Street Section Diagrams

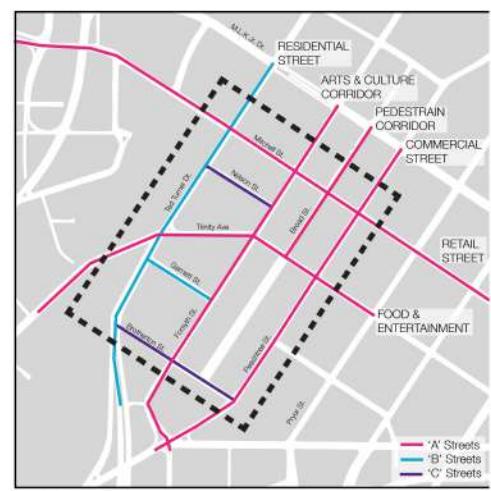
Scale: 1" = 18'-0"



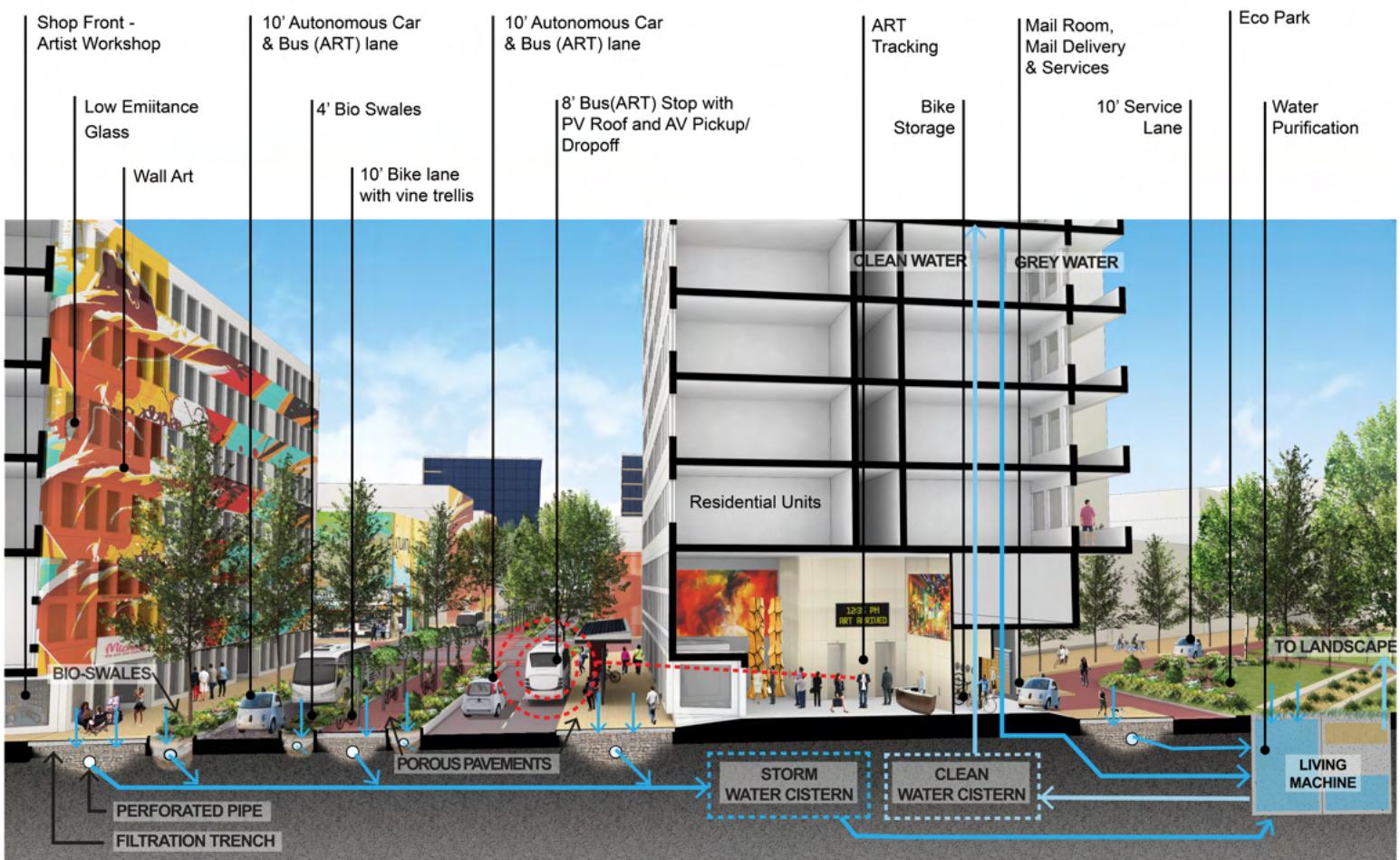
Existing Transportation Plan
Scale: 1" = 400'-0"



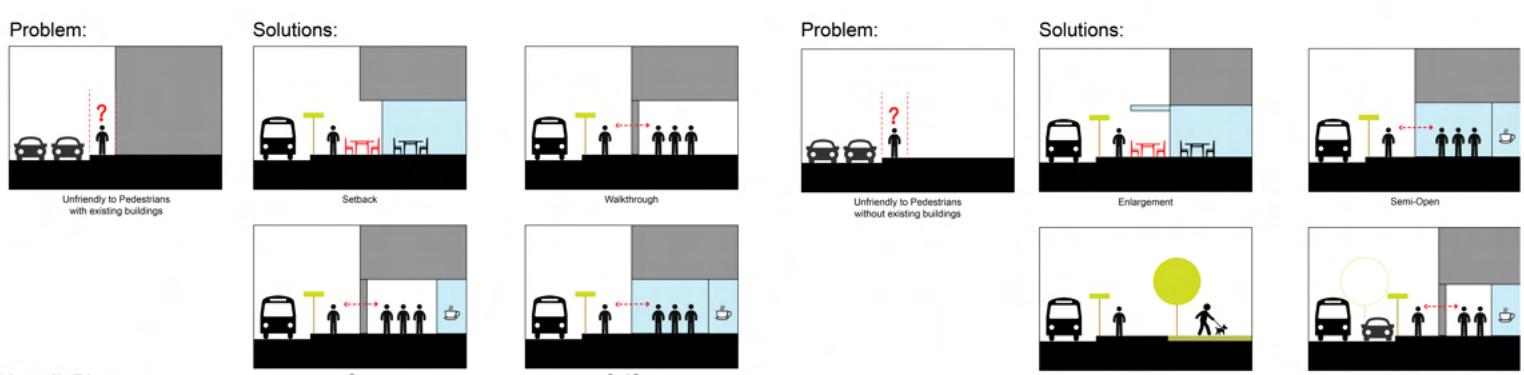
Proposed Transportation Plan
Scale: 1" = 400'-0"



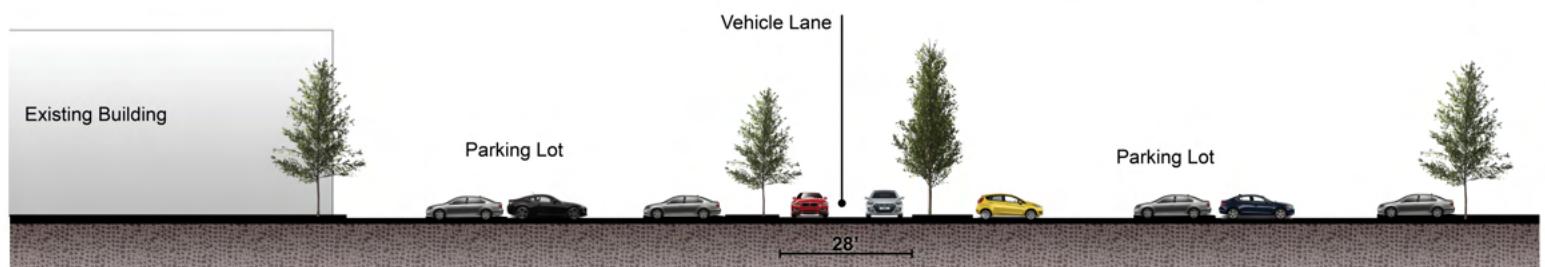
Proposed Street Network
Scale: 1" = 400'-0"



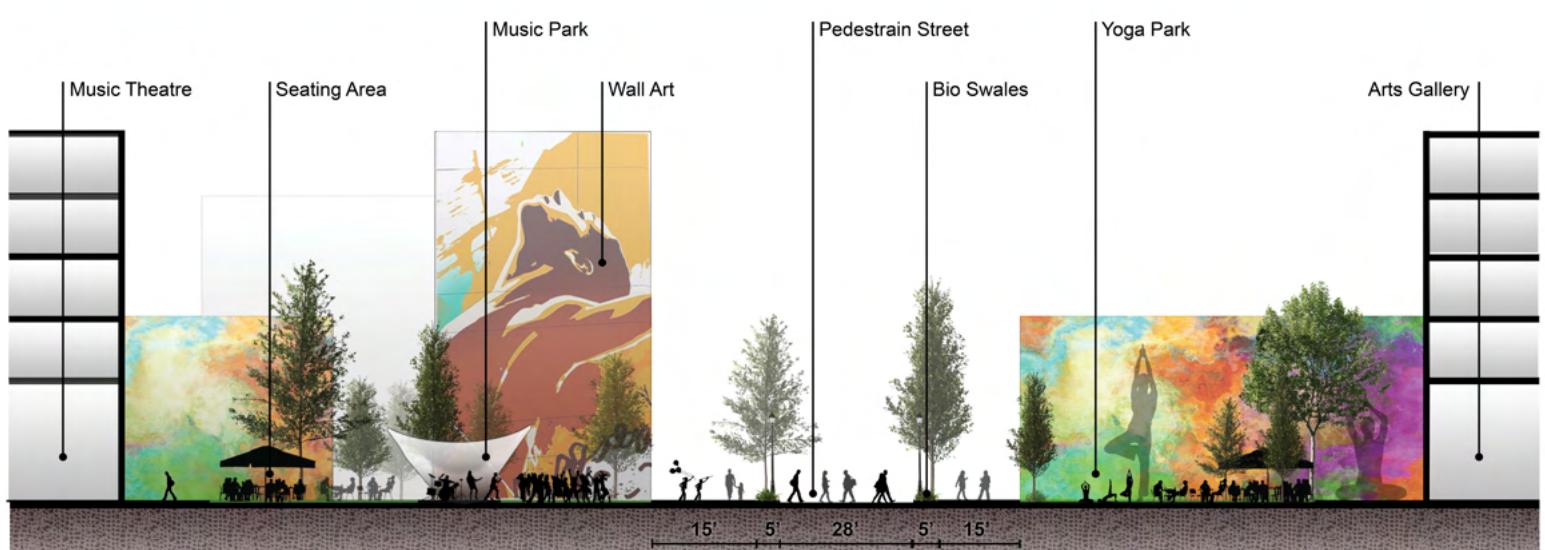
Section Perspective Through Forsyth Street



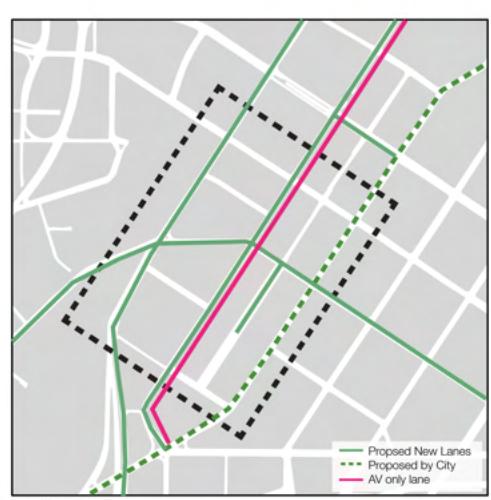
Sidewalk Diagrams



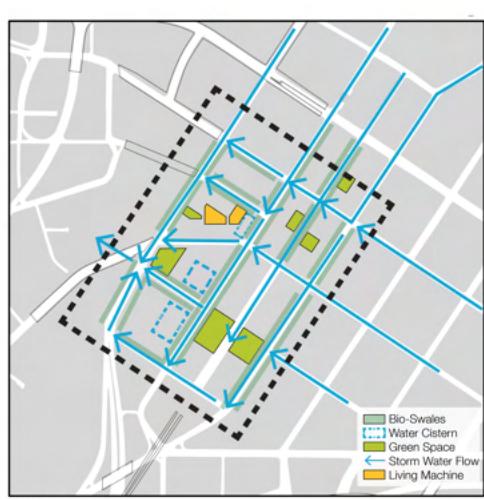
Broad Street: Existing



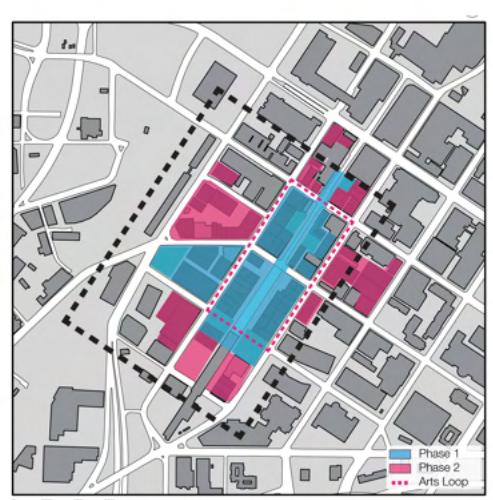
Broad Street: Proposed



Bike Lane & Autonomous Vehicle lanes
Scale: 1" = 400'-0"



Water Flow Diagram
Scale: 1" = 400'-0"



Public Realm Investment
Scale: 1" = 400'-0"