

Princeton Regional Planning Board Review of AET/E-5 Ordinances

Background Material
Ordinance Consistency with Princeton Community Master Plan
Submitted by: Princeton University
for discussion on July 7, 2011

The Planning Board has been asked to evaluate Princeton Township's proposed AET ordinance and Princeton Borough's proposed E-5 ordinance for consistency with the Princeton Community Master Plan.

Princeton University first discussed its current campus plan with the Planning Board in March 2006. Throughout the development of the plan, and especially in the design of its proposed Arts and Transit project, the University sought to be as responsive as possible to community interests and priorities as articulated in the Community Master Plan, and especially in the recently revised Institutional Element of the community plan.

In working with Township, Borough, and Planning Board staff to draft the proposed AET and E-5 ordinances, the University again has sought to achieve consistency with the Master Plan as well as with other community zoning ordinances.

In the Master Plan, educational institutions are called upon to improve traffic flow, address back-ups at key intersections, help reduce peak hour traffic volumes, increase utilization of shuttles/ jitneys/bicycles, enhance gateways into the community, enhance public areas with art, create safe and pleasant pedestrian environments, and link commercial, educational, and cultural activities.

The Arts and Transit project would do all of these things.

The following exhibit lists twelve ways in which the Arts and Transit project is responsive to the Master Plan.

The community master plan calls upon educational institutions to:

- Improve traffic flow.
- Address back-ups at key intersections (including Alexander/University Place and Alexander/Faculty Road).
- Help reduce peak hour traffic volumes.
- Increase utilization of shuttles, jitneys, and bicycles.
- Provide parking for railroad riders as close as possible to the station.
- Manage parking to differentiate and accommodate regular monthly permit commuters, all-day occasional parkers, and partial-day parkers who want to use the train later in the day.
- Provide space for short-term pick-up and drop-off at the station.
- Accommodate taxis, jitneys, buses and potential BRT vehicles that would pick-up and drop-off passengers at the station.
- Enhance gateways into the community.
- Enhance public areas with art.
- Create safe and pleasant pedestrian environments.
- Link commercial, educational, and cultural activities.

The Arts and Transit area would be home to the Lewis Center for the Creative and Performing Arts. Its first phase would include a signature building by the world-renowned architect Steven Holl that would provide much-needed rehearsal and performance space in dance, music, theater, and other areas of the arts. This space is critical for the University to support its expanded commitment to the arts for students and for members of the community, and this location will facilitate multiple synergies with McCarter and Berlind Theatres. Later phases are intended to provide additional spaces for the arts, including an experimental media studio.

The Steven Holl-designed building will be complemented by carefully designed outdoor spaces that will create a safe, enjoyable, and programmable public space, while new café and restaurant spaces will enliven the area and provide a much-desired dining resource adjacent to McCarter/Berlind.

The project will improve traffic flow in the Alexander Street/University Place corridor by improving road design and reducing peak hour volumes. The project includes a new Dinky station, increased parking, and active support of shuttles, jitneys, and bicycles. The project also achieves a large number of sustainability goals.

The community master plan asks ten questions about the Arts and Transit project. In the following exhibits we provide information that responds to those questions.

QUESTION: Whether it is desirable or necessary to move the Dinky Station from its current location?

The Dinky terminus will be relocated so that it can be fully integrated with the other functions of the proposed Arts and Transit project and provide access from Alexander Street to the Lot 7 garage. The relocation of the terminus has multiple benefits:

The relocation of the Dinky station and the parking associated with the station will be combined with the development of a purpose-designed, multi-modal hub for shuttles, jitneys, buses, taxis, and bikes that is removed from the public roadway and therefore out of the normal flow of traffic. Existing traffic backups that are caused by conflicts between through traffic and traffic with destinations in the neighborhood or transit plaza are reduced. (See Exhibit A on page 8.)

The relocation permits infrastructure improvements that will improve traffic flow in the Alexander/University Place corridor. The combination of a new roundabout, a new traffic light, and a new pedestrian crossing with coordinated signalization will reduce peak hour backups, as will a reduction in peak hour traffic. The level of service at the Alexander Street/University Place intersection will improve during peak hours from an “F/F” level of service to an “A/A”. (See Exhibit B and C on pages 9 and 10.)

The relocation of the station allows for direct vehicle access to and from the Lot 7 garage for daytime University uses and evening and weekend performances at McCarter and the new arts venues. This direct access has an immediate sustainability benefit of saving 350 vehicle miles travelled per day.

The direct access to and from Lot 7 garage will reduce traffic at the intersection of Alexander and Faculty Road. Traffic analysis indicates that access from the north to Lot 7 will reduce traffic at the Alexander and Faculty intersection during the morning peak by 120 to 140 vehicles and by 110 to 130 vehicles during the evening peak. (See Exhibit D on page 11.)

QUESTION: Whether it is desirable or necessary to move the Dinky station from its current location?

The relocation of the Dinky creates a safe pedestrian area for residents, visitors, students, faculty, and staff adjacent to the transportation hub, the McCarter Theater Center, and the new arts buildings (phase one and phase two).

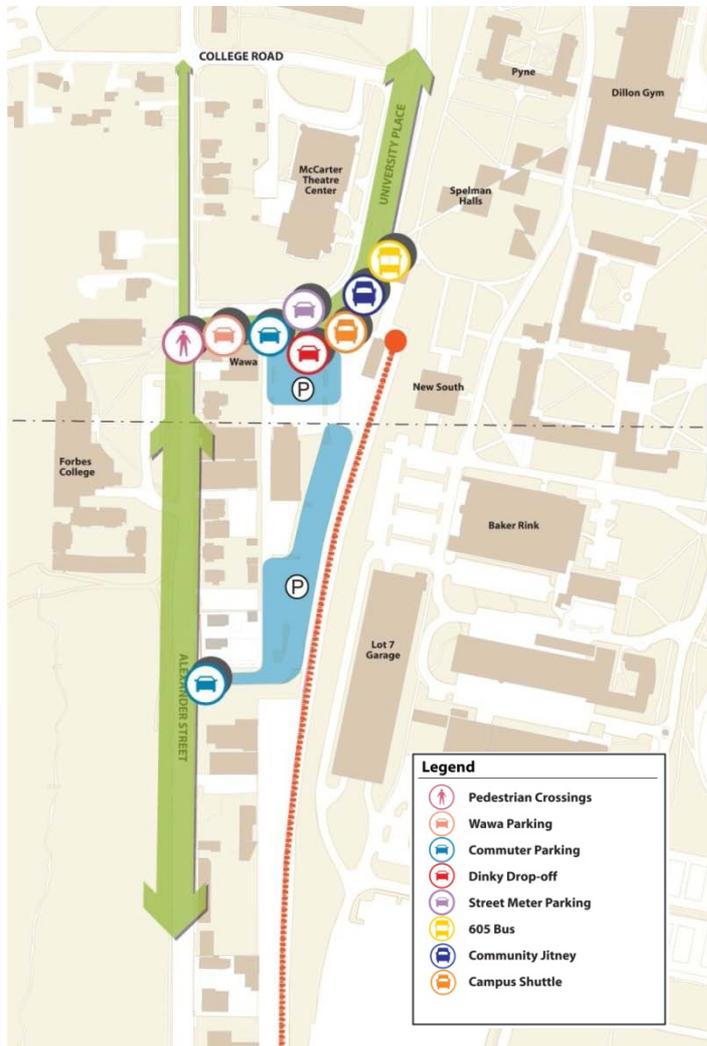
The change in use from office to academic/arts reduces peak-hour traffic by 260-320 vehicles per day. This plus infrastructure changes improves traffic flow and reduces peak hour travel time. (See Exhibit E page 12.)

Exhibit F (on page 13) compares peak hour traffic generation under existing conditions with future build-out under AET/E-5 zoning, showing a modest decrease in such traffic.

It then compares existing conditions with full build-out under current zoning, showing significant increases.

Exhibit A: Conflicting Traffic Movements

EXISTING CONDITIONS



PROPOSED PHASE ONE

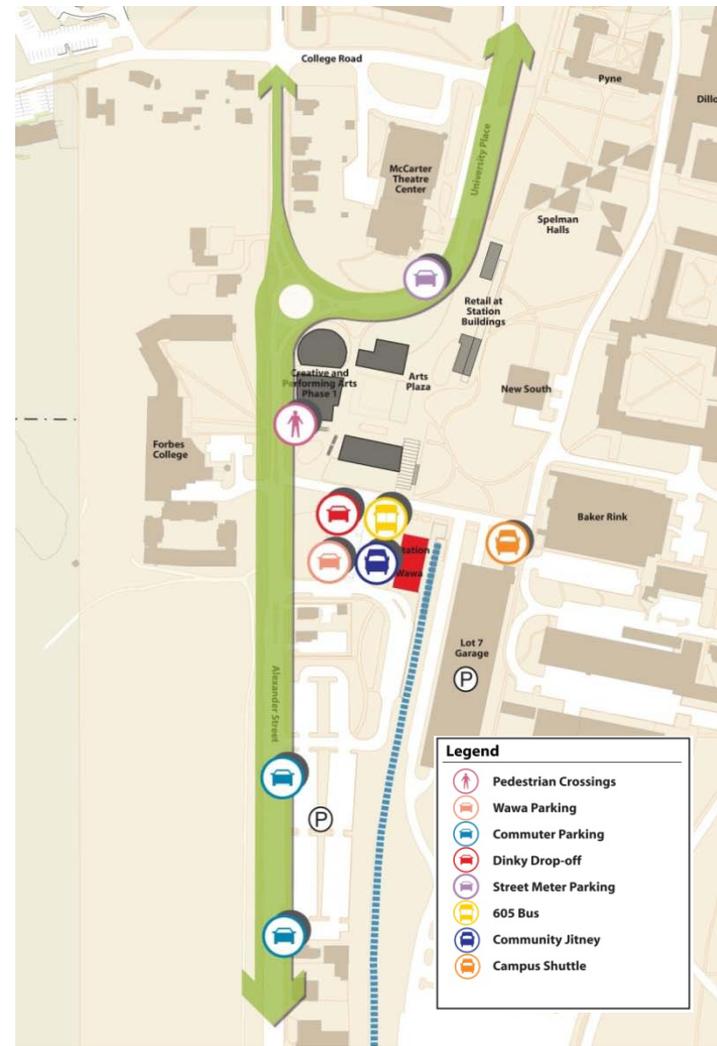
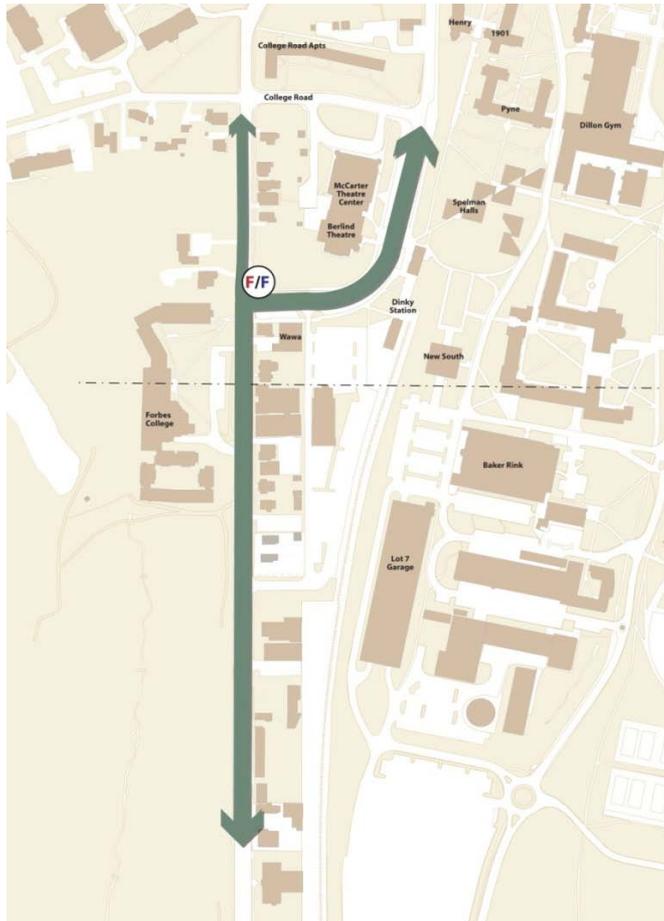


Exhibit B: Levels of Service at Alexander Street and University Place intersection

EXISTING



PROPOSED

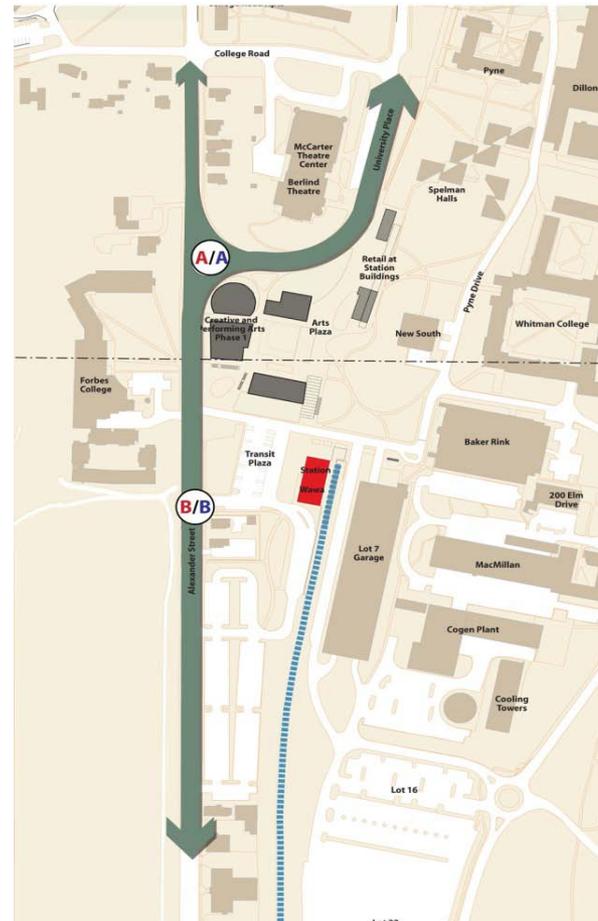


Exhibit C: Existing and Proposed Green Light Capacity

- Current green time (45%) on Alexander Street at the University Place traffic light.
- Proposed new light at the transit plaza will have a longer green time for Alexander Street (about 60%).
- The pedestrian crossing would be timed with the transit plaza light, with no need for a “pedestrian only” phase.
- The light at the transit plaza would coordinate with the light at Faculty Road to meter traffic through the corridor.

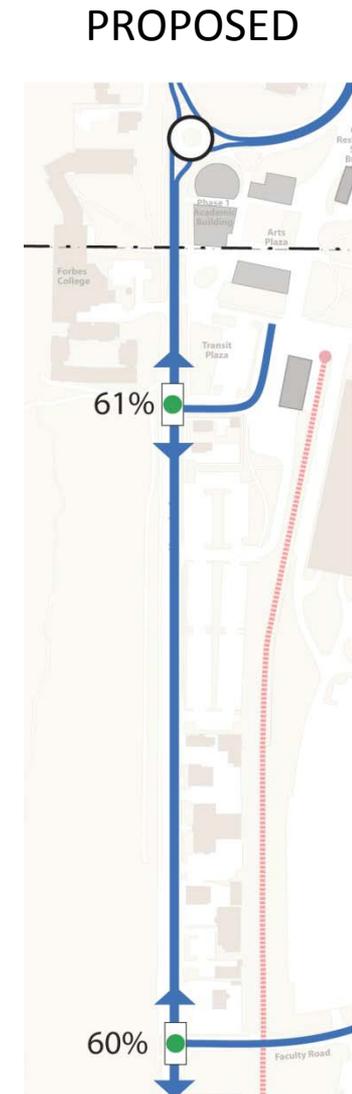


Exhibit D: Access to Lot 7 Garage

EXISTING



PROPOSED

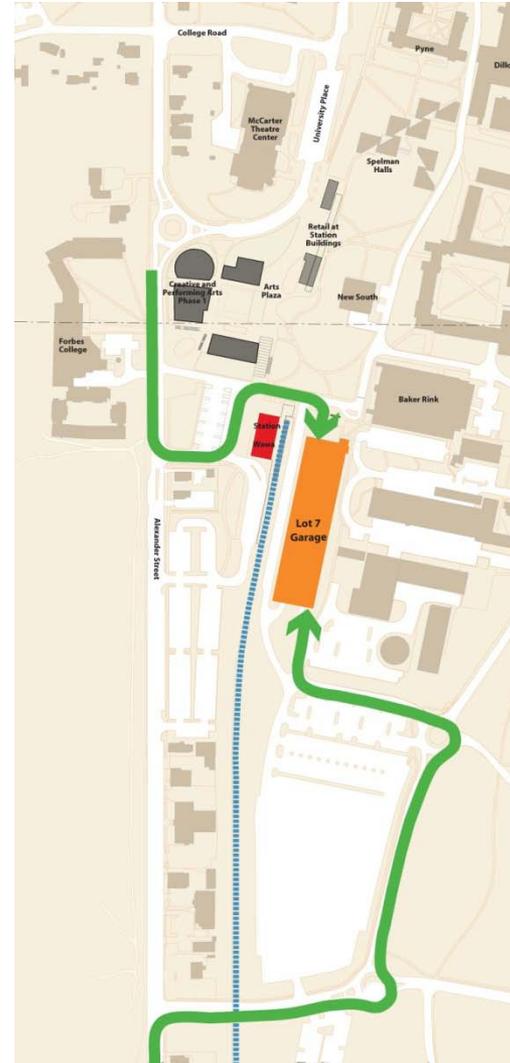
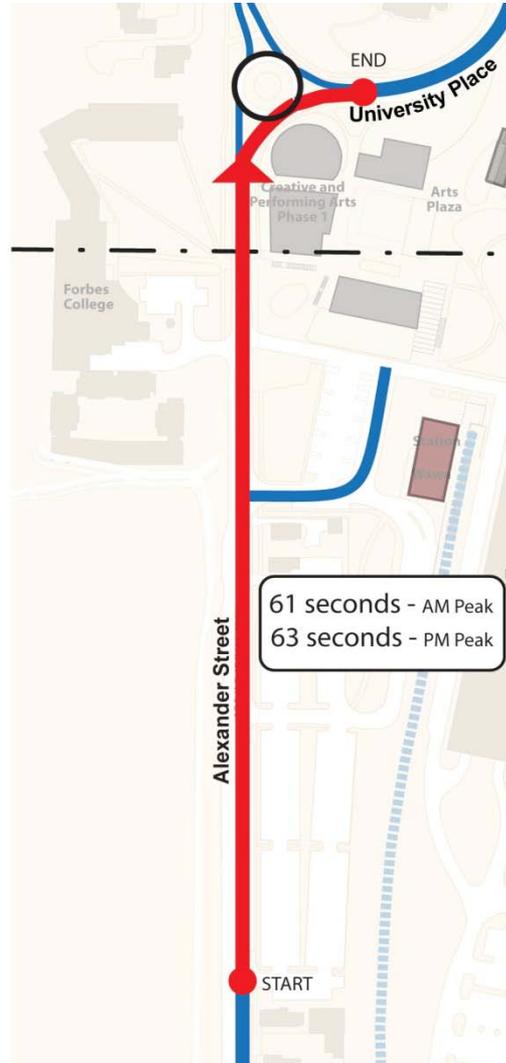


Exhibit E: Traffic Circulation

Improving traffic along Alexander: Travel time through the corridor.

Average travel time reduces to approximately one minute during peak hours.

PROPOSED NORTHBOUND



PROPOSED SOUTHBOUND

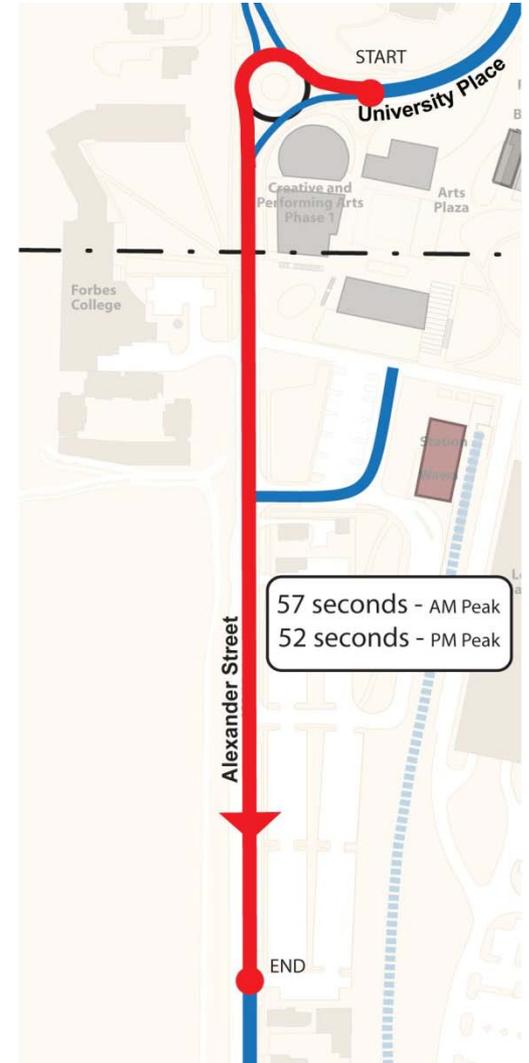


Exhibit F: Comparison of Traffic Generation

Existing Conditions and Full Build-out with Proposed AET/E-5 Zoning

	EXISTING CONDITIONS	FUTURE BUILD-OUT WITH AET ZONING
Number of Employees	127 Employees	121 Employees
Square Footage	86,500 SF Total	281,500 SF*
AM Peak Hour Traffic Generation	42 Vehicles ¹	40 Vehicles ¹
PM Peak Hour Traffic Generation	39 Vehicles ¹	38 Vehicles ¹
Vehicles contributing to Alexander & Mercer traffic	AM 5 PM 4	4 4
Vehicles contributing to Bayard & Stockton traffic	AM 7 PM 6	6 6

¹ Based on university traffic generation rates

* Full build out (excluding parking garage, if required)

Existing Conditions and Full Build-out with Current Zoning

	EXISTING CONDITIONS	FUTURE BUILD-OUT WITH EXISTING ZONING
Number of Employees	127 Employees	750-900 Employees
Square Footage	86,500 SF Total	Max 220,000 SF Office
AM Peak Hour Traffic Generation	42 Vehicles ¹	282 Vehicles ²
PM Peak Hour Traffic Generation	39 Vehicles ¹	260 Vehicles ²
Vehicles contributing to Alexander & Mercer traffic	AM 5 PM 4	31 29
Vehicles contributing to Bayard & Stockton traffic	AM 7 PM 6	45 42

¹ Based on university traffic generation rates

² Assumes ITE traffic generation with 20% walk/transit

QUESTION: How desired direct access from University Place and Alexander Street into the Lot #7 garage and its associated parking lots might best be achieved?

Direct access to the Lot 7 garage can be provided by an access road that is planned as part of the Arts and Transit project. New Jersey Transit has indicated in meetings, both with the University and at a public meeting of the Borough Council on June 14, 2011, that an on-grade crossing of the rail line would not be approved for this location.

The University studied other options for construction of the access road that were determined to be unfeasible for a variety of reasons. These other options included:

- A tunnel for the access road under the train tracks.
- A tunnel for the Dinky train under the access road.
- A bridge over the train tracks.

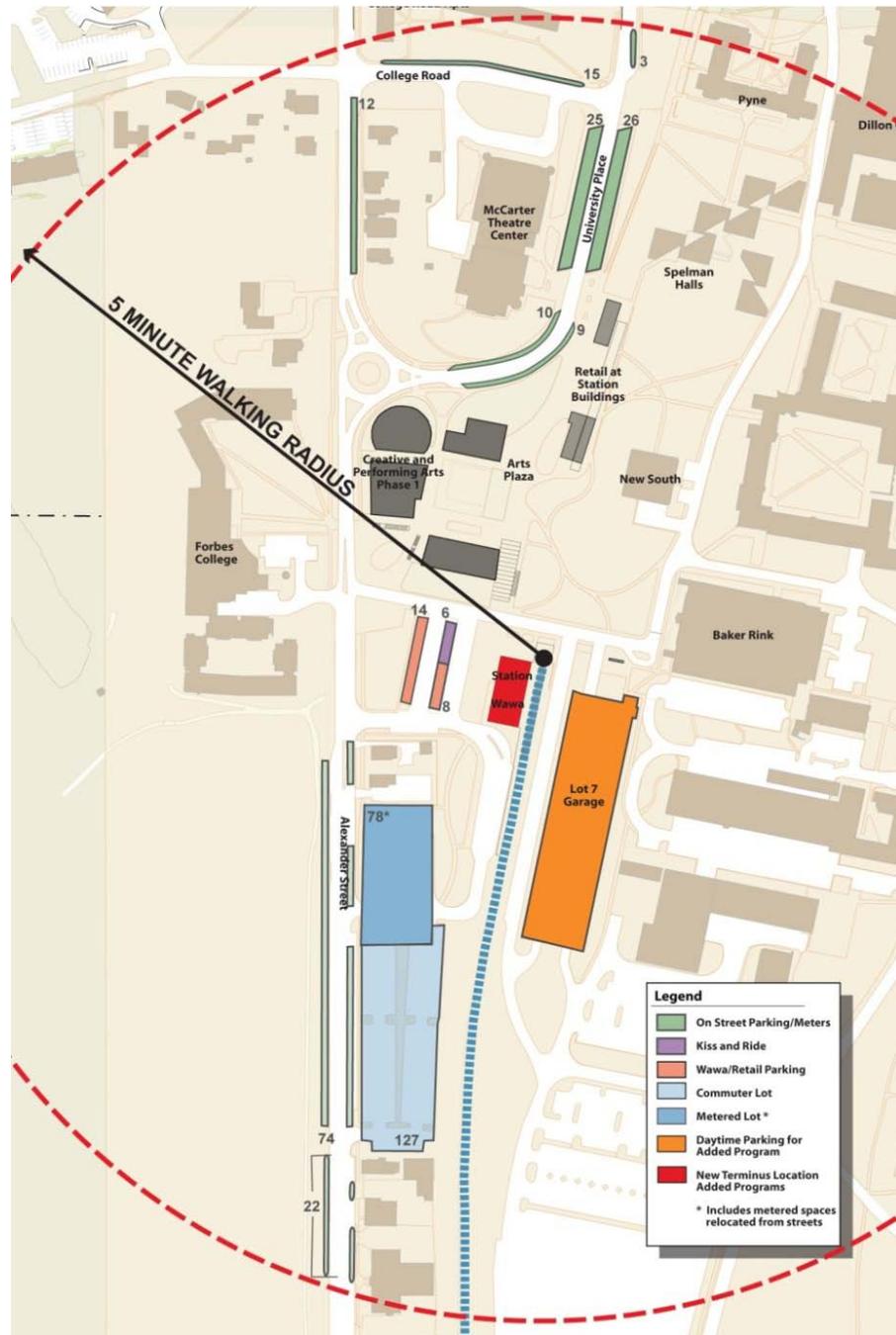
QUESTION: How to provide parking for railroad riders as close as possible to the station?

As part of the plan, the number of public parking spaces within a 5-minute walking radius of the station will increase from 413 spaces to 429 spaces. Conversations with the Borough and Township engineering staffs have indicated that the parking space width in the commuter lot could be decreased to 8 ½ feet. This would result in an increase in the number of parking spaces beyond 429. (See Exhibit G on page 16.)

All public parking would be replaced in-kind, including 175 commuter spaces (parking and meters) within 1000 feet of the station. With a decrease in the width of parking spaces in the commuter lot the number of spaces in the lot could be increased.

Other transit related parking spaces, including kiss and ride parking and taxis, would be available in the short-term lot in front of the station.

Exhibit G: Station Parking



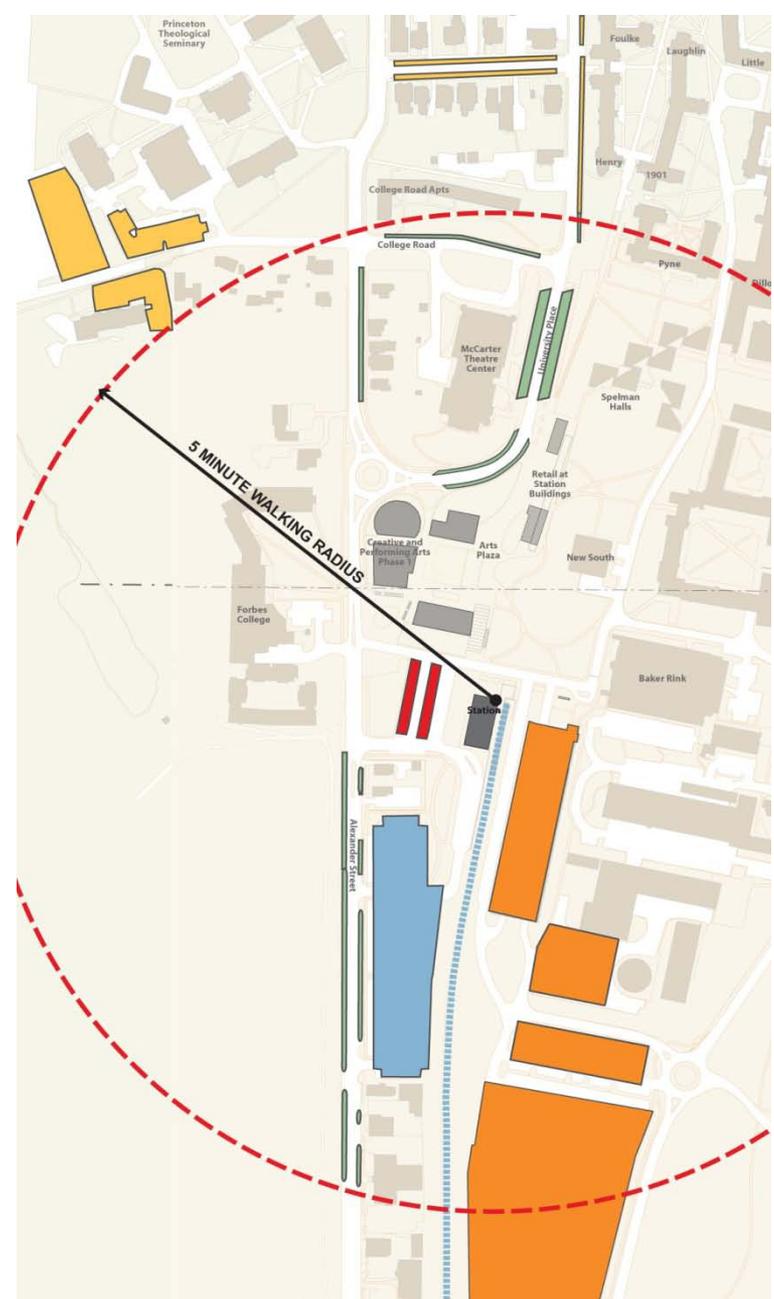
QUESTION: How to manage parking to differentiate and accommodate regular monthly permit commuters, all-day occasional parkers, and partial-day parkers who want to use the train later in the day?

The plan will continue to provide the same types of parking that already exist in the vicinity of the current Dinky station. There will be a permit lot for regular commuters with monthly permits, and a meter lot and on-street meters for occasional parkers. (See Exhibit H on page 18.)

The University expects that meters would provide a variety of time limits to accommodate full and partial day users and to encourage appropriate meter turnover to maximize use and revenue.

Exhibit H: Public Parking Supply

-  Commuter lot parking: meter and permit
-  Short term parking (for kiss & ride, retail)
-  Lot 7 Garage & additional surface lots for evenings and weekends
-  Additional street parking within a 5 minute walk of station
-  Other on-street and lot parking located nearby



QUESTION: How station (meter) parking now managed by the Borough might be handled if it is relocated into Princeton Township?

The plan provides for an increase in meter parking from 162 spaces to at least 191 (or more at 8 ½ foot width), and perhaps as many as 265 spaces. If meters were to be installed along College Road between University Place and Alexander Street, this number would increase by an additional 15 meter spaces. (See Exhibits I and J on pages 20 and 21.)

Township Committee has indicated that it is not interested in creating the necessary administrative structure to collect meter revenue, and would be interested in contracting with the Borough to collect these revenues.

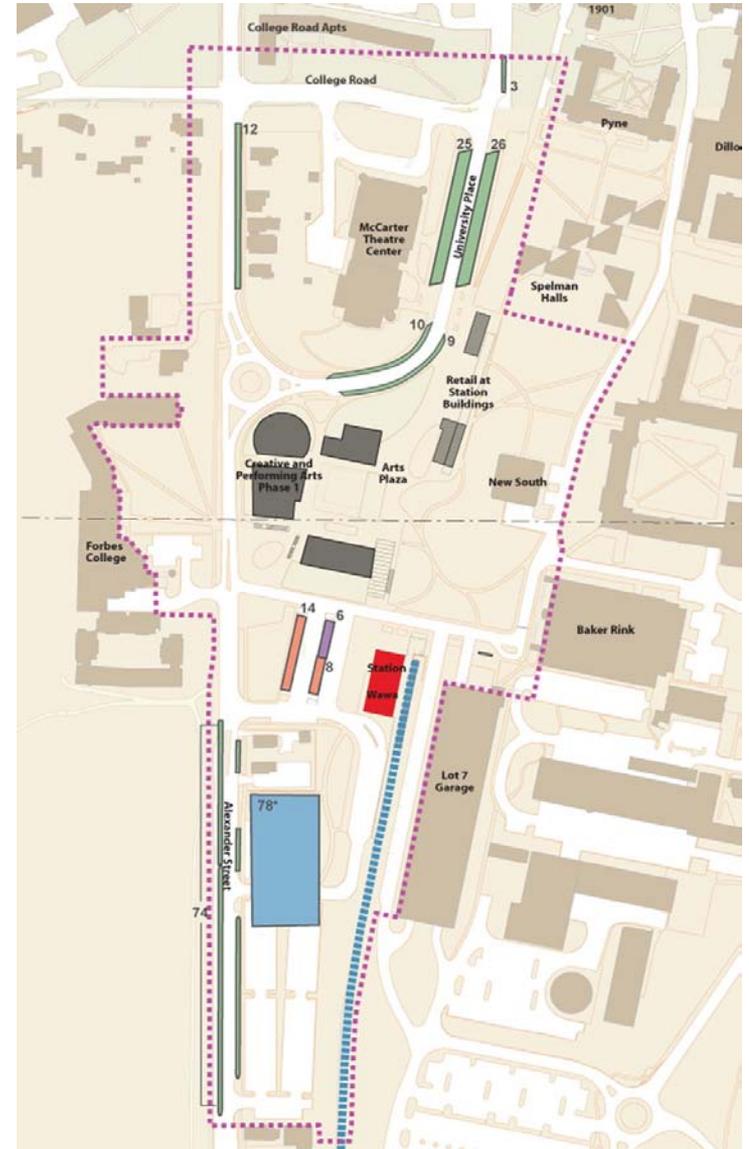
Exhibit J: Meter Parking Proposed

METERED PARKING AVAILABLE:

On Street Borough:	85 spaces *
Transit Plaza Parking:	28 spaces
<u>Commuter Lot:</u>	<u>78 spaces **</u>
Total:	191 spaces
<u>On Street Township:</u>	<u>+/- 74 spaces</u>
Total:	265 spaces

*Adding meters on College Road would increase Borough meters to 100.

** Could increase with 8 ½ foot striping.



QUESTION: How to provide parking for daytime visitors to the performing and museum spaces expected to be part of the new Arts Center?

A satellite museum was incorporated in the original plans for the Arts and Transit project but has since been removed from the plan.

The number of daytime visitors to the new arts center will be low, as the performances and public events that will draw audiences to the space will be planned for evenings and weekends. Any daytime visitors would be directed to the visitor lot (currently located in Lot 23).

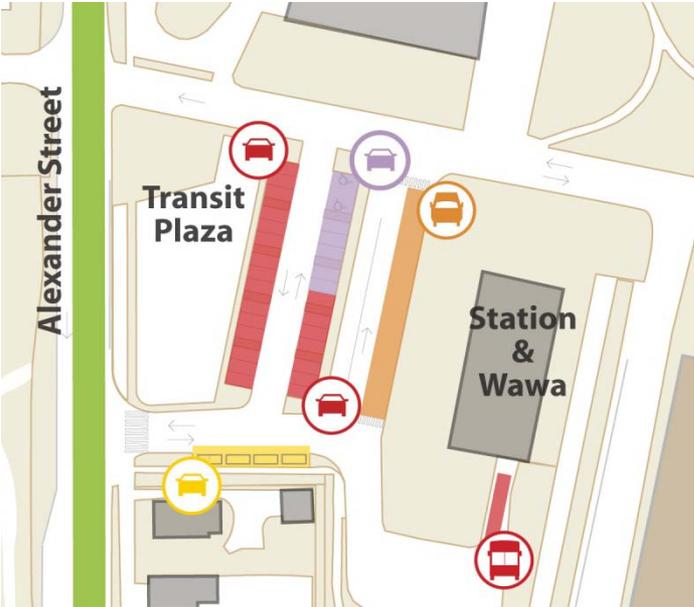
QUESTIONS: How to accommodate short-term pick-up and drop-off at the station and Wawa as well as taxis, jitneys, buses, and potential BRT (Bus Rapid Transit) vehicles?

The design includes a purpose-designed, multi-modal hub for shuttles, jitneys, buses, taxis, and bikes that is removed from the public roadway and therefore out of the normal flow of traffic. (See Exhibit K on page 24.)

The design also includes 28 spaces for short-term pick-up and drop-off and Wawa customers. Wawa staff would park in the Lot 7 garage.

If the municipalities approve a draft MOU, the University would agree to have TigerTransit shuttles meet all incoming Dinky trains during peak hours, and maintain electronic route and shuttle locator maps at all times.

Exhibit K: Transit Plaza Design and Proposed User Locations



Legend

-  WaWa & Retail Parking
-  WaWa Loading
-  Passenger Drop-off
-  Kiss and Ride
-  Taxi zone

QUESTION: How to retain or relocate the attractive older residential-type buildings along Alexander Street that are proposed to be replaced by the Arts Center?

In order to create a development site for the Arts and Transit project, several of the existing structures will be removed. The University is prepared to offer these structures for free to any individual or business who would like to relocate the structures to new locations.

QUESTION: How to re-develop for mixed use, including housing, the service district along Alexander Road in Princeton Township?

The Master Plan calls for a reevaluation of the existing service zones in Princeton Township.

Since November 2009, the Township and the University have been working collaboratively to develop an ordinance and design guidelines to create a new RMU zone that would replace part of the existing S-1 District in the Township. This new zone would:

- Create an attractive gateway into Princeton
- Create a largely residential mixed-use neighborhood adjacent to the planned Arts and Transit project and south along Alexander Street in Princeton Township.
 - This new neighborhood would include:
 - Housing (including workforce and affordable housing)
 - Retail and office space
 - A well-defined street edge to the east and the golf course to the west
 - Attractive landscape
 - It would be:
 - Pedestrian and bike friendly
 - Built to high standards of environmental sustainability
 - An opportunity for ratable properties