

# Princeton University Lot 21 Garage Expansion Project

*Princeton University responses dated 12/31/2019*

*Updated 1/2/20*

## LEGEND

Black text are community posed questions

*Blue italicized text are Princeton University's responses*

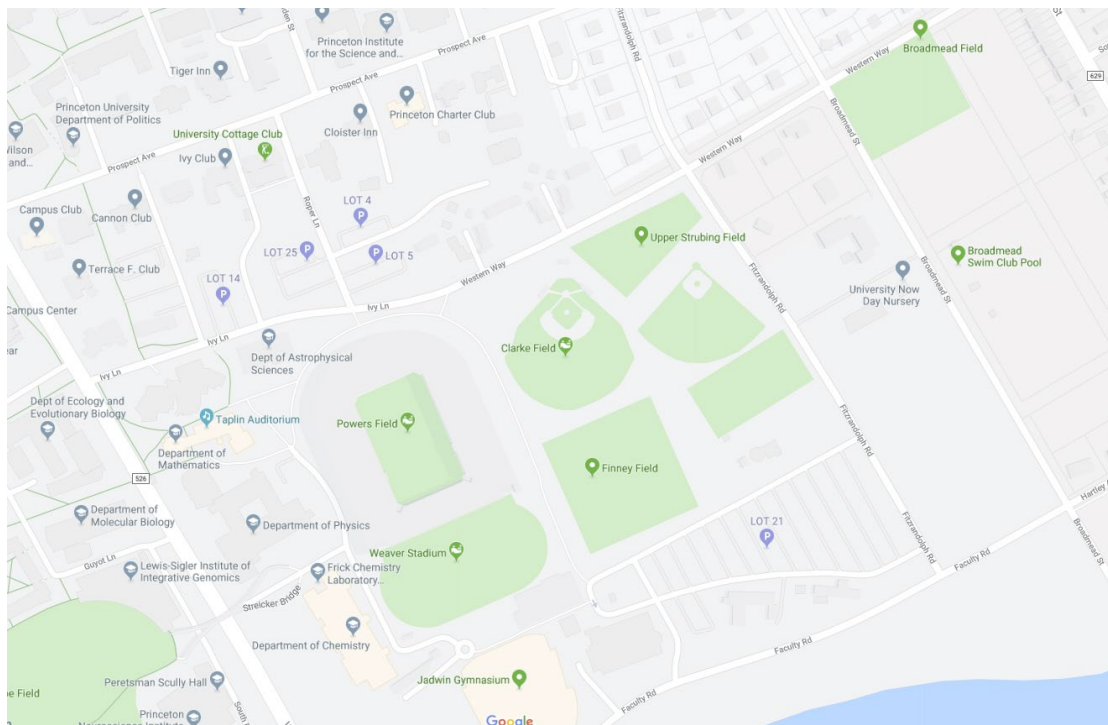
The underlined text below was done collaboratively by the Community and Princeton University to highlight information that we believed would be of particular interest to readers

It's exciting that Princeton University is now planning to expand the Engineering School. We correctly understand that to accomplish this you'll need to remove the Ferris Thompson apartments, after tenants have been relocated, and also remove the parking lots on Western Way, Ivy Lane, and Roper Lane.

The Princeton Community is now very interested in learning all about you plans. As in the past, this is especially important to us since the newly proposed parking garage to be built on Lot 21 will surely create a different traffic flow that will impact our neighborhood streets.

We understand that all of the parking spaces in the newly proposed garage will be relocated from the existing current lots on Western Way, Ivy Lane, and Roper Lane. New ones will also be added.

*Princeton University Note: In addition to the lots mentioned above, the existing spaces in Lot 21 and the Athletics Parking lot adjacent to DeNunzio Pool will also be relocated into the new parking garage.*



We greatly appreciate the invitation for us to meet with the Princeton University team that's now planning this new development. We are pleased to review your *working plans* and provide you with constructive suggestions for expansion in way that's in the mutual best interest of both Princeton University and our neighboring community.

This has worked wonderfully well in the past with your EQuad development and we're looking forward to now working together with you again in the same mutually constructive way.

*Princeton University Note: The East Campus concept plan that has been submitted to the Princeton Planning Board is intended to provide an overview of the integrated development plan for projects proposed in the area of campus adjacent to Princeton Stadium and Jadwin Gym, bounded roughly by Ivy Lane/Western Way, Broadmead Street and Faculty Road.*

*The projects include:*

- *a new parking garage with transit amenities located on a portion of the existing parking Lot 21,*
- *new soccer stadium and practice field,*
- *an athletics operations building, and*
- *a geo-exchange utility facility that will advance the University's goal of achieving net-carbon neutrality by 2046.*

*The development will also include:*

- *pathways and roadways for pedestrians,*
- *cyclists and vehicles,*
- *TigerTransit facilities, and*
- *landscaping improvements that are all part of the integrated project planning.*

*The University is also planning new facilities for the School of Engineering and Applied Sciences and Environmental Studies that will be constructed on existing parking lots along Ivy Lane/Western Way and at the location of the current Ferris Thompson Apartments. However, planning for those projects is still ongoing and a concept presentation to the Princeton Planning Board will take place at a later date separate from the East Campus presentation on January 9, 2020.*

*Inserted below is a copy of the site plan that was submitted to the Princeton Planning Office that is the basis for the responses in this document and that will be discussed with the Planning Board on January 9, 2020.*



Here are a set of questions that we'd like to discuss with you at our kickoff meeting. We're sure that you've already posed and answered most of these. As in the past, we'd greatly appreciate receiving your written answers to these questions in advance and/or at our meeting. That will enable us to do our homework, keep on target, and use our time well.

As in the past, we also believe that our collaboration will facilitate your getting approval from Princeton Township for this development.

## Proposed New Engineering School Building Construction

1. Number of new PU buildings that are currently planned for construction on Western Way and Ivy Lane

*We cannot yet confirm the number of buildings that will be part of the new facilities for the School of Engineering and Applied Sciences and Environmental Studies as the planning is still ongoing.*

2. Where each one of these buildings will be located

*The new facilities will be built along the north side of Ivy Lane/Western Way on what is currently the location of parking lots and the Ferris Thompson Apartments.*

3. How will each of these buildings be used

*The new facilities will provide modern teaching and research space for the faculty and students of the School of Engineering and Applied Sciences and Environmental Studies.*

4. About when it's expected that construction of each of these buildings would start and when would each possibly be occupied.

*The preliminary schedule for the School of Engineering and Applied Sciences and Environmental Studies project anticipates beginning construction on the first phase of buildings in early 2022, with occupation of this first phase in the fall of 2024. The remaining phases are anticipated to be completed by 2030.*

5. Number of new PU and contracted staff to occupy each of these buildings

*As the planning for this project is just completing the program and design phase we cannot yet provide an answer to this question. We will be able to do so once the program and design phase is complete.*

## Ferris Thompson Apartments

1. Number of current residences

*There are 30 townhouse units at Ferris Thompson in 2- and 3-bedroom formats.*

2. Number of current tenants

*Currently 18 of the units occupied: 13 by faculty and staff and 5 by graduate students.*

3. Number of cars owned by the tenants

*This number is forthcoming- will provide when available.*

***Response on 1/2/20: The occupants of the Ferris Thompson Apartments have a total of 19 cars.***

4. Current location of tenant cars

*Parking for residents of Ferris Thompson is in dedicated surface lots behind the townhomes with some residents electing to rent garages in the same lots.*

5. Locations of where Ferris Thompson tenants will be relocated to

*Housing and Real Estate Services is working with the residents individually to assist with relocation. Some residents have elected to purchase homes, but most are being relocated to other rental locations in the University inventory.*

## Current on Street Parking Lots

*See the responses for all lots in the text and table at the end of this section.*

### LOT 4

1. Number of current Lot 4 spaces
2. Where Lot 4 staff currently live and are coming from  
Where Lot 4 spaces will be relocated to

### LOT 5

1. Number of current Lot 5 spaces
2. Where Lot 5 staff currently live and are coming from
3. Where Lot 5 spaces will be relocated to

### LOT 14

1. Number of current Lot 14 spaces
2. Where Lot 14 staff currently live and are coming from
3. Where Lot 14 spaces will be relocated to

### LOT 25

1. Number of current Lot 25 spaces
2. Where Lot 25 staff currently live and are coming from
3. Where Lot 25 spaces will be relocated to

## LOT 21

1. Number of current Lot 21 spaces
2. Where Lot 21 staff currently live and are coming from
3. Where Lot 21 spaces will be relocated to

## Grass Field Overflow Parking Lot with Entrance from Fitzrandolph Rd.

1. Number of current grass field overflow Lot spaces (e.g. for football games, swimming events, track and field events, concerts, etc.)
2. Will the current grass field overflow parking Lot remain as is after the parking garage is built
3. Will the current grass field overflow parking become a paved Lot.

## TOTALS

*Princeton University Note: The table below shows the number of parking spaces by type of users for each lot affected by the East Campus plan. The 499 spaces in the Ivy Lane – Western Way area on property owned or leased by the University will be removed from the parking supply due to the construction of new facilities for the School of Engineering and Applied Sciences and Environmental Studies and will no longer be available for commuters. The 499 spaces in the Ivy Lane – Western Way area and the 702 spaces in Lot 21 (this includes the 59 spaces in the “athletic staff” portion of the lot) will all be relocated to the new garage, except for the graduate students parking in those areas. The new garage is projected to have a total of 1,567 spaces, representing a net increase of 366 assignable spaces.*

*Faculty and staff would use about 1,367 spaces and visitors 200 spaces. Graduate student commuters currently parking in these lots will be relocated to spaces on the west side of campus.*

*The University does not have origin data for the users of each lot, but has detailed residential origin data for all faculty and staff, as well as for commuting graduate students. The traffic impact study will use the university-wide origin data to assign traffic to the local street network.*

*Additionally, the East Campus Concept Plan eliminates the +/-140 spaces in the field located east of Fitzrandolph Road, which will be the new location of the geo-exchange utility and athletics operations building. This unpaved parking area is currently used as an overflow lot, primarily in conjunction with large athletic events. Taking this parking supply into consideration, the overall net increase of parking on the East Campus will be 226 spaces.*

Ivy Lane-Western Way Parking	Number of Spaces	Breakdown by User Type		
		Faculty & Staff	Graduate Students	Visitors
Off-Street Parking Spaces	-431	-431		
<i>Cannon Lot</i>	-63	-63		
<i>Lot 4</i>	-78	-78		
<i>Lot 5</i>	-70	-70		
<i>Lot 14</i>	-82	-82		
<i>Lot 25</i>	-88	-88		
<i>Lot 26</i>	-50	-50		
On-Street Parking Spaces	-68		-68	
<b>Subtotal for Ivy Lane-Western Way</b>	<b>-499</b>	<b>-431</b>	<b>-68</b>	

Lot 21 Parking	Number of Spaces	Breakdown by User Type		
		Faculty & Staff	Graduate Students	Visitors
Main Lot	-643	-511	-32	-100
Athletics Lot	-59	-59		
<b>Subtotal for Lot 21</b>	<b>-702</b>	<b>-570</b>	<b>-32</b>	<b>-100</b>

Overall Changes in Assignable Parking Spaces:	Number of Spaces	Breakdown by User Type		
		Faculty & Staff	Graduate Students	Visitors
Total Assignable Spaces Removed	-1201	-1001	-100	-100
Total Assignable Spaces in New Garage	1567	1367		200
<b>Net Increase in Assignable Parking Spaces</b>	<b>366</b>	<b>366</b>	<b>-100</b>	<b>100</b>

Overall Changes in Parking Supply	Number of Spaces	Breakdown by User Type		
		Faculty & Staff	Graduate Students	Visitors
Net Increase in Assignable Parking Spaces	366	366	-100	100
Fitz Field Parking Supply Removed	-140			-140
<b>Net Increase in Parking Supply</b>	<b>226</b>	<b>366</b>	<b>-100</b>	<b>-40</b>

## Shuttle Bus Services

### Current Lot 21 Shuttle Bus Service

1. Number of current shuttle buses to/from Lot 21

*Service to Lot 21 operates Monday to Friday. One bus leaves Lot 21 every 20 minutes from 4:30 am to 7:00 pm, except during the peak morning commute from 7:00 am to 9:00 am when a second bus is added, resulting in service every 10 minutes. There are approximately 50 total trips per day.*

2. Frequency of current shuttle buses to/from Lot 21 service at different times of the week and day

*Please see response to #1 in this section.*

3. Routes of current shuttle buses services to/from Lot 21 to campus

*TigerTransit takes the following route: Lot 21, right onto Faculty Road, right onto Washington Road, right onto Nassau Street, right onto Olden Avenue, right onto Prospect Avenue, left onto Washington Road, left onto Faculty Road, left to Lot 21.*

### Future Lot 21 Proposed Garage Shuttle Bus Service

1. Number of planned shuttle buses to/from Lot 21 parking garage

*We do not yet know the number of TigerTransit buses that will operate to/from the new parking garage that will replace Lot 21.*

2. Frequency of planned shuttle buses to/from Lot 21 parking garage service at different times of the week and day

*We do not know the overall frequency of service to the new garage. However, we do know that we will plan for 10 minute service during the morning peak.*

3. Routes of planned shuttle buses services to/from Lot 21 parking garage to/from campus

*It is anticipated that service would begin at the TigerTransit stop on the west side of the new parking garage. TigerTransit buses would travel from the garage on Jadwin Drive to the new Stadium Drive that will be constructed on the east side of the stadium, left onto Ivy Lane, right onto Washington Road, right onto Nassau Street, right onto Olden Avenue, right onto Prospect Avenue, left onto Washington Road, left onto Faculty Road, and then left to the TigerTransit stop at new parking garage.*



## Proposed Lot 21 Parking Garage

1. What this proposed garage would look like

*The proposed garage will be an enhanced design using a precast concrete structure with five levels of the garage visible from the north side and six levels visible from the south (Faculty Road) side. Incorporated in the design will be an attractive waiting room and covered bike storage area along with a designated TigerTransit stop. The design will be set back from the adjacent streets and existing landscape will be supplemented to screen the garage.*

2. Physical location of proposed garage on the current Lot 21 site

*The new parking garage will be located at the corner of Faculty Road and Fitzrandolph Road on part of the existing parking Lot 21.*

3. Number of proposed garage levels

*The new parking garage will have six levels of parking, one partially below grade and five above grade.*

4. Number and physical location of proposed garage entrances

*There will be two entry locations to the new parking garage as follows: from the west side of the garage accessed via the new Garage Drive either from Faculty Road or Jadwin Drive, or on the north side of the garage from Jadwin Drive accessed from either Fitzrandolph Road or the new Stadium Drive that will be constructed along the east side of Princeton Stadium to connect with Ivy Lane/Western Way.*

5. Number and physical location of proposed garage exits

*There will be three exit locations from the new parking garage as follows:*

- *from the west side of the garage to the new Garage Drive leading to either Faculty Road or to Jadwin Drive,*
- *from the east side of the garage to Fitzrandolph Road leading to Faculty Road, and*
- *from the north side of the garage to Jadwin Drive leading either to the new Stadium Drive or Fitzrandolph Road.*

## Current Lot 21 Parking Traffic Flow

*Princeton University Note: We have responded to the questions posed in this section, but note that any change in traffic generation in the East Campus that results from construction of the new parking garage will need to take into consideration the decrease in traffic generation that will result from the elimination of 499 spaces along the north side of Ivy Lane/Western Way.*

1. Current flow of traffic to/from Lot 21 at different times of the week and day

*AM Peak Hour: 239 vehicle trips in and out*

*PM peak Hour: 344 vehicle trips in and out*

2. Current directions and flow of traffic to/from Lot 21 at different times of the week and day  
*Today's traffic to/from Lot 21 uses three access routes: 1) Faculty Road west; 2) Faculty Road east; and 3) Fitzrandolph north.*
3. Current streets that the current Lot 21 traffic flow now comes from/goes to  
*Detailed traffic assignments will be included for all spaces eliminated (499 spaces in Ivy Lane/Western Area and 702 spaces in Lot 21) in the Traffic Impact Study (TIS) that will be completed as part of the site plan application for the new parking garage.*

## Proposed Lot 21 Parking Garage Traffic Flow

*Princeton University Note: We have responded to the questions posed in this section, but note that any change in traffic generation in the East Campus that results from construction of the new parking garage will need to take into consideration the decrease in traffic generation that will result from the elimination of 499 spaces along the north side of Ivy Lane/Western Way.*

1. Projected flow of traffic to/from the garage at different times of the week and day  
*Traffic generation numbers will be refined for the Traffic Impact Study (TIS). The following are preliminary estimates for the new garage. Note that to calculate the net increase in traffic generation on the East Campus the traffic of the 499 spaces on Ivy Lane Western Way must be subtracted from the totals below. The traffic generation numbers will be refined in the Traffic Impact Study (TIS).*  
  
*AM Peak Hour: 533 vehicle trips in and out*  
  
*PM Peak Hour: 768 vehicle trips in and out*
2. Projected directions and flow of traffic to/from the garage at different times of the week and day  
*In addition to the three existing access routes, the users of the garage will also be able to use the new road along the east side of Princeton Stadium that will be constructed as part of the integrated east campus project.*
3. Projected streets that the garage traffic flow will be coming from/goes to  
*Detailed assignments for the new garage traffic will be included in the Traffic Impact Study (TIS).*
4. How the new parking garage will likely impact traffic flow on:
  - a. Fitzrandolph Road
  - b. Murray Place
  - c. Broadmead Street
  - d. Princeton Avenue
  - e. Western Way

We'd greatly appreciate learning how this projection either has or will be determined

*The Traffic Impact Study (TIS) will provide the detailed estimates for the assignments to the local street network. A first step consists of assigning the new traffic to the regional highways (Routes 1, 27, 206, etc.) based on the residential origins of university staff, faculty and graduate students. A second step involves micro assignments onto the local street network. Micro assignments take into consideration the ease of making left turns or rights turns at various locations in the local network.*

## Area Traffic Flow and the Need to Widen Faculty Road

Faculty Road traffic flow will be hugely affected by the new parking garage with respect to the building's in/out traffic flow design and the approach roads.

1. Do you concur that the Washington Road and Harrison Street intersections are likely to be the biggest problems? If so, then what changes are you planning to implement to minimize this impact?

*See answer to #2 below.*

2. Faculty Road will need to be widened to accommodate new significantly widened turning lanes at Fitzrandolph, Broadmead, and especially at Harrison Street.

*Per the Municipality's Princeton Community Master Plan, Faculty Road (a University-owned street) is directed to be used as a distributor of University-related traffic and as a campus "entrance" for parking facilities. With the construction of a new parking garage on the location of the existing Lot 21, the intersections of Faculty Road with Washington Road and Harrison Street will be the most sensitive. However, no significant widening is envisioned for Faculty Road, because the net increase in parking spaces and traffic generation is relatively modest and traffic dispersion is good. If merited, mitigation measures will focus on signal phasing improvements and potential additions of turning lanes at the intersection of Faculty Road and Harrison Street. The University's goal is to maintain safe traffic conditions along Faculty Road.*

## Traffic Lights

There are currently no traffic lights on any of the streets adjacent to Lot 21, on Faculty Road near Fitzrandolph Road, or for any of the lots along Western Way and Ivy Lane.

1. With the construction of a new parking garage will any new traffic lights be installed on any of the nearby roads? If so, then where will they be and how would they operate?

*No new traffic lights are envisioned at this stage. Traffic volumes along Ivy Lane and Western Way are expected to decrease as the result of the elimination of the 499 commuter spaces in that area. It is not believed that warrants for new traffic lights along Faculty Road will be met since the net increase in traffic generation is relatively modest and the traffic will be dispersed to a greater degree. The Traffic Impact Study (TIS) will analyze this in detail. Recommended traffic improvements will also take into consideration any potential impacts on neighborhood character.*

2. How will the new parking garage traffic impact traffic flow on Faculty Road and the traffic lights at Washington Road and Harrison Street?

*The Traffic Impact Study (TIS) will answer this in detail and will provide estimates for current and future conditions for all traffic movements.*

3. Will the timing of these existing lights be changed at different times of day and day of the week to accommodate the traffic flow to/from the new parking garage?

*Changes in signal timing will be evaluated as part of the Traffic Impact Study (TIS) and recommendations will be made.*

## Proposed PU Parking Across the Lake

1. Number of proposed parking lots to be built across the lake

*The Lake Campus General Development Plan (20-year horizon GDP) projects approximately 2,000 parking spaces in conformance with West Windsor Township zoning requirements. The number of lots and location of these spaces will be determined as planning proceeds for the Lake Campus.*

2. Number of proposed parking spaces in lots to be built across the lake

*See answer to #1 in this section.*

3. Projection of who will be parking in these lots across the lake

*All parking demand generated on Lake Campus (primarily graduate student housing, athletic activities and educational buildings) will be satisfied on the Lake Campus. University commuters and visitors working north of Lake Carnegie on the existing campus will park north of the Lake. The Lake Campus will continue to act, as it does already, as an overflow parking resource for major athletic events on the existing campus north of Lake Carnegie.*

## Proposed Shuttle Bus Service for PU Parking Across the Lake

1. Number of planned shuttle buses to/from parking lots to be built across the lake

*We do not yet know how many, or how often, Tiger Transit buses will serve the Lake Campus. This will be determined as the development of the new Lake Campus proceeds and demand for transportation between the existing campus and Lake Campus, and to other destinations, is determined. The rapid evolution and availability of personal mobility devices (i.e., scooters, electric bikes, etc.) will need to be considered as the need for TigerTransit bus routes is evaluated. Faculty and staff with offices on the existing campus will be provided with a parking space on the existing campus and those with an office on the Lake Campus will be provided with a parking space on the Lake Campus.*

2. Frequency of planned shuttle buses to/from parking lots to be built across the lake at different times of the week and day.

*Please see answer to #1 in this section.*

3. Routes of planned shuttle buses services to/from parking lots to be built across the lake to/from campus.

*It is expected that the TigerTransit shuttle buses would use the Washington Road corridor to access the new Lake Campus.*

## Faculty Road between Fitzrandolph Road and Broadmead Street

In the past Princeton Township engineers expressed concern about the significant dip in Faculty Road between Fitzrandolph Road and Broadmead Street.

1. With the construction of this new parking garage, will there be any changes to the dip in the road to enable better vision of drivers on Faculty Road and others entering/existing the new parking garage?

*The sight distance concern along Faculty Road at Broadmead has been addressed through the traffic calming devices that have been added at the Faculty Road – Broadmead intersection. These devices reduce the operating speeds along Faculty Road, such that the speeds are conforming to the available sight distances. Raising the Faculty/Broadmead intersection would have significant impacts on adjacent properties.*

## Other Nearby Properties

Broadmead Field (Western Way and Broadmead Street)

1. Will Broadmead Field be used in the future for either on level parking or for a garage?

*There are no current plans to construct parking- either a garage or surface parking – on the Broadmead field*

2. Will Broadmead Field be used in the future for either faculty or graduate student residences?

*While there are no current plans to develop the Broadmead field at the corner of Broadmead and Western Way, this is a potential location for faculty and graduate student residences in the future.*

3. If this will house residences or offices, then about how many occupants and cars would be at this site?

*There is no current plan to develop the Broadmead field, so we are not able to make a projection of the number of occupants and vehicles.*

4. Will Broadmead Field be used in the future for PU academic or office expansion?

*Please see answer #2 in this section.*

5. If so, then when might this occur?

*Please see answer #2 and #3 in this section.*

## Butler Tract

1. Will the Butler Tract fields be used in the future for either faculty or graduate student residences?

*As the University has stated previously, over time we anticipate developing the Butler Tract for faculty and/or graduate student housing.*

2. If so, then when might this occur?

*There is no firm date when development of the Butler Tract for housing would occur. The project is not included in the current 10-year capital plan. Consideration of developing housing for faculty and/or graduate students would be considered as part of a future campus planning initiative.*

3. If this will house residences, then about how many occupants and cars would be at this site?

*There is no current plan to develop the Butler Tract for housing, so we cannot make a projection related to number of occupants and cars at this time.*

4. What impact, if any, do you project that any future Butler Tract traffic may have on Faculty Road and Harrison Street?

*There is no current plan for the site for housing, so we cannot make a projection related to future traffic impacts at this time. We do know, however, that given the proximity of the Butler Tract to campus that it is likely that many who would reside in housing on the site in the future would walk and bike to campus as did prior residents of the Butler Tract.*