University Environment Committee Report 2024

Concerning Pedestrian and Bicycle Access to Stony Brook University from the East

November 11, 2024

Stony Brook University (SBU) is crowded with vehicular traffic, car commuting has a particularly high carbon footprint, and parking centrally on campus is getting more expensive. It is in the best interests of the University to support alternate forms of commuting to and from campus by making them easy, convenient, and safe. Here we identify issues that can be addressed on campus, and propose some straightforward solutions to improve ease and safety along popular pedestrian and bicycle/e-scooter approaches to SBU from the east.

1 The Pedestrian/Bike Approach from Nassakeage

SBU commuter cyclists from East Setauket, Port Jefferson, Port Jefferson Station and other points east commonly approach campus using the Brookhaven Town bike lanes on Upper Sheep Pasture Road, entering the Nassakeage section of East Setauket along University Drive before turning right on Daniel Webster Drive, which is closed to vehicular traffic. SBU pedestrian commuters, including some riding e-scooters, from nearby neighborhoods in East Setauket also commonly enter campus on Daniel Webster Drive. The other nearby pedestrian option for these commuters includes a shoulder-free and dangerous section of Lower Sheep Pasture road running through St. Georges Golf Course.

Shortly after entering University property, the pedestrian/bike path of Daniel Webster Drive terminates on Health Sciences Drive, near the northwest terminus of a 90 degree curve. Health Sciences Drive is a four lane road without shoulders and a 30 mph speed limit (which is often not observed, especially by the downhill north/westbound traffic). A map of the area is provided in Figure 1. Pedestrians and cyclists using Daniel Webster Drive often cross Health Sciences Drive at the 90 degree curve, but this is unsafe for several reasons. There is no crosswalk or signal here and no sidewalk or bike lane that would take commuters safely to a nearby crosswalk or signal. It is difficult for pedestrians/cyclists to judge when it is safe to cross because of high speed traffic across four lanes, limited visibility for drivers around the curve, and traffic to/from the Health Sciences Parking Garage and the LI High Tech Incubator. Finally, there is a culvert in the center of Health Sciences Drive that makes the crossing more difficult for cyclists (see Figure 2).

Regardless of whether a commuter crosses at the 90 degree curve, the approach to east or west campus buildings via Health Sciences Drive from Daniel Webster Drive is unsafe in both directions. While we describe issues encountered by southbound traffic approaching East Campus buildings and westbound traffic towards West Campus, parallel issues exist for commuters leaving campus via Daniel Webster Drive.

1.1 Approach Towards the Hospital and the Nicolls Rd Underpass

This approach is illustrated by the green line in Figure 1. There are neither shoulders nor sidewalks on Health Sciences Drive heading south (uphill) towards the hospital (Figure 2). Pedestrians can walk in the wide grassy area to the east of Health Sciences Drive, but when this is covered with snow or particularly wet they must share the pavement with vehicular traffic.

Bicyclists wishing to cross the road and ride south with traffic must navigate a drainage culvert (see Figure 2), or ride against traffic past the end of the culvert (near the entrance to the LI High Tech Incubator).

From here, a bicyclist can ride across the HSC surface lot and pick up the pedestrian path near the west side of the parking garage, or can ride through the hospital loading dock. Neither approach is marked as a bike lane, and both can have lots of vehicular traffic. The loading dock is particularly treacherous, with poorly-maintained pavement and truck traffic. After navigating either of these approaches, pedestrians and bicyclists can pick up the Simons Memorial Bike Path on the West side of the Nicolls Rd underpass.

1.2 Approach to the West Campus Main Entrance at Nicolls Rd

This approach is illustrated by the yellow line in Figure 1. There are no shoulders on Health Sciences Drive, and the sidewalk found on the south side near the Nicolls Rd intersection does not extend as far as Daniel Webster Drive. See Figure 3 for a photograph of this approach. Unedited videos of a bike ride from <u>Daniel Webster to West Campus</u> and from <u>West Campus to Daniel Webster</u> further illustrate this approach.

Pedestrians often walk on the grass, as evidenced by dirt tracks on both sides of the road. However, they must walk on the pavement when there is snow on the ground or the dirt tracks are muddy.

Bicycles must ride on the road with traffic. There is no pedestrian crossing at Nicolls Rd on the north side, so westbound bicyclists must either cross with vehicular traffic or cross to the south side of Health Sciences Drive, where they can activate the pedestrian crossing signal. The traffic lights at Nicolls Rd are activated by in-ground sensors, but there is no bicycle trigger. Outside of rush hours, there can be times when the light does not permit bicycle crossing of Nicolls Rd from the westbound lane of Health Sciences Drive, because no car is present to activate the in-ground sensors.



Figure 1: A map of East Campus with common bike/pedestrian routes to West Campus (colored lines) and relevant features of these routes identified (text and arrows). North is up. Modified from an SBU Campus Map, with neighborhood roads from Google Maps (accessed June 2024).



Figure 2: The view south from the end of Daniel Webster Drive along Health Sciences Drive towards the hospital. Note the lack of shoulders. The culvert is on the right, about 15 yards up the road. Traffic permitting, it is possible to ride through this without dismounting to reach the southbound lanes. (Image taken by Fred Walter)



Figure 3: The view west from the end of Daniel Webster Drive towards the main entrance to campus. Note the lack of any significant shoulders. (Image taken by Fred Walter)

2 Campus Access from the Chapin Apartments

Access to West Campus from the Chapin Apartments raises other potential safety issues. A survey was conducted in November/December 2017 of the Chapin Apartments Residence Association. Of the 78 respondents, 72% felt unsafe walking or biking on the East Campus. Half (52%) of the respondents used a bicycle to get to campus, and an additional third (35%) responded that they would bicycle if safe options existed. Most (91%) of the respondents would use a path connected East and West Campuses; while 73% would utilize a connection to the Nassakeage neighborhood at Daniel Webster Drive.

A followup survey of Chapin Apartment residents and an in-person evening feedback session at Chapin Apartments were conducted in March 2024. These confirmed that Chapin Apartment residents commute to West Campus using four main routes:

- 1. Orange Line (Fig. 1) Those cycling or taking scooters to campus reported going north on Health Sciences Drive, then shifting to the left lane to turn left at the Health Sciences parking garage traffic light. Without a shoulder and with high volumes of traffic during rush hour, this can be dangerous. After turning at the light, they continue through the hospital loading dock to the Nicolls Rd underpass.
- 2. Blue Line (Fig. 1) Most who walked to west campus took a parallel route to the cyclists. They walk on a sidewalk on the east side of Health Sciences Drive from Chapin to the traffic light at the Hospital Main Entrance, which can be busy with hospital visitors, patients, and emergency room traffic. They cross Health Sciences Drive and Hospital Main Entrance at crosswalks, then walk north along a sidewalk on the west side of Health Sciences Drive to the Health Sciences Garage. At this point the sidewalk ends and they walk west on a dirt track down through the hospital loading docks to the road portion of the Nicolls Rd Underpass (as opposed to the pedestrian portion).
- 3. *Red Line (Fig. 1)* Some who walked to west campus avoided the hospital loading dock by walking indoors from the main hospital entrance through the Health Sciences Tower and Basic Sciences Tower. However, it was not clear whether this route is allowed for those without jobs, courses, or business within these East Campus buildings.
- 4. Many Chapin residents choose to commute by bus, although there were numerous requests for more frequent buses and a direct bus line from Chapin/East Campus to central West Campus. The only current bus route stopping at Chapin goes out to satellite lot 40.

It is important to note that no respondents mentioned taking the sidewalk from Chapin to the University South Entrance at Nicolls Rd, which would then connect them to the Simons Bike Path on the West side of Nicolls Rd. This is not surprising given that the length of this route to the Javits Lecture Center is 1.8 miles, while the route to Javits through the loading docks is 0.7 miles. The crosswalk across Nicolls Rd at the South Entrance is considered dangerous, with fast turning traffic that is not always aware of pedestrians. While we hope that recent updates to this intersection may have improved pedestrian safety, we are aware of three pedestrian fatalities at this intersection (1996, 2010, 2018; details in section 6). Feedback from Chapin Apartment residents further indicated that they were dissuaded from this route by incomplete lighting of the sidewalk that goes between Chapin and the South Entrance.

The fact that most pedestrians and cyclists going between Chapin Apartments and West Campus

prefer a direct route under the loading docks raises safety concerns. The fact that others walk through the Hospital/HSC raises security concerns.

3 Proposed Improvements

Easy and safe pedestrian/bicycle access to campus along Health Sciences Drive is only one important aspect of promoting alternative methods of commuting to campus. However, improving access along Health Science Road is particularly feasible as 1) improvements would be made on land directly managed by SBU and 2) could substantially provide safe access to the existing Nicolls Rd underpass and the sidewalks along Shirley Kenny Dr. These changes would improve the commute of many off-campus and Chapin Apartment residents while attracting new pedestrian/bicycle commuters with a safer alternative to car commuting.

3.1 Access from Nassakeage neighborhood and the Brookhaven Bike Path

Because approaches from Daniel Webster Dr towards the hospital involve risks for cyclists and for pedestrians under inclement conditions, we propose that a paved off-road bike path/pedestrian walkway be constructed to connect the Brookhaven Town bike route at Daniel Webster Drive with the Simons Bike Path at the Nicolls Rd underpass.

The most elegant solution is to create a street-level crossing of Health Sciences Drive at the terminus of Daniel Webster Drive (orange line in Fig. 4). There would be a pedestrian-triggered warning light at this crossing. The crossing would lead to a bike/pedestrian path that would skirt the LI High Tech Incubator and the East Campus HSC parking lot to the northwest, meeting up with the pedestrian underpass under Nicolls Rd. This would keep pedestrians/bicyclists off of Health Sciences Drive and out of the parking lots and/or loading dock, while connecting the Brookhaven Town bike path to the Simons Memorial Bike Path.

One alternative is a route between Daniel Webster Dr to the traffic light at the Health Sciences parking garage (yellow line in Fig. 4). A pedestrian/bike crossing at this traffic light would be safer than a signed crossing across Health Sciences Dr at the northeast curve, which has a culvert in the middle of the road and poor driver visibility around the curve. After crossing at the Health Sciences parking garage traffic light, the bike route could continue on the south side of the driveway, crossing the loading dock driveway behind the loading dock gatehouse and onto the existing paths on the south side of the parking garage, which lead to the Nicolls Rd pedestrian underpass. This would route pedestrians and cyclists to avoid the hospital loading docks while also minimizing interference with cars going in and out of the Health Sciences parking garage.

If these options are too expensive, costs might be reduced by running this paved off-road bike path/pedestrian walkway across the northern part of the already paved parking lots north of the Health Sciences parking garage (blue line in Fig. 4). Costs would then be for barriers rather than for paving. But, there would still need to be a crosswalk and ample signage to permit safe crossing of Health Sciences Dr.

Widening Health Sciences Drive in both directions or narrowing the lanes to allow for a shoulder would lead to safer cycling between Daniel Webster Dr and Nicolls Rd (green line in Fig. 4). Adding a sidewalk on at least one side of Health Sciences Drive would improve pedestrian safety along this stretch of road. This sidewalk would be approximately 280 yards long. It would also be advisable to add signage alerting drivers to the presence of pedestrian and bicycle traffic. A

bicycle-triggered traffic light sensor or cyclist-triggered button on the north side of the Nicolls Rd intersection is desirable to allow bicycle traffic to cross Nicolls Rd safely during times of lower car traffic. A bike lane or expanded shoulder should also be added to westbound Shirley Kenny Dr to accommodate cyclists who continue westbound on Shirley Kenny Dr from Health Sciences Dr.

3.2 Access from Chapin Apartments

If the above proposed off-road bike path/pedestrian walkway (yellow line, Fig. 4) was built, it should be extended south from the Health Sciences garage traffic light to Chapin Apartments on the east side of Health Sciences Drive (red line in Fig. 4). This would allow Chapin Apartment pedestrians and cyclists to avoid the busy crossings in front of the hospital entrance, the loading dock, and the Health Sciences garage entrance. The link would also provide convenient access to the Nassakeage neighborhood and the Brookhaven bike route on Upper Sheep Pasture Rd, allowing access to quiet streets for walking, jogging, or cycling and the nearby school playground for the Chapin resident's children.

A possible alternate solution for Chapin Apartment pedestrian traffic would route pedestrian traffic across the patio on the north side of the HSC on the way to the Nicolls Rd underpass. This would not be useful for cyclists, but would allow pedestrians to avoid both the loading dock and the Health Sciences garage entrance.



Figure 4: Illustration of proposed improvements of Daniel Webster Drive (green line) and of possible new bike path / pedestrian walkway options (yellow, red, and blue lines). North is up. Modified from an SBU Campus Map, with neighborhood roads from Google Maps (accessed June 2024).

4 Synergies

There are synergies between this study, limited to transportation issues on the east side of campus, and the much larger environmental issues facing Stony Brook University. Since 2019, New York State has sought to accelerate its transition away from fossil fuels through state laws and mandates and laws. Last year the University Environment Committee wrote a report entitled "Getting Stony Brook Off Fossil Fuels" criticizing the progress that SBU had made towards meeting the goals stated in Governor Hochul's Executive Order 022 (2022). The UEC report included 9 recommendations for making progress towards our clean energy goals. Recommendation #8 suggests that the University address its greenhouse emissions from transportation, in part by developing "a university prioritizes reducing gasoline diesel usage transportation plan that and bv individually-owned as well as university vehicles, to bring down our collective climate impacts from driving."

In researching the issues that face pedestrians and cyclists approaching campus from the east, we have learned that there are members of the University community who live in the Nassakeage area and points east who would use alternative forms of transportation if they felt it safe. Making the pedestrian approaches to campus safer would likely result in decreased usage of personal automobiles, thereby making incremental progress towards satisfying the University's Clean Energy Goals.

We have laid out the issues that face pedestrians and cyclists approaching campus from the east, and suggested a number of possible solutions to enhance pedestrian and cyclist safety. This is a small but important and achievable part of transforming Stony Brook University into a safer, environmentally-friendly campus.

5 Acknowledgements

Many thanks to the 2017/2018 members of the University Environment Committee who wrote the 2018 report upon which this 2024 report is based. Sean Deery conducted the 2017 survey of bicycle usage by the Chapin Apartments Residence Association. The responses quoted here are a subset of a larger survey. Chapin Area Office Staff, including Anthony Salierno and Alicia Kakakios, conducted the 2024 followup survey of Chapin Apartments Residents. Chapin Apartment Resident Assistants Lisa Chan and Alejandro Restrepo organized the evening feedback discussion with Chapin Apartment Residents. Venkata Chaitanya Jana and the Graduate Student Organization provided food for this discussion event.

6 Related Resources

Cycling videos - recorded for this report

- <u>Chapin to West campus via Pellegrino Dr exploration of an alternative route between Chapin</u> and West campus - After review, this is not one of our suggested routes
- Daniel Webster to West Campus (unedited) Yellow Route (westbound) in Figure 1
- West Campus to Daniel Webster (unedited) Yellow Route (eastbound) in Figure 1

Public YouTube video of Zhan Caitao's bicycle commute to SBU on May 7, 2021 (<u>https://www.youtube.com/watch?v=GTSVtIdMVxY</u>). They go down Daniel Webster Dr towards Health Sciences Dr at timestamp ~50 seconds.

7 Nicolls Rd. Entrance Fatalities

A fatality in 1996 at the south entrance and Nicolls Rd:

Professor Xiangding Wu, Head of the Department of Climate Research in the Institute of Geography of the Chinese Academy of Sciences was struck by a speeding car while walking across Nicolls Road, going from his office in MSRC to Chapin Apts late in the evening in May 1996. Source: SOMAS Professor Sultan Hameed

A fatality in 2010 at the south entrance and Nicolls Rd:

<u>https://www.newsday.com/long-island/cops-id-pedestrian-killed-in-stony-brook-u84034</u> Shubo Lin, 20, living in off-campus student housing near the accident site. Hit by multiple vehicles

A fatality in 2018 at the south entrance and Nicolls Rd:

https://www.pressconnects.com/story/news/connections/2018/12/06/binghamton-high-stony-brook-c ross-country-runner-noah-farrelly-struck-car/2225020002/

Noah Farrelly, 18, SBU freshman, jogging across Nicolls Rd. Did not have right of way when he was struck, according to police

A fatality in 2020 at the main entrance and Nicolls Rd:

<u>https://patch.com/new-york/threevillage/serious-crash-reported-near-stony-brook-university-police</u> Kenneth Rott, 60, of Kings Park, struck by a car