

SALEM STATE UNIVERSITY

CAMPUS PARKING STUDY

Analysis and Alternatives – Executive Summary

May 2 2018

Campus Community

SSU Neighborhood Advisory Committee

SCHEDULE

2017

2018



Phase 1 | Discovery & Data Collection



Conduct site reconnaissance & review available data

Meet with Neighborhood Liaison Group

Meet with administrative staff

Collect comprehensive occupancy data

Meet with the SSU Neighborhood Advisory Committee

Phase 2 | Analysis



Develop projections of future parking need over a five-year period and a ten-year period

Evaluate SSU's parking impact on the surrounding neighborhood

Meet with the SSU Neighborhood Advisory Committee

SSU & Neighborhood Survey

Develop alternative plans for parking development

Meet with faculty & staff

Review alternatives with Client Team

Discuss TDM Options with NSTMA

Phase 3 | Plan Development



Review alternatives with President's Executive Cabinet

Phase 4 | Plan Documentation



Present to the Internal & External Community

Final report: Data collection, analysis, findings, and recommendations

OUTREACH and INFORMATION GATHERING

- Stakeholder meetings
 - Students
 - Faculty/Staff and Union representatives
 - Adjacent neighborhoods
 - Elected officials
- Joint SSU/Neighborhood Survey
- Data collection & research
 - Parking policies & administration
 - Parking inventory
 - Campus parking occupancy
 - On-street parking
 - Enrollment projections
 - Space moves
 - Class scheduling

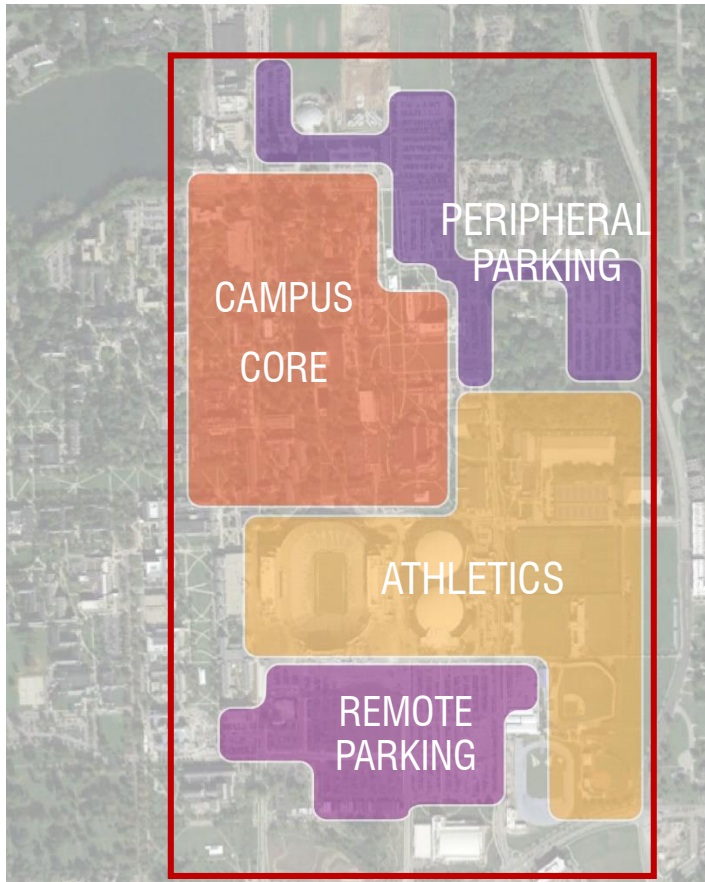
OVERVIEW

- SSU is a fragmented urban campus, sited in the midst of established residential neighborhoods. Parking policies and investments must address both the University's needs and neighborhood concerns.
- The overlap of campus and neighborhood makes competition for parking inevitable. In designing a parking system that works well for faculty, staff, and students, SSU must also endeavor to keep their cars within campus bounds or in facilities under SSU control.
- The existing system, managed and regulated by both SSU and the City of Salem, provides a solid foundation for a successful accommodation of SSU's parking needs.

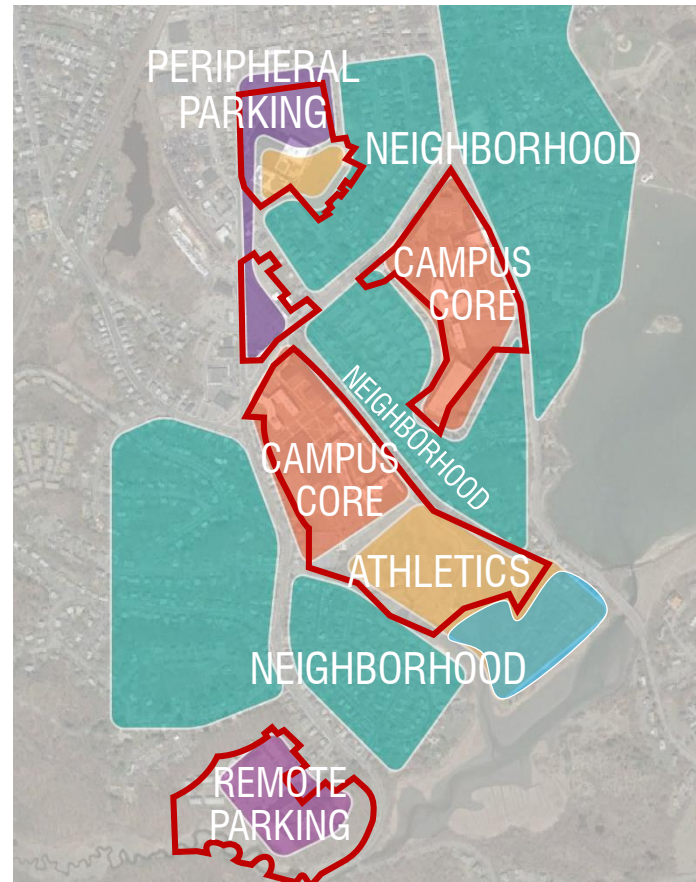


OVERVIEW

University of Notre Dame, South Bend IN



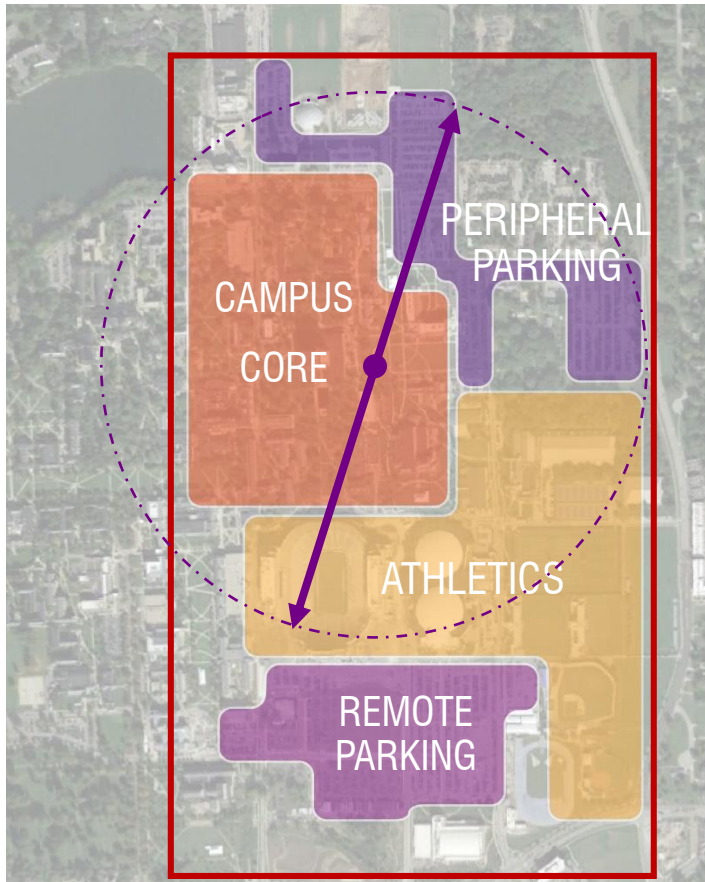
Salem State University



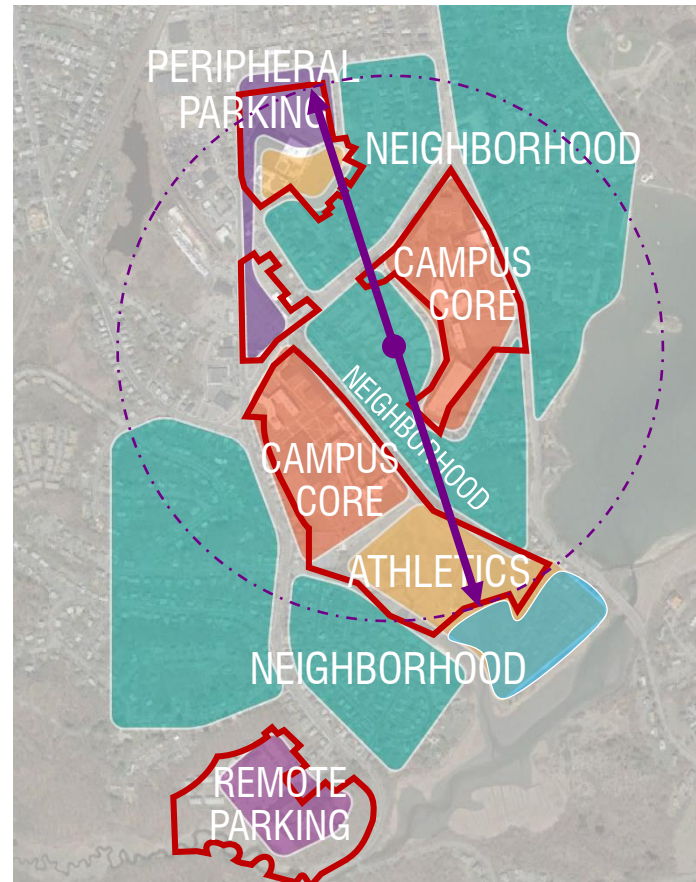
SSU lies among established residential neighborhoods. Its parking problems are different from those of similarly-sized college campuses.

OVERVIEW

University of Notre Dame, South Bend IN



Salem State University



SSU lies among established residential neighborhoods. Its parking problems are different from those of similarly-sized college campuses.

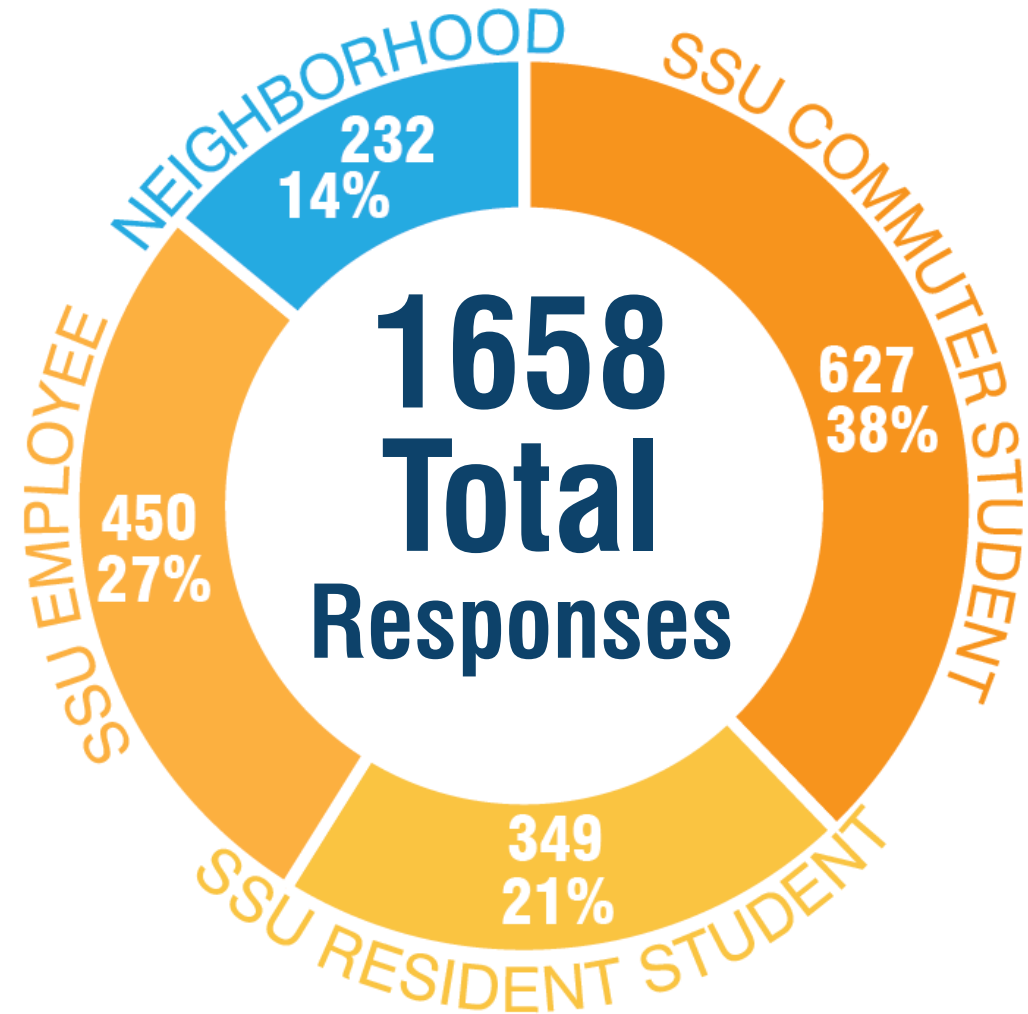
← 5-minute walk radius

WHAT WE HEARD Online Survey Results

We surveyed

- the neighborhood around SSU
- the SSU community: commuter students, resident students, and faculty & staff.

The two groups were asked questions targeting their specific parking experiences.



WHAT WE HEARD SSU Community Feedback

Community Meeting Concerns

Concerns

- Parking permits are too expensive, so students are choosing to park on neighborhood streets
- Exact ratio of available parking permits for available parking spaces is unclear
- Changed move-times for student parking resulted in more neighborhood parking
- Restrictions on overnight commuter student parking cause more students to park in neighborhood

Parking Ideas Given by Participants in Meetings on Campus

- Mobile App to track available parking managed by SSU
- Expansion of Free Bike Program
- Parking Brochure that summarizes parking information and discourages bringing cars to campus
- Quantify shuttle occupancy to determine utilization
- More commuter student parking on Central Campus
- Upper South Campus parking should be made available when current permit-holders are moved to North Campus

WHAT WE HEARD Neighborhood Feedback

Community Meeting Concerns

Concerns

- Commuter students, resident students, and staff without permits park on Loring Ave during the week
- Traffic is disrupted where pedestrians do not use crosswalks to get across Lafayette St and Loring Ave
- Neighborhood parking restrictions (at certain times of day) creates a domino effect – after using up the 4-hour limit on one neighborhood street, students drive to another
- Resident students without permits stay parked on neighborhood streets from Monday to Friday
- The cost of resident parking passes has driven some students to find creative solutions to residence parking, placing more cars on neighborhood streets at night

Parking Policy Suggestions Presented by the Neighborhood Group

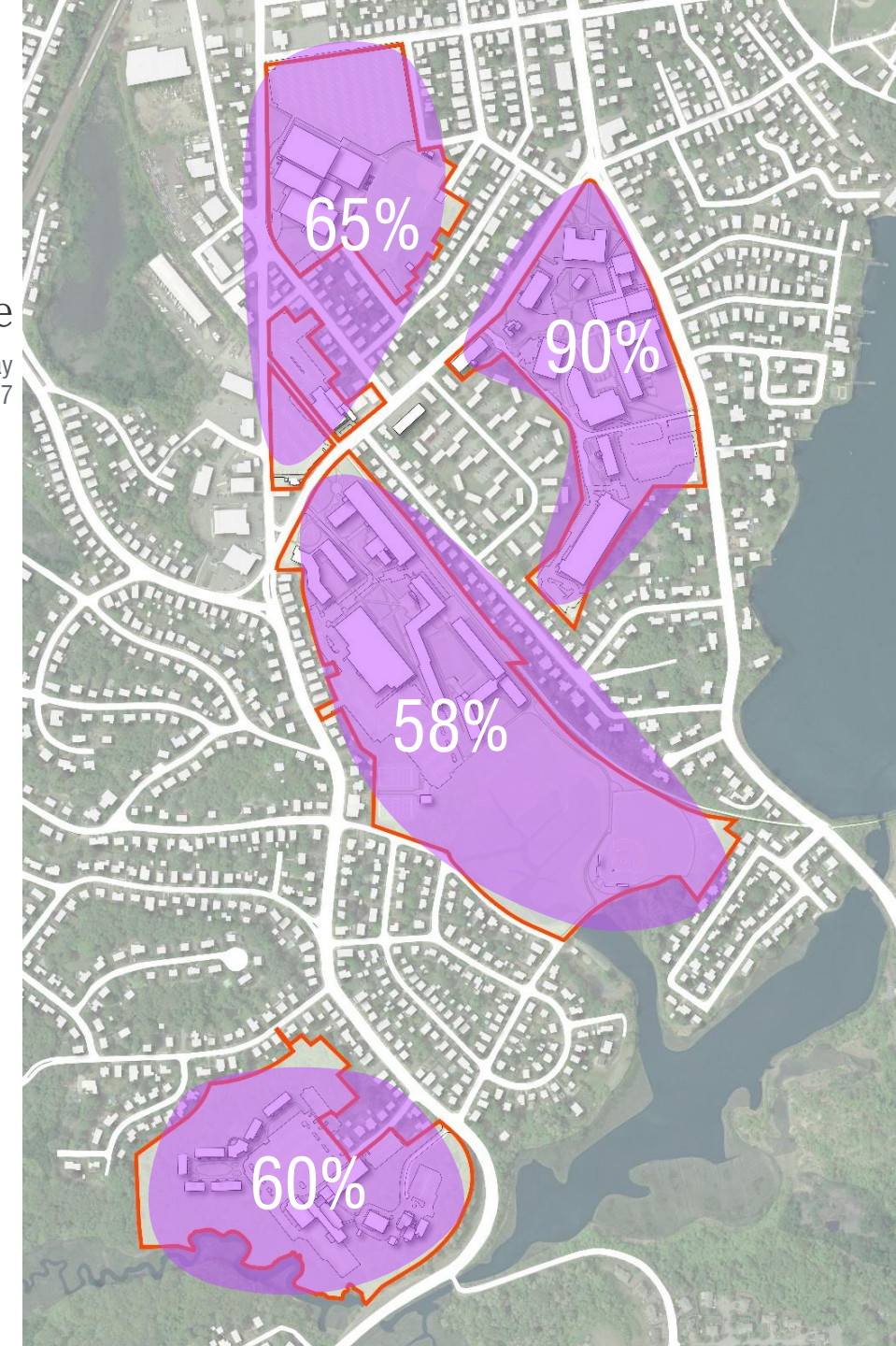
- Sophomore resident students should have more restrictive parking policies, such as limiting the ability of residential sophomores to bring cars to campus
- Address long permit waitlist which discourages others from signing up

OVERVIEW

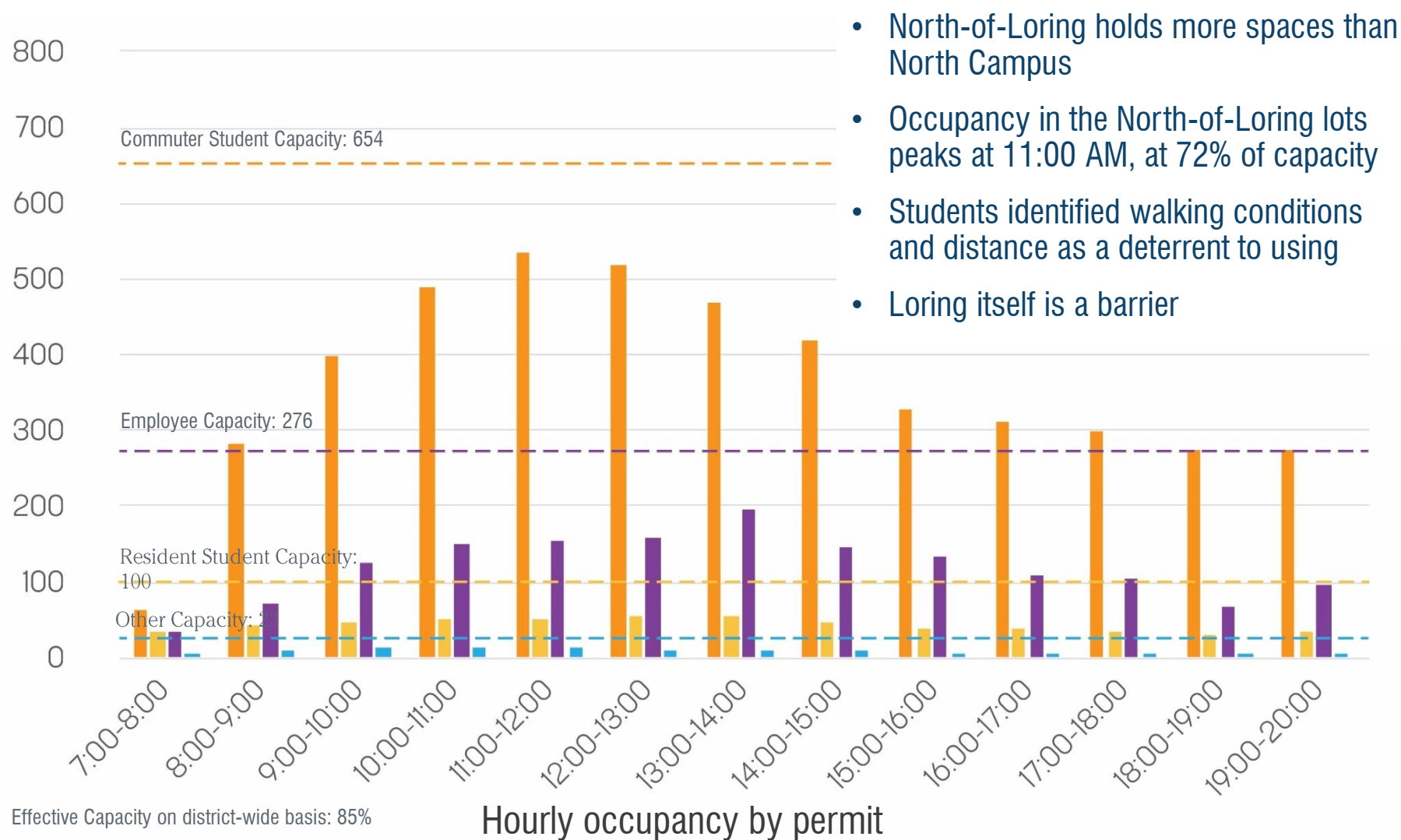
Peak Occupancy by Zone

11:00 – 12:00 Tuesday
Sept. 26, 2017

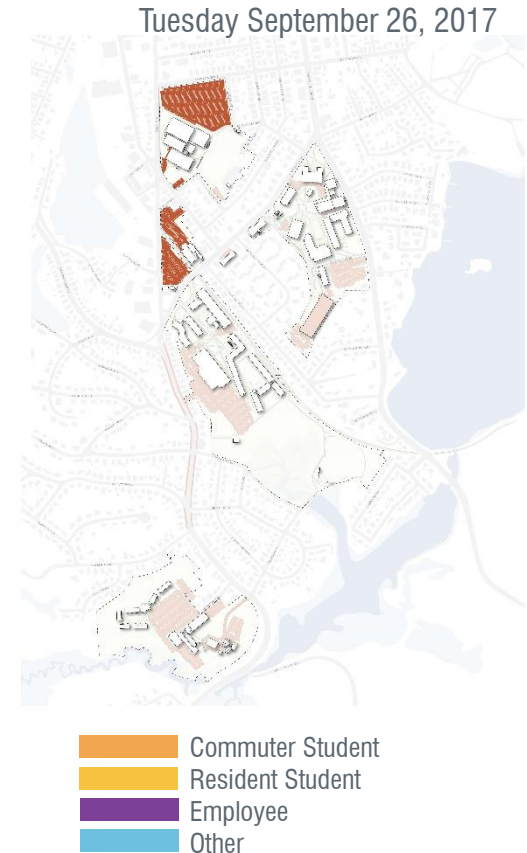
- South Campus
Residential/academic zone – adequate supply; long-term remote parking reservoir
- Central Campus
Primarily residential (Atlantic lot) – traffic issues limit potential for more intense parking use
- North Campus
Prime destination – parking used to capacity by commuters students & employees
- North-of-Loring
Peripheral parking – relatively accessible but underused



PARKING USAGE & NEED North-of-Loring



- North-of-Loring holds more spaces than North Campus
- Occupancy in the North-of-Loring lots peaks at 11:00 AM, at 72% of capacity
- Students identified walking conditions and distance as a deterrent to using
- Loring itself is a barrier

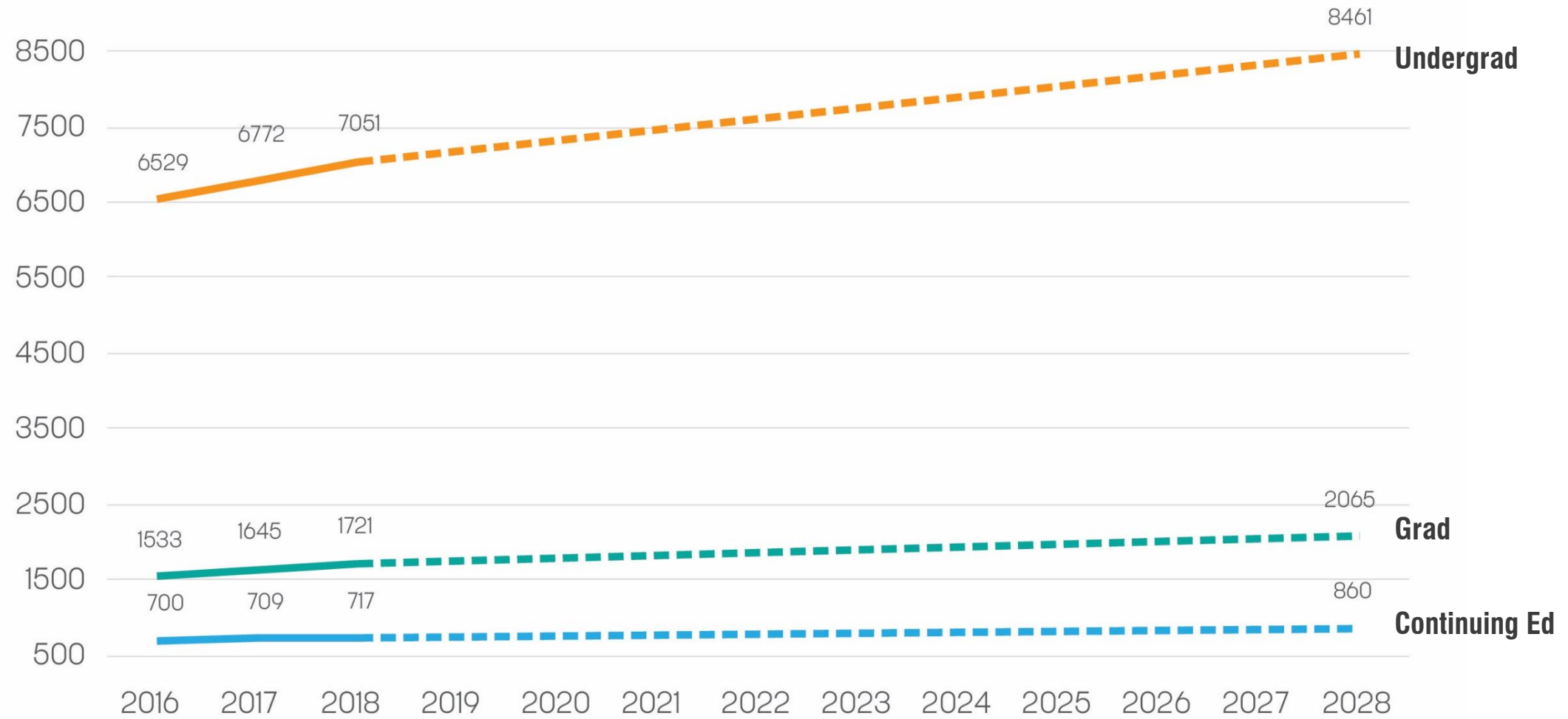


WALKING CONDITIONS

- O'Keefe, Canal/Weir and Stanley lots are perceived as too far away, but are a few minutes' walk from the cores of both North and Central campuses
- Conditions that increase the perceived distance include:
 - Crossing Loring Ave.
 - Lighting
 - Pavement conditions on Linden/Atlantic Sts.
 - Traffic on Canal St.
 - Grade change
 - Winter weather
 - Leaving the campus



FUTURE CONDITIONS Enrollment Trends



Enrollment is projected to increase 2% per year

FUTURE CONDITIONS Pending Space Moves

- Moving Criminal Justice & Nursing from South Campus will add to parking demand on the other campuses
- Peak occupancy:

	F	C
Harrison	29	
Bates/CIE	2	173
Harrington	8	50
Alumni	18	
	280	

- If this parking demand is added to North, Central and North-of-Loring, current peak occupancy there increases from 78% to 88%.

FUTURE PARKING NEED

ALL SSU CAMPUSES:

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Base Parking Need	2,342	2,389	2,437	2,485	2,535	2,586	2,637	2,690	2,744	2,799	2,855
+ 15% Cushion	2,693	2,747	2,802	2,858	2,915	2,974	3,033	3,094	3,156	3,219	3,283
						2,924					
						Existing					

CAMPUS CORE (NORTH, CENTRAL AND NORTH-OF-LORING):

Impact Of Alumni Affairs, Criminal Justice & Nursing Moves

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Base Parking Need	2,069	2,110	2,152	2,196	2,239	2,284	2,330	2,377	2,424	2,473	2,522
+ 15% Cushion	2,379	2,427	2,475	2,525	2,575	2,627	2,679	2,733	2,788	2,843	2,900

+ **280** when schools move
vs. **2,408 Existing**

Assuming 2% annual growth

Base parking needs include 189 for parking currently taking place off-campus

FINDINGS

- Uncontrolled parking within the neighborhood is a challenge
- Current total Supply is adequate to meet current Demand; however
- Shifts in parking patterns are necessary to prevent over-subscription of particular facilities and to bring off-campus parking onto campus
- 5-year horizon: at 2% per year growth (but without taking space moves into account), SSU parking capacity is sufficient until 2022
- 10-year horizon: at 2% per year growth, campus-wide demand exceeds practical capacity by over 400 spaces
- Space moves: Absent other measures, moving Criminal Justice, Nursing & Alumni Affairs will increase parking need on North, Central and North-of-Loring by up to 280 spaces, beyond existing practical capacity (occupancy + 15%)

SOLUTIONS will involve:

- **Transportation Demand Management**
- **Campus and Urban Design**
- **Assignment and Pricing of SSU Parking**
- **Parking Capacity Enhancement**
- **Enforcement by both SSU and the City**
- **Strong Communication**



RECOMMENDATIONS

- Permits and Space Allocations
- Parking facilities
- Parking Access
- Demand Management
- Enforcement & Administration



RECOMMENDATIONS Permits & Space Allocation

Principles

- Park once
- More lot-specific permits
- Use pricing as a demand management tool
- Encourage and facilitate use of Canal/Weir, Stanley & O'Keefe
- Parking regulations must be enforced both within SSU and the neighborhood

RECOMMENDATIONS Permits & Space Allocation

Potential Measures

- Evaluate current parking and adjust as needed
- Maximize parking supply – structure may be required to support campus consolidation and expanded enrollment
- Consider limiting permit eligibility for resident sophomores
- Improve pedestrian access: wayfinding, lighting, defined walking routes

ALTERNATIVES Parking Facilities

Options to Explore

1. Garage on buildable portion of O'Keefe lot
2. Garage on Canal/Weir lot
3. Garage on Stanley lot
4. Garage on Atlantic lot
5. New Atlantic Hall lot



ALTERNATIVES Parking Facilities

Candidate	Spaces/ Level (approx.)	Levels	Net Spaces	Cost*	Pro	Con
Garage on buildable portion of O'Keefe lot	155	4	465	\$16.3 M	Serves athletic complex.	Longer term Further away
Garage on Canal/Weir lot	80	4	240	\$11.2 M	Well located for Central Campus access.	Triangular site is not ideal Site may have a better use
Garage on Stanley lot	80	4	240	\$11.2 M	Works with redevelopment of Stanley building.	Site is barely 120' wide; might require reconfiguration of drainage swale
Garage on Atlantic lot	120	4	360	\$16.8 M	Maximizes parking utility.	Traffic impacts
New Atlantic Hall lot	160	1	160	\$1.1 M	Doesn't displace existing parking.	Wetlands, open space impacts Traffic impacts

* Cost assumptions:

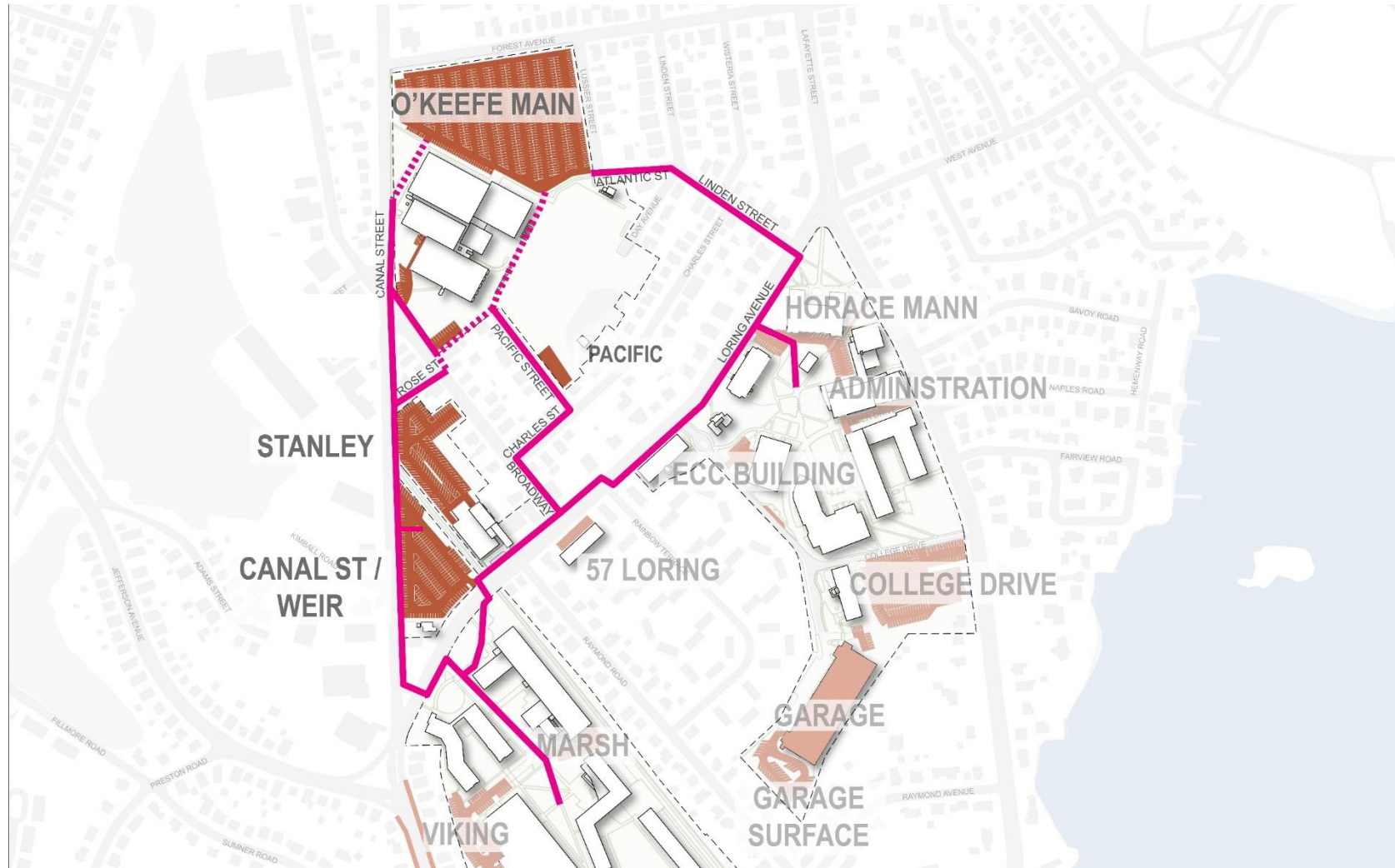
- Garage space: \$35,000
- Surface space: \$7,000

RECOMMENDATIONS Parking Access

Walkability is Key

- Winter Conditions
- Defined pedestrian routes
- Lighting
- Loring Ave.
- Cooperation between SSU and the City of Salem
- Sidewalk at garage lot

PATHS TO PARKING



- Existing streets
- Proposed paths

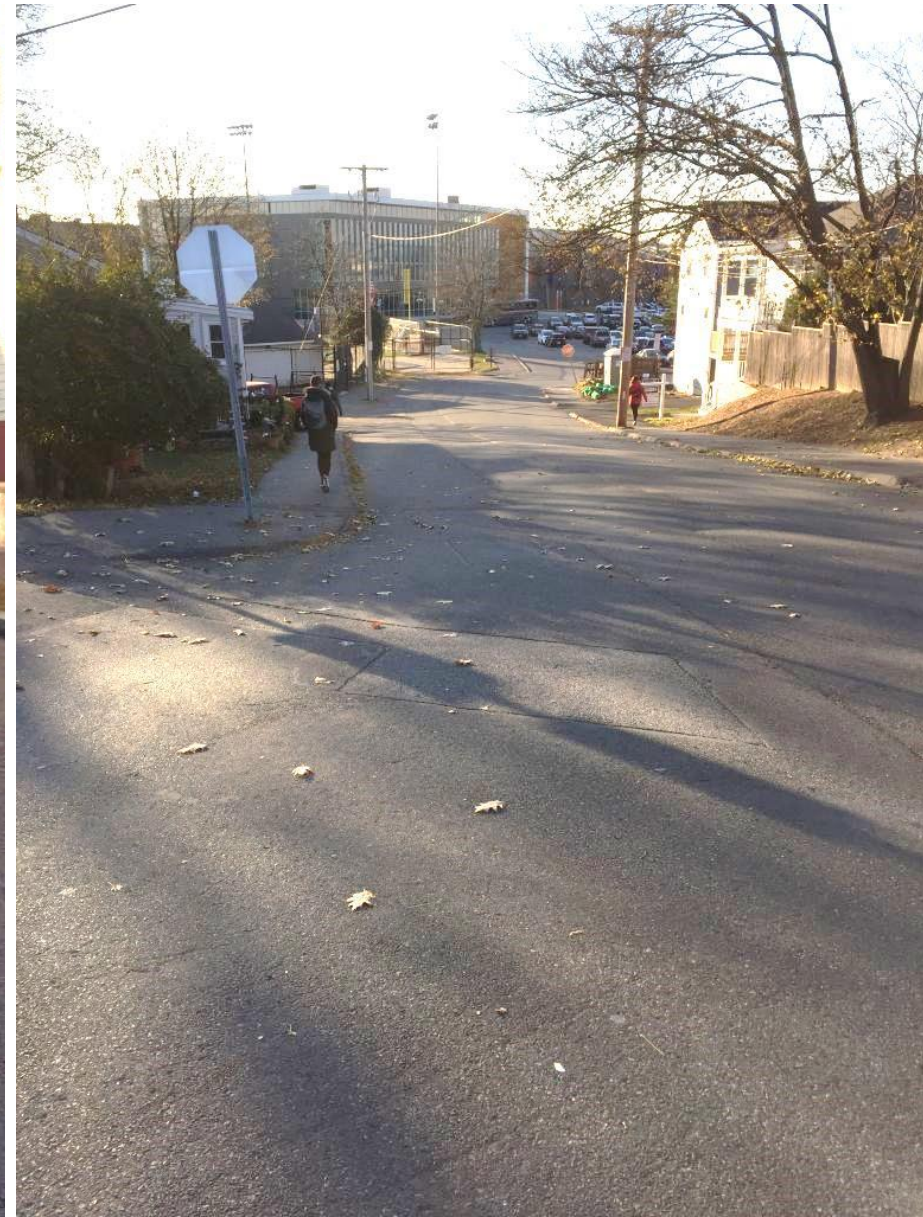
PATHS TO PARKING

Loring Ave. crosswalk



PATHS TO PARKING

Linden & Atlantic Streets

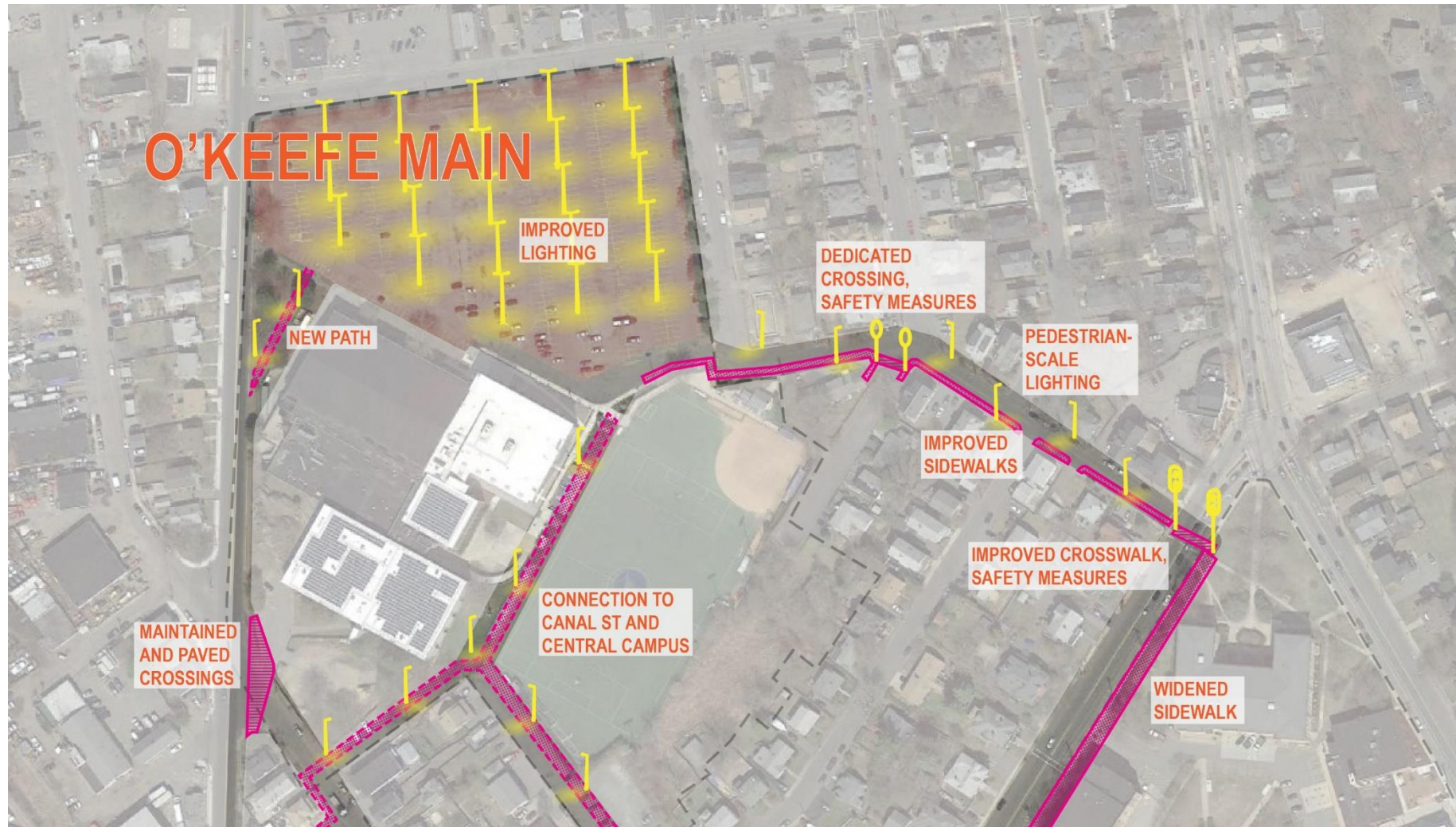


PATHS TO PARKING Canal St. at O'Keefe lot



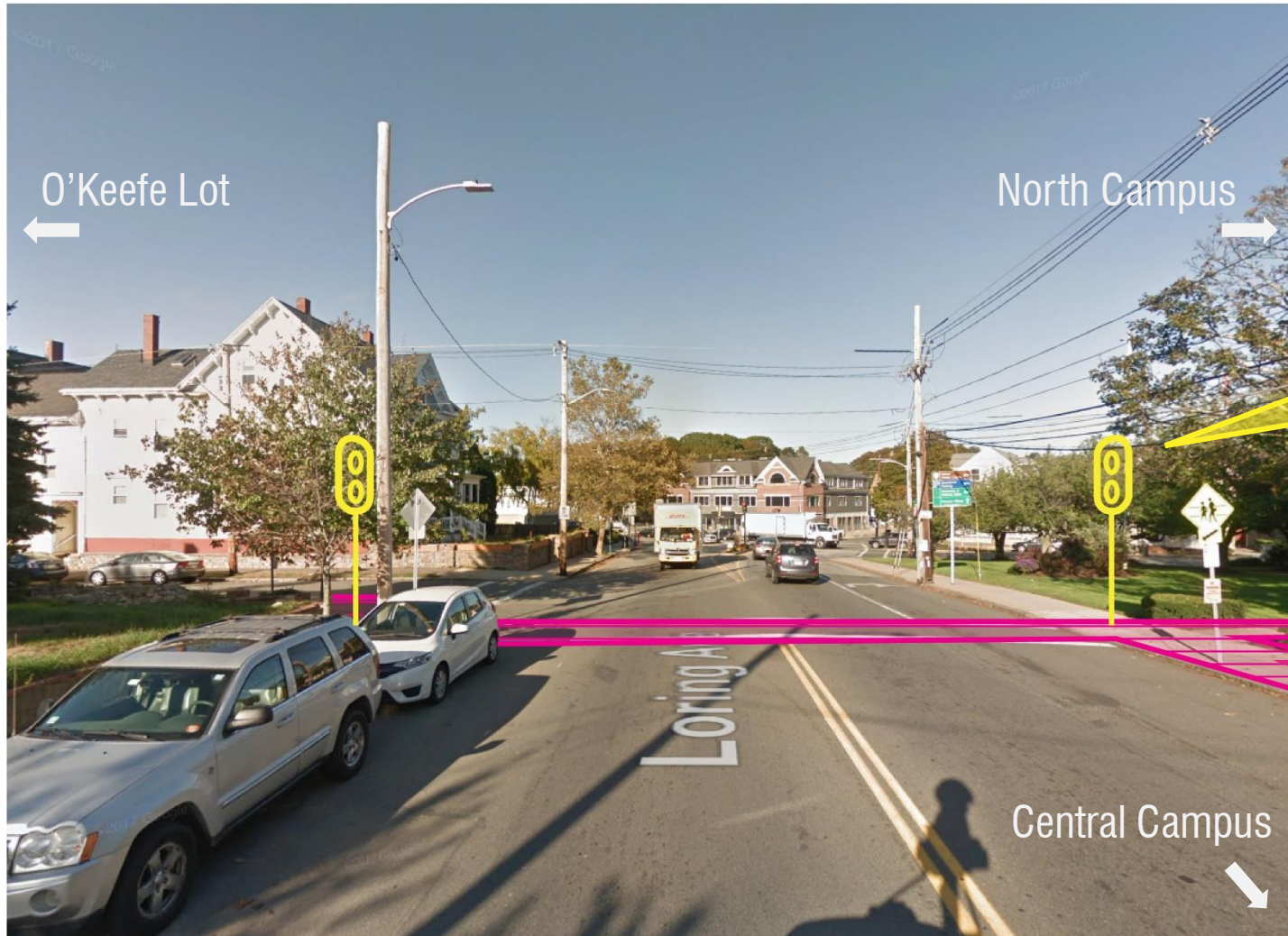
ALTERNATIVES Potential Improvements

O'Keefe



- Improvements to existing streets
- Additional paths
- Additional lights & signage

ALTERNATIVES Loring Ave.



Pedestrian signal for major Loring Ave. crossing at Linden St.

Upgrade crosswalks for pedestrian and driver visibility

ALTERNATIVES Linden/Atlantic St.



Mirror for increased visibility around tight curves

Traffic-regulation signage at Linden/Atlantic/Day St. intersection

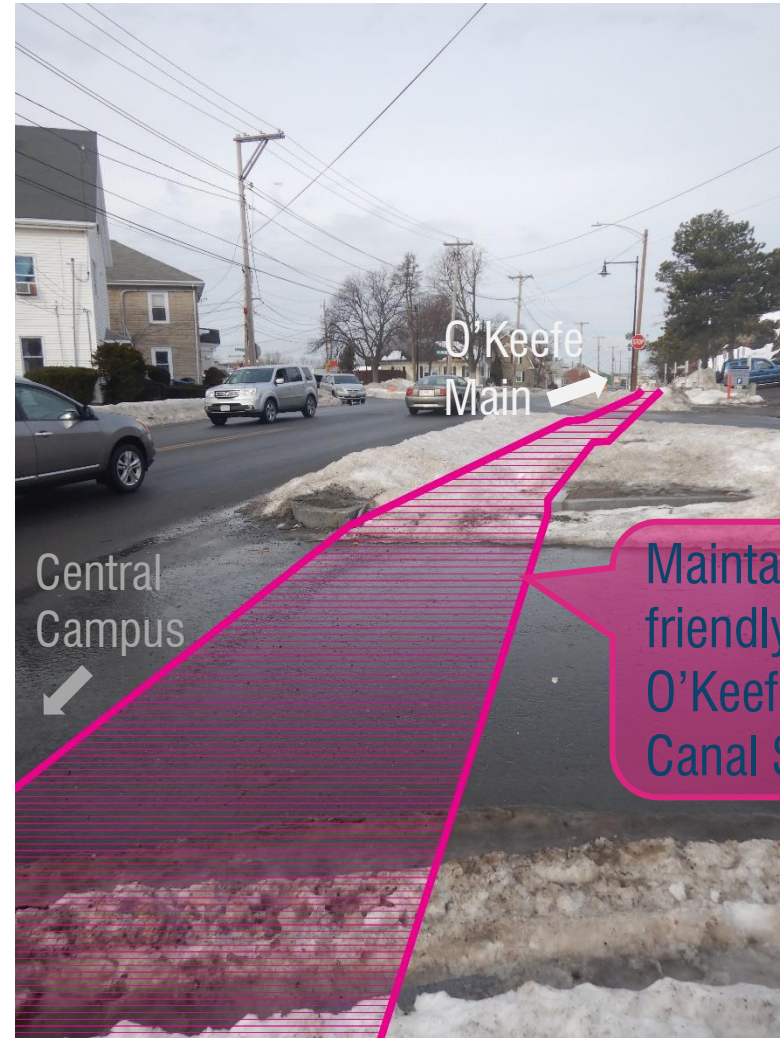
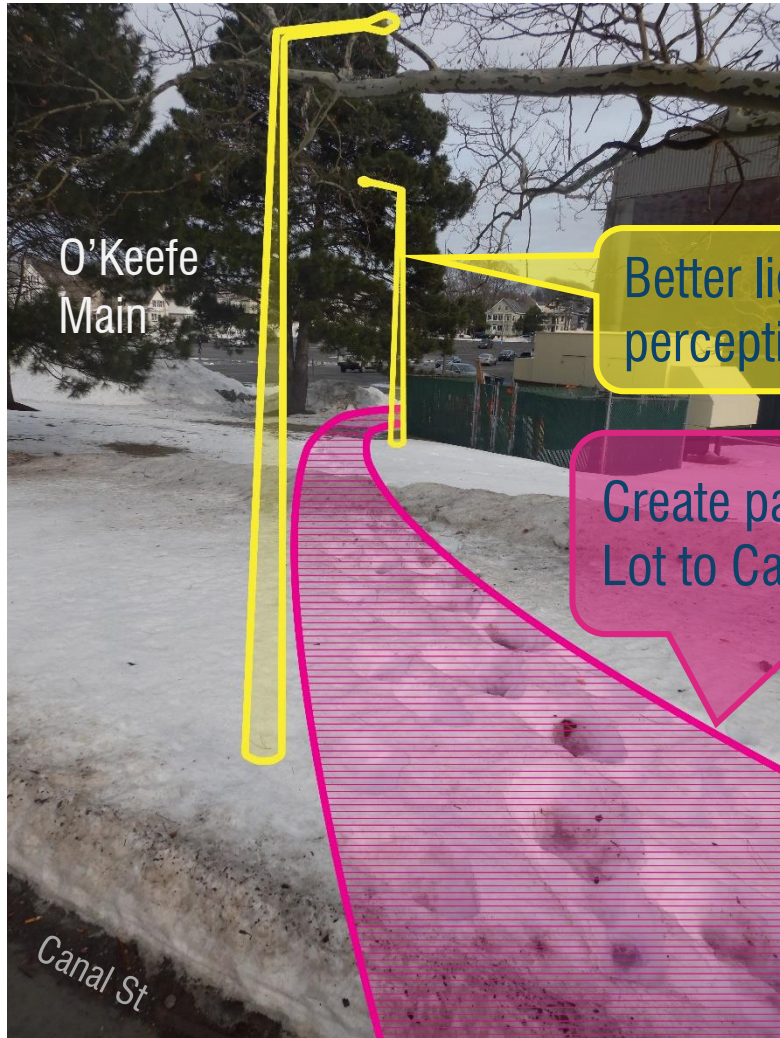
More effective pavement markings for pedestrian and driver visibility

ALTERNATIVES O'Keefe Lot Improvements



Lighting in O'Keefe Lot to enhance perception of safety

ALTERNATIVES Paths to O'Keefe



ALTERNATIVES Paths to O'Keefe



Better lighting

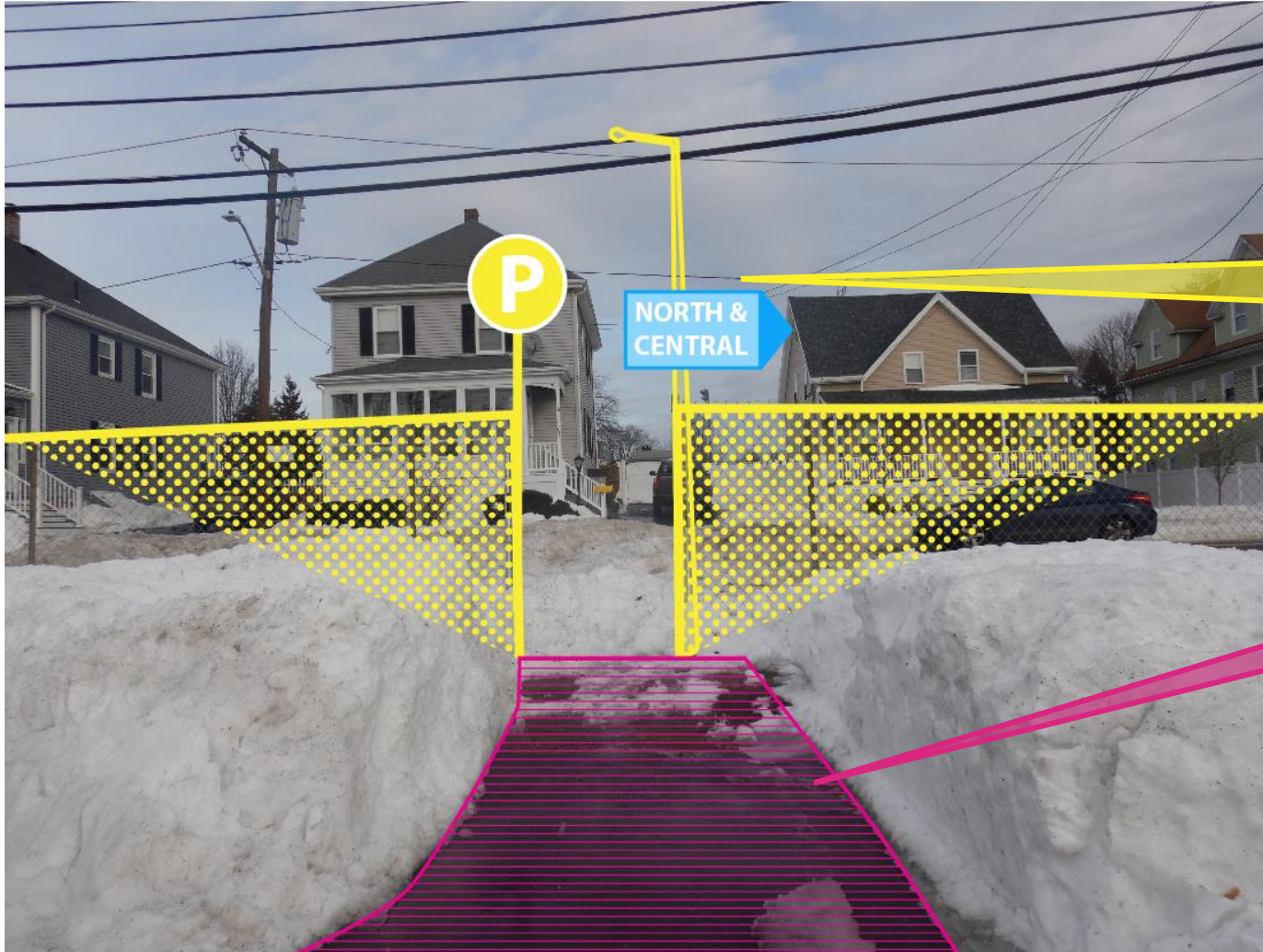
Open path along edge of football field, to Canal St.

ALTERNATIVES Potential Improvements

Stanley & Canal St./Weir



ALTERNATIVES Stanley Lot



Additional signage, lighting, & entryway to guide & protect pedestrians

Enhanced pavement to improve accessibility

ALTERNATIVES Canal St./Weir Lot

Entrance signage, to direct drivers to parking and pedestrians to campus

Additional lighting

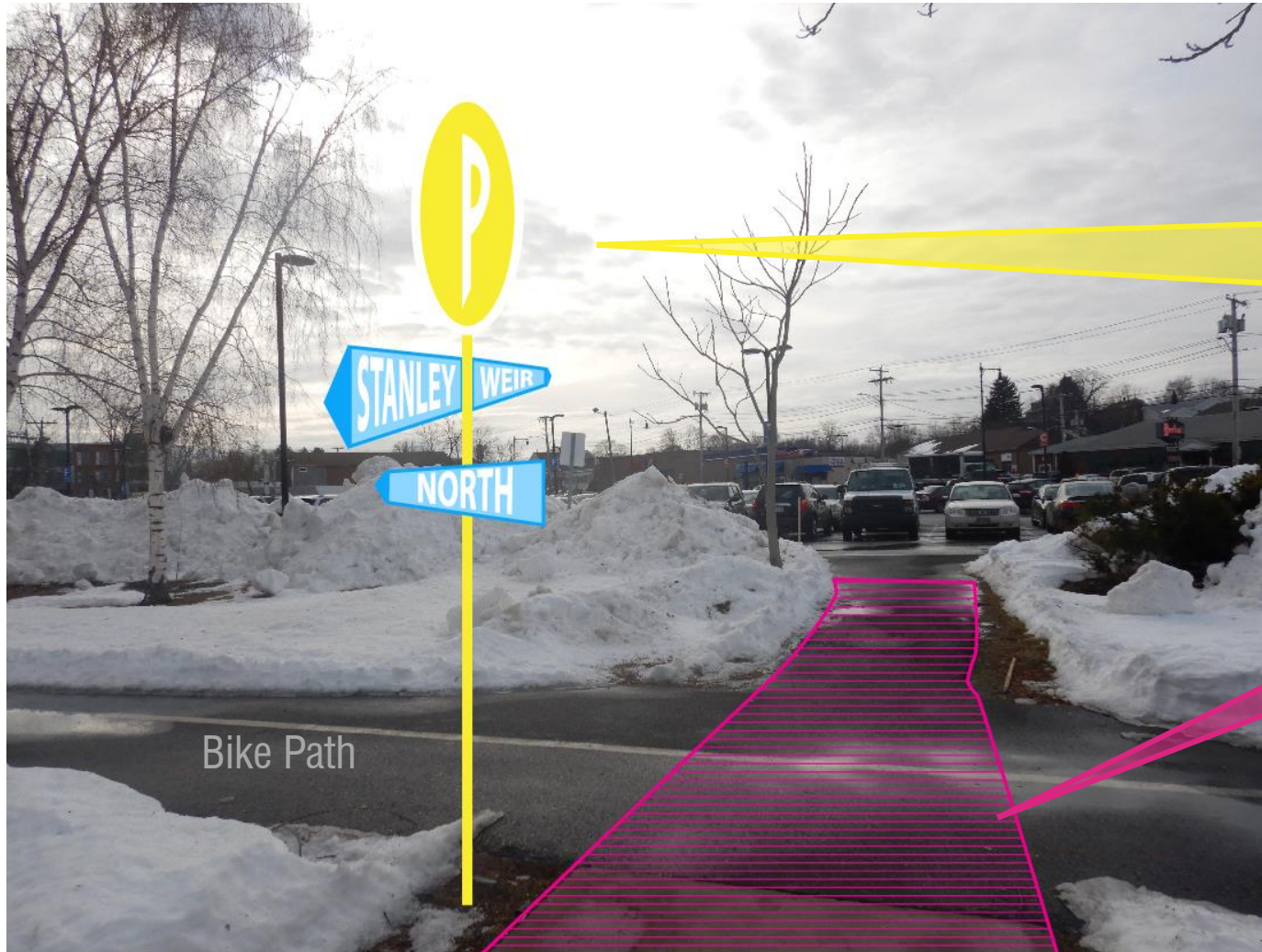
Crosswalks to slow traffic and enhance pedestrian safety



Additional permit signage to better direct SSU drivers to their correct parking locations

Enhanced & additional directional arrows to guide traffic

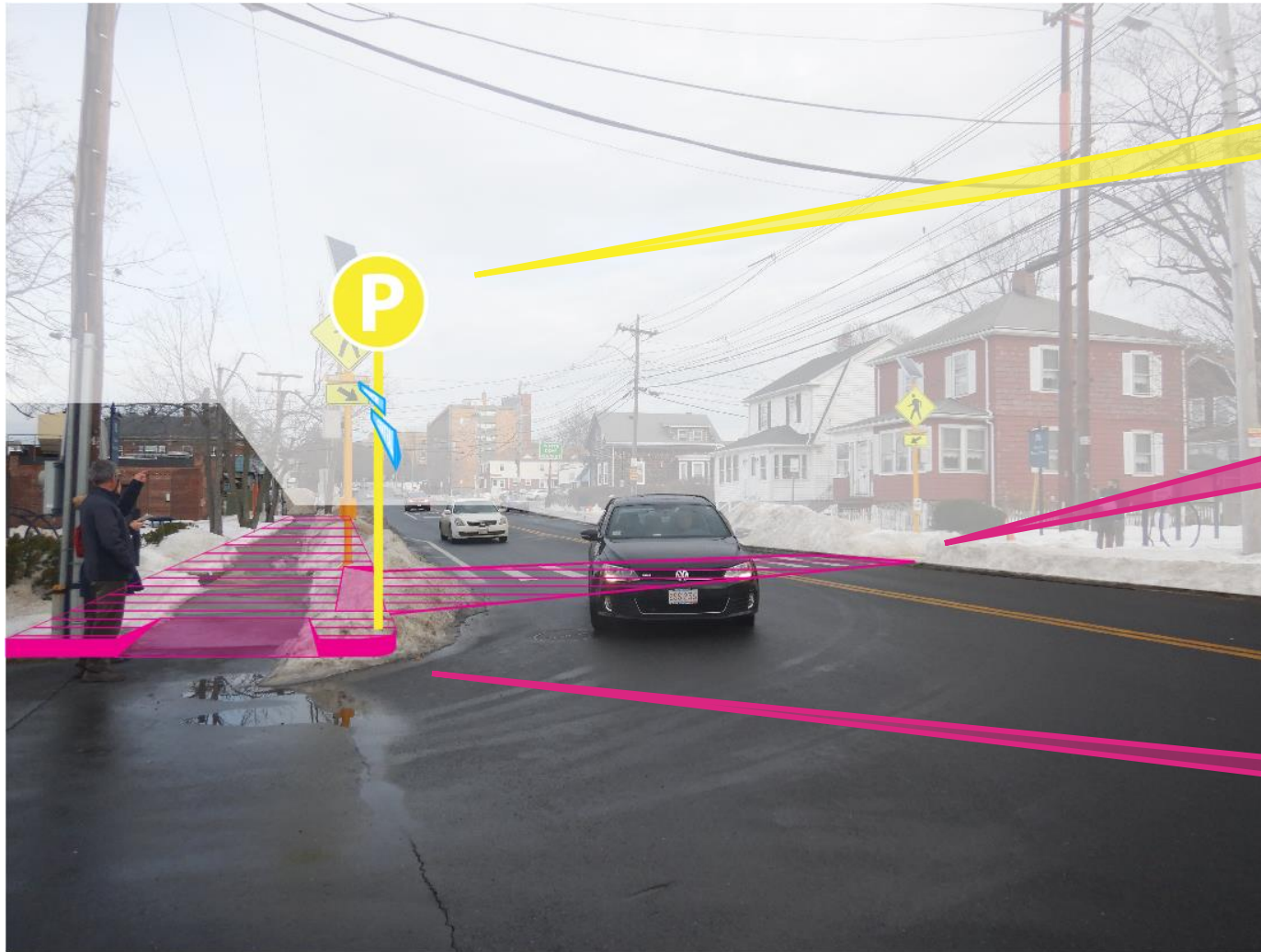
ALTERNATIVES Canal St./Weir & Stanley



Additional signage to guide visitors and SSU newcomers between lots and campuses

Highlight connection between Stanley & Canal St./Weir Lots

ALTERNATIVES Canal St./Weir & Stanley Access



Additional signage to guide drivers and pedestrians

Upgrade crosswalks for pedestrian and driver visibility

Renovate sidewalks

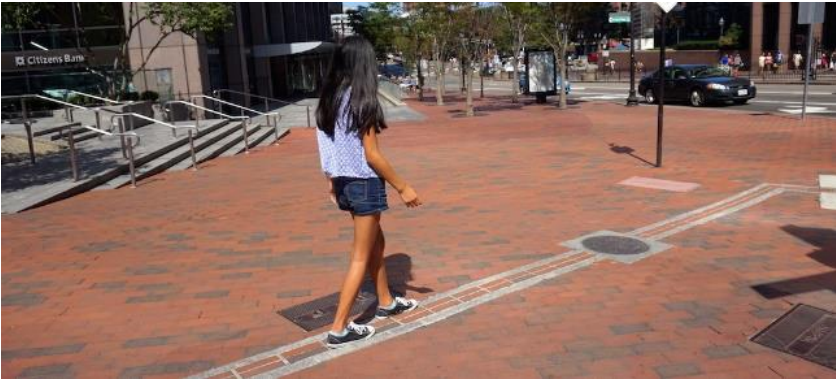
ALTERNATIVES Loring Ave. Streetscape



Add trees to shelter walk from Central Campus to Weir & Stanley Lots

Enhanced sidewalks to improve accessibility

ALTERNATIVES Pavement Guide Precedents



ALTERNATIVES Streetlamp Precedents



RECOMMENDATIONS Demand Management

- Principles and Expectations
- Services
- Incentives
- Flextime
- Telecommuting
- Bicycling – bikeshare & facilities (City streets)
- NSTMA
- Messaging & communication

- Transit – South Salem station (long-term)
 - South campus shuttle

RECOMMENDATIONS Enforcement & Administration

- Strict enforcement by both SSU and City police
- Coordinate enforcement and public improvements
- Ongoing parking need evaluation

THANK YOU

