UW
Campus Master Plan & Environmental Impact Statement

Transportation Briefing

CUCAC Meeting

June 14, 2016

UNIVERSITY *of* WASHINGTON

Presentation Topics

- ❑ TMP as one of 12 CUA elements
- ❑ Transportation Management Plan GOAL
- ❑ Transportation Management Plan COMPONENTS
- ❑ Mode Split – 2005 to 2014
- ❑ Vehicle Trip Caps
- ❑ Parking Cap
- ❑ Transportation Analysis in the EIS– Methodology and Approach
- ❑ Questions

UNIVERSITY OF WASHINGTON CAMPUS MASTER PLAN UPDATE

CITY/UNIVERSITY AGREEMENT (CUA) REQUIREMENTS

The City/University Agreement (CUA) establishes the official requirements of the campus master planning process. The draft and final master plans will address each of these areas.

- MAJOR INSTITUTION OVERLAY (MIO) BOUNDARY
- GENERAL USE AND LOCATION OF PROPOSED DEVELOPMENT
- FUTURE ENERGY AND UTILITY NEEDS
- NON-INSTITUTIONAL ZONES
- INSTITUTIONAL ZONE AND DEVELOPMENT STANDARDS
- ALTERNATIVE PROPOSALS FOR PHYSICAL DEVELOPMENT
- HEIGHT AND LOCATION OF EXISTING FACILITIES
- EXISTING AND PROPOSED CIRCULATION NETWORK
- PROPOSED DEVELOPMENT PHASES AND TIMETABLE
- EXISTING AND PROPOSED OPEN SPACE
- TRANSPORTATION MANAGEMENT PLAN(TDM)
- PROPOSED STREET AND ALLEY VACATIONS

UW Transportation Management Plan
GOAL

> Limit peak-period, peak-direction vehicle trips made by faculty, staff and students at or below the 1990 levels.

> The 2018 CMP will retain the trip caps first created in 1990 and then modified in the 2003 CMP with the deletion of patients and visitors.

Transportation Management Plan
COMPONENTS

1. U-PASS program
2. Transit
3. Shared-Use Transportation
4. Parking Management and RPZ's
5. Bicycle
6. Pedestrian
7. Marketing and Education
8. Telecommuting
9. Institutional Policies

Background: *How does the UW SOV rate compare to other Major Institutions?*

INSTITUTION	TMP GOAL as listed in current CMP	SOV rate reported
Group Health	55% SOV rate	55%
Virginia Mason	30% SOV rate	27%
Seattle Children's	30% SOV rate	38%
Northwest Hospital	70% SOV rate	31%
Harborview Medical Center	45% SOV rate	45%
Seattle Central College	50% SOV rate	35%
Seattle Pacific University	50% SOV rate	46%
Seattle University(student,faculty,staff)	55%, 60%, 40% SOV rate	50%,39%,39%
North Seattle College	55% SOV rate	?
Swedish Hospital	50% SOV rate	38%
Swedish Cherry Hill	50% SOV rate	56%
South Seattle College	35% SOV rate	?
University of Washington	AM / PM Vehicle Cap	18%

UW Mode Split History:

Mode Split

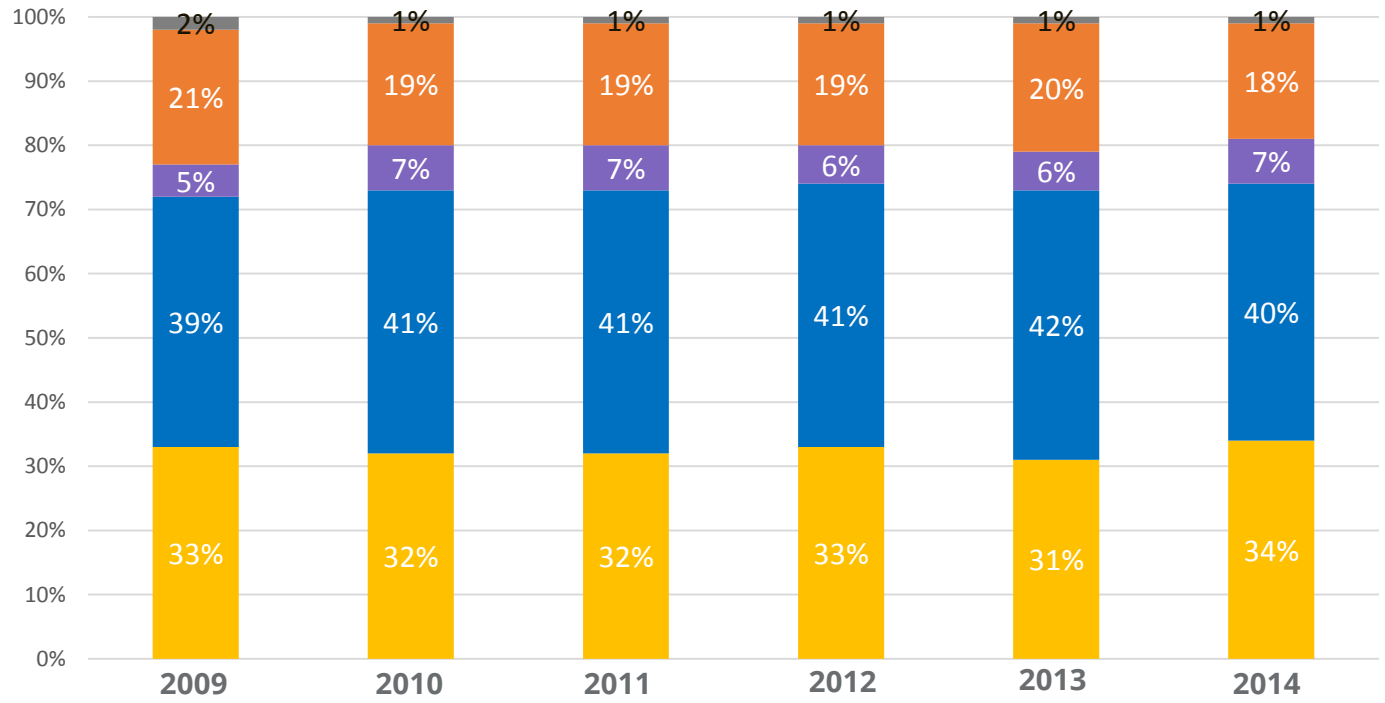
- *Faculty Trends*
- *Staff Trends*
- *Student Trends*

U Pass Influence on Mode Split Trends

- *AM peak hour*
- *PM peak hour*

Campus Mode Splits

Student, Faculty, Staff



Walks or bikes

Transit

Rideshare

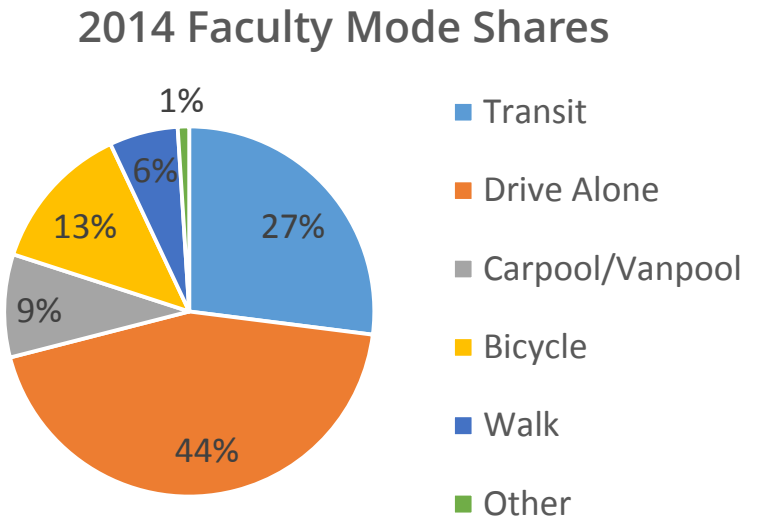
Drive Alone

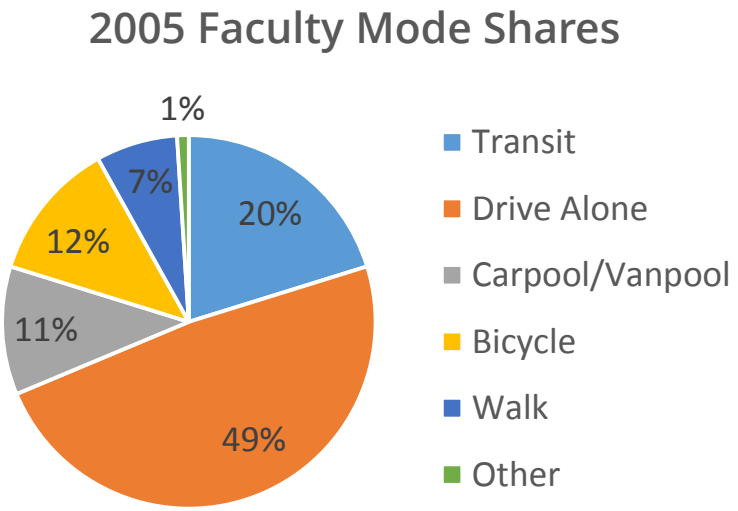
Other

Faculty Trends

- Decrease Drive Alone\Slight increase in telecommuting
- Transit ridership 7% increase

- Vehicle trips (drive alone, carpool) 6% decrease

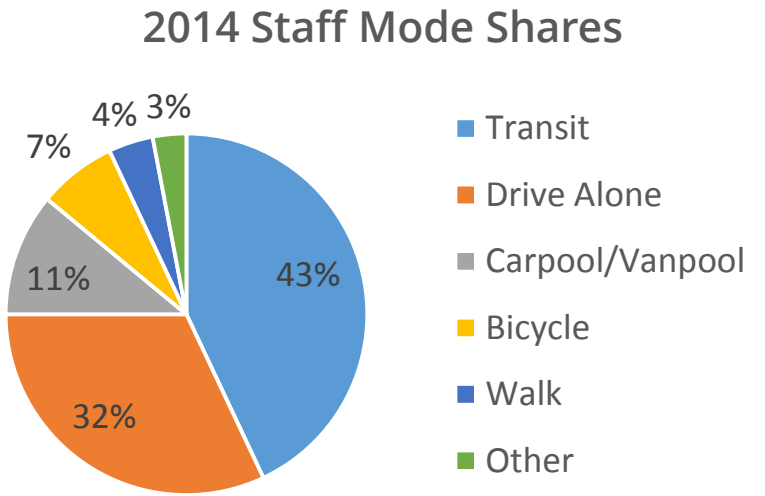


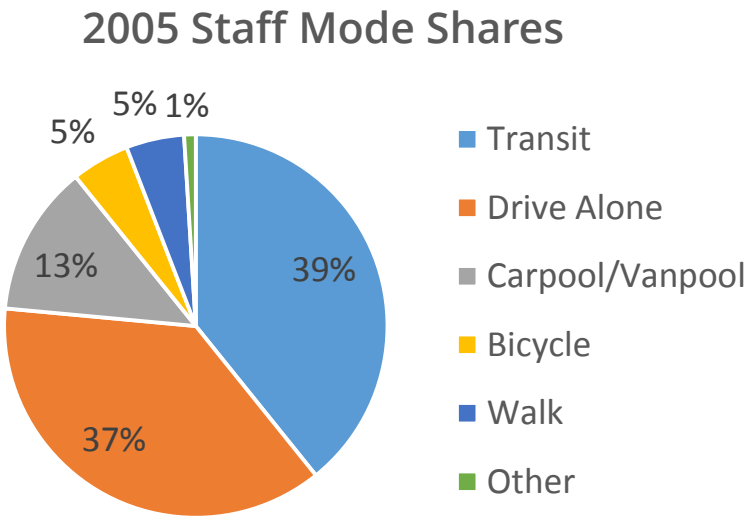


Source: Campus Transportation Survey Report and U-PASS Survey Reports

Staff Trends

- Slight increase in transit with a reduction in drive alone
- Transit and bicycle 5% increase
- Vehicle trips 8% decrease

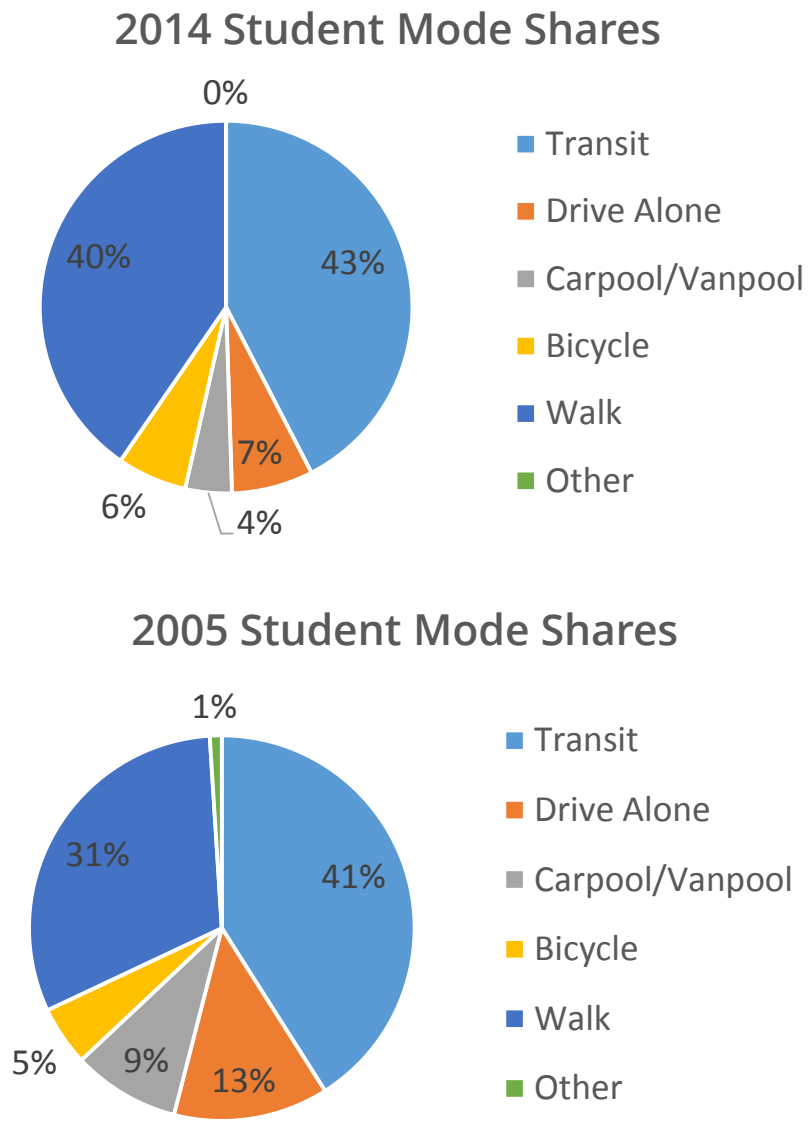




Source: Campus Transportation Survey Report and U-PASS Survey Reports

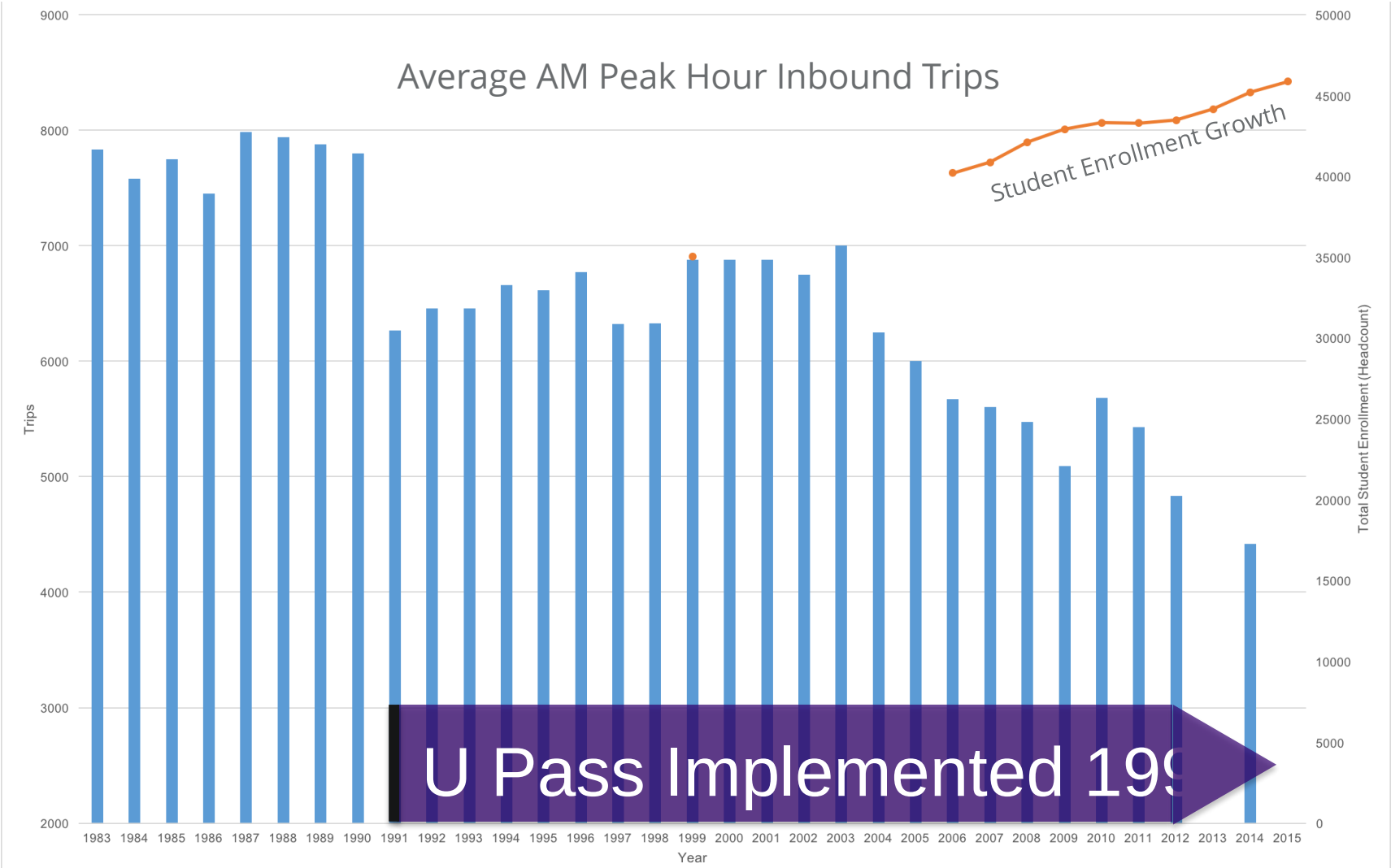
Student Trends

- After a small dip in transit use transit ridership is higher.
- Notable increase in walk trips and a slight drop in drive alone
- Pedestrian trips 9% increase
- Vehicle trips 11% decrease



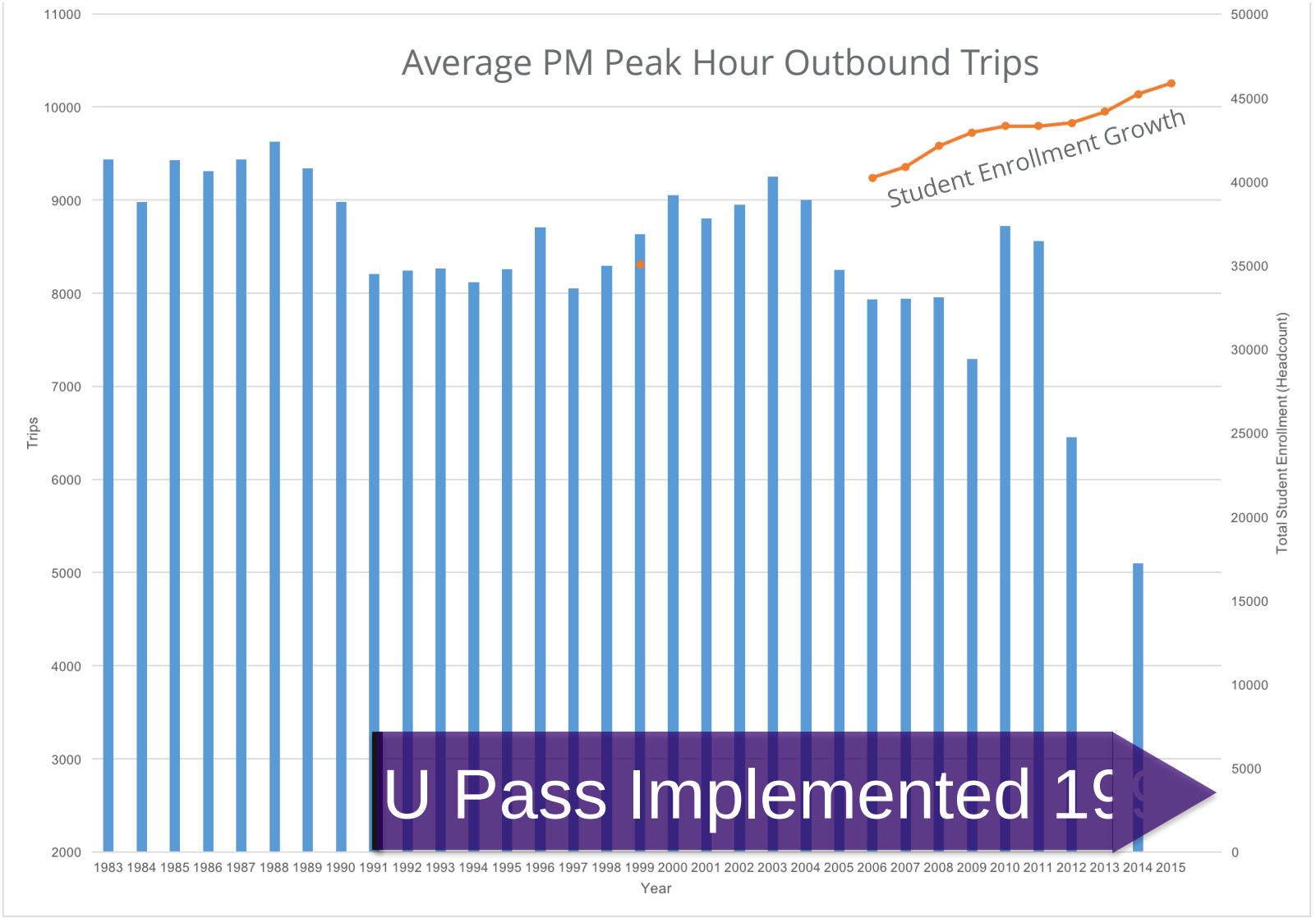
Source: Campus Transportation Survey Report and U-PASS Survey Reports

U Pass Influence



**To be supplemented with additional historical data as available*

U Pass Influence



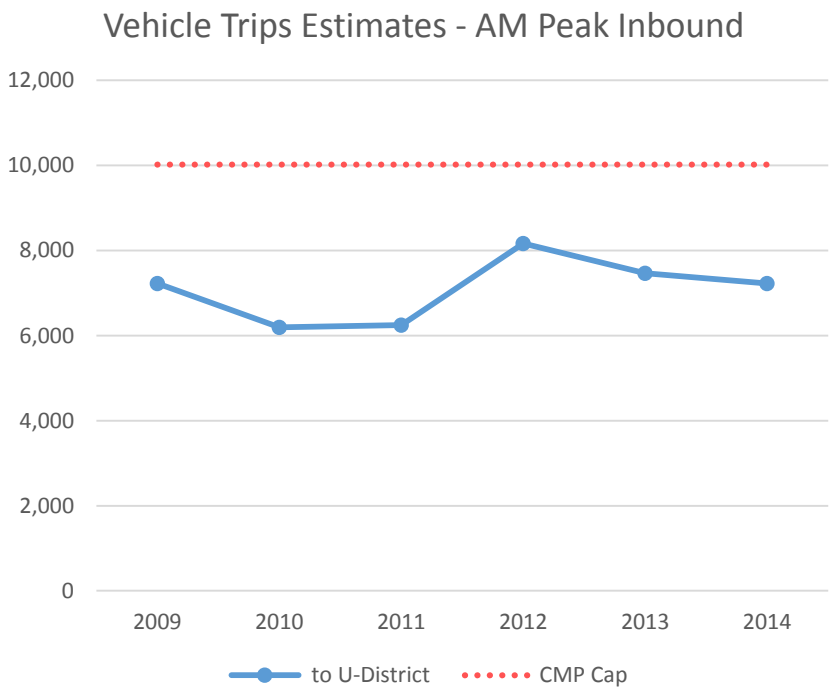
**To be supplemented with additional historical data as available*

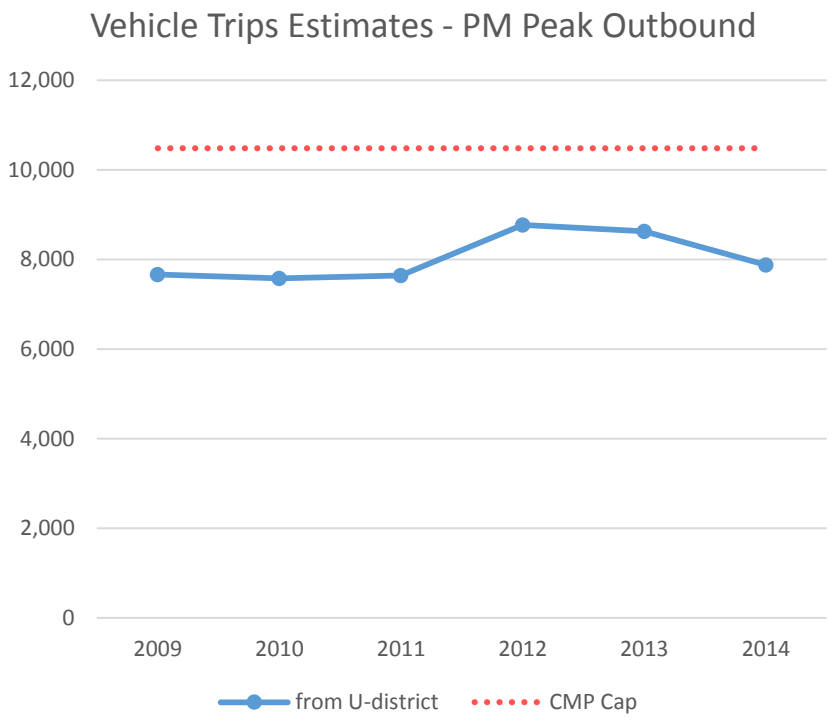
UW's TMP GOAL:

*Limit vehicle trips by agreeing to a peak period, peak-direction **vehicle trip cap** monitored and reported in the CMP Annual Report*

Campus Master Plan Trip Caps

> Established at 1990 levels

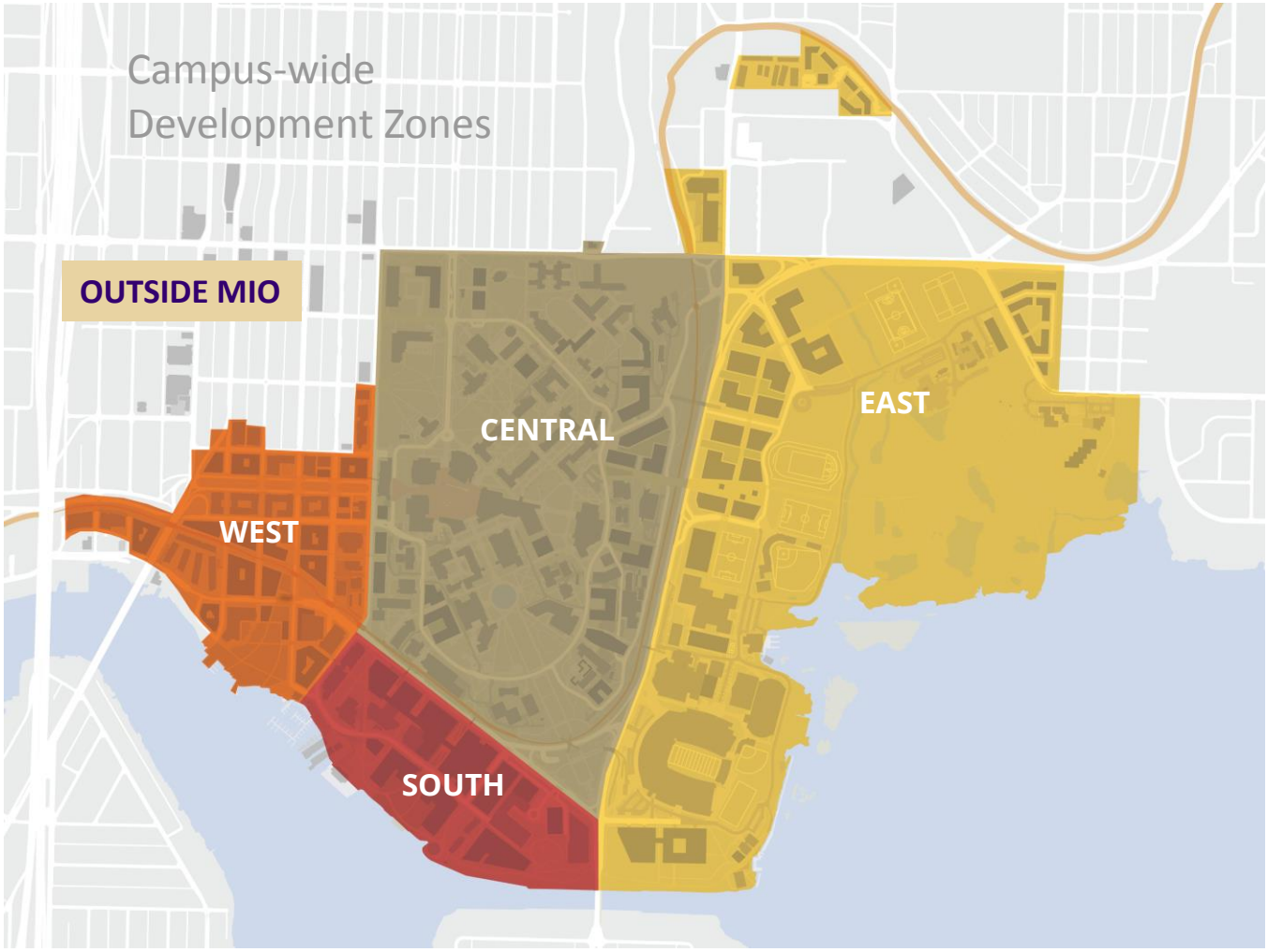




UW's TMP GOAL :

Limit vehicle trips by limiting parking capacity on campus

Current Parking Locations



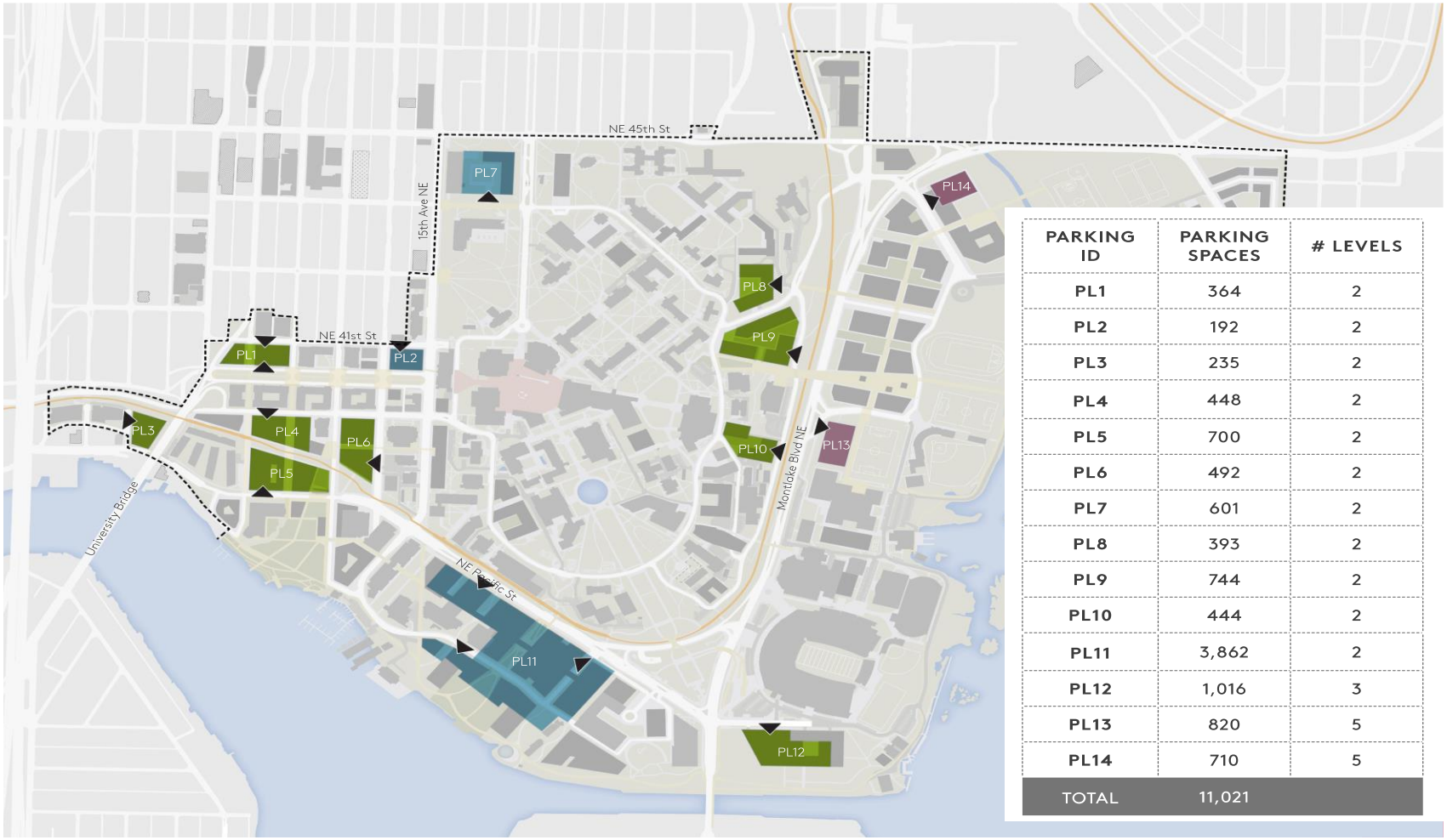
2015 UW Parking Supply and Demand

CMP Supply and Demand								
	Parking Supply						2015 Parking Demands	
DISTRICT	No. Lots	Total Supply	*Minus Service**	*Minus Loading**	*Minus Residential**	Equals CAP Supply	% Utilization	Demand
Central	42	3,503	69	53	91	3,290	82%	2,711
West	26	2,351	60	16	248	2,027	74%	1,493
East	21	5,443	115	37	284	5,007	33%	1,654
South	12	1,248	7	10	0	1,231	93%	1,139
Total	**101**	**12,545**	**-251**	**-116**	**-623**	**11,555**	**61%**	**6,997**

Note: 81% Utilized (excluding East Campus)

**Service, Loading and Residential are excluded from parking cap*

Potential New Parking Locations



PARKING ID	PARKING SPACES	# LEVELS
PL1	364	2
PL2	192	2
PL3	235	2
PL4	448	2
PL5	700	2
PL6	492	2
PL7	601	2
PL8	393	2
PL9	744	2
PL10	444	2
PL11	3,862	2
PL12	1,016	3
PL13	820	5
PL14	710	5
TOTAL	11,021	

UW Peer Universities
Campus Parking Ratio Comparison

University	Total Headcount	Total Parking Spaces	Spaces to Person Ratio
Rutgers University	58,378	24,407	0.42
University of Virginia	43,694	17,251	0.39
University of Maryland	47,964	18,373	0.38
University of California LA	76,386	23,948	0.31
University of Colorado Boulder	40,000	11,600	0.29
University of Washington	70,500	12,300 (Cap)	0.17

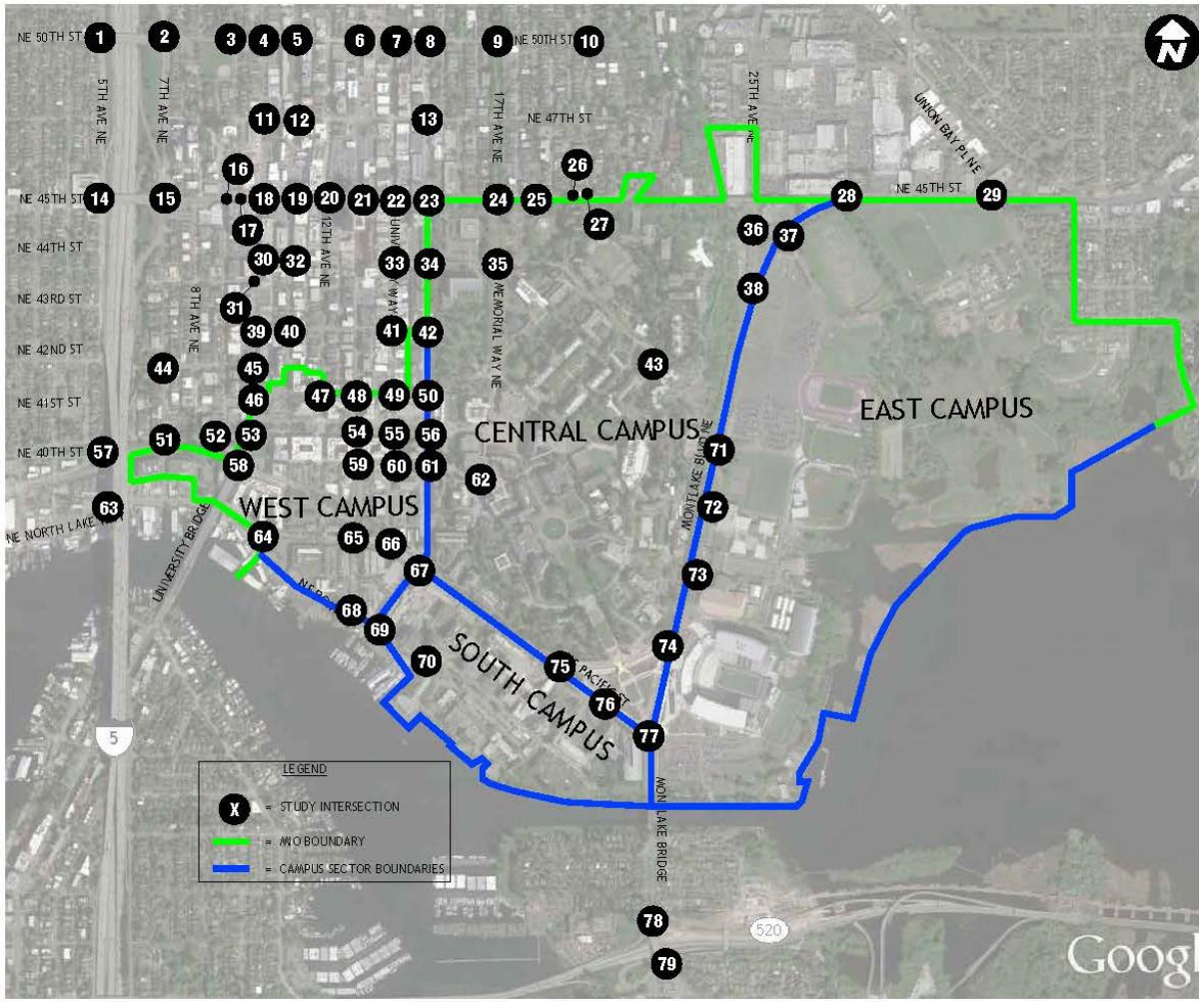
Transportation Analysis in the EIS:

Methodology and Approach

Environmental Impact Study: Methodology and Approach

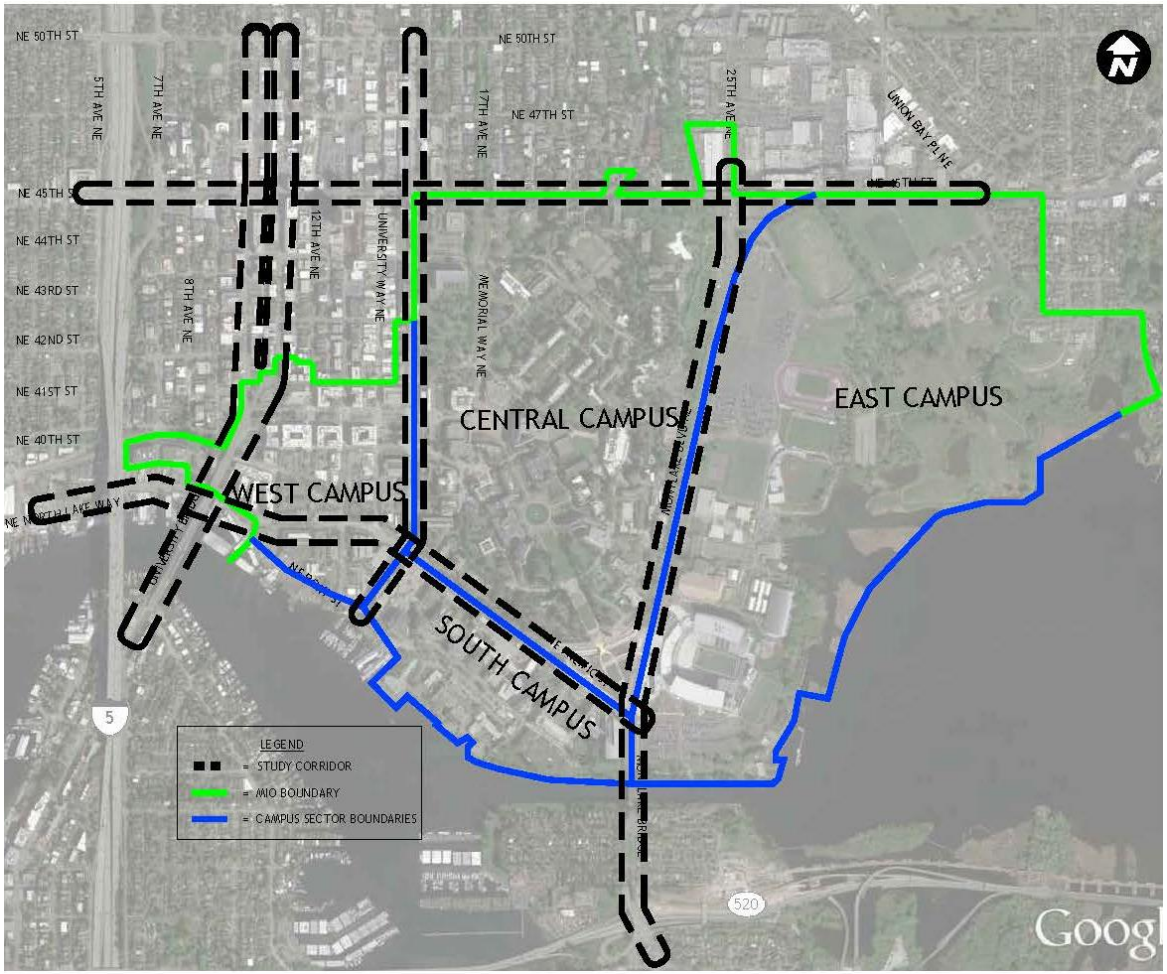
- Study Area/Analysis Periods
- Transportation Elements

Study Area Intersections/ Analysis Periods



- 70 Intersections
- Weekday PM Peak Hr
- 2028 Horizon Year

Study Corridors



Methodology
UW Transportation Demands

UW Transportation Demands

Peak Hour Commute Traffic Analysis.
The increased commute travel demand by mode and parking demands will be forecasted by calibrating a model to be consistent with the 2014 UW survey.

Peak Parking Demands Analysis.
The peak parking demands will be forecasted from the UW transportation demand model, calibrated to existing observed levels, and increased based on forecast campus population growth.

Methodology
Bicyclists/Pedestrian/Transit

Bicyclists	Identifying existing and planned bicycle facilities in the campus area and those routes used by bicyclists to access the campus will be used as a baseline assumption for impact analysis. Impacts will be based on the UW-added transportation demands identified above.
Pedestrians	Identify existing and planned pedestrian facilities in the campus area and those routes used by pedestrians to access the campus. The analysis will focus on general connectivity and quality of the route. Impacts to these routes will be based on the added UW demands in the multimodal transportation demand identified above.
Transit	Impacts of increased ridership due to UW growth will be reviewed relative to the overall capacity and planned service and facility changes of the transit system. The analysis will also consider the connectivity to the major transit centers in the area or local population.

Methodology
Traffic Volumes/Forecasts

Traffic Volumes

2028 forecast baseline PM Peak hour traffic volumes will be developed based on the City of Seattle preferred alternative for the Comprehensive Plan. UW growth traffic will be added and allocated to parking proportional to the anticipated supply of parking on campus. Adherence to the vehicle trip caps will be reported.

The added area density associated with the proposed U-District Height and Density study will also be considered as a potential baseline traffic condition under Cumulative Impacts.

Methodology
Parking/Traffic Safety

Parking	Changes to the overall forecasted parking demand and supply will be evaluated with the proposed UW growth and Campus Master Plan alternative-specific growth allocation. This will include consideration of impacts both within and outside the MIO boundaries. Forecast parking demands will be reported relative to the identified parking cap 12,300 spaces.
Traffic Safety	Impacts of increased traffic and pedestrians on safety in the area will be assessed. This assessment will consider existing high accident locations, frequency of collisions, and any current trends at an intersection level.

Methodology
Aerial and Street Vacations/Mitigation

Aerial and Street Vacations	The analysis will analyze the potential impact of proposed aerial and/or street vacations on the transportation system. This includes shift of pedestrians from one route to another based on changes in circulation routes.
Mitigation	Mitigation strategies will be identified as necessary based on a review of the impacts and applicable city requirements. Mitigation measures could include revisions to the Transportation Management Plan and/or physical improvements where necessary.

Questions?