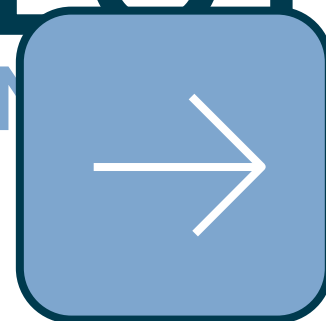


# STUCK IN THE LOT?

IMPROVING THE UMAINE PARKING SITUATION

Presented by Dominic Muscatell and LJ Robson

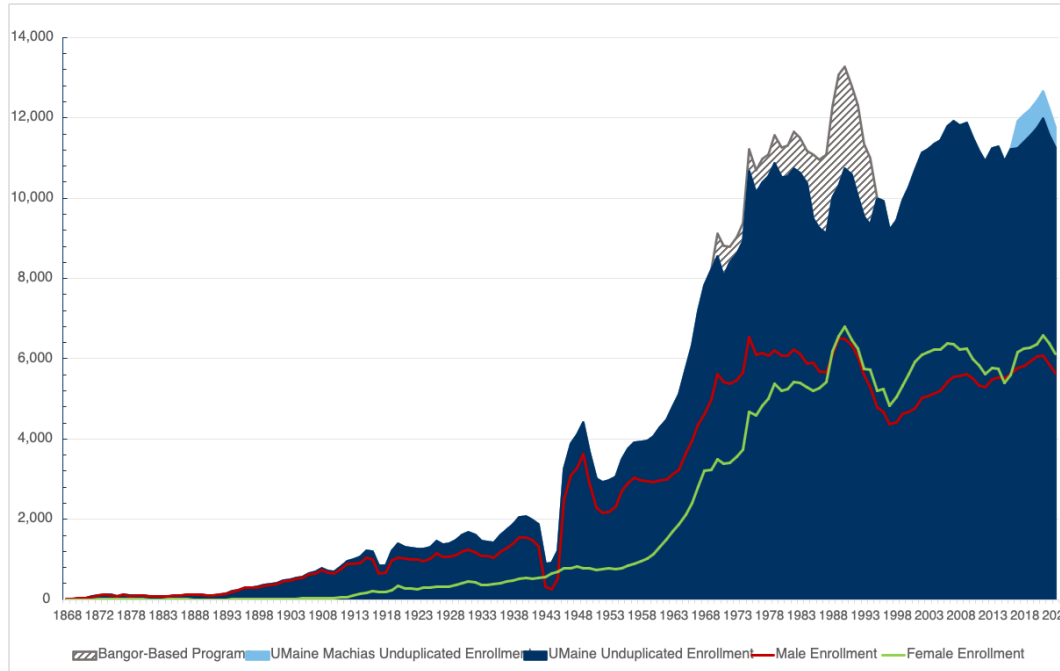




# THE PROBLEM

The University of Maine is facing a parking crisis. With increasing enrollment numbers, students are left without spots to park.

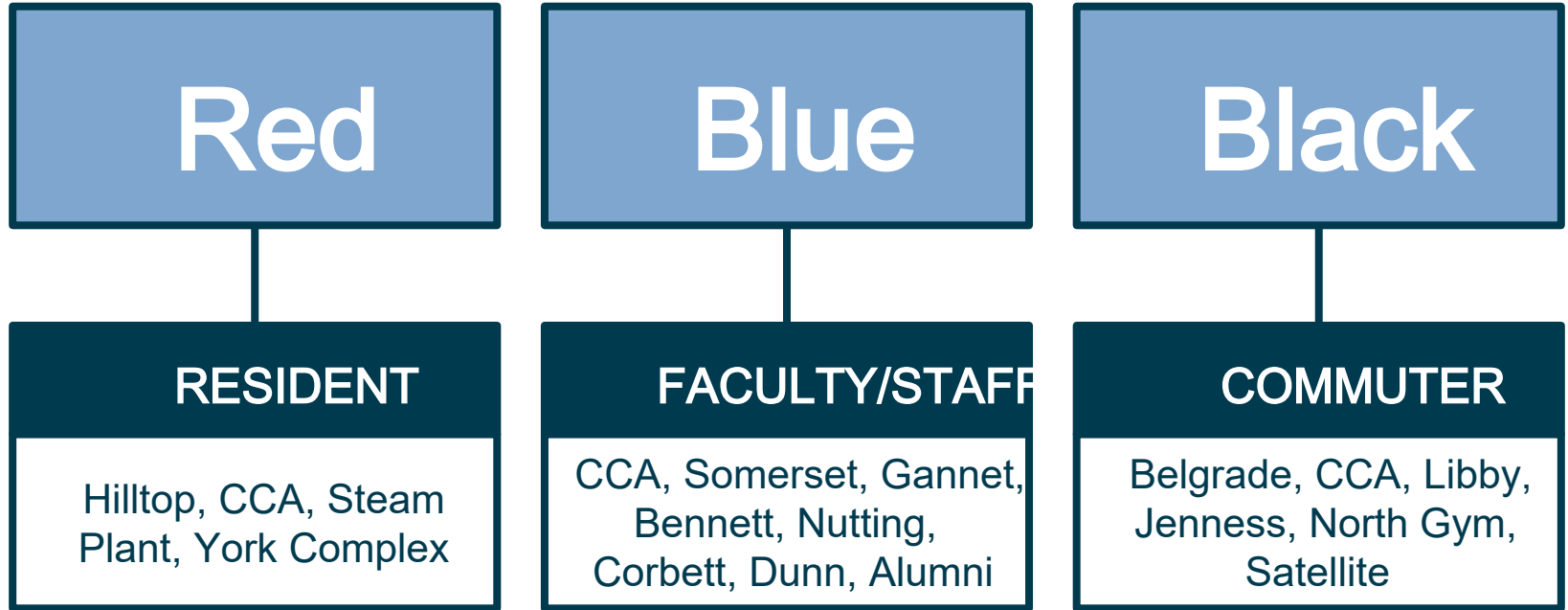
# STUDENT POPULATION GROWTH



The University of Maine's student population continues to grow each year and with it, the demand for on-campus parking.



# CURRENT PARADIGM





# STUDENT PERSPECTIVES

**“Skip class, there is no parking today”**

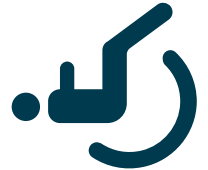
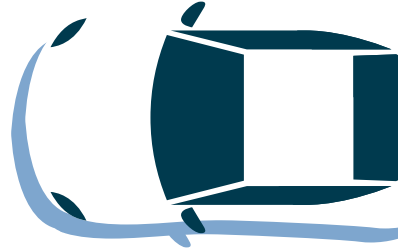
Students describe the parking system as stressful and unpredictable

**“Felt like a money grab”**

Enforcement fails to reflect on reality when lots fill up

**Lots are “Filled to the brim”**

Overflow options have even begun to reach capacity during peak conditions



# PROPOSED PLAN

## Parking Garage

- 200 new commuter parking spaces per level
- Same entrance as the Belgrade Lot
- On ramp located on right side of main Belgrade isle
- Exit at the SAWIC building's access point to Sebago Rd



# LOSS SELECTION

01

## HILLTOP

Resident Parking  
Commuter Inconvenience

## BELGRADE

Parking Convenience  
Easy Construction

02

03

## CCA

Overcrowding Safety  
Aesthetics

## NEW BALANCE

Proposed lot demolition  
Available Space

04

# LOT SELECTION ~~NEW~~ BALANCE



Proposed Morse Arena

***Historic building to be gutted,  
leaving Franco-American  
Centre forced to relocate***

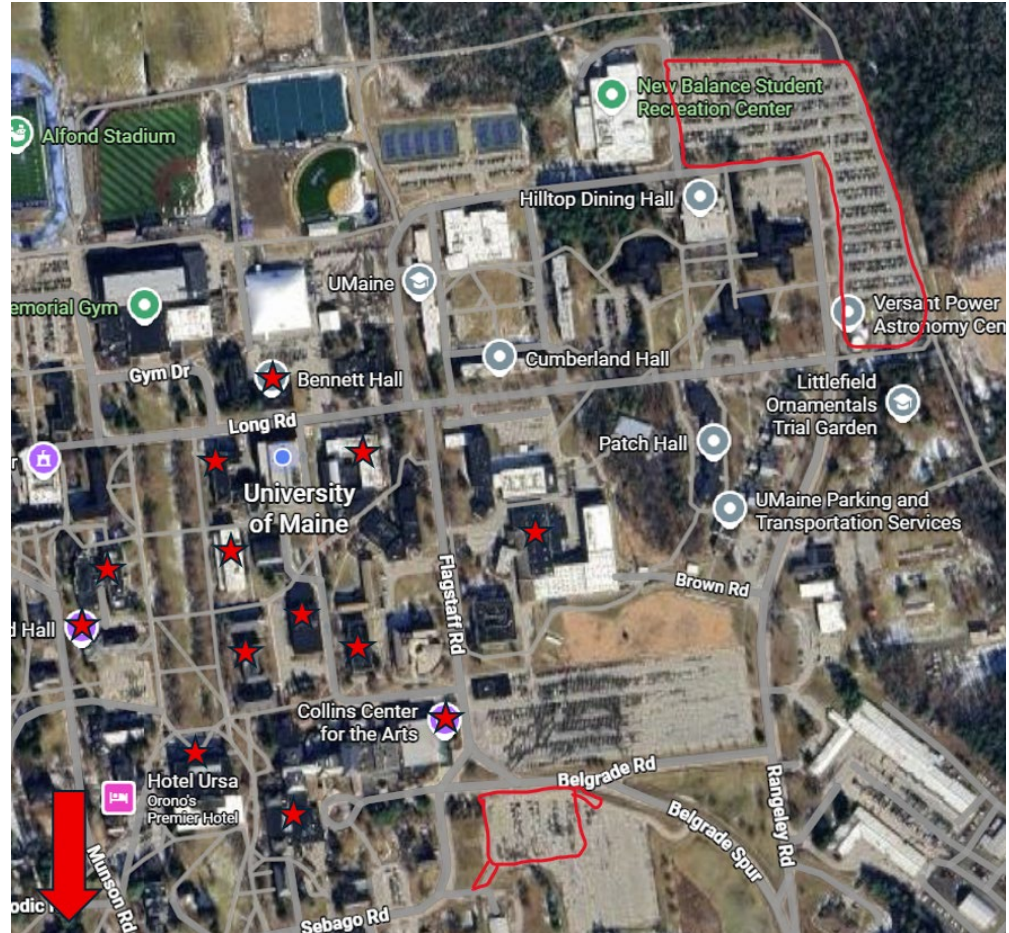


*"For the University of Maine to do such a rash thing, we think is disrespectful to all of the staff, the people who put in blood, sweat and tears to build this institution and it being destroyed for parking."*

Crossland Hall

# LOT SELECTION TOP

- Distance from academic halls
- Resident parking (red parking permit)



# LOT SELECTION



Crosswalks and entrances/exits

# LOT SELECTION



- Avoids historic areas
- Located at edge of land preserve
- Aesthetic impact is minimal
- Traffic data shows entrance works well
- Exit can be located near Sebago road
- Good balance of efficiency, safety, and room for expansion
- Survey studies show the lot is overloaded but considered ideal for location



# CONDUCTED STUDIES



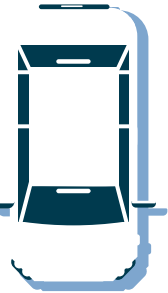
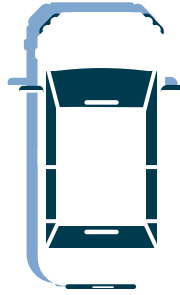
## STUDENT SURVEY

This survey was used to gather firsthand data on parking availability, circulation patterns, and user frustration.



## COUNTCAM4

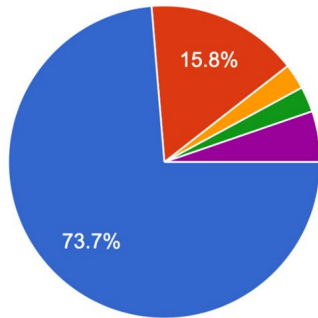
This device was placed at the entrance of the Belgrade lot and was used to record volumes as they enter and exit the existing lot.



# SURVEY RESULTS CORRELATION

How long is your commute to campus?

38 responses



- 1-5 minutes
- 6-10 minutes
- 11-15 minutes
- 16-20 minutes
- Over 20 minutes



A majority of the student population lives off-campus



Suggested living in areas such as Orono, Old Town and Veazie



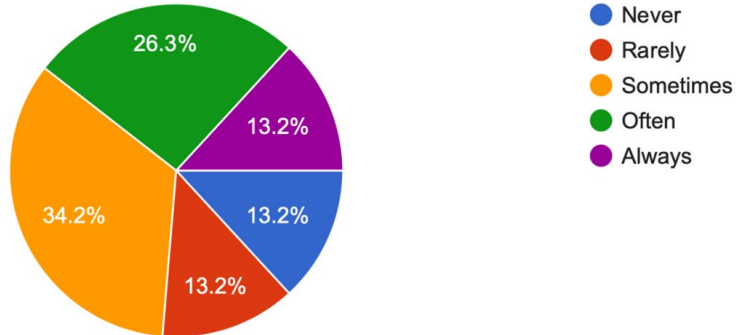
Frequent driving rather than walking or public transportation

**Figure 1.** This figure shows the results from students when asked “How long is your commute to campus?”

# SURVEY RESULTS CORRELATION

How often do you drive around trying to find a parking spot and are late to class?

38 responses



65% reported being late to class as “often” or “sometimes”

Students also reported searching for a spot for 5-10 minutes

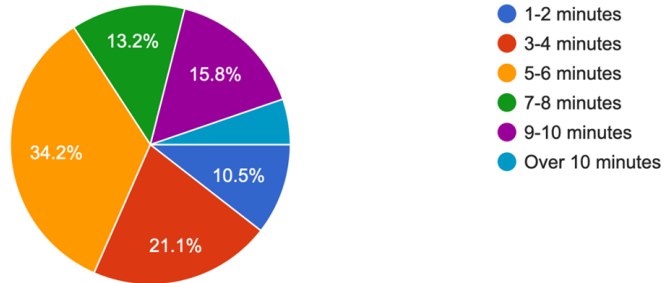
These same students reported parking in the Belgrade and CCA lots

**Figure 2.** This figure shows the survey results from students when asked “How often do you drive around trying to find a parking spot and are late to class?”

# SURVEY RESULTS CORRELATION

After entering a parking lot, approximately how long does it take to successfully park your vehicle?

38 responses



65% reported being late to class as “often” or “sometimes”

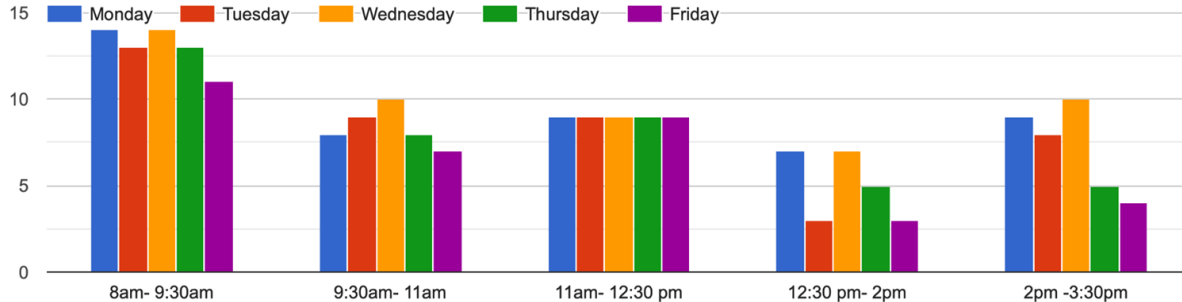
Students also reported searching for a spot for 5-10 minutes

These same students reported parking in the Belgrade and CCA lots

**Figure 3.** This figure shows the survey results from students when asked “Approximately how long does it take to successfully park your vehicle?”

# SURVEY RESULTS CORRELATION

What days and times do you often park on campus? Select all that apply.



Peak times were identified

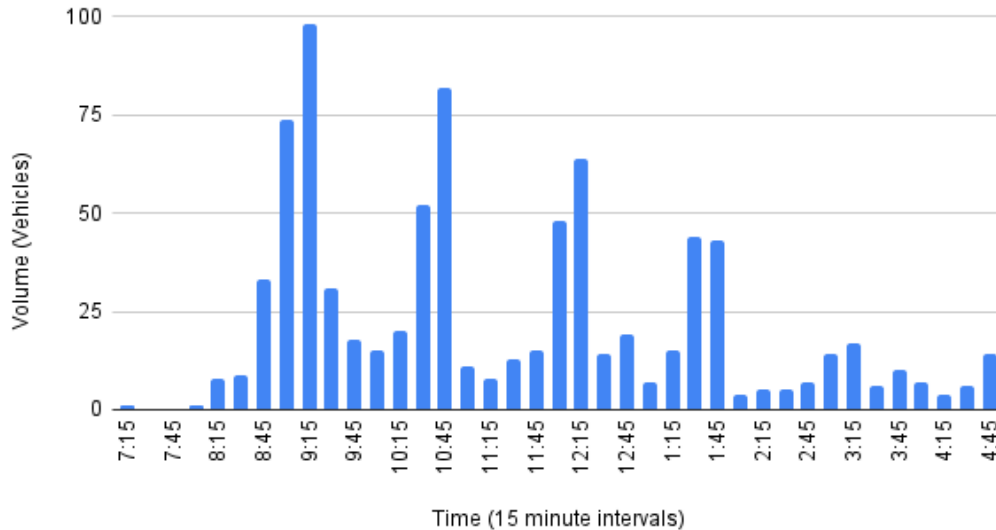
Students most frequently park between 8am-11am





Other frequent parking times between 11am-2pm

**Figure 4.** This figure shows the survey results from students when asked “What days and times do you often park on campus?”

# COUNTCAM4 RESULTS ANALYSIS

Belgrade Parking Volume In

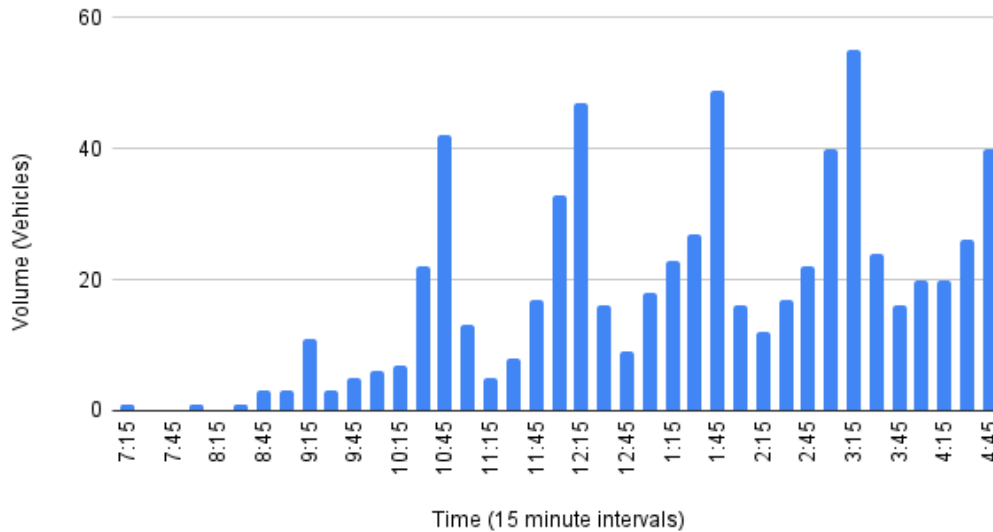


-  Inbound levels exceeded what a 600 space lot can fit
-  Several intervals showing 70-100 inbound vehicles
-  Demand surpasses available spots; high turnover rates
-  students remain parked for several hours

**Figure 5.** This figure shows the traffic entering the Belgrade lot during 15 minute time intervals using the CountCAM4 device.

# COUNTCAM4 RESULTS ANALYSIS

Belgrade Parking Volume Out



Outbound traffic sharply increases

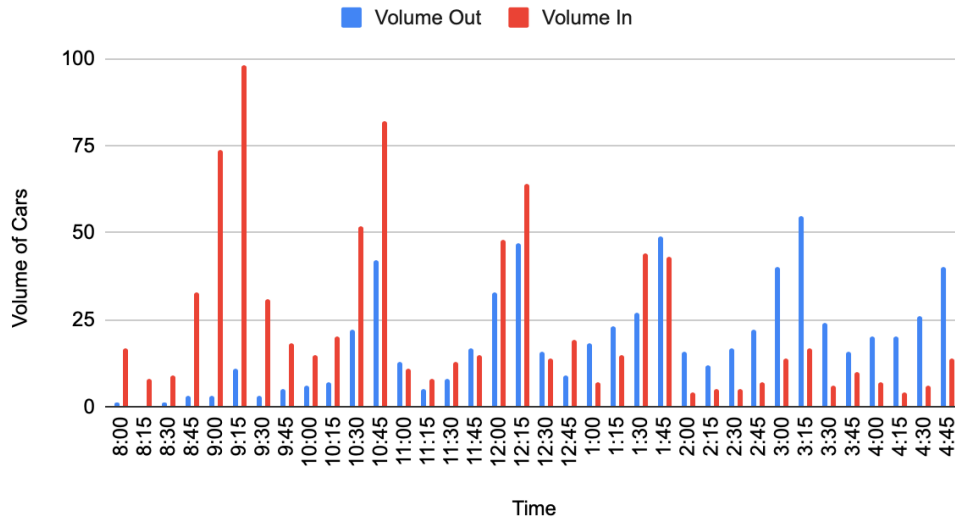
Several intervals showing 40-55 vehicles leaving the lot

Exit congestion causes a queue correlating to downstream traffic issues in nearby roads

**Figure 6.** This figure shows the traffic exiting the Belgrade lot during 15 minute time intervals using the CountCAM4 device.

# COUNTCAM4 RESULTS ANALYSIS

Volume of Cars Entering Vs Exiting The Lot



■ The volume entering the lot exceeds the volume out

■ Earlier morning hours from 8-11am have little traffic exiting

**Figure 7.** This figure shows the traffic entering and exiting the Belgrade lot during 15 minute time intervals using the CountCAM4 device.



# COST



An example of an existing three story parking garage

Option	New Spaces	Min Cost	Max Cost	Min Cost / Space	Max Cost / Space
One Level	200	5.6M	7M	28k	35k
Two Levels	400	9M	9.5M	22.5k	24k

# POTENTIAL ISSUES



## SNOW REMOVAL

Reinforced snow storage zones and snow melt systems designed for freeze-thaw durability.



## DRAINAGE/ STORMWATER

Sloping decks 42% towards interior trench drains and installing devices for pollutant control.



## STRUCTURAL DURABILITY

Air entrained concrete, low water-to-cement ratios, and corrosion-resistant reinforced steel for long term performance.



# CONCLUSION

- Adds 200–400 new spaces without expanding campus land.
- Separate exit and multi-level design reduce congestion.
- Data shows Belgrade is consistently over capacity.
- Two-level option offers the best long-term value for UMaine.



THANK YOU!  
ANY QUESTIONS?

