



# BELMONT HIGH SCHOOL

BUILDING COMMITTEE MEETING

# AGENDA

- 01 / Traffic Studies
- 02 / Site Strategies
- 03 / Program Analysis
- 04 / BHS Existing Floor Plans

An aerial photograph of Belmont High School, a large, modern building with a complex, multi-winged structure. The school is surrounded by a dense forest of trees. In the foreground, there is a parking lot and a road with a crosswalk. The entire image is overlaid with a semi-transparent blue filter.

# 01/ TRAFFIC STUDIES

BELMONT HIGH SCHOOL

# TRANSPORTATION ACCESS: EXISTING CONDITIONS PROCESS

Multimodal Site Access Observations

Traffic Counts: 24 hour, Turning Movements

Parking Inventory and Utilization

Walking, Biking, Transit Inventory and Observations

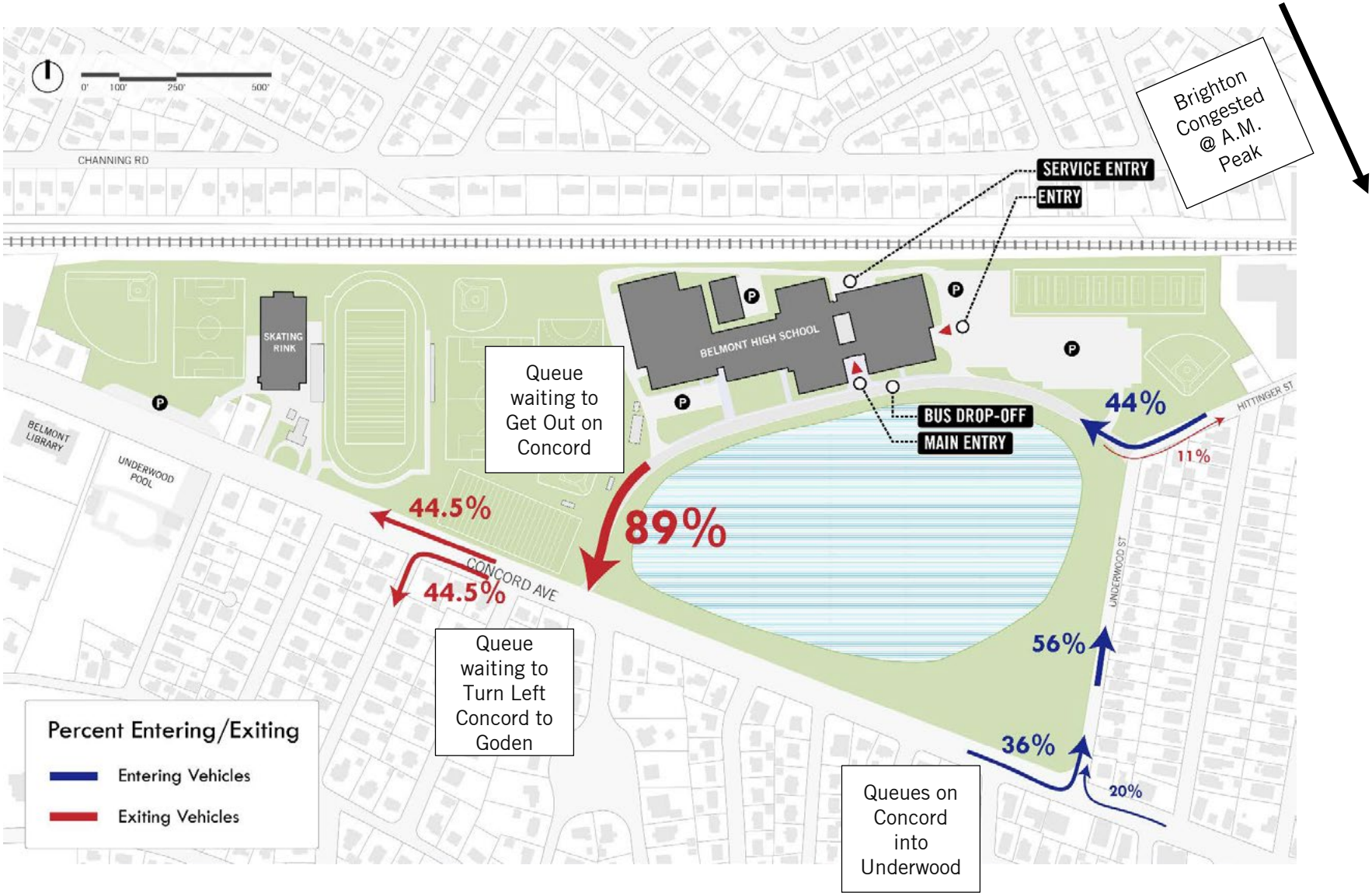
Existing Traffic Performance Analysis

Crash Data Analysis

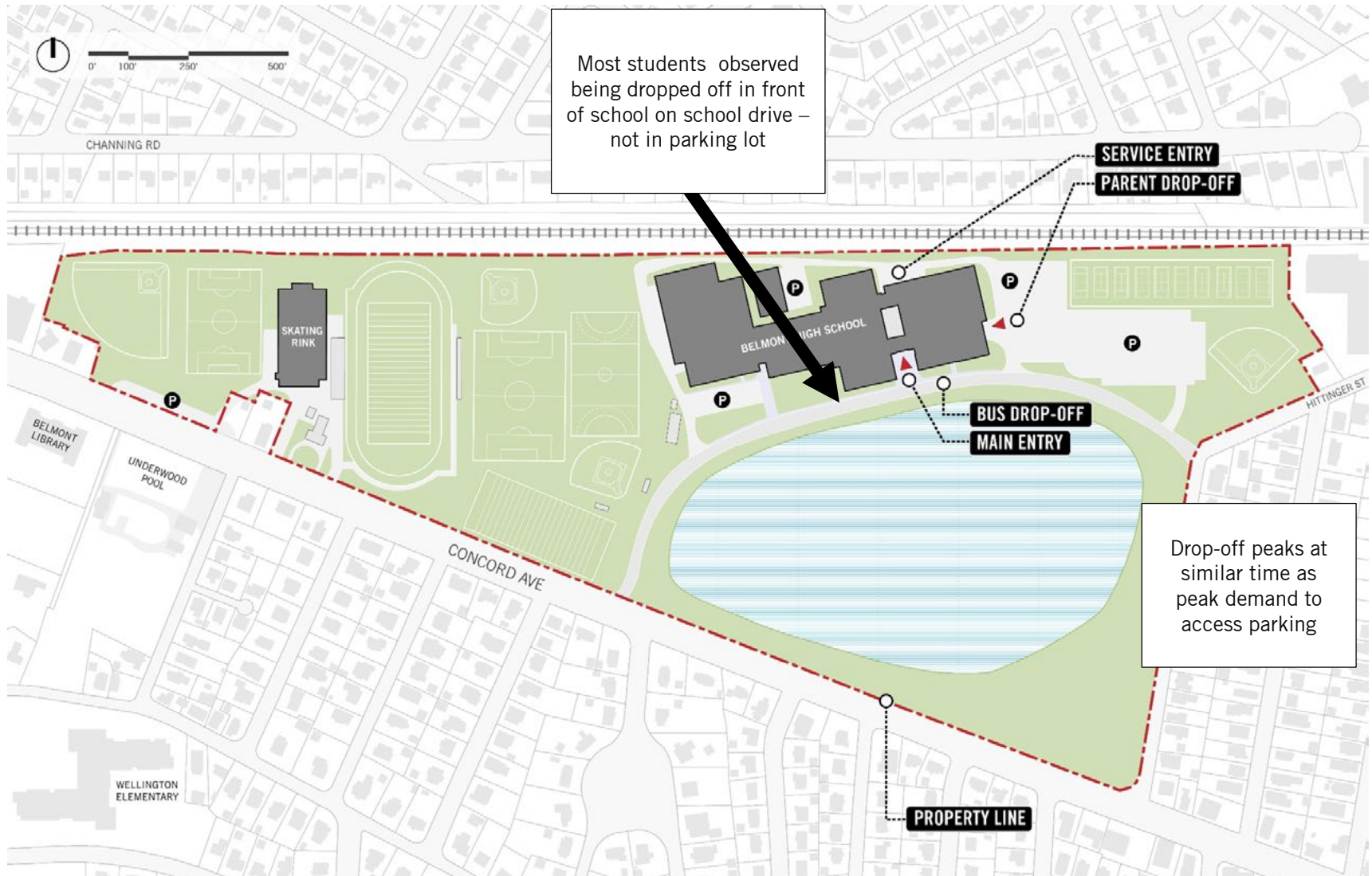




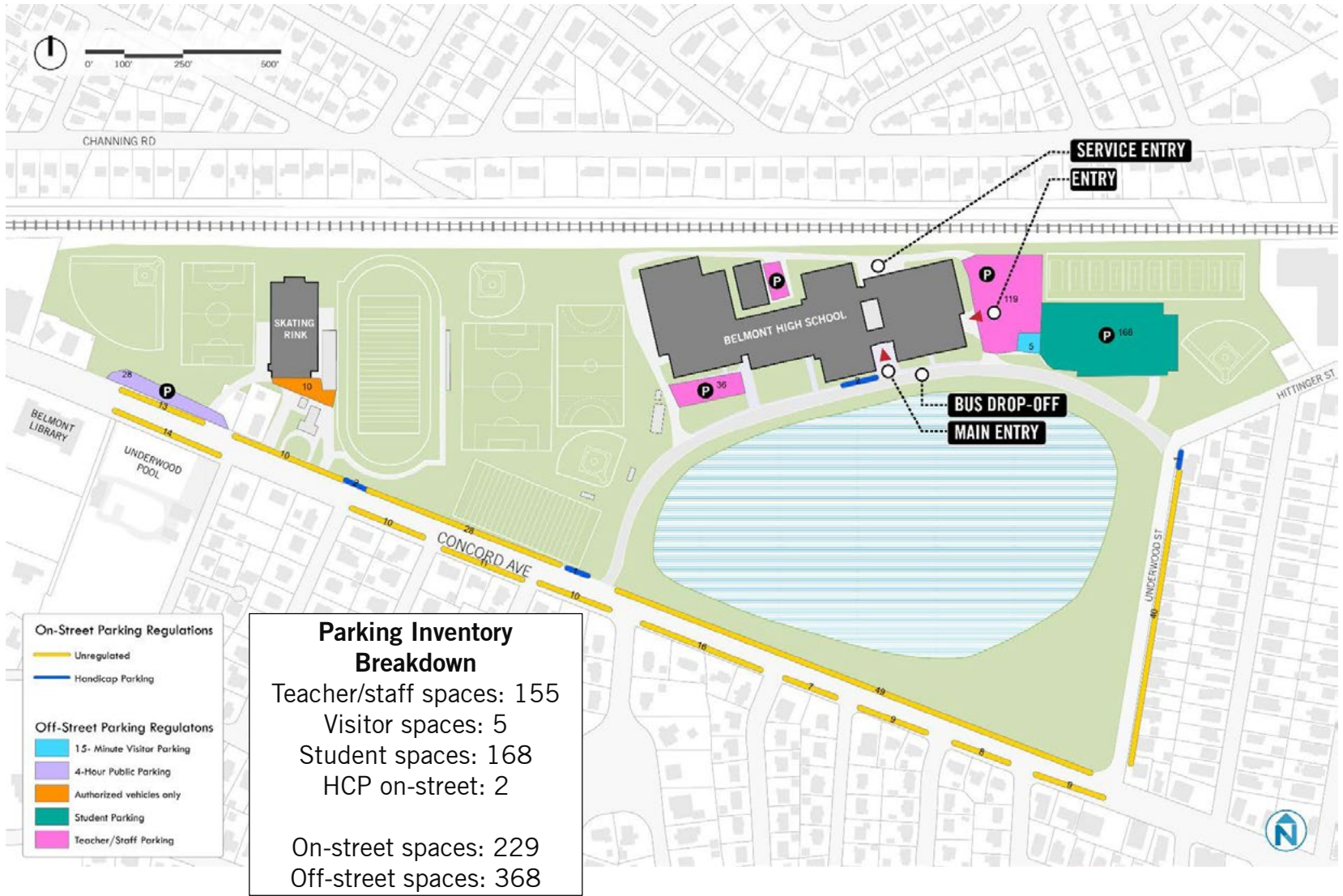
# MORNING ACCESS DEMAND PATTERNS AND QUEUES



## MORNING DROP-OFF PATTERNS: ~ 7:18 – 7:38 = MOST CONGESTED AT UNDERWOOD & HITTINGER (OVERALL AM TRAFFIC PEAK = 7:15 - 8:15AM)

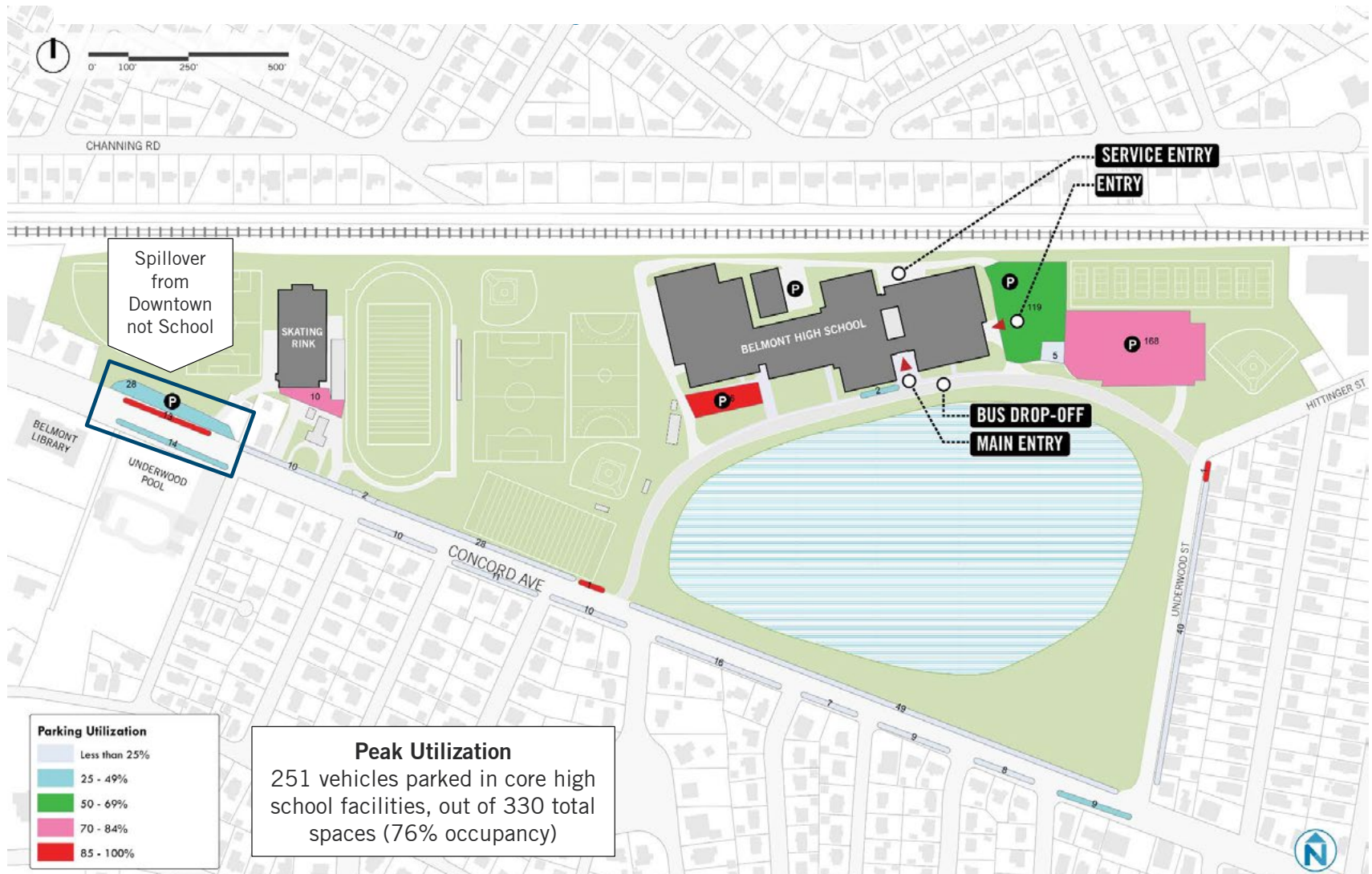


# PARKING SUPPLY: 330 SPACES IN CORE CAMPUS





# 10AM WEEKDAY PARKING DEMAND SNAPSHOT

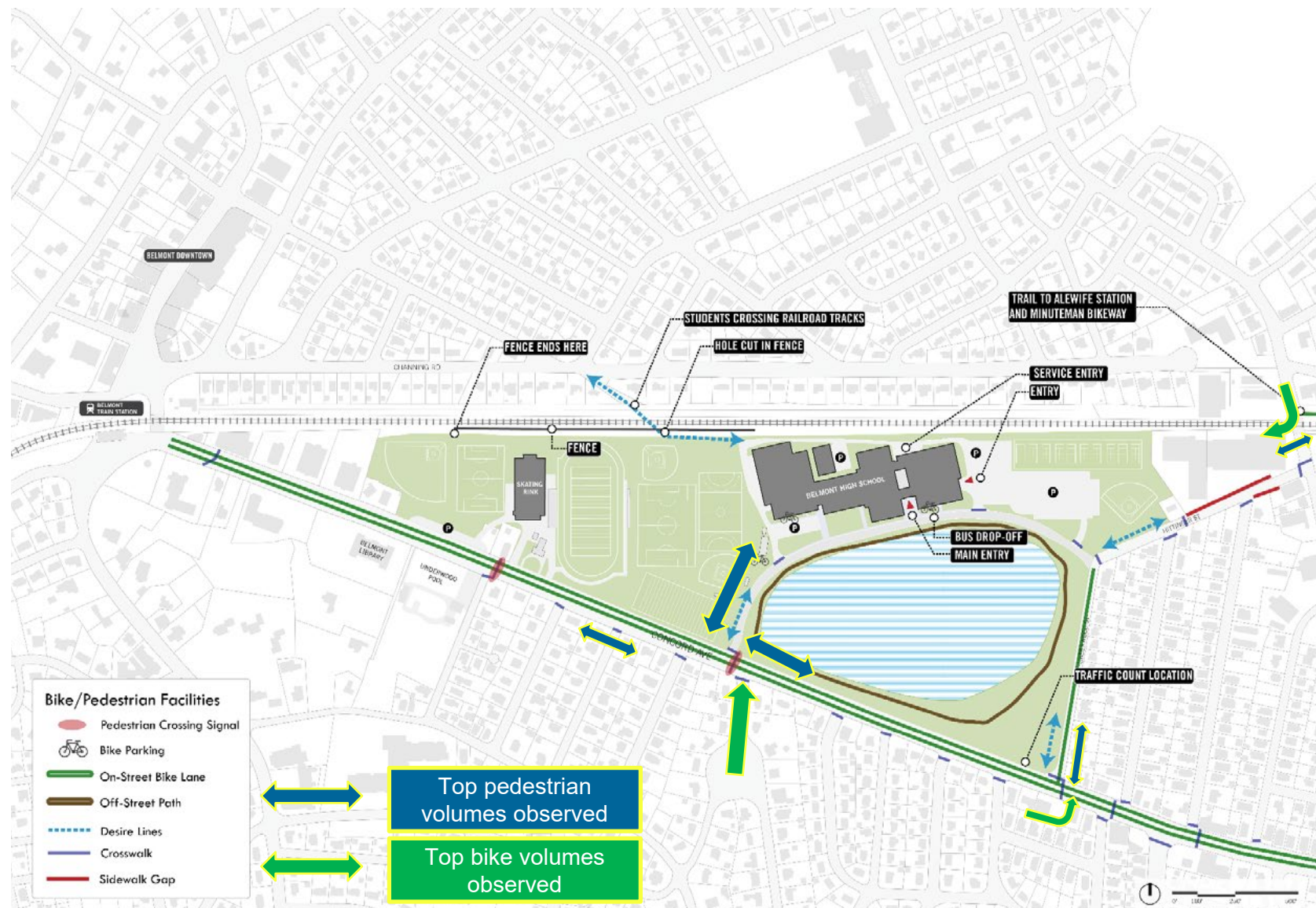




## BUSES OCCUPY EAST END OF STUDENT PARKING SUPPLY



# BIKING AND WALKING ACCESS PATTERNS





## BIKE RACKS ALL OVER CAMPUS FULL ON SEPTEMBER MORNINGS

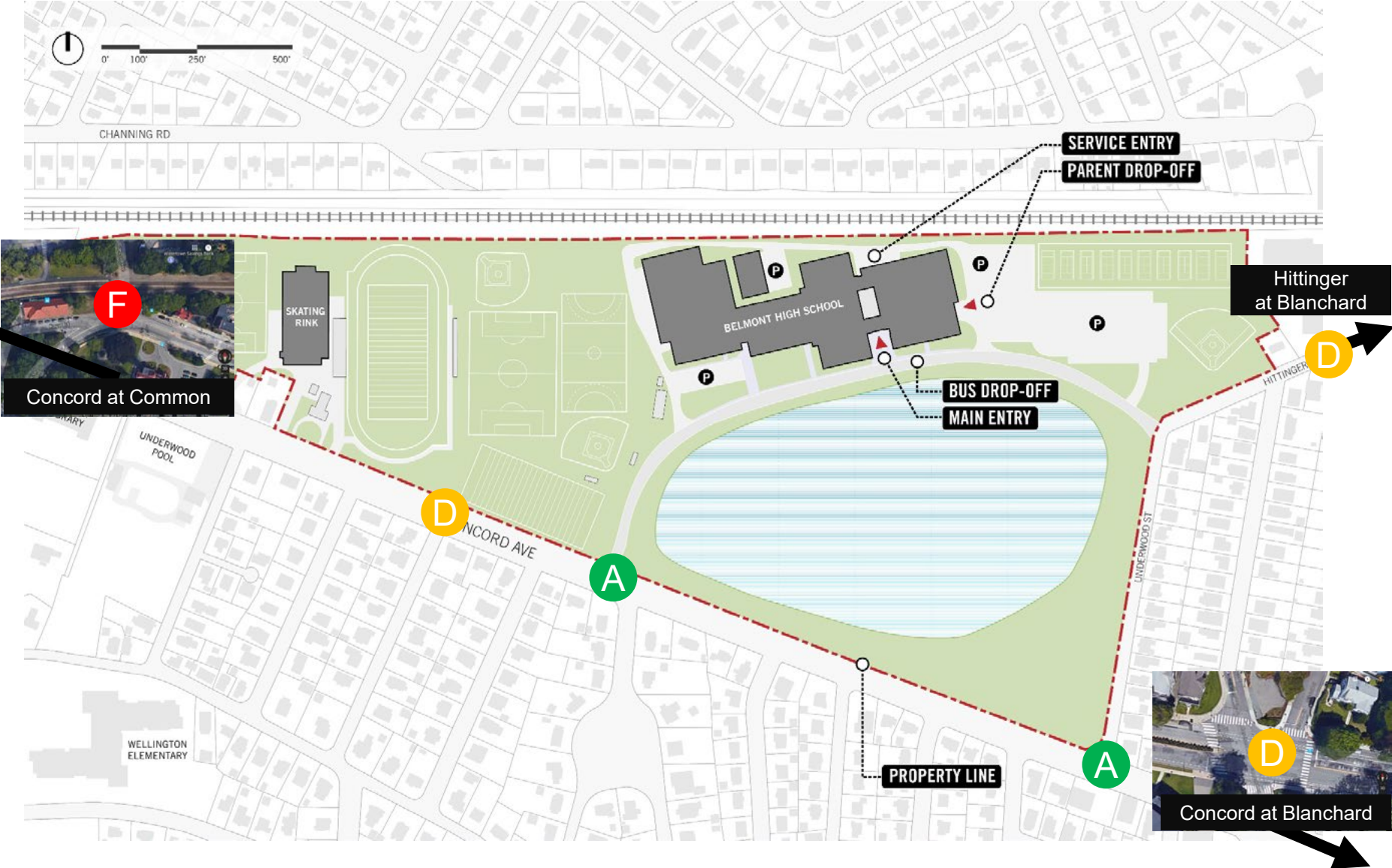




## 4 MBTA TRANSIT ROUTES OPERATE IN WALKING DISTANCE TO CAMPUS



# OVERVIEW: AM LEVEL OF SERVICE





# OVERVIEW: PM LEVEL OF SERVICE

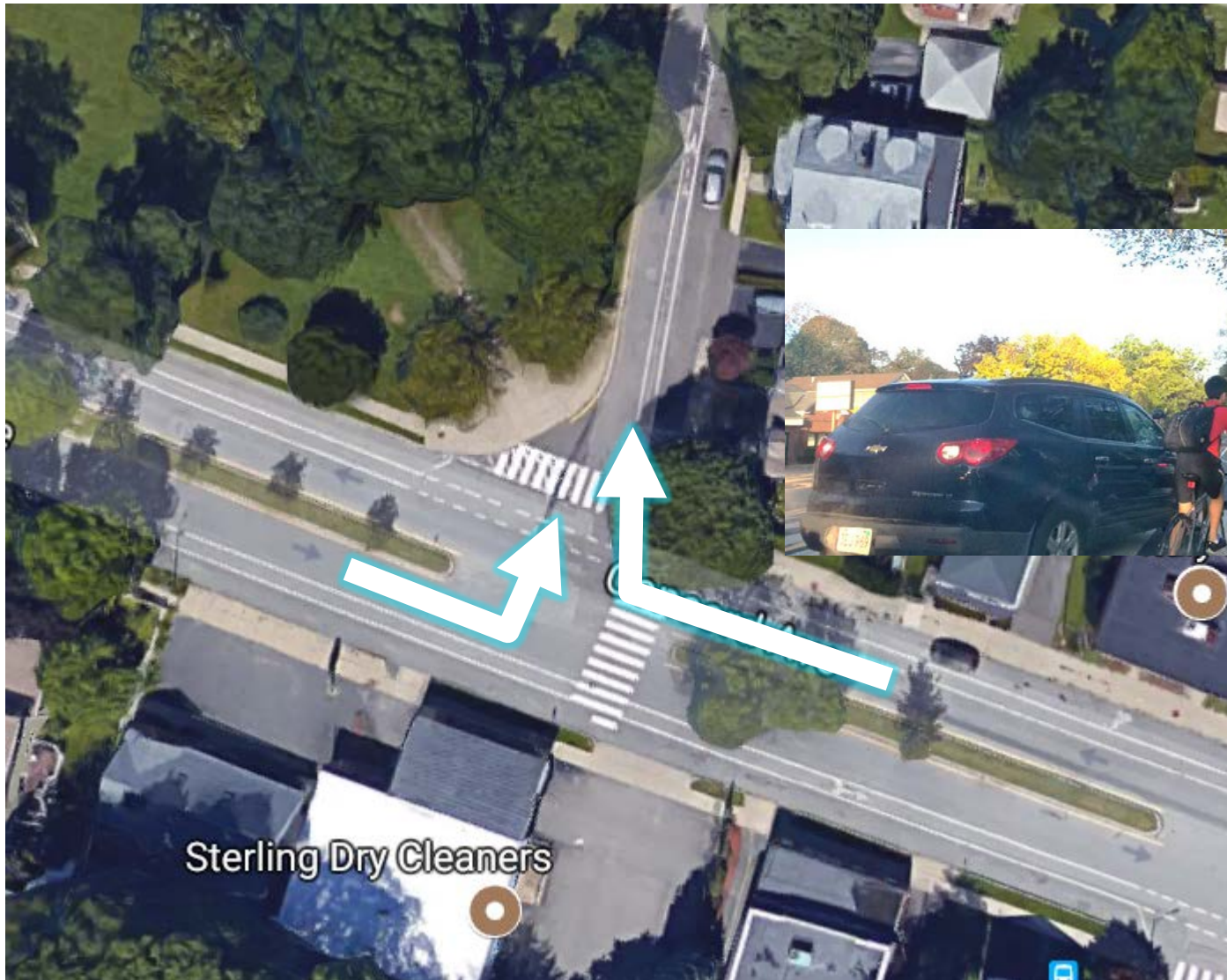




## SIGHTLINE ISSUES FOR EXITING SCHOOL DRIVE TO CONCORD

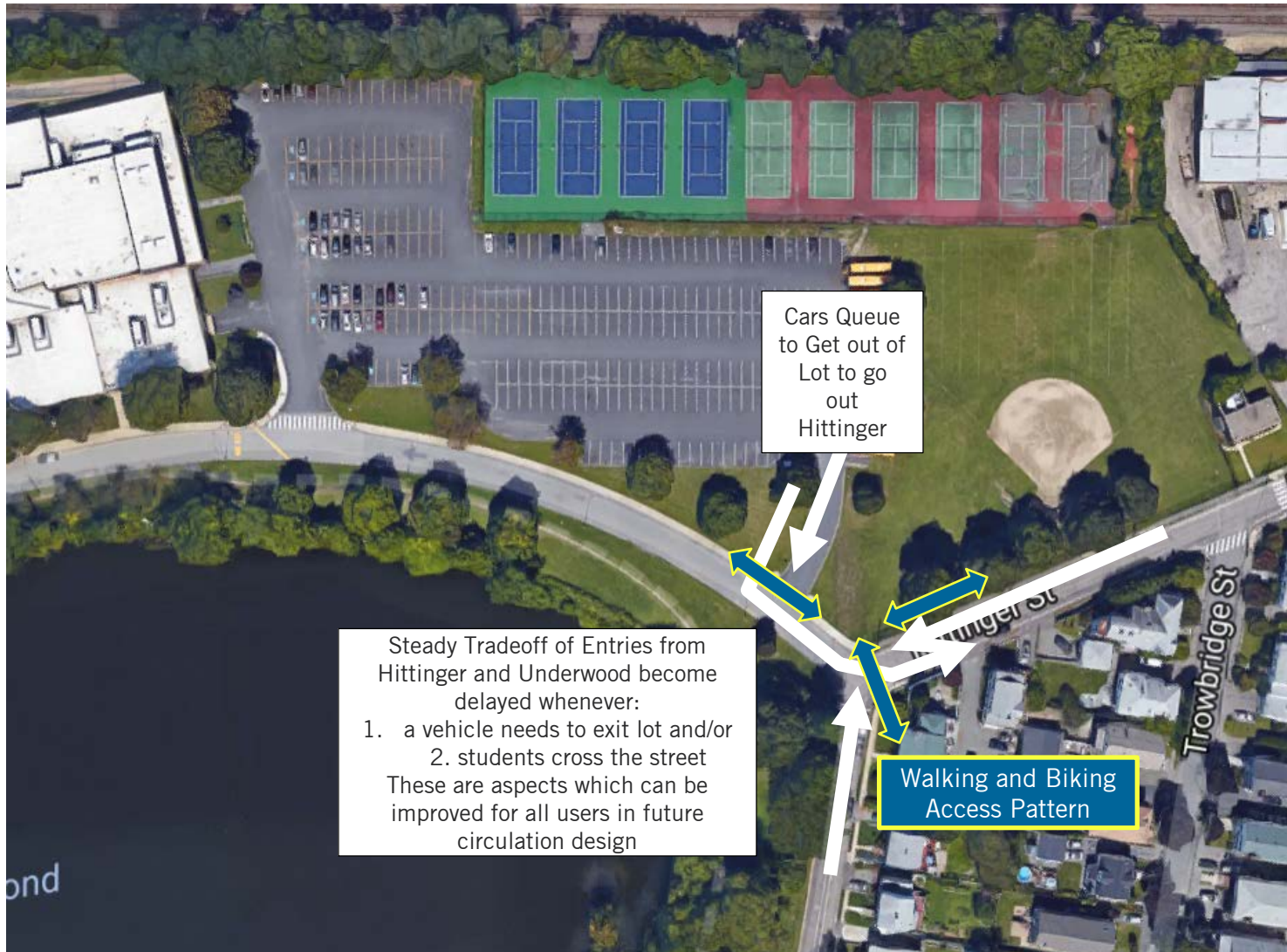


# VEHICULAR DELAYS ON CONCORD AT UNDERWOOD FROM LEFT AND RIGHT TURN MOVEMENTS TAKING TURNS + CONFLICTS OBSERVED INCREASING WHEN STUDENTS BIKE OR CROSS AT CROSSWALK



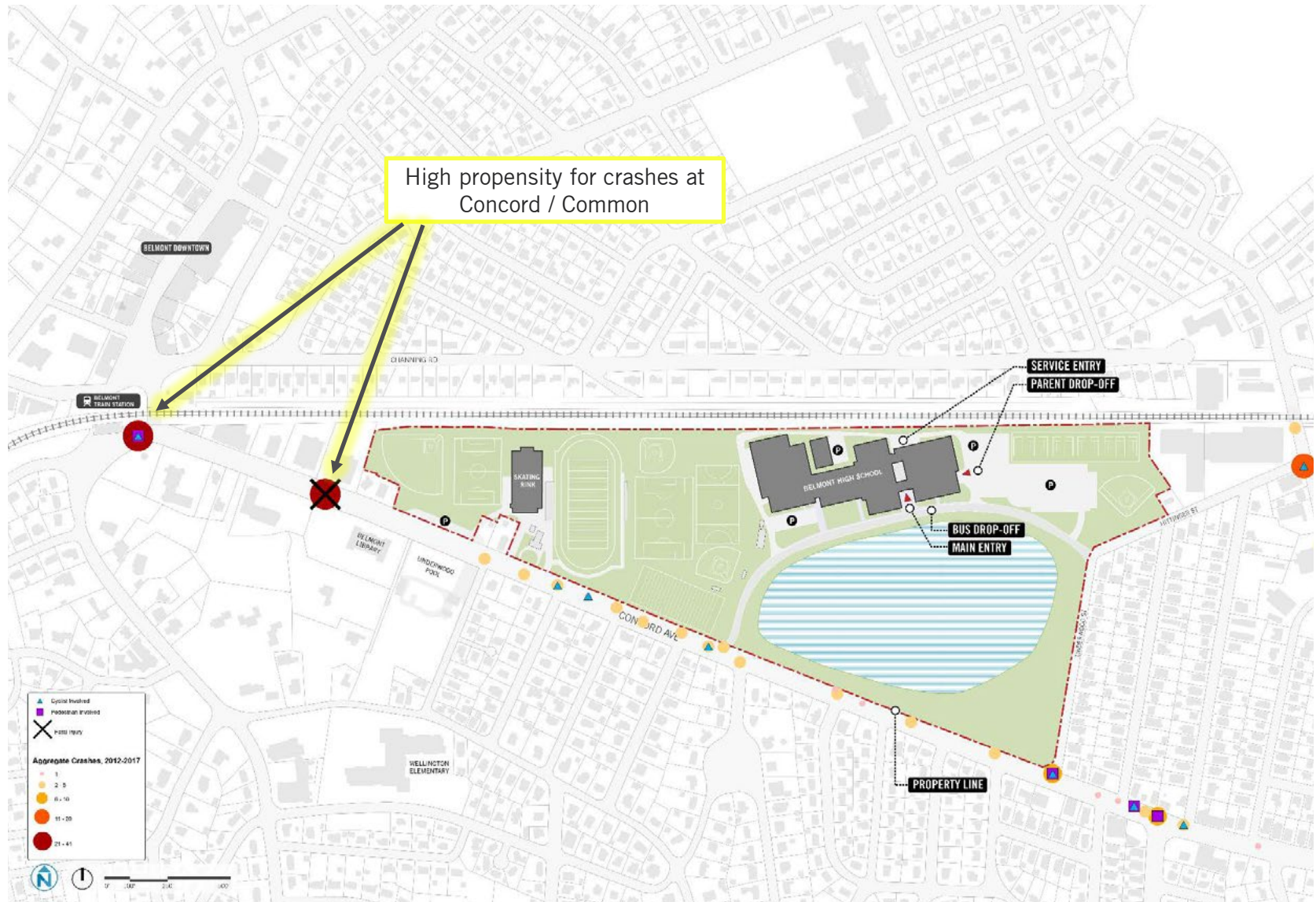


## DELAYS ON HITTINGER AND UNDERWOOD DUE LARGELY TO CURRENT INTERSECTION AND CIRCULATION DESIGN





# VEHICLE CRASH LOCATIONS: 2012-2017


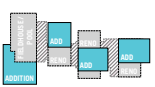

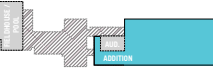
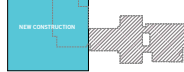
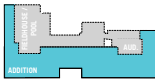
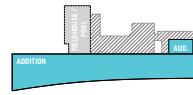
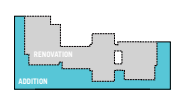
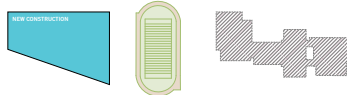

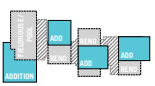

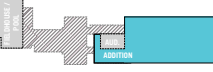
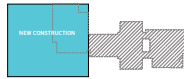
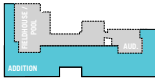
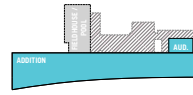
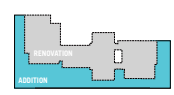
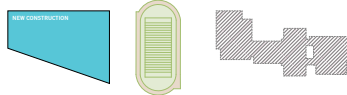
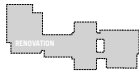
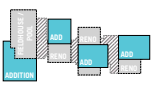

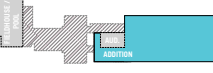
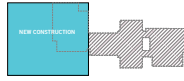
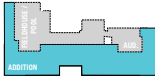
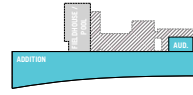
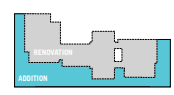
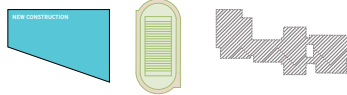


An aerial photograph of Belmont High School, showing a large, modern building complex with multiple wings and a central courtyard. The school is surrounded by a dense forest of trees. The entire image is overlaid with a semi-transparent blue filter.

## 02/ SITE STRATEGIES

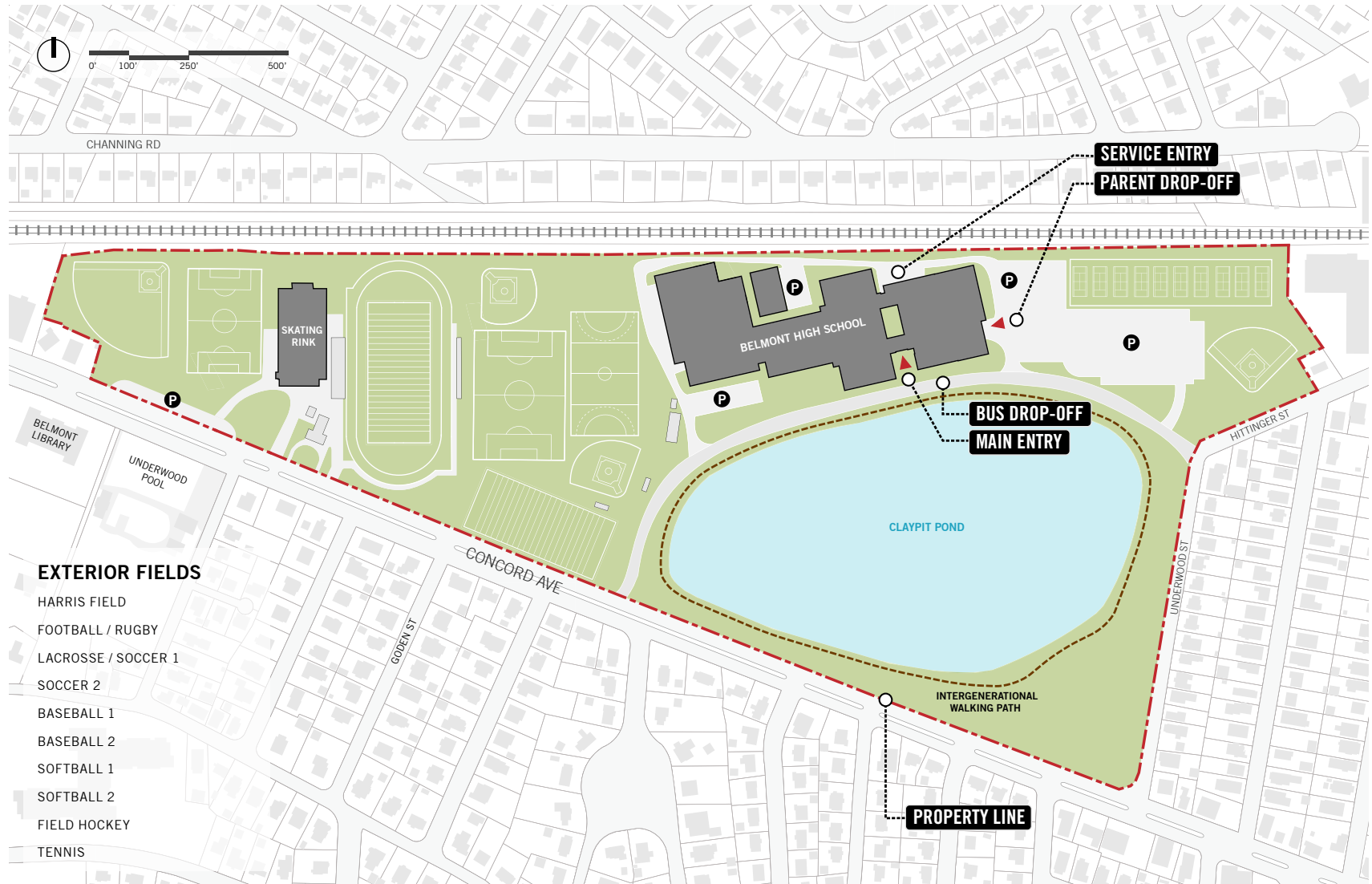
BELMONT HIGH SCHOOL

# PROPOSED BUILDING CONFIGURATION MATRIX

|  | 1<br>RENOVATION ONLY  | 2<br>RENOVATION + ADDITION   |  |  | 3<br>NEW CONSTRUCTION   |
|--|---|--|--|--|---|
| <b>A</b><br><b>GRADES 9-12</b><br>1,470 Students | <b>A.1</b><br><br><br>258,840 SF / EXISTING<br>310,000 SF+ / PROPOSED<br><br>Does not satisfy program and desired capacity<br>No educational program updates   | <b>A.2.1</b><br><br>MAJOR RENOVATION MINOR ADDITION<br>Maintains Exist. Fieldhouse/ Pool + Auditorium   | <b>A.2.3</b><br><br>MINOR RENOVATION MAJOR ADDITION<br>Maintains Exist. Fieldhouse/ Pool   | <b>A.2.5</b><br><br>MINOR RENOVATION MAJOR ADDITION<br>Maintains Exist. Fieldhouse/ Pool + Auditorium   | <b>A.3.1</b><br><br>NEW CONSTRUCTION WEST SIDE OF BHS<br>Demolition BHS, New Gymnasium and Auditorium, no Pool             |
|  |   | <b>A.2.2</b><br><br>MINOR RENOVATION MAJOR ADDITION<br>Maintains Exist. Fieldhouse/ Pool + Auditorium   | <b>A.2.4</b><br><br>MINOR RENOVATION MAJOR ADDITION<br>Maintains Exist. Fieldhouse/ Pool   | <b>A.2.6</b><br><br>MAJOR RENOVATION MINOR ADDITION<br>Maintains Exist. Fieldhouse/ Pool + Auditorium   | <b>A.3.2</b><br><br>NEW CONSTRUCTION WEST SIDE OF TRACK / FIELD<br>Demolition BHS, New Gymnasium and Auditorium, no Pool   |
| <b>B</b><br><b>GRADES 8-12</b><br>1,845 Students | <b>B.1</b><br><br><br>258,840 SF / EXISTING<br>360,000 SF+ / PROPOSED<br><br>Does not satisfy program and desired capacity<br>No educational program updates   | <b>B.2.1</b><br><br>MAJOR RENOVATION MINOR ADDITION<br>Maintains Exist. Fieldhouse/ Pool + Auditorium   | <b>B.2.3</b><br><br>MINOR RENOVATION MAJOR ADDITION<br>Maintains Exist. Fieldhouse/ Pool   | <b>B.2.5</b><br><br>MINOR RENOVATION MAJOR ADDITION<br>Maintains Exist. Fieldhouse/ Pool + Auditorium   | <b>B.3.1</b><br><br>NEW CONSTRUCTION WEST SIDE OF BHS<br>Demolition BHS, New Gymnasium and Auditorium, no Pool             |
|  |   | <b>B.2.2</b><br><br>MINOR RENOVATION MAJOR ADDITION<br>Maintains Exist. Fieldhouse/ Pool + Auditorium   | <b>B.2.4</b><br><br>MINOR RENOVATION MAJOR ADDITION<br>Maintains Exist. Fieldhouse/ Pool   | <b>B.2.6</b><br><br>MAJOR RENOVATION MINOR ADDITION<br>Maintains Exist. Fieldhouse/ Pool + Auditorium   | <b>B.3.2</b><br><br>NEW CONSTRUCTION WEST SIDE OF TRACK / FIELD<br>Demolition BHS, New Gymnasium and Auditorium, no Pool   |
| <b>C</b><br><b>GRADES 7-12</b><br>2,215 Students | <b>C.1</b><br><br><br>258,840 SF / EXISTING<br>410,000 SF+ / PROPOSED<br><br>Does not satisfy program and desired capacity<br>No educational program updates | <b>C.2.1</b><br><br>MAJOR RENOVATION MINOR ADDITION<br>Maintains Exist. Fieldhouse/ Pool + Auditorium  | <b>C.2.3</b><br><br>MINOR RENOVATION MAJOR ADDITION<br>Maintains Exist. Fieldhouse/ Pool  | <b>C.2.5</b><br><br>MINOR RENOVATION MAJOR ADDITION<br>Maintains Exist. Fieldhouse/ Pool + Auditorium  | <b>C.3.1</b><br><br>NEW CONSTRUCTION WEST SIDE OF BHS<br>Demolition BHS, New Gymnasium and Auditorium, no Pool            |
|  |   | <b>C.2.2</b><br><br>MINOR RENOVATION MAJOR ADDITION<br>Maintains Exist. Fieldhouse/ Pool + Auditorium | <b>C.2.4</b><br><br>MINOR RENOVATION MAJOR ADDITION<br>Maintains Exist. Fieldhouse/ Pool | <b>C.2.6</b><br><br>MAJOR RENOVATION MINOR ADDITION<br>Maintains Exist. Fieldhouse/ Pool + Auditorium | <b>C.3.2</b><br><br>NEW CONSTRUCTION WEST SIDE OF TRACK / FIELD<br>Demolition BHS, New Gymnasium and Auditorium, no Pool |



# RENOVATION / A.1, B.1, C.1



# RENOVATION AND ADDITION / C.2.1 GRADES 7-12

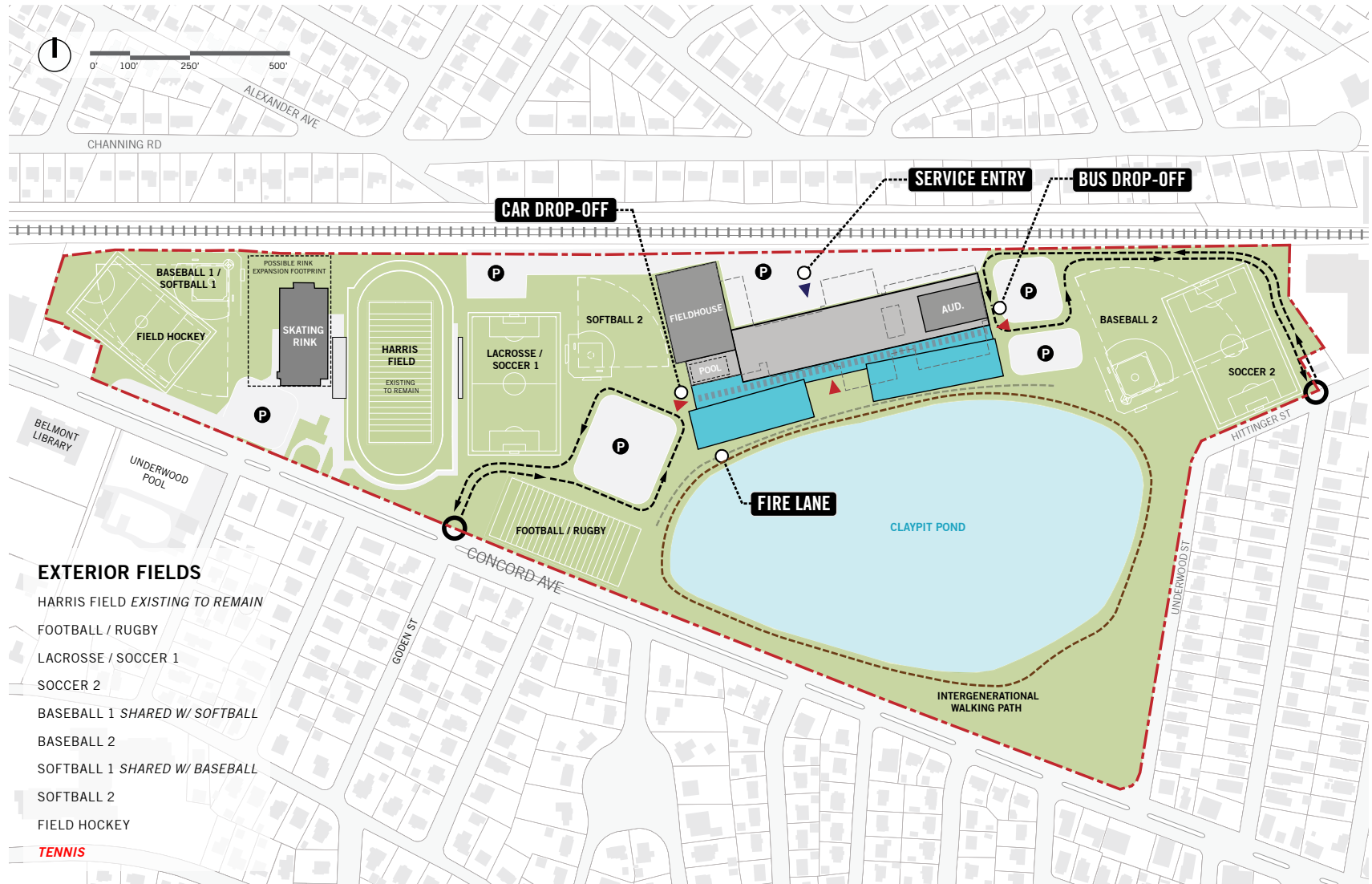
3 Stories with Construction Over Existing





# RENOVATION AND ADDITION / C.2.2 GRADES 7-12

4 Stories with Partial Demolition



# RENOVATION AND ADDITION / C.2.3 GRADES 7-12

4 Stories with Single Phased





# RENOVATION AND ADDITION / C.2.4 GRADES 7-12

4 Stories with Phased Integration of 7-8



# RENOVATION AND ADDITION / C.2.5 GRADES 7-12

4 Stories with Separate Field House and Phased Public Space





# NEW CONSTRUCTION / C.3.1 GRADES 7-12

4 Stories



# NEW CONSTRUCTION / C.3.2 GRADES 7-12

4 Stories with Relocated Rink and Harris Field



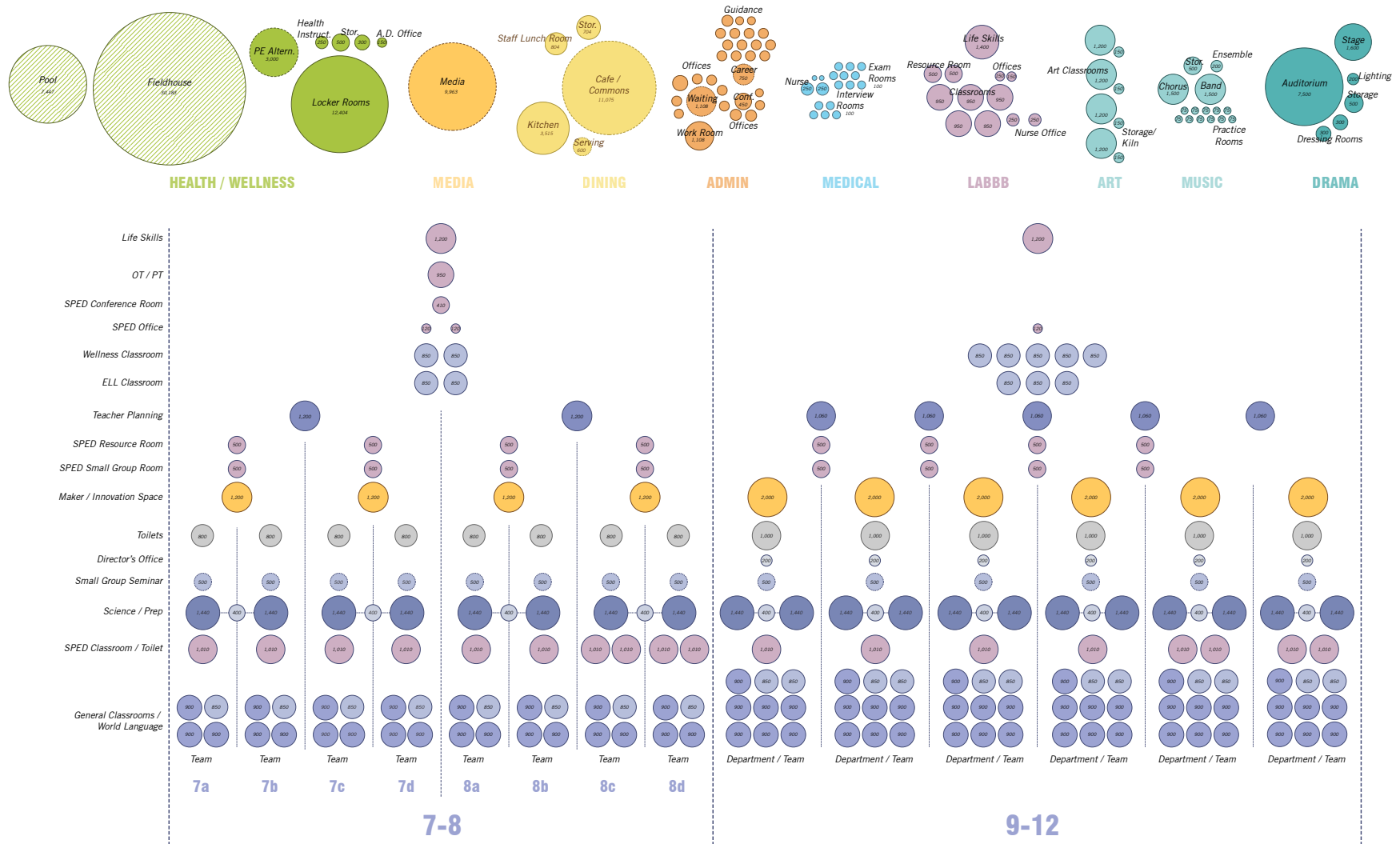
An aerial photograph of Belmont High School, a large, modern building with a complex roofline, surrounded by dense trees and a residential neighborhood. The image is overlaid with a semi-transparent blue filter.

# 03/ PROGRAM ANALYSIS

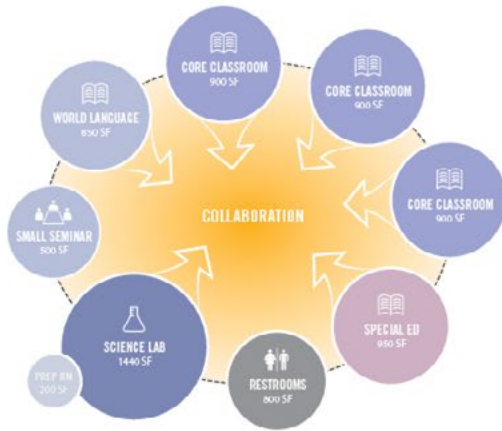
BELMONT HIGH SCHOOL



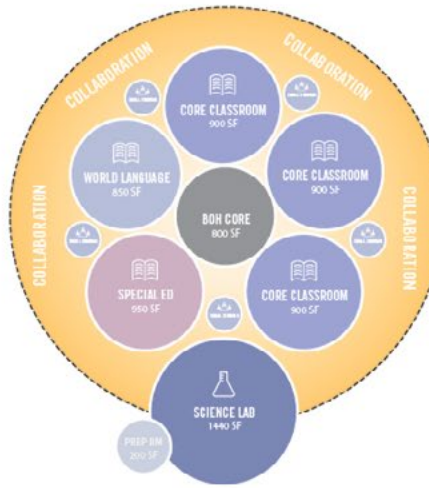
## BELMONT HIGH SCHOOL / PROGRAM TREE



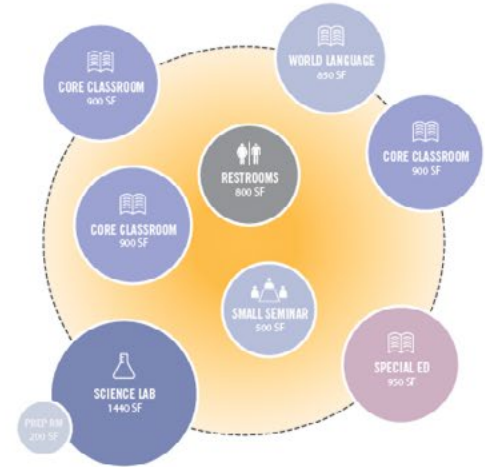
# BELMONT HIGH SCHOOL / TEAM CONFIGURATION IDEAS



**CENTRALIZED**



**EXTERNAL**



**HYBRID**