

SUN SHADOW STUDY

Wilson Street East, Ancaster

Proposed Mixed-Use Development
Wilson Street East, Ancaster
City of Hamilton

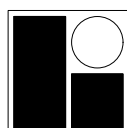
Prepared for:
Wilson St. Ancaster Inc.

Prepared by:
Ralph Bouwmeester, P. Eng.



RBA File: S20028

MARCH 5, 2021
(Revised December 14, 2021)
(Revised May 30, 2023)
(Revised December 19, 2024)



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Sun & Shadow Position Specialists
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Web: www.sunposition.com Email: rba@sunposition.com

1. This summary report should be read in conjunction with shadow study Drawings RH-1 and SS-1 to SS-12 all dated March 5, 2021 (Revised December 19, 2024).
2. Site latitude and longitude used for this study are based on the latitude and longitude of the subject site as follows:
Latitude: 43° 13' 42" N (43.2283° N)
Longitude: 79° 58' 31" W (79.9753° W)
3. Time Zone: Eastern
Daylight Time: UT – 4 hours (applies on Mar 21, Jun 21 and Sep 21)
4. Site Orientation: North Limit Academy Street N68°05'40"W (grid)

The bearing of the site's south boundary (north limit of Academy Street) is shown as N68°05'40"W (grid) on a Topographic Survey dated December 18, 2014, by A.T. McLaren Limited Legal and Engineering Surveys. According to the survey, the bearing is referenced to UTM Zone 17, NAD83 (CSRS) (1997.0). The grid bearing was converted to astronomic for this shadow analysis. See the conversion on the north arrow on the diagrams.

5. The base plan used in this analysis was obtained from the City of Hamilton mapping portal. The 3D massing model of the proposal was provided by SRN Architects.
6. The shadow analysis is based on an assumed flat ground plane.
7. The shadow study includes hourly test times from 10:00 AM to 4:00 PM, both inclusive, on each of Mar 21, Jun 21 and Sep 21.

8. **Review of Shadow Drawings**

Mar 21 – Proposed shadows cross the sidewalk on the west side of Wilson Street until noon; they reach the commercial properties beyond until 11:00 AM. As-of-right shadows also reach the opposite sidewalk at 10:00 AM. Shadows do not reach the opposite sidewalk after the noon test time. Minor shadowing spills onto the commercial property to the north (420 Wilson) at 11:00 AM

From 12:00 to 2:00 PM offsite shadowing is confined primarily to Wilson Street and/or 420 Wilson. By 3:00 PM the shadows cross 420 Wilson and result in minor shadowing on the next commercial lot at 426 Wilson. At 4:00 PM the shadows reach further across 420 and 426 Wilson.

Shadows from the proposed 8-storey building reach one residential lot (19 Lorne Avenue) at only the 4:00 PM test time.

Jun 21 – The shadows are shortest on this date as evidenced on the drawings. They cross the west sidewalk along Wilson Street and reach slightly into the commercial properties across the street at only the 10:00 AM test time.

Shadows reach 420 Wilson at 1:00 PM; they do not reach the facade of the commercial building at any test time.

Shadows from the proposed 8-storey building reach one residential lot (19 Lorne Avenue) at only the 4:00 PM test time.

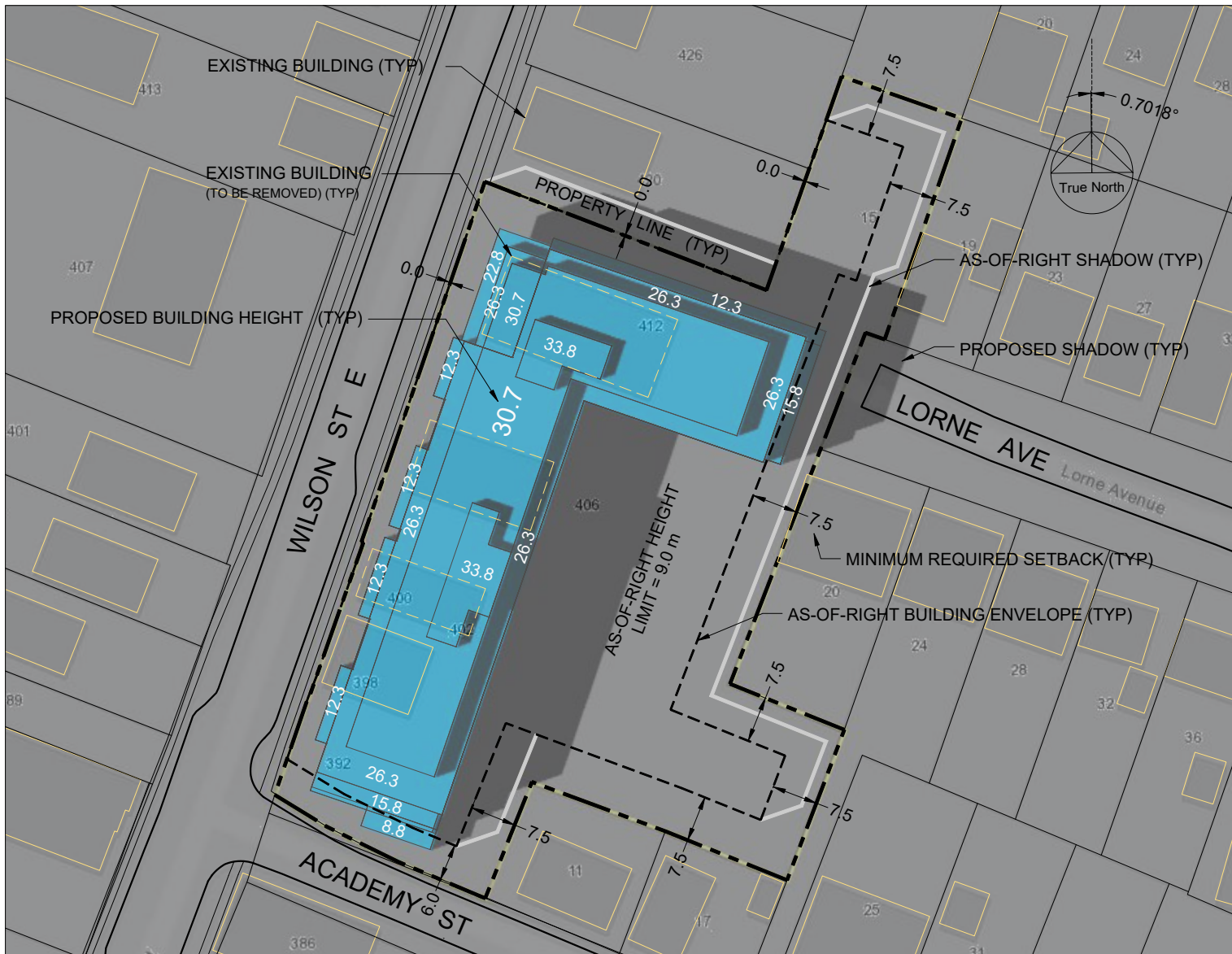
Sep 21 – Shadows on this date are similar to those on Mar 21. As a result, our Mar 21 comments generally apply to Sep 21 with the exception that the shadows cross the west sidewalk on Wilson until 11:00 AM instead of noon.

9. **Summary**

- a) Shadows cross the opposite sidewalk of Wilson Street until the noon test time on Mar 21, until the 11:00 AM test time on Sep 21, and at only the 10:00 AM test time on Jun 21.
- b) Shadows do not reach Academy Street at any of the test times.
- c) Based on the above, and as required by the City, 3 hours of sun coverage is provided between 10:00 AM and 4:00 PM as measured on Mar 21 to Sep 21 on public sidewalks.
- d) Similar 3-hour-plus sun coverage is provided on public and private outdoor amenity areas such as patios, sitting areas, and other similar areas.
- e) On an overall basis, shadowing of the public realm and neighbouring properties is minor and meets the intent of the City's policies.

NOTES:

1. SHADOWS INCLUDE PARAPETS, BALCONY SLABS & RAILINGS, AND ROOF-TOP FEATURES, WHERE APPLICABLE.
2. BUILDING HEIGHTS (m) ARE SHOWN TO TOP OF PARAPET, RAILING, ETC., WHERE APPLICABLE.
3. BUILDING HEIGHTS DERIVED FROM 3D MODEL BY SRN ARCHITECTS INC. (FFE ASSUMED 0.2 m ABOVE GRADE).
4. SHADOWS ARE SHOWN ON ASSUMED FLAT GROUND PLANE.
5. BASE MAPPING OBTAINED FROM CITY OF HAMILTON.
6. SITE SURVEY DATA PROVIDED BY A.T. McLAREN LIMITED.



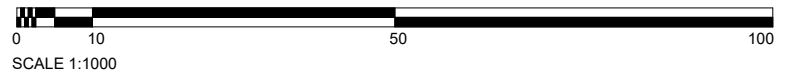
KEY PLAN & PROPOSED HEIGHTS

GEOGRAPHIC SITE LOCATION:

LATITUDE: 43° 13' 42" N
 LONGITUDE: 79° 58' 31" W

TIME ZONE:

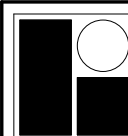
EASTERN
 - STANDARD TIME (EST) (UT - 5 hrs)
 - DAYLIGHT TIME (EDT) (UT - 4 hrs)



KEY PLAN & HEIGHTS SUN SHADOW STUDY

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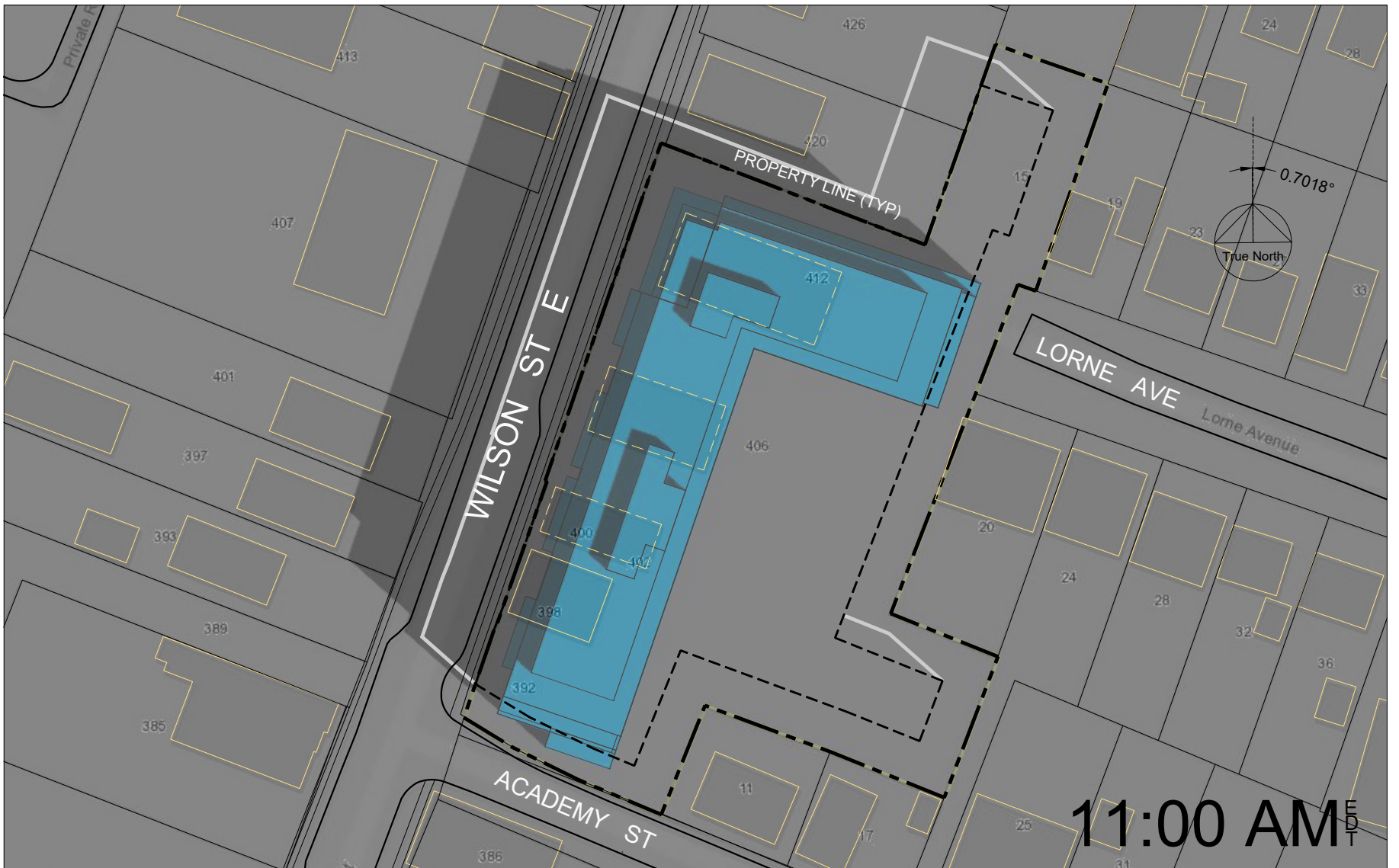
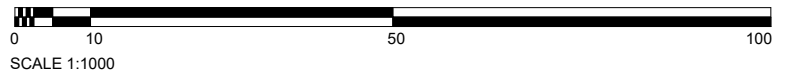
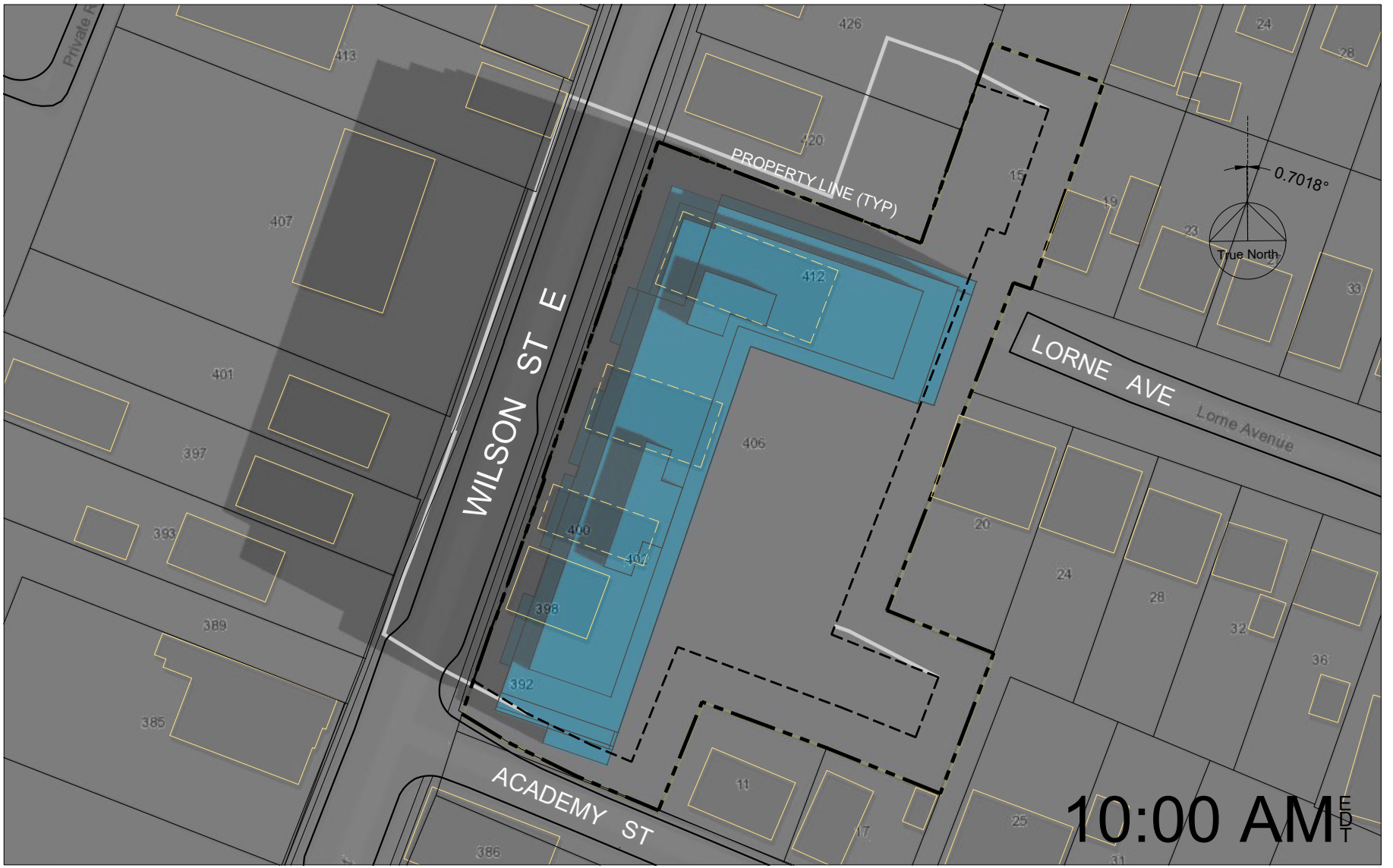
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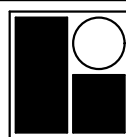
RH-1



MAR 21

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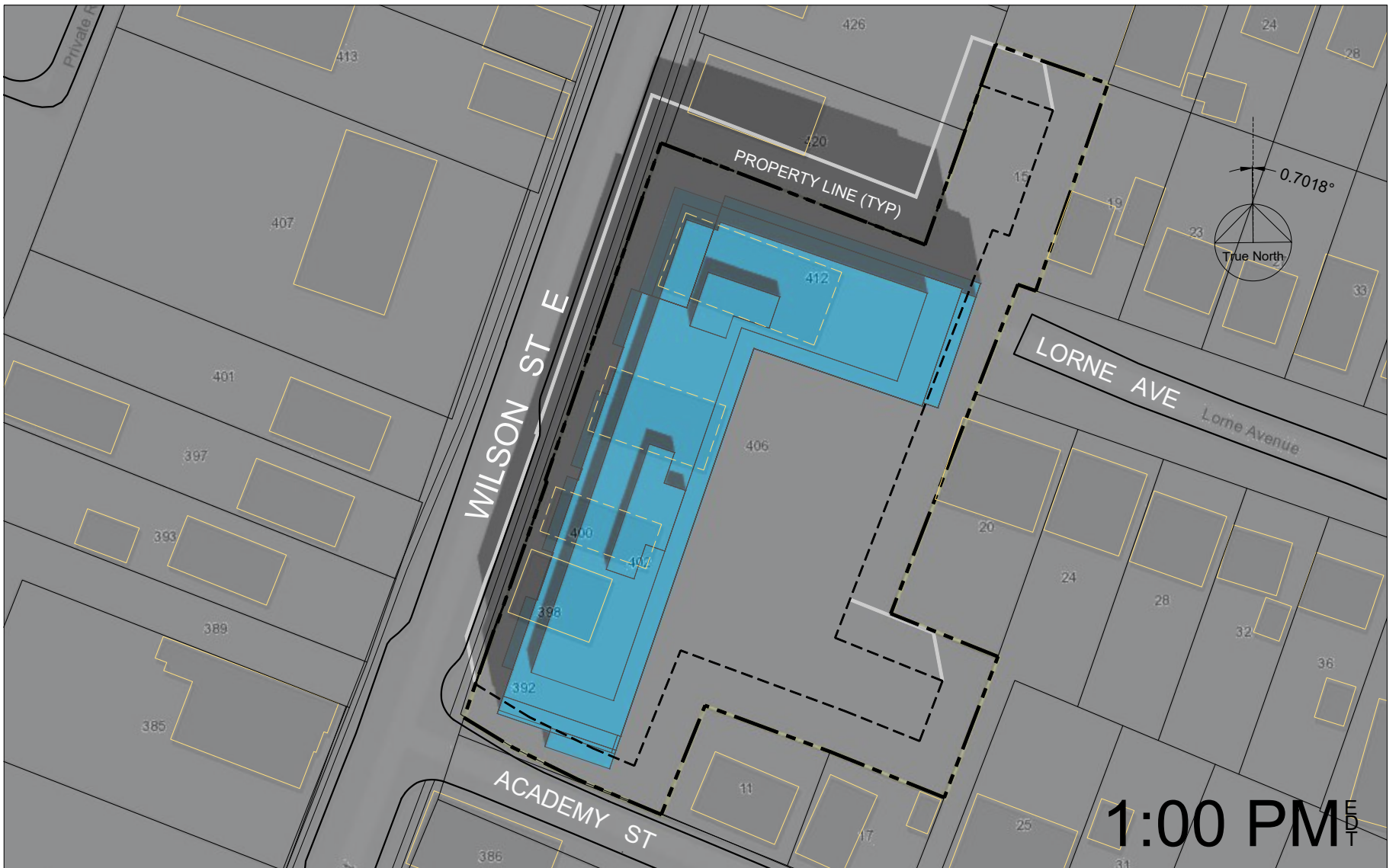
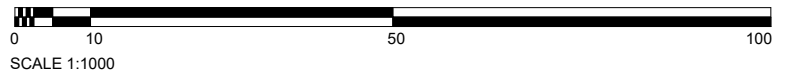
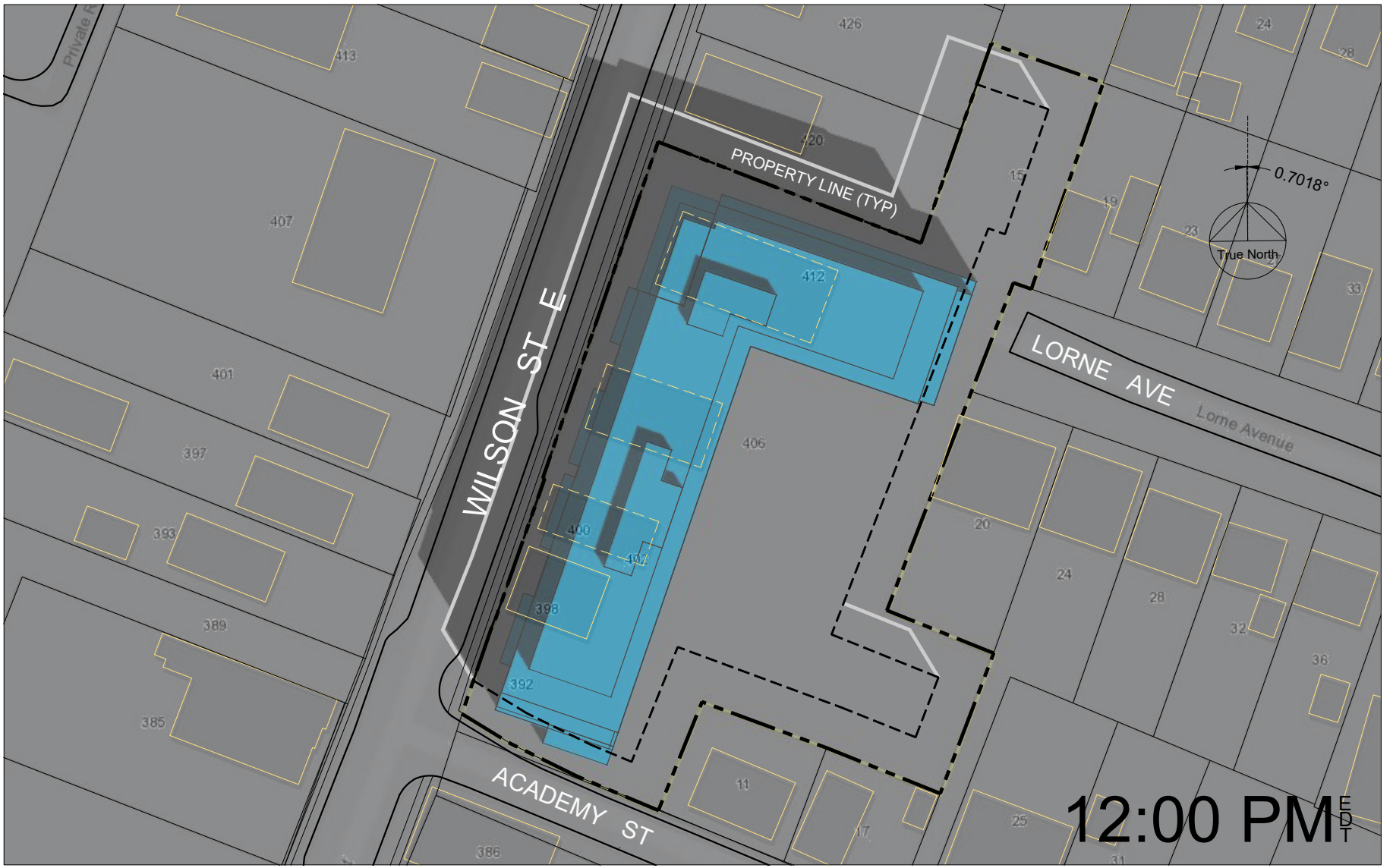
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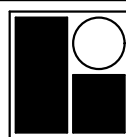
SS-1



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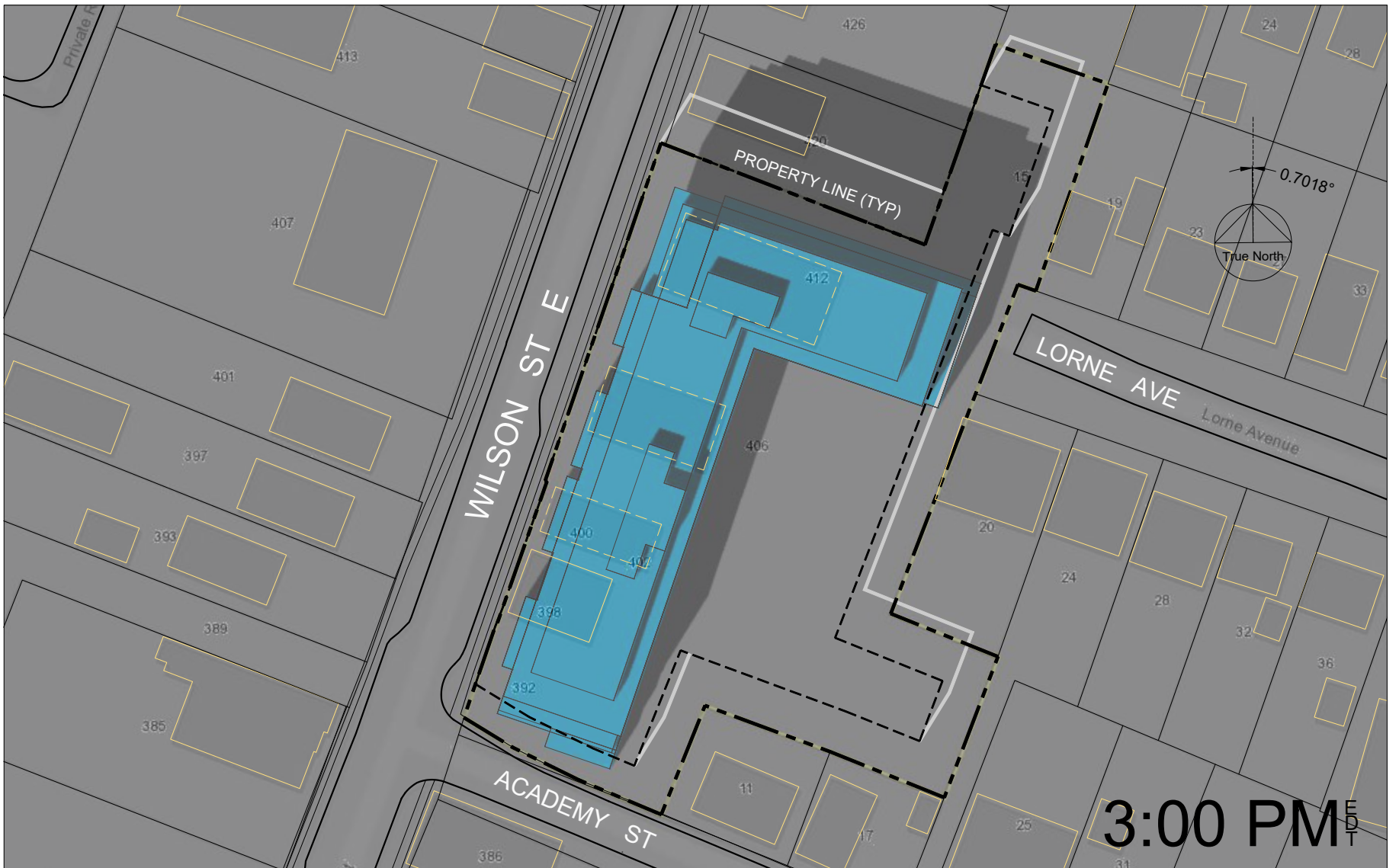
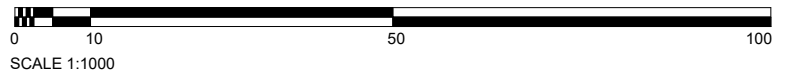
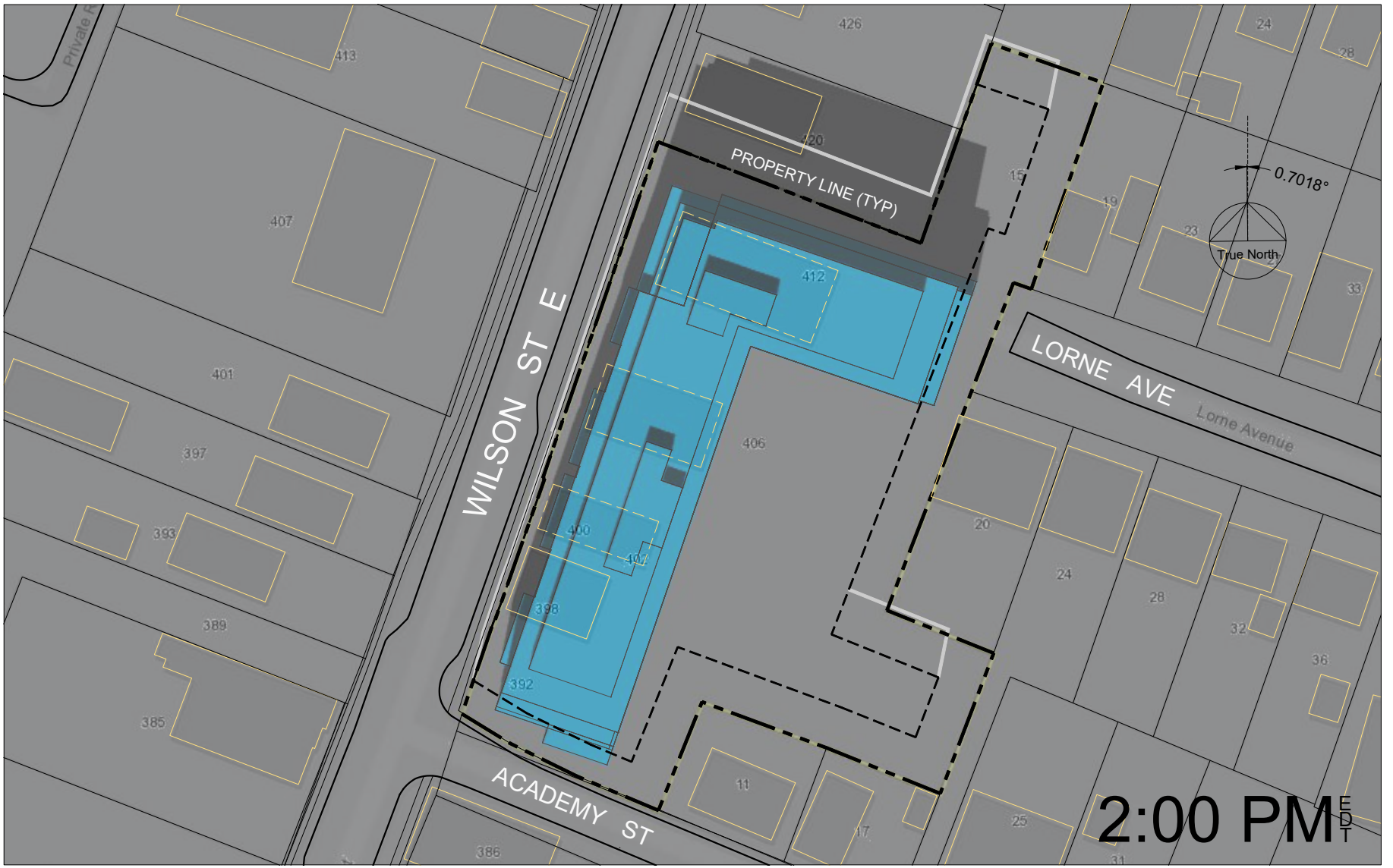
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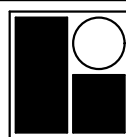
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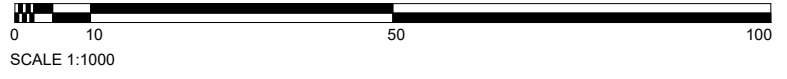
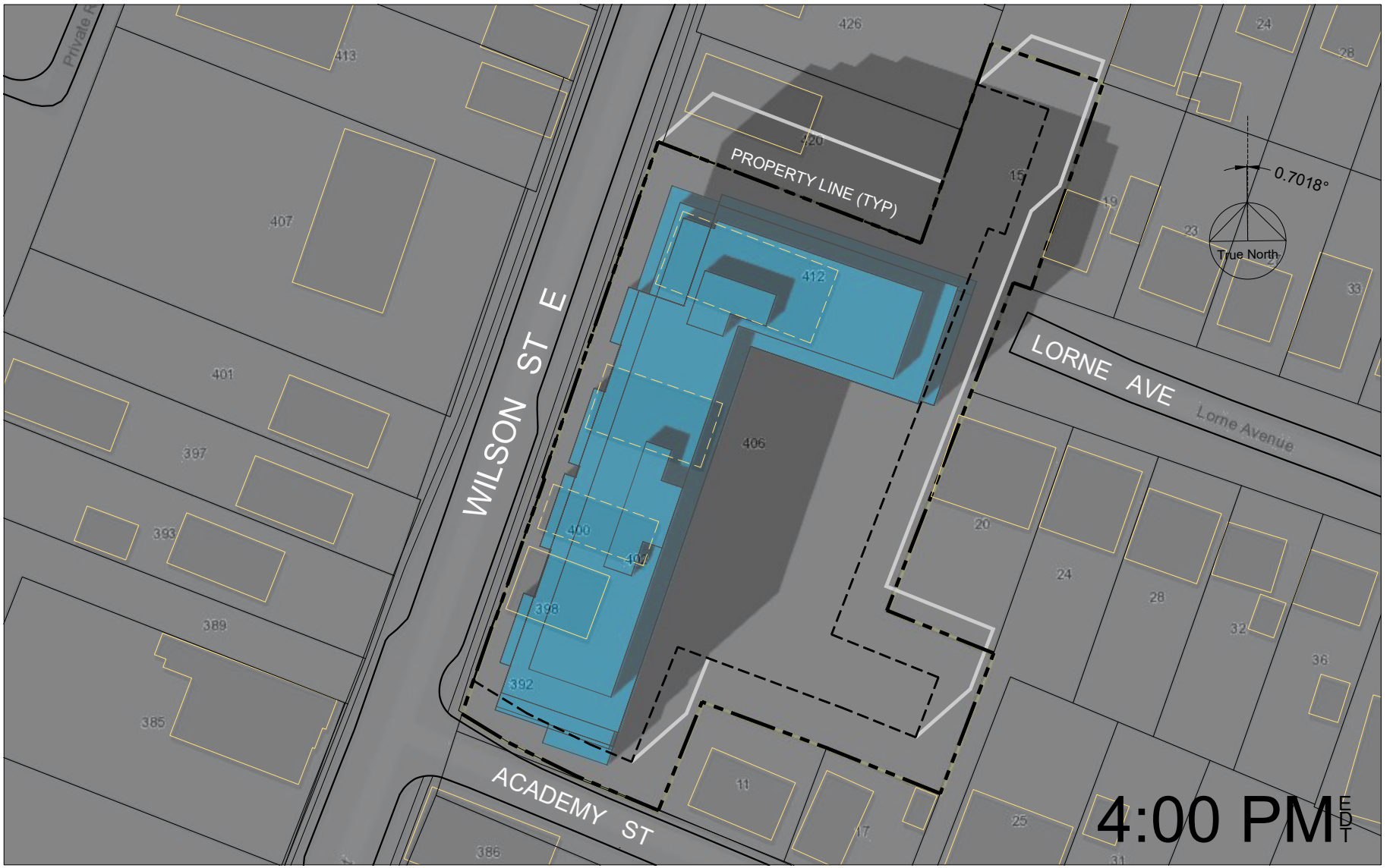
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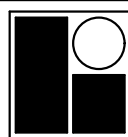
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MAR 21

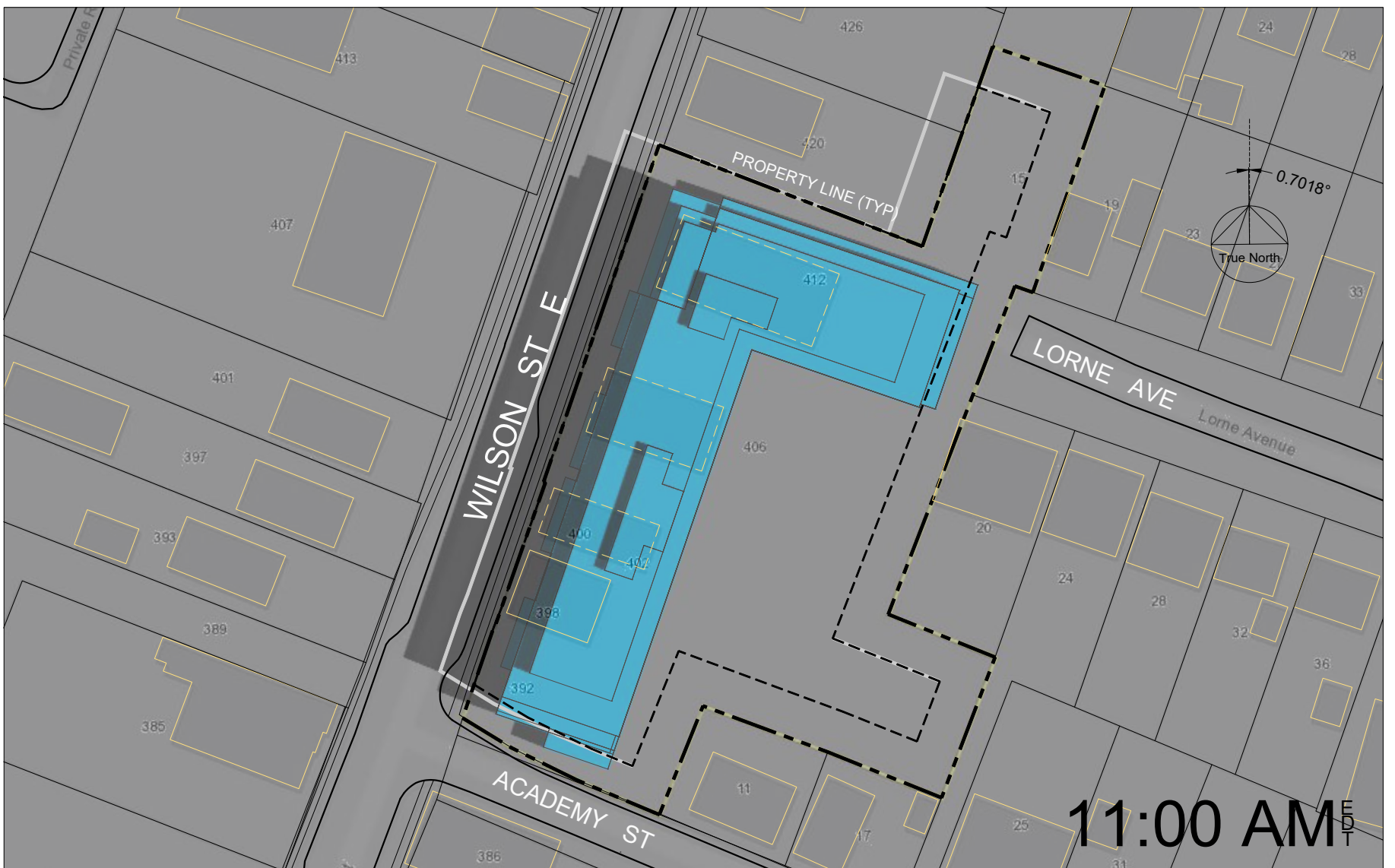
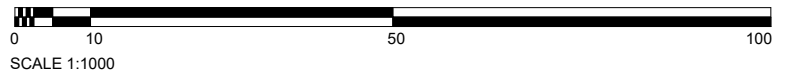
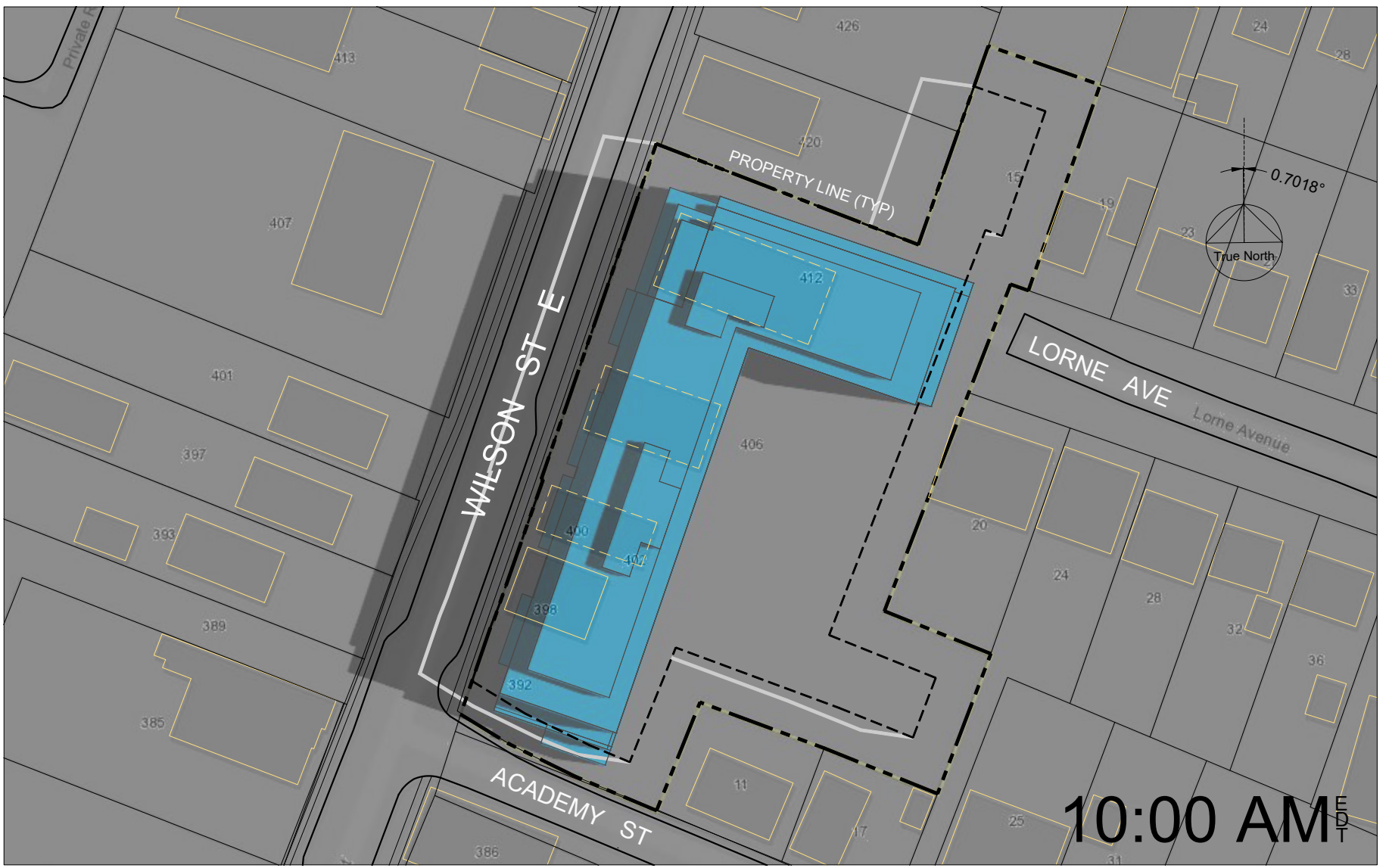
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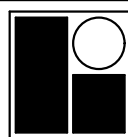
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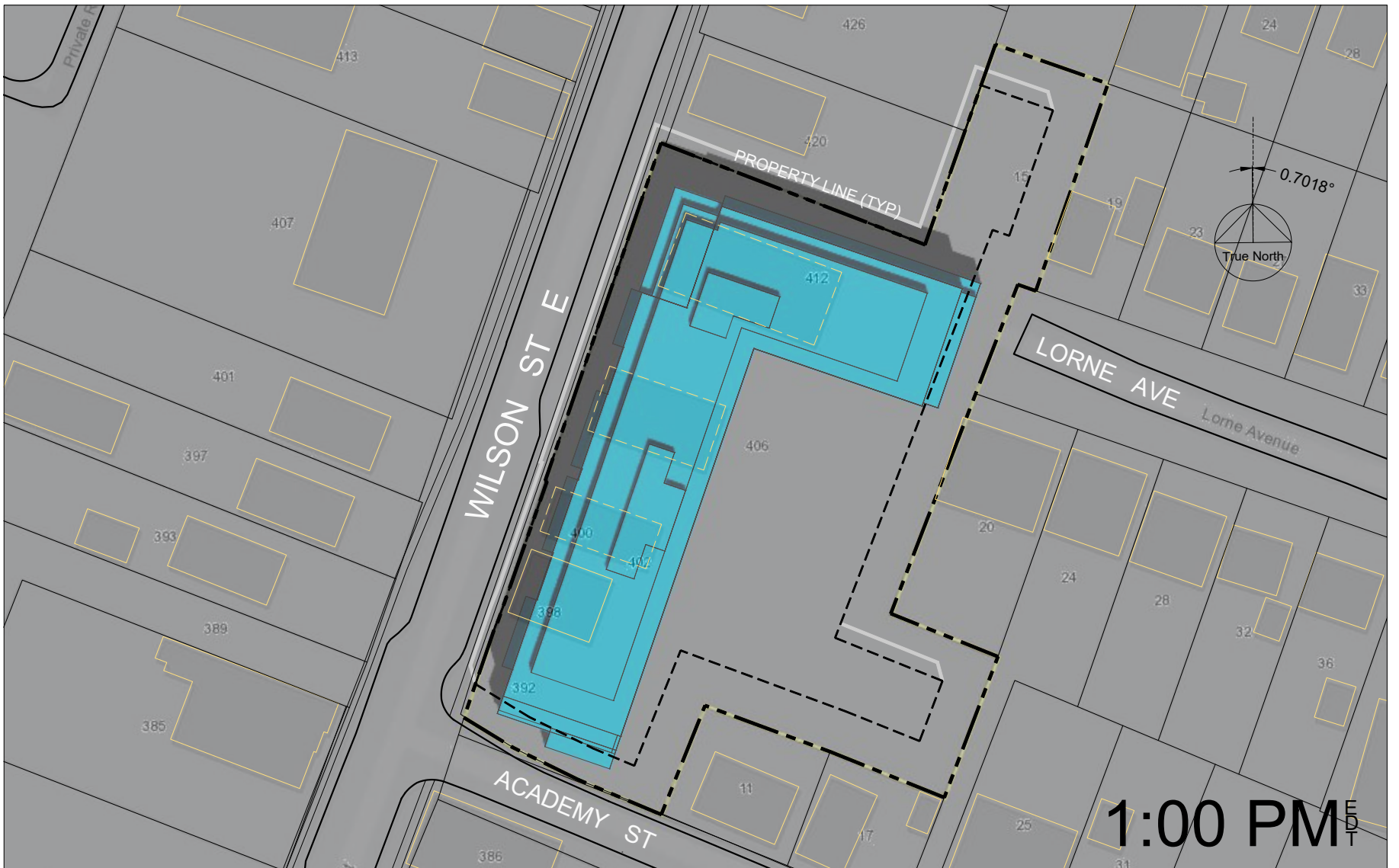
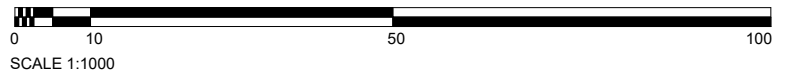
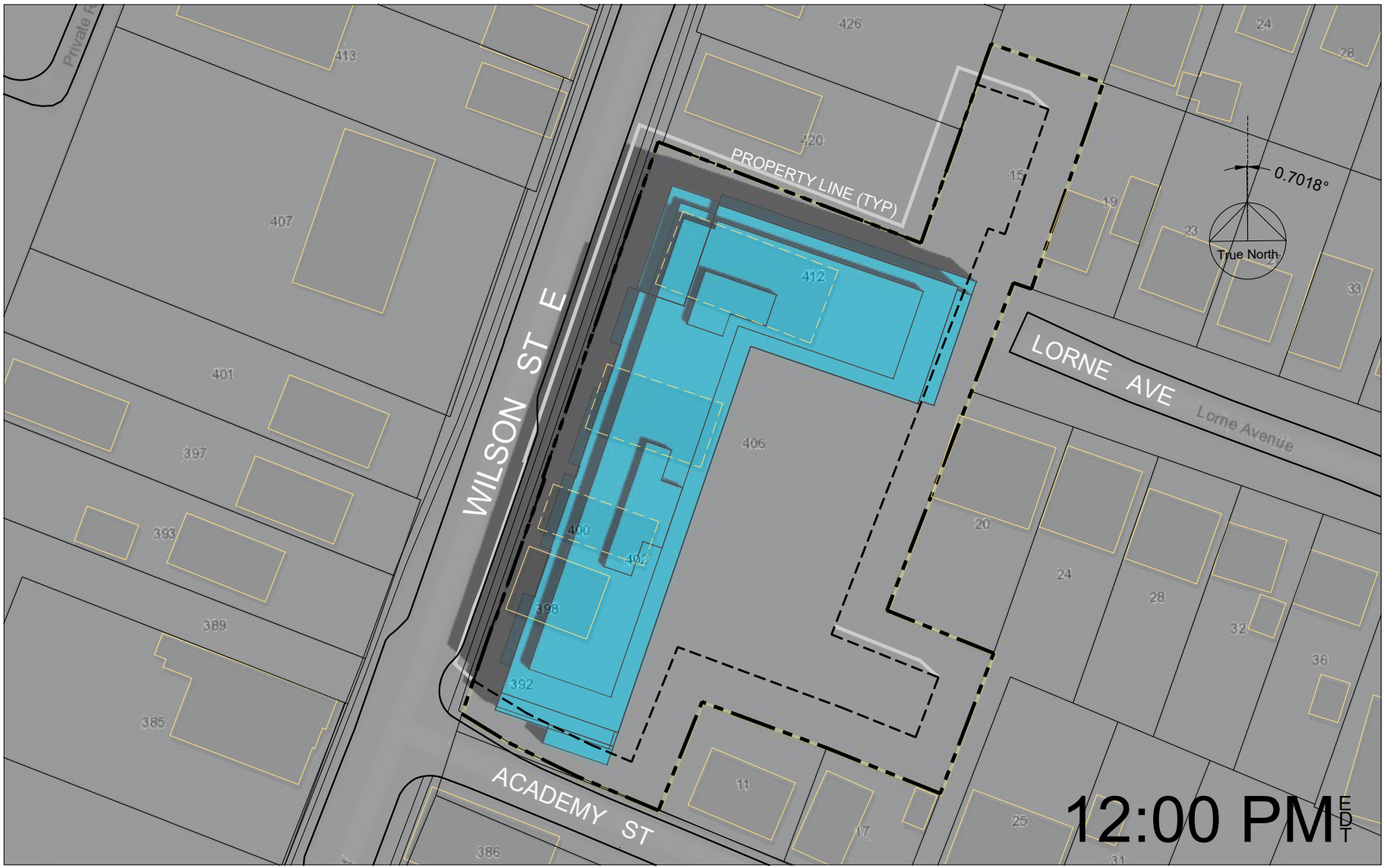
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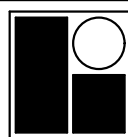
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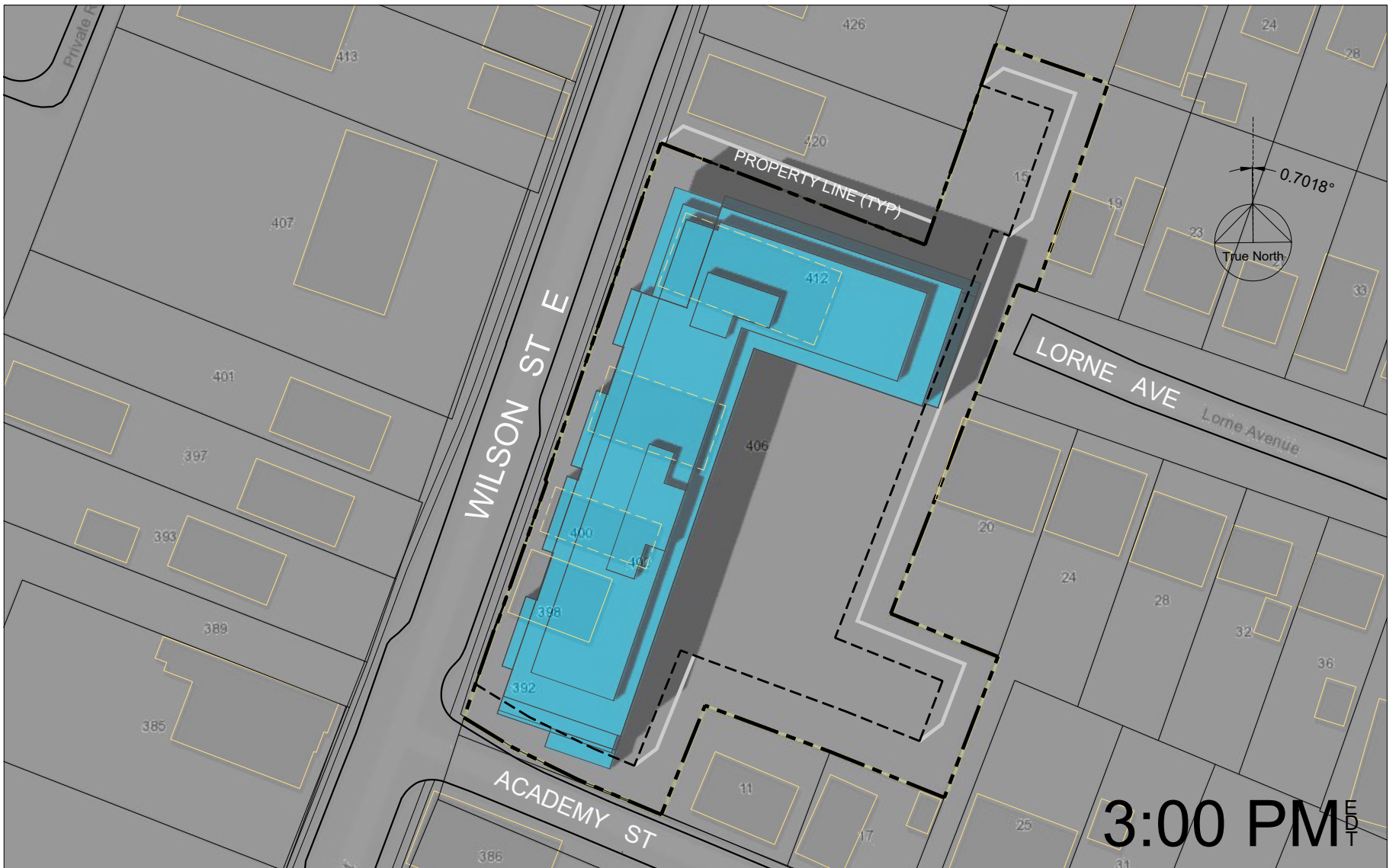
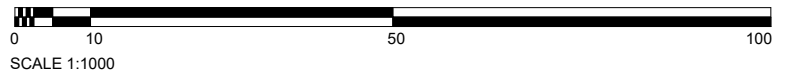
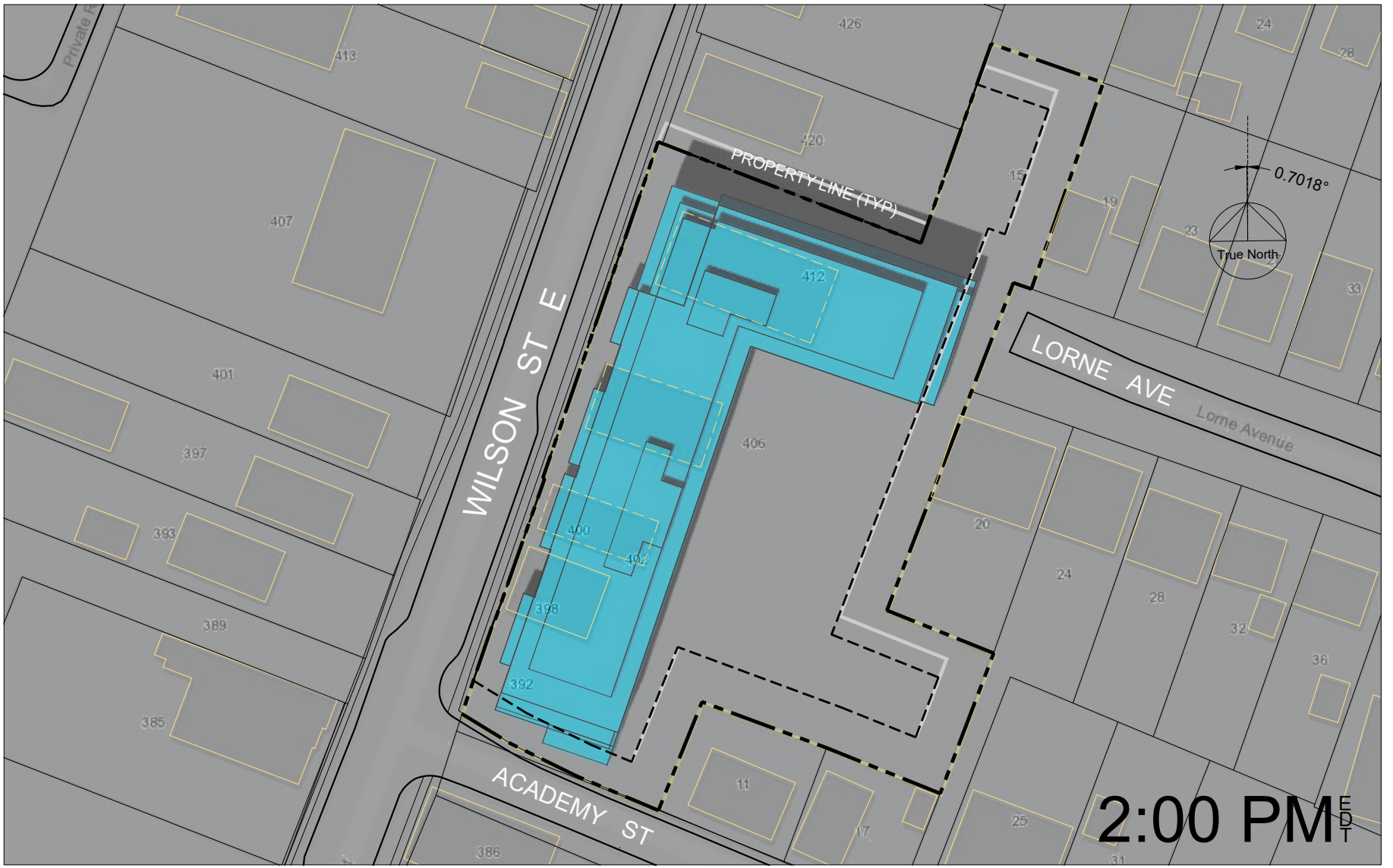
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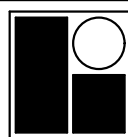
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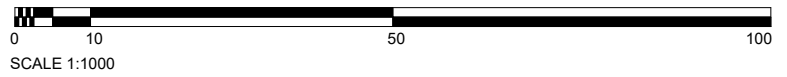
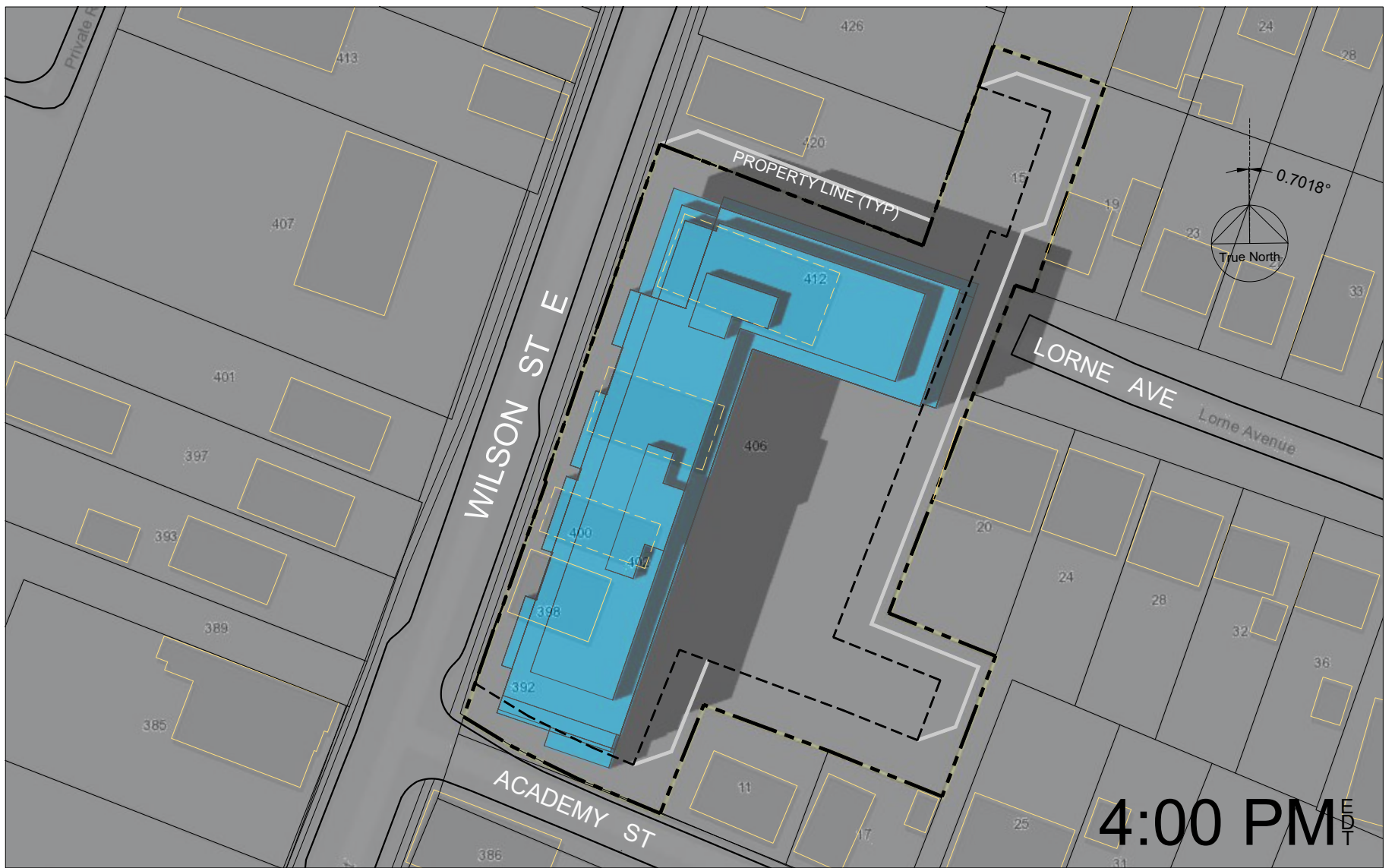
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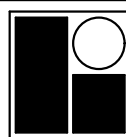
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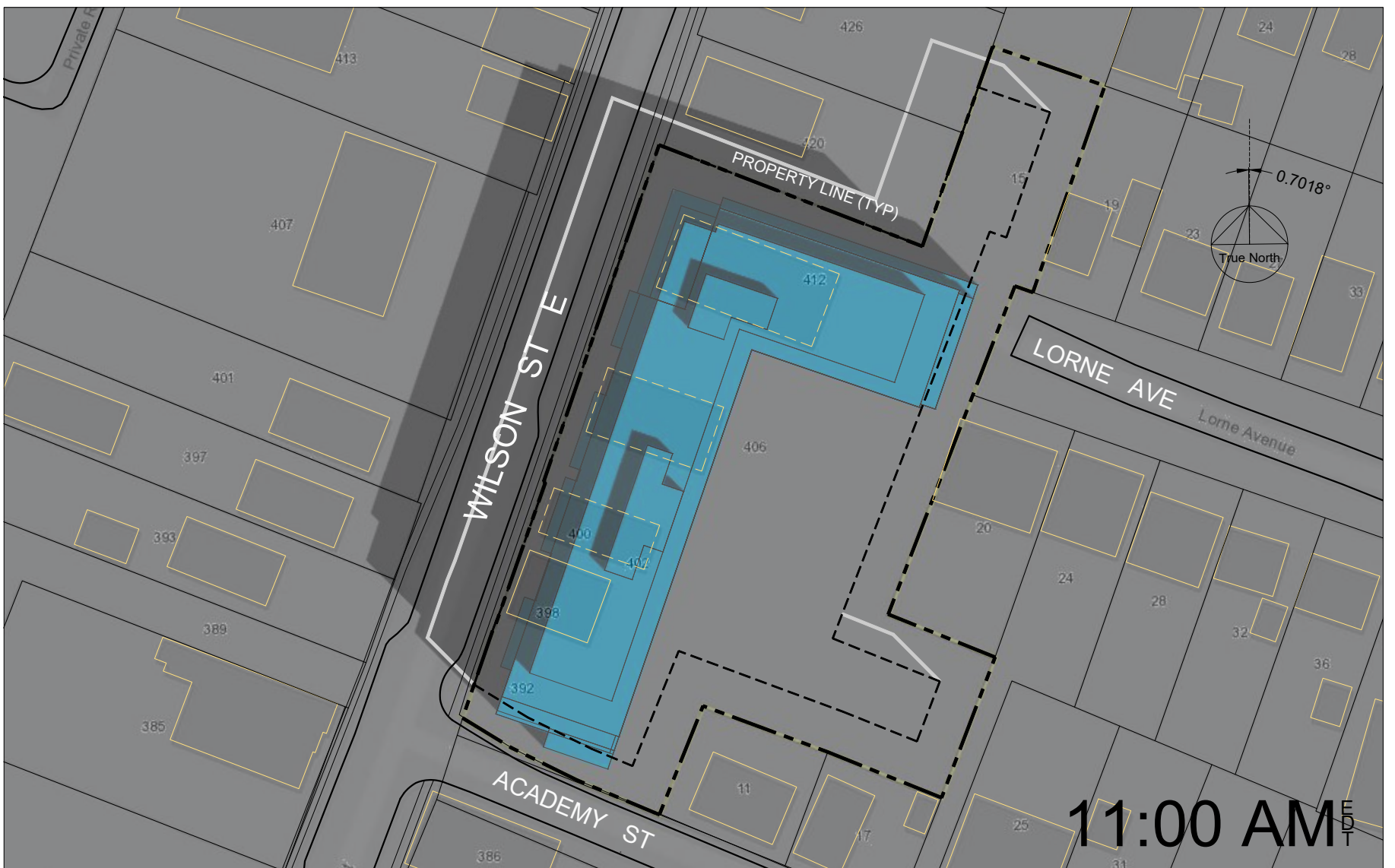
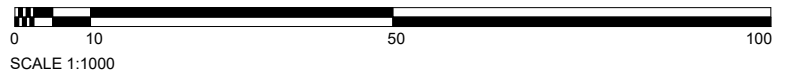
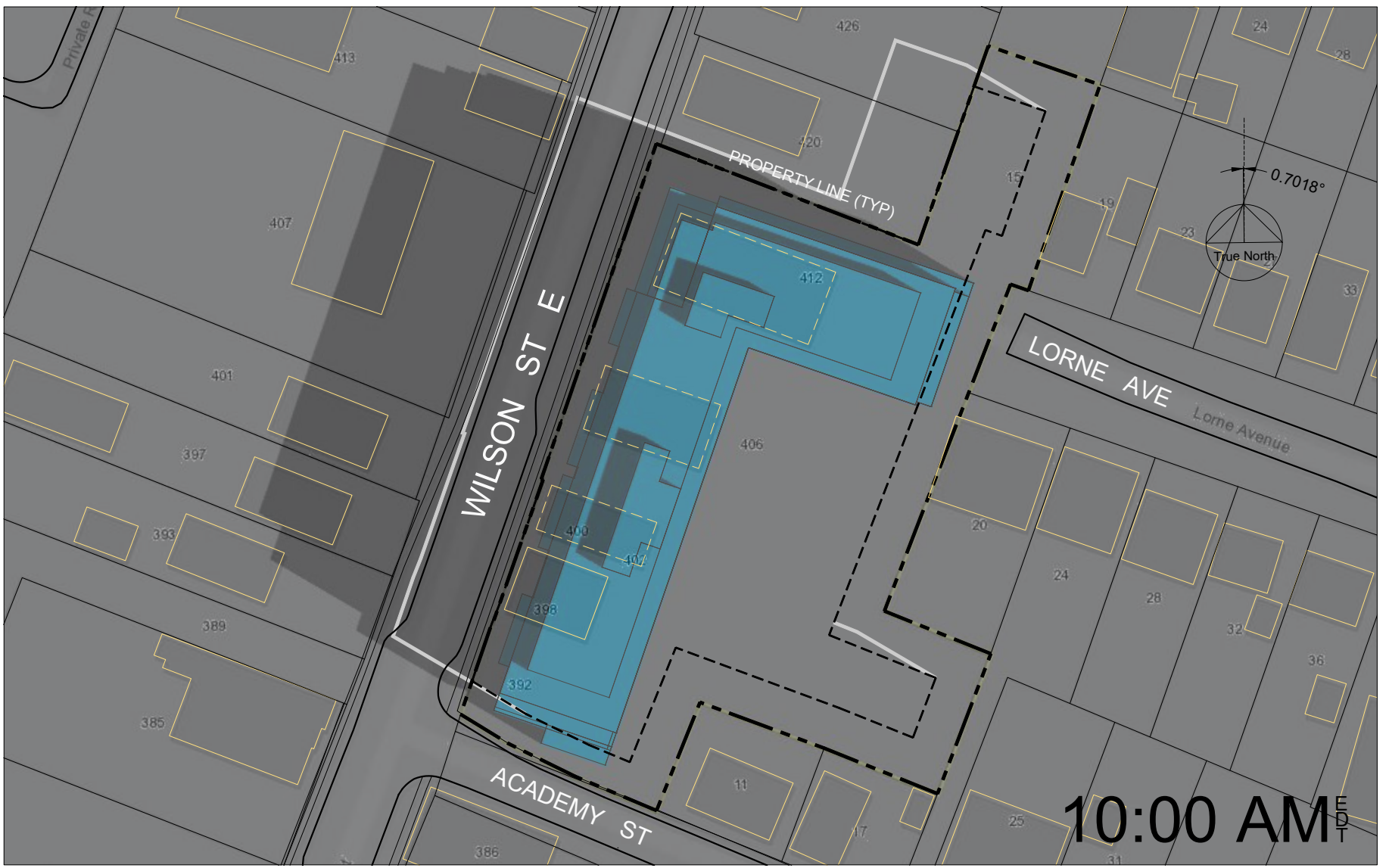
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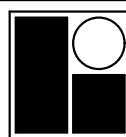
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SEP 21

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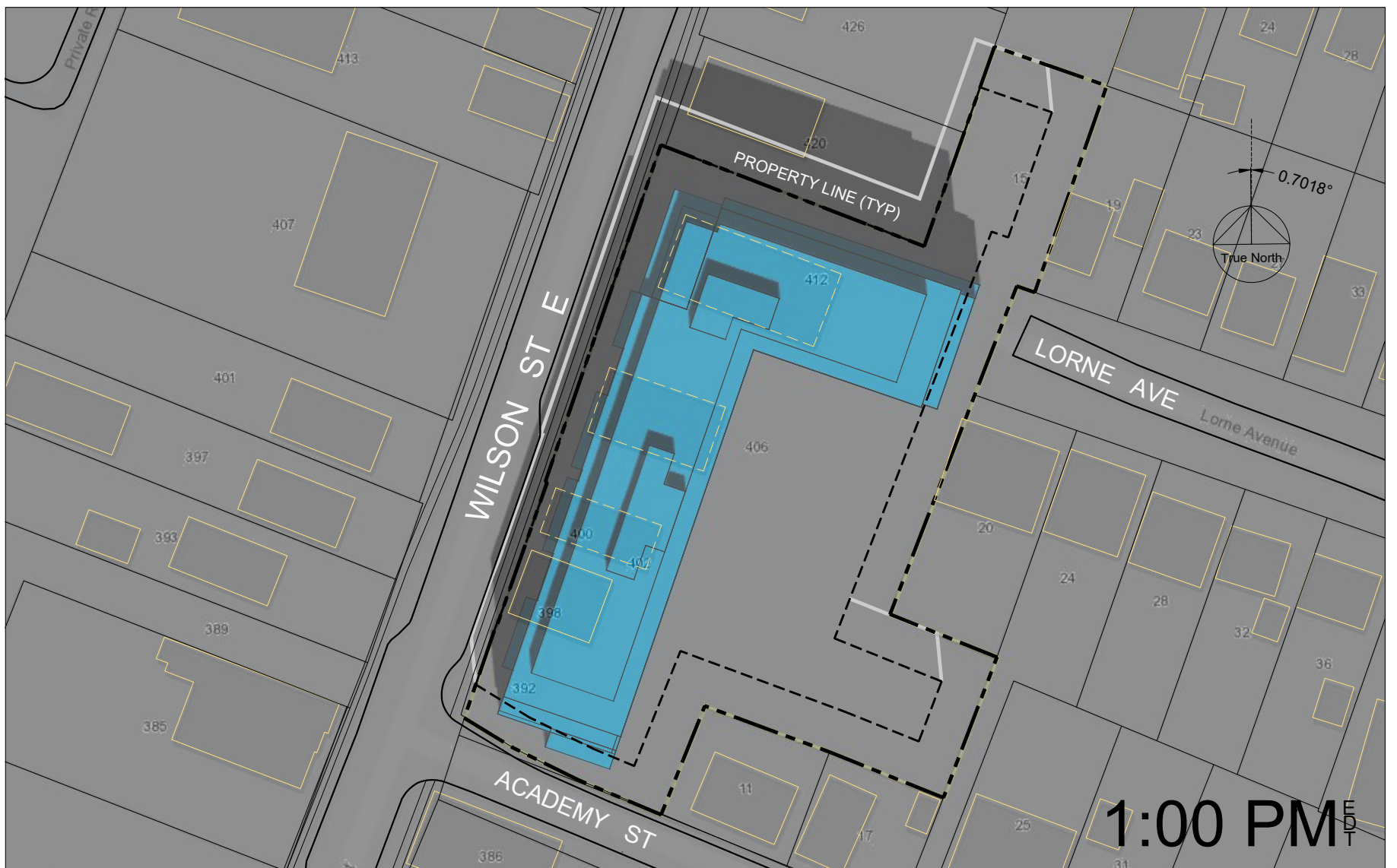
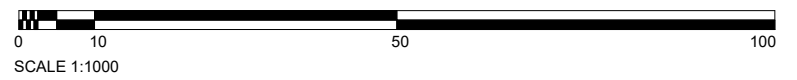
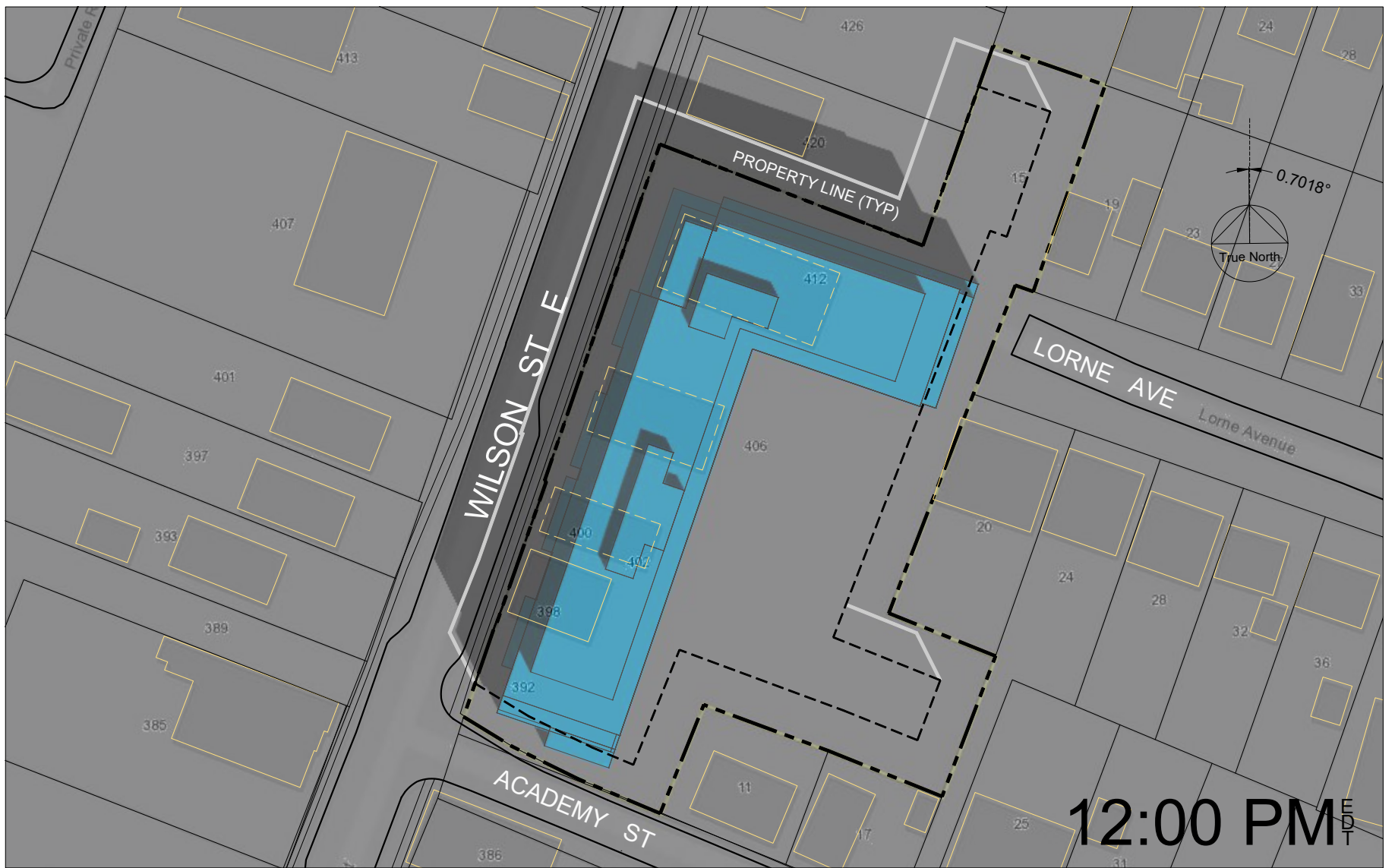
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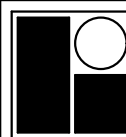
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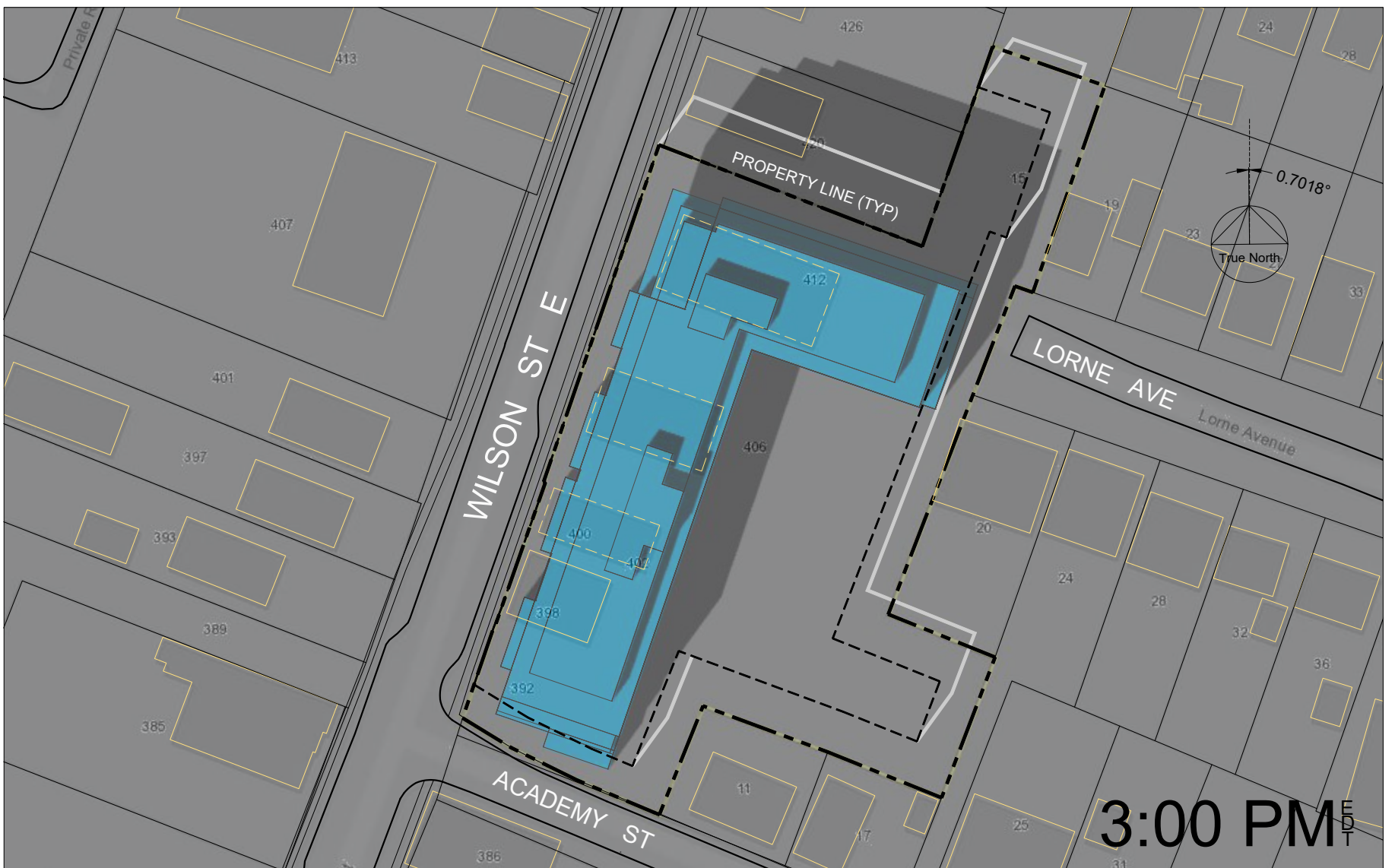
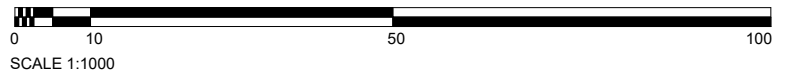
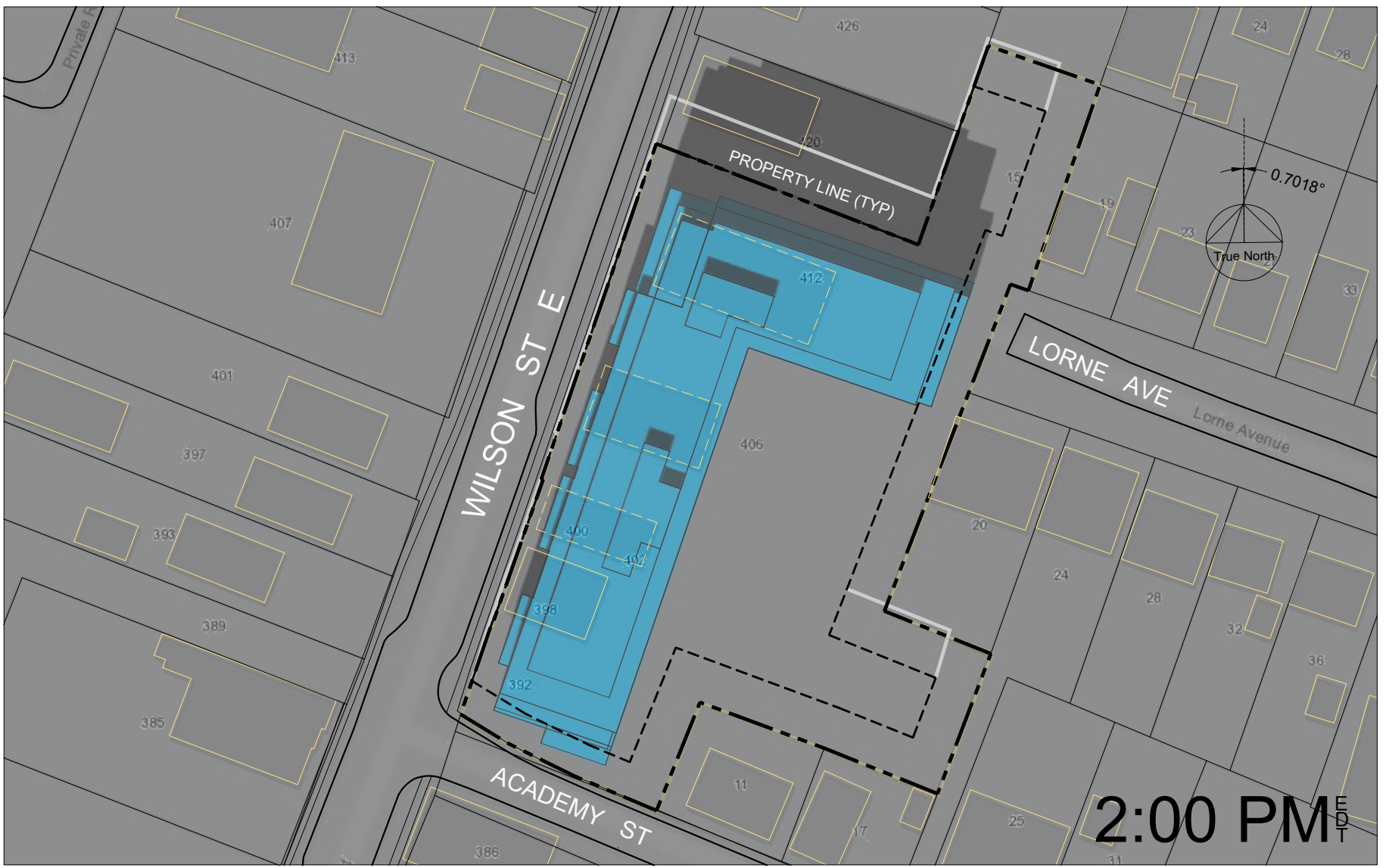
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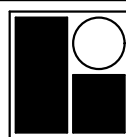
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SEP 21

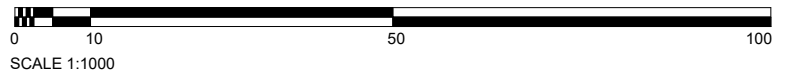
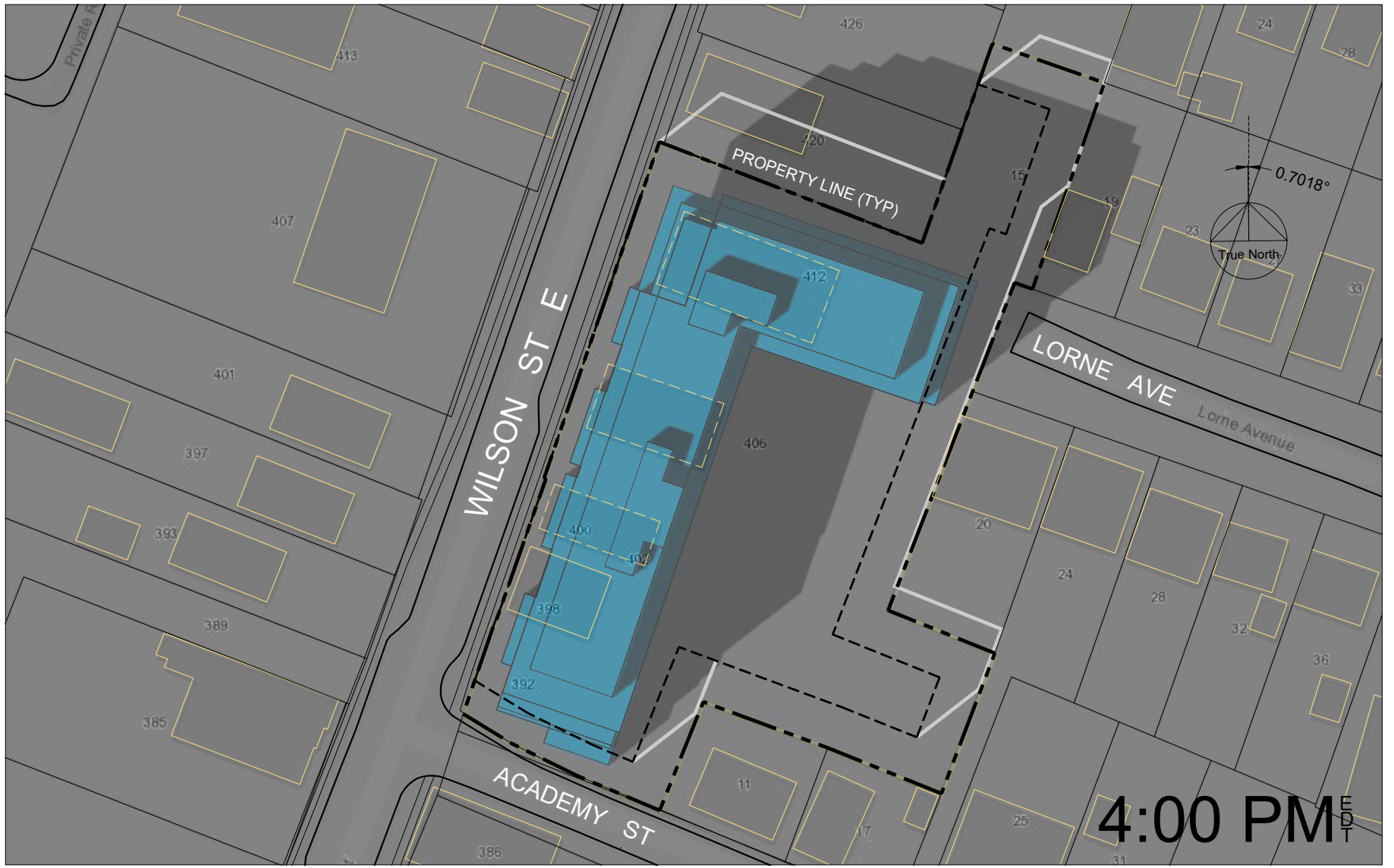
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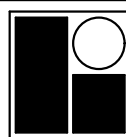
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Calculated by:	RB	Project:	S20028	Drawing No.:
Drawn by:	RB	Scale:	1:1000	
Checked by:	RB	Date:	MAR 5/21	

SS-12