

S H A D O W
S T U D Y

**1750 BLOOR STREET &
3315 FIELDGATE DRIVE**

CITY OF MISSISSAUGA

PREPARED FOR:
TC Core LP & Mustang Equities Inc.

April
2020





Job Number - 16262

1.0 INTRODUCTION

The following information prepared by Bousfields Inc. is to be read in conjunction with the accompanying shadow drawings as well as the architectural drawing set prepared by WZMH Architects.

1.1 Site Latitude and Longitude

The information taken from OpenStreetMap regarding the site of 1750 Bloor Street, Mississauga, Ontario, L4X 1S9 is located at:

Latitude: 43°62'3805"N

Longitude: 79°58'64.25"W

Astronomic north was determined by geolocating the 3D model in SketchUp based on OpenStreetMap. The origin of the base plan is from City of Mississauga CAD files, Google Earth satellite imagery, and architectural drawings prepared by WZMH Architects.

1.2 Software Used to Prepare Shadow Analysis

SketchUp Pro was used for 3D work, calculations were done using AutoCad, final composite images were done in Photoshop.

1.3 Description of Areas

Residential private outdoor amenity spaces are determined as private rear yards, decks, patios and pools of surrounding residential dwellings (See fig. 1).

Communal outdoor amenity areas are determined as public amenity areas and common outdoor amenity areas that are part of proposed or existing development (See fig. 2).

Public realm is determined as sidewalks, open spaces, parks and plazas. Turf and flower gardens in public parks are shown within the public realm (See fig. 3).

Turf and flower gardens in public parks (See fig. 4).

Building faces to allow for possibility of using solar energy (See fig. 5).

2.0 RESIDENTIAL PRIVATE OUTDOOR AMENITY SPACES

Section 3.1 of the Mississauga Urban Design Terms of Reference - Standards for Shadow Studies requires the identification of private outdoor amenity spaces within the vicinity of the proposed development. Areas outlined in teal were identified as private outdoor amenity spaces, including rear yards, decks, patios and pools within 7.5 m of the rear wall or other appropriate exterior building wall, known as the line of impact assessment or "no impact zone".

Testing times include June 21st and September 21st to maximize the use of these spaces.

The criteria is met if there is shadow impact for no more than two consecutive hourly test times within the space between the exterior wall of the dwelling that abuts the amenity space and the line of impact assessment.

As a result of built form changes, shadows from the proposed development affect private amenity spaces at 6:20 PM on June 21st and at 5:12 PM on September 21st. The resultant shadows do not affect private amenity areas for more than two consecutive hourly test times.

Figure 1 - Residential private outdoor amenity spaces key map identifies all areas in vicinity that receive shadow from the proposal.

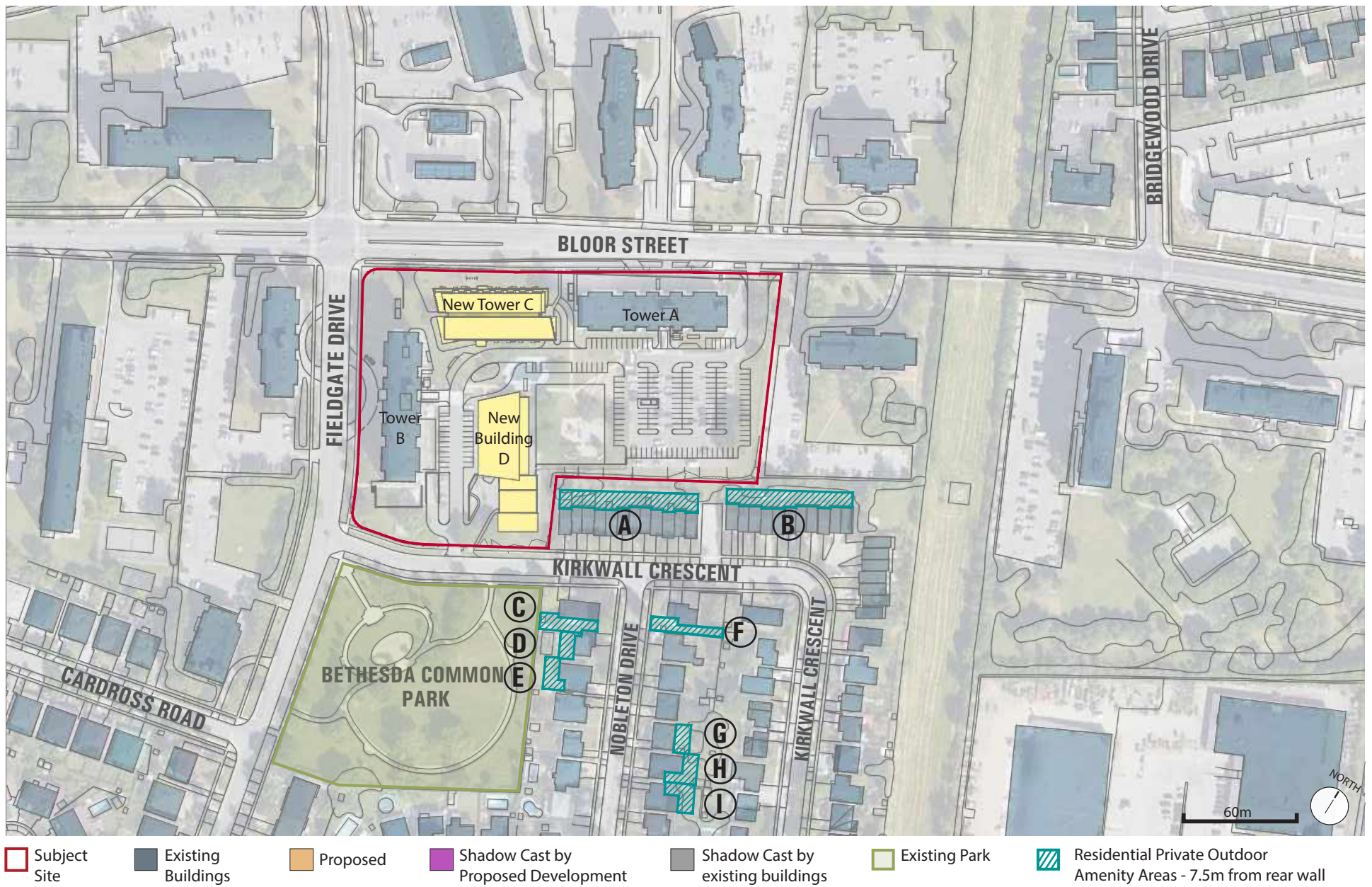
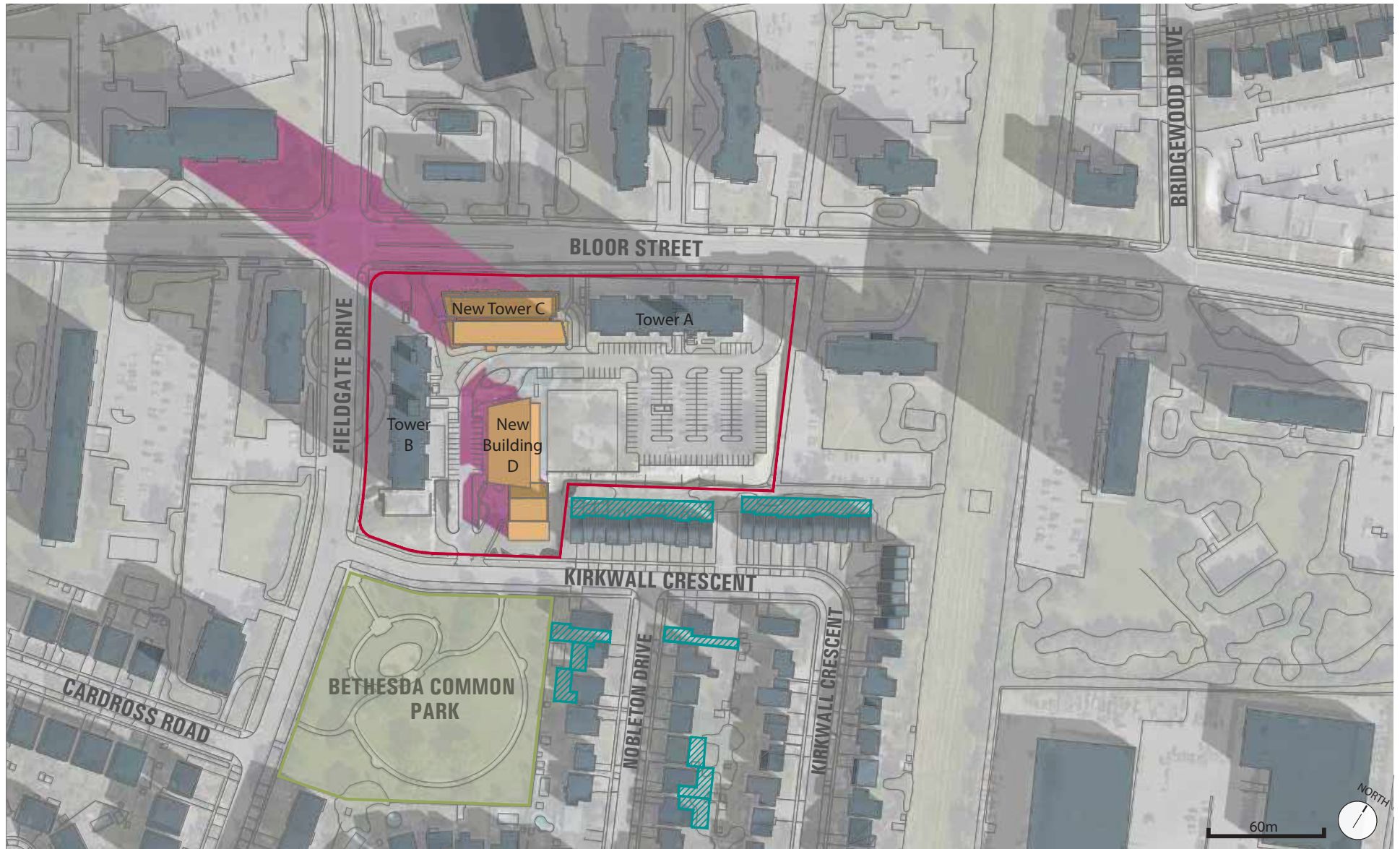
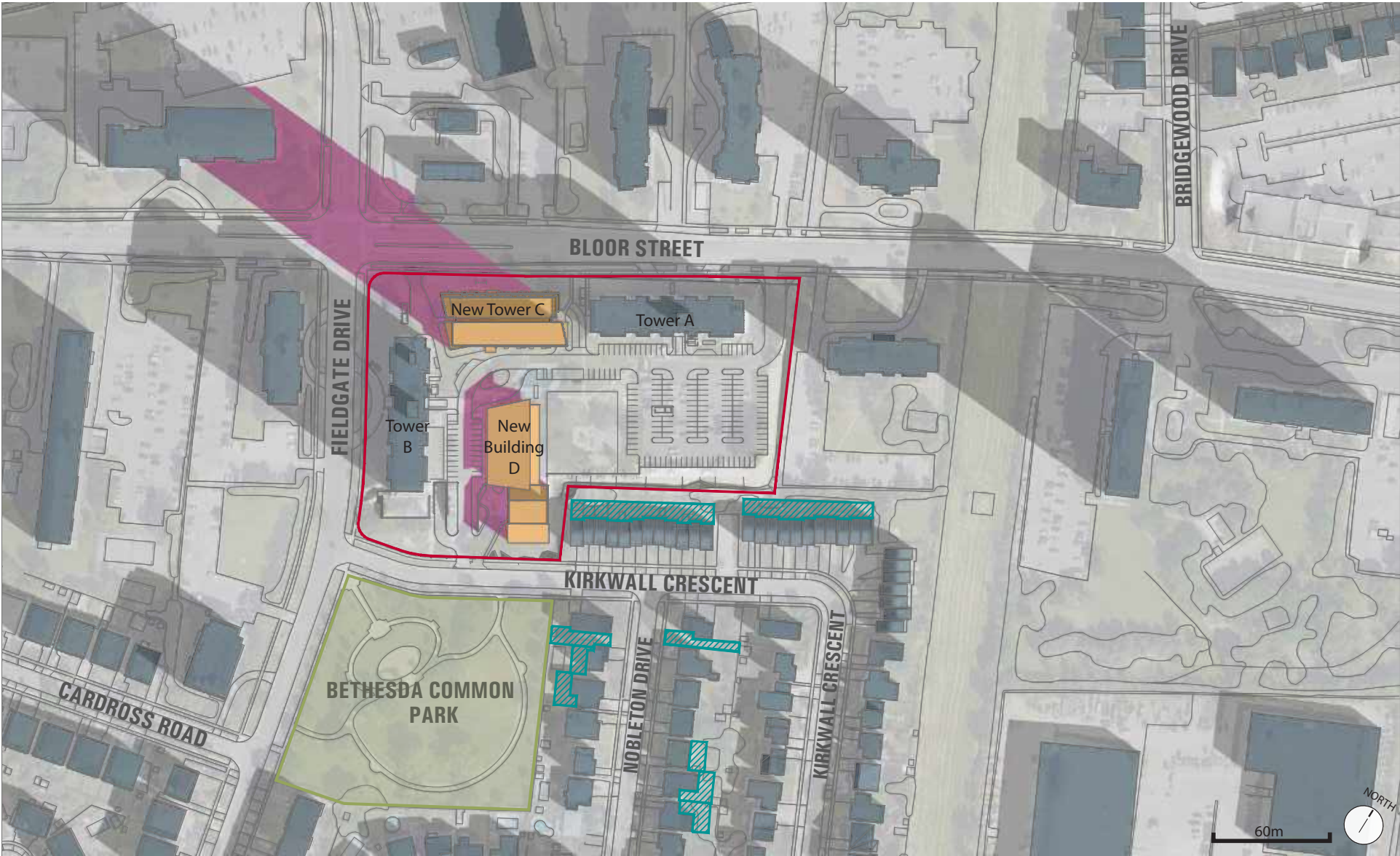


Figure 1 - Residential private outdoor amenity spaces key map



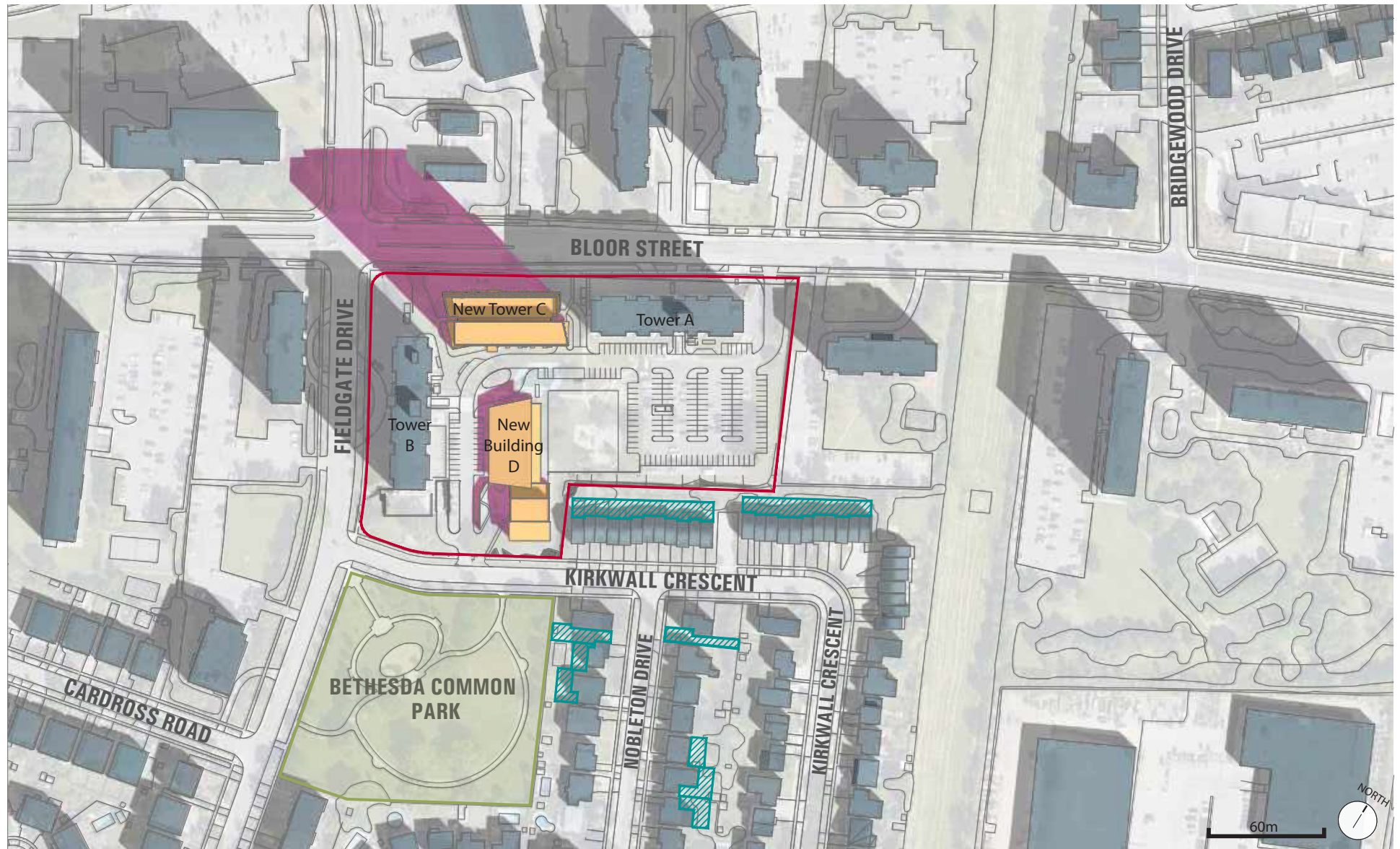
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- Existing Buildings
- Proposed
- Shadow Cast by Proposed Development
- Shadow Cast by existing buildings
- Existing Park
- Residential Private Outdoor Amenity Areas - 7.5m from rear wall



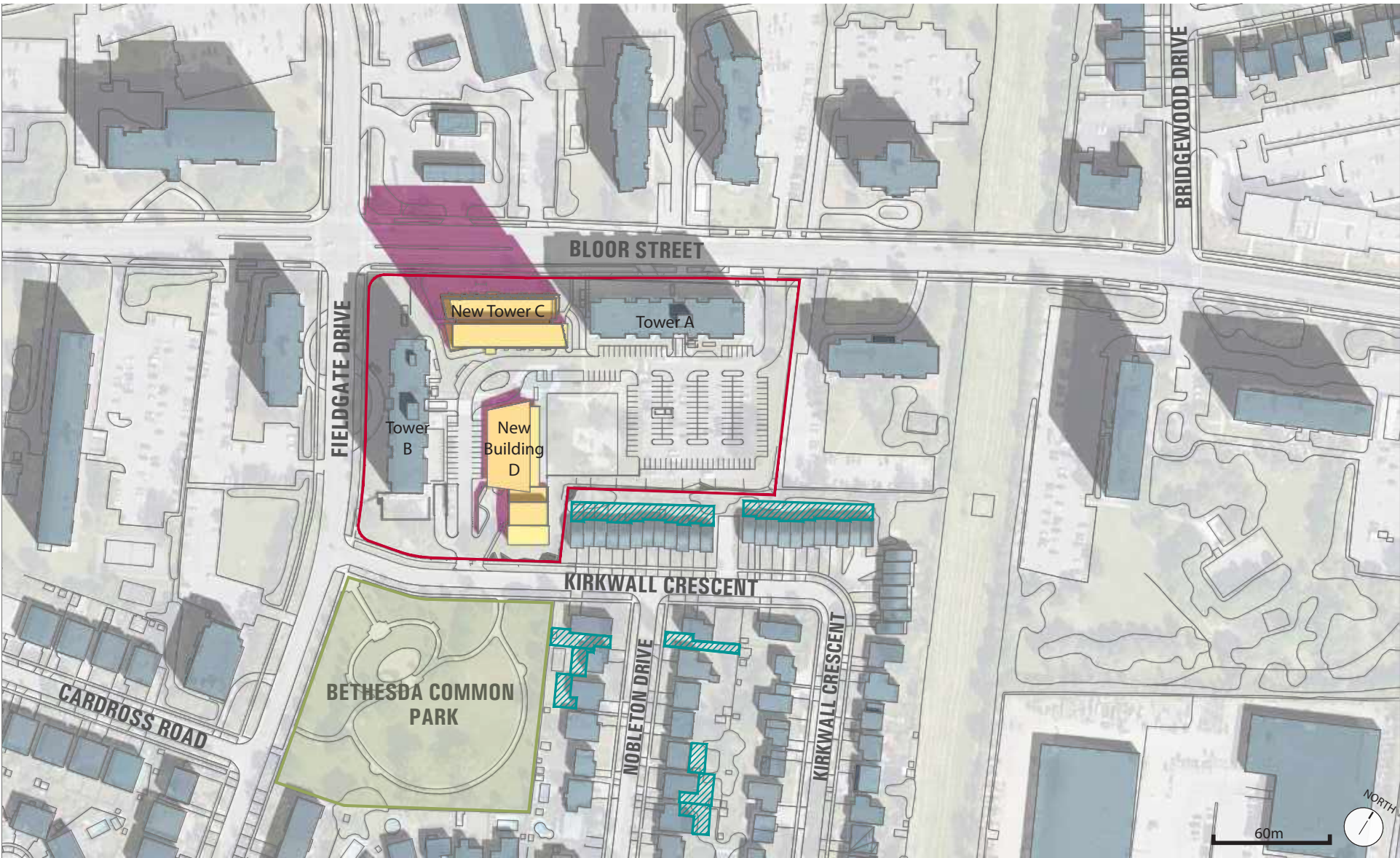
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JUNE 21ST

8:20 AM



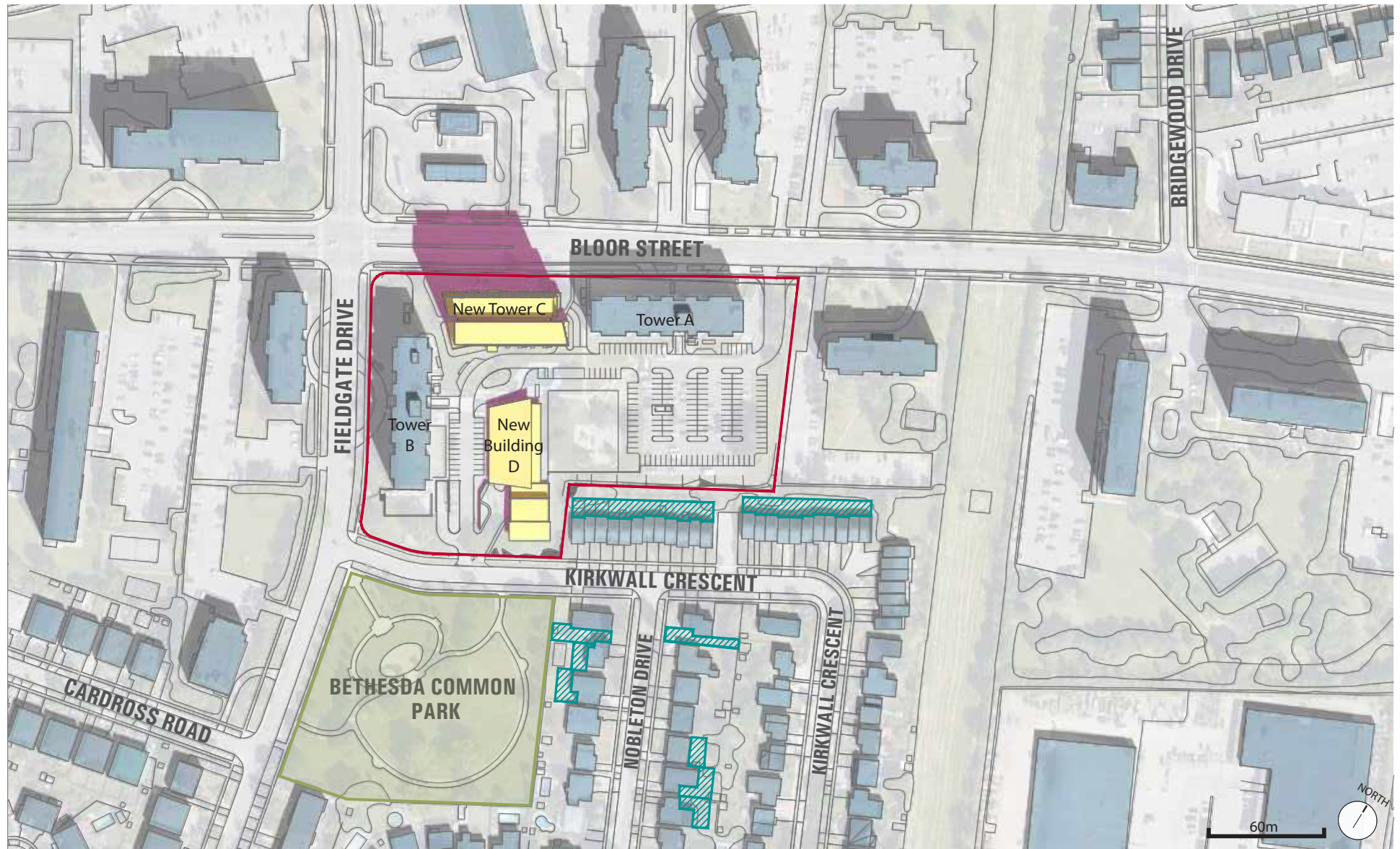
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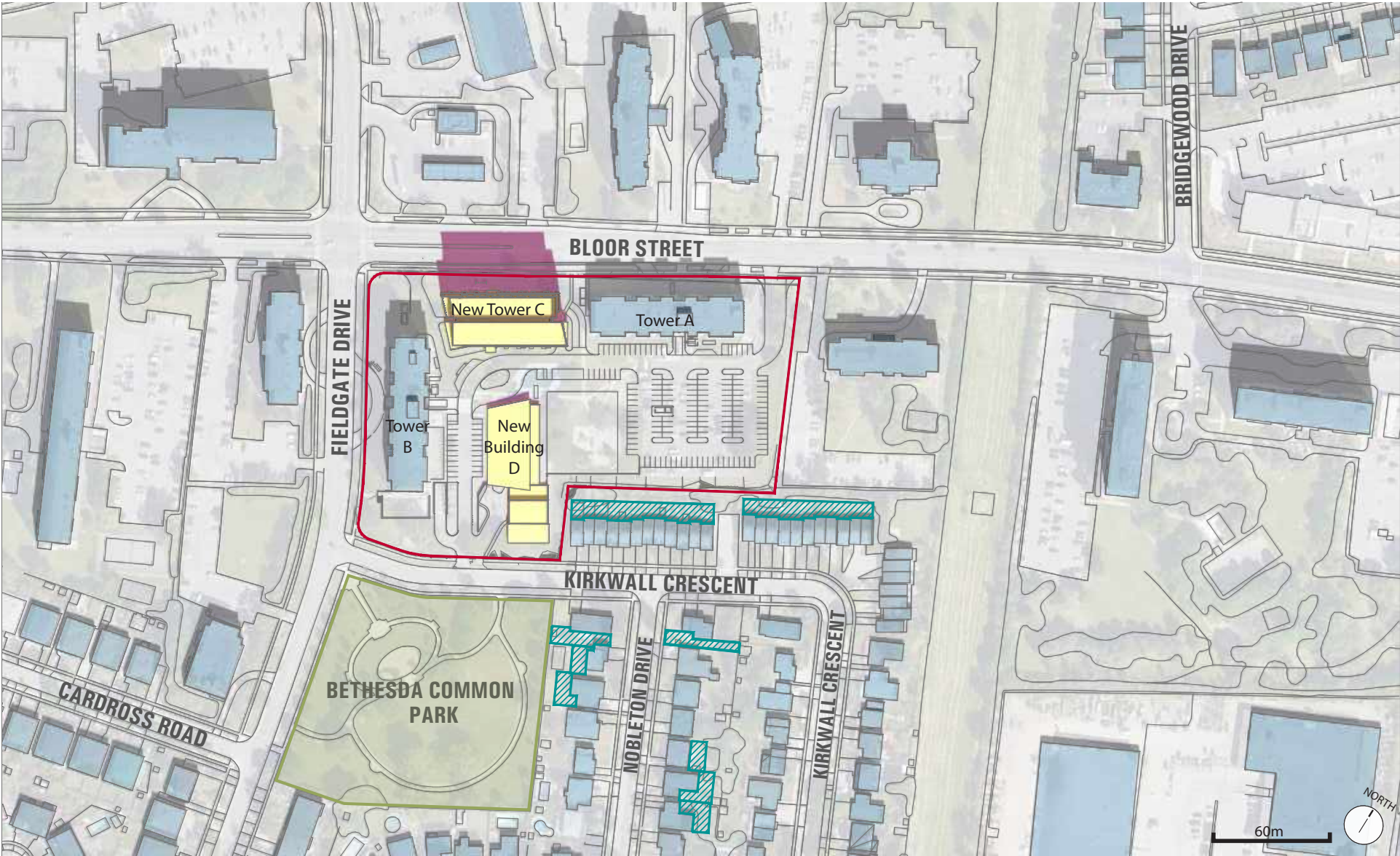
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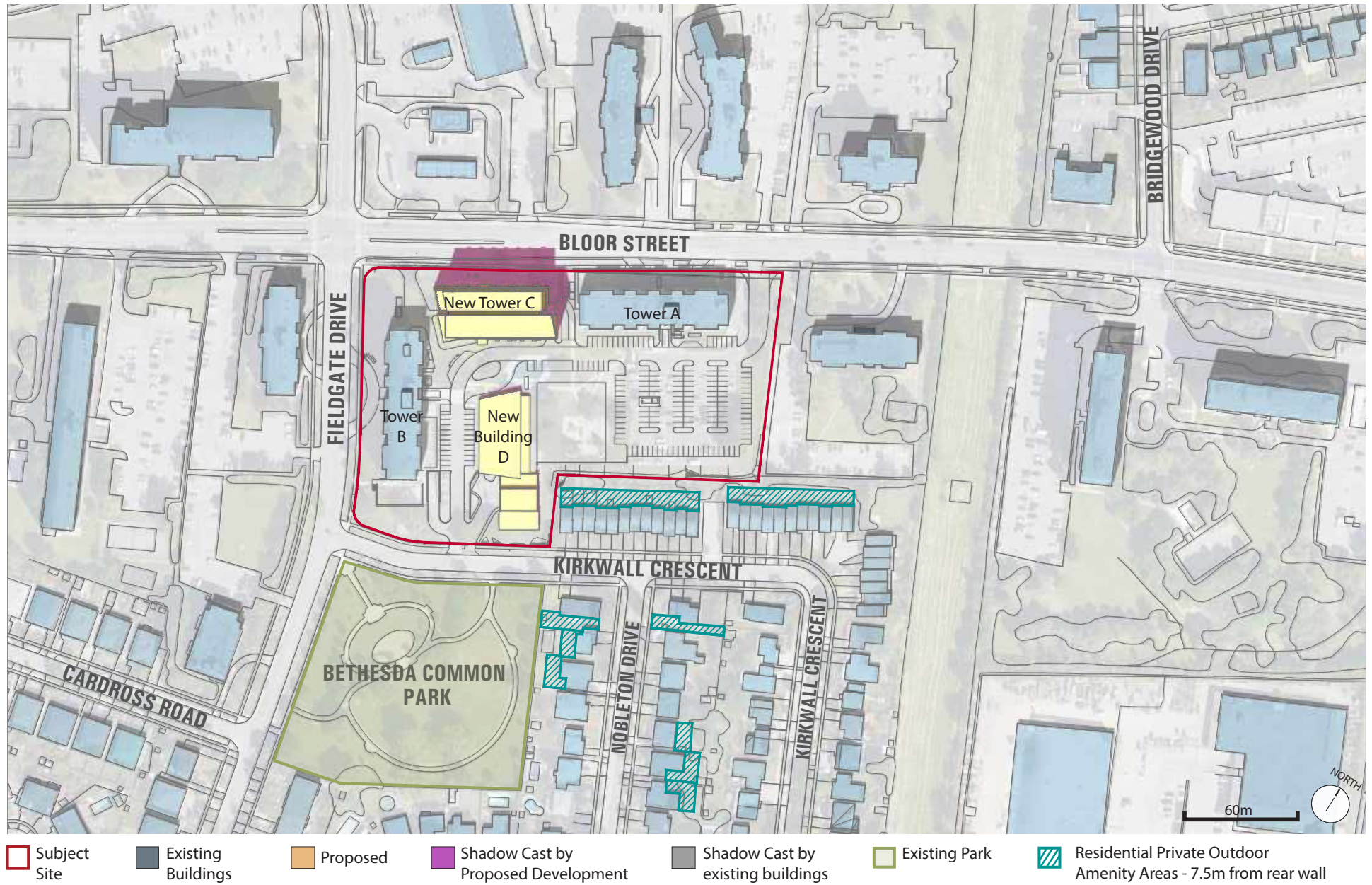
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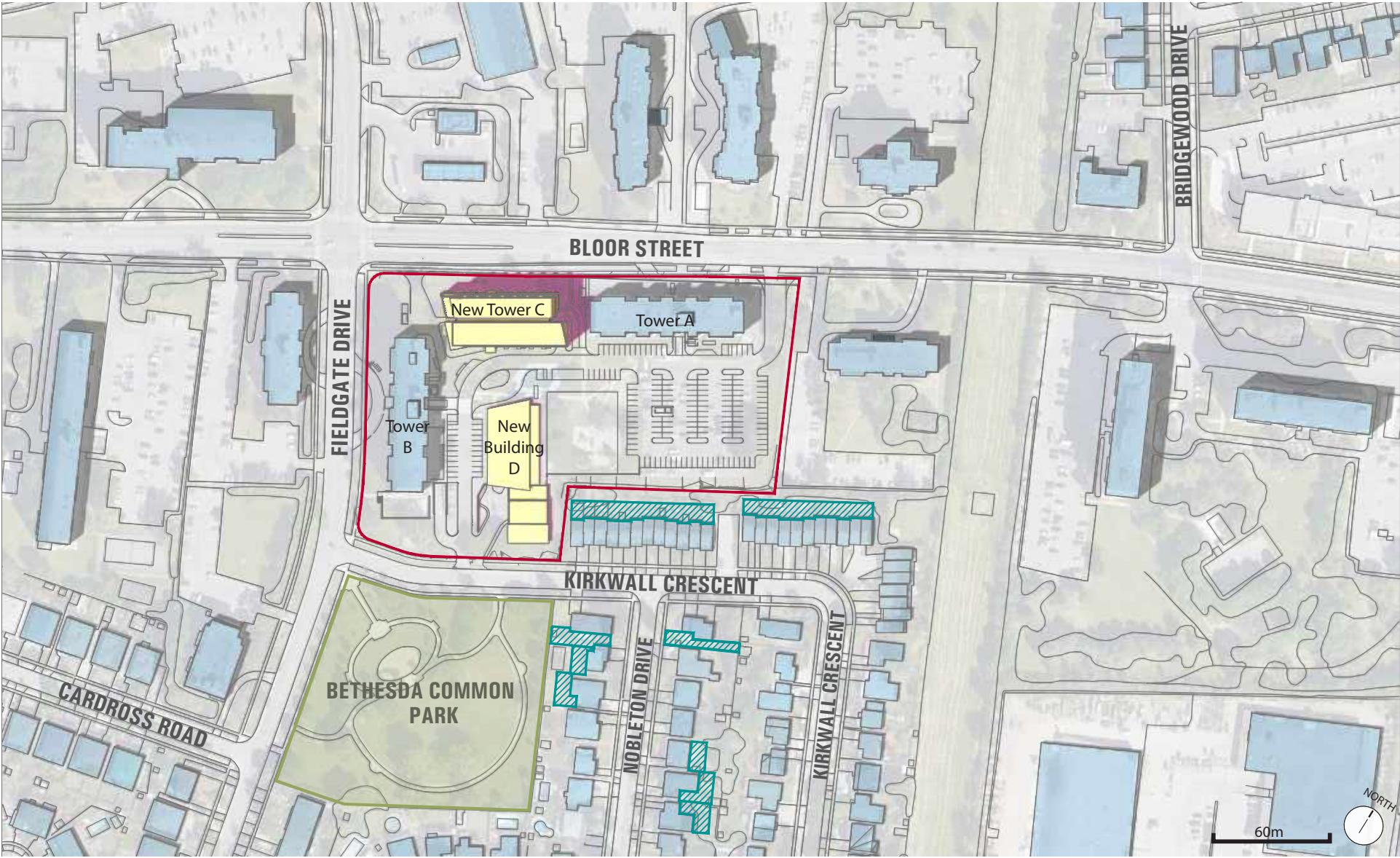


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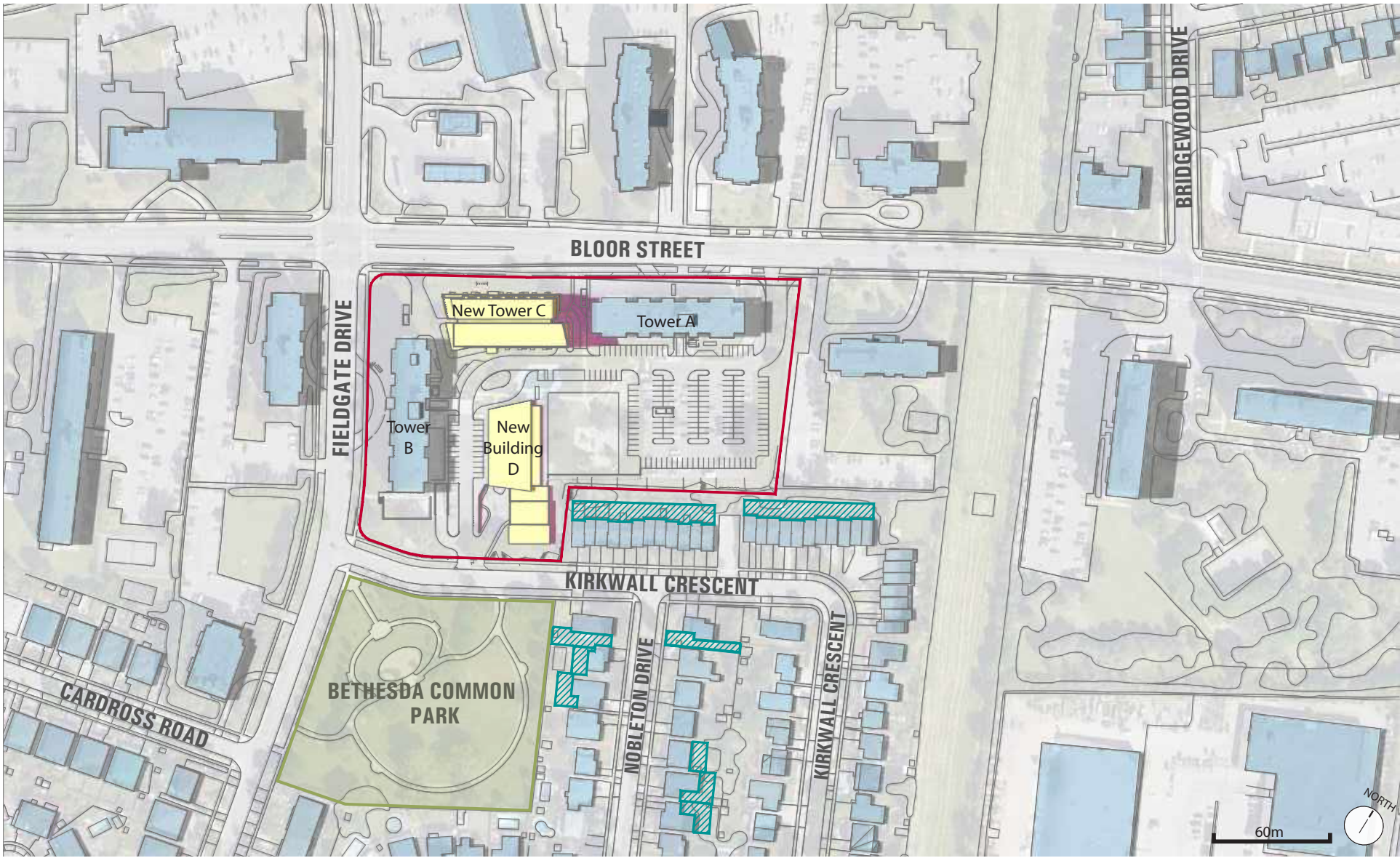


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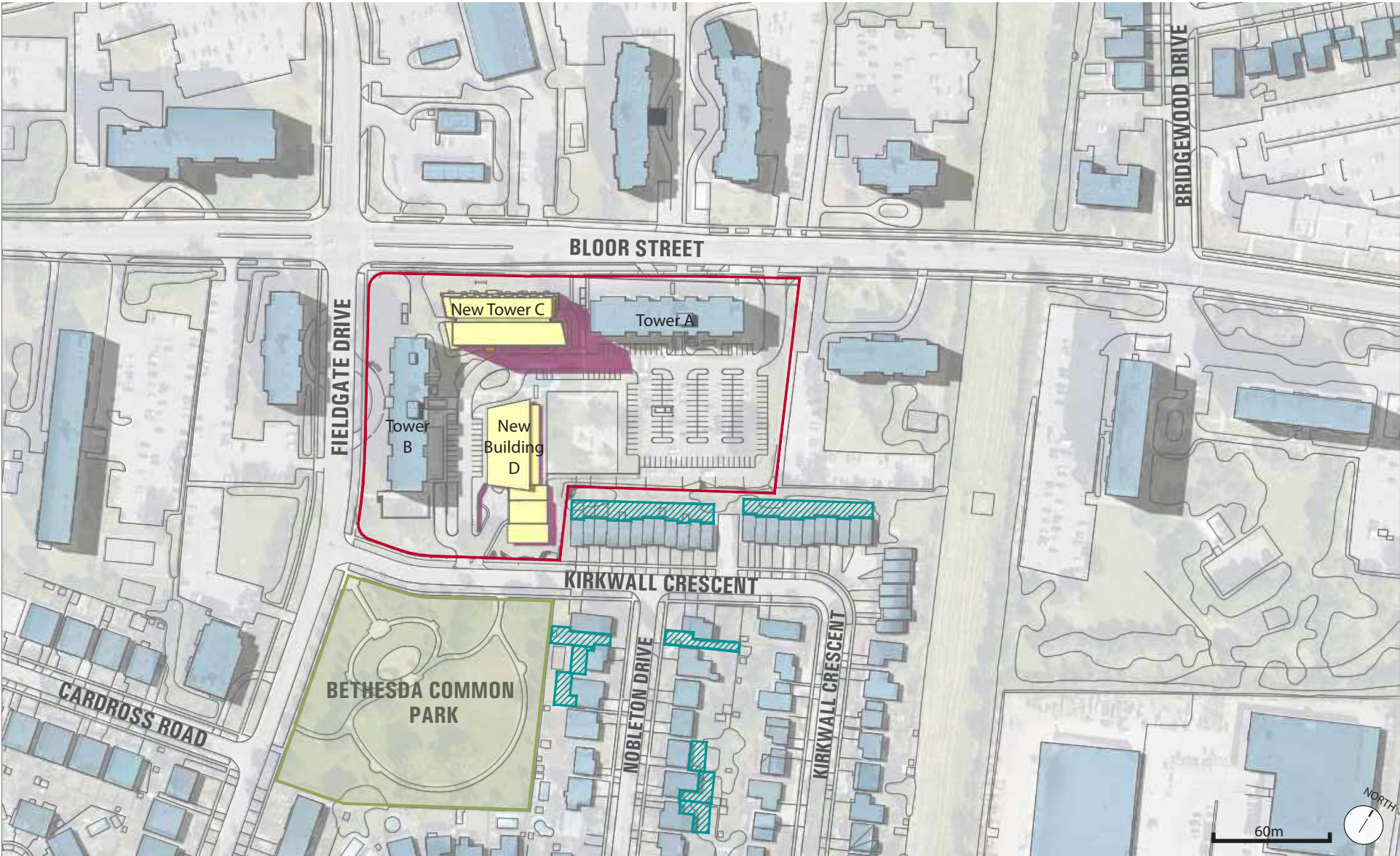




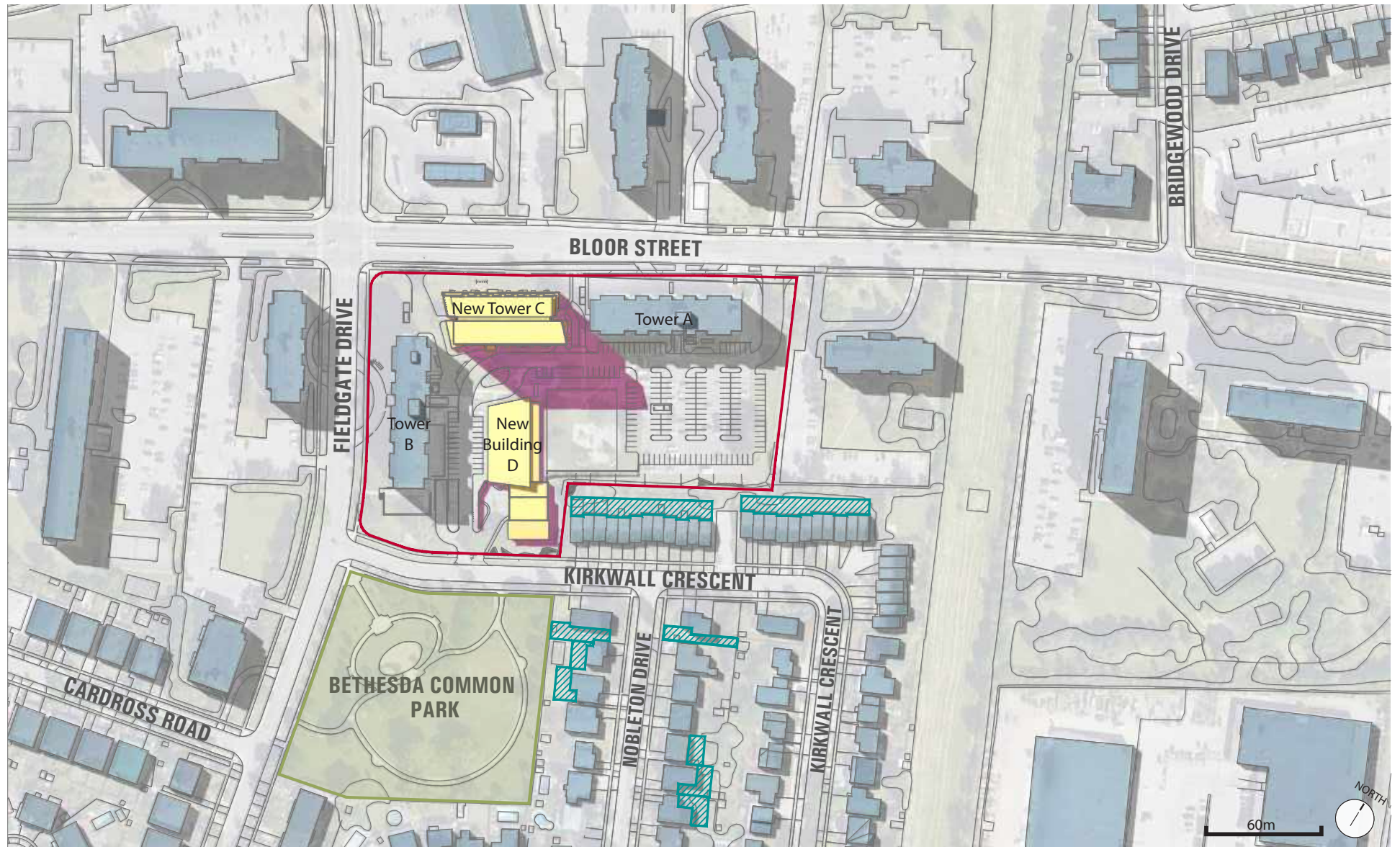
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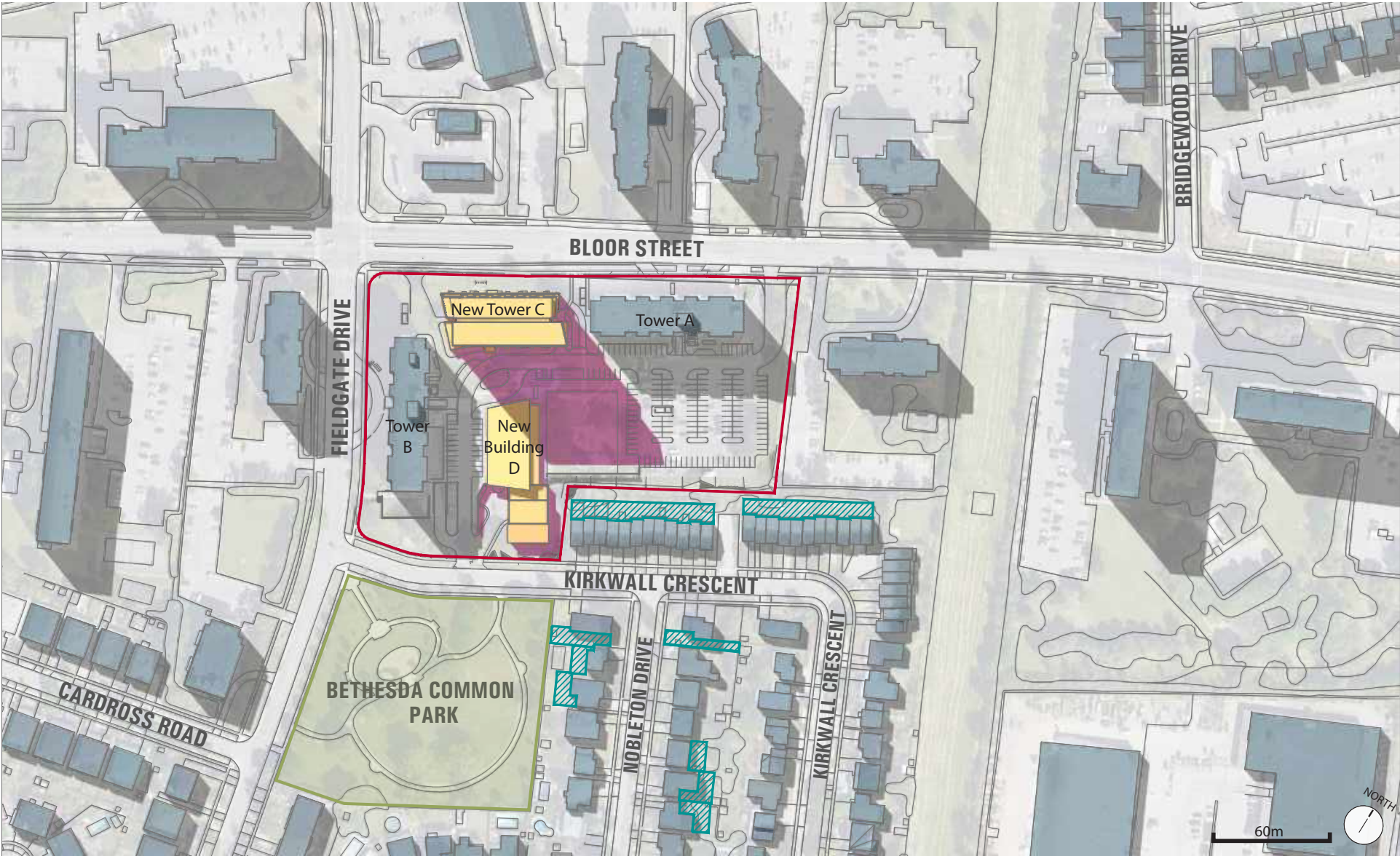
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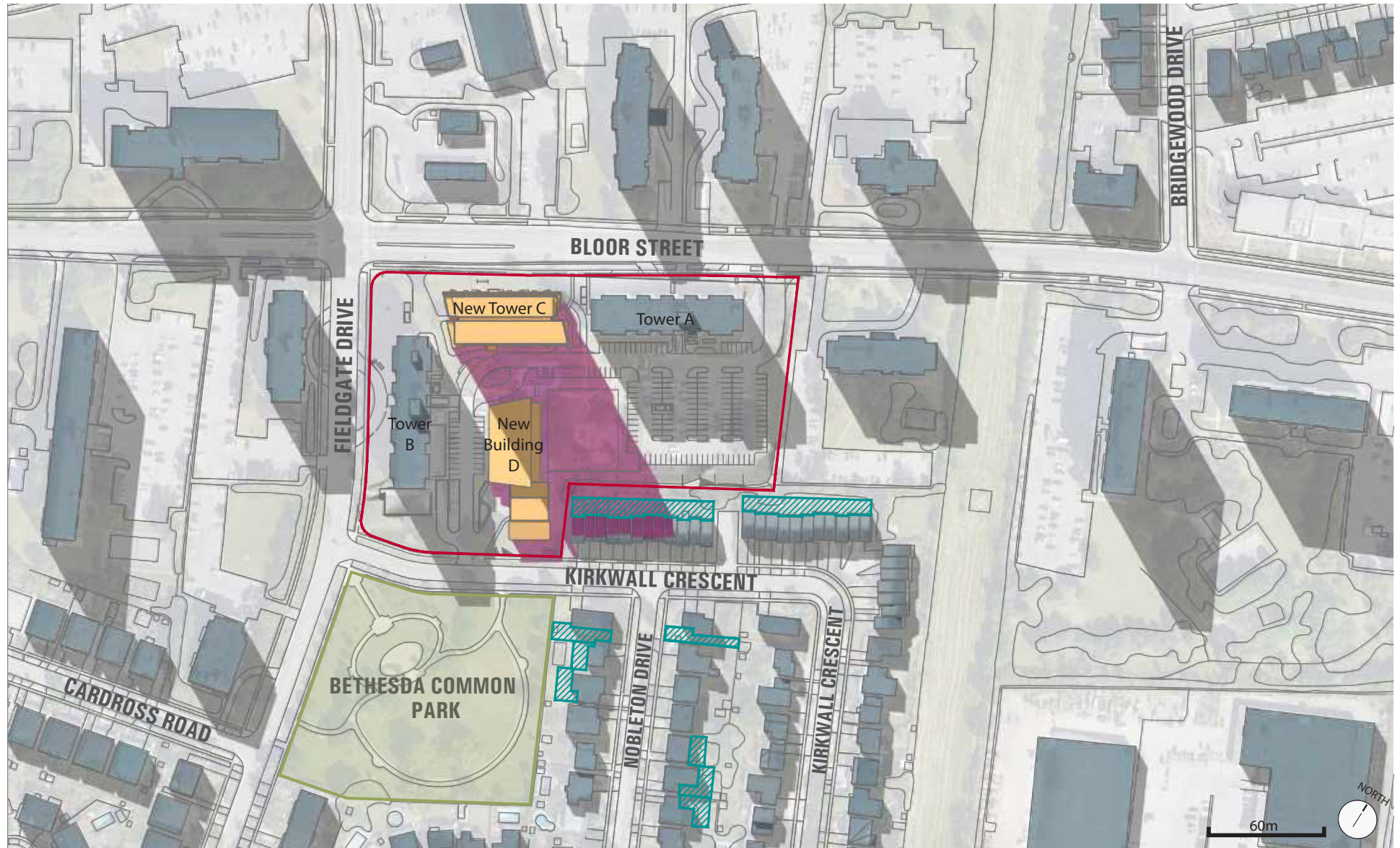
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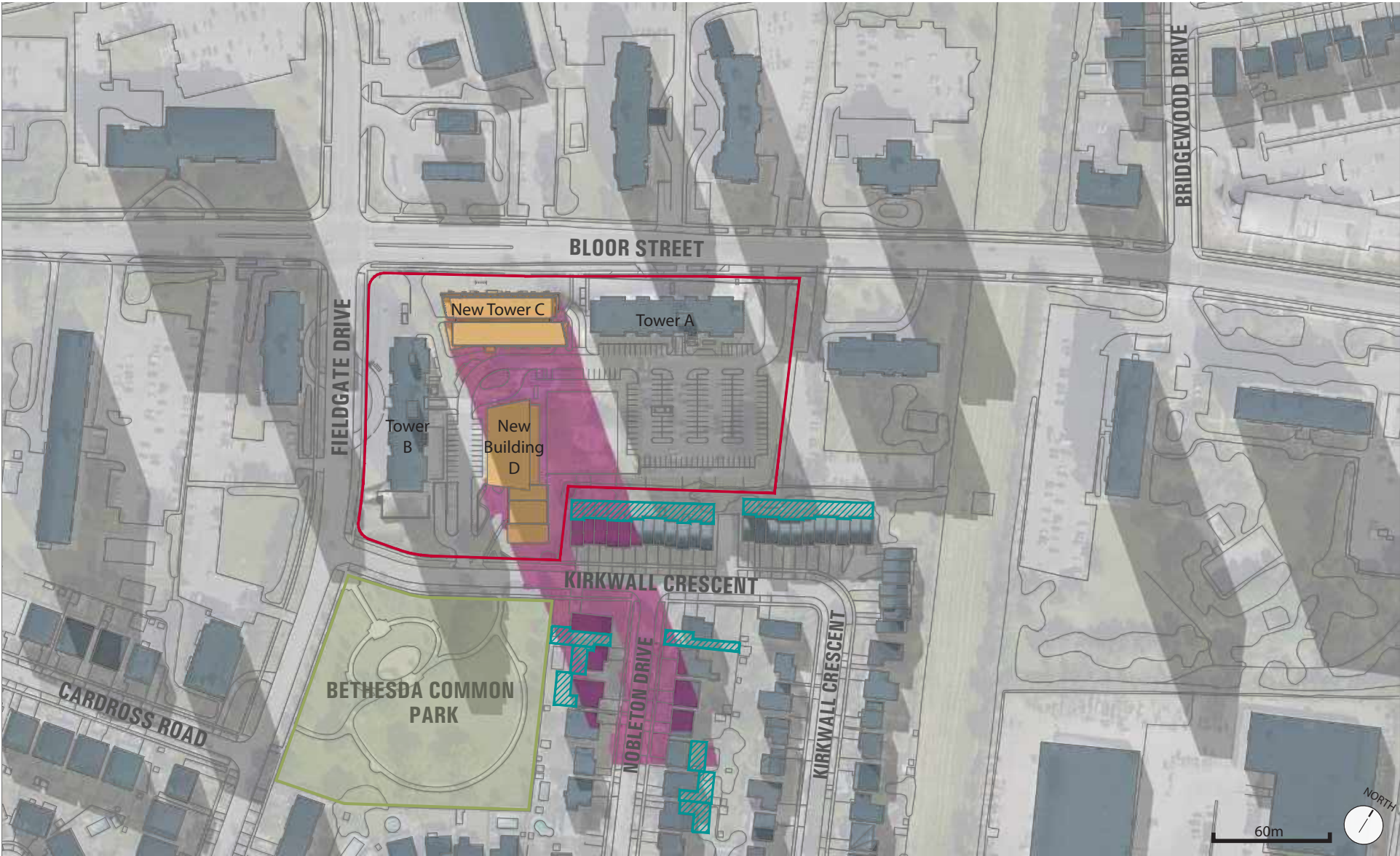
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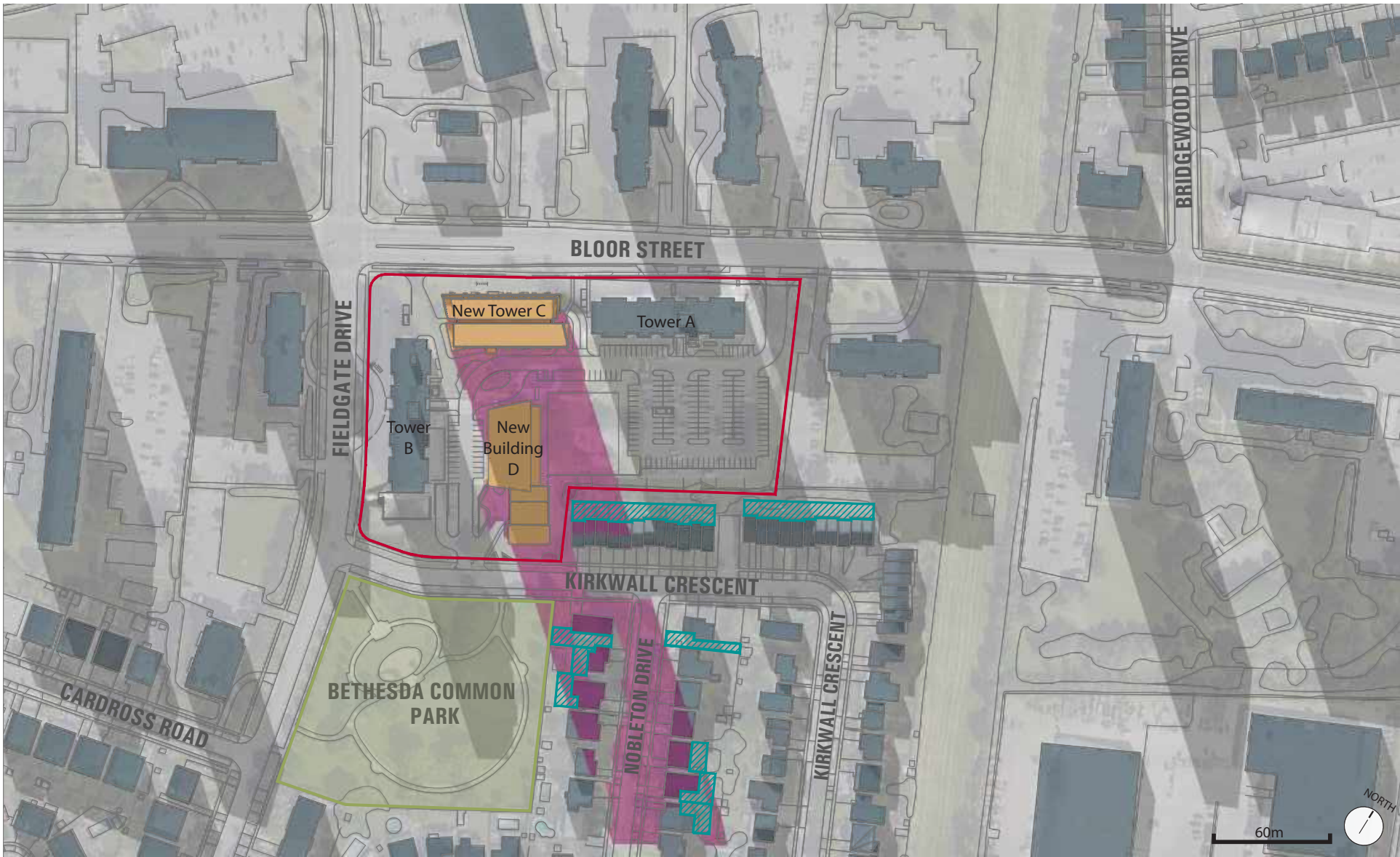
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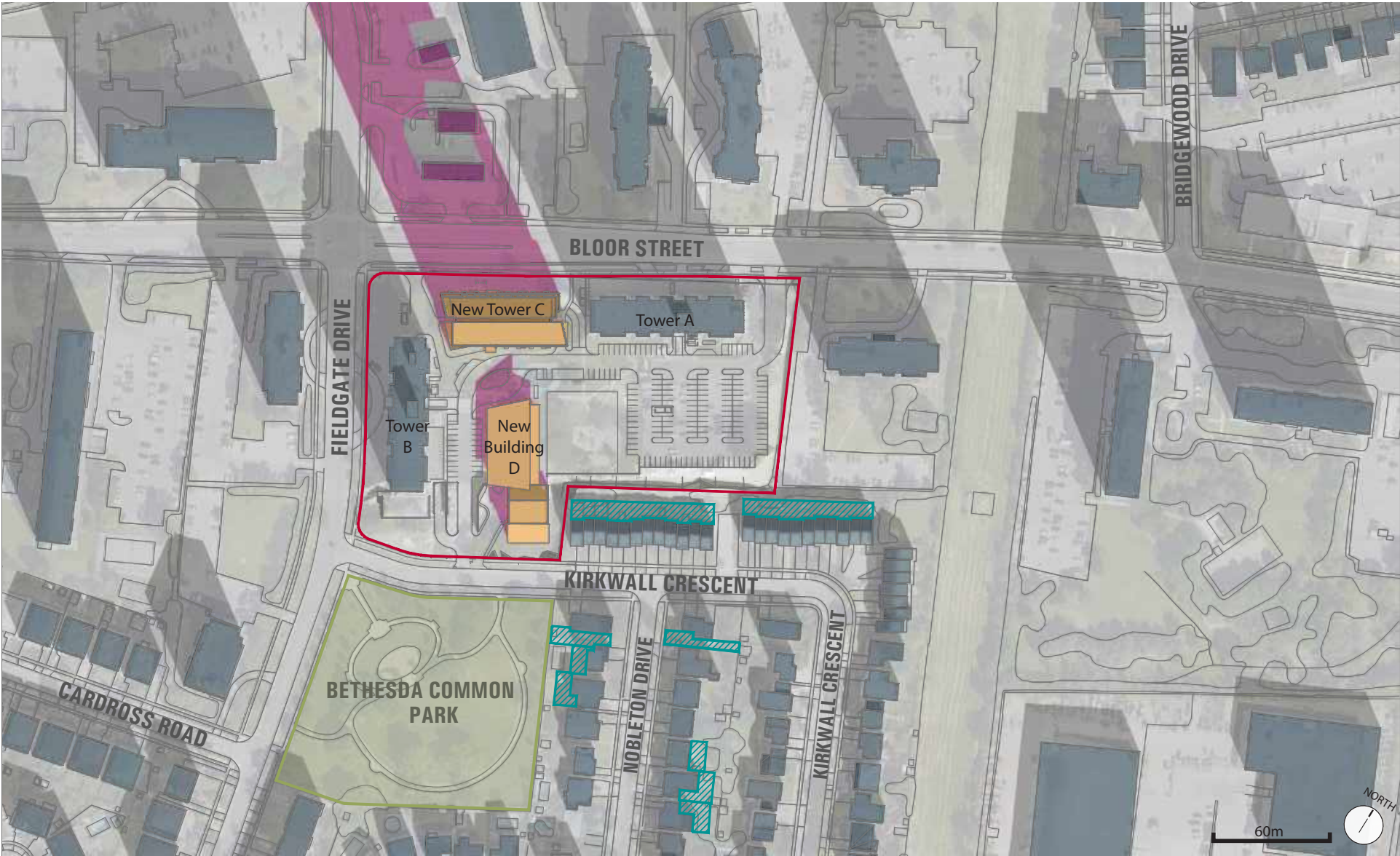
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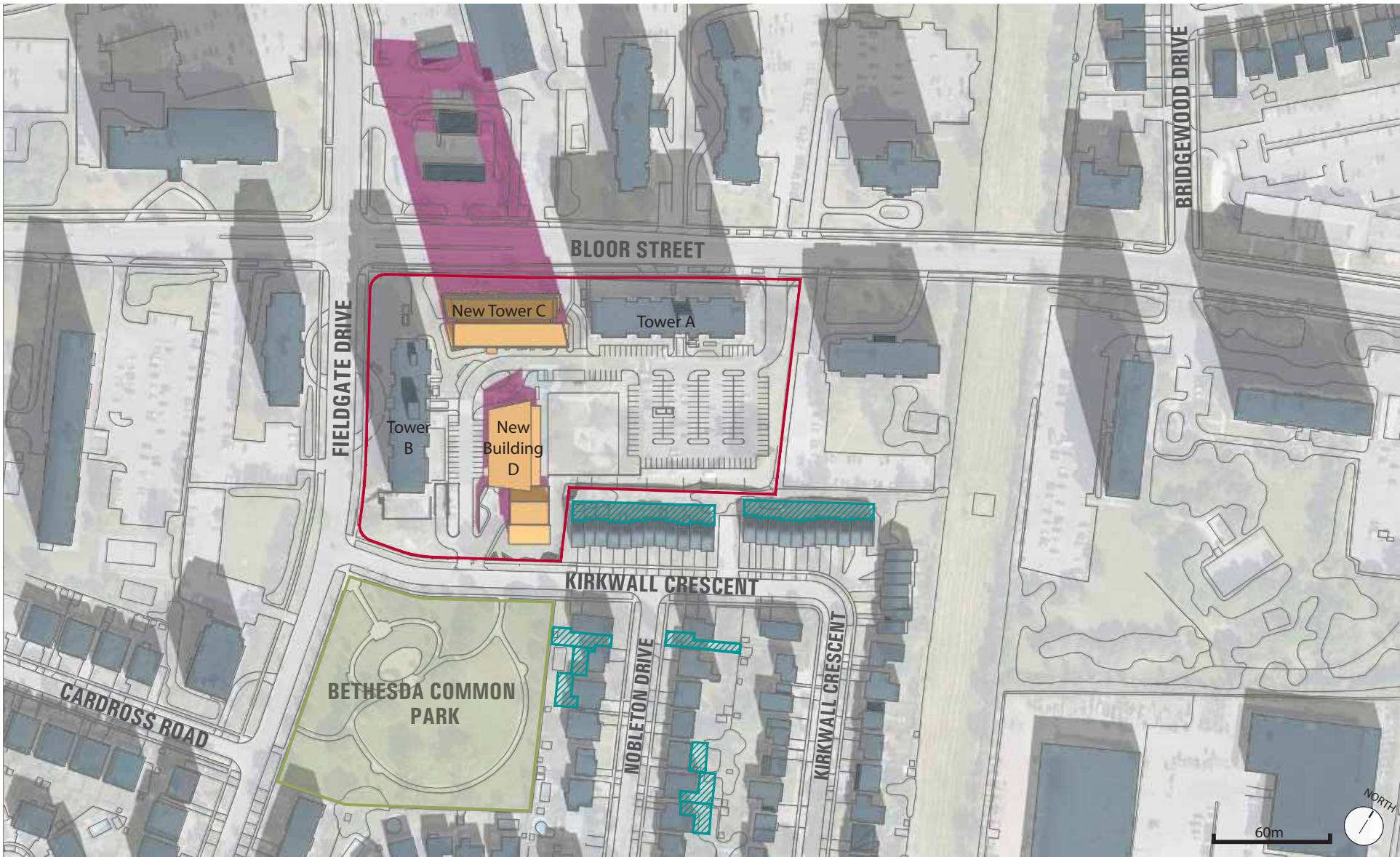
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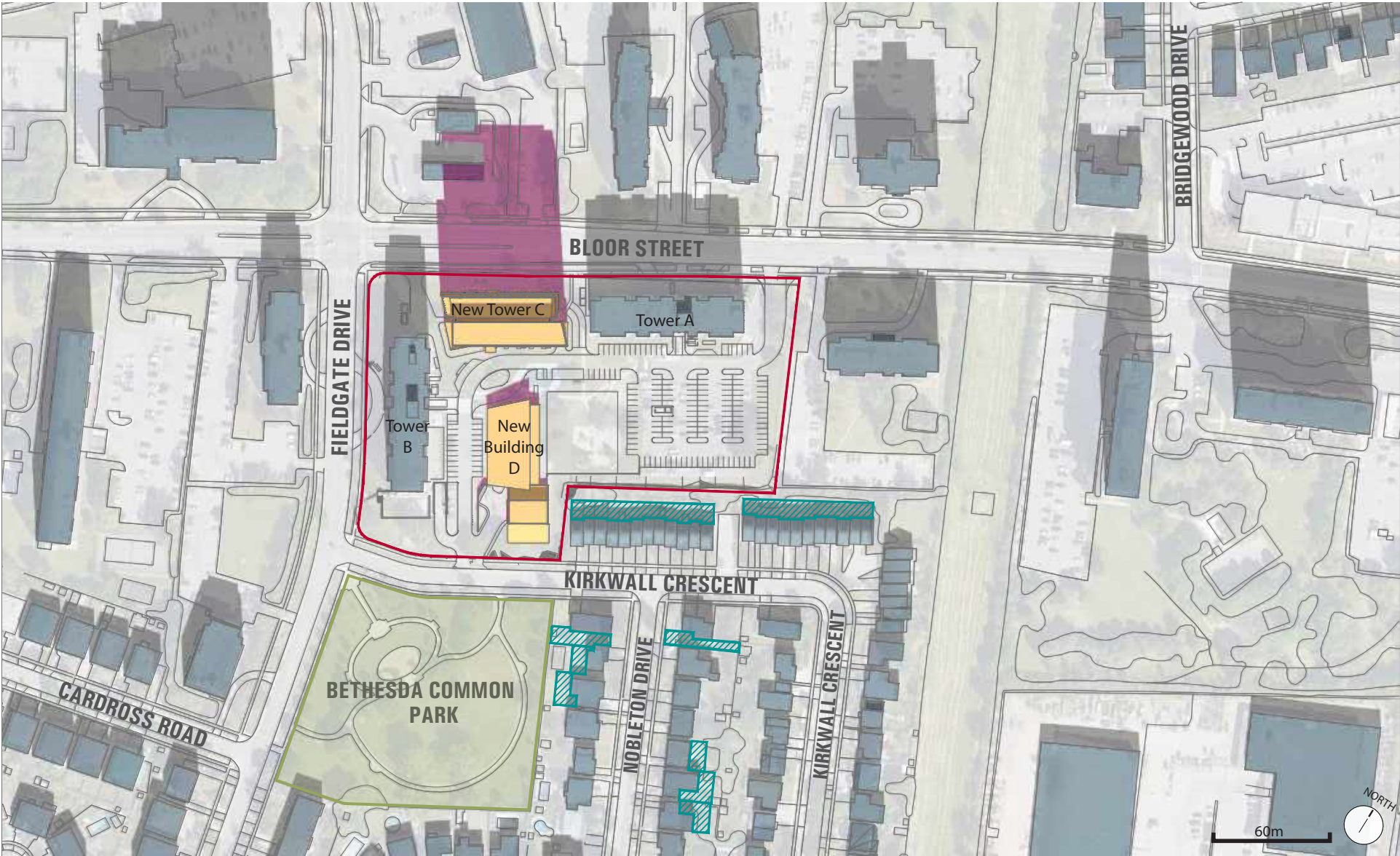
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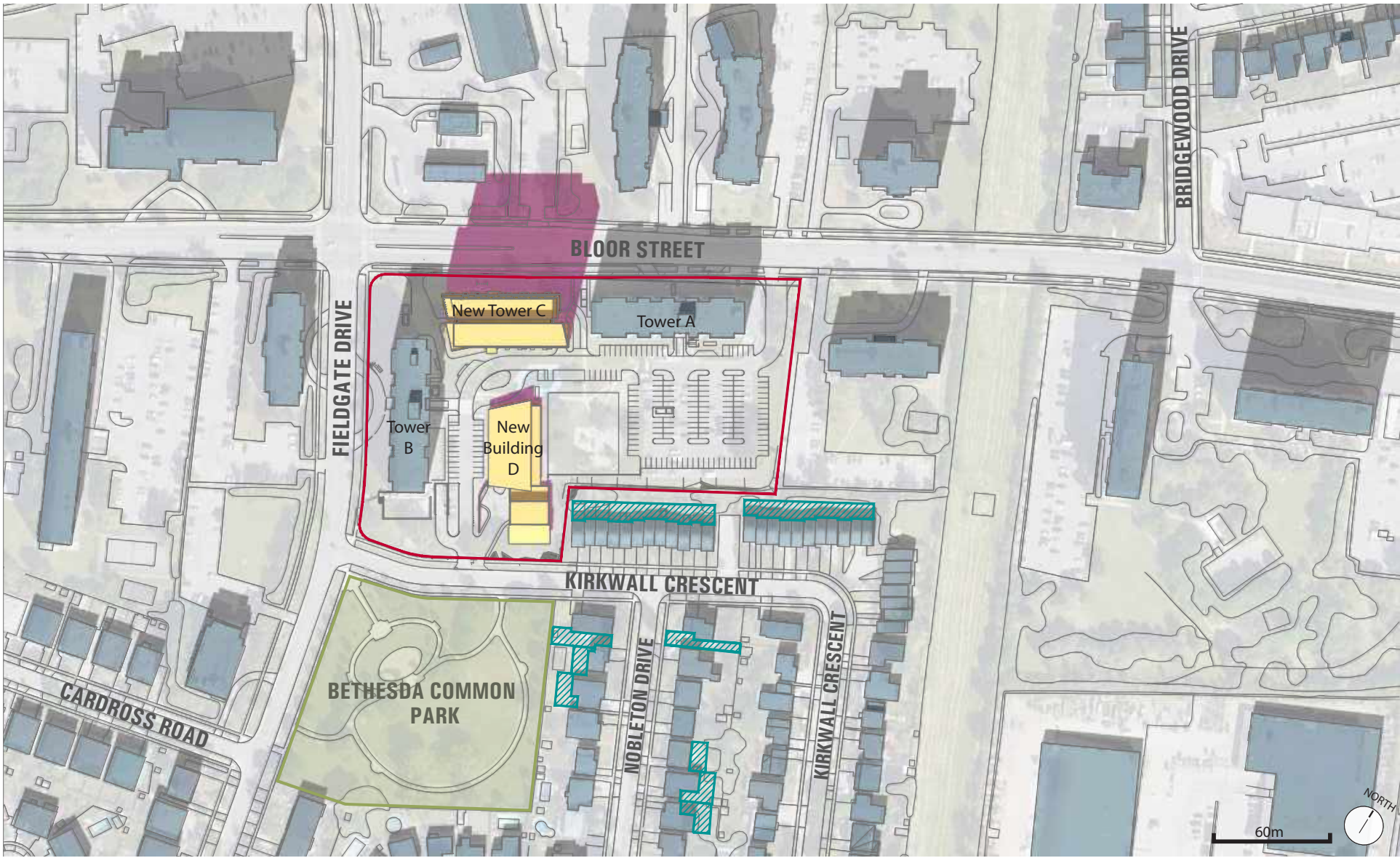
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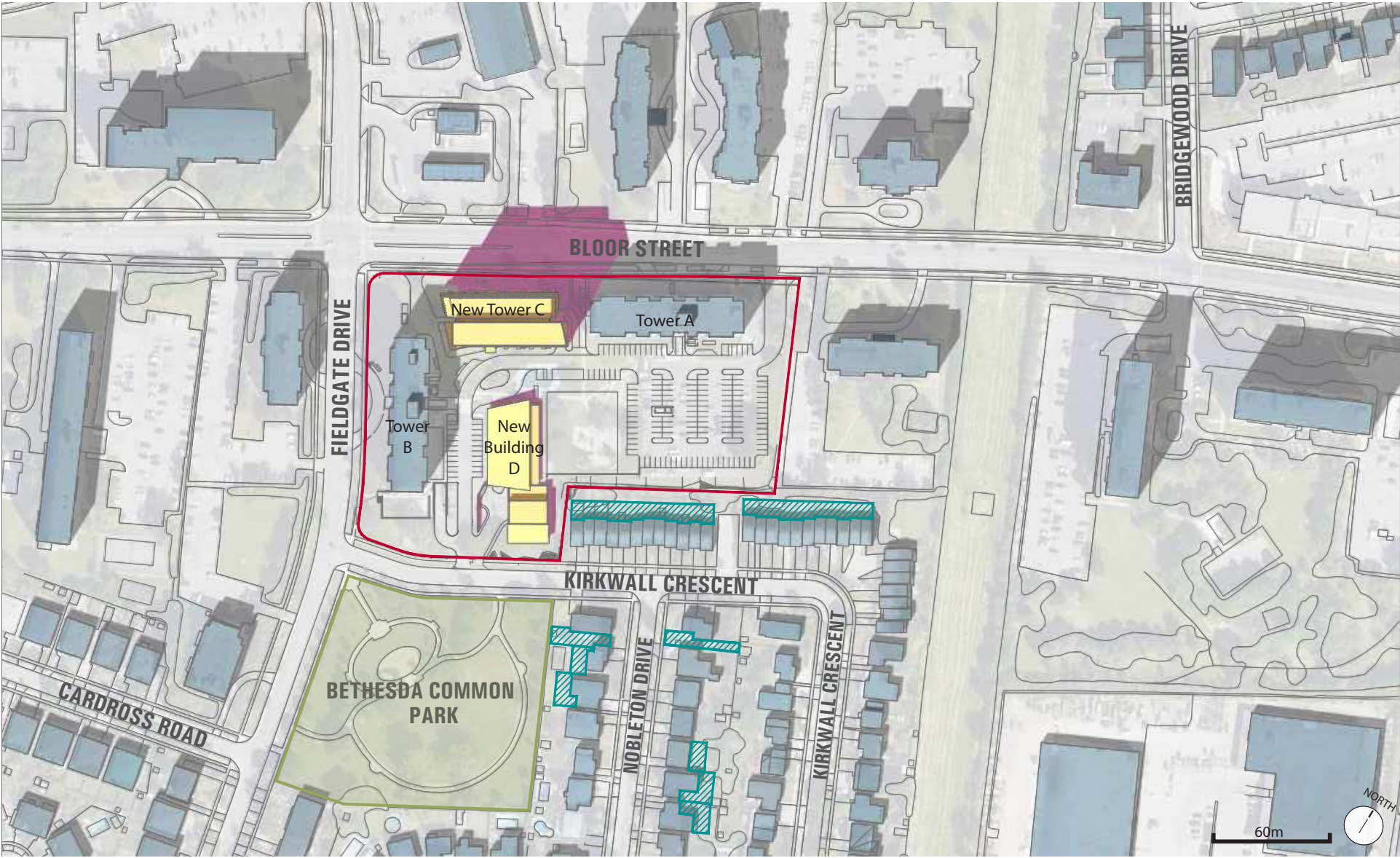
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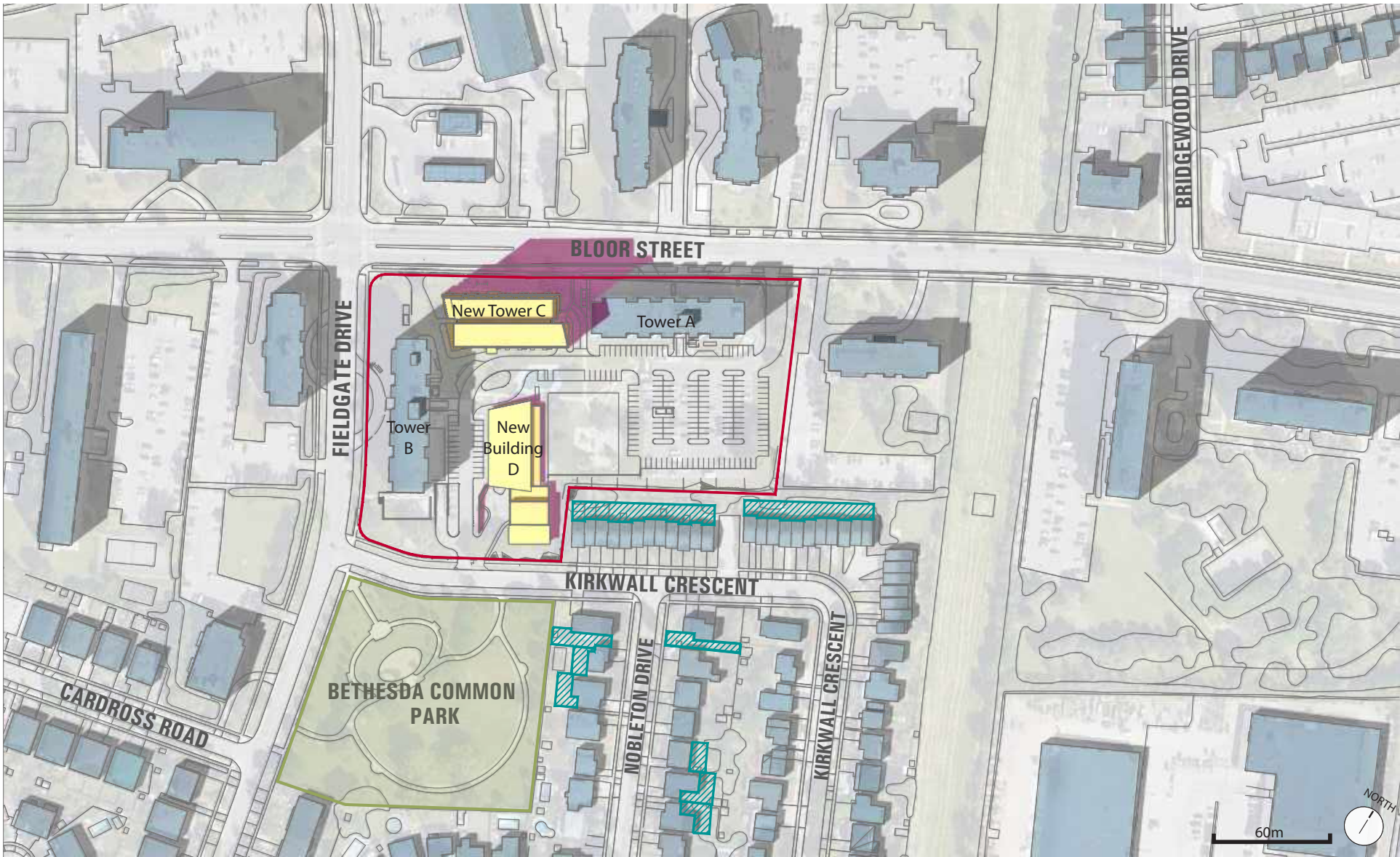
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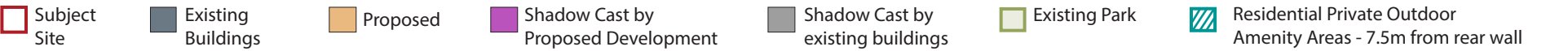
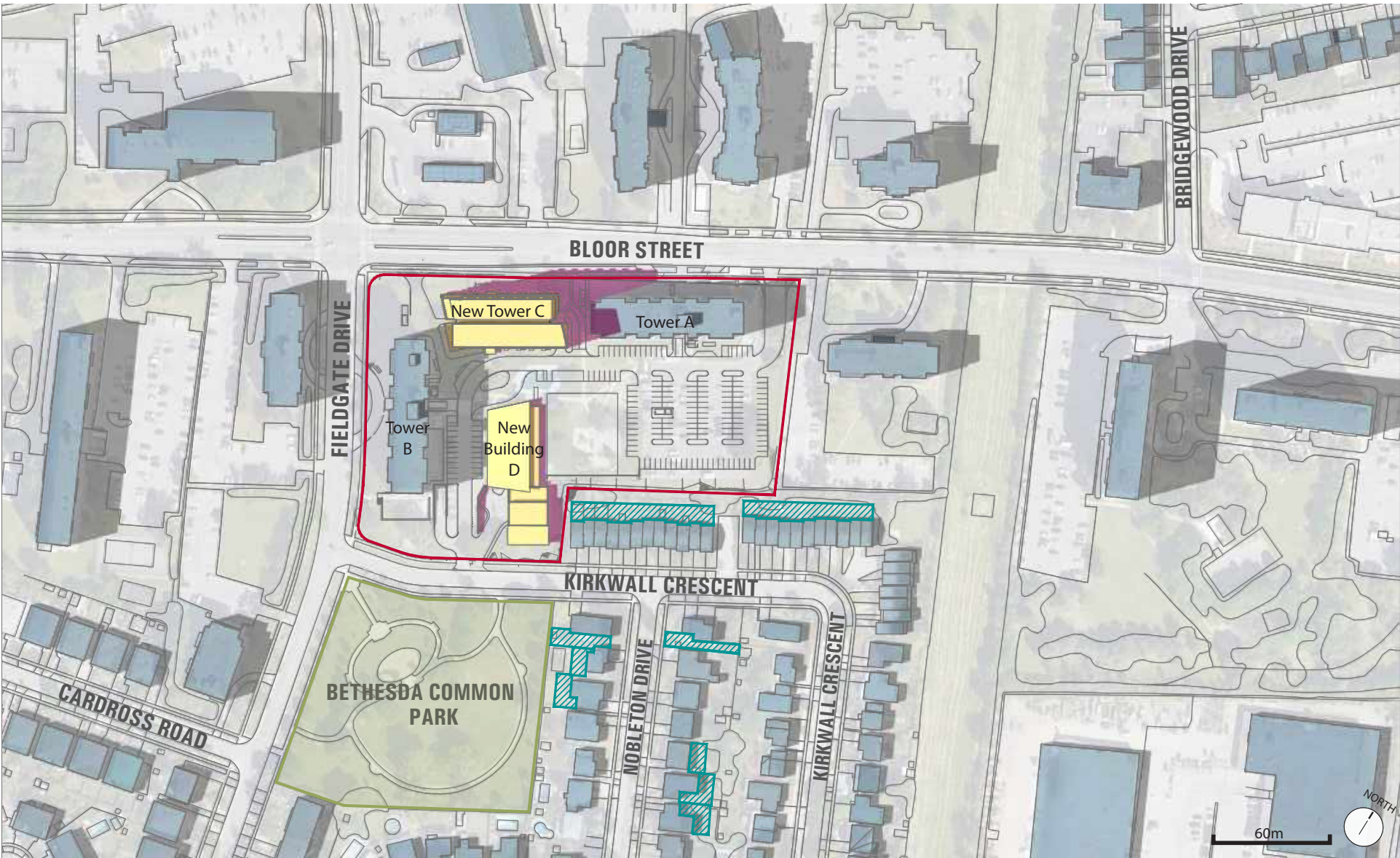
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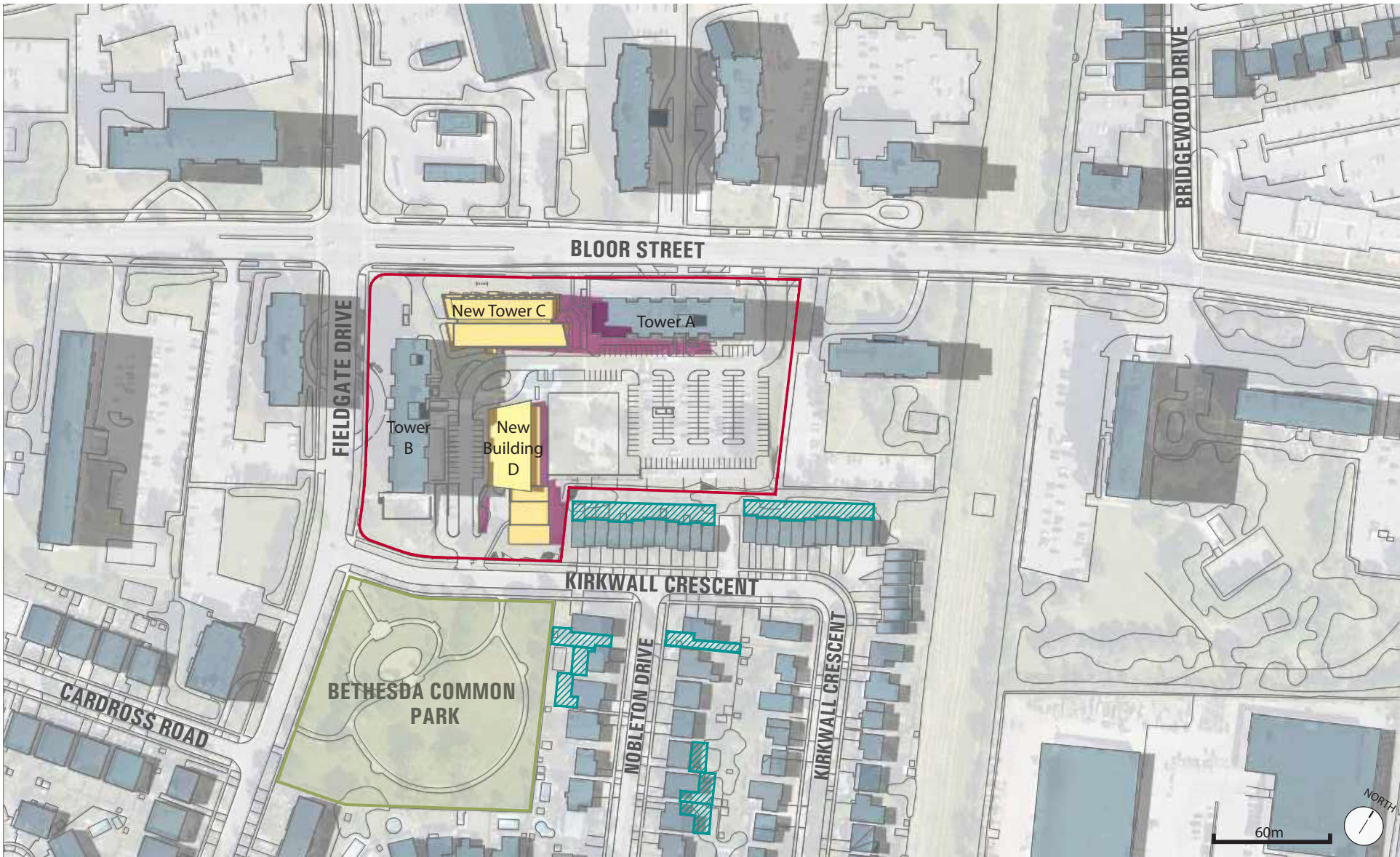


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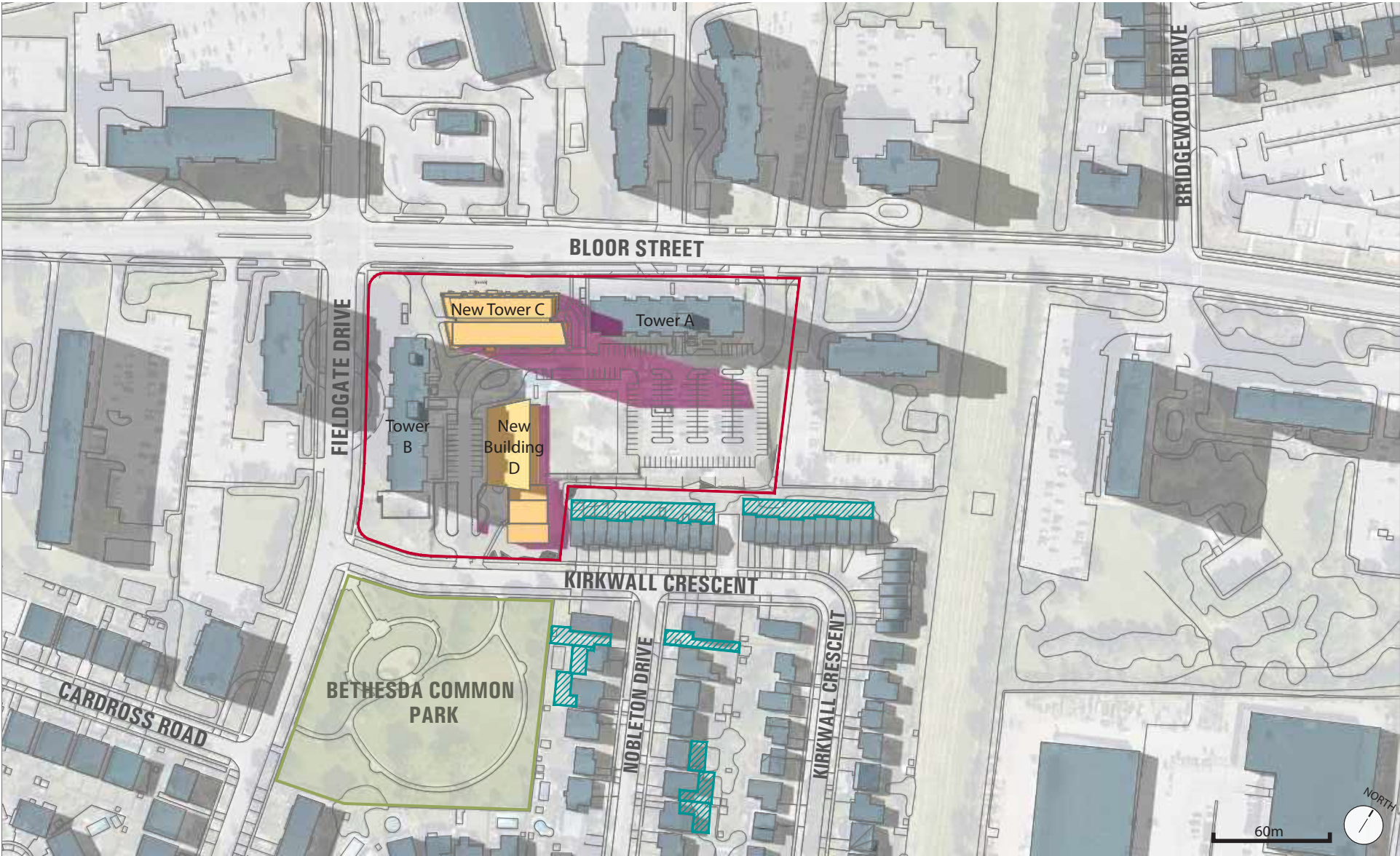


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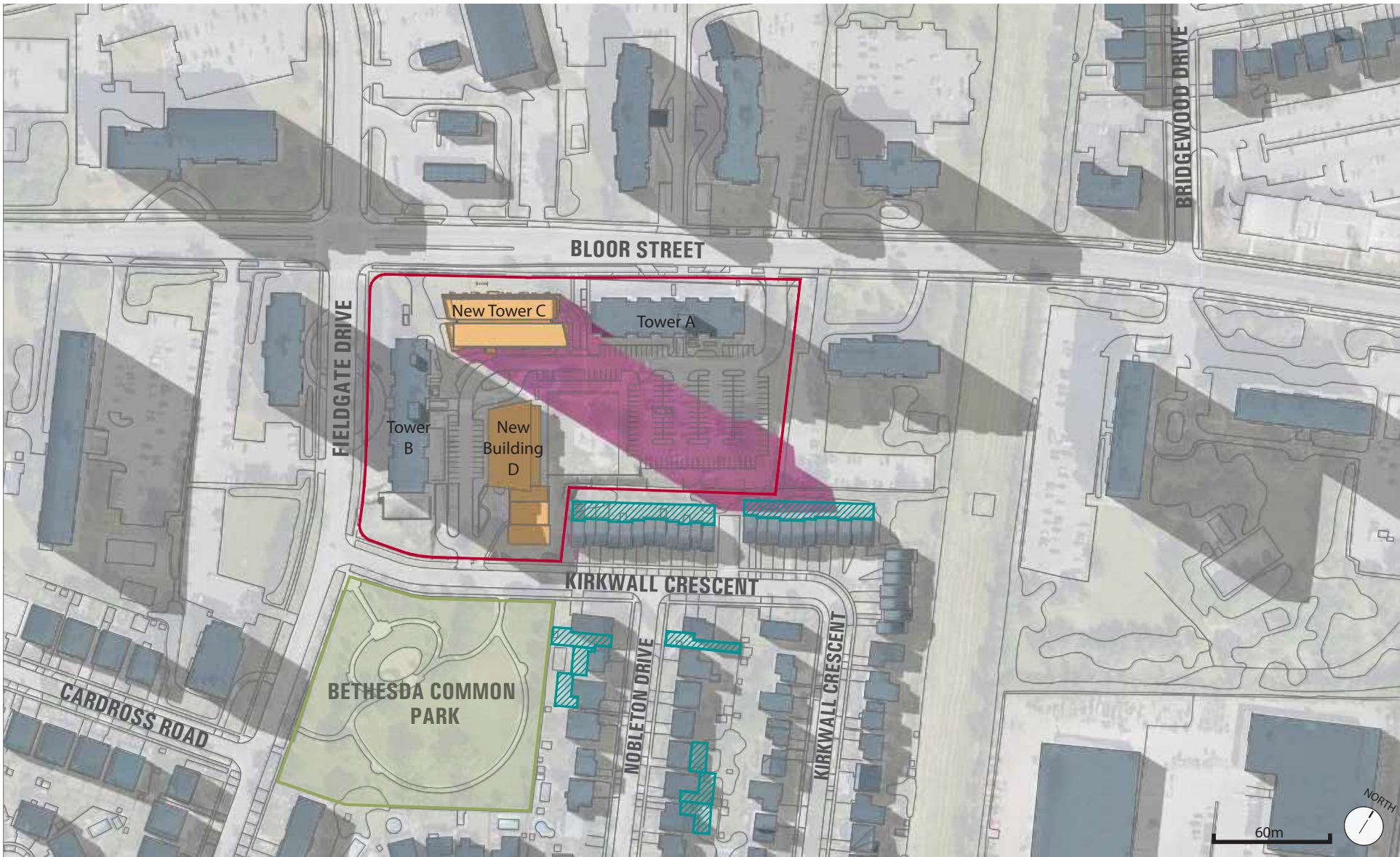




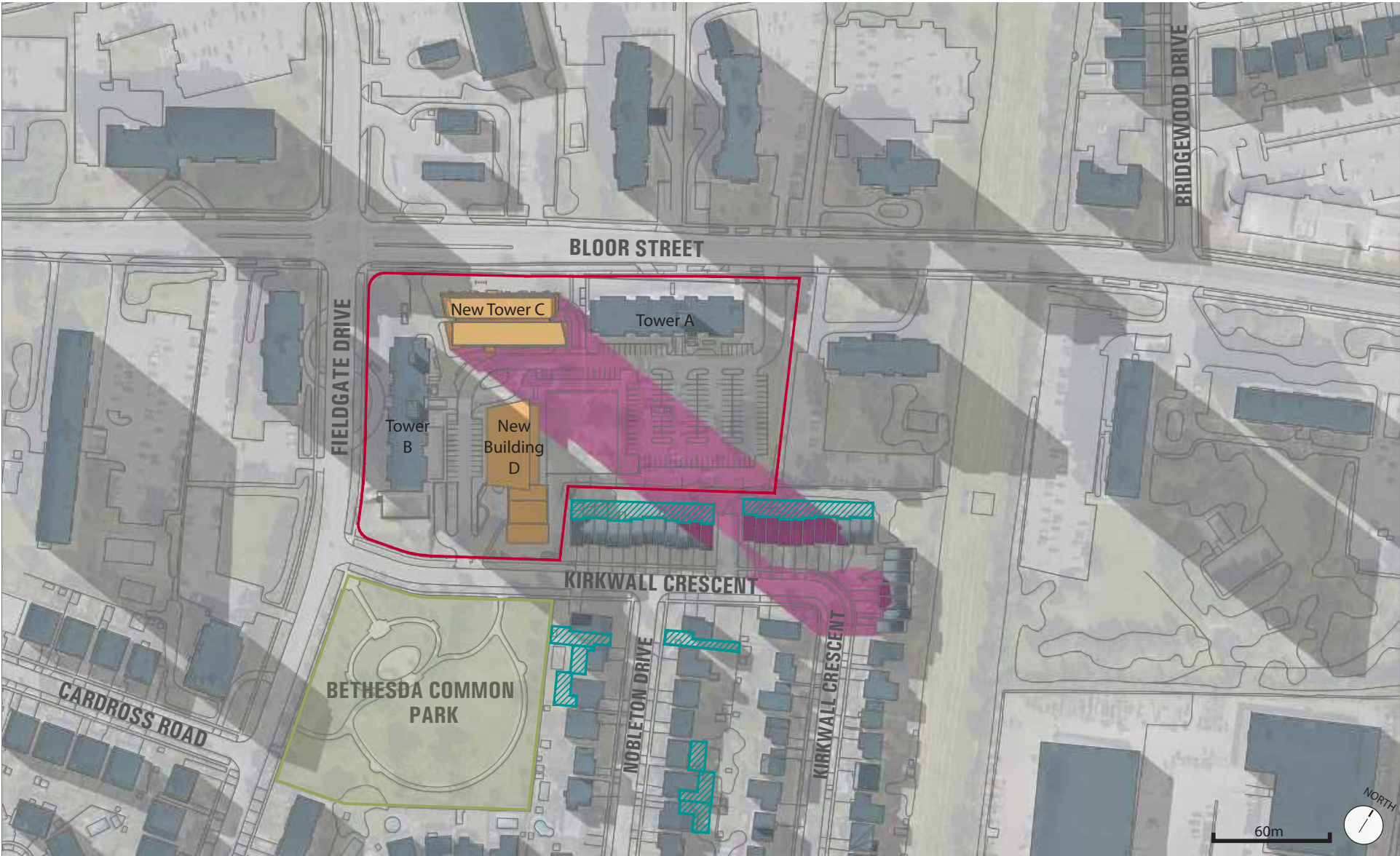
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3.0 COMMUNAL OUTDOOR AMENITY AREAS

Section 3.2 of the Mississauga Urban Design Terms of Reference - Standards for Shadow Studies requires the identification of communal outdoor amenity areas within the vicinity of the proposed developments. Areas outlined in purple were identified as communal outdoor amenity areas and include children's play areas, school yards, tot lots, and park features such as sandboxes, wading pools etc. It also includes outdoor amenity areas used by seniors and those associated with commercial and employment areas.

Testing times include June 21st, September 21st, and December 21st.

As defined by the Terms of Reference, shadows from a proposed development should allow for full sun on identified areas at least half the time, or 50% sun coverage all the time. If the "sun access factor" is at least 50% or 0.5 on each of the test dates ($As(ave)/AT = 0.5$ or more), then the shadow impact is considered to be in compliance with these terms of reference.

The findings of the shadow analysis show that the proposal for full sun on the communal outdoor amenity areas are in accordance with this standard. As such, the criteria for section 3.2 is met.

For more details, please refer to Section 8. Calculations for details (page 107).

Figure 2 - Communal outdoor amenity areas key map identifies all areas in the vicinity that receive shadow from the proposal.

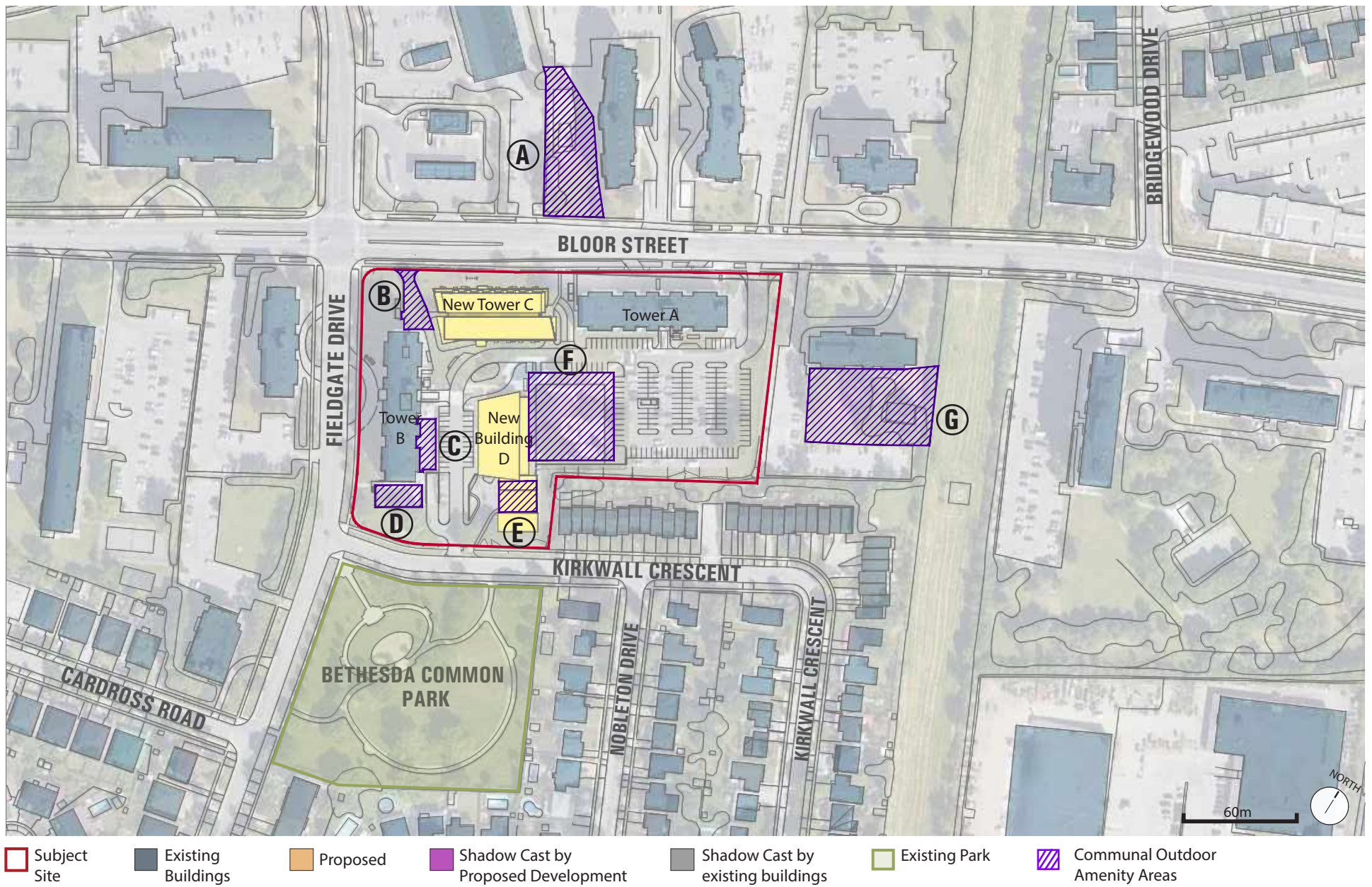
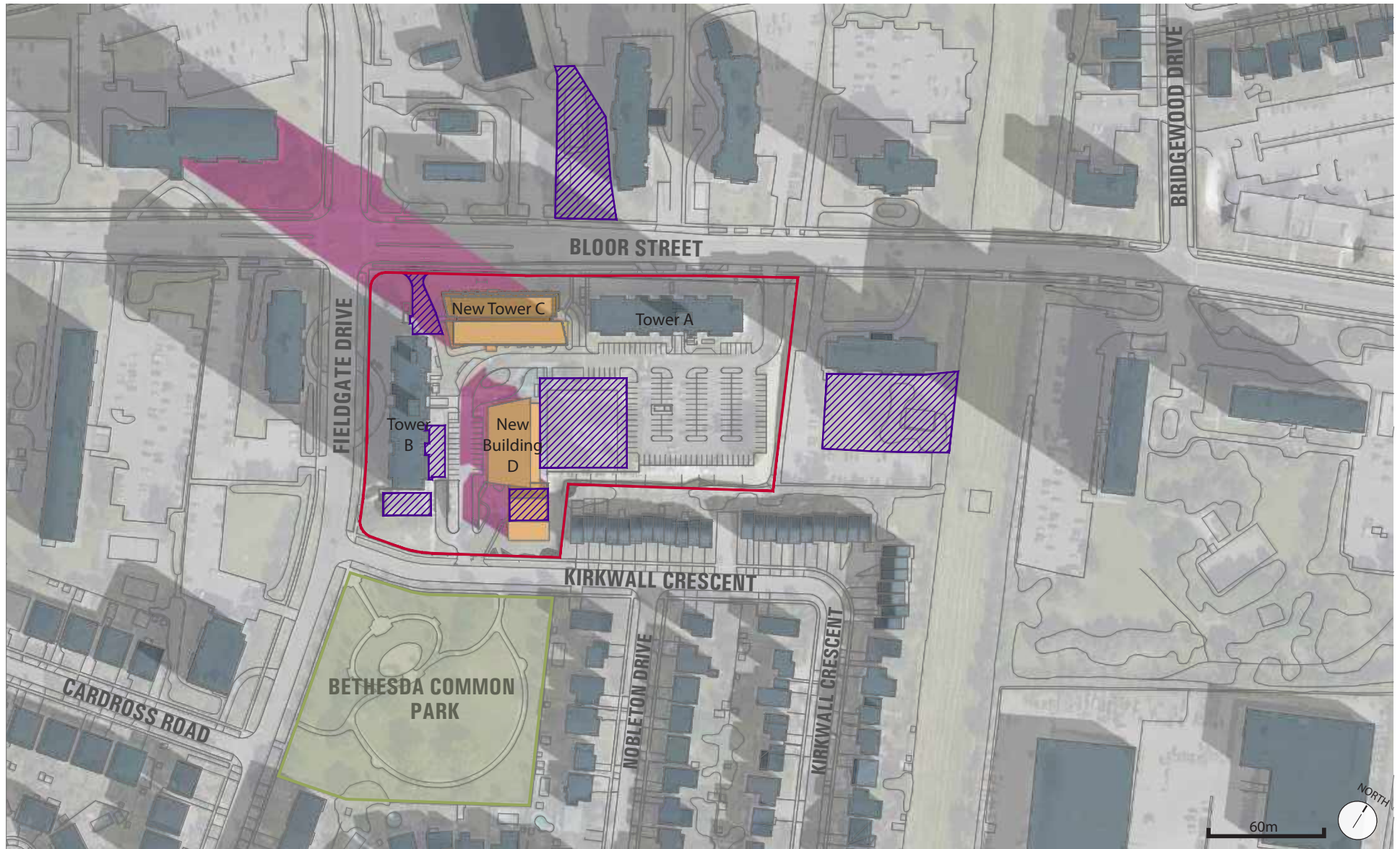


Figure 2 - Communal outdoor amenity areas key map



Subject Site

Existing Buildings

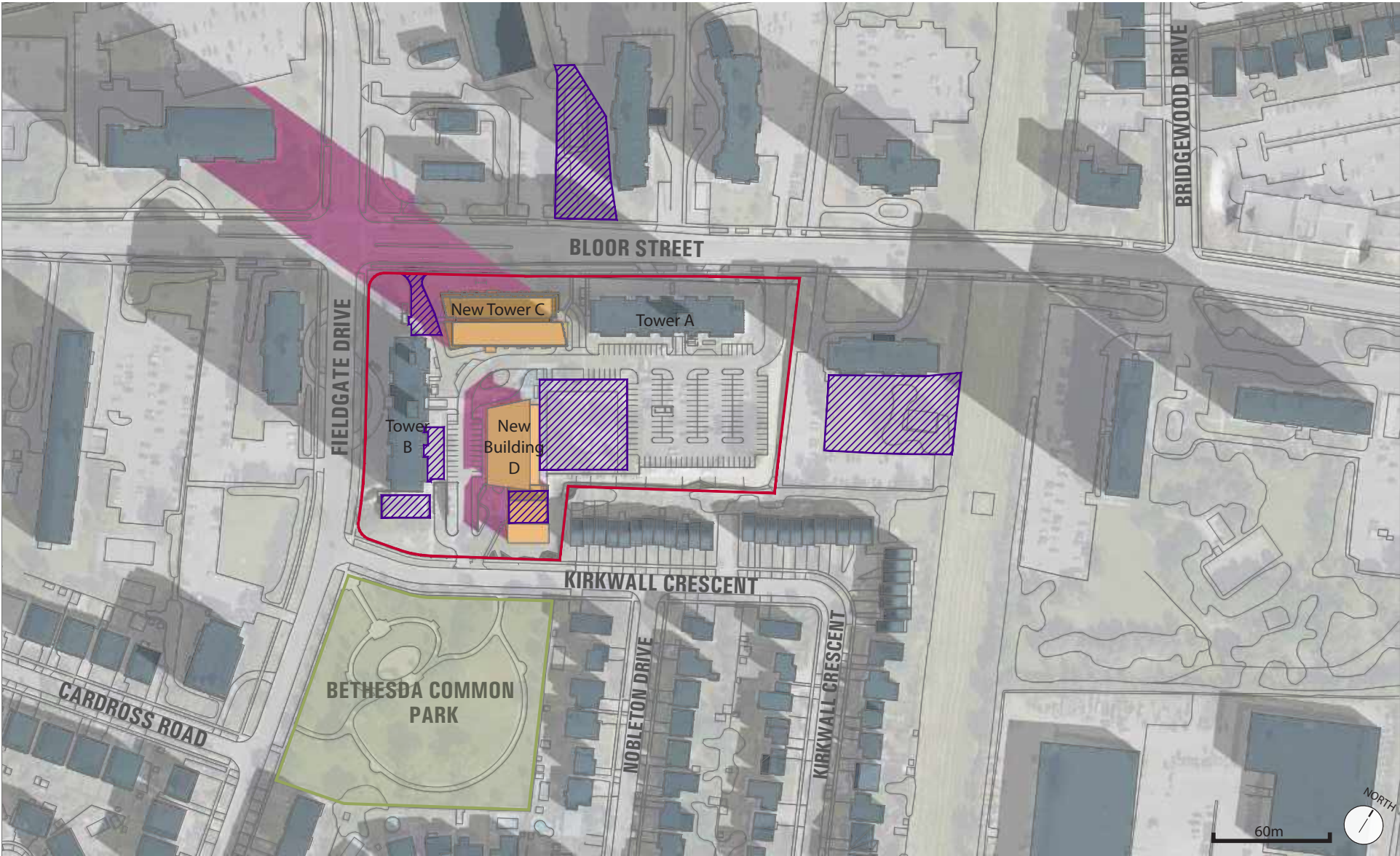
Proposed

Shadow Cast by Proposed Development

Shadow Cast by existing buildings

Existing Park

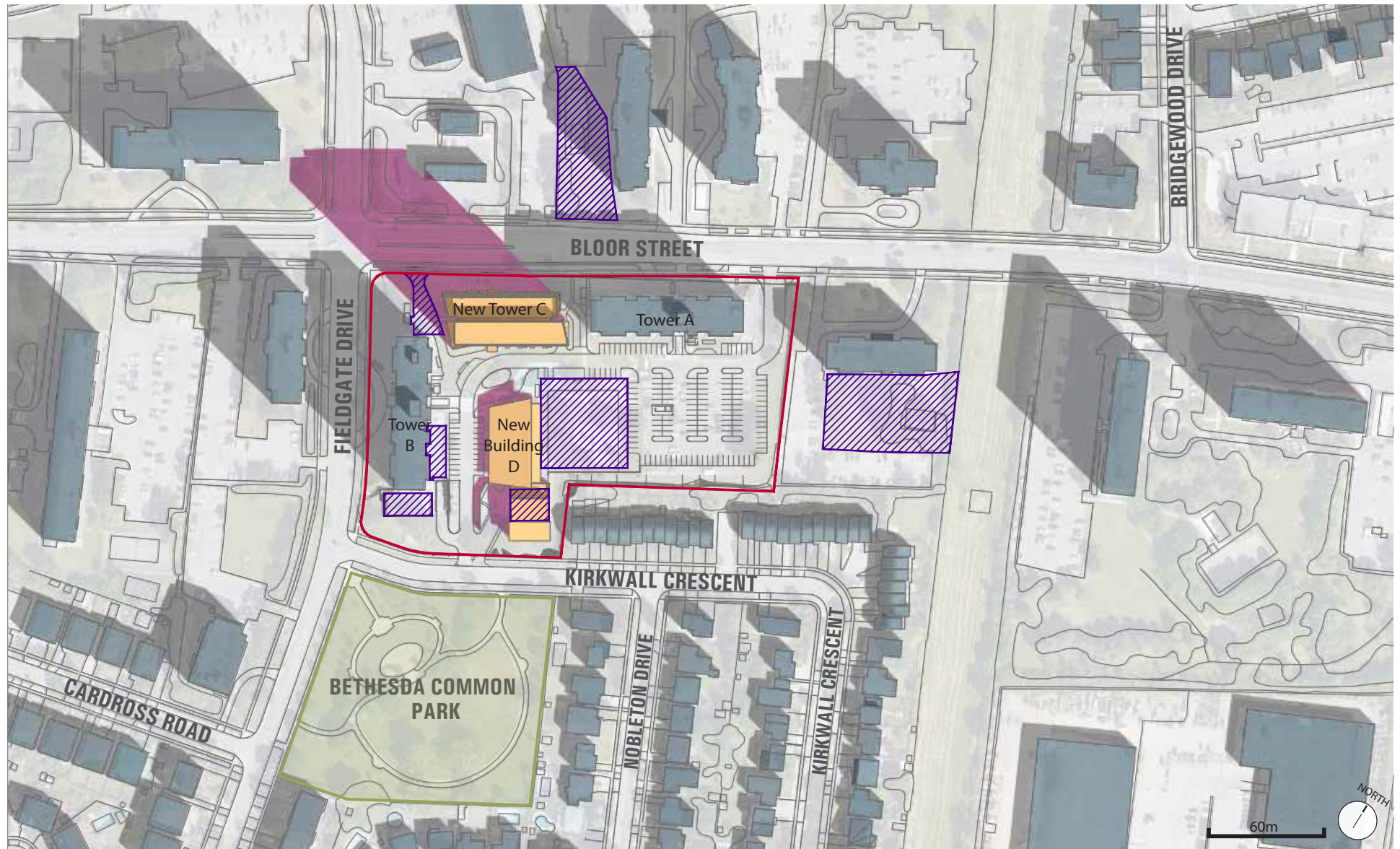
Communal Outdoor Amenity Areas



- Subject Site
- Existing Buildings
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- Shadow Cast by Proposed Development
- Shadow Cast by existing buildings
- Existing Park
- Communal Outdoor Amenity Areas

JUNE 21ST

8:20 AM



Subject Site

Existing Buildings

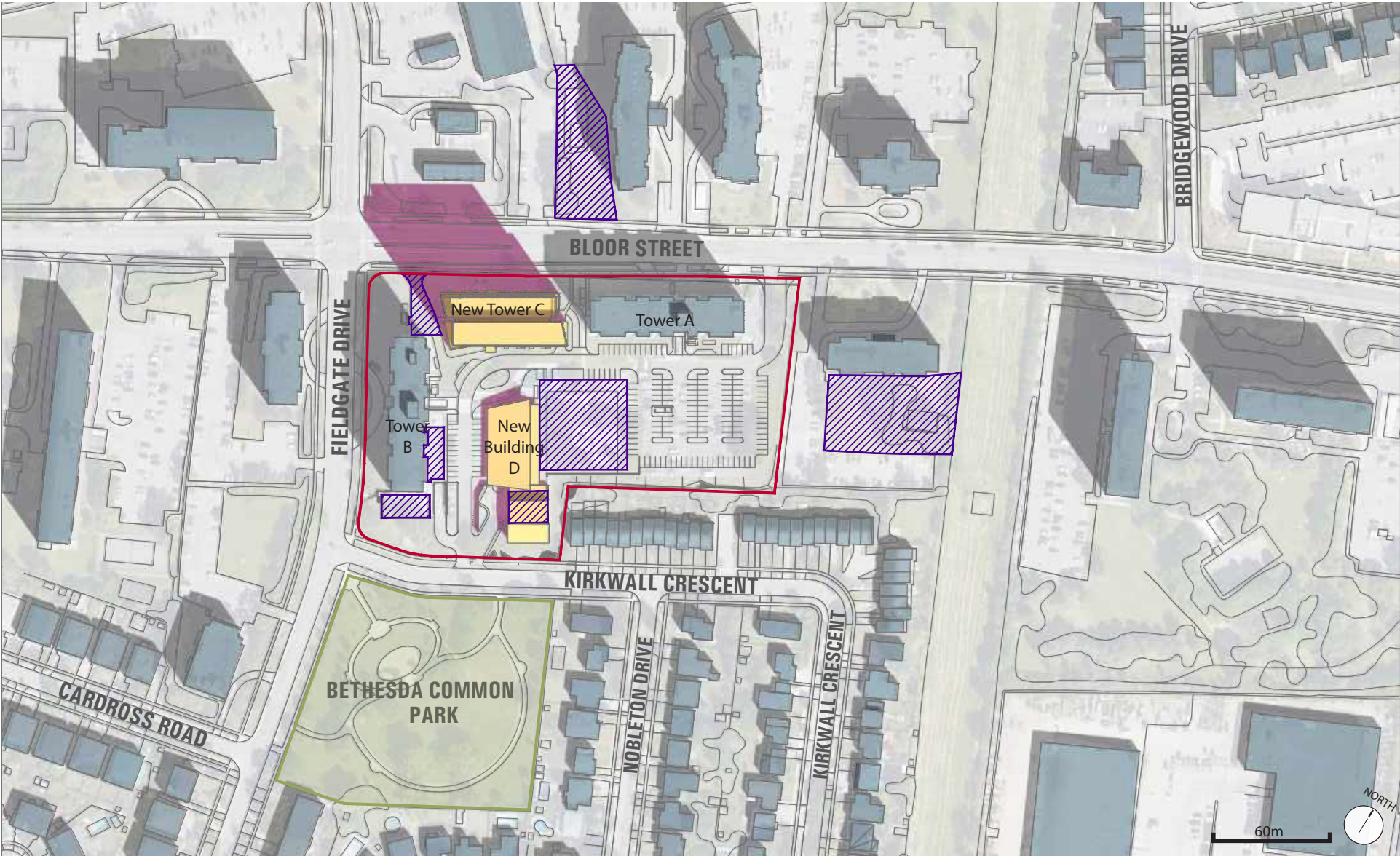
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Shadow Cast by Proposed Development

Shadow Cast by existing buildings

Existing Park

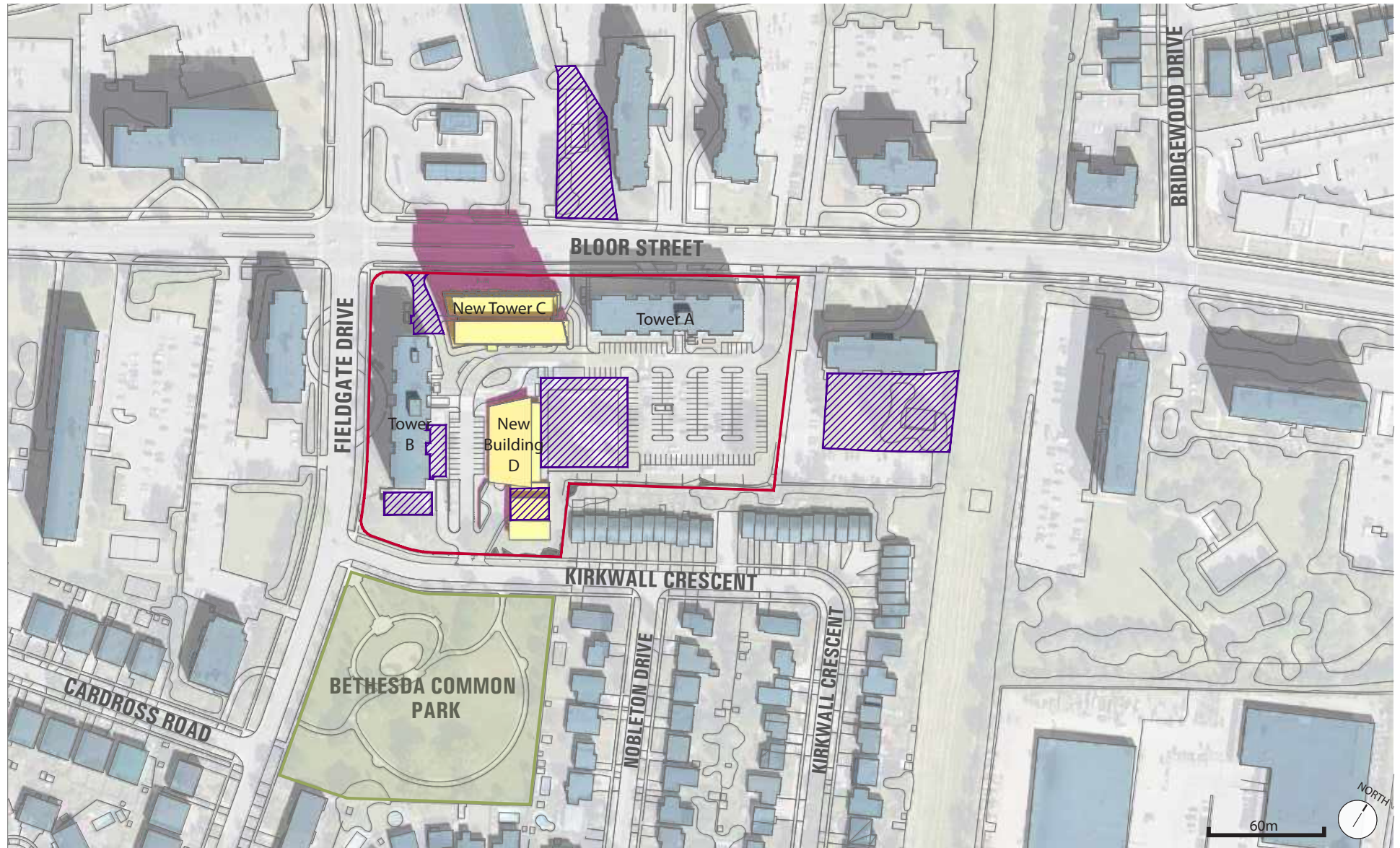
Communal Outdoor Amenity Areas



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JUNE 21ST

10:20 AM



Subject Site

Existing Buildings

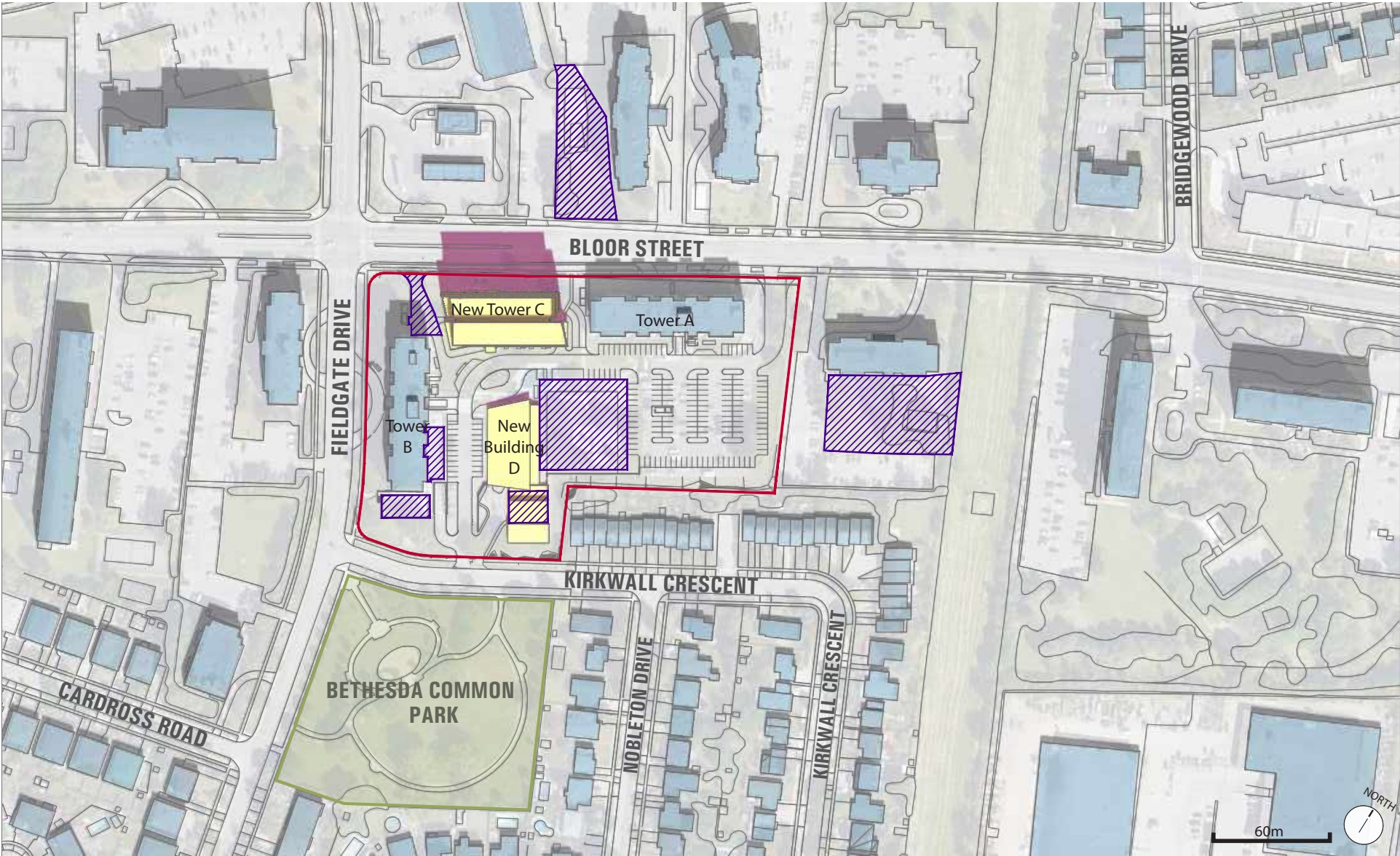
Proposed

Shadow Cast by Proposed Development

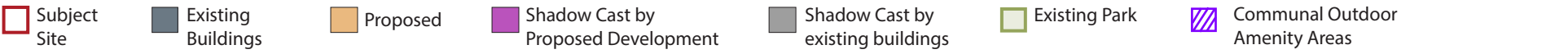
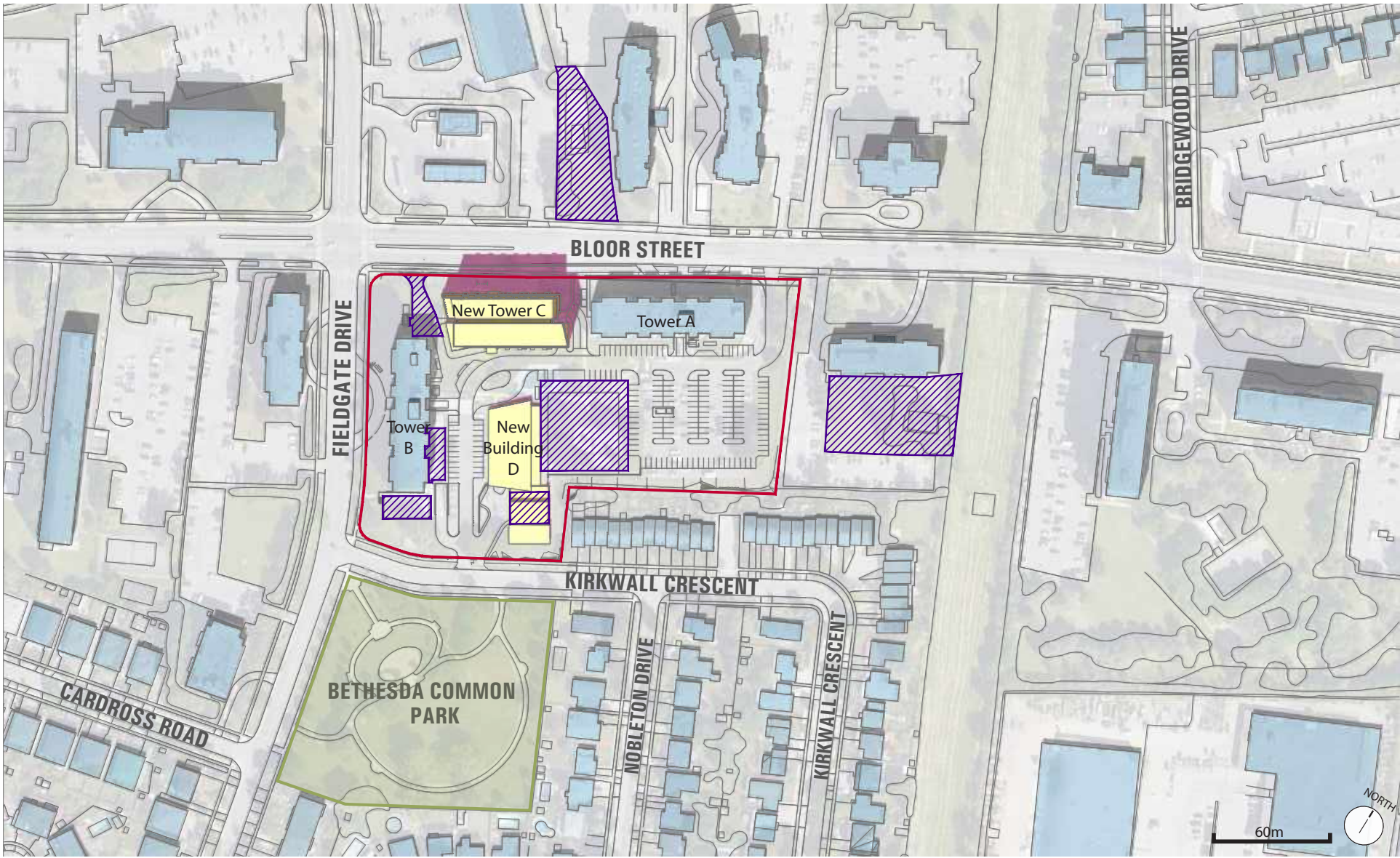
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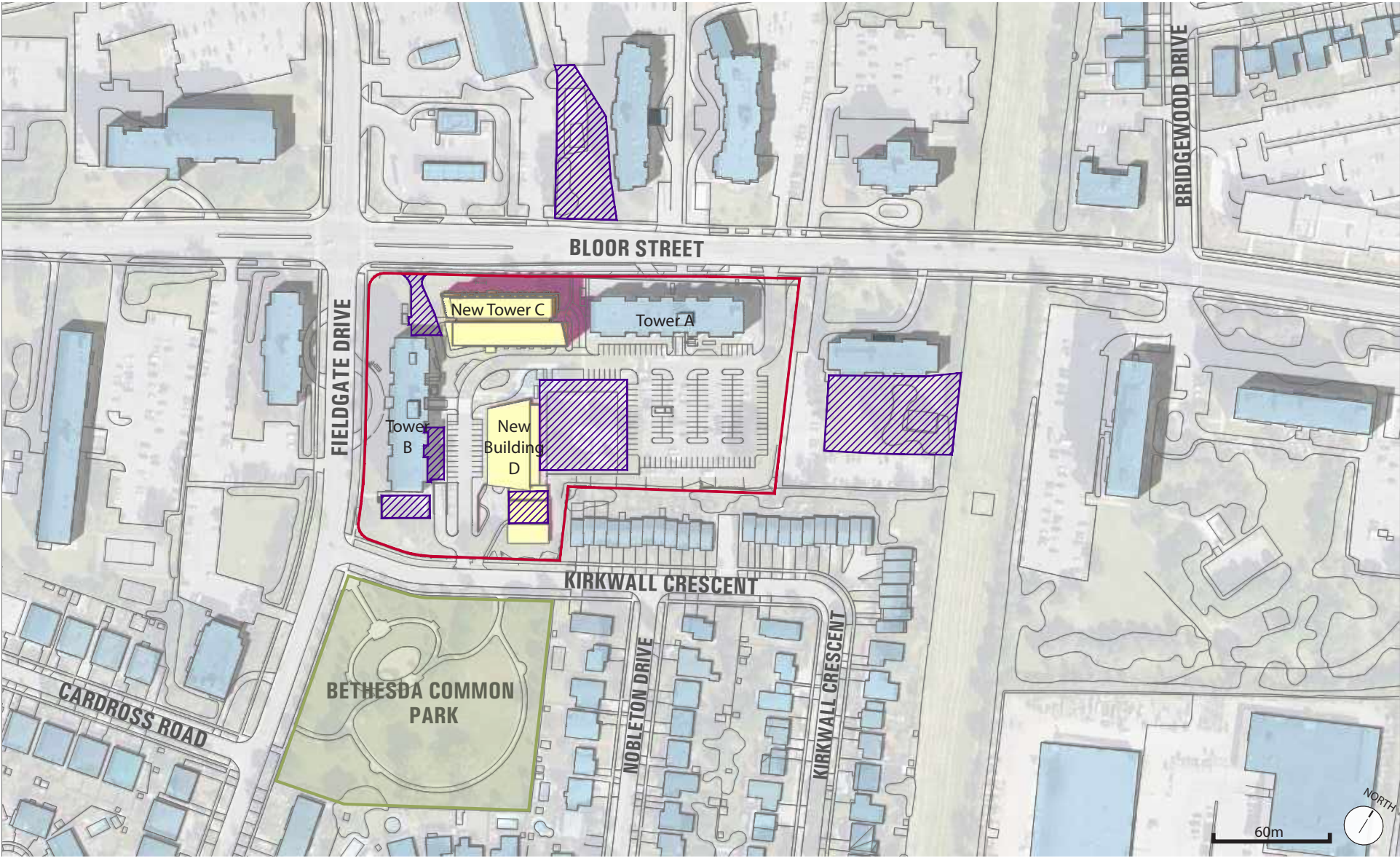
Existing Park

Communal Outdoor Amenity Areas

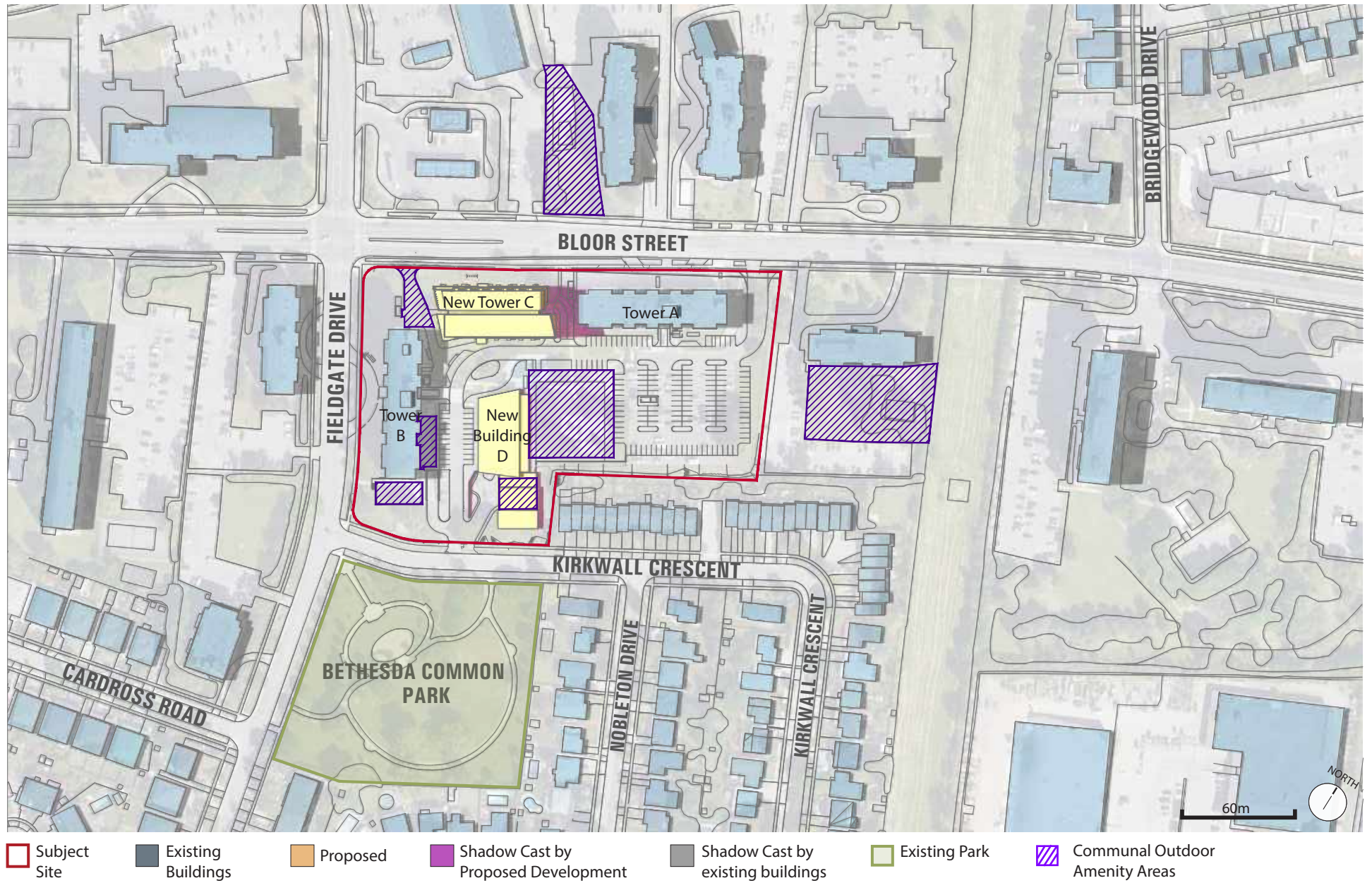


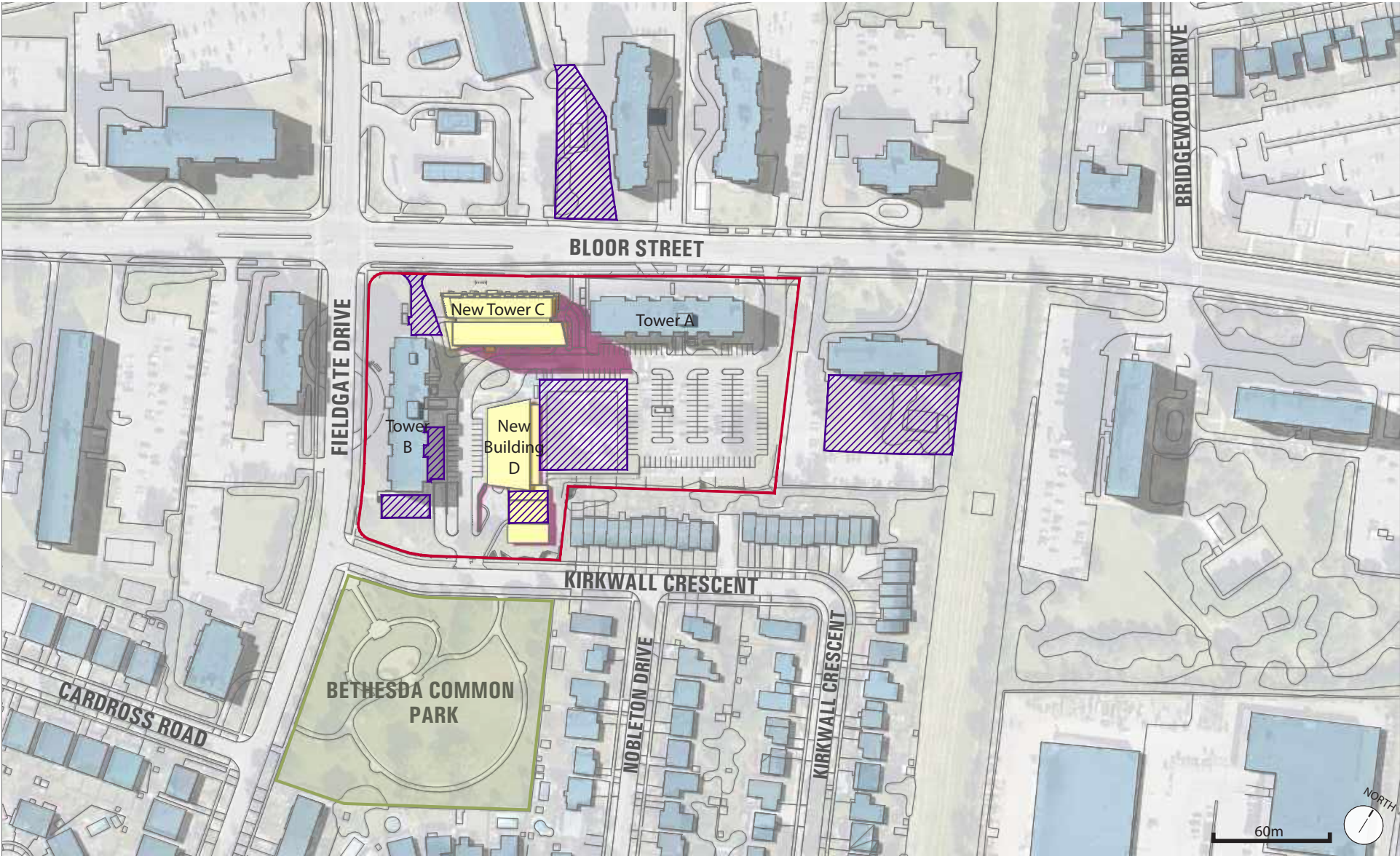
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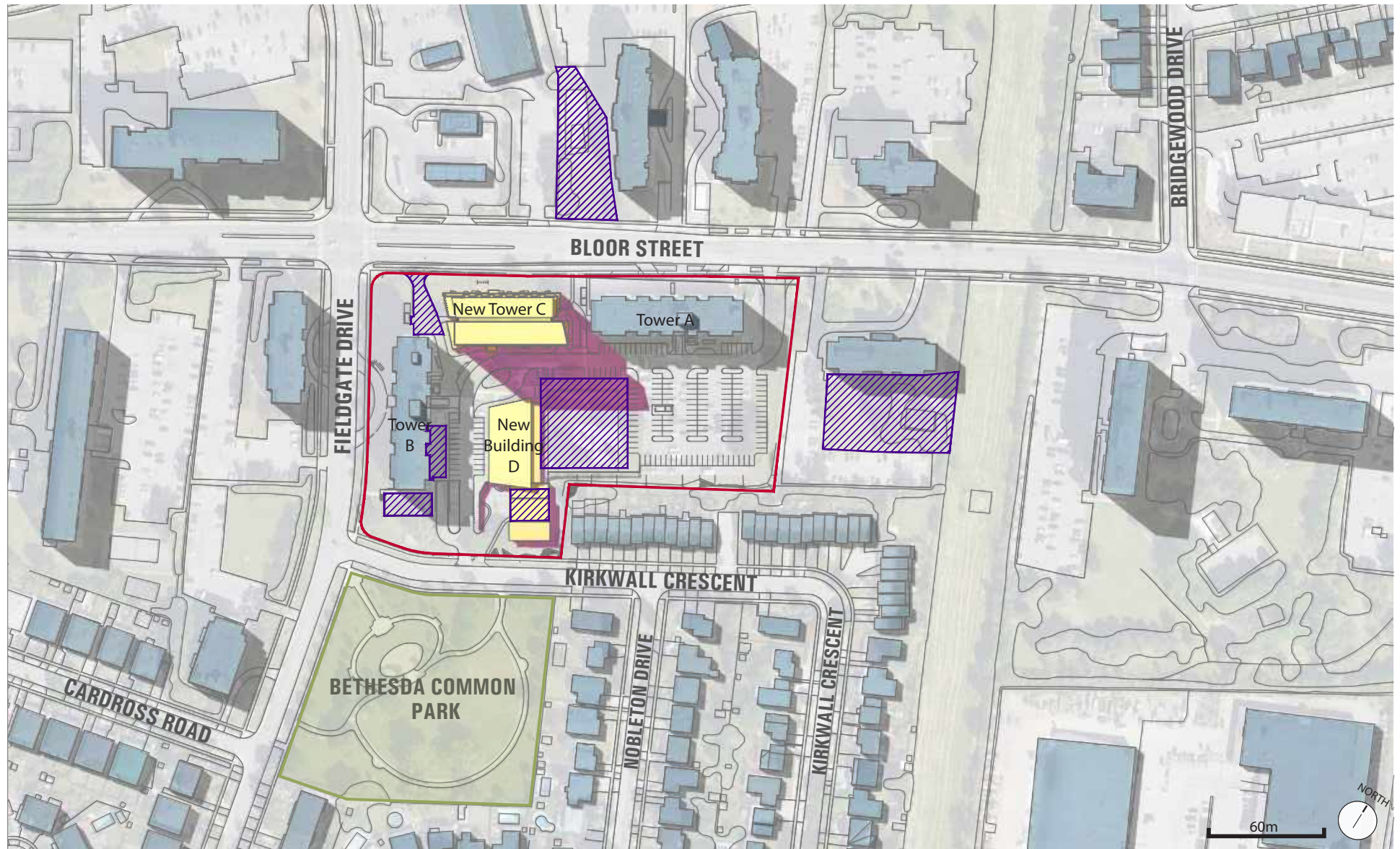


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Subject Site

Existing Buildings

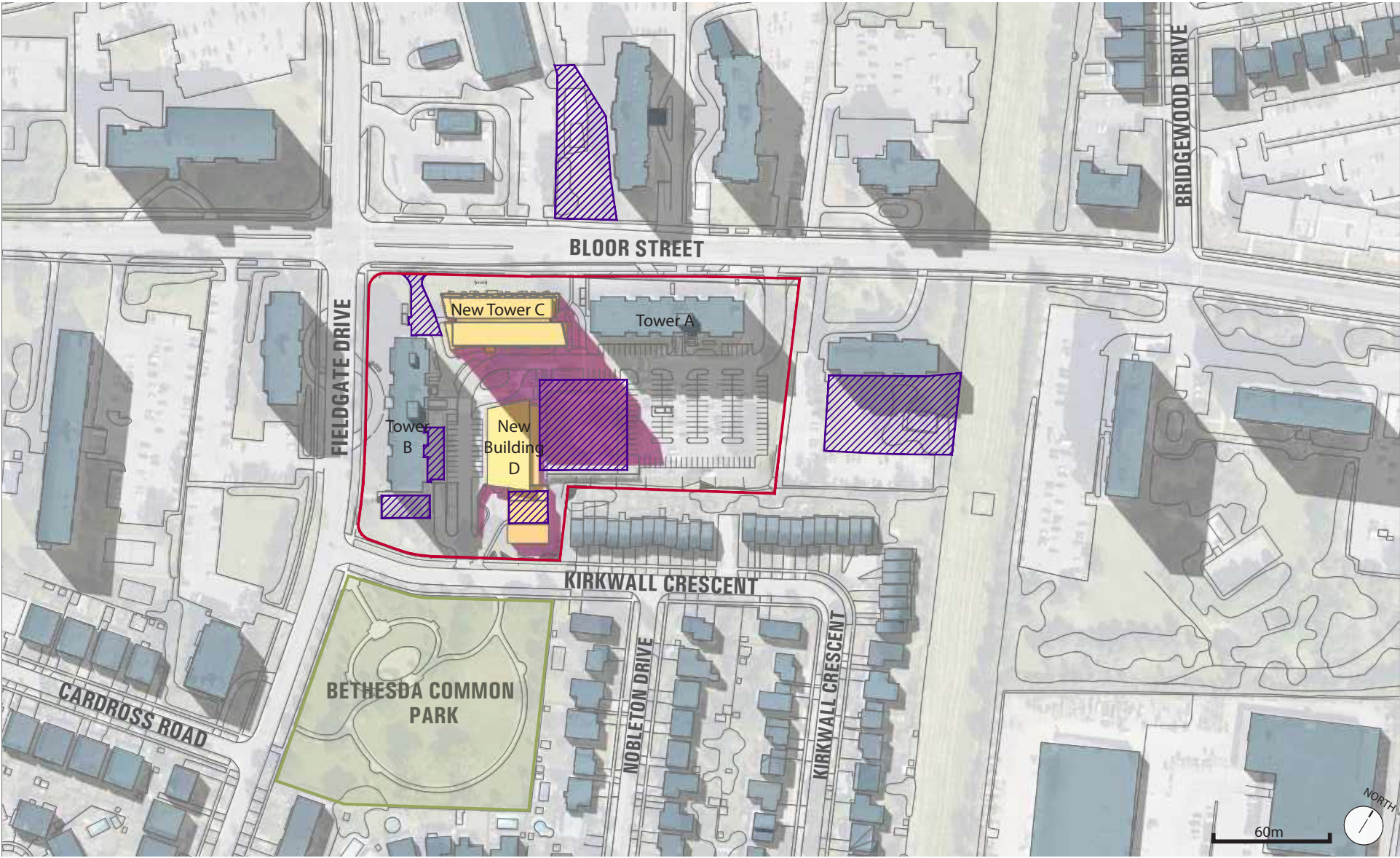
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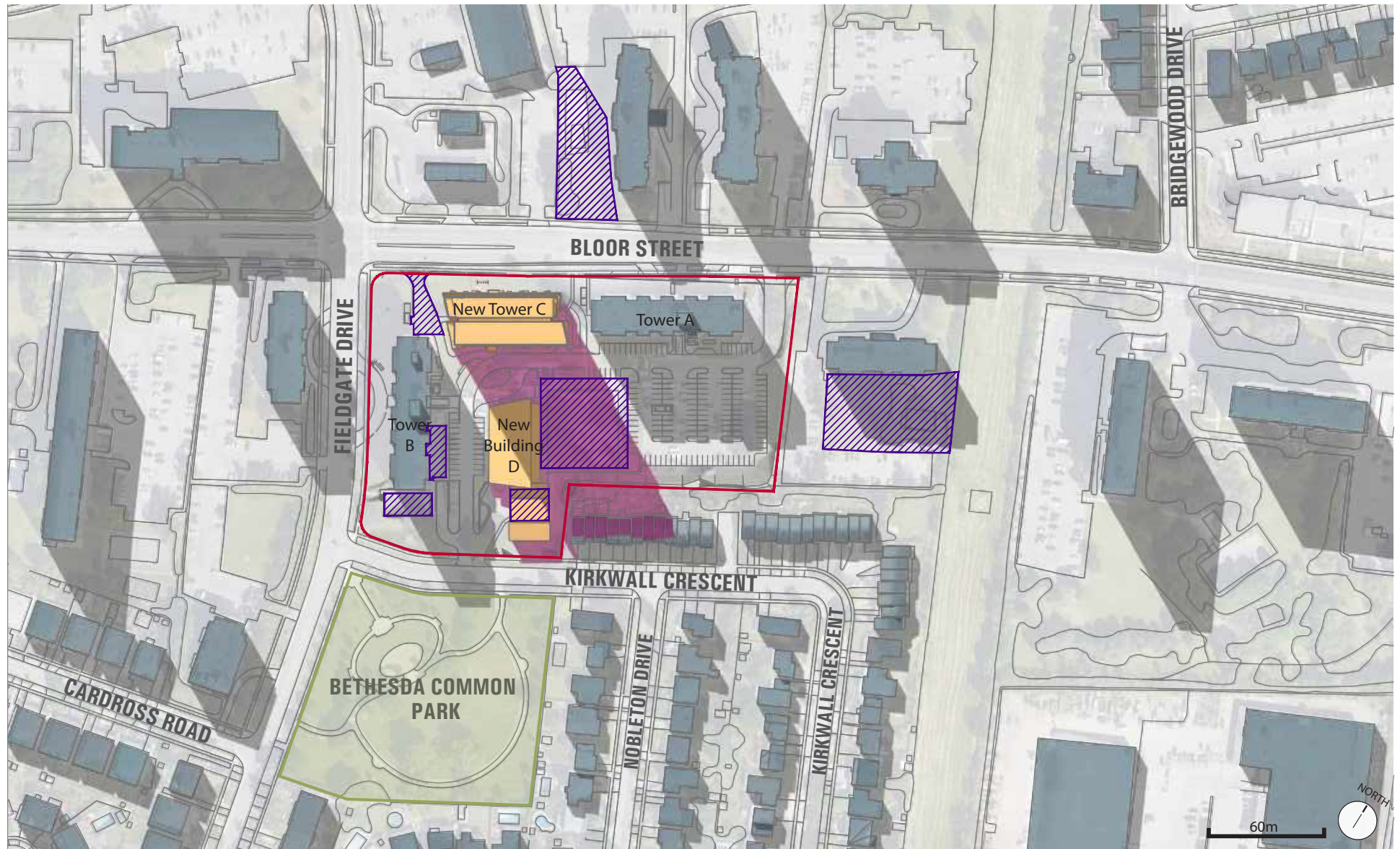
Shadow Cast by existing buildings

Existing Park

Communal Outdoor Amenity Areas



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Subject Site

Existing Buildings

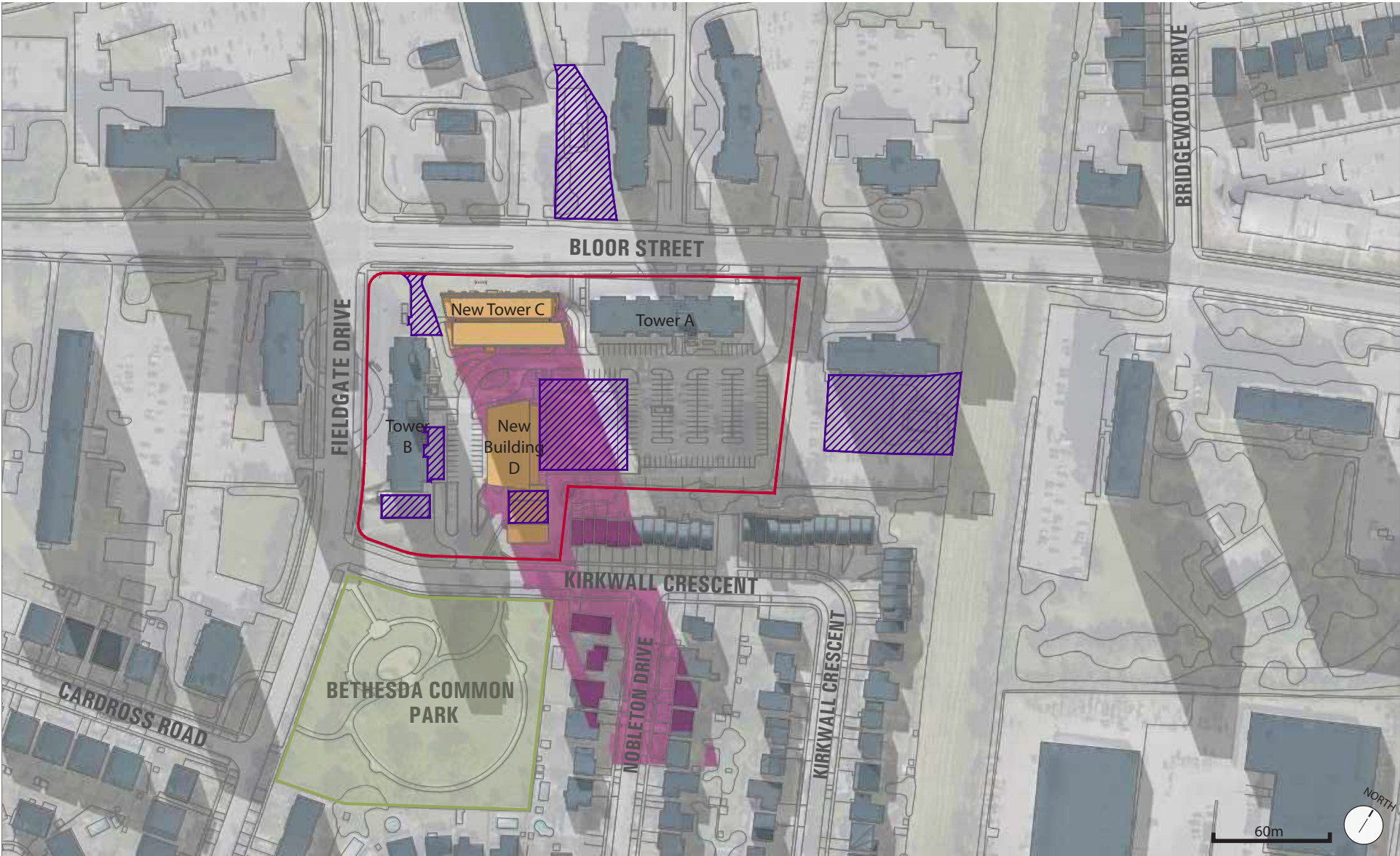
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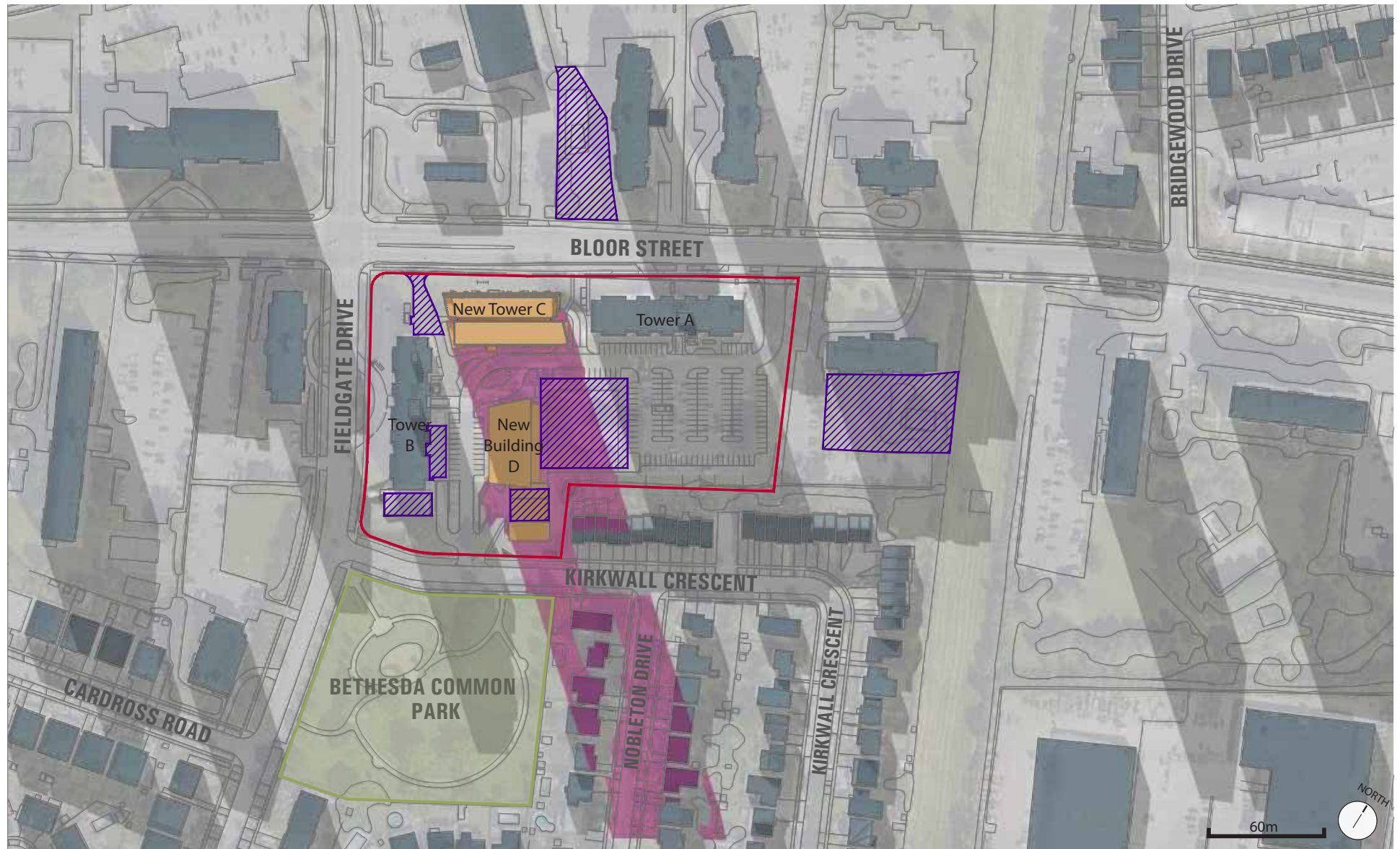
Shadow Cast by existing buildings

Existing Park

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Proposed

Shadow Cast by Proposed Development

Shadow Cast by existing buildings

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Communal Outdoor Amenity Areas