

August 9, 2021

Ms. Melissa Eavis
Planner III
Planning and Development
Halifax

Dear Ms. Eavis,

**Re: Case 23224 - Penhorn Future Growth Node Development Agreement –
Shadow implications on proposed Central Park**

Halifax Planning has requested an analysis of shadows for the proposed Penhorn Future Growth Node development on the *proposed* public parks to identify any issues with regards to good planning practice and programming. The original analysis covered only existing public parkland, as per Schedule 27 of the Regional Centre Plan Land Use By-law.

The attached diagrams use base information provided by Michael Napier Architecture, submitted as part of the planning application. By overlaying the proposed park areas on the diagrams, we demonstrate the impact of shadows on the proposed parkland.

The proposed linear greenway and square (P2) is 3787 m² (.94 acres) located between Penhorn Lake Park and Brownlow Park and incorporates the Active Transportation Greenway.

As the initial solar study used the original proposed building forms which are subject to change due to ongoing negotiations with the city, the analysis is general in nature and is intended to provide guidance relating to programming of the park.

Attachment A includes excerpts from the Michael Napier Shadow Study which have been modified to show the approximate location of the parkland addition in green outline. The original shadows are outlined in red dashes and the new shadows are outlined in solid red lines. Where shadows fall within the park, they have been highlighted with yellow transparency.

The key findings of the shadow analysis are:

1. The Central Park is partially shadowed between 8 am and 10:15 am and between 12:30 pm and 6 p.m.
2. Due to the movement of the sun, the majority of the park is not constantly shadowed for greater than 4 hours.

3. A very small portion of the proposed park is located within an area which will receive more than 4 hours of continuous shade. This portion of the park is less than 8% of the total park.



Figure 1 Area highlighted in yellow receives greater than 4 hours of continuous sunlight but less than six hours.

4. Aside from the above noted area, the proposed park meets requirements of the Solar Policy.

Further discussions with Parkland Planning and Planning and Development are suggested with regards to item 3 and the implications from a design perspective.

The Block H Park Area (P4) has been analysed in using the same approach (analysis found in Attachment 2). No portion of this park area remains in shadow for longer than 4 continuous hours between 8 am and 6 pm on September 21st.

P1, Lakeside Park area only begins to experience shade at 3pm on September 21st. Therefore, no portion of this park area remains in shadow for longer than 4 continuous hours between 8 am and 6 pm on September 21st.

We trust that the enclosed materials satisfy the requirement for a shadow analysis of the proposed Central Park. Please do not hesitate to contact the undersigned at any time.

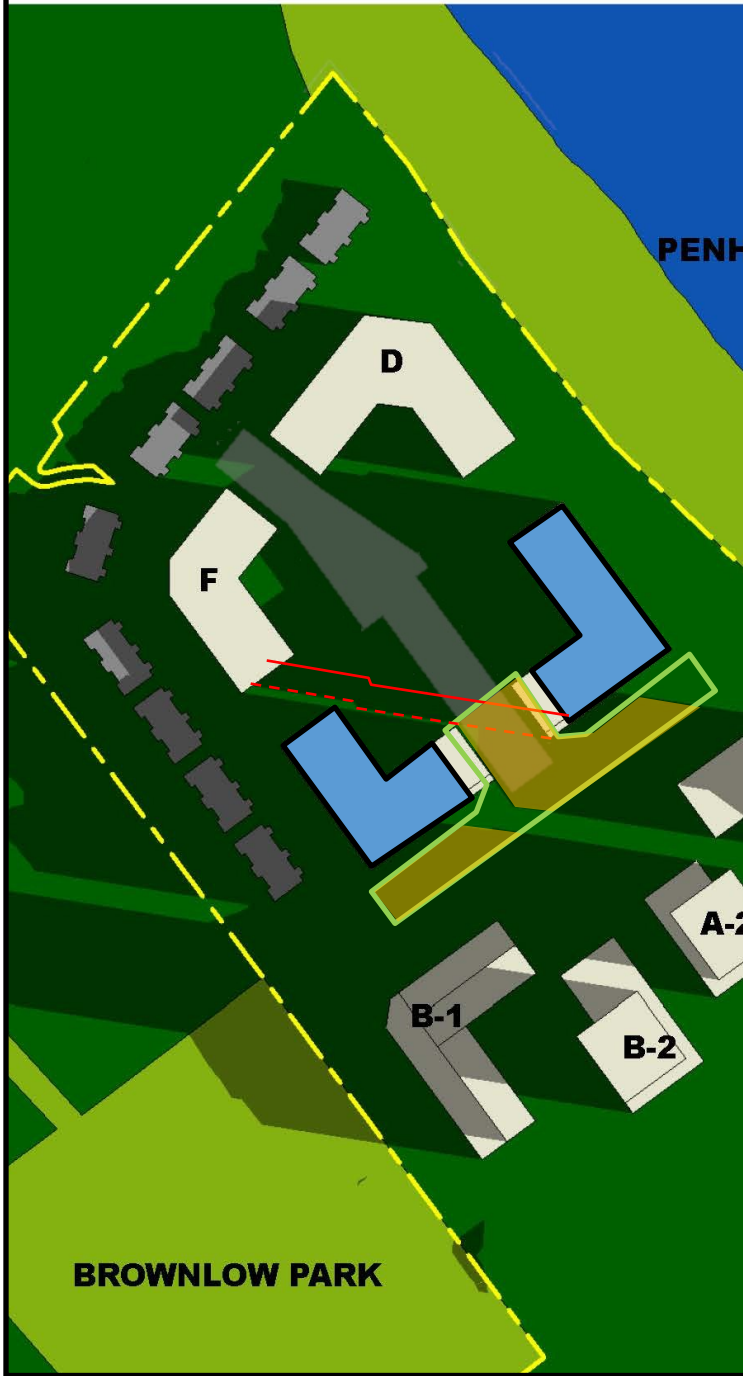
Yours truly,

Clayton Developments Limited

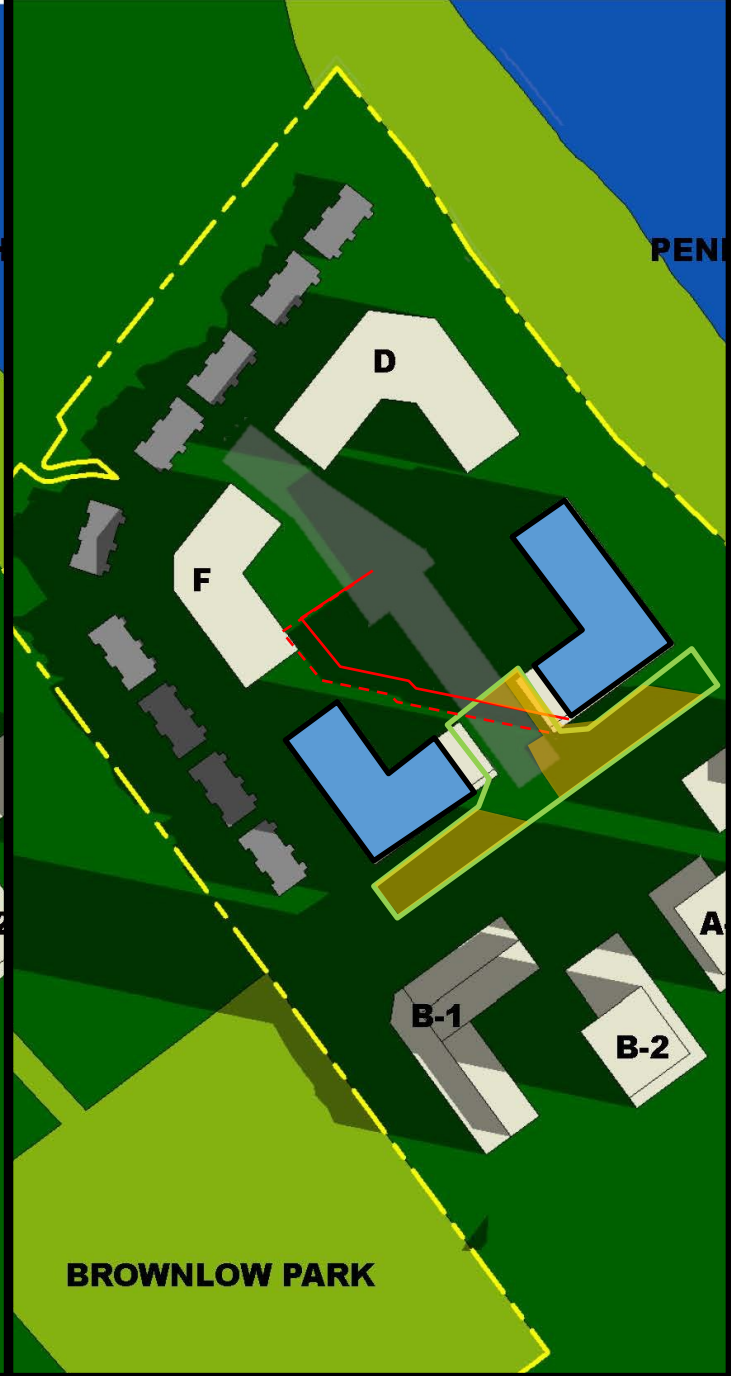


Andrew Bone, MCIP, LPP
Director of Planning and Development

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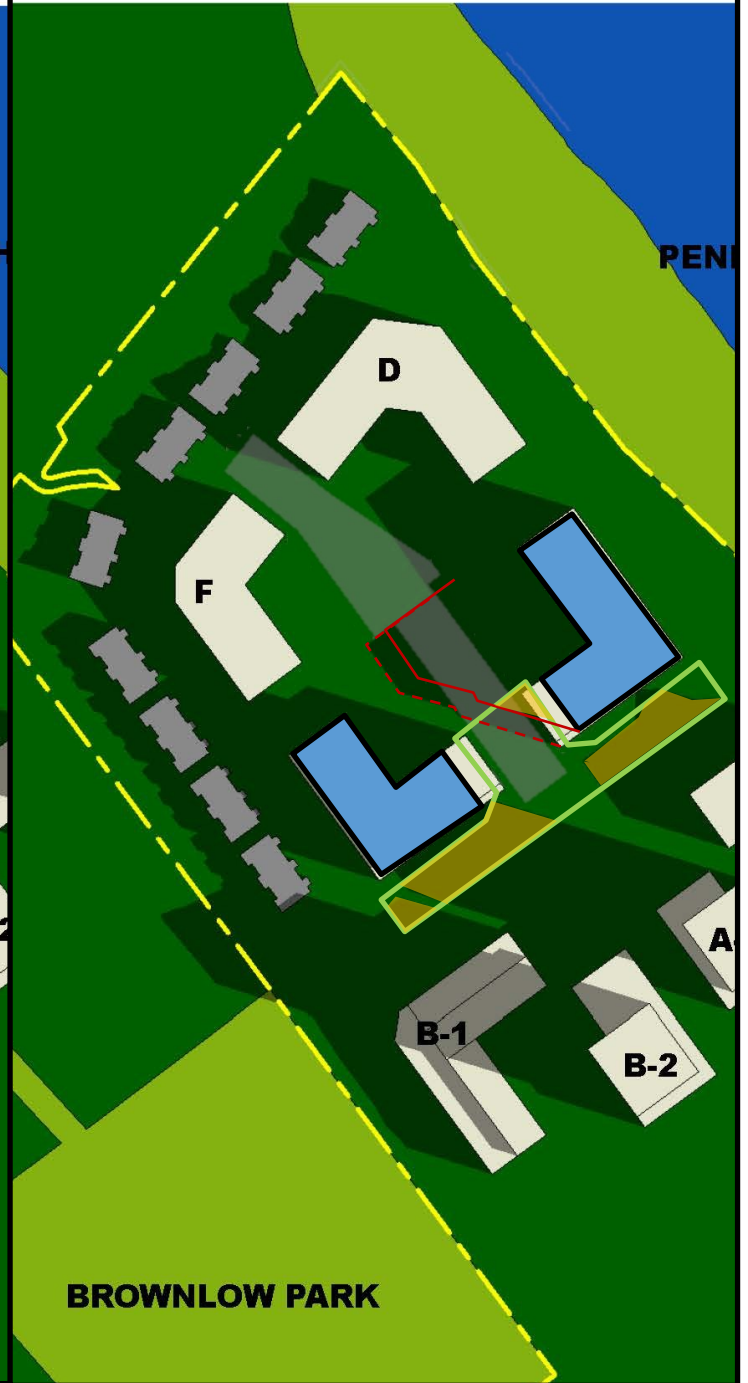
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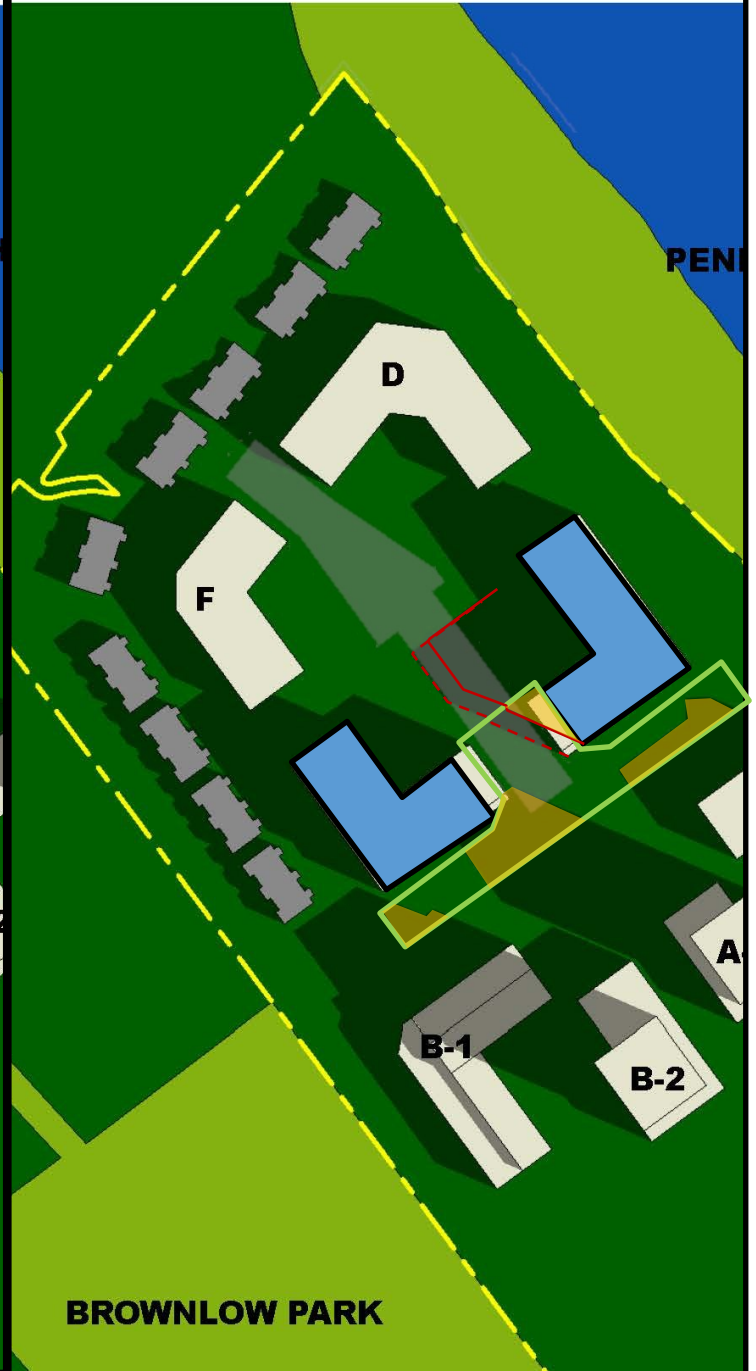
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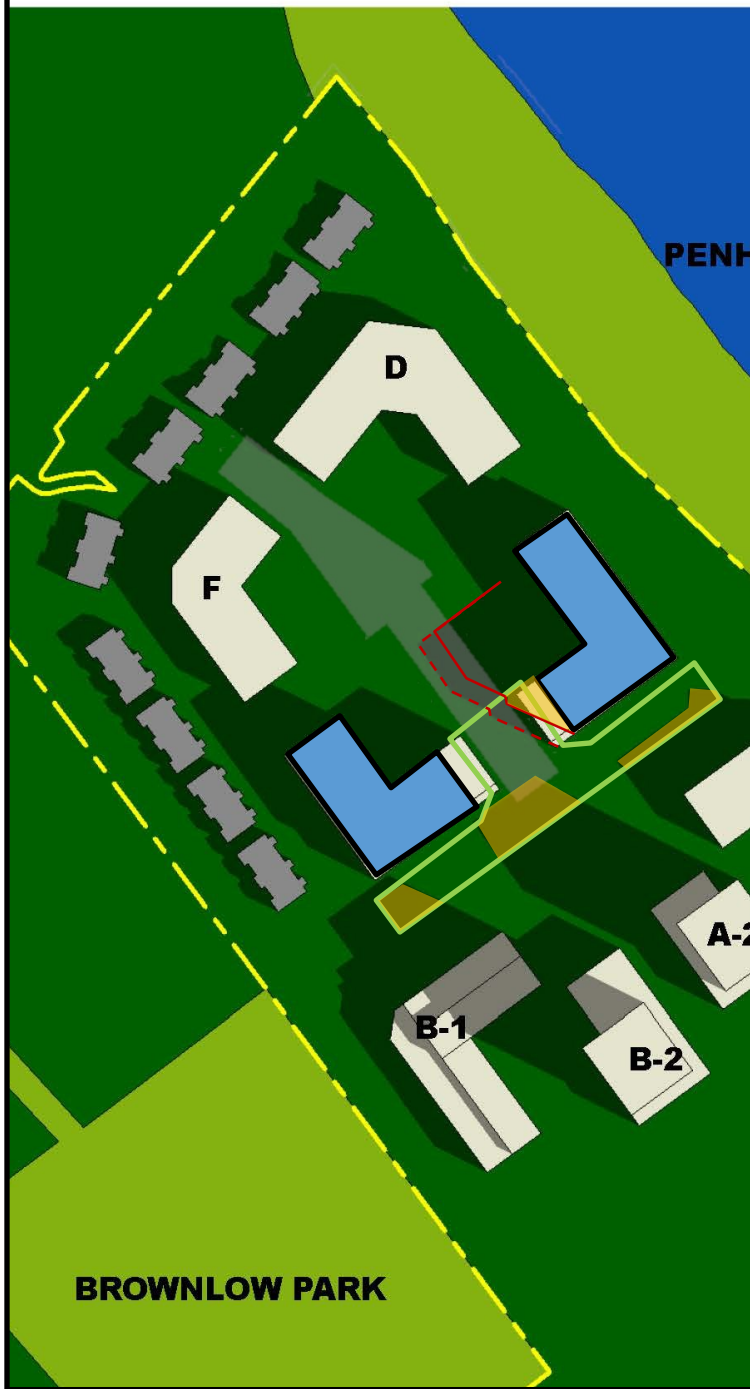
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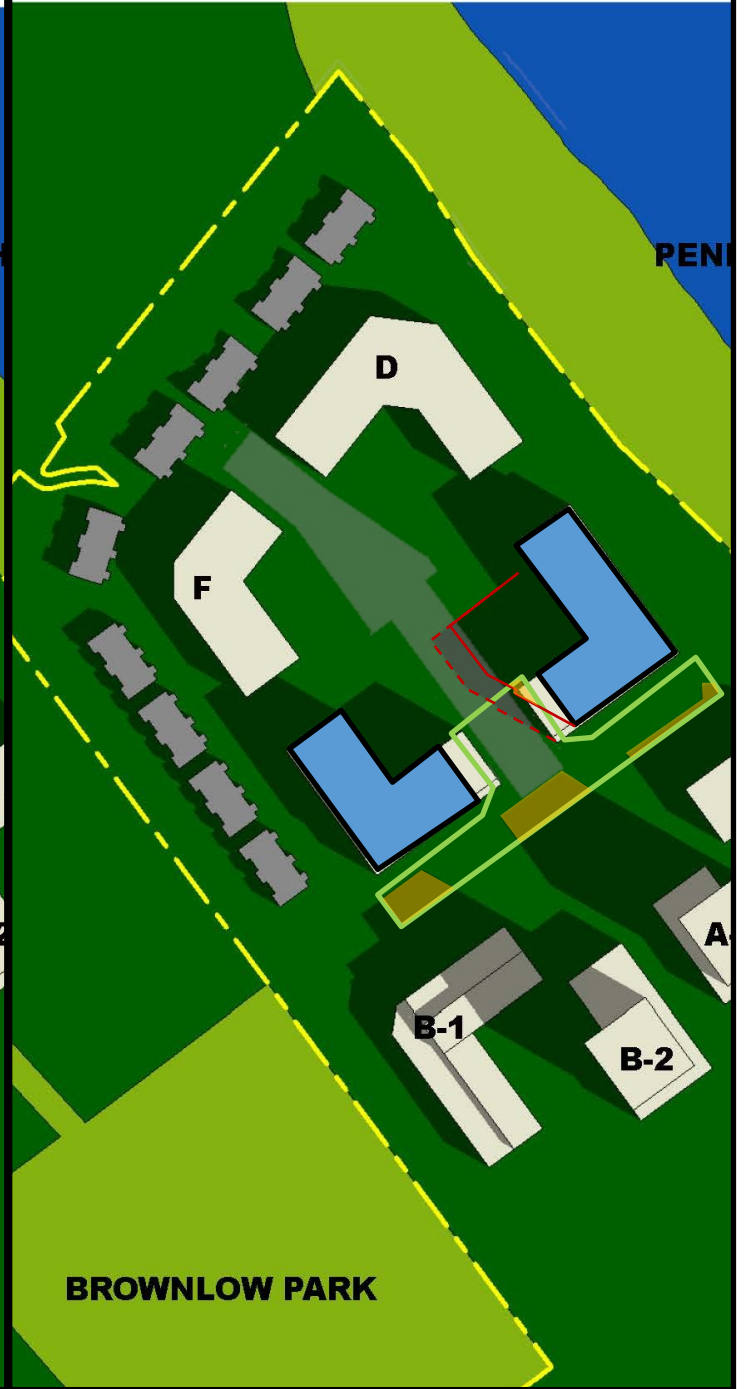
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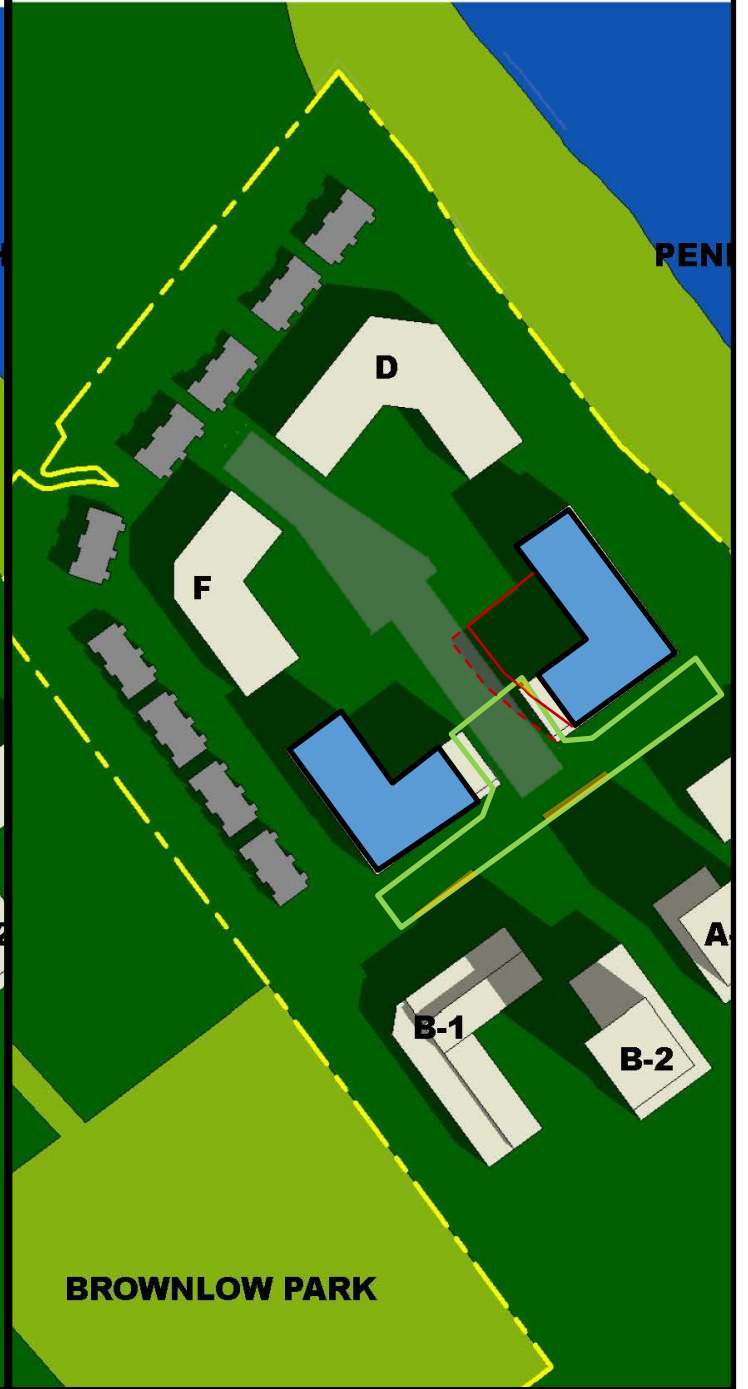
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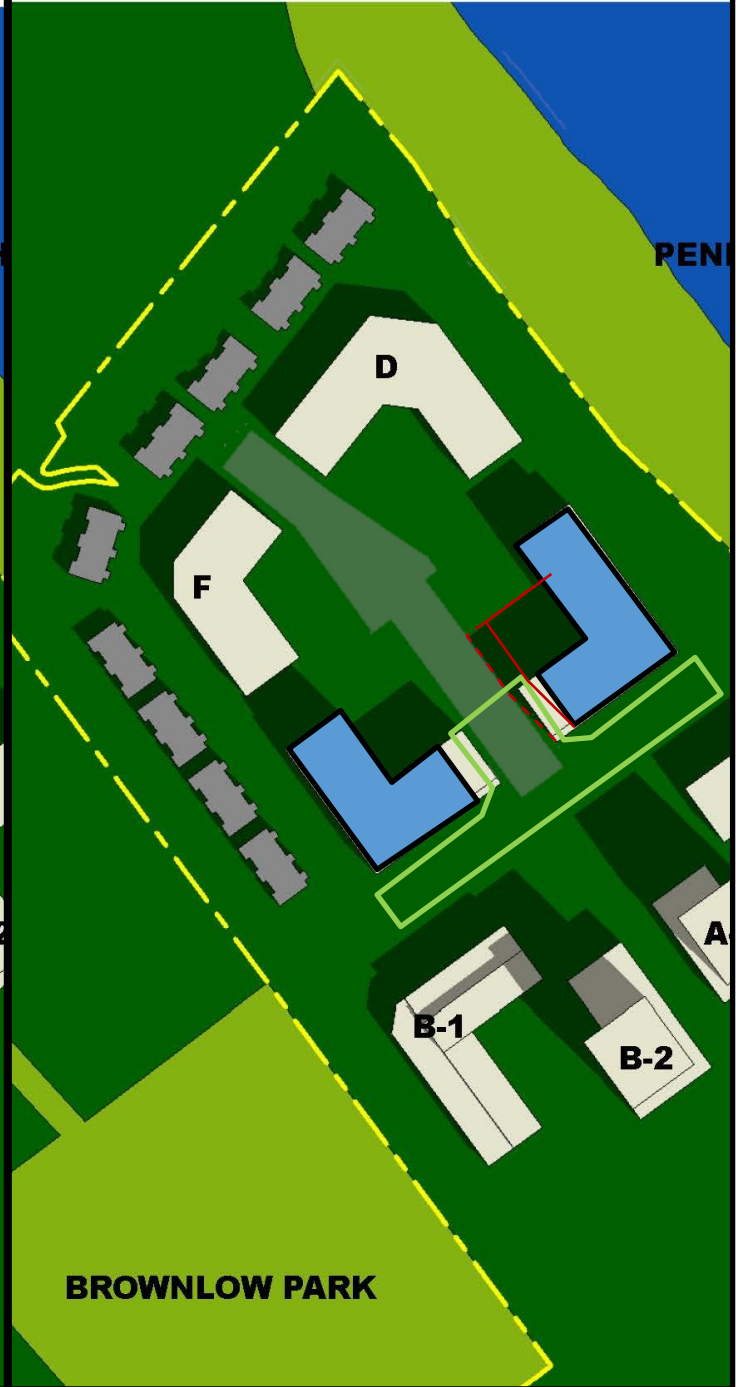
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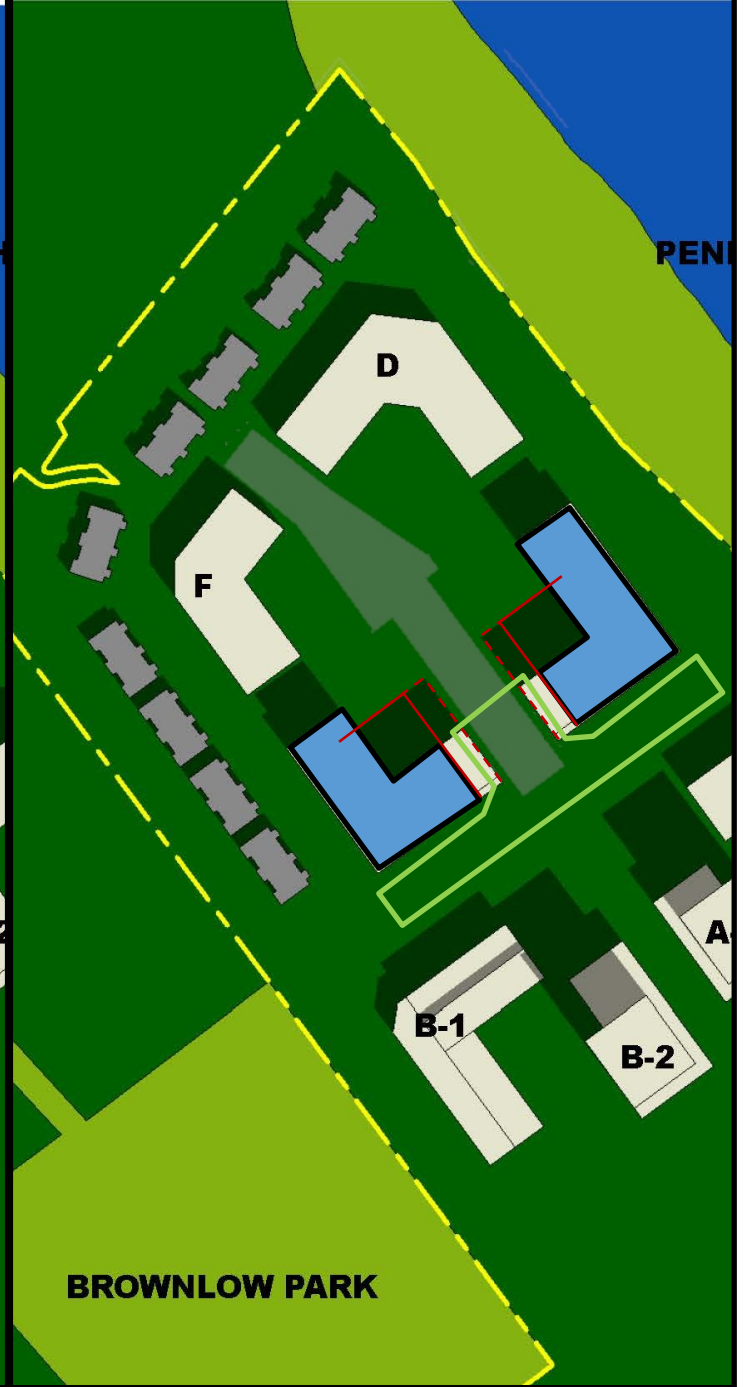
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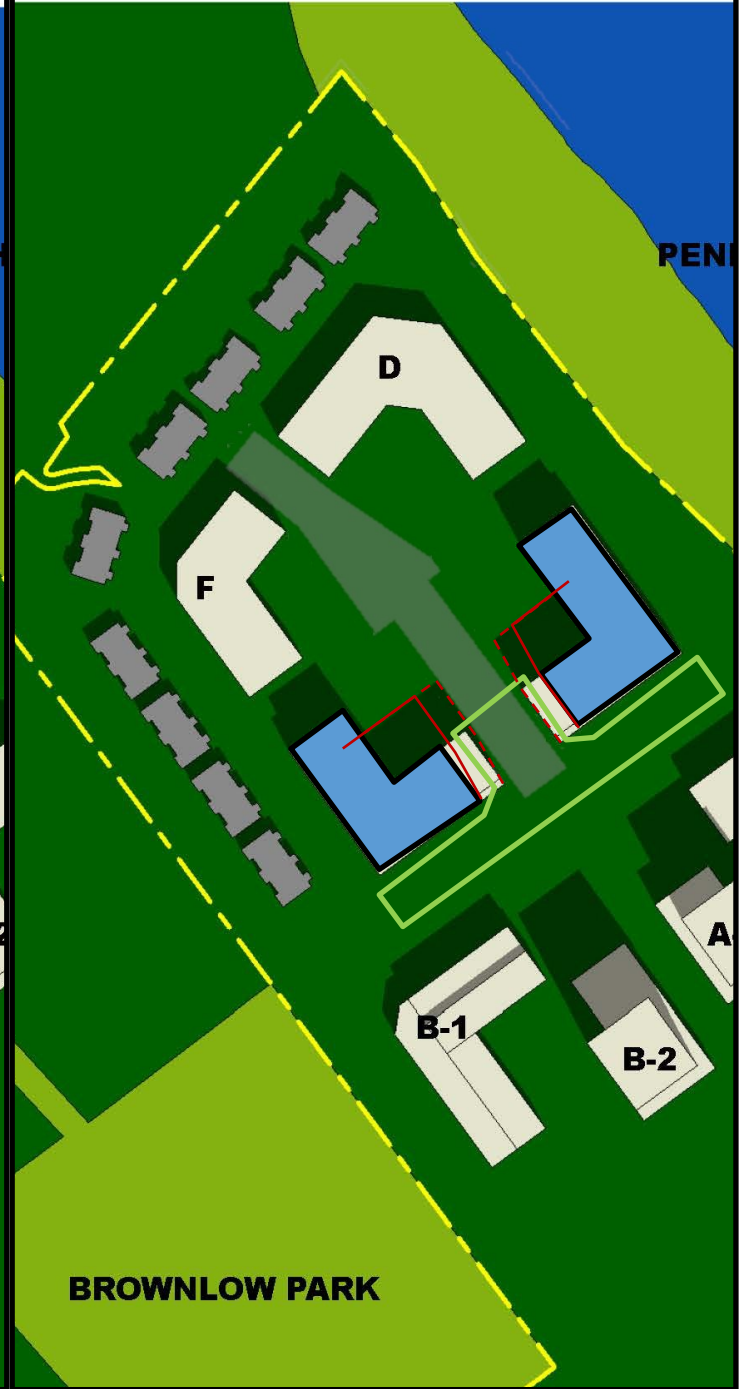
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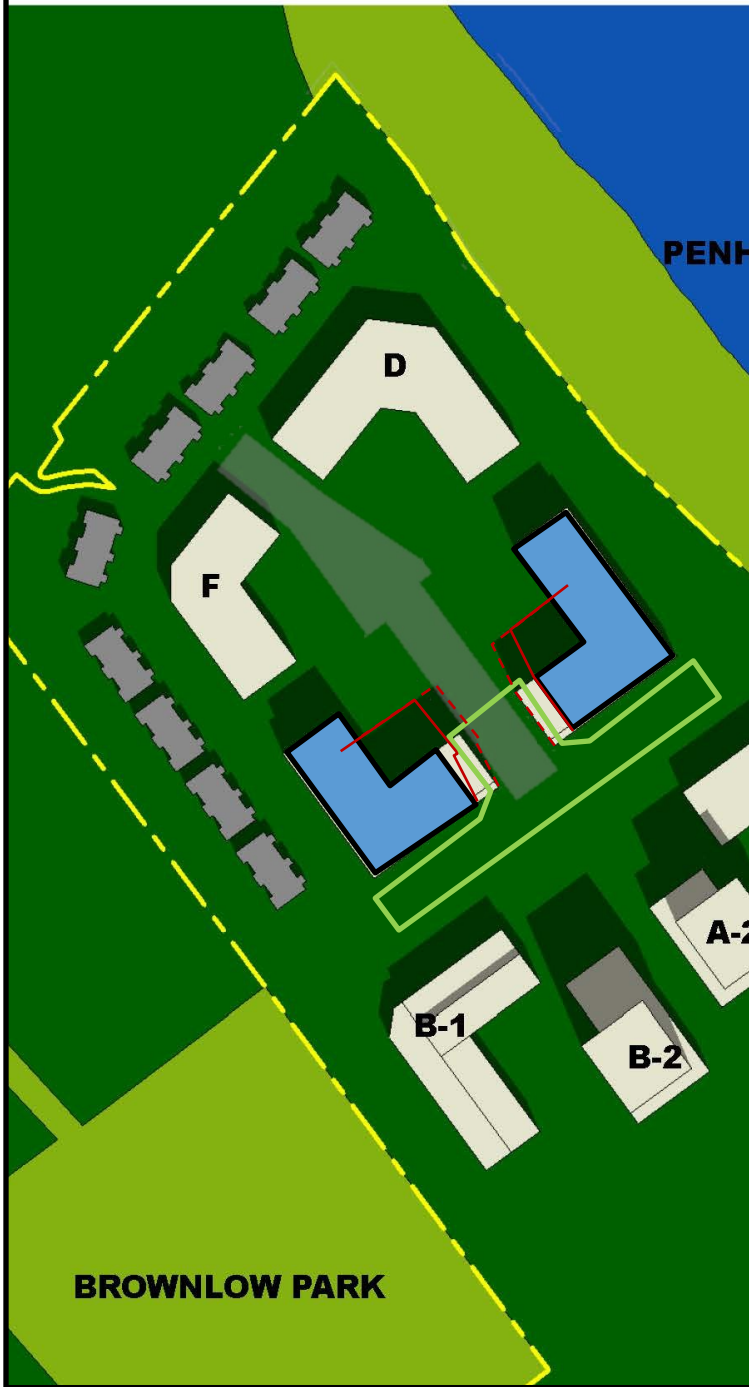
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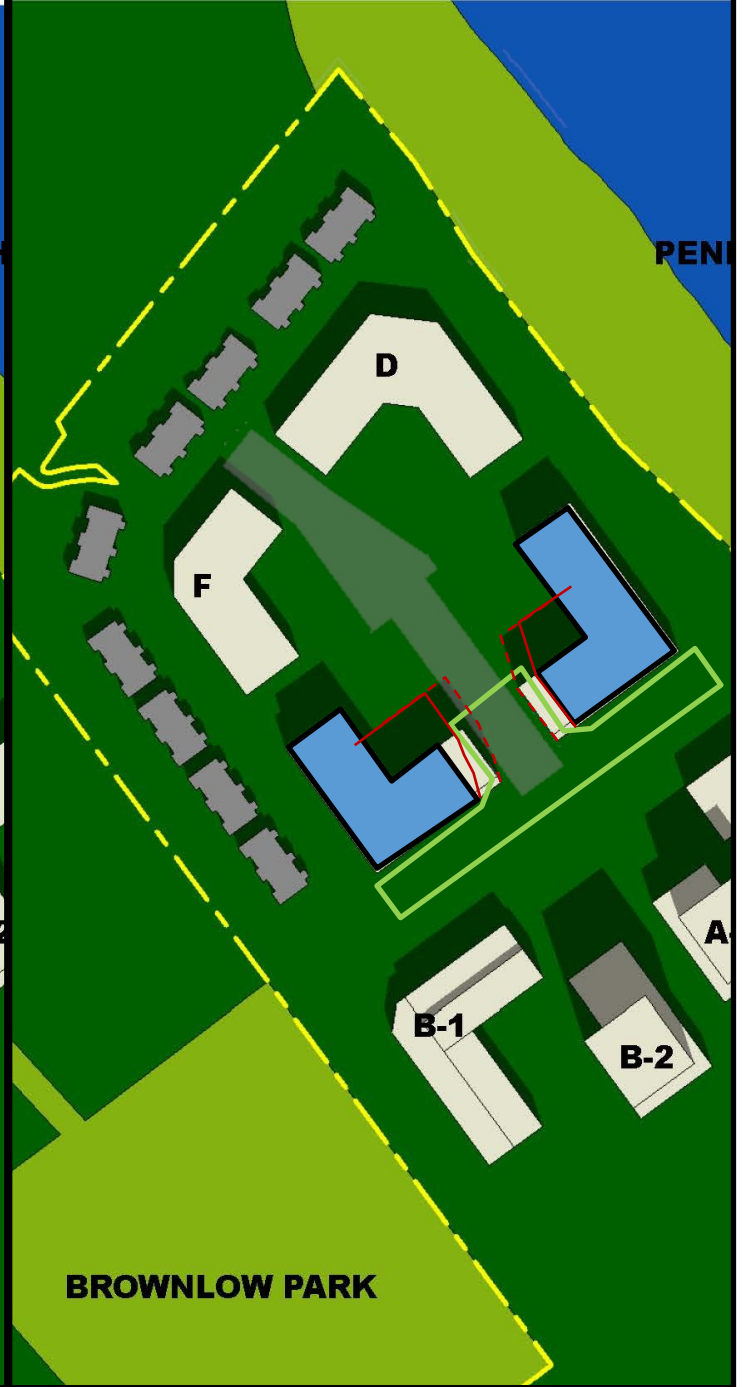
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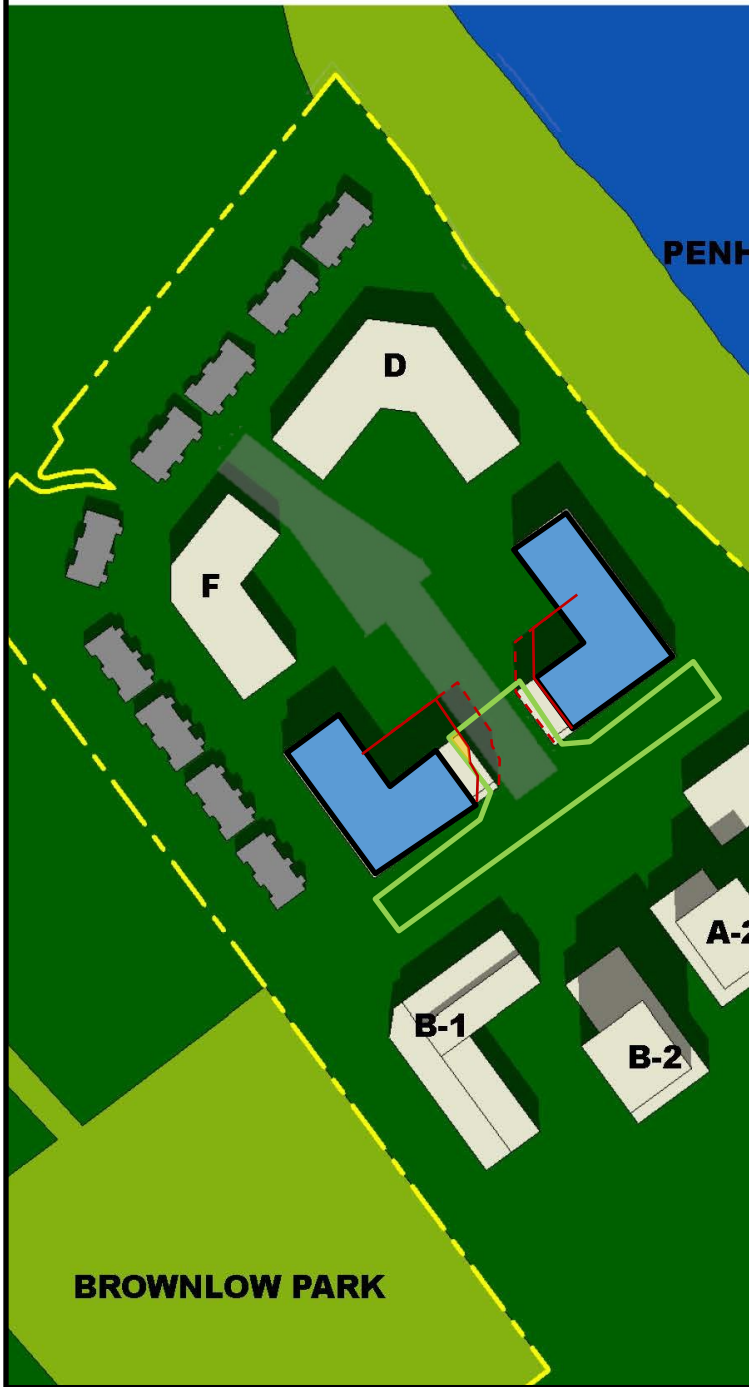


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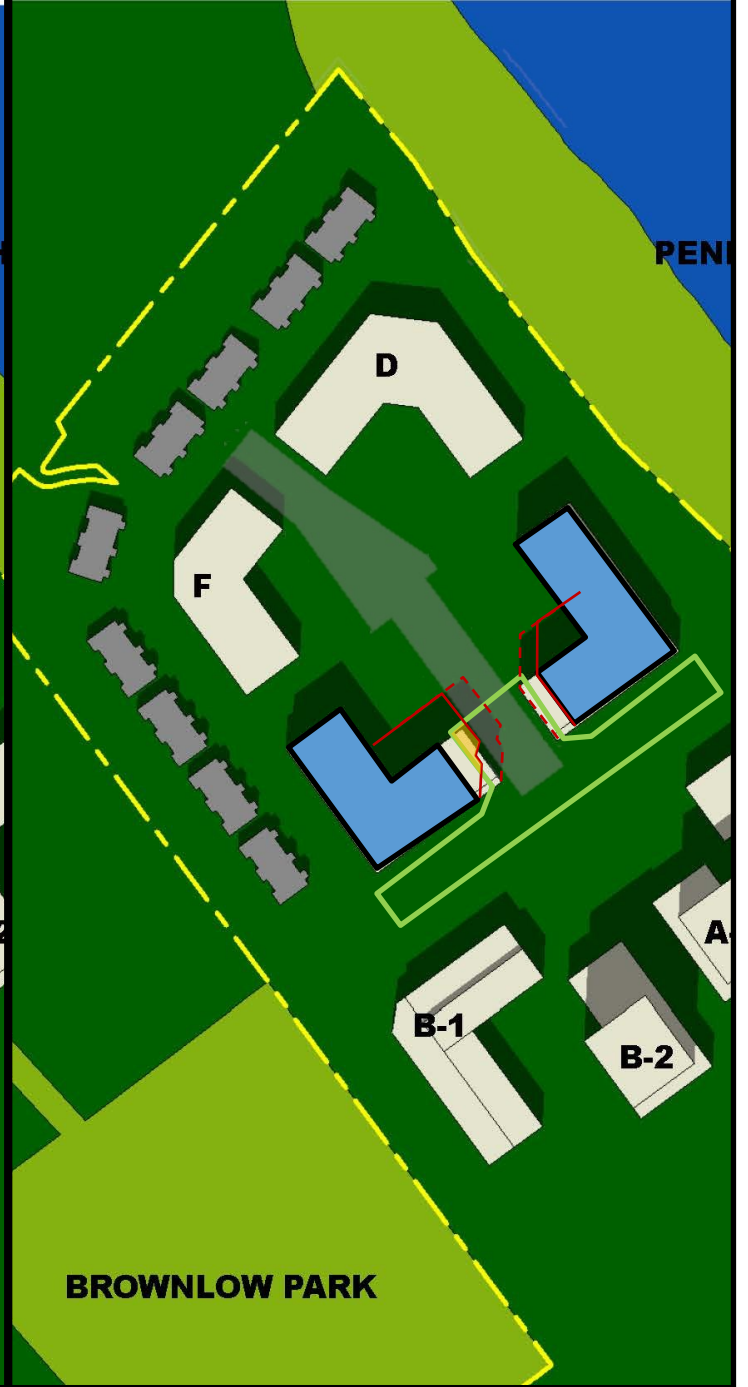




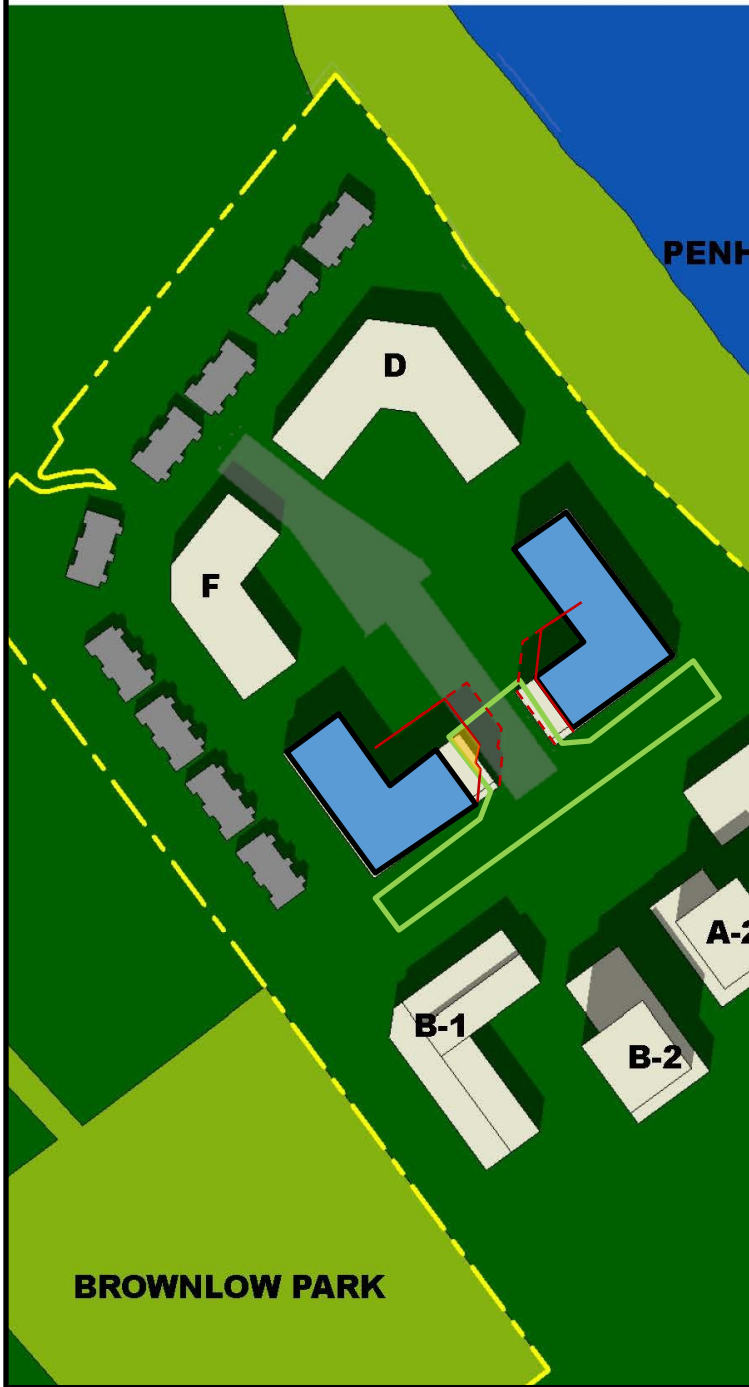
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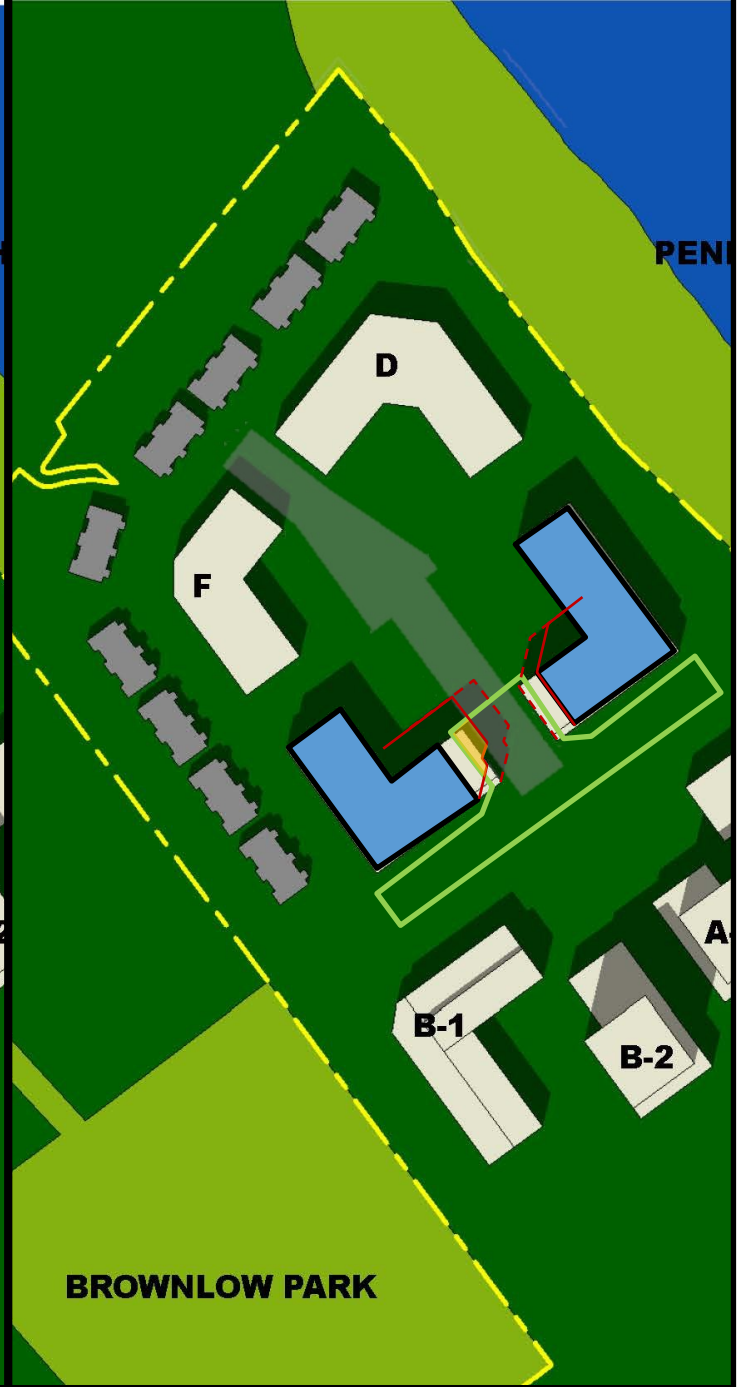
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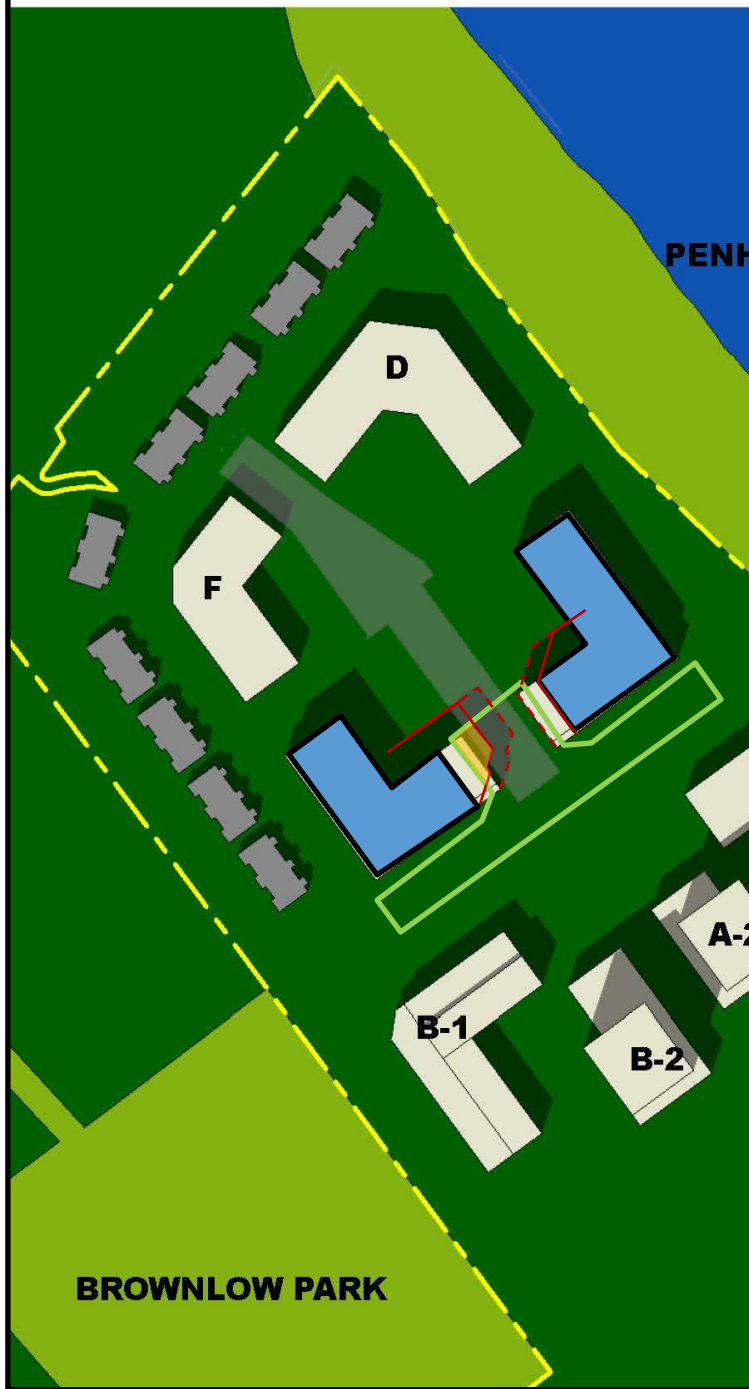
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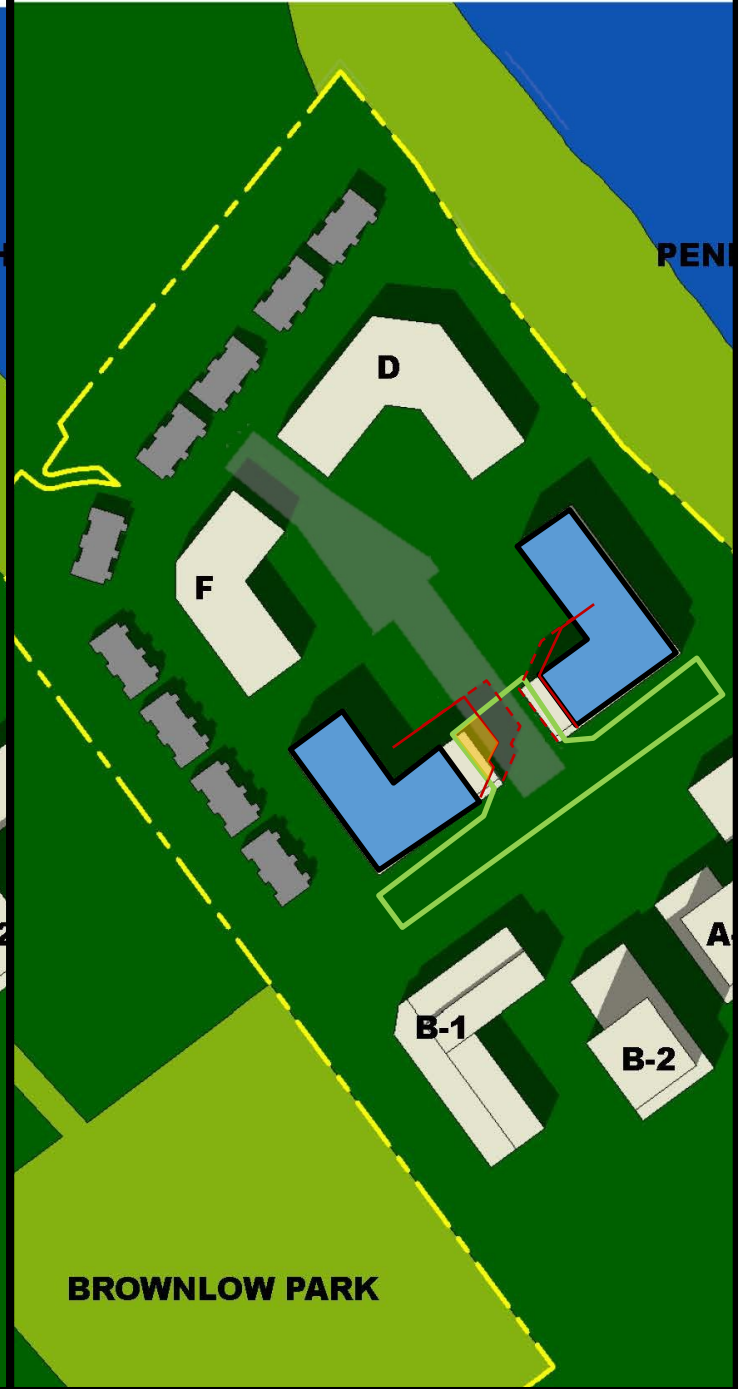
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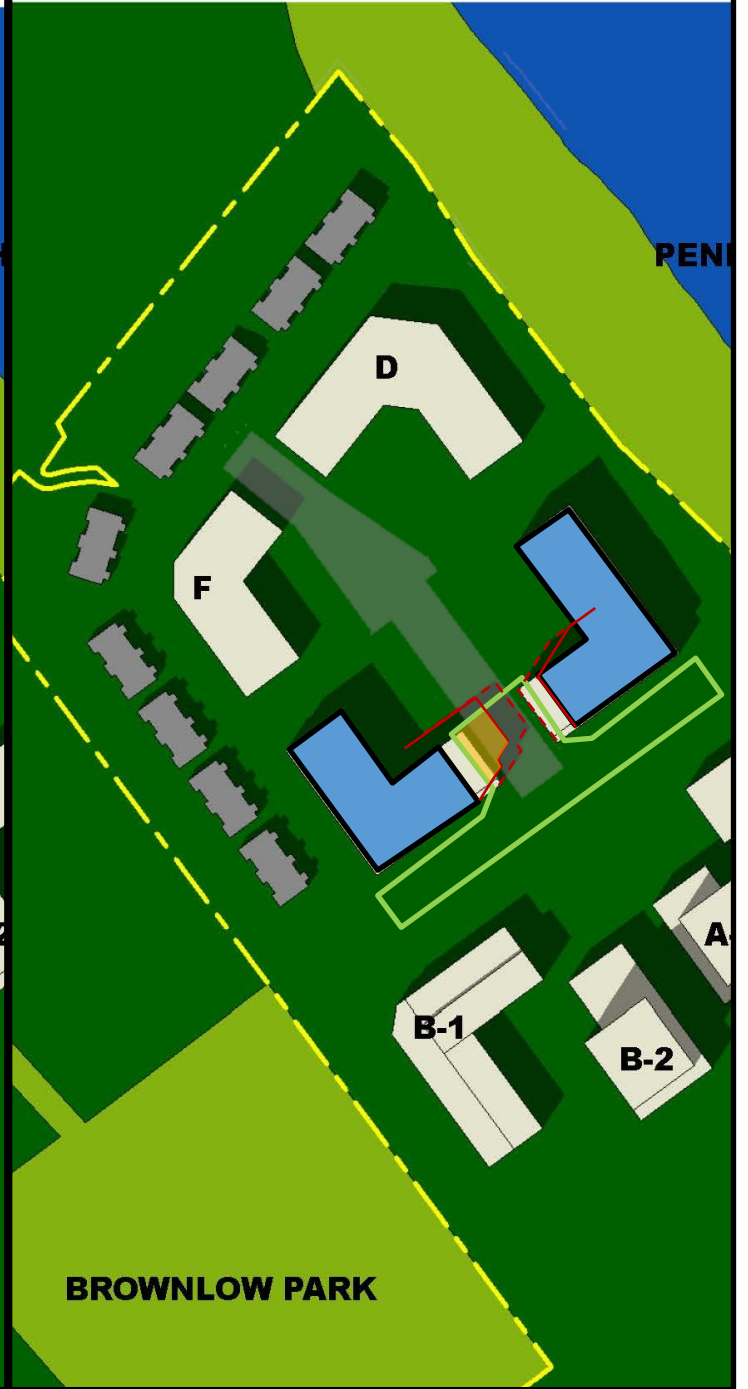
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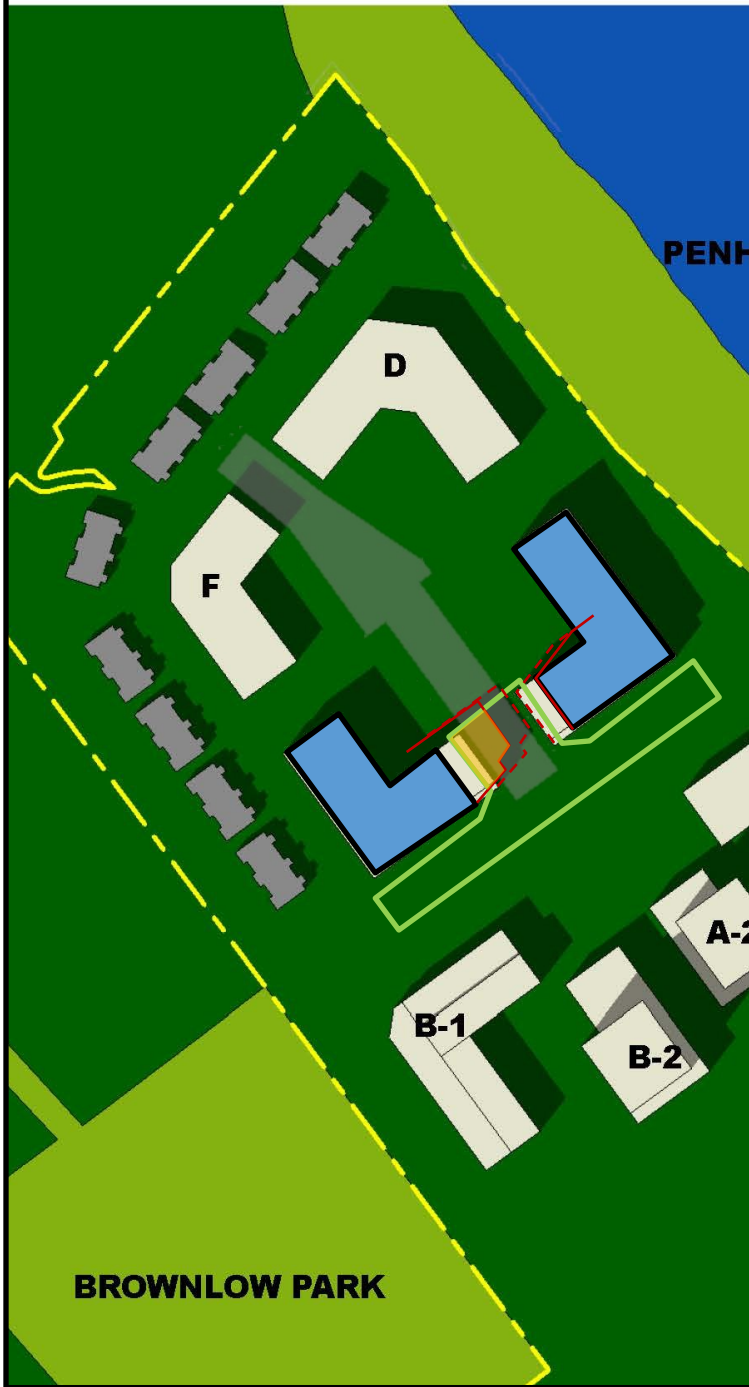
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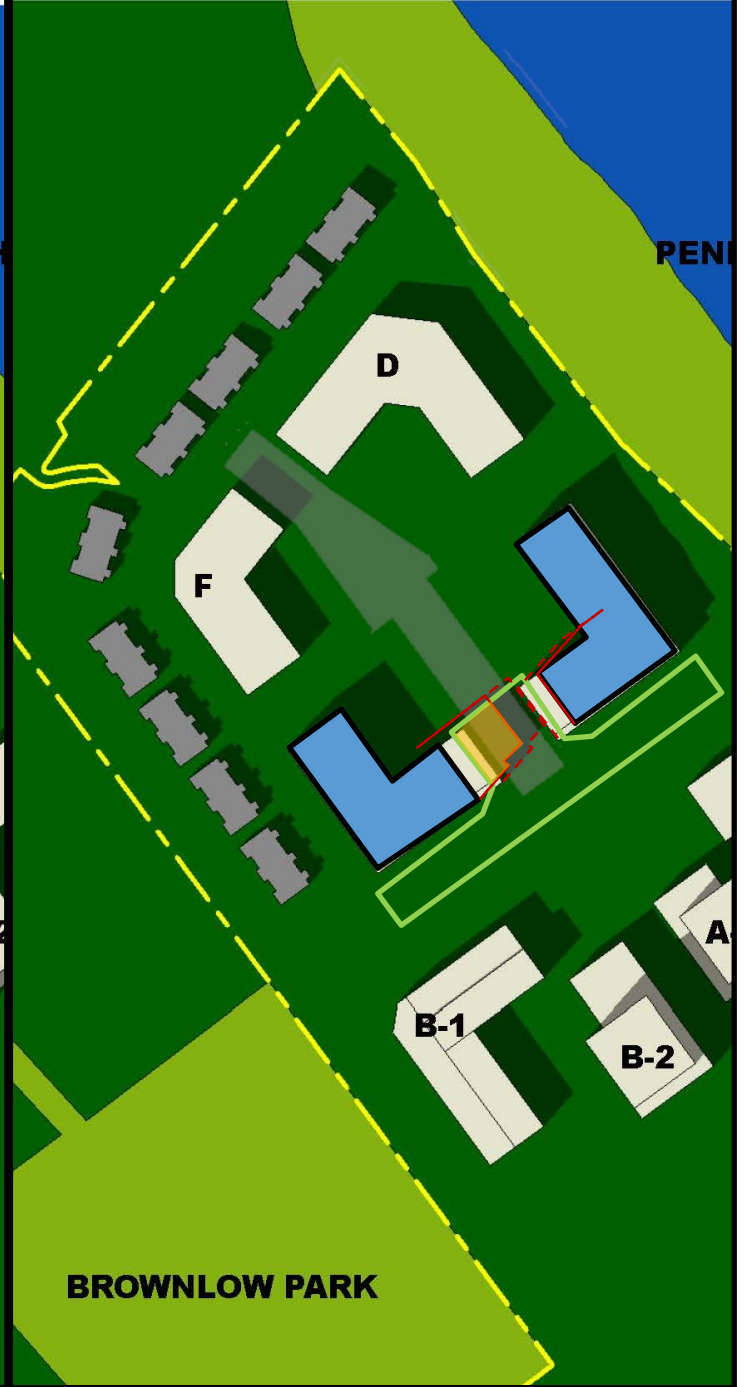
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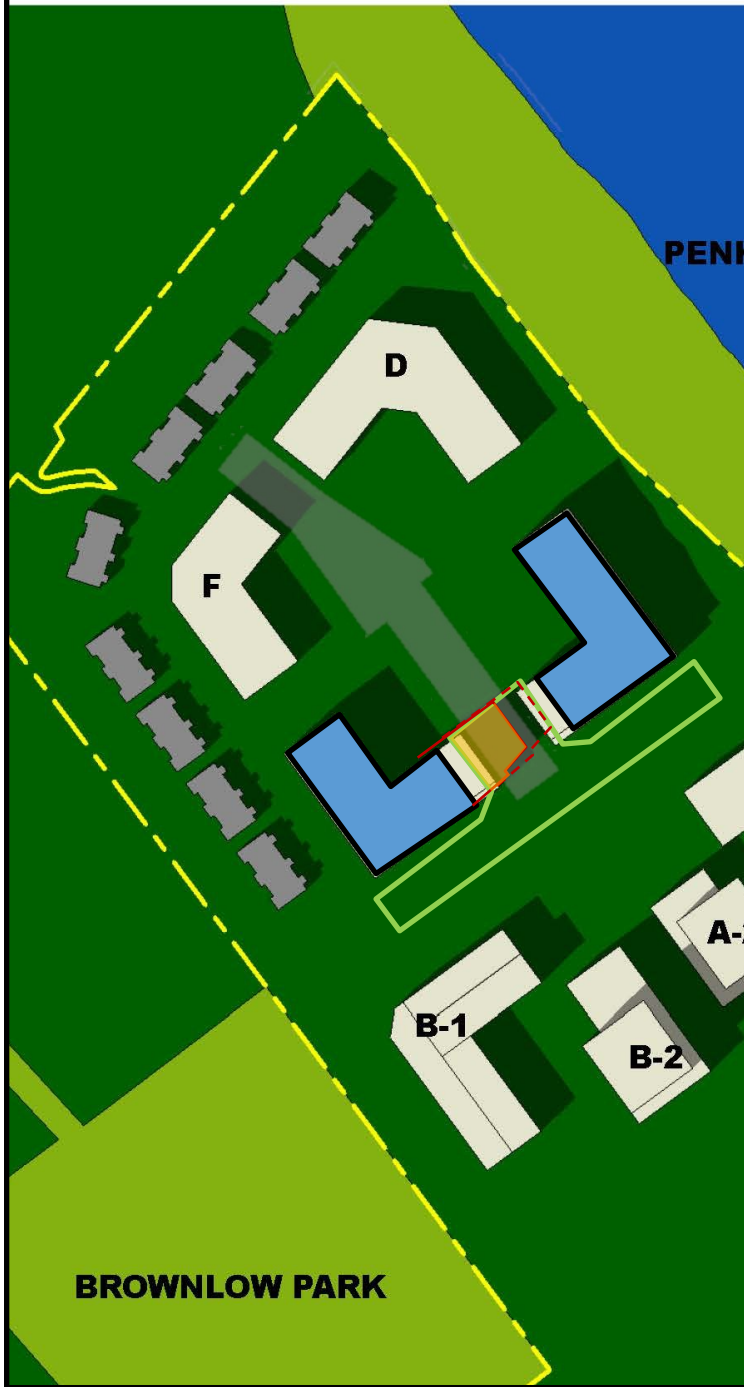
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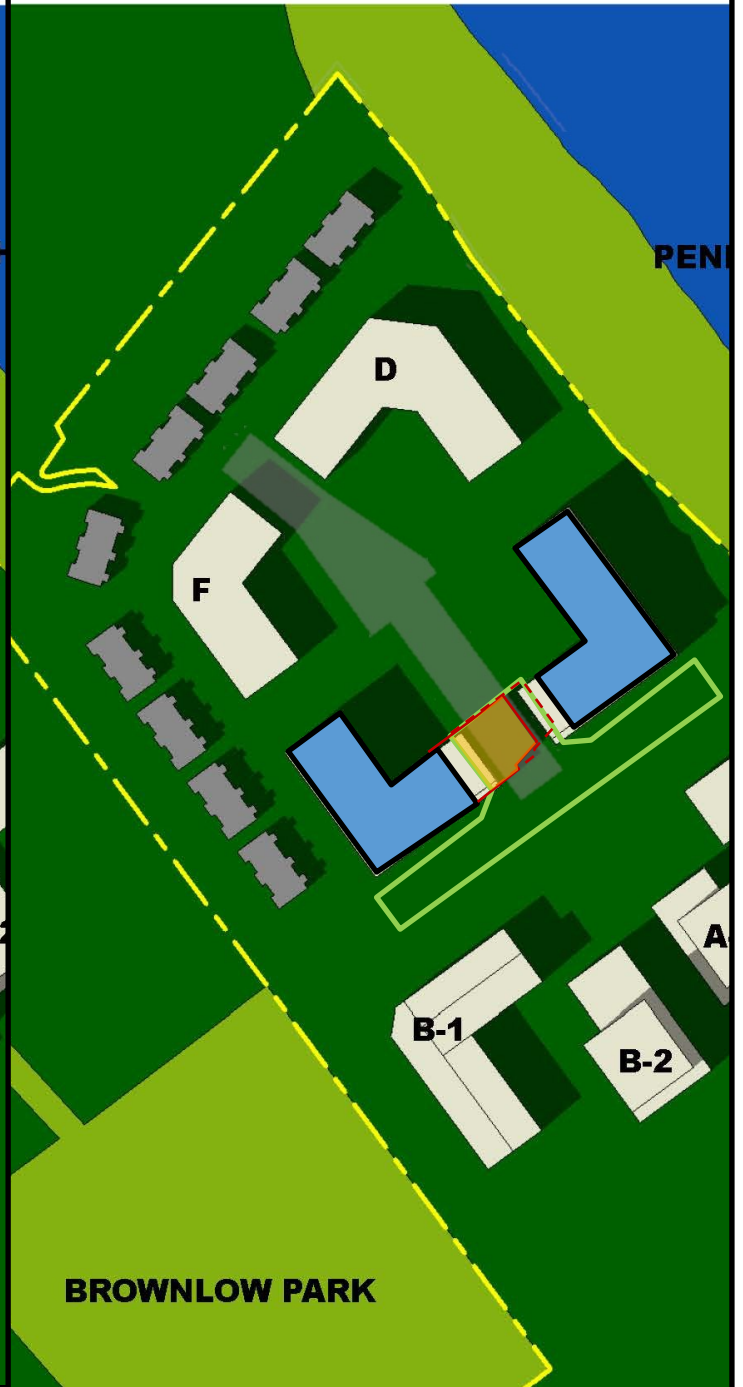
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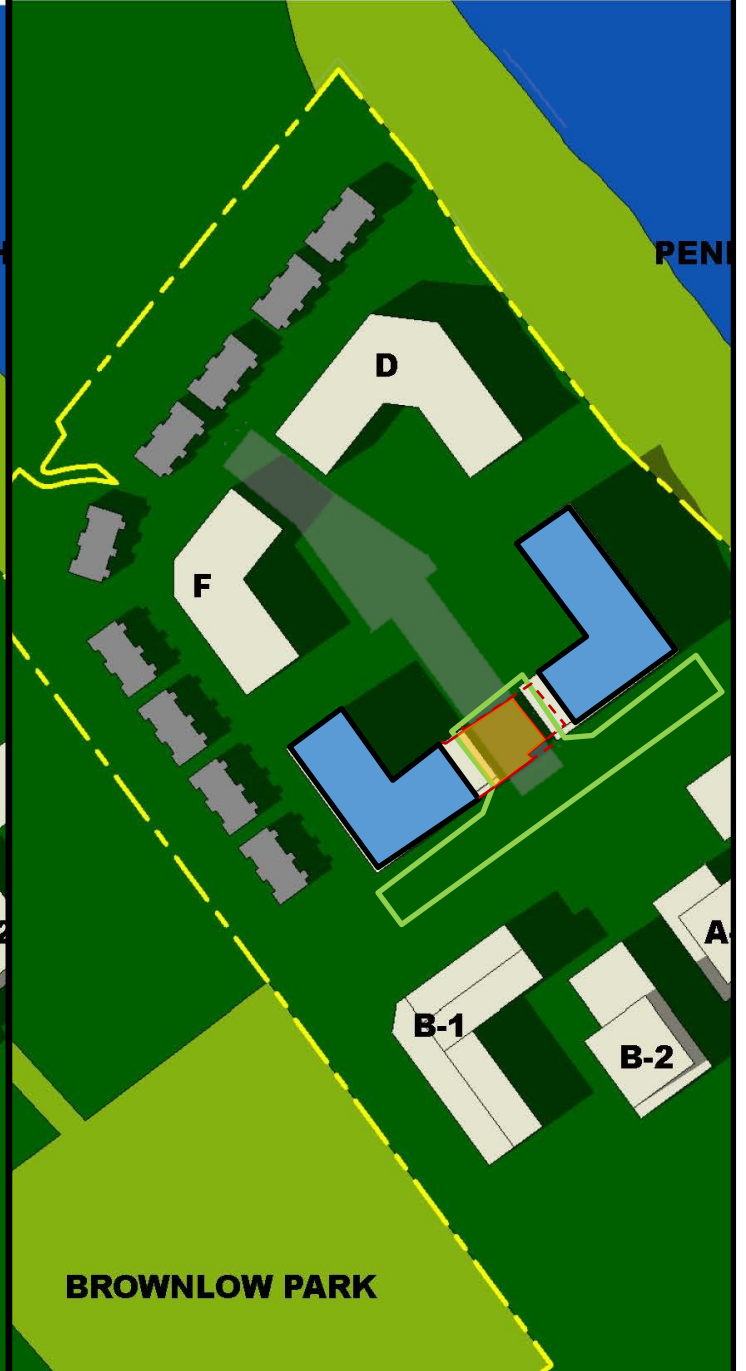
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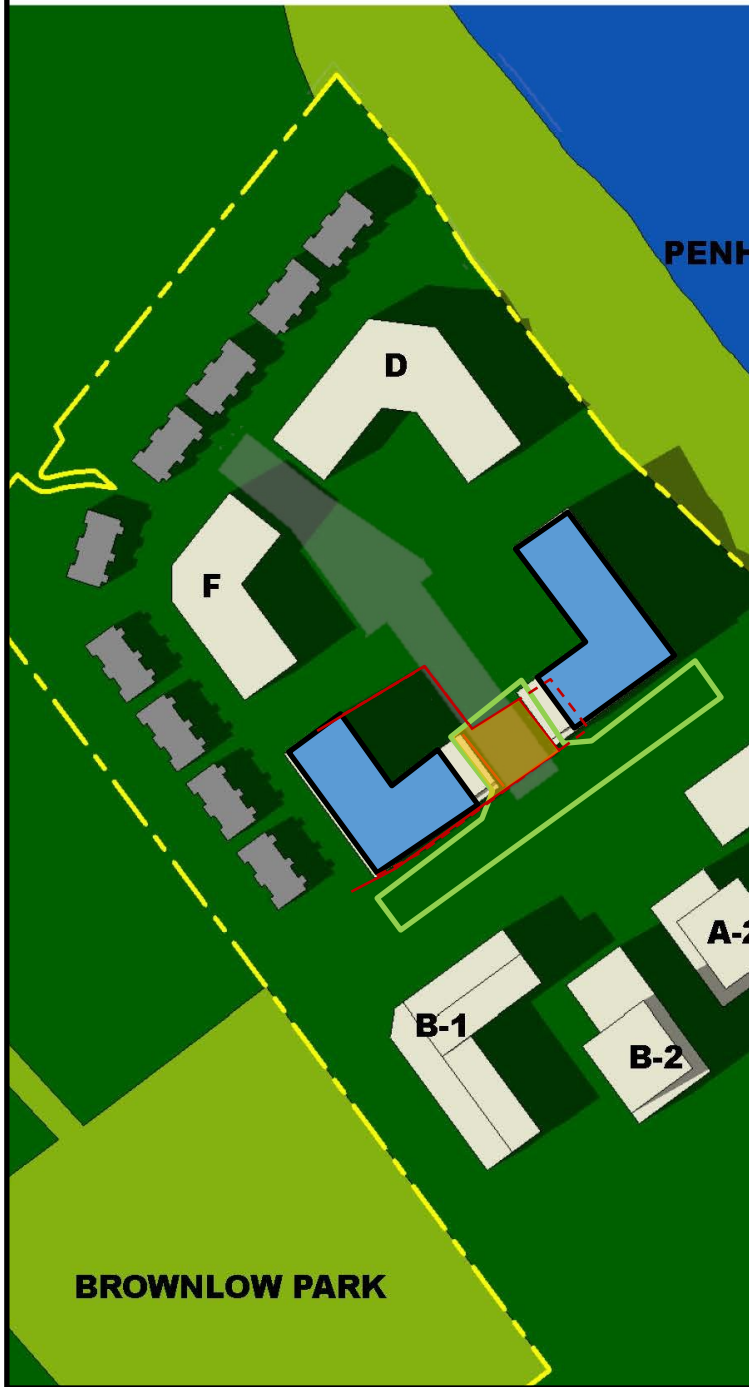
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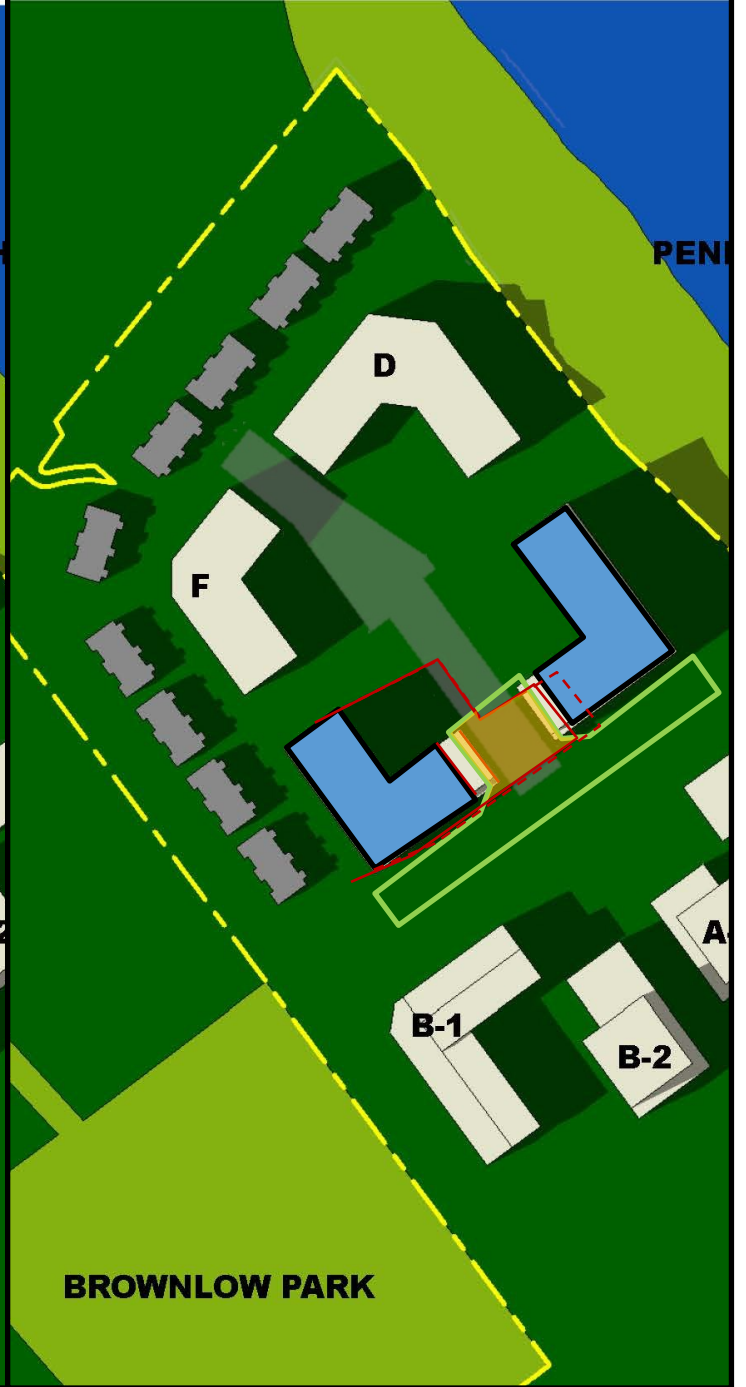
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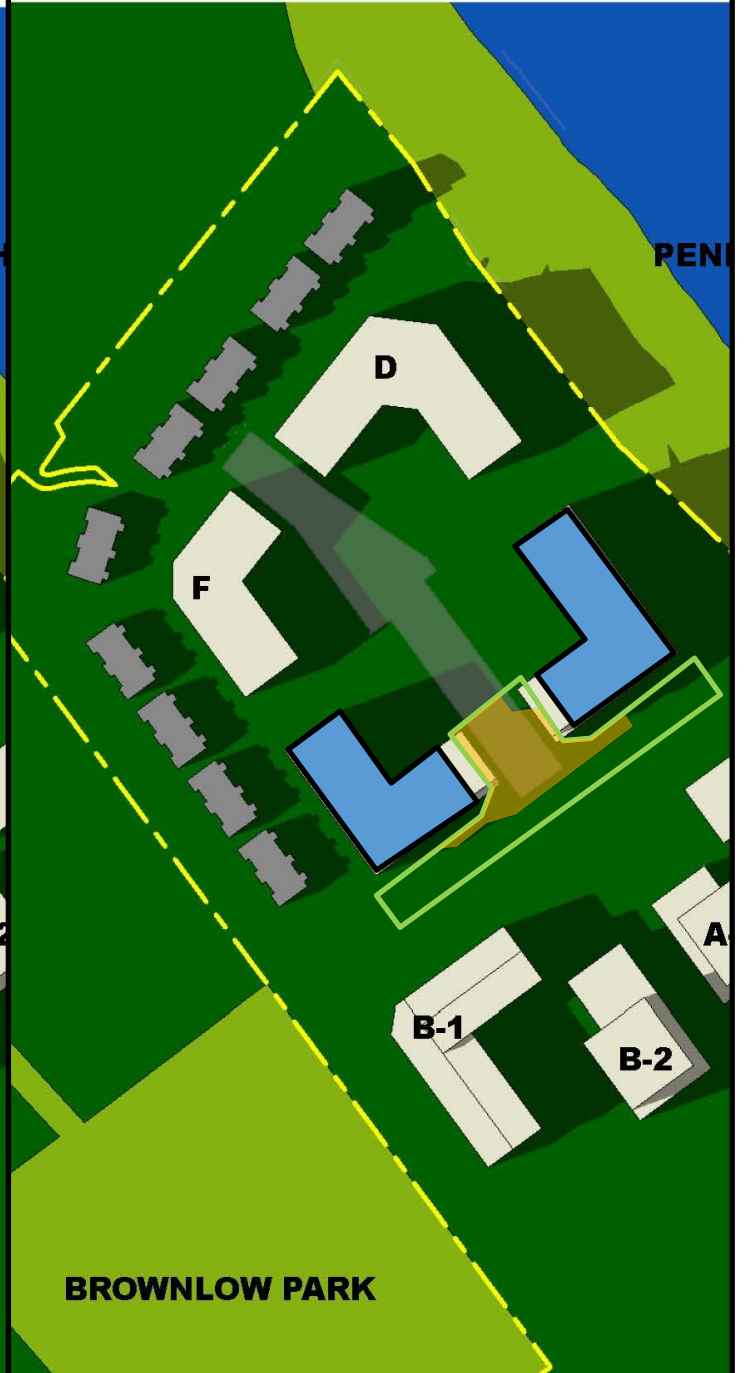
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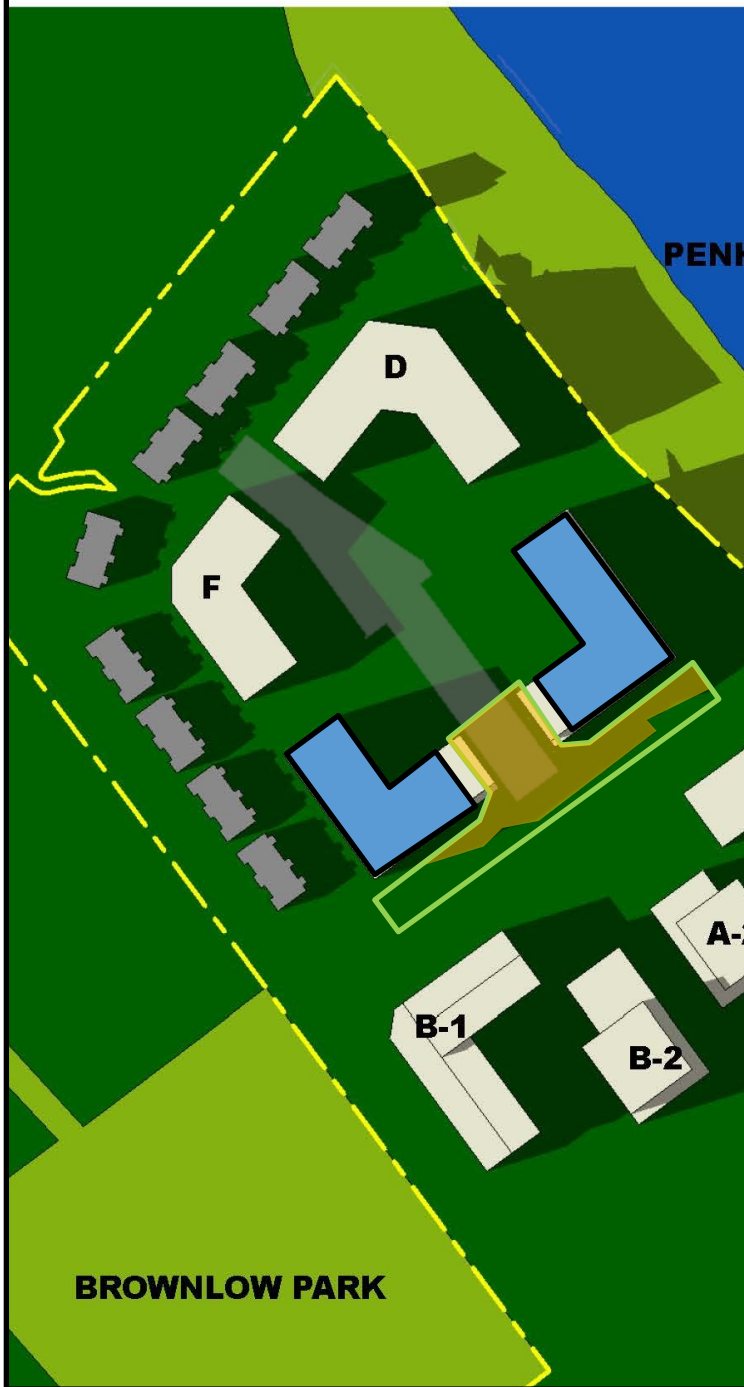
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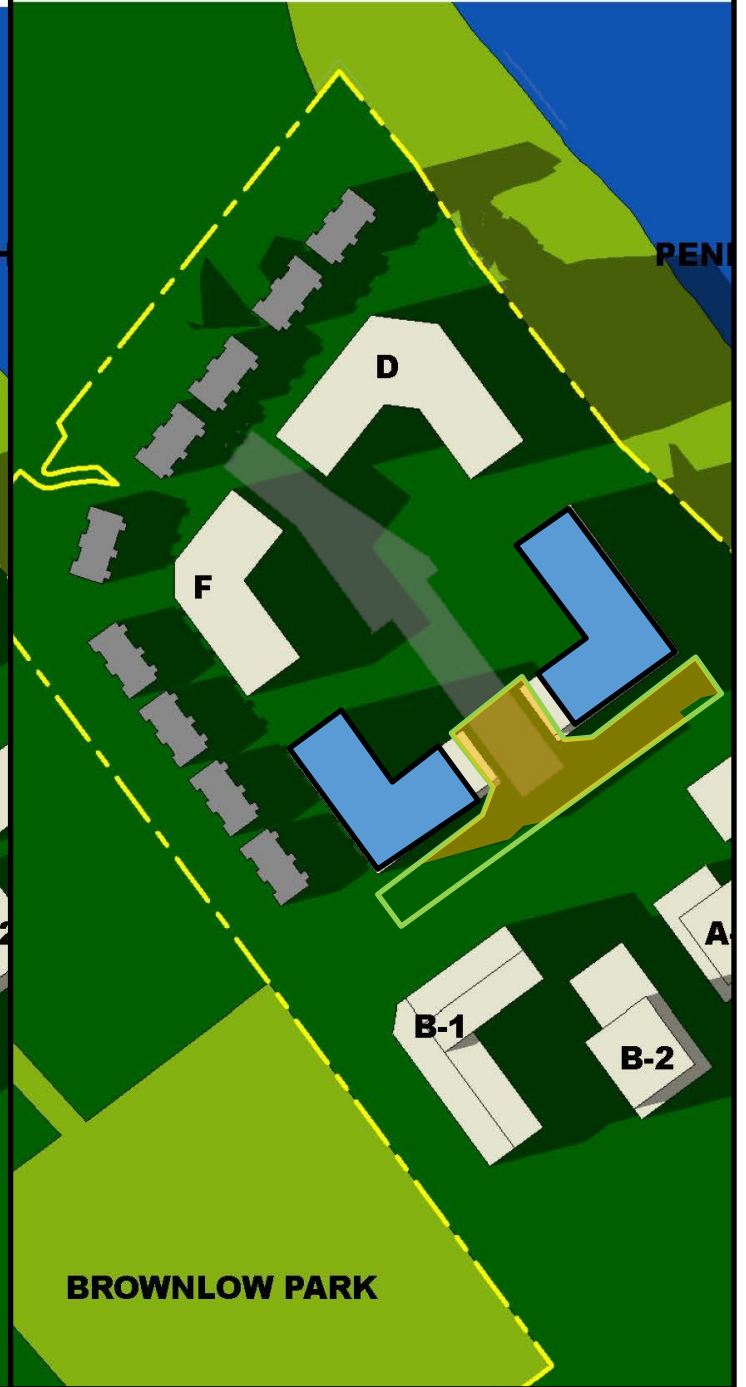
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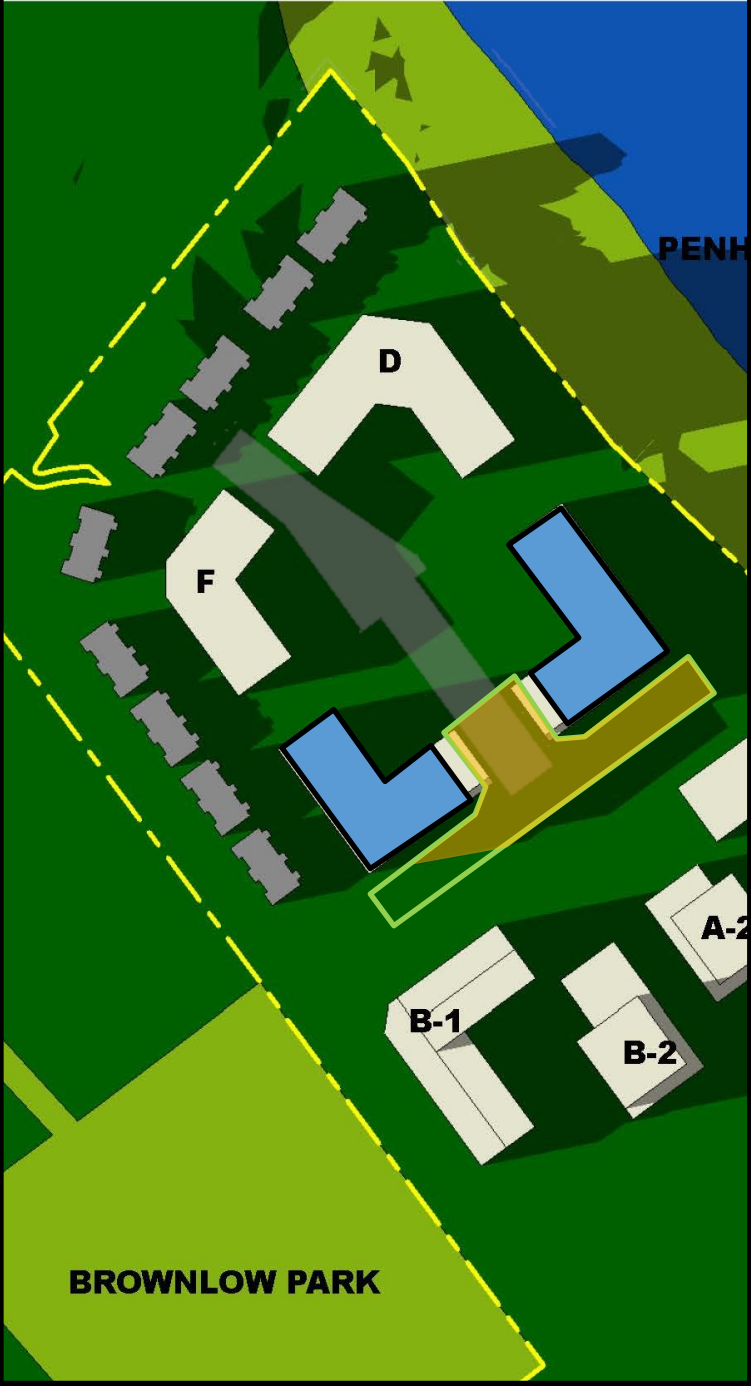
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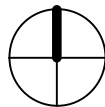
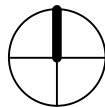


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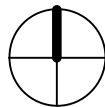
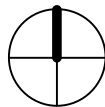
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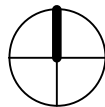
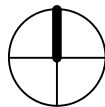
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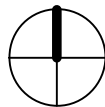
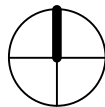
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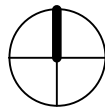
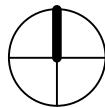
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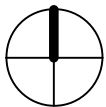
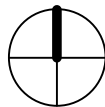
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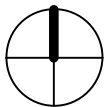
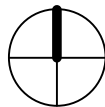
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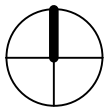
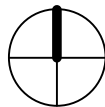
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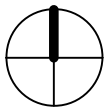
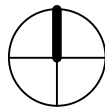
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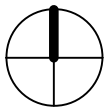
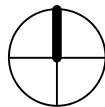
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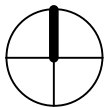
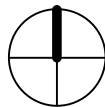
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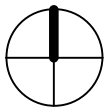
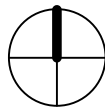
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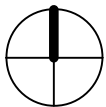
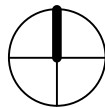
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PENHORN
DARTMOUTH, NOVA SCOTIA

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1. ALL CONSTRUCTION TO MEET ALL APPLICABLE CODES, STANDARDS, BY-LAWS, ETC.
2. DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES. USE FIGURED DIMENSIONS AS NOTED.
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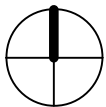
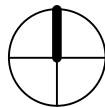
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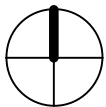
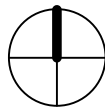
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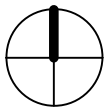
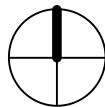
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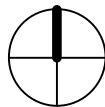
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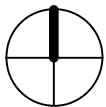
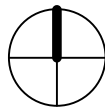
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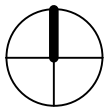
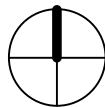
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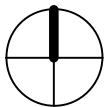
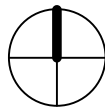
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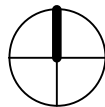
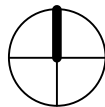
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