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## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and  
North of Britannia Road West, Mississauga

Project No. 16050

### DERRY-BRITANNIA DEVELOPMENTS LTD.

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Revised - January, 20, 2020

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STUDY SUMMARY

This shadow study was undertaken by Q4 Architects to identify the impact of shadows for the proposed subdivision development along Ninth Line Road in Mississauga, Ontario. The study is performed based on the geographic location identified by Google Earth and topographic Survey of Part of Lots 6,7,8 & 9, Concession 9, N.S. City of Mississauga, The Regional Municipality of Peel prepared by J.D. Barnes LTD. The proposed development comprises 31 townhouse blocks with a total of 170 units, 1 six-storey condominium building having 140 to 200 units, and 28 free-hold units.

This study was performed using Autodesk Revit Architecture program.

The criteria upon which the development was assessed are based on the following:

- 1. Sunlight access and shadow impact on residential private outdoor amenity spaces.
- 2. Sunlight access and shadow impact on communal outdoor amenity areas.
- 3. Sunlight access and shadow impact on public realms.
- 4. Sunlight access and shadow impact on turf and flower gardens in public parks.
- 5. Building face assessment.

Due to the size, the development, for the purpose of the shadow study, was divided into zones as shown in sheet A3.1 Private Outdoor Amenity Areas, A3.2 Communal Outdoor Amenity Areas, A3.3 Public Realms, A3.4 Turf and Flower Gardens in Public Parks, and A3.5 Building Face Assessment.

The shadow study was conducted using the days prescribed per criterion by the *Urban Design Terms of Reference – Standards for Shadow Studies* of the City of Mississauga. These dates are June 21, September 21 (similar to March 21, and therefore, criteria for September 21 are deemed to apply to March 21), and December 21. The shadow modeling is performed in 1-hour increments between 1.5 hours after sunrise to 1.5 hours before sunset.

Sunlight access and shadow impact on residential private outdoor amenity spaces

The study illustrates that 94% of the proposed townhouse blocks and all of the proposed free-hold units have no shadow impact on their private outdoor spaces which constitute as the rear yards for both town house and free-hold units) on the prescribed dates of June 21, September 21 and December 21. Only 6% of the proposed townhouse blocks development have partial shadow impact in any two consecutive hours during the study times.

Sunlight access and shadow impact on communal outdoor amenity areas

The subject of the communal outdoor amenity areas shadow study was limited to the mid-rise development located within Block 60. This is due to the factor that this development has an amenity space that is more exclusive to the use of the residents of that building. The shadow impact on the parks (considered communal outdoor amenity areas) will be discussed later in this summary.

There are minor shadow impacts for the communal amenity space (an area of 261 square meters). As the study illustrates, the sun access factors for the amenity area for June 21 and September 21 is within the range of 82% to 99% and on December 21 the sun access factors are 69% to 79%.

Sunlight access and shadow impact on public realms

Under the public realm criterion, although the sidewalks bounding the proposed development blocks receive incremental shadows, they allow full sunlight for at least four hours within the prescribed times of 9:12am to 11:12am and between 3:12pm and 5:12pm.

Sunlight access and shadow impact on turf and flower gardens in public parks

Adequate sunlight during the growing seasons from March to October is mostly achieved in the two parks (Block N62 and N63) as illustrated in the shadow study. In particular to Block N63, there is full sunlight consistently within the prescribed times.

Building face assessment

The shadow casting on June 21, September 21 and December 21 on the proposed townhouse blocks revealed that 75% of them do not have significant impact from shadows in the areas prescribed by the building face assessment criterion. Although the free-hold units are impacted by incremental shadows, these are limited to the southern exposure and for a minimal amount of time.

- 0 -

Overall, the shadow impacts on the proposed development are minor. As per the results, in most criteria, the proposed development receives the required sun exposure. The minor impacts observed in some of the blocks and free-hold units can be mitigated by various design interventions such as different angles of roof pitches, selection of building materials and colours, and landscape treatments. These can all be explored and addressed in more detail during the design phase.

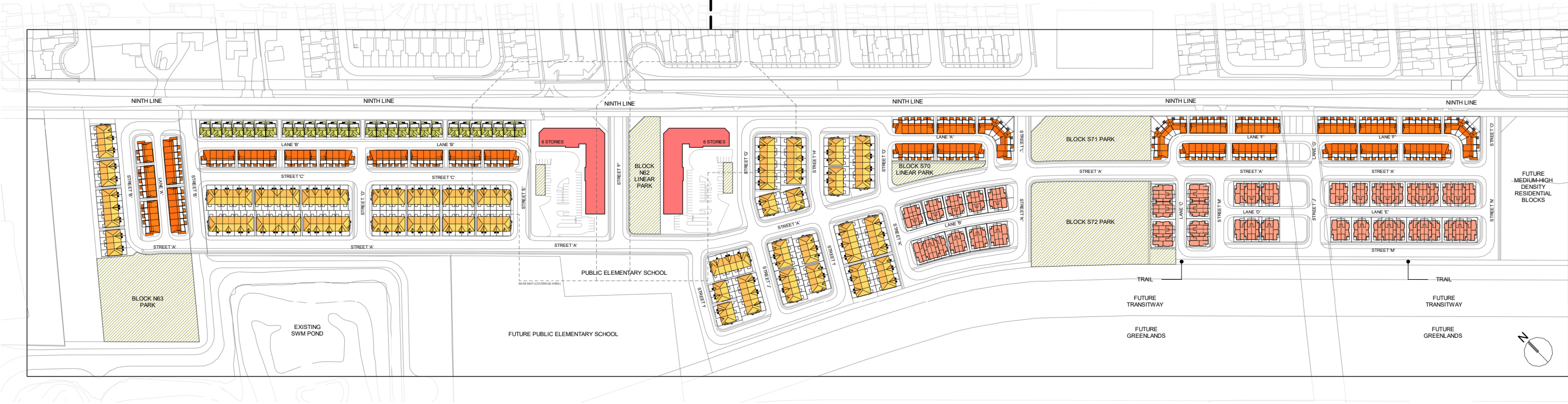
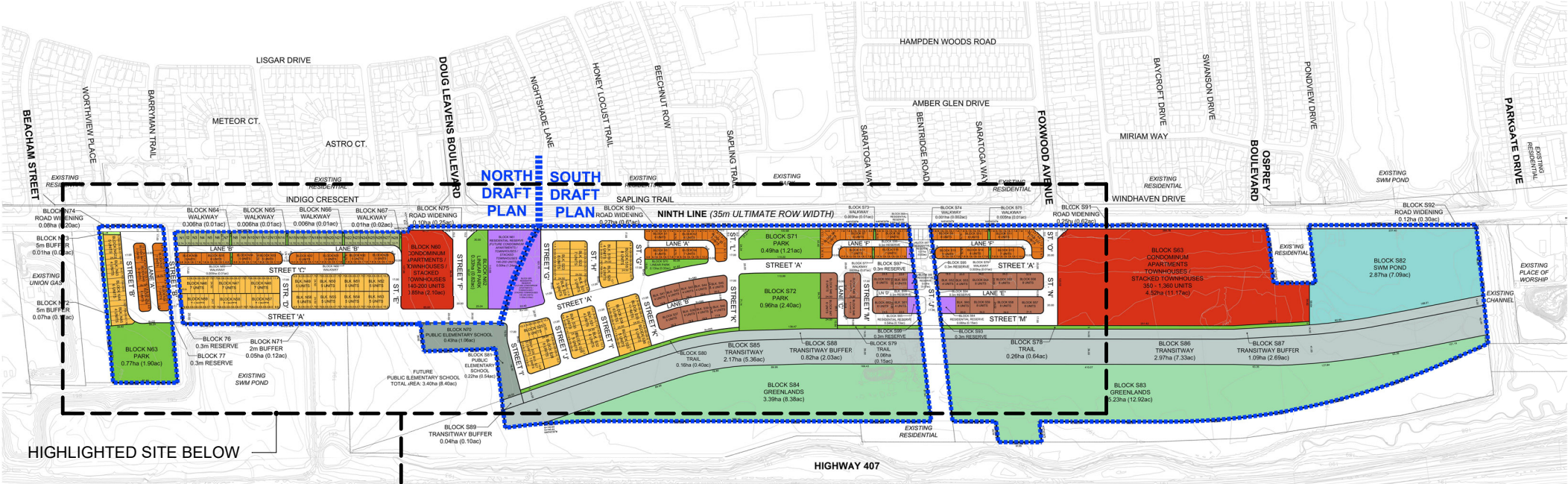
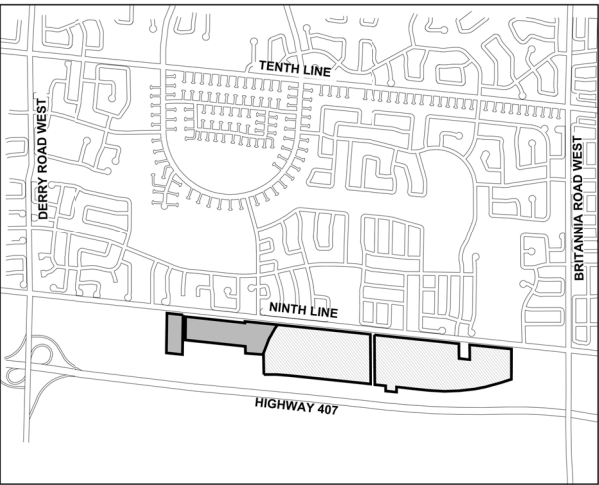


NOTES:

- 1- Site plan and the north direction is based on draft plan prepared by Glen Schnarr & Associates Inc. dated June 11st, 2019.
- 2- The shadow study is performed using Autodesk Revit Architecture based on information prepared by Glen Schnarr & Associates Inc. dated June 11st, 2019.

Note:  
For this study, assessments and recommendations are written for each site falling under the criteria which applies to the site. The assessments and recommendations can be found at the end of the subject sites.

AREA OF STUDY:

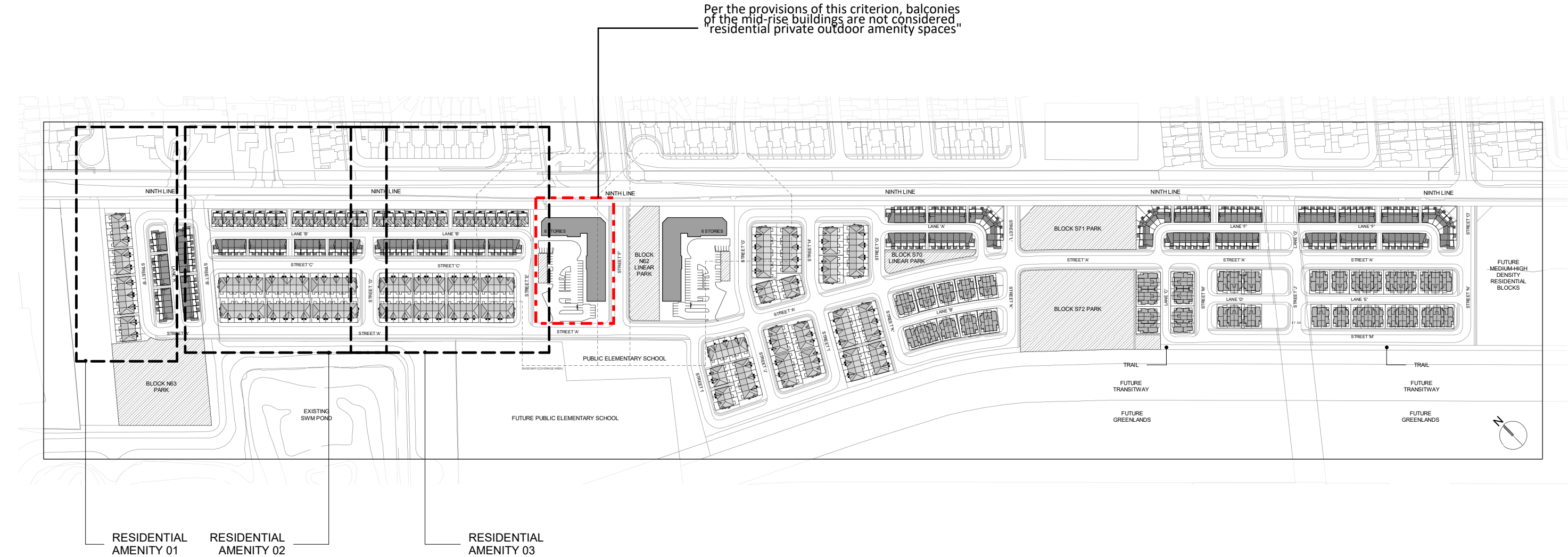


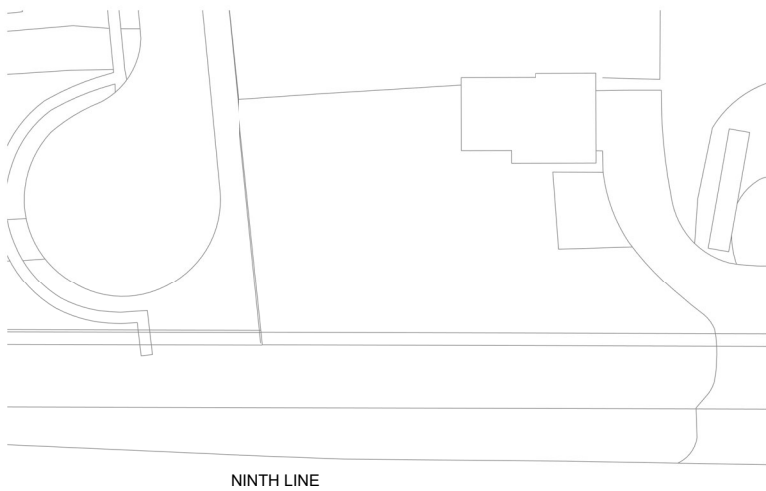


3.1 RESIDENTIAL PRIVATE OUTDOOR AMENITY SPACES

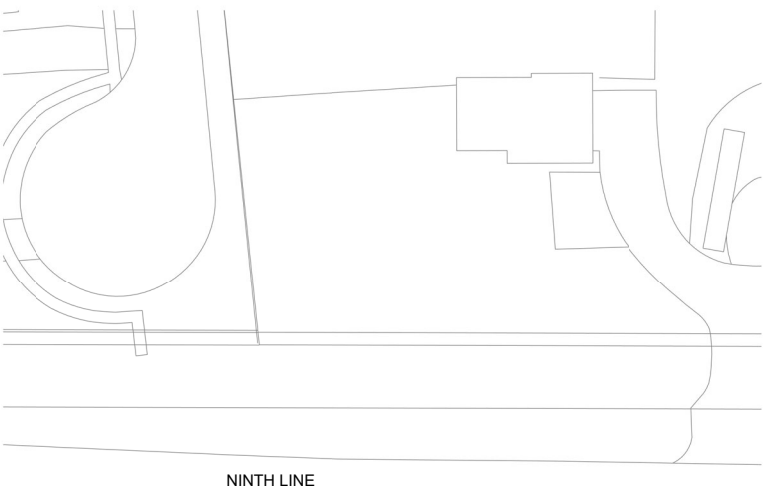
To maximize the use of private residential amenity spaces during spring, summer and fall, shadow impacts from proposed developments should not exceed one hour in duration on areas such as private rear yards, decks, patios and pools of surrounding residential dwellings on each of the following dates:

- ♦ June 21
- ♦ September 21 (March 21 shadow patterns are similar but occur 14 minutes later) This criterion 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 (**“No Impact Zone”**). The line of impact assessment shall be, a line **7.5 m** from the rear wall or other appropriate exterior building wall of the dwelling that abuts the private amenity space. New shadows shall not result in less than 2 hours of direct sunlight. Where less than 2 hours of sunlight already exists within the **“No Impact Zone”**, no new shade may be added. Balconies are not considered “residential private outdoor amenity spaces” unless they are the only outdoor living area available to the dwelling unit, are unenclosed, and project 4 m or more from the exterior wall of the building.

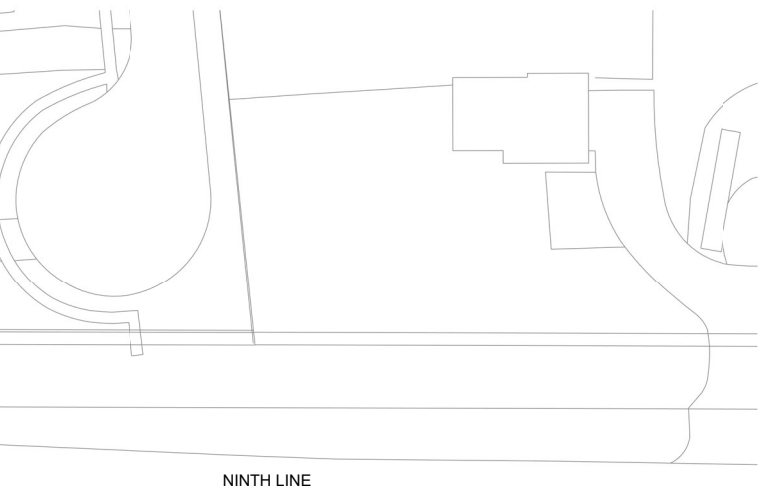




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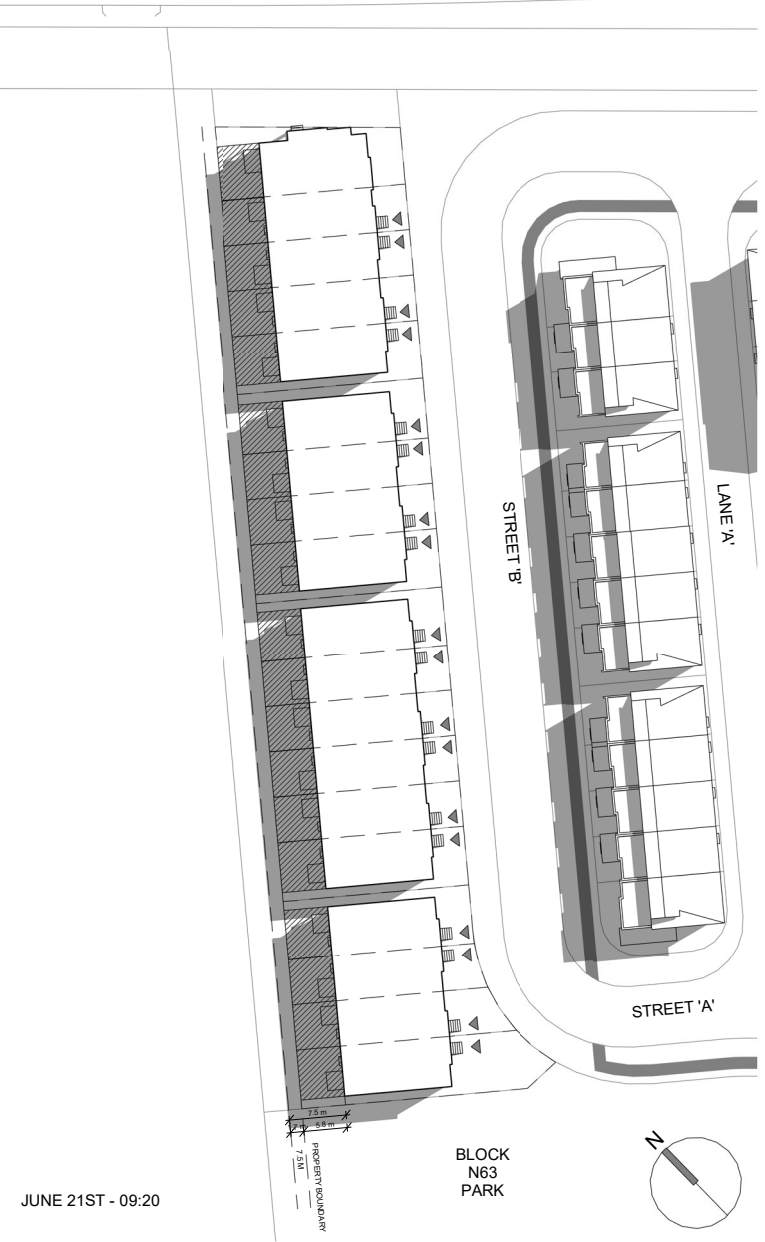
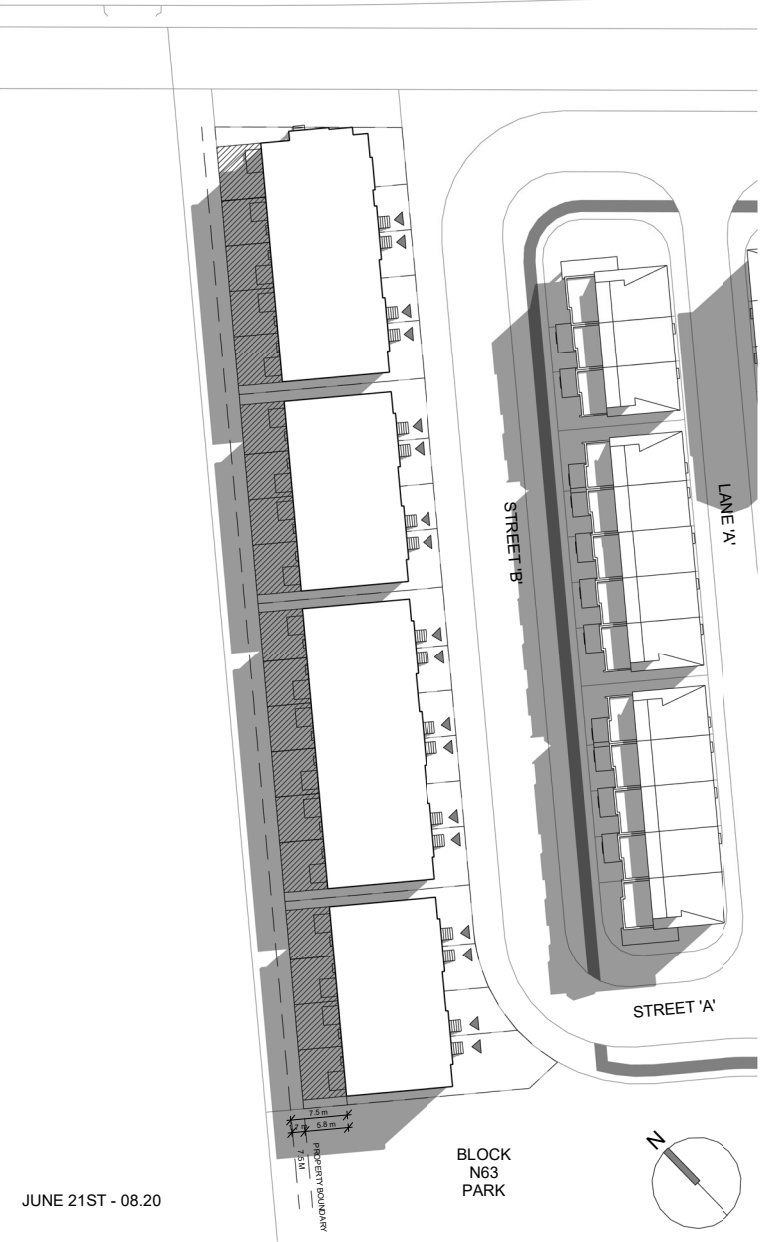
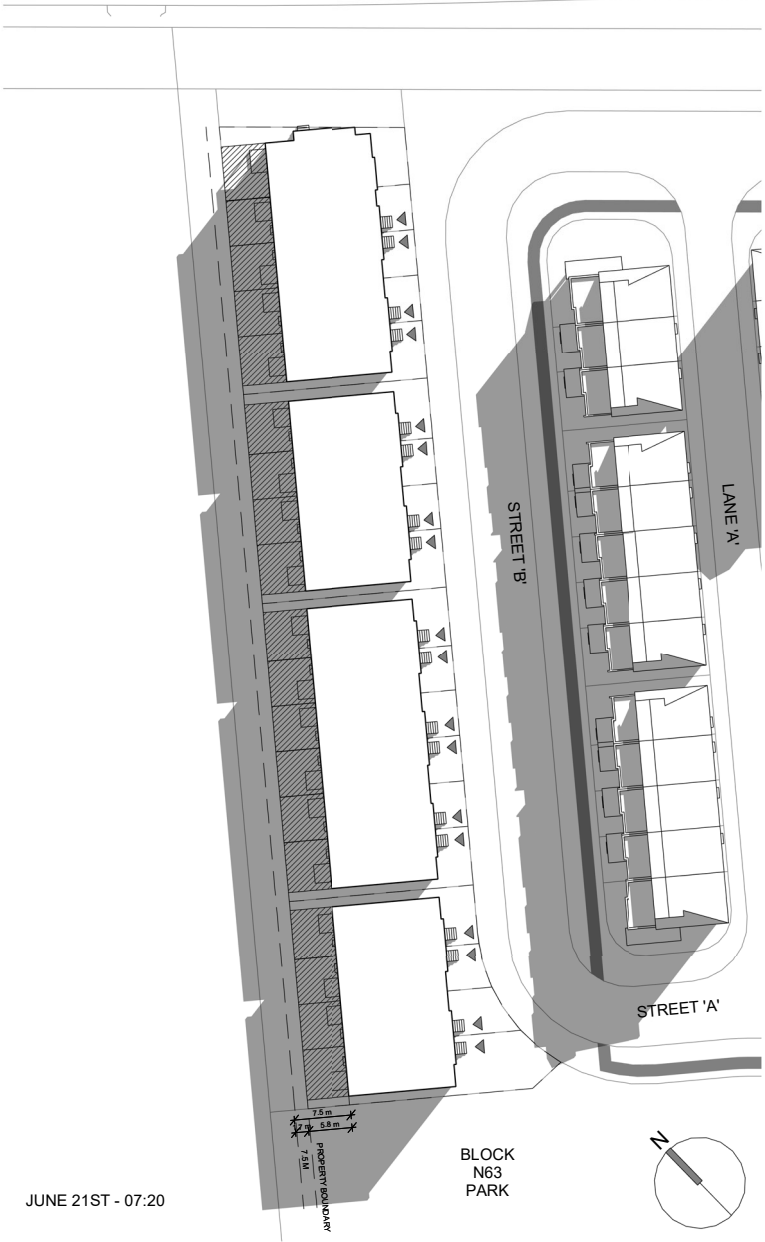
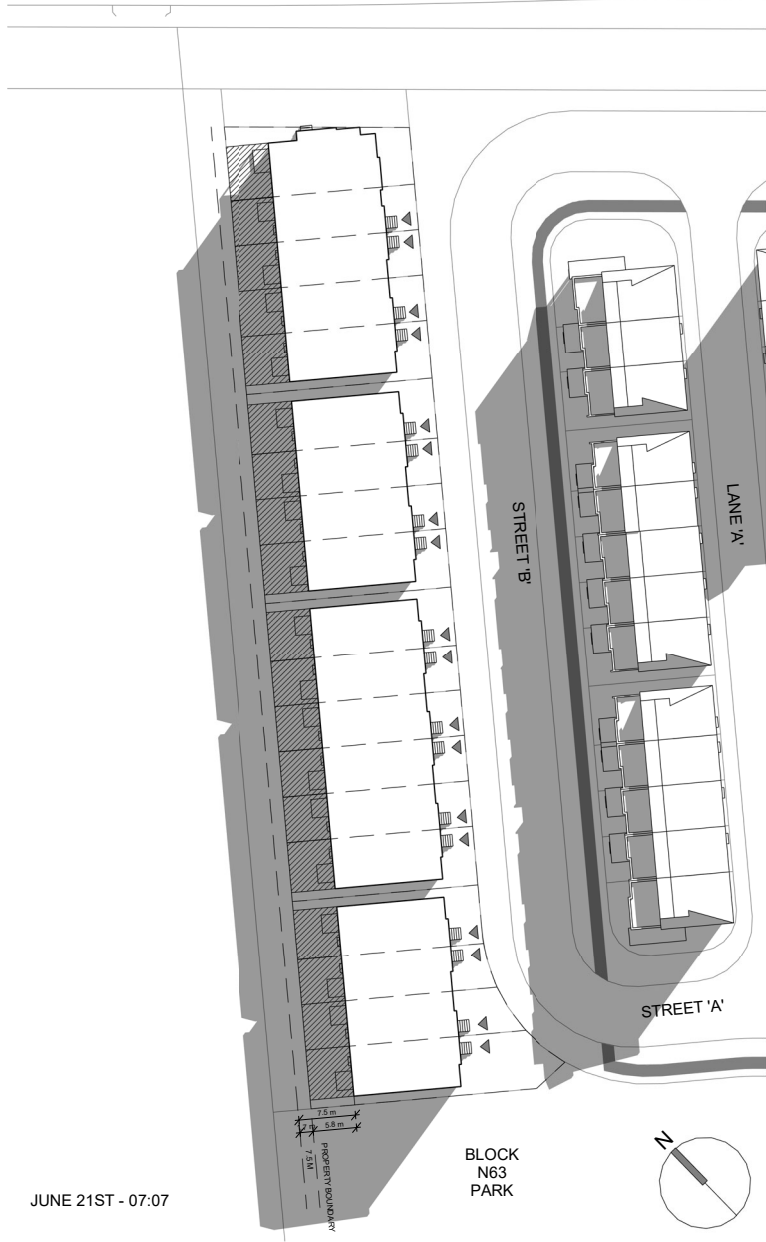
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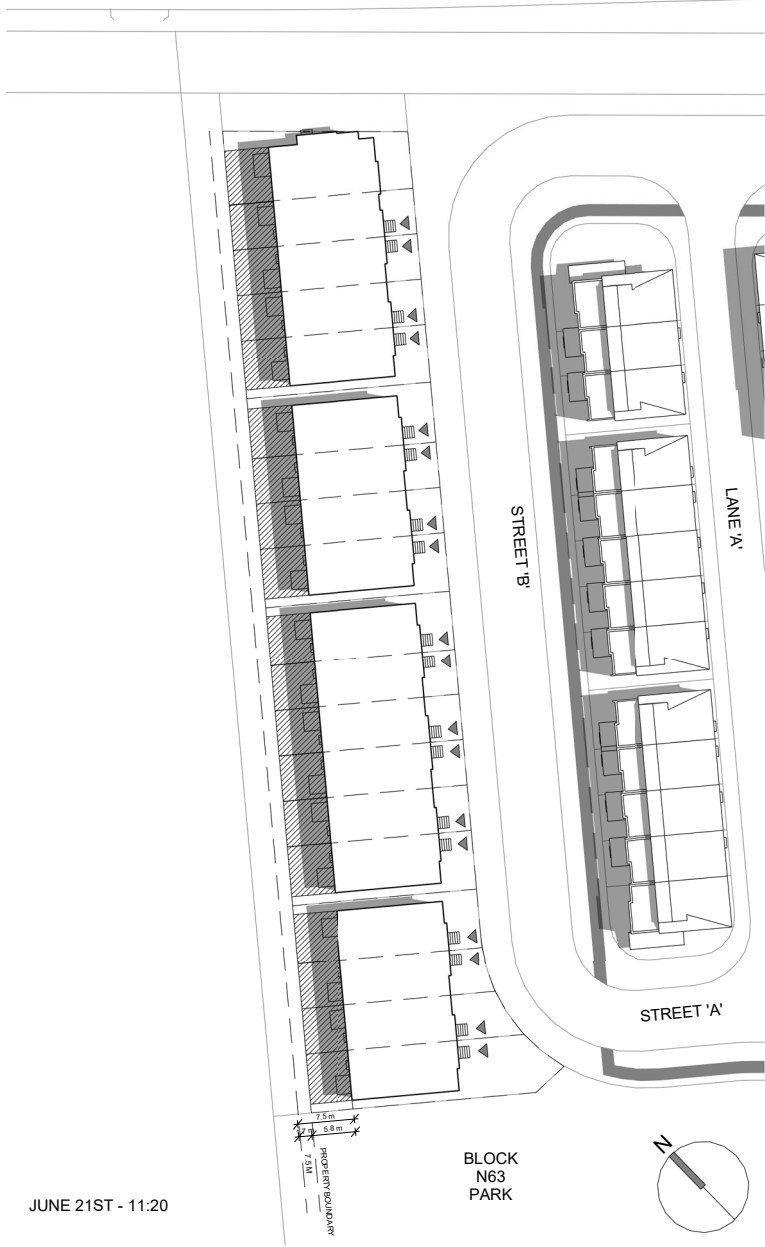
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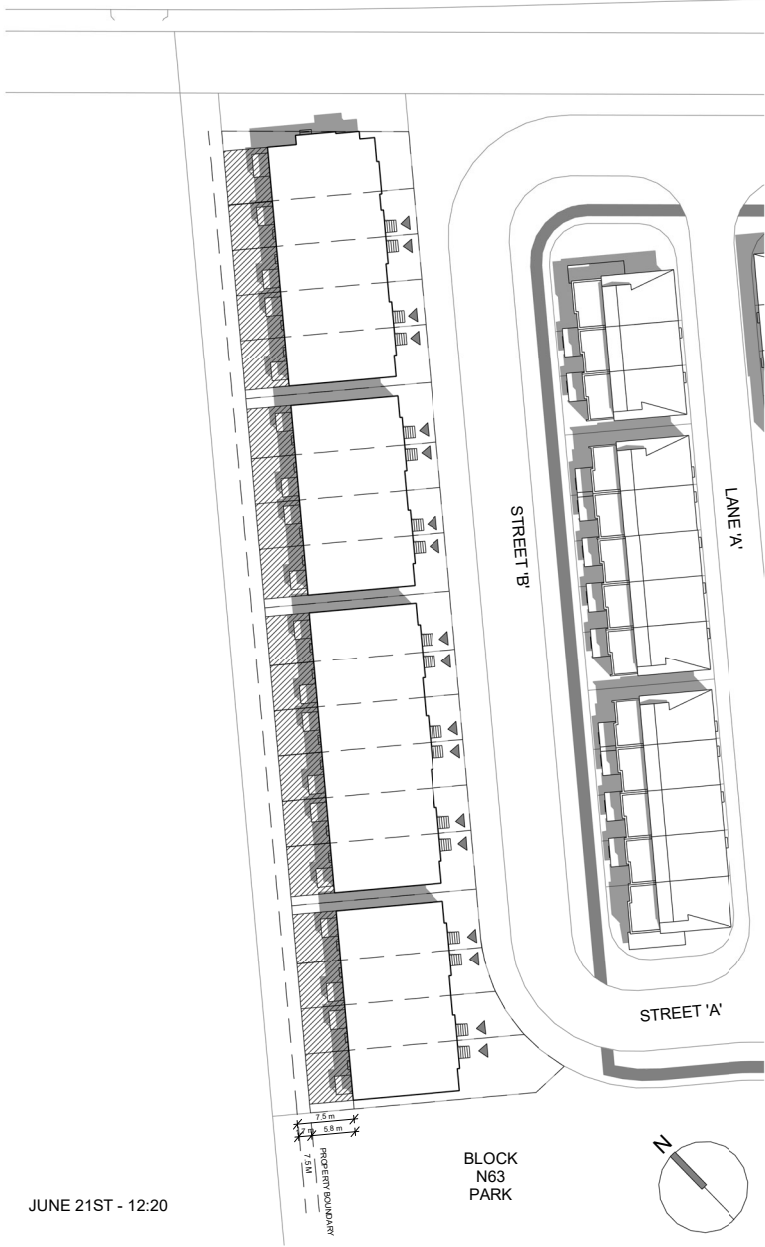
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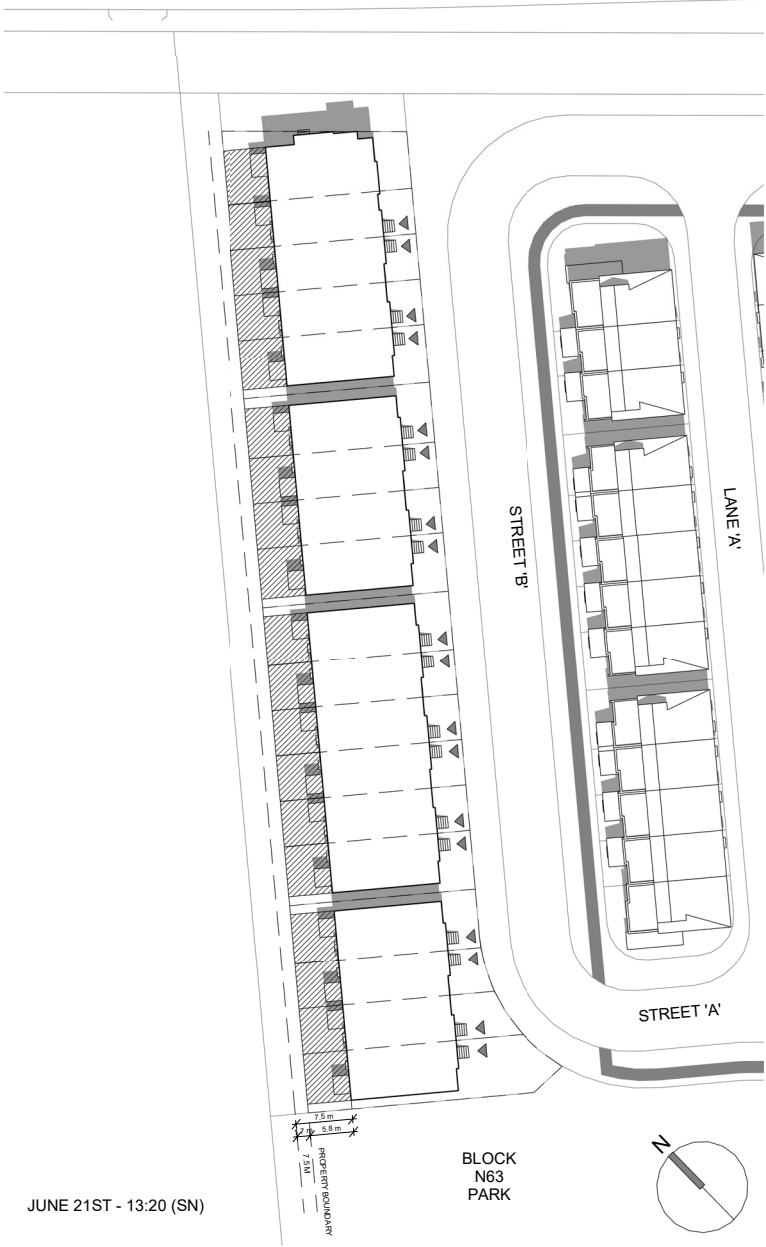
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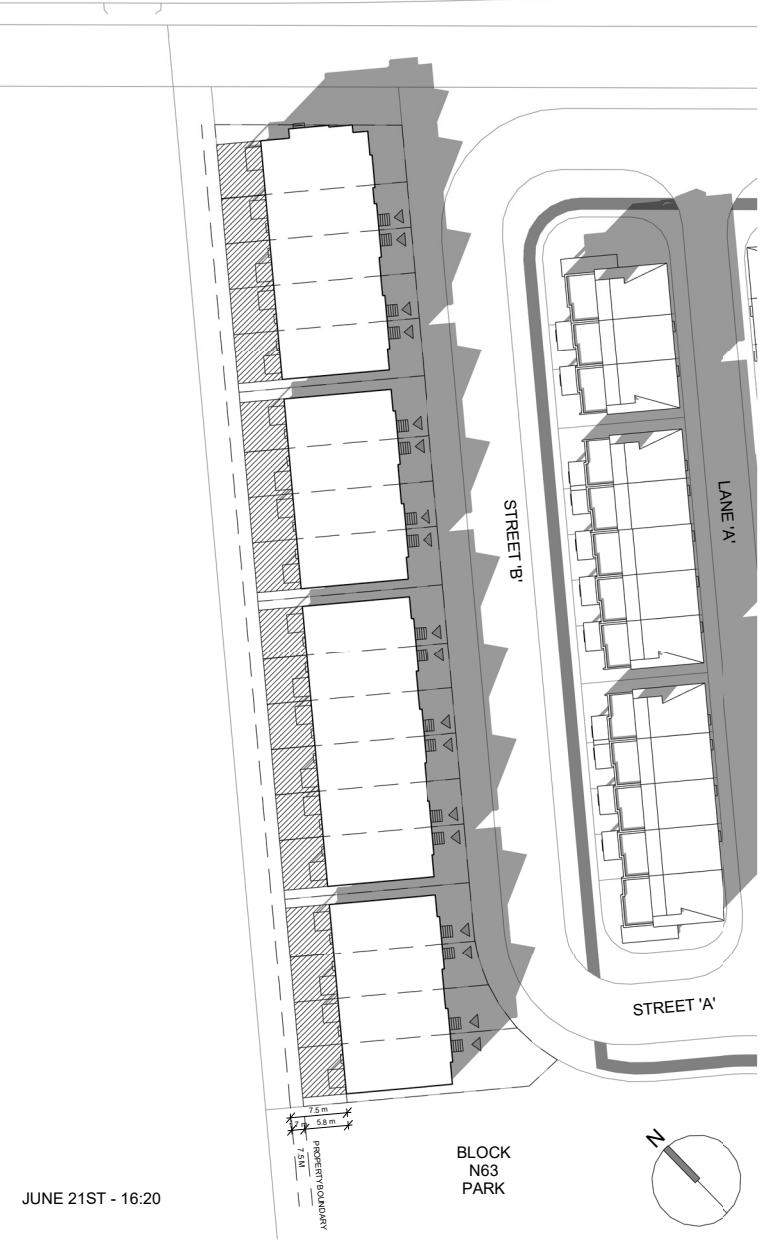
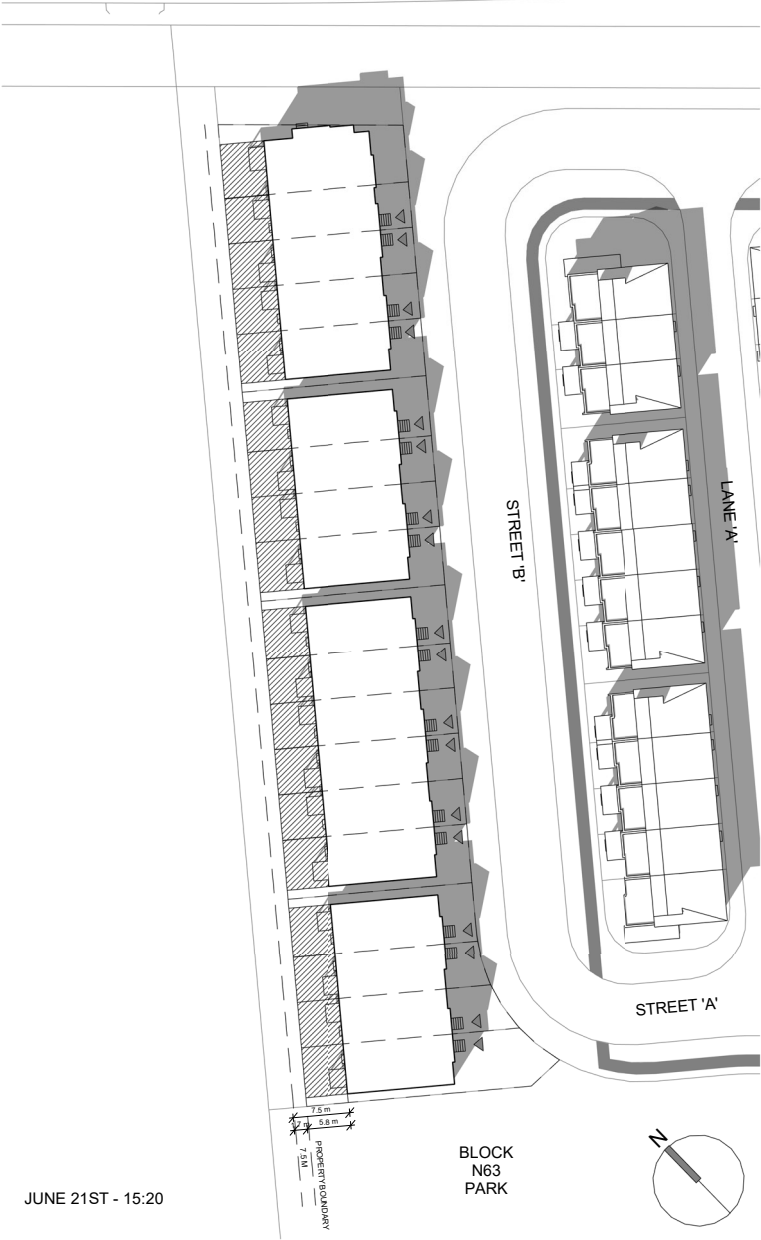
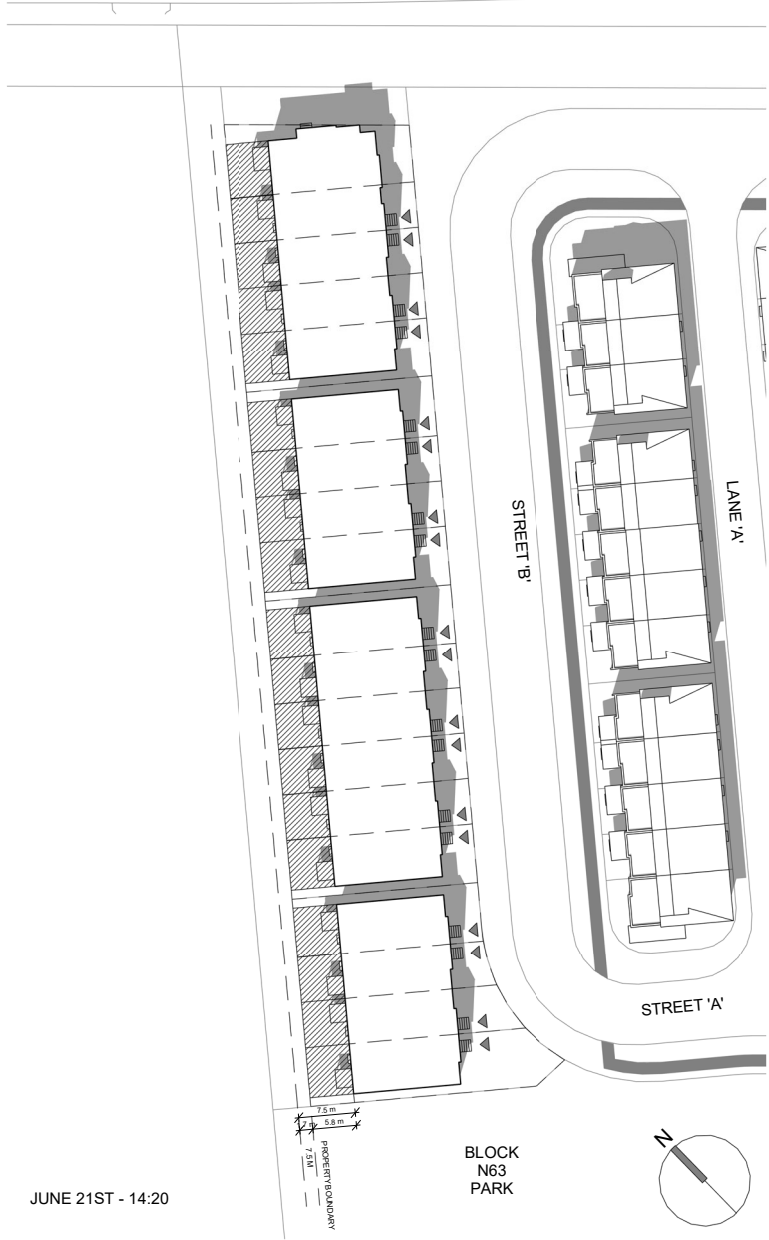
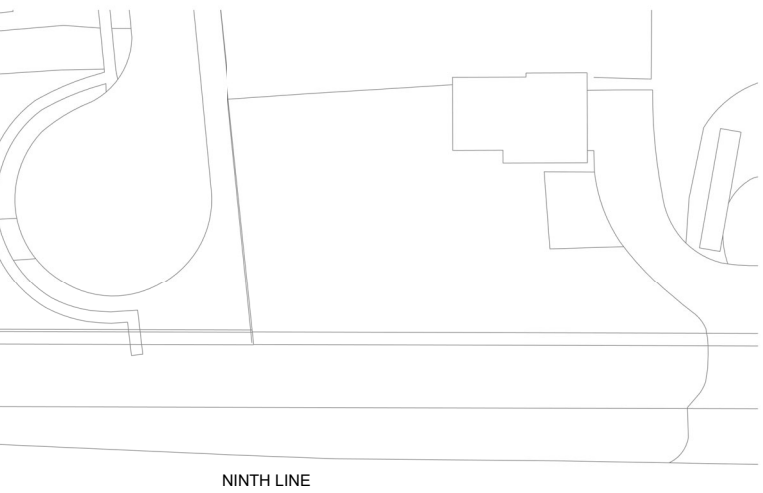
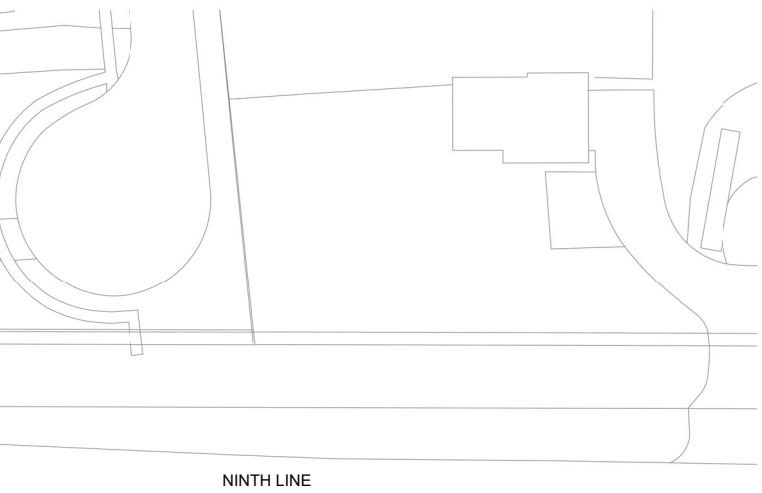
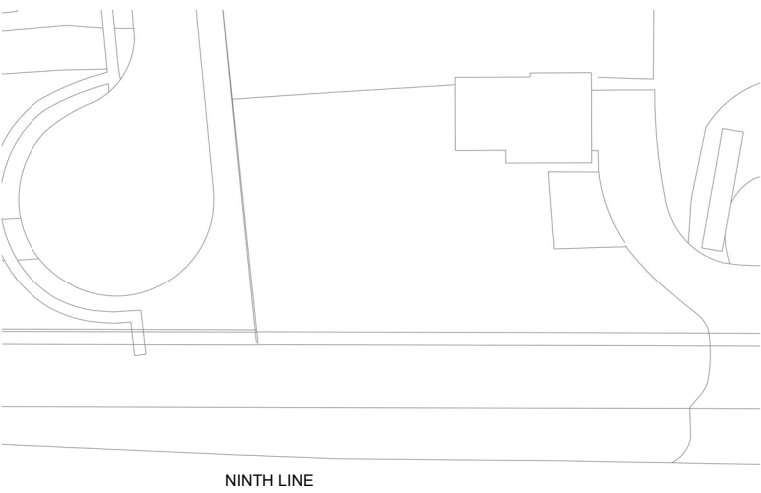
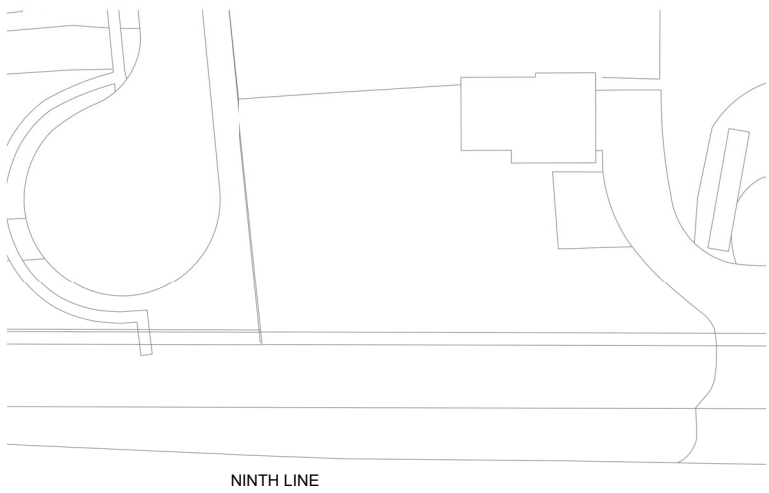
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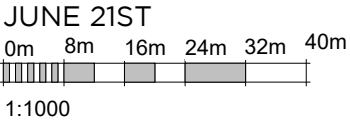
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**SHADOW ANALYSIS**

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

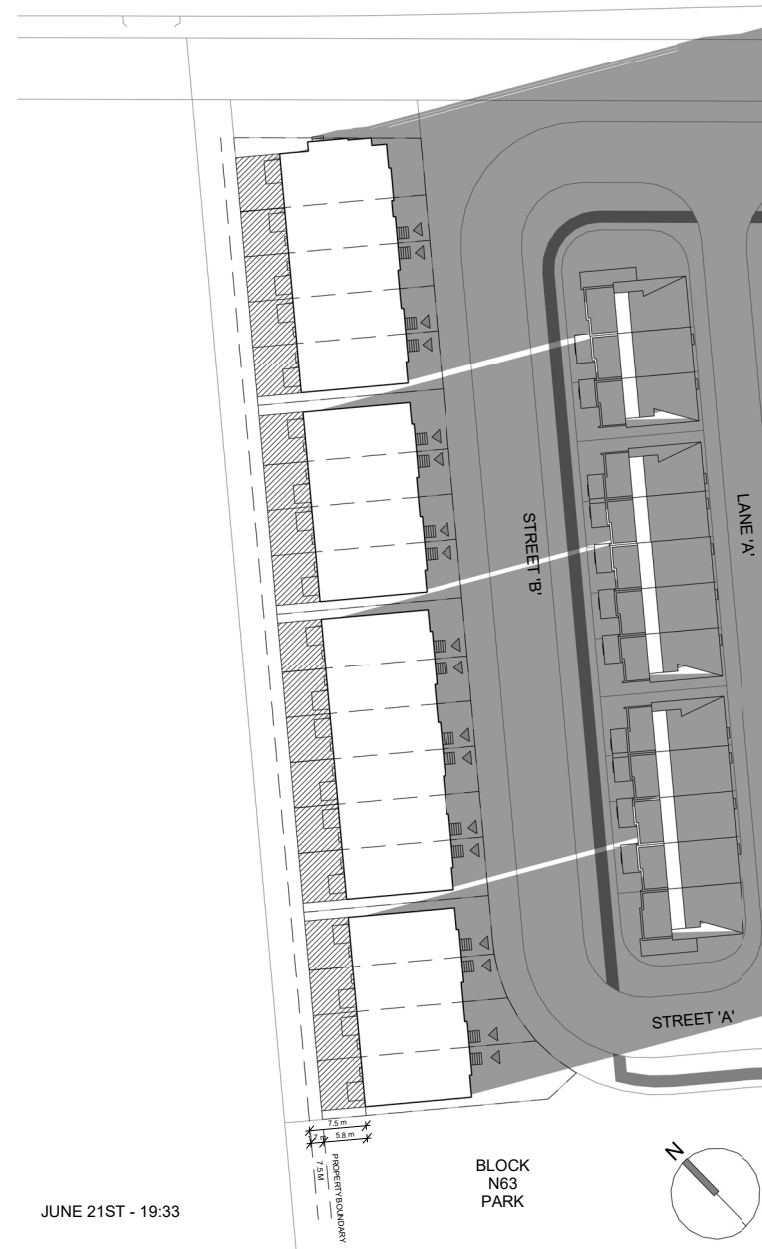
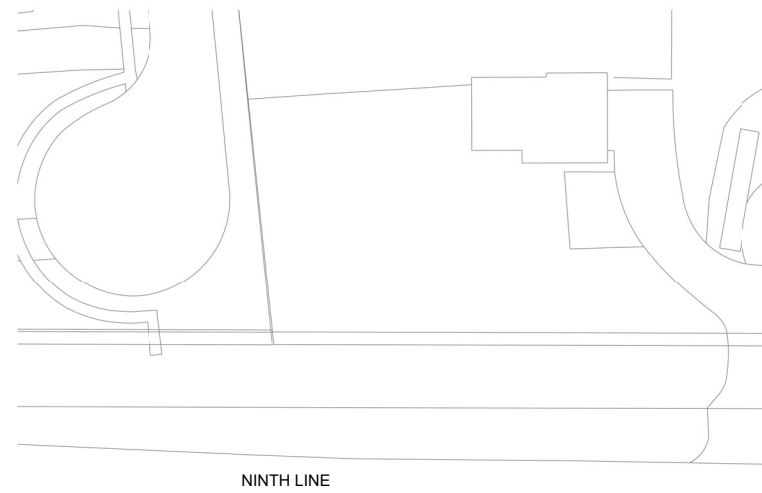
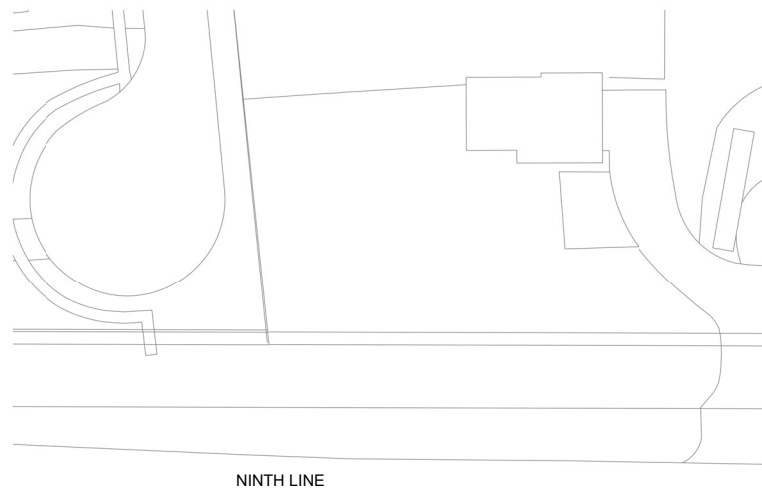
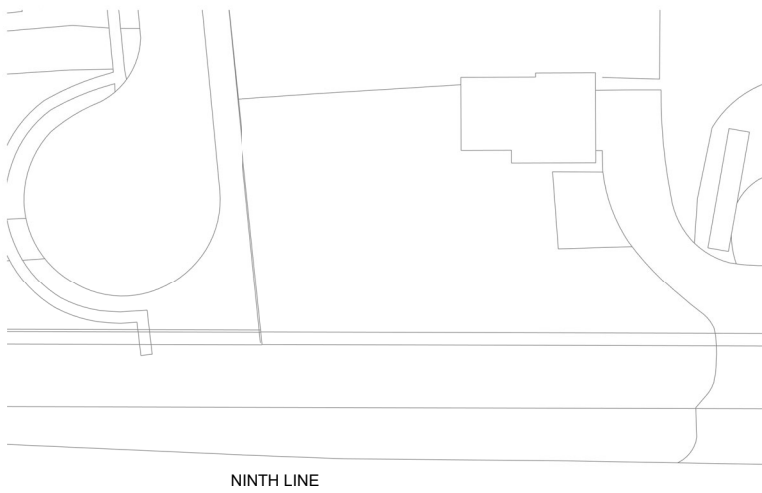
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DEVELOPMENTS LTD.**



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## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

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DEVELOPMENTS LTD.**

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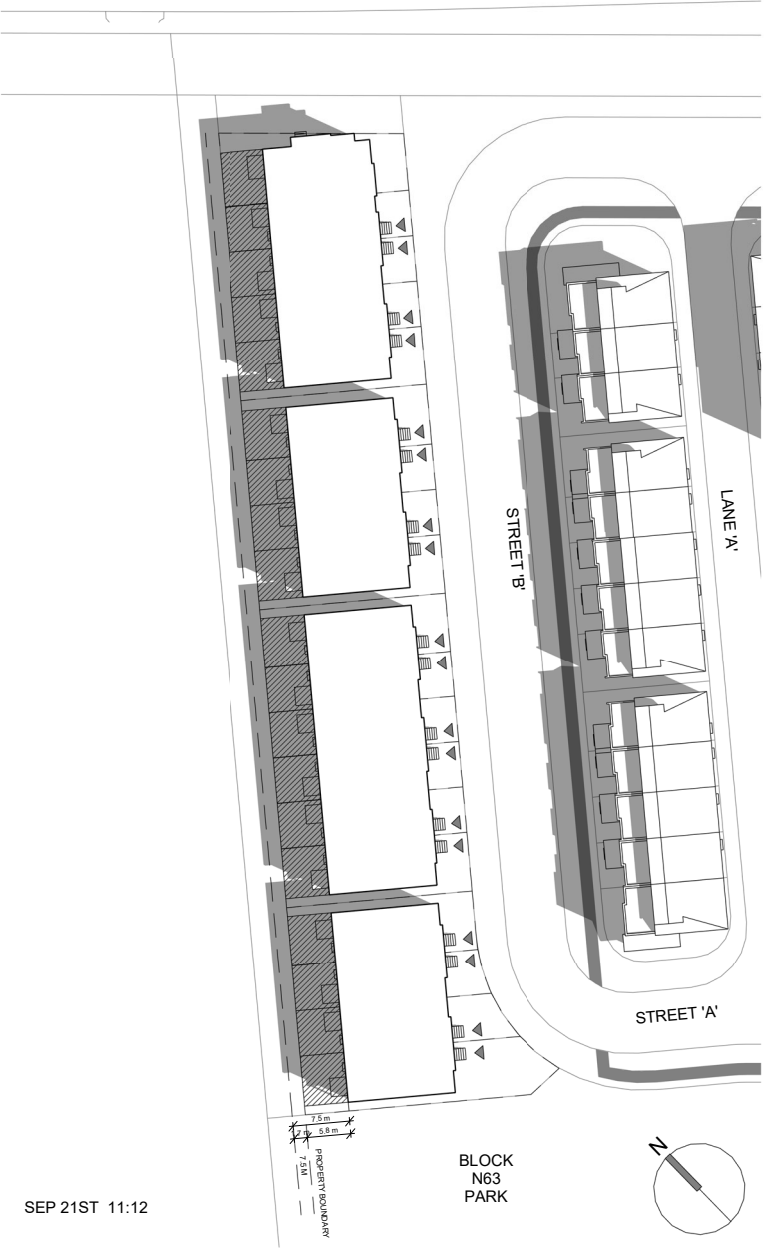
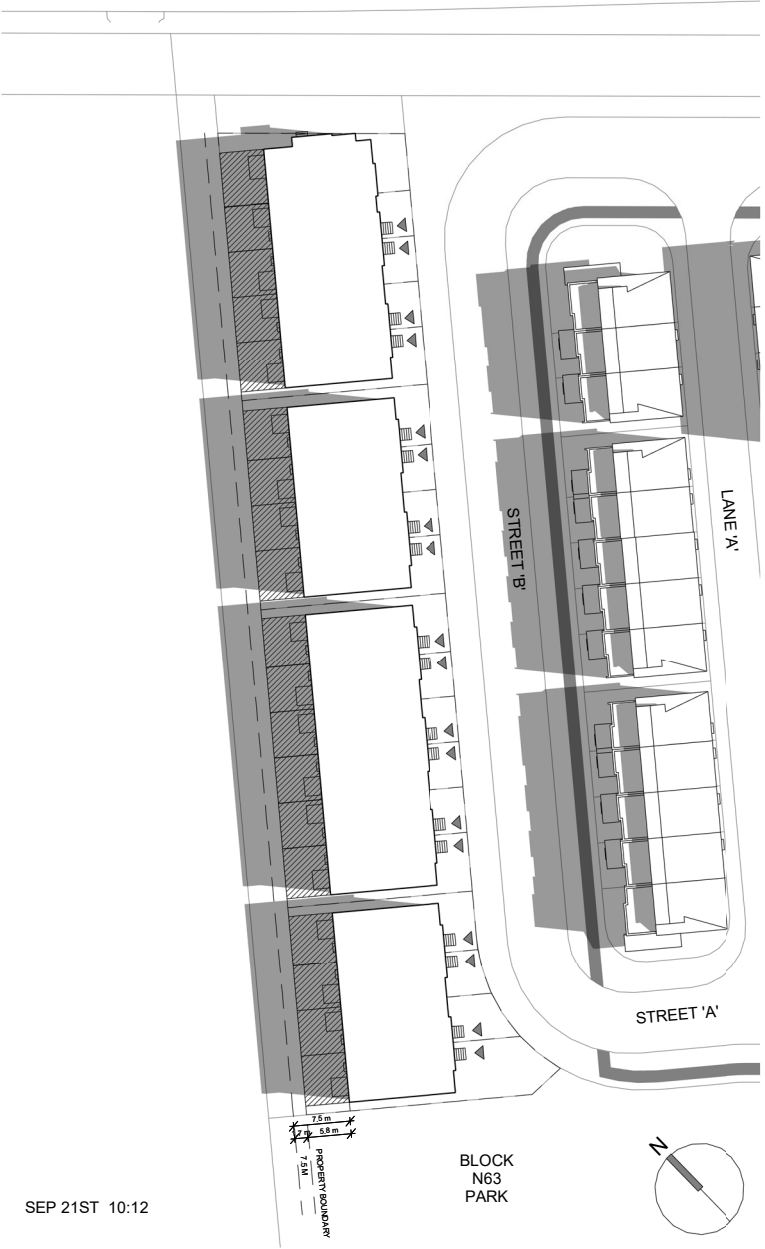
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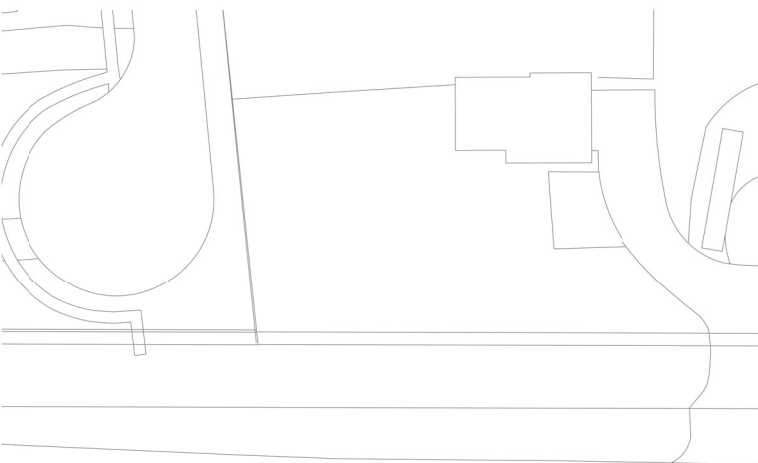
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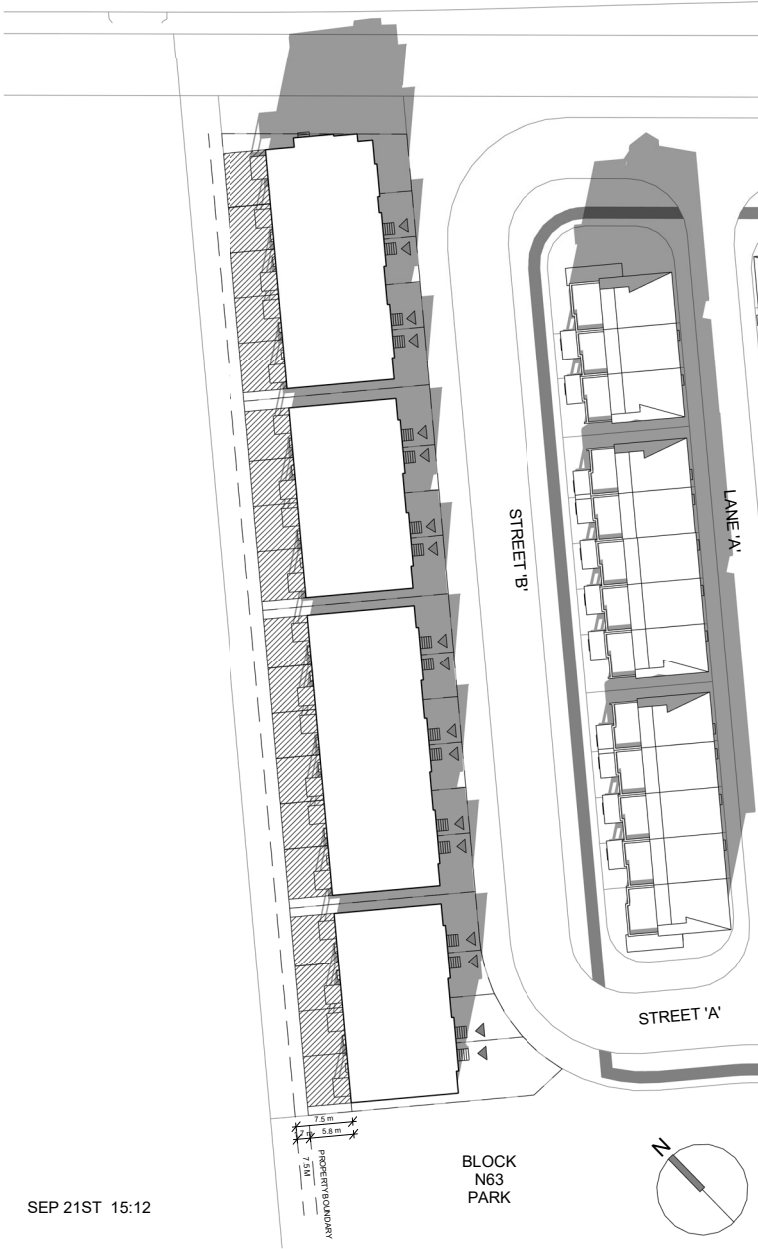
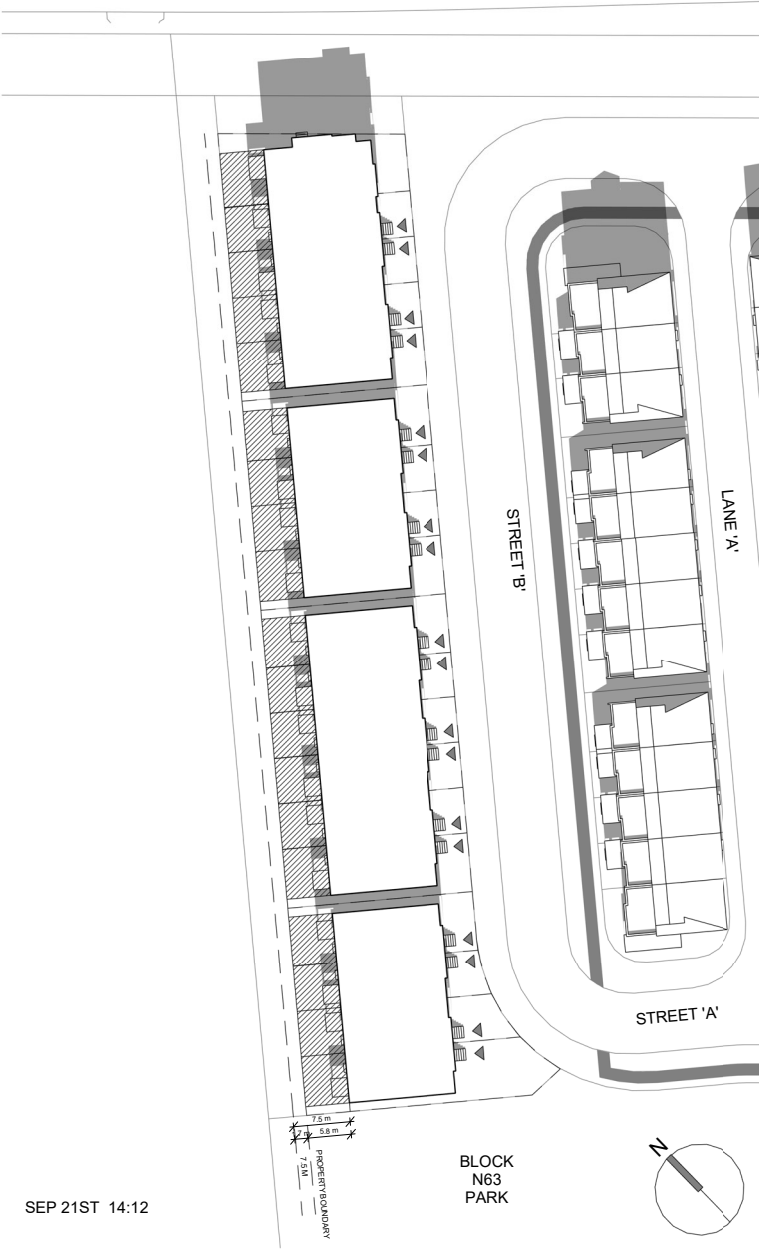
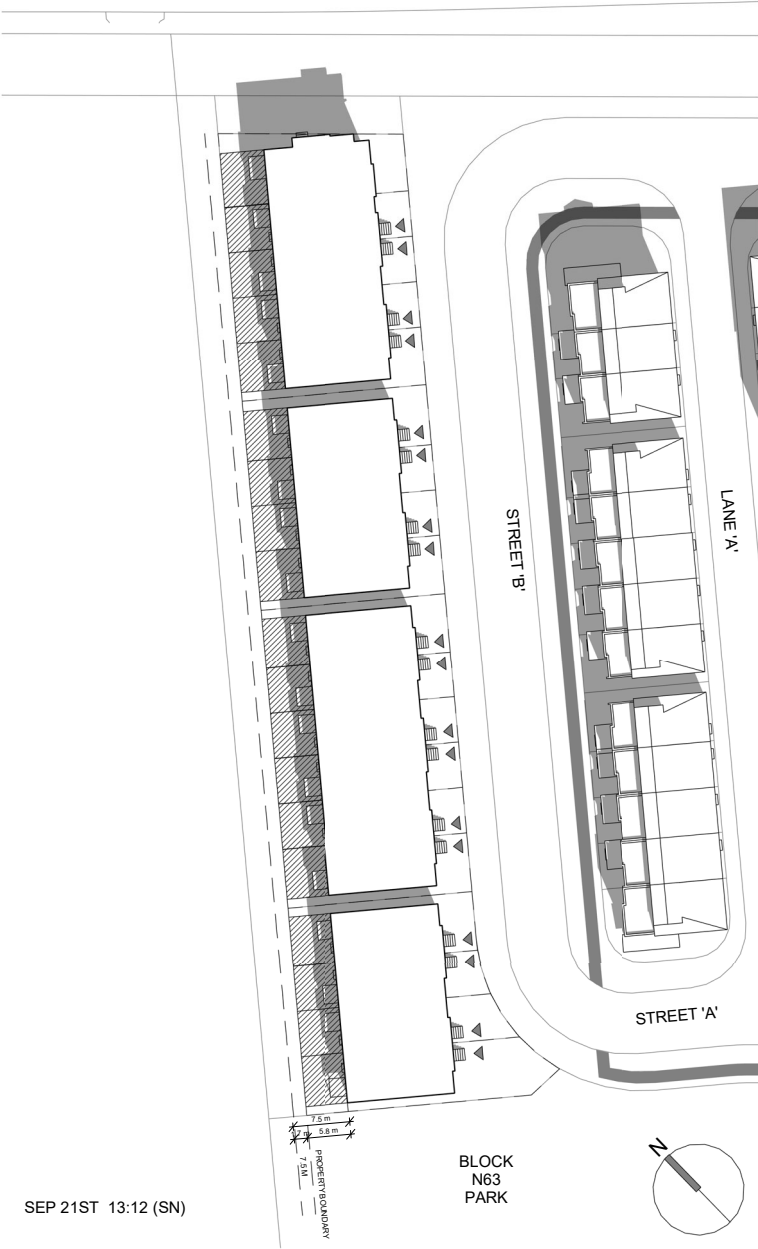
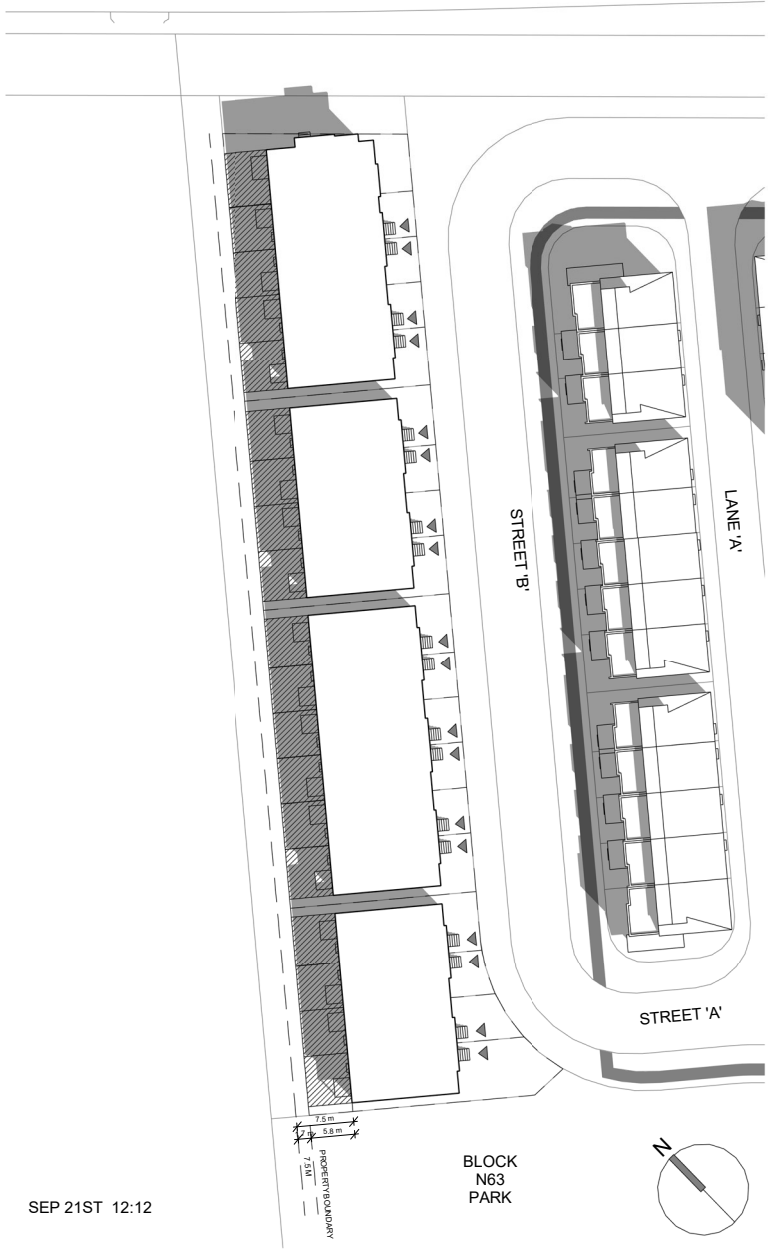
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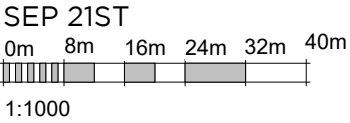
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**SHADOW ANALYSIS**

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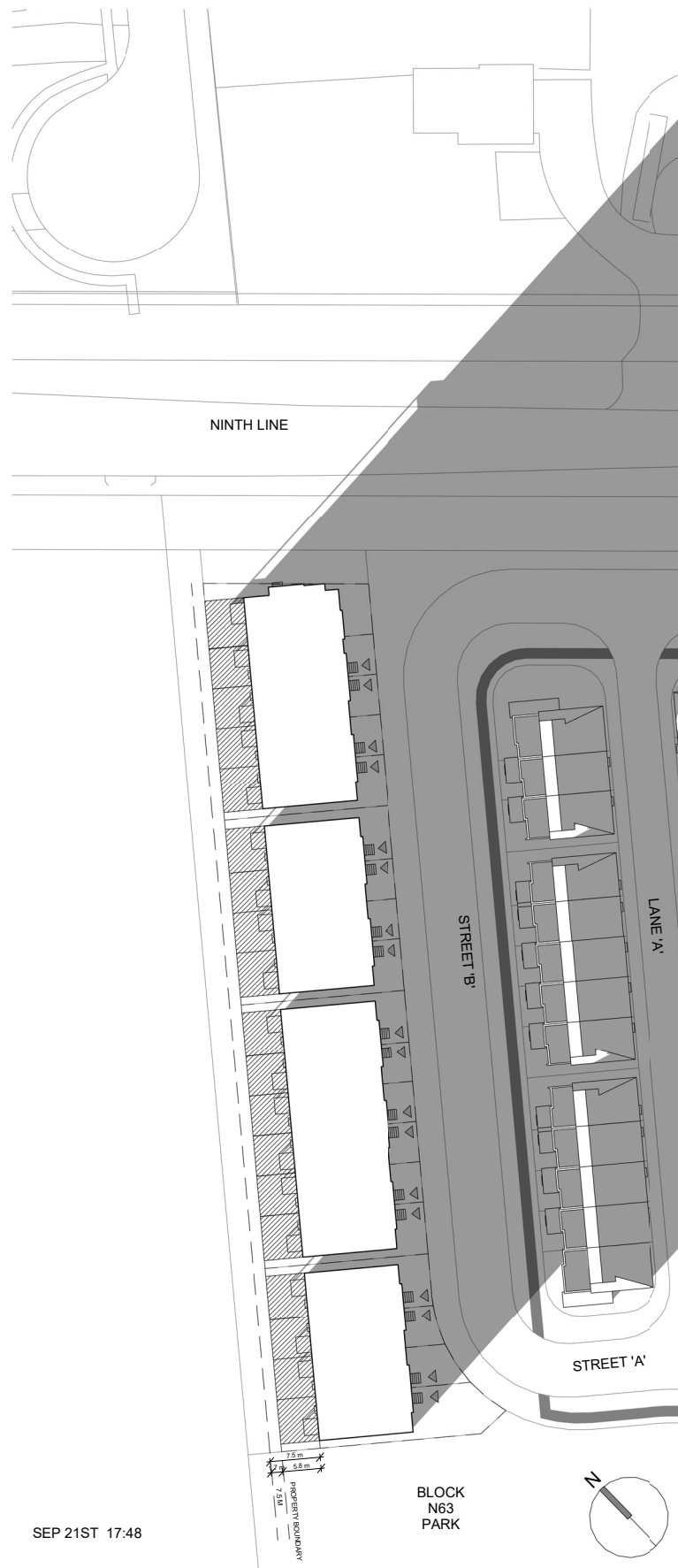
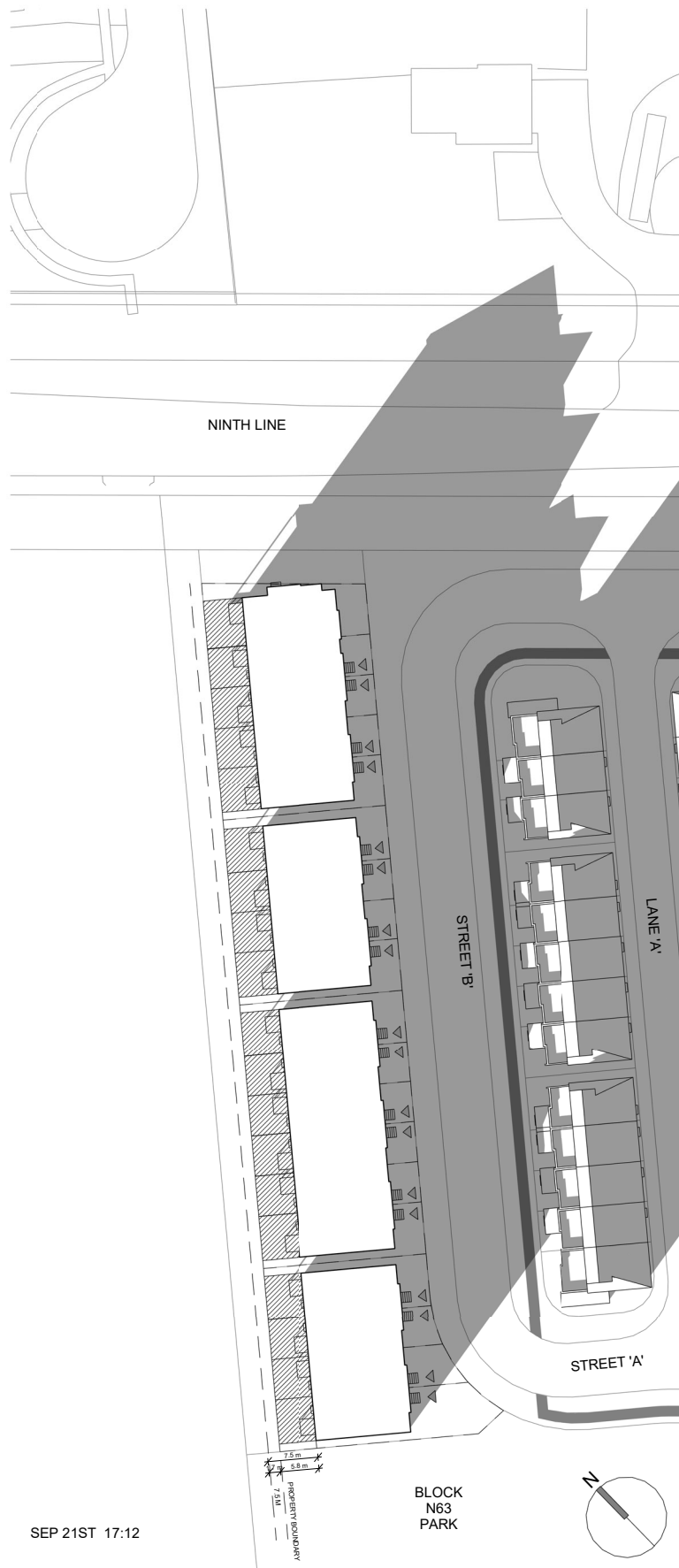
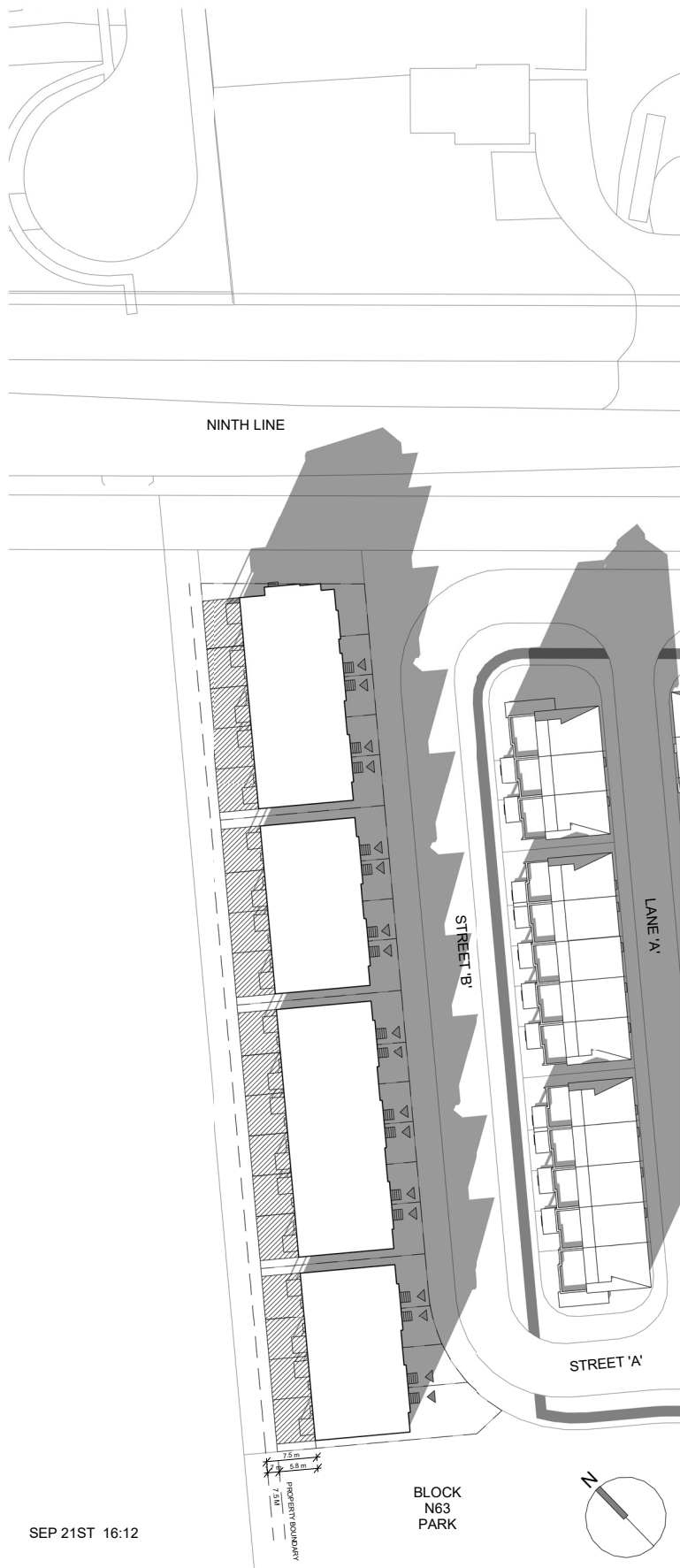
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## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

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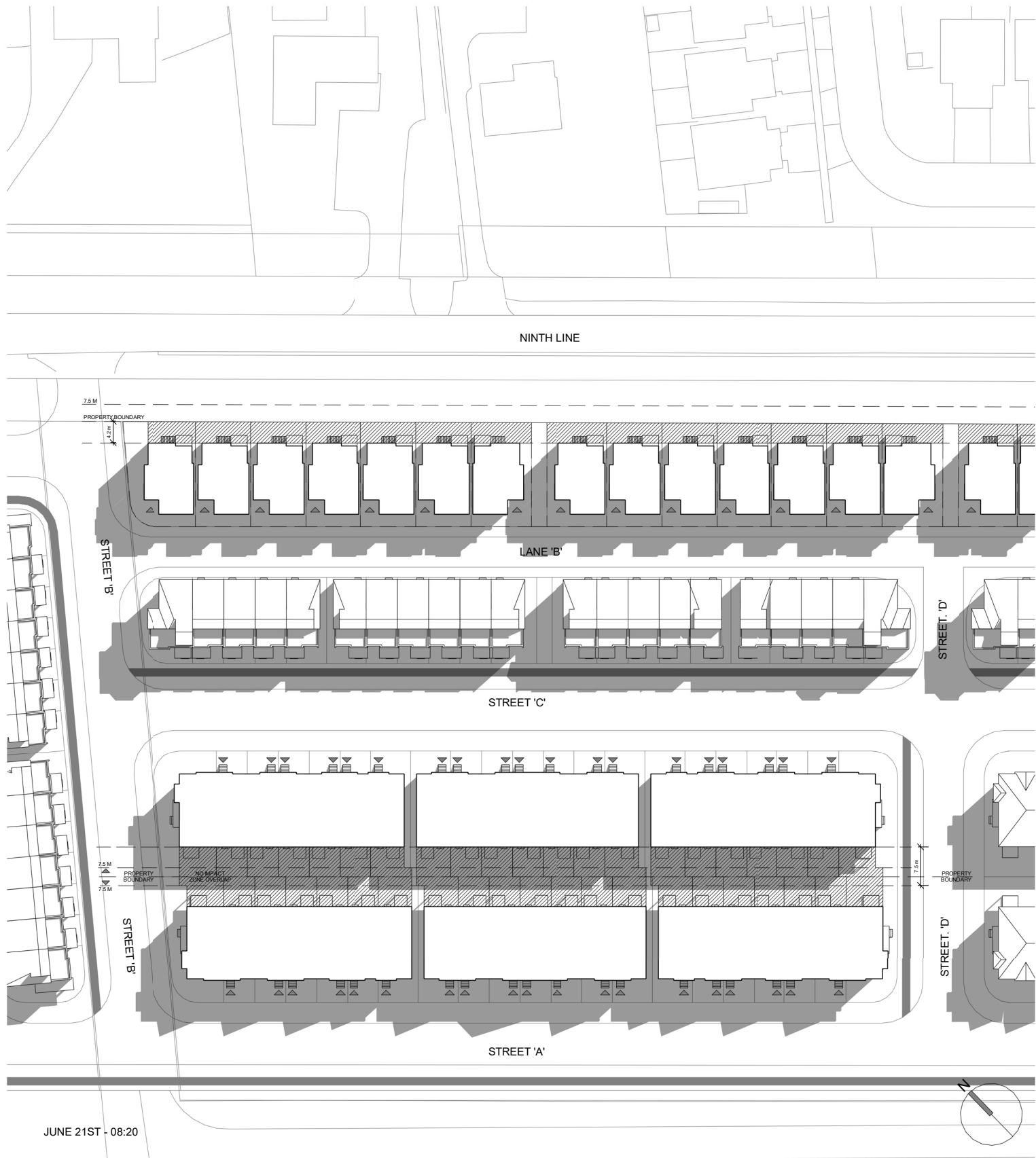
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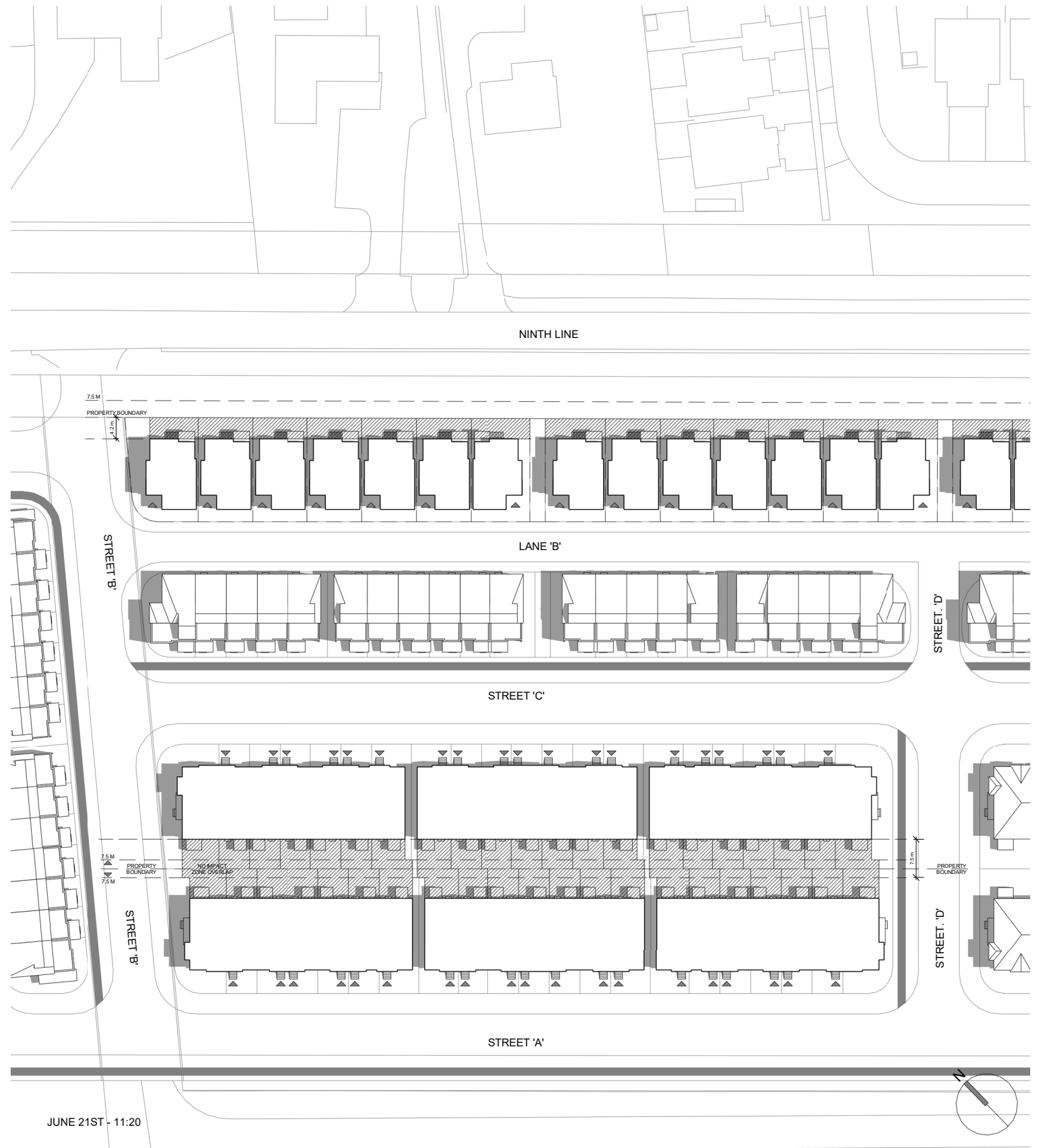
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## SHADOW ANALYSIS

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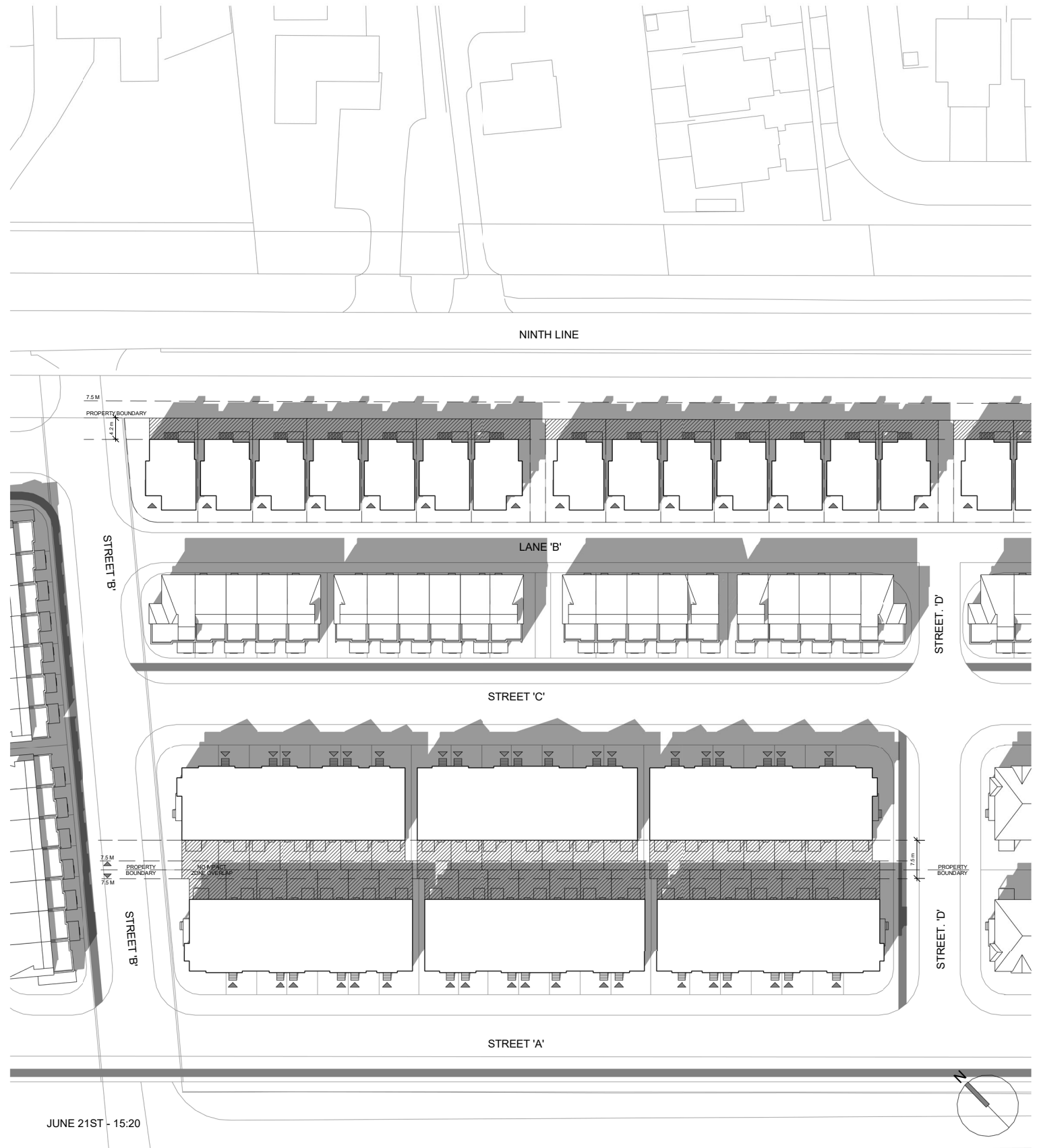
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## SHADOW ANALYSIS

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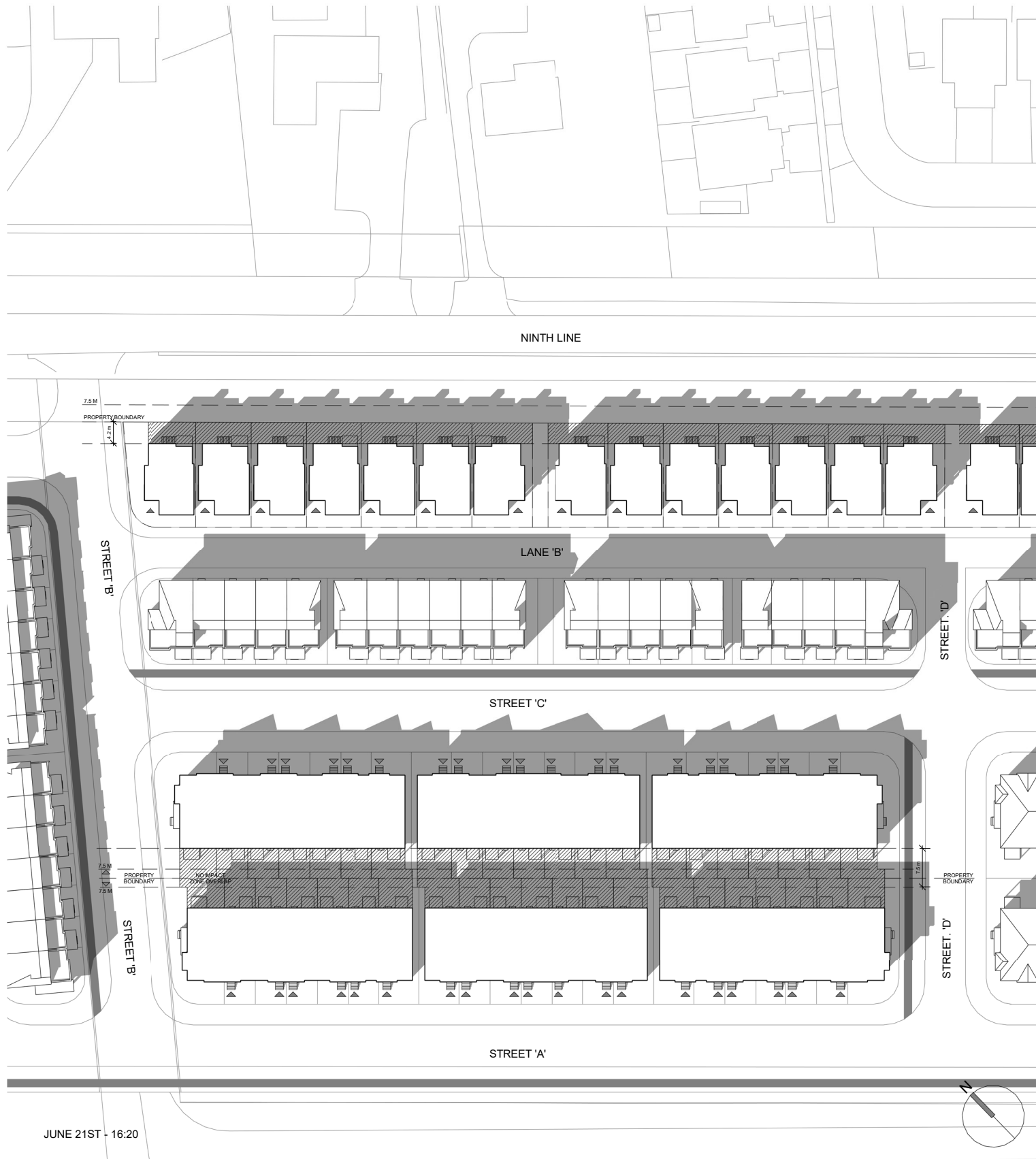
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## SHADOW ANALYSIS

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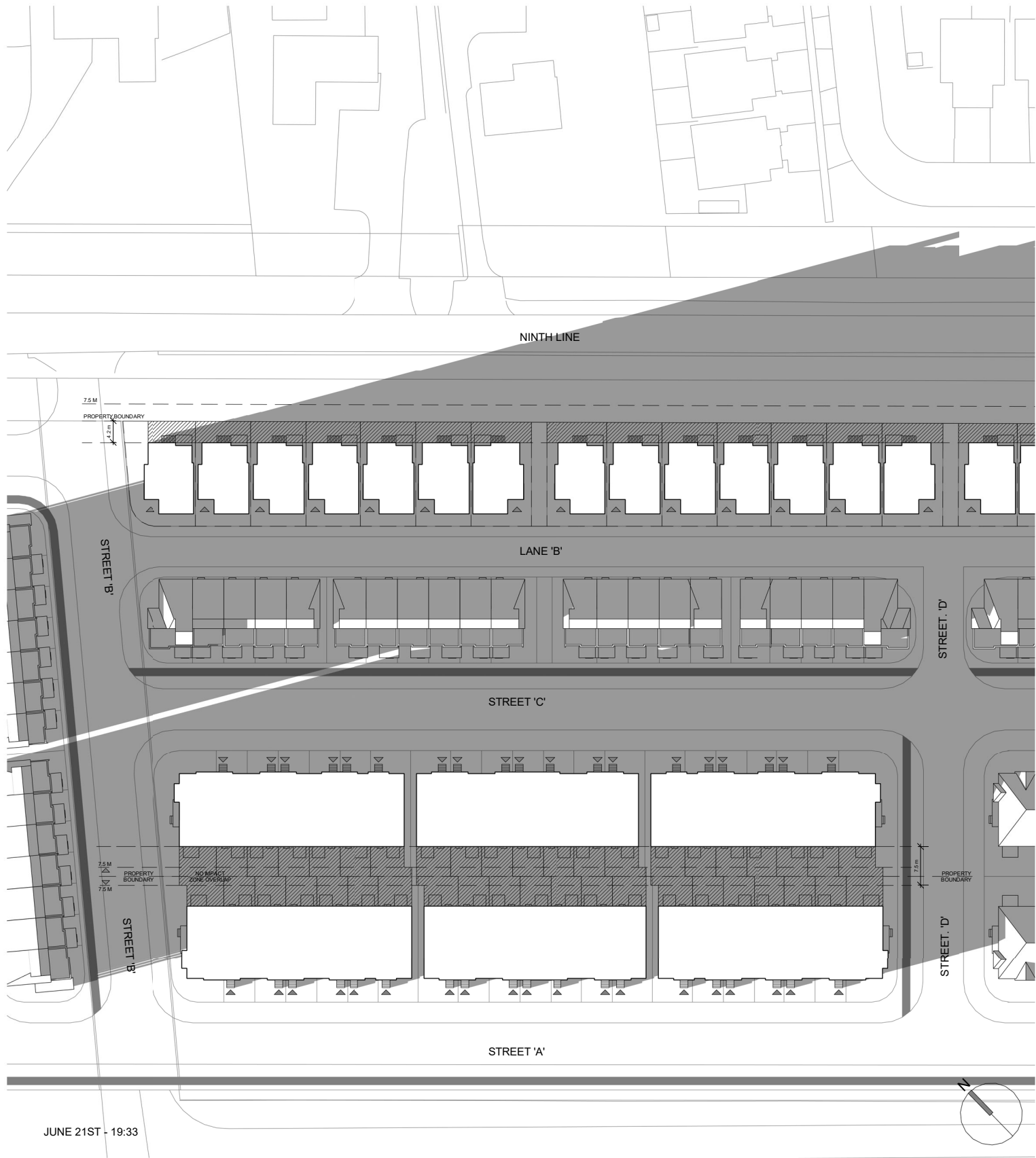
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## SHADOW ANALYSIS

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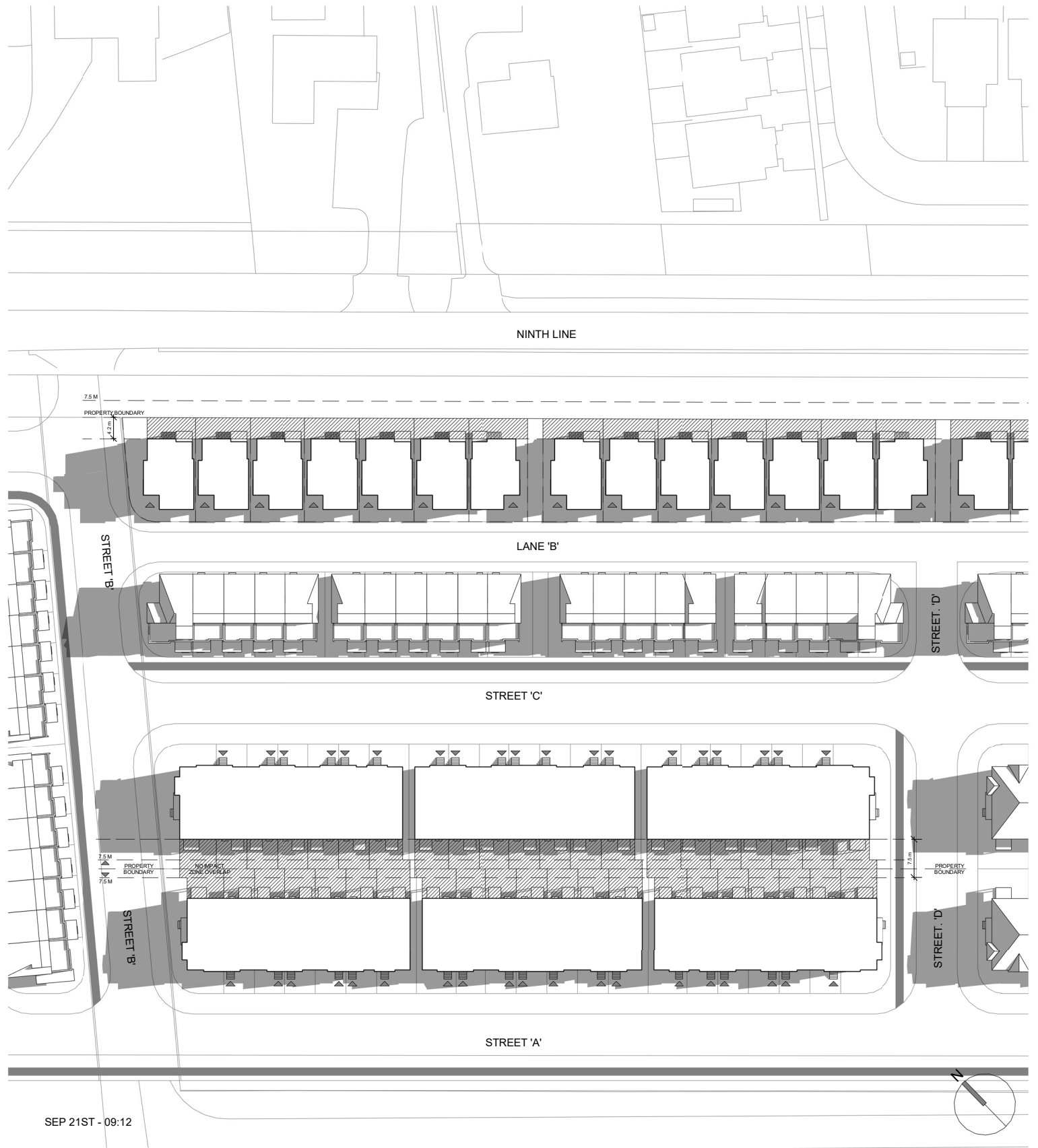
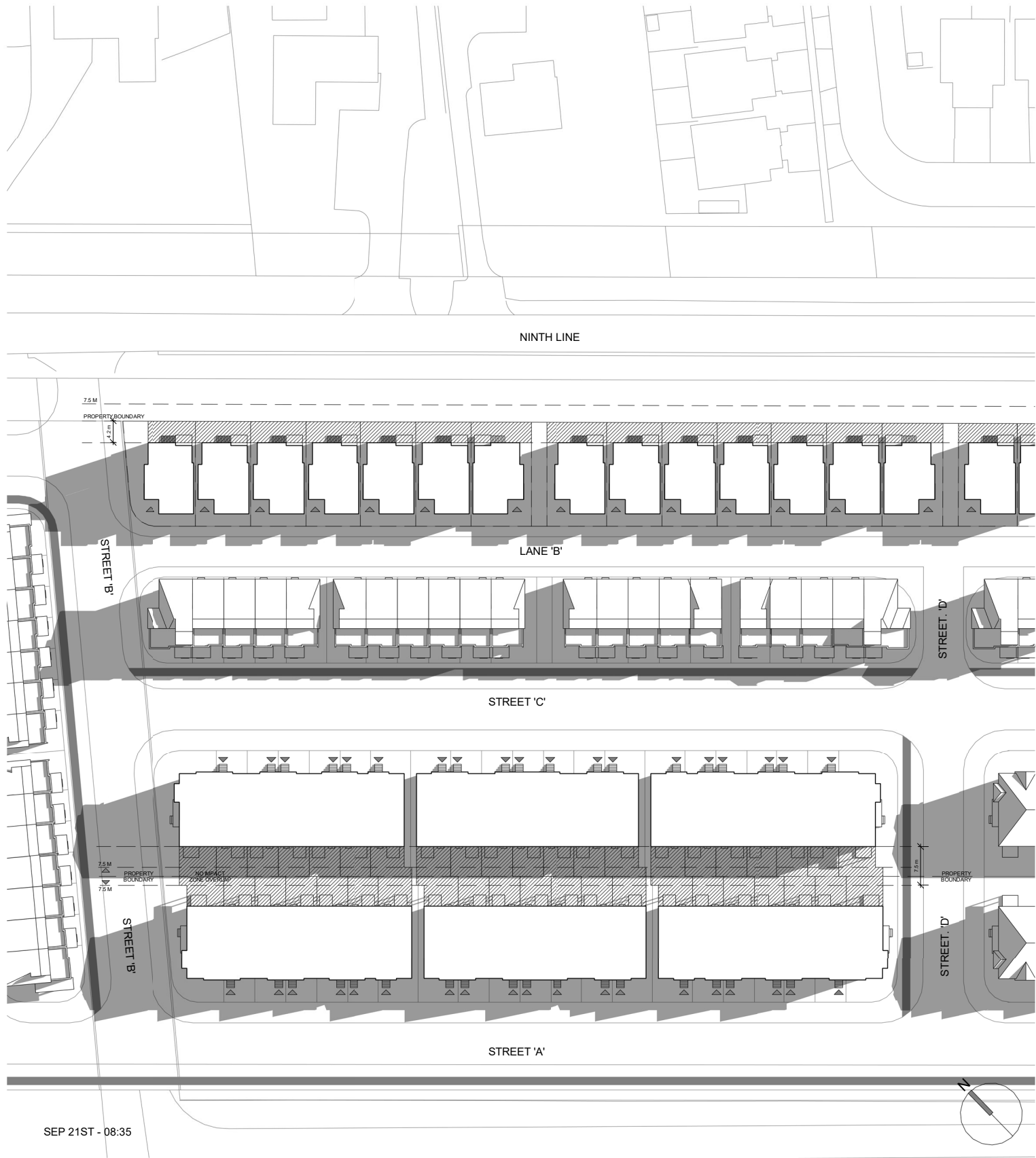
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## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

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## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

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## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

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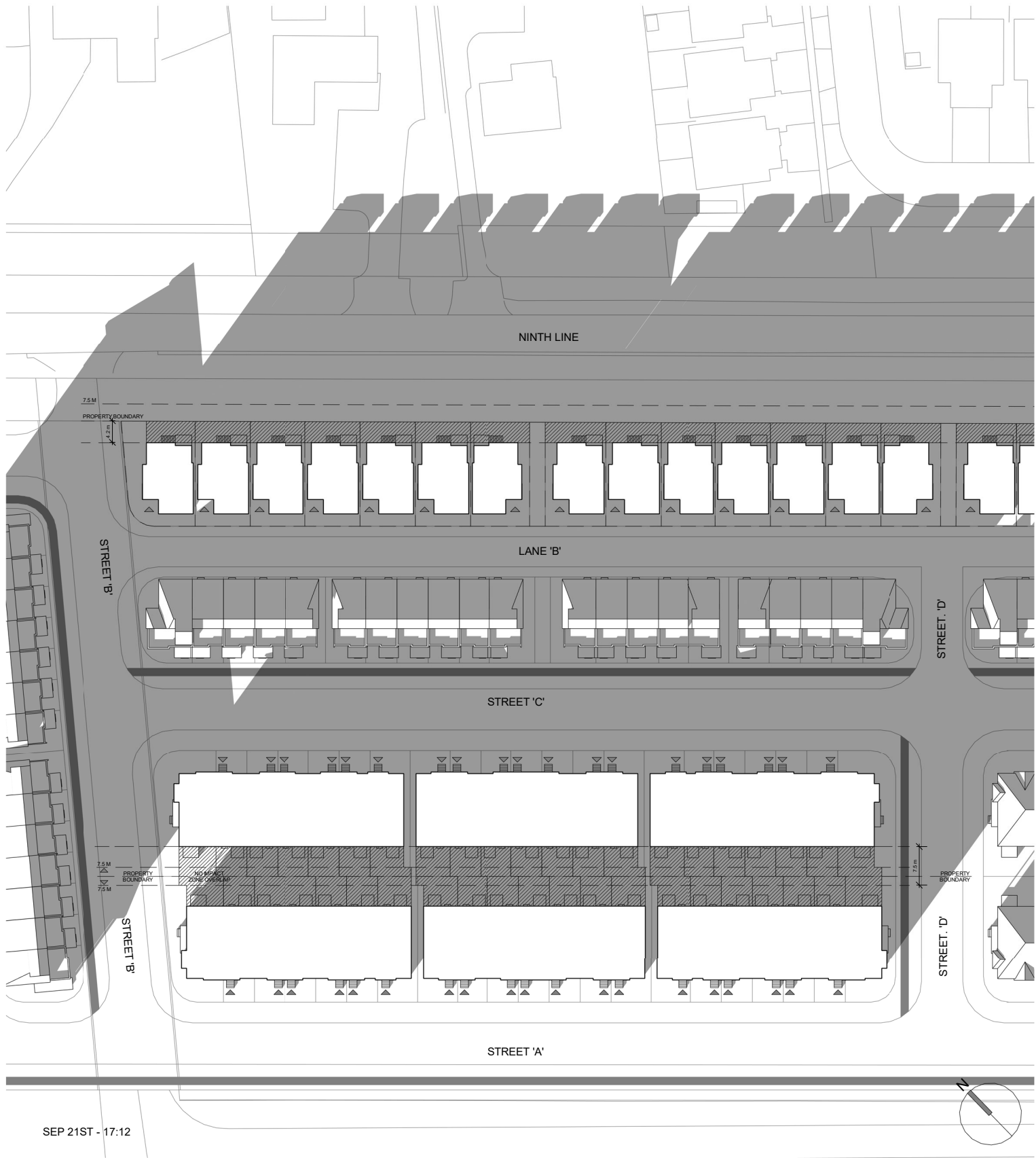
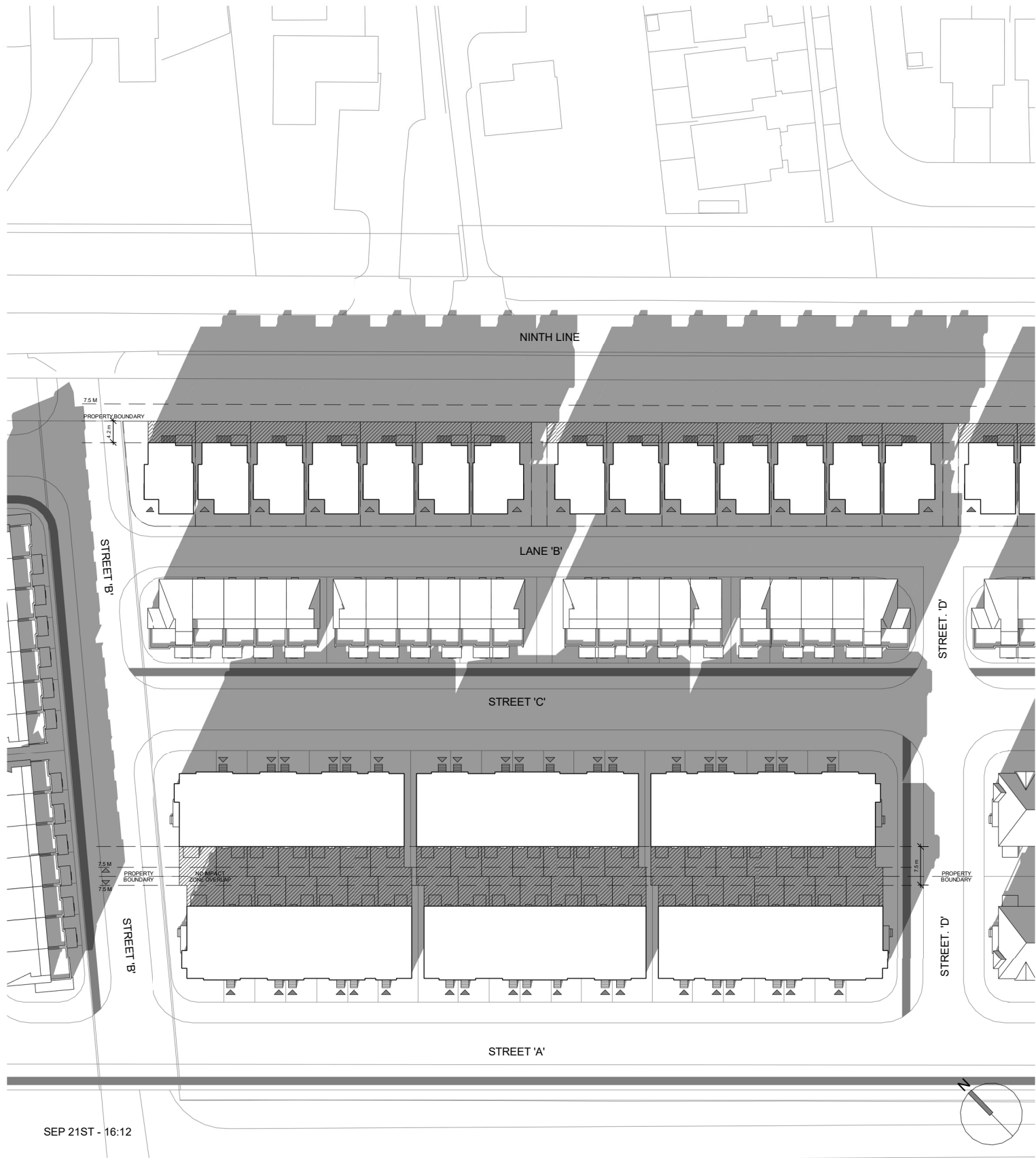
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## SHADOW ANALYSIS

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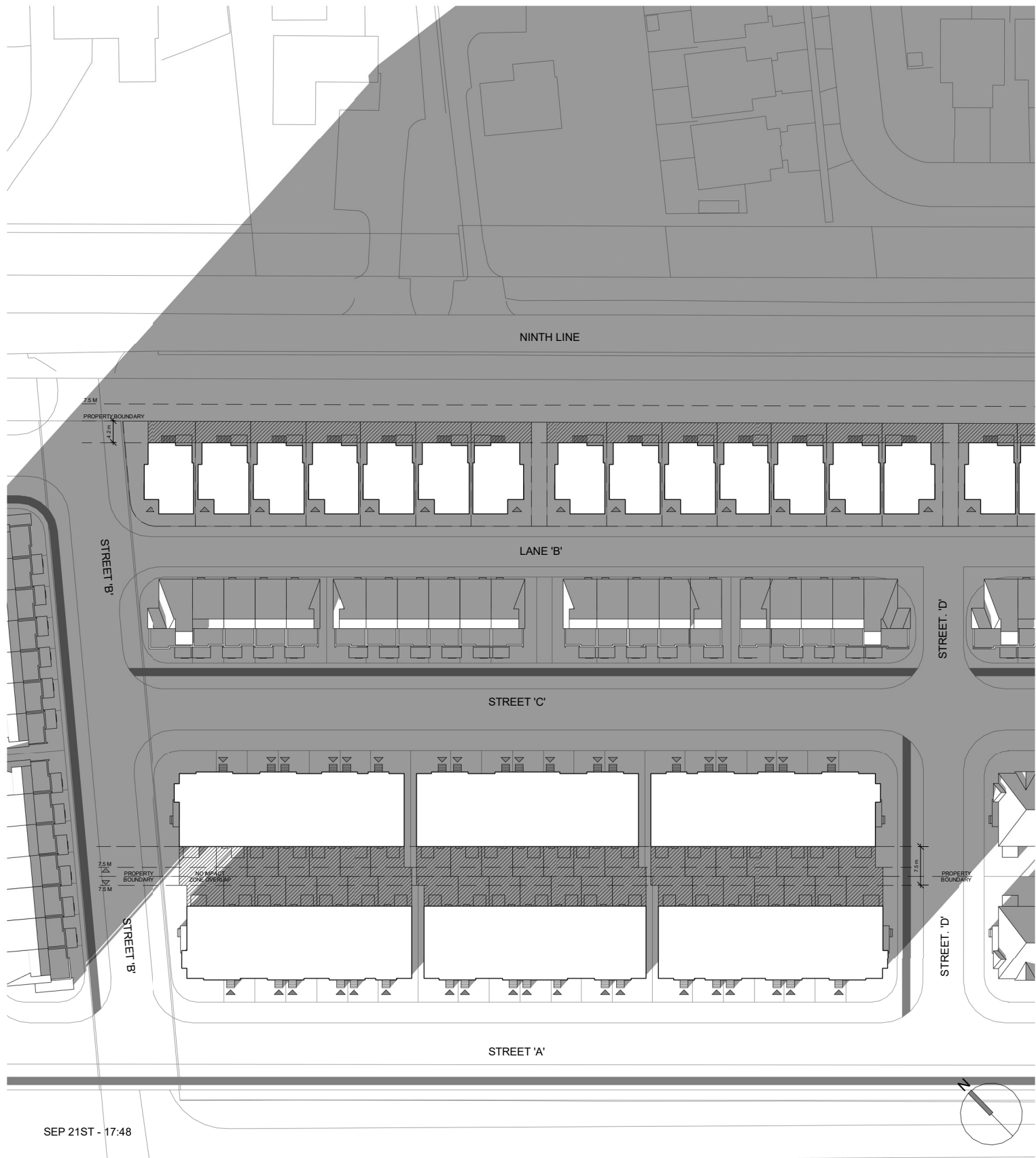
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## SHADOW ANALYSIS

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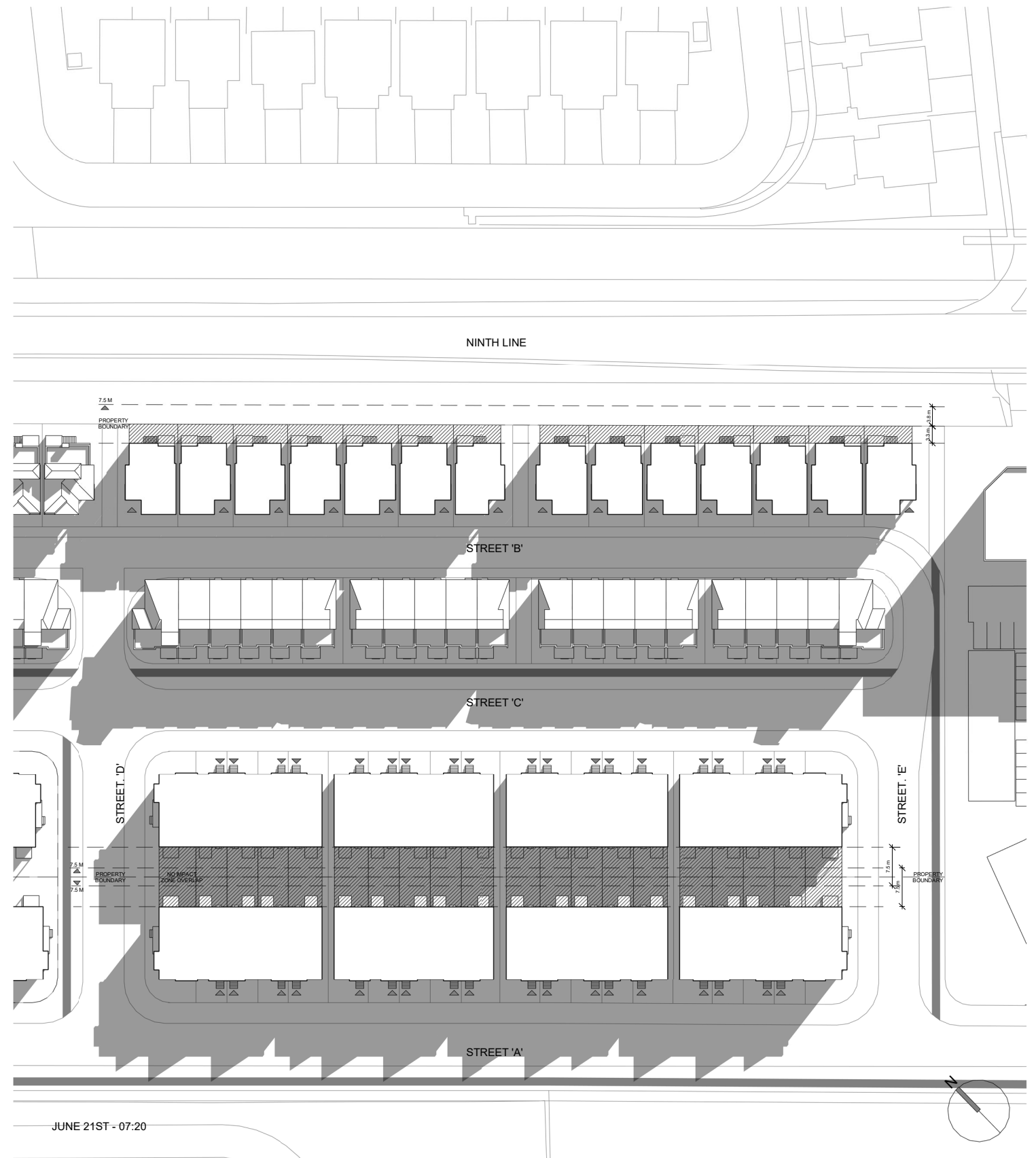
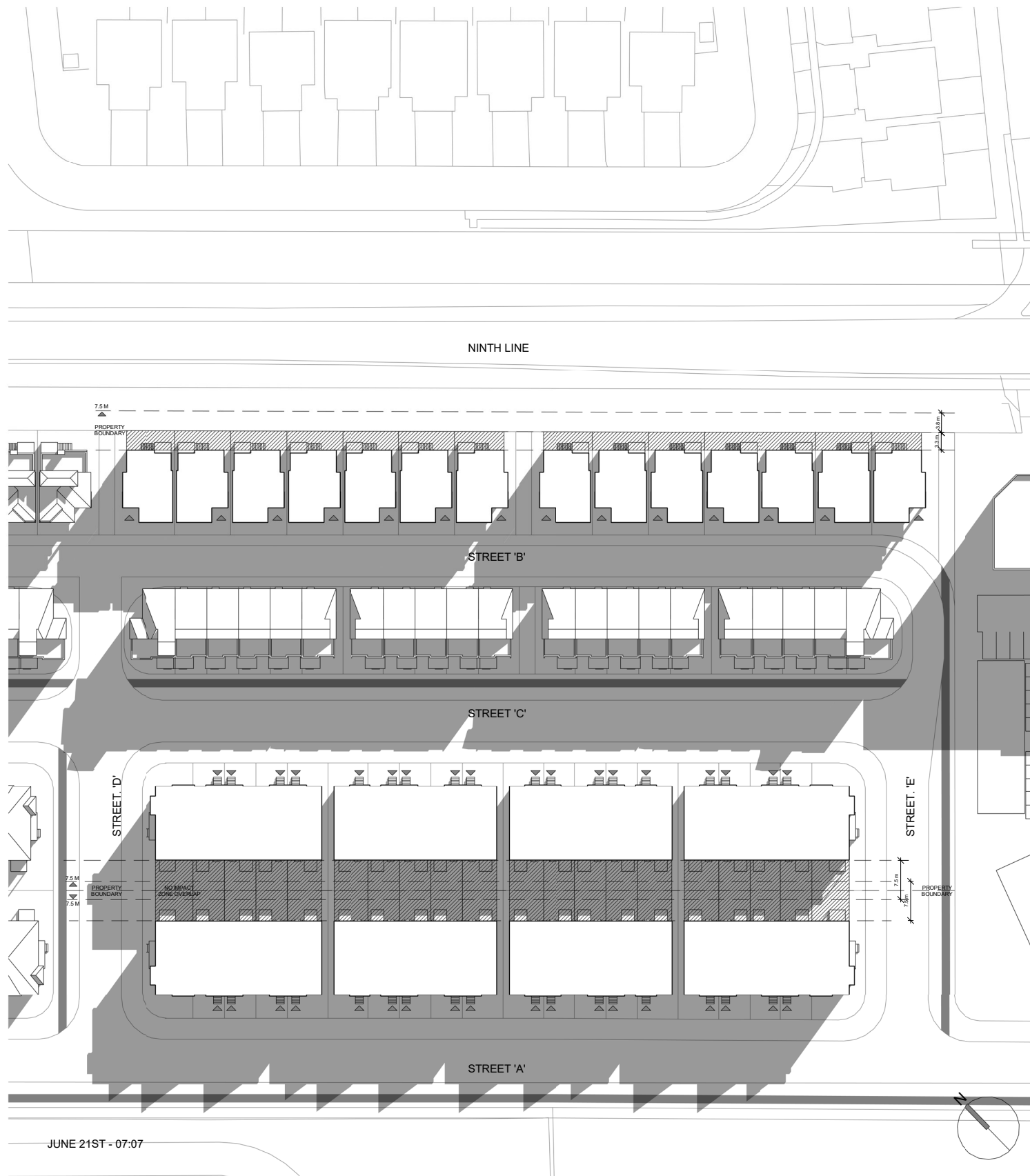
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## SHADOW ANALYSIS

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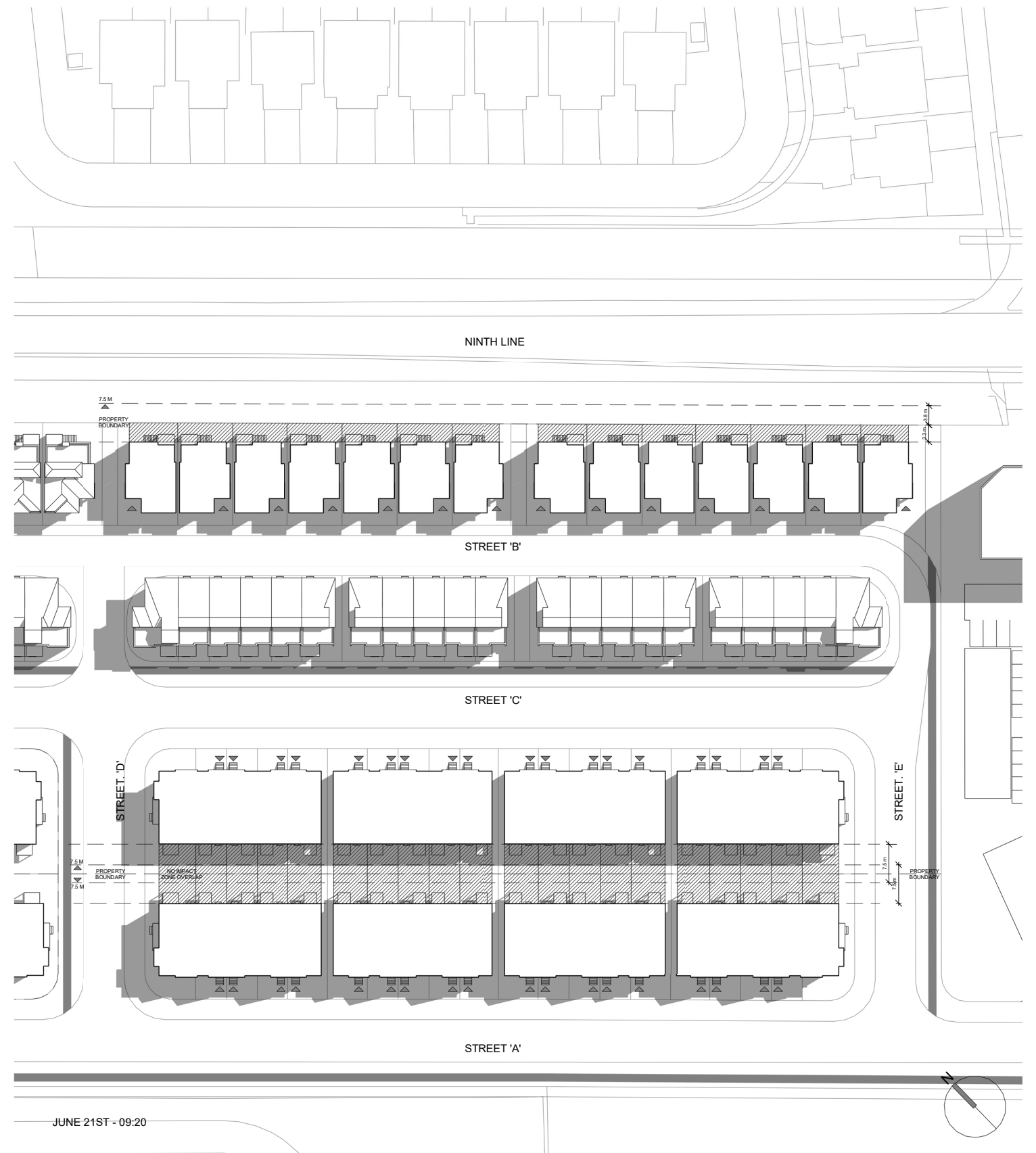
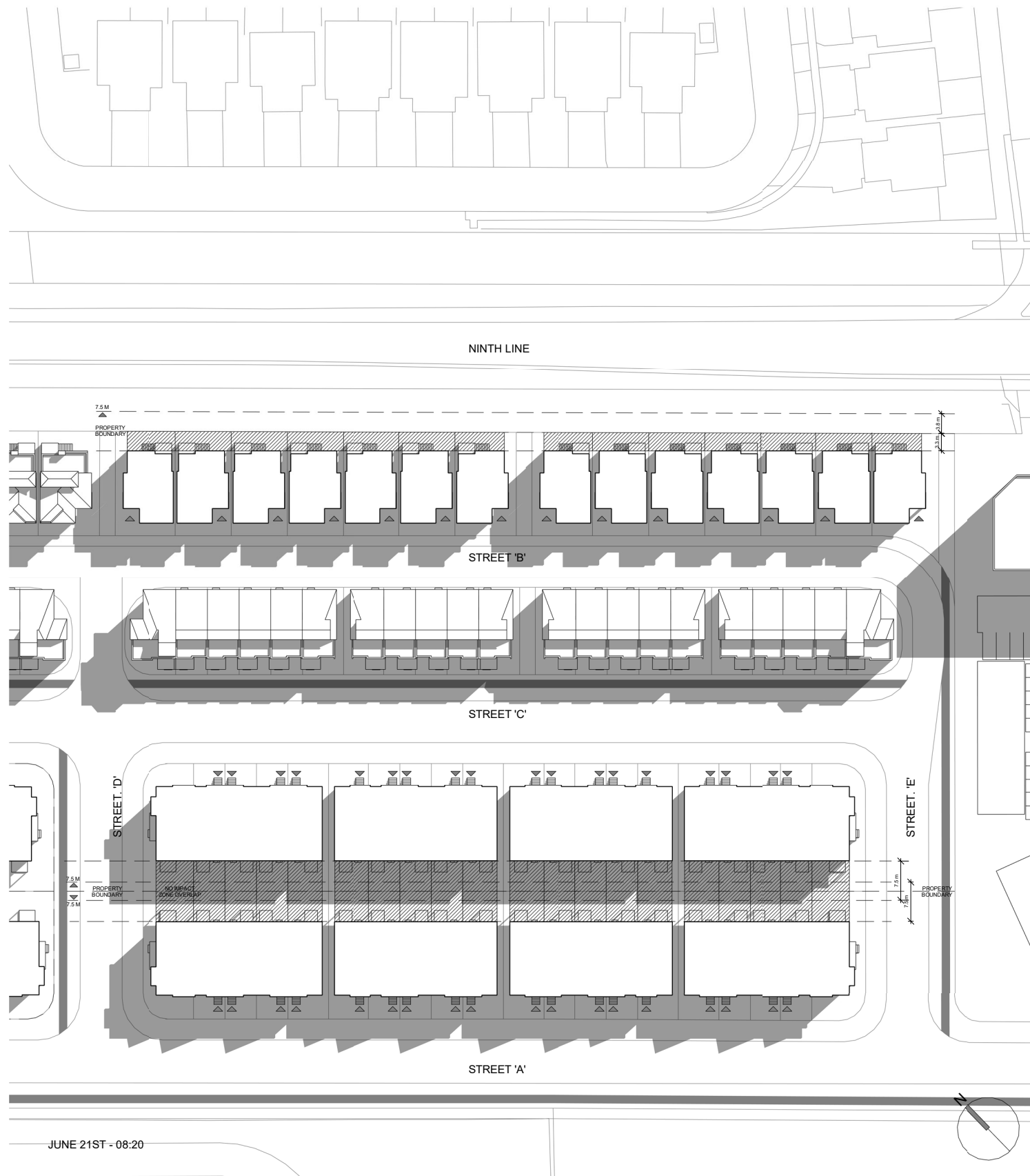
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## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

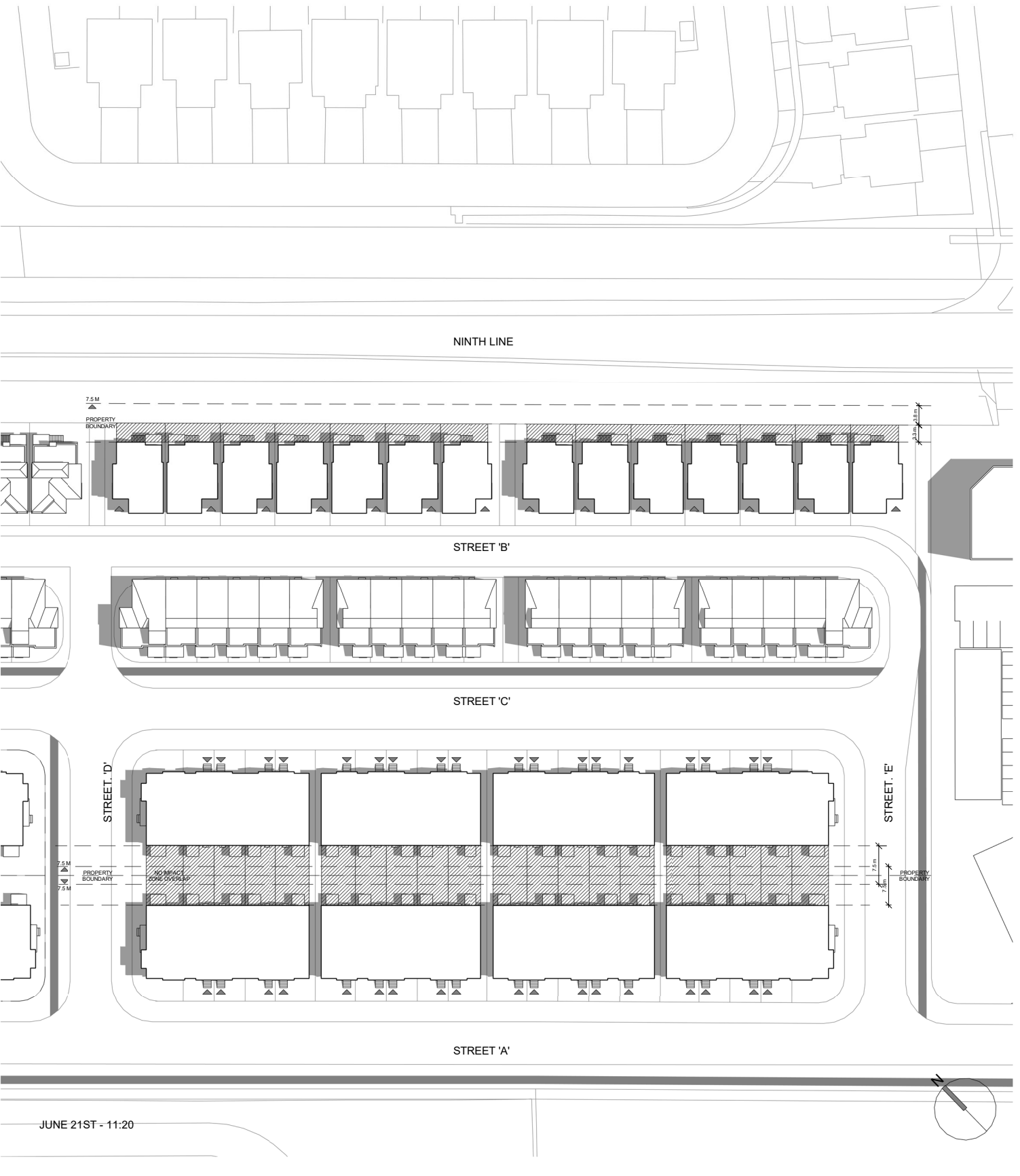
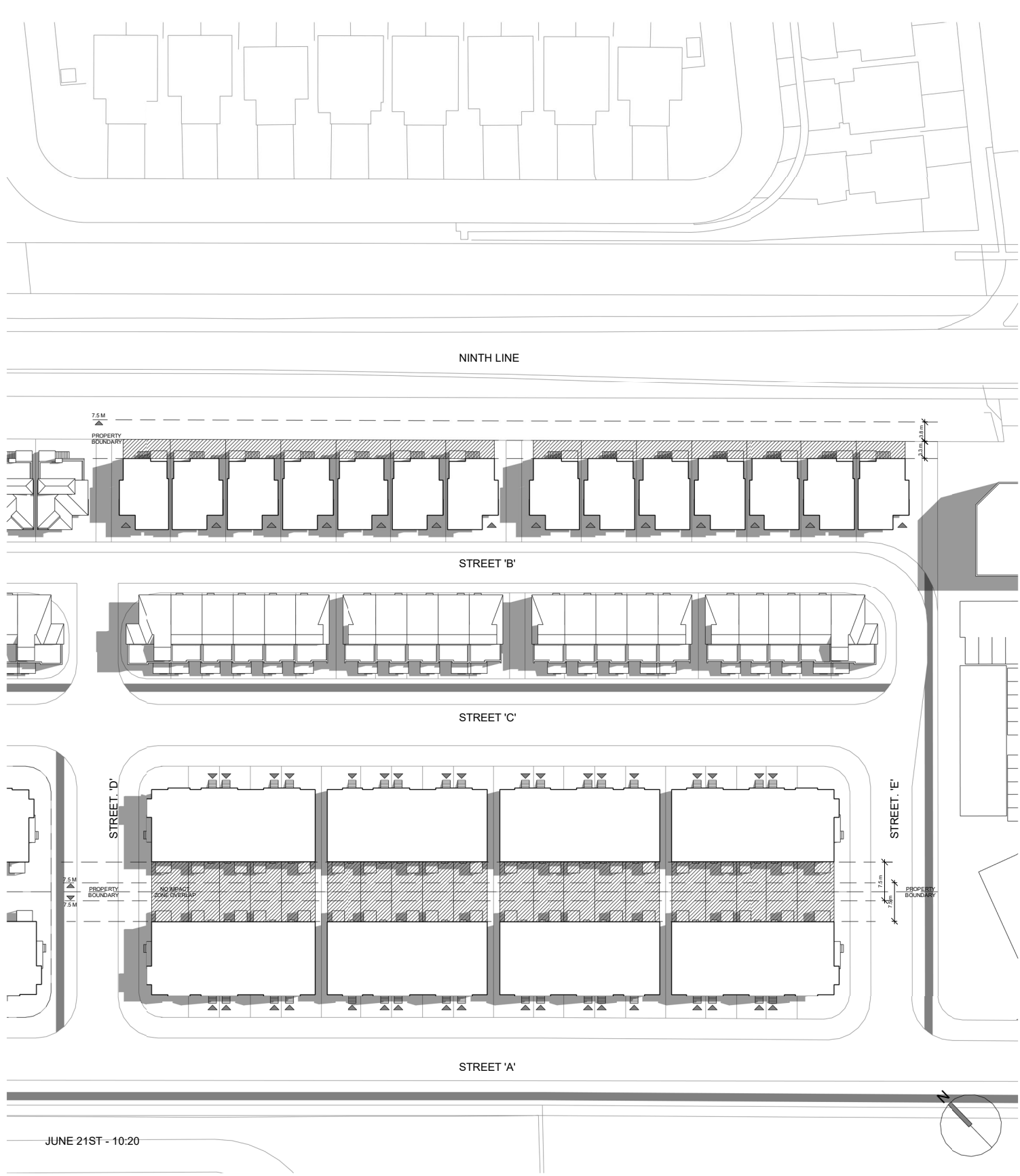
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

JUNE 21ST  
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1:1000

Proj. No. 16050  
Scale 1:1000

07/22/19  
Rev.

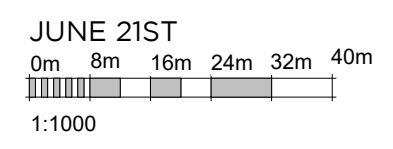
**RA03-02**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

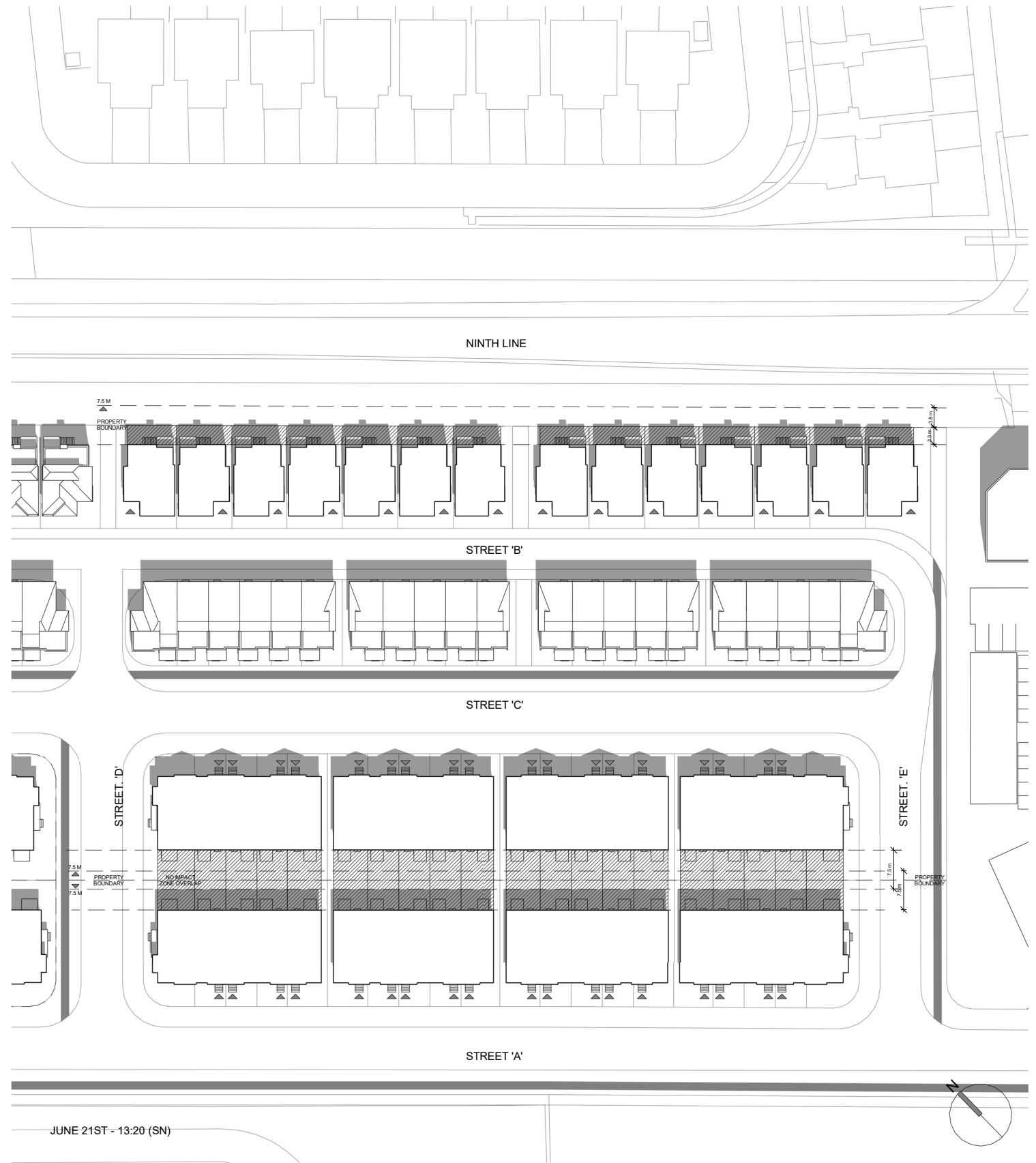
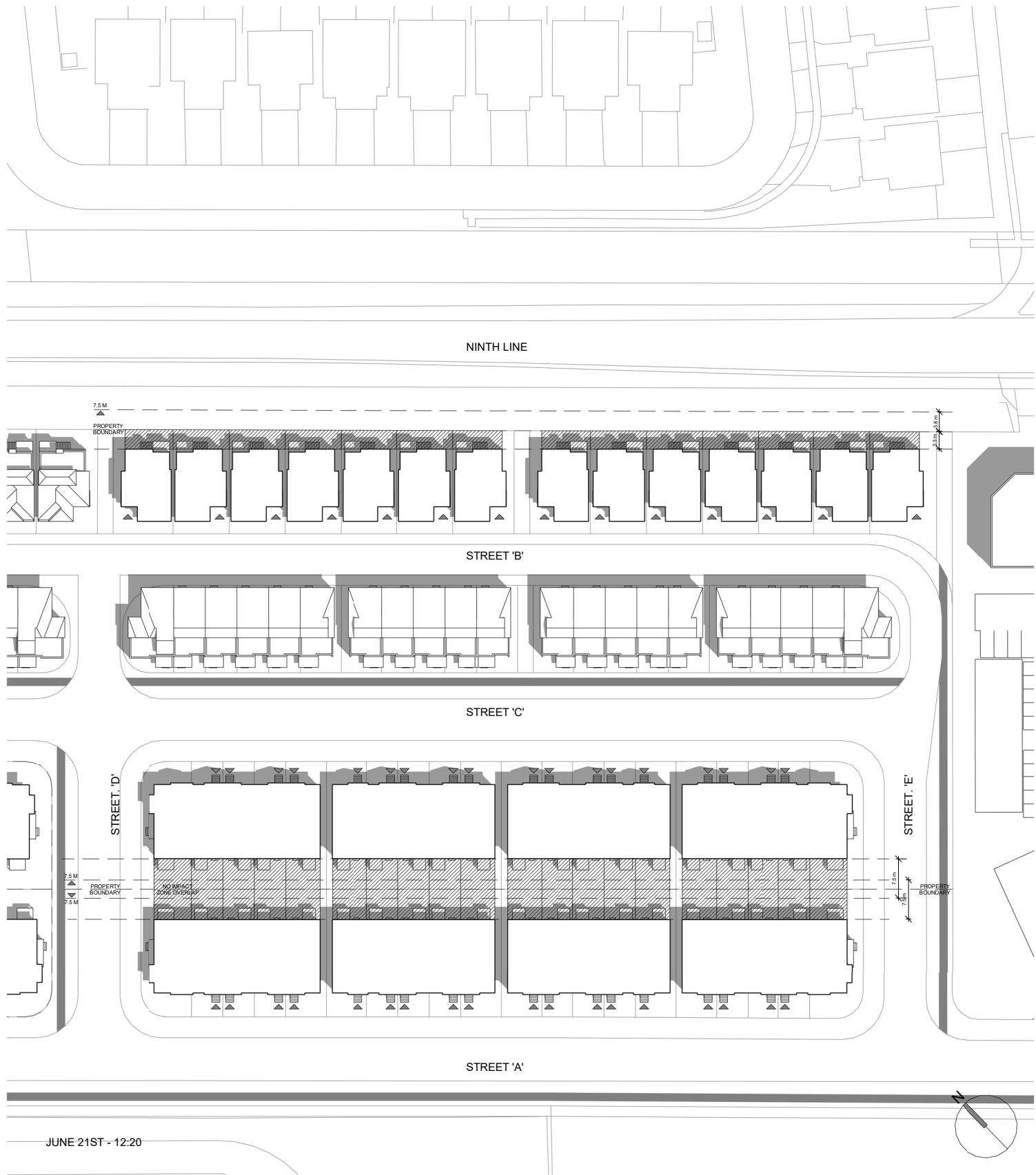
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**



Proj. No. 16050  
Scale 1:1000

07/22/19  
Rev.

**RA03-03**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

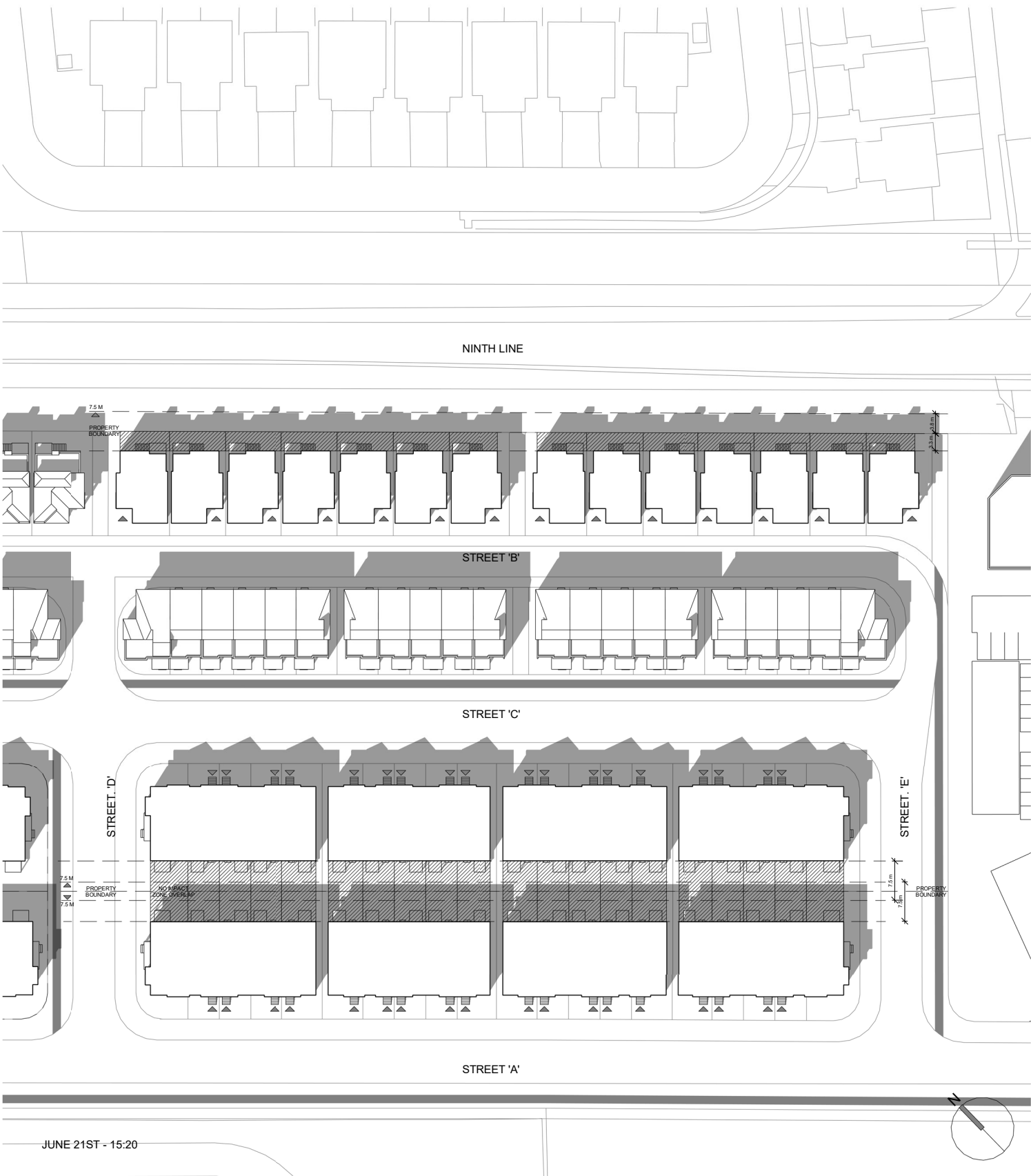
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

JUNE 21ST  
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1:1000

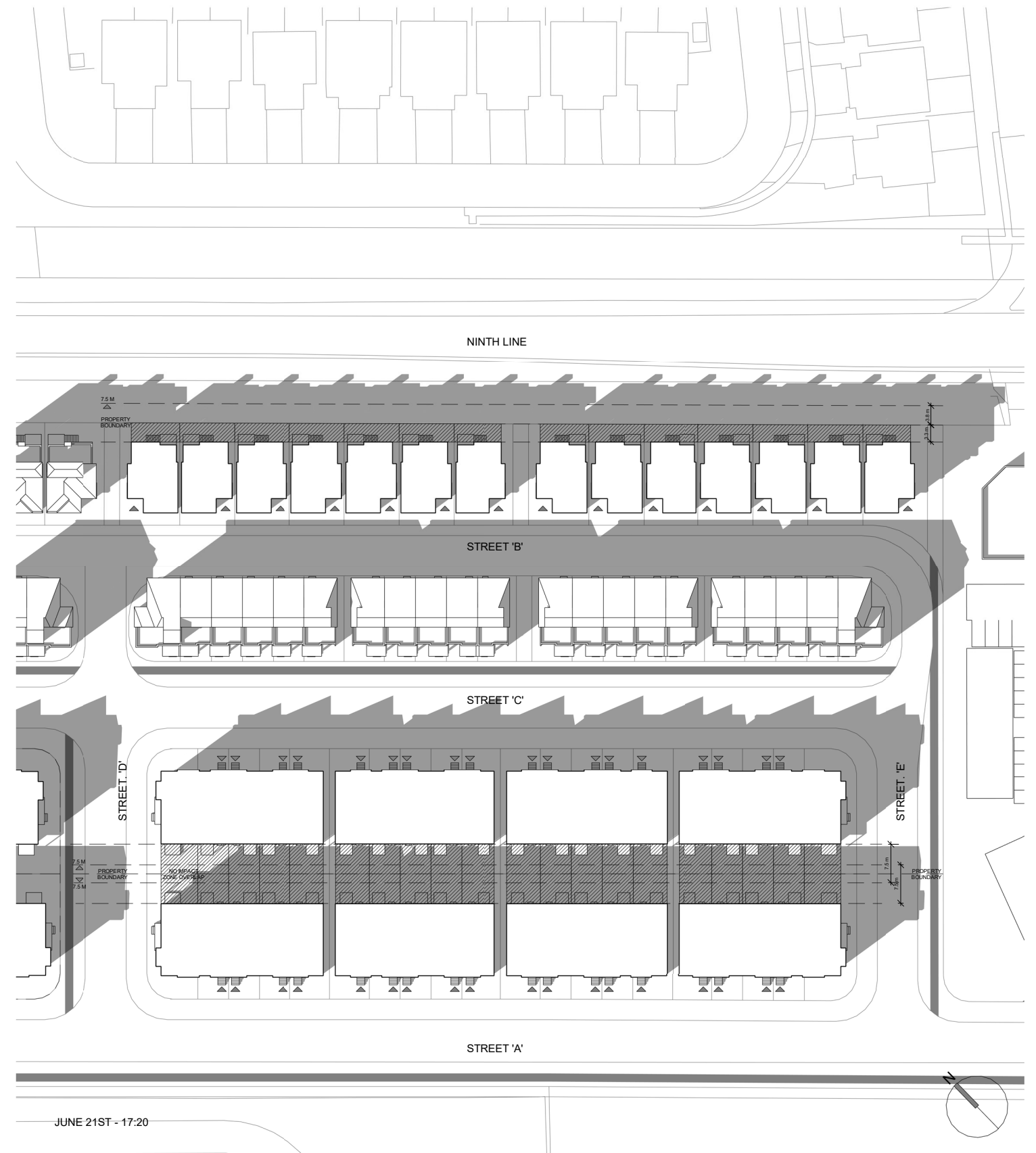
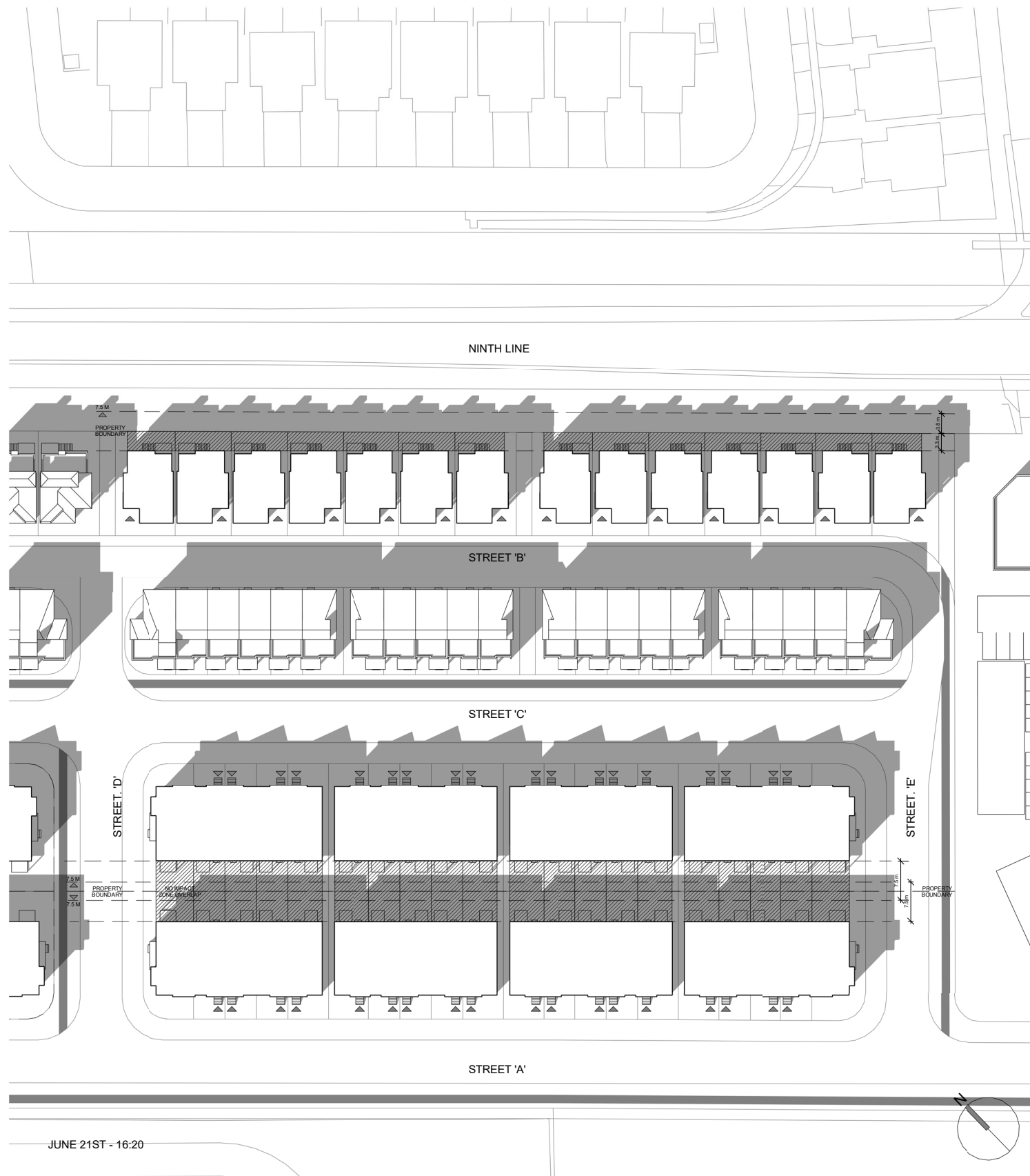
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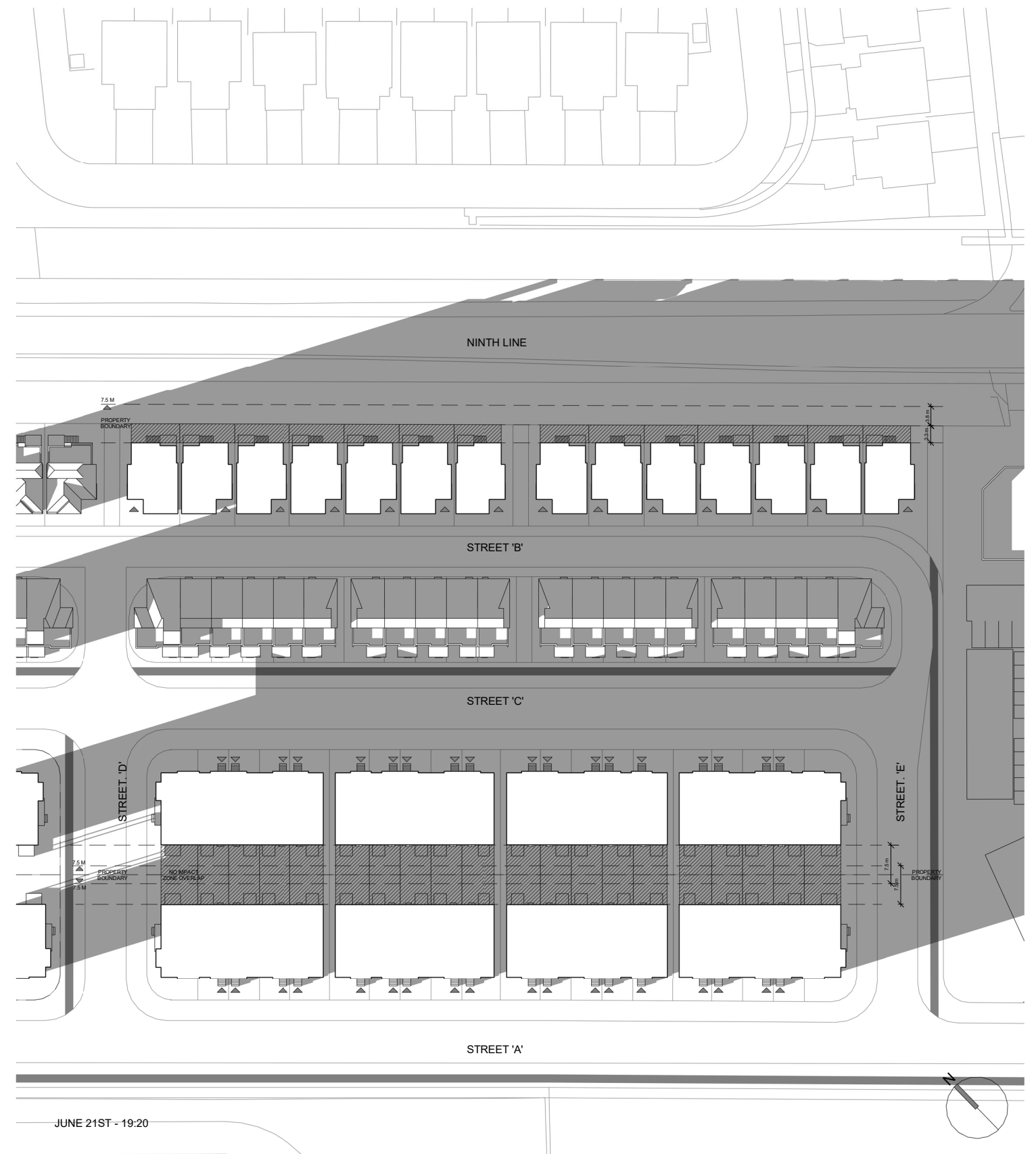
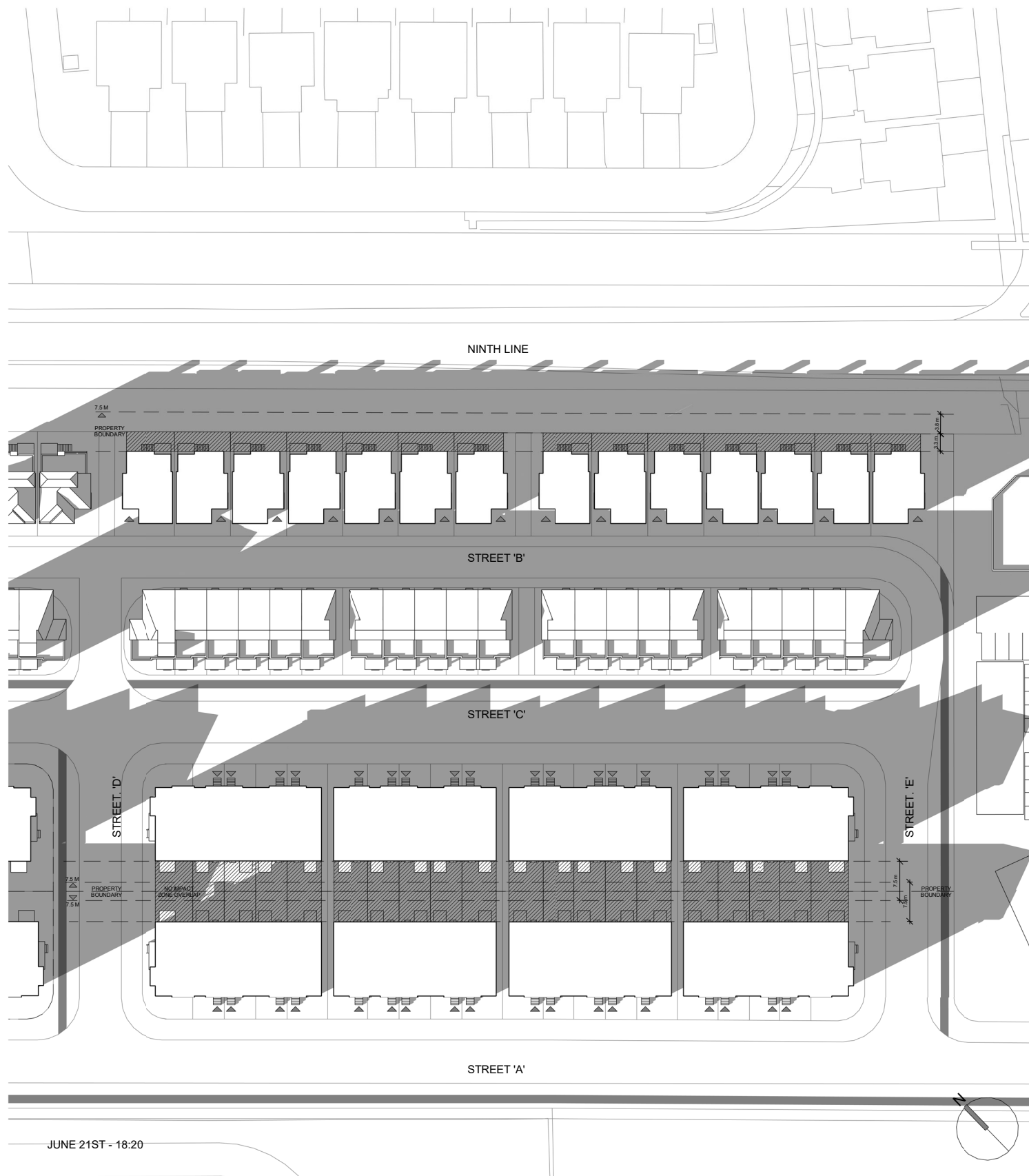
07/22/19  
Rev.

**RA03-04**









## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

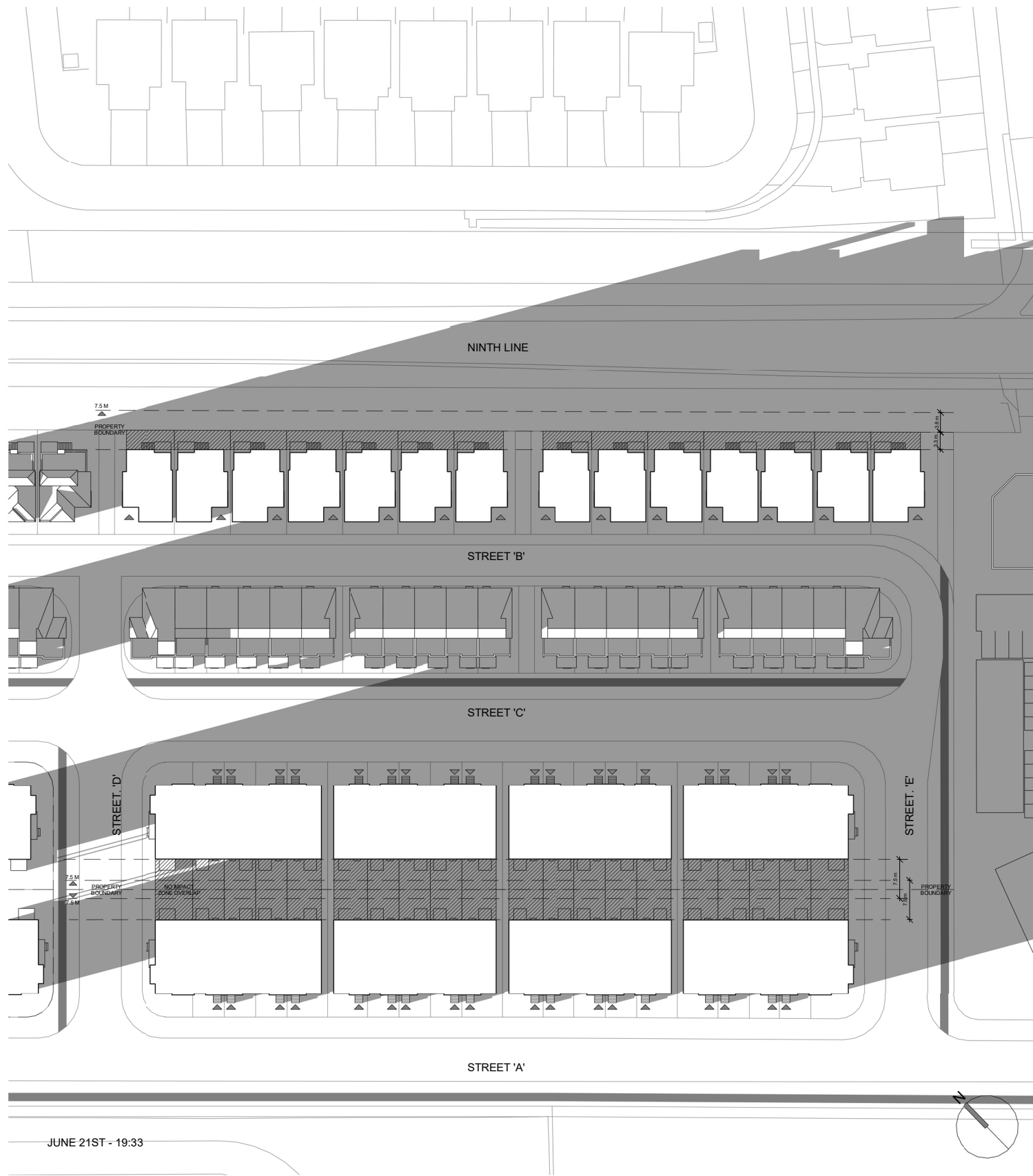
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DEVELOPMENTS LTD.**

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Proj. No. 16050  
Scale 1:1000

07/22/19  
Rev.

**RA03-07**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

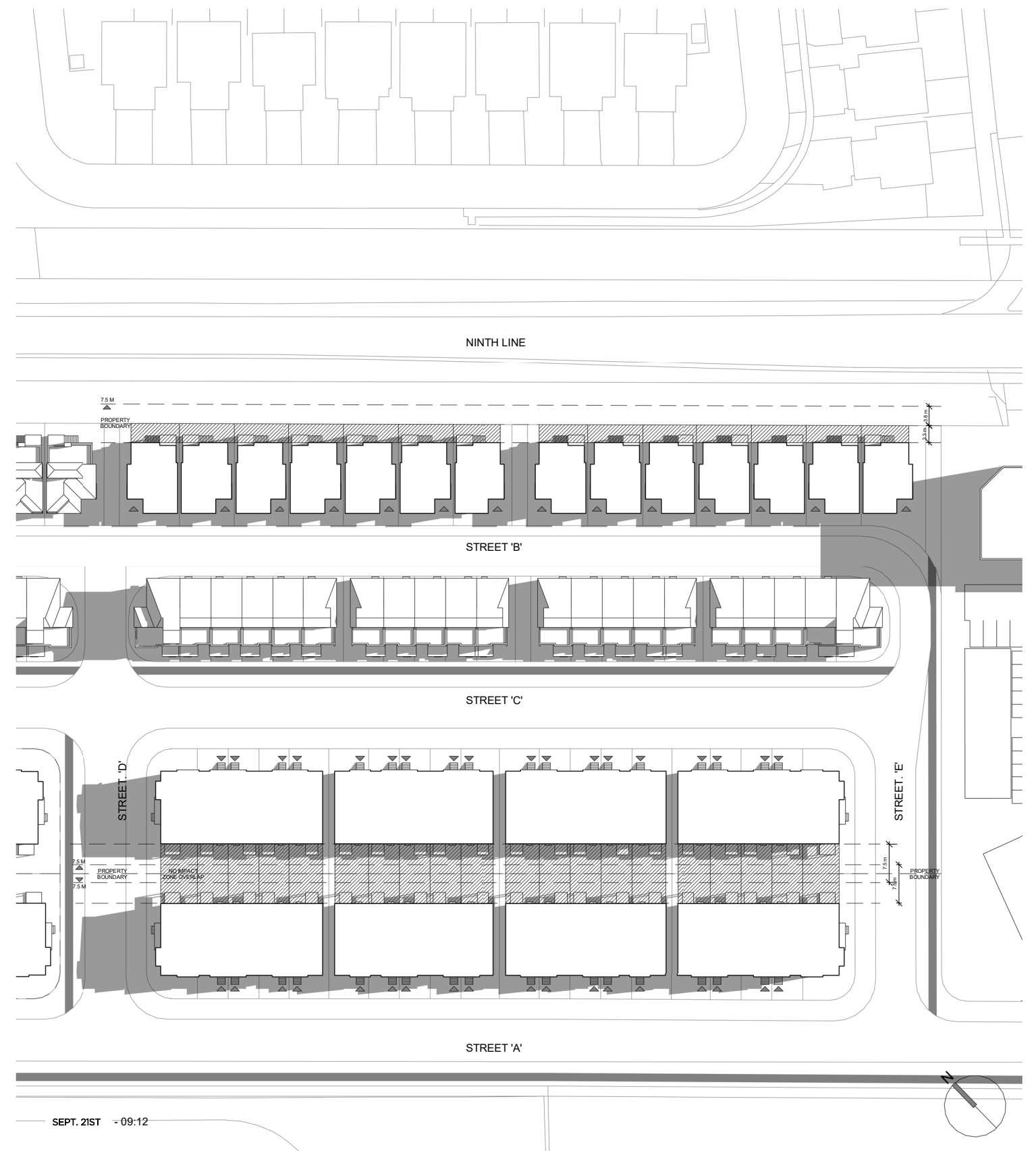
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DEVELOPMENTS LTD.**

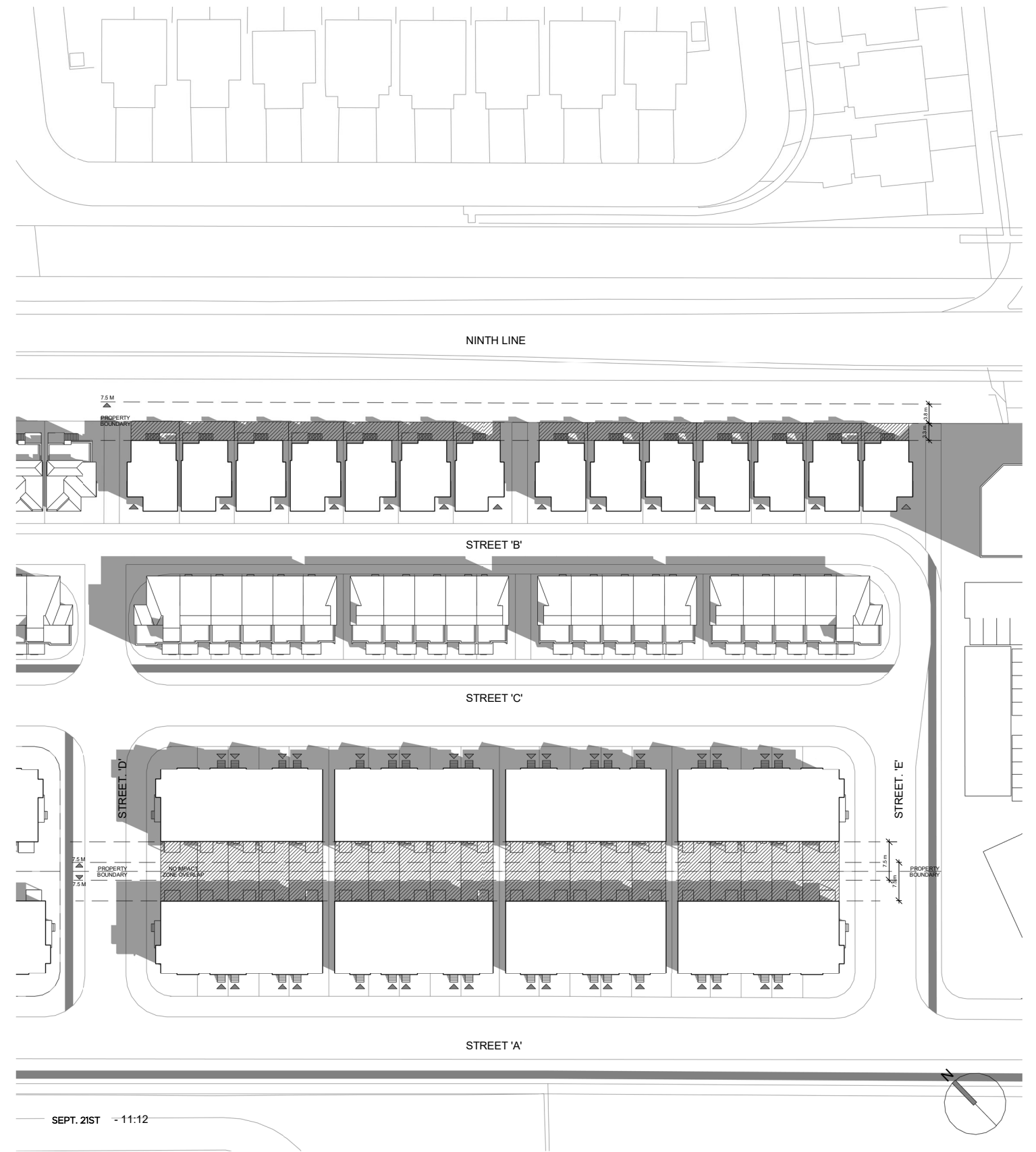
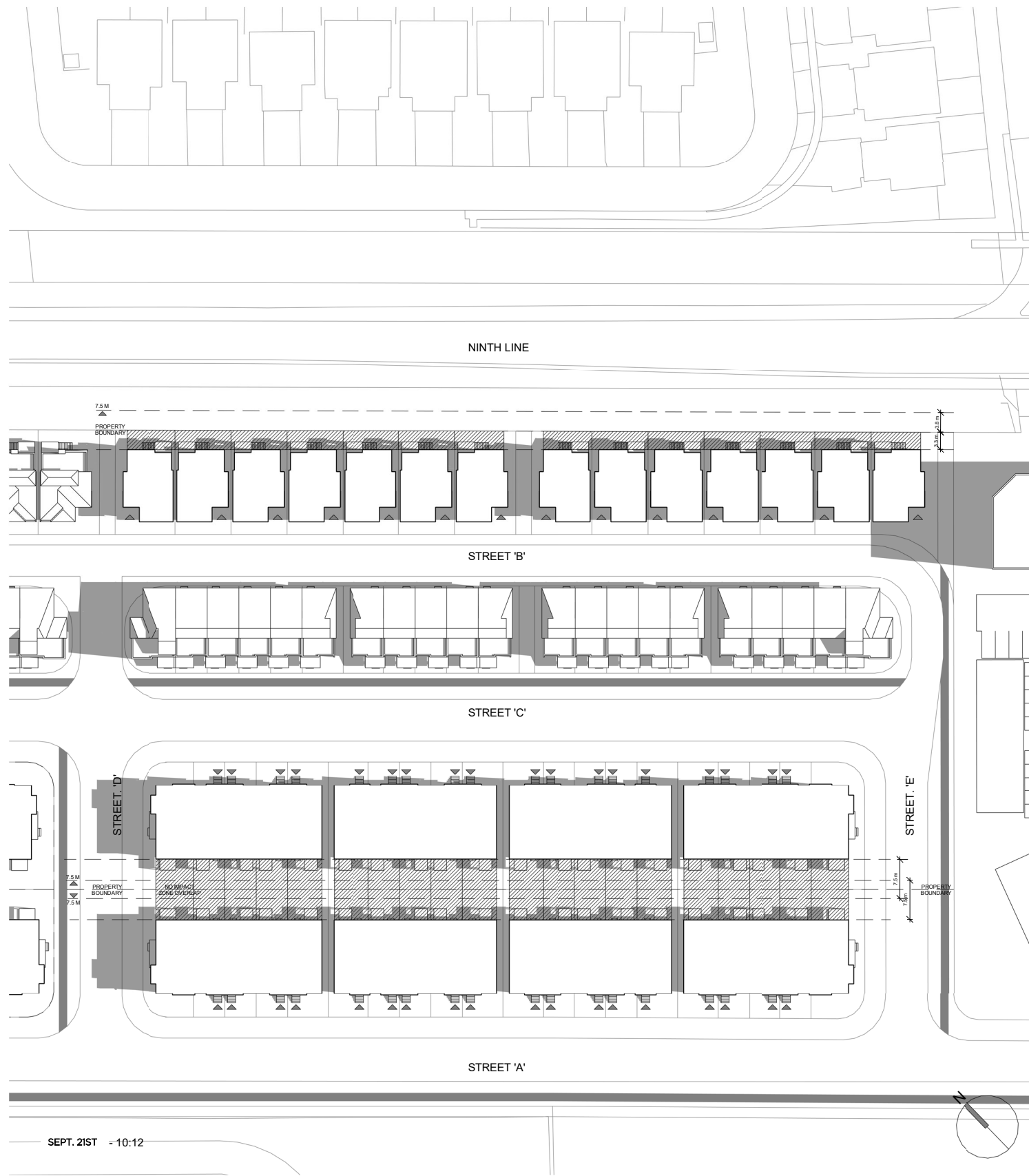
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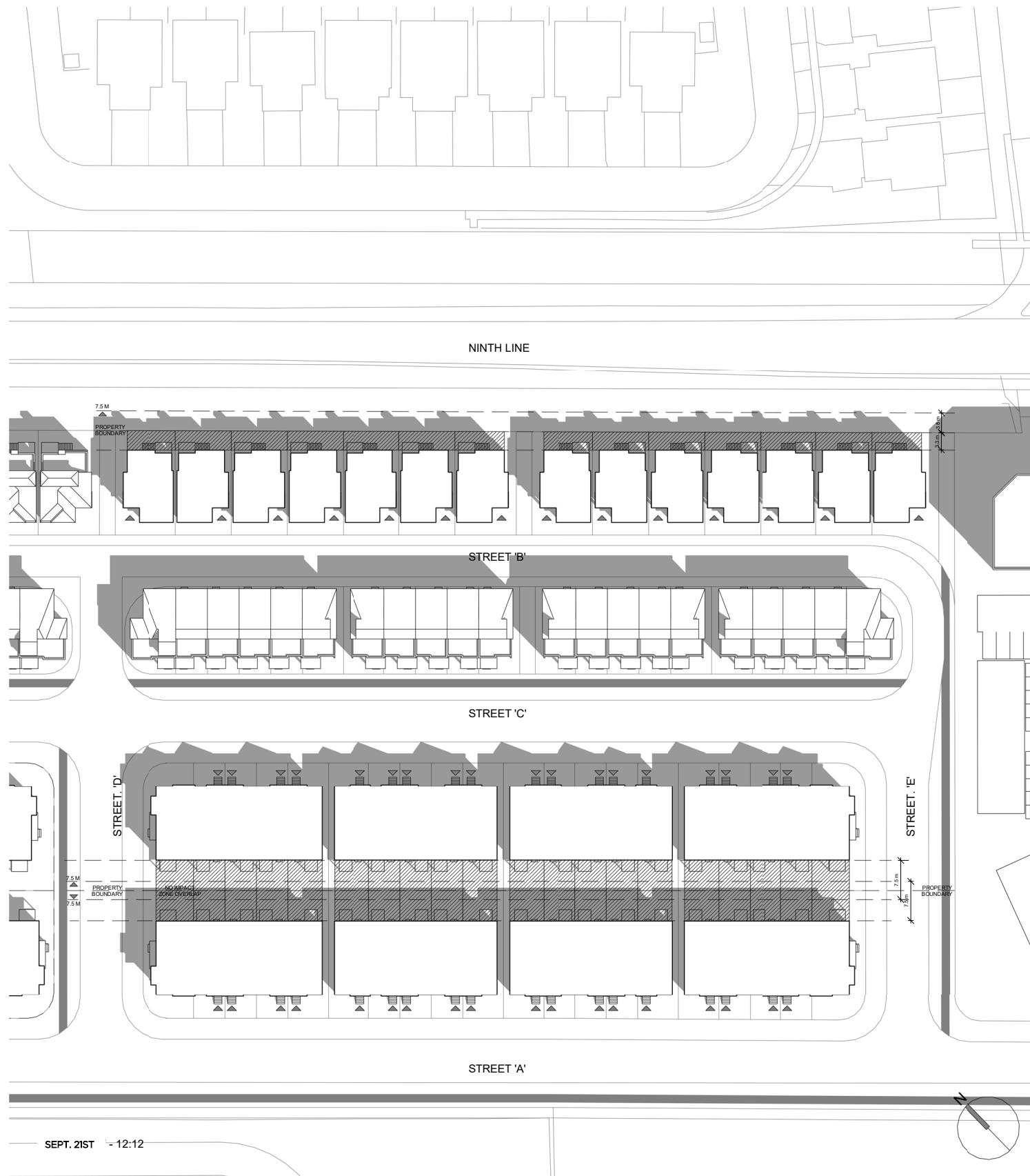
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Scale 1:1000

07/22/19  
Rev.

**RA03-08**







## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1:1000

07/22/19  
Rev.

**RA03-11**





## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

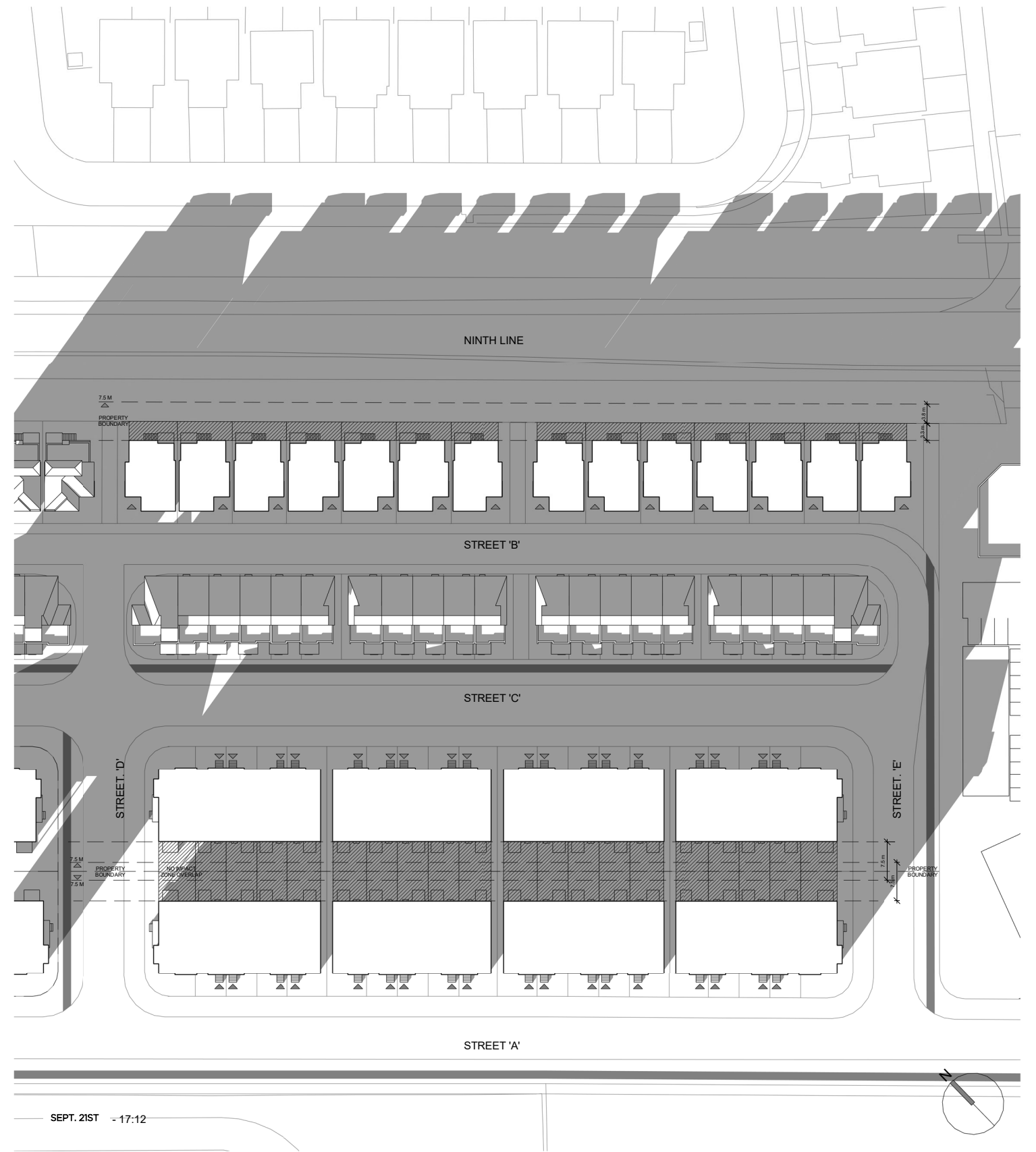
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

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Proj. No. 16050  
Scale 1:1000

07/22/19  
Rev.

**RA03-12**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

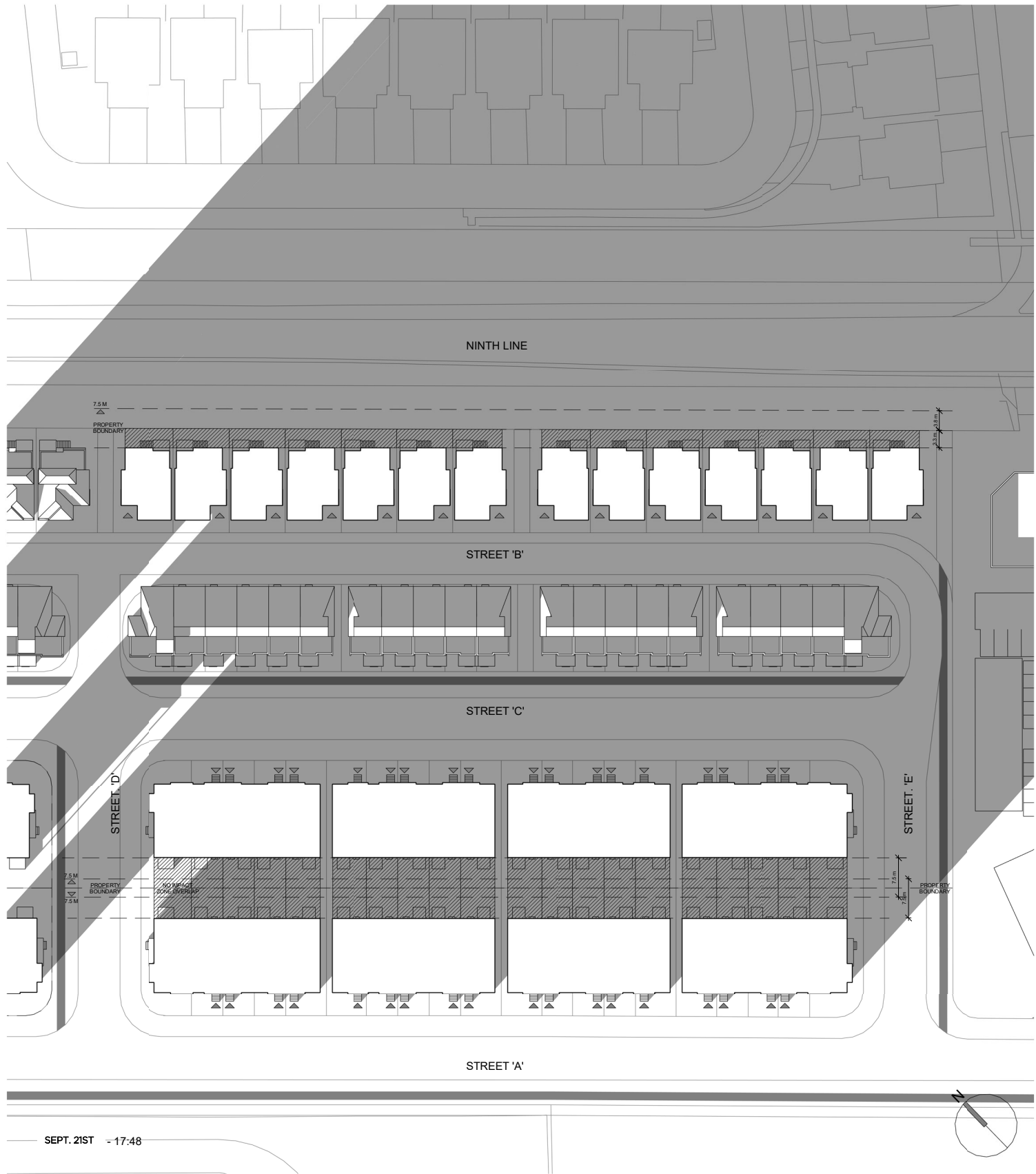
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

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Proj. No. 16050  
Scale 1:1000

07/22/19  
Rev.

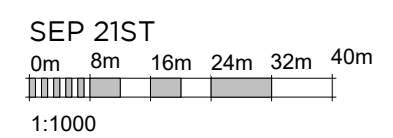
**RA03-13**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**



Proj. No. 16050  
Scale 1:1000

07/22/19  
Rev.

**RA03-14**

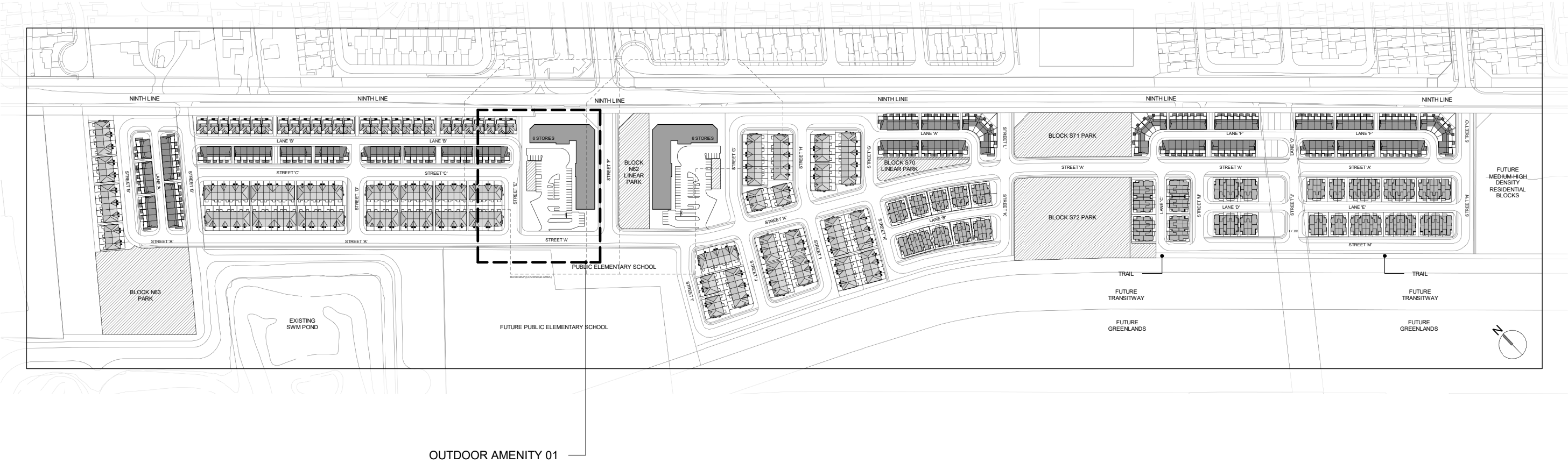
3.2 COMMUNAL OUTDOOR AMENITY AREAS

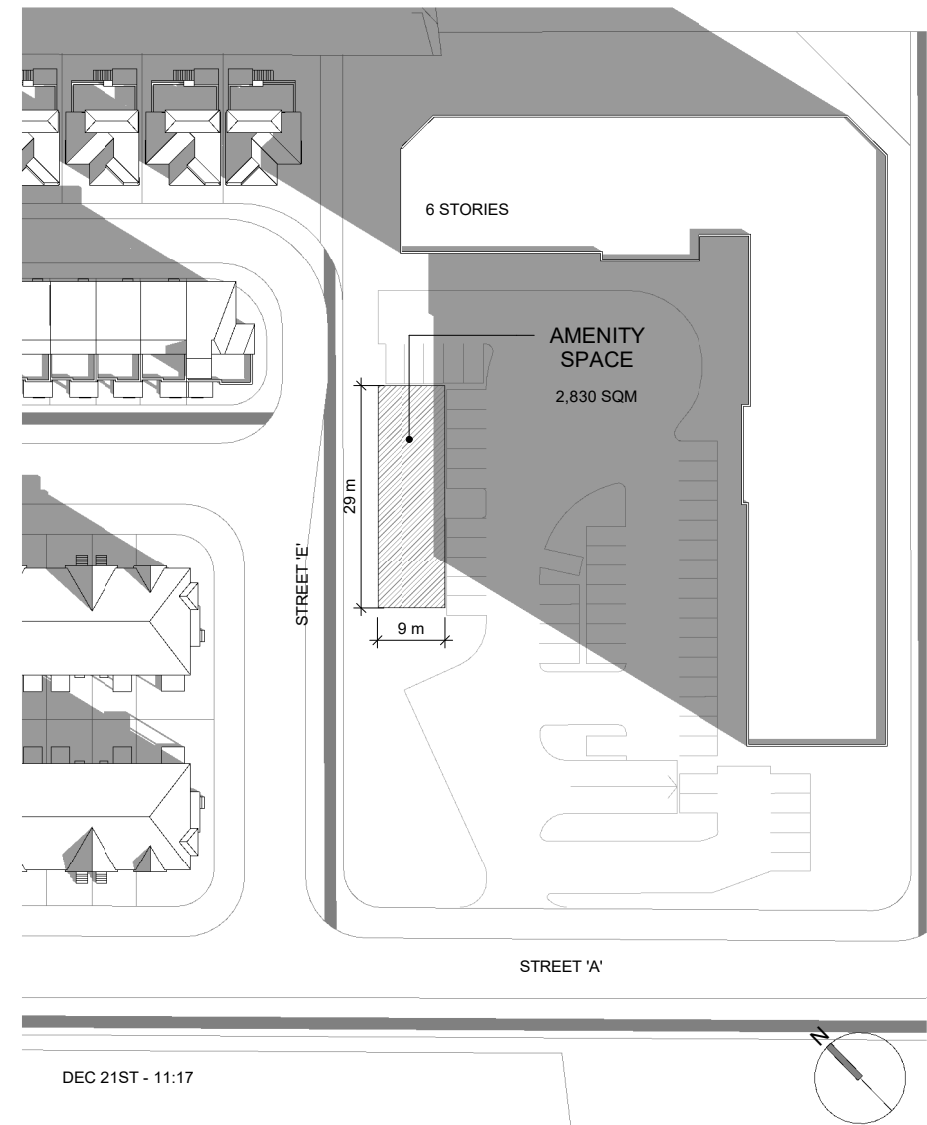
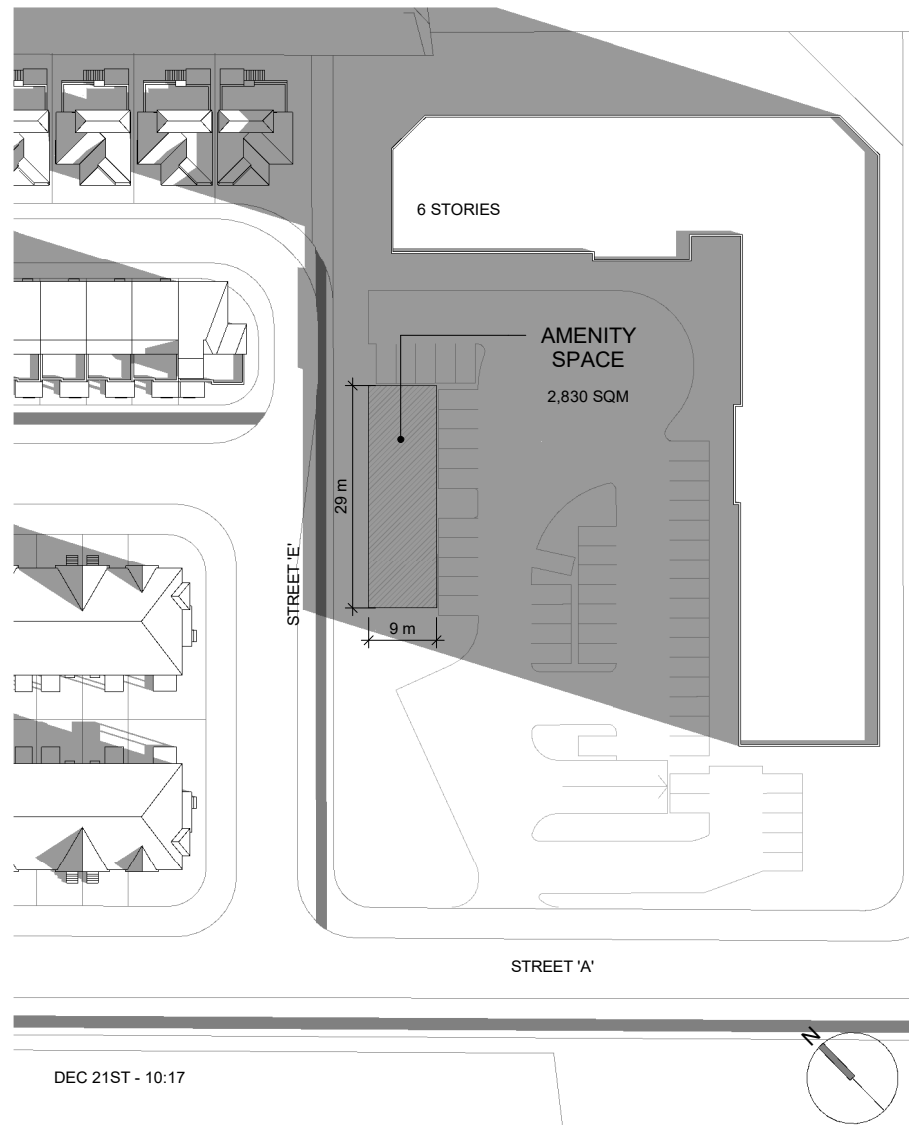
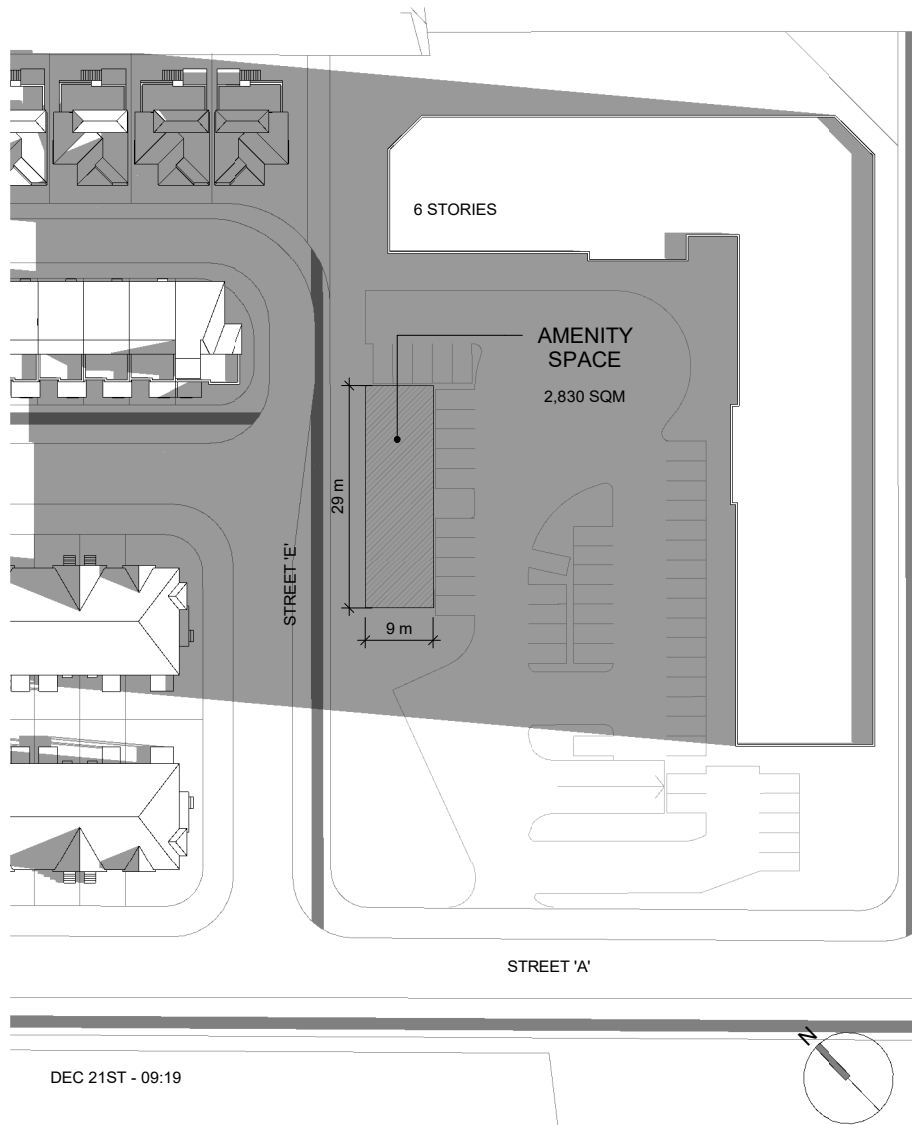
Communal Outdoor Amenity Areas include children’s play areas, school yards, tot lots, and park features such as sandboxes, wading pools etc., and outdoor amenity areas used by seniors and those associated with commercial and employment areas during spring, summer, fall and winter.  
Shadows from proposed developments should allow for full sun on the above places at least half the time, or 50% sun coverage all the time, on each of the following dates:

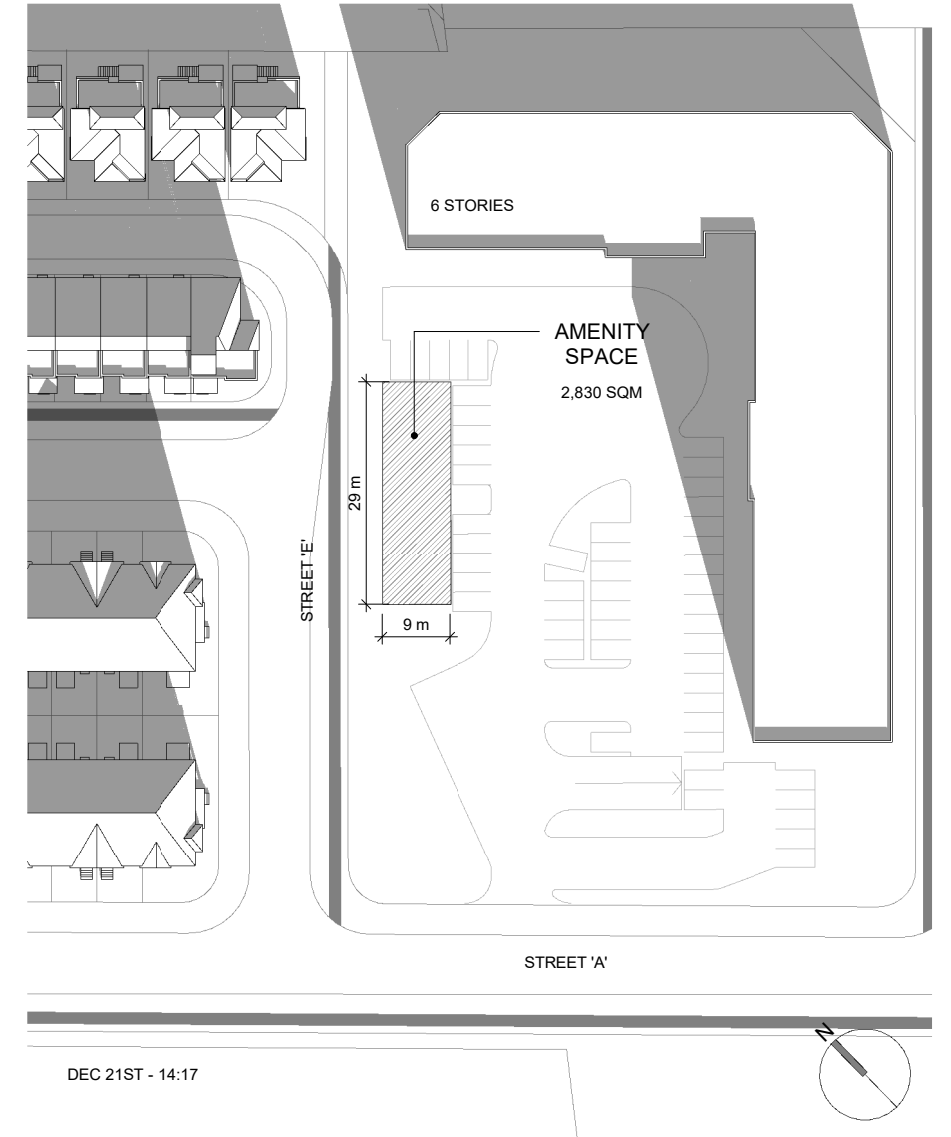
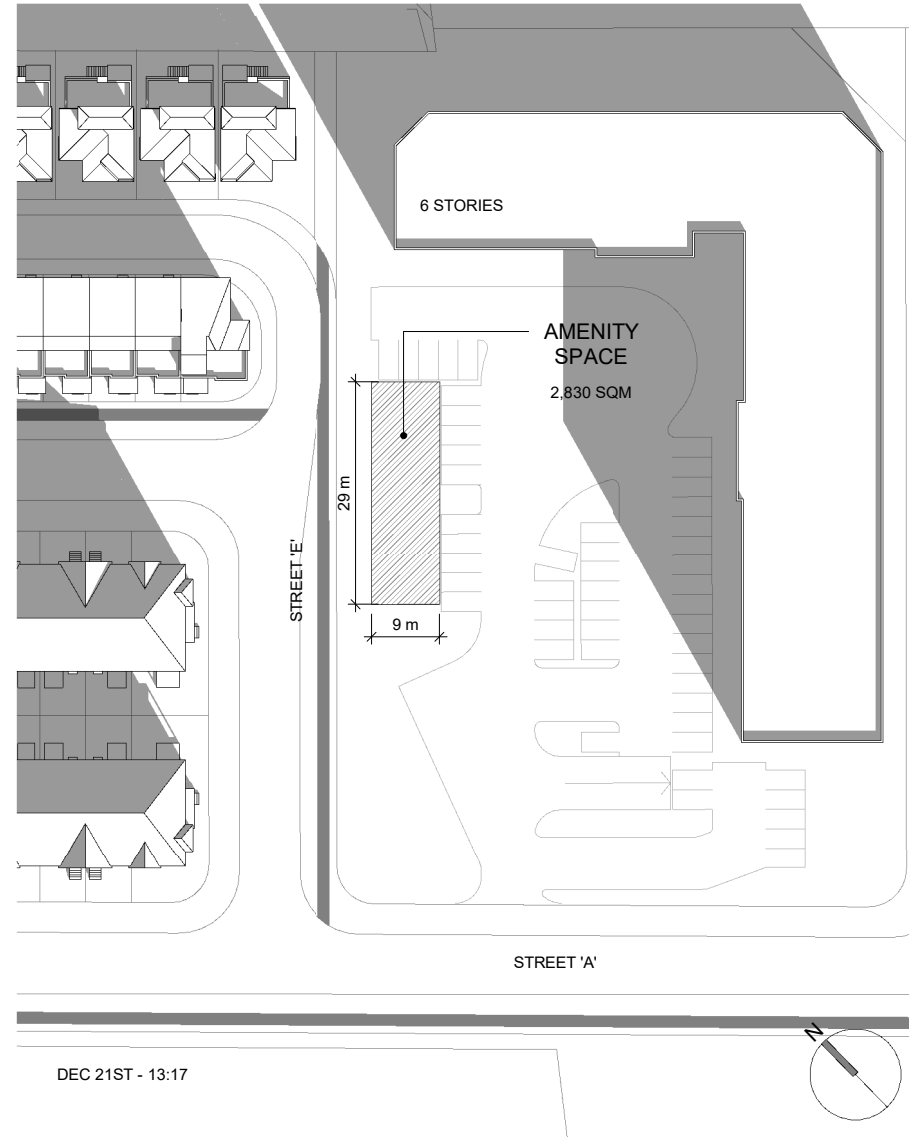
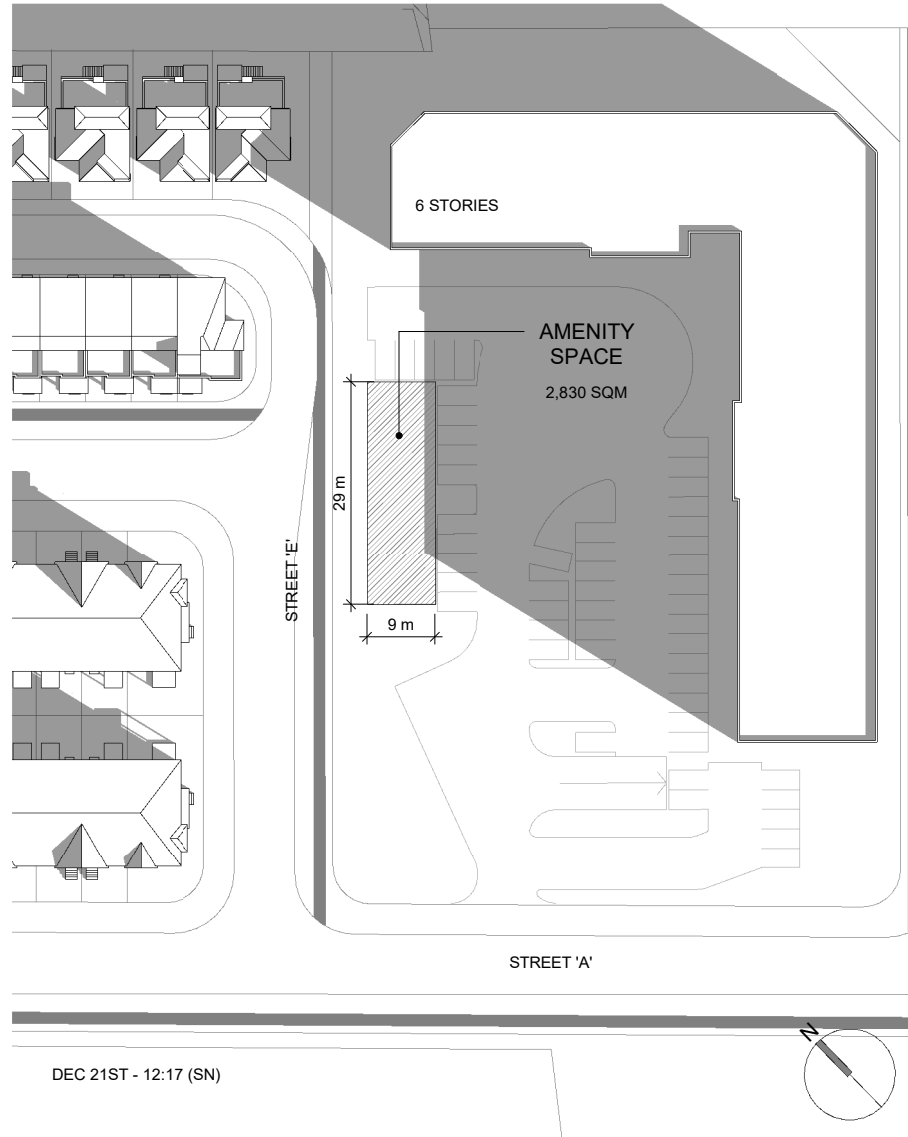
- ♦ June 21
- ♦ September 21
- ♦ December 21

This criterion is met 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) .

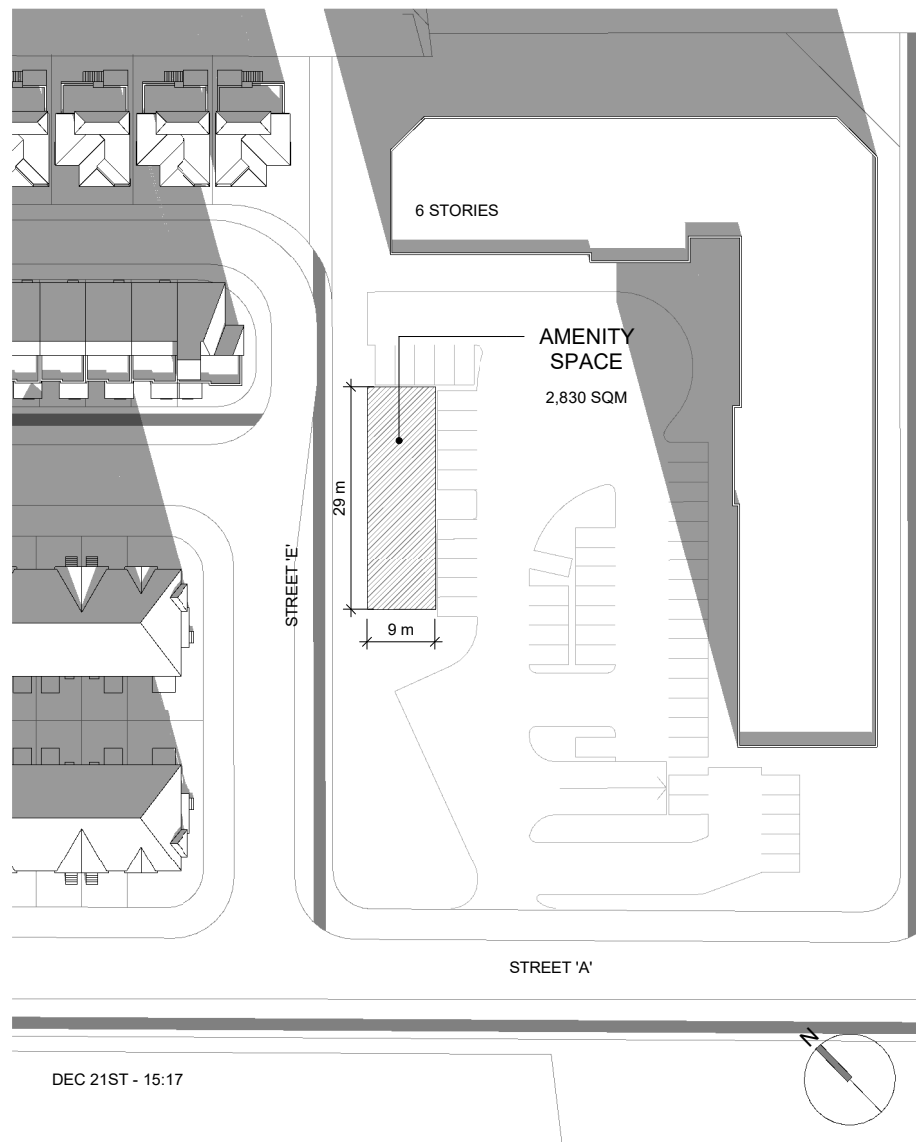
This criterion applies to public amenity areas and common outdoor amenity areas that are part of a proposed or existing development.











## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

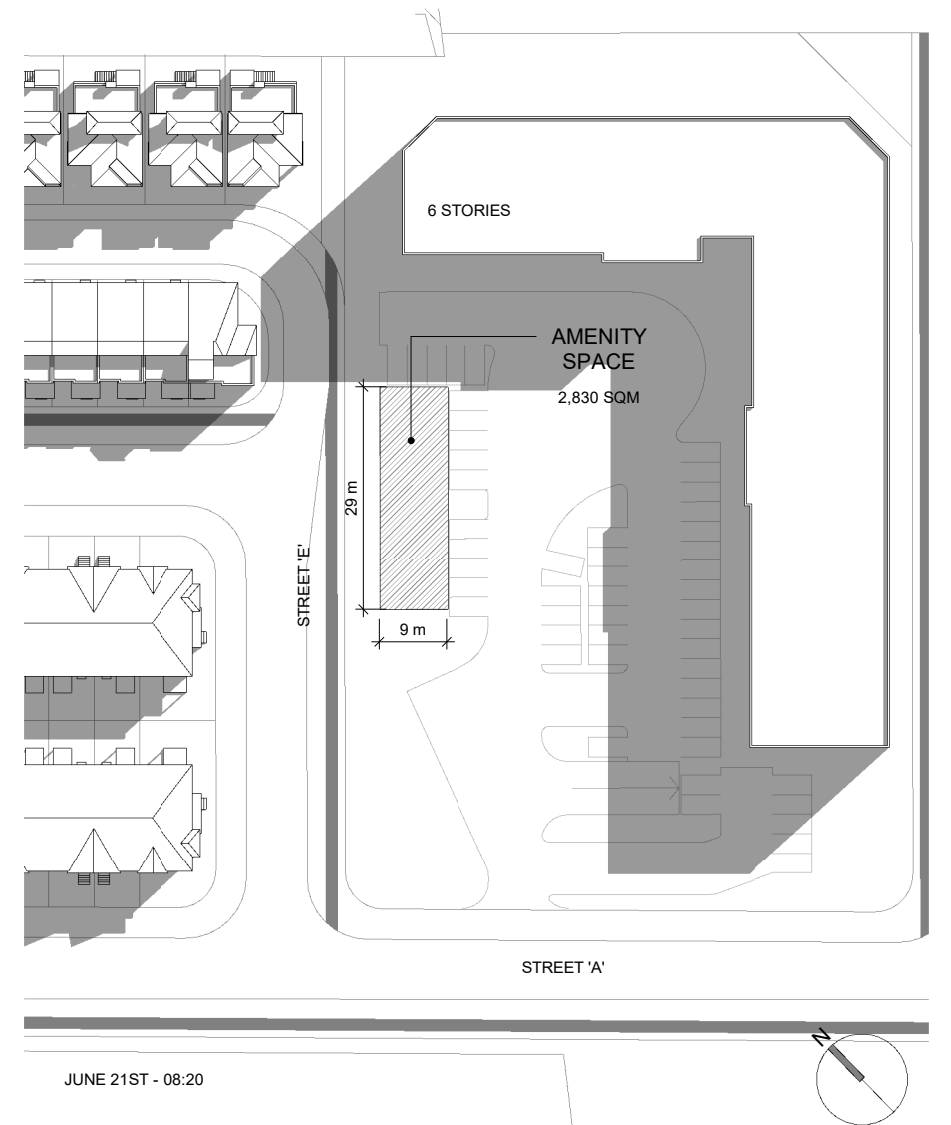
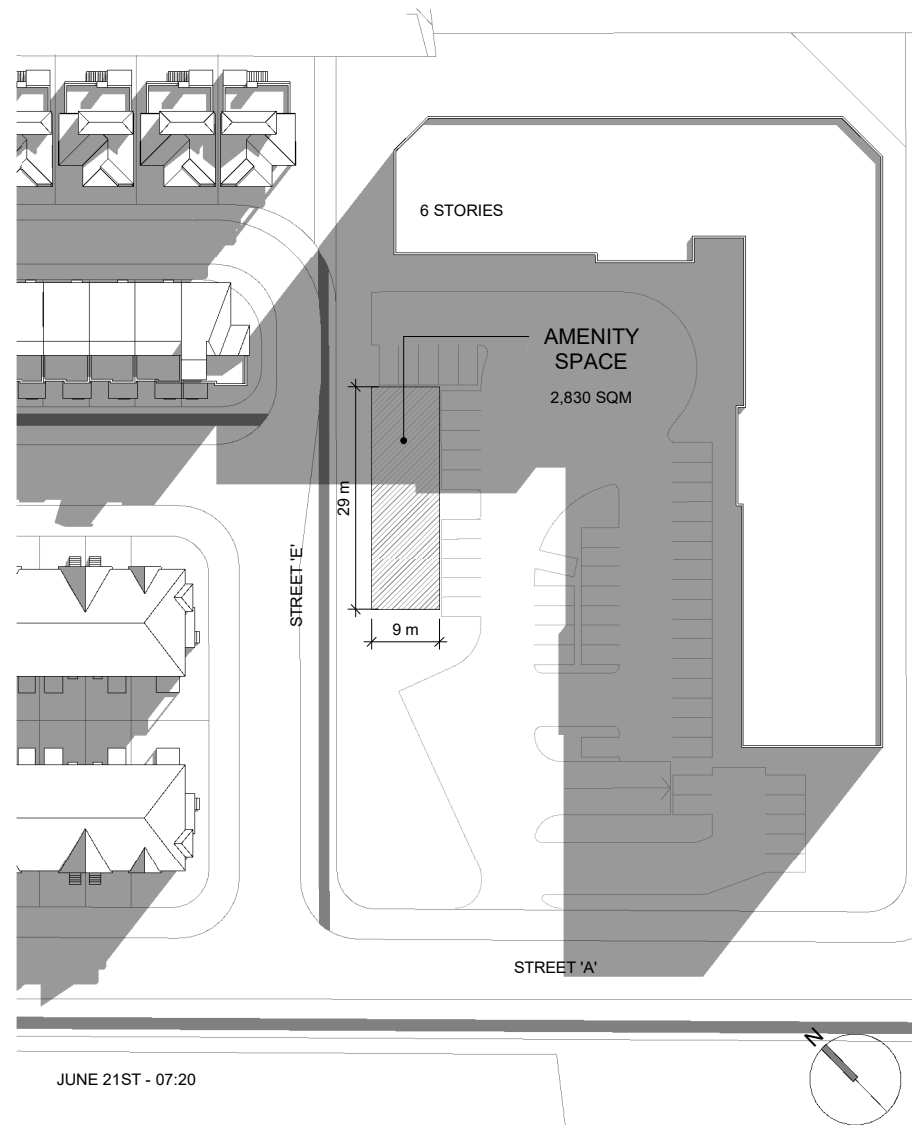
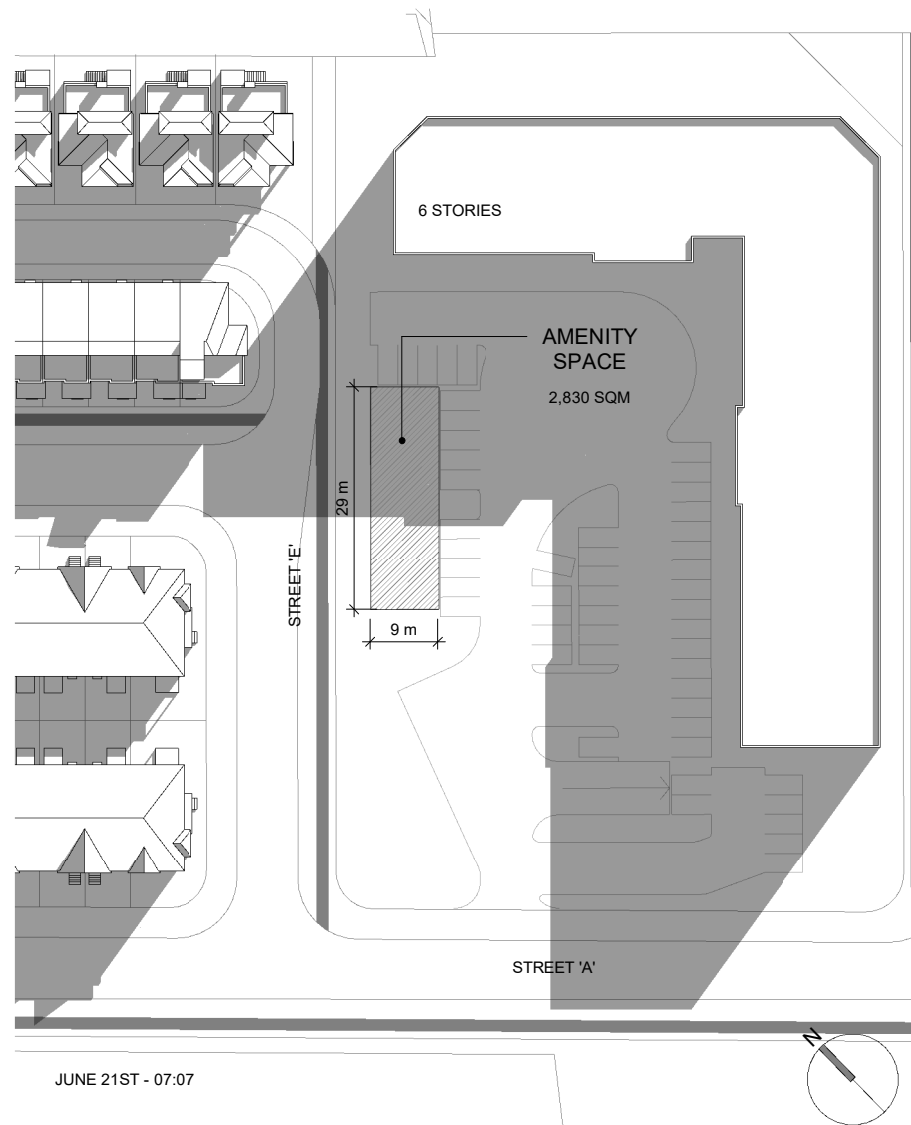
**DERRY-BRITANIA  
DEVELOPMENTS LTD.**

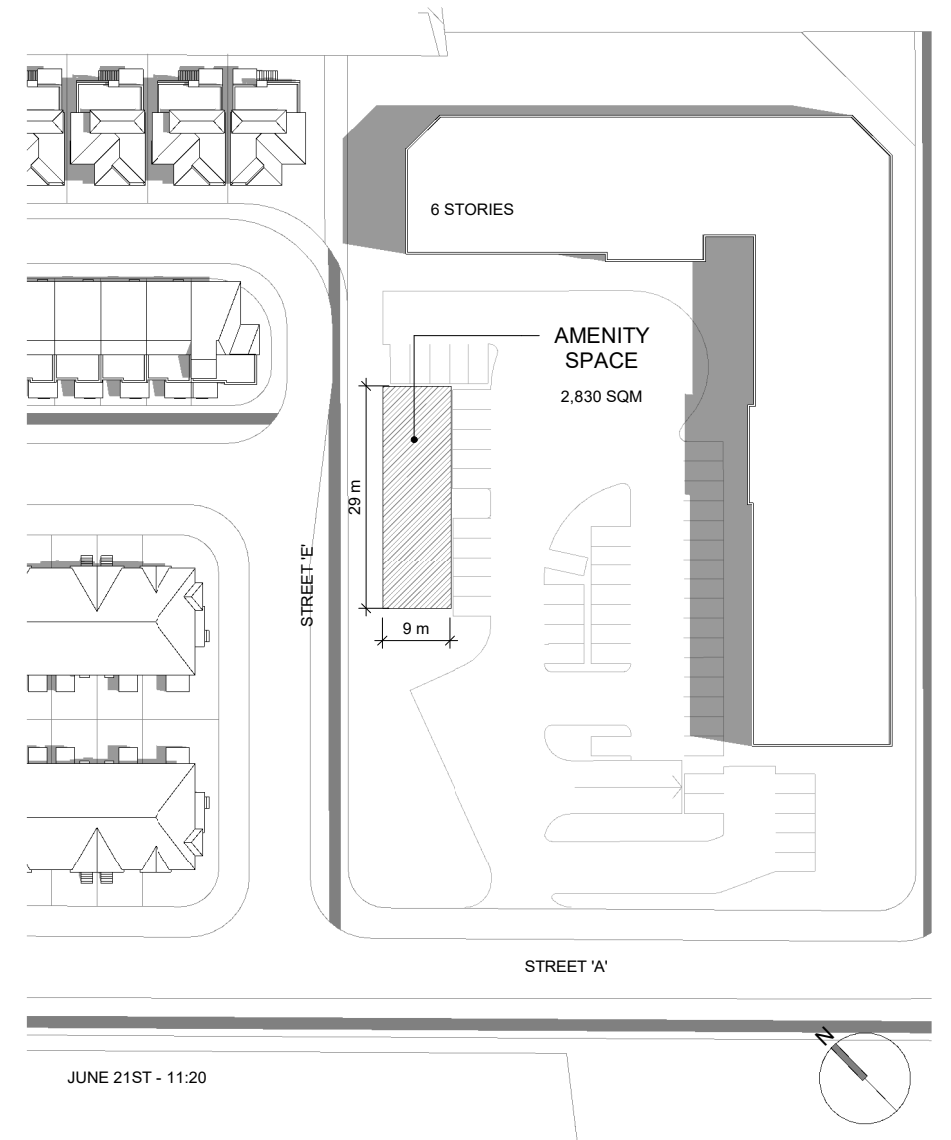
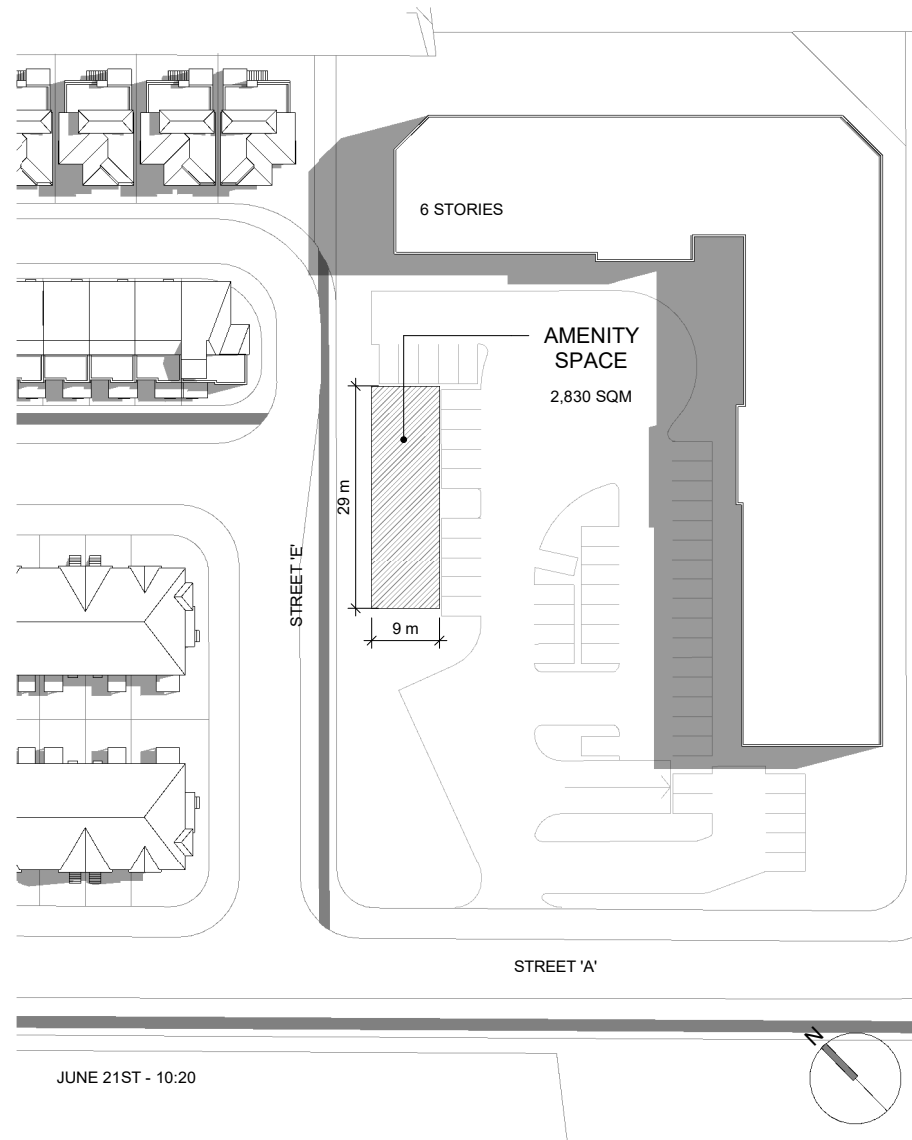
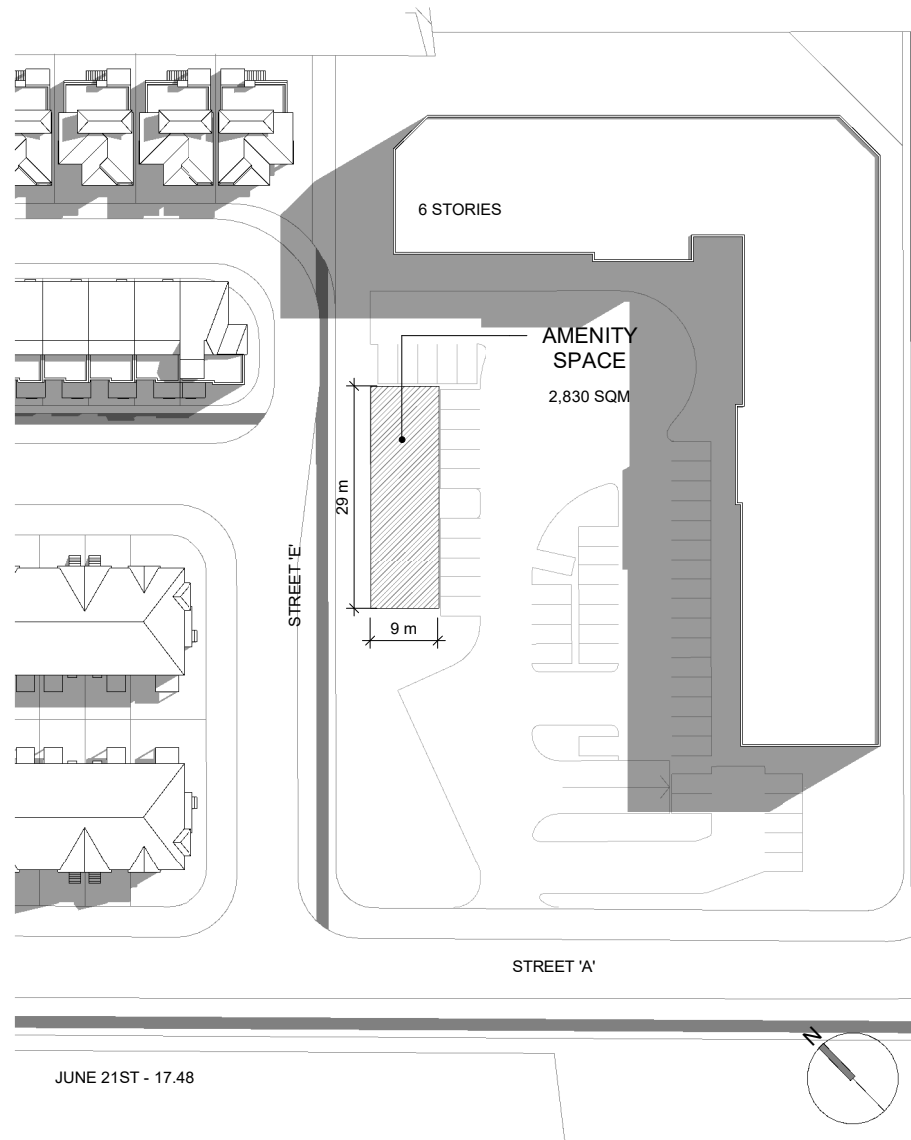
DEC 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

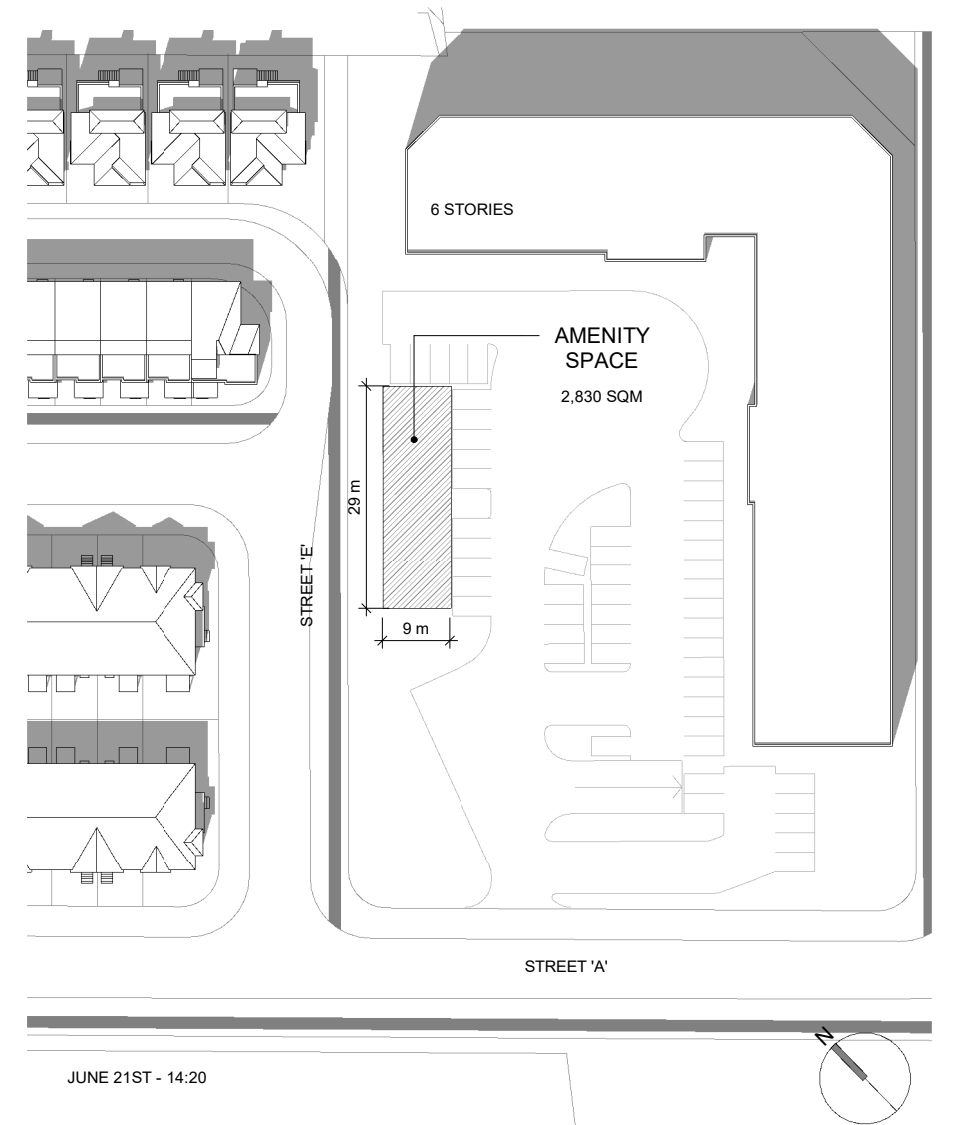
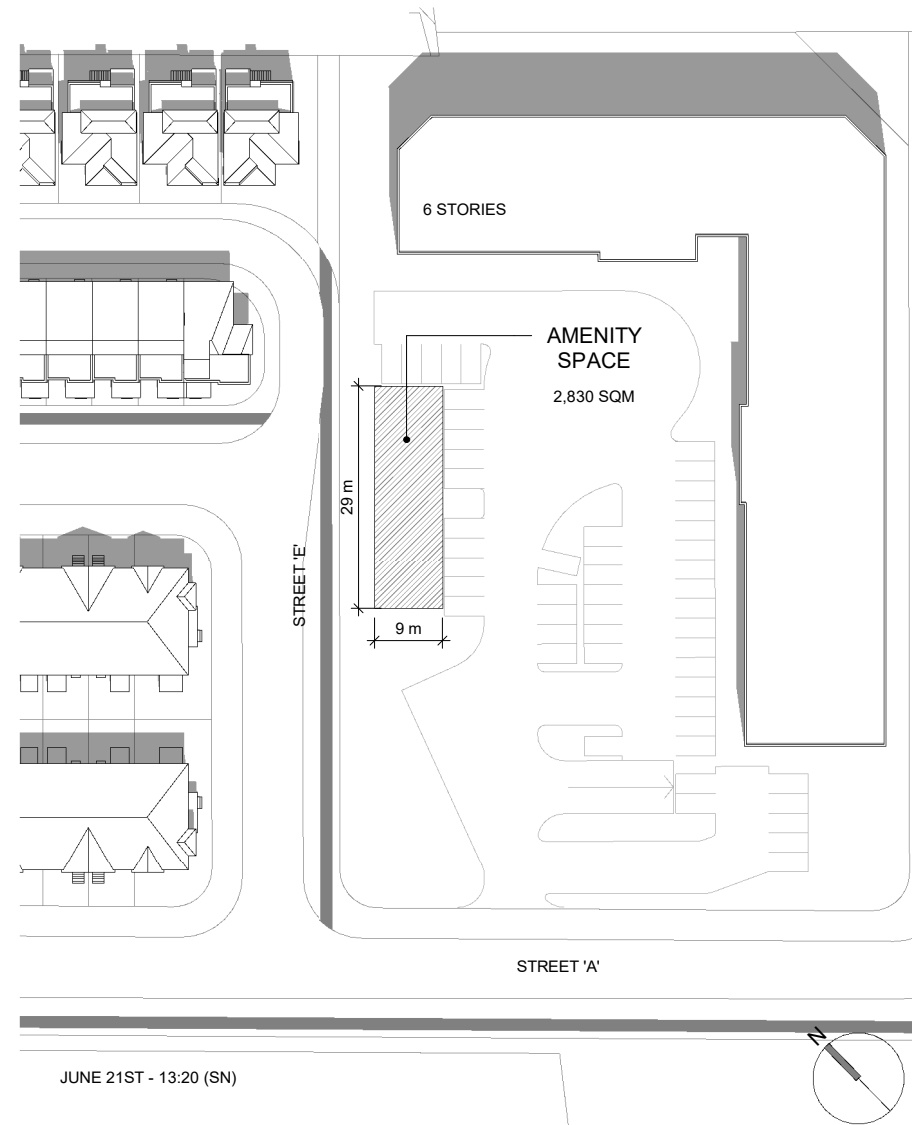
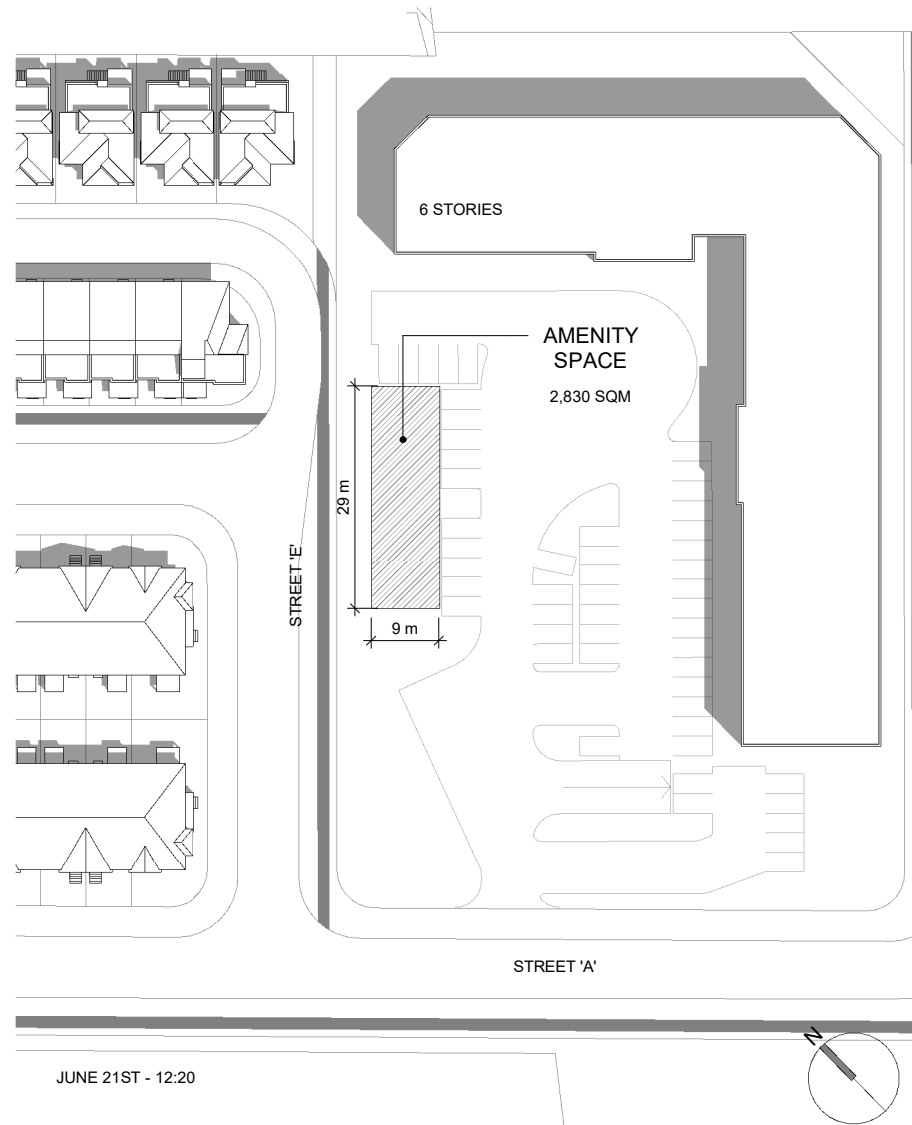
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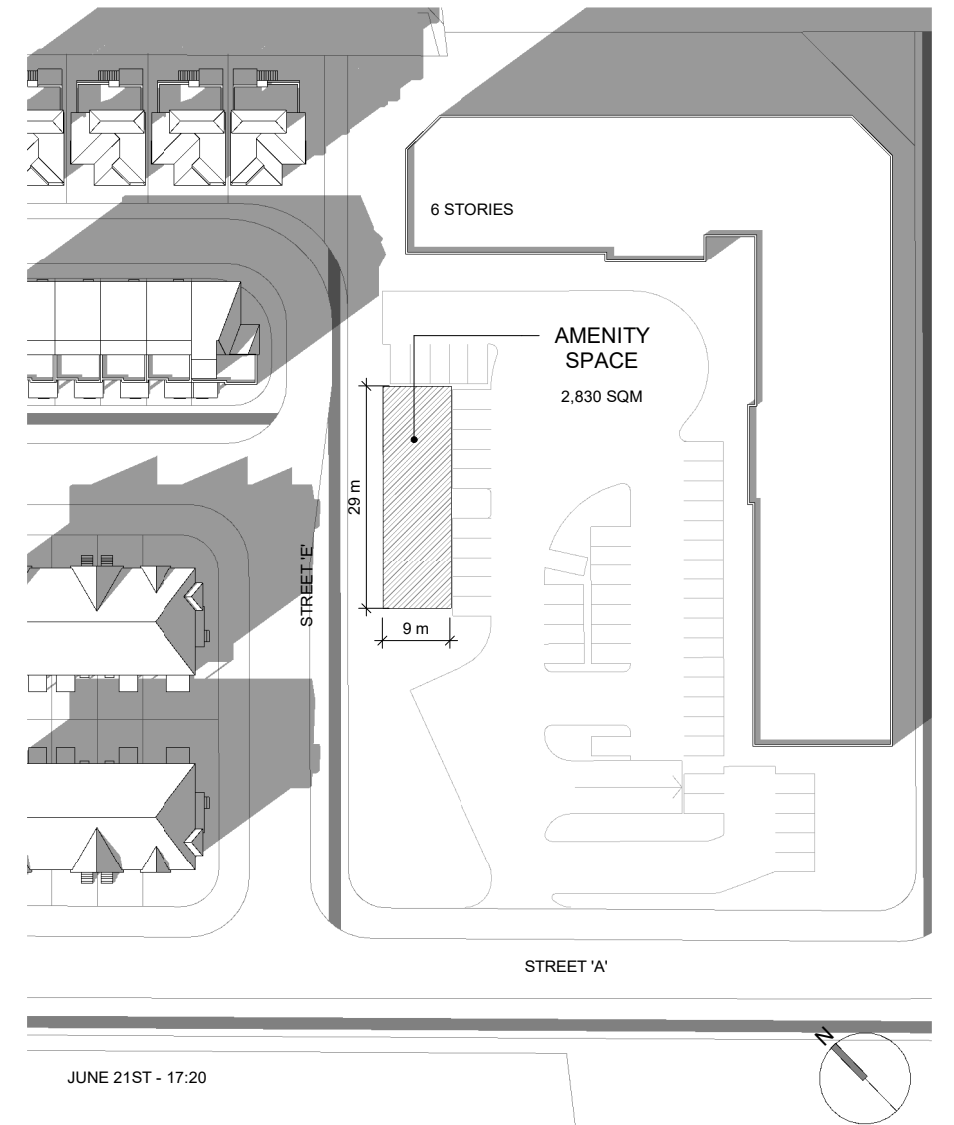
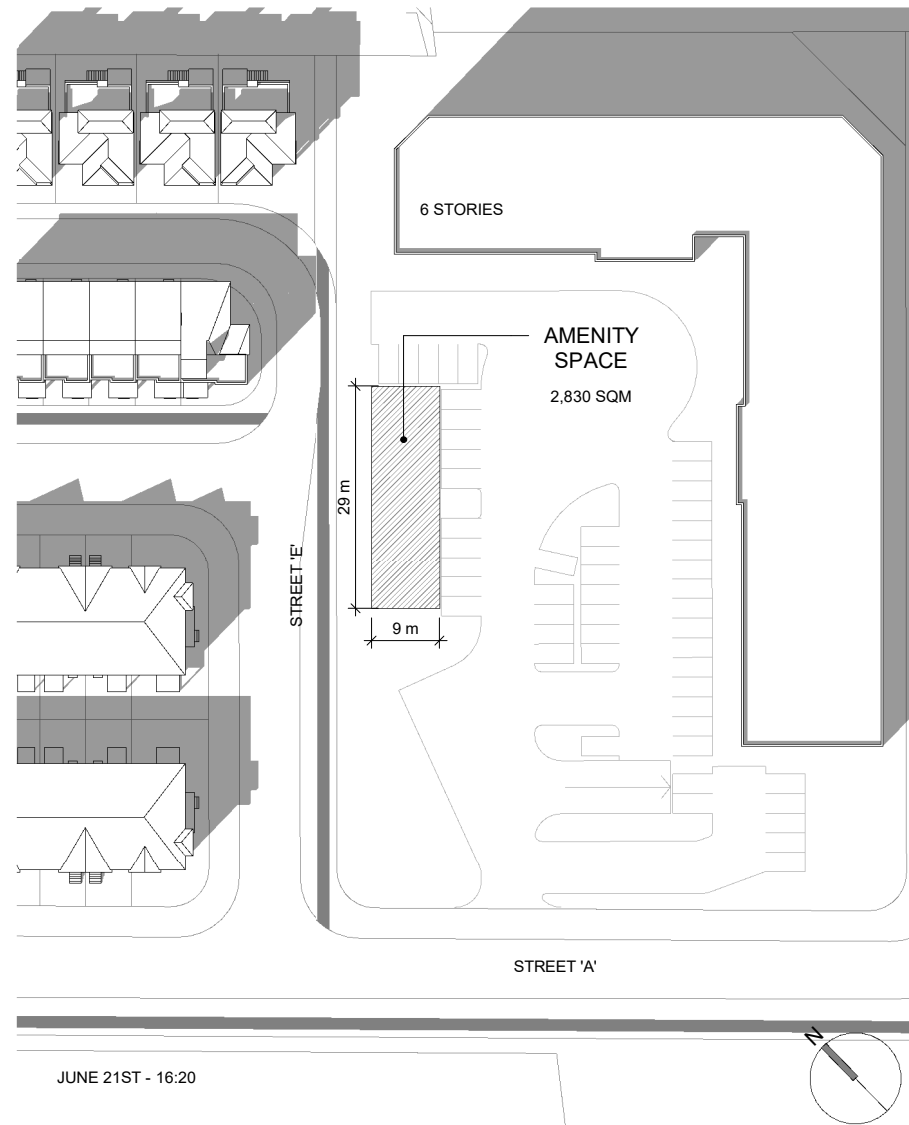
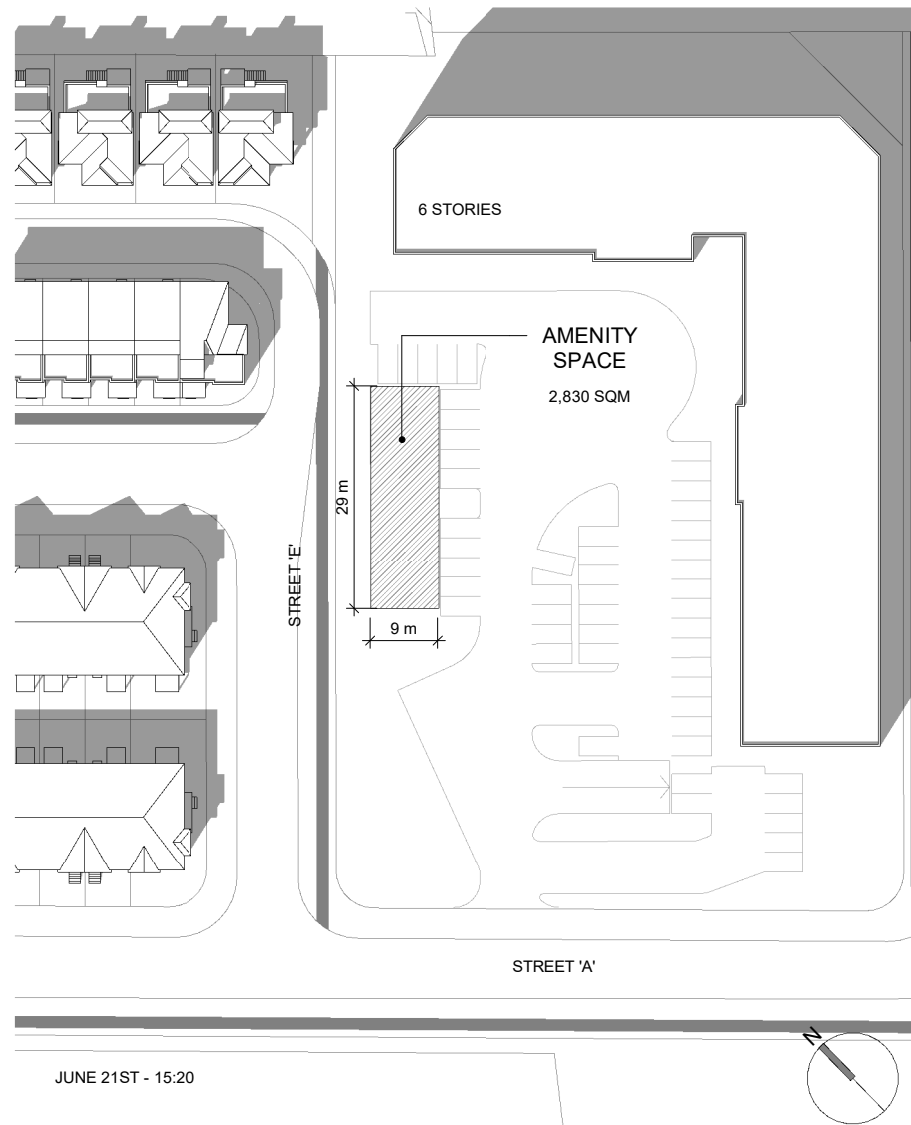
07/22/19  
Rev.

**CO01-03**

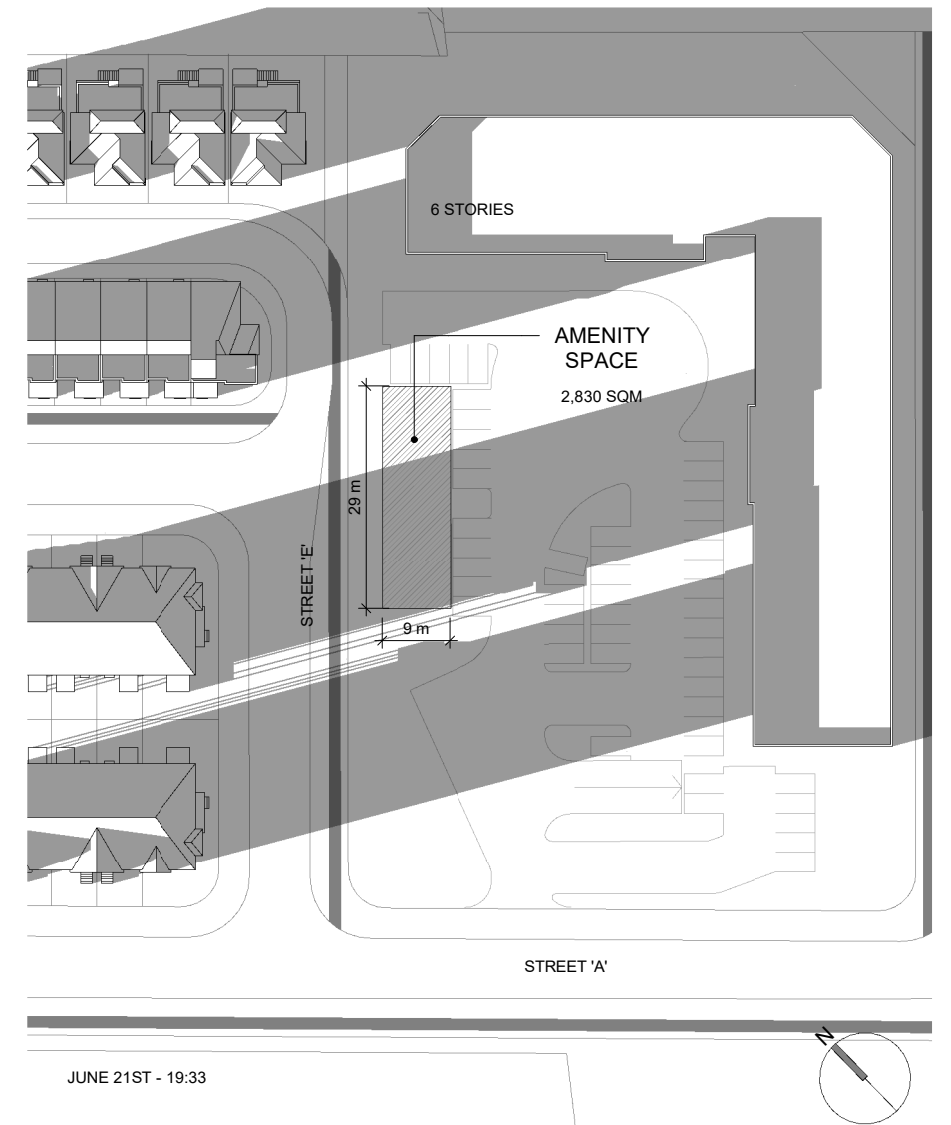
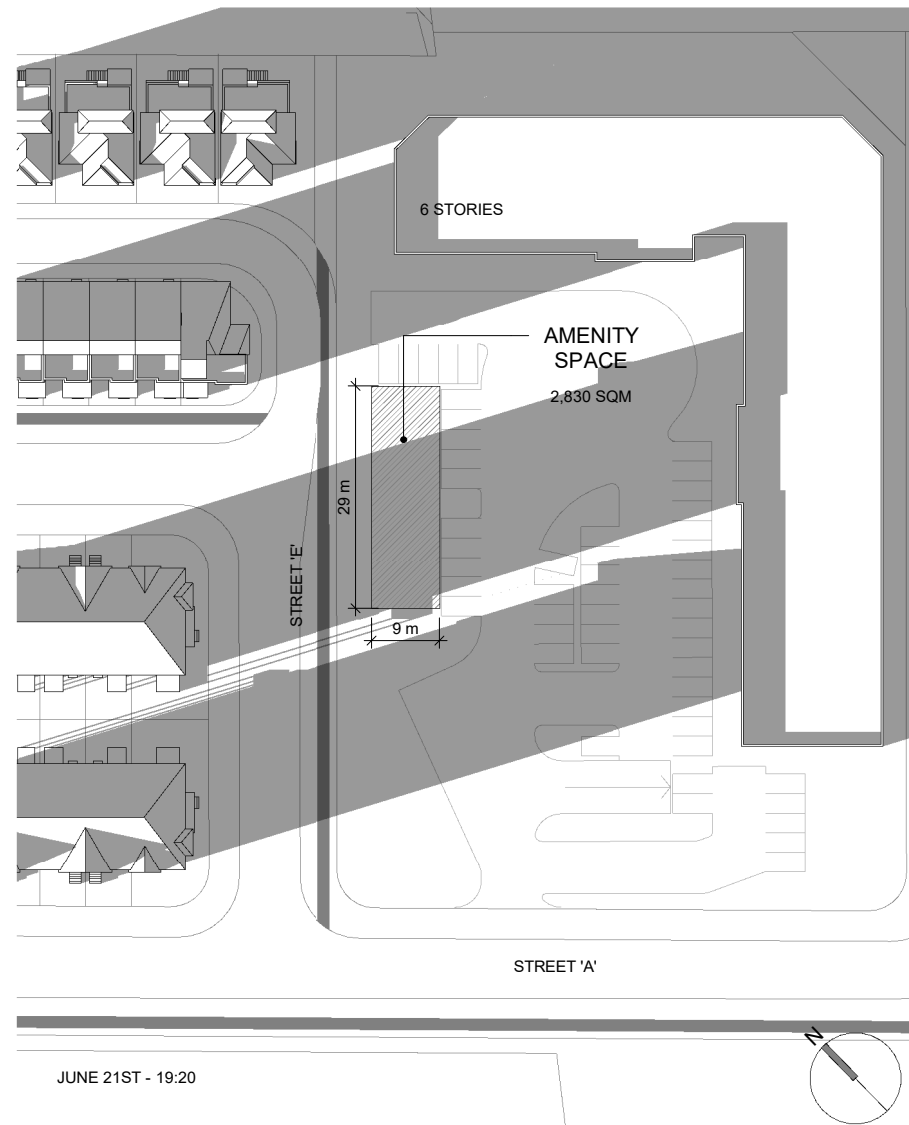
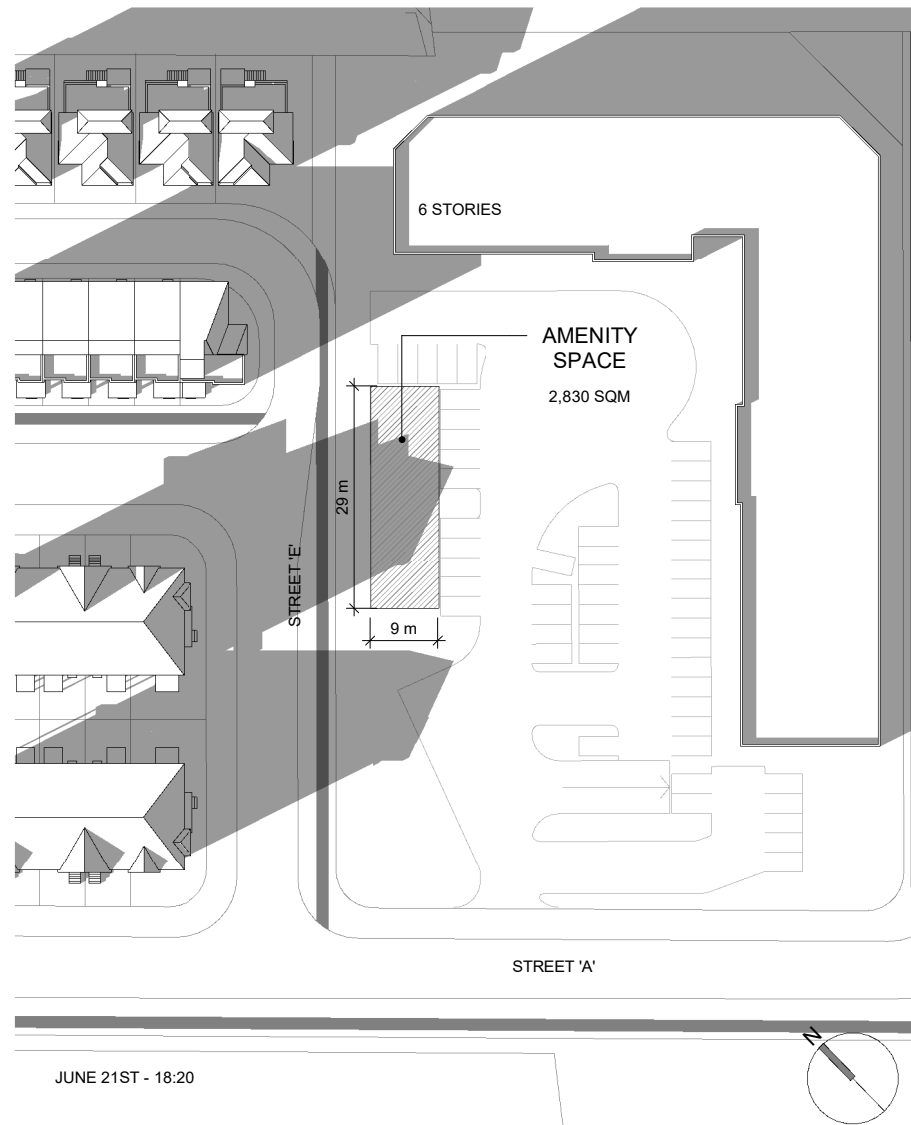


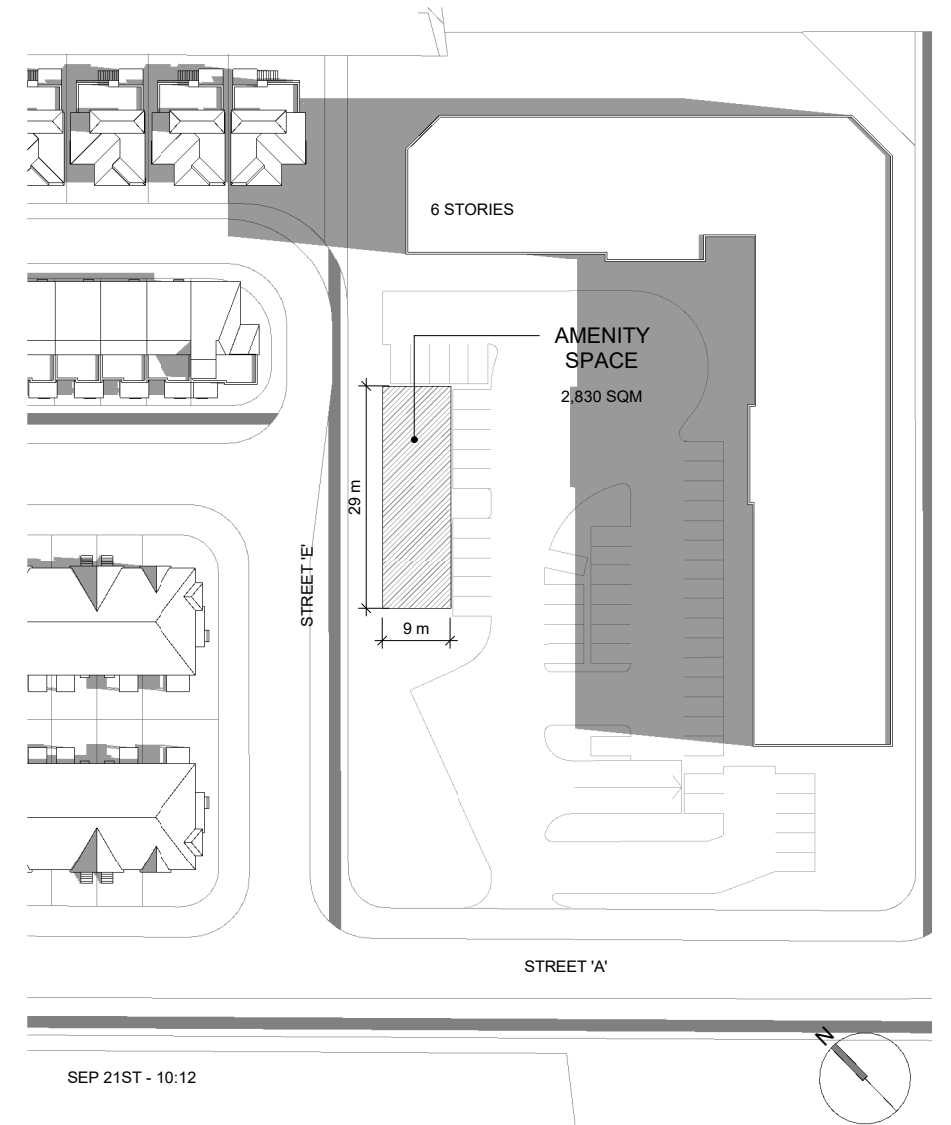
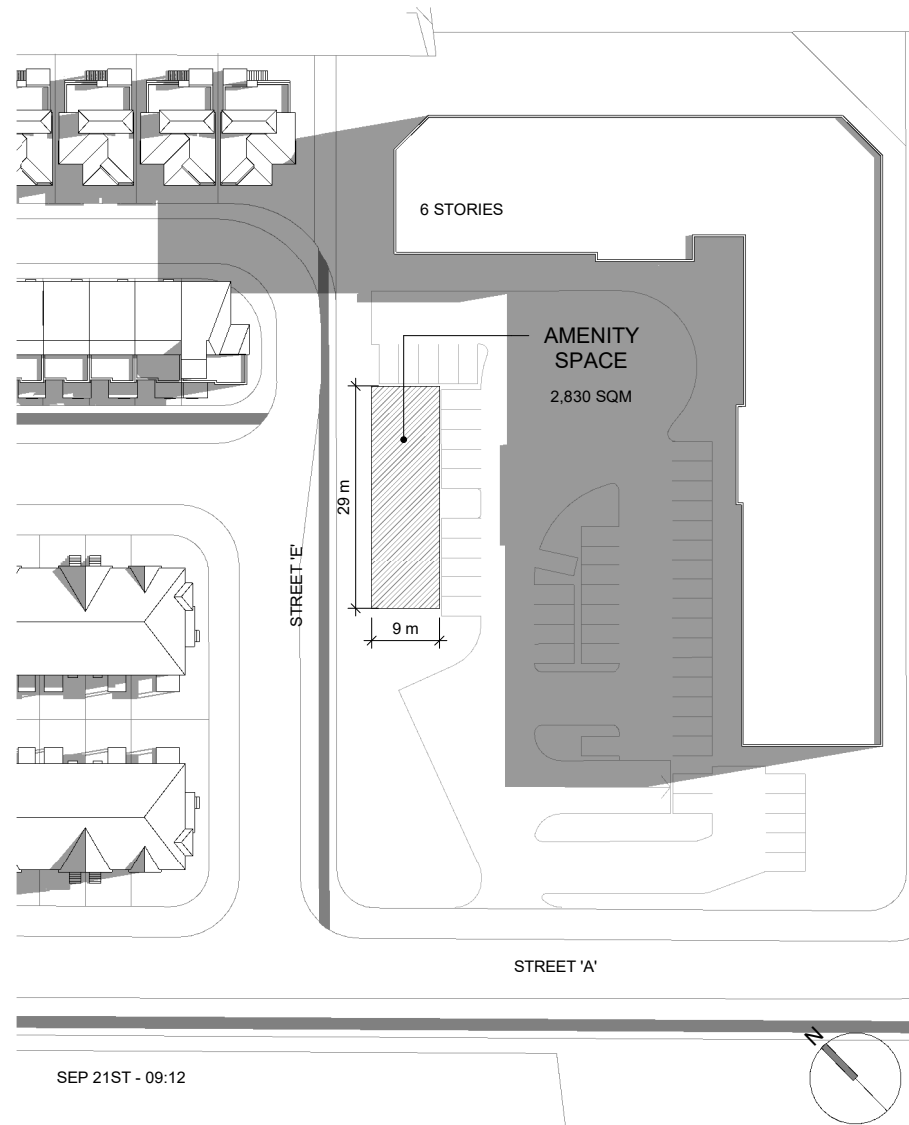
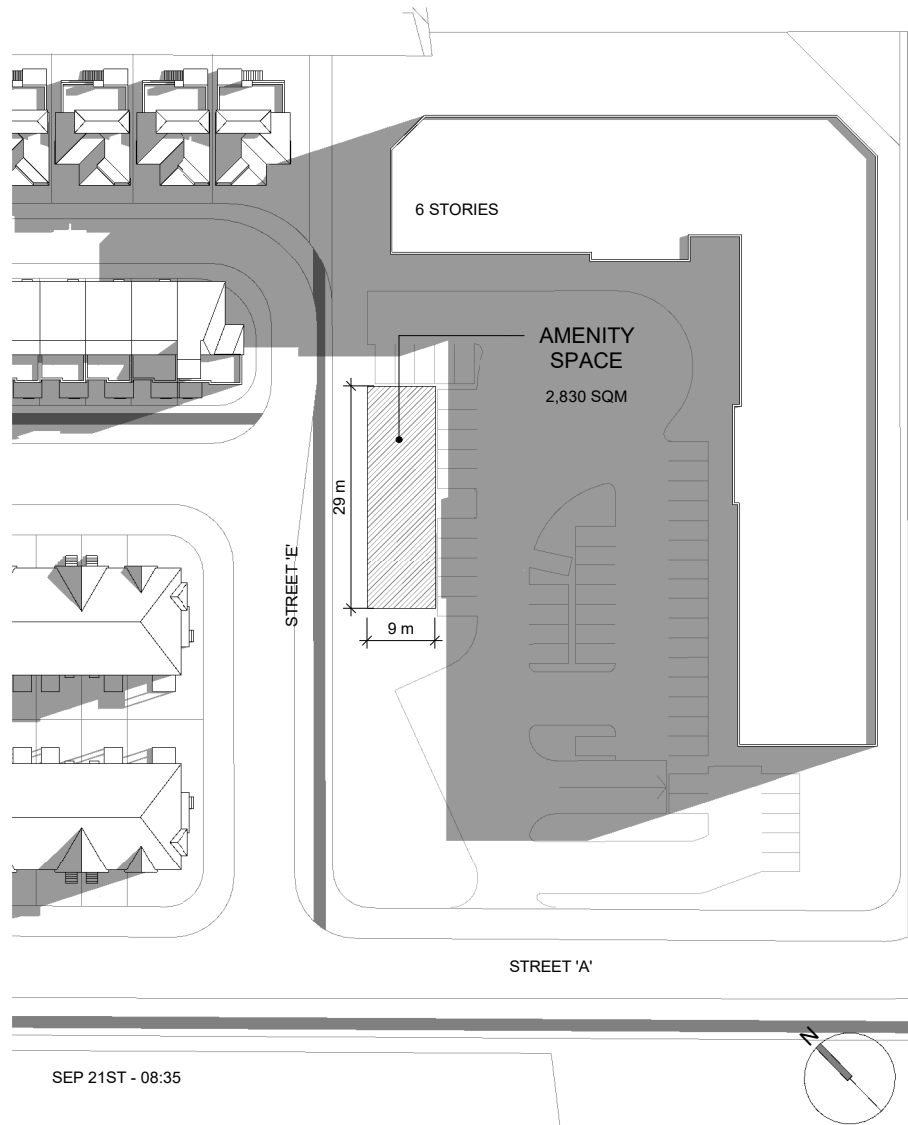


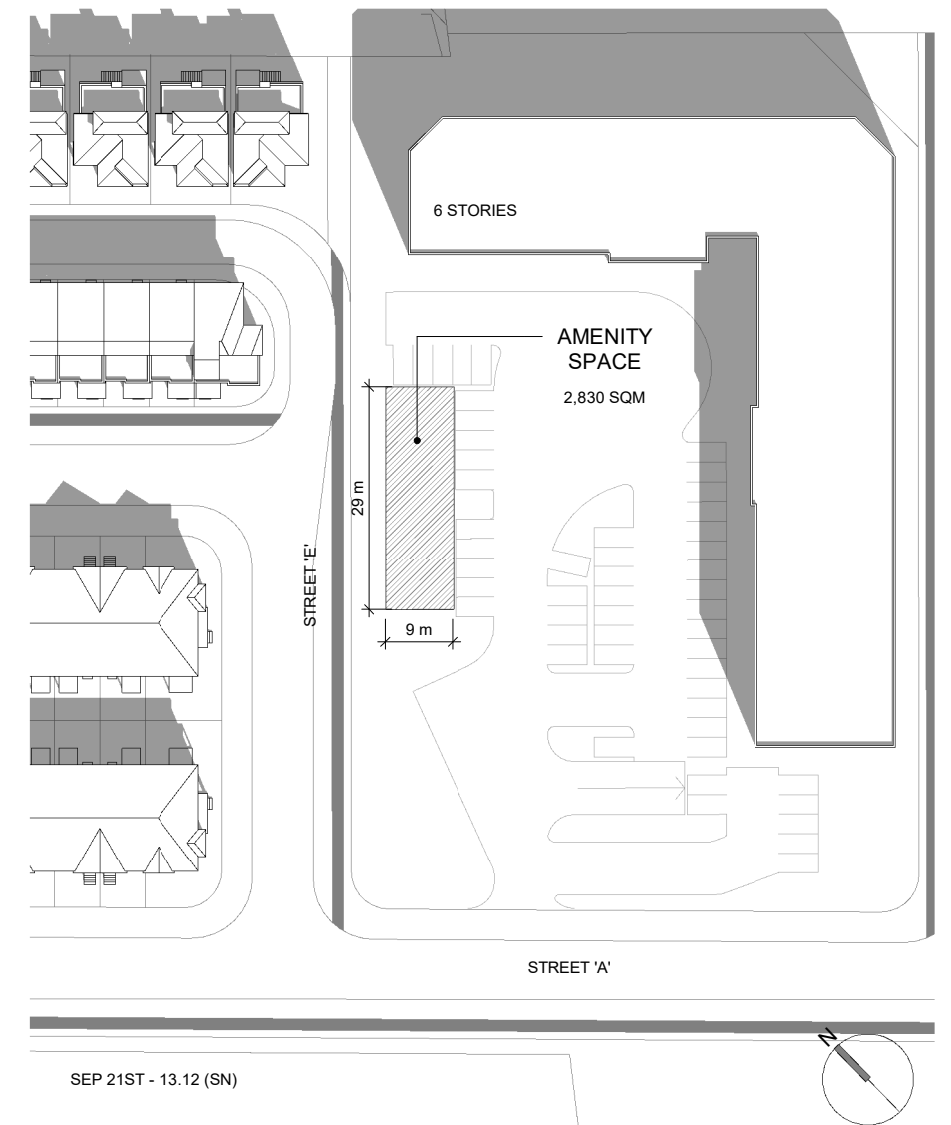
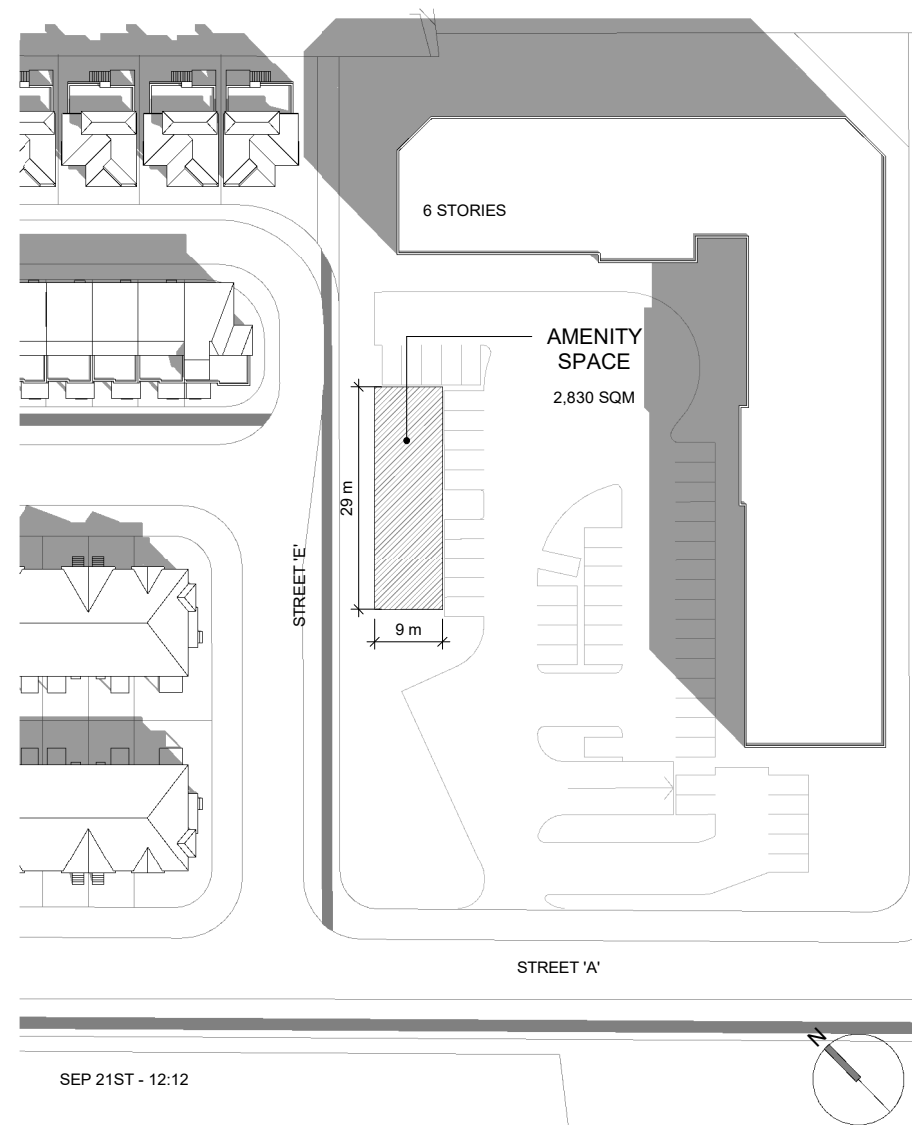
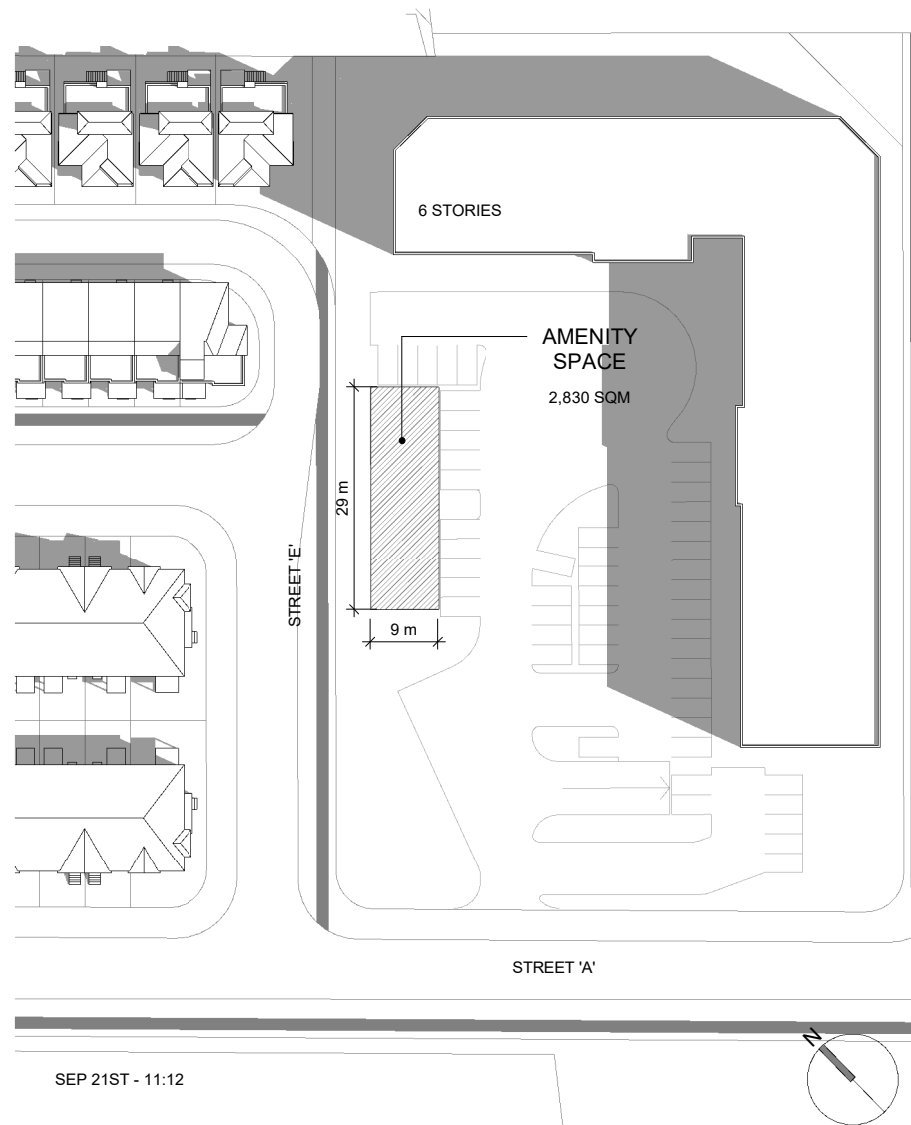


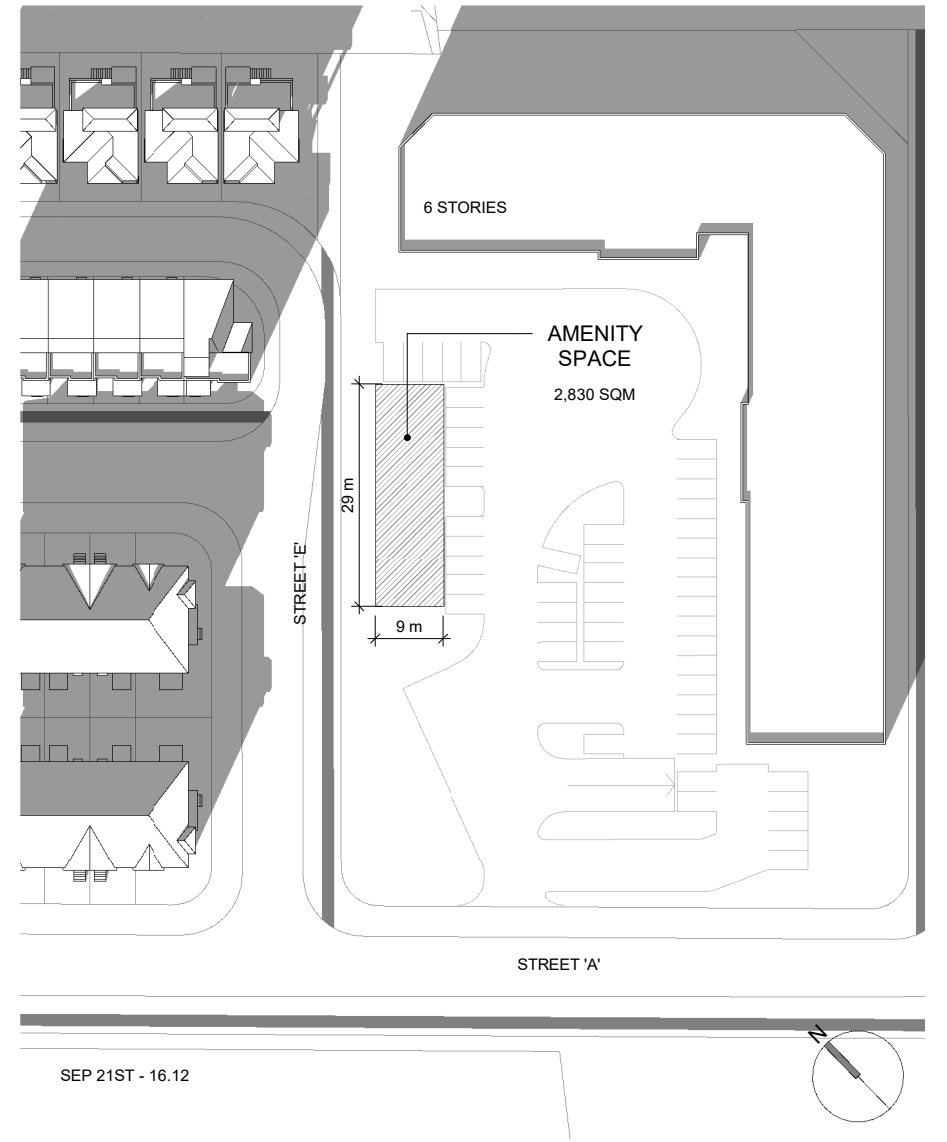
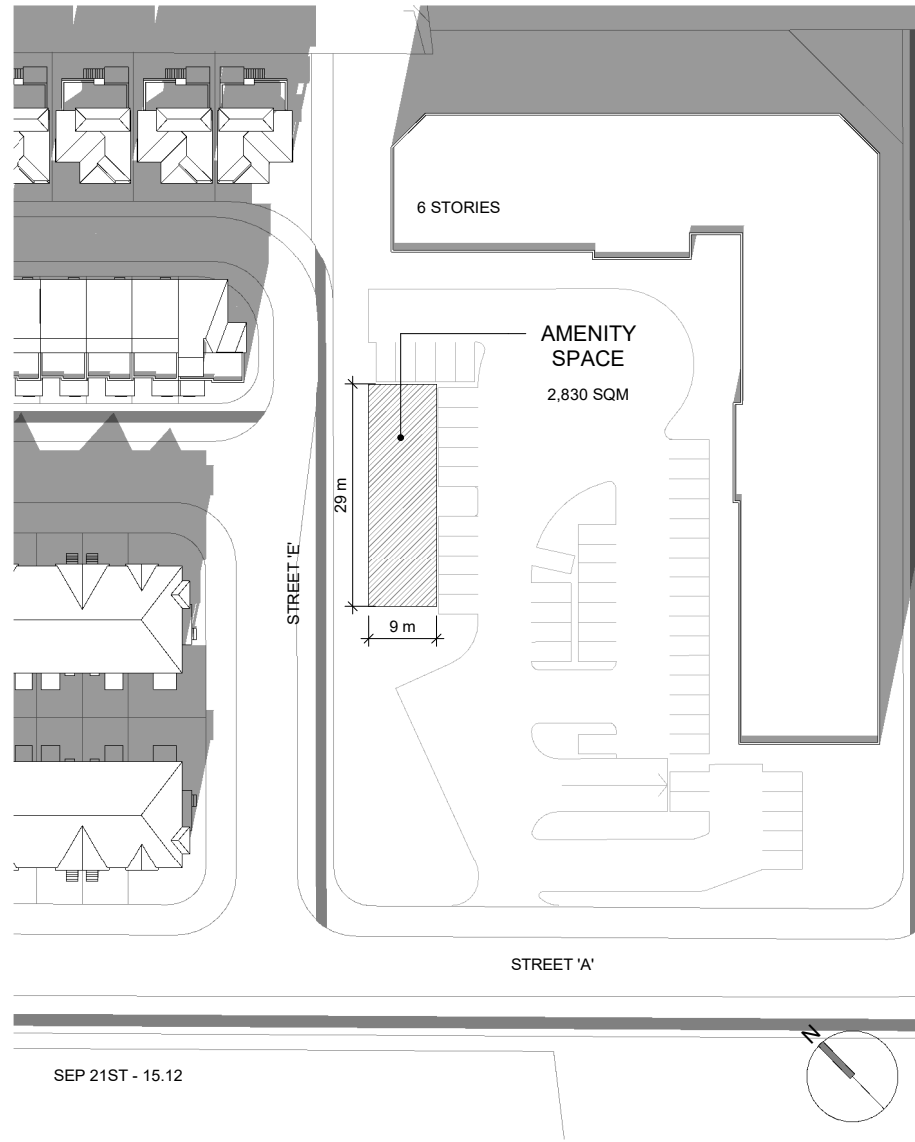
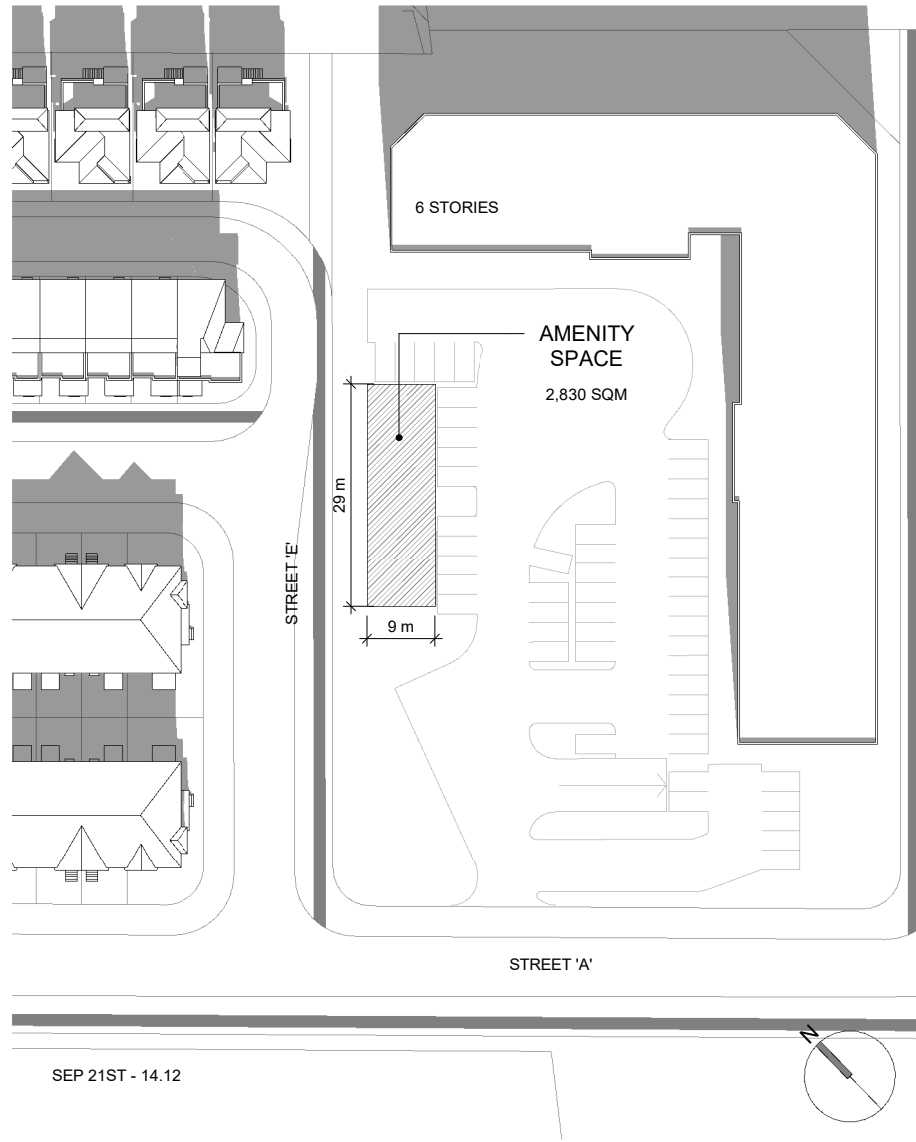


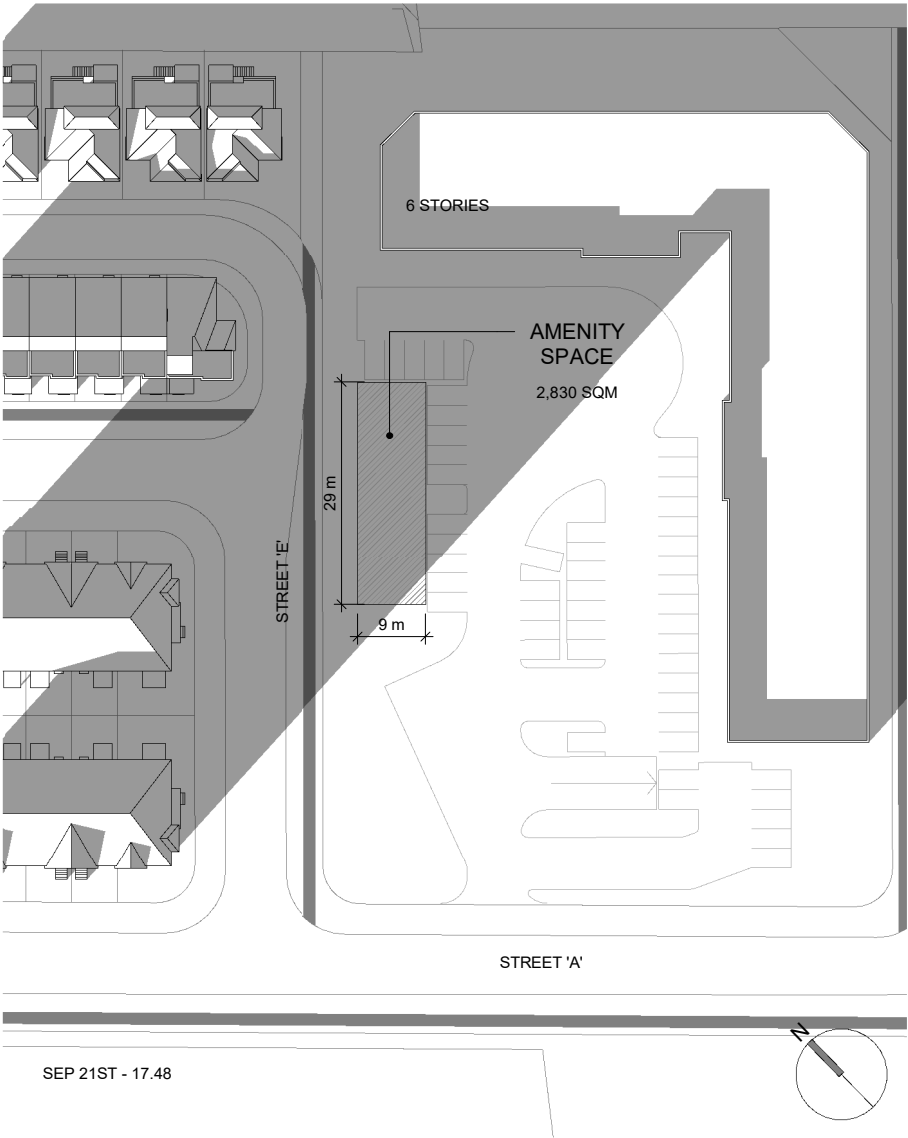
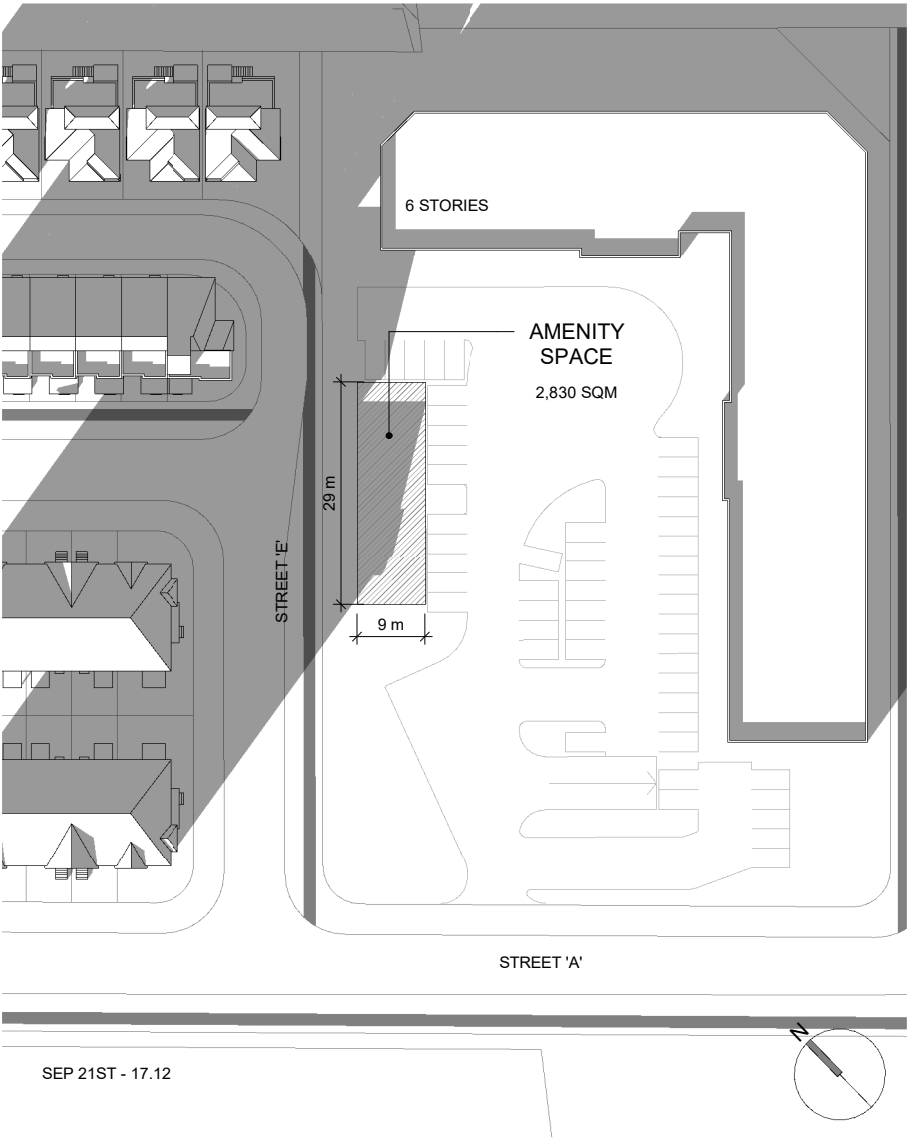












Outdoor Amenity 1  
Subject Area 261.00

21-Dec	As
9:19	0.00
10:17	0.00
11:17	236.00
12:17	238.00
13:17	261.00
14:17	261.00
15:17	261.00
Average As	179.57
Sun Access Factor	69%

21-Jun	
7:07	144.00
7:20	153.00
8:20	261.00
9:20	261.00
10:20	261.00
11:20	261.00
12:20	261.00
13:20	261.00
14:20	261.00
15:20	261.00
16:20	261.00
17:20	261.00
18:20	143.55
19:20	78.30
19:33	87.00
Average As	214.39
Sun Access Factor	82%

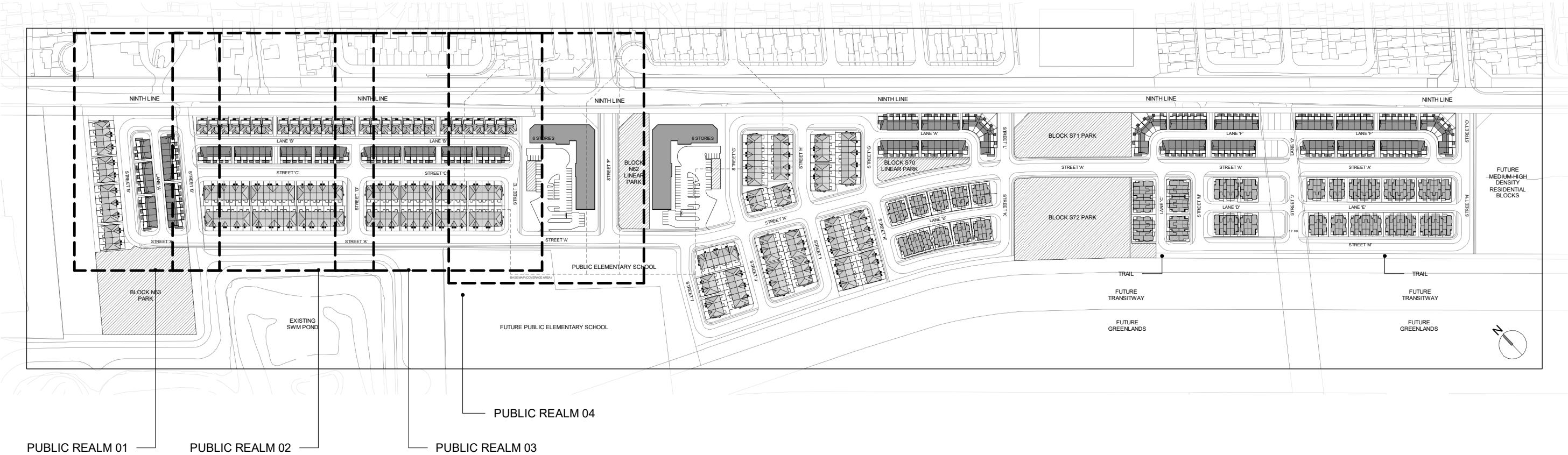
21-Sep	As
8:35	261.00
9:12	261.00
10:12	261.00
11:12	261.00
12:12	261.00
13:12	261.00
14:12	261.00
15:12	261.00
16:12	261.00
17:12	159.21
17:48	26.10
Average As	230.39
Sun Access Factor	88%

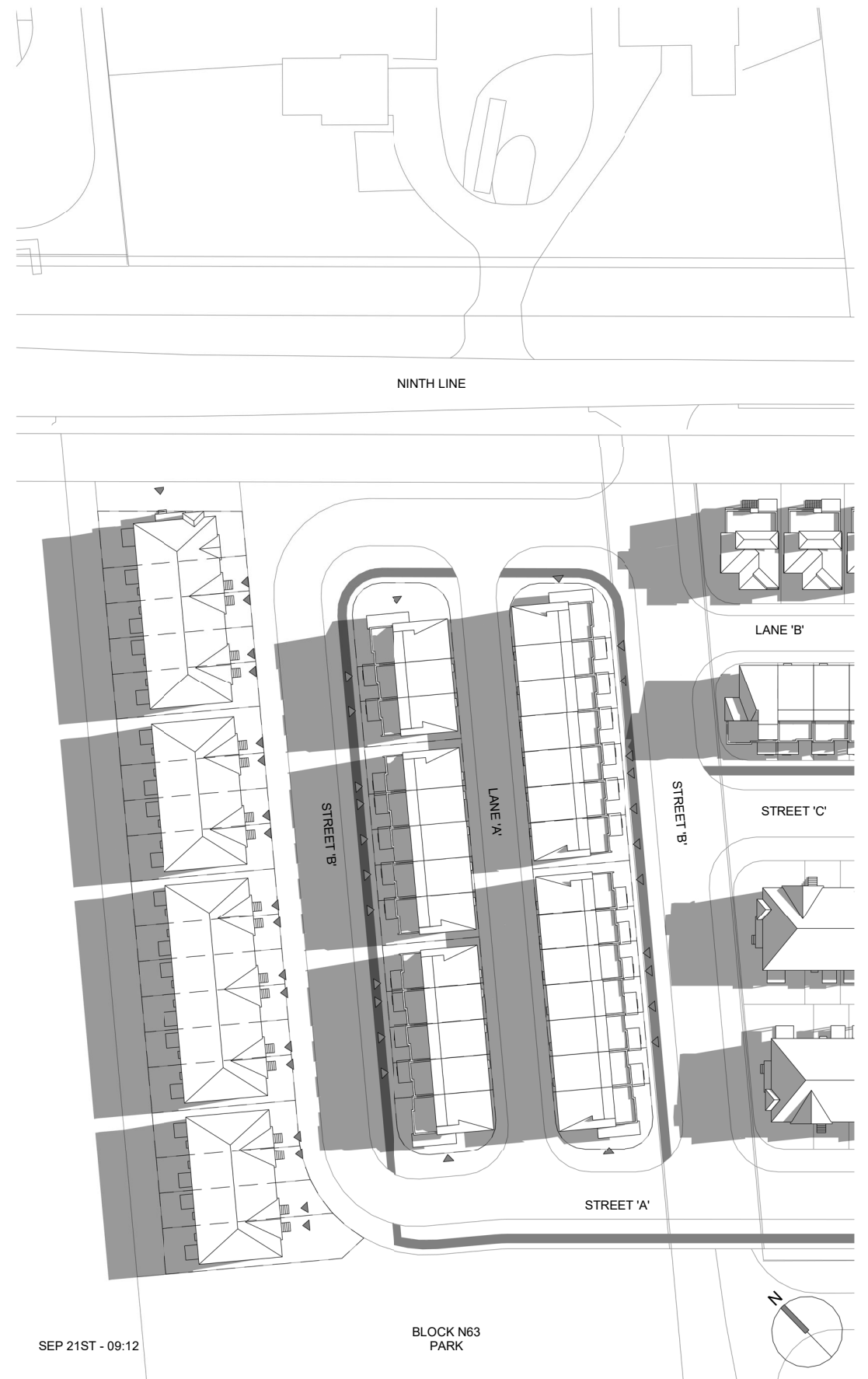
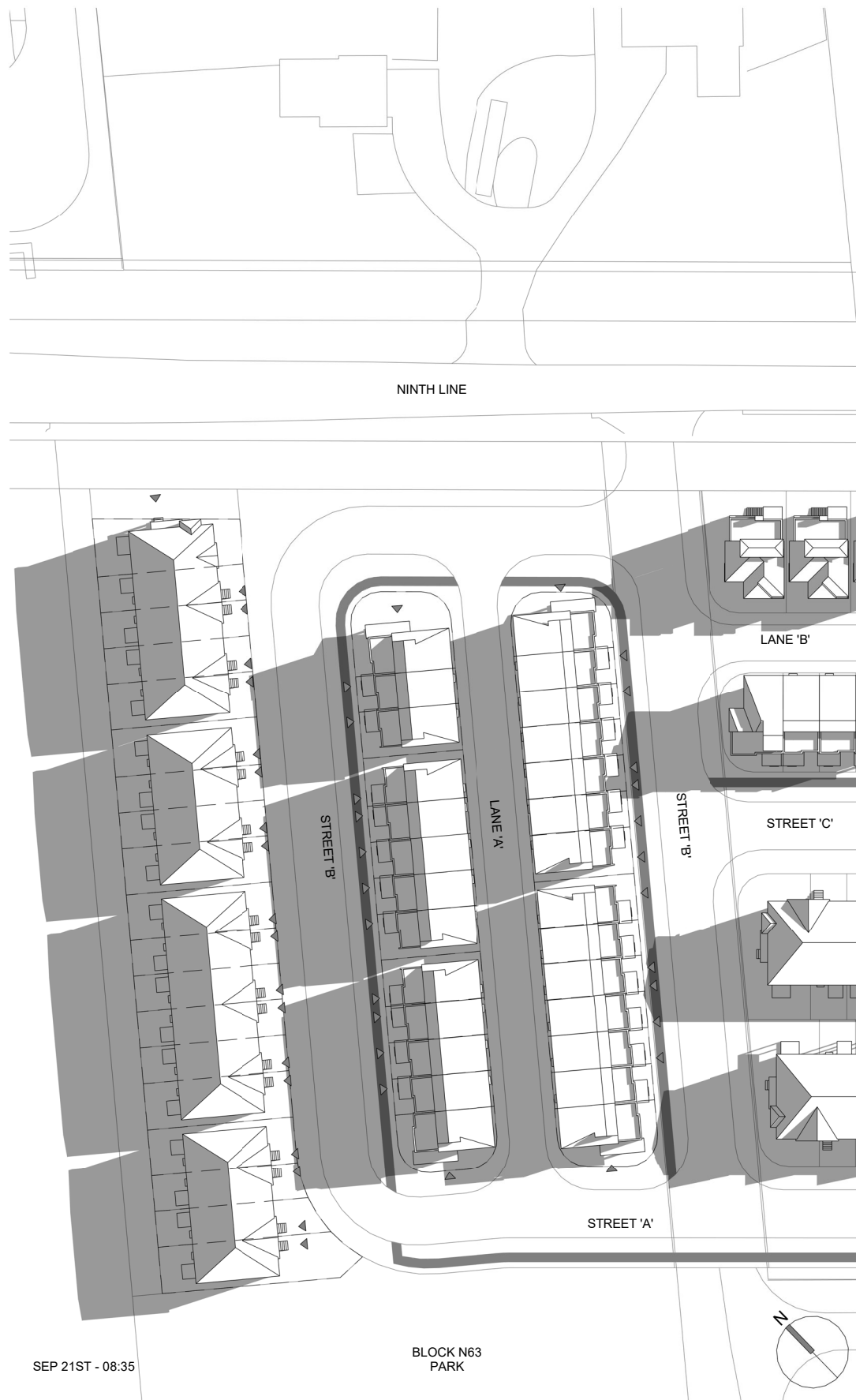


3.3 PUBLIC OPEN SPACES, PARKS AND PLAZAS

Developments should be designed to provide a **sun access factor** of at least 50% on public open spaces, parks and plazas on September 21.

- Please note the following:
- ◆ Solar Noon in Mississauga on September 21 is 1:12 p.m.
  - ◆ Shadow Patterns for September 21 and March 21 are similar .
  - ◆ Criteria for September 21 are deemed to apply to March 21.





## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

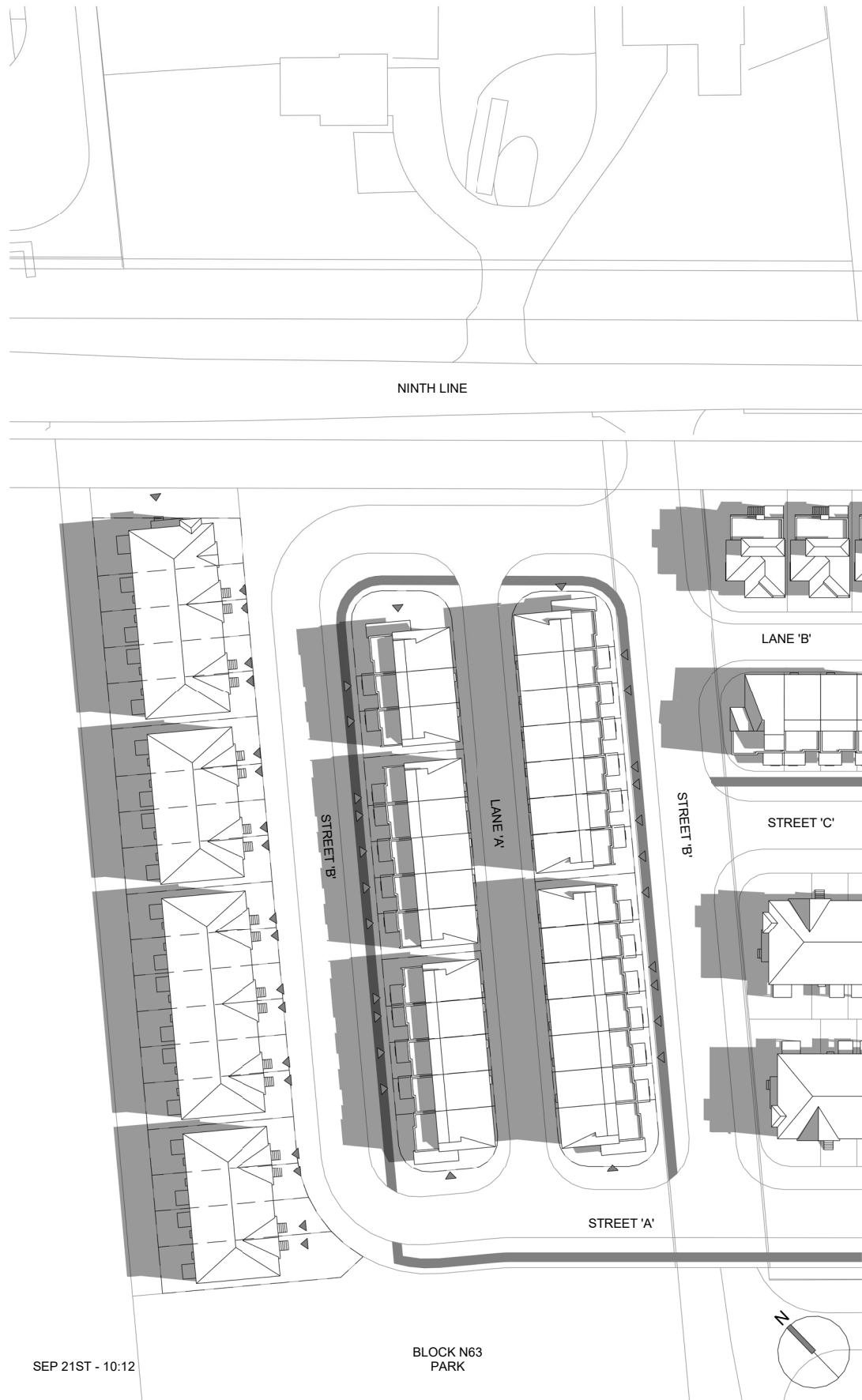
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

**PR01-01**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

DERRY-BRITANIA  
DEVELOPMENTS LTD.

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

**PR01-02**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

**PR01-03**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

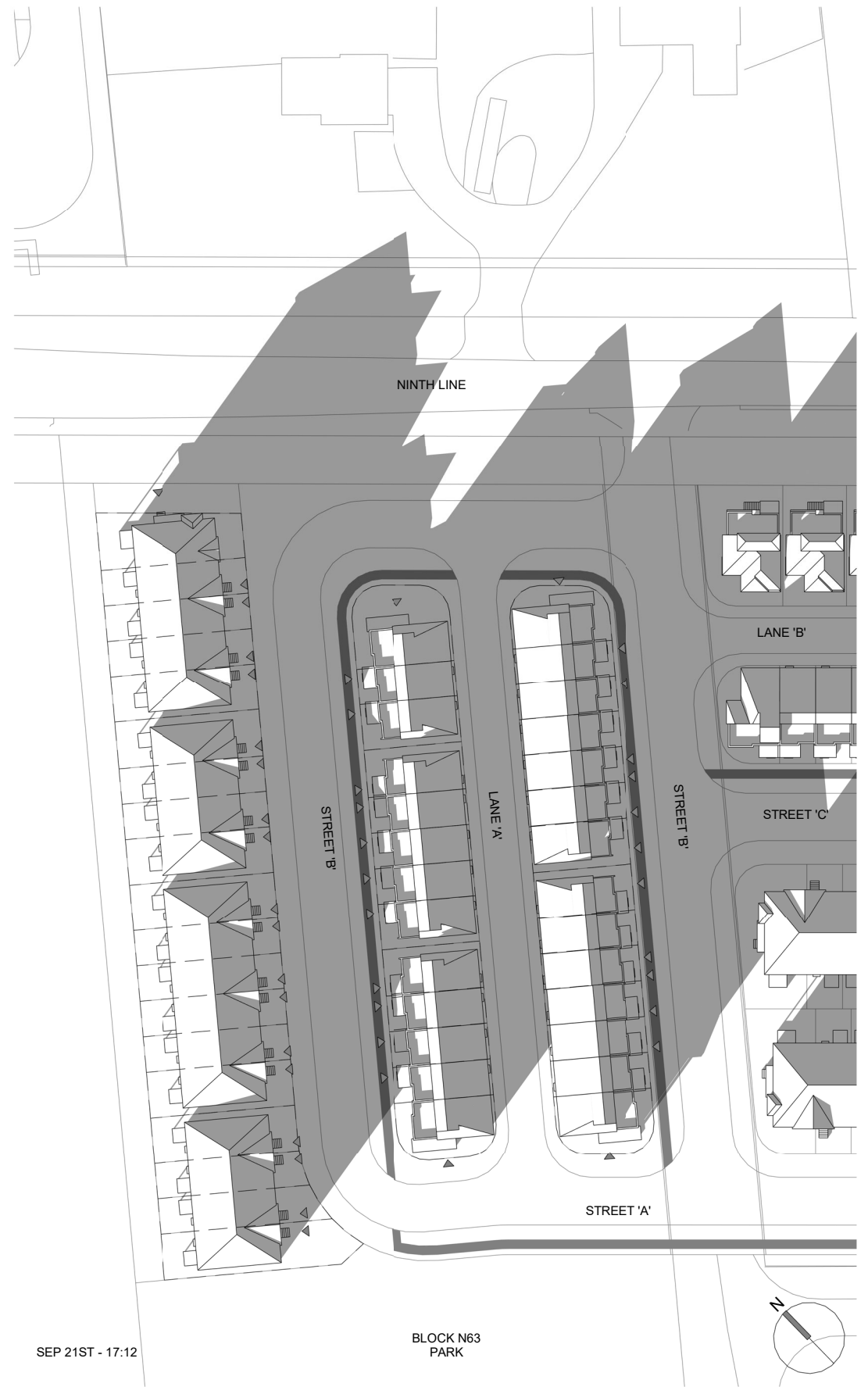
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
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Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

**PR01-04**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

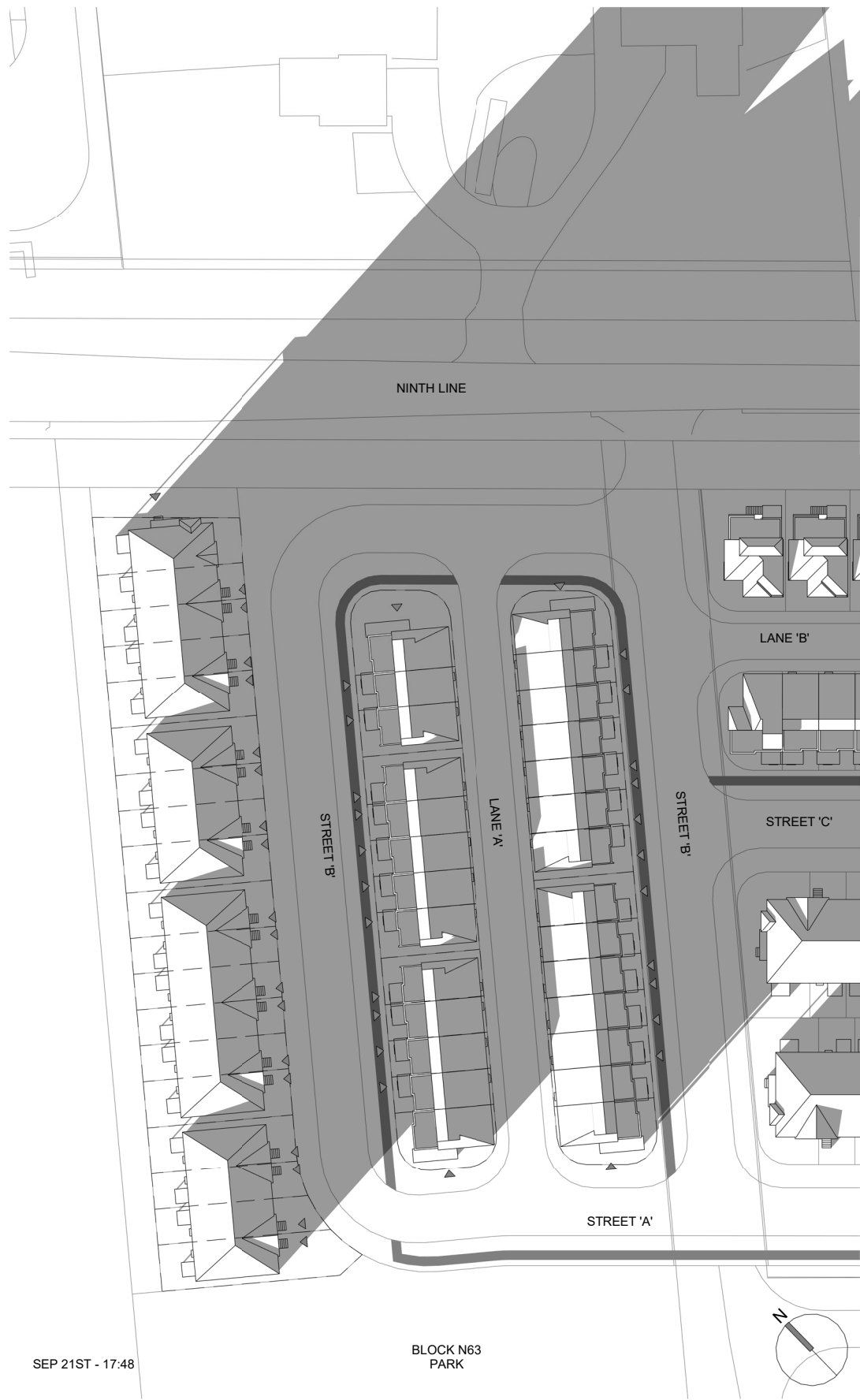
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1:1000

Proj. No. 16050  
Scale 1:1000

07/23/19  
Rev.

**PR01-05**





SEP 21ST - 17:48

BLOCK N63  
PARK

## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

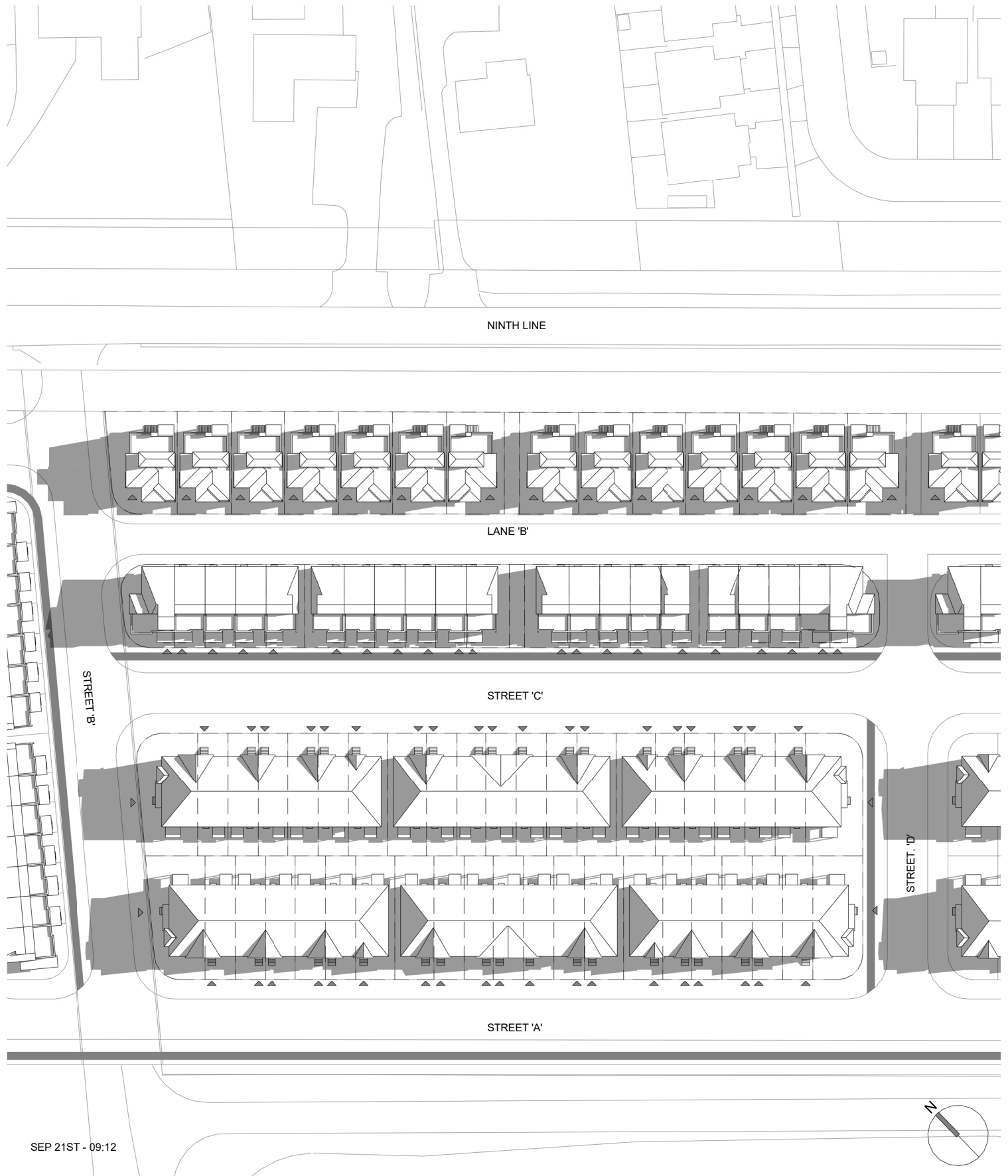
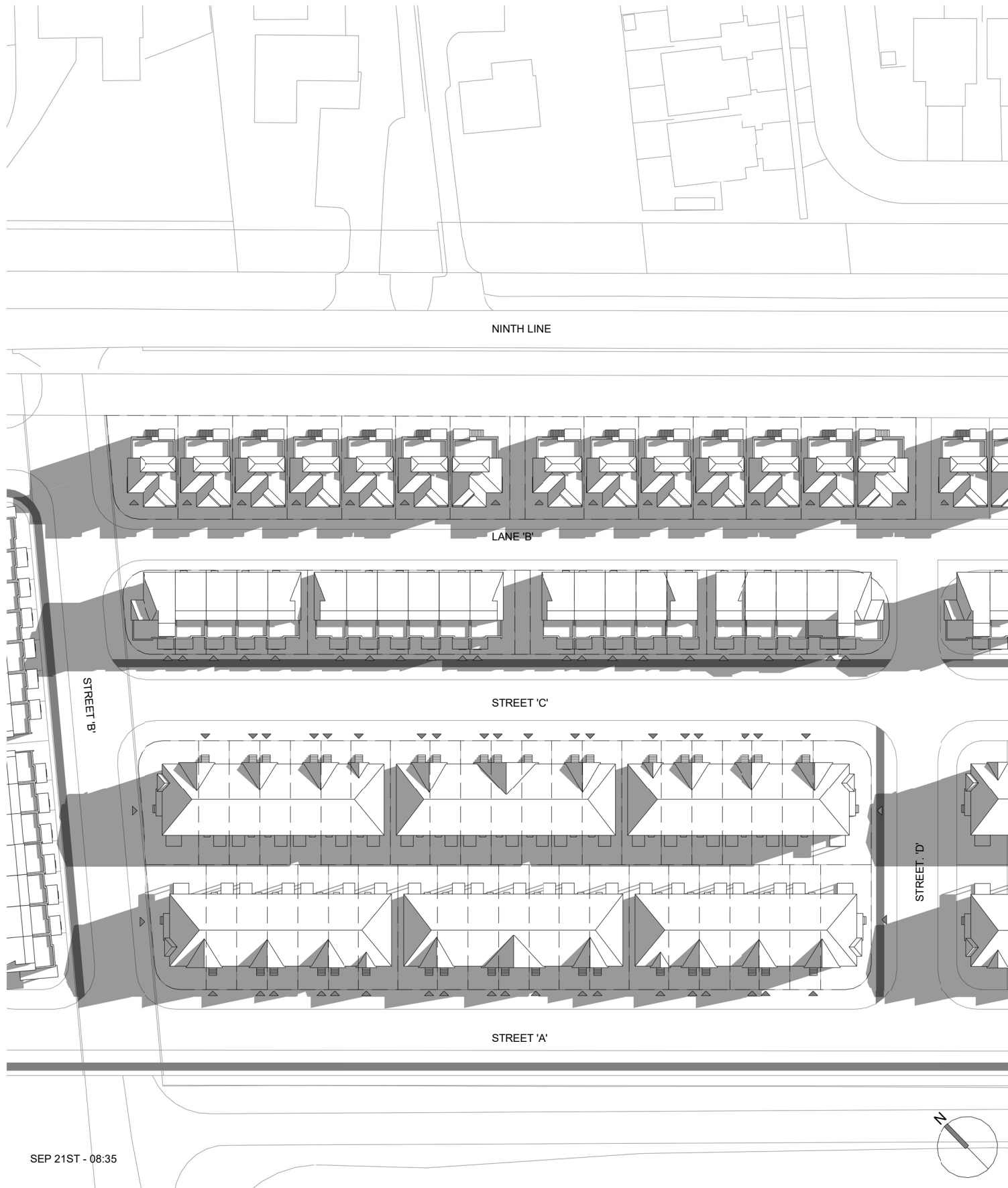
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1:1000

07/23/19  
Rev.

**PR01-06**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

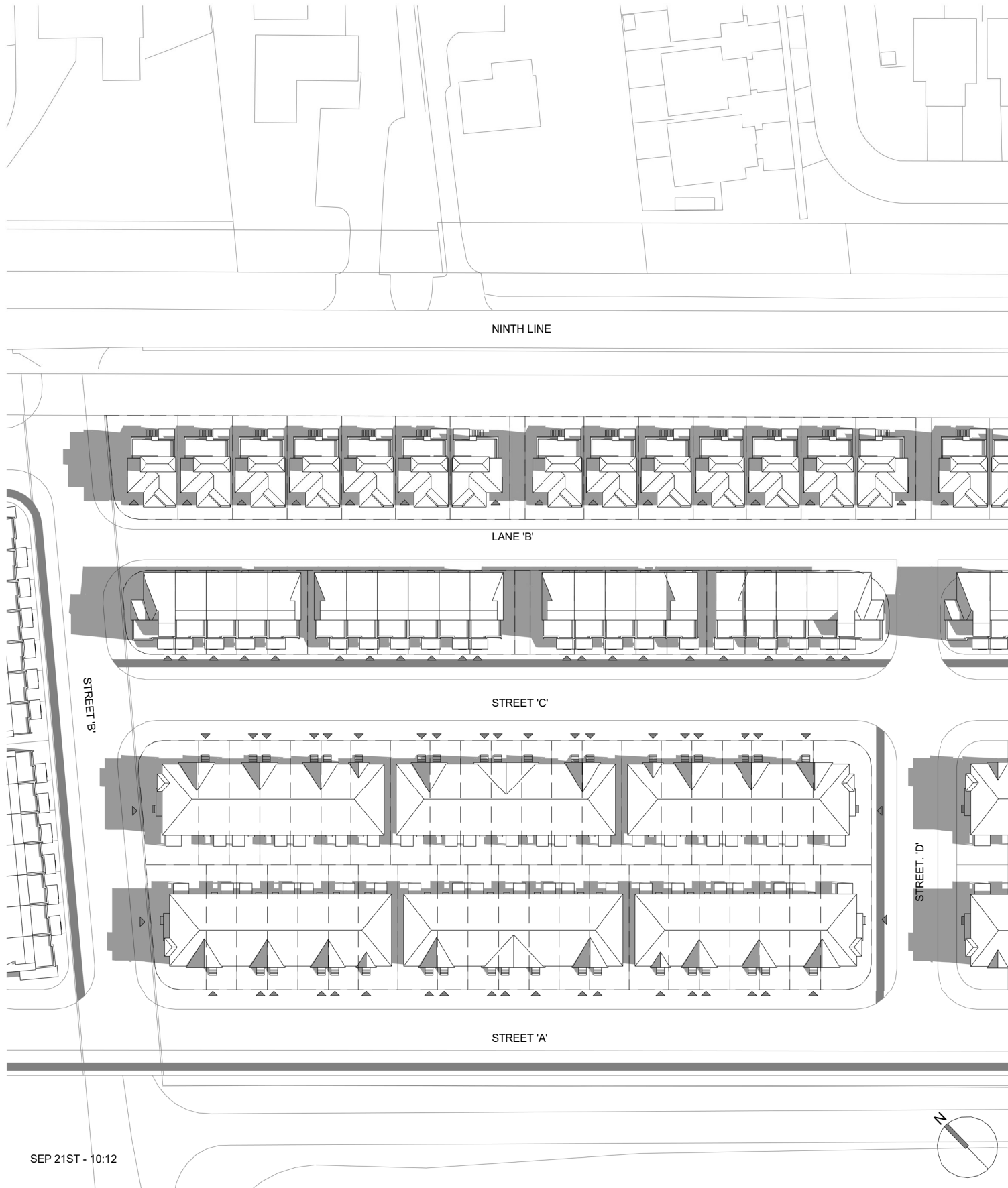
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

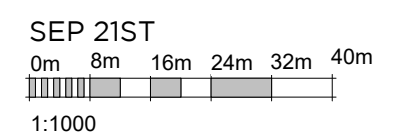
**PR02-01**



**SHADOW ANALYSIS**

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**



Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

**PR02-02**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

**PR02-03**



SEP 21ST - 14:12

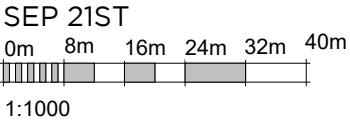


SEP 21ST - 15:12

**SHADOW ANALYSIS**

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**



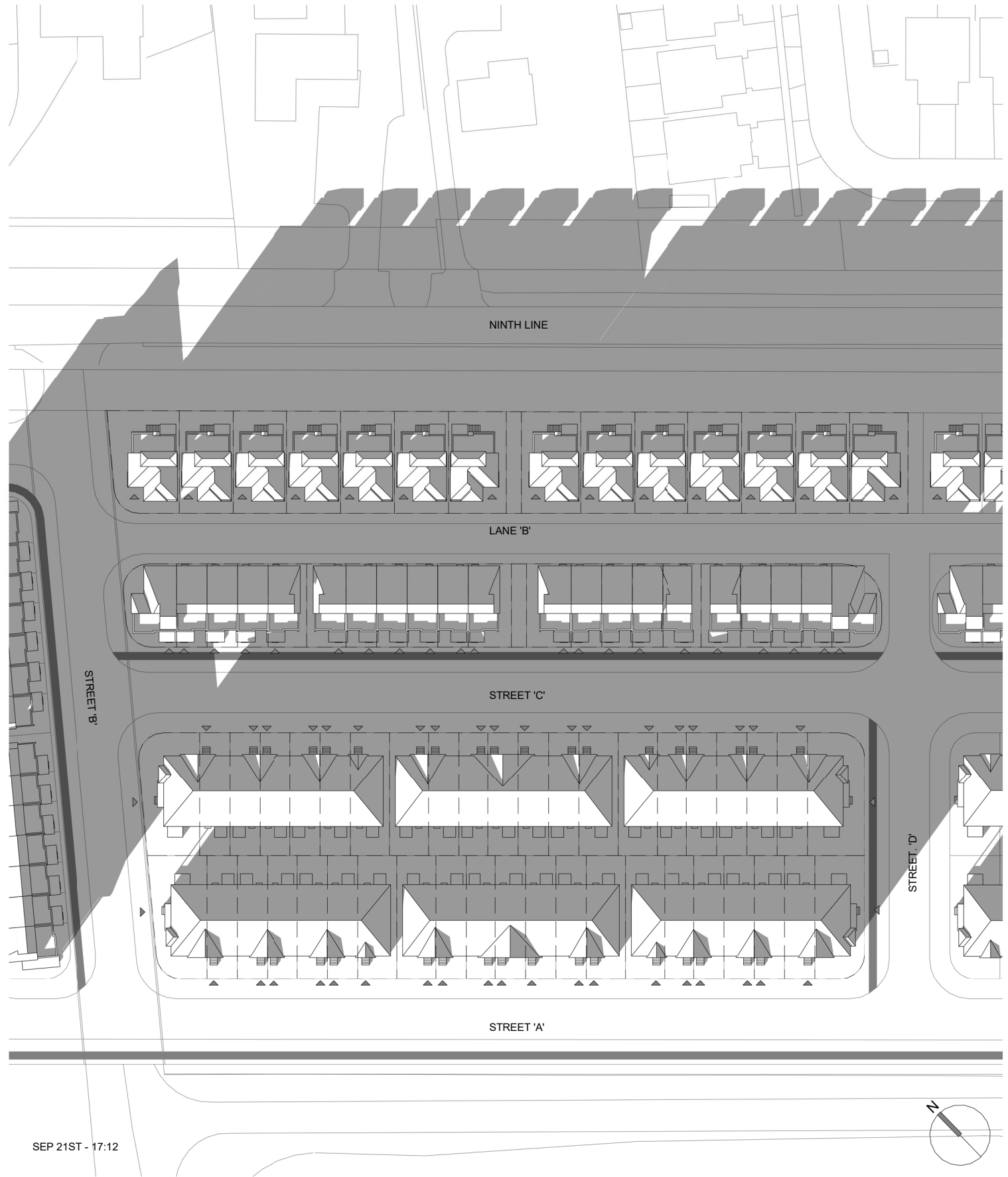
Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

**PR02-04**



SEP 21ST - 16:12

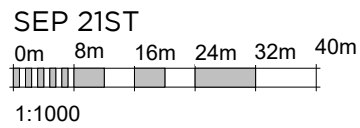


SEP 21ST - 17:12

**SHADOW ANALYSIS**

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

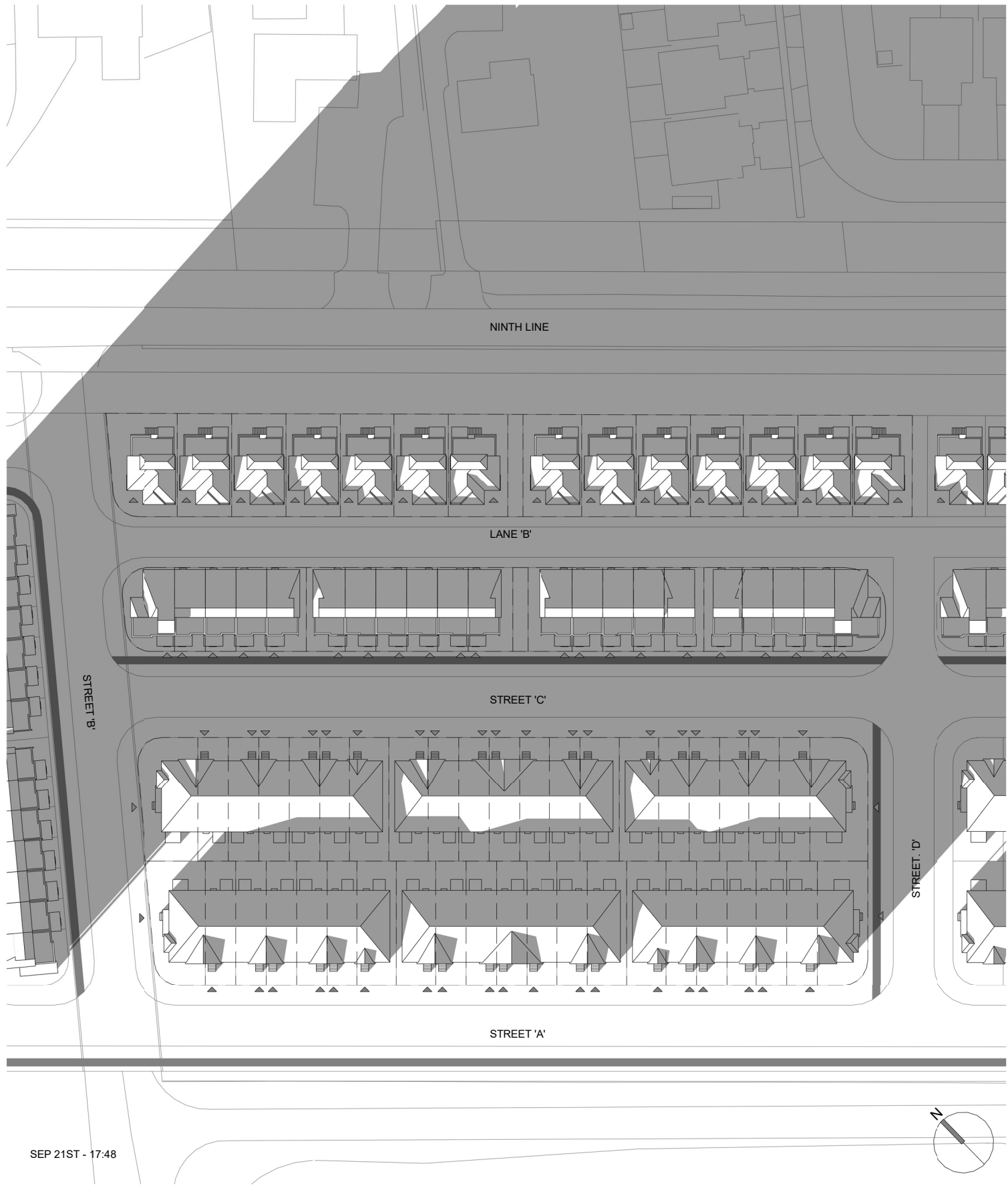


Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

**PR02-05**





## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

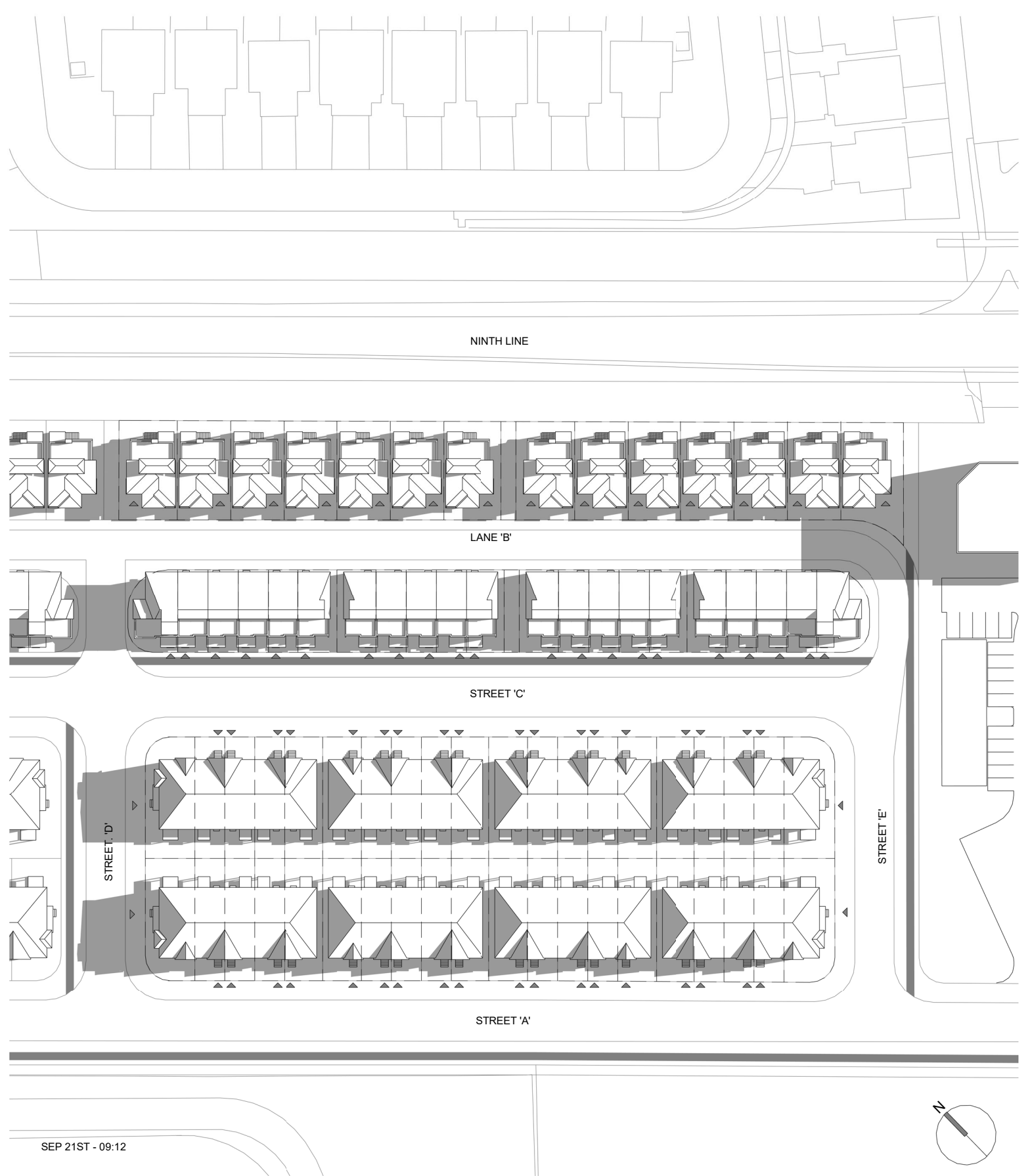
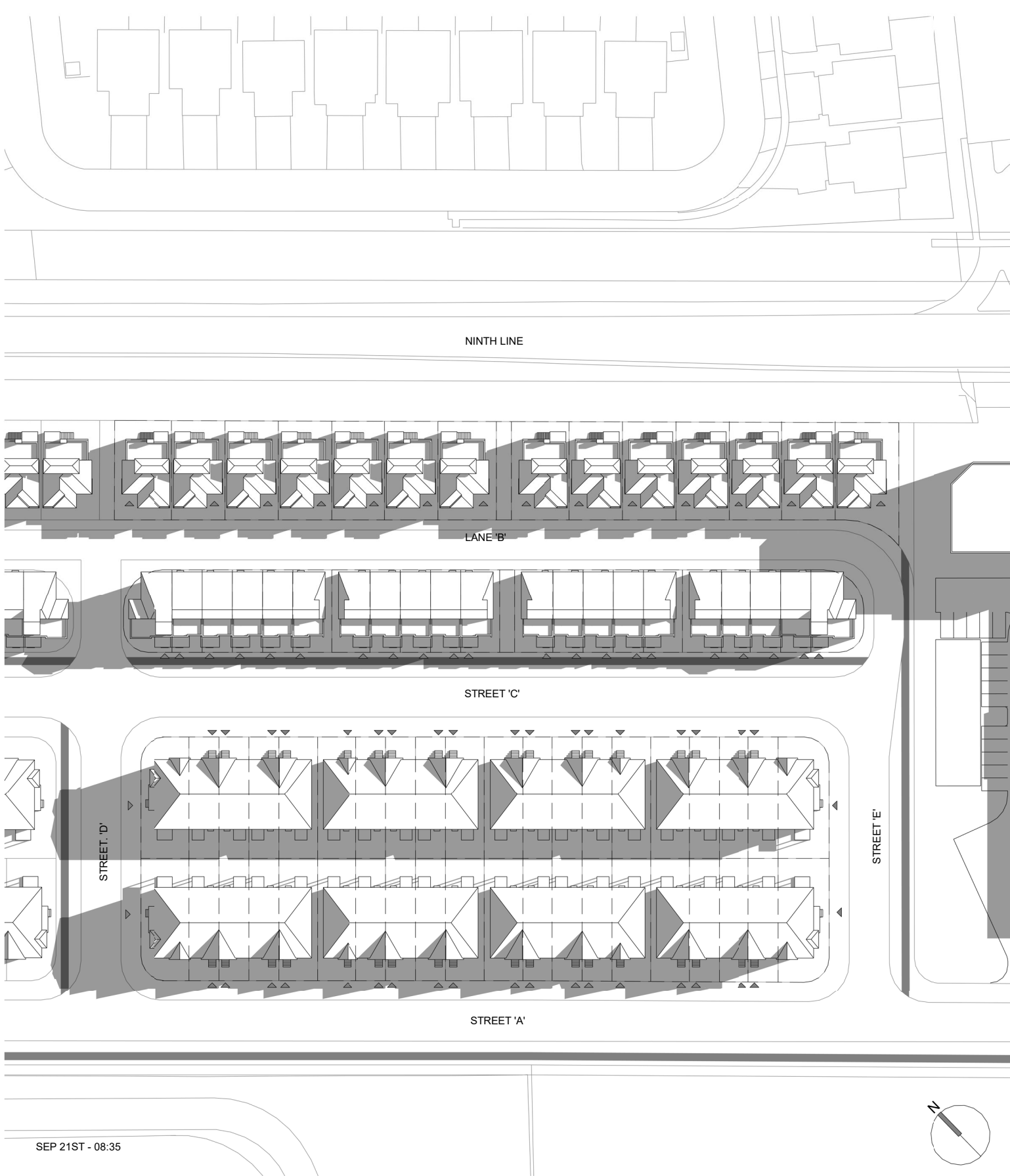
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

**PR02-06**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

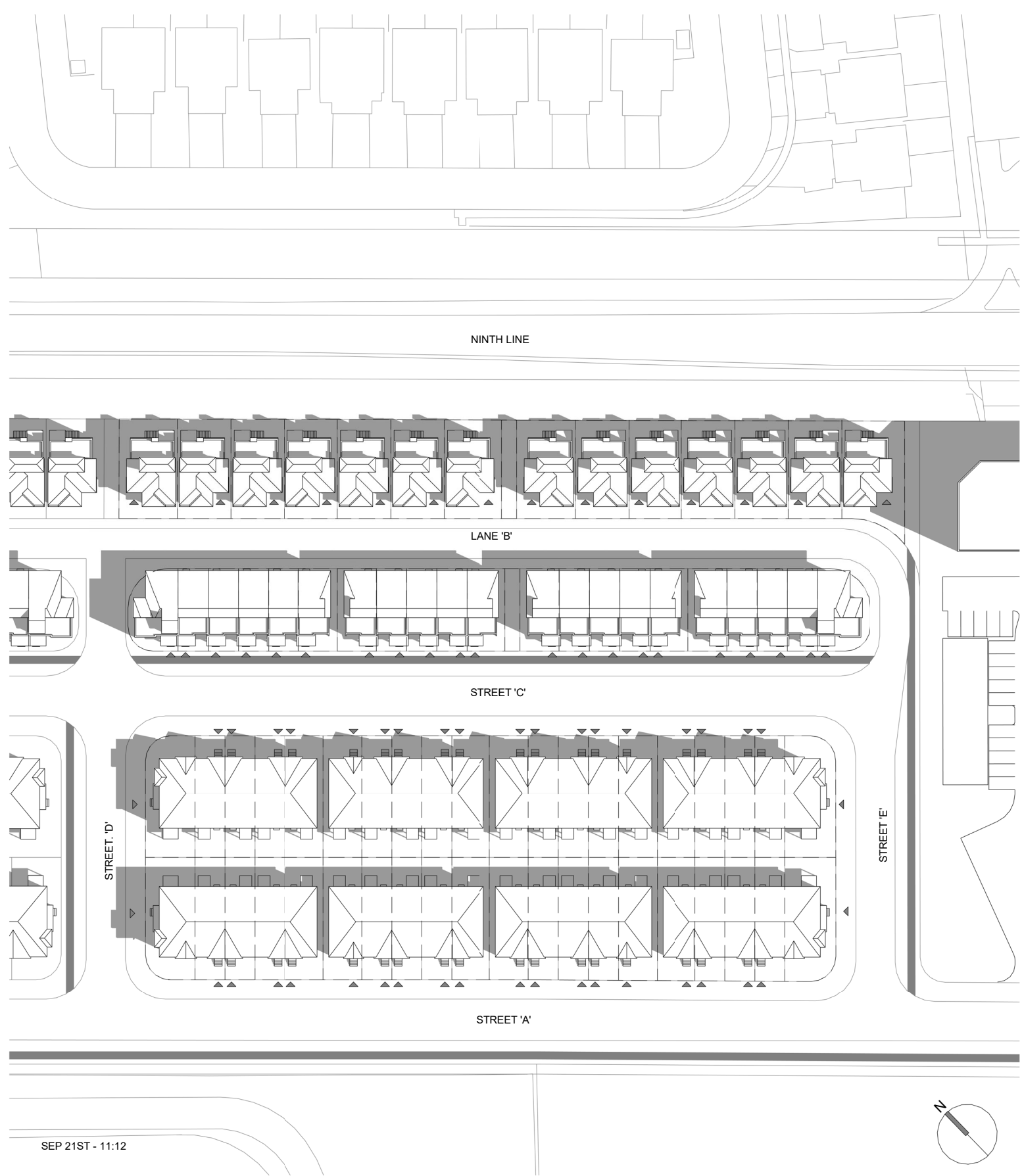
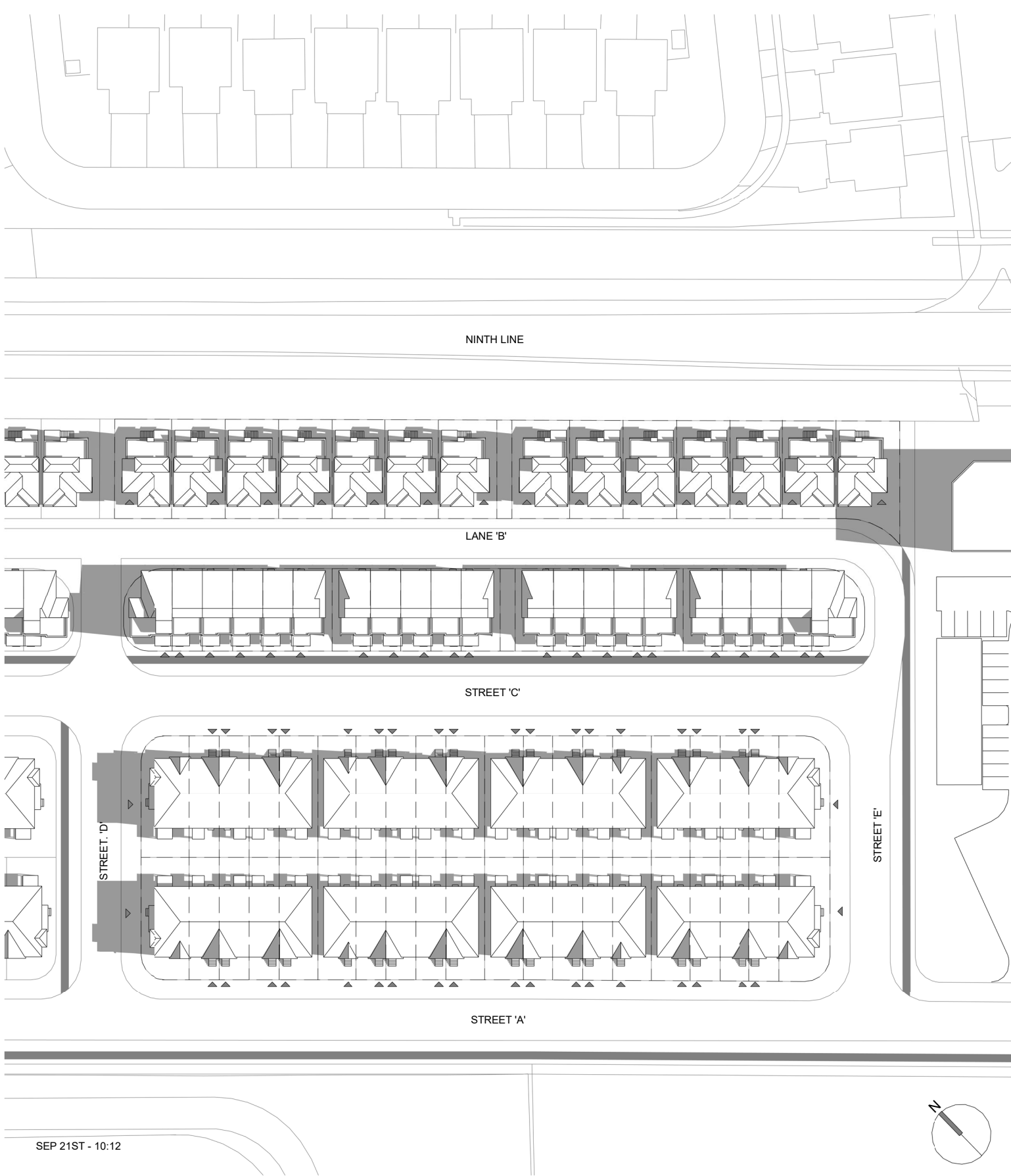
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

**PR03-01**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

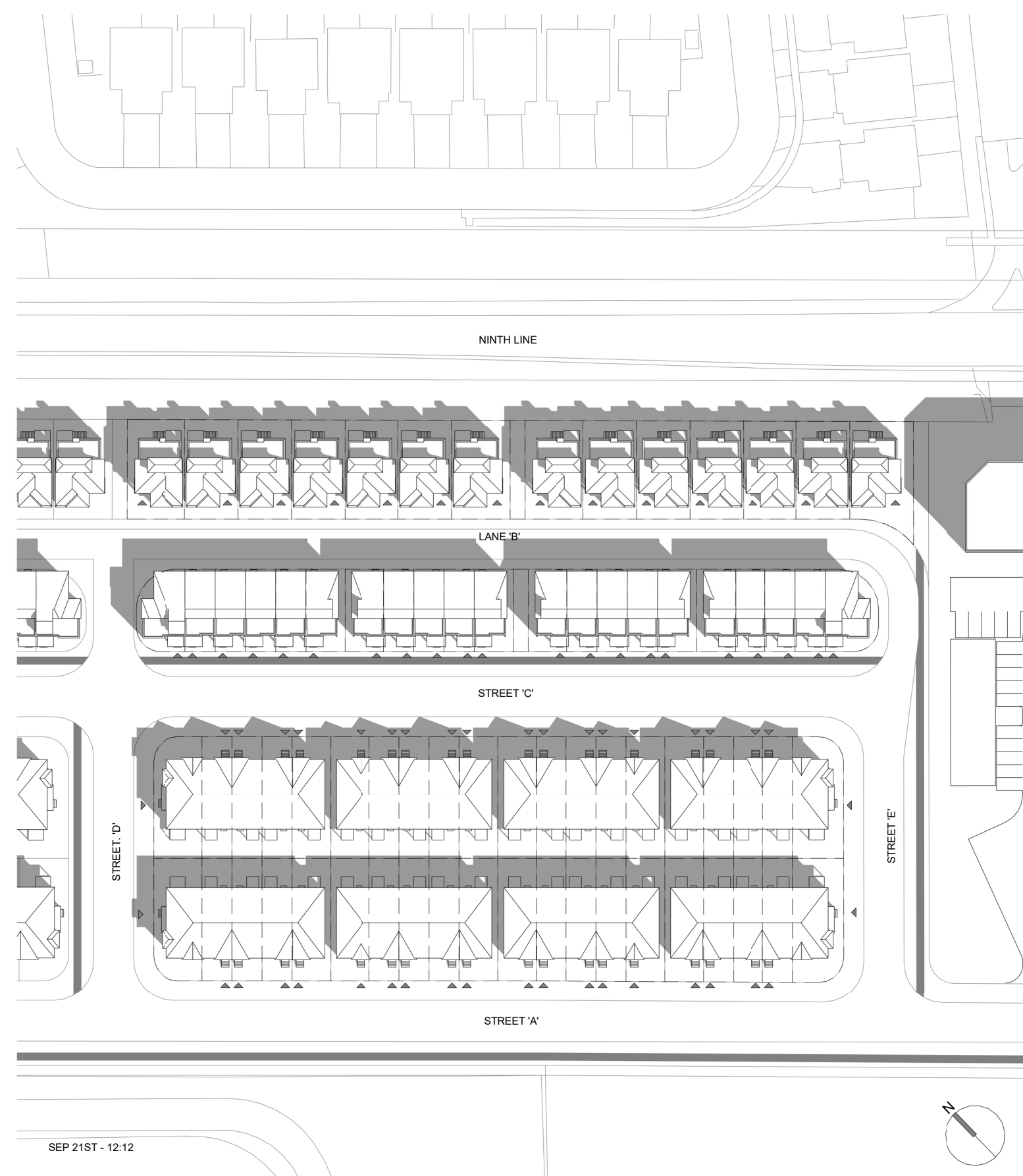
SEP 21ST  
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1:1000

Proj. No.  
Scale

16050  
1 : 1000

07/23/19  
Rev.

**PR03-02**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

**PR03-03**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

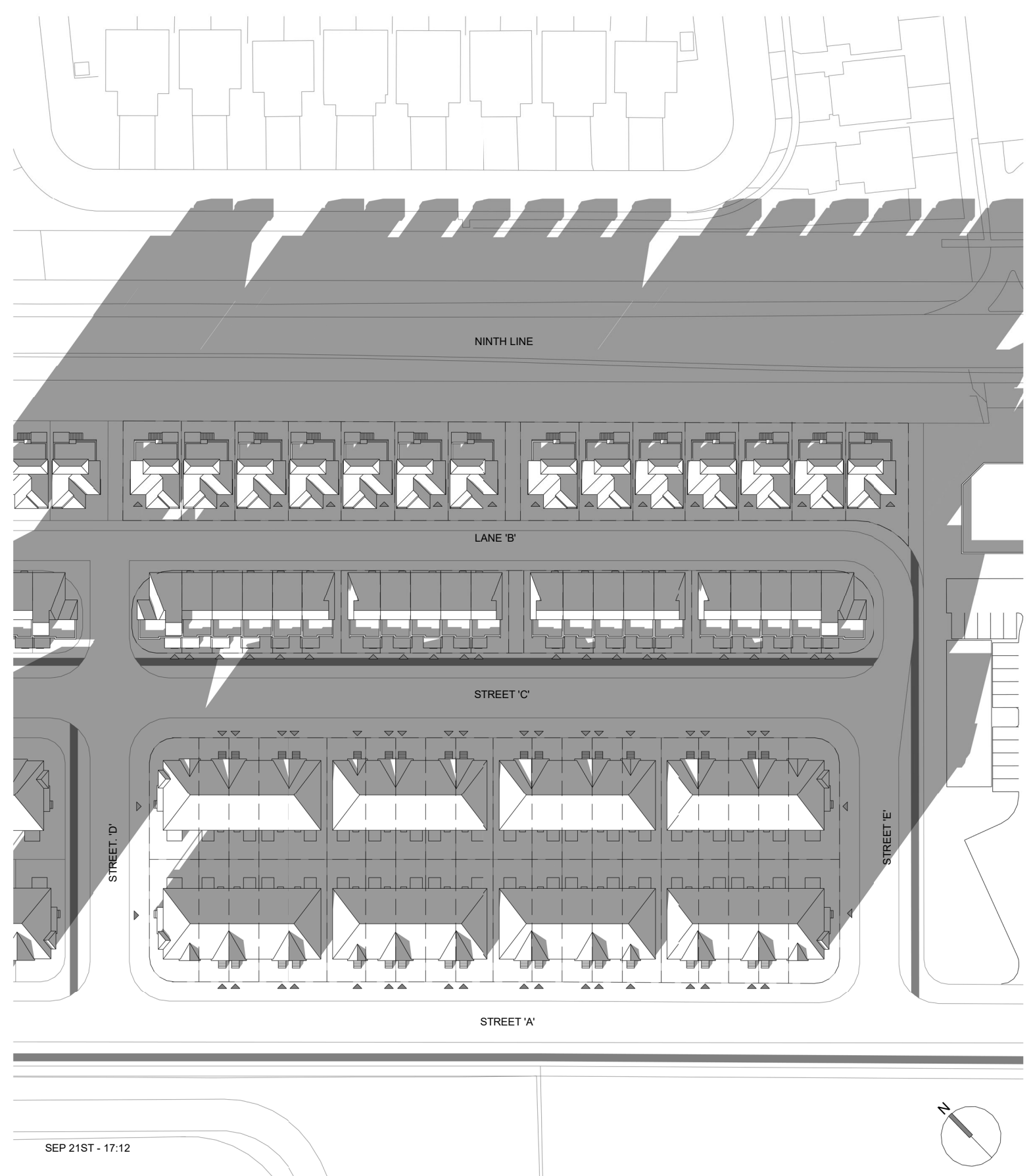
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

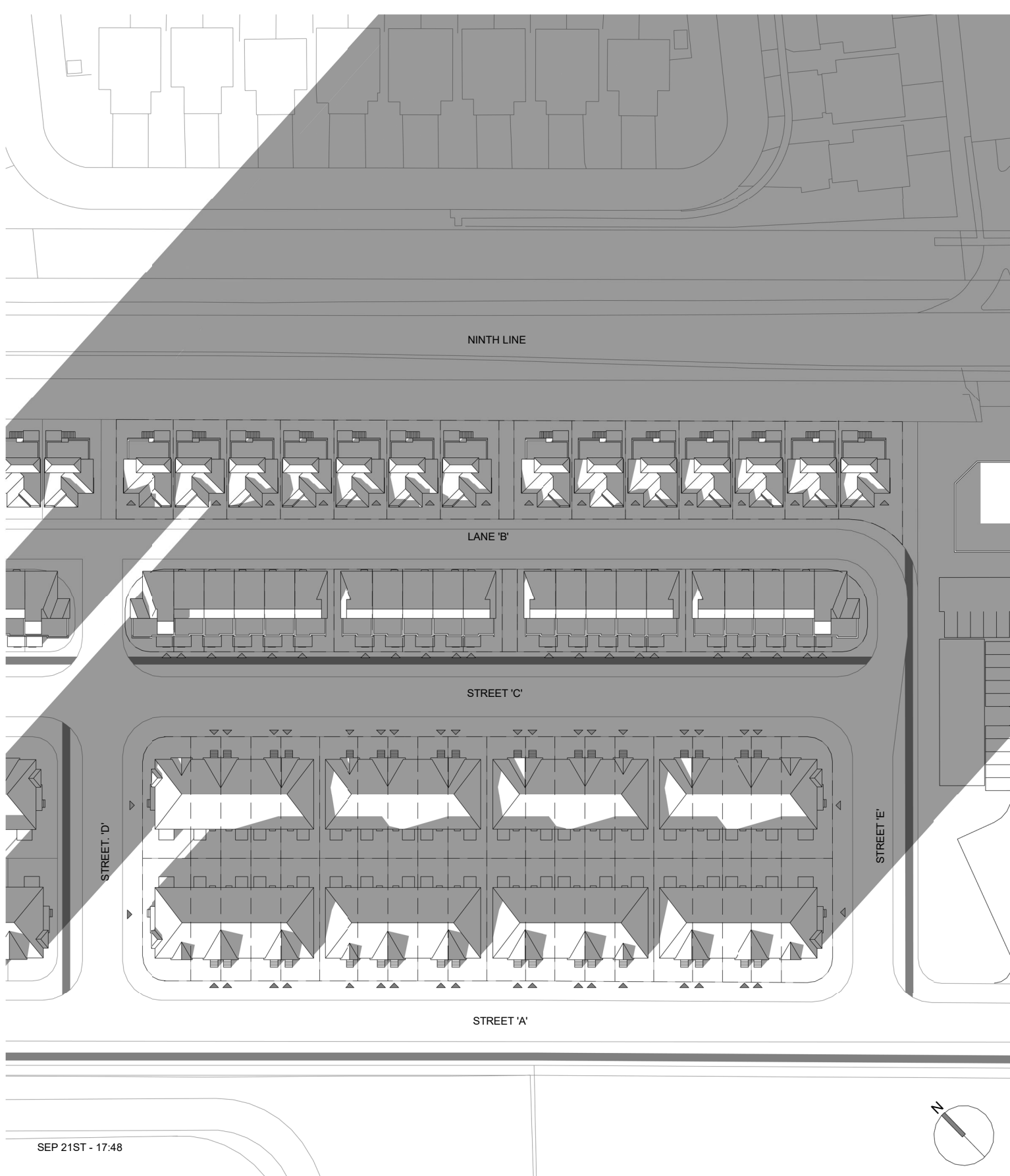
Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

**PR03-04**







## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

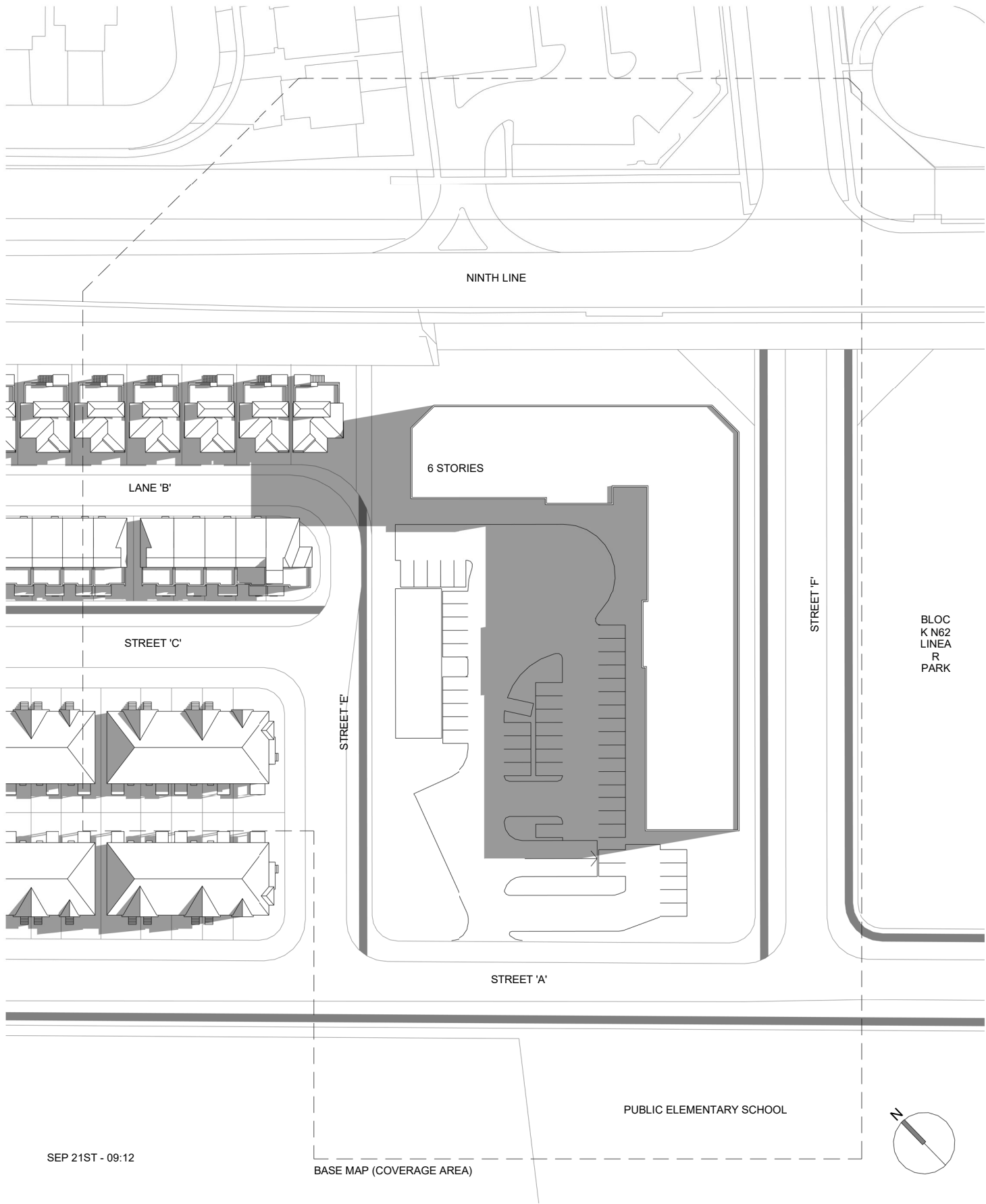
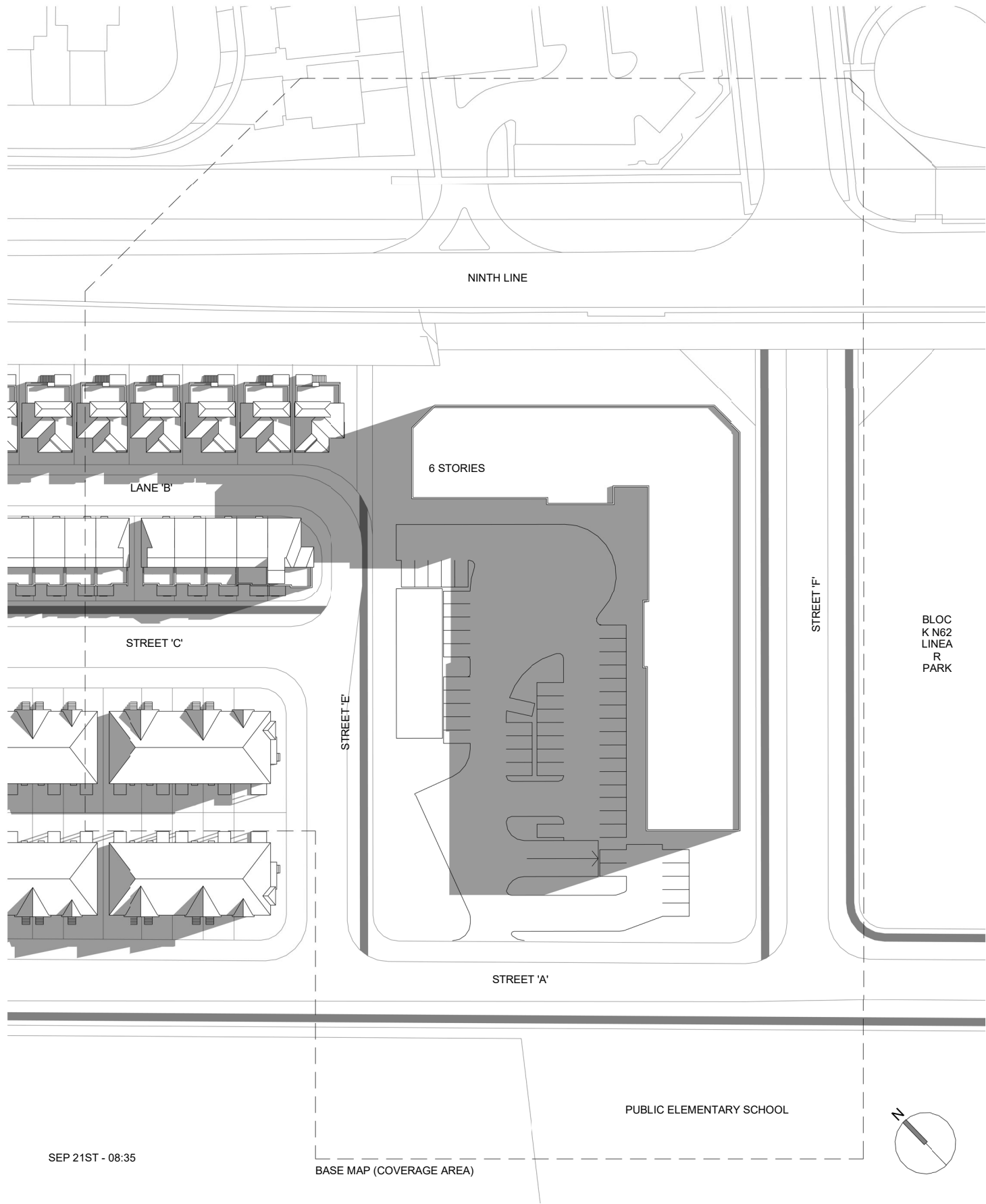
**DERRY-BRITANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

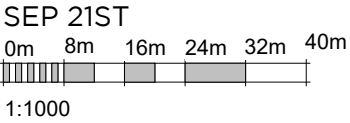
**PR03-06**



**SHADOW ANALYSIS**

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

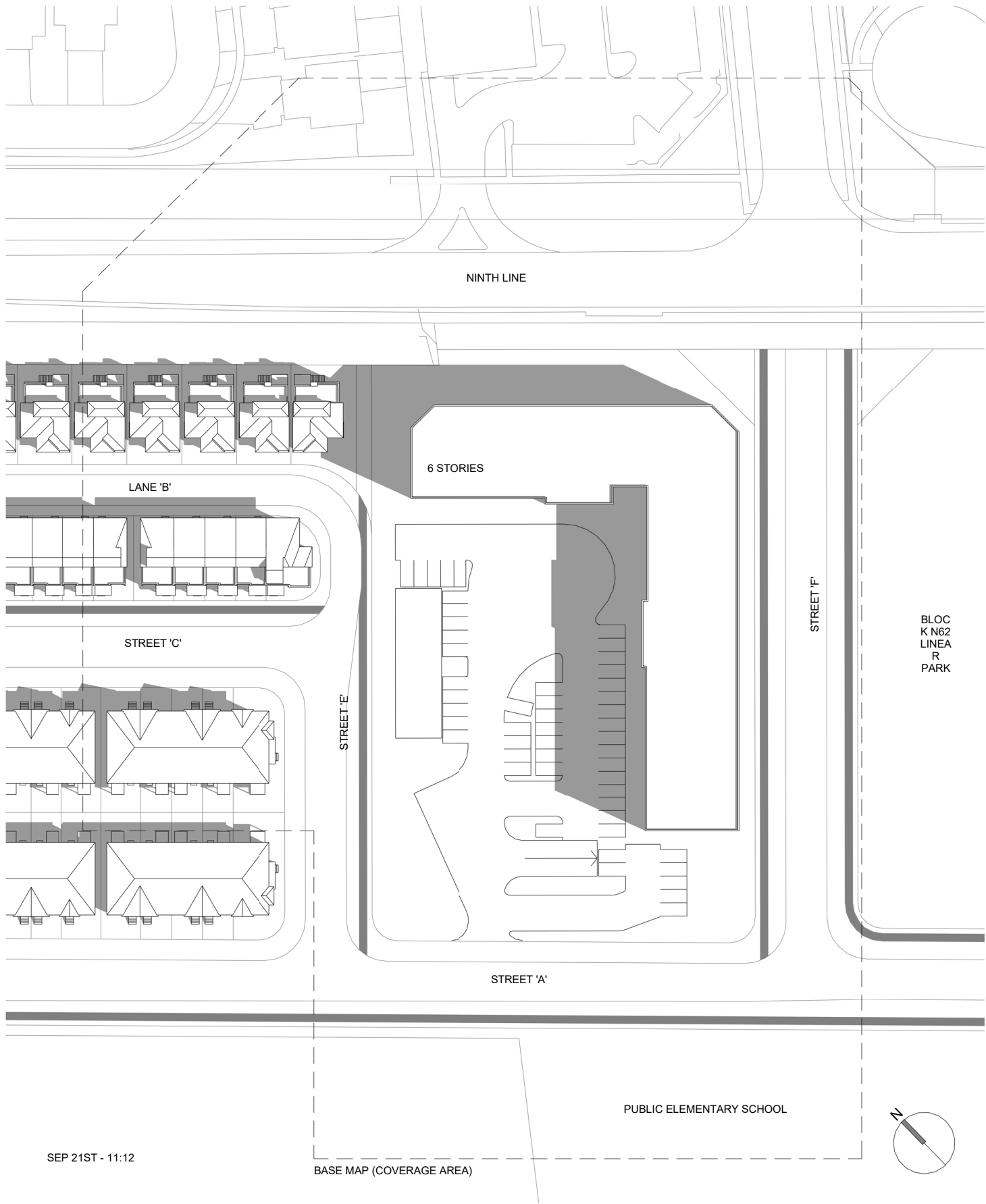
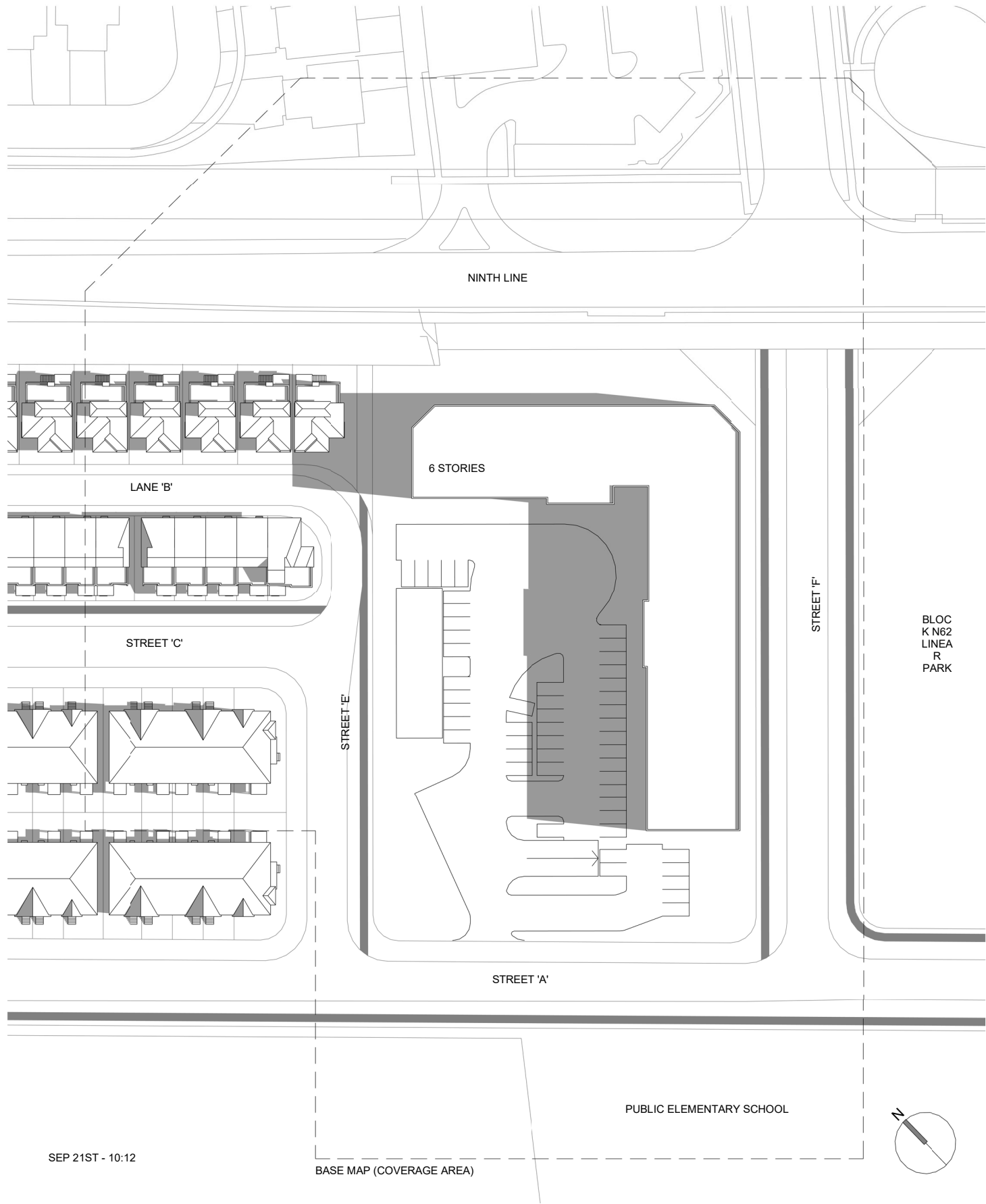
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**



Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

**PR04-01**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

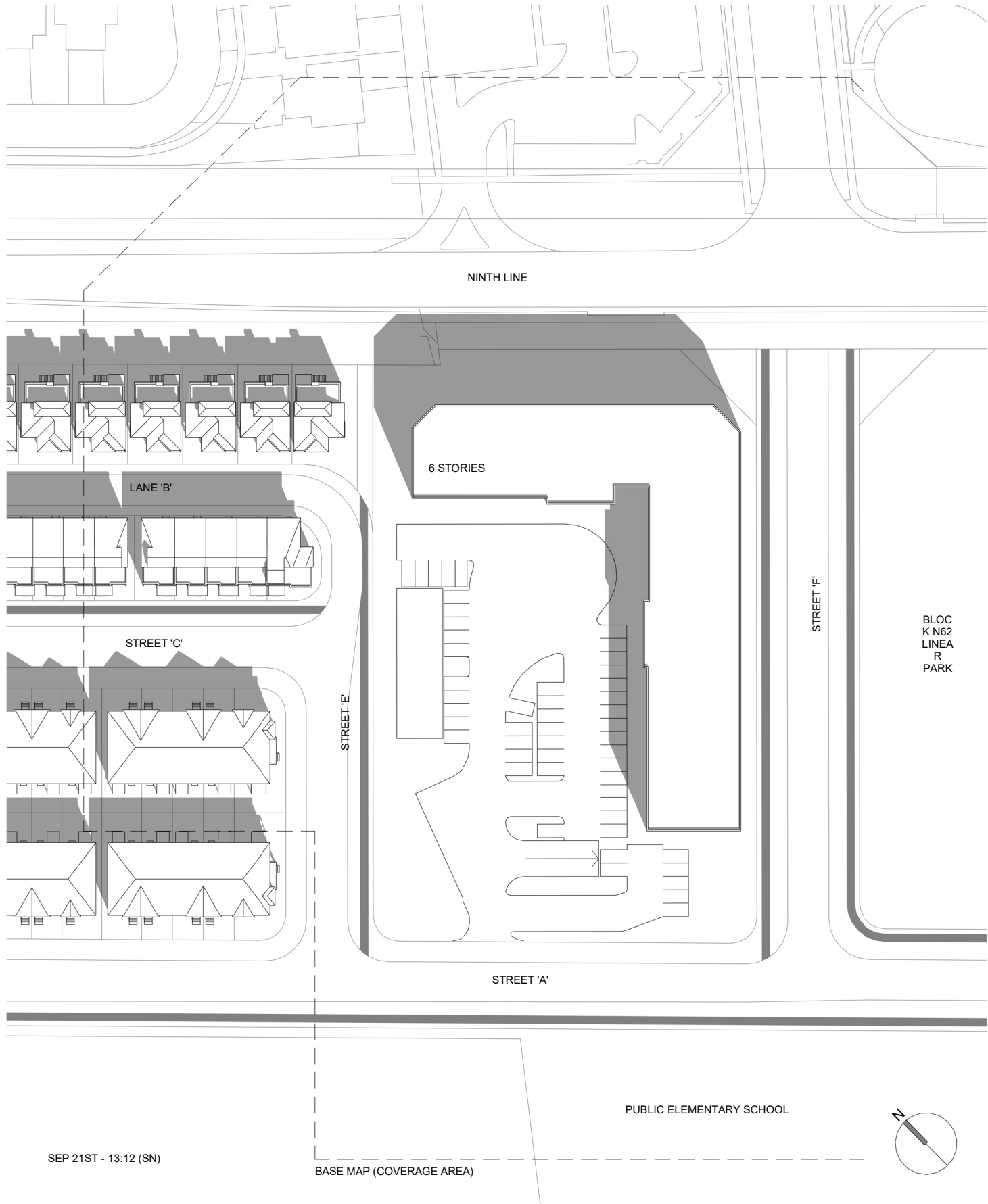
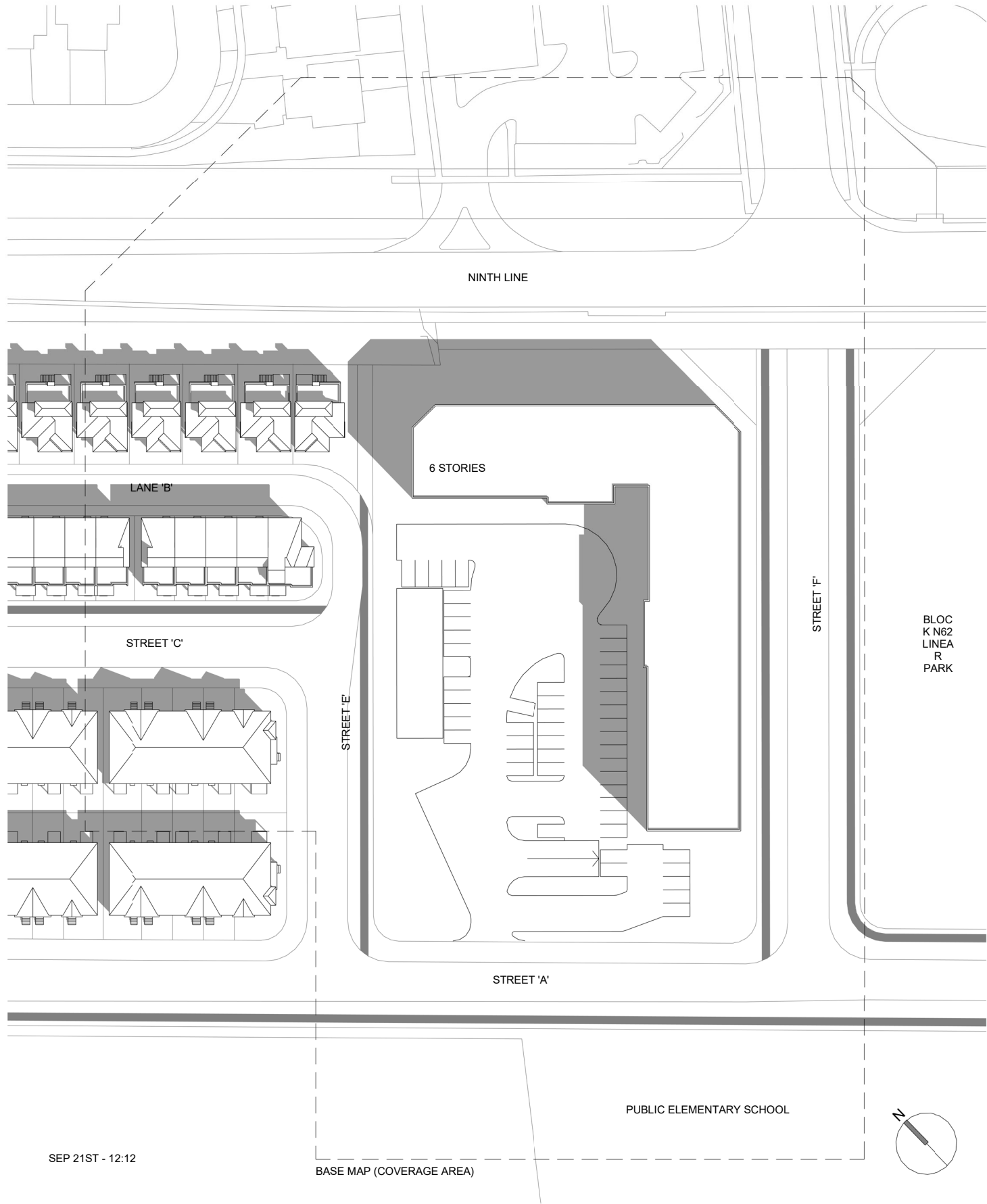
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

**PR04-02**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

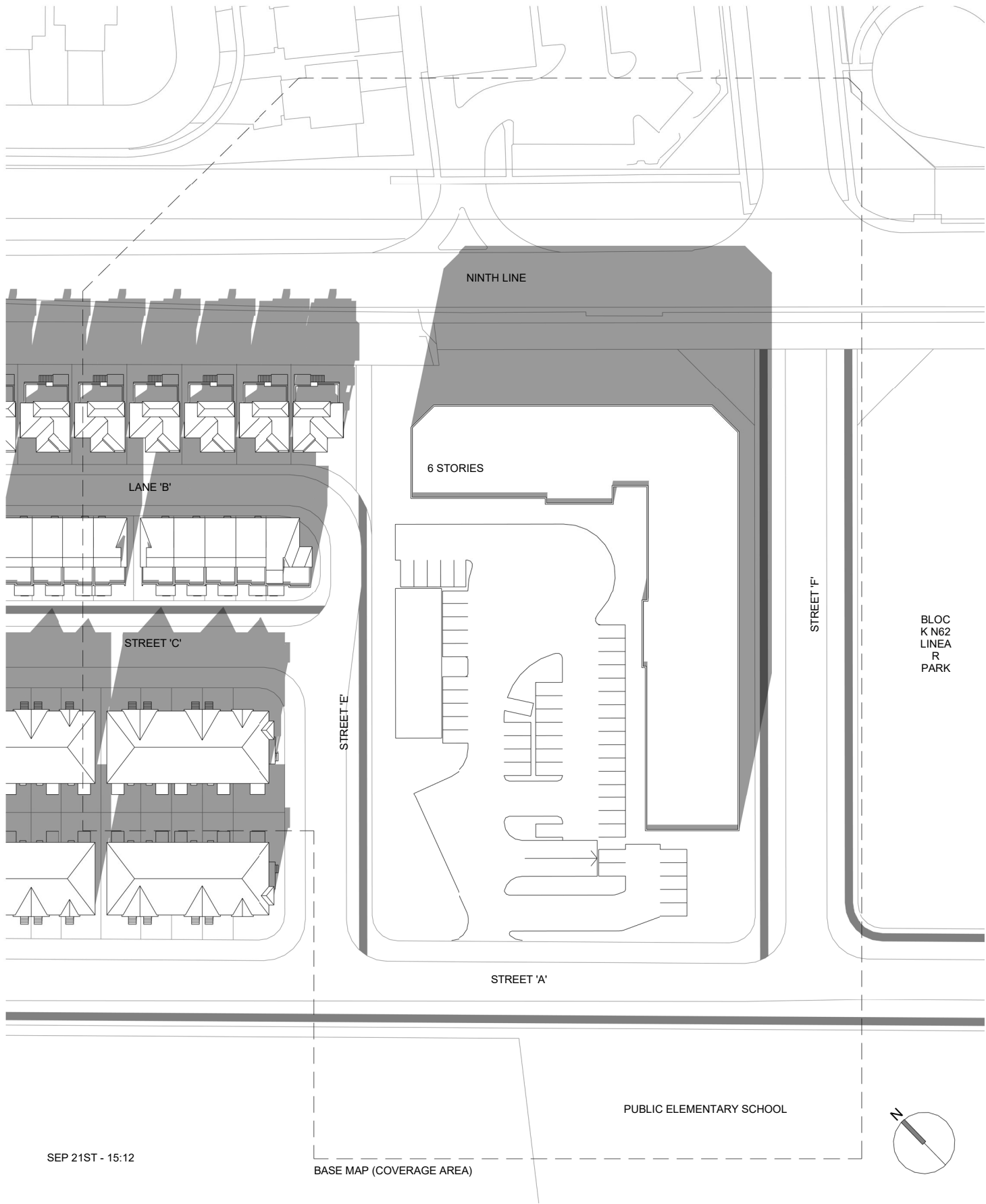
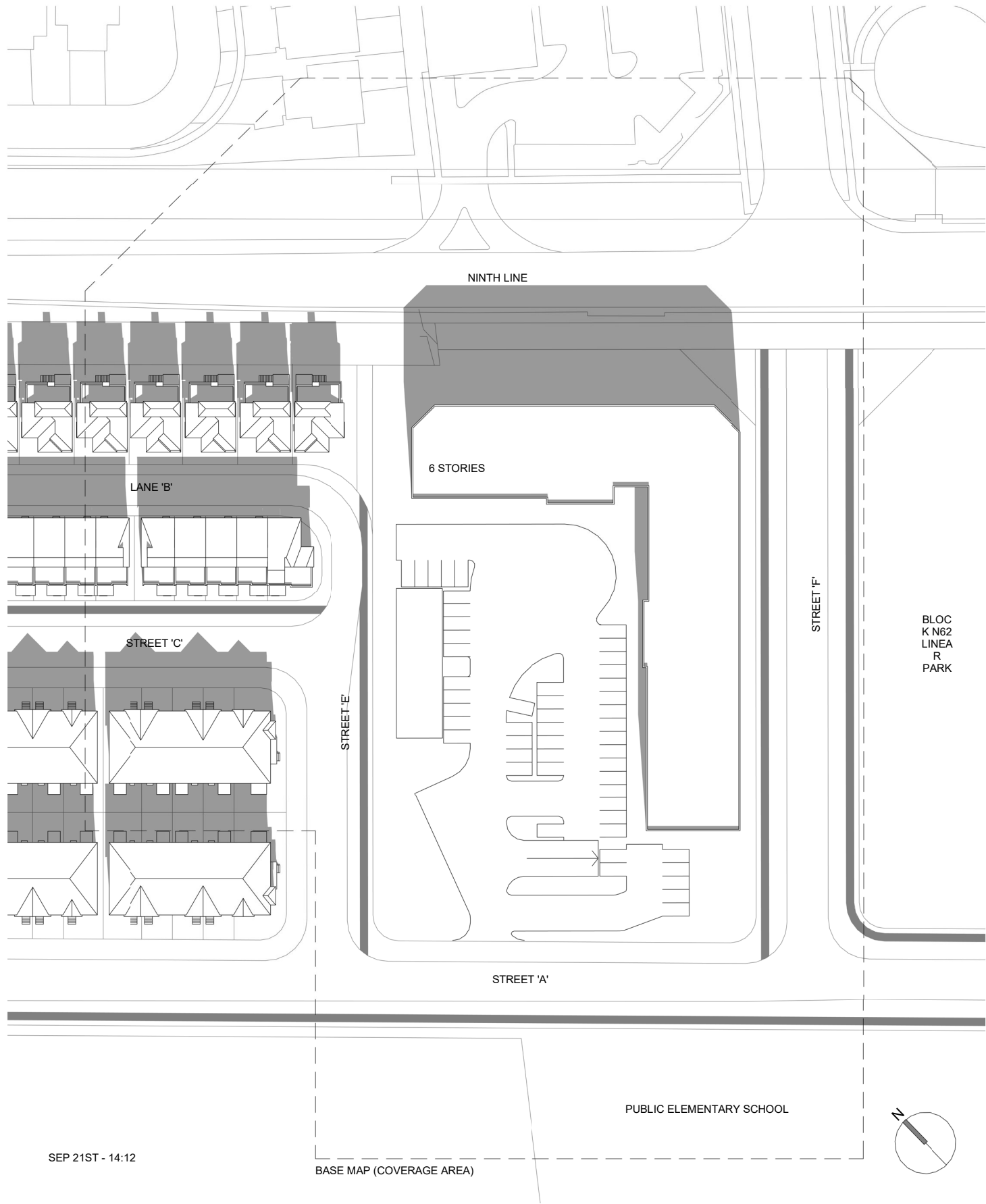
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

**PR04-03**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

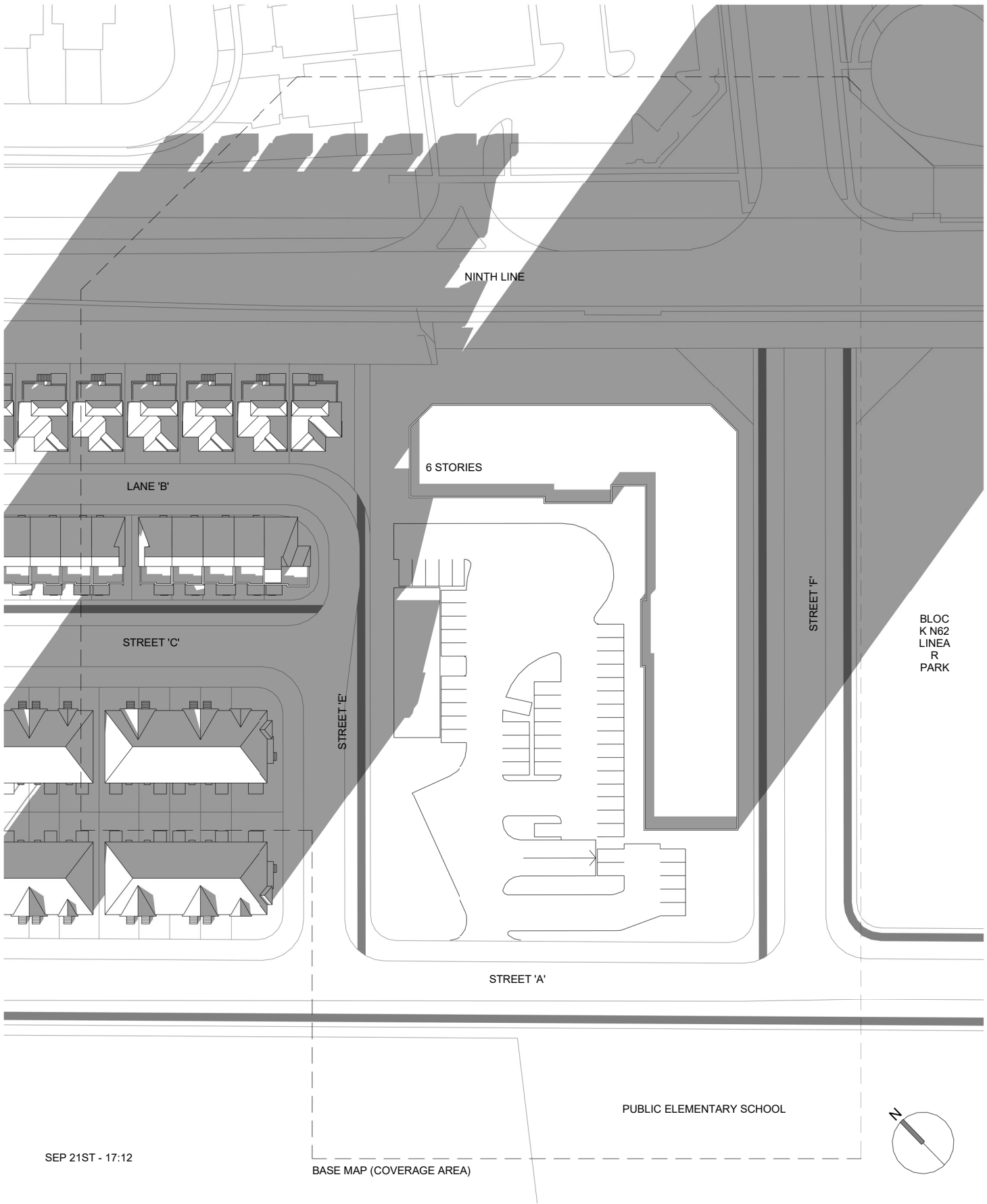
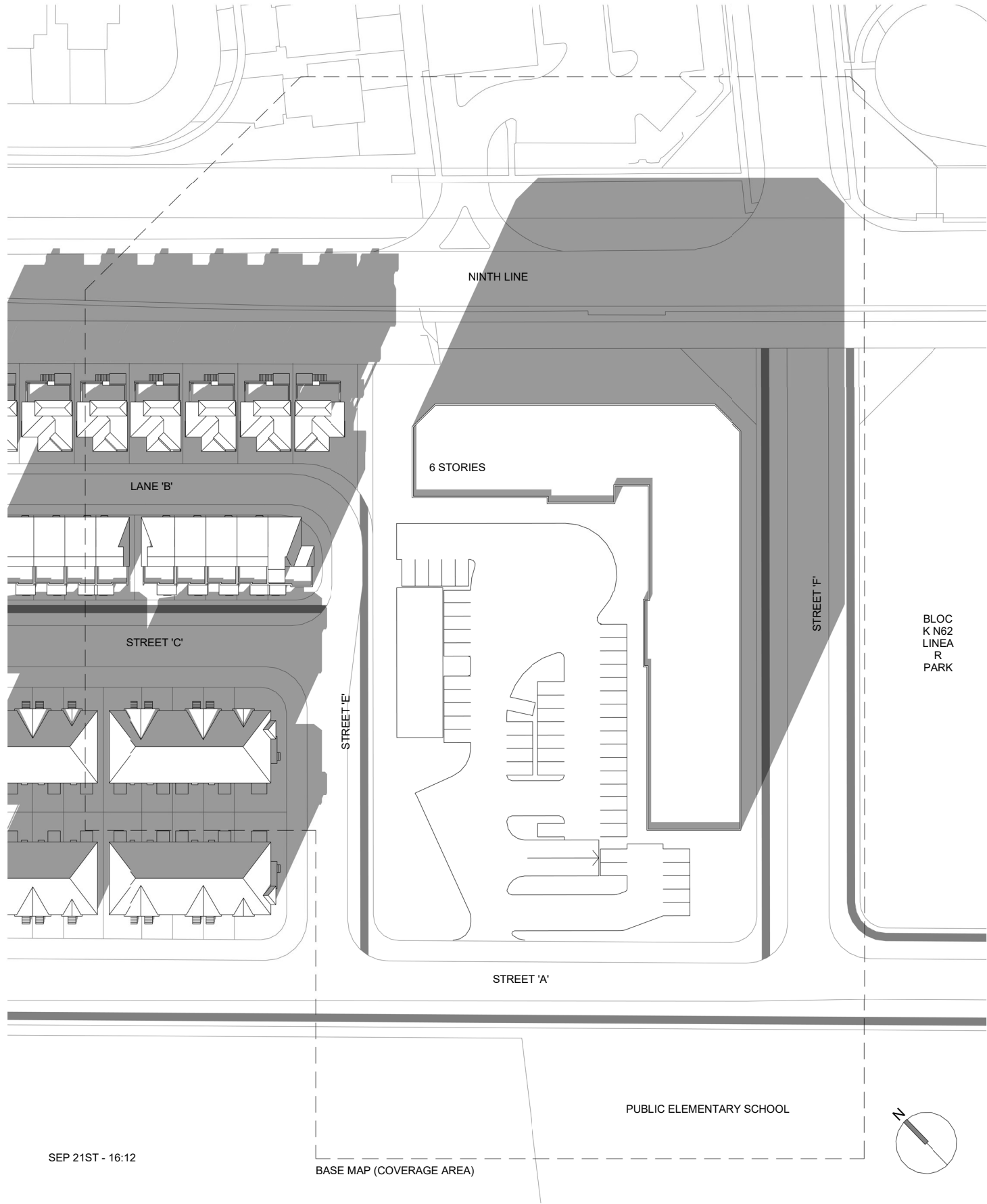
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1:1000

07/23/19  
Rev.

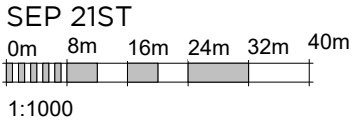
**PR04-04**



**SHADOW ANALYSIS**

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

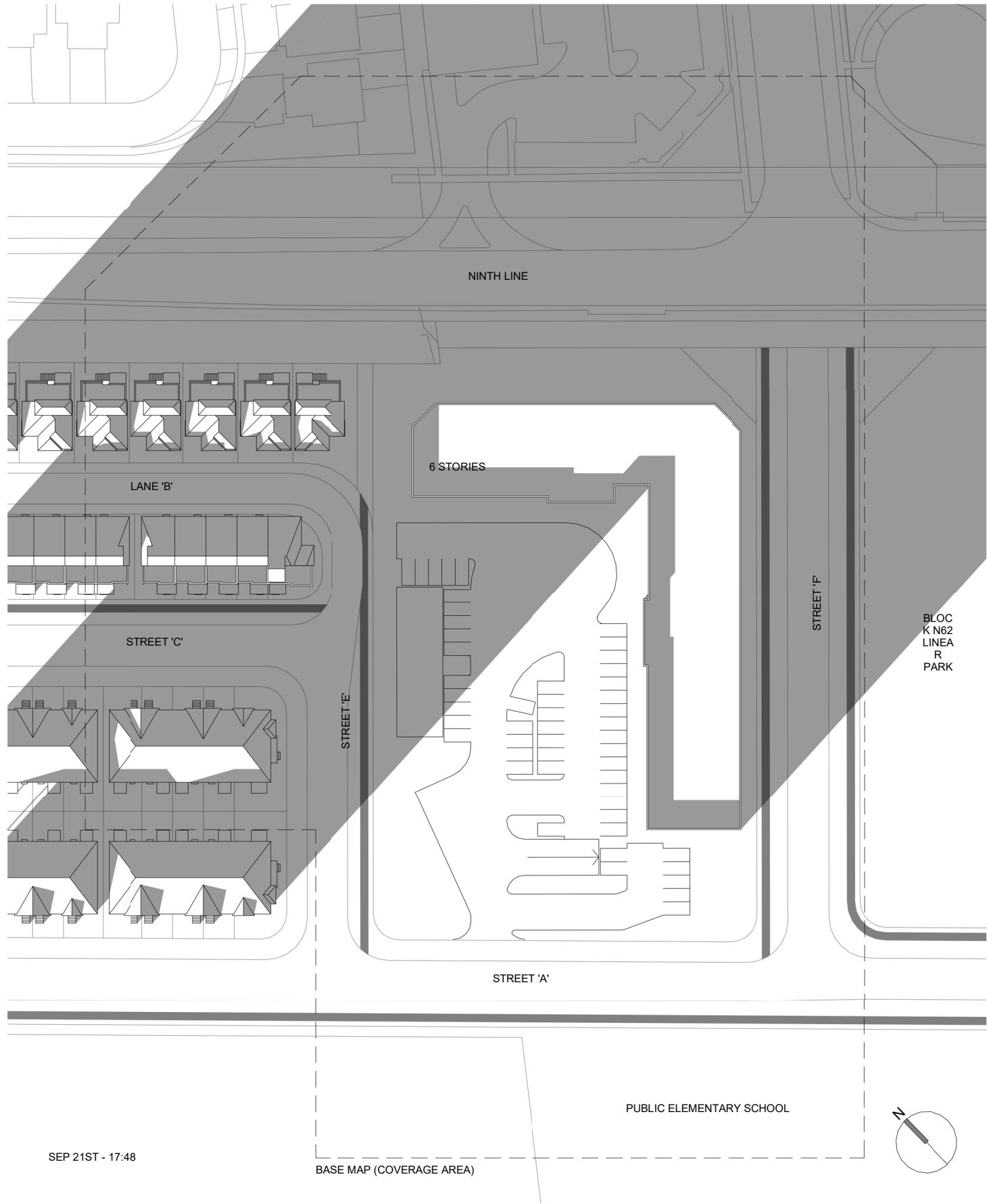
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**



Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

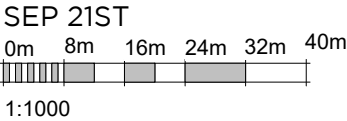
**PR04-05**



**SHADOW ANALYSIS**

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**



Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

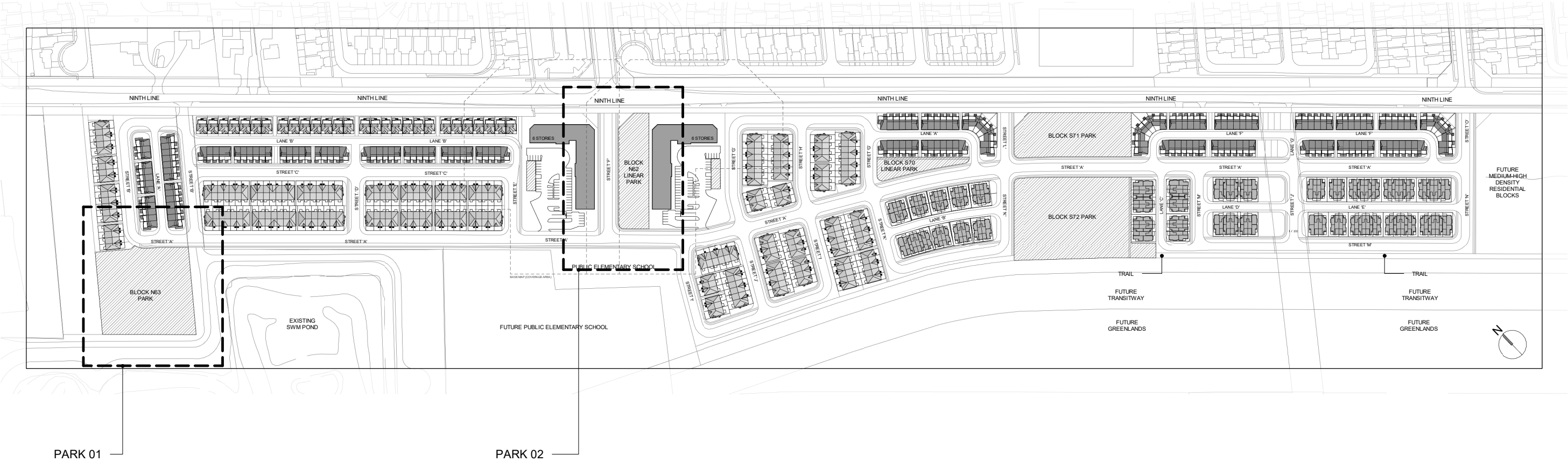
**PR04-06**

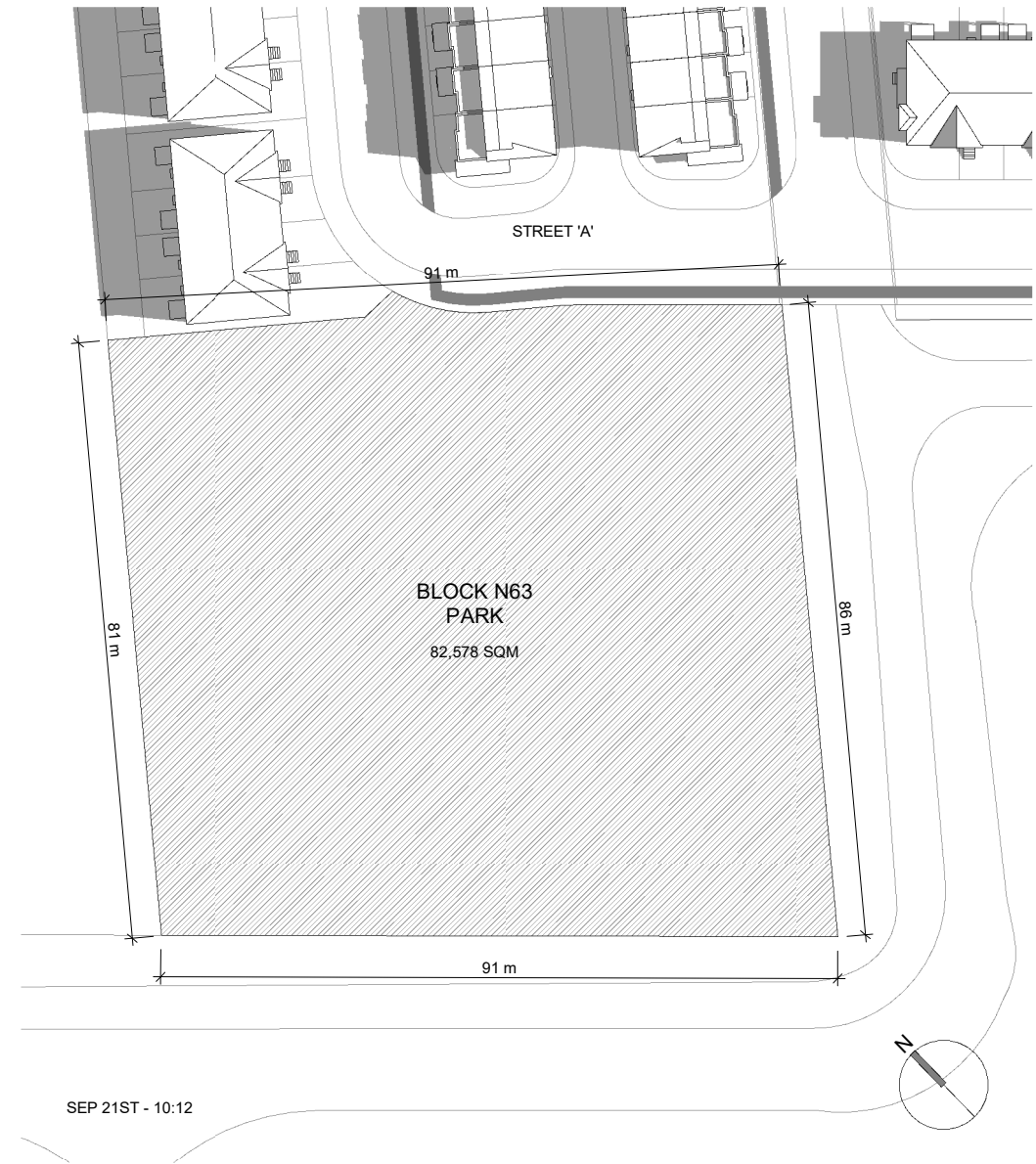
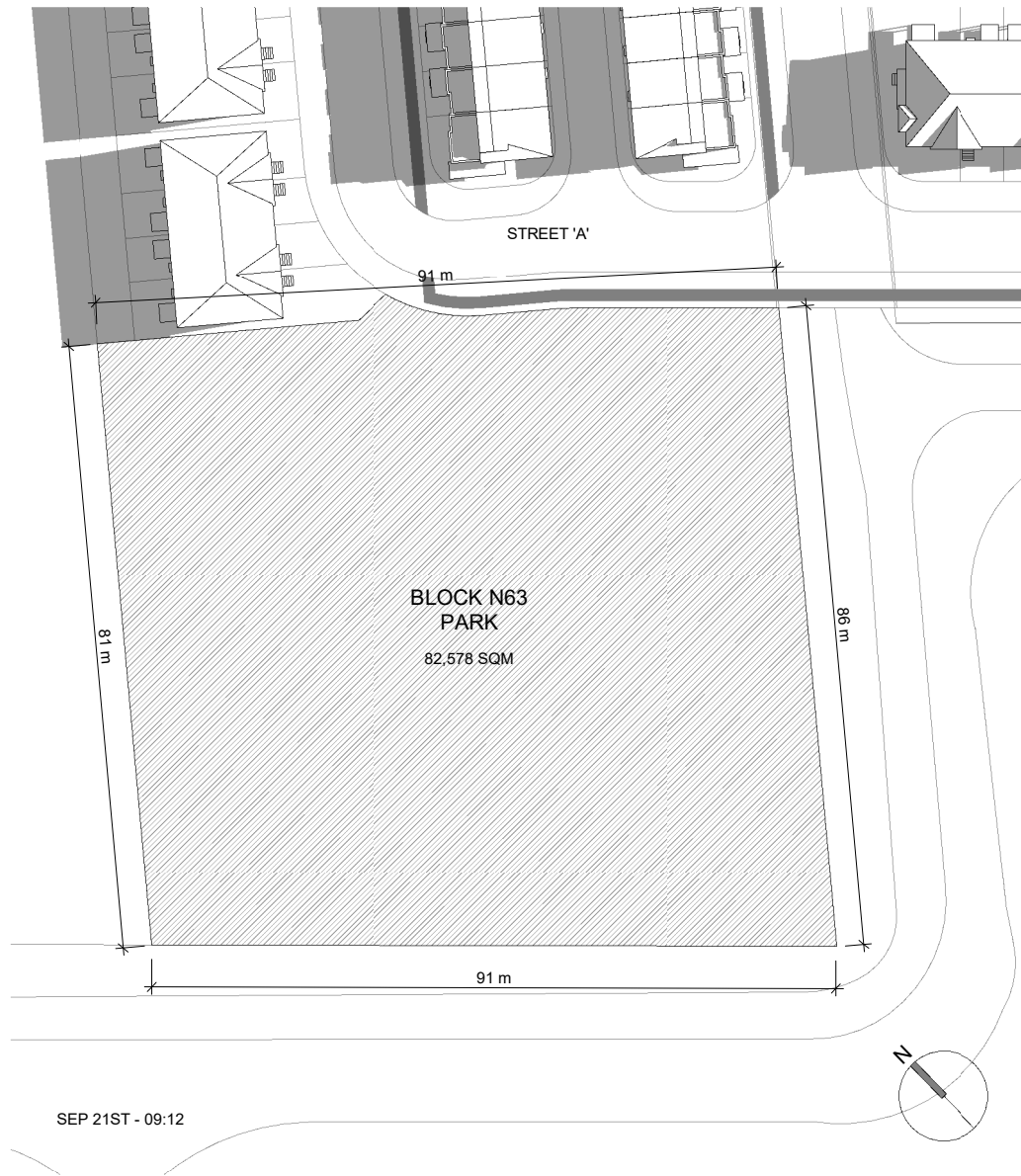
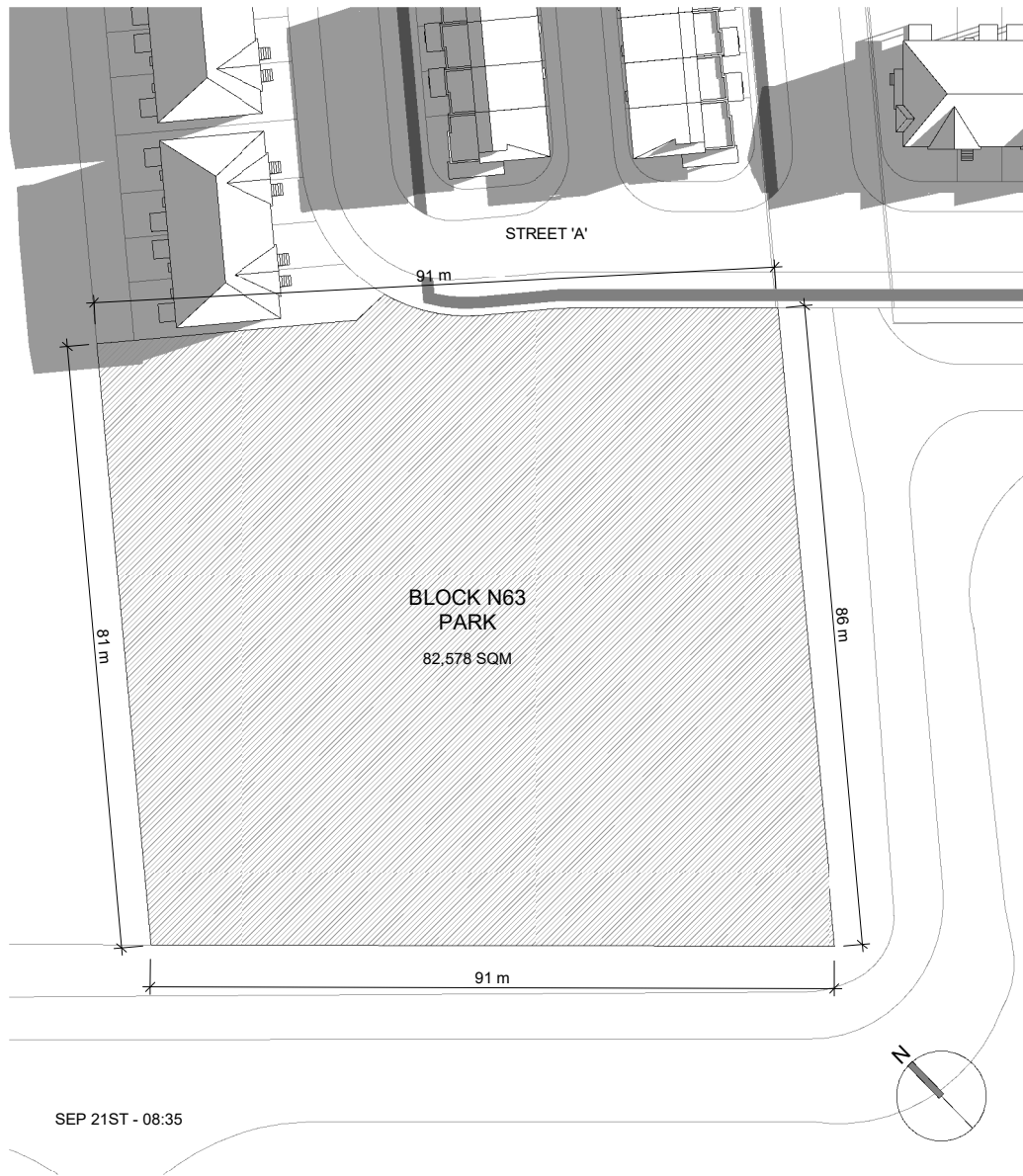


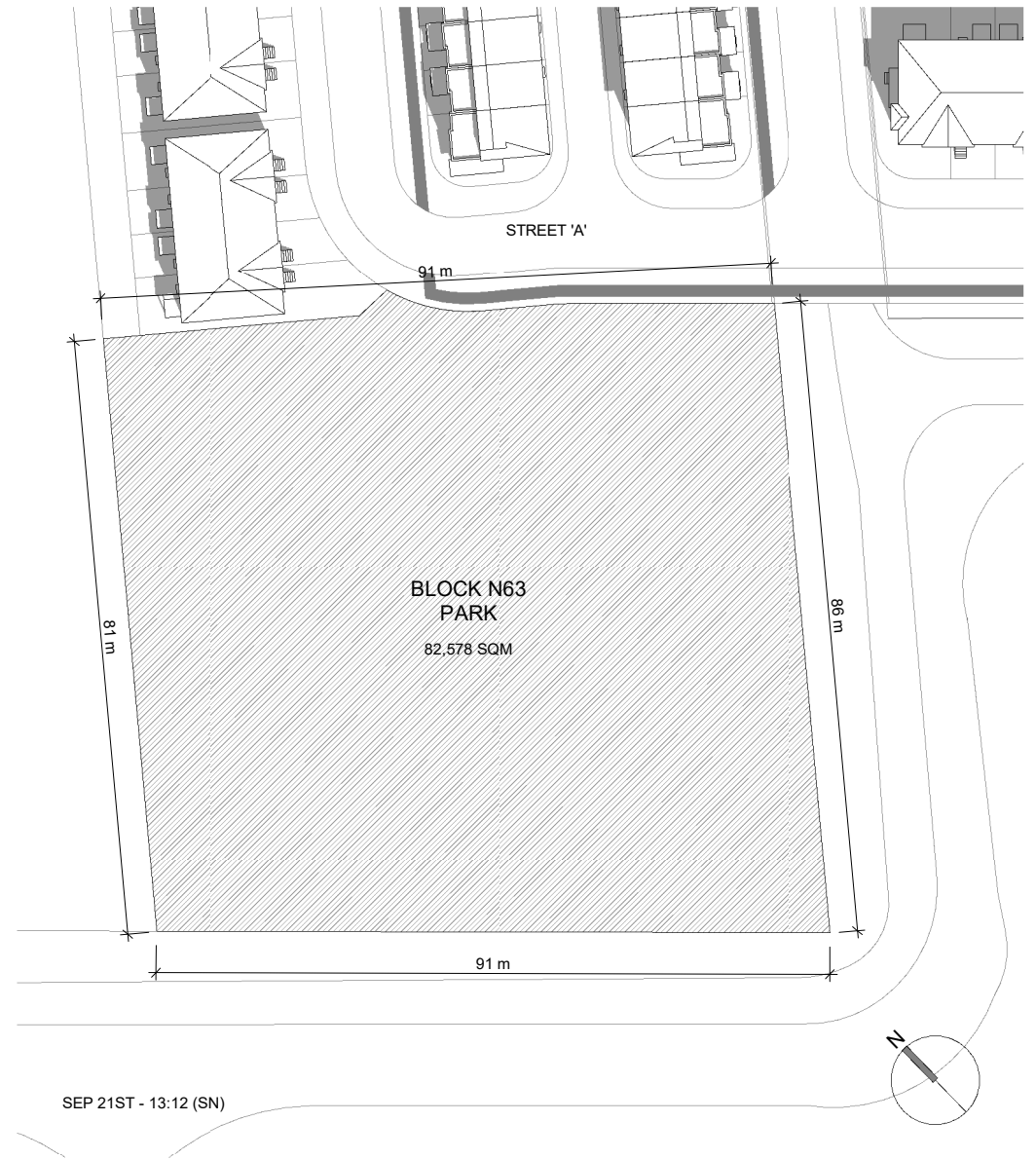
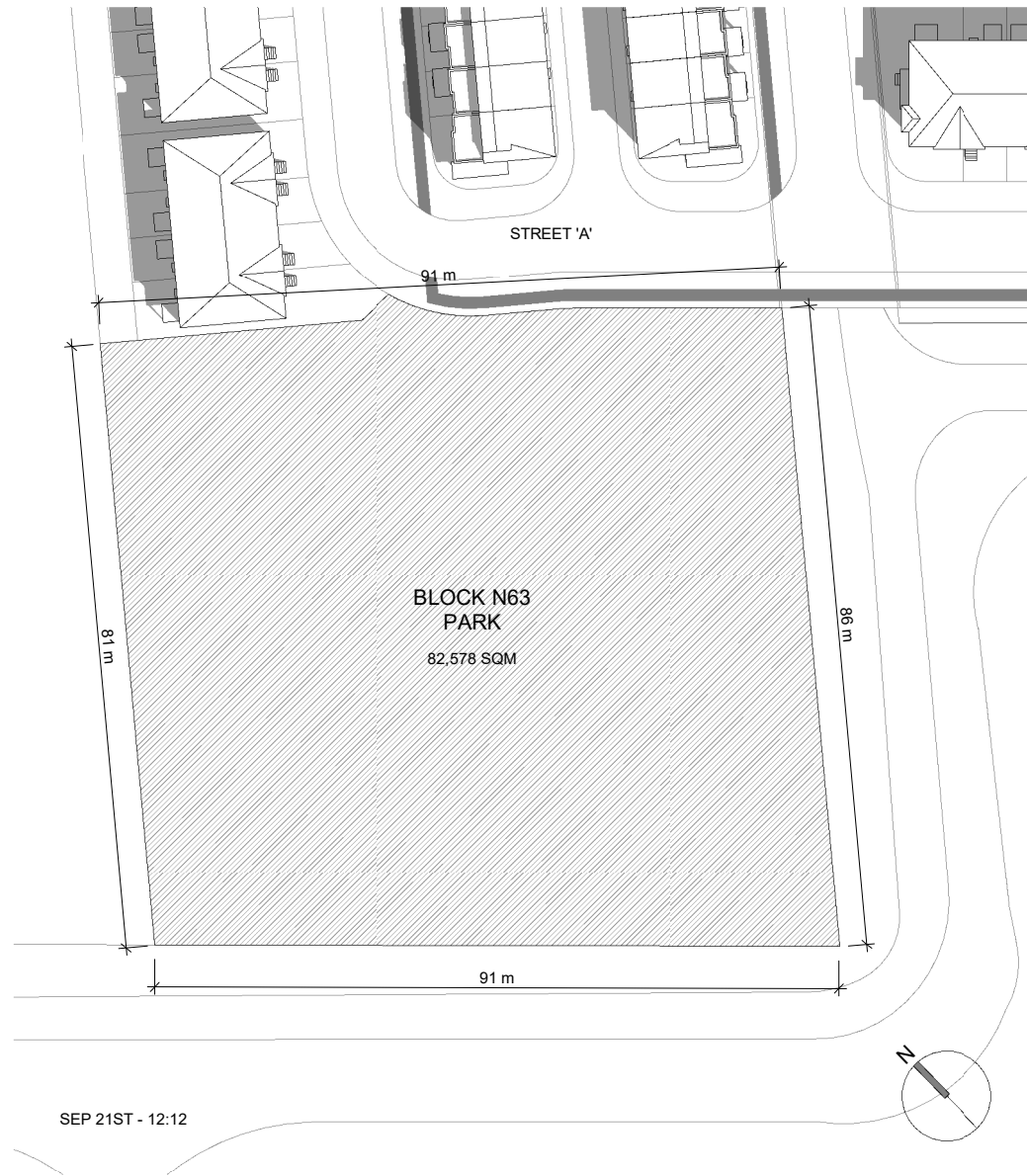
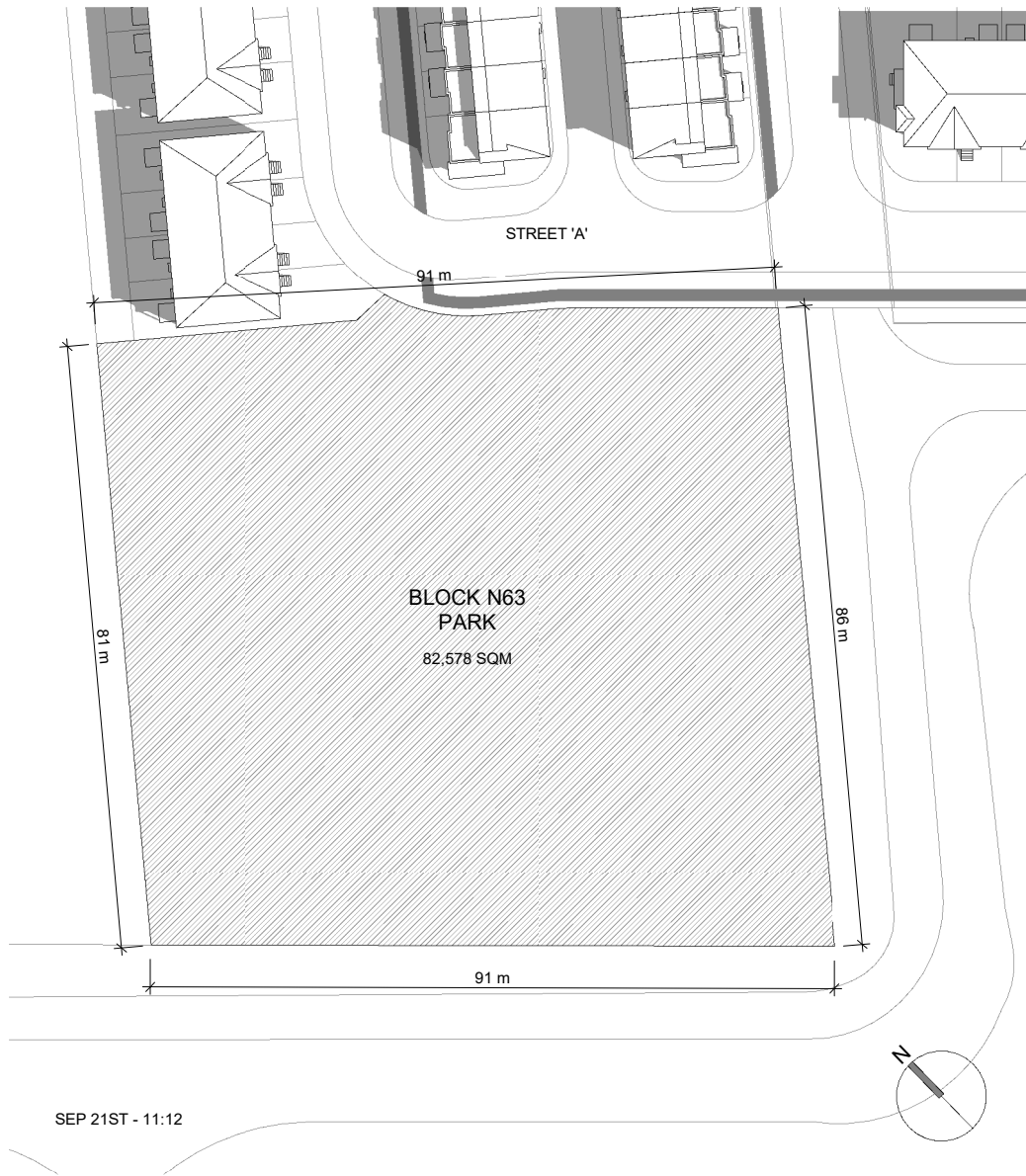
3.4 TURF AND FLOWER GARDENS IN PUBLIC PARKS:

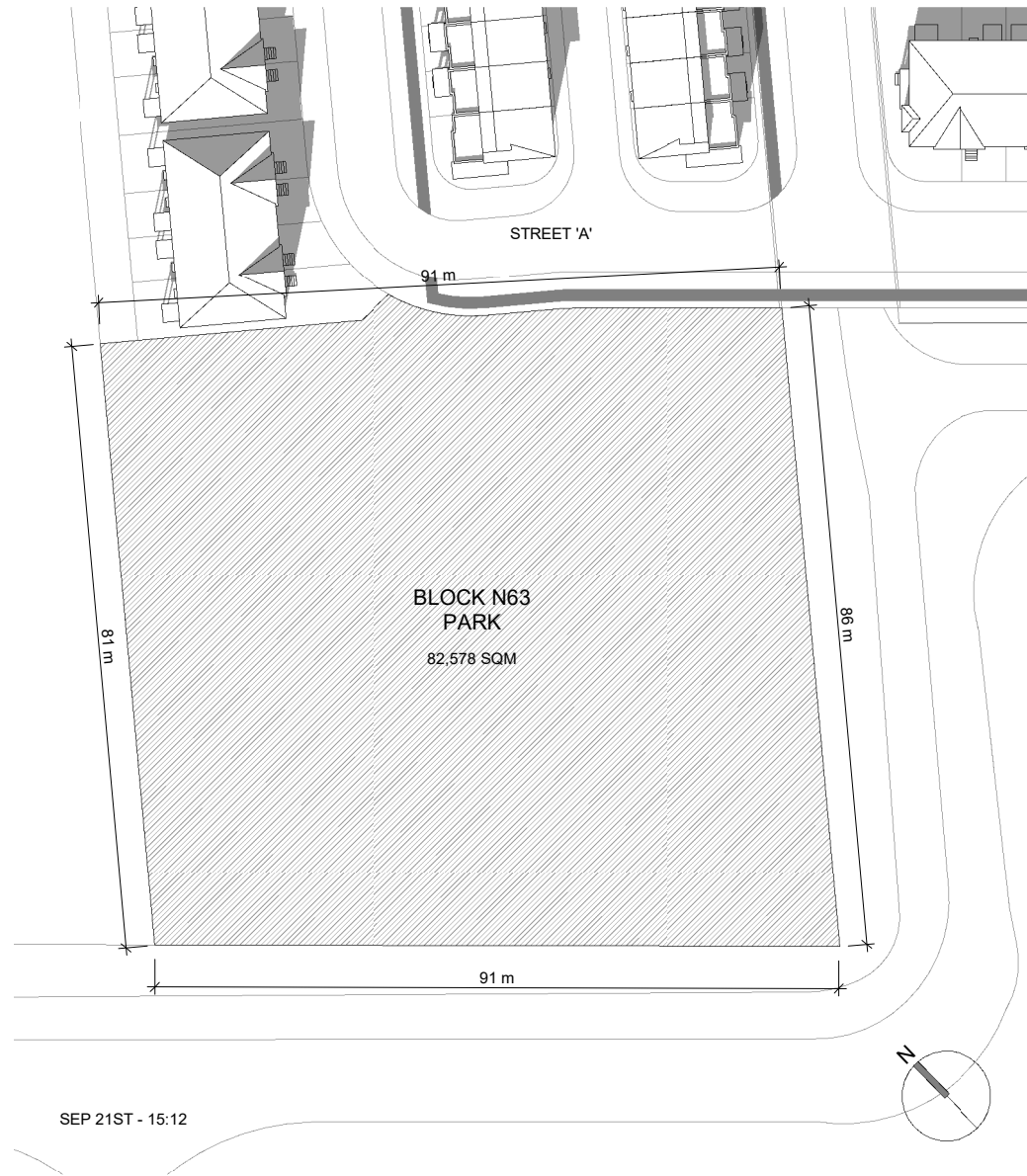
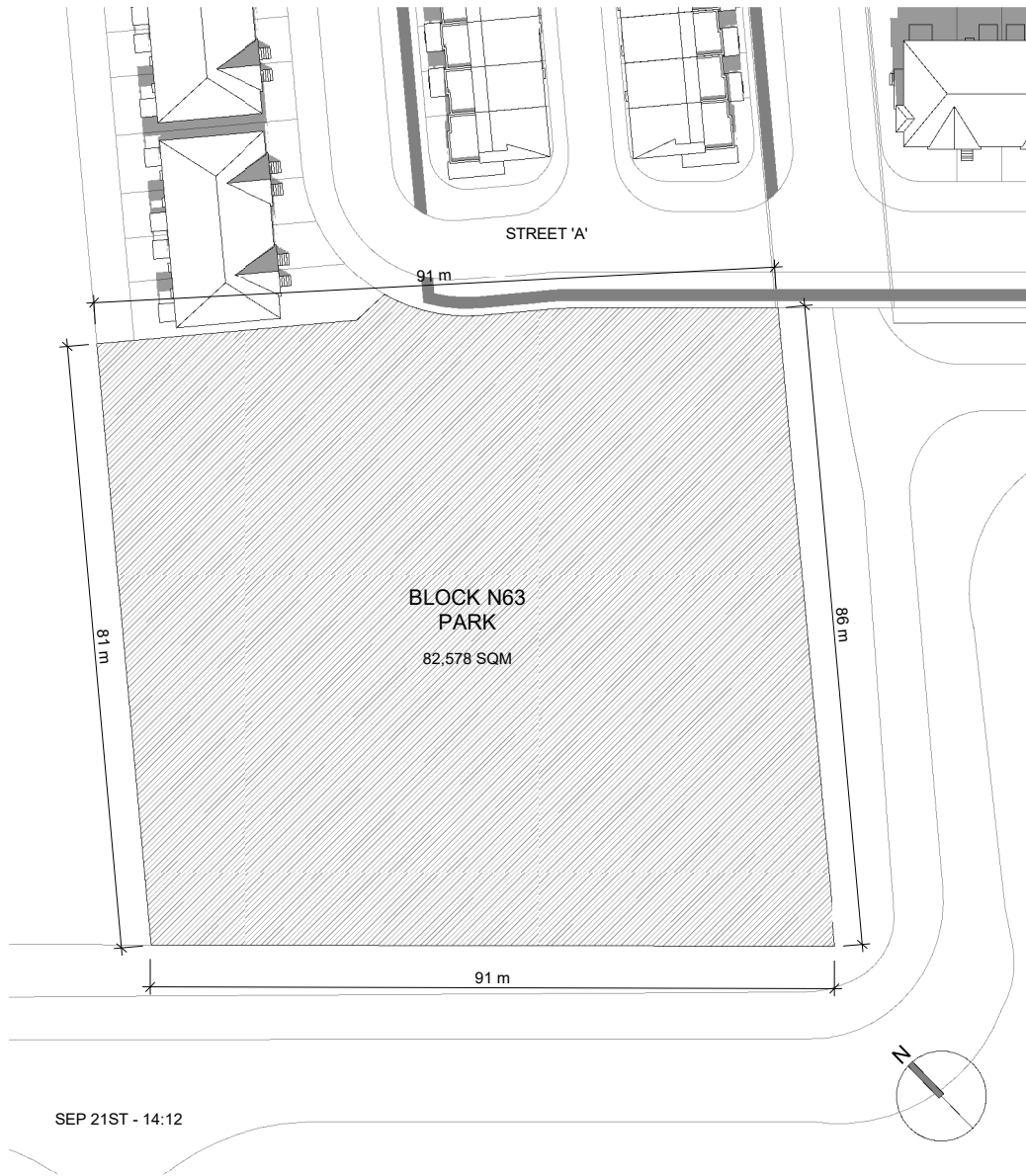
Proposed developments should allow for adequate sunlight during the growing season from March to October by allowing for a minimum of 6 hours of direct sunlight on September 21.

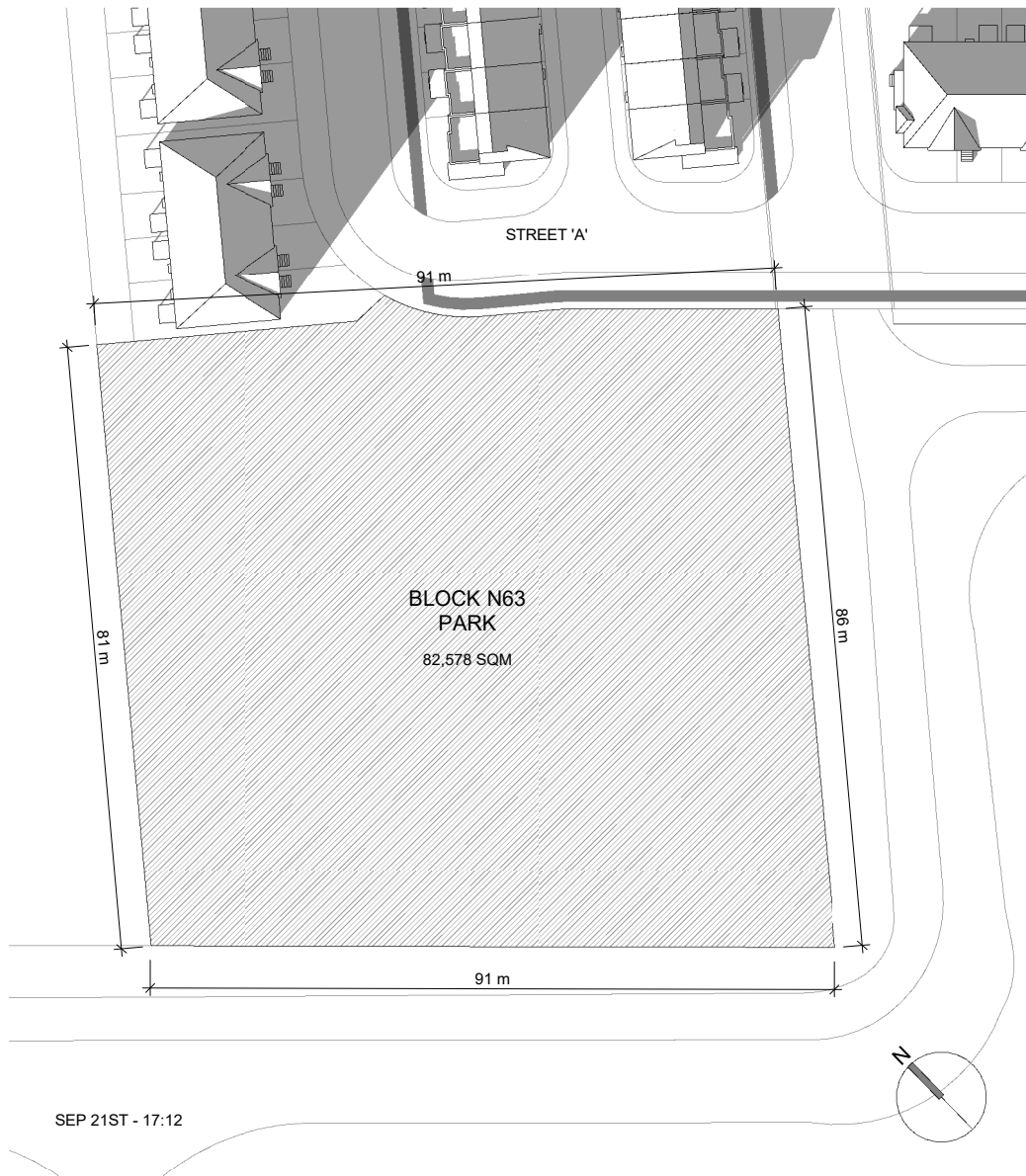
This criterion is met if full sun is provided on any 7 test times on September 21, from 1.5 hours after sunrise to 1.5 hours before sunset.

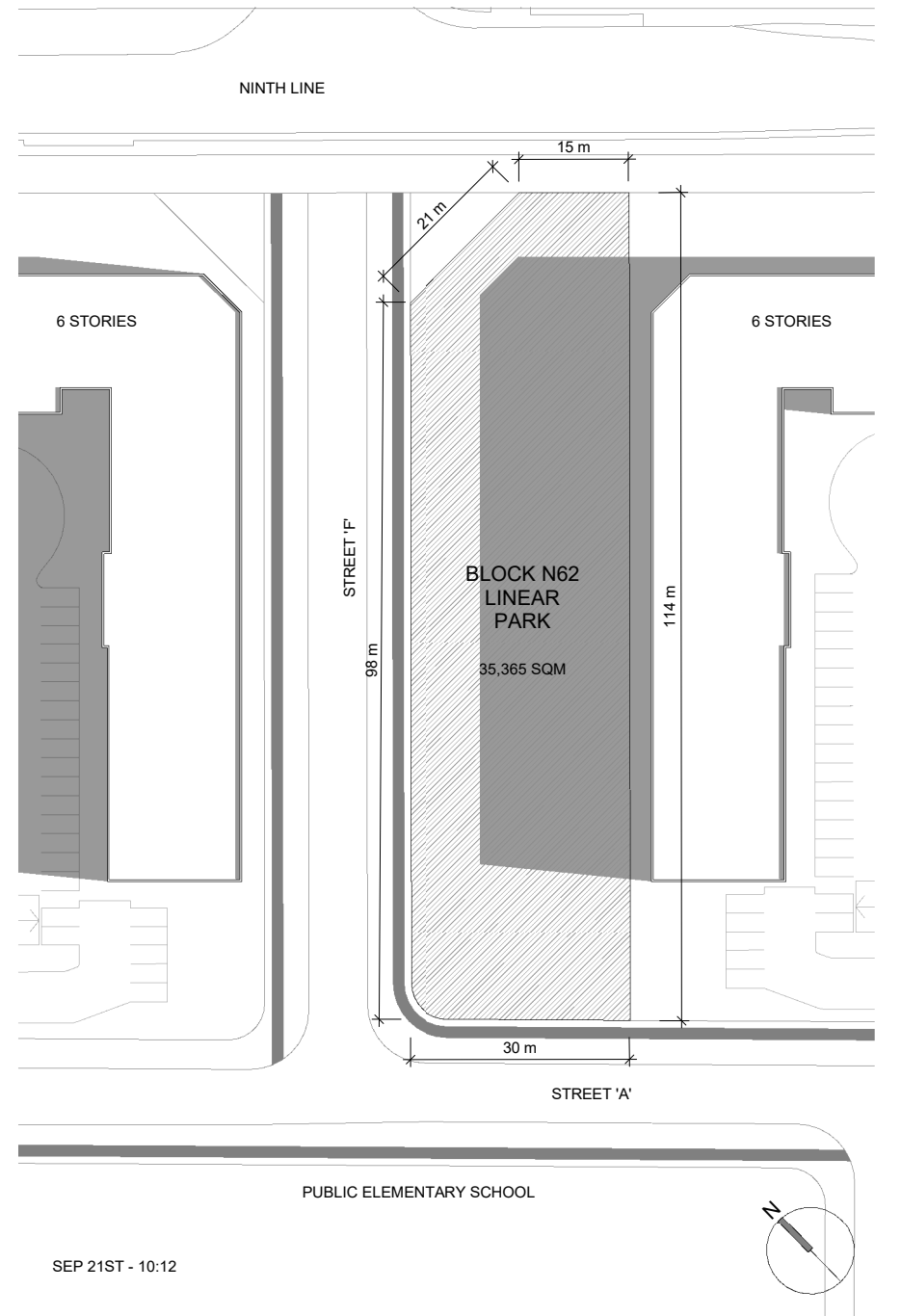
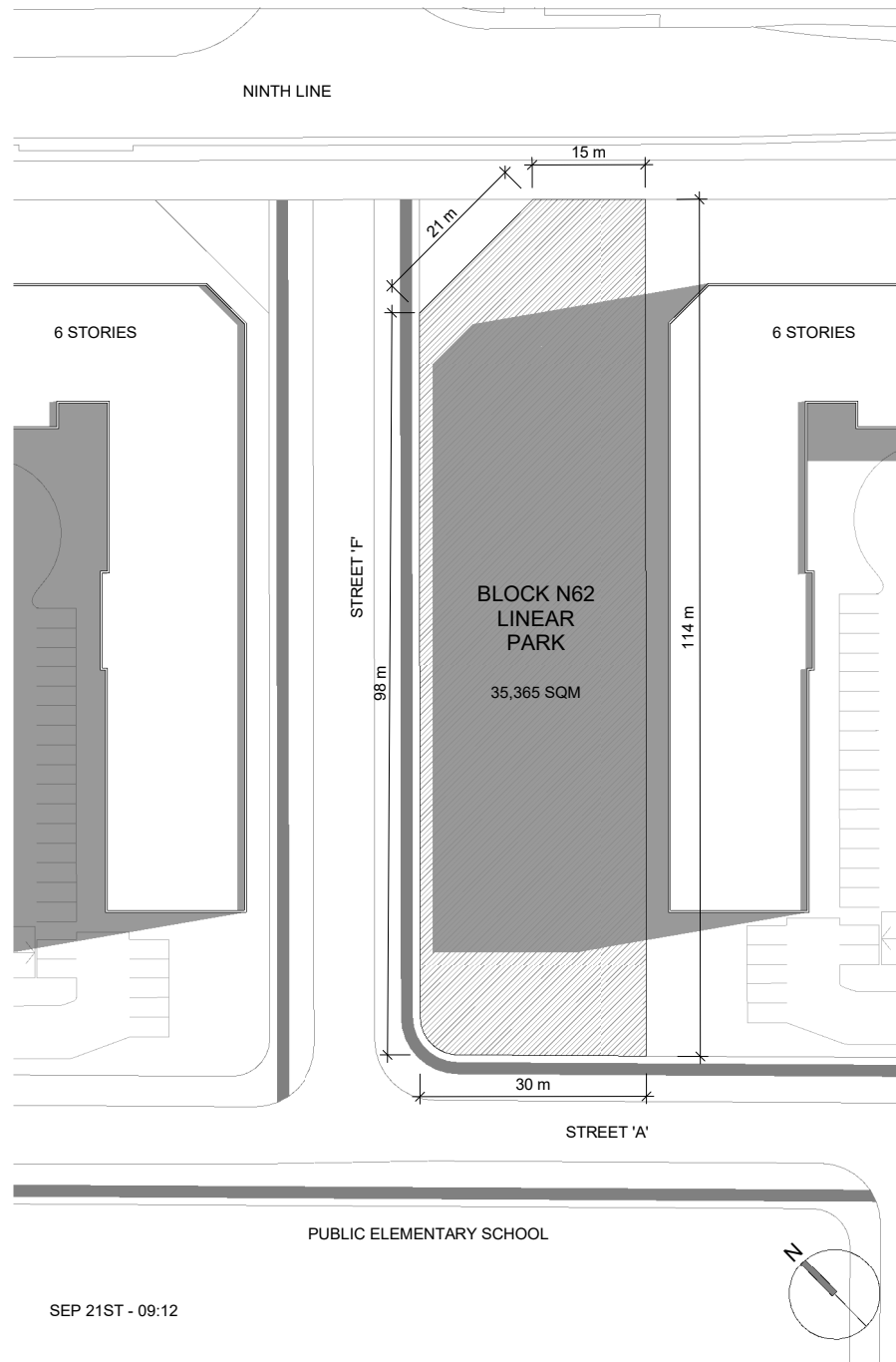
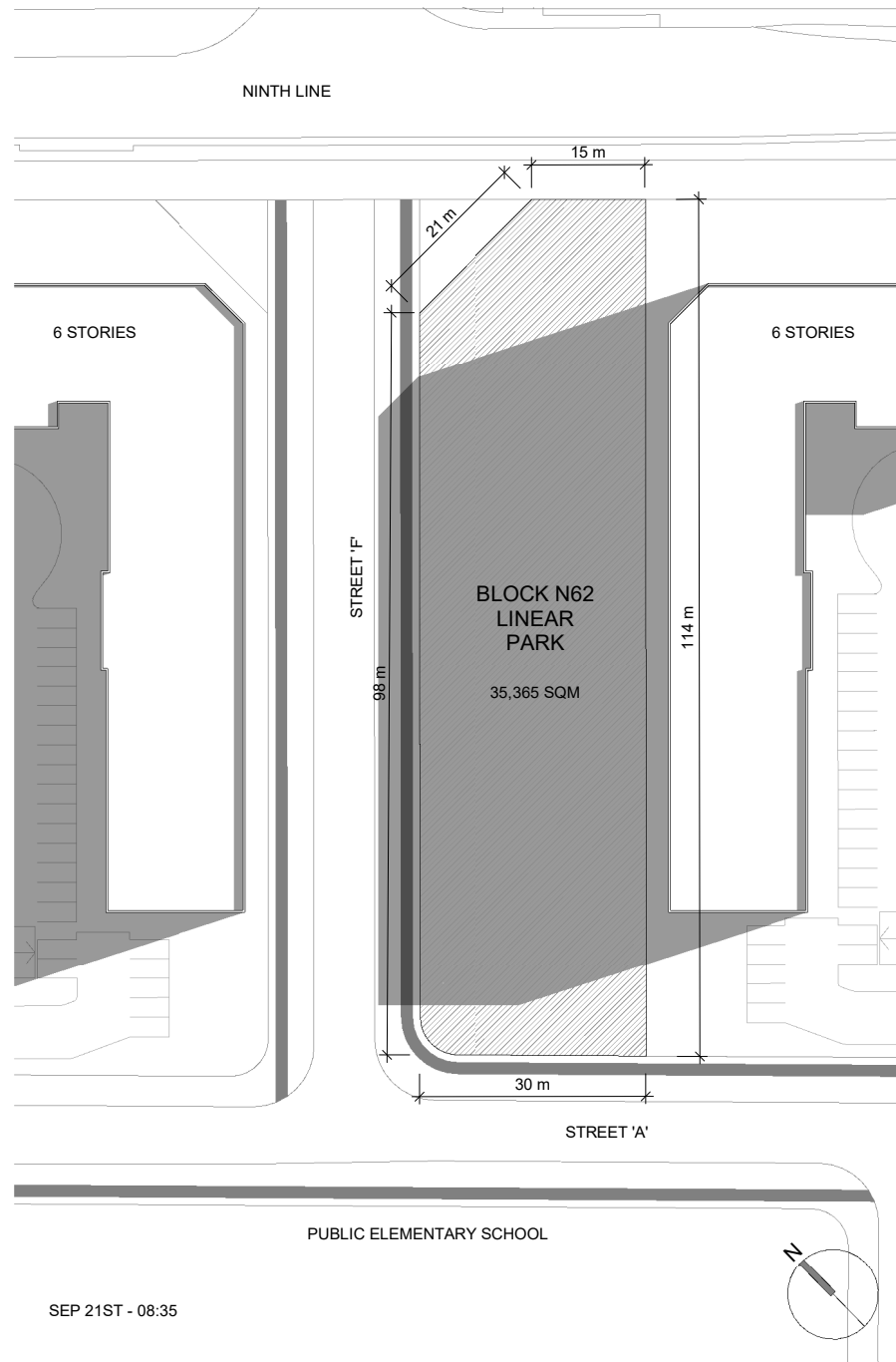


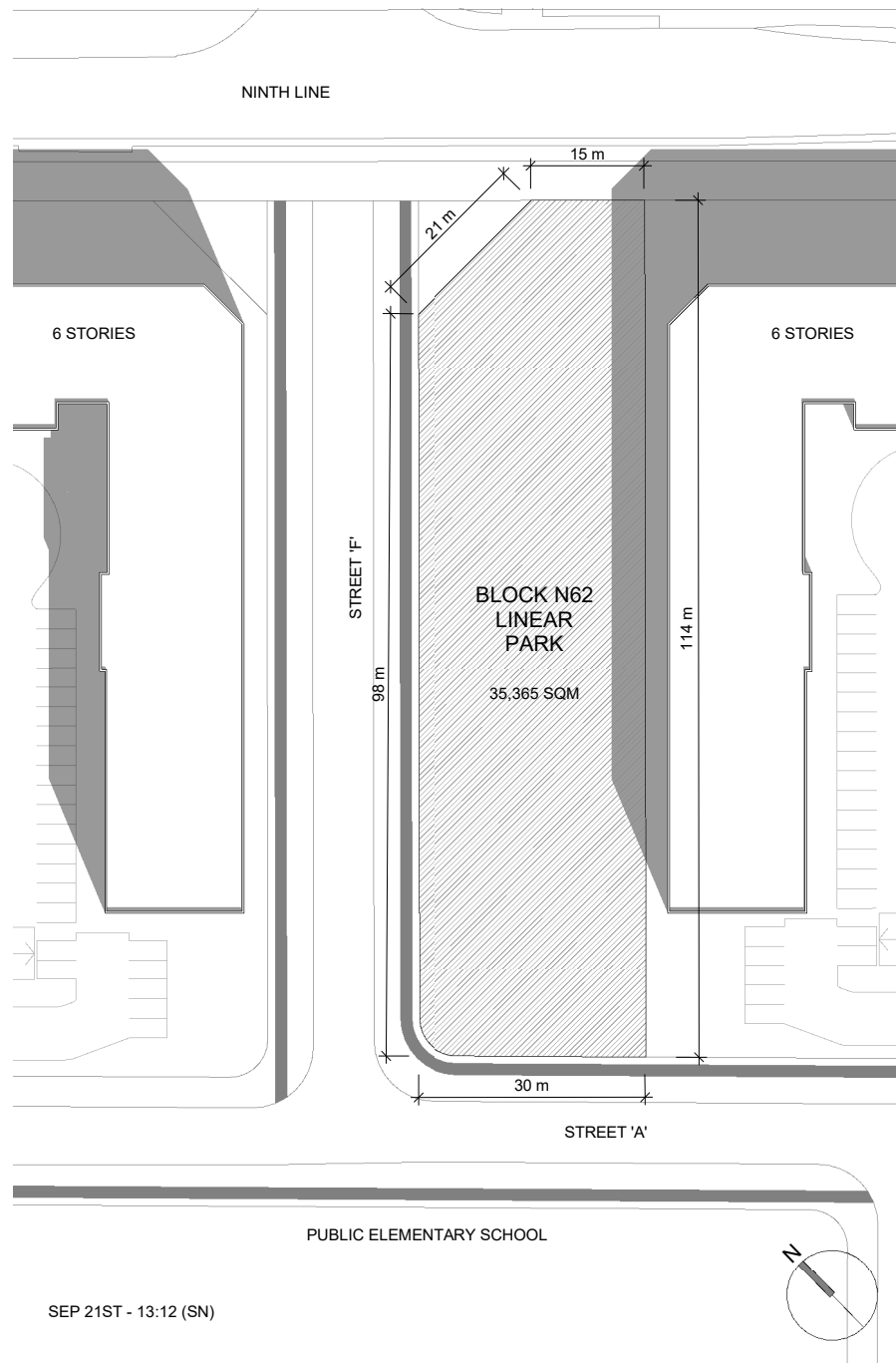












**SHADOW ANALYSIS**

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

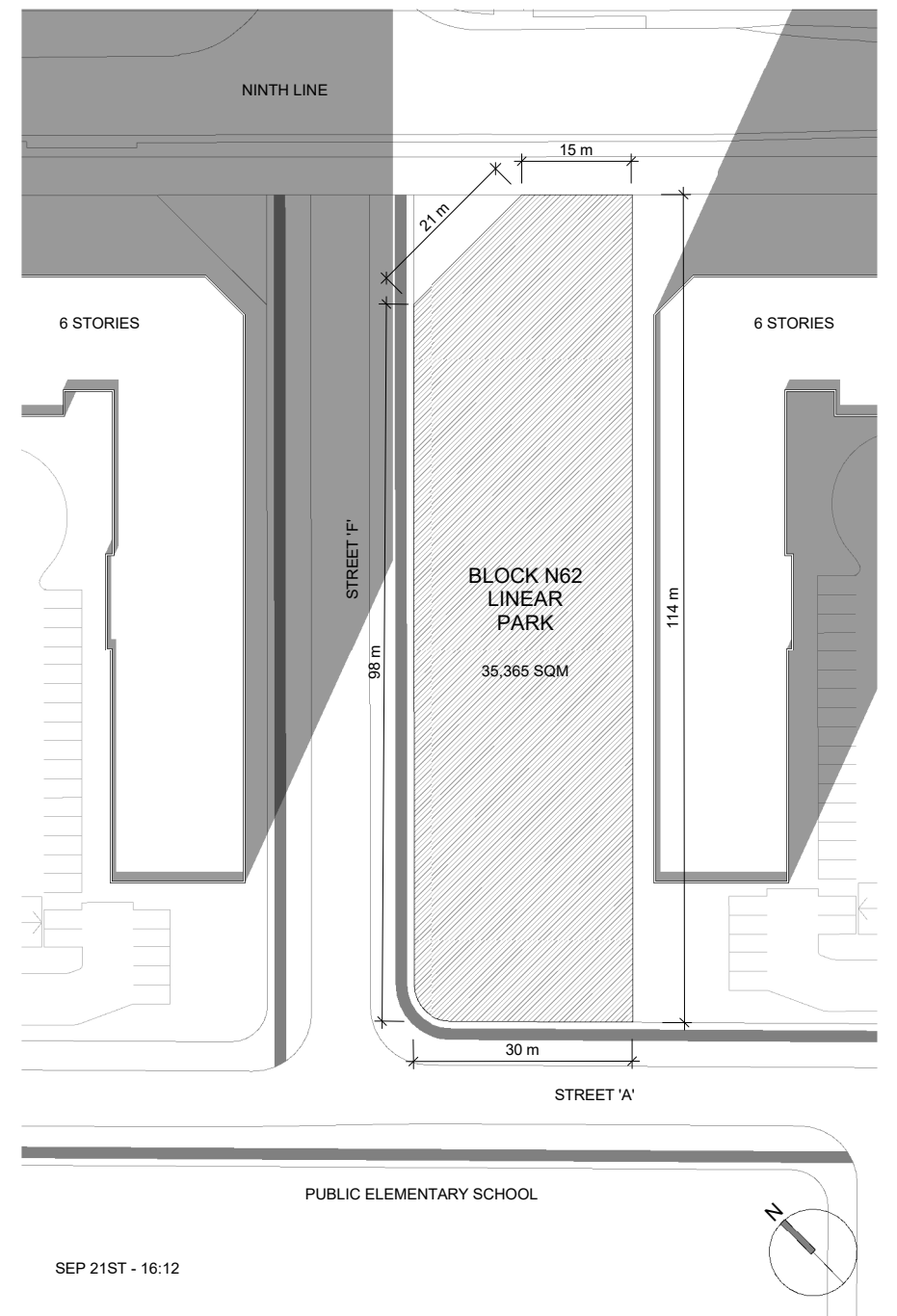
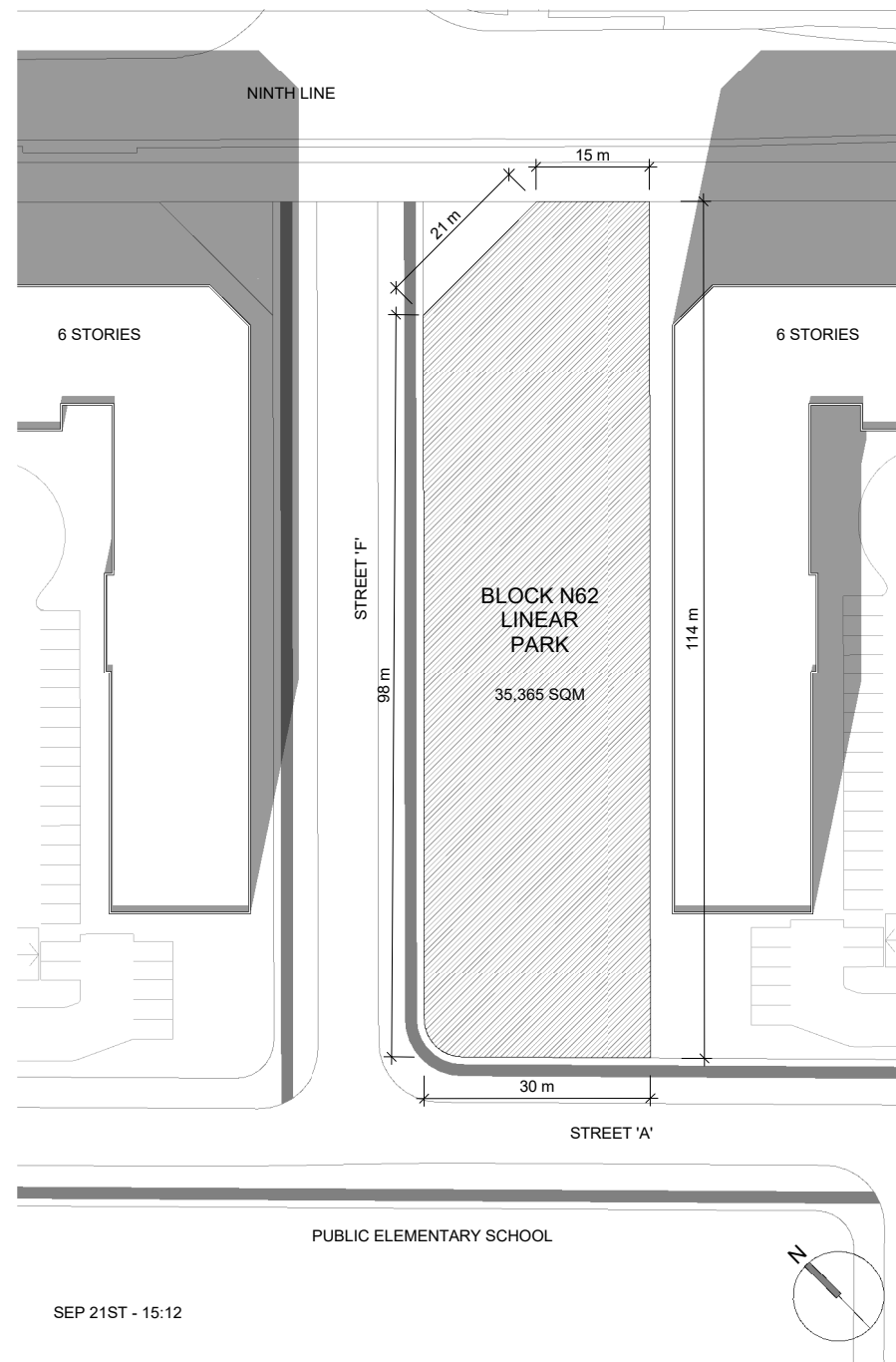
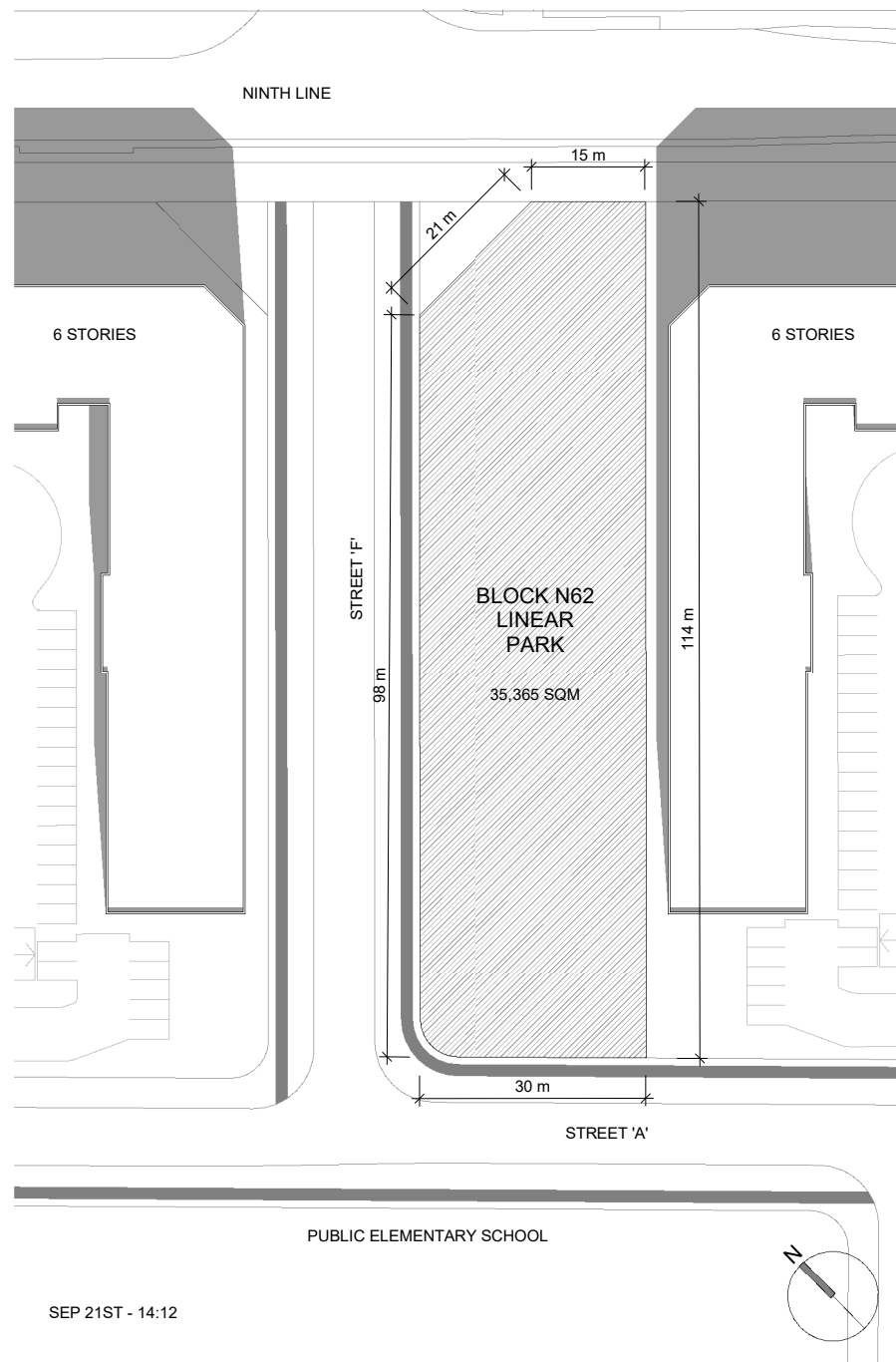


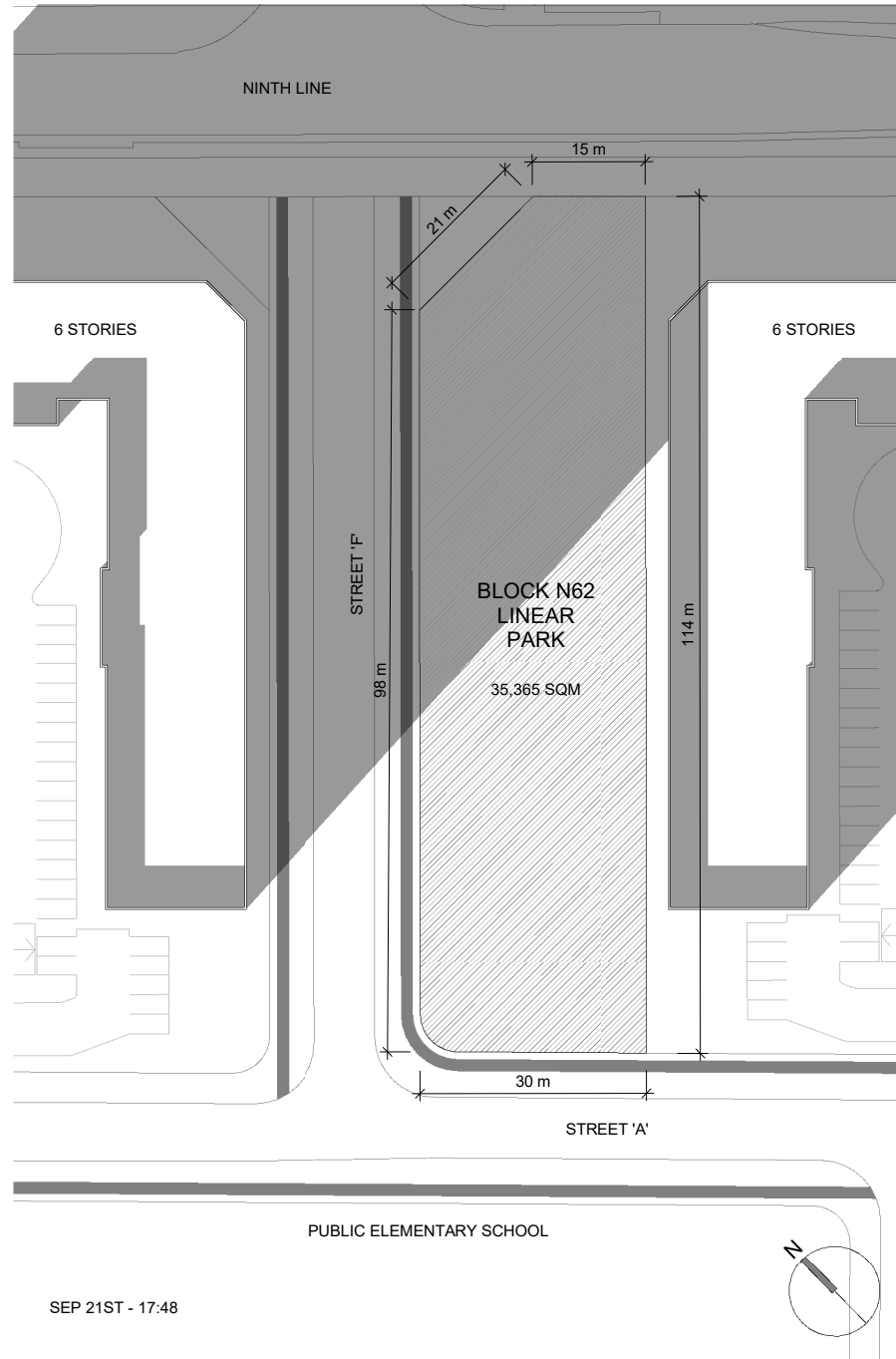
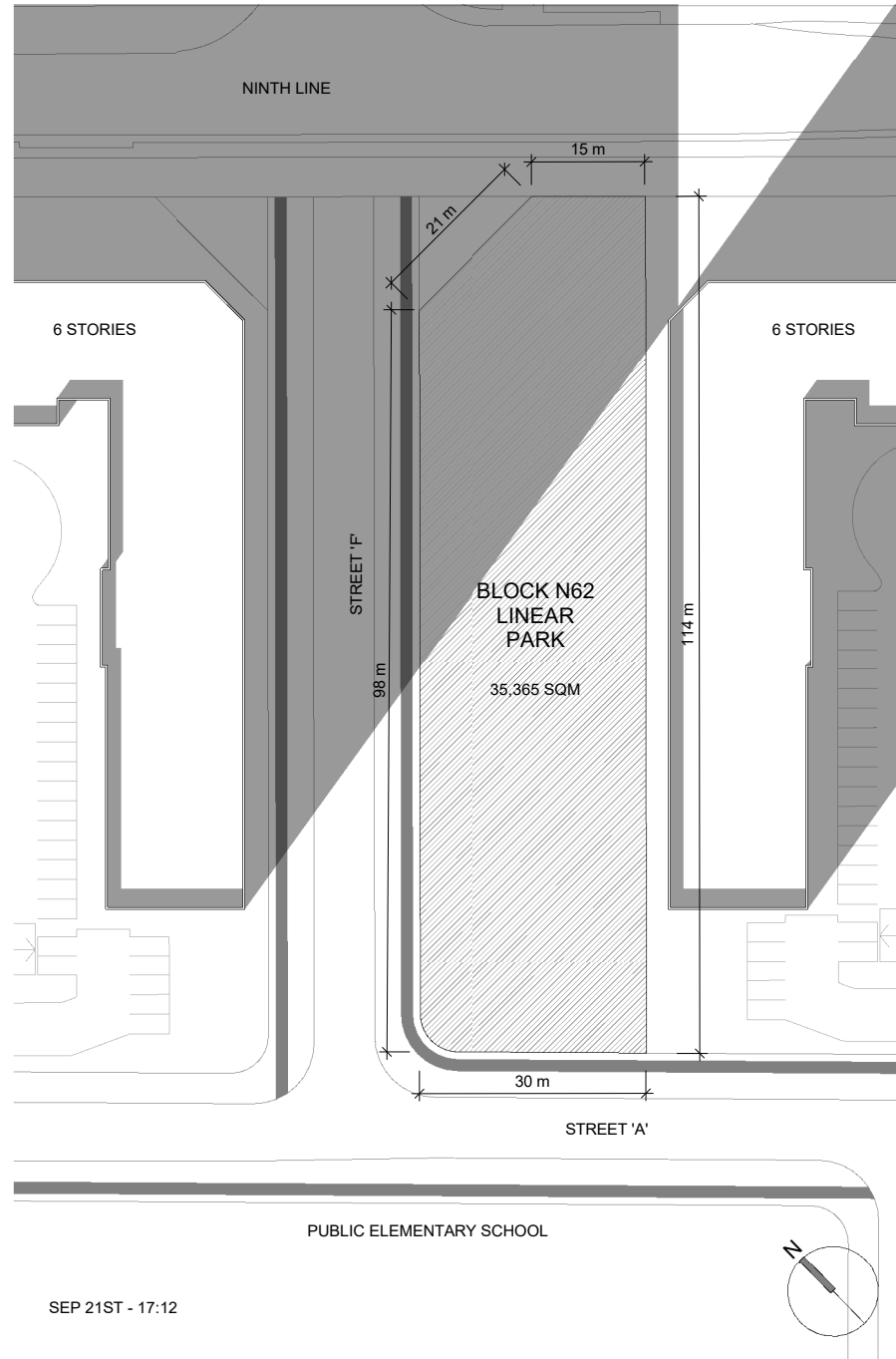
Proj. No. 16050  
Scale 1 : 1000

07/23/19  
Rev.

**P02-02**





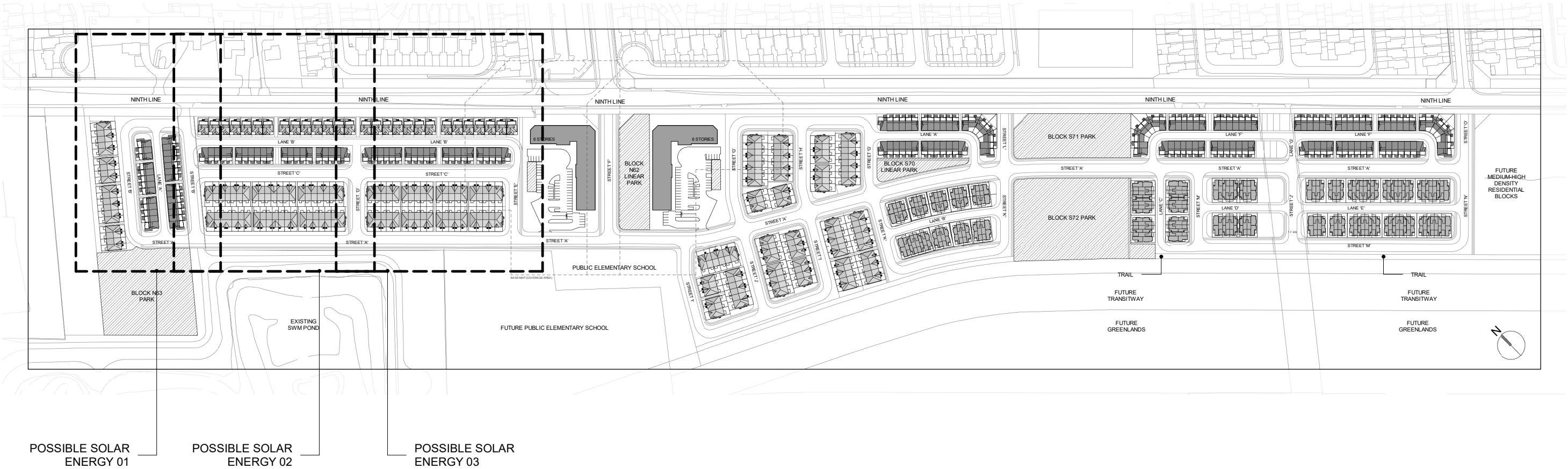


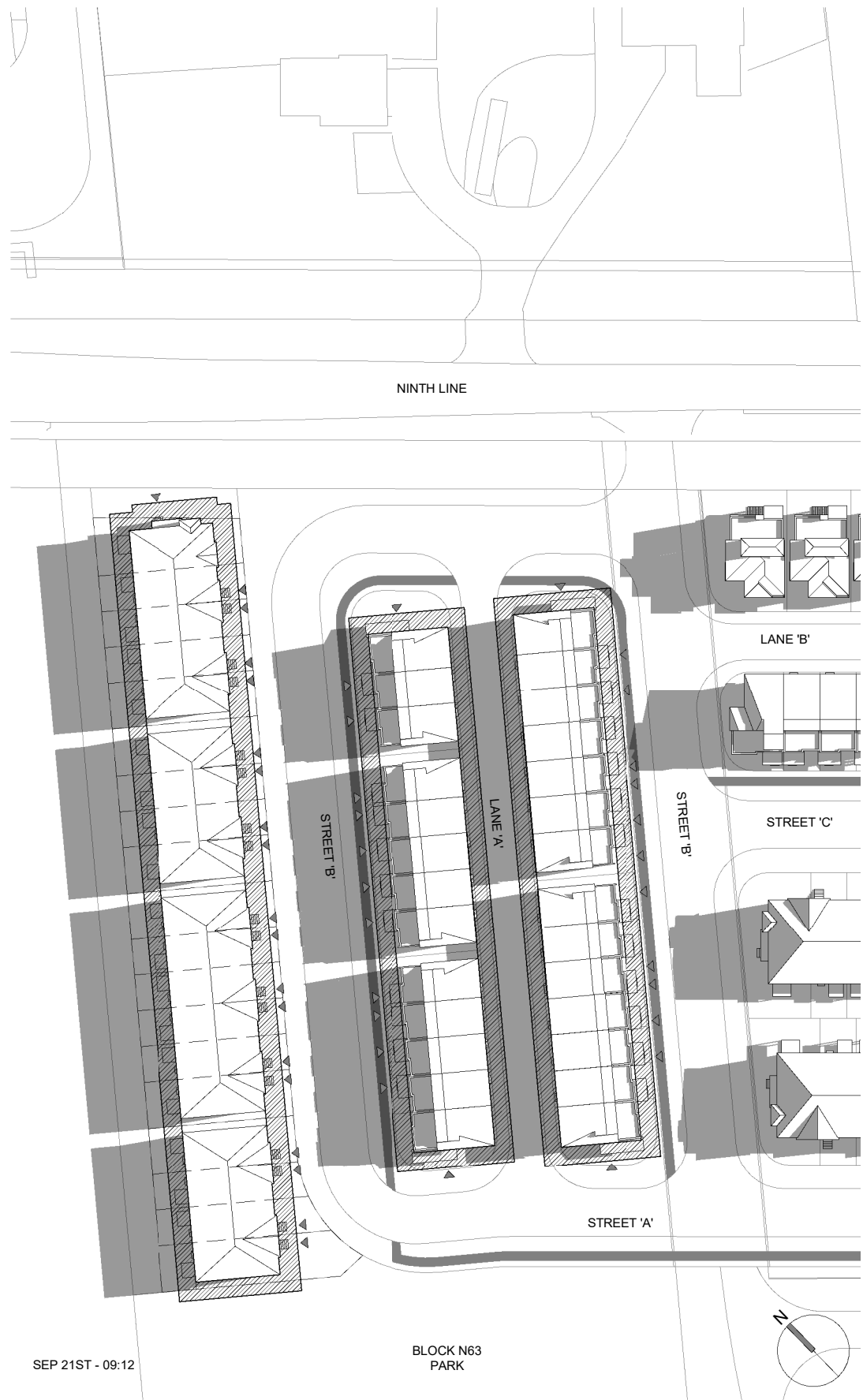
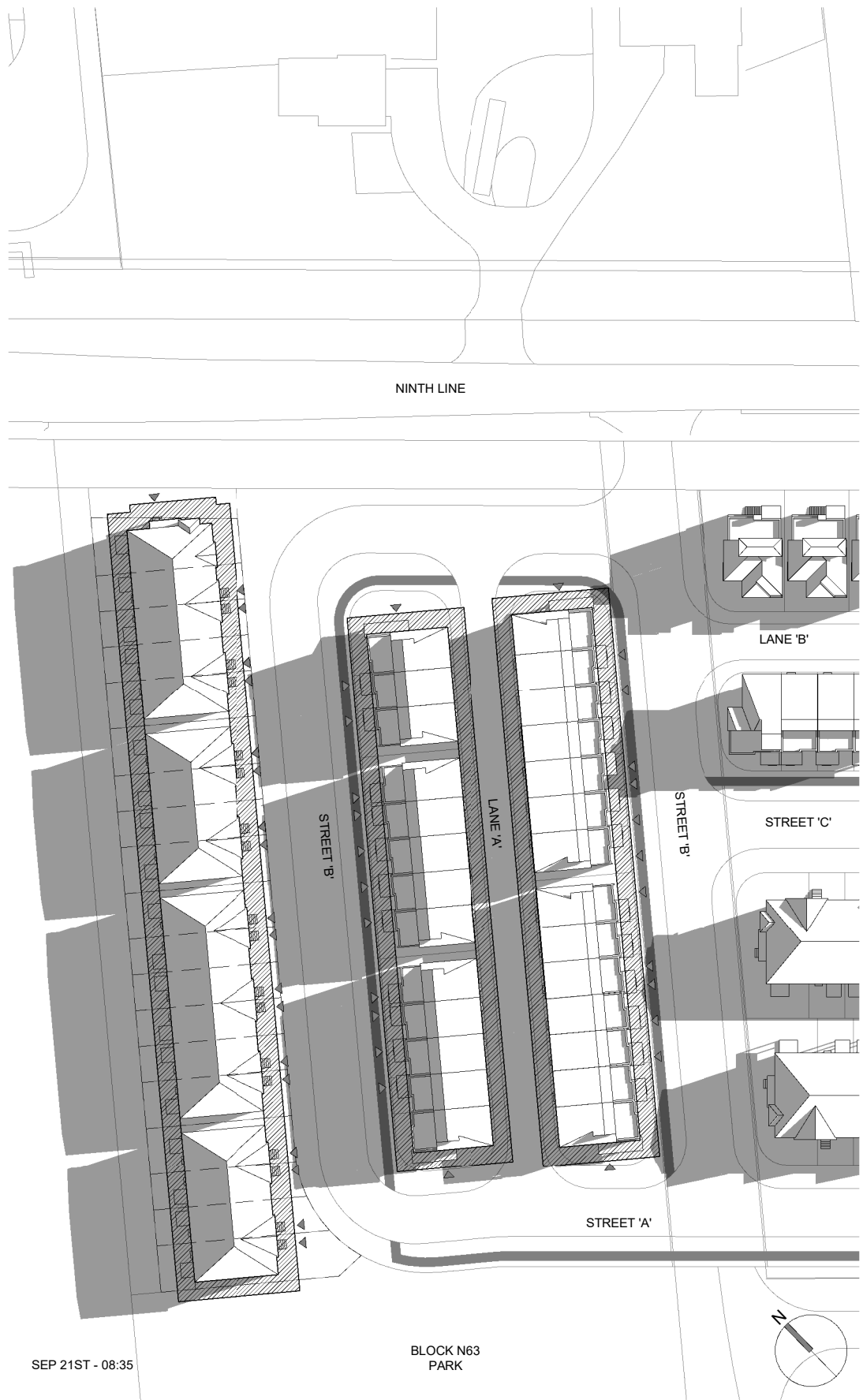
3.5 BUILDING FACES TO ALLOW FOR THE POSSIBILITY OF USING SOLAR ENERGY

Shadow impacts from proposed developments should not exceed **one hour** in duration on the **roofs, front, rear and exterior side walls** of adjacent **low rise** (one to four storeys) residential buildings including townhouses, detached and semi-detached dwellings on **September 21**, in order to allow for the possibility of harvesting solar energy.

The line of impact assessment shall be a line at grade, 3 m from the front, rear and exterior side wall of the adjacent low rise residential building.

This criterion is met if there is shadow impact for no more than two consecutive hourly test times in the “No Impact Zone” i.e. the space between the front, rear and exterior side walls of the adjacent low rise residential buildings and the respective lines of impact assessment.





## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

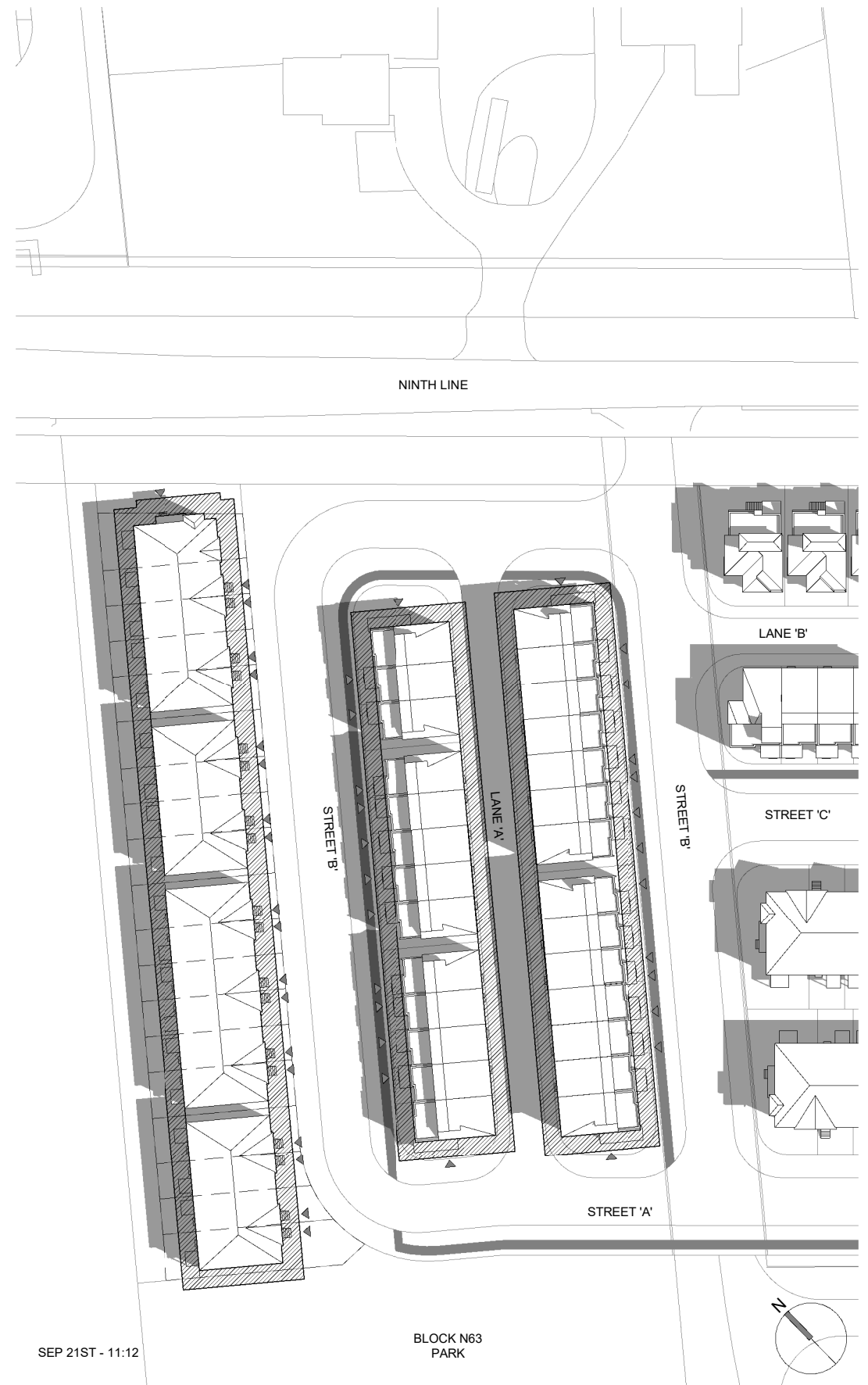
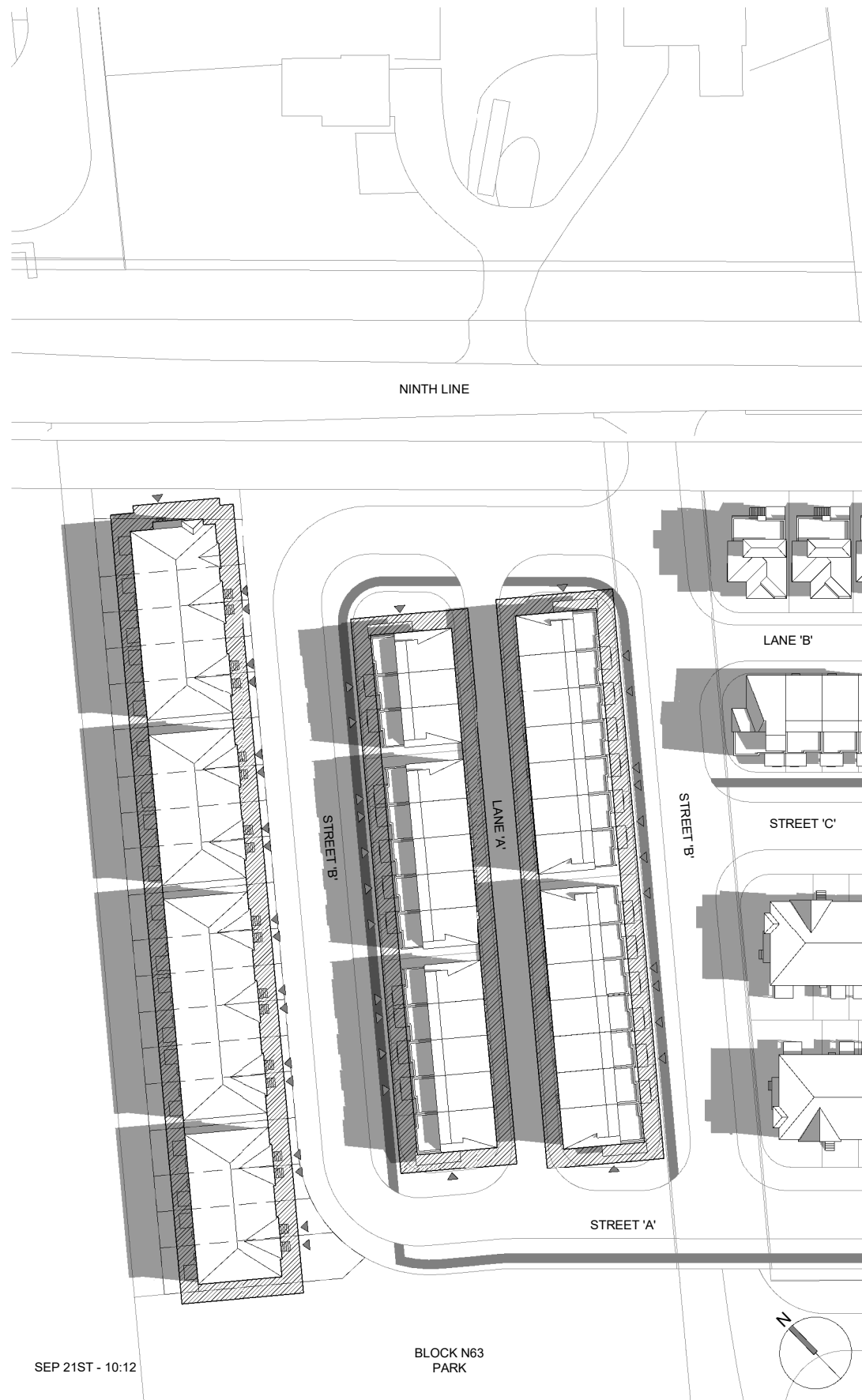
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1:1000

07/23/19  
Rev.

**SE01-01**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

DERRY-BRITANIA  
DEVELOPMENTS LTD.

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1:1000

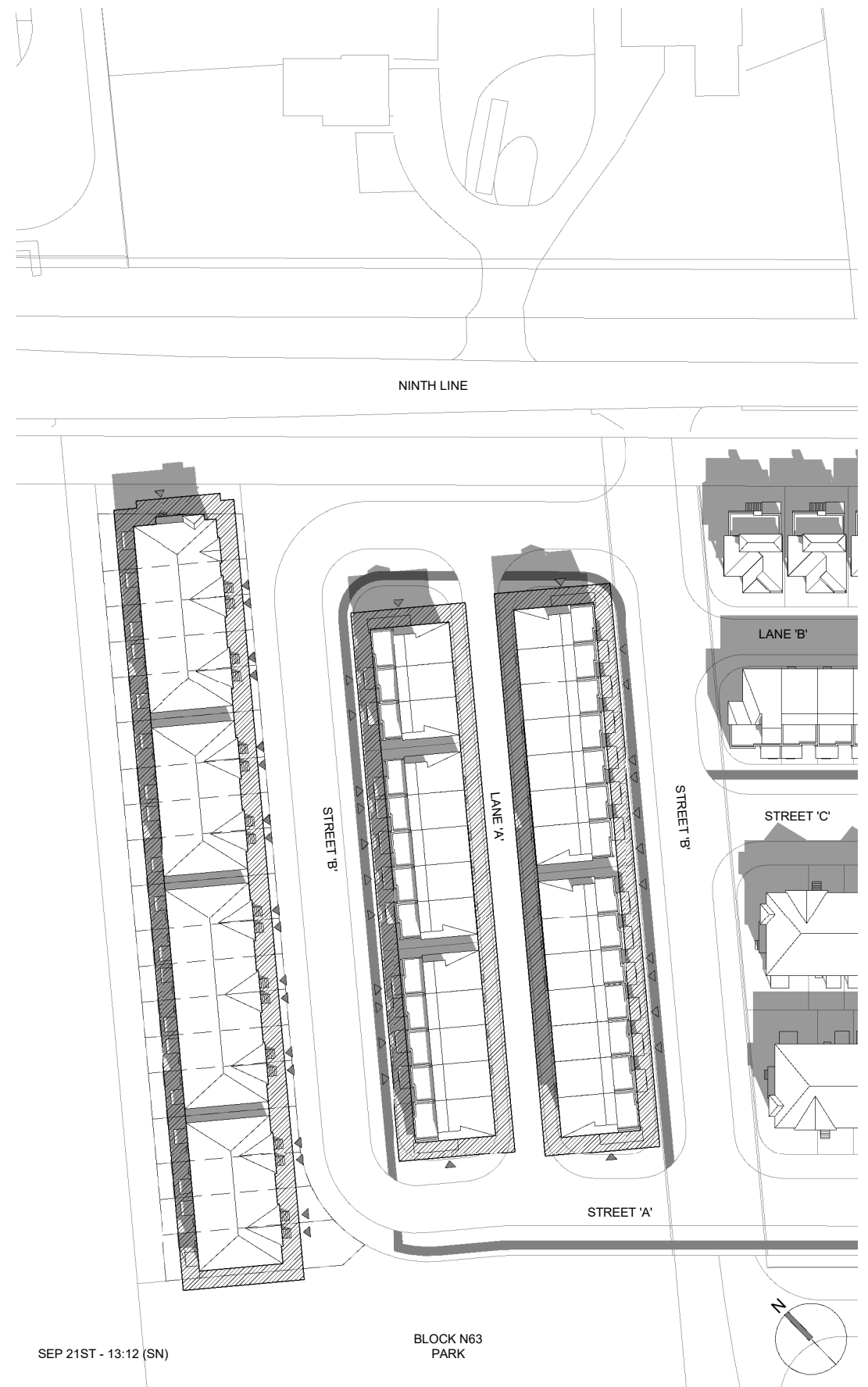
07/23/19  
Rev.

**SE01-02**



SEP 21ST - 12:12

BLOCK N63  
PARK



SEP 21ST - 13:12 (SN)

BLOCK N63  
PARK

## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

DERRY-BRITTANIA  
DEVELOPMENTS LTD.

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1:1000

07/23/19  
Rev.

**SE01-03**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

DERRY-BRITTANIA  
DEVELOPMENTS LTD.

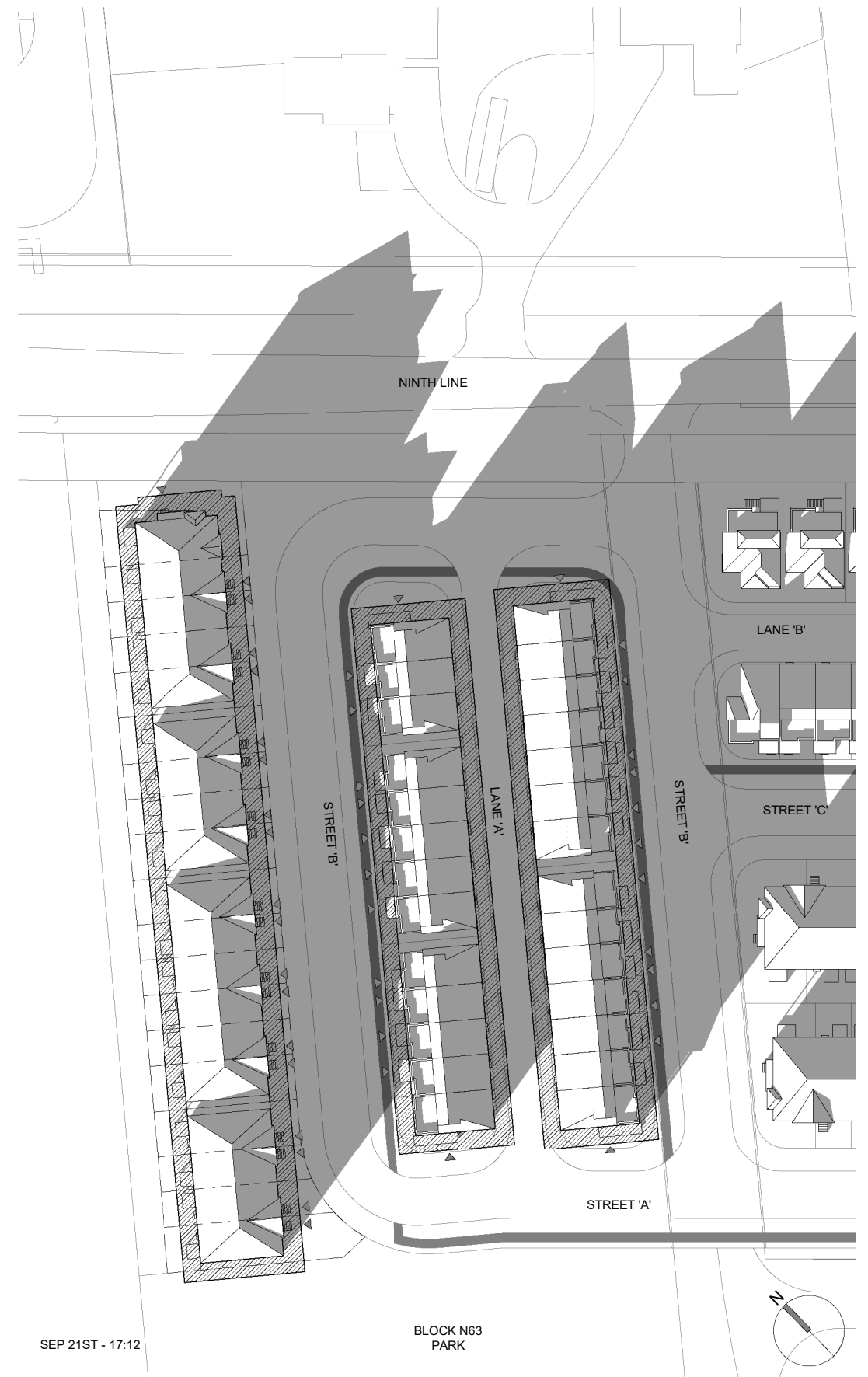
SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1:1000

07/23/19  
Rev.

**SE01-04**





## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

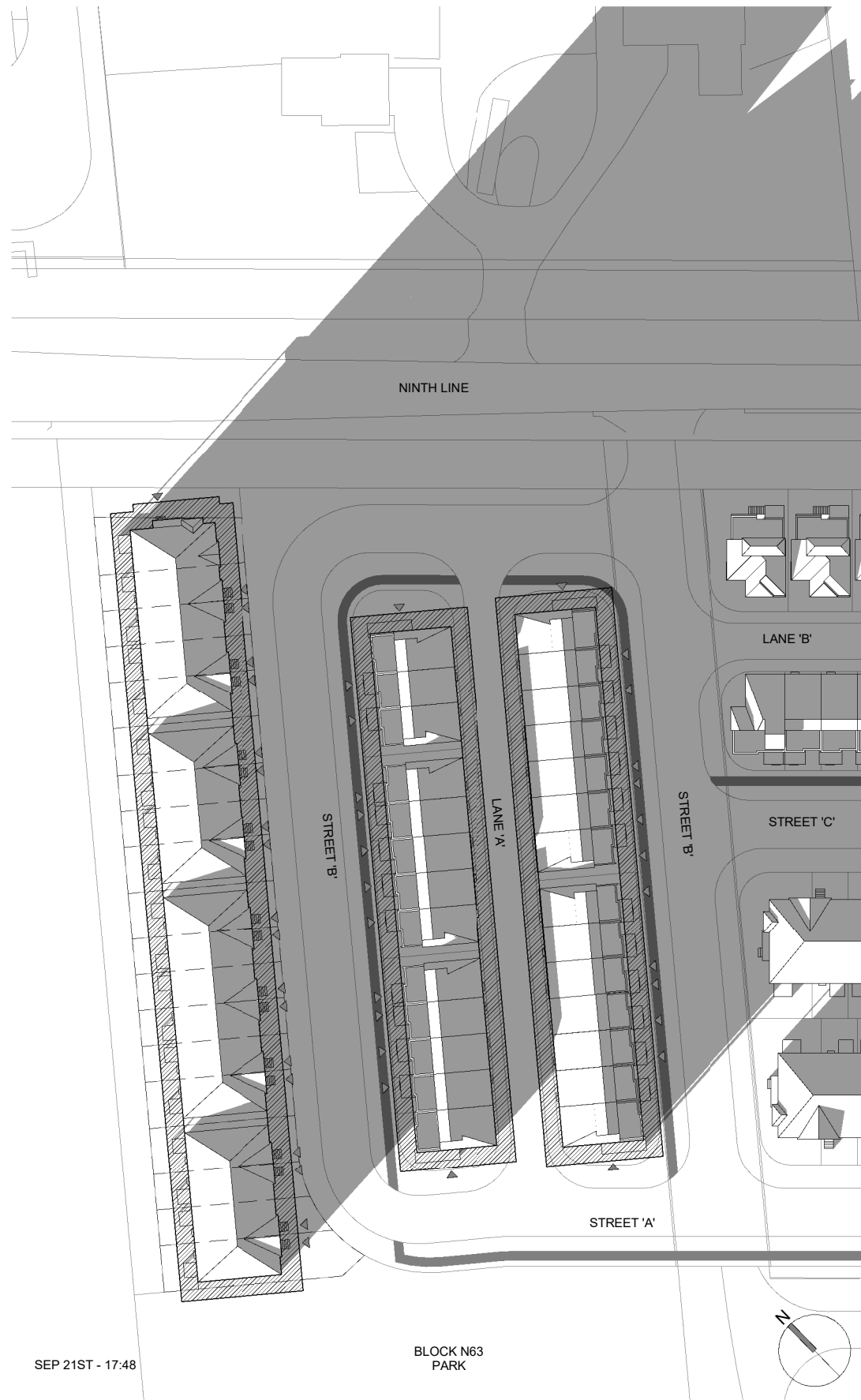
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1:1000

07/23/19  
Rev.

**SE01-05**



SEP 21ST - 17:48

BLOCK N63  
PARK

## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

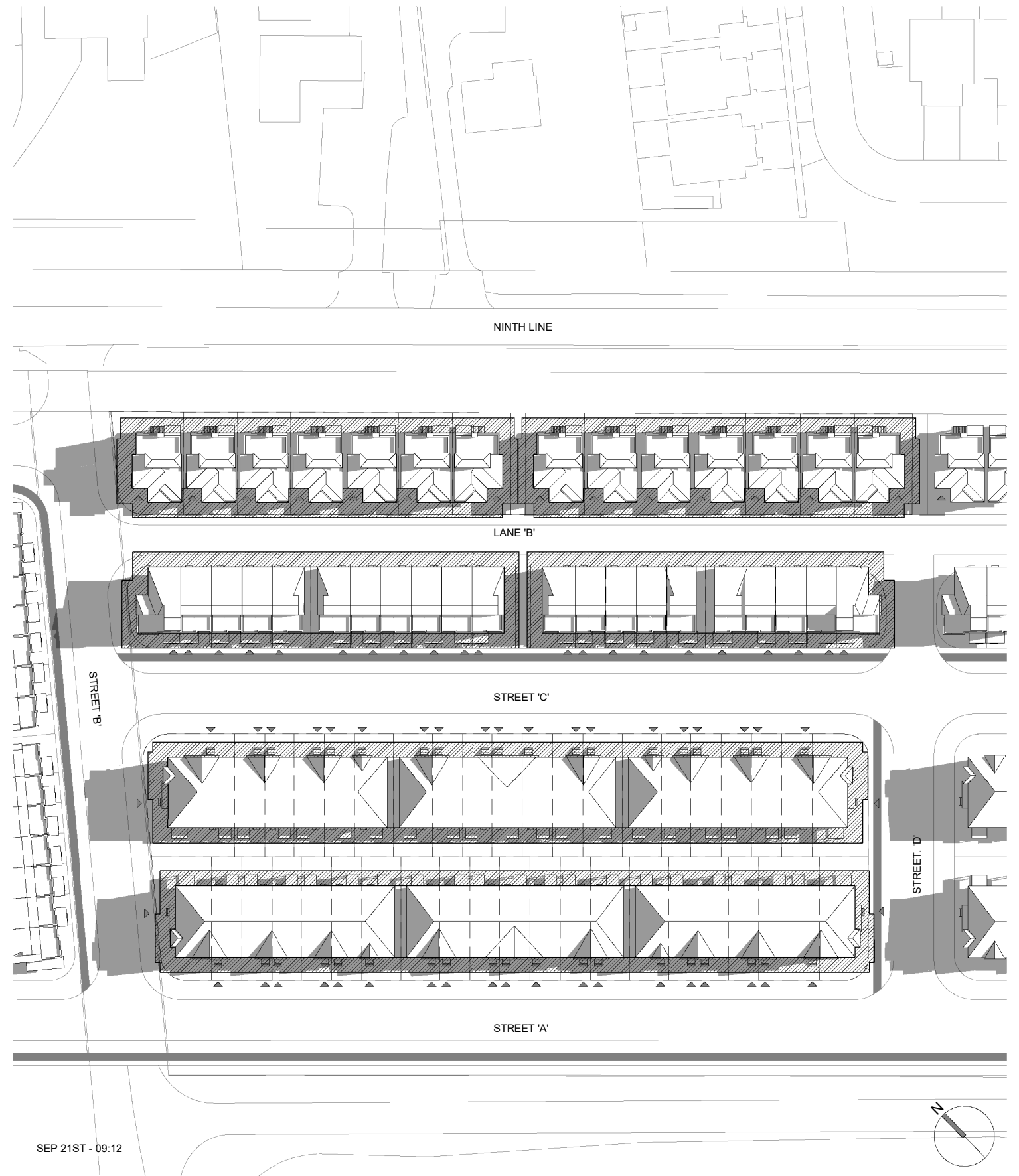
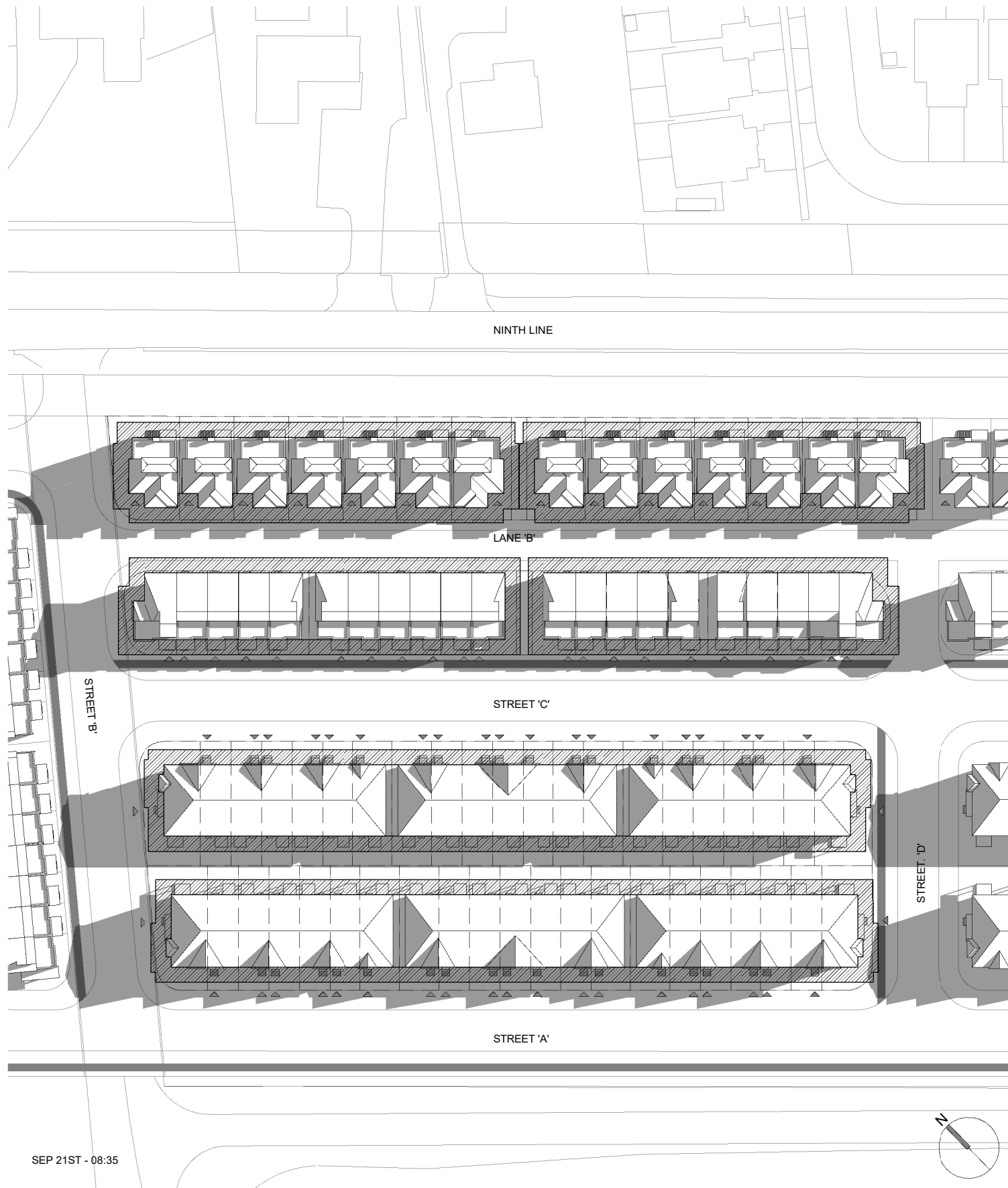
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

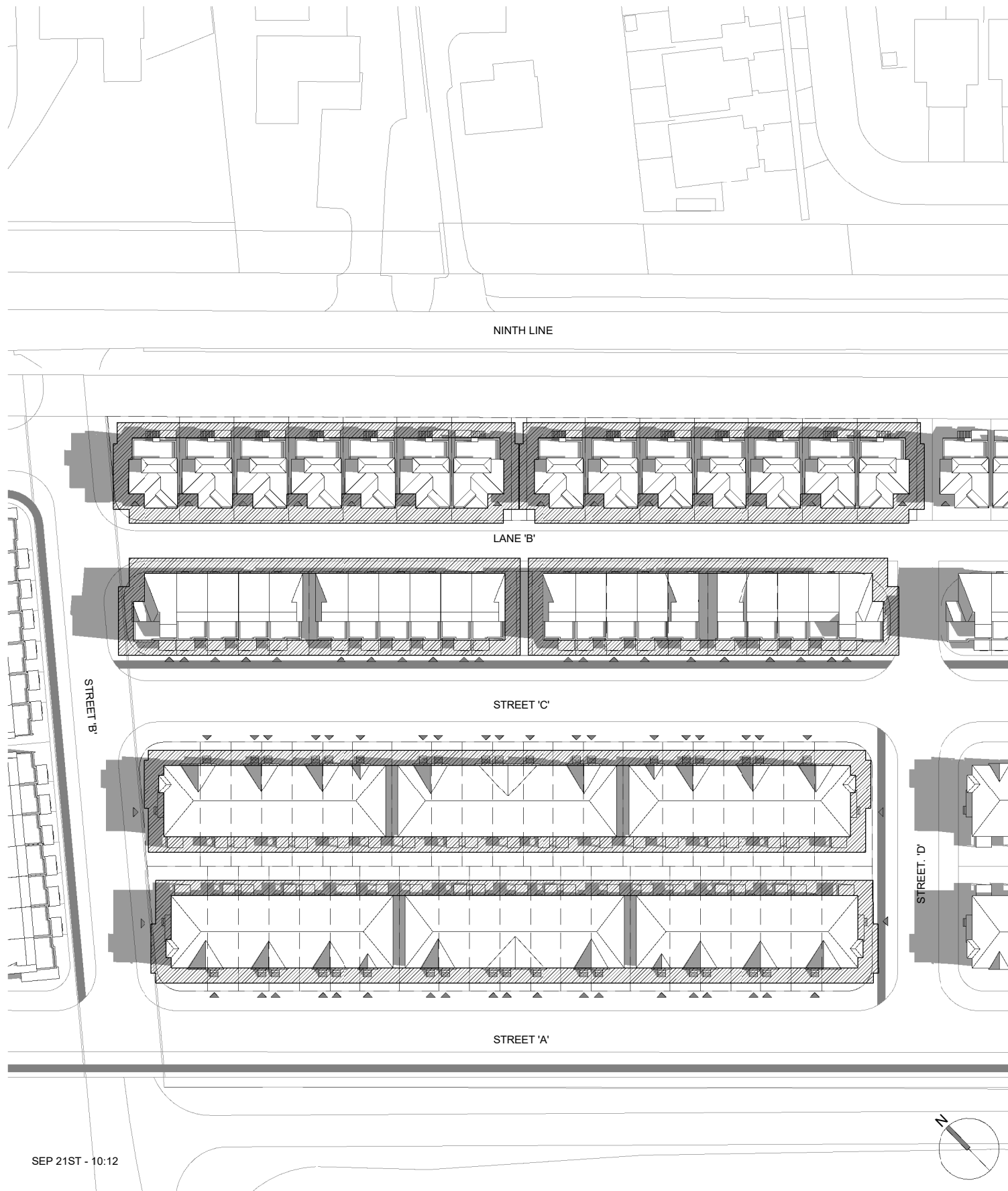
SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1:1000

07/23/19  
Rev.

**SE01-06**





## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1:1000

07/23/19  
Rev.

**SE02-02**



SEP 21ST - 12:12



SEP 21ST - 13:12 (SN)

## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1:1000

07/23/19  
Rev.

**SE02-03**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

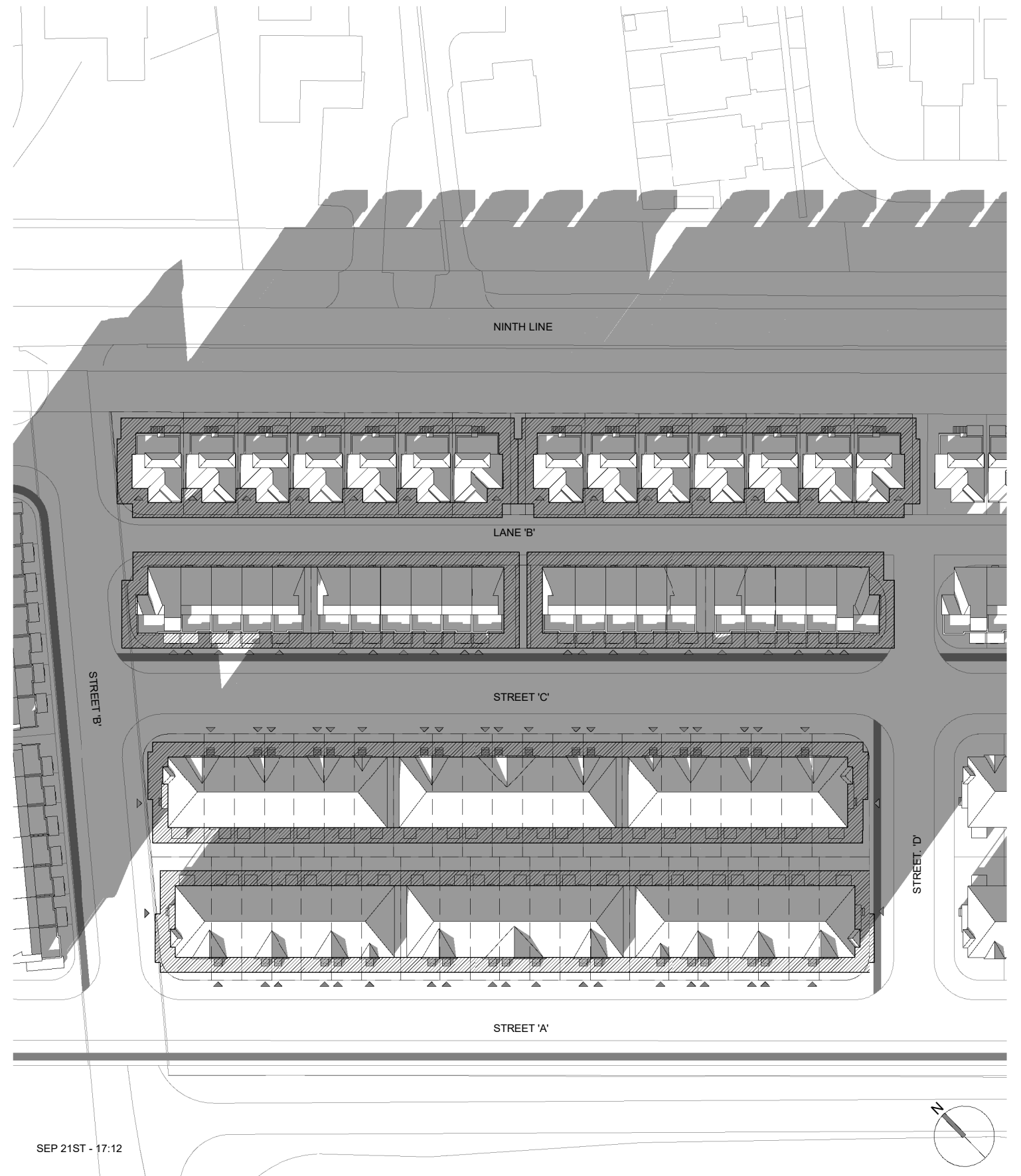
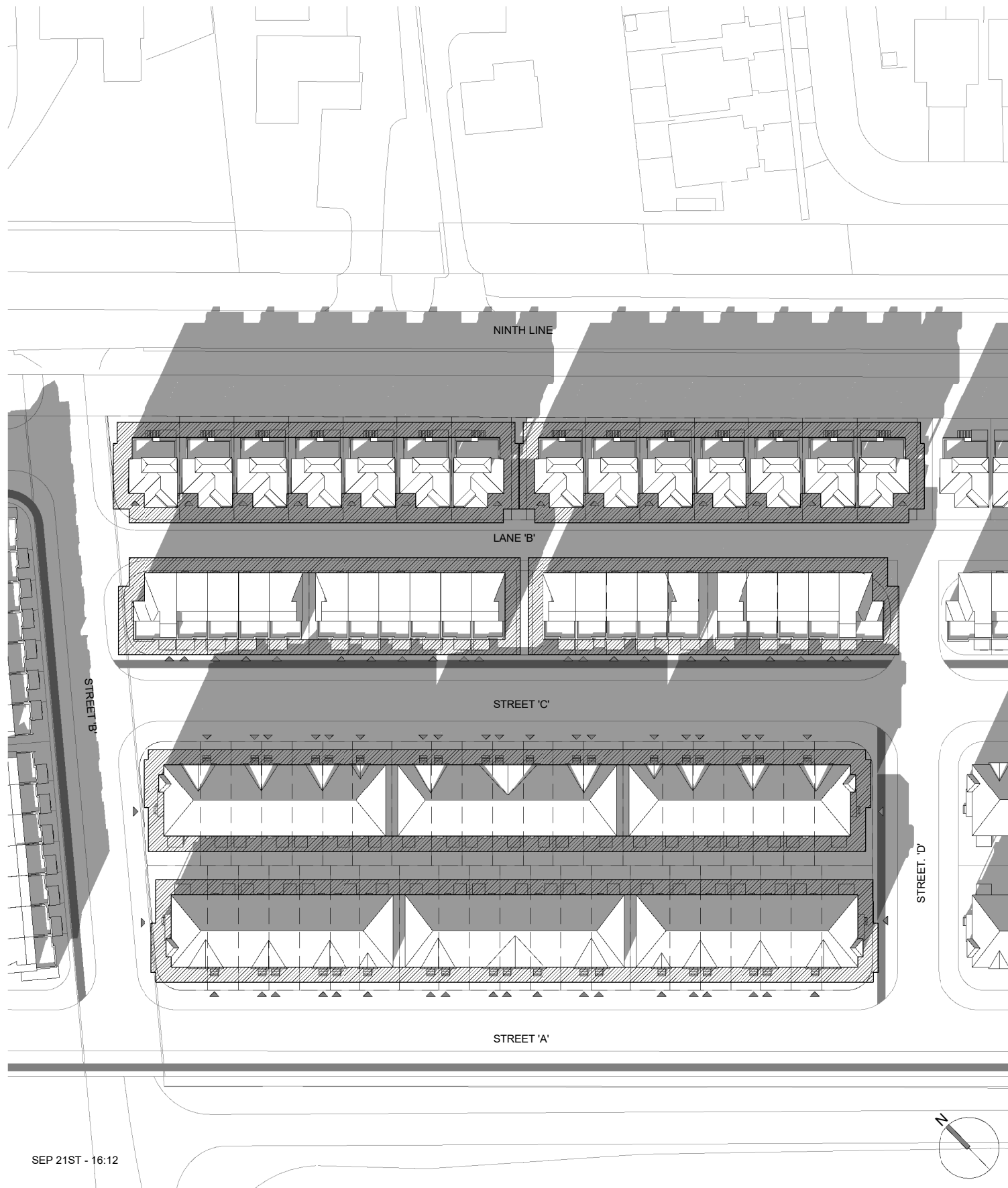
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1:1000

07/23/19  
Rev.

**SE02-04**



## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

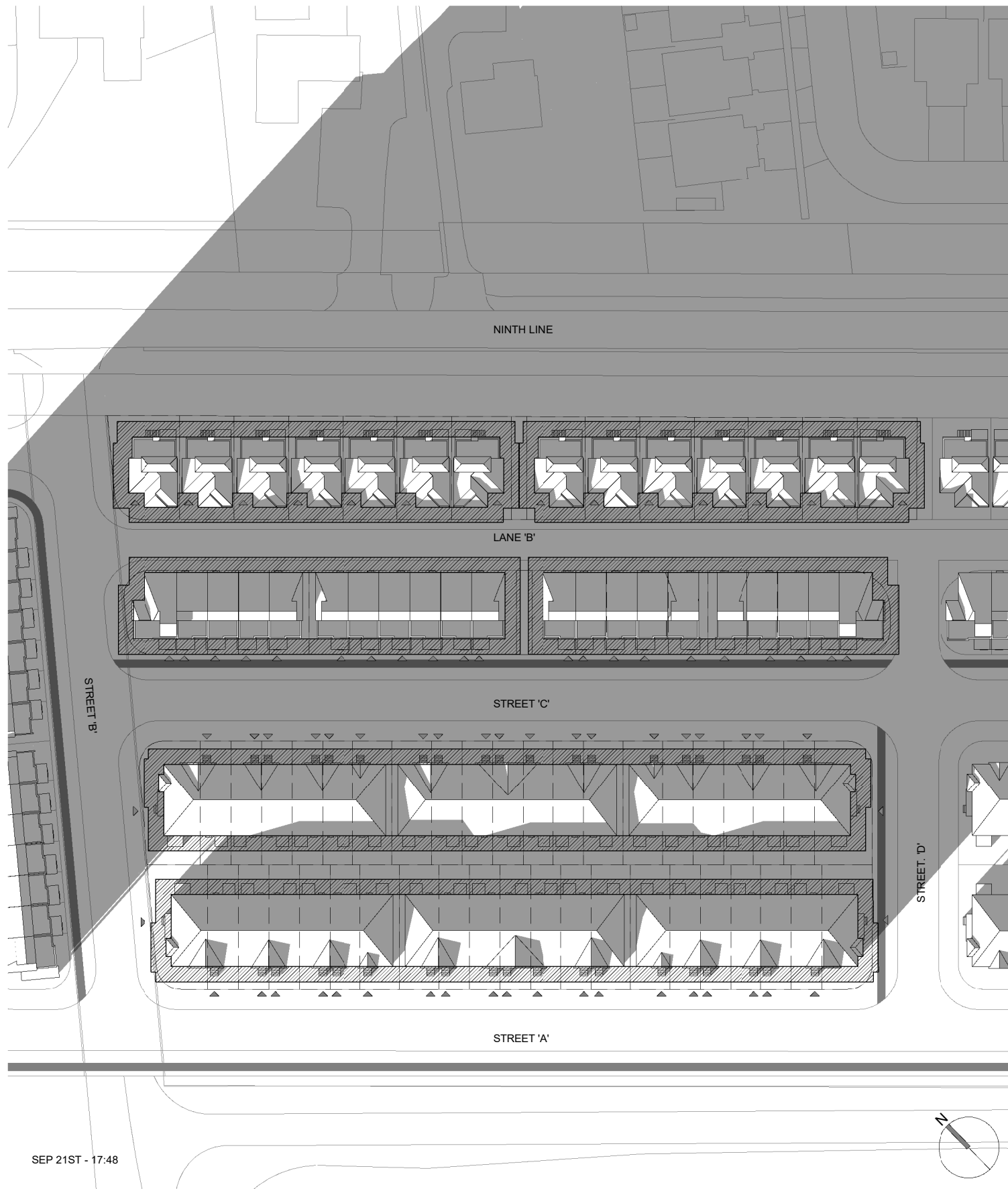
SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1:1000

07/23/19  
Rev.

**SE02-05**





## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

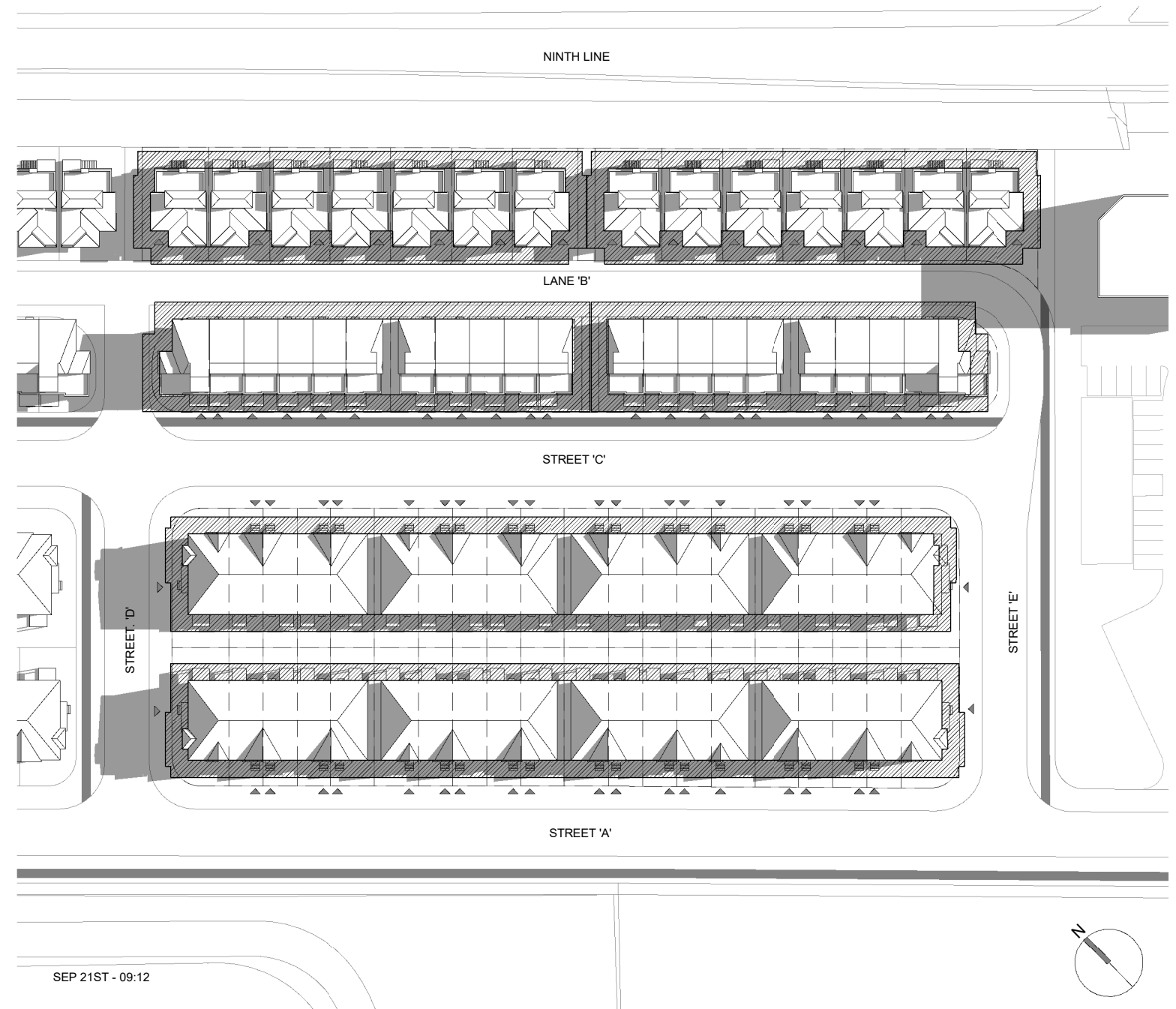
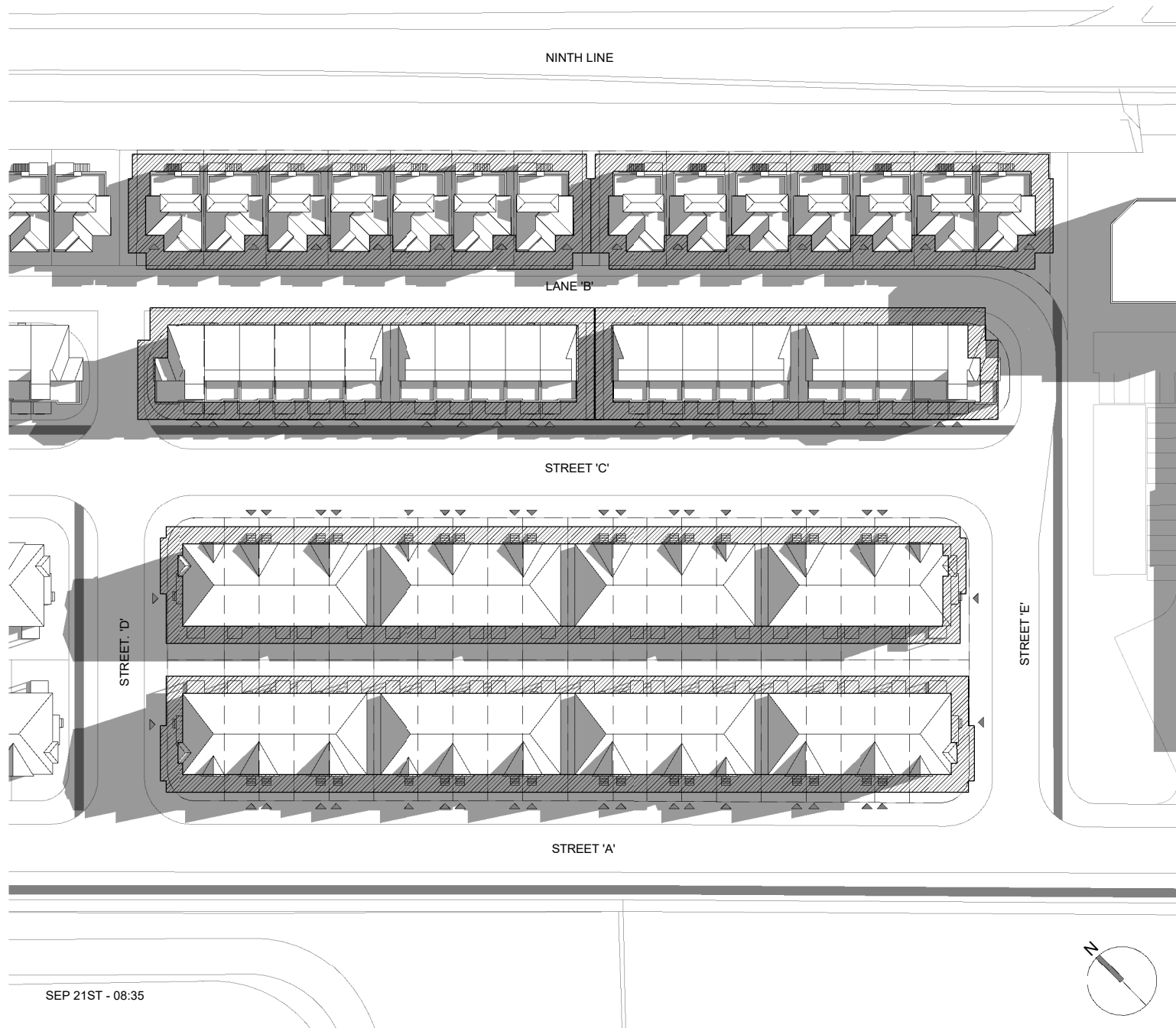
**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

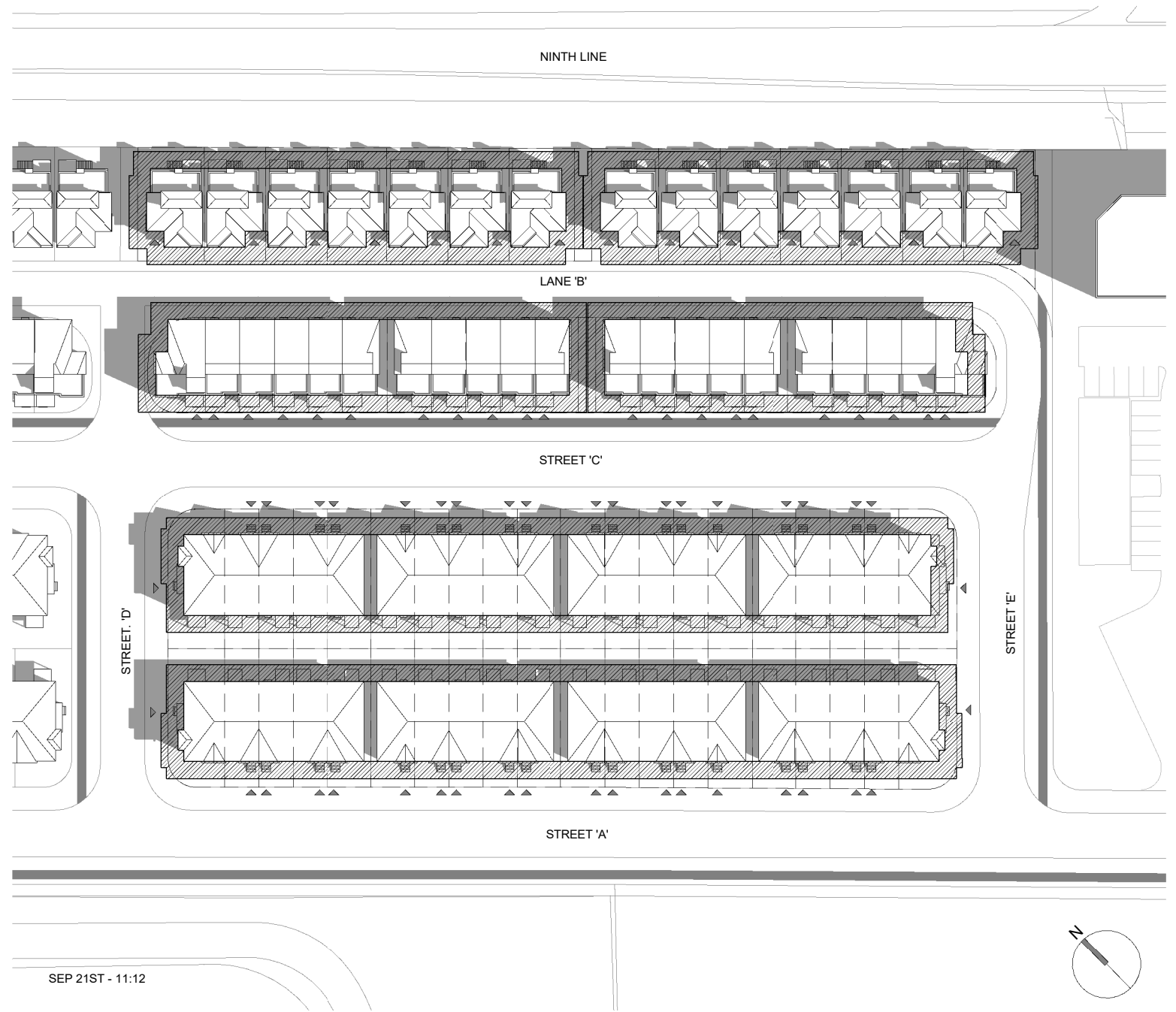
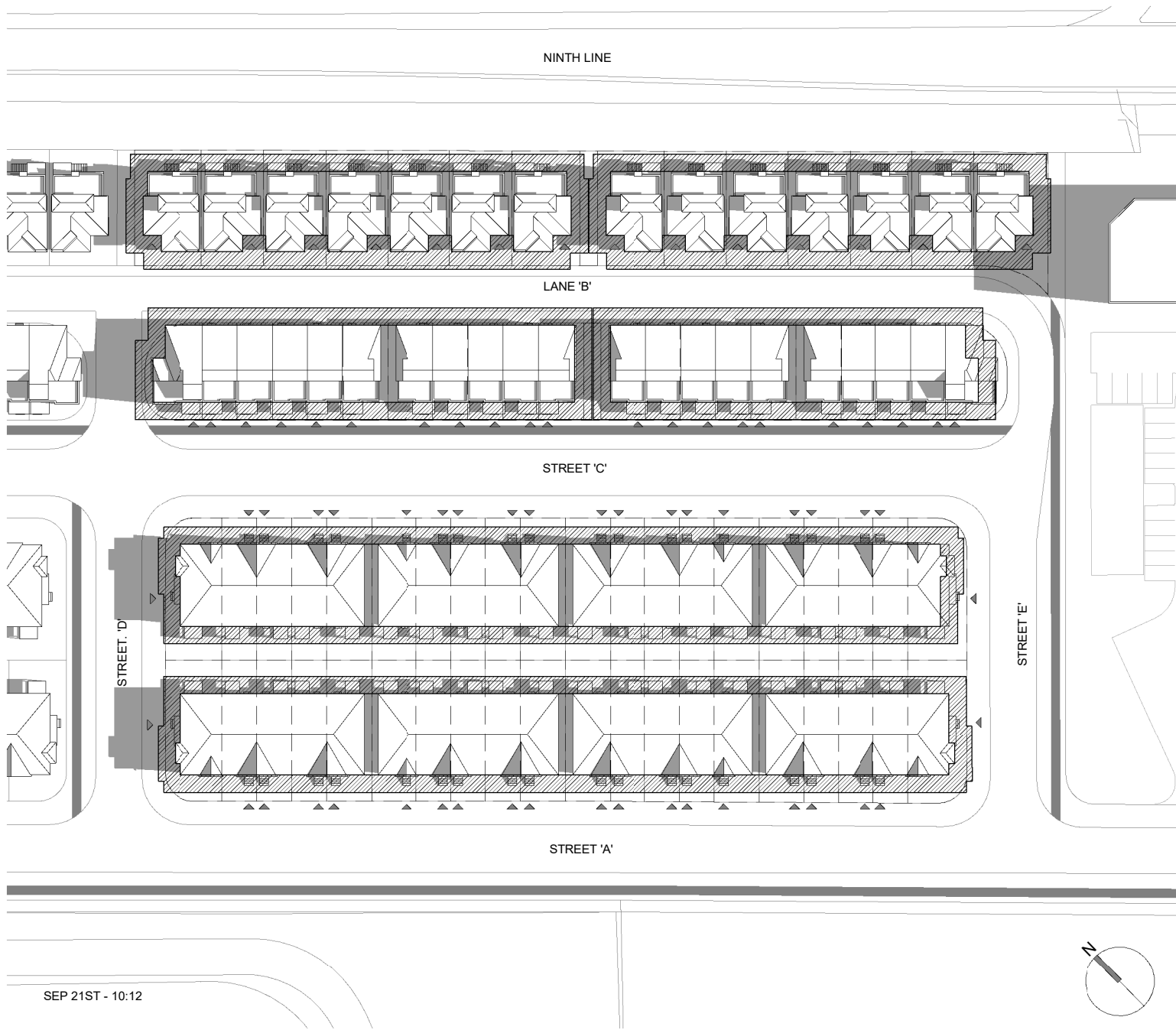
SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

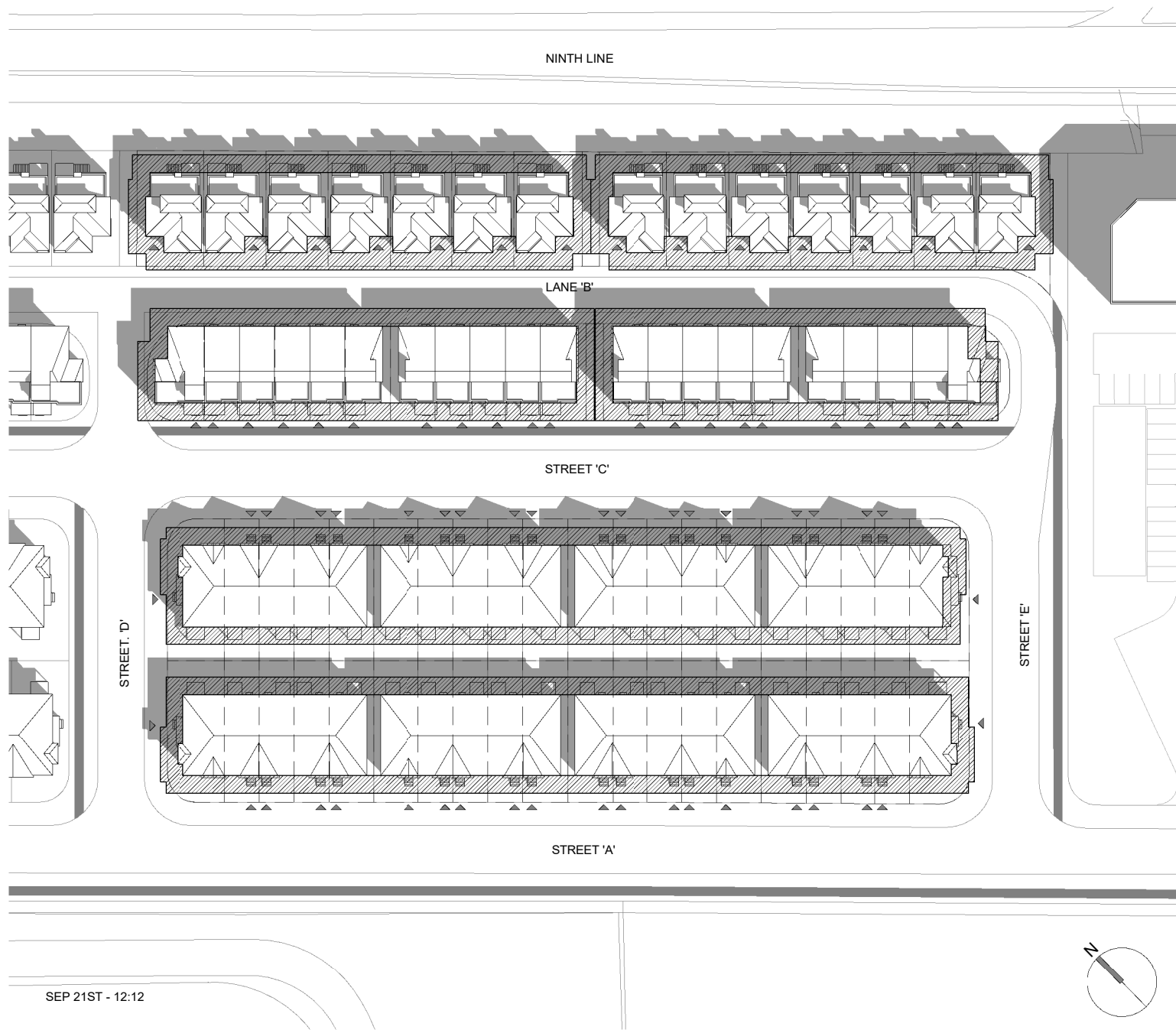
Proj. No. 16050  
Scale 1:1000

07/23/19  
Rev.

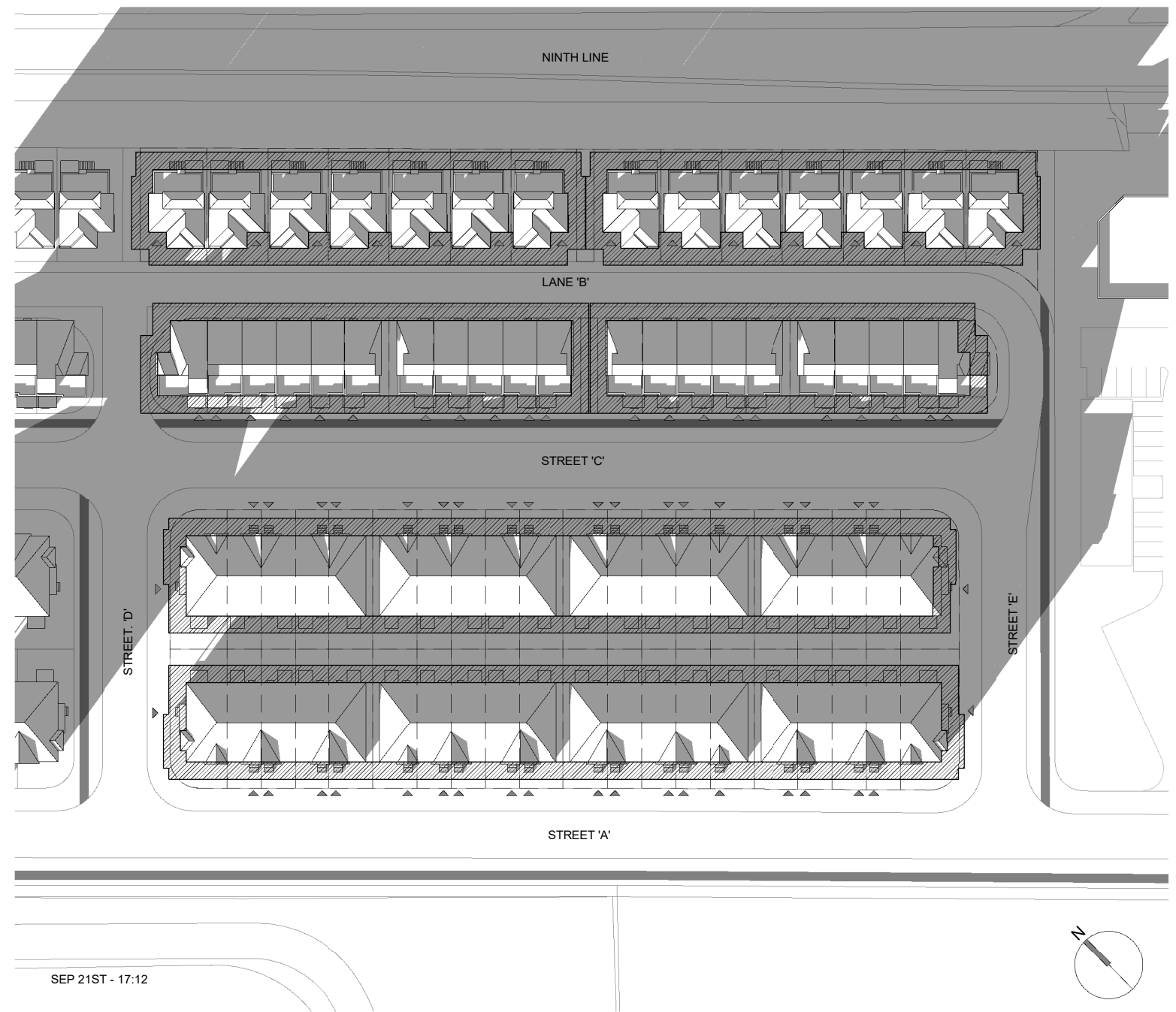
**SE02-06**

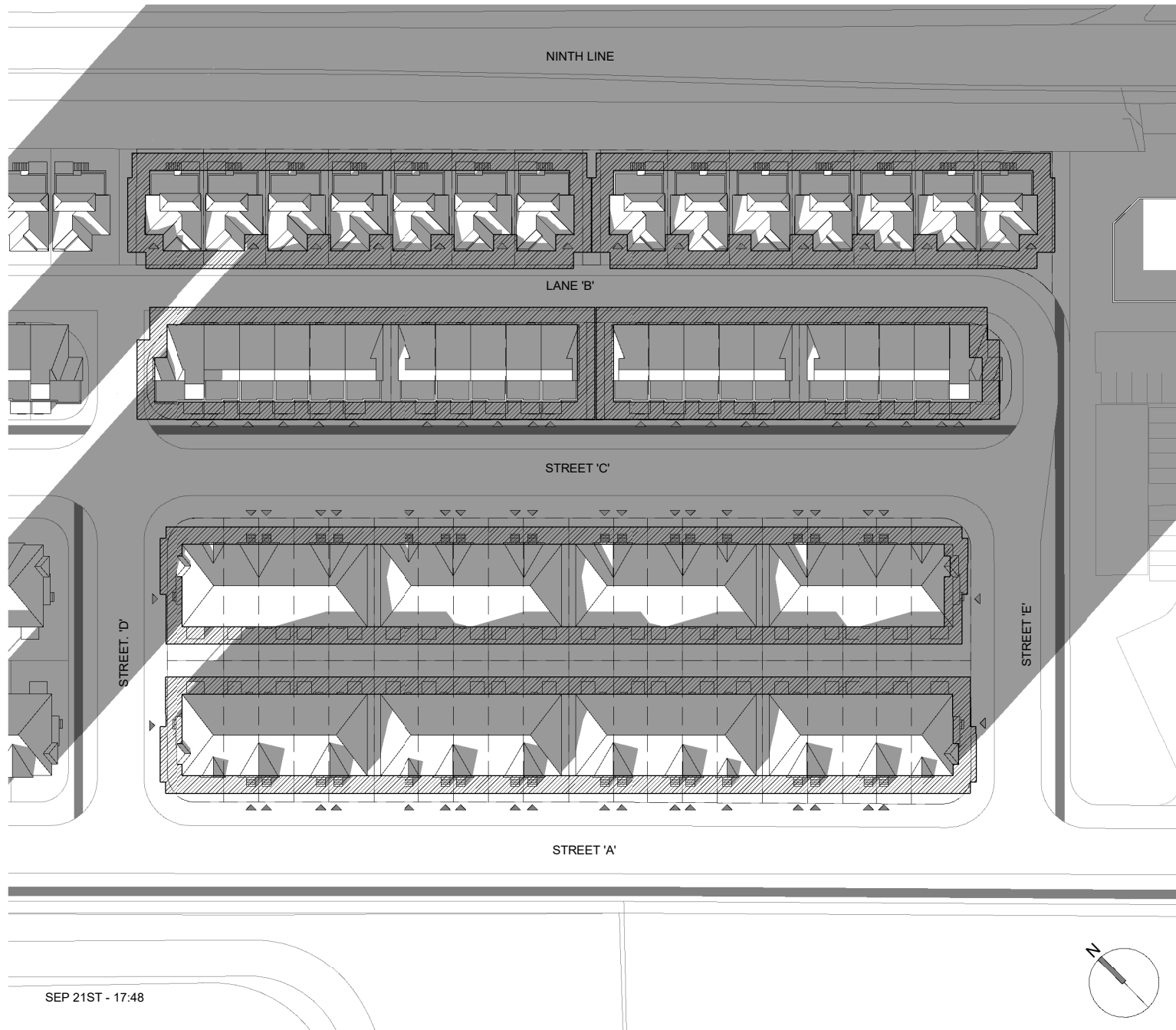












## SHADOW ANALYSIS

West Side of Ninth Line, South of Derry Road West, and North of Britannia Road West, Mississauga

**DERRY-BRITTANIA  
DEVELOPMENTS LTD.**

SEP 21ST  
0m 8m 16m 24m 32m 40m  
1:1000

Proj. No. 16050  
Scale 1:1000

07/23/19  
Rev.

**SE03-06**