

SUN SHADOW STUDY

Wateridge Lifestyles - Phase 1

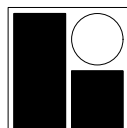
Proposed Retirement Home
200 Codd's Road
City of Ottawa

Prepared for:
Wateridge Lifestyles

Prepared by:
Ralph Bouwmeester, P. Eng.

RBA File: S25024

JANUARY 16, 2026



R. BOUWMEESTER & ASSOCIATES

Sun & Shadow Position Specialists

165 Browning Trail, Barrie ON Tel/Fax (705) 726-3392

Web: www.sunposition.com Email: rba@sunposition.com

1. This summary report should be read in conjunction with shadow study Drawings RH-1 and SS-1 to SS-9 all dated January 16, 2026.
2. Site latitude and longitude used for this study are based on the latitude and longitude of the subject site as follows:

Latitude: 45° 27' 16" N (45.4544° N)
Longitude: 75° 38' 01" W (75.6336° W)
3. Time Zone: Eastern
Daylight Time: UT - 4 hours (applies on Jun 21 and Sep 21)
Standard Time: UT - 5 hours (applies on Dec 21)
4. Site Orientation: The bearing of the site's south boundary (North Limit of Tawadina Road) is shown as N 90°00'00" E (MTM grid) on an M-Plan of Subdivision dated August 13, 2024, by Annis, O'Sullivan, Vollebakk Ltd. This survey is referenced to the MTM Zone 9 NAD 83 coordinate system. Based on the site's location, we have determined that True (Solar) North is 0.6175° west (i.e. CCW) of Grid North. See North Arrow on drawings.

Shadow lengths and directions relative to True North were calculated using proprietary software.
5. The base plan (air photo) used in this analysis was obtained from the City of Ottawa's geoOttawa mapping portal. The site plan and 3D massing model of the proposal were provided by T Bonhomme Architect (Jan 14/26).
6. The shadow analysis is based on an assumed flat ground plane.
7. The proposed building is 6 storeys and ±23m in height. Per Section 13 Definitions of Ottawa's Official Plan, this proposed development is considered mid-rise (i.e. between 5 and 9 full storeys). In addition, the subject site is designated Low-Rise to Mid-Rise Mixed-Use in the Wateridge Village Secondary Plan with a maximum permitted building height of 30m. The proposal meets both criteria.
8. Per the City's Shadow Analysis *Terms of Reference* for low and mid-rise buildings, the study includes bi-hourly test times as follows:

Jun 21 - 8:00 am to 8:00 pm EDT
Sep 21 - 8:00 am to 6:00 pm EDT, and
Dec 21 - 9:00 am to 3:00 pm EST.
9. The *Terms of Reference* include evaluation criteria for *Public Spaces, Communal amenity areas, Mainstreet Corridors and Minor Corridors, and Ground level residential private outdoor amenity space*.

Public spaces: Plazas, Passive Open Spaces, Parks, Privately-owned public spaces and cemeteries, Capital greenspaces, green transportation / utility corridors.

Criteria: The new net shadow must not result in an average of 50 per cent of any public space being cast in shadow for 5 or more hourly interval times during the September test date only.

Communal amenity areas: School yards, public outdoor pools, daycare outdoor play areas, communal private rooftop patios and those communal areas associated with commercial and employment areas

Criteria: The new net shadow must allow for an average of 50 per cent of any communal amenity area being exposed to sun light during two consecutive hourly interval times per day between 11 am and 3 pm (both are inclusive) during all three test dates (with the exception of pools and rooftop patios which only have to meet the criteria for June and Sept).

Mainstreet Corridors and Minor Corridors: Streets with a Mainstreet Corridor or Minor Corridor land use designation as per the Official Plan.

Criteria: No new net shadow in any one spot for more than 3 consecutive hourly test times of the sidewalk on the opposite side of the street, being cast in shadow during the September test date only.

Ground level residential private outdoor amenity space: Are considered rear yards to low-rise residential use buildings. The no impact zone is the area measured from the exterior rear wall (or other appropriate exterior wall of the dwelling that abuts a private amenity area) outward 7.5 meters or to the property line, whichever is less.

Criteria: No new net shadow within the no impact zone of any residential private outdoor amenity space being cast in shadow for more than two consecutive hourly test times during the June and September test date only.

10. Review of Shadow Drawings

Shadows reach *Public Spaces* including the greenspace to the west and a *Minor Corridor* (i.e. Codd's Road along the west side of the site). No *Communal amenity areas* or *Ground level residential private outdoor amenity spaces* have been identified within the shadow reach of the proposal.

Adjacent land uses and corridor classifications were derived from the Wateridge Village Secondary Plan and Schedule B2 of the Official Plan.

Public spaces: Shadows reach the greenspace to the west on Sep 21 at 8:00 AM and minimally at 10:00 AM. This meets the criteria. They do not reach the Natural Areas to the northeast.

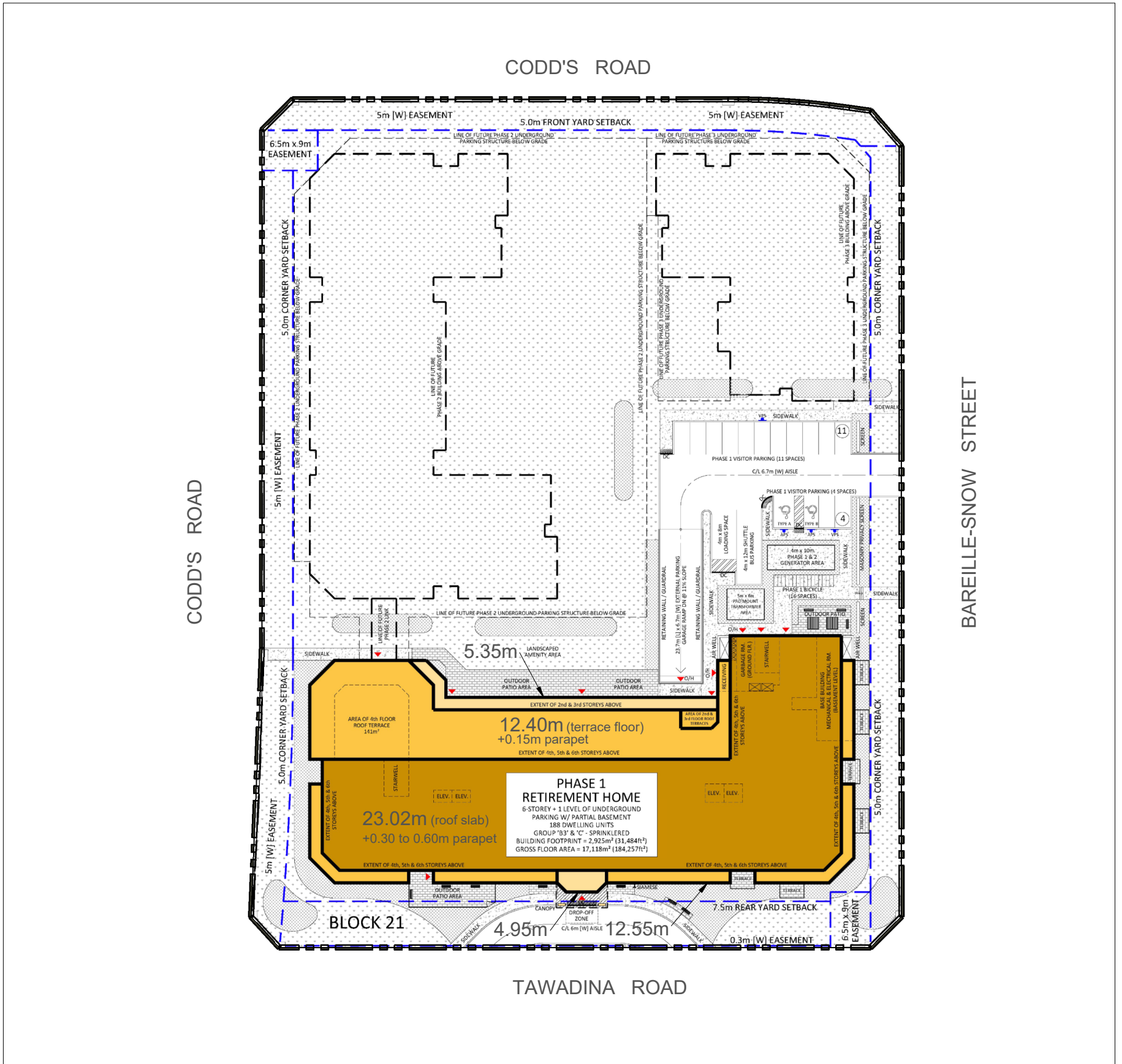
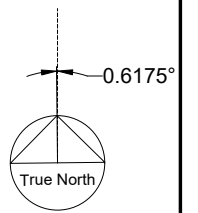
Minor Corridors: Shadows reach the future sidewalk on the west side of Codd's Road on Sep 21 at 8:00 AM and 10:00 AM. This meets the criteria.

11. Conclusion:

Since the proposed height of the building (±23m) is less than that permitted (30m), we do not expect there to be any new net shadow, hence the criteria would be met on this basis alone. Nevertheless, based on our assessment, the proposal meets the criteria as set out in the City of Ottawa's Shadow Analysis *Terms of Reference* without taking into account the permitted height.

NOTES:

1. SHADOWS INCLUDE PARAPETS, BALCONY SLABS & RAILINGS (ASSUMED SOLID), AND ROOF-TOP FEATURES, WHERE APPLICABLE.
2. PROPOSED BUILDING HEIGHTS ARE SHOWN IN METERS ABOVE GRADE.
3. PROPOSED BUILDING HEIGHTS WERE DERIVED FROM A 3D MODEL AND PLANS BY T BONHOMME ARCHITECT (JAN 14/26).
4. SHADOWS ARE SHOWN ON AN ASSUMED FLAT GROUND PLANE.
5. BASE MAP AIR PHOTO OBTAINED FROM THE CITY OF OTTAWA'S geoOTTAWA WEB PORTAL.
6. SITE BOUNDARY SURVEY DATA PROVIDED BY ANNIS O'SULLIVAN VOLLEBEKK LTD.



KEY PLAN & PROPOSED HEIGHTS

GEOGRAPHIC SITE LOCATION:

LATITUDE: 45° 27' 16" N
 LONGITUDE: 75° 38' 01" W

TIME ZONE:

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

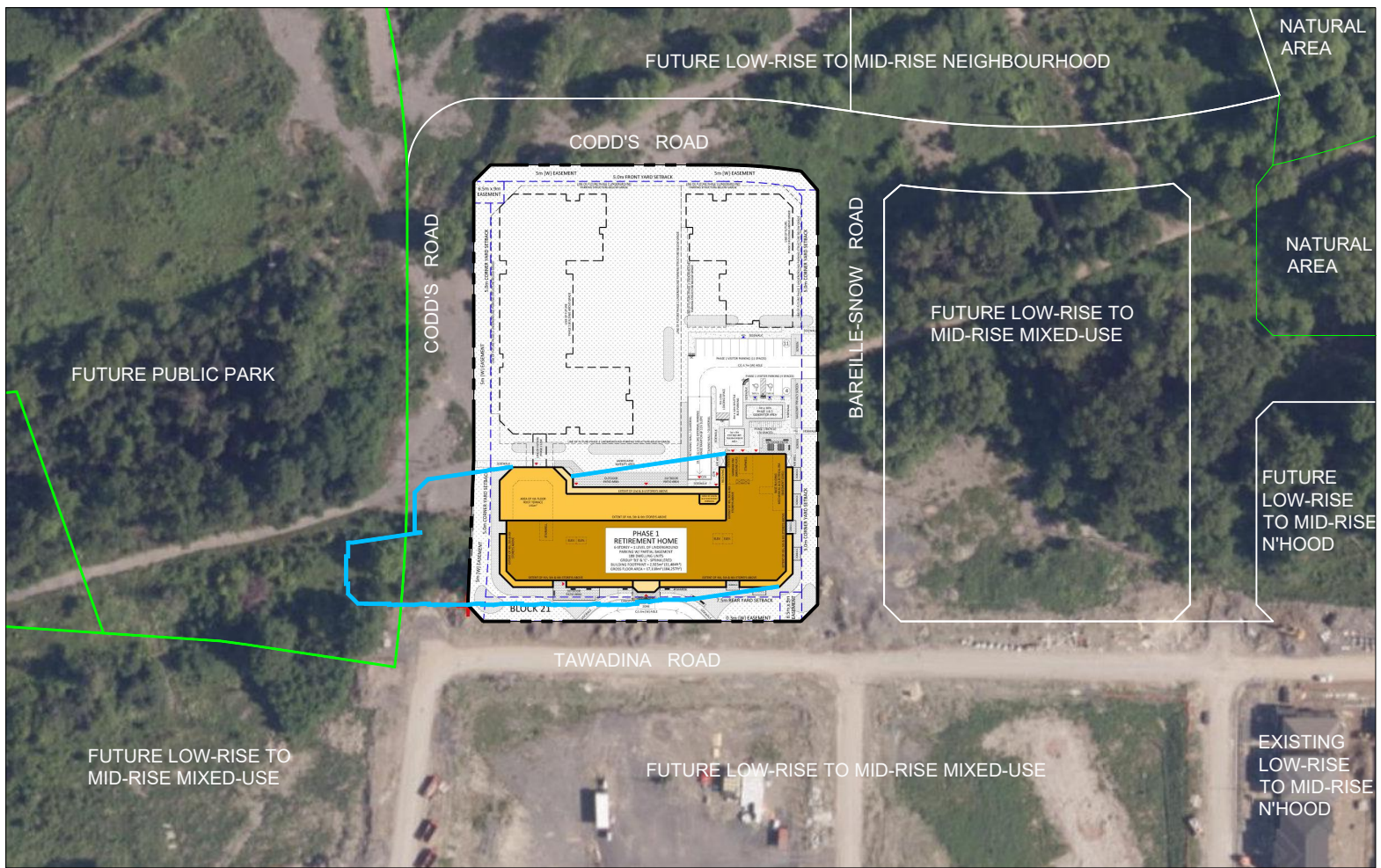


**KEY PLAN & HEIGHTS
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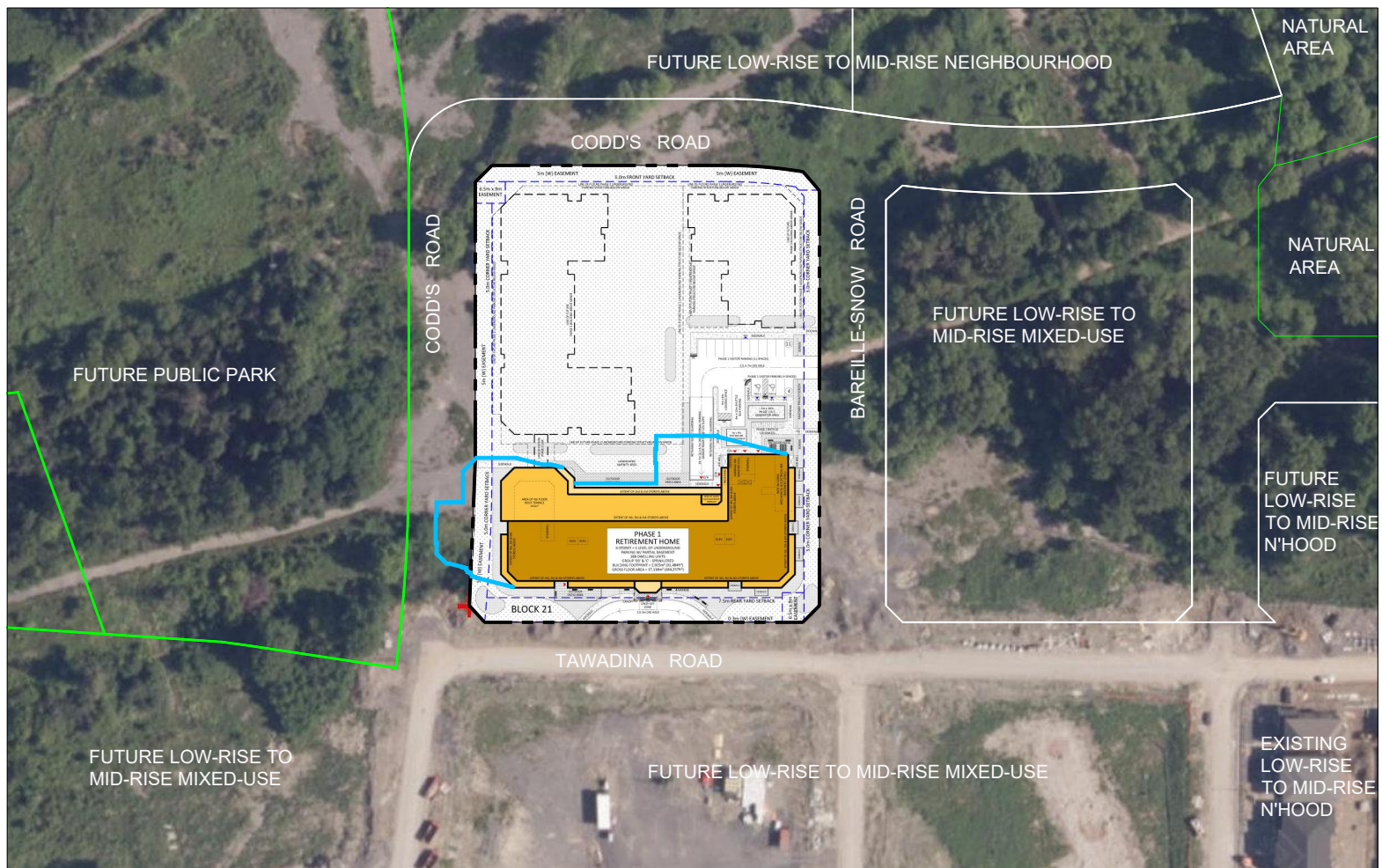
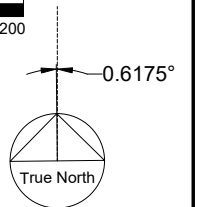
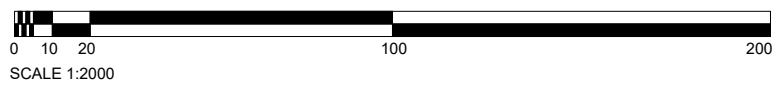
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| Checked by: | RB | Date: | JAN 16/26 | |

RH-1



8:00 AM^{EDT}

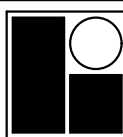
— PROPOSED GROUND LEVEL SHADOW REACH



10:00 AM^{EDT}

JUN 21

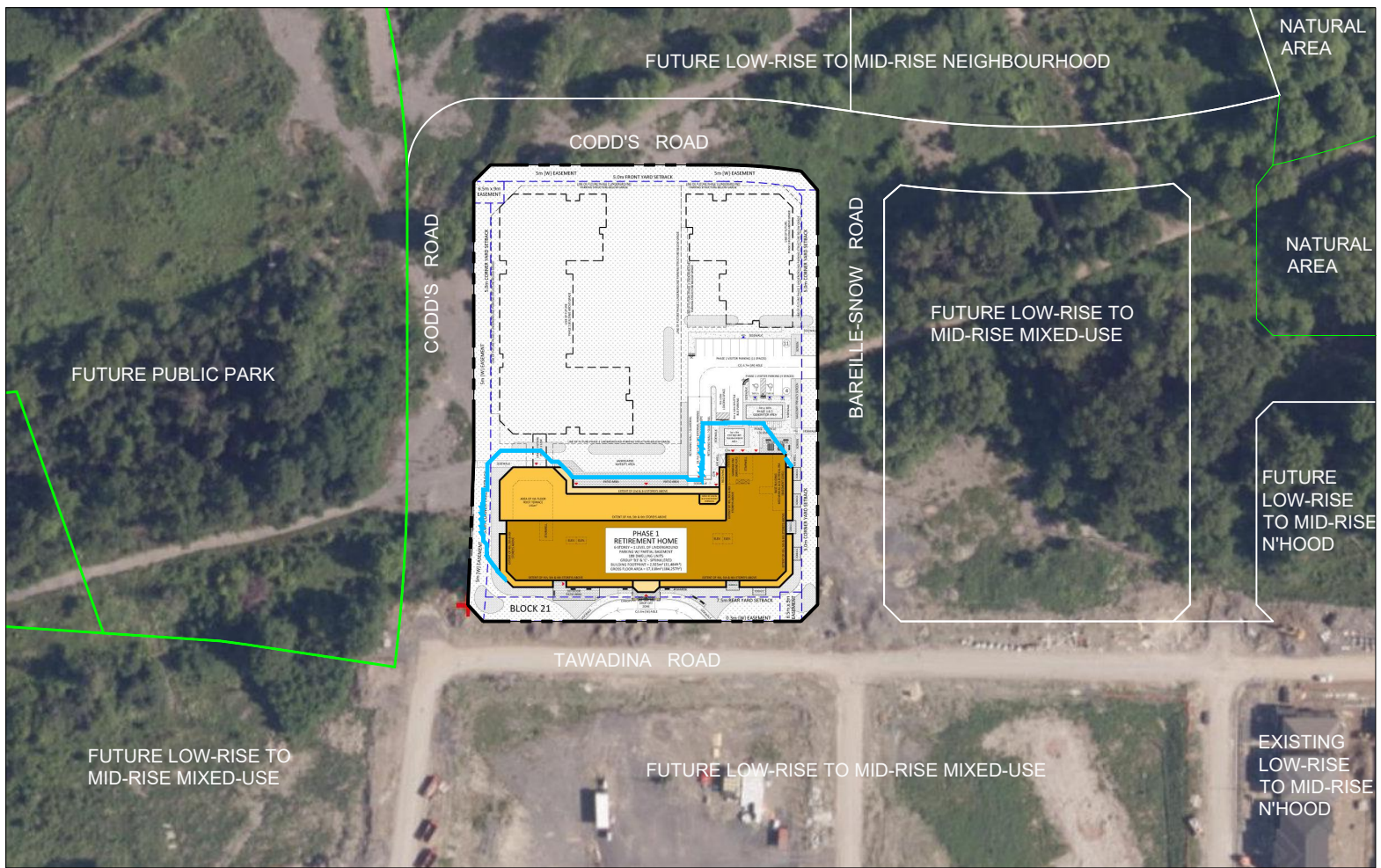
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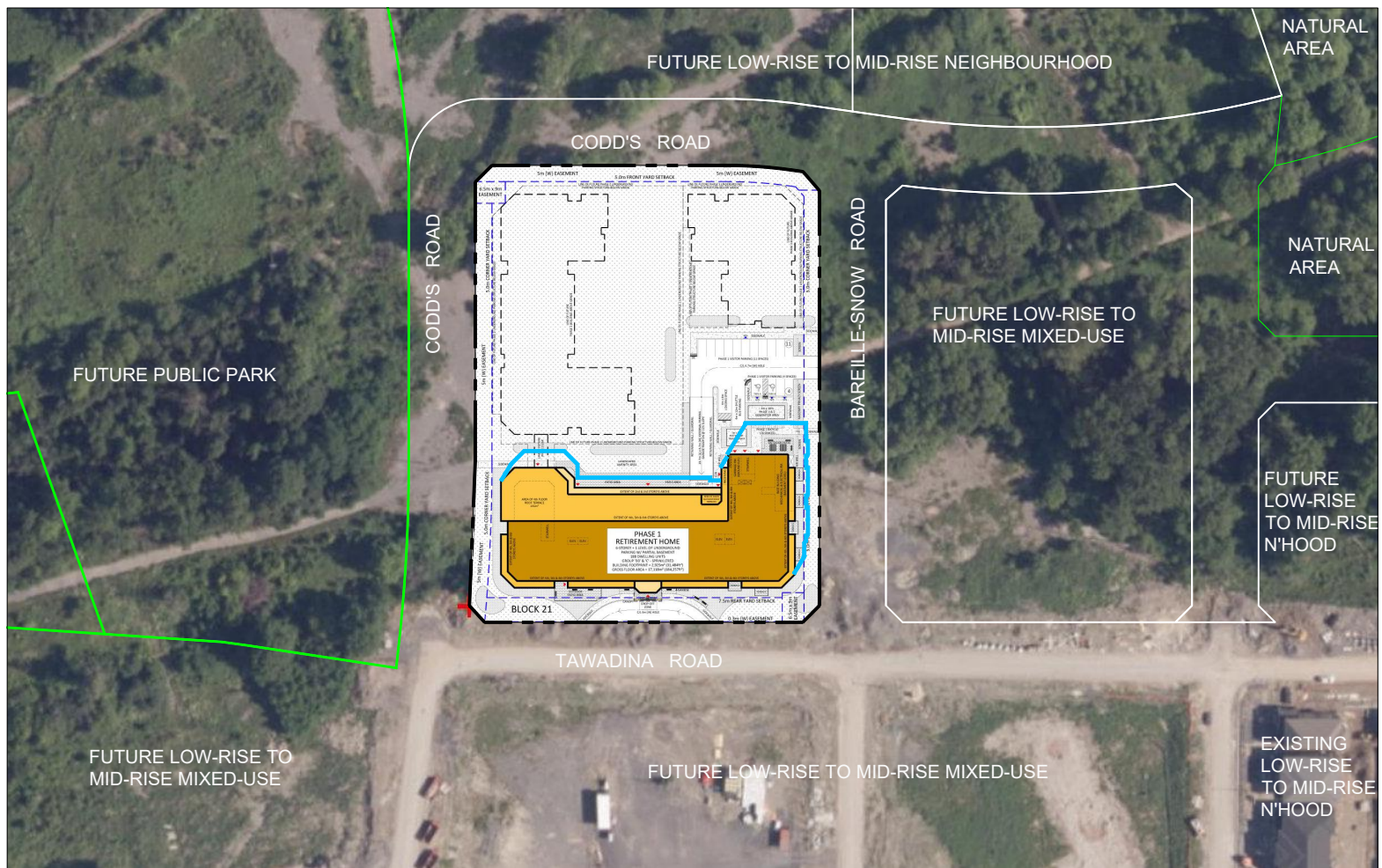
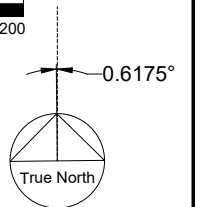
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12:00 PM ^{EDT}



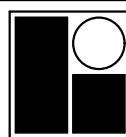
— PROPOSED GROUND LEVEL SHADOW REACH



14:00 PM ^{EDT}

JUN 21

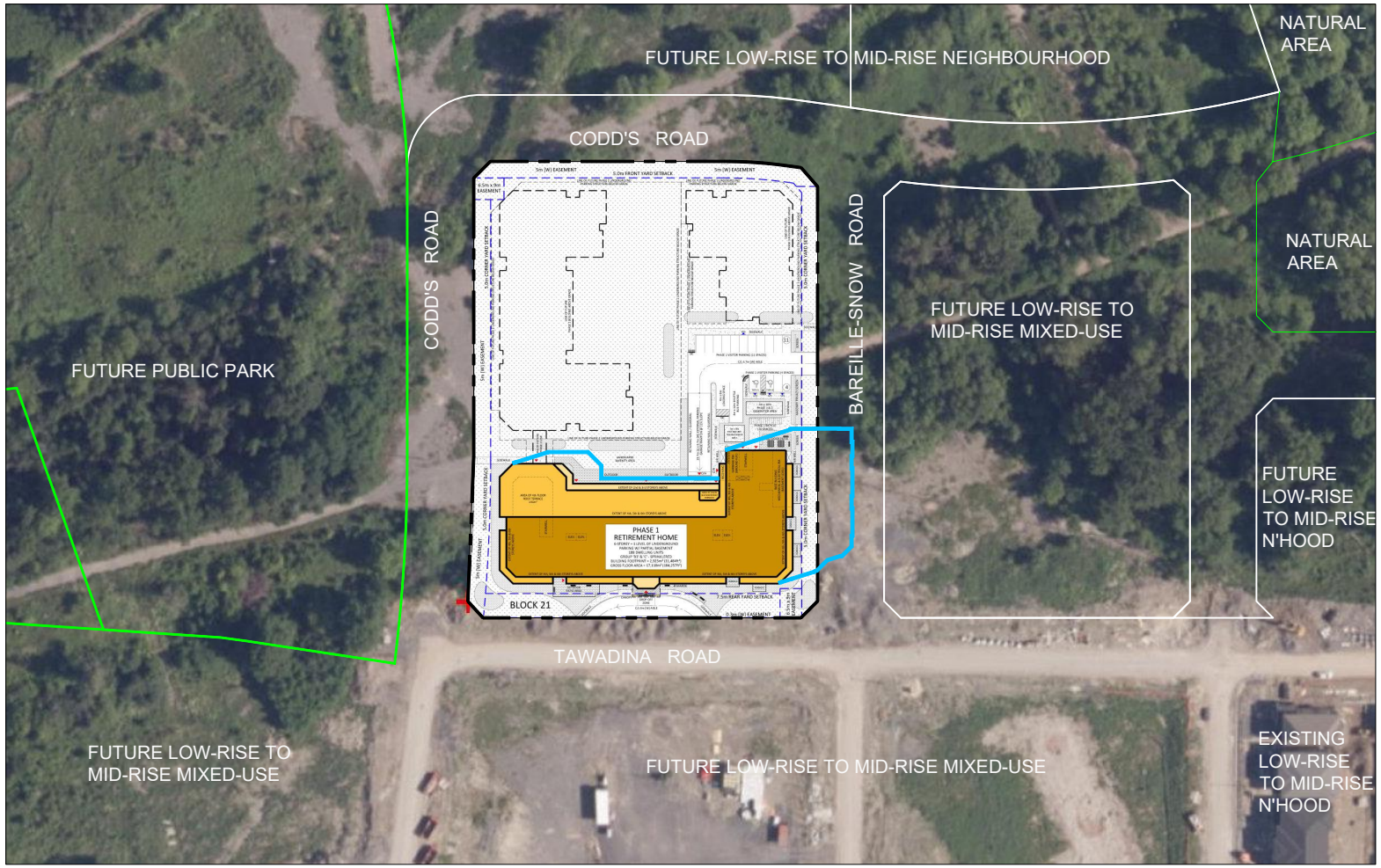
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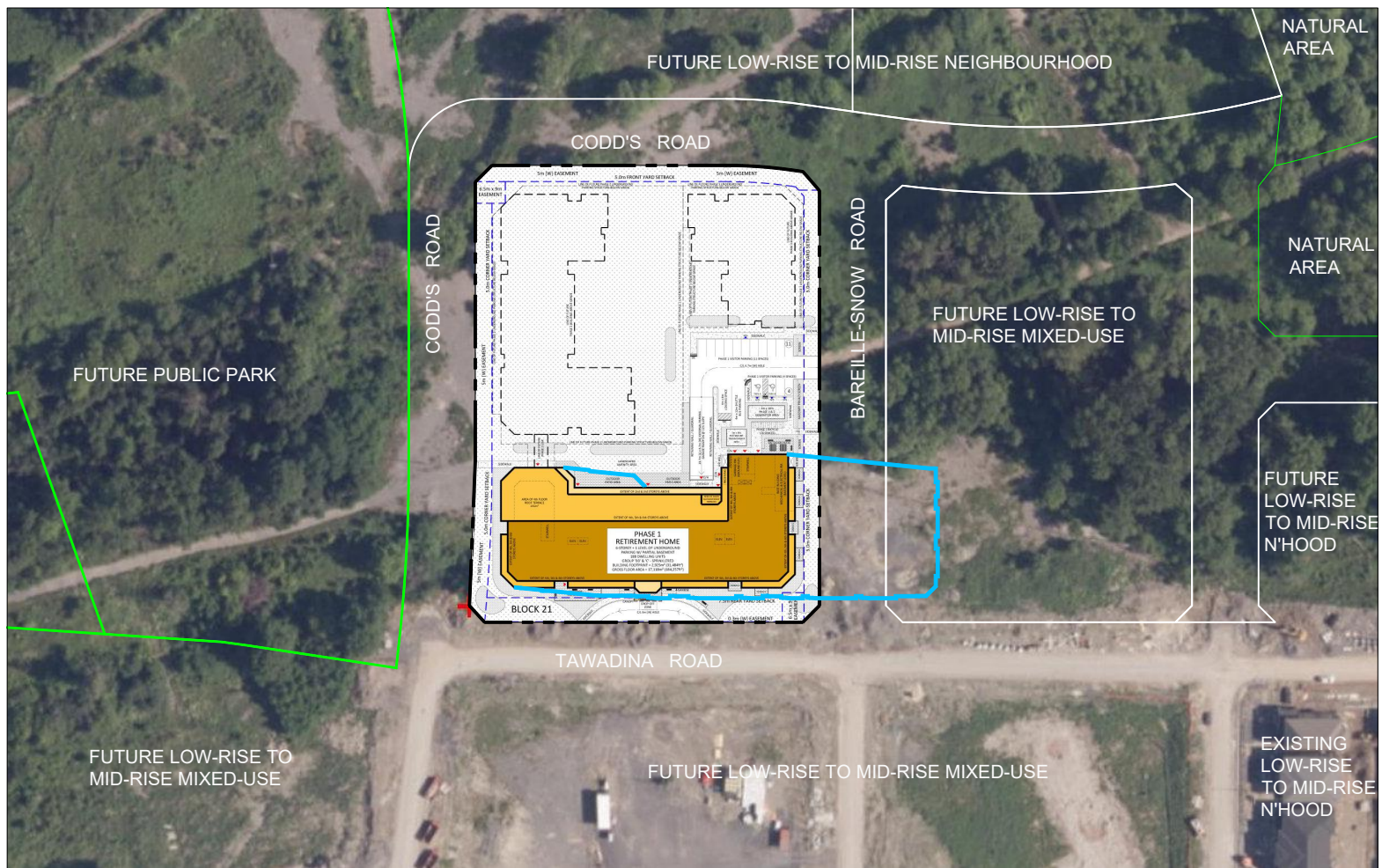
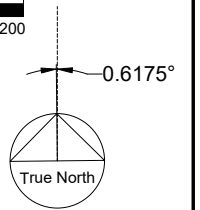
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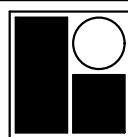
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18:00 PM^{EDT}

JUN 21

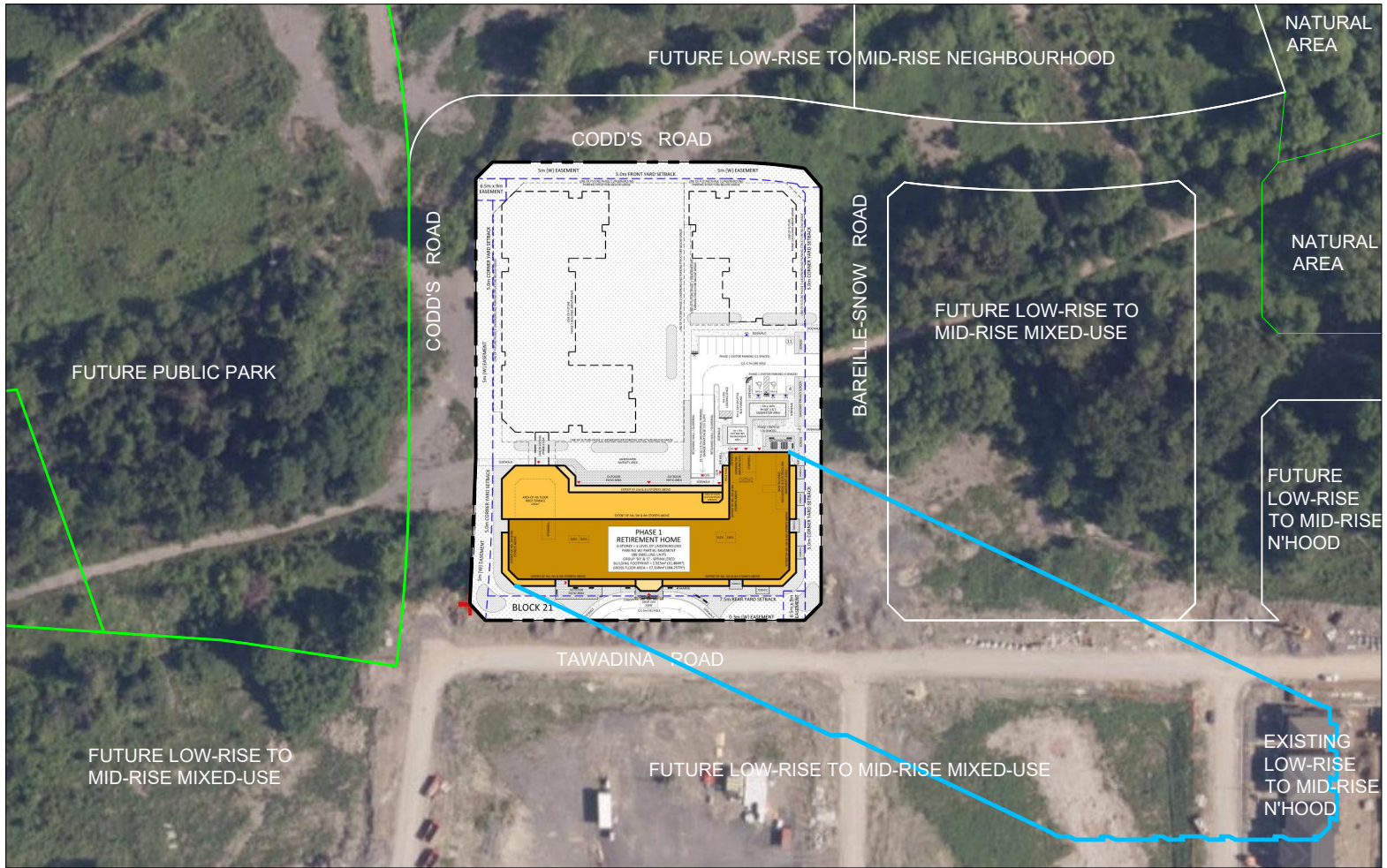
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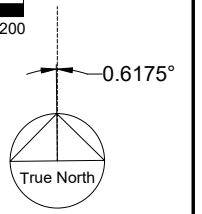
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SS-3



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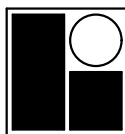
— PROPOSED GROUND LEVEL SHADOW REACH



JUN 21

SUN SHADOW STUDY

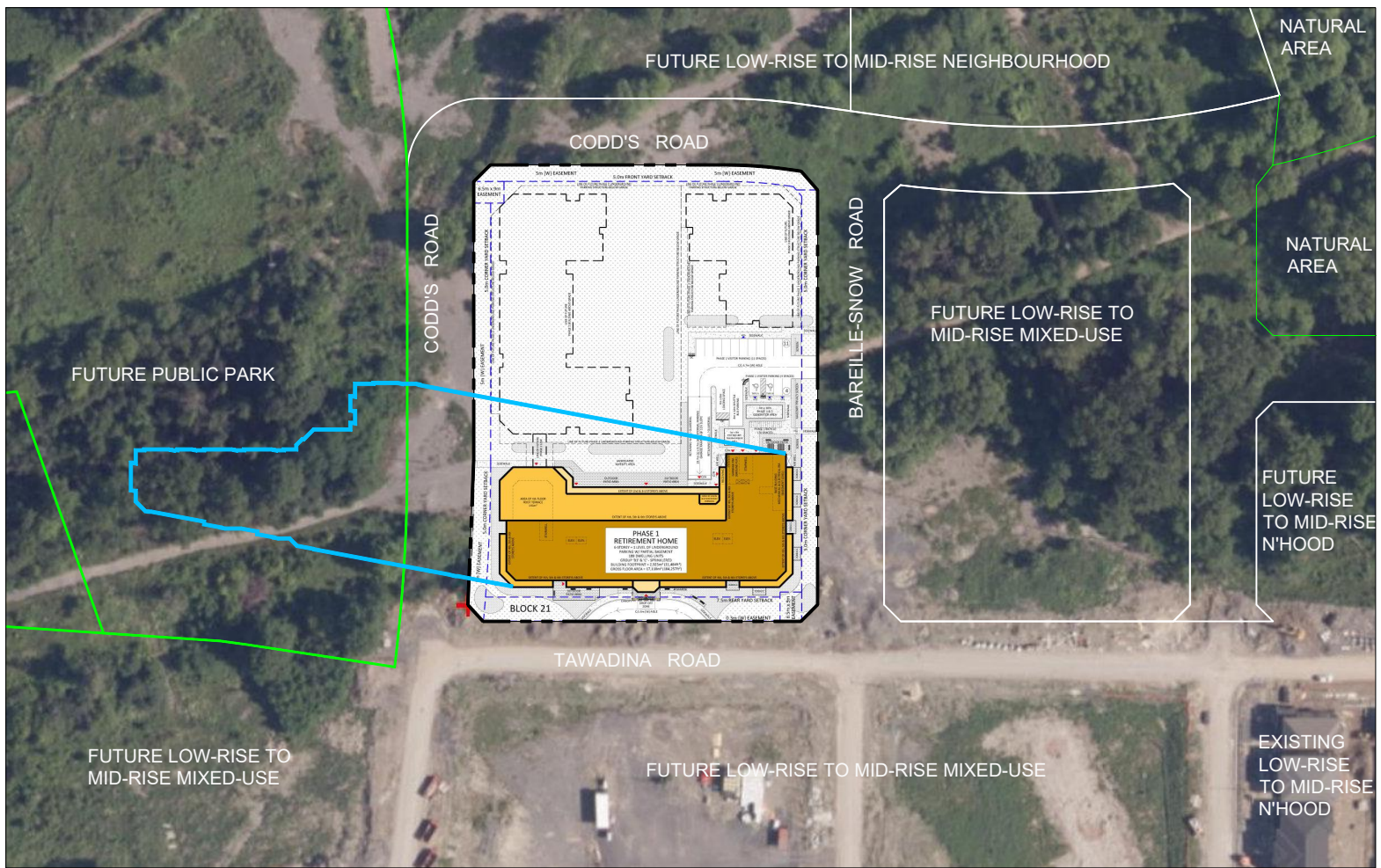
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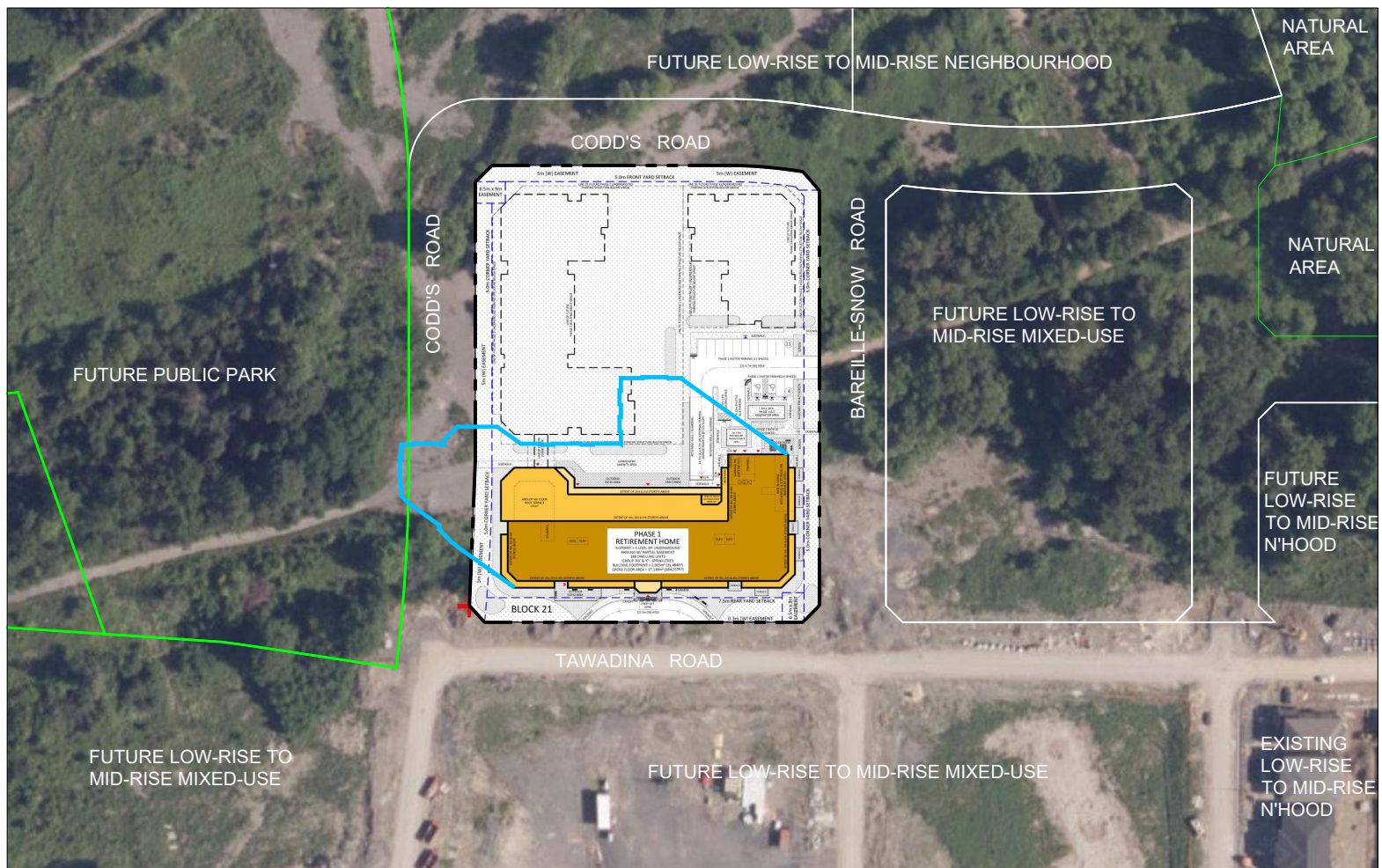
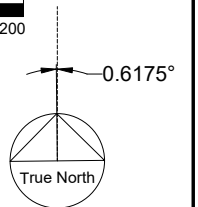
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08:00 AM^{EDT}



— PROPOSED GROUND LEVEL SHADOW REACH

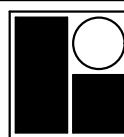


10:00 AM^{EDT}

SEPT 21

SUN SHADOW STUDY

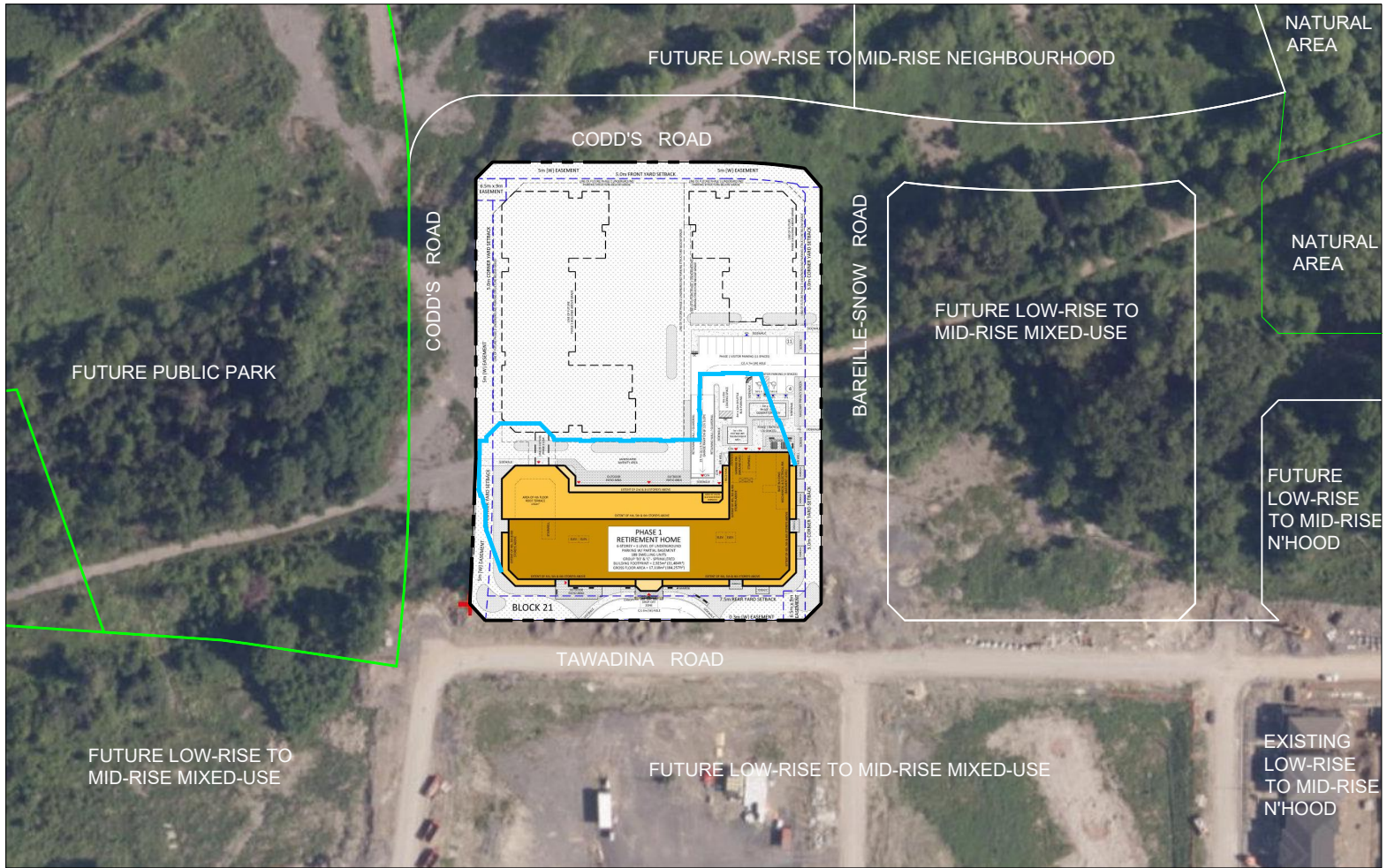
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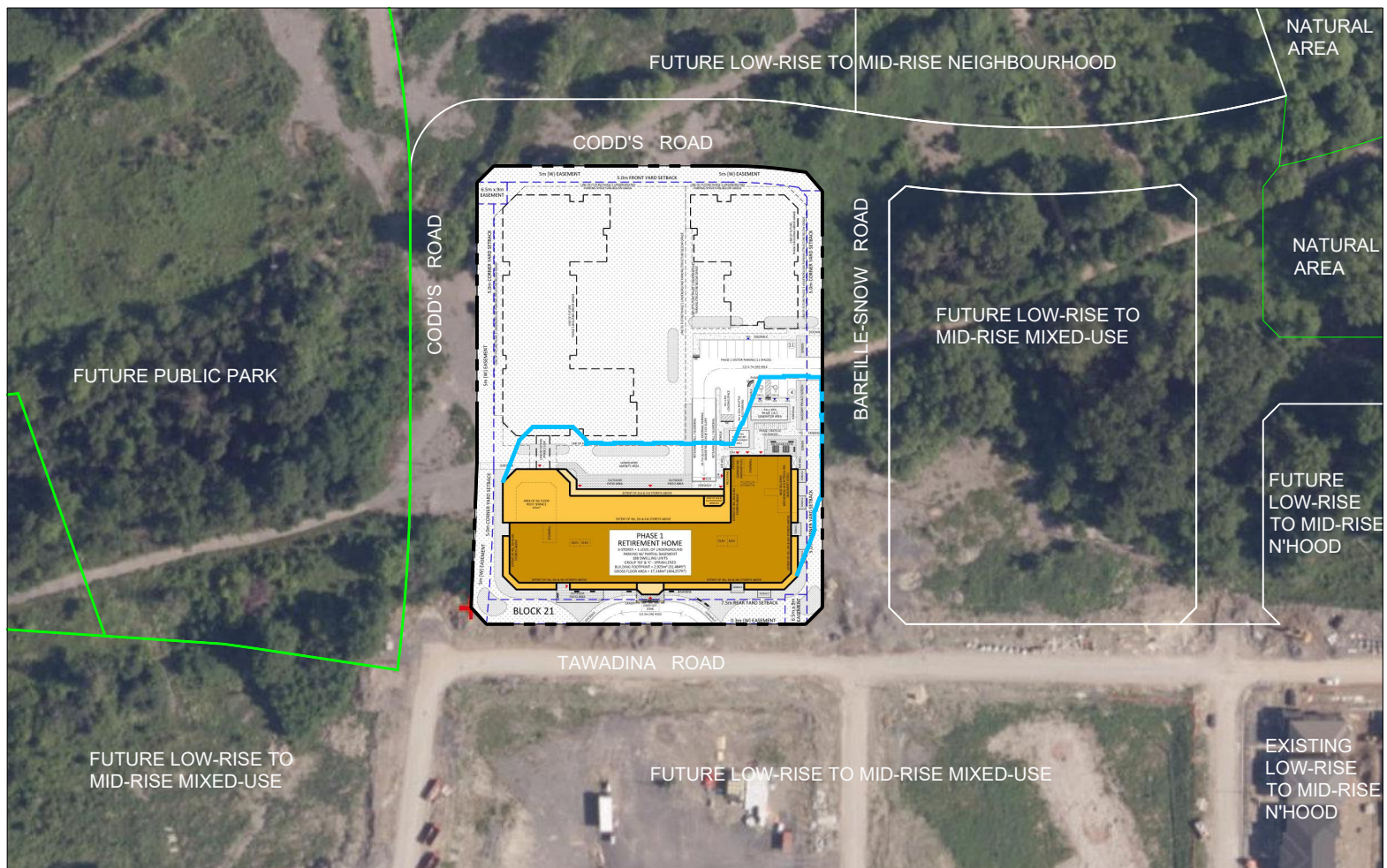
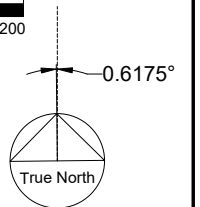
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12:00 PM^{EDT}



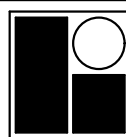
— PROPOSED GROUND LEVEL SHADOW REACH



14:00 PM^{EDT}

SEPT 21

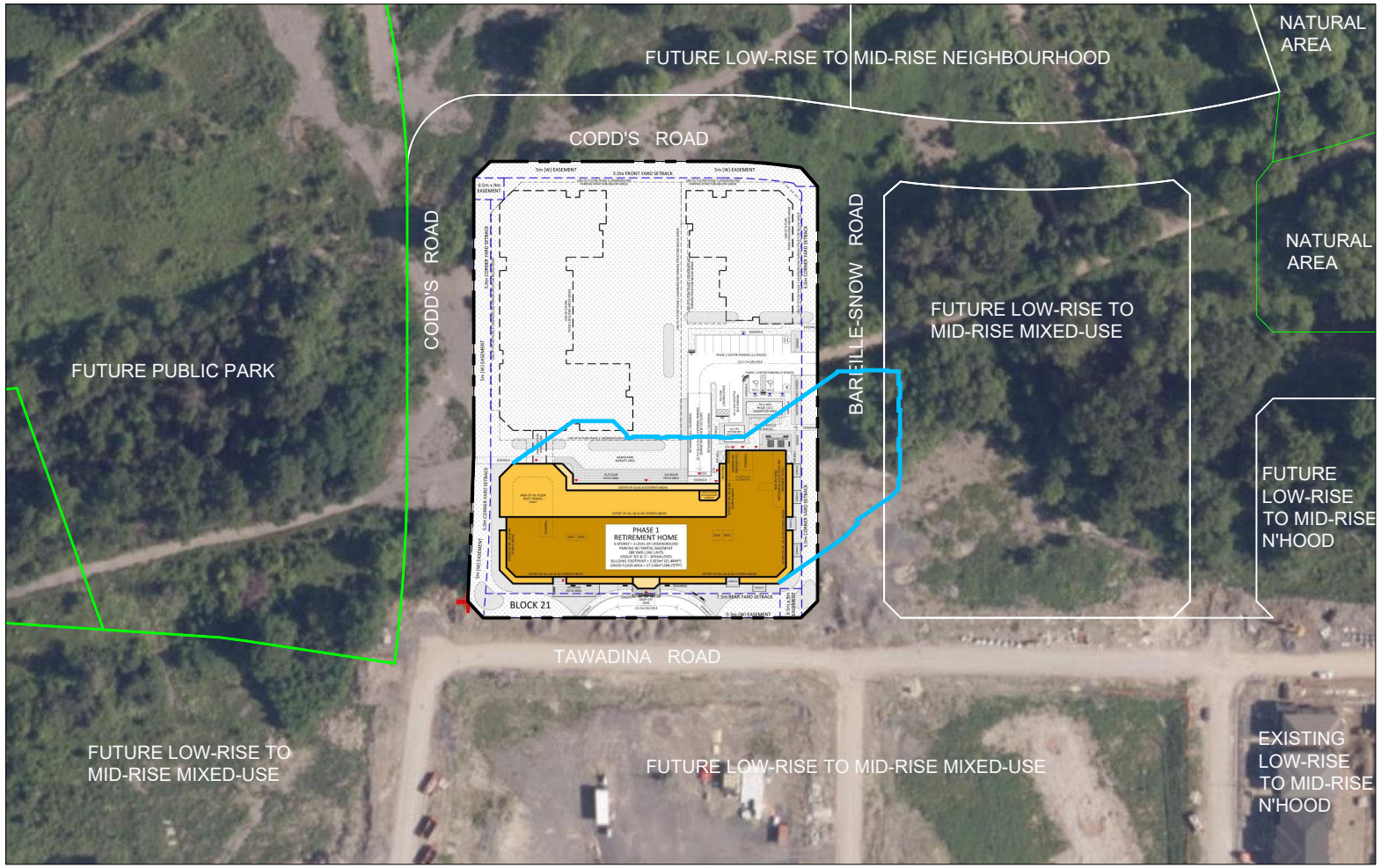
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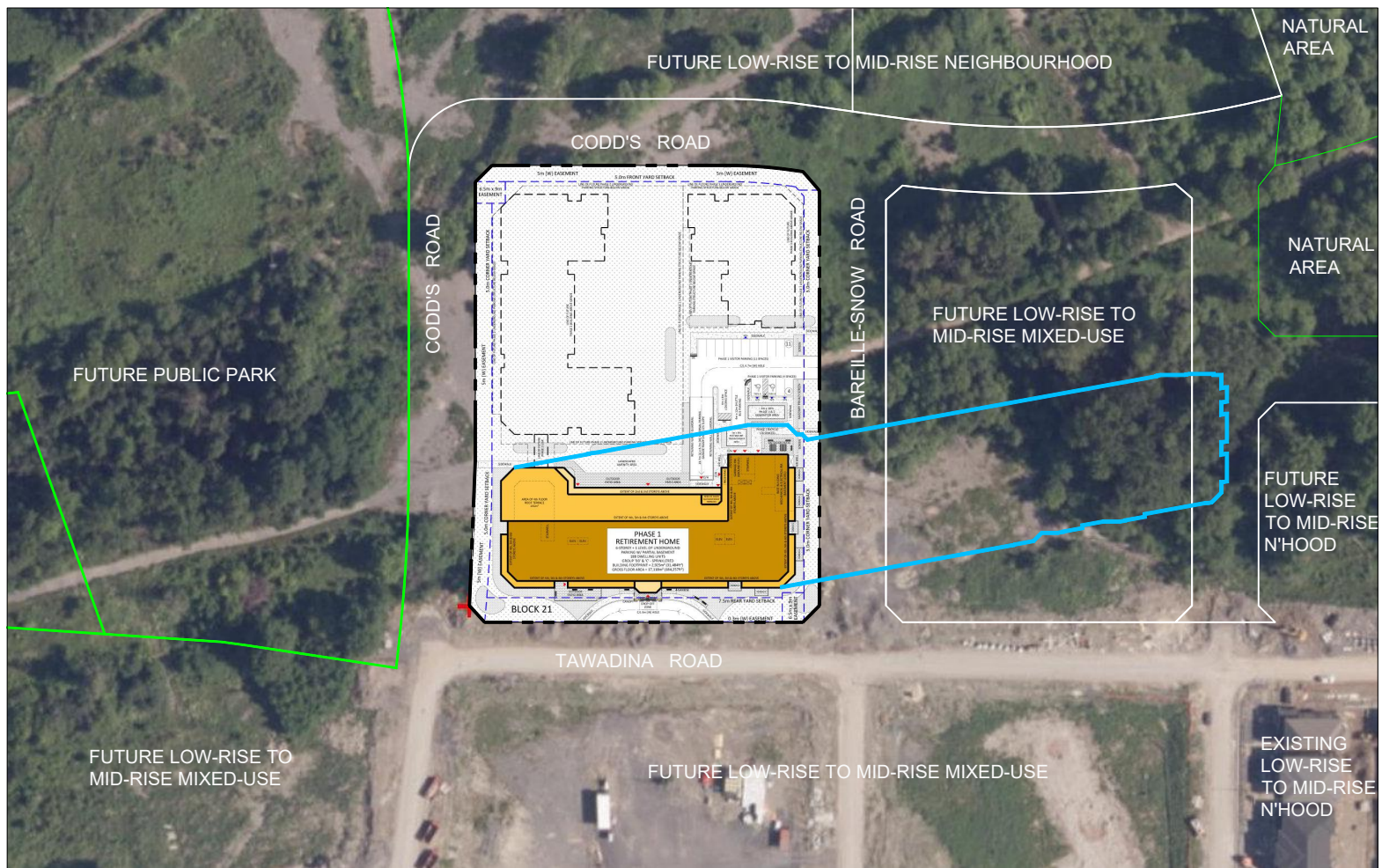
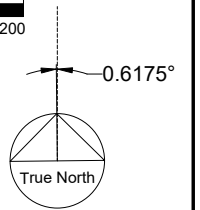
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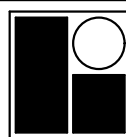
— PROPOSED GROUND LEVEL SHADOW REACH



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SEPT 21

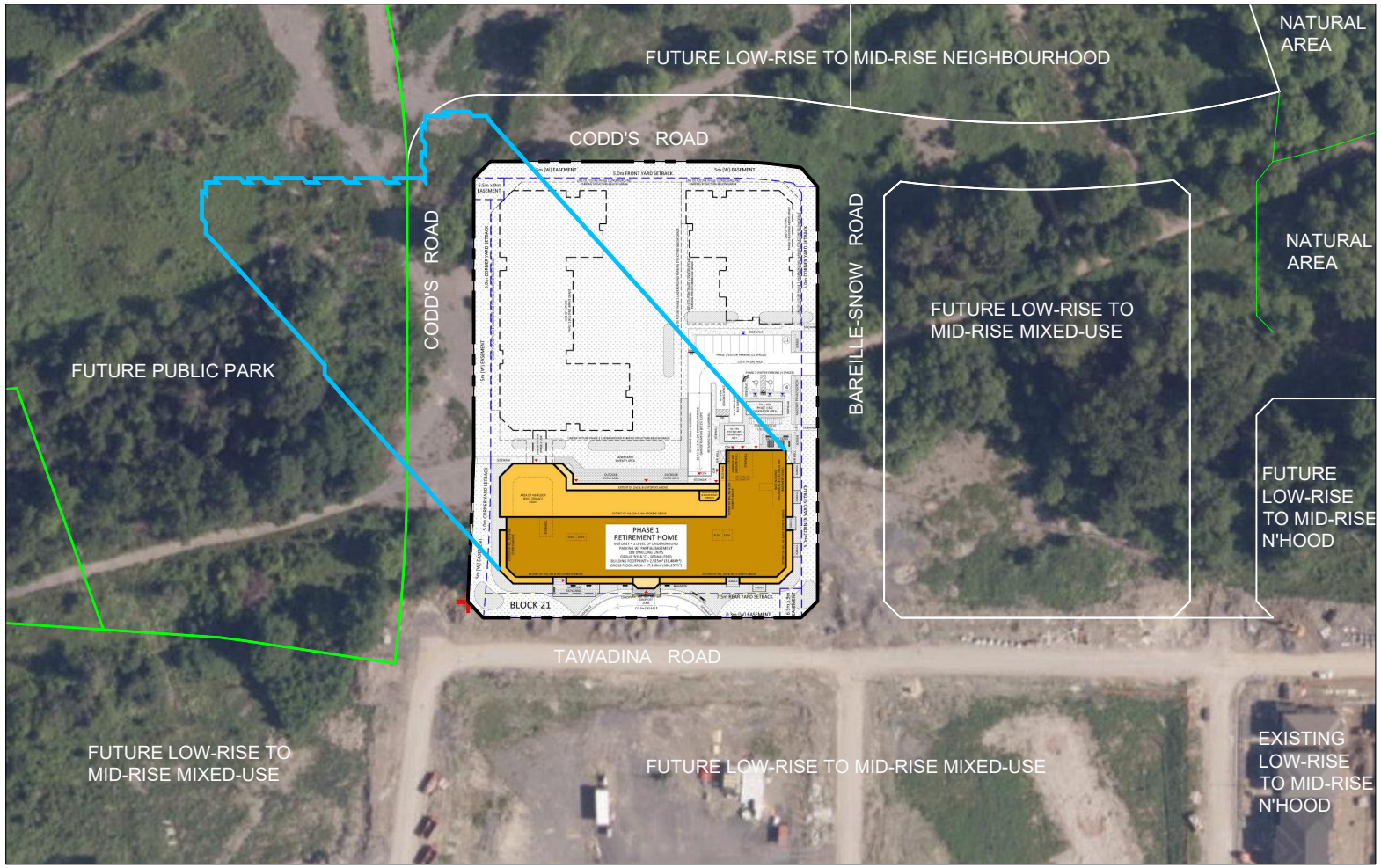
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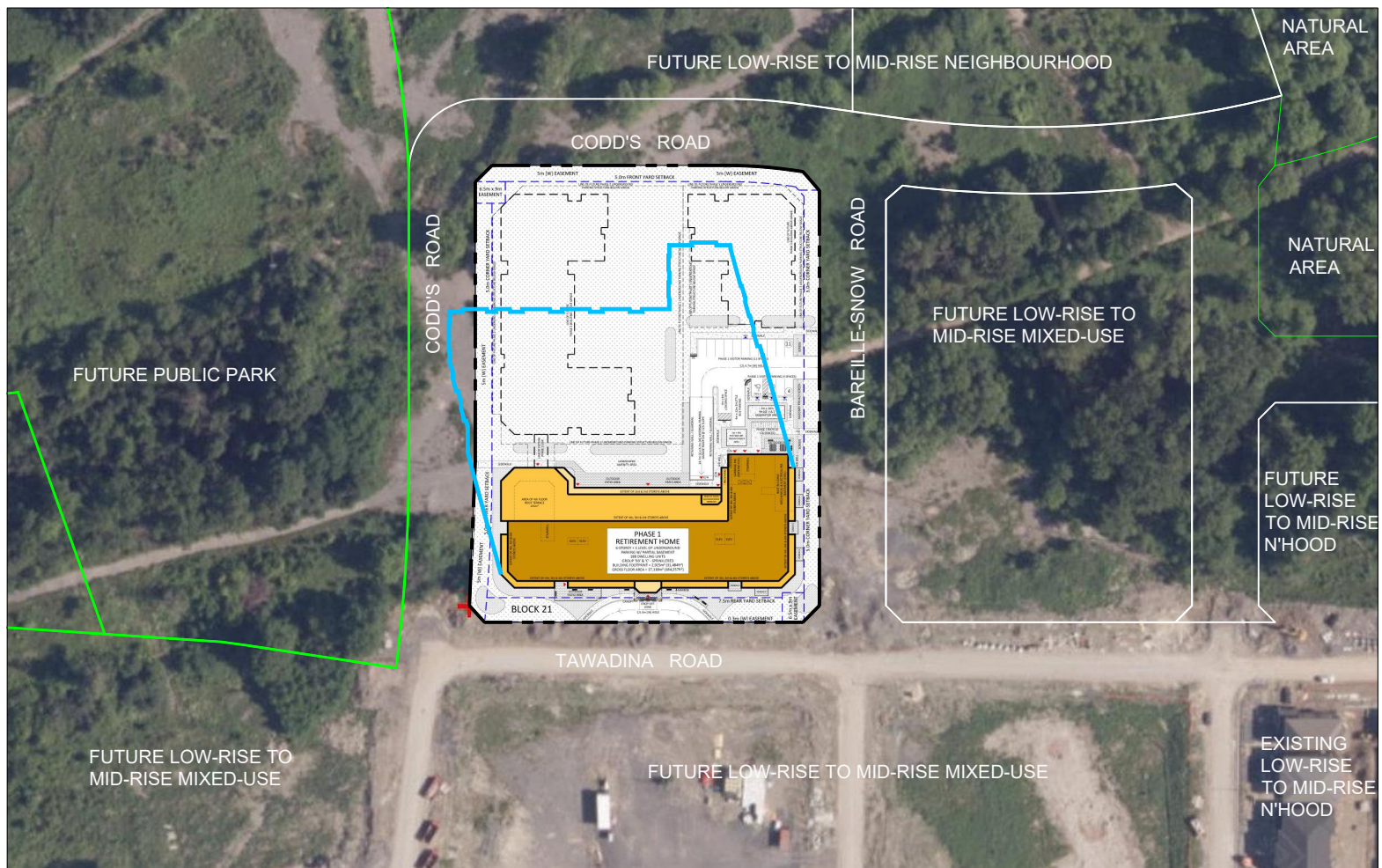
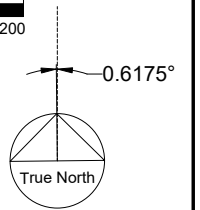
SS-7



09:00 AM ^{EST}



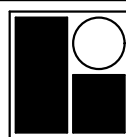
— PROPOSED GROUND LEVEL SHADOW REACH



11:00 AM ^{EST}

DEC 21

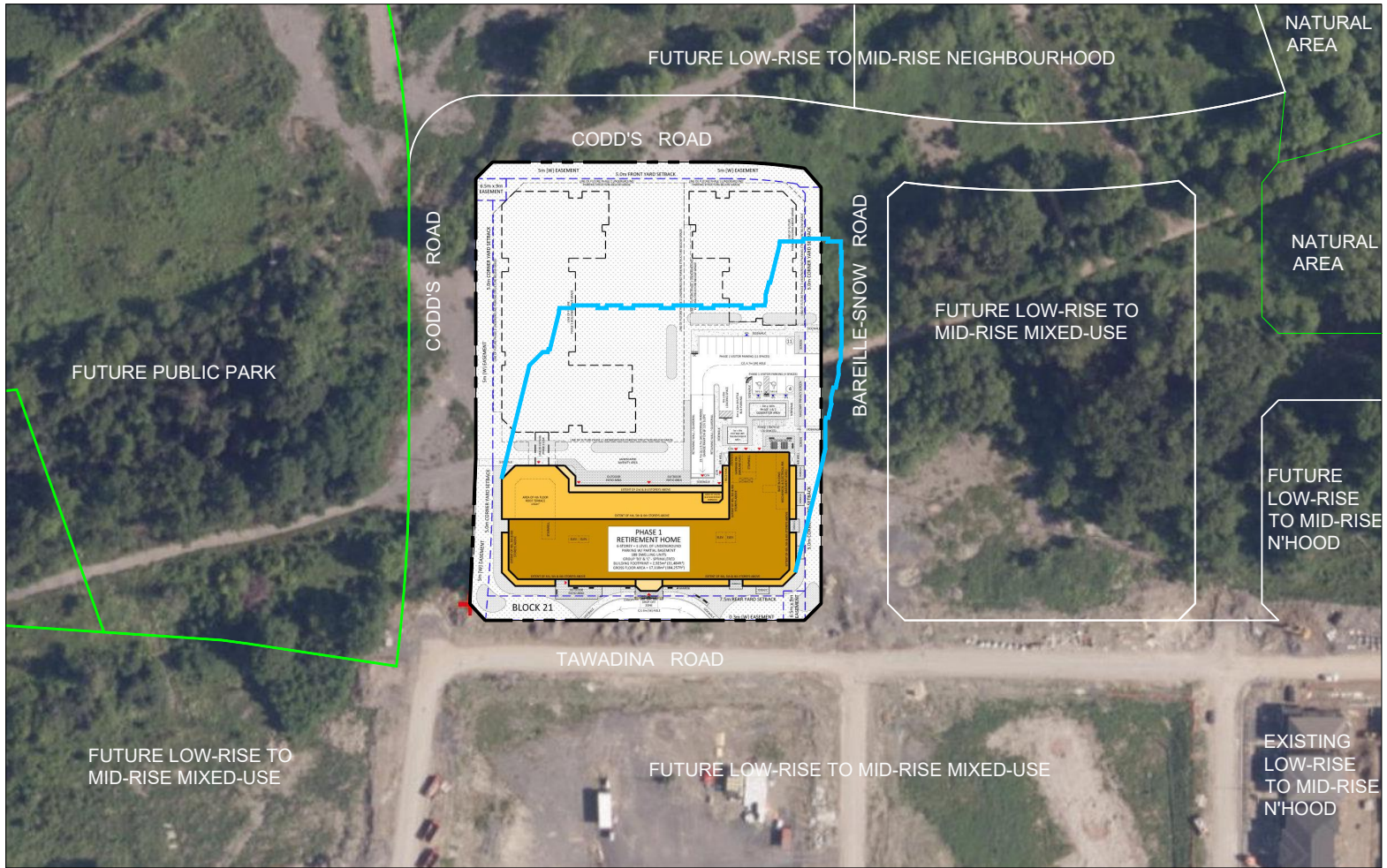
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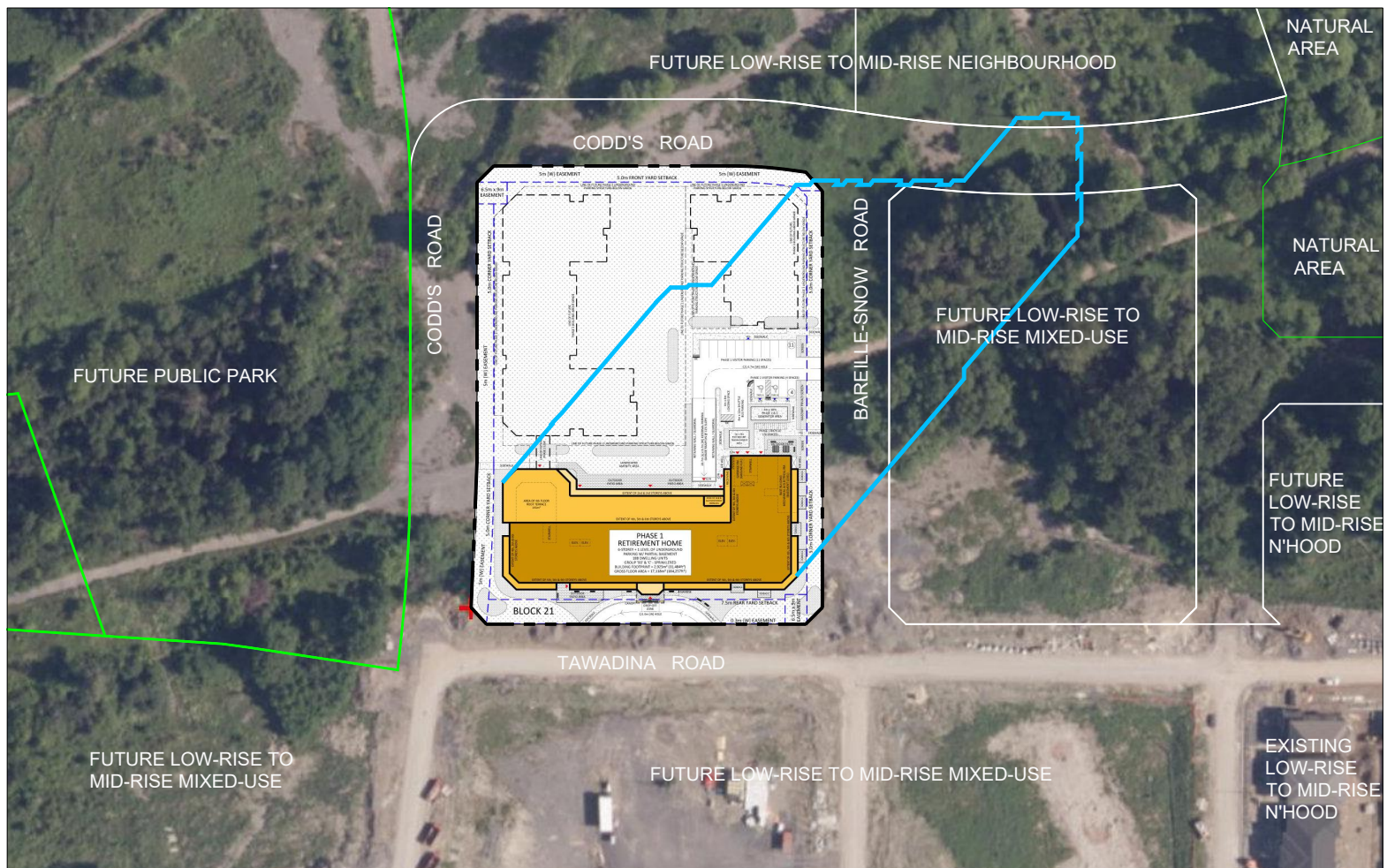
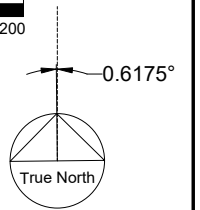
SS-8



13:00 PM ^{EST}



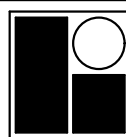
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15:00 PM ^{EST}

DEC 21

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