

Riverside Station

Response to Woodland Golf Club Comment Letter

June 19, 2020



The following is a summary of the notable comments or concerns expressed in the letter from the Woodland Golf Club to the Land Use Committee of the Newton City Council dated June 3, 2020:

Comment 1

We are concerned about any potential collapse of the culvert as a result of added weight and construction activities. We therefore respectfully request that the Secretary require the proponent to provide more detail about the culvert and the Runaway Brook flows through the golf course downstream beneath the Project Site before discharging into the Charles River. Runaway Brook flows on the surface until reaching Grove Street when it then runs through a culvert at the eastern corner of the Project Site. We commend the Applicant's efforts to mitigate the impacts of the existing impervious surfaces and prior development on stormwater runoff. Nevertheless, we are concerned about the impact of the Project on the culvert which conveys the brook to the Charles. The Applicant describes drainage infrastructure and how said infrastructure will tie into the existing culvert. What is less clear though is whether and how those tie ins and any flow from those connections would impact flow from upstream segments of the brook. As you may be aware, the Applicant had submitted a Draft Environmental Impact Report ("DEIR") to the Executive Office of Energy and Environmental Affairs

("EOEEA"). There was, however, no mention in the DEIR of how adverse effects on the culvert may impact the upstream golf course and surrounding neighborhood. We also feel more information is needed on the impact of added stormwater discharging into the culvert and the culvert's capacity. More detail is also needed on the materials the culvert is constructed of and how the construction activity and related change of topography around and on top of the culvert will impact the integrity and lifespan of the culvert. This includes the weight on top of the culvert both during and after construction. We are concerned about any potential collapse of the culvert as a result of added weight and construction activities. Since the EOEEA has now rejected the DEIR and has required the preparation and submittal and a Supplemental DIER, we respectfully submit that the Applicant should be required to provide more detail about the culvert and the impact of the Project on the culvert, as well as any resulting impact on the upstream golf course and neighborhood. the impact of the Project on the culvert, as well as any resulting impact on the upstream golf course and neighborhood.

Response

No negative impacts to the culvert are anticipated due to the proposed site conditions or construction related activities. The proposed connections to the culvert are located above the culvert's spring line, which is the middle of the culvert. It is standard engineering practice to connect above a culvert's spring line to prevent backflow, turbulence, and a tailhead condition at the connection point. The proposed connection points convey stormwater flow for larger storm events, while most of the storms will be infiltrated on-site with minimal runoff conveyed to the culverts. There will be no negative impacts to the upstream flow of the culvert.

The Project also proposes to send less water to the pipes under proposed conditions, thus there will be no capacity issues with the existing culvert. Table 6 below summarizes the peak flows discharged to the 60-inch culvert from the project site demonstrating the Project reduces peak flows.

Table 6 - Peak Discharge Rates (cfs*)

Design Point	2-year	10-year	25-year	100-year
Design Point 1: 60-Inch Culvert & Charles River				
Existing	58.8	103.6	139.8	219.0
Proposed	34.5	95.5	132.0	212.6

The culvert is proposed to be videoed prior to construction to confirm no major damages have been found along the stretch of culvert within the Site. Any damage or deterioration will be evaluated and addressed accordingly. Under existing conditions, the ground above the culvert is a paved vehicular parking lot. Under proposed conditions, the ground above the culvert shall be paved vehicular ways, sidewalks, and landscaped areas; no buildings are proposed to be located over the culvert. The Proponent will ensure that cranes and staging areas will not be located directly above the culvert.

Comment 2

The golf course includes two wells. There appears to be no discussion in the DEIR about the impacts of blasting on surrounding properties, the extent of the blasting and the methods to be used in the blasting, the resultant vibrations. Of particular concern is the absence of any analysis and/or modeling of any potential blasting vibrations traveling off site and impacting the underground wells. The standard pre-construction survey will not be sufficient to identify the current condition of the wells or the surrounding underground features. The potential impact and change of subsurface features should be addressed. Therefore, we respectfully request the require the proponent to provide a detailed report about the blasting impacts of the Project on the underground wells located on the golf course property.

Response

Attached is a memorandum from Sanborn Head Associates addressing the potential blasting impacts.

Comment 3

The effect of blasting on the golf course should be analyzed in greater detail, regardless of the day of the week. Proposed construction hours are in the window of 7am to 6pm on weekdays, and 7am to 5pm on Saturdays. We believe that this could pose a substantial impact to the ambience of the golf course and our patrons' experience. As I am sure you are aware, Saturdays are a flagship day for Woodland. Accordingly, at the very least, no blasting or noisome activities should occur on Saturdays.

Response

We understand that the potential impacts of a large construction project across the street from an outdoor golf course are a concern. The concern related to Saturday construction is also understood. The petitioner has agreed to restrict blasting activities on weekdays to a shorter window of 10am to 3pm, and to prohibit blasting on Saturdays. It should be noted that activity on Saturdays is an opportunity to keep the project schedule on track.

Comment 4

Additionally, the location of monitoring stations (for noise and/or vibrations) should be chosen with sensitivity to Woodland. We understand that significant excavation is anticipated for areas of the site near Woodland. Considering the activities which occur at Woodland, noise and vibration would be particularly disruptive to the golf course. If monitoring locations are placed on Woodland side of the Project site, representatives of Woodland should have access to that reporting to foster communication with the City and the Applicant. Furthermore, the thresholds that would be imposed and remedies for the City if monitoring reveals issues (or if the Developer requests waivers of certain limits as the Project advances) should include consideration of the affect upon Woodland. Noise and vibration monitoring should be implemented, and that monitoring should be located between the heaviest blasting/excavation areas and Woodland.

Response

The Woodland Grove Condominium is expected to be the site of the closest sensitive receptor in the area of the golf course. Its location adjacent to the course and generally between the course and the project should allow it to serve as a reliable indicator for noise at the course. Additionally, monitoring stations for vibration and dust will be located on all four sides of the project, including Grove Street. The monitoring results will be distributed regularly to the City and the Liaison Committee. A representative from the Woodland Golf Club can and will be added to the distribution of this information.

Comment 5

Relative to dust and flyrock, we are concerned about the effect of construction dust on the greens, fairways, and other vegetation on the course. The Applicant has stated that spraying will be used to control dust, however, beyond this there is no specification as to how dust may adversely impact the golf course and neighboring properties. More detail of potential adverse effects of noise and dust on the golf course and proposed mitigation should be provided.

Response

The goal of the petitioner and its contractors will be to contain nuisance dust through the measures referenced in the proponent's Construction Management Plan. The monitoring stations will be transparent to the public and will monitor the effectiveness of our operations so that we can make necessary adjustments. While we cannot speak to the impact to the vegetation, we suspect that the primary concern will be the effect of dust on members as they enjoy the course. For this reason, we understand and appreciate the importance of dust control and will continue to monitor, manage, and minimize its migration throughout construction.

Comment 6

Woodland is also concerned that construction and construction related vehicles and equipment may generate pollution and odor by virtue of emissions. Accordingly, we ask that the Committee, and the Applicant, specifically and explicitly consider conditions which restrict idling and/or warm-up, and the locations and times where such activities and/or equipment may be operated.

Woodland maintains a turf maintenance building that is accessed off Grove Street. Commercial vehicles, and mid-sized to heavy trucks, access that building throughout the day, seven days a week, through a curb cut on Grove Street. Traffic mitigation and routing should accommodate Woodland's maintenance shed on Grove Street.

Woodland is also concerned as to whether there are any utilities serving Woodland from the Grove Street side that might be interrupted during construction. As you may be aware, many activities necessary to maintain the course occur early in the morning but also throughout the day. Any interruption of services and/or conflicts with site construction activities, could have substantial impacts on not only operations at the course but the membership using the course during those hours. Interruptions and conflicts should be minimized and, at the very least, if they are anticipated to occur, the Applicant should provide sufficient notice to Woodland so that it may make appropriate arrangements/accommodations with its membership and staff.

Response

The proposed scope of work across the street from the maintenance shed is generally limited. During the construction of Building 7, access will be managed by a police detail. Any reconstruction of Grove Street or utility work in Grove Street will also be managed by police details where appropriate. The petitioner and its

contractors understand the importance of transparency and communication. There will be a primary point of contact established through the construction Liaison Committee that will be charged with maintaining communication with the golf club.

Comment 7

Woodland is also concerned that certain environmental impacts from the Project on the golf course have not been discussed nor has the mitigation of those impacts. Specifically, Woodland is concerned about the impact of shadows from the buildings on the greens, fairway, and related vegetation on the golf course. There does not appear to be any information on how the proposed buildings and their associated shadows may alter sunlight the golf course currently receives under the existing condition of parking lots on the Project site. The Applicant should address the impact of shadows on the greens, fairway, and vegetation on the golf course.

Response

A shadow study has been included in the project plans on file. They are also attached for reference. This analysis concludes that during the Spring, Summer and Fall months, from 9AM to 3PM the project will not cast any shadows on the course. The shorter buildings along Grove Street will cast a slight shadow into the rough adjacent to the 5th hole at their peak on December 21st. This shadow is less impactful than that of the existing condominium. This slight shadow does not appear to approach the fairway, tee box, greens or cart paths in the event someone was on the course at this time of year, which is unlikely.

Comment 8

Another area of concern is the reflection of sunlight (and potentially noise) off the buildings and their associated glass and windows onto nearby green space and the golf course greens, fairway, and vegetation (particularly the fourth and fifth holes which directly abut the site). We are concerned that an increase in reflected sunlight, as presently the site opposite the golf course contains large parking lots, could cause or has the potential to cause a heat island which will kill the grass and vegetation on the golf course and/or will impose burdensome watering and groundskeeping strategies. The Applicant should be required to address the materials used for the buildings and glass and the consideration of reflective sunlight, i.e. so-called ray tracing or reflectivity study, and its impact on the golf course and neighboring properties. If the geometry of the buildings and their locations is anticipated to channel noise from the highway or elsewhere within the Project, a similar study should be performed so that it can be confirmed that no additional noise will be reaching the golf course or, if it is, that such noise is mitigated.

Response

Reflected sunlight is generally only a concern for the purposes of glare impact for overly glassy buildings. These glare impacts are only felt when the sun is low in the sky and thus able to reflect a significant distance. The proposed buildings adjacent to the Golf Club are generally opaque and not expected to cause significant glare issues that would impact vision. Heat island effect is generally caused when areas have significant amounts of pavement. The proposed project will reduce the amount of pavement, include reflective roof material and would be expected to reduce the existing heat island caused by the parking lot. Additionally, the project will undoubtedly be a benefit to the Golf Club when considering sound impacts. Presently, there is little to no barrier between the Golf Club and the highway or MBTA maintenance facility. The project has been designed with mitigation of these noises in mind. By locating buildings, especially the garage, adjacent to these noise generators they will reduce the impacts of sound migration to the course.

Comment 9

The Applicant has represented in a response to a public comment that a wind study is not proposed for this type of Project as it would be unusual. However, from Woodland's perspective, the effect of any wind tunnels created by the number of buildings, their positioning on the site, and height could lead to adverse impacts on the golf course and experience of members on the course. The Applicant should provide information on the Project's effect on wind patterns in the area and any adverse impact on the golf course.

Response

The proponent does not believe that a wind study is warranted in this instance. The tallest building (Building 1) is not in close proximity to the golf course. There is no wind tunnel effect expected to be created by the buildings along Grove Street closest to the golf course.

MEMORANDUM

To: David Roache, P.E. ~Mark Development, LLC
From: Matthew Heil, P.E., LSP and Kevin Stetson, P.E. ~ Sanborn, Head & Associates, Inc.
File: 4575.00
Date: June 19, 2020
Re: Response to Woodland Golf Club Comments Regarding Irrigation Wells
Riverside Station Redevelopment
325-333 and 399 Grove Street
Newton, Massachusetts

Sanborn, Head & Associates, Inc. (Sanborn Head) has prepared this memorandum to address the Woodlands Golf Club comment letter dated June 19, 2020 regarding potential impacts to their irrigation wells from the blasting proposed for the Riverside Station Redevelopment.

A blasting program is proposed to remove an existing elevated nob of bedrock down to the prevailing grade at the station. The proposed blasting area is above the groundwater in the approximate area shown on the attached figure. Based on the publicly available well record, bedrock is approximately 45 feet below the ground surface at the well locations and upgradient from the blasting area.

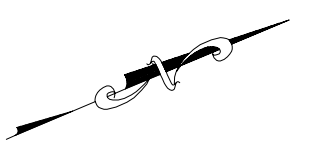
Blasting will be conducted by a licensed blaster under permits from the Newton Fire Department and MassDOT in accordance with Massachusetts Board of Fire Prevention Regulations, 527 CMR 1.00, which incorporates by reference the NFPA Fire Code 1 plus Massachusetts amendments. By reference, NFPA 495 limits air overpressure and vibrations to safe limits for buildings and other structures based on frequency of resulting vibrations. As part of the permit process, the regulations require the blaster to complete a blast analysis for all buildings and other structures within 250 feet of the blast area to be incorporated in the Blast Design Plan demonstrating that the proposed blasting plan will meet the air overpressure and vibration criteria. The attached figure shows the 250 feet offset and the approximate location of the two Woodlands Golf Club irrigation wells which are more than 1,775 feet from the blasting area.

During blasting, vibrations and air overpressure will be monitored to confirm that the vibrations and air overpressure are within the required limits of the regulations at the closest structure to remain protective of adjacent structures which are significantly closer than the wells. Vibrations dissipate based on the distance squared so the vibration levels at the wells will be approximately 50 times lower than the closest structures. As such and based on our experience, it is our opinion that the proposed blasting will not adversely impact the existing Woodlands Golf Club wells and vibrations will likely remain within background levels at the well locations.

MPH/KPS: kps

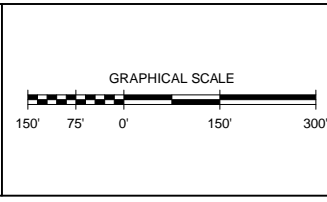
Encl. Figure 1 – Blasting Plan

SANBORN HEAD & ASSOCIATES, INC. 0303 SANBORN HEAD & ASSOCIATES, INC.
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NOTES:
 1. THE BASE MAP WAS TAKEN FROM GOOGLE EARTH. IMAGERY DATE: (2019)

LEGEND:
 - - - - - APPROXIMATE SITE BOUNDARY
 - - - - - APPROXIMATE LIMITS OF BLASTING



NO.	DATE	DESCRIPTION	BY

DRAWN BY: C.DIAS
 DESIGNED BY: M.RUBERTI
 REVIEWED BY: K.STETSON
 PROJECT MGR: M.RUBERTI
 PIC: K.STETSON
 DATE: JUNE 2020

GEOTECHNICAL ENGINEERING SERVICES
 GROVE STREET & I-95 INTERCHANGE IMPROVEMENTS
 NEWTON, MASSACHUSETTS

BLASTING PLAN

PROJECT NUMBER:
 4575.00

SHEET NUMBER:
 1



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Watertown, MA 02471
617.924.1770 | vhb.com



David M Schwarz Architects Inc.
1707 L St NW, Washington, DC - 20036
202.862.0777 | dmsas.com



SPRING/FALL EQUINOX - 09 AM

SCALE: 1" = 200'-0"

Riverside Master Plan - Newton, MA

Grove Street, Newton, Massachusetts

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06/10/2020

Not Approved for Construction

Drawing Title

**SHADOW STUDY -
SPRING/FALL EQUINOX**

Drawing Number

A-0.11

Sheet _____ of _____

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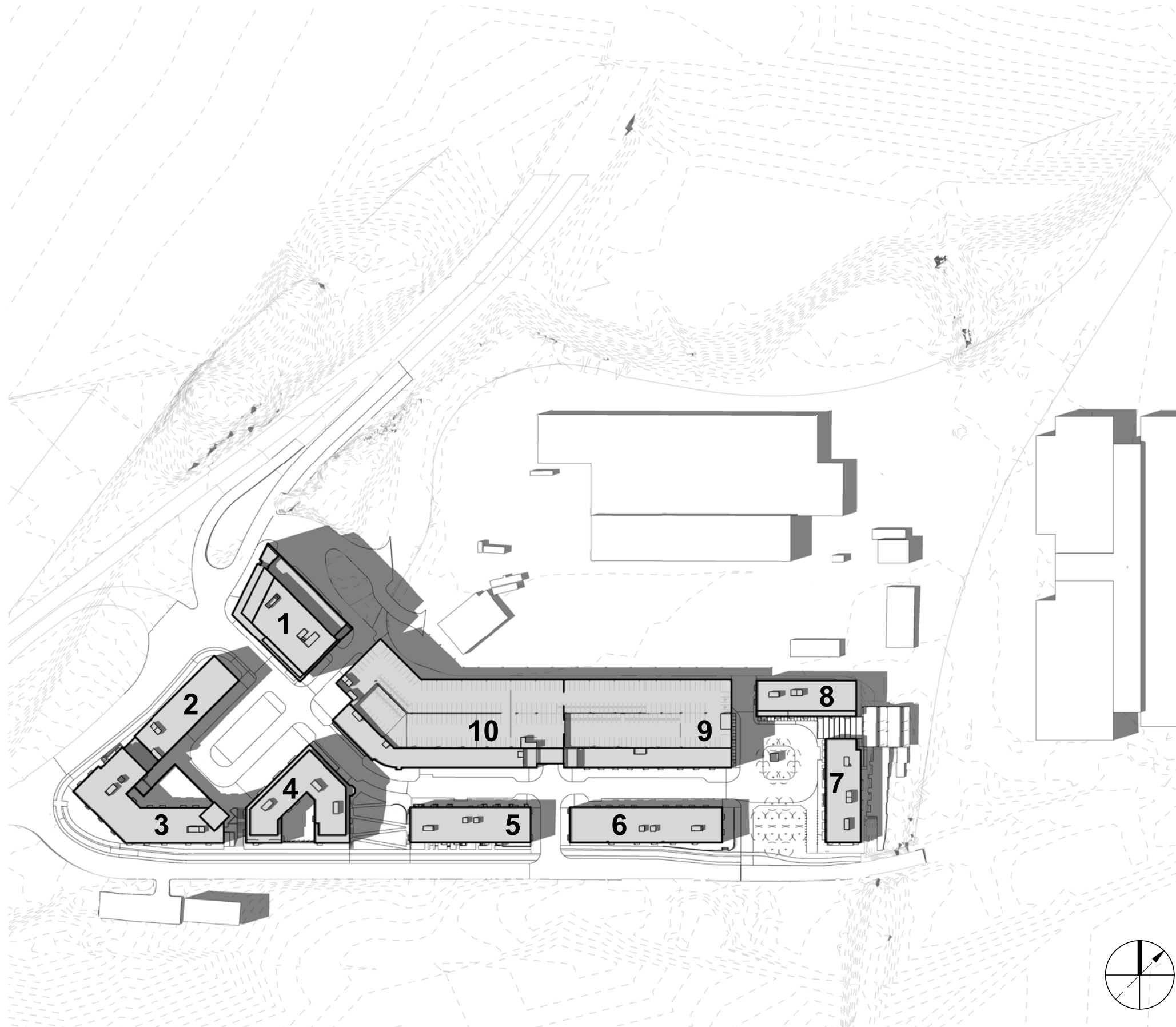
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SPRING/FALL EQUINOX - 12 PM

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SPRING/FALL EQUINOX**

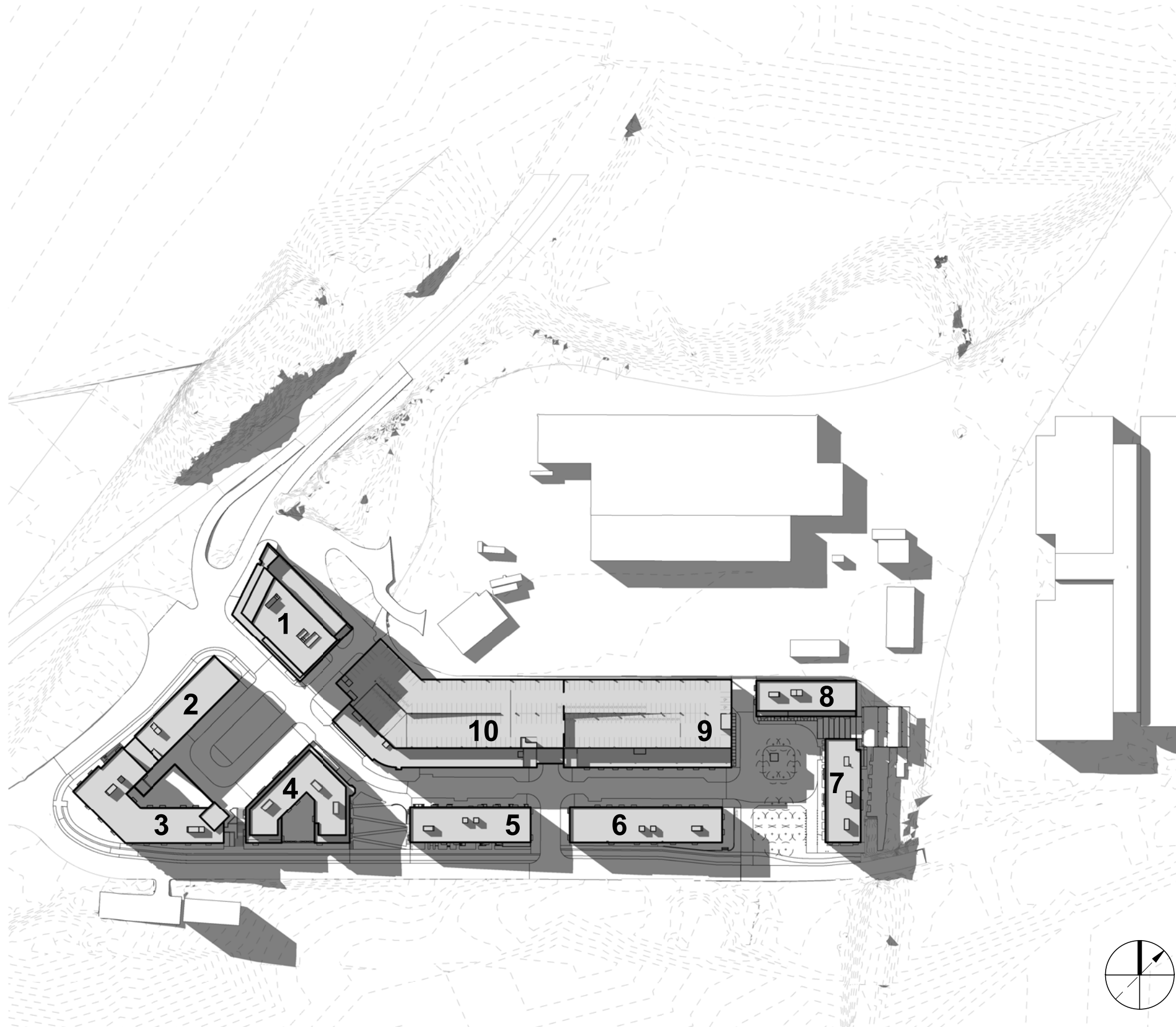
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SHADOW STUDIES - WINTER SOLSTICE

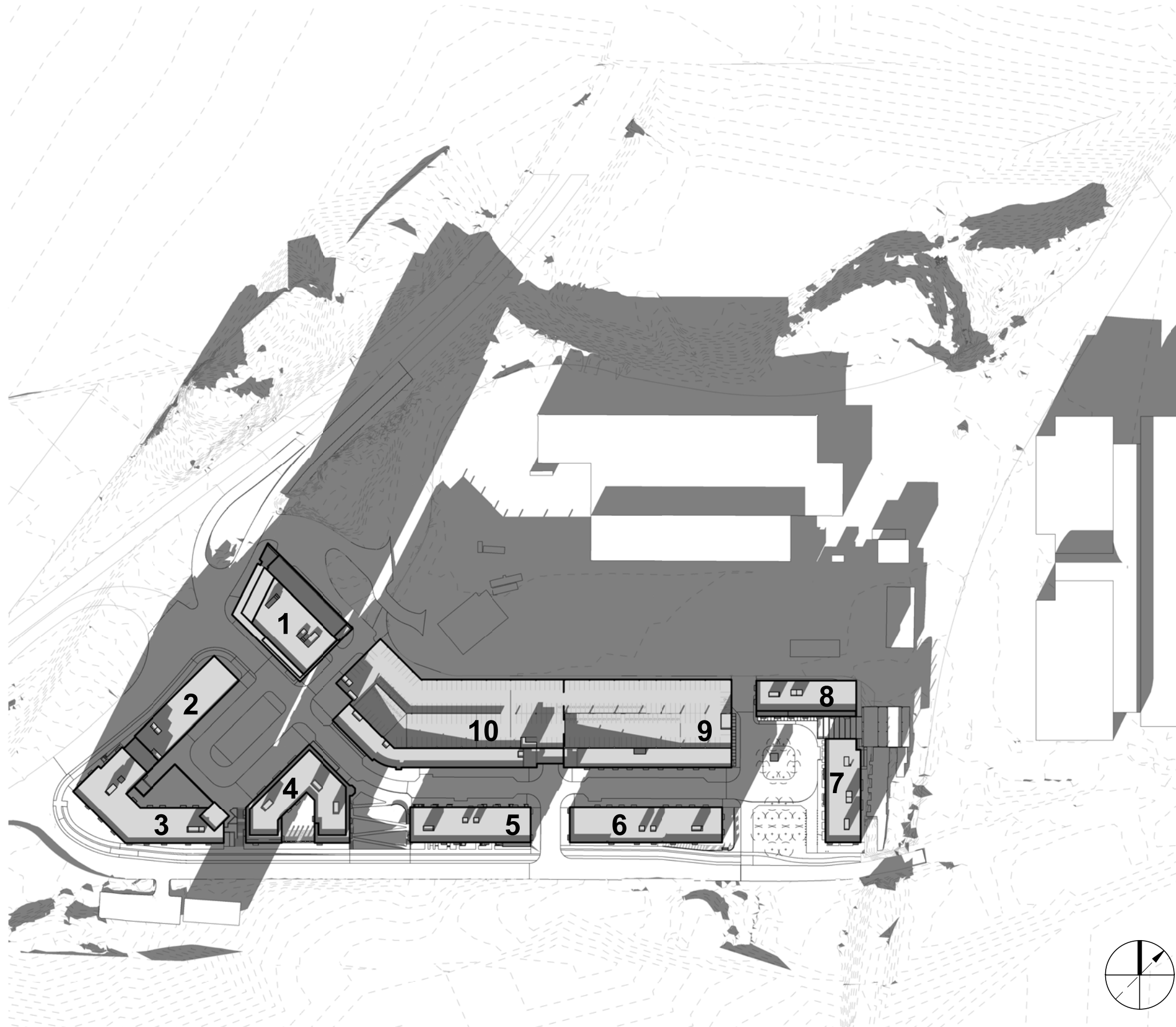
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WINTER SOLSTICE - 09 AM

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SHADOW STUDIES - WINTER SOLSTICE

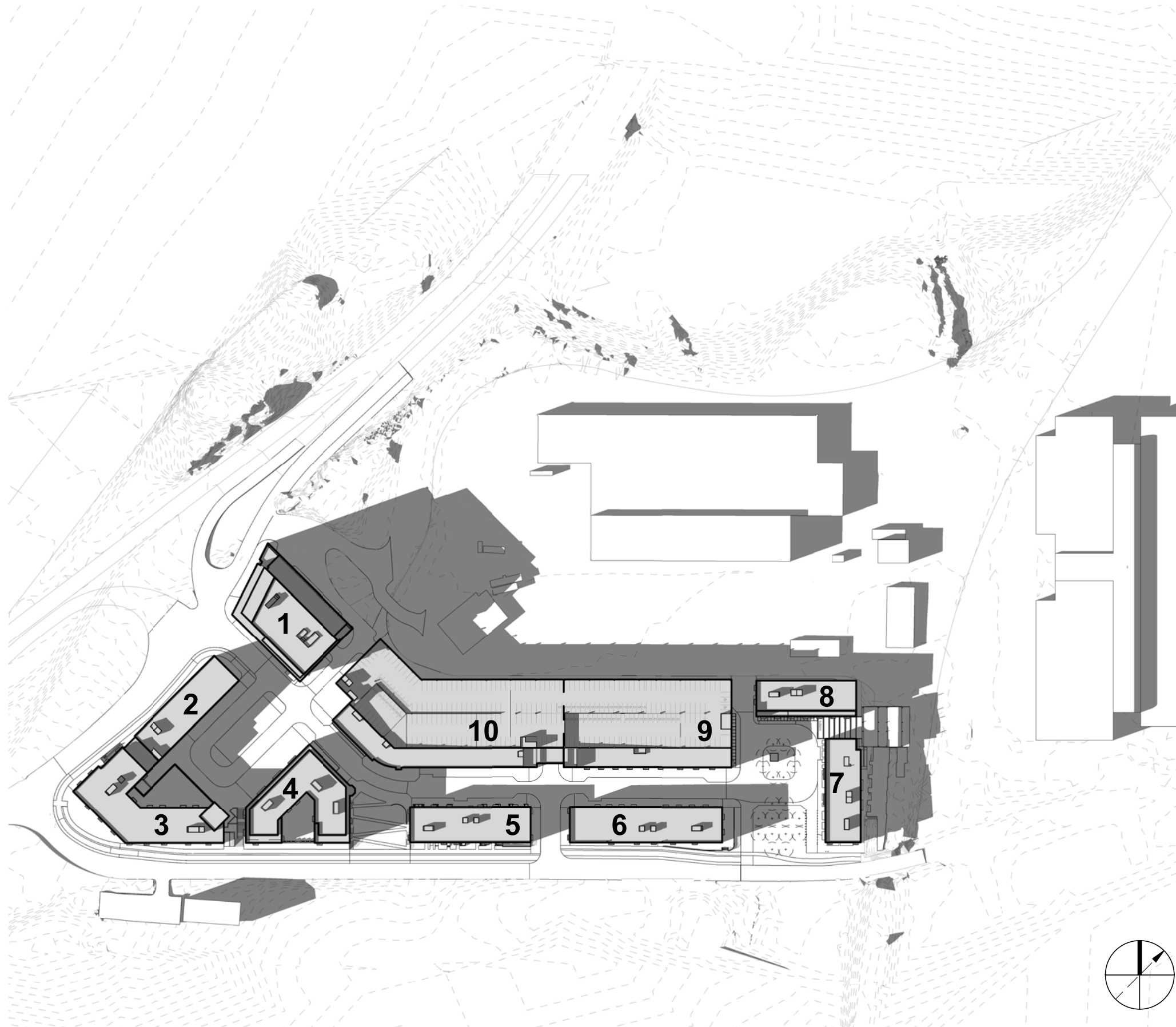
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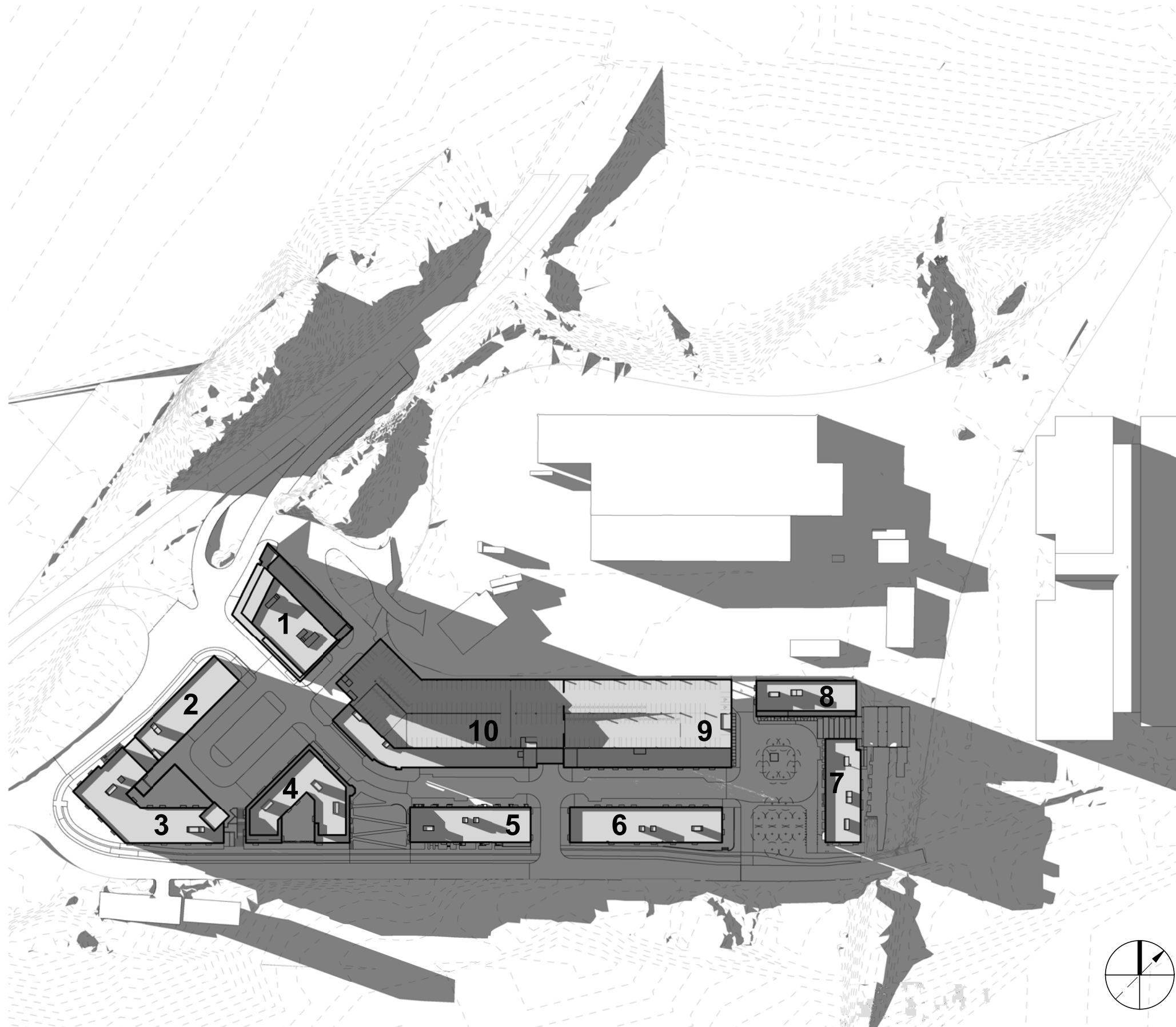
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**SHADOW STUDIES -
SUMMER SOLSTICE**

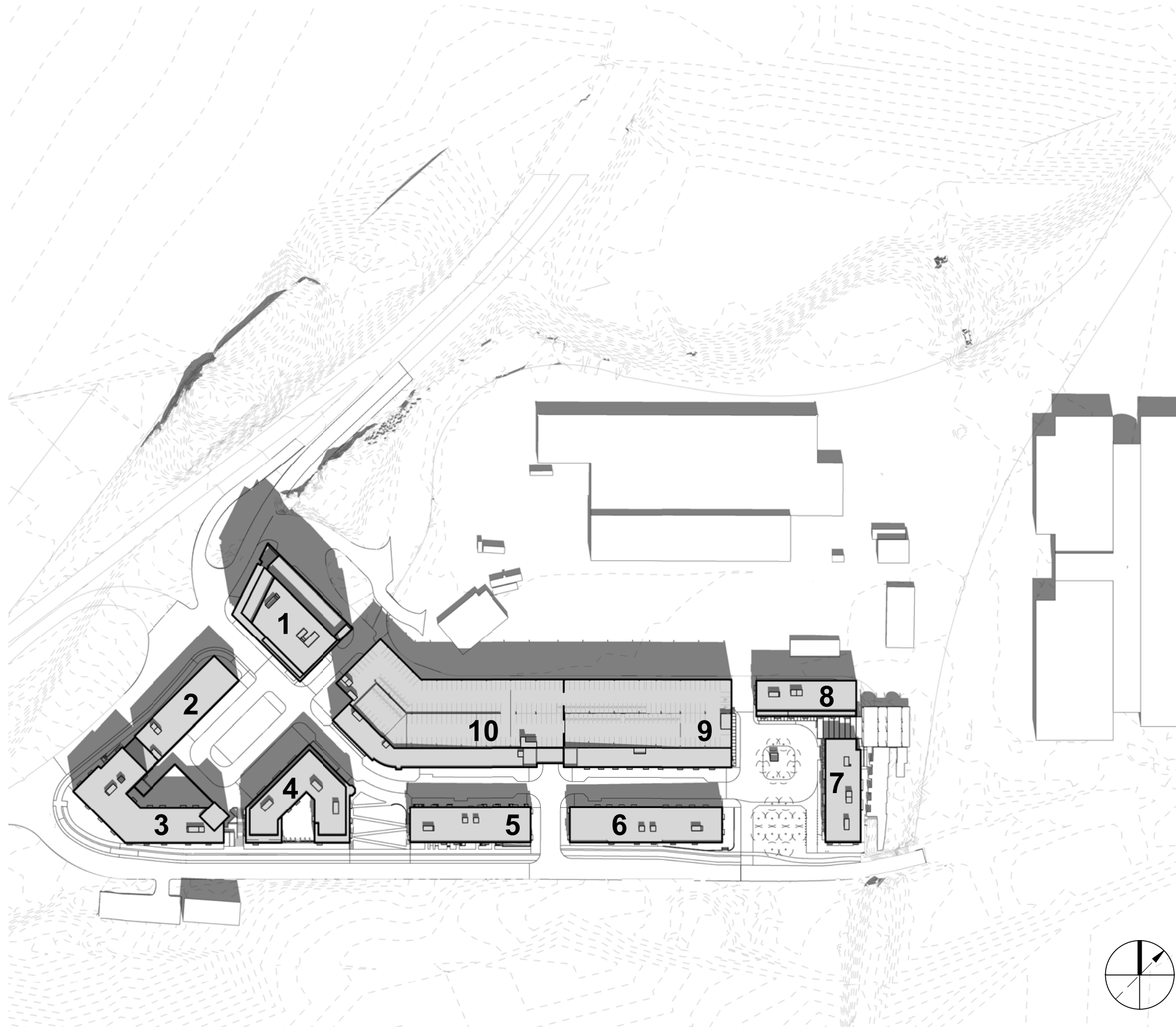
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**SHADOW STUDIES -
SUMMER SOLSTICE**

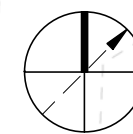
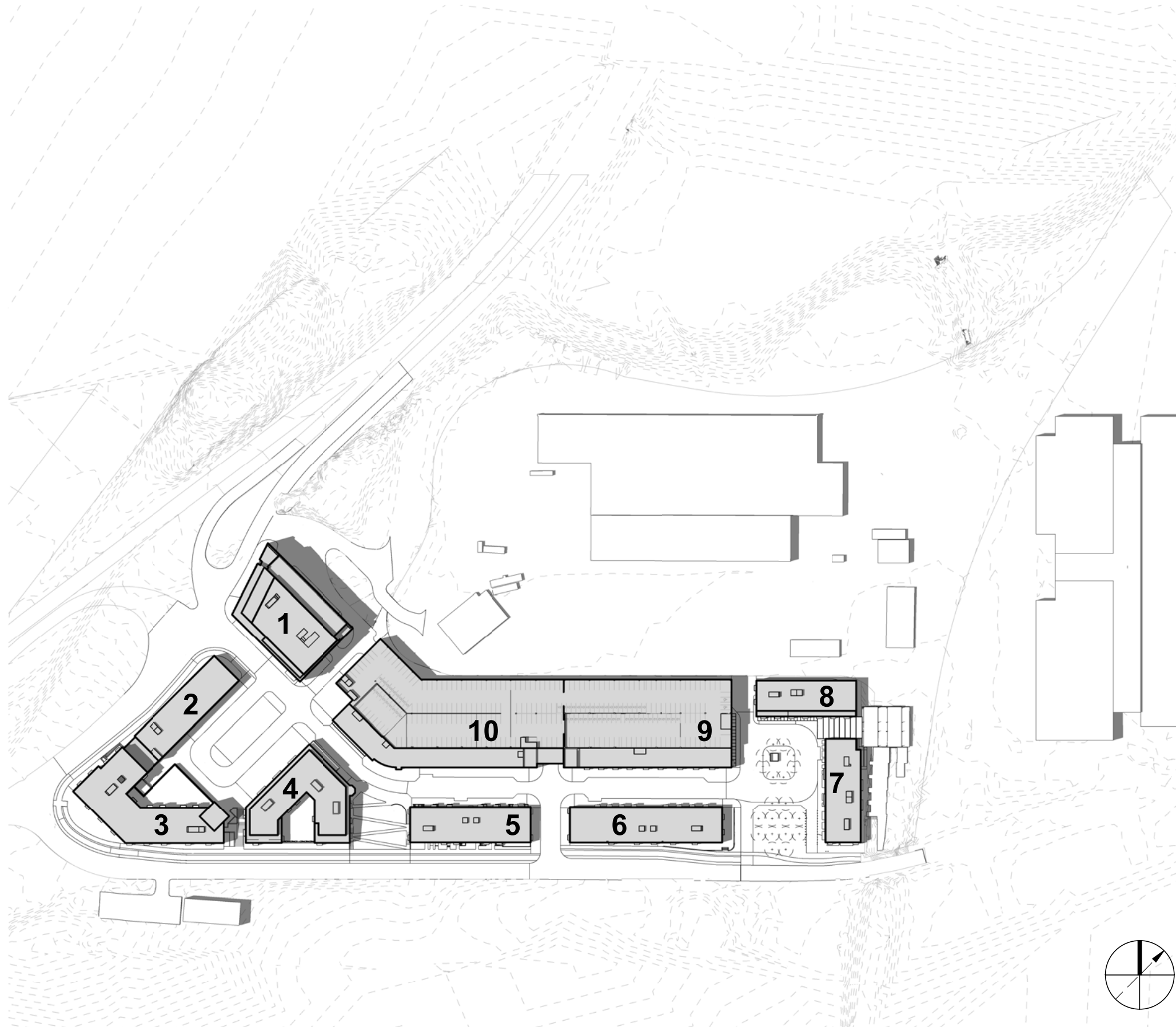
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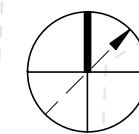
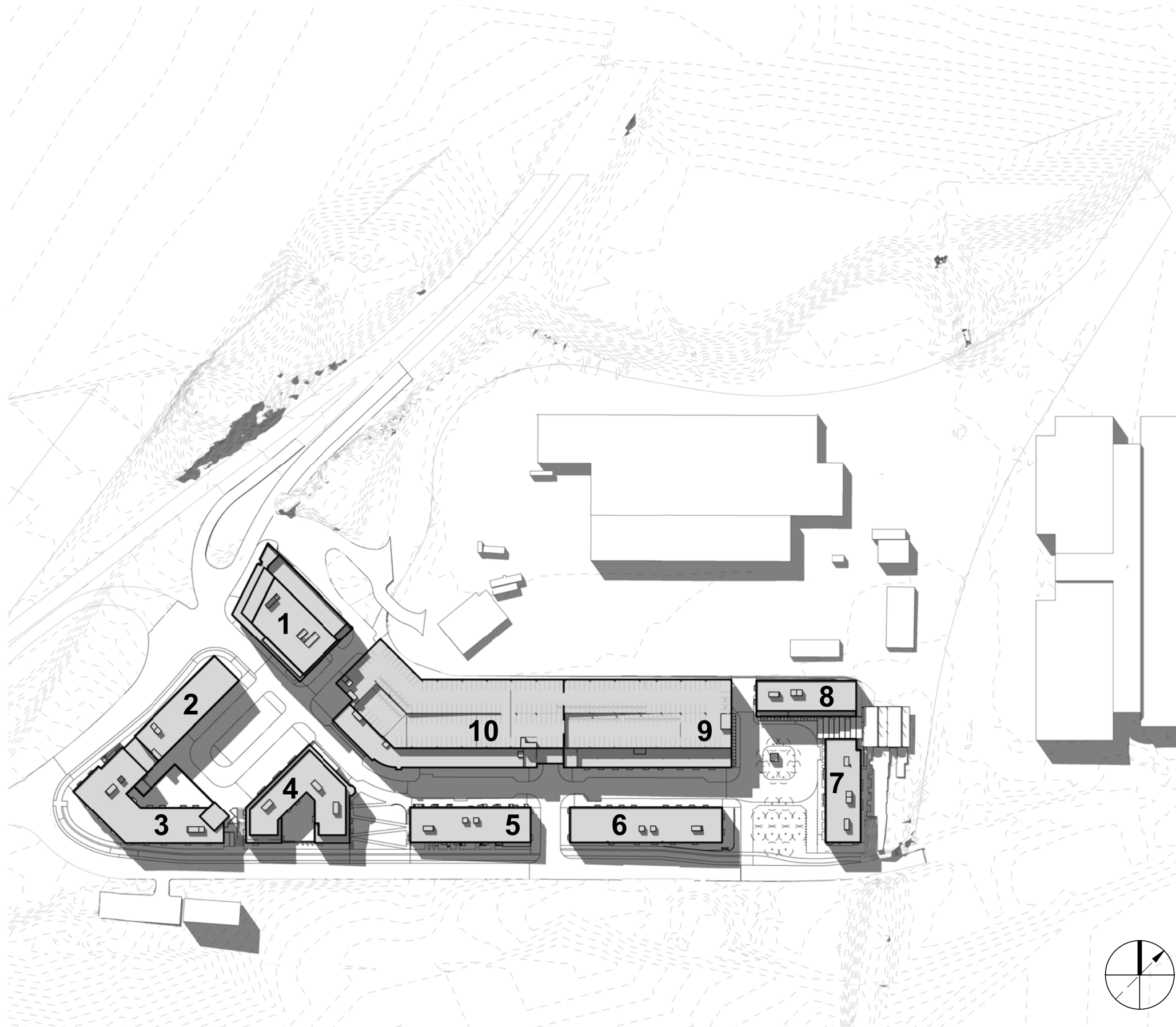
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