

E+ Green Communities Highland Park Community Meeting

**Highland &
Marcella
Streets**

**City of Boston
December 14, 2016**



ENVIRONMENT + ENERGY + EQUITY

*Bringing energy, environmentally,
and social equity positive
development to Boston's
neighborhoods*



MEETING OBJECTIVE

To review the initial planning and meeting history for these parcels, and to confirm the community vision, development and design objectives for the site that will be the basis for a development Request for Proposals (RFP) in early 2017

AGENDA

Welcome/Introductions

- Review history of HP PRC/city planning
- January meeting to review area land uses
- Highland & Marcella Street focus

Highland & Marcella Streets Property Overview

- Parcel locations, conditions and ownership

E+ Green Community Program and Prior Planning Process

- Overview of E+ Green Community Program
- Review of Prior Community Meetings

Review of Prior Proposed Recommendations

- Proposed Community Vision
- Review Prior Planning and Analysis
- Review Preliminary Use and Design Guidelines

Questions and Comments – *Where do we restart?*

Marcella/Highland Streets E+/Green Development

Parcel Ownership
[Red Box] BRA (7)
[Yellow Box] DND (26)



Department of Neighborhood Development
Sheila Dillon, Director and Chief of Housing

Marcella/Highland Streets E+/Green Development

Parcel Ownership

-  BRA (7)
-  DND (26)



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EQUITY

Affordable Housing and Local Job Opportunities



LEADERSHIP

Boston's E+ Green Building Program has challenge leading architects, builders, and developers to work together to construct high performance, green, urban homes and to demonstrate the feasibility of regenerative buildings in Boston.

Five key objectives guide the program:

- E+ FEASIBILITY**
Demonstrates the performance, construction, and financial potential for locally built, energy positive, deep green, urban buildings with on-site renewable energy resources.
- E+ FUTURE PROTOTYPES**
Construct high performance, green buildings using "on-the-shelf" products and materials, and replicable strategies that can serve as models for future practice.
- E+ HOUSING OPPORTUNITIES**
Provide new housing opportunities affordable to a range of income earners in sustainable neighborhoods that are connected to nearby transit, work, and amenities.
- E+ AWARENESS**
Raise public and professional awareness of the importance and potential for high performance, residential, green buildings and design and construction practices.
- E+ URBAN DESIGN**
Reinvigorate Boston neighborhoods with new development that is both expressive of its high performance, green building features and is respectful of its context.

"E+ Green Buildings produce more energy than they use on an annual basis, giving energy back to the grid and saving homeowners money."



ENERGY

Net Positive Performance



ENERGY POSITIVE

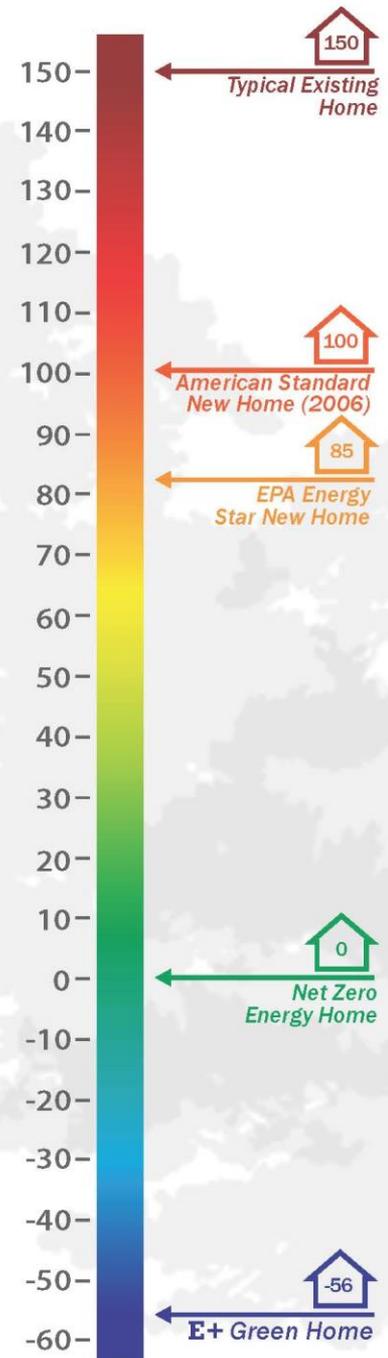
Home Energy Rating System (HERS)

The E+ Green Building program requires buildings that generate more energy than they use annually as indicated by a HERS Index of less than zero.

Developed by Residential Energy Services Network, the HERS models building energy performance. A comparable home, the HERS Reference Home, which is built to the specifications of the 2006 International Energy Conservation Code, scores a HERS Index of 100. A Net Zero Energy home scores a HERS Index of 0 and an E+ Green Home scores a negative HERS Index.

Each 1-point decrease in the HERS Index corresponds to a 1% reduction in energy consumption compared to the HERS Reference Home. An Energy Star home must have a HERS Index of 85, or lower, and is 15% more energy efficient than the HERS Reference Home.

The HERS Index system has been developed by Residential Energy Services Network (RESNET). Text courtesy of RESNET. www.resnet.us





ENVIRONMENT

LEED Platinum Green Buildings



BEYOND PLATINUM

Green Building Leadership in Energy & Environmental Design (LEED)

The E+ Green Building Program requires buildings that are environmentally positive and exceeding LEED for Homes Platinum, the highest certification level.

LEED® is the US Green Building Council's internationally-recognized green building certification system that provides building owners and operators with a framework for identifying and implementing practical and measurable green building design, construction, operations, and maintenance solutions. LEED for Homes scales credit requirements to the size of the building and both measures and verifies practice in eight key sustainability and environmental impact categories:



Sustainable Sites

Discourages building on previously undeveloped land; seeks to minimize a building's impact on ecosystems; encourages regionally appropriate landscaping; rewards smart transportation choices; and promotes reduction of stormwater runoff, erosion, heat island effect and construction-related pollution.



Indoor Environmental Quality

Promotes strategies that improve indoor air quality as well as those that provide occupant access to natural daylight and views and improve acoustics.



Water Efficiency

Encourages smarter use of water, inside and out. Water reduction is typically achieved through more efficient appliances, fixtures and fittings inside, and water-conscious landscaping outside.



Locations & Linkages

Encourages building on previously developed and infill sites and away from environmentally sensitive areas. Rewards homes that are built near existing infrastructure, community resources, and transit and in locations with access to open space for walking, physical activity and time outdoors.



Energy & Atmosphere

Encourages commissioning; energy use monitoring; efficient design and construction; efficient appliances, systems, and lighting; the use of renewable and clean sources of energy; generated on-site or off-site; and other innovative measures.



Awareness & Education

Encourages home builders and real estate professionals to provide homeowners, tenants and building managers with the education and tools they need to understand what makes their home green and how to make the most of those features.



Materials & Resources

Encourages the selection of sustainably grown, harvested, produced, and transported products and materials. Promotes waste reduction as well as reuse and recycling, and especially rewards the reduction of waste at a product's source.



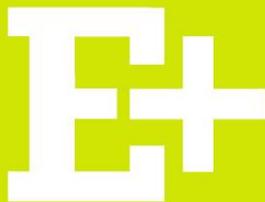
Innovation in Design

Rewards the use of innovative technologies and strategies to improve a building's performance well beyond what is required by other LEED credits, or to reward green building considerations that are not specifically addressed elsewhere in the LEED rating system.

The LEED® Rating systems has been created by the US Green Building Council. Symbols and text courtesy of the USGBC. For more information on LEED, please visit: www.usgbc.org



Community
Symposium
March 1, 2012



ENVIRONMENT + ENERGY + EQUITY

Envisioning E+ Green Communities

Bringing energy, environmentally, and social equity positive development to Boston's neighborhoods

Please join Mayor Thomas M. Menino for a symposium and discussion exploring best practices in green building, sustainable communities, and place making in the built environment.

March 1, 2012 / 6:00 – 8:00PM

Roxbury Community College, Media Arts Center, Building 1
1234 Columbus Ave, Roxbury Crossing

Featured Speakers:

Katie Swenson

Vice President, Design, Enterprise Community Partners

Chris Reed

Founding Principal, StoSS Landscape Urbanism

Phillip Thompson

Assoc. Professor of Urban Politics, Department of Urban Studies & Planning, MIT

Program Partners:



Enterprise



BSA

The E+ Green Building Program is an initiative of the Department of Neighborhood Development and the Boston Redevelopment Authority.

Light refreshments will be provided, seating is limited; Contact: John.Dalzell.BRA@cityofboston.gov

PLEASE RSVP HERE



**A Public Symposium Envisioning
E+ Green Communities**

Held at Roxbury Community College



Community Symposium
March 1, 2012

Community Charrette
March 10, 2012

Community Workshops
April 21, 2012

July 16, 2012

August 20, 2012

H/HP
community space opportunity site (1, 2, 3) note: highland high traffic
integration of public + private space
keep ^{density in} scale of existing environment

- mixed use residential/retail (7)
- cost effective incentives w/ design
- open space (1) connection/linkage through block (beach + marvella)
- commercial (office) (4) ^{together (E+, 9, 7)}
- mixed use (4) res/retail
- large structure could be placed on site (E)
- residential (5, 5) ~~corner~~ corner w/ parking, ^{note: 5 units}
- urban wild (2)
- specific retail/institutional - veterinary hospital





COMMUNITY AND CITY VALUES - from 2012 meetings

Over the course of 5 community meetings in 2012, the following values were outlined:

- **Involvement:** Emphasize meeting outreach to residents, engage residents in shaping values, development criteria and objectives.
- **Income Mix:** Include income diversity- 2/3's affordable and 1/3 market rate.
- **Sustainable Development:** Promote community social sustainability- housing affordable to residents, green and public open space, enhance connections between built and green spaces, be mindful of “place making”.
- **Urban Design:** Celebrate historic buildings and historic neighborhood in design.
- **Green Building:** Promote energy efficient “green” and E+ development.
- **Reduce Car Use:** Promote T, biking, walking and shared cars.



Community
Vision

COMMUNITY VISION – Draft as of August 2012

CELEBRATE HIGHLAND PARK COMMUNITY

- Historic Buildings and Historic Neighborhood
- E+/Green Development To Spotlight Highland Park

PROMOTE COMMUNITY SOCIAL SUSTAINABILITY

- Mixed-income Development: Rental And Ownership
- Community Gardening And Fresh Food
- Local Entrepreneurship And Local Businesses/Services
- Increase Affordable Housing

PROMOTE SUSTAINABLE DEVELOPMENT

- Promote Energy Efficiency/Green Technology To Existing Residents/Owners
- Preserve Local Unique Geographical Features
- E+ Green Building and Renewable Energy
- Connect Open Spaces, Pathways And Passages
- Reduce Car Use / Promote T, Biking, Walking, Shared Cars
- Open Space Within Developments



Urban Design
Analysis

PARCEL CLUSTER

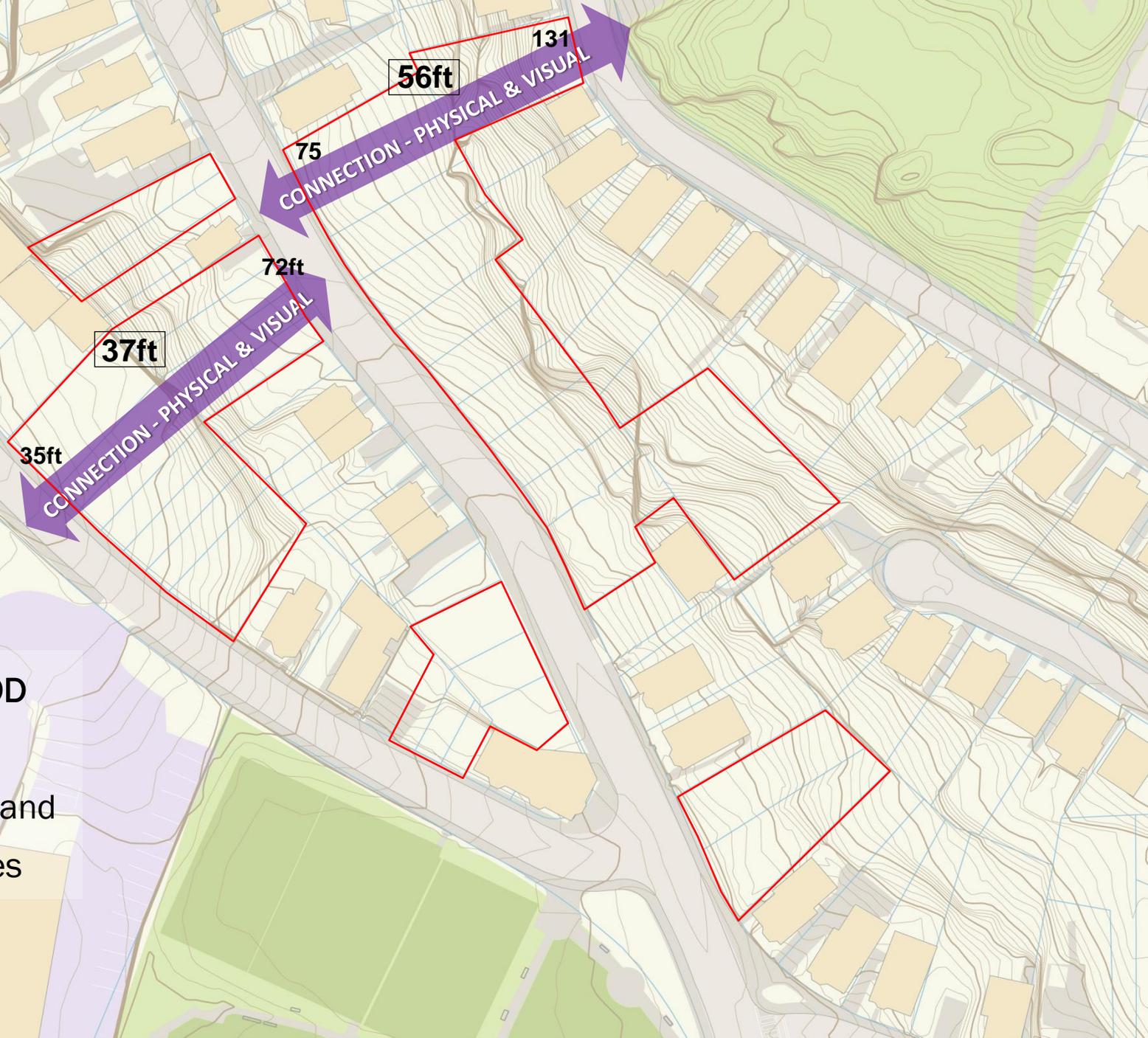




Urban Design
Analysis

NEIGHBORHOOD CONNECTIVITY

-Grade change and
slope challenges

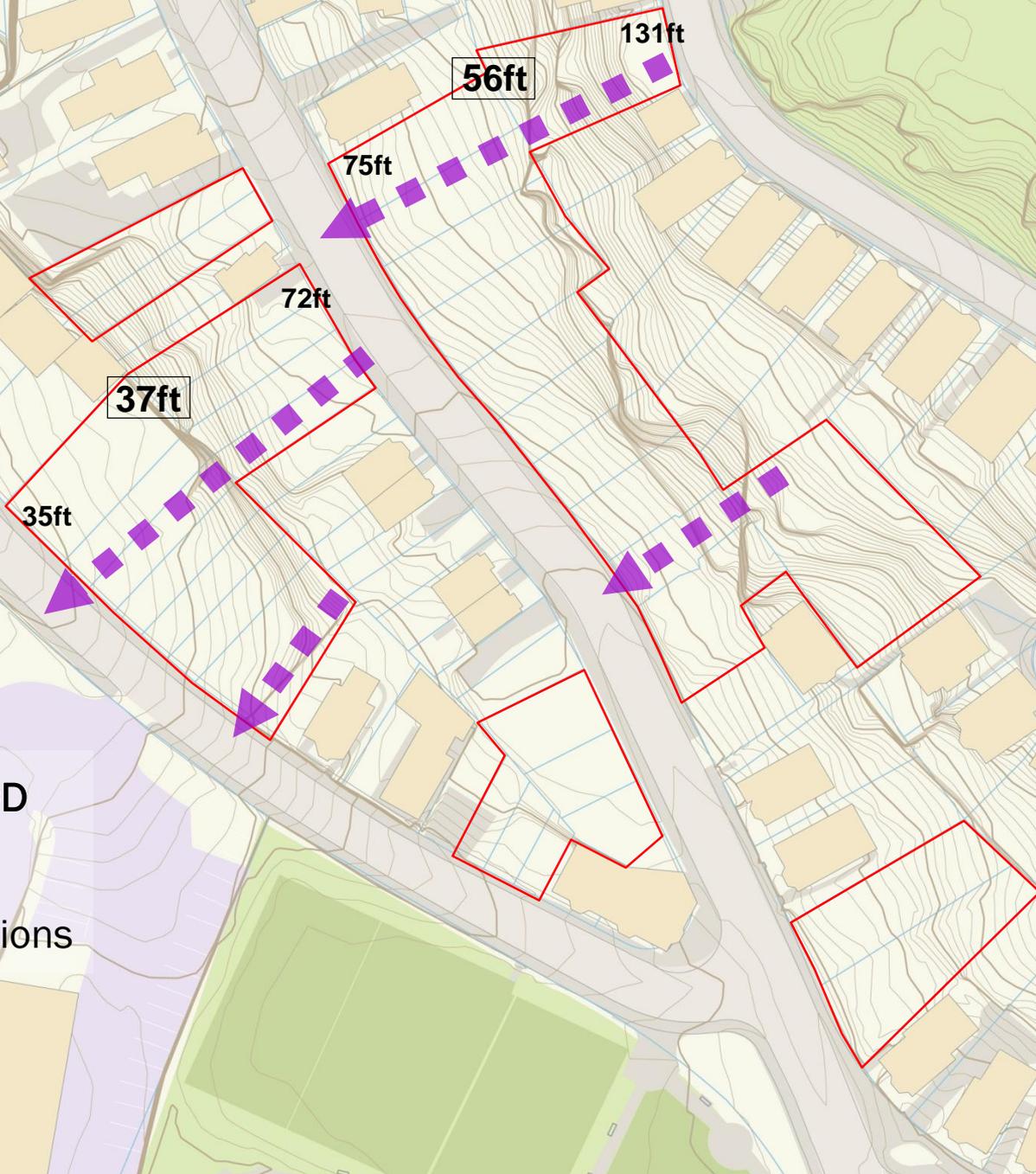




Urban Design
Analysis

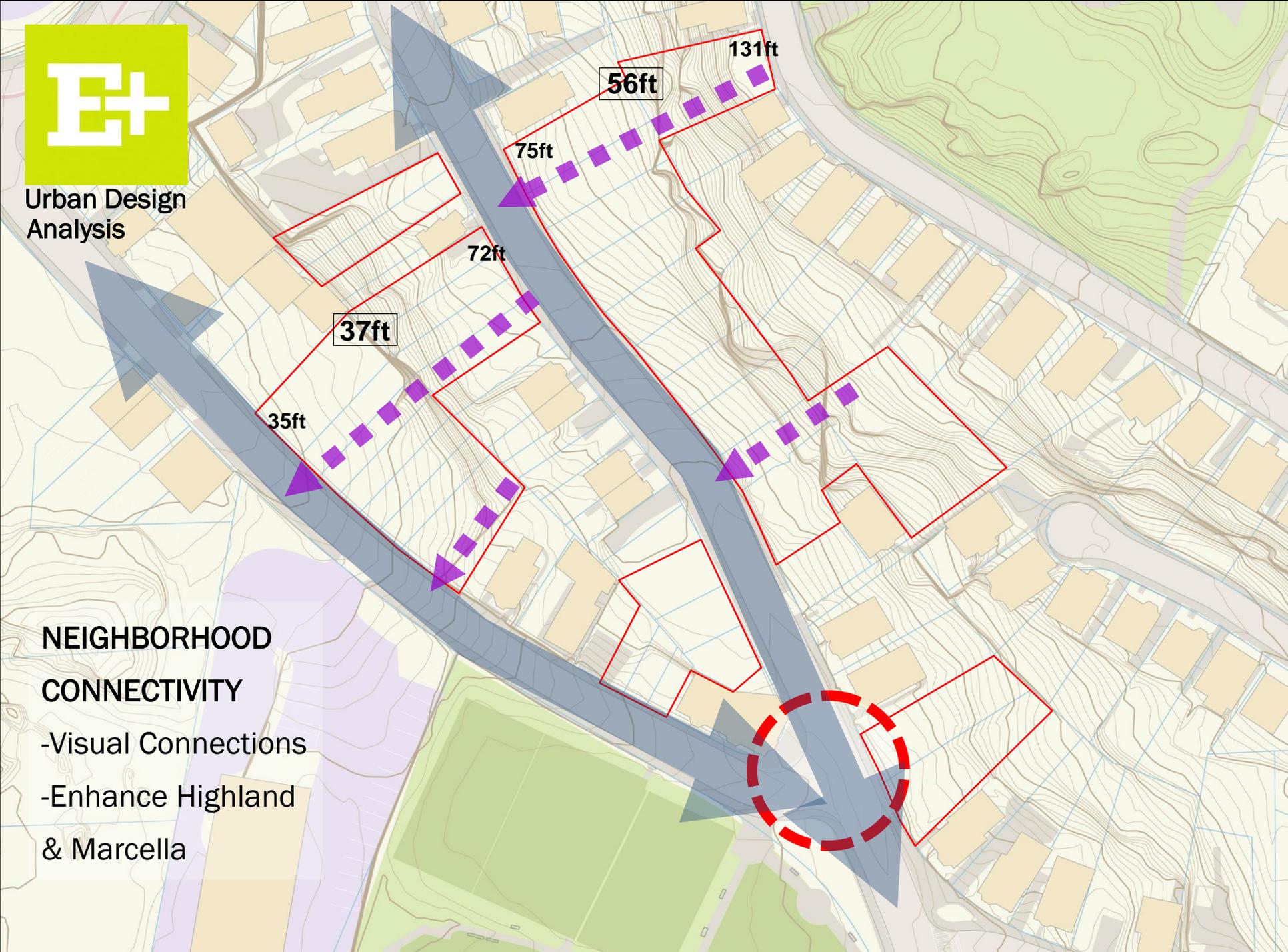
NEIGHBORHOOD
CONNECTIVITY

-Visual Connections





Urban Design
Analysis



**NEIGHBORHOOD
CONNECTIVITY**

- Visual Connections
- Enhance Highland
& Marcella



Urban Design
Analysis

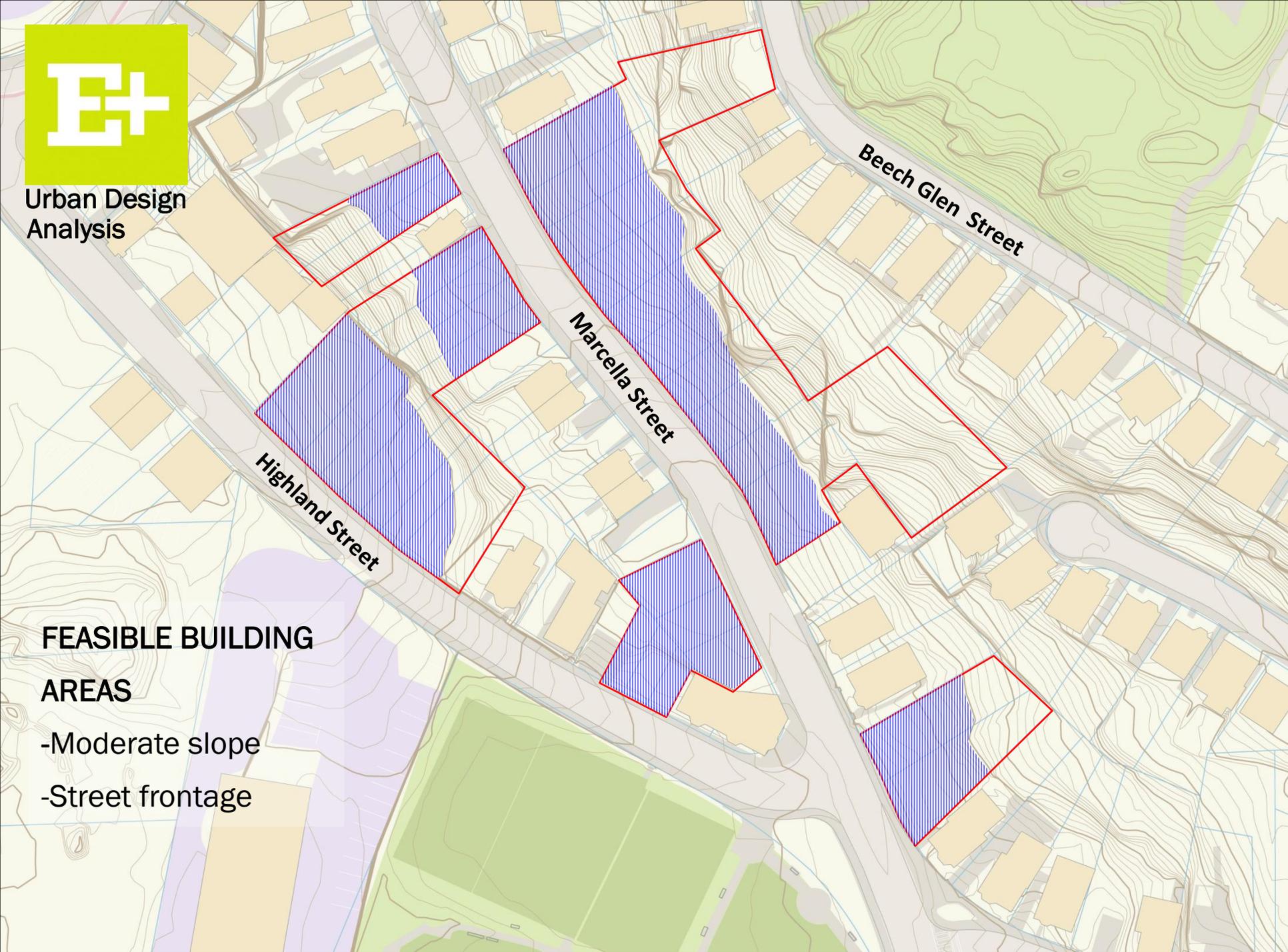
Highland Street

Marcella Street

Beech Glen Street

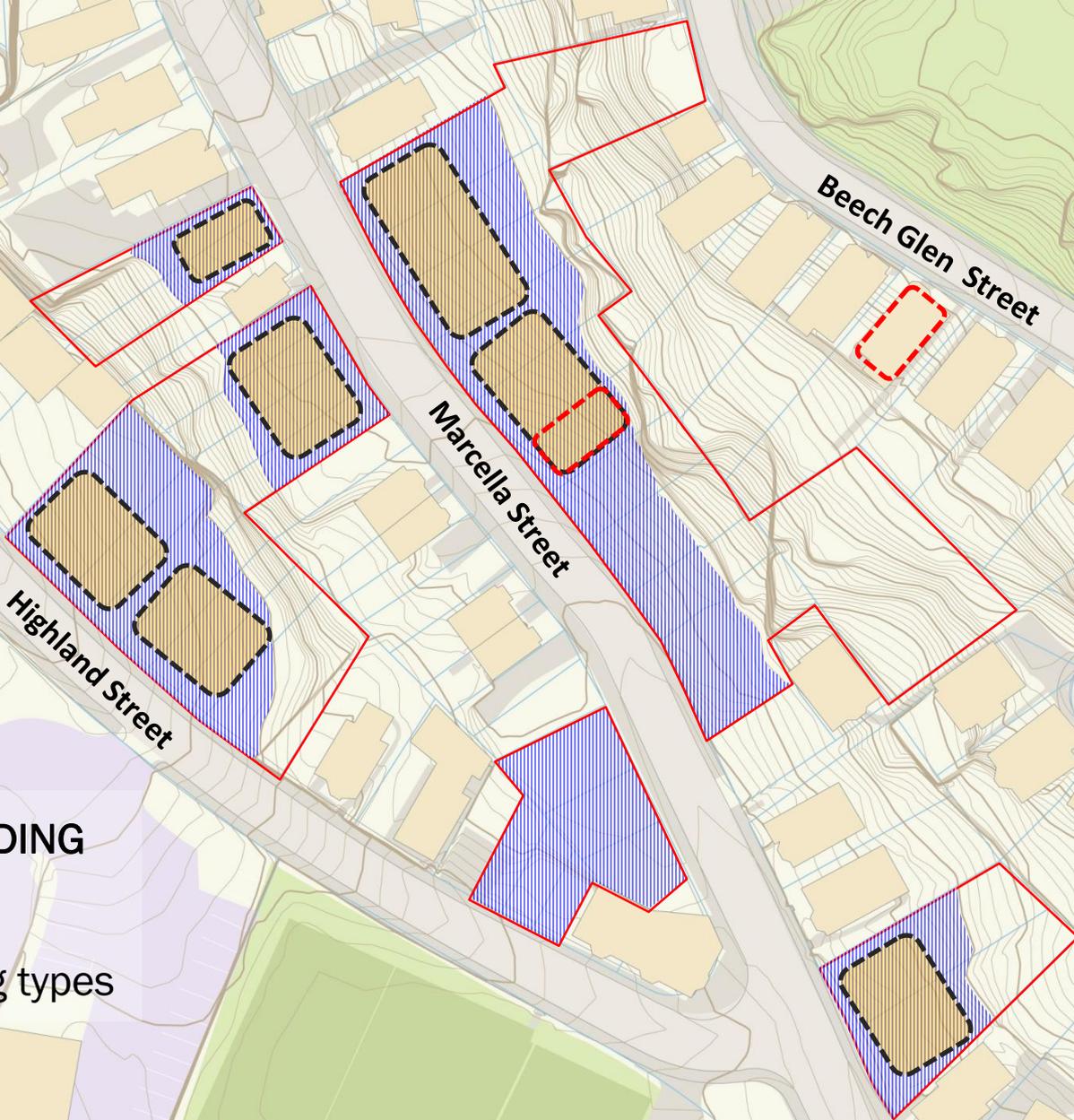
**FEASIBLE BUILDING
AREAS**

- Moderate slope
- Street frontage





Urban Design
Analysis

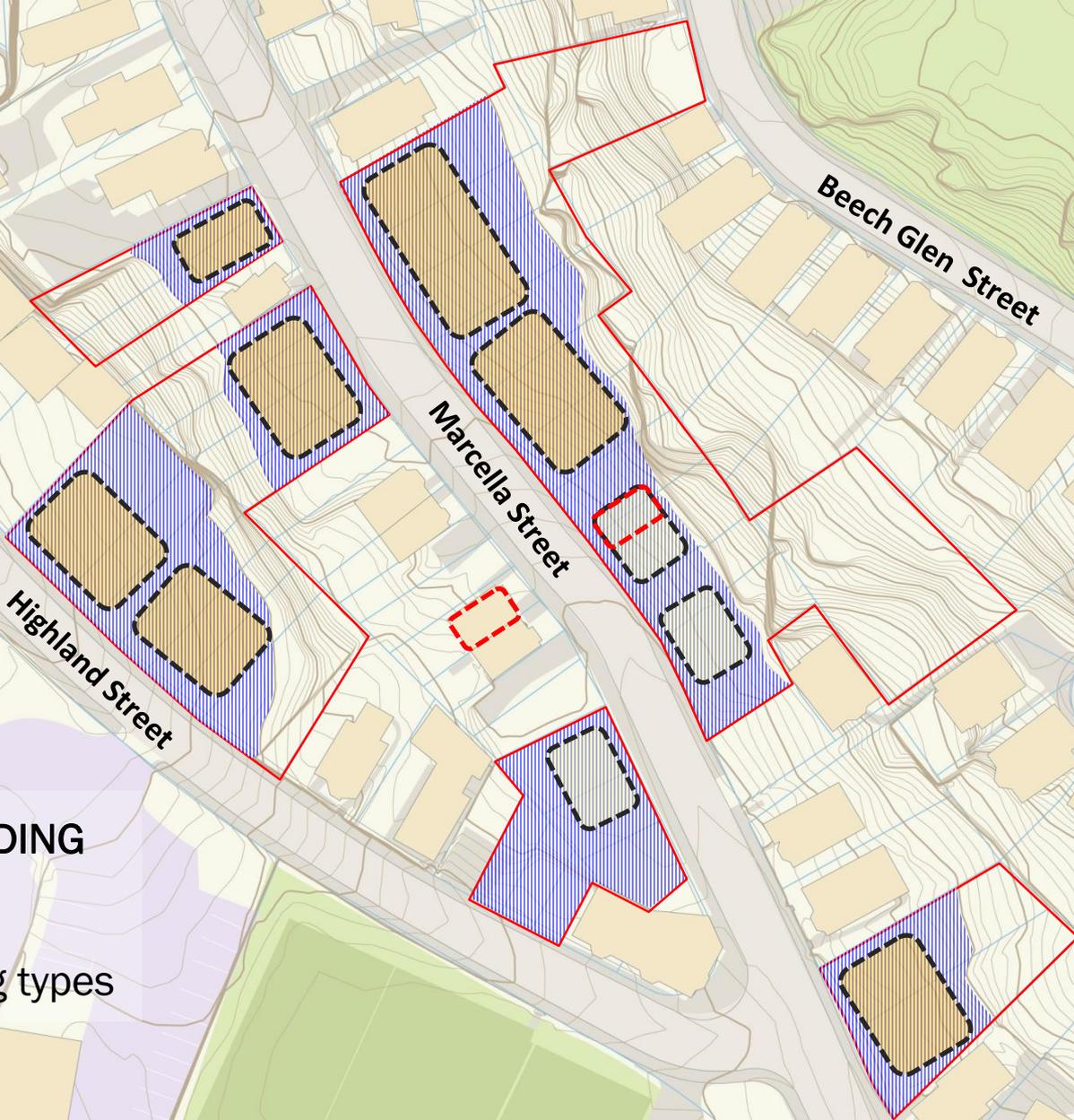


**FEASIBLE BUILDING
AREAS**

-Typical building types



Urban Design
Analysis



**FEASIBLE BUILDING
AREAS**

-Typical building types



Urban Design
Analysis

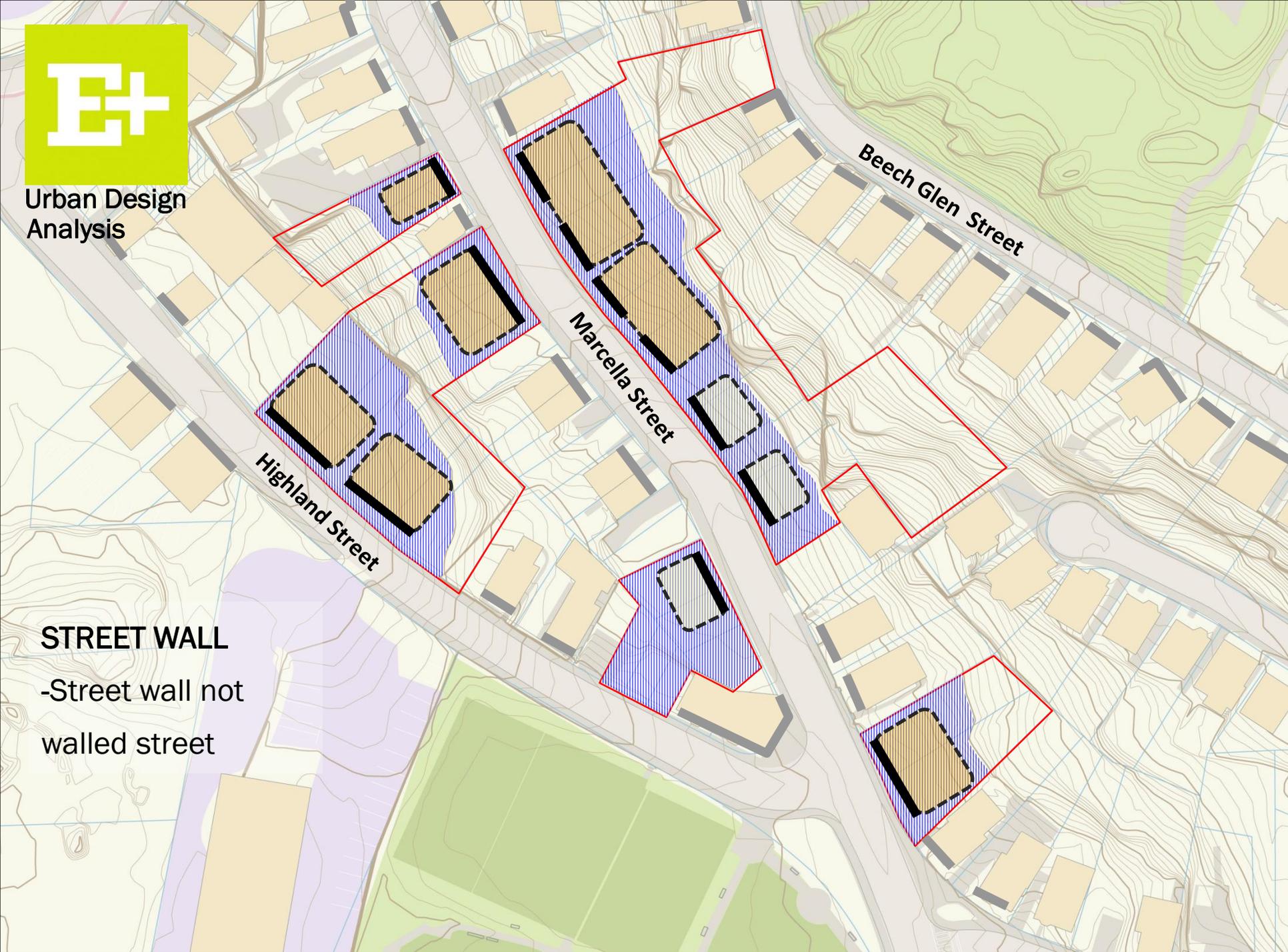
Highland Street

Marcella Street

Beech Glen Street

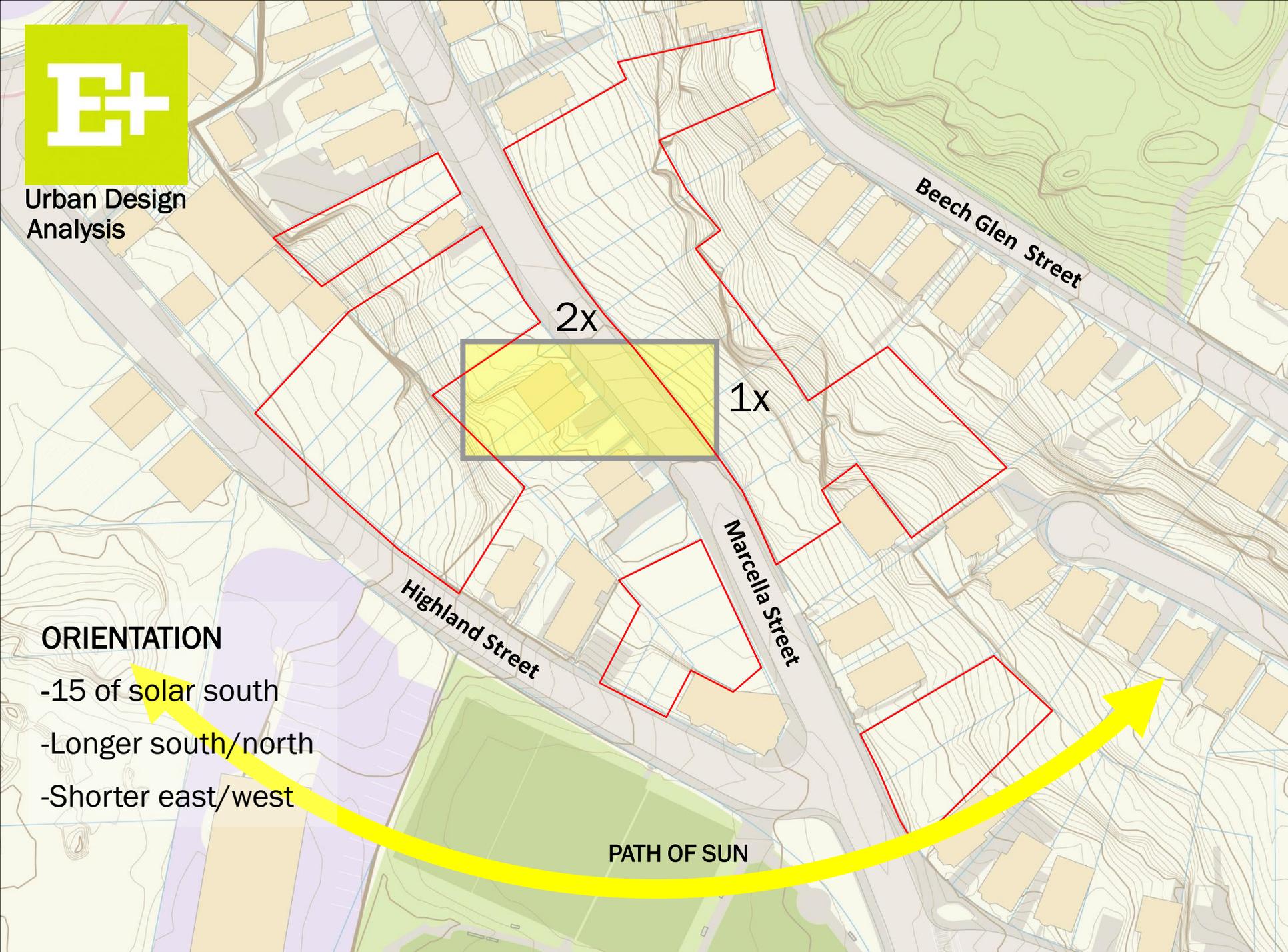
STREET WALL

-Street wall not
walled street





Urban Design
Analysis



2x

1x

Beech Glen Street

Marcella Street

Highland Street

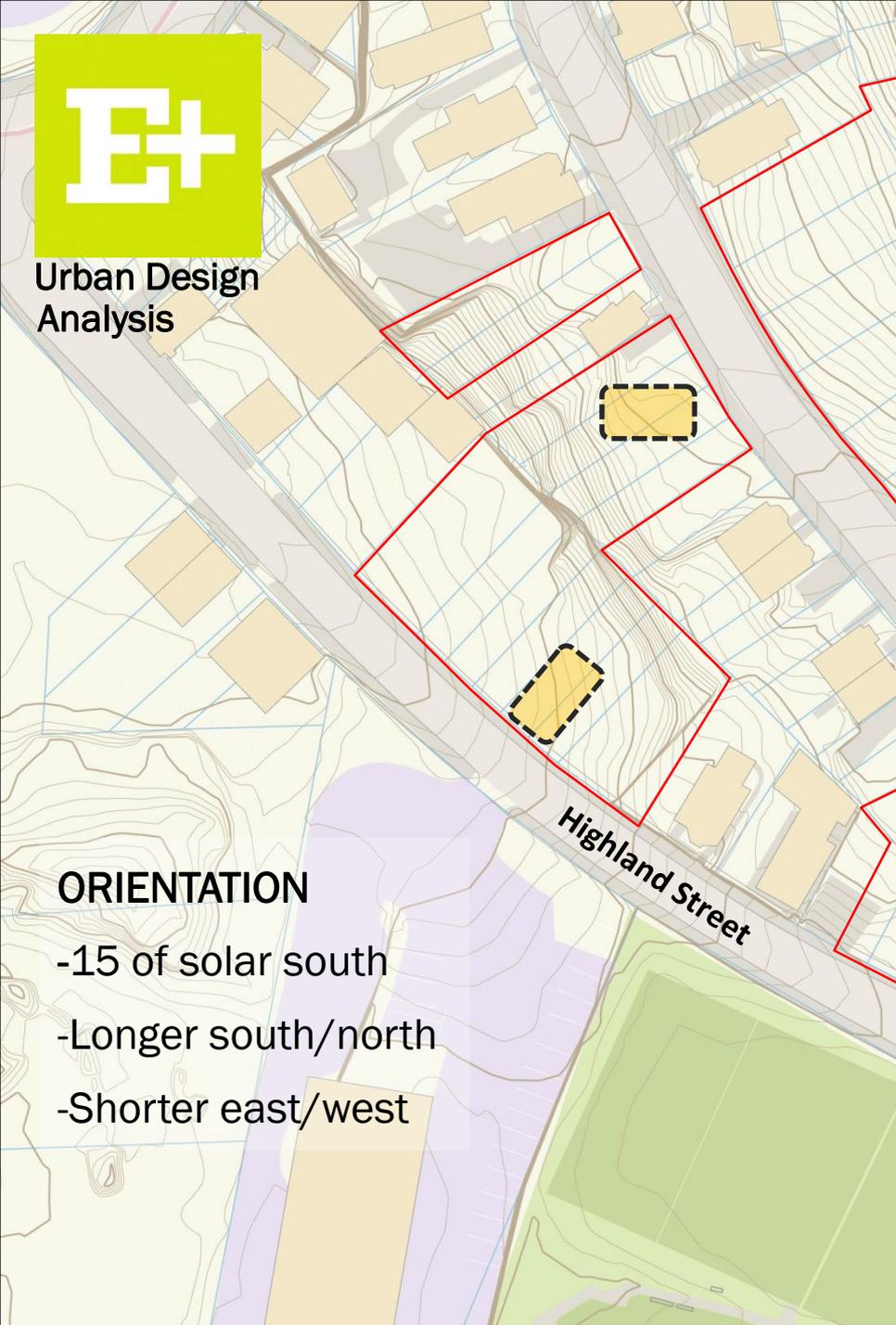
ORIENTATION

- 15 of solar south
- Longer south/north
- Shorter east/west

PATH OF SUN



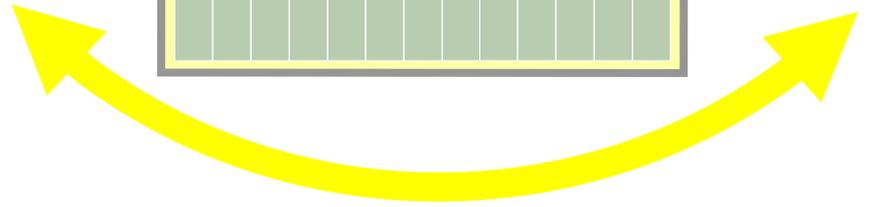
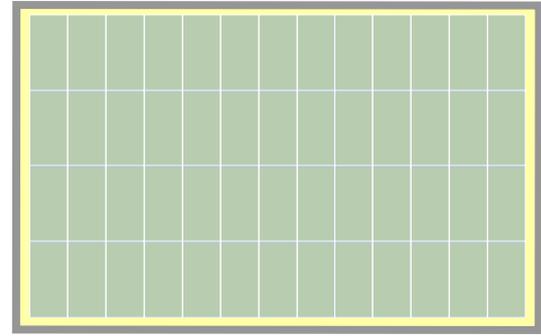
Urban Design Analysis



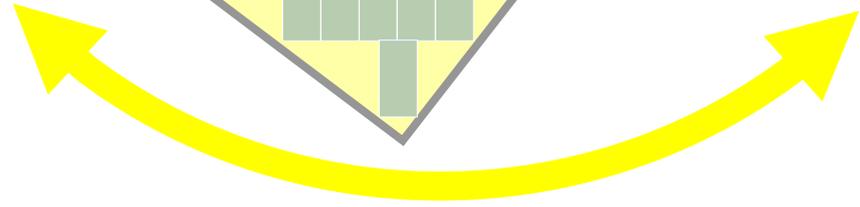
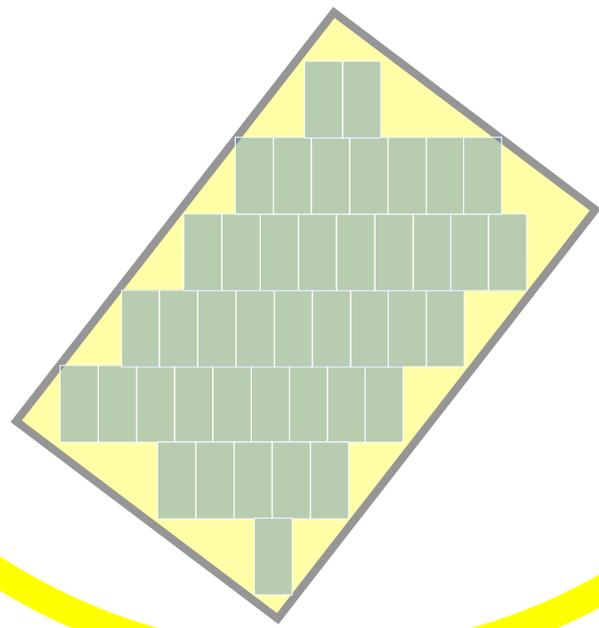
ORIENTATION

- 15 of solar south
- Longer south/north
- Shorter east/west

Solar Orientation: 100% Efficiency/ 52 PV Panels

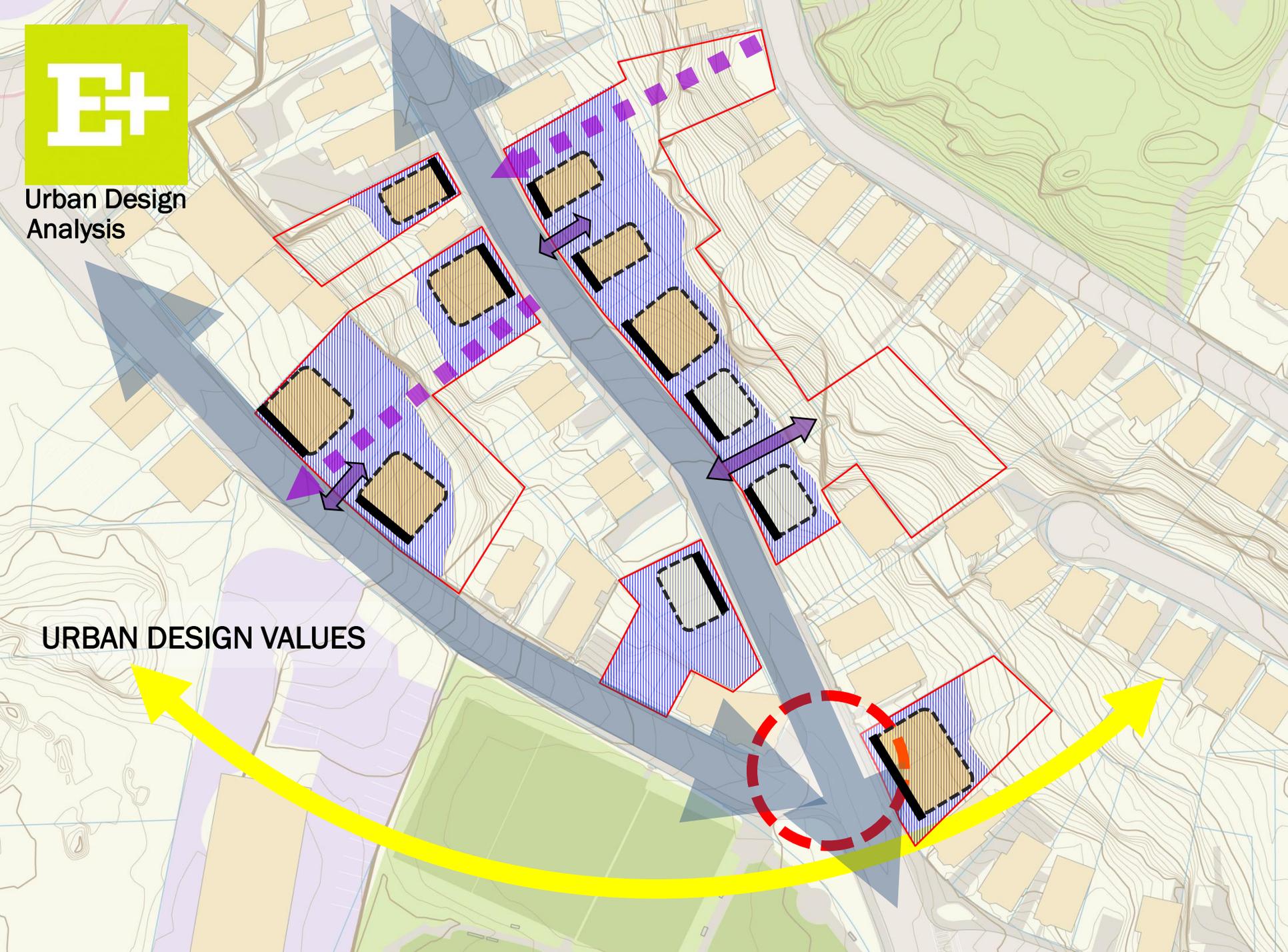


Site Orientation: 80% Efficiency/ 42 PV Panels





Urban Design
Analysis



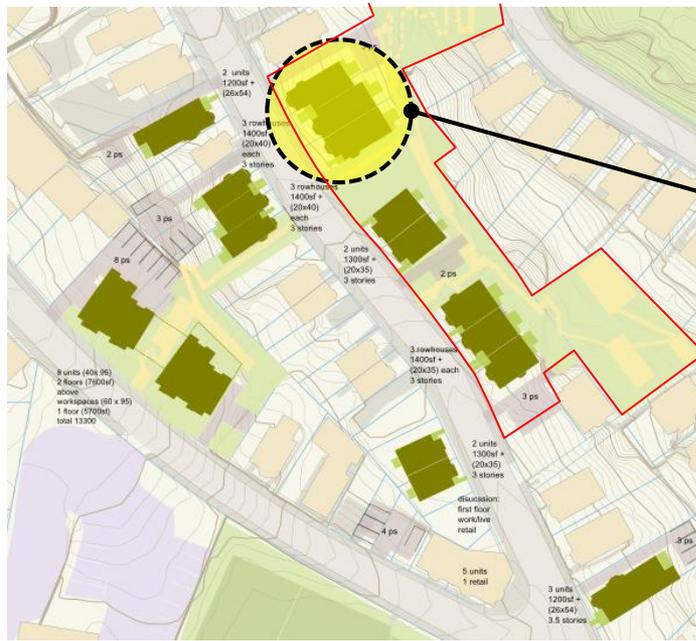
URBAN DESIGN VALUES



Urban Design Analysis



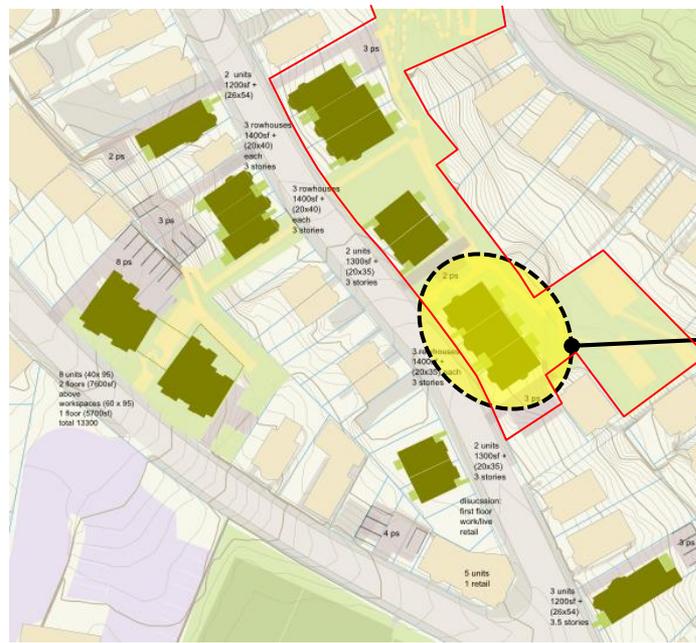
- 3 units duplex
- 3 stories
- 2 BR per unit
- 1200sf + per unit
- 3 parking spaces



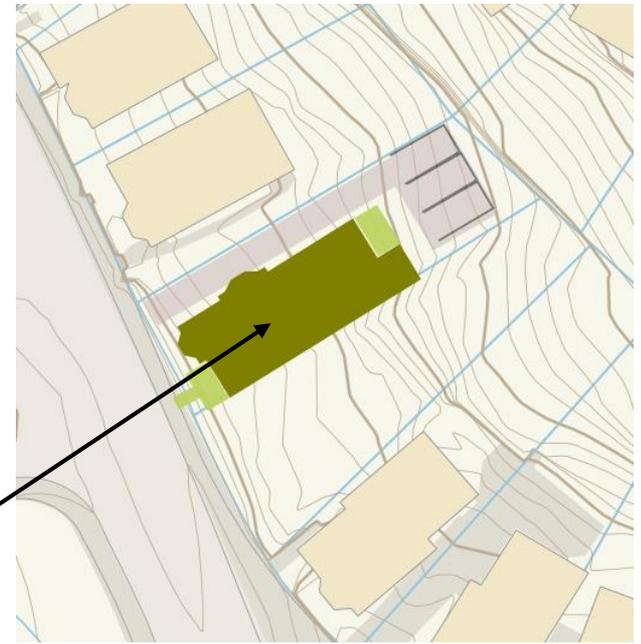
- 2 family house
- 3 stories
- 3BR per unit
- 1200sf + per unit
- 2 parking spaces



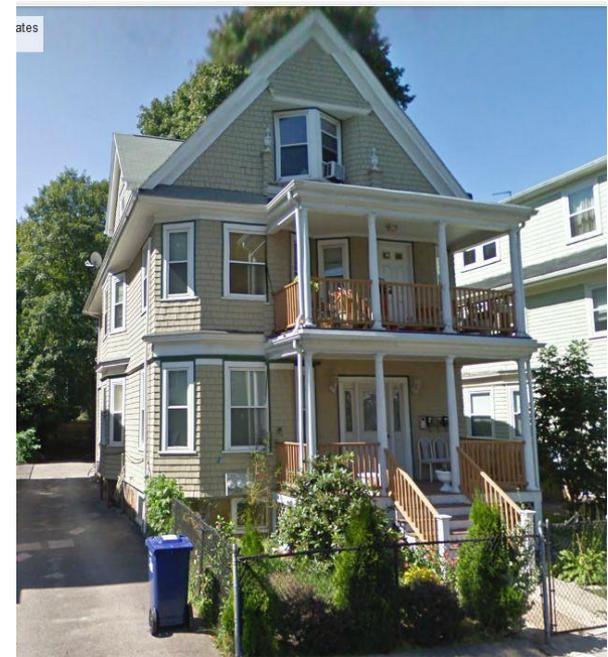
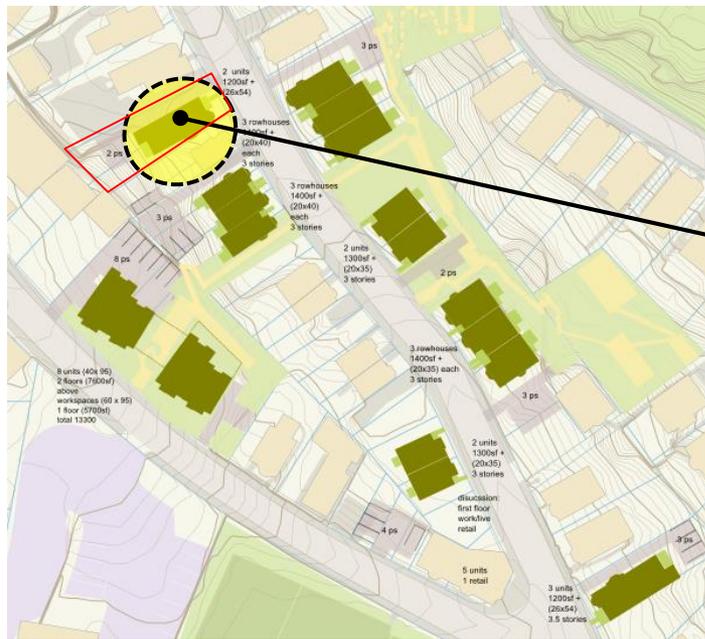
- 3 units duplex
- 3 stories
- 2 BR per unit
- 1200sf + per unit
- 3 parking spaces



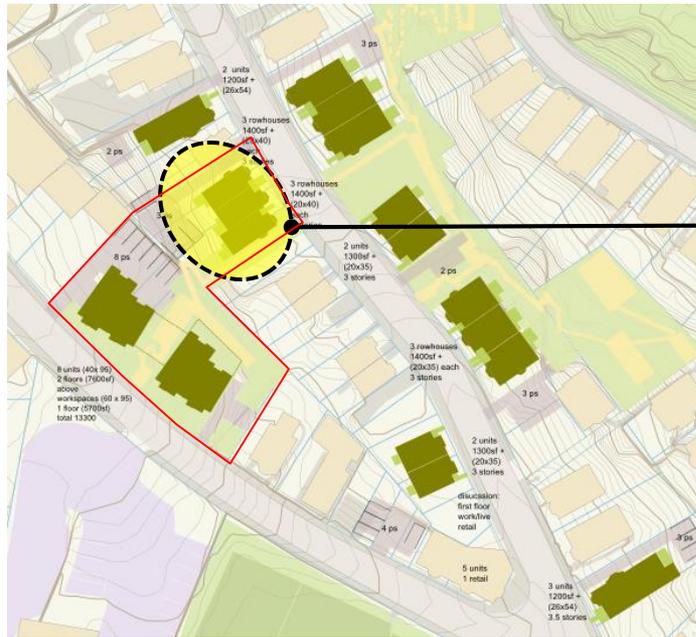
- 2 units
- 3 stories
- 3 BR per unit
- 1200sf + per unit
- 3 parking spaces



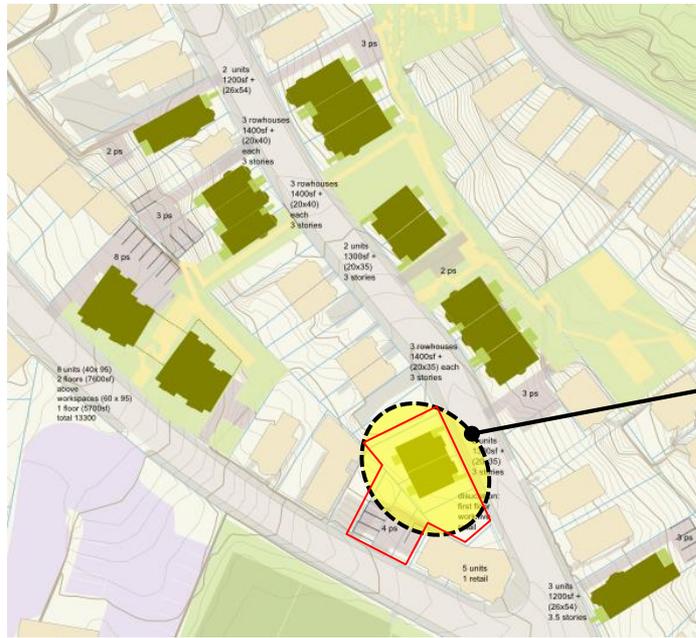
- 2 units
- 3.5 stories
- 3 BR per unit
- 1200sf + per unit
- 2 parking spaces



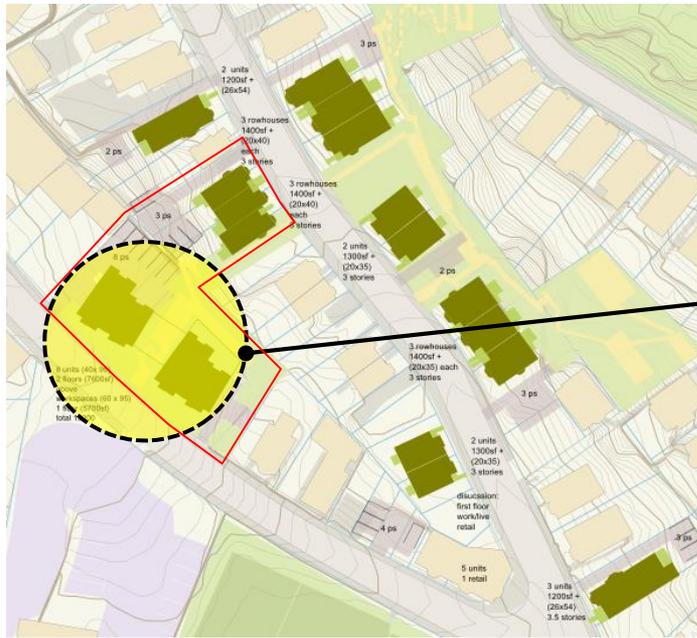
- 3 rowhouses
- 3 stories
- 3 BR per unit
- 1400sf + per unit
- 3 parking spaces



- 4 stories
- 3 residential units
- 1 retail
- or workspace
- 4 parking spaces



- 8 units
- 2 floors (7600)
- Workspace below
- 1400sf + per unit
- 8 parking spaces





Housing and sloped landscapes



So where do we start?
Questions & Answers?

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Department of Neighborhood Development
Sheila Dillon, Director and Chief of Housing



For further information, please visit:

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