



U District Green Street on NE 42nd St

Street Concept Plan





This plan was prepared for the U District community and led by the U District Green Street **Steering Committee** with participation from a **Stakeholder Group** consisting of key neighborhood stakeholders.

Steering Committee *in alphabetical order*

Don Blakeney, U District Partnership
Pete Chautavipat, Little Thai Restaurant
Cory Crocker, U District Advocates
John Hix, Seattle Vineyard Church
Judith Hix, Seattle Vineyard Church
Dr. Jeff Hou, University Of Washington
Beth Mountsier, Bulldog News & Café
John Owen, Makers Architecture & Planning
Leah Preston, La Paz Apartments
Katy Ricchiuto, U District Partnership

Consultants *in alphabetical order*

Mark Brands, FASLA, PLA, Site Workshop
Bethany Steadman, PE, Mayfly Engineering
Robin Thaler, PE, Mayfly Engineering
Kevin Van Meter, Site Workshop

*This project is dedicated to the memory of our esteemed colleague, **John Owen**, whose exceptional expertise and commitment to improving the U District spanned several decades.*

Stakeholder Group *in alphabetical order*

Mohammed Azmath, Professional Copy & Print
Lyle Bicknell, Seattle Office of Planning & Community Development
Mark Childs, Childs Design Consulting
Jeremy Eknoian, University of Washington Real Estate
Joshua Gawne, Seattle Department of Transportation
Ray Jia, University of Washington Student
Ally Kerr, Resident
Maya Lu, BobaUp
Maureen, Stanford Apartments
Gordon Padelford, Seattle Neighborhood Greenways
Dave Rogers, MIG, Inc.
Hoai Anh Tran, Malmö University
Kate Wellens, University of Washington Student

Sponsors



U District Green Street is a project of **U District Advocates** (the fiscal sponsor), a 501c3 nonprofit organization.

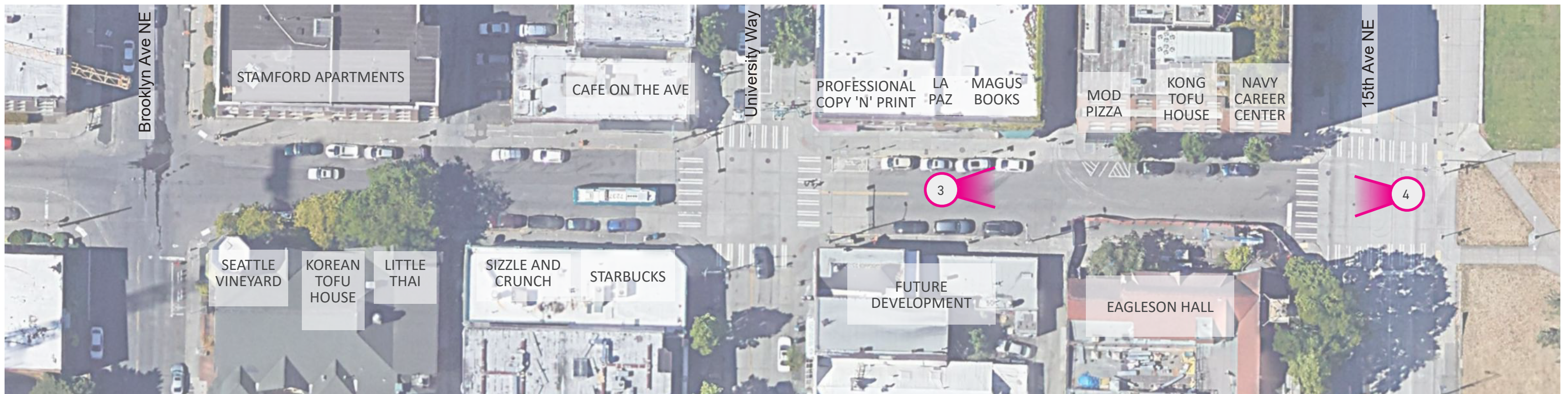


The project was made possible with funding provided by the Neighborhood Matching Fund from the **Seattle Department of Neighborhoods**.



The project also received support from **4Culture** of King County.





Design Process

The Steering Committee and Design Team hosted a series of three Stakeholder meetings to engage the community at each step of the design process. The Stakeholder group represented a diverse group of interests and backgrounds related to 42nd street. The group included business

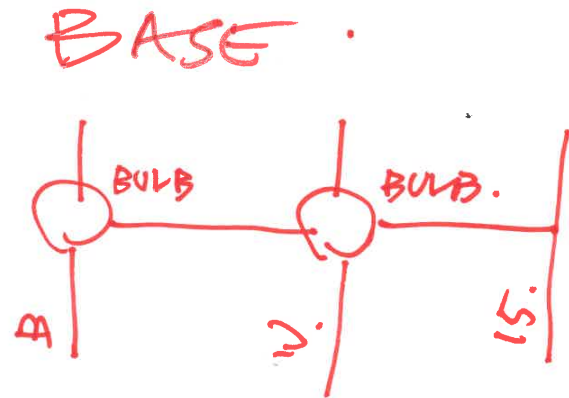
owners, property managers, and residents of 42nd street as well as UW students and professors and representatives from the U District Partnership, U District Advocates, Seattle Neighborhood Greenways, and SDOT. Additionally, broad public outreach was conducted via online surveys and one open house.



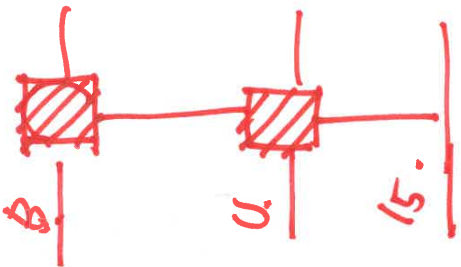
Design Process

The three stakeholder meetings targeted the themes of Understanding, Exploring, and Deciding. In the first meeting the design team shared project background and the group discussed priorities for the street. At the second and third meetings design options were discussed at sequentially

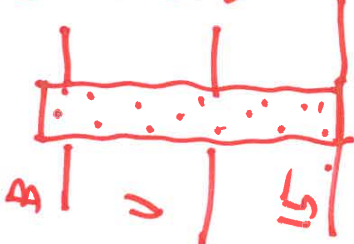
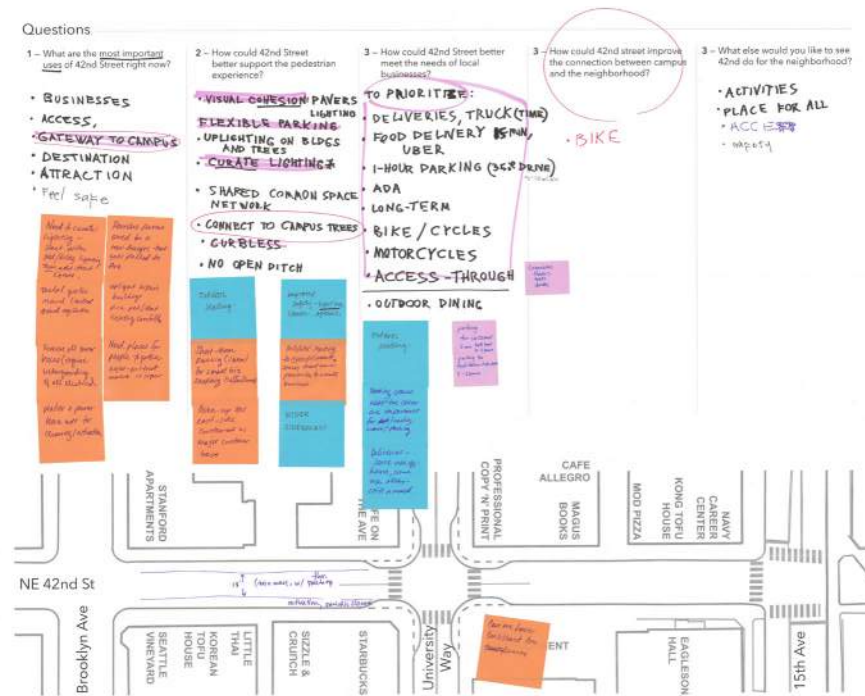
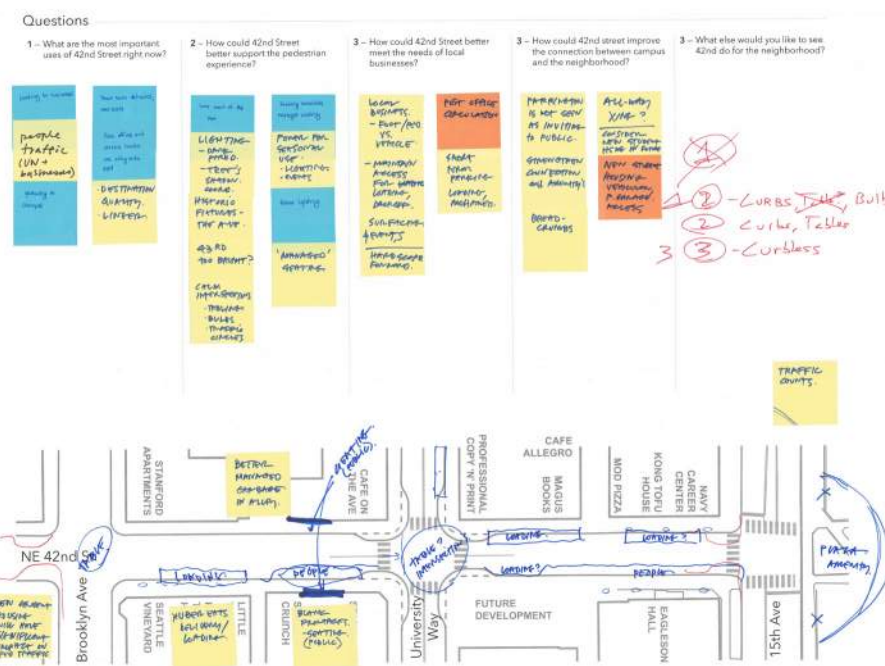
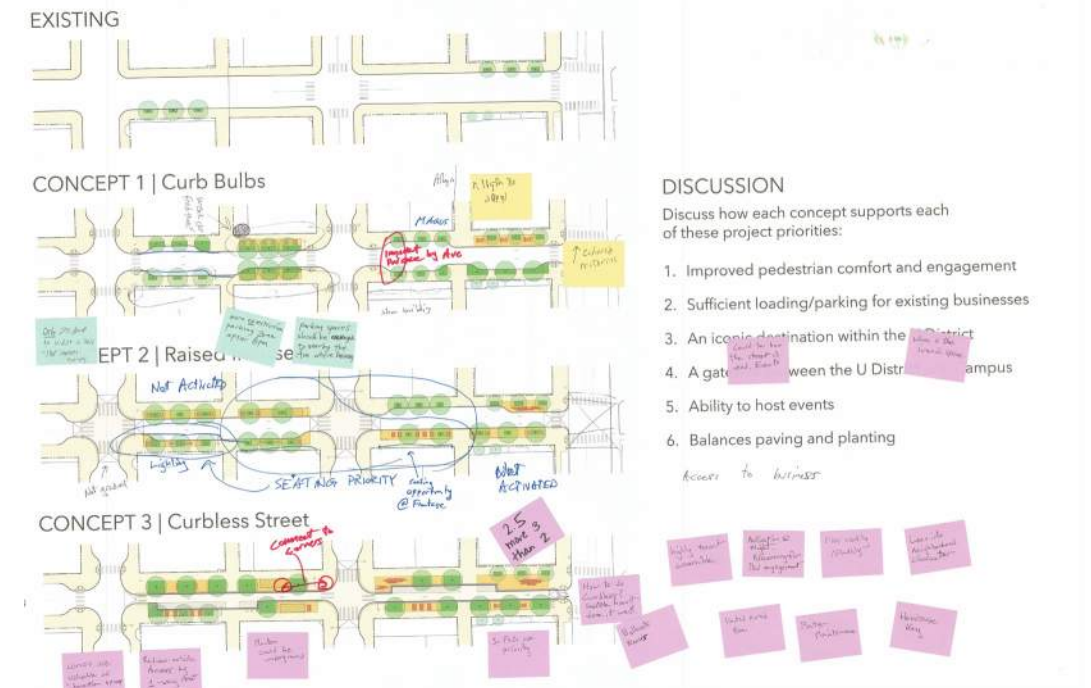
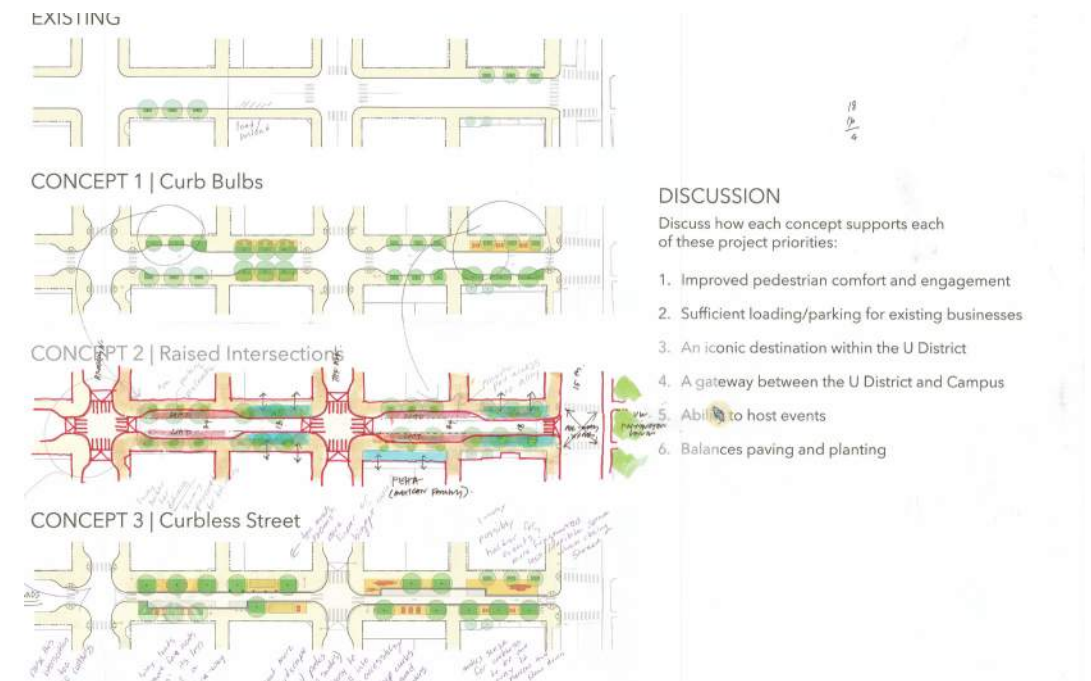
greater detail leading to a final approach adopted by the steering committee. This lengthy process allowed the diverse group with differing interests to express their interests, understand other interests, and agree on a common approach. See Appendix 2 for scanned materials from the three stakeholder meetings.



TABLETS

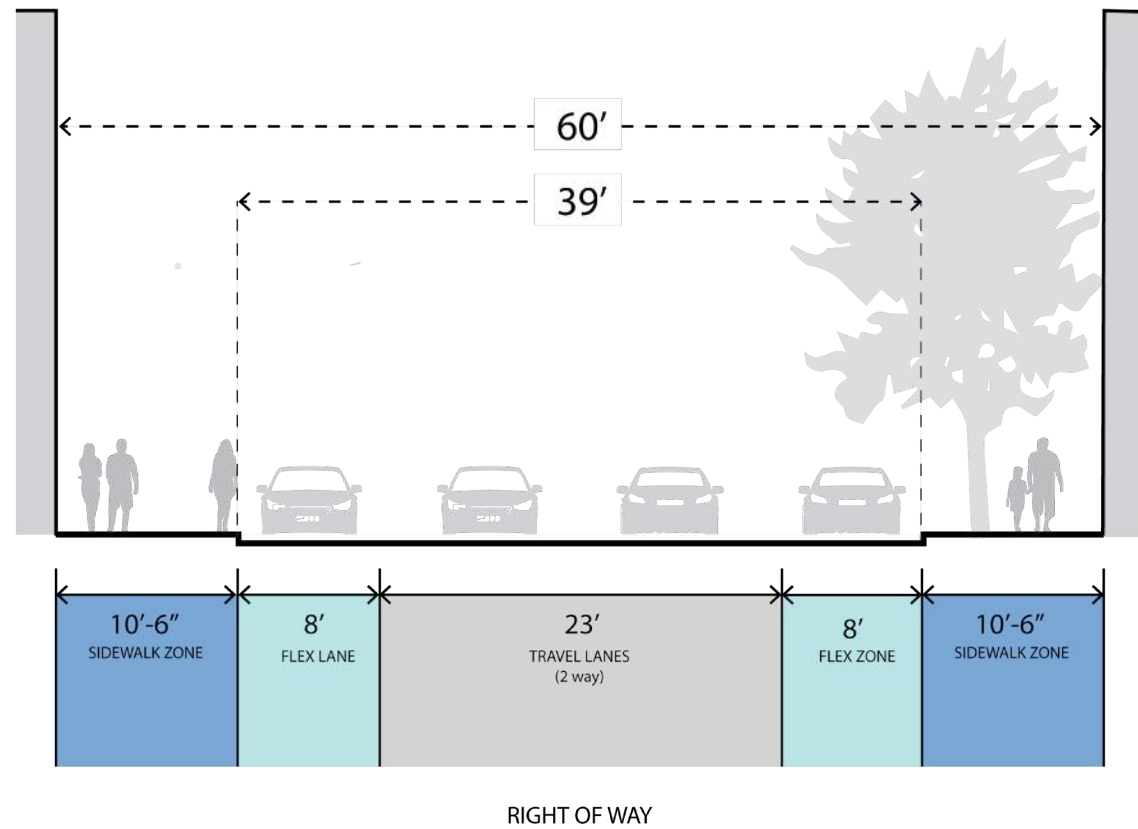


CURBLESS



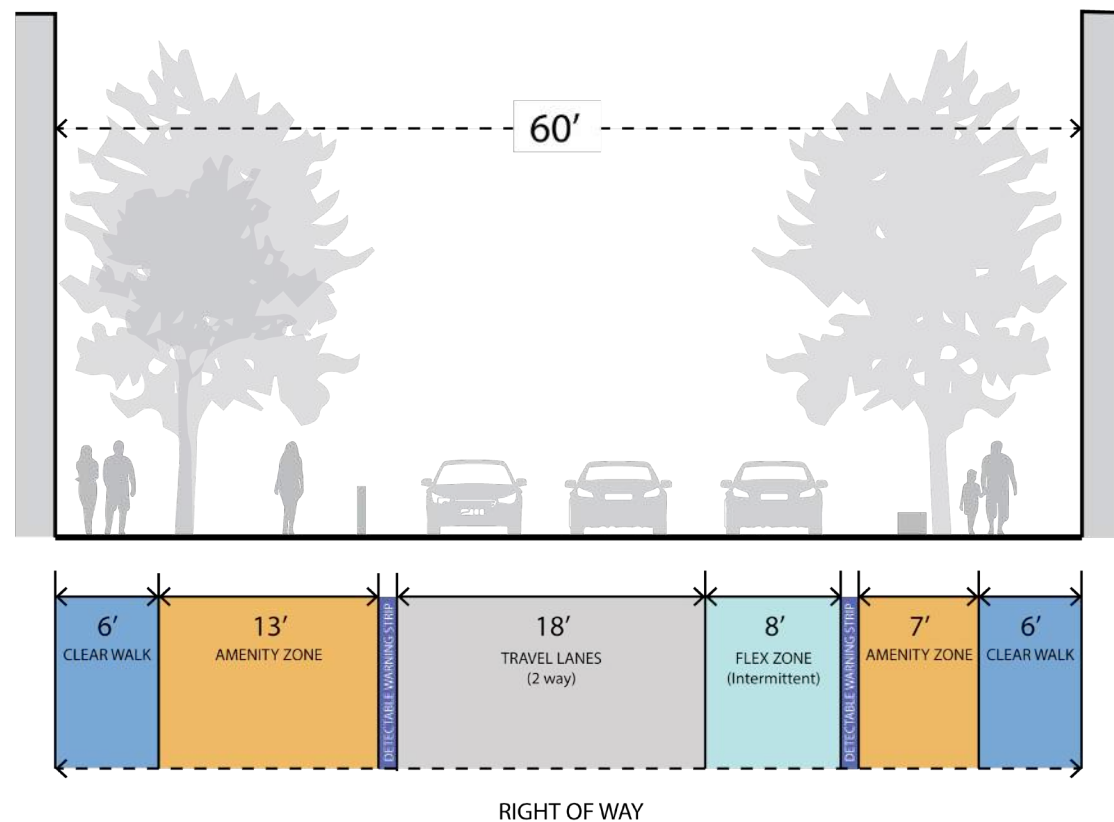
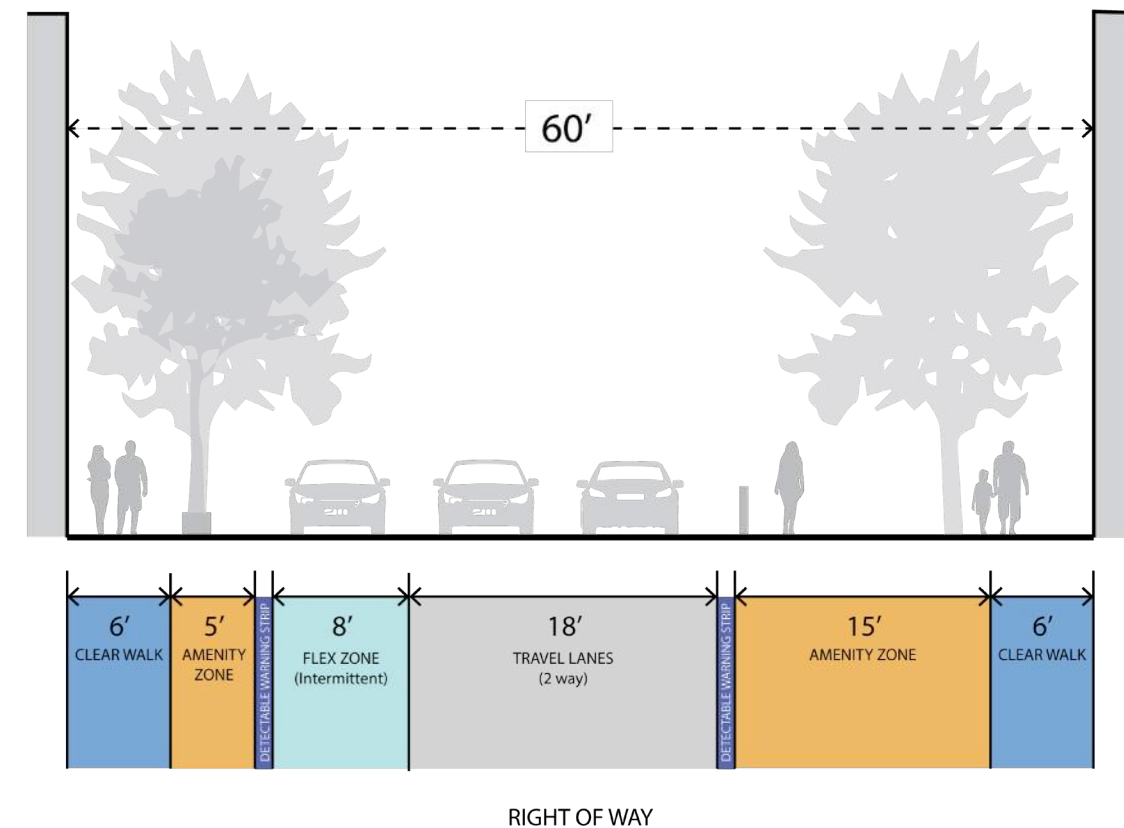
- Create **places for people** to experience and stay
- Embrace superior & sustainable urban design **best practices**
- Support local stakeholders & small businesses
- Enhance the **connection** between campus & community

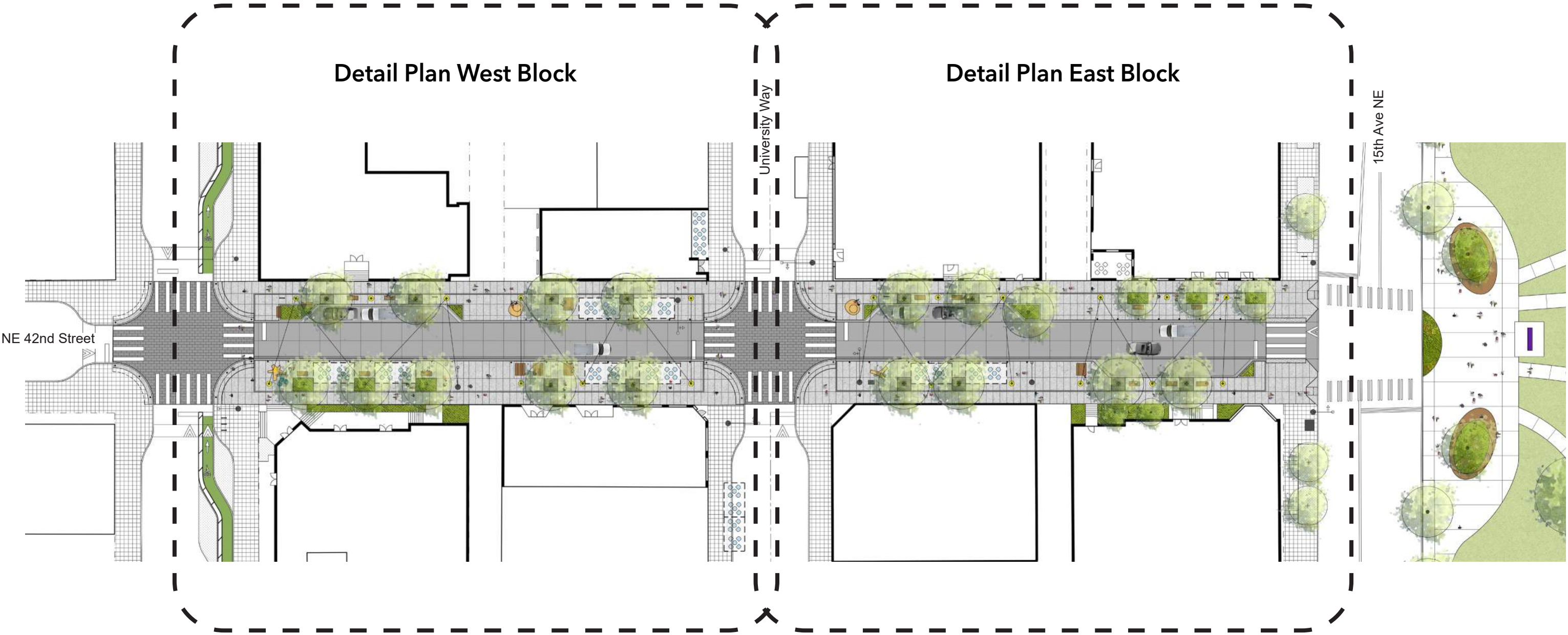
NE 42nd between Brooklyn Ave NE and 15th Ave NE is a 60' wide right-of-way with a 10'-6" pedestrian zone and a 39' curb-to-curb.



The proposed street increases the width of the pedestrian zone by reducing the travel lanes to minimum code-allowed width and by only intermittently including a flex/parking zone on alternating sides of the street.

The proposed street introduces a curbless design. The edge between pedestrian zones and vehicular zones is delineated by a detection strip in the paving. To ensure vehicles stay in the vehicular zone, trees and site furnishings such as bollards, bike racks, and benches are placed on either side of the travel lanes, forming a barrier to the pedestrian zone.

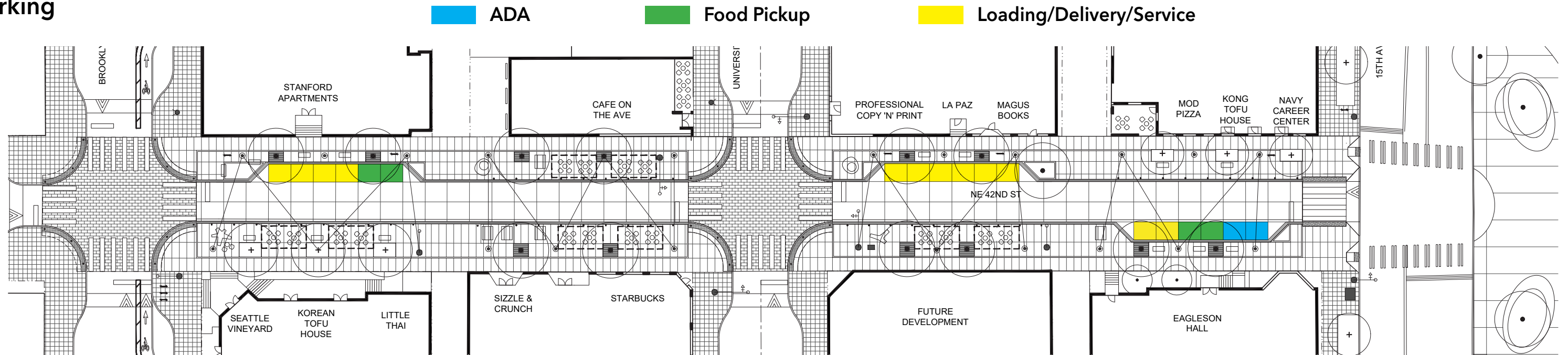




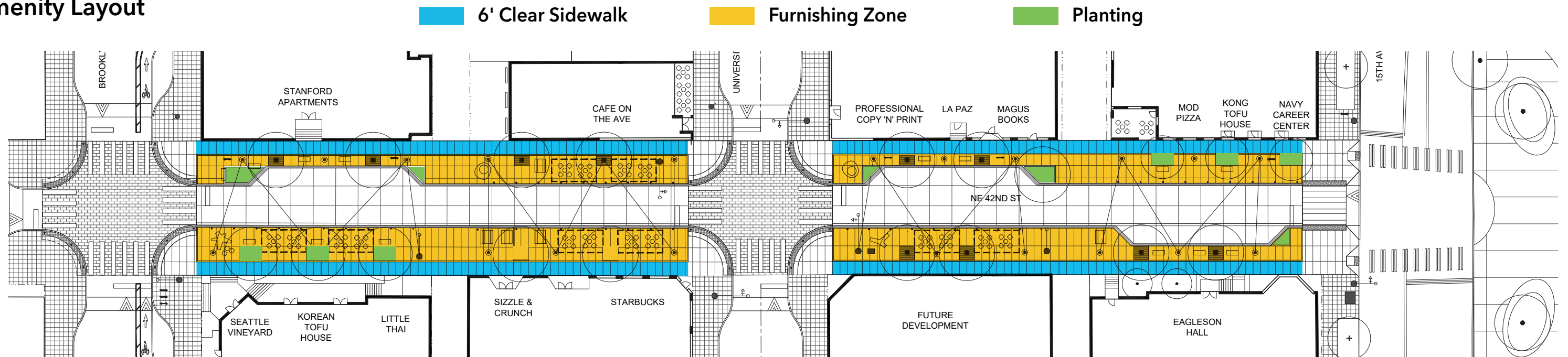




Parking



Amenity Layout

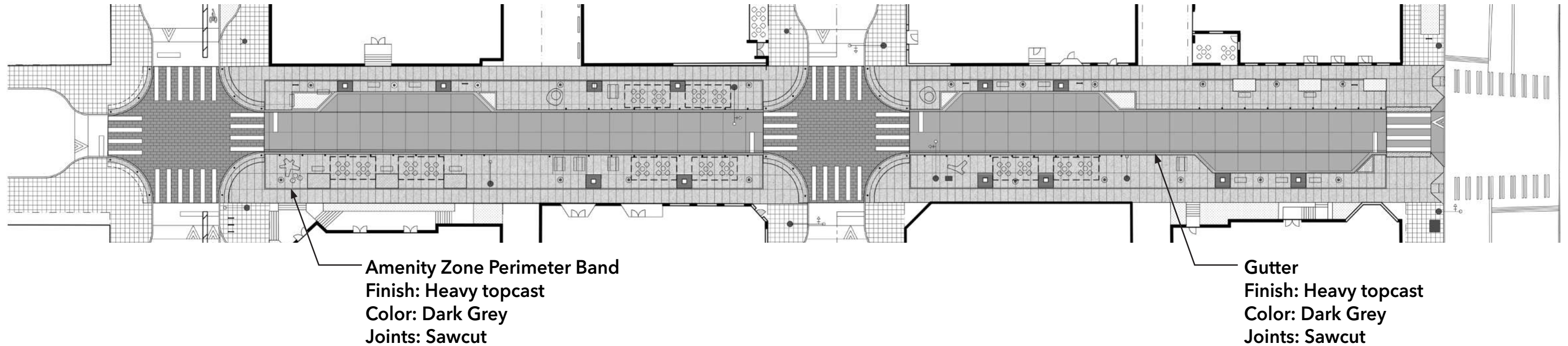


Surfacing

 **Pedestrian Paving**
Finish: Light Topcast
Color: Light Grey
Joints: Sawcut

 **Vehicular Paving**
Finish: Medium Topcast
Color: Medium Grey
Joints: Sawcut

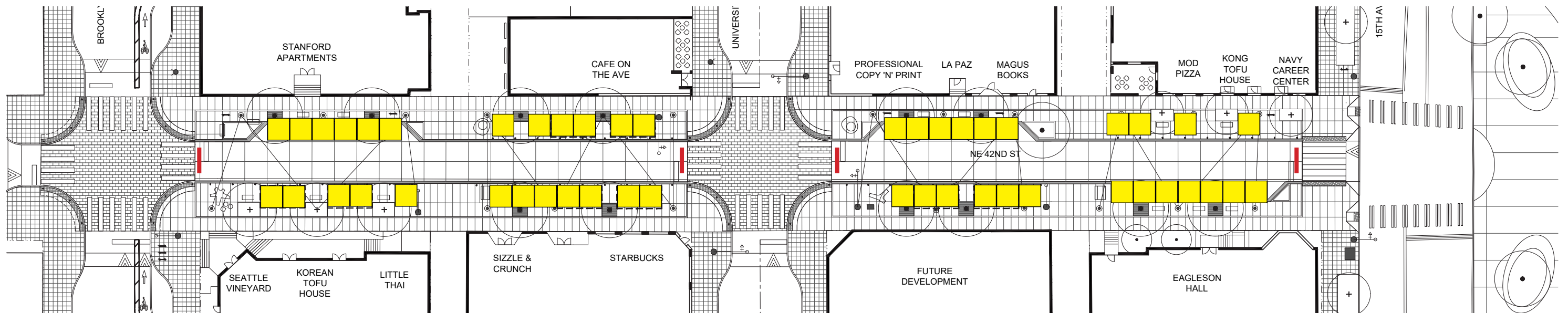
 **Intersection Paving**
Finish: Stamped
Color: Dark Grey
Joints: Tooled



Festival Layout

 **Street Closure Signs**

 **10x10 Vendor Tents (47 total)**



Street Furniture



Street benches.



Informal group seating.

Twig bench in various formations creating informal varied seating opportunities.

Benches provide opportunities for various group sizes to sit and linger on the street. They're typically located in the shade of trees. They can serve to narrow the apparent size of the vehicular lane and act as an obstacle to vehicles.

Cafe / Dining Furniture



Picnic tables for dining.



Cafe table seating and pergola.

Cafe seating provides flexible furniture that can be moved around the street as needed to accommodate the different street modes from everyday to pop-up festival. Like more permanent seating, they serve to narrow the travel lanes and keep vehicles clear of the pedestrian zones.

Bike Racks



U style bike rack.

Bike racks are located throughout the street, accommodating short term parking, narrowing the street and act as an obstacle to vehicles.

Tree Grates



Tree grates along street.

New street trees are planted in tree grates to maximize the pedestrian space. Soil cells located beneath the adjacent paving provide soil volume for the trees.

Paving - Topcast Concrete



Topcast concrete examples of various finishes.

Both vehicular and pedestrian zones will be cast-in-place concrete with sawcut scoring and sandblast finishes. The zones will be differentiated in color, density of scoring, and depth of sandblast finish.

Paving - Stamped Concrete



Stamped concrete patterns.

Stamped concrete will identify the raised intersections and differentiate them from other paving zones.

Detectable ADA warning Strip



Precast concrete tactile warning strip options.

Concrete tactile warning pavers delineate crossing between pedestrian and vehicle zones.

Lighting



Ped light pole on The Ave



Catenary lighting opportunity.

Lighting is an important element for promoting comfort, safety, and engagement in the evening. Both pedestrian light poles and catenary lighting help scale the street to pedestrian activities and comfort. To promote a sense of neighborhood identity the committee recommends a standard light pole design based on the poles on The Ave.

Bollards



Precast concrete bollards.

Bollards are used where needed to create separation between the vehicular zone and pedestrian zones.

Raised Planters



Raised planter with integrated seating.



Raised planters as part of the street furniture family.



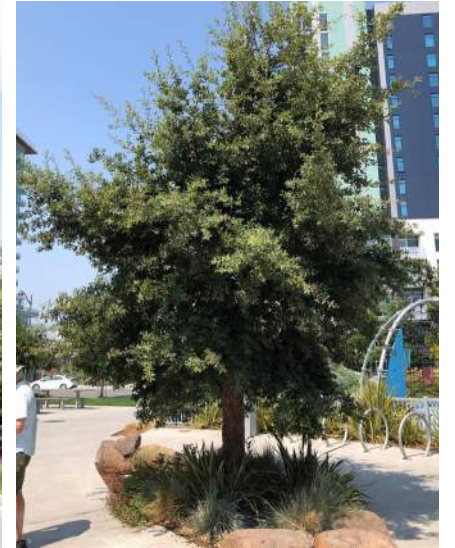
Raised precast concrete planters.

Where new planters are provided they are raised to ease maintenance, reduce litter, provide a seat perch, and fill the street at the pedestrian scale.

Street Trees



Quercus bicolor
Swamp white oak



Quercus suber
Cork Oak



Quercus lobata
Valley oak



Nyssa sylvatica
Black tupelo

Street trees will visually link to UW campus across the street. Soil volume and water will be provided by soil cells beneath the paving with drip irrigation. Species to be coordinated with SDOT Urban Forestry.

MEMORANDUM

DATE: 6/27/2023
TO: Site Workshop
FROM: Robin Thaler, PE and Bethany Steadman, PE
PROJECT: U District Green Street
RE: Civil Conceptual Design Narrative



The U District Green Street is proposed for NE 42nd Street between Brooklyn Avenue NE to the west and 15th Avenue NE to the East. The project proposes to replace hard surfacing, narrow the vehicular space, and create a more pedestrian friendly corridor. In addition, the project proposes utilizing SilvaCells adjacent to newly planted trees, which will provide growing space for larger mature trees by providing increased soil volume. SilvaCells are approved by Ecology to serve as underground bioretention cells, which can provide full stormwater mitigation as required and provide additional water quality treatment. Below is further narrative of the existing and proposed conditions and the civil conceptual design. See attached exhibit that shows the existing civil utilities and proposed stormwater mitigation overlaying the proposed conditions map.

EXISTING CONDITIONS

The existing conditions were evaluated by review of City of Seattle’s (COS) DSO Water and Sewer Map, Seattle Department of Construction and Inspection (SDCI) GIS Maps, and via Google Earth/Street View as well as site walks. See attached exhibit for the existing civil utilities as well as the proposed civil improvements.

The DSO Map was consulted for reviewing existing civil utilities. It shows a separate public storm main routed south down University Way NE (AKA The Ave), then turns west along NE 42nd Street along the north side of NE 42nd Street, south of the existing curb line. The DSO Map notes the storm main as roughly 10 to 13 feet deep. No storm mains are located between 15th Street and University Way within the 42nd Street corridor. A storm main also runs north to south along Brooklyn Ave NE and 15th Ave NE. Both alleys include catch basins that discharge via a through curb outlet to the gutter pan on the north side of 42nd Street. Catch basins are located on the north side of intersections, catching stormwater before entering the intersection.

Water mains are located on the north side of NE 42nd Street for the full length of the proposed improvements, as well as within Brooklyn, University, and 15th Avenues. Water mains are typically around 4 feet deep. Water services to business are provided from the 42nd Street water main per the following:

- ¾-inch water service to 4201 University Way NE (Parcel # 1142001080),

- 2-inch and 4-inch water services to 4200 University Way NE (Parcel # 1142001210), and
- 4-inch and 6-inch water services to 1414 NE 42ND ST 98105 (Parcel # 1142001150)

Sewer mains are located along Brooklyn Ave, University Ave, and 15th Ave NE and flow north to south. Sewer services located within 42nd Street include a 6-inch side sewer service from 4200 University Way NE (Parcel # 1142001210) and a 6-inch side sewer service from 4101 15TH AVE NE (Parcel #1142001260). The side sewer service for 4200 runs along the north side of 42nd Street between the water main and the curb line where it connects to the sewer main within University Way. The side sewer service for 4101 appears to be along the property line under the pedestrian improvements before it connects to the sewer main within 15th Ave.

PROPOSED CONDITIONS

The project proposes to replace existing hard surfacing, including existing sidewalks and roadway pavements. New hard surfacing would reduce the pollution generating roadway pavement and increase non-pollution generating pedestrian spaces. Roughly 24,000 SF of replaced non-pollution generating hard surface and roughly 18,000 SF of replaced pollution generating hard surfacing for a total of 42,000 SF of hard surface being replaced is proposed.

STORMWATER MANAGEMENT

The project is classified as a Roadway Project and as such is required to provide the following stormwater mitigation:

Requirement	Threshold Review	BMP Proposed
Onsite Stormwater Management (OSM)	2,000 Sf or more of new plus replaced hard surface or 7,000 SF of land disturbing activity	SilvaCells = 4,800 SF mitigating roughly 60,000 SF of hard surface
Flow Control	Not Applicable as discharging to Portage Bay, a Designated Receiving Water Body	
Water Quality Treatment	Not Applicable as site is >35% hard surface and <5,000 SF of new PGHS. Replaced PGHS are exempt.	SilvaCells also provide water quality treatment of pollution generating hard surface

Proposed SilvaCells will be roughly 480 SF per new tree in order to provide enhanced soil volume for mature tree establishment. SilvaCells are approved by Ecology to be equivalent to bioretention cells given the same soil and ponding depth as bioretention cells. Based on the City’s OSM List Approach Calculator, assuming infiltration rates between 0.30 and 0.60 inches per hour measured, this equates to roughly 6,000 SF of

hard surface treated per SilvaCell designed as an infiltrating bioretention cell with an underdrain.

The project proposes SilvaCells around 10 proposed trees, thus a potential to treat up to 60,000 SF of hard surface. Based on preliminary review of topography and catchment areas based on the DSO GIS maps, it appears that this area may be captured by directing the alley drainage and University Way drainage between 42nd and 43rd by redirecting existing catch basins to SilvaCells as shown on the attached exhibit.

The existing storm main within 42nd Street will be partially located under the SilvaCells on the north side of the street between University Way and Brooklyn Ave. The existing storm main is roughly 10 to 13 feet deep. It is noted that the project on 42nd and Brooklyn to the west was able to construct new trees over the existing storm main by installing a woven geotextile root barrier roughly 4-5 feet below the tree. The same option could be explored on this project.

WATER AND SEWER

Water mains are typically 3 to 4 feet of cover and run along the north side of 42nd Street in proximity to the proposed delineation between pedestrian and vehicular spaces (flush curb with tactile warning). They should have typical horizontal setbacks from proposed trees and SilvaCells. Existing water services could be preserved in place with SilvaCells stopping and starting on either side of the service.

An existing side sewer service serving 4200 University Way NE (Parcel # 1142001210), on the north side of 42nd and east of University Way, may be in conflict with the proposed SilvaCell and tree construction. It could either be preserved in its current location either within or under the SilvaCell or it should be relocated. Additional exploration, including utility locates and potholing, is recommended to understand the vertical and horizontal location of the side sewer and how it would relate to the proposed SilvaCell.

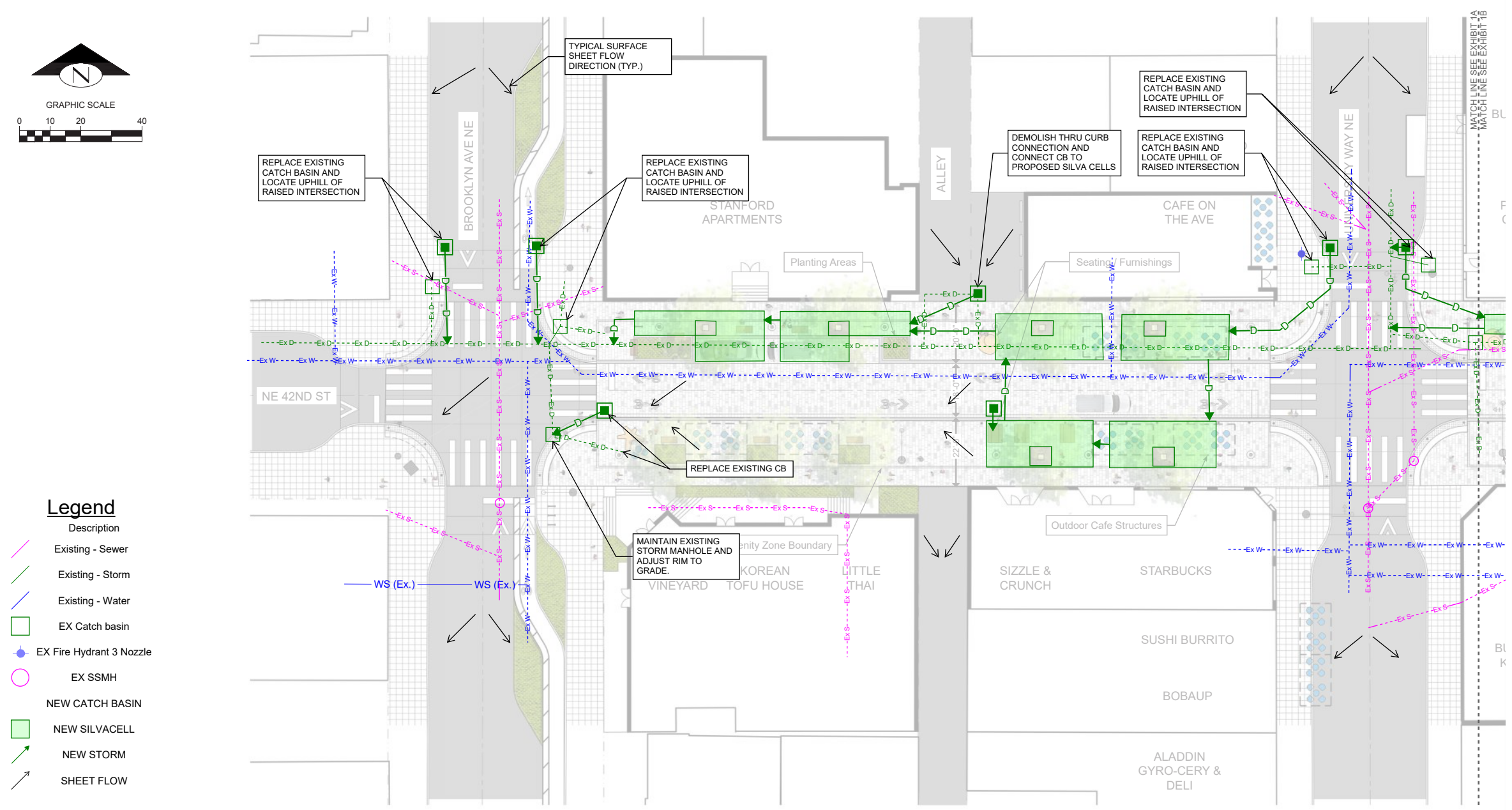
ADDITIONAL RIGHT-OF-WAY REQUIREMENTS

It is recommended to confirm traffic signalization and street/pedestrian lighting with SDOT, SCL and an electrical engineer. The City of Seattle Right-of-Way manual provides design guidance for street and pedestrian lighting. It notes that all lighting within the right-of-way should be analyzed with operational changes, such as reconfiguring the pedestrian and vehicular alignments as proposed. Additional guidance includes that street lighting for streets 50 feet wide or less may have street lighting in an alternating pattern spaced every 180 feet; Pedestrian lighting should be placed between street lighting luminaires at 60 foot spacing. For new or relocated street lighting on non-arterial streets, like 42nd, the manual states that street lighting should be designed using the most recent edition of the recommended IES guidelines, unless otherwise approved by SCL.

It is important to align all above-grade appurtenances with the proposed special event layout. Service equipment should be located below grade to the maximum extent feasible so that it doesn't conflict with the event space. This should be coordinated with SCL to ensure minimal conflicts.

RECOMMENDED NEXT STEPS

- Infiltration and Geotechnical Investigation
- Topographic Survey
- Pothole and confirm depth of utilities and possible conflicts
- Vehicular Turning Movement Study



U DISTRICT
GREEN STREET

Submittal
CONCEPTUAL DESIGN

Revisions		
No.	Date	Description

Drawn BS
Checked RT
MAYFLY Proj No XX

Date 6/27/2023

Sheet Title

Sheet Number



MAYFLY

ENGINEERING + DESIGN, PLLC
www.mayflyeng.com | P 206.935.5356
5042 49th Avenue SW Seattle, WA 98136

U DISTRICT
GREEN STREET

Submittal
CONCEPTUAL DESIGN

Revisions		
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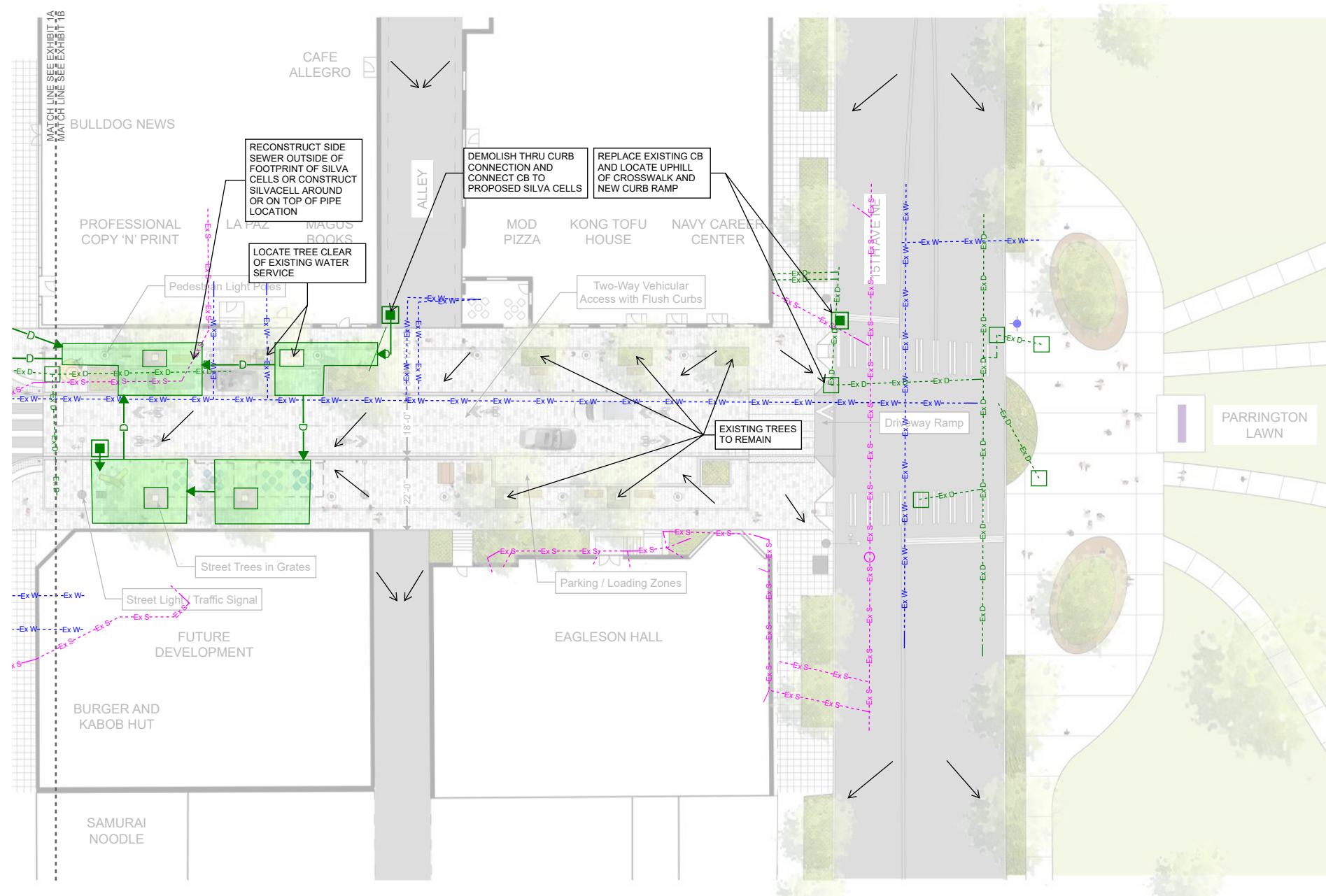
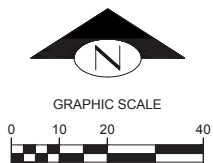
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Date 6/27/2023

Sheet Title

Sheet Number

EXHIBIT 1B



Legend

- | | Description |
|--|--------------------------|
| | Existing - Sewer |
| | Existing - Storm |
| | Existing - Water |
| | EX Catch basin |
| | EX Fire Hydrant 3 Nozzle |
| | EX SSMH |
| | NEW CATCH BASIN |
| | NEW SILVACELL |
| | NEW STORM |
| | SHEET FLOW |

Meeting #1

Guiding Principles

Create places for people,
centered on the pedestrian
experience

Provide for the needs of local
stakeholders & small businesses

Enhance the connection between
campus & community

Embrace superior & sustainable
urban design best practices

Questions

1 – What are the most important
uses of 42nd Street right now?

- BUSINESSES
- ACCESS,
- GATEWAY TO CAMPUS
- DESTINATION
- ATTRACTION
- Feel safe

Need to curate
lighting –
Start with
ped/bldg lighting
then add street
lights.

metal grates
around limited
ground vegetation

Remove all power
boxes (require
undergrounding
of all electrical)

Water + power
hook up for
cleaning/activation

Porrons photos
could be a
new design that
gets pulled to
one

uplight historic
buildings
picc ped/lighting carefully

Need places for
people to gather,
eyes-on-street
nature is super

2 – How could 42nd Street
better support the pedestrian
experience?

- VISUAL COHESION: PAVERS
- LIGHTING
- FLEXIBLE PARKING
- UPLIGHTING ON BLDGS AND TREES
- CURATE LIGHTING*
- SHARED COMMON SPACE NETWORK
- CONNECT TO CAMPUS TREES
- CURBLESS
- NO OPEN DITCH

Outdoor
seating

Short-term
parking (1 hour)
for small biz
shopping (offaluna)

Bring-up rest
East-side
Custom as
major customer
base

Improved
sidewalk – lighting,
slower, signals,

Outdoor seating
to complement
spaces that have
proximity to small
business

WIDER
SIDEWALKS!

3 – How could 42nd Street better
meet the needs of local
businesses?

TO PRIORITIZE:

- DELIVERIES, TRUCK (TIME)
- FOOD DELIVERY 15MIN, UBER
- 1-HOUR PARKING (35% DRIVE)
- ADA
- LONG-TERM
- BIKE / CYCLES
- MOTORCYCLES
- ACCESS-THROUGH

• OUTDOOR DINING

Outdoor
seating

Parking spaces
near the corner
are important
for det. loading,
unloading, parking

Deliveries –
some use off-
hours, some
use alley –
still a need.

parking
for customer
5-min half hour
to 2 hours
parking for
food delivery/del. zone
5-20 mins

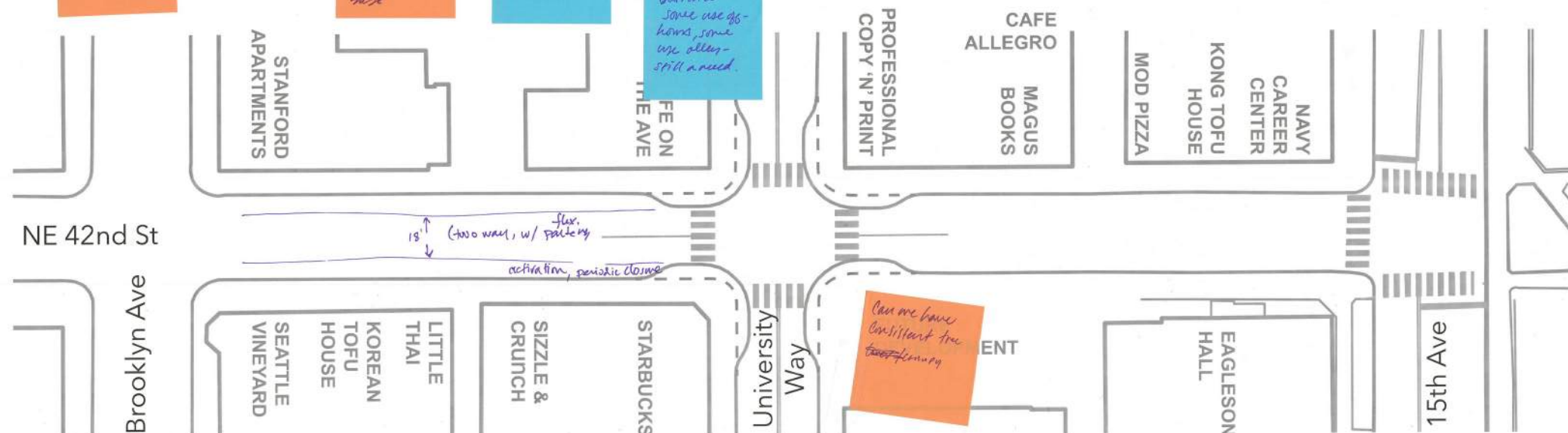
3 – How could 42nd street improve
the connection between campus
and the neighborhood?

• BIKE

Greenery
flowers
trees
shrubs

3 – What else would you like to see
42nd do for the neighborhood?

- ACTIVITIES
- PLACE FOR ALL
- ACCESS
- safety



Meeting #1

CONCERNS

Construction impacts to local businesses
Sewer overflows? Direct storm
INFLUX of student hours

Create places for people, centered on the pedestrian experience

Is it combined sewer

provide for the needs of local stakeholders & small businesses

Enhance the connection between campus & community

Embrace superior & sustainable urban design best practices

Questions

1 – What are the most important uses of 42nd Street right now?

Activity @ businesses
Delivery/Loading zones on 42nd @ corners (not alleys) + pickup & rec'd location
good cycling to connect through
Street is staging for construction
Start from place then add car infrastructure.
Access to campus → AVE
Parking is good right now
Stormwater conveyance
Low cut - typical street but high quality - close app. when needed, but keep

2 – How could 42nd Street better support the pedestrian experience?

All types of public art
Landmark intersections or sidewalk crossings
Historic dog statue - w/ paw prints
Cronwell - All ways - if any steps
Bustop stations
Sense of happiness even in the winter
Public Space - flexible Ped + B bike
Festive street alternative to THE AVE
Surface materials affect pedestrian perception
Space to be while it's raining covered outdoor space
Pleasant Prettier - plants - Benches more welcoming like the Ave
Cleaner - graffiti - homeless presence - windows - safety
Outdoor tables @ businesses - wider sidewalk

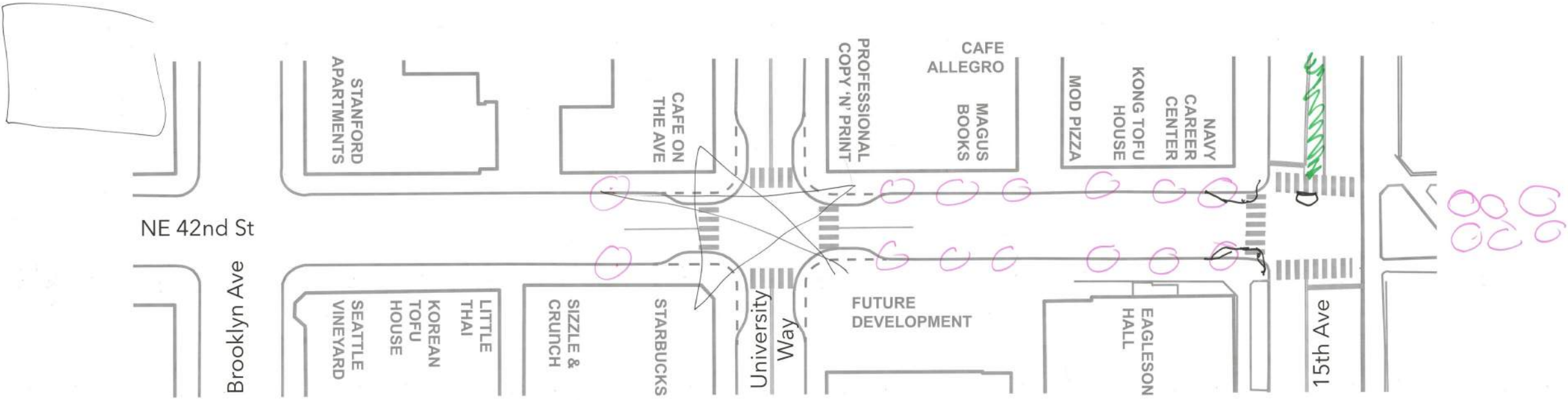
3 – How could 42nd Street better meet the needs of local businesses?

Loading/delivery strategy timing
30 min - yes 1-2 hrs also good parking during business hours

3 – How could 42nd street improve the connection between campus and the neighborhood?

3 – What else would you like to see 42nd do for the neighborhood?

KEEP WATER CLEAN
CLEAN WATER
Entire neighborhood
Diverse business - need detail
Pile up just sticks to what's in the city/neighborhood
LANDMARK (like the troll)
Identity - land marks/ conceptual brand like - Rachel @ Pike place - Troll



Meeting #1

Guiding Principles

Create places for people,
centered on the pedestrian
experience

Provide for the needs of local stakeholders & small businesses

Enhance the connection between
campus & community

Embrace superior & sustainable urban design best practices

Questions

1 – What are the most important uses of 42nd Street right now?

people
traffic
(UW +
businesses)
gateway to
campus

- Short term deliveries, wear coats
- Post office and service trucks use alley onto yard
- DESTINATION QUANTITY.
- LINER.

2 – How could 42nd Street better support the pedestrian experience?

Trees east of the Ave

LIGHTING
- DARK
PARKO.
- TREE'S
SHADOW.
COORD.

HISTORIC
FURNITURE -
THE AVE.

43 RD
too BRIGHT

CALM
IMPERSONATION

- TRELLIS
- BULBS
- TRAPPING
CIRCLES

Publicly available
managed seating

**POWER FOR
SEASONAL
USE:**

- LIGHTING
- EVENTS

scene lighting

**'MANAGED
SEATING'**

3 – How could 42nd Street better meet the needs of local businesses?

- LOCAL BUSINESS.
- FOOT / ROAD VS. VEHICLE.
- MAINTAIN ACCESS FOR ~~TRAFFIC~~ LOADING, DROP OFF.
- SURFACING.
- ↓ EVENTS

HAND SCAPES FOR WIND.

POST OFFICE
CIRCULATION

SHORT
TERM
PARKING
LOADING,
UNLOADING.

3 – How could 42nd street improve the connection between campus and the neighborhood?

PARERINGTON
IS NOT SEEN
AS INVITING
TO PUBLIC.

STIMOTHEN
CONFESSION
AND ANNUITY'S

BREAD -
CAVINGS

ALL-WAY
XING?

CONSIDER
NEW STUDENT
HSG IN FUTURE

NEW STUDENT
HOUSING
VEHICULAR
P. GARAGE.
ACCESS

3 – What else would you like to see 42nd do for the neighborhood?

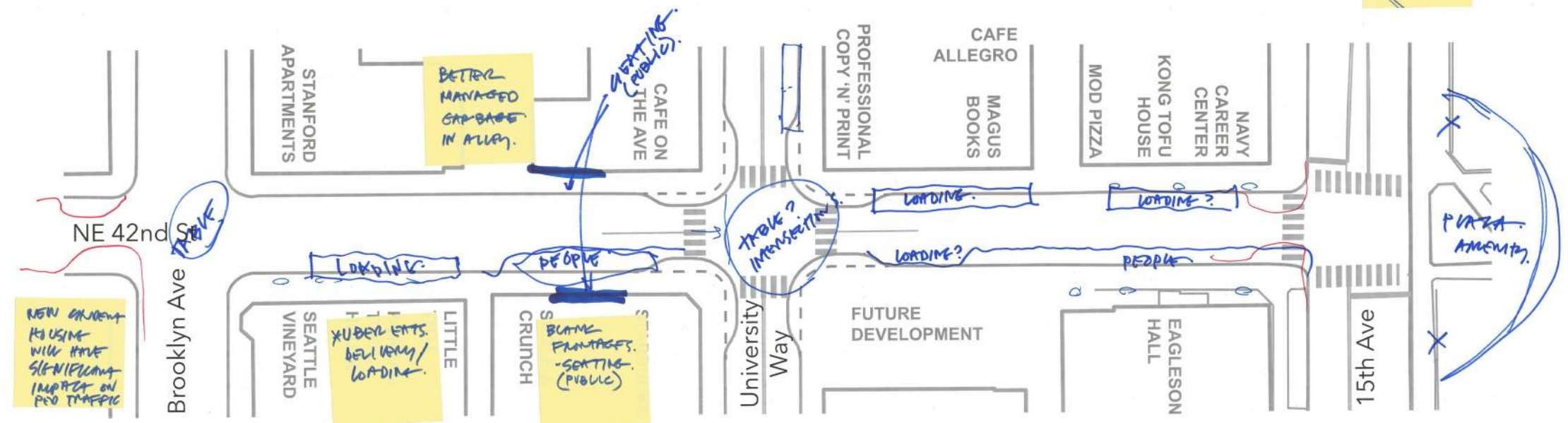


 1 (2) - CURBS, ~~Tables~~, Bulb

 2 (2) Curbs, Tables

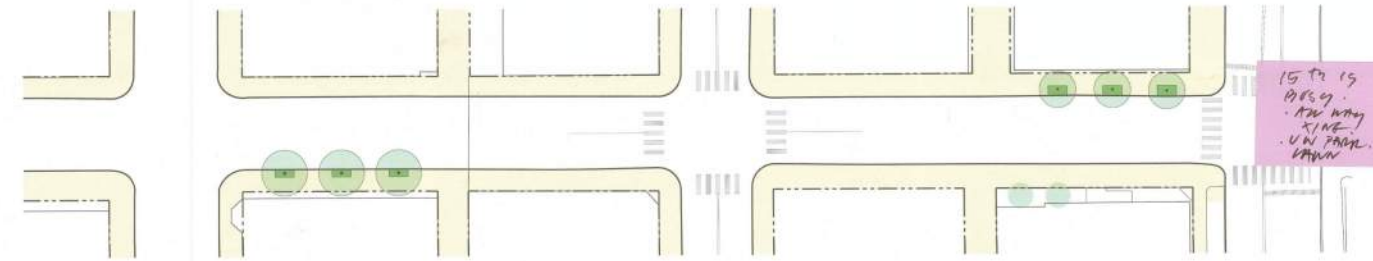
 3 (3) - Curbless

TRAFFIC COUNTS.

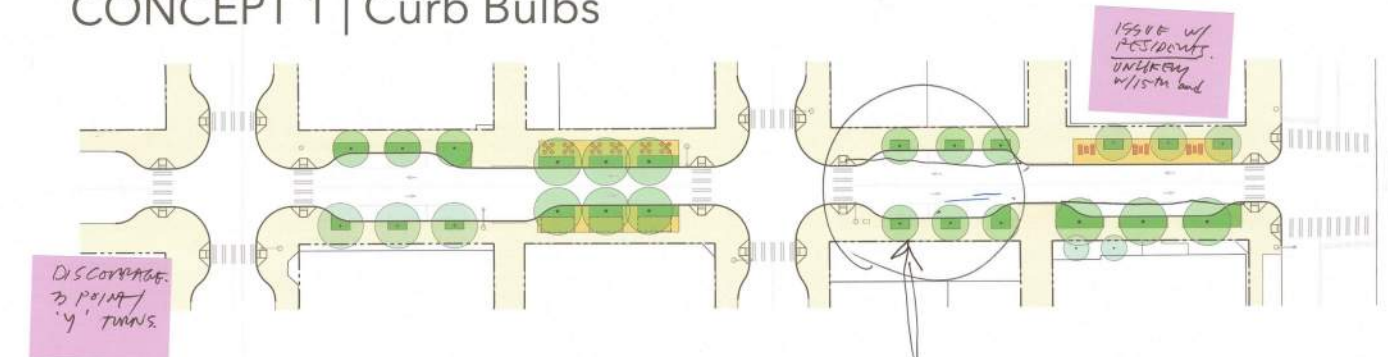


Meeting #2

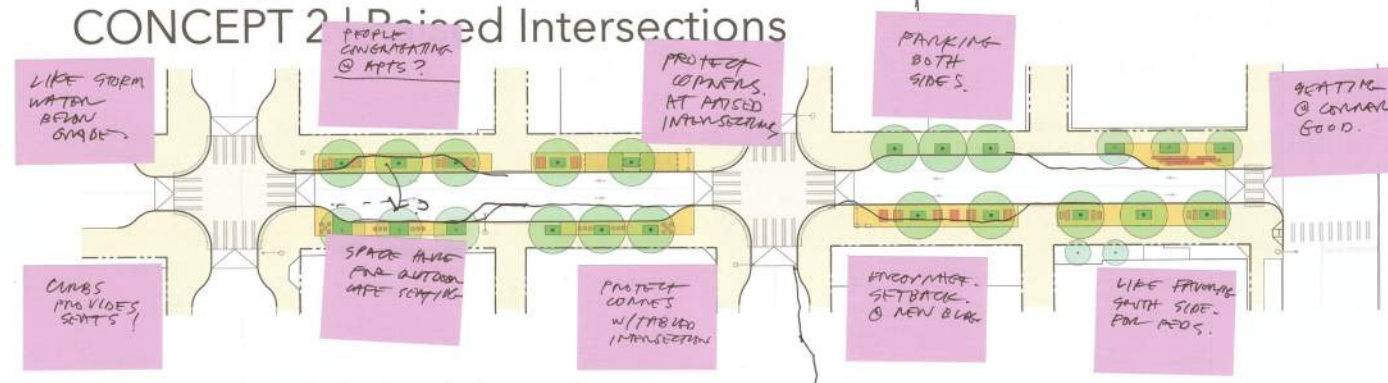
EXISTING



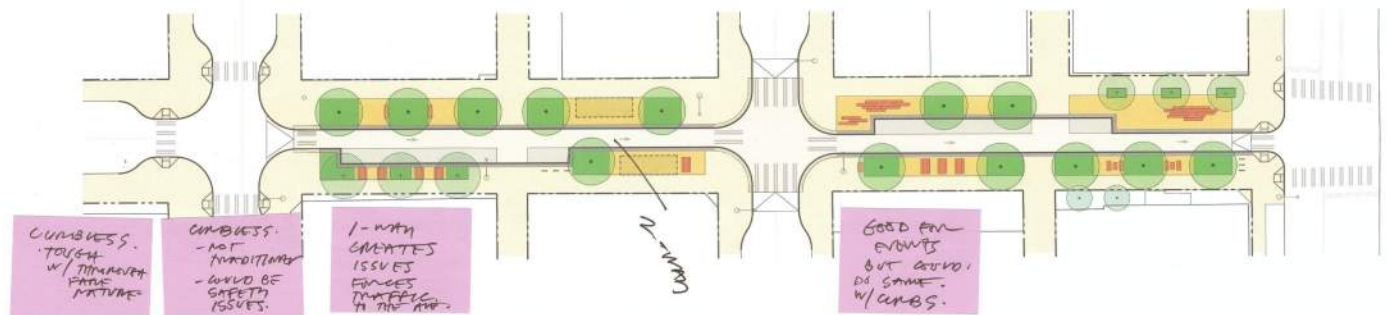
CONCEPT 1 | Curb Bulbs



CONCEPT 2 | ^{PEOPLE} Poised Intersections



CONCEPT 3 | Curbless Street



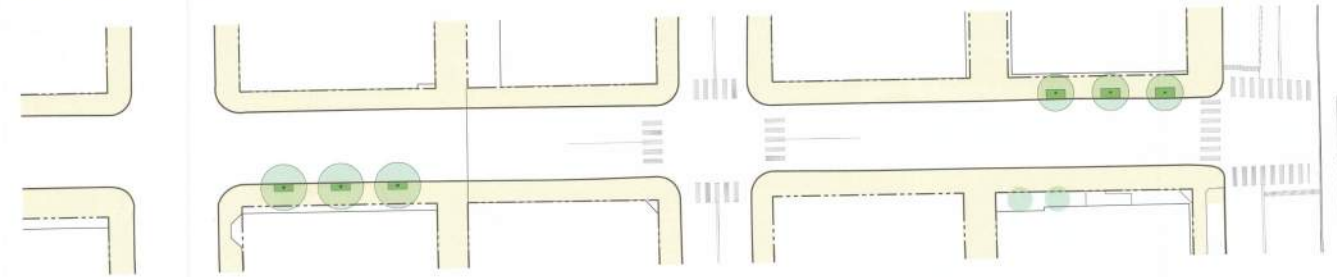
DISCUSSION

Discuss how each concept supports each of these project priorities:

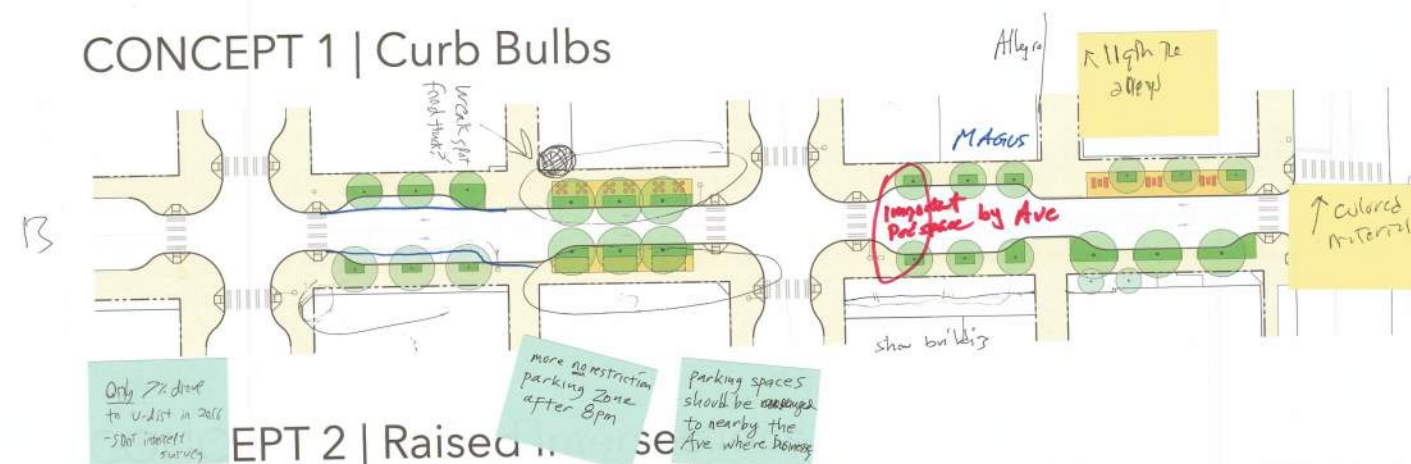
1. Improved pedestrian comfort and engagement
2. Sufficient loading/parking for existing businesses
3. An iconic destination within the U District
4. A gateway between the U District and Campus
5. Ability to host events
6. Balances paving and planting

Meeting #2

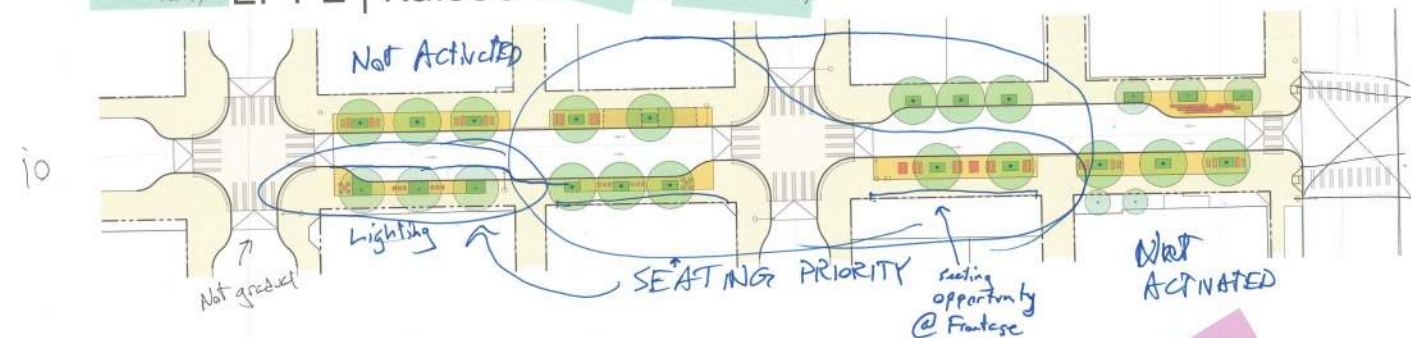
EXISTING



CONCEPT 1 | Curb Bulbs



CONCEPT 2 | Raised ...



CONCEPT 3 | Curbless Street



DISCUSSION

Discuss how each concept supports each of these project priorities:

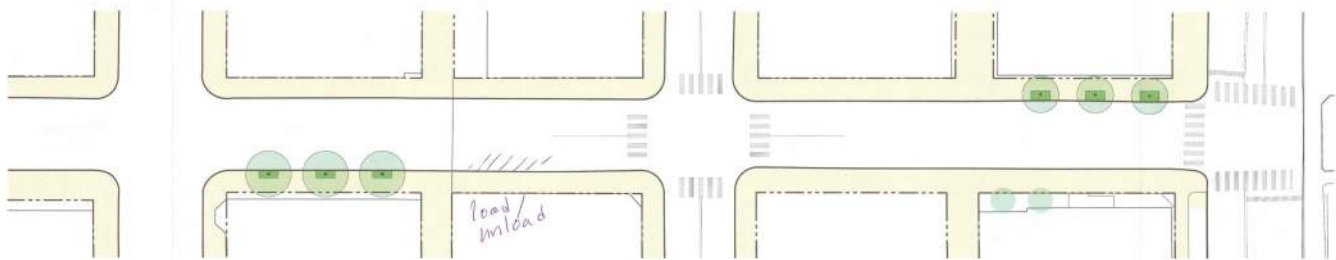
1. Improved pedestrian comfort and engagement
2. Sufficient loading/parking for existing businesses
3. An iconic destination within the District
4. A gate between the U District and campus
5. Ability to host events
6. Balances paving and planting

Access to business



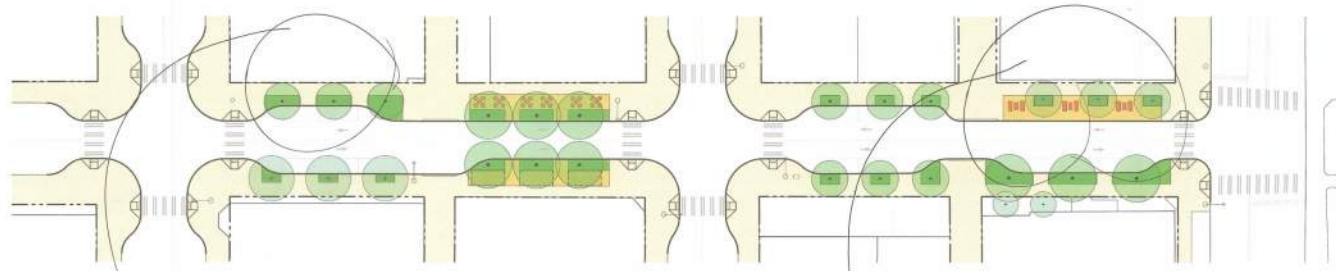
Meeting #2

EXISTING

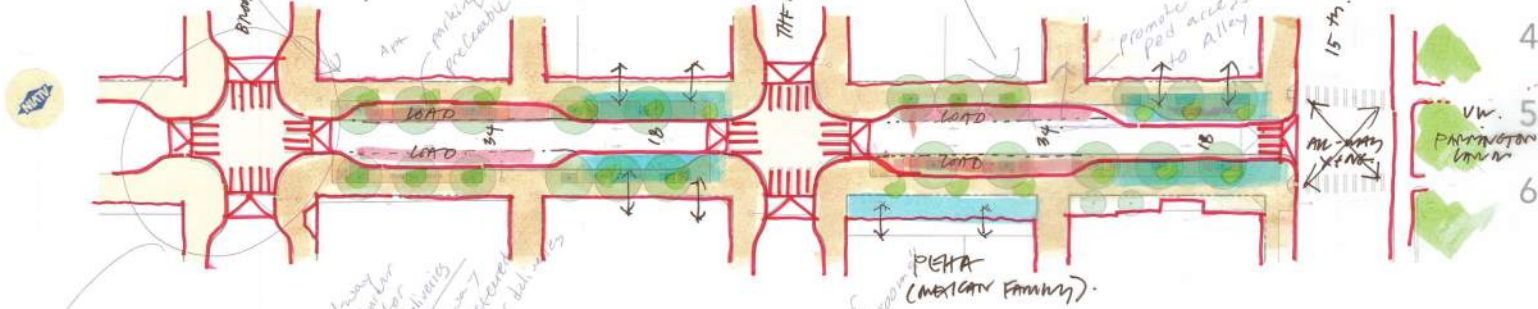


18
16
4

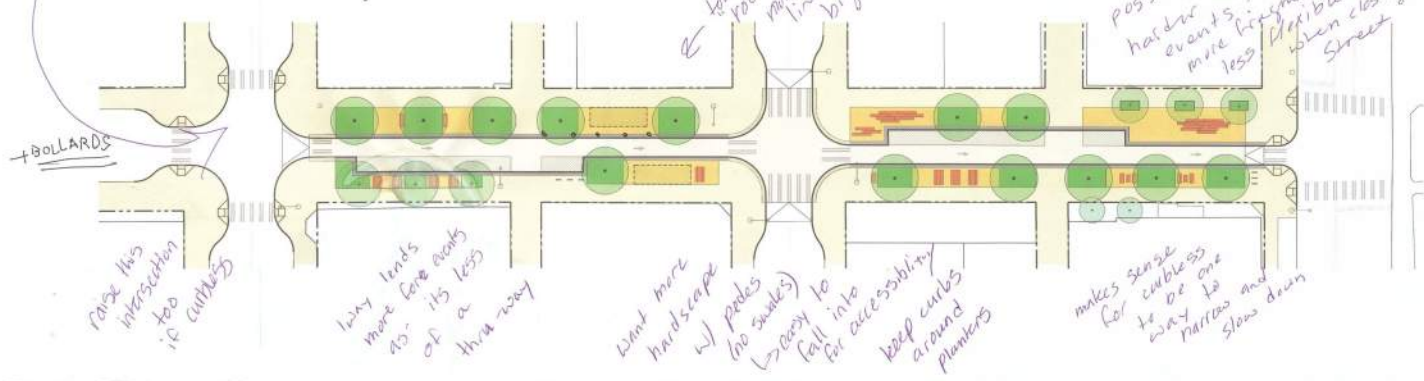
CONCEPT 1 | Curb Bulbs



CONCEPT 2 | Raised Intersection



CONCEPT 3 | Curbless Street



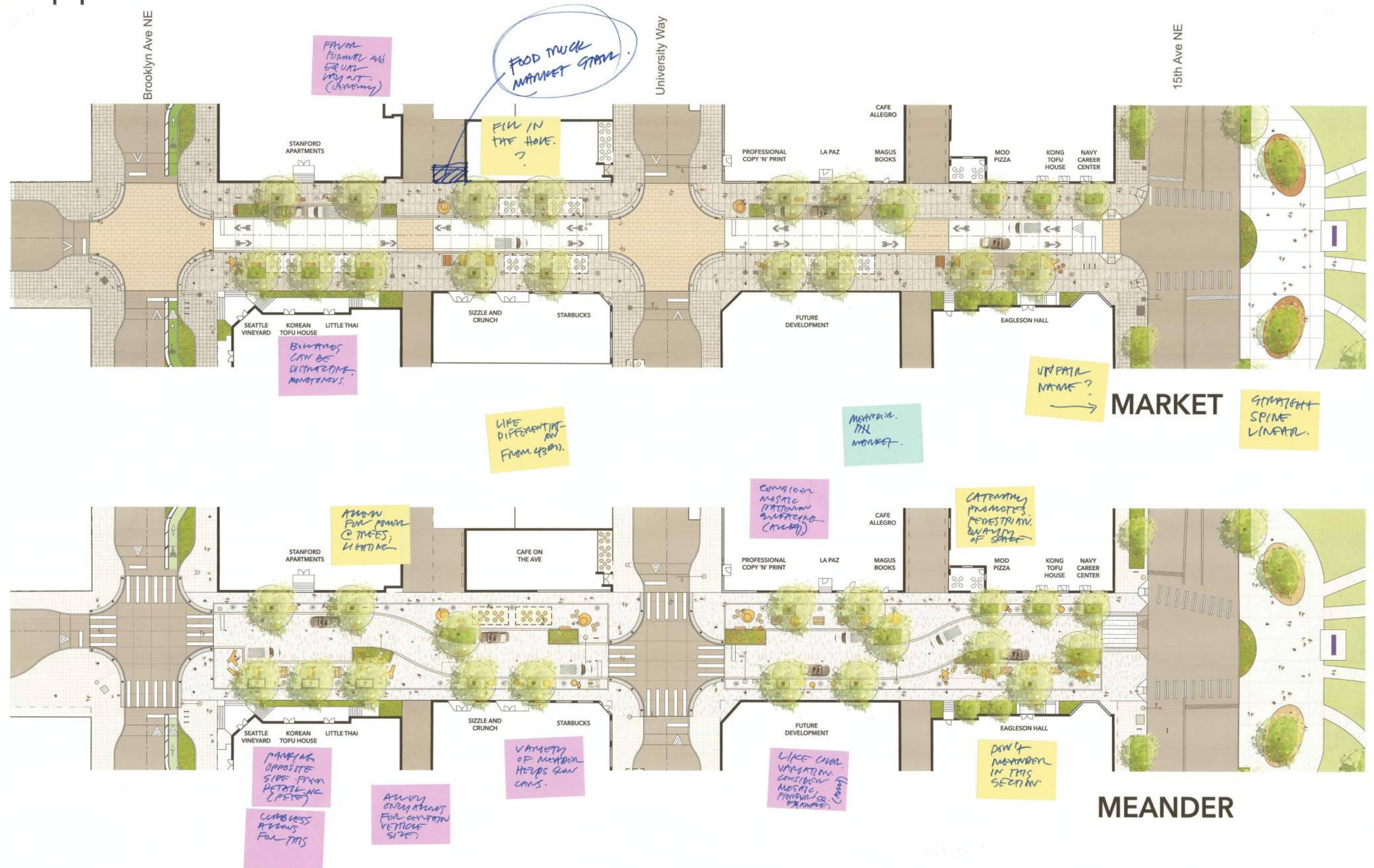
DISCUSSION

Discuss how each concept supports each of these project priorities:

- 1. Improved pedestrian comfort and engagement
- 2. Sufficient loading/parking for existing businesses
- 3. An iconic destination within the U District
- 4. A gateway between the U District and Campus
- 5. Ability to host events
- 6. Balances paving and planting

Meeting #3

2 Approaches



Meeting #3

2 Approaches

