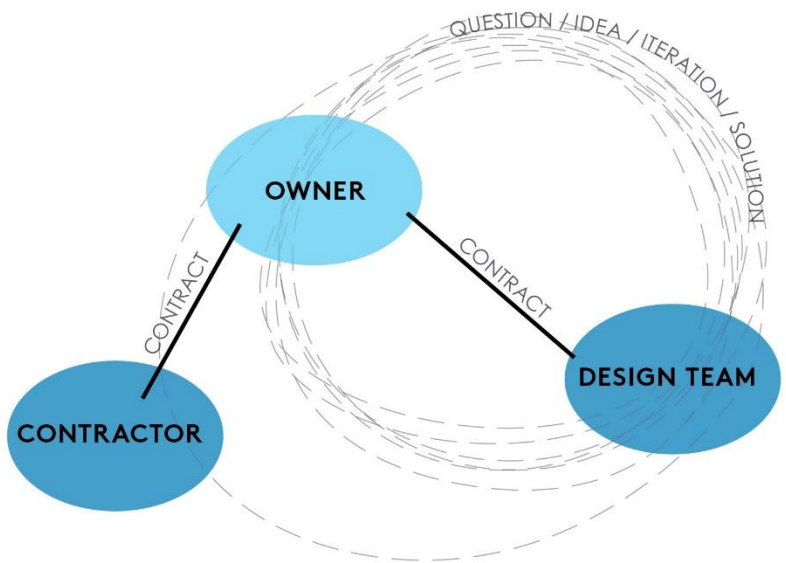
Design Build and the Landscape Architect—

How alternative project delivery methods are changing the role of the landscape architect in the Designer, Contractor, Owner relationship

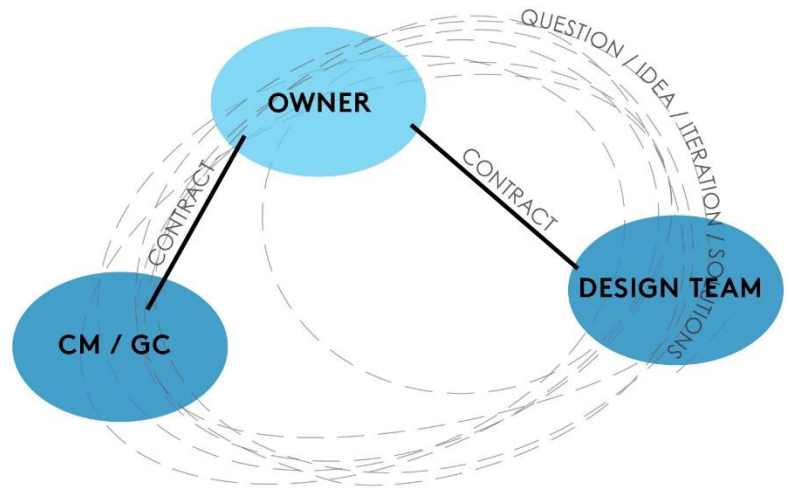
Dorothy Faris, Principal, Mithun
John Payne, Regional Director, SiteWorks
Brian Aske, Project Executive, Lease Crutcher Lewis
Vinita Sidhu, Principal, Site Workshop

Dorothy Faris

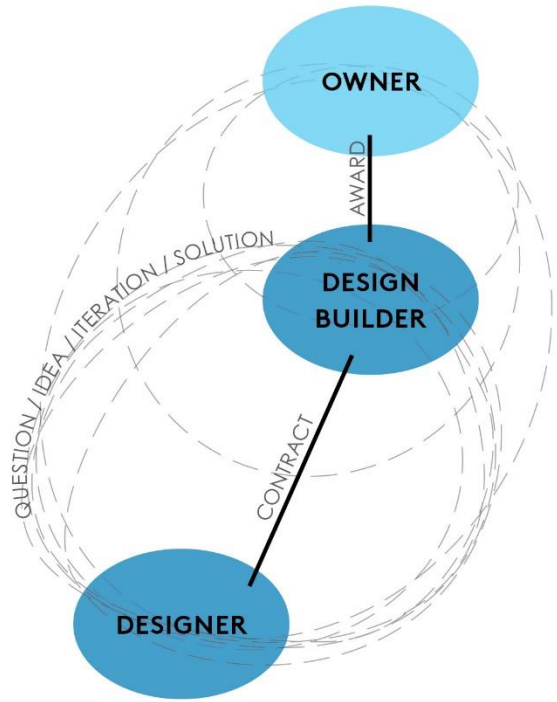
Principal, Mithun



DESIGN - BID - BUILD

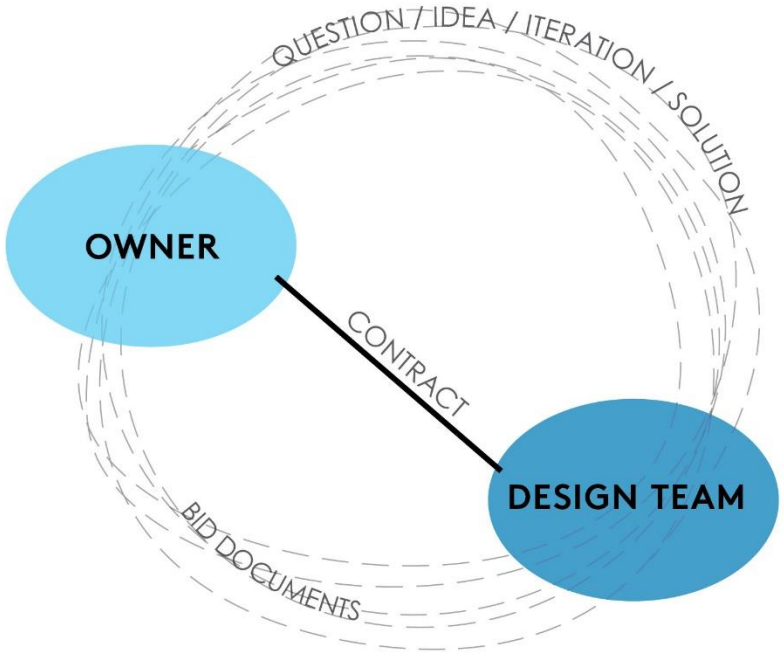


CONSTRUCTION MANAGER AT RISK

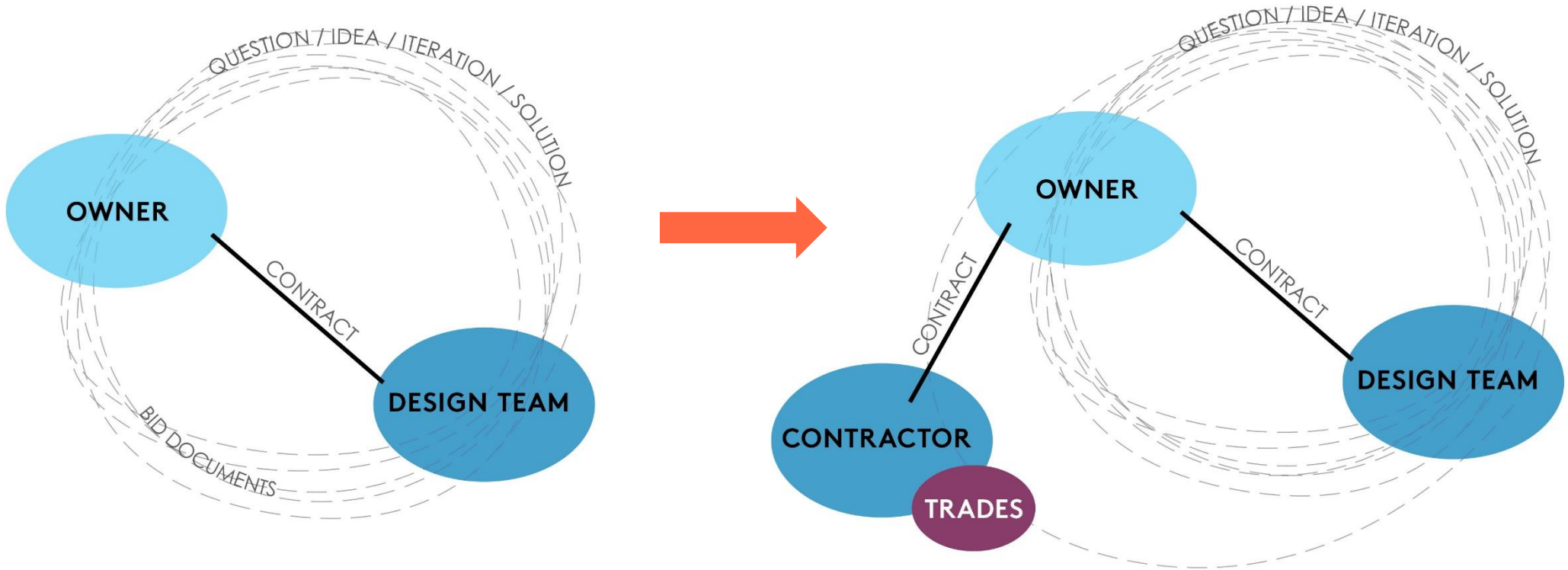


TRADITIONAL DESIGN - BUILD

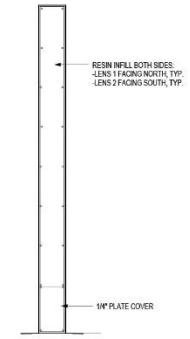
DESIGN - BID- BUILD



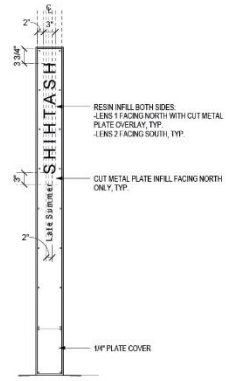
DESIGN - BID- BUILD



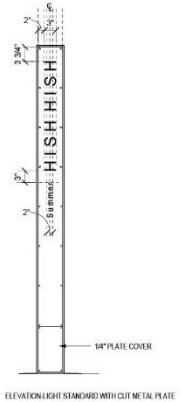
DESIGN - BID- BUILD



ELEVATION-LIGHT STANDARD, TYP.



ELEVATION-LIGHT STANDARD WITH CUT METAL PLATE



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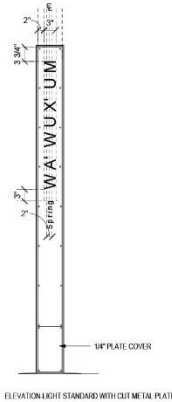

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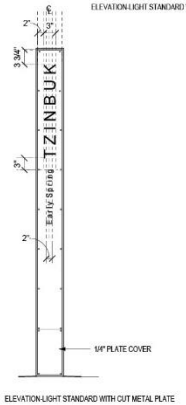
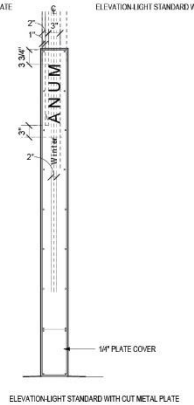


ELEVATION-LIGHT STANDARD WITH CUT METAL PLATE

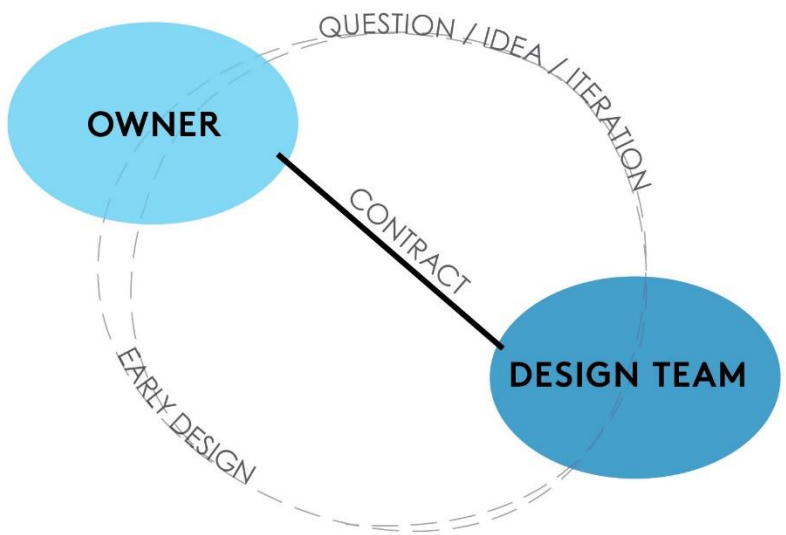


ELEVATION-LIGHT STANDARD WITH CUT METAL PLATE

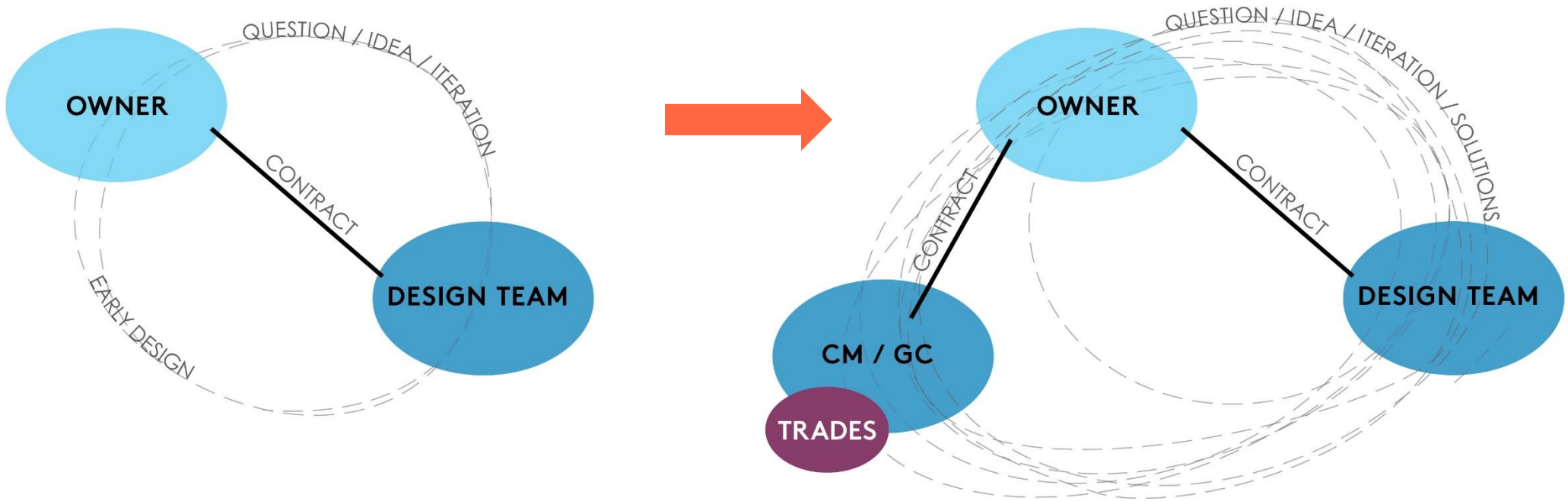
DESIGN - BID - BUILD

Nordic Heritage Museum

CONSTRUCTION MANAGER AT RISK



CONSTRUCTION MANAGER AT RISK



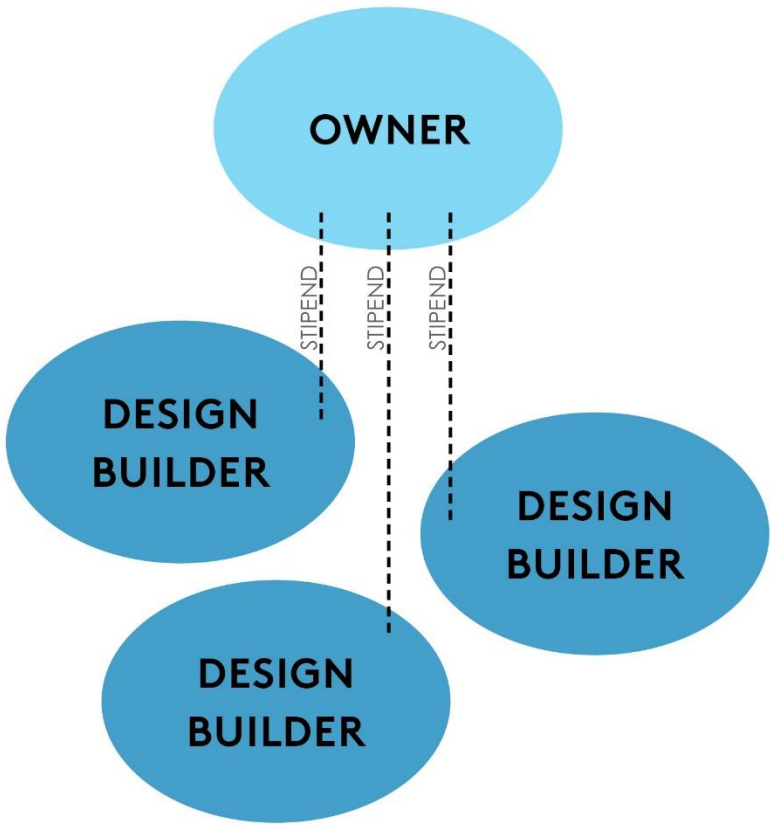
CM / GC

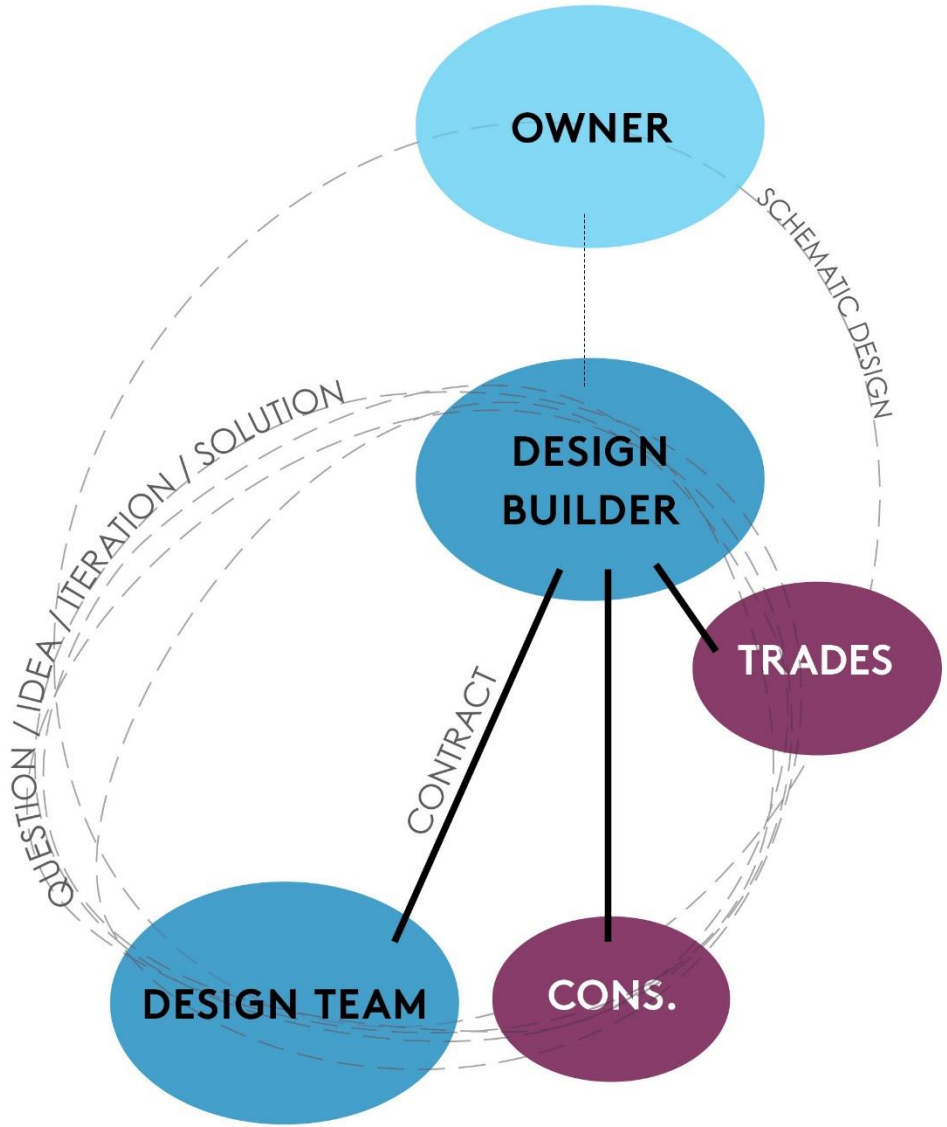
12th AVE ROOF AREA: 4028 SF HARDSCAPE
798 SF PLANTER
3045 SF G.R.
(TOTAL ROOF 13,268 SF)
13th AVE ROOF
2268 SF HARDSCAPE
10,363 SF GREEN ROOF
(APPROX. 13,000 TOTAL ROOF)
Would like this area to not receive stormwater if possible
JOHNSON ST

Heartline, Portland, OR

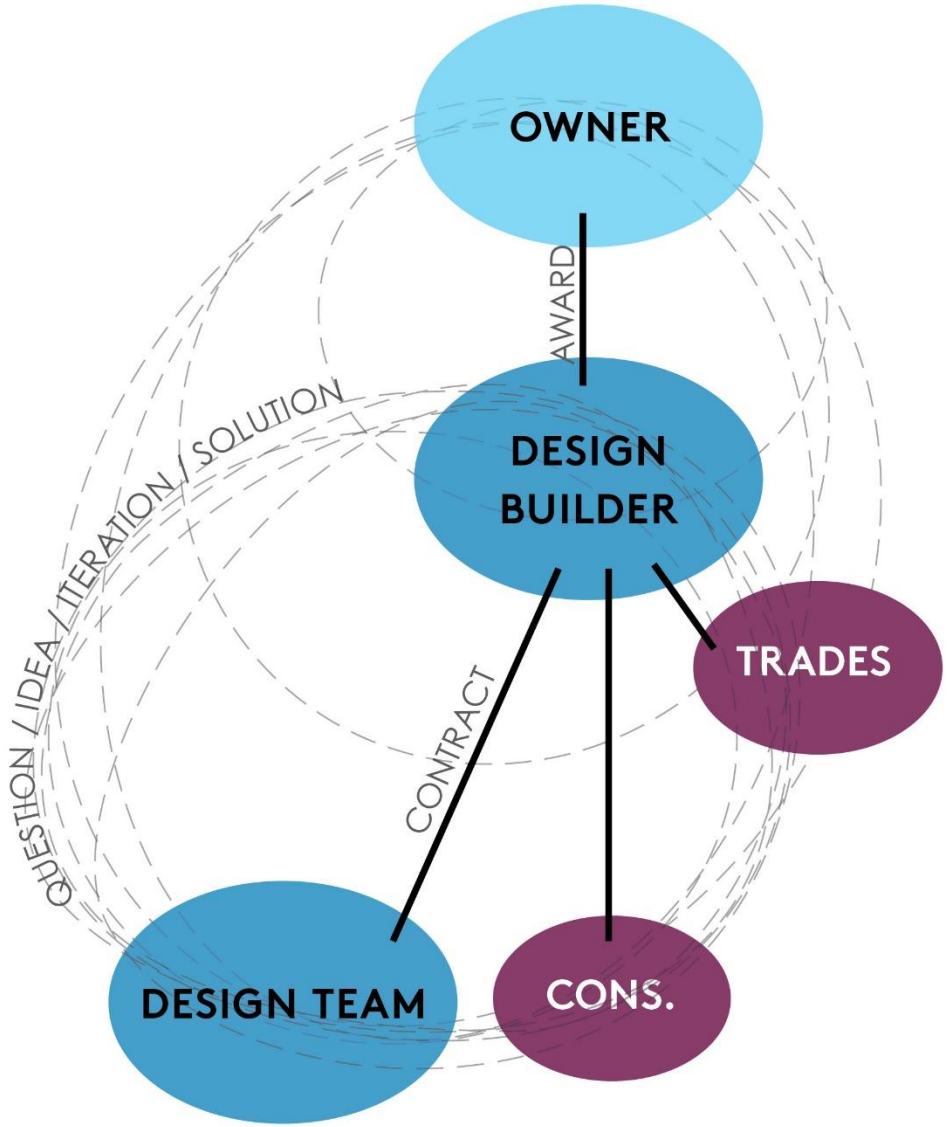
Heartline, Portland, OR

TRADITIONAL DESIGN-BUILD



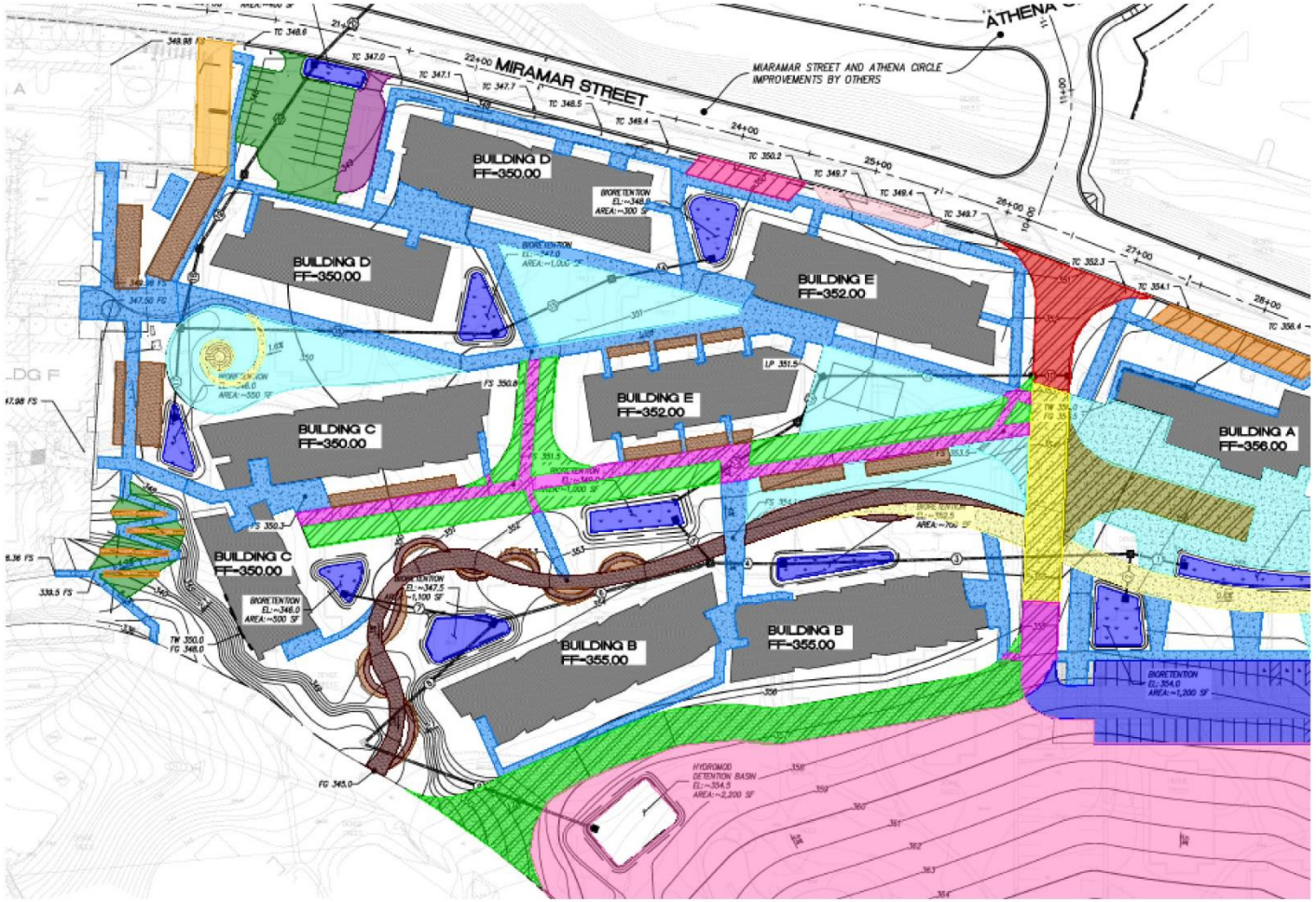


TRADITIONAL DESIGN-BUILD



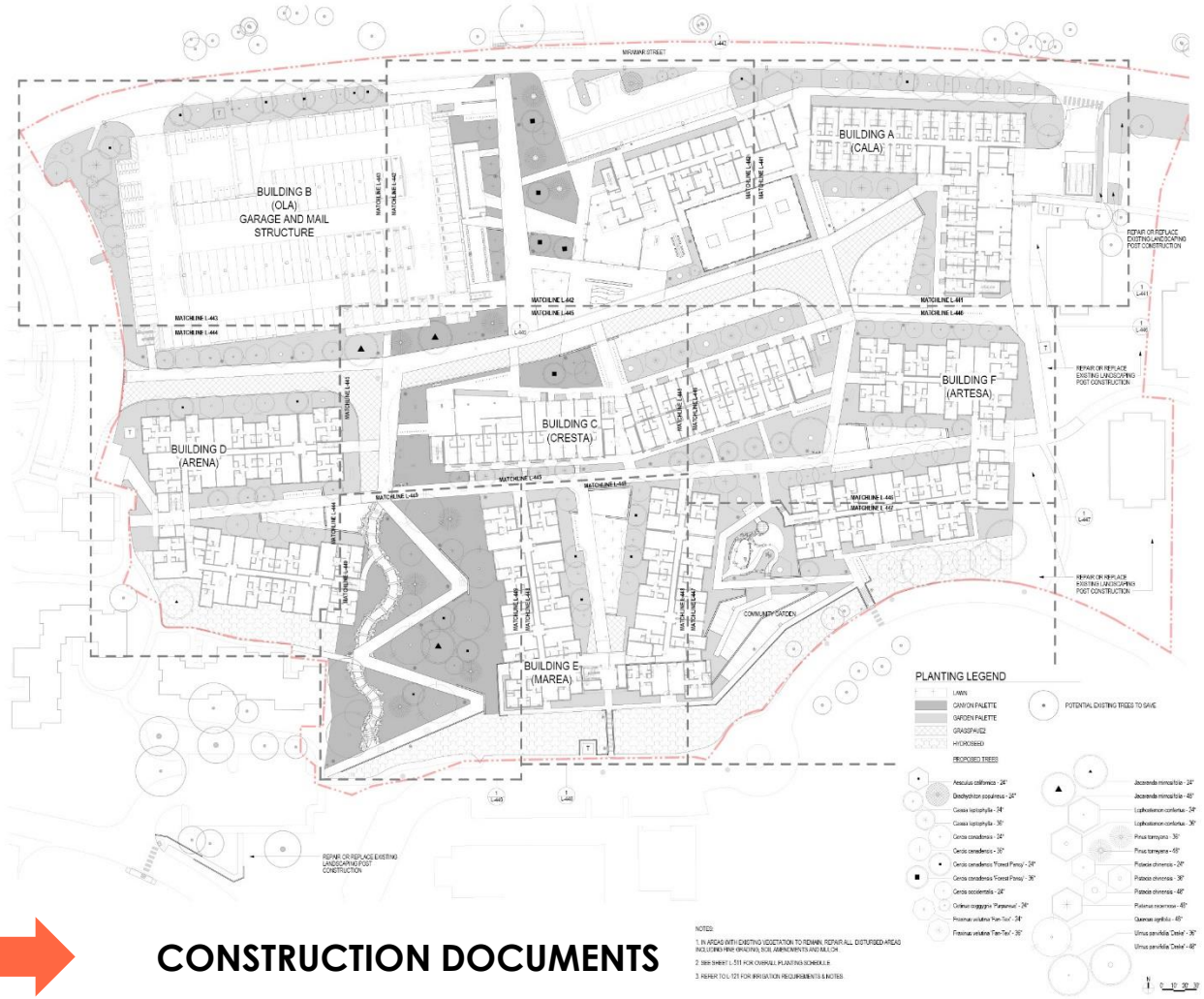
DESIGN - BUILD

DESIGN - BUILD



⊟ Overall Site				
	22	Overall Site	584,797	SF
⊟ Proposed Asphalt				
	1	Ashalt Parking Along Miramar	1,194	SF
	2	Asphalt Parking at Building A	1,911	SF
⊟ Proposed Bioretention				
	29	Bioretention	9,398	SF
⊟ Proposed Concrete Stairs				
	35	Concrete Stairs along Regents	88	SF
⊟ Proposed Curbs				
	15	Curb and Gutter	1,531	LF
	16	Mow Curb	2,525	LF
⊟ Proposed Flatwork				
	11	Sidewalk - 4" - Throughout Site, less along Regents	43,803	SF
	12	Flatwork - Integral color/ acid etch/ scored - Adjacent to Bldg A & F	22,195	SF
	13	Flatwork - Integral color/ acid etch - Winding Pathway	9,832	SF
	14	Sidewalk 4" along Regents - 10' wide	3,802	SF
	31	Flatwork - Integral color/ acid etch/SCORED - Fire Access Hammerhead	4,852	SF
	34	Truncated Domes	309	LF
⊟ Proposed Grass Pavers				
	21	Grass pavers	22,888	SF
⊟ Proposed Landscape				
	17	Mulch Paths in Garden	170	LF
	18	Compacted DG	8,770	SF
	23	Sod	23,588	SF
	24	Garden	1,772	SF
	25	Landscape	0	SF
	26	Hydroseed	164,688	SF
	27	36" Trees	0	EA
	28	24" Trees	0	EA
	33	Existing Trees - Protect in Place	0	EA
	36	Stabilized DG	8,050	SF
⊟ Proposed Paving				
	3	PCC Light Paving - Exchange Parking Lot	11,072	SF
	4	PCC Light Paving - NW Parking Lot	6,054	SF
	5	Woonerf Paving/ Tabeled Intersection	4,142	SF

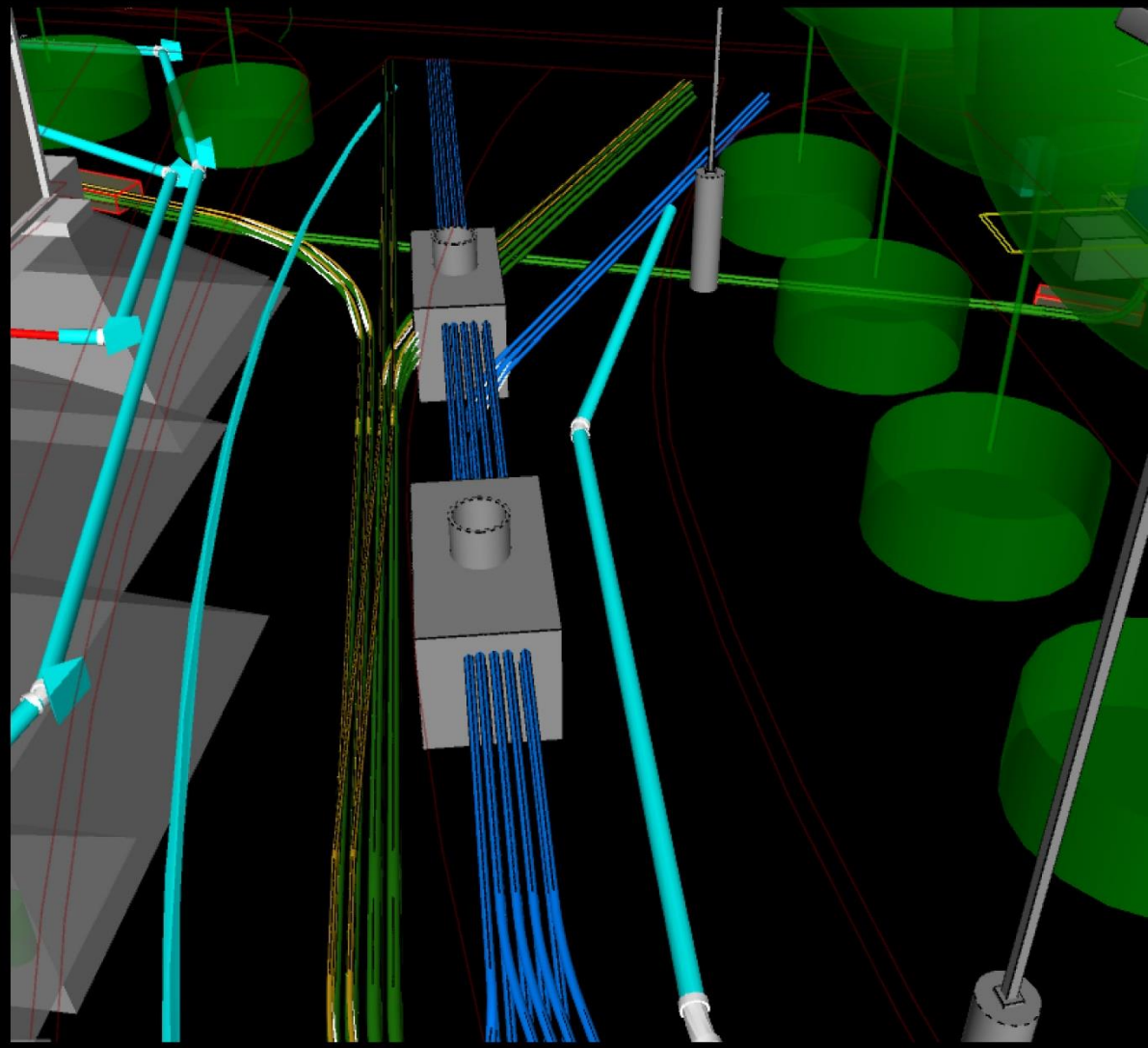
TECHNICAL PROPOSAL

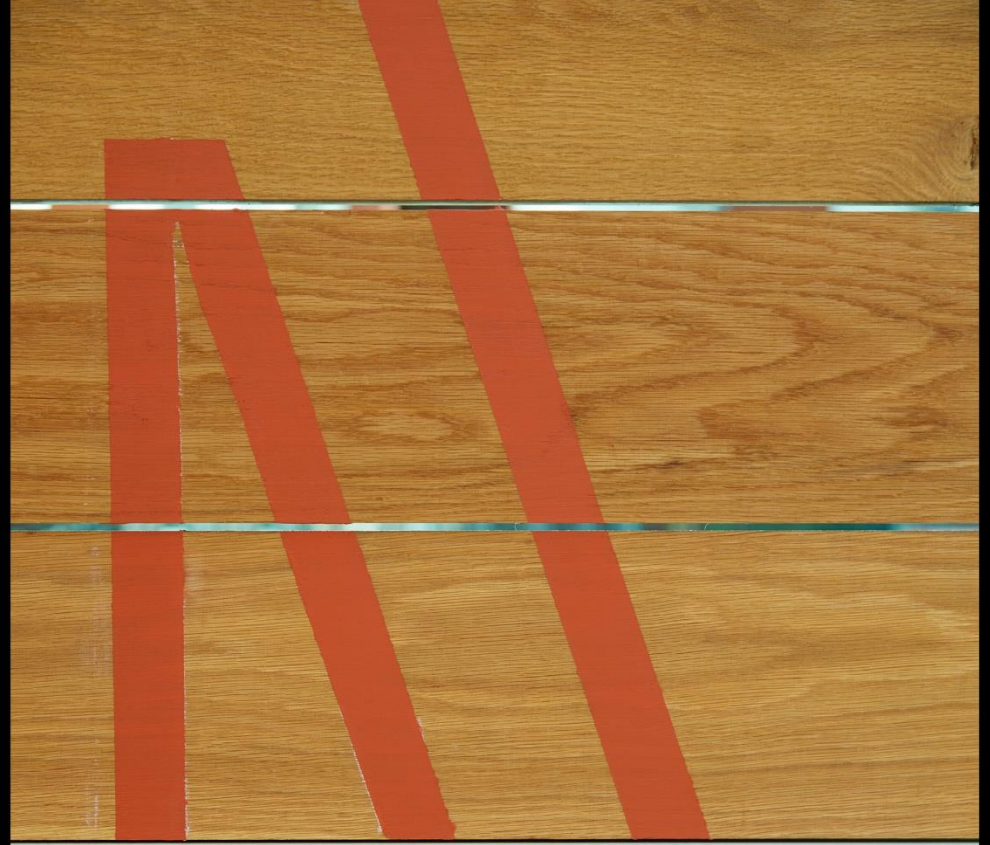


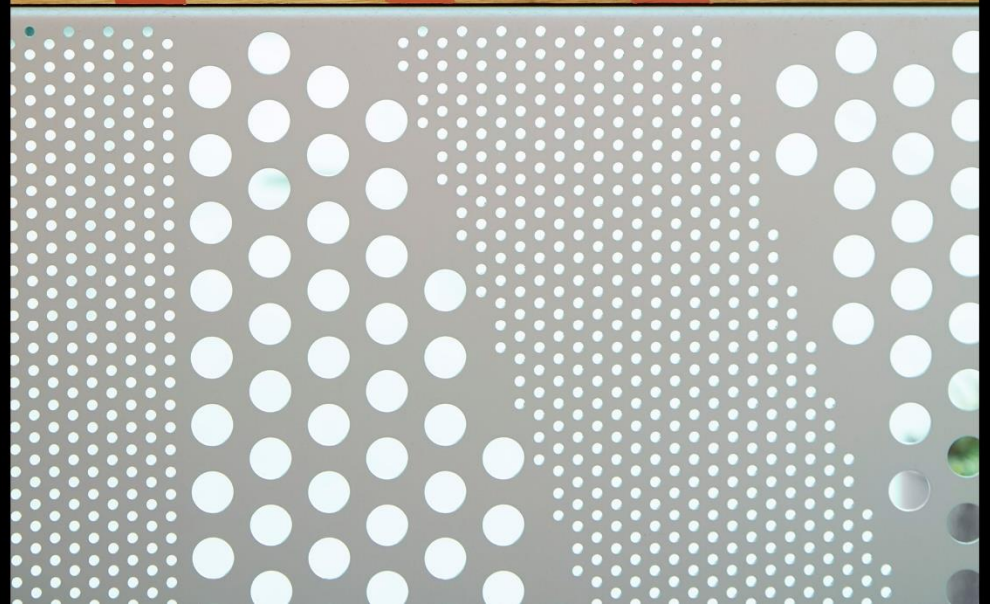
TECHNICAL PROPOSAL

CONSTRUCTION DOCUMENTS


TEL conduit
can move tree 7'6" south







UCSD - Mesa Nueva

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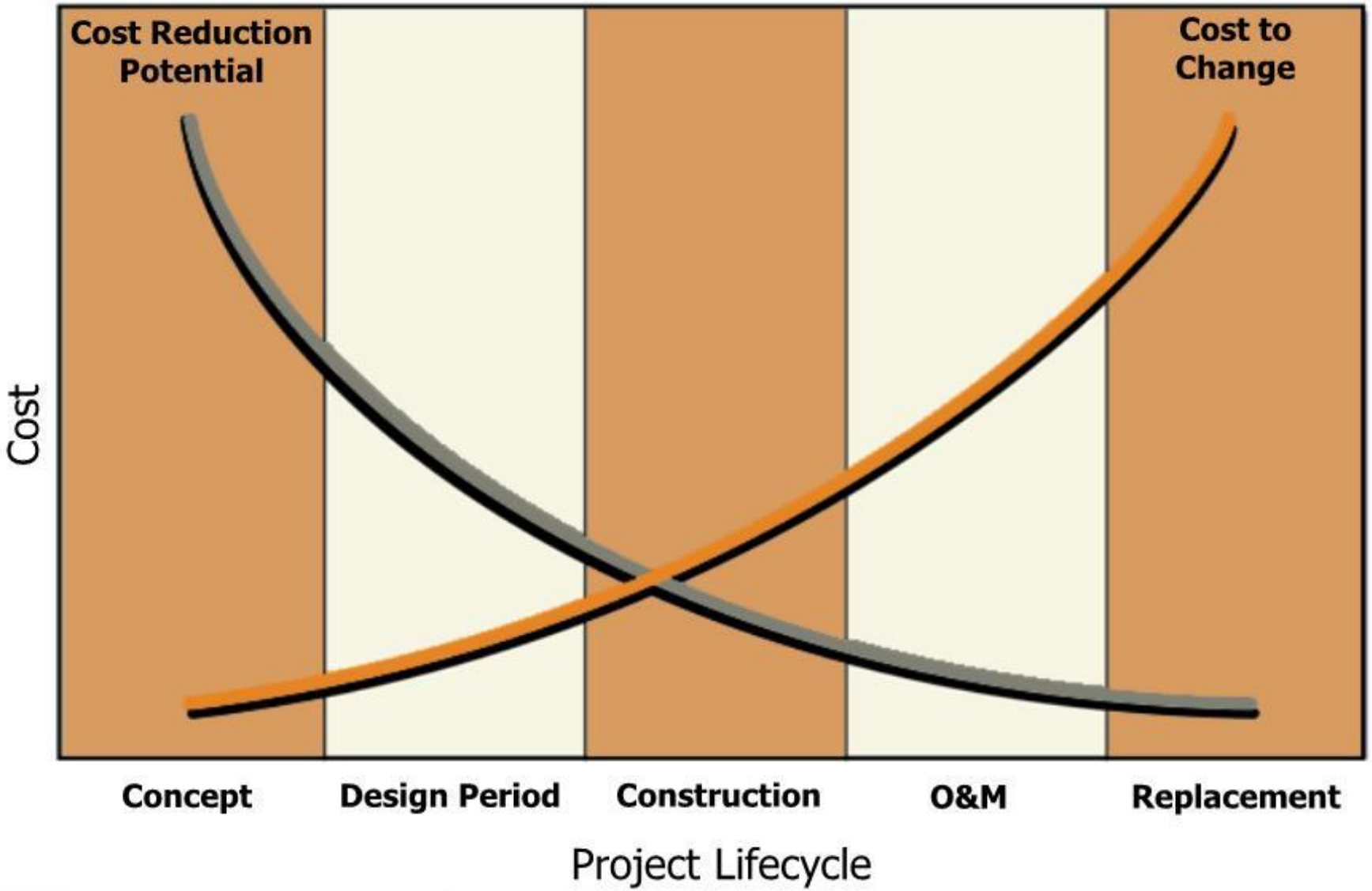
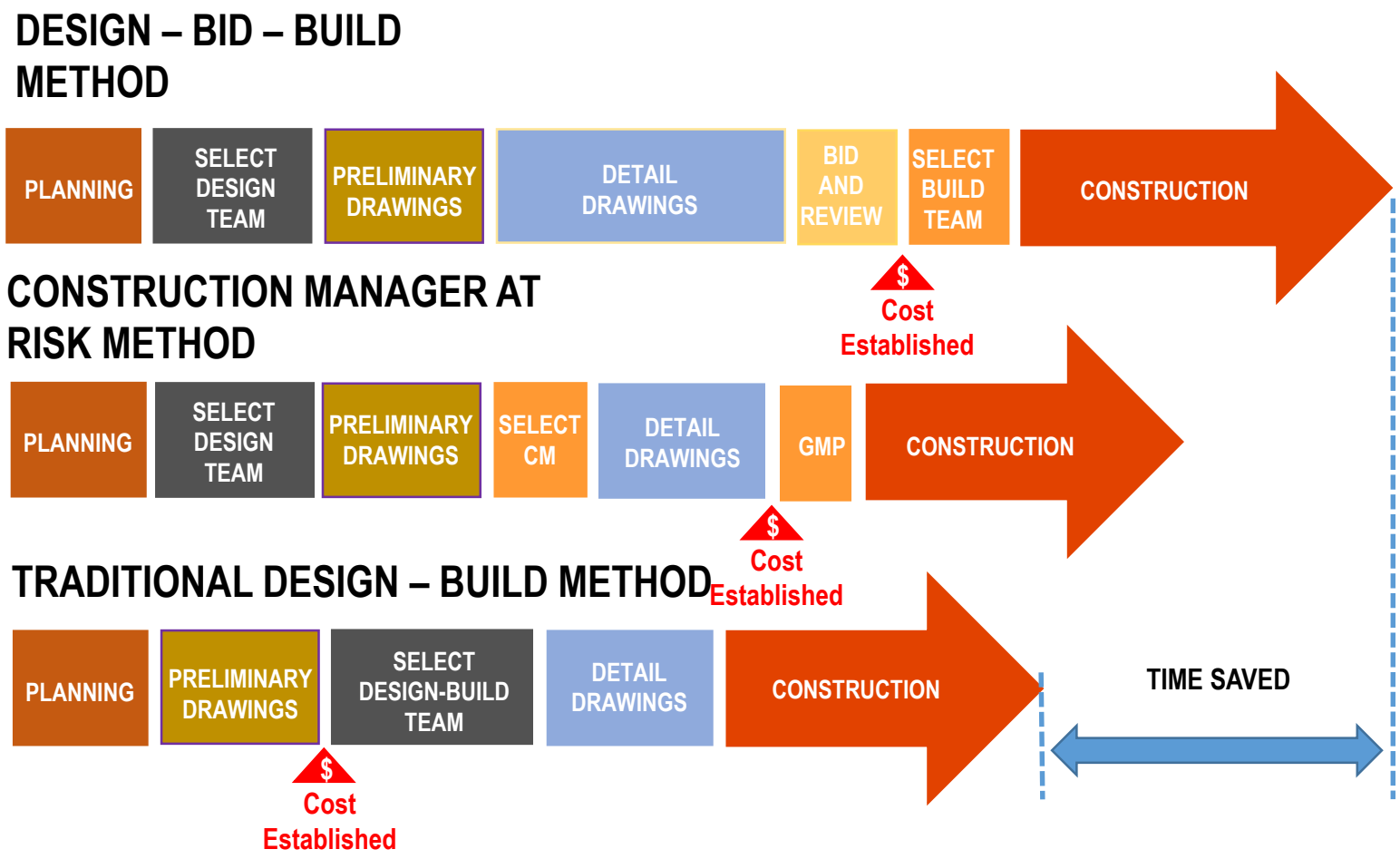
John Payne

Regional Director, SiteWorks

Optimizing Design Thinking to Better Influence Cost



USING COST ESTIMATING AS A CRITICAL DESIGN TOOL

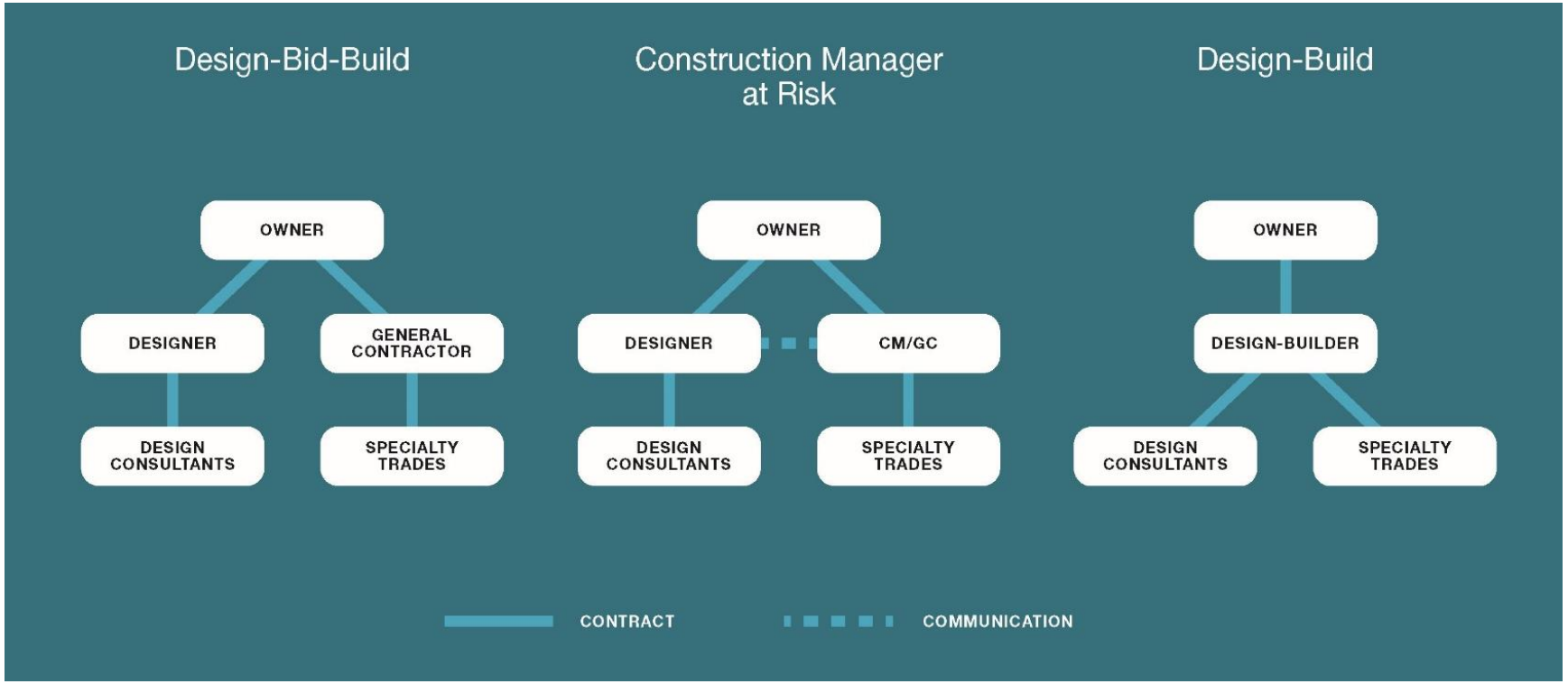


Brian Aske—

Project Executive, Lease Crutcher Lewis

What is Design-Build?

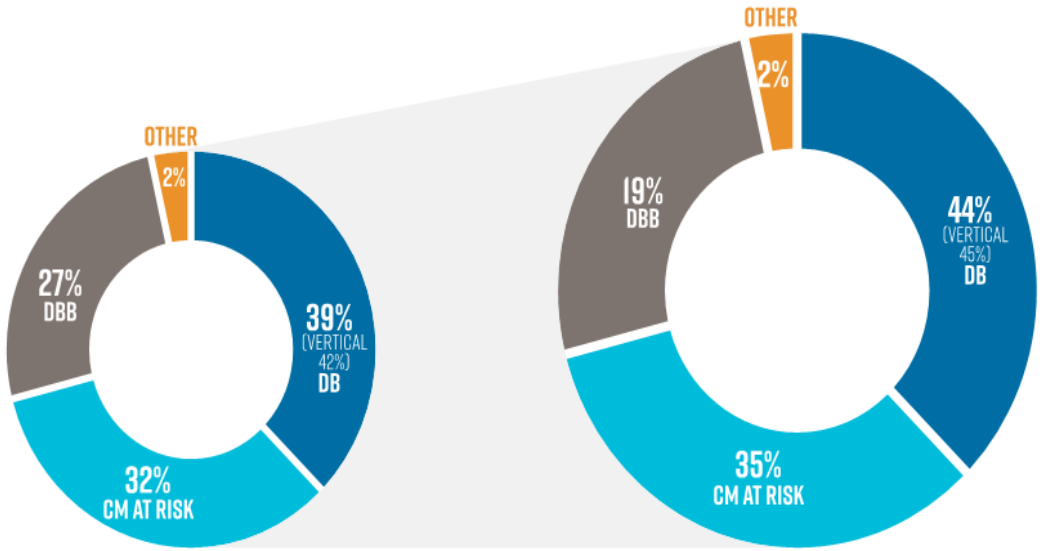
Design-Build is a method of project delivery in which ***one*** entity (design-builder) forges a ***single*** contract with the Owner to provide for architectural engineering design services and construction services.



Project Delivery Performance Results

DBB= Design-Bid-Build
CMR= Construction Manager at Risk (GCCM)
DB= Design-Build

Design-build is anticipated to continue to gain market share over the 2018-2021 period.

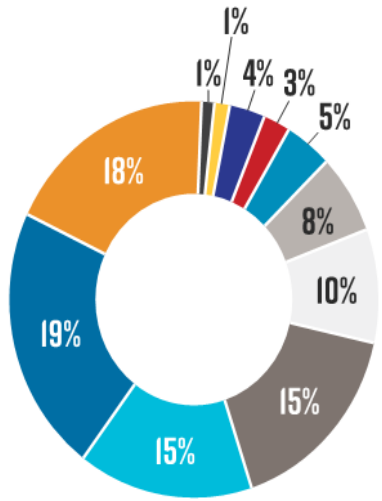


2013-2017 CPIP: $2,779B

2018-2021 CPIP: $2,729B

DISTRIBUTION OF DELIVERY METHOD UTILIZATION

Source(s): FMI Analysis of multiple sources



SEGMENT BREAKOUT

DISTRIBUTION OF MARKET

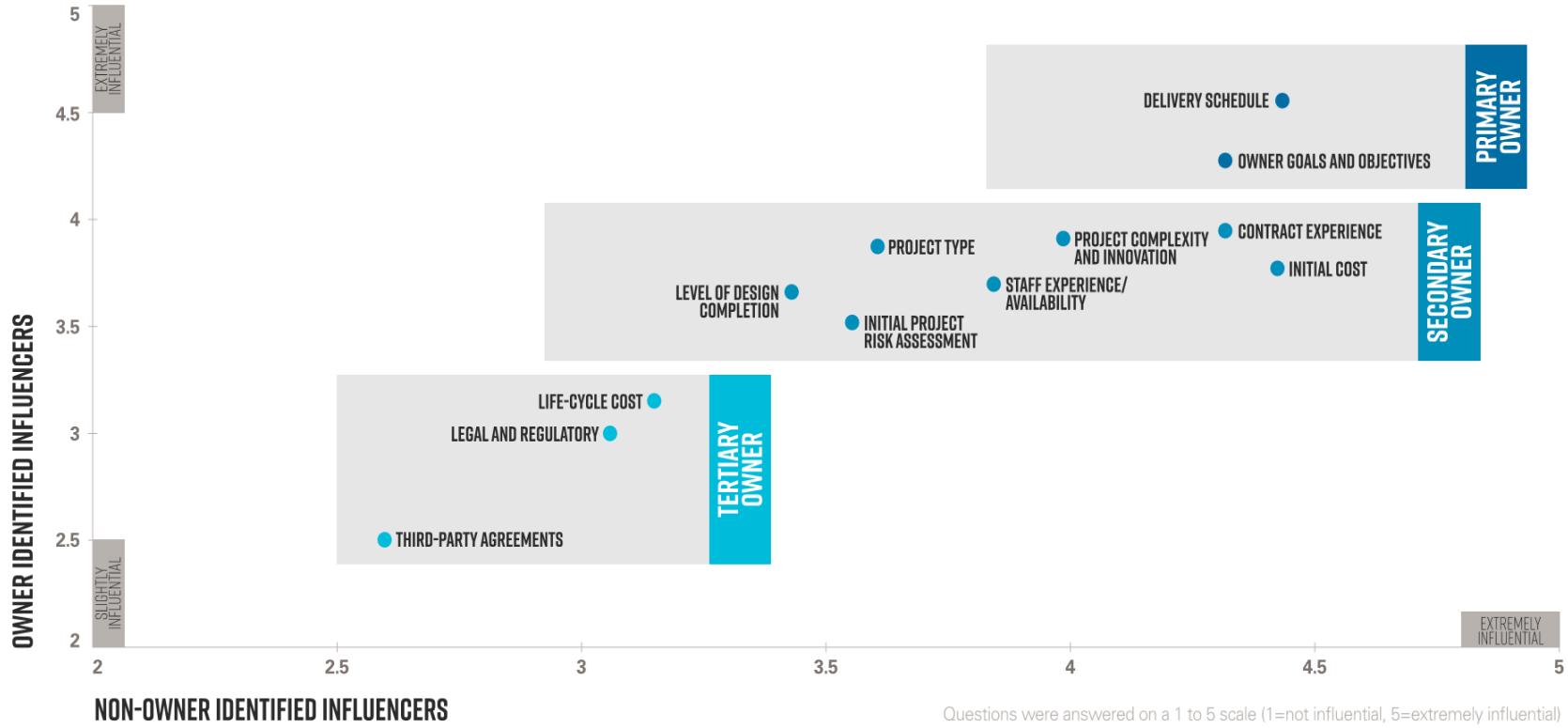
CPiP spending, 2018-2021

EDUCATIONAL MANUFACTURING COMMERCIAL OFFICE TRANSPORTATION HEALTHCARE
LODGING COMMUNICATION AMUSEMENT & RECREATION PUBLIC SAFETY RELIGIOUS

- Dissatisfaction with the adversarial nature and limitations of design-bid-build as well as increasingly challenging project characteristics and demands has resulted in greater interest in and use of design-build and other alternative delivery methods.
- Negative project owner experience and perceptions of design-bid-build are most influenced by limited opportunity for innovation, lack of a fast-track process and higher risk profile for the project owner.

Delivery schedule was the most influencing factor for owners when selecting a project delivery method.

PROJECT DELIVERY METHOD INFLUENCING CHARACTERISTICS
Weighted average of responses
Source(s): FMI Survey



Questions were answered on a 1 to 5 scale (1=not influential, 5=extremely influential)

Vinita Sidhu

Principal, Site Workshop


The Big Room

Project Charter

POPULATION HEALTH FACILITY
TEAM CHARTER

PROJECT VISION + GOALS

Project Vision

The University of Washington is poised to accelerate research and advancement in Population Health. The Population Health Facility will serve as a powerful catalyst for the University's new Population Health Initiative and be an idea laboratory and collaboration incubator. It will house the Institute for Health Metrics and Evaluation, the Department of Global Health, and elements of the School of Public Health, all of which will greatly benefit from close proximity. The facility will also provide central gathering spaces for faculty, students, staff, partners, and visitors from a wide range of disciplines across campus, the region, the nation, and the world to address important global health concerns.

Population Health Facility Goals

- Foster collaboration and connectivity amongst those working within the facility, with other programs and with researchers at the UW, local and global partners, and students;
- Promote healthy living within and around the new facility;
- Design space that is flexible and adaptable to meet the evolving needs of IHME, DGH, and SPH;
- Employ best practices in sustainable building to reduce energy and water use, lower life cycle costs and improve occupant satisfaction and health; and
- Support and further the institution-wide Population Health Vision.

TEAM BEHAVIORS + TOOLS

Our team will enable the behaviors and utilize the tools identified below to ensure the design and construction methods and final products are appropriate to the campus and in keeping with the culture and mission of the Population Health initiative.

Mutual Respect and Trust
We will foster an environment that promotes collaboration, and we will work as a team in the best interests of the project. Our successes and challenges are shared and we are dedicated to the success of the entire project team rather than specific individual parties.

Open Communication
We will communicate openly, honestly, and directly, with timely information that facilitates individuals' contributions. We will behave with a "no blame" culture and recognize disputes early and resolve them promptly.

Reliable Promising
We will make and secure reliable promises as a basis for planning and executing the project.

Collaborative Innovation and Decision Making
We will make major decisions using a consensus-based structure for the benefit of the project.

Organization and Leadership
We will operate as a joint organization. Leadership shall be taken by the team member most capable with regard to the specific task.

Ownership of Outcomes by Project Participants
We will hold regular meetings throughout project definition, preconstruction/design, and construction/occupancy with all key participants to take leverage the collective potential of the combined knowledge and expertise of all parties.

Appropriate Technology
We will use the appropriate technology to enhance the collaborative process and improve the results. Design and construction coordination shall be digitally based, virtual, and shall use Building Information Modeling (BIM) technology.

Budget and Schedule Control
We will establish a Target Budget and Target Milestones (schedule) that include all major phases of the design and construction. The team will review budget and schedule updates on a regular basis and openly communicate any issues or concerns. All team members will share ownership of the project schedule, the project budget, and the project's quality.

Safety
Population Health promotes well being for all. Injuring workers in the process is contradictory to this mission.

Demonstrate a commitment to achieve or exceed UW equity businesses goals
The team is committed to providing the maximum practicable opportunity for participation in contracting by SBE, DBE, MBE, WBE, and MWBE and to exceed the UW business equity goals.

Population Health Facility Design Excellence
We will ensure the facility goals are embedded in all design decisions so the community understands why the facility is being built.

Campus Contribution
We will work to make a lasting contribution to the campus and be mindful of the desired future char of the area, and responsive to design and develop standards and guidance as described in the 2018 Campus Master Plan and other appropriate docu

High Performance Delivery
We will conduct an intensified early planning pro with the participation of key team members, to i our efficiency during execution.

High Performance Team
We will establish and continually evaluate project


Target Unit Price
Unit Price
$100
$80
$60
$40
$20
$0
$60
$61
$23
$19
$21
$21
$23
$20
$1
$3
$34
$36
$64
$57
$88
$87
$10
$7
$79
$67
$14
$15
$67
$65
$14
$15
$5
$7
$65
$65
$36
$35
00 - Design Budget
00 - Design/Buyout Contingency
00 - E&O and Construction Contingency
01 - General Conditions
02 - Demolition
03 - Site
04 - Structure
05 - Exterior Wall
06 - Roofing/Wate...
07 - Interior Construction
08 - Vertical Transportation
09 - HVAC
10 - Plumbing
11 - Fire Sprinklers
12 - Electrical
13 - Construction Support
$170.0M
Target Cost
$173.5M
Current Cost
Target Cost
Current Cost
$30M
$20M
$10M
$0M
$18M $18M
$7M $5M
$6M $6M
$7M $6M
$0M $1M
$10M $10M
$17M $19M
$26M $25M
$2M $3M
$19M $23M
$4M $4M
$19M $19M
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$2M $1M
$19M $19M
$10M $10M
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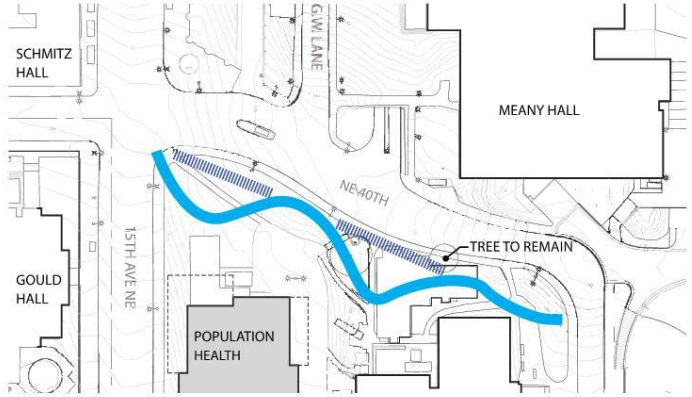
12 - Electrical
13 - Construction

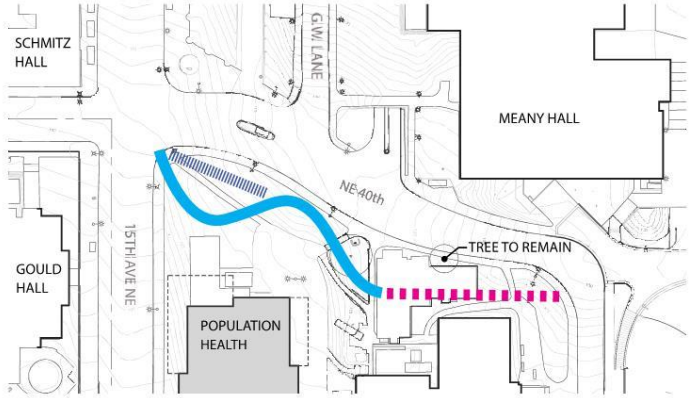
Decision Tools

TARGET: TO PROVIDE ADA CIRCULATION AT NE 40TH ST ENTRY

ADA ROUTE - OPTION 1



ADA ROUTE - OPTION 2



LEGEND

Handrail Required (5% - 8.33%)

No Handrail (< 5%)

Direct Path with Stair

Elm Hall ADA Circulation Path

Portage Bay Vista Circulation

TARGET: TO PROVIDE ADA CIRCULATION AT NE 40TH ST ENTRY

A goal of this project is to provide ADA access along NE 40th from 15th Ave NE to Stevens Way and Grant Lane. There has been some discussion regarding the presence of handrails along the primary route without a definitive decision if it is acceptable or not.

Each option hits key floorplate grades at Population Health and Architecture Hall building entries and both aim to preserve the existing Ponderosa Pine on the north side of Guthrie Annex 4.

OPTIONS:

1. Option 1 provides a winding ADA accessible route at less than 5% slope combined with a direct pedestrian route with stairs. The ADA route avoids handrails and has the potential for seamless integration with garden and court spaces along this route.

2. Option 2 provides a winding ADA accessible route in the west portion at less than 5% slope combined with a direction pedestrian route with stairs. The remaining section is a single ADA accessible pedestrian route with handrails only in the section north of Architecture Hall.

Building Team Spirit

Design Build and the Landscape Architect—

How alternative project delivery methods are changing the role of the landscape architect in the Designer, Contractor, Owner relationship

Dorothy Faris, Principal, Mithun
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