



Native Plants and Community Based Design in Saint Louis



LANDSCAPE ARCHITECT



WHAT MY MOM THINKS I DO



**WHAT HORTICULTURISTS
THINK I DO**



WHAT CLIENTS THINK I DO



WHAT CONTRACTORS THINK I DO



WHAT I THINK I DO



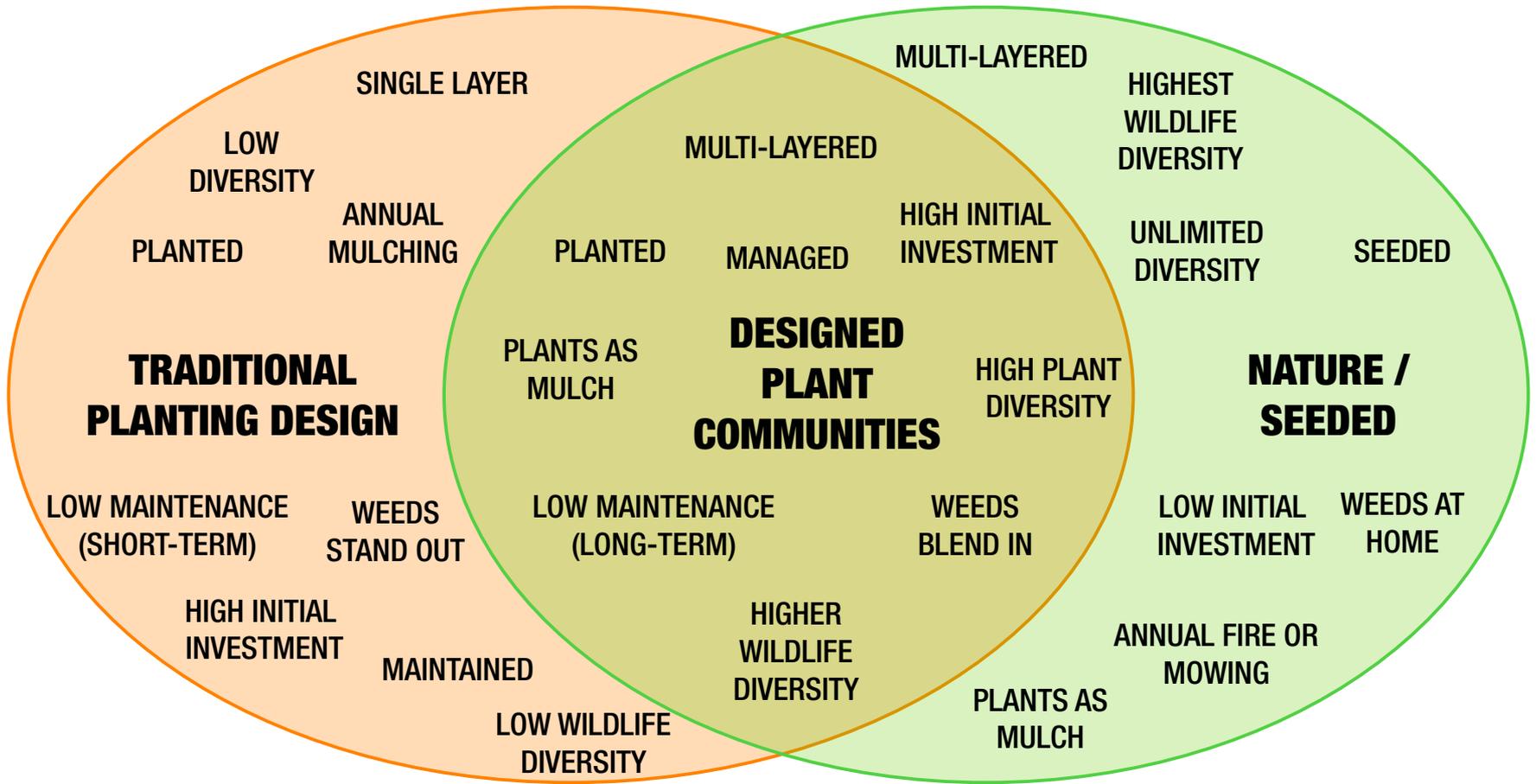
WHAT I ACTUALLY DO

What I Actually Do



What am I talking about?

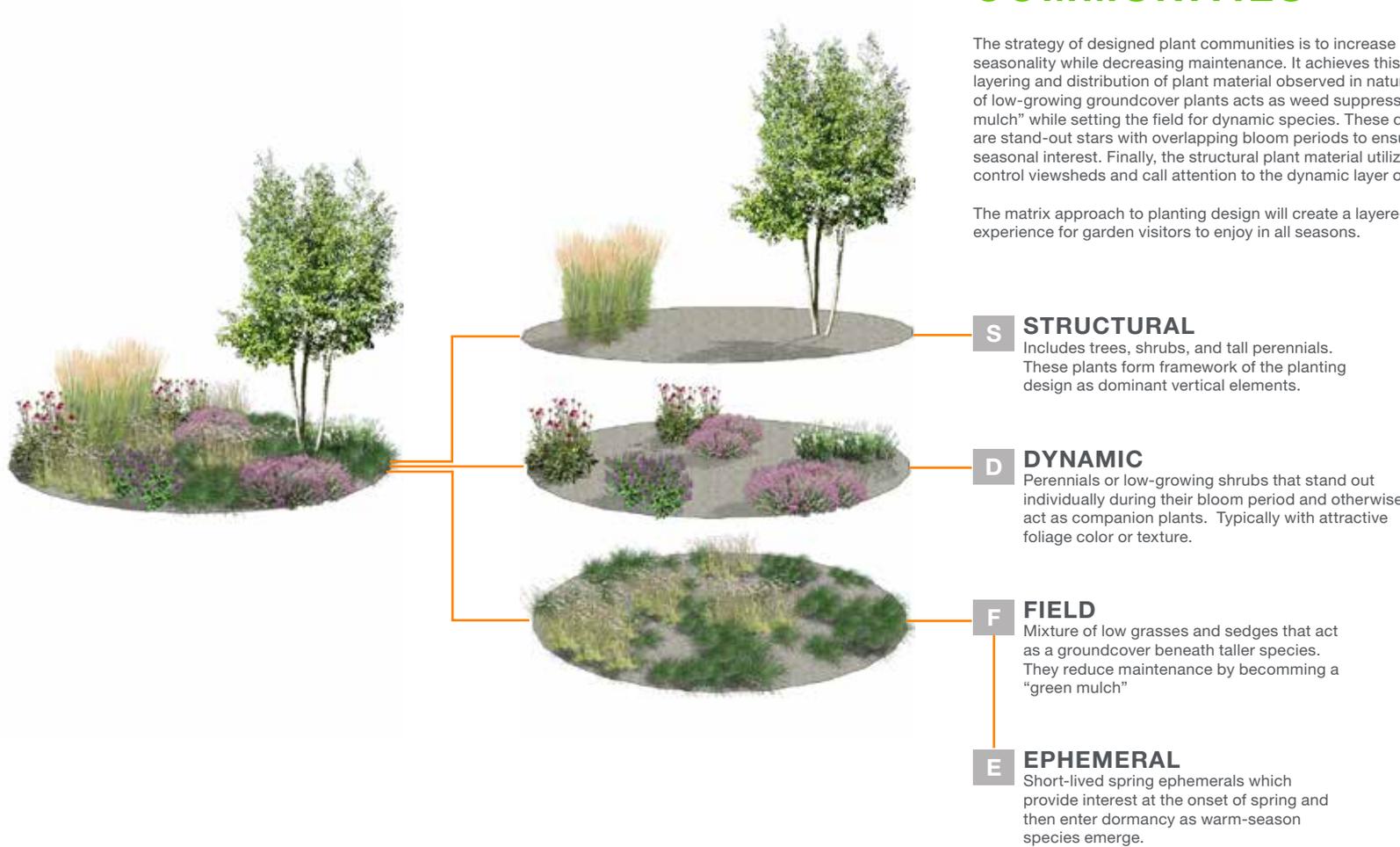
- **Brief overview of designed plant communities**
- **Our process to embrace the concept of designed plant communities**
- **Project review: The Center for Nursing and Health Sciences**
- **Project review: MSD neighborhood rain garden**
- **Native plants!**



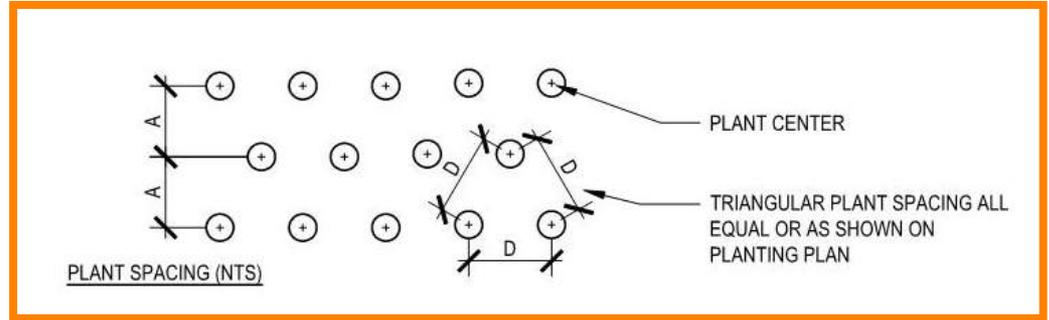
DESIGNED PLANT COMMUNITIES

The strategy of designed plant communities is to increase diversity and seasonality while decreasing maintenance. It achieves this by mimicking the layering and distribution of plant material observed in nature. A base layer of low-growing groundcover plants acts as weed suppression and “green mulch” while setting the field for dynamic species. These dynamic accents are stand-out stars with overlapping bloom periods to ensure consistent seasonal interest. Finally, the structural plant material utilizes verticality to control viewsheds and call attention to the dynamic layer of plant material.

The matrix approach to planting design will create a layered and tactile experience for garden visitors to enjoy in all seasons.

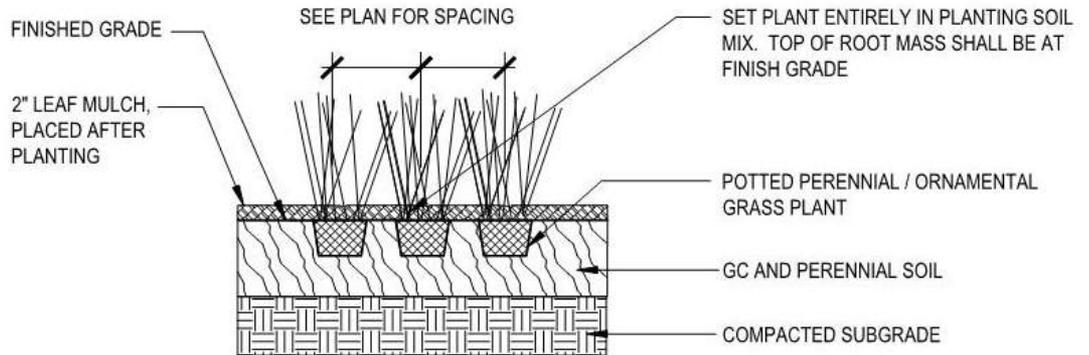


Traditional Planting Design



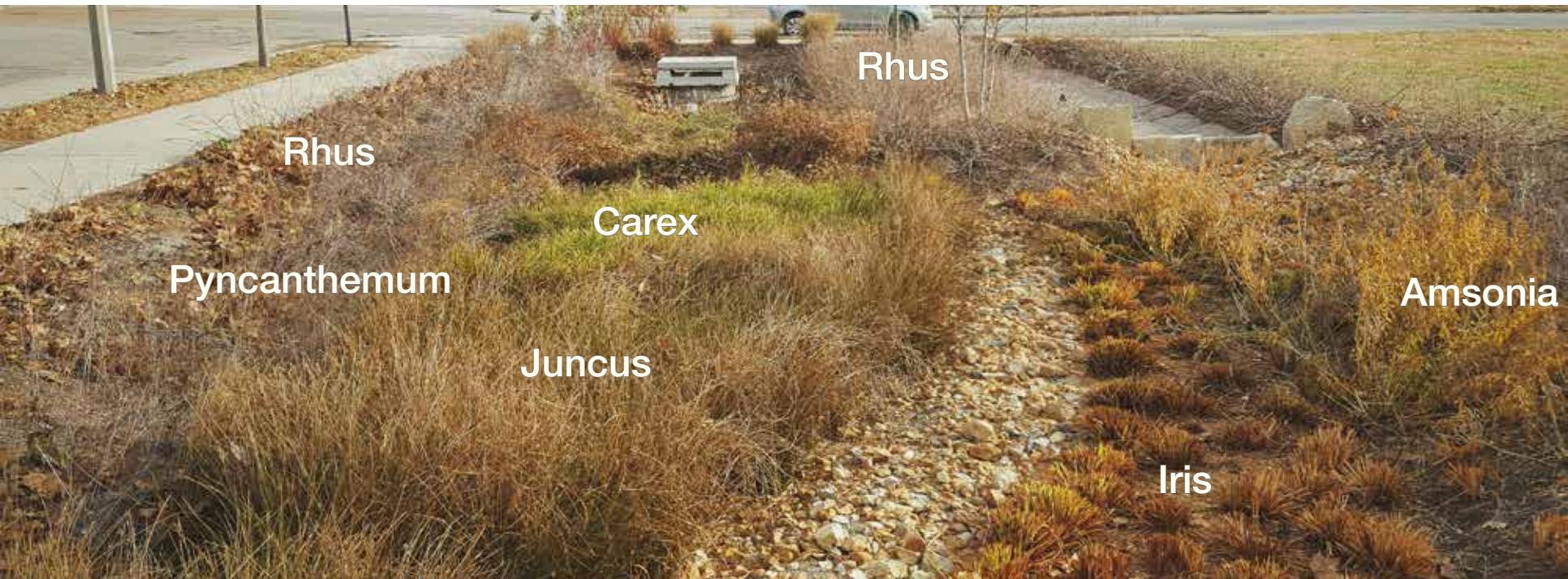
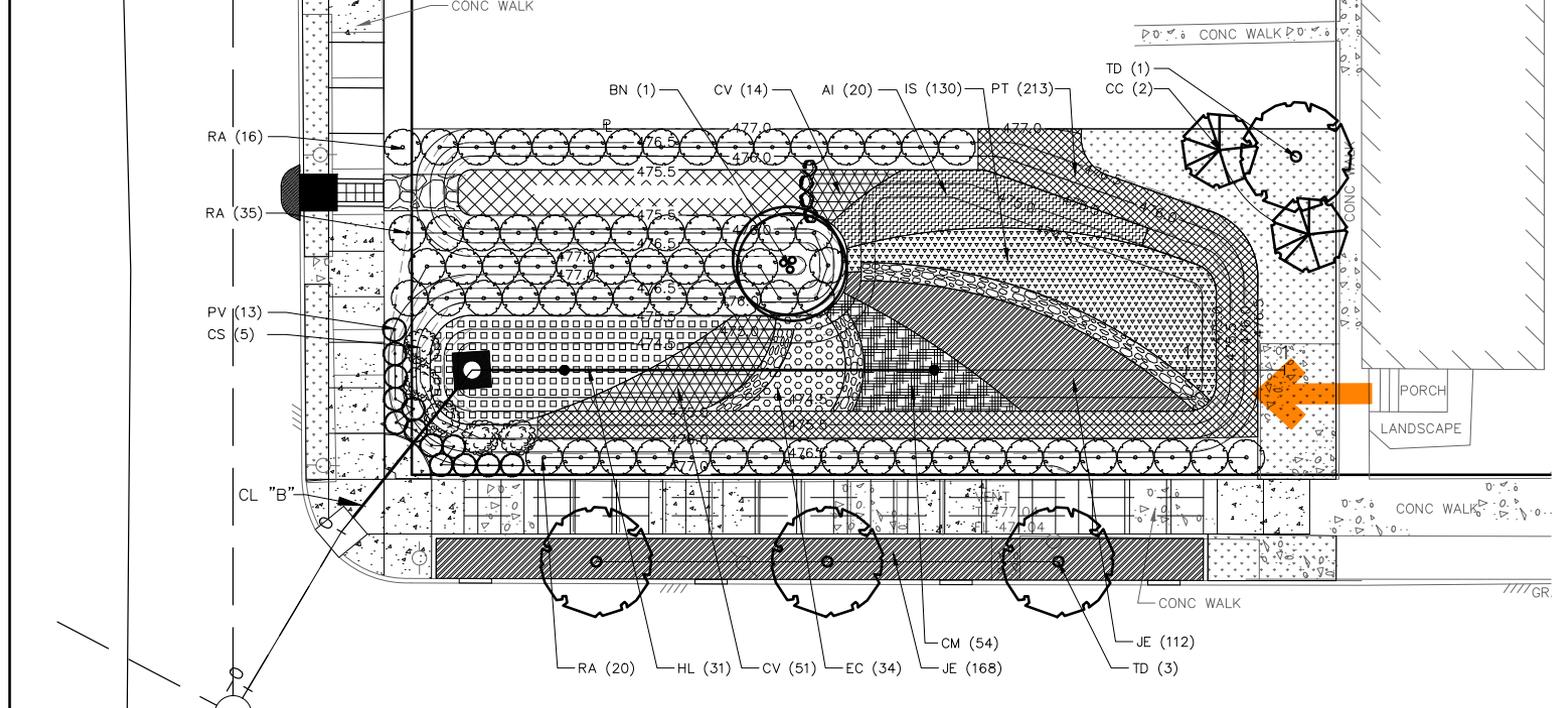
SPACING "D"	ROW "A"	PLANTS PER SQ. FT.
24" O.C.	20.8"	0.29
18" O.C.	15.6"	0.50
12" O.C.	10.4"	1.15
10" O.C.	8.7"	1.66
8" O.C.	6.9"	2.60
6" O.C.	5.2"	4.00

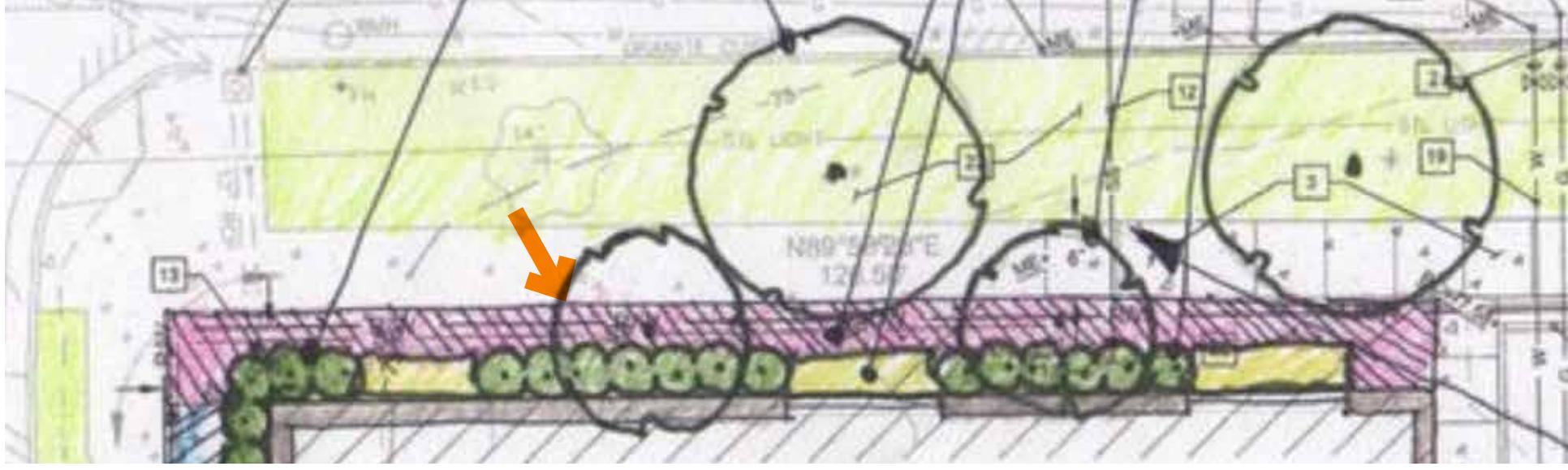
NOTES:
 PLANT QUANTITIES WERE DETERMINED BY MULTIPLYING AREA (SQ. FT.) BY NUMBER OF PLANTS PER SQ. FT. FOR REQUIRED SPACING
 QUANTITY OF PLANTS AND SPACING AS NOTED IN PLANTING SCHEDULE

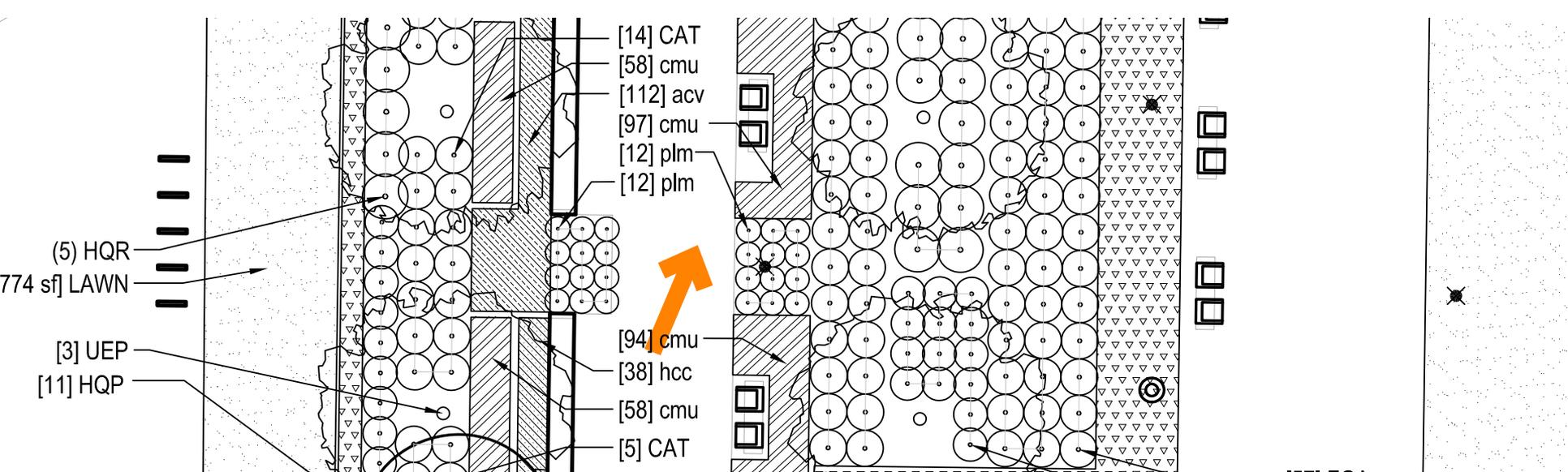


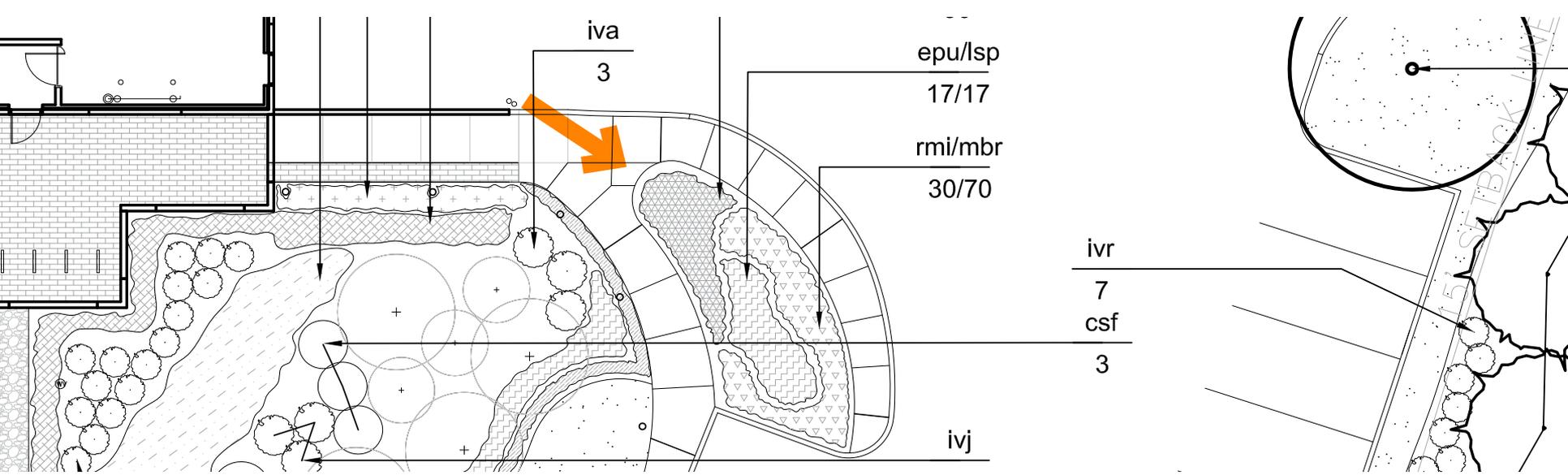
[5] PERENNIAL PLANTING

1/2" = 1'-0"



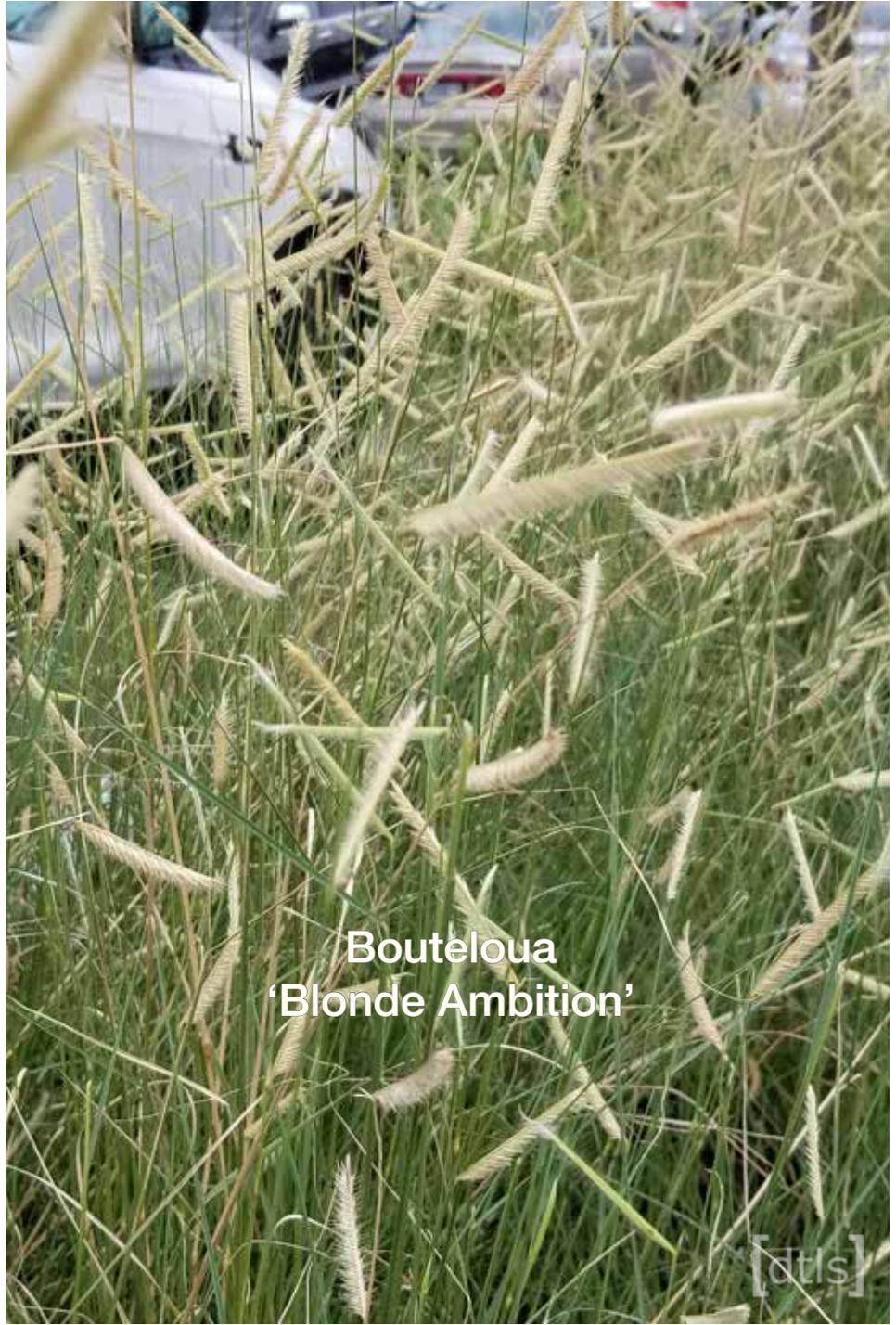








Monarda



**Bouteloua
'Blonde Ambition'**

**Symphotrichum
novae-angliae**

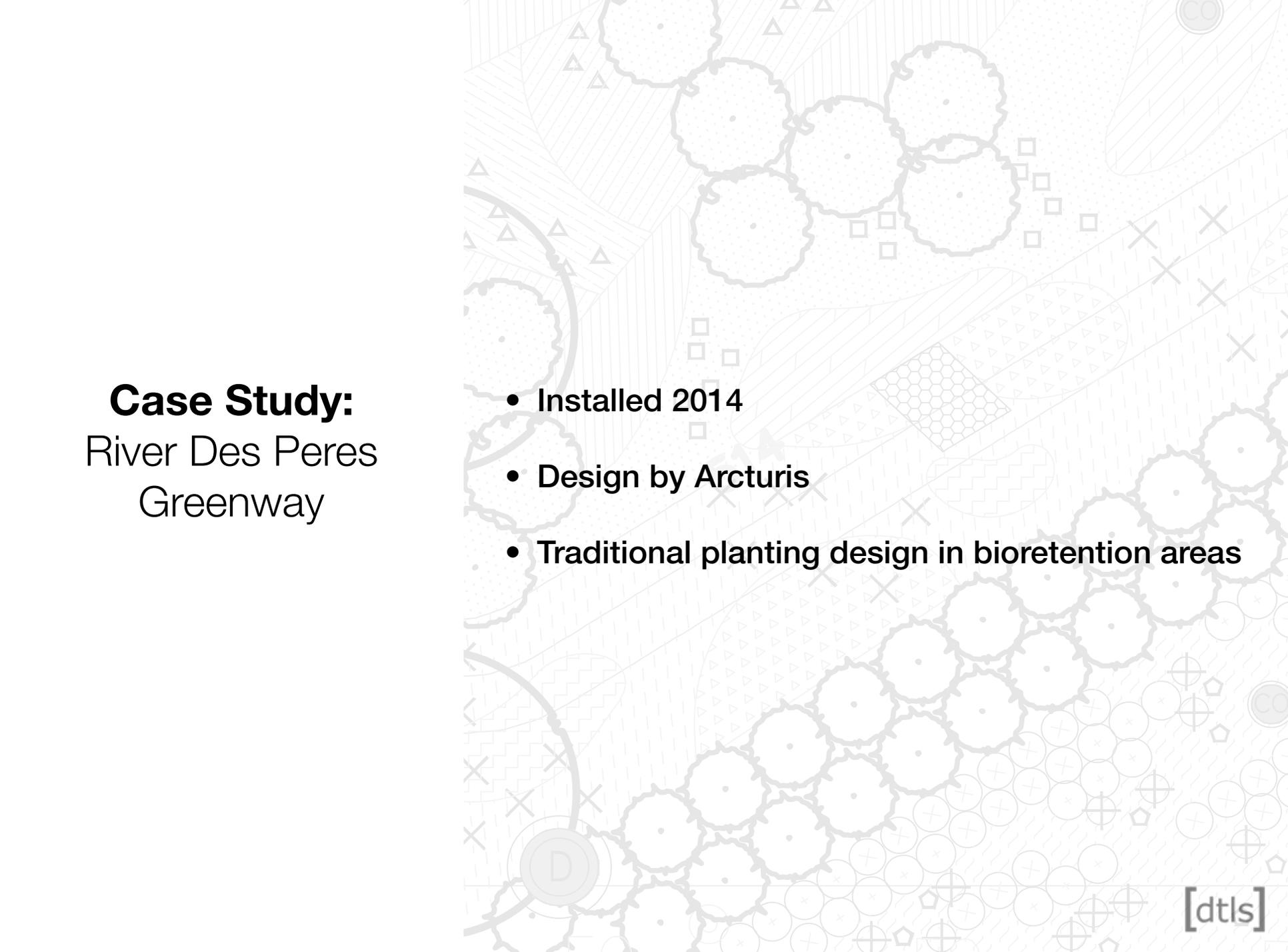


**Symphotrichum
novae-angliae
'Purple Dome'**



Seeded Prairie Restoration





Case Study:
River Des Peres
Greenway

- Installed 2014
- Design by Arcturis
- Traditional planting design in bioretention areas

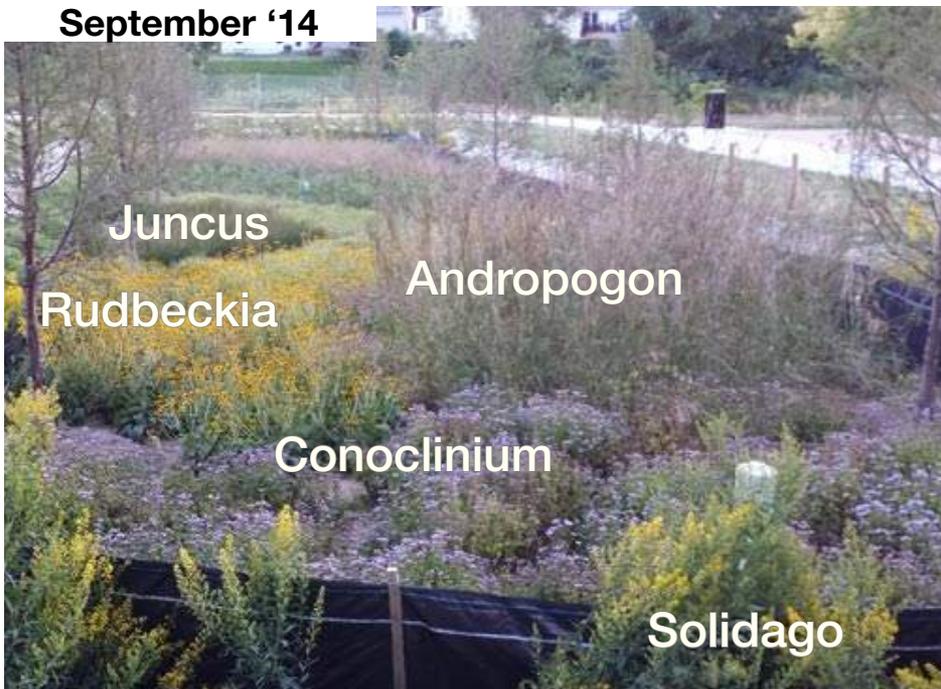
June '14



August '14



September '14

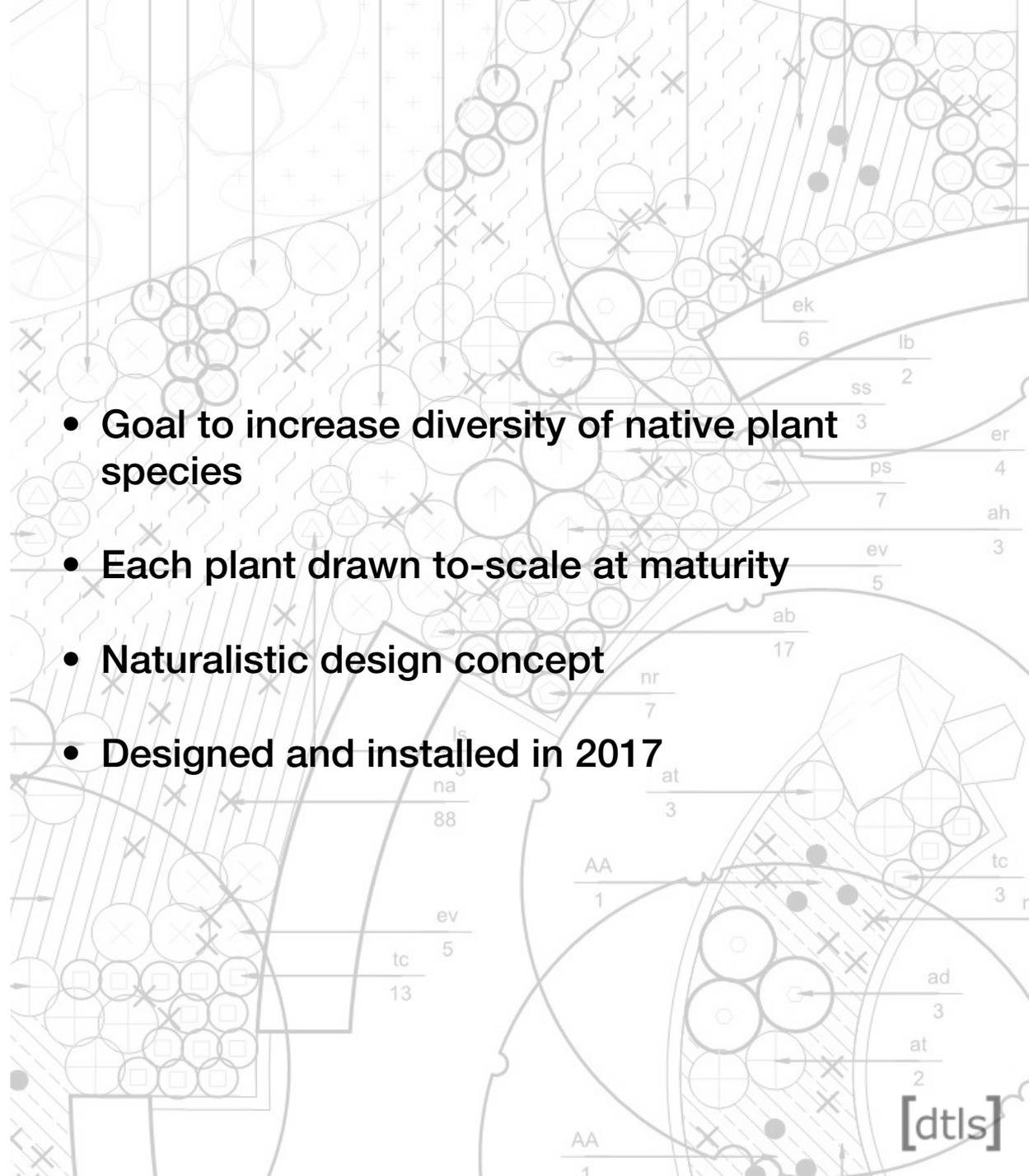


October '14



Case Study: Healing Garden

- Goal to increase diversity of native plant species
- Each plant drawn to-scale at maturity
- Naturalistic design concept
- Designed and installed in 2017







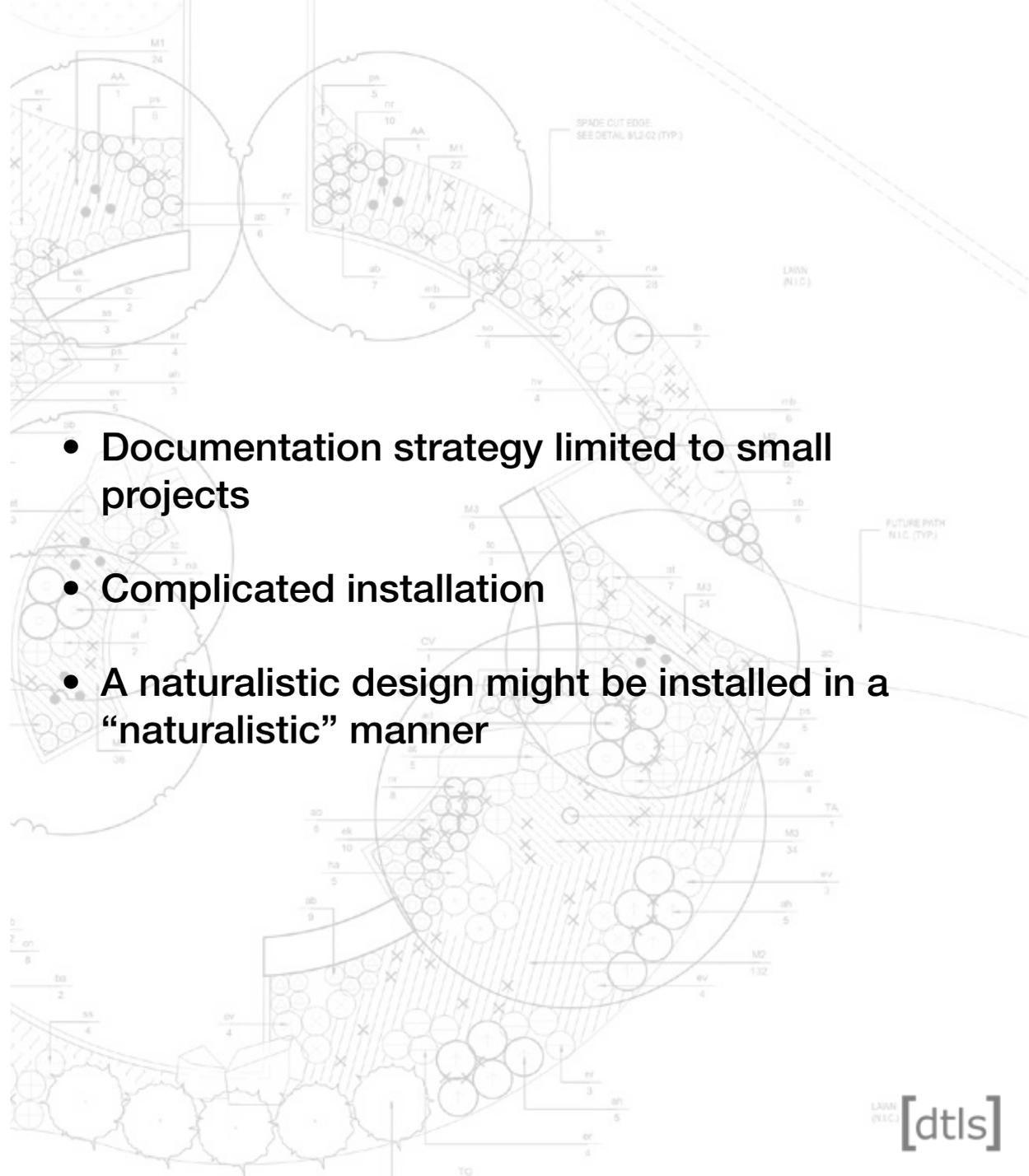
[dtls]



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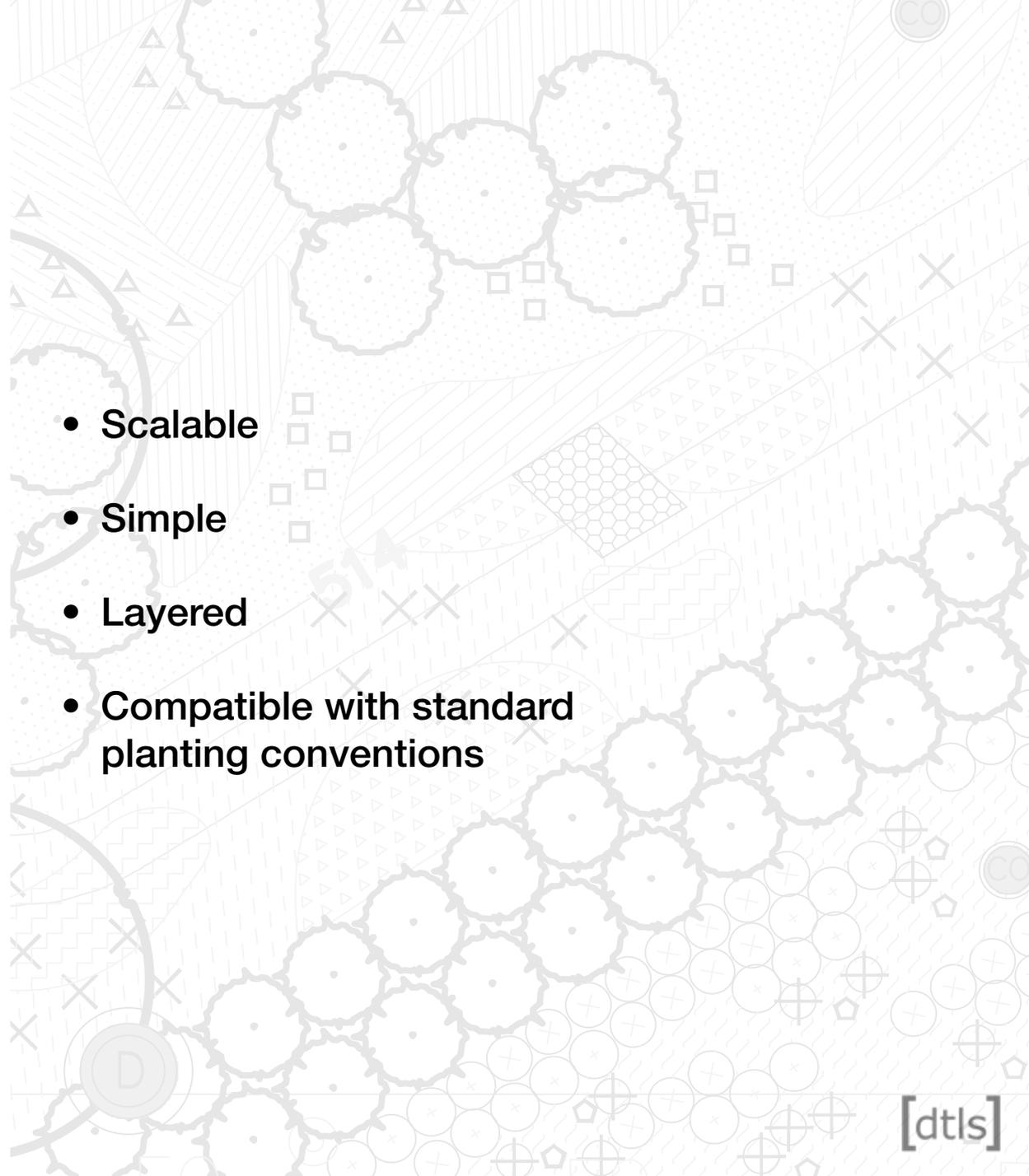
Lessons Learned:

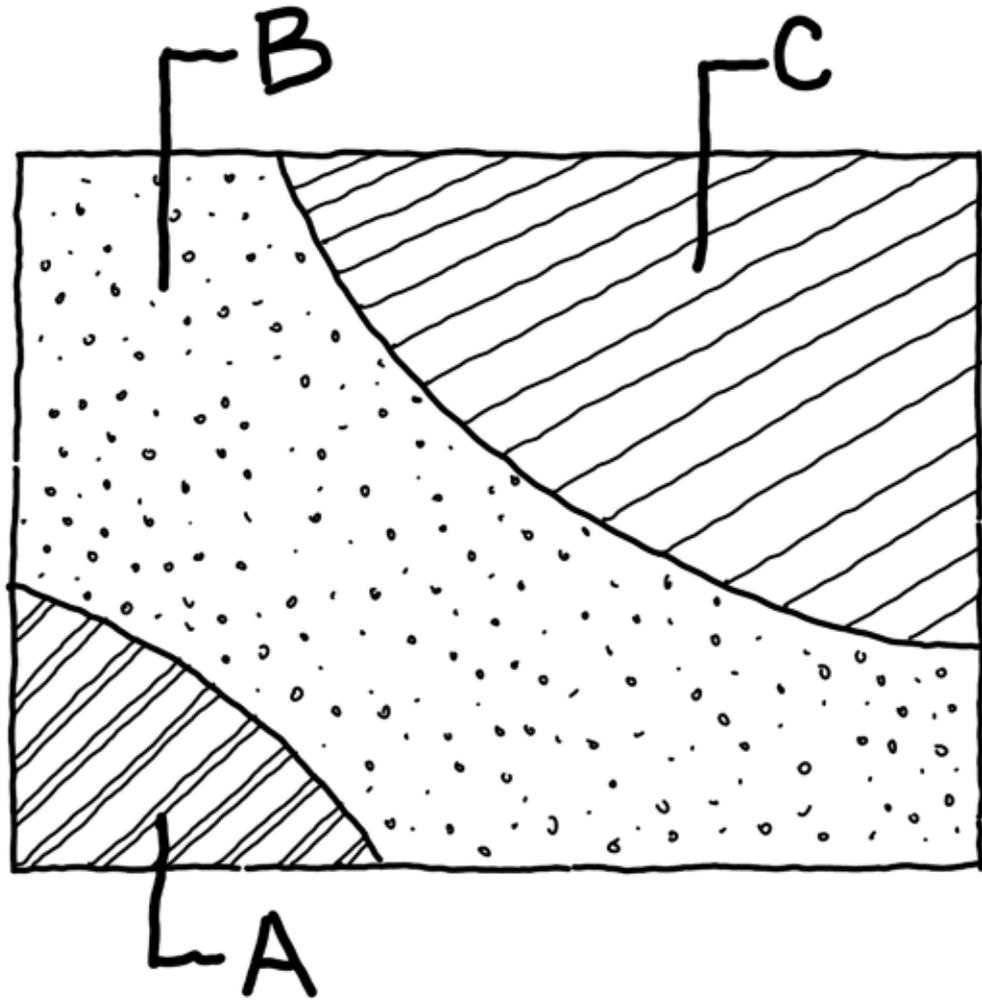
- Documentation strategy limited to small projects
- Complicated installation
- A naturalistic design might be installed in a “naturalistic” manner

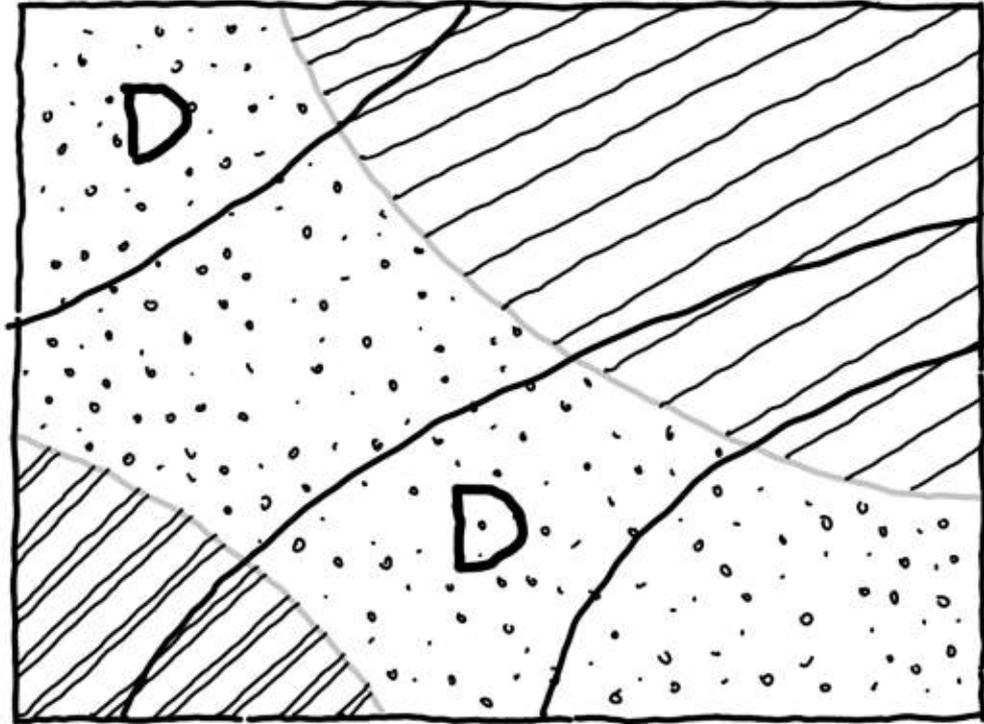


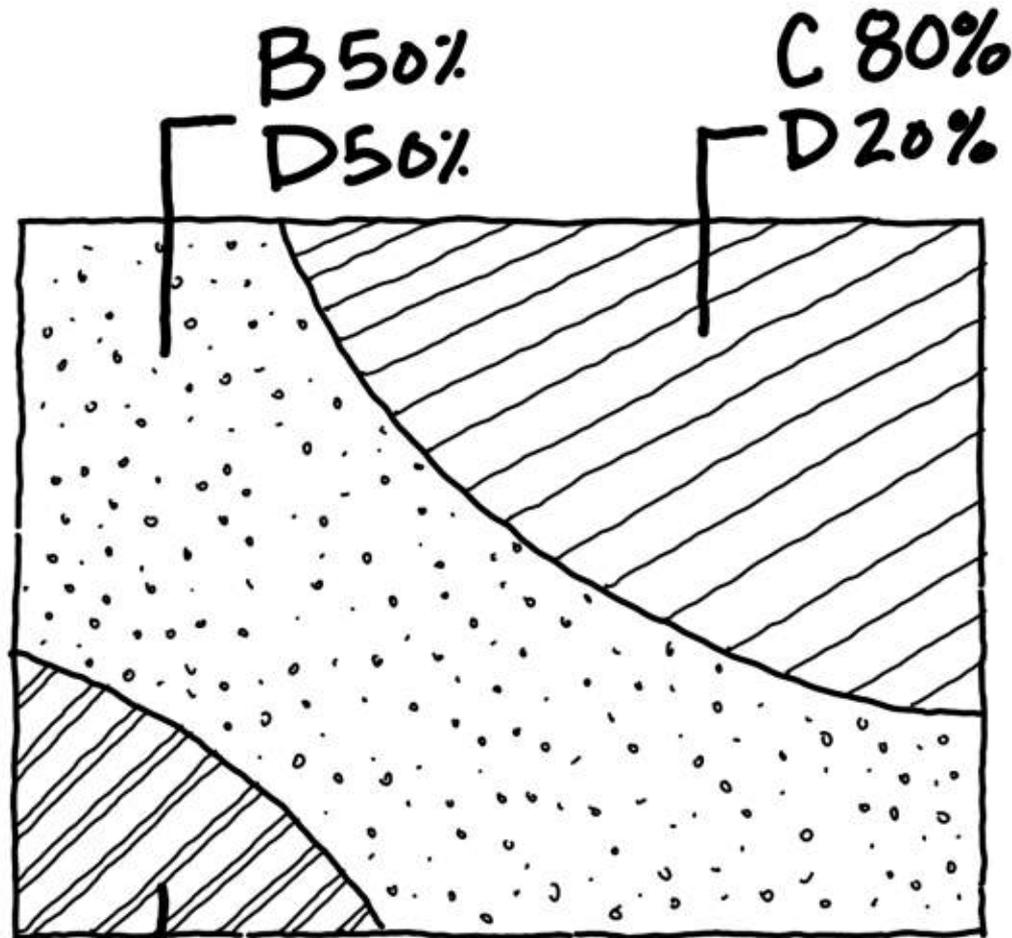
Back to the Drawing Board

- Scalable
- Simple
- Layered
- Compatible with standard planting conventions









B 50%

D 50%

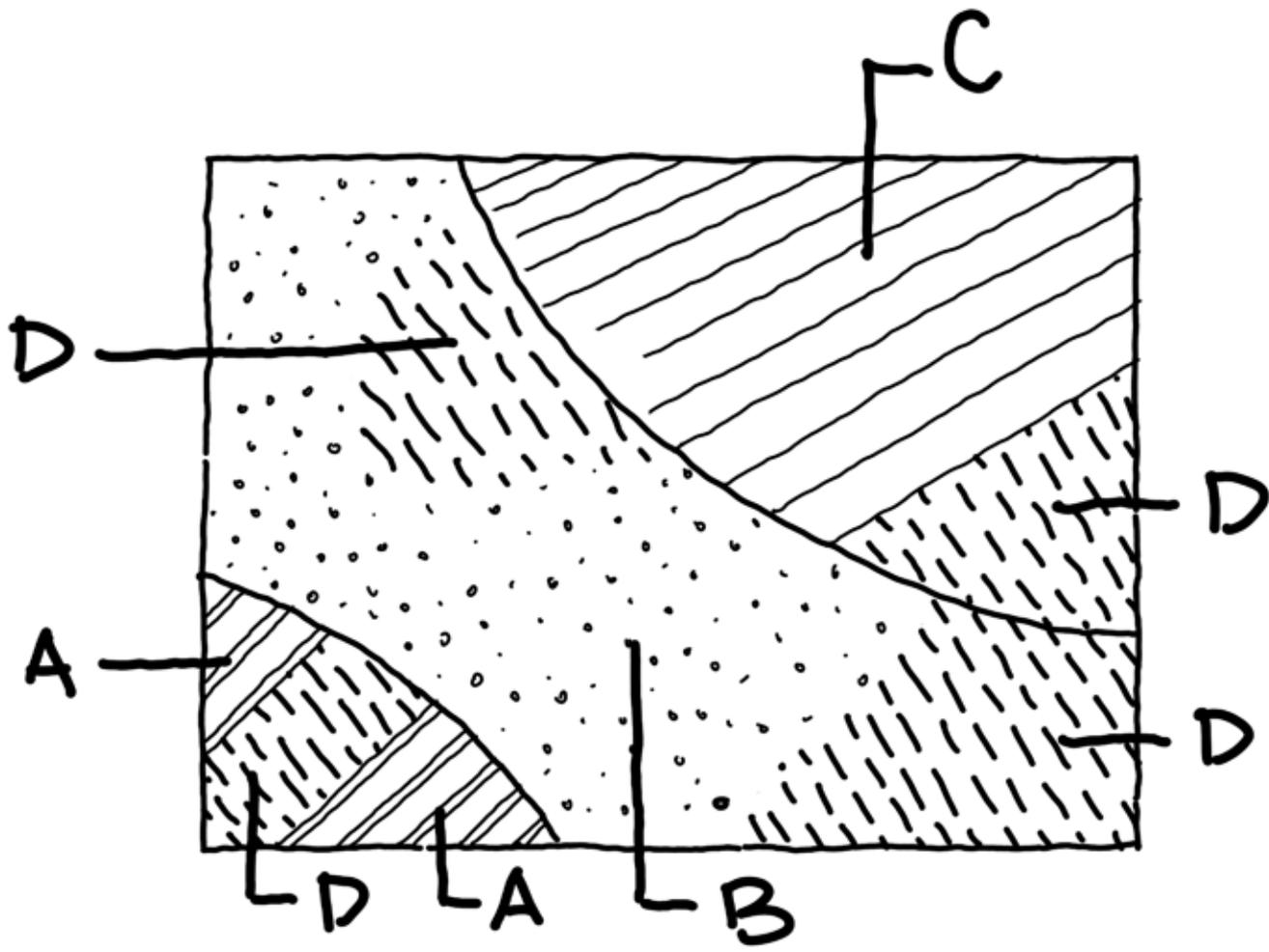
C 80%

D 20%

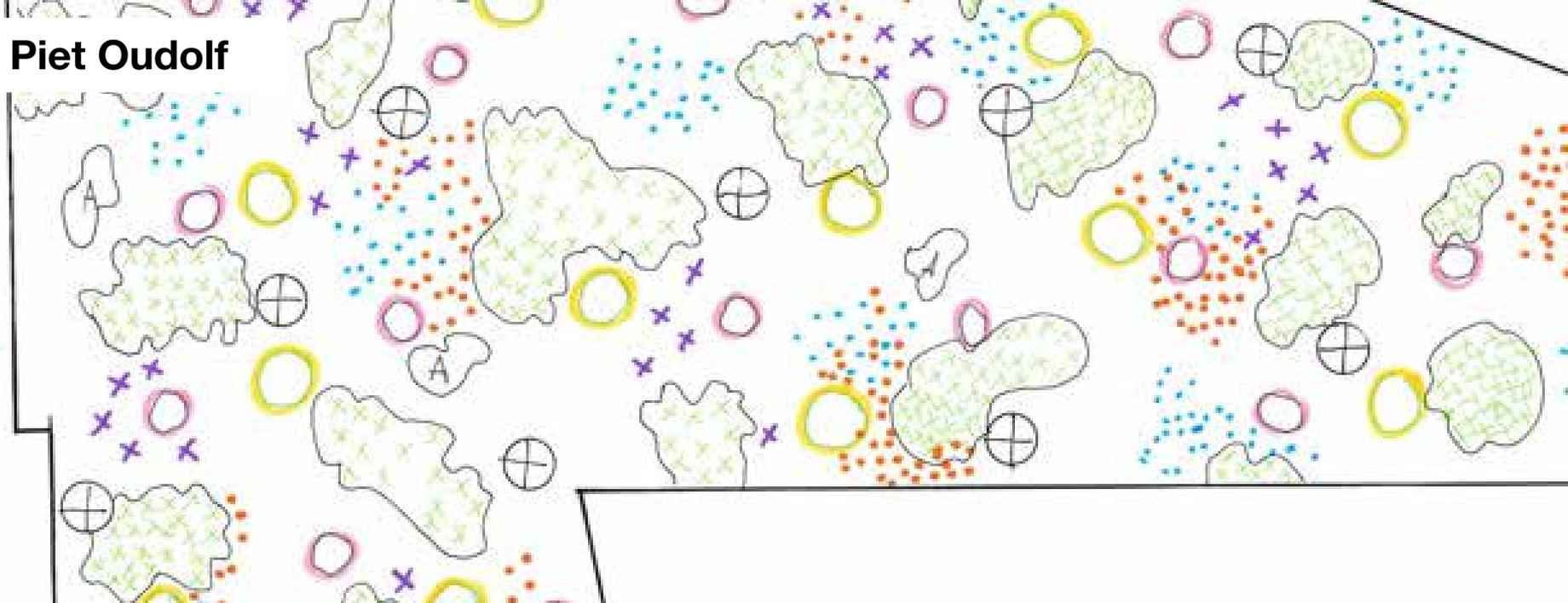
A 70%

D 30%

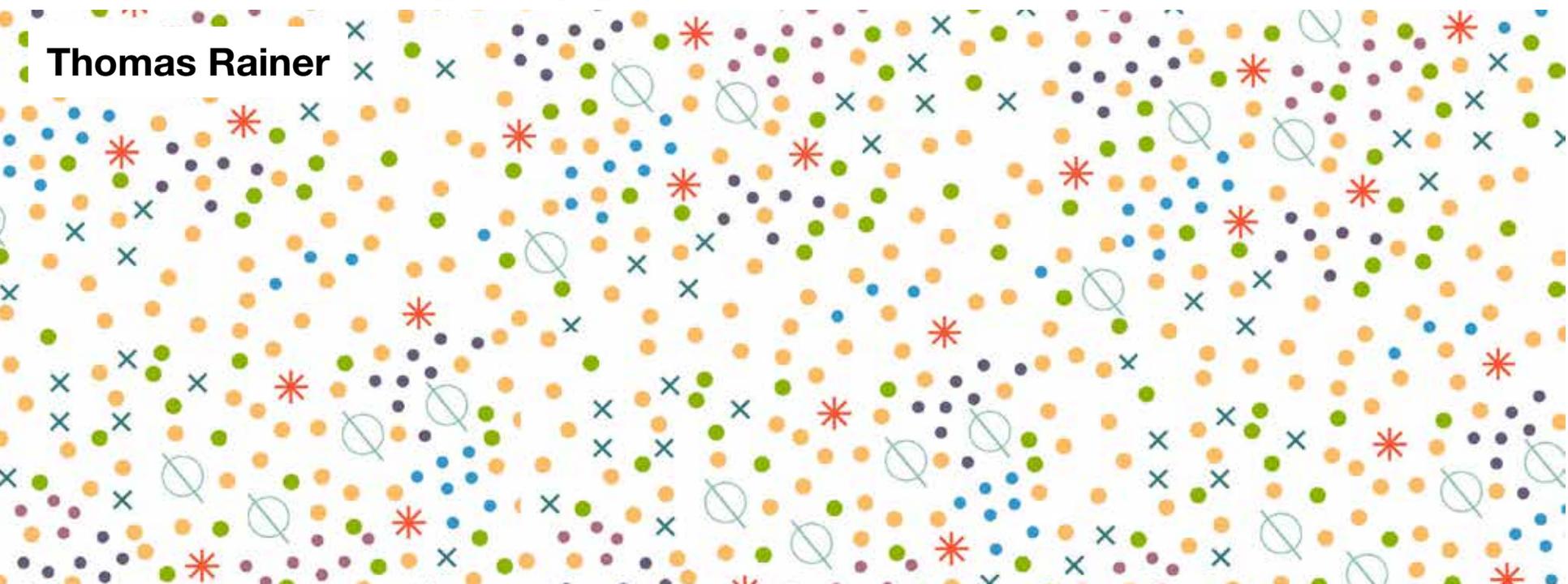
NOTE: CALL LANDSCAPE ARCHITECT BEFORE INSTALL: 314-534-4000

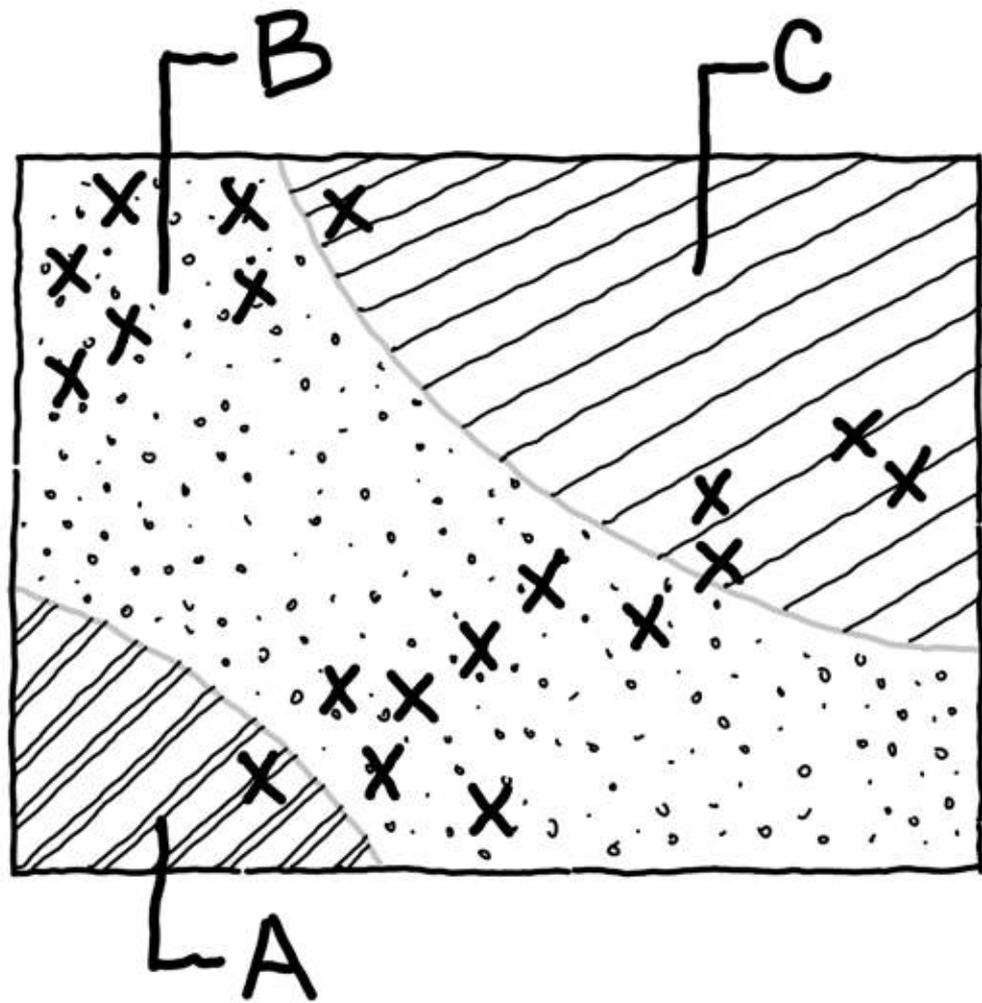


Piet Oudolf



Thomas Rainer





$$X = D(3)$$

Graphic Symbols

- Establish layers within plantings
- Species that evolved to compete in a community (tall/leggy)
- Species that are not ideal for massing arrangements
- Short-lived

Hatch Regions

- Clumping forming / spreading
- Highly social species
- Mixes or blends to increase diversity

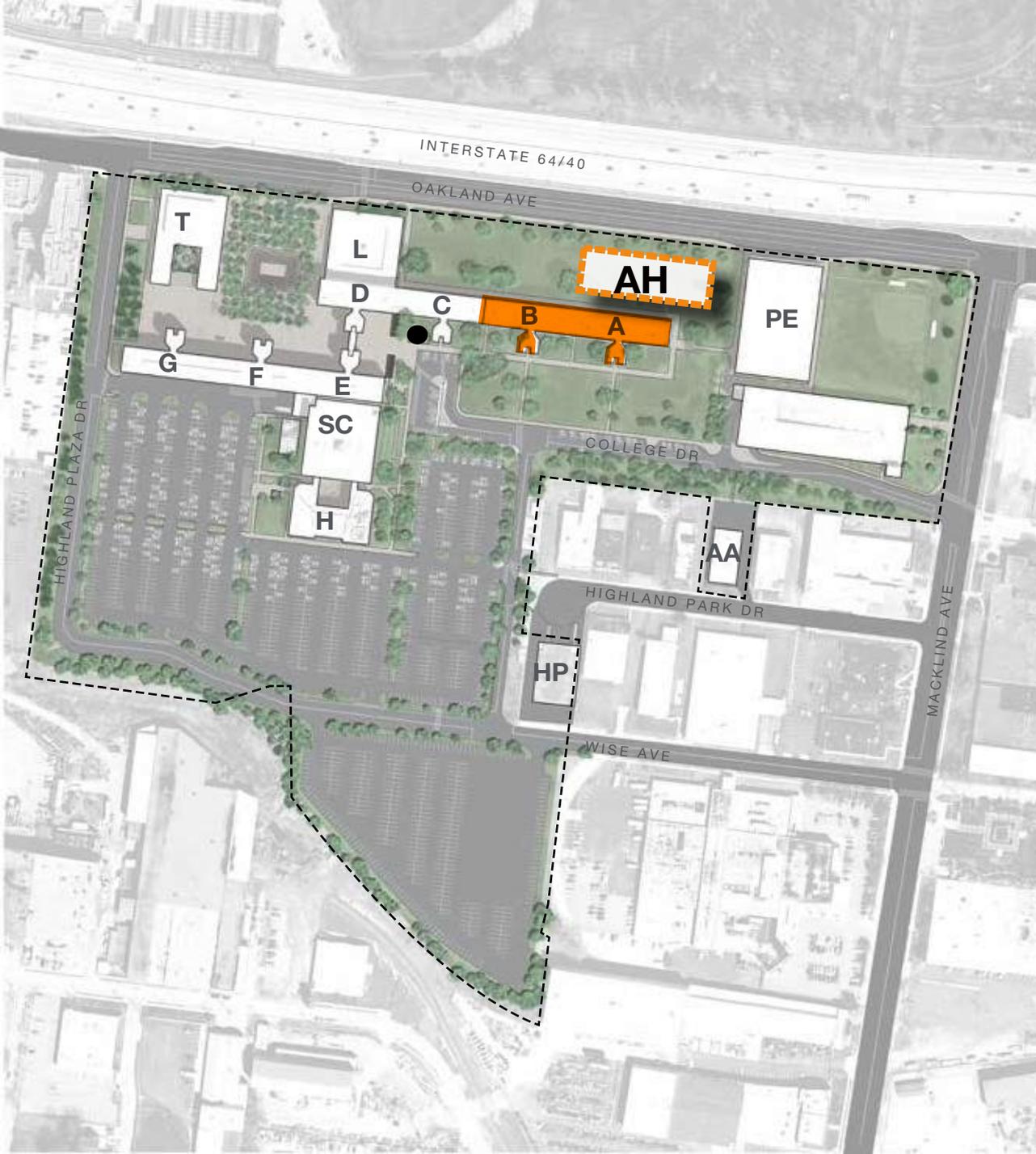
Hampton Avenue

Forest Park

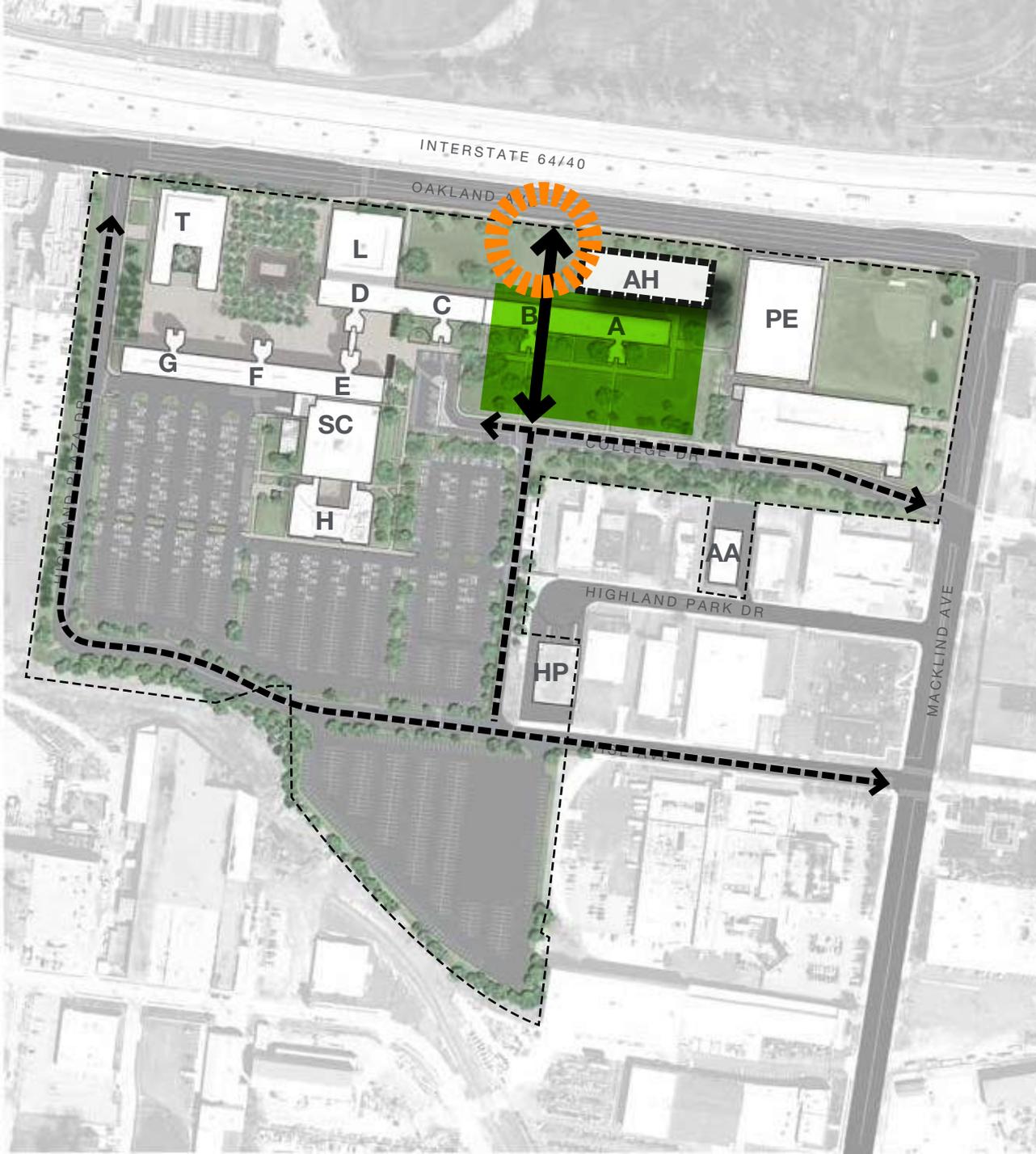
Macklind Avenue

[dtls]



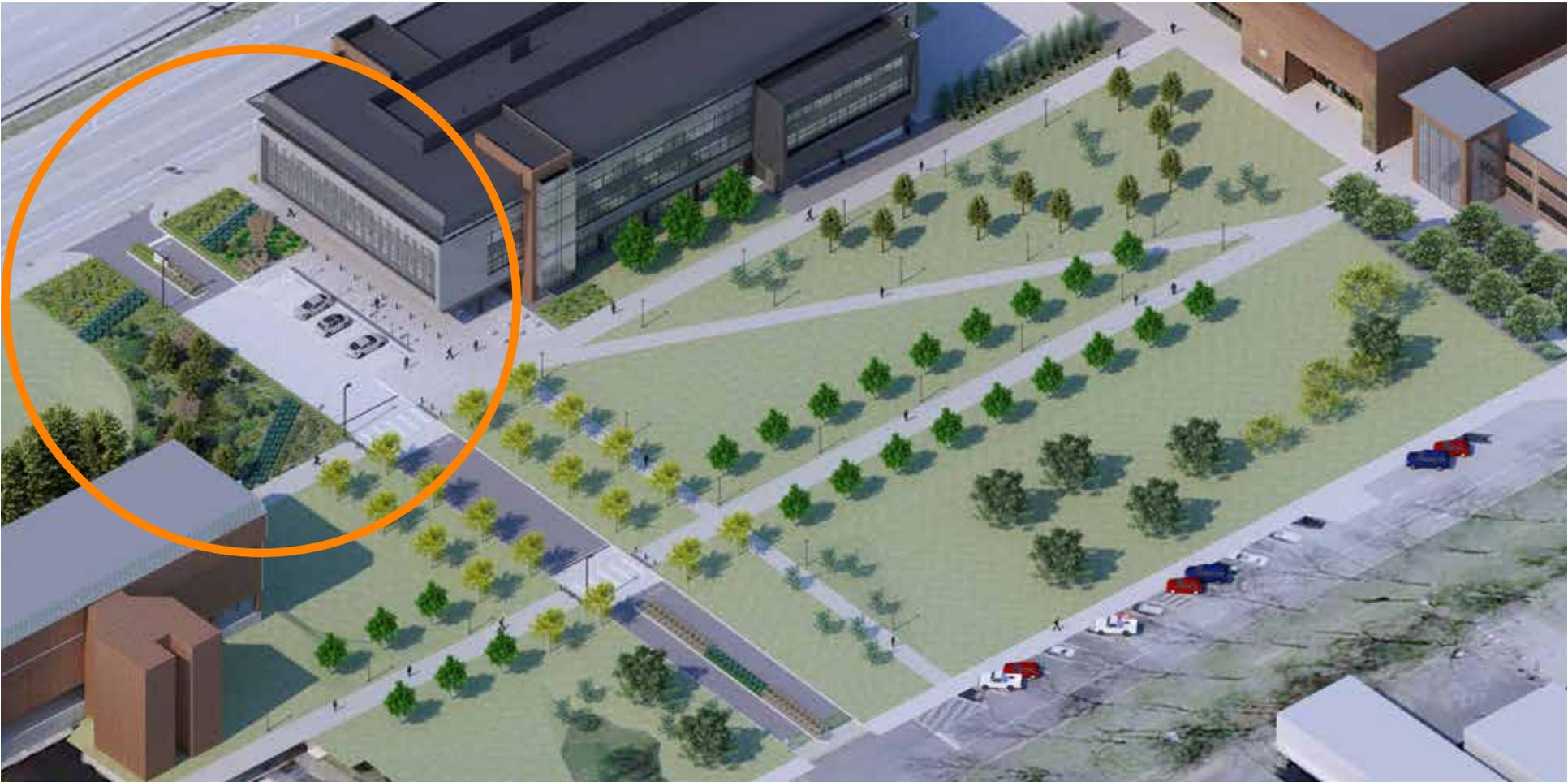


- **Center for Nursing and Health Sciences “AH” under construction (2018-2019)**
- **Building A & B to be removed (2019-2020)**



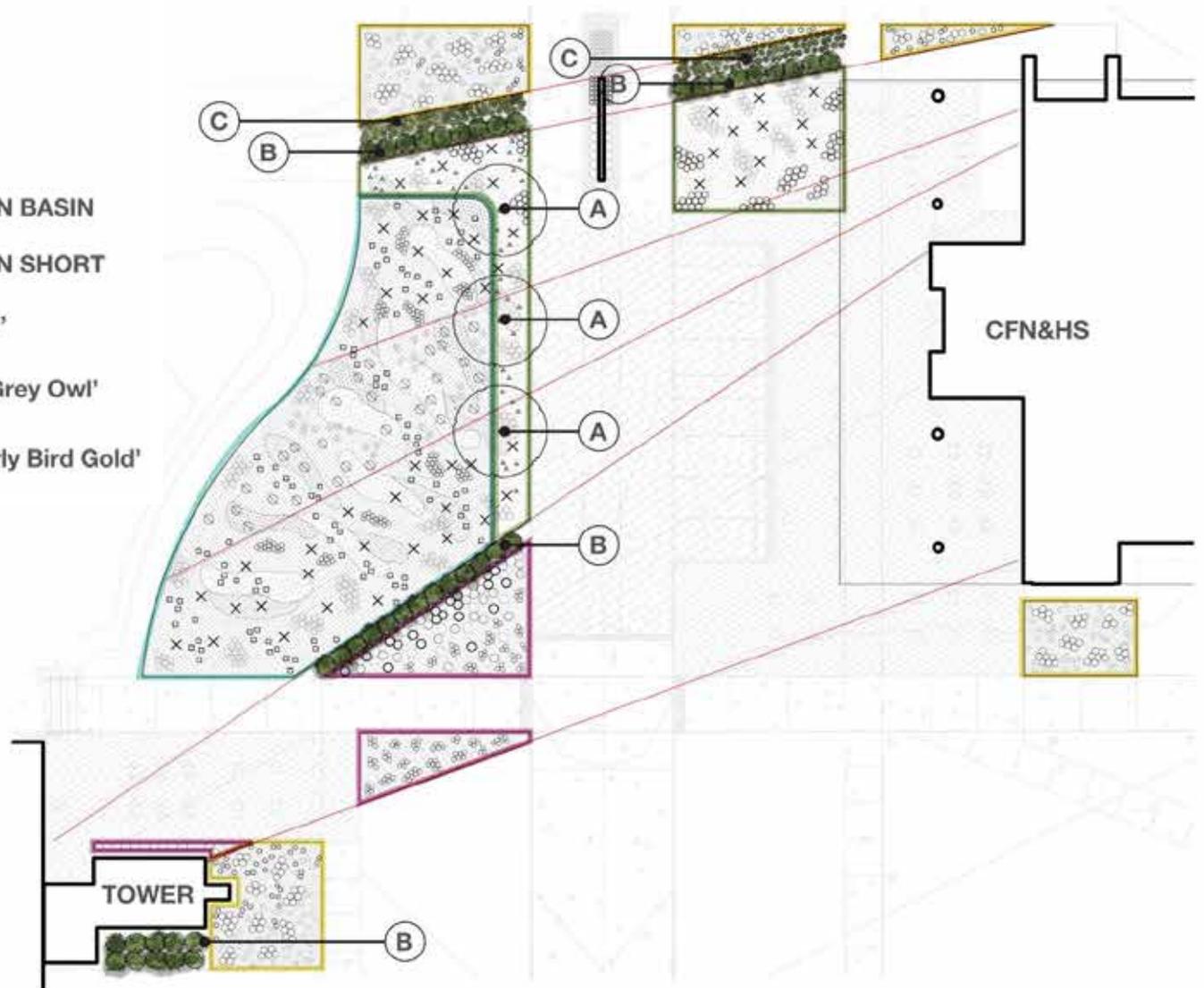
- **Create new campus entry from Oakland Avenue**
- **Leadership in Energy and Environmental Design (LEED) silver rating**





PLANTING PLAN

-  MIX 1 - ENTRY
 -  MIX 2 - ACCENT
 -  MIX 3 - BIORETENTION BASIN
 -  MIX 4 - BIORETENTION SHORT
-
-  **A** Acer Rubrum 'Bowhall'
 -  **B** Juniperus virginiana 'Grey Owl'
 -  **C** Rudbeckia fulgida 'Early Bird Gold'

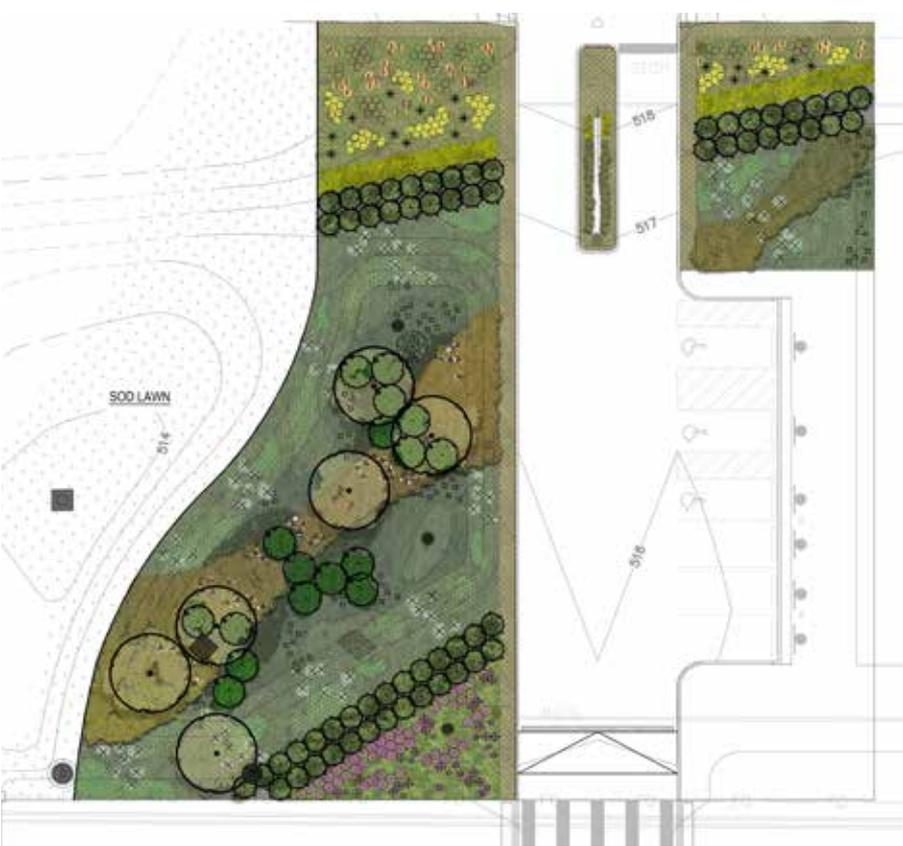


STLCCFP
CENTER FOR NURSING
& HEALTH SCIENCES

ORIGINAL



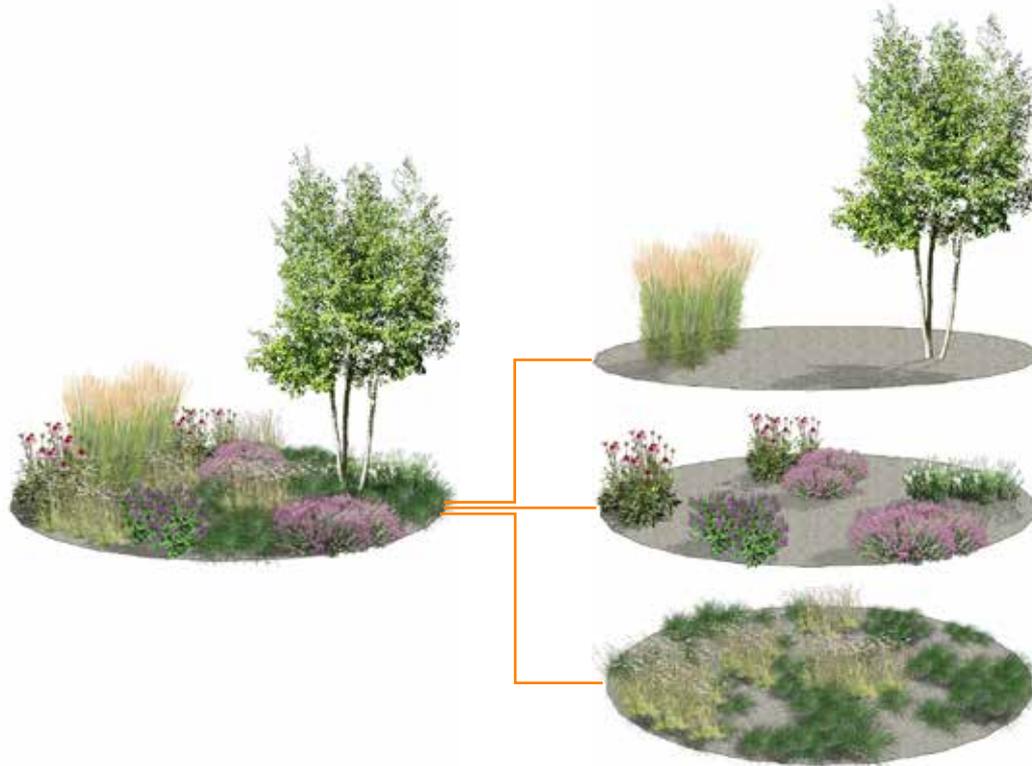
REVISED



COMMUNITY BASED PLANTING DESIGN

The strategy of community based planting design is to increase diversity and seasonality while decreasing maintenance. It achieves this by mimicking the layering and distribution of plant material observed in nature. A base layer of low-growing groundcover plants acts as weed suppression and “green mulch” while setting the field for dynamic species. These dynamic accents are stand-out stars with overlapping bloom periods to ensure consistent seasonal interest. Finally, the structural plant material utilizes verticality to control viewsheds and call attention to the dynamic layer of plant material.

The matrix approach to planting design will create a layered and tactile experience for garden visitors to enjoy in all seasons.



S STRUCTURAL
Includes trees, shrubs, and tall perennials. These plants form framework of the planting design as dominant vertical elements.

D DYNAMIC
Perennials or low-growing shrubs that stand out individually during their bloom period and otherwise act as companion plants. Typically with attractive foliage color or texture.

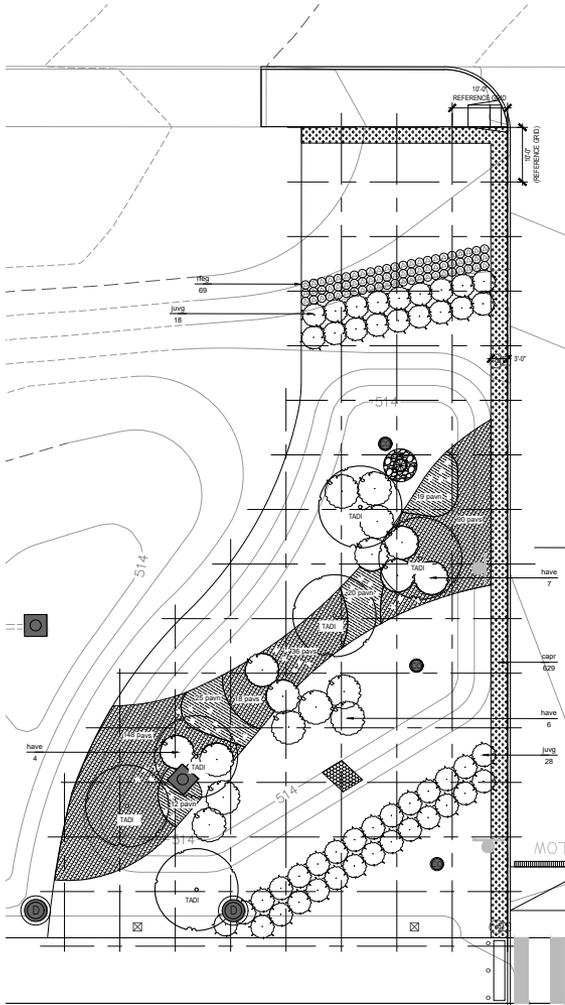
F FIELD
Mixture of low grasses and sedges that act as a groundcover beneath taller species. They reduce maintenance by becoming a “green mulch”

E EPHEMERAL
Short-lived spring ephemerals which provide interest at the onset of spring and then enter dormancy as warm-season species emerge.

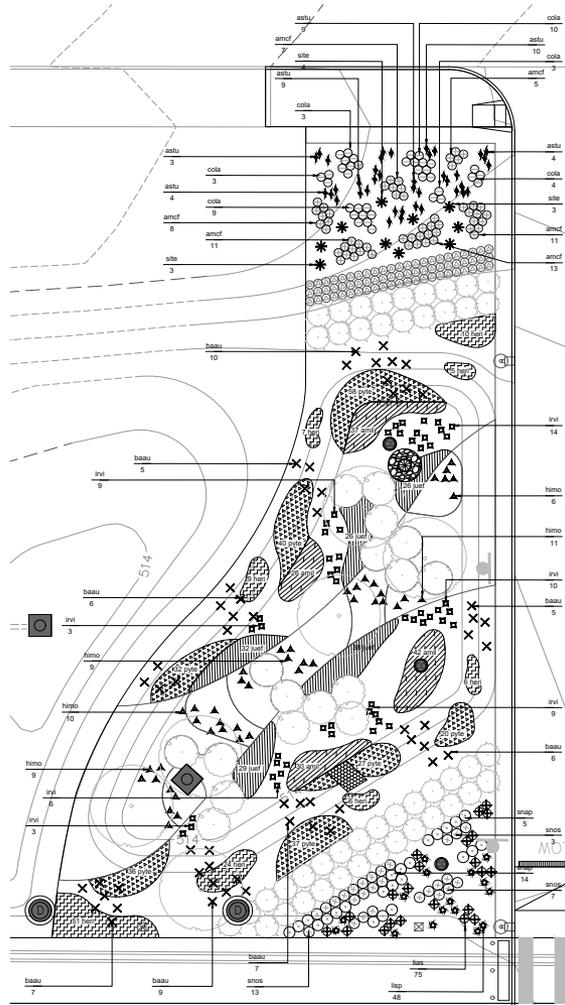
Structural

Dynamic

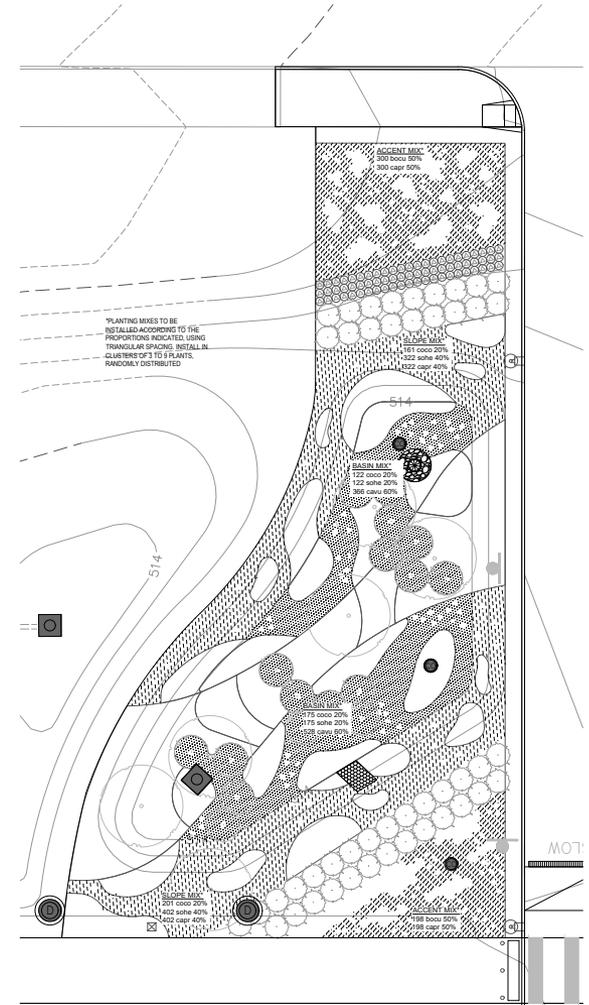
Field



STRUCTURAL LAYER



DYNAMIC LAYER

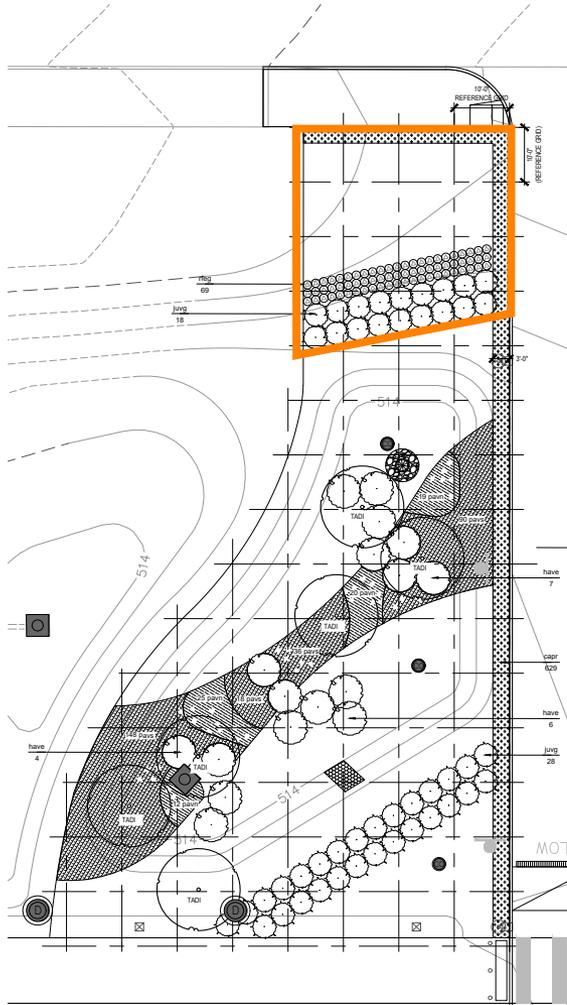


FIELD LAYER

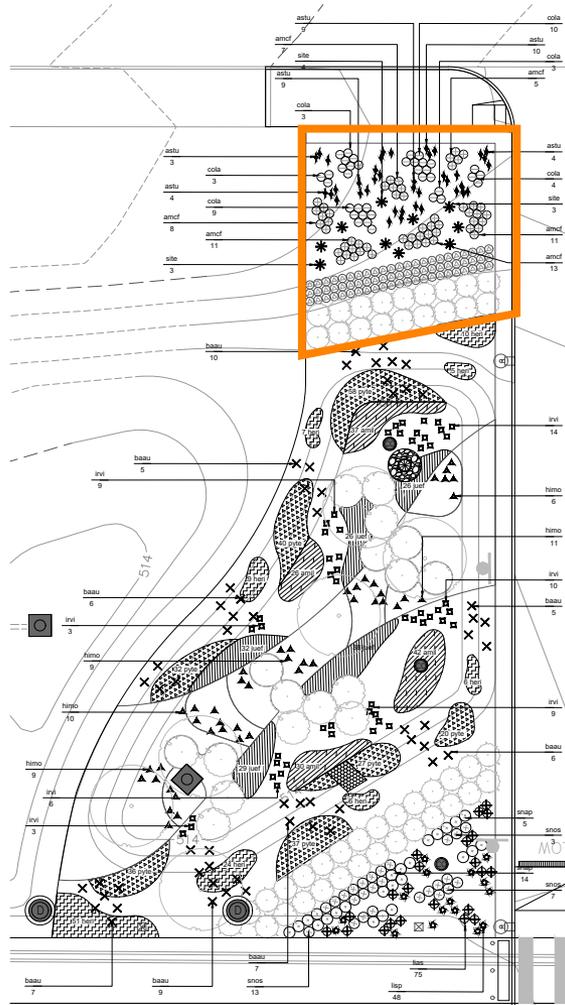
Structural

Dynamic

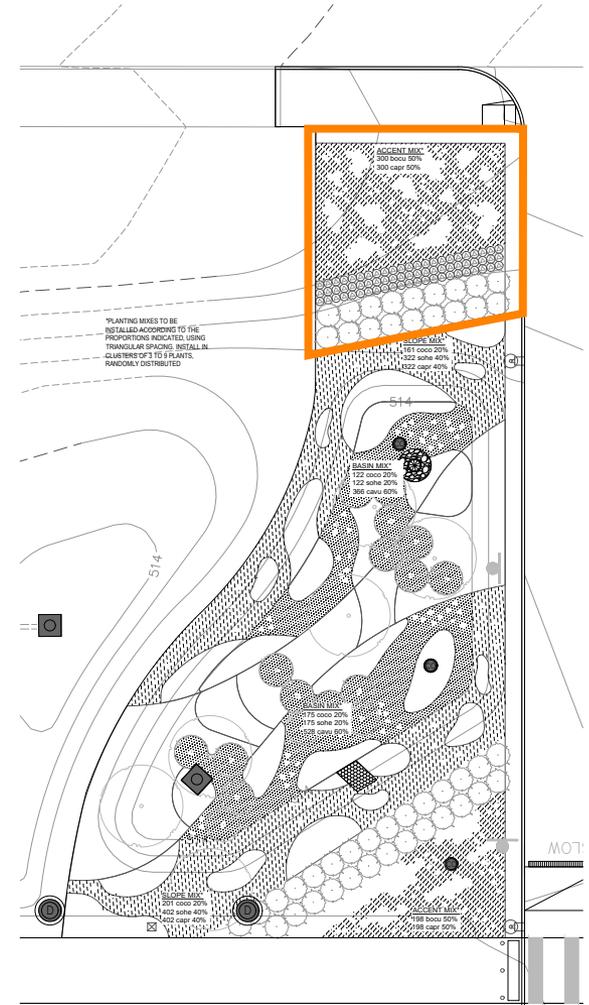
Field



STRUCTURAL LAYER



DYNAMIC LAYER



FIELD LAYER

NOTE
 "X" and "T" symbols
 represent three plants each.
 See planting schedule for



Grasses & Sedges

Asclepias

Juniperus

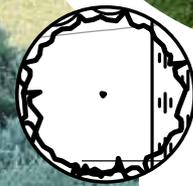
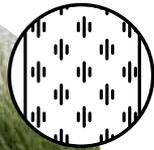
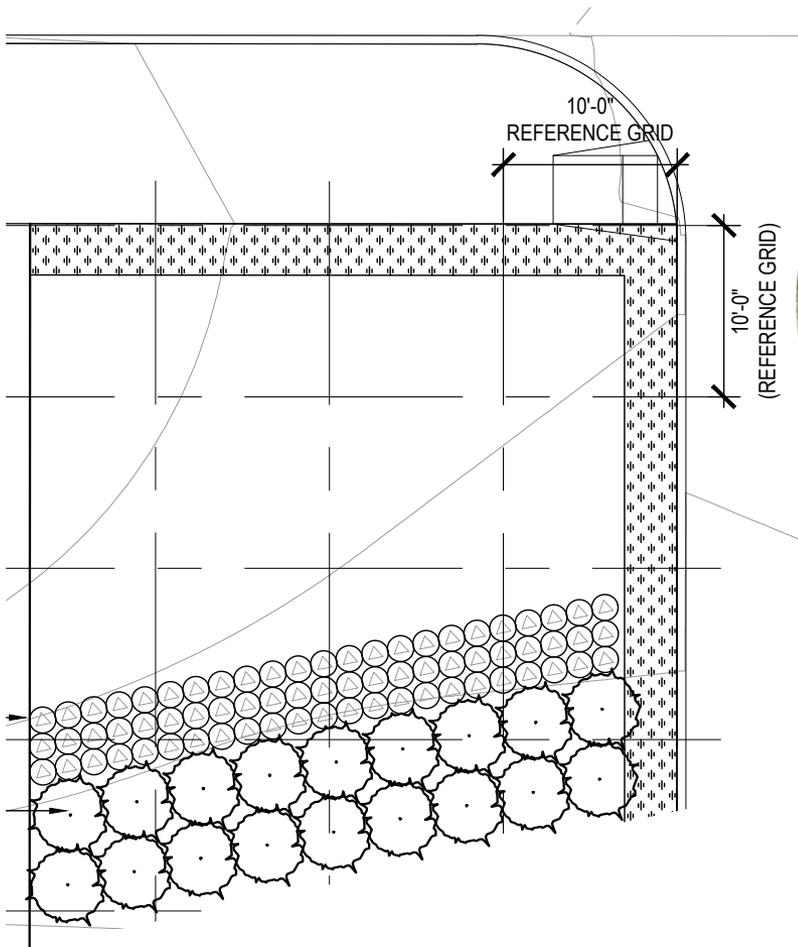


Silphium

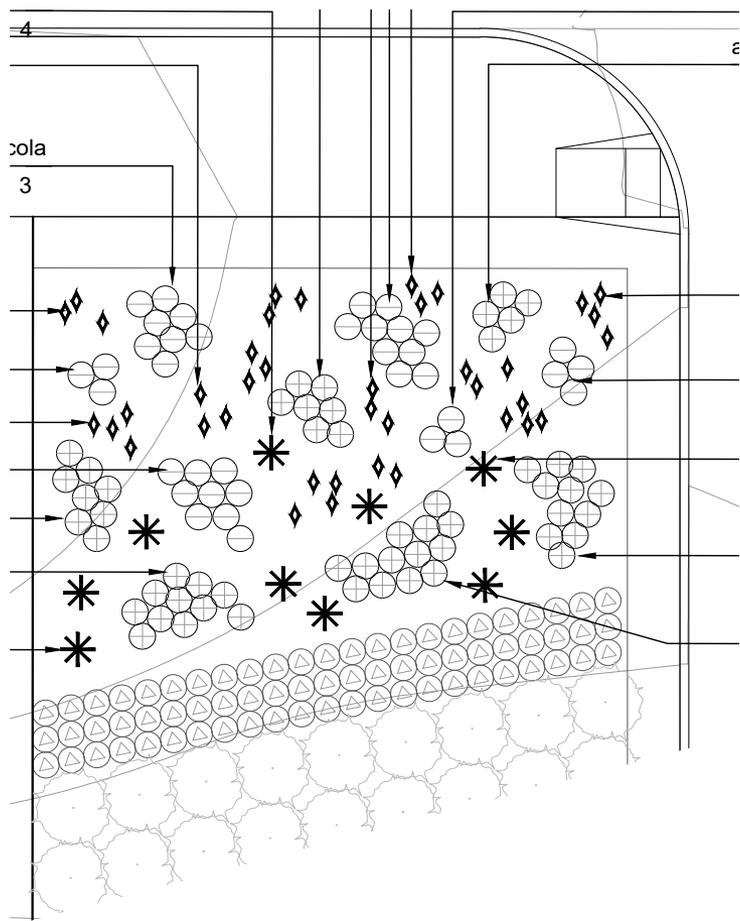
Asclepias

Grasses & Sedges

STRUCTURAL



DYNAMIC



Asclepias tuberosa



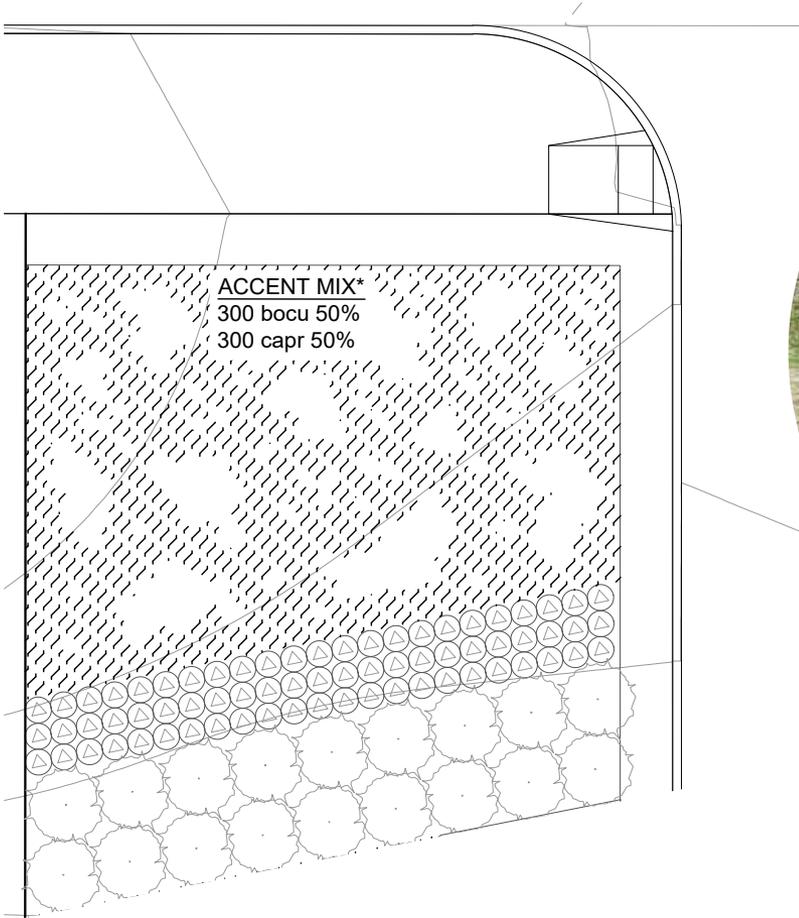
Silphium terebinthinaceum



Amsonia ciliata
var. *filifolia*



Coreopsis lanceolata

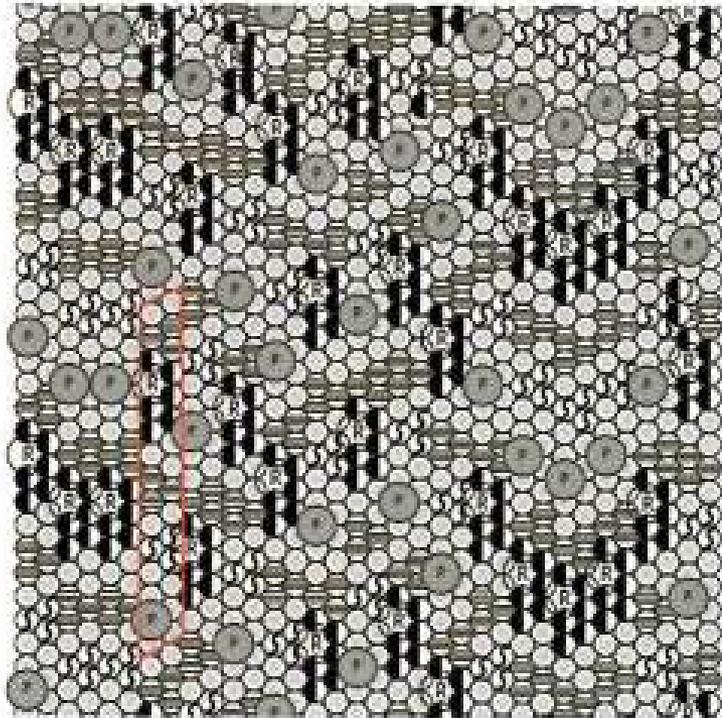






Modular Planting - Dan Pearson

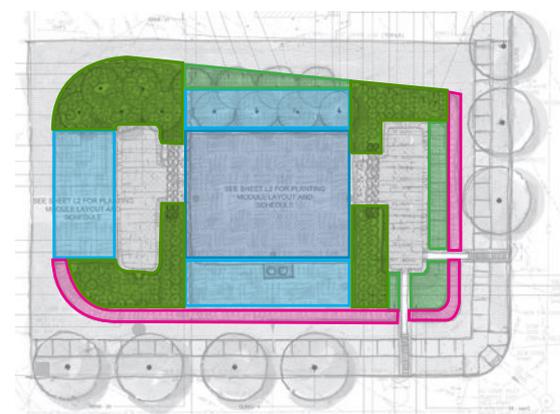
Tokachi Millennium Forest, Japan



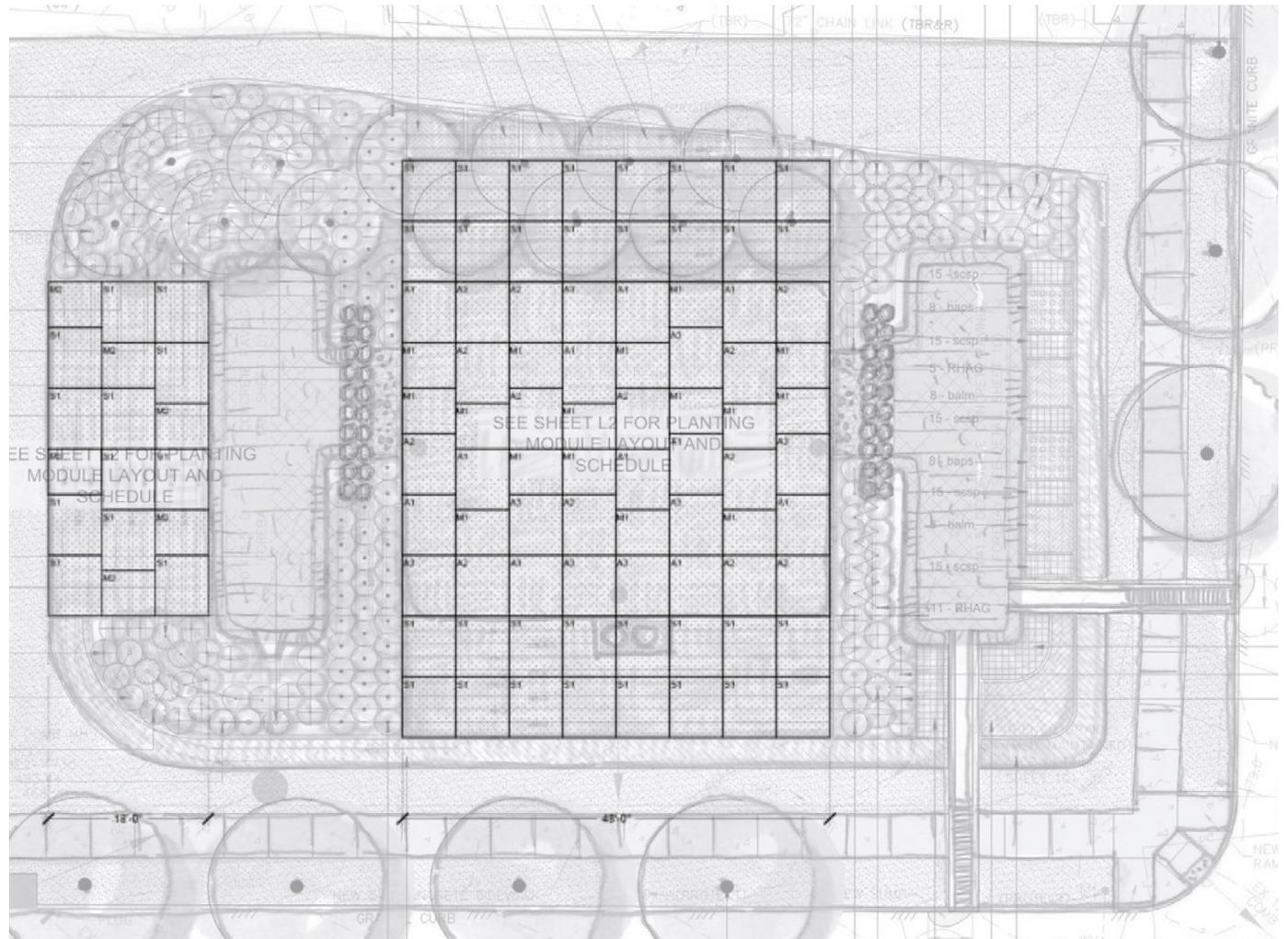
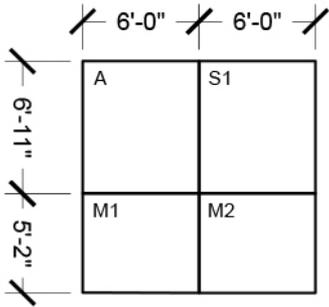
- *Aster divaricatus*
- ◐ *Cimicifuga racemosa* var. *cordifolia*
- ◑ *Euphorbia gniffithii* 'Fireglow'
- ⊖ *Rodgersia podophylla*
- ⊕ *Sanguisorba tenuifolia* 'Alba'
- *Paeonia* *P. obovata* 60%, *P. mlkosewitschii* 40%

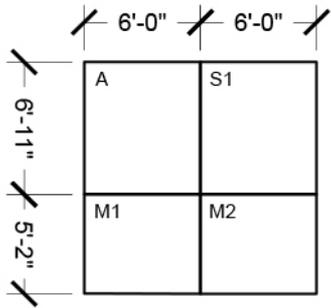


PLANTING AREAS



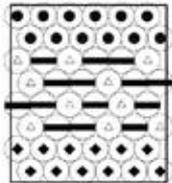
- (MODULE) Bioretention Base
- (MODULE) Side Slopes
- Accent / Edges
- Forebay Screening
- Shrubland





SPRING

Module A1
12" spacing
48 plants

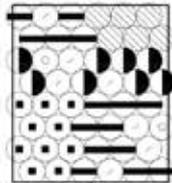


Module Summary

- (10) aqca
- (14) cara
- (12) ivrs
- (12) ziau

SUMMER

Module A2
12" spacing
48 plants

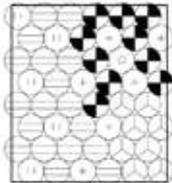


Module Summary

- (15) cara
- (6) ecpa
- (7) firu
- (8) paau
- (10) pyte
- (2) site

FALL

Module A3
12" spacing
48 plants

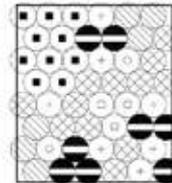


Module Summary

- (10) coco
- (18) paob
- (1) site
- (6) sosp
- (5) synp
- (8) veli

SIDE SLOPE

Module S1
12" spacing
48 plants

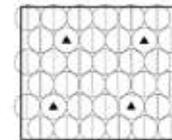


Module Summary

- (8) anne
- (3) astu
- (12) capr
- (6) ecpa
- (10) pyte
- (2) site
- (7) sosp

MASSING BASIN

Module M1
12" spacing
36 plants



Module Summary

- (4) amil
- (32) frvi

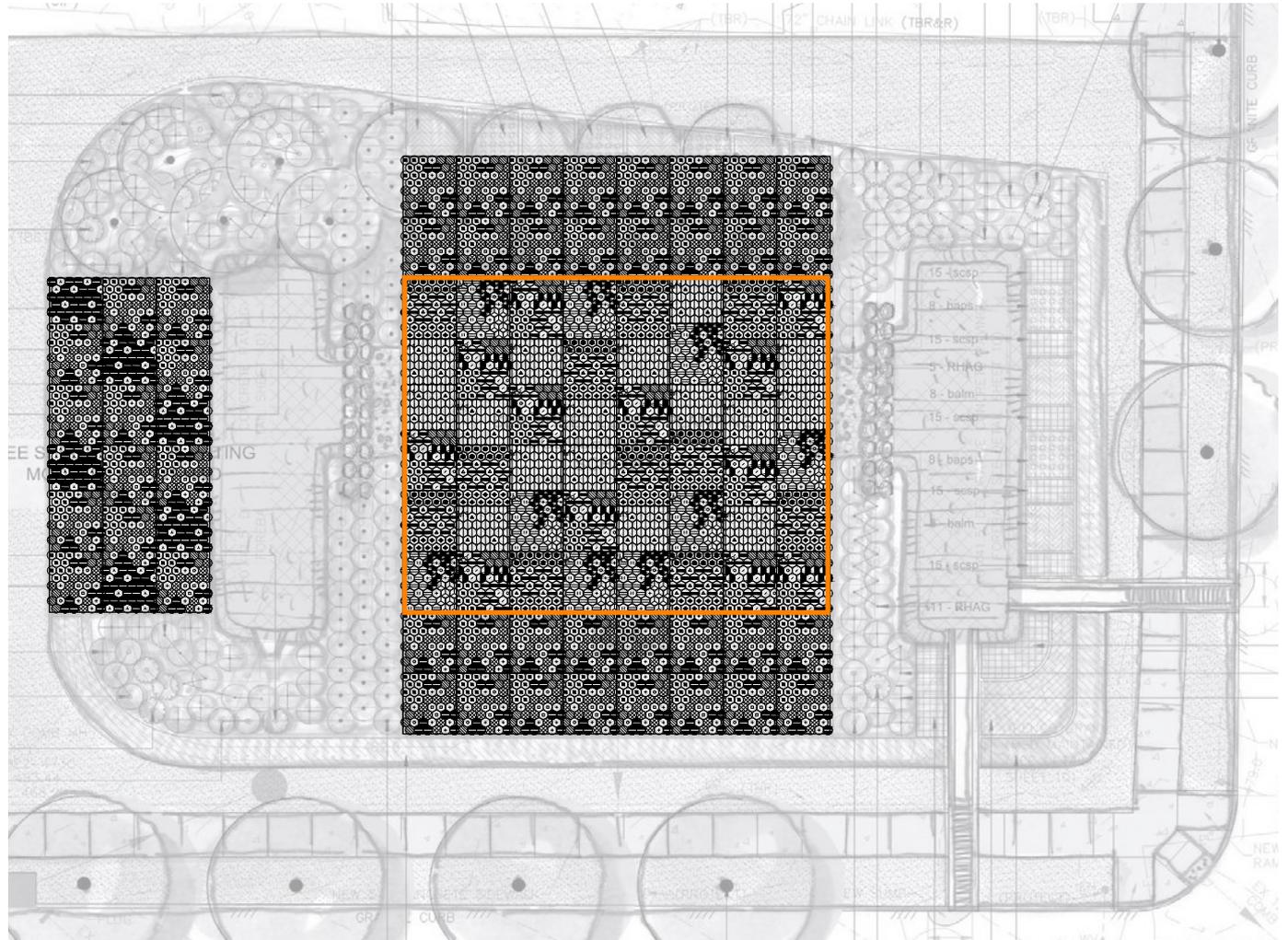
MASSING SIDE SLOPE

Module M2
12" spacing
36 plants

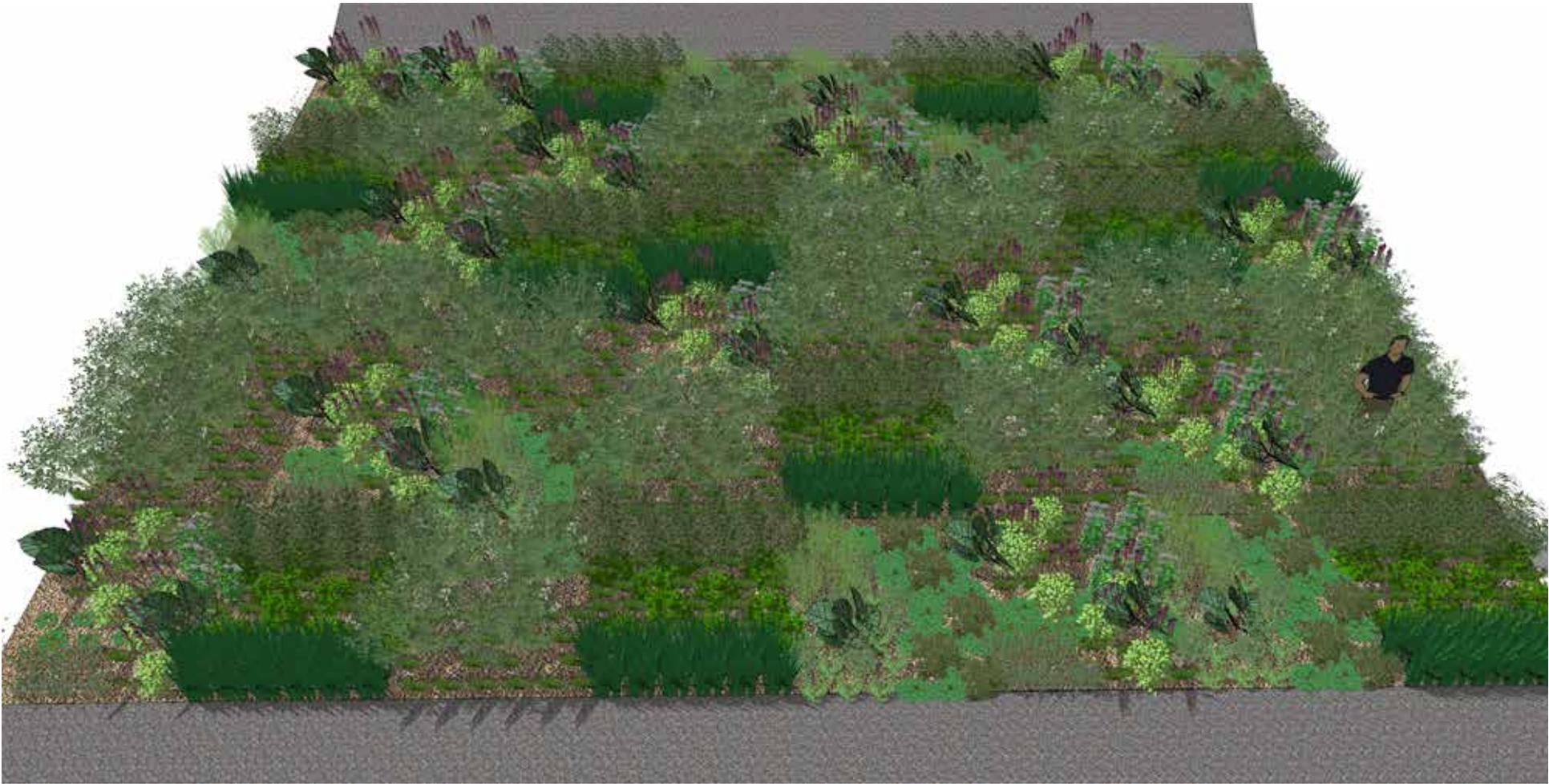


Module Summary

- (26) anne
- (10) syoo









THANK YOU