Riverview Park Master Plan

Riley Crantson, Jessie McElwain, Kristine Eischeid, and Rod Knutson

November 2022

The Team

Riley Cranston:
Project Manager

Jessie McElwain

Rod Knutson:

Kristine Eischeid

Presentation Outline

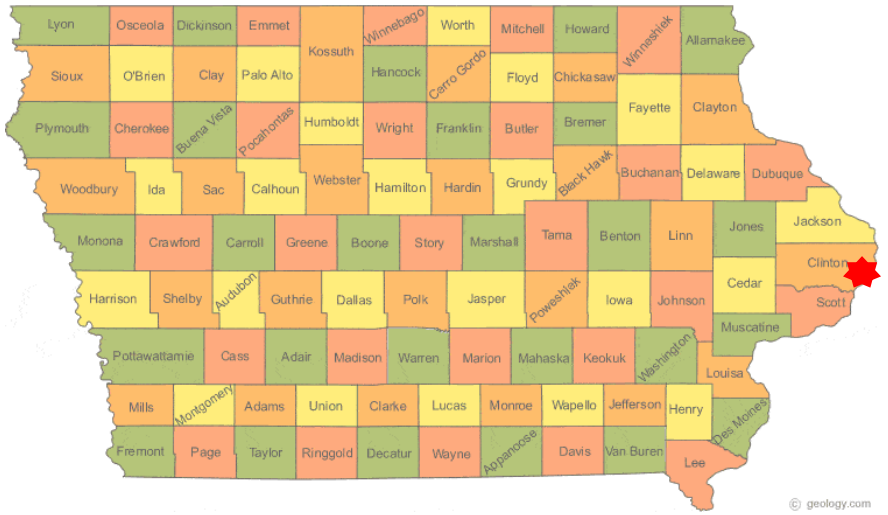
1- Project Background and Scope

2- Site Overview

3- Design Elements and Solutions

4- Cost Estimate

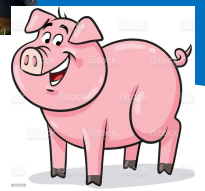
Clinton, Iowa



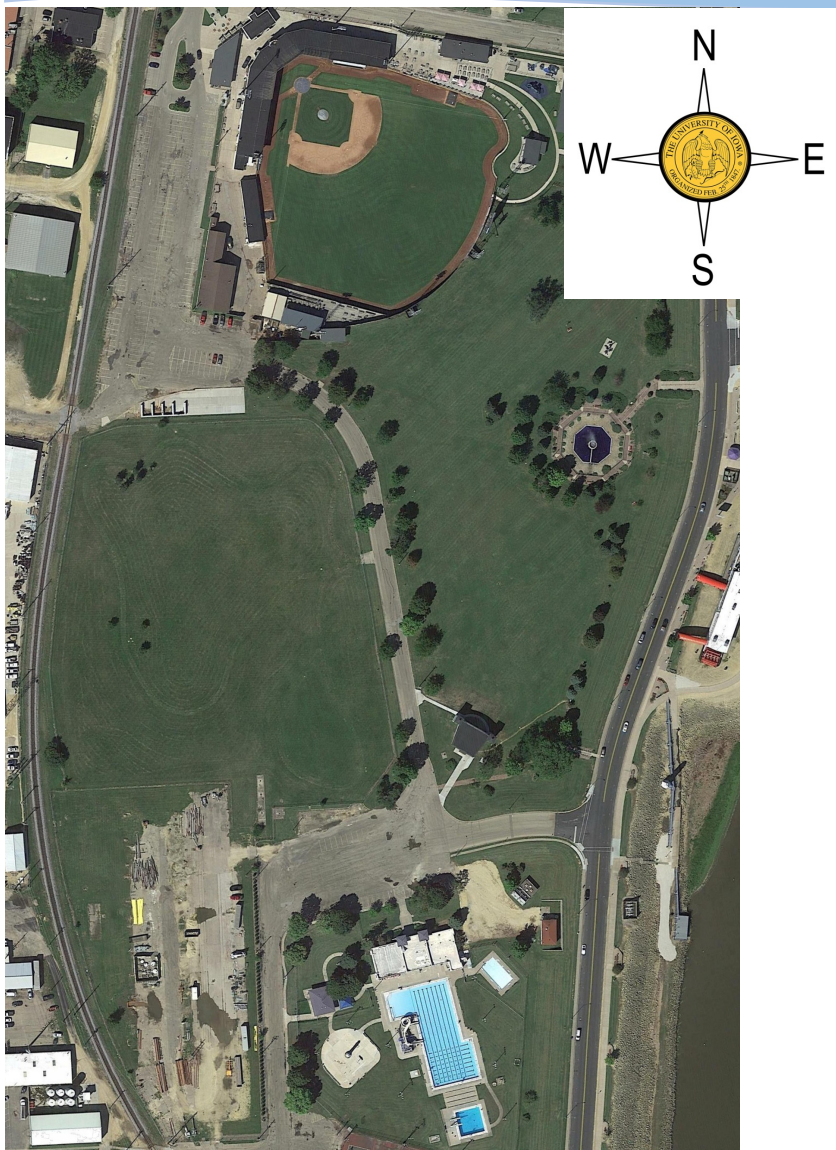
TAILGATE N' TALLBOYS

The team visiting Riverview Park for the Bacon and Brew Festival, September 2022

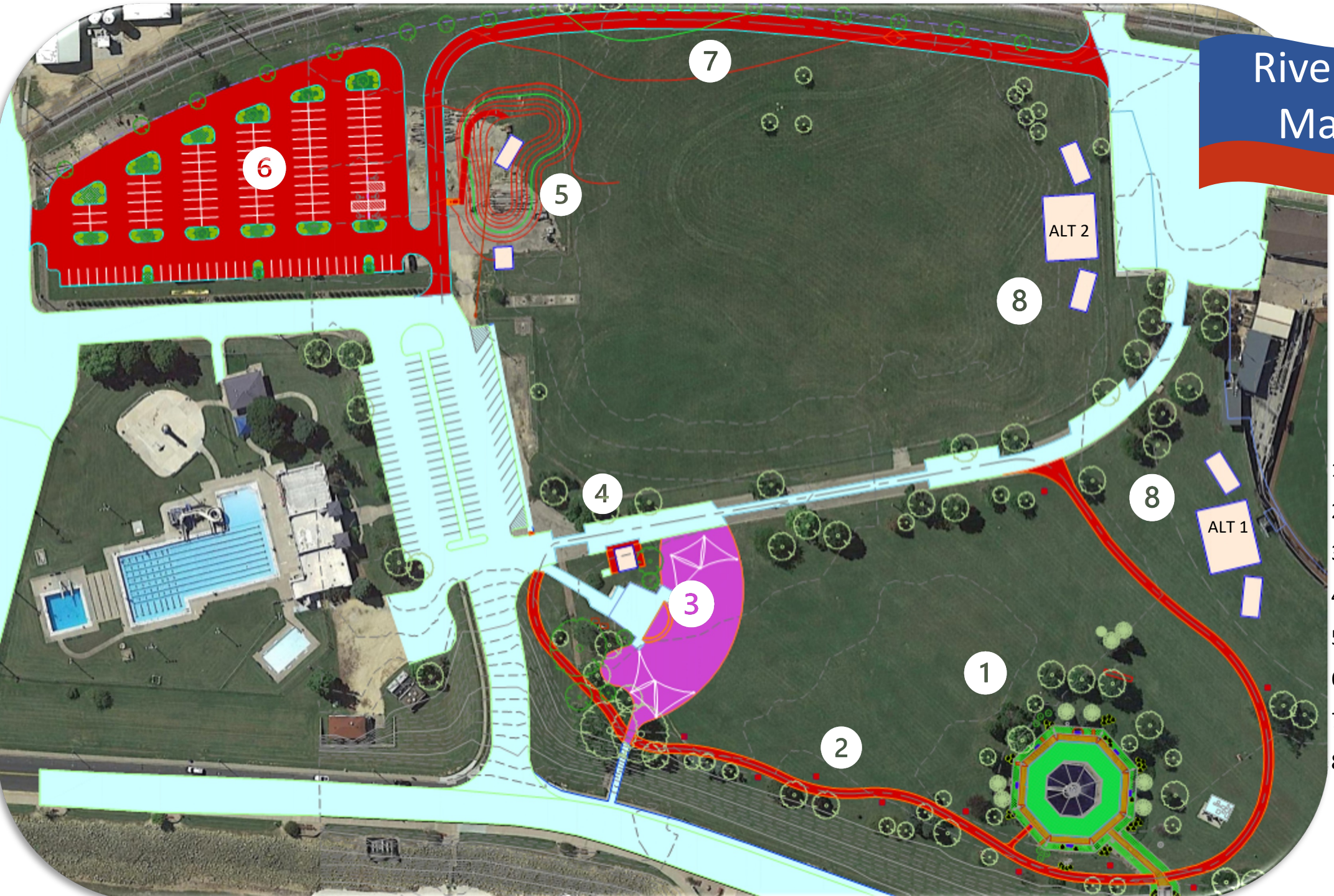
Rod Knutson: Bacon Eating Contest Winner!

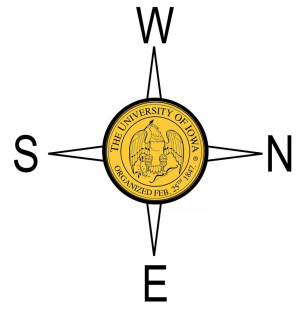


Site Location: Riverview Park



Riverview Park Master Plan





1. Lubbers Fountain
2. Trail and Art Walk
3. Bandshell
4. Restroom/ Storm Shelter
5. Outdoor Movie Theater
6. Parking Lot
7. Public Road
8. Temporary Stage


Dakota, Minn
& Eastern
RR Corp
ROOSEVELT ST
S 1 ST
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6 AVE N
RIVERVIEW DR
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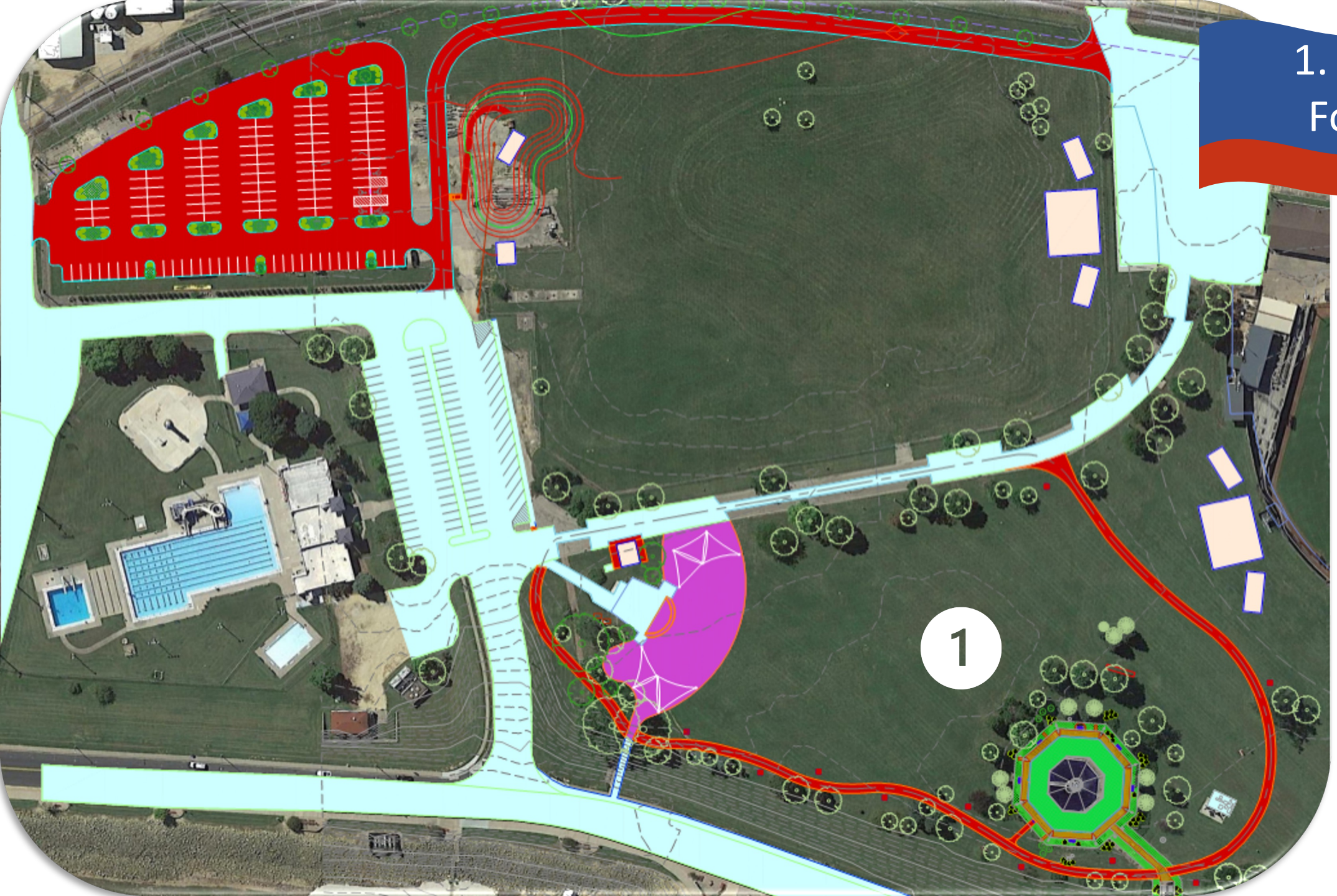
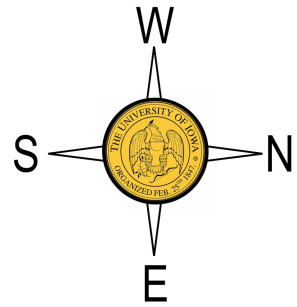
Property Boundaries:
Brownfield Site

1. Lubbers Fountain



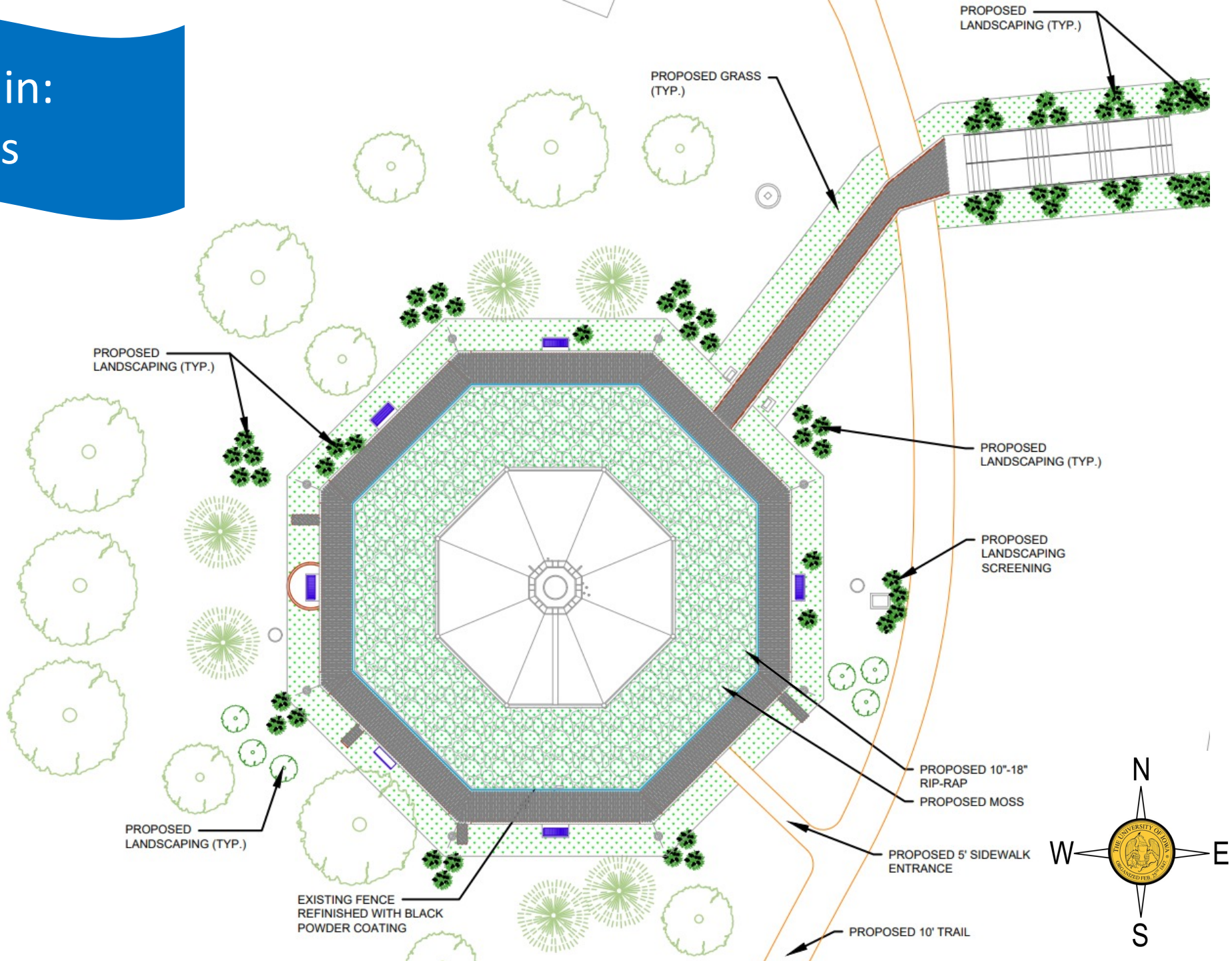


Lubbers Fountain

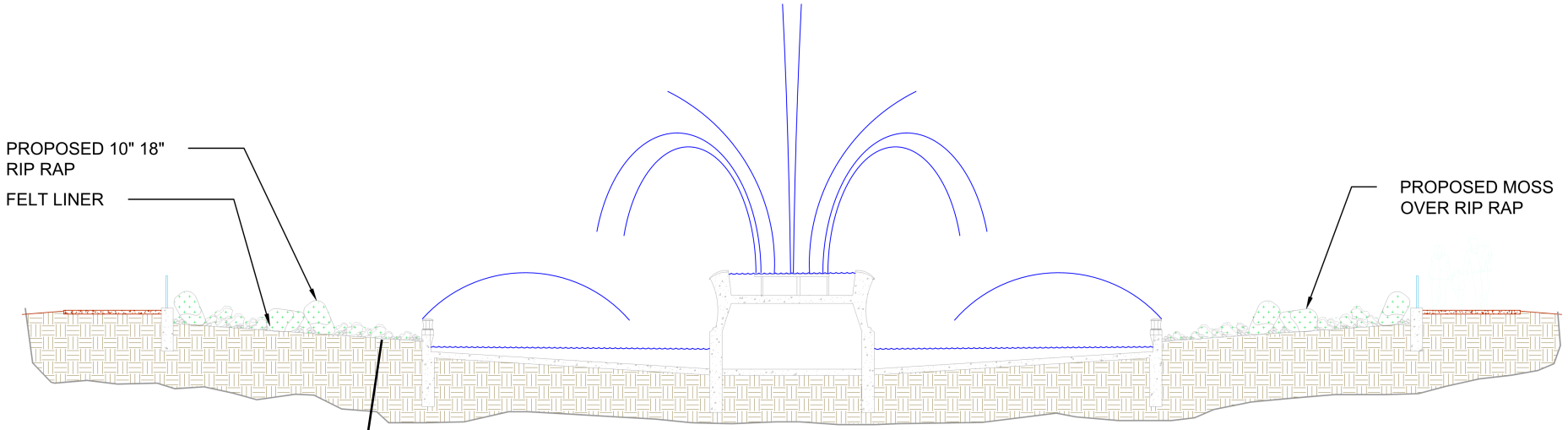
Lubbers Fountain: Improvements

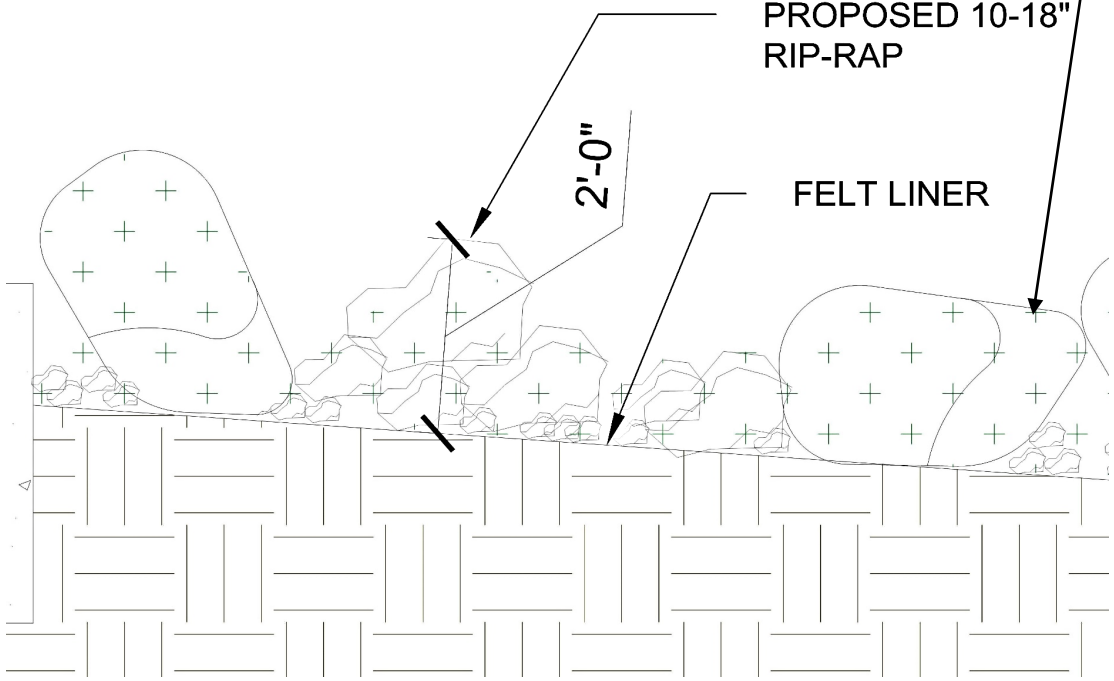
Karl Forester Grass

Juniper Trees

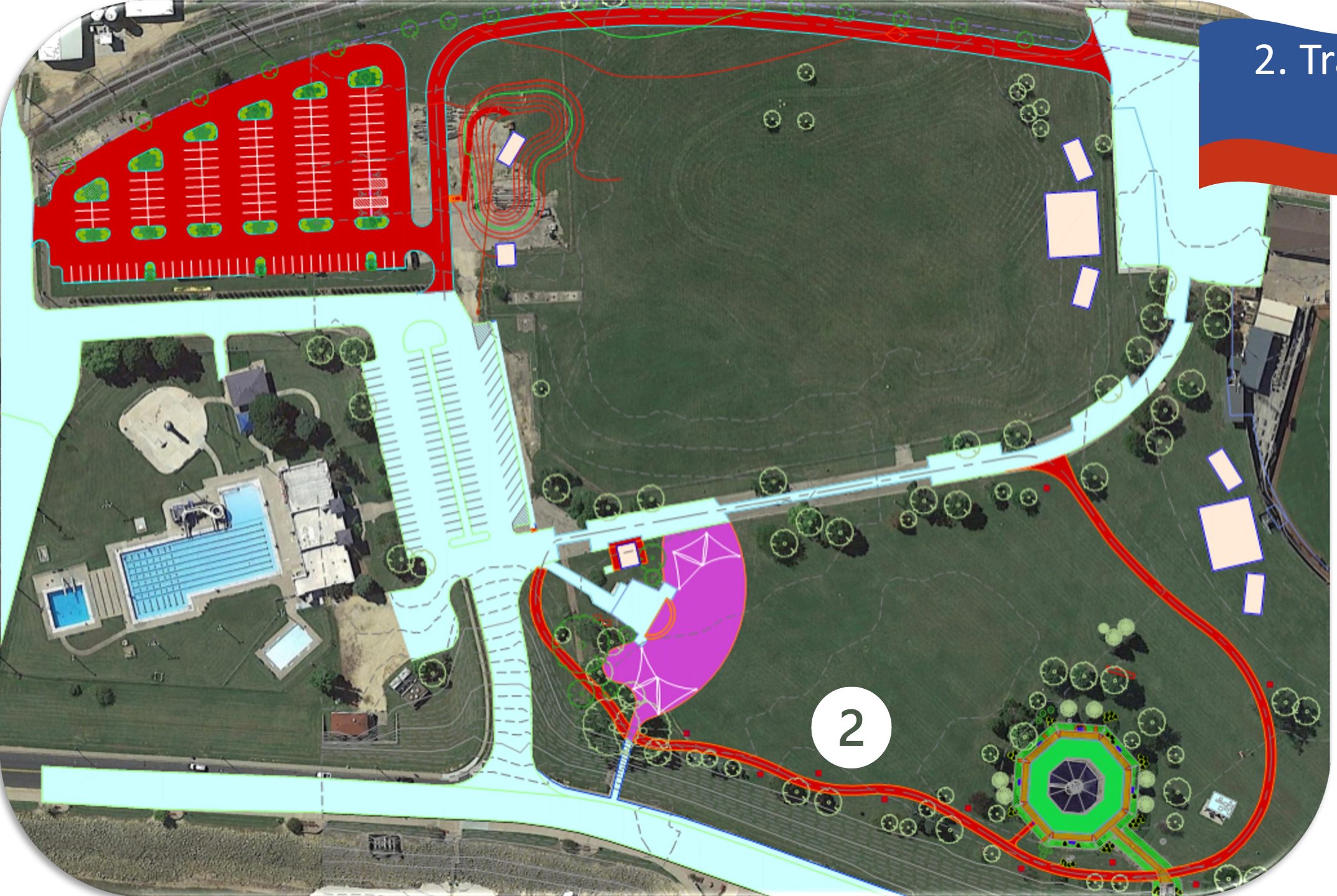


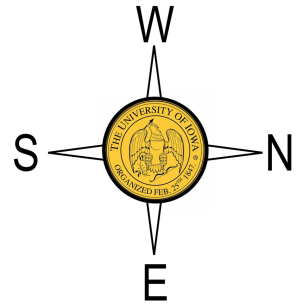
Lubbers Fountain: Improvements



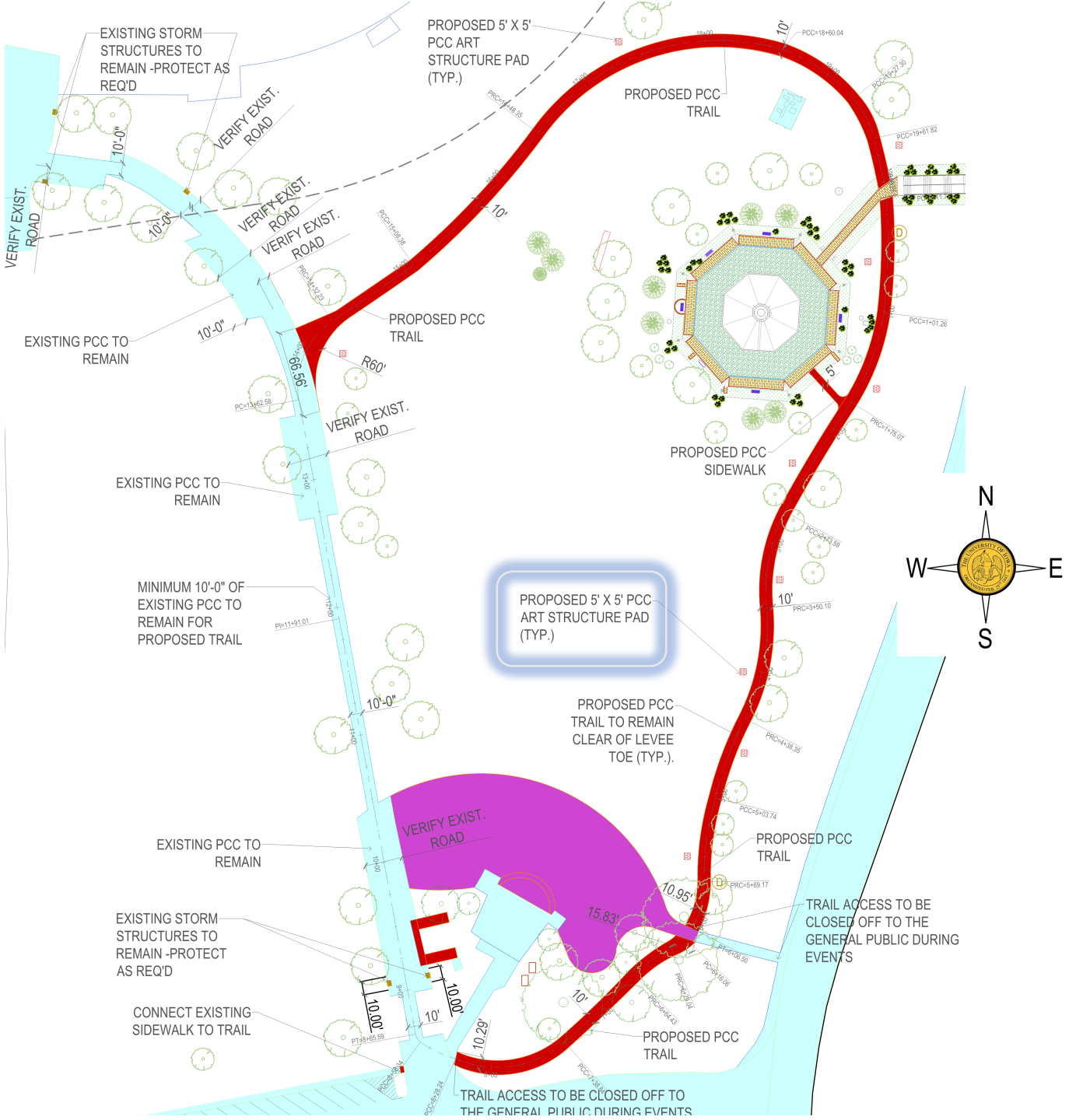


2. Trail and Art Walk



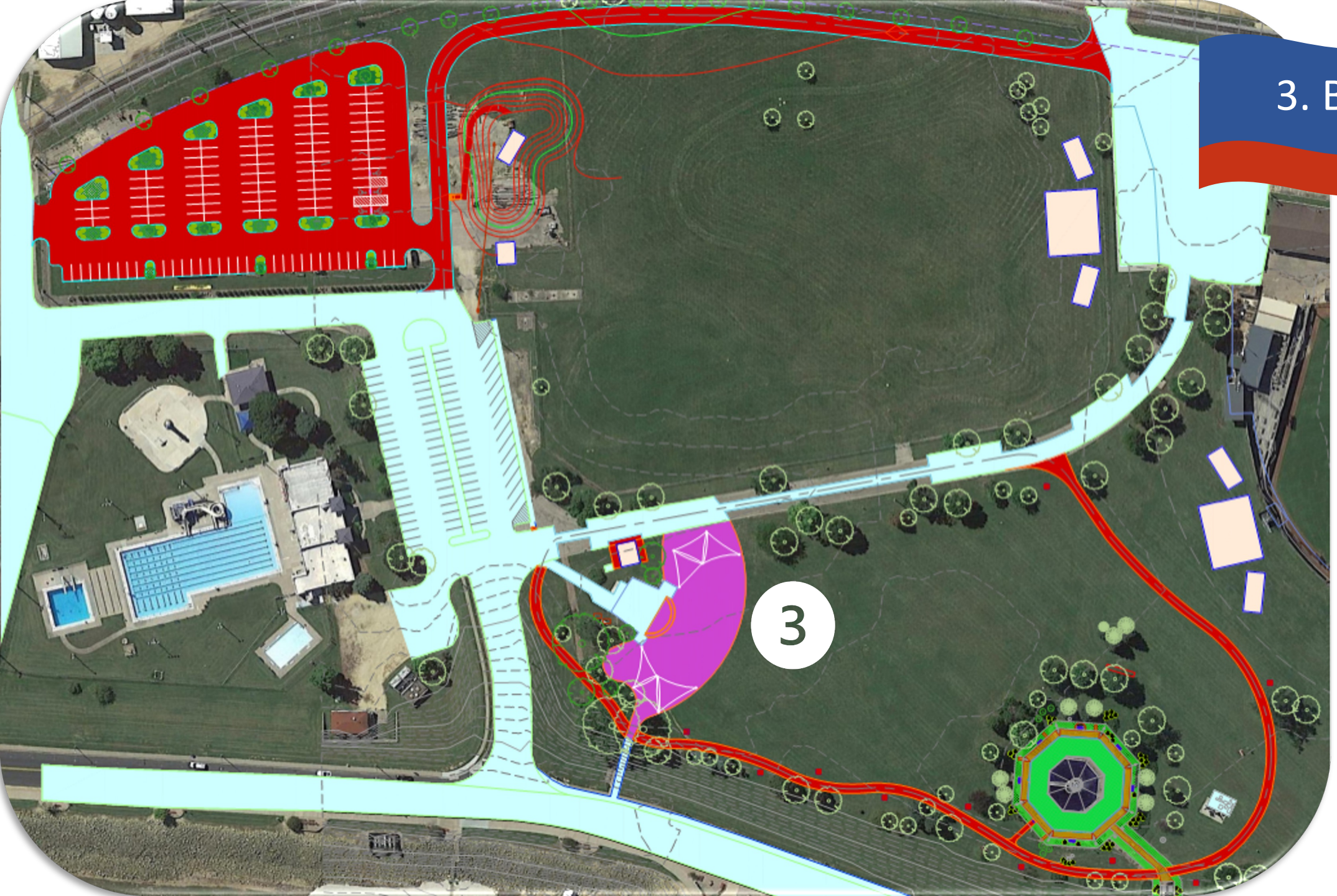


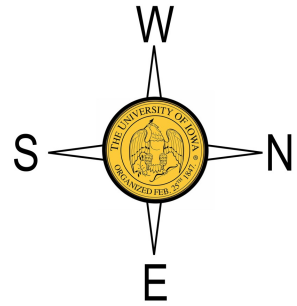
Proposed Eastside Trail and Art Foundations



Art Walk Inspiration

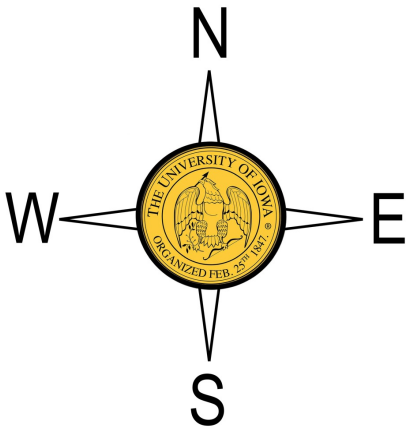
3. Bandshell

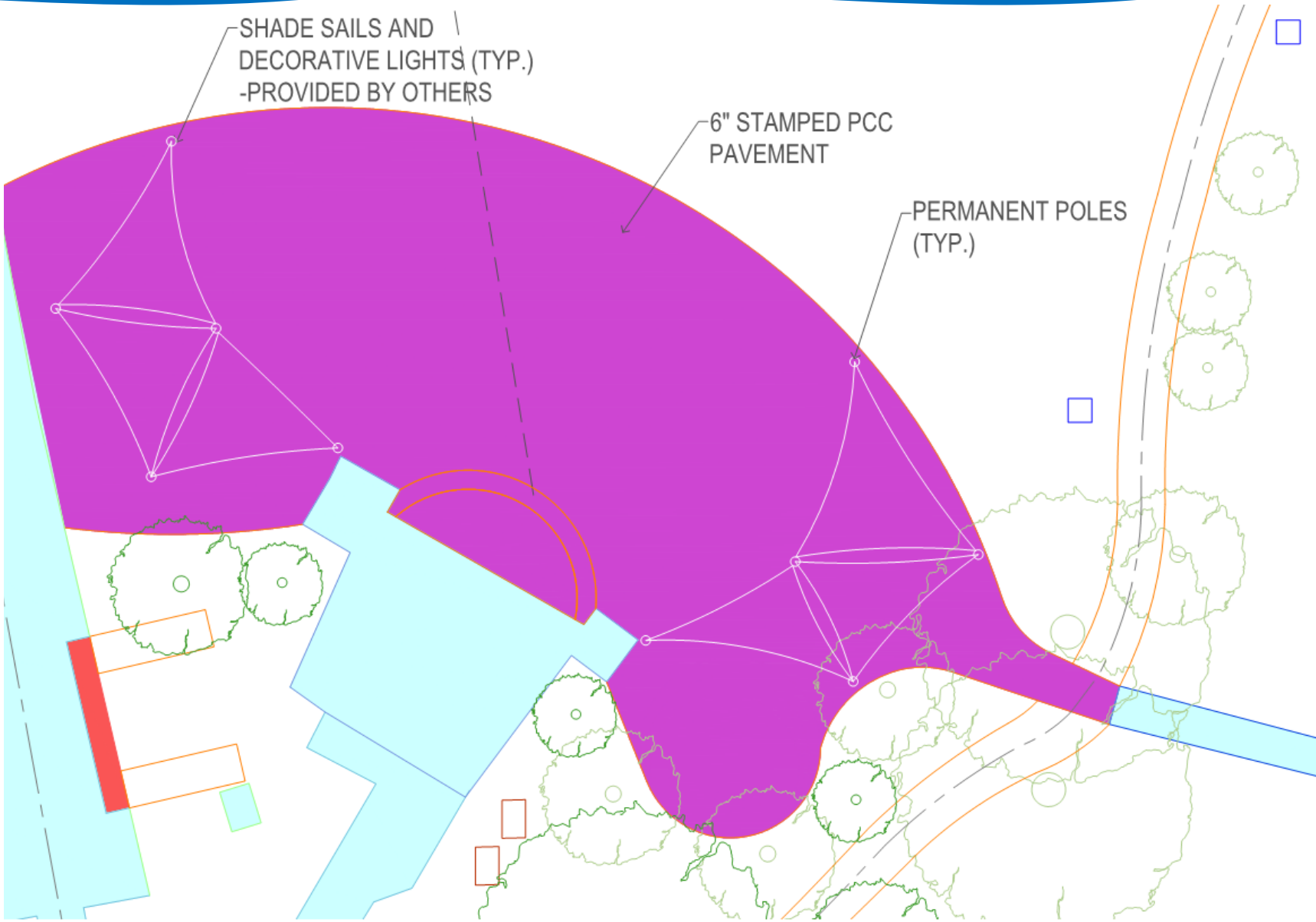




Riverview Bandshell

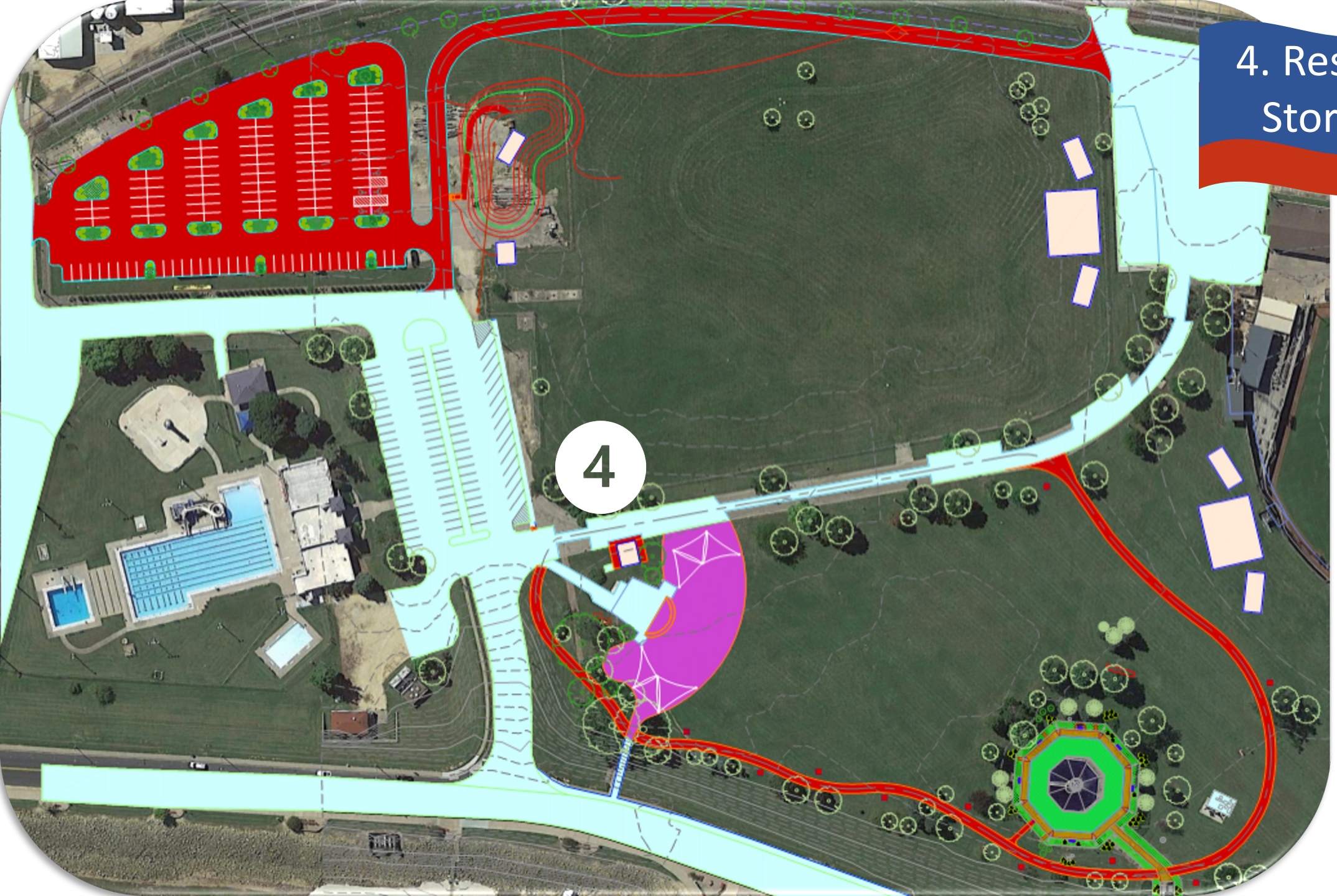
Riverview Bandshell Site

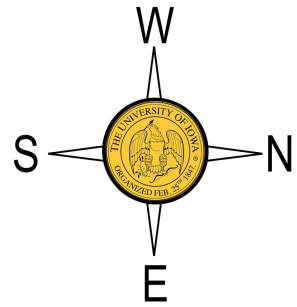




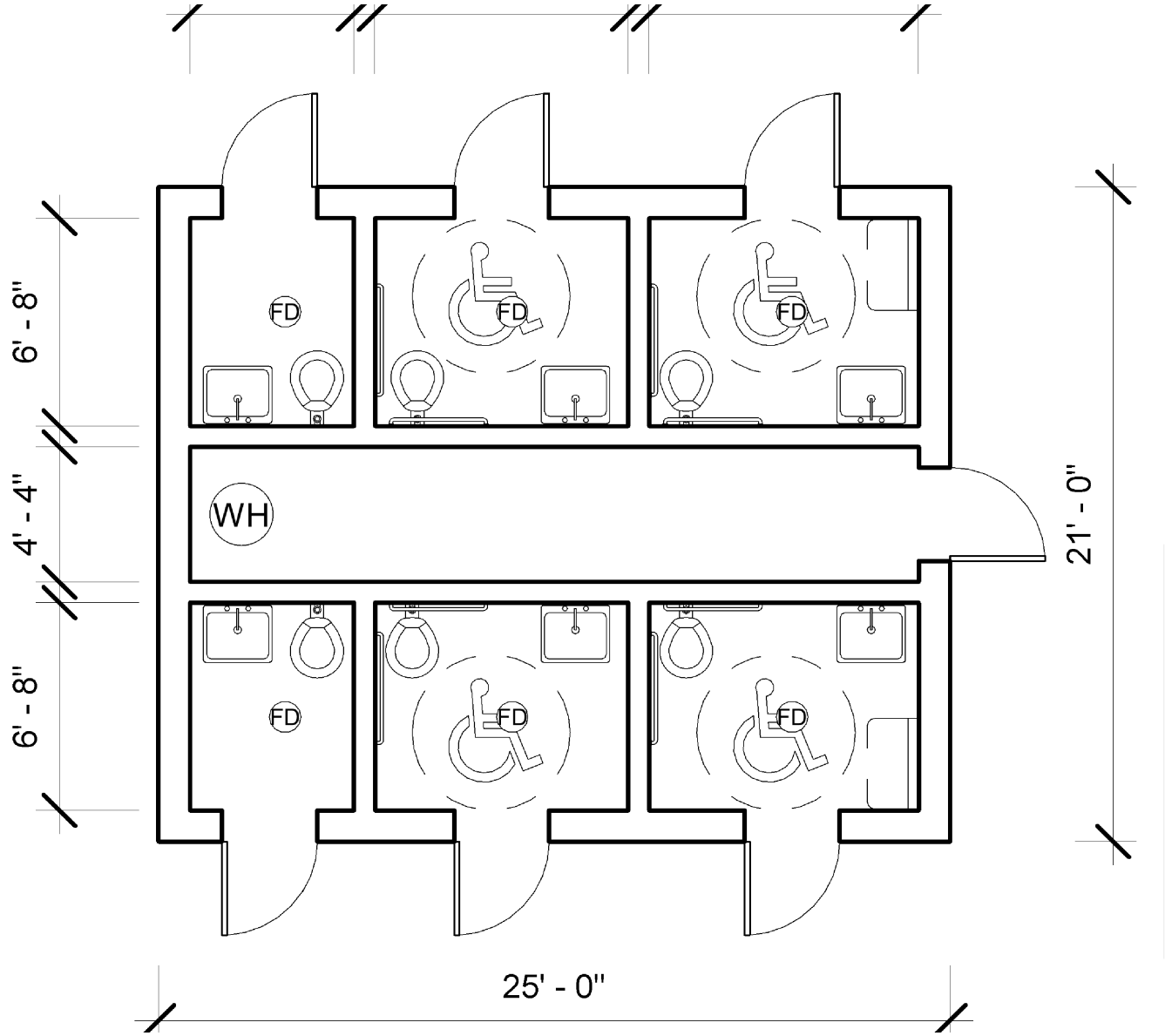
Riverview Bandshell: Shade Sails and Lighting

4. Restroom and Storm Shelter

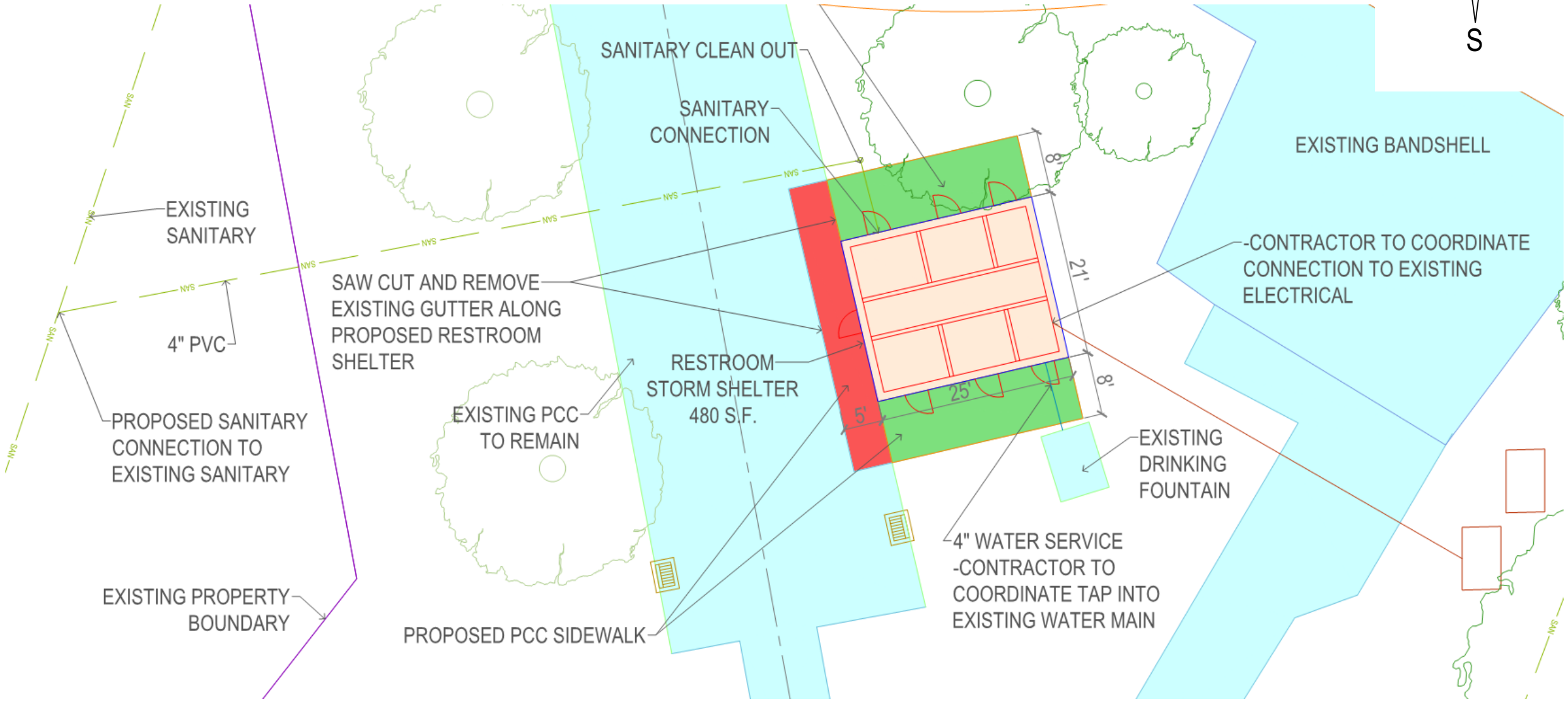




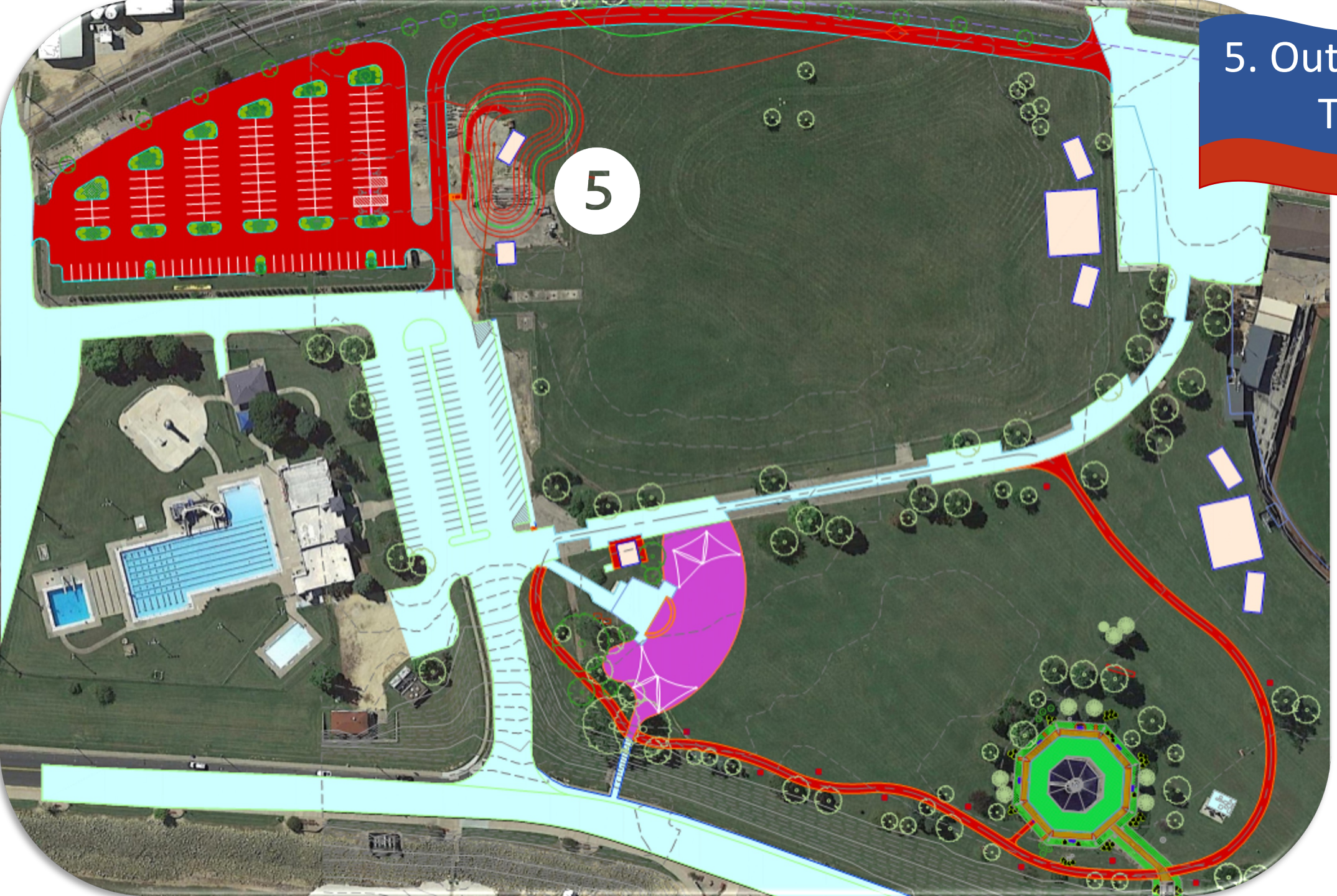
Restroom and Storm Shelter

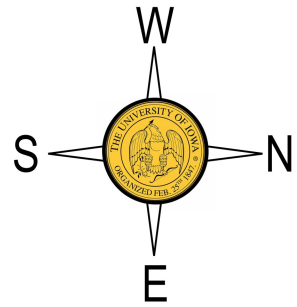


Restroom and Storm Shelter

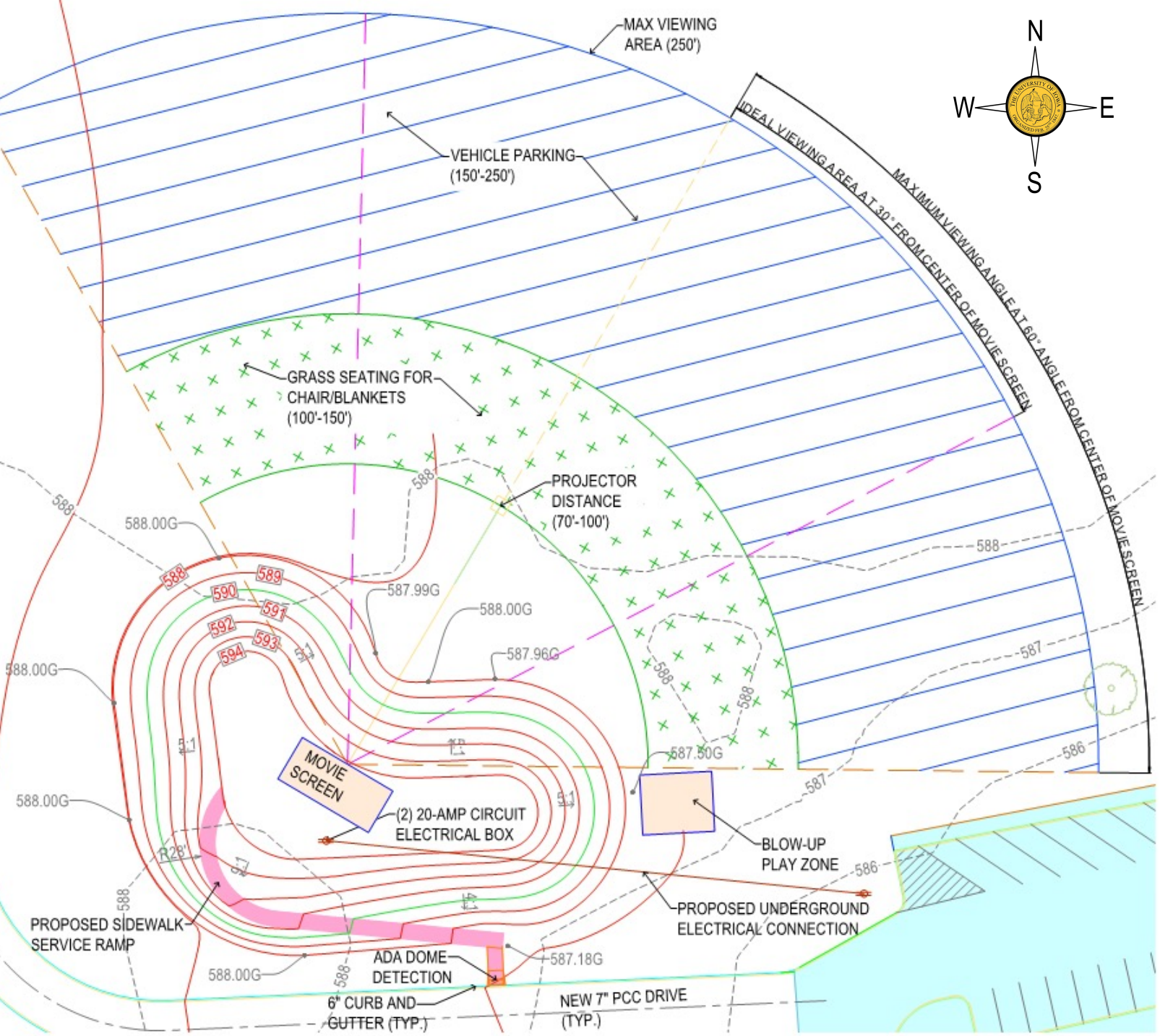


5. Outdoor Movie Theater

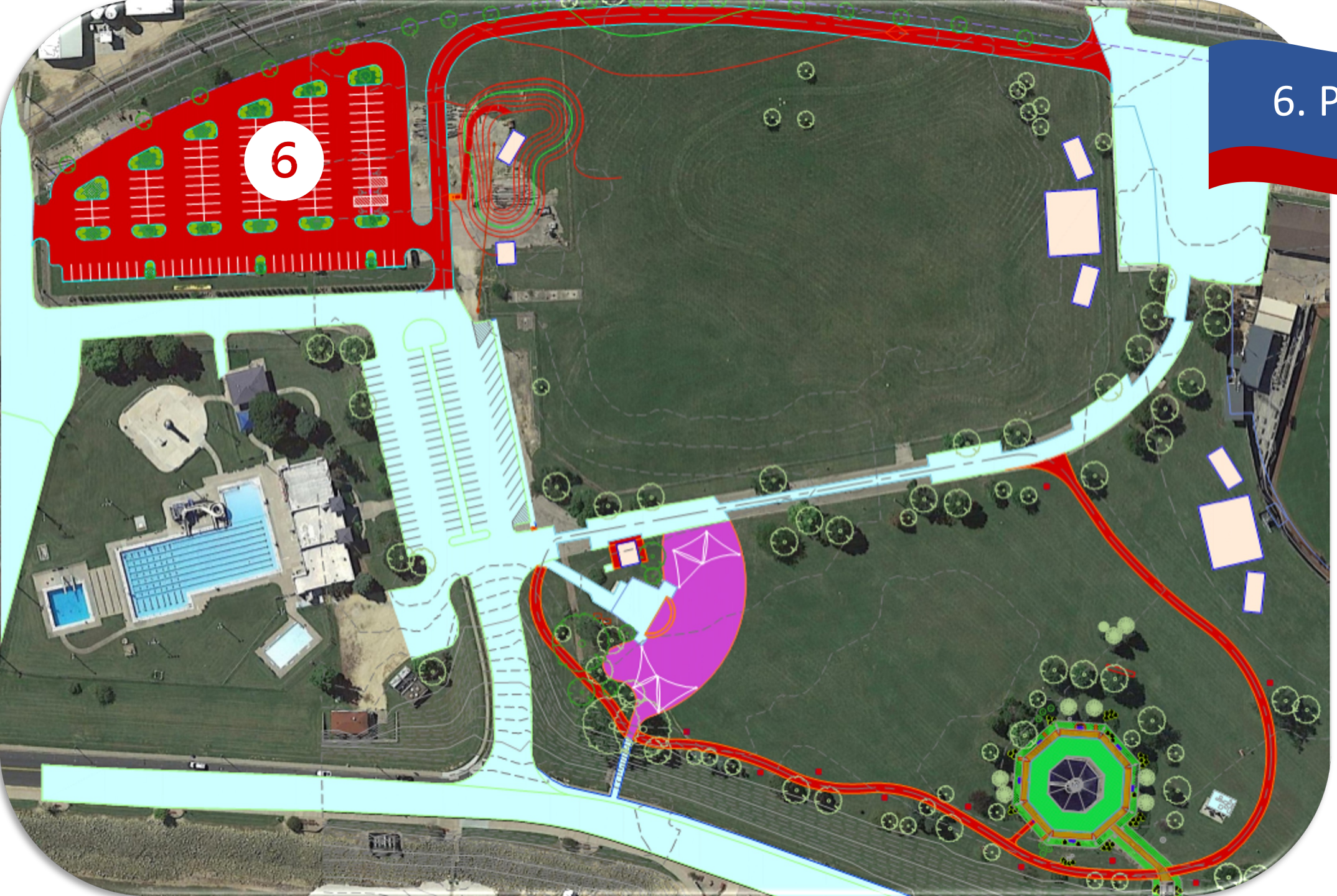


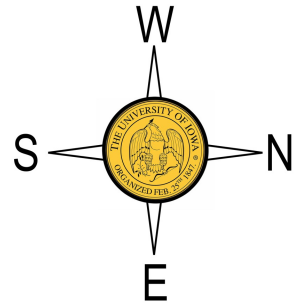


Outdoor Movie and Berm Stage

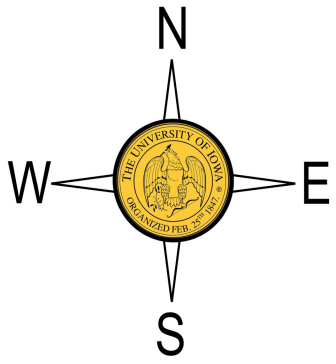


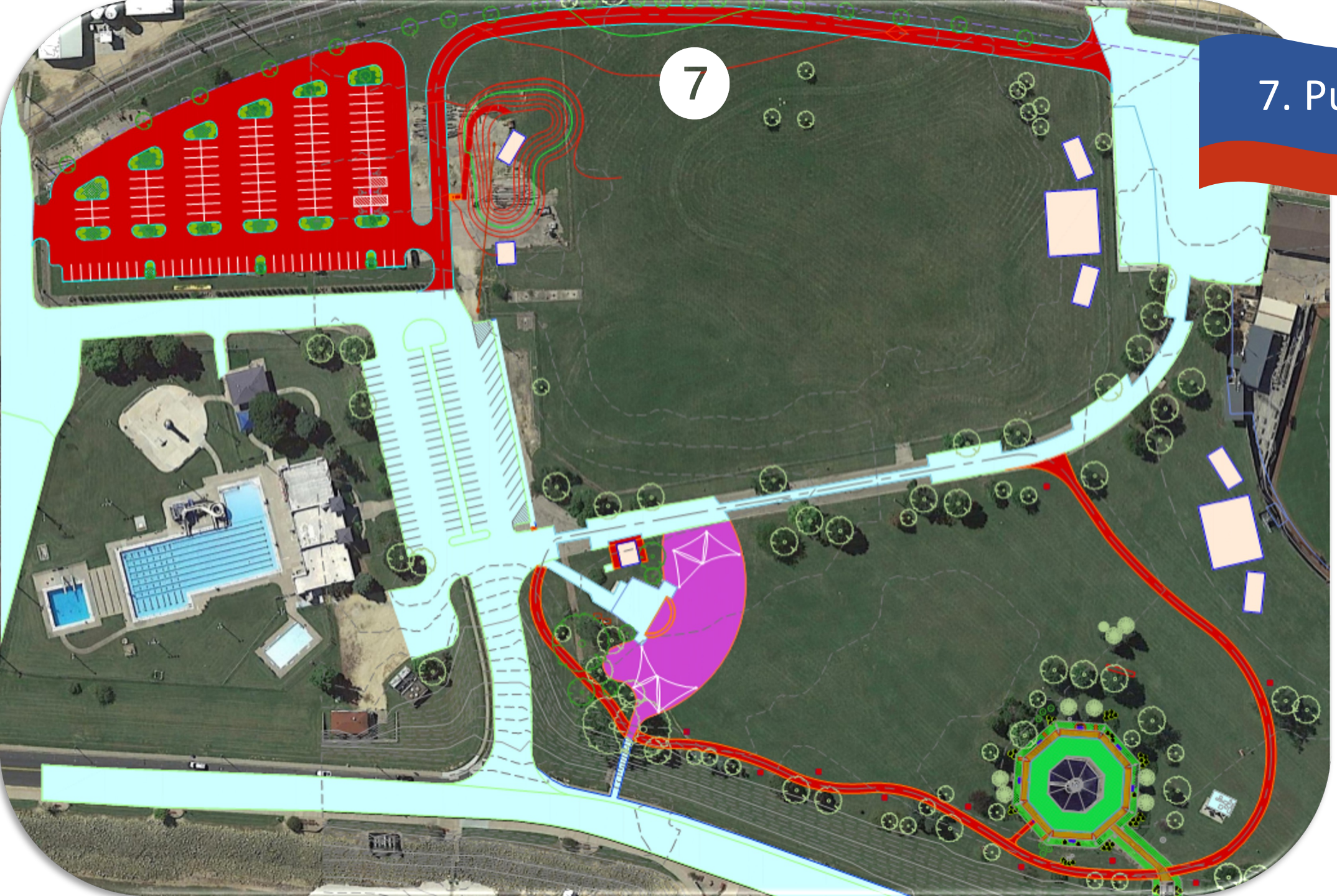
6. Parking Lot



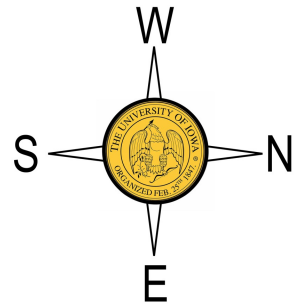


Proposed Parking Lot 143 – 10 Foot Wide Spaces (5 ADA)





7. Public Road



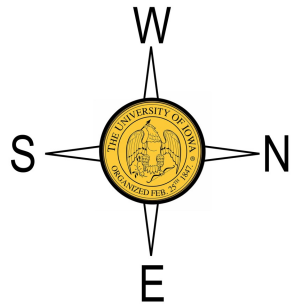
Tree Screening Along New Road

Japanese Lilac Tree

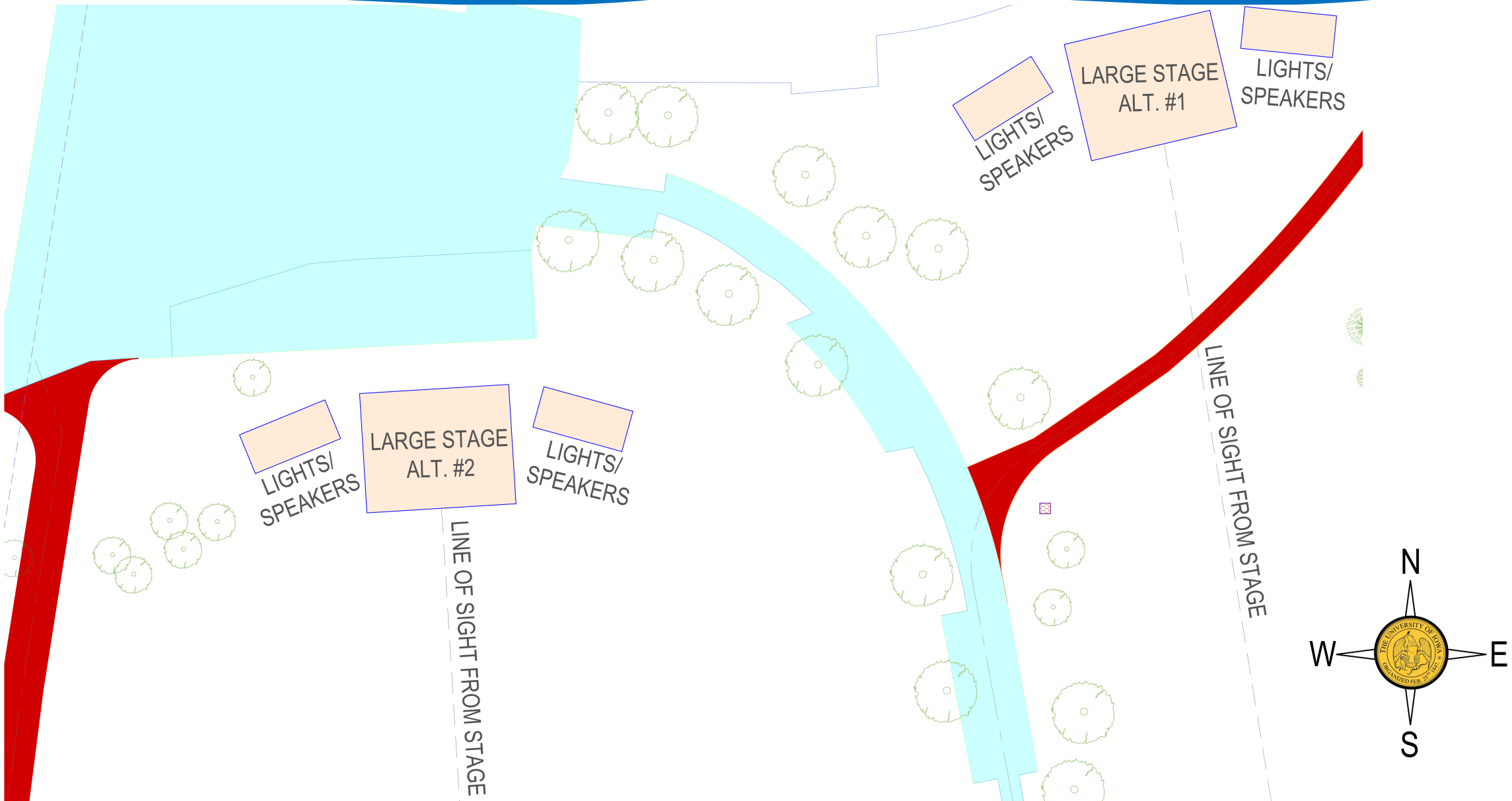
Silver Maple Tree

Pine Oak Tree

8. Temporary Stage



Large Event Temporary Stage Locations



Cost Estimate: Construction Costs

Groundwork

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
TOPSOIL, FURNISH AND SPREAD	577	CY	$ 29.00	$ 16,700.00
COMPACTING BACKFILL ADJACENT TO STRUCTURES	42	CY	$ 17.50	$ 735.00
TOTAL				**$ 17,435.00**
20% CONTINGENCY				$ 3,487.00
9% ENGINEERING DESIGN AND ADMIN				$ 1,569.15
TOTAL ELEMENT COST				**$ 22,500.00**

Bandshell Improvement

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
STAMPED P.C. CONCRETE, 6 IN.	2015	SY	$ 78.00	$ 157,000.00
SHADE SAIL	6	EACH	$ 550.00	$ 3,300.00
SHADE SAIL POLE	10	EACH	$ 1,750.00	$ 17,500.00
TOTAL				**$ 177,800.00**
20% CONTINGENCY				$ 35,560.00
9% ENGINEERING AND ADMIN				$ 16,002.00
TOTAL ELEMENT COST				**$ 229,500.00**

Restroom/Storm Shelter

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
GRANULAR SUBBASE, 4 IN.	58	SY	$ 9.75	$ 570.00
SIDEWALK. P.C. CONCRETE, 7 IN.	97	SY	$ 81.00	$ 7,900.00
RESTROOM INSTALLATION	1	N/A	$ 66,600.00	$ 66,600.00
UTILITY INSTALLATION	1	N/A	$ 11,500.00	$ 11,500.00
TOTAL				**$ 86,570.00**
20% CONTINGENCY				$ 17,314.00
9% ENGINEERING AND ADMIN				$ 7,791.30
TOTAL ELEMENT COST				**$ 111,500.00**

West Drive

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
STANDARD FORM PORTLAND CEMENT CONCRETE, 7 IN.	2246	SY	$ 77.00	$ 173,000.00
GRANULAR SUBBASE, 4 IN.	2246	SY	$ 9.75	$ 21,900.00
CURB AND GUTTER, P.C. CONCRETE, 6.0 FT.	1500	LF	$ 86.00	$ 129,000.00
TOTAL				**$ 323,900.00**
20% CONTINGENCY				$ 64,780.00
9% ENGINEERING AND ADMIN				$ 29,151.00
TOTAL ELEMENT COST				**$ 418,000.00**

Lubbers Fountain

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
TAYLOR JUNIPER TREE	50	EACH	$ 75.00	$ 3,750.00
KARL FOERSTER GRASS	20	GAL	$ 23.00	$ 460.00
GEOTEXTILES	595	SY	$ 2.00	$ 1,200.00
RIPRAP	331	TON	$ 40.00	$ 13,200.00
TOTAL				**$ 18,610.00**
20% CONTINGENCY				$ 3,722.00
9% ENGINEERING AND ADMIN				$ 1,674.90
TOTAL ELEMENT COST				**$ 23,800.00**

Walking Trail

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
RECREATIONAL TRAIL, PORTLAND CEMENT CONCRETE, 6 IN.	1650	SY	$ 65.00	$ 107,000.00
SIDEWALK, P.C. CONCRETE, 5 IN.	28	SY	$ 52.00	$ 1,450.00
REMOVAL OF CURB	7	STA	$ 890.00	$ 6,175.00
ASPHALT REMOVAL	16101	SF	$ 2.00	$ 32,200.00
3 IN. HOT MIX ASPHALT MIXTURE	1789	SY	$ 16.00	$ 28,600.00
TOTAL				**$ 175,500.00**
20% CONTINGENCY				$ 35,100.00
9% ENGINEERING AND ADMIN				$ 15,795.00
TOTAL ELEMENT COST				**$ 226,500.00**

Berm Construction

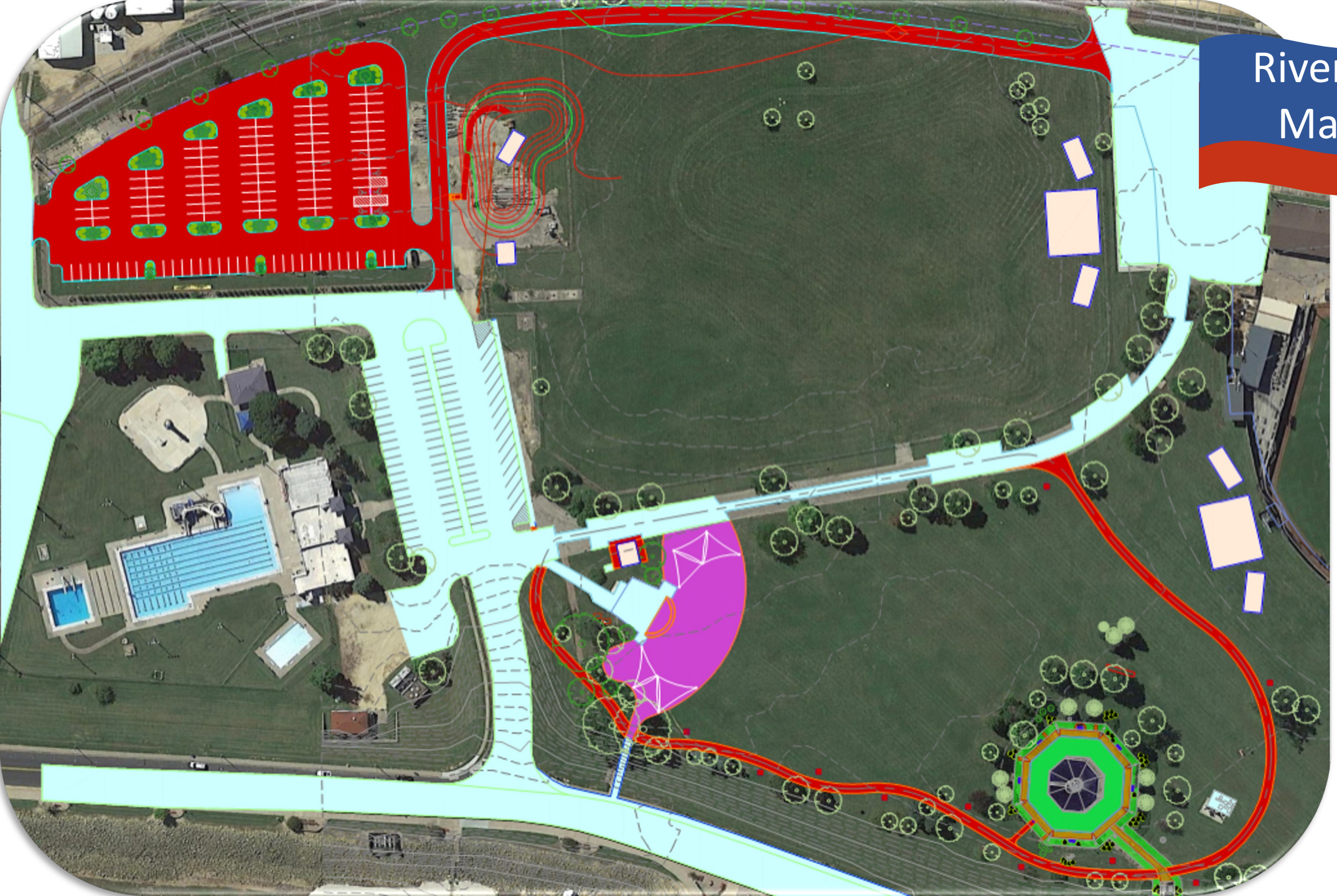
ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
SOIL TESTING	1	N/A	$ 3,100.00	$ 3,100.00
SIDEWALK, P.C. CONCRETE, 4 IN.	79	SY	$ 55.00	$ 4,375.00
BERM FILL	2115	CY	$ 14.00	$ 29,600.00
GRADING	1	N/A	$ 7,500.00	$ 7,500.00
TOTAL				**$ 44,600.00**
20% CONTINGENCY				$ 8,920.00
9% ENGINEERING AND ADMIN				$ 4,014.00
TOTAL ELEMENT COST				**$ 57,500.00**

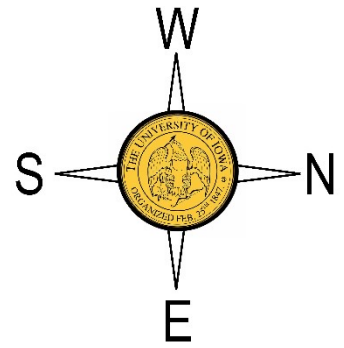
Parking Lot

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
STANDARD FORM PORTLAND CEMENT CONCRETE, 7 IN.	7806	SY	$ 77.00	$ 601,000.00
GRANULAR SUBBASE, 4 IN.	7806	SY	$ 9.75	$ 76,000.00
CURB AND GUTTER, P.C. CONCRETE, 6.0 FT.	1323	LF	$ 86.00	$ 114,000.00
3 IN. HOT MIX ASPHALT MIXTURE	7806	SY	$ 16.00	$ 125,000.00
TOTAL				**$ 916,000.00**
20% CONTINGENCY				$ 183,200.00
9% ENGINEERING AND ADMIN				$ 82,440.00
TOTAL ELEMENT COST				**$ 1,181,500.00**

TOTAL PROJECT COST	**$ 2,270,800.00**

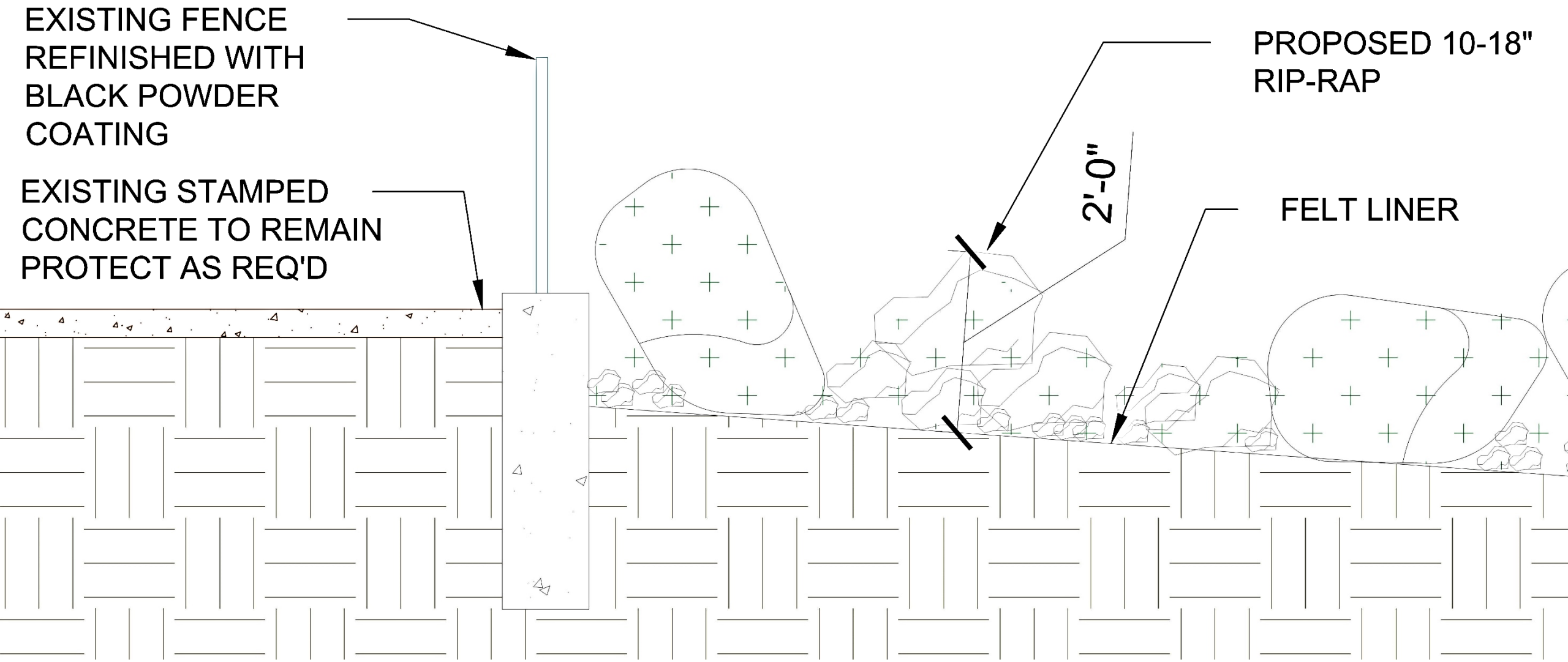
Riverview Park Master Plan





Alternate Slides –Not Part of Presentation

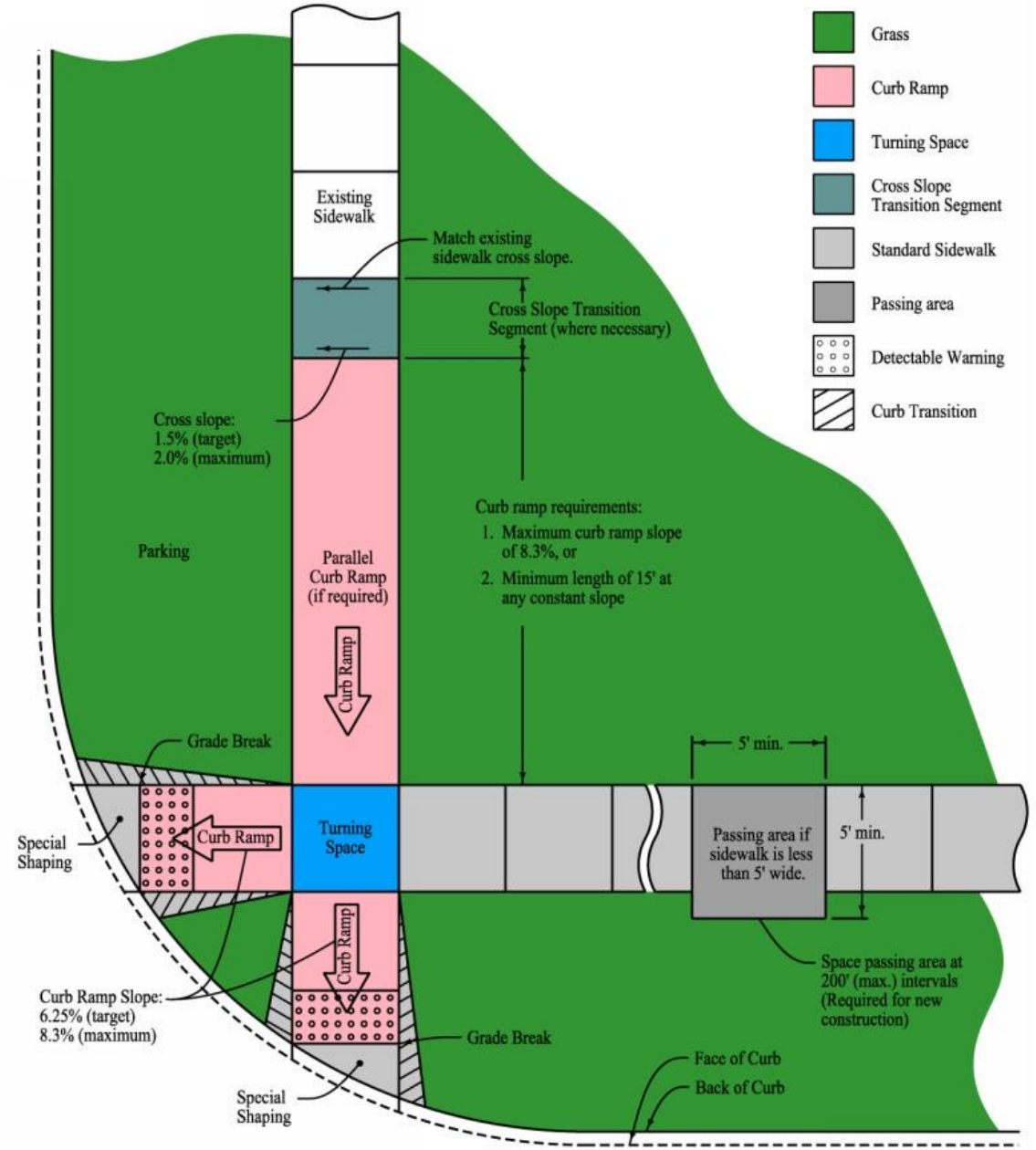
Lubbers Fountain Detailed Review



Trail Detailed Review

NOTE: SLOPE SIDEWALK IN ACCORDANCE WITH GRADING PLAN, 1.5% CROSS SLOPE

Figure 12A-2.03: Standard Sidewalk and Curb Ramp Elements



Art Walk Requiring larger Spaces

Shelter Detailed Review

SHELTER REQUIREMENTS:

ICC 500 STANDARD FOR THE DESIGN AND CONSTRUCTION OF STORM SHELTERS:
TORNADO SHELTERS HAVE A MINIMUM DURATION OF OCCUPANCY OF 2 HOURS.
STORM SHELTER IS CONSTRUCTED OUT OF CONCRETE OR CONCRETE MASONRY.
CALCULATED SOIL PRESSURE UNDER THE SLABS-ON-GROUND SUPPORTING THE STORM SHELTER WALLS DOES NOT EXCEED 2,000 PSF (95.8KN/M^2) FOR DESIGN LOADING CONDITIONS OTHER THAN DESIGN STORM EVENTS AND 3,000 PSF (143.7 KN/M^2) FOR DESIGN STORM EVENTS.
STORM SHELTER IS ANCHORED AT A MINIMUM TO THE SLAB-ON-GROUND AT EACH CORNER OF THE STRUCTURE AND ON EACH SIDE OF DORM OPENINGS IN THE SHELTER ENVELOPE.
ALL EXPOSED COMPONENTS AND CLADDING ASSEMBLIES AND ROOF COVERINGS OF TORNADO SHELTERS SHALL MEET THE REQUIREMENTS OF THE APPLICABLE CODE.
EXTERIOR DOORS TO THE BUILDING SHALL HAVE A WEATHER SEAL PROVIDED AT THE UNDERCUT.
TORNADO SHELTERS SHALL BE PROVIDED WITH NATURAL VENTILATION OR WITH MECHANICAL VENTILATION (SECTION 702.4.1 AND 702.4.2). OPENINGS USED FOR ATMOSPHERIC PRESSURE CHANGE (APC) ARE PERMITTED TO BE COUNTED AS VENTILIATION.

TELEMETRY REQUIREMENTS:
TELEMETRIC LOCKS TO DISENGAGE WITH TORNADO SIRENS. KEYS TO BE HELD BY EMPLOYEES OF THE PARK IN CASE OF MALFUNCTION.

LOAD REQUIREMENTS:
LOAD COMBINATIONS: ICC 500 STORM SHELTER LOAD COMBINATIONS DO NOT INCLUDE SNOW LOADS BECAUSE TORNADO AND HURRICANES OCCUR DURING WARM WEATHER. HOWEVER, SNOW LOADS MUST BE INCLUDED AS REQUIRED BY THE APPLICABLE CODE WHEN CHECKING THE NON-STORM SHELTER LOAD COMBINATIONS.
RAIN LOADS: THE STANDARD DOES NOT PROVIDE ADDITIONAL RAIN LOAD REQUIREMENTS FOR TORNADO STORM SHELTERS, SO TORNADO SHELTERS AND SAFE ROOMS ARE ONLY REQUIRED TO COMPLY WITH THE APPLICABLE CODE FOR RAIN LOADS WHERE REQUIRED BY THE NORMAL-USE LOAD COMBINATIONS.
ROOF LIVE LOADS MINIMUM: ICC 500-2020 REQUIRES LIVE LOADS TO COMPLY WITH APPLICABLE CODE, BUT NOT LESS THAN 100 POUNDS PER SQUARE FOOT (4.8KN/M^2)
FLOOR LOAD MINIMUM: AS A RESULT, ICC 500-2020 REQUIRES TORNADO STORM SHELTER FLOOR LIVE LOADS TO BE NO LESS THAN THE APPLICABLE CODE REQUIRES FOR ASSEMBLY OCCUPANCIES
WIND LOAD: SAFE ROOM DESIGN WIND SPEED OF 250 MPH.

Drive-in Detailed Review

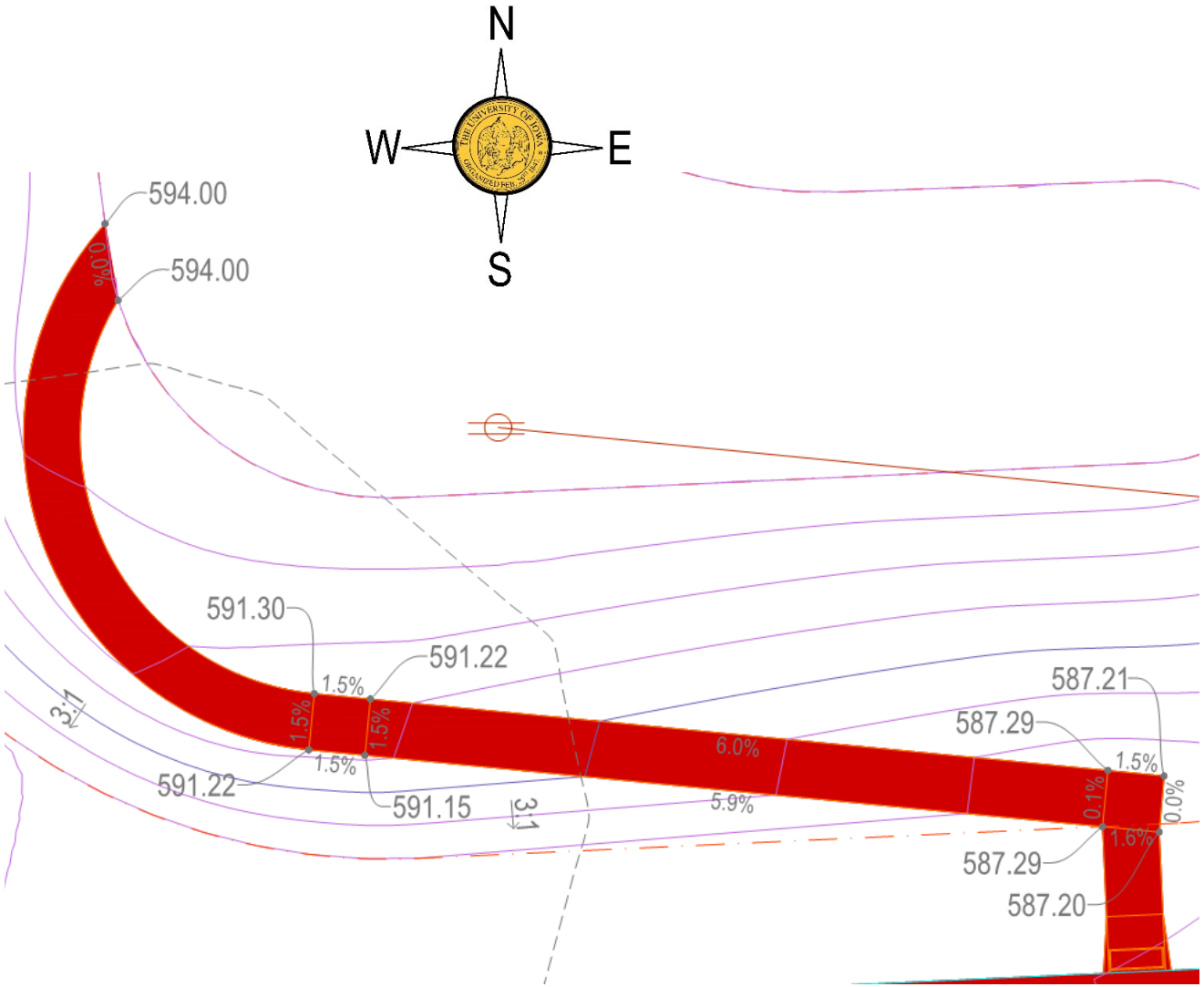
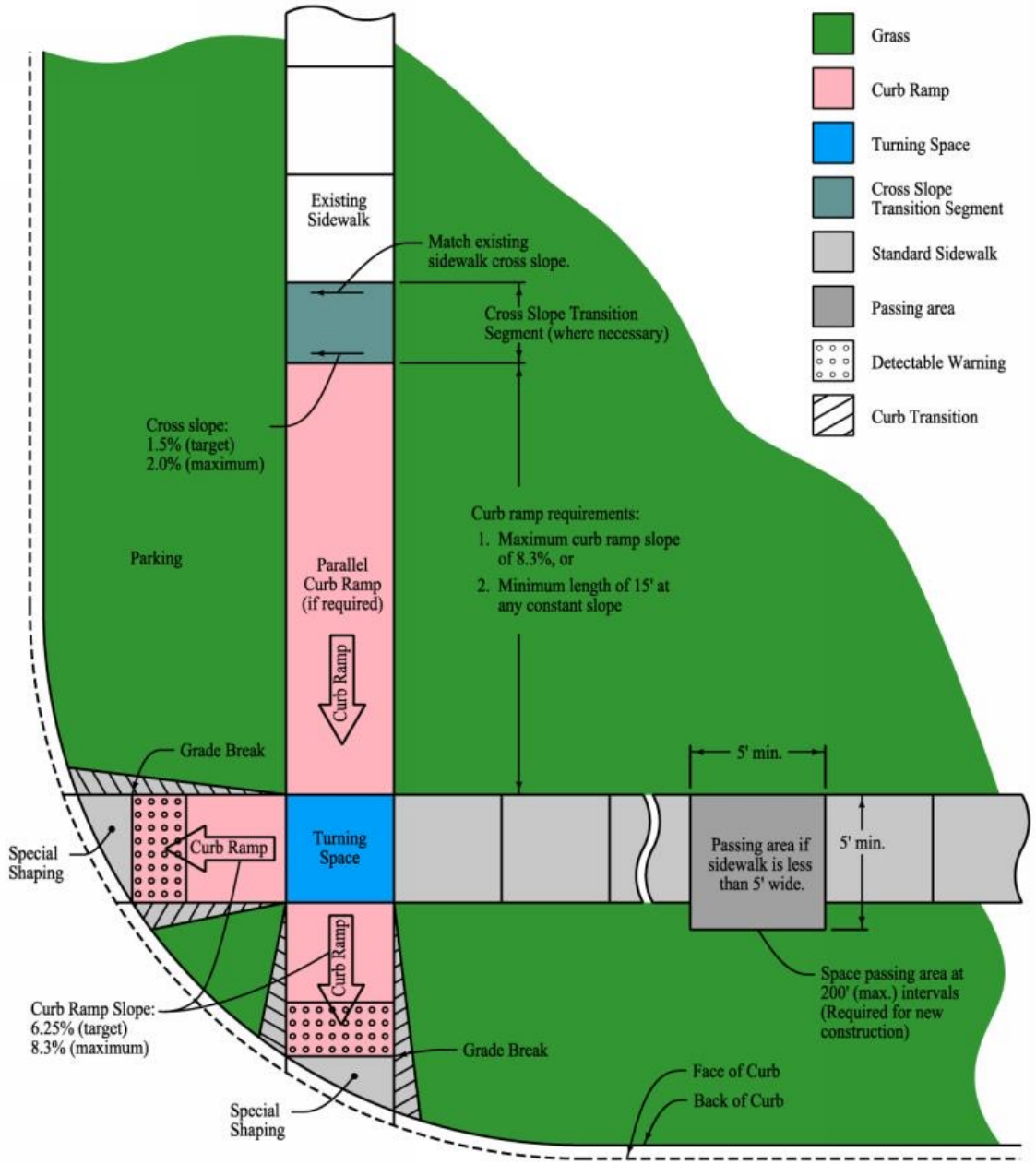
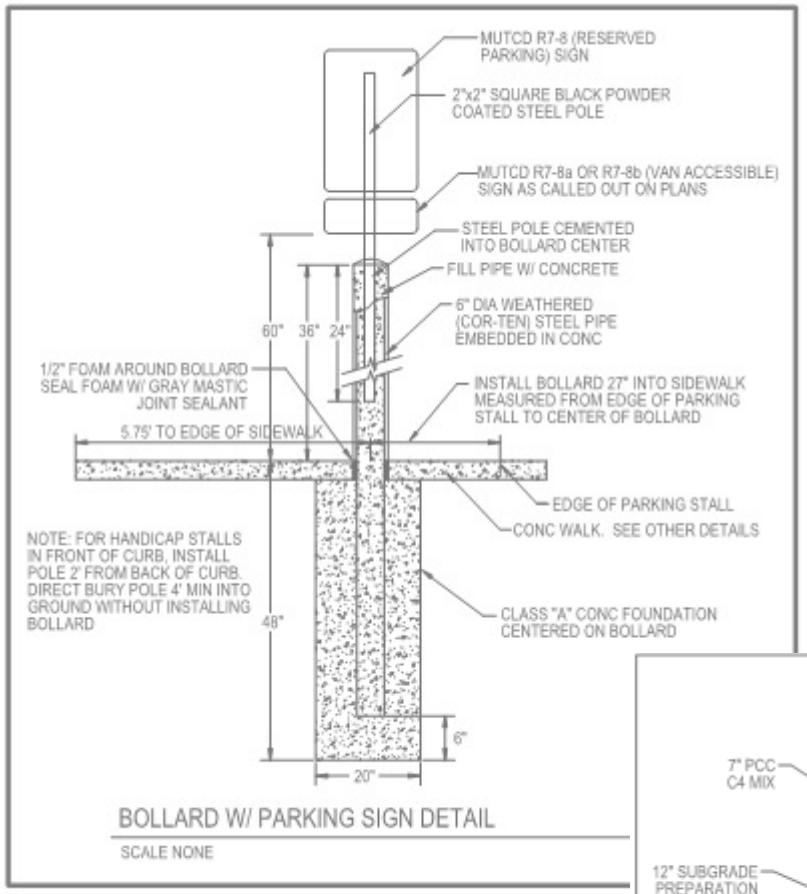


Figure 12A-2.03: Standard Sidewalk and Curb Ramp Elements



Parking Lot Detailed Review



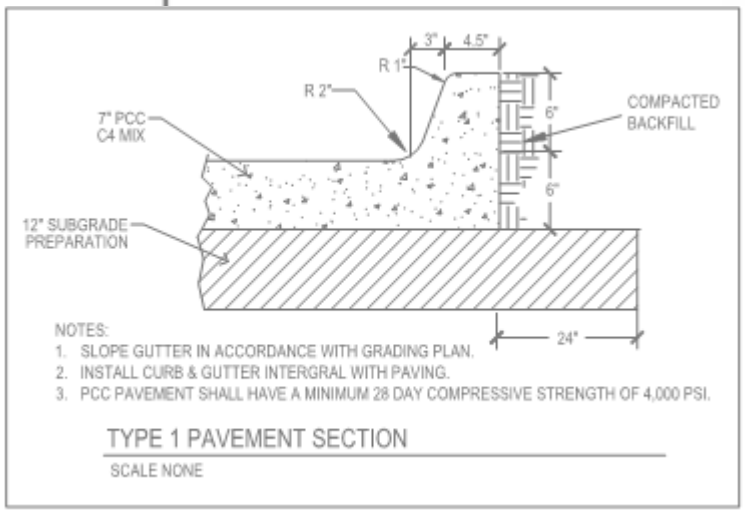


Figure 12A-2.03: Standard Sidewalk and Curb Ramp Elements