



**CASCADE  
DESIGN  
COLLABORATIVE**

## **Ballard Playground Athletic Field Improvements**



# Ballard Playground - Athletic Field Improvements

## Project Description:

- ▶ Installing two baseball synthetic turf infields
- ▶ Replacing Field lighting
- ▶ Improving access to meet Americans with Disabilities Act (ADA)
- ▶ Improve Field drainage and irrigation
- ▶ Other Field enhancements as budget allows

Project Budget: \$2.15 (includes additional funds for drainage/irrigation)

Schedule: Design through Summer 2019; Construction through late Fall 2019



**Seattle**  
Parks & Recreation

# Ballard Playground - Athletic Field Improvements

## Project Team:

Project Manager: Katie Bang

Project Planner: Libby Hudson

### Project Designers:

▶ Cascade Design Collaborative: Lisa Corry and Renee Finney

▶ Civil Engineer (Sitewise Design): Steve Hatzenbeler

▶ Lighting Engineer

(DMD & Associates):

Don McLean and Dan Wong

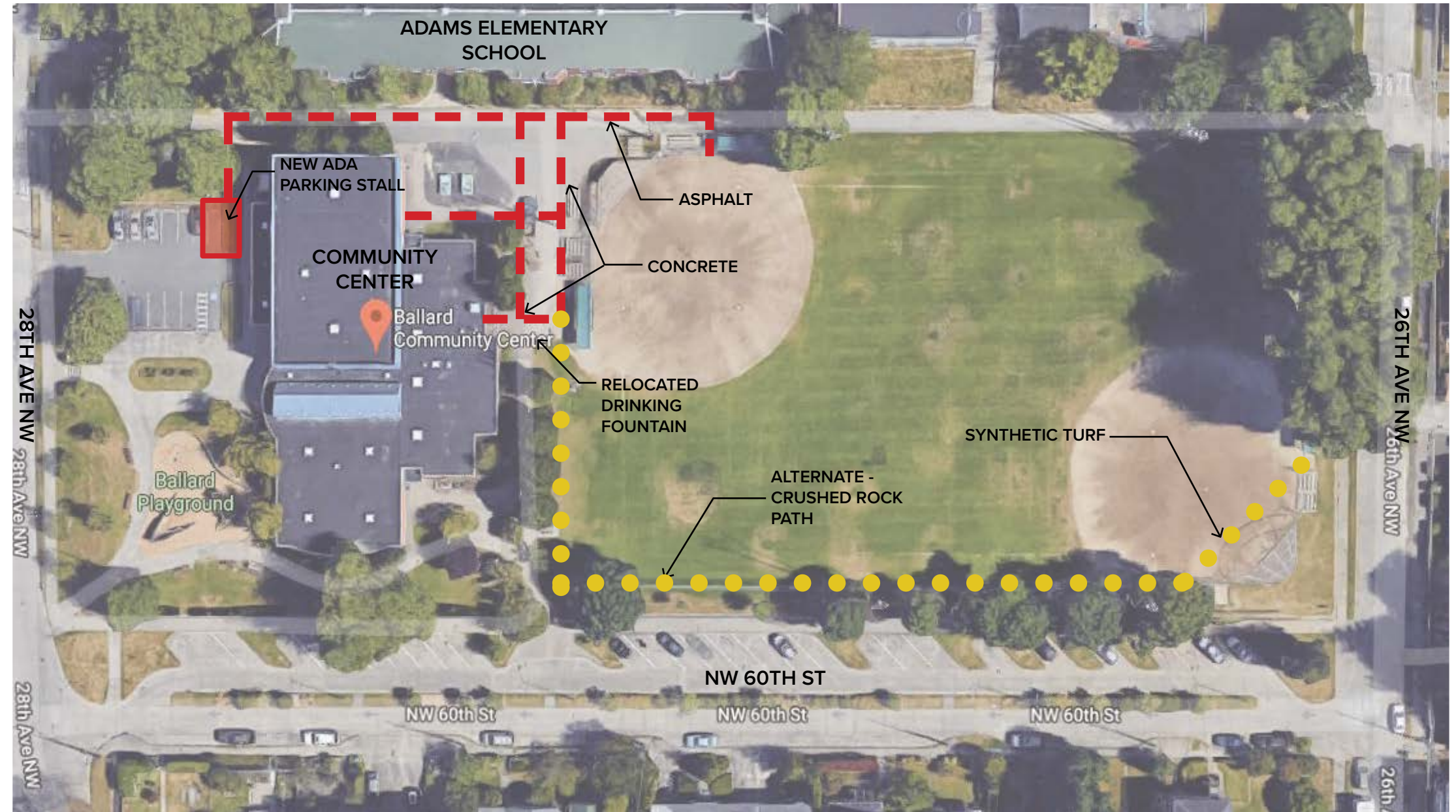


**Seattle**  
Parks & Recreation

# Accessibility Compliance Plan

## Accessibility Notes

- Project scope includes retrofitting the accessible route of travel from the parking lot and community center's exterior restrooms to the dugouts of each field.
- Slopes of walkways and accessible routes to have a maximum cross slope of 2% and a maximum running slope of 5%.
- Accessible routes to be of varying materials with flush finish grades: 1/4" minus crushed rock with metal edging; concrete; porous concrete; porous asphalt; and synthetic turf infield.
- Concrete landing between crushed rock path and porous concrete is provided as a separation of materials for maintenance purposes.
- Drinking fountain to be relocated to provide a minimum 30" x 48" level pad centered on the lower drinking fountain.





# Site Inventory : Existing Field Lighting Effect on Neighboring Residences

NW 60TH ST

Field Lighting OFF  
(Street Lighting Only)



0.40-0.94 fc



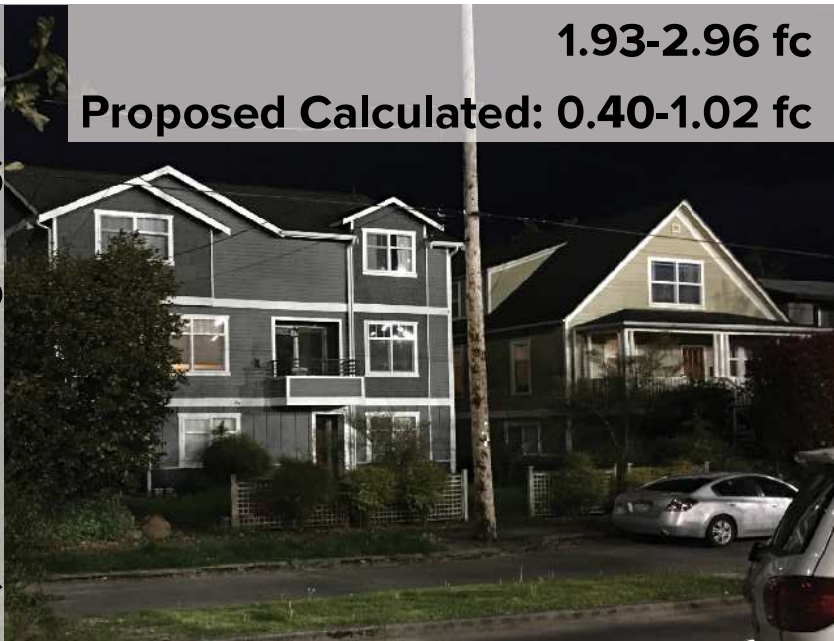
0.08-0.94 fc

26TH AVE W

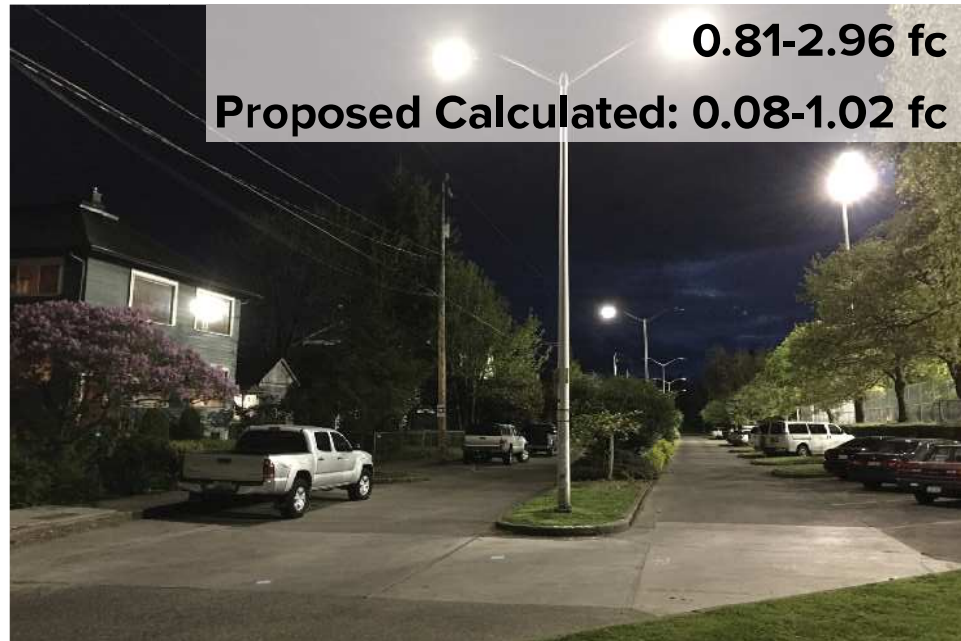


0.09-0.64 fc

Field Lighting ON  
(and Street Lighting)



1.93-2.96 fc  
Proposed Calculated: 0.40-1.02 fc



0.81-2.96 fc  
Proposed Calculated: 0.08-1.02 fc



1.15-3.28 fc  
Proposed Calculated: 0.09-1.38 fc



CASCADE  
DESIGN  
COLLABORATIVE





# Sample Field Lighting with Minimal Light Spill

## Lighting Goals

- Upgrade the existing field lighting to LED lights.

## International Dark-Sky Association Compliant

- Design shall be IDA Dark Skies compliant.
- Minimize neighborhood lighting nuisance by greatly reducing spill and glare disruption.
- Manage high angle glare, thus dramatically decreasing off-site light trespass and sky glow.
- Mitigate neighborhood nuisance factors and sky glow which, in turn, provide benefits to the environment, the astronomy community and others.
- Minimize lumen densities, which reduce energy consumption by 60%.

| Description   | Lux Levels |
|---|------------|
| Sunny Day Outdoors  | 5,000 fc   |
| Overcast Day  | 500 fc     |
| Illuminated College Football Stadium Lighted for TV         | 150 fc     |
| Illuminated Baseball/Soccer Field                           | 20 to 30fc |
| Typical Street Lighting (Measured directly under luminaire) | 4 to 5 fc  |
| Moonlight Falling on a Surface                              | 0.1 fc     |

## Proposed LED Technology



## Evolution of Sports Lighting



2023.03.24.17/INTECO SPORTS LIGHTING...C-M-502 EN-1.1

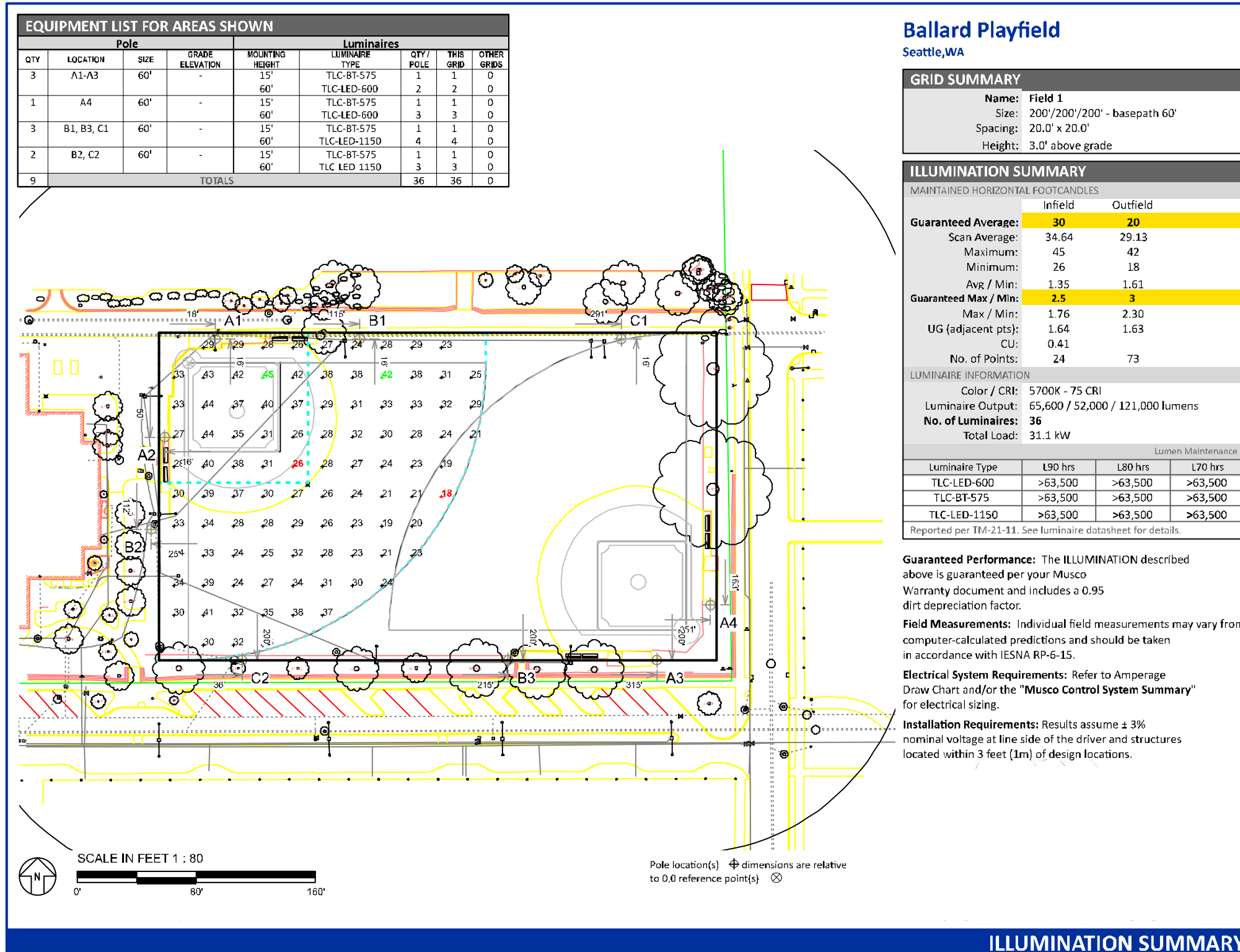


**CASCADE  
DESIGN  
COLLABORATIVE**



## Ballard Playground Athletic Field Improvements

# Illumination Levels: Field #2

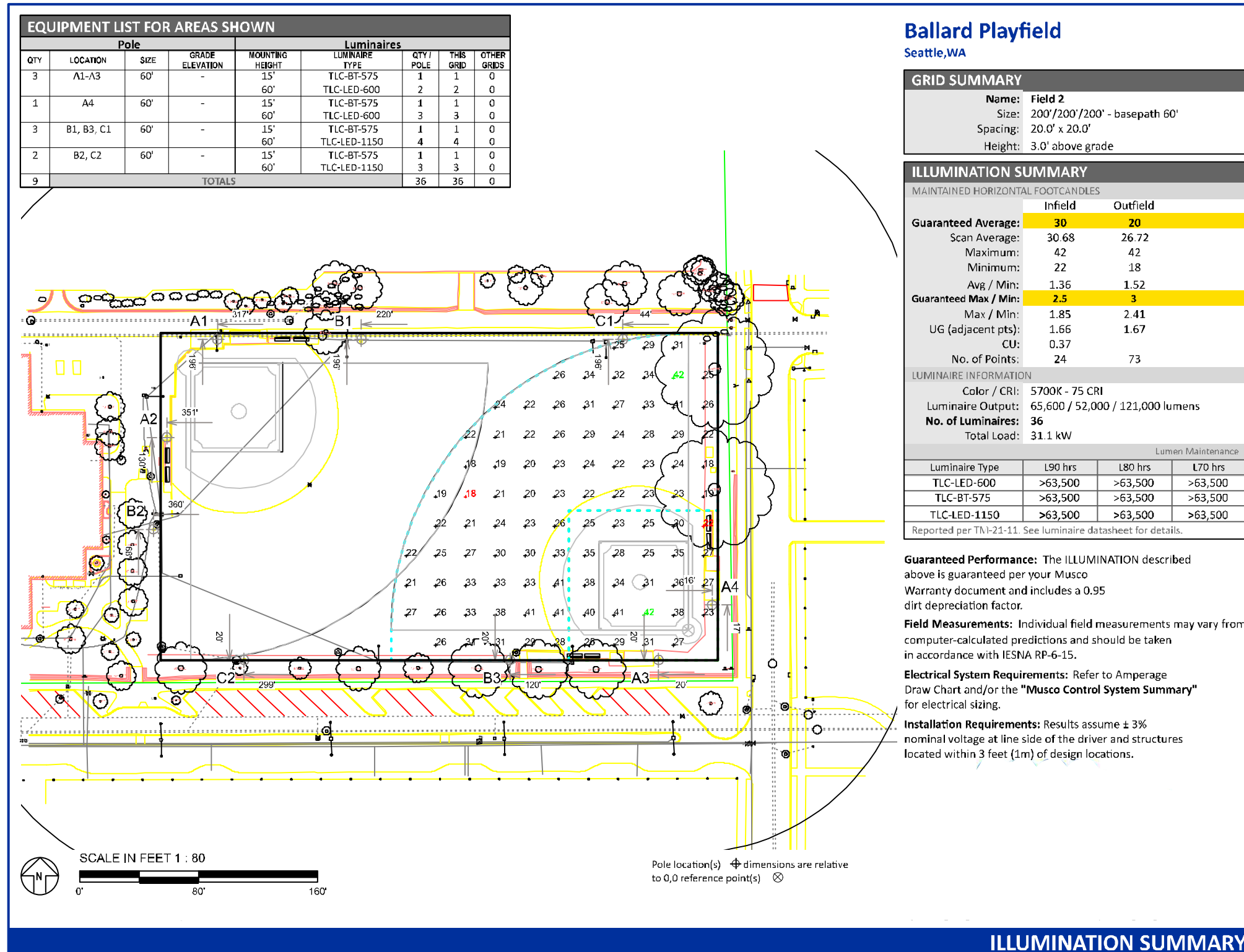


CASCADE  
DESIGN  
COLLABORATIVE



## Ballard Playground Athletic Field Improvements

# Illumination Levels: Field #1



## ILLUMINATION SUMMARY



CASCADE  
DESIGN  
COLLABORATIVE



# Ballard Playground Athletic Field Improvements



# Program and Design

## Field Upgrades

- Synthetic turf on two softball infields including inlaid lines and bases.
- Upgrading field drainage and irrigation.

## Ballfield Amenities

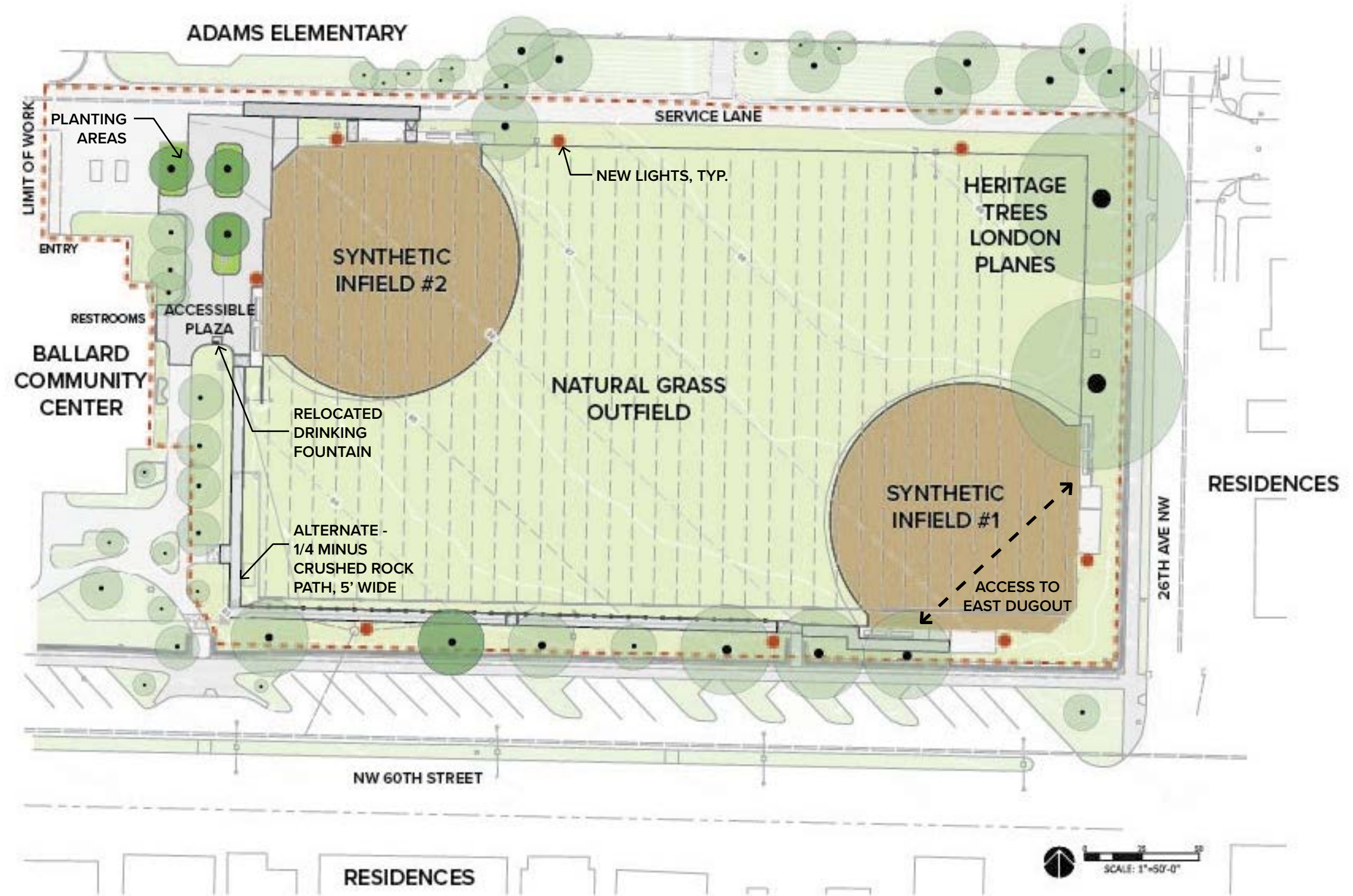
- Protect existing backstops, dugouts, and wing fences.

## Accessibility Upgrades

- Retrofitting the accessible route fo travel from teh parking lot and community center's exterior restrooms to the dugouts of each field.
- Re-grading and resurfacing travel pathways to meet surface and slope standards.
- Relocate drinking fountain for ADA compliance.

## Lighting Upgrades

- System replacement with energy efficient LED field lighting, including replacement of poles, brackets, and luminaires.
- Meet desired illumination levels and minimize glare and off-site spill lighting.
- New field lighting control system to meet Park's Energy Management Control System.



**CASCADE  
DESIGN  
COLLABORATIVE**

## Ballard Playground Athletic Field Improvements





DISCUSSION



**CASCADE  
DESIGN  
COLLABORATIVE**

**Ballard Playground Athletic Field Improvements**



# Site Inventory : Photos



**CASCADE  
DESIGN  
COLLABORATIVE**

## Ballard Playground Athletic Field Improvements