



# Flagstaff Lot 9 Development

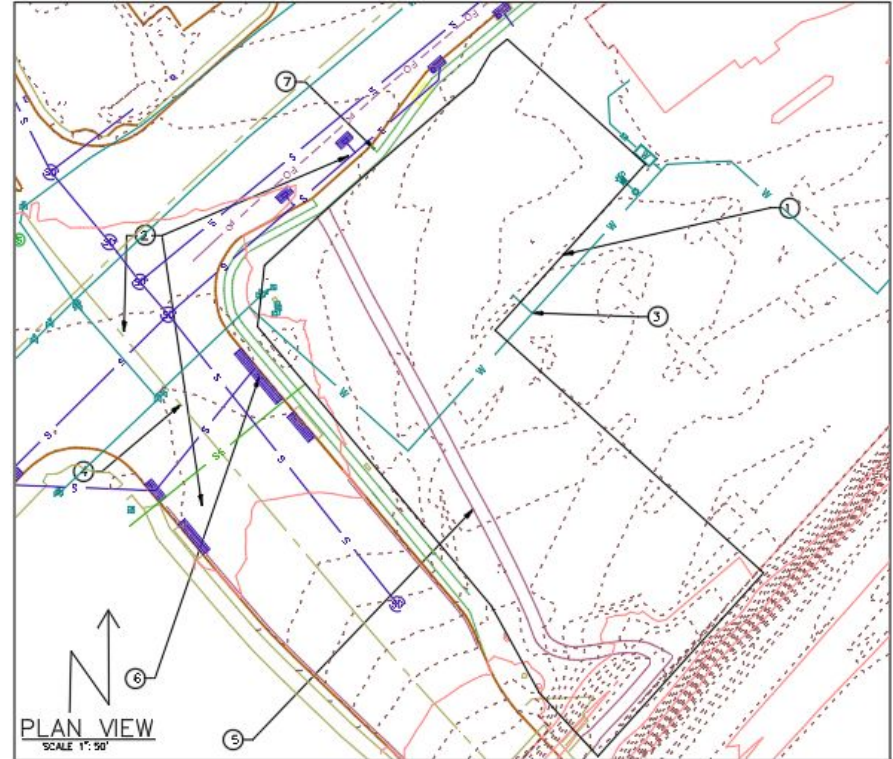


Trapper  
Peak  
Engineering



# Existing Conditions

- Bordered by 2 major roads and a railroad
- Proposed hotels on the east side
- The area is covered in fill from the 4th street project
- Minimal vegetation with sandy clay soils
- Extensive subsurface karst limestone
- No groundwater
- Utilities around the perimeter
- Walkway through middle of property



# Current Data



1

## Environmental Assessment (E.A.)

Provided by Cardno ATC, the E.A. provided elevation data, soil characteristics, and flood zones which returned only minor stormwater drainage issues.

2

## Geotechnical Report

Speedie and Associates revealed karst limestone and excavation waste, poor foundation materials, building recommendations

3

## Shephard - Wesnitzer

Project sponsor providing survey data, project oversight, and additional materials needed to complete designs.

# Design Criteria

The following have been required by the firm and client. State departments have additional requirement laid out in reports.

- City of Flagstaff coding, permitting, and regulations
  - Landscape requirements
  - Parking
- Road design requirements from MUTCD and ADOT
- Construction scheduling
- Minimum 2000 sq. ft building footprint







# Alternative and Economic Analysis

## Alternative

1

- Maximize building area, minimal parking with minimal landscape work
- Estimated cost \$2.9 million

## Alternative

2

- Minimize restaurant size but maximize parking and landscaping
- Aesthetics key, leaving north side of the lot undeveloped
- Estimated cost \$3 million

## Alternative

3

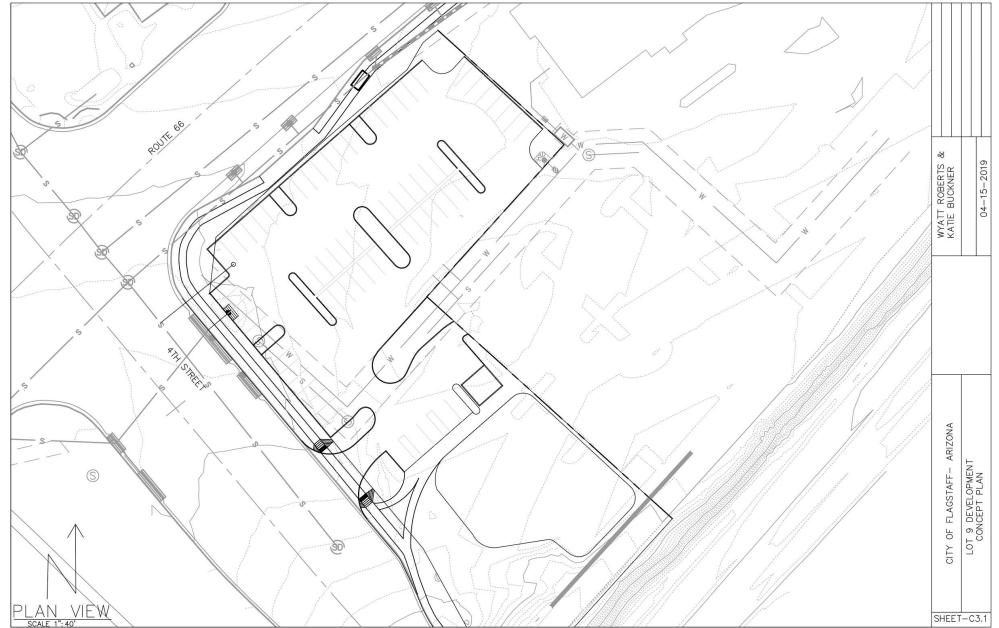
- Maximize building and parking area,
- Landscaping minimum around parking and islands.
- Estimated cost \$4.3 million

## Final Choice

- Roughly 63 parking spaces easily designed, includes 3 handicap spots and 10 for employees
- Building footprint to match parking capacity
- Improve bus stop and walking path around site

# Alternative Description

- Parking requirements (1 space per 100 sq ft)
- Landscape requirements (32 sq ft for 1 space)
- Turn return radius (25 ft)
- Distance from intersection (135 ft)
- Garbage structure
- Engineer's estimate \$5.35 million





## Environmental Impacts

LED Lighting  
**50,000**

Hours per bulb

RAP  
**100%**

Reused in  
pavement

Vegetation  
**100%**

Increase on  
property



# Social Impacts

Competition

## increase

Permanently with new  
business and more  
customers

Diversity

## increase

Permanently as the  
restaurant brings more  
options

Traffic

## increase

Temporarily as trucks  
and equipment move in  
and out

# Questions??

