Addendum documents can also be viewed at http://highlandsranch.org or http://intranet.highlandsranch.org/default.aspx

- Central Park Design Synergy
- Stormwater Project: Crossing Improvements
- Basketball Courts Replacement
Central Park Design Synergy

Design points/summary

1. Walkable community
2. Apartments/Townhome users
3. Retail + Restaurant users
4. Hospital healing garden
5. Future hospital campus
The Ramble

Design points/summary

1. Densely planted slope
2. Grand staircase
3. Gentle grassy knolls
4. Shade environment
The Ramble
The Great Lawn

Design points/summary

1. Large metal roof shade structure
2. Large grass lawn
3. Slack line poles
4. Double row of street trees
The Great Lawn
The Discovery Garden

Design points/summary

1. Maze play
2. Sound object
3. Ornamental grasses
4. Engage adult and child curiosity
The Discovery Garden
The Plaza

Central Park

Design points/summary

1. Community gather space – large shared tables
2. Bathrooms
3. Shaded areas
4. Fountain, sound + movement
5. Monumental tower plaza
The Fountain

Design points/summary
- ‘Showy’ entry jets
- Low water wall facing beer garden
- Minimalist pool wall detail
The Sheriff Tower

Design points/summary

1. Iconic scale
2. Brilliant color
3. Gestural forms
4. Functional design
The Utility Building + Bathrooms

Design points/summary

1. Combined County use
2. Integrated shade
3. Public Bathrooms
4. Drinking Fountain
5. Sheriff Controls Room
Beer Garden

Design points/summary

1. Cornhole & ping pong
2. Large community tables
3. Bathrooms
4. Shade, trees and pergola
5. Community spaces
The Beer Garden
Park Site Furnishings

Central Park

HIGHLANDS RANCH
Metro District

Shea Properties
## Shea Properties Contribution

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land – 3 AC at $10 p.s.f</td>
<td>$1,306,800</td>
</tr>
<tr>
<td>Master grading (includes rework)</td>
<td>$31,000</td>
</tr>
<tr>
<td>Sub excavation</td>
<td>$27,000</td>
</tr>
<tr>
<td>Water and Sewer Stubs</td>
<td>$5,000</td>
</tr>
<tr>
<td>Parking (54 at $1000/space)</td>
<td>$54,000</td>
</tr>
<tr>
<td>Precon. Oversight (1% of hard costs)</td>
<td>$30,000</td>
</tr>
<tr>
<td>Construction Management (7% of hard costs)</td>
<td>$210,000</td>
</tr>
<tr>
<td>Preliminary/Concept Plan</td>
<td>$100,000</td>
</tr>
<tr>
<td>Construction Documents</td>
<td>$46,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,809,800</strong></td>
</tr>
</tbody>
</table>

**Central Park**

**HIGHLANDS RANCH Metro District**

**Shea Properties**
Reimbursement Agreement

- District to reimburse Central Park at Highlands Ranch LLC actual cost of construction not to exceed 3.5 million dollars
- Currently working to value engineer final park plans
- Highlands Ranch Business Park Association will maintain fountain and maze
Stormwater Project: Crossing Improvements

- Dad Clark Gulch
Crossing Improvements

- Trail and 8 crossings built between 1982 and 1986 as part of initial trail system
- Crossings are 31 to 35 years old
- Crossings constructed with earthen material, galvanized pipes and concrete cap
- Channels were dry when crossings built
Crossing Improvements

- Over time galvanized pipes corroded
- Underlying earthen embankment eroded
- Left with concrete cap and trail with no support
- Issues with remove and replace
  - Access extremely difficult
  - 5-6 month design and construction schedule, added cost for trail and vegetation restoration
- Replacement Cost - $275,000

After inspection of crossings it was determined two conditions existed:
1. Pipes were severely corroded and earthen embankment was almost completely eroded
2. Pipes/end sections were corroded but embankment still in place.

Options for repairs were evaluated and two methods were used.
Crossing Improvements

Action plan when pipe and embankment have significantly eroded

- Remove crossing top (trail)
- Remove existing galvanized culvert and replace with HDPE pipe (100 year lifespan)
- Backfill with grout mix and resurface
- 2 week construction schedule
- Minimal impact to surrounding resources - Trail is fully closed
- Maintains flow capacity
- Supported by Stormwater Fund
- Cost $35,000 - a savings of $240,000
Crossing Improvements

Action plan when pipes are corroded and embankment is not severely eroded
• Slipline existing pipe (SAERTEX-LINER, 70 year life-span)
• Inject void fill expansion foam into crossing
• Grout new flared-end sections
• Minimal impact to surrounding resources
• Trail can be opened in mornings and evenings
• Limited contractors available to complete work
• Cost $35,000 a savings of $240,000
• Supported by Stormwater Fund
• Phased in project – 2 crossings annually
Crossing Improvements

- Remove and replace pipes and cap used for Remington Bluffs trail crossing - 2016
- Slipping pipe and foam injection utilized for two crossing repairs in Dad Clark - 2017

The Next Steps
- Budget request approved for 2017 for two crossings
- Based on success continue program in 2018 and 2019
Crossing & Trail Improvements

**Project Summary**
Cost to repair 8 crossings = $280,000
Cost to replace 8 crossings = $2.2 million
Questions?