

CYPRESS PLAYGROUND AND ATHLETIC FIELD SCOPING SESSION

MEETING #2

October 10, 2017



AGENDA



Recap/Tonight's Purpose



Character of the Park



Revised Concept Plan



Human & Environmental Impact



Cost Analysis



Recap/Tonight's Purpose

» CYPRESS PLAYGROUND AND ATHLETIC FIELD

Existing Conditions Plan





Character of the Park

» CYPRESS PLAYGROUND AND ATHLETIC FIELD

Existing Conditions Plan





Character of the Park

» CYPRESS PLAYGROUND AND ATHLETIC FIELD

§ MATURE TREES AND SHADY EDGES





Character of the Park

» CYPRESS PLAYGROUND AND ATHLETIC FIELD

§ MATURE TREES AND SHADY EDGES





Character of the Park

» CYPRESS PLAYGROUND AND ATHLETIC FIELD

§ HIGH SCHOOL AND THE PARK – PICNIC AND PLAY





Character of the Park

» CYPRESS PLAYGROUND AND ATHLETIC FIELD STUDY

§ OPEN GREEN SPACE AND SPORT FIELDS





Character of the Park

» CYPRESS PLAYGROUND AND ATHLETIC FIELD

§ MAINTAIN THE CHARACTER/REVISED CONCEPT





Revised Concept Plan

» CYPRESS PLAYGROUND AND ATHLETIC FIELD

§ MAINTAIN THE CHARACTER/REVISED CONCEPT

§ 1.5 AC of natural grass park area – 2.89 AC of athletic field area





Revised Concept Plan

» CYPRESS PLAYGROUND AND ATHLETIC FIELD

§ MAINTAIN THE CHARACTER/REVISED CONCEPT

§ Providing a seamless transition



20'



MIN 15' / MAX 30'



Human & Environmental Impact

» SURFACE TEMPERATURE

NATURAL GRASS
SYSTEMS

JUST BELOW THE AMBIENT TEMP

SYNTHETIC TURF
(EXISTING TOWN FIELDS)

35 TO 55 DEGREES HOTTER

NEW SYNTHETIC TURF
SYSTEMS – HEAT
REFLECTING FIBER

15D COOLER THAN THE
CURRENT SYSTEMS

WITH AN ORGANIC INFILL

AN ADDITIONAL 15D COOLER

IRRIGATION SYSTEM PROVIDED
FOR ADDITIONAL COOLING



Human & Environmental Impact

» GMAX AND FIELD SAFETY

The higher the g-max value, the poorer the shock-attenuation performance of the surface. Measuring impact-attenuation is a fundamental tool of athletic field safety testing. It is also useful in assessing the playability of a field (scale 0-200).

NATURAL GRASS – WELL
MAINTAINED

85-95 GS

NEW SYNTHETIC TURF
SYSTEMS – WITH SAFETY
PAD

75-95 Gs

NATURAL GRASS –
WITHOUT GRASS COVER

95 – 150+ Gs, depending on
root mass, moisture content,
soil compaction, etc.



Human & Environmental Impact

» TURF FIBERS AND ORGANIC INFILL

TURF FIBERS AND INFILL - pass EN-71-3: Safety requirements for toys, (-3) migration of certain elements.

UV STABILIZERS AND HEAT REDUCTION - state-of-the-art hindered amine light stabilizers (HALS). The producers of HALS masterbatches also produce masterbatch materials for food packaging, so most of the HALS have gone through the stringent FDA approval process for food contact.

No Lead or metals are used as stabilizes.



Human & Environmental Impact

- » HERBICIDES, FUNGICIDES & PESTICIDES

Are typically used to maintain a high quality grass surface. With the adjacent school use these products are not allowed to be used making it difficult to maintain a quality surface.

- » FERTILIZERS

EPA's clean water act goal is to reduce phosphorus discharges to the lower Charles by 54 percent to restore the river to a healthy state.



Human & Environmental Impact

» FERTILIZER RATES

Generally fertilizer (nitrogen, phosphorus*, potassium and sometimes others, like iron.) application rate 100 lbs.

AMENDED TOP SOIL FIELD 4 TIMES A YEAR

SAND BASED SOIL FIELD 7-8 TIMES A YEAR

Soil should be test every few years.



Cost Analysis

CAPITAL COSTS

Include design, engineering and permitting, full construction for the park renovation, contingency's and escalation. Anticipating a 2020 construction.



Cost Analysis

CAPITAL COSTS	TOTAL	FIELD
» AMENDED TOP SOIL FIELD	\$3.79 M	\$0.51 M
» SAND BASED SOIL FIELD	\$4.33 M	\$1.05 M
» SYNTHETIC TURF FIELD	\$5.24 M	\$1.96 M



Cost Analysis

TYPICAL ANNUAL MAINTENANCE

» AMENDED TOP SOIL FIELD

Mowing, fertilizer, water, over seeding, aeration,
herbicide & pesticides

» SAND BASED SOIL FIELD

Mowing, fertilizer, water, over seeding, aeration,
herbicide & pesticides

» SYNTHETIC TURF FIELD

Grooming, sweeping, inspecting/adding infill,
addressing goal areas, water etc.



Cost Analysis

TYPICAL ANNUAL MAINTENANCE COSTS

- » AMENDED TOP SOIL FIELD \$50,000
- » SAND BASED SOIL FIELD \$70,000
- » SYNTHETIC TURF FIELD \$18,000



Cost Analysis

FIELD LIFE CYCLE COSTS
20 YEARS

TOTAL

PER HOUR
OF USE

- » AMENDED TOP SOIL FIELD \$2.23 M \$232
(PROGRAM AS RECOMMENDED,
600 HOURS/YEAR)
- » SYNTHETIC TURF FIELD \$4.21 M \$104
(PROGRAM UP TO 2000 HOURS)



Cost Analysis

FIELD LIFE CYCLE COSTS
20 YEARS

TOTAL

PER HOUR
OF USE

- » AMENDED TOP SOIL FIELD \$2.23 M \$93
(AS CURRENTLY PROGRAMED
3X RECOMMENDED, 1450 HOURS/YEAR)



Questions, Ideas, Suggestions?

