

**PRESENTATION**  
**CITY OF NEWPORT BEACH**  
Engineering Preliminary Study for Synthetic Turf Project





# INTRODUCTION



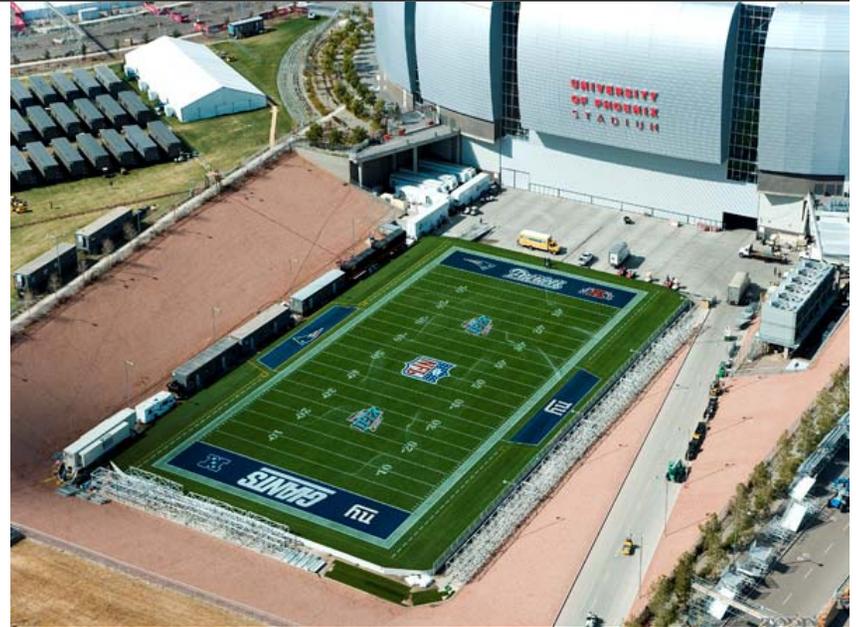
- **CMX Sports Engineers**
- **Project Approach**
- **Engineering Preliminary Study**
- **Conclusions & Recommendations**
- **Questions**



# SERVICES

## Services

- Feasibility Studies
- Site Investigations
- Survey & Mapping
- Programming/Planning
- Design Development
- Independent Product Evaluation & Selection
- Construction Documents Preparation
- Budgeting & Scheduling
- Construction Administration
- Sports Lighting



*"CMX has long been a trusted partner of the Arizona Cardinals—from managing the construction of our Tempe, Arizona, Training Facility and practice fields to the planning and design of the innovative roll-out grass playing field at the new Cardinals Stadium in Glendale, Arizona. CMX brings a true professionalism to its projects—and I know we are benefiting by the direct working relationship we enjoy with them."*

— Michael Bidwill, Vice President  
Arizona Cardinals; Tempe, Arizona



## **PROJECT APPROACH**

- **Information Gathering**
- **Site Visits/Documentation**
- **Rough Draft**
- **Review & Comments**
- **Final Report**



# PRELIMINARY STUDY

## Existing Conditions

- Maintenance Practices
- Amenities
- Programming



# PRELIMINARY STUDY

## Selection Criteria

- Construction Costs
- Current Programming
- Utilities/Infrastructure
- Parking
- Annual Maintenance
- Users/Cost per User



# PRELIMINARY STUDY

## Proposed Field Layouts

### Lincoln Athletic Center





# PRELIMINARY STUDY

## Proposed Field Layouts

### Sunset Ridge





# PRELIMINARY STUDY

## Proposed Field Layouts

### Bonita Creek Park





## **PRELIMINARY STUDY**

# **Engineer's Estimate of Probable Costs**

- **Basis of Engineer's Estimate of Probable Costs**
- **Conditions of Construction**
- **Inclusions**
- **Exclusions**
- **Overall Summary of Costs**



# PRELIMINARY STUDY

## Engineer's Estimate of Probable Costs

<b>Park – Components:</b>	<b>\$ Amount</b>
Arroyo Park	1,490,224
Bob Henry Park	952,966
Bob Henry Park (Bid Alternate)	666,918
Bonita Canyon Sports Park	1,073,193
Bonita Creek Park – Football/Soccer	970,755
Bonita Creek Park – Football/Soccer/Softball	1,908,579
Buffalo Hills Park	1,096,692
Buffalo Hills Park (Bid Alternate)	666,918
Coastal Peak Park	963,804
Eastbluff Park	1,261,685
Eastbluff Park (Bid Alternate)	654,672
Grant Howald Park	834,725
Irvine Terrace Park	1,149,151
Lincoln Athletic Center – Football/Soccer	1,156,433
Lincoln Athletic Center – Football/Soccer/Auxiliary Soccer	1,804,321
Mariners Park	714,413
Mariners Park (Bid Alternate)	459,560
Peninsula Park	979,527
Sunset Ridge Park	1,647,273



# PRELIMINARY STUDY

## Ranking Matrix

		Development Cost		Organized Sports		Utilities		Parking				Annual Maintenance Savings		Increase in Participants		Cost per Participant		TOTALS	
		Proposed Estimate of Engineers Probable Costs	Points	# Of Sports (Soccer, Baseball, Football & Softball)(Adult & Youth)	Points	Sports Lights: Permanent(P)/Temporary(T)	Points	On-Site	Off-Site	Total Parking	Points	Annual Renovation Savings	Points	Added Participants	Points	Cost Per Participant/Projected	Points	Total Points	Ranking (1 to 15)
1	Bonita Creek Park-Football/Soccer	\$971,000	5	3	3	P	6	107	20	127	3	\$ 53,273	6	50,302	6	\$4.50	6	35	1
2	Bonita Creek ParkFootball/Soccer/Softball	\$1,909,000	1	5	5	P	6	107	20	127	3	\$ 70,158	7	67,069	7	\$9.02	5	34	2
3	Lincoln Athletic Center-Football/Soccer	\$1,156,000	4	3	3	P	6	80	0	80	2	\$ 17,296	2	40,241	5	\$6.98	5	27	3-T
4	Lincoln Athletic Center-Football/Soccer/Auxillary Field	\$1,804,000	1	5	5	P	6	80	0	80	2	\$ 27,320	3	53,655	6	\$10.89	4	27	3-T
5	Grant Howald Park & Fields	\$835,000	5	3	3	P	6	63	65	128	3	\$ 10,689	2	21,462	3	\$12.63	4	26	5
6	Arroyo Park & Field	\$1,485,000	3	4	4	P	6	51	0	51	2	\$ 27,642	3	31,299	4	\$15.37	3	25	6
7	Bonita Canyon Sports Park	\$1,073,000	4	2	2	T	0	20	204	224	5	\$ 20,797	3	49,184	5	\$7.05	5	24	7
8	Mariners Park	\$715,000	6	3	3	N	0	45+/-	30+/-	75	2	\$ 9,326	1	35,770	4	\$6.49	5	21	8
9	Bob Henry Park & Field	\$953,000	5	3	3	N	0	51	0	51	2	\$ 9,597	1	26,828	3	\$11.59	4	18	9-T
10	Buffalo Hills Park & Field	\$1,097,000	4	3	3	N	0	31	130	162	4	\$ 13,849	2	17,885	2	\$19.97	3	18	9-T
11	Coastal Peak Park & Fields	\$964,000	5	3	3	N	0	39	0	39	1	\$ 16,636	2	17,885	2	\$17.44	3	16	11
12	Sunset Ridge Park	\$1,647,000	2	2	2	N	0	72	0	72	2	\$ 21,320	3	26,828	3	\$19.96	3	15	12
13	Irvine Terrace Park & Field	\$1,149,000	4	1	1	N	0	-	60	60	2	\$ 15,032	2	17,885	2	\$20.87	2	13	13-T
14	Peninsula Park & Field	\$980,000	5	1	1	N	0	117	0	117	3	\$ 12,785	2	8,943	1	\$35.57	1	13	13-T
15	Eastbluff Park & Field	\$1,262,000	3	3	3	N	0	40	0	40	1	\$ 13,989	2	17,885	2	\$22.95	2	13	13-T



# SYNTHETIC TURF

## **Synthetic Turf Field Benefits**

- **Consistency / Playability**
- **Safety**
- **Increased Usage**
- **Water Savings**
- **Labor Savings**



# ENVIRONMENTAL ISSUES

## **Environmental Issues** Related to Synthetic Turf Fields

- **Heat**
- **Toxicity**
- **MRSA**



# CONCLUSION

- **Conclusions**
- **Recommendations**
- **Questions**

**Thank You!**