



## REQUEST FOR BOARD ACTION

BOARD MEETING DATE: August 7, 2008

TITLE: **GREAT PARK DESIGN STUDIO 70% MAJOR MILESTONE REVIEW**

  
Interim Chief Executive Officer

### RECOMMENDED ACTION:

1. Recommend City Council approval of the 70% Major Milestone Review submittal and issuance of a Notice of Approval and authorization to issue a Notice to Proceed, subject to the following conditions:
  - a. The Design Studio shall confer with the appropriate City departments to confirm that any changes or refinements shown on the 70% Major Milestone Review submittal are consistent with the regulatory restrictions that apply to the Great Park, including conditions of approval of Vesting Tentative Tract Map 17008 and the Great Park Master Plan. Any changes required to be consistent with regulatory requirements shall be made by the Design Studio at no additional cost.
  - b. The Program Manager shall initiate extended oversight during invoice review, to include "page turning" workshops as necessary, in order to achieve the world class schematic design envisioned by the Board. Particular attention shall be paid to coordination of design elements and disciplines with a special emphasis on achieving the Board's sustainability goals.
  - c. The Corporation shall coordinate a budget review with the Program Manager and the Design Studio that will reconcile the Project Budget prior to approval of an Earned Value invoice in excess of 80% of the Schematic Design budget.
  - d. Schematic Design of the Sports Park, Botanical Garden, and Cultural Terrace shall not move beyond the 70% Major Milestone level of completion until the next level feasibility studies for these three geographies are sufficiently completed to inform the design.

- e. Feasibility analyses of the Art and Culture Exhibition Space, Amphitheatre, Library, Multi-Cultural Center, and National Archives shall not be completed until the Cultural Terrace feasibility study is presented to the Board for review and approval.
  - f. Feasibility analyses of the Center for Community Organizations shall not be completed until the Sports Park and Cultural Terrace feasibility studies are sufficiently completed to determine an appropriate location for the facility.
  - g. Schematic Design of the Agua Chinon and the Wildlife Corridor shall not proceed beyond the 70% Major Milestone level of completion until directed by the Corporation.
2. Recommend that the City Council authorize the remaining Major Milestone reviews of Construction Documents for mass grading, the Agua Chinon, and the Upper Wildlife Corridor be conducted at staff level with a summary report provided to the Board and City Council.

**EXECUTIVE SUMMARY:**

On July 24, 2007, the City Council extended the Design Studio's services to develop the Schematic Design for the Great Park and to develop permit-ready construction documents for the mass grading of the entire site, the Upper Wildlife Corridor from Irvine Boulevard to the Borrego Creek flood control channel, and the Agua Chinon. The design work is based on the Master Plan approved by the Planning Commission on August 2, 2007.

Under the Schematic Design Contract, Major Milestone Reviews are to be conducted at the 30%, 70%, 97% and 100% levels of progress for the design work. In accordance with the requirements set forth in the City's contract with the Design Studio, to memorialize the approval of a Major Milestone Review submittal, the City Council is required to issue a Notice of Approval and authorize a Notice to Proceed.

The construction documents for park-wide mass grading, the Wildlife Corridor, and the Agua Chinon are not being considered for 70% review at this time. As these documents are technical submittals that follow from the Schematic Design work, staff recommends that the Major Milestone reviews of Construction Documents be conducted at staff level with a summary report provided to the Board and City Council as a Consent Calendar item.

On July 10, 2008, the Great Park Design Studio presented to the Board an overview on the progress of the Schematic Design since the 30% Major Milestone review, emphasizing the changes and enhancements to the various Park Districts.

The Design Studio has presented the Schematic Design for review at the 70% level and represented that it is consistent with the City-approved Great Park Master Plan and that none of the refinements rise to the point of reapproval of the Master Plan. Based on this representation and review of the submittal, staff therefore recommends that the Great Park Board recommend City Council approval of the 70% Major Milestone Review submittal and issuance of a Notice of Approval and Authorization to Proceed, subject to the conditions outlined in the staff recommendation.

**COMMISSION/BOARD/COMMITTEE RECOMMENDATION:**

Not applicable.

**STATEMENT OF THE ISSUE**

**History:**

On July 24, 2007, the Irvine City Council authorized the execution of a contract with the Great Park Design Studio for the next phase of work on the Orange County Great Park. The contract extended the Design Studio's services as contemplated in the original Master Design Agreement to develop the Schematic Design for the Great Park; to develop permit-ready construction plans, specifications and cost estimates for the mass grading of the entire site, the construction of the Upper Wildlife Corridor from Irvine Boulevard to the Borrego Creek flood control channel, and the construction of the Agua Chinon; and to establish reasonable cost estimates for the Great Park features included in the Schematic Design.

The design work is based on the Master Plan approved by the Planning Commission on August 2, 2007. The Design Studio is responsible for ascertaining all the legal, regulatory, and contractual restrictions on the Great Park and for developing the Schematic Design and other deliverables in compliance with those restrictions.

The contract does not have a specified completion date. A Performance Period for the completion of the Schematic Design was assumed by the Design Studio at twelve (12) months. The twelve month period was originally considered necessary to meet the grading and construction schedule contemplated by Heritage Fields as it relates to the development of the backbone infrastructure. As the process for achieving consensus on the joint backbone and the entitlement process for the Heritage Fields development program has extended, a Performance Period longer than twelve months has occurred.

Under the Contract, Major Milestone Reviews are conducted at the 30%, 70%, 97% and 100% level of progress for the design work (Schematic Design and park-wide mass grading, Wildlife Corridor, and Agua Chinon construction documents). The reviews are important for the City as they afford the Board and City Council the opportunity to review

the progress of the Great Park Design Studio towards completion of the Schematic Design and the construction documents. These reviews serve as a mechanism to ensure that the Great Park is being planned consistent with the Master Plan and in alignment with the Board's vision. The reviews are also important milestones to the Design Studio, as no further invoices can be paid until the City concurs in writing that the appropriate level of progress has been achieved at each Major Milestone Review.

On December 13, 2007, the Board recommended City Council approval of the 30% Major Milestone submittal and issuance of a Notice of Approval and Authorization to Proceed, subject to the conditions. At its January 8, 2008 meeting, the City Council issued the Notice of Approval.

The Board is entitled to direct changes to the Schematic Design documents at or between Major Milestone Reviews, as these changes must be accomplished within the contract at the sole cost and expense of the Design Studio. If the Board requires changes to Schematic Design documents that have been previously reviewed and approved at a Major Milestone Review, then the Design Studio may be entitled to additional compensation for those revisions. In order to memorialize the approval of the 70% Major Milestone Review submittal, the City Council is required to issue a Notice of Approval and Authorization to Proceed.

## **Analysis and Discussion:**

### **1. Major Milestone Review process**

At the 70% Major Milestone review, the Design Studio submits plans that have progressed to approximately the 70% level of schematic design. This contract requirement provides the Board with an opportunity to review progress and to provide guidance and direction to the Design Studio regarding their on-going work efforts. It is expected that the design for the Great Park will evolve and the plan will mature through the Schematic Design process. The Major Milestone Review is not so much a reflection of the work effort to date but rather a snapshot of 70% of the Schematic Design. The work submitted at a Major Milestone represents an overall level of progress at that particular percentage. A 70% level of Schematic Design does not mean that all elements are completed to the 70% level, but that the plan overall is at the 70% level. Some elements therefore will be more advanced than others.

The construction documents for park-wide mass grading, the Wildlife Corridor, and the Agua Chion are not being considered as part of the current submittal. Work on these documents is being progressed in coordination with Heritage Fields' planning efforts for the private development. Heritage Fields recently revised its development phasing from their initial concept which focused on starting in the Park District to now focusing early development in the Lifelong Learning District. As a result, proposed grading and drainage modifications have come forward and the Design Studio has elected not to

progress their work efforts on these construction drawings pending resolution of these matters.

In accordance with the City's contract with the Design Studio, to memorialize the approval of the 70% Major Milestone Review submittal, the City Council is required to issue a Notice of Approval and authorize the issuance of a Notice to Proceed. Staff is recommending that the Board recommend that the City Council issue the Notice.

## **2. Schematic Design Progress**

The Design Studio has presented the Schematic Design for review at the 70% level and represented that it is consistent with the City-approved Great Park Master Plan and that none of the refinements rise to the point of reapproval of the Master Plan. In addition, the Design Studio has provided the following reports detailing the status of all the work-in-progress. For ease of understanding, all Design Studio comments are shown *in italics* throughout this report

- a) Ken Smith Landscape Architect (KSLA) narrative report on the status of deliverables for Design (Scope A of the Schematic Design contract) – see Attachment A. The Design Studio reports that the submitted 70% Schematic Design Milestone is consistent with the approved Great Park Master Plan.
- b) Fuscoe Engineering narrative report on the status of deliverables for Engineering (Scope B of the Schematic Design contract) – see Attachment B. The Design Studio reports that the 70% plans under the purview of Fuscoe Engineering are consistent with approved Master Plan except as otherwise noted below:
  - i. *Sewer as proposed in the 70% Schematic plans is consistent with the approved Master Plan.*
  - ii. *Water as proposed in the 70% Schematic plans is consistent with the approved Master Plan.*
  - iii. *Roadway Circulations:*
    - *Perimeter vehicle entrances into park property are consistent with the approved Master Plan.*
    - *Interior circulation through Sport Park is not consistent with approved Master Plan as the site plan is still evolving.*
  - iv. *Drainage and Storm Drain:*
    - *Bosque Storm Drain along east edge of Bosque is no longer a pipe as shown in the approved Master Plan, but an above ground vegetated drainage channel as shown in the 70% Schematic Plans.*

- *Lake outlet pipe no longer cuts through Orchard Parking Lot into Marine Way as shown in the approved Master Plan, but connects into the backbone storm drain in Great Park Boulevard as shown in the 70% Schematic Plans.*
- *The dual storm drain pipes along both sides of the stream at the floor of the canyon as shown in the approved Master Plan has been eliminated in the 70% Schematic Plans.*
- *Drainage for the Expo Parcel was not addressed in the approved Master Plan document. In the 70% Schematic Plans, drainage for the Expo Parcel will be conveyed to Agua Chinon via a storm drain system along the easterly edge of the canyon.*

v. *Water Quality:*

- *The Best Management Practices (BMPs) as proposed in the 70% plans/report have evolved to better fit with the Master Design changes and to better meet with the emerging water quality concerns with the San Diego Creek Watershed. The quality and quantity of treated runoff from the approved Master Plan and 70% Schematic are equivalent or better.*

- c) Gafcon narrative report on the status of Design Management (Scope C of the Schematic Design contract) – The Design Studio provided the following update:

*The Design Management effort through the 70% Schematic Design milestone included various enhancements, such as an updated Great Park SharePoint site where all project documents are stored and can be accessed by all project team members. The Design Management effort has been largely focused on moving the schematic design forward and coordinating the efforts of approximately thirty (30) consultants performing work on the project. This effort also includes the coordination and management of monthly workshops/work sessions that have provided a platform for collaborative design efforts for both the architectural and engineering disciplines. The Design Management scope also includes Joint Venture administration of the Design Studio including contract administration, invoice preparation and project cost control as well as other business administration tasks. The specialty services performed under this scope of work focused largely on the Public/Private Funding where the Design Studio worked with the OCGPC to review/apply for various ongoing funding opportunities.*

- d) Forde and Mollrich narrative report on the status of Strategy and Communications (Scope D of the Schematic Design contract) – The Design Studio provided the following update:

*The Strategy and Communications effort through the 70% Schematic Design milestone has included progress on various components of the Strategy and Communications scope focusing primarily on community based planning, media relations and strategic planning. Specialized consultants were contracted by the Design Studio to assist in specific areas including a national public relations campaign. The media briefings performed under this scope of work provide monthly exposure for the project and highlight the progress of the design.*

### **3. Schematic Design Refinements**

The Schematic Design shows how the park concepts are evolving as well as how the Great Park Design Studio is making adjustments to ensure the elements of the park are buildable. On July 10, 2008, the Great Park Design Studio presented to the Board an overview on the progress of the Schematic Design since the 30% Major Milestone review, emphasizing the changes and enhancements to the various Park Districts.

The Design Studio is required to report any deviations or changes from the approved Master Plan or changes or advancements to the plan that may take the Schematic Design out of compliance with any legal, regulatory, and contractual restrictions. In Attachment A, the Design Studio has listed the changes in and enhancements to the Park Districts and has represented that the Schematic Design is consistent with the City-approved Great Park Master Plan.

The Park Districts are described by the Design Studio *in italics* below. Staff has inserted additional comments in specific districts, as appropriate. In addition, staff has provided cost estimates per district listing the Design Studio's cost estimate.

The 70% review provides the Board with the opportunity to review the progress of the Schematic Design and provide comments on the framework features or highlight their concerns, as appropriate.

#### **a) Trabuco Entry**

*The Trabuco Entry serves as the major entrance to the Great Park adjacent to the Life Long Learning District of Heritage Fields. The features of Trabuco Entrance include: the Trabuco Gate which symbolically creates a visual and physical portal into the Great Park; the Trabuco Fountain; a sizable plaza area allowing for flexible event type activities; a Café; and Bicycle Station; Art Integration; and surface parking with Photovoltaic Shade structures. The monument is a component of the park wide signage, a possible seating element and an installation of the required park wide art integration.*

Staff notes that a new feature, the Great Park monument, has been added to the Trabuco Entry. This feature will incorporate the use of recycled runway materials in block form to spell out "Great Park" across the plaza. Staff will be coordinating with the Design Studio to determine the impact of this art feature on the functionality of the plaza space for uses previously identified, such as a farmer's market. In addition, the refinements to the plaza design will require coordination with the City's Public Safety and Public Works Transportation sections to address access, lighting, and safety.

b) Bosque

*Along the Park's western edge, the Bosque acts as a flowering arboretum for the Park. The shaded public walkway of the Esplanade allow public access that transverse the entire length of the Western border of the Bosque at the Park. Also included in the Bosque are a series of Pocket Parks such as, Meditation Garden, Community Agricultural Gardens, and Children's Play Area.*

Staff notes that the edge treatment for the Esplanade needs to be coordinated with Heritage Fields as this park feature serves as the boundary with the Lifelong Learning District.

c) Fields and Meadows

*A combination of agriculture fields and open space for the Great Park. The Fields are comprised of agriculture plots of row crops, heritage fruit trees, and other important regional fruit and nut grove trees. The Great Lawn is a large open turf area, which will allow for organized and informal group activities and for the potential inclusion of non-permanent recreation fields, such as, Baseball or Soccer.*

*The current Schematic Design development is consistent with the approved Master Plan. The Design Studio has been reviewing the VOR restrictions and how they might impact the build out design of the Great Park. The VOR restrictions evaluation, however, has not been completed; therefore the Design Studio's plans are consistent with the Great Park approved Master Plan at this time.*

Staff notes that the alternative energy source Sterling Dish arrays have been relocated from the Upper Canyon area to the Fields and Meadows. The cost of the Sterling Dishes (\$2,500,000 per dish) is not included in the cost estimate and if approved would increase the total cost for this component by \$25,000,000.

The Design Studio will need to resolve how the Great Lawn and non-permanent recreation fields will reconcile with the Agriculture and Food programs described in Section 6 Priority Program Feasibility Studies.

d) Sports Park

*The location in the Park developed to support organized sport activities, such as soccer, ball fields, basketball, tennis, and others. The 70% Schematic Design shows sports fields with free and clear access to the public in perpetuity. Also included is the Palm Parade which will provide multi-generational and small-scale recreational activities, such as, shuffle board, chess, table tennis, tot lots, etc. Parking in the Sports Park flanks the Palm Parade.*

*The Aircraft Museum will memorialize the military history of the former Marine Corp Air Station. Located within and surrounding the 1942 historic aviation hangar #244; the Aircraft Museum focuses on public education, artifact storage, renovation, maintenance, and displays. Auxiliary buildings that served this historic hangar are being evaluated as additions to the Aircraft Museum complex.*

Staff notes that the Aviation Museum/Fire Museum has been included in the cost estimate as a component of the Sports Park. The soccer and baseball field layouts may need to be revised to accommodate the Navy's existing extraction well layout should the revisions to the system proposed by the Design Studio not be approved in time for construction. The edge treatment must be coordinated with Heritage Fields, as this park feature serves as the boundary with the Lifelong Learning District. In addition, the boundary between Heritage Fields and the Sports Park will include the planned future right-of-way for the Irvine "fixed guideway."

Staff notes that the City applied a specific condition to VTTM 17008 regarding this property. Condition 6.27.8 of VTTM 17008 states that Community Park requirements for Heritage Fields shall be met at the Park Site and/or at the Sports Park in perpetuity, by allocating permanent public access to that portion of the facility.

Since the Sports Park feasibility study will provide "clarification in terms of scale, sponsorship, revenue sources, location, and development sequence", staff has determined that the study should be a precursor to furthering the Schematic Design in this district. See Section 6 Priority Program Feasibility Studies for the details of the staff recommendation. Also see Section 6 for further analysis of the Aviation Museum/Fire Museum feasibility study.

It should also be noted that the Primary Maintenance facility is included in the Sports Park for budget purposes. The budget does not include the cost of the biodigester shown in this location.

e) Orchard Parking

*This is the major parking area for the Great Park located adjacent to the Cultural Terrace and the Sports Park districts. A major feature of Orchard Parking is the Citrus Orchard reminiscent of Orange County's agricultural heritage history. Sustainability features developed within the parking area include pervious pavement and bio-swales.*

Staff notes that agricultural operations may be incompatible with a large parking lot and has expressed concerns about harvesting of fruit, interim closures of parking areas, and potential safety. The Design Studio is considering these issues as they move the design forward to 97%.

It should also be noted that modifications to the Navy groundwater extraction system are an important component of the proposed design.

f) Lower Canyon/Lake

*The Lower Canyon is the cultural center of the park, which includes the Upper and Lower Lake, Waterfall, Botanical Garden, Tea House, and Cultural Terrace that support cultural institutions, performance spaces, and spaces for social gatherings and events. The cultural terrace of the Great Park features a hundred foot-wide shade tree-lined terrace serving as a key pedestrian and social space linking the major cultural facilities. The terrace spaces include significant cultural institutions, performance venues, and social gathering spaces bordering the man-made lake.*

*The Botanical Garden is the jewel of the Great Park. Landscape terraced gardens will border on the Lake allowing for spectacular views beyond the garden. Some of the potential collections may include: Butterfly Garden, California Native Garden, Food and Nutrition Garden, Lotus garden, Oak collection garden. The Conservatory Botanical Garden Bridge allows for garden exhibit space while meandering to the entrance from the Cultural Terrace to the Botanical Gardens.*

Staff notes that the Conservatory Bridge (\$7,377,131) is intended to be an open air structure with an internal walkway to bring visitors above the deck-level display area. The facility will not be air conditioned in its current configuration.

The Botanical Garden includes three outdoor escalators (\$675,000) for alternative access from the Conservatory Bridge to the Lake elevation. The Design Studio will need to address accessibility issues with regard to the changing elevations at the Lake edge.

Since the Cultural Terrace Feasibility Study will develop a comprehensive planning, design, and programming approach and strategy for land uses, buildings, and facilities in the Cultural Terrace and Botanical Garden, staff has determined that Schematic Design of these elements should not move beyond the 70% Major Milestone level of completion until the study is sufficiently completed to inform the design. See Section 6 Priority Program Feasibility Studies below for the details of the staff recommendation.

g) Promenade of the Senses

*The Promenade creates a physical and visible open space corridor for the Great Park. Included within the Promenade is the Promenade of Senses showcasing the five senses of sight, sound, taste, smell, and touch. Also included is the Preserved Runway to connect the Park visitors to the military heritage of the site. The northern end of the Promenade features the Bowling Green which will allow for various recreational activities. The Promenade creates a visual linkage from the Great Park to the Transportation Oriented District of Heritage Fields.*

*Land Bridge at the Promenade: At the center of the Promenade, where the lake and Cultural Terrace meet the Upper Canyon, lies a unique opportunity to create a grade separated crossing above the canyon stream. Below the vibrant activity of the Promenade, a quiet, contemplative path winds through a 45 foot tall parabolic arched tunnel with a 15 foot diameter oculus. The oculus will provide a soft natural light, which will facilitate a small fern and moss garden on the walls and floor of the tunnel. In addition to natural light, the walls of the tunnel will be washed with lighting fixtures at the base.*

Staff notes that the Land Bridge (\$6,140,595) is included in the Upper Canyon cost estimate. The oculus in the bridge will allow visitors to look down into the tunnel.

h) Timeline and Linear Ramble

*The Timeline forms the other spine of the Park transversing from East to West, connecting the Canyon to the Marine Way / O Streets intersection. This major Park feature is a walkable Timeline, a landscape art feature that is located on one of the existing taxiway of the base that will include pedestrian and bike trails. The Timeline retains the existing pavement and resurfacing*

*and repairing portions of the Timeline pavement to ensure that the pavement is ADA accessible.*

*The Rambles border the Timeline on both sides close by the Great Lawn and Cultural Terrace. The Ramble features a Pinetum collection of conifers indigenous to California; and species of interesting form, significant connection to ancient history that are grouped taxonomically to remind one of how they have been utilized as a resource. This area will include many braided walkways and picnicking areas.*

i) Upper Canyon

*The upper canyon is a natural oasis featuring a sinuous stream supplying reclaimed water from IRWD into the lake of the Lower Canyon, to be utilized for the landscape irrigation for the Park. Other features of the Canyon include: wetlands to clean nitrates from the water; the Bridge of Seven Turns for Park visitors to experience different views as they transverse the Canyon from the mid-terrace; a campground supporting small organized groups of around 30 people; Casting Pond for recreational fishing, a Berm Garden for passive recreation as a social space featuring black and white plant materials, and a Memorial Site paying homage to those whom served this country.*

Staff notes that the Bridge of Seven Turns (\$2,149,650) is located in the Upper Canyon district. The alternative energy source Sterling Dish arrays have been relocated from the Upper Canyon area to the Fields and Meadows.

The Design Studio concept for an organized campground in the Upper Canyon will be coordinated with Community Services staff as well as Public Safety. It should be noted that owl houses and bat boxes are included in the cost estimate for the Upper Canyon to support the ecological concepts of the park.

j) Agua Chinon

*Agua Chinon is the natural habitat area of the Park. This area of the park includes a daylighted stream that provides for passive recreation hiking biking, and riding. The stream will be bordered with predominantly California indigenous plant material promoting the creation of natural habitat, and will provide connectivity for the Park users from neighborhoods north of Irvine Boulevard into the core of the Park.*

Staff notes that the Agua Chinon will also be used as the location for the wetlands mitigation area serving both Heritage Fields and the Great Park's development. See Section 7 30% Major Milestone Conditions for additional information about this design element and staff recommendation regarding progress beyond the 70% Major Milestone level of completion.

k) Wildlife Corridor

*This designed and engineered corridor is created specifically as a viable and enduring habitat for natural species. Planting throughout the corridor is California indigenous plant material.*

In addition to the park districts highlighted above, the Park Systems within the Great Park have also advanced. The Park Systems are described by the Design Studio *in italics* below. Staff has inserted additional comments in specific districts, as appropriate.

a) Sustainability –

*The Design Studio has created a Sustainability Management System (SMS) as a prescribed and rigorous method for reviewing, promoting, and monitoring the Great Park Board's sustainability objectives across the entire project. The team is using the SMS as they go through the project's documents to assess if sustainability goals are successfully achieved. The Sustainable Energy Plan evaluates sustainable infrastructure that would assist in reducing the park's carbon footprint. Solar power technologies such photovoltaic technology in the park is contributing to this reduction. Additional Sustainability Features are continuing to be studied and discussed such as: the Five Flow Meters, Green Street practices, Biodryer, Biodiesel Production Center, Upper Canyon Wetlands, Solar Troughs, Farm to Fork, and the "Big Belly" Digester for recycling and renewal.*

Staff notes that the Sustainability Management System is not being fully utilized as an interactive tool between design team members to cross reference and substantiate the implementation of the Board's sustainability goals. Similarly, the Energy Plan and the Sustainable Park Features Plan do not appear to be integrated with the design to the extent possible. In order to ensure that the Board's sustainability goals are achieved in the Schematic Design, staff recommends that the Program Manager take a lead in ensuring coordination of design elements and disciplines with a special emphasis on achieving the Board's sustainability goals.

The biodryer and biodiesel production facilities mentioned in the Design Studio's description has not been analyzed by the Corporation and are not included in the cost estimate.

b) Circulation

*The circulation system has continued to be refined, to ensure connectivity to Irvine's General Plan and the County Trail Systems. Fixed Guideway integration and coordination continues with the City of Irvine, including Fixed Guideway stops. Shuttle System routing, timetables, shuttle stops have been advanced. Parking areas including parking stall detailing have been studied further to include sustainable permeable pavement and integration of bioswales in support of the Green Street initiative. Pedestrian and bicycle trail systems has been refined.*

c) Signage/Wayfinding

*A Signage program has been specifically created for the Park, including a "Signage Family" for entry identification, wayfinding, and interpretive signage. Colors have been designated by district for the Park. A typology has been developed for the Park with a signature custom "g" creating both an icon in a three dimensional form.*

d) Lighting

*Lighting Concepts have been further refined for the pathway based system, where lighting is placed as a means to define where the Public circulation system is to occur. An updated Molo Diagram has been prepared which graphically displays the intensity / brightness of lighting indicates the brightest light levels in the Sport Park, receding to the darkest light levels at the Wildlife Corridor has been prepared. An in-depth analysis of the City's lighting requirements has continued. The lighting fixture family for the path-based systems has been developed, templates that inform fixture spacing, along with photometrics has been developed. Meetings with the City to review the lighting fixture and photometrics are underway.*

Staff notes that the lighting concepts are subject to City review and approval. See Section 4 Alternative Design Standards below for further discussion.

e) Architectural Features

*The Design Studio has continued to progress on the Architectural Features for the Park. The Pod form and skin has advanced further as well as the interior program becoming more refined. The bridges have further developed; including interior development of the Botanical Bridge with different skin designs; the Bridge of Seven Turns frame system; and the Land Bridge. The main maintenance facility has been laid out including photovoltaic solar panels being planned for the roofs. Site plans, floor plans, sections, have been prepared for the Cultural Terrace architecture.*

Staff notes that the Board has given budget authorization to move forward with permit-ready construction drawings for the Pod.

f) "Parkitecture"

*The Site Furnishing family has been categorized into five groupings: Custom Linear Bench series, "U" Shape series, Custom catalogue series, Catalogue series (umbrellas, café tables, chairs and benches, BBQ), and Shade Structure Series. The designs for the Site Furnishings focuses on a "kit of parts" that enables flexibility in creating furnishing combinations to serve the Park, but also retain consistency in the overall design vision.*

Staff notes that many of these features are subject to City review and approval. See Section 4 Alternative Design Standards below for further discussion.

g) Water Features

*Further development of the architectural water features has occurred throughout the Park. Trabuco Fountain has advanced to include the pool fountain feature of undulating laminar water columns. The Waterfall at the Lower Lake is under development and integrates a grotto area where Park visitors can enjoy a cool watery experience up close to the cascading falls. The Children's Play Area water feature has developed based on the water cycle, with a multitude of mini features, such as the geyser ponds, mineral terraces, toy geysers, mist vents, walking rain, waving mountain stream, alluvial fan and earth return.*

h) Ecology

*Ecological Guidelines for the Great Park is substantially complete. Further development has occurred in assessing both fauna and flora to create a natural system for the Park. Guidelines have been prepared for the Ecological Features and these features are indicated within the Schematic Design drawings. Additional work has also progressed on the ecological and scientific requirements for planting of the natural habitat areas in the development of the Wildlife Corridor, Agua Chinon, and the Canyon. The Ecology Team is also focused on education programming, evident in the development of a Citizen Science program. This program will engage Park Visitors into the importance of the Ecological System to the Park and its connections beyond Park boundaries.*

Staff notes that the Ecological Guidelines for the Great Park have been crafted with exceptional quality and reflect a level of completion beyond the

70% Major Milestone. Steven Handel and the entire Green Shields team should be commended for the outstanding document that they have delivered.

i) Planting

*The Planting palette for the Great Park has further expanded to support the various Park Geographies (Districts) of the Park. Through this, development a series of Plant Collections has been prepared. These plant collections include the Upper Canyon a series of Palm Collections; the most northern end containing the Palm Oasis, based loosely on the native desert plant community. Other Palm Collections include the Floristic Guadalupe Palms, a world collection of Palms, and those palms that have horticultural significance to Southern California. The Berm Garden utilizes an interesting Black and White plant palette focused on creating stark contrast between light and dark. The Rambles area has developed a Pinetum, with a multitude of conifer collections. Seasonality has been incorporated in the Bosque in orchestrating different plant room experiences throughout the annual seasons. Even the selection of Turf for the Great Lawn and recreation fields for the Sports Park has been installed as a trial in the Preview Park. Agriculture development plans has focused on permanent field locations, such as the Orchard Parking, the Fields and Meadows, and at the Community Gardens in the Bosque. In addition, interim areas have been studied for agricultural use during the development of the Park.*

Staff notes that the planting documents have progressed substantially beyond the 70% level of completion.

Staff notes that the site is constrained by a number of encumbrances. Navy Lease in Furtherance of Conveyance (LIFOC) areas are being addressed on a case by case basis with the Navy's Preliminary Environmental Review Form (PERF) process. Habitat mitigation, mandated by the Resource Agencies, will be located in the Agua Chinon district and is being addressed by Heritage Fields under the Master Implementation Agreement. Other encumbrances such as VOR setbacks, FAA fiber optic lines, and local utility and access easements are not currently being addressed. Staff and the Design Studio will be reviewing the existing contract to agree on the level of effort currently included in the contract to analyze these issues. Section B.1.11.1 Final Utility Plan includes "coordination of all utilities, storm drain, transportation facilities, potential site constraints, and phasing." This issue will be resolved prior to the submittal of an Earned Value invoice in excess of 80% of the Schematic Design budget.

The Design Studio has represented that the above noted refinements are consistent with the approved Master Plan. The Design Studio must confer with the appropriate City departments to confirm that any changes or refinements outlined above are

consistent with the regulatory restrictions that apply to the Great Park and to redesign those areas that are not consistent at this time.

#### **4. Alternative Design Standards**

As the Schematic Design progresses, the Design Studio is required to review the City's Park Planning guidelines, Landscape guidelines, Transportation guidelines, and Standard Plans and any other applicable City plans, standards, or guidelines as they relate to the Great Park. The design team is responsible for supporting its request for any deviation from the adopted City standards with proof that the proposed standard is equal to or greater than the current standard. Prior to submittal of the 70% Major Milestone package, the Design Studio submitted alternative design standards for the following features to the City for review: irrigation design guidelines, landscape lighting systems, pod architecture, and terrace drains. In July, following the submittal of the 70% Major Milestone review package, the Design Studio submitted the site furniture package. The Design Studio has notified the Corporation that they intend to submit alternative design standards for miscellaneous engineering, pavement, and planting standards in August.

The City has expressed a strong commitment to work with the Design Studio on alternative standards and has established three criteria for its review:

- a) Design will comply with State and Federal regulations
- b) Design will not compromise on safety of the general public
  - i. Equipment safety
  - ii. Risk management
  - iii. Public safety
- c) Design will consider life cycle costs
  - i. Cost of materials
  - ii. Maintenance expenses
  - iii. Readily-available inventory

This process is on-going and will result in an adopted Great Park Design Standards manual. The Preview Park has become an opportunity for the design team to demonstrate many of the alternative standards that they wish to apply park-wide and allow the City to review these features in the field. Given the importance of this program, it is essential that the Design Studio allow sufficient time for the City review process in its schedule for alternative design submittals.

The Design Studio has not reported the use of any alternative design standards at the 70% Major Milestone Review. Variances from the City's existing design standards or other regulatory standards are considered at the Design Studio's risk until the alternate standards are approved. Design Studio recognizes that it is responsible for achieving

City approval of the alternative standards and will ensure that the Schematic Design conforms to the adopted standards within the contract budget.

## **5. Program Manager Review of Schematic Design**

The Program Manager (PM) reviewed the documentation submitted by the Design Studio to support the 70% Major Milestone Review, including all components of the Schematic Design advanced to date, backup studies and reports, and the construction cost estimate for the project. The Program Manager's review resulted in a report documenting the progress of the Design Studio. A series of workshops and "page turning" meetings were held between the Design Studio and the PM team to clarify the submittal. The Design Studio technical staff confirmed that most of the comments are valid and will be addressed as the design progresses.

To enable the 70% milestone to advance, both staff and the Design Studio agree that the Program Manager initiate extended and expanded oversight during the remainder of the design effort, to include "page turning" workshops as necessary, in order to achieve the world class schematic design envisioned by the Board.

## **6. Priority Program Feasibility Studies**

At its June 19, 2008 meeting, the Board considered the first level of analysis for the 16 Park Programs and directed staff to move forward with the next phase of feasibility analysis for the following Park Programs and features:

- Agriculture and Food
- Art and Culture Exhibition Space
- Aviation Museum/Fire Museum
- Visitor Center
- Cultural Terrace District
- Sports Park

In addition, the Board directed staff to undertake the next phase of feasibility analysis subject to identification of potential funding partners for the following Park Programs in or adjacent to the Cultural Terrace District:

- Amphitheatre
- Botanical Garden
- Library
- Multi-Cultural Center
- National Archives

The Board also directed staff to undertake the next phase of feasibility analysis, subject to negotiating a Memorandum of Understanding (MOU) with the identified funding partner, for the following Park Programs:

- Center for Community Organizations – Orange County Children and Families Commission
- Demonstration/Preview Garden – Great Park Conservancy

Finally, the Board directed staff to undertake the next phase of feasibility analysis for the Water Science Park, subject to identifying funding partners and negotiating a Memorandum of Understanding (MOU) with each funding partner(s).

Many of these feasibility analyses inform the progress of the Schematic Design. Since the Design Studio contract requires the Schematic Design work product to be consistent with the approved Master Plan, staff has reviewed these programs to determine which will influence the Design Studio's work at this time.

The Agricultural and Food feasibility analysis will further define the potential for a Food Exchange Program, the Tree Farm Facility, and interim Farm Land Availability and Schedule in the Fields and Meadows park district. "The program will bring together Orange County local farmers and food banks to participate in a wholesale community production farm that would also provide produce to local disadvantaged communities through food banks." As this program is consistent with the Master Plan and provides expanded program direction for the future use of in the Fields and Meadows, staff has determined the Schematic Design can go forward concurrent with this analysis.

The Art and Culture Exhibition Space, Aviation Museum/Fire Museum, and Visitor Center feasibility analyses all include the potential for additional square footage beyond that approved in the Master Plan. In addition, some of these uses may have additional traffic impacts that have not been addressed in previous traffic studies. Consistency with the Master Plan as well as the City's General Plan and zoning will be critical components of these studies. The Board will decide on including these features and programs within the Great Park at a future date. A decision to modify the Master Plan is a necessary precursor for any adjustment in the Schematic Design. Since the adoption of any of these programs may ultimately involve an amendment to the adopted Master Plan, staff has determined the Schematic Design should go forward while these analyses progress.

The Cultural Terrace District study is intended "to develop a comprehensive planning, design, and programming approach and strategy for the development of the various land uses, buildings, and facilities in the Cultural Terrace and adjacent areas, including the Botanical Garden and other related plan elements." Because this study will set the stage of informed decisions regarding the Amphitheatre, Library, Multi-Cultural Center, and National Archives, staff recommends these feasibility studies not be completed until

the Cultural Terrace feasibility study is presented to the Board for review and approval. In addition, the feasibility analysis of the Center for Community Organizations is linked to determining an appropriate location for the facility and, therefore, should not be completed until the Sports Park and Cultural Terrace feasibility studies are sufficiently completed to inform the analysis.

The feasibility studies for the Cultural Terrace, Sports Park, and Botanical Garden will provide important information to the Design Studio as it moves forward with the Schematic Design. Staff has determined that these studies must be allowed to progress prior to moving beyond the 70% level of completion. Staff recommends that the Schematic Design of the Sports Park, Botanical Garden, and Cultural Terrace not move beyond the 70% Major Milestone level of completion until the next level feasibility studies for these three geographies are sufficiently completed to inform the design. The Design Studio will play an integral role in these studies and is not authorized to move forward until they are substantially completed.

The Demonstration Garden has the potential to be located permanently in the Bosque area. Therefore, staff has determined that the Schematic Design should go forward while this analysis progresses.

The Water Science Park feasibility analysis is similar to the Art and Culture Exhibition Space, Aviation Museum/Fire Museum, and Visitor Center in that it anticipates the availability of additional square footage beyond that approved in the Master Plan. Similarly, this use is likely to have additional traffic impacts that have not been addressed in previous traffic studies. Since this program is likely to involve an amendment to the adopted Master Plan, staff has determined the Schematic Design should go forward at this time.

## **7. 30% Major Milestone Conditions**

On January 8, 2008, the City Council approved the 30% Major Milestone Review submittal and issues a Notice of Approval and Authorization to Proceed, subject to the conditions. The Design Studio has provided the following update with regard to the 30% Major Milestone conditions:

- a) Proposed changes shown on the 30% Major Milestone Review submittal are consistent with the regulatory restrictions that apply to the City-approved Great Park Master Plan. Changes that are not consistent with the regulatory restrictions are not approved at this time.

*The Great Park Design Studio agrees that if it is proposing a design change that is not consistent with the regulatory restrictions, the Studio will clearly show said deviation and does so at its own risk until said deviation is approved by the City.*

- b) The Board-approved Park Programs that are consistent with the Great Park Master Plan will be included into the Schematic Design within the contract budget.

*The Great Park Design Studio agrees and has included said programs, approved by the Board, at appropriate levels of detail in the plans and documents. The following list includes the programs that have not yet been included and will be included by the 97% submittal:*

- *Aviary / Hummingbird Haven*
  - *Bark Parks*
  - *Bike Criterion Course (Event)*
  - *Bike Trials Course (Event)*
  - *Cross Country Running Courses*
  - *Geo-caching*
  - *Star Gazing Room(s)*
- c) Any denial or inaction by the Navy or other regulatory agencies regarding requests to relocate monitoring wells that results in changes to the Schematic Design will be completed within the contract budget.

*In February of 2007 the Corporation and Great Park Design Studio attended a meeting at the Navy's offices in San Diego. At that meeting, conceptual designs were issued to the Navy for review and comment. The designs highlighted park grading and the effects on the extraction well system. The Navy verbally agreed with the concepts shown in the proposed designs and requested more detailed engineering plans for the extraction well modifications. The Navy would not provide a written approval until final PERFs and engineering plans are submitted and reviewed. The Corporation is aware of the progress of the schematic and early construction document deliverables, and since it did not issue a stop work notice after the Navy meeting, the Design Studio proceeded with park development. The Navy specifically requested a precise proposal for review and made it clear that they would like to approve a proven method which would allow the full redevelopment of the site.*

- d) The Great Park Design Studio is required to ensure that construction documents for the mass grading of the entire site, the Upper Wildlife Corridor from Irvine Boulevard to the Borrego Creek flood control channel, and the Agua Chinon remain consistent with the Schematic Design as it evolves through the design process. Any changes in the Schematic Design that result in changes to the construction documents will be completed within the contract budget.

*The Design Studio will ensure that there is consistency between the construction documents and the Schematic Design for the mass grading of the entire site as shown in the approved Master Plan. As of this time, the Construction Documents for Agua Chinon and Wildlife Corridor have stopped due to Lennar's revised development phasing. Any revised alignment (horizontal and vertical) or adjustment to the Wildlife Corridor features as a result of direction provided by the City as a result of the revisions resulting from agreements with Lennar will be considered a change to the original scope of services contracted by the Great Park Design Studio and will be revised per agreed upon compensation.*

- e) The Great Park Design Studio is also required to ensure that the Schematic Design and construction documents are consistent with the engineering parameters and assumptions used by Heritage Fields on the City-approved subdivision map (Vesting Tentative Tract Map No. 17008) for the City-designated CFD backbone infrastructure improvements and the Heritage Fields private development.

*Based upon the current Schematic Design package and construction documents under preparation by the Design Studio, there are certain improvements shown on VTTM 17008 that are not consistent with Park planning. Furthermore, since VTTM 17008 was approved, Heritage Fields has modified certain assumptions made in preparation of said map, and said modifications are under review and consideration by the Design Studio. These modifications are identified in the Master Plan of Drainage that has been submitted to the County for approval subject to final approval by the City. The improvements reflected in the 70% Submittal that are not consistent with the engineering parameters and assumptions of the VTTM 17008 are associated with the Bee Channel Drainage and currently reflect the engineering parameters and assumptions used by Heritage Fields to develop the Master Plan of Drainage.*

Staff is concerned that some of these responses are not consistent with the requirements of the conditions of approval and will be coordinating with the Design Studio and Program Manager to resolve these issues prior to the submittal of the 97% Major Milestone. For example, the Design Studio suspended their own work effort on the Agua Chinon and Wildlife Corridor construction drawings, pending further collaboration with Heritage Fields.

The Navy's existing extraction well system was documented by the Design Studio in the Critical Issues Assessment of the initial contract. As such, the Design Studio was fully aware that the grading proposed in the Orchard Parking district requires relocation of a substantial portion of the extraction well system. In May 2008, the Design Studio submitted a preliminary Design Report to modify the groundwater extraction system at a

35% level of completion. The Corporation staff, based on the advice of the Navy coordinator, directed that the design report be refined to a 70% level prior to submittal to the Navy. The revised report has not yet been submitted. Staff did not find it necessary to issue a stop work notice for the proposed relocation of extraction wells, since the contract protects the City/Corporation against the cost of redesign should the Navy not approve the proposed modifications.

The Design Studio has provided the following supplemental information regarding the extraction well system:

*The former MCAS El Toro has an operating groundwater extraction system. The Navy indicated that they want the system to continue to operate during and after site redevelopment. Also, the Navy wants to maintain the current location of each groundwater pumping well and monitoring well. Wells will therefore need to be raised or lowered based on the OCGP design grade.*

*In areas receiving fill, monitoring well casings will be extended, and well manholes will be raised and installed flush with the OCGP design grade. In areas being cut, monitoring well casings will be trimmed, and well manholes will be lowered and installed flush with the OCGP design grade. In areas with minimal change in grade, wells will remain at the current elevation. Tetra Tech calculated the grade changes based on an early version of the grading plan and included the results as Figure 4 in the 35% design.*

*The groundwater extraction system is located primarily within the Orchard Parking Area. The impacts to this area would be that the well vaults will have to remain at the surface for operation and maintenance purposes by the Navy. All piping would remain below the surface.*

Staff recommends that the Schematic Design of the Agua Chinon and the Wildlife Corridor not move beyond the 70% Major Milestone level of completion until directed by the Corporation. With regard to the Orchard Parking design, staff has determined that the design is at risk should the proposed grading concept not receive Navy approval.

## **8. Construction Documents**

The Schematic Design contract requires that the construction documents be included in the Major Milestone reviews. The Design Studio did not submit the park-wide mass grading, the Wildlife Corridor, and the Agua Chinon but reported that mass grading package is at a 70% Construction Drawing level. The Agua Chinon and Wildlife Corridor construction packages have not advanced to the 70% level.

The Design Studio reports that the majority of the conditions of approval from VTTM 17008 are associated with construction documents and not Schematic Design

documents. The mass grading construction documents are proceeding with the intent of satisfying the appropriate conditions of approval associated with the VTTM 17008.

The Contract requires a separate review of the construction documents four weeks prior to the anticipated submittal of the 100% set to the City for its review. As these documents are technical submittals that follow from the Schematic Design work, staff recommends that the Major Milestone reviews of construction documents be conducted at staff level with a summary report provided to the Board and City Council.

## **9. Construction Budget**

The Design Studio, as required by the Contract, provided a project budget estimate of \$1,231,079,503, based on current costs with no escalation. This estimate is a reflection of the work in progress and includes the current thinking on various components of the design, including planting types, tree sizes and quantities, lighting parameters and paving types. With the exception of allowances for utilitarian buildings that will populate the park (bathrooms, maintenance facilities, concession stands, etc.), the cost estimate does not include vertical construction.

Staff and the Design Studio agree to a coordinated budget review with the Program Manager to reconcile the Project Budget, to be completed prior to approval of an Earned Value invoice in excess of 80% of the Schematic Design budget. This reconciliation will be presented to the Board for further consideration for prioritization of design.

In addition to the above, the Program Manager has three major qualifications on the budget estimate review. These qualifications are not reflected in budget estimate discussed above.

- a) General Project requirements need to be reconciled to accommodate the remainder of issues such as general public safety, worker safety, temporary project facilities and temporary utilities. The Program Manager recommends a 5% allowance on the individual Park District budgets for these items. Further analysis and collaboration with the Design Studio and the Corporation staff is necessary to resolve this issue.
- b) The Corporation and the Design Studio have agreed that the use of constant 2008 dollars is a better way to present the construction budget at this time. The duration of construction is not known with the degree of certainty necessary to factor in an appropriate escalation factor. Cost escalation will be factored into the Corporation's Business Plan.
- c) The Design Studio estimated construction contingency is 7%. The Program Manager expressed the opinion that the contingency is low for the status of the

project relative to the overall design. Further analysis and collaboration with the Design Studio and the Corporation staff is necessary to resolve this issue.

The Great Park Board has allowed the Design Studio to design creatively without the constraints of a maximum budget for the construction of the Great Park. The Board may want to reconsider this approach as we move forward in the finalization of the schematic design.

**10. Contract Cost to Date**

<b><i>Schematic Design Financial Snapshot</i></b>	
<b>Contract Cost to Date:</b>	
Schematic Design Studio Contract:	\$ 27,300,000.00
Additions / Deletions:	\$ 7,959,124.00
Total Revised Contract:	\$ 35,259,124.00
Paid to Date:	\$ 16,513,801.19
Balance to Complete:	\$ 18,745,322.81
<b>Board Approved Contingency:</b>	
Contingency:	\$ 2,600,000.00
Utilized Contingency ***	\$ 1,242,830.00
Contingency Balance:	\$ 1,357,170.00

**\*\*\* In Progress & Approved Contingency Allocations:**

- Imagination Celebration
- Ground Water Modeling
- Level 1 PPFS
- Communications

### **ALTERNATIVES CONSIDERED**

1. The Board could recommend not approving the 70% Major Milestone Review submittal. This recommendation would stop the design process until such time as the Board determines the design should be advanced.
2. The Board could recommend City Council approval of the 70% Major Milestone Review submittal but not recommend proceeding to the 97% Major Milestone. This recommendation would stop the design process until such time as the Board determines design should be advanced.

### **FISCAL IMPACT**

The submittal of the 70% Major Milestone Review is within the budget approved by the City Council and consistent with the work effort billed thus far. The scope change requests currently under consideration are within the adopted contingency fund budget.

### **CONCLUSION**

As the Design Studio has represented that the Schematic Design is consistent with the City-approved Great Park Master Plan and that none of the refinements rise to the point of reapproval of the Master Plan, staff recommends that the Great Park Board recommend City Council approval of the 70% Major Milestone Review submittal and issuance of a Notice of Approval and Authorization to Proceed, subject to certain conditions.

Report prepared by: Glen Worthington, Manager of Planning and Environmental Services

Report reviewed by: Mike Ellzey, Deputy CEO

#### Attachments:

- A. Ken Smith Landscape Architect (KSLA) narrative report
- B. Fuscoe Engineering narrative report

cc Ken Smith, Great Park Design Studio  
Yehudi Gaffen, Great Park Design Studio  
Pat Fuscoe, Fuscoe Engineering  
Stu Mollrich, Forde and Mollrich  
Lynn Jochim, Heritage Fields  
Brian Day, Principal-in-Charge, Bovis Lend Lease  
Tess da Silva, Deputy Program Director, Bovis Lend Lease