



MEMORANDUM

DATE: April 27, 2021

TO: Honorable Mayor Romero &
Council Member Cunningham

FROM: Timothy M. Thomure, P.E.
Interim Assistant City Manager

SUBJECT: Reid Park Community Conversation – Cost of “Concept G”

Per your recent requests to City Manager Ortega, please find below the calculations that estimated the additional cost of Concept G as between \$15M to \$25M dollars. This is above the base Zoo expansion cost of \$23M under the current design and contractor Guaranteed Maximum Price (GMP).

There is no preliminary engineering report or design for Concept G, nor is a final footprint known. The range in cost reflects design decisions not yet made, specifically how we would address the relocation of Therapeutic Recreation (move to a vacant, existing space or build a new facility) and how to replace the parking eliminated by building the expansion in the existing Zoo parking lot (~200 spaces) under Concept G (add surface parking by relocating the Parks and Recreation Maintenance Compound or install a parking garage). Some explanatory notes are provided after the table.

Table 1 - Conceptual Costs of Concept G

Concept G: North Zoo Expansion [Low Option]			
Redesign of Zoo Expansion			\$ 2,600,000
Inflation and constructability impacts			\$ 4,000,000
Relocate Therapeutic Recreation			\$ 1,000,000
Replace parking - surface lots			\$ 3,000,000
Address Communications Towers			\$ 1,000,000
Modifications to Parks & Recreation compound			\$ 1,500,000
Unknown conditions and contingency			\$ 2,500,000
Estimated Total			\$ 15,600,000
Concept G: North Zoo Expansion [High Option]			
Redesign of Zoo Expansion			\$ 2,600,000
Inflation and constructability impacts			\$ 4,000,000
Rebuild Therapeutic Recreation			\$ 3,000,000
Replace parking - parking garage			\$ 8,000,000
Address Communications Towers			\$ 1,000,000
Modifications to Parks & Recreation compound			\$ 2,000,000
Unknown conditions and contingency			\$ 3,500,000
Estimated Total			\$ 24,100,000

Notes on the above costs:

- Zoo redesign was estimated at \$2.6M for Concepts D-G.
- Inflation due to materials costs is approximately \$0.5 to \$1M per year and Concept G has a minimum 2-3 year delay of construction.
- In addition, constructability impacts for Concept G include: site preparation of existing hardscape, demolition of existing structures, and addressing utility needs / impacts.
- Relocation of Therapeutic Recreation into an existing space, if available, includes design, tenant improvements, addition of indoor and outdoor equipment, moving costs, and lease or purchase cost.
- Constructing a new building for Therapeutic Recreation adds land acquisition or conversion, building design, and building construction costs.
- Resolving parking needs through the addition of surface parking requires that the existing Parks and Recreation Maintenance Compound be relocated to another site (see below). The estimated cost to resolve parking through surface lots includes demolition of equipment shade bays, removal of sheds and storage bays, and conversion of the existing site to a parking area with proper ingress / egress. It is further assumed that the new surface parking lot would be equipped with solar on shade structures similar to the existing Zoo parking lot and other city parking areas.
- In lieu of surface parking, a new parking garage could be built in the footprint of the parking area of the Edith Ball Adaptive Recreation Center. This cost was estimated based on a similar sized parking garage recently installed at the Tucson Convention Center.
- There are two large communication towers that need to be relocated.
- Relocation of the Parks and Recreation Maintenance Compound includes land acquisition, relocation or replacement of sheds and storage bays, and construction of the new maintenance yard. The new site requires installation of perimeter security fencing, automatic gates, communications gear, and support facilities. In addition, there would be increased operational costs due to increased travel times and fuel consumption since there is no alternative space nearby.
- Unknown conditions (e.g., asbestos abatement for demolition of the Therapeutic Recreation building, utility conflicts, etc.) plus contingency are estimated to range from \$2.5M to \$3.5M.

The costs above were estimated by City staff at the onset of the Community Conversation, based on limited information. During the public engagement process, Torre Design Consortium, LTD (Torre Design), national experts in Zoo architecture and design and the contracted designer of the Reid Park Zoo expansion, were asked to review the feasibility and potential additional costs of Concept G. Their independent estimate of costs was \$17M to \$21M, very similar to the City staff estimate range. A copy of the Torre Design Memorandum is provided as Attachment 1. In their Memorandum, Torre Design provides additional information on the feasibility challenges of Concept G as well.

Please let me or staff know if you need any additional information.

CC: Council Member Santa Cruz
Council Member Uhlich
Council Member Lee
Council Member Fimbres
Council Member Kozachik
City Manager Michael J. Ortega

Attachment 1: Memorandum dated April 14, 2021 from Torre Design Consortium, LTD



**TORRE DESIGN
CONSORTIUM, LTD**
A PROFESSIONAL CORPORATION

April 14, 2021 (*via email*)

Nancy Kluge, President & CEO
Reid Park Zoo
3400 Zoo Court
Tucson, AZ 85716

Re: Reid Park Zoo Master Plan Improvements Phase 1 – Asia exhibits

Dear Mrs. Kluge:

In response to the recent request from the Reid Park Zoological Society, we submit the following comments and observations on the relocation option “G Concept” proposed for the Reid Park Zoo Phase 1 Asia exhibits and zoo expansion. A diagram of the proposed concept is attached herein for visual reference. We appreciate the opportunity to provide input in search of a resolution acceptable to all concerned parties.

G Concept: Expansion to Northeast (Existing Zoo Parking and Therapeutic Recreation Center)

- The expansion of Reid Park Zoo northeastward into the proposed area would eliminate the existing zoo parking. As indicated in the Master Plan, and again in the ADP prepared for Phase 1 improvements, the zoo already suffers from a deficiency of parking and is unable to meet demand on peak visitation days. This requires visitors to park elsewhere within Reid Park and walk long distances to access the zoo entry. Our assessment is that the zoo will need 400-500 parking spaces to meet projected demand on peak days after completion of Phase 1 improvements. Concept G would eliminate approximately 200 existing parking spaces (the entirety of the primary zoo parking lot), and an additional 71 spaces east of the Therapeutic Recreation Center. While the proposed parking garage could partly address this concern, it should be noted that the cost of vertical parking structures is approximately \$30,000 per space. For comparison, the cost of surface parking facilities is approximately \$3,000 per space, a ten-fold difference in cost. Therefore, the cost of a parking structure sufficient to meet the zoo’s future needs, based on increased attendance from proposed improvements, would approach \$12 - \$15 million.
- The expansion proposed by Concept G would eliminate the existing Therapeutic Recreation Center and the programs and amenities this facility provides to Tucson’s disabled community. The facility would need to be rebuilt elsewhere at unknown cost, or the programs and amenities would need to be relocated to another existing facility.
- One of the deficiencies addressed by the now-completed renovation of the zoo entry was its lack of visibility to visitors and lack of a substantial identifying landmark. This concern has been successfully addressed by the complete renovation of the zoo entry plaza and façade, and the soon-to-be-complete ZOO sign, which also serves as the public art component of the project, as required by City code. This ZOO sign was carefully conceived and designed so as to be highly visible to arriving guests, to assist in wayfinding, and to provide a powerful “place-making” experience and sense of identity to the zoo. The proposed expansion footprint will visually obscure this important component of the new zoo entry from the view of arriving guests, and render moot its intended purpose. The total cost of this public art signage is \$287,000. If Concept G were pursued, we would strongly recommend the ZOO sign be relocated to a more prominent and visible location.
- The expansion proposed by Concept G provides a footprint of approximately 4 acres. While this area is spatially sufficient to accommodate the programming and facilities proposed in the Phase 1 improvements, its placement is problematic from a circulation perspective. First, this configuration would require arriving guests to walk from the parking garage through a narrow corridor between the Adaptive Rec Center and the new expansion, in which the zoo entry and ZOO sign will not be visible until arrival. As mentioned above, this negates the intended purpose of the entry renovations and ZOO sign/public art. Secondly, the current design utilizes Lakeshore Lane as a consolidated and secure corridor for zoo service, maintenance, and emergency access. The configuration proposed by Concept G greatly complicates efforts to create a dedicated circulation route for service and maintenance that is separate and independent of visitor circulation paths. This creates potential for conflict between zoo operation activities and zoo guests, thereby compromising safety and security.
- The implementation of Concept G for zoo expansion would warrant an update to the Reid Park Zoo Master Plan. A Master Plan Update would be necessary to ensure all facility requirements can be met in the future, and to ensure that future improvements (Phase 2 and 3) will integrate appropriately with the changes proposed to the Phase 1 Asia expansion.



- Concept G incurs the following added costs:
 - Additional \$60,000 in Master Plan Update, and six month delay in Phase 1 redesign
 - Additional \$2.6 million in Phase 1 redesign and minimum one year delay in implementation
 - Additional \$1.5 million in construction costs due to inflation
 - Additional \$700,000 in demolition costs and site preparations, on top of additional construction cost above
 - Total added cost of \$4.86 million*, and 18 -24 month delay in implementation
- *Not included in total above:
 - Additional \$12- \$15 million for Parking Garage providing 400-500 spaces
 - Additional unknown cost of relocating Therapeutic Recreation Center
 - Additional unknown cost of relocating communication towers

In summary, we estimate the total added cost of this solution at \$17 - \$21 million, on top of the construction budget of \$23 million already allocated for the Phase 1 zoo improvements.

Thank you for the opportunity to offer comments and input on the proposed options, and please do not hesitate to reach out if we can be of further assistance in this process.

Thank you,

L. Azeo Torre, FAIA, FASLA, FAAR, IIDA, USGBC, LEED® AP

CC: Robert Just, Reid Park Zoo
James DeRoussel, Torre Design Consortium, Ltd.

Enclosures: Figure 1



Figure 1.
Alternative project site proposed by City of Tucson for further evaluation. *April 13, 2021*

