

# CRITERIUM<sup>®</sup> DOTSON ENGINEERS

1515 Heritage Dr., Ste. 102  
McKinney, TX 75069  
972-562-1011 (office)  
Firm Registration No. F-4577  
www.criteriumdotson.com

## PROPERTY EVALUATION AND RESERVE FUND STUDY

### CROSS OAK RANCH

CROSS ROADS, TEXAS

*Prepared for:*

**CROSS OAK RANCH HOMEOWNERS ASSOCIATION**  
c/o Ms. DeAnna Etheredge  
Essex HOA Management  
1221 IH- 35E, Suite 112  
Carrollton, Texas 75006

Project Number: C140324-1  
Date of Investigation: April 17, 2014  
Investigator: Phillip Nieman, P.E.  
Review: David H. Dotson, P.E., R.S.

May 2014

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RESIDENTIAL, COMMERCIAL  
& STRUCTURAL INSPECTIONS  
PCAs AND PHASE I ESAs  
RESERVE & TRANSITION STUDIES  
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## 1.0 SUMMARY

CROSS OAK RANCH HOMEOWNERS ASSOCIATION authorized Criterium – Dotson Engineers to conduct a Property Evaluation and Reserve Fund Study for the property located on the west side of FM 720 at Cross Oak Ranch Blvd in Cross Roads, Texas. Studies of this nature are important to ensure a community has sufficient funds for long-term, periodic capital expenditure requirements. Anticipating large expenditures over an extended period of time through a structured analysis and scheduling process assists the Association in meeting financial requirements without increasing the service fees above permitted maximums, borrowing the funds, or levying special financial assessments to the home owners.

Typically, a community Association has two broad cash requirements: the general operating reserves and the capital repair and replacement reserves. In this report, we will focus on those items falling under the capital repair and replacement reserve criteria.

This report is structured to analyze components of the community for which the Association is responsible and to assess a useful expected life and useful remaining life for those components. The anticipated scheduled repair or replacement of the component and the anticipated expense for the activity are then analyzed in conjunction with the current capital reserves funding program for the community. Funding program recommendations are made with the objective of limiting substantial cash excesses while minimizing financial burdens that can result from significant cash inadequacies.

This report is intended to be used as a tool to determine reserve fund allocation requirements for the community, to manage future Association obligations, and to inform the community of future financial needs in general.

The report that follows has been prepared from the perspective of what an owner of this property would benefit from knowing. Some items, beyond those of immediate concern, may be discussed. Therefore, the report needs to be read in its entirety in order to fully understand all of the information that has been obtained. This investigation was performed on April 17, 2014 by Phillip Nieman, P.E. of Criterium – Dotson Engineers on behalf of CROSS OAK RANCH HOMEOWNERS ASSOCIATION. The report that follows is based on that investigation.

### 1.1 Property Profile

|                                   |   |
|-----------------------------------|---|
| <b>City &amp; State:</b>          | <b>Cross Roads, TX</b>                              |
| <b>Location:</b>                  | <b>FM 720 &amp; Cross Oak Ranch Blvd.</b>           |
| <b>Lot Size:</b>                  | <b>Varies</b>                                       |
| <b>Area of Building (Cabana):</b> | <b>~ 1,800 SF</b>                                   |
| <b>Number of Stories:</b>         | <b>Single</b>                                       |
| <b>Number of Tenant Spaces:</b>   | <b>NA</b>   |
| <b>Percent Occupied:</b>          | <b>NA</b>   |
| <b>Year Built:</b>                | <b>2004</b>   |
| <b>Building Code:</b>             | <b>IBC</b>  |
| <b>Zoned:</b>                     | <b>Residential</b>                                  |
| <b>Parking</b>                    | <b>26 spaces (Includes 2 handicap)</b>              |
| <b>Amenity Center Structure:</b>  | <b>Wood Frame</b>                                   |
| <b>Exterior:</b>                  | <b>Stone Veneer / HardiPlank Siding / Wood Trim</b> |
| <b>Roof:</b>                      | <b>Standing Seam Metal</b>                          |

|                                 |   |
|---------------------------------|---|
| <b>Plumbing:</b>                | <b>City water and sewage service.<br/>PVC waste and copper water<br/>supply piping.</b> |
| <b>HVAC:</b>                    | <b>NA</b>   |
| <b>Electric:</b>                | <b>120/240 Volt Service</b>   |
| <b>Vertical Transportation:</b> | <b>NA</b>   |
| <b>Fire Protection:</b>         | <b>NA</b>   |
| <b>ADA Compliance:</b>          | <b>Generally Compliant</b>  |
| <b>Regulatory Compliance:</b>   | <b>No Issues Noted</b>  |
| <b>Budget:</b>                  | <b>\$100,137 Balance, \$40,000<br/>Annual Contribution</b>                              |

## 1.2 General Condition

The property is in general, in good condition. In this section of the report, we will address those issues that, in our opinion, will require immediate repair or replacement. For a more detailed discussion of all of our findings and any other material deficiencies that will require repair or replacement, refer to the appropriate section of this report.

Based on our observations, immediate material include:

- Pilaster repairs at shade structure
- Retaining wall repairs at entry pond
- Paint and repair bus stop and amenity center
- Replace fountains and pumps
- Replace wood signs
- Replace hail damaged lighting

There are, of course, anticipated capital expenditures to be expected over the next twenty years. Those items that will require attention and are discussed in detail in this report and can be found in their appropriate sections.

## 2.0 PURPOSE & SCOPE

### 2.1 Purpose

The purpose of this study is to determine a capital needs plan and a reserve fund analysis. It is intended to be used as a tool for the Homeowner's Association in determining the allocation requirements into the reserve fund in order to meet future anticipated capital expenditures for the community.

This report forecasts obligations for the community twenty years into the future. It should be noted that events may occur that could have an effect on the underlying component or system useful life assumptions used in this study. Likewise, inevitable market fluctuations can have an impact on component or system replacement and repair costs. As a result, a study such as this should be updated from time to time, usually on a three to five year cycle, in order to reflect the most accurate needs and obligations of the community.

### 2.2 Scope & Methodology

This study has been performed according to the scope as generally defined by the CROSS OAK RANCH HOMEOWNERS ASSOCIATION. The findings and recommendations are based on interviews with the community's management personnel, a review of available documents; and an investigation of the property and site. The investigation involved, in particular, a visual inspection of the entrance monuments, perimeter fencing, amenity center, pool, lake equipment, walking / jogging trail,

utilities, and common amenities.

The report contains the following:

- A description of the overall condition of building components and systems and common areas that are the responsibility of the association, and conditions that may limit the expected useful life of the buildings, facilities, and their components.
- Information about significant deficiencies, deferred maintenance items, and material code violations based on a visual survey of the buildings, facilities and grounds.
- A reserve fund analysis including a component inventory, anticipated remaining component useful life, anticipated component repair or replacement costs, and forecasted fund levels as a result of those anticipated costs.

The statements in this report are opinions about the present condition of the subject community. They are based on visual evidence available during a diligent investigation of all reasonably accessible areas falling under the responsibility of the association. We did not remove any surface materials, perform any destructive testing, or move any furnishings. This study is not an exhaustive technical evaluation. Such an evaluation would entail a significantly larger scope than this effort. For additional limitations, see Section 9.0.

### 2.3 Sources of Information

The following people were interviewed during our study:

- Ms. DeAnna Etheredge, Essex HOA Management (HOA)

The following documents were made available to us and reviewed:

- Current Reserve Funding & Balance
- Site Plan

### 2.4 Standards of Reference

For your reference, the following definitions may be helpful:

*Excellent:* Component or system is in "as new" condition, requiring no rehabilitation and should perform in accordance with expected performance.

*Good:* Component or system is sound and performing its function, although it may show signs of normal wear and tear. Some minor rehabilitation work may be required.

*Fair:* Component or system falls into one or more of the following categories: a) Evidence of previous repairs not in compliance with commonly accepted practice, b) Workmanship not in compliance with commonly accepted standards, c) Component or system is obsolete, d) Component or system approaching end of expected performance. Repair or replacement is required to prevent further deterioration or to prolong

expected life.

*Poor:* Component or system has either failed or cannot be relied upon to continue performing its original function as a result of having exceeded its expected performance, excessive deferred maintenance, or state of disrepair. Present condition could contribute to or cause the deterioration of other adjoining elements or systems. Repair or replacement is required.

*Adequate:* A component or system is of a capacity that is defined as enough for what is required, sufficient, suitable, and/or conforms to standard construction practices.

All ratings are determined by comparison to other buildings of similar age and construction type. Further, some details of workmanship and materials will be examined more closely in higher quality buildings where such details typically become more relevant.

All directions (left, right, rear, etc.), when used, are taken from the viewpoint of an observer standing in front of a building and facing it.

*Repair/Replacement Reserves* - Non-routine maintenance items that will require significant expenditure over the life of the buildings. Included are items that will reach the end of their estimated useful life during the course of this forecast, or, in the opinion of the investigator, will require attention during that time.

### 3.0 DESCRIPTION

A Property Evaluation and Reserve Fund Study for CROSS OAK RANCH were authorized by Ms. DeAnna Etheredge of Essex HOA Management for the CROSS OAK RANCH HOMEOWNERS ASSOCIATION. The study that follows is based on that investigation and has been prepared from the perspective of what a homeowner and a community association would benefit from knowing regarding those components of the community that fall under the responsibility of the association. This study needs to be read in its entirety to understand fully all of the information that we have obtained. Weather conditions on the day of the investigation were approximately 60° F with clear skies.

The principal subjects of this study are the CROSS OAK RANCH Amenity Center / Recreation Area, including the cabanas, pools, splash park, equipment, shade structures, playground equipment, and concrete parking lot.

Also included in the property evaluation were the entrance monuments / features, fencing, lake and equipment, walking / jogging trail, playgrounds, and common areas in the community.

The property is served by the following utilities and providers:

| COMMUNITY UTILITY PROVIDERS |              |
|-----------------------------|--------------|
| Potable Water               | Municipal    |
| Sewer                       | Municipal    |
| Storm Sewer                 | Municipal    |
| Electricity                 | Texas Choice |
| Gas                         | NA           |
| Oil                         | NA           |
| Phone                       | Unknown      |
| Trash                       | Unknown      |

**Table 3: Utility Providers**

**4.0 SITE IMPROVEMENTS**

**4.1 Topography**

**Description**

Topography is generally flat with a slight slope from east to west.

There are a couple of drainage channels throughout the property and a lake at the southwest portion of the property.

**Observations & Comments**

No issues observed.

Our inspection does not include specialized pond maintenance, dredging or erosion control need determination. We are not pond or erosion experts and these components require the services of a specialist in order to determine the current and future needs for erosion control, pond maintenance, and future dredging estimates.

We are happy to, and certainly recommend including these anticipated costs into reserve planning. If you have already enlisted a professional to evaluate and address the current and future needs of the pond(s), we can incorporate your estimated costs into this study. If this has not been done, we recommend that you engage a qualified pond/erosion control specialist. We observed at the time of inspection that Pond Medics, Inc. maintains the lake areas in the community which is more than capable of providing this type of work.

**4.2 Storm Drainage**

**Description**

Drainage in the community is handled over the surface with curb inlets and underground storm drainage at the streets. Drainage at common areas is handled over the surface to drainage channels and catch basins. Storm water drainage is conveyed to municipal system and the lake at the southwest portion of the property.

**Observations & Comments**

No issues observed.

**4.3 Paving & Curbing**

| COMMUNITY PAVING & CURBING |                                 |
|----------------------------|---------------------------------|
| Type of Paving             | Concrete Cast-in -place         |
| Type of Curbing            | Concrete Cast-in -place         |
| Parking Spaces             | 26 spaces (Includes 2 handicap) |

**Table 4: Parking Area**

**Description**

All streets and curbs at the community are cast-in-place concrete.

The streets and curbs in the community are owned and maintained by the City.

The amenity center has a cast-in-place concrete paved parking lot with twenty-six (26) striped parking spaces, including two (2) accessible spaces for the disabled. Curb side parking is available at the south pool.

The main entrances to the property are located at Cross Oak Ranch Blvd. off of FM 720 and at Longhorn Drive off of Martop Road.

**Observations & Comments**

Concrete parking lot is in good condition; periodic repairs / replacement will be required.

Any cracks in the concrete paving should be sealed to prevent seepage of water below the paving, causing premature failure.

Periodic re-striping of the parking lot will be required on an approximate four (4) year cycle. Striping is in good condition at this time.

**4.4 Flatwork**

**Description**

Sidewalks run along the streets throughout the community and at the recreation area. There is an eight (8) foot wide concrete walking / jogging trail that runs along the west side of the community and leads to and around the lake.

All flatwork is cast-in-place concrete.

**Observations & Comments**

Concrete walkways are in good general condition at this time; they will require periodic repairs and replacement due to the expansive nature of soils in this area.

Only common area flatwork is the responsibility of the HOA; concrete walkways along community streets are the responsibility of the City.

**4.5 Landscaping & Appurtenances**

**Description**

The community entrances, recreation areas and common areas are extensively and attractively landscaped.

An irrigation system is present at most landscaped areas. Irrigation controllers are located throughout the community.

There is a large lake present at the west portion of the community and two (2) ponds at the main entrance to the community off of FM 720 and another pond at the Longhorn Drive Entrance. The larger pond at the



north side of the main entrance has a large fountain with controls located at the northwest corner of the pond, and the smaller pond at the main entrance has a fountain with controls located north of the pond. Fountain equipment consists of a 10 hp pump, electronic water leveler system, and a Well-x-trol Water Well System at the larger pond and a fountain pump at the smaller pond. The pump and controls for the Longhorn Drive pond are located in a pump house at the northeast side of the pond.

An 8' wide concrete hike/bike trail leads to and around the large lake at the southwest portion of the community from Liberty Blvd. at the west side of the community. A cedar framed arbor structure with a corrugated metal roof and some stone facade is located along the hike/bike trail at the east side of the lake; also located at this area are four (4) park benches, a picnic table, and four (4) wood trash bins. This common area is enclosed by split-rail cedar ranch fencing and some wrought iron fencing at lake side. Custom iron signage is hanging from the arbor structure and at the start of the trail at Liberty Blvd. Wood signs are located along the hike/bike trail in four (4) separate areas.

A small light gauge steel framed floating dock is located at the west side of the large lake.

Perimeter fencing borders the property at the east side along FM 720 and at the south side along Martop Road. Fencing consists of a combination of board-on-board cedar fencing and wrought iron fencing spaced between stone pilasters. There are larger stone pilasters at the main entrance with heavy iron anchor accents and accent lights. Fencing at the interior of the community consists of ornamental iron fencing spaced between stone pilasters at the median of Cross Oak Ranch Blvd. and split-rail cedar ranch style fencing along Liberty Blvd.

Entrance monument at the main entrance consists of large stone pilasters at the median and each side of entry / exit drives with arched steel beams at the top; there is also a small stone monument wall at the median between entry and exit drives with custom iron signage mounted on each side. Monument features at main entry are lit by incandescent and fluorescent accent lights.

A large stone monument wall is located at the larger pond north of the main entrance starting at the bank and extending into the pond; custom iron signage is mounted on each side of the monument wall. The stone monument is lit on each side by a high pressure sodium spotlight.

There is a small amount of stone retaining walls located throughout the community, at the small pond between the main entrance drives, and at the Longhorn Pond.

Both pool areas are enclosed by ornamental iron fencing and have card reader access control systems.

Landscaping is in good condition - Routine maintenance and replacement always required.

The lake and ponds appeared to be in good condition and well maintained with no adverse issues observed. Our inspection does not include

**Observations & Comments**

specialized pond maintenance, dredging or erosion control need determination. We are not pond or erosion experts and these components require the services of a specialist in order to determine the current and future needs for erosion control, pond maintenance, and future dredging estimates.

All fountains were in good working order and appeared to be in good condition at the time of inspection with the exception of the Longhorn fountain which was not in operation at the time of inspection. Regular maintenance and periodic replacement of fountain equipment will be required. The water well that provides water for the ponds and the automatic water leveler system appeared to be in good condition at the time of inspection. The well house at the Longhorn Pond was locked and unavailable for inspection.

Concrete hike/bike trail will require periodic repairs / sectional replacement due to the expansive nature of the soils in this area.

Cedar framed arbor at the hike/bike trail along the large lake was in good condition overall. Staining of cedar framing will be required in approximately four (4) years. Wood trail signs will likely require replacement in approximately two (2) years.

The floating dock at the large lake is in good overall condition. No issues were observed.

Perimeter board-on-board cedar fencing is in good overall condition; staining and repairs is recommended in approximately four (4) years. Ornamental iron fencing at the east perimeter, the median of Cross Oak Ranch Blvd., and at the pool areas is in good condition overall; however, the fencing at the north is rusting through in isolated areas. We recommend periodic cleaning, priming and painting of all ornamental iron fencing at one time in approximately six (6) years.

Entrance monument features are in good overall condition. Iron features at monuments will require periodic cleaning, priming, and painting; stone monument features will require periodic repairs.

Stone retaining walls are in good condition overall; however, the wall located at the pond near the north entrance is in poor condition. We recommend immediate repairs to this wall.

## **5.0 CABANAS**

### **5.1 Substructure**

#### **Description**

It should be noted that access was not provided to the amenity center or south pool area.

The foundations of the cabanas consist of a post-tension reinforced cast-in-place concrete slabs-on-grade.

#### **Observations & Comments**

No visible indications of structural problems

### **5.2 Superstructure**

#### **Description**

Wood load bearing walls and conventional wood roof framing.

#### **Observations & Comments**

No visible indications of structural problems.

**5.3 Ventilation**  
**Description**

Attic ventilation consists of a small dormer vent and soffit vents.

**Observations & Comments**

No signs of excess moisture were observed.

**5.4 Roofing System**  
**Description**

Amenity center roofing consists of a sloped standing seam metal roof. The roofs at the bus stop and the south cabana are comprised of asphalt composition shingles.

**Observations & Comments**

Amenity center roofing is in good condition; some small periodic repairs will be required in the form of caulking exposed fasteners and some penetrations as regular maintenance. Standing seam metal roofs generally have an average lifespan of 45 years.

The bus stop and south cabana roofs are also in good condition; however, both suffered through a significant hail storm on April 3.

**5.5 Façade Elements**  
**Description**

Amenity center façade consists of stone veneer along with cement fiber lap siding and trim, and the south cabana is clad with stone veneer.

Doors to restrooms and storage rooms are hollow core metal doors and doors to the exercise room are insulated metal with glass panes.

Amenity center is equipped with aluminum insulated glass windows.

**Observations & Comments**

Good condition - no issues noted.

Siding and trim materials will require periodic painting and sealing of joints in order to provide full weather protection to the product.

Doors and windows are in good condition.

**5.6 Interior Elements**

**TYPICAL CLUBHOUSE INTERIOR FINISHES**

|          |  |
|----------|--|
| Walls    | Painted Drywall                                      |
| Floors   | Concrete   |
| Ceilings | Painted Drywall                                      |
| Doors    | Hollow Core metal / Insulated metal with glass panes |

**Table 7: Interior Finish Summary Table**

**Description**

Floor finish is bare concrete.

The restroom walls and ceilings consist of painted drywall.

**Observations & Comments**

Generally in good condition.

Carpet at the exercise room will likely require replacement in approximately two (2) years.

**5.7 HVAC**  
**Description**

The exercise room is heated and cooled by an individual residential-type

**Observations & Comments**

split-system air conditioner and electric resistance heater. Compressor unit is located on the ground at the south perimeter of the Amenity Center. All air is distributed via ductwork in the ceiling space and wall space.

HVAC system was in good condition at the time of inspection. Split system units typically last 12 to 15 years.

**5.8 Electrical Systems**

**CABANA ELECTRICAL SYSTEMS**

|                  |             |
|------------------|-------------|
| Amperage         | 225 Amp     |
| Voltage/Phase    | 120 / 240   |
| Service Entrance | Underground |
| Branch Wiring    | Copper      |

**Table 6: Electrical System Summary**

**Description**

Power meters are located at pond equipment north of the main entrance, at an irrigation controller just north of main entrance, and at the Amenity Center of the cabana along with a 225 amp, 125 amp, and 200 amp electrical panels respectively. All power is distributed from this point by copper branch wiring.

There is also a 50 kVA step down transformer and a phase converter (1 phase to 3 phase) at pond equipment.

**Observations & Comments**

The visible portions of the electrical system are generally in good condition.

**5.9 Plumbing Systems  
Description**

Water and sewer service is provided by the City of Cross Roads. Water distribution piping is copper. Sewage collection piping is PVC.

The plumbing fixtures are vitreous china, of commercial quality, with good quality accessories.

**Observations & Comments**

The system and fixtures are generally in good condition.

**5.10 Pools  
Description**

An approximate 8,250 S.F. pool and incorporated splash feature area are gunite pool surfacing with cast-stone coping and tile at the waterline. Pool apron/decking is Kool-Deck surfaced cast-in-place concrete.

There is a separate splash park at the Kool-Deck concrete decking at the northeast corner of the pool area with multiple splash features. There are also three (3) slides at the deep end of the pool.

Pool equipment consists of two (2) large pumps and two (2) large filters.

Furnishings consist of fifteen (15) chairs and forty-five (45) chaise lounges with metal frame and vinyl strapping, and five (5) round top tables with metal frame and plexi-glass tops.

**Observations & Comments**

There is one (1) shade structure at the pool area with tubular steel frames and polyethylene covers.

Pools and splash park surfacing is in good general condition; resurfacing should be planned for in approximately four (4) years.

Splash features and pool slides are in good condition.

The pool equipment is generally in good condition. Routine maintenance and replacement of pool equipment can be expected.

Decking is in good condition. We recommend sealing of larger cracks to prevent seepage of water below the surface causing premature deterioration. Regular patching/sealing should be anticipated.

The decking to coping joint will require periodic resealing (Seal-O-Deck), and will likely be needed in two (2) years.

The furnishings are of good quality and should be expected to last approximately three (3) years.

Polyethylene covers at shade structures will require replacement on an approximate eight (8) year cycle.

**5.11 Playground Equipment Description**

Extensive, metal and plastic playground equipment is located at the common area west of the Amenity Center and at the south pool. Additionally, a swing set is located on the property.

**Observations & Comments**

Playground equipment is of good quality and condition.

**6.0 MISCELLANEOUS AMENITIES Description**

The amenity center has an exercise room equipped with a treadmill, two (2) stationary bikes, an elliptical trainer, and a universal weight resistance machine.

**Observations & Comments**

Exercise equipment is of good quality and condition.

**7.0 RESERVE FUND PROJECTIONS**

See Appendix A.

**8.0 CONCLUSION**

In summary, we consider these facilities to be in generally good condition when compared to others of similar age and construction type. While some components will need a regular repair and replacement program, the program can be prioritized and planned in conjunction with reserve strategies.

We feel that the reserve financials included with this report outline possible strategies for your community to adopt given the current condition of the facilities as a whole. As time passes, it may become necessary to re-establish financial priorities and capital expenditure schedules given any unforeseen circumstances. We recommend and encourage this activity.

## 9.0 LIMITATIONS

The observations described in this study are valid on the date of the investigation and have been made under the conditions noted in the report. We prepared this study for the exclusive use of the CROSS OAK RANCH HOMEOWNERS ASSOCIATION and their successors and assignees. Criterium-Dotson Engineers does not intend any other individual or party to rely upon this study without our express written consent. If another individual or party relies on this study, they shall indemnify and hold Criterium-Dotson Engineers harmless for any damages, losses, or expenses they may incur as a result of its use.

This study is limited to the visual observations made during our inspection. We did not remove surface materials, conduct any destructive or invasive testing, move furnishings or equipment, or undertake any digging or excavation. Accordingly, we cannot comment on the condition of systems that we could not see, such as buried structures and utilities, nor are we responsible for conditions that could not be seen or were not within the scope of our services at the time of the investigation. We did not undertake to completely assess the stability of the buildings or the underlying foundation soil since this effort would require excavation and destructive testing. Likewise, this is not a seismic assessment.

We do not render an opinion on uninvestigated portions of the community.

We did not perform any computations or other engineering analysis as part of this evaluation, nor did we conduct a comprehensive code compliance investigation. This study is not to be considered a warranty of condition, and no warranty is implied. The appendices are an integral part of this report and must be included in any review.

If probable costs are presented, they are probable only. The costs are based on our general knowledge of building systems and the contracting and construction industry. When appropriate, we have relied on standard sources, such as Means Building Construction Cost Data, to develop probable costs. However, for items that we have developed costs (e.g.: structural repairs), no standard guide for developing such costs exists.

We have performed no design work as part of this study, nor have we obtained competitive quotations or estimates from contractors as this also is beyond the scope of the project. The actual cost to remedy deficiencies and deferred maintenance items that we have identified may vary significantly from estimates and competitive quotations from contractors.

If you have any questions about this study or the reserve fund analysis, please feel free to contact us. Thank-you for the opportunity to be of assistance to you.

**CRITERIUM-DOTSON ENGINEERS**

**APPENDIX A – RESERVE FUND PROJECTIONS**

## INTRODUCTION

The following is a projected reserve fund analysis for non-annual items as discussed in the report. This projection takes into consideration a reasonable return on invested moneys and inflation. Please review this thoroughly and let us know of any changes that may be desired.

The intent of this reserve fund projection is to help the association develop a reserve fund to provide for anticipated repair or replacements of various system components during the next twenty years.

**The capital items listed are those that are typically the responsibility of the Association and are derived from a list developed by Criterium-Dotson Engineers. A copy of this list is provided in this Appendix. However, association by-laws vary and, therefore, which components is the responsibility of the individual owners and which is the responsibility of the association can vary. The association should confirm that the items listed should be financed by the association reserve fund.**

This projection provides the following:

- An input sheet that defines all the criteria used for the financial alternatives, including the assumed inflation rate and rate of return on deposited reserve funds.
- A table that lists anticipated replacement and/or repair items complete with estimated remaining life expectancies, projected costs of replacement and/or repair, a frequency in years of when these items require replacement and/or repair, and a projection based on this frequency.
- A table and graph that represent end of year balances versus capital expenditures based on your current funding program and reserve balances, and alternatives to your current program. The provided graphs illustrate what effects the funding methods will have over the presented twenty-year period versus the anticipated capital expenditures. Care should be taken in analyzing the graphs due to varying graphic scales that occur within each graph and between graphs.
- **Note that based on our developed list of Capital items and taking inflation into account; the current funding level is NOT adequate for the long-term needs of the community over the next twenty (20) years.**
- The association should bear in mind that unanticipated expenditures can always arise and maintenance of a significant reserve fund balance can be viewed as a way to avoid special assessments.

Our objective is to maintain positive funding levels over 20 years without



building up huge reserves. At the end of 20 years, we look to maintain a balance at least equal to the average annual reserve requirement unless we are anticipating additional major expenditures following quickly after 20 years. To achieve this goal we have projected anticipated maintenance/replacement costs, interest earned on investments, an assumed inflation factor and the current fund balance and operating budget to determine that the required level of funding for capital needs. Please remember this does not include any allowance for routine maintenance and operations costs. Only capital costs are included.

*There are items, such as future community amenities, that are not incorporated into this reserve analysis. A Reserve Study is a working tool and a fluid document over time. In addition to changing conditions, one of the primary reasons that we recommend a reserve study be updated every 4 years is so that items that fall outside the 20-year analysis today will be pulled into the calculations and required reserve funding when they are still 20 years out, thus allowing sufficient time to accumulate funds without placing unnecessary burden on current residents.*

*Our inspection does not include specialized pond maintenance, dredging or erosion control need determination. We are not pond or erosion experts and these components require the services of a specialist in order to determine the current and future needs for erosion control, pond maintenance, and future dredging estimates.*

*We are happy to, and certainly recommend including these anticipated costs into reserve planning. If you have already enlisted a professional to evaluate and address the current and future needs of the pond(s), we can incorporate your estimated costs into this study. If this has not been done, we recommend that you engage a qualified pond/erosion control specialist.*

- **EXISTING FUNDING LEVEL:**

We have assessed current Reserve as the amount funds currently designated as Reserves together with current contribution being made into the Reserve Fund account. Assuming that operating costs offset all revenues collected during the twenty-year planning period, the Associations current Capital Fund Balance is NOT adequate to meet the long-term Association needs.

*The following Alternatives show required funding levels over the duration based on the current balance.*

- **ALTERNATIVE # 1:**

Alternative 1 proposes generally level funding for Capital reserves over the duration with an increase in the contribution level to reserves and steps in contribution level in three (3) year increments. This alternative creates an adequate fund balance at the end of the period and represents a good, conservative approach.

- **ALTERNATIVE # 2:**

Alternative 2 also proposes an initial increase to the contribution level and small annual escalation in dues for Capital reserves over the duration. This alternative creates an adequate fund balance at the end of the period and also represents a solid approach.

- **ALTERNATIVE # 3:**

Alternative 3 reviews maintaining minimum level funding at current level over the duration of the funding period. This alternative requires large special assessments at years 5, 11 and year 17 but holds annual dues for capital reserve to a minimum. **This alternative is not recommended but shows what the financial impact will be without long-term planning.**

Please note that the reserve fund study does not include typical annual maintenance items. Our assumption is that you already have an annual operating budget that provides for these typical, repetitive items. This includes miscellaneous repairs, lawn and grounds maintenance, routine minor painting, etc. We have focused on those significant, non-annual items where careful financial planning is important.

Finally, please note that the estimates we have developed are based on 2014 dollars. Our reserve fund study does adjust for an estimated annual inflation and a given return on investment assuming that the indicated fund balances are maintained.

**CRITERIUM-DOTSON ENGINEERS**

## **APPENDIX B – PHOTOGRAPHS**

## **APPENDIX C – EXECUTIVE SUMMARY**

**CROSS OAKS RANCH HOMEOWNERS ASSOCIATION**  
**CAPITAL RESERVE FUND STUDY**  
**EXECUTIVE SUMMARY – MAY 2014**

CROSS OAKS RANCH HOMEOWNERS ASSOCIATION authorized Criterium–Dotson Engineers to conduct a Property Evaluation and Reserve Fund Study for Association Common and Recreation Areas, including pools, amenity center, cabana, monuments, fencing, lakes, hike/bike trail, etc., located in Cross Roads, Texas. Studies of this nature are important to ensure a community has sufficient funds for long-term, periodic capital expenditure requirements. Anticipating large expenditures over an extended period of time through a structured analysis and scheduling process assists the Association in meeting financial requirements without increasing the service fees above permitted maximums, borrowing the funds, or levying special financial assessments to the home owners.

This report is structured to analyze components of the community for which the Association is responsible and to assess a useful expected life and useful remaining life for those components. The anticipated scheduled repair or replacement of the component and the anticipated expense for the activity are then analyzed in conjunction with the current capital reserves funding program for the community. Funding program recommendations are made with the objective of limiting substantial cash excesses while minimizing financial burdens that can result from significant cash inadequacies.

This report is intended to be used as a tool to determine reserve fund allocation requirements for the community, to manage future Association obligations, and to inform the community of future financial needs in general.

This investigation was performed April 17, 2014 by Phillip Nieman, P.E. of Criterium–Dotson Engineers on behalf of CROSS OAKS RANCH HOMEOWNERS ASSOCIATION.

The facilities are, in general, in good condition. There are, of course, a few immediate needs and also anticipated capital expenditures to be expected over the next twenty years. Those items that will require attention are discussed in detail in the full report and can be found in their appropriate sections.

**Based on our review of the facility assets, conditions and finances the current contribution level for Capital reserves is not adequate for the long-term needs of the community. Recommendations were presented to the Board to show adequate funding options for the capital needs of the community for long-term.**

This report forecasts obligations for the community twenty years into the future. It should be noted that events may occur that could have an effect on the underlying component or system useful life assumptions used in this study. Likewise, inevitable market fluctuations can have an impact on component or system replacement and repair costs. As a result, a study such as this should be updated from time to time, usually on a three to five year cycle, in order to reflect the most accurate needs and obligations of the community.

Please note that the reserve fund study does not include typical annual maintenance items. Our assumption is that you already have an annual operating budget that provides for these typical, repetitive items. This includes miscellaneous repairs, lawn and grounds maintenance, pool operation, routine minor painting, etc. We have focused on those significant, non-annual items where careful financial planning is important.

Finally, please note that the estimates we have developed are based on 2014 dollars. Our reserve fund study does adjust for an estimated annual inflation and a given return on investment assuming that the indicated fund balances are maintained.

Thank you for the opportunity to be of service.

**CRITERIUM-DOTSON ENGINEERS**