POST ACTION AGENDA NOTICE

NOTICE OF THE SPECIAL AND REGULAR SESSIONS OF THE FOUNTAIN HILLS TOWN COUNCIL

Mayor Linda M. Kavanagh

Councilmember Dennis Brown	**Councilmember Henry Leger**
Vice Mayor Nick DePorter	**Councilmember Alan Magazine**
Councilmember Cassie Hansen	**Councilmember Cecil A. Yates**

TIME: **5:00 P.M. – SPECIAL SESSION**
6:30 P.M. – REGULAR SESSION

WHEN: **THURSDAY, SEPTEMBER 1, 2016**

WHERE: **FOUNTAIN HILLS COUNCIL CHAMBERS**
16705 E. AVENUE OF THE FOUNTAINS, FOUNTAIN HILLS, AZ

Councilmembers of the Town of Fountain Hills will attend either in person or by telephone conference call; a quorum of the Town's various Commission, Committee or Board members may be in attendance at the Council meeting.

Notice is hereby given that pursuant to A.R.S. § 1-602.A.9, subject to certain specified statutory exceptions, parents have a right to consent before the State or any of its political subdivisions make a video or audio recording of a minor child. Meetings of the Town Council are audio and/or video recorded and, as a result, proceedings in which children are present may be subject to such recording. Parents, in order to exercise their rights may either file written consent with the Town Clerk to such recording, or take personal action to ensure that their child or children are not present when a recording may be made. If a child is present at the time a recording is made, the Town will assume that the rights afforded parents pursuant to A.R.S. § 1-602.A.9 have been waived.

PROCEDURE FOR ADDRESSING THE COUNCIL

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If there is a Public Hearing, please submit the speaker card to speak to that issue during the Public Hearing.

Individual speakers will be allowed **three** contiguous minutes to address the Council. Time limits may be waived by *(i) discretion of the Town Manager upon request by the speaker not less than 24 hours prior to a Meeting, (ii) consensus of the Council at Meeting or (iii) the Mayor either prior to or during a Meeting*. Please be respectful when making your comments. If you do not comply with these rules, you will be asked to leave.

SPECIAL SESSION AGENDA

- **CALL TO ORDER –** Mayor Linda M. Kavanagh **5:02 PM**
- **ROLL CALL –** Mayor Linda M. Kavanagh

1. **DISCUSSION WITH POSSIBLE DIRECTION TO STAFF** regarding the Fountain Lake WATER QUALITY. **NO ACTION TAKEN**
2. **ADJOURNMENT**. **6:29 PM**

REGULAR SESSION AGENDA

- **CALL TO ORDER AND PLEDGE OF ALLEGIANCE –** Mayor Linda M. Kavanagh **6:40 PM**
- **INVOCATION –** Pastor David Taylor, First Baptist Church of Fountain Hills
- **ROLL CALL –** Mayor Linda M. Kavanagh
- **MAYOR'S REPORT**

  i) The MAYOR will read a PROCLAMATION declaring September 2016 Grandfamily/Kinship Care Month in the Town of Fountain Hills.

  ii) The Mayor will read a PROCLAMATION declaring September 17, 2016 as PLAY DAY in the Town of Fountain Hills.

- **SCHEDULED PUBLIC APPEARANCES/PRESENTATIONS**

  i) Mayor Kavanagh may review RECENT EVENTS attended relating to Economic Development.

  ii) RECOGNITION of retiring Strategic Planning Advisory Commissioner Lina Bellenir.

  iii) PRESENTATION on 2016 LEGISLATION by the League of Arizona Cities and Towns Deputy Director Tom Belshe and Senior Legislative Associate Dale Wiebusch.

  iv) RECOGNITION of the Town receiving the OUTSTANDING SPORTS PROGRAM AWARD from the Arizona Parks and Recreation Association for the Town's Archery Program.

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CONSENT AGENDA ITEMS - APPROVED AS LISTED

All items listed on the Consent Agenda are considered to be routine, non-controversial matters and will be enacted by one motion and one roll call vote of the Council. All motions and subsequent approvals of consent items will include all recommended staff stipulations unless otherwise stated. There will be no separate discussion of these items unless a Councilmember or member of the public so requests. If a Councilmember or member of the public wishes to discuss an item on the consent agenda, he/she may request so prior to the motion to accept the Consent Agenda or with notification to the Town Manager or Mayor prior to the date of the meeting for which the item was scheduled. The items will be removed from the Consent Agenda and considered in its normal sequence on the Agenda.

1. **CONSIDERATION** of approving the TOWN COUNCIL MEETING MINUTES from August 18, 2016.

2. **CONSIDERATION** of approving the FIRST AMENDMENT to the Cooperative Purchase Agreement C2015-164.1, with Vincon Engineering Construction, LLC for curb repair and sidewalk ramp modifications in the amount of $49,371.34.

3. **CONSIDERATION** of approving a SPECIAL EVENT LIQUOR LICENSE APPLICATION for Fountain Events, Inc. (Samuel Coffee) in conjunction with the 2016 Oktoberfest event to be held at Fountain Park, located at 12925 N. Saguaro Boulevard, on Friday, September 30 and Saturday, October 1, 2016, from 5:00 PM to 11:00 PM.

REGULAR AGENDA

4. **CONSIDERATION** of appointing four (4) Planning and Zoning Commissioners for two (2) year terms beginning on October 1, 2016 until September 30, 2018. **APPOINTED: GENE MIKOLAJCZYK; HOWIE JONES; ERIK HANSEN & AMERLEIGH DABROWSKI**

5. **PUBLIC HEARING** to receive comments on a proposed SPECIAL USE PERMIT by Fearless Kitty Cat Rescue to allow indoor kennels at 16832 E. Avenue of the Fountains, located in the "C-2" zoning district. Case #SU 2016-03 **OPENED: 7:18 PM; CLOSED: 7:26 PM**

6. **CONSIDERATION** of a proposed SPECIAL USE PERMIT by Fearless Kitty Cat Rescue to allow indoor kennels at 16832 E. Avenue of the Fountains, located in the "C-2" zoning district. Case #SU 2016-03 **APPROVED**

7. **PUBLIC HEARING** for comment on ORDINANCE 16-05, to amend Section 2.07 of the Fountain Hills Subdivision Ordinance to allow the ADMINISTRATIVE APPROVAL OF MINOR REPLATS such as lot line adjustments, lot splits and lot joins. Case #Z2016-03 **OPENED: 7:29 PM; CLOSED: 7:34 PM**

8. **CONSIDERATION** of ORDINANCE 16-05, to amend Section 2.07 of the Fountain Hills Subdivision Ordinance to allow the ADMINISTRATIVE APPROVAL OF MINOR REPLATS such as lot line adjustments, lot splits and lot joins. Case #Z2016-03 **APPROVED**

9. **CONSIDERATION** of RESOLUTION 2016-16, approving the FIRST AMENDMENT to Amended and Restated Final Settlement Agreement between the Town and MCO Properties Inc., EN LLC and Adero Canyon LLC. **APPROVED**

10. **PRESENTATION** of the TOURISM PROGRAM and **CONSIDERATION** of a TOURISM STRATEGIC PLAN for 2016 - 2019. **APPROVED**

11. **COUNCIL DISCUSSION/DIRECTION** to the Town Manager.

Item(s) listed below are related only to the propriety of (i) placing such item(s) on a future agenda for action or (ii) directing staff to conduct further research and report back to the Council:

i.) None.

12. **SUMMARY OF COUNCIL REQUESTS** and REPORT ON RECENT ACTIVITIES by the Mayor, Individual Councilmembers, and the Town Manager.

13. **ADJOURNMENT.** **8:18 PM**

DATED this 25th day of August, 2016.

Bevelyn J. Bender, Town Clerk

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TOWN OF FOUNTAIN HILLS

TOWN COUNCIL AGENDA ACTION FORM

Meeting Date: 9/1/2016

Meeting Type: Special Session

Agenda Type: Regular

Submitting Department: Community Services

Staff Contact Information: Mark Mayer - mmayer@fh.az.gov

Strategic Planning Goal: Not Applicable (NA)

Operational Priority: Not Applicable (NA)

REQUEST TO COUNCIL (Agenda Language): DISCUSSION WITH POSSIBLE DIRECTION TO STAFF regarding the Fountain Lake WATER QUALITY.

Applicant: n/a

Applicant Contact Information: n/a

Owner: Town of Fountain Hills

Owner Contact Information: n/a

Property Location: Fountain Park

Related Ordinance, Policy or Guiding Principle: N/A

Staff Summary (background)**:** A number of months ago the Town was approached by Mr. Ron Huber, the District Manager of the Sanitary District with an offer to take effluent water directly from their treatment plan for irrigation purposes rather than from the lake. The water from the treatment plant would be of a much higher quality and is used by almost all of the local golf courses for turf irrigation purposes.

Staff contacted Gaylon Coates, with Coates Irrigation, to see how this might be accomplished and what the potential cost might be. A copy of Mr. Coate's report is attached. The park staff is using approximately twice the water this year than used in the past. Unfortunatley, Mr. Coates original estimate of the cost was based on the smaller use figure so we will be asking him to provide a revised report.

Secondly, the staff contacted Dr. Rick Amalfi, with Aquatic Consulting, Inc. to see what harmful effects would potentially occur to the water that remained in the lake with almost no turnover since it would no longer be used for irrigation purposes. The only water loss in the lake would then be by evaporation only. In addition, we asked him to determine what means could be used to treat the lake after the conversion and what that cost might be. Dr. Amalfi's report is also attached.

Staff also contacted Mr. Patrick Kelly, P.E. with Quantum Integrated Solutions to look at the fountain control system for possible upgrades with new technology to help better manage the lake and its water quality. The Sanitary District uses this firm for their controls at their treatment plant. Mr. Kelly also brought in Mr. Kevin Baker, Senior Electical Engineer from Keller Electric to look at the current condition of the pumps controls and if a VFR, variable frequency drive, would have a potential beneficial application to our system. Copies of proposals from both firms and prices are attached.

Mr. Coates, Dr. Amalfi, Mr. Kelly, P.E. and Mr. Baker will be presenting their respective reports and answering questions at the meeting.

Risk Analysis (options or alternatives with implications)**:**

Fiscal Impact (initial and ongoing costs; budget status)**:**

Budget Reference (page number): Pages 352 and 353 - $180,000 for construction in the CIP **Pg 352**

Funding Source: Capital Projects Fund

If Multiple Funds utilized, list here:

Budgeted; if No, attach Budget Adjustment Form: Yes

Recommendation(s) by Board(s) or Commission(s): N/A

Staff Recommendation(s):

List Attachment(s): Mr. Coates' report, Dr. Amalfi's report and proposals with prices from both Quantum and Keller

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SUGGESTED MOTION (for Council use)**:** Motion to staff to provide direction on how to proceed

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Prepared by:

NA 8/25/2015

Director's Approval:

NA 8/22/2016

Approved:

Grady E. Miller, Town Manager 8/23/2016

DIRECT RECLAIMED WATER REUSE

Impact on Irrigation Operations and Fountain Lake Water Quality

Aquatic Consulting & Testing, Inc.

IRRIGATION PRACTICES

PAST

- Reclaimed wastewater (from Sanitary District) added to Fountain Lake.
- Lake water delivered to irrigation system for golf courses and Fountain Park turf and ornamental watering.

THE PROBLEM

Reclaimed water contains high concentrations of nitrogen and phosphorus that stimulates algae growth and development of nuisance organisms (productive lake).

Lake water evaporates and concentrates chemicals and biological agents that cause the following problems:

- Salinity and ion toxicity to plants.
- Scaling due to high calcium content.
- Biological fouling (plugging).

IRRIGATION ISSUES

THE SOLUTION

PRESENT

- Wastewater system upgrade to Advanced Wastewater Treatment (AWT).
- Reclaimed wastewater delivered directly to major users (golf courses).
- Lake water delivered to park irrigation system only for turf and ornamental watering.
- Reclaimed wastewater (AWT effluent) fills lake to replace evaporative and irrigation losses.

LAKE WATER VERSUS DIRECT REUSE FOR IRRIGATION

Parameter	AWT Effluent	Fountain Lake
Infiltration	No restriction	No restriction
Calcium (mg/L)	85	201
Tot. dissolved solids	1200	3310
pH	7.7	9.0
Stability	Slightly scaling	Moderately scaling
Sodium	240	610
Chloride	350	1120
Biology	Minor (limited fouling)	Significant and diverse (high fouling potential)

IMPACT OF DIRECT REUSE ON LAKE WATER QUALITY

Although the AWT effluent provides higher quality water than in the past, in terms of minerals, solids, and organic matter, it still contains significant amounts of algae and aquatic plant nutrients.

Parameter	Needed by algae	Provided by AWT
Phosphorus, mg/L	0.03	3.1
Nitrogen, mg/L	0.30	2.7

Problems associated with a productive lake will continue.

IMPACT OF DIRECT REUSE ON LAKE WATER QUALITY

Because less water will be removed from the lake for irrigation:

- Detention time will increase and water stagnation more likely.
- Nutrients (nitrogen and phosphorus) and minerals may increase as evaporation losses outweigh withdrawal losses.
- Algae blooms may become more frequent.
- Accumulation of organic sludge on lake bottom will accelerate.
- Odor formation may increase as a result of additional biomass.

MITIGATION MEASURES

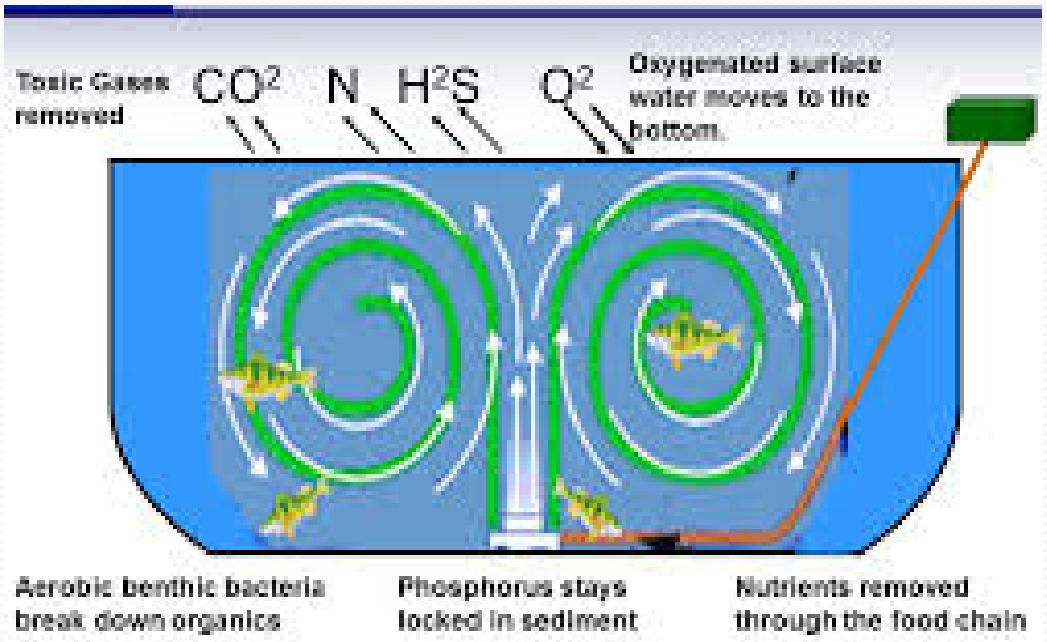
- Mechanical aeration, circulation, and possibly oxygenation.
- Use of algaecides, flocculants, and oxidizers.

  Copper – algaecide

  Alum – phosphate binder

  Peroxide – algaecide and odor oxidant
- Use of lake dyes to slow photosynthesis and algae growth.
- Maintaining “utility” fish populations for weed and insect management.

MECHANICAL AERATION AND CIRCULATION



BENEFITS OF MECHANICAL CIRCULATION / AERATION

- Provides oxygen for decomposition of organic matter that accumulates at the lake bottom.
- Prevents formation of oxygen-poor cold water zones in the deeper portion of the lake.
- Volatilizes and oxidizes toxic gases as ammonia and sulfides that are produced and released from the lake sediment.
- Produces an aerobic water column over the sediment that prevents the conversion and release of phosphates (prevents nutrient cycling).
- Prevents surface blooms of algae by constantly vertically mixing the water column.
- Reduces the likelihood of fish kills associated with lake turnover and biological oxygen demand.
- Increases oxidation of organic molecules, leading to reduction of off-odors.

Gaylon Coates

President - Coates Irrigation Consultants, Inc.

(480) 481-0682 | gaylon@coatesirrigation.com

Background

- Coates Irrigation Consultants, Inc. founded in 1978
- 10,000+ Projects in Arizona and many other states
- International Projects
  - Qatar
  - South Africa
  - Mexico
  - Bali
  - Peru
  - Guam
- Golf, Commercial, Education, Residential, Municipal, Major Sports

Above Ground Steel Storage Tank

coates.com IRRIGATION

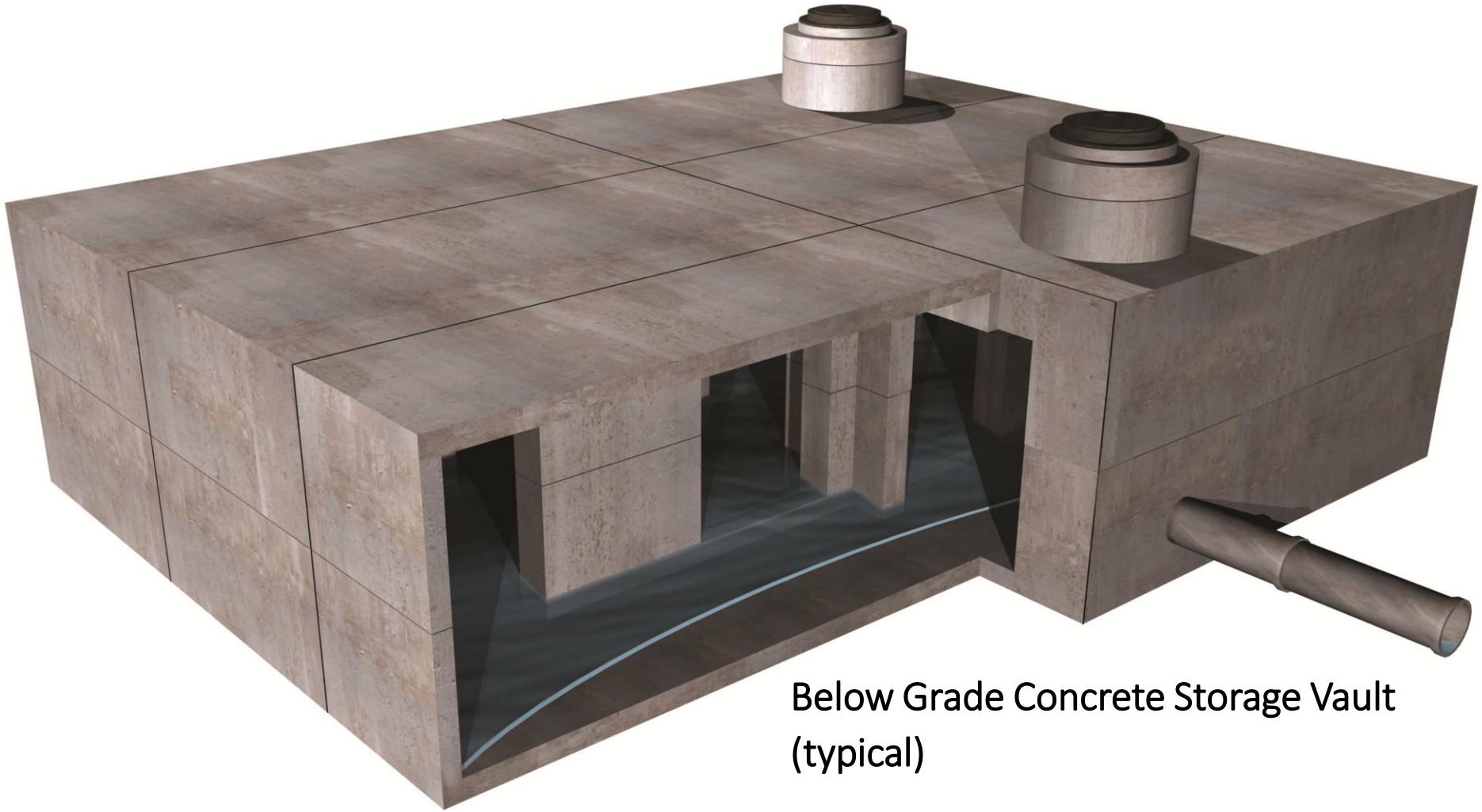
Above Ground Steel Storage Tank

- Ultra-filtered water
- 77 feet in diameter x 24 feet tall
- Placed within the fence area adjacent to existing pump
- New centrifugal-type booster pumping station with filtration required
- 460-volt, three-phase electrical power required

Above Ground Steel Storage Tank Est. Costs

• Above-grade steel tank	$530,000
• Site grading	$40,000
• New centrifugal pump station	$175,000
• Concrete slab & enclosure	$50,000
• New booster pump	$60,000
• Pipe from AWTP to tank	$20,000
• Pipe from storage to pump	$25,000
• Isolation valves, misc. fittings, etc.	$30,000
• **TOTAL**	**$930,000**

coates.com IRRIGATION



Below Grade Concrete Storage Vault
(typical)

Below Grade Concrete Storage Vault

- Gravity-fed water storage vault
- Can be located underneath parking or turf areas
- Existing pump station may be able to be re-used
- Shafts would need to be extended 8 feet
- 73 feet square x 20 feet deep
- 460-volt, three-phase electrical power required

Below Grade Concrete Storage Vault Est. Costs

• Below-grade concrete vault	$1,140,000
• Refurbished existing pump station	$50,000
• Concrete slab & enclosure for pump station	$50,000
• Pipe from AWTP to new storage vault	$20,000
• Pipe from storage to pump to irrigation	$25,000
• Isolation valves, misc. fittings, etc.	$30,000
• **TOTAL**	**$1,315,000**

coates.com IRRIGATION

Underground Fiberglass Storage Tanks

coates.com IRRIGATION

Underground Fiberglass Storage Tanks

- Cost-effective solution to water storage
- Sixteen 50,000-gallon tanks side-by-side and interconnected
- Existing refurbished pump station could be utilized
- 70 feet x 270 feet
- 460-volt, three-phase electrical power required

coates.com IRRIGATION

Underground Fiberglass Storage Tanks Est. Costs

• Below-grade fiberglass tanks	$960,000
• Refurbished existing pump station	$50,000
• Concrete slab, enclosure for pump	$ 50,000
• Pipe from AWTP to new storage tank	$30,000
• Pipe from storage to pump to irrigation	$25,000
• Isolation valves, misc. fittings, etc.	$30,000
• **TOTAL**	**$ 1,145,000**

coates.com IRRIGATION

Isolation of the Existing Lake Pump Bay

coates.com IRRIGATION

Isolation of the Existing Lake Pump Bay

- The pump bay is not large enough to be viable.

- We recommend that the existing irrigation pump station be left in its current location.

Summary

- **Above Ground Steel Storage Tank**
- **Below Grade Concrete Storage Vault**
- **Underground Fiberglass Storage Tanks**
- **Isolation of the Existing Lake Pump Bay**

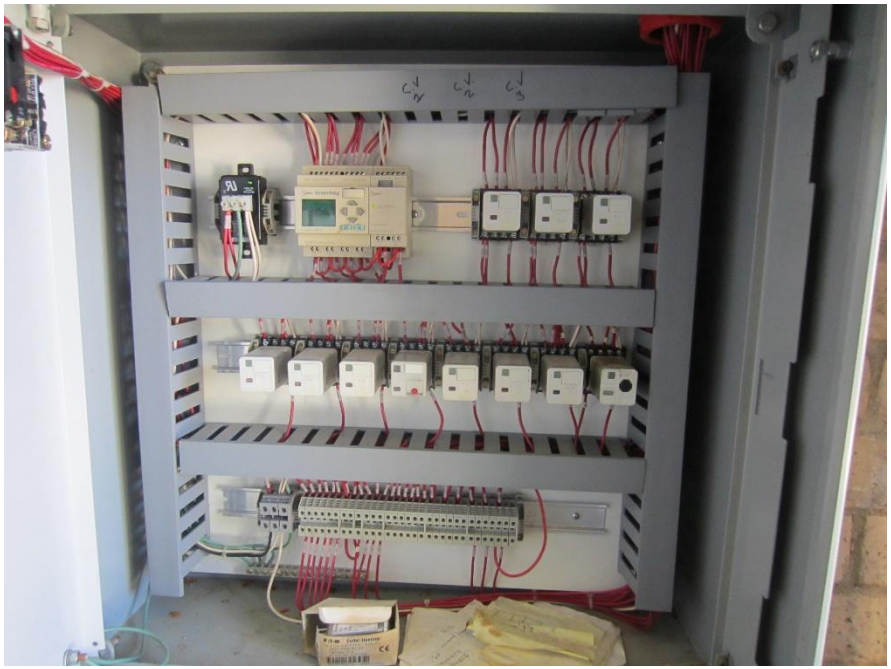

QUANTUM
INTEGRATED SOLUTIONS

Introduction

- Patrick Kelly, P.E. - Electrical Engineer
- Company: Quantum
- Location: Tempe
- Electrical Engineering Firm
- Industrial Automation & Process Control
- Industries
  - Mining
  - Water/Wastewater
  - Semiconductor
  - Energy
  - Factory Automation
  - Oil/Gas

Existing Fountain Control System Issues

- Old equipment
- Not Electrical Code Compliant
- Limited Capability for Fountain Controls
  - Similar to Sprinkler Timer
  - No User Interface
  - Only Local Control
  - Not Easy to Adjust Schedule
  - No Option for Single Pump
- Mechanical Weather/Wind Station with Interlock Only
- No Documentation



Proposed New Control System

- Modern Industrial Process Controller
- 7” Color Touchscreen Interface
- Custom Software for Control Flexibility
  - Adjustable Time
  - Adjustable Wind
  - Single Pump Option
- Solid State Weather/Wind Station
- Full Drawing & Documentation Package
- Retrofit in Existing Enclosure
- Secure, Remote Capability via Cellular Connection
- Detailed Proposal in Packet
- Budget of Approximately ~$50k

Remote Status Display

- ***Optional Services:***
  - Big Screen TV Monitor for Town Hall
  - Real Time Status of Fountain and Wind Parameters
  - Energy Savings Calculator
  - Optionally Could Also Be Displayed on Town Webpage
  - Controls Integration of Additional Projects (Blowers, Irrigation, Effluent Inflow, etc)

Questions

Keller Electrical

MOTORS | CONTROLS | SERVICES

Fountain Lake Water Quality

September 1, 2016

Keller Electrical Industries

Industry leader in industrial motor repair and service, custom motor control manufacturing and electrical contracting and construction.

- Established Business serving Arizona, California, Nevada & New Mexico since 1982
- EASA Member Repair Facility – AC & DC Motors, generators transformers, Vibration Analysis, Machining & Welding
- Custom Control Manufacturer and System Integrator, Variable Frequency Drives, High Voltage Switchgear & PLCs
- UL 508 Certified Plants
- Electrical Contracting & Technical Services

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EASA Repair Facility

- 105,000 square foot UL Certified facility providing comprehensive repair capabilities
- Experienced and knowledgeable technicians
- AC & DC Motors, generators, transformers, pumps, starters, Dynamic Balancing, Vibration Analysis, Machining and Welding
- Stocking Distributor for US Motors, Toshiba, TECO Westinghouse, Tatung, Marathon and Leeson

Keller Electrical
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Custom Control Division

- UL 508A Certified Fabrication Plant

  - System Integration, Motor Controls Centers, Variable Frequency Drives, High Voltage Switchgear, PLCs and Vacuum Contactors

    - Distributors/OEM's for Siemens, EATON/Cutler Hammer, Fuji, GE Multilin & Toshiba controls (VFDs and PLCs), TECO-Westinghouse

TOSHIBA
Authorized
Distributor

SIEMENS

ABB

EATON
Powering Business Worldwide

GE Multilin

The Fountain currently uses two or three 600Hp motors running at full speed. On two motors the fountain height is approximately 300 feet. On holidays and special occasions, all three motors run, pushing the fountain to 560 feet.

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The system dates back to 1970, and the switchgear that controls the motors is showing its age. Reliability and parts availability may become problematic.

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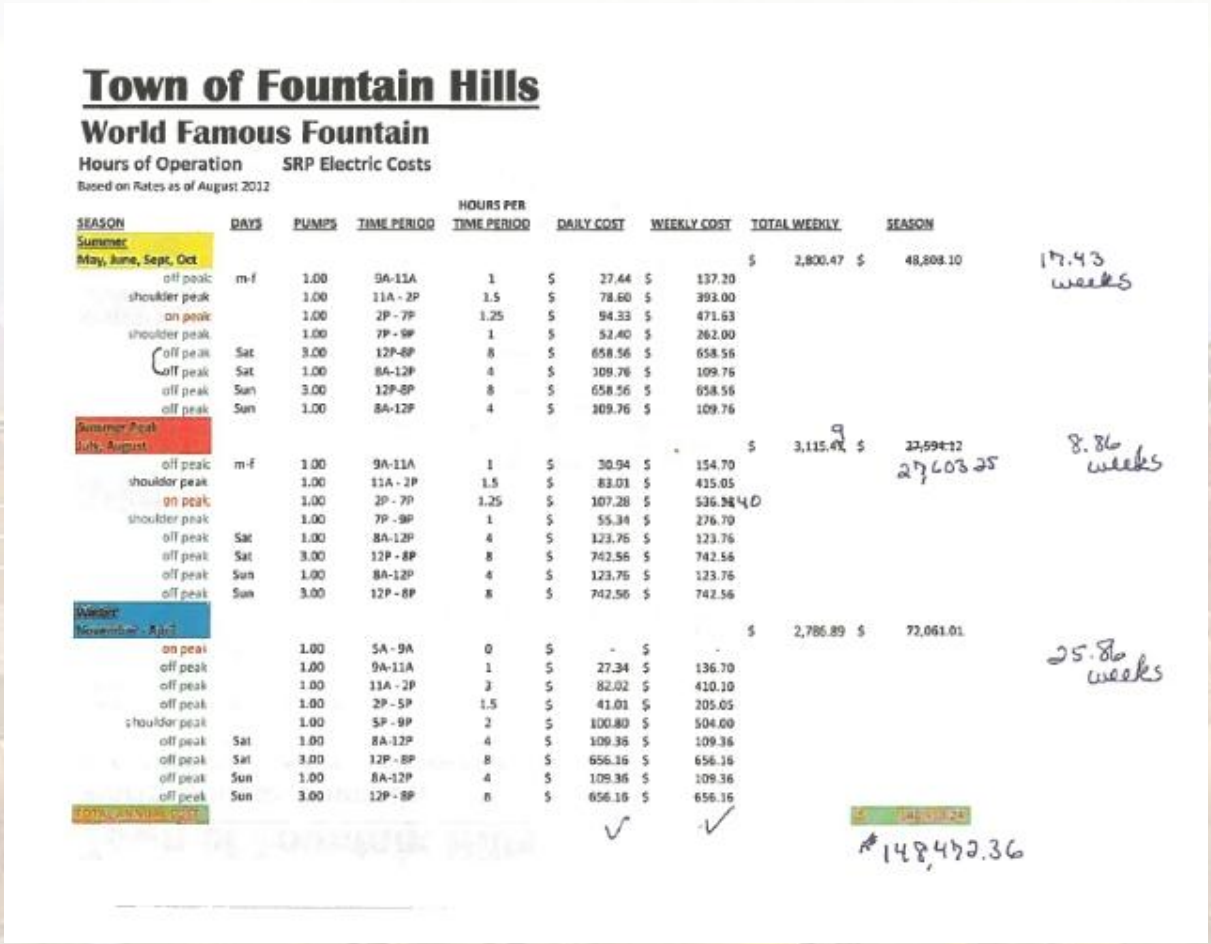
In addition, operation of the pumping system is quite expensive. Keller Electrical was provided a spreadsheet indicating that the daily average cost of running was approximately $400, over $148,000 per year.



Town of Fountain Hills

World Famous Fountain

Hours of Operation SRP Electric Costs

Based on Rates as of August 2012

SEASON	DAYS	PUMPS	TIME PERIOD	HOURS PER TIME PERIOD	DAILY COST	WEEKLY COST	TOTAL WEEKLY	SEASON	
Summer May, June, Sept, Oct							$ 2,800.47	$ 48,808.10	17.43 weeks
off peak	m-f	1.00	9A-11A	1	$ 27.44	$ 137.20			
shoulder peak		1.00	11A - 2P	1.5	$ 78.60	$ 393.00			
on peak		1.00	2P - 7P	1.25	$ 94.33	$ 471.63			
shoulder peak		1.00	7P - 9P	1	$ 52.40	$ 262.00			
off peak	Sat	3.00	12P-8P	8	$ 658.56	$ 658.56			
off peak	Sat	1.00	8A-12P	4	$ 109.76	$ 109.76			
off peak	Sun	3.00	12P-8P	8	$ 658.56	$ 658.56			
off peak	Sun	1.00	8A-12P	4	$ 109.76	$ 109.76			
Summer Peak July, August							$ 3,115.92	$ ~~23,694.12~~ 27,603.25	8.86 weeks
off peak	m-f	1.00	9A-11A	1	$ 30.94	$ 154.70			
shoulder peak		1.00	11A - 2P	1.5	$ 83.01	$ 415.05			
on peak		1.00	2P - 7P	1.25	$ 107.28	$ 536.40			
shoulder peak		1.00	7P - 9P	1	$ 55.34	$ 276.70			
off peak	Sat	1.00	8A-12P	4	$ 123.76	$ 123.76			
off peak	Sat	3.00	12P - 8P	8	$ 742.56	$ 742.56			
off peak	Sun	1.00	8A-12P	4	$ 123.76	$ 123.76			
off peak	Sun	3.00	12P - 8P	8	$ 742.56	$ 742.56			
Winter November - April							$ 2,786.89	$ 72,061.01	25.86 weeks
on peak		1.00	5A - 9A	0	$ -	$ -			
off peak		1.00	9A-11A	1	$ 27.34	$ 136.70			
off peak		1.00	11A - 2P	3	$ 82.02	$ 410.10			
off peak		1.00	2P - 5P	1.5	$ 41.01	$ 205.05			
shoulder peak		1.00	5P - 9P	2	$ 100.80	$ 504.00			
off peak	Sat	1.00	8A-12P	4	$ 109.36	$ 109.36			
off peak	Sat	3.00	12P - 8P	8	$ 656.16	$ 656.16			
off peak	Sun	1.00	8A-12P	4	$ 109.36	$ 109.36			
off peak	Sun	3.00	12P - 8P	8	$ 656.16	$ 656.16			
TOTAL OPERATING COST					✓	✓		$ 148,472.36	

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Keller Electrical was contacted to address the possibility of replacing the existing switchgear with Variable Frequency Drive equipment with an eye towards greater efficiency and cost savings.

- Variable Frequency Drives are used to control the speed, flow and head pressure of pumping systems.
- The Fountain Hills application currently only controls flow and head by controlling the number of pumps running.
- Two pumps running at full rated power provide a 300’ fountain.
- Three pumps running at full rated power provide a 560’ fountain.
- To reduce power consumption, the pumps must be slowed, and the fountain height will be reduced.
- To provide the most economical option with the greatest reliability, KEI recommends one 1250Hp VFD and a switchgear lineup that will allow the drive to control two motors at a time.
- When all three pumps are desired, a reduced-voltage starter will control the third pump

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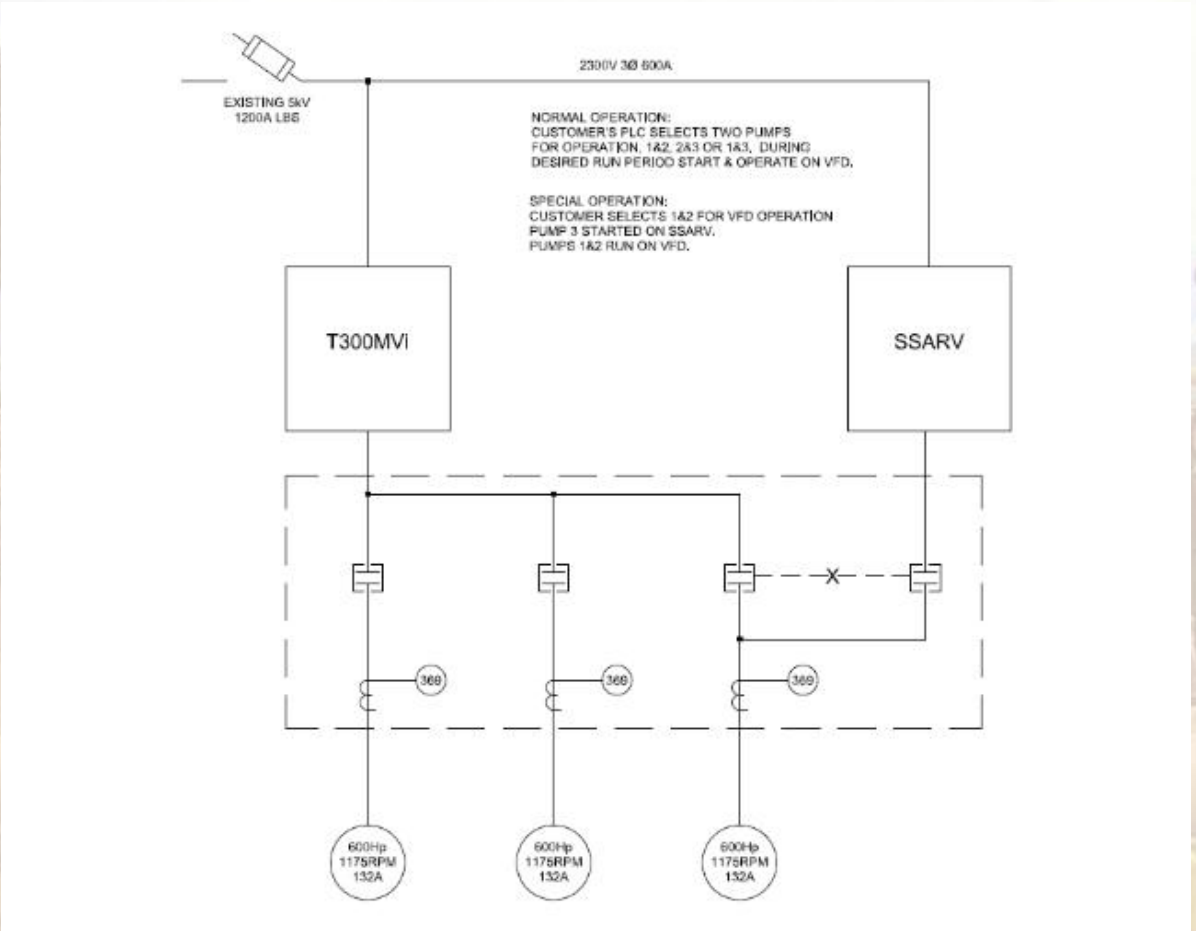
This arrangement allows any one pump to be taken out of service while the other two are operated by the VFD. If all three are available and needed, pumps 1 & 2 will be run from the VFD and pump 3 from the starter.



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But what about power savings?

- The reason VFDs are so popular in pumping applications is due to the fact that by controlling the pump speed, pump power consumption can be greatly reduced
- The “Affinity Laws” describe an ideal system where flow is proportional to pump speed, pressure is proportional to pump speed squared, and power is proportional to pump speed cubed. Thus a small reduction in speed results in a large reduction in power consumption.
- By running two pumps at 90% speed, the height of the fountain will be reduced to approximately 80%, or 240’. Power, however will be reduced to approximately 73% - instead of $400/day, the power bill would be less than $300/day, for a net savings of more than $40,000 per year.
- Further reduction in flow will result in significantly larger power savings.

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Additional Advantages

- Currently, if the wind speed in the area exceeds a threshold, the pumps will be shut down or inhibited from running during that hour of operation. In conjunction with the new control system, the pumps can be slowed down to reduce the dispersion of the fountain due to wind, while keeping the system running at at least some capacity. As the fountain is part of the water quality control system, this should be advantageous.
- Using a VFD, the motors can be started gently without drawing high current as with the existing motor controls. In addition to the other advantages of VFD operation, you may be able to negotiate a better power rate with SRP.
- SRP may offer incentives for VFD operation to help offset the cost of equipment and installation.

Questions?

Keller Electrical
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Coates Irrigation Consultants, Inc.

1420 North Greenfield Road | Suite 103 | Gilbert, Arizona 85234

Phone 480-481-0682 | Fax 480-481-0939

October 26, 2015
Revised August 26, 2016

Mr. Mark Mayer
TOWN OF FOUNTAIN HILLS
COMMUNITY SERVICES DEPARTMENT
16705 East Avenue of the Fountains
Fountain Hills, Arizona 85268

Re: **FOUNTAIN PARK – Irrigation Feasibility Study Report**

Dear Mark:

This report is a summary of the process regarding the **Fountain Park** Project located in Fountain Hills, Arizona. The scope of work was to coordinate and study the possibility of using a more direct supply from the Fountain Hills Sanitary District's pipeline, rather than pumping from the lake. This report has been revised from the original to account for higher daily irrigation demand as reported by Kevin Snipes of the parks department.

I. IRRIGATION FEASIBILITY STUDY

The **Irrigation Feasibility Study** was accomplished following research and coordination with the Fountain Hills Sanitary District. We met with Ron Huber and Clark Moskop of the District, and discussed the existing facilities and possibilities for modifying the Fountain Park irrigation water source. We also visited the pump station site.

The current irrigation system supply is directly from Fountain Lake. The existing pump station is a vertical turbine type inside the existing pump room, with shafts that hang into the water. The capacity is 1800 gpm at 105 psi discharge pressure. Filtration is included at the pump station.

Our revised study of the existing irrigation system resulted in the following, and as shown on the accompanying spreadsheets:

For approximately 36.5 acres of landscaping (mostly turf):

408.82 acre-feet per year

1,055 gpm minimum peak night

660,910 gallons per peak night

We recommend **800,000 gallons** of irrigation storage, since it is impossible to pump water to the bottom of any type of tank.

According to our conversations with the Sanitary District, the most feasible situation is to utilize the "Ultra-filtered" water from the Advanced Water Treatment Plant (AWTP) immediately southwest of Fountain Park. This water is much "cleaner" than the water in the lake, and will benefit the turf and landscaping. This water is available on a 24/7 basis, but Ron and Clark were quick to point out that **one days' irrigation storage** will be required for the new water source.

The AWTP receives both reclaimed effluent, and recovery water from wells, and treats it at the AWTP location. Water is available in a 10" pipeline at about 1250 gpm. There is also a 15" overflow pipeline that gravity feeds into Fountain Lake at about 1150 gpm. Ron reported that approximately 2 psi is available in the pipeline when it enters the pump bay at Fountain Lake.

The storage requirement allows the most flexibility, but also offers the challenge of locating the storage facilities. Siting is addressed later in the report. The flexibility benefit is that sufficient water will be in storage for a night's irrigation cycle, in the event the plant can't supply enough water on a given day. At the rate of flow from the AWTP (1250 gpm), 800,000 gallons would be transferred into storage in approximately 10.7 hours during the daytime, allowing the irrigation storage to be full when the cycle begins each evening.

It appears that the alternative water source is feasible, as long as siting details can be accommodated.

II. RECOMMENDATIONS

The existing pump station is located on the southwest side of the lake, at the building where the Fountain Pumps are located. The existing irrigation mainline begins at that location, and it is crucial to connect the new water source at that location in order to avoid major pipe cost. On our site visit, we observed the existing pump

station. Its condition appears to be adequate; some refurbishment is likely required, especially to the shafts and pump bowls in the water, for it to be utilized for any of the options below.

It would be most beneficial if the irrigation storage facility could be located near the existing pump station, but this will take field investigation and coordination. Following are four options:

A. Above-ground steel storage tank:

Ultra-filtered water from the AWTP would be pumped into a steel tank located on grade. A booster pump will be required to boost the AWTP water (2 psi) to spill over into the top of the tank, due to the height of the tank in relation to the elevation at the treatment plant. Water would enter at the top of the tank using the "airgap" method from a pipeline above water level.

In order to store 800,000 gallons of water, the tank size recommended is 77 feet in diameter by 24 feet tall. This type of tank is common across the valley. It may be possible to place this type of tank within the fenced-in area adjacent to the existing pump house in a re-designed and re-graded area immediately to the southwest of the existing pump building.

A new, horizontal centrifugal-type irrigation booster pumping station with filtration would be required. It would not be possible to use the existing pump station for this concept. 460-volt, three-phase electrical power must be provided at the pump station.

B. Below grade concrete storage vault:

Using a storage facility that is below grade affords the possibility of providing gravity-fed water into the storage vault. Elevations would need to be studied when the plans are engineered if this method were chosen. It also allows the potential to locate the storage vault underneath parking or turf areas.

One other advantage to using a submerged vault is that the existing vertical turbine pump station may be able to be re-used for the irrigation system. A certain amount of refurbishment would be required since the pump station is 8 years old, but potentially the shafts would penetrate into a concrete storage vault in a similar manner its current condition at the lake. The shafts would need to be extended about 8 feet in order to pump deeper into the vault.

The size of a concrete vault is recommended as 73 feet square by 20 feet deep. It appears that the most feasible locations for a vault of this size are within the pump enclosure as described above for the steel tank; the existing turf or parking areas just west of the existing pump building; or the existing turf areas east of the pump building. The vault would be buried below grade, and a concrete slab located where the pump station would be placed. The design would then include re-placing the turf, landscaping, or parking on top of the facility. 460-volt, three-phase electrical power must be provided at the pump station.

C. Underground fiberglass storage tanks:

Similar to "B," fiberglass tanks have been used effectively as cost-effective solutions to water storage. A series of sixteen 50,000-gallon tanks could be placed side-by-side and interconnected. The design would include the water supply into one tank at one end, and the pump station in the furthest tank from the source to draw water through and keep it as clean as possible. The existing refurbished vertical turbine pump station could be utilized with the shafts and pumps submerged in the water of the storage tanks.

This solution requires an underground space of about 70 feet by 270 feet. The most logical location would be the turf or parking areas to the west of the current pump building, or possibly the turf area east of the pump building. 460-volt, three-phase electrical power must be provided at the pump station.

D. Isolation of the existing lake pump bay:

Due to the most recent irrigation demand information, the pump bay is not large enough for this concept to be viable.

We recommend that the existing irrigation pump station be left in its current location, with pipe and valves connected to the irrigation system in the event it needs to be used for emergency irrigation.

Coordination with Town personnel will be required regarding the best location for the alternate water source storage and pumping location.

III. COST ESTIMATES

Following are estimates for each of the three concepts recommended above (excluding design, permits, or electrical power installation cost):

A. Above-ground steel storage tank:

This concept is the most feasible. Following are estimated costs:

Above-grade steel reinforced tank (800,000-gal.):	$ 530,000
Site grading:	40,000
New centrifugal irrig pump station (1800 gpm @ 105 psi):	175,000
Concrete slab, enclosure for pump station:	50,000
New booster pump station to tank (1250 gpm @ 20 psi):	60,000
Pipe from AWTP to new storage tank:	20,000
Pipe from storage to pump, and to irrigation system:	25,000
Isolation valves, misc. fittings, contingency:	30,000
Total:	**$ 930,000**

B. Below grade concrete storage vault:

This concept is feasible. Following are estimated costs:

Below-grade reinforced concrete vault (800,000-gal.):	$ 1,140,000
Refurbished existing pump station (1800 gpm @ 105 psi):	50,000
Concrete slab, enclosure for pump station:	50,000
Pipe from AWTP to new storage vault:	20,000
Pipe from storage to pump, and to irrigation system:	25,000
Isolation valves, misc. fittings, contingency:	30,000
Total:	**$ 1,315,000**

C. Underground fiberglass storage tanks:

This concept is feasible. Following are estimated costs:

Below-grade fiberglass tanks (16 @ 50,000-gal.):	$ 960,000
Refurbished existing pump station (1800 gpm @ 105 psi):	50,000
Concrete slab, enclosure for pump station:	50,000

Pipe from AWTP to new storage tank:	30,000
Pipe from storage to pump, and to irrigation system:	25,000
Isolation valves, misc. fittings, contingency:	30,000
Total:	**$ 1,145,000**

D. Isolation of the existing lake pump bay:

This concept is not feasible due to space limitations since the peak daily irrigation demand is higher than originally reported.

Thank you for the opportunity to assist you. If you have any questions regarding any part of the Report, feel free to call us.

Sincerely,

GAYLON L. COATES
President
COATES IRRIGATION CONSULTANTS INC.


FLOWTRONEX


1200
800
150
200
1600
100
FLOWTRONEX PSI
250
400
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psi
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FLOWTRONEX

Coates Irrigation Consultants, Inc.

1420 North Greenfield Road | Suite 103 | Gilbert, Arizona 85234

Phone 480-481-0682 | Fax 480-481-0939

October 26, 2015

Mr. Mark Mayer
TOWN OF FOUNTAIN HILLS
COMMUNITY SERVICES DEPARTMENT
16705 East Avenue of the Fountains
Fountain Hills, Arizona 85268

Re: **FOUNTAIN PARK – Irrigation Feasibility Study Report**

Dear Mark:

This report is a summary of the process regarding the **Fountain Park** Project located in Fountain Hills, Arizona. The scope of work was to coordinate and study the possibility of using a more direct supply from the Fountain Hills Sanitary District's pipeline, rather than pumping from the lake.

I. IRRIGATION FEASIBILITY STUDY

The **Irrigation Feasibility Study** was accomplished following research and coordination with the Fountain Hills Sanitary District. We met with Ron Huber and Clark Moskop of the District, and discussed the existing facilities and possibilities for modifying the Fountain Park irrigation water source. We also visited the pump station site.

The current irrigation system supply is directly from Fountain Lake. The existing pump station is a vertical turbine type inside the existing pump room, with shafts that hang into the water. The capacity is 1800 gpm at 105 psi discharge pressure. Filtration is included at the pump station.

Our study of the existing irrigation system resulted in the following, and as shown on the accompanying spreadsheets:

For approximately 36.5 acres of landscaping (mostly turf):

196.04 acre-feet per year

1,055 gpm minimum peak night

316,931 gallons per peak night

We recommend **400,000 gallons** of irrigation storage, since it is impossible to pump water to the bottom of any type of tank.

According to our conversations with the Sanitary District, the most feasible situation is to utilize the "Ultra-filtered" water from the Advanced Water Treatment Plant (AWTP) immediately southwest of Fountain Park. This water is much "cleaner" than the water in the lake, and will benefit the turf and landscaping. This water is available on a 24/7 basis, but Ron and Clark were quick to point out that **one days' irrigation storage** will be required for the new water source.

The AWTP receives both reclaimed effluent, and recovery water from wells, and treats it at the AWTP location. Water is available in a 10" pipeline at about 1250 gpm. There is also a 15" overflow pipeline that gravity feeds into Fountain Lake at about 1150 gpm.

The storage requirement allows the most flexibility, but also offers the challenge of locating the storage facilities. Siting is addressed later in the report. The flexibility benefit is that sufficient water will be in storage for a night's irrigation cycle, in the event the plant can't supply enough water on a given day. At the rate of flow from the AWTP (1250 gpm), 400,000 gallons would be transferred into storage in approximately 5.3 hours during the daytime, allowing the irrigation storage to be full when the cycle begins each evening.

It appears that the alternative water source is feasible, as long as siting details can be accommodated.

II. RECOMMENDATIONS

The existing pump station is located on the southwest side of the lake, at the building where the Fountain Pumps are located. The existing irrigation mainline begins at that location, and it is crucial to connect the new water source at that location in order to avoid major pipe cost. On our site visit, we observed the existing pump station. Its condition appears to be adequate; some refurbishment is likely required, especially to the shafts and pump bowls in the water, for it to be utilized for any of the options below.

It would be most beneficial if the irrigation storage facility could be located near the existing pump station, but this will take field investigation and coordination. Following are four options:

A. Above-ground steel storage tank:

Ultra-filtered water from the AWTP would be pumped into a steel tank located on grade. Pumping would be minimal, but required due to the height of the tank in relation to the elevation at the treatment plant. Water would enter at the top of the tank using the "airgap" method from a pipeline above water level.

In order to store 400,000 gallons of water, the tank size recommended is 70 feet in diameter by 15 feet tall. This type of tank is common across the valley. It may be possible to place this type of tank within the fenced-in area adjacent to the existing pump house, to the north of the pump enclosure along the lake, or in a re-designed area immediately to the west.

A new, horizontal centrifugal-type booster pumping station with filtration would be required. It would not be possible to use the existing pump station for this concept. 460-volt, three-phase electrical power must be provided at the pump station.

B. Below grade concrete storage tank:

Using a storage facility that is below grade affords the possibility of providing gravity-fed water into the storage tank. Elevations would need to be studied when the plans are engineered if this method were chosen. It also allows the potential to locate the storage tank underneath parking or turf areas.

One other advantage to using a submerged tank is that the existing vertical turbine pump station may be able to be re-used for the irrigation system. A certain amount of refurbishment would be required since the pump station is 8 years old, but potentially the shafts would penetrate into a concrete storage vault in a similar manner its current condition at the lake.

The size of a concrete tank is recommended as 60 feet square by 15 feet deep. It appears that the most feasible locations for a tank of this size are the existing turf or parking areas just west of the existing pump building, or the existing turf areas east of the pump building. The tank would be buried below grade, and a concrete slab located where the pump station would be placed.

The design would then include re-placing the turf, landscaping, or parking on top of the facility. 460-volt, three-phase electrical power must be provided at the pump station.

C. Underground fiberglass storage tanks:

Similar to "B," fiberglass tanks have been used effectively as cost-effective solutions to water storage. A series of eight 50,000-gallon tanks could be placed side-by-side and interconnected. The design would include the water supply into one tank at one end, and the pump station in the furthest tank from the source to draw water through and keep it as clean as possible. The existing vertical turbine pump station could be utilized with the shafts and pumps submerged in the water of the storage tanks.

This solution requires an underground space of about 70 feet by 135 feet. The most logical location would be the turf or parking areas to the west of the current pump building, or possibly the turf area east of the pump building. 460-volt, three-phase electrical power must be provided at the pump station.

D. Isolation of the existing lake pump bay:

During our site visit another possibility arose. If the existing pump bay west of the pump building could be isolated from the lake itself by a dike or dam, the bay could be utilized as the storage for the ultra-filtered water and pump supply.

There are several benefits of this concept:

- The existing irrigation pump station could be utilized in its current location
- Electrical power to the pump station would not change
- The current irrigation piping would remain unchanged
- A separate storage facility would not need to be built
- Supply pipes from the AWTP are existing to the pump bay
- It appears that the pump bay contains almost 400,000 gallons of water with its current dimensions (80' x 60' x 11' deep = 395,000 gallons)

This concept has merit for all of the above reasons, but one drawback. The Fountain Pumps also operate out of the body of

water in the pump bay. These pumps must be scheduled to operate at a separate time from the irrigation pump station. The good news is that irrigation occurs at night, and the fountain generally runs during the daytime; so this is viable.

In order for this concept to be constructed, the lake would need to be drawn down to a level to isolate the inlet to the pump bay. Please refer to the accompanying aerial view. The white line is the approximate recommended dam location. This area would need to be dry enough to add earth, install a liner, and concrete slurry the dam. The dam would need to be higher than the high water level of the lake, with an overflow from the pump bay into the lake if the bay were to over-fill. All of this would need to be engineered, but the concept appears to be feasible.

Coordination with Town personnel will be required regarding the best location for the alternate water source storage and pumping location.

III. COST ESTIMATES

Following are estimates for each of the three concepts recommended above:

A. Above-ground steel storage tank:

This concept is not recommended, but we studied it as a possibility. Following are estimated costs:

Above-grade steel reinforced tank (400,000-gal.):	$ 350,000
New centrifugal pump station (1800 gpm @ 105 psi):	175,000
Concrete slab, enclosure for pump station:	50,000
Booster pump to supply water into tank:	40,000
Pipe from AWTP to new storage tank:	20,000
Pipe from storage to pump, and to irrigation system:	10,000
Isolation valves, misc. fittings, contingency:	10,000
Total:	**$ 655,000**

B. Below grade concrete storage tank:

This concept is feasible. Following are estimated costs:

Below-grade reinforced concrete tank (400,000-gal.):	$ 500,000
Refurbished existing pump station (1800 gpm @ 105 psi):	50,000
Concrete slab, enclosure for pump station:	50,000
Pipe from AWTP to new storage tank:	20,000
Pipe from storage to pump, and to irrigation system:	10,000
Isolation valves, misc. fittings, contingency:	10,000
Total:	**$ 640,000**

C. Underground fiberglass storage tanks:

This concept is feasible. Following are estimated costs:

Below-grade fiberglass tanks (8 @ 500,000-gal.):	$ 450,000
Refurbished existing pump station (1800 gpm @ 105 psi):	50,000
Concrete slab, enclosure for pump station:	50,000
Pipe from AWTP to new storage tank:	20,000
Pipe from storage to pump, and to irrigation system:	10,000
Isolation valves, misc. fittings, contingency:	10,000
Total:	**$ 590,000**

D. Isolation of the existing lake pump bay:

This concept is feasible. Following are estimated costs:

Earth/concrete dam at pump bay (25' long/12' high):	$ 250,000
Refurbished existing pump station (1800 gpm @ 105 psi):	50,000
Contingency:	5,000
Total:	**$ 305,000**

Thank you for the opportunity to assist you. If you have any questions regarding any part of the Report, feel free to call us.

Sincerely,

GAYLON L. COATES
President
COATES IRRIGATION CONSULTANTS INC.


FLOWTRONEX


FLOWTRON
PSI

DRAFT

IRRIGATION AND LAKE OPERATION IMPACTS FROM DIRECT REUSE OF RECLAIMED WATER AT FOUNTAIN LAKE

April 2016

Prepared for

Town of Fountain Hills
Community Services Department
16705 E. Avenue of the Fountains
Fountain Hills, Arizona 85258

Aquatic Consulting & Testing, Inc.
1525 W. University Dr., Suite 106
Tempe, Arizona 85281

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DRAFT

IRRIGATION AND LAKE OPERATION IMPACTS FROM DIRECT REUSE OF RECLAIMED WATER AT FOUNTAIN LAKE

EXECUTIVE SUMMARY

The following report evaluates the impacts of direct reuse of treated wastewater on Fountain Lake water quality and associated irrigation use. The Fountain Hills Sanitation District Advanced Wastewater Treatment Facility (AWTF) provides treated wastewater as the primary source water to Fountain Lake. The lake serves as an aesthetic amenity to the community and an irrigation reservoir for park grounds.

Fountain Lake has had a repeated history of water quality issues caused by high nutrient concentrations provided by the source water. These problems include planktonic algae blooms creating very green turbid water, surface algae blooms causing downwind algae accumulations and odors, and reduction in oxygen content of the deeper lake waters.

The AWTF provides wastewater that has undergone a series of physical and biological processes. The treatment process was upgraded in 2014 to include ultrafiltration (UF) as the final process component. UF removes particulates, organic matter, and biological agents, but has little impact on reduction of dissolved nitrogen and phosphorus ions. Because nitrate and phosphate are primary nutrients that stimulate algae and aquatic weed growth, the effluent provided by the upgraded system has little impact on algal production and the challenges it produces. The otherwise high quality water will have no detrimental effect on the lake fishery.

The most significant affect of direct reuse of AWT effluent (i.e., eliminating the lake as an irrigation reservoir) is the increase of water residence time. By eliminating withdrawals of water for irrigation use, the residence time of the lake will nearly double. The increased residence time will likely cause the problems of algae blooms, odors, and oxygen depletion to be exacerbated. A positive result of direct reuse would be an improvement in irrigation water quality and operations in terms of reducing (a) ion toxicity potential salinity impacts of applied irrigation water, (b) scale formation in irrigation system components, (c) biological fouling caused by algae, protozoa, and other microinvertebrates, and (d) significantly reducing clogging from clams, mussels and snails..

A number of mitigation measures to combat increased residence time are proposed. These include increased use of algaecides, including those that contain phosphate binding agents; application of light-inhibiting aquatic dyes; stocking of weed-eating fish; and most importantly, the repair and expansion of the diffuse aeration system in Fountain Lake.

INTRODUCTION

Fountain Lake, in Fountain Hills, Arizona is a 30.8-acre, 100.6 million gallon reservoir that receives reclaimed water from the wastewater treatment facility operated by the Fountain Hills Sanitary District. Water is withdrawn from the lake to irrigate associated park turf and ornamental plants. The direct reuse of reclaimed water (i.e, by-passing the lake and delivering directly to the irrigation system) is under consideration to reduce operational difficulties with irrigation components. However, the elimination of the lake as an irrigation water reservoir will increase water detention time, as the only water loss would be from evaporation, and may lead to significant impacts on water quality and lake operation.

This report evaluates the impacts of direct reuse on irrigation operations and lake water quality.

Fountain Hills Sanitary District AWT

The Fountain Hills Sanitary District (FHSD) is a governmental entity which collects, treats, and disposes of wastewater and its byproducts within Fountain Hills, AZ. The key component of the district facilities has been a 2.9 million gallon per day (MGD) advanced wastewater treatment plant (AWTF) that delivers reclaimed water to three golf courses and three town parks, including Fountain Park and Fountain Lake. The treatment facility was constructed in 1974 and received an upgrade of secondary and tertiary treatment in 1999 that included addition of cloth media filters and microfiltration. The Fountain Hills Sanitary District advanced water treatment facility went into operation in 2001, with a design life expectation of 10 years. By 2013, the facility's microfiltration system began experiencing problems that required frequent maintenance. A new ultrafiltration (UF) system was selected to increase capacity and reduced backwash and maintenance needs. The new system (Fig. 1) included an upgrade to UF from microfiltration and automation of cycles for clean-in-place and chemically enhanced backwash. The system was placed into operation in 2014 and began supplying the improved quality feed water to Fountain Lake at that time. The new treatment system increased plant capacity by 40% to 4.95 MGD.

Ultrafiltration (UF) is a type of membrane filtration in which hydrostatic pressure forces a liquid against a semipermeable membrane. UF provides the best available means recognized by EPA for removing waterborne parasites, bacteria and viruses from surface waters. Reduction of turbidity (colloidal solids), dissolved solids, and organic contaminants is also realized. Low pressure UF permits the clarification and disinfection of water in a single step. A membrane barrier acts like a filter for all particles over 10-20 nm in size: pollen, algae, bacteria, viruses, and organic molecules. Low

molecular-weight organics and ions such as sodium, calcium, magnesium, chloride, and sulfate are not appreciably removed.

Membrane processes are increasingly employed for removal of bacteria and other microorganisms, particulate material, and natural organic material, which can impart color, tastes, and odors to the water and react with disinfectants to form disinfection byproducts (DBP). Accordingly, the new system assures pathogen and particle free water for preserving the integrity and long term capacity of the City's aquifer storage and recovery (ASR) wells.

The treatment system is schematically shown at right.

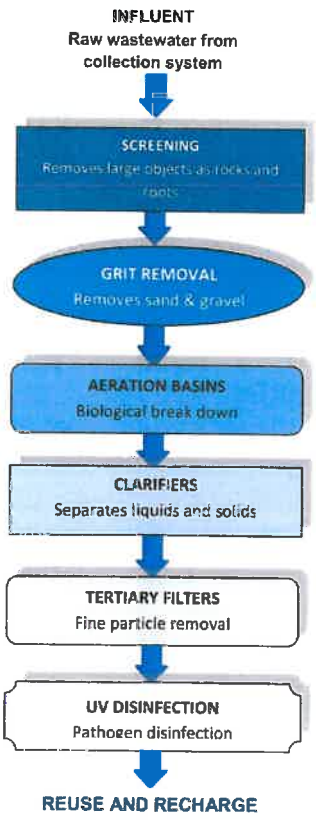

Figure 1 . AWT process stream

Fountain Lake

Fountain Lake is located within Fountain Park in Fountain Hills, Arizona. The park is a 64-acre passive recreational area consisting of 32 acres of turf, an 18-hole golf course, a children's playground, veterans memorial, splash pad, picnic areas and ramadas, an outdoor amphitheater, 7200 linear ft of lighted walkways, and the 30.6 acre man-made lake. The lake serves as a reclaimed water storage and irrigation reservoir for park grounds and aesthetic amenity for the community. The lake contains nearly 100 million gallons of water. The lake receives in excess of 100 million gallons of reclaimed water annually, with primary losses from evaporation and irrigation withdrawal.

The focal point of the reservoir is a 200 ft (bottom) radius fountain, operated since 1979. The fountain is operated 7 days a week, on the hour for 15 minutes from 9 a.m. to 9 p.m. On windy days, the fountain may not be operating. If the wind reaches 10 miles per hour, the fountain automatically turns itself off. On most days, two of the three available fountain pumps are operated to provide a display height of about 330 feet and the third pump serves as a backup. When all three pumps are operating together, water stream can achieve a height of 560 feet. Aside from wind, the fountain now serves as the primary means of vertical and horizontal mixing of the lake water. A diffuse bottom aeration system exists, but is in need of major repair or replacement, and is essentially no longer service.

An irrigation system pumps water from the lake to irrigate park turf, ornamentals, and the golf course. Sprinklers at Fountain Park have been adjusted to run between 11 p.m.

and 5 a.m. to accommodate early morning walkers. Irrigation withdrawals vary from year to year, but are typically about 60 million gallons annually.

ISSUES ASSOCIATED WITH RECLAIMED WATER IN FOUNTAIN LAKE

The City of Fountain Hills has experienced challenges with the use of reclaimed water for a fill source for Fountain Lake. The issues are primarily associated with lake aesthetic quality and irrigation plugging (biofouling and scaling).

Lake Water Quality

The primary issues that have plagued Fountain Lake are summarized below.

- Green color, turbid water; and poor clarity
- Down-wind accumulations of surface algae
- Odors
- Low oxygen concentrations and fish stress or mortality

Over the last two years while the new UF system has been operation, the severity of some of these problems has been reduced, but they still remain significant issues.

Review of Lake water quality data over the last several years indicates high concentrations of nitrogen and phosphorus that lead to an abundance of planktonic algae. The result of the algae growth, superficially, is a turbid and very green colored water. Total cell densities in excess of one million cells per milliliter are common. The chlorophyll provides the green color and the cells reduce light transparency that yield poor transparency (often less than 0.5 m). Visually, the water is not very clear and often not aesthetically pleasing.

A greater issue occurs when windy conditions, in combination with fountain operation, push water to the shorelines (Fig. 2). The water carries surface algae to the shore, where the cells and filaments of algae create a thick green, paint-like, layer on the water. What is initially a visual distraction worsens when the algae begin to decompose and produces foul odors that are an annoyance to park visitors. Chemical applications are required to both reduce the organic mass and destroy the odor.

Figure 2. Blue-green algae surface bloom.

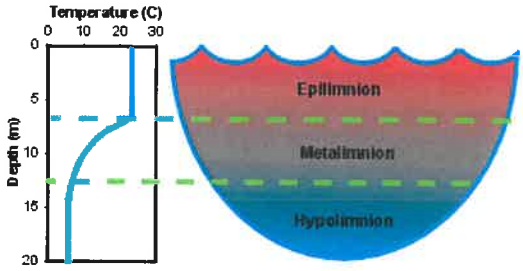

Figure 3. Thermal stratification (from Upstate Freshwater Institute).

Algal cells are continually being produced and dying and decomposing in the nutrient rich water. During the summer, when water temperatures are quite high, the settling and decomposition of algae cells is accelerated. Concurrently, heating of the surface waters during the day causes development of thermal layers (vertical temperature stratification) in the lake (Fig. 3). The stratification prevents the movement of ions and gases between the oxygen rich surface waters and the oxygen poor cooler and deeper waters. However, the dead and decaying algae can settle, accumulate, and completely decompose on the lake bottom. The result is depletion of oxygen in the deep water zone from bacterial respiration as they decompose the organic matter, and lack of oxygen replenishment from the surface waters because of the thermal density barrier. Unfortunately, fish reside in the deep water during the summer to avoid thermal stress. Oxygen stress or even fish kills can occur under these conditions. Additionally, when oxygen is eliminated from the deep waters of a lake, potentially toxic gases are released from the sediment, including ammonia and hydrogen sulfide; the latter also potentially causing lake odors. Extended duration and frequency of fountain operation has been used to counteract the problem when field data indicate thermal stratification and/or oxygen depletion is occurring.

Irrigation Water Quality

Irrigation systems supplied by reclaimed water lakes often experience a number of issues, including

- biofouling (plugging) of intakes, filters, and emitters
- chemical scaling of pipes and valves
- ion toxicity in turf
- poor infiltration

Biofouling

Plugging of intake, irrigation filters, and emitters by microorganisms (biofouling) is a very common phenomenon. Reclaimed water provides both essential nutrients for growth of biofouling organisms in irrigation reservoirs. In some cases, reclaimed water can actually supply them as they develop within the treatment process in filters and

clarifiers. The situation is often exacerbated by the growth or multiplication of these organisms in the lake.

Unfortunately, biofouling organisms can develop in any reservoir. When reclaimed water is the supply to a lake in the biological growth-friendly climate of central-Arizona, many problematic organisms can develop directly in the lake. They can be transported into the lake by wind, runoff, and birds. These organisms can include: bryozoa, stalk ciliated protozoa, algae, clams and snails, fungi, and freshwater sponges.

Bryozoa: These organisms are small freshwater polyps (Fig. 4). Typically about 0.5 millimetres (0.020 in) long, they are filter feeders that sieve food particles out of the water using a retractable lophophore, a crown of tentacles lined with cilia. Colonies of bryozoans are started by a single individual (zooid), which after its larval existence settles onto a substrate and after a little growth begins to reproduce asexually (by budding). Although zooids are microscopic, colonies range in size from 1 centimeter (0.39 in) to over 1 meter (3.3 ft).[7] However, the majority are less than 10 centimeters (3.9 in) across.[10] The shapes of colonies vary widely, depend on the pattern of budding by which they grow, the variety of zooids present and the type and amount of skeletal material they secrete.

Figure 4. Bryozoan colony (from http://www.arctic.uoguelph.ca)

Specialized structures called statoblasts (Fig. 5) are a means to reproduce asexually and enables a colony to survive in variable conditions of freshwater environments. Statoblasts are masses of cells that function as survival structures. Some contain air spaces that enable them to float. They can remain dormant for considerable periods, and while dormant can survive harsh conditions such as freezing and desiccation. They can be transported across long distances by animals, floating vegetation, currents and winds. When conditions improve, the valves of the shell separate and the cells inside develop into a zooid (immature form) that tries to form a new colony. Zooids often utilize debris in the lake, as stones and sticks, as substrates for colonization, but also screens and filters of irrigation components.

Figure 5. Statoblast.

Stalked ciliated protozoa: Stalked ciliates (Fig. 6) are a type of protozoa that can be branched or unbranched. Stalked ciliates are inverted bell-shaped bodies mounted on a stalk which is attached to a substrate. A key identification feature is the presence of cilia (minute hair-like projections) on the oral region of the organism. Single stalk ciliate consume food via oral cilia that wind completely around the top of the cell. Stalked ciliates attach themselves to the base of some object, usually floc structures, but can also attach to irrigation screens. Some stalk ciliate species contain a contractile slightly sinuous filament that can rapidly coil up like a spring, pulling the cell body down.

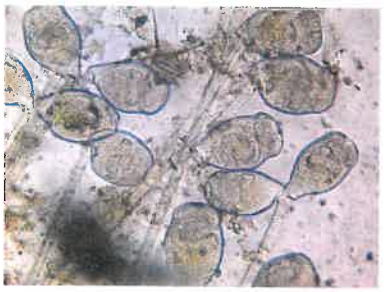

Figure 6. Stalked ciliated protozoa.

Stalked ciliates are common and desirable components of activated sludge in wastewater treatment plants. They serve as a key contributor to the breakdown of organic particulates.

Algae: Large and highly ornamented algae, algal assemblages as filaments and colonies, or mucilage-coated algae are common biofouling agents (Figs. 7-9). Long filaments and large colonies catch on screens and filters. Algae, especially those with mucilaginous coatings create a secondary filter, collecting other algae cells and particulates. Highly ornamented species can continue to produce obstructions to flow after they die. A few algae can exist in wastewater treatment systems, but they are far more common to develop in open waters of lakes and reservoirs where adequate sunlight is available for photosynthesis.

Figure 7. Filamentous green alga.

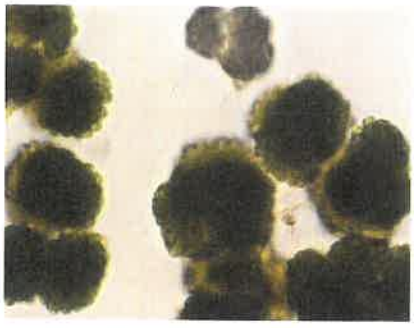

Figure 8. Green colonial alga.

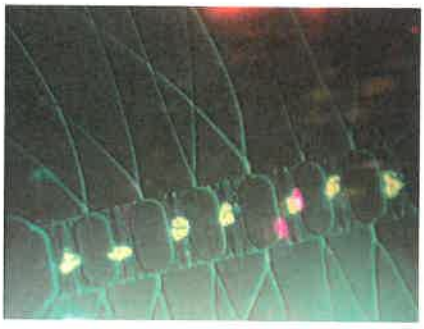

Figure 9. Filamentous diatom.

Mollusks: Clams, mussels, and snails are more common in reservoirs supplied by surface waters. However, birds can transport them from one location to another and supply any reservoir with a starter population. Although rare, clam and snail larvae may be present in wastewater. Mollusk shell

Figure 10. Veliger larva.

fragments are one of the most common physical plugging agents in irrigation systems. Clam and mussel larvae (veligers) and snail juveniles can be as small as 40 um in diameter (Fig. 10).

Fungi: Aquatic fungi or water molds (Fig. 11) are heterotrophic microorganisms that feed on external organic matter which may be dead or alive. Fungi are ubiquitous and therefore associated with almost every organism, often as parasites, sometimes as symbionts and most commonly as decomposers. They are present in wastewater systems and often cause problems with floc settling in clarifiers. Due to its greater supply of organic matter, the littoral zone of a reservoir is a hot spot for all kinds of fungi, whereas the pelagic zone harbors only highly specialized species or serves as a medium for the dispersal of immature forms (propagules). Aquatic fungi act as prominent decomposers of particulate organic matter (POM) and coarse particulate organic matter (CPOM) including plant and animal debris. Filamentous growth habit is a key feature of many aquatic fungi, and this feature is responsible for their superiority to heterotrophic bacteria as pioneer colonizers. Hyphae allow fungi to actively penetrate plant tissues and tap internal nutrients. The hyphae can also plug filters and screen of irrigation systems.

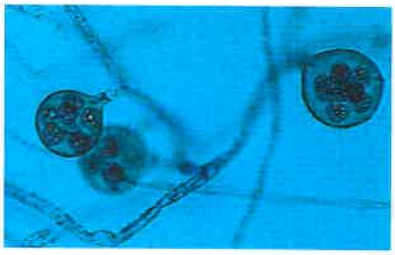

Figure 11. Saprolegnia (from http://botit.botany.wisc.edu)

Freshwater sponges:

Sponges (Fig. 12) are sessile colonial organisms that attach to a firm substrate which can include filters and screens of irrigation systems. They can colonize in wastewater treatment systems. Sponges typically live in still waters, and are found regularly in larger rivers, lakes, wetlands, and in streams near lake outlets. They have simple bodies with no organs or differentiated tissues, but different cells in the colony play different roles. Sponges serve as food for a variety of other aquatic invertebrates, including caddisflies and midges. Sponges can reproduce sexually, but are highly variable in the sex they become. One may produce only male gametes one year and female gametes the next year. They can also multiply by starting a number of new colonies if fractured by disturbance, and they have a strong ability to regenerate. They can also produce specialized bodies called *gemmules* (Fig. 13)

Figure 12. Freshwater sponge.

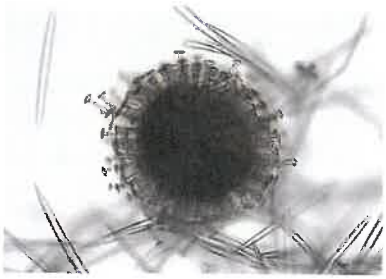

Figure 11. Sponge gemmule.

that can survive during unfavorable conditions and germinate to produce new sponges.

Based on years of analysis of Fountain Lake waters, algae appear to be the greatest threat to irrigation issues. Two algae have been found frequently and a dominant components of the phytoplankton in Fountain Lake; *Anabaena* (Fig. 14) and *Oscillatoria* (Fig. 15). Both are filamentous forms capable of developing long stringers than can clog irrigation screens, valves, and apertures. Additionally, the blue-green algae produce a mucilaginous coating that helps them aggregate and attach to surfaces.

Figure 14. *Anabaena.*

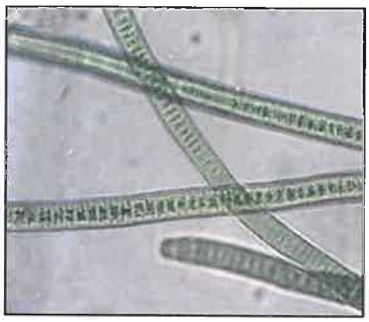

Figure 15. *Oscillatoria.*

Chemical Scaling

Scaling is the deposition of a mineral salt on processing equipment. Scaling is a result of super-saturation of mineral ions in the process fluid. In a reservoir, water with dissolved ions is always present. When parameters as temperature, pressure, concentration or pH are changed, the equilibrium of the system is shifted. This can push the system into a state where the dissolved ions precipitate out, causing a deposition of scale. Super-saturation of ions are caused by several factors. An important contributor is the production of high salt content water like formation water from the well. This increases the ionic concentrations, possibly leading to deposition of scales.

Methods of Measuring Scale Potential: Two common calculations are used to determine the scaling potential of waters. Both provide an indication of the degree of saturation of calcium carbonate in water. They are calculated using the pH, alkalinity, calcium concentration, total dissolved solids, and water temperature of a water sample.

The Langelier Saturation Index (LSI), a measure of a solution's ability to dissolve or deposit calcium carbonate, is often used as an indicator of the corrosivity or scaling tendency of water. The index is related to the deposition of a calcium carbonate film or scale; this covering can insulate or clog pipes, valves and other components of a system from contact with water. The result can be reduction or elimination of water flow and inability of valves and other mechanical equipment to operate properly.

The LSI equation is based on the equilibrium expressions for calcium carbonate solubility and bicarbonate dissociation. To approximate actual conditions more closely, pH calculations were modified to include the effects of temperature and ionic strength. The Langelier Index is defined as the difference between actual pH (measured) and calculated pH . The magnitude and sign of the LSI value show water's tendency to form or dissolve scale and thus to inhibit or encourage corrosion, and conversely, scale. It is most widely used for bulk systems, as wells, that have low velocity flow.

LSI= pH – pHs
pHs = A + B – C – D

Where:

- A accounts for temperature effect
- B corrects for the ionic strength (TDS) of the sample
- C is the calcium hardness in mg/L $CaCO_3$
- D is the total alkalinity in mg/L $CaCO_3$

Positive LSI values indicate waters that have the tendency to deposit scale. Negative values indicate the waters that have the tendency to dissolve calcium carbonate scale (corrosive). The tendencies increase as the index value increases or decreases, respectively.

The Ryznar stability index (RSI) is a variation of the LSI that attempts to correlate an empirical database of scale thickness observed in municipal water systems to its water chemistry. Like the LSI, the RSI has its basis in the concept of saturation level. Ryznar attempted to quantify the relationship between calcium carbonate saturation state and scale formation. The Ryznar index takes the form:

$RSI = 2(pH_s) - pH$

where:

- pH is the measured water pH
- pH_s is the pH at saturation in calcite or calcium carbonate

The empirical correlation of the Ryznar stability index can be summarized as follows:

- RSI << 6 the scale tendency increases as the index decreases
- RSI >> 7 the calcium carbonate formation probably does not lead to deposition of scale

Impacts on Plants and Soil

Three frequent problems encountered when using reclaimed water for irrigation are (1) salinity, (2) ion toxicity, and (3) reduced soil permeability.

Salinity: A salinity problem exists if salt accumulates in the crop root zone to a concentration that causes a loss in yield. In irrigated areas, these salts often originate from a saline, high water table or from salts in the applied water. Yield reductions occur when the salts accumulate in the root zone to such an extent that the crop is no longer able to extract sufficient water from the salty soil solution, resulting in a water stress for a significant period of time. If water uptake is appreciably reduced, the plant slows its rate of growth. The plant symptoms are similar in appearance to those of drought, such as wilting, or a darker, bluish-green color and sometimes thicker, waxier leaves. Symptoms vary with the growth stage, being more noticeable if the salts affect the plant during the early stages of growth. In some cases, mild salt effects may go entirely unnoticed because of a uniform reduction in growth across an entire field.

Salts that contribute to a salinity problem are water soluble and readily transported by water. A portion of the salts that accumulate from prior irrigations can be moved (leached) below the rooting depth if more irrigation water infiltrates the soil than is used by the crop during the crop season. Leaching is the key to controlling a water quality-related salinity problem.

Ion Toxicity: Toxicity normally results when certain ions are taken up with the soil-water and accumulate in the leaves during water transpiration to an extent that results in damage to the plant. The degree of damage depends upon time, concentration, crop sensitivity and crop water use, and if damage is severe enough, crop yield is reduced. Sodium and chloride are two of the most important ions. The toxic ions sodium and chloride can also be absorbed directly into the plant through the leaves moistened during sprinkler irrigation. This occurs typically during periods of high temperature and low humidity. The leaf absorption speeds the rate of accumulation of a toxic ion and may be a primary source of the toxicity. Many other trace elements, in addition to sodium, and chloride, are toxic to plants at very low concentrations.

Infiltration: An infiltration problem related to water quality occurs when the normal infiltration rate for the applied water or rainfall is appreciably reduced and water remains on the soil surface too long or infiltrates too slowly to supply the crop with sufficient water to maintain acceptable yields. Although the infiltration rate of water into soil varies widely and can be greatly influenced by the quality of the irrigation water, soil factors

such as structure, degree of compaction, organic matter content and chemical make-up can also greatly influence the intake rate.

The two most common water quality factors which influence the normal infiltration rate are the salinity of the water (total quantity of salts in the water) and its sodium content relative to the calcium and magnesium content. High salinity water will increase infiltration. Low salinity water or water with high sodium to calcium ratio will decrease infiltration. Both factors may operate at the same time. Secondary problems may also develop if irrigations must be prolonged for an extended period of time to achieve adequate infiltration. These include crusting of seedbeds, excessive weeds, nutritional disorders and drowning of the crop, rotting of seeds and poor crop stands in low-lying wet spots. One serious side effect of an infiltration problem is the potential to develop disease and vector (mosquito) problems.

An infiltration problem related to water quality in most cases occurs in the surface few centimeters of soil and is linked to the structural stability of this surface soil and its low calcium content relative to that of sodium. When a soil is irrigated with high sodium water, a high sodium surface soil develops which weakens soil structure. The surface soil aggregates then disperse to much smaller particles which clog soil pores. The problem may also be caused by an extremely low calcium content of the surface soil. In some cases, water low in salt can cause a similar problem but this is related to the corrosive nature of the low salt water and not to the sodium content of the water or soil. In the case of the low salt water, the water dissolves and leaches most of the soluble minerals, including calcium, from the surface soil.

The likelihood that sodium present in irrigation water will cause permeability problems can be evaluated by computing a parameter known as the sodium adsorption ratio, or SAR. In short, the SAR is a ratio of the concentration of sodium ions to the concentration of calcium plus magnesium ions, as follows:

$$SAR = [Na] / SQRT \{ ([Ca] + [Mg]) / 2 \}$$

The equation may also be adjusted for bicarbonate, rendering an adjusted SAR. The adj SAR was developed to take into consideration the precipitation of calcium in the form of calcite (calcium carbonate).

IMPACTS OF DIRECT REUSE ON LAKE WATER QUALITY

The lake has been receiving the advanced treatment water for the last two years. Salient water chemistry data are presented below and compared to lake concentrations to determine if any long term change may occur with the in-place advanced treatment.

Nutrient Concentrations and Algae Growth

Nitrogen and phosphorus are the primary nutrients that dictate algae growth in a reservoir. A comparison of nutrient concentrations in the AWT effluent versus lake water is presented below. Data were provided by FHSD and derived from routine lake chemistry data collected by Aquatic Consulting & Testing, Inc., and represent typical values derived from means of available data. The two years prior to and following the latest AWT upgrades were utilized.

Parameter	Concentration (mg/L)			
	AWT		Lake	
	Before	After	Before	After
Nitrate-N	1.2	2.7	0.13	0.30
Tot.Kjeldahl-N	3.8	2.0	4.2	3.7
Phosphorus, tot. as P	4.20	3.1	1.66	1.30
Dissolved phosphate as P	3.22	3.1	0.99	0.80

The data indicate that the most recent AWT upgrade to UF have improved water quality in terms of lowering the total nitrogen and total phosphorus concentrations of the lake. However, nitrate has increased. Lake concentrations for nitrogen exceed those provided by the AWT effluent and represent the fractions absorbed and accumulated by algae and concentration from evaporative losses. Reductions in lake water concentrations result from chemical precipitation and settling of bio-absorbed nutrients within algae cells and zooplankton.

Despite the AWT upgrades and in-lake nutrient reductions, the AWT effluent still provides an adequate loading of nutrients for abundant algae and potential aquatic weed growth. In simplified terms, a phosphorus concentration of 0.030 mg/L and a nitrogen concentration of roughly 0.30 mg/L can produce a moderate amount of algae. The AWT effluent provides approximately 100 times the phosphorus concentration and 7 to 10 times the nitrogen concentration desired for a balanced aquatic ecosystem. Thus the AWT effluent will have no appreciable benefit with respect to algae growth and density.

The concentration of phosphorus, in terms of lake trophic status designation, placed the lake in the hypereutrophic range. The diagram (Fig. 16) shows the anticipated ranges of chlorophyll-a and transparency corresponding to the phosphorus concentration. Actual measured transparency and chlorophyll-a measurements collected during routine surveys have been in general agreement with the predicted levels. These correspond to a green lake with poor transparency.

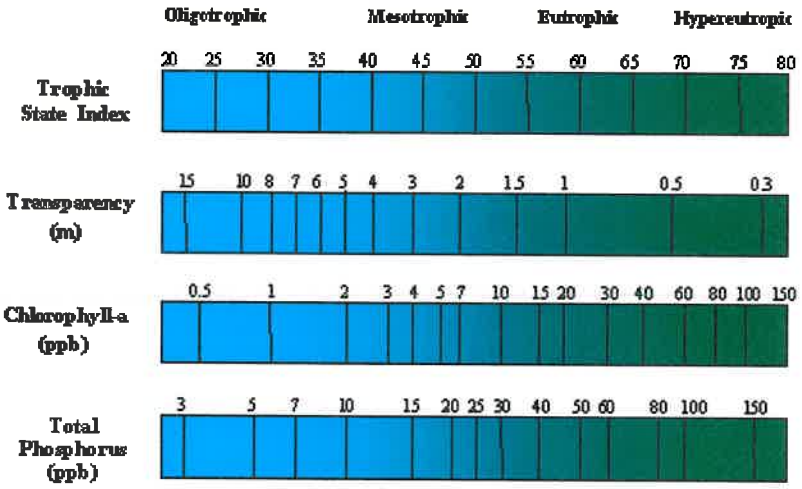

Figure 16. Trophic status relationships.

Fishery Impacts: There has not been and should be no future direct adverse impact of upgraded AWT effluent use on the fishery in Fountain Lake. Examination of metals and organic chemical analyses on the AWT effluent (provided by FHSD and measured by AC&T) showed the water meets the State numeric standards for aquatic and wildlife (warm water).

Residence Time: Currently water is lost from the lake via evaporation, irrigation use, and incidental overflows. A 2013 analysis of lake residence (retention) time (Rt), produced for development of an Operations and Maintenance Plan for Fountain Lake, is summarized below.

Lake volume	100.6 MG
Annual inflow	119 MG
Annual precipitation	5.0 MG
Annual evaporation	62 MG
Annual irrigation use	60 MG

Based on the data above and a lake volume of 100.6 MG, the retention time in the lake was about 299 days. Using this same data, removing irrigation use would result in doubling the retention time to approximately 592 days.

More recent data provided by the Fountain Hill Park Department are shown below. Adjusted retention times were calculated for these values, assuming evaporation and precipitation levels remained the same as above. The table also shows that eliminating irrigation output from the lake would still increase residence time by 75 percent.

Year	AWT Inflow	Irrigation outflow	Rt (days)	Increase x
2015	48.18	23.72	428	1.38
2014	75.31	50.25	327	1.81
2013	26.39	45.54	341	1.73
2012	104.4	57.33	308	1.92
2011	98.97	52.69	320	1.85
Mean	70.65	45.91	345	1.74

The anticipated outcome of longer residence time is not more algae. Data indicate that algae density is sufficiently high to cut out light beyond the first half meter of depth and prevent expanded growth. In other words, light becomes the limiting factor. However, what is anticipated is a greater frequency and magnitude of shoreline nuisance blooms and downwind accumulations. As water is replaced more slowly, surface blooms (where light is of sufficient intensity) will increase and biomass accumulations would be more prevalent. Odor production from the accumulations would be common.

Additionally, with the algae residing in the lake for longer periods of time, settling of cells would increase leading to an accelerated rate of solids deposition on the lake bottom and lake volume reduction (shoaling). The increased solids on the lake bottom will likely cause greater oxygen demand in the deeper waters and lower dissolved oxygen concentrations that could adversely affect fishes. Under anaerobic conditions, sediment can release undesirable quantities of phosphates, ammonia, and hydrogen sulfide

IMPACTS OF DIRECT REUSE ON IRRIGATION

Using the AWT effluent directly and eliminating the lake as an irrigation reservoir will have direct impacts on irrigation quality.

Biofouling

Figure 17. Bryozoa in irrigation emitter.

The lake contains a diverse biological assemblage, especially because of the availability of nutrients and organic particulate matter that serves as food for many organisms. Water molds (fungi), bryozoa and their statoblasts, stalked ciliated protozoa, and some snails and clams have been found during causal observation. A large number and variety of algae, including filamentous, ornamented, and mucilage forming species commonly occur. The commonly problematic, filamentous blue-green algae, *Oscillatoria* and *Anabaena*, have been the abundant and dominant forms in Fountain Lake. These microorganisms eventually make their way through the irrigation system as lake water is pumped to the irrigation distribution system. They can easily plug filters, screens and emitters (Fig. 17). Some species that do not require sunlight, as fungi, bryozoa, and mollusks, can actually reside in the pipes, on screens or filters, or other suitable surfaces and further reduce or eliminate flow or interfere with valve operation.

By using the reclaimed water directly from the AWT, the possibility of these organisms entering the irrigation system is practically eliminated. The UF membranes would remove adult and immature forms that could reside in some wastewater process streams. In the unlikely event that some larvae or immature forms could pass through the UF membranes, short detention times in the piping would minimize growth potential. Elimination of the lake as an irrigation reservoir would become very important to protection of the irrigation system should quagga mussels inadvertently be introduced into the lake. Adult clams and snails would also be excluded from the irrigation water.

Scaling

As described above, the tendency of water to produce scale can be estimated by the LSI or the RSI. The constituents of interest are TDS, alkalinity, temperature, pH, and calcium concentration. To compare AWT effluent directly versus lake, the indices were computed below under three temperature scenarios; 10C, 20C, and 30C. Chemistry data from FHSD and Fountain Hills lake water quality monitoring program were utilized to identify typical concentrations and are summarized below.

Parameter	AWT effluent	Fountain Lake
Calcium, mg/L	85	201
TDS, mg/L	1200	3310
pH	7.7	9.0
Alkalinity, mg/L as CaCo3	274	441

The results of the water characterizations are summarized below.

Saturation Index	Temp. C	Irrigation source	
		AWT effluent	Fountain Lake
Langelier	10	1.042	1.757
	20	1.291	2.015
	30	1.517	2.248
Ryzner	10	6.617	5.487
	20	6.117	4.970
	30	5.667	4.504

Scaling is indicated by a LSI >0 or a RSI <6.0. The data indicate that both the AWT and Lake water are scaling at most temperatures, but the lake water more so. The AWT effluent, at 20 C, would be nearly neutral under flowing conditions (RSI). Therefore, the direct use of AWT effluent should reduce scaling of irrigation components.

Salinity and Ion Toxicity

The primary constituents associated with salinity and ion toxicity are shown below for the Fountain Lake and the AWT effluent and are compared to the degree of restriction on use for irrigation developed by Ayers and Westcot (1985).

Component (mg/L)	AWT effluent	Degree of restriction	Lake	Degree of restriction
Total dissolved solids	1200	Slight to moderate	3310	Severe
Sodium	240	Slight to moderate	610	Severe
Chloride	350	Slight to moderate	1120	Severe
Nitrate-N	2.7	None	0.3	None
Bicarbonate	334	Slight to moderate	538	None

The data indicate that the AWT effluent will be a superior irrigation water in comparison to lake water for maintaining turf and ornamental plants.

Additional trace metals analyses provided by FHSD and compared to recommended irrigation water concentrations by DeBoer (1983) and Texas A&M Cooperative Extension, and shown below, indicate that the AWT effluent will also pose no likely threat to trace element ion toxicity to plants.

Element	Concentration, mg/L	Long-term recommended max. conc.	Short-term recommended max conc.
Arsenic	0.0020	0.1	2.0
Chromium	0.0026-0.0038	0.1	1.0
Manganese	0.0028-0.0070	0.2	10.
Nickel	0.0018-0.0052	0.2	2.0
Selenium	0.0015	0.02	0.02

Infiltration

When irrigation water does not have the proper proportions of sodium, calcium and magnesium, significant problems with water infiltration and breakdown of soil structure can develop. As described above, the SAR is a means of assessing the extent of this condition developing from irrigation. At a given SAR the infiltration rate increases as salinity increases. Therefore the SAR and TDS (or electrical conductivity) have been used to evaluate potential infiltration problems using AWT effluent versus lake water according to the following table (Ayers and Wescot 1985).

SAR	No restriction	Slight to moderate	Severe restriction
0-3 and EC =	>700	700-200	<200
3-6 and EC=	>1200	1200-300	<300
6-12 and EC=	>1900	1900-500	<500
12-20 and EC-	>2900	2900-1300	<1300
20-40 and EC=	>5000	5000-2900	<2900

The salient AWT and lake water quality components are listed below along with the SAR and adjusted SAR.

Water	Ca, mg/L	Mg, mg/L	Na, mg/L	HCO3, mg/L	EC, mhos/cm	SAR	SAR_{adj}
AWT effluent	85	61	240	335	1850	4.85	12.0
Fountain Lake	201	161	610	538	5100	7.78	15.3

Based on the basic SAR calculations AWT effluent and lake water would have no restriction to irrigation use, based on soil infiltration. Accounting for bicarbonate levels and the adjusted SAR, AWT effluent would have a slight restriction and lake water no restriction to use based on infiltration. However, pH also has an impact on infiltration; lower pH improving infiltration and higher pH reducing infiltration rate. Because of considerably higher pH of lake water (pH 8.5-9.3 SU) compared to AWT effluent (pH 7.5-7.9 SU), the two waters would be essentially equivalent in terms of soil infiltration.

POSSIBLE MITIGATION OF LAKE IMPACTS

The primary impacts of direct reuse of AWT effluent will most likely be (a) increased surface algae, (b) increased odor production from accumulations of surface algae, and (c) increased sedimentation and oxygen demand at the lake sediment-water interface. The first two impacts will likely also reduce the aesthetic quality of the lake and the level of enjoyment by park visitors.

Several lake management options exist that can mitigate some of the adverse in-lake effects of direct re-use.

Use of Lake Dye

Aquatic dyes are designed absorb photosynthetically active radiation in the two major wavelengths used in photosynthesis by algae and submerged weeds. The dye essentially competes for these wavelengths of light against algal cells and submerged macrophytic plants. Aquatic dyes are available in a variety of colors; blue-black dye has become popular because of its more demure appearance and ability to visually mask turbid water, while still containing the essential pigments to block out photosynthetically active radiation (PAR). Dye was considered in the past, but because of irrigation withdrawals that would essential remove the product from the lake, use of dye was never initiated or evaluated.

Based on the lake volume off approximately 100.6 million gallons (about 308 acre-ft) and a typical application rate of 0.25 gal per acre-ft, a dye application would require 77

gallons. At a typical cost of about $40.00 per gallon, a single application would cost about $3,300.00. The longevity of the dye would be solely based on absorption by algal cells and photo decomposition. Applications could be staggered throughout the peak growing and problem seasons. Applications in March, May, July, and September would be a logical starting point for an annual trial or evaluation. Total cost would be about $13,200.00 for four applications.

Maintaining Stock of White Amur

Figure 18. White Amur.

Although poor light penetration has severely limited submerged weed growth in Fountain Lake, the population of White Amur (*Ctenopharyngodon idellus*) or grass carp (Fig. 18), should be maintained at a minimum of 25 per surface acre. These fish provide long-term biological control of weeds and sometime filamentous algae, as they are voracious herbivores with a life expectancy of about 10 years. Annual maintenance stocking of Amur should be included to replace those that die and those that begin to age and have reduced feeding activity. The cost per individual 12 to 14-inch fish is in the range of $10.00 to $12.00. Assuming no Amur are present, a complete lake planting at 25 Amur per acre would cost about $7,750 to $9,300.00 plus tax. Permit, license, and transportation fees are in addition to the fish cost, but are typically under $500.00. Annual maintenance stocking of 10 fish, would cost in the range of $1,000.00 to $1,200.00 plus associated fees and tax.

Increased Use of Aquatic Algaecide, Flocculants, and Oxidizers:

To protect against surface accumulations of planktonic algae, algaecide applications can be made to the upper three feet of water. Algaecide should be applied to only one-third to one-half of the surface area to protect against oxygen depletion caused by bacterial respiration during the breakdown of killed algal cells. Because of the presence of blue-green filamentous algae that have a mucilaginous coating that is resistant to absorption of chemicals, an algaecide with a surfactant should be used.

Several copper-based algaecides as Cutrine Ultra® and Captain XTR® would be appropriate at application rates of 0.6 to 1.2 gallons per acre-ft. Based on current (2016) costs, an application to one-half the lake surface area at 1.2 gallons per acre-ft for the upper three feet of water would be about $1,500.00 (material cost). The second

application would be made in two weeks to allow dissolved oxygen recovery and to protect against fish toxicity. Such dual applications would likely be required monthly from May through August or September, depending on weather conditions ($15,000 total material cost annually).

Another product, SeClear®, offers a dual treatment mode, consisting of a copper algaecide with a phosphorus binding chemical. The exact amount of material required must be determined just prior to application, but can be determined by the manufacturer through bench scale testing at no charge. For comparison purposes, using a relatively high dosage of 0.77 ppm copper or 5 gallons per acre-ft (for filamentous blue-green algae) on one-half of the lake surface area, cost of each application would be about $3,400.00 (materials only). Repeated applications are required, especially with an influx of phosphate from the AWT effluent fill. If utilized at a whole-lake treatment from May through September, an annual cost of approximately $34,000.00 would be anticipated.

Aluminum sulfate has been extensively used to bind and precipitate phosphates from reservoirs. Because the lake pH is quite high, the amount of alum will be increased from typical dosages of 100 to 200 lb per acre. As a result of the quantity required, the difficulty and expense of application, and the constant addition of phosphate-laden water as fill, aluminum sulfate applications are not recommended at this time.

Increase Lake Aeration

One of the primary mitigation techniques for excessive algae growth, stagnant accumulations of algae, oxygen depletion, and odor formation in reservoirs is mechanical aeration.

Recently, the main fountain has been operated when dissolved oxygen profiles have indicated oxygen losses in the deep waters. The fountain intake moves deep, oxygen poor water to the air, where it absorbs oxygen, and fallback into the reservoir. Although not the perfect horizontal circulator, the fountain does help break thermal stratification that creates the condition.

If AWT effluent is directly utilized for irrigation, operation of the fountain, especially during the evening when oxygen concentrations naturally decrease, will become more common. Although increase frequency and duration of run time of the main fountain has been reasonable successful at minimizing adverse impacts of vertical stratification, it is at a high cost for the electricity that powers the two fountain pumps.

An aeration study (AC&T 2015) identified several alternatives for increasing vertical and horizontal circulation in Fountain Lake using bottom diffuse aeration and horizontal water movers (circulators). The systems were designed to assure destruction of vertical circulation and prevention of downwind accumulations of surface algae. Based on the doubling of residence time of lake water, increased surface algae growth, increased frequency of accumulations of surface mats, greater odor production, and lower oxygen levels in the deep waters is anticipated. Therefore, the most comprehensive system would be the best choice at mitigating these conditions.

Expanding and improving the aeration system

The following provides a summary of most complete and economical system identified in the study.

Repair and upgrade current compressors and diffusion system: Three (3) of the four (4) existing air compressors are inoperable, it would be prudent to upgrade them to 1-hp motor carbon vane compressors (determined to be the best cost option at this time). Existing airlines have been dragged to the shoreline and most diffusers are worn, scaled, or otherwise inoperable. Recommendations include:

1. Replace three (3) vane compressors. Three (3) 1-hp carbon vane compressors are recommended to provide a small increase in air flow to the diffusers and an increase in vertical water circulation at each diffuser. No electrical modifications are required to accommodate or operate the 1-hp compressors.

2. Add one (1) additional main air line from Compressor #4 to lake to complete the pre-existing 12-diffuser system.

3. Relocate existing air lines to distribute diffusers throughout lake.

4. Add twelve (12) new, state-of-the art, paired dome diffusers (Fig. 19) to the lake. Vertex brand co-active flexible membrane dome diffusers are an example of the improved diffusers. Diffusers of this type have been installed in many urban lake systems in central Arizona and have provided excellent operation, longevity, and ease of repair or replacement.

Figure 19. Membrane diffusers.

Additional Diffusers: Adding four diffusers (total 16 units) would better insure the entire lake surface area is sufficiently mixed with a turnover rate of at least one time per day. Additional air lines could be run from the existing or replacement compressors. Diffuser distribution with four (4) additional units is shown in Figure 20. As an option, the four (4) additional diffusers could be powered by an air source located at the north end of the lake. One of the compressors could be incorporated with the modifications needed for installation of water movers (see below).

Horizontal Circulators: Fig 21 shows horizontal circulation upgrades to Fountain Lake with locations for ten (10) horizontal water circulators (Fig. 22). The 10 locations were selected to cover all areas where frequent episodes of algae accumulation and stagnation have occurred over the past few years. Because of the variety of locations for the horizontal circulators, it would be advantageous to locate the power source in a single control panel at the existing pump building.

Figure 22. Water mover example.

Phased Installation: In the event the Town wishes to make aeration system modifications over an extended period of time, the following activities could be incorporated into three distinct program phases.

Phase 1: Restore/replace four existing air compressors, replace diffusers, and relocate air lines. This would provide the most significant and immediate relief to the aeration issues.

Phase 2 or 3: Add 4 additional diffusers. This would insure and likely exceed the desired 24-hr vertical turnover rate for the lake water.

Phase 2 or 3: Add 4 to 10 water movers. This would help address the problem with accumulations of algae along the northern and northwestern shoreline and other problematic areas, essentially pushing water out to mix with the open water zones influenced by the bottom diffusers.

Upgrade costs: The repairs and modifications listed above would provide the most effective water circulation for Fountain Lake. The following opinions of cost (2015 dollars) were identified in the referenced study:

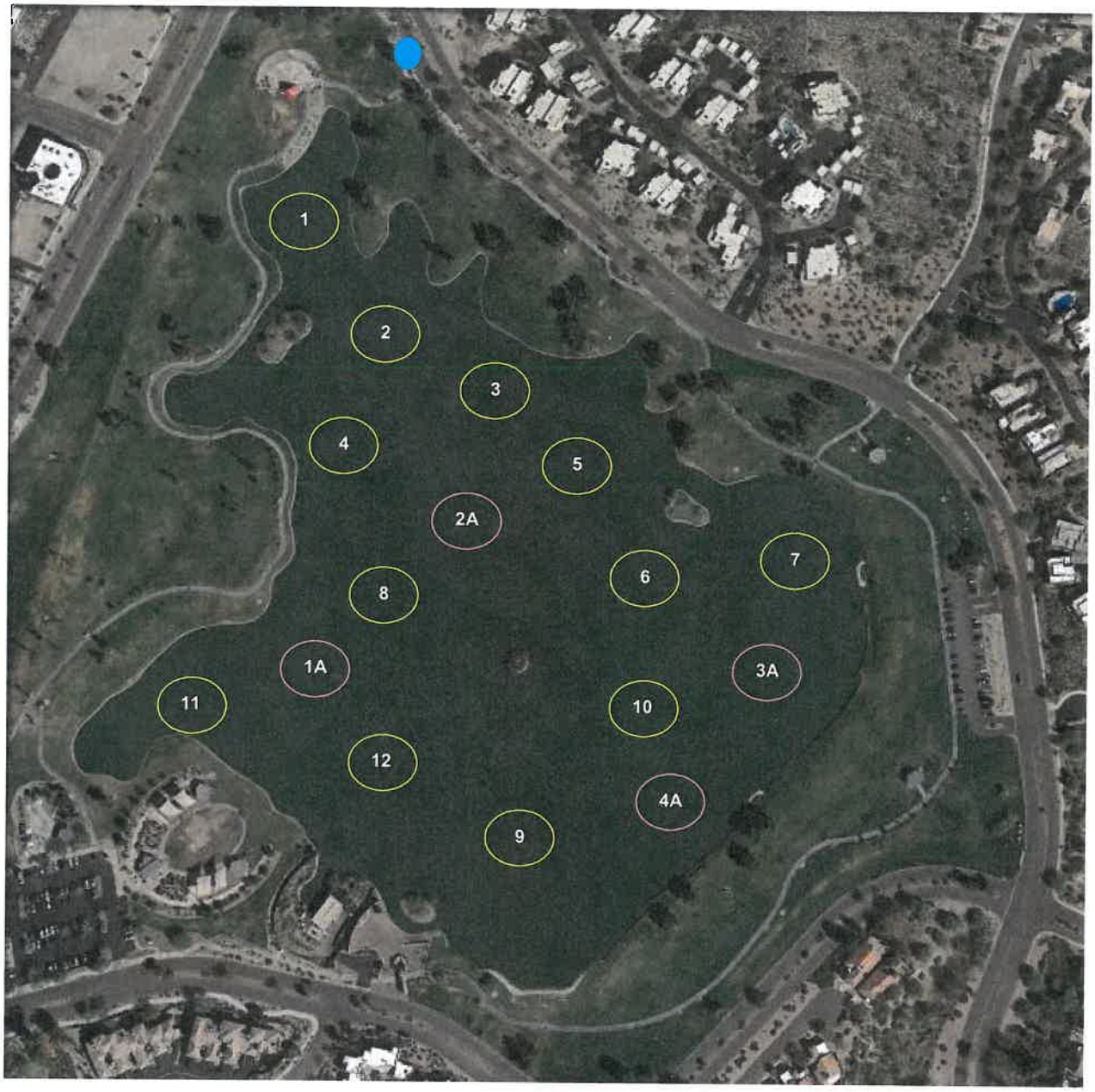

Figure 20. Fountain Lake Aeration Diffuser Locations – 16 Stations

Additional diffuser Optional electrical source

Figure 21. Fountain Lake Aeration Diffuser Locations – 16 Stations + 10 Water Movers

Optional diffuser Horizontal water mover Electrical source

(1) Repair/replace existing vertical circulation compressors, reposition current air lines, add one air line, and replace diffuser heads. ($14,850.00)

(2) Add four (4) additional diffusers and air lines ($10,000.00)

(3) Add ten (10) horizontal circulators ($102,562.00)

Total project cost: $125,712.00

Future AWT Upgrades

Future upgrades to the FHSD AWT may further improve water quality to the lake and irrigation system. As the current system ages and eventually requires replacement and environmental regulations and water quality requirements intensify, installation of nanofiltration (NF) or reverse osmosis (RO) may be required.

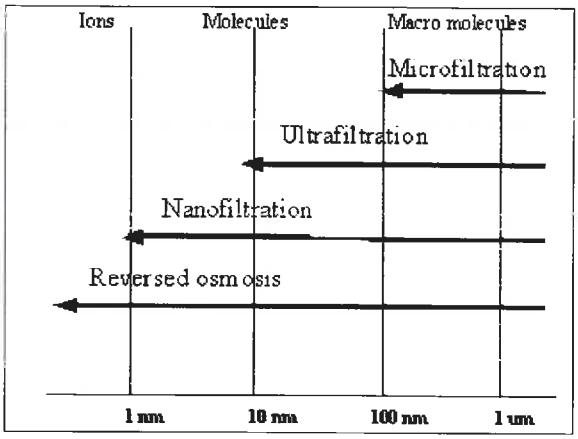

Figure 23. Comparison of membrane technologies (from Lenntech).

NF and RO are physical processes in which contaminants are removed by applying pressure to the water to drive pure water through a semi-permeable membrane. NF is a selective form of RO that has a lower rejection rate for monovalent ions than multivalent ions, and operates at lower pressures than RO. NF falls between UF and RO on the filtration/separation spectrum (Fig. 23). However, NF membranes are more specialized than RO membranes; i.e, membrane type can target specifications for removal. A review of manufacturers' literature indicates removal efficiencies ranging from 1-75 percent for nitrate and 70-95 percent for phosphate in NF-treated waters and greater than 90 percent for both ions with thin-film-composite-membrane RO treated waters, with actual rejection efficiency dependent upon water hardness, pH, and sulfate concentrations and pretreatment processes.

Obviously membranes targeting nitrogen or especially phosphorus ions would be most beneficial. Phosphorus is the ion of choice for removal because nitrogen-fixing algae are prevalent in Fountain Lake and could still grow extensively using atmospheric nitrogen even if nitrates and ammonia were removed from the source water.

These systems require higher operating pressures and are more expensive to purchase and maintain. Disposal of membrane concentrates limits the use of NF and RO in many cases. However, these systems can reduce nitrogen and especially phosphorus concentrations to levels that would significantly improve the quality of Fountain Lake in terms of algae reduction and corresponding transparency color, and oxygen content improvement and help sustain the fishery and provide greater aesthetic enjoyment of the reservoir by the public.

Respectfully,

AQUATIC CONSULTING & TESTING, INC.

Frederick A. Amalfi, Ph.D., C.L.M.

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AZ ROC #220363

August 23, 2016

Mr. Mark Mayer
Fountain Hills
16705 E. Ave. of the Fountains
Fountain Hills, AZ 85268

RE: Fountain Control System Upgrades & Weather Station
Quantum Quote #16-01065

Thank you for allowing Quantum Integrated Solutions, Inc. the opportunity to provide this proposal.

PROJECT OVERVIEW:

Our proposal for this project is to provide automated control system upgrades for the above reference project.

SCOPE OF WORK:

Our proposal is based on the design information and requirements provided. Specific inclusions, exclusions and Scope of Work details are reflected in the enclosed Basis of Estimate – Attachment A.

TERMS AND CONDITIONS:

This proposal is subject to Quantum Integrated Solutions' enclosed Terms and Conditions – Attachment B.

PERIOD OF PROPOSAL:

The terms and price of this proposal are valid for a period of ninety (90) days.

COMPENSATION:

Integration Estimate		
Item #	Description	Costs
1	Control System Upgrade & Weather Station	$51,601
	Project Total:	**$51,601**
	Materials Tax (if applicable)	$1,889

Please confirm acceptance of this scope and proposal by returning a signed copy of Attachment A at the time of contract award.

If you have any question regarding this proposal, please feel free to call me at 480-284-1187.

Respectfully,

Patrick Kelly, P.E.
Sales Engineer
Quantum Integrated Solutions/Engineering, Inc.

AZ ROC #220363

ATTACHMENT A
BASIS OF ESTIMATE

RECEIVED DOCUMENTS:

- Onsite meeting

WRITTEN SCOPE OF WORK:

- Design new automated control system for Fountain Control with Wind Interlock
- Provide hardware per list below
- PLC/OIT Programming
- Secure web based portal for remote interface via cellular connection
- 60" Flat screen TV & computer to be mounted in Town Hall for real time telemetry display
- Engineering meetings
- Panel shop drawings
- Up to 3 days of onsite startup services including training

HARDWARE PROVIDED:

Control Panel:
Qty (1) Subanel (to be mounted in existing enclosure) including:
New subpanel, Allen Bradley PLC, 7" color touchscreen, ethernet switch, power supply, TVSS, terminal blocks, pilot lights, RS422 to RS232 converter, solid state weather station, circuit breakers, control relays, cellular telemetry device, etc.

PROJECT CLARIFICATIONS:

- Client to demo and mount/wire new weather station on existing pole
- Existing enclosure to be reused with new subpanel
- Client to provide assistance with demo/wiring/interface to existing pump controls
- Schedule to be mutually agreeable
- Additional engineering time to be billed at $159/hour/person plus mileage
- Client to provide cellular service package (~$30/month) after first year

PROJECT EXCLUSIONS:

- Software development licenses not included

Authorized Signature **Date**

August 23, 2016

Mark Mayer
Community Services Department
Town of Fountain Hills
16705 E. Avenue of the Fountains
Fountain Hills, AZ 85268
mmayer@fh.az.gov

RE: Fountain Park Lake Controls (Budgetary Estimate)

KEI Proposal: 196962.00

Mr. Mayer,

Project Overview

Keller Electrical Industries, Inc. (KEI) is pleased to provide this proposal for your variable frequency drive and soft start application. This proposal is based on the information obtained during two recent site visits to the existing pumping station.

The equipment being proposed is Toshiba's T300MVi Variable Frequency Drive (VFD) and JKSS4 Solid State Starter (SSS) installed in a portable E-Building manufactured by Atkinson Industries. At the time of this proposal, Toshiba has provided over 150 medium-voltage VFD units throughout Arizona along with numerous soft start installations. Atkinson has provided E-Houses for Keller for several installations, including units installed for the City of Scottsdale and Town of Gilbert. Keller Electrical provided and commissioned nineteen T300MVi drives in 2015 alone.

Project Approach

This offering is for (1) 1,250Hp T300MVi, which will operate (2) of the existing 600Hp pump motors and (1) JKSS4, which will operate (1) 600Hp pump motor. This approach was selected to provide a fountain height similar to the existing operation, while allowing additional height based on wind speed. Furthermore, operating (2) pumps on (1) VFD, which will allow running the pumps at slower speeds, will assist in generating a ROI that would never be achieved running the pumps at full speed as is the current method of operation. This proposed equipment is offered to be installed in the aforementioned portable E-building, which is intended to be installed on the NW exterior side of the pump house. The e-building dimensions are 10'W x 11'T x 30'L and will encompass the majority of the available space in this area. As part of this proposed installation, the existing de-commissioned pumping equipment will be removed and relocated as directed by Fountain Hills. KEI intends to partner with Omega Morgan, who specialize in industrial rigging, along with Maxim Crane for the removal of the existing equipment and subsequent installation of new.

Included, as part of this budgetary proposal, is Toshiba literature for the T300MVi adjustable speed drive and JKSS4 solid state starter as well as a lift plan for the proposed E-building installation. Additional information can be provided upon request.

Toshiba 1,250hp T300MVi Adjustable Speed Drive description:

T300MVi® Drive standard features:

The proposed drive system includes the following features.

- Input voltage: see equipment description for input voltage
- Input voltage tolerance: ± 10%
- Input frequency: 60 Hz or 50 Hz
- Input frequency tolerance: ± 5%
- Output voltage: see equipment description
- Auxiliary power for cooling fans: 480 V, three-phase, 60 Hz (derived internally)
- Control power: 120 V, single-phase, 60 Hz (derived internally)
- Installation: in non-hazardous, unclassified area
- Cooling: forced air-cooled
- Input distribution class surge arrester
- Input-fused disconnect switch with vacuum contactor; integral part of ASD assembly
- Dry-type input isolation transformer with copper windings & electrostatic shield. Tertiary winding is included to provide auxiliary power to drive's cooling fans. Transformer is an integral part of ASD assembly
- Modular power cell construction for easier service & access
- Multi-level PWM output waveform
- Analog inputs: two (2) selectable voltage or current input signals
- Analog outputs: eight (8) selectable voltage & current output signals with programmable functions
- Digital inputs: eight (8) digital inputs with programmable functions
- Digital outputs: six (6) digital outputs with programmable functions
- Control: V/Hz, sensor-less vector control, closed-loop vector control
- Standard V/Hz control programming for smooth operation of the motor & optimal performance
- Speed regulation: ± 0.5% without encoder feedback; ± 0.01% with encoder feedback
- Variable torque applications with 115% overload capability for one (1) minute (some ratings are limited to 110% overload capability)
- Constant torque applications with 150% overload capability
- Acceleration/deceleration: 0.1 to 6000 seconds
- Graphical backlit LCD display: ability to display multiple parameters on one screen. Software is flash-upgradeable. Includes multi-function rotary encoder & Ethernet PC interface
- LED indications: status LED to indicate ready (green), running (red), alarm (slow-blinking), fault (fast-blinking); LED indicating remote/local mode
- Keys: local/remote, monitor/program, run, enter, escape, stop/reset, up, down
- Push buttons: emergency stop, reset, interlock
- Selector switch "OPEN/CLOSE", pilot lights for input contactor closed & input contactor open
- Electrical performance: NEC, ANSI
- Components & others: NEC, NEMA, UL, cUL
- IEEE 519 compliant at drive input terminals
- Standard factory testing
- Input: 2400V / 3Φ / 60 Hz
- Output: 0-2400V / 3Φ/ 0-60Hz
- Drive output current: 269A, sized to operate two 600HP induction motors at one time each with a rated current of 132 FLA, and operating at 130 amps.
- 115% Overload current for one minute every twenty minutes
- NEMA 1 Enclosure, Frame D2

- Est. heat rejection at full load: 33.5kW
- Drive Dimensions: 103.7''H x 122.0''W x 43.4''D
- Drive Weight: 11,300 lbs.
- Rated temperature: 0°C to 40°C
- Rated altitude <1000 m
- **Optional Items:** (options included in as part of this proposal
- Ethernet TCP/IP communication card
  4-20mA isolation transducers for: 3) x analog output (1) x analog input

Input configuration:

- 24-pulse

Indoor ASD: M3A

- NEMA 1 enclosure suitable for indoor installation. Enclosure with gaskets & inlet air filters
- Cabinet paint color: ANSI 61 grey
- Ambient conditions: 0° to 40°C temperature, 5 to 95% humidity (non-condensing), altitude up to 1000 meters

Toshiba Motor Control Center and 600hp JKSSS4 Solid State Starter description:

Solid State Starter

The digitally controlled keypad operator and OLED display makes the starter easy to program. Closed loop microprocessor-based control optimizes the ramping characteristics to insure smooth, stepless acceleration. Premium operating, monitoring and protective features provide reliable, trouble-free operation even in the most demanding applications.

All adjustments are made on the keypad, which allows an operator to make adjustments without being exposed to line voltages. The low voltage components are front panel accessible for simple and safe routing inspection and maintenance. The power section consists of interchangeable, independent phase assemblies using selected SCRs balanced for smooth motor starting and stopping. The medium voltage sections are isolated from the low voltage compartment for safety.

Standard Features

- Soft Start
- Motor Overload Protection (Solid State)
- 500% - 60 seconds, 600% - 30 seconds
- Vacuum Bypass Contactor (Toshiba model HCV-5HA)

Control and Display

- Digital Microprocessor
- LED Status and Alarm Display with 12 LEDs
- POWER – Indicates control power is present
- RUN – Indicates unit/motor is running
- ALARM – Lights in conjunction with AUX 2 to indicate event or warn of possible critical condition
- TRIP – Lights in conjunction with AUX 1 to indicate a critical condition has occurred.
- AUX 1-8 – Auxiliary unit relays
- Keypad operator interface: 2 line x 20 character OLED display
- Non-volatile memory
- Opto-isolated Inputs

- Auxiliary contacts – Form C, 5A @ 240Vac max.

Adjustments

- Motor Full Load Ampere (FLA)
- Dual Adjustments – Two independent settings for
  - Initial Voltage: 0 – 100% of nominal voltage
  - Current limit: 200 – 500% of motor FLA
  - Accel Time: 1 – 120 seconds
  - Decel Time: 1 – 60 seconds
  - Three custom acceleration curves
  - Jog: 5 – 75% Voltage
  - Kick Start: 10 – 100% Voltage, 0.1 – 2 seconds
- Coast Down (Back Spin) Lockout Timer: 1 – 10 successful starts per hour
- Starts-per-hour Lockout Timer: 1 – 60 minutes between start attempts
- Undercurrent Trip: 10 – 90% or disable (with adjustable trip delay 1 – 60 sec.)
- Overload Reset – Selectable Manual or Automatic
- Two 4-20mA Analog Outputs: Selectable from OFF, RPM, Hottest Non-Stator RTD, Hottest Stator RTD, RMS Current, % of Motor Load, and kW.

Motor and Starter Protective Features

- Electronic Overload: Retentive Memory & Dynamic Reset Memory
- Phase Imbalance/Single Phase
- Short Circuit
- Phase Reversal/Phase Sequence
- RTD Temperature
- Overcurrent
- Undercurrent/Loss of Load
- Starts-per-hour
- Starter Overtemperature
- Shorted SCR
- Undervoltage
- Overvoltage

Maintenance Data

- Fault Indications: Shorted SCR, Phase Loss, Shunt Trip, Phase Imbalance, Phase Rotation, Overload, Overtemp, Overcurrent, Short Circuit, Load Loss, Stator Phase Trip, RTD Trip, and Any Trip
- Coast Down Time
- Starts-per-hour
- Time Between Starts
- Any Lockout
- Event History – Up to 60 events. Data includes cause, date, time, phase and ground current.

Metering

- Percent of FLA
- Phase Currents (A, B & C)
- Average Current
- Line Voltage (Vab, Vbc & Vca)
- Remaining Thermal Register

- Thermal Capacity to Start
- Average Start Time
- Average Start Current
- Measured Capacity to Start
- Time Since Last Start
- Line Frequency
- Phase Order
- Motor RPM
- kW, kVA, kVAR, PF, MWHr
- kW Demand, kVA Demand, kVAR Demand, Amps Demand - (All Date & Time Stamped)

Bill-of-Material (Left to Right Facing MCC Front)

1 - 15" W VFD output section (customer to cable from VFD output into this section, cables not included)
1 - 30" W VFD motor output section (Motor 01 & 02) with:
- 1 - VFD output bus compartment (middle rear) with:
  - 3 - Output bus, tin-plated, non-insulated copper, 1200A
  - 1 - Ground bus, bare copper, 600A
- 2 - Medium voltage compartments (top & bottom), each with:
  - 1 - Isolation switch on the line side with visible disconnect, grounded in the open position
  - 1 - Fix-mounted vacuum contactor, 400A, Toshiba Model HCV-5HA, 7000A short circuit interrupting capacity, 60kV BIL
  - 1 - Three phase current transformer
- 1 - Separate, isolated, low voltage compartment (middle) with:
  - 2 - Solid state electronic motor protection relays, Multilin 369 w/RTD Option (non-metering)
  - 2 - Open pilot lights (green)
  - 2 - Closed pilot lights (red)

1 - 30" W VFD motor output section (Motor 03) with:
- 1 - Main VFD output bus compartment (middle rear) with:
  - 3 - Output bus, tin-plated, non-insulated copper, 1200A
  - 1 - Ground bus, bare copper, 600A
- 1 - Medium voltage compartment (top) with:
  - 1 - Isolation switch on the line side with visible disconnect, grounded in the open position
  - 1 - Fix-mounted vacuum contactor, 400A, Toshiba Model HCV-5HA, rated 360A ventilated, 7000A short circuit interrupting capacity, 60kV BIL
  - 1 - Door trip button (interlocked with SSS input isolation contactor)
  - 1 - Medium voltage compartment (bottom) empty
- 1 - Separate, isolated, low voltage compartment (middle) with:
  - 1 - Solid state electronic motor protection relay, Multilin 369 w/RTD Option (non-metering)
  - 1 - Open pilot light (green)
  - 1 - Closed pilot light (red)

1 - 15" W Motor No. 03 load connection section with:
- 1 - Three phase current transformer
- 3 - Motor cable termination pads

1 - 30" W SSS output section (for Motor 03 only) with:
- 1 - SSS output bus compartment (middle rear) with:
  - 3 - Output bus, tin-plated, non-insulated copper, 1200A
  - 1 - Ground bus, bare copper, 600A
- 1 - Medium voltage compartment (bottom) with:
  - 1 - Isolation switch on the line side with visible disconnect, grounded in the open position

1 - Key interlock switch, keyed to SSS output isolation switch

1 - Key interlock switch, keyed to SSS input isolation switch
1 - Fix-mounted vacuum contactor, 400A, Toshiba Model HCV-5HA, rated 360A ventilated , 7000A short circuit interrupting capacity, 60kV BIL
1 - Door trip button (interlocked with VFD M03 contactor)
1 - Medium voltage compartment (top) empty
1 - Separate, isolated, low voltage compartment (middle) with:
1 - Solid state electronic motor protection relay, Multilin 369 w/RTD Option (non-metering)
1 - Open pilot light (green)
1 - Closed pilot light (red)

1 - 30" W Solid State Starter with:
1 - Main bus compartment-(middle rear) with:
3 - Main bus, tin-plated, non-insulated copper, 1200A
1 - Ground bus, bare copper, 600A
1 - Medium voltage compartment (bottom) with:
1 - Isolation switch on the line side with visible disconnect, grounded in the open position
1 - Key interlock switch, keyed to M03 output isolation switch
1 - Key interlock switch, keyed to SSS output isolation switch
1 - Fixed mounted, input isolation, vacuum contactor, 400A (rated 360A ventilated), **Toshiba** Model **HCV-5HA**, 7000A short circuit interrupting capacity, 60kV BIL, NEMA E2 ratings: 2300/200MVA (50kAIC)

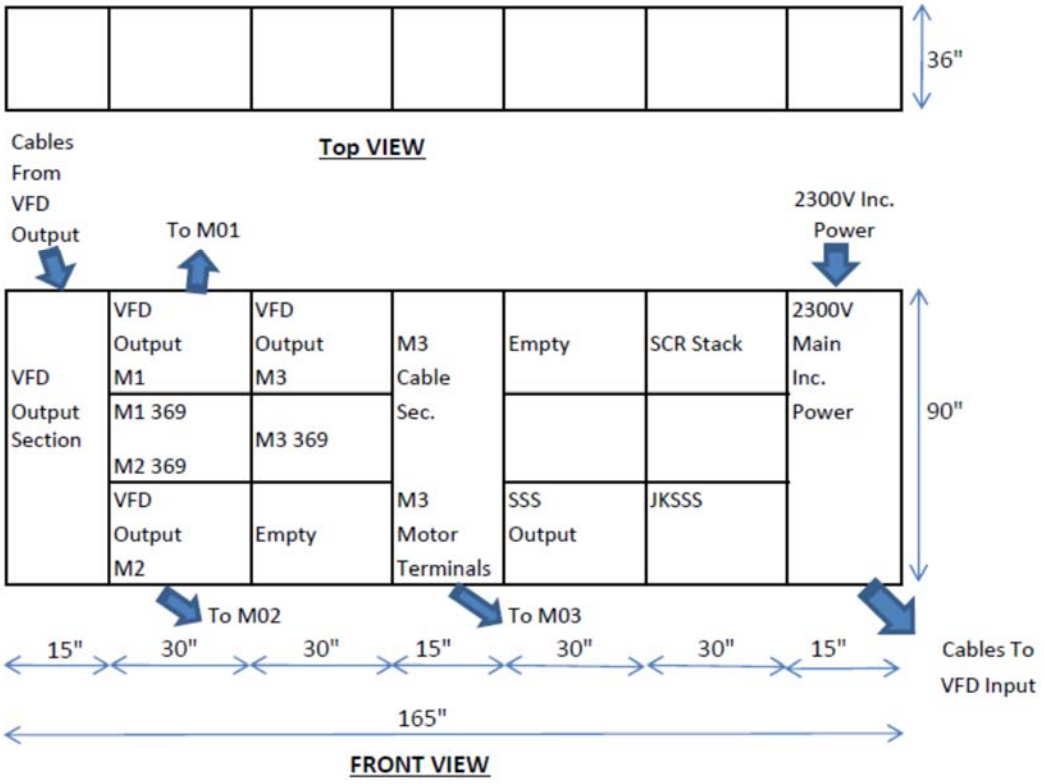
3 - Current limiting fuses, R rated for motor starting
2 - Control power transformers (500VA each), with primary and secondary fuses, 120Vac control power
1 - Medium voltage compartment (top), with:
1 - Solid state starter SCR stack with internal CT for automatic bypass
1 - Medium voltage compartment (middle) with:
1 - Fix mounted, bypass, vacuum contactor, 400A, **Toshiba** Model **HCV-5HA**
1 - Separate, isolated, low voltage compartment (middle) with:
1 - Solid state starter control module
1 - Keypad/display panel (door mounted)
1 - Run (red) pilot light (door mounted)
1 - Off (green) pilot light (door mounted)

1 - 15" W Main incoming/VFD input connection section (customer to cable from section to VFD input, cables not included) with:
1 - Control power transformer (2000VA, 2300:120Vac), with primary fuses, for M01, M02, M03 & SSS output
unit control power

Miscellaneous Features
Built-in Test circuit
Mechanical and Electrical interlocks

NEMA type 1 Ventilated enclosure
Dimensions (ea.): 90"H x 165"W x 36"D
Weight (ea.): Approx. 7600 lbs.
Color: ASA 61 gray

OUTLINE DRAWING – MV MCC & SSS



Atkinson Industries Shelter Description:

Base Specifications:

Base Style:	Deck Base
Base Size:	10' Wide Exterior x 30' Long Exterior
Major Frame Member Size:	C15 x 33.9 Channel
Minor Frame Member Size:	C10 x 20 Channel
Lifting Frame Member Size:	C15 x 33.9 Channel
Frame Member Material:	Carbon Steel
Weight Load:	250 Lbs/Foot
Deck Plating:	1/4" Smooth Plate Carbon Steel
Welding Method:	Stitch Welded to Frame, Seam Welded at Plate to Plate Seams, Skip-Stitch Welded to all Major, Minor, and Sub Frame Members
Base Finish:	2 mil Primer Undercoat, White Trim
Deck Finish:	2 mil Primer Undercoat & Grey Epoxy Non-Skid
Insulation:	10.25" Fiberglass Batt with (R-30 Rating) with 18 GA Galvanized Belly Pan and Mastic Coating
Lifting Provisions:	Four (4) Bolt-On Removable Lifting Lugs

Wall & Roof Specifications:

Shelter Style:	Modular
Roof Style:	Shed
Wall Size:	10' Interior Ceiling Height x 10' Wide Exterior x 30' Long Exterior
Wall Material:	16 Gauge G90 Galvanized Interlocking Panels
Roof Material:	12 Gauge G90 Galvanized Interlocking Panels "No Welded Seams"
Ceiling Material:	16 Gauge G90 Galvanized Interlocking Panels
Interior Wall Liner Style:	16 Gauge G90 Galvanized Flat Panel
Wall Insulation:	3" Fiberglass Batt (R-13 Rating)
Roof Insulation:	6" Fiberglass Batt (R-19 Rating)
Interior Finish:	2 mil Primer Coat & White Polyurethane Final Coat
Exterior Finish:	Seam Caulk Sealant with 2 mil Primer Coat & White Polyurethane Final Coat
Roof Trim Finish:	2 mil Primer Coat & White Polyurethane Final Coat

Double Door Specifications:

Door Style:	Double Hung, Left Hand Hinge, Outward Opening
Door Size:	6'W x 8'H x 1 3/4" (Qty. 1) with (6' x 2') Removable Transom
Door Material:	14 Gauge G90 Galvanized Flat Panel
Door Jam:	Integrated 14 Gauge G90 Galvanized Steel Interlocking Jams
Door Trim:	Adjustable Neoprene Gasket on Aluminum Frame
Threshold:	Stainless Steel Step Plate (Qty. 1)
Door Closure & Stop:	12" Aluminum Body Pneumatic Actuator with Hold Open Device (Qty. 1)
Panic Bar:	Stainless Steel Hardware with Thumb-Style Lock & Two (2) Keys (Qty. 1)
Chain and Foot Latch:	Stainless Steel (Qty. 1)
Door Insulation:	1 1/2" Thermax Foam Board, (R-10.1) Rating
Door Finish:	2 mil Primer Coat & White Polyurethane Coat

Door Specifications:

Door Style:	Single Hung, Left Hand Hinge, Outward Opening
Door Size:	4'W x 8'H x 1 3/4" (Qty. 1)
Door Material:	14 Gauge G90 Galvanized Flat Panel
Door Jam:	Integrated 14 Gauge G90 Galvanized Steel Interlocking Jams
Door Trim:	Adjustable Neoprene Gasket on Aluminum Frame
Threshold:	Stainless Steel Step Plate (Qty. 1)
Door Closure & Stop:	12" Aluminum Body Pneumatic Actuator with Hold Open Device (Qty. 1)
Panic Bar:	Stainless Steel Hardware with Thumb-Style Lock & Two (2) Keys (Qty. 1)
Door Insulation:	1 1/2" Thermax Foam Board, (R-10.1) Rating
Door Finish:	2 mil Primer Coat & White Polyurethane Coat

Shelter Accessories:

(4) 4-Hole S/S Ground Pads
(1 Set) Structural Cad Drawings with (KS) PE Stamp

Itemized Electrical Equipment:

ITEM	QTY	MFG	MFG PART #	DESCRIPTION
1	1	Cutler-Hammer	PRL1A	Panelboard, 120/208VAC, 3 Phase, 4 Wire, 100A Main breaker and (12) 20A 1P bolt-n breakers, NEMA 1 Surface mount
2	1	Cutler-Hammer	PRL3A	Panelboard, 480VAC, 3 Phase, 3 Wire, 300A Main Breaker, (10) 30A 3P & (1) 600A 3P bolt-on breakers, NEMA 1 surface mount
3	1	Cutler-Hammer	V48M28T30CUEE/ WS38	30 KVA Three Phase Transformer, 480V Primary, 120/208Y Secondary, Coppper winding, with weather shield
4	6	Lithonia	AFP 2 54T5HO MVOLT GEB10PS	Industrial Fluorescent Fixture, 120VAC with (2) F54T5HO lamps, surface mount
5	12	GE OR Equal	F54W/T5/841/WM/ ECO	Fluorescent Lamps
6	2	Pass & Seymour	PS20AC3-I	Industrial Grade 3 WAY Wall Switch, 20 AMPS, 120/277V, Ivory
7	2	Lumark	HPWM-70P	Exterior Wall Pack Fixture, 120VAC, 70W HPS with photocell
8	10	Pass & Seymour	CR20I	Interior duplex receptacle, commercial grade, 120 VAC, 20 AMPS, NEMA 5-20R, ivory
9	2	Lithonia	LQM S W 3 R ELN 120/277	Exit sigh LED, 120 VAC, white thermoplastic housing, red letters
10	2	Lithonia	ELM2	Emergency light, 10.8 WATTS @ 90 minutes
11	2	Kidde	46620620	Fire extinguisher, dry chemical, 20LB, Class ABC, UL Rating 6A:80B:C, with wall mount bracket
12	2	Bard	W70A2-C00XXXXXJ	6 Ton wall mount HVAC, cool only, R410A refrigerant, 460/60/3
13	2	Bard	30X10-VH	Supply grill

14	2	Bard	30X16-RCBF	Return grill
15	2	Bard	NA	Return to air filter for 3 -1/2 to 5 Ton HVAC unit, 30 day disposable
16	2	Bard	EHWA05A-C09	WA423-701C 9KW heat package
17	2	Cutler-Hammer	DH361URK	Heavy duty safety switch, 240/480 VAC, 30A, 3 pole, non-fusible, NEMA 3R
18	1	Bard	TEC40	Lead/lag controller (4) HVAC units

1 Exclusions and Clarifications

a. Only work, equipment, and materials explicitly stated in this document are part of this proposal. KEI accepts the responsibility for the coordination and furnishing of small and incidental equipment and services normally associated with this type of work and for coordination with other disciplines. Any additional significant equipment, materials, or services will be furnished only upon execution of a change order.
b. All other equipment and services not specifically mentioned in this scope of work nor defined above shall be the responsibility of others.

2 Schedule

a. Approval Drawings: 2 – 4 weeks ARO
b. Shipment: 18 – 20 weeks after drawing approval
c. Installation: 3 – 5 days
d. Start-up and Commissioning: 2 – 4 days

3 Taxes and Freight

a. MRRA (Maintenance, Repair, Replacement, Alteration) Contracts: We have identified this scope of work to be performed as maintenance, repair, replacement or alteration activities, in accordance with Arizona Revised Statutes (A.R.S.) Section 42-5075. As a result, transaction privilege taxes are the responsibilities of KEI.
b. Unless noted differently, this proposal includes freight cost for delivery of KEI manufactured or purchased products to the project site.

4 Payment Terms and Conditions

a. KEI will submit monthly progress payment invoicing in an AIA format
b. 25% of project fee after receipt of purchase order
c. 30% of project fee after release of equipment for manufacturing
d. 35% of project fee after shipment of equipment
e. 10% of project fee after installation startup and commissioning

5 Equipment Fee

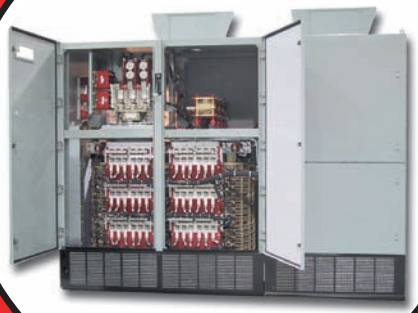
Total net price as defined: **$749,450**

KEI appreciates the opportunity to furnish this proposal. We have made every effort to assure that the proposed equipment and services will satisfy your requirements and meet or exceed your expectations. Should you have any questions, comments, concerns or require further clarification, please feel free to contact me at your convenience.

Rob Rayl
Sr. Project Manager
Keller Electrical Industries, Inc.
1881 E. University Dr.
Phoenix, AZ 85034
Cell: 602-501-8516 (AT&T)
rrayl@kellerelectrical.com

TOSHIBA
Leading Innovation

MEDIUM VOLTAGE DRIVES



T300MVi®

XT

- Small Footprint
- Reduced Component Count
- IEEE-519 1992 Compliant with 24-Pulse Harmonic Cancellation
- Additive PWM Output Voltage with No Neutral Shift
- May be Used with Standard Motors
- Ten-Year Mean Time Between Failures

ARRA COMPLIANT
AMERICAN REINVESTMENT RECOVERY ACT

T300MVi® Specifications

Standard Specifications																			
Item																			
Voltage Class	**4160 V**																		
Drive Rating (A):	62	74	87	99	112	124	155	186	217	248	279	310	372	434	496	558	620		
4160 Drive Output (KVA):	447	536	625	715	804	893	1116	1340	1563	1786	2010	2233	2680	3126	3573	4019	4466		
Nominal HP 4160 V**	500	600	700	800	900	1000	1250	1500	1750	2000*	2250	2500	3000	3500	4000	4500	5000		
Dimensions H x W x D (in)	104 x 74 x 44						104 x 122 x 44				104 x 164 x 50		104 x 174 x 50		104 x 222 x 50				
Voltage Class	**2400 V**																		
Drive Rating (A):	64	75	86	97	107	129	150	172	193	215	269	322	376	430	504	537			
2400 V Drive Output (KVA):	268	313	357	402	447	536	625	715	804	893	1116	1340	1563	1786	2010	2233			
Nominal HP 2400 V**	300	350	400	450	500	600	700	800	900	1000	1250	1500	1750	2000	2250	2500			
Dimensions H x W x D (in.)	104 x 74 x 44					104 x 122 x 44					104 x 174 x 50				104 x 222 x 50				

Power Requirements	
Output Frequency (Hz)	0 to 120 Hz
Main Circuit	Three-Phase 4160 V Input Isolation Transformer 24-Pulse Design with Input-Fused Disconnect and Vacuum Contactor, IGBT Output
Control Circuit	Integral to Main Transformer; Includes 120 & 460 V
Tolerance	Voltage: ± 10%; Frequency ± 5%

Control Specifications Input	
Control Method	Multi-Level Pulse Width Modulated (PWM) Output Control
Frequency Precision	Analong Input: ± 0.5% of Maximum Output Frequency; Digital Input: 0.01%
V/F Control	V/Hz, Sensorless Vector Control, Variable Torque, Closed-Loop Vector Control, Constant Torque (Option)
Acceleration/Deceleration	0.1 to 6000 Seconds
Main Control Functions	Soft Stall (Automatic Load Reduction Control During Overload)
	Restart into Rotating Motor
Main Protective Functions	Current Limit, Overcurrent, Overcharge, Overload, Undervoltage, Overvoltage, Ground Fault, CPU Error, Abnormal Cooling Fan
Data Transmission	Ethernet, Optional Profibus, Modbus RTU, Modbus, TCP/IP, TOSLINE-S20, and DeviceNet Available
Overload Ratio	115% FLA for 60 Seconds (2000 HP, 4160 V, 110%)*

Interface	
Liquid Crystal Display/ Electronic Operator Interface (LCD EOI)	4 x 20 Graphical Backlit LCD Display; Ability to Display Multiple Parameters on One Screen; Flash-Upgradeable Software Includes Multi-Function Rotary Encoder & Ethernet PC Interface
LED Indications	Run (Red)/Stop (Green), Remote/Local, Indication of Inverter Status
Keys	Local/Remote, Monitor/Program, Run, Enter, ESC, Stop/Reset, Up, Down
Push Button	Illuminated Interlock and Fault Reset Push Buttons
Analog Outputs	Eight Selectable Voltage or Current Output Signals with Programmable Functions
Analog Inputs	Two Selectable Voltage or Current Input Signals
Digital Inputs	Eight Digital Inputs with Programmable Functions
Digital Outputs	Six Available Digital Outputs with Programmable Functions (One Internal to Drive)

Construction	
Enclosure	NEMA 1, IP20, IEC-529, Gasketed and Filtered
Panel Construction	Free-Standing, Front-Maintenance Type, Top or Bottom Access for Motor and Power Cables
Cooling	Forced-Air Cooled with Optional Redundant Fans
Color	ANSI-61 Gray

Ambient Conditions	
Ambient Temperature	0˚ to 40˚C; 32˚ to 104˚F
Humidity	Maximum 95% (Non-Condensing)
Altitude	1000 Meters Above Sea Level or Less
Installation	Indoor, No Direct Sunlight, Protect from Corrosive Gases, Explosive Gases
Typical Applications	Fan, Blower, Pump, Compressor, Extruder, Options for Submersible Pumping Applications
Standards	Electrical Performance: NEC, ANSI
Components and Others	NEC, NEMA, UL

***Typical HP Rating of 4-Pole Motor; Contact Factory for Applications on Constant Torque Loads*

Built in Harmonic Reduction, Without Filtering or Concern for Long Lead Lengths

Toshiba's T300MVi contains specially designed transformer and rectifier schemes that provide phase-shift cancellation capabilities, eliminating issues concerning harmonic injections into bus-fed equipment. Instead, the T300MVi medium voltage drive simply looks like a linear load on the incoming AC line. The drive also exceeds IEEE-519 requirements without the addition of any harmonic filters.

Other Benefits:

- Topology Provides Isolation from Ground Faults and Line Surges
- Design Obtains Higher Displacement Power Factor (0.96) than Running Motor Across the Line
- Motor Torque Ripple Negligible Due to Extremely Small Harmonic Current Contents, Reducing Need for Damping Devices, e.g., Couplings, Flywheels
- Reduces Possibility of Drive-Induced Torsional Vibration in Driven Equipment

TOSVERT-300MVi NPC ADJUSTABLE SPEED DRIVE
2000 HP 4.16 KV

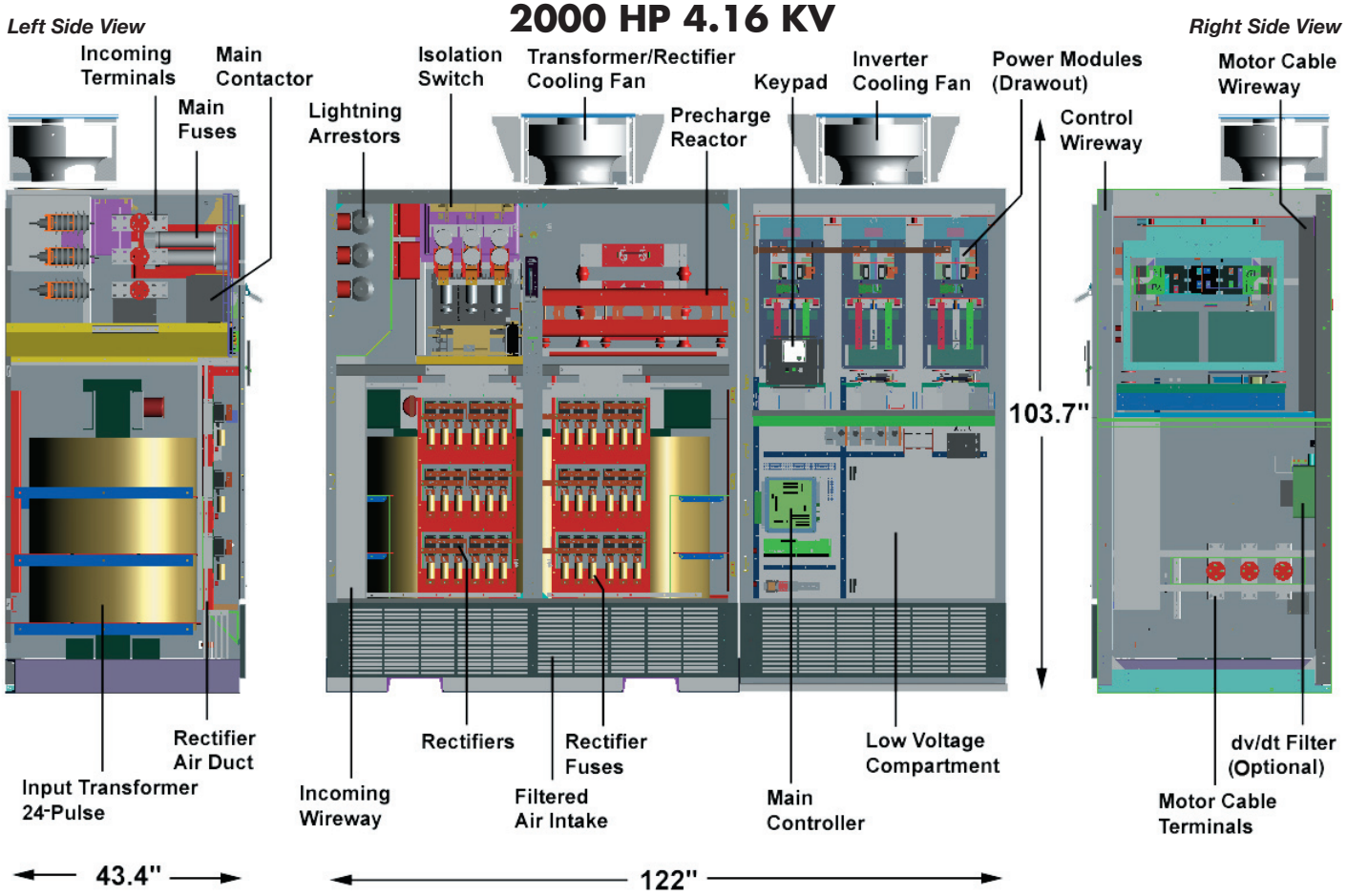


Diagram represents standard product offering: T300MVi medium voltage drive 1000 to 2000 HP, 4160 V Input. This product was designed to have one of the smallest footprints offered by any manufacturer.

Stable Speed Control Without a Speed-Sensing Device

- Provides V/Hz or Vector Control Performance Without a Motor-Mounted Digital or Analog Sensor
- Controls Industrial Processes Utilizing an Internal, High Speed Algorithm
- Capable of Closed-Loop Vector Control for Super High Performance Applications

Continuous Operation During Momentary Power Failures

- Operates with 30% Undervoltage Condition (Trip Time Based on Drive Overload)
- Five-Cycle Ride-Through During Complete Outages
- Contains Automatic Ride-Through Control
- Allows Restarting into Rotating Load upon Restoration of AC Line Power Following Total Power Loss

Highly Advanced Control Systems

The T300MVi drive includes advanced electronics to reduce chip count and increase performance and reliability. This feature alone makes this product the highest quality and most reliable in the industry.

- Control Circuitry Includes Industry Leading Toshiba PP7 High Speed Processor Using 32-Bit CPU
- Enhanced Reliability through Surface-Mount and Multi-Level Printed Circuit Board Technology

Designed with the Customer in Mind

The T300MVi proves that medium voltage drive process control programming does not have to be complex. The operator panel and electronic interfaces combine to make programming processes quick, simple, and easily modified.

Keypad and Display Include:

- Front-Mounted Control Panel with Eight-Line, Graphical, Nine-Key, Large LCD for Monitoring Operations, Diagnostics, & Trouble Shooting

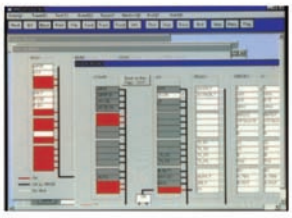
Optional Electronic Interfaces:

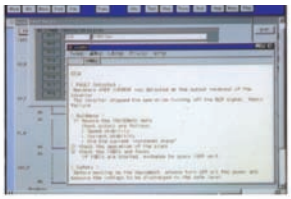
- Utilize Fiber Optic and RS232 Ports for Data Transmission
- Offer Toshiba Tosline®S-20 Communication Protocol
- Offer DeviceNet®, Profibus®, or Other Communication Protocol as Optional Connectivity Features

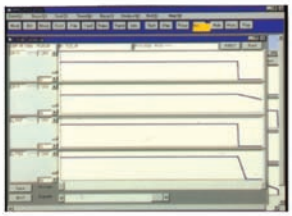
The T300MVi Medium Voltage Drive -- Capable of Using a Windows® Interface for Easy Start-up and Monitoring

Menu-Driven, Windows®-Based:

- Programming of Parameters Prior to and During Installation
- Adjustment Support:
  - Block Diagram Display (Adjustment, Maintenance, Diagnosis)
  - Bar Graph Display
  - Test Operation
  - Report of Adjustment Data
- Data Loading/Saving/Editing
- Trouble-Shooting
- Trace Back
- On-Line Manual
- Trend Display
- First Fault Display
- Trouble Record
- Saving & Loading Set Data





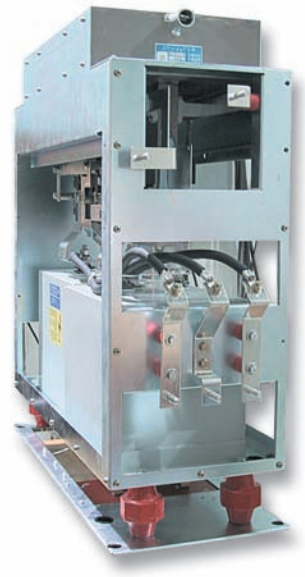


IGBT Technology: Tried and True

Over the years IGBT technology has proven to be the most reliable and best performing means of speed control in low voltage drives. Toshiba has mastered this technology, and continues to excel at it. The T300MVi is designed using both diodes and IGBTs in the main power circuit. We offer a control circuit topology providing higher performance than our competition while using fewer parts. What does this mean to our customers? Plain and simple -- fewer parts equals lower maintenance. This philosophy is integrated into our modular vertical design to provide power module interchangeability and smaller footprints than offered by competitors.

Other Advantages of IGBT Technology:

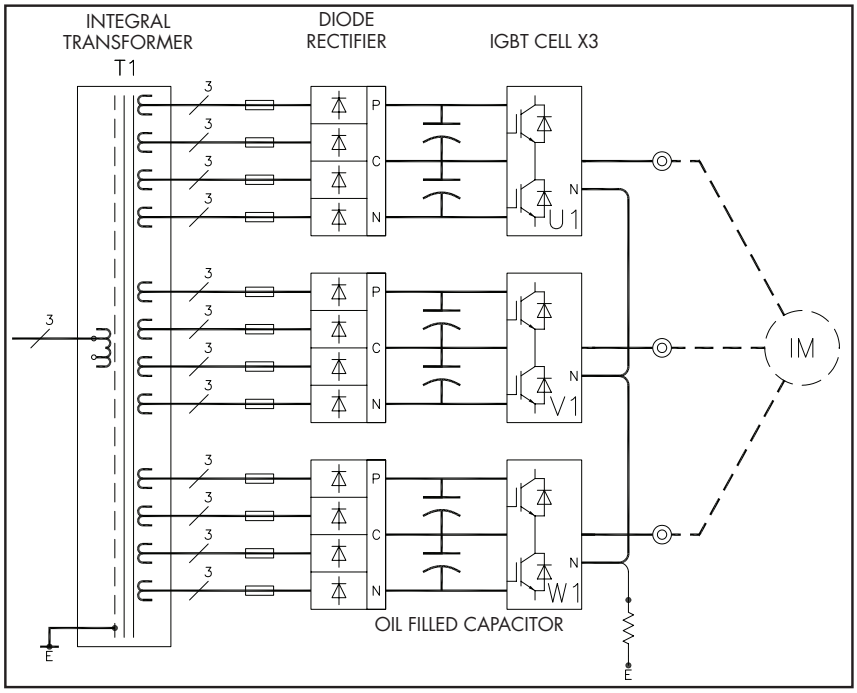
- Inherent Short Circuit & Ground-Fault Immunity at Output
- Lower Gating Power Requirements
- Small Snubber Circuitry Required

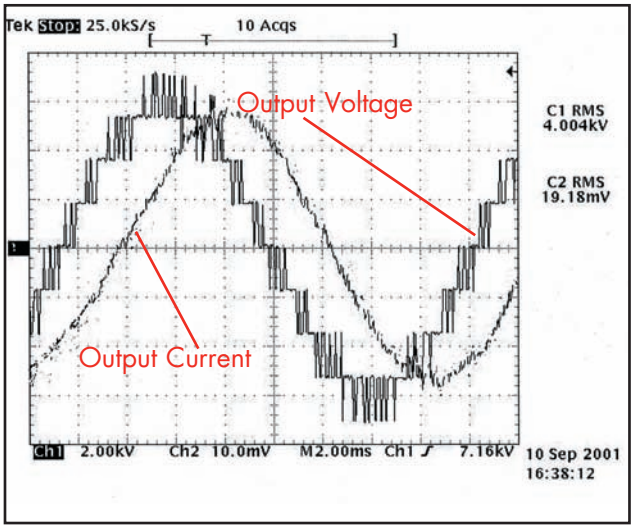


All T300MVi drives use a three-power module design for reduced MTTR. The special racking mechanism extends from the drive to allow module inspection. In addition, the drive does not contain fans, contactors, or large electrolytic capacitors.

Toshiba guarantees the T300MVi product line will meet or exceed IEEE-519 standards at input to the drive. As a result, the drive appears to be a linear load to the power system.

The T300MVi design eliminates the need for costly and time-consuming harmonic analysis.





Multi-Level PWM Output Closely Simulates True Sinewave

The T300MVi drive employs several layers of switching devices to provide a smooth output wave to the motor. The multi-step output closely simulates sine wave shape, virtually eliminating motor failures due to insulation stress and long lead-length issues.

The T300MVi drive's topology allows retrofitting to existing medium voltage motors without upgrading motor insulation. It also:

- Eliminates Need for an Output Transformer, Reducing Cost & Size
- Allows Use of Standard Bearings Without Grounding or Isolation Means
- Operates Motor at Design Rating (Maximum)
- Enables Easy Retrofit

TOSHIBA INTERNATIONAL CORPORATION

North American Headquarters & Manufacturing Facility (Houston, TX)

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Our company culture and history are strongly rooted in quality. Our designs are technologically innovative and our products are manufactured from start to end using only the highest quality foreign and domestic parts.

Product Warranty

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ADJUSTABLE SPEED DRIVES MOTORS CONTROLS UPS INSTRUMENTATION PLC

TOSHIBA

Available Through:

TOSHIBA INTERNATIONAL CORPORATION
INDUSTRIAL DIVISION
13131 West Little York Road, Houston, Texas 77041
Tel 713/466-0277 Fax 713/466-8773
US 800/231-1412 Canada 800/872-2192 Mexico 01/800/527-1204
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MVDT300MV1080210

TOSHIBA

POWER DISTRIBUTION

JK Series

Reliability *in motion*™

XT

Solid
State Starters
Medium Voltage
200-400-600-720A

SOLID STATE STARTER

JKSSS4+ Series

The JKSSS Series of motor starter is the result of extensive research and development. This streamlined, space saving design (only 30" wide) provides the ultimate in maintenance ease and safety features. These medium voltage solid state starters are available for the control of induction, wound rotor or synchronous motors, up to 6.9kV. All starters are designed to meet NEMA Class E2 requirements.

Features

- Soft Start
- 125% Continuous Duty
- 500% - 60 Seconds, 600% - 30 Seconnds
- 30" Wide Footprint
- Digital Microprocessor Control
- LCD Display w/Programming Keypad
- Toshiba Medium Voltage Vacuum Contactors, for Bypass and Input Isolation
- Incoming, 400A JK Disconnect Switch - Bolted Pressure Switch Connections
- Current Limiting, High Interrupting Capacity, "R" Rated Motor Starting Fuses
- Two Stage Solid State Motor Protection
  Starting: Programmable for Class 5 through 30
  Running: Programmable for Class 5 through 30
- Control Power Transformers with Primary and Secondary Fuses
- NEMA Type 1 Enclosure
- Separate Medium and Low Voltage Compartments
- Mechanical and Electrical Interlocks

Visible, Bolted Pressure, Isolation Switch

Less Resistance
Less Wear
Zero Insertion Pressure
Mechanical Interlocking System

Isolated Low Voltage Compartment

The low voltage section is oversized and is at a convenient height. This section is isolated from the medium voltage section.

Digital Control Module
LCD Display (two lines) and Status LEDs (Power, Run, Alarm, Aux. Relays)
Programming Keypad (Non-volatile Memory)

Maintenance Data

- Fault indications: Shorted SCR, Phase Loss, Shunt Trip, Phase Imbalance, Phase Rotation, Overload, Overtemp, Overcurrent, Short Circuit, Load Loss, Ground Fault, Stator Phase Trip, RTD Trip, or Any Trip
- Coast Down Time
- Starts per Hour
- Time Between Starts
- Event History - Up to 60 events. Data includes cause, date, time, phase and ground current.

Additional Features

Serial Communication Port:
RS485 or RS422 with Modbus RTU Protocol or
RS485 or RS422 with Windows Interface
Rugged Gate Firing Circuit Using Ring Transformer
Opto-isolated Inputs
Auxiliary Contacts - Form C, 5A @ 240Vac max.

Adjustments

Motor Full Load Ampere (FLA)
Dual Adjustments - Two independent settings
Initial Voltage 0 - 100% of nominal voltage
Current Limit 200 - 500% of motor FLA
Acceleration Time 1 - 120 seconds
Deceleration Time 1 - 60 seconds
Three custom Accel curves
Jog: 5 - 100% Volt., 1 - 20 sec., Current 100 - 500%
Kick Start: 10 - 100% Voltage, 0.1 - 2 sec.
Coast Down (Back Spin) Lockout Timer 1 - 60 min.
Starts-per-Hour Lockout Timer
1 - 10 successful starts per hour
1 - 60 min. between start attempts
Undercurrent 10 - 90% (with adjustable trip delay 1 - 60 sec.)
Overload Reset - Selectable Manual or Automatic
Two 4 - 20 mA Analog Outputs: Selectable from Off, RPM, Hottest Non-Stator RTD, Hottest Stator RTD, RMS Current, % of Motor Load

Options

- Drawout Input Isolation, Vacuum Contactor
- NEMA Type 12 or 3R Enclosure
- 1200 or 2000A Main Copper Bus
- Available in MCC Lineups with Other JK Series Starters (FVNR, FVR, RVAT, Synchronous, Etc.)
- Available in MCC Lineups with Main Incoming Disconnect Switch or Toshiba Vacuum Circuit Breaker
- The soft start is available as a controller only for users which already have an existing full voltage starter (disconnect switch, main power fuses & contactor) and wants to add reduced voltage starting and soft stop features.
- PFC Contactor - Vacuum contactor for switching Power Factor Correction Capacitor.
- Manual (Full Voltage) Bypass Selection with solid state protection (2E) or bimetallic overload.

If UL or CUL is required, specify when ordering.
Consult Factory for applicable models and options.

SOLID STATE STARTER

JKSSS4+ Series

Toshiba's JKSSS4 series complies with EEMAC, NEMA, UL and CSA standards and is available in non-reversing and reversing, multi-speed, synchronous and wound rotor configurations.

The JKSSS4 series is available in the following enclosed ratings:

360 Amps Max.
2300-6900 Volts

Protective Features

- Electronic Overload:
  Retentive Thermal Memory
  Dynamic Reset Memory
- Phase Imbalance/Single Phase
- Short Circuit
- Ground Fault - Optional
- RTD Temperature
- Phase Reversal/Phase Sequence
- Overcurrent
- Starts-per-Hour
- Shorted SCR
- Undercurrent/Loss of Load
- Starter Overtemperature
- Shorted SCR
- Undervoltage
- Overvoltage

Continuous Current

Enclosure Type	Max. Continuous Amps* 90" One-High Controller
Type 1 Ventilated	360A
Type 12 Ventilated w/ Fans & Type 12 Filters	310A
Type 1 Non-Ventilated	300A
Type 12 & 3R	300A

Short Circuit & Withstand Capability

Interrupting Capacity (Symmetrical Amperes)	Interrupting Capacity (Symmetrical MVA)	Short Time Capability 30 Seconds (Amperes)	Short Time Capability 1 Second (Amperes)	Dielectric Withstand 1 Minute (kVAC)	Impulse Voltage Withstand (kV)
50,000 @ 2.3 - 6.6 kV	200 @ 2.3 kV 350 @ 4.0 kV 400 @ 4.6 kV 570 @ 6.6 kV	2400	6000	18.2	60

Approximate Maximum Horsepower Based on Continuous Current

Enclosed Maximum Continuous Current (Amperes)	Maximum Horsepower at Utilization Voltage					
	2300V		4200V		6600V	
	Synchronous Motors	Induction Motors	Synchronous Motors	Induction Motors	Synchronous Motors	Induction Motors
	0.8 PF 1.0 PF		0.8 PF 1.0 PF		0.8 PF 1.0 PF	
360	1500	1750	1500	2500	3000	3000	4000	5000	4500			
320	1250	1500	1250	2250	2500	2500	3500	4000	4000			
300	1000	1250	1000	2000	2500	2250	3000	3500	3500			

If UL or CUL is required, specify when ordering. Consult Factory for applicable models and options.

SOLID STATE STARTER

JKSSS7+ Series

The new JKSSS7+ Series of motor starter is the result of extensive research and development. These medium voltage solid state starters are available for the control of induction, wound rotor or synchronous motors up to 4.8kV. All controllers are designed to meet NEMA Class E2 requirements.

Features

- Soft Start
- 125% Continuous Duty
- 500% - 60 Seconds, 600% - 30 Seconds
- Digital Microprocessor Control
- LCD Display w/Programming Keypad
- Toshiba Medium Voltage Vacuum Contactors, for Bypass and Input Isolation
- Incoming, 720A JK Disconnect Switch - Bolted Pressure Switch Connections
- Current Limiting, High Interrupting Capacity, "R" Rated Motor Starting Fuses
- Two Stage Solid State Motor Protection - Starting: Programmable for Class 5 through 30 Running: Programmable for Class 5 through 30
- Control Power Transformers with Primary and Secondary Fuses
- NEMA Type 1 Enclosure
- Separate Medium and Low Voltage Compartments
- Mechanical and Electrical Interlocks

Visible, Bolted Pressure, Isolation Switch

Less Resistance
Less Wear
Zero Insertion Pressure
Mechanical Interlocking System

Isolated Low Voltage Compartment

The low voltage section is oversized and is at a convenient height. This section is isolated from the medium voltage section.

Digital Control Module
LCD Display (two lines) and Status LEDs (Power, Run, Alarm, Aux. Relays)
Programming Keypad (Non-volatile Memory)

Maintenance Data

- Fault indications: Shorted SCR, Phase Loss, Shunt Trip, Phase Imbalance, Phase Rotation, Overload, Overtemp, Overcurrent, Short Circuit, Load Loss, Ground Fault, Tach Accel Trip, Stator Phase Trip, RTD Trip, or Any Trip
- Coast Down Time
- Starts per Hour
- Time Between Starts
- Any Lockout
- Event History - Up to 60 events. Data includes cause, date, time, phase and ground current.

Adjustments

Motor Full Load Ampere (FLA)
Dual Adjustments - Two independent settings
Initial Voltage 0 - 100% of nominal voltage
Current Limit 200 - 500% of motor FLA
Acceleration Time 1 - 120 seconds
Deceleration Time 1 - 60 seconds
Three custom Accel curves
Jog: 5 - 100% Volt., 1 - 20 sec., Current 100 - 500%
Kick Start: 10 - 100% Voltage, 0.1 - 2 sec.
Coast Down (Back Spin) Lockout Timer 1 - 60 min.
Starts-per-Hour Lockout Timer
1 - 10 successful starts per hour
1 - 60 min. between start attempts
Undercurrent 10 - 90% (w/1 - 60 sec trip delay)
Overload Reset - Selectable Manual or Automatic
Two 4 - 20 mA Analog Outputs: Selectable from Off, RPM, Hottest Non-Stator RTD, Hottest Stator RTD, RMS Current, % of Motor Load

Options

- NEMA Type 12 or 3R Enclosure
- 1200 or 2000A Main Copper Bus
- Available in MCC Lineups with Other JK Series Starters (FVNR, FVR, RVAT, Synchronous, Etc.)
- Available in MCC Lineups with Main Incoming Disconnect Switch or Vacuum Circuit Breaker
- The soft start is available as a controller only for users which already have an existing full voltage starter (disconnect switch, main power fuses & contactor) and wants reduced voltage starting and soft stop features.
- PFC Contactor - Vacuum contactor for switching Power Factor Correction Capacitor.
- Manual (Full Voltage) Bypass Selection with solid state protection (2E) or bimetallic overload.

SOLID STATE STARTER

JKSSS7+ Series

Toshiba's JKSSS7 series complies with EEMAC, NEMA, UL and CSA standards and is available for induction, synchronous and wound rotor configurations. The JKSSS7 series is available in the following enclosed ratings:

600 & 720 Amps, 2300-4800 Volts, Up to 6,000 HP

Protective Features

- Electronic Overload:
  Retentive Thermal Memory w/Dynamic Reset Memory
- Phase Imbalance/Single Phase
- Short Circuit
- Ground Fault - Optional
- RTD Temperature
- Phase Reversal/Phase Sequence
- Overcurrent
- Starts-per-Hour
- Shorted SCR
- Undercurrent/Loss of Load
- Starter Overtemperature
- Shorted SCR
- Undervoltage
- Overvoltage

Additional Features

Serial Communication Port:
RS485 or RS422 with Modbus RTU Protocol or
RS485 or RS422 with Windows Interface
Rugged Gate Firing Circuit Using Ring Transformer
Opto-isolated Inputs

Continuous Current

Enclosure Type	Maximum Continuous Amperes* One-High Controller
Type 1 Ventilated	720
Type 1 Non-Ventilated	650
Type 12 & 3R	600

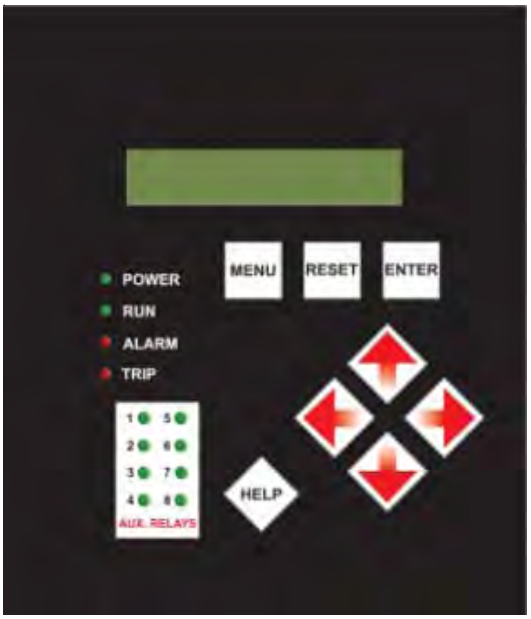
Short Circuit & Withstand Capability

Interrupting Capacity (Symmetrical Amperes)	Interrupting Capacity (Symmetrical MVA)	Short Time Capability 30 Seconds (Amperes)	Short Time Capability 1 Second (Amperes)	Dielectric Withstand 1 Minute (kV)	Impulse Voltage Withstand (kV)
50,000 @ 2.3 - 4.6 kV	200 @ 2.3 kV 350 @ 4.0 kV 400 @ 4.6 kV	4320	10,800	AC 13.25 DC 19	60

Approximate Maximum Horsepower Based on Continuous Current

Enclosed Maximum Continuous Current (Amperes)	Maximum Horsepower at Utilization Voltage			
	2300 Volts, 3 Phase		4200 Volts, 3 Phase	
	Synchronous Motors	Induction Motors	Synchronous Motors	Induction Motors
	0.8 PF 1.0 PF		0.8 PF 1.0 PF	
720	3000	3500	3000	5500
650	2750	3000	2750	5000
600	2500	2750	2500	4500

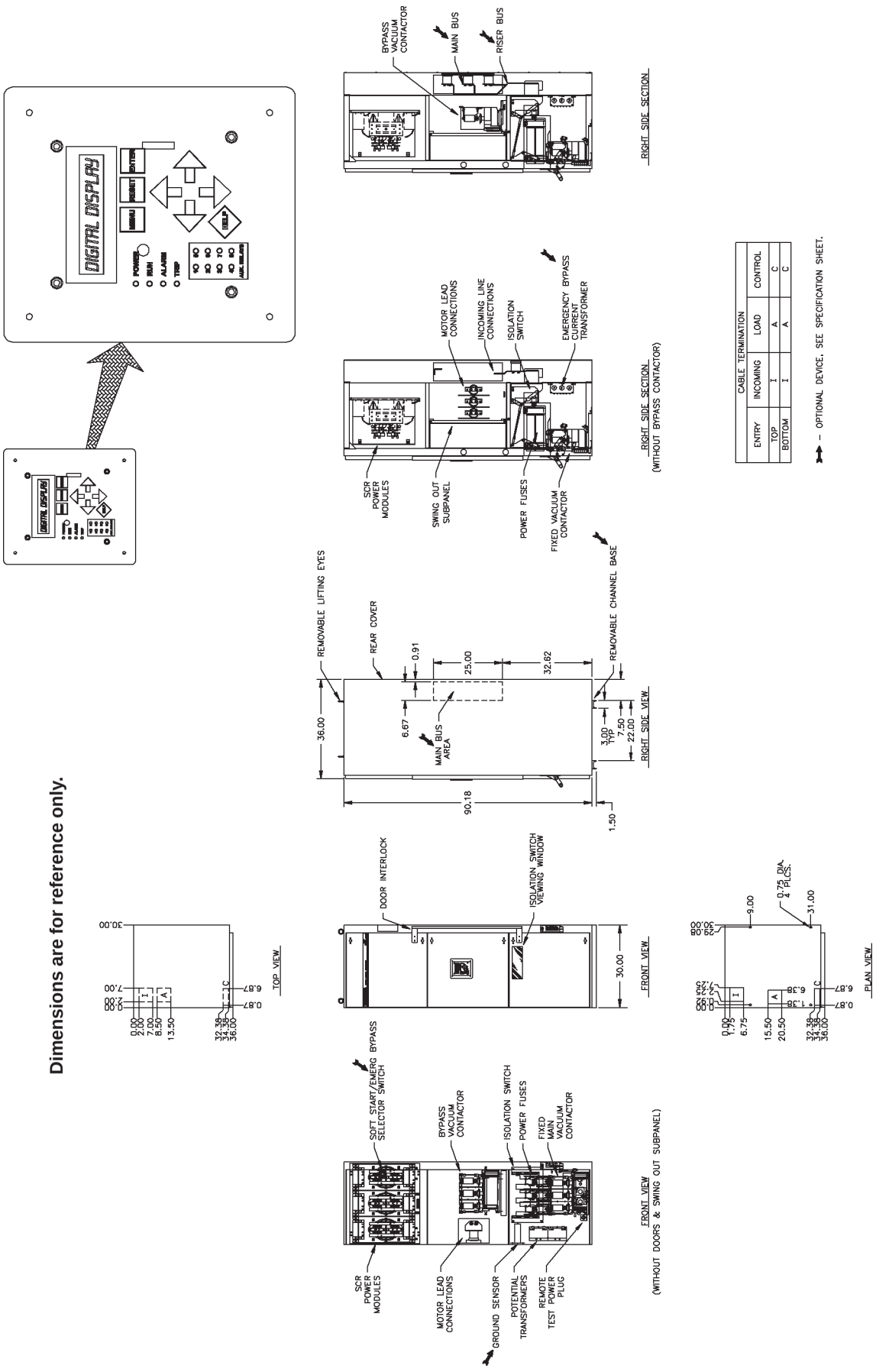
Microprocessor Digital Control Unit (DCU) **
Programming Keypad:
Operator Control
System/Motor Protection
Serial Communication (RS485)
Statistical Data
LCD status and alarm display with Twelve LEDs
POWER - Indicates control power is present
RUN - Indicates unit/motor is running
ALARM - Lights in conjunction with AUX 2 to indicate event or warn of possible critical condition
TRIP - Lights in conjunction with AUX 1 to indicate a critical condition has occurred.
AUX 1-8 - Auxiliary unit relays
** Standard on all JKSSS4+ & JKSSS7+ models, 200-720A, 2300-6900V



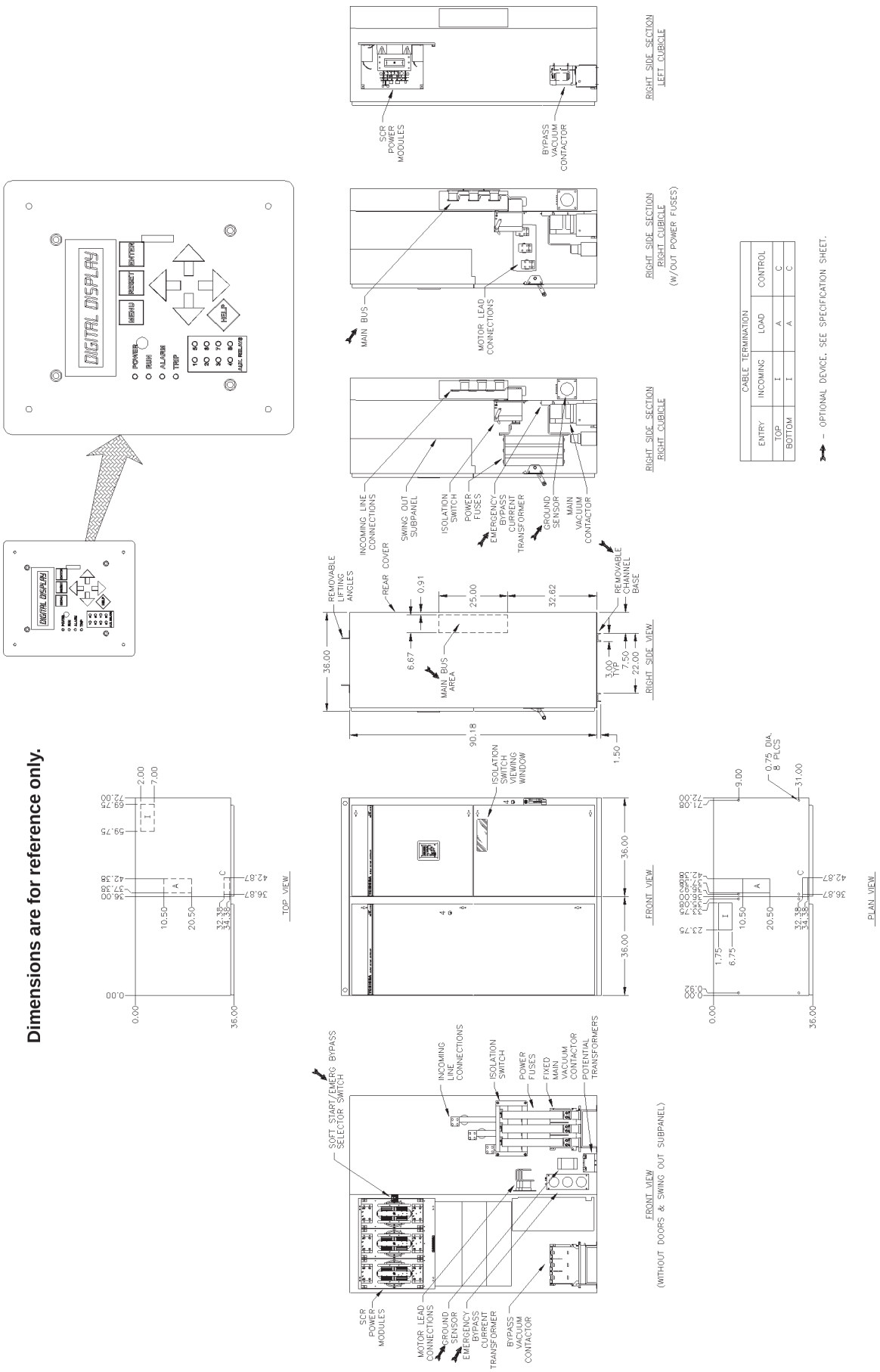
Metering **

Percent of FLA
Phase Current (A, B & C)
Average Current
Ground Fault Current (w/Optional GF Protection)
Remaining Thermal Register
Thermal Capacity to Start
Average Start Time
Average Start Current
Measured Capacity to Start
Time Since Last Start
Line Frequency
Phase Order
Motor RPM
kW, kVA, kVAR, PF, MWHr
kW Demand, kVA Demand, kVAR Demand, Amps Demand - (All Date/Time Stamped)
** Standard on all JKSSS4+ & JKSSS7+ models, 200-720A, 2300-6900V

Typical Dimensions and Mechanical Layout for 2300-4200V, 360A Max. Starter



Typical Dimensions and Mechanical Layout for 2300-4200V, 600A & 720A Starter



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ADJUSTABLE SPEED DRIVES MOTORS CONTROLS UPS INSTRUMENTATION PLC

TOSHIBA

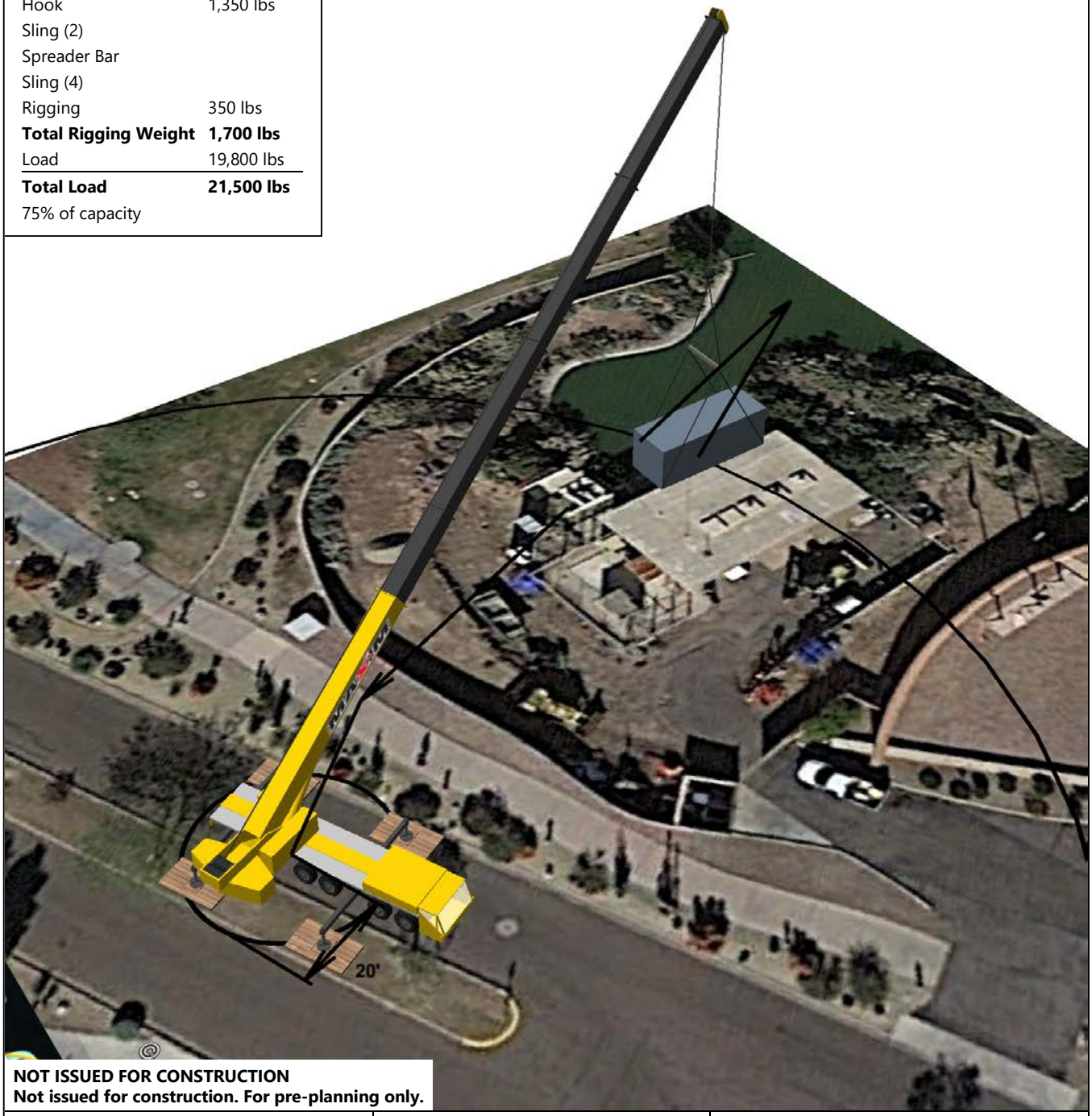
Available Through:

Crane
Grove GMK6350
179' Main Boom at 33°
Base: 100% Outriggers
Counterweight: 220,400 lbs
145' Lift Radius (360°)
Crane Capacity at 145' = 28,800 lbs

Load

Hook	1,350 lbs
Sling (2)	
Spreader Bar	
Sling (4)	
Rigging	350 lbs
Total Rigging Weight	**1,700 lbs**
Load	19,800 lbs
Total Load	**21,500 lbs**

75% of capacity



NOT ISSUED FOR CONSTRUCTION
Not issued for construction. For pre-planning only.

MAXIM Crane Works, L.P.

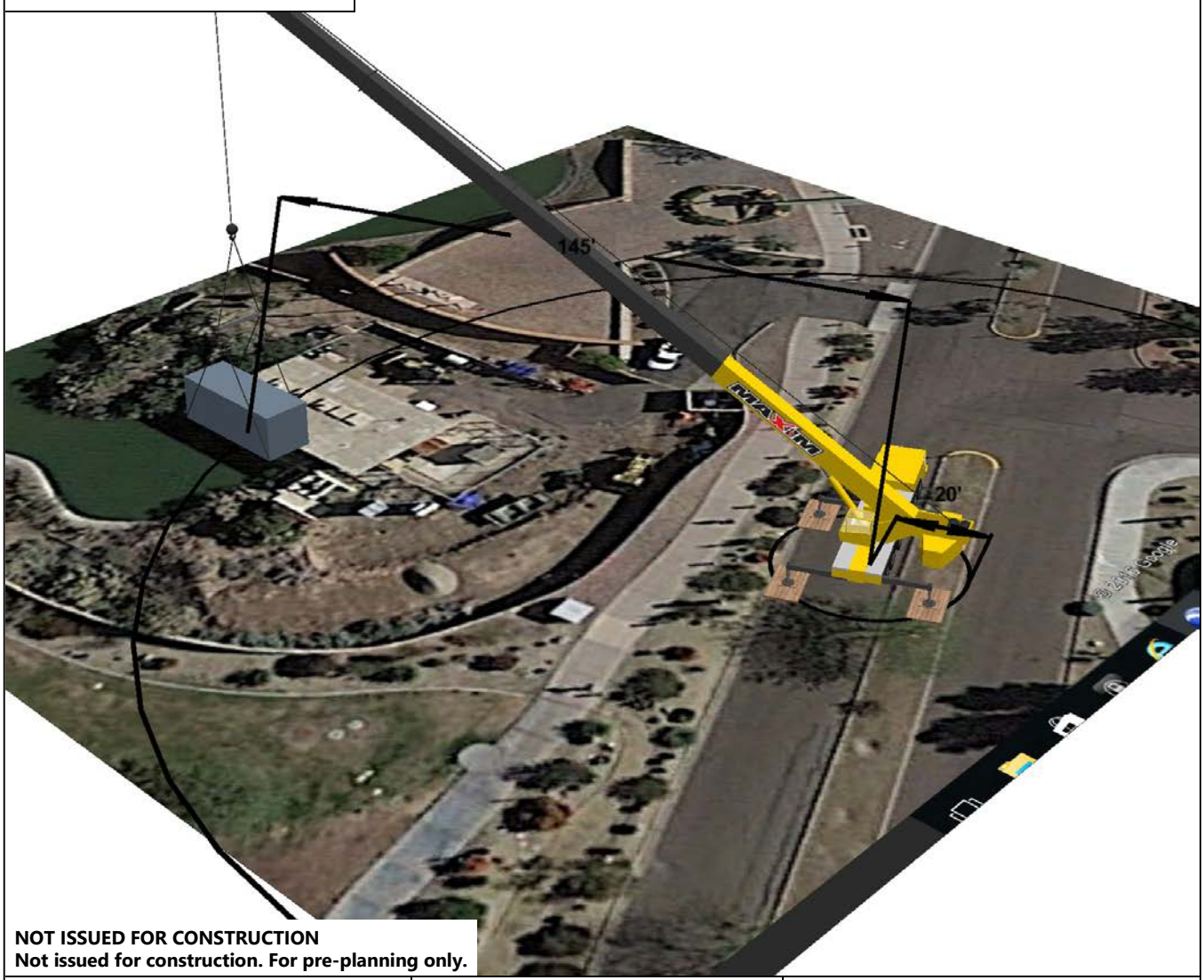
Title	Lift Plan	
Project	Fountain Hills Pump Building	
Customer	Omega Morgan	
Description		
Drawn By	Robert Zola	08/18/2016

Created with 3D Lift Plan www.3dliftplan.com

Crane
Grove GMK6350
179' Main Boom at 33°
Base: 100% Outriggers
Counterweight: 220,400 lbs
145' Lift Radius (360°)
Crane Capacity at 145' = 28,800 lbs

Load	
Hook	1,350 lbs
Sling (2)	
Spreader Bar	
Sling (4)	
Rigging	350 lbs
Total Rigging Weight	**1,700 lbs**
Load	19,800 lbs
Total Load	**21,500 lbs**

75% of capacity



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MAXIM Crane Works, L.P.

Title	Lift Plan	
Project	Fountain Hills Pump Building	
Customer	Omega Morgan	
Description		
Drawn By	Robert Zola	08/18/2016

Created with 3D Lift Plan *www.3dliftplan.com*

NOT ISSUED FOR CONSTRUCTION
Not issued for construction. For pre-planning only.

Title	Lift Plan
Project	Fountain Hills Pump Building
Customer	Omega Morgan
Description	
Drawn By	Robert Zola 08/18/2016

MAXIM Crane Works, L.P.

Created with 3D Lift Plan www.3dliftplan.com

Load Chart

Project Fountain Hills Pump Building
Customer Omega Morgan
Description

Grove GMK6350

Boom: Main Boom
Jib: -
Base: 100% Outriggers
Counterweight: 220,400 lbs
Range: 360°
Capacity: 85% Cap
Chart ID:

Boom Section Percentages	Boom Length (ft)	Boom Angle	Jib Length (ft)	Jib Offset	Tip Height (ft)	Lift Radius (ft)	Capacity (lbs)	Note
50-100-100-100	179	79.3°	-	-	187.4	30	75,000	
50-100-100-100	179	77.7°	-	-	186.2	35	75,000	
50-100-100-100	179	76°	-	-	184.9	40	75,000	
50-100-100-100	179	74.3°	-	-	183.5	45	75,000	
50-100-100-100	179	72.7°	-	-	181.9	50	75,000	
50-100-100-100	179	71°	-	-	180.1	55	72,000	
50-100-100-100	179	69.3°	-	-	178.1	60	68,000	
50-100-100-100	179	67.5°	-	-	176	65	64,000	
50-100-100-100	179	65.8°	-	-	173.7	70	60,000	
50-100-100-100	179	64°	-	-	171.2	75	56,000	
50-100-100-100	179	62.1°	-	-	168.5	80	53,000	
50-100-100-100	179	60.3°	-	-	165.6	85	50,000	
50-100-100-100	179	58.4°	-	-	162.5	90	47,000	
50-100-100-100	179	56.5°	-	-	159.1	95	45,000	
50-100-100-100	179	54.5°	-	-	155.5	100	42,800	
50-100-100-100	179	52.5°	-	-	151.6	105	40,600	
50-100-100-100	179	50.4°	-	-	147.4	110	38,800	
50-100-100-100	179	48.2°	-	-	142.9	115	37,200	
50-100-100-100	179	46°	-	-	138	120	35,400	
50-100-100-100	179	43.7°	-	-	132.7	125	34,000	
50-100-100-100	179	41.2°	-	-	127	130	32,600	
50-100-100-100	179	38.7°	-	-	120.7	135	31,200	
50-100-100-100	179	35.9°	-	-	113.8	140	30,000	
50-100-100-100	**179**	**33°**	**-**	**-**	**106.1**	**145**	**28,800**	
50-100-100-100	179	29.8°	-	-	97.4	150	27,200	
50-100-100-100	179	26.2°	-	-	87.4	155	25,600	
50-100-100-100	179	22.1°	-	-	75.5	160	24,400	

This data is for reference use only. Operator must refer to in-cab charts to determine allowable lifting capacities.

GRANDFAMILY/KINSHIP CARE MONTH
SEPTEMBER 2016

WHEREAS, this year during the month of September, Grandfamily/Kinship Care Month is observed, Fountain Hills, Arizona is proud to recognize the children and their grandparents and other relatives who raise them in kinship care and who ensure their safety, promote their well-being and establish a stable household for these young people to thrive; and

WHEREAS, nationally 2.7 million children are living with grandparents and other relatives in kinship care of which over 104,715 caregivers reside in Arizona; and

WHEREAS, relationships with family are crucial for children, it is our responsibility to promote and preserve kinship, sibling, and other familial connections for children in Arizona; and

WHEREAS, Arizonans join to honor famous kinship caregivers such as President George Washington, as well those grandparents and relatives residing in urban, rural and suburban households in every county of Arizona who "famously" step forward out of love and loyalty to care for relatives when the child's biological parents are no longer able to do so; and

WHEREAS, Arizonans join to honor famous youth who were raised in kinship care such as Maya Angelou, Sandra Day O'Conner, and Barack Obama as well as those children residing in urban, rural and suburban households in every county of Arizona who, through the unconditional support of grandparents and other relatives, have successfully addressed the emotional trauma of losing their parents; and

WHEREAS, the public becomes increasingly aware of the challenges faced by children, grandparents, and other relative caregivers providing care in partnership with the education, legal, social services, mental health, justice and other systems to access services that can enable kinship youth to flourish in all facets of their life; and

WHEREAS, nationally Grandfamilies/Kinship Caregivers save tax payers more than 6.5 billion dollars a year; and

WHEREAS, one in eleven of all children and one in five Black children will live within a kinship family sometime during their childhood, kinship care provides the best opportunity to retain the child's cultural heritage and community ties.

NOW, THEREFORE, I, Linda M. Kavanagh, Mayor of the Town of Fountain of Hills, Arizona, do hereby proclaim the month of September 2016 as **GRANDFAMILY/KINSHIP CARE MONTH** in Fountain Hills.

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the official seal of the Town of Fountain Hills, Maricopa County, Arizona this 1st day of September, 2016.

TOWN OF FOUNTAIN HILLS INC. 1989 All that is Arizona

Linda M. Kavanagh, Mayor

Attest

Bevelyn J. Bender, Town Clerk

TOWN OF FOUNTAIN HILLS
PROCLAMATION

Whereas, play is a crucial factor in the overall well-being of children, and

Whereas, playspaces and playgrounds within walking distance of children's homes are missing from many communities and neighborhoods, and

Whereas, unstructured, unplanned, spontaneous, and self-motivated play is on the decline, and

Whereas, fewer children spend time outside at parks and playgrounds, and

Whereas, recess is being shortened or removed from school curriculums, and

Whereas, children who play are healthier and suffer less obesity and obesity-related health problems such as diabetes and heart disease, and

Whereas, children who play do better in school and develop cognitive skills that are linked to learning and academic performance, and

Whereas, children who play learn the social skills that help them become happy and well-adjusted adults, and

Whereas, parents, schools, child care centers, nonprofit organizations, businesses, churches, synagogues, mosques, and all interested parties wish to raise this community's children to become healthy, happy, and successful adults,

Now, therefore, I, Linda M. Kavanagh, Mayor of the Town of Fountain Hills, Arizona, do hereby proclaim September 17, 2016 as **"Play Day"** in the Town of Fountain Hills, Arizona, and I urge all Town citizens to celebrate Play Day and support efforts to build and maintain playspaces and playgrounds in our community and neighborhoods for the well-being of this and future generations.

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the official seal of the Town of Fountain Hills, Maricopa County, Arizona this 22nd day of March, 2016.

TOWN OF FOUNTAIN HILLS • All that is Arizona • INC. 1989

Linda M. Kavanagh, Mayor

Attest:

Bevelyn J. Bender, Town Clerk

2016 Legislative Overview

League of Arizona Cities and Towns

Session at a Glance

- Adjourned *sine die* on May 7, 2016 (117th day, 81 days in 2015)
- General Effective Date: August 6, 2016
- 1,247 bills introduced (1,163 bills in 2015)
- 388 bills sent to the Governor – 281 passed the last week of session (344 bills to Governor in 2015)
- 374 bills signed (324 in 2015)
- 14 Vetoes (20 in 2015)
- League staff signed in on 90 bills; tracked 256

League of Arizona Cities and Towns
WWW.AZLEAGUE.ORG

League Focus

- Local Control
- Protection of Shared Revenue
- Resolutions
- Pre-Session Work-Census bill, PSPRS Reform

League of Arizona Cities and Towns
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Supremacy Bills

- HB 2024 immigration enforcement; attorney fees-failed
- HB 2026 municipal tax exemption; residential lease-failed
- HB 2130: municipalities; counties; energy use; reporting-signed
- HB 2131: municipalities; counties; auxiliary containers; prohibitions-signed
- HB 2223: prohibited money transfers; information sharing-failed
- HB 2384 S/E: incorporation; urbanized areas (HB 2385 same)-failed
- HB 2440 municipal improvement districts; formation election-signed
- HB 2478 licensing; waiver of rights; prohibition (introduced, now a striker on different subject)-failed
- HB 2566 pawnbrokers; transaction fee prohibited-failed
- HB 2690 pawnbroker licensure; DPS-failed
- SB 1248 pet store operators; dealers; regulations-passed
- SB 1257 misconduct involving weapons; public places-failed
- SB 1266 firearms; state preemption; penalties-signed
- SB 1350 online lodging; administration; definitions-signed
- SB 1378 prohibited money transfers; immigration; violations-failed
- HB 1487 state laws; local violations; penalties-signed
- SB 1449 prohibited operations; unmanned aircraft-signed
- SB 1523 truth in taxation; levy increases-signed
- SB 1524: regulatory actions; limitation-signed

Highest Profile Issues

- PSPRS reform –SB 1428, SB 1429, SCR1019
- HB 2026 residential rental-failed
- HB 2483 municipal population estimates; use-passed
- HB 2568 community facilities districts-vetoed
- SB 1350 online lodging; administration; definitions-signed
- SB 1487 state law local violations; penalties-signed

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Supremacy Bills

- HB 2024 immigration enforcement; attorney fees-failed
- *HB 2026 municipal tax exemption; residential lease-failed
- HB 2130: municipalities; counties; energy use; reporting-signed
- HB 2131: municipalities; counties; auxiliary containers; prohibitions-signed
- HB 2223: prohibited money transfers; information sharing-failed
- HB 2384 S/E: incorporation; urbanized areas (HB 2385 same)-failed

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Supremacy Bills

- HB 2440 municipal improvement districts; formation election-signed
- HB 2478 licensing; waiver of rights; prohibition (introduced, now a striker on different subject)-failed
- HB 2566 pawnbrokers; transaction fee prohibited-failed
- HB 2690 pawnbroker licensure; DPS-failed
- SB 1257 misconduct involving weapons; public places-failed
- SB 1266 firearms; state preemption; penalties-signed

Supremacy Bills

- SB 1248 pet store operators; dealers; regulations-passed
- *SB 1350 online lodging; administration; definitions-signed
- SB 1378 prohibited money transfers; immigration; violations-failed
- *HB 1487 state laws; local violations; penalties-signed
- SB 1523 truth in taxation; levy increases-signed
- SB 1524: regulatory actions; limitation-signed

Budget

- No changes to shared revenue distribution formulas
- No new rate cuts to personal or business income tax
- HB 2695 general appropriations
  - $96 million from HURF (the same amount swept last year)
- HB 2708 revenue; budget reconciliation
  - $30 million from GF to be distributed as HURF; $16 million to cities and towns
  - $10 million DOR assessment continues; one-time special assessment imposed on self-collecting cities has lapsed
- SB 1527 appropriations; capital outlay-SR 189 funding
- $26 million in tax cuts in various forms-bonus depreciation for business, TPT exemptions, state's portion of utility taxes

League Resolutions and Good Bills - Passed

- *PSPRS reform –SB 1428, SB 1429, SCR1019
- *HB 2483 municipal population estimates; use
- HB 2107 structured sober living homes
- HB 2076 annexation; single property owner; exception
- HB 2301 bonding; sale; premiums; refunding; refinance

Opposed - Failed

- HB 2398 fireworks; definition
- HB 2602 fireworks; permitted uses; regulation
- HB 2540 prohibition; photo radar
- SCR 1010 photo radar prohibition
- HB 2402 bonds; disclosure; notice
- HB 2570 local government bonds; ballot statement

Bills We Helped Fix

- HB 2391 municipalities; water rates; requirements
- HB 2486 telecommunications utilities; relocation; reimbursement
- HB 2497 equipment; permits; local government
- *SB 1350 online lodging; administration; definitions
- SB 1449 prohibited operations; unmanned aircraft
- *SB 1524 regulatory actions; limitation

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Firearms Bills

- HB 2224 private firearm transactions; prohibited encumbrances-signed
- HB 2300 firearms; prohibited governmental activities-failed
- HB 2446 prohibited weapon; exclusions; definition-signed
- HB 2524 uniform firearms transfer compact-vetoed
- *SB 1257 misconduct involving weapons-failed
- *SB 1266 firearms; state preemption; penalties-signed

TPT Exemptions-passed

- HB 2025: utilities TPT; sales of propane
- HB 2133: TPT; exemption; aerial applicators
- HB 2533: charter aircraft; tax exemption
- HB 2536: fine art; TPT exemption
- HB 2674: TPT exemption; amateur races
- SB 1310: TPT exemption; billboard rentals
- SB 1505: natural gas delivery; tax exemption

Elections-passed

- SB 1516 campaign finance amendments
- HB 2296 charitable organizations; campaign finance disclosure
- HB 2297 political advertisements; contributors; disclosure
- HB 2023 delivery; early ballots; limitation
- HB 2049 municipal, precinct office; online signatures
- HB 2429 local financial disclosure; electronic filings

Other Bills of Note

- HB 2123 corporation commission; conflict of interest
- HB 2350 traumatic events counseling
- HB 2537 supreme court justices; number

Next Session

- Budget
- Local decision making preemption
- Construction Sales Tax
- Elections/Campaign Finance
- New members/Leadership

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How To Impact Legislation

- Count Your Votes
- Establish Relationships With Legislators
- Become A Resource
- Keeping In Contact
- Meeting Do's and Don'ts
- Committee Testimony

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How can you get involved

- Bulletin
- Monday Call
- Intergov
- RTS

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Learning More

- League of Arizona Cities and Towns
  www.azleague.org
- State Legislature
  www.azleg.gov
- Secretary of State
  www.azsos.gov
- Arizona Capitol Times
  www.azcapitoltimes.com

League of Arizona Cities and Towns
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Questions?

1820 W. Washington Street

Phoenix, AZ 85007

www.azleague.org

602-258-5786

@AZCities

League of Arizona Cities and Towns

WWW.AZLEAGUE.ORG

Arizona Parks and Recreation Association

Outstanding Sports Program Award
presented to:
Town Recreation Coordinator Anjelica Giardino
and Archery Instructor Bill Gerchar

TOWN OF FOUNTAIN HILLS
TOWN COUNCIL
AGENDA ACTION FORM

Meeting Date: 9/1/2016

Meeting Type: Regular Session

Agenda Type: Consent

Submitting Department: Administration

Staff Contact Information: Bevelyn J. Bender, Town Clerk; 480-816-5115; bbender@fh.az.gov

Strategic Values: Civic Responsibility

Council Goal:
C3 Solicit feedback in decision-making

REQUEST TO COUNCIL (Agenda Language): CONSIDERATION of approving the TOWN COUNCIL MEETING MINUTES from August 18, 2016.

Applicant: NA

Applicant Contact Information:

Property Location:

Related Ordinance, Policy or Guiding Principle: A.R.S. §38-431.01

Staff Summary (background)**:**The intent of approving previous meeting minutes is to ensure an accurate account of the discussion and action that took place at that meeting for archival purposes. Approved minutes are placed on the Town's website in compliance with state law.

Risk Analysis (options or alternatives with implications)**:**

Fiscal Impact (initial and ongoing costs; budget status)**:**

Budget Reference (page number):

Funding Source: NA

If Multiple Funds utilized, list here:

Budgeted; if No, attach Budget Adjustment Form: NA

Recommendation(s) by Board(s) or Commission(s):

Staff Recommendation(s): Approve

List Attachment(s): None

SUGGESTED MOTION (for Council use)**:** Move to approve the consent agenda as listed

Prepared by:

Bevelyn J Bender

Bevelyn Bender, Town Clerk 8/22/2016

Approved:

Grady E. Miller, Town Manager 8/23/2016

TOWN OF FOUNTAIN HILLS

TOWN COUNCIL AGENDA ACTION FORM

Meeting Date: 9/1/2016

Meeting Type: Regular Session

Agenda Type: Consent

Submitting Department: Public Works

Staff Contact Information: Justin T. Weldy, Street Superintendent, jweldy@fh.az.gov

Strategic Planning Goal: Not Applicable (NA)

Operational Priority: Pavement Management Program

REQUEST TO COUNCIL (Agenda Language): Consideration of approving the first amendment to the Cooperative Purchase Agreement C2015-164.1, with Vincon Engineering Construction, LLC, for curb repair and sidewalk ramp modifications in the amount of $49,371.34.

Applicant: NA

Applicant Contact Information: NA

Owner: NA

Owner Contact Information: NA

Property Location: NA

Related Ordinance, Policy or Guiding Principle: NA

Staff Summary (background)**:** The Town's Pavement Management Program is scheduled to mill and overlay various roads in the Zone 1 Pavement Management Area in FY2016-17. This Contract Amendment will allow for damaged curbs to be replaced and sidewalk ramps to be modified to meet ADA requirements. The attached Amendment will allow for these improvements to be completed prior to the mill and overlay project.

Risk Analysis (options or alternatives with implications)**:** NA

Fiscal Impact (initial and ongoing costs; budget status)**:** $49,374.34

Budget Reference (page number): 249 **Pg 249**

Funding Source: Hurf Fund

If Multiple Funds utilized, list here: NA

Budgeted; if No, attach Budget Adjustment Form: NA

Recommendation(s) by Board(s) or Commission(s): NA

Staff Recommendation(s): Staff recommends approval of the proposed contract amendment.

List Attachment(s): Zone 1 Map, Contract C2015-164.1

SUGGESTED MOTION (for Council use): Motion to approve Contract C2015-164.1 with Vincon Engineering Construction, LLC for curb repair and sidewalk ramp modifications in the amount of $49,371.34.

Prepared by:

Justin Weldy, Superintendent of Streets 8/23/2016

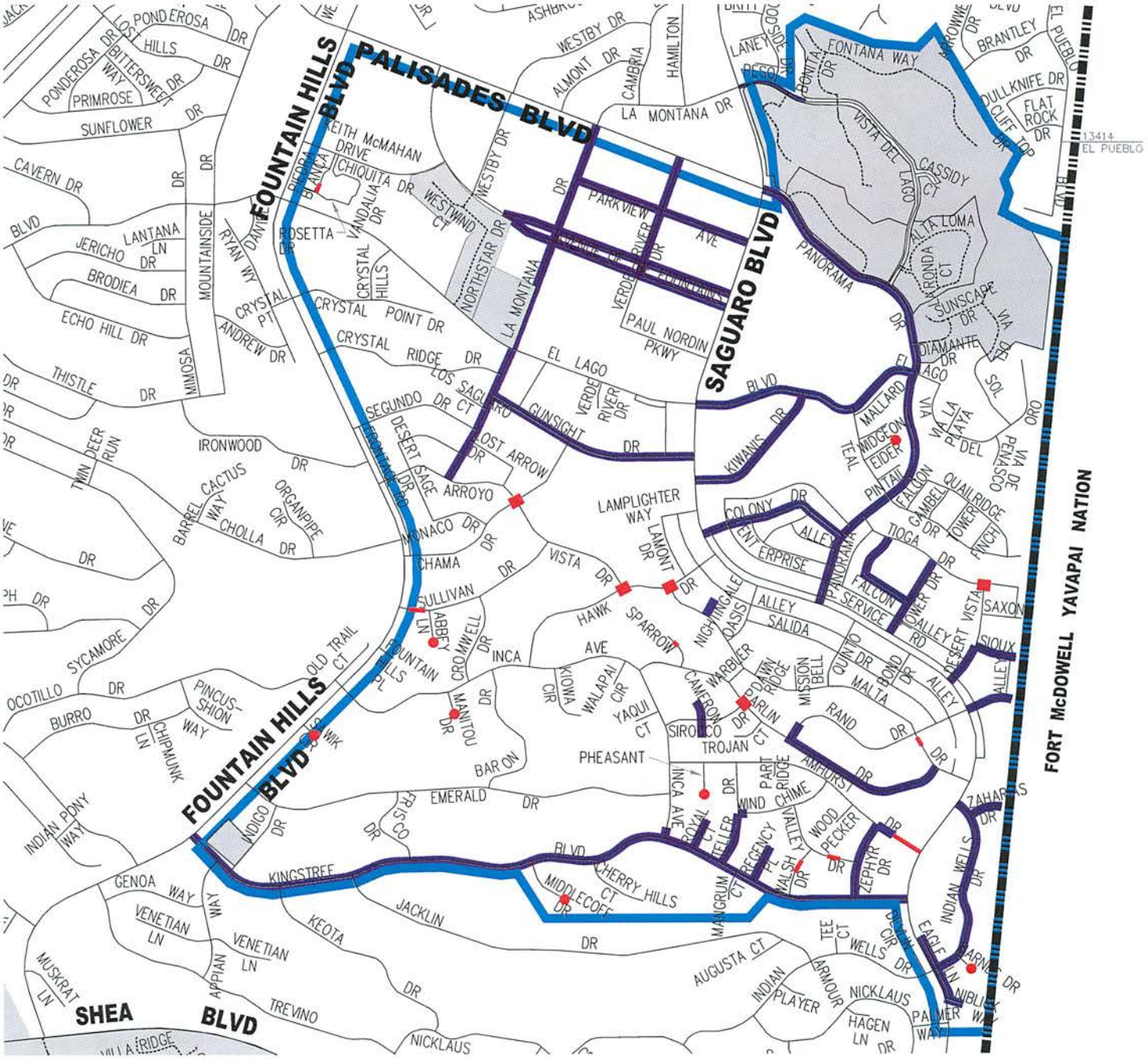
Director's Approval:

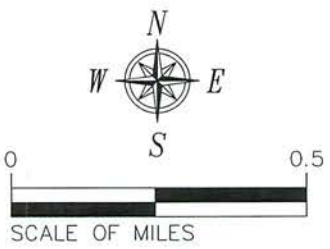
Paul Mood, Public Works Director 8/23/2016

Approved:

Grady E. Miller, Town Manager 8/23/2016

Town of Fountain Hills
ZONE 2 PAVEMENT MANAGEMENT
FY





LEGEND

- ZONE AREA
- MILL & OVERLAY
- AC REPLACEMENT
- PRIVATE ROAD
- GATED-PRIVATE

MAP DATE: 7-28-16

FIRST AMENDMENT
TO
COOPERATIVE PURCHASING AGREEMENT
BETWEEN
THE TOWN OF FOUNTAIN HILLS
AND
VINCON ENGINEERING CONSTRUCTION, LLC

THIS FIRST AMENDMENT TO COOPERATIVE PURCHASING AGREEMENT (this "First Amendment") is entered into as of September 1, 2016, between the Town of Fountain Hills, an Arizona municipal corporation (the "Town"), and Vincon Engineering Construction, LLC, an Arizona limited liability company (the "Contractor").

RECITALS

A. After a competitive procurement process, the City of Chandler ("Chandler") entered into Contract No. ST5-745-3435 dated October 24, 2014, as amended by Amendment Number One, dated October 26, 2015, Amendment Number Two, dated November 23, 2015, and Amendment Number Three, dated August 1, 2016, with the Contractor for the Contractor to provide concrete repair and maintenance services (collectively, the "Chandler Contract"). Amendment Numbers One, Two and Three are attached hereto as Exhibit 1 and incorporated herein by reference.

B. The Town and the Contractor entered into a Cooperative Purchasing Agreement, dated June 4, 2015 (the "Agreement"), based upon the Chandler Contract, for the Contractor to provide the Town with reconstruction of sidewalk ramps and curbing in the Zone 1 Pavement Management Area to comply with Americans with Disabilities Act requirements (the "Materials and Services"). All capitalized terms not otherwise defined in this First Amendment have the same meanings as contained in the Agreement.

C. The Town has determined that additional Materials and Services by the Contractor are necessary for Phase 2 of Zone 1 reconstruction (the "Additional Materials and Services").

D. The Town and the Contractor desire to enter into this First Amendment to (i) extend the term of the Agreement and (ii) provide for the increase in compensation to the Contractor for the Additional Materials and Services.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing introduction and recitals, which are incorporated herein by reference, the following mutual covenants and conditions, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Town and the Contractor hereby agree as follows:

1. Term of the Agreement. The term of the Agreement is hereby extended and shall remain in full force and effect until November 30, 2016, unless terminated as otherwise provided pursuant to the terms and conditions of the Agreement.

2. Compensation. The Town shall increase the compensation to Contractor by $49,371.34 for the Additional Materials and Services at the rates set forth in the Chandler Contract and the Proposal dated August 15, 2016, which is attached hereto as Exhibit 2 and incorporated herein by reference, resulting in an increase of the aggregate not-to-exceed compensation from $139,237.25 to $188,608.59, of which $10,000.00 is an owner's contingency which shall be utilized at the Town's sole discretion.

3. Effect of Amendment. In all other respects, the Agreement is affirmed and ratified and, except as expressly modified herein, all terms and conditions of the Agreement shall remain in full force and effect.

4. Non-Default. By executing this First Amendment, the Contractor affirmatively asserts that (i) the Town is not currently in default, nor has been in default at any time prior to this First Amendment, under any of the terms or conditions of the Agreement and (ii) any and all claims, known and unknown, relating to the Agreement and existing on or before the date of this First Amendment are forever waived.

5. Conflict of Interest. This First Amendment and the Agreement may be canceled by the Town pursuant to ARIZ. REV. STAT. § 38-511.

[SIGNATURES ON FOLLOWING PAGES]

IN WITNESS WHEREOF, the parties hereto have executed this instrument as of the date and year first set forth above.

"**Town**"

TOWN OF FOUNTAIN HILLS,
an Arizona municipal corporation

_____
Grady E. Miller, Town Manager

ATTEST:

_____
Bevelyn J. Bender, Town Clerk

(ACKNOWLEDGMENT)

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

On _____, 2016, before me personally appeared Grady E. Miller, the Town Manager of the TOWN OF FOUNTAIN HILLS, an Arizona municipal corporation, whose identity was proven to me on the basis of satisfactory evidence to be the person who he claims to be, and acknowledged that he signed the above document, on behalf of the Town of Fountain Hills.

_____
Notary Public

(Affix notary seal here)

"Contractor"

VINCON ENGINEERING CONSTRUCTION, LLC,
an Arizona limited liability company

By: _____

Name: Jeffrey A Kell

Title: Member

(ACKNOWLEDGMENT)

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

On August 23, 2016, before me personally appeared Jeffrey A. Kell, the Member of VINCON ENGINEERING CONSTRUCTION, LLC, an Arizona limited liability company, whose identity was proven to me on the basis of satisfactory evidence to be the person who he/she claims to be, and acknowledged that he/she signed the above document on behalf of the limited liability company.

_____
Notary Public

(Affix notary seal here)

OFFICIAL SEAL
SONYA DUNGY
NOTARY PUBLIC - State of Arizona
MARICOPA COUNTY
My Comm. Expires March 28, 2019

2762757.1

EXHIBIT 1
TO
FIRST AMENDMENT
TO
COOPERATIVE PURCHASING AGREEMENT
BETWEEN
THE TOWN OF FOUNTAIN HILLS
AND
VINCON ENGINEERING CONSTRUCTION, LLC

[Chandler Contract Amendments]

See following pages.

18-2303

AMENDMENT NUMBER ONE,
TO AGREEMENT BETWEEN THE CITY OF CHANDLER
AND
VINCON ENGINEERING CONSTRUCTION, LLC
CONCRETE REPAIR & MAINTENANCE
AGREEMENT NO. ST5-745-3435

This Amendment No. 1 to that certain Agreement between the City of Chandler (CITY) and **VINCON ENGINEERING CONSTRUCTION, LLC** (Contractor) for Concrete Repair & Maintenance dated, October 24, 2014 and is entered into this 26 day of October, 2015.

WHEREAS, the parties entered into contract for one year with provisions to extend for four (4) terms of one year each.

NOW THEREFORE, the parties agree as follows:

1. Section 4, Price, of the Agreement is hereby amended, increasing the annual spending limit by Three Hundred Fifty Thousand Dollars ($350,000) for a revised not to exceed amount of Three Million Eight Hundred Fifty Thousand Dollars ($3,850,000).

2. All other terms and conditions of the above referenced Contract shall remain unchanged and in full force and effect. All terms and conditions in the original Agreement not specifically amended herein shall be incorporated by reference in its entirety and shall remain in full force and effect.

IN WITNESS WHEREOF, the parties have hereunto subscribed their names this 26 day of October, 2015.

CITY OF CHANDLER:

By: _____
Mayor

APPROVED AS TO FORM:

_____
City Attorney

ATTEST:

_____
City Clerk

CITY OF CHANDLER CORPORATE SEAL [SEAL] ARIZONA

CONTRACTOR:

By: _____
Title: _____

ATTEST: (If corporation)

_____
Secretary

WITNESS: (If individual or Partnership)

_____

cc 10/22/15 #29

RECEIVED
NOV 24 2015
VINCON, LLC

AMENDMENT NUMBER TWO,
TO AGREEMENT BETWEEN THE CITY OF CHANDLER
AND
VINCON ENGINEERING CONSTRUCTION, LLC
CONCRETE REPAIR & MAINTENANCE
AGREEMENT NO. ST5-745-3435

18-303

This Amendment No. 2 to that certain Agreement between the City of Chandler (CITY) and **VINCON ENGINEERING CONSTRUCTION, LLC** (Contractor) for Concrete Repair & Maintenance dated, October 24, 2014 and is entered into this 23 day of November, 2015.

WHEREAS, the parties entered into contract for one year with provisions to extend for four (4) terms of one year each. This is the first renewal option.

NOW THEREFORE, the parties agree as follows:

1. Section 4, Price, of the Agreement is hereby amended, payable as set forth in Revised Exhibit A, for a total amount not to exceed Three Million Six Hundred Thousand Dollars ($3,600,000) attached hereto and made a part hereof by reference.

2. Section 5 of the Agreement, as amended, extends the term of the agreement for a one-year period from December 1, 2015 through November 30, 2016.

3. All other terms and conditions of the above referenced Contract shall remain unchanged and in full force and effect. All terms and conditions in the original Agreement not specifically amended herein shall be incorporated by reference in its entirety and shall remain in full force and effect.

IN WITNESS WHEREOF, the parties have hereunto subscribed their names this 23 day of November, 2015.

CITY OF CHANDLER:

By: _____
Mayor

APPROVED AS TO FORM:

_____
City Attorney

ATTEST:

_____
City Clerk

CONTRACTOR:

By: _____
Title: MEMBER

ATTEST: (If corporation)

_____
Secretary

WITNESS: (If individual or Partnership)

_____

[SEAL]

CITY OF CHANDLER CORPORATE SEAL ARIZONA

cc 11-19-15

18-303

AMENDMENT NUMBER THREE,
TO AGREEMENT BETWEEN THE CITY OF CHANDLER
AND
VINCON ENGINEERING CONSTRUCTION, LLC
CONCRETE REPAIR & MAINTENANCE
AGREEMENT NO. ST5-745-3435

This Amendment No. Three to that certain Agreement between the City of Chandler (CITY) and **VINCON ENGINEERING CONSTRUCTION, LLC** (Contractor) for Concrete Repair & Maintenance dated, October 24, 2014 and is entered into this 1 day of August, 2016.

WHEREAS, the parties entered into contract for one year with provisions to extend for four (4) additional one-year terms.

NOW THEREFORE, the parties agree as follows:

1. Section 4, Price, of the Agreement is hereby amended, increasing the annual spending limit by $1,600,000 for a revised not to exceed amount of $5,200,000 for the term ending November 30, 2016.

2. All other terms, conditions and pricing of the above referenced Agreement shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the parties have hereunto subscribed their names this 1 day of August, 2016.

CITY OF CHANDLER:

By: _____
Mayor

APPROVED AS TO FORM:

_____
City Attorney

ATTEST:

_____
City Clerk

CITY OF CHANDLER CORPORATE SEAL ARIZONA

CONTRACTOR:

By: _____
Title: Member

ATTEST: (If corporation)

_____
Secretary

WITNESS: (If individual or Partnership)

_____

cc 7-28-16

EXHIBIT 2
TO
FIRST AMENDMENT
TO
COOPERATIVE PURCHASING AGREEMENT
BETWEEN
THE TOWN OF FOUNTAIN HILLS
AND
VINCON ENGINEERING CONSTRUCTION, LLC

[Proposal]

See following page.

General Engineering Construction
1831 N Rochester Mesa, AZ 85205
Phone: 480-833-8527 Fax: 480-833-8617

Proposal

Proposal Submitted to:	Bid No.:	Date:
Town of Fountain Hills	16-000	8/15/2016
Street:	Job Name: Concrete ADA Upgrades	
City, State & Zip Code:	Job Address: Fountain Hills, AZ	

Item	Description	Unit	QTY	Unit $	Amount
1.00	Remove and Reinstall Wedge Curb	L.F.	528	$ 26.50	$ 13,992.00
2.00	Vertical Curb & Gutter, MAG Det. 220, Type A, H=6"	L.F.	193	$ 19.00	$ 3,667.00
3.00	Concrete Sidewalk, MAG Det. 230	S.F.	100	$ 4.50	$ 450.00
4.00	Mid-Block Sidewalk Ramp, MAG 235-4	Ea.	1	$ 1,250.00	$ 1,250.00
5.00	In-Line Sidewalk Ramp per COC Detail C-257	Ea.	2	$ 925.00	$ 1,850.00
6.00	Directional Sidewalk Ramp per MAG Std. Det. 235-2	Ea.	4	$ 1,000.00	$ 4,000.00
7.00	Remove/Replace Existing AC Pavement	S.Y.	11	$ 85.00	$ 935.00
8.00	Remove Concrete Curb & Gutter	L.F.	335	$ 8.00	$ 2,680.00
9.00	Remove Sidewalk	S.F.	630	$ 2.25	$ 1,417.50
10.00	Traffic Control	L.S.	1	$ 750.00	$ 750.00
11.00	Restore Grades & Landscaping	L.S.	1	$ 1,000.00	$ 1,000.00
12.00	Remove and Reinstall Concrete Aprons	S.F.	650	$ 6.50	$ 4,225.00
	Allowance for Testing	L.S.	1	$ 1,000.00	$ 1,000.00
				Subtotal	$ 37,216.50
				Mark Up	$ -
				Bond	$ -
				Tax	$ 2,154.84
				Total	**$ 39,371.34**

TOWN OF FOUNTAIN HILLS

TOWN COUNCIL AGENDA ACTION FORM

Meeting Date: 9/3/2015

Meeting Type: Regular Session

Agenda Type: Consent

Submitting Department: Community Services

Staff Contact Information: Rachael Goodwin, Recreation and Tourism Supervisor, 480-816-5135

Strategic Planning Goal: Not Applicable (NA)

Operational Priority: Not Applicable (NA)

REQUEST TO COUNCIL (Agenda Language): CONSIDERATION of approving a SPECIAL EVENT LIQUOR LICENSE APPLICATION for Fountain Events, Inc (Samuel Coffee) in conjunction with the 2016 Oktoberfest event to be held at Fountain Park, located at 12925 N. Saguaro Blvd, on Friday, September 30 and Saturday, October 1 , from 5:00 pm to 11:00 pm.

Applicant: Samuel Coffee

Applicant Contact Information: [redacted]

Property Location: 12925 N. Saguaro Blvd, Foutain Hills, AZ 85268

Related Ordinance, Policy or Guiding Principle: A.R.S. §4-203.02; 4-244; 4-261 and R19-1-228, R19-1-235, and R19-1-309

Staff Summary (background)**:** The purpose of this item is to obtain Council's approval regarding the special event liquor license applications submitted by Samuel Coffee representing Fountain Events, Inc,for submission to the Arizona Department of Liquor. The special event liquor license applications were reviewed by staff for compliance with Town ordinances and staff unanimously recommends approval of this special event liquor license application as submitted.

Risk Analysis (options or alternatives with implications)**:** N/A

Fiscal Impact (initial and ongoing costs; budget status)**:** N/A

Budget Reference (page number): N/A

Funding Source: NA

If Multiple Funds utilized, list here:

Budgeted; if No, attach Budget Adjustment Form: NA

Recommendation(s) by Board(s) or Commission(s): N/A

Staff Recommendation(s): Approve

List Attachment(s): Applications

SUGGESTED MOTION (for Council use)**:** Move to approve the Special Event Liquor Licenses as presented.

Prepared by:

Rachael Goodwin, Recreation Supervisor 8/22/2016

Director's Approval:

Mark Mayer, Community Services Director 8/22/2016

Approved:

Grady E. Miller, Town Manager 8/23/2016

TOWN OF FOUNTAIN HILLS
ADMINISTRATION DEPARTMENT
INTER OFFICE MEMO

TO:	*(as applicable)* • **Streets Division** • **Fire Department** • **Building Division** • **Community Services** • **Development Services** • **Law Enforcement** • **Licensing**	**DATE:**	8/22/16
FR:	Rachael Goodwin, Recreation Supervisor	**RE:**	Liquor License Application

Attached is a Liquor License Application for staff review.

Review the application, then sign, indicating staff's recommendation for approval (with or without stipulations) or denial.

If staff's recommendation is to deny and/or there are stipulations for approval, please attach a memo that specifies the reasoning and the memo will be forwarded on to the Town Council for their consideration of this application.

Name of Organization: Fountain Events, Inc

Applicant: Sam Coffee

Date(s) of Event: September 30 and October 1, 2016 at Fountain Park, in conjunction with the annual Oktoberfest Event

Date Application Received: 6/6/16 **Town Council Agenda Date:** 9/1/2016

STAFF REVIEW AND RECOMMENDATION:

Department/Division	Staff Member	Approved	Denied	N/A
Building Safety	Jason Field			X
Community Services	Rachael Goodwin	X		
Development Services	Bob Rodgers	X		
Fire Department	Dave Ott			X
Law Enforcement	Mark Fisher	X		
Licensing	**Sonia Kukkola**			X
Street Department	Justin Weldy	X		

Attach report for denial or any recommendation requiring stipulations.

15-06-16P02:00

Arizona Department of Liquor Licenses and Control
800 W Washington 5th Floor
Phoenix, AZ 85007-2934
www.azliquor.gov
(602) 542-5141

FOR DLLC USE ONLY
Event Date(s):
Event time start/end:
CSR:
License:

APPLICATION FOR SPECIAL EVENT LICENSE

Fee= $25.00 per day for 1-10 days (consecutive)
A service fee of $25.00 will be charged for all dishonored checks (A.R.S. § 44-6852)

IMPORTANT INFORMATION: This document must be fully completed or it will be returned.
The Department of Liquor Licenses and Control must receive this application ten (10) business days prior to the event. If the special event will be held at a location without a permanent liquor license or if the event will be on any portion of a location that is not covered by the existing liquor license, this application must be approved by the local government before submission to the Department of Liquor Licenses and Control (see Section 15).

SECTION 1 Name of Organization: Fountain Events, Inc.

SECTION 2 Non-Profit/IRS Tax Exempt Number: 47-5271378

SECTION 3 The organization is a: (check one box only)
☒ Charitable ☐ Fraternal (must have regular membership and have been in existence for over five (5) years)
☐ Religious ☐ Civic (Rotary, College Scholarship) ☐ Political Party, Ballot Measure or Campaign Committee

SECTION 4 Will this event be held on a currently licensed premise and within the already approved premises? ☐ Yes ☒ No

Name of Business	License Number	Phone (Include Area Code)

SECTION 5 How is this special event going to conduct all dispensing, serving, and selling of spirituous liquors? Please read R-19-318 for explanation (look in special event planning guide) and check one of the following boxes.

☐ Place license in non-use
☐ Dispense and serve all spirituous liquors under retailer's license
☒ Dispense and serve all spirituous liquors under special event
☐ Split premise between special event and retail location

(If not using retail license, submit a letter of agreement from the agent/owner of the licensed premise to suspend the license during the event. If the special event is only using a portion of premise, agent/owner will need to suspend that portion of the premise.)

SECTION 6 What is the purpose of this event? ☒ On-site consumption ☐ Off-site (auction) ☐ Both

SECTION 7 Location of the Event: Fountain Park

Address of Location: 12925 N Saguaro Blvd. | Fountain Hills | Maricopa | AZ | 85268
Street | City | COUNTY | State | Zip

SECTION 8 Will this be stacked with a wine festival/craft distiller festival? ☐ Yes ☒ No

SECTION 9 Applicant must be a member of the qualifying organization and authorized by an Officer, Director or Chairperson of the Organization named in Section 1. (Authorizing signature is required in Section 13.)

1. Applicant: Coffee | Samuel | D | [redacted]
Last | First | Middle | Date of Birth

2. Applicant's mailing address: [redacted] E La Montana Dr #207, Fountain Hills | AZ | 85268
Street | City | State | Zip

3. Applicant's home/cell phone: [redacted] Applicant's business phone: [redacted]

4. Applicant's email address: [redacted]

SECTION 10

1. Has the applicant been convicted of a felony, or had a liquor license revoked within the last five (5) years?
☐Yes ☒No **(If yes, attach explanation.)**

2. How many special event licenses have been issued to this location this year? 2
(The number cannot exceed 12 events per year; exceptions under A.R.S. §4-203.02(D).)

3. Is the organization using the services of a promoter or other person to manage the event? ☐Yes ☒No
(If yes, attach a copy of the agreement.)

4. List all people and organizations who will receive the proceeds. Account for 100% of the proceeds. The organization applying must receive 25% of the gross revenues of the special event liquor sales. Attach an additional page if necessary.

Name Fountain Events, Inc. Percentage: 100

Address 17105 E La Montana Dr. #207 (Street) Fountain Hills (City) AZ (State) 85268 (Zip)

Name _____ Percentage: _____

Address _____ (Street) (City) (State) (Zip)

5. Please read A.R.S. § 4-203.02 Special event license; rules and R19-1-205 Requirements for a Special Event License.
Note: ALL ALCOHOLIC BEVERAGE SALES MUST BE FOR CONSUMPTION AT THE EVENT SITE ONLY.
"NO ALCOHOLIC BEVERAGES SHALL LEAVE SPECIAL EVENT UNLESS THEY ARE IN AUCTION SEALED CONTAINERS OR THE SPECIAL EVENT LICENSE IS STACKED WITH WINE /CRAFT DISTILLERY FESTIVAL LICENSE"

6. What type of security and control measures will you take to prevent violations of liquor laws at this event?
(List type and number of police/security personnel and type of fencing or control barriers, if applicable.)

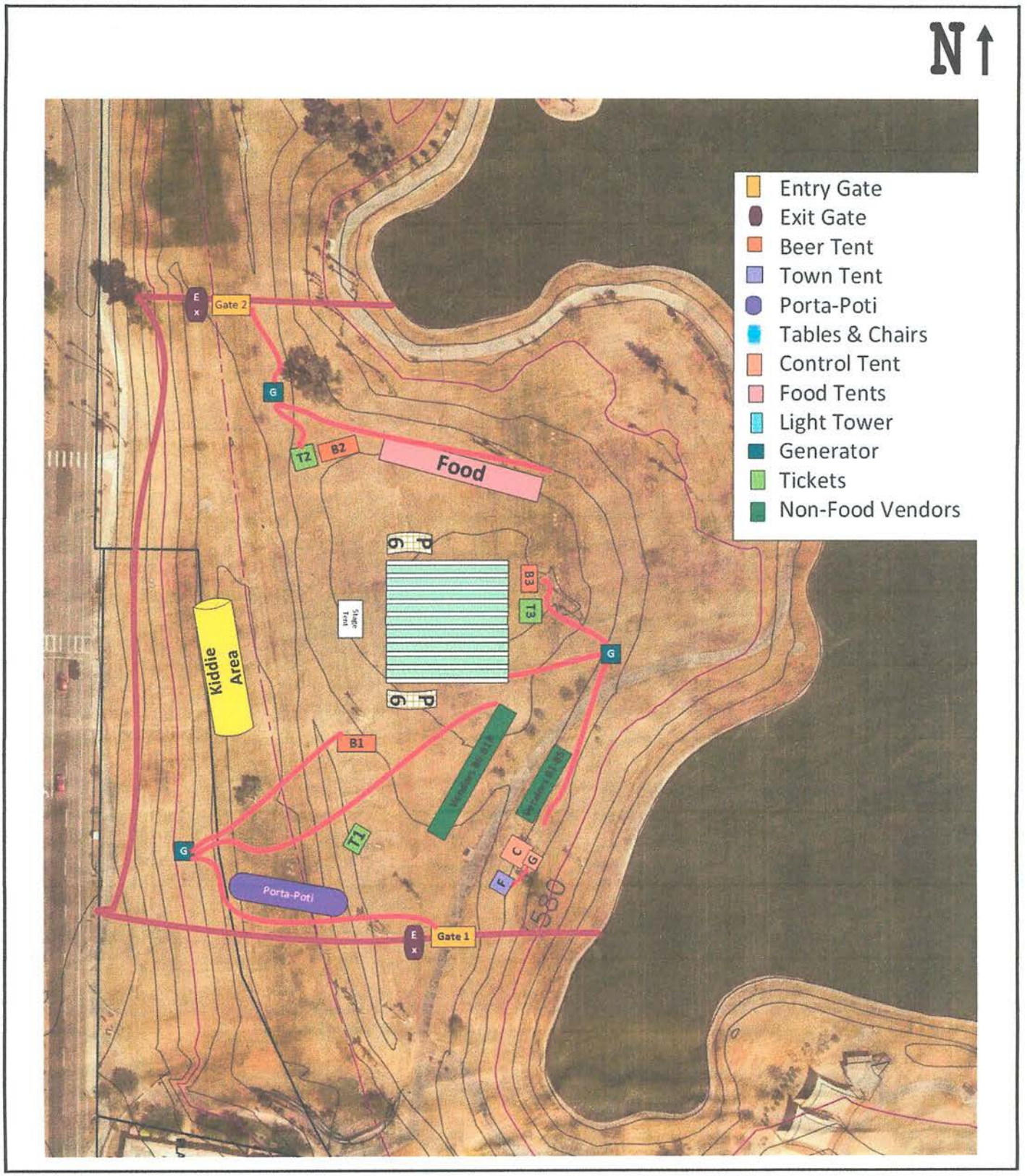
2 Number of Police 6 Number of Security Personnel ☒Fencing ☐Barriers

Explanation: Area will be enclosed by 6ft chain link fencing. Entrance and exit by two gates. Anyone wishing to consume alcohol will have their ID checked and a wrist band applied. No alcohol will be served to anyone not wearing wristband. ID checks will be performed by Pro-Em personnel

SECTION 11 Date(s) and Hours of Event. May not exceed 10 consecutive days.
See A.R.S. § 4-244(15) and (17) for legal hours of service.

	Date	Day of Week	Event Start Time AM/PM	License End Time AM/PM
DAY 1:	09/30/2016	Friday	5 pm	11 pm
DAY 2:	10/01/2016	Saturday	5 pm	11 pm
DAY 3:				
DAY 4:				
DAY 5:				
DAY 6:				
DAY 7:				
DAY 8:				
DAY 9:				
DAY 10:				

SECTION 12 License premises diagram. The licensed premises for your special event is the area in which you are authorized to sell, dispense or serve alcoholic beverages under the provisions of your license. The following space is to be used to prepare a diagram of your special event licensed premises. Please show dimensions, serving areas, fencing, barricades, or other control measures and security position.



SECTION 13 To be completed only by an Officer, Director or Chairperson of the organization named in Section 1.

I, Samuel D Coffee (Print Full Name) declare that I am an OFFICER, DIRECTOR, or CHAIRPERSON appointing the applicant listed in Section 9, to apply on behalf of the foregoing organization for a Special Event Liquor License.

X _____ (Signature) CFO (Title/ Position) 6/6/2016 (Date) [redacted] (Phone #)

The foregoing instrument was acknowledged before me this 6TH (Day) June (Month) 2016 (Year)

State Arizona County of Maricopa

My Commission Expires on: 11/25/17 (Date) _____ (Signature of Notary Public)

SHERRI CHRISTIANSEN
Notary Public - State of Arizona
MARICOPA COUNTY
My Commission Expires
November 25, 2017

SECTION 14 This section is to be completed only by the applicant named in Section 9.

I, Samuel D Coffee (Print Full Name) declare that I am the APPLICANT filing this application as listed in Section 9. I have read the application and the contents and all statements are true, correct and complete.

X _____ (Signature) Coordinator (Title/ Position) 6/6/2016 (Date) [redacted] (Phone #)

The foregoing instrument was acknowledged before me this 6TH (Day) June (Month) 2016 (Year)

State Arizona County of Maricopa

My Commission Expires on: 11/25/17 (Date) _____ (Signature of Notary Public)

SHERRI CHRISTIANSEN
Notary Public - State of Arizona
MARICOPA COUNTY
My Commission Expires
November 25, 2017

Please contact the local governing board for additional application requirements and submission deadlines. Additional licensing fees may also be required before approval may be granted. For more information, please contact your local jurisdiction: http://www.azliquor.gov/assets/documents/homepage_docs/spec_event_links.pdf.

SECTION 15 Local Governing Body Approval Section

I, _____ (Government Official) _____ (Title) recommend ☐APPROVAL ☐ DISAPPROVAL

on behalf of _____ (City, Town, County), _____ (Signature), _____ (Date), _____ (Phone)

FOR DEPARTMENT OF LIQUOR LICENSES AND CONTROL USE ONLY

☐APPROVAL ☐ DISAPPROVAL BY: _____ DATE: _____

A.R.S. § 41-1030. Invalidity of rules not made according to this chapter; prohibited agency action; prohibited acts by state employees; enforcement; notice

B. An agency shall not base a licensing decision in whole or in part on a licensing requirement or condition that is not specifically authorized by statute, rule or state tribal gaming compact. A general grant of authority in statute does not constitute a basis for imposing a licensing requirement or condition unless a rule is made pursuant to that general grant of authority that specifically authorizes the requirement or condition.

D. THIS SECTION MAY BE ENFORCED IN A PRIVATE CIVIL ACTION AND RELIEF MAY BE AWARDED AGAINST THE STATE. THE COURT MAY AWARD REASONABLE ATTORNEY FEES, DAMAGES AND ALL FEES ASSOCIATED WITH THE LICENSE APPLICATION TO A PARTY THAT PREVAILS IN AN ACTION AGAINST THE STATE FOR A VIOLATION OF THIS SECTION.

E. A STATE EMPLOYEE MAY NOT INTENTIONALLY OR KNOWINGLY VIOLATE THIS SECTION. A VIOLATION OF THIS SECTION IS CAUSE FOR DISCIPLINARY ACTION OR DISMISSAL PURSUANT TO THE AGENCY'S ADOPTED PERSONNEL POLICY.

F. THIS SECTION DOES NOT ABROGATE THE IMMUNITY PROVIDED BY SECTION 12-820.01 OR 12-820.02.

TOWN OF FOUNTAIN HILLS

TOWN COUNCIL AGENDA ACTION FORM

Meeting Date: 9/1/2016

Meeting Type: Regular Session

Agenda Type: Regular

Submitting Department: Development Services

Staff Contact Information: Robert Rodgers, Senior Planner: 480-816-5138; rrodgers@fh.az.gov

Strategic Planning Goal:
CR4 Communications plan for civic involvement

Operational Priority: Not Applicable (NA)

REQUEST TO COUNCIL (Agenda Language): CONSIDERATION of appointing four (4) Planning and Zoning Commissioners for two (2) year terms beginning on October 1, 2016 until September 30, 2018.

Applicant:

Applicant Contact Information:

Property Location:

Related Ordinance, Policy or Guiding Principle: Council Rules of Procedure

Staff Summary (background)**:** On August 16, 2016 the Town Council Executive Subcommittee interviewed five (5) applicants requesting consideration to be appointed to serve on the Town of Fountain Hills Planning and Zoning Commission. The Appointed four (4) applicants will serve a term beginning October 1, 2016 until September 30, 2018.

Risk Analysis (options or alternatives with implications)**:**

Fiscal Impact (initial and ongoing costs; budget status)**:**

Budget Reference (page number):

Funding Source: NA

If Multiple Funds utilized, list here:

Budgeted; if No, attach Budget Adjustment Form: NA

Recommendation(s) by Board(s) or Commission(s):

Staff Recommendation(s): Subcommittee recommendations will be provided separately.

List Attachment(s):

SUGGESTED MOTION (for Council use)**:** Move to appoint _____,_____,_____,and _____to serve on the Town of Fountian Hills Planning and Zoning Commission for two year terms beginning October 1, 2016 until September 30, 2018.

Prepared by:

Paula Woodward

Paula Woodward, Executive Assistant 8/17/2016

Director's Approval:

Robert Rodgers, Interim Development Services Director 8/17/2016

Approved:

Grady E. Miller

Grady E. Miller, Town Manager 8/23/2016

TOWN OF FOUNTAIN HILLS

TOWN COUNCIL
AGENDA ACTION FORM

Meeting Date: September 1, 2016 **Meeting Type**: Regular

Agenda Type: Regular **Submitting Department:** Development Services

Staff Contact Information: Bob Rodgers, Senior Planner, 480-816-5138, rrodgers@fh.az.gov

Strategic Planning Goal: Not Applicable (NA) **Operational Priority:** Not Applicable (NA)

REQUEST TO COUNCIL (Agenda Language):
PUBLIC HEARING to receive comments on a proposed SPECIAL USE PERMIT by Fearless Kitty Cat Rescue to allow indoor kennels at 16832 E. Avenue of the Fountains, located in the "C-2" zoning district.
Case #SU 2016-03

CONSIDERATION of a proposed SPECIAL USE PERMIT by Fearless Kitty Cat Rescue to allow indoor kennels at 16832 E. Avenue of the Fountains, located in the "C-2" zoning district. Case #SU 2016-03

Applicant:	Kim Kamins, Fearless Kitty Rescue
Applicant Contact Information:	16913 E. Enterprise Drive, Fountain Hills, AZ 85268 (623) 466-5946
Owner:	Stephen D. Buck
Owner Contact Information:	[redacted] N. 120th Street, Scottsdale, AZ 85259 [redacted]
Property Location:	16832 E. Avenue of the Fountains, Fountain Hills, AZ 85268 (APN's: 176-06-078, 176-06-079, 176-06-80, 176-06-081)

Related Ordinance, Policy or Guiding Principle:
1. Zoning Ordinance - Section 2.02 Special Use Permits
2. Zoning Ordinance - Section 12.05.K Uses Subject to Special Use Permits in C-2 Zoning Districts Only

Staff Summary (background):

EXISTING CONDITIONS:
The subject property consists of one commercial building occupying four commercial parcels at 16832 E. Avenue of the Fountains. The building is an existing single-story commercial building located in Plat 208, facing the Avenue of the Fountains, and across a courtyard area from the Sofrita restaurant. The property is approximately 5,257 square feet in total size and is in the C-2 zoning district.

Parking is provided on the Avenue of the Fountains as well as within the common Plat 208 parking lots.

Surrounding Land Uses:

North – Plat 208 parking lots – Zoned C-2
South – Avenue of the Fountains, then Park Place – Zoned TCCD
East – Sofrita Restaurant – Zoned C-2
West – Gridley's of Fountain Hills – Zoned C-2

Fearless Kitty Rescue is classed as a kennel in the zoning ordinance as it is not a veterinary hospital or pet store. Rather, it is an animal rescue shelter. Pursuant to Zoning Ordinance Section 12.03.D, kennels must receive a Special Use Permit in order to be located within the C-2 zoning district.

REQUEST:
This application requests approval of a Special Use Permit to allow Fearless Kitty Rescue to locate within the C-2 zoning district pursuant to Zoning Ordinance Section 12.03.D.

Section 2.02.D of the Zoning Ordinance outlines that the following factors should be considered in the review of a Special Use Permit application:

1. Special conditions influencing its location.
   Staff: No special conditions related to the site location have been noted to staff.

2. Proposed location of buildings, parking and other facilities.
   Staff: No new buildings are proposed. All activities will occur inside the existing structure. Parking will be provided via the on-street parking in front of the property as well as the plat 208 parking lots in the rear of the property.

3. Amount of traffic likely to be generated.
   Staff: The property is located in the downtown area and due to the nature of the use, is not expected to generate large amounts of traffic.

4. Influence that the above factors are likely to exert on adjoining properties.
   Staff: All kennel related activities will occur indoors and as such will not impact or interfere with the activities of the surrounding businesses.

In order to approve a Special Use Permit, the findings of the Council must be that the establishment, maintenance, or operation of the use or building applied for will not be detrimental to the public health, safety, peace, comfort, and general welfare of persons residing or working in the neighborhood of such proposed use, nor shall it be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the town.

The Town Council may also impose any conditions in connection with the Special Use Permit that it deems appropriate to secure the intent and purposes of the ordinance and may recommend requiring guarantees and evidence that the conditions are being, or will be followed.

Risk Analysis (options or alternatives with implications):
Approval of the proposal will permit the applicant to operate Fearless Kitty Rescue within the C-2 zoning district at the proposed location.

Denial of the proposal will require that the applicant seek another site outside the C-2 zoning district for the rescue shelter.

Fiscal Impact (initial and ongoing costs; budget status): None

Budget Reference (page number): NA

Funding Source: NA
If Multiple Funds utilized, list here: NA

Budgeted; if No, attach Budget Adjustment Form: NA

Recommendation(s) by Board(s) or Commission(s):
The Planning & Zoning Commission voted at their regular meeting of August 11, 2016 to forward a recommendation to approve the Special Use Permit subject to the following stipulations:

1. The applicant shall not store any inventory, supplies, or kennel related equipment outside the existing building.

2. Signage is not included in this approval. All signage shall comply with the requirements of the Fountain Hills Zoning Ordinance, Chapter 6 and shall require separate Building Permits.

Staff Recommendation(s):
Staff recommends approval of the Special Use Permit subject to the stipulations recommended by the Planning & Zoning Commission.

SUGGESTED MOTION:
Move to approve the SPECIAL USE PERMIT to allow Fearless Kitty Cat Rescue to operate an indoor kennel at 16832 E. Avenue of the Fountains, located in the "C-2" zoning district, subject to the stipulations outlined in the staff report.

Attachments:
Vicinity/Location Map
Application
Applicant's Narrative
Photos (3 pgs)
7/26/2016 Chamber of Commerce letter of support
8/11/2016 P&Z Commission Meeting Minutes

Submitted by:

Robert Rodgers 8/23/2016
Interim Development Services Director Date

Approved:

8/24/2016
Grady Miller, Town Manager Date

Town of Fountain Hills
Staff Presentation

Fearless Kitty
16832 E. Avenue of the Fountains

Special Use Permit

Case #SU2016-03

16832 E. Avenue of the Fountains

Recommendations

Planning & Zoning Commission

Approve the Special Use Permit

Staff

Approve the Special Use Permit

For

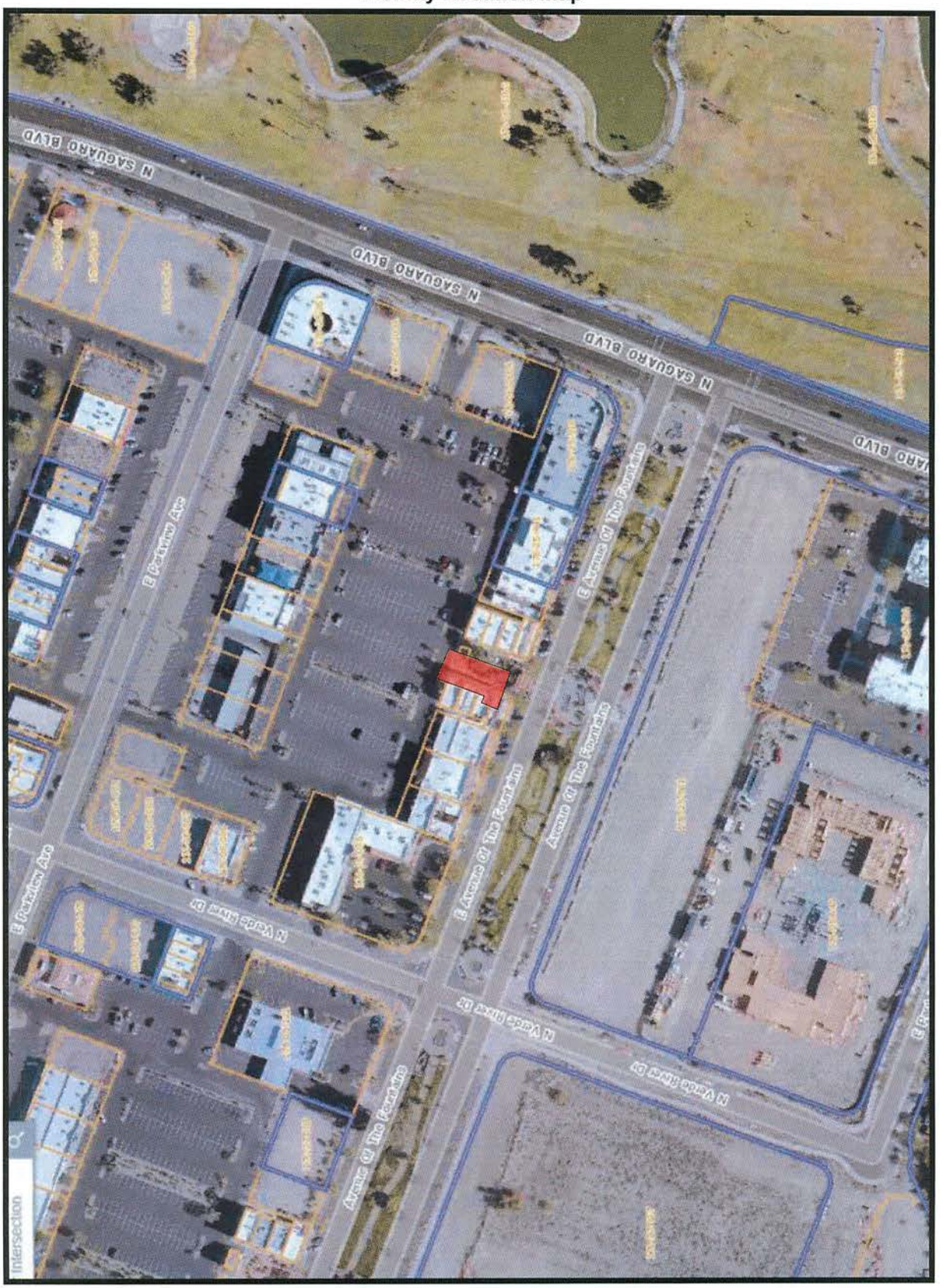
Fearless Kitty Rescue

at

16832 E. Avenue of the Fountains

Subject to the stipulations outlined in the Staff Report.

Vicinity Location Map



DO Not write in this space –official use only
Filing Date 7.7.16
Accepted By Paula Woodward
Fee Accepted $640.00 VISA
Case Manager Bob Rodgers

The Town of Fountain Hills

07-06-16A11:42 RCVD

PLANNING & ZONING DEPARTMENT - APPLICATION

- ☐ Abandonment (Plat or Condominium)
- ☐ Area Specific Plan & Amendments
- ☐ Condominium Plat
- ☐ Development Agreement
- ☐ General Plan Amendment
- ☐ Planned Unit Development
- ☐ Replat (Lot joins, lot splits, lot line adjustments)
- ☐ Rezoning (Map)
- ☐ Site Plan Review (vehicles sales)
- ☐ Variance
- ☐ Appeal of Administrator's Interpretation
- ☐ Concept Plan
- ☐ Cut/Fill Waiver
- ☐ HPE Change or Abandonment
- ☐ Ordinance (Text Amendment)
- ☐ Preliminary / Final Plat
- ☒ Special Use Permit & Amendments
- ☐ Temporary Use Permit (Median Fee, if applicable)
- ☐ Other

PROJECT NAME / NATURE OF PROJECT:

LEGAL DESCRIPTION: Plat Name 208 Block 6 Lot 14
PROPERTY ADDRESS: 16832 East Avenue of the Fountains
PARCEL SIZE (Acres) **ASSESSOR PARCEL NUMBER** 176-06-073, 074, 075, 076 ~~176-06-073, 074, 075, 076~~
NUMBER OF UNITS PROPOSED 1 **TRACTS** 1
EXISTING ZONING C2 **PROPOSED ZONING**

Applicant
☒ Mrs. Kim Kerains for Fearless Kitty Rescue Day Phone 623.466.5946
☐ Mr.
☐ Ms. Address: 16913 E. Enterprise Dr. City: Fountain Hills State: AZ Zip: 85268
Email: Kim@FearlessKittyrescue.org

Owner
☐ Mrs. Stephen D Buck Day Phone [redacted]
☒ Mr.
☐ Ms. Address: [redacted] N 170th St City: Scottsdale State: AZ Zip: 85255

If application is being submitted by someone other than the owner of the property under consideration, the section below must be completed.

SIGNATURE OF OWNER Stephen D Buck **DATE** 6/30/2016

I HEREBY AUTHORIZE _____ TO FILE THIS APPLICATION.

Subscribed and sworn before me this 30 day of June, 20 16.

Please Print
Christopher Clapp
Notary Public

My Commission Expires 5-08-2020

CHRISTOPHER CLAPP
Notary Public - Arizona
Maricopa County
My Comm. Expires May 8, 2020

MUNIS 6974
APPLICATION # SW2016-03

Special Use Permit – Narrative Report

A. Fearless Kitty Rescue will be the sole tenant of the existing building at 16832 East Avenue of the Fountains. The building will be used for the operations of Fearless Kitty Rescue, a non-profit, no kill cat rescue and adoption organization. The building will be split into a "public" area inside the entry to the building and the remainder of the building will be used to house cats and kittens available for adoption, a section for non-critical medical care of resident cats (e.g., vaccinations), a small volunteer information area, an office space, and a small conference room for staff and volunteer meetings.

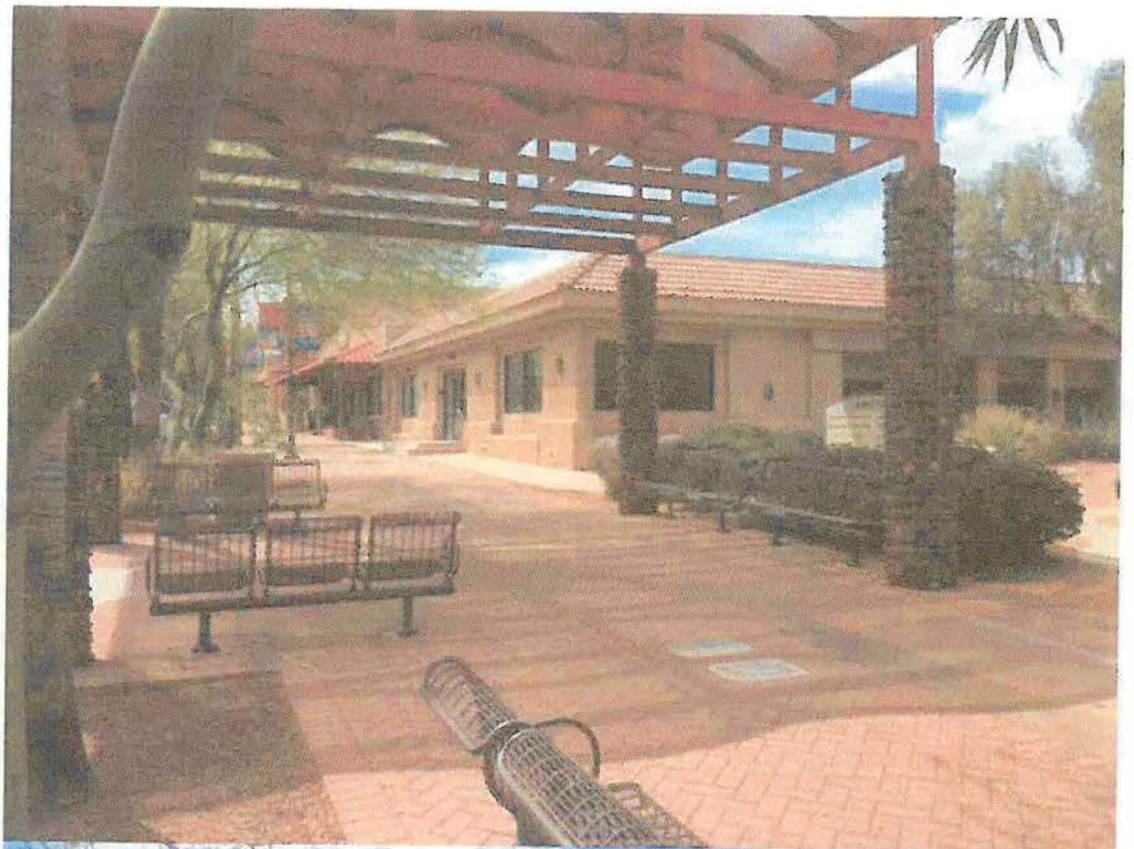
The public entrance will be the reception area and house displays and educational materials related to cat care, the community Trap/Neuter/Return program, and other cat rescue services. The area will have an enclosed room with a glass window for visitors to view some of the cats available for adoption. The Rescue donation center will be located in the entry for the intake of donations from the public (e.g., supplies, cat furniture, etc.) as well as displays of items provided to the public when a donation is made.

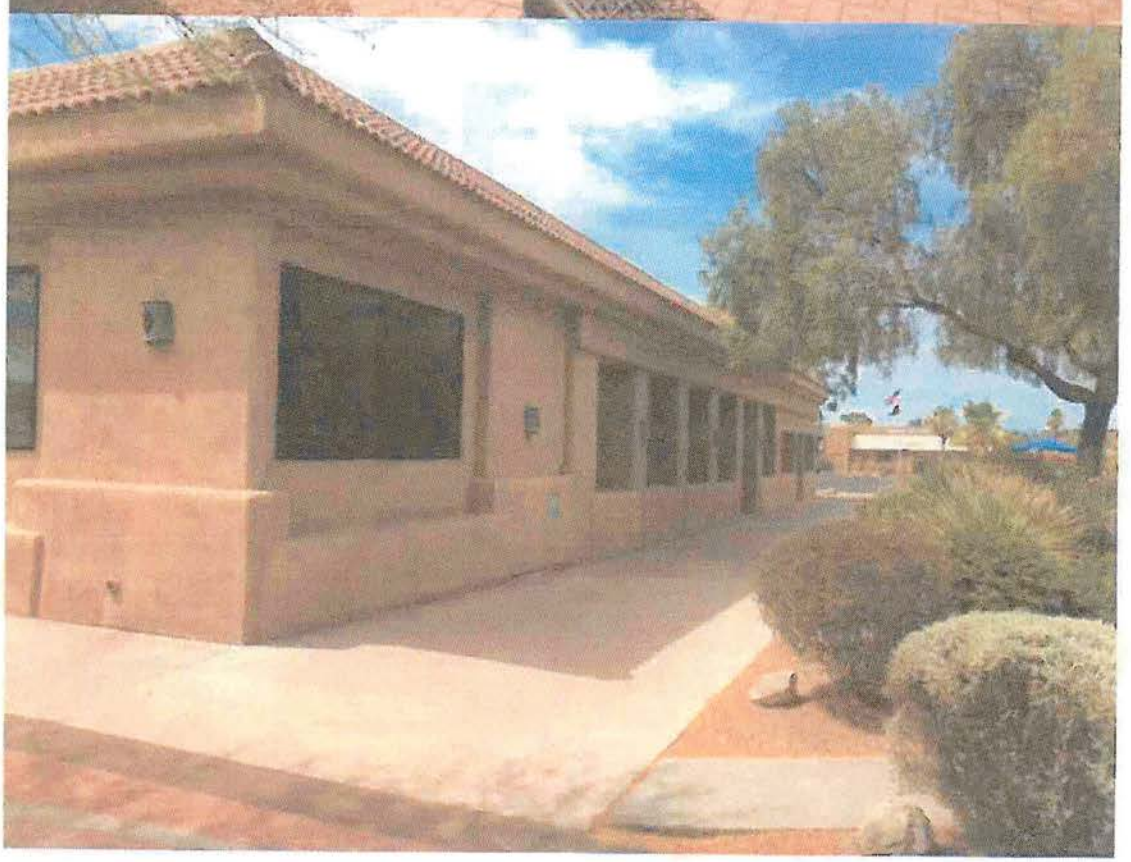
Fearless Kitty Rescue has been in Fountain Hills since 2012, and during this time has been located at 16913 E. Enterprise Drive. Fearless Kitty Rescue serves not only our immediate community of Fountain Hills and the greater Phoenix area, we also serve/rescue felines from high kill shelters throughout the state. We are dedicated to rescuing cats left homeless for whatever reason- cats in public shelters where they are at high risk of euthanasia, abandoned and homeless strays, cats given up by their owners because of difficult circumstances, and those in danger of abuse or neglect. In the four years since we opened our doors, we have rescued 744 cats and kittens and adopted 644.

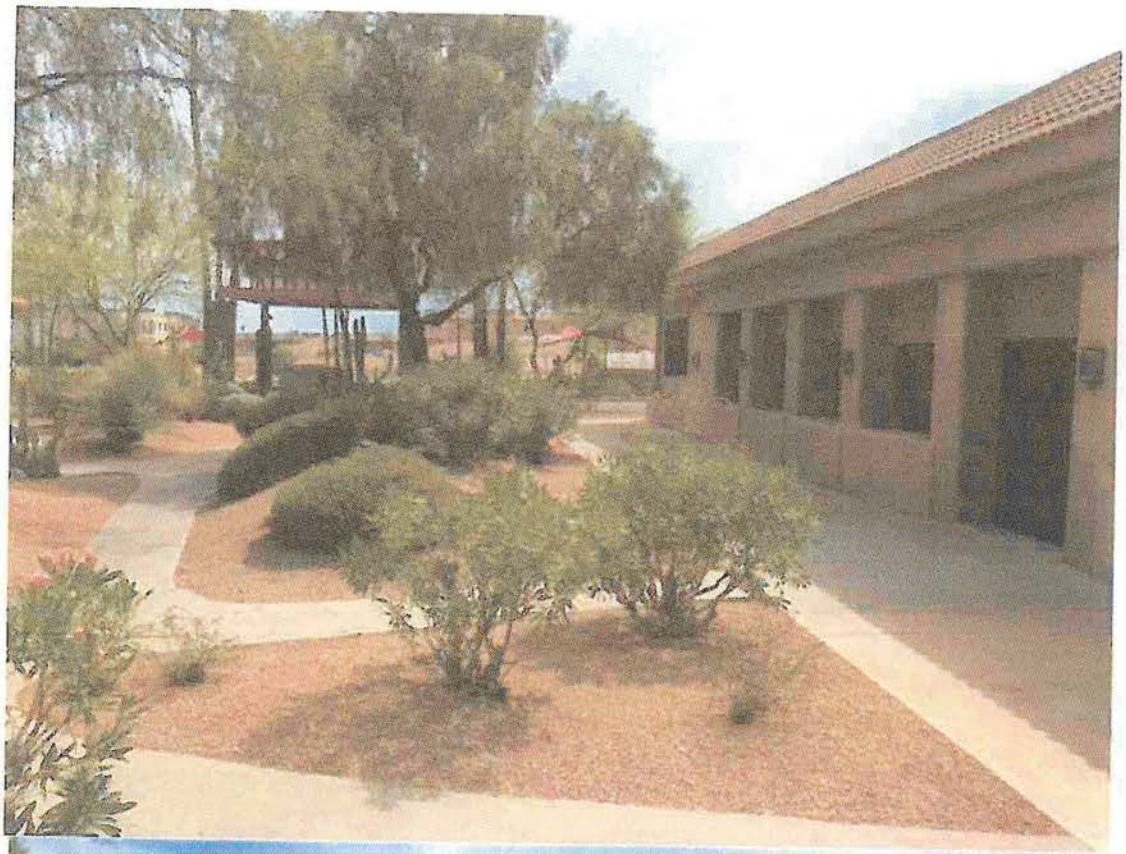
Fearless Kitty Rescue has nationwide recognition in the animal rescue industry and we are leaders in our sector. From partnerships with for-profit corporations like Petco and Petsmart to partnerships with non-profit organizations including Best Friends, Maddies Fund, the Jackson Galaxy Foundation and the Humane Society of the United States. Our partners provide support, guidance, training and grants, which helps us continue the life saving work we do.

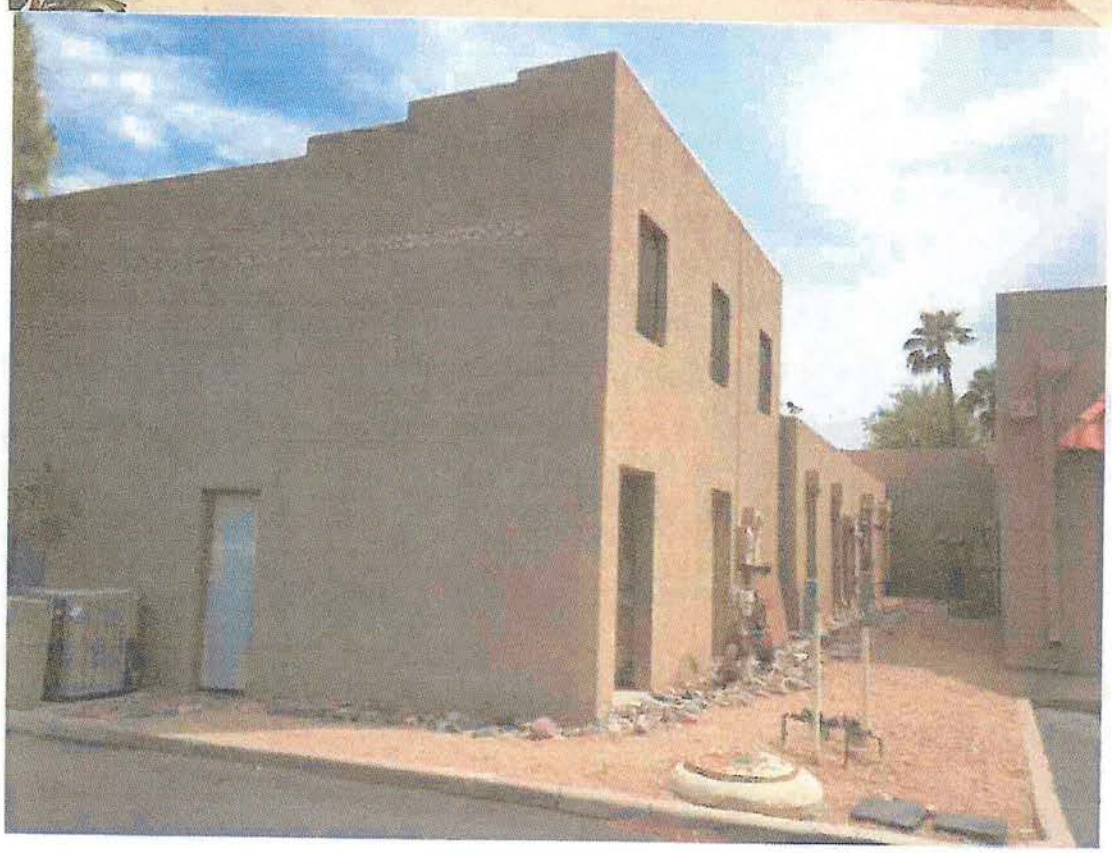
B. There are no adverse impacts identified for the surrounding properties and neighborhood. Activities and operations will be contained within the building. There is adequate parking for visitors to the building and for the surrounding businesses. There is a sufficient ventilation system that will not impact the air quality around the building or neighboring businesses.

16832 East Avenue of the Fountains
Future location of Fearless Kitty Rescue









07-28-16A09:36 RCVD

July 26, 2016

Tract 208 Property Owners Association
C/O Golden Valley Property Management
608 E. Missouri #100
Phoenix, AZ 85012

Dear Tract 208 Board Members:
This letter serves to express our support for the relocation of Fearless Kitty Rescue to the building at 16832 E. Avenue of the Fountains.

The volunteers, board members and staff of Fearless Kitty Rescue have been involved stakeholders of this community for several years. In a short time they have earned a highly sought-after grant through Republic Services and contributed significantly to a reduction in the number of feral cats in Fountain Hills.

Fearless Kitty Rescue is a non-profit, no-kill, cat rescue organization. In only four years they have rescued 744 cats and kittens and adopted out 644. Further, their current facility does not meet their long-term needs. Purchasing a building will provide them with the ability to design housing for cats, a public area and boutique to assist with their on-going financial goals.

Fearless Kitty is an active member of the Fountain Hills Chamber of Commerce and recently received the Mayor's Award for excellence during our annual awards and recognition gala in April 2016. Our Board has unanimously agreed Fearless Kitty will be a great addition to the stores and businesses located on the Avenue of the Fountains.

We respectfully ask for your support to approve Fearless Kitty's request to become a member of Tract 208 prior to the August 11 Planning & Zoning Board meeting.

Please contact me directly with any questions.

Sincerely,

Scott R Soldat-Valenzuela
Scott Soldat-Valenzuela
President/CEO

TOWN OF FOUNTAIN HILLS
MINUTES OF THE REGULAR SESSION OF THE
PLANNING & ZONING COMMISSION
August 11, 2016

Chairman Archambault opened the meeting at 6:30 p.m.

ROLL CALL:
The following Commissioners were present: Chairman Michael Archambault, Vice-Chairman Eugene Mikolajczyk. Commissioners: Howie Jones, Stan Connick, and Roger Owers. Also in attendance were Robert Rodgers, Interim Development Services Director, and Paula Woodward, Executive Assistant and Recorder of the minutes. Commissioners Susan Dempster and Jeremy Strohan were absent.

Chairman Archambault requested participation in the Pledge of Allegiance and a moment of silent reflection.

CALL TO THE PUBLIC

No one wished to speak.

AGENDA ITEM #1 - CONSIDERATION OF APPROVING THE PLANNING AND ZONING COMMISSION MEETING MINUTES DATED July 28, 2016.

Vice-Chairman Mikolajczyk **MOVED** to **APPROVE** the meeting minutes dated Thursday, July 28, 2016 as written. Commissioner Howie Jones **SECONDED** and the **MOTION CARRIED UNANIMOUSLY** (5/0).

AGENDA ITEM #2 - PUBLIC HEARING TO RECEIVE COMMENTS ON A PROPOSED SPECIAL USE PERMIT BY FEARLESS KITTY CAT RESCUE TO ALLOW INDOOR KENNELS AT 16832 E. AVENUE OF THE FOUNTAINS, LOCATED IN THE "C-2" ZONING DISTRICT. Case #SU 2016-03

Chairman Archambault turned the meeting over to Commissioner Connick.

Commissioner Connick opened the public hearing at 6:32 p.m.

Bob Rodgers addressed the Commission regarding a Special Use Permit Application submitted by Fearless Kitty Rescue, a non-profit, no-kill, cat rescue and kennel facility currently located at 16913 E. Enterprise Drive. That is in the C-3 (Heavy Commercial /Light Industrial) Zoning District. Mr. Rodgers said they have the option to purchase a vacant building located at16832 East Avenue of the Fountains where they wish to re-locate the rescue facility. The building fronts on the Avenue of the Fountains, directly abuts Gridley's store and is across a small courtyard area from Sofrita's restaurant. This is in the C-2 (Mid-Density Commercial) Zoning District. The C-2 district regulations are contained in Chapter 12 of the Zoning Ordinance. Pursuant to Section 12.03.D in order for a kennel to operate in the C-2 zoning district, a Special Use Permit must be approved by the Town Council. Tonight's hearing is to request that the Planning & Zoning Commission consider forwarding a favorable recommendation to the Town Council to approve this request.

Section 2.02D of the Zoning Ordinance outlines the key criteria that should be considered by the Commission during your deliberations.

They are:

1. Any Special Conditions that influence the location
2. Whether any new buildings or other improvements are proposed
3. Traffic

4. Any negative influences on adjoining properties
5. No detriments to the public health, safety, peace, or comfort to the properties in the immediate area or to the general welfare of the town at large

Mr. Rodgers stated, that if the Commission determines that those factors are satisfactorily addressed, the Commission should forward a recommendation to approve the Special Use Permit. If it's determined that the factors are not all satisfactorily met, the Commission may recommend that the Council attach additional stipulations to their approval. OR, you may recommend denial. If recommending denial, the Commission should note the specific reasons for the recommendation in order that Council can fully evaluate the recommendation.

Staff recommends that the Commission forward a recommendation to Town Council to approve the Special Use Permit to allow Fearless Kitty Rescue to locate at 16832 E. Avenue of the Fountains, subject to the stipulations outlined in the staff report.

Kristen Skivington, a volunteer with Fearless Kitty Rescue, addressed the commission. She said Fearless Kitty Rescue is a free roaming, no kill facility. The cats are not in cages. There are large rooms, couches, kitty furniture, food and water. Cages are only used temporarily to introduce new additions to the facility or for kitty timeout. Kittens are separated from adult cats and all have the ability to play and be just cats. The Fearless Kitty Rescue has been in the current location for four years and expanded three times. The new space will allow for Fearless Kitty Rescue to be internally designed for a rescue. This would include, a non-emergency medical area, public spaces to view adoptable cats, and an educational /resource center. There are over 100 volunteers and this space would provide an area for training staff. There are 2 shifts, (morning and afternoon/early evening) running 7 days a week. Services with Republic Services are for pick up two days a week. All litter would be tripled bagged and placed in industrial contractor bags before going into the disposal. Ms. Skivingtion concluded with thanking the Commission and that she is available for any further questions.

Kate Koch, a two and half year volunteer with Fearless Kitty Rescue, addressed the Commission relative to a grant received from Republic Services last summer. She explained the grant was for the Trap-Neuter-Return (TNR) for Feral Cats Program. Feral Cats are wild cats that are not domestic and every town has them. Ms. Koch reviewed some of the rescue's accomplishments. In the last eighteen months ninety-nine cats were taken into the Fearless Kitty Rescue; sixty-six strays, thirteen trap and release, twenty-two owner surrender, and eleven from owners deceased (3 from MCSO calls), forty-seven calls for lost and found cats and nine dead cats picked up off the streets. Ms. Koch concluded with offering informational flyers about the TNR program.

Amberleigh Dabrowski, a Fountain Hills resident, asked the following questions regarding the Fearless Kitty Rescue; how frequently would volunteers work at the facility and the amount of foot traffic expected. She also asked about noise control measures.

Commissioner Connick asked if there were any more public speakers and there being none, he closed the public hearing at 6:34 p.m.

AGENDA ITEMS #3 - CONSIDERATION OF A PROPOSED SPECIAL USE PERMIT BY FEARLESS KITTY CAT RESCUE TO ALLOW INDOOR KENNELS AT 16832 E. AVENUE OF THE FOUNTAINS, LOCATED IN THE "C-2" ZONING DISTRICT. Case #SU 2016-03

Chairman Archambault asked for hours of operation and answers to the questions from the last speaker.

Ms. Skivington said the hours of operation are 7:30 a.m. to 6:30 p.m. These are not the public hours but people come and go throughout the day. Public hours are not every day. The new location's proposed hours are: Thursday, Friday, Saturday and Sunday, 10:00 a.m. till 12:00 p.m.

and then 3:00 p.m. till 5:00 p.m. The facility is not open full time to the public. Adoption arrangements are made by appointment with the adoption coordinator.

Chairman Archambault asked how are the cats contained.

Ms. Skivington replied there are many rooms which are designated cat rooms with doors. They are not allowed to free roam the building. There is a public area of the building near the entrance that is contained and allows people to see the cats available for adoption. There are a lot of windows on the interior and exterior for viewing of the cats in each of the rooms.

In response to other questions Ms. Skivington said noise is not an issue with the current location and they do not anticipate one in the new location. The cats are left unattended overnight and there is no way for anyone to come into the building. Cats are very independent and do not mind being left alone. The web camera posted on the website shows what the kittens are doing when no one is around. They are often playing, running and sometimes sleeping.

Commissioner Jones thanked the rescue for the community support Fearless Kitty Rescue provides to Fountain Hills. He asked what is the percentage of local and national funding.

Ms. Skivington said local is 70 % and national is 30 %. National funds are growing because of participation in more grant writing and having national recognition. Two large donations of cat food were received this last year which provided $60,000 value of cat food. Since it was not all needed, Fearless Kitty networked with other rescues to share the food. The promotion of Fearless Kitty Rescue on Jackson Galaxy's Foundation and other sites are providing more grants. Fearless Kitty Rescue was recently recognized at a national conference.

In response to Commissioner Jones, Ms. Skivington said the feral cats are brought in and get spayed or neutered and receive rabies vaccination. They are returned to the location they were taken from.

Ms. Koch said the majority of feral cats are near El Pueblo and the Indian reservation area. The farthest one out is near Safeway.

In response to questions, Ms. Koch said all the volunteers will park in the back and the windows do not open so noise should not be an issue. Security cameras will be in place.

Commissioner Connick asked about other community rescues.

Ms. Skivington said there are rescues in other comminutes. The difference is Fearless Kitty has a dedicated staff and location. Sometimes people use their house and take in cats. There are official ones like the county and the humane society. Fearless Kitty is unique because it is in a small community and can serve the town well.

Commissioner Owers asked if the TNR programs spay, neuter and rabies shots are performed on site.

Ms. Koch said the Arizona Animal Rescue League provides a low cost spay and neuter program which Fearless Kitty Rescue resources. After surgery the cats are returned to the facility for monitoring and then released where they were trapped. They are given rabies shots only. The procedures are not done at the rescue facility.

Ms. Skivington said the cats available for adoption are spayed and neutered, vaccinated and micro chipped at El Dorado Veterinarian Hospital in Fountain Hills.

Commissioner Owers **MOVED** to **FORWARD A RECOMMENDATION** to Town Council to approve the proposed SPECIAL USE PERMIT to allow Fearless Kitty Cat Rescue to operate an indoor kennel at 16832 E. Avenue of the Fountains, located in the "C-2" zoning district, subject to the stipulations recommended by staff as outlined in the staff report. Vice-Chairman Mikolajczyk **SECONDED** and the **MOTION CARRIED UNANIMOUSLY.** (5/0)

AGENDA ITEMS #4 - COMMISSION DISCUSSION/REQUEST FOR RESEARCH to staff.
Items listed below are related only to the propriety of (i) placing such items on a future agenda for action or (ii) directing staff to conduct further research and report back to the Commission.

None

AGENDA ITEM #5 - SUMMARY OF COMMISSION REQUESTS FROM SENIOR PLANNER.

None

AGENDA ITEM #6 - REPORT FROM SENIOR PLANNER AND ZONING ADMINISTRATOR, PLANNING AND ZONING DIVISION OF DEVELOPMENT SERVICES.

There are four open commissioner positions with five applicants. Interviews will take place next week.

AGENDA ITEM #7 - ADJOURNMENT.

Commissioner Jones **MOVED** to adjourn the meeting at 7:05 p.m. and Vice-Chairman Mikolajczyk **SECONDED** and the **MOTION CARRIED UNANIMOUSLY**. (5/0)

FOUNTAIN HILLS PLANNING & ZONING COMMISSION

BY:

_____
Chairman Mike Archambault

ATTEST:

_____
Paula Woodward, Executive Assistant

CERTIFICATION

I hereby certify that the foregoing minutes are a true and correct copy of the minutes of the meeting of the Fountain Hills Planning and Zoning Commission held on the 11th day of August 2016, in the Town Council Chambers, 16705 E. Avenue of the Fountains, Fountain Hills, AZ 85268. I further certify that the meeting was duly called and that a quorum was present.

Dated this 17th day of August 2016

_____
Paula Woodward, Executive Assistant

TOWN OF FOUNTAIN HILLS

TOWN COUNCIL
AGENDA ACTION FORM

Meeting Date: September 1, 2016 **Meeting Type**: Regular

Agenda Type: Regular **Submitting Department:** Development Services

Staff Contact Information: Bob Rodgers, Senior Planner, 480-816-5138, rrodgers@fh.az.gov

Strategic Planning Goal: Not Applicable (NA) **Operational Priority:** Not Applicable (NA)

REQUEST TO COUNCIL (Agenda Language):
PUBLIC HEARING of ORDINANCE #16-05, to amend Article II, Section 2.07 of the Fountain Hills Subdivision Ordinance to allow the ADMINISTRATIVE APPROVAL OF MINOR REPLATS such as lot line adjustments, lot splits and lot joins. Case #S2016-14

CONSIDERATION of ORDINANCE #16-05, to amend Article II, Section 2.07 of the Fountain Hills Subdivision Ordinance to allow the ADMINISTRATIVE APPROVAL OF MINOR REPLATS such as lot line adjustments, lot splits and lot joins. Case #S2016-14

Applicant: Town of Fountain Hills

Applicant Contact Information: Planning & Zoning Division

Property Location: Town-Wide

Related Ordinance, Policy or Guiding Principle:
Fountain Hills Subdivision Ordinance Section 2.07 Replats

Staff Summary (background):
This is a text amendment to the Subdivision Ordinance that will allow for administrative staff review and approval of minor re-plats such as lot line adjustments, lot splits, lot joins, and similar re-plats that will not result in more than two lots or any new roads being created.

This amendment is designed to allow for a quicker turnaround of minor re-plats by eliminating the requirement that the re-plat be submitted to Town Council, typically as a consent agenda item, for final approval.

Staff will still be required to ensure that all zoning requirements are met and that the re-plats will still be recorded as required.

Risk Analysis (options or alternatives with implications):
Approval of this text amendment will allow staff to administratively approve minor re-plats.

Denial of this text amendment will require that minor re-plats follow the same approval procedures that are currently in place.

Fiscal Impact (initial and ongoing costs; budget status): None

Budget Reference (page number): NA

Funding Source: NA
If Multiple Funds utilized, list here: NA

Budgeted; if No, attach Budget Adjustment Form: NA

Recommendation(s) by Board(s) or Commission(s):
The Planning & Zoning Commission voted at their regular meeting of July 28, 2016 to forward a recommendation to Town Council to approve the ordinance amendment as presented.

Staff Recommendation(s):
Staff recommends that the Town Council approve the text amendment to the Subdivision Ordinance regarding minor re-plats.

SUGGESTED MOTION:
Move that the Town Council approve Ordinance #16-05 a text amendment to Article II, Section 2.07 of the Fountain Hills Subdivision Ordinance, to allow the administrative approval of minor re-plats.

Attachments:

Ordinance #16-05
7/28/2016 P&Z Commission Meeting Minutes

Submitted by:

Robert Rodgers 8/23/2016
Interim Development Services Director Date

Approved:

8/24/2016
Grady Miller, Town Manager Date

ORDINANCE NO. 16-05

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE TOWN OF FOUNTAIN HILLS, ARIZONA, AMENDING THE TOWN OF FOUNTAIN HILLS SUBDIVISION ORDINANCE, ARTICLE 2 (PLATTING PROCEDURES), SECTION 2.07 (REPLATS) TO ALLOW FOR ADMINISTRATIVE APPROVAL OF MINOR REPLATS BY THE DEVELOPMENT SERVICES DIRECTOR.

WHEREAS, the Mayor and the Council of the Town of Fountain Hills (the "Town Council") adopted Ordinance No. 96-29, which established the Subdivision Ordinance for the Town of Fountain Hills (the "Subdivision Ordinance"); and

WHEREAS, the Town Council desires to amend Article 2 (Platting Procedures), Section 2.07 (Replats) of the Subdivision Ordinance to allow for administrative approval of minor replats by the Development Services Director; and

WHEREAS, public hearings regarding this Ordinance were advertised in the June 22, 2016, and June 29, 2016, editions of the *Fountain Hills Times*; and

WHEREAS, public hearings were held by the Fountain Hills Planning & Zoning Commission on July 28, 2016, and by the Town Council on September 1, 2016.

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE TOWN OF FOUNTAIN HILLS as follows:

SECTION 1. The foregoing recitals are incorporated as if fully set forth herein.

SECTION 2. The Subdivision Ordinance, Article 2 (Platting Procedures), Section 2.07 (Replats), is hereby amended as follows:

Section 2.07 Replats

A. MINOR REPLATS

ANY LOT LINE AMENDMENT, LOT SPLIT, OR LOT JOIN IN A RECORDED SUBDIVISION THAT RESULTS IN THE CREATION OF NOT MORE THAN TWO LOTS AND THAT DOES NOT INCLUDE A NEW STREET MAY BE CONSIDERED BY THE DEVELOPMENT SERVICES DIRECTOR WHO SHALL ENSURE THE NEWLY CREATED LOTS CONFORM TO THE TOWN ZONING ORDINANCE AND SHALL HAVE THE AUTHORITY TO REVIEW AND ADMINISTRATIVELY APPROVE SUCH MINOR REPLATS. MINOR REPLATS APPROVED PURSUANT TO THIS SUBSECTION SHALL BE RECORDED IN THE SAME MANNER AS PLATS APPROVED BY THE TOWN COUNCIL.

~~A~~**B.** EXCEPT AS PERMITTED IN SUBSECTION 2.07(A) ABOVE, ~~Any division of a lot in a recorded subdivision, or~~ any change in lot lines in a recorded subdivision, shall be processed in accordance with Section 2.06 of this Ordinance, after a pre-application conference with Town staff, as provided in Section 2.02 of this Ordinance.

~~B~~**C.** Any replat involving the dedication of land for a public street or any off-site public improvements shall comply with all procedures set forth in Article ~~H~~2 of this Ordinance. If the abandonment of a street, alley or public utility easement or other recorded easement in a previously recorded subdivision is necessary, the replat of that area shall be processed concurrently with the abandonment and recorded immediately subsequent to the recordation of the abandonment.

SECTION 3. If any section, subsection, sentence, clause, phrase or portion of this Ordinance is for any reason held invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance.

SECTION 4. The Mayor, the Town Manager, the Town Clerk and the Town Attorney are hereby authorized and directed to take all steps and execute all documents necessary to carry out the purpose and intent of this Ordinance.

PASSED AND ADOPTED BY the Mayor and Council of the Town of Fountain Hills, Arizona, September 1, 2016.

FOR THE TOWN OF FOUNTAIN HILLS: **ATTESTED TO:**

Linda M. Kavanagh, Mayor

Bevelyn J. Bender, Town Clerk

REVIEWED BY:

APPROVED AS TO FORM:

Grady E. Miller, Town Manager

Andrew J. McGuire, Town Attorney

TOWN OF FOUNTAIN HILLS
MINUTES OF THE REGULAR SESSION OF THE
PLANNING & ZONING COMMISSION
July 28, 2016

Chairman Archambault opened the meeting at 6:30 p.m.

ROLL CALL:
The following Commissioners were present: Chairman Michael Archambault, Vice-Chairman Eugene Mikolajczyk. Commissioners: Jeremy Strohan, Howie Jones, Stan Connick, Susan Dempster, and Roger Owers. Also in attendance were Robert Rodgers, Interim Development Services Director, Town Attorney Andrew McGuire, and Paula Woodward, Executive Assistant and Recorder of the minutes.

Chairman Archambault requested participation in the Pledge of Allegiance and a moment of silent reflection.

CALL TO THE PUBLIC

No one wished to speak.

AGENDA ITEM #1 - CONSIDERATION OF APPROVING THE PLANNING AND ZONING COMMISSION MEETING MINUTES DATED July 14, 2016.

Commissioner Connick **MOVED** to **APPROVE** the meeting minutes dated Thursday, July 14, 2016 as written. Commissioner Jones **SECONDED** and the **MOTION CARRIED UNANIMOUSLY** (7/0).

Chairman Archambault turned the meeting over to Vice-Chairman Mikolajczyk. Chairman Archambault excused himself from the meeting due to a potential conflict regarding agenda item number 2 and left the room. Vice-Chairman Mikolajczyk announced agenda item #2.

AGENDA ITEMS #2 - CONSIDERATION OF A CONCEPT PLAN FOR THE PROPOSED "PARK PLACE, PHASE I", A MIXED-USE DEVELOPMENT PROPOSAL LOCATED AT 16725 & 16845 E. AVENUE OF THE FOUNTAINS. (CASE #CP2016-02)

Bob Rodgers, Interim Development Services Director, gave a PowerPoint presentation about the Park Place application submitted by Bart Shea of N. Shea Group LLC, for approval of the Phase I Concept Plan of the Park Place development proposal to be located at 16725 – 16845 E. Avenue of the Fountains in the Downtown area. The zoning entitlements, the General Plan amendment, and the replats for this project have all been approved. The application tonight is for the Concept Plan approval.
The Concept Plan approval deals with the site design, zoning compliance, architectural review and compliance with the provisions of the Development Agreement which include things like streetscape improvements, parking allowances, building height restrictions, and other improvements both on-site and off-site. Mr, Rodgers referred to the slide showing Phase I consisting of Buildings C & D.,which contain a total of 230 apartments and about 35,000 square feet of commercial office, retail and restaurant space. Buildings C and D are basically mirror images of each other. Besides the two buildings, Phase I will include a new parking lot on the town property just east of the Sheriff's parking lot, with connections to the town lot and the project, a small pocket park, streetscape improvements along the Avenue to match the opposite side, parallel parking spaces on Verde River Drive, Free public Wi-Fi, and public art donations. On the slide, Mr. Rodgers showed the building's floor plan as described;

> Bottom - Commercial space facing the Avenue and Verde River Drive. Each building has a bit over 16,000 sq ft of commercial space. The rest of the area is surface parking.

Middle – 2nd floor containing

- Residential apartments fronting on the streets,
- The internal area will include the pool and ramada area and the Parkade, or the second level of parking.

Top – the 3rd and 4th floors both have apartments all around with a central courtyard looking down toward the pool area. Each building has 115 apartments. For a total of 230 units in Phase I.

Mr. Rodgers displayed one of the architectural elevations to show that the buildings have been designed to comply with the development agreement's height restriction. The building may not exceed 54' in height above existing grade. Mr. Rodgers showed the most recent artist's rendering of what the building facades along the Avenue will look like. A modern southwest design is being used with lots of façade offsets to break up the mass and provide some visual interest. The Colors and Materials to be used on the buildings are on the color palette. Mr. Rodgers provided a color board that was passed around for Commissioners to review.
In conclusion, Mr. Rodgers stated that staff has reviewed the Concept Plan and determined that the proposal is in compliance with zoning, and with the requirements of the project's prior approvals. Therefore, staff recommends that the Planning & Zoning Commission approve the Concept Plan as presented and subject to the stipulations outlined in the staff report and include the Town Engineer's stipulation as noted in his letter dated July 27, 2016. It should also be noted that normally the Planning and Zoning Commission's approval of a Concept Plan is all that's required. However, in this case, the previously approved Development Agreement requires that the Concept Plan be brought before the Town Council for their approval also.
Mr. Rodgers said the applicants are available for a presentation and questions.

Vice-Chairman Mikolajczyk asked about the empty lot next to the law enforcement parking lot & may the town use that in the future for a police station.

Mr. Rodgers said the lot is currently a retention basin which will become a parking lot for this project and for public use.

Attorney McGuire stated the lot becomes a public parking lot. The DA creates rights to use that property for parking. If the parking was removed it would have to be determined the value of the parking.

Vice-Chairman Mikolajczyk asked who pays for the independent 3rd party inspections.

Mr. Rodgers stated the developer would pay for the 3rd a party inspections and this is in the development agreement.

Commissioner Owers asked if the Commission was to approve the Concept Plan tonight would that also include the twenty percent reduction in the parking.

Mr. Rodgers said the 20 % reduction in parking was already approved in the Development Agreement.

In response to Commissioner Jones, Mr. Rodgers stated the 27 parking spaces mentioned in the packet are the diagonal spaces on the Avenue of the Fountains and each residential unit will have one on-site designated space within 300'and the remainder is open parking.

Bart Shea stated the residential parking is excluded from the commercial areas and Avenue of the Fountains. Three bedroom units may be designated with two parking spaces. Mr. Shea went on to say that they are in agreement with what Mr. Rodgers presented tonight. A lot of the stipulations in the staff report tonight are already covered and approved under the Development Agreement. The Town Engineer's letter regarding stacking for a left hand turn is more detailed and the N-Shea Group would like

more time before stipulating to it. Mr. Shea said building will not take place with an at risk permit and confirmed Willdan is the third party inspector.

Commissioner Jones inquired about the property drainage details.

Mr. Shea detailed and referred to the overhead to show the storm drains, underground storage tanks and the flow process.

Vice-Chairman Mikolajczyk asked for architectural design clarification and why it changed.

Mr. Shea said clientele is all over the board. There will be 30%-40% of young professionals. Average stay in an apartment such as this is two years. There will be an older more mature renter who is downsizing and then some who need a place to live while they build their dream home.

Vice-Chairman Mikolajczyk asked if the apartments could turn into condos down the road and referred to the apartments converted to condos across from Safeway. Vice-Chairman Mikolajczyk said since the conversion, young families were forced out and caused children to drop out of the FHUSD and move elsewhere.

Mr. Shea said 75% of those consulted liked the modern architectural look.

Commissioner Connick commented that a lot of the questions from the last meeting were answered today and commended the project.

Commissioner Jones asked what was the selection process for the 3rd party inspection choice.

Attorney McGuire answered this is the Town's contractor with the obligation of the developer to pay.

Chairman Archambault acknowledged there was no further discussion and asked for a motion.

Commissioner Jones **MOVED** to **APPROVE** the Concept Plan for Phase I, as presented and subject to the stipulations outlined in the staff report and to include the stipulation recommended in the Town Engineer's letter. Commissioner Owers **SECONDED** and the **MOTION CARRIED UNANIMOUSLY** (7/0).

Vice-Chairman Mikolajczyk retrieved Chairman Archambault from the Town Hall Lobby.

AGENDA ITEM #3 - PUBLIC HEARING OF ORDINANCE #16-05, TO AMEND ARTICLE II, SECTION 2.07 OF THE FOUNTAIN HILLS SUBDIVISION ORDINANCE TO ALLOW THE ADMINISTRATIVE APPROVAL OF MINOR REPLATS SUCH AS LOT LINE ADJUSTMENTS, LOT SPLITS AND LOT JOINS. CASE #S2016-14

Public Hearing opened at 7:06 p.m.

Mr. Rodgers addressed the Commission stating that ordinance #16-05 is a proposed amendment to the Subdivision Ordinance that was originally recommended by staff as a time-saving measure. If this amendment is approved; applications for lot line adjustments, lot splits, lot joins, and similar minor re-plats that don't result in more than two lots, or any new roads being created will no longer be required to receive Town Council approval at a public meeting. These items are virtually always placed on the Council's consent agenda and approved without discussion. In order to save time (sometimes up to three weeks), staff will be able to review, approve, and record such re-plats administratively as soon as they are in proper form. This amendment addresses one of many routine processes that currently take longer than may be necessary to conclude under the current regulations. Staff recommends that the Commission forward a recommendation to Town Council to Approve this amendment as proposed.

No one from the public wished to speak.

Public Hearing closed at 7:08 p.m.

AGENDA ITEM #4 - CONSIDERATION OF ORDINANCE #16-05, TO AMEND ARTICLE II, SECTION 2.07 OF THE FOUNTAIN HILLS SUBDIVISION ORDINANCE TO ALLOW THE ADMINISTRATIVE APPROVAL OF MINOR REPLATS SUCH AS LOT LINE ADJUSTMENTS, LOT SPLITS AND LOT JOINS. CASE #S2016-14

Chairman Archambault asked the Commissioners if they wished to discuss the consideration.

Vice-Chairman Mikolajczyk asked, when would the surrounding land owners receive notification during the application process and can the existing view be protected.

Mr. Rodgers said that the process does not require notification and views are not protected by the Town Ordinances.

Vice-Chairman Mikolajczyk **MOVED** to **RECOMMEND** that the Town Council approve Ordinance #16-05 a text amendment to Article II, Section 2.07 of the Fountain Hills Subdivision Ordinance, to allow the administrative approval of minor replats. Commissioner Jones **SECONDED** and the **MOTION CARRIED UNANIMOUSLY** (7/0).

AGENDA ITEM #5 - PUBLIC HEARING OF ORDINANCE #16-03, A TEXT AMENDMENT TO THE FOUNTAIN HILLS ZONING ORDINANCE, SECTION 1.12, SECTION 6.08.CC, AND CHAPTER 8, RELATING TO OUTDOOR LIGHTING CONTROLS. CASE #Z2016-01

Public Hearing opened at 7:13 p.m.

Mr. Rodgers said that the Ordinance #16-03 was originally proposed by staff in order to update the town's outdoor lighting ordinance (Chapter 8 of the Zoning Ordinance) to bring it up to today's standards. That update quickly ballooned into a full re-write of the Chapter and what you have in front of you tonight. In order to take into account the CFL and LED light equivalents to the standard bulbs that are called out in the current ordinance we needed to revise the whole ordinance and change the methodology of testing, and of the enforcement of outdoor lighting in a uniform manner regardless of the type of light fixtures being looked at. Staff received a lot of information and support from the Dark Sky Committee during this process as well. The Committee has been very influential regarding some sections of the revised ordinance you have before you tonight.

Some Highlights:

- References to watts were changed to their equivalents in "lumens".
- Definitions have been updated.
- Shielding requirements have been modified.
- The correlated color temperature of lights has been set at a maximum of 3,000 Kelvin
- A maximum Non-residential lumen density cap (lumens per acre) has been proposed
- Prohibits light trespass onto adjoining properties
- Modifies the sign code as it relates to electronic and LED illuminated signage.
- Provides for some exemptions for municipal uses, emergencies, holiday lighting, and Special Events

Staff has recommended approval of the ordinance amendments in the staff report. However, we still have two concerns about including the non-residential density cap which limits the amount of lumens PER

NET ACRE, regardless of property lines or commercial needs. Once the limit is reached in an area, no more lights can be installed. Or, some will have to be dimmed or removed to accommodate the new ones.

First, staff is concerned that such a cap could negatively impact the business community, especially new businesses in the downtown area.

Second, Staff can see no way of actually enforcing such a cap and still allowing the commercial areas to grow.

Therefore, staff is modifying our recommendation in the staff report.

The modified recommendation is: That the Commission forward a recommendation to the Town Council to remove Sections 8.02.01 and 8.02.D.2 from this proposal and then approve the ordinance revisions, as amended. The Dark Sky Committee has representatives here who have indicated that they wish to speak as well.

Chairman Archambault asked Ms.Woodward if there were any speaker cards besides Ms. Bill, and Ms.Woodward answered there were no cards received on this item.

Chairman Archambault invited Nancy Bill, Chairman of the Dark Sky Committee to address the Commission. Mrs. Bill provided the Commission with an information packet about the Dark Sky Committee's recommendations to update the current lighting and sign ordinances.

Mrs. Bill introduced herself and listed the other committee members; Ted Blank, Joe Bill, Craig Gimbel, Paul McElligott, Jackie Miles, Jerry Miles, Jay Schlum and Bob Wilson.

Mrs. Bill reviewed the information provided in the packet emphasizing what the current sign and lighting ordinances already have in place; shielding requirements, brightness limitations, height restrictions, light trespass limitations and hours of operation limitations. Mrs. Bill reviewed what the Dark Sky Committee feels needs to be addressed; electronic message displays, light density, LED lighting and high correlated color temperature. She explained that brightness is defined by lumens not watts. Mrs. Bill said the committee proposes to see that the maximum light density for commercial and multi-family residential be defined and the maximum brightness is 100 NITS for electronic message signs.. Mrs. Bill concluded the key reasons to support the updates to the ordinances are they will address new technologies, protect against glare and minimize light trespass and preserve the night sky.

Public Hearing closed 7:25 p.m.

AGENDA ITEM #6 - CONSIDERATION OF ORDINANCE #16-03, A TEXT AMENDMENT TO THE FOUNTAIN HILLS ZONING ORDINANCE, SECTION 1.12, SECTION 6.08.CC, AND CHAPTER 8, RELATING TO OUTDOOR LIGHTING CONTROLS. CASE #Z2016-01

Chairman Archambault asked Commissioners if they had any questions.

Vice-Chairman Mikolajczyk asked Ms. Bill what is the committee's position on Bob Rodgers recommendation to drop Sections 8.02.D.1 and 8.02.D.2?

Mrs. Bill stated she has a problem with this because it is very easy to calculate on plans the density of lights in lumens for commercial or multi-family projects. The information is on the plans. We tested this out on three different projects which resulted in well below the amount of lumens density that would be allowed in the ordinance. The question is how do you define per acre? If there are parcels less than an acre but may be part of an acre, how is the light allocated?

Chairman Archambault asked Attorney McGuire if the wording in chapter 8.02.D, paragraphs 1 and 2, creates a problem with prop 207?

Mrs. Bill asked if the lumen densities would be pro-rated?

Attorney McGuire stated the value of the property is lit to these maximums on an acre, if the property owner divided up the property so that the last person coming in would have less or zero left, it would not be a proposition 207 claim because the it would not be a land use decision by the public body.

Chairman Archambault asked for clarification on the 3,000 Kelvin's light range and what are NITS?

Mr. Rodgers stated less than 3,000 kelvins would be in the amber ranges.

Mr. Bill addressed the council and said 3,000k would be similar to soft light incandescent bulbs.

Mr. Bill explained that NITS is a term used in the ordinance and everyday language. It is defined as brightness per unit area.

Chairman Archambault asked, What does 5,000 lumens look like?

Mr. Bill answered it would be over a 300 watt incandescent bulb. It describes the brightness.

Mr. Bill said they evaluated three sets of plans; the Tractor Supply Store (including parking lot lights), The MorningStar and The Hemingway. All the lighting density information was pulled from the lighting section of the plans. The three projects are well within the 50,000 or 100,000 density guideline.

Vice-Chairman Mikolajczyk asked where did the lumen density cap come from that is listed in section 8.02D?

Mr. Bill stated it came from the International Dark Sky Association guidelines. They work internationally to update the ordinances.

Vice-Chairman Mikolajczyk asked are there any municipalities that have adopted this identical standard?

Mr. And Mrs. Bill said they understand this is in the Sedona and Flagstaff ordinances but would check with those cities to confirm.

Commissioner Connick asked if there are 4 lots within an acre and lumens cap is met on one lot, where does that leave the other three lots?

Mr. Bill said as it is written, he thinks it would be pro-rated. It would be 50,000 divided by four as it is written.

Mr. Rodgers said his understanding is this is a moving target. This has to do with a number of lumens in a given acre, not any given project.

Commissioner Connick stated there must be a way of clarifying the usage among an acre.

Chairman Archambault stated there seems to be some ambiguity with the lumen density cap in section 8. He said he would like to see this removed from Section 8 for the present time and further research on the subject for clarification. I don't want to create a problem in our downtown area where a large global look at the acreage violates lumen usage.

Mr. Rodgers stated this seems to be written so that it can't be enforced. There are guidelines already in place for projects why would this be necessary?

Chairman Archambault asked about using a project as an example of how a project meets current requirements.

Mr. Rodgers stated a good example is the Tractor Supply store. They were required to provide a lighting plan. The lighting schematic showed wattage, area coverage and proof of no light trespassing. They are lit according to the ordinance. If the new requirement was added it may be acceptable for the Tractor Supply but hinder an upcoming project on an adjacent lot.

Commissioner Connick expressed he would like to see existing commercial grandfathered but new projects adhere to the new lighting ordinance of 50,000 lumens per acre.

Mr. Rodgers stated the current standard is 75 watts within 25 feet of each other. A 75 watt bulb is equivalent to 1,150 lumens.

Mr. Rodgers stated he does not see the need for the second layer in the ordinance.

Chairman Archambault expressed again he would like to see more research and further discussion.

Commissioner Dempster confirmed the holiday lighting usage times on Item E., page 7 is correct.

Mr. Rodgers stated the times should be "daily" rather than as stated since they are the same.

Chairman Archambault asked about enforcement of the lighting code.

Mr Rodgers said the town would most likely not enforce the code immediately since code enforcement's work schedule is during the day, not night. If there is a call for light code enforcement the sheriff's office would have to be called. Code enforcement may follow up on complaints when they have time.

Commissioner Owers asked if light falling on to one property owner from another property owner is enforceable.

Mr. Rodgers said that the code enforcement officer would see that the light was 75 watts or less and the light is aimed downward. If it is an all night light a shield would be required.

Commissioner Owers asked if emergency services search lights would be prohibited as stated in the ordinance.

Mr. Rodgers referred to the exceptions in the ordinance which includes emergency services.

Commissioner Jones asked if any of the additions to existing ordinances are more restrictive than what is already in place?

Mr. Bill said that they were going to research the light density issue.

Mr. McGuire explained that the types of changes the Commission is recommending will take more than just cleaning this up and then sending off to Council. It would be nice to have time to review and see if the language would work for staff's enforcement.

Chairman Archambault asked Mr. Rodgers to review Flagstaff's and Sedona's ordinances and asked the Commission for a motion to continue.

Commissioner Connick **MOVED** to continue the public hearing. Vice-Chairman Mikolajczyk **SECONDED** and the **MOTION CARRIED UNANIMOUSLY** (7/0).

AGENDA ITEM #7 - DISCUSSION WITH POSSIBLE DIRECTION TO STAFF REGARDING THE INITIATION OF PROPOSED TEXT AMENDMENTS TO THE FOUNTAIN HILLS ZONING ORDINANCE, SECTIONS 5.19.A AND 18.06.B, AND TO THE FOUNTAIN HILLS TOWN CODE SECTION 11-1-7. IF ADOPTED, THE AMENDMENTS WOULD REVISE THE NOISE REGULATIONS SO AS TO BRING THEM INTO CONFORMANCE WITH CURRENT TECHNOLOGY AND TO MAKE THEM EASIER TO ENFORCE. DISCUSSION MAY ALSO INCLUDE DIRECTION TO STAFF REGARDING PROPOSED AMENDMENTS TO THE FOUNTAIN HILLS ZONING ORDINANCE AND ZONING MAP FOR A DOWNTOWN ENTERTAINMENT OVERLAY DISTRICT WHICH OVERLAYS PORTIONS OF THE C-2, C-3 AND TCCD COMMERCIAL ZONING DISTRICTS IN THE DOWNTOWN AREA.

Mr. Rodgers stated The Noise Regulations in the packet were the recommendations brought forth in 2010 by a Noise Committee appointed by the P&Z Commission. This ordinance was actually initiated in 2011 but due to an upcoming event in the downtown area the ordinance was temporarily tabled. Then apparently forgotten. Recent noise issues related to events at a local resort have caused staff to resurrect this ordinance proposal and reintroduce it for discussion and possible initiation again. Staff has reviewed the regulations and believes that they are superior to the current regulations in both understandability and enforceability. The regulations have been simplified, illustrations have been added, and enforcement has been provided with a reasonable and easy 2-part process for determining if there is a violation. Staff will recommend that this ordinance amendment be initiated. Mr. Rodgers said a discussion also needs to include the recommendations brought to the Commission by your Downtown Entertainment Review Committee to establish a Downtown Entertainment Overlay District. Which was also initiated by the Commission. Because, during the process of putting these two projects into approvable form, some conflicts between the two became obvious. The Town Attorney is here to outline what the conflicts are, and discuss how the Commission might want to deal with those conflicts.

A discussion took place among the Town Attorney Andrew McGuire, Mr. Rodgers and the Commission. The goal of the discussion was to clarify and identify needed changes to the Noise Ordinance and the proposed Downtown Entertainment Overlay to ensure they do not conflict.

The Commission requested that the Overlay District have the same Outdoor Entertainment entitlements as the TCCD district currently has. The Commission does not want to change anything in other C-2 and C-3 areas, they only want to include portions of these zones that are in the downtown under the overlay to allow for outdoor entertainment. The time frame of lowering volume for an establishment is 11:00 p.m. which the Commission found acceptable. The Commission agreed with Mr. McGuire to amend the ordinances to encourage certain types of uses to concentrate within the Entertainment Overlay District.

Mr. McGuire stated he has enough feedback to bring the Commission's recommendations to fruition.

Two speaker cards were submitted to the call for public.

Kim Anderson, a Fountain Hills resident, addressed the Commission regarding the noise regulation. She pointed out wording on page 2, item D. and Table 2 Measurement Locations contrast to page 3, under " E ". She stated the sentence is not consistent with what is written in section D and does not make much sense. She suggested this be revised if the town is implementing a new policy and in order for the town to enforce the ordinance.

Dan Simula, a Fountain Hills resident, agreed with what Ms. Anderson presented. He asked that the inconsistencies be addressed.

Mr. McGuire commented that the town code amendment portion of this particular item would go before the Town Council and the Planning and Zoning Commission would not see the ordinance again. The Planning and Zoning Commission only deals with the zoning amendment portion. He encouraged those interested in ordinance changes to pay attention to the Council agenda for follow up.

AGENDA ITEM #8 - REPORT FROM SENIOR PLANNER AND ZONING ADMINISTRATOR, PLANNING AND ZONING DIVISION OF DEVELOPMENT SERVICES.

NONE

AGENDA ITEM #9 - ADJOURNMENT.

Commissioner Jones **MOVED** to adjourn the meeting at 8:40 p.m. and Vice-Chairman Mikolajczyk **SECONDED** and the **MOTION CARRIED UNANIMOUSLY**. (7/0)

FOUNTAIN HILLS PLANNING & ZONING COMMISSION

BY:

_____
Chairman Mike Archambault

ATTEST:

_____
Paula Woodward, Executive Assistant

CERTIFICATION

I hereby certify that the foregoing minutes are a true and correct copy of the minutes of the meeting of the Fountain Hills Planning and Zoning Commission held on the 28th day of July 2016, in the Town Council Chambers, 16705 E. Avenue of the Fountains, Fountain Hills, AZ 85268. I further certify that the meeting was duly called and that a quorum was present.

Dated this 3rd day of August 2016

Paula Woodward
Paula Woodward, Executive Assistant

TOWN OF FOUNTAIN HILLS

TOWN COUNCIL AGENDA ACTION FORM

Meeting Date: 9/1/2016

Meeting Type: Regular Session

Agenda Type: Regular

Submitting Department: Administration

Staff Contact Information: Grady E. Miller
Town Manager

Strategic Planning Goal: Not Applicable (NA)

Operational Priority: Not Applicable (NA)

REQUEST TO COUNCIL (Agenda Language): That the Mayor and Council consider approving the amended and restated Settlement Agreement between the Town of Fountain Hills and MCO Properties, Inc relating to the Adero Canyon Trailhead project.

Applicant: N/A

Applicant Contact Information: N/A

Owner: N/A

Owner Contact Information: N/A

Property Location: N/A

Related Ordinance, Policy or Guiding Principle: N/A

Staff Summary (background)**:** In 2011 the Town of Fountain Hills and MCO Properties entered into the first amendment of a settlement agreement relating to the development of approximately 431.20 acres of real property known as Adero Canyon. As part of its grading and construction activities in the Adero Canyon master planned community, MCO Properties recently excavated soils that the Town desired to use as construction fill material at the trailhead site. Staff anticipates construction of the trailhead site to begin in 2017, at which time the fill material will be required. MCO Properties agreed that the Town may utilize approximately 12,000 cubic yards of excavated fill material in the Adero Canyon Trailhead construction. The Town has determined that the fill material will result in an estimated cost savings of $90,000 for the trailhead project. The fill material will also result in a reduction in the number of truck trips through Fountain Hills that would have been necessary to dispose of the fill material outside of the Town.

In the previous settlement agreement, MCO Properties had agreed to provide the temporary utilities to the trailhead site. Since the fill material and temporary utilities are approximately the same dollar value, town staff recommends removing the obligation of MCO Properties to provide the temporary utilities at the Adero Canyon trailhead site. After the road and permanent utilities are installed near the Adero Canyon trailhead property, the Town will extend utilities to the site.

Staff is requesting that the Mayor and Council adopt Resolution 2016-16 approving the Amended and Restated Settlement Agreement between the Town of Fountain Hills and MCO Properties. The agreement has been

been amended to eliminate the obligation of MCO Properties to provide the temporary utilities at the Adero Canyon trailhead site in exchange for the 12,000 cubic yards of fill material.

Risk Analysis (options or alternatives with implications)**:** N/A

Fiscal Impact (initial and ongoing costs; budget status)**:** N/A

Budget Reference (page number): N/A

Funding Source: NA

If Multiple Funds utilized, list here: N/A

Budgeted; if No, attach Budget Adjustment Form: NA

Recommendation(s) by Board(s) or Commission(s): N/A

Staff Recommendation(s): Staff recommends adoption of Resolution 2016-16 approving the Amended and Restated Settlement Agreement which eliminates the obligation of MCO Properties to provide the temporary utilities at the Adero Canyon trailhead site.

List Attachment(s): Resolution 2016-16
Amended and Restated Settlement Agreement

SUGGESTED MOTION (for Council use)**:** MOVE TO ADOPT RESOLUTION 2016-16 that authorizes the Mayor to execute an Amended and Restated Settlement Agreement between the Town of Fountain Hills and MCO Properties, Inc.

Prepared by:

NA 9/1/2016

Director's Approval:

NA 9/1/2016

Approved:

Grady E. Miller, Town Manager 9/1/2016

RESOLUTION 2016-16

A RESOLUTION OF THE MAYOR AND COUNCIL OF THE TOWN OF FOUNTAIN HILLS, ARIZONA, APPROVING THE FIRST AMENDMENT TO AMENDED AND RESTATED FINAL SETTLEMENT AGREEMENT BETWEEN THE TOWN AND MCO PROPERTIES INC., EN LLC, ADERO CANYON LLC AND ADERO CANYON II LLC.

BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE TOWN OF FOUNTAIN HILLS as follows:

SECTION 1. The First Amendment to Amended and Restated Final Settlement Agreement between the Town of Fountain Hills and MCO Properties Inc., EN LLC, Adero Canyon LLC and Adero Canyon II LLC (the "First Amendment"), is hereby approved in substantially the form and substance attached hereto as Exhibit A and incorporated herein by reference.

SECTION 2. The Mayor, the Town Manager, the Town Clerk and the Town Attorney are hereby authorized and directed to cause the execution of the First Amendment and take all steps necessary to carry out the purpose and intent of this Resolution.

PASSED AND ADOPTED by the Mayor and Council of the Town of Fountain Hills, Arizona, September 1, 2016.

FOR THE TOWN OF FOUNTAIN HILLS:

Linda M. Kavanagh, Mayor

ATTESTED TO:

Bevelyn J. Bender, Town Clerk

REVIEWED BY:

Grady E. Miller, Town Manager

APPROVED AS TO FORM:

Andrew J. McGuire, Town Attorney

EXHIBIT A
TO
RESOLUTION 2016-16

[First Amendment]

See following pages.

When Recorded Return To:
Town Clerk
Town of Fountain Hills
16705 East Avenue of the Fountains
Fountain Hills, Arizona 85268

FIRST AMENDMENT
TO
AMENDED AND RESTATED FINAL SETTLEMENT AGREEMENT

THIS FIRST AMENDMENT TO FINAL SETTLEMENT AGREEMENT (this "First Amendment") is entered into September 15, 2016, between the Town of Fountain Hills, an Arizona municipal corporation (the "Town"), MCO Properties Inc., a Delaware corporation, successor-in-interest to MCO Properties L.P. d/b/a MCO Properties Limited Partnership, a Delaware limited partnership doing business in the State of Arizona ("MCO"), EN LLC d/b/a EN at Fountain Hills LLC, a Delaware limited liability company ("Eagles Nest"'), Adero Canyon LLC, a Delaware limited liability company ("Adero") and Adero Canyon II LLC, a Delaware limited liability company ("Adero II"). The Town, MCO, Eagles Nest, Adero and Adero II are each referred to individually as a "Party" and collectively as the "Parties." MCO, Eagles Nest, Adero and Adero II are collectively referred to as the "Developer Parties."

RECITALS

A. The Town and the Developer Parties (other than Adero II) entered into that certain Final Settlement Agreement (Amended and Restated May 1, 2014), recorded at Document Number 2014-0314508 in the Official Records of the Maricopa County Recorder's Office (the "Restated Agreement"), relating to development of approximately 431.20 acres of real property commonly referred to as "Adero Canyon." Subsequently a portion of the the Adero Canyon Property was conveyed to and is now owned by Adero II. Unless otherwise defined herein, all capitalized terms used in this First Amendment shall have the meanings set forth in the Restated Agreement.

B. The Restated Agreement required, among other things, that Adero provide for certain Temporary Utilities at the Town's to-be-constructed Trailhead.

C. As part of its construction on the Adero Canyon Property, Adero excavated soils that the Town desires to use as construction fill material. The Town anticipates beginning construction on the Trailhead in 2017, at which time fill material will be required.

D. Adero and Adero II have agreed that the Town may utilize the approximately12,000 cubic yards of excavated fill material (the "Fill Material") that is currently located on the Storage Property (defined below) in the Trailhead construction by the Town, which the Town has determined will result in (i) an estimated cost savings of $90,000 to the Town for fill material it would have otherwise purchased for the Trailhead construction and (ii) a

reduction in the number of truck trips through the Town that would have been necessary to dispose of the fill material at the alternative location.

E. In exchange for the use of the Fill Material, including Adero II's storage of the Fill Material on the property adjacent to the Town's Eagle Ridge Drive right-of-way shown on Exhibit "A" to this First Amendment (the "Storage Property") until such time as it is needed by the Town (subject to the limitation below), Adero and Adero II and the Town have agreed to eliminate Adero's and/or Adero II's obligation to provide the Temporary Utilities.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing introduction and recitals, which are incorporated herein by reference, the following mutual covenants and conditions, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Town and the Developer Parties hereby agree as follows:

1. Temporary Utilities Deleted. The Restated Agreement is hereby amended by deleting subsection 4.4.1 thereof in its entirety.

2. Fill Material. The Fill Material currently located on the Storage Property shall be stored thereon until the sooner to occur of the date the Town requires its use as part of the Trailhead construction or September 15, 2019. The Fill Material shall be stored and made accessible for use by the Town at no cost, and the Town, or its agents, employees or designees, shall be permitted to have cost-free access over and across the Storage Property to access and remove the Fill Material. After the Fill Material is removed, the Town shall not be responsible for restoring the Storage Property to its pre-storage condition, but shall be responsible for any damages it may cause to the Storage Property beyond the normal wear and tear associated with removing the Fill Material, if any.

3. Consistency; Modification. Except as modified by this First Amendment, all of the terms and conditions of the Restated Agreement shall remain in full force and effect. This First Amendment and the Restated Agreement shall not be further modified in any manner other than by a written amendment executed by the Town and the Developer Parties or their successors or assigns. If any clause, sentence or other portion of this First Amendment becomes illegal, null or void for any reason, or is held by any court of competent jurisdiction to be so, the remaining portions thereof shall remain in full force and effect.

4. Non-Default by Town. By executing this First Amendment, Developer Parties each affirmatively assert that (i) the Town is not currently in default, nor has it been in default at any time prior to this First Amendment, under any of the terms or conditions of the Restated Agreement and (ii) any and all claims, known and unknown, relating to a default by the Town under the Restated Agreement existing on or before the date of this First Amendment are forever waived.

5. Non-Default by Developer Parties. By executing this First Amendment, the Town affirmatively asserts that (i) the Developer Parties are not currently in default, nor have they been in default at any time prior to this First Amendment, under any of the terms or

conditions of the Restated Agreement and (ii) any and all claims, known and unknown, relating to a default by the Developer Parties under the Restated Agreement existing on or before the date of this First Amendment are forever waived.

6. Successors and Assigns. This First Amendment shall be binding upon and inure to the benefit of the successors and assigns of the respective Parties.

7. Conflict of Interest. This First Amendment is subject to the provisions of ARIZ. REV. STAT. § 38-511.

[SIGNATURES ON FOLLOWING PAGES]

IN WITNESS WHEREOF, the Parties have executed this First Amendment as of the date first set forth above.

"**Town**"

TOWN OF FOUNTAIN HILLS,
an Arizona municipal corporation

_____
Grady E. Miller, Town Manager

ATTEST:

_____
Bevelyn J. Bender, Town Clerk

(ACKNOWLEDGMENT)

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

On _____, 2016, before me personally appeared Grady E. Miller, the Town Manager of the TOWN OF FOUNTAIN HILLS, an Arizona municipal corporation, whose identity was proven to me on the basis of satisfactory evidence to be the person who he claims to be, and acknowledged that he signed the above document.

_____
Notary Public

(Affix notary seal here)

[SIGNATURES CONTINUE ON FOLLOWING PAGE]

"**MCO**"

MCO Properties Inc., a Delaware
corporation, successor-in-interest to

By: MCO Properties L.P., d/b/a
MCO Properties Limited Partnership
a Delaware limited partnership

_____
Jeremy Hall, President

(ACKNOWLEDGMENT)

STATE OF _____)
) ss.
COUNTY OF _____)

On _____, 2016, before me personally appeared Jeremy Hall, President of MCO PROPERTIES INC., a Delaware corporation, as successor-in-interest to MCO Properties L.P., d/b/a MCO Properties Limited Partnership, a Delaware limited partnership, whose identity was proven to me on the basis of satisfactory evidence to be the person who he claims to be, and acknowledged that he signed the above document, on behalf of the corporation.

_____
Notary Public

(Affix notary seal here)

[SIGNATURES CONTINUE ON FOLLOWING PAGE]

"**Eagles Nest**"

EN LLC, d/b/a
EN at Fountain Hills LLC, a
Delaware limited liability company

_____
Jeremy Hall, President

(ACKNOWLEDGMENT)

STATE OF _____)
) ss.
COUNTY OF _____)

On _____, 2016, before me personally appeared Jeremy Hall, President of EN LLC, d/b/a EN at Fountain Hills LLC, a Delaware limited partnership, whose identity was proven to me on the basis of satisfactory evidence to be the person who he claims to be, and acknowledged that he signed the above document, on behalf of the partnership.

_____
Notary Public

(Affix notary seal here)

[SIGNATURES CONTINUE ON FOLLOWING PAGE]

"**Adero**"

Adero Canyon LLC, a Delaware
limited liability company

_____
Jeremy Hall, President

(ACKNOWLEDGMENT)

STATE OF _____)
) ss.
COUNTY OF _____)

On _____, 2016, before me personally appeared Jeremy Hall, President of ADERO CANYON LLC, a Delaware limited liability company, whose identity was proven to me on the basis of satisfactory evidence to be the person who he claims to be, and acknowledged that he signed the above document, on behalf of the company.

_____
Notary Public

(Affix notary seal here)

"**Adero II**"

Adero Canyon II LLC, a Delaware
limited liability company

_____
Jeremy Hall, President

(ACKNOWLEDGMENT)

STATE OF _____)
) ss.
COUNTY OF _____)

On _____, 2016, before me personally appeared Jeremy Hall, President of ADERO CANYON II LLC, a Delaware limited liability company, whose identity was proven to me on the basis of satisfactory evidence to be the person who he claims to be, and acknowledged that he signed the above document, on behalf of the company.

_____
Notary Public

(Affix notary seal here)

TOWN OF FOUNTAIN HILLS

TOWN COUNCIL AGENDA ACTION FORM

Meeting Date: 9/1/2016

Meeting Type: Regular Session

Agenda Type: Regular

Submitting Department: Community Services

Staff Contact Information: Grace Guetter guetter@fh.az.gov 480-8165165

Strategic Planning Goal: Not Applicable (NA)

Operational Priority: Not Applicable (NA)

REQUEST TO COUNCIL (Agenda Language): PRESENTATION of the TOURISM PROGRAM and CONSIDERATION of a TOURISM STRATEGIC PLAN for 2016-2019.

Applicant: NA

Applicant Contact Information:

Owner:

Owner Contact Information:

Property Location:

Related Ordinance, Policy or Guiding Principle:

Staff Summary (background)**:** The Tourism staff will present an update on the Tourism Program efforts since the last council update. Staff will also present for consideration and direction the Tourism Strategic Plan for 2016-2019.

Risk Analysis (options or alternatives with implications)**:** NA

Fiscal Impact (initial and ongoing costs; budget status)**:**

Budget Reference (page number):

Funding Source: NA

If Multiple Funds utilized, list here:

Budgeted; if No, attach Budget Adjustment Form: NA

Recommendation(s) by Board(s) or Commission(s):

Staff Recommendation(s): Staff recommends approval of the Strategic Plan

List Attachment(s): PowerPoint and the 2016-2019 Strategic Plan

SUGGESTED MOTION (for Council use)**:** Move to approve the Tourism Strategic Plan for 2016-2019.

Prepared by:

Grace Rodman-Guetter, Tourism Coordinator 8/25/2015

Director's Approval:

Mark Mayer, Community Services Director 8/25/2015

Approved:

Grady E. Miller, Town Manager 8/25/2015

Town of Fountain Hills

TOURISM UPDATE

SEPTEMBER 1, 2016

fountain hills

Growth in 2015

How has the tourism industry grown in the past year and what kind of impact does it leave in Town?

- The Town of Fountain Hills saw an 18% increase in gross hotel room sales tax in FY 14/16 compared to FY 15/16
  - Making us eligible for more funding from the Prop 302 Tourism Fund.

Online rules the world

Where do we currently stand?

Audience
Reach/Engagement

Facebook

- "Likes" up 14% from June 2015 to June 2016
- Engagement: 630,253 impressions made by 386,649 users from June 2015-June 2016

Experiencefountainhills.org

- June 2014- 2015 : 23,835 page views & an average of 1:10 per session
- June 2015- 2016 : 608,051 page views & an average of 1:46 per session
  - This is an increase of 255%
- Most popular cities: Phoenix, Scottsdale, Mesa, Los Angeles, Tempe, Chandler, Gilbert and New York

Marketing Strides

How has our marketing plan reached the outside community/valley?

- Cub Spring Training Advertisements
  - A crowd of 15,331 at Sloan Park was a Spring Training record for both the Cactus League and Grapefruit League
    - Total attendance at Sloan Field for the season was 226,163
    - Crowds saw our Full page ad in the Cubs Spring Training program
    - Fountain Hills sponsored all Home Runs for the entire Cubs Spring Training season!

New and returning events coming this Fall!

Take a look at some of the new events coming this Fall!

- Slide the City – Returns September of 2016
- Road Runner Sports: Craft Classic half marathon & 5K - debuts October 2016
- CopperWynd Tennis Tournament – Returns October 2016
- Don’t Forget! 2016 Dining Guides are out and 2016 Visitor Guides will be published in August!

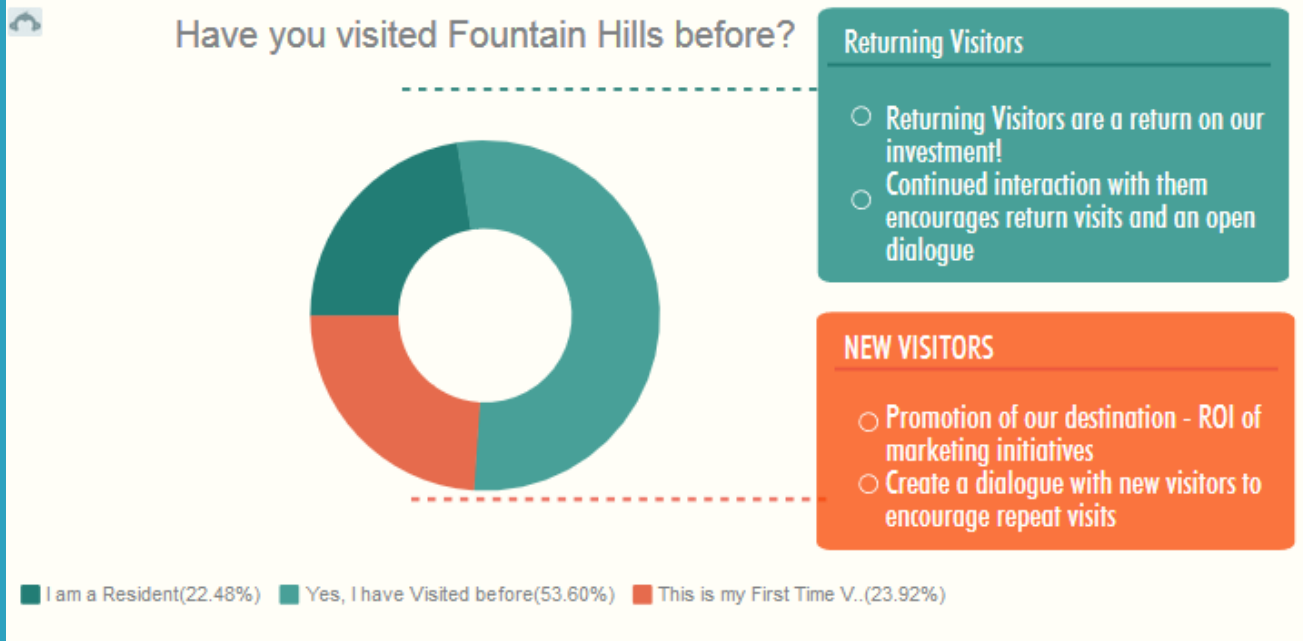
Economic Impact Study

Here are the survey results for our Fourth at the Fountain Celebration

Economic Impact Study

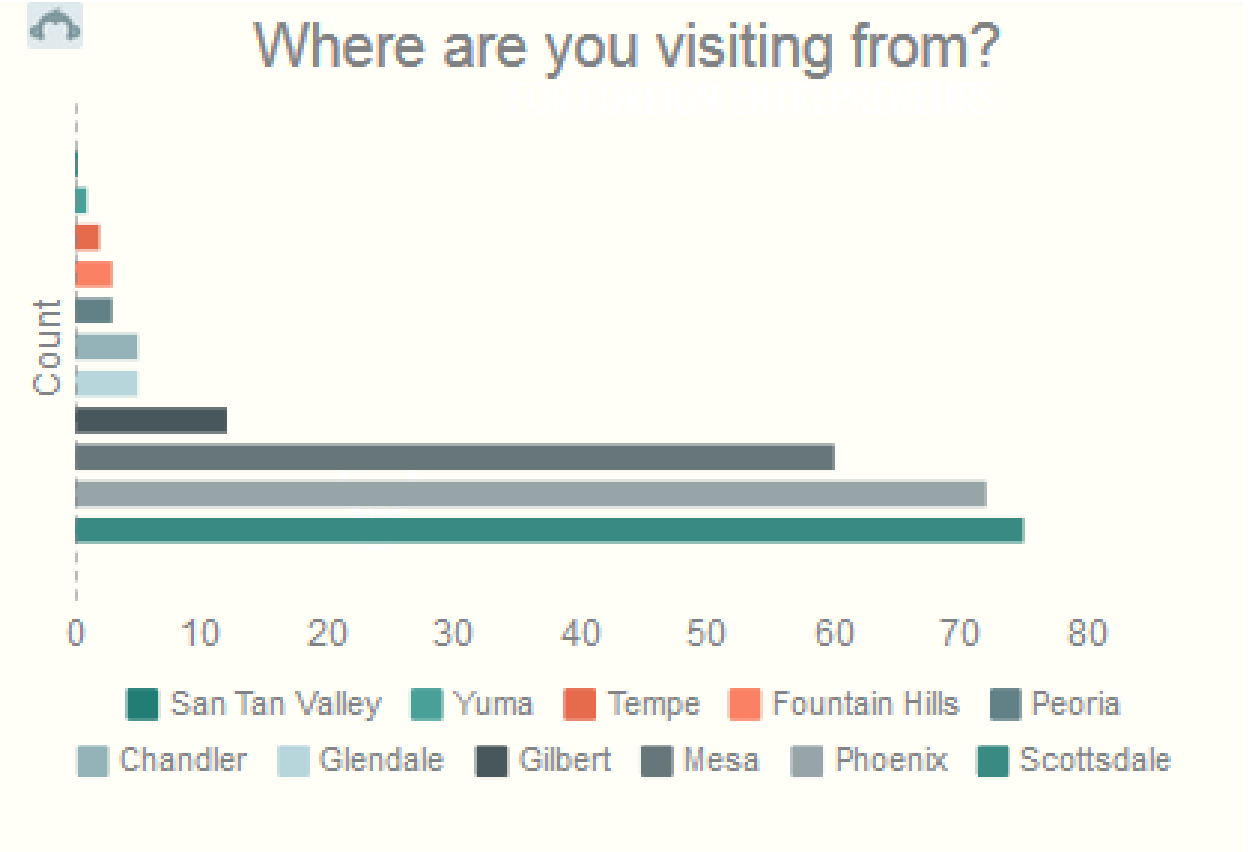
Here are the survey results for our Fourth at the Fountain Celebration

Visitor Survey Results



Economic Impact Study

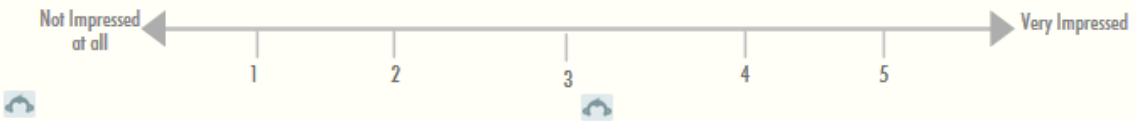
Here are the survey results for our Fourth at the Fountain Celebration

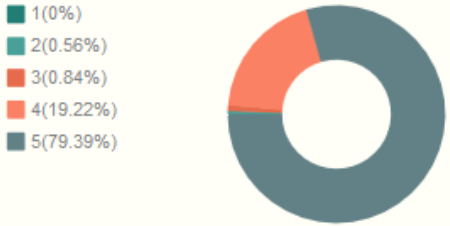


Economic Impact Study

Here are the survey results for our Fourth at the Fountain Celebration

Visitor Ratings





79% rated FH with a 5

84% said they would return for another visit

What would encourage our visitors to come back again?

- The Fountain
- Family Events
- More Events
- Kid Friendly Activities
- More Free Events

Dollars and Cents

What does this data mean for money spent in Town?

- The following data is based on the two attendance estimation ranges
  - 8,000 – 10,000 in attendance Out of Town event population
    - 37% indicated spending $50 or more translating to $81,000 - $101,000 spent in town
    - 33% indicated spending $35.5 translating to $51,000 - $64,000 spent in town
      - For a total of $132k – 165k

Tourism Division
Five Year Strategic Plan
2016-2020

Tourism Division Strategic Plan

The plan is a diverse roadmap that accounts for many external influences.

- Vision
- Mission
- State Wide Economic Impact and Travel Trends
- Marketing and Communications in the Tourism Industry
- Social and Cultural Trends
- Changing Consumer Tastes
- Technology Trends
- SWOT Analysis (Strengths, Weaknesses, Opportunities & Threats)

Goal #1 Communication and Outreach

The plan accounts for six strategic goals that include multiple action items for each

Action Steps

- Develop periodic stakeholder surveys to assess the perception of Town tourism programs and efforts.
- Develop periodic outreach programs and forums that allow stakeholders to ask questions, voice concerns and make suggestions
- Provide accurate and consistent information on tourism related issues to all stakeholders through a variety of communication vehicles.
- Develop and support programs that increase pride and involvement from all stakeholders.
- Provide support for new and existing activities that are interesting for both residents and visitors that encourage interaction between them.
- Continually educate policymakers as to the economic and quality of life value that tourism has for the Town of Fountain Hills.
- Maintain a presence at key special events throughout the year to encourage interaction and accessibility to division staff

Goal #2 Destination Marketing and Promotion

The plan accounts for six strategic goals that include multiple action items for each

Action Steps

- Promote the iconic branding to effectively differentiate the Town of Fountain Hills.
- Create awareness for Fountain Hills by effectively positioning the destination as an events and leisure location with the valley.
- Implement experience specific itineraries to assist in promoting the Town of Fountain Hills attractions and activities in an effort to extend visitor stays and generate additional revenue.
- Continually support the visitor center in an effort to provide a quality experience and additional length of stay.
- Work to develop a year-round special events strategy that identifies events for shoulder seasons.
- Develop a strategy to link events in an effort to create incremental return visits.

Goal #3 - Research, Planning and Measurement

The plan accounts for six strategic goals that include multiple action items for each

Action Steps

- Develop a macro level measurement approach to help quantify the value and ROI of events and programs held within Fountain Hills.
- Continue to implement a strategic approach to research, planning and measurement, allowing funding to refine marketing efforts.
- Continually refine program level measurements to provide as much insight as possible for refining marketing programs.
- Develop an ongoing rotation of marketing research that includes visitor profile information and out of market perceptions of Fountain Hills.
- Integrate surveys and other feedback mechanisms to gain visitor insight and perspective.
- Develop a comprehensive system to disperse research in a tailored and targeted way to different constituent groups.

Goal #4 - Industry Education, Training, and Recognition

The plan accounts for six strategic goals that include multiple action items for each

Action Steps

- Maintain communication and education with stakeholders regarding the needs, trends, changes, etc. of the local tourism industry.
- Maintain industry-related trainings through conferences, webinars, etc. in order to stay on top of the shifting dynamics of Arizona tourism.
- Develop specific training for non-profits (museums, special events, etc.), small businesses, and other stakeholders on how to integrate into the Town of Fountain Hills tourism industry.
- Increase training in technology marketing so as to improve the overall competitiveness of the destination. Ongoing topics could include but are not limited to:
  - Tourism product distribution
  - Social marketing
  - Trip Advisor and Yelp strategy
  - Trends in technology marketing
- Continue to reinforce the value of innovation among the staff.
- Review outside non-tourism organizations to understand “how they do it”.
- Periodically visit other destinations to review methods and practices.
- Research and apply for industry awards and honors

Goal # 5 - Tourism Product Development

The plan accounts for six strategic goals that include multiple action items for each

Action Steps

- Support new and existing recreation and special event programming.
- Look to develop tourism product experiences that generate ongoing repeat visitors, specifically through special events and annual activities.
- Look to develop 3-5 niche opportunities like biking, sustainable dining movements, golf and spa packages, and outdoor adventure for potential long-term market development.

Goal # 6 - Strategic Alliances

The plan accounts for six strategic goals that include multiple action items for each

Action Steps

- Continue to work with and develop key strategic alliances within the tourism industry to promote all there is to see and do in Fountain Hills.
- Proactively work with other regional tourism destinations to help in implement cross-marketing opportunities to better promote visitation in the northeast area of the valley.
- Identify potential areas to share costs in an effort to improve efficiencies and promote collaboration (ex: joint research, special event strategies, etc.).

Success Factors and Measurability

The Strategic Plan will be reviewed annually with a measure of achievement on each of the action items.

- Continue to Work Together- The Town of Fountain Hills is a destination that works well with others. The division has fostered a can do spirit and continues to take on challenging issues. It is important for the council and staff to continue their approach to work and support the goals of the division.

- Community- Critical to the destination's success is the continuation of efforts to educate and involve the community in tourism. It is important that the local community understand the importance of tourism in the Town of Fountain Hills and the industry's role in generating employment and local tax revenue.

- Culture of Innovation- The Fountain Hills Tourism Division must continue to innovate and reposition to meet the changing dynamics of the industry in order to continually increase the awareness and desirability of Fountain Hills as a destination.

Success Factors and Measurability

The Strategic Plan will be reviewed annually with a measure of achievement on each of the action items.

- It's All in the Numbers- Success is not defined by a single yes or no, by a check list, or by a first place finish. Success for the Tourism Division is an ongoing sum of all the parts. Statistical analysis, digital metrics, visitor attendance, increased tax revenue, heads in beds, click thrus, "Likes,", engagements and any number of other measurable bits and pieces will determine the effectiveness of the division. Each of these measurements are brush strokes that will paint the picture of tourism in Fountain Hills. Staff will regularly monitor vital statistics in order to steer the program and correct course as needed. This information will be included in the semi-annual updates to the Council.

- Quality over Quantity- Numbers and statistics only tell one side of the story. Numbers are hard facts, but the quality of the program is just as valuable. Staff will regularly engage in customer and stakeholder feedback, using it as a temperature gauge for the program and its success rate.

Timeline

2016:

- Adopt Strategic Plan via Mayor and Council

2018 - 2020:

- Present semi-annual updates to Council and Stakeholders, featuring program highlights, challenges, and new initiatives
- Annual Marketing Plan review, subject to grant funding, co-op opportunities, etc.
- Annually review Strategic Plan to ensure vision and goals continue to meet the needs of the Town of Fountain Hills.

2020:

- Review Strategic Plan to consider completion of identified goals and future planning. Update the Strategic Plan to reflect changing trends, economics, and other external factors.

2021:

- Adopt and implement future plan.

Tourism Video

Presentation of the Tourism Video

QUESTIONS?

Tourism Division Five Year Strategic Plan 2016-2020

July 2016

TOWN OF FOUNTAIN HILLS TOURISM DIVISION

16705 E. Avenue of the Fountains, Fountain Hills, AZ • 480-816-5185 • E. tourism@fh.az.gov

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A Message From Division Staff

Dear Fountain Hills,

As so many residents and visitors already know, our painted skies, exhilarating outdoor recreation and luxury spas make Fountain Hills a natural travel destination. The effortless beauty and topography of Fountain Hills, the Fort McDowell Yavapai Nation, and the Salt River Pima Indian Community make visiting Fountain Hills the obvious choice for travel and leisure. And your Tourism Division is dedicated to promoting Fountain Hills as a premier destination not only within Arizona, but within the greater southwest region.

Arizona itself is a unique destination that caters and appeals to visitors and residents alike. Our rich culture, sunny climate, and abundance of recreational attractions help to separate Arizona from any other travel destination. The Tourism Division understands the needs of both visitors and residents, motivating us to create an innovative and interactive experience every time you visit Fountain Hills.

This Strategic Plan gives us the opportunity to showcase all of our goals, visions, and ambitions for highlighting the Town of Fountain Hills as a premiere destination. The following four year plan challenges our staff to be forward thinking, imaginative, and responsive as we work to implement economic impact strategies, industry partnerships, and further promote Fountain Hills throughout Greater Phoenix and beyond.

The vitality of Fountain Hills is at the forefront of everything this division stands for. It is our great honor to advocate for this great Town. To say that we pour our hearts into this division would be a great understatement. Please join us as we move into the second chapter of the Fountain Hills Tourism story.

Sincerely,

Rachael Goodwin | Tourism Supervisor

Grace Rodman-Guetter | Tourism Coordinator

Overview of the Division

The Fountain Hills Tourism Division, within the Community Services Department, began January, 2014 when the Town of Fountain Hills tourism responsibilities transferred from the Chamber of Commerce to the Town of Fountain Hills. During that transition time, a new full-time staff position was created to support the Tourism Division's daily operations. As the program reached a two-year mark, staff has diligently observed the industry trends and has begun to cultivate a foundation for the tourism program. Staff has begun to recruit new events and have been recognized on both state and national levels for the development of innovative events and marketing efforts. As the program has gathered momentum, it is now time to harness that energy and focus the next four years on the growth and blossoming of the division.

The tourism strategy of Fountain Hills is centered on this four year strategic plan encompassing a sophisticated and dynamic multi-media marketing plan, industry partnership goals, and economic impact drivers outlined later in this report. The Fountain Hills strategic plan utilizes multiple platforms to reach our target consumer through recreational and leisure medias encouraging them to visit and "Experience" all that Fountain Hills has to offer.

Cornerstone Marketing Message: *"Get out of the Valley and into the Hills!"*

Mission

The Fountain Hills Tourism Division is dedicated to promoting Fountain Hills and the surrounding regional area as a recreation, leisure, and outdoor adventure destination.

"*We could tell you about our neighborhood restaurants, our hidden adventure, our small town charm and our stunning views – but come see for yourself. We'll save you a seat!*"

Tourism Definition

The Fountain Hills Tourism Division defines "Tourism" as the following:

Tourism is defined as the cultural, social and economic movement of people outside of their usual environment or routine. The Town caters to potential tourists through specific tourism drivers such as: special events, golfing, hiking, biking, outdoor adventure and dining. These attractions and more encourage guests to "Get out of the Valley and into the Hills!"

Vision

The vision of the Tourism Division is to draw more visitors to the area by way of special events and activities. The short-term benefits of this campaign will be seen in guest spending within the area at restaurants, hotels, retail establishments, gas stations, etc. The long-term benefits will result in a new perception of Fountain Hills, notoriety as an event destination, increased residency, and increased business recruitment. These elements will combine for a strong tax base and robust local economy, while offering a high quality of living for our residents.

State Wide Economic Impact and Travel Trends

Tourism is big business in Arizona, really big. No other Arizona industry produces the same economic impact and directly impacts all 15 counties. Ranked #1 among Arizona's export-oriented industries - Microelectronics, Aerospace, Agriculture and Mining - the travel and tourism industry's total economic impact of $18.3 billion generated more than 157,700 jobs, and when combined with indirect employment impacts nearly 300,000 jobs statewide. Federal, state and local taxes of $2.7 billion directly generated by tourism in 2011, saves each Arizona household $1,030 of additional taxes annually. In terms of domestic U.S. visitation in comparison to other states, Arizona ranks #15 with 2.8 percent of the market share.

Travel and tourism are critical to the Arizona economy. No other Arizona industry produces the same economic impact as the travel and tourism industry and directly impacts all 15 counties. As Arizona's and the U.S. economy begins to improve, it is more crucial than ever for Arizona to be competitive with marketing efforts that inspire visitors to come here and that speak directly to the needs and wants of target customer segments.

While the Arizona Office of Tourism continues to provide annual research measuring our advertising effectiveness, the economic impact of the travel industry to Arizona's economy and tracking tourism indicators, much needed consumer research related to our marketing efforts has not taken place for several years due to funding cuts. The evolution of the way visitors approach their travel combined with the series of economic shocks that have impacted our industry's performance has created a critical need for timely, quality research such as consumer focus groups, behavioral research and niche audience surveys to better understand how to reach our visitors and guide our marketing decisions. (Arizona Office of Tourism, 2014)

Social and Cultural Trends – Consumers Keep Changing

In addition to the changing economic and demographic situation within Arizona, several social trends are also impacting travel and tourism throughout the country, as identified by the Travel Industry Association. Below are the primary trends having the most significant strategic impact on tourism in our state and specifically in Fountain Hills.

Changing Consumer Tastes

- Consumers as destination brand ambassadors - Social media + mobile technology = empowered visitors. Visitors are now brand ambassadors for destinations. Constant updates about the experience (both good and bad), along with posted photographs can make the consumer an ever more important promoter and potential influencer of a destination.

- Outdoor recreation - According to the recently published Outdoor Recreation Economy Report, outdoor recreation spending is approximately $646 billion in the United States and generates 6.1 million American jobs. Of that $646 billion fully $524 billion was spent on trips and travel related spending.

- The Outdoor Recreation Economy Report, Outdoor Industry Association, http://www.outdoorindustry.org/images/researchfiles/OIA_OutdoorRecEconomyR eport2012.pdf

- Health and wellness - Consumers are increasingly integrating health and wellness into their lifestyles and in so doing look for destinations that enhance those opportunities through wellness vacations and wellness travel. A wellness vacation is about being proactive in discovering new ways to promote a healthier, less stressful lifestyle. Wellness Travel is the pause that reenergizes and rejuvenates each traveler. The wellness vacation is considered an occasional break for the body, mind, and soul.

- Purpose driven travel - As consumers continually see vacation time reduced, there is a heightened need for purpose driven travel e.g. a specific special event, hiking a specific location, etc. These trips are also driven by consumers who self- identify with a particular event or activity. For example, certain consumers may see themselves as foodies, wine aficionados, or are avid cyclists or golfers. As such, the ability to reach and communicate with niches based on activities is increasingly important for a destination.

- Culinary tourism - Many consumers today are looking for expanded culinary experiences while on vacation. In interacting with the local food, Fountain Hills visitors are dipping into the area's agricultural history.

- Cultural tourism - Cultural offerings and experiences continue to provide destination visitors with an opportunity to access the authenticity of a destination through such offerings as art, entertainment, architecture, history, events and food. Those experiences available in Town of Fountain Hills provide visitors with an excellent opportunity to understand the cultural interests of the area.

- Environmental issues remain a priority - Environmental issues continue to play an important role in the selection of a destination as well as the selection of activities while on vacation. Those destinations that place a strong emphasis on the environment will have a competitive advantage over those that do not.

- Despite increases in travel – value still prevails - There can be no doubt about the shift in the marketplace towards value, and this trend continues throughout all aspects of the industry. As such it is critical for Fountain Hills to effectively communicate the value it offers.

Marketing and Communications in the Tourism Industry

- Traveler flexibility and control – research everything - With the continued growth of online and mobile resources, consumers looking for flexibility and control of their vacation decisions have the ability to research everything and often do it not only in pre-trip planning but once a trip is underway.

- Social media more important as travelers resist more formal marketing - As consumers continue to resist traditional marketing efforts they are relying more and more on social media to research destinations and activities. As such the Town of Fountain Hills needs to ensure it provides updated content and information to meet those needs.

- Greater degree of personalization - Facilitated by increased data mining capabilities, marketing efforts will lead to much more customization for each consumer. Traditional demographic segmentation and targeting will no longer be enough as cutting edge DMOs (Destination Marketing Organizations) will focus more and more on customized targeting and offers.

- Time poverty/hectic lives = shorter trips - Time continues to be the new currency due to the hectic nature of consumers' lives, and the impact is seen on vacation and travel. As such, vacation trips have become significantly shorter in duration. Thus, consumers are looking for hassle free vacations, placing greater importance on methods of direct access information.

Technology Trends

- Digital users are everywhere, but hard to pin down exactly where - Consumers are accessing the web through a variety of devices (mobile, tablet, desktop) and operating systems (iOS, Android, etc). Along with mobile app and mobile web, this makes it more challenging to identify target audience behavior. Multi-screen multitasking (think using a smart phone while watching TV) is no longer unusual consumer behavior. As a result, identifying where a target audience spends time is not as simple as it used to be. Destinations need to recognize consumers as individuals or "micro-audiences".

- It's all about mobile - Time spent on the mobile web is growing at 14 times the rate of desktop internet usage essentially dethroning the "regular" internet and crowning mobile as the new leader. Therefore, a mobile marketing strategy is no longer optional for destinations but essential to maintain marketplace share.

- Content is King - Marketers are now publishers, using content to drive a variety of interactions throughout (and beyond) the AIDA (Awareness, Interest, Desire, Action) funnel. Content includes paid, earned and owned content, as well as images, video and words. It is absolutely critical to have a content marketing strategy to effectively reach passion based target segments.

- Social driven engagement drives preferences - User reviews are a key influence in consumer decision making (71% of people say reviews from family members or friends influence purchase decisions) 7 . Look for continued increase and applications in use from many social marketing sources as users are exposed to the thoughts, opinions and recommendations of friends, families and influencers – a group of people that is growing wider through social media. As a result, the online reputation management and social media monitoring are long term critical elements for Fountain Hills tourism.

- Big Data isn't just jargon - Large amounts of data are now generated with every interaction on every digital platform. This presents a real opportunity for destinations…if harnessed effectively. Fountain Hills will seek to improve how we collect and use customer information to provide a better experience for potential visitors before, during and after their visit.

Respect

The Town of Fountain Hills works to support the continued care of and respect for the natural topography of our lands. We will demonstrate respect for each other, for our State, its lands and its people.

SWOT Analysis (Strengths, Weaknesses, Opportunities & Threats)

SWOT's primary objective is to help organizations develop a full awareness of all the factors impacting an institution. In December of 2015, staff completed a SWOT analysis of the current standing of the Tourism Program. Completed by the Tourism Supervisor and the Tourism Coordinator, with insight from the Economic Development Specialist, the study enabled the tourism division to identify both internal and external influences affecting the program and help paint a full and accurate picture of the division.

This process served as a precursor to the strategic plan and offered insight into the vision, such as exploring new initiatives, making decisions about new policies, identifying possible areas for change, or refining and redirecting efforts. The analysis is a reflection of time spent at events, communications with visitors and residents, goals for upcoming years, and weaknesses identified as opportunities for growth and change. The next page shows the results of the analysis:

Strengths

- Hiking and Biking - Recreation Attractions
- Great topography to support events
- Natural beauty/weather
- World Famous Fountain
- Awarded by industry peers
- Grant winners

Weaknesses

- Community Support
- Funding resources
- Staff workloads
- Lack of summer activities and access
- Previous strained relationships with industry partners (Pre transition of program to Town)

Opportunities

- Events with variable age appeal
- New marketing makes us easy to brand - Blank slate
- Seek more recognition through industry awards and grants

Threats

- Competing messages & marketing committees
- neighboring communities with larger budgets and more exposure
- Perception of Fountain Hills being a retirement community

STRATEGIC GOALS

Goal #1 - Communication and Outreach

Tourism is a key part of the Town of Fountain Hills economic profile. As such, everyone is a stakeholder, including local residents, private businesses, government agencies as well as visitors. To ensure long term success all stakeholders need to continually feel their issues and perspectives are understood and that each understands the issues of other stakeholders. Creating and maintaining positive stakeholder attitudes are critical to the success of the Town of Fountain Hills tourism efforts. Local residents may not have a clear understanding of the benefits of tourism and its economic and sustainable quality of life benefits. It is critical to communicate the benefits and economic impacts of tourism for the Town. The challenge often becomes how to do it more effectively and ensure timely and accurate information is disseminated through proper and successful channels.

Action Steps

1. Develop periodic stakeholder surveys to assess the perception of Town tourism programs and efforts.
2. Develop periodic outreach programs and forums that allow stakeholders to ask questions, voice concerns and make suggestions
3. Provide accurate and consistent information on tourism related issues to all stakeholders through a variety of communication vehicles.
4. Develop and support programs that increase pride and involvement from all stakeholders.
5. Provide support for new and existing activities that are interesting for both residents and visitors that encourage interaction between them.
6. Continually educate policymakers as to the economic and quality of life value that tourism has for the Town of Fountain Hills.
7. Maintain a presence at key special events throughout the year to encourage interaction and accessibility to division staff.

Goal #2 - Destination Marketing and Promotion

Destination marketing and promotion are at the heart of Fountain Hills tourism's mission. As such these marketing programs are integral to developing a sustainable tourism economy. Fountain Hills currently promotes a variety of destination elements including the following:

Reason for visiting:

Outdoor Adventure

Special Events

Heritage

Arts and culture

Golf/ Spa retreat

Winter Respite

All of these activities are set within the iconic southwest beauty of Fountain Hills and the Sonoran Desert. As the tourism program continues to advocate for Fountain Hills, staff will focus on specific target markets that show the most growth potential as well as expressed need from stakeholders. Target segments including the following:

Leisure – This segment includes visitors who have chosen the Greater Phoenix Metro area as their vacation destination and are looking to explore the different facets the valley has to offer. The key focus for attracting this segment is special events, outdoor recreation and adventure, and arts and culture.

Recreation – This segment is one of the area's strongest group segments, attracting visitors primarily for hiking and biking.

Special Events – The segment will focus on both visitors and residents of the Valley. Offering more than 50 special events a year, we intend to promote Fountain Hills as a destination that embraces a full spectrum of events representing across sections of interests, hobbies, cultures and heritages.

Action Steps

1. Promote the iconic branding to effectively differentiate the Town of Fountain Hills.
2. Create awareness for Fountain Hills by effectively positioning the destination as an events and leisure location with the valley.
3. Implement experience specific itineraries to assist in promoting the Town of Fountain Hills attractions and activities in an effort to extend visitor stays and generate additional revenue.
4. Continually support the visitor center in an effort to provide a quality experience and additional length of stay.
5. Work to develop a year-round special events strategy that identifies events for shoulder seasons.
6. Develop a strategy to link events in an effort to create incremental return visits.

Goal #3 - Research, Planning and Measurement

Ongoing destination research, planning and measurement are imperative for the long term competitive advantage of the Fountain Hills market. The ability to be at the front of changing market conditions and communicate those changes to the local tourism industry is key to keeping our tourism experience relevant. This information needs to be continually integrated into adaptive marketing plans and strategies. Likewise the ability to continually improve the organization's measurements and effectiveness over the long term is a necessity, especially to be able to provide specific Return on Investment information to funding organizations.

Action Steps

1. Continue to implement a strategic approach to research, planning and measurement, allowing funding to refine marketing efforts.
2. Develop a macro level measurement approach to help quantify the value and ROI of events and programs held within Fountain Hills.
3. Continually refine program level measurements to provide as much insight as possible for refining marketing programs.

4. Develop an ongoing rotation of marketing research that includes visitor profile information and out of market perceptions of Fountain Hills.

5. Integrate surveys and other feedback mechanisms to gain visitor insight and perspective.

6. Develop a comprehensive system to disperse research in a tailored and targeted way to different constituent groups.

Goal #4 - Industry Education, Training, and Recognition

Industry trends and technology, including social media applications, are constantly changing and Fountain Hills can play an important role educating and training the local tourism industry in order to improve coordination and effectiveness with the organization's programs.

Additionally, Fountain Hills is poised to make great strides within the tourism and event industry and should look for recognition opportunities through industry awards and honors.

Action Steps

1. Maintain communication and education with stakeholders regarding the needs, trends, changes, etc. of the local tourism industry.

2. Maintain industry-related trainings through conferences, webinars, etc. in order to stay on top of the shifting dynamics of Arizona tourism.

3. Develop specific training for non-profits (museums, special events, etc.), small businesses, and other stakeholders on how to integrate into the Town of Fountain Hills tourism industry.

4. Increase training in technology marketing so as to improve the overall competitiveness of the destination. Ongoing topics could include but are not limited to:

    a. Tourism product distribution

    b. Social marketing

c. Trip Advisor and Yelp strategy

d. Trends in technology marketing

5. Continue to reinforce the value of innovation among the staff.
6. Review outside non-tourism organizations to understand "how they do it".
7. Periodically visit other destinations to review methods and practices.
8. Research and apply for industry awards and honors.

Goal # 5 - Tourism Product Development

The "Tourism Product" includes a number of key components including the physical aspects and emotional elements that combine to provide a unique travel experience. The physical elements of the tourism product include the natural setting, the infrastructure and super structure of a destination the emotional components of the tourism product includes industry employees, cultural and historical resources and overall destination hospitality. These elements combine to provide an overall tourism experience including everything from events and activities to dining, shopping, etc.

With regard to physical product development Fountain Hills can and should be supportive (where appropriate) of infrastructure that can enhance and improve the local tourism economy. For example, there has been an identified need to relocate and/or enhance the Visitors Center in conjunction with the Chamber of Commerce. This effort is designed to increase visibility of the Visitor Center and upgrade the experience for the guests of Fountain Hills.

At the same time the emotional components of the destination can continually change and improve. It is the ongoing role of Fountain Hills Tourism to support the tourism product improvements that in the end will provide visitors with a range of experiences that the organization can effectively promote.

Action Steps

1. Support new and existing recreation and special event programming.

2. Look to develop tourism product experiences that generate ongoing repeat visitors, specifically through special events and annual activities.

3. Look to develop 3-5 niche opportunities like biking, sustainable dining movements, including vegan, paleo, etc. for potential long-term market development.

Goal # 6 - Strategic Alliances

Fountain Hills continues to build and develop its strategic alliances within the industry. These alliances include those within our community, within the valley, as well as those around the state. Identified partners include:

- Arizona Office of Tourism - The Arizona Office of Tourism has been a significant partner for the Tourism Division with the education and support they provide to entities of all sizes whose goal is to contribute to and thrive within the tourism sector of this state. AOT (Arizona Office of Tourism) offers its annual AOT Governor's Conference on Tourism, weekly industry updates, and co-op marketing opportunities. Tourism policy and advocacy at the state level, representation on a global scale within the travel industry and Proposition 302 funding to Destination Marketing Organizations (DMOs) within Maricopa County

- Fountain Hills Chamber of Commerce - The Fountain Hills Chamber of Commerce is an integral partner with the Tourism Division because of their participation and advocating of town businesses and events. The Chamber of Commerce currently houses the Fountain Hills Visitor Center which is stocked with printed marketing collateral by the Tourism Division. This partnership is crucial to the successful promotion of Fountain Hills.

- Fort McDowell - The partnership with Fort McDowell and the Yavapai Nation is a living, growing, and thriving relationship as both entities work to promote this regional area as a world class recreation, leisure, and outdoor adventure destination. Each entity heavily promotes the natural beauty and topography that make Fountain Hills and Yavapai Nation an obvious choice for travel and leisure. There is a great potential for an even greater partnership with Fort McDowell.

- Salt River Pima Indian Community - The fall of 2015 introduced a new partnership with the Town of Fountain Hills and the Salt River Pima Indian Community. This partnership was first forged via the Proposition 202 grant funds and look to be a promising

union. We anticipate this partnership to continue far into the future as we work together bringing attention to the vast travel opportunities that this region offers.

- Fountain Hills Artists Gallery - The Town of Fountain Hills and the Fountain Hills Artist Gallery have developed a cooperative relationship to better promote public art and our blossoming artist community. This partnership also prompted the complete redesign of the Art Walk Guide, featuring a calendar listing all the Artist Gallery and Art Walk joint events.

- Recreational Partners/Participants - As we have highlighted, Fountain Hills is home to many outdoor recreational activities. The Tourism Division has actively cultivated many recreational partners who align with the goal of attracting adventure-minded visitors. These partners include but are not limited to:

    - McDowell Mountain Regional Park
    - McDowell Mountain Cycles
    - Desert Belle River Boat Tours
    - Desert Dogs ATV Tours
    - Fountain Hills Bikes
    - Sami's Amethyst Mine Tour

Action Steps

1. Continue to work with and develop key strategic alliances within the tourism industry to promote all there is to see and do in Fountain Hills.
2. Proactively work with other regional tourism destinations to help in implement cross-marketing opportunities to better promote visitation in the northeast area of the valley.
3. Identify potential areas to share costs in an effort to improve efficiencies and promote collaboration (ex: joint research, special event strategies, etc.).

Success Factors and Measurability

- Continue to Work Together- The Town of Fountain Hills is a destination that works well with others. The division has fostered a can do spirit and continues to take on challenging issues. It is important for the council and staff to continue their approach to work and support the goals of the division.

- Community- Critical to the destination's success is the continuation of efforts to educate and involve the community in tourism. It is important that the local community understand the importance of tourism in the Town of Fountain Hills and the industry's role in generating employment and local tax revenue.

- Culture of Innovation- The Fountain Hills Tourism Division must continue to innovate and change to meet the changing dynamics of the industry in order to continually increase the awareness and desirability of Fountain Hills as a destination.

- It's All in the Numbers- Success is not defined by a single yes or no, by a check list, or by a first place finish. Success for the Tourism Division is an ongoing sum of all the parts. Statistical analysis, digital metrics, visitor attendance, increased tax revenue, heads in beds, click thrus, "Likes,", engagements and any number of other measurable bits and pieces will determine the effectiveness of the division. Each of these measurements are brush strokes that will paint the picture of tourism in Fountain Hills. Staff will regularly monitor vital statistics in order to steer the program and correct course as needed.

- Quality over Quantity- Numbers and statistics only tell one side of the story. Numbers are hard facts, but the quality of the program is just as valuable. Staff will regularly engage in customer and stakeholder feedback, using it as a temperature gauge for the program and its success rate.

TIMELINE

2016:	Adopt Strategic Plan via Mayor and Council
2018 - 2020:	Present semi-annual updates to Council and Stakeholders, featuring program highlights, challenges, and new initiatives Annual Marketing Plan review, subject to grant funding, co-op opportunities, etc. Annually review Strategic Plan to ensure vision and goals continue to meet the needs of the Town of Fountain Hills.
2020:	Review Strategic Plan to consider completion of identified goals and future planning. Update the Strategic Plan to reflect changing trends, economics, and other external factors.
2021:	Adopt and implement future plan.

STRATEGIC GOALS TASK LIST - QUICK REFERENCE

Goal #1 - Communication and Outreach

Tourism is a key part of the Town of Fountain Hills economic profile. As such, everyone is a stakeholder, including local residents, private businesses, government agencies as well as visitors.

Objective #1 – Create and maintain positive stakeholder relationships, interactions, and partnerships.

Tasks	Lead Responsibility	Status/Completion Date
☐ Hold semi-annual stakeholder meetings.	Tourism Coordinator	Semi-Annual
☐ Develop periodic stakeholder surveys to assess the perception of Town tourism programs and efforts.	Tourism Coordinator	Annual
☐ Develop periodic outreach programs and forums that allow stakeholders to ask questions, voice concerns and make suggestions.	Tourism Coordinator	On-Going
☐ Provide accurate and consistent information on tourism related issues to all stakeholders through a variety of communication vehicles such as: Tourism Survey Website e-mail blasts Website information updates	Tourism Coordinator	On-Going
☐ Pass along data from consortium committees, state reports, etc. to all stakeholders through updates/reports provided at semi-annual stakeholder meetings.	Tourism Coordinator	Semi-Annual
☐ Develop and support programs that increase pride and involvement from all stakeholders through: Stakeholder presentations Website updates	Tourism Supervisor/Tourism Coordinator	On-Going

Stakeholder partnerships i.e. events and co-op agreements		
☐ Provide support for new and existing activities that are interesting for both residents and visitors that encourage interaction between them through: Marketing support Social Media Promotions Website listings Highlights or features in itineraries	Tourism Coordinator	On-Going
☐ Provide support for special events i.e. tabling, providing collateral, marketing and press release distribution. Collateral includes but is not limited to: Visitors Guide Dining Guides Calendar of Events Itineraries Hiking Maps Stickers Town Kiosks	Tourism Coordinator	On-Going
☐ Regularly educate policymakers as to the economic and quality of life value that tourism has for the Town of Fountain Hills.	Tourism Coordinator	On-Going
☐ Maintain a presence at key special events throughout the year to encourage interaction, collection of visitor data and accessibility to division staff.	Tourism Coordinator	On-Going
☐ Work to develop learning and collaboration opportunities with the Chamber of Commerce	Tourism Supervisor/ Tourism Coordinator/ Chamber of Commerce CEO	2017

Objective #2 - Table at key special events providing collateral and face time with public. – Visitors Guides, Dining Guides, Calendars of Events, Valley Maps, bumper stickers and wristbands.

Tasks	Lead Responsibility	Status/Completion Date
☐ Table at Oktoberfest	Tourism Coordinator	Annual Basis
☐ Table at Ballet Under the Stars	Tourism Coordinator	Annual Basis
☐ Table at CopperWynd Pro Challenge Tennis Tournament	Tourism Coordinator	Annual Basis
☐ Table at Fountain Festival of Arts and Crafts	Tourism Coordinator	Annual Basis
☐ Table at Turkey Trot	Tourism Coordinator	Annual Basis
☐ Table at Concours in the Hills	Tourism Coordinator	Annual Basis
☐ Table at The Great Fair	Tourism Coordinator	Annual Basis
☐ Table at St. Patrick's Day at the Fountain	Tourism Coordinator	Annual Basis
☐ Table at Fountain Hills Music Festival	Tourism Coordinator	Annual Basis
☐ Table at Fourth at the Fountain	Tourism Coordinator	Annual Basis
☐ Table at New Events TBD 2016-2020	Tourism Coordinator	Annual Basis

Goal #2 - Destination Marketing and Promotion

Destination marketing and promotion are at the heart of Fountain Hills tourism's mission. The following marketing programs are integral to developing a sustainable tourism economy. Fountain Hills currently promotes a variety of destination elements including the following:

Reason for visiting:

Outdoor Adventure

Special Events

Heritage

Arts and culture

Golf/ Spa retreat

Winter Respite

Objective #1 – Market Fountain Hills as a premier Destination and therefore function as a Destination Marketing Organization (DMO).

Tasks	Lead Responsibility	Status/Completion Date
☐ Promote the iconic branding to effectively differentiate the Town of Fountain Hills. Promotions include but are not limited to: Print Online Digital Retargeting Social Media	Tourism Coordinator	On-Going
☐ Brand all publications and initiatives with tourism logo for consistent and recognizable identity.	Tourism Coordinator	On-Going
☐ Create awareness for Fountain Hills by effectively positioning the	Tourism Coordinator	On-Going

destination as an events and leisure location with the valley. Marketing promotions in print, online, digital retargeting and social platforms.		
☐ Continue to work with event organizers to foster event friendly environment.	Tourism Coordinator	On-Going
☐ Continually enhance the visitor center in an effort to provide a quality experience and additional length of stay. Stock on a monthly basis with: Visitors Guide Dining Guides Calendar of Events Hiking Maps Art Walk Guides Photos for Welcome Center Television slide show	Tourism Coordinator/ Chamber of Commerce	Monthly
☐ Promotional Film/Commercial for Tourism	Tourism Supervisor/ Tourism Coordinator	2016

Objective #2 - Implement experience specific itineraries to assist in promoting the Town of Fountain Hills attractions and activities in an effort to extend visitor stays and generate additional revenue.

Tasks	Lead Responsibility	Status/Completion Date
☐ Publish seasonal itineraries highlighting program initiatives and activities.	Tourism Coordinator	Seasonal
☐ Itineraries include but are not limited to: Arts & Culture, Foodie, Outdoor Adventure, Around the Fountain and Hiking & Biking	Tourism Coordinator	Seasonal
☐ Itinerary introduction to website	Tourism Coordinator	2016
☐ Itinerary enhancement and promotion	Tourism Coordinator	2017

Objective #3 - Work to develop a year-round special events strategy that identifies events for shoulder seasons.

Tasks	Lead Responsibility	Status/Completion Date
☐ Work with special events committee to vet out new special events that will boost tourism initiatives.	Tourism Supervisor/ Tourism Coordinator	On-Going
☐ Develop a strategy to link events in an effort to create incremental return visits by having an onsite event presence to promote future visitation opportunities.	Tourism Coordinator	On-Going
☐ Facilitate publishing of events calendar to give incentive for visitors to return on a regular basis.	Tourism Coordinator	Semi-Annual

Goal #3 - Research, Planning and Measurement

Ongoing destination research, planning and measurement are imperative for the long term competitive advantage of the Fountain Hills market. The ability to be at the front of changing market conditions and communicate those changes to the local tourism industry is key to keeping our tourism experience relevant.

Objective #1 – Remain competitive within the tourism industry, researching and implementing trending market initiatives and phenomenon.

Tasks	Lead Responsibility	Status/Completion Date
☐ Continue to implement a strategic approach to research, planning and measurement, allowing funding to refine marketing efforts.	Tourism Supervisor/ Tourism Coordinator	On-Going
☐ Continued maintenance of collateral database, advertising reach and survey demographics to help guide purchasing decisions as provided	Tourism Coordinator	Monthly

through: Arizona Office of Tourism International Festivals and Events Association Arizona Lodging and Tourism Association		
☐ Develop a macro level measurement approach to help quantify the value and ROI of events and programs held within Fountain Hills.	Tourism Supervisor/ Tourism Coordinator	2017
☐ Use of tourism economic impact calculator to help quantify ROI.	Tourism Supervisor/ Tourism Coordinator	Annually
☐ Partnership with Economic Impact calculation partner	Tourism Coordinator	2016

Objective #2 - Develop an ongoing rotation of marketing research that includes visitor profile information and out of market perceptions of Fountain Hills.

Tasks	**Lead Responsibility**	**Status/Completion Date**
☐ Regularly refine program level measurements to provide as much insight as possible for refining marketing programs. Measurements include but are not limited to: Tourism Survey Post Program Evaluations Website Analytics Social Media impressions, reach and engagement	Tourism Coordinator	On-Going
☐ Service and collection of official tourism survey to help complete tourism economic impact studies.	Tourism Coordinator	On-Going
☐ Integrate surveys and other feedback mechanisms to gain visitor insight and perspective.	Tourism Supervisor/ Tourism Coordinator	On-Going

☐ Disbursement of completed economic impact study to Town Council and stakeholders upon completion.	Tourism Supervisor/ Tourism Coordinator	Annually

Goal #4 - Industry Education, Training, and Recognition

Industry trends and technology, including social media applications, are constantly changing and Fountain Hills can play an important role educating and training the local tourism industry in order to improve coordination and effectiveness with the organization's programs.

Objective #1 – Seek education and training to gain perspective and ability for implementation of any and all industry trends.

Tasks	Lead Responsibility	Status/Completion Date
☐ Maintain communication and education with stakeholders regarding the needs, trends, changes, etc. of the local tourism industry.	Tourism Coordinator	On-Going
☐ Develop specific training for non-profits (museums, special events, etc.), small businesses, and other stakeholders on how to integrate into the Town of Fountain Hills tourism industry.	Tourism Coordinator	Semi-Annually
☐ Maintain attendance at industry-related trainings through conferences, webinars, etc. in order to stay on top of the shifting dynamics of Arizona tourism.	Department Director/Tourism Supervisor	On-Going
☐ Attendance of Arizona tourism conferences such as but not limited to the Arizona Governors Conference on Tourism.	Department Director/Tourism Supervisor	On-Going
☐ Attendance and completion of the International Festivals and Events Association Event Management School	Tourism Coordinator	2018/2019

Objective #2 - Increase training in technology marketing so as to improve the overall competitiveness of the destination. Ongoing topics could include but are not limited to:

- Tourism product distribution
- Social marketing
- Trip Advisor and Yelp strategy
- Trends in technology marketing

Tasks	Lead Responsibility	Status/Completion Date
☐ Attend seminars, trainings and webinars for social media platforms to stay up-to-date with all technology platforms.	Tourism Coordinator	On-Going
☐ Continue to reinforce the value of innovation among the staff by supporting the pursuit of higher education in all industry related forums.	Tourism Supervisor	On-Going

Objective #3 - Review outside non-tourism organizations to understand "how they do it".

Tasks	Lead Responsibility	Status/Completion Date
☐ Research marketing and outreach initiatives to remain competitive within industry when serving our "product" through: Aggressive and specific marketing Identity Branding Website Call to Actions Social Engagements Fostering of Brand Ambassadors	Tourism Coordinator	On-Going
☐ Periodically visit other destinations to review methods and practices.	Tourism Supervisor/ Tourism Coordinator	On-Going
☐ Network with other destinations for idea sharing, collaboration and learning opportunities.	Tourism Supervisor/ Tourism Coordinator	On-Going

Objective #4 - Research and apply for industry awards, honors and grants.

Tasks	Lead Responsibility	Status/Completion Date
☐ Maintain industry connections and relationships with boards who seek to honor those performing at the top of the industry. Actively apply for awards. Includes but is not limited to: Arizona Office of Tourism International Festivals and Events Association Arizona Lodging and Tourism Association	Tourism Coordinator	Annually
☐ Apply for grant funding from tourism or tourism related organizations who seek to honor those performing at the top of their industry.	Tourism Coordinator	Annually

Goal # 5 - Tourism Product Development

The "Tourism Product" includes a number of key components including the physical aspects and emotional elements that combine to provide a unique travel experience. The physical elements of the tourism product include the natural setting, the infrastructure and super structure of a destination the emotional components of the tourism product includes industry employees, cultural and historical resources and overall destination hospitality. These elements combine to provide an overall tourism experience including everything from events and activities to dining, shopping, etc.

Objective #1 - Support new and existing recreation and special event programming.

Tasks	Lead Responsibility	Status/Completion Date
☐ Continue to table at special events; handing our collateral and talking with the public.	Tourism Coordinator	On-Going
☐ Interact with the public in a way that makes them feel as though they have been served by the tourism product.	Tourism Coordinator	On-Going

Objective #2 - Look to develop 3-5 niche opportunities like biking, sustainable dining movements, including vegan, paleo, etc. for potential long-term market development.

Tasks	Lead Responsibility	Status/Completion Date
☐ Work with outstanding stakeholders who provide specific products or activities that can easily be partnered with and promoted through the tourism vehicle including but not limited to: Marketing co-ops Sponsorships Social Media Promotion of official Photography Web page listings Events Hosting	Tourism Coordinator	On-Going
☐ Work with Chamber of Commerce to introduce the Fountain Hills Bike Fest	Tourism Supervisor/ Tourism Coordinator/ Chamber of Commerce	2016/2017

Goal # 6 - Strategic Alliances

Fountain Hills continues to build and develop its strategic alliances within the industry. These alliances include those within our community, within the valley, as well as those around the state.

Objective #1 - Continue to work with and develop key strategic alliances within the tourism industry to promote all there is to see and do in Fountain Hills.

Tasks	Lead Responsibility	Status/Completion Date
☐ Continued fostering of networking relationships with state, regional and local stakeholders/partners, including but not limited to: Hoteliers Restaurants Recreation activity providers Chamber of Commerce	Tourism Supervisor/ Tourism Coordinator	On-Going

Consortium partners Phoenix CVB Scottsdale CVB Mesa CVB		
☐ Participation in co-operative partnering opportunities with regional tourism destinations. Identify potential areas to share costs in an effort to improve efficiencies and promote collaboration (ex: joint research, special event strategies, etc.).	Tourism Supervisor/ Tourism Coordinator	On-Going
☐ Facilitation of co-operative agreements and partnerships with tourism partners, activities and programs.	Tourism Supervisor/ Tourism Coordinator	On-Going
☐ Proactively work with other regional tourism destinations to help implement cross-marketing opportunities to better promote visitation in the northeast area of the valley.	Tourism Supervisor/ Tourism Coordinator	On-Going
☐ Explore a cross-functional Visitor's Center with Chamber of Commerce	Tourism Supervisor/ Tourism Coordinator/ Chamber of Commerce CEO	On-Going
☐ Work with Chamber of Commerce to continue to facilitate and present the Tourism Award of the Year	Tourism Supervisor/ Tourism Coordinator/ Chamber of Commerce CEO	On-Going