GOLDEN RAIN FOUNDATION of LAGUNA WOODS

OPEN MEETING

REGULAR OPEN MEETING OF THE GOLDEN RAIN FOUNDATION MAINTENANCE AND CONSTRUCTION COMMITTEE

Wednesday, October 14, 2020 - 9:30 a.m.
Virtual On Line Meeting

Laguna Woods Village owners/residents are welcome to participate in all open committee meetings and submit comments or questions regarding virtual meetings using one of two options:

1. Via email to meeting@vmsinc.org any time before the meeting is scheduled to begin or during the meeting. Please use the name of the committee in the subject line of the email. Name and unit number must be included.
2. By calling (949) 268-2020 beginning one half hour before the meeting begins and throughout the remainder of the meeting. You must provide your name and unit number.

NOTICE AND AGENDA

This Meeting May be Recorded

1. Call to Order
2. Acknowledgment of Media
3. Approval of the Agenda
4. Approval of Meeting Report for August 12, 2020
5. Chair's Remarks
6. Member Comments (Items Not on the Agenda)
7. Department Head Update

Consent:

All matters listed under the Consent Calendar are considered routine and will be enacted by the Committee by one motion. In the event that an item is removed from the Consent Calendar by members of the Committee, such item(s) shall be the subject of further discussion and action by the Committee.

8. Project Log

Reports:

9. PAC LED Lighting Upgrade (Action Item #1)
10. Design Costs for Stage Rigging, House Side Lights and Lighting Controller (Action Item #2, 3, 4)
11. Cost for Man Lift as Specified by Director Randazzo (Action Item #5)
12. Cost for Stage Curtain Repairs & Fire Proofing (Action Item #6)
13. Upgrades for Dining Room (Action Item #7) & Lobby (Action Item #8)
14. Scope of Work for Fire Alarm (Action Item #9)
15. Scope of Work for ADA Compliance (Action Item #10)
16. HVAC Replacement Costs for the PAC & Broadband Buildings
17. Lighting Controller Replacements at GRF Facilities

Items for Discussion:

18. Update on Pilot Program for one Solar LED Light employee parking lot
19. Community Center Renovation – Resident Services Breakroom

Items for Future Agendas:

- UV and HEPA type filters for the Community Center
- High Rise & Dual Flush Toilet Replacements at Clubhouses
- ~~Electric Gate at Garden Center II~~

Concluding Business:

20. Committee Member Comments
21. Date of Next Meeting: December 9, 2020
22. Adjournment

Egon Garthoffner, Chair
Ernesto Munoz, Staff Officer
Telephone: 268-2281

GOLDEN RAIN FOUNDATION of LAGUNA WOODS

OPEN MEETING

REPORT OF REGULAR MEETING OF THE GOLDEN RAIN FOUNDATION MAINTENANCE AND CONSTRUCTION COMMITTEE

Wednesday, August 12, 2020 – 9:30 A.M.
Laguna Woods Village Community Center, Board Room
24351 El Toro Road

MEMBERS PRESENT: Egon Garthoffner - Chair, Bert Moldow, Gan Mukhopadhyay, John Frankel, Cush Bhada, Carl Randazzo, Juanita Skillman (in for Reza Bastani), Ryna Rothberg

MEMBERS ABSENT: Reza Bastani

OTHERS PRESENT: Bunny Carpenter, Sue Stephens, Yvonne Horton, James Hopkins, James Tung

STAFF PRESENT: Ernesto Munoz – Staff Officer, Brian Gruner, Guy West, Ian Barnette, Laurie Chavarria

1. Call to Order

Chair Garthoffner called the meeting to order at 9:30 a.m.

2. Acknowledgement of Media

Chair Garthoffner noted no members of the media were present.

3. Approval of the Agenda

The agenda was approved as written.

4. Approval of Meeting Report for June 10, 2020

The meeting report for June 10, 2020, was approved as written.

5. Chair's Remarks

Chair Garthoffner remarked about the need to be vigilant of the future projects that are submitted for Maintenance and Construction approval due to the high cost of insurance premiums that are facing United, Third and GRF.

6. Member Comments (Items Not on the Agenda)

- Annie Funk (663-B) submitted via email by Jeanne Bray who has requested a larger road reflector be installed for vehicles on Avenida Sevilla due to the walkway from building 663 leading right to the street, which may be a danger for Ms. Funk, who is blind.
- Joe Wilson (434-D) commented on publishing more information on the PAC Renovation project.

Staff Officer Ernesto Munoz and various Committee members responded to the member comments.

Staff forwarded the email from Jeanne Bray to Chair Garthoffner and Director Randazzo and will send the request of the road reflector to an approving party, which may be United Mutual.

7. Department Head Update

Staff Officer Ernesto Munoz had no update.

Consent:

All matters listed under the Consent Calendar are considered routine and will be enacted by the Committee by one motion. In the event that an item is removed from the Consent Calendar by members of the Committee, such item(s) shall be the subject of further discussion and action by the Committee.

8. Project Log

Staff was directed to reflect that the maintenance improvement project at the Performing Arts Center is on hold.

Items for Discussion:

9. Scope of Work for the Employee Parking lot Lighting Consultant

Chair Garthoffner indicated that the scope of work that was prepared for this project was more than what the Committee had in mind and doesn't recommend that this version be released as an RFP.

Discussion ensued regarding line items in the scope of work for a turnkey consultant; due diligence of consultant to review site conditions; pilot program for a solar light; and a photometric study.

Chair Garthoffner said that further discussion will take place under agenda item 16.

10. Design Analysis for the PAC HVAC Replacement and an ROI for the Proposed Split System

Chair Garthoffner summarized the direction that was given to staff at the last PAC Renovation Ad Hoc Committee.

Discussion ensued regarding the like for like replacement; some modifications to the duct work; minimizing the design work that needs to be done; adding a split system after review of the ROI; self-contained HVAC units on the roof; effectiveness of ultra violet lighting in air systems;

Staff will add UV Lighting added as an alternate bid item for this project.

11. Design Analysis for the Broadband Building HVAC Replacement

Staff Officer Ernesto Munoz shared information on the contractor that performed the HVAC replacement at the Community Center and suggested that they be utilized to provide a proposal for both the Broadband and PAC Buildings. Going out to bid will extend the time it takes to complete the HVAC projects, however staff will follow the direction provided by the Committee.

Discussion ensued regarding design build contractors; HVAC system commissioning; project delay times; UV lighting as an alternate bid item for this project as well as the PAC; the effectiveness of UV lighting in HVAC systems; and cooling load reductions due to the new technology being utilized.

By consensus, staff was directed to combine the Broadband and PAC HVAC replacements into one design build project; request pricing from a single source contractor and bring the costs back to the next Committee meeting. In the interest of time, staff will call a special meeting if the proposal is available prior to the next Committee meeting.

12. ADA, Fire, Life Safety Requirements at the PAC

Chair Garthoffner stated that the items that make up the ADA, fire and life safety improvements should go out to bid separately so they can be completed by the end of the year. Staff Officer Ernesto Munoz informed the Committee that the HVAC project may trigger the City to require the ADA and other safety requirements.

Discussion ensued regarding prioritizing safety requirements ahead of the HVAC; replacing exit signs with LED; replacement of fire extinguishers; lighting in the main theatre is separate; title 24 requirements; LED lighting replacement for the entire facility; high rise toilets/seats; and the upcoming walkthrough of the PAC facility.

Staff will move forward with addressing the ADA and safety repairs in a separate RFP.

13. Stage Curtains and Rigging Replacement at the PAC

Chair Garthoffner and Recreation Director Brian Gruner summarized the issues with the rigging and stage curtains. The Chair would like these items to go out to bid either together or separately.

Discussion ensued regarding the inoperable rigging equipment; condition of current stage curtains; the fire retardant chemical application should occur every 3 years; and a cost analysis between the purchase of new stage curtains and the cost to apply fire retardant coating to the existing curtains.

14. Lobby and Dining Room Upgrades at the PAC

Chair Garthoffner summarized the need for bids to replace the lobby carpet, upgrade/renovate the dining rooms and old billiard room.

By consensus, staff was directed to bring back costs to complete this work.

15. Remaining Scope of Work on SVA Contract

Staff Officer Ernesto Munoz and Guy West provided an update on the deliverables from SVA and the cost paid to date.

Discussion ensued regarding construction support; who will address RFI's; repair of electrical panels at the PAC may not be needed if the HVAC design is like for like; and a construction manager for HVAC replacement.

16. Pilot Program for one Solar LED Light

Chair Garthoffner summarized the concern for lighting at the employee parking lot and turned the discussion over to Director Moldow to discuss his recommendation and the cost for the installation of a single solar LED light pole.

Discussion ensued regarding the solar light on Via Del Faro; specs for the solar light; light pole height; depth and size of concrete base; motion sensors; and contractor licensing.

By consensus staff was directed to single source this solar LED light as a pilot program. Additional discussion will take place in closed session regarding the contractor recommended by Director Moldow.

Items for Future Agendas:

- Lighting Controller Replacements at GRF Facilities (October)
- High Rise & Dual Flush Toilet Replacements at Clubhouses (need total count & costs)
- Gate Modifications at Garden Center II (not operational for egress of pedestrians/golf carts due to pressure plate. Director Brian Gruner to coordinate with Chief Rojas and Director Chuck Holland)

Concluding Business:

17. Committee Member Comments

- Director Moldow commented on the upcoming walkthrough and meeting at the Clubhouse 1 Renovation Ad Hoc Committee.

18. Date of Next Meeting: October 14, 2020

19. Adjournment - The meeting was recessed at 11:48 am.

Egon Garthoffner

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Egon Garthoffner, Chair

GRF Project Log (October 2020)

#	Type	Name	Description	Status	Estimated Completion	Budget
1	920 Projects	**PAC Renovation Maintenance Upgrades**	Funding for this project is allocated for the maintenance and safety upgrades at the Performing Arts Center. On June 22nd the Corporate Members voted against completing the PAC maintenance improvements as submitted. A report to rescind the supplemental appropriation was approved on September 1.	On July 13, 2020, the PAC Renovation Ad Hoc Committee reassigned several necessary maintenance improvements at the PAC to the M&C Committee. On August 18, Board members, staff and an independent theater consultant toured the PAC to review items which were part of the PAC Renovation Project. Staff was directed to obtain proposals and pricing on several items and report back to the M&C Committee. Staff obtained proposals on those items and will present them to the M&C Committee on October 14.	December 2020	Budget: $3,778,000 Exp: $576,870 Balance: $3,201,130
2	920 Projects	**Community Center First Floor Renovation Project**	Funding for this project is allocated for the reconfiguration of Resident Services located in the Community Center.	Plans have been approved for the breakroom in Resident Services. Staff will prepare a contract award to be presented at a future M&C Committee Meeting.	December 2020	Revised Budget: $150,000 Exp: $7,105 Balance: $142,895
3	920 Projects	**Service Center Generator**	This will provide back up power for the Transportation Division and fueling services, and enable the provision of critical services in an emergency. The current generator is at the end of its useful life.	An RFP for electrical design and replacement was advertised on October 2. Contractors bids are scheduled to be due by the end of October.	2020	Budget: $150,000 Exp: $415 Balance: $149,585
4	920 Projects	**Clubhouse 1 HVAC Replacement Project**	Funding for this project is allocated to maintain/replace the HVAC system at Clubhouse 1 at the end of its serviceable life. This project will be designed after the building assessment has been completed. On February 12th, the building assessment findings were presented to the GRF M&C Committee.	The Board authorized the formation of an Ad Hoc Committee for the renovation of Clubhouse 1. On August 26, Ad-Hoc Committee members and staff toured Clubhouse 1 to review items which were part of the assessment to determine immediate needs of the Clubhouse. The Ad-Hoc Committee met on September 3 to discuss their findings and by unanimous vote the committee agreed to have a programmatic study done. Staff will prepare an RFP, which will be advertised to architectural consultants.	2020	Budget: $350,000 Exp: $0 Balance: $350,000

5	920 Projects	**Gate 16 Driving Range Improvements**	Funding for this project is allocated to upgrade and improve the appearance and functionality of the golf driving range and practice area.	Construction will be scheduled to coincide with the 2021 planting season. Staff will prepare a contract award to be presented at a future M&C Committee Meeting.	July 2021	Budget: $138,000 Budget: $500,000 Exp: $52,023 Balance: $585,977
6	920 Projects	**Replace Welding Shop**	Funding for this project is allocated to replace the existing Welding Shop with a pre-engineered metal building.	The design phase of the project is completed and final plans have been approved by the City. The construction phase of this project will be funded in the 2021 budget.	August 2021	Budget: $100,000 Exp: $22,535 Balance: $77,465
7	920 Projects	**Tennis Center Building Improvements**	Funding for this project is allocated for the interior/exterior improvements as well as HVAC installation at the Tennis Center Building at Clubhouse 7.	Construction for the Tennis Center Building Improvements began the week of June 8. Work is scheduled to be completed by the end of October.	October 2020	Budget: $75,000 Supplemental: $72,638 Exp: $88,130 Balance: $59,508
8	920 Projects	**Truck Wash Out Facility CUP-1394**	Per City requirements to meet the State Water Regulations (NPDES) Laguna Woods Village has planned to construct a single stall truck wash out facility to be used to power wash landscaping vehicles and street sweepers.	This project is scheduled to be completed by the end of October.	October 2020	Budget: $100,000 Supplemental: $174,837 Exp: $140,041 Balance: $134,796
9	920 Projects	**GRF Paving & Sealcoat Programs and Concrete Repairs**	Funding for this project is allocated to asphalt paving overlay, sealcoat work and concrete repairs adjacent to the overlay work on selected GRF streets and/or parking lot areas.	The 2020 paving program will take place on sections of the following streets totaling 249,367 SF: Calle Cadiz, Calle Sonora, Duverney, Via Buena Vista and Via Carrizo. Sealcoat work includes 1,111,161 SF of street and parking lot pavements. Damaged concrete (curbs, gutters and swales) on the street areas scheduled to be repaved will also be replaced. The sealcoat work was complete in August. The concrete work and asphalt paving overlay work is complete, punch list work is in progress. Work is scheduled to be completed by the end of October.	October 2020	Budget: $1,011,700 Exp: $351,337 Balance: $660,363

10	920 Projects	**Maintenance Service Center Parking Lot Lighting**	Funding for this project is allocated to install permanent lights in the Maintenance Service center parking lot for staff safety.	A "statement of need" for this project was presented at the June 10, M&C Committee meeting. Subsequently, a draft scope of work was presented to the M&C Committee to retain a consultant. However, at the direction of the M&C Committee, staff was provided with specifications for a pilot program. Staff is working on an RFP to advertise for a design build.	November 2020	Budget: $250,000 Exp: $0 Balance: $250,000
11	920 Projects	**Transfer Switches for Clubhouses 4 and 6**	Funding for this project is allocated for the installation of new transfer switches in order to accept future emergency generators that will power the clubhouses in the event of a disaster.	An RFP for electrical engineering is scheduled to be advertised by the end of October.	December 2020	Budget: $100,000 Exp: $0 Balance: $100,000
12	920 Projects	**Gymnasium Wall Padding**	Funding for this project is allocated to replace existing gymnasium wall padding and to install additional wall padding to increase the safety during game play.	A recommendation to award a contract will be presented for the second time to the GRF M&C Committee meeting at their October 14th meeting.	November 2020	Budget: $45,000 Exp: $0 Balance: $45,000
13	920 Projects	**Community Center Stucco Flashing**	Funding for this project is allocated to replace the Community Center stucco and flashing. The stucco and flashing replacement is necessitated by continual rain leaks, which can be attributed to faulty flashing or a failing stucco system.	A consultant specializing in leak detection for window and stucco systems has completed the initial water testing at designated areas of the facility and provided a report identifying the sources of the leaks along with repair recommendations. During the work and moisture intrusion testing, the contractor located missized glass on five panes. Staff is working with the contractor to complete the glass replacement.	2020	Budget: $120,000 Exp: $17,940 Balance: $102,060

	920 Projects	**Clubhouse 1 Renovation Assessment**	Funding for this project is allocated to assess the existing buildings at Clubhouse 1, which will guide the development of future improvement plans. The assessment will include determining required building code compliant upgrades, identifying the presence of hazardous materials, improve ADA accessibility, and survey the condition of structural, mechanical, electrical, and plumbing elements.	**COMPLETED**	February 2020	Budget: $80,000 Exp: $75,821 Balance: $4,179

	920 Projects	**Gate Replacements - Main Service Gate Center**	Funding for this project is allocated to provide additional security measures to the Maintenance Service Center.	**COMPLETED**	February 2020	Budget: $92,000 Exp: $82,955 Balance: $9,045
	920 Projects	**Gate Replacements - RV Lot B**	Funding for this project is allocated to provide additional security measures to RV Lot B.	**COMPLETED**	February 2020	Budget: $92,000 Exp: $82,765 Balance: $9,235
	920 Projects	**Energy Consultant Services**	GRF retained the services of an Energy Consultant to be engaged as needed in order to advance GRF's and the Community's future energy initiatives. The consultant presented the results of Task 1 (perform assessment of community's current electrical infrastructure) and Task 2 (investigate the feasibility of a Microgrid and alternative energy systems for electrical generation). No additional direction was provided to the consultant from the Board.	**COMPLETED**	N/A	Supplemental: Budget: $50,000 Invoiced: $49,868 Balance: $132
	920 Projects	**Service Center Radiant Heater and Ventilation Fan Replacements**	This project will repair or replace existing heaters that are not working, replace existing exhaust fans and install new exhaust fans required for adequate ventilation at the service center.	**COMPLETED**	June 2020	Budget: $50,000 Supplemental: $25,932 Exp: $67,981 Balance: $7,950.90
	920 Projects	**LED Walkway Lighting at Clubhouses 1, 2, 3, 4 & 5**	Funding for this project is allocated to replace the existing walkway lighting and concrete pads to create consistent lighting levels for optimal illumination along the pathways to and around the Clubhouses.	**COMPLETED**	May 2020	Budget: $200,000 Exp: $52,416 Balance: $147,584
	920 Projects	**Shepherd's Crook at Gate 3**	As a part of the Conditional Use Permit 1135 with the City of Laguna Woods, the Mutual will remove and replace barbed wire on all perimeter block walls with Shepherd's Crook on a phased approach.	**COMPLETED**	July 2020	Budget: 240,000 Funding Reduction: ($207,000) Exp: $24,600 Balance: $8,400
	920 Projects	**EV Charging Stations at the Maintenance Service Center**	Funding for this project is allocated to purchase and install Level II dual port EV stations for charging work vehicles at the service center.	**COMPLETED**	May 2020	Budget: $75,000 Exp: $49,907 Balance: $25,093

	904 Maint Svc	**CH 1 Pool & Spa Plastering**	This project is intended to replace the spa plaster at Clubhouse 1, due to deterioration and cracking. The plaster was replaced in 2005 and has reached the end of its useful life.	**COMPLETED** Invoices pending.	September 2020	Budget: $30,000 Exp: $20,875 Balance: $9,125
	920 Projects	**Gate 11 Security & Technology**	Funding for this project is allocated to the civil support necessary to install gate security devices. It includes underground utility work and lane re-configuration.	**COMPLETED** The final inspection is completed and the City has signed off on the gate. Final invoicing is pending.	September 2020	Supplemental Funding: Renovation: $110,000 Exp: $76,672 Balance: $33,328

GOLDEN RAIN FOUNDATION of LAGUNA WOODS

STAFF REPORT

DATE: October 14, 2020
FOR: Maintenance and Construction Committee
SUBJECT: PAC LED Lighting Upgrade - Action Item #1

RECOMMENDATION

Receive and provide direction.

BACKGROUND

On June 2, 2020, the Corporate Members voted against the two contract awards and supplemental appropriations needed to complete the Performing Arts Center (PAC) Maintenance Improvement project, pursuant to GRF Bylaw Sections 2.1.4, 2.1.6 and 2.1.7.

On July 13, 2020, the PAC Renovation Ad Hoc Committee reassigned several necessary maintenance improvements at the Performing Arts Center, to the GRF M&C Committee.

On August 18, 2020, staff along with a few Board members from the PAC Renovation Ad Hoc Committee and the M&C Committee visited the Performing Arts Center facility to evaluate and determine if individual improvements could be completed. A list of action items was created for staff with the intent that the individual maintenance improvements would be presented to the M&C Committee and Board for their consideration.

DISCUSSION

Subsequent to the August 18, 2020 Performing Arts Center facility walkthrough, staff was provided with meeting notes from Directors Moldow, Randazzo, and Garthoffner which included items for staff to follow-up on (Attachment 1).

These notes were combined and summarized into ten separate action items.

1. Solicit three electrical contractors to provide bids to replace existing incandescent light bulbs with LED light bulbs throughout the entire facility.
2. Request a design proposal from John Sofranko with Ruzika Company for a new light controller.
3. Request a design proposal from John Sofranko with Ruzika Company for auditorium side lighting.
4. Request a design proposal from John Sofranko with Ruzika Company for stage rigging to modify and replace the motors and wenches with new.
5. Research a man-lift that meets the needs of the facility.
6. Solicit vendors for stage curtain repairs and fire proofing.
7. Solicit bids for dining room upgrades (room divider, flooring, painting and ceiling tiles).
8. Solicit bids for lobby room upgrades (paint and carpet cleaning).

9. Provide fire alarm scope of work and if current system is code compliant.
10. Provide ADA scope of work included in SVA plans and specifications.

Action Item 1:

As directed, staff solicited electrical contractor bids to replace the incandescent lightbulbs with LED lightbulbs throughout the Performing Arts facility. Staff received two bids, the lowest of which came in at $36,303. This includes retrofitting some of the fixtures and replacing ballasts with LED drivers. Additionally, the contractor added $3,000 to replace the incandescent exit signs with LED.

FINANCIAL ANALYSIS

If approved by the Board, this project would be fully funded from the Capital Improvement budget for the Performing Arts Center.

Prepared By: Rodger Richter, Project Manager

Reviewed By: Guy West, Projects Division Manager
Ernesto Munoz, P.E., Maintenance and Construction Director

ATTACHMENT(S)

Attachment 1 – Performing Arts Center Walkthrough Notes

Attachment 1 – Performing Arts Center Walkthrough Notes

Laguna Woods Village, PAC Walkthrough Notes

On August 18, 2020, Bert Moldow, Carl Randazzo, Egon Garthoffner (of GRF, M&C Committee) and Ernesto Munoz, Guy West, Brian Gruner (of VMS) along with an independent theatre lighting consultant (John) toured the Performing Arts Center (PAC) to review the items listed below, which are part of the PAC Renovation project. When I speak of we in the text below, I am referring to the committee members that were in attendance.

1. Main auditorium lighting. We observed the currently spotty lighting (burned out bulbs), discussed problems of changing the lights that requires the erection of scaffolding just to replace burned out elements. It was agreed that LED lights could be installed in the existing openings without significant rework of fixtures. The benefits of this change are: much less frequent lamp replacement, lower power consumption and less heat generation. Along with the changeout of the bulbs, it was noted that there are dimming controls and the controls associated with stage lighting. This needs to be addressed and feedback needs to be provided to the committee. We asked to receive a design proposal for this work.

I also requested John to provide me with some insight into (inexpensive) decorative side wall lighting. I thought that some visible results of all our spending might be appreciated by community members. He will look into some LED light bars that might be used to bathe the vertical sidewalls in colored light.

2. Stage light rigging replacement. We were shown the currently installed stage light rigging. This rigging lowers stage lights to allow replacement or changes of lights and lenses and then raises them again. The current system which consist of four sets of motors, winches and many cables has been rendered inoperable for safety reasons. There were concerns about the ability of the system to handle the loads and the moving parts should have been fitted with safety covers to prevent accidental contact during operation which could easily cost someone some fingers or a hand. We asked to receive a design proposal for this work. The new design would place the winches up much higher, on level with the lights and we were informed that additional steel and supports would be required to assure that the load requirements are met. This was supposedly addressed in the SVA design.

We also wish to have evaluated the feasibility of acquiring a portable man lift for the theatre to permit safely accessing the lights without at their current location without the use of a ladder. The portable man lift is relatively inexpensive and provides for a safe approach to for the rearrangement of the stage lights. This is the way that lights are now being serviced with the exception that a ladder is being used. This man lift could also be used for some other PAC tasks. This is an economical solution to address this issue, rather than raising and lowering the lights. To better compare alternatives, some information on how often lights need to be serviced would be useful.

Attachment 1 – Performing Arts Center Walkthrough Notes (continued)

3. The theatre curtains. The original PAC renovation proposal was to replace the stage curtains. However, upon further examination, it appears that the real need is for renewed fireproofing to meet fire regulations. During the tour we were told that the life of these curtains

should be about 30 years. There are three main curtain sets on the stage, the side curtains and the front curtain that is the focus of attention when closed and the white curtain which forms the stage backdrop. There are the dark side curtains to frame the stage and the dark ceiling curtains that hide the lights. These are twenty years old. We have requested an estimate of the cost to take down the dark and white curtains, have them fireproofed and hung again. Also with this, minor repairs to the curtains can be made, as applicable.

The red front stage curtains are 14 years old. We also requested an estimate of the cost to take down these curtains, have them fireproofed and hung again.

4. The dining rooms. There are two dining rooms in the PAC. Facing the building, they are the left (north) and the right (south) dining rooms. Both are proposed for painting, ceiling tile and flooring replacement because the ceilings are discolored and the floors considerably scuffed. Along with this, lighting will be changed to LED lights.

The north dining room will be reconfigured so that it can be divided into two rooms when needed. We requested estimates to have each of these rooms renovated as described above.

5. The lobby. The lobby runs across the front of the theatre and down both sides outside the auditorium. The lobby is to be repainted and we concur with this work. However, we found the carpet to be in very good condition, even at the entry doors where you expect the most wear. We recommend that the carpet be cleaned when all the other renovation in the building is completed. We also recommend that the large hanging light fixtures be retained but that they and the other ceiling lights be converted to LEDs.

6. The ADA, fire and safety components. We briefly discussed some of this minor work and have previously approved moving ahead with this work. However, we would like some detail just what the "upgrade" of the fire alarm system entails, since it is about $85K. Are we currently out of compliance?

7. Power panels. Though part of the initial PAC proposal, adding power panels was not considered for this phase of the PAC renovation. However, we took time to look at the existing power panels and found a considerable number of empty slots for future expansion, if needed. This work is unnecessary and is in any case not part of this phase of in any case. It will also be deleted from future phases.

SUMMARY

All in all, this on-site tour was most valuable. It gave us an understanding we have never achieved in all the meetings we and others have had over the years now. "Need" as seen through the eyes of the "payer" and not an architectural firm looking for a project to do, often

Attachment 1 – Performing Arts Center Walkthrough Notes

has a very different look. We hope we can now get this work underway and completed by the time we are allowed to use the PAC again.

Additional comments below were provided by Bert Moldow and are included below as is.

A few minor suggestions.

1. I believe the overhead stage light replacements are accomplished with the use of a ladder. If we purchased a man lift it would be from the capital equipment budget and I believe would not be charged to the renovation.

2. I believe we need to include the required ADA work identified.

3. For safety we need to replace the exit signs which I believe are backlit with incandescent bulbs with exit signs backlit with LEDs and lithium ion battery backup.
I believe this work should be part of a contract for changing the lighting to LEDs.

4. I believe we needed to replace the fire extinguishers. That could be done quickly. Each extinguisher should have a replacement date tag.

GOLDEN RAIN FOUNDATION of LAGUNA WOODS

STAFF REPORT

DATE: October 14, 2020
FOR: Maintenance and Construction Committee
SUBJECT: Design Costs for Stage Rigging, House Side Lights and Lighting Controller (Action Item #2, 3, & 4)

RECOMMENDATION

Receive and provide direction.

BACKGROUND

On June 2, 2020, the Corporate Members voted against the two contract awards and supplemental appropriations needed to complete the Performing Arts Center (PAC) Maintenance Improvement project, pursuant to GRF Bylaw Sections 2.1.4, 2.1.6 and 2.1.7.

On July 13, 2020, the PAC Renovation Ad Hoc Committee reassigned several necessary maintenance improvements at the Performing Arts Center, to the GRF M&C Committee.

On August 18, 2020, staff along with a few Board members from the PAC Renovation Ad Hoc Committee and the M&C Committee visited the Performing Arts Center facility to evaluate and determine if individual improvements could be completed. A list of action items was created for staff with the intent that the individual maintenance improvements would be presented to the M&C Committee and Board for their consideration.

DISCUSSION

Subsequent to the August 18, 2020 Performing Arts Center facility walkthrough, staff was provided with meeting notes from Directors Moldow, Randazzo, and Garthoffner which included items for staff to follow-up on (Attachment 1).

These notes were combined and summarized into ten separate action items.

1. Solicit three electrical contractors to provide bids to replace existing incandescent light bulbs with LED light bulbs throughout the entire facility.
2. Request a design proposal from John Sofranko with Ruzika Company for a new light controller.
3. Request a design proposal from John Sofranko with Ruzika Company for auditorium side lighting.
4. Request a design proposal from John Sofranko with Ruzika Company for stage rigging to modify and replace the motors and wenches with new.
5. Research a man-lift that meets the needs of the facility.
6. Solicit vendors for stage curtain repairs and fire proofing.
7. Solicit bids for dining room upgrades (room divider, flooring, painting and ceiling tiles).

8. Solicit bids for lobby room upgrades (paint and carpet cleaning).
9. Provide fire alarm scope of work and if current system is code compliant.
10. Provide ADA scope of work included in SVA plans and specifications.

Action Items 2, 3, and 4:

As directed, staff contacted the Ruzika Company to request a design proposal for a new lighting controller, side lighting, and stage rigging. Subsequently, staff received a proposal outlining the scope of services for design and construction administration along with the associated pricing (Attachment 2). A minimum cost for this work is estimated at $28,500.

FINANCIAL ANALYSIS

If approved by the Board, this project would be fully funded from the Capital Improvement budget for the Performing Arts Center.

Prepared By: Rodger Richter, Project Manager

Reviewed By: Guy West, Projects Division Manager
Ernesto Munoz, P.E., Maintenance and Construction Director

ATTACHMENT(S)

Attachment 1 – Performing Arts Center Walkthrough Notes
Attachment 2 – Design Proposal from Ruzika Company

Attachment 1 – Performing Arts Center Walkthrough Notes

Laguna Woods Village, PAC Walkthrough Notes

On August 18, 2020, Bert Moldow, Carl Randazzo, Egon Garthoffner (of GRF, M&C Committee) and Ernesto Munoz, Guy West, Brian Gruner (of VMS) along with an independent theatre lighting consultant (John) toured the Performing Arts Center (PAC) to review the items listed below, which are part of the PAC Renovation project. When I speak of we in the text below, I am referring to the committee members that were in attendance.

1. Main auditorium lighting. We observed the currently spotty lighting (burned out bulbs), discussed problems of changing the lights that requires the erection of scaffolding just to replace burned out elements. It was agreed that LED lights could be installed in the existing openings without significant rework of fixtures. The benefits of this change are: much less frequent lamp replacement, lower power consumption and less heat generation. Along with the changeout of the bulbs, it was noted that there are dimming controls and the controls associated with stage lighting. This needs to be addressed and feedback needs to be provided to the committee. We asked to receive a design proposal for this work.

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Attachment 2 – Design Proposal from Ruzika Company

THE RUZIKA COMPANY

September 19, 2020

Golden Rain Foundation
24351 El Toro Road
Laguna Woods, CA 92637

ATTN: Mr. Rodger Richter
Project Manager, Village Management Services

SUBJECT: Proposal for Theatre Consulting Services
Performing Arts Center Theatre
Laguna Woods Village

Dear Rodger:

The following is a proposal for theatre consulting services that The Ruzika Company, Inc. ("Consultant") would provide to Golden Rain Foundation ("Client") for construction administration services the renovation of the Performing Arts Center Theatre at Laguna Woods Village, California.

A. WORK SCOPE AREAS

1. Stage lighting system.

2. Stage rigging system.

3a. Auditorium house side wall decorative lighting.

3b. Auditorium dimmable house lighting (lamp specifications provided by others).

B. PROPOSED WORK PHASES

1. Design and Documentation Coordination
   - Work scope confirmation
   - Construction documentation preparation
   - Preparation of bid documents

2. Construction Administration
   - Bidding phase
   - Construction administration

C. ANTICIPATED WORK SCHEDULE

1. A minimum of 3 weeks is required to properly produce the necessary specification and bid documents. The final work schedule will be negotiated and established by the Project Team and Theatre Consultant.

2. The schedule for construction administration services will be based upon the actual construction schedule, with an anticipated completion date to be determined by the Project Team.

2 Executive Circle, Suite 290, Irvine, California 92614 (949) 253-3479 Fax (949) 250-0181
info@ruzika.com www.ruzika.com
LIGHTING DESIGNERS + THEATRE CONSULTANTS

Attachment 2 – Design Proposal from Ruzika Company (continued)

D. DESIGN AND DOCUMENTATION COORDINATION SERVICES

1. Participate in work scope meetings with facility users and administrative staff to confirm project parameters and priorities.
2. Conduct site reviews to assess current theatrical equipment systems and to verify critical equipment dimensions.
3. Based upon the October 2019 construction documentation drawings, prepare a biddable package of drawings for the renovation of the stage lighting system including control console upgrade, control processor upgrades, lighting data DMX distribution, and dimmer circuitry distribution. *NOTE: A licensed Electrical Engineer or Electrical Contractor must provide all electrical power and conduit wiring distribution information.*
4. Prepare Division 26 design specifications for the stage lighting and house lighting dimming and control systems,
5. Based upon the October 2019 construction documentation drawings, prepare a biddable package of drawings for the renovation of the stage rigging system including motor hoists and related rigging hardware. *NOTE: A licensed Structural Engineer must provide all structural attachment details and weight load calculations.*
6. Prepare Division 11 design specifications for the stage rigging system.
7. Prepare architectural lighting plans and fixture specifications for the auditorium side wall decorative lighting. *NOTE: A licensed Electrical Engineer or Electrical Contractor must provide all electrical power and conduit wiring distribution information.*
8. Review the retrofit LED lamps specified by others to determine if the lamps are compatible with the existing dimming system. Make recommendations for alternate retrofit lamps, if needed.
9. Prepare work scope narratives for each work scope area suitable for a bid package.
10. Participate in a meeting with facility users and administrative staff to review and confirm the theatrical equipment and auditorium house lighting bid package.
11. Based upon the Client's directive, submit a package of theatrical equipment drawings and specifications suitable for bidding.
12. Assist the administrative staff with recommendations for vendors that are acceptable for bidding theatrical equipment installation services.
13. *NOTE: Not included is the solicitation and coordination of theatrical equipment bids. The Client is solely responsible for soliciting bids.*

E. CONSTRUCTION ADMINISTRATION SERVICES

1. Respond to Contractor pre-bid RFI's.
2. Attend a pre-bid onsite job walk with potential Contractors.
3. Provide design or specification clarifications as necessary.
4. Review bid cost proposals with the Project Team.

Attachment 2 – Design Proposal from Ruzika Company (continued)

5. Review with the Project Team theatrical equipment or installer substitution requests proposed by the Contractor at the time of bidding.

6. Review potential equipment procurement cost savings with manufacturer's sale representatives as necessary.

7. Review and approve submittals and shop drawings for stage lighting controls, stage rigging and drapery, and architectural lighting fixtures.

8. Review shop drawings and prior approvals of all trades in areas critical to theatrical functions. This review is supplementary to the review of the relevant design professional only, to assure no conflict with performance use of any such system.

9. Provide written and verbal response to Contractor RFI's.

10. Provide minor design revisions based upon field conditions.

11. Visit the construction site to review equipment installation and to answer field questions.

12. Inspect and test the final theatrical equipment installation and provide punch list notes.

13. Provide punch list follow-up reviews to confirm proper operation of all theatrical equipment and architectural lighting.

F. EXCLUSIONS

1. Licensed professional electrical engineering or structural engineering services. *NOTE: Electrical and structural engineers must be contracted separately by the Client. The Ruzika Company will not subcontract any engineering services.*

2. Participation in weekly or biweekly project team meetings (online or in-person).

3. The preparation of agency mandated Title 24 energy code compliance documents including Part 6 basis of design narratives and building commissioning and acceptance checklists. *NOTE: A licensed Electrical Engineer or Contractor must provide Title 24 energy code compliance calculations, daylighting worksheets, occupancy sensing checklists, and signed documentation.*

4. Analysis, photometric calculations, or design revisions directed toward LEED compliance or certification.

5. Point-by-point footcandle photometric calculation analysis for emergency lighting or other code related lighting. *NOTE: The Electrical Engineer must provide all emergency egress lighting information required for DSA approval, plan check, and permits.*

6. Preparation of system integration engineering drawings for architectural lighting control data network systems. *NOTE: The Electrical Engineer or Lighting Systems Integrator is responsible for documenting all low voltage LED wiring requirements including LED driver types, remote driver locations, 0 to 10 volt dimming devices, and DMX wiring diagrams.*

7. Value engineering of construction documentation design plans originally approved by the Client.

8. Procurement of sample lighting fixtures or rigging equipment.

Attachment 2 – Design Proposal from Ruzika Company (continued)

9. Site mockups to demonstrate lighting and rigging equipment.

10. The coordination of planning department approvals, reviews with city inspectors, or coordination of Contractor selection.

11. The attendance at plan check or back check meetings.

12. Onsite training of staff or users in the proper use of the theatrical equipment.

13. Preparation of as-built drawings for theatrical equipment and architectural lighting systems.

14. Providing support to the Client with regard to warranties or claims upon warranties or guarantees within the duration of the equipment warranty period.

G. SUMMARY OF ANTICIPATED OUT-OF-OFFICE MEETINGS AND SITE VISITS

1. Design and documentation coordination work phase
   - 3 user group work scope confirmation meetings (1 per work scope area)
   - 3 site reviews to verify equipment systems and dimensions (1 per work scope area)

2. Construction administration work phase
   - 1 pre-bid Contractor job walk
   - 9 construction observation site visits (3 per work scope area)
   - 6 punch list site visits (2 per work scope area)

H. THEATRE CONSULTING FEES

1. The following is a summary of proposed theatre consulting fees.

WORK SCOPE AREAS	FEE
STAGE LIGHTING SYSTEM	$8,500
STAGE RIGGING SYSTEM	$15,000
AUDITORIUM HOUSE LIGHTING	$5,000
FEE TOTAL	***$28,500***

2. *NOTE: Out-of-pocket reimbursable project and travel expenses are not included in the fees.*

I. CONSULTING FEES SPECIAL TERMS AND CONDITIONS

1. If the licensed Electrical Engineer or Contractor needs assistance with preparing low voltage LED lighting data network wiring diagrams for the architectural house lighting control system, the services provided will be billed at time and expenses.

2. If coordination services are required for lighting or rigging mockup demonstrations, the services provided will be billed at time and expenses.

3. If revisions are required to the design documents due to changes by the Client or the Client's representative after the design documents have been drafted, submitted, and approved, the preparation of revised design drawings will be considered extra services. Fees for revising design drawings and specifications will be negotiated prior to a written notice to proceed with preparing revised documents.

Attachment 2 – Design Proposal from Ruzika Company (continued)

4. Extra services that will require additional fees billed at time and expenses:

   a. Design revisions requested by the Client after Client's initial approval.

   b. Drawing revisions and project coordination related to design phasing or construction phasing beyond that described in this proposal.

   c. Onsite meetings with Client representatives, Engineers, or Contractors in addition to those described in this proposal.

   d. Theatrical system updates required to accommodate new technology due to extended construction schedules, negotiated based on scope of modifications.

   e. Services related to change orders not caused by the Consultant.

   f. Services related to construction defects, deficiencies, or disputes not caused by the Consultant.

5. Services will be provided as expeditiously as possible, consistent with professional skill and care. Compensation and payment for any additional services or extended services will be required.

6. If due to Contractor installation-caused matters The Ruzika Company is required to provide extra onsite design coordination and implementation services after the agreed upon site visits, the Client or the Contractor must compensate The Ruzika Company at their standard hourly or daily rates for all time expended onsite for additional punch list notes, additional back checks, or extra control system configuration work sessions.

7. If changes to the drawings or design services are necessary as a result of fire, the elements, Acts of God, or other casualties beyond the control of The Ruzika Company or as a result of changes in any applicable codes after the completion of the construction documents, The Ruzika Company shall be compensated for making such changes or performing such additional services over and above the maximum fee delineated herein on an hourly basis or negotiated fixed fee basis.

J, PAYMENTS

1. Upon the notice to proceed and the approval of this proposal an initial **$2,850** fee is required. This amount will be credited to the initial design and documentation coordination work phase.

2. At the completion of the construction documents and the submittal of the bid packages to the Client, an invoice will be submitted for **$5,700**.

3. For the construction administration work scope, invoices will be submitted monthly based upon the progress of services provided.

4. Payment is required within thirty days of receipt of each invoice.

5. If the project is suspended for more than three months or abandoned in whole or in part, Consultant shall be compensated for services performed to receipt of written notice from the Client of such suspension or abandonment, together with reimbursable expenses to date of suspension. If the project is resumed after being suspended for more than three months, Consultant's compensation shall be subject to re-negotiation.

Attachment 2 – Design Proposal from Ruzika Company (continued)

K. REIMBURSABLE EXPENSES

1. Out-of-pocket expenses incurred on behalf of the Client are not included in any fees and will be billed to the Client. Reimbursable expenses may include, but are not limited to:

    a. Expense of presentation document reproductions, presentation document preparation, expendable presentation document materials, postage, document delivery services, freight, and electronic storage media.

    b. Expense of models, equipment samples, and mock-up demonstrations requested by the Client.

    c. Expense of air transportation, car rental, ground transportation, airport parking, subsistence, lodging, business telecommunications, and business Internet services when traveling outside of the metropolitan Los Angeles area in connection with the Project.

2. Itemized receipts for pre-approved project related reimbursable expenses will be submitted on a monthly basis. Payment is required within thirty days of receipt of each invoice.

3. Out-of-pocket travel expenses will be billed immediately upon completion of travel. Payment is required within thirty days of receipt of each invoice.

4. If travel has been requested by the Client and travel arrangements have been booked and confirmed by the Consultant, any cancelation of travel by the requestee will require full reimbursement of all associated cancellation fees for airfare, hotel, or ground transportation.

L. BASIS OF COMPENSATION

1. The following are rates of compensation for additional or extended services:

• Principal Design Consultant	$210 per hour
• Principal Theatre Consultant	$180 per hour
• Senior Theatre Systems Designer	$150 per hour
• Theatre Consultant	$130 per hour
• Lighting Designer	$115 per hour

M. GENERAL PROVISIONS

1. The Ruzika Company designers and technical personnel are not licensed professional architects or engineers and will not provide stamped design drawing sheets. The information that is provided on drawings is for design intent only.

2. The specifications prepared by The Ruzika Company relate to the design intent of the theatrical equipment systems only. The Ruzika Company will not assume responsibility for the structural integrity, building, rigging, construction, fabrication, material or equipment.

3. The Ruzika Company will not be held responsible for the inability of Contractors to carry out the execution of the designs and plans.

4. The Ruzika Company reserves the right to revise the hourly contract rate schedule every 12 months during the course of this project.

Attachment 2 – Design Proposal from Ruzika Company (continued)

5. This Agreement may be terminated by either party, without cause, upon ten days written notice to the other party. In the event of termination by either party, the Client shall compensate the Consultant for all services including reimbursable expenses incurred to the termination date.

6. The Ruzika Company, Inc. maintains $1,000,000 in Professional Liability Insurance, $2,000,000 in General Liability and Non-Owned Auto Insurance, and Worker's Compensation Insurance as required by law. Certificates available upon request.

7. This Proposal contains the entire agreement of the parties in connection with the subject matter hereof.

8. This Proposal shall not be modified or amended except in writing signed by both parties.

9. Electronic, telefax, or PDF signatures shall be deemed to be original signatures for all purposes, and this Proposal may be signed in counterpart.

If you have any questions regarding the scope of services or fees, please do not hesitate to contact the undersigned. If you agree with this proposal, please indicate in writing your approval, directing us to proceed with the work. Upon receipt of a signed copy of this proposal or an Authorization to Proceed generated by an individual with the proper authority, work on this project will commence in accordance with the agreed upon project schedule.

On behalf of The Ruzika Company, thank you for your consideration.

Sincerely,

THE RUZIKA COMPANY, INC.

Tom Ruzika
President, Principal Design Consultant

APPROVED BY: _____

TITLE: _____

DATE: _____

GOLDEN RAIN FOUNDATION of LAGUNA WOODS

STAFF REPORT

DATE: October 14, 2020
FOR: Maintenance and Construction Committee
SUBJECT: Cost for Man Lift as Specified by Director Randazzo (Action Item #5)

RECOMMENDATION

Receive and provide direction relative to the information provided for a man lift intended to be utilized by the Performing Arts Center staff for access to the stage lighting.

BACKGROUND

On June 2, 2020, the Corporate Members voted against the two contract awards and supplemental appropriations needed to complete the Performing Arts Center (PAC) Maintenance Improvement project, pursuant to GRF Bylaw Sections 2.1.4, 2.1.6 and 2.1.7.

On July 13, 2020, the PAC Renovation Ad Hoc Committee reassigned several necessary maintenance improvements at the Performing Arts Center, to the GRF M&C Committee.

On August 18, 2020, staff along with a few Board members from the PAC Renovation Ad Hoc Committee and the M&C Committee visited the Performing Arts Center facility to evaluate and determine if individual improvements could be completed. A list of action items was created for staff with the intent that the individual maintenance improvements would be presented to the M&C Committee and Board for their consideration.

DISCUSSION

Subsequent to the August 18, 2020 Performing Arts Center facility walkthrough, staff was provided with meeting notes from Directors Moldow, Randazzo, and Garthoffner which included items for staff to follow-up on (Attachment 1).

These notes were combined and summarized into ten separate action items.

1. Solicit three electrical contractors to provide bids to replace existing incandescent light bulbs with LED light bulbs throughout the entire facility.
2. Request a design proposal from John Sofranko with Ruzika Company for a new light controller.
3. Request a design proposal from John Sofranko with Ruzika Company for auditorium side lighting.
4. Request a design proposal from John Sofranko with Ruzika Company for stage rigging to modify and replace the motors and wenches with new.
5. Research a man-lift that meets the needs of the facility.
6. Solicit vendors for stage curtain repairs and fire proofing.
7. Solicit bids for dining room upgrades (room divider, flooring, painting and ceiling tiles).

8. Solicit bids for lobby room upgrades (paint and carpet cleaning).
9. Provide fire alarm scope of work and if current system is code compliant.
10. Provide ADA scope of work included in SVA plans and specifications.

Action Item 5:

As directed, staff researched man lift options and found that the JLG 20VP telescoping man lift man has been used in the past to access the stage lighting. However, it was reported by Performing Arts Center staff as unstable, as well as impractical and unsafe to carry necessary light fixtures and supplies.

Staff received a recommendation from United Board Director Randazzo to obtain a cost for a JLG model FT-140 man lift which was said to be light weight at 264 pounds, portable and would possibly meet the needs of staff. The cost to purchase the JLG FT-140 telescoping lift is approximately $5,788 including tax and no charge for shipping (Attachment 2); however, the lift is backordered through Grainger until December 31, 2020. Recreation staff noted this lift's working platform was still too small to carry stage light fixtures or supplies and found telescoping arms to be unstable and was considered unsafe to use on a wooden stage floor.

The Purchasing Department researched alternate man lifts and provided pricing and general information for a Ballymore MSL-12 scissor lift with an overall weight of 917 pounds. The lift platform has room to carry stage lighting fixtures and is more stable due to being a scissor style lift. The cost for this equipment would be approximately $10,462 after tax and includes free shipping (Attachment 3).

The Recreation and Special Events Department recommended that the existing rigging system be repaired and utilized as intended in lieu of acquiring a new lift. The PAC theatre is used for approximately 75-100 events each year. A lift would be needed for a minimum of 50 events as well as for replacing light bulbs. However, there will always be some lights, such as those over the seats in the back of the theatre that will require scaffolding in order to reach them.

If the rigging system is not repaired, staff recommends a structural engineer be retained to determine the load capacity of the stage prior to any purchase, so an appropriately sized man lift can be acquired.

FINANCIAL ANALYSIS

If approved by the Board, this equipment could be purchased using the Capital Improvement budget for the Performing Arts Center.

Prepared By: Rodger Richter, Projects Manager

Reviewed By: Guy West, Projects Division Manager
Ernesto Munoz, P.E., Maintenance and Construction Director

ATTACHMENT(S)

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Attachment 2 – JLG Telescoping Man Lift Quote
Attachment 3 – Ballymore Scissor Lift Quote

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Attachment 2 – JLG Telescoping Man Lift Quote

GRAINGER

Quotation

827 Fisher Drive
Waterloo, IA 50701
www.grainger.com
(800)472-4643

Information	
Grainger Quote Number	2045603665
Validity Start Date	10/08/2020
Validity End Date	11/08/2020
Creation Date	10/08/2020
Grainger EIN Number	36-1150280
PO #	QUOTE
PO Create Date	
PO Release #	
Customer Number	805440310
Department Number	
Project/Job Number	
Requisitioner Name	
Attention	
Caller	RODGER RICHTER
Telephone Number	9494686427
Page	1 / 2

Customer Information
GOLDEN RAIN FOUNDATION LAGUNA WOODS
23081 VIA CAMPO VERDE
LAGUNA WOODS CA 92637-3393

Billing Information
GOLDEN RAIN FOUNDATION
PO BOX 2220
LAGUNA HILLS CA 92654-2220

Shipping Information
GOLDEN RAIN FOUNDATION LAGUNA WOODS
23081 VIA CAMPO VERDE
LAGUNA WOODS CA 92637-3393

Freight Forwarder

We will deliver according to the following terms and conditions:

Incoterms® 2020:	FOB ORIGIN
Freight Terms:	Prepaid
Carrier:	* See line item detail
Payment Terms:	Net 30 days after invoice date

Special Instructions:

Item PO-Line	Material	Description	Expected Del Date	Qty	Unit	Price	Total in USD
10	34AZ74	Personnel Lift,330 lb.,78 in. H Mfg Brand Name: JLG Manufacturer Part No: FT140 Carrier:		1.00	EA	5,372.26	5,372.26
						Sub Total	5,372.26
						Tax	416.35
						Total USD	$ 5,788.61

Attachment 3 – Ballymore Scissor Lift Quote

GRAINGER

Quotation

1150 W Grove Parkway, Suite 101
Tempe, AZ 85283
www.grainger.com
(800)472-4643

Information	
Grainger Quote Number	2045577985
Validity Start Date	10/08/2020
Validity End Date	11/08/2020
Creation Date	10/08/2020
Grainger EIN Number	36-1150280
PO #	QUOTE
PO Create Date	
PO Release #	
Customer Number	805440310
Department Number	
Project/Job Number	
Requisitioner Name	
Attention	
Caller	RODGER RICHTER
Telephone Number	9494686427
Page	1 / 2

Customer Information
GOLDEN RAIN FOUNDATION LAGUNA WOODS
23081 VIA CAMPO VERDE
LAGUNA WOODS CA 92637-3393

Billing Information
GOLDEN RAIN FOUNDATION
PO BOX 2220
LAGUNA HILLS CA 92654-2220

Shipping Information
GOLDEN RAIN FOUNDATION LAGUNA WOODS
23081 VIA CAMPO VERDE
LAGUNA WOODS CA 92637-3393

Freight Forwarder

We will deliver according to the following terms and conditions:

Incoterms® 2020:	FOB ORIGIN
Freight Terms:	Prepaid
Carrier:	* See line item detail
Payment Terms:	Net 30 days after invoice date

Special Instructions:

Item PO-Line	Material	Description	Expected Del Date	Qty	Unit	Price	Total in USD
10	26X079	Scissor Lift,Push-Around,500 lb. Cap. Mfg Brand Name: BALLYMORE Manufacturer Part No: MSL-12 Carrier:		1.00	EA	9,709.91	9,709.91
						Sub Total	9,709.91
						Tax	752.51
						Total USD	$ 10,462.42

Attachment 3 – Ballymore Scissor Lift Quote (continued)

GRAINGER

Product Categories / Material Handling / Access Ladders, Platforms & Scaffolding / Personnel Lifts, Scaffolding and Accessories / Personnel Lifts / Scissor Lift, Push-Around Drive, Battery Power ...

Tap image to zoom.

BALLYMORE

Scissor Lift, Push-Around Drive, Battery Power Source, 19 ft Max. Work Height, 500 lb Load Capacity

Item # **26X079**
Mfr. Model # **MSL-12**
UNSPSC # **24101617**
Catalog Page # **1033**

Ground-entry, manually propelled mini scissor lift is designed with a slim base for access to tigl View More

Country of Origin China. Country of Origin is subject to change.

Web Price
$10,910.00 / each
This item requires special shipping, additional charges may apply.

Qty 1 | Add to Cart

Shipping | Pickup

Ships from supplier. Expected to arrive on or before **Mon. Oct 12**.

Ship to **92630** | Change

Ship Availability Terms

Shipping Weight **967 lbs**

Add to List

Technical Specs

Item	Scissor Lift
Drive	Push-Around
Power Source	Battery
Load Capacity	500 lb
Closed Height	6 ft 2 in
Max. Work Height	19 ft
Platform Extension	153 in
Outrigger Footprint L	No Outriggers

Outrigger Footprint W	No Outriggers
Overall Length	51 in
Overall Width	31 in
Platform Depth	46 in
Platform Width	24 in
Max. Platform Height	12 ft 9 in
Handrail Height	42 in
Stowed Height	74 in
Casters	(2) Rigid, (2) Swivel

Chat with an Agent

Caster Dia.	6 in
Ground Clearance	6 in
Batteries Included	Yes
Gross Vehicle Weight	917 lb

Standards	ANSI
Includes	12V DC Power with Mounted Charger Included
Manufacturers Warranty Length	1 yr

GOLDEN RAIN FOUNDATION of LAGUNA WOODS

STAFF REPORT

DATE: October 14, 2020
FOR: Maintenance and Construction Committee
SUBJECT: Cost for Stage Curtain Repairs & Fire Proofing (Action Item #6)

RECOMMENDATION

Receive and provide direction.

BACKGROUND

On June 2, 2020, the Corporate Members voted against the two contract awards and supplemental appropriations needed to complete the Performing Arts Center (PAC) Maintenance Improvement project, pursuant to GRF Bylaw Sections 2.1.4, 2.1.6 and 2.1.7.

On July 13, 2020, the PAC Renovation Ad Hoc Committee reassigned several necessary maintenance improvements at the Performing Arts Center, to the GRF M&C Committee.

On August 18, 2020, staff along with a few Board members from the PAC Renovation Ad Hoc Committee and the M&C Committee visited the Performing Arts Center facility to evaluate and determine if individual improvements could be completed. A list of action items was created for staff with the intent that the individual maintenance improvements would be presented to the M&C Committee and Board for their consideration.

DISCUSSION

Subsequent to the August 18, 2020 Performing Arts Center facility walkthrough, staff was provided with meeting notes from Directors Moldow, Randazzo, and Garthoffner which included items for staff to follow-up on (Attachment 1).

These notes were combined and summarized into ten separate action items.

1. Solicit three electrical contractors to provide bids to replace existing incandescent light bulbs with LED light bulbs throughout the entire facility.
2. Request a design proposal from John Sofranko with Ruzika Company for a new light controller.
3. Request a design proposal from John Sofranko with Ruzika Company for auditorium side lighting.
4. Request a design proposal from John Sofranko with Ruzika Company for stage rigging to modify and replace the motors and wenches with new.
5. Research a man-lift that meets the needs of the facility.
6. Solicit vendors for stage curtain repairs and fire proofing.
7. Solicit bids for dining room upgrades (room divider, flooring, painting and ceiling tiles).
8. Solicit bids for lobby room upgrades (paint and carpet cleaning).

9. Provide fire alarm scope of work and if current system is code compliant.
10. Provide ADA scope of work included in SVA plans and specifications.

Action Item 6:

As directed, staff solicited vendors to provide proposals to clean; apply a fire retardant chemical; and make repairs as necessary to the light and dark stage curtains. Costs include all labor, materials, equipment, supervision and transportation necessary to provide the requested services.

The estimated cost for this work is $28,000.

FINANCIAL ANALYSIS

If approved by the Board, these services would be fully funded from the Capital Improvement budget for the Performing Arts Center.

Prepared By: Rodger Richter, Project Manager

Reviewed By: Guy West, Projects Division Manager
Ernesto Munoz, P.E., Miantenance and Construction Director

ATTACHMENT(S)

Attachment 1 – Performing Arts Center Walkthrough Notes

Attachment 1 – Performing Arts Center Walkthrough Notes

Laguna Woods Village, PAC Walkthrough Notes

On August 18, 2020, Bert Moldow, Carl Randazzo, Egon Garthoffner (of GRF, M&C Committee) and Ernesto Munoz, Guy West, Brian Gruner (of VMS) along with an independent theatre lighting consultant (John) toured the Performing Arts Center (PAC) to review the items listed below, which are part of the PAC Renovation project. When I speak of we in the text below, I am referring to the committee members that were in attendance.

1. Main auditorium lighting. We observed the currently spotty lighting (burned out bulbs), discussed problems of changing the lights that requires the erection of scaffolding just to replace burned out elements. It was agreed that LED lights could be installed in the existing openings without significant rework of fixtures. The benefits of this change are: much less frequent lamp replacement, lower power consumption and less heat generation. Along with the changeout of the bulbs, it was noted that there are dimming controls and the controls associated with stage lighting. This needs to be addressed and feedback needs to be provided to the committee. We asked to receive a design proposal for this work.

I also requested John to provide me with some insight into (inexpensive) decorative side wall lighting. I thought that some visible results of all our spending might be appreciated by community members. He will look into some LED light bars that might be used to bathe the vertical sidewalls in colored light.

2. Stage light rigging replacement. We were shown the currently installed stage light rigging. This rigging lowers stage lights to allow replacement or changes of lights and lenses and then raises them again. The current system which consist of four sets of motors, winches and many cables has been rendered inoperable for safety reasons. There were concerns about the ability of the system to handle the loads and the moving parts should have been fitted with safety covers to prevent accidental contact during operation which could easily cost someone some fingers or a hand. We asked to receive a design proposal for this work. The new design would place the winches up much higher, on level with the lights and we were informed that additional steel and supports would be required to assure that the load requirements are met. This was supposedly addressed in the SVA design.

We also wish to have evaluated the feasibility of acquiring a portable man lift for the theatre to permit safely accessing the lights without at their current location without the use of a ladder. The portable man lift is relatively inexpensive and provides for a safe approach to for the rearrangement of the stage lights. This is the way that lights are now being serviced with the exception that a ladder is being used. This man lift could also be used for some other PAC tasks. This is an economical solution to address this issue, rather than raising and lowering the lights. To better compare alternatives, some information on how often lights need to be serviced would be useful.

3. The theatre curtains. The original PAC renovation proposal was to replace the stage curtains. However, upon further examination, it appears that the real need is for renewed fireproofing to meet fire regulations. During the tour we were told that the life of these curtains should be about 30 years. There are three main curtain sets on the stage, the side curtains

Attachment 1 – Performing Arts Center Walkthrough Notes (continued)

and the front curtain that is the focus of attention when closed and the white curtain which forms the stage backdrop. There are the dark side curtains to frame the stage and the dark ceiling curtains that hide the lights. These are twenty years old. We have requested an estimate of the cost to take down the dark and white curtains, have them fireproofed and hung again. Also with this, minor repairs to the curtains can be made, as applicable.

The red front stage curtains are 14 years old. We also requested an estimate of the cost to take down these curtains, have them fireproofed and hung again.

4. The dining rooms. There are two dining rooms in the PAC. Facing the building, they are the left (north) and the right (south) dining rooms. Both are proposed for painting, ceiling tile and flooring replacement because the ceilings are discolored and the floors considerably scuffed. Along with this, lighting will be changed to LED lights.

The north dining room will be reconfigured so that it can be divided into two rooms when needed. We requested estimates to have each of these rooms renovated as described above.

5. The lobby. The lobby runs across the front of the theatre and down both sides outside the auditorium. The lobby is to be repainted and we concur with this work. However, we found the carpet to be in very good condition, even at the entry doors where you expect the most wear. We recommend that the carpet be cleaned when all the other renovation in the building is completed. We also recommend that the large hanging light fixtures be retained but that they and the other ceiling lights be converted to LEDs.

6. The ADA, fire and safety components. We briefly discussed some of this minor work and have previously approved moving ahead with this work. However, we would like some detail just what the "upgrade" of the fire alarm system entails, since it is about $85K. Are we currently out of compliance?

7. Power panels. Though part of the initial PAC proposal, adding power panels was not considered for this phase of the PAC renovation. However, we took time to look at the existing power panels and found a considerable number of empty slots for future expansion, if needed. This work is unnecessary and is in any case not part of this phase of in any case. It will also be deleted from future phases.

SUMMARY

All in all, this on-site tour was most valuable. It gave us an understanding we have never achieved in all the meetings we and others have had over the years now. "Need" as seen through the eyes of the "payer" and not an architectural firm looking for a project to do, often has a very different look. We hope we can now get this work underway and completed by the time we are allowed to use the PAC again.

Additional comments below were provided by Bert Moldow and are included below as is.

Attachment 1 – Performing Arts Center Walkthrough Notes (continued)

A few minor suggestions.

1. I believe the overhead stage light replacements are accomplished with the use of a ladder. If we purchased a man lift it would be from the capital equipment budget and I believe would not be charged to the renovation.

2. I believe we need to include the required ADA work identified.

3. For safety we need to replace the exit signs which I believe are backlit with incandescent bulbs with exit signs backlit with LEDs and lithium ion battery backup.
I believe this work should be part of a contract for changing the lighting to LEDs.

4. I believe we needed to replace the fire extinguishers. That could be done quickly. Each extinguisher should have a replacement date tag.

GOLDEN RAIN FOUNDATION of LAGUNA WOODS

STAFF REPORT

DATE: October 14, 2020
FOR: Maintenance and Construction Committee
SUBJECT: Upgrades for Dining Room (Action Item #7) & Lobby (Action Item #8)

RECOMMENDATION

Receive and provide direction.

BACKGROUND

On June 2, 2020, the Corporate Members voted against the two contract awards and supplemental appropriations needed to complete the Performing Arts Center (PAC) Maintenance Improvement project, pursuant to GRF Bylaw Sections 2.1.4, 2.1.6 and 2.1.7.

On July 13, 2020, the PAC Renovation Ad Hoc Committee reassigned several necessary maintenance improvements at the Performing Arts Center, to the GRF M&C Committee.

On August 18, 2020, staff along with a few Board members from the PAC Renovation Ad Hoc Committee and the M&C Committee visited the Performing Arts Center facility to evaluate and determine if individual improvements could be completed. A list of action items was created for staff with the intent that the individual maintenance improvements would be presented to the M&C Committee and Board for their consideration.

DISCUSSION

Subsequent to the August 18, 2020 Performing Arts Center facility walkthrough, staff was provided with meeting notes from Directors Moldow, Randazzo, and Garthoffner which included items for staff to follow-up on (Attachment 1).

These notes were combined and summarized into ten separate action items.

1. Solicit three electrical contractors to provide bids to replace existing incandescent light bulbs with LED light bulbs throughout the entire facility.
2. Request a design proposal from John Sofranko with Ruzika Company for a new light controller.
3. Request a design proposal from John Sofranko with Ruzika Company for auditorium side lighting.
4. Request a design proposal from John Sofranko with Ruzika Company for stage rigging to modify and replace the motors and wenches with new.
5. Research a man-lift that meets the needs of the facility.
6. Solicit vendors for stage curtain repairs and fire proofing.
7. Solicit bids for dining room upgrades (room divider, flooring, painting and ceiling tiles).
8. Solicit bids for lobby room upgrades (paint and carpet cleaning).

9. Provide fire alarm scope of work and if current system is code compliant.
10. Provide ADA scope of work included in SVA plans and specifications.

Action Items 7 and 8:

As directed, staff solicited construction bids for the Lobby upgrades which consist of painting and carpet cleaning, as well as bids for the North and South Dining Room interior finishes which consist of demolition, new flooring, drywall repairs, painting, acoustic ceiling tiles, and a light diffuser. Staff received two bids, the lowest of which came in at $115,984. However, the room partition for the dining room was not included in the contractor's bids, as both bidders requested more time to provide a cost for this item.

FINANCIAL ANALYSIS

If approved by the Board, this project would be fully funded from the Capital Improvement budget for the Performing Arts Center.

Prepared By: Rodger Richter, Project Manager

Reviewed By: Guy West, Project Division Manager
Ernesto Munoz, P.E., Maintenance and Construction Director

ATTACHMENT(S)

Attachment 1 – Performing Arts Center Walkthrough Notes

Attachment 1 – Performing Arts Center Walkthrough Notes

Laguna Woods Village, PAC Walkthrough Notes

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I also requested John to provide me with some insight into (inexpensive) decorative side wall lighting. I thought that some visible results of all our spending might be appreciated by community members. He will look into some LED light bars that might be used to bathe the vertical sidewalls in colored light.

2. Stage light rigging replacement. We were shown the currently installed stage light rigging. This rigging lowers stage lights to allow replacement or changes of lights and lenses and then raises them again. The current system which consist of four sets of motors, winches and many cables has been rendered inoperable for safety reasons. There were concerns about the ability of the system to handle the loads and the moving parts should have been fitted with safety covers to prevent accidental contact during operation which could easily cost someone some fingers or a hand. We asked to receive a design proposal for this work. The new design would place the winches up much higher, on level with the lights and we were informed that additional steel and supports would be required to assure that the load requirements are met. This was supposedly addressed in the SVA design.

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Attachment 1 – Performing Arts Center Walkthrough Notes (continued)

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The north dining room will be reconfigured so that it can be divided into two rooms when needed. We requested estimates to have each of these rooms renovated as described above.

5. The lobby. The lobby runs across the front of the theatre and down both sides outside the auditorium. The lobby is to be repainted and we concur with this work. However, we found the carpet to be in very good condition, even at the entry doors where you expect the most wear. We recommend that the carpet be cleaned when all the other renovation in the building is completed. We also recommend that the large hanging light fixtures be retained but that they and the other ceiling lights be converted to LEDs.

6. The ADA, fire and safety components. We briefly discussed some of this minor work and have previously approved moving ahead with this work. However, we would like some detail just what the "upgrade" of the fire alarm system entails, since it is about $85K. Are we currently out of compliance?

7. Power panels. Though part of the initial PAC proposal, adding power panels was not considered for this phase of the PAC renovation. However, we took time to look at the existing power panels and found a considerable number of empty slots for future expansion, if needed. This work is unnecessary and is in any case not part of this phase of in any case. It will also be deleted from future phases.

SUMMARY

All in all, this on-site tour was most valuable. It gave us an understanding we have never achieved in all the meetings we and others have had over the years now. "Need" as seen through the eyes of the "payer" and not an architectural firm looking for a project to do, often has a very different look. We hope we can now get this work underway and completed by the time we are allowed to use the PAC again.

Additional comments below were provided by Bert Moldow and are included below as is.

A few minor suggestions.

Attachment 1 – Performing Arts Center Walkthrough Notes (continued)

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GOLDEN RAIN FOUNDATION of LAGUNA WOODS

STAFF REPORT

DATE: **October 14, 2020**
FOR: **Maintenance and Construction Committee**
SUBJECT: **Scope of Work for Fire Alarm (Action Item #9)**

RECOMMENDATION

Receive and file.

BACKGROUND

On June 2, 2020, the Corporate Members voted against the two contract awards and supplemental appropriations needed to complete the Performing Arts Center (PAC) Maintenance Improvement project, pursuant to GRF Bylaw Sections 2.1.4, 2.1.6 and 2.1.7.

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DISCUSSION

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8. Solicit bids for lobby room upgrades (paint and carpet cleaning).
9. Provide fire alarm scope of work and if current system is code compliant.
10. Provide ADA scope of work included in SVA plans and specifications.

Action Item 9:

As directed, the fire alarm scope of work prepared by SVA Architects is included in this report as Attachment 2. Since a fire alarm plan is a deferred submittal, the full scope has not been developed and totality of the scope is dependent on the fire alarm contractor design and fire authority review.

The existing fire alarm system includes a voice evacuation system, audible/visual devices such as visual strobes and speaker strobe combos, as well as a complete fire sprinkler system throughout the entire building. If a major renovation were to occur, a new code compliant system would be required and is included in the SVA drawings as a deferred submittal for this purpose.

FINANCIAL ANALYSIS

The total cost of a code compliant fire alarm system is unknown at this time. However, there is unencumbered funding for the Performing Arts Center in the amount of $2,991,094 that could fund this work in the future.

Prepared By: Rodger Richter, Project Manager

Reviewed By: Guy West, Projects Division Manager
Ernesto Munoz, P.E. Maintenance and Construction Director

ATTACHMENT(S)

Attachment 1 – Performing Arts Center Walkthrough Notes
Attachment 2 – SVA Fire Alarm System Specifications

Attachment 1 – Performing Arts Center Walkthrough Notes

Laguna Woods Village, PAC Walkthrough Notes

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Attachment 1 – Performing Arts Center Walkthrough Notes (continued)

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The north dining room will be reconfigured so that it can be divided into two rooms when needed. We requested estimates to have each of these rooms renovated as described above.

5. The lobby. The lobby runs across the front of the theatre and down both sides outside the auditorium. The lobby is to be repainted and we concur with this work. However, we found the carpet to be in very good condition, even at the entry doors where you expect the most wear. We recommend that the carpet be cleaned when all the other renovation in the building is completed. We also recommend that the large hanging light fixtures be retained but that they and the other ceiling lights be converted to LEDs.

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Attachment 1 – Performing Arts Center Walkthrough Notes (continued)

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A few minor suggestions.

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Attachment 2 – SVA Fire Alarm System Specifications (20 pages)

SECTION 28 31 11

DIGITAL ADDRESSABLE FIRE-ALARM SYSTEM

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

1. Fire Alarm Control Unit.
2. Manual Fire Alarm Boxes.
3. Analog Sensors.
4. Conventional Detectors.
5. Miscellaneous Detection.
6. Addressable Modules.
7. Notification Appliances.
8. Magnetic Door Holders.
9. Remote Annunciators.
10. Addressable Interface Modules.
11. Digital Alarm Communicator Transmitter.
12. Network Printer.

1.2 DEFINITIONS

A. Definitions in NFPA 72 and UL 864 are inclusive to this section.

B. LED: Light-emitting diode.

C. NICET: National Institute for Certification in Engineering Technologies.

D. FACP: Main Fire Alarm Control Panel.

E. MINIPLEX: Remote input/output panel connected to a FACP via Remote Unit Interface.

F. NETWORK: FACP(s) interlinked via dedicated fiber connections to the GCC.

G. GCC: Graphical Command Center – Site FACP Network Portal.

H. IMS: Integrated Management System – Site FACP Network Portal.

I. DACT: Digital Alarm Communication Transmitter – FACP Alarm Reporting media to the Site Police Department.

J. TAC: Notification power supply and controller for addressable horns and strobes.

K. TPS: An addressable Notification Power supply mounted in an FACP enclosure.

L. RPS: Remote Power Supply for conventional horns and strobes.

1.3 SYSTEM DESCRIPTION

A. Non-coded, UL 864 9th edition, UL-certified analog-addressable system with automatic sensitivity control of system smoke detectors at the main panel and the GCC.

B. Multiplexed signal transmission, dedicated to fire service only.

1.4 PERFORMANCE REQUIREMENTS

A. Comply with NFPA 72.

B. UL listed and labeled.

C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

D. Seismic Performance FACP and raceways shall withstand the effects of earthquake motions determined according to the VIBRATION AND SEISMIC CONTROLS FOR ELECTRICAL SYSTEM SPECIFICATION SECTION.

1.5 SUBMITTALS

A. General Submittal Requirements:

1. Submittals: Product Data and system operating description.

2. Submittals to Authorities Having Jurisdiction: In addition to distribution requirements for submittals, make an identical submittal to authorities having jurisdiction. To facilitate review, include copies of annotated Contract Drawings as needed to depict component locations.

3. Shop Drawings shall be prepared by persons with the following qualifications:

a. Trained and certified by manufacturer in fire alarm system design.
b. Fire alarm certified by NICET, minimum Level II.

B. Product Data:

1. Provide manufactures data sheets and CSFM listing sheets for all products.

C. Shop Drawings:

1. Fire Alarm System:

a. Include plans, elevations, sections, details, riser diagrams general notes, location, Scope of the Work and attachments to other work.
b. System Operation Description: Detailed description for this Project, including method of operation and supervision of each type of circuit and sequence of operations for manually and automatically initiated system inputs and outputs. Manufacturer's standard descriptions for generic systems are not acceptable.

c. Comply with recommendations in the “Documentation” Section of the “Fundamentals of Fire Alarm Systems” chapter in NFPA 72.
d. Include voltage drop calculations for all notification appliance circuit.

1) Worst case only calculations are not acceptable.

e. Include battery-size calculation(s) with stand-by and alarm loads for all components.
f. Include electrical panel and circuit number for all 120VAC sources.
g. Device Address:

1) Show the address for each addressable device shown on the plans.
2) Coordinate custom device label with DCFM prior to programming labels.

h. System Riser Diagram: Show all equipment, terminal cans, devices, conduit routing, cable routing and cable type and quantity. Provide ladder type riser lay-out with all interconnecting conduits.
i. Wiring Diagrams: Provide wiring type, part number, manufacture and color code.
j. Power, Signal, and Control Wiring: Include diagrams for equipment and for system with all terminals and interconnections identified.
k. Duct Smoke Detectors: Provide performance parameters and installation details for each duct detector or in-duct detector, provide the complete range of air velocity, temperature, and humidity allowed for proper operation. Provide weatherproof detail for all roof top mounted and/or exposed detectors.
l. Ductwork Drawings: Show critical dimensions that relate to placement and support of sampling tubes, the detector housing, and remote status and alarm indicators. Locate detectors on plans according to manufacturer's written recommendations.
m. Floor Plans: Indicate final outlet locations showing address of each addressable device. Show route of cable and conduits.
n. Room numbers: Confirm room numbers being used in programming are the final numbers assigned by Facilities Management.

D. Submittals to Designated Site Fire Marshal (DCFM): In addition to distribution requirements for submittals specified in Division 01 Section “Submittals”, make an identical submittal to the Owner. To facilitate review, include copies of annotated Contract Drawings as needed to depict component locations. Resubmit as required to make clarifications or revisions to obtain approval. On receipt of comments from Site Fire Marshal, submit them to the Owner for review.

E. Resubmittals: Make corrections and resubmit drawings as required until the plans are reviewed and approved by the Site Fire Marshal.

F. Delegated-Design Submittals: The Mechanical Engineer of Record will coordinate the specific location of each duct detector with the mechanical, electrical and fire alarm contractors prior to the installation of any duct mounted device.

1.6 QUALITY ASSURANCE

A. Installer Qualifications:

1. Personnel installing wire, cable, devices or making final connections shall be trained or supervised by the manufacturer.
2. Installers shall be licensed, as required, by the State of California.

B. Electrical Components, Devices, and Accessories:

1. Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to AHJ and marked for intended use.

1.7 PROJECT CONDITIONS

A. Interruption of Existing Fire Alarm Service: Do not interrupt fire alarm service to facilities occupied by the Owner or others unless permitted under the following conditions and then only after arranging to provide temporary guard service according to requirements indicated:

1. Notify the Owner's Representative no fewer than fourteen days in advance of proposed interruption of fire alarm service.
2. Do not proceed with interruption of fire alarm service without the Owner's Representative written permission.

1.8 SEQUENCING AND SCHEDULING

A. Existing Fire Alarm Equipment: Maintain fully operational until new equipment has been tested and accepted. As new equipment is installed, label it "NOT IN SERVICE" until it is accepted. Remove labels from new equipment when put into service and label existing fire alarm equipment "NOT IN SERVICE" until removed from the building.

1.9 SOFTWARE SERVICE AGREEMENT

A. End-User Technical Support: The site is trained on all software required for the proper operation, programming, servicing or testing of the FACP and FACP Network. Additional Software and Hardware training for the Site staff shall be coordinated with the Facilities Department on as needed bases.

B. At the completion of the project update the FACP software and firmware to the latest version required for proper operation of the system. Provide access for software and firmware upgrades via the internet. Upgrade shall include new or revised licenses for use of the software.

1.10 EXTRA MATERIALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Quantities of the following devices equal to 10 percent of the amounts shown for each device on the approved plans but no less than one of each type of device.

a. Pull Station.
b. Addressable Monitor Module.
c. Addressable Control Module.

d. Smoke Detector Head (sensor).
e. Smoke Detector Base.
f. Heat Detector Head (sensor).
g. Heat Detector Base.
h. Duct Detector Housing with Head.
i. In-Duct Detector Housing.
j. Indoor Indicating Devices: Horn, Speaker, Strobe and/or combination devices.
k. Keys and Tools: One set of each key and/or special tool used for locks and access.

PART 2 - PRODUCTS

2.1 FIRE ALARM CONTROL PANEL (FACP)

A. General: Comply with UL 864 9th editions, "Control Units for Fire-Protective Signaling Systems."

B. The following minimum FACP hardware shall be provided:

1. 120 VAC input power powered panel with 250 points capacity expandable to 2000 in groups of 250 points, 9 amps of system power with 3 built in NAC circuits, a battery charger and batteries

   a. Point capacity is defined where (1) point equals (1) monitor (input) or (1) control (output).

2. From all battery charging circuits in the system provide battery voltage and ammeter readouts on the FCP LCD Display.
3. Municipal City Circuit Connection with Disconnect switch, 24VDC Remote Station (reverse polarity), local energy, shunt master box, or a form "C" contact output.
4. One Auxiliary electronically resetable fused 2A @24VDC Output, with programmable disconnect operation for 4-wire detector reset.
5. One Auxiliary Relay, SPDT 2A @ 32VDC, programmable as a trouble relay, either as normally energized or de-energized, or as an auxiliary control.
6. Where required provide Intelligent Remote Battery Charger for charging up to 110Ah batteries.
7. Power Supplies with three integral intelligent Notification Appliance Circuit Class B for system expansion.
8. Four (4) form "C" Auxiliary Relay Circuits (Form C contacts rated 2A @ 24VDC, resistive), operation is programmable for trouble, alarm, supervisory of other fire response functions. Relays shall be capable of switching up to ½ A @ 120VAC, inductive.
9. The FACP shall support (6) RS-232-C ports and one service port.
10. Remote Unit Interface: supervised serial communication channel for control and monitoring of remotely located annunciator and I/O panels.
11. Programmable DACT for either Common Event Reporting or per Point Reporting.
12. Service Port Modem for dial in passcode access to all fire control panel information.

C. Cabinet: Lockable steel enclosure. Arrange unit so all operations required for testing or for normal care and maintenance of the system are performed from the front of the enclosure.

If more than a single unit is required to form a complete control unit, provide exactly matching modular unit enclosures.

D. Alphanumeric Display and System Controls: Panel shall include an 80-character LCD display to indicate alarm, supervisory, and component status messages and shall include a keypad for use in entering and executing control commands.

E. Voice Alarm: Provide an emergency communication system, integral with the FACP, including voice alarm system components, microphones, amplifiers, and tone generators. Features include:

1. Amplifiers comply with UL 1711, "Amplifiers for Fire Protective Signaling Systems." Amplifiers shall provide an onboard local mode temporal coded horn tone as a default backup tone.
2. Test switches on the amplifier shall be provided to test and observe amplifier backup switchover. Each amplifier shall communicate to the host panel amplifier and NAC circuit voltage and current levels for display on the user interface.
3. Each amplifier shall provide at least 3 on-board NAC circuits for speaker circuit connection.
4. All announcements are made over dedicated, supervised communication lines. All risers shall support Class B wiring for each audio channel.
5. Eight channel digitally multiplexed audio for systems that require more than two channels of simultaneous audio. Up to 8 channels of audio shall be multiplexed on either a style 4 twisted pair.
6. Emergency voice communication audio controller module shall provide up to 32 minutes of message memory for digitally stored messages. Provide supervised connections for master microphone and up to 5 remote microphones.

F. Distributed Module Operation:

1. FACP shall be capable of allowing remote location of the following modules:

a. Amplifiers, voice and telephone control circuits.
b. Addressable Signaling Line Circuits.
c. Initiating Device Circuits.
d. Notification Appliance Circuits.
e. Auxiliary Control Circuits.
f. Graphic Annunciator LED/Switch Control Modules.

2.2 MANUFACTURERS

G. Manufacturers: Subject to compliance with requirements and approval of the Owner's Representative, provide products compatible with the existing Site GCC and Network:

1. FACP Equipment and enclosures:

a. SimplexGrinnell.
b. Hoffman (weatherproof applications only).

2. Wire and Cable:

a. Comtran Corporation.
b. Helix/HiTemp Cables, Inc.; a Draka USA Company.

c. Rockbestos-Suprenant Cable Corporation; a Marmon Group Company.
d. West Penn Wire/CDT; a division of Cable Design Technologies.

3. Audible and Visual Signals:

a. SimplexGrinnell.
b. Wheelock (weatherproof applications only).

2.3 SYSTEM OPERATIONAL DESCRIPTION

A. Fire alarm signal initiation shall be by one or more of the following devices or systems:

1. Manual Station.
2. Analog Sensor.
3. Smoke Detector.
4. Duct Detector.
5. Heat Detector.
6. Flame Detector.
7. Beam Detector.
8. Automatic Sprinkler System Water Flow.
9. Special Extinguishing System.
10. Fire Standpipe System.
11. GCC.
12. Networked FACP.

B. Fire alarm signal shall initiate the following actions:

1. Continuously operate alarm notification appliances.
2. Identify alarm at the fire alarm control panel.
3. Transmit alarm signal to the site police department as required.
4. Transmit alarm signal to the GCC and Network as required.
5. Unlock electric door locks as required.
6. Release fire and smoke doors and magnetic door holders as required.
7. Activate notification devices as required.
8. Activate Sprinkler Bell (waterflow only).
9. Activate general alarm horn (all but waterflow).
10. Close smoke dampers as required.
11. Recall or shunt elevators as required.
12. Record events in the system memory.
13. Record events by the Network printer.
14. Record events on the GCC and/or IMS.
15. Networked FACP action(s) as required.

C. Supervisory signal initiation shall be by one or more of the following devices and actions:

1. Valve supervisory switch.
2. Low-air-pressure switch of a dry-pipe sprinkler system.
3. Elevator shunt trip supervision.

D. System trouble signal initiation shall be by one or more of the following devices and actions:

1. Open circuits, shorts, and grounds in designated circuits.
2. Opening, tampering with or removing alarm-initiating and supervisory signal- initiating

devices.
3. Loss of primary power at FACP, MINIPLEX or TAC.
4. Abnormal ac voltage at FACP, MINIPLEX or TAC.
5. Break in standby battery circuitry.
6. Failure of battery charger.
7. Abnormal position of any switch at FACP, MINIPLEX, TAC or remote annunciator.
8. Abnormal condition of any pre-action or suppression system.
9. Disabled device.
10. Loss of Network communication.

E. FACP

1. Modular, power-limited design with electronic modules, UL 864 listed.
2. Addressable initiation devices that communicate device identity and status.

    a. Smoke sensors shall additionally communicate sensitivity setting and allow for adjustment of sensitivity at the FACP.
    b. Temperature sensors shall additionally test for and communicate the sensitivity range of the device.

3. Addressable control modules for operation of mechanical equipment.

F. Circuits:

1. System Initial Design Layout:

    a. Signaling Line Circuits:

        1) NFPA 72, Class B, Style 0.5 unless noted otherwise.
        2) Install no more than 200 addressable devices on each signaling line circuit.

    b. Notification-Appliance Circuits:

        1) NFPA 72, Class B, Style W. unless noted otherwise.
        2) Provide spare capacity as noted.

    c. Actuation of alarm notification appliances, emergency audible devices, annunciation, elevator recall, and actuation of suppression systems shall occur within 10 seconds after the activation of an initiating device.

2. Electrical monitoring for the integrity of wiring external to the FACP for mechanical equipment shutdown and magnetic door-holding circuits is not required, provided a break in the circuit will cause doors to close and mechanical equipment to shut down.

G. Notification-Appliance Circuit:

1. Operation shall sound in a temporal pattern, complying with ANSI S3.41.

H. Elevator Interface:

1. Initiation of elevator recall shall be in accordance with ASME/ANSI A17.1, when specified detectors or sensors are activated.

2. Heat detector operation shuts down elevator power by operating a shunt trip in a circuit breaker feeding the elevator.
3. Smoke detectors at the following locations shall initiate automatic elevator recall:

    a. Elevator lobby detector except the lobby detector on the designated floor.
    b. Smoke detector in elevator machine room.
    c. Smoke detector in elevator hoistway.

4. Elevator lobby detectors located on the designated recall floors shall be programmed to move the cars to the alternate recall floor.
5. Heat detector alarms and water flow alarm in an elevator shaft and/or elevator machine room shall shut down elevators associated with the location without time delay.
6. A field-mounted relay actuated by the fire detector or the FACP closes the shunt trip circuit and operates building notification appliances and annunciators.

I. Alarm Silencing, Trouble, and Supervisory Alarm Reset:

1. Manual reset at the FACP after initiating devices are restored to normal.
2. Silencing-switch operation halts alarm operation of notification appliances and activates an "alarm silence" light. Display of identity of the alarm zone or device is retained.
3. Subsequent alarm signals from other devices or zones reactivate notification appliances until silencing switch is operated again.
4. When alarm-initiating devices return to normal and system reset switch is operated, notification appliances operate again until alarm silence switch is reset.

J. Walk Test: A test mode to allow one person to test alarm and supervisory features of initiating devices. Enabling of this mode shall require the entry of a password. The FACP and annunciators shall display a test indication while the test is underway. If testing ceases while in walk-test mode, after a preset delay, the system shall automatically return to normal.

K. Remote Smoke-Detector Sensitivity Adjustment: Controls shall select specific addressable smoke detectors for adjustment, display their current status and sensitivity settings, and control of changes in those settings. Allow controls to be used to program repetitive, time-scheduled, and automated changes in sensitivity of specific detector groups. Record sensitivity adjustments and sensitivity-adjustment schedule changes in system memory, and make a print-out of the final adjusted values on the network printer.

L. Transmission to Remote Alarm Receiving Station:

1. Automatically transmit alarm, trouble, and supervisory signals to the Site Police,
2. Provide the hardware to transmit individual device locations and troubles to the Site GCC or IMS.

M. Service Modem:

1. Ports shall be RS-232 for system printer and for connection to a dial-in terminal unit and secure internet connection.
2. The dial-in port shall allow remote access to the FACP for programming changes and system diagnostic routines. Access by a remote terminal shall be by encrypted

password algorithm.

N. Printout of Events:

1. On receipt of signal, print alarm, supervisory, and trouble events. Identify zone, device, and function. Include type of signal (alarm, supervisory, or trouble), and date and time of occurrence. Differentiate alarm signals from all other printed indications. Also print system reset event, including the same information for device, location, date, and time. Commands initiate the printing of a list of existing alarm, supervisory, and trouble conditions in the system and a historical log of events.
2. Storage of Events: Information printed out shall be stored as an event on the Site GCC or IMS.

O. Primary Power: 24-V dc obtained from 120-V ac service and a power-supply module. Initiating devices, notification appliances, signaling lines, trouble signal, supervisory and digital alarm communicator transmitter shall be powered by the 24-V dc source.

1. The alarm current draw of the entire fire alarm system shall not exceed 80 percent of the power-supply module rating.
2. Power supply shall have a dedicated fused safety switch for this connection at the service entrance equipment. Paint the switch box red and identify it with "FIRE ALARM SYSTEM POWER."

P. Surge Protection:

1. Install surge protection on normal ac power for the FACP and its accessories. Comply with Division 26 Section "Transient Voltage Suppression" for auxiliary panel suppressors.
2. Install surge protectors recommended by FACP manufacturer. Install on all system wiring external to the building housing the FACP.

Q. Instructions:

1. Computer printout or typewritten instruction card mounted behind a plastic or glass cover in a stainless-steel or aluminum frame. Include interpretation and describe appropriate response for displays and signals. Briefly describe the functional operation of the system under normal, alarm, and trouble conditions.

2.4 ADDRESSABLE MANUAL FIRE ALARM BOXES

A. UL 38 listed; finished in red with molded, raised-letter operating instructions in contrasting color. Station shall show visible indication of operation. Mounted on recessed outlet box; if indicated as surface mounted, provide manufacturer's surface back box.

B. Single-action mechanism, pull-lever type. With integral addressable module, arranged to communicate individual manual-station status (normal, alarm, or trouble) to the FACP and Site GCC.

C. Weatherproof Fire Alarm Boxes: Provide weatherproof single-action devices with addressable module.

D. Covers: Factory-fabricated clear plastic enclosures are not permitted to be used.

2.5 ADDRESSABLE ANALOG SENSORS

A. SMOKE SENSORS

1. General: Comply with UL 268, "Smoke Detectors for Fire Protective Signaling Systems."
2. Include the following features:

    a. Factory Nameplate: Serial number and type identification.
    b. Operating Voltage: 24 VDC, nominal.

3. Self-Restoring: Detectors do not require resetting or readjustment after actuation to restore normal operation.
4. Plug-In Arrangement: Sensor and associated electronic components are mounted in a module that connects to a fixed base with a twist-locking plug connection. Base shall provide break-off plastic tab that can be removed to engage the head/base locking mechanism. No special tools shall be required to remove head once it has been locked. Removal of the detector head shall interrupt the supervisory circuit of the fire alarm detection loop and cause a trouble signal at the control unit.
5. Each sensor base shall contain an LED that will flash each time it is scanned by the Control Unit (once every 4 seconds). In alarm condition, the sensor base LED shall be on steady.
6. Each sensor base shall contain a magnetically actuated test switch to provide for easy alarm testing at the sensor location.
7. Each sensor shall be scanned by the Control Unit for its type identification to prevent inadvertent substitution of another sensor type. Upon detection of a "wrong device", the control unit shall operate with the installed device at the default alarm settings for that sensor; 2.5% obscuration for photoelectric sensor, 135-deg F and 15-deg F rate-of-rise for the heat sensor, but shall indicate a "Wrong Device" trouble condition.
8. The sensor's electronics shall be immune from false alarms caused by EMI and RFI.
9. Sensors include a communication transmitter and receiver in the mounting base having a unique identification and capability for status reporting to the FACP. Sensor address shall be located in base to eliminate false addressing when replacing sensors.
10. Environmental compensation, programmable sensitivity settings, status testing, and monitoring of sensor dirt accumulation for the duct sensor shall be provided by the FACP.
11. Removal of the sensor head for cleaning shall not require the setting of addresses.

B. Type: Smoke sensors shall be of the photoelectric or combination photoelectric / heat type.

1. Where acceptable per manufacturer specifications, ionization type sensors may be used.

C. Bases: Relay output, Remote LED, sounder and isolator bases shall be supported alternatives to the standard base.

D. Duct Smoke Sensor:

1. Photoelectric type, with housing and sampling tube of design and dimensions as

recommended by the manufacturer for the specific duct size and installation conditions where applied. Sensor includes relay as required for fan shutdown.

2. When required the Duct Housing shall provide a supervised relay driver circuit for driving up to 15 relays with a single "Form C" contact rated at 7A@ 28VDC or 10A@ 120VAC. This auxiliary relay output shall be fully programmable. Relay shall be mounted within 3 feet of HVAC control circuit.
3. Duct Housing shall provide a relay control trouble indicator Yellow LED.
4. Compact Duct Housing shall have a transparent cover to monitor for the presence of smoke. Cover shall secure to housing by means of four (4) captive fastening screws.
5. Duct Housing shall provide two (2) Test Ports for measuring airflow and for testing. These ports will allow aerosol injection in order to test the activation of the duct smoke sensor.
6. Duct Housing shall provide a magnetic test area and Red sensor status LED.
7. For maintenance purposes, it shall be possible to clean the duct housing sampling tubes by accessing them through the duct housing front cover.
8. Where indicated a NEMA 4X weatherproof duct housing enclosure shall provide for the circulation of conditioned air around the internally mounted addressable duct sensor housing to maintain the sensor housing at its rated temperature range. The housing shall be UL Listed to Standard 268A.
9. Provide in-duct detector assembly(ies) with Photoelectric sensor:

    a. Where sampling tube designs are not appropriate.
    b. Where air flow coverage is from 35-600 Ft/Min.

10. Provide a remote test switch (RTS), on all duct type detectors when the device's alarm LED is obstructed from being clearly visible from the floor or the device is mounted higher than 9' A.F.F.

    a. Mount RTS below detector in the ceiling or on the nearest sidewall as directed by the DSFM.

2.6 HEAT SENSORS

A. Thermal Sensor:

1. Combination fixed-temperature and rate-of-rise unit with plug-in base and alarm indication lamp; 135-deg F fixed-temperature setting except as indicated.
2. Thermal sensor shall be of the epoxy encapsulated electronic design. It shall be thermistor-based, rate-compensated, self-restoring and shall not be affected by thermal lag.
3. Sensor fixed temperature sensing shall be independent of rate-of-rise sensing and] programmable to operate at 135-deg F or 155-deg F. Sensor rate-of-rise temperature detection shall be selectable at the FACP for either 15-deg F or 20- deg F per minute.
4. Sensor shall have the capability to be programmed as a utility monitoring device to monitor for temperature extremes in the range from 32-deg F to 155-deg F.

2.7 CONVENTIONAL SYSTEM SMOKE DETECTORS

A. Unless otherwise indicated, detectors shall be analog-addressable type, individually monitored at the FACP for calibration, sensitivity, and alarm condition, and individually adjustable for sensitivity from the FACP, internet and Site GCC.

2.8 ADDRESSABLE CIRCUIT INTERFACE MODULES

A. Addressable Circuit Interface Modules: Arrange to monitor one or more system components that are not otherwise equipped for addressable communication. Modules shall be used for monitoring of water flow, valve tamper, non-addressable devices, and for control of evacuation indicating appliances and AHU systems.

B. Addressable Circuit Interface Modules will be capable of mounting in a standard electric outlet box. Modules will include cover plates to allow surface or flush mounting. Modules will receive their operating power from the signaling line or a separate two wire pair running from an appropriate power supply as required.

C. There shall be the following types of modules:

1. Type 1: Monitor Circuit Interface Module:

    a. For conventional 2-wire smoke detector and/or contact device monitoring with Class B or Class A wiring supervision. The supervision of the zone wiring will be Class B. This module will communicate status (normal, alarm, trouble) to the FACP.
    b. For conventional 4-wire smoke detector with Class B wiring supervision. The module will provide detector reset capability and over-current power protection for the 4-wire detector. This module will communicate status (normal, alarm, trouble) to the FACP.

2. Type 2: Line Powered Monitor Circuit Interface Module:
    a. This type of module is an individually addressable module that has both its power and its communications supplied by the two wire multiplexing signaling line circuit. It provides location specific addressability to an initiating device by monitoring normally open dry contacts. This module shall have the capability of communicating four zone status conditions (normal, alarm, current limited, trouble) to the FACP.
    b. This module shall provide location specific addressability for up to five initiating devices by monitoring normally closed or normally open dry contact security devices. The module shall communicate four zone status conditions (open, normal, abnormal, and short). The two-wire signaling line circuit shall supply power and communications to the module.

3. Type 3: Single Address Multi-Point Interface Modules:

    a. This multipoint module shall provide location specific addressability for four initiating circuits and control two output relays from a single address. Inputs shall provide supervised monitoring of normally open, dry contacts and be capable of communicating four zone status conditions (normal, open, current limited, and short). The input circuits and output relay operation shall be controlled independently and disabled separately.
    b. This dual point module shall provide a supervised multi-state input and a relay output, using a single address. The input shall provide supervised monitoring of two normally open, dry contacts with a single point and be capable of communicating four zone status conditions (normal, open, current limited, and short). The two-wire signaling line circuit shall supply power and

communications to the module.

c. This dual point module shall monitor an unsupervised normally open, dry contact with one point and control an output relay with the other point, using a single address. The two-wire signaling line circuit shall supply power and communications to the module.

4. Type 4: Line Powered Control Circuit Interface Module: This module shall provide control and status tracking of a Form "C" contact. The two-wire signaling line circuit shall supply power and communications to the module.

5. Type 5: 4-20 mA Analog Monitor Circuit Interface Module: This module shall communicate the status of a compatible 4-20 mA sensor to the FACP. The FACP shall annunciate up to three threshold levels, each with custom action message; display and archive actual sensor analog levels; and permit sensor calibration date recording.

D. All Circuit Interface Modules shall be supervised and uniquely identified by the control unit. Module identification shall be transmitted to the control unit for processing according to the program instructions. Modules shall have an on-board LED to provide an indication that the module is powered and communicating with the FACP. The LEDs shall provide a troubleshooting aid since the LED blinks on poll whenever the peripheral is powered and communicating.

2.9 ADDRESSABLE ALARM NOTIFICATION APPLIANCES

A. Addressable Notification Appliances:

1. The Contractor shall furnish and install Addressable Notification Appliances and accessories to operate on compatible signaling line circuits (SLC).
2. Addressable Notification appliance operation shall provide power, supervision and separate control of horns and strobes over a single pair of wires. The controlling channel (SLC) digitally communicates with each appliance and receives a response to verify the appliance's presence on the channel. The channel provides a digital command to control appliance operation. SLC channel wiring shall be unshielded twisted pair (UTP), with a capacitance rating of less than 60pf/ft. and a minimum 3 twists (turns) per foot.
3. Class B (Style 4) notification appliances shall be wired without requiring traditional in/out wiring methods; addressable "T" Tapping shall be permitted. Up to 63 appliances can be supported on a single channel.
4. Each Addressable notification appliance shall contain an electronic module and a selectable address setting to allow it to occupy a unique location on the channel. This on-board module shall also allow the channel to perform appliance diagnostics that assist with installation and subsequent test operations. A visible LED on each appliance shall provide verification of communications and shall flash with the appliances address setting when locally requested using a magnetic test tool.
5. Addressable Controller:

   a. Addressable Controller shall supervise Channel (SLC) wiring, communicate with and control addressable notification appliances. It shall be possible to program the High/Low setting of the audible (horn) appliances by channel from the addressable controller.

6. Horn:

a. Addressable horn shall be listed to UL 464. Horn appliances shall have a High/Low Setting, programmable by channel from the addressable controller or by appliance from the host FACP. The horn shall have a minimum sound pressure level of 83 or 89 dBA @ 24VDC. The horn shall mount directly to a standard single gang, double gang or 4" square electrical box, without the use of special adapter or trim rings.
b. Appliances shall be wired with UTP conductors, having a minimum of 3 twists per foot.

7. Visible/Only:

a. Addressable strobe shall be listed to UL 1971. The V/O shall consist of a xenon flash tube and associated lens/reflector system. The wall mount V/O enclosure shall mount directly to standard single gang, double gang or 4" square electrical box, without the use of special adapters or trim rings. The ceiling mount V/O shall mount to a single gang electrical box.
b. Appliances shall be wired with UTP conductors, having a minimum of 3 twists per foot. V/O appliances shall be provided with different minimum flash intensities of 15cd, 75cd and 110cd. Provide a label inside the strobe lens to indicate the listed candela rating of the specific Visible/Only appliance.

8. Audible/Visible:

a. Addressable combination Audible/Visible (A/V) Notification Appliances shall be listed to UL 1971 and UL 464. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. Provide a label inside the strobe lens to indicate the listed candela rating of the specific strobe. The horn shall have a minimum sound pressure level of 83 or 89 dBA @ 24VDC. The audible/visible enclosure shall mount directly to standard single gang, double gang or 4" square electrical box, without the use of special adapters or trim rings.
b. Appliances shall be wired with UTP conductors, having a minimum of 3 twists per foot.
c. The appliance shall be capable of two-wire synchronization with one of the following options:

1) Synchronized Strobe with Horn on steady.
2) Synchronized Strobe with Temporal Code Pattern on Horn.
3) Synchronized Strobe with March Time cadence on Horn.
4) Synchronized Strobe firing to NAC sync signal with Horn silenced.

9. Speaker/Visible:

a. Combination Speaker/Visible (S/V) units combine the speaker and visible functions into a common housing. The S/V shall be listed to UL 1971 and UL 1480. Addressable functionality controls visible operation, while the speaker operates on a 25VRMS or 70.7VRMS NAC.
b. Twisted/shielded wire is required for speaker connections on a standard 25VRMS or 70.7VRMS NAC using and UTP conductors, having a minimum of 3 twists per foot is required for addressable strobe connections.
c. At the 1.0W tap, the speaker shall have a minimum UL rated sound pressure level of 84dBA at 10 feet.
d. The S/V shall have a frequency response of 400 to 4000 Hz for Fire Alarm and

125 to 12kHz for General Signaling.

e. The S/V installs directly to a 4" square, 1 1/2 in. deep electrical box with 1 1/2" extension.

10. Isolator Module:

a. Isolator module provides short circuit isolation for addressable notification appliance SLC wiring. Isolator shall be listed to UL 864. The Isolator shall mount directly to a minimum 2 1/8" deep, standard 4" square electrical box, without the use of special adapter or trim rings.
b. Power and communications shall be supplied by the Addressable Controller channel SLC; dual port design shall accept communications and power from either port and shall automatically isolate one port from the other when a short circuit occurs.
c. The following functionality shall be included in the Isolator module:

1) Report faults to the host FACP.
2) On-board Yellow LED provides module status.
3) After the wiring fault is repaired, the Isolator modules shall test the lines and automatically restore the connection.

B. TrueAlert Addressable Appliances NAC Power Extender:

1. The TrueAlert Addressable Controller shall be a stand-alone panel capable of powering a minimum of 3 TrueAlert Signaling line circuits. Each channel shall be rated for 2.5 amps and support up to 63 TrueAlert addressable notification appliances. Power and communication for the notification appliances shall be provided on the same pair of wires.
2. Addressable SLC notification appliance circuits shall be Class B Style 4. Unless noted elsewhere.
3. The internal power supply & battery charger shall be capable of charging up 12.7 Ah batteries internally mounted or 18Ah batteries mounted in an external cabinet.
4. The NAC extender panel may be mounted close to the host control panel or can be remotely located.

2.10 GUARDS FOR PHYSICAL PROTECTION

A. Description:

1. Welded wire mesh of size and shape for the manual station, smoke detector, gong, or other device requiring protection.
2. Factory fabricated and furnished by manufacturer of the device.
3. Finish: Paint of color to match the protected device.

2.11 REMOTE INDICATORS

A. Remote status and test switches with LED indicating lights.

1. LED is connected to flash when the associated device is being polled by the FACP.
2. The LED and LED test switch are mounted on a plate and designed to flush mount to a single-gang electrical.

2.12 REMOTE ANNUNCIATOR

A. Description:

1. Duplicate annunciator functions of the FACP for alarm, supervisory, and trouble indications. Also duplicate manual switching functions of the FACP, including acknowledging, silencing, resetting, and testing as allowed by the AHJ.

B. Display Type and Functional Performance:

1. Alphanumeric display same as the FACP. Controls with associated LEDs permit acknowledging, silencing, resetting, and testing functions for alarm, supervisory, and trouble signals identical to those in the FACP.

C. Outdoor Enclosure for Remote Annunciator:

1. Type: Stainless Steele with hinged windowed door for viewing annunciator.
2. Manufactured from 16 or 14-gauge Type 304 or Type 316L stainless steel. Seams continuously welded and ground smooth. Minimum width body flange to provide maximum door opening. Door to include handle with key lock. Window door enclosures have a clear polycarbonate window mounted flush with door surface.
3. Mounting: Surface type. Panel mounting studs fit optional panels and other accessories. Mounting holes in back of body for direct mounting or for optional external mounting brackets.
4. Provide quarter turn handle with locking key.

D. Provide Sprinkler Bell and General Alarm Horn at an outdoor location approved by the AHJ.

2.13 DIGITAL ALARM COMMUNICATOR TRANSMITTER

A. Mounted inside as a component of the FACP.

1. Up to two DACT’s are allowed per FACP.

B. Listed and labeled according to UL 632.

C. Functional Performance:

1. Unit receives an alarm, supervisory, or trouble signal from the FACP, and automatically captures one or two telephone lines and dials a preset number as provided by the site. When contact is made with the central station(s), the signal is transmitted.
2. The DACT shall transmit, building alarm, building FACP trouble and Building Supervision Alarms to the Site Police Department.
3. The unit supervises up to two telephone lines. Where supervising 2 lines, if service on either line is interrupted for longer than 45 seconds, the unit initiates a local trouble signal and transmits a signal indicating loss of telephone line to the remote alarm receiving station over the remaining line. When telephone service is restored, unit automatically reports that event to the central station. If service is lost on both telephone lines, the local trouble signal is initiated.
4. Secondary Power:

a. Integral component of main FACP.
b. FACP battery capacity shall be adequate to comply with NFPA 72 requirements.

5. Self-Test: Conducted automatically every 24 hours with report transmitted to central station.

2.14 NETWORK PRINTER

A. The System printer shall be listed and labeled as an integral part of the fire alarm system. All events are to be reported to the Site GCC for archiving and printing of events and event history as required by the Owner's Representative.

2.15 WIRE, CABLE, AND FIBER

A. Wire and cable for fire alarm systems shall be UL listed and labeled as complying with NFPA 70, Article 760.

B. Signaling Line Circuits: Twisted, shielded pair, sized as recommended by system manufacturer.

C. Non-Power-Limited Circuits: Solid-copper conductors with 600-V rated, 75 degrees C, color-coded insulation.

1. Low-Voltage Communication Circuits: No. 18 AWG, minimum.
2. Low-Voltage Power Circuits: No. 14 AWG, minimum.
3. Line-Voltage Circuits: No. 12 AWG, minimum.

4. Multi-conductor Armored Cable: NFPA 70 red Lightweight Steel Type MC, copper conductors, TFN/THHN conductor insulation, copper drain wire, copper armor with red identifier stripe, UL listed for fire alarm and cable tray installation, plenum rated, and complying with requirements in UL 2196 for a 2-hour rating.

PART 3 - EXECUTION

3.1 EQUIPMENT INSTALLATION

A. Comply with the latest edition of NFPA 72 and UL 864 requirements for installation of fire-alarm system.

B. Equipment Mounting: Install fire alarm cabinets and enclosures as recommended by the manufacturer.

C. Install seismic bracing: Comply with the requirements in Division 26 section regarding vibration and seismic control for electrical systems.

D. Smoke or Heat Detector Spacing:

1. Smooth ceiling spacing shall not exceed the rating of the detector.
2. Spacing of heat detectors for irregular areas, for irregular ceiling construction, and for high ceiling areas, shall be determined according to Appendix A in NFPA 72.

3. Spacing of heat detectors shall be determined based on guidelines and recommendations in NFPA 72.

E. Smoke detector location: Locate detectors not closer than 3 feet from air-supply diffuser or return-air opening. Locate detector not closer than 12 inches from any part of a lighting fixture.

F. Duct Smoke Detectors: Comply with NFPA 72, NFPA 90A and the manufacture recommendations. Install sampling tubes so they extend the full width of the duct.

G. Single-Station Smoke Detectors: Where more than one smoke alarm is installed within a dwelling or suite, they shall be connected so that the operation of any smoke alarm in the dwelling or suite causes all the smoke alarm in the dwelling or suit to sound a temporal pattern.

H. Remote Status and Alarm Indicators: Install near each smoke detector and each sprinkler water-flow switch and valve-tamper switch that is not readily visible from normal viewing position.

I. Audible Alarm-Indicating Devices: Install not less than 6 inches below the ceiling. Install horns on flush-mounted back boxes. Weatherproof devices are to be mounted on weatherproof surface back box.

J. Visible Alarm-Indicating Devices (strobes): Install so that the entire lens is more than 80 inches but less than 96 inches above the finished floor.

1. Exception: Wall mounted strobes in sleeping areas shall be mounted at least 24 inches below the ceiling and within 16ft of the occupant's pillow.

K. Combination Audible/Visual Devices: Mount at visible device heights.

L. FACP: Surface mount with tops of cabinets not more than 72 inches above the finished floor.

M. Annunciator: Install with top of panel not more than 66 inches above the finished floor.

3.2 FIBER AND WIRING INSTALLATION

A. Install wiring according to the following:

1. NECA 1.
2. TIA/EIA 568-A.
3. NFPA, CBC, FCC, RFI/EMI.

B. Wiring Method:

1. Install wiring in metal raceway according to Division 26 Section "Raceways and Boxes for Electrical Systems."
2. Fire alarm circuits and equipment control wiring associated with the fire alarm system shall be installed in a dedicated raceway system. This system shall not be used for any other wire or cable.

C. Wiring Method:

1. Fire-Rated Cables: Use of 2-hour fire-rated fire alarm cables, NFPA 70 Types MI and CI, is not permitted.

2. Signaling Line Circuits: Power-limited fire alarm cables shall be installed in the same cable or raceway as signaling line circuits.

D. Wiring within Enclosures: Separate power-limited and non-power-limited conductors as recommended by manufacturer. Install conductors parallel with or at right angles to sides and back of the enclosure. Bundle, lace, and train conductors to terminal points with no excess. Connect conductors that are terminated, spliced, or interrupted in any enclosure associated with the fire alarm system to terminal blocks. Mark each terminal according to the system's wiring diagrams. Make all connections with approved crimp-on terminal spade lugs, pressure-type terminal blocks, or plug connectors.

E. Cable Taps: Use numbered terminal strips in junction, pull, and outlet boxes, cabinets, or equipment enclosures where circuit connections are made.

F. Color-Coding: Color-code fire alarm conductors as shown on the fire alarm plans. Use one color-code for alarm circuit wiring and a different color-code for supervisory circuits. Color-code audible alarm-indicating circuits differently from alarm-initiating circuits. Use different colors for visible alarm-indicating devices. **Provide fire alarm conduits, J- boxes and covers red in color and use compression type fitting.**

G. Wiring to Remote Alarm Transmitting Device:

1. 3/4-inch conduit between the FACP and the transmitter.
2. Install number of conductors and electrical supervision for connecting wiring as needed to suit monitoring function.

3.3 IDENTIFICATION

A. Identify system components, wiring, cabling, and terminals according to Division 26.

B. Operating instructions: Frame in a location visible from the FACP.

C. Paint power-supply disconnect switch red and label "FIRE ALARM."

3.4 GROUNDING

A. Ground the FACP and associated circuits; comply with IEEE 1100. Install a groundwire from main service ground to the FACP.

3.5 FIELD QUALITY CONTROL

A. Final acceptance testing shall be witnessed by the Owner’s Representative.

B. A final pre-test shall be witnessed by the Owner’s Representative.

C. Manufacturer's Field Service:

1. Engage a factory-authorized installation representative to assist during the installation, pre-testing and adjust of the fire alarm system and field devices, components and equipment.
2. Include a manufacturer's field representative during all final acceptance testing.

D. Perform the following field tests and inspections and prepare test reports:

1. Before requesting final acceptance testing and approval of the installation, submit a written statement using the form for Record of Completion shown in NFPA 72.
2. Perform each electrical test and visual and mechanical inspection listed in NFPA 72. Certify compliance with test parameters. All tests shall be conducted under the direct supervision of a NICET technician certified under the Fire Alarm Systems program at Level II.
3. Visual Inspection: Conduct a visual inspection before any testing. Use as-built drawings and system documentation for the inspection. Identify improperly located, damaged, or nonfunctional equipment, and correct before beginning tests.
4. Testing: Follow procedure and record results complying with requirements in NFPA 72. Detectors that are outside their marked sensitivity range shall be replaced.
5. Test and Inspection Records:
   a. Prepare according to NFPA 72, including demonstration of sequences of operation by using the matrix-style form in Appendix A in NFPA 70.
   b. Provide report results in writing on computer generated forms.

3.6 ADJUSTING

A. Occupancy Adjustments: When requested within 12 months of date of Substantial Completion, provide on-site assistance in adjusting system to suit actual occupied conditions. Provide up to two visits to Project outside normal occupancy hours for this purpose.

B. Follow-Up Tests and Inspections: After date of Substantial Completion, test the fire alarm system complying with testing and visual inspection requirements in NFPA 72.

3.7 DEMONSTRATION

A. Engage a factory-authorized service representative to train the Owner's Maintenance Personnel to adjust, operate, and maintain the fire alarm system, appliances, and devices.

END OF SECTION

GOLDEN RAIN FOUNDATION of LAGUNA WOODS

STAFF REPORT

DATE: October 14, 2020
FOR: Maintenance and Construction Committee
SUBJECT: Scope of Work for ADA Compliance (Action Item #10)

RECOMMENDATION

Receive and file.

BACKGROUND

On June 2, 2020, the Corporate Members voted against the two contract awards and supplemental appropriations needed to complete the Performing Arts Center (PAC) Maintenance Improvement project, pursuant to GRF Bylaw Sections 2.1.4, 2.1.6 and 2.1.7.

On July 13, 2020, the PAC Renovation Ad Hoc Committee reassigned several necessary maintenance improvements at the Performing Arts Center, to the GRF M&C Committee.

On August 18, 2020, staff along with a few Board members from the PAC Renovation Ad Hoc Committee and the M&C Committee visited the Performing Arts Center facility to evaluate and determine if individual improvements could be completed. A list of action items was created for staff with the intent that the individual maintenance improvements would be presented to the M&C Committee and Board for their consideration.

DISCUSSION

Subsequent to the August 18, 2020 Performing Arts Center facility walkthrough, staff was provided with meeting notes from Directors Moldow, Randazzo, and Garthoffner which included items for staff to follow-up on (Attachment 1).

These notes were combined and summarized into ten separate action items.

1. Solicit three electrical contractors to provide bids to replace existing incandescent light bulbs with LED light bulbs throughout the entire facility.
2. Request a design proposal from John Sofranko with Ruzika Company for a new light controller.
3. Request a design proposal from John Sofranko with Ruzika Company for auditorium side lighting.
4. Request a design proposal from John Sofranko with Ruzika Company for stage rigging to modify and replace the motors and wenches with new.
5. Research a man-lift that meets the needs of the facility.
6. Solicit vendors for stage curtain repairs and fire proofing.
7. Solicit bids for dining room upgrades (room divider, flooring, painting and ceiling tiles).
8. Solicit bids for lobby room upgrades (paint and carpet cleaning).

9. Provide fire alarm scope of work and if current system is code compliant.
10. Provide ADA scope of work included in SVA plans and specifications.

Action Item 10:

As directed, the ADA items listed below are what was included in the SVA plans:

1. Raise the height of the soffit in the main auditorium.
2. Extend the stair railing beyond the stair treads.
3. Update Signage.
4. Toilet Access – Install Grab Bars.
5. Install Drinking Fountain Rails.
6. Update Parking Signage and Striping.

FINANCIAL ANALYSIS

If any of these maintenance items are approved by the Board, the cost can be funded from the Capital Improvement budget for the Performing Arts Center.

Prepared By: Rodger Richter, Project Manager

Reviewed By: Guy West, Projects Division Manager
Ernesto Munoz, P.E., Maintenance and Construction Director

ATTACHMENT(S)

Attachment 1 – Performing Arts Center Walkthrough Notes

Attachment 1 – Performing Arts Center Walkthrough Notes

Laguna Woods Village, PAC Walkthrough Notes

On August 18, 2020, Bert Moldow, Carl Randazzo, Egon Garthoffner (of GRF, M&C Committee) and Ernesto Munoz, Guy West, Brian Gruner (of VMS) along with an independent theatre lighting consultant (John) toured the Performing Arts Center (PAC) to review the items listed below, which are part of the PAC Renovation project. When I speak of we in the text below, I am referring to the committee members that were in attendance.

1. Main auditorium lighting. We observed the currently spotty lighting (burned out bulbs), discussed problems of changing the lights that requires the erection of scaffolding just to replace burned out elements. It was agreed that LED lights could be installed in the existing openings without significant rework of fixtures. The benefits of this change are: much less frequent lamp replacement, lower power consumption and less heat generation. Along with the changeout of the bulbs, it was noted that there are dimming controls and the controls associated with stage lighting. This needs to be addressed and feedback needs to be provided to the committee. We asked to receive a design proposal for this work.

I also requested John to provide me with some insight into (inexpensive) decorative side wall lighting. I thought that some visible results of all our spending might be appreciated by community members. He will look into some LED light bars that might be used to bathe the vertical sidewalls in colored light.

2. Stage light rigging replacement. We were shown the currently installed stage light rigging. This rigging lowers stage lights to allow replacement or changes of lights and lenses and then raises them again. The current system which consist of four sets of motors, winches and many cables has been rendered inoperable for safety reasons. There were concerns about the ability of the system to handle the loads and the moving parts should have been fitted with safety covers to prevent accidental contact during operation which could easily cost someone some fingers or a hand. We asked to receive a design proposal for this work. The new design would place the winches up much higher, on level with the lights and we were informed that additional steel and supports would be required to assure that the load requirements are met. This was supposedly addressed in the SVA design.

We also wish to have evaluated the feasibility of acquiring a portable man lift for the theatre to permit safely accessing the lights without at their current location without the use of a ladder. The portable man lift is relatively inexpensive and provides for a safe approach to for the rearrangement of the stage lights. This is the way that lights are now being serviced with the exception that a ladder is being used. This man lift could also be used for some other PAC tasks. This is an economical solution to address this issue, rather than raising and lowering the lights. To better compare alternatives, some information on how often lights need to be serviced would be useful.

3. The theatre curtains. The original PAC renovation proposal was to replace the stage curtains. However, upon further examination, it appears that the real need is for renewed fireproofing to meet fire regulations. During the tour we were told that the life of these curtains

Attachment 1 – Performing Arts Center Walkthrough Notes (continued)

should be about 30 years. There are three main curtain sets on the stage, the side curtains and the front curtain that is the focus of attention when closed and the white curtain which forms the stage backdrop. There are the dark side curtains to frame the stage and the dark ceiling curtains that hide the lights. These are twenty years old. We have requested an estimate of the cost to take down the dark and white curtains, have them fireproofed and hung again. Also with this, minor repairs to the curtains can be made, as applicable.

The red front stage curtains are 14 years old. We also requested an estimate of the cost to take down these curtains, have them fireproofed and hung again.

4. The dining rooms. There are two dining rooms in the PAC. Facing the building, they are the left (north) and the right (south) dining rooms. Both are proposed for painting, ceiling tile and flooring replacement because the ceilings are discolored and the floors considerably scuffed. Along with this, lighting will be changed to LED lights.

The north dining room will be reconfigured so that it can be divided into two rooms when needed. We requested estimates to have each of these rooms renovated as described above.

5. The lobby. The lobby runs across the front of the theatre and down both sides outside the auditorium. The lobby is to be repainted and we concur with this work. However, we found the carpet to be in very good condition, even at the entry doors where you expect the most wear. We recommend that the carpet be cleaned when all the other renovation in the building is completed. We also recommend that the large hanging light fixtures be retained but that they and the other ceiling lights be converted to LEDs.

6. The ADA, fire and safety components. We briefly discussed some of this minor work and have previously approved moving ahead with this work. However, we would like some detail just what the "upgrade" of the fire alarm system entails, since it is about $85K. Are we currently out of compliance?

7. Power panels. Though part of the initial PAC proposal, adding power panels was not considered for this phase of the PAC renovation. However, we took time to look at the existing power panels and found a considerable number of empty slots for future expansion, if needed. This work is unnecessary and is in any case not part of this phase of in any case. It will also be deleted from future phases.

SUMMARY

All in all, this on-site tour was most valuable. It gave us an understanding we have never achieved in all the meetings we and others have had over the years now. "Need" as seen through the eyes of the "payer" and not an architectural firm looking for a project to do, often has a very different look. We hope we can now get this work underway and completed by the time we are allowed to use the PAC again.

Additional comments below were provided by Bert Moldow and are included below as is.

Attachment 1 – Performing Arts Center Walkthrough Notes (continued)

A few minor suggestions.

1. I believe the overhead stage light replacements are accomplished with the use of a ladder. If we purchased a man lift it would be from the capital equipment budget and I believe would not be charged to the renovation.

2. I believe we need to include the required ADA work identified.

3. For safety we need to replace the exit signs which I believe are backlit with incandescent bulbs with exit signs backlit with LEDs and lithium ion battery backup.
I believe this work should be part of a contract for changing the lighting to LEDs.

4. I believe we needed to replace the fire extinguishers. That could be done quickly. Each extinguisher should have a replacement date tag.

GOLDEN RAIN FOUNDATION of LAGUNA WOODS

STAFF REPORT

DATE: October 14, 2020
FOR: Maintenance and Construction Committee
SUBJECT: HVAC Replacement Costs for the PAC & Broadband Buildings

RECOMMENDATION

Receive and provide direction.

BACKGROUND

On June 2, 2020, the Corporate Members voted against the two contract awards and supplemental appropriations needed to complete the Performing Arts Center (PAC) Maintenance Improvement project, pursuant to GRF Bylaw Sections 2.1.4, 2.1.6 and 2.1.7.

On July 13, 2020, the PAC Renovation Ad Hoc Committee reassigned several necessary maintenance improvements at the Performing Arts Center, to the GRF M&C Committee.

On August 18, 2020, staff along with a few Board members from the PAC Renovation Ad Hoc Committee and the M&C Committee visited the Performing Arts Center facility to evaluate and determine if individual improvements could be completed.

DISCUSSION

As directed, staff requested a proposal from AMS to replace the HVAC systems at the PAC and Broadband facilities. It was also recommended that AMS provide value engineering in their proposal to lower costs relative to the SVA design documents. In addition, AMS was requested to include pricing to disconnect the duct work leading to the PAC first floor office spaces and include a new split system to provide the necessary space conditioning.

Staff received the AMS proposals (Attachments 1 & 2) for the Committee's consideration. Additionally, AMS will have a representative attend the GRF M&C Committee meeting to present the HVAC proposals and answer Committee member questions.

Upon further direction, if applicable, staff can prepare a contract award recommendation report to be presented at a future meeting.

FINANCIAL ANALYSIS

There is unencumbered funding for the Performing Arts Center in the amount of $2,991,094 from the Facilities and Equipment Funds that may be used to complete this project.

Prepared By: Rodger Richter, Project Manager

Reviewed By: Guy West, Projects Division Manager
Ernesto Munoz, P.E., Maintenance and Construction Director

ATTACHMENT(S)

Attachment 1 – Broadband HVAC Proposal
Attachment 2 – PAC HVAC Proposal

Attachment 1 – Broadband HVAC Proposal

California License No. 894408
B, C-10, C-20 & C38

AMS AMERICA, INC., G.P.
ANDERSON AIR CONDITIONING, L.P.
2100 E. Walnut Avenue, Fullerton, CA 92831 (714) 920-5170 FAX: (714) 888-2697

May 6, 2020

Quote #: B-5620DF

Laguna Woods Village
24351 El Toro Road
Laguna Woods, CA 92637

Attention: Guy West, Projects Division Manager
Project: Broadband Building Data Center HVAC Upgrades

AMS/Anderson Air Conditioning, L.P. is pleased to submit our proposal to furnish and install the following scope of work at the above referenced location.

Engineering:
- ✓ Furnish the necessary mechanical, electrical and structural engineering including drawings to submit for plan check and obtain permits with the City of Laguna Woods to perform the Broadband Building Data Center HVAC upgrades.

Equipment:
- ✓ Furnish four (4) new and equivalent BTU computer-room HVAC units to replace the existing systems.
- ✓ Furnish one (1) 5-ton Carrier rooftop package unit with adapter curb if necessary.
- ✓ Refer to the attached equipment information

Scope of Work:
- ✓ AMS/Anderson Air Conditioning, L.P. will provide project management to schedule and coordinate the proposed project with Laguna Woods Village personnel.
- ✓ Evacuate the existing DX refrigeration system using SCAQMD & EPA approved methods.
- ✓ Safe off and disconnect all services connected to the existing HAVC systems.
- ✓ Demo and remove the indoor and outdoor components.
- ✓ Rig and set the new equipment in place and secure.
- ✓ Reconnect the existing DX refrigeration lines including insulation.
- ✓ Reconnect the existing high voltage power including new fused disconnects.
- ✓ Reconnect the existing condensate drain lines.
- ✓ Integrate the new HVAC systems to the existing building automation system including graphics.
- ✓ Check, test and start up the new units including certified air balancing.
- ✓ Furnish labor to perform the above scope of work during normal working hours.

Budgetary Price: $260,000.00

Attachment 1 – Broadband HVAC Proposal (continued)

Page 2

Notes:

1. AMS/Anderson Air Conditioning, L.P. cannot assume responsibility for equipment and related components that may need repairs outside this proposed scope of work.
2. The proposed scope of work and equipment has a one (1) year parts and labor warranty.
3. A budget of **$2,000.00** has been included in the listed price for city permit fees.
4. It is assumed that the existing refrigeration lines can accommodate the new systems and will not need to be replaced.
5. It is assumed that patching and painting the existing walls will not be required.
6. IP network connection shall be provided by the Laguna Woods.

GENERAL:

1) If required by the authorities, equipment screening, Title 24 improvements, fire dampers, structural improvements, code upgrades and sound requirements would be extra.
2) We are an open shop and are not signatory to any labor agreement.
3) The customer will be responsible for reasonable attorney's fees and costs if their account has to go to collection.
4) We reserve the right to progress bill on jobs of over thirty (30) days in duration
5) By signing below, it is agreed that this instrument, including the attached terms and conditions contains the entire agreement between the parties
6) This proposal will become a contract between us if accepted by June 6, 2020

Accepted by: _____ ANDERSON AIR CONDITIONING, L.P.

Print: _____ By: *David Fox*

Name Date

Title: _____

Attachment 2 – PAC HVAC Proposal

California License No. 894408
B, C-10, C-20 & C38

AMS AMERICA, INC., G.P.
ANDERSON AIR CONDITIONING, L.P.
2100 E. Walnut Avenue, Fullerton, CA 92831 (714) 888-6800 FAX: (714) 888-2697

September 23, 2020

Laguna Woods Village
24351 El Toro Road
Laguna Woods, CA 92637

Attention: Ernesto A. Munoz, P.E., Maintenance & Construction Director
Guy West, Projects Division Manager

Project: Performing Arts Center HVAC Replacement

AMS/Anderson Air Conditioning, L.P. is pleased to submit our proposal to furnish and install the following scope of work at the above referenced location.

Equipment:
- ✓ Furnish five (5) 10-ton rooftop package gas/electric units.
  - Economizers
- ✓ Furnish two (2) 2-ton rooftop package gas/electric unit units.
- ✓ Furnish two (2) 30-ton condensing units.
- ✓ Furnish two (2) evaporative coolers.
- ✓ Furnish nine (9) fans.

Base Scope of Work:
- ✓ AMS/Anderson Air Conditioning, L.P. will provide project management to schedule and coordinate the proposed project with Laguna Woods Village and the Performing Arts Center personnel including all labor to perform the proposed work.
- ✓ Safe off and disconnect all existing services connected to the equipment.
- ✓ Remove the existing controls components from the equipment to be reinstalled in the new equipment.
- ✓ Replace the sheet-metal cap-sheets on the existing equipment platforms.
- ✓ Set new redwood sleepers to support the new equipment.
- ✓ Utilizing a helicopter to fly/rig off the existing equipment and set the new.
- ✓ Reconnect the existing DX refrigeration lines to the existing 30-ton condensing units.
- ✓ Replace the existing TXV's to accommodate the 410a refrigerant that the new 30-ton condensing units utilizes.
- ✓ Reconnect the existing rooftop sheet-metal ductwork to the new equipment.
- ✓ Reconnect the existing high voltage electrical power to the new equipment including fused disconnects for the seven (7) rooftop package units and two (2) 30-ton condensing units.
- ✓ Reconnect the existing natural gas lines to the new equipment.
- ✓ Reconnect the existing condensate drain line to the new equipment.
- ✓ Reconnect the existing controls to the new equipment.
- ✓ Check, test and start up new equipment to insure proper operation.

Attachment 2 – PAC HVAC Proposal (continued)

Page 2

Base Price: $279,554.00

Add Alternates:

1. Please add **$66,830.00** to the above listed base price to replace the existing rooftop sheet-metal ductwork with new internally lined ductwork.
2. Please add **$74,377.00** to the above listed base price to upgrade the existing equipment roof support platforms with spring isolation curbs and bases on the seven (7) package units and two (2) 30-ton condensing units. This option will require structural review and possible structural upgrades to the building at additional cost.
3. ******To *improve* performance and efficiency's, please add **$39,515.00** to the above listed base price to utilize 2-circuit condensing units.
4. Please add **$37,523.00** to the above listed base price to replace the two (2) evaporative coils in the existing air handlers.
5. ******To *maximize* performance and efficiency's, please add **$551,144.00** to the above listed base price to utilize 4-circuit condensing units and replace the existing air handlers equipped with 4-circuit evaporative coils.
6. Please add **$22,667.00** to the price listed above to provide factory sound testing and verification of the two (2) Energy Labs air handlers.
7. ******Please add **$16,241.00** to the above listed base price to modify the existing ductwork to disconnect the 1st floor offices and 2nd floor control room from being feed by the South air handler.
8. ******Please add **$48,996.00** to the above listed base price to install two (2) standard 5-ton split system heat-pumps including necessary services for proper operation.
   This equipment will serve the 1st floor Business Offices and 2nd floor Control Room.
9. Please add **$16,134.00** to the above listed base price to install one (1) independent 7,500-btu ductless split system to serve the 1st floor AV Room including necessary services for proper operation.
10. ******Please add **$108,478.00** to the above listed base pricing to install a complete VRF system to serve the 1st floor Business Offices, 2nd floor Control Room and 1st floor AV Room including necessary services for proper operation. If this Add Alternate is selected, Add Alternates #8 & 9 would not be necessary.
11. Please add **$221,838.00** to the above listed base price to replace the existing controls system and upgrade to the building automation system specified on the original plans.
12. Please add **$22,212.00** to the above listed base price if "certified air balancing/air flow testing" if required or desired.
13. If mechanical, structural & electrical engineering is required by the City of Laguna Woods or desired by Laguna Woods Village, please add **$28,126.00** for Mechanical, **$16,891.00** for Structural Review & **$12,398.00** for Electrical to the above listed base price. The proposed cost may vary depending on the selected options.

****Please refer to the attached estimated ROI documentation.**

Attachment 2 – PAC HVAC Proposal (continued)

Additional Discount – Broadband Building Data Center:

- ✓ AMS/Anderson Air Conditioning L.P. proposed a replacement/upgrade to the existing HVAC equipment located at the Laguna Woods Broadband Building Data Center for the sum of **$260,000.00**. To continue and deepen our ongoing business relationship, AMS/Anderson Air Conditioning L.P. would like to offer the following 5% discount of **$12,000.00** to the original price listed above if the proposed Performing Arts Center base scope is combined with the Broadband Building Data Center project.
- ✓ Please refer to the attached Broadband Building Data Center HVAC Upgrades Proposal dated May 6, 2020.

Start Up & Commissioning:

- ✓ All startup & commission service will be provided by AMS employees and will included following.
  - Startup documentation for each new unit.
  - Equipment manufactures paperwork
  - Warranty documentation
  - If add alternate number 12 is selected, independent and certified air balancing report of each new unit.

Warranty:

- ✓ The proposed scope of work and equipment will come with a one-year parts and labor warranty.
- ✓ The five (5) 10-ton and two (2) 2-ton package unit have an additional five-year factory parts warranty on the compressors and heat exchanger.

Notes:

1. AMS/Anderson Air Conditioning, L.P. cannot assume responsibility for equipment and related components that may need repairs outside this proposed scope of work.
2. It is assumed that the existing control system can be reconnected to operate the new equipment. It is recommended to add contingency funds to cover any unforeseen modifications to the existing system to accommodate the new equipment.
3. It is assumed that replacing the TXV's on the existing air handler's evaporative coils will accommodate the proposed base 410a refrigerant 30-ton condensing units.
4. It is assumed that if add alternate number-3 is selected the existing air handler's evaporative coils will accommodate the proposed 2-circuit condensing units. It is possible that add alternate number-4 will need to be approved and performed with add alternate number-3 to allow proper operation.
5. It is not anticipated but if modifications or upgrades to the existing fire-life-safety system is required, the existing service provider will need to provide the needed services.
6. It is not anticipated but if cutting, patching and painting of drywall is required to install the proposed standard, ductless split or VRF split systems it will be at additional cost.
7. It is not anticipated that structural modifications will be required beyond what is proposed within the base scope. If add alternate number two is approved the structural review will also need to be approved. After the structural review has been completed and if it is determined that modifications/upgrades to the building are required, they will be at additional cost.
8. All of the new equipment will consume less energy and amp draw. With that said, it is assumed that modifications or upgrades to the existing power source(s) will not be required.
9. All the listed helicopter fly/rig will be performed at the same time.

Attachment 2 – PAC HVAC Proposal (continued)

Page 4

City of Laguna Woods Building & Planning:

- ✓ A budget of **$10,000.00** will need to be added to the proposed base price to cover the anticipated permit or if needed plan-check fees.

GENERAL:

1) If required by the authorities, equipment screening, Title 24 improvements, fire dampers, structural improvements, code upgrades and sound requirements would be extra.
2) We are an open shop and are not signatory to any labor agreement.
3) The customer will be responsible for reasonable attorney's fees and costs if their account has to go to collection.
4) We reserve the right to progress bill on jobs of over thirty (30) days in duration
5) By signing below, it is agreed that this instrument, including the attached terms and conditions contains the entire agreement between the parties
6) This proposal will become a contract between us if accepted by October 23, 2020

Accepted by: _____ ANDERSON AIR CONDITIONING, L.P.

Print: _____ By: *David Fox*

Name Date

Title: _____

Attachment 2 – PAC HVAC Proposal (continued)

Estimated ROI - Add Alternates #3							
1-Circuit Condensing Units	**TOTAL CAPACITY**	**ANNUAL HRS**	**TONS**	**KW/TON**	**KWH**	**KWH COST**	**ANNUAL COST**
Two (2) 30-Ton Split System	60 Total Tons	5096	36	1.29	236,658	$ 0.15	$ 35,499
		*hrs.	**tons	***			
Totals		**5096**			**236,658**		**$ 35,499**
2-CIRCUIT CONDENSING UNITS	**TOTAL CAPACITY**	**ANNUAL HRS**	**TONS**	**KW/TON**	**KWH**	**KWH COST**	**ANNUAL COST**
Two (2) 30-Ton Split System	60 Total Tons	5096	36	1.2	220,147	$ 0.15	$ 33,022
		*hrs		***			
Totals		**5096**			**220,147**		**$ 33,022**
KWH - Existing Equipment							**236,658**
KWH - Proposed							**220,147**
Differential KWH between existing & proposed							**16,511**
~~Estimated Incentive, If Applicable~~							**$ -**
Proposed Job Cost							**$ 39,515.00**
~~Job Cost - After Incentive, If Applicable~~							**$ -**
Differential Operational Cost							**$ 2,476.66**
New ROI							**15.95**
Notes:							
***14 hours x 7 days x 52 weeks = 5096 annual hours**							
****tons x 60% part load = operational tons**							
*****12 ÷ the estimated EXISTING equipment EER rating of 9.3 = 1.29 KW/Ton**							
*****12 ÷ the NEW equipment SEER rating of 10 = 1.2 KW/Ton**							

Estimated ROI - Add Alternates #5							
1-Circuit Condensing Units	**TOTAL CAPACITY**	**ANNUAL HRS**	**TONS**	**KW/TON**	**KWH**	**KWH COST**	**ANNUAL COST**
Two (2) 30-Ton Split System	60 Total Tons	5096	36	1.29	236,658	$ 0.15	$ 35,499
		*hrs.	**tons	***			
Totals		**5096**			**236,658**		**$ 35,499**
4-CIRCUIT CONDENSING UNITS	**TOTAL CAPACITY**	**ANNUAL HRS**	**TONS**	**KW/TON**	**KWH**	**KWH COST**	**ANNUAL COST**
Two (2) 30-Ton Split System	60 Total Tons	5096	36	0.944	173,182	$ 0.15	$ 25,977
		*hrs		***			
Totals		**5096**			**173,182**		**$ 25,977**
KWH - Existing Equipment							**236,658**
KWH - Proposed							**173,182**
Differential KWH between existing & proposed							**63,476**
~~Estimated Incentive, If Applicable~~							**$ -**
Proposed Job Cost							**$ 551,144.00**
~~Job Cost - After Incentive, If Applicable~~							**$ -**
Differential Operational Cost							**$ 9,521.37**
New ROI							**57.88**
Notes:							
***14 hours x 7 days x 52 weeks = 5096 annual hours**							
****tons x 60% part load = operational tons**							
*****12 ÷ the estimated EXISTING equipment EER rating of 9.3 = 1.29 KW/Ton**							
*****12 ÷ the NEW equipment SEER rating of 12.7 = .944 KW/Ton**							

Attachment 2 – PAC HVAC Proposal (continued)

Estimated ROI - Add Alternates #7 & 8							
EXISTING	**TOTAL CAPACITY**	**ANNUAL HRS**	**TONS**	**KW/TON**	**KWH**	**KWH COST**	**ANNUAL COST**
One (1) 30-Ton Split System	30 Total Tons	5096	18	1.29	118,329	$ 0.15	$ 17,749
		*hrs.	**tons	***			
Totals		**5096**			**118,329**		**$ 17,749**
PROPOSED	**TOTAL CAPACITY**	**ANNUAL HRS**	**TONS**	**KW/TON**	**KWH**	**KWH COST**	**ANNUAL COST**
Two (2) 5-ton Split Systems	10 Total Tons	5096	6	1	30,576	$ 0.15	$ 4,586
		*hrs		***			
Totals		**5096**			**30,576**		**$ 4,586**
KWH - Existing Equipment							**118,329**
KWH - Proposed							**30,576**
Differential KWH between existing & proposed							**87,753**
~~Estimated Incentive, If Applicable~~							**$ -**
Proposed Job Cost							**$ 65,237.00**
~~Job Cost - After Incentive, If Applicable~~							**$ -**
Differential Operational Cost							**$ 13,162.97**
New ROI							**4.96**
Notes:							
***14 hours x 7 days x 52 weeks = 5096 annual hours**							
****tons x 60% part load = operational tons**							
*****12 ÷ the estimated EXISTING equipment EER rating of 9.3 = 1.29 KW/Ton**							
*****12 ÷ the NEW equipment EER rating of 12 = .1 KW/Ton**							

Estimated ROI - Add Alternates #7 & 10							
EXISTING	**TOTAL CAPACITY**	**ANNUAL HRS**	**TONS**	**KW/TON**	**KWH**	**KWH COST**	**ANNUAL COST**
One (1) 30-Ton Split System	30 Total Tons	5096	18	1.29	118,329	$ 0.15	$ 17,749
		*hrs.	**tons	***			
Totals		**5096**			**118,329**		**$ 17,749**
PROPOSED	**TOTAL CAPACITY**	**ANNUAL HRS**	**TONS**	**KW/TON**	**KWH**	**KWH COST**	**ANNUAL COST**
VRF System	10 Total Tons	5096	6	0.916	28,008	$ 0.15	$ 4,201
		*hrs		***			
Totals		**5096**			**28,008**		**$ 4,201**
KWH - Existing Equipment							**118,329**
KWH - Proposed							**28,008**
Differential KWH between existing & proposed							**90,322**
~~Estimated Incentive, If Applicable~~							**$ -**
Proposed Job Cost							**$ 124,719.00**
~~Job Cost - After Incentive, If Applicable~~							**$ -**
Differential Operational Cost							**$ 13,548.23**
New ROI							**9.21**
Notes:							
***14 hours x 7 days x 52 weeks = 5096 annual hours**							
****tons x 60% part load = operational tons**							
*****12 ÷ the estimated EXISTING equipment EER rating of 9.3 = 1.29 KW/Ton**							
*****12 ÷ the NEW equipment EER rating of 13.10 = .916 KW/Ton**							

GOLDEN RAIN FOUNDATION of LAGUNA WOODS

STAFF REPORT

DATE: October 14, 2020
FOR: Maintenance and Construction Committee
SUBJECT: Lighting Controller Replacements at GRF Facilities

RECOMMENDATION

Receive and file.

BACKGROUND

The lighting at GRF facilities are controlled by time clocks, photocells, and/or Blue Box controllers. Adjustments to these devices are completed by staff, with the exception of Blue Boxes. The adjustments to the Blue Box lighting controllers have historically been completed by a trained Blue Box vendor.

DISCUSSION

Staff has received concerns from the community that building and parking lot lights are not turning on or off at the correct time of day. The lighting controllers throughout GRF facilities currently require adjustments at a minimum of twice a year, depending on Daylight Savings time and facility usage. Field staff has indicated that it takes approximately 30-40 minutes for assistance from an outside vendor to adjust the Blue Box controllers. In an effort to improve the response time for adjustments, staff has been trained to adjust the time schedules within the Blue Box controllers. Staff began making the change this year to help reduce the cost associated with making these repeated adjustments and to reduce the cost of electricity usage when lights are on, when natural light is sufficient. Photocells require no manual control and will turn on at sunset and turn off at sunrise. The implementation of photocell control at the GRF facilities will help to reduce costs in terms of both staff time and electrical usage. The total amount of savings has not been calculated due to the differences in lighting and controls across the facilities. We do know that a savings can be realized over time in staff labor. The community facilities have 37 manual time clocks that need to be converted. At present, staff spends approximately 10 hours per year adjusting the controls for an estimated $750.00 in labor.

Staff will soon start the process of replacing the lighting timers with photocells at all locations. It is estimated that it will take staff 148 labor hours to complete the conversion to photocells. Using our in-house staff, the work can be completed in approximately 4 weeks; however, it may take longer as emergencies that occur within the community will take precedence.

FINANCIAL ANALYSIS

The estimated cost for materials and labor for in-house staff to implement the use of photocells at all locations is $13,000. This work can be completed using the existing budget.

Prepared By: Dara Doeum, Maintenance Operations Coordinator

Reviewed By: Ian Barnette, Maintenance Services Manager
Ernesto Munoz, P.E., Maintenance and Construction Director

Attachment(s)

Attachment 1 – Pricing Estimate for Photocell Installation

Attachment 1 – Pricing Estimate for Photocell Installation

Facility	# Time Clocks	Photocell Cost	Misc. Materials Cost	Labor Per Hour	4 Hours of Labor per Photocell	Estimate
CH1	11	$ 20.00	$ 180.00	$ 75.00	44	$ 3,700.00
CH2	3	$ 20.00	$ 180.00	$ 75.00	12	$ 1,140.00
CH3	3	$ 20.00	$ 140.00	$ 75.00	12	$ 1,100.00
CH4	6	$ 20.00	$ 160.00	$ 75.00	24	$ 2,080.00
CH5	5	$ 20.00	$ 150.00	$ 75.00	20	$ 1,750.00
CH6	1	$ 20.00	$ 100.00	$ 75.00	4	$ 420.00
CH7	3	$ 20.00	$ 60.00	$ 75.00	12	$ 1,020.00
Equestrian	1	$ 20.00	$ 40.00	$ 75.00	4	$ 360.00
Service Center	2	$ 20.00	$ 40.00	$ 75.00	8	$ 680.00
Gatehouse 6	1	$ 20.00	$ -	$ 75.00	4	$ 320.00
Gatehouse 14	1	$ 20.00	$ -	$ 75.00	4	$ 320.00
# Time Clocks Total	37				Estimated Cost:	$ 12,890.00