Fire Station Remodel Project
FY 14 CIP

In FY13 City Council approved the hiring of an Architect and Engineering firm for the purpose of developing design plans for the remodeling of the 21- year old Fire Rescue Headquarters

1

Fire Station Remodel Project

- Fire Rescue wanted to ensure citizen involvement and due diligence from the onset, a **Workgroup** of Citizens, Firefighters, EMS, Fire Marshal and Deputy Chief was created to work with the selected Architect
  - **Tom Kirstein** - Financial
  - **Steve Stefanides** - Community Advocate
  - **Vickie Kelber** - Living Conditions
  - **Jim Centanni** – Architect, American Engineering
  - **Amadeo R. Petricca** – City Council

2

Fire Station Remodel Project Workgroup

- Workgroup met with Firefighters & EMS personnel to review concerns
- Workgroup reviewed history of the facility
- Workgroup toured the Fire Station and then identified numerous health & safety issues
- The Workgroup conducted ten (10) meetings including tours of area fire stations to determine “best practices” and cost effective strategies
- Workgroup members described current living conditions as “deplorable” and “not suitable”

3

Fire Station Remodel Project Workgroup

- Examined current and future fire and medical service delivery needs over the next 20 years
- Developed three project alternatives in an effort to accomplish many of the project objectives in a cost effective manner
- Developed a timeline for project completion
- Attempted to answer any potential questions on the Project

4

Fire Station Remodel Project

Fire Station History

- Constructed in 1992 housing 27 personnel, today 38
- Interior has been modified several times to serve as:
  - First City Hall
  - First Police Station
- Upon move of City Hall and PD no significant improvements were made to modified areas
- Remodel Project placed in 5-year Capital Improvement Project

5

Fire Station Remodel Project

Fire Station Concerns:

- **Health & Safety**
  - Air Quality, Mold, CO2
- Gender Separation
- Age of building
- Structural problems
- Mixed use of Facility
- Future Needs

6

Workgroup Objective

Identify Health & Safety Issues

7

Health & Safety Issues

1. Air Quality issues- Mold / Moisture / Mildew
2. Inefficient HVAC System
3. Numerous water leaks, pinhole leaks in copper piping throughout
4. Frequent Air Conditioning problems have lead to water leaks, moisture, mildew and mold
5. Rats present in attic area, odor of feces and decay
6. Carcinogens – bunker gear storage / diesel exhaust

8

Health & Safety Issues

7. Several complaints from employees and visitors of experiencing allergy symptoms
8. Persistent “rotten” odor
9. Mold remediation efforts
10. Public access to living quarters
11. Non-hurricane rated windows / shutters problematic
12. Non-hurricane rated bay doors / obsolete

9

Health & Safety Issues

13. Lack of Security / doors, locks, windows
14. Hallway exit into bay, steps have led to injuries
15. Lacks Medical Storage and Disinfection room / Medical Security
16. Building not designed to provide proper gender separation & needs
17. Bunkroom living space, one exit
18. ADA Compliance updating

10

HVAC / Air Quality Confirmation

- Limited initial assessment & sampling test on April 17,2013
- Involved seven (7) air samples & two (2) surface samples
- Test Method
  - Visual assessment
  - Temperature
  - Relative humidity
  - Carbon Dioxide (CO_2)
  - Airborne particulate
  - Fungal air and surface samples were collected

11

HVAC / Air Quality - Results

1. Visual Assessment found particulate and suspected microbial growth in 14 rooms/offices
2. ***Bunkroom A*** - elevated *Aspergillus / Penicillium (green bread mold)* species counts
3. ***Women's Bathroom*** - presence of heavy amounts of *Cladosporium* species microbial growth
4. ***Captain's Room B*** - presence of heavy amounts of *Cladosporium (black mold)*species microbial growth. Same room previously remediated in 2004
5. Rodent excrement droppings have been found in ceiling space, off gassing of these droppings is an respiratory irritant and can cause illness

12

HVAC / Air Quality - Results

6. Ten (10) of the nineteen (19) rooms tested had relative humidity readings above 60% and as high as 69%. The EPA recommends maintaining the relative humidity below 60% to inhibit mold growth
7. Carbon dioxide readings in excess of 1000 ppm due to inadequate fresh air distribution.
8. Dust, debris and microbial growth were noted on the coils, insulation and motor housing of the five (5) HVAC AH units and on the back sides of supply vents

13

HVAC / Air Quality Findings

Photos

14

HVAC / Air Quality Findings
Photos


15

HVAC / Air Quality Findings
Photos


16

HVAC / Air Quality - Conclusion

Several building conditions are contributing to the air quality problems:

1. Lack of proper fresh air movement
2. Lack of humidity control
3. Ceiling tile panels as the division between attic space and living space
4. Leaking windows and doors
5. Lack of HVAC dehumidifiers
6. Lack of insulated interior walls
7. Original AC ducting
8. Original and replaced AC air handlers
9. Frequent plumbing leaks

17

Objective

Analyze Current & Future Building Needs

18

Current Fire Station

- Utilized 24/7 for Fire Rescue / EMS personnel
- Fire Department Headquarters
- Houses personnel during tropical weather events
- Used by Public weekly
  - CPR/First Aid Courses
  - City Staff / Committee Meetings
  - City Employee training
  - CERT Team training
  - MI Utilities Department meetings / training
  - Public meetings / activities
  - Crowd Management classes

19

Current Fire Station
Bunk Room

- Common space Bunk Room
- No gender separation
- No privacy
- Hygiene
- Firefighters personal living space is 7'x8' (56 sq. ft.) including bed and locker
- 6 personnel per bunk room

20

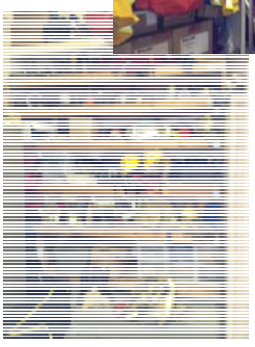
Current Fire Station
Bunker Gear Storage

- Required to be stored separated from diesel exhaust
- **Currently Utilizing valuable enclosed apparatus bay space causing vehicles to be stored outdoors**

21

Current Fire Station
Storage

- Lack of storage for available replacement equipment
- Hurricane supplies
- Secured Medical Supplies
- Training Aids
- Expendables (foam / boom)



22

Current Fire Station
Bathrooms

Men's Room
- 3 showers
- 2 toilets / 2 urinals
- 3 sinks
- No dressing area

Women's Room
- 2 toilets
- 1 shower
- 1 sink
- No dressing area

23

Current Fire Station
Fitness Room

- City use of Station required space previously used for fitness room
- Equipment moved to apparatus bay
- Firefighter mandatory fitness requirements
- Limited space
- Below flood level
- **Valuable Apparatus Bay space**

24

Current Fire Station

Information Technology Department

- City IT Department occupies previous Fitness Room space
- Limited space for their needs

25

Objective

Workgroup Project Goals

26

Workgroup Project Goals

Improve Health & Safety

- Design for continuation of services throughout project
- Complete HVAC System / Plumbing overhaul
- Replace Ceiling throughout
- HVAC / Air Quality - Fresh air / CO2 control
- HVAC / Humidity control
- Provide hurricane rated Windows & Bay Doors
- Project remediates all wall structures involving presence of mold

27

Workgroup Project Goals

Improve Health & Safety

- Provide NFPA Bunker Gear storage room
- Install NFPA Apparatus exhaust filtration system
- Relocate Fitness Room from apparatus bay area
- Provides Medical Disinfection & Medical Storage room
- Create post-disaster Operations Center

28

Workgroup Project Goals

Gender Separation / Privacy

- Project provides private space for gender separation of firefighters
- Updates male & female bathroom facilities
- This design separates living area from public space
- Design allows for continuation of services throughout project

29

Workgroup Project Goals

Security

- Update facility to meet Homeland Security recommendations
- Update lock system consistent with Police Department
- Separate public access areas from living quarters
- Secure Lobby access to Administration
- Replace all apparatus bay doors to hurricane rated
- Improve secure storage of records
- Secure City IT equipment

30

Workgroup Project Goals

Public

- Provide a Medical Evaluation room
- Increase user space for public
- Provide adequate CPR / First Aid training area
- Provide modern training room with AV capabilities & interactive computer training
- Provide Fire Code training area, contractor, crowd management
- Ability to host mutual aid specialized training
- Use by IT, Public Works, Finance, Utilities
- Maximize space for multiple classes and meetings

31

Workgroup Project Goals

Improves Efficiency

- Replace 21 year old building systems
  - HVAC
  - Plumbing
  - Electrical fixtures
- Reduces electric / utility costs by 35-40%
- Healthier building components
- Removes current structural hazards
- Meet Florida Building Code standards

32

Objective

Workgroup
Findings & Recommendations

33

Alternatives

The Remodel Workgroup developed three project alternatives:

- **Alternative 1** - Mitigation only of current building however temporary facilities would be required
- **Alternative 2 –** Alternative 1 mitigation + expansion. Achieves critical objectives without interruption of services
- **Alternative 3 –** Alternative 1 mitigation and expansion with improved public access

34

Alternative 1

- Requires relocation of personnel to temporary trailers & facilities (12 months)
- Meets only minimal Workgroup Project Goals
- Does not provide gender separation
- Disruption of City Campus
- Impact to service delivery capabilities
- No increase in public space / training
- Does not improve apparatus bay usage / storage
- Does not address current & future service needs
- Approximate 5 to 10 year life

35

Alternative 2

- 30 + year life
- Meets Workgroup Project Goals
- **No** relocation of personnel to temporary facilities, **No** Temporary trailers
- **No** interruption of service delivery capabilities
- Provides gender separation
- Improves security
- Separates living quarters from Public access
- Returns apparatus bay to vehicles
- Increases storage

36

Alternative 3

- 30 + year life
- Meets Workgroup Project Goals
- **No** relocation of personnel to temporary facilities, **No** Temporary trailers
- **No** interruption of service delivery capabilities
- Provides gender separation
- Improves security
- Separates living quarters from Public access
- Returns apparatus bay to vehicles
- Increases storage
- Improves public access by relocating Lobby entrance

37

Alternatives

Item	1	2	3
Construction	1,270,000	2,400,000	2,700,000
Temporary facilities	415,000	0	0
Furnishings	0	197,500	197,500
Final design	50,000	110,000	130,000
Project Mgt during construction	120,000	130,000	130,000
Total	**1,855,000**	**2,837,500**	**3,162,500**
Project Life	*5-10 year*	*30 year*	*30 year*

38

Alternative Summary

Alternative 1

- Mitigation Only
- Requires relocation
- Disrupts campus
- Impacts service delivery
- No gender separation
- No training room improvements
- No apparatus bay improvements
- Does not address current & future needs

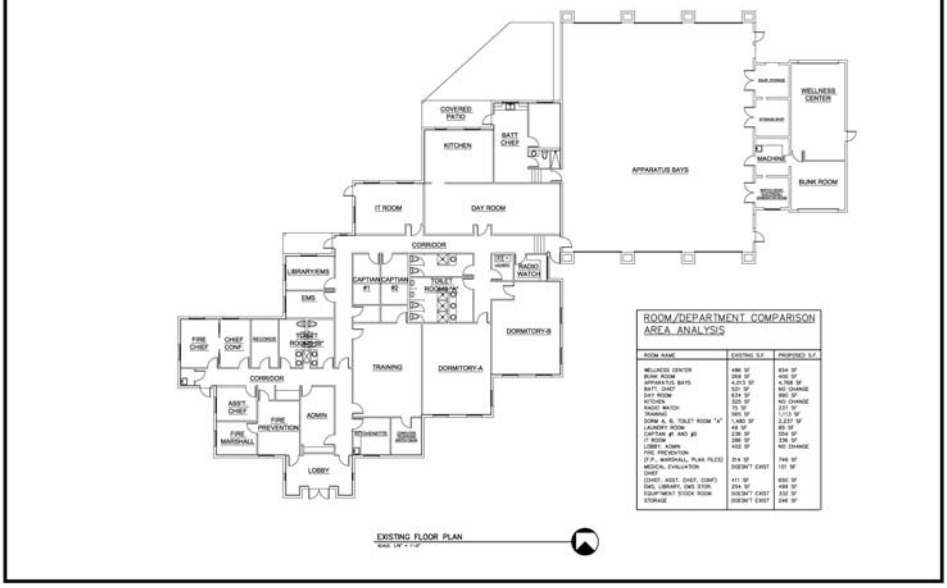
Alternative 2

- Mitigation + Expansion
- Meets goals
- No relocation
- No service interruption
- Provides gender separation
- Improves security
- Increases training space
- Restores apparatus bay space
- Improves storage

Alternative 3

- Mitigation + Expansion
- Meets goals
- No relocation
- No service interruption
- Provides gender separation
- Improves security
- Increases training space
- Restores apparatus bay space
- Improves storage
- Improves public access

39



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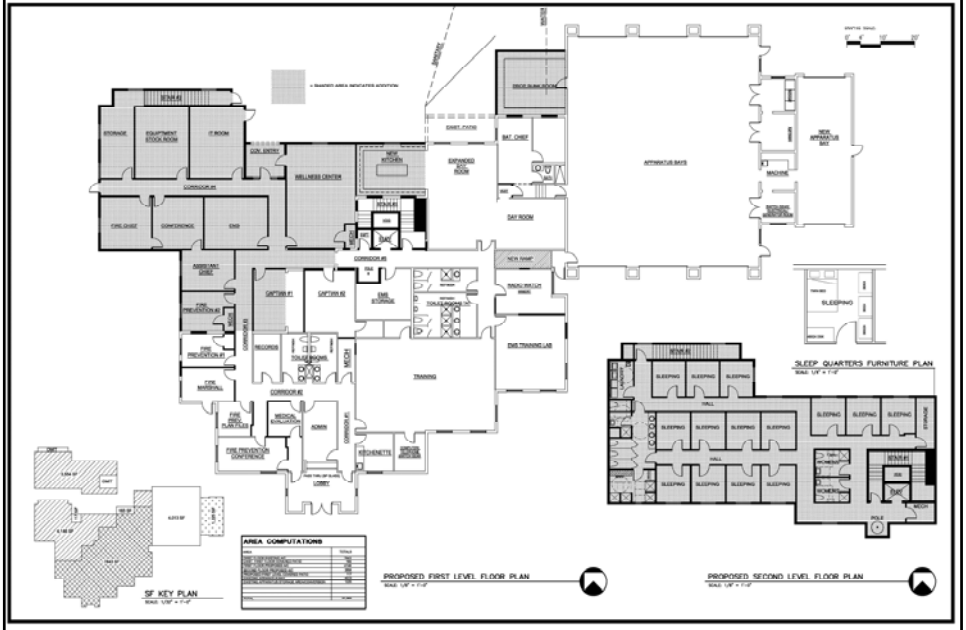
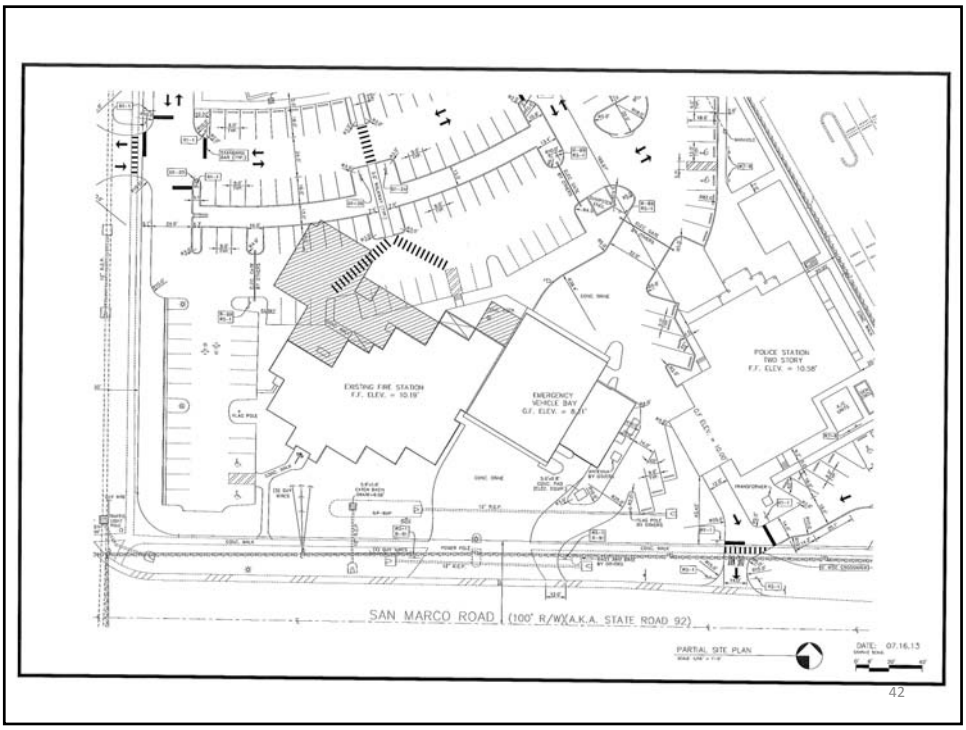
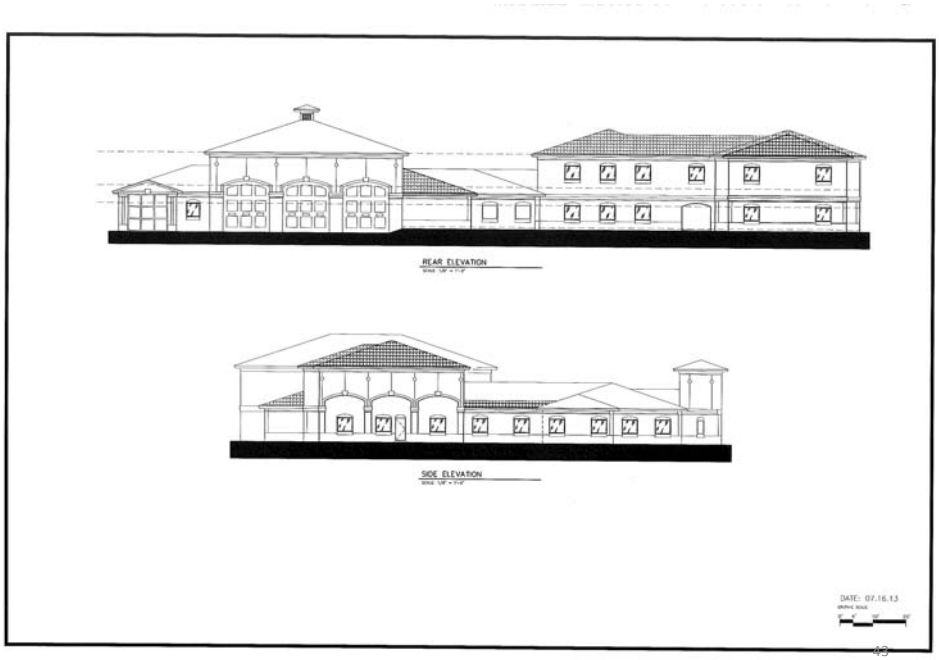

AREA COMPUTATIONS
SF KEY PLAN
PROPOSED FIRST LEVEL FLOOR PLAN
PROPOSED SECOND LEVEL FLOOR PLAN
SLEEP QUARTERS FURNITURE PLAN

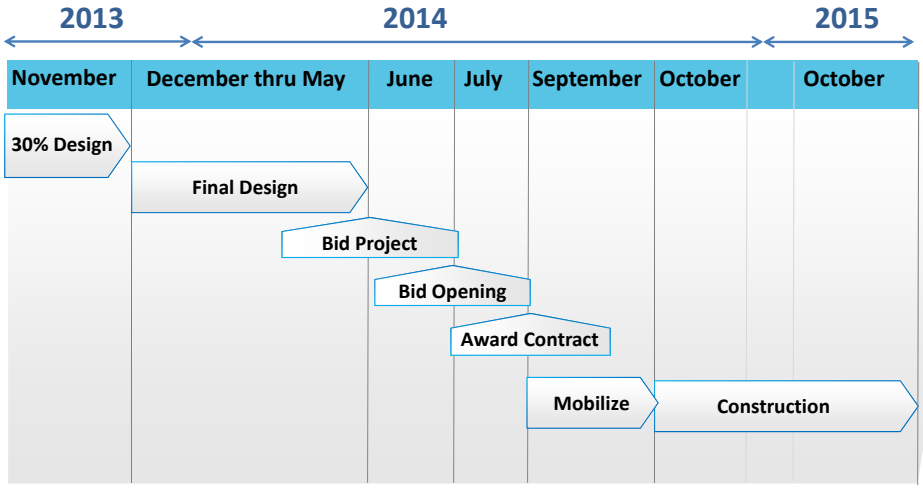
41


EXISTING FIRE STATION
F.F. ELEV. = 10.15'
EMERGENCY VEHICLE BAY
G.F. ELEV. = 8.41'
POLICE STATION
TWO STORY
F.F. ELEV. = 10.58'
SAN MARCO ROAD (100' R/W)(A.K.A. STATE ROAD 92)
PARTIAL SITE PLAN
DATE: 07.16.13

42



PROJECT PLANNING TIMELINE



Action Item

Have the City Manager, City Councilman Petricca and Tom Kirstein negotiate the Engineering & Architectural Final Design contract with American Engineering and present proposal to City Council on December 2nd.

45