



VILLAGE OF ARLINGTON HEIGHTS

Police Station Study



May 26, 2015

- A. Space Needs Interviews Completed**
- B. Program Verification Work Completed**
- C. Review of Existing Building and Site Completed**
- D. “Test Fits” of Police Station on Municipal Campus Completed**
- E. Soil Analysis Work Completed**
- F. Conceptual Solutions Developed**
- G. Review of Potential Offsite Storage Locations Completed**
- H. Conceptual Budgeting and Cost Analysis Developed**
- I. Upcoming Work:**
 - 1. Analysis for temporarily facilities for Police Department during construction
 - 2. Prepare the final report

1. **The primary goal of this part of the process is to determine whether a new police station meeting modern day standards can feasibly be developed upon the existing municipal campus.**
2. Develop a **cost effective** solution that maximizes the budget and is not “overdone”. The budget should be less than what was proposed in 2010 which is believed to be too high.
3. Understand this is a **utilitarian building** and is used 24 hours a day, 7 days a week and needs to stand up to the wear and tear necessary for a police station.
4. Ensure duplicity is taken advantage of. **Spaces can be shared with the Village Hall if it can be done effectively**, i.e. if the building is connected to the Village Hall. Share functional spaces for various functions to the greatest extent possible.
5. Develop a solution that is secure. **Safety of the officers is paramount.** This issue supersedes cost.
6. **Complement the architecture** already on the campus, remembering that it is a police station, in a cost effective way. The building needs to be presentable from all sides and the front needs to be complementary to the exiting Village Hall and Fire Station.

7. Make sure the police department has a **highly functional building** where they can do their job efficiently.
8. Design the police station to be **flexible** for future changes.
9. Provide **adequate workout facilities** dedicated to the Police Department.
10. Provide a **firing range** within the police station that is safe, functional and meets the needs of the department.
11. Evaluate the site for maximum benefit and efficiency. The solution should **utilize the entire site**. Nothing is to be taken as sacred.
12. **Covered parking** should be provided for marked patrol vehicles.
13. **Maximize the size of the parking garage.**
14. **Explore sustainable and environmentally friendly components** at no extra cost and/or explore grant funding sources.

QUESTIONS THAT MUST BE ANSWERED

1. Is the space needs study completed in 2010 still valid based on changes in employment and policing methodology?

Many of the spaces previously identified are still valid, but there were a number of updates that were made due to changes in police methodology, were extraneous or were missing from the program

Overall, the program was **reduced by over 3,800 square feet**

Programmatic Change Highlights

Patrol Bureau - By sharing workspace, we reduced this area by over 800 sq.ft.

Evidence Collection - Eliminated dedicated area and reduced by 300 sq.ft.

Canine - Removed 400 sq.ft. of dedicated workspace

Traffic Bureau - Added 480 sq.ft. of workspace

Support Bureau - Department reorganization reduced space by over 600 sq.ft.

Evidence Property Management - Removed 378 sq.ft. of duplicated workspace

QUESTIONS THAT MUST BE ANSWERED

Programmatic Change Highlights

Firing Range Management and Training - Added 628 sq.ft. of workspace for training simulator

I.D./Lockup - Added 380 sq.ft. due to regulation changes

Records Bureau - Reorganized and removed 500 sq.ft. of workspace

Criminal Investigations - Reorganized and added 80 sq.ft. of workspace

Community Services - Combined spaces and saved 370 sq.ft. of space

Staff Support Areas - Added 1,225 sq.ft. for a Multi-Purpose/Backup EOC

Locker/Fitness Areas - Adjusted locker size for Police use and added in missing Training Space which added 1,400 sq.ft.

Warm Storage - Unnecessary space was eliminated resulting in a savings of 683 sq.ft.

QUESTIONS THAT MUST BE ANSWERED

2. Will the Police Station fit on the Municipal Campus site in an effective and safe manner that will meet the needs of the Police Station, Village Hall, and Fire Station.

Yes, the police station will fit on the Municipal Campus and will meet the needs of the Village.

3. What is the best option for providing a police station on the Municipal Campus?

- a. Re-validate previous study conclusion of renovating and adding an addition onto the existing police station

We concur with the previous study, it is not a good option

- b. Review utilizing portions of the existing Village Hall for police functions

We reviewed the Village Hall for accommodating potential police functions and found we can use it for long term evidence storage, records storage and for the Firearms Training Simulator. We also reviewed utilizing other Village Owned property which can be converted at a low cost

- c. Tear down the existing police station and building new

This is the best option for this site

- d. Other options as identified during the course of the study

Other options were not reviewed as it was not necessary

QUESTIONS THAT MUST BE ANSWERED

Existing Building and Site Review

The Existing Building is 37,435 s.f. and was constructed in 1978 for a staff of 92 police employees

Today, the Police Department has 139 employees and 72,656 s.f. is required to meet the needs of the Department

Why does the Police Department need more space?

The **population, employment and traffic within the Village has grown significantly** since 1978

Many of the current **spaces are now inadequate**

- Sally Port
- Holding Cells
- Workspace Size
- Locker Rooms

Police **Operations have Changed** Significantly Since 1978

- Evidence Collection and Forensic Services
- Cyber Crime
- Evidence Storage
- Training Needs



QUESTIONS THAT MUST BE ANSWERED

Existing Building and Site Review

Essentially, nothing has changed since the 2009 Study

Architectural Issues

Roof and windows are beyond their useful lives.

Facility is not handicap accessible.

Facility is not compliant with current codes.

Building finishes are marginal to deficient.

Range is not up to current standards

Public vs. private areas are not secured

Structural Issues

Facility is not an essential structure per code

Condition of certain floor slabs and foundation walls is marginal

Facility will not accept vertical expansion



QUESTIONS THAT MUST BE ANSWERED

Existing Building and Site Review

Mechanical Issues

HVAC systems and controls are beyond their useful lives.

HVAC systems have no extra capacity.

Plumbing & Fire Protection

Plumbing systems have no extra capacity and lack backflow preventers.

Sprinklers are at a minimum in the facility.

The Public Works Department has estimated that \$8.78M is required to maintain and repair the inadequate current building.



Pros and Cons of New Police Station on Municipal Campus

Pros:

1. Remain on existing campus
2. New state of the art, code compliant facility
3. Fewest functional compromises
4. Construction and materials best suited for the function
5. Longevity of the solution
6. No land acquisition required

Cons:

1. Cost of moving twice
2. Construction Logistics
3. Site Constraints

QUESTIONS THAT MUST BE ANSWERED

Pros and Cons of Using Existing Building

Pros:

1. Remain on existing campus
2. Reuses existing building
3. Improved functions
4. No land acquisition required

Cons:

1. Low floor to floor heights: 12'-8" and 13'0"
2. Rear addition higher floor to floor heights due to sally port
3. Inflexibility of construction type does not allow for easy reconfiguration, functional compromises, compromised adjacencies
4. Cost prohibitive to upgrade the structure to "essential"
5. Holding area does not meet current IDOC standards
6. Substandard evidence facilities
7. Low life cycle remaining on existing facility

Pros and Cons of Using Existing Building

Cons:

8. Major building systems are beyond their useful life
9. Condition of the range
10. Roof and windows are beyond their useful life
11. Building is not handicap accessible
12. Life safety & general code violations
13. The effective age of the building is 93 years.
14. Architectural massing of addition/remodel
15. Cost approaches cost to build new
16. Cost of moving twice

QUESTIONS THAT MUST BE ANSWERED

4. What are the best solutions for providing public, staff and police department parking?

The existing site and adjacent parking lots are sufficient for the parking required

In our parking study, we determined that the Municipal Campus requires a minimum of 410 parking spaces. Without adding onto the parking deck, the site can accommodate 430 spaces

5. What can be moved off site? Does offsite storage for police vehicles and equipment make sense?

We have identified approximately 1,500 sq.ft. of storage needs that can be located off site which includes Long Term Evidence Storage, Records Storage, Indoor Vehicle, and Equipment Storage which will not significantly affect the efficiency of police operations

Seized vehicles will also be located off site.

There is the potential to locate the Firearms Training Simulator to the 4th floor of the Village Hall.

QUESTIONS THAT MUST BE ANSWERED

6. What is the best method for keeping long term evidence?

We are recommending locating long term evidence storage on the fourth floor of the Village Hall

7. Is a connection to the Fire Department beneficial?

No physical connection is necessary.

We are proposing utilizing the existing drive between the Police and Fire Station which aids operational efficiency for the Police Department

8. What will the various solutions for keeping the police station on the Municipal Campus cost?

Conceptual Costs will be presented later in this presentation

9. What will it cost to relocate the Police Department temporarily if the chosen solution keeps the police station on the Municipal Campus?

We have determined that the Police Department will need approximately 20,000 sq.ft. to operate temporarily by utilizing neighboring police department facilities for some functions and sacrificing the use of locker rooms during the construction period.

Therefore, utilizing current market rates, we have included in the conceptual budgets \$1.30M - \$1.53M for temporary facilities.

QUESTIONS THAT MUST BE ANSWERED

10. How much will it cost to build a new police station on a new site?

At this time, it is not necessary to develop this cost because the Police Station will fit on the Municipal Campus

11. If the police station is moved to a new site, how much will it cost to demolish the existing police station and restore the site, or renovate the building for lease to another user?

At this time, it is not necessary to develop this cost because the Police Station will fit on the Municipal Campus

12. Is the existing site suitable for a new building. There are reports that the soil conditions may be suspect.

The Village commissioned Soil and Material Consultants to provide a soils analysis and found the site is suitable for use with conventional foundation systems

BACKGROUND INFORMATION FROM 2010 STUDY

2010 Police Department Space Needs Requirements: **76,466 Sq. Ft.**

Current Police Department Space Needs Requirements: **72,656 Sq. Ft.**
(reduced 2010 requirements by 3,810 sq.ft.)

Conceptual Budget Presented in 2010: **\$33,515,284 - \$39,573,781**

2010 Average Budget adjusted for inflation: **\$45,090,321**

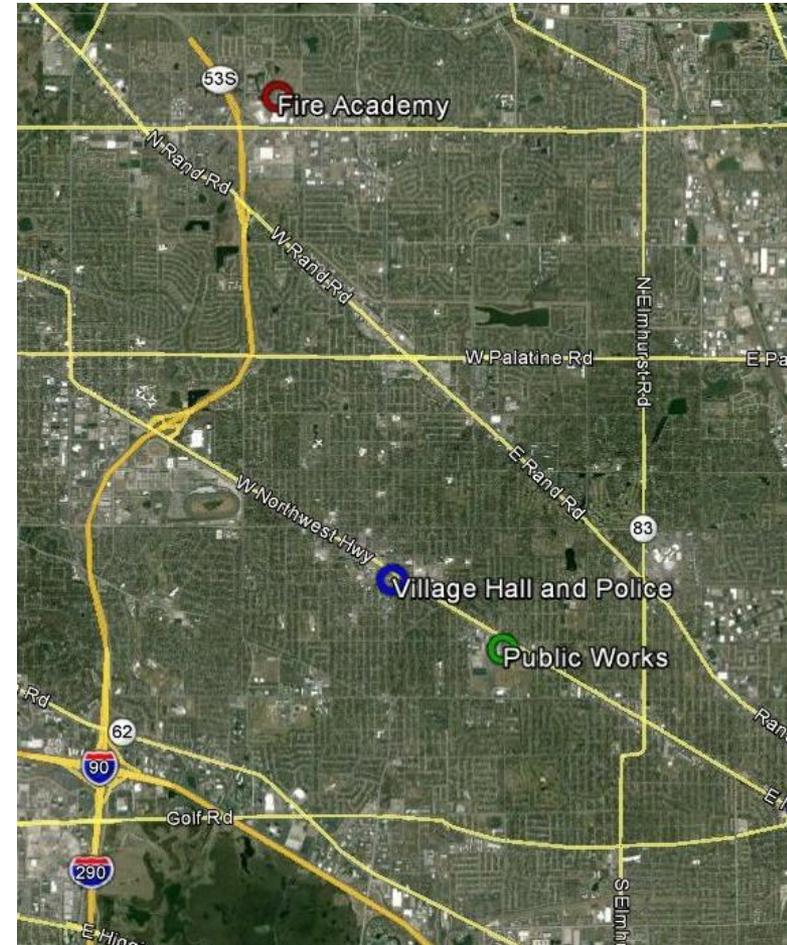
Notes:

- Budget included a parking deck at a cost of \$1,981,000 - \$2,330,000
- Budget did not include cost for temporary facility during construction
- Costs were based on 2010 Construction Costs

**Current Police Department Space
Needs Requirements: 72,656 Sq. Ft**

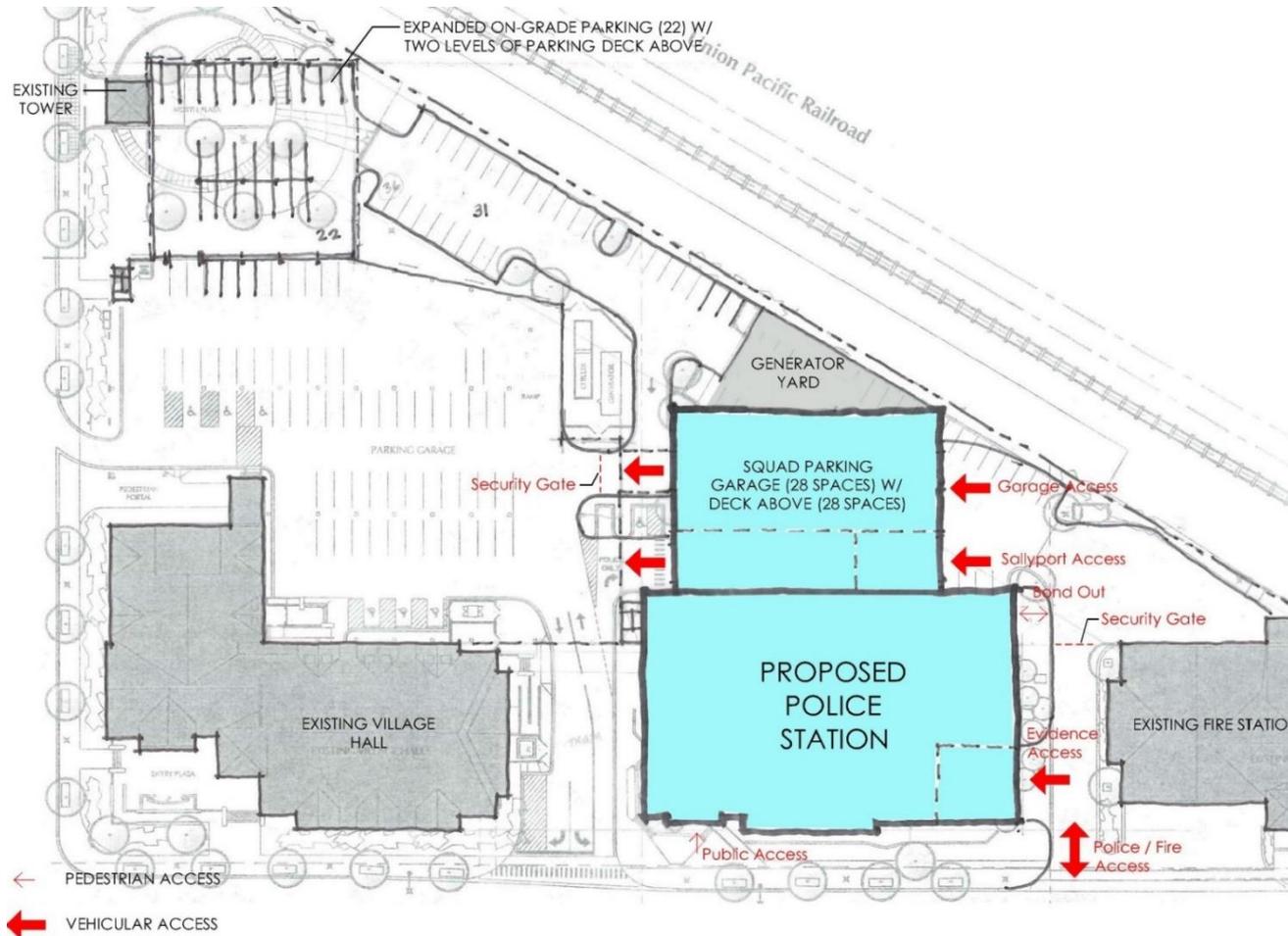
Village Owned Assets Available:

- Existing Site
- Existing Parking
- 4th Floor of Village Hall
- Fire Academy
- Public Works Site at Davis and Gregory



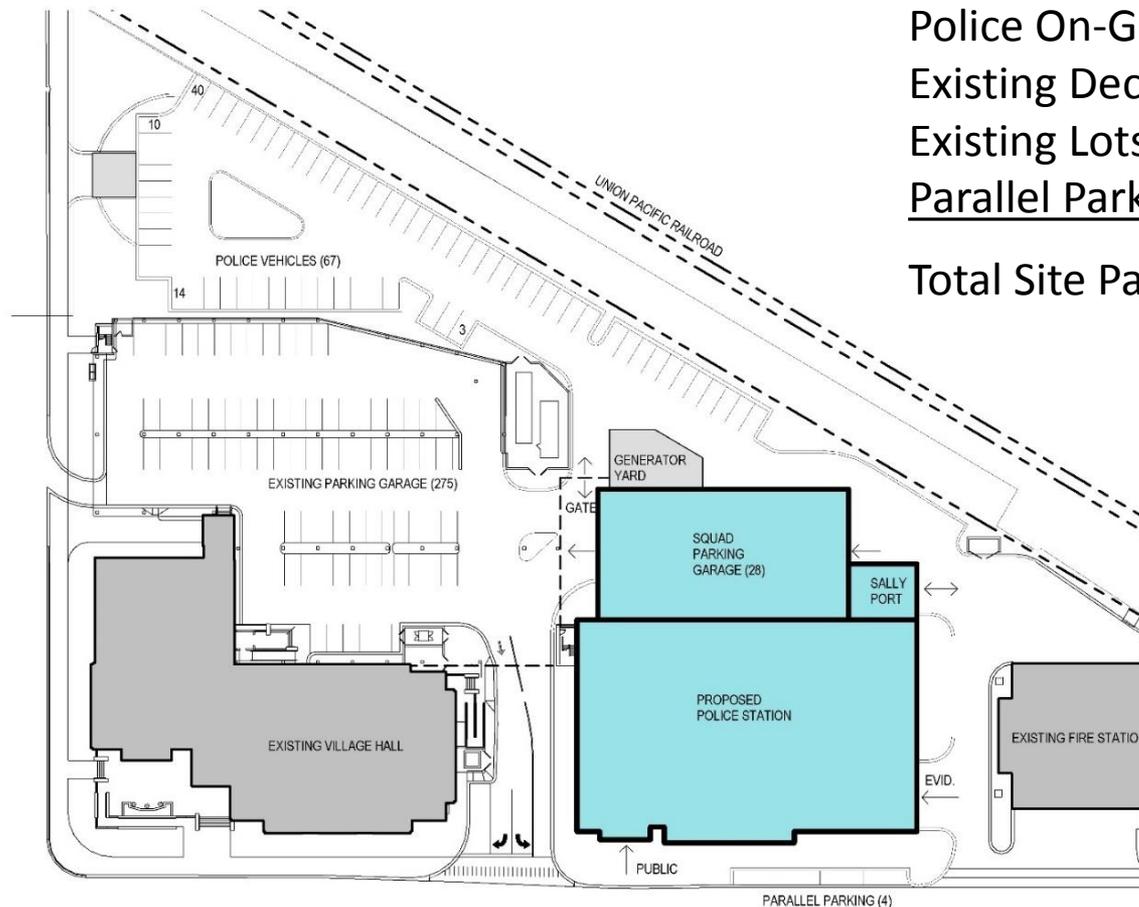
Last Concept Plan Presented Shows Police Station Can Fit on Existing Site

Plan includes potential to address long term parking needs



Refined Site Plan

Site plan allows for better use of the site



Parking Breakdown

Police Garage:	28
Police On-Grade:	67
Existing Deck:	275
Existing Lots on Sigwalt:	94
<u>Parallel Parking:</u>	<u>4</u>
Total Site Parking:	468

The Functional Items Dictate the First Floor Footprint

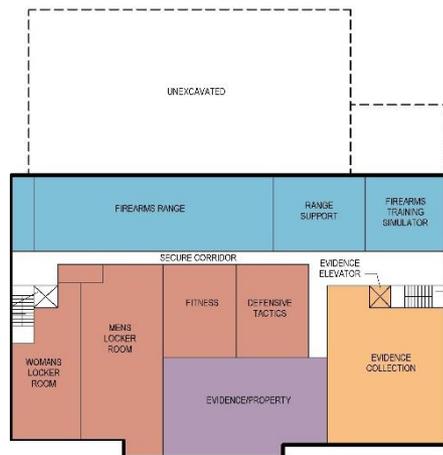
First Floor Area Requirements = 24,500 sq.ft.

FIRST FLOOR FUNCTIONS	Sq.Ft.
PUBLIC ENTRY / PUBLIC ACCESS AREAS	948
OPERATIONS SUPPORT - FRONT DESK	572
PATROL BUREAU	5,260
EVIDENCE COLLECTION	2,731
I.D. / LOCKUP	5,589
RECORDS BUREAU	2,986
CRIMINAL INVESTIGATIONS DIVISION	5,119
STAFF SUPPORT AREAS	120
LOADING FACILITY MAINTENANCE	<u>175</u>
First Floor Sub-Total	23,500
Multi-Floor Factor	<u>1,000</u>
TOTAL FIRST FLOOR BUILDING AREA	24,500

Efficient Building Design

Have all floor levels of Police Station
“stack” on top of one another

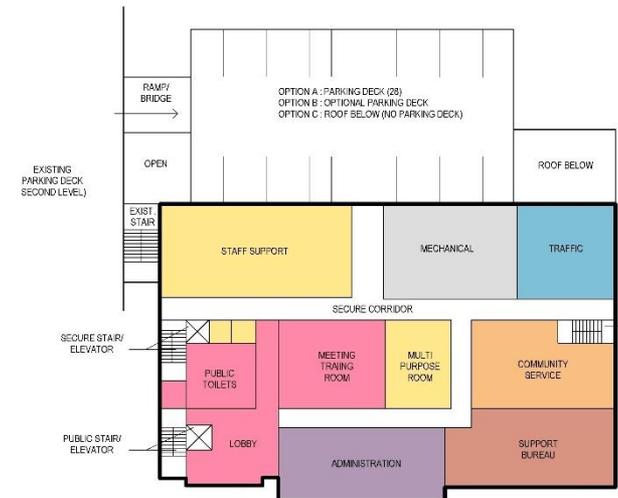
Allows for cost efficient structure



Lower Level



1st Floor



Second Floor

Options to Reduce Cost of Police Station

By Utilizing Other Village Owned Assets, it is possible to reduce the size of the Police Station

- Space can be left unfinished or eliminated completely
- Leaving space for future build-out allows for future flexibility, but will be more costly to build out later
- Eliminating space completely saves the greatest costs



Leave Space Unfinished



Do Not Build Space

Parking Requirements

Existing Site has **441** Spaces

Parking Study Summary:
410 spaces are required as a minimum, **430** spaces is ideal

Conceptual Site Plan shows **437** parking spaces can be provided without adding additional parking

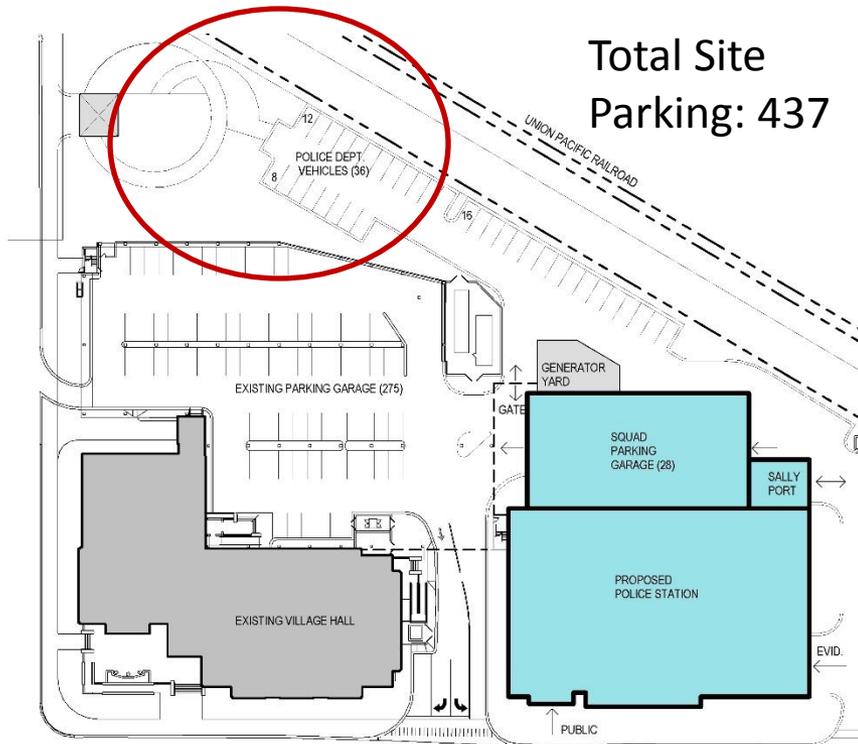
Optional Parking

- Surface Parking at Northwest Corner adds 31 spaces
- Parking deck above police garage adds an additional 28 Spaces

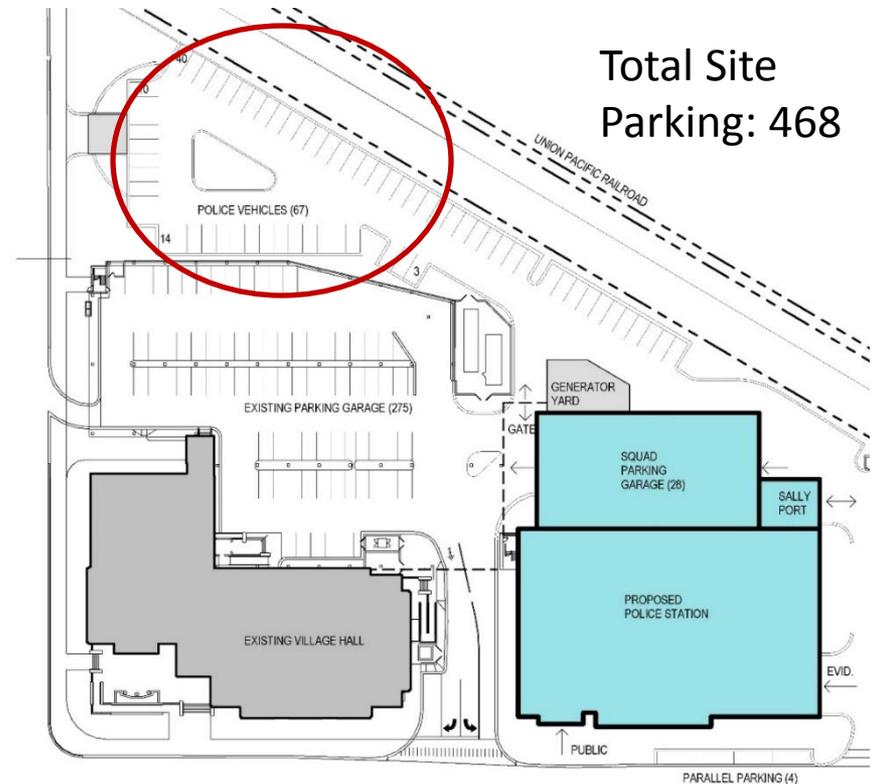


Surface Parking Option

Optional Surface Parking at Northwest Corner adds 31 spaces



Without Additional Surface Parking

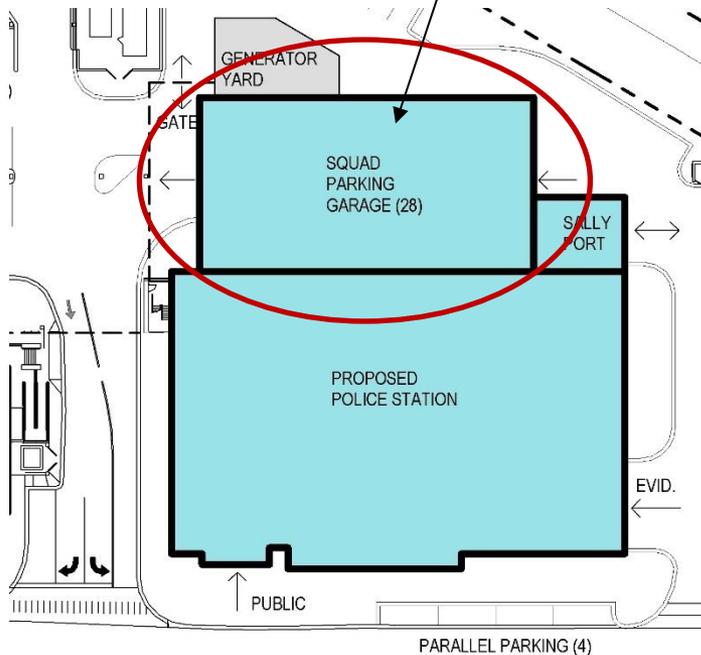


With Additional Surface Parking

Police Covered Parking Options

Goal is to provide protected parking for a minimum of 28 patrol vehicles

Location of Covered Parking



Partial Site Plan

1st Floor Options

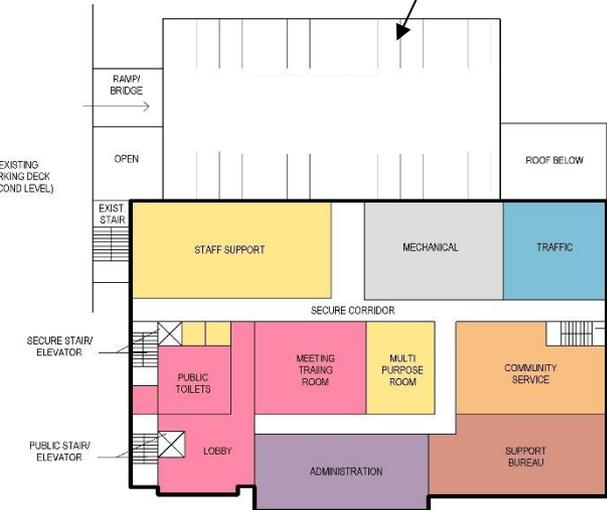
- Covered Parking
- Indoor Parking (preferred)



First Floor

2nd Floor Options

- Parking Deck Above Indoor Parking
- Prepare for Future Parking Deck
- No Parking



Second Floor

Fourth Floor of Village Hall

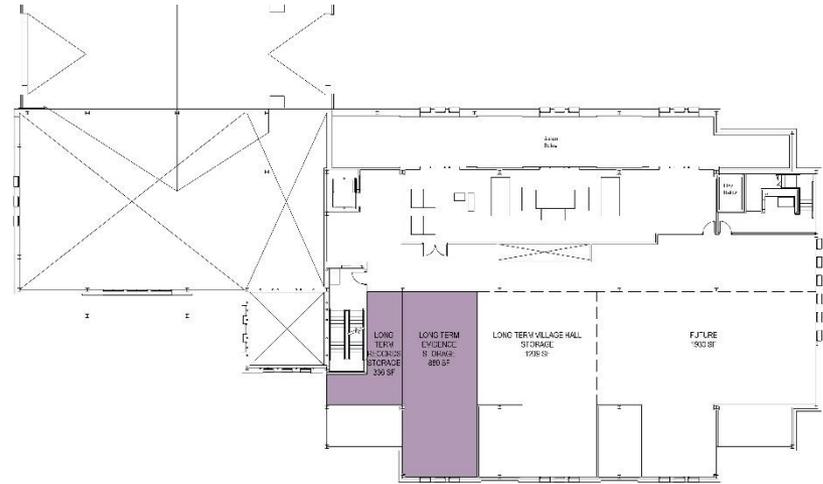
Total Sq.Ft. Available: 4,500 sq.ft.

Potential Uses

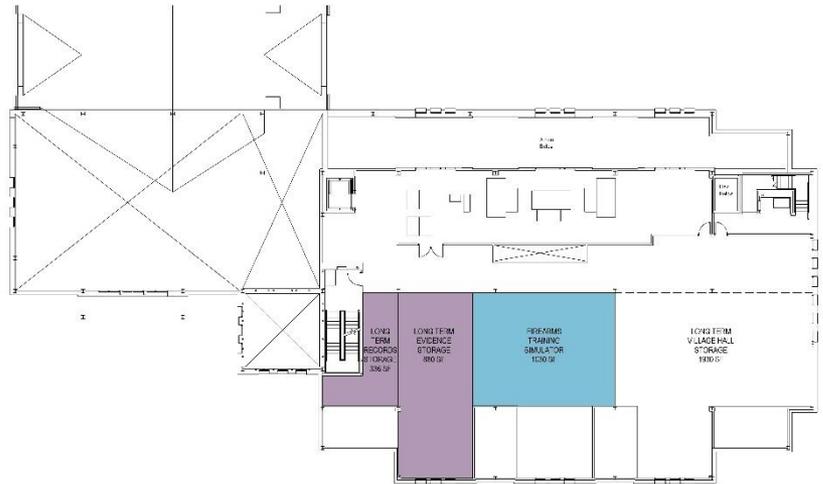
- Training
- Archive storage
- Long Term Evidence Storage

Considerations

- Access from Police Station
- Noise from Training Events
- Need for Potential Village Hall Storage Growth



4th Floor for Storage



4th Floor for Storage and Training

Fire Academy

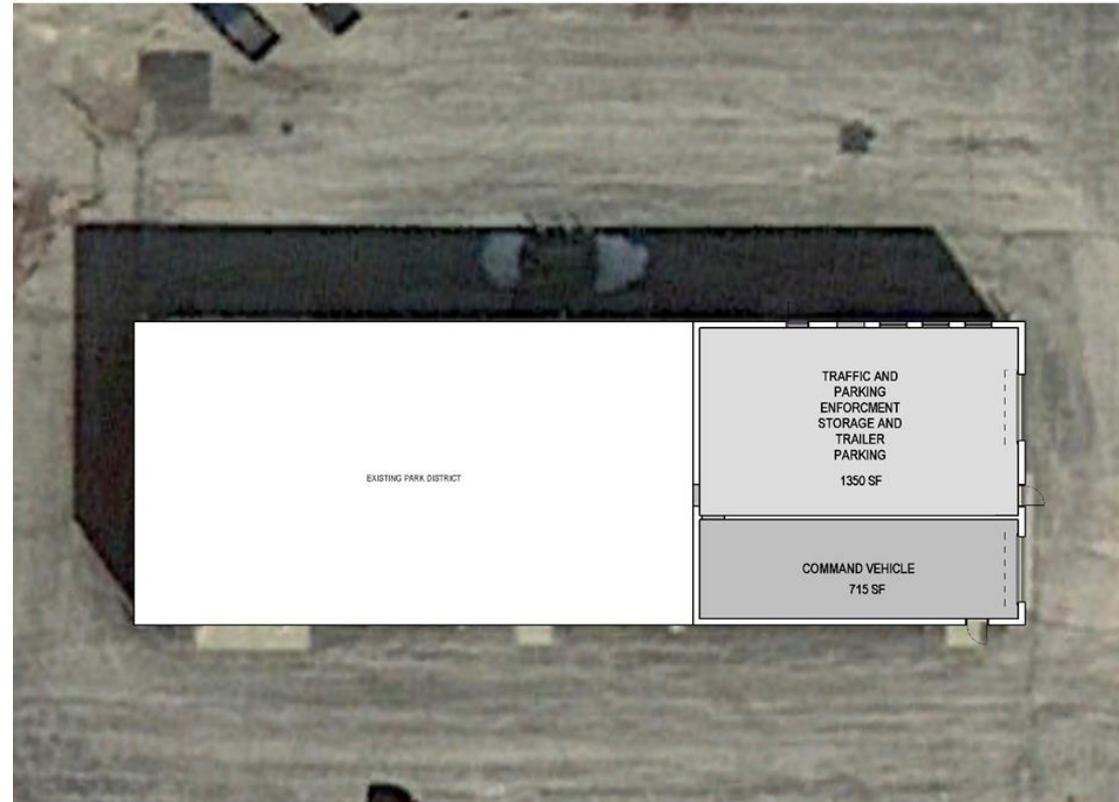
Total Sq.Ft. Available: 2,065 sq.ft.

Potential Uses

- Command Vehicle Storage
- Archive storage
- Storage

Considerations

- Distance from Police Station
- Vehicle Storage Bay Exists
- Park District also Uses Site



Public Works Site at Davis and Gregory

Potential Uses

- Vehicle Impound Lot

Considerations

- Access
- Security



CONCEPTUAL SOLUTIONS

Option A

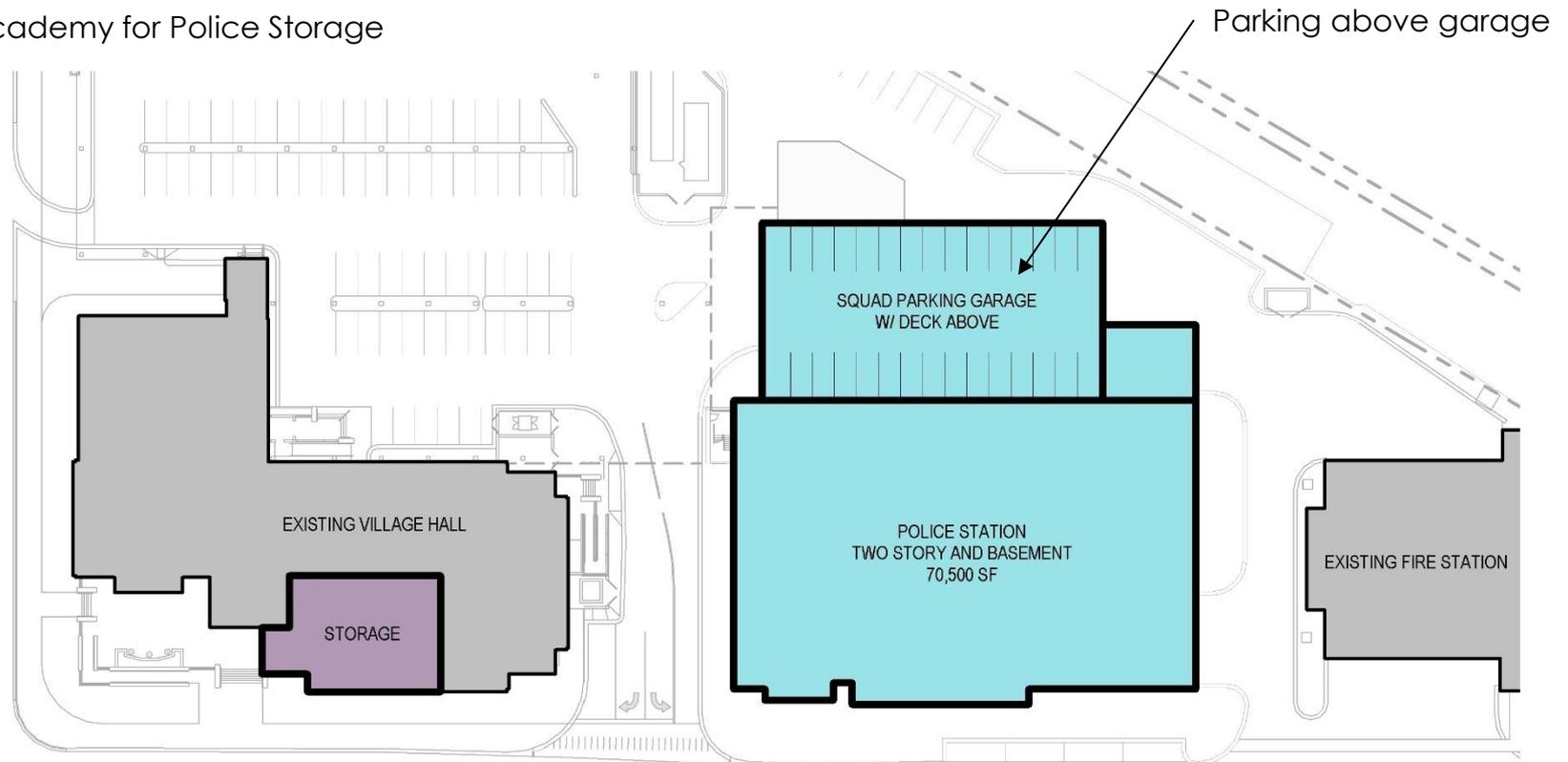
70,500 s.f. Police Station

10,360 s.f. Indoor Parking w/ Parking Deck Above

4th Floor Village Hall for Storage

Off-Site Impound Lot

Fire Academy for Police Storage



Option B

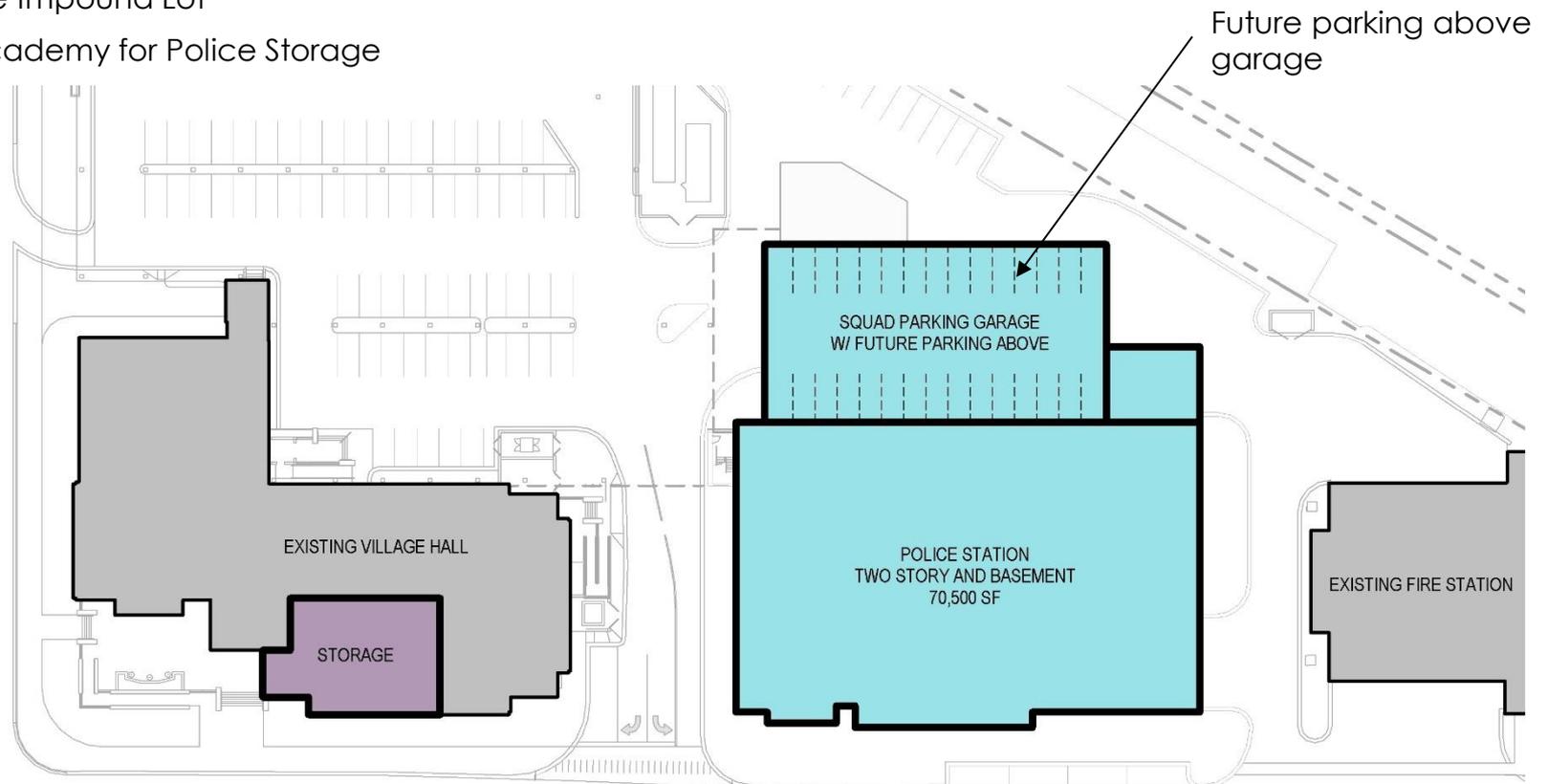
70,500 s.f. Police Station

10,360 s.f. Indoor Parking w/ Future Parking Above

4th Floor Village Hall for Storage

Off-Site Impound Lot

Fire Academy for Police Storage



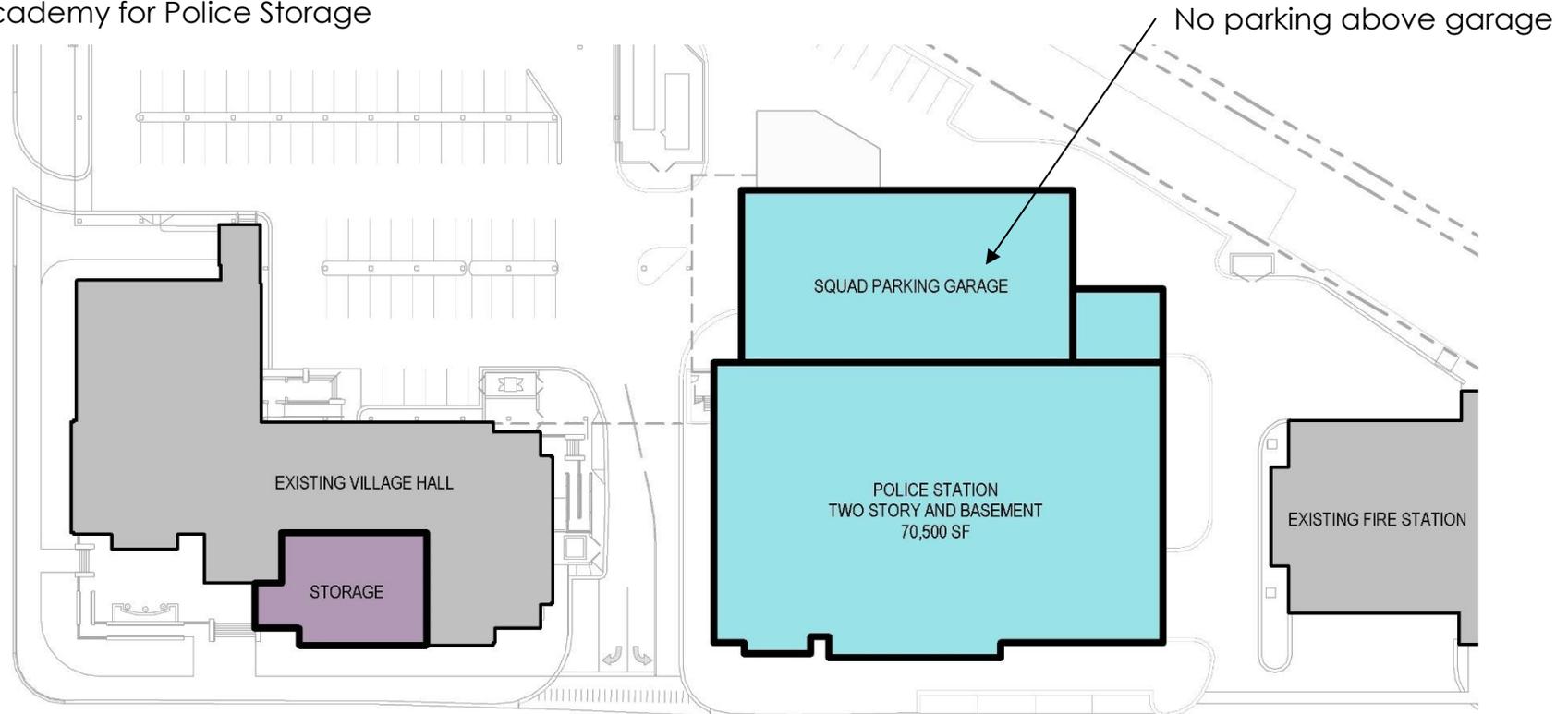
Option C – Preferred Option

70,500 s.f. Police Station
10,360 s.f. Indoor Parking Garage

4th Floor Village Hall for Storage

Off-Site Impound Lot

Fire Academy for Police Storage



Option D

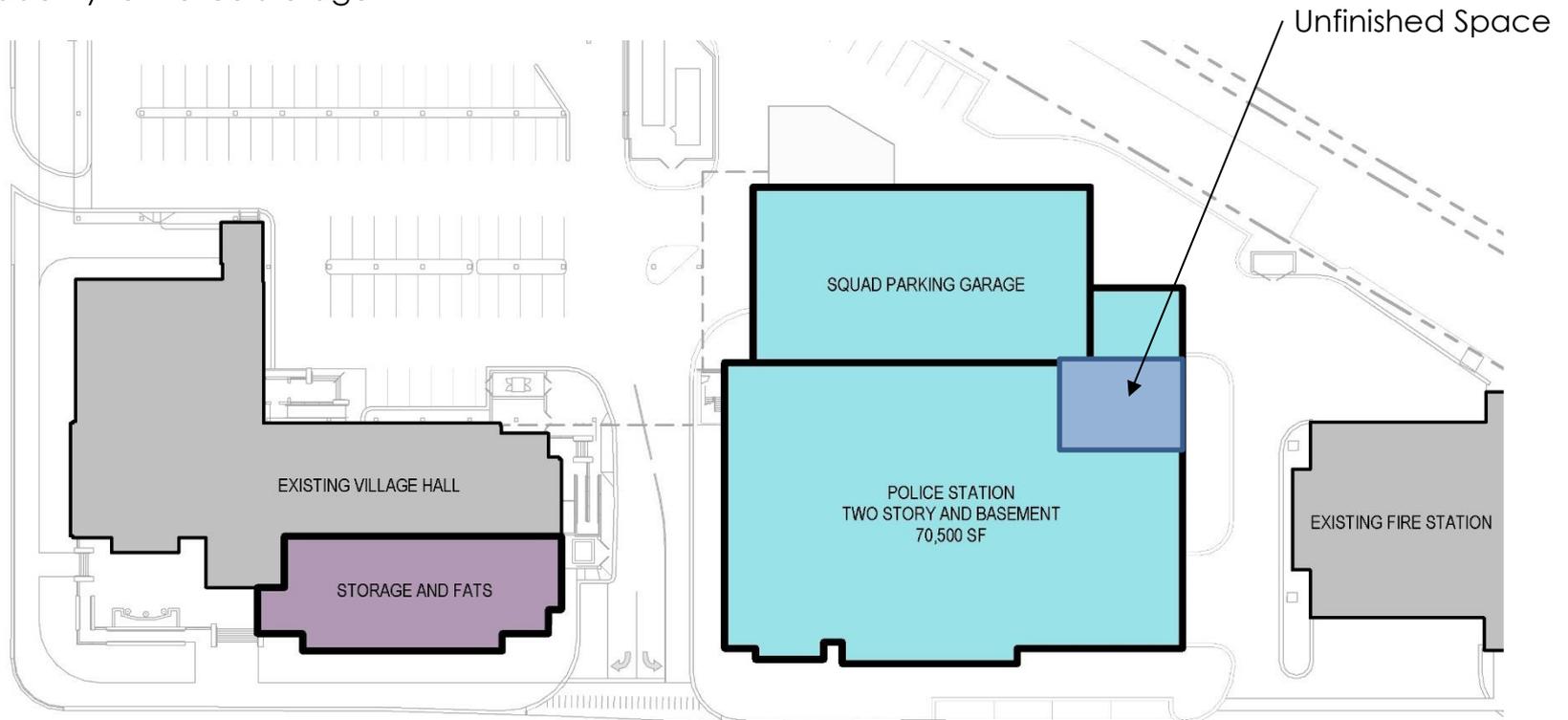
70,500 s.f. Police Station (2,240 s.f. Unfinished)

10,360 s.f. Indoor Parking Garage

4th Floor Village Hall for Storage and FATS

Off-Site Impound Lot

Fire Academy for Police Storage



CONCEPTUAL SOLUTIONS

Option E

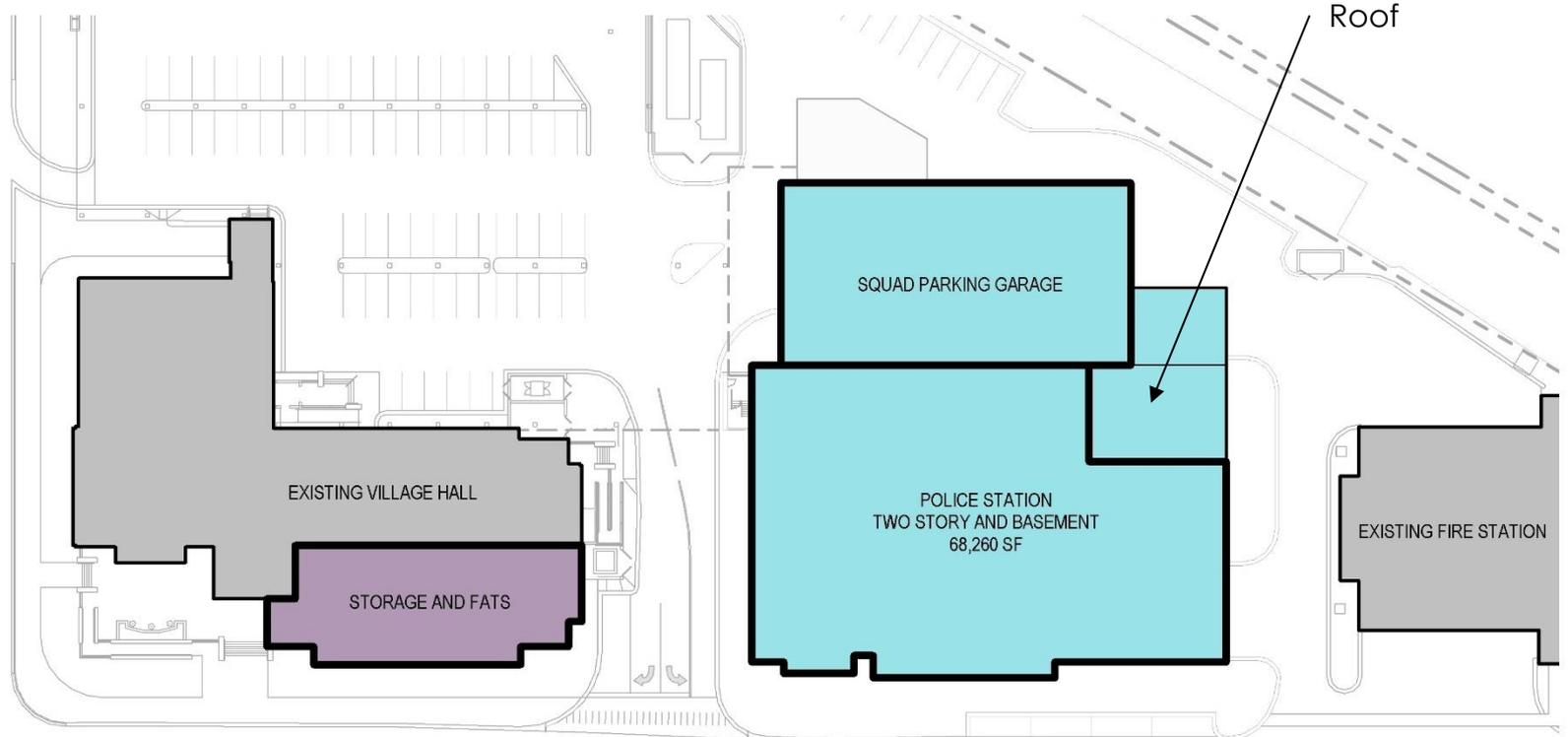
68,260 s.f. Police Station

10,360 s.f. Indoor Parking Garage

4th Floor Village Hall for Storage and FATS

Off-Site Impound Lot

Fire Academy for Police Storage



CONCEPTUAL BUDGETS

Construction Budget Summary

OPTION A	OPTION B	OPTION C Preferred Option	OPTION D	OPTION E
70,500 s.f. Police Station	70,500 s.f. Police Station	70,500 s.f. Police Station	70,500 s.f. Police Station (2,240 s.f. Unfinished)	68,260 s.f. Police Station
10,360 s.f. Indoor Parking w/ Parking Deck Above	10,360 s.f. Indoor Parking w/ Future Parking Above	10,360 s.f. Indoor Parking Garage	10,360 s.f. Indoor Parking Garage	10,360 s.f. Indoor Parking Garage
4th Floor Village Hall for Storage	4th Floor Village Hall for Storage	4th Floor Village Hall for Storage	4th Floor Village Hall for Storage and FATS	4th Floor Village Hall for Storage and FATS
Off-Site Impound Lot	Off-Site Impound Lot	Off-Site Impound Lot	Off-Site Impound Lot	Off-Site Impound Lot
Fire Academy for Police Storage	Fire Academy for Police Storage	Fire Academy for Police Storage	Fire Academy for Police Storage	Fire Academy for Police Storage
CONSTRUCTION BUDGET	CONSTRUCTION BUDGET	CONSTRUCTION BUDGET	CONSTRUCTION BUDGET	CONSTRUCTION BUDGET
Low High	Low High	Low High	Low High	Low High
\$27,289,592 \$29,045,140	\$27,126,087 \$28,866,671	\$26,430,475 \$27,984,735	\$26,336,103 \$27,897,622	\$25,731,807 \$27,253,040
Average Construction Budget	Average Construction Budget	Average Construction Budget	Average Construction Budget	Average Construction Budget
\$28,167,366	\$27,996,379	\$27,207,605	\$27,116,862	\$26,492,423

*** Construction Costs are based on a projected construction start date in Spring 2017

OTHER COSTS BUDGET SUMMARY

Construction Budget Summary

OPTION A		OPTION B		OPTION C Preferred Option		OPTION D		OPTION E	
Owner Furnished Items (FFE)									
Low	High								
\$1,051,000	\$1,252,500	\$1,051,000	\$1,252,500	\$1,051,000	\$1,252,500	\$1,052,000	\$1,254,000	\$1,052,000	\$1,254,000
Fees, Soft Costs, Owner Contingency		Fees, Soft Costs, Owner Contingency		Fees, Soft Costs, Owner Contingency		Fees, Soft Costs, Owner Contingency		Fees, Soft Costs, Owner Contingency	
Low	High								
\$2,534,523	\$2,771,216	\$2,522,669	\$2,758,277	\$2,472,237	\$2,694,337	\$2,468,454	\$2,690,639	\$2,420,261	\$2,639,233
Temporary Facility Costs		Temporary Facility Costs		Temporary Facility Costs		Temporary Facility Costs		Temporary Facility Costs	
Low	High								
\$1,298,000	\$1,534,500	\$1,298,000	\$1,534,500	\$1,298,000	\$1,534,500	\$1,298,000	\$1,534,500	\$1,298,000	\$1,534,500

*** Construction Costs are based on a projected construction start date in Spring 2017

Construction Comparison Costs

Project	Bid Date	Construction Cost	Inflation Multiplier	Adjusted Cost	Notes
Palatine Police Station ***	May-10	\$18,840,955	27%	\$23,928,013	70,524 s.f. with 20,160 s.f. garage
Hoffman Estates Police Station	Sep-08	\$21,477,503	29%	\$27,705,979	64,105 s.f. with 15,000 s.f. garage
Elk Grove Police Station	Oct-07	\$21,200,000	37%	\$29,044,000	85,535 with 23,000 s.f. garage
Glenview Police Station	Aug-04	\$19,359,315	58%	\$30,587,718	84,152 s.f. with 19,400 s.f. garage
Skokie Police Station (renovation)	May-09	\$21,756,486	26%	\$27,413,172	79,318 s.f. with 12,600 s.f. garage
Arlington Heights Police Station	2017			\$27,207,605	70,500 s.f. with 10,360 s.f. garage

Notes

***Bid in the height of the recession, construction cost was extremely low due to bidding climate

Construction Inflation Multipliers were derived from data published by Engineering News Record, Mortenson Construction and Gilbane Building Co.

Project Budgets are based on a Spring 2017 construction start date.

Project Will Meet the Goals of the Village

1. Police Station will fit on Municipal Campus Site
2. The project cost is significantly less than projected in 2010
3. Solutions utilize existing Village Assets
4. Solutions will be highly functional
5. Designs complement the existing architecture of the municipal campus
6. Provided functional areas for modern policing
7. Provided covered parking for Police Vehicles
8. Took advantage of the entire site
9. Provided for flexibility in the future

Summary of Cost Saving Measures

1. Size of Police Station was reduced by 3,810 sq. ft.
 - Use of more shared spaces
 - Reorganized Departments
2. Able to use the existing site – no land acquisition required
3. By conducting a through parking analysis, it was determined that we can utilize the existing available parking
4. Efficient building design – simple stacking of floor levels
5. Utilize other Village owned assets which can be remodeled at a lower cost than new construction
 - 4th Floor of Village Hall
 - Fire Academy
 - Public Works Site at Davis and Gregory

QUESTIONS AND ANSWERS

