Feasibility Study

Public Safety Facility

Police - Emergency Medical Services
Emergency Operations Center

Report to City Council
January 4th, 2016

WSN Project No. 1080R0051.000

WIDSETH SMITH NOLTING
Engineering | Architecture | Surveying | Environmental

Certification

I hereby certify that this feasibility study was prepared by me or under my direct supervision and that I am a duly licensed Architect under the laws of the State of Minnesota.

Dana Hlebichuk, Architect (Reg No. 44719)

January 4, 2016

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Feasibility Study Participants:

City Council:
- Joel Beckman, Mayor
- Andru Peters, Council Member
- Mark Spence, Council Member
- Russel Boe, Council Member
- Mary Lou Waltman, Council Member
- Greg Schreck, Council Member
- Randy Klipfel, Council Member

City Staff:
- Robert Keehn, Director of Planning and Community Development
- Cory Kubista, Chief of Police
- Gail Riemersma, Ambulance Director
- John Yorde, Emergency Management

Advisors:
- Dana Hlebichuk, AIA, Architect, Widseth Smith Nolting
- Deb Parrott, AIA, Architect, Widseth Smith Nolting
- Greg Bohl, AIA, Architect, Widseth Smith Nolting
- Gary Nordine, General Contractor, Reliable Contractors
- Jay Krueger, Building Inspector, Construction Management Services

Executive Summary

Executive Summary:

The City Council and the City of Lake City authorized three Feasibility and Programing Studies since 2004. The first study, completed October 2004, looked at combining the Fire Department, Emergency Medical Services (EMS), and the Police Department. The complete design and program focused on keeping all of the departments downtown in a City Government Complex. The study resulted in a combined program space of 32,751 square feet (sf) and an estimated construction cost of $5,800,000. Advantages of this exercise were reusing the existing building and keeping the departments downtown. The disadvantages included: the design did not meet parking requirements; the Fire Department was temporarily relocated; there was no opportunity for future expansion; and the safety around the site while emergency vehicles entered and exited created safety concerns for citizens.

The second study was completed February, 2014. This study was similar to the first as it combined three public services—Police, Emergency Operations Center (EOC), and EMS—with a future option to expand for a new Fire Department. The site for the second study was not located downtown and did not consider reusing the existing building. The second study resulted in a combined program space of 25,100 sf and an estimated construction cost of $6,939,163. The disadvantages of this option included the abandonment of the existing facility and no option for reuse. The advantages included combining all of the facilities into a new building. The proposed plan, however, did not fully capitalize on sharing facilities between all departments.

On November 9, 2015, the Lake City City Council approved Widseth Smith Nolting to prepare a feasibility study which would evaluate the condition of the existing building, identify current accessibility and life safety code deficiencies, and examine the opportunity to expand the existing building and/or build a new shared facility on a green site outside of downtown. This study resulted in four options:

A: Remodel the existing facility to house Police, Ambulance, and EMS

B: Remodel the existing facility to house Ambulance and build a new facility for Police and EMS

C: Remodel existing facility to house Police and EMS and build a new facility for Ambulance

D: Build new facility to house Police, Ambulance, and EMS

Widseth Smith Nolting worked with Robert Keehn, Cory Kubista, Gail Riemersma, and John Yorde to review the previous two building programs and to identify the current needs of the departments. These programing sessions resulted in the following building program for each department:

Police Department:	2,754 sf
Emergency Medical Services (EMS):	2,013 sf
Emergency Operations Center (EOC):	1,107 sf
Front Office Staff and Workroom:	40 sf
Common and Shared Spaces:	7,644 sf
Mechanical Rooms, Corridors, and Unassigned Areas (at 15%):	2,096 sf
Total Gross Floor Area:	13,977 gsf

The actual space utilization varied depending upon which of the four options was being considered. In general, reusing the existing building posed challenges with remodeling, while the combined facilities took advantage of shared program spaces.

Separate facilities drastically reduced the efficiency of the plans by duplicating services at two sites. The requirement for a second generator in Options B and C is an expense that is not accounted for in the construction costs and would need to be identified as a soft cost. Although all four options posed separate and unique challenges for the design team, Option D gave the greatest flexibility for expansion, safety on site for emergency vehicles entering and exiting, and a reduced response time for emergency vehicles.

Building Program

Police	Size	No.	Area	
Arms/Evidence Room	25 x 15	1	375	sf
Locker Rooms	10 x 20	1	200	sf
Police Chief Office	14 x 12	1	168	sf
Investigator Office	10 x 12	1	120	sf
Sargent Office	10 x 12	1	120	sf
PD Gear Storage	10 x 15	1	150	sf
PD Uniform Storage	6 x 6	1	36	sf
Police Report Storage	8 x 12	1	96	sf
Interview/Deto x Room	12 x 14	1	168	sf
Evidence Processing	5 x 8	1	40	sf
Interview Room	8 x 8	1	64	sf
Toilet	10 x 6	1	60	sf
Officers Report Area	20 x 20	1	400	sf
Lunch Room	12 x 15	1	180	sf
Storage		10%	217.70	sf
Circulation		15%	359.21	sf
Arch Sub-Total			**2,754**	**sf**

Ambulance	Size	No	Area	
Ambulance Assistant	10 x 12	1	120	sf
Ambulance Director Office	14 x 12	1	168	sf
EMS Gear Storage	10 x 15	1	150	sf
Bunk Rooms	8 x 10	4	320	sf
EMS Crew Toilets	10 x 6	1	60	sf
Day Room/Kitchenette	18 x 20	1	360	sf
Linen Storage/Medical Supplies	15 x 15	1	225	sf
EMS Uniform Storage	6 x 6	1	36	sf
EMS Report Storage	8 x 10	1	80	sf
EMS Workroom/Mail	8 x 9	1	72	sf
Storage		10%	159.10	sf
Circulation		15%	262.52	sf
Civil Sub-Total			**2,013**	**sf**

E.O.C.	Size	No	Area	
EOC with Kitchenette and Toilet	30 x 30	1	875	sf
Storage		10%	87.50	sf
Circulation		15%	144.38	sf
Survey Sub-Total		**1,107**	**sf**	

Common Spaces	**Size**	**No.**	**Area**	
Generator Room	12 x 16	1	192	sf
DMARC Room	13 x 16	1	208	sf
Lobby	14 x 12	1	168	sf
Lobby Toilet	10 x 6	1	60	sf
Interview Room off Lobby	10 x 10	1	100	sf
Conference Room	10 x 18	1	180	sf
Training Room	35 x 25	1	875	sf
Men's Toilet	10 x 10	1	100	sf
Women's Toilet	10 x 10	1	100	sf
Storage	20 x 20	1	400	sf
Vehicle Bay	60 x 70	1	4,200	sf
Janitor Room	8 x 8	1	64	sf
Circulation		15%	997.05	sf
Common Sub-Total			**7,644**	**sf**

Reception	**Size**	**No.**	**Area**	
Front Office Staff	14 x 12	1	280	sf
Work Room	10 x 12	1	120	sf
Circulation		15%	60.00	sf
Reception Sub-Total			**460**	**sf**

Total SF				
Police			2,754	sf
Ambulance			2,013	sf
E.O.C.			1,107	sf
Common Space			7,644	sf
Reception			460	sf
Unassigned		15%	2,096.62	sf
Total Gross Floor Area			**13,977**	**sf**

Building Design Options

Option A: Remodeling/Addition Police Department/EOC/EMS

Option B: Remodeled EMS

Option B: New Police Department/EOC

Option C: Remodeling/Addition Police Department/EOC

Option C: New EMS

Option D: New Police Department/EOC/EMS

	SF AREA
ARMS/EVIDENCE - ADDITION	252
PD OFFICES: CHIEF, INVESTIGATOR, SARGENT	455
FRONT OFFICE STAFF	276
PD GEAR STORAGE - ADDITION	140
INTERVIEW/DECON ROOM - ADDITION	150
EVIDENCE PROCESSING	91
INTERVIEW ROOM	72
P.D. INTERVIEW ROOM	126
TOILET ROOMS - ADDITION	36
OFFICERS' REPORT AREA - ADDITION	361
APPARATUS BAY - ADDITION	1,496
APPARATUS BAY	625
APPARATUS BAY - SALLY PORT	375
UNIFORM STORAGE - ADDITION	98
PD REPORT STORAGE	126
TOTAL	**4,679**
EOC/KITCHENETTE/TOILET ROOMS	705
GENERATOR ROOM	126
TOTAL	**831**
TOILET ROOMS	90
JANITOR ROOM	35
LUNCH ROOM	200
STORAGE	140
TRAINING ROOM	684
CONFERENCE ROOM	248
DMARC ROOM	280
LOCKER ROOM - ADDITION	208
SHOWERS	240
TOTAL	**2,125**
EMS AMBULANCE DIRECTOR'S OFFICE	121
EMS AMBULANCE ASSISTANT - ADDITION	132
BUNK ROOMS - ADDITION	306
DAY ROOM/KITCHENETTE	465
LINEN STORAGE/MEDICAL SUPPLIES - ADDITION	408
REPORT STORAGE - ADDITION	50
EMS WORKROOM/MAIL - ADDITION	50
EMS UNIFORM STORAGE - ADDITION	50
AMBULANCE VEHICLE BAY/DECONTAMINATION AREA - ADDITION	2,106
TOTAL	**3,688**
ELECTRICAL ROOM	110
ELEVATOR EQUIP ROOM	36
TOTAL	**146**
EXISTING BUILDING CIRCULATION	2,591
BUILDING ADDITION CIRCULATION	1,015
TOTAL BUILDING AREA	**15,075**
Remodeled Exist. Total	7,347
Addition Total	7,728
TOTAL BUILDING AREA	**15,075**

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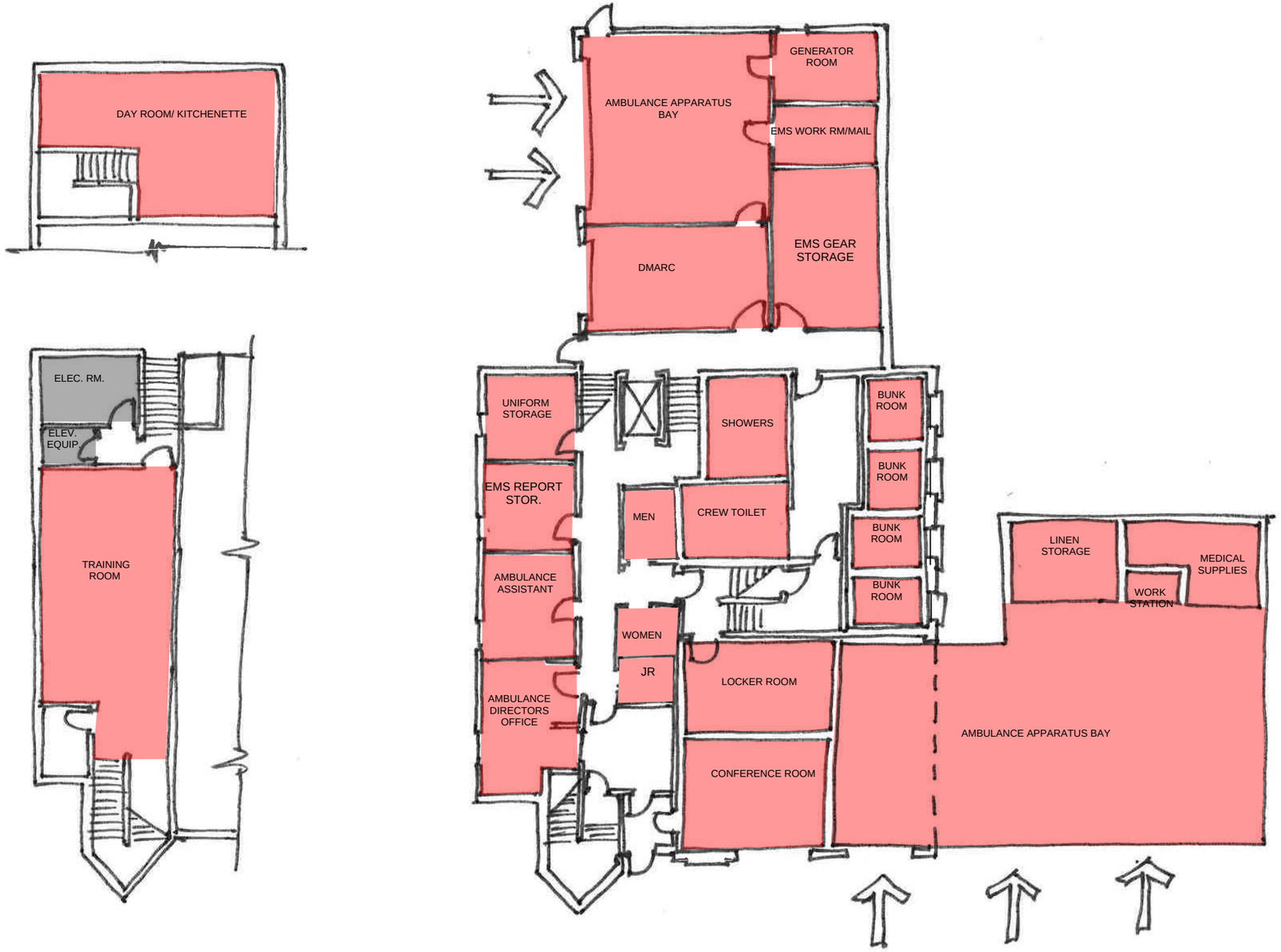
LAKE CITY FEASIBILITY STUDY - OPTION A: REMODELING/ADDITION POLICE DEPARTMENT/EOC/EMS



		SF AREA
	EMS OFFICES: DIRECTOR, ASSISTANT	357
	DMARC	375
	BUNK ROOMS	320
	EMS CREW TOILET ROOMS	225
	DAY ROOM/KITCHENETTE	465
	LINEN STORAGE/MEDICAL SUPPLIES - ADDITION	350
	EMS WORKROOM/MAIL	106
	EMS GEAR STORAGE	294
	EMS REPORT STORAGE	132
	EMS UNIFORM STORAGE	130
	AMBULANCE APPARATUS BAY - ADDITION	1,381
	AMBULANCE APPARATUS BAY	1,003
	CONFERENCE	316
	LOCKER ROOM	260
	TRAINING ROOM	705
	TOILET ROOMS	90
	JANITOR	35
	GENERATOR	126
	SHOWERS	110
	WORK STATION	28
	TOTAL	**6,808**
	ELECTRICAL ROOM	110
	ELEVATOR EQUIP ROOM	36
	TOTAL	**146**
	EXISTING BUILDING CIRCULATION	2,368
	BUILDING ADDITION CIRCULATION	264
TOTAL BUILDING AREA		**9,586**
	Remodeled Exist. Total	7,347
	Addition Total	2,239
	TOTAL BUILDING AREA	**9,586**

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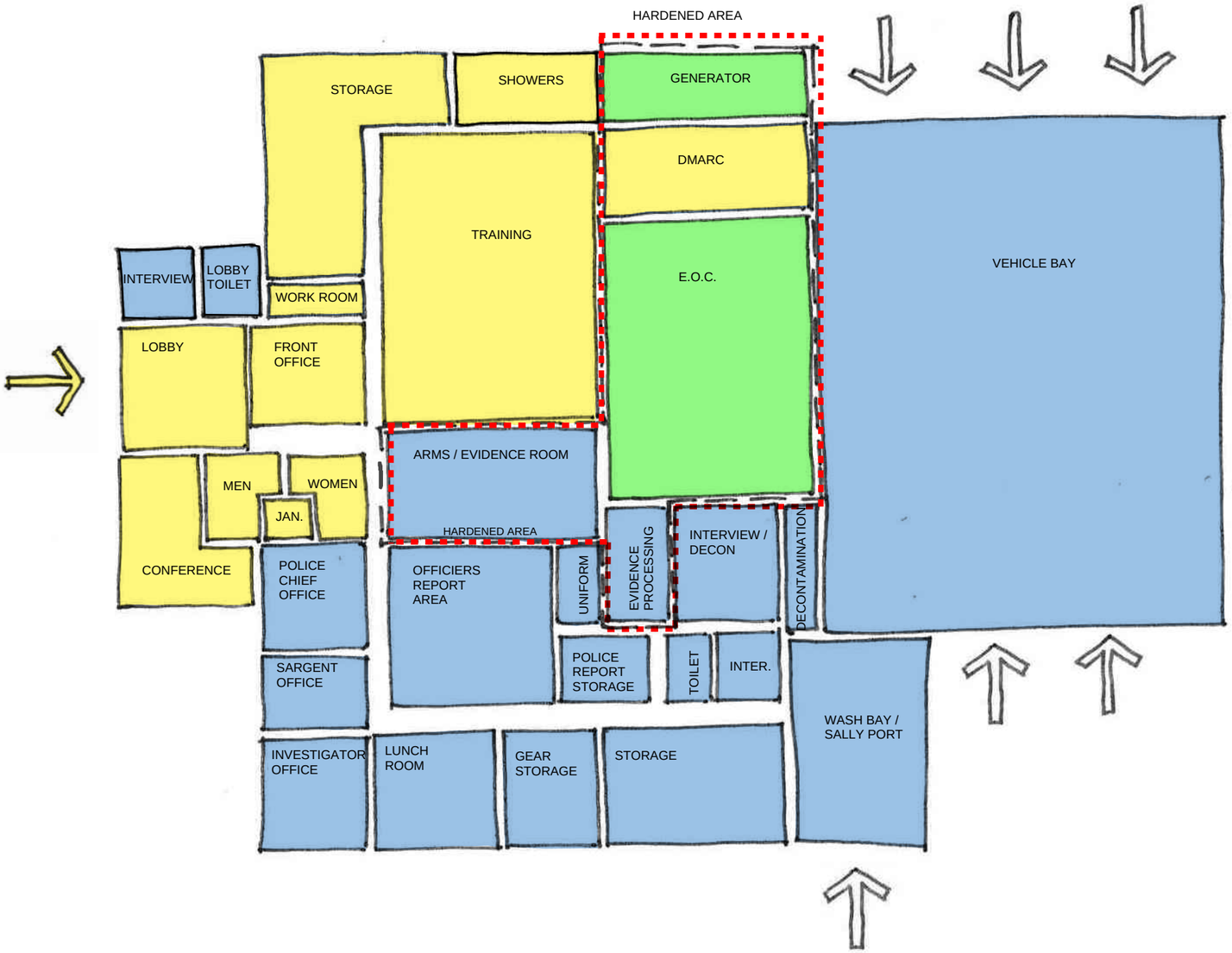
LAKE CITY FEASIBILITY STUDY - OPTION B: REMODELED EMS



		SF AREA
	ARMS/EVIDENCE	338
	PD OFFICES: CHIEF, INVESTIGATOR, SARGENT	455
	PD GEAR STORAGE	154
	PD UNIFOM STORAGE	50
	INTERVIEW/DECON ROOM	182
	EVIDENCE PROCESSING	112
	INTERVIEW ROOM	64
	TOILET ROOM	48
	OFFICERS' REPORT AREA	380
	LUNCH ROOM	210
	STORAGE	330
	PD REPORT STORAGE	88
	VEHICLE STORAGE BAY/WASH BAY/SALLY PORT	3,422
	DECONTAMINATION	60
	LOBBY TOILET ROOM	60
	LOBBY INTERVIEW ROOM	100
	TOTAL	**6,053**
	EOC/KITCHENETTE/TOILET ROOMS	875
	GENERATOR ROOM	180
	TOTAL	**1,055**
	DMARC	240
	LOBBY	225
	FRONT OFFICE AND WORKROOM	216
	TRAINING ROOM	910
	TOILET ROOMS	180
	STORAGE	423
	JANITOR ROOM	30
	CONFERENCE ROOM	234
	SHOWERS	136
	TOTAL	**2,594**
	TOTAL BUILDING AREA	**9,702**
	BUILDING CIRCULATION	1,455
	TOTAL BUILDING AREA	**11,157**

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LAKE CITY FEASIBILITY STUDY - OPTION B: NEW POLICE DEPARTMENT/EOC

	SF AREA
ARMS/EVIDENCE	380
PD OFFICES: CHIEF, INVESTIGATOR, SARGENT	455
FRONT OFFICE STAFF	276
PD GEAR STORAGE - ADDITION	126
INTERVIEW/DECON ROOM - ADDITION	294
EVIDENCE PROCESSING	91
INTERVIEW ROOM	99
PD INTERVIEW ROOM	126
TOILET ROOM - ADDITION	156
TOILET ROOM	121
OFFICERS' REPORT AREA - ADDITION	400
PD APPARATUS BAY - ADDITION	1,088
PD APPARATUS BAY	625
PD APPARATUS BAY	375
STORAGE	106
UNIFORM STORAGE - ADDITION	45
PD REPORT STORAGE - ADDITION	126
TRAINING ROOM - ADDITION	378
TRAINING ROOM	441
CONFERENCE / KITCHENETTE	465
SHOWER/LOCKER ROOM/DECONTAMINATION	780
PD STORAGE	140
TOTAL	**7,093**

EOC/KITCHENETTE/TOILET ROOMS	705
GENERATOR ROOM	126
TOTAL	**831**

TOILET ROOMS	90
STORAGE - ADDITION	442
JANITOR ROOM	35
LUNCH ROOM	200
DMARC	285
TOTAL	**1,052**

ELECTRICAL ROOM	110
ELEVATOR EQUIP	36
TOTAL	**146**

EXISTING BUILDING CIRCULATION	2,368
BUILDING ADDITION CIRCULATION	610

TOTAL BUILDING AREA	**12,100**
Remodeled Exist. Total	7,347
Addition Total	4,753
TOTAL BUILDING AREA	**12,100**

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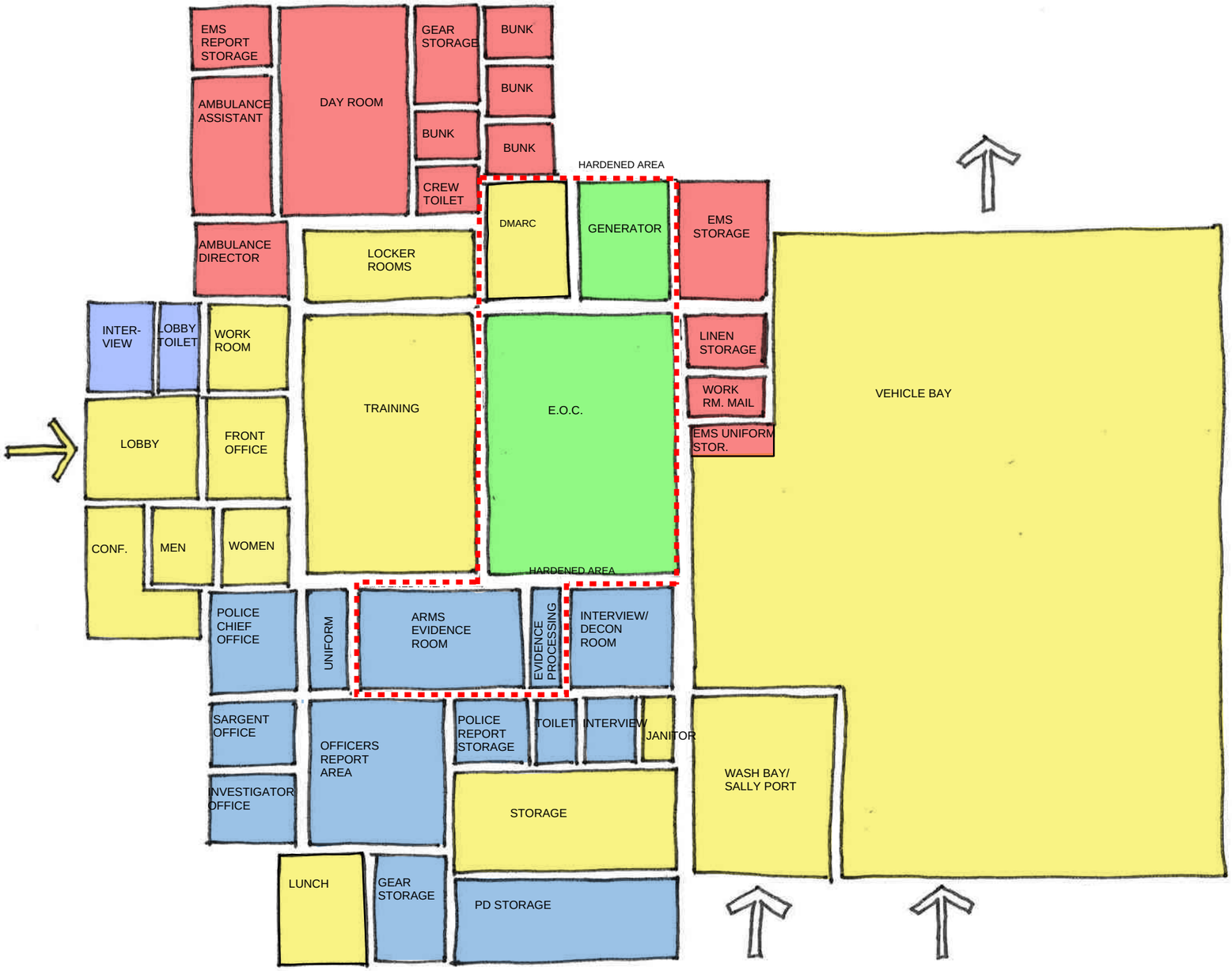
LAKE CITY FEASIBILITY STUDY - OPTION C: REMODELING/ADDITION POLICE DEPARTMENT/EOC

	SF AREA
EMS OFFICES: DIRECTOR, ASSISTANT	374
EMS GEAR STORAGE	207
DMARC ROOM	132
BUNK ROOMS	140
EMS CREW TOILET ROOMS	98
DAY ROOM/KITCHENETTE	452
LINEN STORAGE/MEDICAL SUPPLIES	168
EMS WORKROOM/MAIL	144
EMS STORAGE	120
EMS UNIFORM STORAGE	48
EMS REPORT STORAGE	170
APPARATUS BAY	1,587
LOBBY	225
TRAINING ROOM	378
TOILET ROOMS	190
JANITOR ROOM	36
CONFERENCE ROOM	360
TOTAL BUILDING AREA	**4,829**
BUILDING CIRCULATION	724
TOTAL BUILDING AREA	**5,553**



	SF AREA
ARMS/EVIDENCE ROOM	284
PD OFFICES: CHIEF, INVESTIGATOR, SARGENT	341
PD GEAR STORAGE	126
INTERVIEW/DECON ROOM	182
EVIDENCE PROCESSING	52
INTERVIEW ROOM	64
TOILET ROOM	45
OFFICERS' REPORT AREA	342
STORAGE	330
PD UNIFORM STORAGE	65
PD REPORT STORAGE	90
LOBBY TOILET ROOM	60
LOBBY INTERVIEW ROOM	100
TOTAL	**2,081**

EOC/KITCHENETTE/TOILET ROOMS	910
GENERATOR ROOM	180
TOTAL	**1090**

LOBBY	195
FRONT OFFICE AND WORKROOM	231
TRAINING ROOM	782
TOILET ROOMS	160
STORAGE	390
JANITOR ROOM	32
VEHICLE STORAGE BAY	5,857
CONFERENCE ROOM	184
LOCKER ROOMS	190
LUNCH ROOM	180
DMARC ROOM	165
TOTAL	**8,366**

EMS OFFICES: DIRECTOR, ASSISTANT	318
EMS GEAR STORAGE	104
BUNK ROOMS	216
EMS CREW TOILET ROOMS	60
DAY ROOM/KITCHENETTE	476
LINEN STORAGE/MEDICAL SUPPLIES	70
EMS WORKROOM/MAIL	60
EMS STORAGE	180
EMS UNIFORM STORAGE	36
EMS REPORT STORAGE	80
TOTAL	**1,600**

TOTAL BUILDING AREA	**13,137**
BUILDING CIRCULATION	1,971
TOTAL BUILDING AREA	**15,108**

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LAKE CITY FEASIBILITY STUDY - OPTION D: NEW POLICE DEPARTMENT/EOC/EMS

Site Options

Option A: Remodeling/Addition Police Department/EOC/EMS

Conditions:
- The existing site is to be utilized for the Police Department, EOC, and EMS. A 7,600 SF building addition will accompany a remodel of the existing building. The free standing garage will need to be demolished as the addition will be constructed along the southeastern wall of the existing building.
- The police department will have five vehicle bays, three existing bays to be accessed via the northern-most drive entrance on S. High St, and two new bays to be accessed through the existing parking lot from W. Marion St.
- EMS will have three vehicle bays, which will have direct access to S. High St.

Pros:
- The site is located two blocks southeast of Highway 63 (W Lyon Ave) and one block southwest of Highway 61 (N Lakeshore Dr), both major thoroughfares through the city.
- All emergency responders will be concentrated on a single block which would encourage departmental coordination and resource sharing.
- City already owns and controls the site.
- Utilities already exist in the vicinity, limited site work will be required.

Cons:
- On-site parking will be reduced from 35 parking stalls to approximately 7 stalls.
- All emergency responders will be concentrated on a single block which could result in traffic congestion in the event of an emergency.
- Police and EMS will need to be relocated during construction.
- Extensive remodeling will be required in order to bring existing building up to code.
- The free standing garage will need to be demolished.
- Limited-to-no sight lines of railroad, which traverses the city and significantly impacts emergency routs.
- Site is confined, opportunity for future expansion is improbable.

Option B: Remodeled EMS & New Police Department/EOC

Conditions:
- The existing site is to be utilized for the EMS Department. A 1,750 SF building addition will accompany a remodel of the existing building. The free standing garage will need to be demolished as the addition will be constructed along the southeastern wall of the existing building.
- The new site is to be utilized for the Police Department. A 10,365 SF building will be constructed on a parcel on the south side of 10th St.
- EMS will have five vehicle bays, two existing bays to be accessed via the northern-most drive entrance on S. High St, and three bays which will have direct access to S. High St.
- The police department will have five vehicle bays and a wash bay/sally port room, with room to park additional vehicles in the vehicle bay.

Pros:
- Both sites are located in close proximity to major thoroughfares through the city.

- City already owns and controls both sites.
- Minimal site work will be required for the EMS remodel and addition.
- Sufficient on-site parking will be provided at both locations.
- Both locations allow for the opportunity for future expansion.
- New site has excellent sight lines of railroad, which traverses the city and significantly impacts emergency routs.
- Construction can be phased so that Police will not need to be relocated during construction.
- Less extensive remodeling will be required to bring existing building up to code, relative to Options A and C.

Cons:
- EMS will need to be relocated during construction.
- The free standing garage will need to be demolished.
- Limited-to-no sight lines of railroad from the existing site.
- New site is located just outside of downtown corridor, farther from the dense population, response times may increase.
- Contractor fees will be higher than option A or D due to maintaining two construction sites.

Option C: Remodeled Police Department/EOC & New EMS

Conditions:
- The existing site is to be utilized for the Police Department and EOC. A 4,220 SF building addition will accompany a remodel of the existing building. The free standing garage will need to be demolished as the addition will be constructed along the southeastern wall of the existing building.
- The new site is to be utilized for the EMS Department. A 5,660 SF building will be constructed on a parcel on the south side of 10th St.
- The Police Department will have five vehicle bays, two existing bays to be accessed via the northern-most drive entrance on S. High St, and three bays which will have direct access to S. High St.
- EMS will have six vehicle bays and a wash bay/sally port room, with room to park additional vehicles in the vehicle bay.

Pros:
- Both sites are located in close proximity to major thoroughfares through the city.
- City already owns and controls both sites.
- Sufficient on-site parking will be provided the new EMS building.
- EMS location allows for the opportunity for future expansion.
- New site has excellent sight lines of railroad, which traverses the city and significantly impacts emergency routes.
- Construction can be phased so that EMS will not need to be relocated during construction.
- Less extensive remodeling will be required to bring existing building up to code, relative to Options A.

Cons:
- The Police Department/EOC will need to be relocated during construction.
- The free standing garage will need to be demolished.
- Limited-to-no sight lines of railroad from the existing site.
- Contractor fees will be higher than option A or D due to maintaining two construction sites.
- On-site parking will be reduced from 35 parking stalls to approximately 26 stalls.

- Police Department site is confined, opportunity for future expansion is less likely.
- Police Department site provides limited-to-no sight lines of railroad, which traverses the city and significantly impacts emergency routs.

Option D: New Police Department/EOC/EMS

Conditions:
- The new site is to be utilized for the Police Department, EOC, and EMS.
- Six vehicle bays and a wash bay/sally port will be shared between the Police Department and EMS with room to park additional vehicles in the vehicle bay.
- Two access drives will be provided from 10th St.

Pros:
- The site is located on 10th Street, and just west of Highway 63 (W Lyon Ave) both major thoroughfares through the city.
- Remodeling of the existing facility will not be required.
- Sufficient on-site parking will be provided.
- Site is located on an unbound parcel, which allows for the opportunity for future expansion.
- Excellent sight lines of railroad, which traverses the city and significantly impacts emergency routs.
- Police and EMS will not need to be relocated during construction.
- City already owns and controls the site.

Cons:
- Site is located just outside of downtown corridor, farther from the dense population, response times may increase depending on call location.
- It is unknown what utilities already exist in the vicinity, will require more extensive site work.

NEW SITE

EXISTING SITE

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LAKE CITY FEASIBILITY STUDY - EXISTING AND NEW SITE

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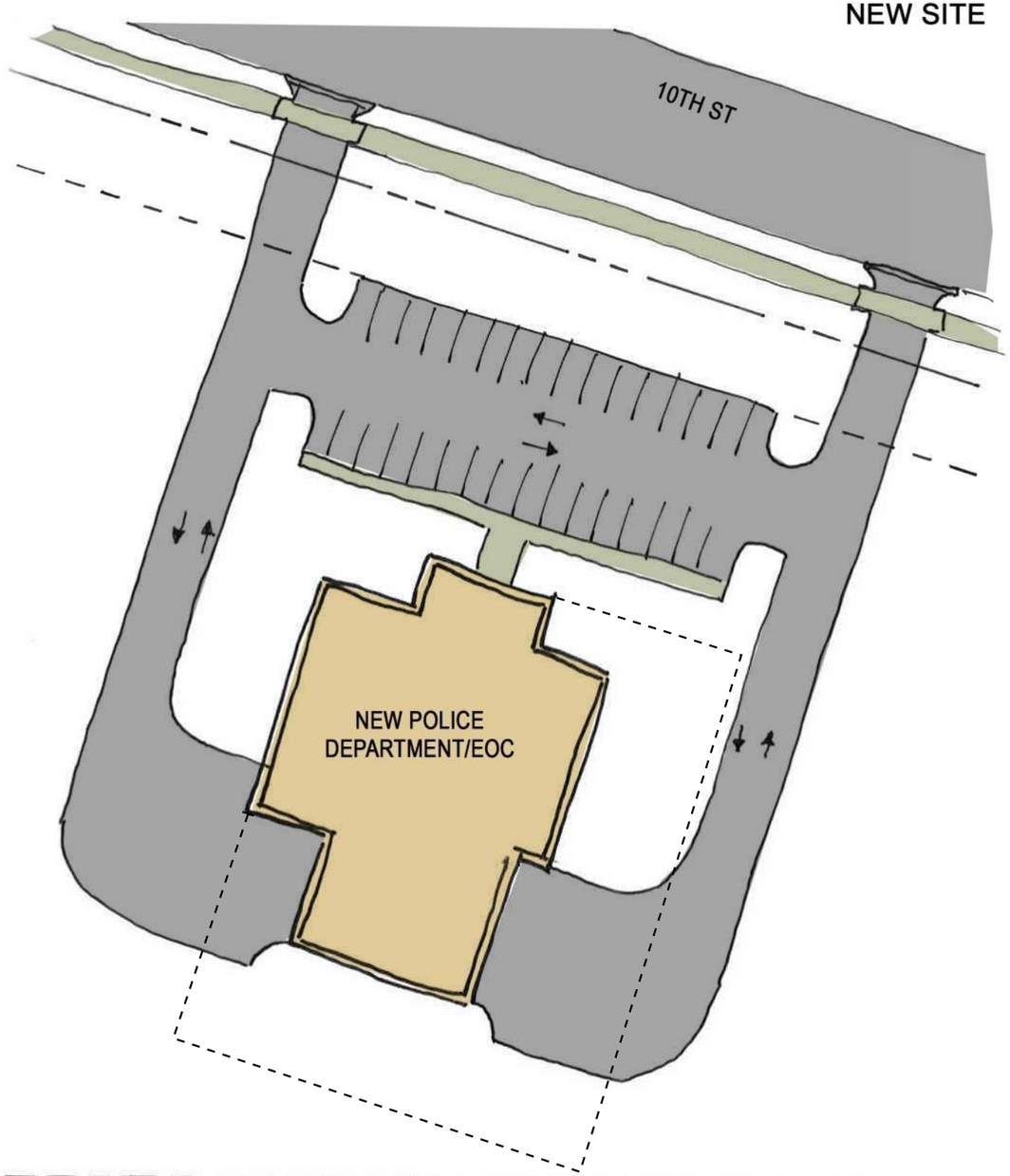
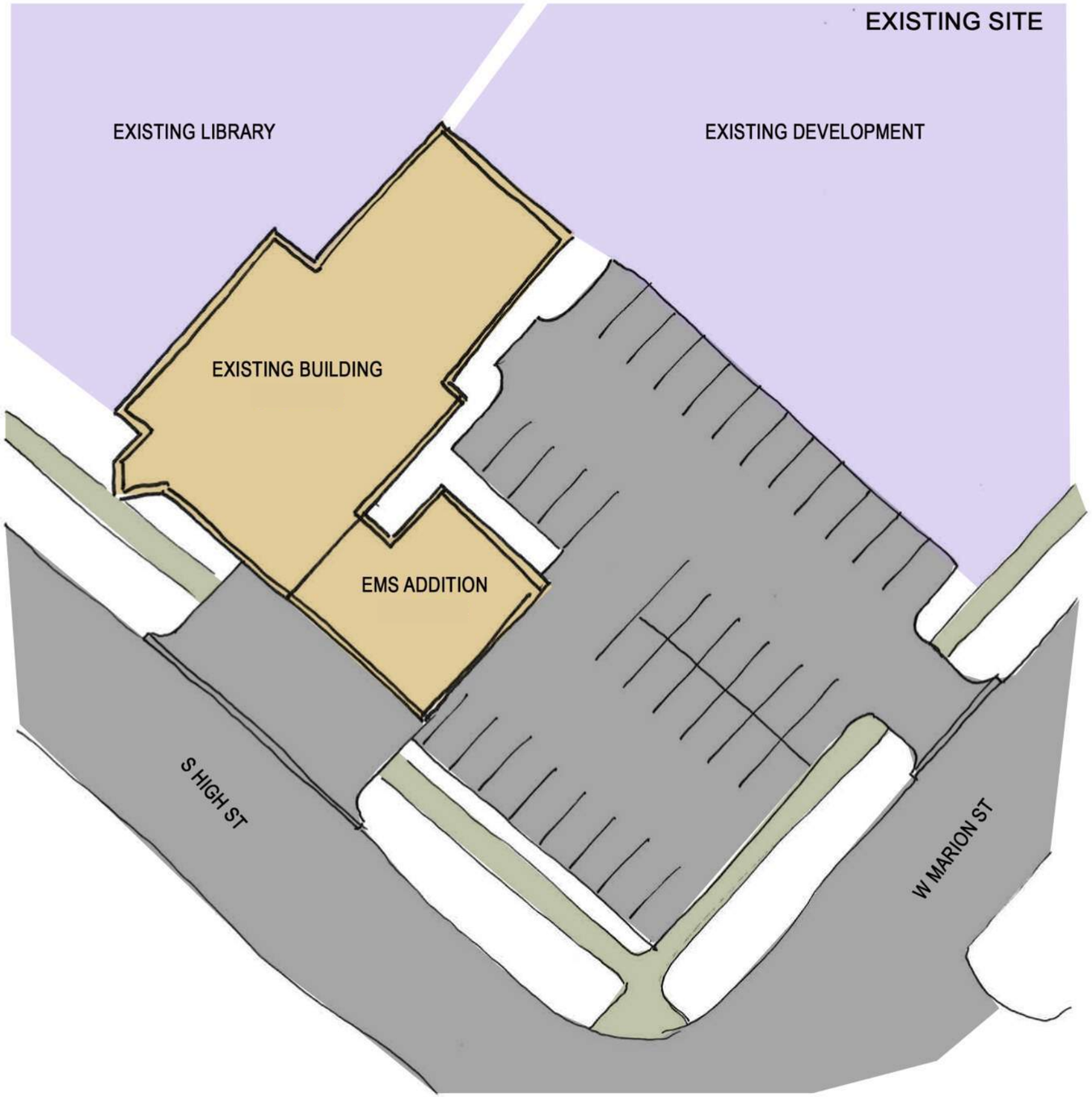
LAKE CITY FEASIBILITY STUDY-SITE OPTION A-EXISTING SITE: REMODELING/ADDITION POLICE

NEW SITE



EXISTING SITE



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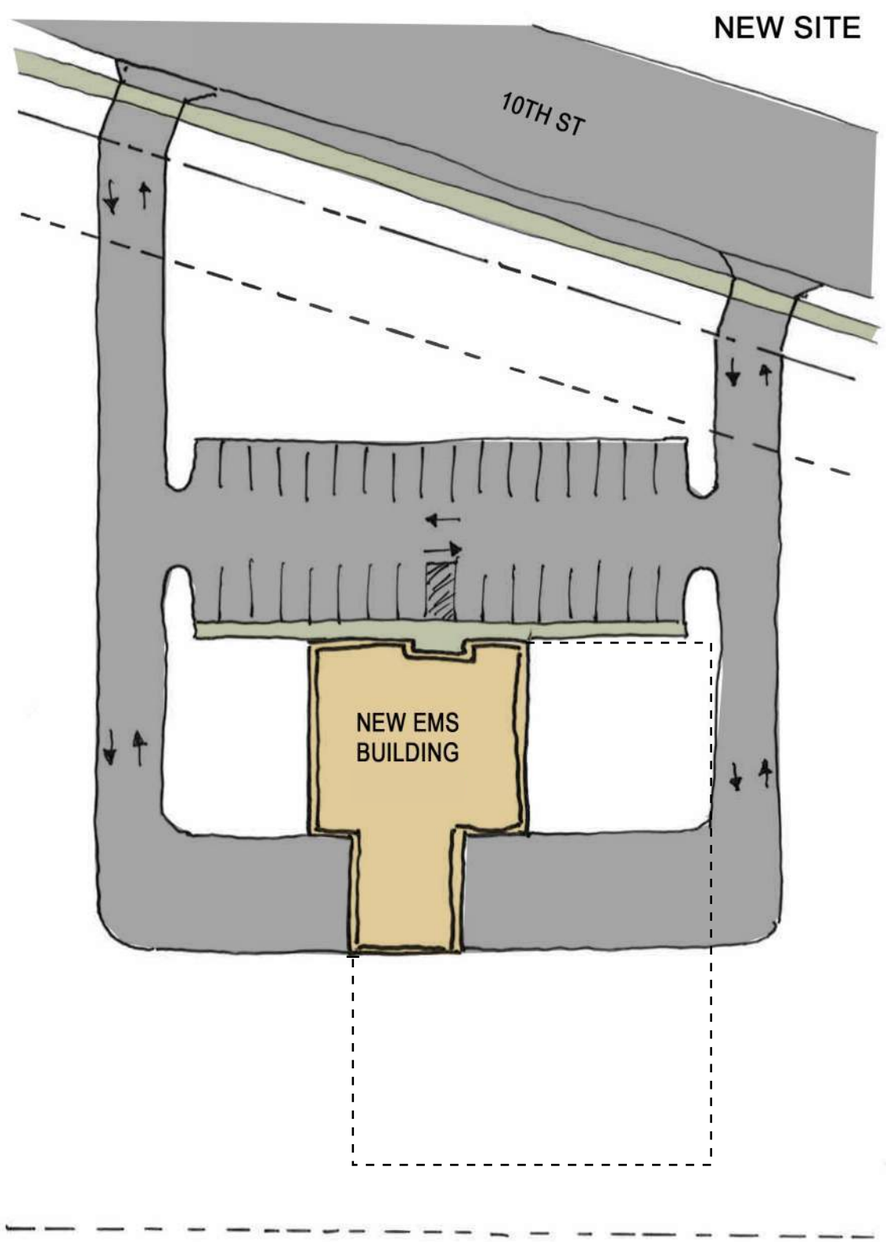
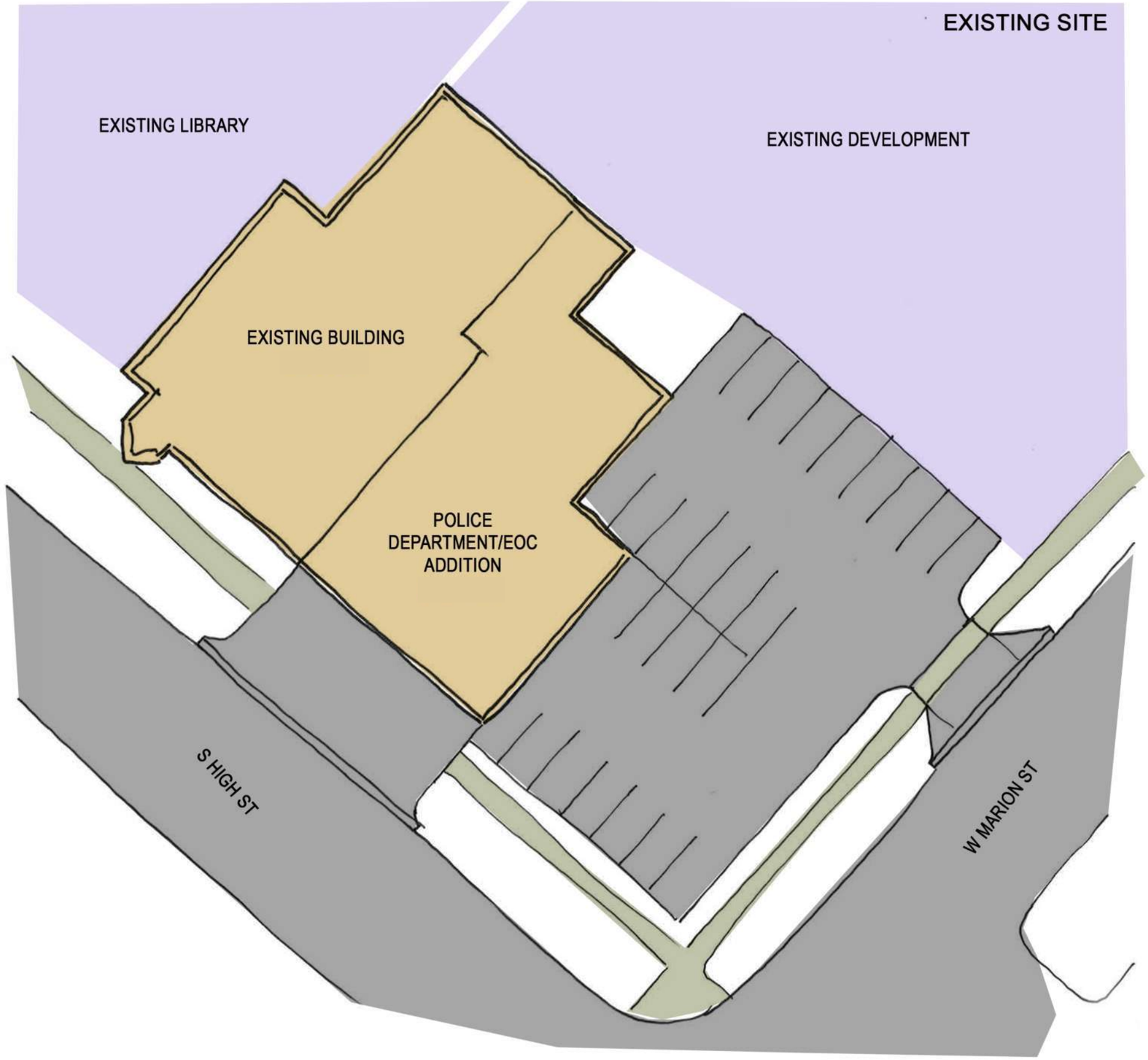
LAKE CITY FEASIBILITY STUDY-SITE OPTION B : REMODELED EMS & NEW POLICE DEPARTMENT/EOC





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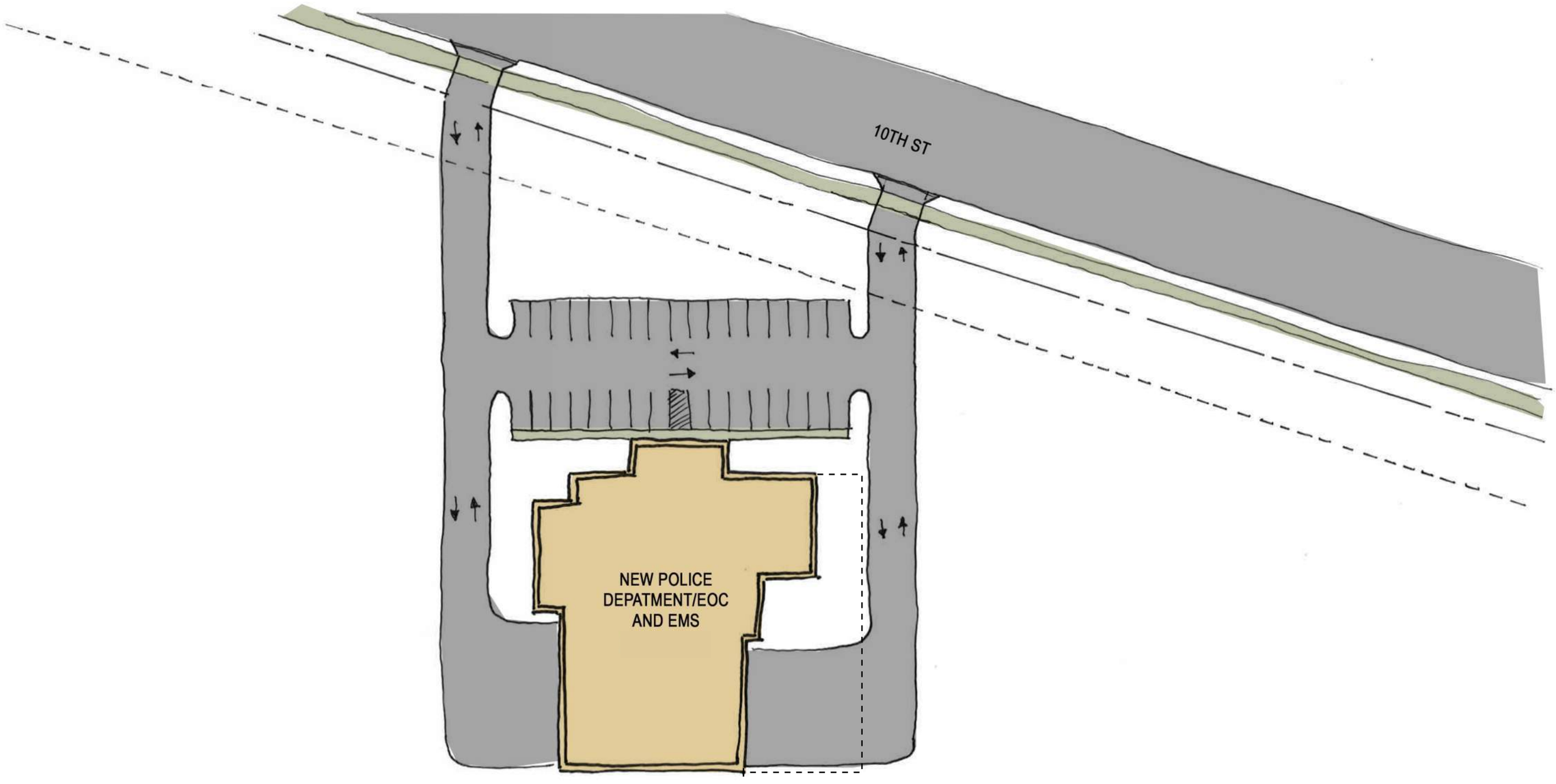
LAKE CITY FEASIBILITY STUDY-SITE OPTION C: REMODELED POLICE DEPARTMENT/EOC & NEW EMS



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LAKE CITY FEASIBILITY STUDY-SITE OPTION D-NEW SITE: NEW POLICE DEPARTMENT/EOC/EMS

Cost Summary

Cost Summary

The costs included in the construction estimate include, but are not limited to; building construction, Survey.

The costs not included in the construction estimate include, but are not limited to; testing, communications, additional generator ($180,000), telephone, furniture, fixtures and equipment and construction and design contingency

Option A; $2,178,900 + A/E Fees at 8% =		$2,353,212
Existing remodel @ $100/sf @ 7,347sf =	$734,700	
Demolition of existing garage, Asbestos Abatement and Waterproofing =	$285,000	
New construction @ $150/sf @ 7,728sf =	$1,159,200	
Option B; $3,029,100 + A/E Fees at 8% =		$3,271,428
Existing remodel @ $100/sf @ 7,347sf =	$734,700	
Demolition of existing garage, Asbestos Abatement, Waterproofing and Remobilization =	$285,000	
New construction @ $150/sf @ 13,396sf =	$2,009,400	
Option C; $2,565,600 + 8% =		$2,770,848
Existing remodel @ $100/sf @ 7,347sf =	$734,700	
Demolition of existing garage, Asbestos Abatement, Waterproofing and Remobilization =	$285,000	
New construction @ $150/sf @ 10,306sf =	$1,545,900	
Option D; $2,096,550 + A/E Fees at 7% =		$2,243,308
New construction @ $150/sf @ 13,977sf =	$2,096,550	

Bubble Diagrams

Shared Spaces

Police Department

Police and EMS

Garage

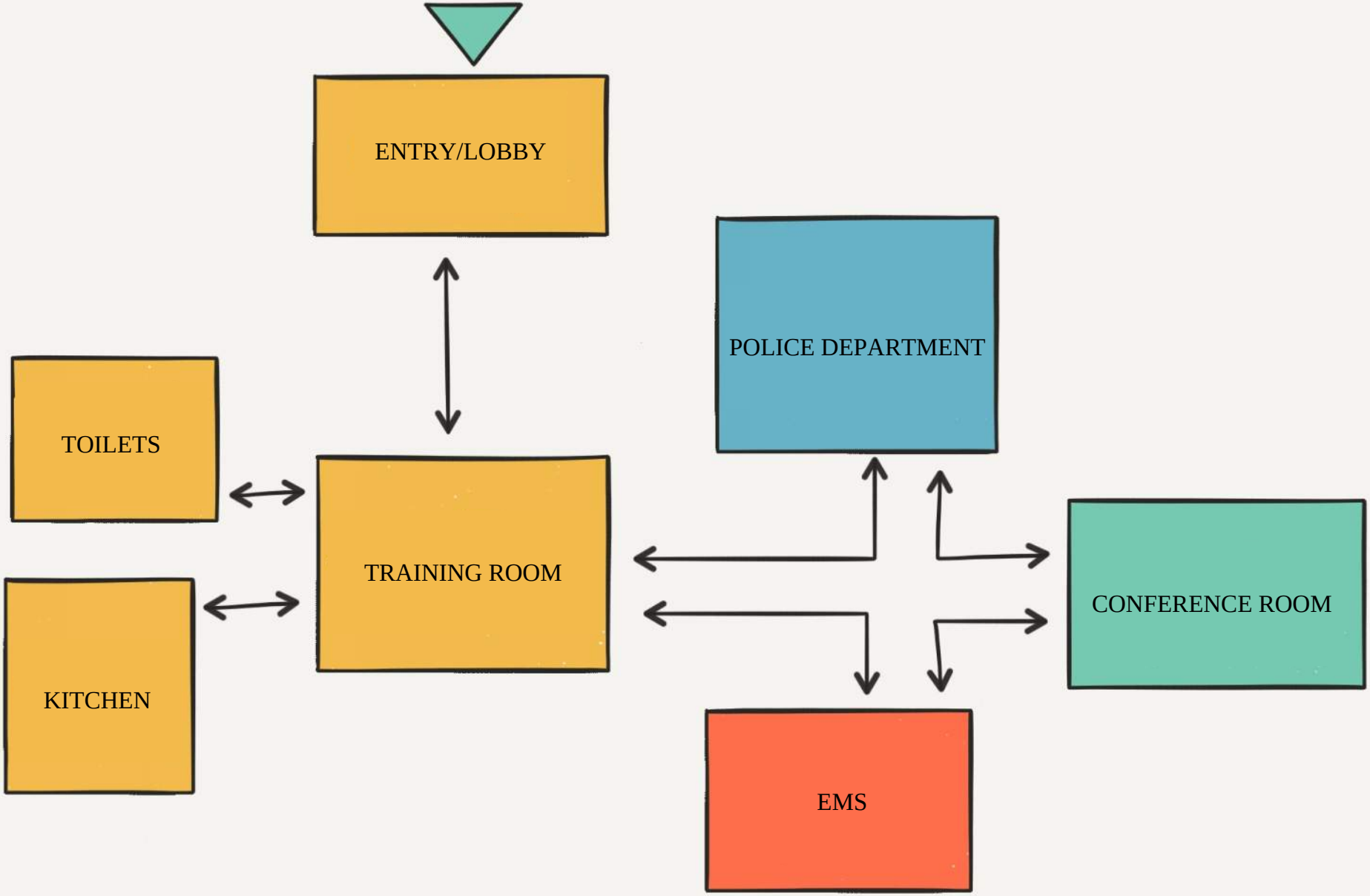
Emergency Medical Services

Emergency Management Services

Garage

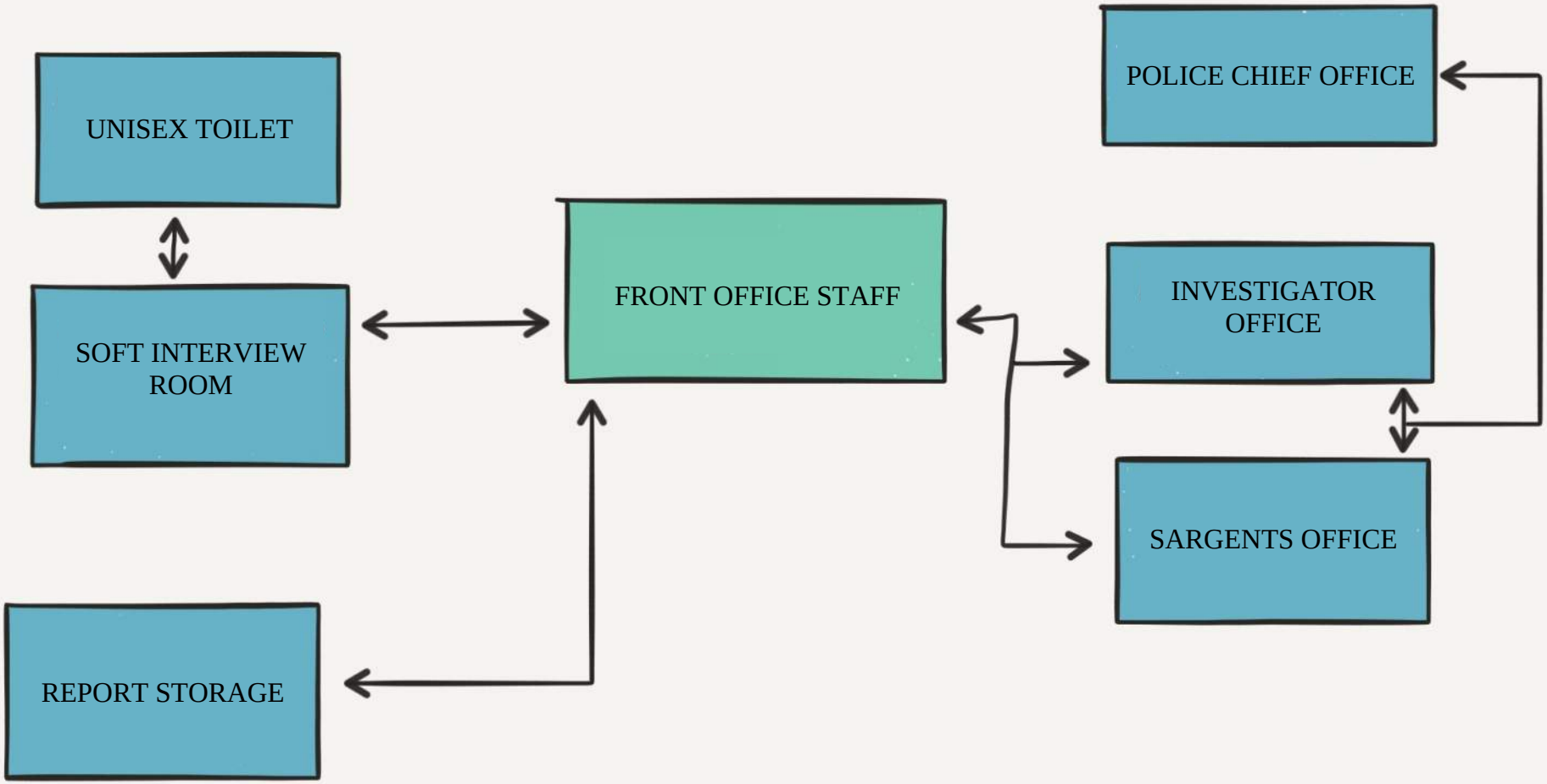
Emergency Operations Center

Hardened Area



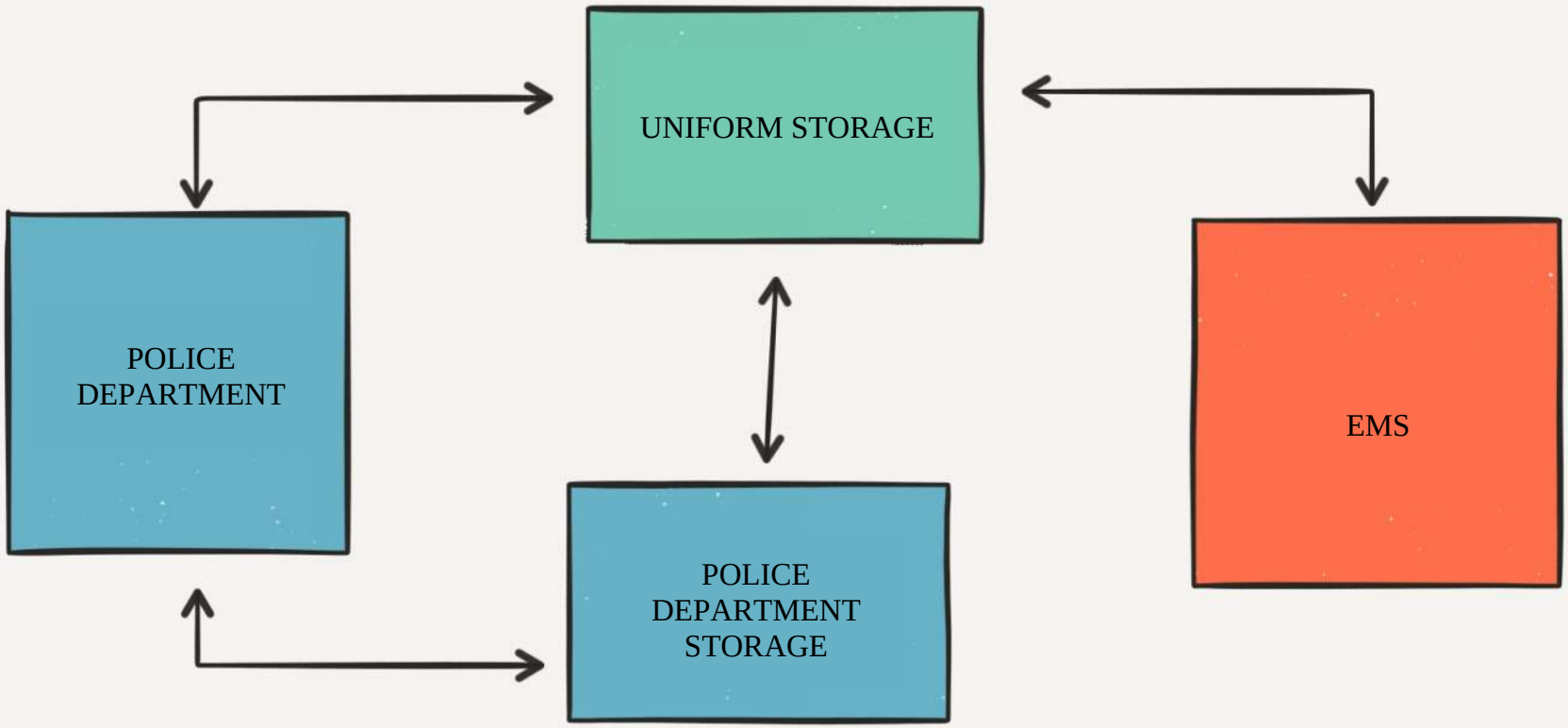
SHARED SPACES

WIDSETH SMITH NOLTING



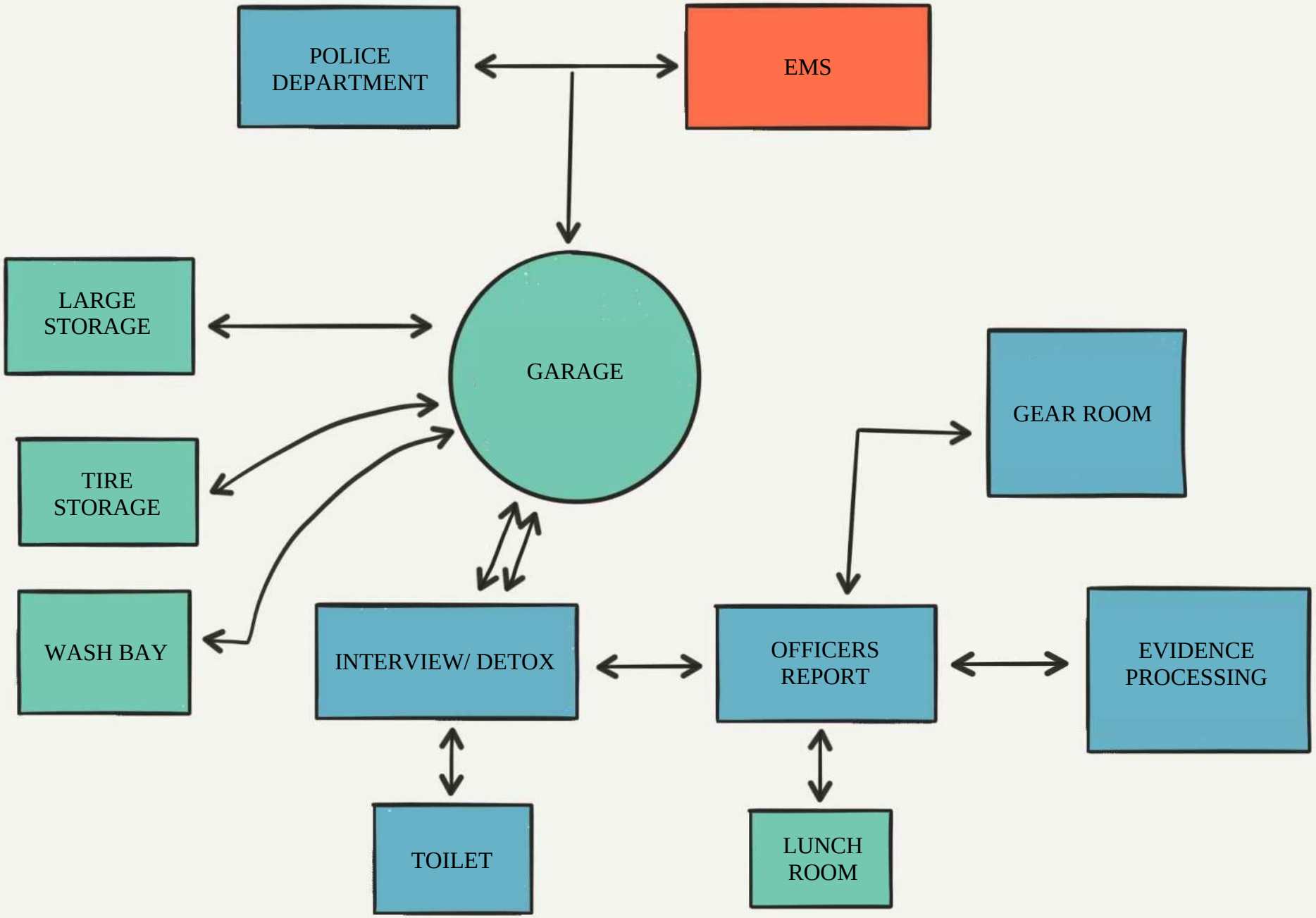
POLICE DEPARTMENT

WIDSETH SMITH NOLTING



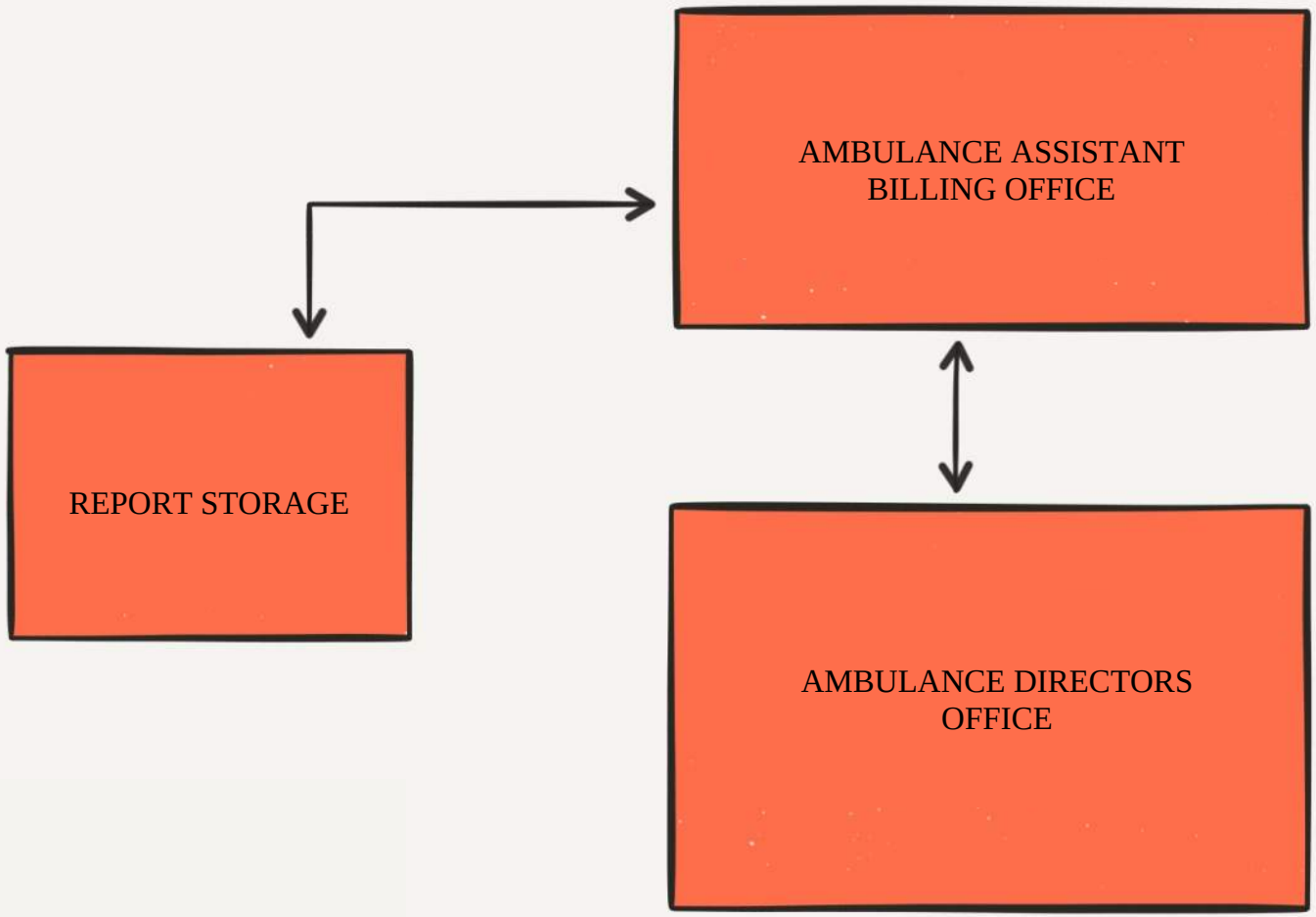
POLICE AND EMS

WIDSETH SMITH NOLTING



WIDSETH SMITH NOLTING

GARAGE



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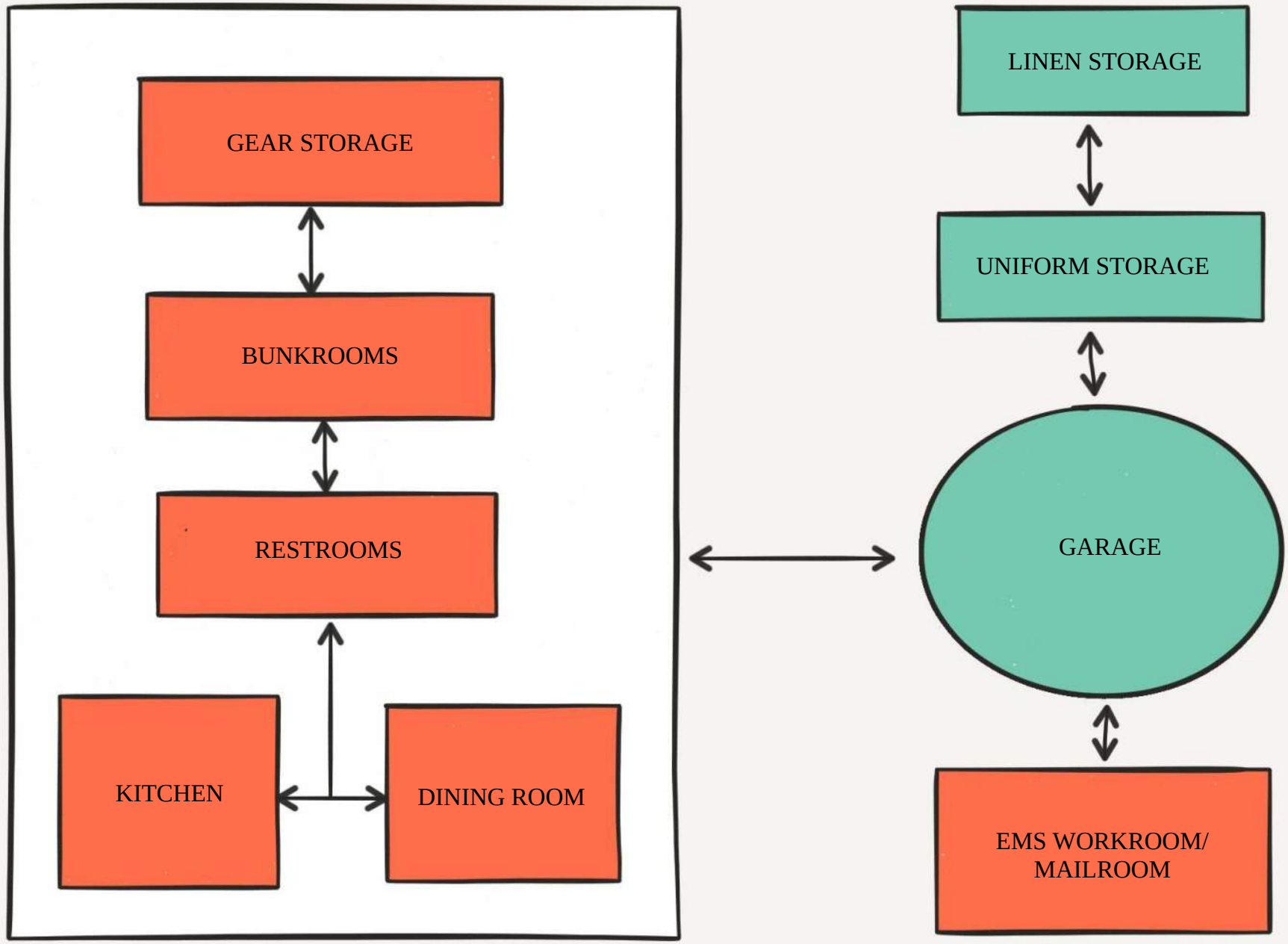
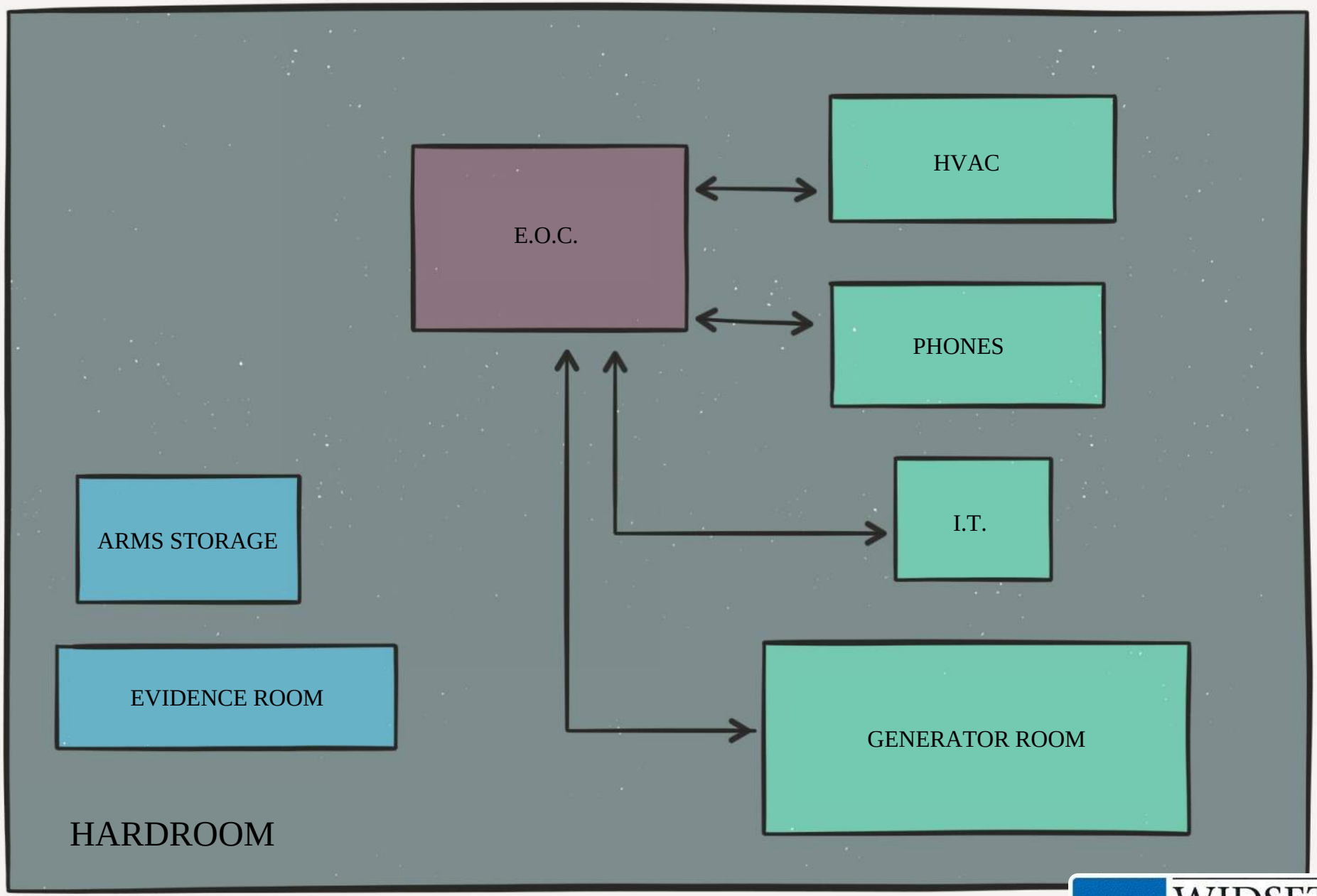


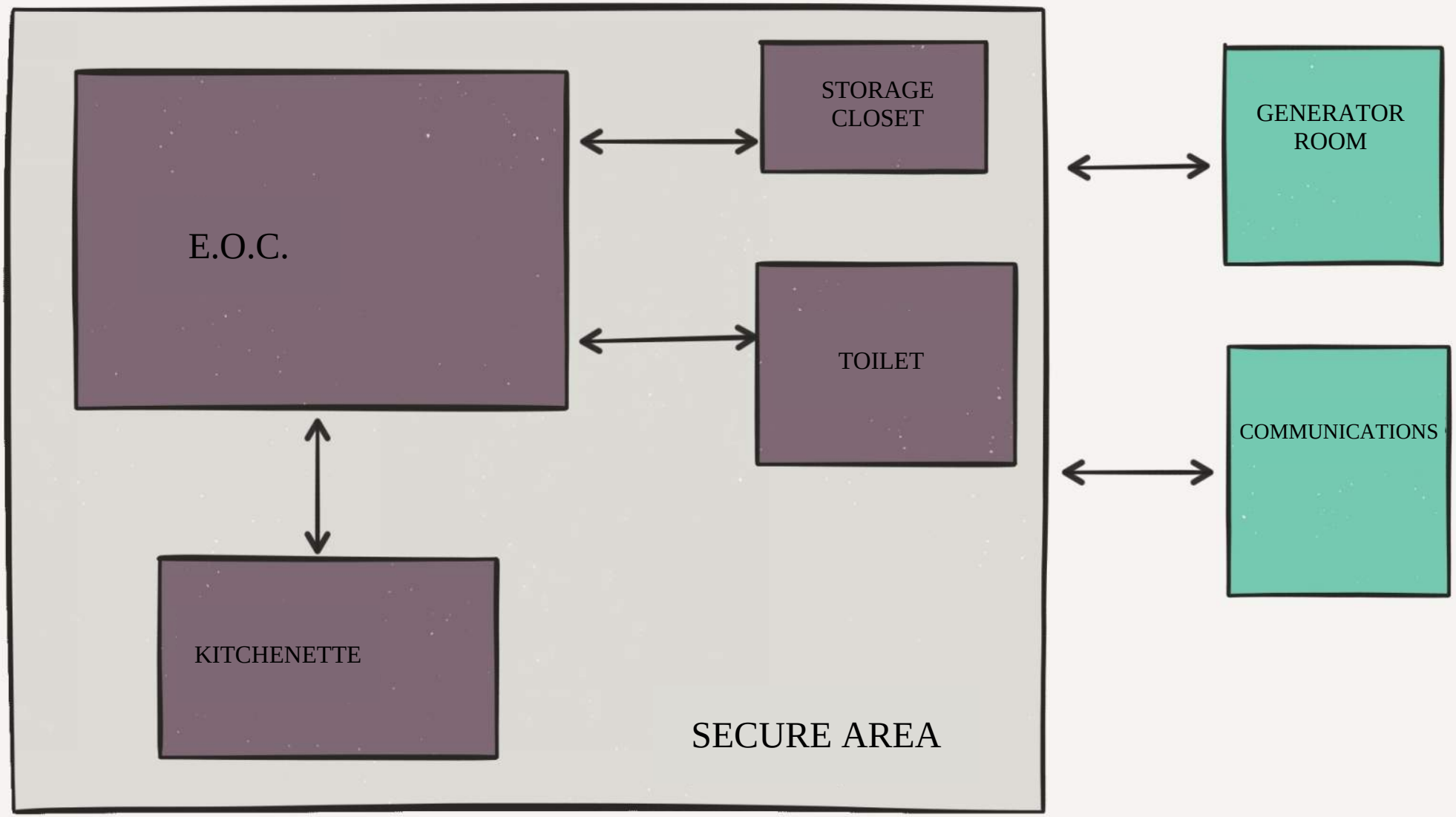
EMERGENCY MANAGEMENT SERVICES

WIDSETH SMITH NOLTING



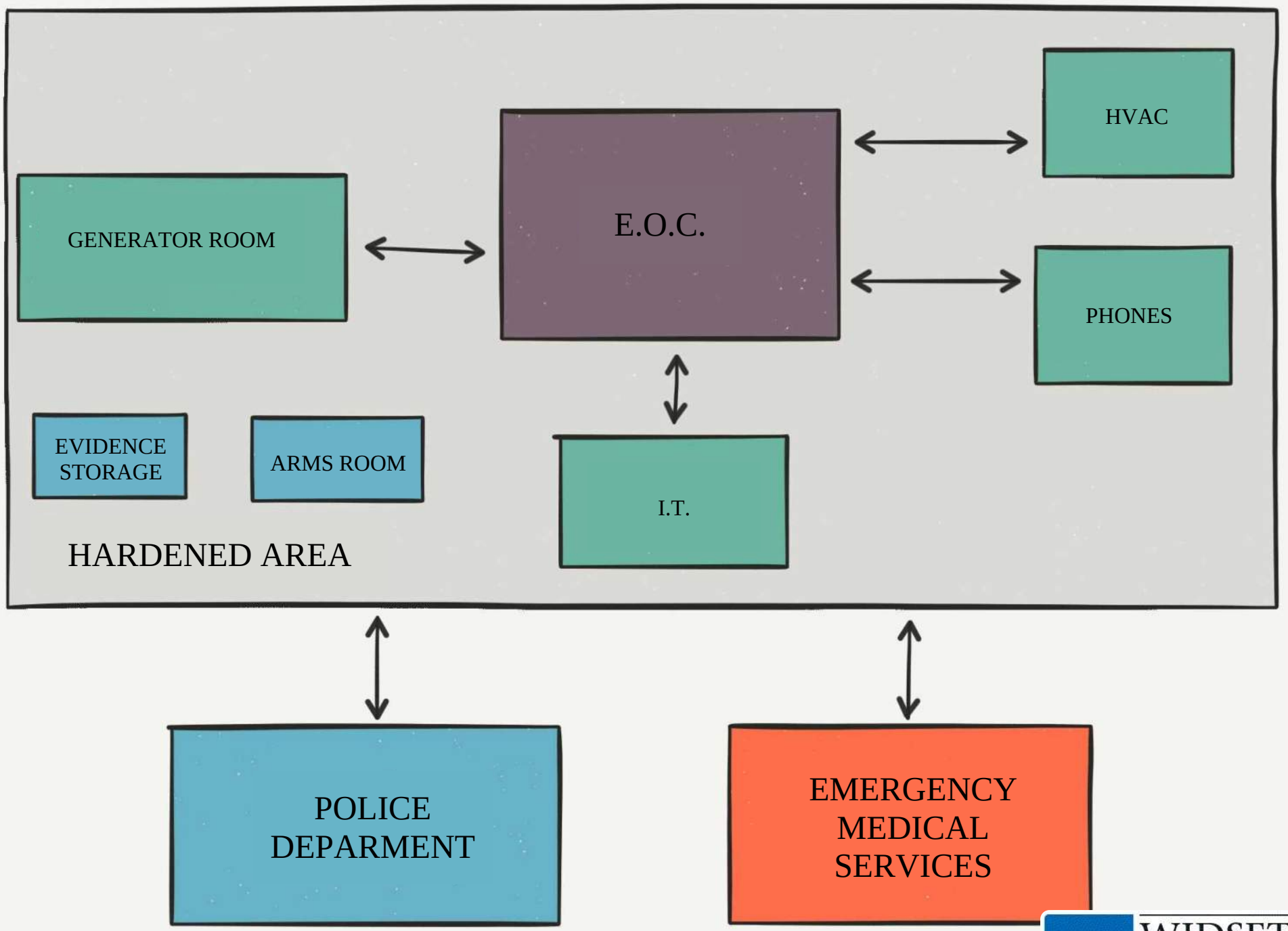
GARAGE

WIDSETH SMITH NOLTING



EMERGENCY OPERATIONS CENTER

WIDSETH SMITH NOLTING



HARDENED AREA

WIDSETH SMITH NOLTING

Description of Existing Building

Description of Existing Conditions

BUILDING DESCRIPTION – 7,347 SF unsprinklered building constructed as an original building (1,687 SF) and two additions (897 SF and 1,793 SF.)

SITE CONDITIONS –

Location

- Existing: Located at 209 S. High St, on the corner of S. High St and W. Marion St., next to the public library.
- Evaluation: The site is located in close proximity to various public facilities and main thoroughfares. However, sight lines around the site are limited and prevent emergency responders from making informed decisions regarding emergency routs.

Access

- Existing: there are several site access points:
  - There are two bituminous parking lot access drives to W. Marion St and S. High St.
  - Four concrete vehicle bays are directly accessed via S. High Street midway between W. Marion St and W. Center St (2 from the main building, and 2 from the free standing garage).
  - An additional bituminous and concrete drive entrance between the main building and the Library provides access to the three vehicle bays along the back of the Police/EMS building. Curb and gutter is only located on the section of the drive adjacent to the police/EMS building.
  - Pedestrian access is provided through concrete sidewalks on both S. High St and W. Marion St.
- Evaluation: There are many access points to the adjacent roadway, consideration should be given to reduce the surface parking access to one drive.

Parking

- Existing: There is a surface parking lot located on the corner of W. Marion St and S. High St, which can accommodate 35 parking stalls. Curb and gutter is only located on the section of the parking lot adjacent to the building.
- Evaluation: Block cracking has occurred, and the cracks have been routed and sealed. The parking lot should be milled and overlaid to ensure longevity.

EXTERIOR BUILDING ENVELOPE

Foundation

- Existing: there are two types of foundation conditions:
  - Basement areas: reinforced concrete block foundation walls with damp-proofing and vertical foundation insulation
  - Other locations: reinforced concrete block foundation walls to frost depth at other locations. Vertical insulation is indicated in the drawings.
  - Drain tile is indicated at the foundation perimeter
- Evaluation:
  - The existing foundation walls of the original building are showing signs of water infiltration. This is apparent in the current lower level breakroom with blistering paint and water stains on the wall. The EOC is experiencing water infiltration on the interior foundation wall. This wall is showing signs of mold growth, staining and blistering paint.

Exterior walls

- Existing: there are two basic exterior wall types:
  - Type 1: cavity wall construction consisting of reinforced concrete block with attached rigid insulation board, airspace, and exterior face brick. The R value of the wall construction is approximately R11; insulation value is estimated at R7.5.
  - Type 2: Exterior Insulation Finishing System (EIFS) consisting of a synthetic type of stucco product on rigid insulation board attached directly to a concrete block substrate. The approximate R value of this wall construction is R 10. Estimated EIFS insulation value is R7.5.
- Evaluation:
  - Insulation R values are low compared to the minimum R13.3 insulation value required by current codes.
  - The cavity wall airspace does not appear to have a water barrier to prevent water infiltration. The interior concrete block surface should be painted with a vapor barrier paint.
  - The EIFS wall construction should include an airspace and water barrier for evaporating or directing water out of the wall.
  - The north exterior wall shows signs of water infiltration and resulting water damage. Flashing is required between the concrete block and brick materials.
  - Exterior painted surfaces are faded and require repainting.
  - EIFS surfaces require recoating.

Exterior doors and windows

- Existing: there are two types of exterior personnel doors and exterior windows
  - Type 1: aluminum doors/frames and aluminum window framing; insulated glazing.
  - Type 2: hollow metal doors and frames; door insulation is assumed.
  - Overhead doors are located at the garage and sallyport locations. They are assumed to have insulation values of approximately R5. The door finishes are faded and stained.
  - The north wall has two glass block windows.
- Evaluation: existing personnel doors, overhead doors, and framed windows are in acceptable condition. The existing aluminum frame windows are poor quality and contribute to energy loss. Personnel door and window frames require recaulking. Overhead door weather-stripping should be replaced where damaged and the doors repainted. Glass block windows contribute to energy loss and allow water infiltration if not maintained. Replace with aluminum framed windows and insulated glazing.

Roof

- The existing roofing is currently being replaced.
  - Skylights: existing skylight framing is hollow metal and glazing is insulated. Curbs are insulated and new flashing will be provided with the new roofing.
  - Soffits: existing soffit at the building entrance is finished with the EIFS coating system on sheathing. Soffit is vented.

Energy

- After maintenance caulking and reroofing completion, air infiltration testing at existing personnel doors, windows, and skylight, it is advisable to verify adequate door weather-stripping and window seals.
- In several wall locations where gaps in rigid insulation appear, the drawings indicate insulation-filled concrete block cores to maintain a continuously insulated exterior wall envelope.
- Evaluation: estimated envelope R values are similar to code-required minimums. However, because insulation R values decline over time, the energy performance of the building is estimated to fall far short of current code requirements.

Asbestos

- Some asbestos is present in the building and requires abatement prior to remodeling.

INTERIOR SPACES AND CONSTRUCTION

Floors

- Existing: basement floor is concrete slab-on-grade; upper floors are precast concrete plank with concrete topping. Flooring materials are carpet, vinyl composition tile, ceramic tile, and sealed concrete.
- Evaluation: carpet is worn and requires replacement. Vinyl composition tile and ceramic tile are in average condition.

Interior walls

- Existing: concrete block and gypsum board on metal studs. Wall finishes are paint.
- Evaluation: selected wall areas in the office space require repainting. Garages require repainting and masonry maintenance.

Ceilings

- Existing: ceilings are suspended acoustical tile or painted precast concrete plank.
- Evaluation: suspended ceilings are in average to poor condition. On the mezzanine, areas of the ceiling are missing or damaged. Some tiles are damaged and require replacement in the office spaces. Painted precast concrete ceilings are in good condition.

Elevator

- The elevator is operational but does not serve all floors of the building. Although accessibility is not required by accessibility code to the basement and mezzanine, the lack of elevator access to these spaces is not convenient for the operation of the building.

Common areas

- Common areas include the lobby, workroom, staff room, mezzanine, and EOC space.
- The building is not large enough to accommodate all of the programmed uses and some common areas must serve multiple functions. An example is the EOC space located in the basement. This space also serves as the police department training room, and without an adequate ventilation system for a workout room, the dual use of this area compromises its use as an office.
- Lobby space is small and does not include any private interview rooms.
- Staff room is shared among police, EOS, and EMS and is too small.

Offices/Storage

- The office areas are not large enough to accommodate the building activities. Desks are very small and the limited storage areas forces items to be stored in offices. Remote offices are located in a separate building.
- There is not enough space for EMS and Police gear storage.
- General storage space is insufficient for basic office operations.
- A separate arms storage room is provided.

Toilet Rooms/Locker Areas

- The total toilet room fixture count is one fixture short of meeting the code requirements based on the size of the building. There are no accessible toilet rooms in the building.
- A limited number of lockers are located in a storage area and difficult to access. No showers are provided in the building.

Stairs/Ramp

- Stairs connect the various building levels. Levels not connected by the elevator are connected by stairs. One 8-inch step is located in the police vehicle garage. This prohibits accessible access to or egress from the garage area and adjacent spaces.
- The stairs and handrails appear to be in adequate condition. One ramp handrail is missing.

Vehicle storage

- Vehicle storage areas are not large enough to accommodate the police and ambulance department vehicles.
- Vehicle storage area walls need painting and maintenance such as tuck-pointing.
- No wash bay is provided.

Security

- A roof hatch, which compromises the security of the space, is located in the evidence room.
- Prisoners access the building via a garage sallyport and then enter the building. Once in the building, corridor access is unrestricted, which allows a prisoner possible access to offices and other public and work areas of the facility.
- The EOC is not secure. Access is open. In addition, the emergency generator related to the EOC operations is not in a secure location.
- The lobby does not have a secure room where visitors can be isolated if necessary.

Mechanical

- Vehicle storage areas require special exhaust and makeup air systems to maintain safe environments without carbon monoxide accumulation. These systems are not provided. An in-depth analysis of the existing mechanical system was not include in this survey.

Electrical

- Lighting appears dated and not energy-efficient. An in-depth analysis of the existing electrical system was not included in this survey.

SUMMARY

- The existing exterior construction requires maintenance and upgrades to maintain a water-tight building envelope that operates in an energy-efficient manner.

- Asbestos is present in specific areas and must be abated if made friable through new construction.

- The interior wall construction is in reasonable condition, however many finishes are worn, outdated, and require replacement.

- The facility is too small for the resident police, EMS, and EOC operations. Not all programmed spaced can adequately be accommodated. The elevator inconveniently does not provide access to all levels.

- There are no shower/locker rooms. Toilet rooms are not sized for handicapped accessibility.

- EOC and generator are not secure. The facility has an open corridor system that does not secure admitted prisoners.

- The vehicle storage areas do not have adequate ventilation and makeup air systems.

See Construction Management Services on-site inspection for Feasibility Report dated December 8th, 2015 for additional Accessibility and Life Safety issues.

Code Data

CODE DATA
Date: December 2015

BUILDING CODE & LIFE SAFETY CODE DATA SUMMARY

Noncompliant conditions

Number of toilet fixtures: The existing toilet room fixture count is not adequate to meet current building codes.

ACCESSIBILITY CODE DATA SUMMARY

Noncompliant conditions

Stairs: Handrail extensions are required to be 1'-0" beyond stair tread. Existing hand rails project: 5" beyond stair tread. Existing handrail extensions are not accessible.

Interior Ramp: Interior ramp at room E-04 and Office 113 is missing a handrail. Handrails on both sides of the ramp are required by the Minnesota Accessibility Code

Elevator: Elevator does not serve the basement or the mezzanine levels. These levels are not accessible and are not required to be accessible by the accessibility code

Toilet rooms: All toilet room fixture clearances and toilet room accessories do not meet current accessibility requirements. (All toilet rooms will be required to be remodeled)

Receptionist Counter: The current toe knee space at the receptionist counter = 8" in depth. Accessibility code requires 1'-2". Counter depth is to shallow and will have to be wider.

Floor barrier at Garage & Sallyport: An existing 8" concrete step is present at garage 122 and the Sallyport. Current conditions are not accessible at these areas.

Project Budget:
Minnesota accessibility code requires 20% of total project budget to be spent on accessibility upgrades.

- Main entrance to be equipped with power door operators at exterior vestibule doors.
- New interior room signage to be provided at required heights and permanent rooms and shall be identified with braille and pictograms.

PROJECT: Lake City Police feasibility study, Lake City, MN

BUILDING DESCRIPTION: Existing facility feasibility study

BUILDING CODES: 2015 Minnesota Building Code
2012 International Fire Code
2015 Minnesota State Mechanical and Fuel Gas Code
2015 Minnesota State Plumbing code
2015 Minnesota Elevator Code
2015 Minnesota Energy Code
2015 Minnesota Accessibility Code
2015 Minnesota Conservation Code
2014 National Electric Code
ADA Accessibility Guidelines
CABO/ANSI

ZONING DATA: Parking data:
Building Code Data

OCCUPANCY GROUPS:
(MBC Chapter 3) B Occupancy

CONSTRUCTION TYPE:
(MBC Chapter 6) Type: IIB (Based on current Minnesota Building Code)

***This construction type and subsequent allowable building area is based off the assumption the wood roof above the south exit stairs be replaced with a non-combustible construction.**

ALLOWABLE AREA: B Base Allowable Area: 23,000 SF
(MBC Table 503) Sprinkler increase: 0%

Existing police facility:	7,347 SF
Perimeter:	342'-7"
Frontage:	61'-0"
Area increase:	100(.17 - .25).667
Area increase:	5.3

Allowable Area Calculation: $23{,}000 + \frac{23{,}000(5.3)}{100}$

23,005 SF allowed > 7,347 SF provided

ALLOWABLE HEIGHT:
(MBC Chapter 5)

Base Allowable height:	55 Feet
Base Allowable stories:	3 Stories

2 stories existing and proposed
Allowed height: 55'-0" > 14'-0" proposed

EXITING:
(MBC Chapter 10)
Occupant Load Calculations:

Space		SF	OLF	OL
B-02	Unassigned	695	15	46
B-03	Elec.	112	300	1 (Accessory)
B-04	Elev. Equip.	36	300	1 (Accessory)
E-01	Ambulance	906	100	9
E-03	Break room	209	100	2 (Accessory)
E-04	Work	119	100	1
Upper Level	(EMS training)	446	100	5 (Accessory)
Lobby 102		145	15	10
Custodial 103		36	300	1 (Accessory)
Receptionist 105		200	100	2
Office 106		179	100	2
Office 107		140	100	2
Office 108		138	100	2
Office 113		142	100	2

Space	SF	OLF	OL
Prisoner 114	126	100	2
Interview 115	127	100	2
Interview 117	81	100	1
Lab 118	112	100	2
Evid. Storage 119	148	300	1 (Accessory)
Arms room 120	107	300	1 (Accessory)
Emerg. Gen. 121	122	300	1 (Accessory)
Total Exiting Occupant Load			**83**
Total Building Occupant Load			**96**

Maximum distance to exits: (MBC 1016.2)
- 200'-0" Allowed distance is not exceeded in any occupied area

Maximum common path of egress travel distance: (MBC 1014.3)
- 75'-0". Allowed distance > 47'-4" provided
- Maximum dead end corridor distance: (MBC 1018.4)
  - Distance = 20'-0" Allowed > 7'-4" existing at corridor 110.
- Elevator: Mezzanine area = 408 SF provided < 3,000 SF required for elevator installation on that floor. No elevator is required.
- Door B-02: door clearance = 1'-6" required < 1'-8" provided.
- Sleeping Room exists: (Minnesota Building Code 1029.1) require at least one exterior emergency escape opening. Existing upper level currently has an opening. Required sill height is 44" above finish floor. Hardwired Smoke alarms are required for this space inside and outside the space.

FIRE PROTECTION: Sprinklers: Not provided
(MBC Chapter 9, IFC)

SANITATION:
(MBC Chapter 29/MN Amendments)

Required fixtures: 83 Occupants: 50 men/33 women

Men:	Women:
2 W.C.	2 W.C.
2 Lav.	2 Lav.
1 drinking fountain	
1 service sink	

Provided fixtures:

Men:	Women:
1 W.C.	1 W.C.
1 Urinal	
1 Lav.	1 Lav.

Unisex
1 W.C.
1 Lav.
1 Shower

(Short 1 W.C., 1 Lav.)

ACCESSIBILITY:
(MN Accessibility Code/ADA)
Site access:

Accessible parking: Provide new accessible parking with line marking and signage.

Stairs: Handrail extensions are required to be 1'-0" beyond stair tread. Existing hand rails project: 5" beyond stair tread. Existing handrail extensions are not accessible.

Ramps: Interior ramp at E-04 and Office 113 is missing handrail. Handrail on both sides of the ramp are required. (505.2; Minnesota Accessibility Code)

Toilet rooms: All toilet room fixture clearances and toilet room accessories do not meet accessibility requirements.

Counters: The current toe knee space at the receptionist counter = 8" in depth. Accessibility code requires 1'-2". Counter depth is not compliant.

Barrier at Garage & Sallyport: An existing 8" concrete step is present at garage 122 and the Sallyport. Current conditions are not accessible in these areas.

Project Budget:

Minnesota accessibility code requires 20% of total project budget to be spent on accessibility upgrades.

- Main entrance to be equipped with power door operators at exterior vestibule doors.
- New interior room signage to be provided at required heights and permanent rooms and shall be identified with Braile and pictograms.

SPECIAL CONSIDERATIONS

Electrical: Panel clearance, lighting, illuminated exit signs, emergency power for exit travel illumination

Ventilation: Smoke dampers

CONSTRUCTION MANAGEMENT SERVICES
1700 North Broadway • Suite 128
Rochester, MN 55906
507-282-8206 • FAX 281-0391

TO: Widseth Smith Nolting
Attn: Dana Hlebichuk, AIA
3777 40th Ave NW, Ste 200
Rochester, Mn 55901

FROM: Jay Kruger, Building Inspector

DATE: December 8, 2015

RE: On-site Inspection for Feasibility Report
City of Lake City Police Dept/EMS Facility
209 S High St., Lake City, MN

Dana,

I did an inspection of the property listed above. The following is a list of deficiencies that do not meet code:

1. Accessibility issues:

A. There are areas of the building that are not accessible. The elevator provides access to only two floor levels.
B. There are doors that do not have proper clearances for wheelchair access.
C. The garage areas are not accessible. This area is used as the Sally Port for prisoners.
D. There are areas of corridors that do not provide proper clearances for wheelchairs.
E. The number of different floor levels in the building makes it difficult to provide handicapped access to all levels.

2. The type of construction of the building as defined by the Building Code is Type II-B. This is a very good type of construction. The masonry construction in the building makes it difficult for the purpose of remodeling. The majority of block walls in the building are load bearing walls. A lot of these walls are supporting precast concrete floors and or bar joist ceiling/roof loads. It will be difficult to remove walls to change the floor plan.

3. Water infiltration issues:

A. There are a number of different areas in the building show signs of water infiltration into the interior of the building. There are areas of the building that have paint peeling off of the walls because of water infiltration or moisture issues.

4. There is an area on the highest floor level in the building that is being used for a sleeping area. This area does not have proper egress windows as required by Code. There are no proper smoke detectors provided. There are no proper carbon monoxide detectors provided. These issues are direct life safety issues.

5. Given the age of the building, I suspect there is some asbestos in the building. There were areas in the building in the past that did test positive for asbestos. Those were the only areas that were tested.

6. The garage area has an exhaust system. The system does not have carbon monoxide detection that automatically starts the exhaust system. Detectors shall be installed to operate the system.

7. The corridors in the building have fire rated doors. The fire rating for the corridors themselves does not carry through to the walls, penetrations, or the HVAC system. Corridors in a B occupancy that serve an occupant load of 30 or more shall be one hour fire rated construction with openings and penetration protection.

Definitions

1. **Soft Costs:** Include generators, furniture, fixtures and equipment, technology, financial and legal fees, and other pre and post construction expenses.

2. **DMARC:** Also called point of demarcation (POD), it is the physical point at which the public network of a telecommunications company (i.e., a phone or cable company) ends and the private network of a customer begins - this is usually where the cable physically enters a building.

3. **Decontamination room (Decon):** is a small, usually one-person area used to filter out or cleanse a patient's body.

4. **Hardened Area:** Area within a police station or precinct house where access is restricted to certain personnel and the public.

5. **EOC:** (Emergency Operations Center) is a central command or control facility used to carry out the principles of emergency preparedness at a strategic level during an emergency.

6. **EMS:** (Emergency Medical Services) also knows as the ambulance services. The Emergency medical services is a type of emergency medical service provided outside the hospital

7. **Sallyport:** A gateway permitting the secured passage of personnel at any one time.

8. **Accessory use area:** Use areas within a building which cannot be occupied at the same time as a primary use area. EX: work room.

9. **Egress:** a means of going out of a building; exiting.

10. **Apparatus:** a space within a police station or Emergency Medical facility used for the storage of equipment and vehicles

11. **Day room:** a communal room used for recreation.