

City of Sanibel Police Department Alternate Site Feasibility Study

Stand-alone Building Study – 2 Site Options



07 - 08 – 2021
ADG Project #2021-112A

Building Study - Program Space Diagrams

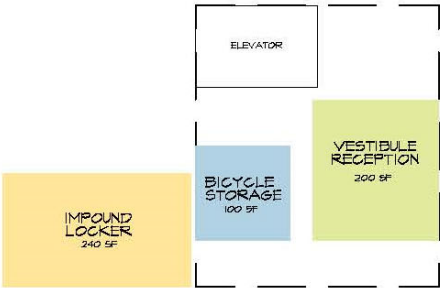
The building program areas for a stand-alone building are expected to be consistent with the Space Utilization table dated March 9, 2020, as the Police Department will still have need for the areas if the building is new or remodeled in the existing location. The total area needed is proposed to be **9,909 SF**.

The building structure is expected to consist of concrete pile foundations with concrete columns & beams on the ground floor which support the concrete floor above. Exterior walls are anticipated to be CMU. The roof structure will most likely be a combination of steel joists or steel roof trusses.

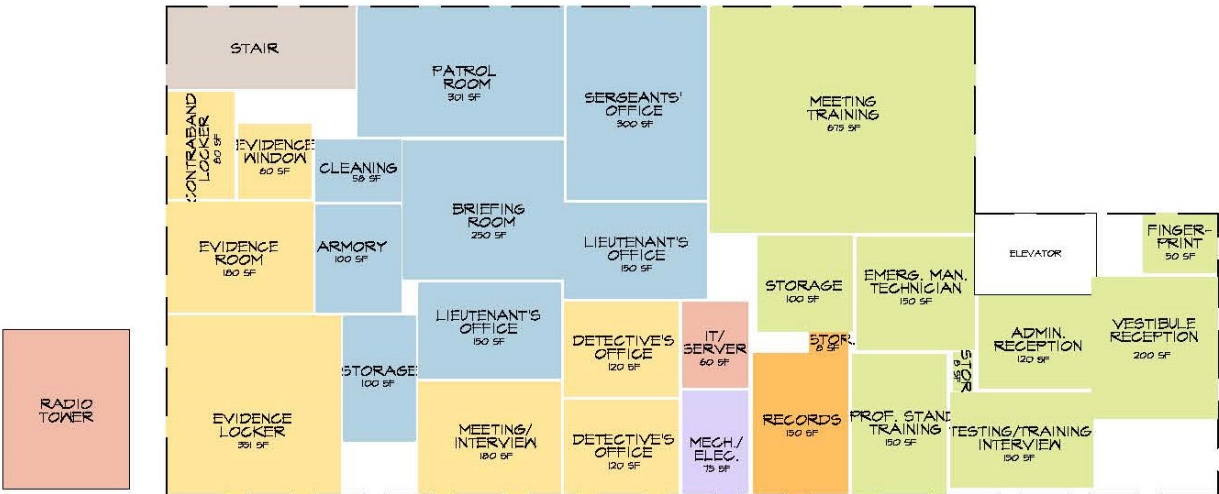
The entire City Hall property is within the flood zone and dry-floodproofing will be required at the ground floor level of any location around the site. The proposed solution is to provide a 2-story elevated building with parking at grade level below. The lower floor would consist of minimum interior building area with only an entry lobby and elevator access to minimize required area of flood-proofing. The expected footprint area would be approx. 5,000 sf for each of the 2 floors above the grade level parking. The space diagrams on the following page indicate the proposed division of program onto each floor level, keeping essential departmental relations in close proximity.

City of Sanibel Alternate Site Feasibility Study – 2 Site Options

Proposed building
departmental relationship
diagrams



GROUND FLOOR DIAGRAM



SECOND FLOOR DIAGRAM



THIRD FLOOR DIAGRAM

City of Sanibel Alternate Site Feasibility Study – 2 Site Options

Two Site Studies

Two site conceptual plans have been developed for the proposed Sanibel Police Department expansion within the Sanibel Municipality Complex property limits. The following provides a conceptual site development summary for Site Concept Plan - Options #1 and #2. This summary is preliminary in nature and a result of the limited due diligence gathered at this time.

City of Sanibel Alternate Site Feasibility Study – 2 Site Options

OPTION #1 - Adjacent to existing PD at City Hall Complex

Site Concept Plan – Option #1 is North of Dunlop Road and its limits of construction are approximately 0.60 acres, located West of the existing building currently occupied by the Police Department at the Northwest corner of the complex limits. This improvement proposes a new stand-alone building constructed over the existing parking area. This concept allows for 11 parking spaces underneath the building and all remaining parking spaces outside within the existing secured area. In addition, this improvement allows for a new surface water management system on the West side of the project.

A. General

- Proposed approximate 10,000 SF two-story Police Department building with 11 parking spaces underneath.
- A two-way 30-foot wide paved driveway separates the existing and the proposed buildings.
- This concept assumes the Police Officers will continue to take their respective Police vehicles home overnight.

B. Zoning/Parking

- A 20-foot building setback buffer provided along the water edge
- 36 spaces required < 41 provided => 5 parking spaces for 1st 1000 SF + 1 space per (250 SF of additional building area)*(9,000 SF).

C. Drainage / FEMA

- The ground elevations and surface water naturally flows down-gradient from an elevation of 4.5 feet to 1 foot over of the property in a general South to North direction towards Tarpon Bay. The proposed site development will not disrupt this natural surface water flow pattern and is a result of a reduction in impervious area which will improve the surface water quality prior to discharge towards the North.
- The site is located in Flood Zone AE (EL 8 feet BFE) based on FEMA Flood Map number 12071C0530F dated August 28, 2008.

D. Utilities

- Existing utilities were observed around the surrounding Municipality Complex. A flow test will need to be conducted to verify that the existing water system can handle the demand and will need to confirm that existing sewer system can handle the additional flows generated from the proposed building improvement.
- A new stand-alone emergency power generator is required for the proposed building's critical equipment.

City of Sanibel Alternate Site Feasibility Study – 2 Site Options

E. Fire Department/Emergency Ambulance Accessibility

- Fire Department requires adding a fire hydrant placed at the back of the building for fire flow.
- All emergency vehicles can ingress through the front and egress or through the rear.
- This concept site plan allows for 1.5 times the height of the building distance away from the building accounting for the collapse zone.

F. Traffic Flow

- The front two-way driveway access via Dunlop Road shall remain for all standard size employee vehicles and police vehicles
- Public parking will remain outside of the secured area on the south end of the building.
- The existing security access surrounding the existing and proposed buildings shall remain and new egress will be provided on the North end of the site.

G. Boundary Survey

- No boundary surveys have been developed for the project location at this time.

H. Environmental Assessment

- All existing trees shall remain on the site and be protected.
- No endangered species are anticipated at this time.
- A 25-foot building setback from any existing endangered species nest is required.

I. Miscellaneous / Other

- The existing emergency communication tower shall remain in place; however new communication/power feeds will be required to the proposed building footprint.
- This concept plan does not allow for the public to access the Police Department building directly.
- No conflict with the bike trail alignment.
- To continue to allow Fire Department access to the existing City Hall building wing that the Police Department currently occupies, the proposed stand-alone Police building is not practical at the rear of the existing building wing
- Potential security vulnerability, with expansion of City Hall offices to vacated PD wing, these spaces could allow unwanted access to the secure PD parking area. Second floor operable windows and public access to balcony should be limited. Also, occupation of the existing ground floor building areas could possibly remain for PD storage/access to reduce conflicts with other departments encroaching on the secure PD area.

REQUIRED PARKING CALCULATION:

10,000 SF TOTAL BUILDING
5 SPACES FOR FIRST 1000 SF
1/250 FOR SF OVER 1000 SF

1000 SF = 5 SPACES
9,000 SF / 250 = 36 SPACES
REQUIRED = 41 SPACES
PROVIDED = 43 SPACES

POLICE DEPARTMENT VEHICLES:

6 ADMINISTRATION SUV
11 PATROL SUV
6 FUTURE PATROL SUV
4 FUTURE SERGEANT TRUCKS
2 FLEET SUV
4 PARKING ENFORCEMENT SUV
1 COMMUNICATION TRUCK W/ TRAILER
1 CSI VAN
4 TRAFFIC TRUCK
2 ALL TERRAIN VEHICLES

41 POLICE VEHICLES IN SECURED AREA

BUILDING SETBACKS:

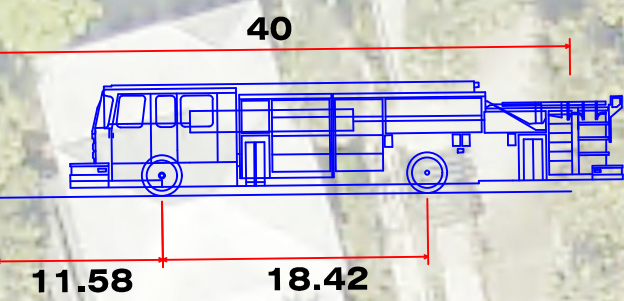
REQUIRE:

NORTH SETBACK 20' TO WATER
SOUTH SETBACK 50'
EAST SETBACK 15
WEST SETBACK 20' TO WATER

PROVIDED:

NORTH SETBACK ±95'
SOUTH SETBACK N/A
EAST SETBACK N/A
WEST SETBACK 20'

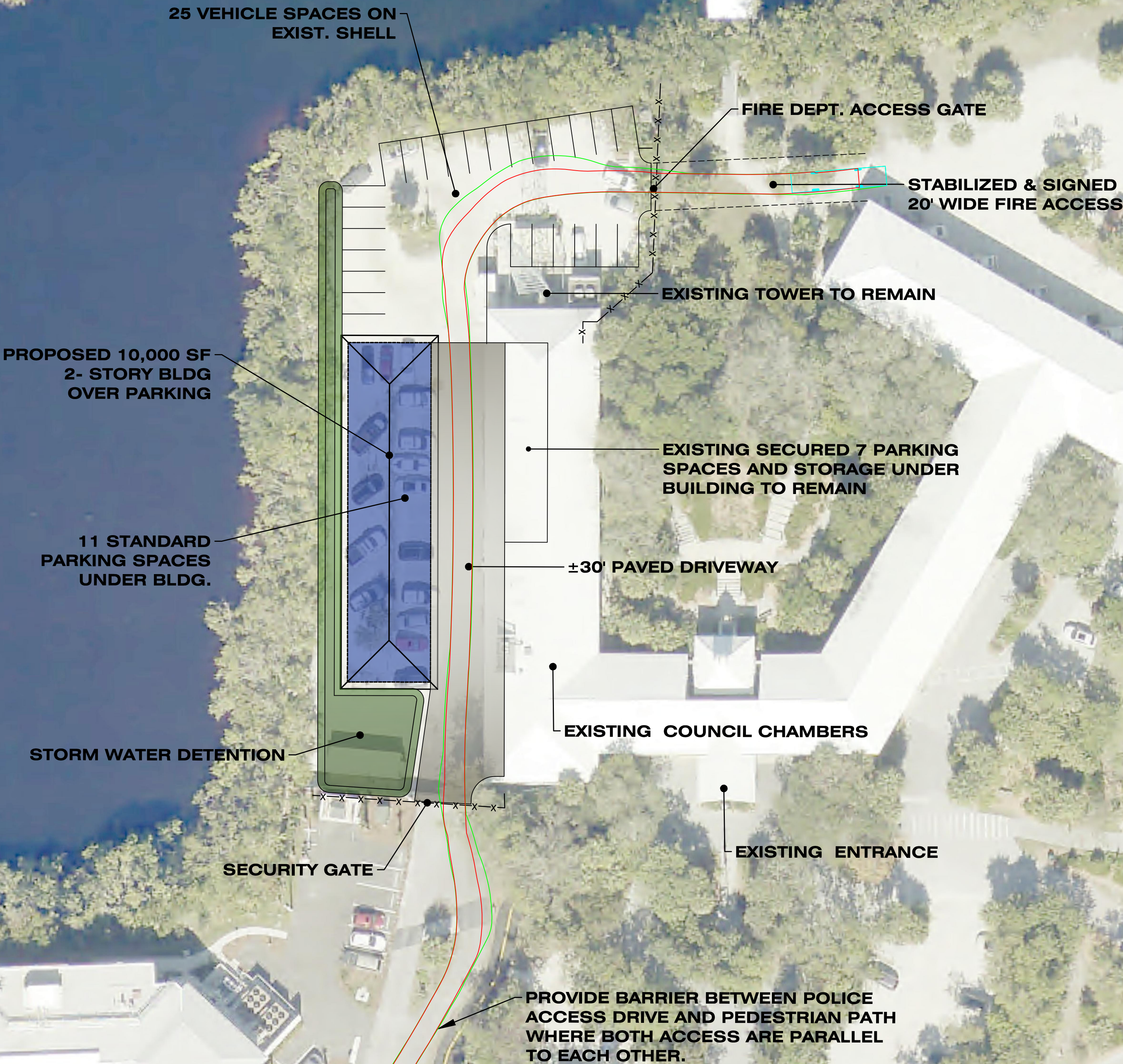
TRUCK PATH LEGEND



MiniTower SL75
Overall Length 40.000ft
Overall Width 8.167ft
Overall Body Height 7.715ft
Min Body Ground Clearance 0.627ft
Track Width 8.000ft
Lock-to-lock time 5.00s
Max Wheel Angle 42.00°

WHEEL BASE TRAJECTORY

PROJECTED BODY TRAJECTORY



SITE CONCEPT PLAN - OPTION No.1

JULY 09, 2021



POLICE DEPARTMENT EXPANSION

SANIBEL, FLORIDA

1821 VICTORIA AVENUE, FORT MYERS, FL. 33901 Ph. (239) 337-3330

City of Sanibel Alternate Site Feasibility Study – 2 Site Options

OPTION #2 - South of Dunlop Road

Site Concept plan – Option #2 is South of Dunlop Road and its limits of construction are approximately 1.7 acres, located directly South City Hall. This improvement proposes a new stand-alone Police Department building constructed over 10 secured parking spaces with new separate secured and public parking areas. Additionally, this improvement allows for a new dry detention surface water management system on the East side of the project.

A. General

- Proposed 10,000 square foot two-story Police Department building with 10 parking spaces underneath.
- Proposed ingress/egress driveway for the West secured parking area.
- Proposed ingress/egress driveway for the East public parking area.
- Officers to continue to take their respective Police vehicles home overnight.
- This improvement will use the land dedicated to the existing Recycle Center and will be eliminated.

B. Zoning/Parking

- No zoning building setback are required because Dunlop Road is considered a frontage road.
- 36 spaces required < 49 provided => 5 parking spaces for 1st 1000 SF + 1 space per (250 SF of additional building area)*(9,000 SF).

C. Drainage/FEMA

- The ground elevations and surface water naturally flows down-gradient from an elevation of 5.0 feet to 4.5 feet over the property in a general South to North direction towards Dunlop Road. This site development allows for a new dry detention pond for the increased imperious areas prior to discharge to an environmentally protection parcel located North of the complex. This surface water management system will require an application for an Environmental Resource Permit through SFWMD and all other governing agencies.
- The site is located in Flood Zone AE (EL 8 feet BFE) based on FEMA Flood Map number 12071C0530F dated August 28, 2008.

D. Utilities

- Existing utilities were observed around the surrounding Municipality Complex. A flow test will need to be conducted to verify that the existing water system can handle the demand and will need to confirm that existing sewer system can handle the additional flows generated from the proposed building improvement.
- A new stand-alone emergency power generator is required for the proposed building's critical equipment.

City of Sanibel Alternate Site Feasibility Study – 2 Site Options

E. Fire Department/Emergency Ambulance Accessibility

- The Fire Truck will likely stage the fire truck on Dunlop Road if in emergency call and access the proposed building through a clear and unobstructed dedicated 15-foot access from Dunlop Road to the proposed building per their request (see concept plan #2)
- This concept site plan allows for 1.5 times the height of the building distance away from the building accounting for the collapse zone.
- An emergency ambulance vehicle is able to access the building from the East and West ingress/egress driveways.

F. Traffic Flow

- The East two-way ingress/egress driveway shall align with the existing Library driveway.
- The West two-way ingress/egress driveway shall align with the existing City Hall's driveway.
- 4 Public parking spaces and ADA parking space is included on the East side of the building.

G. Boundary Survey

- No boundary surveys have been developed for the project location at this time.

H. Environmental Assessment

- A tree survey will be required for this area. Existing trees requiring protection still need to be determined.
- Gopher Tortoises are anticipated. An update survey is required and relocation/mitigation may be required. Proposed site concept allows for known existing tortoise nesting area to remain natural.
- A 25-foot building setback from existing Gopher Tortoises nest is required.

I. Miscellaneous / Other

- The emergency communication tower needs to be relocated
- The existing West bike trail alignment along Dunlop Road shall be re-aligned between the building and the proposed dry detention pond and re-connect to the existing South bike trail alignment along Dunlop Road.
- The proposed site allows for fully fenced in secure PD area. However, the building is closer to adjacent private property than Option #1 at the City Hall location.

REQUIRED PARKING CALCULATION:

10,000 SF TOTAL BUILDING

5 SPACES FOR FIRST 1000 SF
1/250 FOR SF OVER 1000 SF

1000 SF = 5 SPACES
9,000 SF / 250 = 36 SPACES
REQUIRED = 41 SPACES
PROVIDED = 49 SPACES
(INCLUDES UNDER BLDG.)

POLICE DEPARTMENT VEHICLES:

6 ADMINISTRATION SUV
11 PATROL SUV
6 FUTURE PATROL SUV
4 FUTURE SERGEANT TRUCKS
2 FLEET SUV
4 PARKING ENFORCEMENT SUV
1 COMMUNICATION TRUCK W/ TRAILER
1 CSI VAN
4 TRAFFIC TRUCK
2 ALL TERRAIN VEHICLES

41 POLICE VEHICLES IN SECURED AREA

BUILDING SETBACKS:

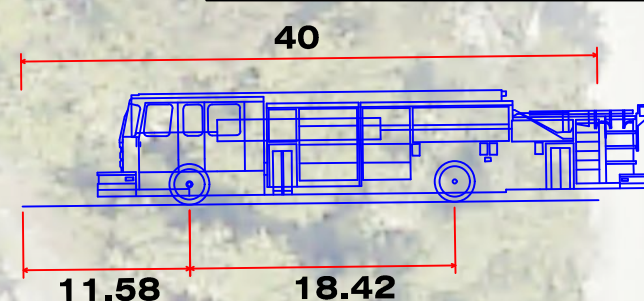
REQUIRED:

NORTH SETBACK	NONE
SOUTH SETBACK	NONE
EAST SETBACK	NONE
WEST SETBACK	NONE

PROVIDED:

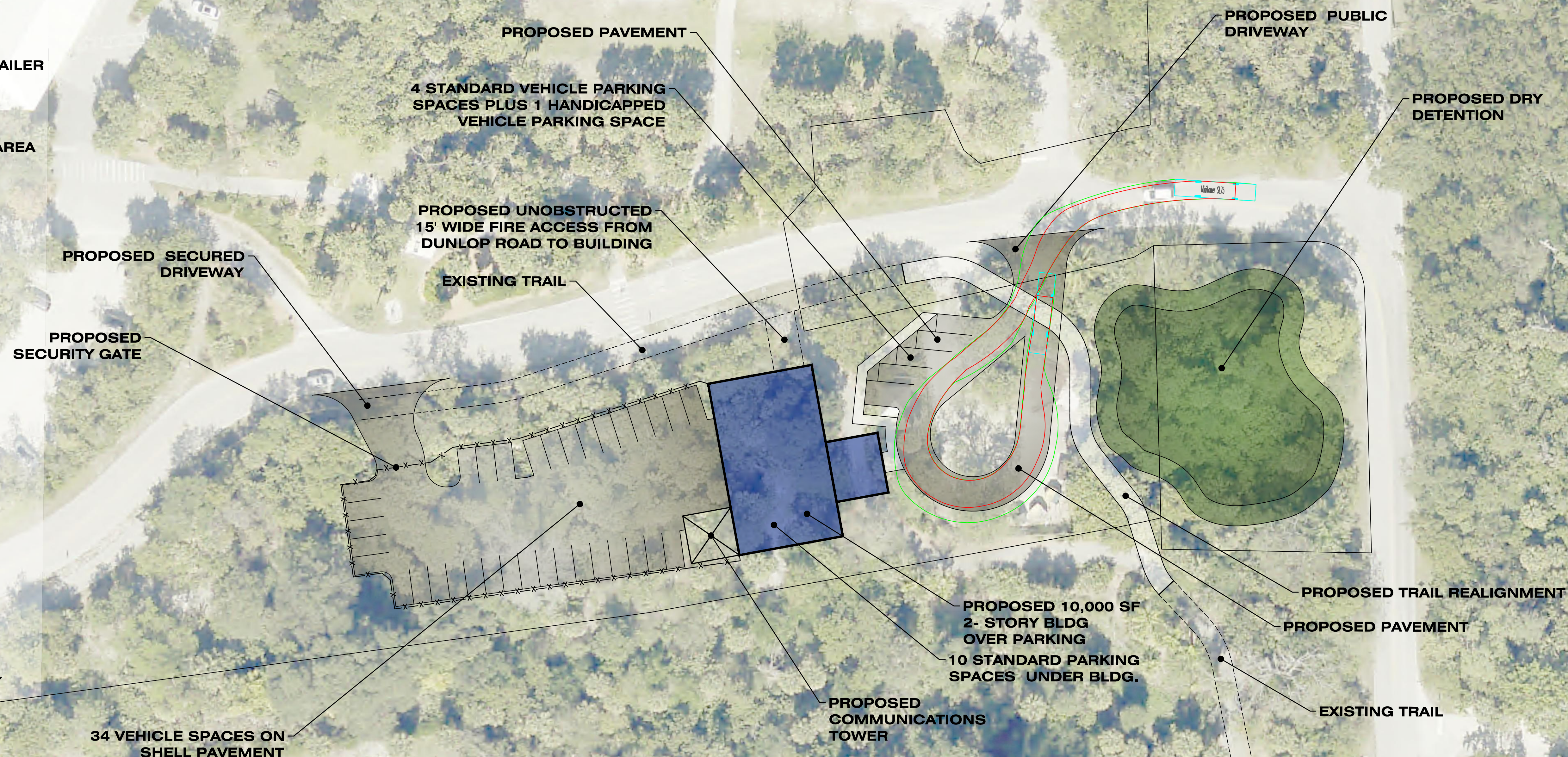
NORTH SETBACK	20'
SOUTH SETBACK	20'
EAST SETBACK	20'
WEST SETBACK	20'

TRUCK PATH LEGEND



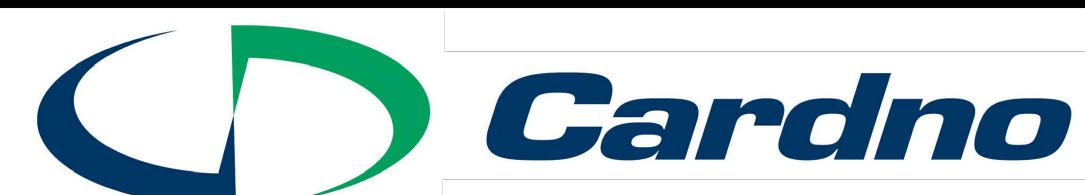
MiniTower SL75	40.000ft
Overall Length	8.167ft
Overall Width	7.715ft
Overall Body Height	0.627ft
Min Body Ground Clearance	8.000ft
Track Width	5.00s
Lock-to-lock time	42.00°
Max Wheel Angle	

WHEEL BASE TRAJECTORY
PROJECTED BODY TRAJECTORY



SITE CONCEPT PLAN - OPTION No. 2

JULY 09, 2021



1821 VICTORIA AVENUE, FORT MYERS, FL 33901 Ph. (239) 337-3330

POLICE DEPARTMENT EXPANSION

SANIBEL, FLORIDA