MILAM COUNTY

EMS Station No. 1

PROGRAMMING DELIVERABLE

SEPTEMBER 5, 2025

PURPOSE. DRIVEN. DESIGN.

DIVERSE STUDIO

Contents

Executive Summary

The Milam County EMS Stations project represents a significant investment in the safety, efficiency, and visibility of the county's emergency medical services. EMS personnel currently operate out of a converted Fire Chief's residence, which provides only limited space and infrastructure, constraining operational efficiency, crew comfort, and the ability to grow alongside community needs. The new facility is envisioned as a purpose-built environment that addresses these challenges, providing a modern, flexible, and secure setting where personnel can perform their duties effectively while fostering pride, professionalism, and a strong sense of identity in serving Milam County.

As the first of four planned EMS stations, the Cameron station will establish a replicable prototype, enabling cost-effective and time-efficient construction of future stations while maintaining a high standard of operational performance. The facility is designed not only to meet immediate operational needs but also to provide a model that can be adapted and replicated throughout the county. By integrating design, function, and community presence, the project ensures that each station delivers consistent quality and identity while optimizing budgetary and construction resources.

The facility will be organized into three functional areas, carefully tailored to operational efficiency, staff well-being, and public engagement. The Station will provide a watch room, offices, dayroom, kitchen and pantry, fitness area, restrooms, and sleeping quarters, spaces that allow on-duty staff to work, rest, and maintain readiness in a safe and comfortable environment. The Apparatus Bay will include a drive-through configuration with two double-deep bays, supporting rapid vehicle deployment, efficient circulation, and integrated laundry and decontamination spaces to uphold operational readiness. The Administration wing will house private offices, flexible "hotel" spaces for visiting staff, and a public-facing entrance that enables direct community access. A dedicated training center within the administrative wing will serve a dual purpose: supporting county-wide EMS professional development and acting as a community resource for public education programs. While the Cameron station will include the full administrative wing, the subsequent three stations in the network will replicate the core station and apparatus bay design, providing a consistent and economical solution for county-wide EMS infrastructure. Site development for the Cameron Station will include improvements to North Crockett Avenue to provide access, while U.S. Highway 77 will serve as the primary route for both public visitors and rapid emergency egress.

Security, accessibility, and community engagement are integral components of the project. Secure perimeters, controlled access, and dedicated parking for both staff and public ensure the protection of personnel, vehicles, and equipment while supporting seamless operational flow. The administrative and training components enhance civic engagement by creating spaces for board meetings, EMS training, and public education, reinforcing the station's role as both an operational hub and a community-facing resource.

By combining operational efficiency, crew comfort, community presence, security, and a replicable design strategy, the new Milam County EMS Station will deliver a long-lasting, high-performing facility that strengthens emergency response capabilities, promotes the professionalism and pride of its personnel, and serves as a visible, community-centered asset. This station will set the standard for future facilities, providing Milam County with an adaptable, economical, and mission-driven framework to guide the development of its county-wide EMS network for years to come.

Programming Schedule

01.

WS 1 | 08.28.2025

First pass at laying out a master program and high level program adjacencies to start to gather feedback to understand critical issues.

AUG 2024

Start Up

Programming

NTP | 08.12.2025

Project kickoff meeting included visioning and an introduction to the team, understanding space needs and data gathering.

00.

DELIVERABLE | 09.05.2025

Programming deliverable to board inclusive of master programming, spatial needs, and adjacency diagrams.

02.

03.

BOARD APPROVAL | 09.09.2025

Board approval on Programming phase and provides notice to proceed into schematic deisgn.

05.

DELIVERABLE | 10.23.25

Schematic Design Deliverable to be priced to produce a Cost Estimate from CMAR.

Schematic Design

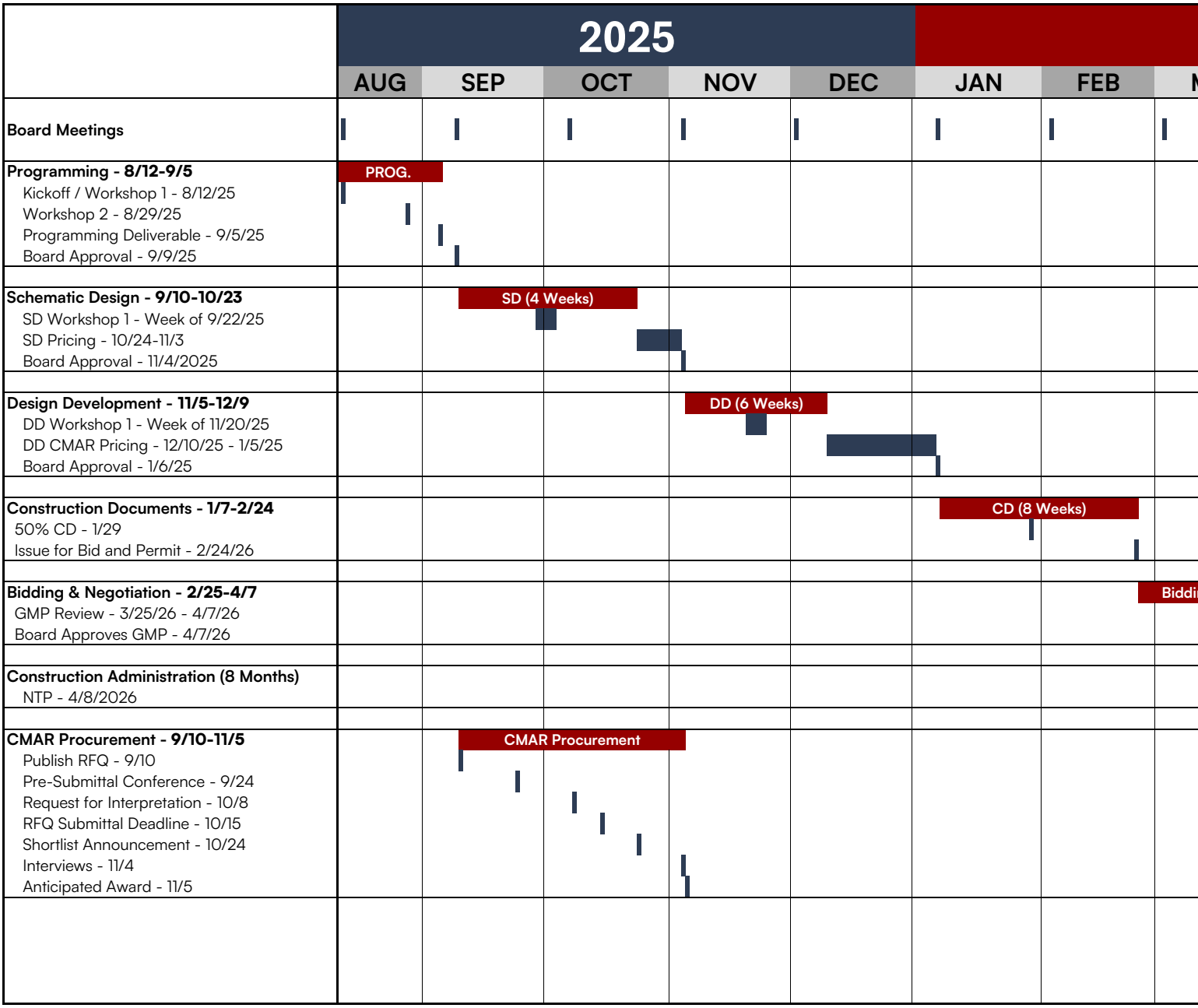
JAN 2025

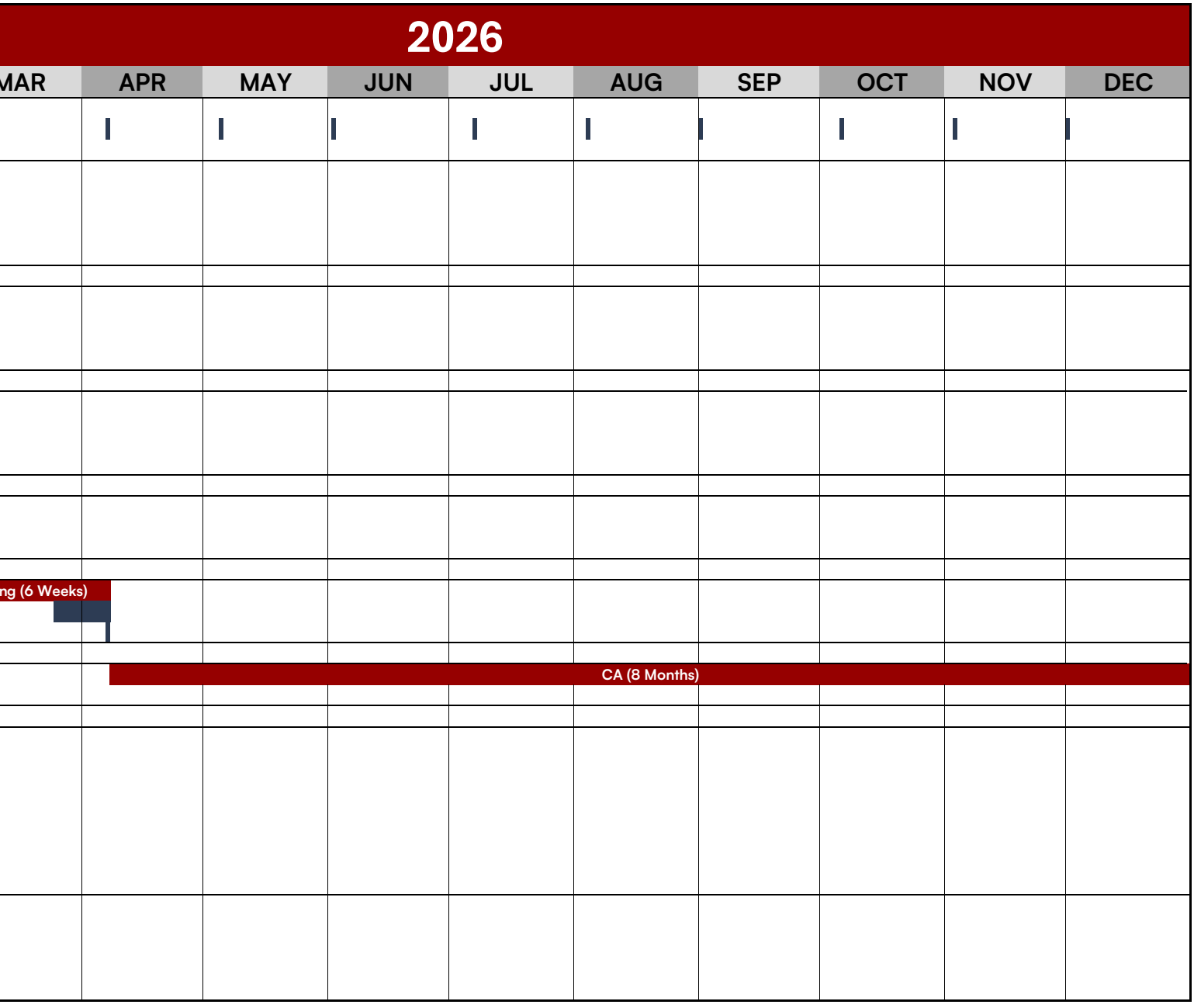
SD WS | 09.22.2025

Dive into floor plan layouts as well as building massing and materials. Exploration of possible structural and MEP system selections.

04.

Overall Schedule




2026
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
ng (6 Weeks)
CA (8 Months)

Milam County EMS Stations Programming

01
PROJECT VISION

Project Mission Statement

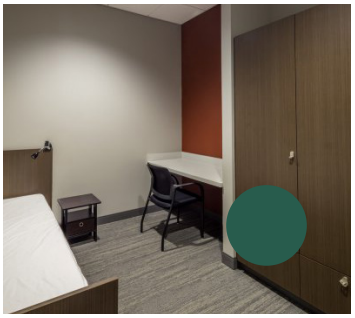
The mission of the new Milam County EMS Station is to create a purpose-built facility that reflects the critical role emergency medical services play in serving the community, while also fostering a sense of pride, comfort, and identity for the personnel who work there.
The current facility, a converted Fire Chief's residence, has served as a stopgap solution but does not provide the space, flexibility, or infrastructure required to meet the demands of a modern EMS operation.
As the first of four planned EMS stations, this project will set the standard for a replicable model across Milam County, ensuring consistent quality, efficiency, and identity in how emergency services are delivered. The new station will be designed to strengthen both function and community presence. At its core, a two-bay, double-deep drive-through apparatus bay will enable efficient vehicle circulation and rapid response to emergencies, ensuring crews can operate without the constraints of the existing station. Supporting this operational core will be modernized crew quarters that prioritize comfort, rest, and flexibility, recognizing the physical and emotional demands of EMS work.
Beyond its operational functions, the station will serve as a symbol of Milam County's investment in public safety and its personnel. An administrative wing will provide space for county board meetings and a training room accessible to EMS crews across all stations, extending the building's use as a public amenity and center for collaboration. This dual role, both functional and civic, reinforces the station's identity as a proud, visible county asset.
Security will also be an integral component of the design, with controlled access to operational areas and a secured perimeter ensuring the safety of staff, equipment, and vehicles. By balancing operational efficiency, crew well-being, community engagement, and security, the new EMS station will provide Milam County with a lasting facility that not only embodies resilience, professionalism, and public trust, but also serves as the foundation for a county-wide network of stations built to the same high standard.

Architectural Inspiration

During the workshops, our team presented a range of concepts and examples of completed projects to better understand the users perspectives on aesthetics, materials, functionality, and architectural inspiration. We conducted a virtual dot exercise to gather meaningful feedback from the entire group, ensuring that all voices were heard. This input guided us in integrating the group's ideas into the development of an overall aesthetic for the project, prioritizing the users' vision over our own preferences. This approach allowed us to secure buy-in from the entire group and establish clearer expectations for the final results, which were tailored to the context and reflective of the project's mission.

Exterior Concepts

Kitchen / Living Concepts



Public Space Concepts

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Milam County EMS Stations
Programming

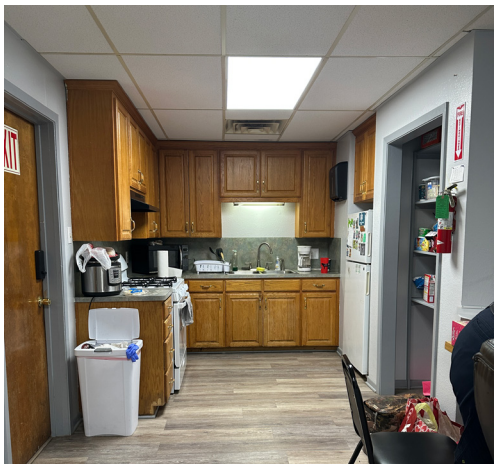
02
EXISTING SITE

Existing Conditions

EMS operations are currently housed in the former Fire Chief's residence, which does not provide the space, layout, or functionality required for modern emergency medical services. While this location has served as a temporary solution, it lacks the accommodations necessary to support long-term operational efficiency or crew well-being.

The proposed new EMS station is designed to address these deficiencies with a purpose-built facility that enhances functionality and supports future growth. Central to the design is a two-bay, double-deep drive-through apparatus bay that will allow for efficient vehicle circulation, improve response times, and reduce operational constraints.

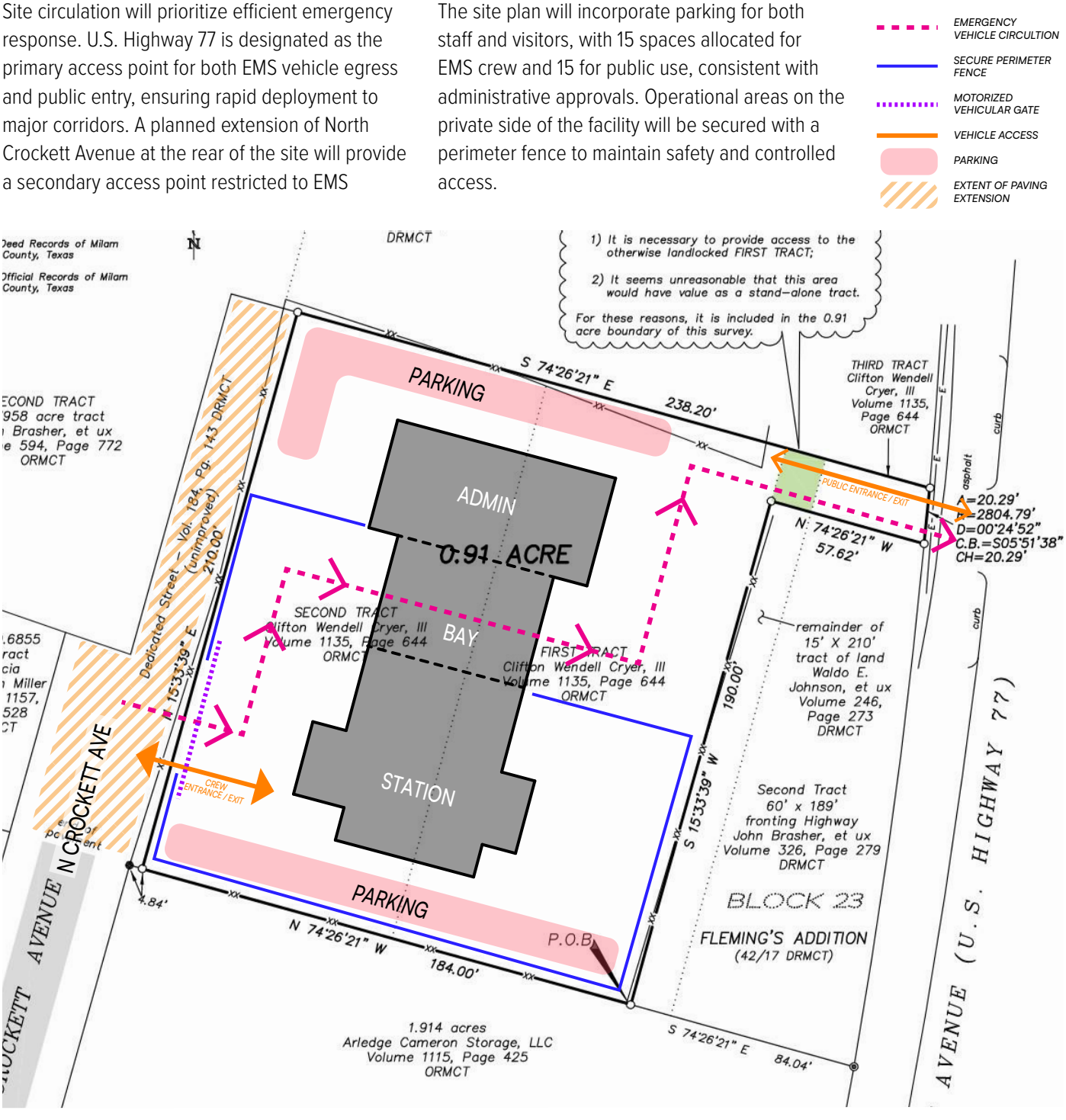
In addition to modernized crew quarters, the project will include an administrative wing with space for Milam County board meetings and a dedicated training room. These program elements will strengthen county-wide EMS coordination while also providing a public amenity accessible to the broader community.



Site Analysis

The proposed EMS station site is located within the City of Cameron city limits, bounded by North Travis Avenue (U.S. Highway 77) to the west and North Crockett Avenue to the east. Site circulation will prioritize efficient emergency response. U.S. Highway 77 is designated as the primary access point for both EMS vehicle egress and public entry, ensuring rapid deployment to major corridors. A planned extension of North Crockett Avenue at the rear of the site will provide a secondary access point restricted to EMS personnel. This configuration will allow EMS units to enter from the rear, traverse the apparatus bays in a drive-through configuration, and exit directly onto Highway 77.

The site plan will incorporate parking for both staff and visitors, with 15 spaces allocated for EMS crew and 15 for public use, consistent with administrative approvals. Operational areas on the private side of the facility will be secured with a perimeter fence to maintain safety and controlled access.



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Milam County EMS Stations

Programming

03

PROGRAMMING & ANALYSIS

Code Summary

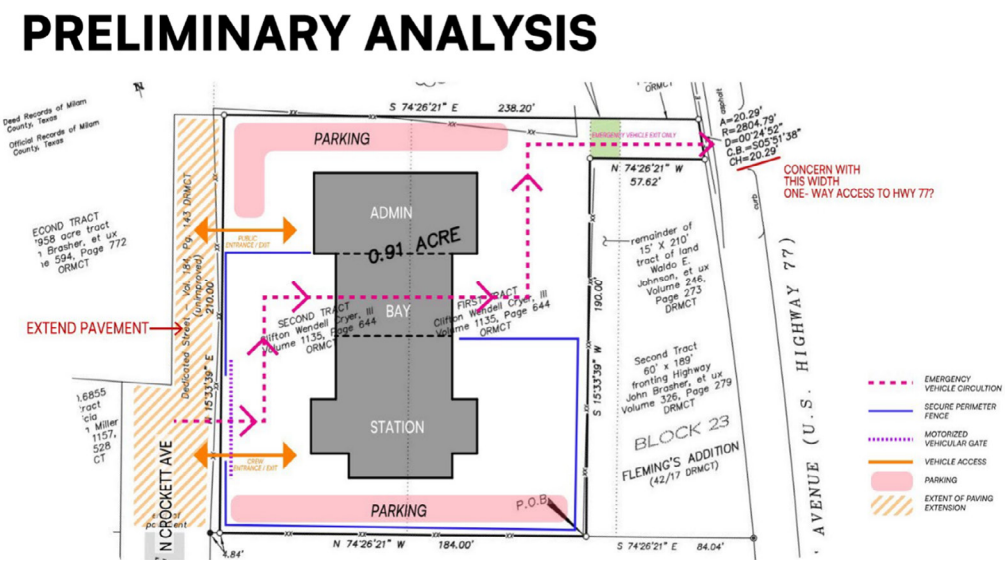
Code Reference	Requirement / Classification
Building Code	2024 International Building Code (IBC)
Occupancy Classification	Non-Separated Occupancy (IBC 508.3)
	Group R-2 — Sleeping Quarters Group B — Administration, Watch Room, Dayroom, Kitchen, Fitness, Training Group S-2 — Apparatus Bay
Most Restrictive Occupancy	Group R-2 governs allowable height, area, and fire protection requirements
Construction Type	Type IIB (noncombustible, unprotected)
Automatic Sprinklers	Required throughout, NFPA 13 system (IBC 903.3.1.1)
Fire Alarm System	Manual fire alarm system with occupant notification required for Group R-2 (IBC 907.2.9)
Allowable Height	R-2, Type IIB: 5 stories / 75 ft (Table 504.3 & 504.4)
	B, Type IIB: 4 stories / 75 ft
	S-2, Type IIB: 4 stories / 75 ft
	B governs: 4 stories / 75 ft
Allowable Area	R-2, Type IIB: 48,000 sf (Table 506.2)
	B, Type IIB: 69,000 sf
	S-2, Type IIB: 78,000 sf
	R-2 governs: 48,000 sf base allowable
Mixed -Use Approach	Non-Separated per IBC 508.3 — all occupancies comply with most restrictive requirements
Fire Partitions / Barriers	Sleeping unit separations per IBC 420
	Apparatus bay separation: 1-hour fire barrier
Egress Requirements	Means of egress sized per IBC Ch. 10
	Exit access travel distance for R-2, sprinklered: 250 ft (Table 1017.2)
Accessibility	2012 Texas Accessibility Standards (TAS)
Energy Code	2024 International Energy Conservation Code (IECC)
Other Referenced Code	2024 International Fire Code (IFC)
	2024 International Mechanical Code (IMC)
	2024 International Plumbing Code (IPC)
	2023 National Electrical Code (NEC)
	NFPA 13
	NFPA 72

Civil Narrative

Project Description

The project scope includes programming efforts and schematic design for Milam County EMS Station No.1. Civil engineering will conduct a feasibility study to evaluate site utilization and coordinate with local utility providers regarding service availability. A schematic-level site plan will be developed to address utilities and stormwater management.

Based on the current preliminary site plan, the project is anticipated to include an administration building, bay area, and station building, along with new driveways and parking areas. It is our understanding that the construction budget is approximately $2 million per station, with procurement to be completed through a design-bid-build process.



Project Scope

Gessner Engineering's scope of work includes performing a feasibility study for the subject property analyzing property zoning restrictions, comprehensive plan restrictions (if available), utility availability for water, wastewater, electric, gas, and other identified utilities, and floodplain restrictions. Water utility capacities will be documented as information is made available by the utility provider.

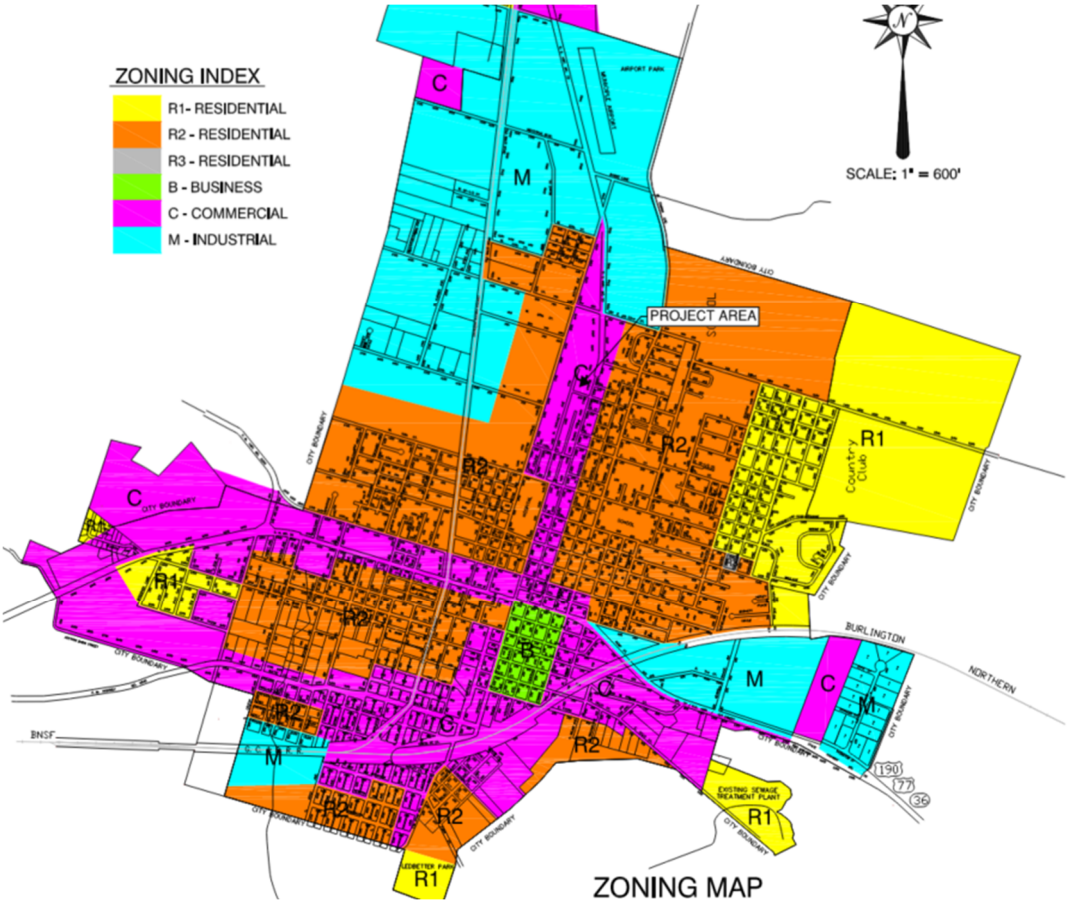
In addition, Gessner Engineering will confirm the detention requirements, available utilities, impact fees from the city, and planning review fees from the city.

Existing Conditions

The project site is located within the City of Cameron city limits, situated between North Travis Avenue (U.S. Highway 77) and North Crockett Avenue. The property is recorded under Property ID 23087 with Milam County. The site is currently undeveloped and consists of grass and trees.

Platting and Zoning Requirements

According to the City of Cameron's 2009 Zoning Map, the property is zoned "Commercial." This zoning district permits a wide range of potential uses, including industrial and office buildings. Coordination with the City will be necessary to confirm the most current zoning designation for the project site as well as adjacent properties during the development process.



According to the City Code of Ordinances, for non-residential uses in District C (Commercial):

- there shall be a front yard having a minimum of 15.0'. No storage or similar use shall be allowed in required front yards, except that automobile parking will be permitted.
- a side yard of not less than 15.0' in width shall be provided on the side of a lot adjoining a side street;
- a side yard of not less than 10.0' in width shall be provided on the side of a lot adjoining an residential district;
- otherwise, no side yard is required;
- no rear yard is required except that a rear yard of not less than 25.0' in depth shall be provided upon that portion of a lot abutting or across a rear street from a residential district;
- no limitation on the impervious coverage or lot coverage for commercial district.

Utility Options and Requirements (Existing & Required)

Gessner has requested the most current utility maps from all service providers, including water, sanitary sewer, storm, gas, electric, and telecommunications. As of this time, no utility information has been received. A utility feasibility study will be conducted upon receipt of the requested data.

Environmental Considerations

The site is clear of any potential waters of the US, wetlands, or FEMA flood plain concerns.

Site Design Requirements

The site design will be required to comply with the standards outlined in the City of Cameron Code of Ordinances and, as applicable, the City of Austin Drainage Criteria Manual. The City's ordinance addresses a wide range of development requirements, including zoning, use regulations, lot dimensions and setbacks, parking and driveway access, landscaping and buffers, signage, flood protection, infrastructure and public improvements, and nonconformities. Several specific site design considerations are summarized in the following sections; however, due to the extensive scope of the development code, this report does not include every applicable requirement.

In addition to drainage requirements, the City of Austin's Environmental Criteria Manual establishes water quality standards that apply when using the Austin Drainage Criteria Manual as a reference. These standards require the incorporation of stormwater control measures (SCMs), such as biofiltration ponds, vegetated swales, or other approved best management practices (BMPs), to improve the quality of runoff leaving the site. The applicability of water quality controls will be coordinated with the City to determine whether such measures are required for the proposed development.

Traffic Requirements

The current site plan proposes two access driveways: one from North Crockett Avenue and one from North Travis Avenue (U.S. Highway 77). A frontage road exists along North Travis Avenue, and coordination with the City will be required to determine allowable access locations. Final driveway connections will be subject to City review and approval.

Drainage Requirements

The storm drainage design will be required to comply with the drainage improvement standards outlined in the City of Cameron Code of Ordinances and, as applicable, the City of Austin Drainage Criteria Manual. A detention facility may be necessary to mitigate peak stormwater runoff resulting from the increase in impervious cover at the site. Gessner will coordinate with the City to confirm whether detention will be required for this project.

END OF CIVIL

Structural Narrative

1.0 Design Criteria

Codes & Standards

Building Code: 2024 International Building Code (IBC)

American Society of Civil Engineers (ASCE) 7, Minimum Design Loads for Buildings and Other Structures.

American Concrete Institute (ACI), Building Code Requirements for Structural Concrete, ACI 318

American Institute of Steel Construction (AISC) Specification for Structural Steel Buildings, AISC 360

The Masonry Society (TMS), Building Code Requirements for Concrete Masonry Structures, TMS 402

American Iron and Steel Institute (AISI), North American Specification for the Design of Cold-Formed Stee Structural Members, AISI S100

Live Loads

Category	Uniform Load	Concentrated
Apparatus Bays	250 psf	AASHTO HS20
Classrooms	40 psf	
Corridors & Exits	100 psf	
Mechanical Rooms	150 psf	Equipment Weight
Roof	20 psf	
Stairs	100 psf	
Storage		
Light	125 psf	
Heavy	250 psf	

Wind Loads

Codes:	2024 IBC / ASCE 7-22
Ultimate Design Wind Speed:	118 mph
Exposure Classification:	C
Risk Category:	IV

2.0 Material Properties

Concrete

Normal weight portland cement concrete with 4” to 6” slump. Minimum 28-day compressive strength varies by application:

Drilled Piers or Auger Cast Piles, Pier Caps	3,000 psi
Grade Beams, Slabs-on-Grade	4,000 psi
Slabs-on-Carton Forms	4,000 psi
Footings	3,000 psi

Reinforcing Steel

Deformed Bars (typical)	ASTM A615, Grade 60

Structural Steel

All steel located outside of conditioned spaces will be hot dip galvanized, otherwise shop primed and painted.

Shape	
Wide-Flange	ASTM A992 (50 ksi)
Steel Angles, Channels, Plates	ASTM A36 (36 ksi)
Steel Tubes (HSS)	ASTM A500, Grade C (46/ 50 ksi round/ square)
Steel Pipe	ASTM A53, Grade B (35 ksi)
Field Bolted Connections	ASTM A325 or ASTM A490
Anchor Rods	ASTM F1554, Grade 36 or 55
Headed Concrete Anchors	ASTM D1.1 Clause 7 Type B
Welding	E70XX per AWS D1.1

3.0 Geotechnical Design Criteria

A site-specific geotechnical report has not been provided for the site as of this narrative. Following are foundation options anticipated based on known site geology from USGS and previous projects in the area:

Ground Floor Slab:

1. Structural Slab-On-Voids:
    - Site preparation excavation to 5' beyond building perimeter
    - Fill will consist of:
        - Non-expansive general fill
    - Compacted and tested fill to be installed in 8" loose lifts
    - Potential soil-related movements aim to be negated by isolation of the foundation system from the site soils

4.0 Structural Systems

Foundation System

Foundation systems are expected to consist of a structural slab-on-voids system with a minimum of 8 inches of void space between the slab and proposed grade. The foundation slabs are expected to be one-way systems spanning between grade beams running in the orthogonal direction. All foundation elements are expected to be supported by deep foundation systems, likely straight shaft piers descending approximately 50 feet below grade.

Site structures (retaining walls, dumpster enclosures, generator pads, etc.) are expected to be grade supported systems without deep foundation support.

Superstructure

The superstructure is expected to consist of structural steel and load bearing concrete masonry units (CMU). The apparatus bay is expected to be constructed of load-bearing CMU walls, supporting a roof framed of structural steel shapes and metal roof deck. The support spaces outside of the bay are expected to be framed entirely of structural steel columns and girders, again supporting a roof assembly consisting of structural steel shapes and a metal roof deck. Typical column spacing is expected to be on the order of 25-30 feet with girders spanning between. Walls are anticipated to bypass primary steel systems, and interior walls are anticipated to be infill framing unless noted otherwise as lateral systems. Lateral systems are expected to consist of structural steel brace or moment frames, located primarily at diaphragm edges.

Miscellaneous Framing

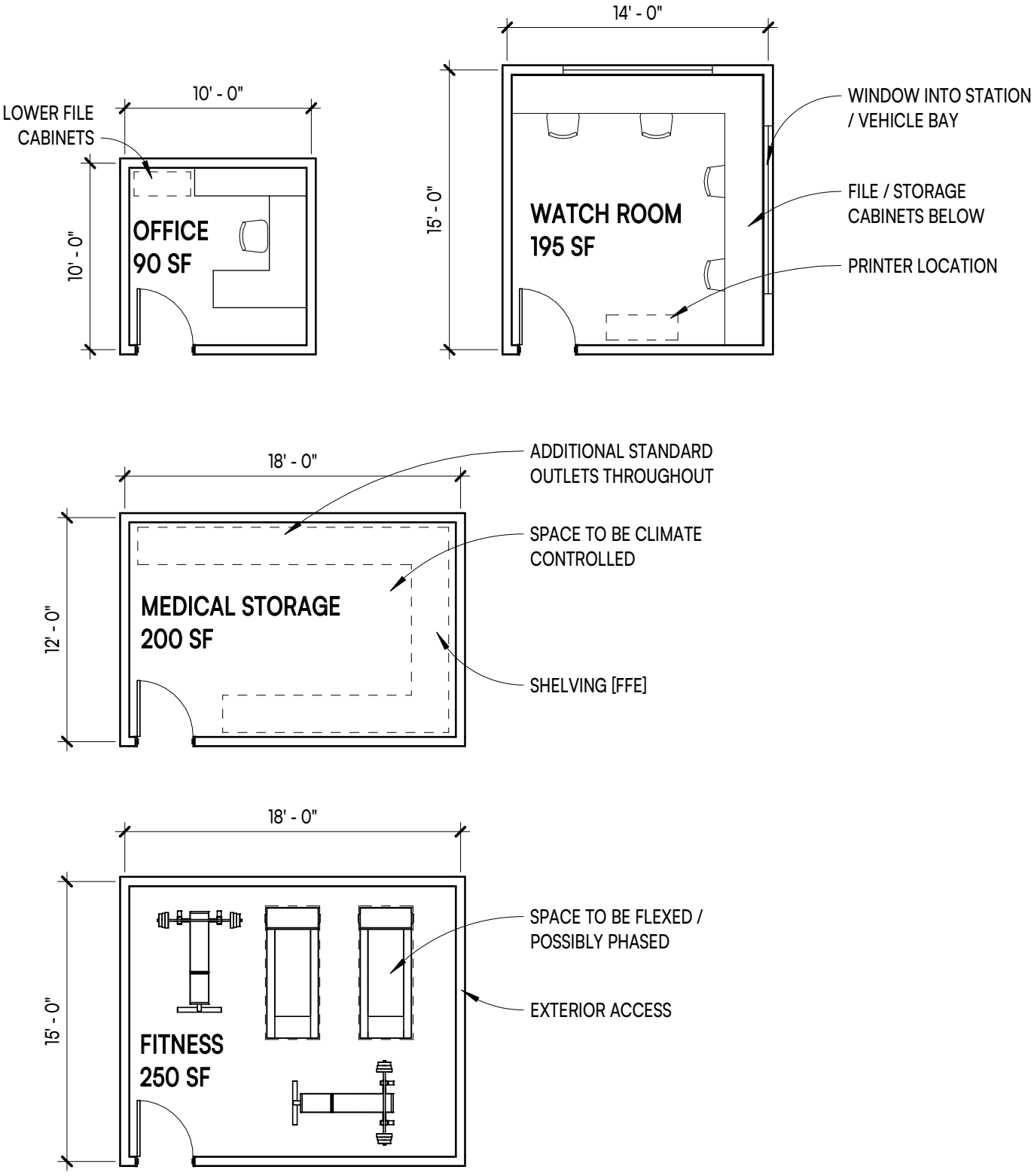
Miscellaneous framing may be required to support perimeter elements such as curtainwalls and large glass elements, canopies, etc.

End of Structural

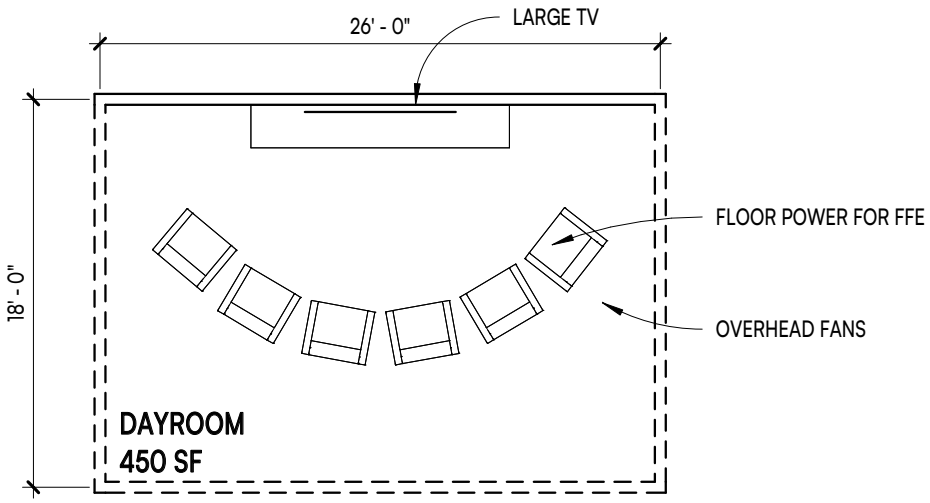
Program Needs

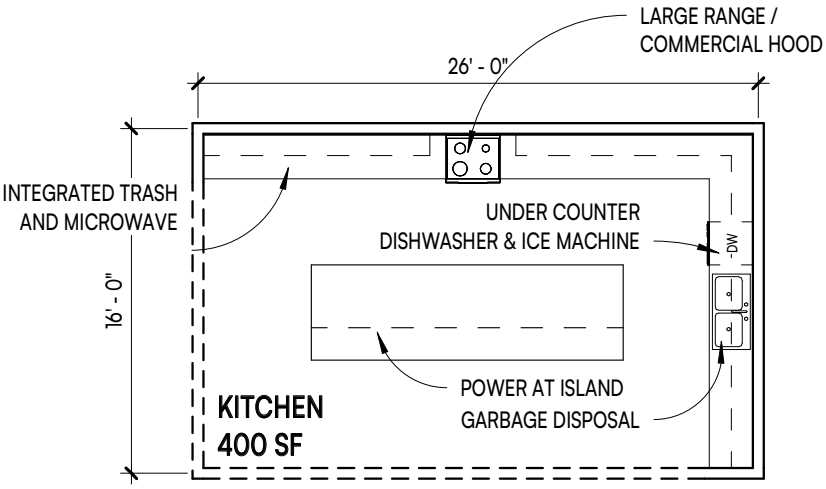
Milam County | EMS Stations					
SPACE / FUNCTION	QTY	UNIT AREA (SF)	TOTAL AREA (NSF)	GROSS AREA (1.35)	Additional Notes for Design Team
Station			**2,940**	**3,969**	**NOTES**
Entrance	1	100	100		
Watch Room	1	200	200		
Office	1	90	90		
Day Room	1	450	450		
Kitchen	1	400	400		
Pantry	3	80	240		
Storage	1	50	50		General
Medical Storage	1	200	200		
Fitness	1	250	250		Can be phased
Restrooms	2	100	200		
Bunk Rooms	6	100	600		
IDF	1	100	100		
Janitor	1	60	60		
Apparatus Bay			**2480**	**3348**	**NOTES**
Bay	1	2200	2200		[2] Double Deep - Drive Through
Laundry Room / Janitor	1	100	100		
Electrical Room	1	80	80		
Decon Room	1	100	100		
Admin			**2330**	**3146**	**NOTES**
Lobby / Reception	1	180	180		
Private Office	4	130	520		
Training Room	1	1300	1300		People
Restrooms	2	60	120		
Copy Room	1	60	60		
Storage	1	150	150		
Total				**10463**	

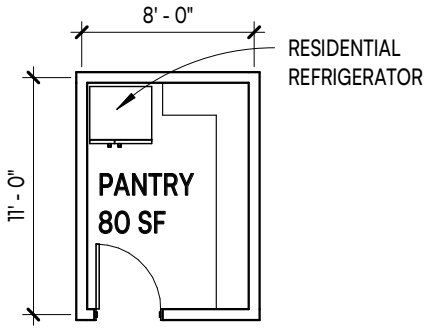
Space Needs | Station

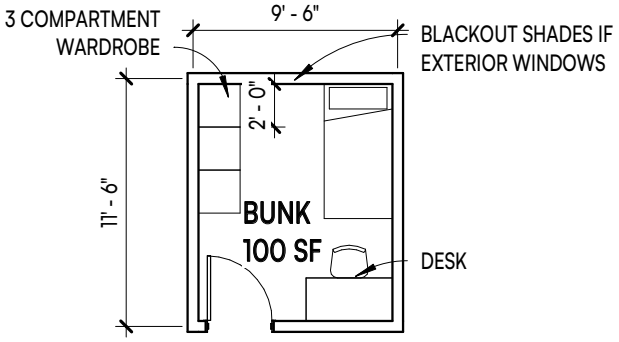


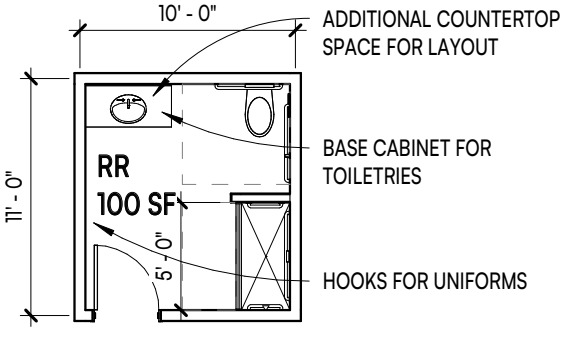
Space Needs | Station



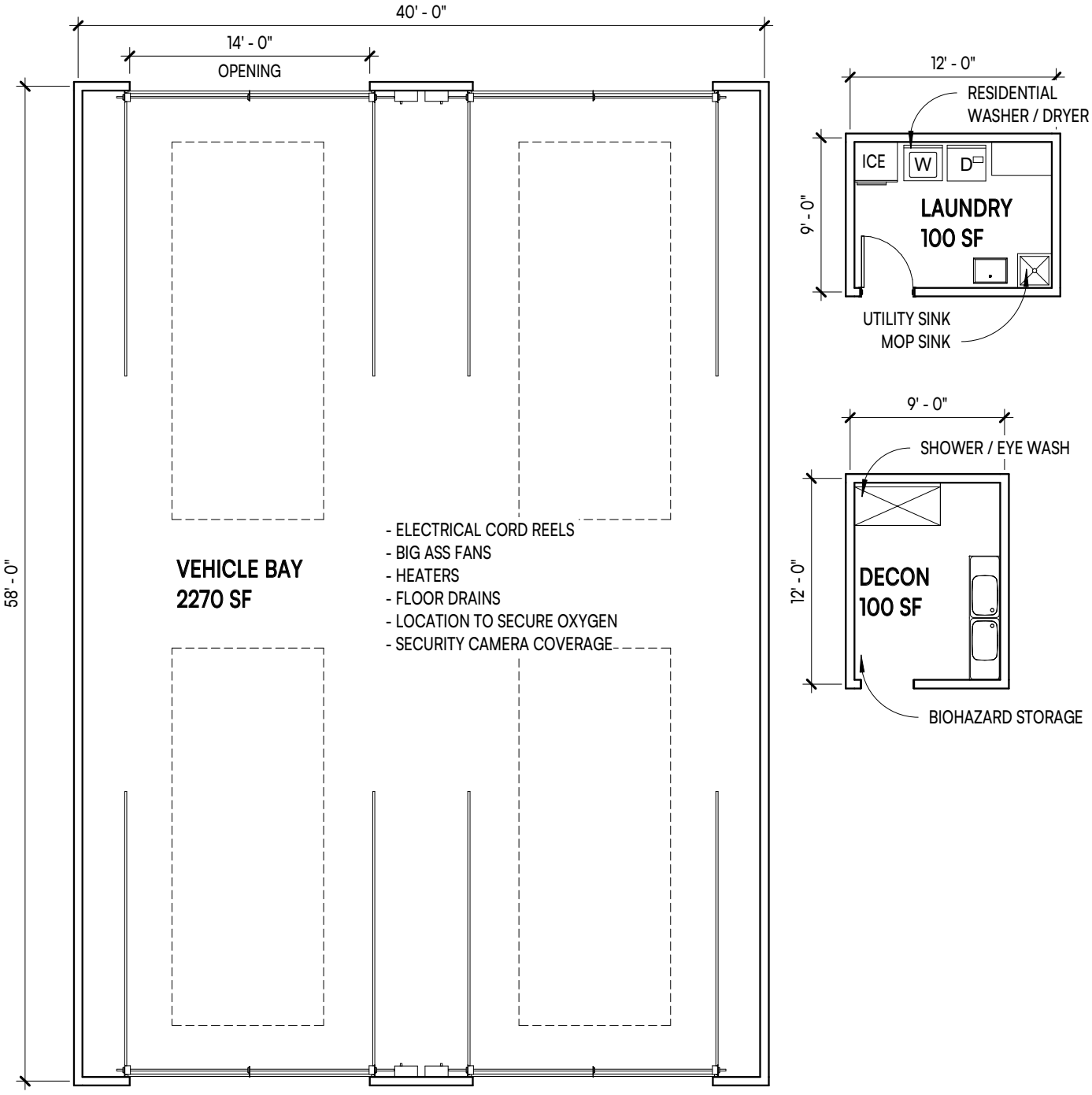




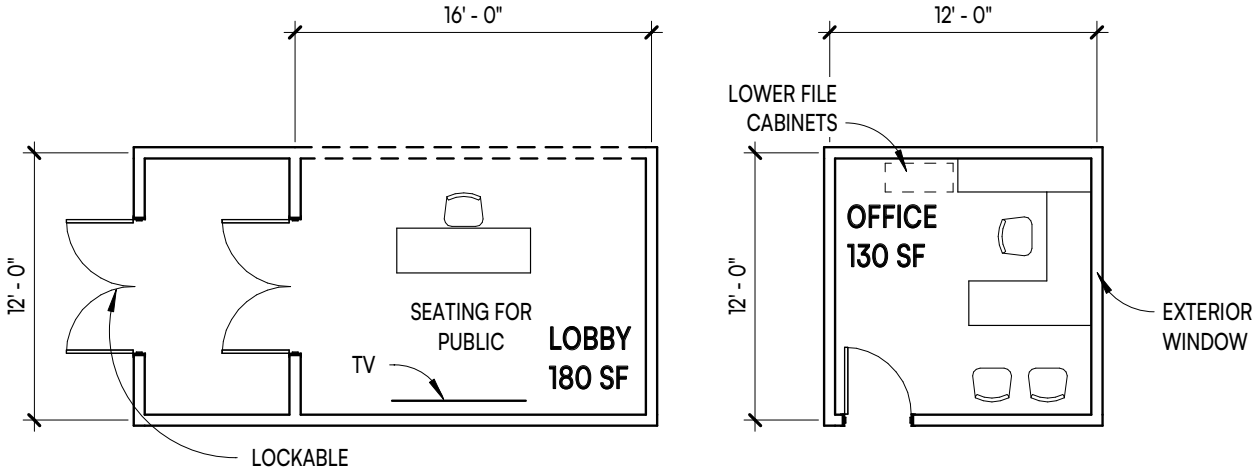


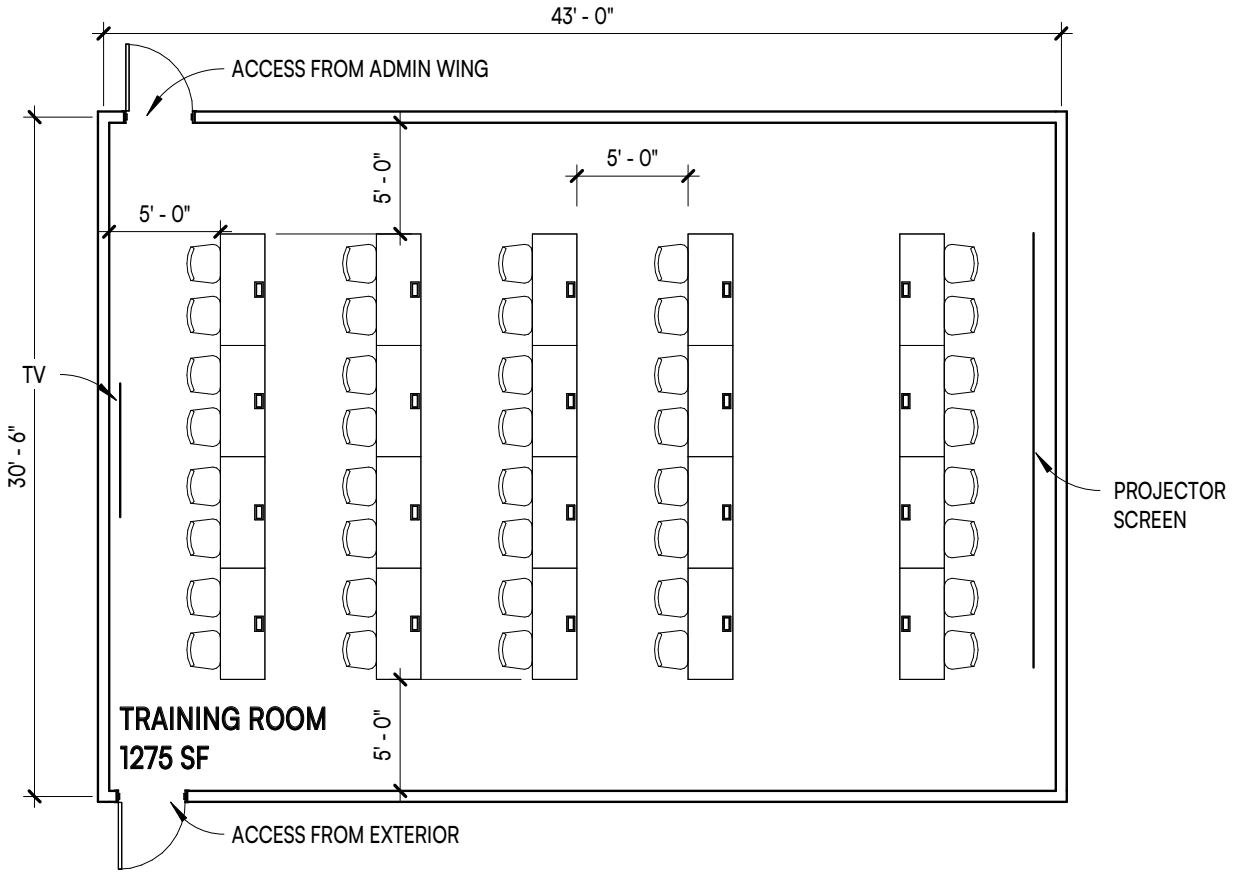


Space Needs | Bay

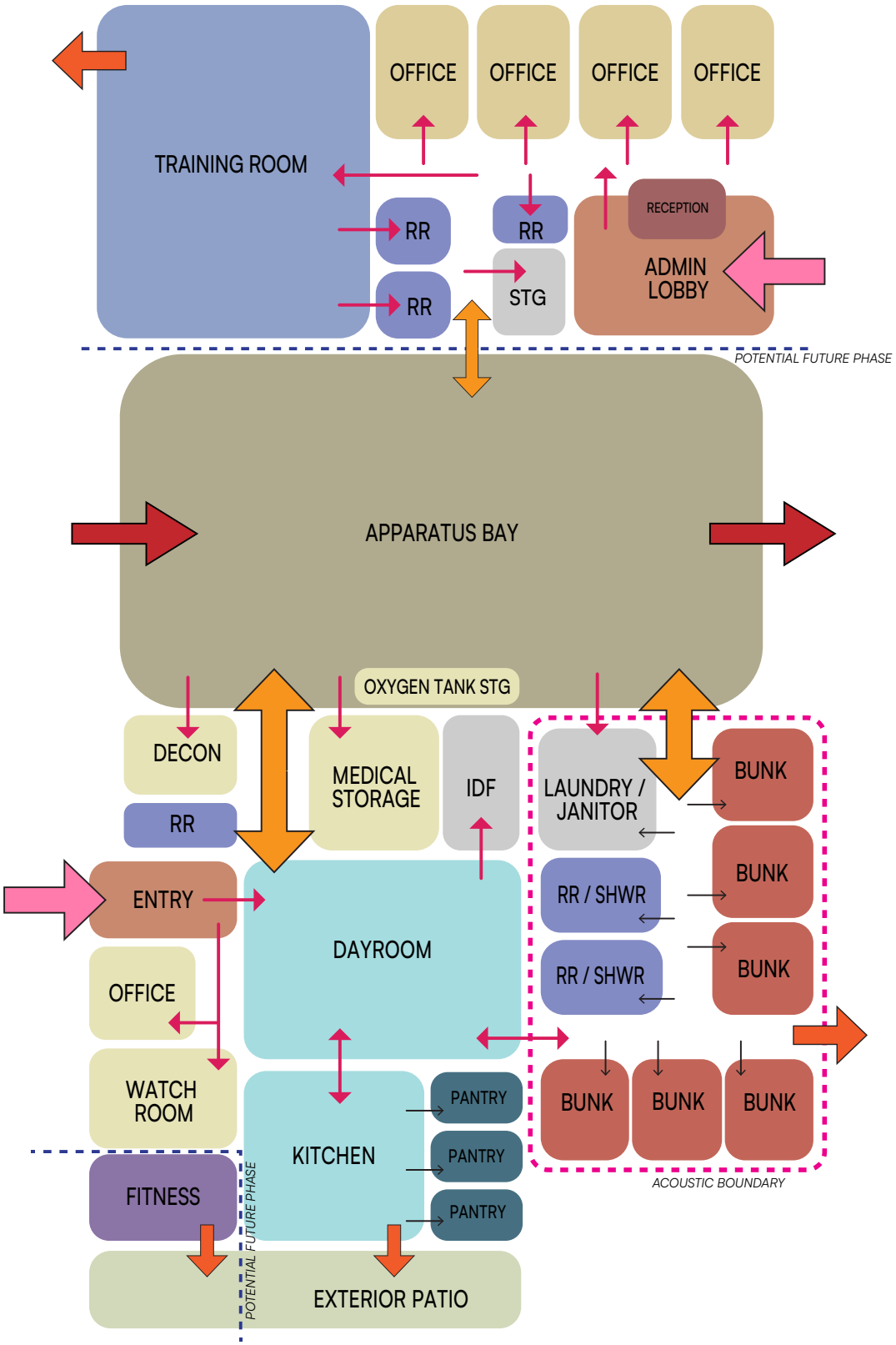


Space Needs | Administration





Adjacency Diagram



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DIVERSE STUDIO

Milam County EMS Stations

Programming

APPENDIX