



REDSTONE ARCHITECTS INC.

Specialists in Police, Fire, Justice, and Public Safety Architecture

ESTABLISHED 1937

Facility Study for Public Safety Building Needs Committee

Novi, MI

October 04, 2023



Public Safety Building

Fire Station #1

Fire Station #2

Fire Station #3

Maintenance Building



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SECTION 1 EXECUTIVE SUMMARY

CITY OF NOVI PUBLIC SAFETY DEPARTMENT CAPITAL IMPROVEMENT STUDY

History: The City of Novi initially engaged Redstone Architects in 2022 to study the possibility of renovating the existing Public Safety Building to accommodate a number of deficiencies identified by the department.

The study, submitted in December, 2022, included the development of a Space Needs Assessment for the Police Department to determine its current needs, as well as identifying spaces that the City wanted to maintain for other departments within the city.

The first option included the renovation of the existing Public Safety Building to accommodate the police department space needs. This option was deemed not to be viable.

We were then asked to look at adding an addition to the north side of the Public Safety Building. The Initial cost projection to implement the second option (renovation plus an addition) was approximately \$7,000,000.

2023: In the Spring of 2023 Redstone was asked to develop a Space Needs Assessment for a **new** Public Safety Building ("PSB"), which would also include Fire Station #1. Most of police needs were identified in the prior renovation study, which was updated. In addition, Redstone was asked to identify the space needs to replace Fire Stations #1, #2 and #3 with new facilities.

Over the past few months, Redstone has worked with the City to identify the needs of the three facilities, and to develop test fits for potential locations for the facilities.

Space Needs Assessments:

Working with members of the police and fire departments, updated space needs assessments were developed for the new PSB as follows:

Public Safety Building Campus:

- Police and Administrative Operations, including shared spaces: 53,776 sf;
- Fire Station #1 Operations- 18,942 sf. (Four-Bay Station)
- Fleet Maintenance Garage: 6,398 sf.

Station #1 is planned to have four, single-deep bays, and will also include a Captain's suite and a Fire Inspector. No public access is anticipated.

Fire Station #2 and #3: Each station is programmed for three, single-deep bays. Each station is estimated to need approximately 14,500 sf. Included are sleep rooms for five, on-duty personnel. Station 2 is also programmed to include a Lieutenant's office and separate sleep room. Three Sleep Rooms are provided for Superior EMS staff at both proposed stations.



Confirmation of Site Capacities:

Site information was provided for three potential sites, as follows:

1. **Public Safety Building Site:** a new site on the northwest corner of Lee BeGole Drive and 11 Mile Road. This site is to be combined with the City's existing property on the Northeast corner of the intersection. It is contemplated that Lee BeGole Drive will be relocated as part of this development.
2. **Station #2 Site.** A new facility on the existing property located at 13 Mile Road and Paramount Street, approximately 0.64 acres.
3. **Station #3 Site.** A new facility on a parcel on Venture Drive north of Nine Mile Road. of approximately, 1.76 acres

Redstone then developed block diagrams for each site to confirm that the sites were sufficient to accommodate the new facilities.

Public Safety Building Campus Site(including Station 1)

The City currently owns the property on the Southeast corner of 11 Mile Road and Lee BeGole Road. It has just approved the purchase of the property on the Northwest corner of that intersection. The intention of the city is to reroute Lee BeGole and to create a roundabout to the east. Redstone was given the combined sites to determine the feasibility of a new, Public Safety Building and Fire Station #1 at this location

FEMA maps and other reference material are included. There is a creek running from the northwest to the southeast of the property. This creek is few hundred feet north of 11 Mile, and its eastern portion is considered to be in a flood plain. The buildings need to be located south of the flood plain areas.

In addition, in order to keep costs down, the existing utilities in the Lee BeGole ROW/street will remain.

Station 2 Site. The site dimensions are 102' x 271', or about 0.64 acres. It was anticipated by the City that the station would be torn down and a new, two-story station could be accommodated on this site.

Redstone's opinion is that the existing site should not be considered as the site for the new station #2. The city's potential investment of \$7,500,000 is too significant to be put on such a small site.

Our Initial site investigation indicates that only a two- bay station of approximately 13,000 square feet could 'fit' on this site regardless of whether it is a one or two-story building.

A one-story site and building layout is attached for review and discussion. This solution has a number of drawbacks, including minimal setbacks, public parking access through apparatus egress lanes, etc.

A two story solution would necessitate two means of egress from the second floor, effectively adding a minimum of two, 12' x 30' stairwells, or another 700sf to the building requirements. More importantly, due to the narrowness of the lot, there is really no convenient place to locate the stairwells next to the apparatus bay.

In both scenarios public visitors will need to access the site via the apparatus ingress approach.

It is our opinion this site is too small for an efficient fire station site that incorporates the space needs site and that also provides for fire fighter parking and occasional (and non-conflicting) public access with appropriate parking.

A new site for Station #2 of approximately two or more acres is strongly recommended.

Station 3 Site.

The proposed site for Station #3 is on Venture Drive, north of Nine Mile Road. The dimensions are approximately 308 x 245' or about 1.73 acres.

The requirements identified in the Space Needs Assessment can be accommodated on this site.

Projected Project Costs

Based on our recent project cost projections and information obtained at this year's National Station Design Conference, we have developed a high-level Project Budget for the new facilities.

Timetable Assumptions:

- Voter Approval in the Spring of 2024.
- Design efforts: through 2024.
- Bidding: late 2024- Early 2025
- Construction: 2025- 2026

Project Cost Assumption:

Construction Costs (including contractor OH & profit) plus Soft Costs.

Soft costs are an allowance (percentage of construction costs) that include:

- Professional fees
- Furniture, Fixtures and Equipment
- Owner Costs
- Security and Technology

For Public Safety Buildings an allowance of between 20% to 25% of construction costs is recommended.



Our preliminary project cost projections for 2024 approval and design with 2025- 2026 construction use historical data from three projects:

1. Fire Stations: 2023 projection: \$400 + 20% soft costs = \$480/sf;
 - ***Projected to 2025-2026- 18% = \$565/sf***
2. Public Safety (Police) Building. 2024 Construction Project cost estimate: \$530/sf:
 - ***Projected to 2025-2026 +12% = \$600/sf.***
3. 2023 Fire Station (new Construction Project Budget- (2024-2025 construction); \$550-600/sf.
 - ***Projected to 2025-2026 =+ 5% + \$625/sf.***

For Bonding or Voter Approval purposes, we recommend using the following Project Budget:

Building	SNA Projected Square Footage	Construction Time Period (18-24 months)	Estimated PROJECT Cost/SF (Hard + Soft Costs)	ESTIMATED COST PER PROJECT
Public Safety Building	53,776	2025-2026	\$600.00	32,265,600
Mtnce. Garage	6,398	2025-2026	350.00	2,239,300
PSB Site Dev't	6 acres minimum	2025-2026	ESTIMATED	3,000,000
Fire Station #1	18,942	2025-2026	\$560.00	10,607,520
Fire Station #2	14,500	2025-2026	\$560.00	8,120,000
Fire Station #3	14,500	2025-2026	\$560.00	8,120,000
Subtotal:				65,352,420
Property #2			TBD	
Owner Budget and Timing Contingency		15%		9,802,863
TOTAL PUBLIC SAFETY PROJECT COSTS 2025-2026 CONSTRUCTION (18-24 months)				\$75,155,283



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SECTION 2 LEE BEGOLE SITE

SPACE NEEDS ASSESSMENT

BLOCK DIAGRAM CONCEPTS:

ARCHITECTURAL SITE PLAN

PUBLIC SAFETY BUILDING

FIRE STATION #1

FLEET MAINTENANCE GARAGE

REFERENCE MATERIAL:

FEMA FLOOD MAP

LEE BEGOLE PROPOSED ROUTING



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Public Safety Consultant

Public Safety Building - NEW
BUILDING

Department or Space Type						Current Staff	Future Staff	Req'd Sq. Ft.
1. Public Areas						0	0	6,817
2. Staff Common Areas						0	0	7,391
3. Police Administration- Including Fire						9	10	3,884
4. Records						5	6	1,851
5. Communications						15	17	2,203
6. Detective Bureau (Plus Task Force members- 16)						19	23	5,981
7. Uniform Operations - Including Cadets						63	75	4,954
8. Holding						0	0	6,330
9. Property						0	0	3,610
10. Training						1	1	193
12. Building Support Areas						0	0	3,540
13. Secure Parking						0	0	0
Total						112	132	
Subtotal								46,753
15% Gross-Up Factor (Common circulation, structure, shafts, etc.) (Use additional 5% Gross-Up Factor for Renovation)								7013
Total Main Building Area								53766
11. Fleet Maintenance Garage						1	2	5,563
15% Gross-Up Factor (Common circulation, structure, shafts, etc.) (Use additional 5% Gross-Up Factor for Renovation)								834
Total Maintenance Building								6,398

Space	Description	Staff		Space Needs			Req'd Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg #		
1. Public Areas								
Public Vestibule & Lobby SHARED	Vestibule			1	100		100	Locked & Buzz in after hours
	Floor Mat							
	BabyDrop-off	x		1	20		20	
	Intercom / Buzzer	x						
	After Hrs. 911 Phone	x						
	Lobby			1	800		800	*Lobby open for 24/7
	2nd floor lobby			1	200		200	
	Waiting Area	x					0	
	Report Writing Counter/ Kiosk	x		1	10		10	
	Chairs	5		5	5		25	
	Display area/ bulletins	x					0	
							0	
	Brochure Rack	x					0	
	Drinking Fountain	x					0	
	Overhead Monitors	x					0	
	Subtotal:						1,155	
Front Desk SHARED	<u>PD Dispatch Public Counter:</u>						0	*Public Lobby
	Linear ft. Public Counter (3)			1	12		12	*Records
	ADA Counter Linear ft. (3)			1	12		12	
	<u>PD Records Public Counter: Separate</u>							
	Linear ft. Public Counter (3)	1 ADA		2	40		80	Two Windows for Records Counter; Separate from Police Window; like Livonia Lobby
	<u>FD Public Counter:</u>						0	
	Linear ft. Public Counter (3)			1	12		12	Might be combined with PD Front Desk; depends on layout
							0	
		Subtotal:						116



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Public Safety Building - NEW
BUILDING

Novi, MI
3709.00

Space	Description	Staff		Space Needs			Req'd Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg #		
Public Report Writing Room(s)	Report Writing Room (public side)			1	100		100	Public Side Room only; large enough to watch video arraignments
	Locate Room(s) on secure side			1	100		100	*Front Desk
	Built-in Table and Chairs						0	
	Live Scan in One			1	25		25	
	Subtotal:						225	
Communicating Stair-PUBLIC	Open Stairwell			1	400		400	CONNECT PUBLIC LOBBY ON BOTH FLOORS
	Subtotal:						400	200sf /floor
Community Room/Training/ EOC 100 if shared with Police and Fire; 75 if used by Public and PD only	Training Room			1	1,800	06.02a	1,800	*Lobby
	Movable room divider	no					0	*Public Toilets
	Coffee Bar	x					0	*Table/Chair Storage
							0	*Mat Storage
	Audio/Visual Closet	x					0	*Shared with public
	Seating:							
	w/tables	130					0	
	w/o tables						0	
	Equipment:							Existing Training Room @ PD ~ 52'x34'
	Overhead Projectors	x					0	
	Projector Screens	x					0	
	TV Monitors	x					0	
	Voice/Data Outlets:							
	Perimeter Walls						0	
	Floor Mounted						0	
	Subtotal:						1,800	
Alternate PSAP in Storm Shelter Area	Pre-function Area			1	200		200	Outside training room
							0	
	Subtotal:						200	
Alternate PSAP in Storm Shelter Area	EOC Kitchenette			1	200		200	*Training Room / Community Room
							0	
	Subtotal:						200	
Alternate PSAP in Storm Shelter Area	EOC PSAP Workstation			1	200		200	*Training Room / Community Room
							0	
	Subtotal:						200	

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Space	Description	Staff		Space Needs			Req'd Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg #		
	EOC Toilet			1	77		77	
							0	
	Subtotal:						77	
Breakout Rooms/ Conference Rooms	Conference Room	6-8		2	150	5.06	300	*Training / Community Room
							0	
	Subtotal:						300	
Public Toilet(s)	Public Unisex Toilet			4	77		308	
							0	
	Subtotal:						308	
Training Supplies Storage	Storage Room						0	
	Training Supplies						0	
	Subtotal:						0	
EMS Storage	Storage Room			1	200		200	
	Tables and Chairs						0	
	Subtotal:						200	
Equipment Storage	Storage Room			1	200		200	*Training Room / Community Room
	Stuff						0	
	Subtotal:						200	
CERT Storage	EMS Storage Room			1	100		100	*Training Room / Community Room
							0	
	Subtotal:						100	
Wellness Check Room	CERT Storage			2	100		200	
							0	
	Subtotal:						200	
Net Area							5,681	
20% Internal Circulation Factor							1136	
Subtotal: Public Areas		0	0				6,817	



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Public Safety Building - NEW
BUILDING

Novi, MI
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Space	Description	Staff		Space Needs			Req'd Net	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference pg #	Sq. Ft.	
02. Staff Commons								
Staff Vestibule & Lobby	Vestibule			1	80		80	
	Floor Mat	x					0	
	Prox. Access Control						0	
	Mud Room			1	50		50	
	Staff Lobby			1	100		100	
	Staff Elevator	X					0	See Staff Support Areas
	Open Stair	X					0	see below
	Display Area	X					0	On Wall
	Mailbox						0	
	Drinking Fountain						0	
	Subtotal:						230	
Communicating Stair-Police	Stairwell			1	400		400	OPEN STAIR TO CONNECT BOTH FLOORS
	Subtotal:						400	200sf /floor
Lunch Room / Hub	Lunch/Hub			1	500	7.01b	500	Hub-Zone Configuration with counter top seating
	Kitchenette:						0	
	Refrigerator						0	
	Counter w/ sink						0	
	TV/Monitor						0	
	Vending Machines						0	
	Oven/Stove						0	
	Tables	4					0	
	Chairs	16-20					0	
	TV						0	
	Microwave						0	
	Subtotal:						500	

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Space	Description	Staff		Space Needs			Req'd Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference pg #		
Staff Toilets	Unisex- Two per floor			7	77		539	
							0	
	Subtotal:						539	- One set per floor
Wellness Rooms/ Decompression	Quiet Room			2	100		200	
	Chair						0	
	Sofa						0	
	Fridge							
	Counter w/ sink							
	Subtotal:						200	
Exercise Room	Exercise Room			1	1,200	7.09a or b	1,200	Exposed or 12' Ceiling
SHARED	Universal Gym						0	Possible open to City Employees???
	Secure Storage						0	
	Athletic Flooring						0	
	Exercise Equipment						0	
	Exercise machines						0	
	Treadmills	6					0	
	Free weights						0	
	Subtotal:						1,200	
Open Locker Area	Locker Room						0	*Shower Room
MSP 5-6 10 CADETS	12x24x72 Lockers	5		5	5		25	*Exercise Room
VISITING /	24x24x72 Lockers	20		20	10		200	Includes Cadet Lockers
HOTELING	36x24x72 Lockers	3		0	15		0	
	Changing/Shower Rm	2		2	77		154	
	Separate Gear Bags						0	
	Subtotal:						379	



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Public Safety Building - NEW
BUILDING

Novi, MI
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Space	Description		Staff		Space Needs			Req'd Net Sq. Ft.	Comments / *Adjacencies
			Current	Planned	Qty	Size	Reference pg #		
MEN'S LOCKER ROOM;	Mens Lockers	90			90	15		1,350	*Exercise Room
	36x24x72 Lockers								
	Toilets w/ ADA	4			4	15		60	
	Urinals	4			4	15		60	
	Lavatories	4			4	10		40	
	Showers	4			4	25		100	
	Battery Chargers	X						0	
	Bunk Room(s)							0	
	Separate Gear Bags							0	
	Subtotal:							1,610	
WOMEN'S LOCKER ROOM;	36x24x72 Lockers	30			30	15		450	*Exercise Room
	Toilets w/ ADA	3			3	15		45	
	Lavatories	3			3	19		57	
	Showers	3			3	25		75	
	Battery Chargers							0	
	Bunk Room(s)							0	
	Separate Gear Bags							0	
	Subtotal:							627	
Net Area								5,685	
30% Internal Circulation Factor								1706	
Subtotal: Staff Common Areas			0	0				7,391	

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Public Safety Consultant

Public Safety Building - NEW
BUILDING

Novi, MI
3709.00

Space	Description		Staff		Space Needs			Req'd Net	Comments / *Adjacencies
			Current	Planned	Qty	Size	Reference pg #	Sq. Ft.	
3. Public Safety Administration TO									
BE CENTRAL IN BUILDING									
Public Safety Director/Chief of Police	Private Office		1	1	1	500	3.01	500	*Executive Secretary
	Conf. Table Chairs	6-8						0	
	Guest Chairs	2						0	
	Sofa								
	Four-Shelf Bookcase							0	
	Two-Drawer File Cabinet							0	
	Subtotal:							500	
Assistant Chief of Police	Private Office		1	1	1	225	3.02	225	*Executive Secretary
	Sm. Conf. Table	4						0	*Admin. Conference Room
	Guest Chairs	2						0	
	Four-Shelf Bookcase							0	
	Two-Drawer File Cabinet							0	
	Subtotal:							225	
	PD COMMANDERS	Private Office		2	2	2	180	3.03	360
Guest Chairs		2						0	
Four-Shelf Bookcase								0	
Two-Drawer File Cabinet								0	
Subtotal:								360	
Administrative Assistant Area		Private Office							
	Open Office	1	1	2	2	48		96	included in this space
	Guest Chairs								*Chief of Police
	File Cabinet Area 4 x 3 high lateral files				4	6		24	
	Four-shelf bookcase							0	*Admin. Conference Room
	Two-drawer file							0	*Waiting Area/Entry
	Subtotal:							120	

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Public Safety Building - NEW
BUILDING

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Space	Description	Staff		Space Needs			Req'd Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference pg #		
BUDGET ANALYST	Private Office	1	1	1	180	3.03	180	located in Admin
	Guest Chairs						0	
	Four-Shelf bookcase						0	
	Two-drawer file						0	
	Desk w/ credenza						0	
	Subtotal:						180	
Fire Chief	Private Office	1	1	1	225	3.02	225	*Executive Secretary
	Sm. Conf. Table						0	*Admin. Conference Room
	Conf. Table Chairs						0	
	Guest Chairs						0	
	Four-Shelf Bookcase						0	
	Two-Drawer File Cabinet						0	
	Subtotal:						225	
Assistant Fire Chief	Private Office	1	1	1	180	3.03	180	*Executive Secretary
	Guest Chairs	2					0	
	Four-Shelf Bookcase						0	
	Two-Drawer File Cabinet						0	
	Subtotal:						180	
Fire Marshal	Private Office	1	1	1	180	3.03	180	
	Desk	1					0	*Clerical
	Plan Review Table	1					0	*Conference Room
	Guest chairs	2					0	
	Four-shelf bookcase						0	
	Two-drawer file cabinet						0	
	Subtotal:						180	
Emergency Management Coordinator	Private Office	1	1	1	180	3.03	180	*Executive Secretary
	Guest Chairs	2					0	
	Four-Shelf Bookcase						0	
	Two-Drawer File Cabinet						0	
	Subtotal:						180	
File Room (Police and Fire Together)	File Room			1	150		150	Administrative Ass't Area
	File Cabinets						0	
	Lateral						0	

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Public Safety Consultant

Public Safety Building - NEW
BUILDING

Novi, MI
3709.00

Space	Description		Staff		Space Needs			Req'd Net Sq. Ft.	Comments / *Adjacencies
			Current	Planned	Qty	Size	Reference pg #		
	Vertical							0	
	Worktop							0	
		Subtotal:						150	



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Public Safety Consultant

Public Safety Building - NEW
BUILDING

Novi, MI
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Space	Description		Staff		Space Needs			Req'd Net Sq. Ft.	Comments / *Adjacencies
			Current	Planned	Qty	Size	Reference pg #		
Work Room	Work Room				1	100		100	
	Open shelving							0	In Admin Staff area
	Floor Cabinet							0	
	Wall Cabinet							0	
	Equipment: Copier/Scanner/Fax							0	
	Subtotal:							100	
AdminConference Rm.	Conference Room				1	504	5.02a	504	*Waiting Area/Entry
	Seating for	12						0	*Chief of Police
	Wet Bar								*Executive Secretary
	Hi -Tech- White Bd							0	*Unisex Toilet
	Subtotal:							504	
Admin. Waiting Area / Entry	Waiting Area				1	50		50	
	Guest chairs	4						0	
	Coffee table	1						0	
	Subtotal:							50	
Admin Coat closet	Closet				1	35		35	
	Subtotal:							35	
Admin Supply Closet	Closet				1	67		67	for Give aways
	Subtotal:							67	
Unisex Toilet	Visitor Toilet (ADA accessible)				1	56		56	
	Staff Toilet (ADA accessible)				1	56		56	
	Subtotal:							112	
Net Area								2,988	
30% Internal Circulation Factor								896	
Subtotal: Public Safety Administration			9	10				3,884	

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Space	Description	Staff		Space Needs			Req'd Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference pg #		
4. Records								
ADMIN. LT.	Private Office Desk w/ credenza Guest Chairs File Cabinets Equipment: Computer Subtotal:			1	180		180 0 0 0 0 0 180	*Records Clerk
Records Counter	Public Counter Linear feet five ft. 2 Position Bullet Resistant Public <u>Equipment:</u> Computers Shared Cash safe Subtotal:			0	0		0 0 0 0 0 0 0 0 0	*Public Lobby *Records Clerks TWO WINDOWS; ONE ADA SEE PUBLIC AREAS
Records Clerks	workstations File <u>Equipment:</u> Computer Printer Subtotal:	5	6	6	64		384 0 0 0 384	*Public Lobby



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Space	Description	Staff		Space Needs			Req'd Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference pg #		
Fingerprinting Room	Area 3 chairs and a machine For ink Prints On secure side of Public Lobby			1	80		80	Close to records
							0	
							0	
	Subtotal:						80	
System Administrator (IT Officer)	Private Office Guest Chairs Two-drawer file cabinet Desk (lockable) w/ credenza Work counter surface (for repairs) Software storage <u>Equipment:</u> Computer			1	130	03.05	130	PLEASE CONFIRM OFFICE LOCATION; Comm or Records
							0	
							0	
							0	
							0	
							0	
							0	
	Subtotal:						130	
Work Area	Work Room Open Space <u>Equipment:</u> Multifunction Printer Special Equipment Shredder			1	100		100	included in Clerks area
							0	
							0	
							0	
							0	
	Subtotal:						100	
Office Supply Room	Supply Closet Open Area			1	100		100	included in clerks area
							0	
	Subtotal:						100	

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Redstone Architects, Inc.
Public Safety Consultant

Public Safety Building - NEW
BUILDING

Novi, MI
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Space	Description	Staff		Space Needs			Req'd Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference pg #		
Active Files	Open Area			1	200		200	*Records Clerks two- high density units- 6' wide; currently about 12 4-drawers included in clerks area
	Space Saver Storage						0	
	System						0	
	File Cabinets						0	
	Fingerprint Cards						0	
	Gun Registration						0	
	Accident Reports						0	
	Warrants & add paperwork						0	
	Misc. Files						0	
	Subtotal:						200	
Archives (Records Vault)	Archives Room			1	250		250	high density storage
	File Cabinets						0	
	Storage System:						0	
	Manual						0	
	Subtotal:						250	
Net Area							1,424	
30% Internal Circulation Factor							427	
Subtotal: Records		5	6				1,851	

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Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies	
		Current	Planned	Qty	Size	Reference pg #			
5. Communications (Dispatch) Primary									
Security Vestibule	Vestibule			1	50		50		
	Interlocking Doors						0		
	Subtotal:						50		
Communications Manager	Private Office	x	1	1	225	3.02	225		
	Workstation	x		0	0		0		
	Guest Chairs						0		
	Conference Table	x							
	File cabinet						0		
	Equipment:						0		
	Computer						0		
	Subtotal:						225		
Toilet Room (Unisex)	Toilet Room with Urinal			1	77	7.05b	77	*Communications Operations (but not direct into room)	
							0		
	Subtotal:						77		
Communications Operations	Workstation		14	16	6	100	4.05a	600	
	Console	x					0	Xybex Workstations	
	Raised Floor	yes					0		
	Common Reference Area	x						Center Lighting over each workstation so that each station is individually controlled	
	Manual Kiosk (1 per 4 stations)			1	10		10		
	Backup Radio						0		
	Multifunction Printer	x		1	10		10		
	File Cabinets	x							
	Media / Monitor Wall	x						Back Lot; TV,Fire Responses, Etc	
	Prisoner Monitoring Screens	x							
Subtotal:						620			

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Space	Description		Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
			Current	Planned	Qty	Size	Reference pg #		
Communications Break Room / Kitchen	Break Room				1	160	7.01d Similar	160	*Communications Operations
	TV Area							0	Possible Galley Kitchen
	<u>Kitchenette:</u>								
	Refrigerator	x						0	
	Counter w/ Sink	x						0	
	Range	x						0	
	Stove Top	x						0	
	Microwave	x						0	
	Dining Table	1						0	
	Dining Chairs	4						0	
	Vending Machine							0	
	Dishwasher							0	
	Subtotal:							160	
Private Locker Area	full length Lockers	20			1	150		150	12"- 18" wide for Coats: Changing in Toilet Rooms
	Subtotal:							150	
Lactation / Quiet Room	Room				1	100		100	
	Subtotal:							100	
Open Copier Area	Printer	x			1	100		100	
	Shredder	x						0	
	Office Supplies	x							supplies in cabinets
	Double Length File Cabinets	x							
	Mailboxes	20						0	
	Subtotal:							100	
(Server Room)	Server Room				1	150		150	- One central Server Room for entire building- Accessible but not a part of Communications Suite
	911 Communications Server							0	
	Computer/Keyboard work stand							0	They want separate server room 12'x12' for dispatch
	Subtotal:							150	
Net Area								1,632	
35% Internal Circulation Factor								571	
Subtotal: Communications (Dispatch)			15	17				2,203	



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Space	Description	Staff		Space Needs			Net Req'd	Comments	
		Current	Planned	Qty	Size	Reference Pg #	Sq. Ft.		
6. Detective Bureau									
Detective Sergeant	Private Office		1	1	130		130		
	Guest chairs						0		
	Two-drawer file cabinet						0		
	Desk w/ credenza						0		
	Equipment:								
	Computer						0		
	Subtotal:						130		
Detectives	Private Office		8	12	10	130	3.06	1,300	Lockable desk drawer
	File Cabinets							0	
								0	
								0	
								0	
		Subtotal:						1,300	
SGT. Training and Standards	Private Office		1	1	1	130		130	Reports to Adm. Lt.
	Guest Chairs							0	
	Four-Shelf bookcase							0	
	Two-drawer file							0	
	Desk w/ credenza							0	
		Subtotal:						130	
School Resource Officers	Workstation	2	2	2	130			260	
	Equipment:								
	Computer							0	
	Printer							0	
		Subtotal:						260	

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Space	Description	Staff		Space Needs			Net Req'd Sq. Ft.	Comments
		Current	Planned	Qty	Size	Reference Pg #		
Detectives Storage Room for DUTY BAGS	Storage Room			1	16		16	In the detective suite but not in the office.
	2x2x3deep	12					0	
	Subtotal:						16	
Juvenile Detective INCLUDED ABOVE	Room	1		0	0		0	included above
	Four-drawer file cabinet						0	
	Equipment:							
	Computer						0	
	Printer						0	
	Subtotal:						0	
Conference Room/ TASK FORCE CASE ROOM	Conference Room			2	250	5.02b	500	
	Coat Closet					similar	0	
	Coffee Station						0	
	Storage Closet						0	
	Seating	10-12					0	
	Conference Table						0	
	Credenza						0	
	Flat Screen						0	
	White Board						0	
	Equipment:							
	Projector						0	
	Projection Screen						0	
	TV/DVD						0	
	Subtotal:						500	

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Space	Description	Staff		Space Needs			Net Req'd Sq. Ft.	Comments
		Current	Planned	Qty	Size	Reference Pg #		
Work Area	Work Area			1	80		80	
	Floor Cabinets						0	
	Wall Cabinets						0	
	Coffee Station							
	Equipment:							
	C/S/F machine						0	
	Subtotal:						80	
Huddle Zone	Open area			1	100		100	
							0	
							0	
	Subtotal:						100	
SONIC/DEA(3)/ FBI HOTELING	Workstation	5	5	5	24		120	
	Guest Chairs						0	
	Four-Shelf bookcase						0	
	Two-drawer file						0	
	Desk w/ credenza						0	
	Subtotal:						120	
Secret Service Supervisor Offices	Private Office	2	2	2	130	03.06	260	
	Guest Chairs						0	
	Four-Shelf bookcase						0	
	Two-drawer file						0	
	Desk w/ credenza						0	
	Subtotal:						260	
TASK FORCE WORKSTATIONS	Workstation			16	48	04.04B	768	
	Work table						0	
	Work counter						0	
	Coat Closet						0	
	White Board						0	
	Subtotal:						768	
DIGITAL FORENSIC LAB- IT	Crime Lab Room			1	400		400	Anti-static carpet
	Work counter						0	
	Shelving storage						0	
	Subtotal:						400	

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Space	Description	Staff		Space Needs			Net Req'd Sq. Ft.	Comments	
		Current	Planned	Qty	Size	Reference Pg #			
Interview Suite (s) ADDED									
Interview Rooms	Interview Room	1			1	100		100	Controlled access from public lobby
	Interview Table	1						0	
	Interview Chairs	3						0	
	A/V Recording	x						0	
	Gun Lockers (located outside)	x						0	
	Sound-proof walls and ceiling	x						0	
	Subtotal:							100	
Soft Interview Room	Interview Room	1			1	120		120	*Waiting area
	Interview Table	x						0	
	Interview Chairs	3						0	
	Seat							0	
	Sofa	x						0	
	Coffee Table							0	
	TV							0	
	A/V Recording	x						0	
	Gun Lockers (located outside)	x						0	
	Sound proof walls and ceiling	x						0	
	Subtotal:							120	
Waiting Area	Waiting Area chairs	1			1	80		80	
	Coffee Table							0	
								0	
	Subtotal:							80	
Visitor Toilet (Unisex)	Toilet (ADA Accessible)				1	66		66	
	Subtotal:							66	
Net Area								4,430	
35% Internal Circulation Factor-								1551	
Subtotal: Detective Bureau		19	23					5,981	

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Space	Description	Staff		Space Needs			Req'd Net	Comments / *Adjacencies	
		Current	Planned	Qty	Size	Reference pg #	Sq. Ft.		
7. UNIFORM OPERATIONS									
Patrol Lieutenants A & B Shifts	Private Office		2	4	4	180	3.07a	720	
	File Cabinet						similar	0	
	Conference Area							0	
	Tables 1								
	Chairs 2								
	Closed Shelving								
	Equipment:								
	Computer							0	
	Printer								
	Stand Up Desks							0	
	Subtotal:							720	
Patrol Commander	Private Office		1	1	1	225	3.02	225	*Chief of Police
	Sm. Conf. Table							0	
	Conf. Table Chairs							0	
	Guest Chairs							0	
	Four-Shelf Bookcase							0	
	Two-Drawer File Cabinet							0	
	Desk w/ credenza							0	
	Subtotal:							225	
Patrol Sergeants A & B	Road Patrol Area		8	8	1	500		500	8 workstations
	Workstations 8							0	shared desks
	Work Area							0	
	Shared Conference Table x								
	Bookcase/shelves x								
	File Cabinet x							0	
	Subtotal:							500	
Patrol Officers	Road Patrol		40	50					Each to have document storage
	Subtotal:							0	
Police Cadets	Police Cadets		12	12					
	Subtotal:							0	
Duty Gear Bag Storage	Duty Gear Bag				8	6		48	for patrol sgts - in their office
	Subtotal:							48	
Juvenile Room	Room				1	100		100	Not Lockable
								0	Sight and sound seperated
									next to report writing
	Subtotal:							100	

Space	Description		Staff		Space Needs			Req'd Net Sq. Ft.	Comments / *Adjacencies
			Current	Planned	Qty	Size	Reference pg #		
Work Area / Office Supplies	Work Room				1	80		80	*Shift Lieutenant / Sergeant Offices
	Office Supplies							0	
	Secure Storage Closet							0	
	Floor Cabinets							0	
	Wall Cabinets							0	
	Coffee Bar							0	
								0	
	Subtotal:							80	
Mailboxes	Mailboxes 8.5x11x 3"				1	80		80	In each department area-not in any rooms
	Boxes							0	
	Work Counter							0	
	Location:							0	
	Central Open area							0	
	Secure Office area							0	
	Subtotal:							80	
Briefing Room	Briefing Room	10-15			1	500	6.04a similar	500	
	Counter surface w/ cabinets							0	
	Tables	x						0	
	Chairs	x						0	
	Desk/Lectern							0	
	Voice/Data/Power:							0	
	Perimeter Walls							0	
	Floor Mounted							0	
	Equipment:							0	
	A/V Cabinet							0	
	Full Electronics							0	
	Monitor							0	
	Flat screen for CAD session							0	
	White Board							0	
	Smart Board							0	
	Subtotal:							500	



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Space	Description	Staff		Space Needs			Req'd Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference pg #		
Equipment Storage	Room			1	80		80	
	Shelving						0	
	Charging						0	
	Subtotal:						80	
SWAT READY ROOM	Room			1	274		274	near swat vehicle
	Open Lockers behind swipe door	12						
	Huddle Table							
	Changing Rooms	4					0	
							0	
	Subtotal:						274	
Patrol Storage/ Riot Gear				1	400		400	shelving: PV, AED, Flares,
							0	crowd control
	Subtotal:						400	
Report Writing Room	Report writing room			6	35		210	*Staff Lobby
	Carrels						0	*Briefing Room
	Computer Terminals						0	*Shift Lieutenant / Sgt Offices
	Docking Stations						0	
	Shared Printer			1	24		24	
	Desk						0	
	Work Surface			1	12		12	For evidence layout
	Bookshelves						0	
	Subtotal:						246	
Duty Gear Bags	Storage Room			9	12		108	Need space for duty gear and riot gear
	shelving	73					0	All sworn officers need cubbie
							0	
							0	
	Subtotal:						108	

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Space	Description		Staff		Space Needs			Req'd Net Sq. Ft.	Comments / *Adjacencies
			Current	Planned	Qty	Size	Reference pg #		
Armory SMALL	Armory				1	150		150	Rifle rack
	Extra weapons (guns and rifles)							0	cabinet for hand guns
	Professional gun discharge box							0	tasers - extra
	Subtotal:							150	
Uniform Storage/ Quartermaster	Storage				1	100		100	
	Open Shleiving							0	
	Returned Uniforms							0	
	Returned Equipment							0	
	Subtotal:							100	
Kennel (two dogs now; four in future)	Kennel				1	100		100	One dog in dog run at time
	Dog Cages	2						0	
	training equipment/suite								
	Air-conditioned space							0	
	Subtotal:							100	
K-9 Officer Storage/Dog Run	Kennel				1	100		100	Outdoor
								0	
	Air-conditioned space							0	
	Subtotal:							100	
Net Area								3,811	
30% Internal Circulation Factor								1143	
Subtotal: Road Patrol			63	75				4,954	

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Space	Description	Staff			Space Needs			Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned		Qty	Size	Reference pg #		
8. Holding & Sallyport									
Sallyport	Sallyport				1	2,000		2,000	prisoner van or abmulance
	Enclosed Space							0	
	Vehicles	4						0	
	Subtotal:							2,000	
Prisoner Intake Vestibule	Vestibule	1			1	80		80	* Sally Port
	Gun Lockers - Outside							0	* Prisoner processing area
	Gun Lockers - Inside							0	
	Interlocking Doors							0	
	Subtotal:							80	
Interrogation Rooms/Video Arrangement	Interrogation Room	1			1	80		80	
	Secure Table							0	
	Secure Stools							0	
	Subtotal:							80	

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Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference pg #		
Prisoner Processing Area	Room			1	400		400	* Command Desk
	Pre-Processing holding tank						0	
	Toilet & Shower w/ privacy	x					0	
	Secure Counter	x					0	
	Secure Cuff Bench	4					0	
	Hose Bib	x					0	
	Floor Drain	x					0	
	Lockers 18x18	50						
	Equipment:							
	Log Book terminal (secure)	x					0	
	Live Scan palm/prints	x					0	
	Printer	3					0	
	Distress button	x					0	
	CLEMIS Camera (mug shots)						0	
	Subtotal:						400	
Strip Search/ Shower	Decon Shower			1	80		80	*off processing
	Subtotal:						0	*next to Sally Port
Internal Vestibule Man Trap	Vestibule			1	80		80	
	Part of internal circulation						0	
Staff Toilet	Unisex Room			1	80		80	
	Subtotal:						80	
Holding Cells	Cells (1 ADA)			1	100		100	
	Single Occupancy	x		9	80		720	
	8"H X 27"W Concrete Curb						0	
	Lavatory/Toilet Fixture	x					0	
	36" -40"H Sloping privacy wall	x					0	
	Floor Drain	x					0	
	Subtotal:						820	

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Space	Description		Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
			Current	Planned	Qty	Size	Reference pg #		
Isolation Cell	Cell (ADA)	x			2	100		200	Note:
	Single Occupancy	x						0	For intoxicated / violent prisoners
	Padded Walls	x			2	80		160	
	8"H X 27"W Concrete Curb	x						0	
	Lavatory/Toilet Fixture	x						0	
	36" -40"H Sloping Privacy Wall	x						0	
	Floor Drain	x						0	
	Subtotal:							360	
Kitchen / Meal Preparation	Kitchen				1	100		100	fridge
	Pantry							0	chest freezer
	Kitchen:								
	Refrigerator/Freezer							0	
	Counter w/ sink							0	
	Microwave							0	
	Floor & Wall Cabinet							0	
	Subtotal:							100	
Janitor's Closet	Closet				1	60		60	
	Mop Sink							0	
	Floor Drain							0	
	Subtotal:							60	
Supplies Storage	Storage Room				1	80		80	
	Open shelving							0	
	Subtotal:							80	
Net Area								4,220	
50% Internal Circulation Factor								2110	
Subtotal: Holding & SallyPort			0	0				6,330	

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Space	Description	Staff		Space Needs			Req'd Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg #		
9. Property (under investigations)								
Evidence	Prep Area			1	200		200	
Preparation Area	Work Counter						0	Needs counter space
	(bagging & tagging)						0	
	Sink w/ eyewash						0	
	Floor & Wall Cabinet						0	
	Equipment:							
	Computer						0	
	Printer						0	
	Video Monitoring						0	
	Subtotal:						200	
Evidence Two-way	Locker Space			3	36		108	* Evidence Prep Area
Lockers	3' Wide modular locker units						0	* Property Officer
	Compartment number & sizes						0	
	Long gun/rifle						0	
	Large Bulk item						0	
	Medium size						0	
	Small size						0	
	Refrigerated unit	No					0	
	Two-way lockers						0	
	Drop Box (for envelopes etc.)						0	
	Keyless access control						0	
Subtotal:						108		
Property Officer	Private Office			1	120		120	*Evidence Storage Room
	Workstation						0	
	File Cabinets						0	*Evidence Processing
	Equipment:							*Evidence Lockers
	Computer						0	
	Printer						0	
	Subtotal:						120	



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Space	Description	Staff		Space Needs			Req'd Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg #		
Supplies Storage	Storage Room			1	80		80	*Evidence Processing
	Lockable Cabinets						0	
	Open Shelving						0	*Property Officer
	Evidence Supplies						0	
	Subtotal:						80	
Drying Room	Drying Room			1	100		100	*Property officer used in evidence storage
	Drying Enclosure						0	
	Hose bib						0	
	Floor Drain (filtered separately)						0	
	Vented Separately						0	
	Subtotal:						100	
Evidence Storage Room	Storage Room			1	900		900	
	High Density Storage System	x					0	
	Weapon Storage			1	200		200	
	Wall Space						0	
	Cabinets						0	
	Drug Storage (room)	x		1	100		100	
	Cash Safe	x					0	
	Humidity-Control Refrigerator	x					0	
	Work Area (desk & Chair)						0	
	Open Isle Shelving						0	
	Return Lockers (for checking in/out evidence used in trial)						0	
	Vented Separately	x					0	
	Subtotal:						1,200	
	Forensic Garage			1	700		700	
	Subtotal:						700	
Bulk Evidence Storage	Storage Room			1	500		500	
	Subtotal:						500	
Evidence Release	Evidence Release						0	Possible side door to release
	Subtotal:						0	
Net Area							3,008	
20% Internal Circulation Factor							602	
Subtotal: Property		0	0				3,610	

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Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg #		
10. Training								
Training Officer	Private Office		1	1	130	3.07a	130	*Training Room
	Workstations						0	
	Guest Chairs						0	*Police Administration
	File Cabinets						0	
	Equipment: Computer						0	
	Subtotal:						130	
Training Files	File Room			0	0		0	Files in Administration Suite
	Cash Safe						0	
	Subtotal:						0	
Individual Training Study Carrels	Area for Carrels						0	*Training Officers
	Small Study Carrels for self-study	4		4	6		24	Could be near Dispatch or near Report Writing Area
	Subtotal:						24	
Net Area							154	
25% Internal Circulation Factor							39	
Subtotal: Training		1	1				193	

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Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg #		
11. Fleet Maintenance Garage								
Fleet Maintenance / Garage	Garage						0	*Evidence Storage Room
	Bays	5		6	600		3,600	*Evidence Processing Area
	Vehicle lift system	x					0	
	Air-conditioned Space						0	
	Electrical for welders and equipment	x					0	
	Air compressed air plumbed throughout shop	x					0	
	Tire air / balance	x						
	Hazmat cabinet - lockable	x						
	Plenty of LED lights	x					0	
	Oil Drum	x						
	Workbench for each bay	x						
	Tire Storage							
	Drums of cleaning juice							
	Clean air filter/dirty air evacuation system						0	
		Subtotal:						3,600
Toilet	Area			1	56		56	
	Subtotal:						56	

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Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg #		
Eye wash/shower	Area			1	10		10	
	Subtotal:						10	
Maintenance Office	Office	1	2	1	300		300	
	Subtotal:						300	
Parts Room				1	500		500	*Off of security Staff Parking
							0	
							0	
							0	
	Subtotal:						500	
Vehicle Storage								
SWAT Van								
Patrol Bikes EXISTING- IN GARAGE AREA	Area	10		10	15		150	Hang on Wall
	Subtotal:						150	
Motorcycles	Area	2		2	10		20	*Off of security Staff Parking
	Subtotal:						20	
Bulk Evidence Storage - Fence in Sally Port	Storage Room						0	*Off of security Staff Parking
	Large-item Property						0	
	Found property						0	
	Bicycles						0	
	Misc. Large items						0	
	Subtotal:						0	
Net Area							4,636	
20% Internal Circulation Factor							927	
Subtotal: Miscellaneous Spaces		1	2				5,563	



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Space	Description		Staff		Space Needs			Req'd Net Sq. Ft.	Comments / *Adjacencies	
			Current	Planned	Qty	Size	Reference Pg #			
12. Building Support Areas										
Public Elevator	Elevator Space				1	200		200	*Public Lobby	
	Floor stops for public	x						0	*Controlled access	
								0		
		Subtotal:						200		
Elevator Mech. Room	Room				1	100		100	*Elevator	
		Subtotal:						100		
Staff Elevator	Elevator Space	x			1	200		200	*Public Lobby	
	Floor stops for staff							0	*Controlled access	
		Subtotal:						200		
Elevator Mech. Room	Room				1	100		100	*Elevator	
		Subtotal:						100		
Mechanical Room	Room				1	500		500	for main building	
		Subtotal:						500		
Electrical Room	Room				1	300		300	for main building	
		Subtotal:						300		
Building Supply Storage	Room				1	150		150		
	Accessible Ceiling Space							0		
	Climate-Controlled							0		
	Open shelves							0		
		Subtotal:						150		

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Redstone Architects, Inc.
Public Safety Consultant

Public Safety Building - NEW
BUILDING

Novi, MI
3709.00

Space	Description	Staff		Space Needs			Req'd Net Sq. Ft.	Comments / *Adjacencies	
		Current	Planned	Qty	Size	Reference Pg #			
Event Storage Room	Room			1	100		100	Out of sight	
	Accessible Ceiling Space						0		
	Climate-Controlled						0		
	Open shelves						0		
	Subtotal:						100		
IT Closets	Room			2	100		200	Including low-voltage	
	Subtotal:						200	1 per floor	
Server Room	Room			0	250		0	See Communicatons	
	Workbench for IT Repairs							- One central Server Room for entire building-	
	Equipment:							Accessible but not a part of	
	Electronics						0	Communications Suite	
	Radio						0		
	Computer Servers						0		
	Subtotal:						0		
Custodian's Storage	Storage Room			1	200		200	*Police Staff Lobby	
	Misc. Item Storage						0		
	Laundry tub								
	Double-door entryway						0		
	Subtotal:						200		

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Redstone Architects, Inc.
Public Safety Consultant

Public Safety Building - NEW
BUILDING

Novi, MI
3709.00

Space	Description	Staff		Space Needs			Req'd Net Sq. Ft.	Comments / *Adjacencies	
		Current	Planned	Qty	Size	Reference Pg #			
Janitor's Closet	Closet			2	50		100	*Toilets	
	Mop Sink						0	Note:	
	Floor Drain						0	1 per floor	
	Shelving for Supplies						0		
	Subtotal:						100		
Computer Maintenance Area	Area						0		
	Computer Maintenance						0		
	Subtotal:						0		
Fire Exit Stairs	Stairwell			2	400		800	Note: Min. No. of fire exit	
	Stairs and Basement							stairs required by code	
	Subtotal:						800		
Net Area							2,950		
20% Internal Circulation Factor							590		
Subtotal: Building Support Areas		0	0				3,540		

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Redstone Architects, Inc.
Public Safety Consultant

Public Safety Building - NEW
BUILDING

Novi, MI
3709.00

Parking Requirements:		Spaces
Peak demand for secure parking		
Secure Impound parking needs		0
Other outdoor parkin		
Staff Parking		0
Trailer Parking (Inside)		
Trailer Parking (Outside)		
Public (Visitor) Parking		12
Total Spaces		0



Redstone Architects, Inc.

Public Safety Building Fire Station 1
Space Needs Assessment

Novi PSB
Project No. 3709.00

Fire Station 1 Operations Building Area Calculations	Current Staff	Planned Staff	Area Required
1. Public Spaces	0	0	252
2. Fire Administration	1	1	387
3. Cold Zone Suppression Operations	1	1	675
4. Cold Zone Staff Commons	6	20	4,101
5. Warm Zone	0	0	2,431
6. Hot Zone Apparatus Bay (Four Bays)	0	0	8,084
7. Optional Mezzanine/Basement Area	0	0	0
8. Physical Training Tower	0	0	0
9. Building Support Area	0	0	540
Total	8	22	
Subtotal			16,472
15% Gross-Up Factor (Common circulation, structure, shafts, etc.) (Use additional 5% Gross-Up Factor for Renovation)			2,471
Total Station #1 Building Area			18,942

9/27/2023

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Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg#		
1. Public Areas								
Public Vestibule & Lobby	Lobby			1	100		100	Locked and Buzz in after hours
							0	
	Subtotal:						100	
Front Counter	Counter			1	10		10	
							10	
	Subtotal:						10	
Public Unisex Toilet	Unisex toilet			1	77		77	
							0	
	Subtotal:						77	
Net Area							187	
35% Internal Circulation Factor							65	
Subtotal: Public Areas		0	0				252	



Redstone Architects, Inc.

Public Safety Building Fire Station 1
Space Needs AssessmentNovi PSB
Project No. 3709.00

Space	Description		Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
			Current	Planned	Qty	Size	Reference Pg#		
2. Fire AdministrationWITH PUBLIC SAFETY ADMINSTRATON									
Fire Inspector	Private Office		1	1	1	130	03.06	130	
	Desk w/ credenza							0	
	Guest Chairs							0	
	Four-shelf bookcase							0	
	Two-drawer file cabinet							0	
		Subtotal:						130	
Work Area	Counter				1	80		80	
	Storage								
	Multifunction printer								
	Coffee Bar							0	
		Subtotal:						80	
Staff Unisex Toilet	Unisex Staff Toilet				1	77		77	
	ADA								
	w/ Urinal								
		Subtotal:						77	
Net Area								287	
35% Internal Circulation Factor								100	
Subtotal: Fire Administration			1	1				387	

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Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies	
		Current	Planned	Qty	Size	Reference Pg #			
3.Cold Zone Suppression Operations									
Captain	Private Office		1	1	1	130		130	
	Sleep Room:				1	100		100	
	Bed							0	
	Locker 2' X 3' X 6'							0	
	Subtotal:							230	
Watch Desk	Office				1	270		270	*App Bay
	Report writing Carrels	4						0	*Day Room
	File Cabinets							0	
	Chairs	4							
	Radio Equipment							0	
	Subtotal:							270	
Net Area								500	
35% Internal Circulation Factor								175	
Subtotal: Cold Zone Suppression Operations		1	1					675	



Redstone Architects, Inc.

Public Safety Building Fire Station 1
Space Needs AssessmentNovi PSB
Project No. 3709.00

Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg #		
4.Cold Zone Spaces								
Staff Vestibule & Lobby	Vestibule			1	80		80	
	Lobby			1	100		100	
	Mud Room						0	
	Staff Elevator						0	
	Open Stair						0	
	Display Area						0	
	Mailbox						0	
	Drinking Fountain						0	
	Floor Mat						0	
	Prox. Access Control						0	
	Subtotal:						180	
Station 1 firefighters			4	18				
Firefighters' Sleep Rooms	Private Room 6/shift; shared by two shifts				6	110	660	to accommodate up to 6/shift: Captain has own sleeproom on duty; included in count above
	POC		2	2				
	Bed						0	
	Subtotal:						660	
Wellness Room	Private Room			1	120		120	
	Future Sleep Rms							
	Training area						0	
							0	
							0	
	Subtotal:						120	
Fire Simulator Room	Dedicated Room			1	200		200	
	Driving Simulator							
	Subtotal:						200	
Locker Alcove (additional lockers)	Locker Alcove			1	240		240	
	Locker 4'x2'x6'	10					0	
							0	
	Subtotal:						240	

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Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg #		
Shower Rooms	Shower Room			3	77		231	Cold Zone
	Shower Room (ADA)						0	
	All to include:							
	Bench	x					0	*Locker Alcove
	Toilet	x					0	
	Sink	x					0	
	Shower	x					0	
	Subtotal:						231	
Day Room	Day Room						0	*Kitchen
	Chairs	8		1	250		250	*Dining Room
	Telephone						0	
	TV						0	
	Subtotal:						250	
Exercise Room	Exercise Room			1	500	07.09C	500	
	Subtotal:						500	
Kitchen	Kitchen			1	450		450	*Day Room
	Food Pantry	3					0	*Dining Room
	Cabinets						0	* Access to Patio
	Countertop w/ sink						0	Counter w/ stools in kitchen
	Commercial-grade Microwave	1					0	
	Commercial Range	1					0	6 burners
	Commercial Hood w/ fire suppression	1					0	
	Dishwasher	1					0	
	Commercial Freezer	1					0	
	Commercial Freezer	1					0	
	Commercial Refrigerator							
	Double Door	1						
	Subtotal:						450	
Dining Room	Dining Room			1	250		250	*Kitchen
	Table - size of table						0	
	Chairs	10					0	
							0	
	Subtotal:						250	
Custodial Storage	Area			1	80		80	
	Metal shelves						0	
	Subtotal:						80	
Laundry Room	Room			1	120		120	Wash/Dry large enough for bedding
	Residential Washer							
	Residential Dryer							
	Wash tub							
	Base Cabinets							
	Wall Cabinets						0	
	Subtotal:						120	
Net Area							3,281	
25% Internal Circulation Factor							820	
Subtotal: Cold Zone Staff		6	20				4,101	

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Redstone Architects, Inc.

Public Safety Building Fire Station 1
Space Needs AssessmentNovi PSB
Project No. 3709.00

Space	Description		Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
			Current	Planned	Qty	Size	Reference Pg #		
5. Warm Zone									
Personal Decon Room	Warm Zone Room				1	500		500	
	18" stackable lockers	25						0	
	Shower Rooms	2							
	Stackable Washer/ Dryer (contaminated clothes)	1							
	Toilet Room	2							
	Dry Decon Cabinet	2 person							
	Subtotal:							500	
Turn Out Gear Room	Gear Room				1	700		700	*Apparatus Bay
	Mesh Open Racks (3'x2')	40							*Decon Room 2 sets of gear per Fire Fighter
								0	
	Subtotal:							700	
Laundry and Equipment Decon	Positive pressure Room				1	400		400	*Apparatus Bay
	Stackable Residential Washer & Dryer (Rags)	x						0	
	Laundry Tub	x						0	
	Shelving (Soap and Cleaning Supplies)	x						0	
	Mop Sink	x						0	
	Wash/Extract (60lb)	x						0	
	3 Tub Sink (SS)	x							
	Eye Wash	x						0	
	Gear Dryer	x							
	Mask/Tank washer	x							
		Subtotal:							400
EMS Supplies/Storage Secure Storage	Area shelving				1	150		150	*Apparatus Bay
	Sink for future							0	
	Refrigerator small							0	
	Counter space							0	
	Subtotal:							150	
Hot/Warm Zone Transition vestibule	Area				1	120		120	*Apparatus Bay
	Storage Space w/ Locking Fence							0	
	Sink for future							0	
								0	
	Subtotal:							120	
Net Area								1,870	
30% Internal Circulation Factor								561	
Subtotal: Staff Commons			0	0				2,431	

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Space	Description		Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies	
			Current	Planned	Qty	Size	Reference Pg #			
6. Apparatus Bay (Hot Zone)										
Apparatus Bay (18'x65') Single deep (18'x80') double deep	Apparatus Bay	18x65			4	1,440	12.06 sim	5,760	4 Pull Through Bays @ Station 1	
	14'x14' Bi-fold							0	4 fold in front and sectional in back	
	Apparatus	Length								
	Engine 5	30' 8"			1			0		
	New Engine	34'								
	Tower 1									
	48'6"L x 12'11"W x 11'6"H	48' 6"			1			0		
	Squad 1	26'			1			0		
	519 Command	18'								
	MEP									
	Space Ventilation							0		
	Vehicle Exhaust									
	Connection							0		
	2" Fill & Washing									
	Connection							0		
	Compressed Air Lines over each bay							0		
	Hose Bibs & Reels							0		
	Oil Interceptor							0		
	Trench Drain							0		
	Infrared Linear Ceiling							0		
	Radiant Heat Floor									
	Radiant Heat									
	Approach									
		Subtotal:							5,760	
	Hose Drying and Storage	Area				1	120		120	*Apparatus Bay
Dehumidification Room								0		
Storage Racks for Hoses								0		
Exhaust Fan								0		
Hose Washer					1	120		120		
Floor Drain								0		
Subtotal:								240		



Redstone Architects, Inc.

Public Safety Building Fire Station 1
Space Needs Assessment

Novi PSB
Project No. 3709.00

Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg #		
Toilet	Unisex Toilet			1	77		77	*Apparatus Bay
							0	
	Subtotal:						77	
SCBA Maintenance	Clean Room			1	160		160	*Apparatus Bay
							0	
	Subtotal:						160	
SCBA Cascade Room	Room			1	200		200	*Apparatus Bay
	Oxygen Filling Station						0	
	Oxygen Bottles Storage						0	
	Air Bottles Storage						0	
	Explosion proof container						0	
	Subtotal:						200	
Parts/shop	Shop			1	300		300	*Apparatus Bay
	Station Compressor						0	
	Fire Cabinet						0	
	Subtotal:						300	
Net Area							6,737	
20% Internal Circulation Factor							1347	
Subtotal: Apparatus Bay		0	0				8,084	

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Redstone Architects, Inc.

Public Safety Building Fire Station 1
Space Needs Assessment

Novi PSB
Project No. 3709.00

Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg #		
7. Optional Mezzanine Area								
Mezzanine Area		Subtotal:					0	*Apparatus Bay
								0
Net Areas							0	
Circulation Factor							0	
Subtotal: Optional Mezzanine/Basement Area			0	0			0	

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Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg #		
8. Physical Training Tower								
Training Tower	Optional						0	Separate Facility
		Subtotal:					0	
Live Burn Tower	Optional						0	Separate Facility
		Subtotal:					0	
Net Areas							0	
25% Internal Circulation Factor							0	
Subtotal: Physical Training Tower		0	0				0	

Redstone Architects, Inc.

Public Safety Building Fire Station 1
Space Needs Assessment

Novi PSB
Project No. 3709.00

Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg #		
9. Building Support Areas								
Mechanical Room	Room			1			250	
	Subtotal:						250	
Electrical/Server Room	Room			1			200	
	Subtotal:						200	
Net Area							450	
20% Internal Circulation Factor							90	
Subtotal: Building Support Areas		0	0				540	

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Redstone Architects, Inc.

Public Safety Building Fire Station 1
Space Needs Assessment

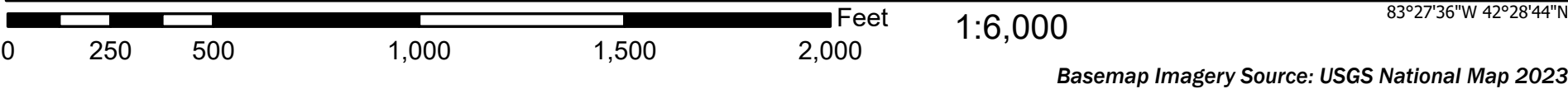
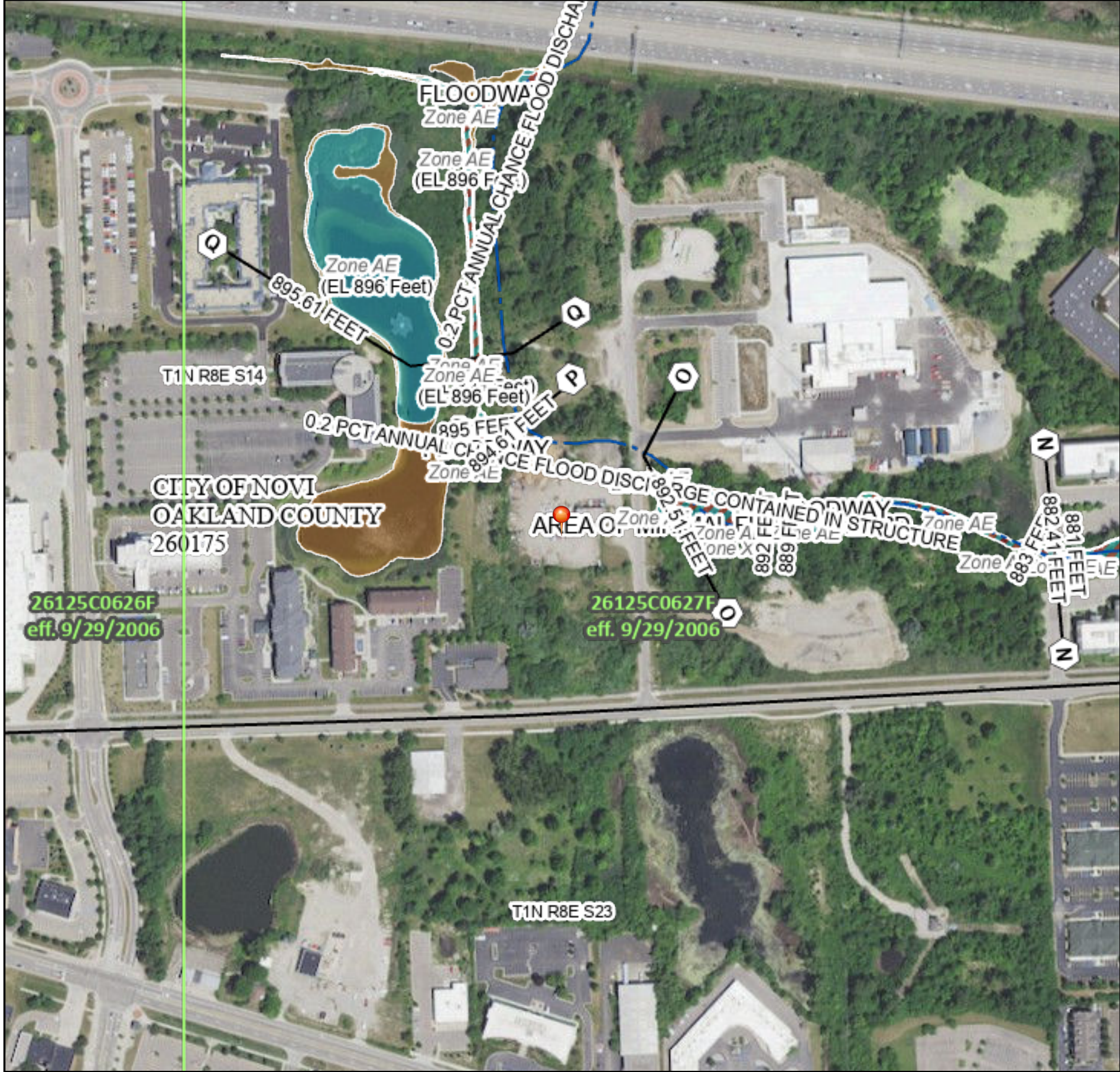
Novi PSB
Project No. 3709.00

Parking Requirements:		Spaces
Other outdoor parking		
Staff Parking		20
Public (Visitor) Parking		none
Total Spaces		20

National Flood Hazard Layer FIRMette



83°28'14"W 42°29'10"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS

Without Base Flood Elevation (BFE)
Zone A, V, A99

With BFE or Depth *Zone AE, AO, AH, VE, AR*

Regulatory Floodway

0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*

Future Conditions 1% Annual Chance Flood Hazard *Zone X*

Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*

Area with Flood Risk due to Levee *Zone D*

OTHER AREAS OF FLOOD HAZARD

NO SCREEN Area of Minimal Flood Hazard *Zone X*

Effective LOMRs

Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES

Channel, Culvert, or Storm Sewer

Levee, Dike, or Floodwall

OTHER FEATURES

20.2 Cross Sections with 1% Annual Chance Water Surface Elevation

17.5 Coastal Transect

Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

MAP PANELS

Digital Data Available

No Digital Data Available

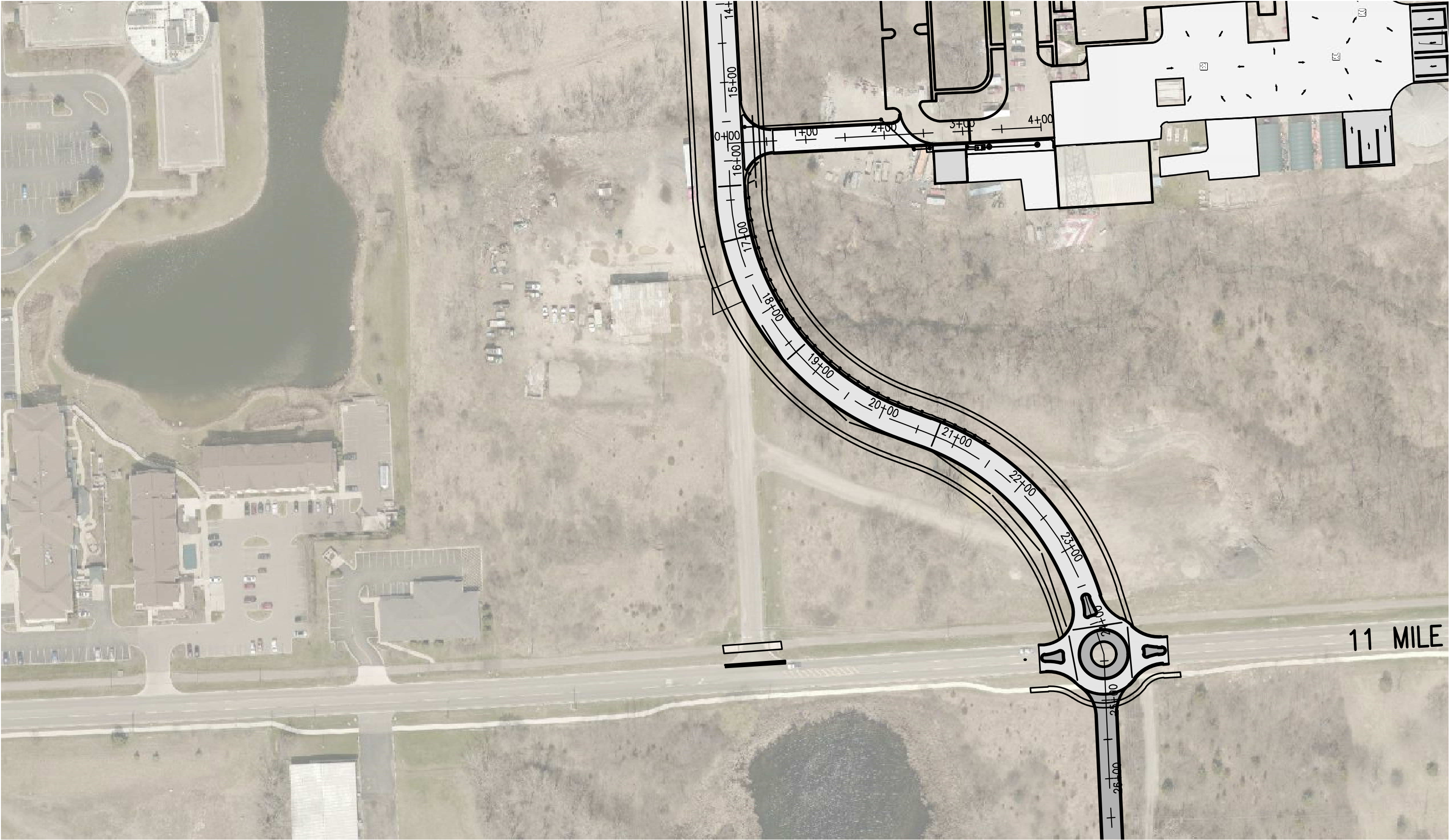
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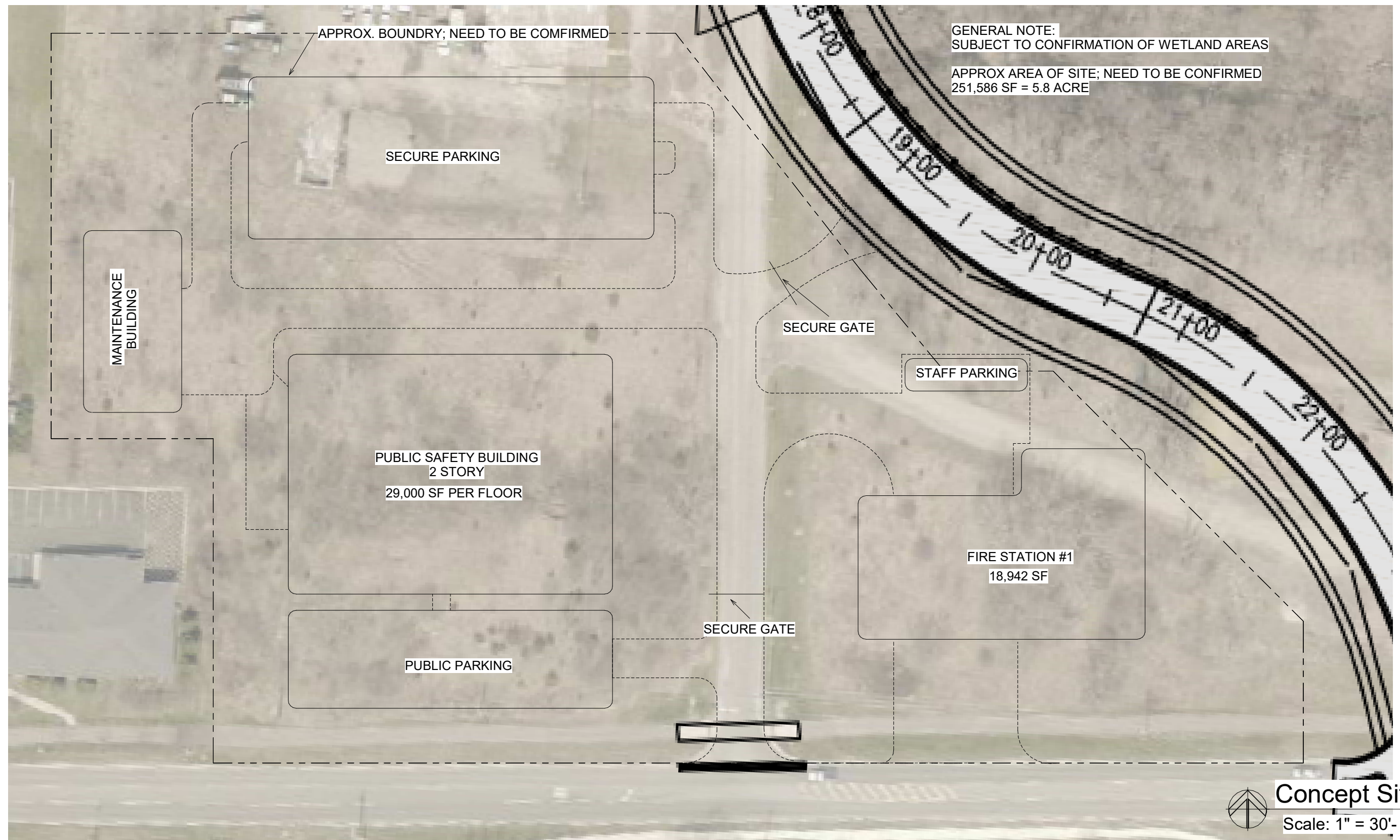
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **8/16/2023 at 2:21 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

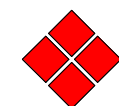




BLOCK DIAGRAM CONCEPT

September 28, 2023

City of Novi
Public Safety Building



Redstone Architects, Inc.
Law Enforcement - Justice - Public Safety - Municipal

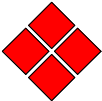


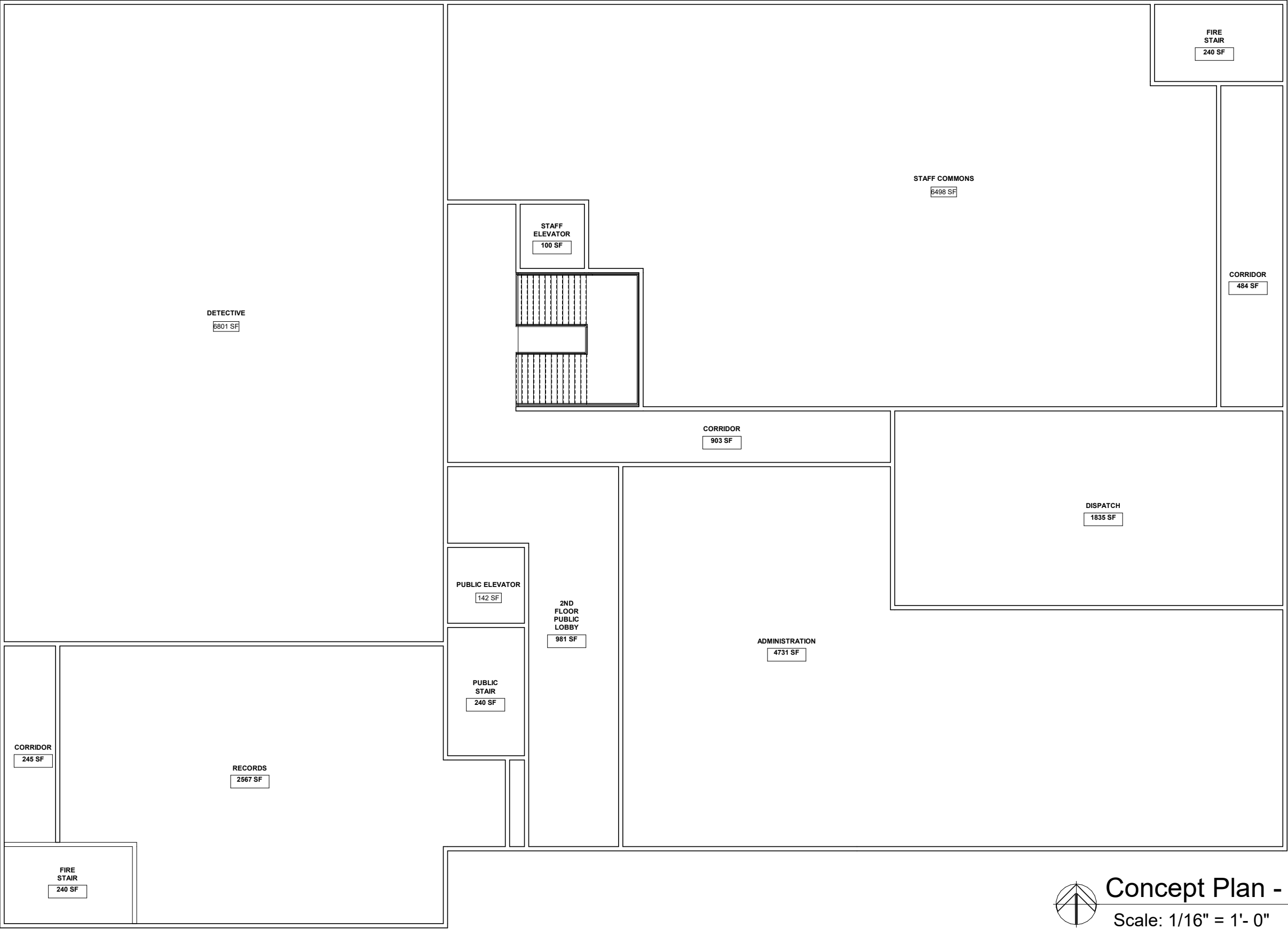
Concept Plan - Level 1

Scale: 1/16" = 1'- 0"

BLOCK DIAGRAM CONCEPT

September 28, 2023



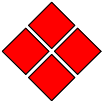


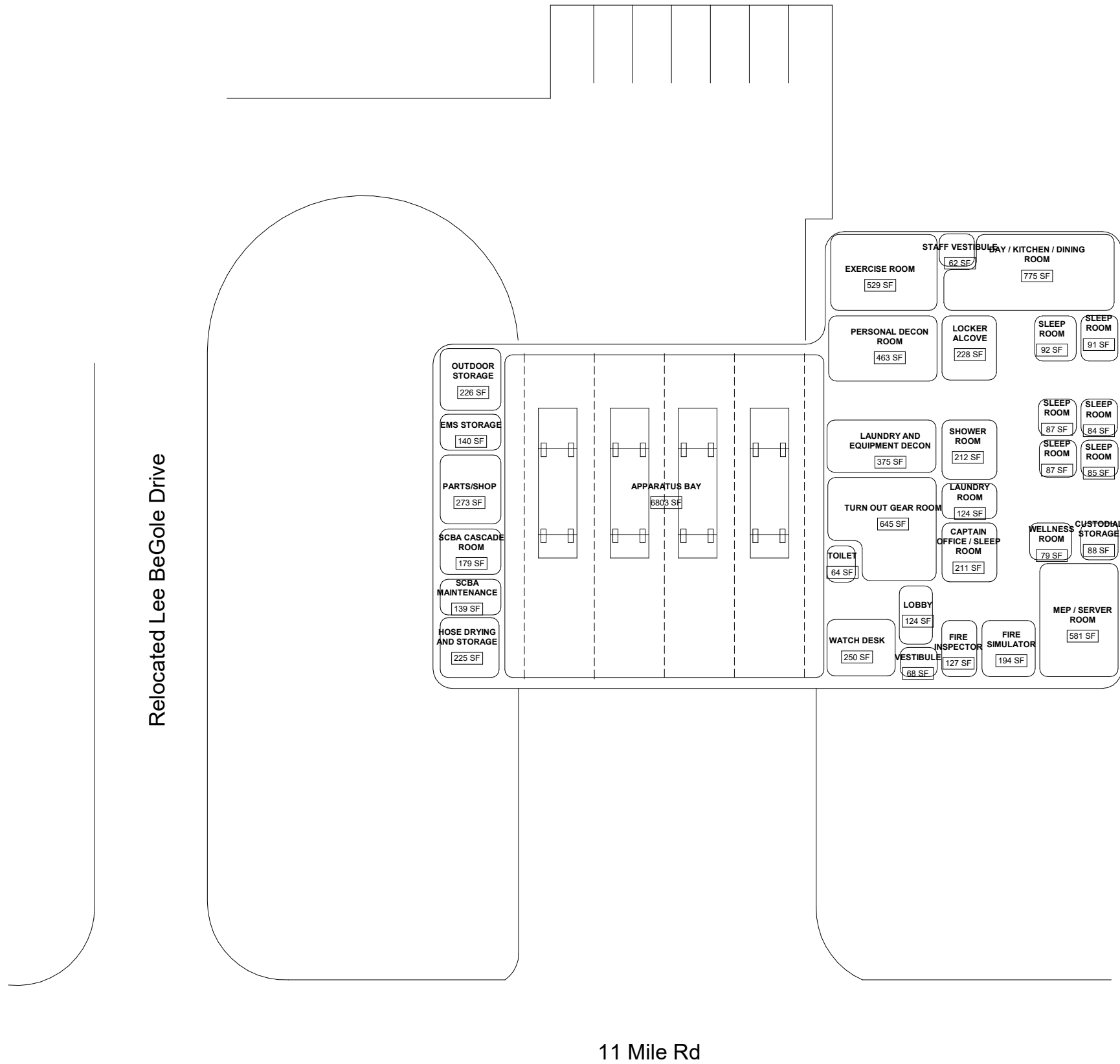
Concept Plan - Level 2

Scale: 1/16" = 1'- 0"

BLOCK DIAGRAM CONCEPT

September 28, 2023





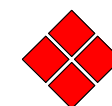
Concept Plan - Fire Station

Scale: 1/16" = 1'- 0"

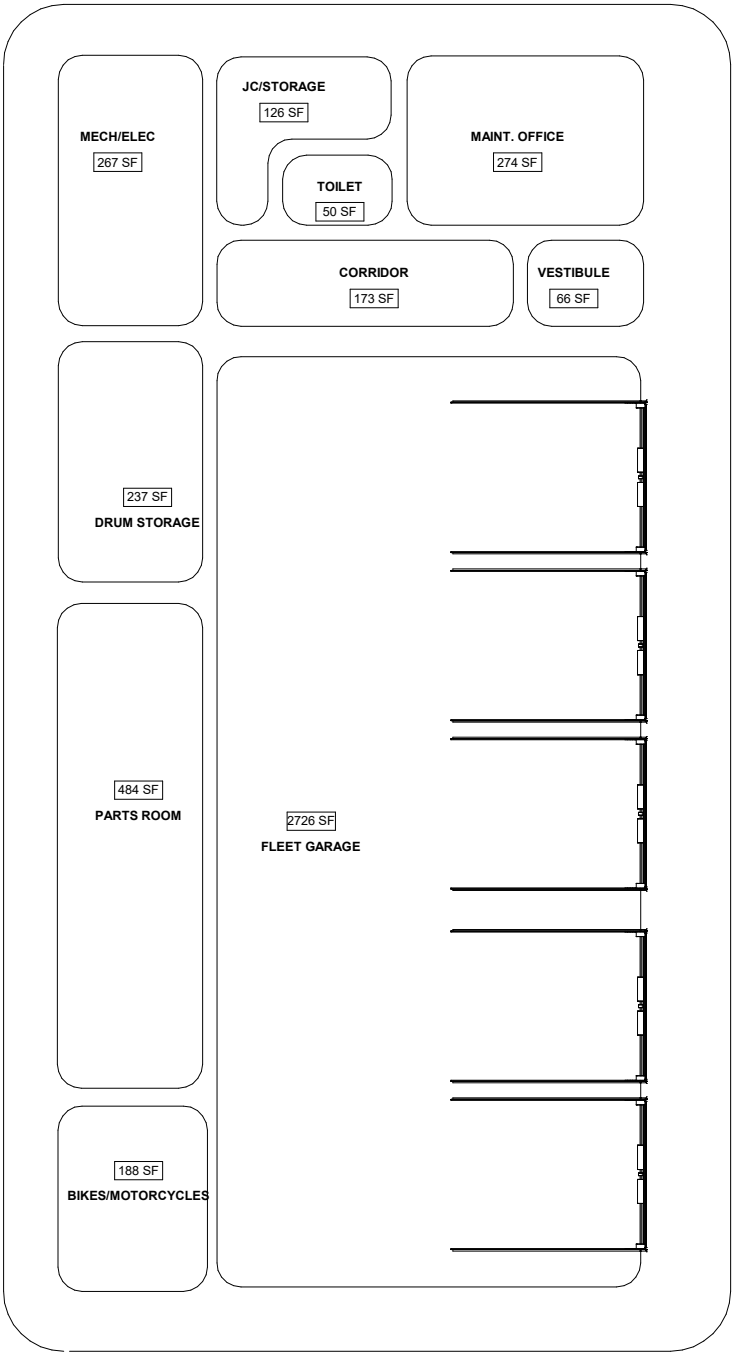
BLOCK DIAGRAM CONCEPT

September 28, 2023

City of Novi
Public Safety Building - Fire Station



Redstone Architects, Inc.
Law Enforcement - Justice - Public Safety - Municipal



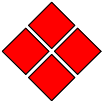
Concept Plan - Fleet Maintenance Garage

Scale: 1/8" = 1'- 0"

BLOCK DIAGRAM CONCEPT

September 28, 2023

City of Novi
Public Safety Building



Redstone Architects, Inc.
Law Enforcement - Justice - Public Safety - Municipal



Redstone Architects Inc.

SECTION 3 FIRE STATION #2

**SPACE NEEDS ASSESMENT
BLOCK DIAGRAM CONCEPT
ONE STORY
TWO STORY**



Redstone Architects, Inc.

Fire Station #2 and #3 Program
Space Needs Assessment

Building Area Calculations	Current Staff	Planned Staff	Area Required
1. Public Spaces	0	0	270
3. CZ- Suppression Operations	1	1	702
4. CZ- Living	10	10	3,696
5. Warm Zone	0	0	1,924
6. Apparatus Bay (Hot Zone)	0	0	5,396
7. Building Support Area	0	0	696
Total	11	11	
Subtotal			12,685
15% Gross-Up Factor (Common circulation, structure, shafts, etc.) (Use additional 5% Gross-Up Factor for Renovation)			1,903
Total Main Building Area			14,587

Redstone Architects, Inc.

Fire Station #2 #3 Program
Space Needs Assessment

Novi MI
Project No. 3709.00

Space	Description		Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
			Current	Planned	Qty	Size	Reference Pg#		
1. Public Areas									
Public Vestibule & Lobby	Vestibule				1	100		100	baby can be dropped off in drop off in Lobby
	Lobby				1	100		100	
	Subtotal:							200	
Front Window (no counter)	Counter							0	Window to Command Desk (sim to existing Station 2)
	Subtotal:							0	
Blood Draw/Pressure Check	Area in Lobby				1				
	Subtotal:							0	
Net Area								200	
35% Internal Circulation Factor								70	
Subtotal: Public Areas			0	0				270	

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Redstone Architects, Inc.

Fire Station #2 #3 Program
Space Needs AssessmentNovi MI
Project No. 3709.00

Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies	
		Current	Planned	Qty	Size	Reference Pg #			
3. CZ- Suppression Operations									
Lieutenant (Station 2 only)	Private Office		1	1	1	130	03.06	130	
	<u>Sleep Room:</u>				1	100	*sim 07.07	100	
	Bed							0	
	Locker 2' X 3' X 6'							0	
	<u>Equipment:</u>								
	Computer							0	
	Multifunction printer							0	
	Subtotal:							230	
Watch Desk (Window to Lobby)	Office				1	270		270	
	Carrels	2			2	10		20	reports
	computer	2						0	
	Radio Equipment								
		1						0	
		Subtotal:							290
Net Area								520	
35% Internal Circulation Factor								182	
Subtotal: Cold Zone Suppression Operations		1	1					702	

9/27/2023

3

Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg #		
4. C Z - Living								
Firefighters' Sleep Rooms	Private Room	10	10	4	120	7.10	480	2 FT and 2 POC
	Bed						0	
	Lockers						0	
	Linen Storage						0	
	Subtotal:						480	
Wellness Room	Private Room			1	100		100	
	Future Sleep Rms							
	Bed						0	
	Lockers						0	
	Linen Storage						0	
Subtotal:						100		
Locker Alcove	Locker Alcove			1	50		50	10 at 2
	4'x2'x6'	10					0	8 at 3
Subtotal:							50	
Superior EMS Sleep + Shower Rooms	Private Room			2	100	7.10	200	
	Future Sleep Rms							
	Bed						0	
	Lockers						0	
	Linen Storage						0	
Shower Room			1	100	7.07a	100		
Subtotal:							300	
Firefighter Shower Rooms	Shower Room			2	100	7.07.b	200	*Apparatus Bay
	Shower Room (ADA)						0	
	All to include:							
	Bench						0	*Locker Alcove
	Toilet						0	
	Sink						0	
	Shower						0	
Subtotal:							200	



Redstone Architects, Inc.

Fire Station #2 #3 Program
Space Needs AssessmentNovi MI
Project No. 3709.00

Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg #		
Toilet	Toilet Room			1	77	7.05b	77	*Apparatus Bay
	Urinal						0	
	Toilet						0	*Locker Alcove
	Sink						0	
	Subtotal:						77	
Day Room	Day Room			1	250		250	*Kitchen
	Study Chairs 6						0	*Dining Room
	Telephone						0	
	TV						0	
	Subtotal:						250	
Exercise Room	Exercise Room			1	500	7.09c	500	
	Weight Rack							
	Dumbbell Rack							
	Treadmill 1							
	Elliptical 1							
	TRX Equipment 1							
	Mirrors 1							
	Sound Walls/Floor							
	Monitors/TV							
	Bluetooth speakers							
	Stair Master 1							
	Subtotal:						500	
Kitchen	Kitchen			1	400		400	*Day Room
	Walk-in Food Pantry 3						0	*Dining Room
	Cabinets						0	* Access to Patio
	Countertop w/ sink						0	Counter w/ stools in kitchen
	Refrigerators 2						0	One Supreior, One Fire
	Commercial-grade Microwave 1						0	
	Commercial Range 1						0	
	Commercial Hood w/ fire suppression 1						0	
	Dishwasher 1						0	
	Commercial Freezer 1						0	
	Subtotal:						400	

9/27/2023

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Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg #		
Dining Room	Dining Room			1	250		250	*Kitchen
	Table - size of table	10-12					0	
	Chairs						0	
							0	
	Subtotal:						250	
Custodial Storage	Area			1	80		80	
	Metal shelves						0	
	Subtotal:						80	
Small Training / Reading Room	Table for 6			1	150	05.03	150	
	computer stations	2					0	
	Book Case/Library						0	
	Subtotal:						150	
Laundry Room	Room			1	120		120	Wash/Dry large enough for bedding
	Residential Washer							
	Residential Dryer							
	Wash tub							
	Base Cabinets							
	Wall Cabinets						0	
	Subtotal:						120	
Net Area							2,957	
25% Internal Circulation Factor							739	
Subtotal: Cold Zone Staff		10	10				3,696	



Redstone Architects, Inc.

Fire Station #2 #3 Program
Space Needs AssessmentNovi MI
Project No. 3709.00

Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg. #		
5. Warm Zone								
Personal Decon Room	Warm Zone Room			1	300		300	
	18" stackable lockers	20					0	
	Shower Rooms	2						
	Stackable Washer/ Dryer (contaminated clothes)	1						
	Toilet Room	2						
	Dry Decon	2 person						
	Subtotal:						300	
Turn Out Gear Room	Gear Room			1	470		470	*Apparatus Bay
	Mesh Open Racks (2'x3')	30						*Decon Room
								2 sets of gear per Fire Fighter
								Doubles as storm shelter
							0	Separate Vent & Supply
Subtotal:							470	
Laundry and Equipment Decon	Positive pressure Room			1	350		350	*Apparatus Bay
	Commercial Stackable Washer & Dryer (Rags)	1					0	
	Laundry Tub	1					0	
	Shelving (Soap and Cleaning Supplies)	1					0	
	Mop Sink	1					0	
	Wash/Extract (60lb)	1					0	
	3 Tub Sink (SS)	1						
	Eye Wash	1					0	
	Gear Dryer	1						
	Mask/Tank washer	1						
	Subtotal:							350
EMS Supplies/Storage Secure Storage	Area			2	120		240	*Apparatus Bay
	Sink for future storage shelves						0	One for Superior one for FF
	Subtotal:						240	
Hot/Warm Zone Transition vestibule	Area			1	120		120	*Apparatus Bay
							0	one per entry
	Subtotal:						120	300
Net Area							1,480	
30% Internal Circulation Factor							444	
Subtotal: Staff Commons		0	0				1,924	

9/27/2023

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Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg #		
6. Apparatus Bay (Hot Zone)								
Apparatus Bay (18'x65') Single deep (18'x80') double deep	Apparatus Bay							Station #2 three bay pull thru w/boat. Station #3 three bay pull thru
	14'x14' Bi-fold	18x65		1	3,800	12	3,800	
	Apparatus	Length						
	Engine 2	31' 11"			1		0	Station 2
	Squad 2	26'			1		0	Station 2
	529 Command	19' 5"			1		0	Station 2
	Boat on trailer	16'			1		0	Station 2
	Squad 2	26'			1		0	Station 2
	Engine 3	32' 1"			1		0	Station 3
	Rescue 3	18' 2"			1		0	Station 3
	Ambulance	22'-0"			1		0	Station 3
	MEP							
	Space Ventilation	x					0	Plimavent
	Under vehicle wash	x						
	Vehicle Exhaust	x					0	
	2" Fill & Washing							
	Connection	x					0	
	Compressed Air Lines							
	over each bay	x					0	
	Hose Bibs & Reels	x					0	
Oil Interceptor	x					0		
Trench Drain	x					0		
	Infrared Linear Ceiling						0	
	Subtotal:						3,800	
Battery Charging area	Area			1			0	*Apparatus Bay
	2hr rated room						0	
	Charges Li batteries						0	
							0	
	Subtotal:						0	

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Redstone Architects, Inc.

Fire Station #2 #3 Program
Space Needs Assessment

Novi MI
Project No. 3709.00

Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies
		Current	Planned	Qty	Size	Reference Pg #		
Hose Drying and Storage	Area			1	120		120	*Apparatus Bay
							0	
	Storage Racks for Hoses	x					0	
	Hose Washer	x					0	
	Floor Drain	x					0	
	Dry Cabinet	x					0	
	Subtotal:						120	
Toilet	Unisex Toilet			1	77		77	*Apparatus Bay
							0	
	Subtotal:						77	
SCBA Maintenance	Clean Room			1	100		100	*Apparatus Bay
							0	
							0	
	Subtotal:						100	
SCBA Cascade Room	Room			1	150		150	*Apparatus Bay
	Air Bottles Storage						0	
	Working Counter						0	
	Writing Desk						0	
	Subtotal:						150	
Parts/shop	Room			1	150		150	*Apparatus Bay
							0	
							0	
	Subtotal:						150	
Station Compressor Room	Room			1	100		100	INCLUDE IN PARTS/SHOP?
	Fresh Air Intake						0	
	Exhaust build up heat to outside						0	
	Concrete pad						0	
	Subtotal:						100	
Net Area							4,497	
20% Internal Circulation Factor							899	
Subtotal: Apparatus Bay		0	0				5,396	

9/27/2023

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Space	Description	Staff		Space Needs			Net Sq. Ft.	Comments / *Adjacencies	
		Current	Planned	Qty	Size	Reference Pg #			
9. Building Support Areas									
Mechanical Room	Room			1	300		300		
	Subtotal:						300		
Electrical Room	Room			1	200		200		
	Subtotal:						200		
Server Room	Room			1	80		80		
	Subtotal:						80		
Net Area							580		
20% Internal Circulation Factor							116		
Subtotal: Building Support Areas		0	0				696		

Redstone Architects, Inc.

Fire Station #2 #3 Program
Space Needs Assessment

Novi MI
Project No. 3709.00

Parking Requirements:		Spaces
Other outdoor parking		?
Staff Parking		
Public (Visitor) Parking		See Shared Spaces
Total Spaces		0

Fire Station 2 (0.62 acres)



MAP INTERPRETATION NOTICE

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0 0.00350.007 0.014 0.021

1 inch = 94 feet

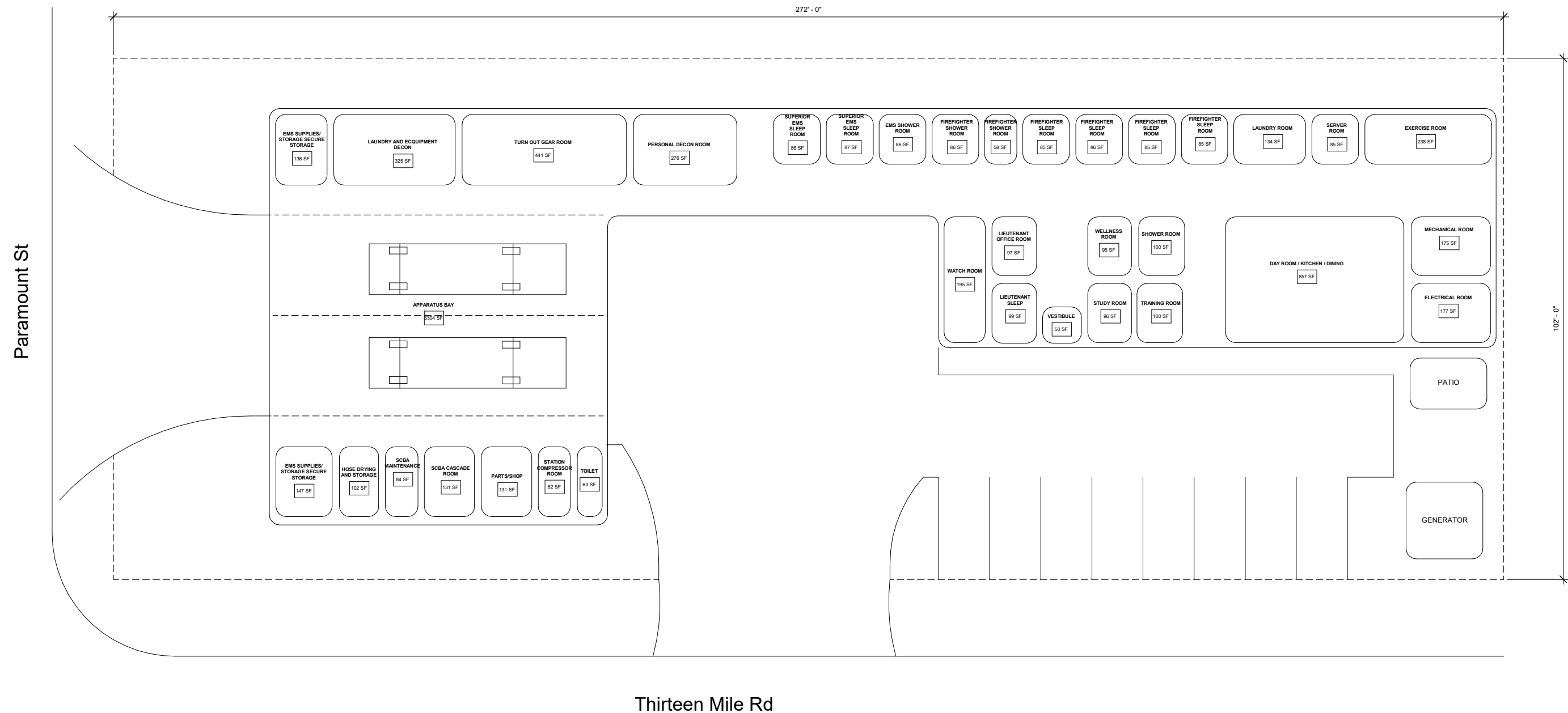


Map Print Date:
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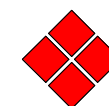
Concept Plan - One Story

Scale: 3/32" = 1'- 0"

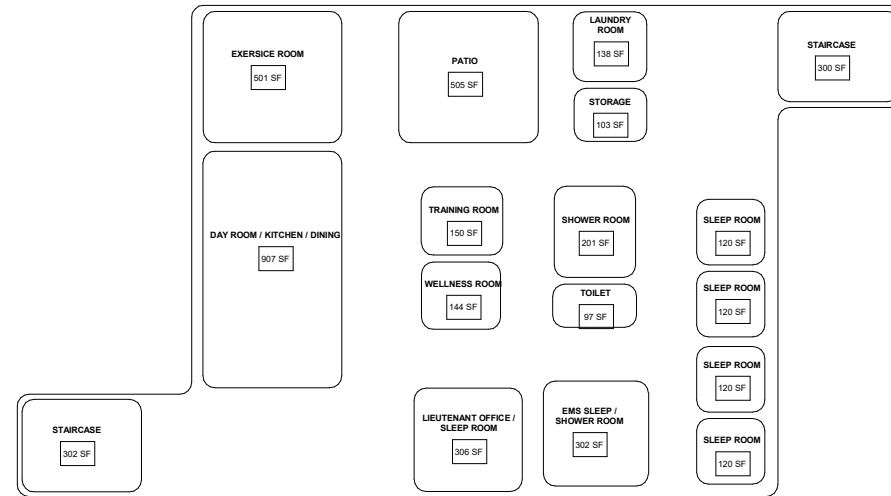
BLOCK DIAGRAM CONCEPT

September 28, 2023

City of Novi
Fire Station 2 Study - One Story

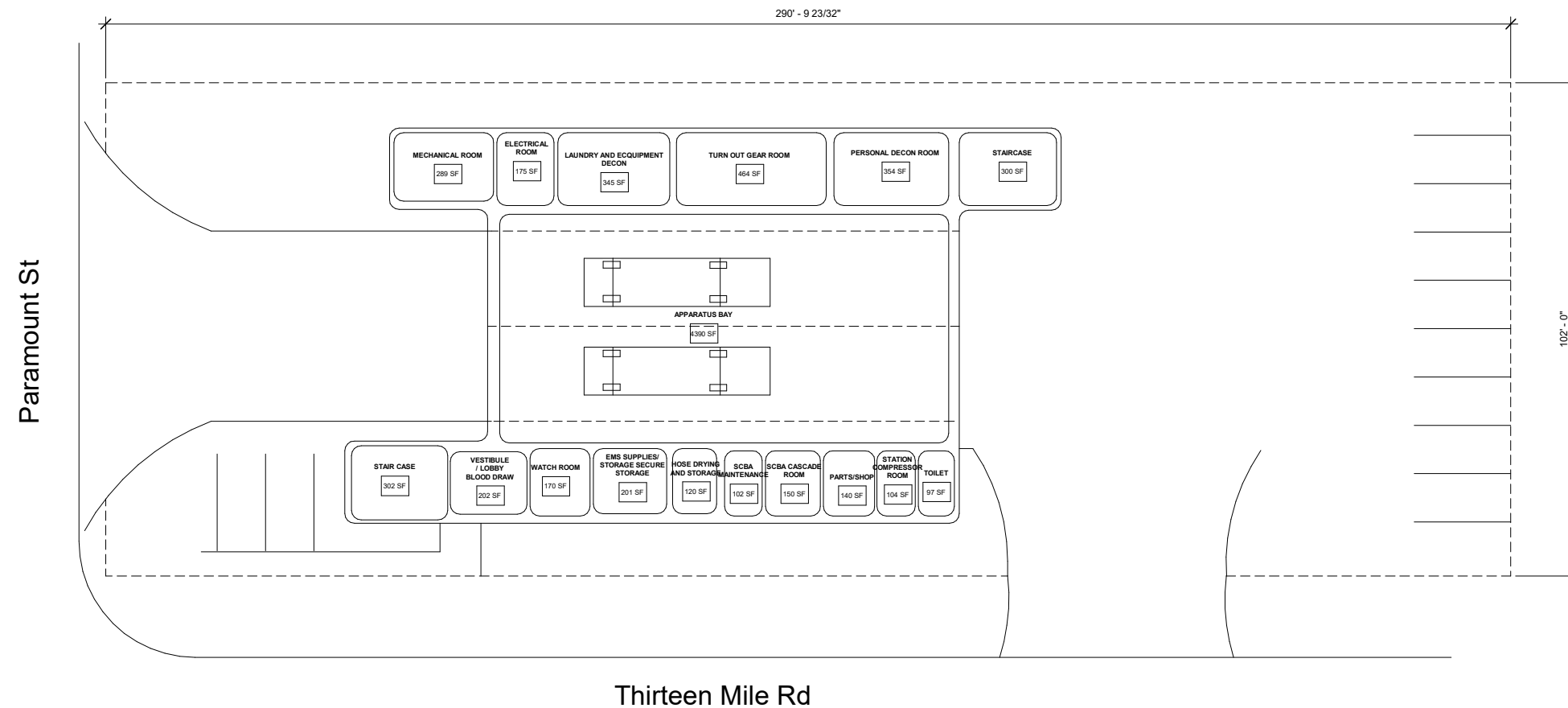


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Law Enforcement - Justice - Public Safety - Municipal



Upper Level Concept Plan

Scale: 1/16" = 1'- 0"



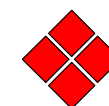
Main Level Concept Plan

Scale: 1/16" = 1'- 0"

BLOCK DIAGRAM CONCEPT

September 28, 2023

City of Novi
Fire Station 2 Study - Two Story



Redstone Architects, Inc.
Law Enforcement - Justice - Public Safety - Municipal



Redstone Architects Inc.

SECTION 4 FIRE STATION #3

SPACE NEEDS ASSESMENT (SEE STATION #2) BLOCK DIAGRAM CONCEPT

Venture Dr (1.76 acres)



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0 0.01 0.02 0.04 0.06
mi

1 inch = 300 feet

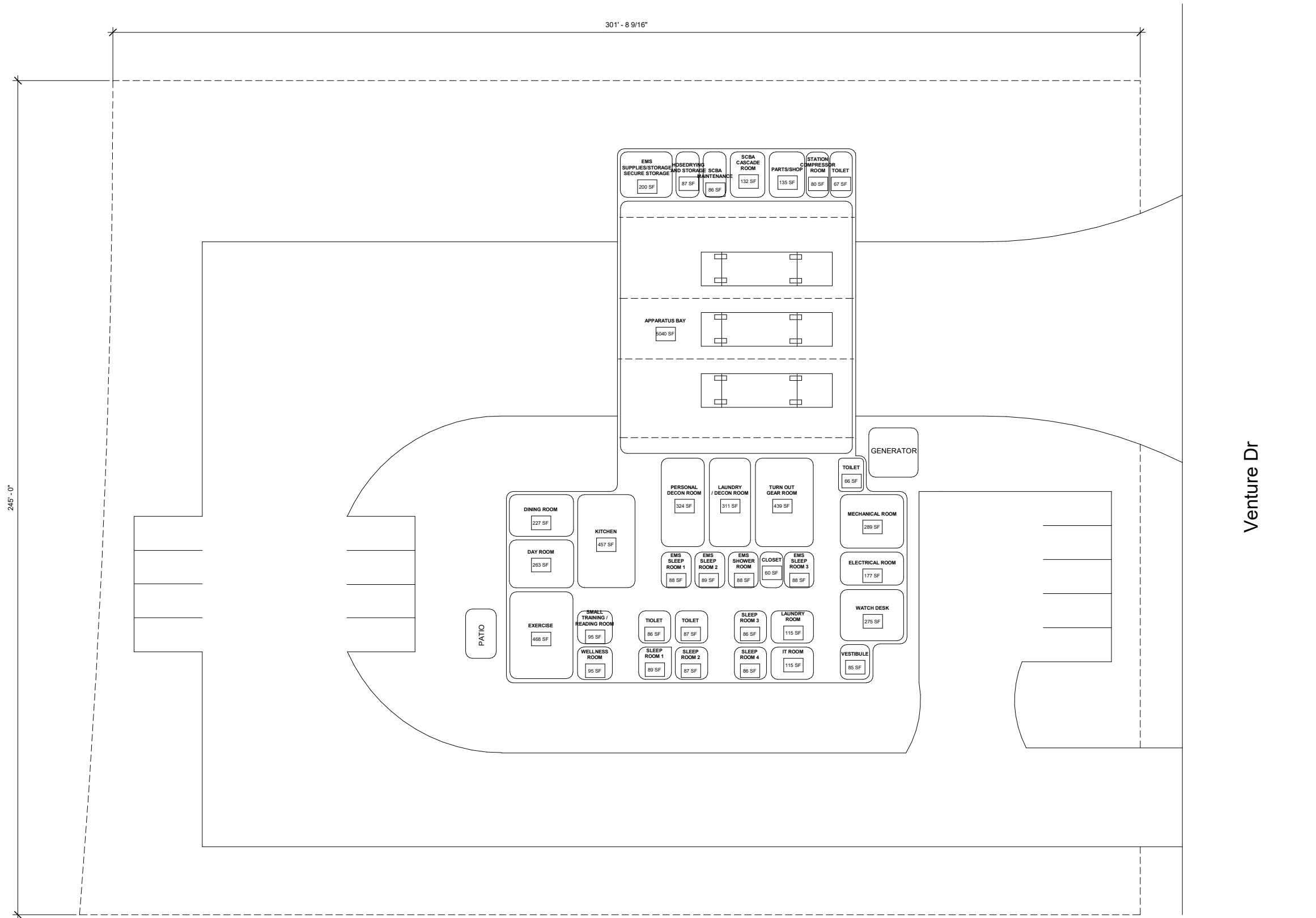


Map Print Date:
7/31/2023



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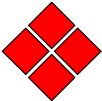
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Concept Plan
Scale: 1/16" = 1'- 0"

BLOCK DIAGRAM CONCEPT

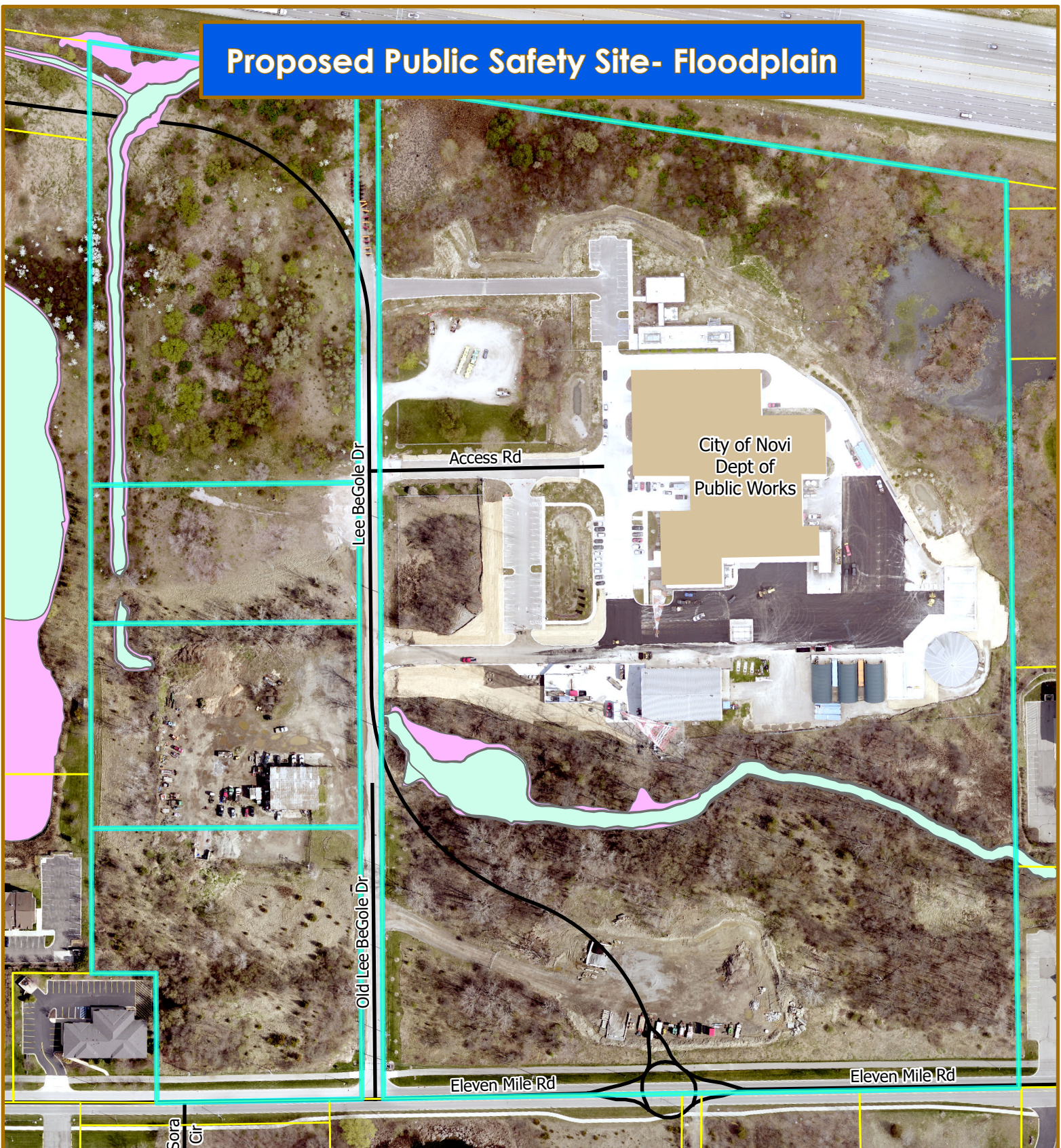
September 28, 2023



Appendix A

Proposed Public Safety Site - Mapping Data
(Provided by the City of Novi)

Proposed Public Safety Site- Floodplain



Map Author: Jon Gartha
Date: September 21, 2023
Project: Public Safety Building
Version #: 1.0

Map Interpretation Notice

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Legend

- Parcels
- FEMA Flood Zone**
 - 1.0% Chance Flood Zone A
 - 1.0% Chance Flood Zone AE
 - 0.2% Chance Flood Zone X



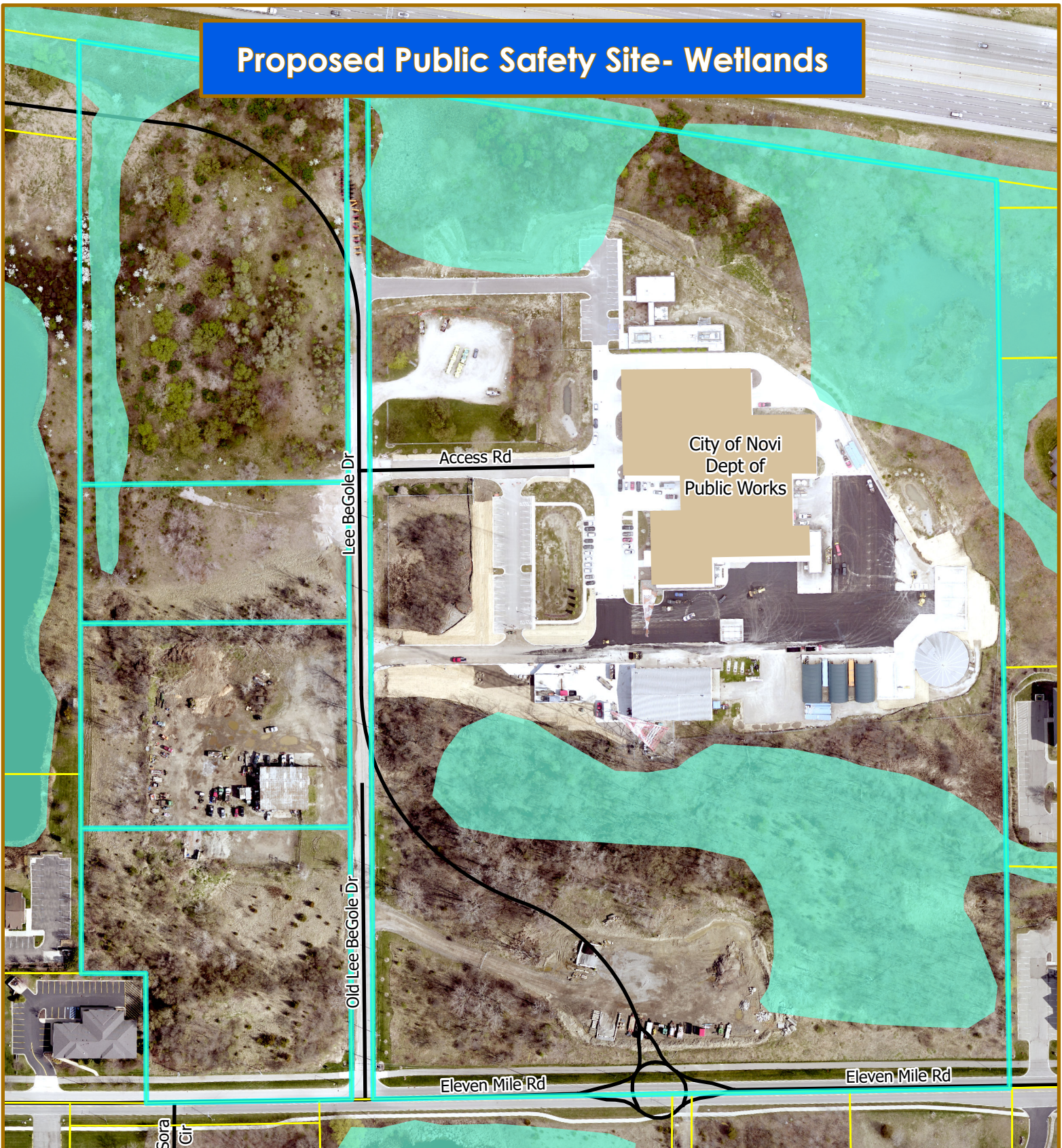
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Integrated Solutions Dept.
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Feet
0 65 130 260

1 inch = 200 feet

Proposed Public Safety Site- Wetlands



Map Author: Jon Gartha
Date: September 28, 2023
Project: Proposed Public Safety Site
Version #: 1.0

Map Interpretation Notice

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Legend

- Parcels
- Wetlands



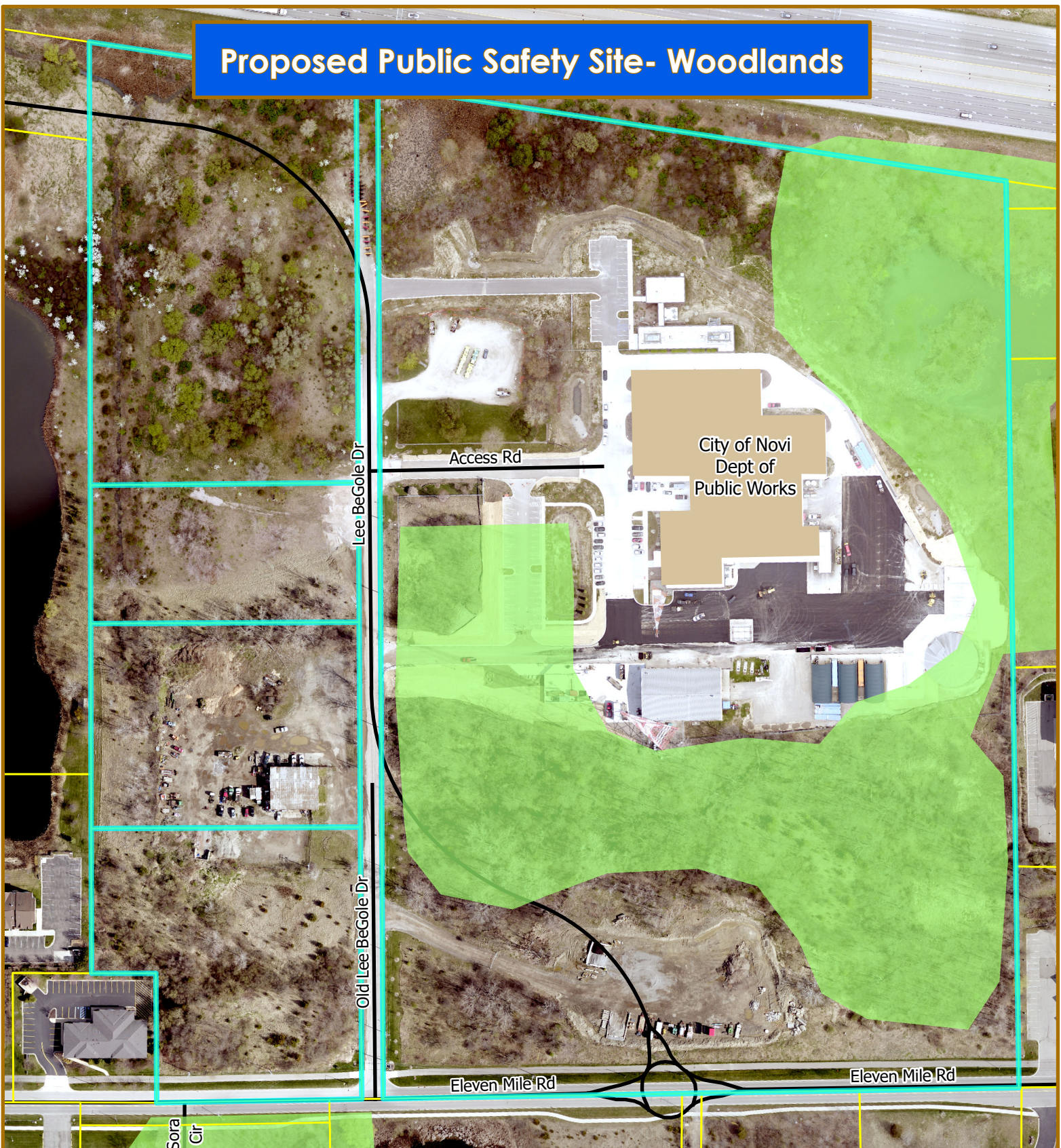
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1 inch = 200 feet

Proposed Public Safety Site- Woodlands



Map Author: Jon Gartha
Date: September 21, 2023
Project: Public Safety Building
Version #: 1.0

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Legend

- Parcels
- Woodlands



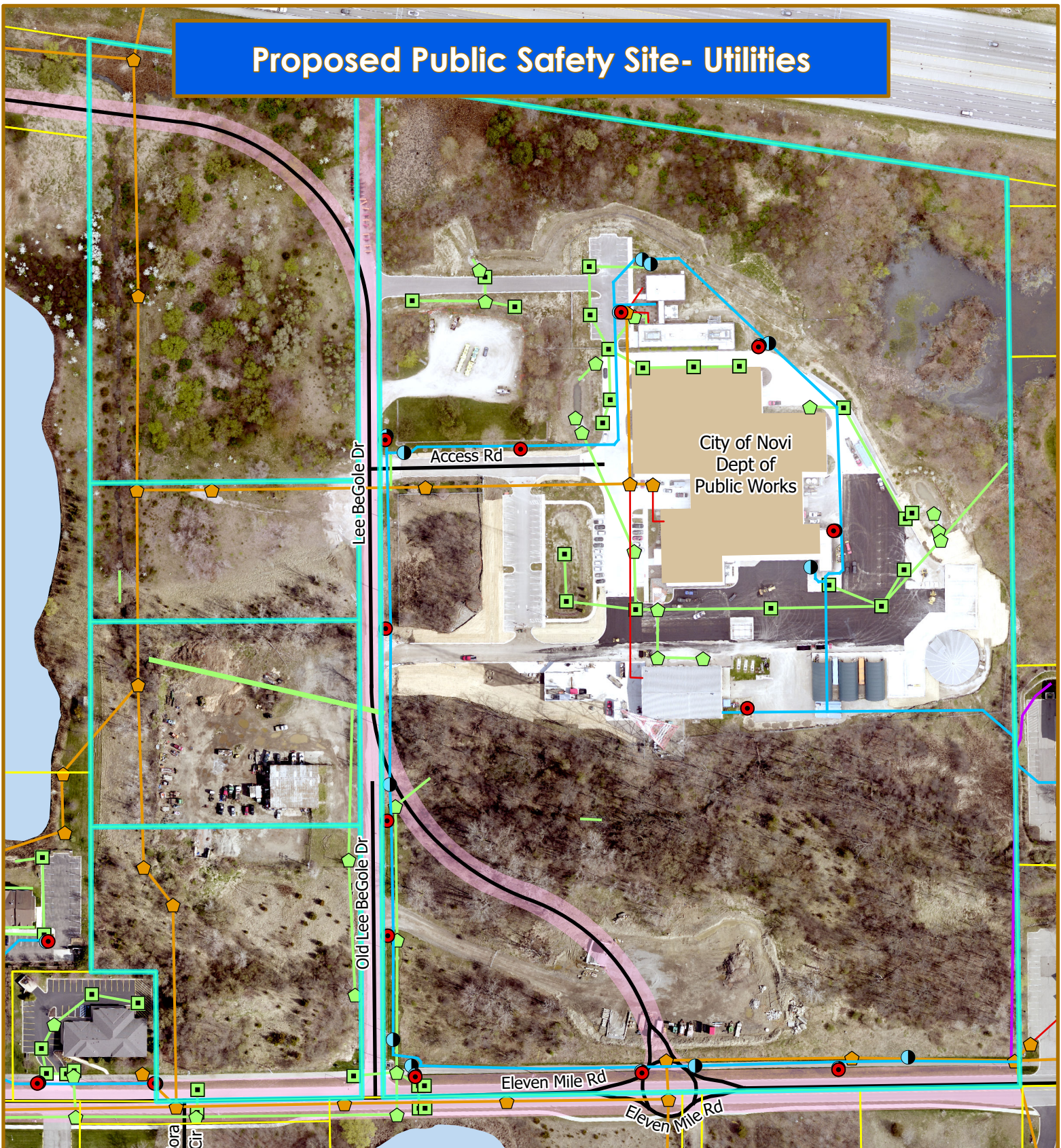
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Feet
0 65 130 260

1 inch = 200 feet

Proposed Public Safety Site- Utilities



Map Author: Jon Gartha
Date: September 28, 2023
Project: Proposed Public Safety Site
Version #: 1.0

Map Interpretation Notice

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Legend

	Hydrant		Sanitary Gravity Main		Storm Main
	Water Valve		Sanitary Force Main		Detention Basin
	Water Main		Right Of Way		Parcels
	Sanitary Manhole		Storm Manhole		
	Sanitary Service Lead		Storm Catch Basin		



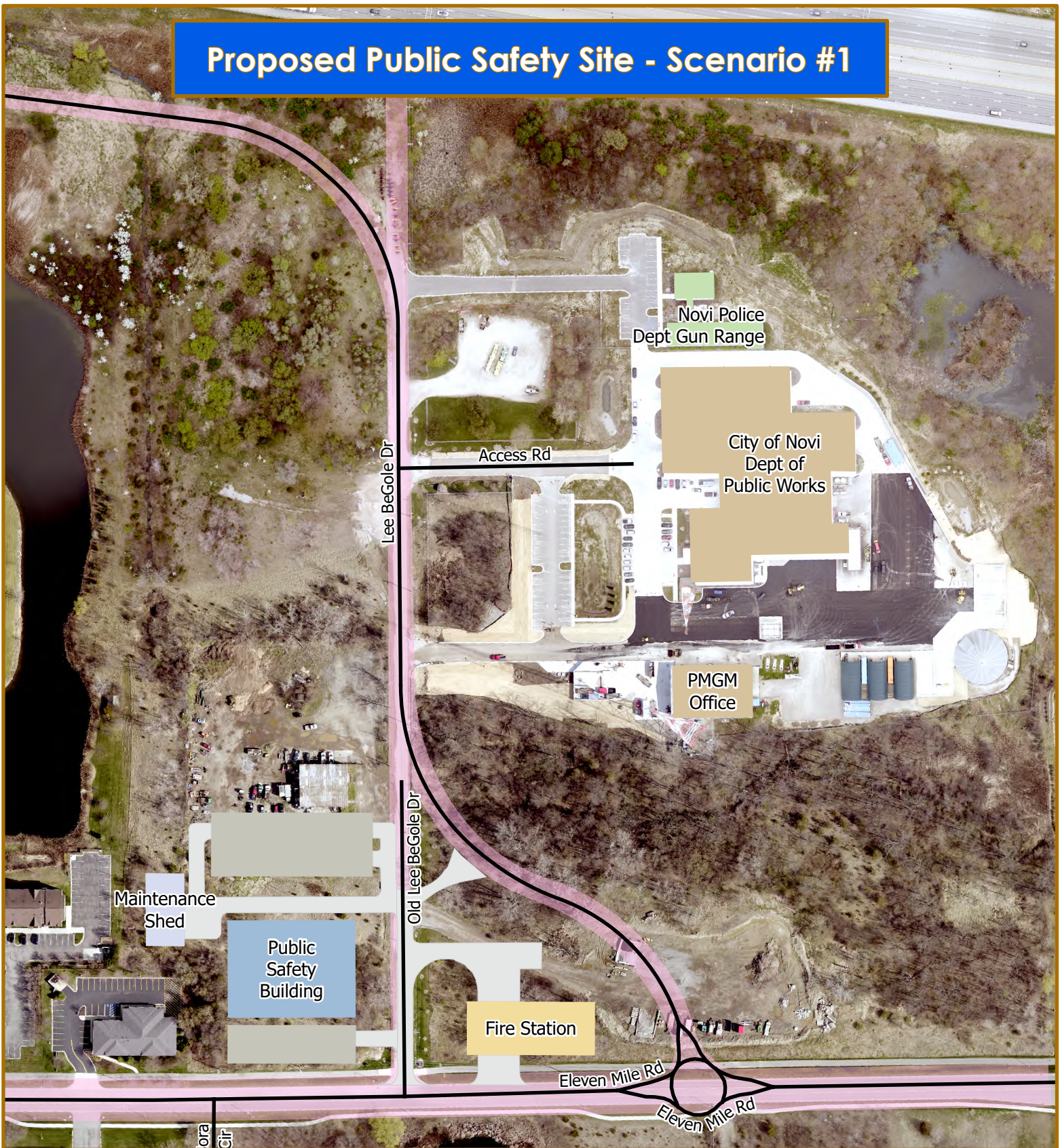
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1 inch = 200 feet

Proposed Public Safety Site - Scenario #1



Map Author: Jon Gartha
Date: September 28, 2023
Project: Proposed Public Safety Site
Version #: 1.0

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Legend

	Fire Station		Governmental Public Works Building		Driveways
	PD Gun Range		Accessory Building		Parking Lots
	Police Station				Right Of Way



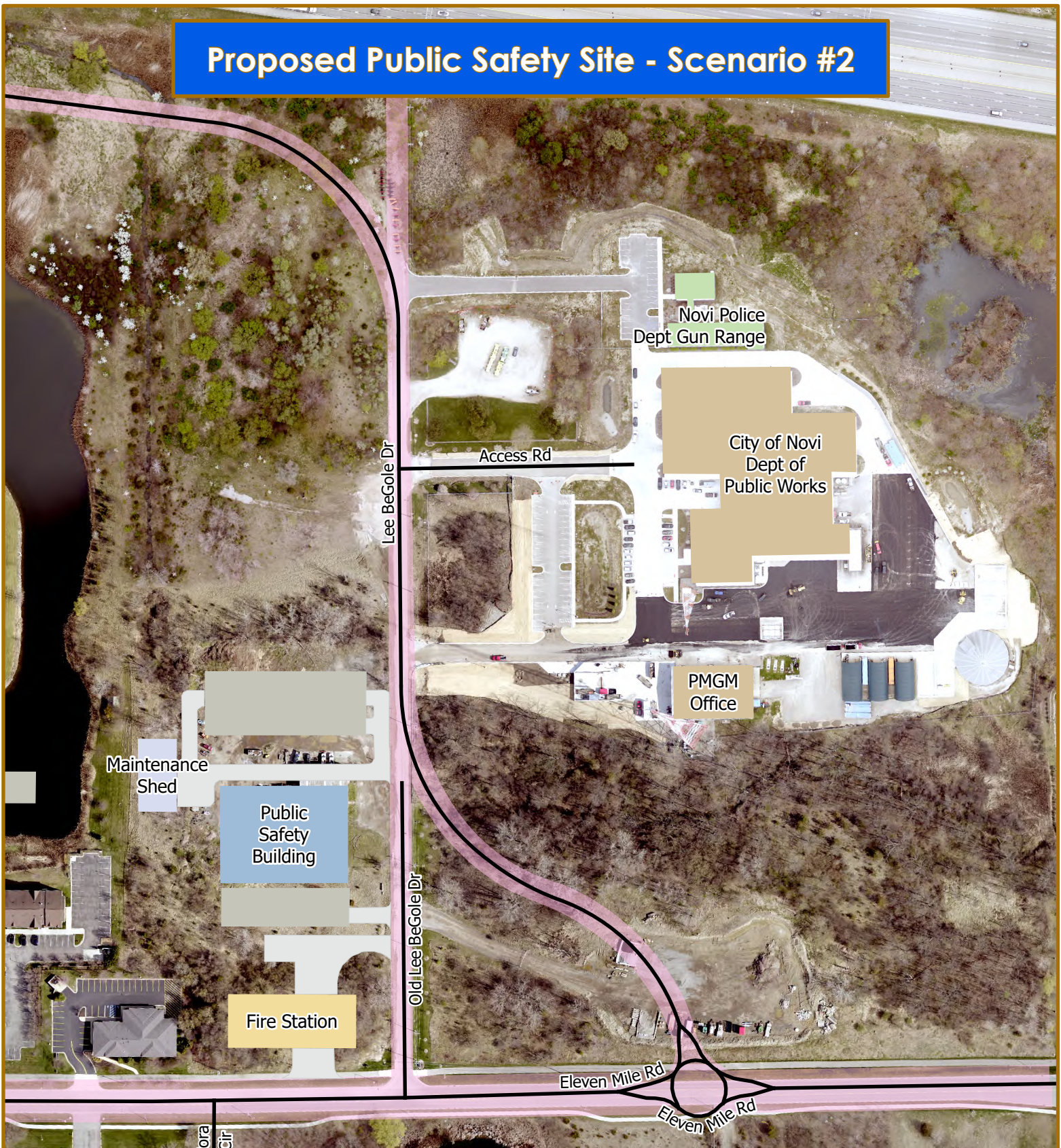
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Feet
0 65 130 260

1 inch = 200 feet

Proposed Public Safety Site - Scenario #2



Map Author: Jon Gartha
Date: September 28, 2023
Project: Proposed Public Safety Site
Version #: 1.0

Map Interpretation Notice

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Legend

 Fire Station	 Governmental Public Works Building	 Driveways
 PD Gun Range	 Accessory Building	 Parking Lots
 Police Station		 Right Of Way



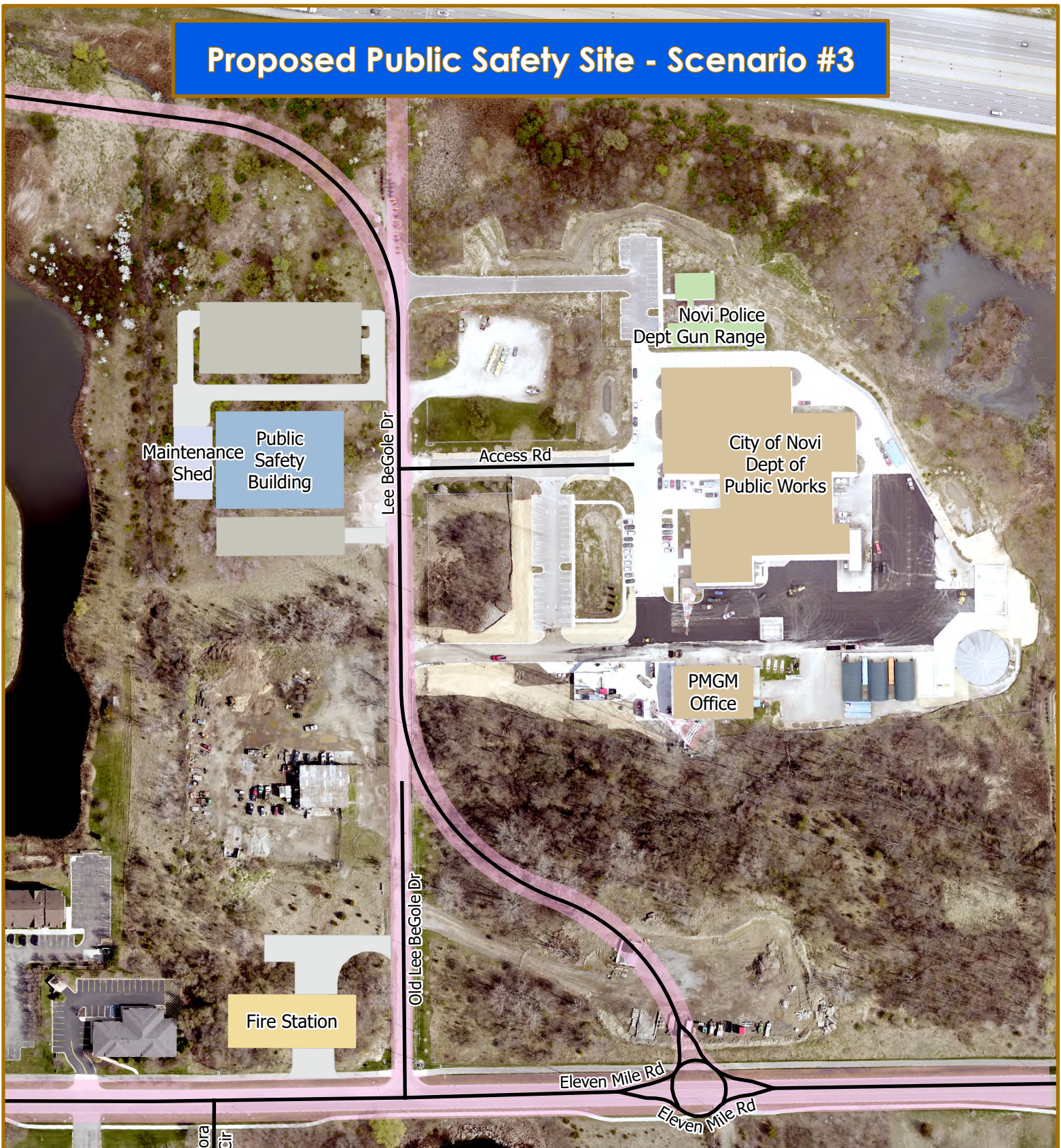
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Feet
0 65 130 260

1 inch = 200 feet

Proposed Public Safety Site - Scenario #3



Map Author: Jon Gartha
Date: September 28, 2023
Project: Proposed Public Safety Site
Version #: 1.0

Map Interpretation Notice

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Legend

	Fire Station		Governmental Public Works Building		Driveways
	PD Gun Range		Accessory Building		Parking Lots
	Police Station				Right Of Way



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Feet
0 65 130 260

1 inch = 200 feet

Appendix B

Proposed Fire Station 2 - Mapping Data
(Provided by the City of Novi)

Fire Station 2 - Floodplain



Map Author: Keri Blough
Date: September 28, 2023
Project: Fire Station 2
Version #: 1.0

Map Interpretation Notice

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Legend

- | | |
|---|---|
|  Street Centerline | FEMA Flood Zone |
|  Parcels |  1.0% Chance Flood Zone AE |



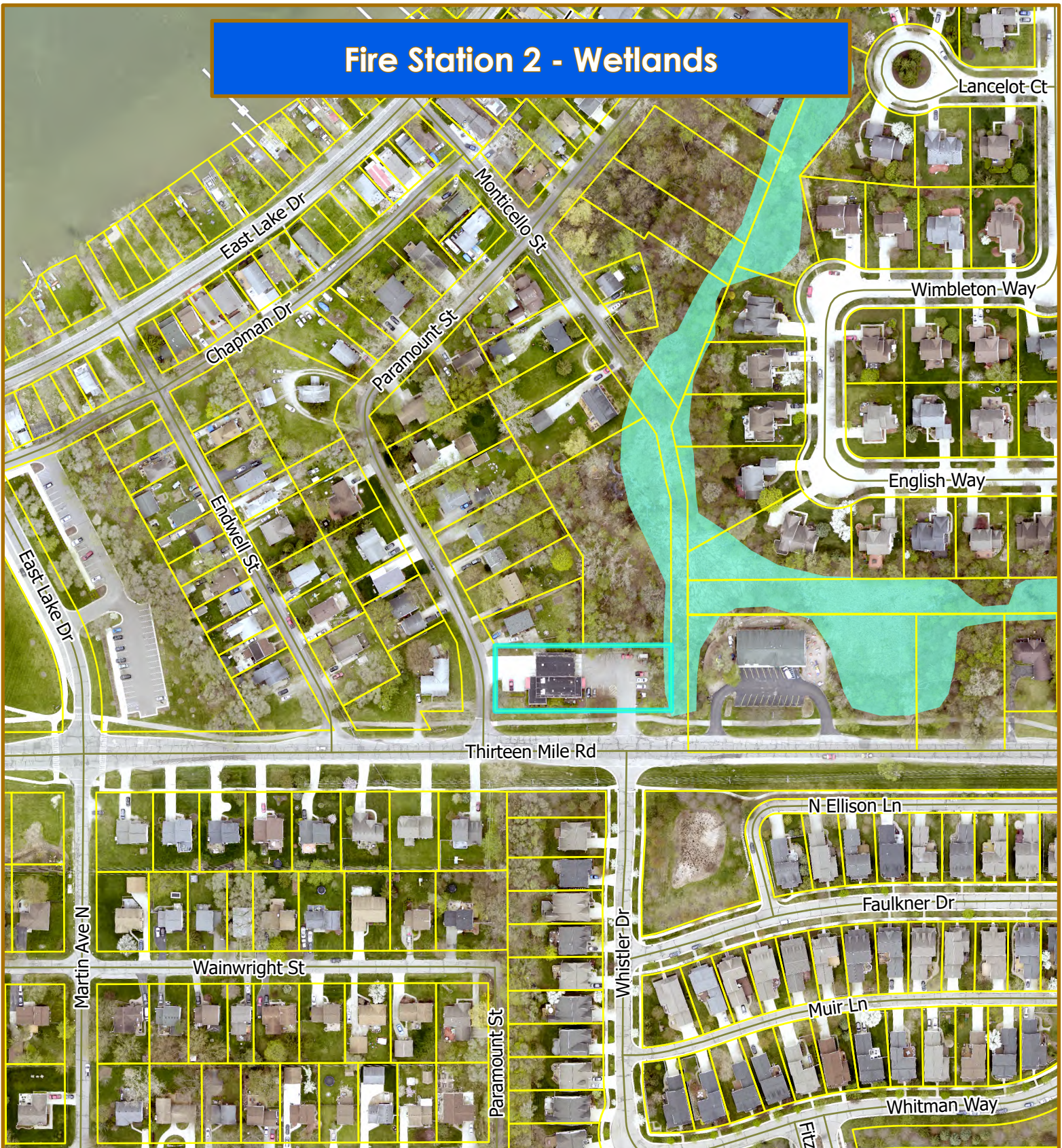
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cityofnovi.org



1 inch = 200 feet

Fire Station 2 - Wetlands



Map Author: Keri Blough
 Date: September 28, 2023
 Project: Fire Station 2
 Version #: 1.0

Map Interpretation Notice

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Legend

- Street Centerline
- Parcels
- Wetlands



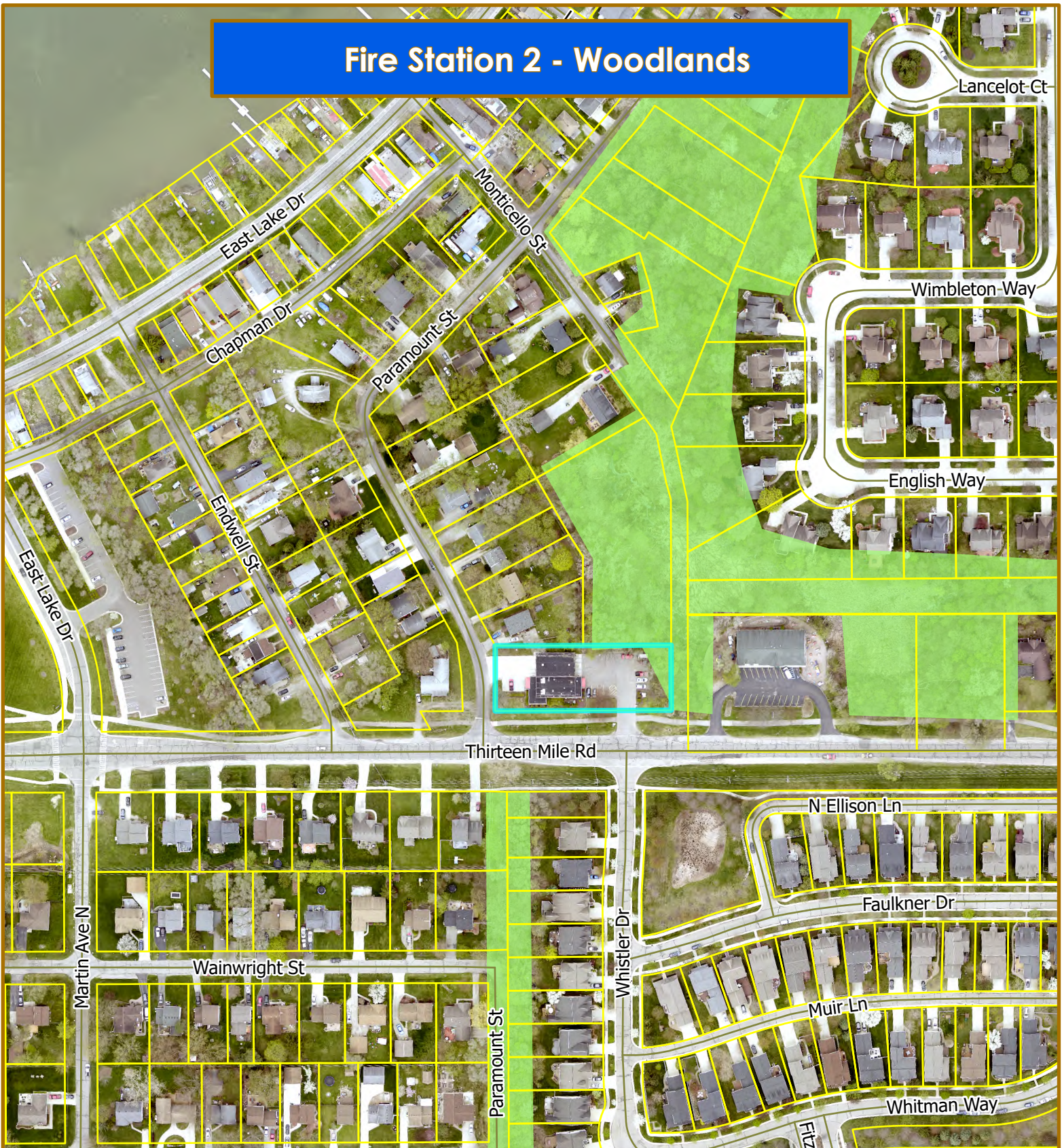
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1 inch = 200 feet

Fire Station 2 - Woodlands



Map Author: Keri Blough
Date: September 28, 2023
Project: Fire Station 2
Version #: 1.0

Map Interpretation Notice

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Legend

- Street Centerline
- Parcels
- Woodlands



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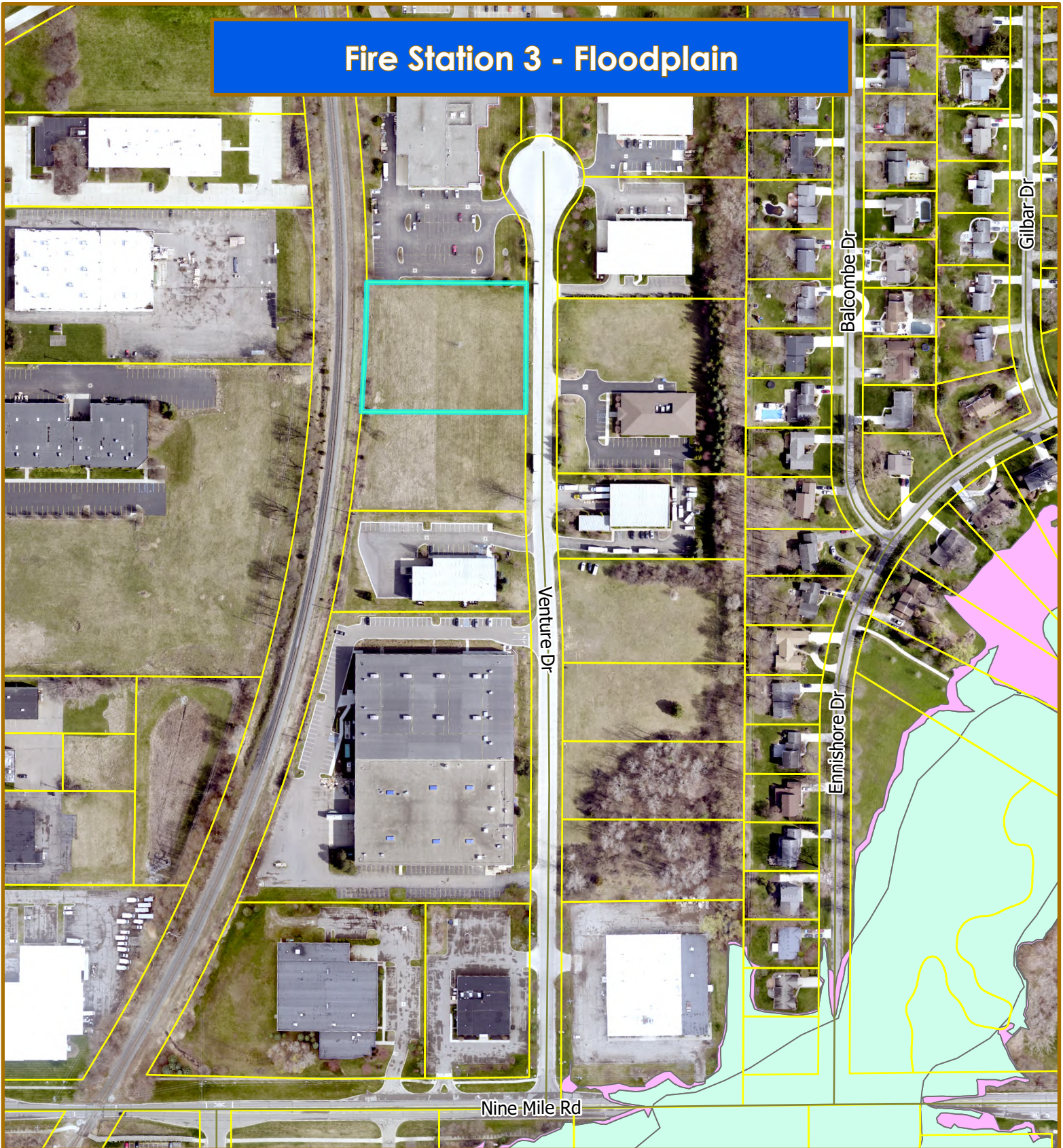


1 inch = 200 feet

Appendix C

Proposed Fire Station 3 - Mapping Data
(Provided by the City of Novi)

Fire Station 3 - Floodplain



Map Author: Keri Blough
Date: September 28, 2023
Project: Fire Station 3
Version #: 1.0

Map Interpretation Notice

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Legend

- Street Centerline
- Parcels

FEMA Flood Zone

- 1.0% Chance Flood Zone AE
- 0.2% Chance Flood Zone X



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1 inch = 250 feet

Fire Station 3 - Wetlands



Map Author: Keri Blough
Date: September 28, 2023
Project: Fire Station 3
Version #: 1.0

Map Interpretation Notice

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Legend

-  Street Centerline
-  Parcels
-  Wetlands



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1 inch = 250 feet

Fire Station 3 - Woodlands



Map Author: Keri Blough
Date: September 28, 2023
Project: Fire Station 3
Version #: 1.0

Map Interpretation Notice

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Legend

- Street Centerline
- ▭ Parcels
- ▭ Woodlands



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45175 W Ten Mile Rd
Novi, MI 48375
cityofnovi.org**

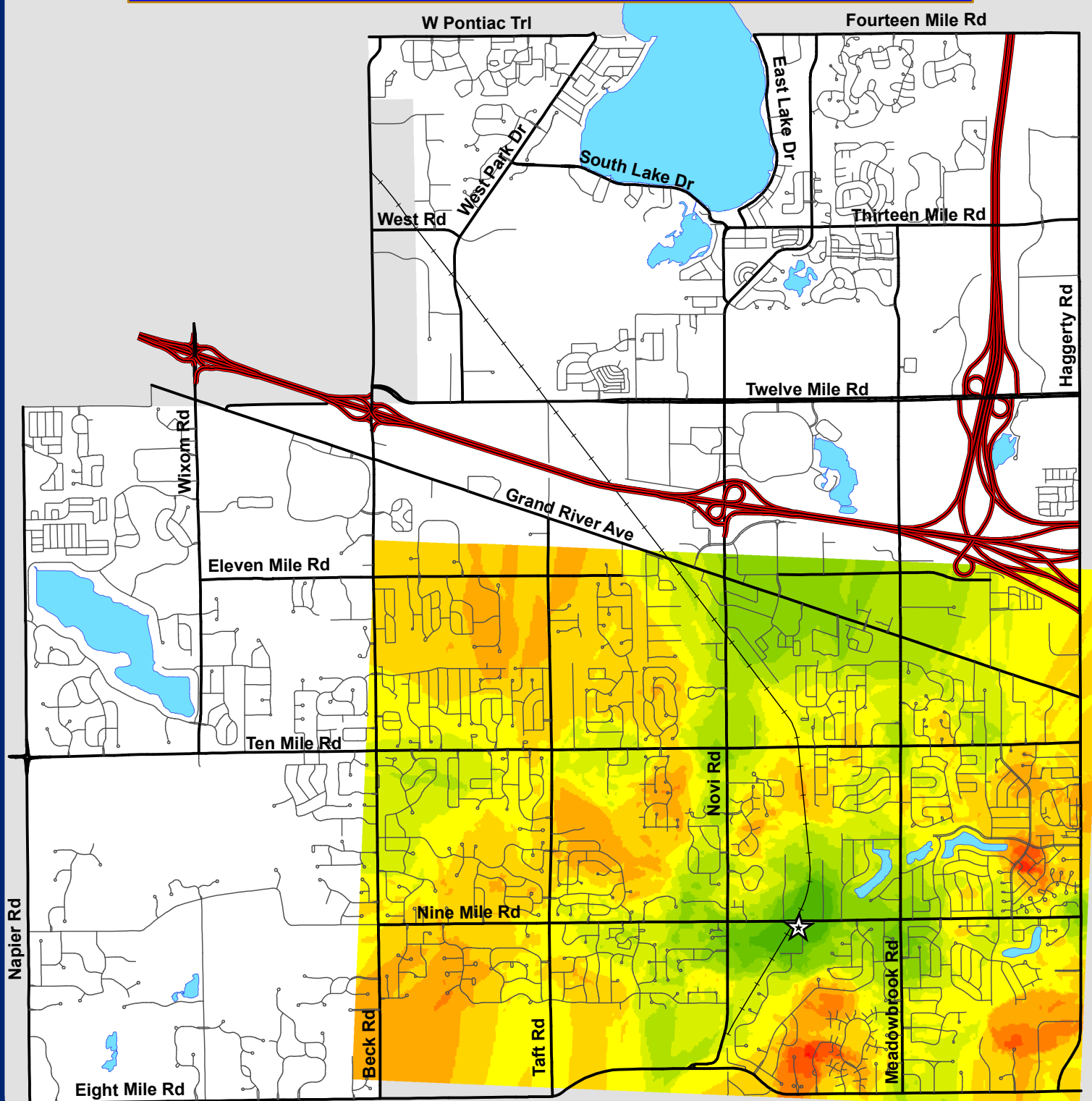


Feet

0 80 160 320

1 inch = 250 feet

Fire Station #3 Incident Response Times



Map Author: Jon Gartha
Date: April 28, 2022
Project: Incident Response Times
Version #: 1.1

Amended By:
Date:
Department:

MAP INTERPRETATION NOTICE

Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.

Response Times



* Based on 3,097 incidents between Jan 2017 & Jan 2022



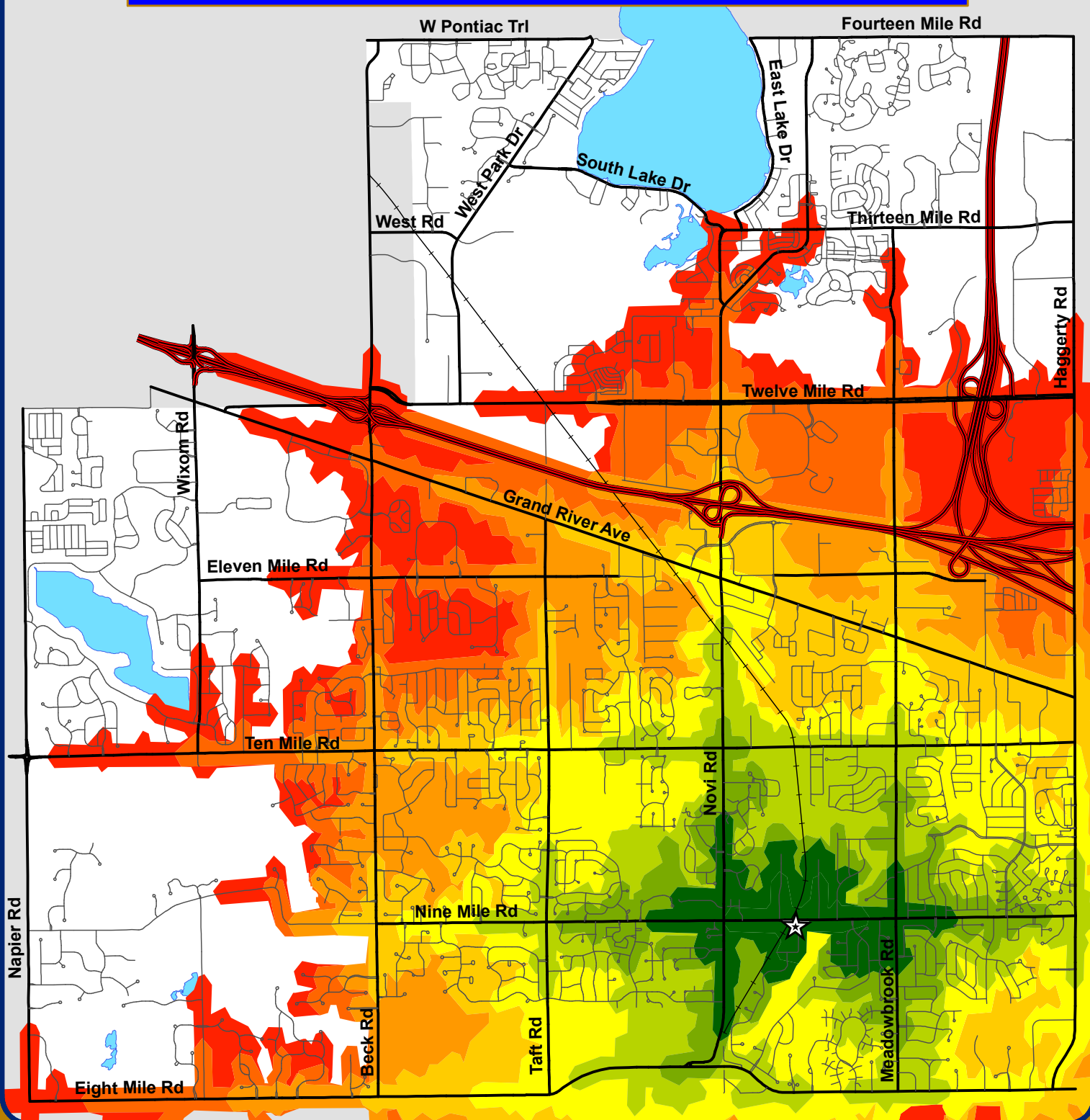
City of Novi

Dept of Public Safety
45125 Ten Mile Road
Novi, MI 48375
cityofnovi.org

Feet
0 850 1,700 3,400 5,100
1 inch = 4,223 feet



Current Fire Station #3 Calculated Response Times



Map Author: Jon Gartha
Date: April 28, 2022
Project: Calculated Response Times
Version #: 1.0

Amended By:
Date:
Department:

MAP INTERPRETATION NOTICE

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Calculated Response Time

	Under 2 Minutes		6 minutes
	3 minutes		7 minutes
	4 minutes		8 minutes
	5 minutes		9 minutes

* Drive time analysis is based on posted speed limits



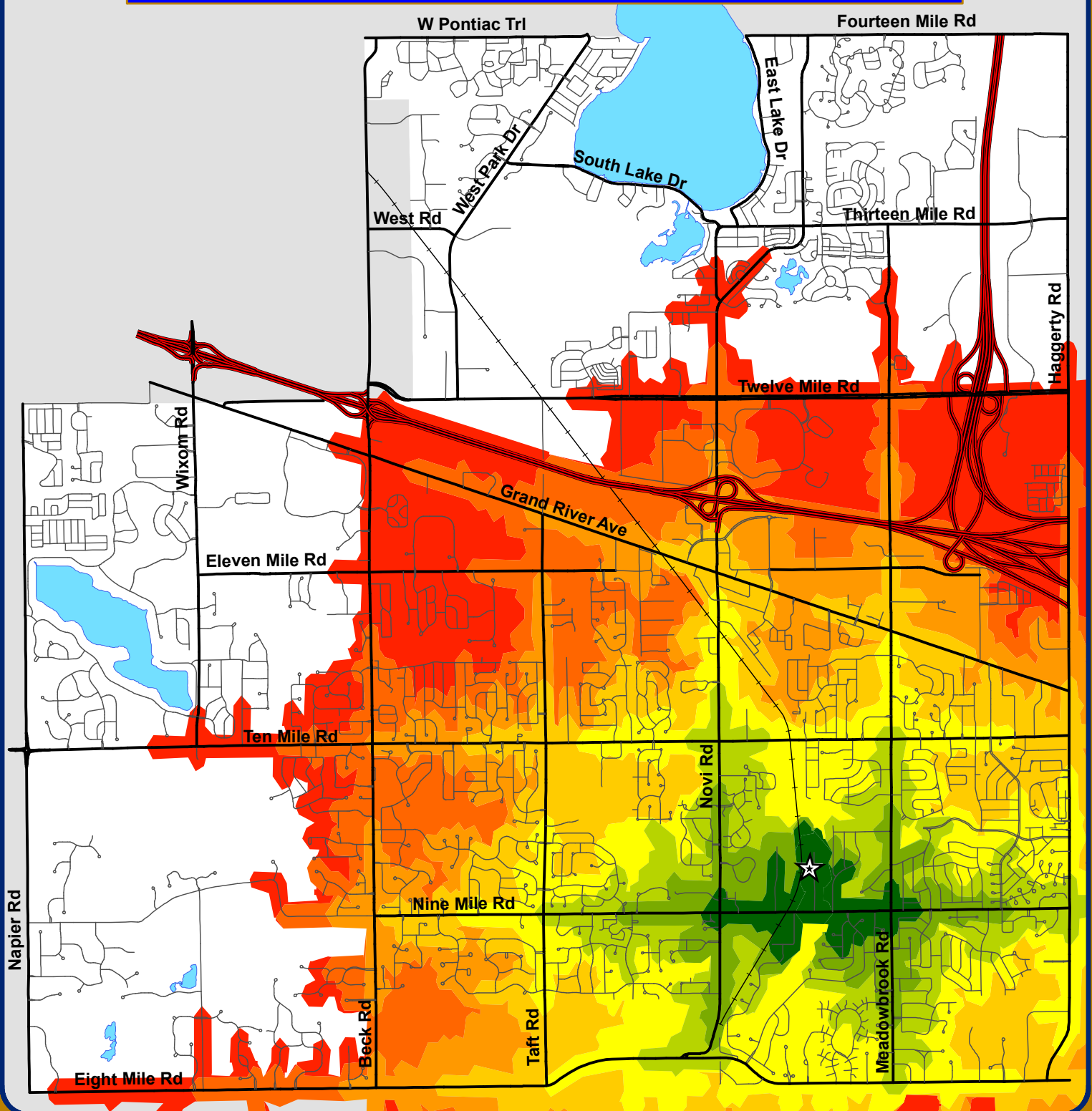
City of Novi

Dept of Public Safety
45125 Ten Mile Road
Novi, MI 48375
cityofnovi.org

Feet
0 850 1,700 3,400 5,100
1 inch = 4,223 feet



Proposed Fire Station #3 Calculated Response Times



Map Author: Jon Gartha
Date: April 28, 2022
Project: Calculated Response Times
Version #: 1.1

Amended By:
Date:
Department:

MAP INTERPRETATION NOTICE

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Calculated Response Time

	Under 2 Minutes		6 minutes
	3 minutes		7 minutes
	4 minutes		8 minutes
	5 minutes		9 minutes

* Drive time analysis is based on posted speed limits



City of Novi

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Feet
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1 inch = 4,223 feet

