



CITY OF GRIFFIN

Public Works – Space Needs Assessment
May 2020

Griffin

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I. **EXECUTIVE SUMMARY**

Background

SCOPE

Sizemore Group was contracted to provide a comprehensive space needs assessment for the City of Griffin, resulting in a conceptual site and facility plan to house all the various operations of the City’s Public Works. The key tasks were to provide spatial and functional program assessments, layout/design options, cost projections, and final conceptual site and facility plan. Specifically, Sizemore Group was tasked to analyze and accommodate space for the following Public Work’s departments:

- Water Wastewater
- Stormwater
- Streets
- Signs

METHODOLOGY

The approach to this project was broken into four phases of work:

1. Goals and Strategic Model
2. Site Analysis
3. Detailed Program
4. Conceptual Design

TEAM

Sizemore Group
City of Griffin Department of Public Works:
Water Wastewater
Stormwater
Streets
Signs



GOALS

The following are overall goals. These are further expanded in the GOALS section:

FUNCTION
FORM
TIME
ECONOMY

FACTS

The Team observed and recorded existing conditions and square footages. This data was used to break down current spatial usages and how that correlated to overall department needs. The team visited the current Public Works facilities to gain understanding and provide a standard comparable for our design program. The facilities visited are as follows:

- Streets
- Signs
- Water & Wastewater
- Stormwater

These visits provided valuable insight into the current operations, functioning flow, and amount of people per site. They also provided an opportunity to discuss which elements could be improved.

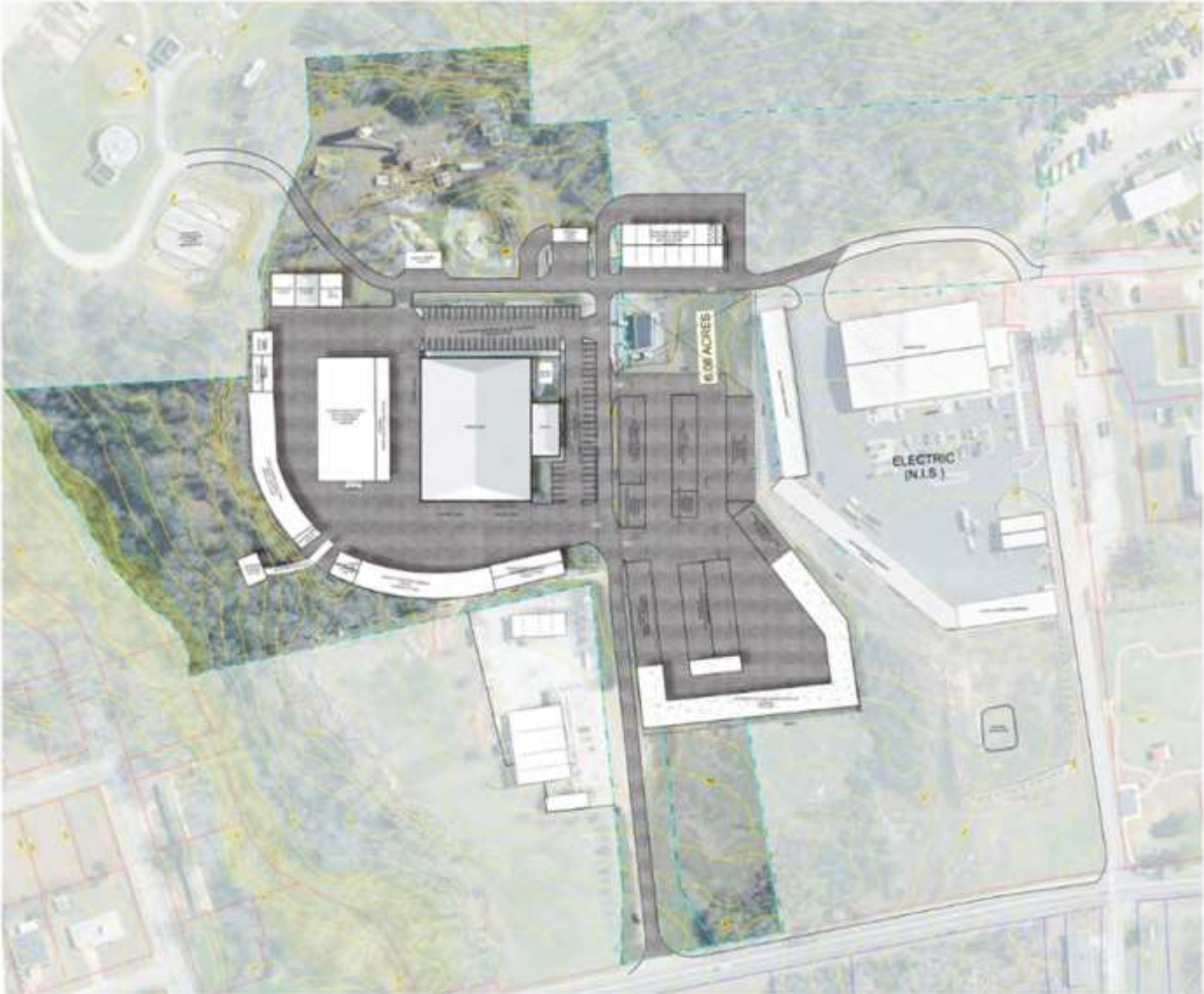
More details are provided in the “Facts” section of the document.



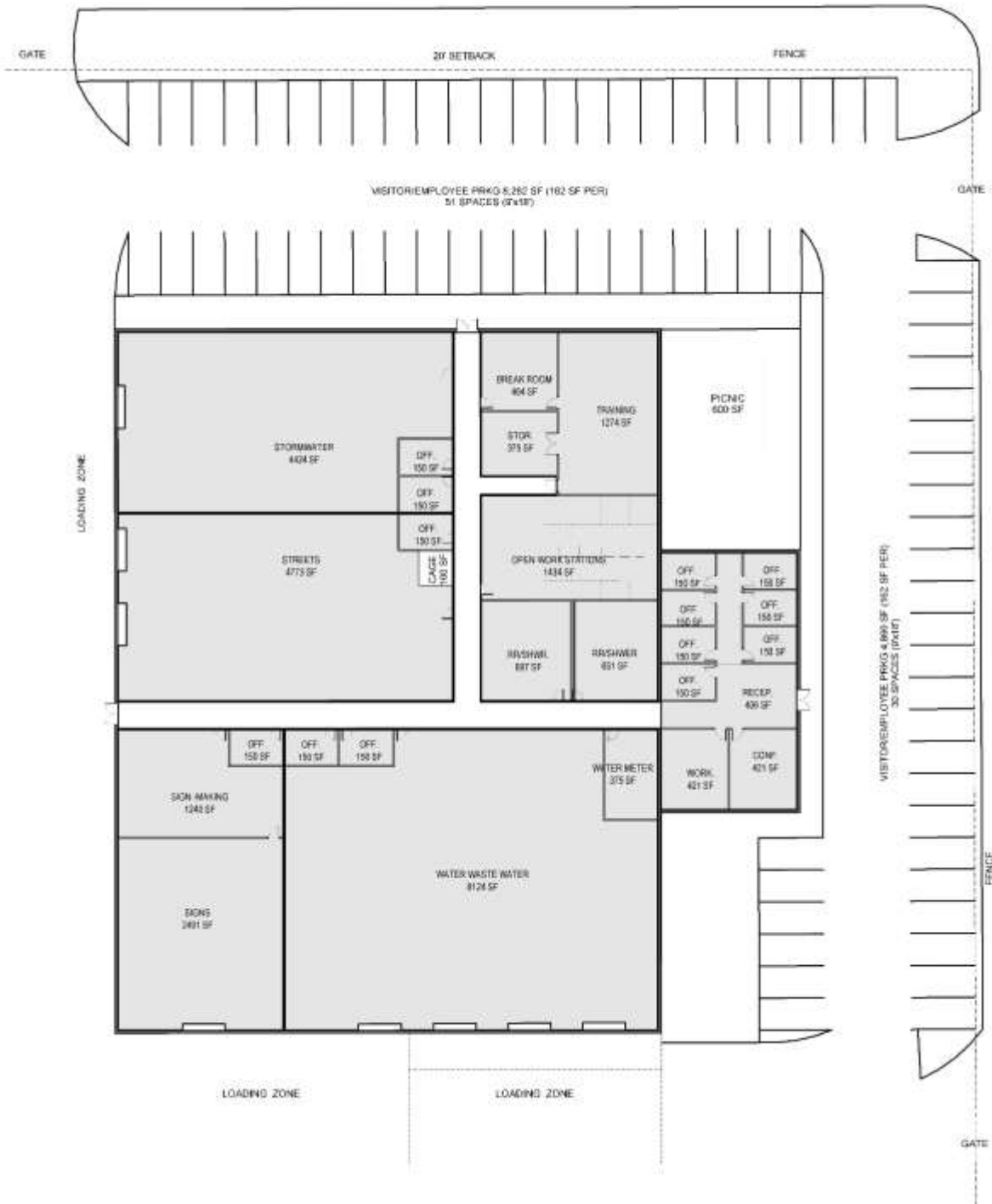
PROGRAM AND LAYOUTS

Following the proposed layouts and space list.

PROPOSED SITE LAYOUT



PROPOSED BUILDING LAYOUT



PROPOSED SPACE LIST

Revised 5-2020		Current (2020)		Space Standard (2020)		5 YEARS		10 YEARS	
DEPARTMENT	LAYOUT TOTAL	TOTAL PEOPLE	TOTAL ASSIGNED ASF	TOTAL PEOPLE	TOTAL ASSIGNED ASF	TOTAL PEOPLE	TOTAL ASSIGNED ASF	TOTAL PEOPLE	TOTAL ASSIGNED ASF
Indoor Spaces		67	6,183	67	1,836	67	1,836	67	1,836
Stormwater		11	1,872	11	738	11	738	11	738
Streets		28	1,850	28	378	28	378	28	378
Sign		2	783	2	150	2	150	2	150
Water-Wastewater		26	1,678	26	570	26	570	26	570
Shared									
Small Conference			0	6	420	6	420	6	420
Training/Meeting (FLEXIBLE)			0	30	1,050	30	1,050	30	1,050
Kitchen/Break (CONNECT TO TRAINING)			0	10	250	10	250	10	250
Lockers Showers			0		1,400		1,400		1,400
Shared Docking Area			0				0		0
Reception			0		200		200		200
Indoor Spaces Total ASF			6,183		5,156		5,156		5,156
Indoor Spaces Total GSF	9,226		8,833		7,366		7,366		7,366
Warehouse/ Shop			20,523		20,534		20,534		20,534
Stormwater			5,616		4,014		4,014		4,014
Streets			4,536		4,400		4,400		4,400
Sign			2,920		3,720		3,720		3,720
Water-Wastewater			7,451		8,400		8,400		8,400
Warehouse/ Shop Total ASF			20,523		20,534		20,534		20,534
Warehouse/ Shop Total GSF	24,059		24,145		24,158		24,158		24,158
Outdoor Spaces			80,495		134,330		134,330		133,380
Stormwater Covered	3,000		3,312		3,500		3,500		3,500
Stormwater Not Covered	24,200		42,988		44,280		44,280		44,280
Streets Covered	6,150		6,434		7,000		7,000		7,000
Streets Not Covered	20,000		21,127		30,000		30,000		30,000
Sign Covered			0		0		0		0
Sign Not Covered			250		250		250		250
Water-Wastewater Covered	8,000		6,384		8,200		8,200		8,200
Water-Wastewater Not Covered	20,000		15,611		20,200		20,200		20,200
Shared									
Wash Bays	1,500		0		1,500		1,500		1,500
De-Watering Bay	1,500		0		1,200		1,200		250
Outdoor Training Area (Pole Barn + Power + Lights)	1,200		0	40	1,200		1,200		1,200
Employee/Visitor Parking	13,122		0	41	10,000		10,000		10,000
Company Trucks (Pickup) Parking	10,000		0						
Shared "Bins" - Bulk Aggregate Storage	8,200		0		4,000		4,000		4,000
Dump Area - Leaves/Street Debris	1,200		0		1,000		1,000		1,000
Refuse	2,000		0		2,000		2,000		2,000
Picnic Area	600		0		525		525		525
Outdoor Spaces Total GSF	120,072		96,106		134,330		134,330		133,905
GRAND TOTAL GSF	153,357		129,084		165,853		165,853		165,428

COST

The team developed a Total Project Budget that encompasses the sum of Construction Cost and Soft Cost (Professional Services, Contingency, FFE, etc.).

Below is the Estimated Total Project Cost Summary:

Below is the breakdown of the Estimated Construction Cost by Space Type:

*2 Year Escalation included. Additional 3-4% per year (compounded)

Space Type	Total sf	Total Construction Cost	Cost/sf
Office Space	11,349		
Warehouse	21,623		
Bulk Storage Non-Aggregate	35,551		
Bulk Storage Aggregate (walls, no roof)	12,700		
Bulk Storage Aggregate (walls plus roof)	600		
Covered Storage	7,700		
General Equipment Parking	35,553		
Shared Dump	2,000		
WWW Debris Dumpster	1,200		
Drying Bed	1,500		
Covered Wash Bay	1,500		
Dewatering Bay	1,500		
Covered Equipment Parking	12,950		
Vacuum Parking	1,200		
Outdoor Training	1,200		
Heater Storage	1,500		
Asphalt Paving 1	92,392		
Asphalt Paving 2	55,890		
Asphalt Paving 3	45,029		
Total	342,937		

II. **GOALS**

Goals describe the client’s aspirations for this project and establish a direction for the program.

Through a series of group meetings with the Core Team, the following goals were identified to guide the Planning effort:

FUNCTION

- One-way access for bulk storage and equipment flow
- Shared warehouse with four loading docks
- Covered storage space
- Fenced security

FORM

- Butler style building with high ceilings for vertical storage
- Separate Office entry with partial thin stone veneer or siding

TIME

- To project for growth 5, 10 years out.

ECONOMY

- Pre-engineered building
 - Conditioned office space
 - Unconditioned but heated warehouse/shop



III. **FACTS**

The facts documented in this section describe important data and assumptions that are accepted as “givens” for this project. This section is divided into the following topics:

- Existing Public Works Facilities
- Project Site Analysis
- Aspirational Examples



EXISTING PUBLIC WORKS FACILITIES

Existing space by department, based on aerial calculations:

	Stormwater	Streets	Signs	WWW	
Office & Warehouse	7,488	7,329	3,703	9,129	27,649
Covered Storage	1,656	3,641		6,384	6,384
Bulk Storage	32,680	4,815	250	13,540	34,033
General Equipment Parking	6,830	16,312			
Company Truck Parking	6,576				
Total	55,230	32,097	3,953	29,053	120,333
Staff- dedicated space	8	5	1	8	

The total existing space by department is 120,333 GSF (gross square feet).



Stormwater Site



Water & Wastewater, Signs & Streets Site

Signs & Streets Facilities



Water & Wastewater Facilities



PROJECT SITE ANALYSIS

Location: City of Griffin, Georgia

County: Spalding County

Total Acreage: 25.17 acres

- 003A01002: 14.31 Acres
- 003A01007: 10.86 (In project scope)
13.86 (Total lot)

Current Zoning Designation (City): PID – Planned Industrial Development

Current Setback Requirements

- 30 Foot Min. Front
- 20 Foot Min. Each Side
- 20 Foot Min. Rear

Sources

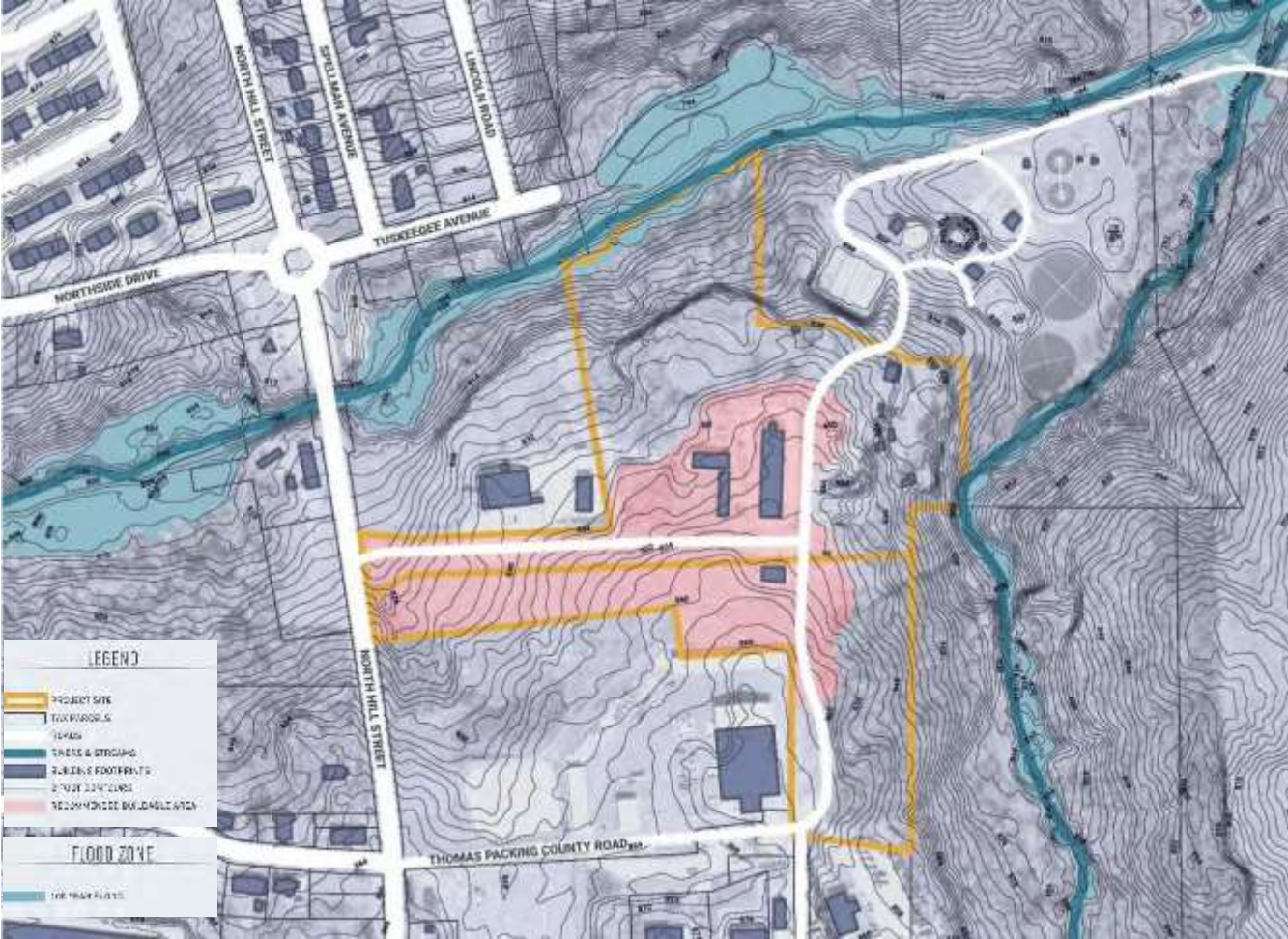
- Spalding County Tax Assessors Office
- City of Griffin Code of Ordinances

Site Attributes:

- Topography – areas highlighted below as areas to avoid building if possible
 - Steep topography
 - Soils – rocks, contamination
- Stormwater management
 - Existing at adjacent site – can expand for new build

PROJECT SITE AERIAL

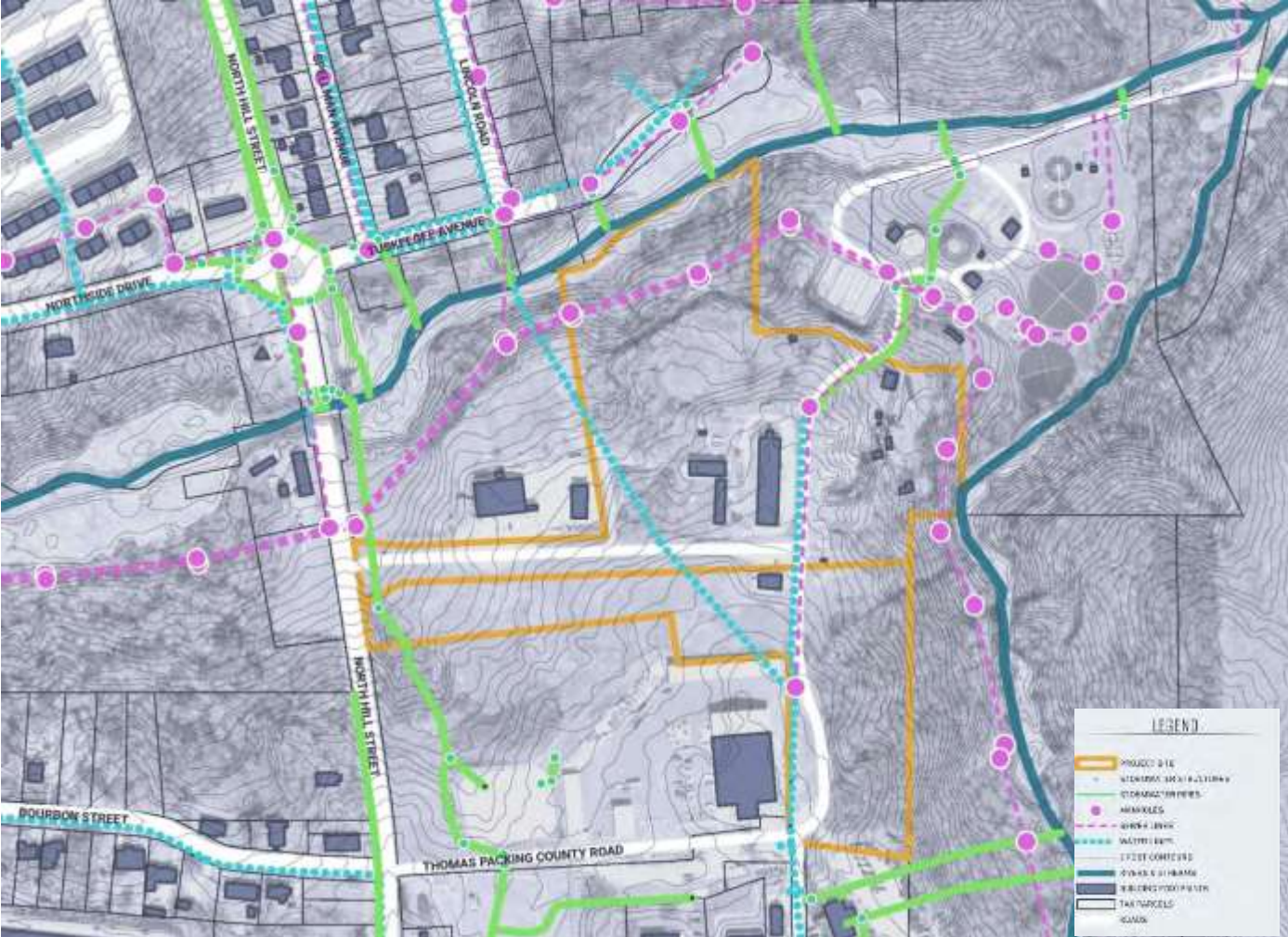




TOPOGRAPHY & HYDROLOGY



TRANSPORTATION & PARKING



UTILITIES

ASPIRATIONAL IMAGES

The team identified the electrical warehouse as an example of preferred direction.

- Tall ceiling for vertical storage
- Loading dock
- Covered equipment parking
- Offices in warehouse



IV. CONCEPTS

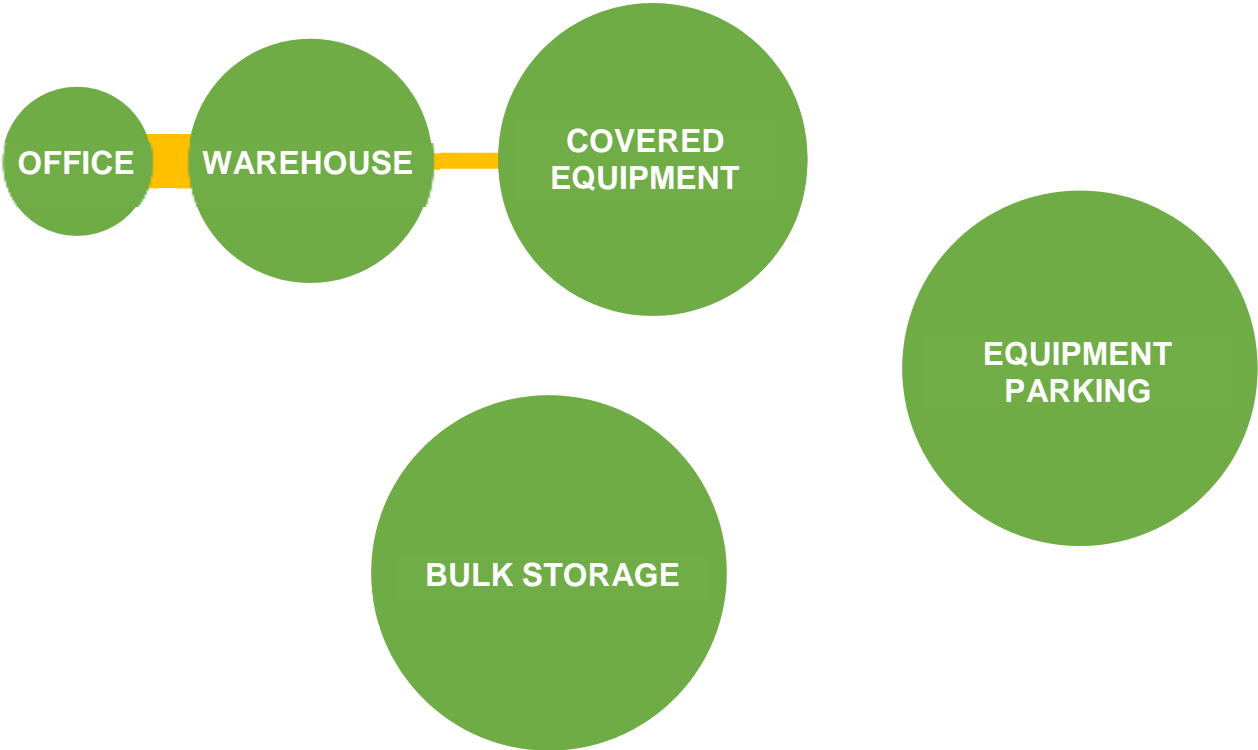
The concepts documented in this section describe the process taken to develop the final design. This section is divided into the following topics:

- Adjacencies
- Opportunities
- Charrette layouts



ADJACENCIES

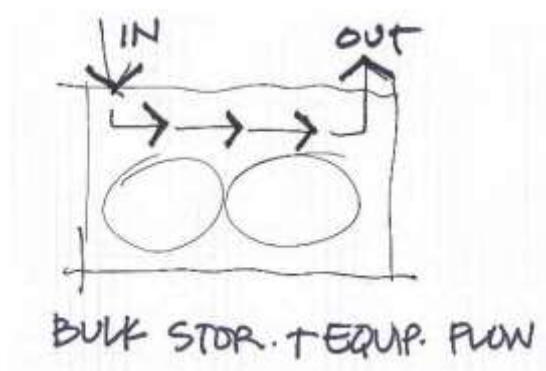
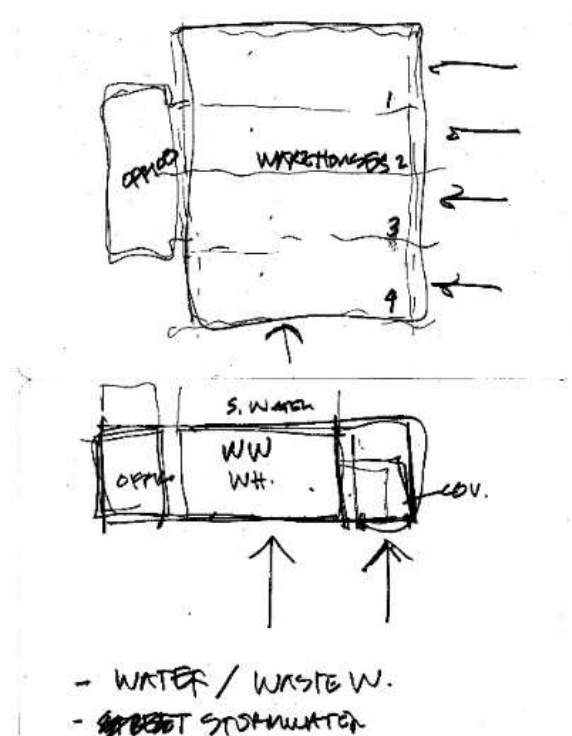
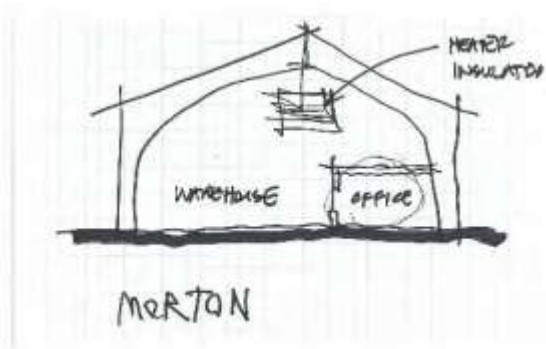
The following diagram showcases the preferred adjacency of buildings on the site:



OPPORTUNITIES

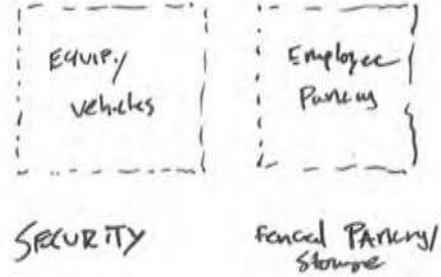
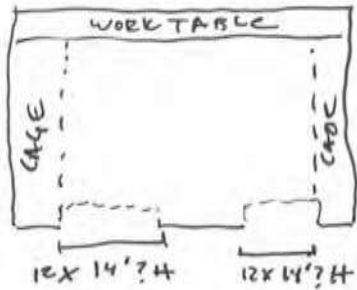
Building Concepts:

- Pre-engineered
 - Enclosed or conditioned with DX or heat pumps
 - Partial thin stone veneer or partial siding on exterior facade
- Warehouse Area
 - Separate department warehouse/ shop areas within shared building
 - Unit heaters (not infrared)
 - Exhaust air
 - Metal Exterior
 - High Ceilings for vertical storage
- One way In/Out flow for pickup/deliver bulk equipment

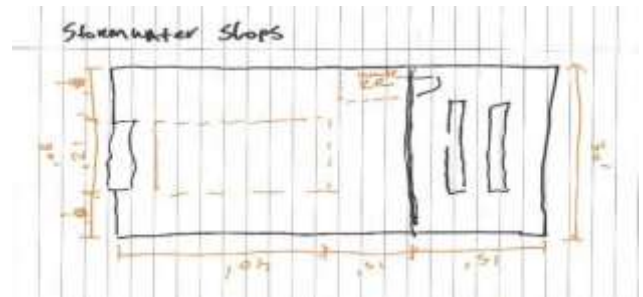
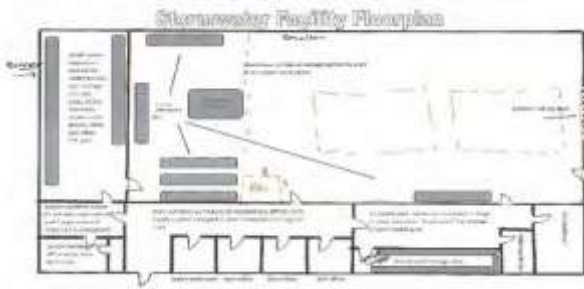


Proposed Layouts:

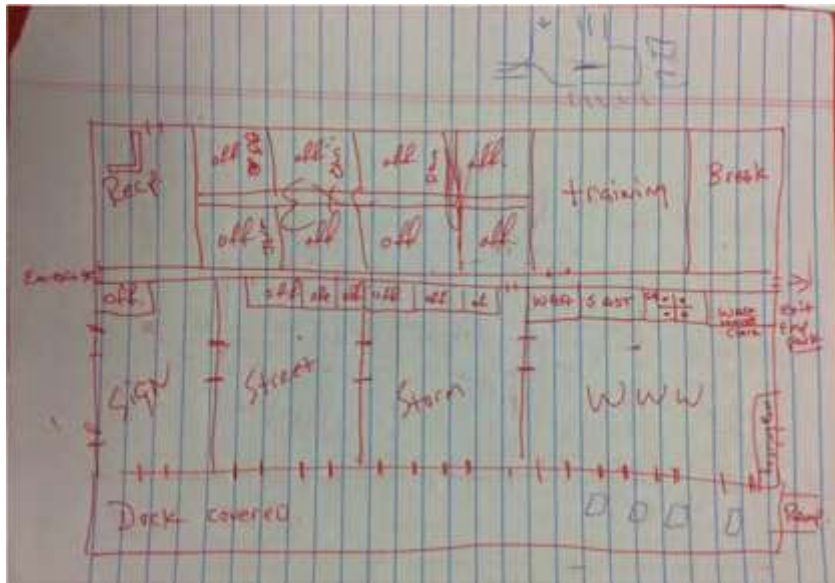
- Streets proposed shop layout & outdoor security



- Stormwater proposed shop layout:



- Water & Wastewater proposed shared warehouse & office building layout:



CHARRETTE

The team participated in a mini design charette during the interview process to better determine the preferred layout on the site. Below are some initial layouts created. The layouts were then further refined as a group to create the final site layout.

Water & Wastewater’s preferred warehouse layout:



V. **NEEDS**

Needs quantify the project requirements that have been identified in the preceding sections. These requirements outline and test the feasibility of the project in terms of space (area), quality and cost. The requirements are also outlined in a time or sequence. This section is organized as follows:

- Space Standard
- Detailed Space List
- Building and Systems Narrative
- Cost

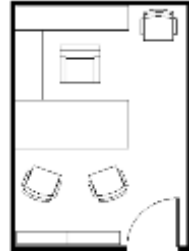


SPACE STANDARDS

These sketches attached are graphic aids to assist in describing functional space needs. They inform the layout and square footage used to generate the space lists.

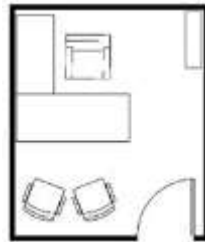
**PO 1
Superintendent
150 SF**

Private Office with seating for guests.
Private storage and filing space.



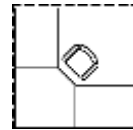
**PO 2
Assistant Superintendent
120 SF**

Private Office with seating for guests.
Private storage and filing space



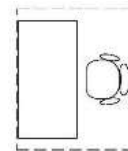
**OS 2
Supervisor
64 SF**

6x6 Open workstation, no guests



**OS 3
Supervisor
36 SF**

Hoteling / Call Center



DETAILED SPACE LISTS

The following Space Lists explain the program requirements determined from sessions with the Public Works Department. The LAYOUT TOTAL column compares what was provided in the Final Layout and the programmatic requirements.

Summary Space List

Revised 5-2020	Current (2020)		Space Standard (2020)		5 YEARS		10 YEARS		
DEPARTMENT	LAYOUT TOTAL	TOTAL PEOPLE	TOTAL ASSIGNED ASF	TOTAL PEOPLE	TOTAL ASSIGNED ASF	TOTAL PEOPLE	TOTAL ASSIGNED ASF	TOTAL PEOPLE	TOTAL ASSIGNED ASF
Indoor Spaces		67	6,183	67	1,836	67	1,836	67	1,836
Stormwater		11	1,872	11	738	11	738	11	738
Streets		28	1,850	28	378	28	378	28	378
Sign		2	783	2	150	2	150	2	150
Water-Wastewater		26	1,678	26	570	26	570	26	570
Shared									
Small Conference			0	6	420	6	420	6	420
Training/Meeting (FLEXIBLE)			0	30	1,050	30	1,050	30	1,050
Kitchen/Break (CONNECT TO TRAINING)			0	10	250	10	250	10	250
Lockers Showers			0		1,400		1,400		1,400
Shared Docking Area					0		0		0
Reception			0		200		200		200
Indoor Spaces Total ASF			6,183		5,156		5,156		5,156
Indoor Spaces Total GSF	9,226		8,833		7,366		7,366		7,366
Warehouse/ Shop			20,523		20,534		20,534		20,534
Stormwater			5,616		4,014		4,014		4,014
Streets			4,536		4,400		4,400		4,400
Sign			2,920		3,720		3,720		3,720
Water-Wastewater			7,451		8,400		8,400		8,400
Warehouse/ Shop Total ASF			20,523		20,534		20,534		20,534
Warehouse/ Shop Total GSF	24,059		24,145		24,158		24,158		24,158
Outdoor Spaces			80,495		134,330		134,330		133,380
Stormwater Covered	3,000		3,312		3,500		3,500		3,500
Stormwater Not Covered	24,200		42,988		44,280		44,280		44,280
Streets Covered	6,150		6,434		7,000		7,000		7,000
Streets Not Covered	20,000		21,127		30,000		30,000		30,000
Sign Covered			0		0		0		0
Sign Not Covered			250		250		250		250
Water-Wastewater Covered	8,000		6,384		8,200		8,200		8,200
Water-Wastewater Not Covered	20,000		15,611		20,200		20,200		20,200
Shared									
Wash Bays	1,500		0		1,500		1,500		1,500
De-Watering Bay	1,500				1,200		1,200		250
Outdoor Training Area (Pole Barn + Power + Lights)	1,200		0	40	1,200		1,200		1,200
Employee/Visitor Parking	13,122		0	41	10,000		10,000		10,000
Company Trucks (Pickup) Parking	10,000								
Shared "Bins" - Bulk Aggregate Storage	8,200				4,000		4,000		4,000
Dump Area - Leaves/Street Debris	1,200		0		1,000		1,000		1,000
Refuse	2,000		0		2,000		2,000		2,000
Picnic Area	600				525		525		525
Outdoor Spaces Total GSF	120,072		96,106		134,330		134,330		133,905
GRAND TOTAL GSF	153,357		129,084		165,853		165,853		165,428

Streets Space List

Space Description	Space Standard Type	Current			5 Years = SHORT TERM				10 Years = LONG TERM			
		Capacity/ Unit	No. of Units*	TOTAL ASF	Capacity / Unit	No. of Units - 5 Year	ASF/ Unit	TOTAL ASF	Capacity/ Unit	No. of Units - 10 Year	ASF/ Unit	TOTAL ASF
STREETS - Indoor Spaces			28	1,850		28		378		28		378
Superintendent	PO1		0	200		1	150	150		1	150	150
Assistant Superintendent	PO2		0	120		1	120	120		1	120	120
Supervisor	OS3		0	150		2	36	150		2	36	72
Docking Station	OS					1	36	36		1	36	36
Staff	PO3		28	1,850		23	0	0		23	0	0
Total INDOOR ASF				1,850				456				378
TOTAL INDOOR GSF				2,643				540				540
STREETS - Warehouse/Shop			1	4,536		2		4,400		2		4,400
Shop/Storage			1	4,536		1	4300	4,300		1	4300	4,300
Cage Areas				0		1	100	100		1	100	100
Total WAREHOUSE / SHOP ASF				4,536				4,400				4,400
Total WAREHOUSE / SHOP GSF				5,336				5,176				5,176
Streets -Outdoor Spaces			4	27,561		4		37,000		4		37,000
Covered Outdoor storage/work			1	2,793		1	3,000	3,000		1	3,000	3,000
Covered Equipment parking			1	3,641		1	4,000	4,000		1	4,000	4,000
Bulk Material Storage			1	4,815		1	5,000	5,000		1	5,000	5,000
General Equipment Parking			1	16,312		1	25,000	25,000		1	25,000	25,000
TOTAL OUTDOOR ASF				27,561				37,000				37,000
TOTAL OUTDOOR GSF				39,373				52,857				52,857

Sign Shop Space List

Space Description	Space Standard Type	Current			5 Years = SHORT TERM				10 Years = LONG TERM			
		Capacity/ Unit	No. of Units*	TOTAL ASF	Capacity / Unit	No. of Units - 5 Year	ASF/ Unit	TOTAL ASF	Capacity/ Unit	No. of Units - 10 Year	ASF/ Unit	TOTAL ASF
Sign Shop - Indoor Spaces			2	783		2		150		2		150
Superintendent	PO1					1	150	150		1	150	150
Sign Shop	PO2		2	783		1	0	0		1	0	0
Total INDOOR ASF				783				0				0
TOTAL INDOOR GSF				1,119				0				0
Sign Shop -Warehouse/ Shop			1	2,920		2		3,720		2		3,720
Shop/Storage			1	2,920		1	2920	2,920		1	2920	2,920
Sign Fabricating Area			0	0		1	800	800		1	800	800
TOTAL WAREHOUSE/ SHOP ASF				2,920				3,720				3,720
TOTAL WAREHOUSE/ SHOP GSF				3,435				4,376				4,376
Sign Shop -Outdoor Spaces			1	250		1		250		1		250
Covered Outdoor storage/work												
Covered Equipment parking												
Bulk Material Storage												
General Equipment Parking		250	1	250		1	250	250		1	250	250
TOTAL OUTDOOR ASF				250				250				250
TOTAL OUTDOOR GSF				357				357				357

Water Wastewater Space List

Space Description	Space Standard Type	Current			5 Years = SHORT TERM				10 Years = LONG TERM			
		Capacity/ Unit	No. of Units*	TOTAL ASF	Capacity / Unit	No. of Units - 5 Year	ASF/ Unit	TOTAL ASF	Capacity/ Unit	No. of Units - 10 Year	ASF/ Unit	TOTAL ASF
Water/Wastewater - Indoor Spaces			26	1,678		26		570		26		570
Superintendent	PO1					1	150	150		1	150	150
Asisstant Superintendent	PO2					2	120	240		2	120	240
Supervisor	OS					2	36	72		2	36	72
Warehouse Supervisor	OS					1	36	36		1	36	36
Administrative Assistant	OS					1	36	36		1	36	36
Docking Station	OS					1	36	36		1	36	36
Staff	OS		26	1,678		18	0	0		18	0	0
Total INDOOR ASF				1,678				570				570
TOTAL INDOOR GSF				2,397				814				814
Water/Wastewater -Warehouse/ Shop			2	7,451		2		8,400		2		8,400
Shop/Storage			1	7,083		1	8000	8,000		1	8000	8,000
Meter Testing Room			1	368		1	400	400		1	400	400
TOTAL WAREHOUSE/ SHOP ASF				7,451				8,400				8,400
TOTAL WAREHOUSE/ SHOP GSF				8,766				9,882				9,882
Water/Wastewater -Outdoor Spaces			6	19,819		7		24,200		7		24,200
Covered stor./work "shed/awning"			1	1,123		1	1,200	1,200		1	1,200	1,200
Covered Equipment parking			1	5,261		1	7,000	7,000		1	7,000	7,000
Bulk Material Storage			1	10,759		1	13,000	13,000		1	13,000	13,000
General Equipment Parking			1	2,676		1	3,000	3,000		1	3,000	3,000
Heated Covered Parking			1	1,123		1	1,500	1,500		1	1,500	1,500
Dumping bed						1	1,500	1,500		1	1,500	1,500
Filling Stations							0	0			0	0
Debris Bins			1	1,053		1	1,200	1,200		1	1,200	1,200
TOTAL OUTDOOR ASF				21,995				28,400				28,400
TOTAL OUTDOOR GSF				31,421				40,571				40,571

BUILDING & SYSTEMS NARRATIVE

The following includes the basic assumptions used to provide the preliminary cost estimate.

ARCHITECTURE

OFFICE BUILDING

- Pre-engineered Building with partial (1/3) thin stone veneer or siding for aesthetics
- Floor: Carpet tile at offices/ Conference/ Training
 - Porcelain tile floor at restrooms
 - VCT at breakroom
- Walls: Painted drywall and 4" rubber cove base
 - Tiled walls at restrooms
- Ceiling: 2x2 acoustical tile and led light fixtures
- Office doors: Stained wood
- Millwork: Breakroom cabinets and counter

WAREHOUSE/ SHOP

- Floor: Sealed concrete
- Walls: painted CMU between shop areas and office
- Ceiling: Exposed structure
- Hollow metal doors
- Loading dock with 8 rollup doors at loading

DEWATERING BAY

- Concrete slab with dewatering equipment

DRYING BED

- Concrete walls on concrete slab with drainage system

COVERED WASHBAY

- CMU walls on 3 sides
- Concrete slab
- Wood framed roof structure with corrugated metal roofing

COVERED STORAGE & EQUIPMENT PARKING

- Wood frame structure with metal roof
- Light fixtures



VACUUM PARKING

- Heated structure

OUTDOOR TRAINING

- Concrete slab
- CMU walls
- Wood framed roof structure with corrugated metal roofing
- Light fixtures

HEATED STORAGE

- Concrete slab
- CMU walls
- Wood framed roof structure with corrugated metal roofing
- Light fixtures

MECHANICAL / ELECTRICAL / PLUMBING

MECHANICAL

- Warehouse – unconditioned
 - Unit heaters (not infrared)
 - Exhaust fan
- Office – conditioned
 - Enclosed or conditioned with dx or heat pumps at office

ELECTRICAL

Emergency power panel and generator

PLUMBING

Water heater

Restroom – toilet & lavatory (qty 4 each) and shower (qty 2) fixtures

FIRE PROTECTION

- Sprinkler
- Fire Alarm



SITE

- Wood frame, covered storage & Pavilion on concrete slab
- Concrete paving at equipment storage
- Asphalt paving at parking and roads
- Security fence around perimeter of property with manual gates
- Concrete block walls at bulk aggregate storage (one covered)
- Site Lighting

CONSTRUCTION

- Design/Bid/Build delivery method
- CM will receive bids from at least (4) qualified contractors for each trade.























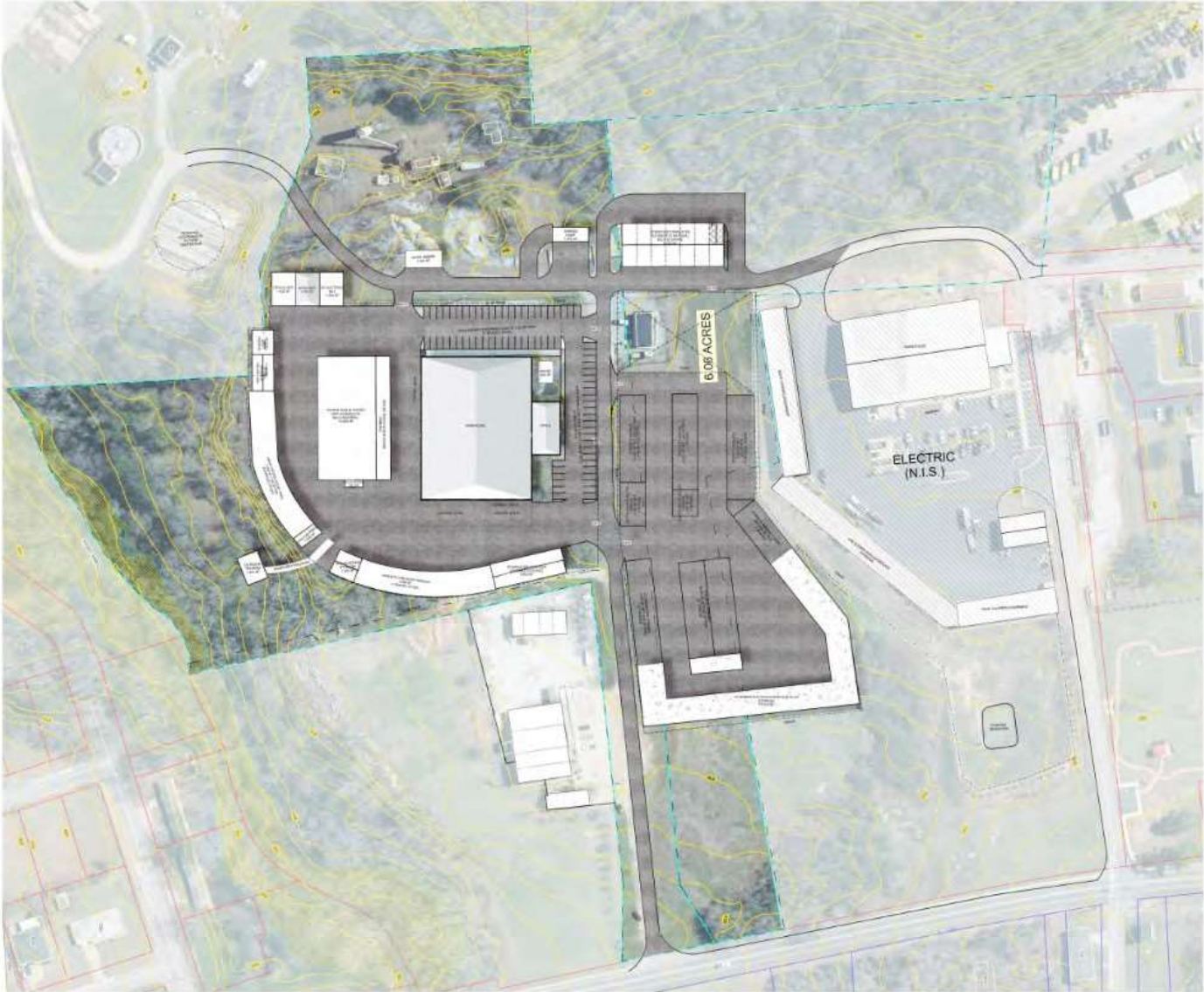
VI. LAYOUTS

Layout options have been explored to test the layout and organization of buildings interiors.

- Master Plan
- Building Layout




Master Plan



Colored Diagram For Costing Purposes



 DRYING BED 4" CONCRETE WALLS, CONCRETE SLAB W/ DRAINAGE SYSTEM 1,500 SF	 BULK NON-AGGREGATE STOR CONCRETE SLAB, NO ROOF 21,020 SF	 COVERED EQUIP. PARKING COVERED WOOD STRUCT. W/ METAL ROOF 12,950 SF	 ASPHALT 2 104,207 SF
 DE WATERING BAY CONCRETE SLAB 1,500 SF	 GENERAL EQUIP. PRKG CONCRETE 35,380 SF	 VACUUM PARKING CONCRETE SLAB W/ DRAIN 1,200 SF	 ASPHALT 3 36,112 SF
 WASH BAY CONCRETE SLAB, WOOD STRUCT. W/ METAL ROOF 1,500 SF	 SHOP NON-CONDITIONED; PRE FAB METAL 22,071 SF	 OUTDOOR TRAINING OUTDOOR TRAINING W/ LIGHTS + POWER, CONCRETE SLAB 1,200 SF	
 SHARED DUMP CONCRETE SLAB 2,000 SF	 OFFICE 9,226 SF	 BULK AGGREGATE STOR. CONCRETE SLAB, 8' CONCRETE WALLS - NOT COVERED 7,798 SF	
 WWW HEATED STOR. CONCRETE SLAB, COVERED 1,500 SF	 WAREHOUSE BUILDING CIRCULATION 1,988 SF	 BULK AGGREGATE STOR. CONCRETE SLAB, 8' CONCRETE WALLS - COVERED 402 SF	
 WWW DEBRIS DUMPSTER 1,200 SF	 ASPHALT 1 55,619 SF		

VII. APPENDIX

- A. Site Analysis Maps
- B. Space List
- C. Site Plan
- D. Floor Plan
- E. Cost estimate

