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UPDATE REPORT

February 21, 2019

Town of Paxton

MASSACHUSETTS

Draft Preliminary Feasibility Study New Public Works Facility







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Executive Summary

The Town of Paxton has identified the need to upgrade the outdated Public Works Facility located at 107 Holden Road. An initial preliminary feasibility study was completed in March 2017. The objective of this preliminary feasibility study was to provide the Town with sufficient information to identify the general size and cost for a new Public Works Facility based on similarly constructed facilities in Massachusetts. The study included inspecting the existing facilities, identifying deficiencies, identifying building and site amenity programming needs, and preparing a budget cost estimate.

This Update Report has been prepared to adjust the results of the initial 2017 report with updated figures based on current market conditions. In addition, the design team reviewed the initial programming documents to identify additional space reductions to help offset the two (2) years of market escalation associated with the delay in the funding of the project. The following is a summary of the updated documents included in this report:

Space Needs Assessment

Weston & Sampson prepared a modified space needs assessment which reduced the overall program by approximately 12%. The proposed reductions do not eliminate any of the required spaces. The reductions focused primarily on fine tuning the spaces by adjusting overall room sizes.

Cost Estimate

The cost estimate has been modified to reflect current market conditions. The revised total project cost is \$9.6 million compared to the 2017 estimate of \$8.9 million. This increase is primarily related to escalation in the construction market. The current estimate includes one (1) year of escalation. If construction is not initiated by 2020, the Town should adjust the Total Project Cost presented in this report by adding 5% - 8% per year to account for future construction market escalation. For example, if construction is anticipated to start in 2021, the Total Project Cost should be increased by \$480,000 - \$770,000 (depending on market conditions at the time of the adjustment).

Construction Cost Comparison

The report includes a construction cost comparison which compares the Paxton DPW Construction Cost to recent actual bid prices for similar DPW facilities. As shown in this comparison, the Paxton DPW cost is approximately \$366 per square foot compared to the three (3) year average based on recent bid prices of \$397 per square foot. As summarized in the previous report and presentations, the Paxton DPW cost per square foot is less than the industry average as a result of several value engineering (VE) initiatives which were applied to the program. The following is a list of the VE items incorporated:

- · Reuse of existing salt shed
- Reduction in industrial equipment for maintenance bay and shop
- Reduced site development area

Community Comparison

The report includes a community comparison section to assist the Town in confirming that the overall building program is in-line with other departments of similar size. It is important to note that a DPW facility size is based primarily on the DPW's structure as opposed to the community size. Therefore, this document compares facility sizes based on the following metrics:

- Number of Staff
- Number of Divisions
- Number of Vehicles

This comparison is used as a high-level tool to assess the order of magnitude facility size. As demonstrated in the summary in Section 4, the proposed Paxton DPW Facility size is in-line with facilities for similarly sized departments.

Additional reviews and updates to the feasibility study are anticipated once the Town authorizes funds to advance the project to a formal feasibility study.

Section 1 Modified Space Needs Assessment

Paxton, Massachusetts Department of Public Works **Space Needs Summary** February 21, 2019

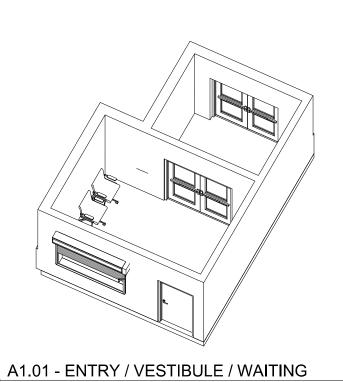
Building Requirements

			Original	Revision 1	i			Dimensions
Area	Description	No.	Size (SF)	Size (SF)	Quant	length	width	size
A. Administration								
	Entry / Vestibule / Waiting	A1.01	220	184	1			-
	DPW Superintendent's Office	A1.02	168	168	1	12	14	168
	Water Supervisor Office	A1.03	144	144	1	12	12	144
	Open Office	A1.04	200	160	1	8	20	160
	Copy / File / Mail	A1.05	225	150	1	10	15	150
	File Storage Area	A1.06	225	180	1	12	15	180
	Conference Room	A1.07	288	270	1	15	18	270
	Subtotal:		1,470	1,256				
	Area Grossing Factor (10%):		147	126				
	Circulation (15%):		243	207				
	TOTAL:		1,860	1,589				
	1017.21		1,000	1,000				
B. Employee Facilities								
	Multipurpose Room	B1.01	374	374	1	17	22	374
	Male Lockers / Shower / Toilet	B1.02	550	506	1	22	23	506
	Female Locker / Shower / Toilet	B1.03	180	180	1	18	10	180
	Janitor Closet	B1.04	36	36	1	6	6	36
	Electric Room	B1.05	120	120	1	10	12	120
	Tele / Data Room	B1.06	80	80	1	8	10	80
	Plumbing / Fire Protection	B1.07	168	140	1	10	14	140
	Subtotal:		1,508	1,436				
	Area Grossing Factor (10%):		151	144				
	Circulation (15%):		249	237				
	TOTAL		4.000	4 047				
	TOTAL:		1,908	1,817				
C. Workshops								
•	Shared Shop	C1.01	1,600	1,400	1	35	40	1,400
	Subtotal:		1,600	1,400				
	Area Grossing Factor (10%):		160	140				
	Circulation (10%):		176	154				
	TOTAL:		1,936	1,694	I			

Paxton, Massachusetts Department of Public Works **Space Needs Summary** February 21, 2019

Building Requirements

		Sheet	Original	Revision 1				Dimensions
Area	Description	No.	Size (SF)	Size (SF)	Quant	length	width	size
D. Maintenance								
	Large Maintenance Bay	D1.01	1,100	1,100	1	20	55	1,100
	Large Maintenance Bay	D1.01	1,100	1,100	1	20	55	1,100
	Mechanics Office / Reference Room	D1.02	120	120	1	10	12	120
	Parts Room	D1.03	1,080	512	1	16	32	512
	Fluids Room	D1.04	256	224	1	14	16	224
	Subtotal:		3,656	3,056				
	Area Grossing Factor (10%):		3,030	3,030				
	Circulation (10%):		402	336				
	TOTAL:		4,424	3,698				
E. Wash Area								
vv dom / trod	Wash Bay	E1.01	1,650	1,375	1	25	55	1,375
	Wash Equipment Room	E1.01	100	100	1	10	10	100
	Subtotal:		1,750	1,475				
	Area Grossing Factor (5%):		88	74				
	Circulation:		n/a	n/a				
	TOTAL:		1,838	1,549				
F. Vehicle and Equipment								
Storage								
•	Vehicle / Equipment Storage	F1.01	11,875	10,528	1	94	112	10,528
	Subtotal:		11,875	10,528				-
	Area Grossing Factor (5%):		594	526				
	Circulation:		n/a	n/a				
	TOTAL:		12,469	11,054				
	BUILDING TOTAL:	1	24,433	21,401	120/	Reduct	ion	



FLOORS: 12X12 VCT TILE

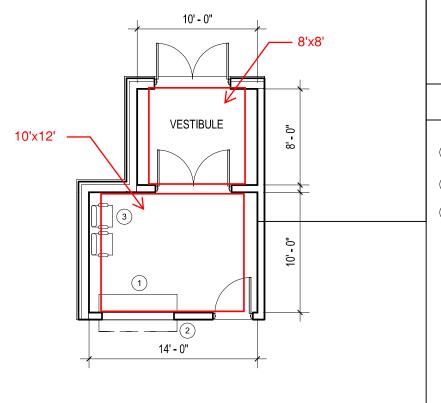
WALLS: **GWB PAINTED**

CEILING: 2X2 ACT TILE

MEP/DATA REQUIREMENTS

DUPLEX ELECTRICAL OUTLETS

DATA OUTLET JACKS



COMPONENTS:

- (1) RECEPTION COUNTER
- (2) ROLL-UP SECURITY GRILL
- 3 WAITING CHAIR (2)

A1.01 - ENTRY / VESTIBULE / WAITING -

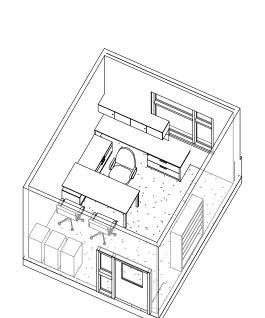
Client Name:

PAXTON

220SF 184 SF 1/8" = 1'-0"

2/21/19

A1.01 - ENTRY / VESTIBULE / WAITING



FLOORS: CARPET TILE

WALLS: GWB PAINTED

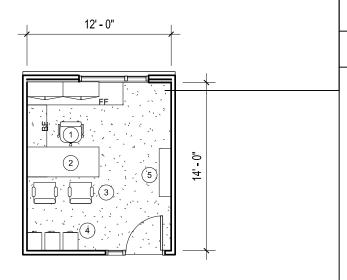
CEILING: 2X2 ACT TILE

MEP/DATA REQUIREMENTS

DUPLEX ELECTRICAL OUTLETS

DATA OUTLET JACKS

2 A1.02 - DPW SUPERINTENDENT'S OFFICE



COMPONENTS:

- 1 EXECUTIVE CHAIR
- 2 DESK WITH SIDE AND BACK STORAGE CABINETS
- (3) CONFERENCE TABLE AND CHAIRS
- 4 GUEST CHAIRS
- 5 FILE CABINETS
- 6 BOOKCASE

A1.02 - DPW SUPERINTENDENT'S OFFICE

1 - 168 SF 1/8" = 1'-0"

2/21/19

Weston & Sampson

Client Name: PAXTON

A1.02 - DIRECTOR'S OFFICE

Dept: ADMINISTRATION

FLOORS: CARPET TILE

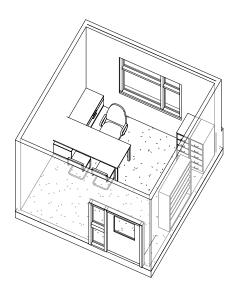
WALLS: GWB PAINTED

CEILING: 2X2 ACT TILE

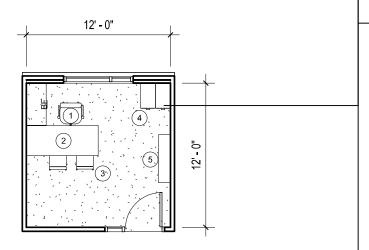
MEP/DATA REQUIREMENTS

DUPLEX ELECTRICAL OUTLETS

DATA OUTLET JACKS



A1.03 - WATER SUPERVISOR OFFICE



A1.03 - WATER SUPERVISOR OFFICE -

144SF

1/8" = 1'-0"

COMPONENTS:

- 1 EXECUTIVE CHAIR
- 2 DESK WITH SIDE AND BACK STORAGE CABINET
- 3 GUEST CHAIRS (2)
- 4 LATERAL FILE CABINETS (2)
- 5 BOOKCASE

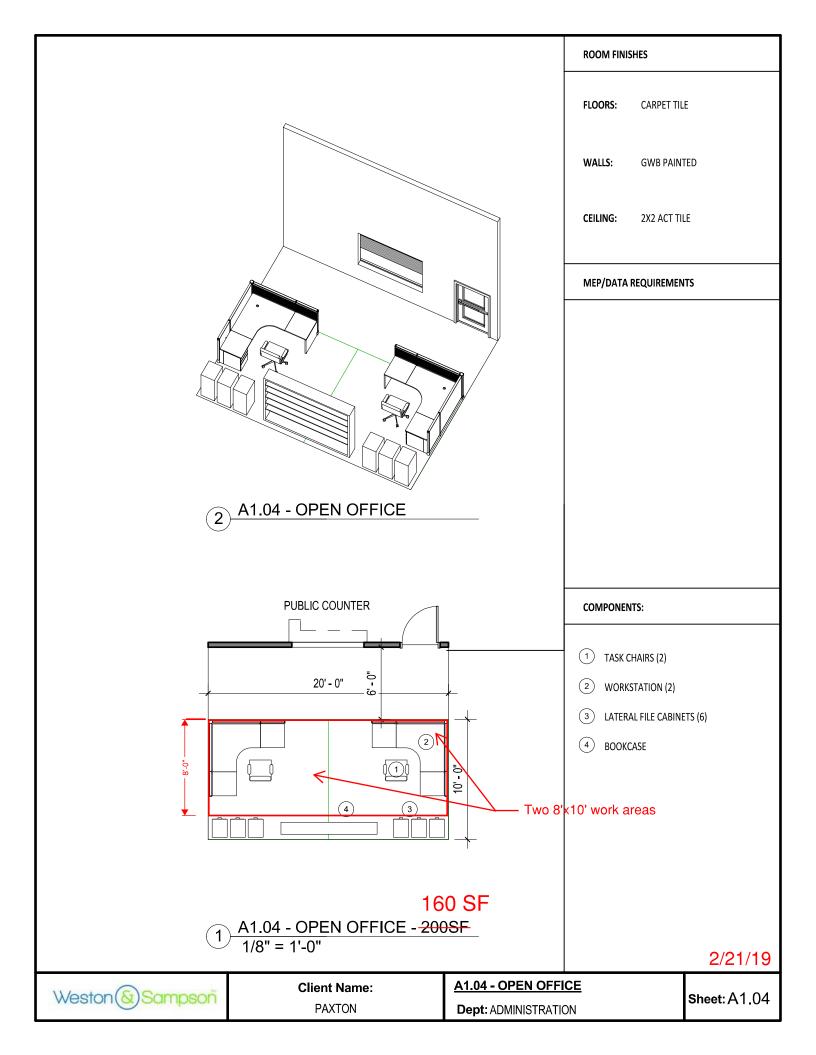
2/21/19



Client Name: PAXTON

A1.03 - ASSISTANT DIRECTOR'S OFFICE

Dept: ADMINISTRATION



FLOORS: 12X12 VCT TILE

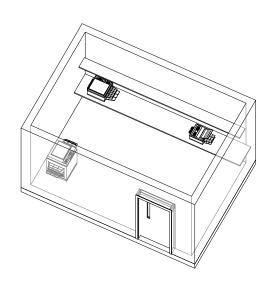
WALLS: GWB PAINTED

CEILING: 2X2 ACT TILE

MEP/DATA REQUIREMENTS

DUPLEX ELECTRICAL OUTLETS

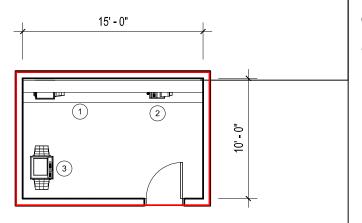
DATA OUTLET JACKS



A1.05 - COPY / FILE / MAIL

COMPONENTS:

- 1 COUNTER
- 2 SHELVING
- 3 PRINTER / COPIER



1 A1.05 - COPY / FILE / MAIL - 150SF 1/8" = 1'-0"

2/21/19



Client Name: PAXTON

A1.05 - COPY / FILE / MAIL

Dept: ADMINISTRATION



FLOORS: 12X12 VCT TILE

WALLS: GWB PAINTED

CEILING: 2X2 ACT TILE

MEP/DATA REQUIREMENTS

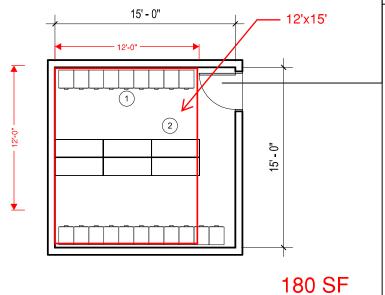
DUPLEX ELECTRICAL OUTLETS

DATA OUTLET JACKS

2 A1.06 - FILE STORAGE AREA

COMPONENTS:

- 1 FILE CABINET (20)
- 2 UTILITY SHELVING



100 31 1 A1.06 - FILE STORAGE AREA - 225SF 1/8" = 1'-0"

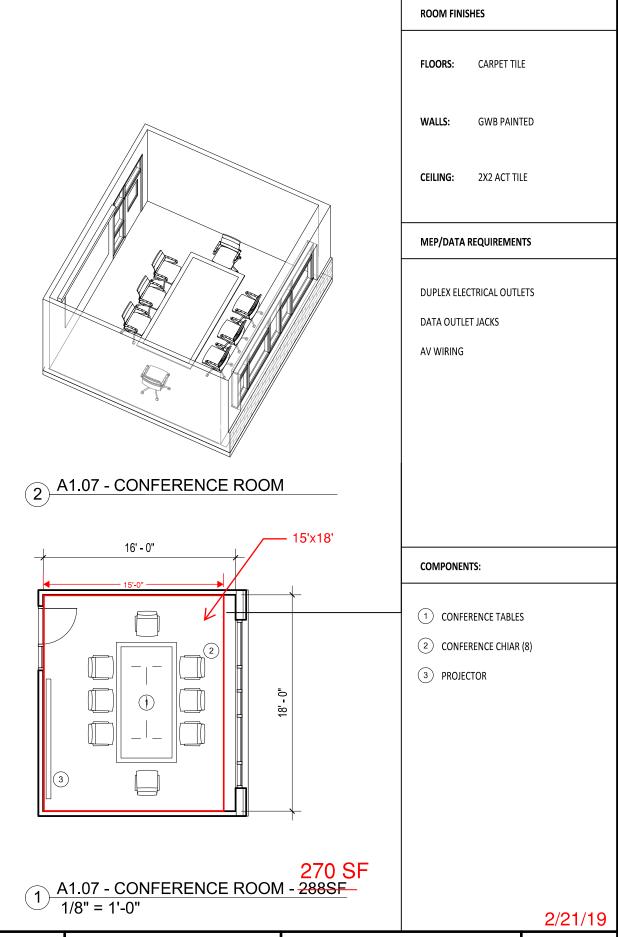
2/21/19



Client Name: PAXTON

A1.06 - FILE STORAGE AREA

Dept: ADMINISTRATION

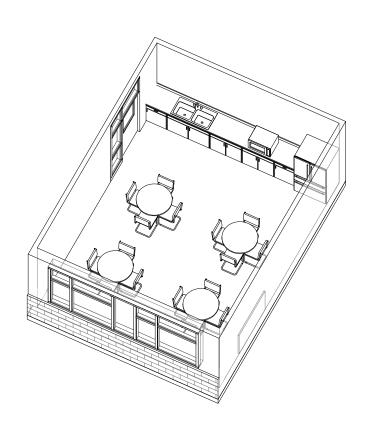


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Client Name: PAXTON

A1.07 - CONFERENCE ROOM

Dept: ADMINISTRATION



FLOORS: 12X12 VCT TILE

WALLS: GWB PAINTED

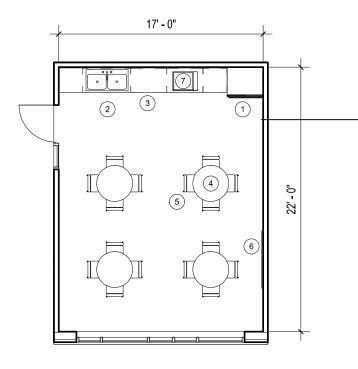
CEILING: 2X2 ACT TILE

MEP/DATA REQUIREMENTS

DUPLEX ELECTRICAL OUTLETS

DATA OUTLET JACKS

(2) B1.01 - MULTIPURPOSE ROOM



1 B1.01 - MULTIPURPOSE ROOM - 374SF 1/8" = 1'-0"

COMPONENTS:

- (1) REFRIGERATOR
- 2 DOUBLE SINK
- TOP COUNTER WITH CABINET (UNDER & ABOVE)
- 4 TABLE (5)
- (5) CHAIR (20)
- 6 FLAT TV SCREEN
- (7) MICROWAVE

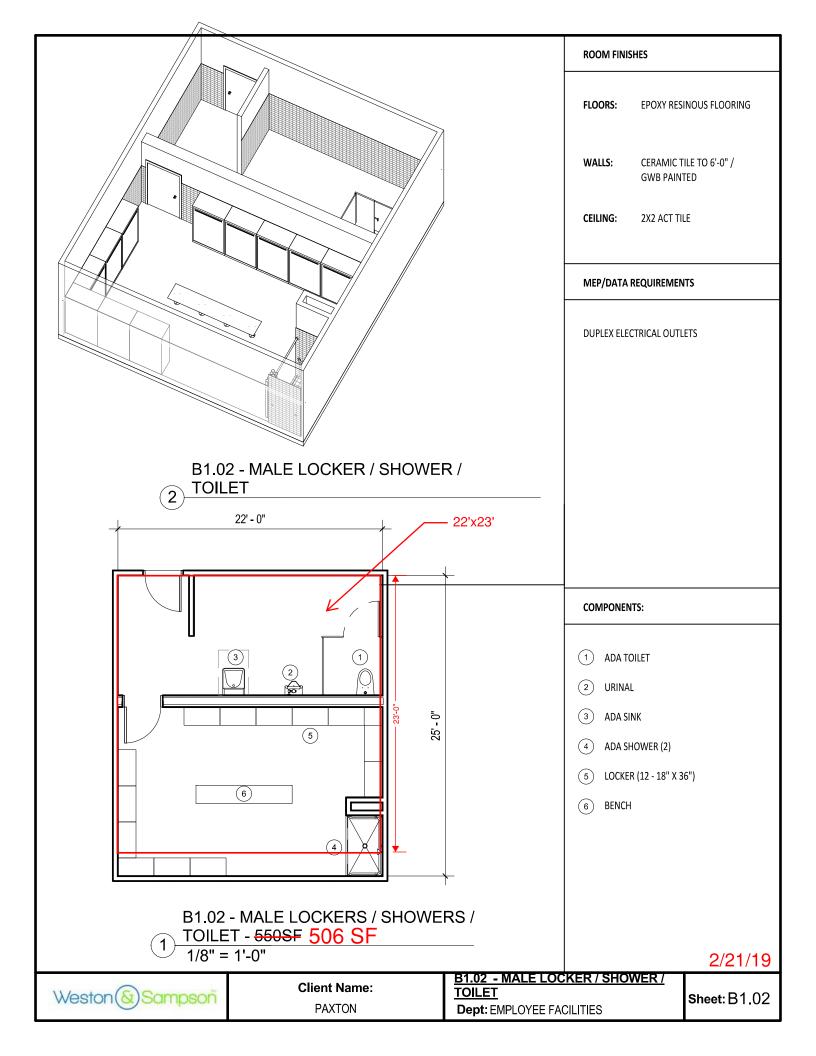
2/21/19



Client Name: PAXTON

B1.01 - MALTIPURPOSE ROOM

Dept: EMPLOYEE FACILITIES



FLOORS: EPOXY RESINOUS FLOORING

WALLS: GWB PAINTED

CEILING: 2X2 ACT TILE

MEP/DATA REQUIREMENTS

DUPLEX ELECTRICAL OUTLETS

TRAP PRIMERS

FLOOR DRAINS

B1.03 - FEMALE LOCKER / SHOWER / TOILET

18'-0"

B1.03 - FEMALE LOCKER / SHOWER /
TOILET - 180SF
1/8" = 1'-0"

COMPONENTS:

ADA TOILET

ADA SHOWER

ADA SINK

LOCKER (2)

BENCH

2/21/19

Weston & Sampson

Client Name: PAXTON

B1.03 - FEMALE LOCKER / SHOWER / TOILET

Dept: EMPLOYEE FACILITIES

FLOORS: SEALED CONCRETE

WALLS: GWB PAINTED

CEILING: 2X2 ACT TILE

MEP/DATA REQUIREMENTS

DUPLEX ELECTRICAL OUTLETS

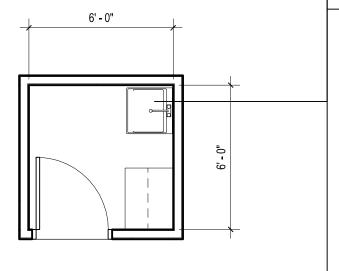
FLOOR DRAINS

TRAP PRIMER

COMPONENTS:

UTILITY SINK

WALL MOUNTED SHELVING



1 B1.04 - JANITOR - 36SF 1/4" = 1'-0"

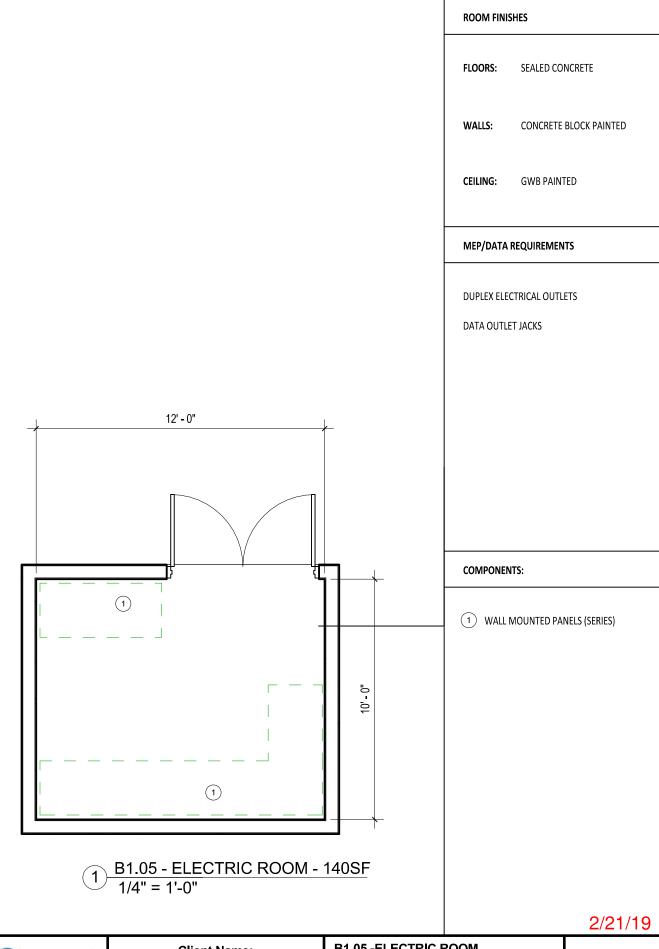
2/21/19



Client Name: PAXTON

B1.04 - JANITOR CLOSET

Dept: EMPLOYEE FACILITIES

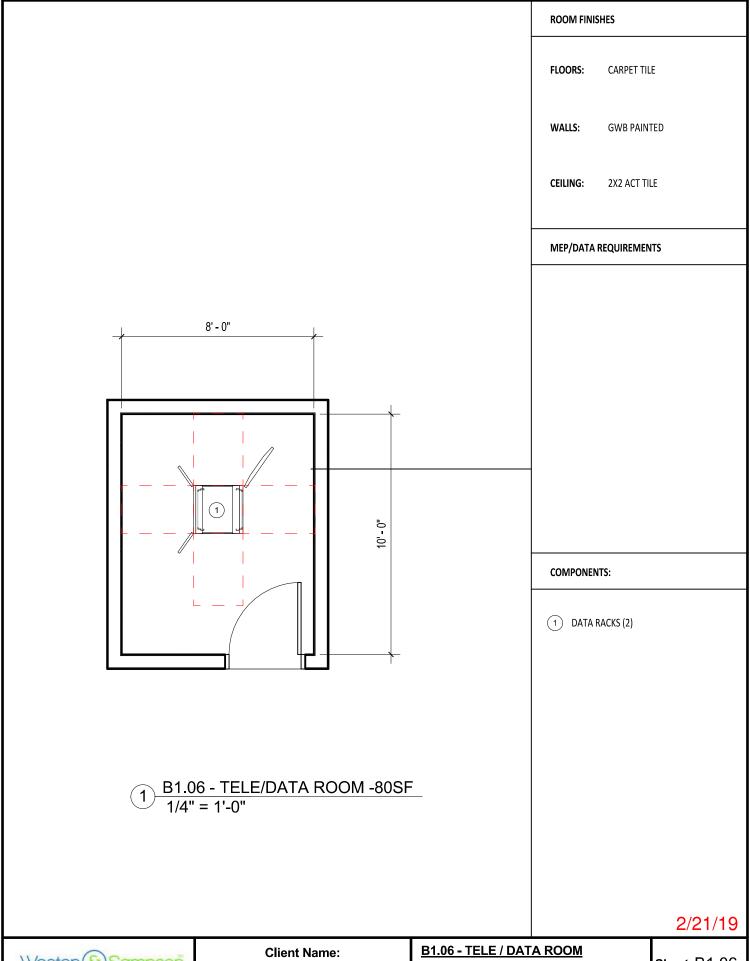


Weston & Sampson

Client Name: PAXTON

B1.05 -ELECTRIC ROOM

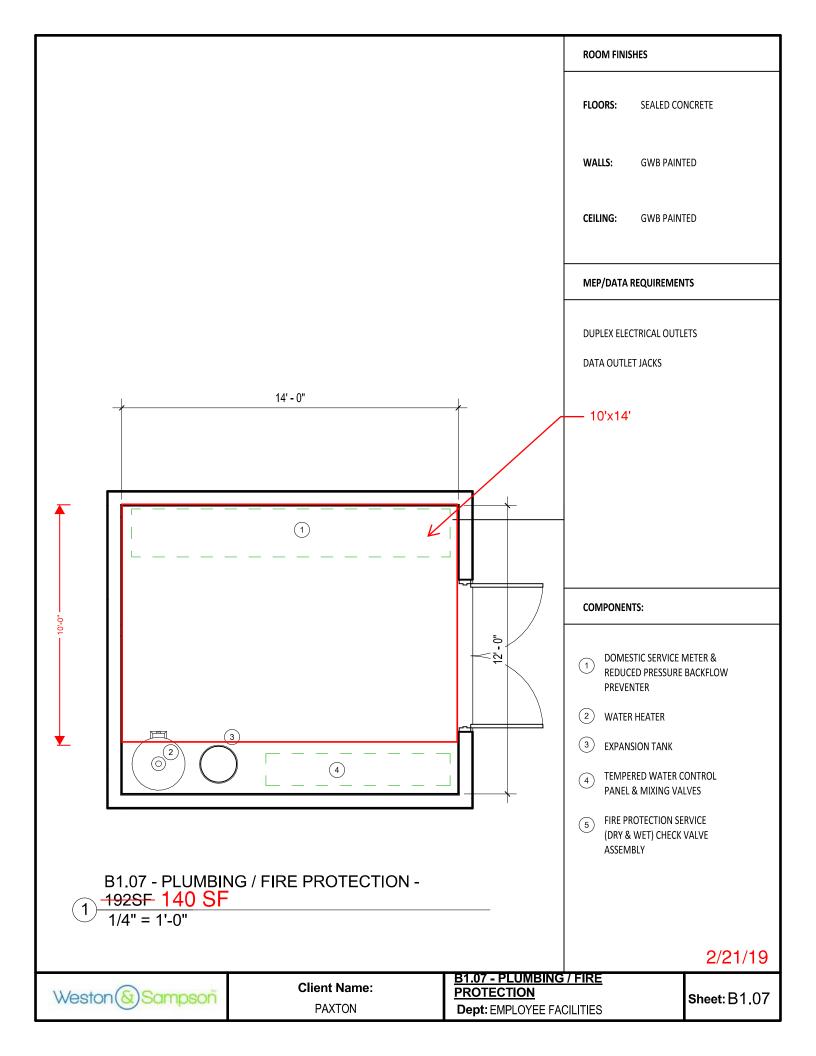
Dept: EMPLOYEE FACILITIES

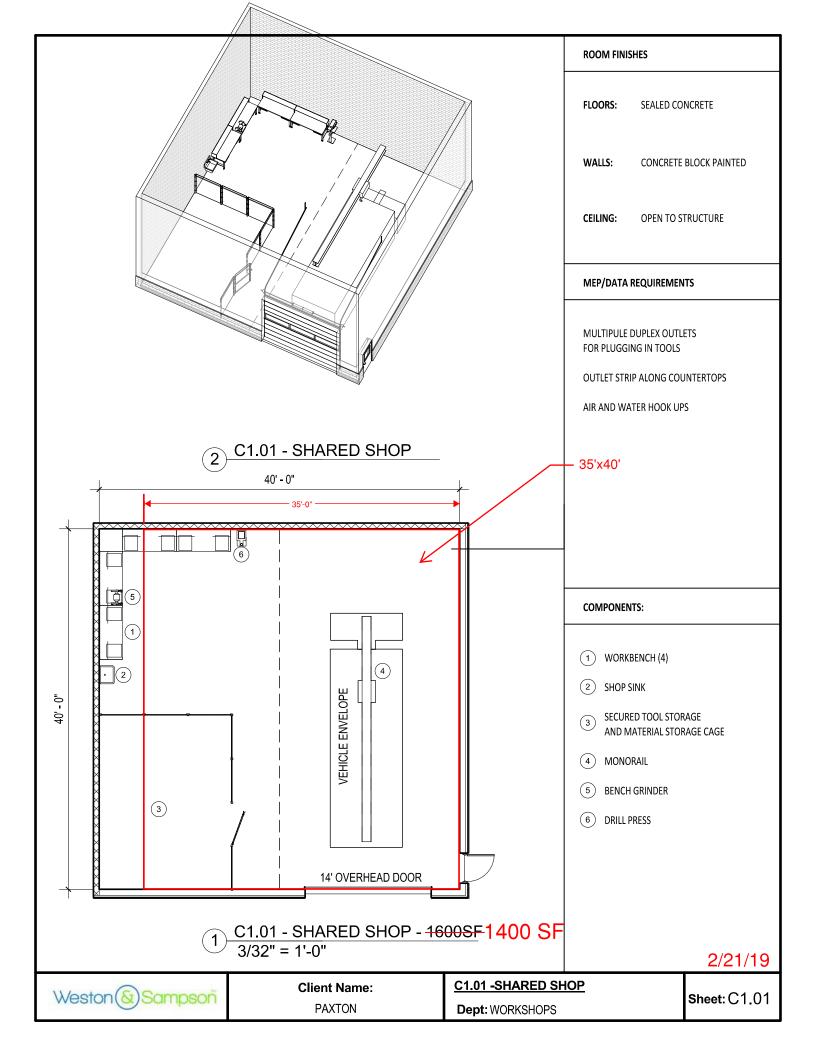


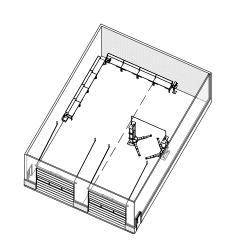
Weston & Sampson

PAXTON

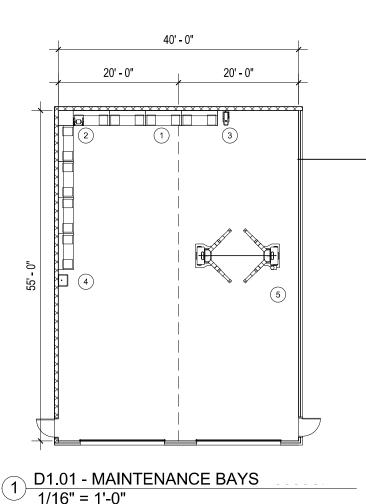
Dept: EMPLOYEE FACILITIES







D1.01 - VEHICLE MAINTENACE



ROOM FINISHES

FLOORS: SEALED CONCRETE

WALLS: CONCRETE BLOCK PAINTED

CEILING: OPEN TO STRUCTURE

MEP/DATA REQUIREMENTS

DUPLEX ELECTRICAL OUTLETS

DESTRATIFICATION FANS

COMPRESSED AIR OUTLETS

LED LIGHTING

DROP HOSES FOR EXHAUST

SOLENOID VALVE FOR COMPRESSED AIR TO FLUID ROOM

COMPONENTS:

- 1 WORKBENCH (8)
- 2 GRINDER
- 3 DRILL PRESS
- 4) SERVICE SINK
- 5 TWO POST LIGHT DUTY LIFT

2/21/19

Weston & Sampson

Client Name: PAXTON

D1.01 - MAINTENANCE BAYS

Dept: MAINTENANCE

Sheet: D1.01

FLOORS: 12X12 VCT TILE

WALLS: CMU PAINTED

CEILING: 2X2 ACT TILE

MEP/DATA REQUIREMENTS

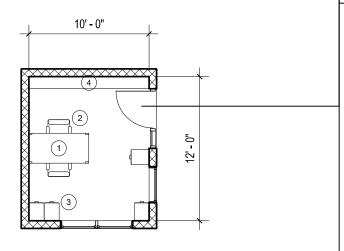
DUPLEX ELECTRICAL OUTLETS

DATA OUTLET JACKS

D1.02 - MECHANICS OFFICE / REFERENCE ROOM

COMPONENTS:

- (1) DESK
- (2) TASK CHAIR
- (3) LATERAL FILE CABINETS
- 4 BOOKCASE



D1.02 - MECHANICS OFFICE / REFERENCE ROOM - 120SF

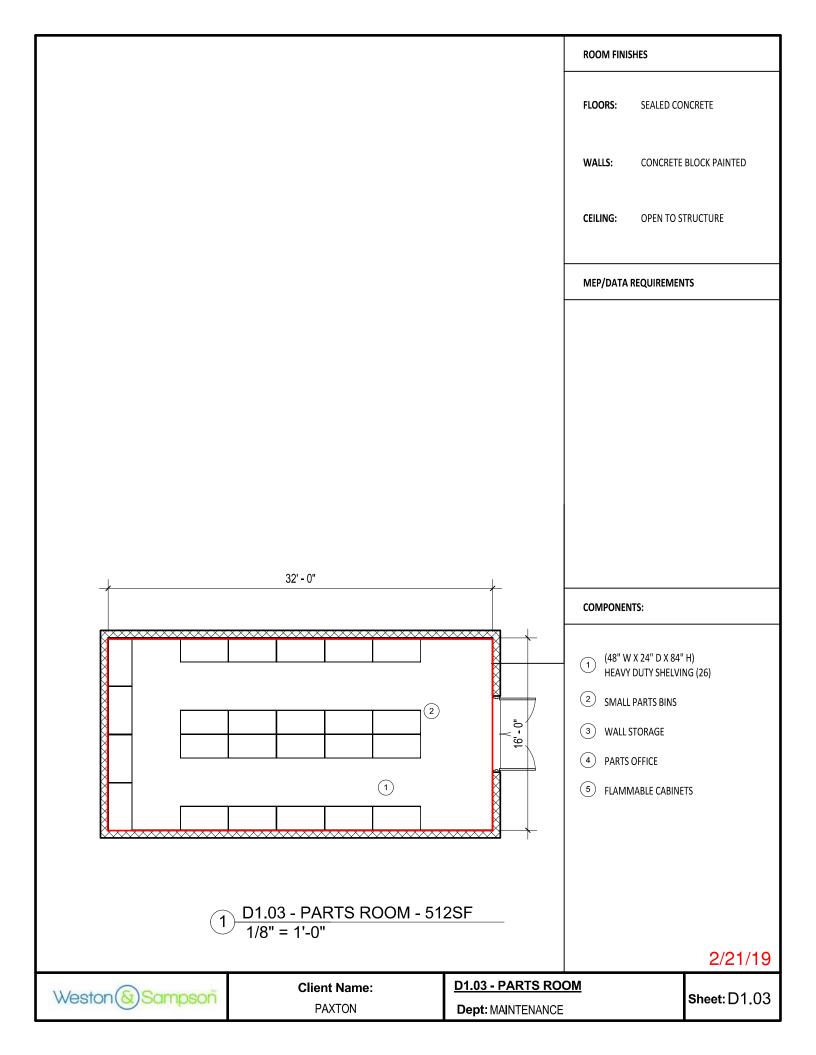
1/8" = 1'-0"

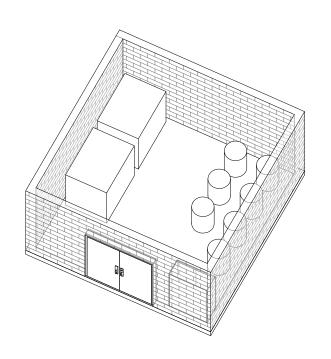
2/21/19

Client Name: PAXTON

D1.02 - MECHANICS OFFICE / REFERENCE ROOM

REFERENCE ROOM
Dept: MAINTENANCE
Sheet: D1.02





FLOORS: SEALED CONCRETE

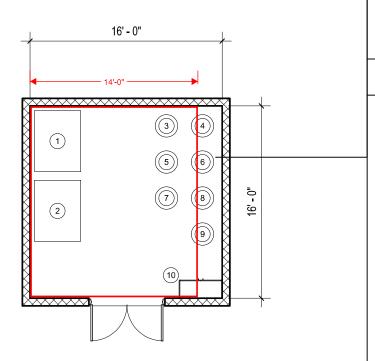
WALLS: CONCRETE BLOCK PAINTED

CEILING: GWB PAINTED

MEP/DATA REQUIREMENTS

CA DROPS FOR PNEUMATIC PUMPS

2 D1.04 - FLUID STORAGE ROOM



1 D1.04 - FLUIDS ROOM - 256SF 224 SF 1/8" = 1'-0"

COMPONENTS:

- 1) Hydraulic Oil 280 Gal Bulk Tank
- (2) Motor Oil 280 Gal Bulk Tank
- 3 15w-40 Motor Oil 55 Gal Drum
- 4 5w-20 Motor Oil 55 Gal Drum
- 5 5w-30 Motor Oil 55 Gal Drum
- (6) 10w-30 Motor Oil 55 Gal Drum
- 7 Diesel Exhaust Fluid 55 Gal Drum
- 8 Coolant 55 Gal Drum
- 9 Windshield Washer Fluid 55 Gal Drum
- 10 Flammable Storage Cabinet

2/21/19

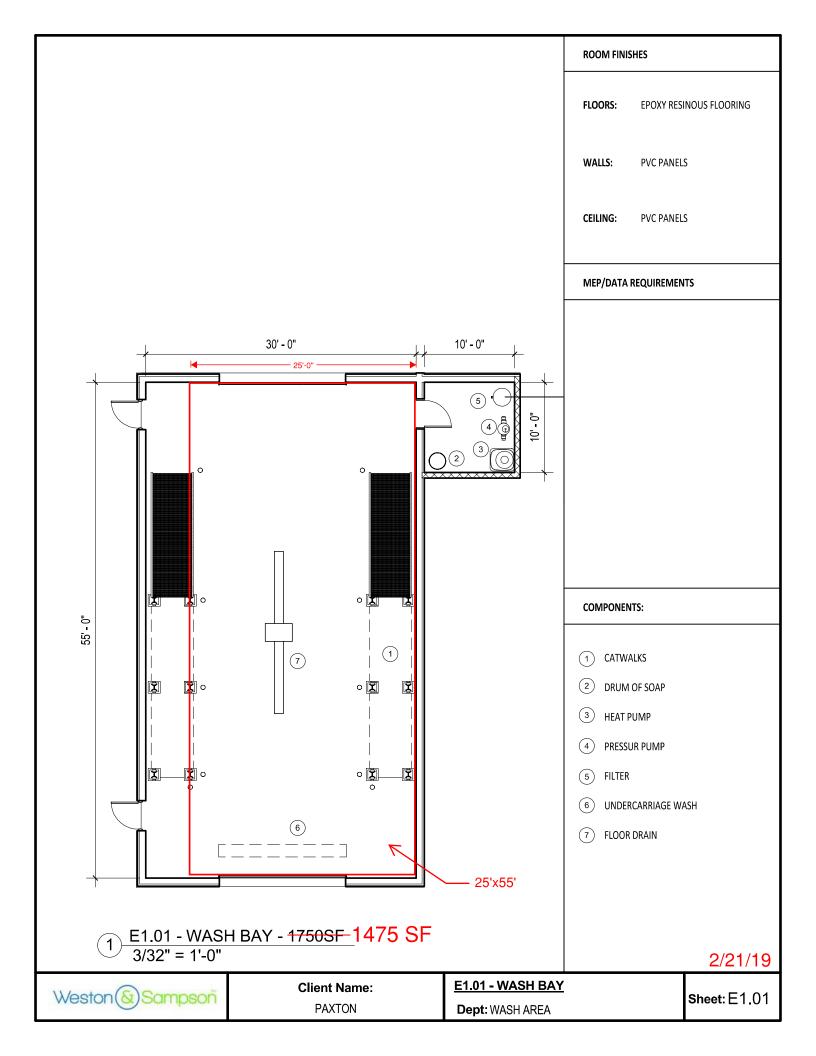


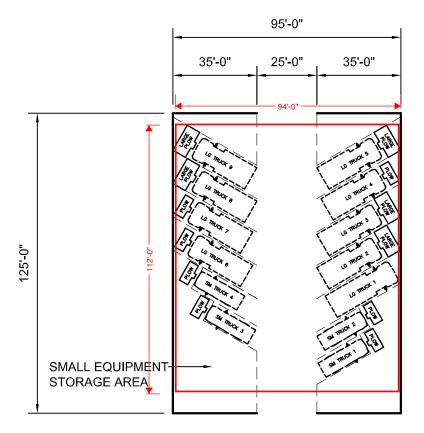
Client Name: PAXTON

D1.04 -FLUIDS ROOM

Dept: MAINTENANCE

Sheet: D1.04





VEHICLE STORAGE = 11,875sf 10,528 SF

Dept: VEHICLE STORAGE

Section 2 Updated Cost Estimate

Town of Paxton New Public Works Facility Budget Total Project Cost

2/21/19

New Construction			2019 Cost/SF		
Area		Size (SF)	(w/ markups)	Cost
Administration / Employee Facilities		3,406	\$ 35	3 \$	1,202,161
Shops		1,694	\$ 24	8 \$	420,149
Vehicle Maintenance (not including equipment)		3,698	\$ 24	8 \$	917,184
Wash		1,549	\$ 46	9 \$	726,505
Vehicle/Equipment Storage		11,054	\$ 19	6 \$	2,161,671
New Construction Subtotal:		21,401		\$	5,427,669
Building Cost per SF:		254			
Industrial Equipment			Place a "x" here if included		
- Wash Equipment - Heavy Duty Vehicle Lift (Portable) - Bridge Crane - Overhead Lubrication System	\$ \$ \$ \$	75,500 98,000 65,900 50,000	X	\$	75,500 deferred deferred deferred
- Miscellaneous Shop and Support Equipment	\$	18,000	Х	\$	18,000
- Storage Shelving / Benches / Racks - Exhaust Removal System (1 unit)	\$ \$	14,000 22,000	X X	\$ \$	14,000 22,000
Industrial Equipment Subtotal:	Ψ	22,000	^	\$	129,500
Fuel System					,
- Fuel System Equipment 1 - 6,000 Gallon Tanks + Dispensers etc.	\$	330,750	Х	\$	330,750
- Bollards - Tank Setting & Crane	\$ \$	18,250 15,300	X X	\$ \$	18,250 15,300
- Canopy and Foundations	\$	99,450	X	\$	99,450
- Permits	\$	2,200	x	\$	2,200
- Startup & Closeout	\$	31,900	Х	\$	31,900
Fuel System Subtotal:				\$	497,850
Building & Equipment Total:				\$	6,055,019
Mezzanines		1,271	\$ 11	7 \$	148,535
Site Development (acres) - assumes level site with no contamination, existing structures/utilities, etc.		2.2	\$ 442,44	4 \$	973,377
Salt/Sand Sheds		3,600	11	6	deferred
		Subtotal Bldg	ı, Equip, & Site	: \$	7,176,932
		Design Cor	ntingency (5%)	: \$	358,847
	Es	calation - 1 Year	r (4% per year)	: \$	301,431
		Total	Construction	\$	7,837,209
		Total Constru	ction Cost/SF		366

Town of Paxton New Public Works Facility Budget Total Project Cost

2/21/19

Department of Public Works Budget Total Project Cost	
Owner's Soft Costs	
A&E Fees (design, bid, const.)	\$ 783,721 (Assume 10% of Const. Value)
A&E Special Services	\$ 78,372 (Assume 1% of Const. Value)
Owner's Project Manager Fees	\$ 235,116 (Avg 3% of Const. Value)
Furnishings (FFE)	\$ 50,000 allowance
Communic. / Low Voltage System	\$ 30,000 allowance
Temporary Facilities	\$ - allowance
Printing Cost - Advertisement	\$ 10,000 allowance
Legal Costs	\$ 10,000 allowance
Commissioning	\$ 25,000 allowance
Abatement	\$ 40,000 allowance
Chapter 17 Test & Inspections	\$ 30,000 allowance
Construction Contingency (6%)	\$ 470,582 allowance
	Total Soft Costs: \$ 1,762,791
	TOTAL PROJECT COST \$ 9,600,000

Section 3

Cost Comparison to Recently Bid DPW Facilities

Department of Public Works Facilities SUMMARY - Recent Cost Data CONSTRUCTION COST

Description	Size (SF)	Bid Date	Average Bid Price	2014 Avg Cost per SF	2015 Avg Cost per SF	2016 Avg Cost per SF	2017 Avg Cost per SF	2018 Avg Cost per SF	2019 Avg Cost per SF	2020 Avg Cost per SF
Hopkinton Public Works Facility	42,410	2016	\$ 12,112,833			\$286	\$321	\$347	\$368	\$387
Orleans Public Works Facility	42,278	2017	\$ 12,833,834				\$304	\$329	\$348	\$366
Andover Municipal Services Facility	54,088	2017	\$ 18,413,675				\$340	\$369	\$391	\$410
Longmeadow Public Works Facility	44,858	2018	\$ 14,773,364					\$329	\$349	\$367
Rye Brook NY Public Works Facility	32,883	2018	\$ 13,184,654					\$401	\$425	\$446
Grafton DPW Facility	33,710	2018	\$ 12,399,201					\$368	\$390	\$409
Last Three (3) Years -	Average Co	ost per SF:				\$286	\$322	\$357	\$379	\$397
Paxton Public Works Facility	21,401	est. 2020	\$7,837,209						-	\$366

Section 4 Community Comparisons

Department of Public Works Metrics for Facility Comparisons

Metrics which should be used when comparing facilities

Town	Population	Size of Town (Sq. Miles)	Miles of Road	Number of Operating Groups	Staff	Number of Vehicles	Proposed Building Size (SF)	Canopy Size (SF)	Total Facility Size (SF)
Town of Boylston	4,355	16.0	55	2	7	17	13,926	0	13,926
Town of Charlton	13,000	43.8	127	2	12	19	17,312	2,400	19,712
Town of Paxton	4,881	15.5	50	4	13	15	21,401	0	21,401
Town of Rockport	6,952	17.5	33	5	22	26	19,341	5,020	24,361
Town of Chatham	6,100	24.4	66	4	25	26	28,771	1,500	30,271
Town of Upton	7,773	21.7	80	5	16	22	31,950	0	31,950
Village of Rye Brook NY	9,589	3.5	30	3	14	27	32,883	0	32,883
Town of Grafton	17,800	23.3	84	3	12	24	33,710	0	33,710
Town of Orleans	5,900	22.7	51	8	36	33	42,278	0	42,278
Town of Hopkinton	14,900	28.2	106	5	28	32	42,410	0	42,410
Town of Oxford	13,980	27.5	90	5	26	28	42,701	0	42,701
Town of Bourne	19,800	52.9	200	5	38	39	39,040	5,100	44,140
Town of Mansfield	23,200	20.7	113	3	18	33	36,300	8,000	44,300
Town of Weston	11,300	17.3	88	6	29	32	41,846	3,024	44,870
Town of Yarmouth	23,339	28.2	150	5	29	46	41,000	4,800	45,800
Town of Wayland	13,000	15.9	96	5	32	44	39,869	6,652	46,521
Town of Holden	28,600	10.6	110	6	41	35	43,412	7,459	50,871
Town of Norwood	28,600	10.6	110	5	45	53	53,870	0	53,870
Town of Andover	35,490	32.1	186	6	48	47	54,088	7,749	61,837
Town of Lexington	31,400	16.5	117	9	87	66	78,000	4,000	82,000

